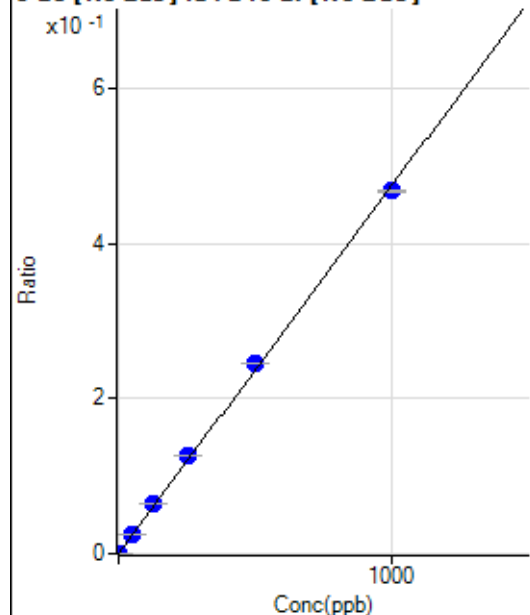


Batch Folder: D:\ICP-MS Data\P7081319MS.b\
Analysis File: P7081319MS.batch.bin
DA Date-Time: 2019-08-13 23:47:05
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-08-13 17:31:43
2	003CALS.d	S02	2019-08-13 17:35:20
3	004CALS.d	S03	2019-08-13 17:39:26
4	005CALS.d	S04	2019-08-13 17:43:22
5	006CALS.d	S05	2019-08-13 17:47:16
6	007CALS.d	S06	2019-08-13 17:51:06
7	008CALS.d	S07	2019-08-13 17:54:55
8	009CALS.d	S08	2019-08-13 17:58:42

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.44	0.0000	P	31.2
2	☐	1.000	1.028	1253.41	0.0005	P	5.7
3	☐	50.000	54.111	64385.89	0.0257	P	1.6
4	☐	125.000	134.058	156886.30	0.0636	P	0.8
5	☐	250.000	264.646	309224.56	0.1256	P	0.4
6	☐	500.000	516.374	608895.18	0.2450	P	0.5
7	☐	1000.000	986.814	1151100.16	0.4682	P	0.3
8	☐			408.90	0.0002	P	16.1

$$y = 4.7440\text{E-}004 * x + 1.8213\text{E-}005$$

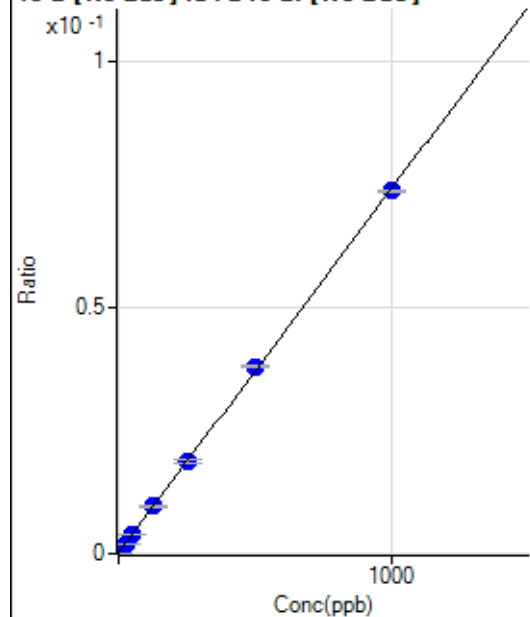
$$R = 0.9997$$

$$DL = 0.03589$$

$$BEC = 0.03839$$

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	350.02	0.0001	P	11.8
2	☐	25.000	22.913	4559.20	0.0018	P	6.9
3	☐	50.000	50.611	9750.73	0.0039	P	4.8
4	☐	125.000	128.112	23744.47	0.0096	P	1.7
5	☐	250.000	251.684	46235.59	0.0188	P	2.3
6	☐	500.000	510.427	94279.78	0.0379	P	1.0
7	☐	1000.000	993.998	181289.34	0.0737	P	0.7
8	☐			9005.81	0.0038	P	9.7

$$y = 7.4033\text{E-}005 * x + 1.4344\text{E-}004$$

$$R = 0.9999$$

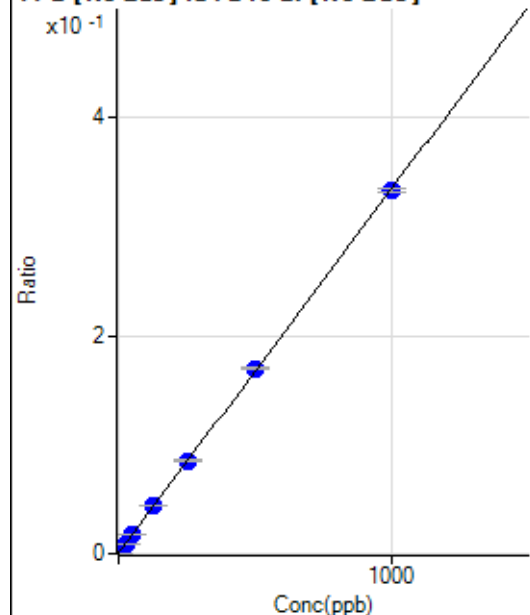
$$DL = 0.6866$$

$$BEC = 1.938$$

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	1439.01	0.0006	P	9.9
2	☐	25.000	23.055	20531.18	0.0083	P	1.8
3	☐	50.000	51.609	44650.34	0.0178	P	1.6
4	☐	125.000	129.235	107827.41	0.0437	P	1.7
5	☐	250.000	254.151	210333.06	0.0854	P	1.2
6	☐	500.000	507.698	422622.92	0.1700	P	1.6
7	☐	1000.000	994.552	817627.85	0.3325	P	1.0
8	☐			40691.75	0.0173	P	6.2

$$y = 3.3375E-004 * x + 5.8987E-004$$

R = 0.9999

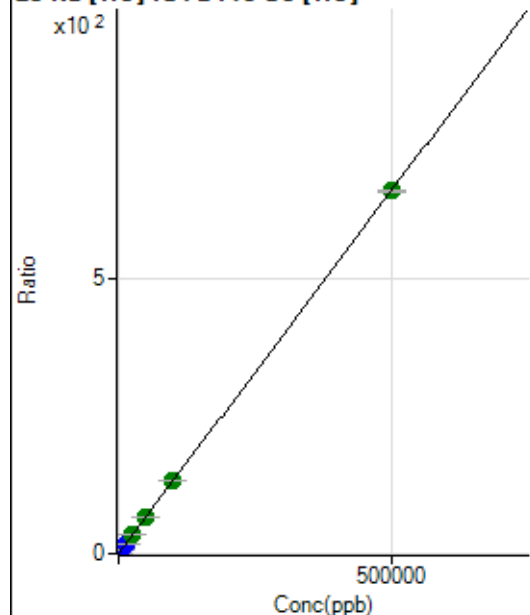
DL = 0.5244

BEC = 1.767

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	3522.78	0.0252	P	3.1
2	☐	500.000	482.445	95055.45	0.6607	P	1.5
3	☐	5000.000	5084.247	965234.44	6.7219	P	0.4
4	☐	12500.000	13302.752	2339052.85	17.5469	P	3.8
5	☐	25000.000	25454.296	4541244.94	33.5522	A	0.5
6	☐	50000.000	51211.946	9179517.56	67.4788	A	0.3
7	☐	100000.00	101459.49	18001791.03	133.6621	A	0.8
8	☐	500000.00	499543.29	89486488.81	657.9959	A	0.7

$$y = 0.0013 * x + 0.0252$$

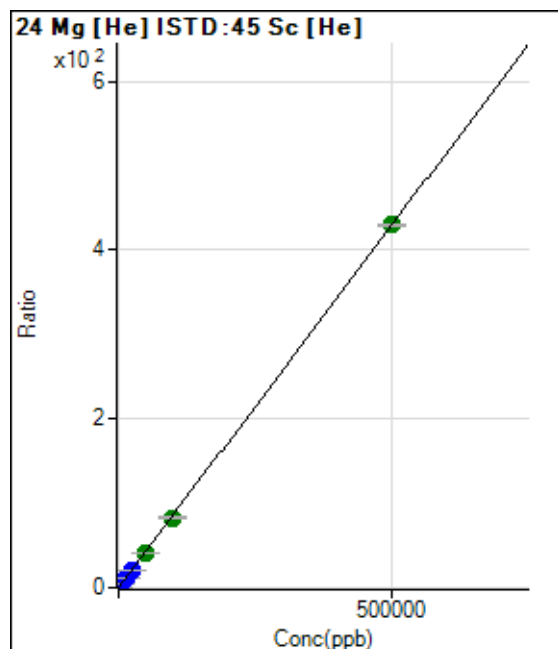
R = 1.0000

DL = 1.801

BEC = 19.16

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	443.95	0.0032	P	5.8
2	☐	500.000	472.069	58748.13	0.4083	P	0.3
3	☐	5000.000	4871.721	600784.93	4.1841	P	1.3
4	☐	12500.000	12664.464	1449307.51	10.8718	P	3.7
5	☐	25000.000	24159.199	2806656.94	20.7366	P	0.6
6	☐	50000.000	48947.180	5714824.52	42.0097	A	0.2
7	☐	100000.00	96425.455	11145365.60	82.7555	A	1.1
8	☐	500000.00	500859.43	58457855.55	429.8408	A	0.7

$$y = 8.5820\text{E-}004 * x + 0.0032$$

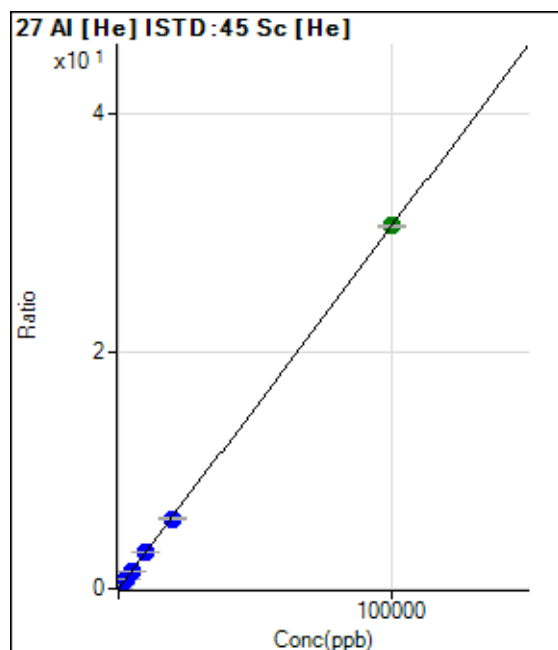
$$R = 1.0000$$

$$DL = 0.6479$$

$$BEC = 3.707$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.00	0.0002	P	66.6
2	☐	20.000	21.233	958.40	0.0067	P	4.4
3	☐	1000.000	985.958	43246.84	0.3012	P	2.7
4	☐	2500.000	2574.991	104812.58	0.7863	P	4.1
5	☐	5000.000	4957.886	204900.90	1.5138	P	0.3
6	☐	10000.000	9843.622	408848.32	3.0055	P	0.4
7	☐	20000.000	19364.320	796283.70	5.9121	P	0.4
8	☐	100000.00	100143.14	4158055.26	30.5740	A	0.5

$$y = 3.0530\text{E-}004 * x + 1.7941\text{E-}004$$

$$R = 1.0000$$

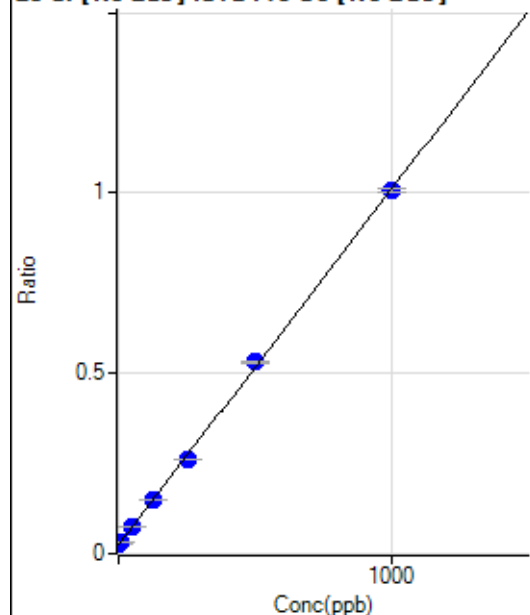
$$DL = 1.174$$

$$BEC = 0.5877$$

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	81924.26	0.0244	P	1.1
2	☐	10.000	8.545	112543.18	0.0328	P	0.9
3	☐	50.000	49.959	254103.42	0.0736	P	1.1
4	☐	125.000	125.203	498189.31	0.1478	P	1.1
5	☐	250.000	241.288	866638.35	0.2622	P	1.1
6	☐	500.000	513.781	1754642.18	0.5309	P	0.6
7	☐	1000.000	995.279	3279144.69	1.0056	P	0.9
8	☐			150939.83	0.0473	P	0.5

$$y = 9.8593E-004 * x + 0.0244$$

R = 0.9998

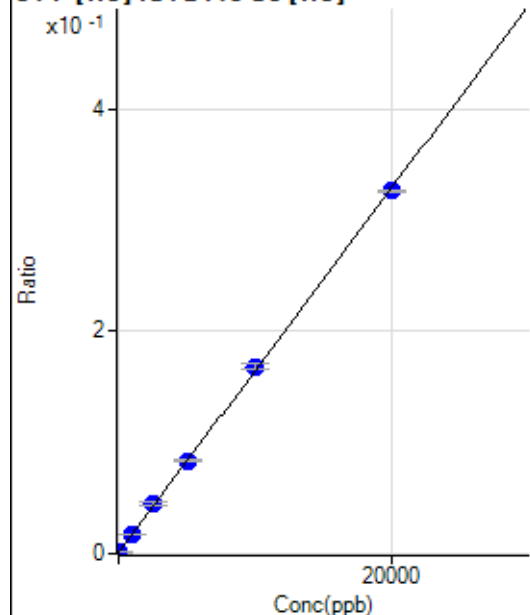
DL = 0.7819

BEC = 24.7

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	-24.909	61.11	0.0004	P	55.7
2	☐	0.000	24.909	180.57	0.0013	P	14.7
3	☐	1000.000	992.328	2455.84	0.0171	P	3.1
4	☐	2500.000	2690.746	5982.00	0.0449	P	7.7
5	☐	5000.000	5039.658	11288.00	0.0834	P	2.0
6	☐	10000.000	10228.097	22904.45	0.1684	P	3.5
7	☐	20000.000	19852.577	43912.77	0.3260	P	0.3
8	☐			80.56	0.0006	P	25.8

$$y = 1.6380E-005 * x + 8.4675E-004$$

R = 0.9999

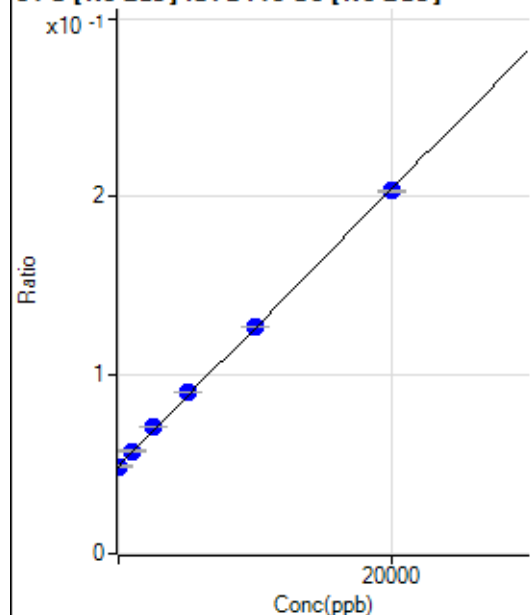
DL = 39.29

BEC = 51.69

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-0.523	164806.24	0.0490	P	0.4
2	☐	0.000	0.523	168244.24	0.0490	P	0.3
3	☐	1000.000	1100.177	198661.98	0.0576	P	2.1
4	☐	2500.000	2875.210	240539.89	0.0714	P	0.6
5	☐	5000.000	5326.017	298813.63	0.0904	P	0.8
6	☐	10000.000	10046.748	420182.10	0.1271	P	0.4
7	☐	20000.000	19843.212	662999.94	0.2033	P	0.4
8	☐			151608.17	0.0475	P	0.7

$$y = 7.7774\text{E-}006 * x + 0.0490$$

$$R = 0.9997$$

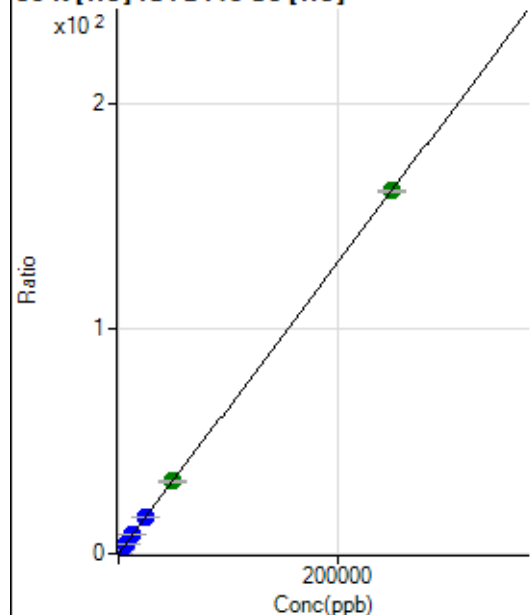
$$DL = 68.01$$

$$BEC = 6300$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8914.08	0.0639	P	1.7
2	☐	500.000	497.950	55410.20	0.3851	P	2.2
3	☐	2500.000	2561.177	246427.91	1.7162	P	0.6
4	☐	6250.000	6646.912	580077.95	4.3520	P	4.2
5	☐	12500.000	12648.870	1113093.06	8.2240	P	0.8
6	☐	25000.000	25091.823	2210743.30	16.2513	P	0.6
7	☐	50000.000	49789.119	4334646.93	32.1842	A	0.8
8	☐	250000.00	250015.02	21944214.21	161.3556	A	0.7

$$y = 6.4513\text{E-}004 * x + 0.0639$$

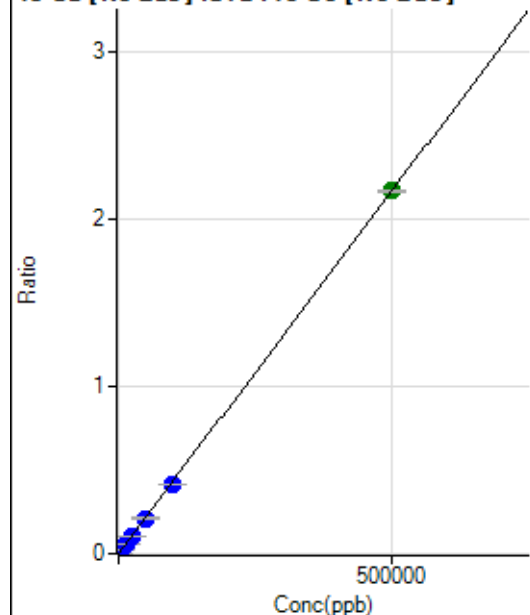
$$R = 1.0000$$

$$DL = 5.145$$

$$BEC = 99$$

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	77.78	0.0000	P	69.9
2	☐	500.000	476.241	7154.82	0.0021	P	1.5
3	☐	5000.000	4937.046	73823.79	0.0214	P	1.1
4	☐	12500.000	12393.860	180857.66	0.0537	P	0.9
5	☐	25000.000	24701.575	353306.37	0.1069	P	0.7
6	☐	50000.000	49077.750	701935.86	0.2124	P	0.3
7	☐	100000.00	96607.981	1363184.35	0.4181	P	0.2
8	☐	500000.00	500788.85	6911899.20	2.1670	A	0.2

$$y = 4.3271\text{E-}006 * x + 2.3127\text{E-}005$$

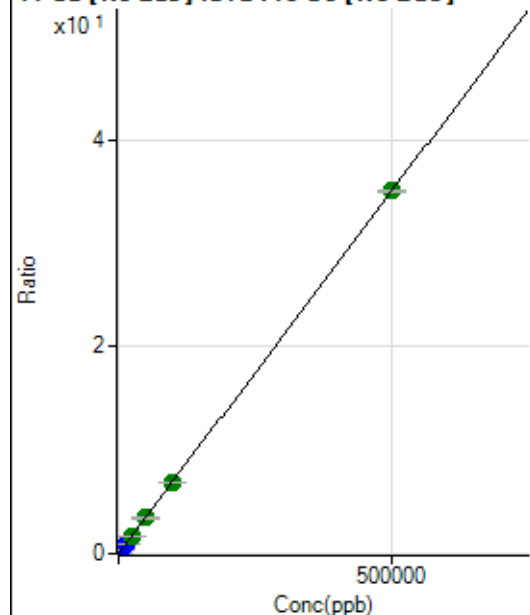
$$R = 1.0000$$

$$DL = 11.2$$

$$BEC = 5.345$$

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	3520.24	0.0010	P	3.1
2	☐	500.000	469.481	116425.32	0.0339	P	0.2
3	☐	5000.000	4927.248	1194220.83	0.3460	P	1.0
4	☐	12500.000	12146.050	2869525.39	0.8513	P	0.7
5	☐	25000.000	24675.277	5711630.33	1.7283	A	0.4
6	☐	50000.000	49106.963	11364180.90	3.4385	A	0.4
7	☐	100000.00	97073.716	22160769.94	6.7962	A	0.2
8	☐	500000.00	500700.40	111795953.8	35.0499	A	0.3

$$y = 7.0000\text{E-}005 * x + 0.0010$$

$$R = 1.0000$$

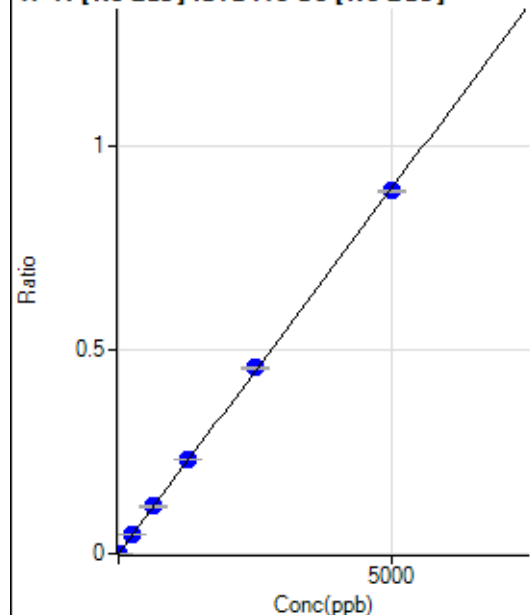
$$DL = 1.393$$

$$BEC = 14.95$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.23	0.0000	P	56.7
2	☐	5.000	4.972	3100.45	0.0009	P	8.2
3	☐	250.000	259.972	160519.82	0.0465	P	0.6
4	☐	625.000	645.634	389195.78	0.1155	P	0.3
5	☐	1250.000	1289.942	762292.40	0.2307	P	0.5
6	☐	2500.000	2540.590	1501427.62	0.4543	P	0.1
7	☐	5000.000	4966.642	2895869.36	0.8881	P	0.3
8	☐			1441.80	0.0005	P	7.1

$$y = 1.7881E-004 * x + 1.4033E-005$$

R = 0.9999

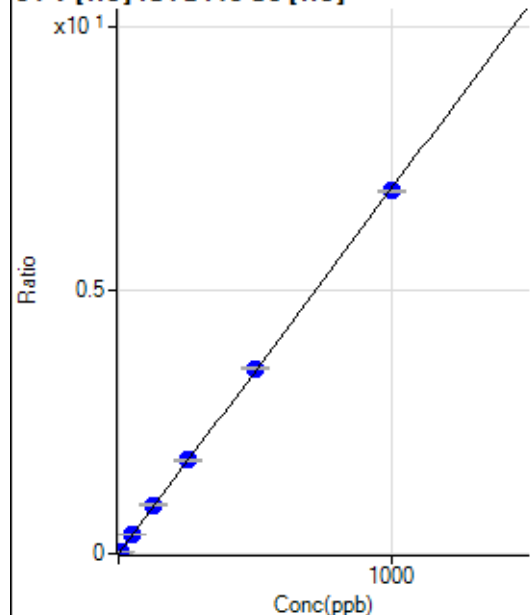
DL = 0.1335

BEC = 0.07848

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	5.193	5173.20	0.0360	P	1.9
3	☐	50.000	51.735	51423.76	0.3581	P	0.9
4	☐	125.000	134.036	123643.49	0.9278	P	4.9
5	☐	250.000	255.657	239510.59	1.7696	P	1.0
6	☐	500.000	507.380	477756.23	3.5120	P	0.6
7	☐	1000.000	993.679	926364.59	6.8781	P	0.7
8	☐			274.45	0.0020	P	7.5

$$y = 0.0069 * x + 7.8782E-006$$

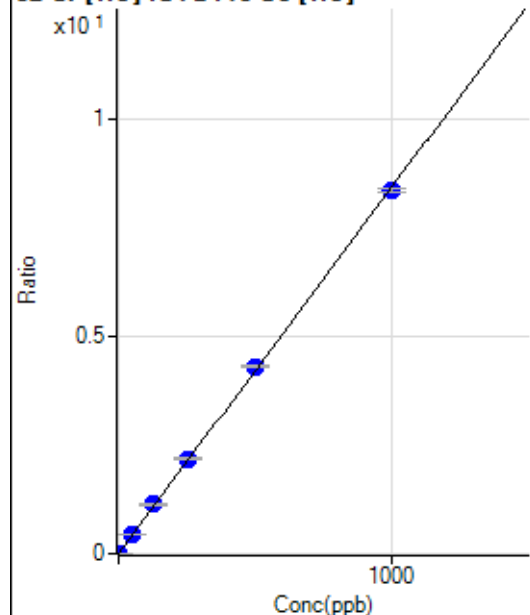
R = 0.9999

DL = 0.005914

BEC = 0.001138

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	166.67	0.0012	P	3.4
2	☐	2.000	1.980	2569.16	0.0179	P	1.5
3	☐	50.000	52.317	63377.87	0.4414	P	0.7
4	☐	125.000	136.111	152808.78	1.1464	P	4.1
5	☐	250.000	258.917	295003.18	2.1796	P	0.9
6	☐	500.000	510.229	584136.61	4.2940	P	0.8
7	☐	1000.000	991.152	1123273.05	8.3403	P	0.9
8	☐			22290.40	0.1639	P	2.0

$$y = 0.0084 * x + 0.0012$$

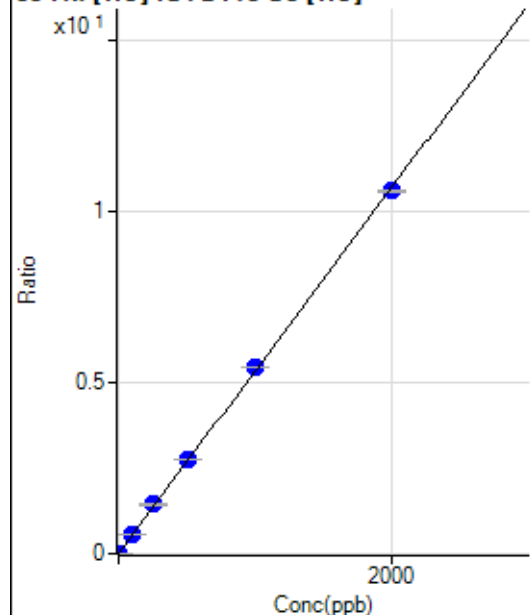
$$R = 0.9998$$

$$DL = 0.01467$$

$$BEC = 0.1419$$

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	15.55	0.0001	P	44.5
2	☐	1.000	1.053	826.70	0.0057	P	1.1
3	☐	100.000	103.354	79437.53	0.5532	P	0.7
4	☐	250.000	268.632	191655.90	1.4376	P	3.5
5	☐	500.000	513.938	372245.81	2.7503	P	0.8
6	☐	1000.000	1021.092	743322.18	5.4642	P	0.4
7	☐	2000.000	1983.473	1429521.68	10.6141	P	0.8
8	☐			8475.89	0.0623	P	2.2

$$y = 0.0054 * x + 1.1146E-004$$

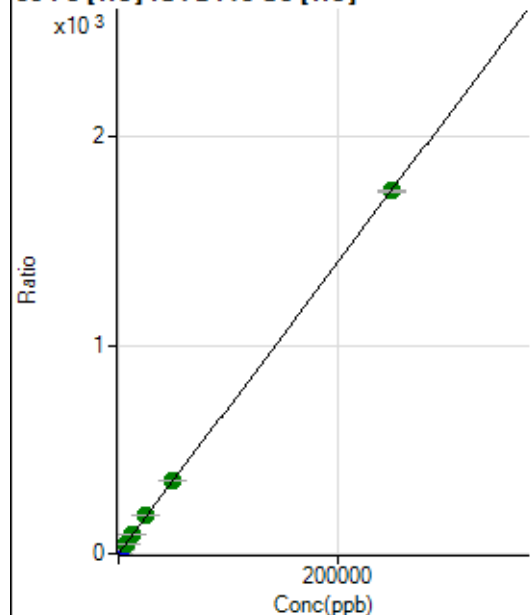
$$R = 0.9999$$

$$DL = 0.02782$$

$$BEC = 0.02083$$

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	1935.37	0.0139	P	3.4
2	☐	50.000	55.313	57429.13	0.3992	P	2.3
3	☐	2500.000	2647.262	2649886.35	18.4542	P	0.9
4	☐	6250.000	6862.829	6374247.48	47.8189	A	3.9
5	☐	12500.000	13113.995	12365740.32	91.3633	A	0.8
6	☐	25000.000	26007.401	24646528.33	181.1762	A	0.5
7	☐	50000.000	50609.346	47481413.56	352.5483	A	0.9
8	☐	250000.00	249729.89	236580612.6	1,739.581	A	0.7

$$y = 0.0070 * x + 0.0139$$

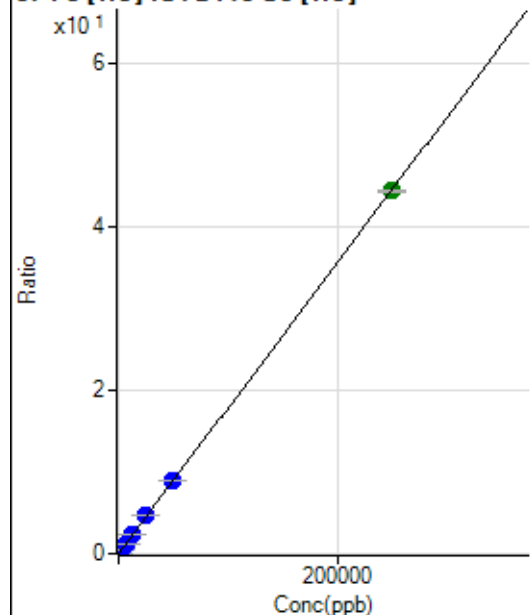
$$R = 1.0000$$

$$DL = 0.2037$$

$$BEC = 1.991$$

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	144.45	0.0010	P	6.6
2	☐	50.000	56.395	1590.87	0.0111	P	5.3
3	☐	2500.000	2676.839	68451.67	0.4767	P	0.9
4	☐	6250.000	6905.142	163715.24	1.2280	P	3.4
5	☐	12500.000	13181.452	317155.23	2.3432	P	0.7
6	☐	25000.000	26062.772	630136.54	4.6321	P	0.3
7	☐	50000.000	50600.966	1211109.84	8.9923	P	0.7
8	☐	250000.00	249721.30	6034798.34	44.3741	A	0.8

$$y = 1.7769E-004 * x + 0.0010$$

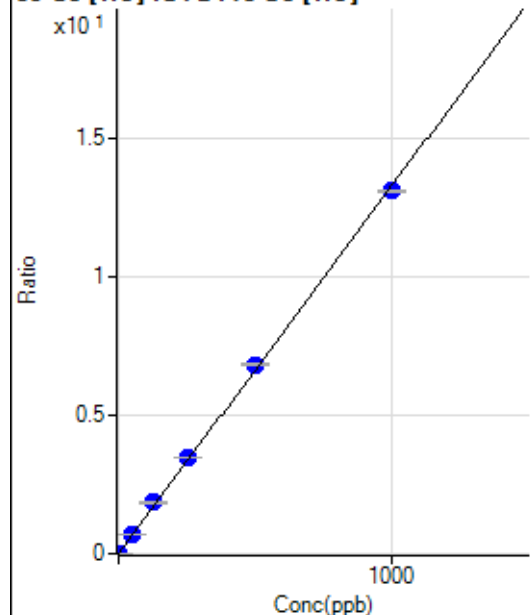
$$R = 1.0000$$

$$DL = 1.146$$

$$BEC = 5.824$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	24.45	0.0002	P	14.9
2	☐	1.000	1.045	2017.95	0.0140	P	3.3
3	☐	50.000	53.555	101912.98	0.7097	P	0.3
4	☐	125.000	139.271	245983.84	1.8454	P	4.1
5	☐	250.000	263.077	471778.38	3.4857	P	0.9
6	☐	500.000	514.826	927916.54	6.8211	P	0.6
7	☐	1000.000	987.356	1761847.46	13.0817	P	0.9
8	☐			21505.96	0.1581	P	0.3

$$y = 0.0132 * x + 1.7497E-004$$

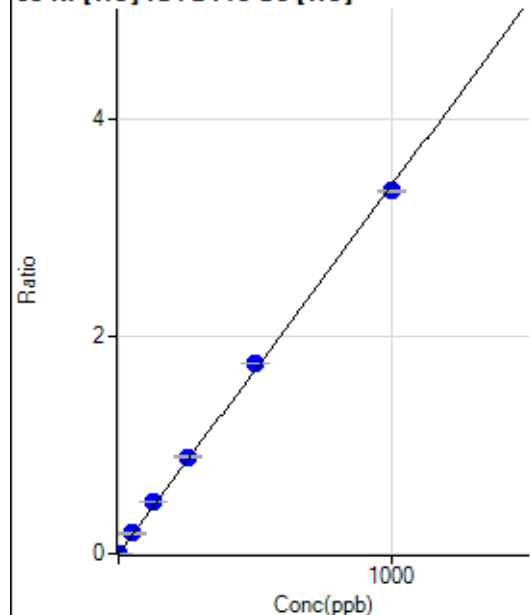
$$R = 0.9997$$

$$DL = 0.005894$$

$$BEC = 0.01321$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	26.67	0.0002	P	46.1
2	☐	1.000	1.028	527.80	0.0037	P	3.8
3	☐	50.000	55.187	26821.39	0.1868	P	1.5
4	☐	125.000	140.620	63419.70	0.4757	P	3.1
5	☐	250.000	263.584	120654.72	0.8914	P	0.6
6	☐	500.000	517.037	237847.44	1.7484	P	0.2
7	☐	1000.000	985.874	448997.61	3.3337	P	0.5
8	☐			9434.27	0.0694	P	1.3

$$y = 0.0034 * x + 1.9154E-004$$

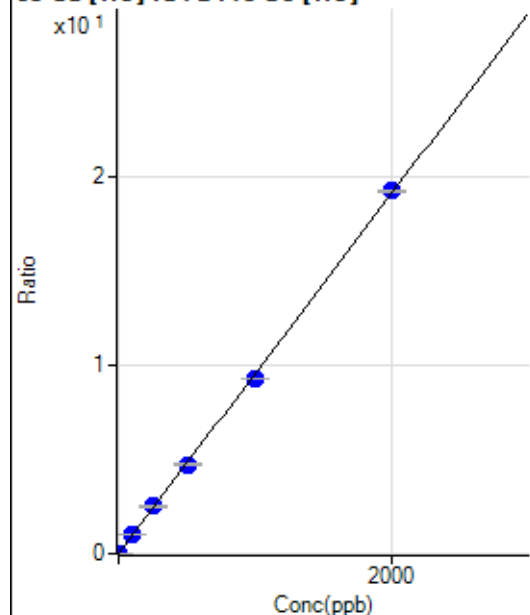
$$R = 0.9996$$

$$DL = 0.07829$$

$$BEC = 0.05665$$

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	320.01	0.0023	P	5.3
2	☐	2.000	1.962	3024.80	0.0210	P	2.3
3	☐	100.000	102.594	140946.05	0.9815	P	0.1
4	☐	250.000	263.327	335332.87	2.5157	P	4.2
5	☐	500.000	495.408	640329.43	4.7309	P	0.6
6	☐	1000.000	968.794	1258242.49	9.2494	P	0.3
7	☐	2000.000	2014.956	2590623.26	19.2349	P	0.6
8	☐			4888.67	0.0359	P	3.5

$$y = 0.0095 * x + 0.0023$$

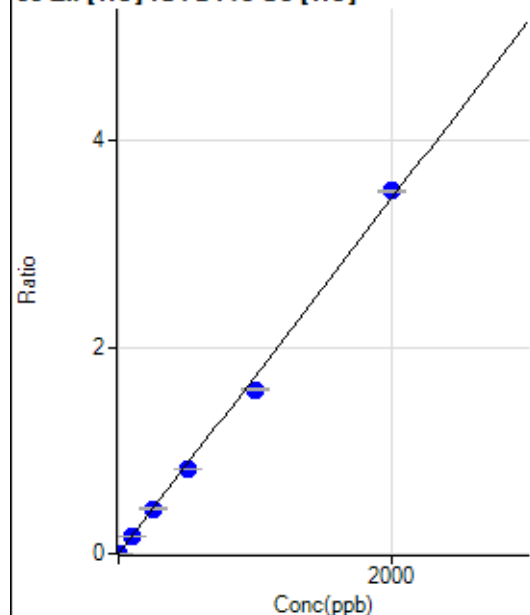
$$R = 0.9998$$

$$DL = 0.03841$$

$$BEC = 0.2402$$

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	157.78	0.0011	P	26.4
2	☐	2.000	1.940	642.25	0.0045	P	10.7
3	☐	100.000	96.068	23856.38	0.1661	P	2.1
4	☐	250.000	250.497	57508.34	0.4314	P	3.9
5	☐	500.000	478.510	111404.11	0.8231	P	0.2
6	☐	1000.000	924.377	216156.68	1.5890	P	0.4
7	☐	2000.000	2043.318	472875.87	3.5110	P	0.4
8	☐			7721.04	0.0568	P	2.1

$$y = 0.0017 * x + 0.0011$$

$$R = 0.9989$$

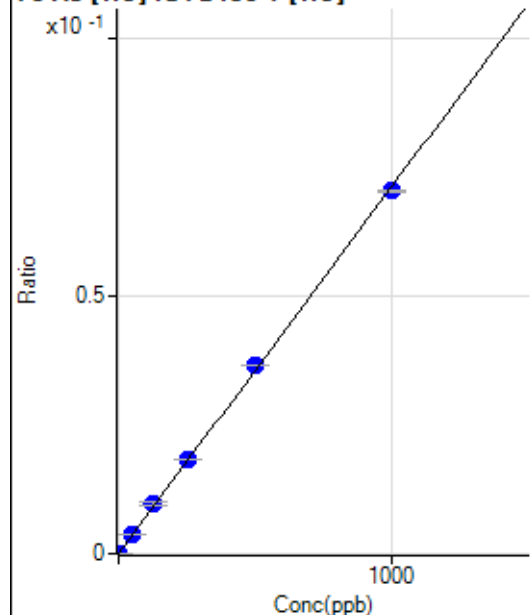
$$DL = 0.5197$$

$$BEC = 0.6573$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.70	0.0000	P	50.0
2	☐	1.000	1.017	143.21	0.0001	P	14.4
3	☐	50.000	53.231	7286.45	0.0038	P	0.9
4	☐	125.000	136.080	17493.28	0.0097	P	4.3
5	☐	250.000	258.097	33918.49	0.0183	P	1.0
6	☐	500.000	514.018	67607.89	0.0365	P	0.7
7	☐	1000.000	989.420	128286.04	0.0703	P	0.7
8	☐			194.45	0.0001	P	11.3

$$y = 7.1058\text{E-}005 * x + 1.9674\text{E-}006$$

$$R = 0.9998$$

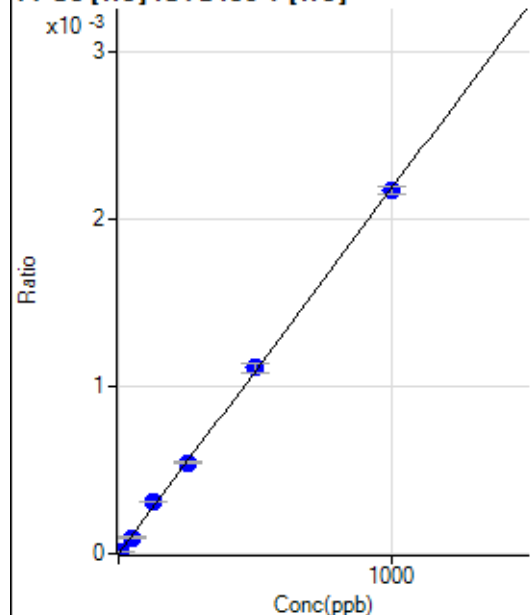
$$DL = 0.04155$$

$$BEC = 0.02769$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	6.070	25.55	0.0000	P	15.3
3	☐	50.000	44.701	187.78	0.0001	P	11.6
4	☐	125.000	142.586	563.35	0.0003	P	1.5
5	☐	250.000	249.505	1006.72	0.0005	P	3.2
6	☐	500.000	508.816	2054.62	0.0011	P	4.4
7	☐	1000.000	993.777	3956.16	0.0022	P	2.1
8	☐			2.22	0.0000	P	86.6

$$y = 2.1816\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9997$$

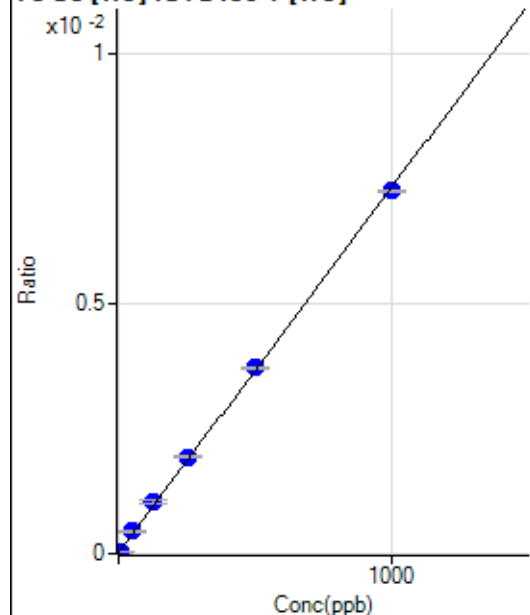
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	35.18	0.0000	P	9.4
2	☐	5.000	4.840	104.32	0.0001	P	4.7
3	☐	50.000	58.054	852.50	0.0004	P	1.2
4	☐	125.000	139.601	1878.53	0.0010	P	3.8
5	☐	250.000	263.015	3587.51	0.0019	P	2.1
6	☐	500.000	507.009	6889.34	0.0037	P	1.4
7	☐	1000.000	991.015	13242.54	0.0073	P	0.5
8	☐			40.12	0.0000	P	3.1

$$y = 7.3046\text{E-}006 * x + 1.8705\text{E-}005$$

$$R = 0.9998$$

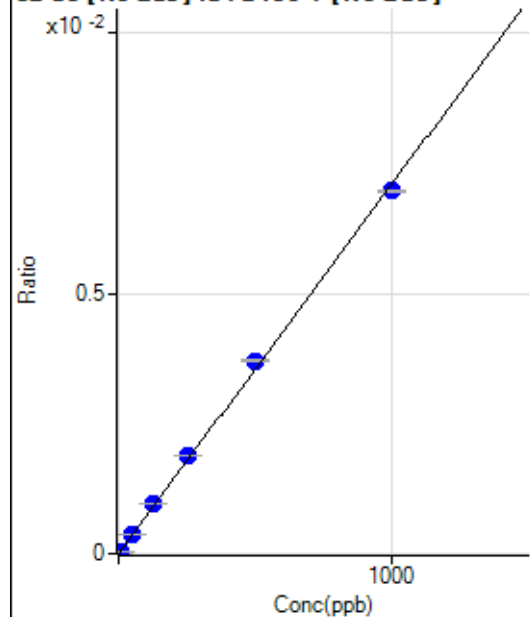
$$DL = 0.7241$$

$$BEC = 2.561$$

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	6.42	0.0000	P	197.
2	☐	5.000	5.579	517.05	0.0000	P	6.6
3	☐	50.000	54.120	5006.98	0.0004	P	1.6
4	☐	125.000	134.063	12122.06	0.0010	P	1.6
5	☐	250.000	265.610	23837.20	0.0019	P	0.6
6	☐	500.000	523.479	47153.84	0.0037	P	0.3
7	☐	1000.000	983.016	88383.24	0.0070	P	0.8
8	☐			62.97	0.0000	P	18.0

$$y = 7.0891\text{E-}006 * x + 5.0553\text{E-}007$$

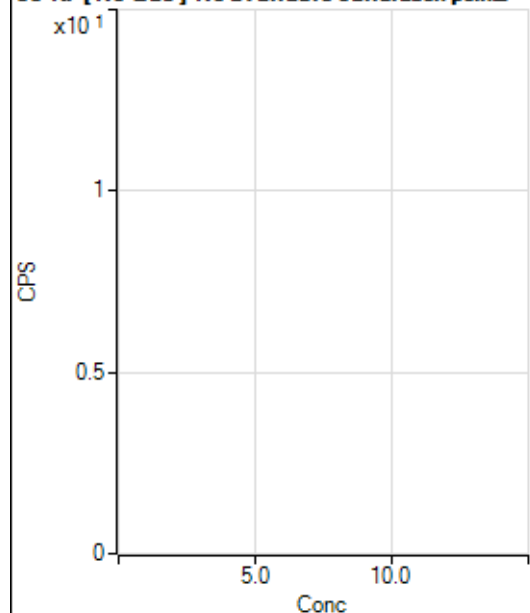
$$R = 0.9994$$

$$DL = 0.4215$$

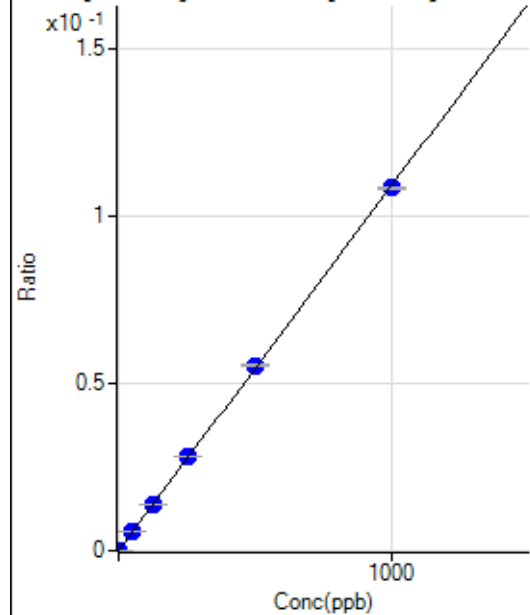
$$BEC = 0.07131$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			113.34		P	5.9
2	☐			120.00		P	14.7
3	☐			132.22		P	8.1
4	☐			125.56		P	19.9
5	☐			112.23		P	4.5
6	☐			120.00		P	11.1
7	☐			132.23		P	16.8
8	☐			144.45		P	14.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	130.56	0.0000	P	31.4
2	☐	1.000	0.975	1505.69	0.0001	P	9.8
3	☐	50.000	51.523	73363.02	0.0056	P	2.6
4	☐	125.000	127.254	177028.28	0.0139	P	0.5
5	☐	250.000	255.781	353128.13	0.0279	P	0.2
6	☐	500.000	508.237	704207.14	0.0554	P	0.4
7	☐	1000.000	994.078	1374809.14	0.1084	P	0.7
8	☐			6454.50	0.0005	P	2.7

$$y = 1.0904\text{E-}004 * x + 1.0311\text{E-}005$$

$$R = 0.9999$$

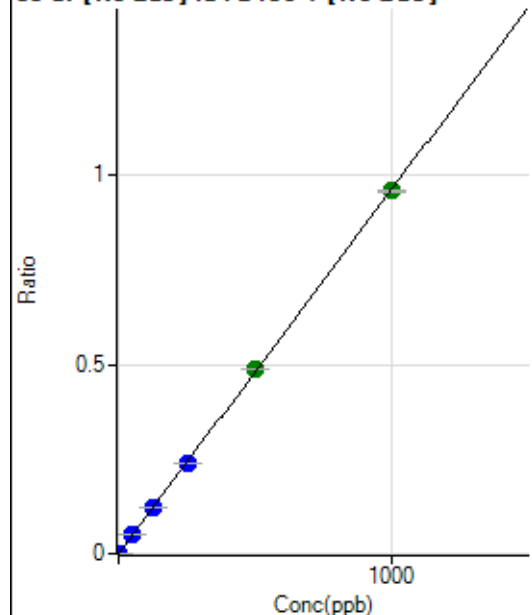
$$DL = 0.08912$$

$$BEC = 0.09456$$

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	97.23	0.0000	P	10.0
2	☐	1.000	0.936	11727.43	0.0009	P	0.9
3	☐	50.000	50.868	638086.37	0.0490	P	0.3
4	☐	125.000	125.663	1541680.03	0.1209	P	0.7
5	☐	250.000	247.428	3013542.66	0.2381	P	0.3
6	☐	500.000	507.812	6208271.80	0.4887	A	0.7
7	☐	1000.000	996.611	12162436.91	0.9590	A	0.7
8	☐			55248.70	0.0046	P	2.4

$$y = 9.6228\text{E-}004 * x + 7.6806\text{E-}006$$

$$R = 1.0000$$

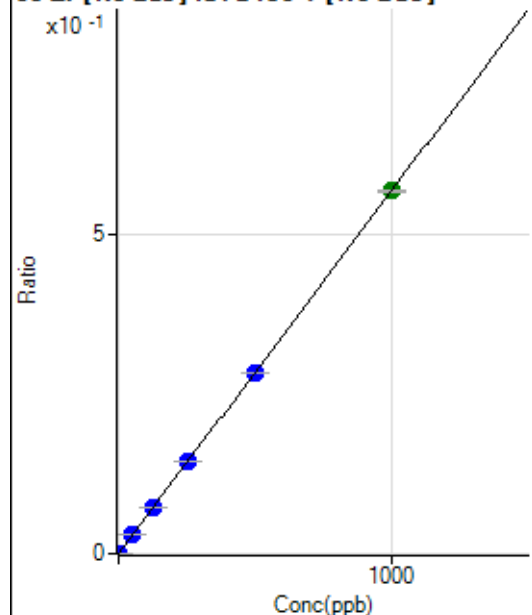
$$DL = 0.002393$$

$$BEC = 0.007982$$

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	483.37	0.0000	P	12.2
2	☐	1.000	0.863	6826.88	0.0005	P	0.3
3	☐	50.000	50.868	377325.49	0.0290	P	0.8
4	☐	125.000	127.805	926566.82	0.0727	P	0.1
5	☐	250.000	252.357	1815866.67	0.1435	P	0.5
6	☐	500.000	498.080	3597197.00	0.2831	P	0.7
7	☐	1000.000	999.977	7208602.77	0.5684	A	0.4
8	☐			3278.31	0.0003	P	14.6

$$y = 5.6838\text{E-}004 * x + 3.8186\text{E-}005$$

$$R = 1.0000$$

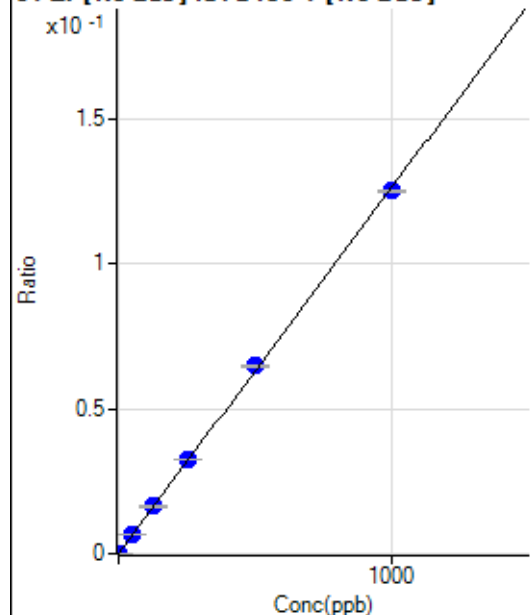
$$DL = 0.02456$$

$$BEC = 0.06718$$

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	111.12	0.0000	P	11.5
2	☐	1.000	0.899	1577.92	0.0001	P	8.6
3	☐	50.000	51.571	84987.88	0.0065	P	1.1
4	☐	125.000	128.792	207425.50	0.0163	P	0.8
5	☐	250.000	256.710	410358.45	0.0324	P	0.9
6	☐	500.000	512.451	822164.76	0.0647	P	0.3
7	☐	1000.000	991.544	1587908.97	0.1252	P	0.5
8	☐			686.16	0.0001	P	3.2

$$y = 1.2627\text{E-}004 * x + 8.7780\text{E-}006$$

$$R = 0.9999$$

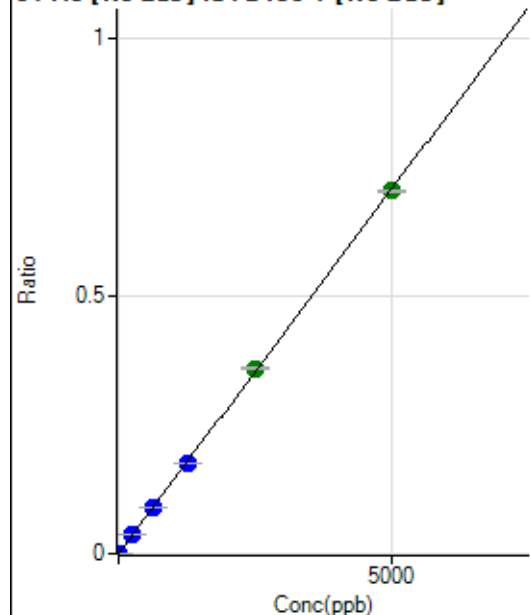
$$DL = 0.02405$$

$$BEC = 0.06952$$

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	219.46	0.0000	P	14.2
2	☐	5.000	4.571	8580.69	0.0007	P	1.0
3	☐	250.000	252.853	466927.13	0.0358	P	0.7
4	☐	625.000	627.316	1132740.36	0.0889	P	0.4
5	☐	1250.000	1243.115	2228256.99	0.1761	P	0.2
6	☐	2500.000	2544.264	4577691.29	0.3603	A	0.4
7	☐	5000.000	4979.158	8942524.16	0.7051	A	0.5
8	☐			7766.31	0.0006	P	8.1

$$y = 1.4161\text{E-}004 * x + 1.7333\text{E-}005$$

$$R = 0.9999$$

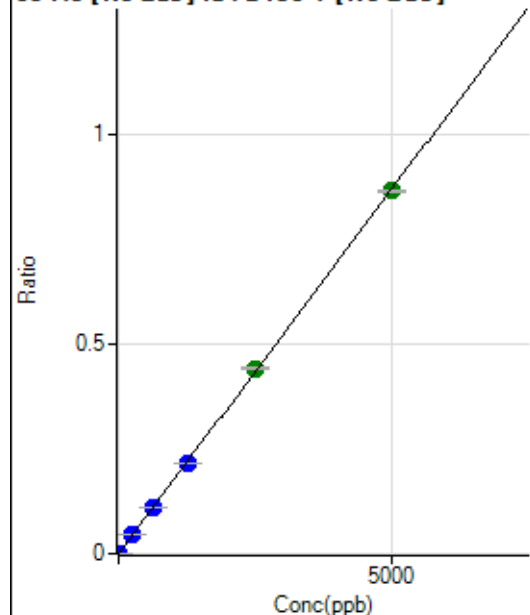
$$DL = 0.0523$$

$$BEC = 0.1224$$

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	55.56	0.0000	P	8.9
2	☐	5.000	4.798	10829.53	0.0008	P	2.6
3	☐	250.000	253.515	574687.64	0.0441	P	0.5
4	☐	625.000	630.260	1397359.41	0.1096	P	0.4
5	☐	1250.000	1245.495	2741401.02	0.2166	P	0.3
6	☐	2500.000	2541.174	5614680.68	0.4419	A	0.8
7	☐	5000.000	4979.706	10982711.97	0.8660	A	0.5
8	☐			10801.74	0.0009	P	7.8

$$y = 1.7391\text{E-}004 * x + 4.3893\text{E-}006$$

$$R = 0.9999$$

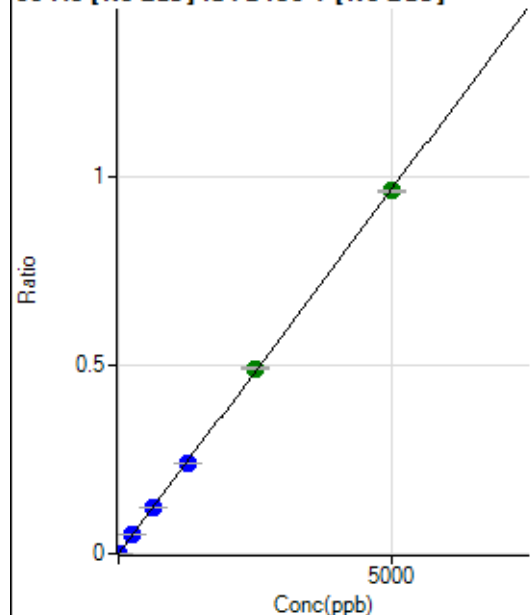
$$DL = 0.006714$$

$$BEC = 0.02524$$

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	155.56	0.0000	P	11.2
2	☐	5.000	4.662	11813.68	0.0009	P	3.5
3	☐	250.000	252.822	638246.87	0.0490	P	0.2
4	☐	625.000	627.528	1549298.74	0.1215	P	0.9
5	☐	1250.000	1238.673	3035961.74	0.2399	P	0.5
6	☐	2500.000	2543.055	6256573.27	0.4925	A	0.4
7	☐	5000.000	4980.847	12231992.81	0.9645	A	0.6
8	☐			16220.95	0.0013	P	3.9

$$y = 1.9364\text{E-}004 * x + 1.2289\text{E-}005$$

$$R = 0.9999$$

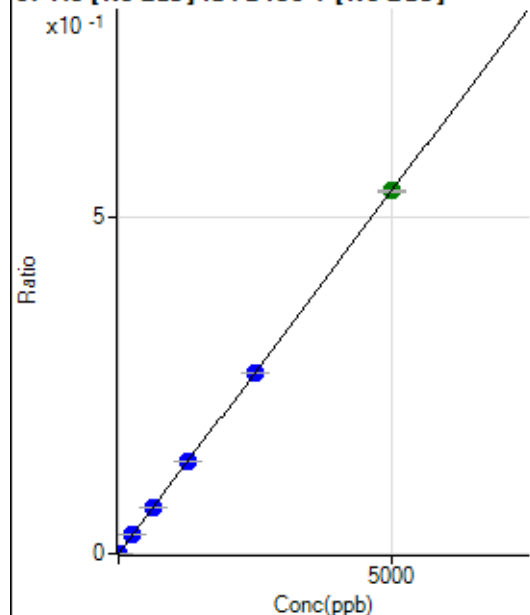
$$DL = 0.02133$$

$$BEC = 0.06346$$

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	52.78	0.0000	P	18.1
2	☐	5.000	4.905	6874.20	0.0005	P	2.6
3	☐	250.000	256.753	360381.95	0.0277	P	0.1
4	☐	625.000	640.966	879911.64	0.0690	P	0.4
5	☐	1250.000	1268.510	1728793.42	0.1366	P	0.3
6	☐	2500.000	2481.786	3395132.19	0.2672	P	0.2
7	☐	5000.000	5002.146	6830842.86	0.5386	A	0.4
8	☐			6729.64	0.0006	P	5.2

$$y = 1.0768\text{E-}004 * x + 4.1688\text{E-}006$$

$$R = 1.0000$$

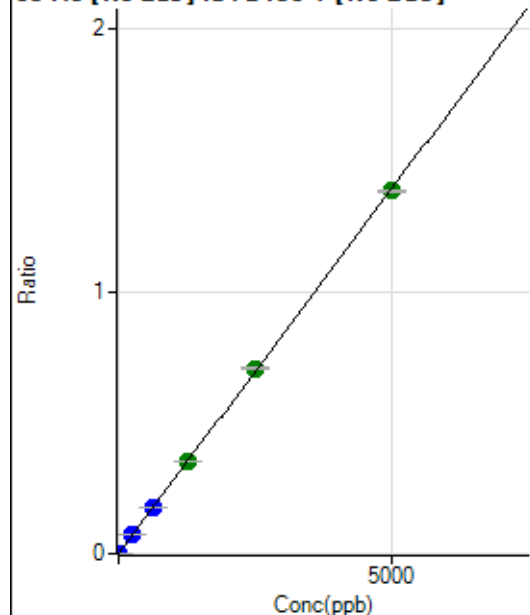
$$DL = 0.02106$$

$$BEC = 0.03872$$

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	133.34	0.0000	P	10.7
2	☐	5.000	4.837	17497.44	0.0014	P	1.4
3	☐	250.000	254.328	921699.65	0.0707	P	0.1
4	☐	625.000	627.578	2224447.29	0.1745	P	0.4
5	☐	1250.000	1268.014	4461849.80	0.3525	A	0.1
6	☐	2500.000	2539.945	8971274.68	0.7062	A	0.6
7	☐	5000.000	4974.986	17541064.63	1.3831	A	0.2
8	☐			16802.18	0.0014	P	6.1

$$y = 2.7801\text{E-}004 * x + 1.0532\text{E-}005$$

$$R = 0.9999$$

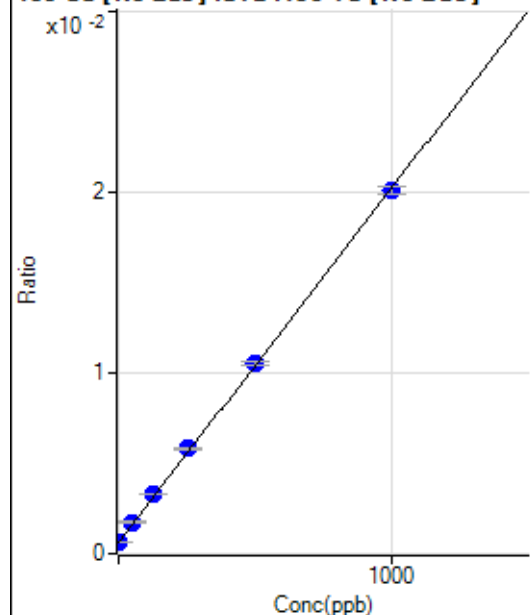
$$DL = 0.01221$$

$$BEC = 0.03788$$

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	3720.09	0.0006	P	2.3
2	☐	1.000	0.974	3936.82	0.0006	P	4.4
3	☐	50.000	56.622	10823.95	0.0017	P	4.4
4	☐	125.000	136.556	20632.41	0.0033	P	2.0
5	☐	250.000	265.049	37352.95	0.0058	P	0.6
6	☐	500.000	503.948	69450.92	0.0105	P	1.8
7	☐	1000.000	992.488	133462.50	0.0201	P	2.1
8	☐			4020.19	0.0006	P	4.3

$$y = 1.9598\text{E-}005 * x + 6.1156\text{E-}004$$

$$R = 0.9998$$

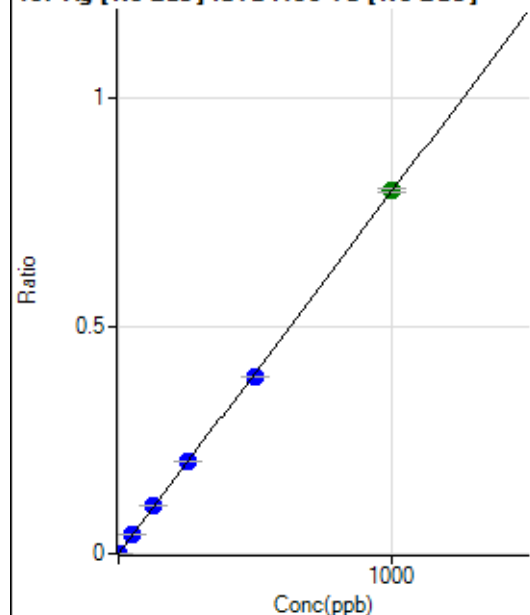
$$DL = 2.172$$

$$BEC = 31.2$$

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	83.34	0.0000	P	34.8
2	☐	1.000	1.100	5545.75	0.0009	P	4.4
3	☐	50.000	55.523	277638.62	0.0442	P	0.7
4	☐	125.000	134.799	672566.58	0.1072	P	0.2
5	☐	250.000	256.989	1314428.09	0.2043	P	0.5
6	☐	500.000	487.707	2567508.02	0.3877	P	0.5
7	☐	1000.000	1002.898	5304002.64	0.7973	A	1.0
8	☐			1169.54	0.0002	P	15.8

$$y = 7.9495\text{E-}004 * x + 1.3702\text{E-}005$$

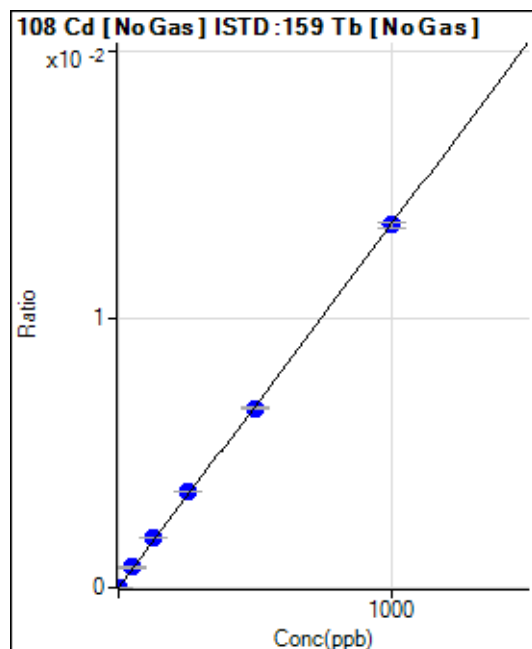
$$R = 0.9998$$

$$DL = 0.01797$$

$$BEC = 0.01724$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.56	0.0000	P	114.
2	☐	1.000	0.935	84.73	0.0000	P	2.8
3	☐	50.000	55.976	4770.34	0.0008	P	4.6
4	☐	125.000	137.571	11692.55	0.0019	P	1.3
5	☐	250.000	262.049	22826.97	0.0035	P	0.1
6	☐	500.000	494.373	44322.15	0.0067	P	0.9
7	☐	1000.000	997.931	89869.98	0.0135	P	1.7
8	☐			52.78	0.0000	P	57.5

$$y = 1.3537\text{E-}005 * x + 9.1796\text{E-}007$$

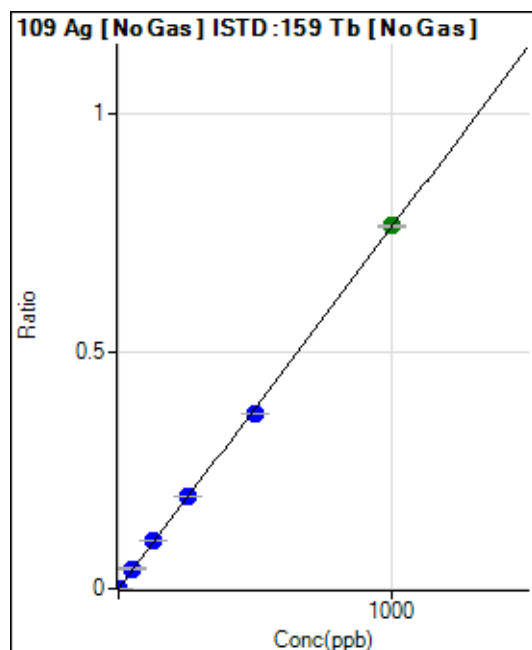
$$R = 0.9998$$

$$DL = 0.2334$$

$$BEC = 0.06781$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	35.2
2	☐	1.000	1.059	5076.12	0.0008	P	2.3
3	☐	50.000	55.644	266688.37	0.0424	P	0.9
4	☐	125.000	134.346	642529.41	0.1024	P	0.7
5	☐	250.000	256.385	1257008.47	0.1954	P	0.5
6	☐	500.000	486.256	2453960.12	0.3706	P	0.1
7	☐	1000.000	1003.825	5089310.53	0.7650	A	0.8
8	☐			938.96	0.0001	P	22.5

$$y = 7.6207\text{E-}004 * x + 5.9340\text{E-}006$$

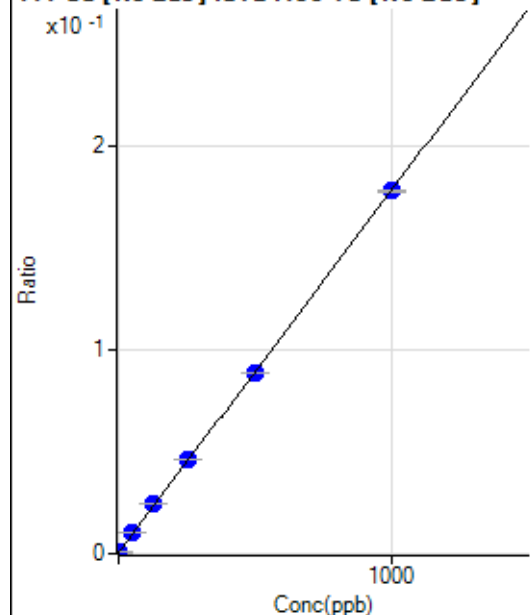
$$R = 0.9998$$

$$DL = 0.008231$$

$$BEC = 0.007787$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2614.06	0.0004	P	2.4
2	☐	1.000	1.053	3852.09	0.0006	P	5.1
3	☐	50.000	54.011	63136.16	0.0100	P	0.8
4	☐	125.000	133.938	152257.29	0.0243	P	1.0
5	☐	250.000	258.634	298833.89	0.0465	P	0.4
6	☐	500.000	496.157	587488.52	0.0887	P	0.4
7	☐	1000.000	998.445	1184789.76	0.1781	P	0.9
8	☐			3092.48	0.0005	P	2.9

$$y = 1.7794\text{E-}004 * x + 4.2973\text{E-}004$$

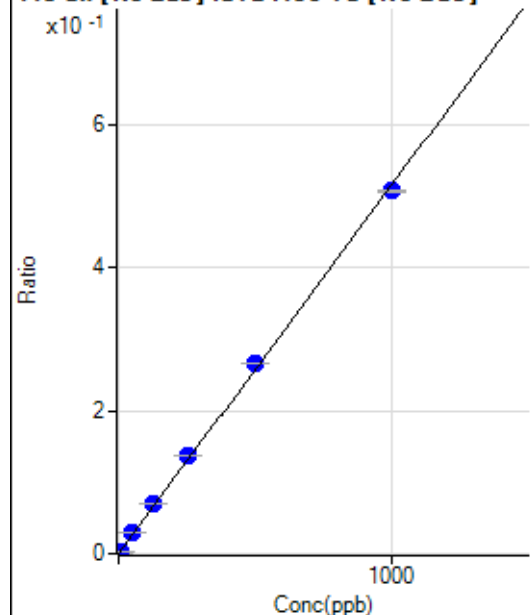
$$R = 0.9999$$

$$DL = 0.1729$$

$$BEC = 2.415$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD:159 Tb [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	458.36	0.0001	P	10.3
2	☐	5.000	5.580	18440.63	0.0030	P	2.0
3	☐	50.000	56.141	182567.89	0.0290	P	1.3
4	☐	125.000	137.675	446118.35	0.0711	P	0.3
5	☐	250.000	267.149	886997.90	0.1379	P	0.7
6	☐	500.000	518.024	1769916.14	0.2673	P	0.2
7	☐	1000.000	984.806	3379828.25	0.5080	P	0.9
8	☐			3181.04	0.0005	P	5.5

$$y = 5.1580\text{E-}004 * x + 7.5379\text{E-}005$$

$$R = 0.9996$$

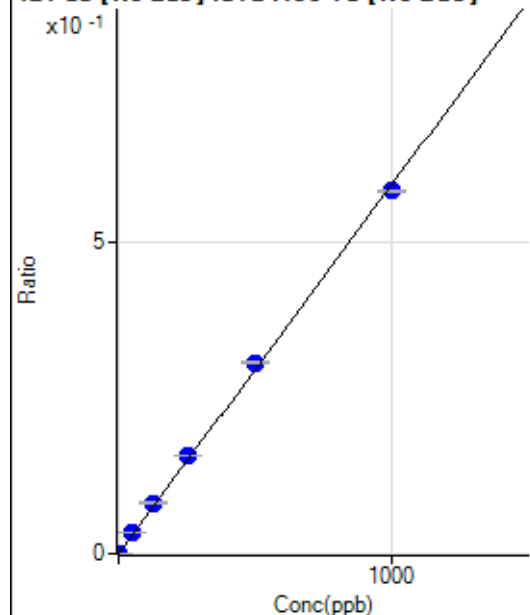
$$DL = 0.04501$$

$$BEC = 0.1461$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	29.2
2	☐	2.000	2.047	7607.92	0.0012	P	1.0
3	☐	50.000	54.934	204044.74	0.0324	P	0.6
4	☐	125.000	137.568	509840.58	0.0812	P	1.3
5	☐	250.000	267.502	1016308.74	0.1580	P	0.5
6	☐	500.000	519.078	2029863.89	0.3065	P	0.2
7	☐	1000.000	984.268	3866838.89	0.5812	P	0.3
8	☐			7288.29	0.0012	P	2.1

$$y = 5.9050\text{E-}004 * x + 9.6020\text{E-}006$$

$$R = 0.9995$$

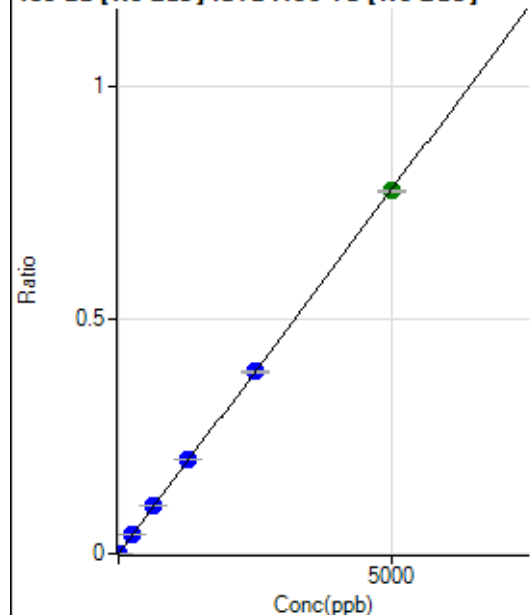
$$DL = 0.01424$$

$$BEC = 0.01626$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	77.5
2	☐	10.000	10.081	9817.78	0.0016	P	6.4
3	☐	250.000	268.029	262369.80	0.0417	P	0.7
4	☐	625.000	664.314	648937.33	0.1034	P	0.6
5	☐	1250.000	1290.033	1291836.48	0.2008	P	0.7
6	☐	2500.000	2503.035	2580120.50	0.3896	P	0.6
7	☐	5000.000	4982.658	5160025.99	0.7756	A	0.5
8	☐			1822.42	0.0003	P	7.6

$$y = 1.5566\text{E-}004 * x + 3.6402\text{E-}006$$

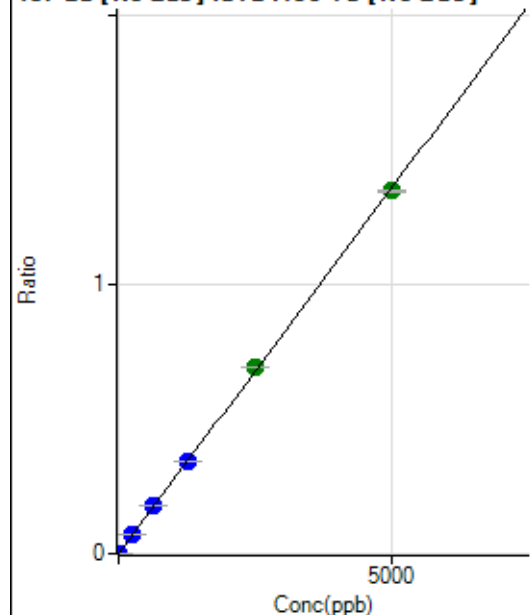
$$R = 0.9999$$

$$DL = 0.05435$$

$$BEC = 0.02339$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33.34	0.0000	P	65.5
2	☐	10.000	10.349	17592.35	0.0028	P	3.1
3	☐	250.000	264.759	452496.54	0.0720	P	0.8
4	☐	625.000	652.552	1112974.26	0.1773	P	0.8
5	☐	1250.000	1263.965	2209943.89	0.3435	P	0.5
6	☐	2500.000	2553.051	4594821.41	0.6938	A	0.7
7	☐	5000.000	4965.801	8978283.10	1.3496	A	0.8
8	☐			3117.15	0.0005	P	10.7

$$y = 2.7177E-004 * x + 5.4660E-006$$

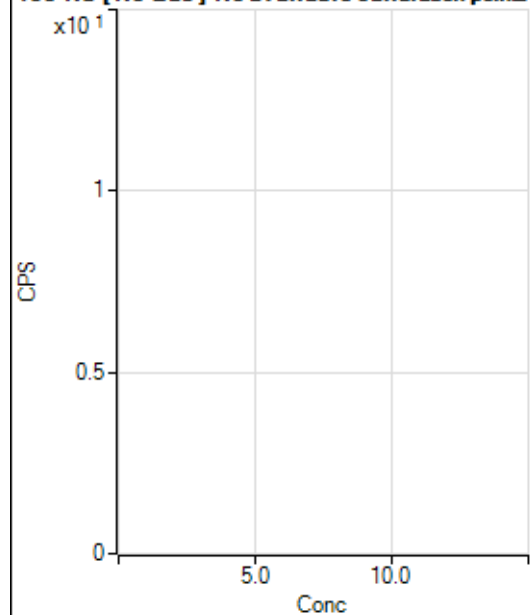
$$R = 0.9999$$

$$DL = 0.0395$$

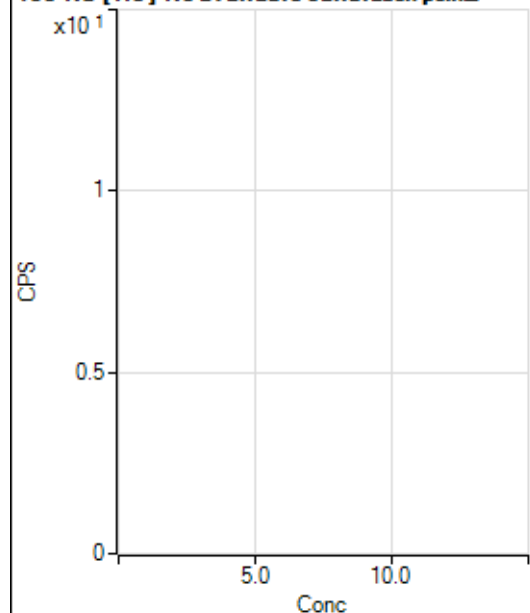
$$BEC = 0.02011$$

Weight: <None>

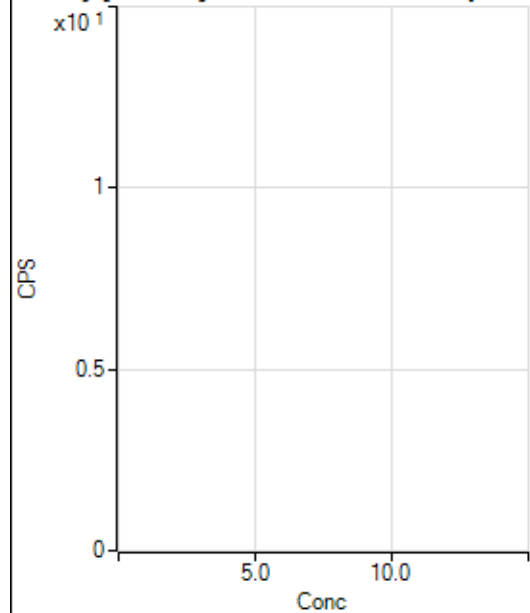
Min Conc: 0

150 Nd [No Gas] No available calibration points

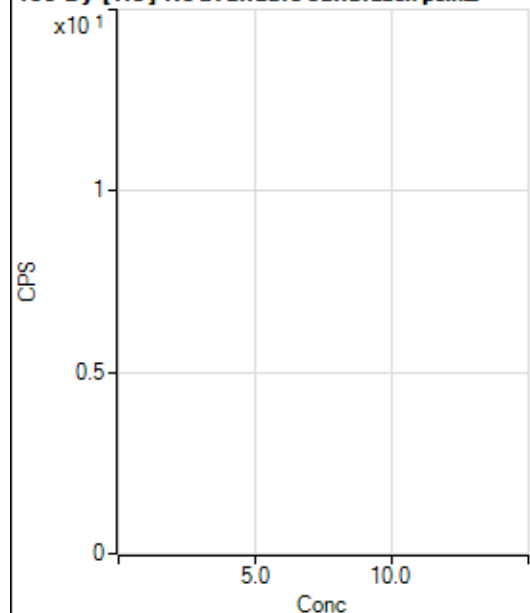
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			11.11		P	34.6
2	☐			8.89		P	86.6
3	☐			37.78		P	36.7
4	☐			64.45		P	33.3
5	☐			95.56		P	17.6
6	☐			253.35		P	13.7
7	☐			417.80		P	20.3
8	☐			102.22		P	3.8

150 Nd [He] No available calibration points

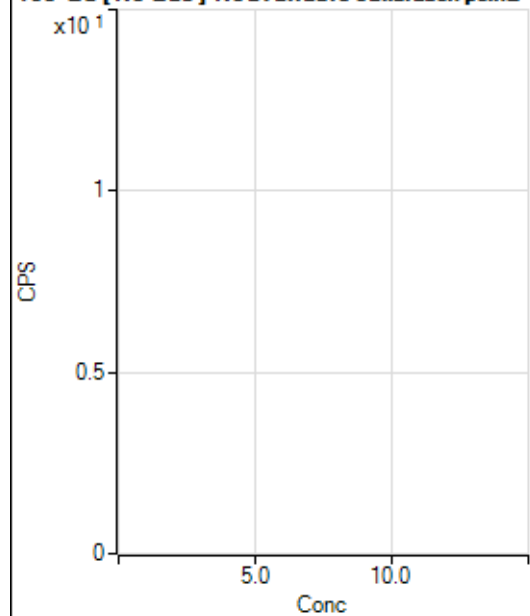
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	0.0
2	☐			2.22		P	86.6
3	☐			3.33		P	100.
4	☐			10.00		P	57.7
5	☐			22.22		P	8.7
6	☐			31.11		P	12.4
7	☐			51.11		P	22.9
8	☐			57.78		P	17.6

156 Dy [No Gas] No available calibration points

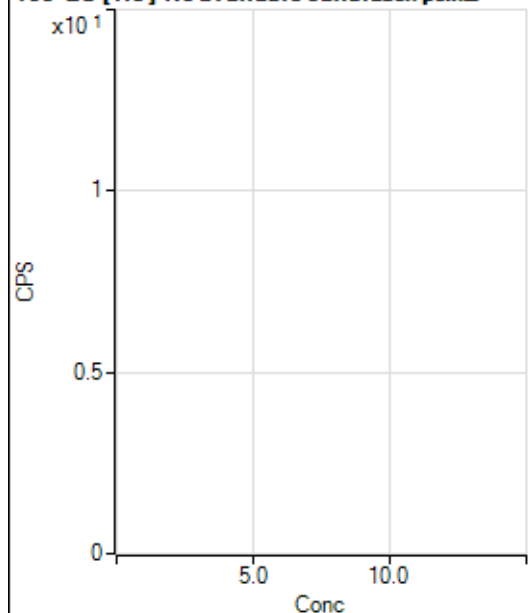
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	114.
2	☐			19.45		P	24.7
3	☐			0.00		P	
4	☐			11.11		P	43.3
5	☐			38.89		P	12.4
6	☐			47.22		P	36.7
7	☐			77.78		P	16.4
8	☐			77.78		P	55.0

156 Dy [He] No available calibration points

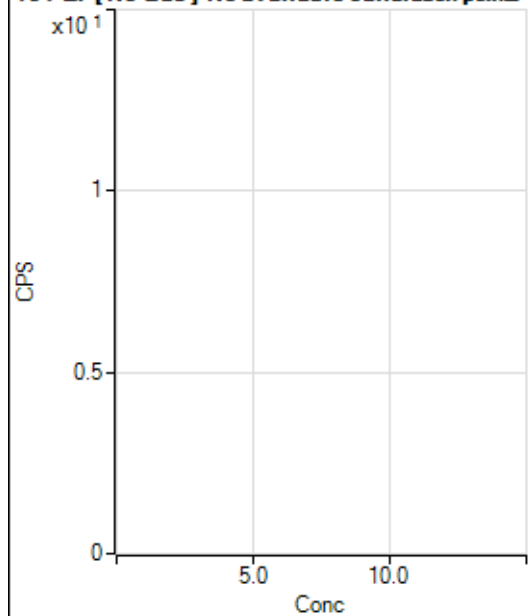
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			14.45		P	48.0
2	☐			15.55		P	68.9
3	☐			13.33		P	50.0
4	☐			30.00		P	11.1
5	☐			50.00		P	11.5
6	☐			73.34		P	35.5
7	☐			111.11		P	4.6
8	☐			50.00		P	24.0

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

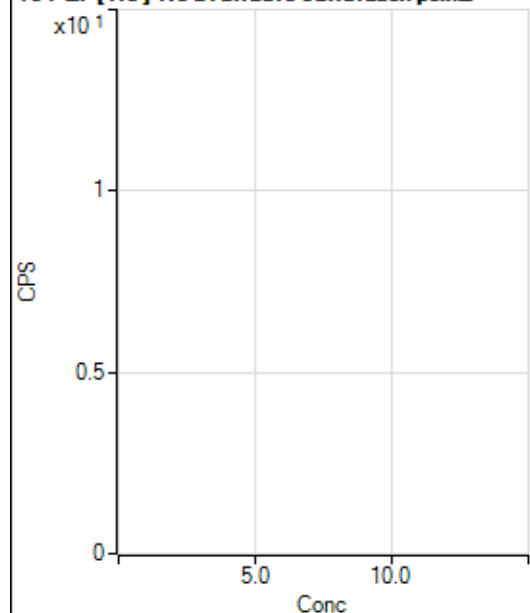
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			47.22		P	36.7
2	☐			38.89		P	12.4
3	☐			33.34		P	43.3
4	☐			30.56		P	15.7
5	☐			11.11		P	43.3
6	☐			41.67		P	20.0
7	☐			30.56		P	41.7
8	☐			61.11		P	39.4

160 Gd [He] No available calibration points

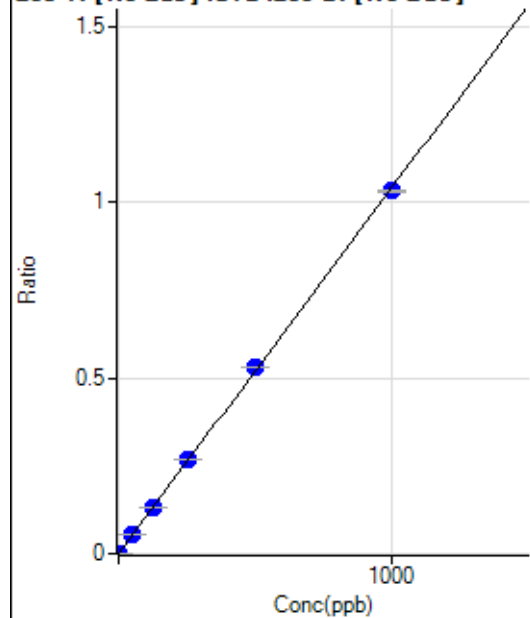
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			122.23		P	17.5
2	☐			135.56		P	5.7
3	☐			128.89		P	7.9
4	☐			113.33		P	13.5
5	☐			138.89		P	18.6
6	☐			123.34		P	15.0
7	☐			115.56		P	14.8
8	☐			132.23		P	15.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	25.0
2	☐			30.56		P	56.8
3	☐			16.67		P	50.0
4	☐			41.67		P	20.0
5	☐			52.78		P	9.1
6	☐			66.67		P	25.0
7	☐			47.22		P	44.4
8	☐			55.56		P	34.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			42.22		P	39.7
2	☐			43.33		P	23.1
3	☐			46.67		P	25.8
4	☐			42.22		P	39.7
5	☐			45.55		P	44.7
6	☐			51.11		P	27.2
7	☐			47.78		P	22.4
8	☐			74.45		P	52.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	472.25	0.0001	P	16.4
2	☐	1.000	0.990	4111.94	0.0012	P	4.4
3	☐	50.000	51.944	192759.73	0.0542	P	1.0
4	☐	125.000	128.079	479092.15	0.1334	P	0.2
5	☐	250.000	257.347	984692.82	0.2679	P	0.3
6	☐	500.000	510.111	1986397.27	0.5310	P	0.8
7	☐	1000.000	992.626	3801189.45	1.0331	P	0.7
8	☐			1561.27	0.0005	P	22.4

$$y = 0.0010 * x + 1.3354E-004$$

$$R = 0.9999$$

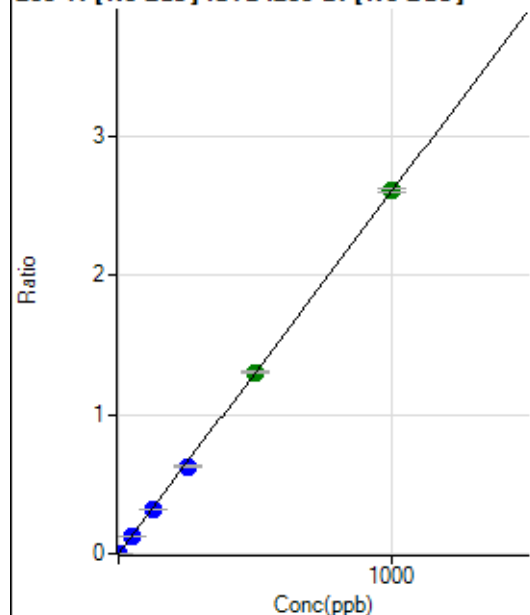
$$DL = 0.06329$$

$$BEC = 0.1283$$

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	575.04	0.0002	P	3.8
2	☐	1.000	0.892	8764.39	0.0025	P	0.8
3	☐	50.000	49.612	459250.82	0.1291	P	0.7
4	☐	125.000	121.732	1136636.59	0.3166	P	0.7
5	☐	250.000	241.218	2304523.03	0.6271	P	0.6
6	☐	500.000	501.226	4874040.51	1.3029	A	0.5
7	☐	1000.000	1002.010	9582482.07	2.6044	A	0.9
8	☐			3617.30	0.0011	P	9.9

$$y = 0.0026 * x + 1.6260E-004$$

$$R = 1.0000$$

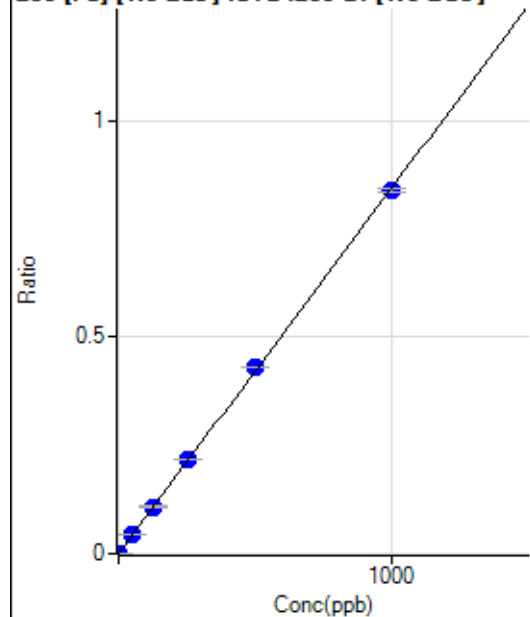
$$DL = 0.007131$$

$$BEC = 0.06256$$

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	555.58	0.0002	P	7.0
2	☐	1.000	0.971	3448.70	0.0010	P	6.2
3	☐	50.000	51.974	156560.10	0.0440	P	0.5
4	☐	125.000	128.571	390107.05	0.1086	P	0.8
5	☐	250.000	256.405	795667.40	0.2165	P	0.1
6	☐	500.000	509.720	1609601.30	0.4303	P	0.6
7	☐	1000.000	992.994	3083374.75	0.8380	P	0.9
8	☐			5475.34	0.0017	P	4.0

$$y = 8.4380E-004 * x + 1.5710E-004$$

$$R = 0.9999$$

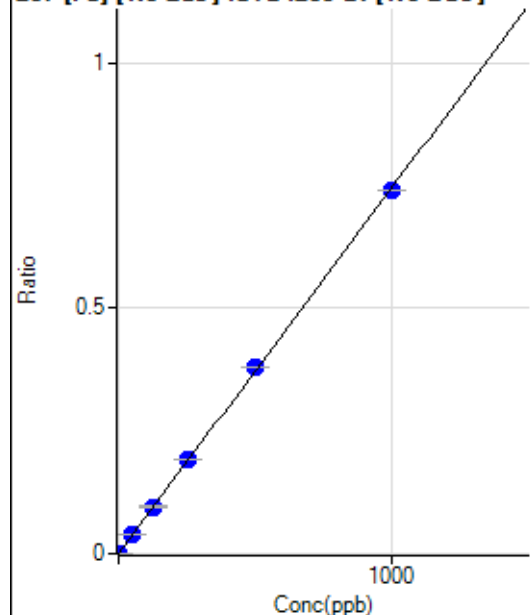
$$DL = 0.03932$$

$$BEC = 0.1862$$

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	518.54	0.0001	P	10.5
2	☐	1.000	0.989	3118.98	0.0009	P	4.6
3	☐	50.000	52.297	139044.94	0.0391	P	0.7
4	☐	125.000	128.577	344307.33	0.0959	P	0.8
5	☐	250.000	257.851	706147.57	0.1922	P	0.2
6	☐	500.000	509.196	1419009.26	0.3793	P	0.5
7	☐	1000.000	992.877	2720852.49	0.7395	P	0.1
8	☐			4741.73	0.0015	P	7.1

$$y = 7.4464\text{E-}004 * x + 1.4662\text{E-}004$$

$$R = 0.9999$$

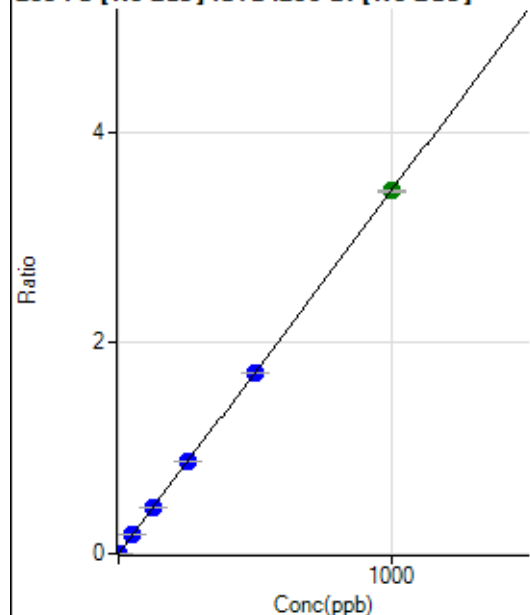
$$DL = 0.06218$$

$$BEC = 0.1969$$

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	1920.47	0.0005	P	9.7
2	☐	1.000	0.953	13517.85	0.0038	P	2.4
3	☐	50.000	51.478	632681.14	0.1779	P	0.8
4	☐	125.000	126.945	1572115.14	0.4378	P	0.1
5	☐	250.000	252.733	3201266.61	0.8711	P	0.3
6	☐	500.000	498.783	6429422.44	1.7186	P	0.7
7	☐	1000.000	999.608	12670806.27	3.4438	A	0.3
8	☐			21277.52	0.0066	P	4.3

$$y = 0.0034 * x + 5.4304\text{E-}004$$

$$R = 1.0000$$

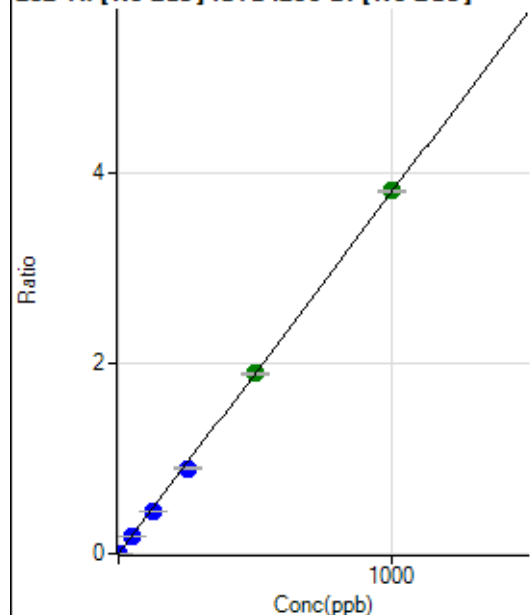
$$DL = 0.04575$$

$$BEC = 0.1577$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1551.99	0.0004	P	4.3
2	☐	1.000	0.822	12567.48	0.0036	P	0.7
3	☐	50.000	47.129	638157.31	0.1794	P	0.5
4	☐	125.000	118.433	1616396.33	0.4502	P	1.1
5	☐	250.000	236.592	3303165.55	0.8988	P	0.6
6	☐	500.000	498.880	7088533.49	1.8948	A	0.5
7	☐	1000.000	1004.877	14041025.31	3.8162	A	0.6
8	☐			6372.12	0.0020	P	8.4

$$y = 0.0038 * x + 4.3884E-004$$

$$R = 0.9999$$

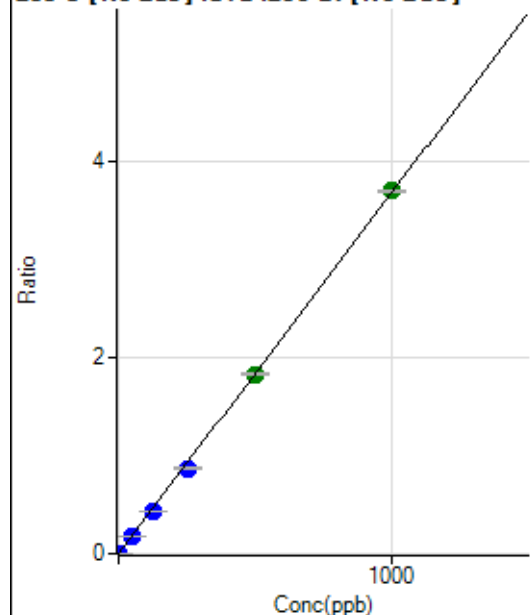
$$DL = 0.01488$$

$$BEC = 0.1156$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2075.25	0.0006	P	3.7
2	☐	1.000	0.879	13496.40	0.0038	P	1.9
3	☐	50.000	47.265	620503.82	0.1744	P	0.6
4	☐	125.000	118.254	1563956.62	0.4356	P	0.6
5	☐	250.000	236.972	3205414.87	0.8722	P	0.2
6	☐	500.000	497.877	6852891.60	1.8319	A	1.2
7	☐	1000.000	1005.299	13607324.17	3.6983	A	0.6
8	☐			5062.30	0.0016	P	7.1

$$y = 0.0037 * x + 5.8679E-004$$

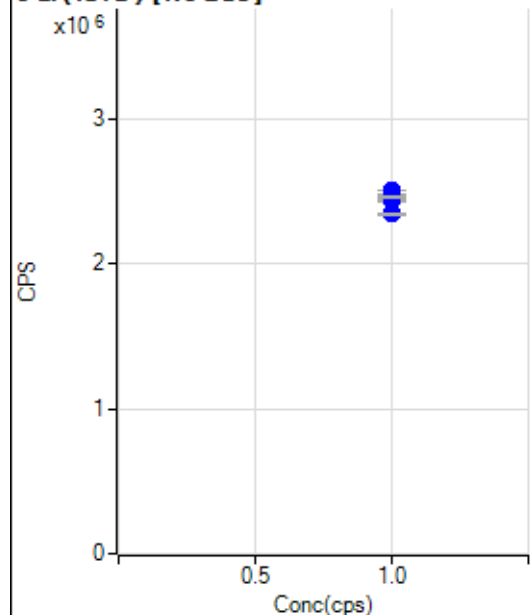
$$R = 0.9999$$

$$DL = 0.01753$$

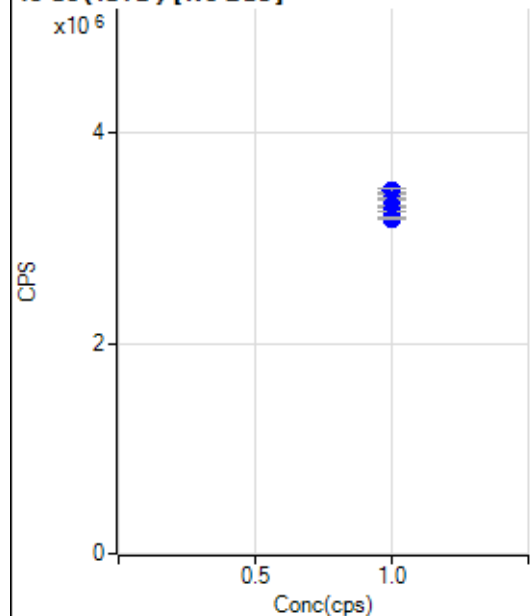
$$BEC = 0.1595$$

Weight: <None>

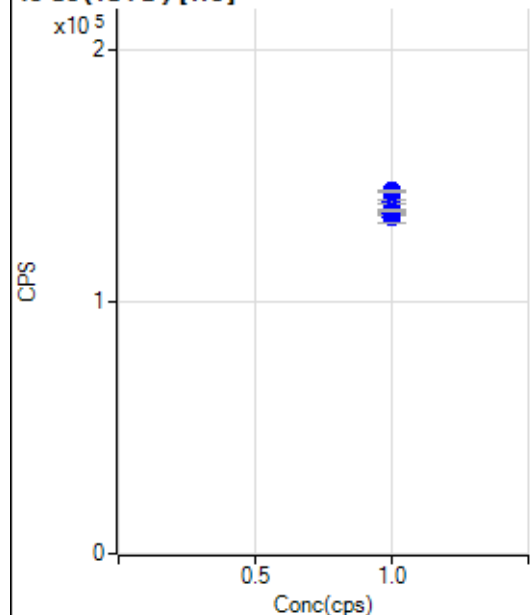
Min Conc: 0

6 Li (ISTD) [No Gas]

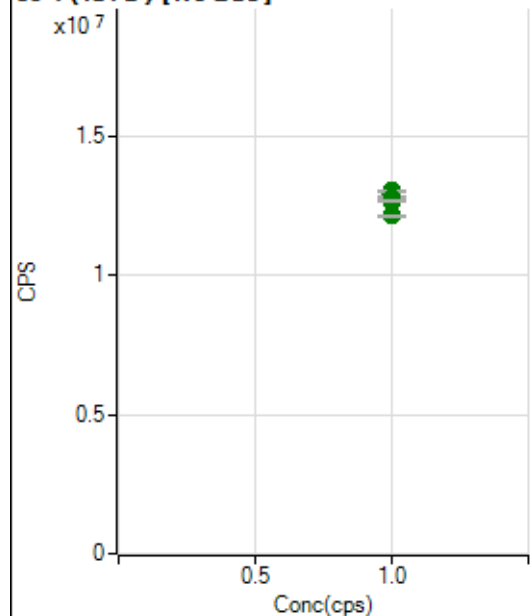
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2440048.36		P	0.4
2	☐	1.000		2478299.28		P	0.1
3	☐	1.000		2506431.59		P	0.1
4	☐	1.000		2466159.85		P	0.1
5	☐	1.000		2462661.29		P	0.6
6	☐	1.000		2485464.20		P	0.4
7	☐	1.000		2458802.14		P	0.6
8	☐	1.000		2346636.33		P	0.4

45 Sc (ISTD) [No Gas]

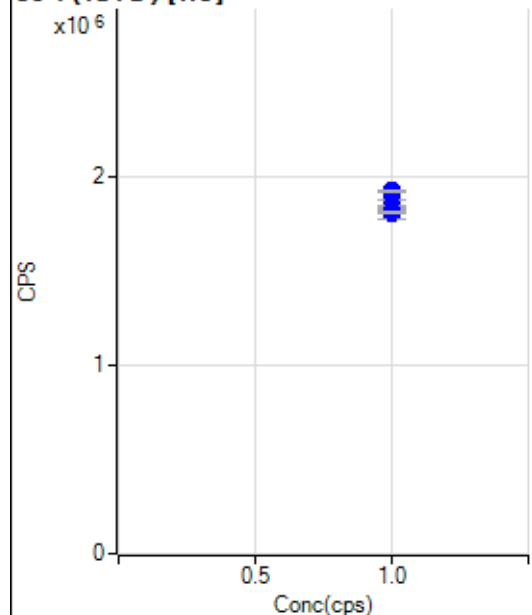
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3363782.08		P	0.3
2	☐	1.000		3433376.72		P	0.4
3	☐	1.000		3452238.49		P	1.3
4	☐	1.000		3370824.81		P	0.4
5	☐	1.000		3304806.26		P	0.8
6	☐	1.000		3304960.30		P	0.5
7	☐	1.000		3260760.45		P	0.2
8	☐	1.000		3189648.33		P	0.5

45 Sc (ISTD) [He]

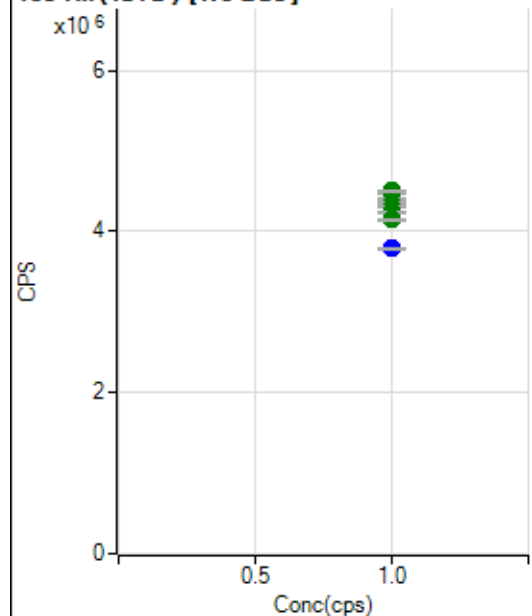
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		139583.21		P	1.0
2	☐	1.000		143882.41		P	0.6
3	☐	1.000		143596.84		P	0.8
4	☐	1.000		133434.61		P	3.9
5	☐	1.000		135351.66		P	0.7
6	☐	1.000		136036.25		P	0.3
7	☐	1.000		134688.78		P	1.0
8	☐	1.000		136002.36		P	0.6

89 Y (ISTD) [No Gas]

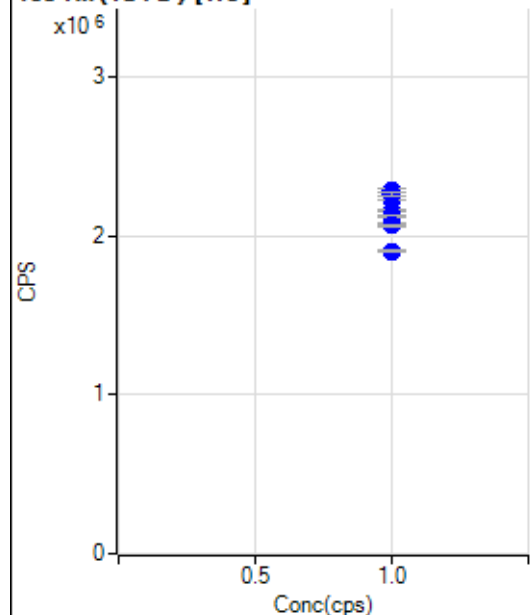
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12659569.39		A	0.2
2	☐	1.000		12911129.95		A	0.7
3	☐	1.000		13033624.95		A	0.5
4	☐	1.000		12748523.56		A	0.3
5	☐	1.000		12656479.12		A	0.5
6	☐	1.000		12704692.59		A	0.6
7	☐	1.000		12682258.84		A	0.4
8	☐	1.000		12130942.18		A	0.7

89 Y (ISTD) [He]

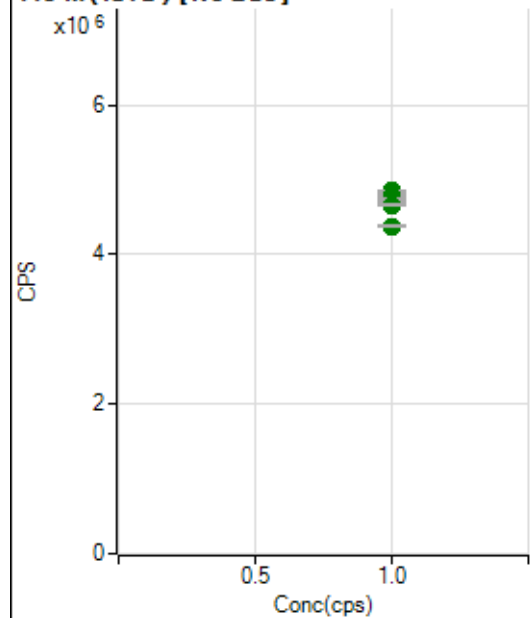
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1881263.76		P	0.3
2	☐	1.000		1930063.04		P	0.6
3	☐	1.000		1925344.85		P	0.3
4	☐	1.000		1810477.21		P	3.3
5	☐	1.000		1849323.25		P	0.6
6	☐	1.000		1850921.79		P	0.3
7	☐	1.000		1824657.46		P	0.7
8	☐	1.000		1816586.36		P	0.9

103 Rh (ISTD) [No Gas]

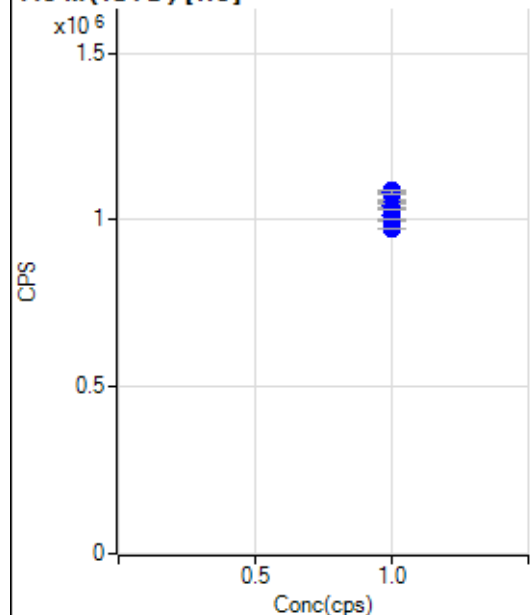
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4401392.20		A	0.7
2	☐	1.000		4479479.53		A	0.9
3	☐	1.000		4503771.11		A	0.6
4	☐	1.000		4350254.31		A	0.7
5	☐	1.000		4305429.91		A	0.5
6	☐	1.000		4241414.24		A	0.6
7	☐	1.000		4144178.35		A	0.5
8	☐	1.000		3787741.40		P	0.5

103 Rh (ISTD) [He]

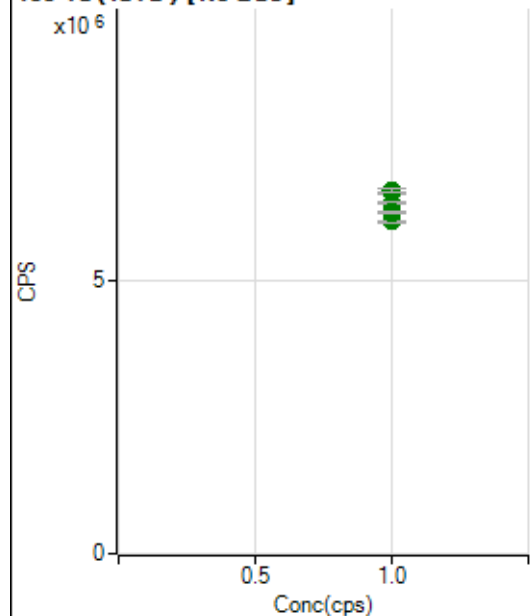
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2222145.54		P	0.2
2	☐	1.000		2281185.87		P	1.0
3	☐	1.000		2263708.20		P	0.8
4	☐	1.000		2123435.14		P	3.9
5	☐	1.000		2157437.90		P	0.7
6	☐	1.000		2122126.55		P	0.3
7	☐	1.000		2063986.81		P	0.3
8	☐	1.000		1903985.56		P	0.7

115 In (ISTD) [No Gas]

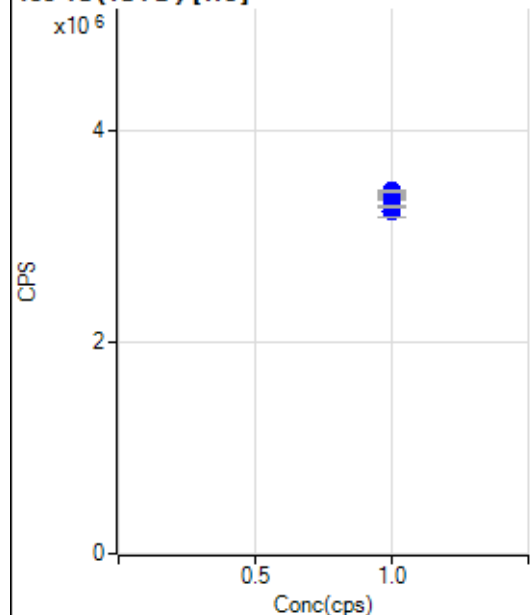
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4730715.25		A	0.6
2	☐	1.000		4824180.34		A	0.4
3	☐	1.000		4850618.80		A	0.6
4	☐	1.000		4771055.24		A	0.5
5	☐	1.000		4751687.07		A	0.3
6	☐	1.000		4745057.29		A	0.6
7	☐	1.000		4663690.07		A	0.4
8	☐	1.000		4375985.25		A	0.6

115 In (ISTD) [He]

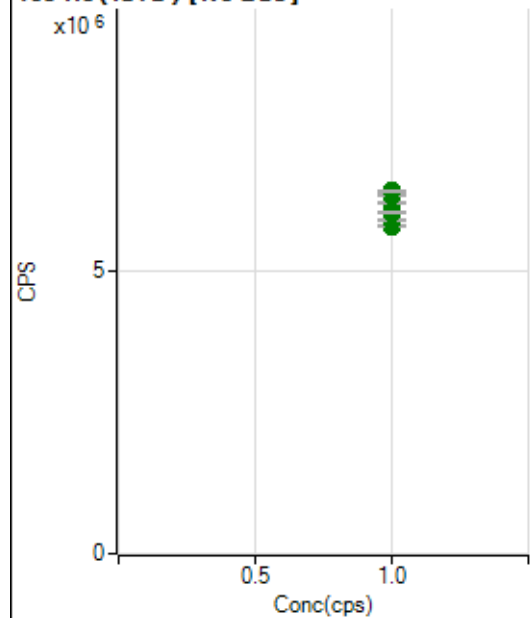
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1057060.34		P	0.7
2	☐	1.000		1087363.05		P	0.2
3	☐	1.000		1083637.07		P	0.6
4	☐	1.000		1015229.62		P	4.1
5	☐	1.000		1042809.50		P	0.9
6	☐	1.000		1032325.61		P	0.1
7	☐	1.000		1002000.54		P	0.3
8	☐	1.000		974864.20		P	0.4

159 Tb (ISTD) [No Gas]

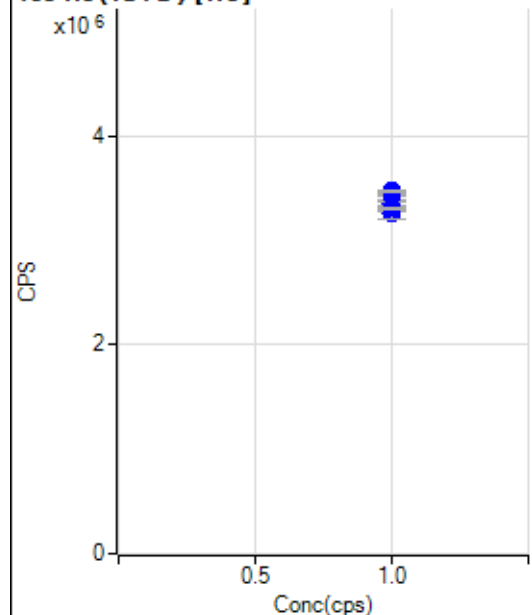
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6083575.12		A	0.7
2	☐	1.000		6243142.89		A	0.4
3	☐	1.000		6288288.52		A	0.1
4	☐	1.000		6275578.31		A	0.4
5	☐	1.000		6433458.03		A	0.6
6	☐	1.000		6622157.89		A	0.3
7	☐	1.000		6653093.23		A	1.1
8	☐	1.000		6264925.05		A	0.5

159 Tb (ISTD) [He]

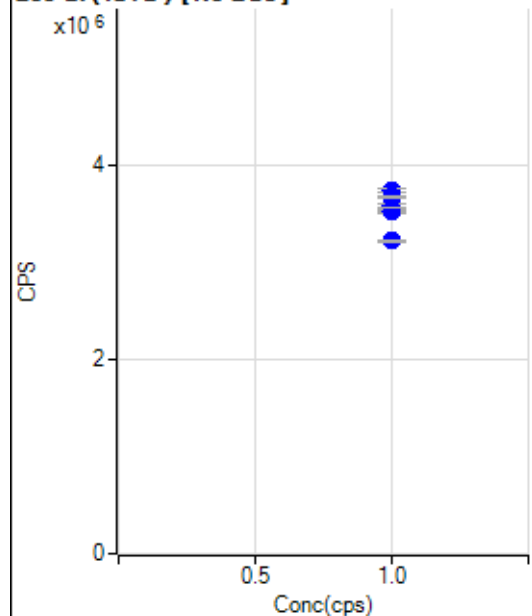
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3281846.48		P	0.7
2	☐	1.000		3365271.55		P	0.7
3	☐	1.000		3386673.25		P	0.8
4	☐	1.000		3242171.76		P	3.4
5	☐	1.000		3389824.50		P	0.7
6	☐	1.000		3421119.77		P	0.2
7	☐	1.000		3432602.14		P	0.5
8	☐	1.000		3282554.29		P	0.6

165 Ho (ISTD) [No Gas]

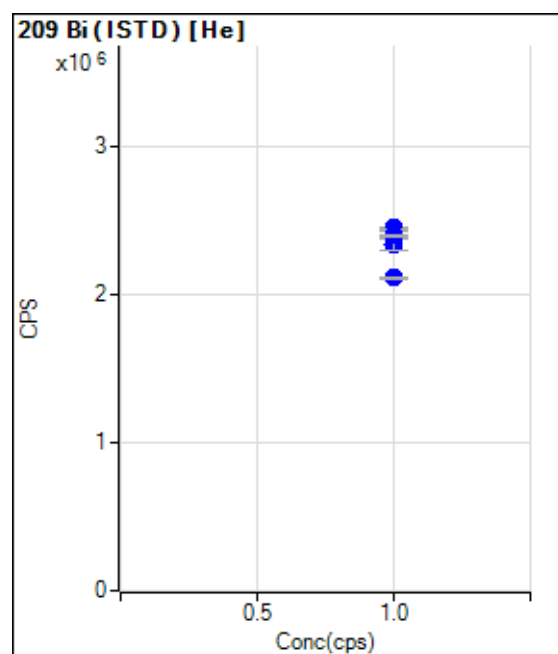
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5784778.82		A	1.0
2	☐	1.000		5885705.47		A	0.4
3	☐	1.000		6020225.83		A	0.7
4	☐	1.000		6008764.07		A	0.2
5	☐	1.000		6188460.56		A	0.6
6	☐	1.000		6322856.44		A	0.2
7	☐	1.000		6401351.18		A	0.8
8	☐	1.000		6022555.69		A	0.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3288041.41		P	0.3
2	☐	1.000		3354727.14		P	0.9
3	☐	1.000		3376427.55		P	0.4
4	☐	1.000		3255783.01		P	3.6
5	☐	1.000		3431345.61		P	0.8
6	☐	1.000		3463116.41		P	0.2
7	☐	1.000		3472172.38		P	0.5
8	☐	1.000		3306557.66		P	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3536586.09		P	0.0
2	☐	1.000		3531550.47		P	0.8
3	☐	1.000		3557170.36		P	0.5
4	☐	1.000		3590853.42		P	1.1
5	☐	1.000		3674944.08		P	0.4
6	☐	1.000		3741105.88		P	1.0
7	☐	1.000		3679397.83		P	0.9
8	☐	1.000		3226882.28		P	0.9



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2402690.19		P	0.4
2	☐	1.000		2434767.13		P	0.4
3	☐	1.000		2452128.05		P	0.5
4	☐	1.000		2338197.75		P	3.4
5	☐	1.000		2443969.35		P	0.7
6	☐	1.000		2438304.68		P	0.5
7	☐	1.000		2401661.04		P	0.6
8	☐	1.000		2113127.63		P	0.5

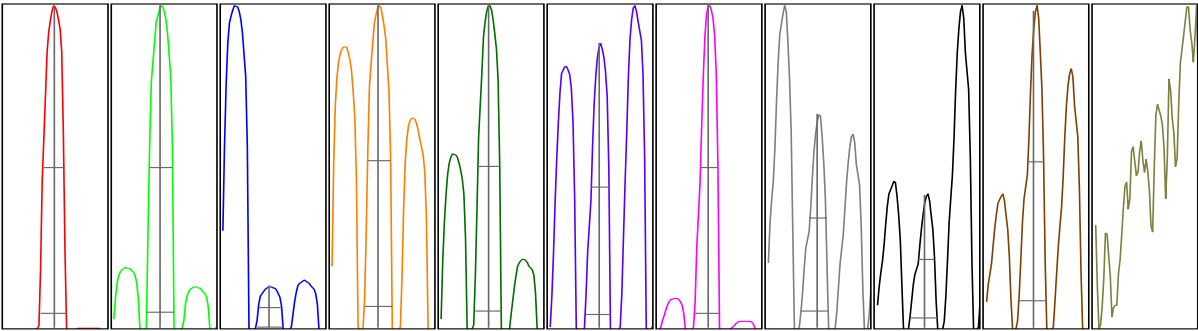
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7081319MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	6301	0.54	5.00	
24	178563	0.59	5.00	
25	23510	0.30	5.00	
26	26482	0.51	5.00	
59	39794	0.45	5.00	
113	5466	0.44	5.00	
115	63601	0.60	5.00	
206	13509	0.81	5.00	
207	12541	0.41	5.00	
208	29303	0.42	5.00	
220	96	3.68		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	6334	6292	6247	6319	6315
24	179358	178288	176834	179336	178999
25	23541	23469	23407	23561	23575
26	26513	26411	26297	26533	26658
59	39828	39731	39545	40041	39823
113	5480	5456	5429	5478	5490
115	63862	63590	62958	63915	63679
206	13521	13520	13324	13573	13607
207	12579	12545	12464	12593	12524
208	29365	29306	29106	29439	29300
220	94	93	96	97	102

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	10713	9.00	8.9 - 9.1		0.778	0.900	
24	280559	23.90	23.9 - 24.1		0.788	0.900	
25	36992	24.90	24.9 - 25.1		0.785	0.900	
26	42391	25.90	25.9 - 26.1		0.804	0.900	
59	66682	58.95	58.9 - 59.1		0.780	0.900	
113	10380	113.00	112.9 - 113.1		0.726	0.900	
115	122414	115.00	114.9 - 115.1		0.718	0.900	
206	27040	206.00	205.9 - 206.1		0.783	0.900	
207	24236	206.95	206.9 - 207.1		0.782	0.900	
208	57876	207.95	207.9 - 208.1		0.785	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	6.8	V	Deflect	14.4	V
Extract 2	-75.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-38	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	9813	0.53	
89	20705	0.25	
205	13672	0.70	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	9853	9858	9739	9836	9778
89	20701	20716	20637	20780	20693
205	13818	13616	13636	13712	13578

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	7.5	V	Deflect	1.6	V
Extract 2	-90.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-45	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			