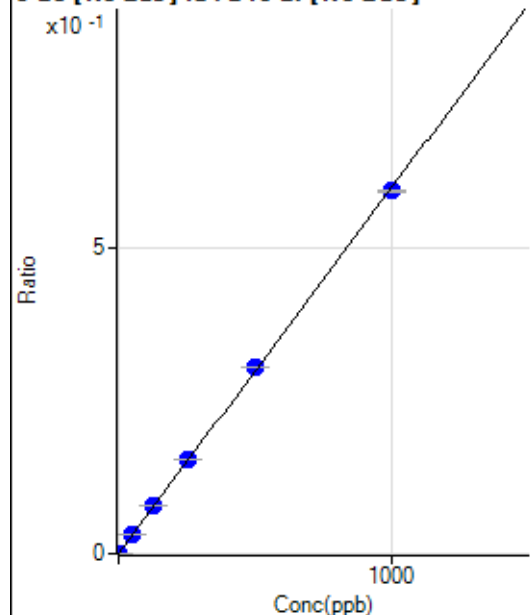


Batch Folder: D:\ICP-MS Data\P7121119 MS1.b\
Analysis File: P7121119 MS1.batch.bin
DA Date-Time: 2019-12-12 01:26:27
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-11 16:04:42
2	004CALS.d	S02	2019-12-11 16:08:18
3	005CALS.d	S03	2019-12-11 16:13:05
4	006CALS.d	S04	2019-12-11 16:17:20
5	007CALS.d	S05	2019-12-11 16:21:11
6	008CALS.d	S06	2019-12-11 16:24:58
7	009CALS.d	S07	2019-12-11 16:28:45
8	010CALS.d	S08	2019-12-11 16:32:33

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	101.86	0.0000	P	19.1
2	☐	1.000	1.045	3176.33	0.0006	P	2.2
3	☐	50.000	52.923	152345.66	0.0317	P	0.5
4	☐	125.000	131.638	364816.61	0.0788	P	0.2
5	☐	250.000	258.125	701943.71	0.1545	P	0.7
6	☐	500.000	510.421	1362751.00	0.3056	P	0.5
7	☐	1000.000	991.782	2578201.59	0.5938	P	0.5
8	☐			4973.17	0.0011	P	0.5

$$y = 5.9865\text{E-}004 * x + 2.1076\text{E-}005$$

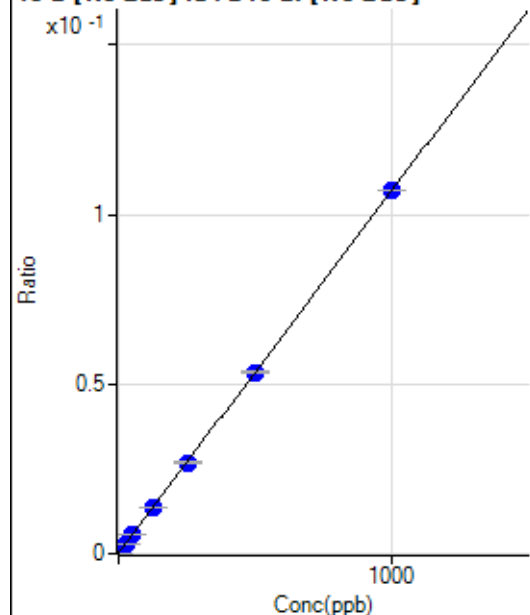
$$R = 0.9999$$

$$DL = 0.02015$$

$$BEC = 0.03521$$

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	672.27	0.0001	P	9.5
2	☐	25.000	24.805	13692.77	0.0028	P	0.8
3	☐	50.000	50.974	26830.30	0.0056	P	2.1
4	☐	125.000	125.161	62510.79	0.0135	P	2.2
5	☐	250.000	250.828	122314.19	0.0269	P	1.9
6	☐	500.000	499.114	238345.03	0.0534	P	1.4
7	☐	1000.000	1000.172	464477.34	0.1070	P	0.2
8	☐			11485.34	0.0027	P	8.8

$$y = 1.0681\text{E-}004 * x + 1.3911\text{E-}004$$

$$R = 1.0000$$

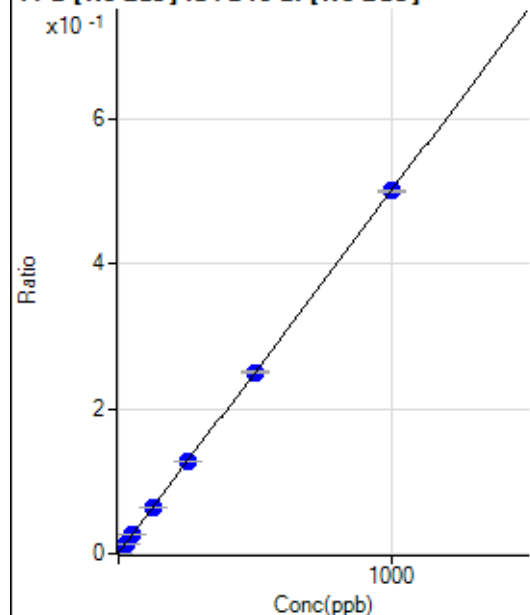
$$DL = 0.372$$

$$BEC = 1.302$$

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	3783.95	0.0008	P	5.0
2	☐	25.000	24.853	64912.50	0.0132	P	1.4
3	☐	50.000	50.722	125731.21	0.0262	P	0.2
4	☐	125.000	126.125	295714.20	0.0639	P	1.3
5	☐	250.000	253.239	579130.00	0.1275	P	2.0
6	☐	500.000	498.951	1116892.22	0.2505	P	1.7
7	☐	1000.000	999.542	2175359.88	0.5010	P	0.6
8	☐			54240.37	0.0125	P	9.6

$$y = 5.0041\text{E-}004 * x + 7.8308\text{E-}004$$

$$R = 1.0000$$

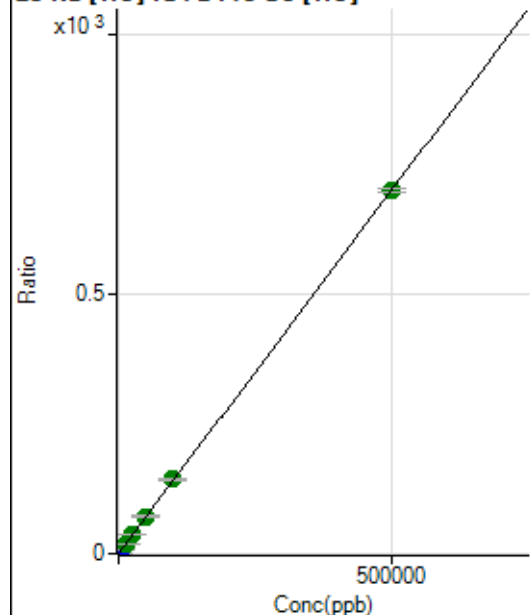
$$DL = 0.2344$$

$$BEC = 1.565$$

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	11454.77	0.0270	P	3.9
2	☐	500.000	516.070	314815.40	0.7502	P	0.8
3	☐	5000.000	5323.391	3111202.54	7.4865	P	0.5
4	☐	12500.000	13132.517	7466491.66	18.4292	A	0.4
5	☐	25000.000	25833.450	14596647.38	36.2266	A	0.8
6	☐	50000.000	51482.477	29066796.48	72.1678	A	0.8
7	☐	100000.00	102091.39	58638577.00	143.0844	A	1.2
8	☐	500000.00	499372.73	301923265.0	699.7821	A	1.2

$$y = 0.0014 * x + 0.0270$$

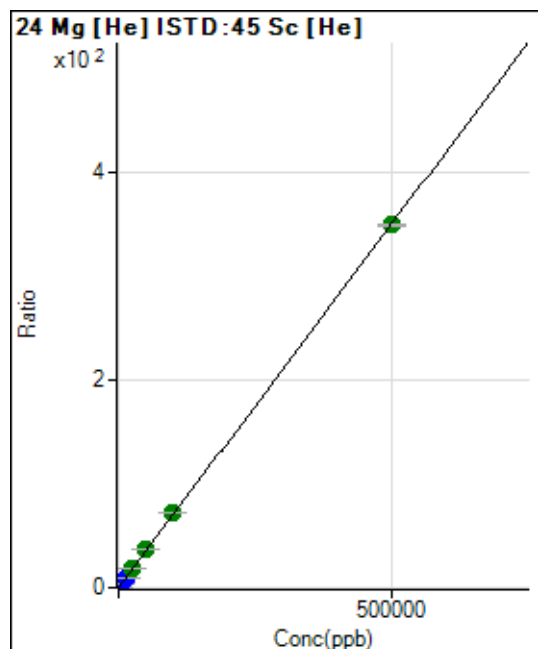
$$R = 1.0000$$

$$DL = 2.259$$

$$BEC = 19.28$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	477.81	0.0011	P	2.3
2	☐	500.000	546.835	160950.71	0.3835	P	1.4
3	☐	5000.000	5459.371	1586772.33	3.8182	P	0.4
4	☐	12500.000	13529.565	3832964.02	9.4607	P	0.3
5	☐	25000.000	26529.507	7474147.91	18.5500	A	1.1
6	☐	50000.000	52725.352	14848433.14	36.8656	A	0.4
7	☐	100000.00	103506.10	29659145.11	72.3704	A	0.9
8	☐	500000.00	498919.38	150509046.4	348.8350	A	0.6

$$y = 6.9918\text{E-}004 * x + 0.0011$$

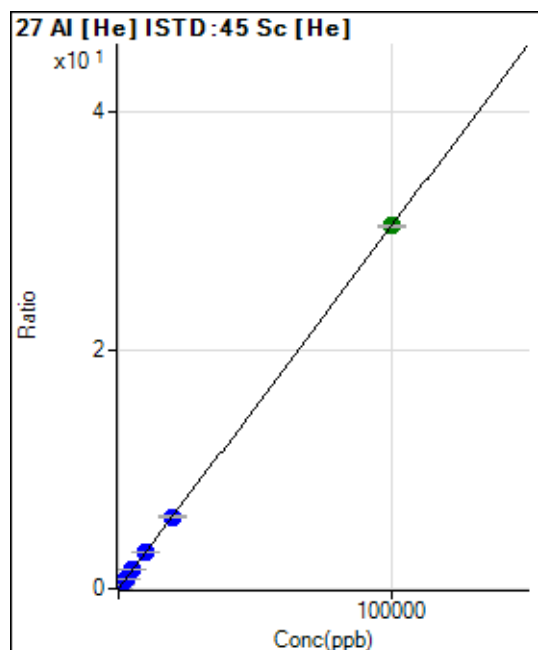
$$R = 1.0000$$

$$DL = 0.1121$$

$$BEC = 1.612$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0002	P	24.3
2	☐	20.000	19.293	2536.43	0.0060	P	9.5
3	☐	1000.000	1042.436	131686.79	0.3169	P	0.7
4	☐	2500.000	2584.087	318138.05	0.7852	P	0.6
5	☐	5000.000	5063.924	619940.02	1.5386	P	1.0
6	☐	10000.000	10039.109	1228495.05	3.0501	P	0.4
7	☐	20000.000	19860.239	2472794.28	6.0338	P	0.8
8	☐	100000.00	100018.31	13110209.32	30.3860	A	0.6

$$y = 3.0380\text{E-}004 * x + 1.8332\text{E-}004$$

$$R = 1.0000$$

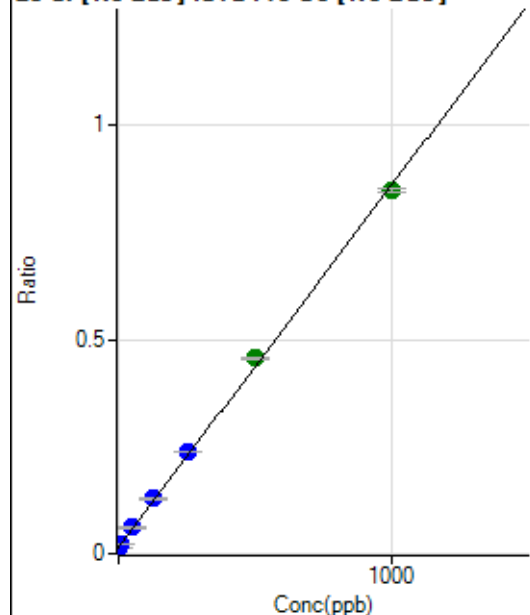
$$DL = 0.4392$$

$$BEC = 0.6034$$

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	154158.73	0.0145	P	0.8
2	☐	10.000	9.569	241719.38	0.0226	P	1.2
3	☐	50.000	54.659	631487.08	0.0607	P	1.1
4	☐	125.000	134.198	1295302.49	0.1279	P	0.3
5	☐	250.000	262.900	2372292.74	0.2366	P	0.6
6	☐	500.000	521.986	4551015.16	0.4556	A	0.2
7	☐	1000.000	984.403	8358988.21	0.8463	A	0.9
8	☐			794286.62	0.0793	P	1.0

$$y = 8.4505\text{E-}004 * x + 0.0145$$

$$R = 0.9995$$

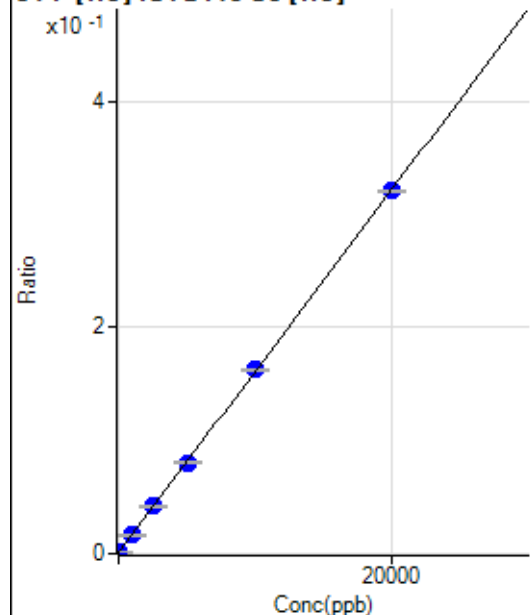
$$DL = 0.4034$$

$$BEC = 17.13$$

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	-32.519	130.56	0.0003	P	3.3
2	☐	0.000	32.519	566.70	0.0013	P	12.3
3	☐	1000.000	972.202	6815.73	0.0164	P	6.3
4	☐	2500.000	2572.937	17038.04	0.0421	P	3.1
5	☐	5000.000	4946.960	32263.51	0.0801	P	2.5
6	☐	10000.000	10102.478	65525.22	0.1627	P	0.6
7	☐	20000.000	19954.294	131361.01	0.3205	P	0.7
8	☐			222.23	0.0005	P	21.4

$$y = 1.6022\text{E-}005 * x + 8.2893\text{E-}004$$

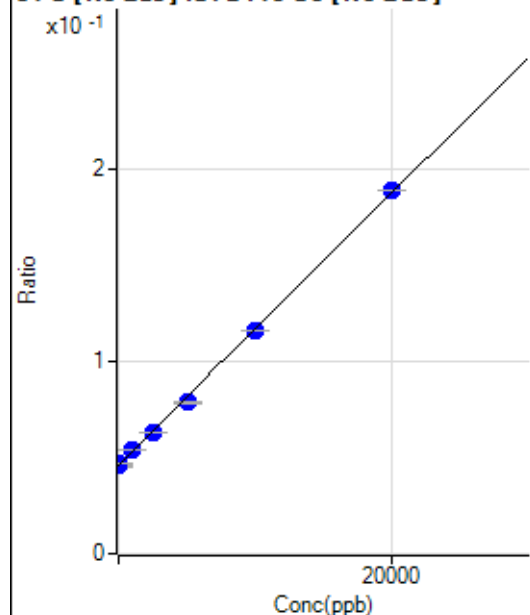
$$R = 1.0000$$

$$DL = 16.46$$

$$BEC = 51.74$$

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	-94.394	486892.19	0.0457	P	1.3
2	☐	0.000	94.394	504094.38	0.0470	P	1.5
3	☐	1000.000	1063.894	560909.57	0.0539	P	0.4
4	☐	2500.000	2325.292	635807.92	0.0628	P	0.5
5	☐	5000.000	4566.062	787558.12	0.0786	P	0.3
6	☐	10000.000	9886.497	1159292.53	0.1161	P	0.2
7	☐	20000.000	20183.880	1862849.22	0.1886	P	0.1
8	☐			420601.10	0.0420	P	0.9

$$y = 7.0467\text{E-}006 * x + 0.0464$$

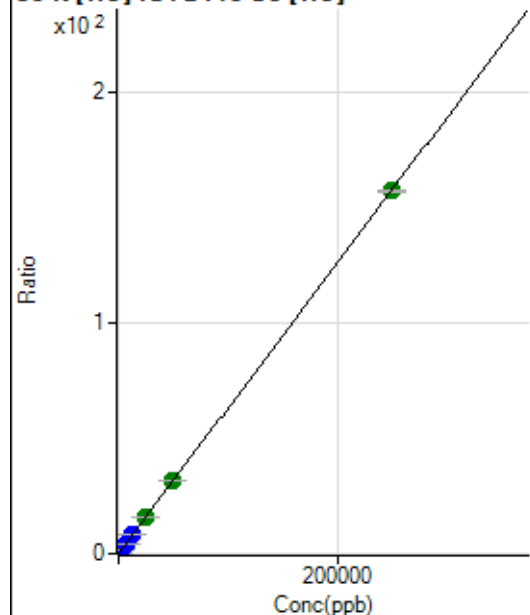
R = 0.9996

DL = 270.9

BEC = 6582

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	19182.46	0.0452	P	1.2
2	☐	500.000	510.888	153781.74	0.3664	P	1.2
3	☐	2500.000	2632.230	706494.47	1.7000	P	0.3
4	☐	6250.000	6521.236	1679260.15	4.1448	P	0.3
5	☐	12500.000	12802.358	3261180.93	8.0934	P	0.5
6	☐	25000.000	25420.582	6454614.29	16.0258	A	1.0
7	☐	50000.000	50347.140	12989675.99	31.6958	A	0.9
8	☐	250000.00	249865.27	67791011.24	157.1222	A	0.6

$$y = 6.2865\text{E-}004 * x + 0.0452$$

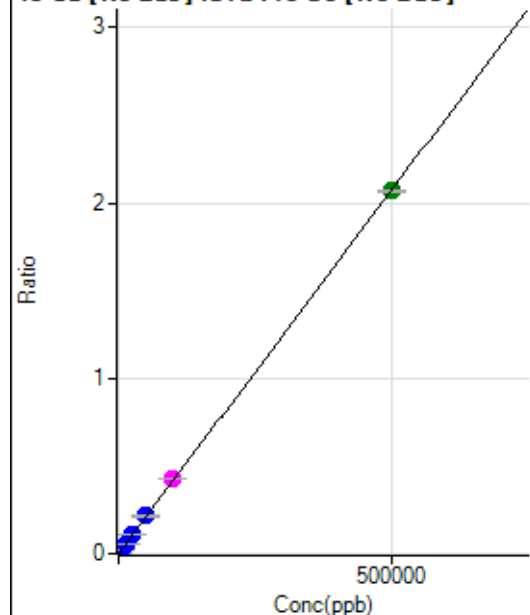
R = 1.0000

DL = 2.624

BEC = 71.97

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	283.35	0.0000	P	19.3
2	☐	500.000	495.931	22301.00	0.0021	P	2.0
3	☐	5000.000	5251.355	226768.68	0.0218	P	0.8
4	☐	12500.000	13141.668	551776.01	0.0545	P	0.9
5	☐	25000.000	26121.371	1085231.21	0.1083	P	0.3
6	☐	50000.000	51595.986	2135750.07	0.2138	P	0.3
7	☐	100000.00	102783.73	4206220.02	0.4259	M	0.7
8	☐	500000.00	499209.03	20712034.66	2.0683	A	0.5

$$y = 4.1432\text{E-}006 * x + 2.6646\text{E-}005$$

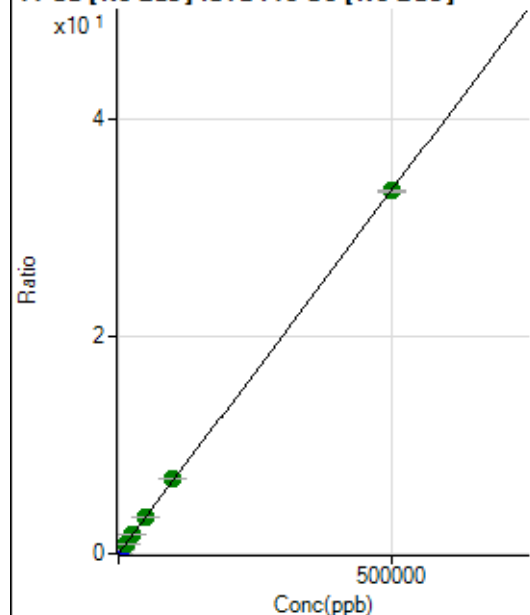
$$R = 1.0000$$

$$DL = 3.715$$

$$BEC = 6.431$$

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	10223.60	0.0010	P	4.0
2	☐	500.000	497.183	367059.98	0.0343	P	0.5
3	☐	5000.000	5191.892	3629800.56	0.3487	P	0.2
4	☐	12500.000	12860.332	8734041.77	0.8623	A	0.4
5	☐	25000.000	25620.104	17211441.53	1.7168	A	0.1
6	☐	50000.000	51160.403	34237933.75	3.4274	A	0.1
7	☐	100000.00	102378.60	67730180.68	6.8576	A	0.3
8	☐	500000.00	499366.30	334921776.9	33.4453	A	0.5

$$y = 6.6974\text{E-}005 * x + 9.5982\text{E-}004$$

$$R = 1.0000$$

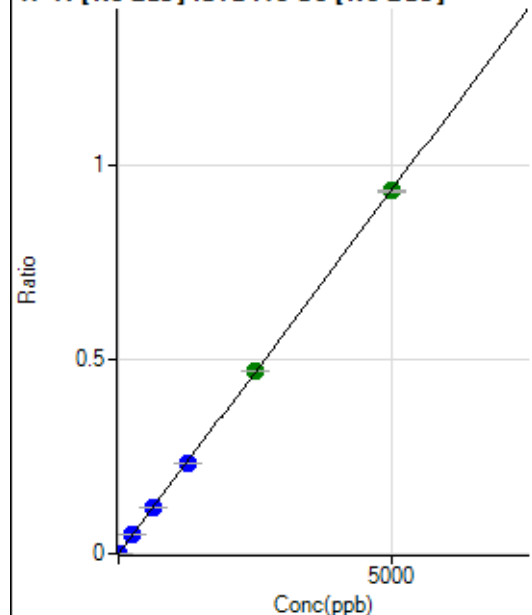
$$DL = 1.727$$

$$BEC = 14.33$$

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	102.78	0.0000	P	32.7
2	☐	5.000	5.070	10254.00	0.0010	P	2.8
3	☐	250.000	253.171	492554.75	0.0473	P	0.3
4	☐	625.000	632.197	1196620.97	0.1181	P	0.3
5	☐	1250.000	1244.022	2330360.99	0.2325	P	0.2
6	☐	2500.000	2519.034	4701932.66	0.4707	A	0.3
7	☐	5000.000	4990.919	9210437.45	0.9325	A	0.4
8	☐			19088.07	0.0019	P	2.6

$$y = 1.8685\text{E-}004 * x + 9.6532\text{E-}006$$

$$R = 1.0000$$

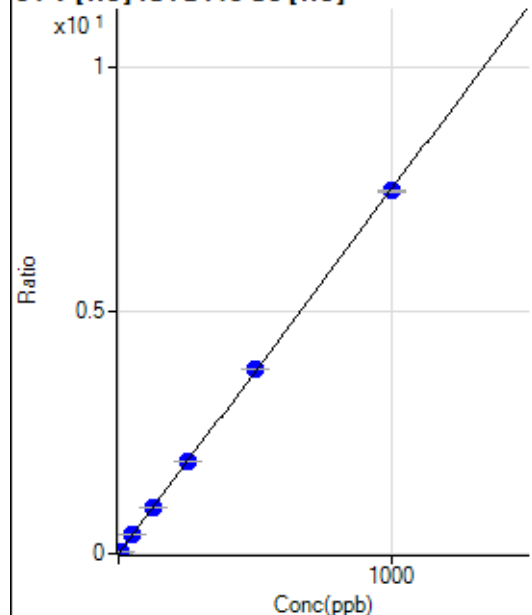
$$DL = 0.05062$$

$$BEC = 0.05166$$

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	11.11	0.0000	P	34.9
2	☐	5.000	5.142	16196.87	0.0386	P	0.7
3	☐	50.000	51.228	159696.49	0.3843	P	0.4
4	☐	125.000	128.003	388971.87	0.9601	P	0.7
5	☐	250.000	252.971	764554.71	1.8974	P	0.6
6	☐	500.000	506.734	1530835.62	3.8007	P	0.3
7	☐	1000.000	995.453	3059915.72	7.4663	P	0.6
8	☐			6634.92	0.0154	P	2.5

$$y = 0.0075 * x + 2.6231\text{E-}005$$

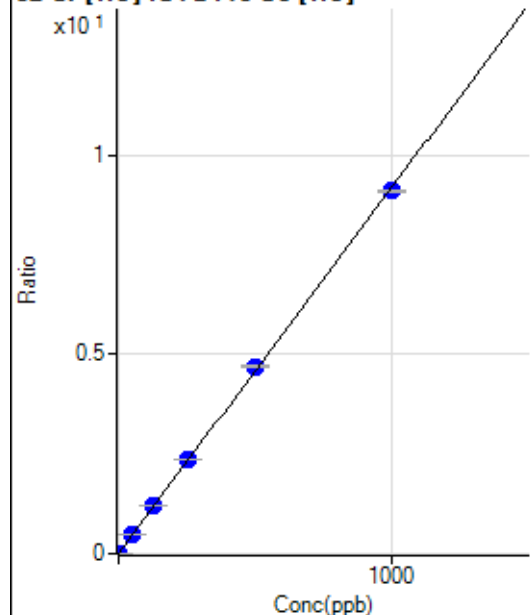
$$R = 1.0000$$

$$DL = 0.003664$$

$$BEC = 0.003497$$

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	1283.41	0.0030	P	7.8
2	☐	2.000	1.975	8873.90	0.0211	P	0.6
3	☐	50.000	52.579	201750.77	0.4854	P	0.9
4	☐	125.000	130.884	487752.88	1.2039	P	0.7
5	☐	250.000	257.019	951427.20	2.3612	P	0.4
6	☐	500.000	511.197	1890328.06	4.6933	P	0.5
7	☐	1000.000	991.782	3730624.22	9.1027	P	0.3
8	☐			112077.32	0.2598	P	1.3

$$y = 0.0092 * x + 0.0030$$

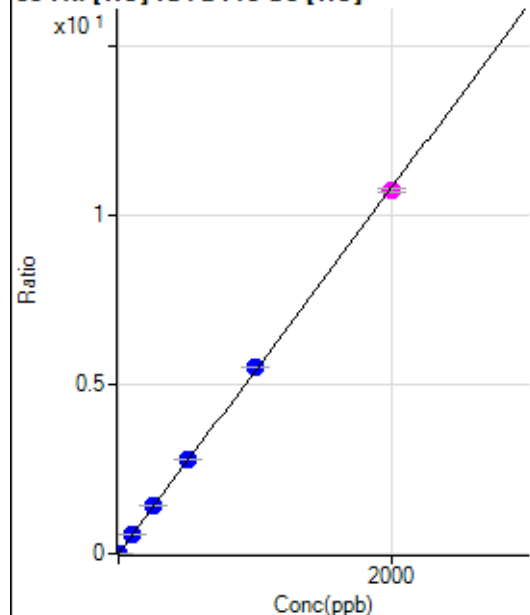
$$R = 0.9999$$

$$DL = 0.0767$$

$$BEC = 0.3299$$

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	51.11	0.0001	P	29.0
2	☐	1.000	1.038	2405.79	0.0057	P	4.0
3	☐	100.000	104.340	234332.81	0.5639	P	0.9
4	☐	250.000	261.661	572810.00	1.4138	P	0.4
5	☐	500.000	513.837	1118710.91	2.7763	P	0.2
6	☐	1000.000	1022.140	2224342.76	5.5226	P	0.5
7	☐	2000.000	1983.796	4392541.92	10.7183	M	1.2
8	☐			24428.25	0.0566	P	0.5

$$y = 0.0054 * x + 1.2048E-004$$

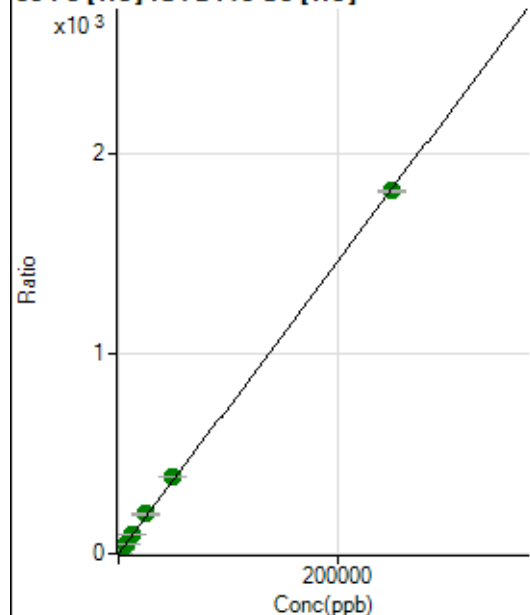
$$R = 0.9999$$

$$DL = 0.01943$$

$$BEC = 0.0223$$

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	4828.71	0.0114	P	5.9
2	☐	50.000	56.734	178516.55	0.4253	P	1.4
3	☐	2500.000	2780.492	8435961.76	20.2985	A	0.3
4	☐	6250.000	6940.866	20521775.23	50.6536	A	0.7
5	☐	12500.000	13634.563	40087563.40	99.4925	A	0.9
6	☐	25000.000	27152.273	79796936.04	198.1209	A	0.7
7	☐	50000.000	52984.154	158434773.9	386.5966	A	1.1
8	☐	250000.00	249111.13	784214276.7	1,817.586	A	0.8

$$y = 0.0073 * x + 0.0114$$

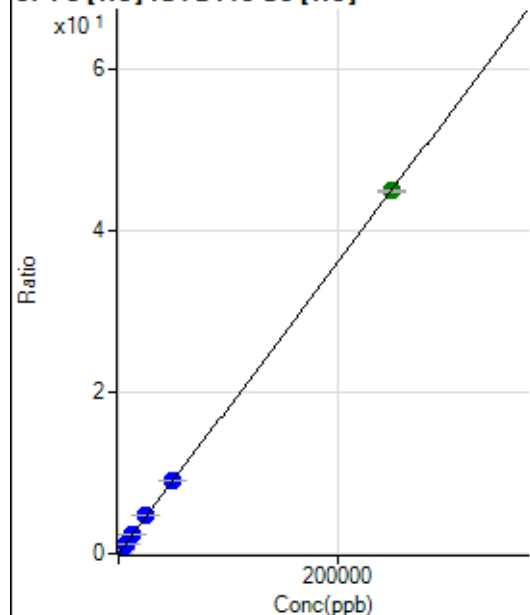
$$R = 0.9999$$

$$DL = 0.2783$$

$$BEC = 1.561$$

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	182.64	0.0004	P	13.0
2	☐	50.000	58.335	4575.03	0.0109	P	5.3
3	☐	2500.000	2655.490	198228.69	0.4770	P	0.8
4	☐	6250.000	6661.238	484467.88	1.1958	P	0.3
5	☐	12500.000	12988.151	939299.57	2.3312	P	0.7
6	☐	25000.000	25889.630	1871442.09	4.6463	P	0.3
7	☐	50000.000	50219.202	3693582.97	9.0123	P	0.5
8	☐	250000.00	249830.95	19343412.35	44.8325	A	0.7

$$y = 1.7945E-004 * x + 4.3094E-004$$

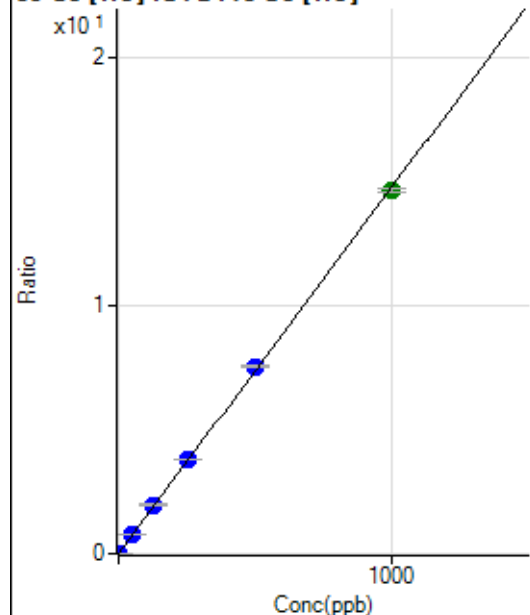
$$R = 1.0000$$

$$DL = 0.9378$$

$$BEC = 2.401$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	64.45	0.0002	P	30.7
2	☐	1.000	1.023	6400.38	0.0153	P	1.8
3	☐	50.000	53.631	328892.13	0.7914	P	0.7
4	☐	125.000	133.722	799342.38	1.9730	P	0.5
5	☐	250.000	259.233	1541133.53	3.8247	P	0.3
6	☐	500.000	510.783	3035211.97	7.5358	P	0.6
7	☐	1000.000	991.028	5991946.92	14.6210	A	1.2
8	☐			21974.41	0.0509	P	1.2

$$y = 0.0148 * x + 1.5213E-004$$

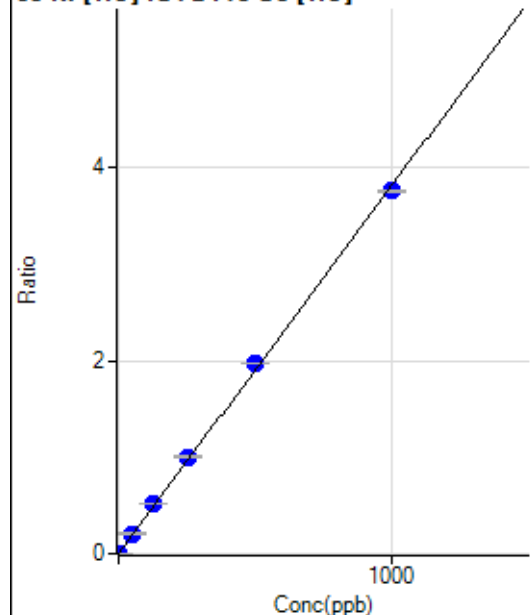
$$R = 0.9998$$

$$DL = 0.009509$$

$$BEC = 0.01031$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.67	0.0001	P	39.7
2	☐	1.000	1.091	1781.25	0.0042	P	6.2
3	☐	50.000	54.597	86473.16	0.2081	P	1.2
4	☐	125.000	135.640	209374.19	0.5168	P	0.9
5	☐	250.000	263.271	404132.82	1.0030	P	0.9
6	☐	500.000	516.699	792818.31	1.9684	P	0.6
7	☐	1000.000	986.773	1540601.21	3.7591	P	0.6
8	☐			33624.22	0.0779	P	1.9

$$y = 0.0038 * x + 8.6512E-005$$

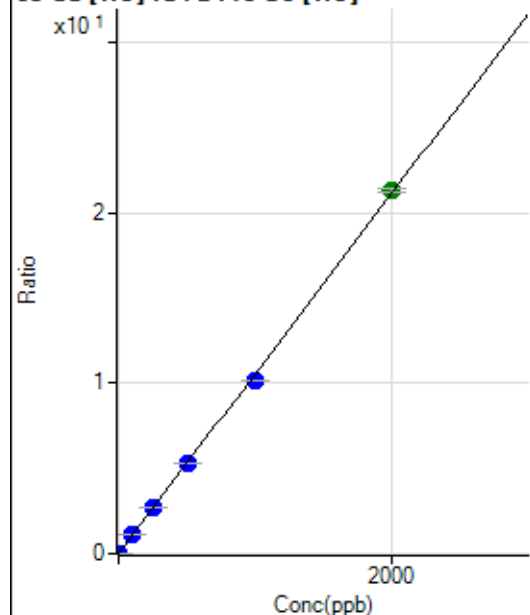
$$R = 0.9997$$

$$DL = 0.02706$$

$$BEC = 0.02271$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	702.25	0.0017	P	9.6
2	☐	2.000	2.029	9682.23	0.0231	P	2.5
3	☐	100.000	103.955	456451.05	1.0983	P	0.6
4	☐	250.000	257.482	1101152.02	2.7179	P	0.6
5	☐	500.000	498.552	2120000.12	5.2611	P	0.5
6	☐	1000.000	965.981	4105187.34	10.1922	P	0.1
7	☐	2000.000	2016.238	8717577.09	21.2718	A	1.2
8	☐			27760.94	0.0643	P	0.5

$$y = 0.0105 * x + 0.0017$$

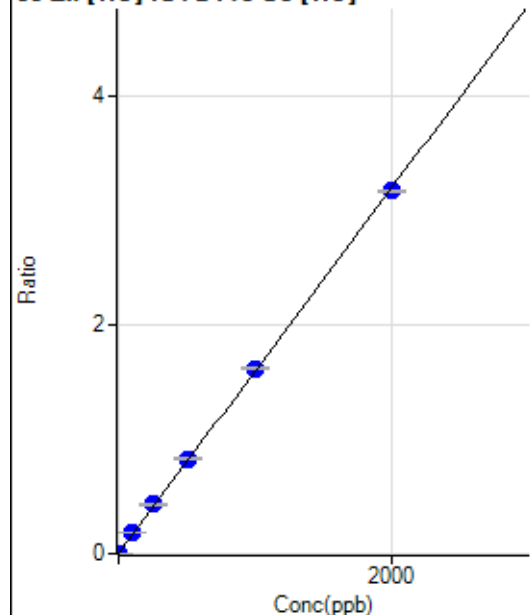
$$R = 0.9998$$

$$DL = 0.0453$$

$$BEC = 0.157$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	904.49	0.0021	P	5.5
2	☐	2.000	2.543	2595.83	0.0062	P	3.0
3	☐	100.000	109.764	73577.61	0.1771	P	0.8
4	☐	250.000	268.224	174042.38	0.4296	P	0.9
5	☐	500.000	517.883	333392.89	0.8274	P	0.9
6	☐	1000.000	1014.682	652143.08	1.6191	P	0.4
7	☐	2000.000	1985.422	1297555.37	3.1661	P	0.8
8	☐			22713.40	0.0526	P	1.3

$$y = 0.0016 * x + 0.0021$$

$$R = 0.9999$$

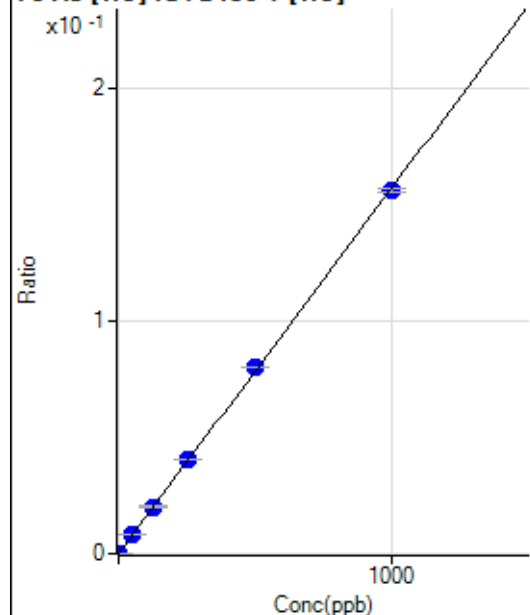
$$DL = 0.2217$$

$$BEC = 1.339$$

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	8.02	0.0000	P	57.8
2	☐	1.000	1.050	417.91	0.0002	P	1.8
3	☐	50.000	52.516	20431.70	0.0082	P	1.3
4	☐	125.000	128.694	49484.99	0.0202	P	0.9
5	☐	250.000	256.317	97335.71	0.0403	P	0.6
6	☐	500.000	509.235	194366.44	0.0800	P	0.2
7	☐	1000.000	993.216	382342.75	0.1560	P	1.0
8	☐			863.61	0.0003	P	4.8

$$y = 1.5702\text{E-}004 * x + 3.2106\text{E-}006$$

$$R = 0.9999$$

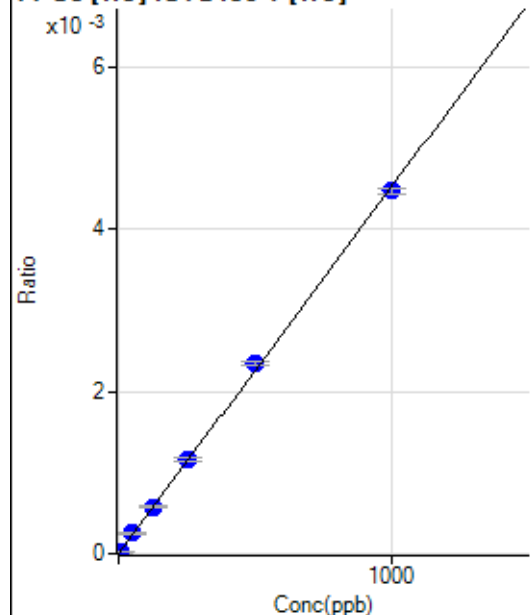
$$DL = 0.03546$$

$$BEC = 0.02045$$

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	1.11	0.0000	P	173.
2	☐	5.000	5.934	67.78	0.0000	P	10.7
3	☐	50.000	55.398	621.13	0.0003	P	4.0
4	☐	125.000	128.241	1420.09	0.0006	P	0.9
5	☐	250.000	256.389	2802.54	0.0012	P	4.0
6	☐	500.000	517.338	5683.42	0.0023	P	2.2
7	☐	1000.000	989.054	10958.72	0.0045	P	1.4
8	☐			27.78	0.0000	P	26.1

$$y = 4.5192\text{E-}006 * x + 4.4834\text{E-}007$$

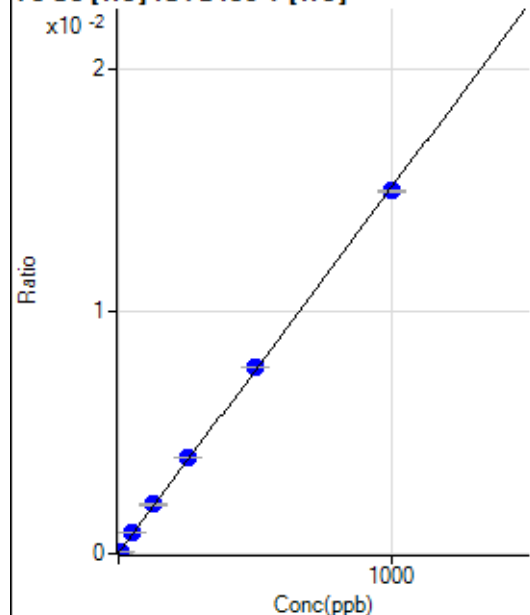
$$R = 0.9998$$

$$DL = 0.5155$$

$$BEC = 0.09921$$

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	56.79	0.0000	P	19.9
2	☐	5.000	5.166	250.62	0.0001	P	8.7
3	☐	50.000	54.884	2109.43	0.0009	P	3.6
4	☐	125.000	133.667	4999.05	0.0020	P	4.1
5	☐	250.000	262.364	9637.85	0.0040	P	0.6
6	☐	500.000	509.485	18759.11	0.0077	P	0.4
7	☐	1000.000	990.838	36744.57	0.0150	P	0.6
8	☐			140.74	0.0001	P	12.4

$$y = 1.5104\text{E-}005 * x + 2.2729\text{E-}005$$

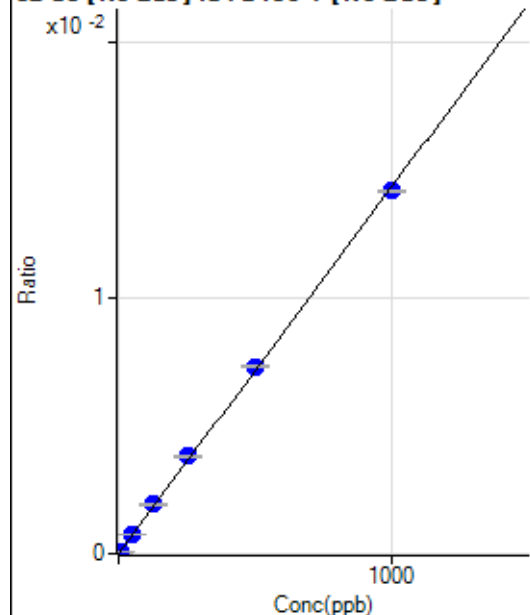
$$R = 0.9998$$

$$DL = 0.9006$$

$$BEC = 1.505$$

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	18.47	0.0000	P	269.
2	☐	5.000	5.634	1636.42	0.0001	P	5.0
3	☐	50.000	54.594	15355.02	0.0008	P	1.5
4	☐	125.000	134.020	36960.17	0.0019	P	1.0
5	☐	250.000	265.457	73164.22	0.0038	P	1.3
6	☐	500.000	509.767	141551.28	0.0073	P	0.9
7	☐	1000.000	989.892	269846.53	0.0142	P	0.7
8	☐			572.88	0.0000	P	11.3

$$y = 1.4330\text{E-}005 * x + 9.1488\text{E-}007$$

$$R = 0.9998$$

$$DL = 0.516$$

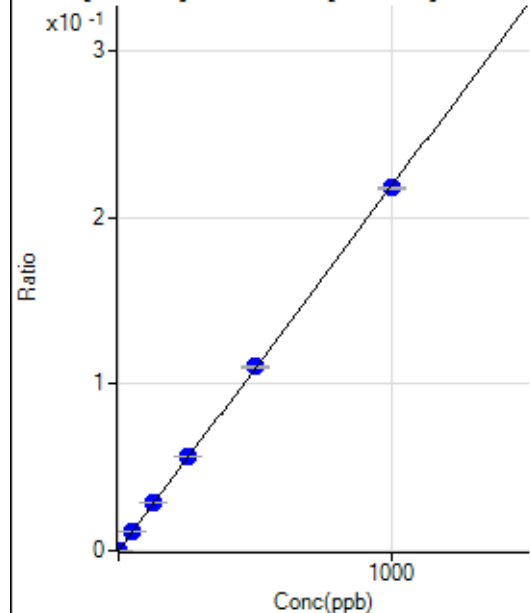
$$BEC = 0.06384$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			992.27		P	4.6
2	☐			988.94		P	4.3
3	☐			1012.28		P	2.7
4	☐			1028.94		P	3.4
5	☐			915.60		P	6.3
6	☐			964.49		P	2.2
7	☐			993.38		P	7.9
8	☐			1000.05		P	5.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1680.73	0.0001	P	10.6
2	☐	1.000	1.001	6076.53	0.0003	P	5.0
3	☐	50.000	52.143	225305.72	0.0115	P	1.3
4	☐	125.000	129.313	545905.09	0.0284	P	0.5
5	☐	250.000	258.369	1088646.73	0.0566	P	0.3
6	☐	500.000	504.184	2139028.46	0.1104	P	0.7
7	☐	1000.000	995.170	4143556.78	0.2178	P	0.4
8	☐			25854.63	0.0014	P	2.9

$$y = 2.1881E-004 * x + 8.4116E-005$$

$$R = 0.9999$$

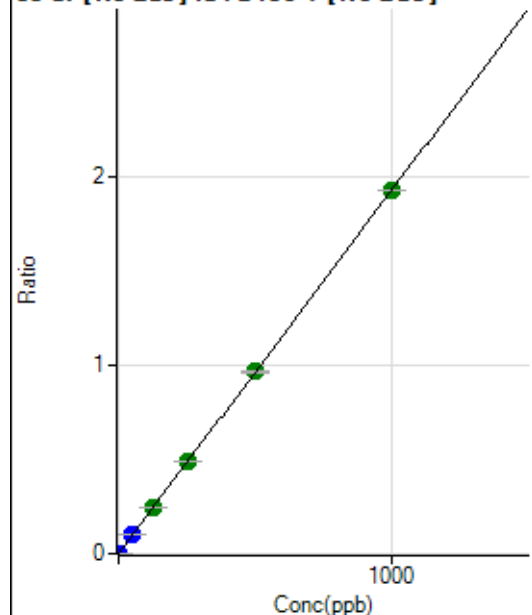
$$DL = 0.1223$$

$$BEC = 0.3844$$

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	177.79	0.0000	P	18.9
2	☐	1.000	1.005	38984.46	0.0019	P	2.3
3	☐	50.000	51.184	1933834.89	0.0986	P	0.5
4	☐	125.000	125.903	4667508.31	0.2426	A	0.5
5	☐	250.000	252.250	9347445.87	0.4861	A	0.3
6	☐	500.000	500.487	18687279.93	0.9645	A	0.4
7	☐	1000.000	999.022	36621311.23	1.9252	A	0.2
8	☐			216699.25	0.0115	P	0.7

$$y = 0.0019 * x + 8.8995E-006$$

$$R = 1.0000$$

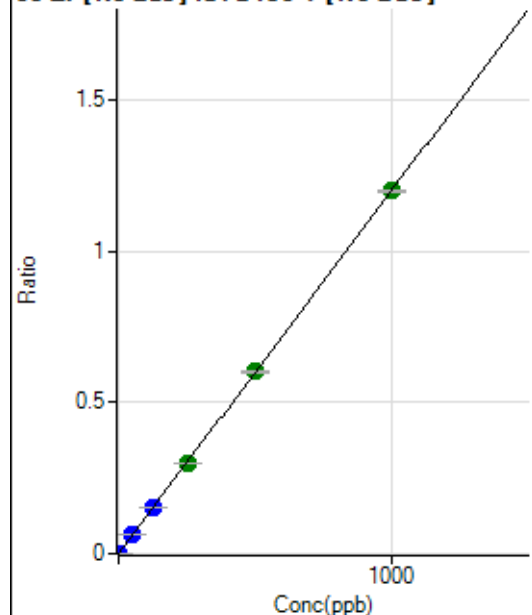
$$DL = 0.002617$$

$$BEC = 0.004618$$

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	1200.10	0.0001	P	4.6
2	☐	1.000	0.861	21934.11	0.0011	P	2.1
3	☐	50.000	50.360	1187659.25	0.0606	P	0.0
4	☐	125.000	125.268	2897104.47	0.1506	P	1.2
5	☐	250.000	248.899	5753010.20	0.2992	A	0.4
6	☐	500.000	501.096	11669311.11	0.6023	A	0.3
7	☐	1000.000	999.676	22853703.98	1.2015	A	0.8
8	☐			42970.76	0.0023	P	0.9

$$y = 0.0012 * x + 6.0069E-005$$

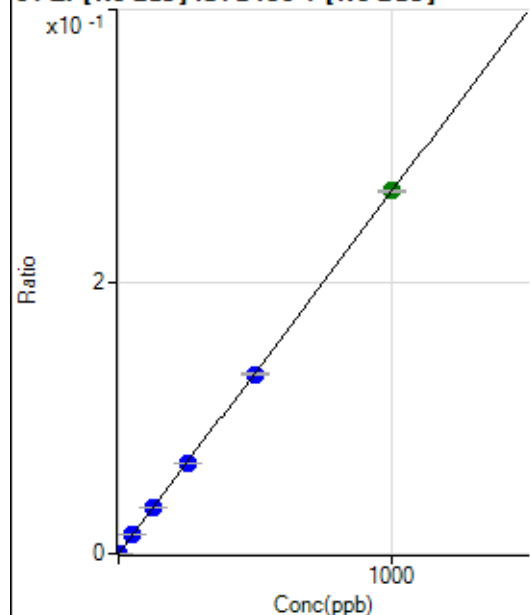
$$R = 1.0000$$

$$DL = 0.006893$$

$$BEC = 0.04998$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	208.34	0.0000	P	6.9
2	☐	1.000	0.871	4859.35	0.0002	P	3.3
3	☐	50.000	50.916	265960.60	0.0136	P	0.4
4	☐	125.000	127.102	651159.71	0.0339	P	0.8
5	☐	250.000	251.106	1285740.93	0.0669	P	0.5
6	☐	500.000	494.749	2552386.73	0.1317	P	0.7
7	☐	1000.000	1002.041	5074908.62	0.2668	A	0.6
8	☐			9698.09	0.0005	P	5.3

$$y = 2.6625E-004 * x + 1.0430E-005$$

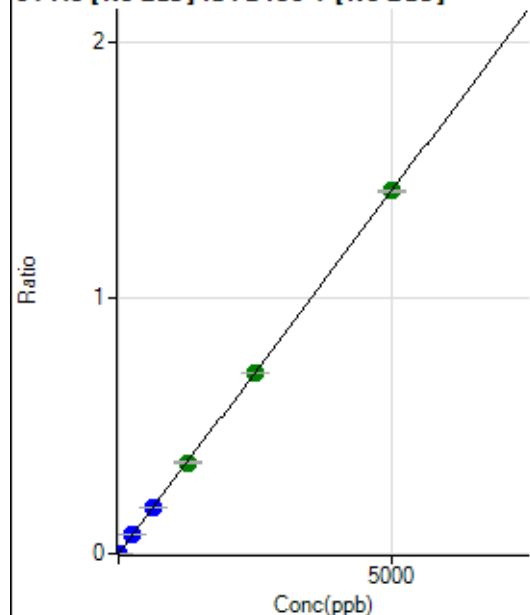
$$R = 1.0000$$

$$DL = 0.008099$$

$$BEC = 0.03917$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	455.58	0.0000	P	6.8
2	☐	5.000	4.943	28520.93	0.0014	P	3.1
3	☐	250.000	254.943	1416069.98	0.0722	P	0.4
4	☐	625.000	630.763	3437264.92	0.1787	P	0.5
5	☐	1250.000	1256.146	6841958.22	0.3558	A	0.6
6	☐	2500.000	2494.574	13690589.54	0.7066	A	0.3
7	☐	5000.000	5000.209	26940752.34	1.4163	A	0.5
8	☐			65774.35	0.0035	P	1.3

$$y = 2.8325E-004 * x + 2.2800E-005$$

$$R = 1.0000$$

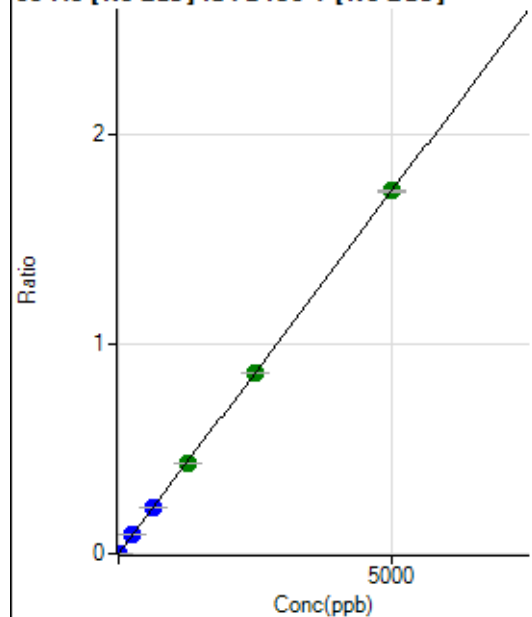
$$DL = 0.01647$$

$$BEC = 0.0805$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155.56	0.0000	P	22.8
2	☐	5.000	5.228	36450.25	0.0018	P	0.6
3	☐	250.000	253.334	1720087.76	0.0877	P	0.8
4	☐	625.000	625.882	4169810.25	0.2168	P	0.5
5	☐	1250.000	1252.919	8343807.04	0.4339	A	0.7
6	☐	2500.000	2487.237	16689729.19	0.8614	A	0.3
7	☐	5000.000	5005.374	32974694.83	1.7335	A	0.3
8	☐			88641.61	0.0047	P	1.7

$$y = 3.4633\text{E-}004 * x + 7.7937\text{E-}006$$

$$R = 1.0000$$

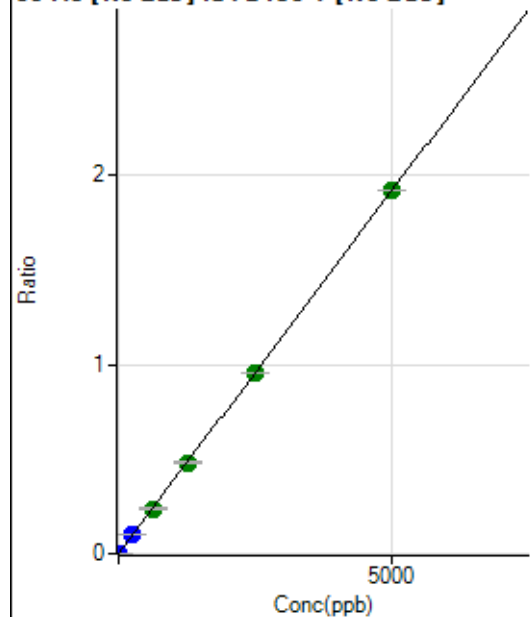
$$DL = 0.01539$$

$$BEC = 0.0225$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	319.46	0.0000	P	14.5
2	☐	5.000	5.225	40436.01	0.0020	P	2.0
3	☐	250.000	253.449	1903557.12	0.0971	P	0.5
4	☐	625.000	621.713	4581495.72	0.2382	A	0.7
5	☐	1250.000	1257.170	9260195.52	0.4816	A	0.6
6	☐	2500.000	2487.807	18464290.34	0.9530	A	0.5
7	☐	5000.000	5004.542	36465899.42	1.9171	A	0.1
8	☐			105023.33	0.0056	P	1.0

$$y = 3.8306\text{E-}004 * x + 1.5994\text{E-}005$$

$$R = 1.0000$$

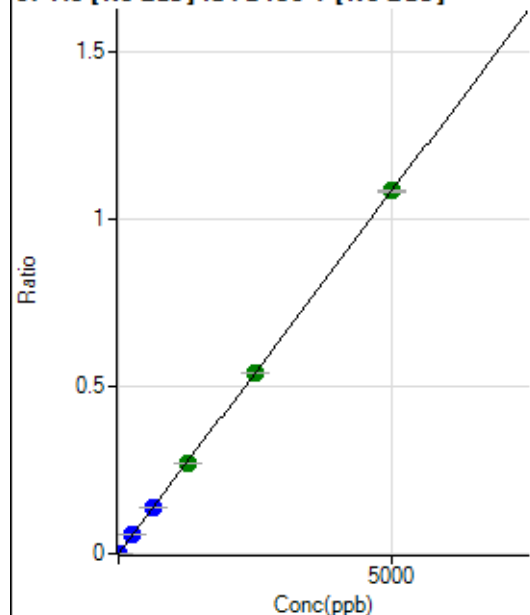
$$DL = 0.01815$$

$$BEC = 0.04175$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	144.45	0.0000	P	16.7
2	☐	5.000	5.196	22663.20	0.0011	P	2.5
3	☐	250.000	252.654	1071089.62	0.0546	P	0.2
4	☐	625.000	626.014	2603995.24	0.1354	P	0.3
5	☐	1250.000	1250.618	5199784.28	0.2704	A	0.6
6	☐	2500.000	2486.782	10418034.35	0.5377	A	0.1
7	☐	5000.000	5006.195	20590337.61	1.0825	A	0.5
8	☐			54504.85	0.0029	P	0.4

$$y = 2.1622\text{E-}004 * x + 7.2317\text{E-}006$$

$$R = 1.0000$$

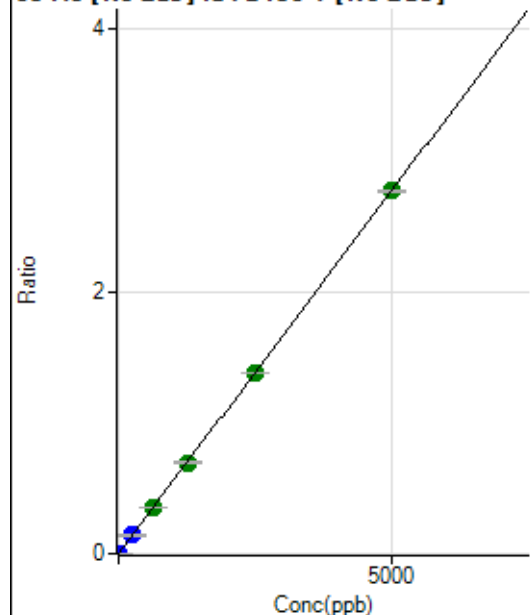
$$DL = 0.01677$$

$$BEC = 0.03345$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	280.57	0.0000	P	5.1
2	☐	5.000	5.240	58353.58	0.0029	P	0.3
3	☐	250.000	252.076	2732208.98	0.1394	P	0.6
4	☐	625.000	626.616	6664010.65	0.3464	A	1.0
5	☐	1250.000	1255.762	13349656.12	0.6943	A	0.5
6	☐	2500.000	2496.070	26736878.72	1.3800	A	0.4
7	☐	5000.000	5000.218	52583091.80	2.7644	A	0.7
8	☐			140113.60	0.0074	P	0.1

$$y = 5.5285\text{E-}004 * x + 1.4048\text{E-}005$$

$$R = 1.0000$$

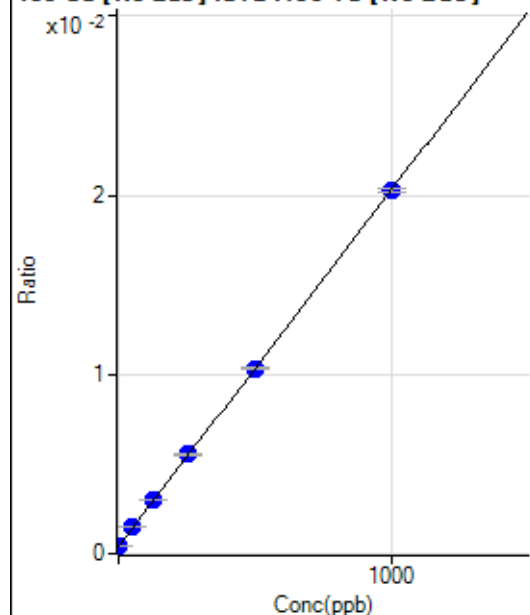
$$DL = 0.003884$$

$$BEC = 0.02541$$

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	8630.77	0.0004	P	1.7
2	☐	1.000	2.609	9773.18	0.0005	P	1.0
3	☐	50.000	54.681	31530.29	0.0015	P	0.4
4	☐	125.000	132.453	63624.14	0.0030	P	1.0
5	☐	250.000	257.712	117417.97	0.0055	P	1.5
6	☐	500.000	499.655	219289.26	0.0103	P	0.7
7	☐	1000.000	997.077	427685.89	0.0202	P	1.0
8	☐			9525.80	0.0005	P	2.7

$$y = 1.9888\text{E-}005 * x + 4.0439\text{E-}004$$

$$R = 1.0000$$

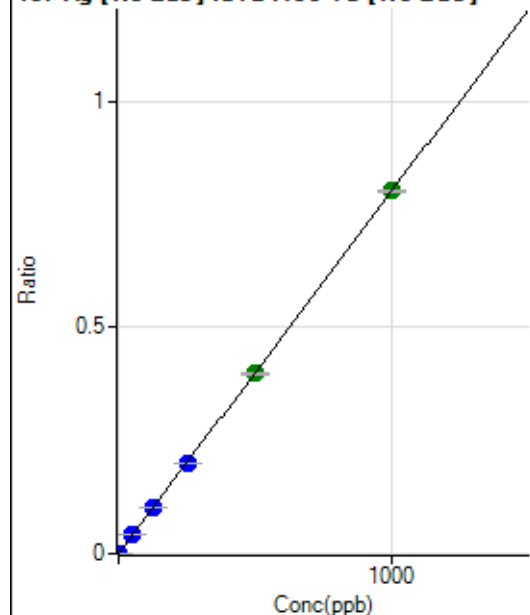
$$DL = 1.067$$

$$BEC = 20.33$$

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	258.35	0.0000	P	5.2
2	☐	1.000	1.128	19614.20	0.0009	P	2.4
3	☐	50.000	53.619	908289.09	0.0430	P	0.9
4	☐	125.000	129.554	2174085.25	0.1038	P	0.5
5	☐	250.000	248.386	4226457.13	0.1991	P	1.1
6	☐	500.000	496.570	8438093.42	0.3979	A	0.4
7	☐	1000.000	1001.368	16960852.98	0.8024	A	0.6
8	☐			24527.52	0.0012	P	1.0

$$y = 8.0134\text{E-}004 * x + 1.2103\text{E-}005$$

$$R = 1.0000$$

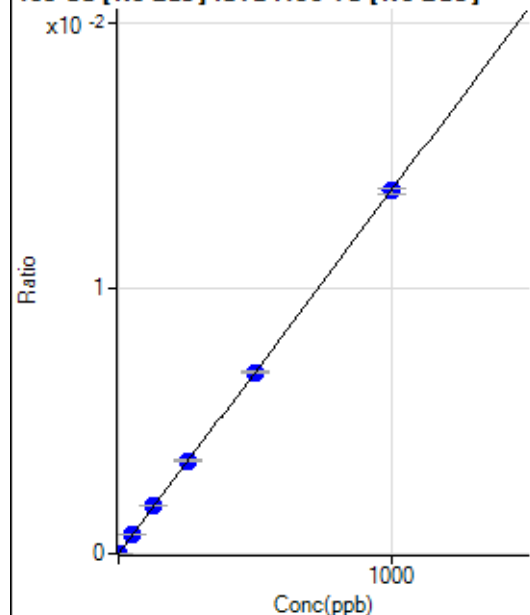
$$DL = 0.002369$$

$$BEC = 0.0151$$

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	31.94	0.0000	P	40.2
2	☐	1.000	1.012	329.18	0.0000	P	10.9
3	☐	50.000	53.671	15571.30	0.0007	P	2.9
4	☐	125.000	131.016	37620.96	0.0018	P	0.4
5	☐	250.000	255.696	74419.57	0.0035	P	0.7
6	☐	500.000	498.426	144846.63	0.0068	P	1.3
7	☐	1000.000	998.427	289186.45	0.0137	P	1.6
8	☐			559.74	0.0000	P	6.8

$$y = 1.3702\text{E-}005 * x + 1.4984\text{E-}006$$

$$R = 1.0000$$

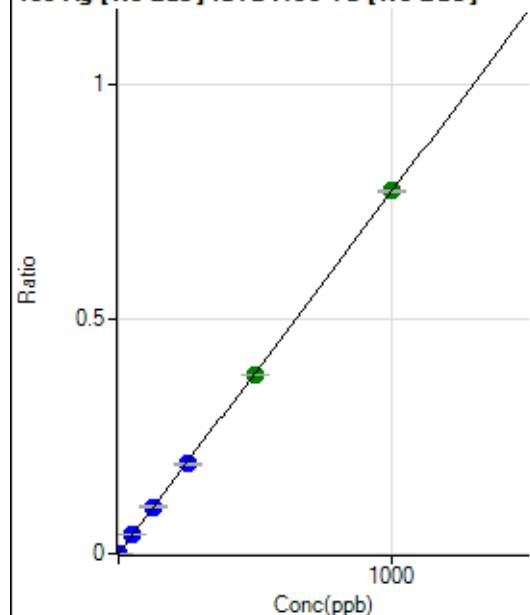
$$DL = 0.1318$$

$$BEC = 0.1094$$

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	119.45	0.0000	P	22.6
2	☐	1.000	1.100	18304.14	0.0009	P	2.2
3	☐	50.000	53.051	865161.39	0.0409	P	0.6
4	☐	125.000	129.688	2095227.00	0.1001	P	1.0
5	☐	250.000	247.617	4056518.93	0.1911	P	0.8
6	☐	500.000	494.202	8085515.89	0.3813	A	0.5
7	☐	1000.000	1002.756	16352449.50	0.7737	A	0.3
8	☐			24291.12	0.0012	P	2.9

$$y = 7.7154\text{E-}004 * x + 5.5983\text{E-}006$$

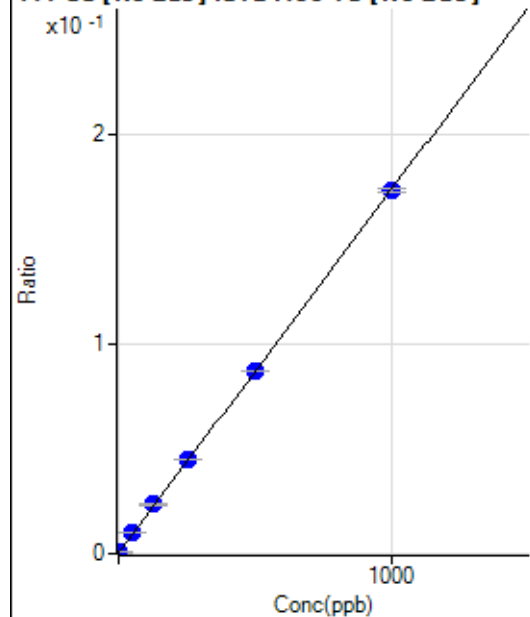
$$R = 1.0000$$

$$DL = 0.004923$$

$$BEC = 0.007256$$

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	6046.95	0.0003	P	1.7
2	☐	1.000	1.155	10351.64	0.0005	P	1.4
3	☐	50.000	54.076	203857.65	0.0096	P	0.5
4	☐	125.000	133.223	488900.10	0.0233	P	1.5
5	☐	250.000	258.863	957646.00	0.0451	P	0.5
6	☐	500.000	500.938	1845154.80	0.0870	P	0.7
7	☐	1000.000	996.083	3651238.88	0.1727	P	1.0
8	☐			12530.52	0.0006	P	2.4

$$y = 1.7314\text{E-}004 * x + 2.8332\text{E-}004$$

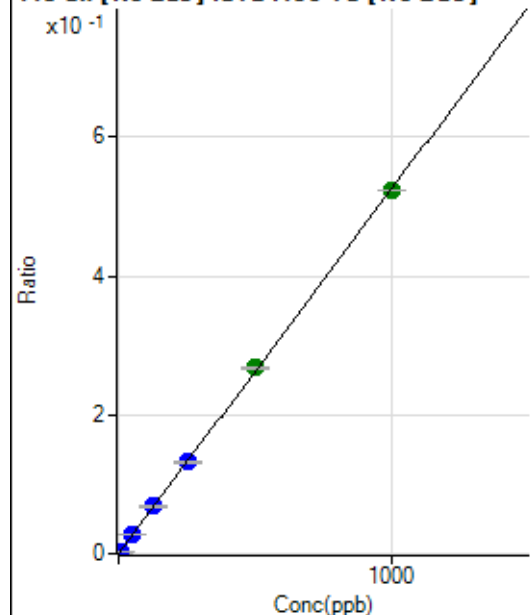
$$R = 0.9999$$

$$DL = 0.08549$$

$$BEC = 1.636$$

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	2969.89	0.0001	P	1.8
2	☐	5.000	5.336	62983.31	0.0029	P	0.8
3	☐	50.000	52.160	581590.52	0.0275	P	1.2
4	☐	125.000	129.224	1423332.02	0.0680	P	0.6
5	☐	250.000	250.446	2794433.53	0.1316	P	1.1
6	☐	500.000	508.818	5666783.46	0.2672	A	0.6
7	☐	1000.000	994.842	11040950.94	0.5224	A	0.2
8	☐			24794.81	0.0013	P	2.0

$$y = 5.2495\text{E-}004 * x + 1.3915\text{E-}004$$

$$R = 0.9999$$

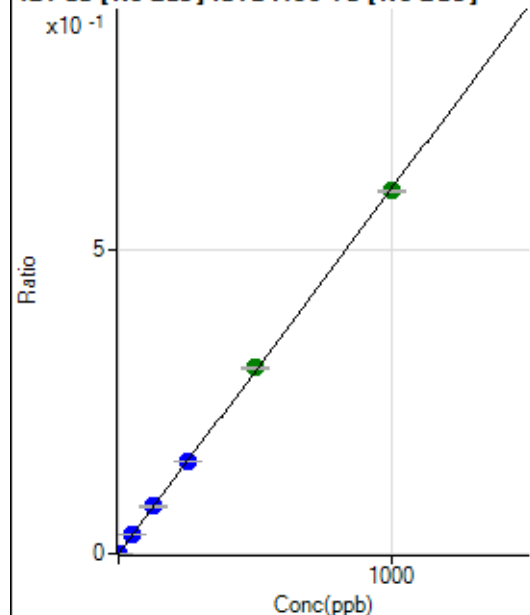
$$DL = 0.01419$$

$$BEC = 0.2651$$

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	330.57	0.0000	P	20.6
2	☐	2.000	1.999	26016.62	0.0012	P	2.8
3	☐	50.000	52.027	660078.07	0.0312	P	0.6
4	☐	125.000	129.163	1623108.68	0.0775	P	1.0
5	☐	250.000	252.692	3219609.57	0.1516	P	0.8
6	☐	500.000	508.643	6472054.61	0.3052	A	0.5
7	☐	1000.000	994.384	12611456.01	0.5967	A	0.5
8	☐			33813.85	0.0017	P	4.2

$$y = 6.0003\text{E-}004 * x + 1.5494\text{E-}005$$

$$R = 0.9999$$

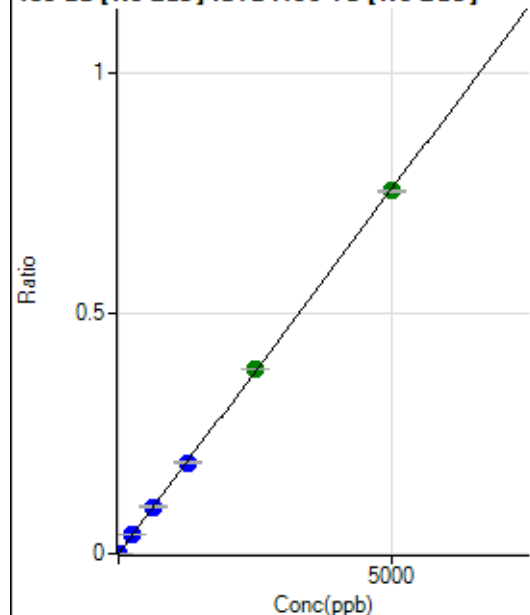
$$DL = 0.01599$$

$$BEC = 0.02582$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	41.67	0.0000	P	40.2
2	☐	10.000	10.362	33728.06	0.0016	P	1.0
3	☐	250.000	260.200	834705.40	0.0395	P	0.2
4	☐	625.000	644.691	2048940.04	0.0979	P	1.2
5	☐	1250.000	1250.555	4030193.88	0.1898	P	1.0
6	☐	2500.000	2537.184	8166077.70	0.3851	A	0.5
7	☐	5000.000	4978.297	15970998.62	0.7556	A	0.5
8	☐			29548.96	0.0015	P	1.6

$$y = 1.5178\text{E-}004 * x + 1.9530\text{E-}006$$

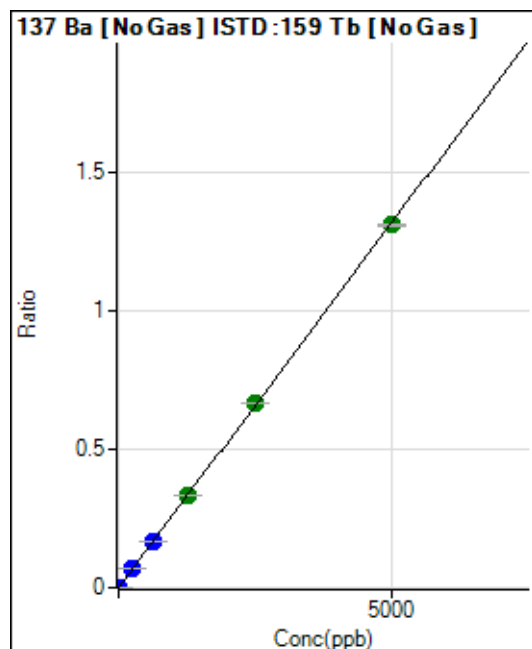
$$R = 1.0000$$

$$DL = 0.01553$$

$$BEC = 0.01287$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0000	P	25.0
2	☐	10.000	10.395	58703.06	0.0027	P	1.0
3	☐	250.000	261.308	1454123.66	0.0688	P	0.5
4	☐	625.000	644.083	3550977.25	0.1696	P	0.4
5	☐	1250.000	1267.159	7083873.85	0.3336	A	0.4
6	☐	2500.000	2535.809	14157795.11	0.6677	A	0.4
7	☐	5000.000	4974.854	27685270.06	1.3099	A	0.2
8	☐			51435.02	0.0026	P	0.9

$$y = 2.6329E-004 * x + 3.6459E-006$$

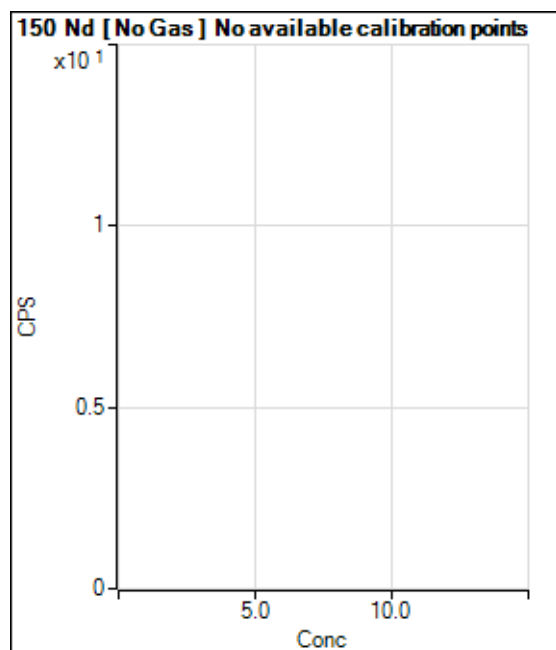
$$R = 1.0000$$

$$DL = 0.01039$$

$$BEC = 0.01385$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			11.11		P	34.6
2	☐			15.56		P	65.5
3	☐			84.45		P	25.4
4	☐			184.45		P	11.0
5	☐			382.24		P	15.8
6	☐			648.93		P	6.8
7	☐			1366.79		P	6.1
8	☐			135.56		P	14.2

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			12.22		P	41.7
2	☐			15.56		P	12.4
3	☐			16.67		P	20.0
4	☐			32.22		P	12.0
5	☐			45.55		P	8.5
6	☐			68.89		P	22.4
7	☐			106.67		P	22.5
8	☐			64.44		P	7.9

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.45		P	28.7
2	☐			36.11		P	13.3
3	☐			50.00		P	16.7
4	☐			66.67		P	21.6
5	☐			91.67		P	9.1
6	☐			127.78		P	21.0
7	☐			338.91		P	16.4
8	☐			86.12		P	29.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.67		P	27.3
2	☐			27.78		P	34.6
3	☐			44.45		P	65.5
4	☐			65.56		P	7.8
5	☐			97.78		P	7.1
6	☐			175.56		P	4.0
7	☐			391.12		P	11.3
8	☐			53.33		P	6.3

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			147.23		P	8.6
2	☐			166.67		P	5.0
3	☐			147.23		P	36.8
4	☐			141.68		P	27.0
5	☐			200.01		P	36.3
6	☐			197.23		P	13.6
7	☐			208.34		P	10.6
8	☐			188.90		P	29.4

160 Gd [He] No available calibration points

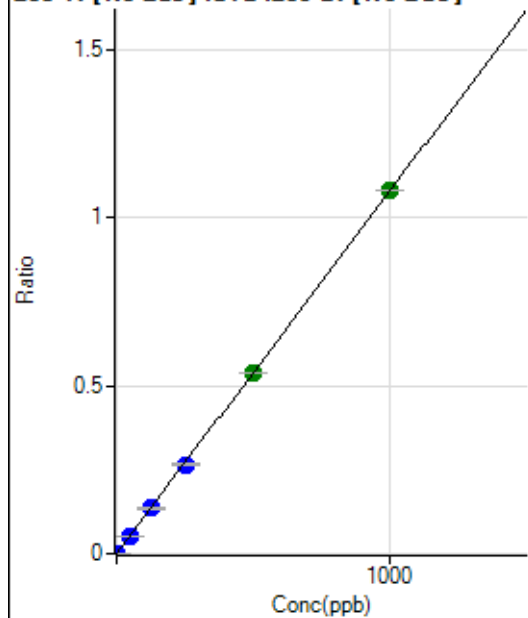
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			397.79		P	1.3
2	☐			402.24		P	4.6
3	☐			343.34		P	1.9
4	☐			364.46		P	13.8
5	☐			391.13		P	8.3
6	☐			347.79		P	7.8
7	☐			384.46		P	12.3
8	☐			390.01		P	8.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			152.78		P	33.3
2	☐			108.34		P	33.5
3	☐			127.78		P	10.0
4	☐			133.34		P	34.8
5	☐			111.12		P	35.4
6	☐			150.01		P	40.1
7	☐			147.23		P	14.2
8	☐			127.78		P	45.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			91.11		P	18.4
2	☐			70.00		P	21.8
3	☐			85.56		P	12.5
4	☐			92.22		P	11.6
5	☐			83.33		P	13.9
6	☐			90.00		P	33.3
7	☐			100.00		P	0.0
8	☐			106.67		P	30.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	905.63	0.0001	P	8.7
2	☐	1.000	0.966	14149.80	0.0011	P	0.6
3	☐	50.000	49.872	671525.82	0.0539	P	0.8
4	☐	125.000	124.968	1655496.83	0.1349	P	0.9
5	☐	250.000	246.607	3287795.00	0.2662	P	0.3
6	☐	500.000	498.397	6581751.02	0.5378	A	0.4
7	☐	1000.000	1001.660	12783915.39	1.0808	A	0.2
8	☐			24092.11	0.0024	P	1.5

$$y = 0.0011 * x + 7.2683E-005$$

$$R = 1.0000$$

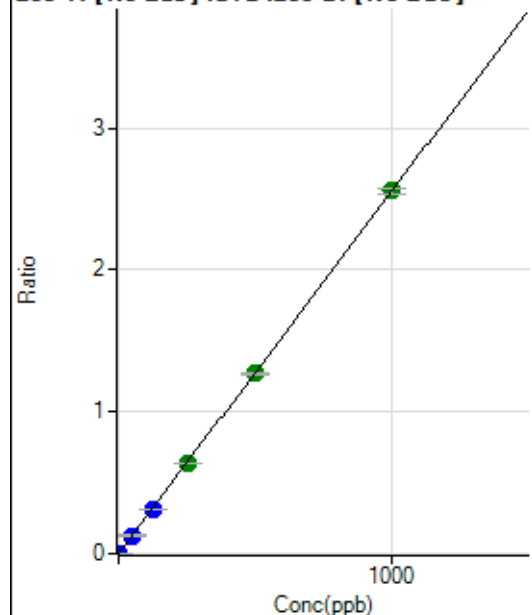
$$DL = 0.01749$$

$$BEC = 0.06736$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1500.15	0.0001	P	3.4
2	☐	1.000	0.963	32719.00	0.0026	P	3.3
3	☐	50.000	50.229	1599173.00	0.1283	P	0.8
4	☐	125.000	123.764	3877511.33	0.3160	P	0.7
5	☐	250.000	248.165	7825211.81	0.6335	A	0.5
6	☐	500.000	497.484	15538874.83	1.2698	A	0.8
7	☐	1000.000	1001.860	30245274.98	2.5570	A	1.2
8	☐			57377.49	0.0056	P	0.3

$$y = 0.0026 * x + 1.2036E-004$$

$$R = 1.0000$$

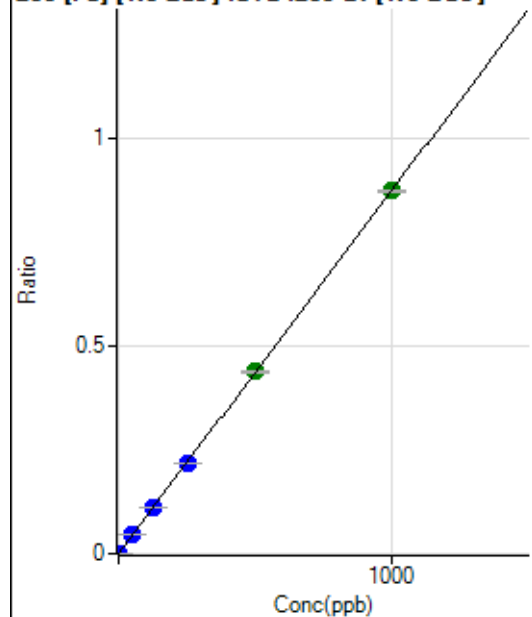
$$DL = 0.004864$$

$$BEC = 0.04716$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1501.98	0.0001	P	2.0
2	☐	1.000	0.966	12239.30	0.0010	P	1.1
3	☐	50.000	50.712	553839.62	0.0444	P	0.6
4	☐	125.000	126.184	1354686.46	0.1104	P	0.7
5	☐	250.000	247.319	2671445.03	0.2163	P	0.4
6	☐	500.000	501.048	5359873.62	0.4380	A	1.4
7	☐	1000.000	999.962	10337846.41	0.8740	A	0.3
8	☐			52883.07	0.0052	P	1.6

$$y = 8.7393E-004 * x + 1.2050E-004$$

$$R = 1.0000$$

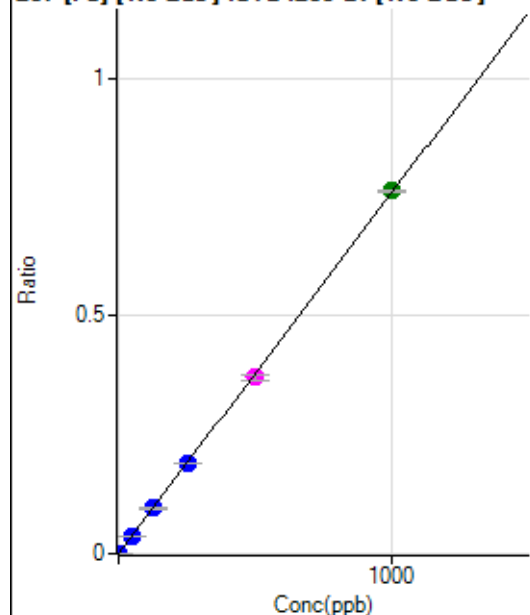
$$DL = 0.008453$$

$$BEC = 0.1379$$

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	1424.20	0.0001	P	6.5
2	☐	1.000	0.980	10875.13	0.0009	P	2.7
3	☐	50.000	50.314	476690.35	0.0382	P	0.3
4	☐	125.000	125.729	1170767.52	0.0954	P	0.9
5	☐	250.000	249.646	2338803.42	0.1893	P	0.3
6	☐	500.000	488.392	4530953.54	0.3703	M	3.8
7	☐	1000.000	1005.786	9018030.12	0.7624	A	0.3
8	☐			46241.82	0.0046	P	0.9

$$y = 7.5793E-004 * x + 1.1423E-004$$

$$R = 0.9999$$

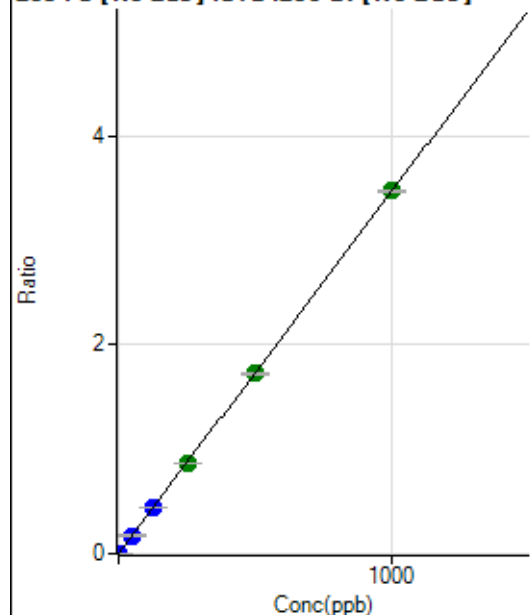
$$DL = 0.02941$$

$$BEC = 0.1507$$

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	5832.14	0.0005	P	2.5
2	☐	1.000	0.969	48611.70	0.0038	P	2.2
3	☐	50.000	50.299	2180500.72	0.1750	P	0.1
4	☐	125.000	125.349	5341759.28	0.4353	P	0.7
5	☐	250.000	248.706	10663594.47	0.8632	A	0.3
6	☐	500.000	496.646	21088995.58	1.7234	A	1.5
7	☐	1000.000	1001.942	41117158.04	3.4763	A	0.2
8	☐			209662.66	0.0206	P	1.0

$$y = 0.0035 * x + 4.6785E-004$$

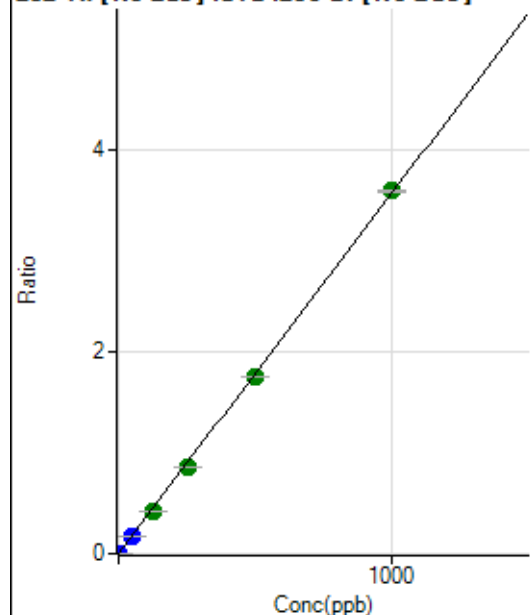
$$R = 1.0000$$

$$DL = 0.01015$$

$$BEC = 0.1349$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2583.67	0.0002	P	2.9
2	☐	1.000	0.815	39573.85	0.0031	P	3.3
3	☐	50.000	47.025	2095360.04	0.1681	P	1.0
4	☐	125.000	118.385	5190159.32	0.4230	A	1.1
5	☐	250.000	240.723	10621116.91	0.8598	A	0.7
6	☐	500.000	492.362	21518974.09	1.7584	A	0.5
7	☐	1000.000	1007.114	42539456.04	3.5966	A	0.5
8	☐			15127.65	0.0015	P	0.6

$$y = 0.0036 * x + 2.0729E-004$$

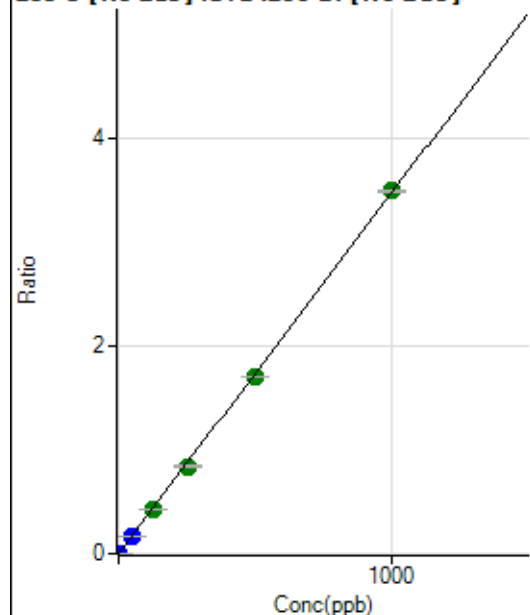
$$R = 0.9999$$

$$DL = 0.005083$$

$$BEC = 0.05805$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2572.59	0.0002	P	6.5
2	☐	1.000	0.907	42462.79	0.0033	P	1.0
3	☐	50.000	48.179	2081630.08	0.1670	P	0.9
4	☐	125.000	120.330	5115300.38	0.4169	A	0.5
5	☐	250.000	242.506	10375076.53	0.8399	A	0.5
6	☐	500.000	491.775	20840770.26	1.7030	A	0.4
7	☐	1000.000	1006.661	41229841.89	3.4858	A	0.2
8	☐			69899.07	0.0069	P	2.7

$$y = 0.0035 * x + 2.0639E-004$$

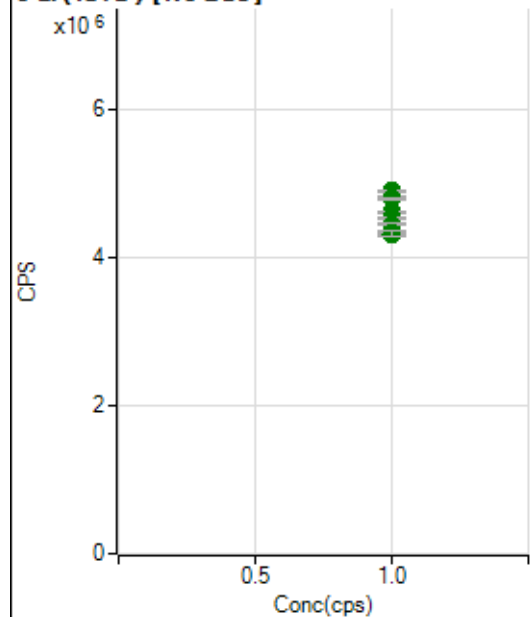
$$R = 0.9999$$

$$DL = 0.01155$$

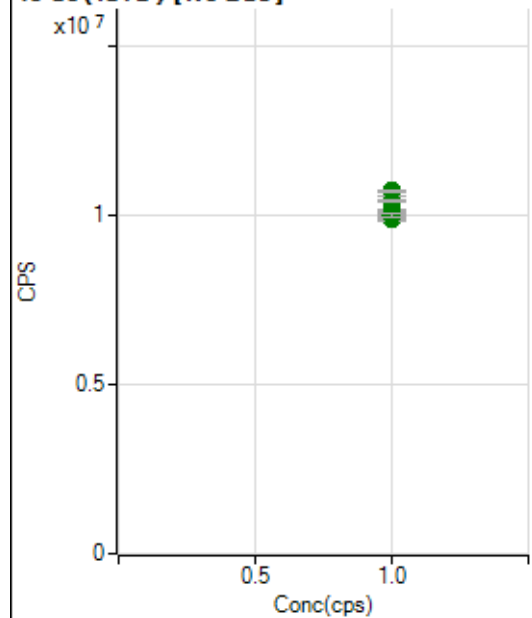
$$BEC = 0.05961$$

Weight: <None>

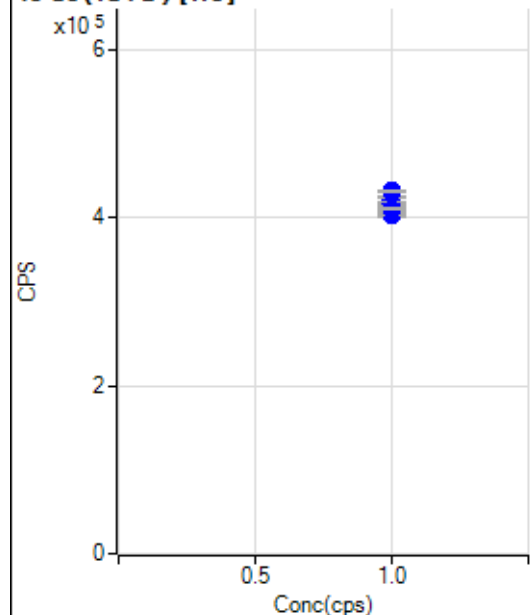
Min Conc: 0

6 Li (ISTD) [No Gas]

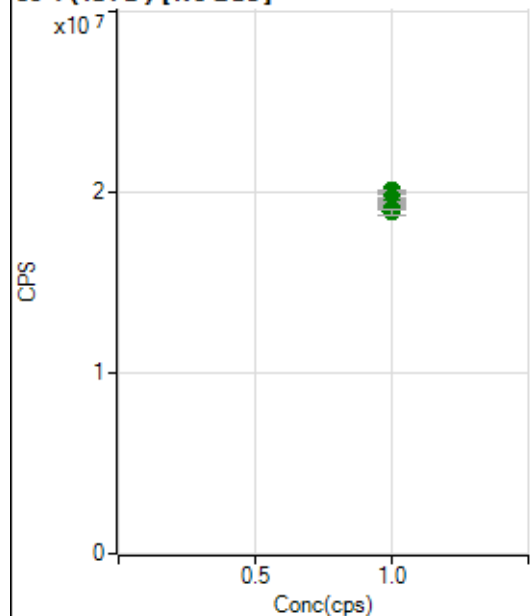
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4832381.98		A	0.1
2	☐	1.000		4910406.25		A	0.4
3	☐	1.000		4805399.34		A	0.5
4	☐	1.000		4628133.61		A	0.4
5	☐	1.000		4541877.85		A	0.2
6	☐	1.000		4459570.77		A	0.6
7	☐	1.000		4342290.14		A	0.7
8	☐	1.000		4329812.71		A	1.6

45 Sc (ISTD) [No Gas]

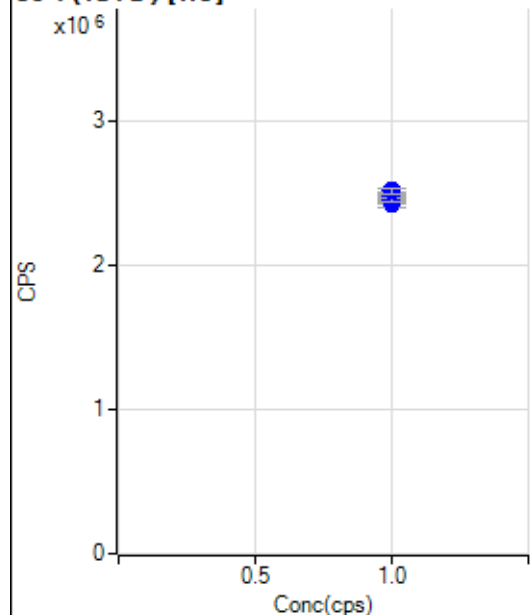
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10650998.07		A	1.3
2	☐	1.000		10714502.93		A	0.3
3	☐	1.000		10410217.77		A	0.7
4	☐	1.000		10129372.53		A	0.6
5	☐	1.000		10025103.35		A	0.4
6	☐	1.000		9989596.06		A	0.2
7	☐	1.000		9876627.13		A	0.6
8	☐	1.000		10013540.93		A	1.3

45 Sc (ISTD) [He]

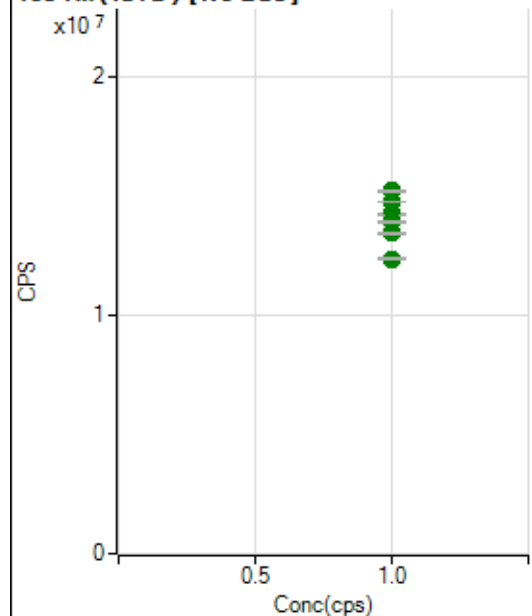
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		423980.18		P	0.5
2	☐	1.000		419686.98		P	1.4
3	☐	1.000		415588.12		P	1.0
4	☐	1.000		405149.10		P	0.5
5	☐	1.000		402956.24		P	1.5
6	☐	1.000		402778.04		P	0.5
7	☐	1.000		409841.83		P	0.7
8	☐	1.000		431458.33		P	0.4

89 Y (ISTD) [No Gas]

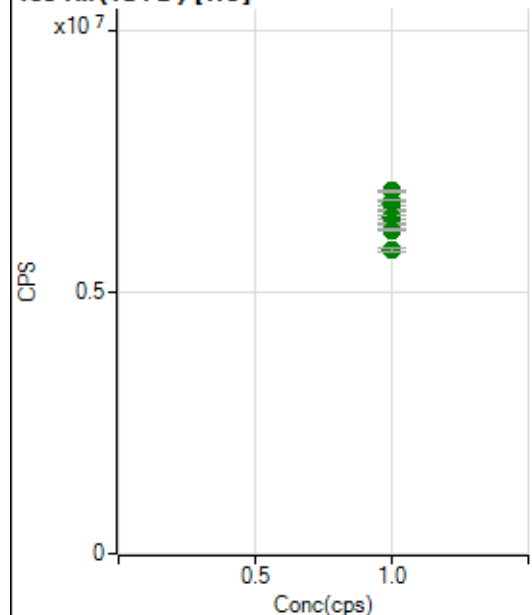
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19976207.20		A	0.6
2	☐	1.000		20044443.73		A	0.4
3	☐	1.000		19603746.93		A	0.5
4	☐	1.000		19236649.99		A	0.7
5	☐	1.000		19228460.13		A	0.3
6	☐	1.000		19374933.88		A	0.3
7	☐	1.000		19021714.99		A	0.6
8	☐	1.000		18876065.14		A	1.4

89 Y (ISTD) [He]

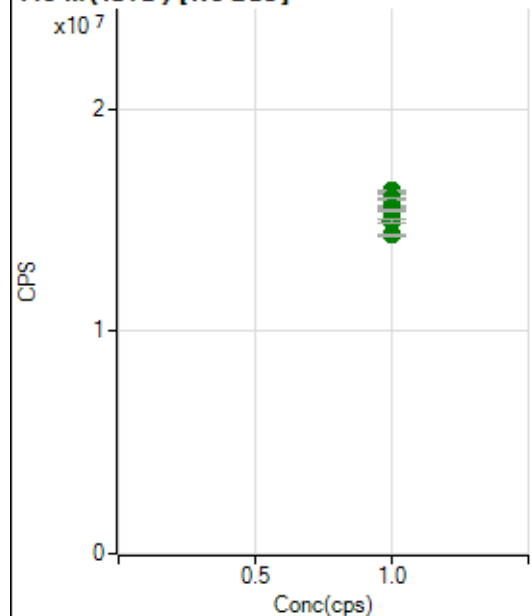
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2498924.76		P	0.8
2	☐	1.000		2486652.67		P	0.6
3	☐	1.000		2476509.63		P	1.2
4	☐	1.000		2448432.01		P	0.4
5	☐	1.000		2418221.85		P	1.3
6	☐	1.000		2430651.04		P	0.5
7	☐	1.000		2451645.20		P	0.7
8	☐	1.000		2512649.98		P	1.4

103 Rh (ISTD) [No Gas]

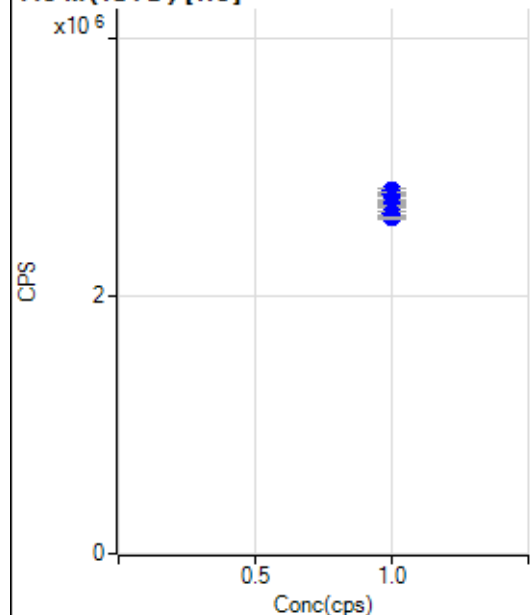
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15191005.20		A	0.1
2	☐	1.000		15190948.78		A	0.5
3	☐	1.000		14733270.82		A	0.0
4	☐	1.000		14274842.86		A	0.1
5	☐	1.000		14151537.82		A	0.3
6	☐	1.000		13917818.02		A	0.7
7	☐	1.000		13408604.47		A	1.1
8	☐	1.000		12358834.04		A	1.2

103 Rh (ISTD) [He]

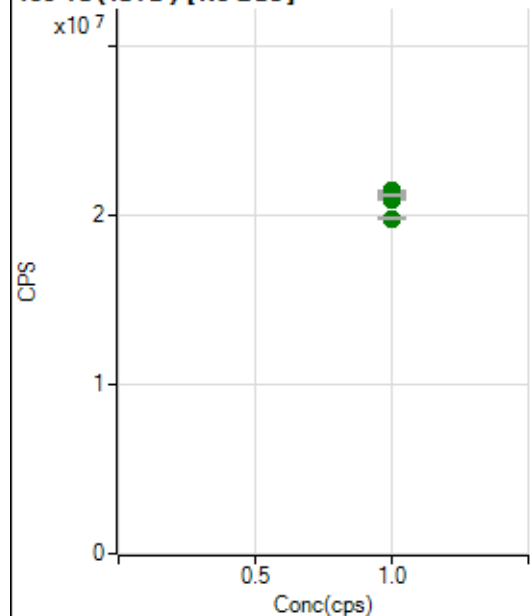
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6943490.66		A	0.7
2	☐	1.000		6741760.38		A	0.3
3	☐	1.000		6713478.03		A	1.5
4	☐	1.000		6575075.32		A	0.3
5	☐	1.000		6429945.60		A	1.0
6	☐	1.000		6311805.74		A	0.1
7	☐	1.000		6201199.56		A	0.2
8	☐	1.000		5810746.93		A	0.9

115 In (ISTD) [No Gas]

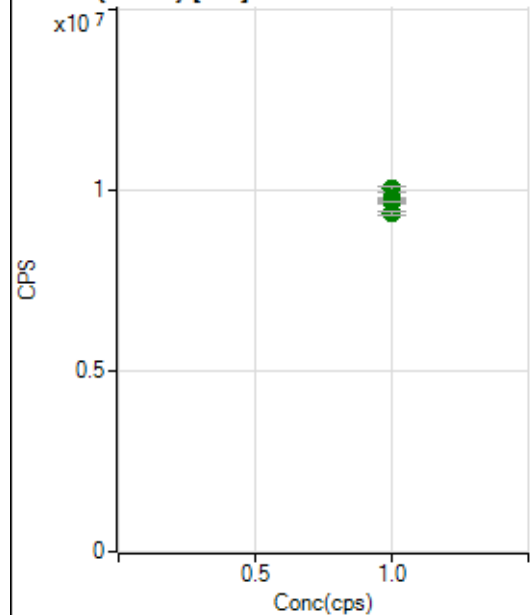
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16276414.34		A	0.7
2	☐	1.000		16328627.91		A	0.2
3	☐	1.000		15969513.60		A	0.2
4	☐	1.000		15620844.12		A	0.4
5	☐	1.000		15571945.55		A	0.4
6	☐	1.000		15444083.71		A	0.5
7	☐	1.000		14989717.30		A	0.8
8	☐	1.000		14355765.37		A	0.7

115 In (ISTD) [He]

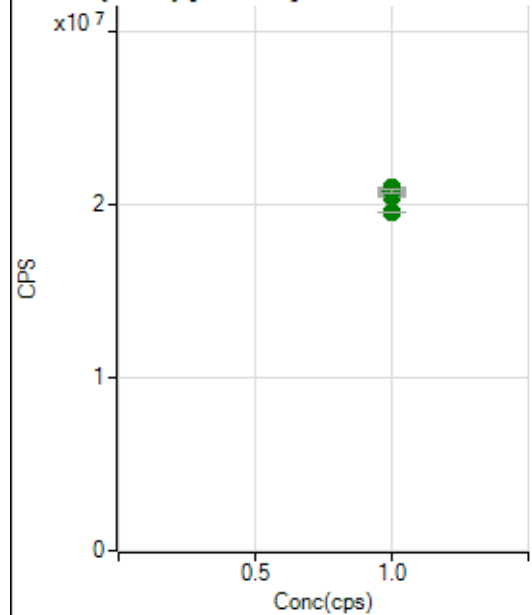
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2813161.91		P	1.2
2	☐	1.000		2791650.82		P	0.4
3	☐	1.000		2788080.08		P	1.4
4	☐	1.000		2738182.46		P	0.6
5	☐	1.000		2700879.37		P	1.3
6	☐	1.000		2689271.06		P	0.4
7	☐	1.000		2640768.67		P	0.8
8	☐	1.000		2607269.73		P	0.7

159 Tb (ISTD) [No Gas]

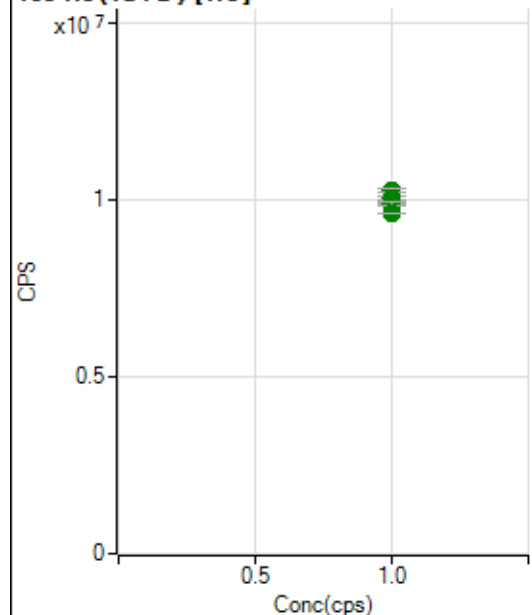
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		21342542.04		A	0.6
2	☐	1.000		21418970.79		A	0.7
3	☐	1.000		21134211.07		A	0.9
4	☐	1.000		20939306.22		A	0.6
5	☐	1.000		21232534.82		A	0.7
6	☐	1.000		21204832.74		A	0.1
7	☐	1.000		21136086.49		A	0.5
8	☐	1.000		19778523.59		A	0.7

159 Tb (ISTD) [He]

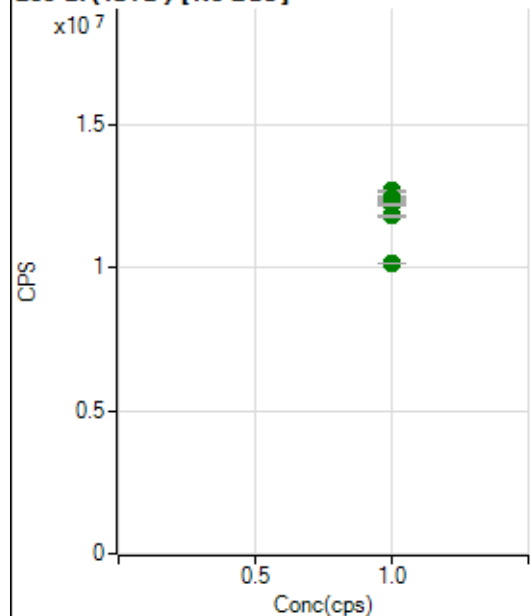
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10026720.40		A	1.4
2	☐	1.000		9693768.40		A	0.2
3	☐	1.000		9764734.16		A	0.8
4	☐	1.000		9708159.16		A	0.5
5	☐	1.000		9667689.72		A	1.0
6	☐	1.000		9687104.72		A	0.4
7	☐	1.000		9662191.94		A	0.2
8	☐	1.000		9360551.60		A	0.7

165 Ho (ISTD) [No Gas]

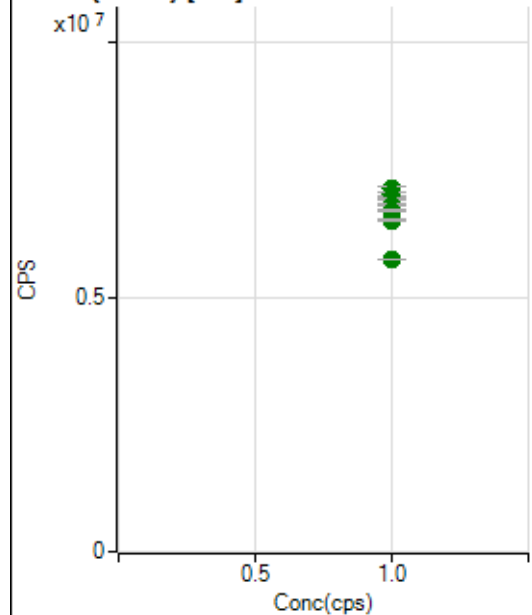
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20833659.15		A	0.7
2	☐	1.000		20912312.97		A	0.3
3	☐	1.000		20769410.36		A	0.1
4	☐	1.000		20516645.08		A	0.4
5	☐	1.000		20977162.28		A	1.0
6	☐	1.000		20998942.66		A	0.6
7	☐	1.000		20823372.34		A	1.3
8	☐	1.000		19575760.68		A	0.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10270741.79		A	1.0
2	☐	1.000		9887785.48		A	0.2
3	☐	1.000		10047783.88		A	1.1
4	☐	1.000		10026355.96		A	0.3
5	☐	1.000		9948969.43		A	0.8
6	☐	1.000		9992893.39		A	0.5
7	☐	1.000		9903530.75		A	0.7
8	☐	1.000		9629842.01		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12465166.06		A	0.7
2	☐	1.000		12691628.01		A	0.7
3	☐	1.000		12462973.71		A	0.3
4	☐	1.000		12271245.23		A	0.2
5	☐	1.000		12352993.43		A	0.5
6	☐	1.000		12237825.93		A	0.6
7	☐	1.000		11827923.02		A	0.6
8	☐	1.000		10157916.31		A	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7125960.45		A	1.3
2	☐	1.000		6946709.90		A	0.2
3	☐	1.000		7024565.31		A	1.3
4	☐	1.000		6931383.16		A	0.8
5	☐	1.000		6810544.34		A	0.8
6	☐	1.000		6688883.93		A	0.5
7	☐	1.000		6513400.53		A	0.5
8	☐	1.000		5745493.11		A	0.2

US EPA Tune Check Sample Report

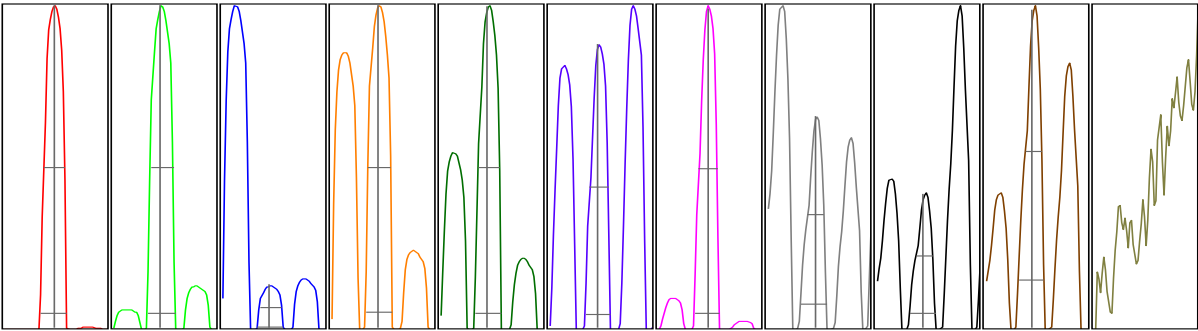
Batch Folder D:\ICP-MS Data\P7121119 MS1.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	16073	0.97	5.00	
24	1565025	1.00	5.00	
25	207888	0.77	5.00	
26	242629	0.76	5.00	
59	138782	0.94	5.00	
113	18709	1.37	5.00	
115	219127	1.57	5.00	
206	49218	0.59	5.00	
207	47094	0.62	5.00	
208	106567	0.66	5.00	
220	133	2.87		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	16230	16232	16029	15874	16002
24	1582219	1577692	1562096	1543066	1560052
25	209513	209578	207509	206118	206724
26	244410	244699	241538	240462	242037
59	140148	139872	138643	136901	138348
113	19060	18887	18603	18433	18563
115	222442	223048	218300	215970	215874
206	49430	49415	49304	48728	49213
207	47388	47398	46974	46727	46981
208	107041	107284	106444	105454	106613
220	134	129	130	134	138

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	27061	9.00	8.9 - 9.1		0.771	0.900	
24	2511838	23.90	23.9 - 24.1		0.824	0.900	
25	335067	24.90	24.9 - 25.1		0.748	0.900	
26	391860	25.90	25.9 - 26.1		0.782	0.900	
59	235537	58.90	58.9 - 59.1		0.779	0.900	
113	36317	112.95	112.9 - 113.1		0.729	0.900	
115	422485	115.00	114.9 - 115.1		0.729	0.900	
206	98101	205.95	205.9 - 206.1		0.745	0.900	
207	87720	206.90	206.9 - 207.1		0.739	0.900	
208	208360	207.90	207.9 - 208.1		0.744	0.900	
220			-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.2	V	Deflect	12.8	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	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	33495	0.20	
89	478364	0.50	
205	42087	0.13	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	33482	33604	33422	33462	33506
89	481355	479440	476050	479178	475799
205	42022	42144	42123	42113	42033

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.4	V	Deflect	1.4	V
Extract 2	-130.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-60	V			

Cell Parameters

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