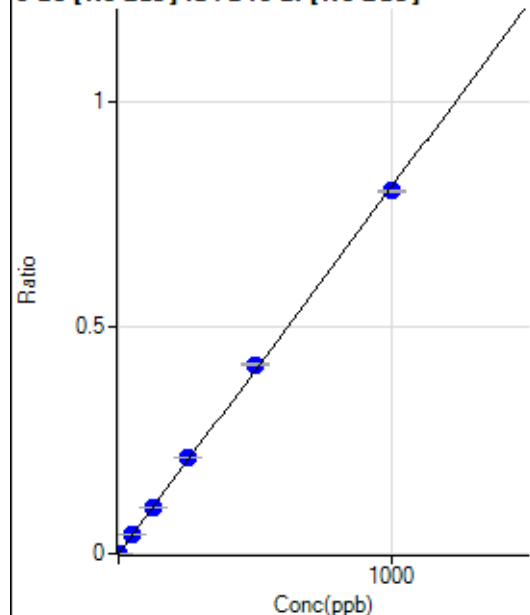


Calibration for 003CALB.d

Batch Folder: D:\ICP-MS Data\P7112919MS2.b\
 Analysis File: P7112919MS2.batch.bin
 DA Date-Time: 2019-12-01 13:11:57
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-11-29 14:53:45
2	004CALS.d	S02	2019-11-29 14:57:18
3	005CALS.d	S03	2019-11-29 15:01:57
4	006CALS.d	S04	2019-11-29 15:06:03
5	007CALS.d	S05	2019-11-29 15:09:51
6	008CALS.d	S06	2019-11-29 15:13:36
7	009CALS.d	S07	2019-11-29 15:17:19
8	010CALS.d	S08	2019-11-29 15:21:04

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	66.67	0.0000	P	22.3
2	☐	1.000	1.011	3248.58	0.0008	P	2.1
3	☐	50.000	50.648	159084.24	0.0411	P	1.3
4	☐	125.000	126.884	385706.71	0.1029	P	0.7
5	☐	250.000	260.830	762204.89	0.2115	P	0.7
6	☐	500.000	514.732	1436527.65	0.4173	P	0.9
7	☐	1000.000	989.658	2816913.26	0.8023	P	0.6
8	☐			892.64	0.0003	P	3.7

$$y = 8.1066\text{E-}004 * x + 1.7214\text{E-}005$$

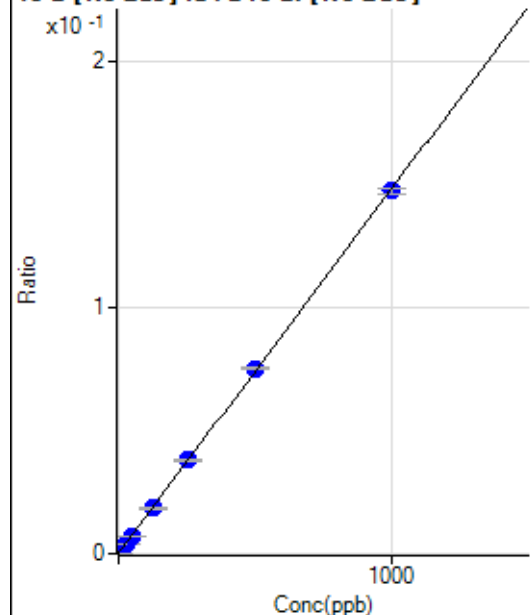
$$R = 0.9998$$

$$DL = 0.01418$$

$$BEC = 0.02123$$

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	644.48	0.0002	P	2.8
2	☐	25.000	22.882	13792.99	0.0036	P	0.9
3	☐	50.000	48.665	28527.79	0.0074	P	1.3
4	☐	125.000	123.858	69301.41	0.0185	P	3.8
5	☐	250.000	257.036	137625.34	0.0382	P	2.1
6	☐	500.000	507.486	259001.48	0.0752	P	0.6
7	☐	1000.000	994.760	517204.30	0.1473	P	1.9
8	☐			11107.29	0.0034	P	6.4

$$y = 1.4792\text{E-}004 * x + 1.6639\text{E-}004$$

$$R = 0.9999$$

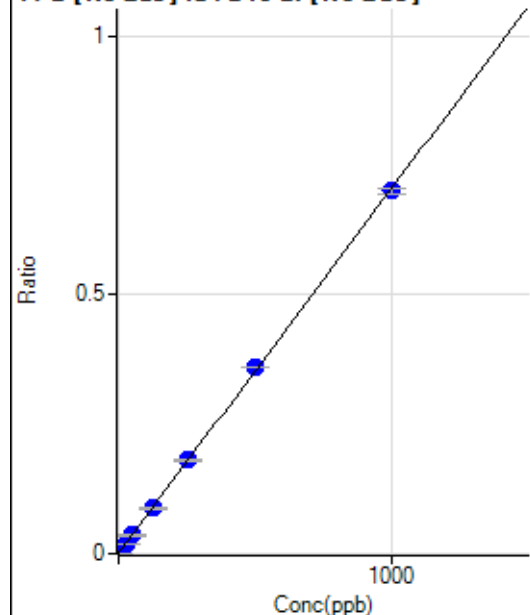
$$DL = 0.09364$$

$$BEC = 1.125$$

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	3339.39	0.0009	P	4.9
2	☐	25.000	23.105	66541.97	0.0171	P	0.6
3	☐	50.000	49.048	137118.09	0.0354	P	1.0
4	☐	125.000	123.711	329814.74	0.0880	P	2.3
5	☐	250.000	255.947	652699.16	0.1811	P	1.1
6	☐	500.000	510.154	1239700.11	0.3601	P	0.5
7	☐	1000.000	993.693	2459802.03	0.7006	P	1.6
8	☐			52191.23	0.0162	P	7.5

$$y = 7.0418\text{E-}004 * x + 8.6201\text{E-}004$$

$$R = 0.9999$$

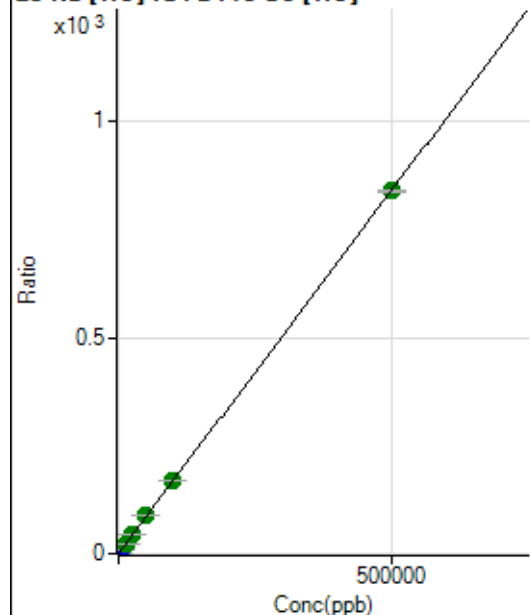
$$DL = 0.181$$

$$BEC = 1.224$$

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	24353.69	0.0501	P	2.1
2	☐	500.000	490.589	427739.12	0.8738	P	0.7
3	☐	5000.000	5081.372	4053382.81	8.5810	P	1.0
4	☐	12500.000	12872.877	9728430.42	21.6617	A	1.1
5	☐	25000.000	26575.578	19793471.45	44.6664	A	0.8
6	☐	50000.000	51863.372	39369749.84	87.1206	A	0.5
7	☐	100000.00	100737.96	76807494.77	169.1734	A	1.8
8	☐	500000.00	499577.16	383689605.80	838.7621	A	0.3

$$y = 0.0017 * x + 0.0501$$

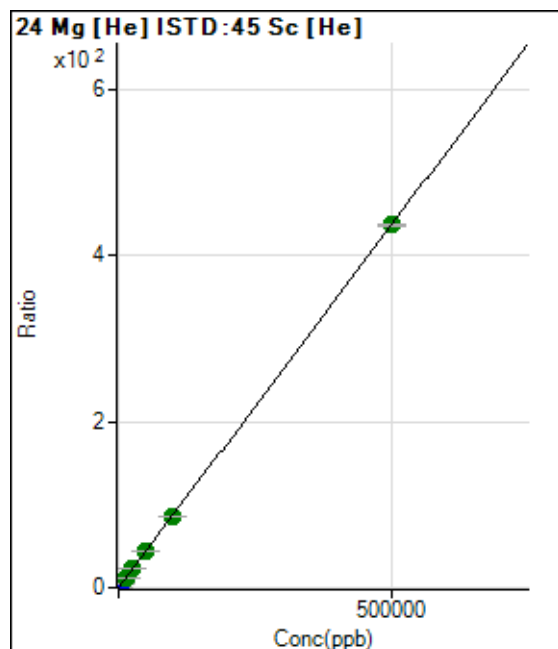
$$R = 1.0000$$

$$DL = 1.889$$

$$BEC = 29.87$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	227.79	0.0005	P	19.8
2	☐	500.000	511.522	218922.49	0.4472	P	1.0
3	☐	5000.000	5077.998	2095130.67	4.4354	P	1.0
4	☐	12500.000	12751.518	5001812.61	11.1371	A	0.7
5	☐	25000.000	26303.140	10180375.32	22.9725	A	0.2
6	☐	50000.000	51228.861	20218707.57	44.7416	A	0.9
7	☐	100000.00	98757.075	39161575.18	86.2507	A	1.3
8	☐	500000.00	500053.46	199780979.46	436.7258	A	0.2

$$y = 8.7336\text{E-}004 * x + 4.6831\text{E-}004$$

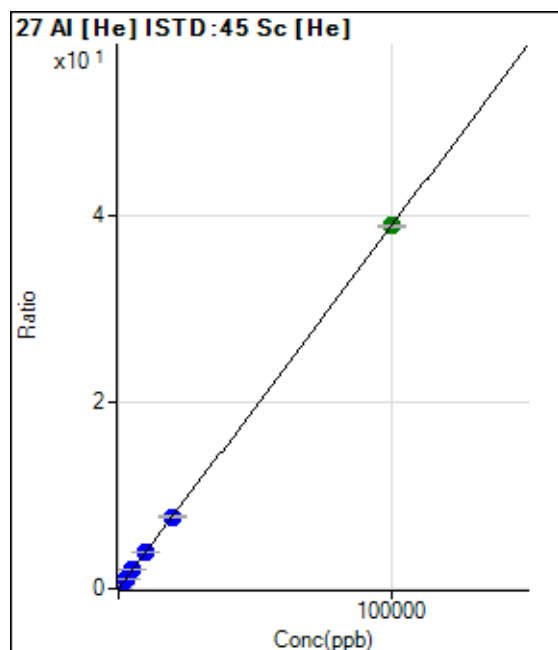
$$R = 1.0000$$

$$DL = 0.3188$$

$$BEC = 0.5362$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	66.67	0.0001	P	24.3
2	☐	20.000	18.736	3639.50	0.0074	P	6.4
3	☐	1000.000	1020.095	187749.85	0.3975	P	1.0
4	☐	2500.000	2562.281	448264.84	0.9981	P	1.2
5	☐	5000.000	5291.521	913399.80	2.0612	P	0.7
6	☐	10000.000	10286.766	1810701.34	4.0068	P	0.7
7	☐	20000.000	19812.653	3504166.35	7.7172	P	1.0
8	☐	100000.00	99992.459	17816750.05	38.9472	A	0.5

$$y = 3.8950\text{E-}004 * x + 1.3714\text{E-}004$$

$$R = 1.0000$$

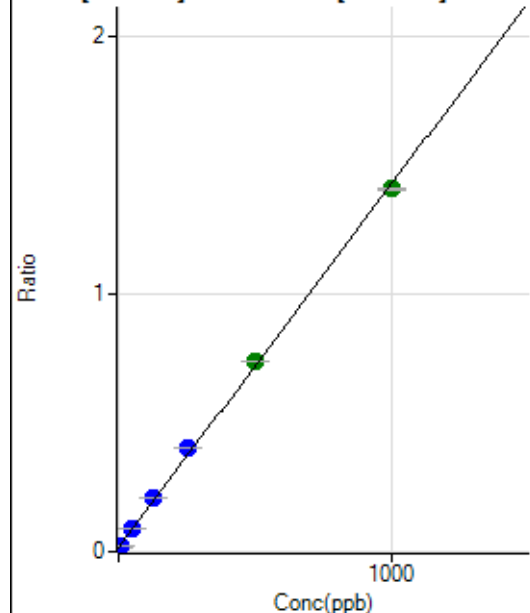
$$DL = 0.2571$$

$$BEC = 0.3521$$

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	170603.55	0.0161	P	1.3
2	☐	10.000	6.928	273936.71	0.0259	P	0.7
3	☐	50.000	54.053	966601.45	0.0923	P	0.6
4	☐	125.000	137.437	2122824.57	0.2100	P	0.6
5	☐	250.000	274.165	3972285.46	0.4029	P	0.6
6	☐	500.000	511.622	7077817.95	0.7379	A	0.5
7	☐	1000.000	986.421	14241622.37	1.4077	A	0.6
8	☐			601240.48	0.0643	P	2.4

$$y = 0.0014 * x + 0.0161$$

$$R = 0.9995$$

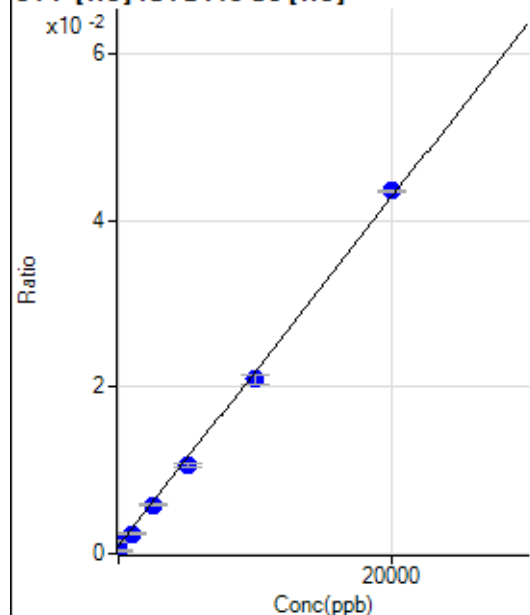
$$DL = 0.4393$$

$$BEC = 11.4$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-275.625	172.23	0.0004	P	11.7
2	☐	0.000	275.625	738.94	0.0015	P	28.0
3	☐	1000.000	699.928	1133.43	0.0024	P	7.6
4	☐	2500.000	2323.914	2605.89	0.0058	P	4.1
5	☐	5000.000	4583.817	4670.38	0.0105	P	4.2
6	☐	10000.000	9556.780	9472.85	0.0210	P	5.3
7	☐	20000.000	20362.670	19805.49	0.0436	P	0.6
8	☐			286.13	0.0006	P	12.4

$$y = 2.0960E-006 * x + 9.3221E-004$$

$$R = 0.9992$$

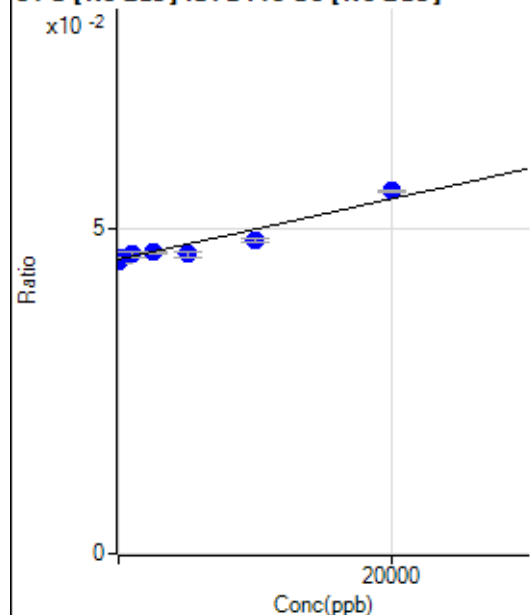
$$DL = 332$$

$$BEC = 444.8$$

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	-642.402	478510.57	0.0451	P	1.3
2	☐	0.000	642.402	484267.88	0.0457	P	0.5
3	☐	1000.000	1567.874	482994.35	0.0461	P	1.4
4	☐	2500.000	2272.965	469835.17	0.0465	P	0.7
5	☐	5000.000	1654.946	455381.22	0.0462	P	1.7
6	☐	10000.000	6465.790	464550.33	0.0484	P	1.4
7	☐	20000.000	22603.354	566298.95	0.0560	P	0.3
8	☐			405263.19	0.0433	P	0.6

$$y = 4.6742\text{E-}007 * x + 0.0454$$

$$R = 0.9638$$

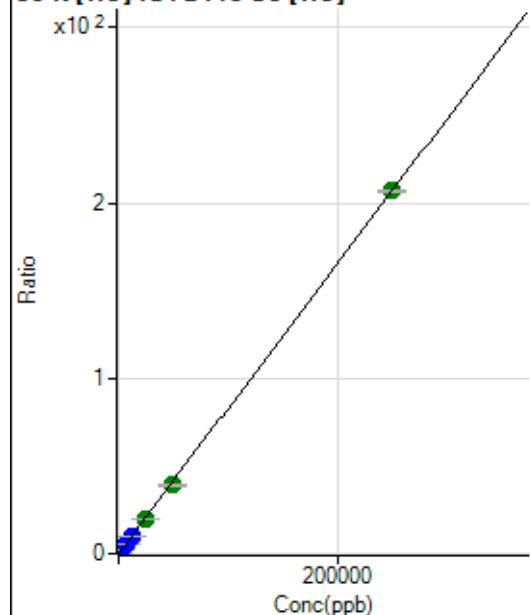
$$DL = 2548$$

$$BEC = 9.715\text{E}+04$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23714.17	0.0488	P	2.0
2	☐	500.000	473.039	215062.96	0.4393	P	0.6
3	☐	2500.000	2394.191	956675.66	2.0252	P	0.3
4	☐	6250.000	5997.089	2245268.73	4.9994	P	0.9
5	☐	12500.000	12340.517	4536028.44	10.2358	P	0.4
6	☐	25000.000	24356.032	9107830.67	20.1546	A	0.7
7	☐	50000.000	47222.260	17721637.20	39.0305	A	1.4
8	☐	250000.00	250635.35	94668852.81	206.9467	A	0.4

$$y = 8.2549\text{E-}004 * x + 0.0488$$

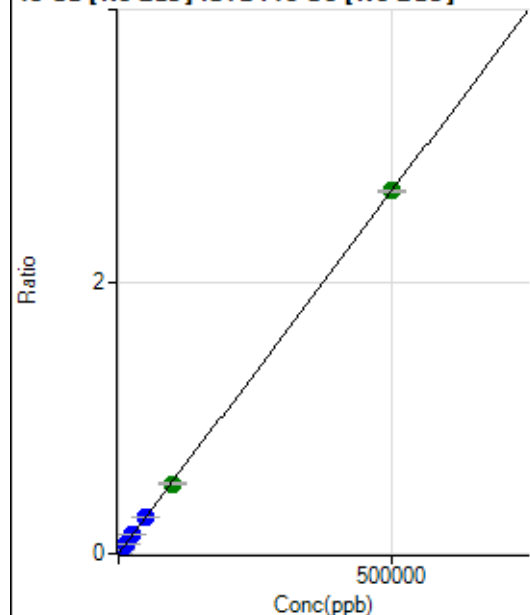
$$R = 0.9999$$

$$DL = 3.561$$

$$BEC = 59.15$$

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	322.24	0.0000	P	2.0
2	☐	500.000	476.036	27206.36	0.0026	P	1.3
3	☐	5000.000	4898.260	273648.92	0.0261	P	0.4
4	☐	12500.000	12431.680	670290.81	0.0663	P	1.3
5	☐	25000.000	25364.528	1333564.05	0.1352	P	0.3
6	☐	50000.000	50085.923	2561393.57	0.2670	P	1.1
7	☐	100000.00	96693.008	5215259.62	0.5155	A	0.7
8	☐	500000.00	500637.32	24958367.22	2.6689	A	0.6

$$y = 5.3309\text{E-}006 * x + 3.0372\text{E-}005$$

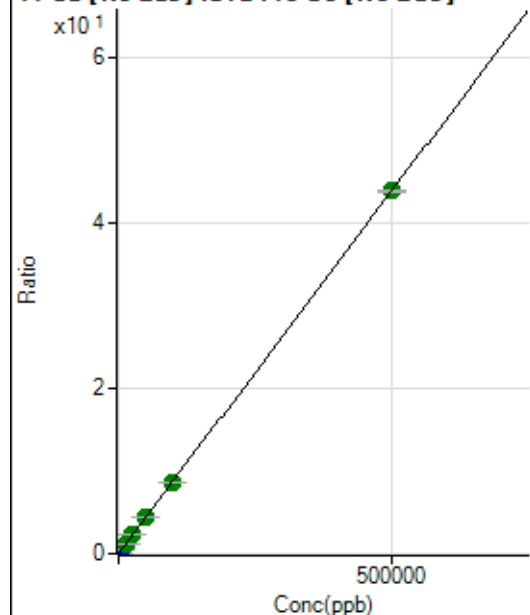
$$R = 1.0000$$

$$DL = 0.3469$$

$$BEC = 5.697$$

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	14888.96	0.0014	P	1.5
2	☐	500.000	464.163	446244.13	0.0421	P	0.7
3	☐	5000.000	4803.491	4425432.26	0.4228	P	0.4
4	☐	12500.000	12297.769	10920487.31	1.0802	A	0.4
5	☐	25000.000	25409.711	21992143.72	2.2304	A	0.1
6	☐	50000.000	50347.469	42378166.23	4.4180	A	0.5
7	☐	100000.00	97028.006	86124974.84	8.5128	A	0.2
8	☐	500000.00	500546.22	410624014.73	43.9100	A	0.2

$$y = 8.7721\text{E-}005 * x + 0.0014$$

$$R = 1.0000$$

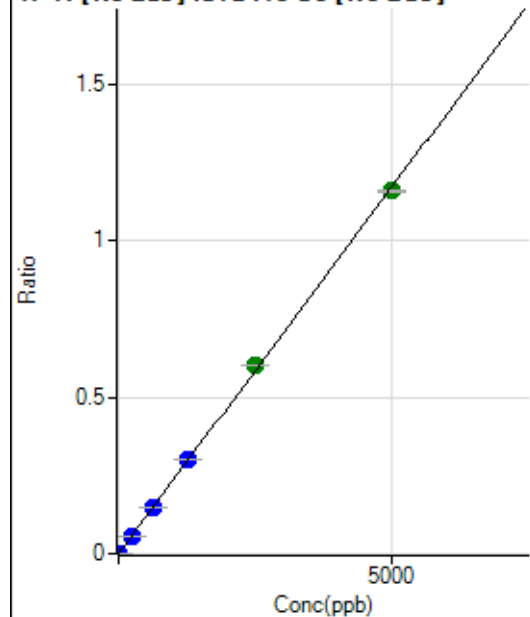
$$DL = 0.7435$$

$$BEC = 16$$

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	141.67	0.0000	P	16.5
2	☐	5.000	5.098	12781.12	0.0012	P	2.1
3	☐	250.000	247.302	605963.06	0.0579	P	0.6
4	☐	625.000	624.800	1478424.24	0.1462	P	0.9
5	☐	1250.000	1286.990	2969986.83	0.3012	P	0.1
6	☐	2500.000	2574.139	5778708.51	0.6024	A	0.6
7	☐	5000.000	4953.843	11729272.83	1.1594	A	0.5
8	☐			4656.51	0.0005	P	3.0

$$y = 2.3403E-004 * x + 1.3368E-005$$

$$R = 0.9998$$

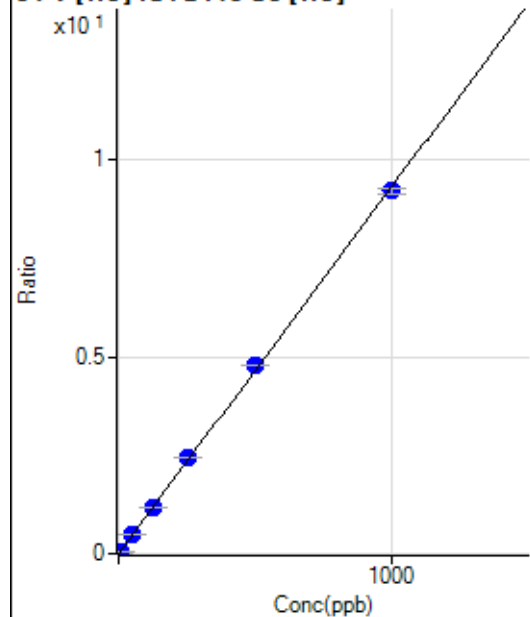
$$DL = 0.02826$$

$$BEC = 0.05712$$

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	10.00	0.0000	P	32.6
2	☐	5.000	5.220	23771.61	0.0486	P	2.3
3	☐	50.000	50.381	221331.98	0.4686	P	0.5
4	☐	125.000	127.246	531478.98	1.1834	P	0.4
5	☐	250.000	262.220	1080650.60	2.4386	P	0.7
6	☐	500.000	513.960	2159932.12	4.7797	P	0.3
7	☐	1000.000	989.664	4178712.40	9.2036	P	1.5
8	☐			2222.43	0.0049	P	4.5

$$y = 0.0093 * x + 2.0564E-005$$

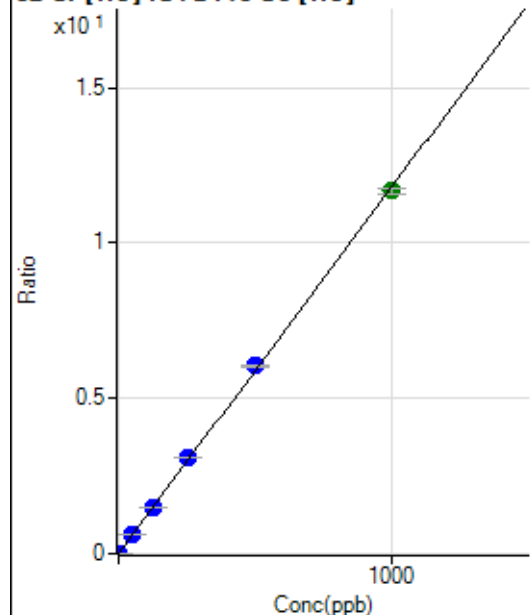
$$R = 0.9998$$

$$DL = 0.002163$$

$$BEC = 0.002211$$

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	1766.80	0.0036	P	3.5
2	☐	2.000	1.980	13204.96	0.0270	P	1.6
3	☐	50.000	50.679	283914.02	0.6010	P	0.3
4	☐	125.000	127.727	677832.33	1.5093	P	0.5
5	☐	250.000	263.164	1376275.10	3.1057	P	0.9
6	☐	500.000	512.150	2729824.51	6.0407	P	0.6
7	☐	1000.000	990.259	5301592.04	11.6766	A	1.4
8	☐			145589.17	0.3183	P	0.4

$$y = 0.0118 * x + 0.0036$$

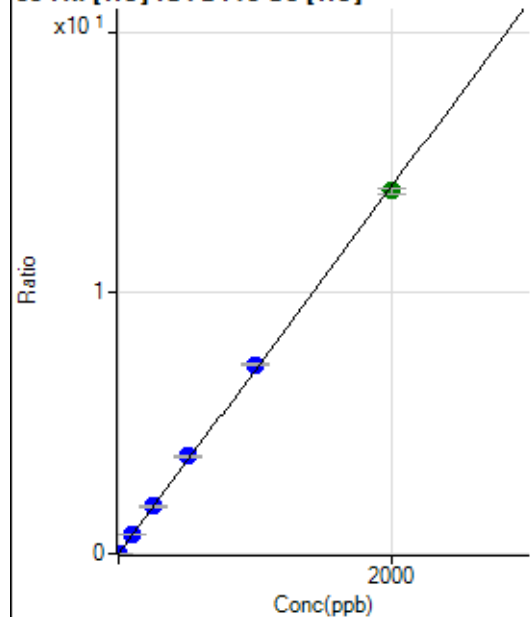
$$R = 0.9998$$

$$DL = 0.03258$$

$$BEC = 0.3087$$

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	60.00	0.0001	P	18.2
2	☐	1.000	1.058	3707.19	0.0076	P	1.2
3	☐	100.000	101.470	337458.31	0.7144	P	0.6
4	☐	250.000	257.482	814037.87	1.8126	P	1.0
5	☐	500.000	530.022	1653333.08	3.7310	P	1.1
6	☐	1000.000	1029.948	3276325.47	7.2501	P	0.7
7	☐	2000.000	1976.512	6316874.77	13.9131	A	1.6
8	☐			24362.53	0.0533	P	0.5

$$y = 0.0070 * x + 1.2338E-004$$

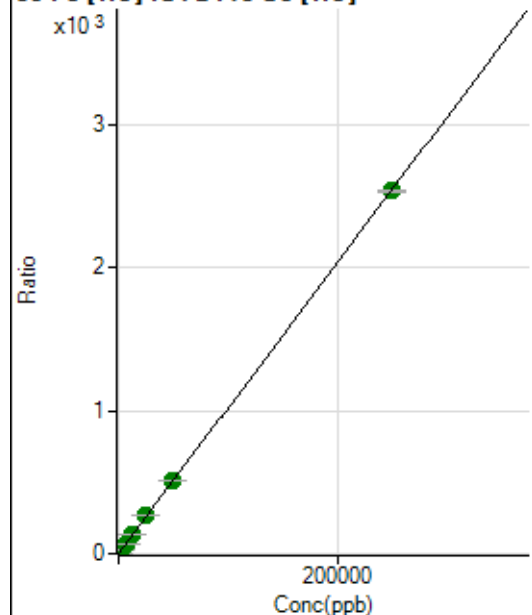
$$R = 0.9997$$

$$DL = 0.009563$$

$$BEC = 0.01753$$

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	6638.69	0.0137	P	1.3
2	☐	50.000	53.222	271697.73	0.5550	P	1.3
3	☐	2500.000	2599.567	12496937.55	26.4558	A	0.9
4	☐	6250.000	6555.382	29952102.52	66.6933	A	1.1
5	☐	12500.000	13558.973	61123295.35	137.9320	A	0.9
6	☐	25000.000	26342.815	121093760.12	267.9658	A	0.5
7	☐	50000.000	50568.469	233550012.63	514.3828	A	1.3
8	☐	250000.00	249690.44	1161854988.9	2,539.799	A	0.6

$$y = 0.0102 * x + 0.0137$$

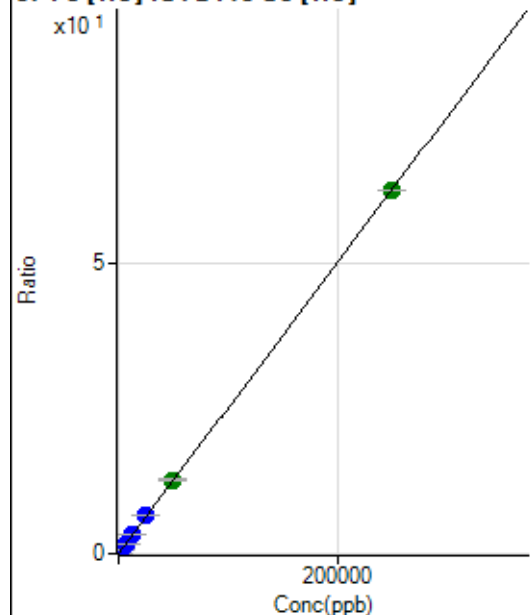
$$R = 1.0000$$

$$DL = 0.0529$$

$$BEC = 1.344$$

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	216.67	0.0004	P	15.8
2	☐	50.000	53.894	6822.18	0.0139	P	2.9
3	☐	2500.000	2613.327	309177.18	0.6545	P	1.2
4	☐	6250.000	6596.022	741631.40	1.6514	P	1.0
5	☐	12500.000	13606.358	1509307.96	3.4060	P	1.0
6	☐	25000.000	26367.806	2982523.53	6.6000	P	0.4
7	☐	50000.000	50643.150	5755305.28	12.6758	A	1.4
8	☐	250000.00	249669.48	28585583.28	62.4897	A	0.1

$$y = 2.5029E-004 * x + 4.4600E-004$$

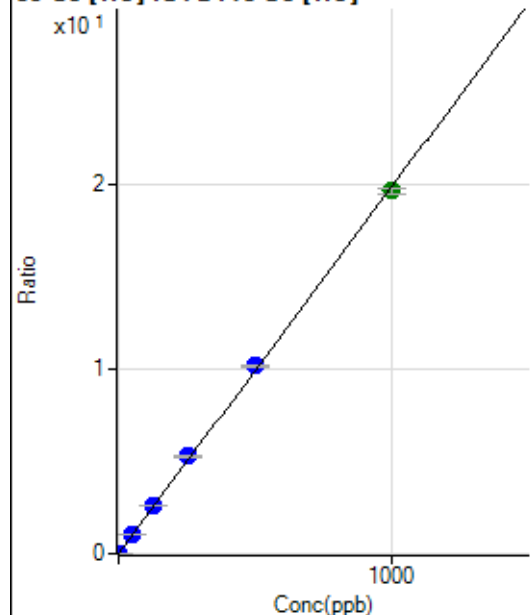
$$R = 1.0000$$

$$DL = 0.8468$$

$$BEC = 1.782$$

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	90.00	0.0002	P	5.4
2	☐	1.000	1.019	9999.10	0.0204	P	2.3
3	☐	50.000	51.443	482925.84	1.0223	P	0.7
4	☐	125.000	129.803	1158415.18	2.5793	P	0.5
5	☐	250.000	265.432	2337226.81	5.2742	P	0.7
6	☐	500.000	511.493	4592745.00	10.1633	P	0.3
7	☐	1000.000	989.723	8928934.93	19.6655	A	1.3
8	☐			18436.18	0.0403	P	1.3

$$y = 0.0199 * x + 1.8524E-004$$

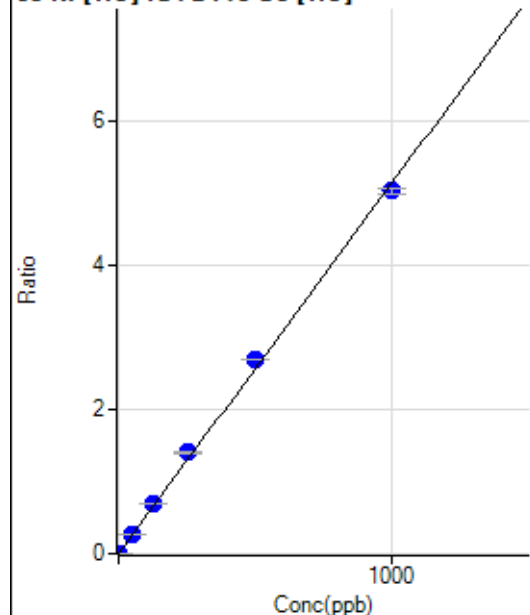
$$R = 0.9998$$

$$DL = 0.001518$$

$$BEC = 0.009323$$

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	45.56	0.0001	P	26.7
2	☐	1.000	1.101	2806.99	0.0057	P	1.5
3	☐	50.000	53.241	128937.42	0.2730	P	0.3
4	☐	125.000	133.116	306442.88	0.6823	P	0.5
5	☐	250.000	273.413	620984.37	1.4013	P	1.0
6	☐	500.000	525.393	1216835.98	2.6927	P	0.6
7	☐	1000.000	980.274	2281081.58	5.0240	P	1.4
8	☐			45175.05	0.0988	P	0.7

$$y = 0.0051 * x + 9.3645E-005$$

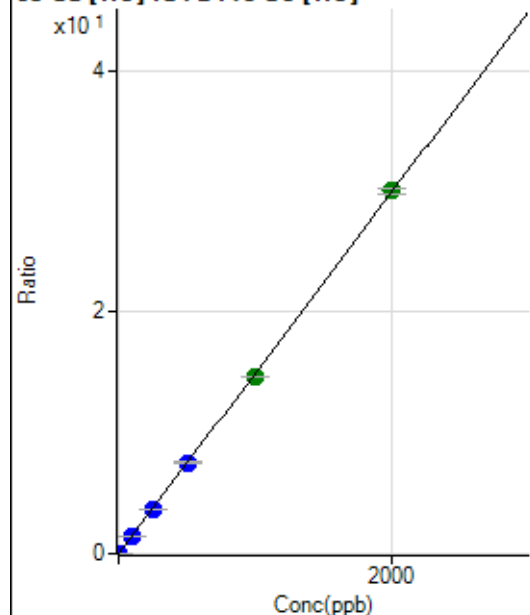
$$R = 0.9992$$

$$DL = 0.01462$$

$$BEC = 0.01827$$

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	996.71	0.0021	P	5.9
2	☐	2.000	1.961	15344.90	0.0313	P	1.6
3	☐	100.000	99.041	699868.33	1.4816	P	1.1
4	☐	250.000	248.199	1666155.37	3.7099	P	0.7
5	☐	500.000	505.802	3349326.10	7.5582	P	0.8
6	☐	1000.000	977.743	6601431.71	14.6085	A	0.4
7	☐	2000.000	2009.951	13634098.55	30.0285	A	1.4
8	☐			23013.82	0.0503	P	0.8

$$y = 0.0149 * x + 0.0021$$

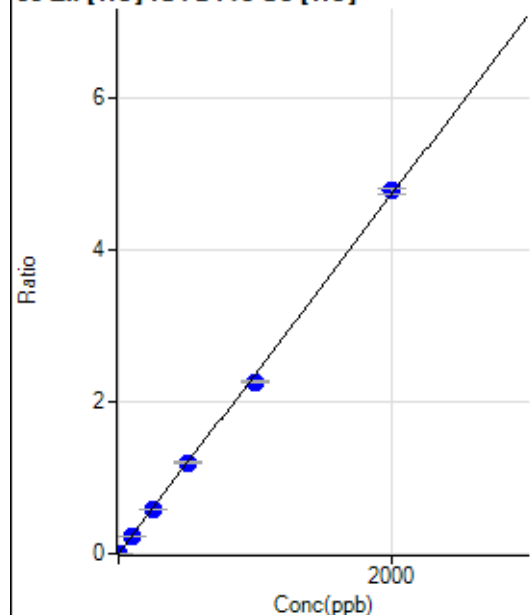
$$R = 0.9999$$

$$DL = 0.02421$$

$$BEC = 0.1374$$

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	806.70	0.0017	P	9.8
2	☐	2.000	2.058	3193.74	0.0065	P	0.6
3	☐	100.000	97.313	109392.43	0.2316	P	0.7
4	☐	250.000	246.766	262587.07	0.5847	P	0.9
5	☐	500.000	506.157	530678.70	1.1975	P	0.9
6	☐	1000.000	956.870	1022383.98	2.2624	P	0.4
7	☐	2000.000	2020.565	2168263.65	4.7756	P	1.5
8	☐			26004.46	0.0568	P	0.7

$$y = 0.0024 * x + 0.0017$$

$$R = 0.9997$$

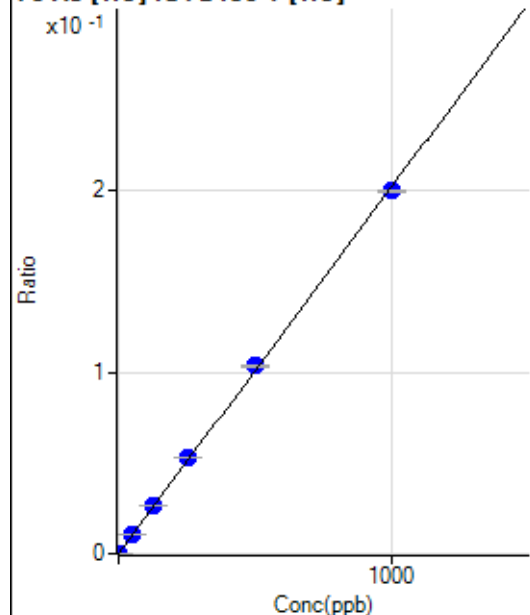
$$DL = 0.2071$$

$$BEC = 0.7035$$

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	29.63	0.0000	P	39.7
2	☐	1.000	1.018	658.66	0.0002	P	6.7
3	☐	50.000	51.202	30822.81	0.0104	P	0.8
4	☐	125.000	129.079	74150.11	0.0261	P	0.3
5	☐	250.000	263.175	150890.01	0.0532	P	0.2
6	☐	500.000	512.853	297273.09	0.1036	P	0.6
7	☐	1000.000	989.710	568615.89	0.2000	P	0.8
8	☐			338.28	0.0001	P	3.9

$$y = 2.0203\text{E-}004 * x + 9.7578\text{E-}006$$

$$R = 0.9998$$

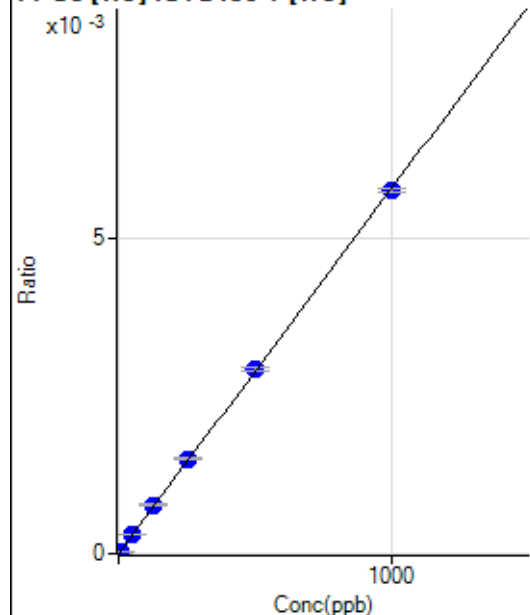
$$DL = 0.05749$$

$$BEC = 0.0483$$

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	1.11	0.0000	P	173.
2	☐	5.000	5.336	95.56	0.0000	P	20.1
3	☐	50.000	53.814	928.93	0.0003	P	3.1
4	☐	125.000	133.520	2199.09	0.0008	P	2.5
5	☐	250.000	260.532	4282.92	0.0015	P	2.9
6	☐	500.000	504.957	8391.46	0.0029	P	2.3
7	☐	1000.000	993.631	16367.25	0.0058	P	1.0
8	☐			11.11	0.0000	P	62.9

$$y = 5.7924\text{E-}006 * x + 3.6747\text{E-}007$$

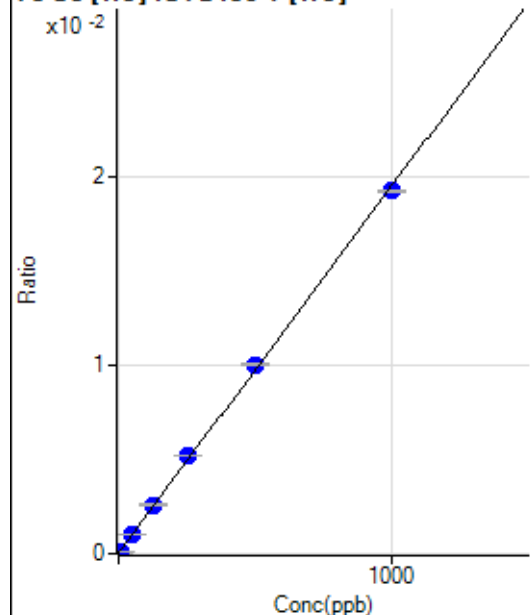
$$R = 0.9999$$

$$DL = 0.3296$$

$$BEC = 0.06344$$

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	79.63	0.0000	P	30.4
2	☐	5.000	5.462	404.33	0.0001	P	3.7
3	☐	50.000	52.639	3123.20	0.0010	P	2.7
4	☐	125.000	131.995	7364.88	0.0026	P	1.5
5	☐	250.000	266.412	14763.14	0.0052	P	1.2
6	☐	500.000	514.821	28774.19	0.0100	P	1.3
7	☐	1000.000	987.478	54638.76	0.0192	P	0.8
8	☐			116.05	0.0000	P	6.6

$$y = 1.9432\text{E-}005 * x + 2.6153\text{E-}005$$

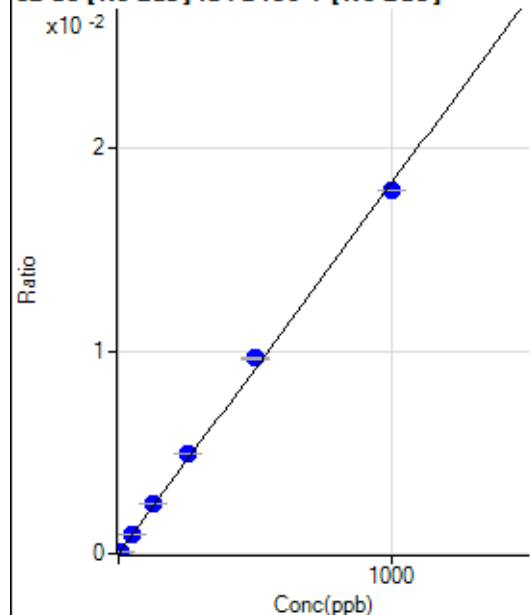
$$R = 0.9997$$

$$DL = 1.226$$

$$BEC = 1.346$$

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	117.16	0.0000	P	61.3
2	☐	5.000	5.480	2234.12	0.0001	P	7.2
3	☐	50.000	53.557	20436.27	0.0010	P	0.8
4	☐	125.000	134.124	50189.13	0.0025	P	1.2
5	☐	250.000	271.718	99010.99	0.0050	P	0.2
6	☐	500.000	527.207	188201.38	0.0096	P	0.6
7	☐	1000.000	979.646	367201.45	0.0179	P	0.1
8	☐			267.42	0.0000	P	13.9

$$y = 1.8255\text{E-}005 * x + 5.5749\text{E-}006$$

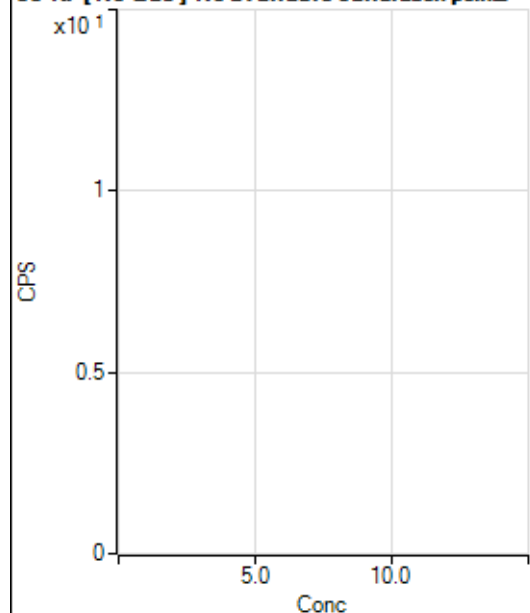
$$R = 0.9992$$

$$DL = 0.5615$$

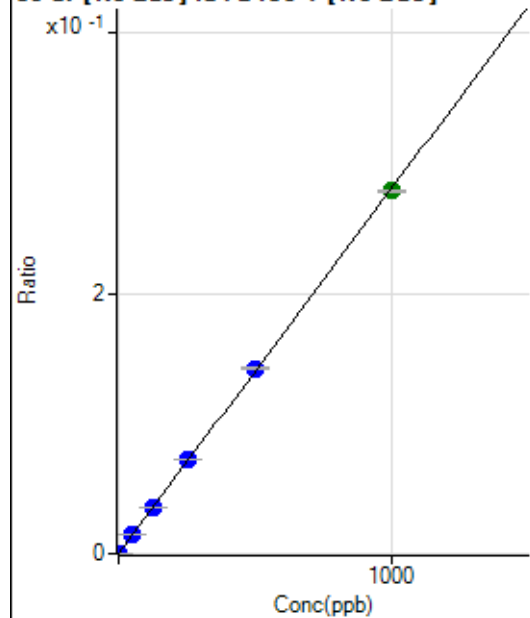
$$BEC = 0.3054$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			1287.85		P	5.0
2	☐			1344.53		P	6.4
3	☐			1386.76		P	4.6
4	☐			1252.30		P	4.0
5	☐			1260.07		P	4.5
6	☐			1224.52		P	7.1
7	☐			1303.42		P	3.2
8	☐			1317.86		P	2.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2278.06	0.0001	P	3.8
2	☐	1.000	0.949	7910.81	0.0004	P	4.0
3	☐	50.000	49.997	293472.45	0.0141	P	0.7
4	☐	125.000	125.624	722263.05	0.0353	P	0.9
5	☐	250.000	258.974	1449270.38	0.0727	P	0.8
6	☐	500.000	507.537	2782026.02	0.1424	P	1.0
7	☐	1000.000	993.910	5719741.27	0.2787	A	0.6
8	☐			26247.06	0.0014	P	1.8

$$y = 2.8026E-004 * x + 1.0838E-004$$

$$R = 0.9999$$

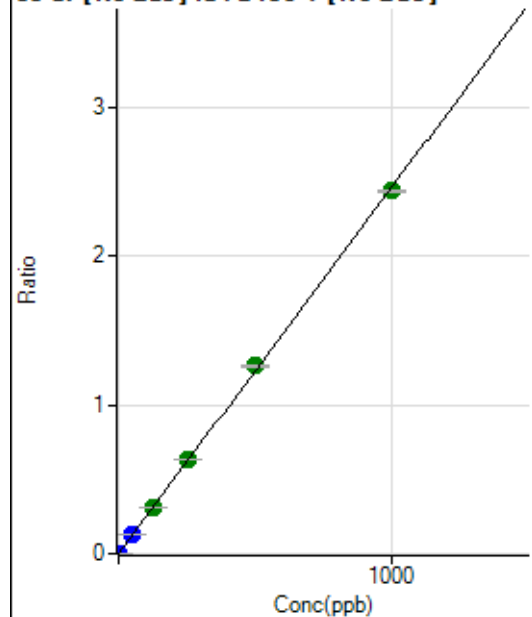
$$DL = 0.04406$$

$$BEC = 0.3867$$

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	25.9
2	☐	1.000	1.000	52173.53	0.0025	P	0.8
3	☐	50.000	50.122	2560882.68	0.1232	P	0.5
4	☐	125.000	125.242	6296393.37	0.3079	A	0.4
5	☐	250.000	259.667	12726355.32	0.6383	A	0.3
6	☐	500.000	512.640	24626988.05	1.2601	A	0.8
7	☐	1000.000	991.227	50011813.96	2.4365	A	0.4
8	☐			210163.63	0.0111	P	0.6

$$y = 0.0025 * x + 8.4429E-006$$

$$R = 0.9998$$

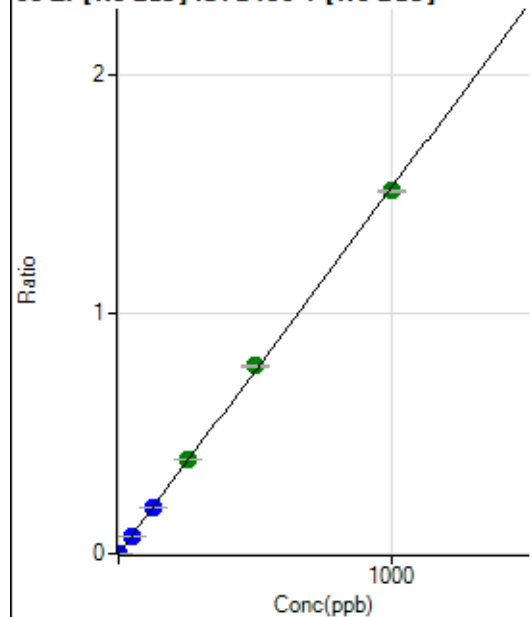
$$DL = 0.002666$$

$$BEC = 0.003435$$

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	1225.11	0.0001	P	3.1
2	☐	1.000	0.846	28551.50	0.0014	P	3.6
3	☐	50.000	49.215	1563355.08	0.0752	P	0.3
4	☐	125.000	124.034	3875314.50	0.1895	P	0.3
5	☐	250.000	258.491	7872155.30	0.3948	A	0.4
6	☐	500.000	512.845	15308000.69	0.7833	A	0.3
7	☐	1000.000	991.615	31085824.65	1.5145	A	0.2
8	☐			12789.57	0.0007	P	1.1

$$y = 0.0015 * x + 5.8265E-005$$

$$R = 0.9998$$

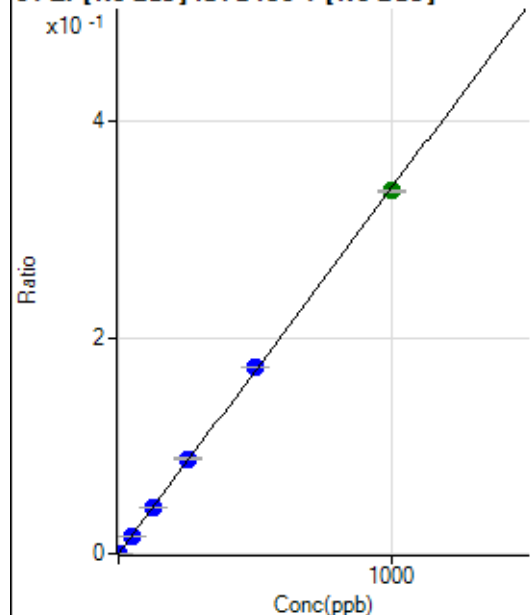
$$DL = 0.003535$$

$$BEC = 0.03815$$

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	12.9
2	☐	1.000	0.829	6132.17	0.0003	P	4.7
3	☐	50.000	49.625	348867.50	0.0168	P	0.8
4	☐	125.000	124.972	864211.70	0.0423	P	0.7
5	☐	250.000	260.283	1754521.70	0.0880	P	0.7
6	☐	500.000	510.309	3371554.15	0.1725	P	0.5
7	☐	1000.000	992.297	6885511.52	0.3355	A	0.2
8	☐			2817.07	0.0001	P	5.6

$$y = 3.3805E-004 * x + 9.9174E-006$$

$$R = 0.9999$$

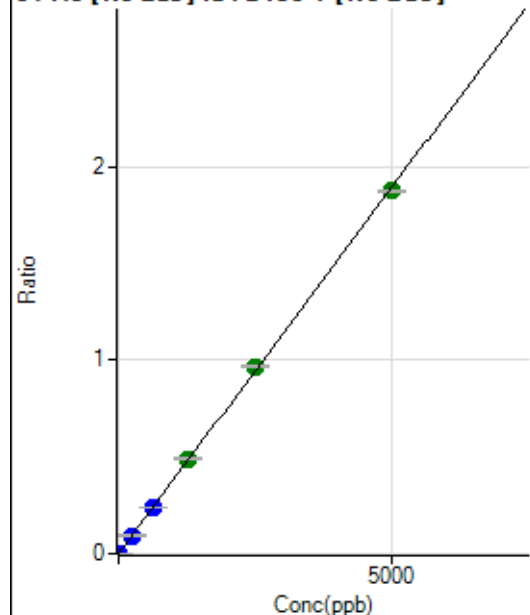
$$DL = 0.01135$$

$$BEC = 0.02934$$

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	577.82	0.0000	P	5.7
2	☐	5.000	4.765	38714.40	0.0018	P	1.3
3	☐	250.000	249.072	1959939.28	0.0943	P	1.0
4	☐	625.000	622.180	4816762.78	0.2355	P	0.1
5	☐	1250.000	1298.376	9798582.86	0.4914	A	1.2
6	☐	2500.000	2559.530	18933312.92	0.9688	A	0.3
7	☐	5000.000	4958.540	38523174.47	1.8768	A	0.2
8	☐			33676.57	0.0018	P	1.1

$$y = 3.7849E-004 * x + 2.7476E-005$$

$$R = 0.9998$$

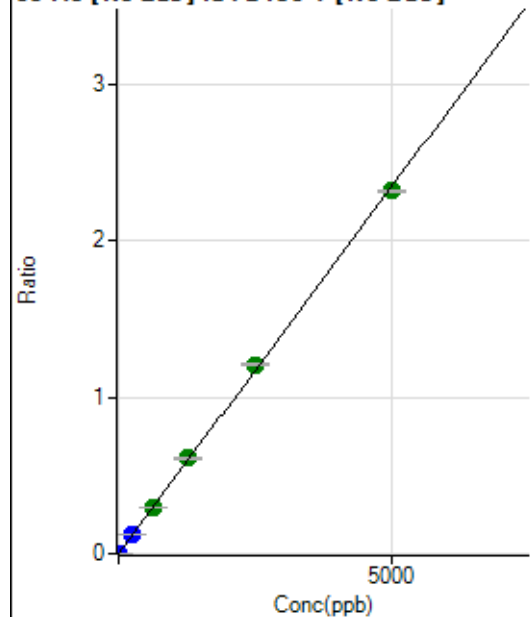
$$DL = 0.01245$$

$$BEC = 0.07259$$

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	355.58	0.0000	P	23.1
2	☐	5.000	4.942	49377.88	0.0023	P	1.8
3	☐	250.000	250.884	2446705.37	0.1177	P	0.3
4	☐	625.000	627.040	6016867.23	0.2942	A	0.3
5	☐	1250.000	1302.410	12183207.65	0.6110	A	0.9
6	☐	2500.000	2581.297	23667655.91	1.2110	A	0.5
7	☐	5000.000	4945.950	47629569.47	2.3204	A	0.2
8	☐			52115.61	0.0028	P	0.6

$$y = 4.6915E-004 * x + 1.6888E-005$$

$$R = 0.9997$$

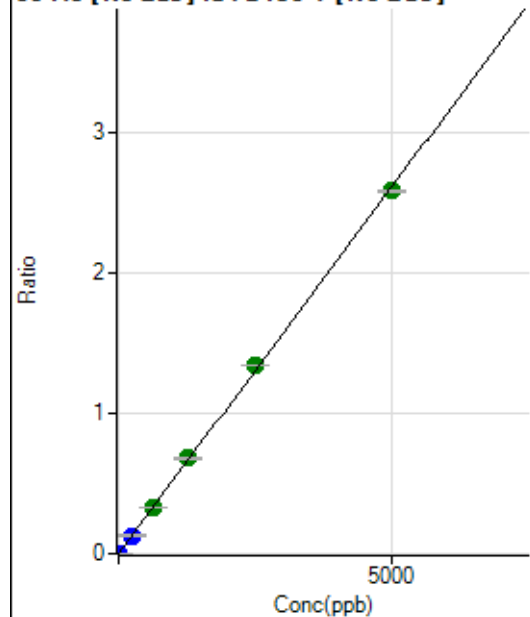
$$DL = 0.02498$$

$$BEC = 0.036$$

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	486.14	0.0000	P	9.8
2	☐	5.000	4.916	54873.15	0.0026	P	0.9
3	☐	250.000	248.838	2706156.72	0.1302	P	0.7
4	☐	625.000	627.011	6709249.85	0.3280	A	0.4
5	☐	1250.000	1301.407	13575293.01	0.6809	A	1.2
6	☐	2500.000	2571.330	26290813.61	1.3452	A	0.1
7	☐	5000.000	4951.290	53168674.11	2.5903	A	0.6
8	☐			63743.20	0.0034	P	1.9

$$y = 5.2316E-004 * x + 2.3113E-005$$

$$R = 0.9998$$

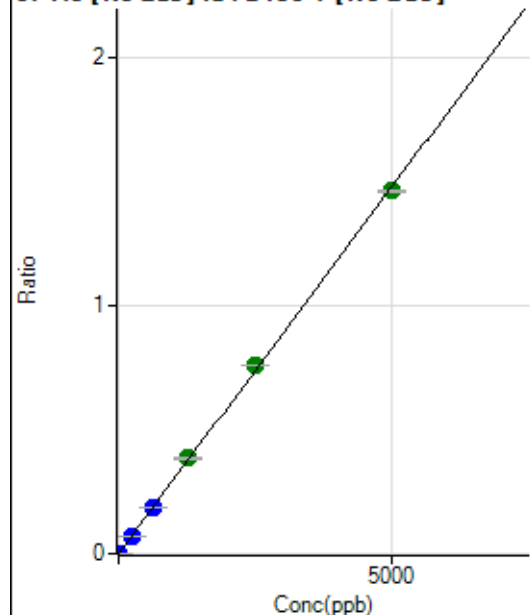
$$DL = 0.01294$$

$$BEC = 0.04418$$

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	280.57	0.0000	P	8.1
2	☐	5.000	4.944	31196.14	0.0015	P	1.1
3	☐	250.000	247.350	1520775.30	0.0732	P	0.5
4	☐	625.000	619.879	3749898.74	0.1834	P	0.9
5	☐	1250.000	1299.420	7663007.03	0.3843	A	0.2
6	☐	2500.000	2573.234	14874600.50	0.7611	A	0.3
7	☐	5000.000	4951.801	30062183.31	1.4646	A	0.4
8	☐			32331.99	0.0017	P	0.8

$$y = 2.9577E-004 * x + 1.3343E-005$$

$$R = 0.9998$$

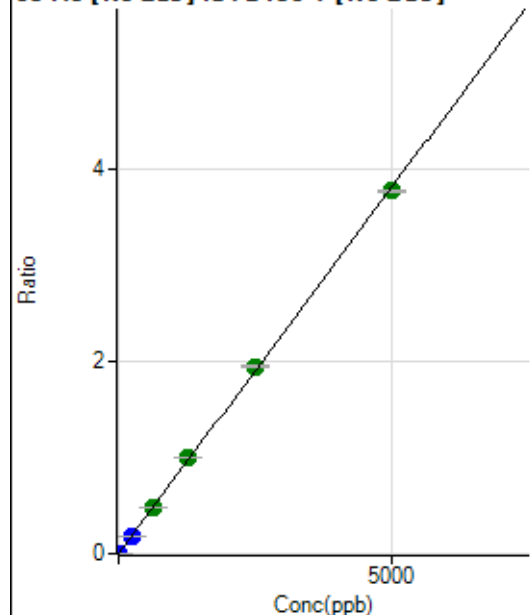
$$DL = 0.01097$$

$$BEC = 0.04511$$

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	597.26	0.0000	P	12.5
2	☐	5.000	4.904	79449.76	0.0038	P	2.3
3	☐	250.000	247.929	3919755.99	0.1886	P	0.3
4	☐	625.000	625.201	9725751.00	0.4755	A	0.3
5	☐	1250.000	1301.636	19739187.94	0.9900	A	0.1
6	☐	2500.000	2561.377	38074126.89	1.9481	A	0.2
7	☐	5000.000	4956.481	77377936.45	3.7698	A	0.7
8	☐			81661.90	0.0043	P	1.5

$$y = 7.6058E-004 * x + 2.8409E-005$$

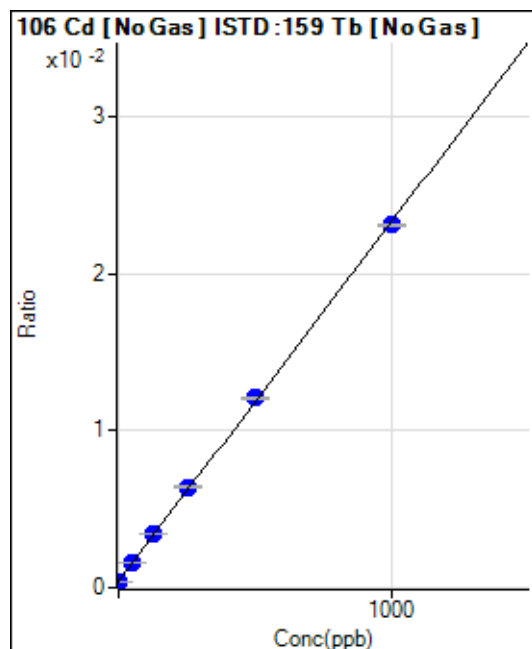
$$R = 0.9998$$

$$DL = 0.01399$$

$$BEC = 0.03735$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10740.67	0.0004	P	4.9
2	☐	1.000	0.253	10890.71	0.0004	P	3.8
3	☐	50.000	52.280	42007.80	0.0016	P	0.5
4	☐	125.000	130.778	88471.07	0.0034	P	1.4
5	☐	250.000	262.736	164157.14	0.0064	P	1.3
6	☐	500.000	509.513	303986.69	0.0121	P	0.9
7	☐	1000.000	991.224	606878.67	0.0231	P	0.8
8	☐			10295.77	0.0004	P	0.7

$$y = 2.2913\text{E-}005 * x + 4.0931\text{E-}004$$

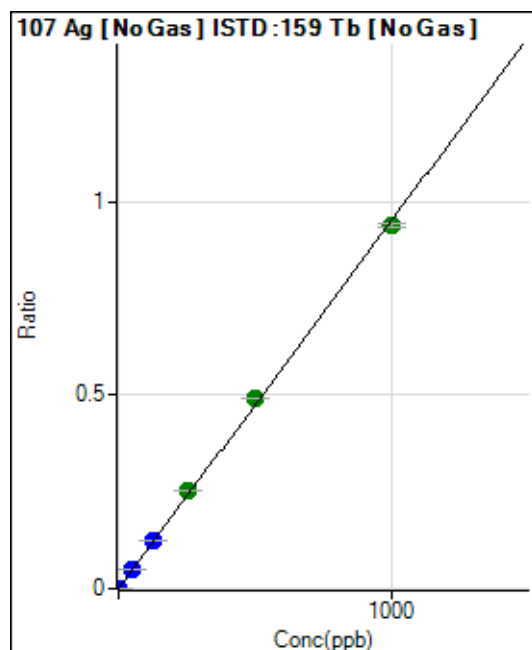
R = 0.9998

DL = 2.616

BEC = 17.86

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	222.24	0.0000	P	15.5
2	☐	1.000	1.020	25660.08	0.0010	P	0.9
3	☐	50.000	53.263	1323747.96	0.0506	P	0.7
4	☐	125.000	130.533	3223636.36	0.1241	P	1.1
5	☐	250.000	266.418	6467340.25	0.2533	A	0.6
6	☐	500.000	517.538	12377811.74	0.4920	A	0.8
7	☐	1000.000	986.272	24611520.69	0.9377	A	0.9
8	☐			7121.56	0.0003	P	5.7

$$y = 9.5072\text{E-}004 * x + 8.4700\text{E-}006$$

R = 0.9996

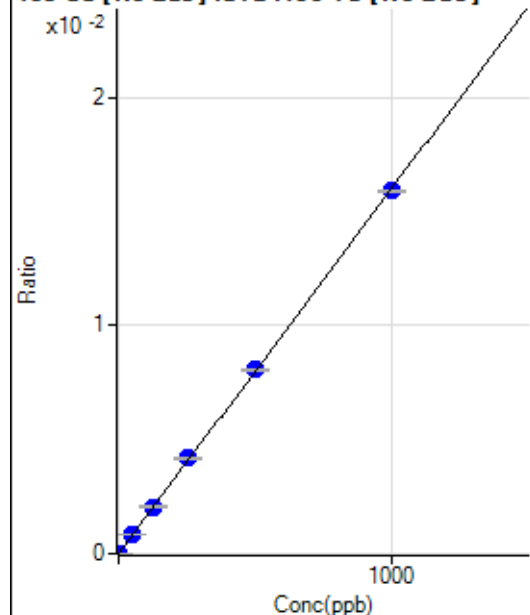
DL = 0.004135

BEC = 0.008909

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	20.83	0.0000	P	54.0
2	☐	1.000	1.067	468.08	0.0000	P	10.2
3	☐	50.000	52.513	21957.56	0.0008	P	1.1
4	☐	125.000	128.654	53432.46	0.0021	P	1.0
5	☐	250.000	262.321	107059.26	0.0042	P	1.9
6	☐	500.000	503.610	202515.91	0.0081	P	0.3
7	☐	1000.000	994.533	417247.70	0.0159	P	0.9
8	☐			173.62	0.0000	P	20.3

$$y = 1.5983\text{E-}005 * x + 7.9675\text{E-}007$$

$$R = 0.9999$$

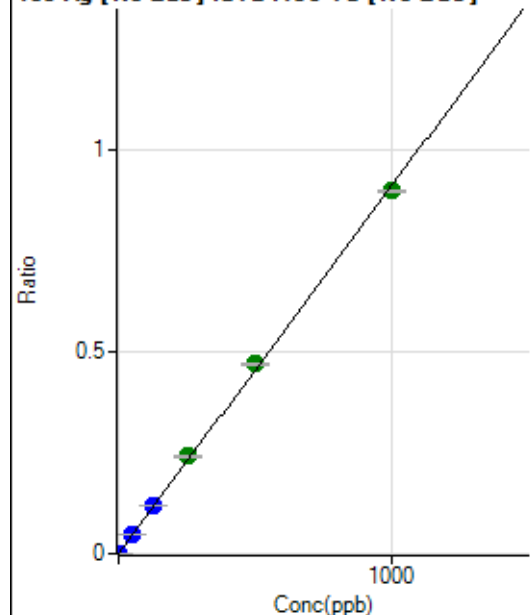
$$DL = 0.08081$$

$$BEC = 0.04985$$

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	133.34	0.0000	P	11.9
2	☐	1.000	1.023	24599.99	0.0009	P	2.0
3	☐	50.000	53.355	1270765.80	0.0486	P	0.2
4	☐	125.000	130.907	3098315.52	0.1193	P	0.7
5	☐	250.000	265.874	6184984.82	0.2423	A	1.3
6	☐	500.000	516.129	11830344.97	0.4703	A	0.5
7	☐	1000.000	987.061	23605836.29	0.8994	A	0.6
8	☐			6476.75	0.0003	P	4.3

$$y = 9.1114\text{E-}004 * x + 5.0843\text{E-}006$$

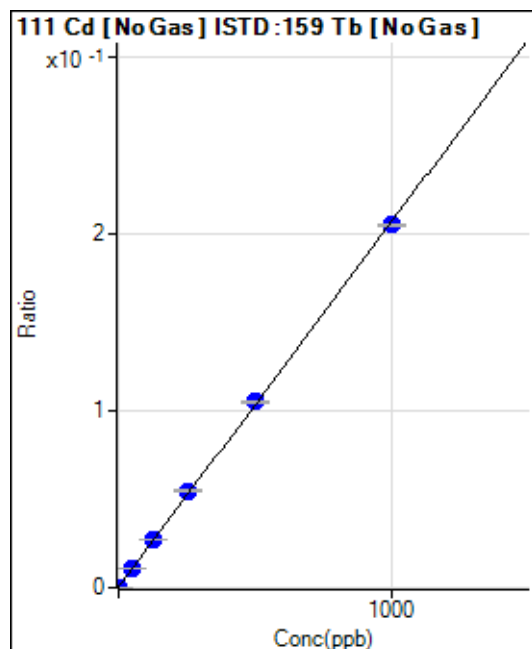
$$R = 0.9997$$

$$DL = 0.001996$$

$$BEC = 0.00558$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7549.72	0.0003	P	5.0
2	☐	1.000	0.992	12916.52	0.0005	P	1.3
3	☐	50.000	52.457	290478.47	0.0111	P	0.6
4	☐	125.000	130.547	707289.99	0.0272	P	0.2
5	☐	250.000	263.985	1398286.70	0.0548	P	1.2
6	☐	500.000	507.479	2641926.70	0.1050	P	0.3
7	☐	1000.000	991.948	5380758.12	0.2050	P	0.4
8	☐			9048.18	0.0004	P	1.9

$$y = 2.0637\text{E-}004 * x + 2.8771\text{E-}004$$

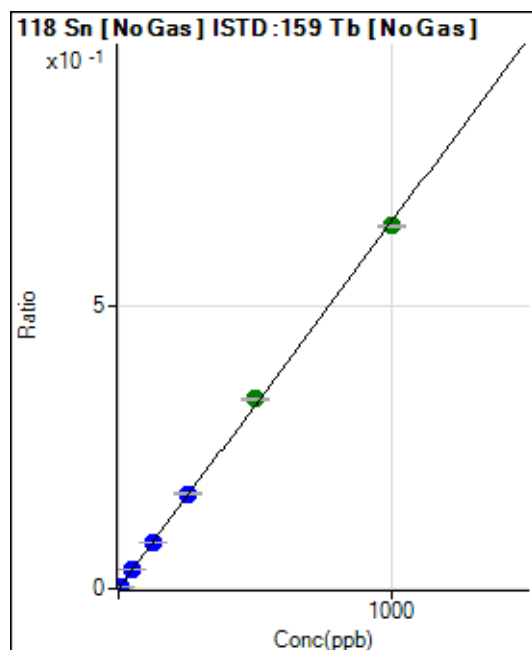
$$R = 0.9998$$

$$DL = 0.2096$$

$$BEC = 1.394$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2128.04	0.0001	P	3.8
2	☐	5.000	4.988	86927.76	0.0033	P	2.0
3	☐	50.000	50.576	858788.31	0.0329	P	0.5
4	☐	125.000	125.716	2118410.12	0.0816	P	0.6
5	☐	250.000	258.968	4286997.75	0.1679	P	1.3
6	☐	500.000	517.705	8442030.92	0.3356	A	0.9
7	☐	1000.000	988.788	16821827.98	0.6409	A	0.7
8	☐			13687.68	0.0006	P	1.0

$$y = 6.4807\text{E-}004 * x + 8.1078\text{E-}005$$

$$R = 0.9997$$

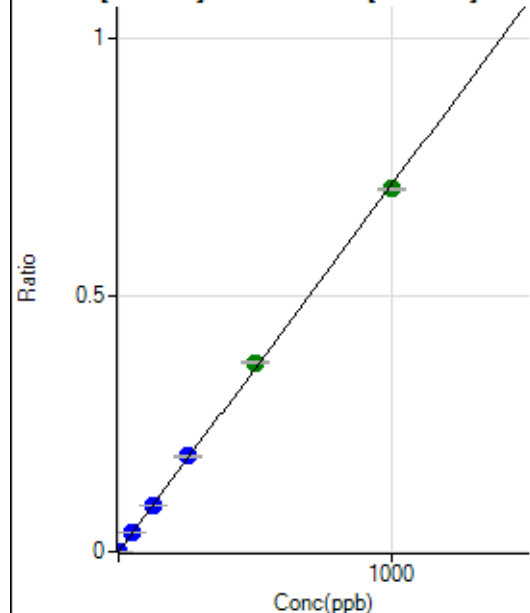
$$DL = 0.01408$$

$$BEC = 0.1251$$

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	258.35	0.0000	P	28.5
2	☐	2.000	1.929	36442.78	0.0014	P	0.6
3	☐	50.000	50.116	936720.49	0.0358	P	0.5
4	☐	125.000	125.785	2336119.69	0.0899	P	0.7
5	☐	250.000	259.642	4739557.23	0.1856	P	1.2
6	☐	500.000	516.380	9287290.40	0.3692	A	0.8
7	☐	1000.000	989.296	18564807.54	0.7073	A	0.5
8	☐			20256.95	0.0009	P	4.9

$$y = 7.1493\text{E-}004 * x + 9.8567\text{E-}006$$

$$R = 0.9997$$

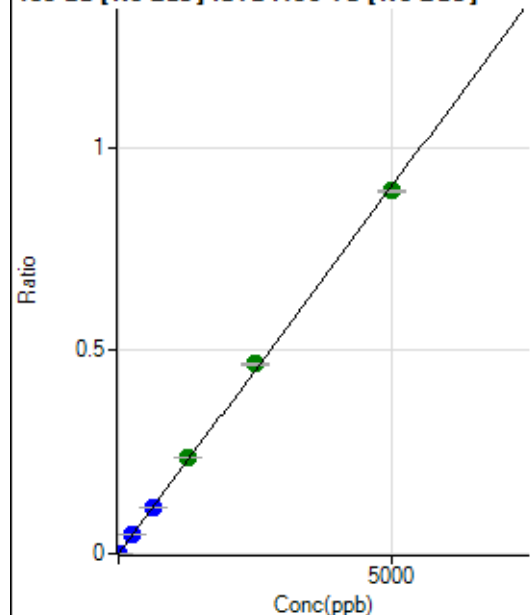
$$DL = 0.0118$$

$$BEC = 0.01379$$

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	52.78	0.0000	P	51.9
2	☐	10.000	10.210	48421.55	0.0018	P	1.5
3	☐	250.000	253.401	1195990.93	0.0458	P	0.2
4	☐	625.000	626.839	2940080.25	0.1132	P	0.7
5	☐	1250.000	1310.235	6040644.19	0.2366	A	0.9
6	☐	2500.000	2584.189	11738486.28	0.4666	A	0.8
7	☐	5000.000	4942.446	23424783.51	0.8925	A	0.4
8	☐			7988.72	0.0003	P	5.3

$$y = 1.8057\text{E-}004 * x + 2.0182\text{E-}006$$

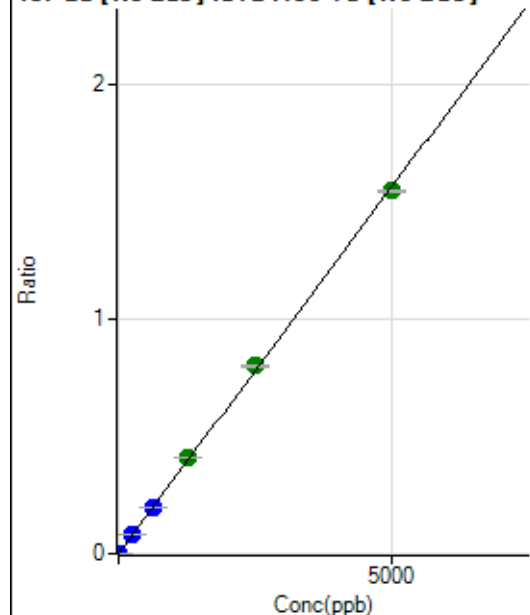
$$R = 0.9997$$

$$DL = 0.01741$$

$$BEC = 0.01118$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.45	0.0000	P	24.2
2	☐	10.000	10.016	82224.28	0.0031	P	1.7
3	☐	250.000	254.177	2077159.85	0.0795	P	1.0
4	☐	625.000	625.951	5083393.51	0.1957	P	1.1
5	☐	1250.000	1307.691	10439417.68	0.4089	A	0.4
6	☐	2500.000	2568.707	20202881.53	0.8031	A	1.0
7	☐	5000.000	4950.896	40629207.16	1.5479	A	0.2
8	☐			13943.65	0.0006	P	2.1

$$y = 3.1265E-004 * x + 2.6418E-006$$

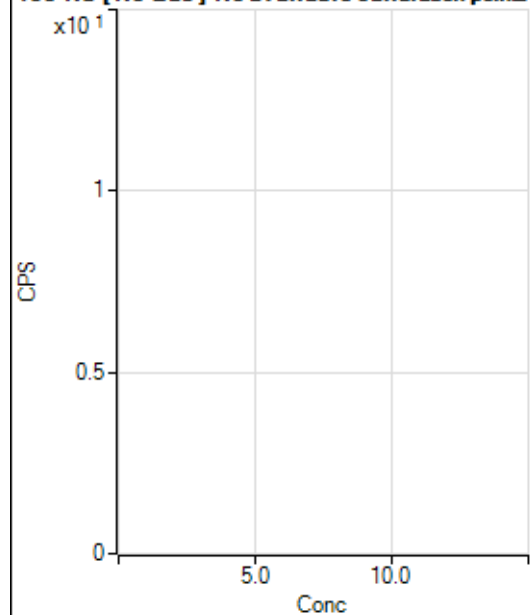
$$R = 0.9998$$

$$DL = 0.006141$$

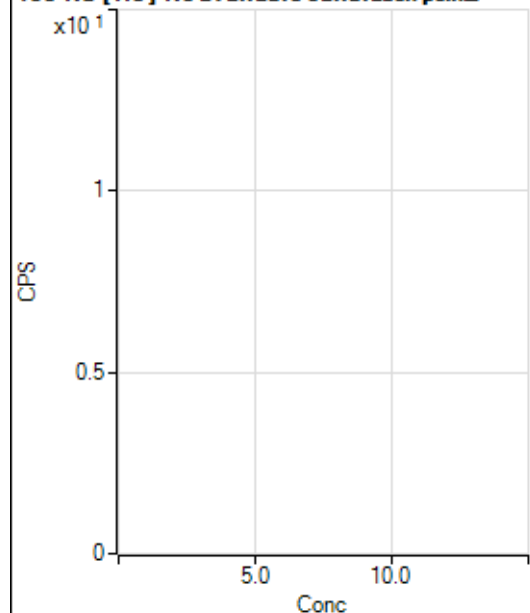
$$BEC = 0.00845$$

Weight: <None>

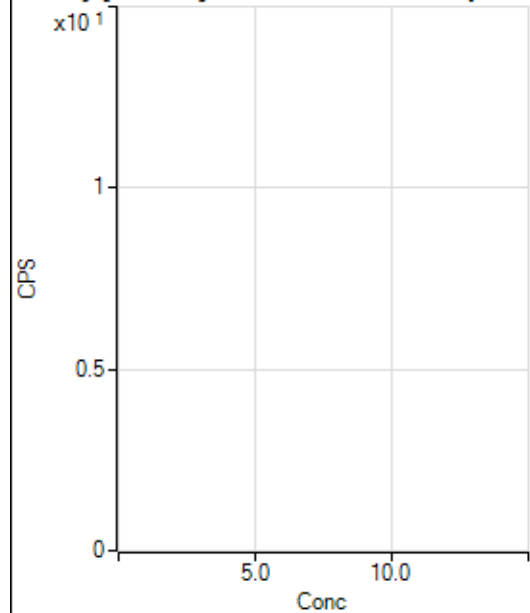
Min Conc: 0

150 Nd [No Gas] No available calibration points

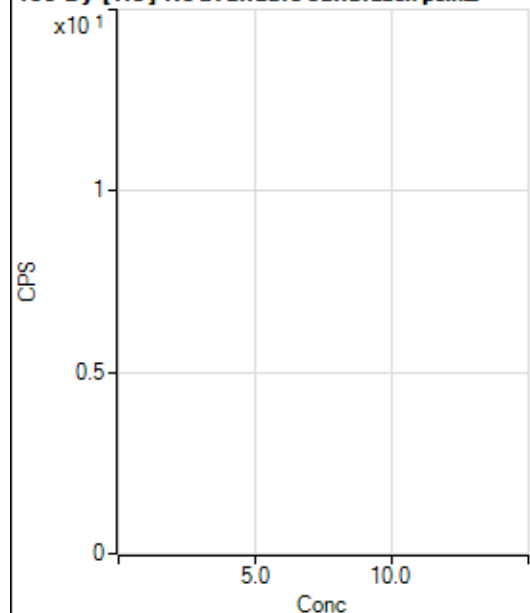
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			15.56		P	49.5
2	☐			22.22		P	45.8
3	☐			91.11		P	23.5
4	☐			262.23		P	9.6
5	☐			480.03		P	3.7
6	☐			940.07		P	12.4
7	☐			1680.16		P	3.4
8	☐			215.56		P	26.3

150 Nd [He] No available calibration points

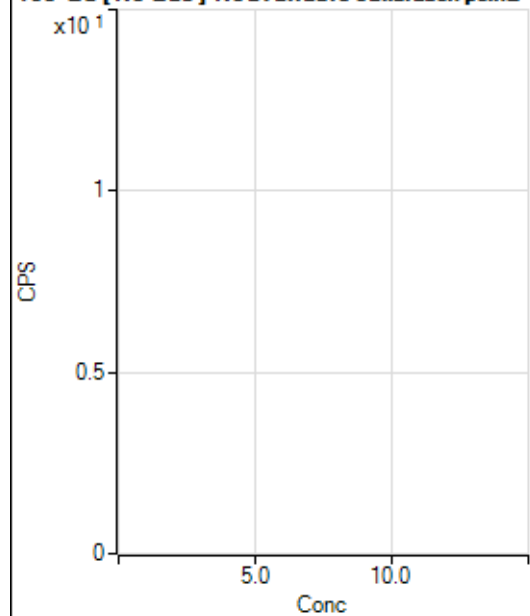
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	173.
2	☐			7.78		P	24.7
3	☐			18.89		P	53.9
4	☐			32.22		P	33.3
5	☐			71.11		P	23.6
6	☐			107.78		P	4.7
7	☐			175.56		P	14.4
8	☐			82.22		P	30.7

156 Dy [No Gas] No available calibration points

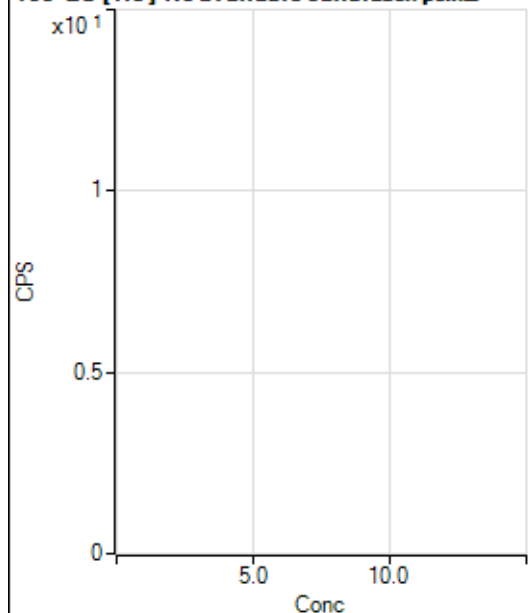
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	43.3
2	☐			50.00		P	57.7
3	☐			63.89		P	71.8
4	☐			88.89		P	28.6
5	☐			211.12		P	40.3
6	☐			202.79		P	15.6
7	☐			497.25		P	10.9
8	☐			127.78		P	24.7

156 Dy [He] No available calibration points

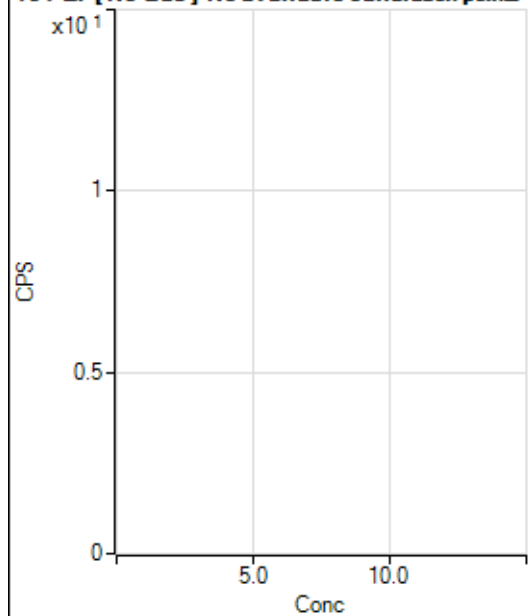
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	8.7
2	☐			25.55		P	27.1
3	☐			63.33		P	5.3
4	☐			94.45		P	23.5
5	☐			143.34		P	24.6
6	☐			268.90		P	7.0
7	☐			448.90		P	7.7
8	☐			66.67		P	5.0

160 Gd [No Gas] Noavailable calibration poin_

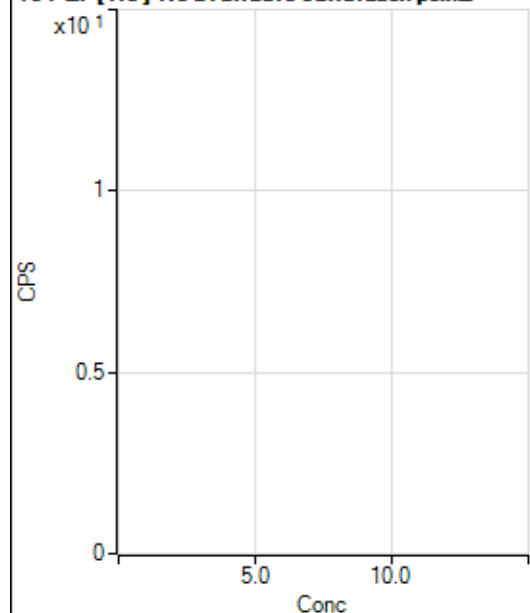
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			238.90		P	11.2
2	☐			238.90		P	23.7
3	☐			244.46		P	8.6
4	☐			211.12		P	25.1
5	☐			305.57		P	24.7
6	☐			300.02		P	19.4
7	☐			244.46		P	7.1
8	☐			291.68		P	4.9

160 Gd [He] No available calibration points

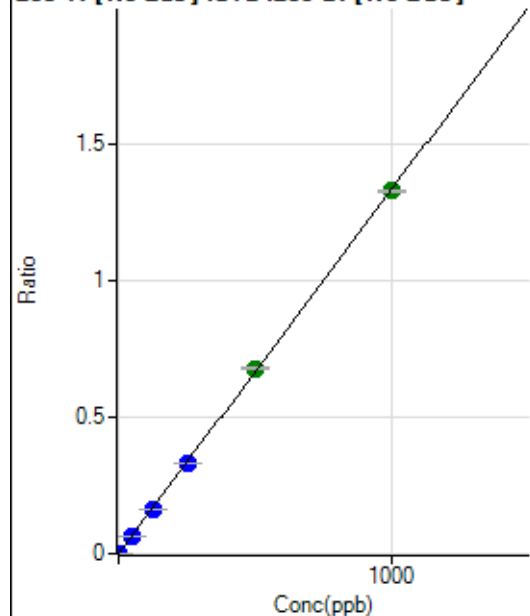
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			427.79		P	0.4
2	☐			416.68		P	5.0
3	☐			417.79		P	6.2
4	☐			448.90		P	9.5
5	☐			418.90		P	6.8
6	☐			460.02		P	11.3
7	☐			462.24		P	4.0
8	☐			407.79		P	12.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			141.67		P	32.8
2	☐			169.45		P	2.8
3	☐			125.00		P	24.0
4	☐			180.56		P	9.6
5	☐			169.45		P	7.5
6	☐			177.79		P	30.1
7	☐			141.68		P	38.6
8	☐			177.79		P	9.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			82.22		P	24.4
2	☐			80.00		P	8.3
3	☐			87.78		P	14.4
4	☐			84.45		P	23.1
5	☐			75.56		P	19.9
6	☐			117.78		P	9.9
7	☐			102.23		P	11.5
8	☐			70.00		P	20.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	872.29	0.0001	P	1.5
2	☐	1.000	0.933	22322.25	0.0013	P	1.9
3	☐	50.000	48.029	1098929.59	0.0641	P	0.9
4	☐	125.000	121.381	2752162.39	0.1618	P	0.6
5	☐	250.000	249.514	5550790.84	0.3326	P	0.7
6	☐	500.000	508.632	10935087.83	0.6780	A	0.5
7	☐	1000.000	996.356	21731957.25	1.3282	A	0.6
8	☐			7449.61	0.0006	P	3.6

$$y = 0.0013 * x + 5.0447E-005$$

$$R = 0.9999$$

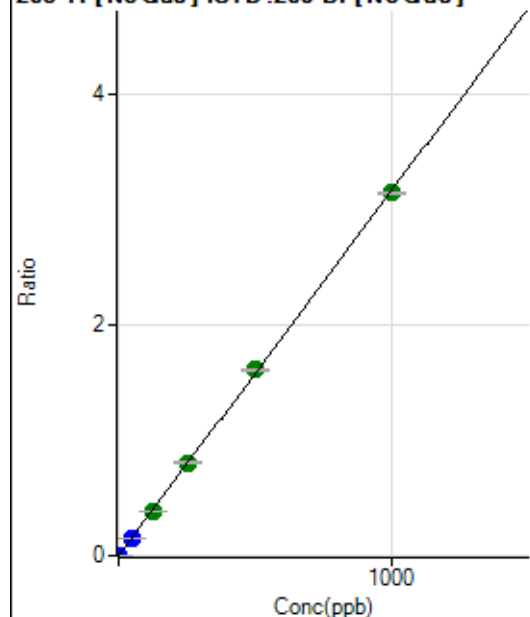
$$DL = 0.001708$$

$$BEC = 0.03785$$

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	1700.18	0.0001	P	8.3
2	☐	1.000	0.945	53243.49	0.0031	P	0.7
3	☐	50.000	48.408	2628958.52	0.1533	P	0.3
4	☐	125.000	121.973	6564795.68	0.3861	A	0.9
5	☐	250.000	255.418	13488436.24	0.8083	A	0.7
6	☐	500.000	509.434	25999366.03	1.6121	A	0.9
7	☐	1000.000	994.386	51487586.91	3.1467	A	0.5
8	☐			17865.55	0.0014	P	3.1

$$y = 0.0032 * x + 9.8321E-005$$

$$R = 0.9999$$

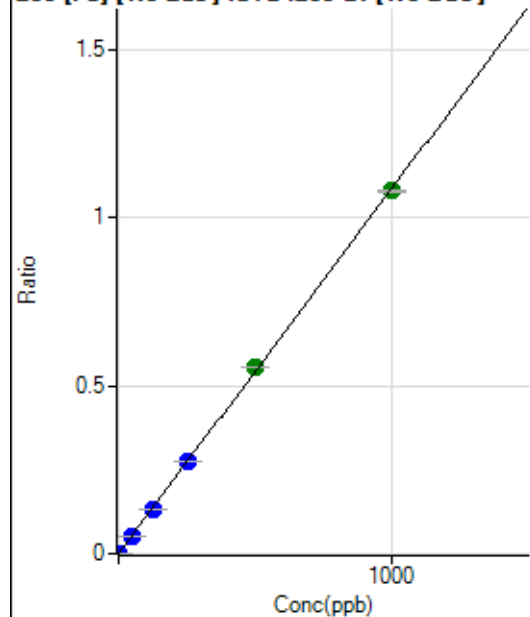
$$DL = 0.007737$$

$$BEC = 0.03107$$

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	2155.79	0.0001	P	2.8
2	☐	1.000	0.938	19679.78	0.0011	P	2.3
3	☐	50.000	48.528	904209.23	0.0527	P	0.7
4	☐	125.000	121.799	2246832.69	0.1321	P	0.7
5	☐	250.000	251.993	4559482.34	0.2732	P	1.0
6	☐	500.000	510.174	8919209.23	0.5530	A	0.4
7	☐	1000.000	994.889	17644972.50	1.0784	A	0.5
8	☐			60372.41	0.0046	P	1.8

$$y = 0.0011 * x + 1.2465E-004$$

$$R = 0.9999$$

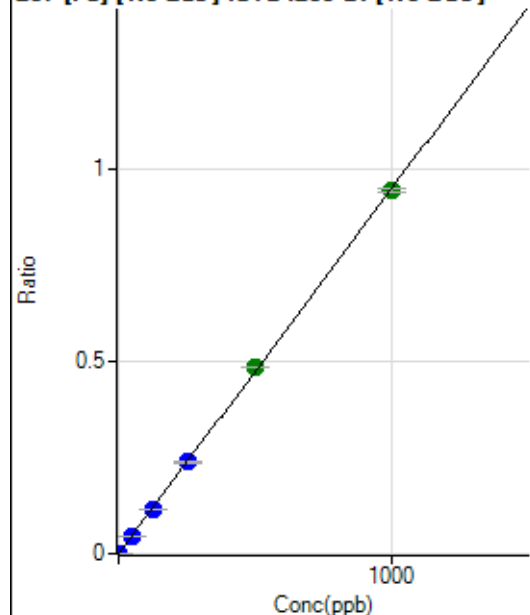
$$DL = 0.009532$$

$$BEC = 0.115$$

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	1963.17	0.0001	P	9.5
2	☐	1.000	0.929	17116.98	0.0010	P	1.8
3	☐	50.000	48.277	785504.38	0.0458	P	0.4
4	☐	125.000	121.667	1959722.57	0.1152	P	0.3
5	☐	250.000	251.365	3971109.40	0.2380	P	1.6
6	☐	500.000	510.794	7797082.00	0.4835	A	0.6
7	☐	1000.000	994.765	15403969.44	0.9414	A	1.2
8	☐			54281.37	0.0041	P	1.5

$$y = 9.4629\text{E-}004 * x + 1.1360\text{E-}004$$

$$R = 0.9999$$

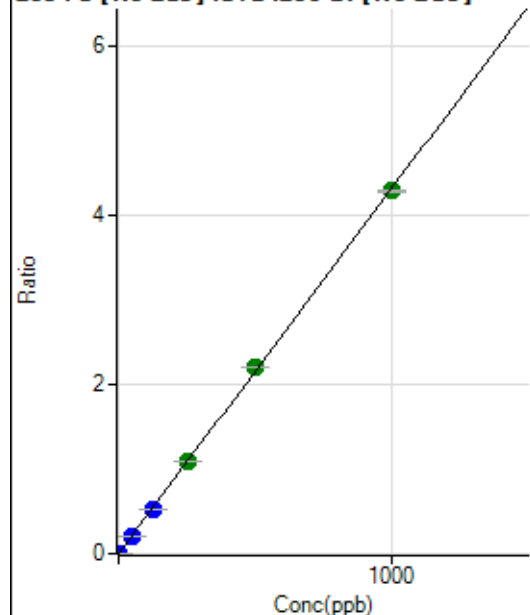
$$DL = 0.0343$$

$$BEC = 0.12$$

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	8184.53	0.0005	P	1.8
2	☐	1.000	0.929	77229.18	0.0045	P	1.1
3	☐	50.000	48.401	3587929.28	0.2092	P	0.3
4	☐	125.000	121.485	8916228.92	0.5243	P	0.2
5	☐	250.000	253.414	18242999.94	1.0932	A	1.0
6	☐	500.000	511.205	35558725.45	2.2049	A	0.3
7	☐	1000.000	994.064	70145856.20	4.2870	A	0.8
8	☐			243672.37	0.0185	P	1.2

$$y = 0.0043 * x + 4.7333\text{E-}004$$

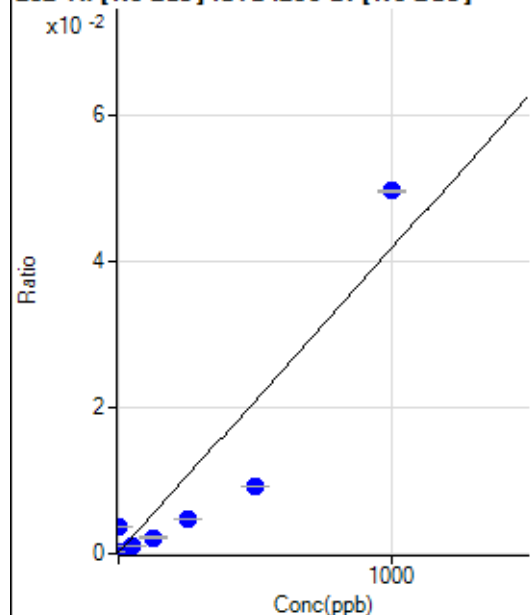
$$R = 0.9999$$

$$DL = 0.006059$$

$$BEC = 0.1098$$

Weight: <None>

Min Conc: 0

²³²Th [No Gas] ISTD :²⁰⁹Bi [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2509.58	0.0001	P	6.9
2	☐	1.000	83.620	62672.62	0.0036	P	2.8
3	☐	50.000	20.619	17245.13	0.0010	P	1.6
4	☐	125.000	50.155	38055.98	0.0022	P	1.3
5	☐	250.000	108.583	78032.53	0.0047	P	0.7
6	☐	500.000	215.150	147128.85	0.0091	P	0.2
7	☐	1000.000	1188.521	813896.70	0.0497	P	0.7
8	☐			2913.38	0.0002	P	7.3

$$y = 4.1728\text{E-}005 * x + 1.4507\text{E-}004$$

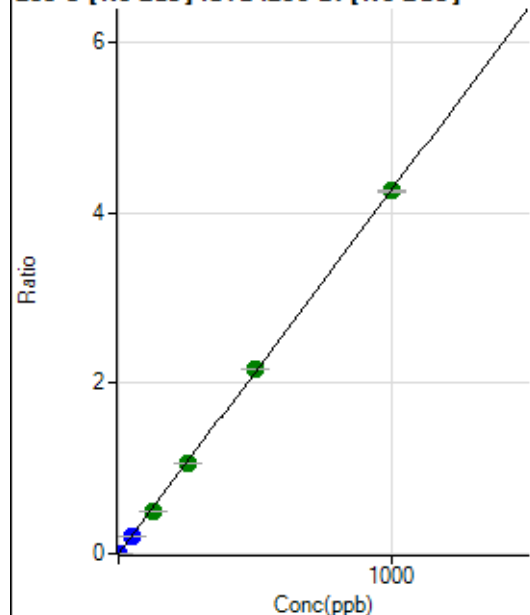
$$R = 0.9361$$

$$DL = 0.7199$$

$$BEC = 3.477$$

Weight: <None>

Min Conc: 0

²³⁸U [No Gas] ISTD :²⁰⁹Bi [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2958.81	0.0002	P	3.8
2	☐	1.000	0.898	69018.00	0.0040	P	0.8
3	☐	50.000	45.980	3367181.39	0.1963	P	0.4
4	☐	125.000	118.022	8563964.60	0.5036	A	1.2
5	☐	250.000	249.702	17777357.17	1.0654	A	1.0
6	☐	500.000	506.327	34836376.13	2.1601	A	0.3
7	☐	1000.000	997.985	69661539.75	4.2574	A	0.9
8	☐			19142.58	0.0015	P	1.0

$$y = 0.0043 * x + 1.7113\text{E-}004$$

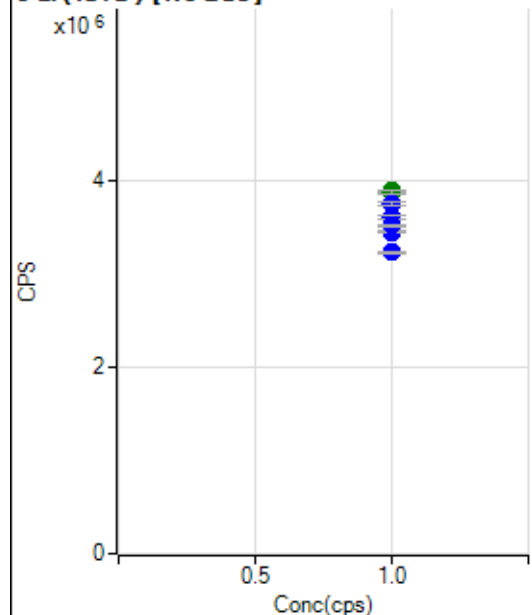
$$R = 0.9999$$

$$DL = 0.004617$$

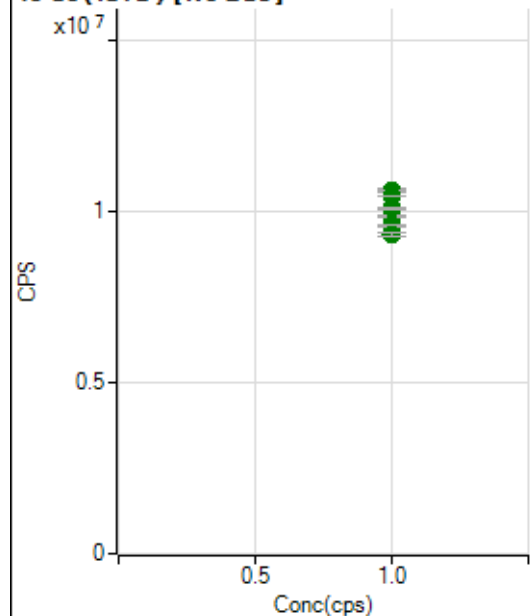
$$BEC = 0.04012$$

Weight: <None>

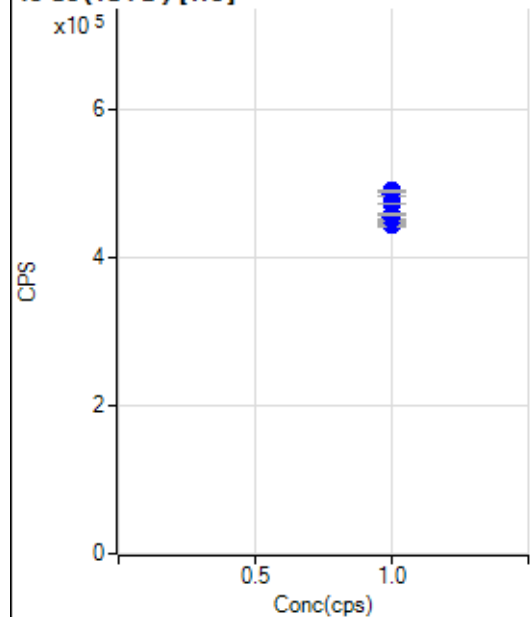
Min Conc: 0

6 Li (ISTD) [No Gas]

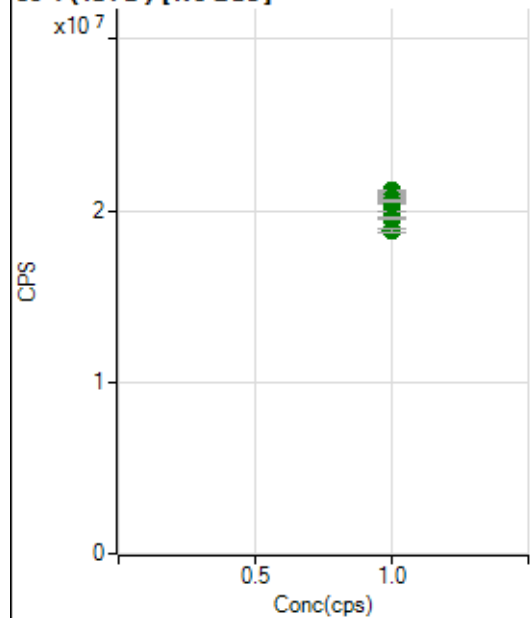
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3873877.16		A	0.8
2	☐	1.000		3884032.82		A	0.6
3	☐	1.000		3873125.53		A	0.9
4	☐	1.000		3749313.94		P	0.9
5	☐	1.000		3604384.91		P	0.9
6	☐	1.000		3442660.51		P	0.8
7	☐	1.000		3511166.72		P	0.6
8	☐	1.000		3225979.29		P	0.5

45 Sc (ISTD) [No Gas]

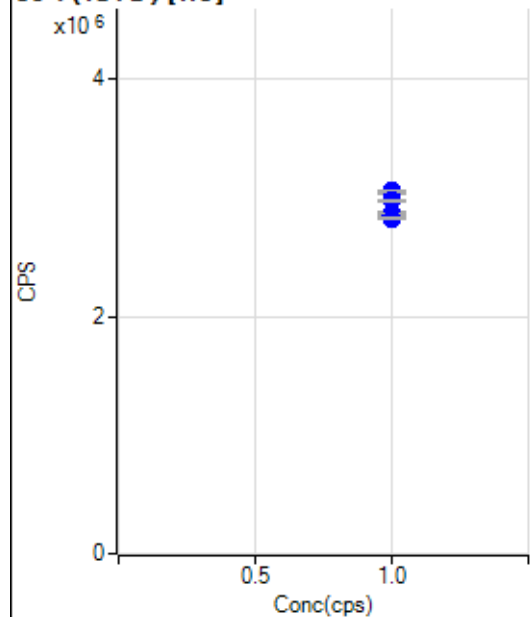
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10608470.38		A	1.0
2	☐	1.000		10594629.92		A	0.7
3	☐	1.000		10467689.12		A	0.3
4	☐	1.000		10109973.66		A	0.4
5	☐	1.000		9860242.32		A	0.6
6	☐	1.000		9592435.72		A	0.7
7	☐	1.000		10117152.83		A	0.5
8	☐	1.000		9351662.97		A	1.4

45 Sc (ISTD) [He]

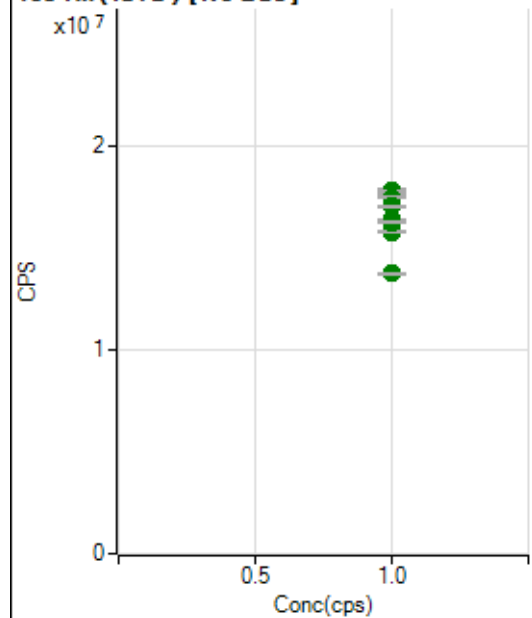
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		485718.42		P	1.1
2	☐	1.000		489539.80		P	0.4
3	☐	1.000		472383.53		P	0.5
4	☐	1.000		449132.05		P	0.9
5	☐	1.000		443159.27		P	0.8
6	☐	1.000		451895.37		P	0.4
7	☐	1.000		454113.20		P	1.9
8	☐	1.000		457447.47		P	0.7

89 Y (ISTD) [No Gas]

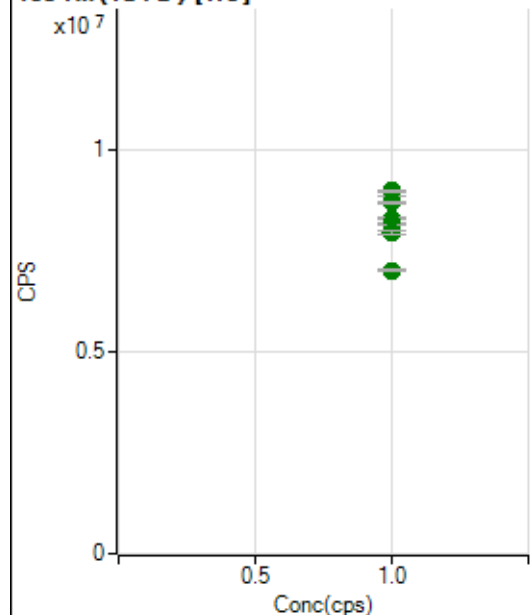
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		21023673.58		A	1.0
2	☐	1.000		21143316.07		A	0.8
3	☐	1.000		20783967.89		A	0.4
4	☐	1.000		20452148.45		A	0.5
5	☐	1.000		19938156.51		A	0.1
6	☐	1.000		19543647.21		A	0.6
7	☐	1.000		20526180.39		A	0.5
8	☐	1.000		18871852.08		A	1.1

89 Y(ISTD) [He]

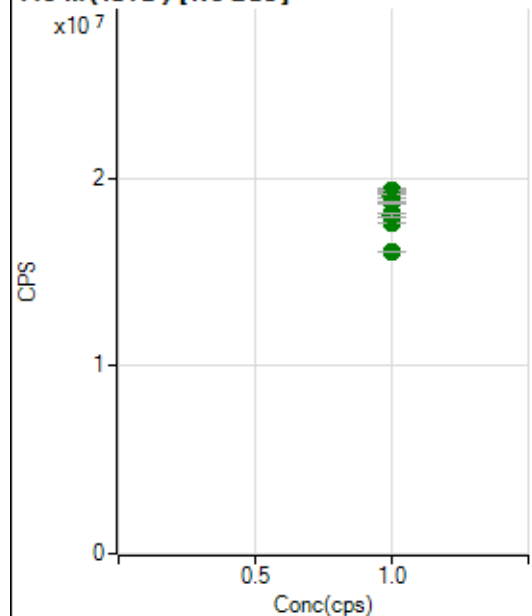
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3041416.55		P	0.6
2	☐	1.000		3056459.54		P	0.3
3	☐	1.000		2976901.86		P	0.6
4	☐	1.000		2842291.03		P	0.5
5	☐	1.000		2837362.39		P	0.2
6	☐	1.000		2868855.86		P	0.6
7	☐	1.000		2843767.70		P	1.5
8	☐	1.000		2824446.69		P	0.9

103 Rh(ISTD) [No Gas]

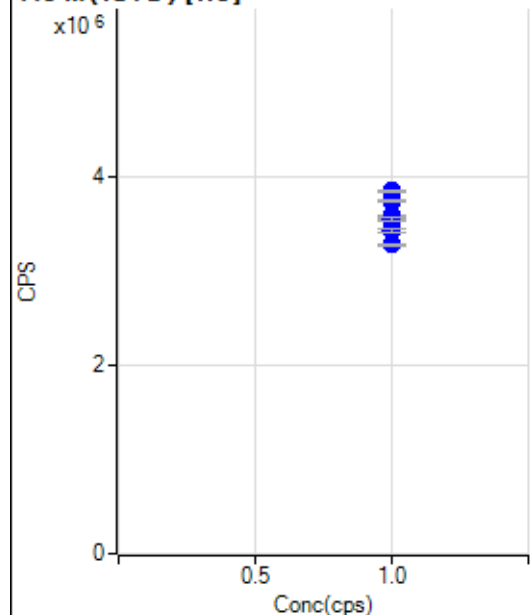
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17774112.20		A	1.2
2	☐	1.000		17780186.68		A	0.4
3	☐	1.000		17466614.80		A	0.5
4	☐	1.000		17034021.73		A	0.4
5	☐	1.000		16393990.82		A	0.5
6	☐	1.000		15763735.60		A	0.6
7	☐	1.000		16226180.57		A	0.5
8	☐	1.000		13736362.63		A	0.6

103 Rh (ISTD) [He]

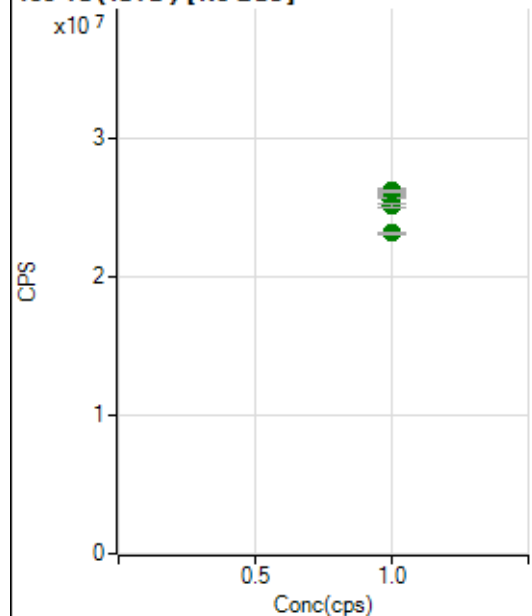
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8852806.88		A	0.3
2	☐	1.000		8983040.56		A	0.3
3	☐	1.000		8698561.82		A	0.5
4	☐	1.000		8307148.70		A	0.4
5	☐	1.000		8170831.40		A	0.4
6	☐	1.000		8145760.85		A	0.4
7	☐	1.000		7956894.39		A	1.2
8	☐	1.000		7019826.49		A	0.3

115 In (ISTD) [No Gas]

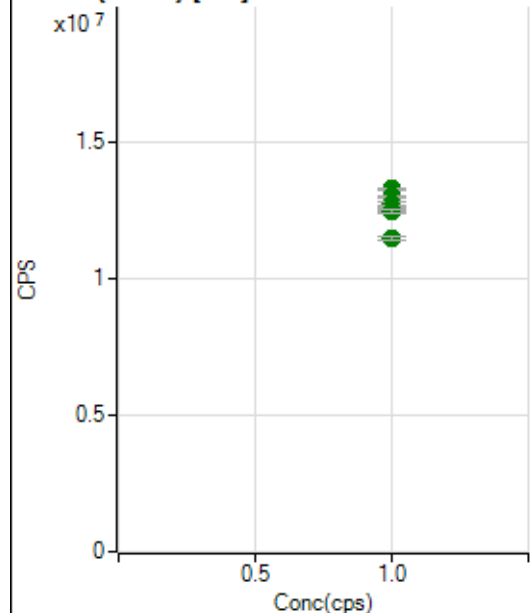
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19337533.33		A	1.1
2	☐	1.000		19340572.08		A	0.6
3	☐	1.000		19062607.02		A	0.8
4	☐	1.000		18713481.69		A	0.4
5	☐	1.000		18147868.47		A	0.3
6	☐	1.000		17634448.88		A	0.2
7	☐	1.000		18054735.35		A	0.8
8	☐	1.000		16107819.24		A	0.3

115 In (ISTD) [He]

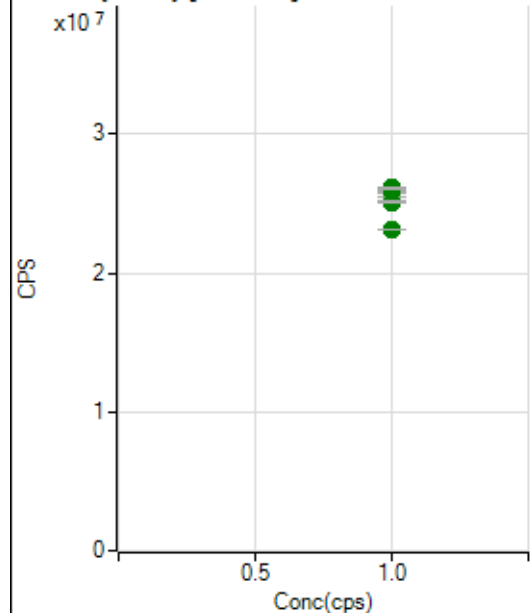
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3829340.29		P	0.4
2	☐	1.000		3844157.37		P	0.3
3	☐	1.000		3737936.15		P	0.4
4	☐	1.000		3585549.24		P	0.4
5	☐	1.000		3531775.54		P	0.4
6	☐	1.000		3546974.86		P	0.9
7	☐	1.000		3424219.94		P	1.1
8	☐	1.000		3273169.17		P	0.7

159 Tb (ISTD) [No Gas]

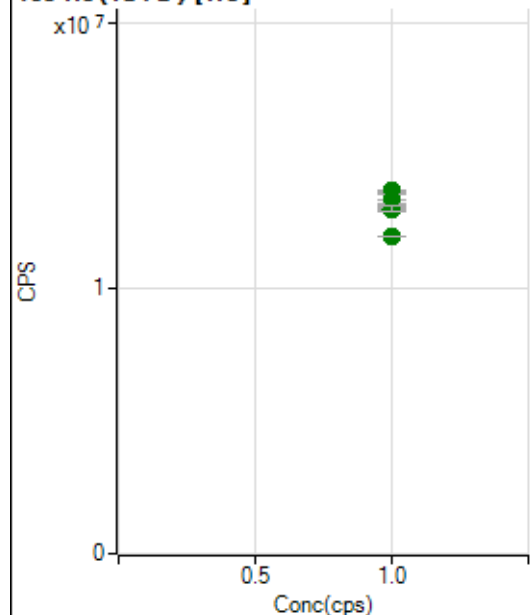
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		26248247.67		A	1.1
2	☐	1.000		26235839.33		A	0.4
3	☐	1.000		26137006.00		A	0.4
4	☐	1.000		25975597.67		A	0.6
5	☐	1.000		25534142.95		A	1.4
6	☐	1.000		25157341.01		A	1.0
7	☐	1.000		26247754.89		A	0.2
8	☐	1.000		23192887.16		A	0.4

159 Tb (ISTD) [He]

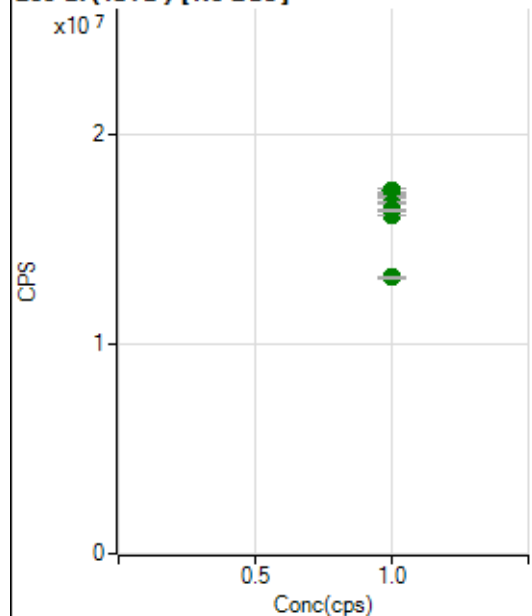
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13288601.75		A	0.3
2	☐	1.000		13015029.11		A	0.4
3	☐	1.000		12746381.34		A	0.8
4	☐	1.000		12503138.01		A	0.4
5	☐	1.000		12505743.84		A	0.2
6	☐	1.000		12623182.45		A	0.5
7	☐	1.000		12478917.31		A	1.1
8	☐	1.000		11473401.22		A	0.7

165 Ho (ISTD) [No Gas]

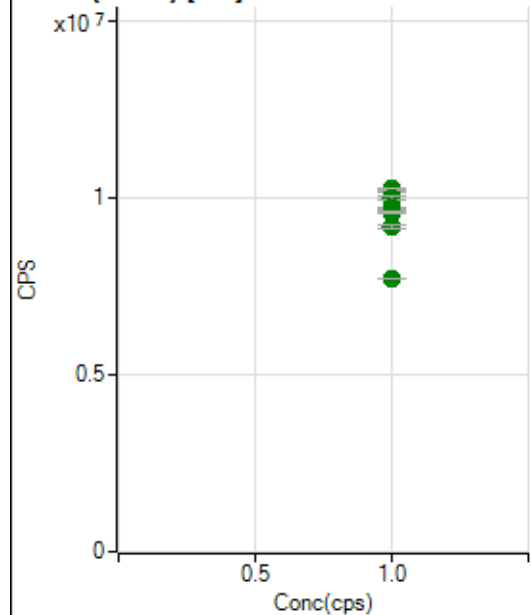
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		25910489.29		A	1.5
2	☐	1.000		25998495.20		A	0.7
3	☐	1.000		25790642.94		A	0.5
4	☐	1.000		25803015.85		A	0.9
5	☐	1.000		25503278.87		A	0.2
6	☐	1.000		25097299.34		A	0.3
7	☐	1.000		26119589.65		A	0.6
8	☐	1.000		23092838.53		A	0.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		13661383.68		A	0.3
2	☐	1.000		13526282.72		A	0.2
3	☐	1.000		13299340.64		A	0.0
4	☐	1.000		12953053.14		A	0.1
5	☐	1.000		13029650.64		A	0.3
6	☐	1.000		13176494.25		A	0.4
7	☐	1.000		12981142.03		A	1.5
8	☐	1.000		11948220.10		A	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17293220.99		A	1.2
2	☐	1.000		17245081.41		A	0.3
3	☐	1.000		17151686.27		A	0.6
4	☐	1.000		17004899.89		A	0.4
5	☐	1.000		16687152.67		A	0.5
6	☐	1.000		16127333.65		A	0.2
7	☐	1.000		16362912.12		A	0.7
8	☐	1.000		13184133.69		A	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10215838.18		A	0.4
2	☐	1.000		10264658.88		A	0.6
3	☐	1.000		10009166.03		A	0.6
4	☐	1.000		9734463.75		A	0.6
5	☐	1.000		9615019.65		A	0.4
6	☐	1.000		9596906.11		A	0.8
7	☐	1.000		9197456.04		A	1.0
8	☐	1.000		7732677.73		A	0.5

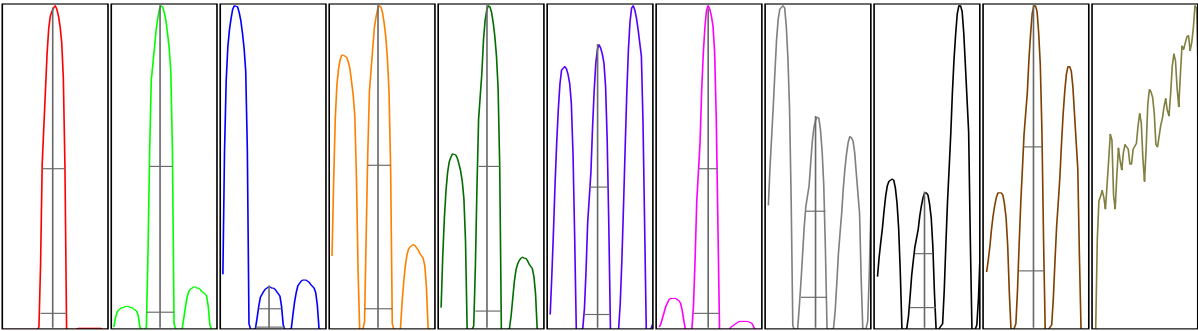
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7112919MS2.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	15898	0.40	5.00	
24	1681201	0.13	5.00	
25	221543	0.28	5.00	
26	254950	0.21	5.00	
59	179215	0.36	5.00	
113	25882	0.20	5.00	
115	307335	0.49	5.00	
206	83426	0.36	5.00	
207	79878	0.28	5.00	
208	179421	0.29	5.00	
220	125	3.92		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15857	15820	15989	15915	15907
24	1682657	1682364	1677403	1682337	1681245
25	220917	222024	222054	220813	221905
26	254664	254452	255719	255310	254604
59	178933	179132	179709	179954	178345
113	25803	25936	25908	25897	25867
115	306197	306794	306832	309999	306853
206	83378	83457	83424	83012	83862
207	79782	79835	80164	80033	79579
208	178924	178895	180096	179457	179733
220	126	129	120	119	129

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	25459	8.95	8.9 - 9.1		0.784	0.900	
24	2668514	23.90	23.9 - 24.1		0.787	0.900	
25	347339	24.90	24.9 - 25.1		0.815	0.900	
26	409582	25.90	25.9 - 26.1		0.788	0.900	
59	298506	58.90	58.9 - 59.1		0.782	0.900	
113	48990	112.95	112.9 - 113.1		0.758	0.900	
115	574593	115.00	114.9 - 115.1		0.759	0.900	
206	152305	205.95	205.9 - 206.1		0.763	0.900	
207	138143	206.95	206.9 - 207.1		0.748	0.900	
208	327866	207.95	207.9 - 208.1		0.747	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.1	V	Deflect	13.4	V
Extract 2	-135.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	48384	0.25	
89	659862	0.43	
205	76426	0.59	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	48425	48521	48266	48454	48253
89	663137	659644	658502	662044	655982
205	76316	76271	76360	77191	75990

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.3	V	Deflect	1.6	V
Extract 2	-145.0	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			