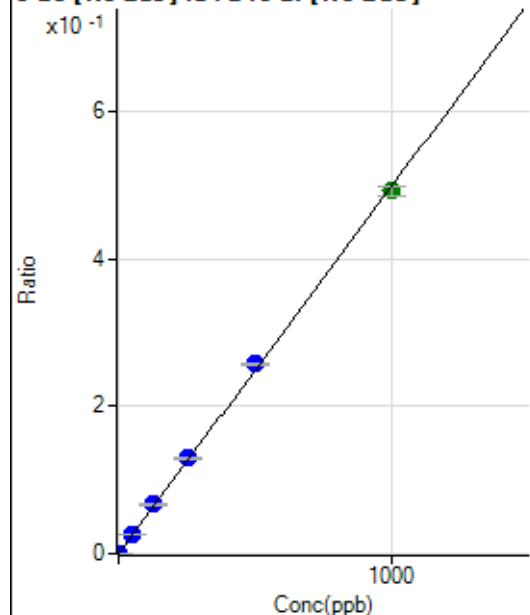


Calibration for 003CALB.d

Batch Folder: D:\ICP-MS Data\P7092018MS.b\
 Analysis File: P7092018MS.batch.bin
 DA Date-Time: 2018-09-20 22:49:34
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-09-20 19:52:10
2	004CALS.d	S01	2018-09-20 19:55:43
3	005CALS.d	S02	2018-09-20 20:00:27
4	006CALS.d	S03	2018-09-20 20:04:21
5	007CALS.d	S04	2018-09-20 20:08:22
6	008CALS.d	S05	2018-09-20 20:12:11
7	009CALS.d	S06	2018-09-20 20:15:58
8	010CALS.d	S07	2018-09-20 20:19:43
9	011CALS.d	S08	2018-09-20 20:23:29

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	81.49	0.0000	P	16.8
2	☐	0.100	0.115	420.39	0.0001	P	9.6
3	☐	1.000	1.055	3204.13	0.0005	P	2.7
4	☐	50.000	54.167	157315.84	0.0271	P	0.5
5	☐	125.000	133.565	376404.61	0.0667	P	1.1
6	☐	250.000	259.418	731050.03	0.1295	P	2.1
7	☐	500.000	516.576	1417178.58	0.2579	P	1.6
8	☐	1000.000	988.078	2732572.95	0.4932	A	2.7
9	☐			577.81	0.0001	P	5.9

$$y = 4.9914\text{E-}004 * x + 1.3733\text{E-}005$$

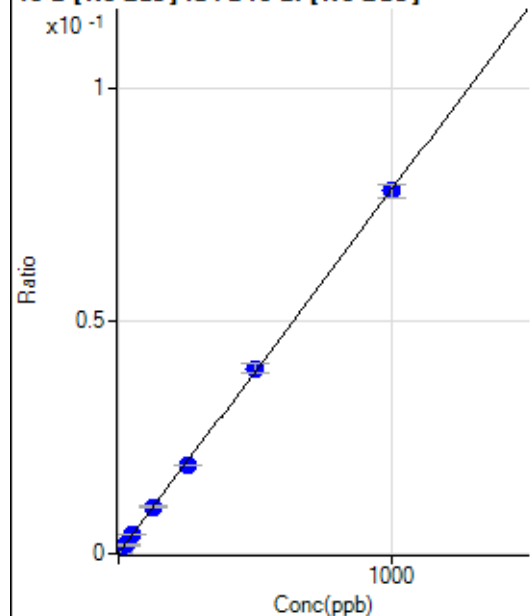
$$R = 0.9997$$

$$DL = 0.01385$$

$$BEC = 0.02751$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	636.15	0.0001	P	2.9
2	☐	2.500	2.433	1758.51	0.0003	P	0.9
3	☐	25.000	22.660	11123.99	0.0019	P	4.0
4	☐	50.000	51.851	24164.48	0.0042	P	1.4
5	☐	125.000	127.199	56654.08	0.0100	P	3.1
6	☐	250.000	243.265	107850.81	0.0191	P	0.7
7	☐	500.000	508.150	218547.21	0.0398	P	4.8
8	☐	1000.000	997.300	431857.31	0.0780	P	3.9
9	☐			25923.14	0.0052	P	8.3

$$y = 7.8065\text{E-}005 * x + 1.0726\text{E-}004$$

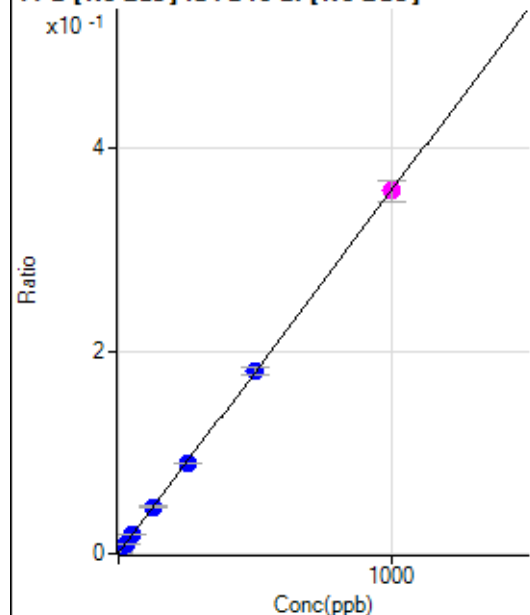
$$R = 0.9999$$

$$DL = 0.1201$$

$$BEC = 1.374$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2911.51	0.0005	P	2.4
2	☐	2.500	2.596	8399.87	0.0014	P	3.0
3	☐	25.000	23.221	52154.99	0.0088	P	1.2
4	☐	50.000	51.616	110239.63	0.0190	P	1.2
5	☐	125.000	126.989	259192.03	0.0459	P	2.8
6	☐	250.000	248.290	504354.77	0.0893	P	1.4
7	☐	500.000	502.806	991082.34	0.1804	P	3.7
8	☐	1000.000	998.739	1981232.51	0.3578	M	5.6
9	☐			119511.14	0.0241	P	9.3

$$y = 3.5773\text{E-}004 * x + 4.9087\text{E-}004$$

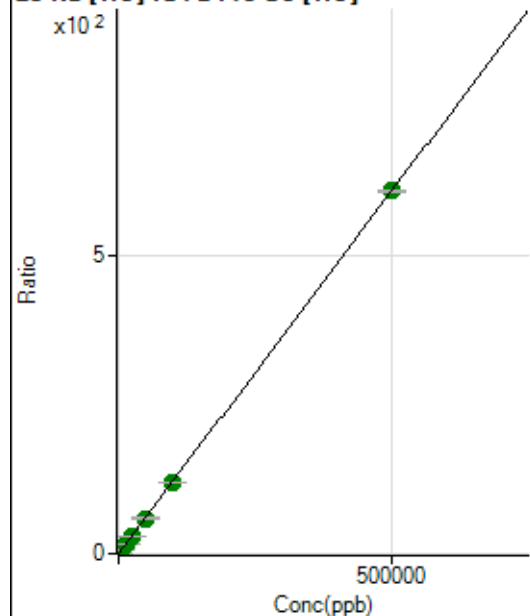
$$R = 1.0000$$

$$DL = 0.09816$$

$$BEC = 1.372$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	10181.56	0.0231	P	5.0
2	☐	50.000	47.718	37623.02	0.0812	P	1.1
3	☐	500.000	481.457	280699.52	0.6091	P	0.9
4	☐	5000.000	4857.426	2666126.67	5.9351	A	0.7
5	☐	12500.000	12186.470	6430716.90	14.8551	A	0.2
6	☐	25000.000	24833.247	12474624.06	30.2474	A	1.2
7	☐	50000.000	48958.317	24769866.87	59.6097	A	2.3
8	☐	100000.00	98409.490	49504030.27	119.7961	A	0.3
9	☐	500000.00	500439.89	254891897.3	609.1023	A	0.8

$$y = 0.0012 * x + 0.0231$$

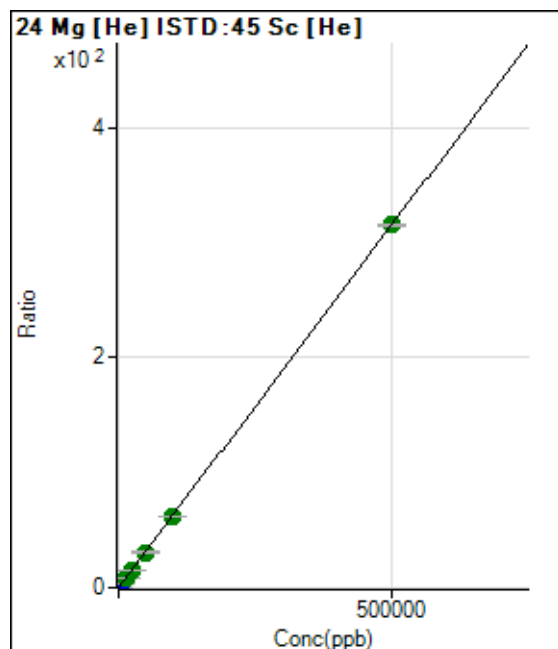
$$R = 1.0000$$

$$DL = 2.863$$

$$BEC = 19.01$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	141.67	0.0003	P	26.3
2	☐	50.000	45.708	13487.17	0.0291	P	1.0
3	☐	500.000	480.740	139696.04	0.3031	P	1.3
4	☐	5000.000	4959.615	1403535.36	3.1244	P	1.1
5	☐	12500.000	12292.885	3352257.06	7.7437	A	0.2
6	☐	25000.000	24945.431	6480638.25	15.7137	A	1.4
7	☐	50000.000	48995.542	12824945.25	30.8631	A	2.2
8	☐	100000.00	97822.655	25463522.44	61.6199	A	0.2
9	☐	500000.00	500544.24	131947454.3	315.2985	A	0.3

$$y = 6.2991\text{E-}004 * x + 3.2229\text{E-}004$$

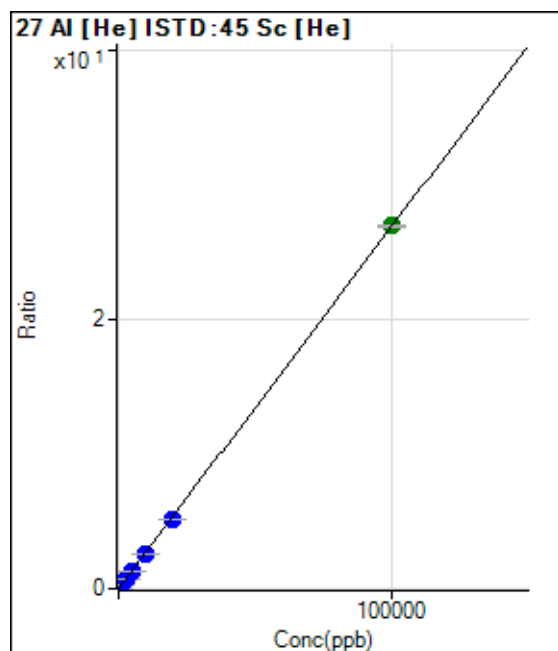
$$R = 1.0000$$

$$DL = 0.4035$$

$$BEC = 0.5116$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.22	0.0002	P	51.0
2	☐	2.000	1.712	288.91	0.0006	P	17.0
3	☐	20.000	19.166	2447.51	0.0053	P	4.9
4	☐	1000.000	991.128	119659.38	0.2664	P	1.6
5	☐	2500.000	2468.267	287067.09	0.6631	P	0.8
6	☐	5000.000	4914.151	544402.82	1.3201	P	1.6
7	☐	10000.000	9629.885	1074892.15	2.5867	P	2.0
8	☐	20000.000	18931.212	2101274.07	5.0849	P	0.4
9	☐	100000.00	100255.94	11269047.30	26.9280	A	0.2

$$y = 2.6859\text{E-}004 * x + 1.6313\text{E-}004$$

$$R = 0.9999$$

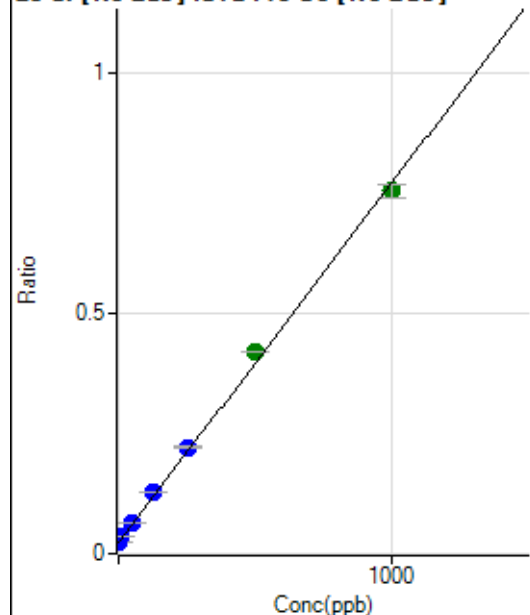
$$DL = 0.9298$$

$$BEC = 0.6073$$

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	234446.44	0.0226	P	0.8
2	☐	1.000	2.426	249669.80	0.0244	P	0.7
3	☐	10.000	15.507	352681.71	0.0342	P	0.8
4	☐	50.000	57.476	658947.56	0.0656	P	0.5
5	☐	125.000	140.503	1230319.61	0.1277	P	0.6
6	☐	250.000	265.739	2113397.57	0.2214	P	2.1
7	☐	500.000	530.436	3857878.30	0.4195	A	0.4
8	☐	1000.000	978.479	7139405.71	0.7547	A	3.9
9	☐			475997.67	0.0531	P	0.7

$$y = 7.4816E-004 * x + 0.0226$$

$$R = 0.9992$$

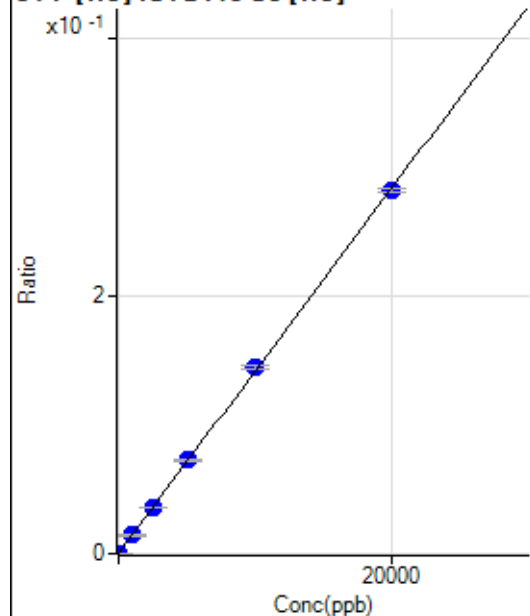
$$DL = 0.7312$$

$$BEC = 30.25$$

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	-2.096	83.33	0.0002	P	53.9
2	☐	0.000	-1.102	94.45	0.0002	P	31.8
3	☐	0.000	3.199	122.23	0.0003	P	10.3
4	☐	1000.000	989.015	6398.81	0.0142	P	4.3
5	☐	2500.000	2537.770	15675.44	0.0362	P	1.6
6	☐	5000.000	5117.953	30022.70	0.0728	P	2.0
7	☐	10000.000	10196.260	60181.07	0.1448	P	1.8
8	☐	20000.000	19868.209	116522.44	0.2820	P	1.1
9	☐			152.79	0.0004	P	20.0

$$y = 1.4181E-005 * x + 2.1983E-004$$

$$R = 0.9999$$

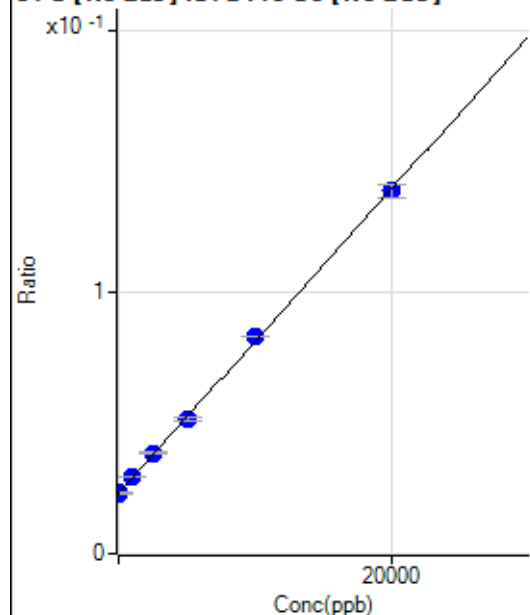
$$DL = 13.72$$

$$BEC = 15.5$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-82.857	234909.47	0.0227	P	1.6
2	☐	0.000	74.967	240976.48	0.0236	P	0.6
3	☐	0.000	7.890	239055.14	0.0232	P	0.4
4	☐	1000.000	1075.235	295378.17	0.0294	P	0.9
5	☐	2500.000	2635.461	370844.75	0.0385	P	1.1
6	☐	5000.000	4912.731	494042.08	0.0518	P	2.8
7	☐	10000.000	10276.059	763433.84	0.0830	P	0.2
8	☐	20000.000	19863.093	1313589.58	0.1389	P	3.8
9	☐			192646.19	0.0215	P	2.3

$$y = 5.8246\text{E-}006 * x + 0.0232$$

$$R = 0.9998$$

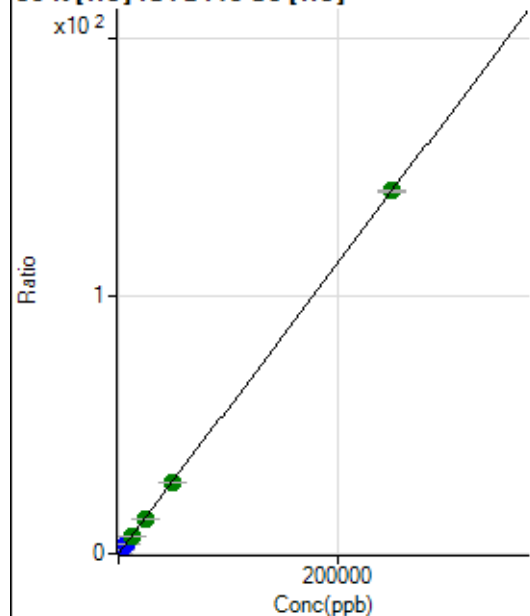
$$DL = 98.6$$

$$BEC = 3976$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12869.98	0.0292	P	3.5
2	☐	50.000	47.147	25809.31	0.0557	P	0.5
3	☐	500.000	483.249	138537.04	0.3006	P	0.3
4	☐	2500.000	2460.284	633764.89	1.4108	P	0.6
5	☐	6250.000	6088.818	1492801.06	3.4485	P	0.5
6	☐	12500.000	12267.441	2853111.70	6.9181	A	1.3
7	☐	25000.000	24272.838	5676647.35	13.6598	A	1.6
8	☐	50000.000	48637.620	11298656.59	27.3420	A	0.3
9	☐	250000.00	250361.28	58848806.87	140.6210	A	0.3

$$y = 5.6156\text{E-}004 * x + 0.0292$$

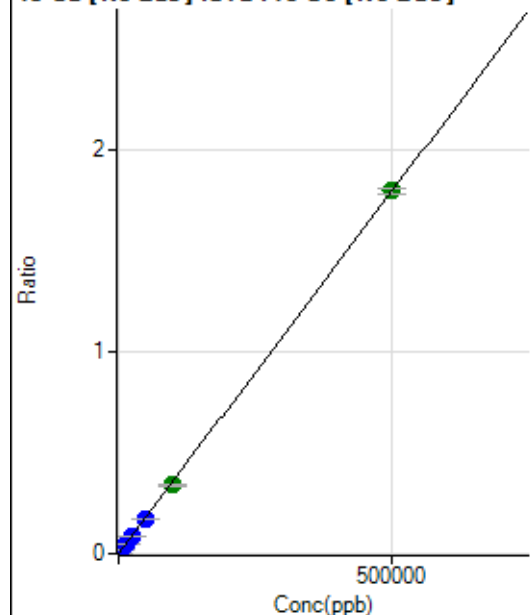
$$R = 1.0000$$

$$DL = 5.482$$

$$BEC = 52.08$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	161.12	0.0000	P	10.8
2	☐	50.000	44.895	1802.95	0.0002	P	1.9
3	☐	500.000	463.922	17299.55	0.0017	P	1.7
4	☐	5000.000	5009.535	180501.20	0.0180	P	0.9
5	☐	12500.000	12561.540	433930.43	0.0451	P	0.3
6	☐	25000.000	24186.982	827788.22	0.0867	P	2.4
7	☐	50000.000	48703.312	1606191.39	0.1746	P	0.3
8	☐	100000.00	94556.894	3207982.34	0.3391	A	3.2
9	☐	500000.00	501257.34	16105493.76	1.7973	A	1.3

$$y = 3.5856\text{E-}006 * x + 1.5551\text{E-}005$$

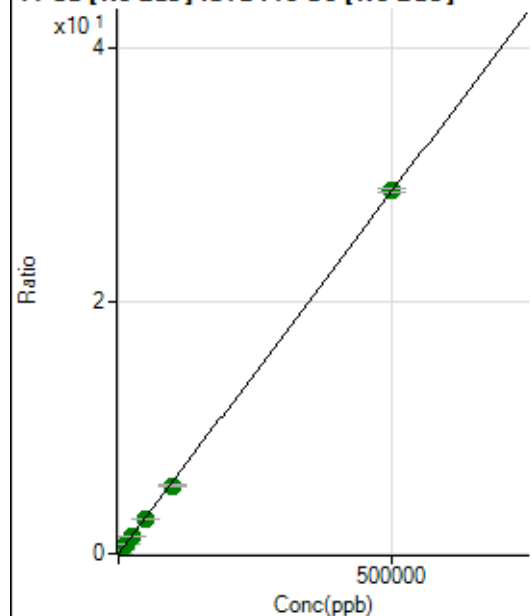
$$R = 0.9999$$

$$DL = 1.4$$

$$BEC = 4.337$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8581.68	0.0008	P	4.5
2	☐	50.000	46.893	35884.01	0.0035	P	1.6
3	☐	500.000	468.871	285153.97	0.0277	P	0.6
4	☐	5000.000	4794.342	2764740.21	0.2754	A	0.5
5	☐	12500.000	12099.939	6680853.06	0.6937	A	0.1
6	☐	25000.000	23549.297	12876386.92	1.3493	A	2.6
7	☐	50000.000	48266.190	25425802.65	2.7646	A	0.0
8	☐	100000.00	93742.540	50795225.10	5.3686	A	3.2
9	☐	500000.00	501509.49	257346677.9	28.7179	A	1.0

$$y = 5.7261\text{E-}005 * x + 8.2828\text{E-}004$$

$$R = 0.9999$$

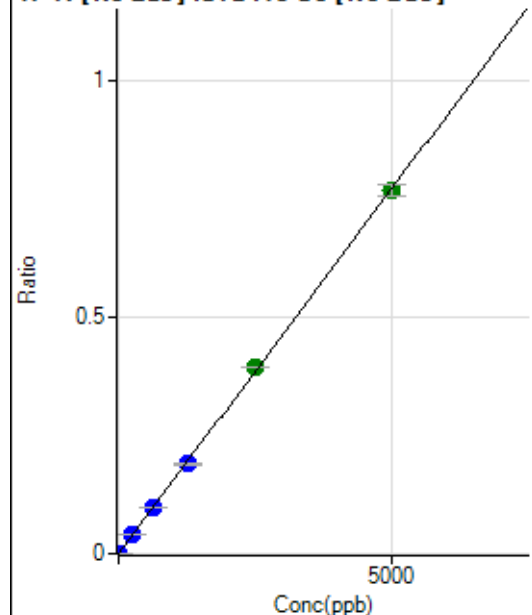
$$DL = 1.957$$

$$BEC = 14.46$$

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	66.67	0.0000	P	25.0
2	☐	0.500	0.498	850.07	0.0001	P	5.3
3	☐	5.000	5.031	8066.37	0.0008	P	2.4
4	☐	250.000	254.669	394678.63	0.0393	P	1.0
5	☐	625.000	640.197	951621.26	0.0988	P	0.0
6	☐	1250.000	1227.502	1807951.04	0.1894	P	2.5
7	☐	2500.000	2558.117	3630901.51	0.3948	A	0.7
8	☐	5000.000	4974.433	7263530.29	0.7677	A	3.3
9	☐			4286.90	0.0005	P	5.3

$$y = 1.5433\text{E-}004 * x + 6.4343\text{E-}006$$

$$R = 0.9999$$

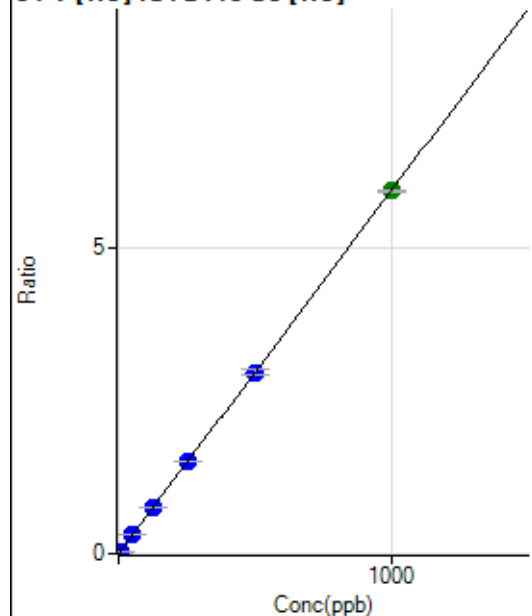
$$DL = 0.03121$$

$$BEC = 0.04169$$

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	4.44	0.0000	P	42.4
2	☐	0.500	0.463	1277.86	0.0028	P	4.7
3	☐	5.000	4.907	13426.28	0.0291	P	1.5
4	☐	50.000	51.063	136156.28	0.3031	P	1.0
5	☐	125.000	126.883	326025.84	0.7531	P	0.7
6	☐	250.000	254.524	623069.02	1.5108	P	1.1
7	☐	500.000	499.784	1232697.91	2.9665	P	2.3
8	☐	1000.000	998.689	2449610.07	5.9279	A	0.2
9	☐			1330.08	0.0032	P	1.3

$$y = 0.0059 * x + 1.0068\text{E-}005$$

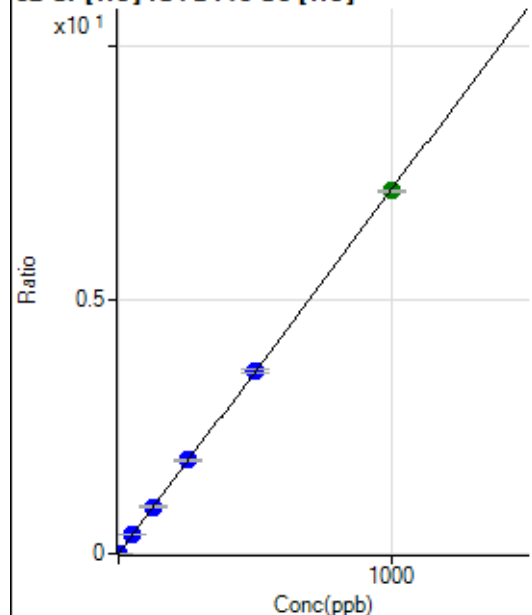
$$R = 1.0000$$

$$DL = 0.002159$$

$$BEC = 0.001696$$

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	618.91	0.0014	P	3.0
2	☐	0.200	0.237	1440.09	0.0031	P	5.0
3	☐	2.000	2.131	7697.65	0.0167	P	2.8
4	☐	50.000	51.713	167351.48	0.3725	P	0.6
5	☐	125.000	129.209	402032.19	0.9287	P	0.5
6	☐	250.000	257.304	762158.80	1.8480	P	1.2
7	☐	500.000	502.206	1498333.17	3.6057	P	2.1
8	☐	1000.000	996.459	2955794.82	7.1528	A	0.2
9	☐			134679.22	0.3218	P	0.3

$$y = 0.0072 * x + 0.0014$$

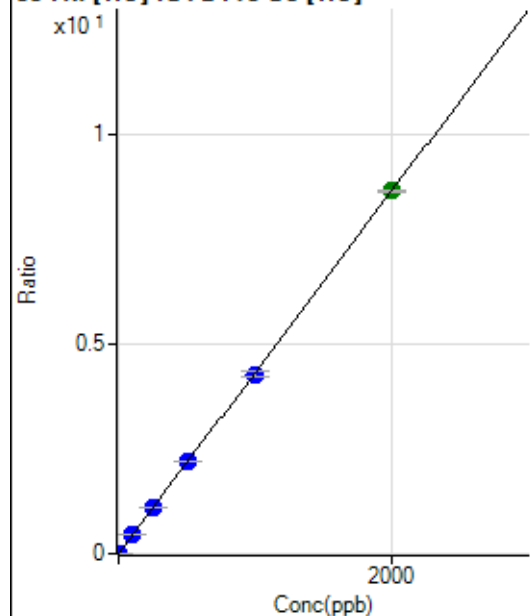
$$R = 1.0000$$

$$DL = 0.01768$$

$$BEC = 0.1959$$

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	57.78	0.0001	P	17.9
2	☐	0.100	0.107	274.45	0.0006	P	7.0
3	☐	1.000	1.028	2113.52	0.0046	P	1.9
4	☐	100.000	101.594	197725.79	0.4402	P	1.0
5	☐	250.000	256.724	481406.63	1.1121	P	0.8
6	☐	500.000	510.286	911560.88	2.2103	P	1.5
7	☐	1000.000	989.297	1780533.30	4.2851	P	2.7
8	☐	2000.000	2001.860	3583065.16	8.6708	A	0.4
9	☐			18520.71	0.0443	P	1.6

$$y = 0.0043 * x + 1.3115E-004$$

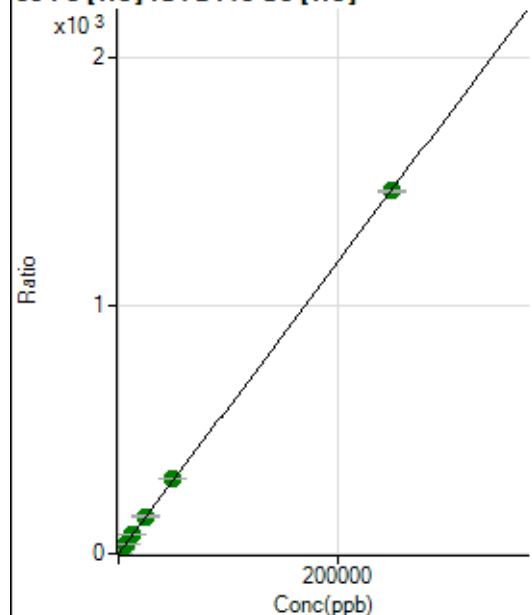
$$R = 1.0000$$

$$DL = 0.01624$$

$$BEC = 0.03028$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5019.50	0.0114	P	4.8
2	☐	5.000	4.718	18113.43	0.0391	P	3.0
3	☐	50.000	51.175	143649.40	0.3117	P	1.8
4	☐	2500.000	2592.476	6839402.35	15.2255	A	1.0
5	☐	6250.000	6533.105	16602058.59	38.3513	A	0.2
6	☐	12500.000	13121.426	31761518.54	77.0152	A	1.6
7	☐	25000.000	25747.394	62791314.83	151.1113	A	2.4
8	☐	50000.000	51436.192	124741629.6	301.8674	A	0.4
9	☐	250000.00	249598.94	612981472.9	1,464.795	A	0.5

$$y = 0.0059 * x + 0.0114$$

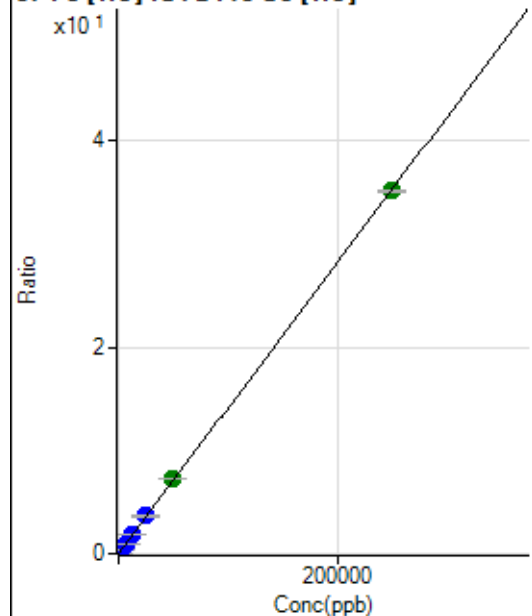
$$R = 1.0000$$

$$DL = 0.2792$$

$$BEC = 1.944$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.68	0.0005	P	8.1
2	☐	5.000	4.369	512.99	0.0011	P	15.2
3	☐	50.000	53.718	3709.84	0.0080	P	2.0
4	☐	2500.000	2672.302	169094.90	0.3764	P	1.1
5	☐	6250.000	6702.562	408392.01	0.9434	P	0.4
6	☐	12500.000	13321.613	773111.27	1.8746	P	0.9
7	☐	25000.000	26027.339	1521687.98	3.6620	P	2.3
8	☐	50000.000	51460.237	2991771.39	7.2399	A	0.1
9	☐	250000.00	249551.10	14691410.16	35.1071	A	0.6

$$y = 1.4068E-004 * x + 4.9250E-004$$

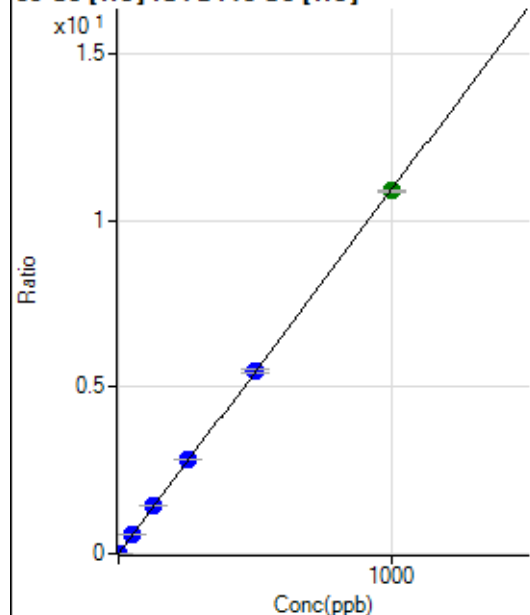
$$R = 1.0000$$

$$DL = 0.8512$$

$$BEC = 3.501$$

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	67.78	0.0002	P	18.3
2	☐	0.100	0.103	592.24	0.0013	P	4.8
3	☐	1.000	1.004	5117.64	0.0111	P	4.2
4	☐	50.000	52.894	259326.59	0.5773	P	0.8
5	☐	125.000	130.895	618329.16	1.4284	P	0.5
6	☐	250.000	259.997	1170047.23	2.8370	P	1.0
7	☐	500.000	499.631	2265459.95	5.4517	P	2.2
8	☐	1000.000	996.804	4494529.13	10.8765	A	0.2
9	☐			56196.19	0.1343	P	0.5

$$y = 0.0109 * x + 1.5361E-004$$

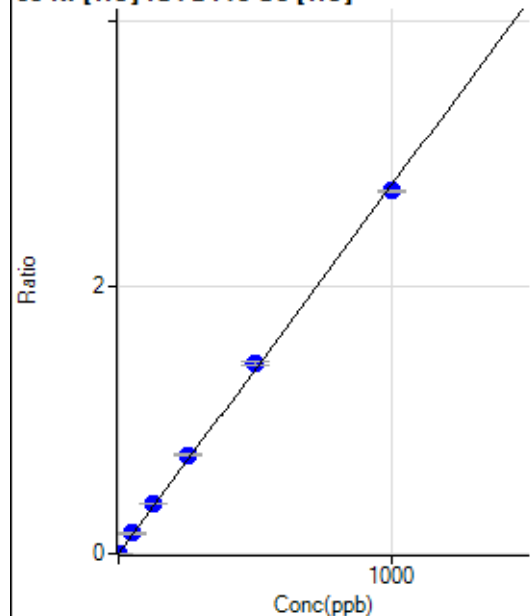
$$R = 0.9999$$

$$DL = 0.007728$$

$$BEC = 0.01408$$

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	58.89	0.0001	P	29.8
2	☐	0.100	0.110	202.23	0.0004	P	3.6
3	☐	1.000	1.100	1460.10	0.0032	P	8.2
4	☐	50.000	54.898	68155.37	0.1517	P	1.6
5	☐	125.000	135.567	162112.37	0.3745	P	0.6
6	☐	250.000	268.396	305704.16	0.7413	P	1.7
7	☐	500.000	517.653	594037.11	1.4296	P	2.3
8	☐	1000.000	985.009	1124043.01	2.7201	P	0.6
9	☐			40302.05	0.0963	P	0.5

$$y = 0.0028 * x + 1.3331E-004$$

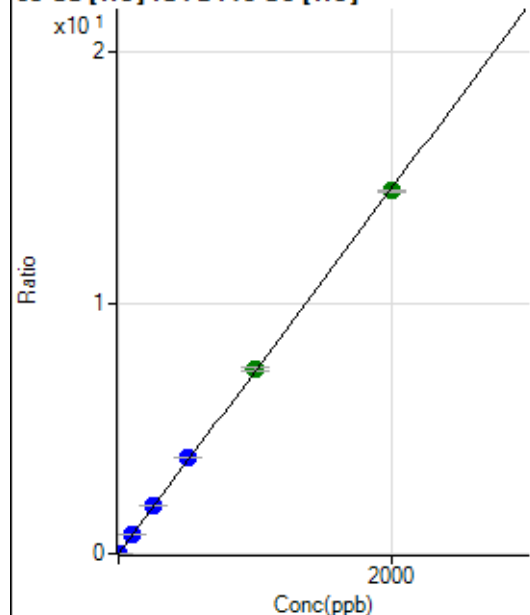
$$R = 0.9996$$

$$DL = 0.0431$$

$$BEC = 0.04828$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1118.95	0.0025	P	6.3
2	☐	0.200	0.192	1826.82	0.0039	P	3.5
3	☐	2.000	2.212	8597.08	0.0187	P	2.6
4	☐	100.000	108.241	355370.36	0.7911	P	1.1
5	☐	250.000	267.051	843304.06	1.9481	P	0.5
6	☐	500.000	523.246	1573197.58	3.8145	P	0.9
7	☐	1000.000	1010.259	3059437.38	7.3625	A	2.2
8	☐	2000.000	1986.515	5981474.01	14.4748	A	0.3
9	☐			12693.46	0.0303	P	2.2

$$y = 0.0073 * x + 0.0025$$

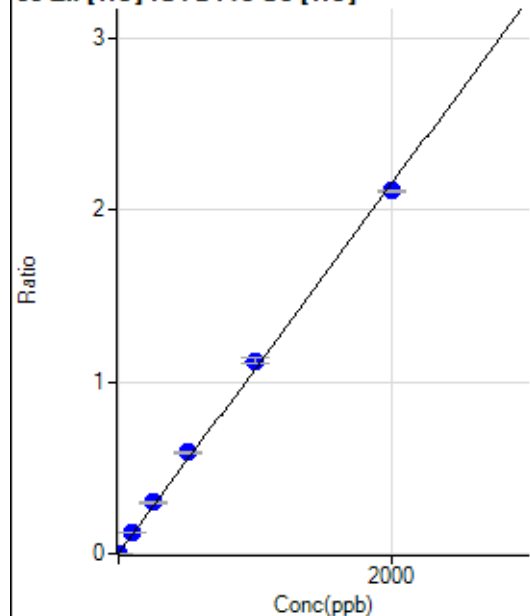
$$R = 0.9999$$

$$DL = 0.0655$$

$$BEC = 0.3491$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	394.46	0.0009	P	11.1
2	☐	0.200	0.279	553.35	0.0012	P	8.8
3	☐	2.000	2.287	1544.55	0.0034	P	1.1
4	☐	100.000	111.724	54306.12	0.1209	P	1.6
5	☐	250.000	275.658	128555.09	0.2970	P	0.8
6	☐	500.000	546.603	242496.65	0.5880	P	1.0
7	☐	1000.000	1043.091	465897.12	1.1212	P	2.7
8	☐	2000.000	1963.010	871638.24	2.1093	P	0.4
9	☐			6744.99	0.0161	P	3.1

$$y = 0.0011 * x + 8.9571E-004$$

$$R = 0.9993$$

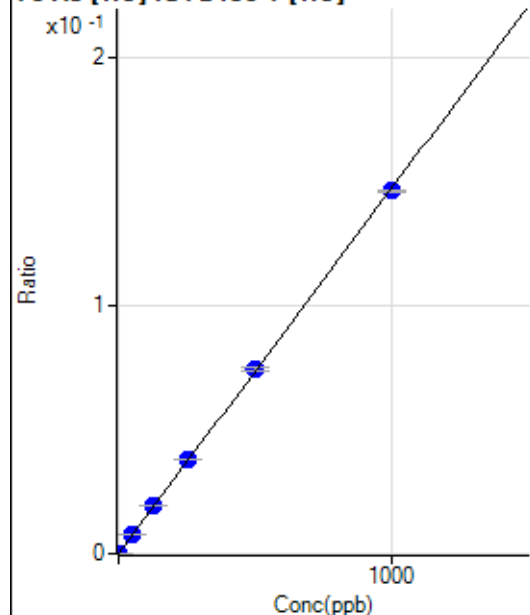
$$DL = 0.2786$$

$$BEC = 0.8339$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6.17	0.0000	P	92.3
2	☐	0.100	0.099	39.51	0.0000	P	16.5
3	☐	1.000	1.026	345.07	0.0002	P	7.5
4	☐	50.000	51.632	16754.14	0.0076	P	0.9
5	☐	125.000	130.809	41195.81	0.0192	P	0.1
6	☐	250.000	258.046	78201.08	0.0379	P	0.6
7	☐	500.000	506.939	153530.01	0.0745	P	2.2
8	☐	1000.000	993.711	296735.57	0.1460	P	0.5
9	☐			477.79	0.0002	P	7.7

$$y = 1.4695E-004 * x + 2.8627E-006$$

$$R = 0.9999$$

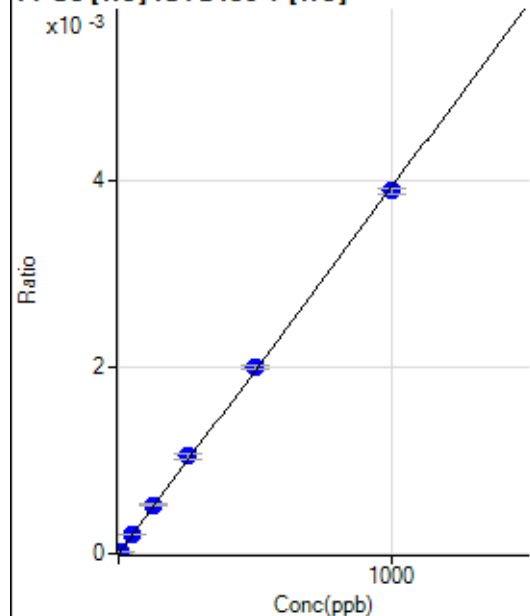
$$DL = 0.05394$$

$$BEC = 0.01948$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.375	3.33	0.0000	P	101.
3	☐	5.000	5.524	48.89	0.0000	P	19.3
4	☐	50.000	52.803	458.90	0.0002	P	6.7
5	☐	125.000	133.533	1126.73	0.0005	P	3.5
6	☐	250.000	265.647	2156.86	0.0010	P	5.0
7	☐	500.000	509.747	4137.32	0.0020	P	1.5
8	☐	1000.000	990.005	7921.16	0.0039	P	1.6
9	☐			4.44	0.0000	P	113.

$$y = 3.9376E-006 * x + 0.0000E+000$$

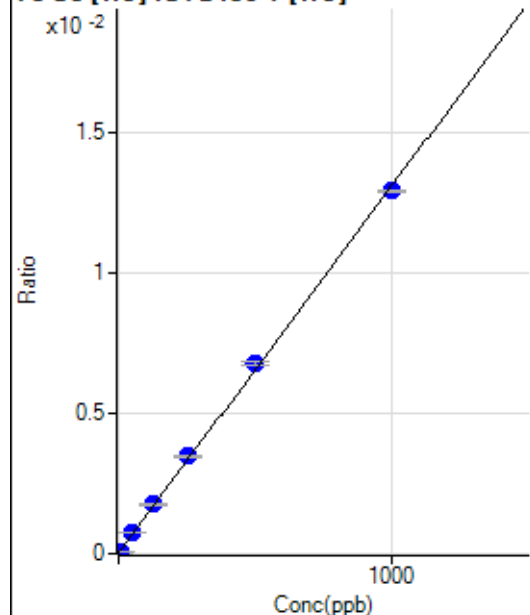
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.70	0.0000	P	14.6
2	☐	0.500	0.534	72.84	0.0000	P	11.1
3	☐	5.000	5.423	216.05	0.0001	P	11.8
4	☐	50.000	54.823	1638.38	0.0007	P	3.0
5	☐	125.000	131.806	3748.05	0.0017	P	2.7
6	☐	250.000	264.436	7183.92	0.0035	P	2.0
7	☐	500.000	515.629	13949.99	0.0068	P	2.4
8	☐	1000.000	987.483	26296.09	0.0129	P	0.8
9	☐			68.52	0.0000	P	11.1

$$y = 1.3079\text{E-}005 * x + 2.5219\text{E-}005$$

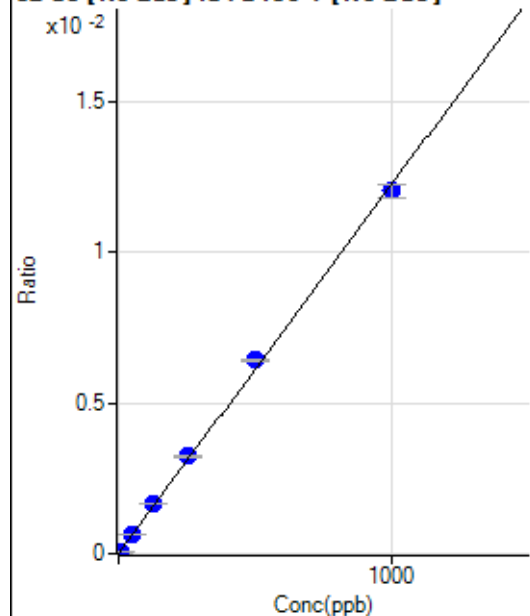
$$R = 0.9997$$

$$DL = 0.8463$$

$$BEC = 1.928$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.59	0.0000	P	76.2
2	☐	0.500	0.179	107.12	0.0000	P	62.3
3	☐	5.000	5.095	1016.77	0.0001	P	4.7
4	☐	50.000	53.548	9779.62	0.0007	P	0.2
5	☐	125.000	136.408	24000.65	0.0017	P	0.3
6	☐	250.000	263.522	45597.11	0.0032	P	1.3
7	☐	500.000	524.053	87374.67	0.0064	P	0.8
8	☐	1000.000	982.989	168785.56	0.0120	P	4.0
9	☐			201.28	0.0000	P	22.0

$$y = 1.2252\text{E-}005 * x + 4.9413\text{E-}006$$

$$R = 0.9994$$

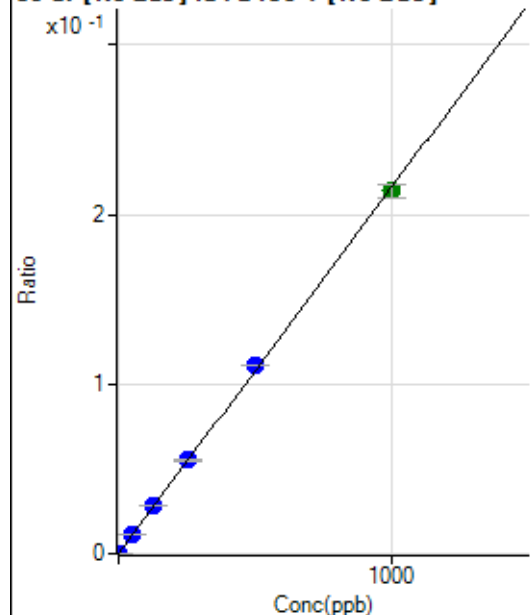
$$DL = 0.9223$$

$$BEC = 0.4033$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	461.14	0.0000	P	15.2
2	☐	0.100	0.101	780.61	0.0001	P	8.6
3	☐	1.000	1.067	3931.26	0.0003	P	1.7
4	☐	50.000	52.772	168985.27	0.0114	P	1.4
5	☐	125.000	130.885	404983.45	0.0283	P	0.5
6	☐	250.000	255.922	779287.50	0.0553	P	2.8
7	☐	500.000	514.033	1509241.07	0.1110	P	0.7
8	☐	1000.000	990.629	2996357.51	0.2139	A	3.5
9	☐			14363.18	0.0011	P	2.9

$$y = 2.1587E-004 * x + 3.0163E-005$$

$$R = 0.9998$$

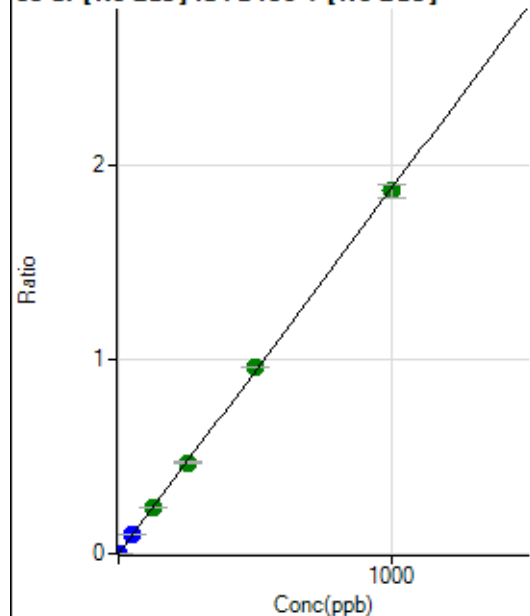
$$DL = 0.06376$$

$$BEC = 0.1397$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	252.79	0.0000	P	7.8
2	☐	0.100	0.108	3286.61	0.0002	P	1.2
3	☐	1.000	1.006	28763.16	0.0019	P	0.7
4	☐	50.000	51.406	1427666.79	0.0965	P	0.5
5	☐	125.000	126.851	3409219.61	0.2381	A	0.3
6	☐	250.000	249.342	6598381.96	0.4680	A	2.5
7	☐	500.000	512.233	13073062.62	0.9614	A	0.3
8	☐	1000.000	993.746	26131108.92	1.8652	A	3.4
9	☐			122015.61	0.0092	P	2.1

$$y = 0.0019 * x + 1.6540E-005$$

$$R = 0.9999$$

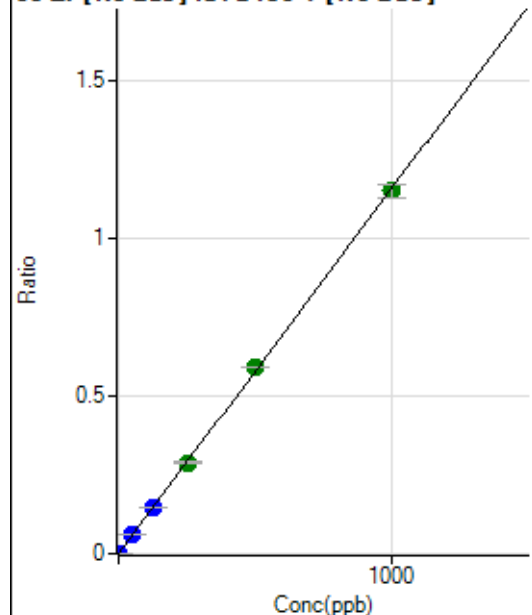
$$DL = 0.00206$$

$$BEC = 0.008812$$

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	1297.34	0.0001	P	12.1
2	☐	0.100	0.087	2783.71	0.0002	P	5.0
3	☐	1.000	1.011	18924.29	0.0013	P	1.0
4	☐	50.000	50.824	870642.11	0.0589	P	0.8
5	☐	125.000	126.280	2091826.61	0.1461	P	0.2
6	☐	250.000	249.461	4067866.93	0.2885	A	2.5
7	☐	500.000	511.416	8041756.08	0.5914	A	0.2
8	☐	1000.000	994.225	16105338.73	1.1497	A	3.8
9	☐			4948.28	0.0004	P	6.3

$$y = 0.0012 * x + 8.4886E-005$$

$$R = 0.9999$$

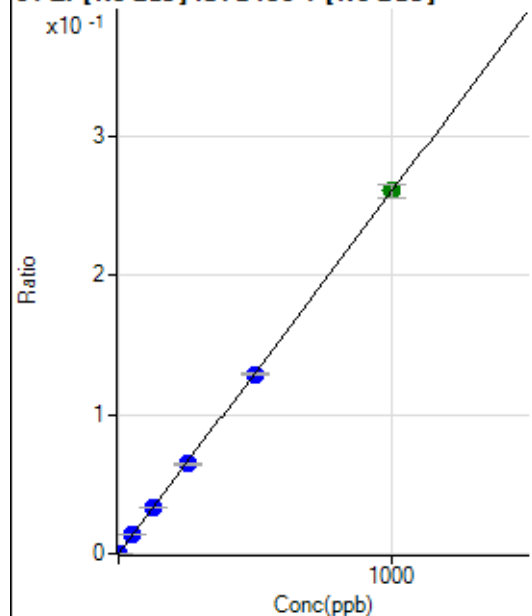
$$DL = 0.02664$$

$$BEC = 0.07341$$

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	313.91	0.0000	P	23.8
2	☐	0.100	0.086	641.71	0.0000	P	14.4
3	☐	1.000	0.989	4200.79	0.0003	P	0.6
4	☐	50.000	50.765	195974.02	0.0132	P	0.5
5	☐	125.000	128.238	478659.69	0.0334	P	0.3
6	☐	250.000	247.307	908743.46	0.0645	P	1.9
7	☐	500.000	496.122	1757844.50	0.1293	P	0.5
8	☐	1000.000	1002.170	3658072.87	0.2611	A	3.6
9	☐			1105.65	0.0001	P	2.6

$$y = 2.6054E-004 * x + 2.0532E-005$$

$$R = 1.0000$$

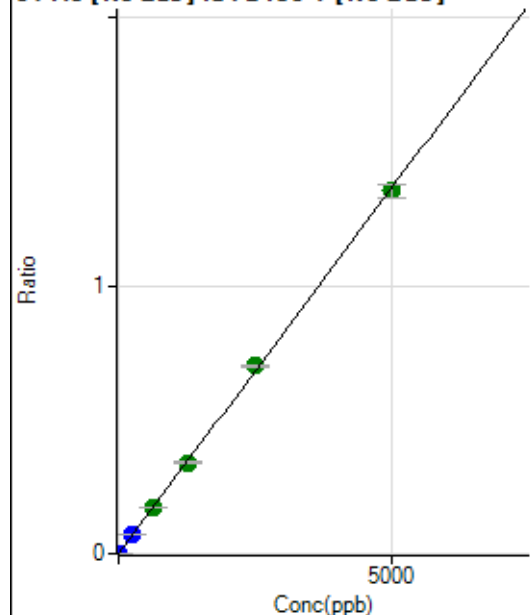
$$DL = 0.05637$$

$$BEC = 0.07881$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	522.26	0.0000	P	4.8
2	☐	0.500	0.478	2469.77	0.0002	P	5.3
3	☐	5.000	4.952	20907.73	0.0014	P	2.4
4	☐	250.000	256.254	1034933.80	0.0700	P	0.7
5	☐	625.000	630.144	2462352.42	0.1720	A	0.3
6	☐	1250.000	1247.914	4801221.98	0.3405	A	2.3
7	☐	2500.000	2570.192	9536327.04	0.7013	A	0.5
8	☐	5000.000	4964.470	18977287.75	1.3546	A	3.6
9	☐			27558.10	0.0021	P	2.0

$$y = 2.7286E-004 * x + 3.4166E-005$$

$$R = 0.9999$$

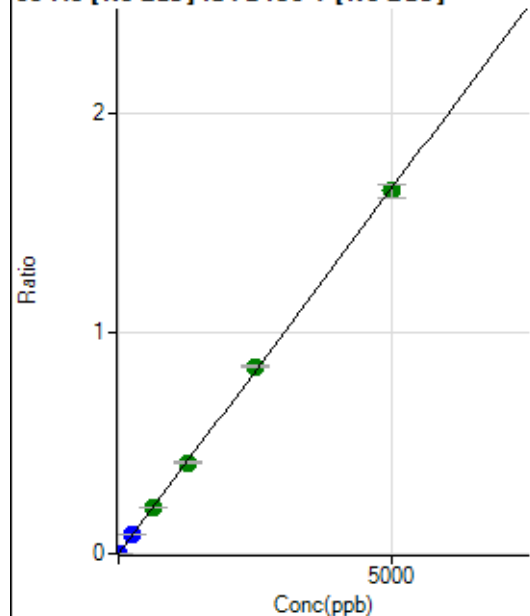
$$DL = 0.01804$$

$$BEC = 0.1252$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	16.8
2	☐	0.500	0.517	2617.02	0.0002	P	7.6
3	☐	5.000	5.090	25501.30	0.0017	P	1.9
4	☐	250.000	257.474	1262022.73	0.0853	P	0.6
5	☐	625.000	632.276	2999280.17	0.2095	A	0.5
6	☐	1250.000	1247.042	5824959.98	0.4132	A	2.4
7	☐	2500.000	2562.798	11545090.54	0.8491	A	0.6
8	☐	5000.000	4968.057	23058076.21	1.6459	A	3.7
9	☐			46080.89	0.0035	P	3.6

$$y = 3.3130E-004 * x + 3.2718E-006$$

$$R = 0.9999$$

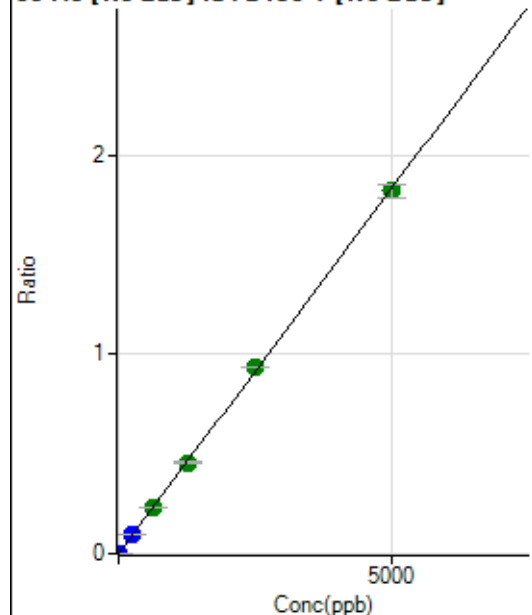
$$DL = 0.00498$$

$$BEC = 0.009875$$

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	119.45	0.0000	P	4.0
2	☐	0.500	0.499	2858.74	0.0002	P	7.0
3	☐	5.000	4.933	27404.92	0.0018	P	1.4
4	☐	250.000	256.495	1390659.51	0.0940	P	0.5
5	☐	625.000	632.209	3317163.85	0.2317	A	0.4
6	☐	1250.000	1244.132	6427918.20	0.4559	A	2.4
7	☐	2500.000	2559.054	12751238.65	0.9378	A	0.7
8	☐	5000.000	4970.714	25517356.13	1.8215	A	3.8
9	☐			55952.28	0.0042	P	2.7

$$y = 3.6645E-004 * x + 7.8146E-006$$

$$R = 0.9999$$

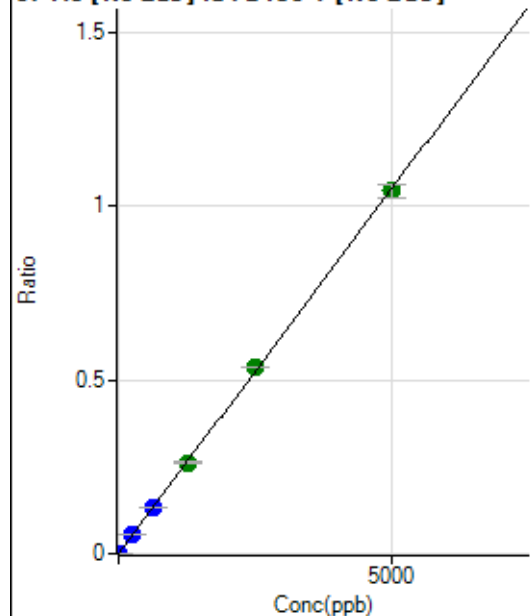
$$DL = 0.002547$$

$$BEC = 0.02133$$

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	33.34	0.0000	P	66.3
2	☐	0.500	0.496	1591.81	0.0001	P	3.5
3	☐	5.000	4.815	15272.63	0.0010	P	0.6
4	☐	250.000	255.663	793248.79	0.0536	P	0.3
5	☐	625.000	625.740	1878926.63	0.1312	P	0.4
6	☐	1250.000	1242.870	3674827.82	0.2607	A	2.5
7	☐	2500.000	2554.611	7284761.01	0.5357	A	0.3
8	☐	5000.000	4974.101	14613143.38	1.0432	A	3.9
9	☐			28111.87	0.0021	P	2.6

$$y = 2.0972E-004 * x + 2.1825E-006$$

$$R = 0.9999$$

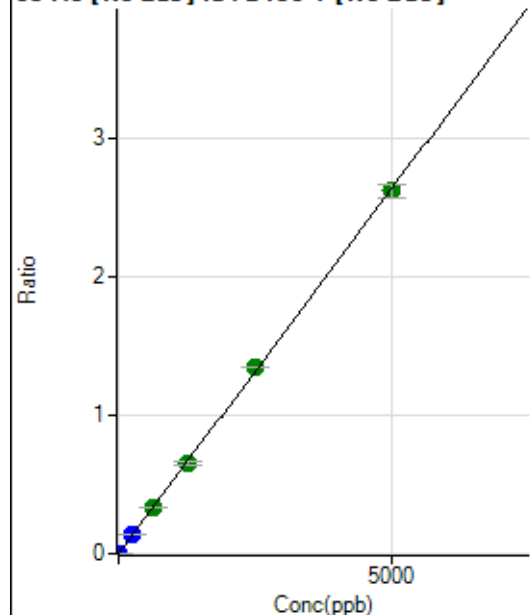
$$DL = 0.02071$$

$$BEC = 0.01041$$

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	91.67	0.0000	P	41.6
2	☐	0.500	0.522	4223.03	0.0003	P	2.5
3	☐	5.000	4.995	39878.95	0.0026	P	0.7
4	☐	250.000	254.343	1985956.47	0.1342	P	0.4
5	☐	625.000	632.241	4777636.13	0.3337	A	0.3
6	☐	1250.000	1241.167	9235056.72	0.6550	A	2.7
7	☐	2500.000	2554.468	18331561.87	1.3482	A	0.3
8	☐	5000.000	4973.852	36772611.93	2.6250	A	3.9
9	☐			70100.64	0.0053	P	3.4

$$y = 5.2776\text{E-}004 * x + 5.9972\text{E-}006$$

$$R = 0.9999$$

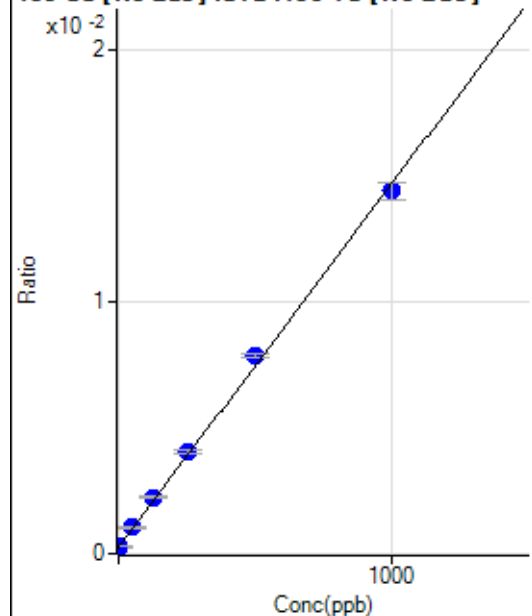
$$DL = 0.01419$$

$$BEC = 0.01136$$

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	4353.63	0.0002	P	2.1
2	☐	0.100	1.519	4592.61	0.0003	P	4.4
3	☐	1.000	2.787	4962.20	0.0003	P	3.3
4	☐	50.000	54.927	17786.77	0.0010	P	2.7
5	☐	125.000	138.714	37662.02	0.0022	P	2.0
6	☐	250.000	262.589	68024.56	0.0040	P	4.0
7	☐	500.000	527.969	129399.16	0.0079	P	2.0
8	☐	1000.000	980.906	243278.86	0.0144	P	4.5
9	☐			4231.38	0.0003	P	2.3

$$y = 1.4441\text{E-}005 * x + 2.4534\text{E-}004$$

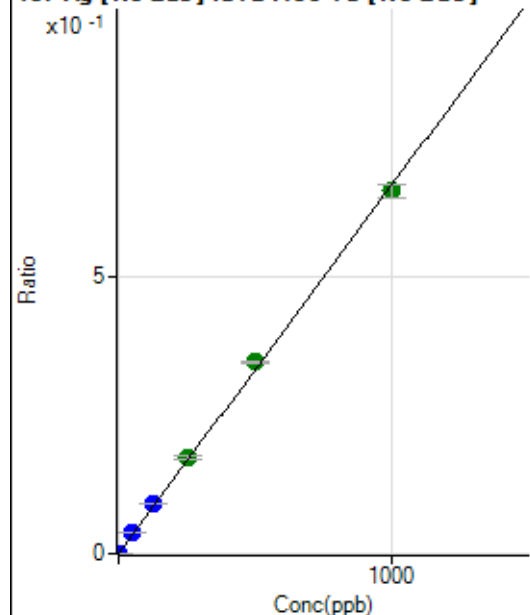
$$R = 0.9993$$

$$DL = 1.071$$

$$BEC = 16.99$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	102.78	0.0000	P	9.4
2	☐	0.100	0.109	1350.13	0.0001	P	4.0
3	☐	1.000	1.058	12328.15	0.0007	P	2.0
4	☐	50.000	56.169	640157.17	0.0374	P	0.8
5	☐	125.000	137.255	1529744.58	0.0913	P	0.5
6	☐	250.000	260.996	2925907.68	0.1736	A	3.7
7	☐	500.000	520.504	5694011.02	0.3463	A	0.5
8	☐	1000.000	985.158	11065913.88	0.6554	A	4.0
9	☐			1911.32	0.0001	P	3.4

$$y = 6.6531\text{E-}004 * x + 5.7926\text{E-}006$$

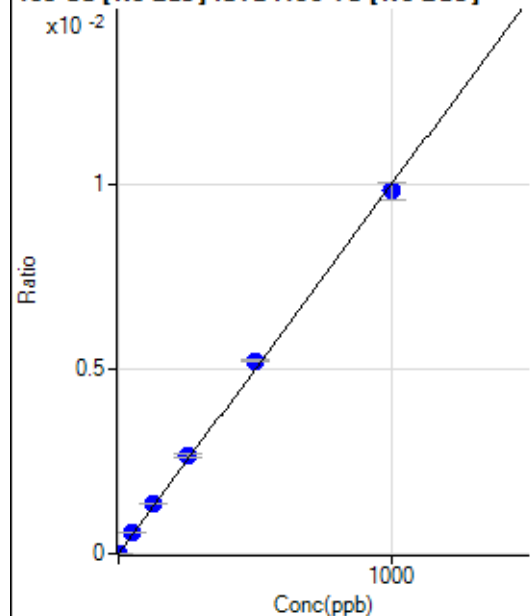
$$R = 0.9996$$

$$DL = 0.002464$$

$$BEC = 0.008707$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.89	0.0000	P	96.7
2	☐	0.100	0.139	37.50	0.0000	P	18.4
3	☐	1.000	1.080	201.39	0.0000	P	7.0
4	☐	50.000	55.674	9561.72	0.0006	P	2.3
5	☐	125.000	137.470	23071.80	0.0014	P	0.3
6	☐	250.000	265.269	44776.29	0.0027	P	2.8
7	☐	500.000	523.169	86148.62	0.0052	P	0.5
8	☐	1000.000	982.756	166141.90	0.0098	P	4.7
9	☐			59.72	0.0000	P	10.5

$$y = 1.0013\text{E-}005 * x + 7.8414\text{E-}007$$

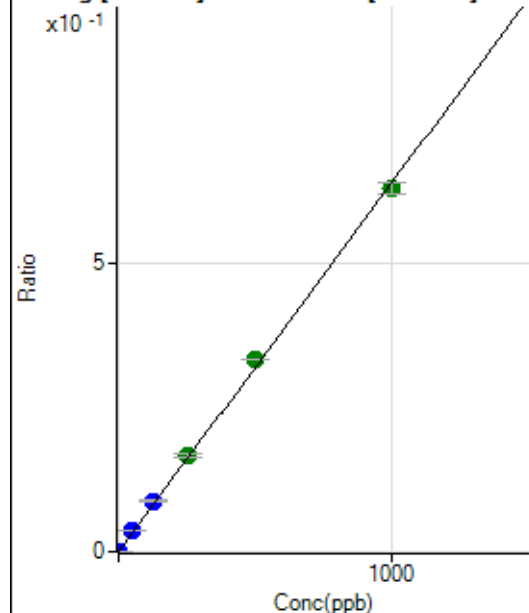
$$R = 0.9994$$

$$DL = 0.2272$$

$$BEC = 0.07831$$

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	75.00	0.0000	P	10.8
2	☐	0.100	0.096	1127.87	0.0001	P	16.7
3	☐	1.000	1.084	12089.01	0.0007	P	0.8
4	☐	50.000	56.496	617572.78	0.0361	P	0.5
5	☐	125.000	137.826	1473327.34	0.0880	P	0.7
6	☐	250.000	261.477	2811541.88	0.1669	A	3.7
7	☐	500.000	521.016	5466781.46	0.3325	A	0.4
8	☐	1000.000	984.695	10610417.77	0.6284	A	3.3
9	☐			1722.40	0.0001	P	4.9

$$y = 6.3814\text{E-}004 * x + 4.2259\text{E-}006$$

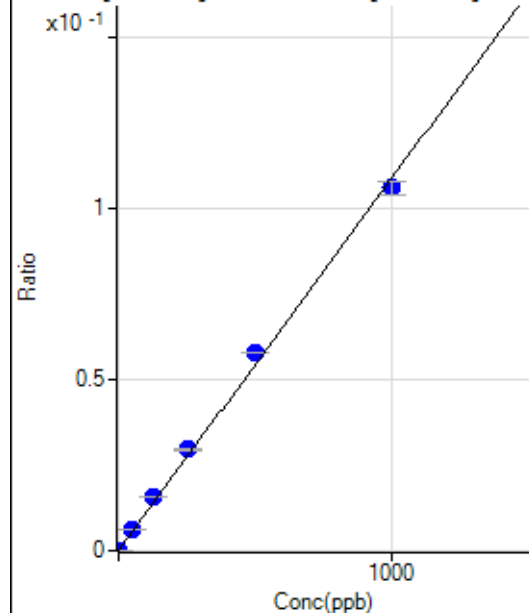
$$R = 0.9996$$

$$DL = 0.002151$$

$$BEC = 0.006622$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	195.46	0.0000	P	17.3
2	☐	0.100	0.121	414.36	0.0000	P	9.2
3	☐	1.000	1.111	2285.86	0.0001	P	0.6
4	☐	50.000	58.143	108225.78	0.0063	P	0.7
5	☐	125.000	145.391	264380.08	0.0158	P	1.5
6	☐	250.000	271.726	496961.55	0.0295	P	2.7
7	☐	500.000	532.902	950741.94	0.0578	P	0.6
8	☐	1000.000	975.161	1786320.73	0.1058	P	3.9
9	☐			706.03	0.0000	P	2.7

$$y = 1.0849\text{E-}004 * x + 1.1012\text{E-}005$$

$$R = 0.9988$$

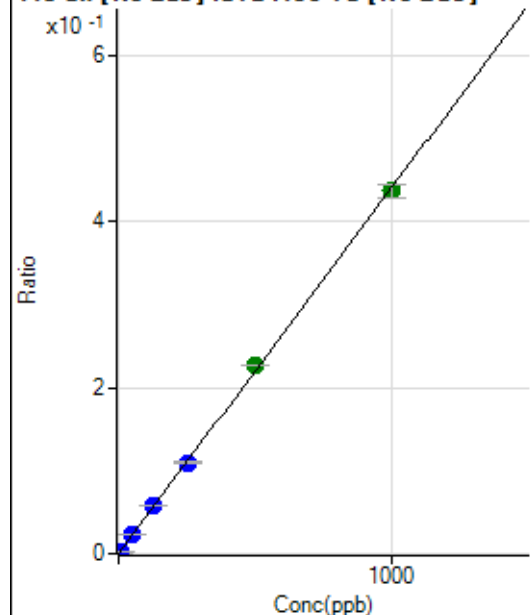
$$DL = 0.05272$$

$$BEC = 0.1015$$

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	1836.31	0.0001	P	6.2
2	☐	0.500	0.512	5651.37	0.0003	P	3.6
3	☐	5.000	5.087	40682.16	0.0023	P	0.3
4	☐	50.000	53.130	402105.21	0.0235	P	0.9
5	☐	125.000	131.985	974348.85	0.0582	P	0.4
6	☐	250.000	248.207	1841814.49	0.1093	P	2.8
7	☐	500.000	514.727	3724839.80	0.2265	A	0.7
8	☐	1000.000	992.055	7370678.73	0.4365	A	3.5
9	☐			17806.37	0.0011	P	5.3

$$y = 4.3992\text{E-}004 * x + 1.0348\text{E-}004$$

$$R = 0.9998$$

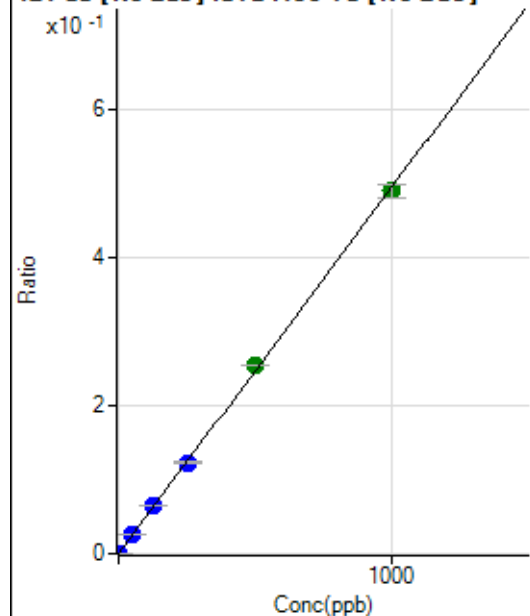
$$DL = 0.04394$$

$$BEC = 0.2352$$

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	41.67	0.0000	P	53.2
2	☐	0.200	0.214	1858.53	0.0001	P	5.5
3	☐	2.000	2.034	17508.92	0.0010	P	1.2
4	☐	50.000	53.570	453656.41	0.0265	P	0.4
5	☐	125.000	132.846	1100167.52	0.0657	P	0.8
6	☐	250.000	249.192	2076154.76	0.1232	P	2.6
7	☐	500.000	515.834	4193117.02	0.2550	A	0.4
8	☐	1000.000	991.125	8273688.82	0.4900	A	3.4
9	☐			13976.96	0.0009	P	6.7

$$y = 4.9438\text{E-}004 * x + 2.3503\text{E-}006$$

$$R = 0.9998$$

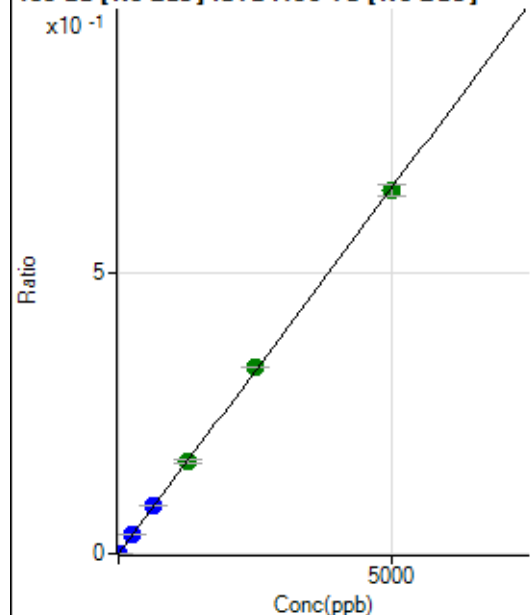
$$DL = 0.007592$$

$$BEC = 0.004754$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.56	0.0000	P	52.9
2	☐	1.000	1.019	2333.65	0.0001	P	3.5
3	☐	10.000	10.095	22888.99	0.0013	P	3.1
4	☐	250.000	264.364	589533.68	0.0344	P	0.4
5	☐	625.000	658.364	1435770.19	0.0857	P	0.4
6	☐	1250.000	1259.561	2763229.86	0.1640	A	3.0
7	☐	2500.000	2556.106	5471444.35	0.3328	A	0.6
8	☐	5000.000	4964.668	10913469.60	0.6463	A	3.4
9	☐			3089.37	0.0002	P	4.2

$$y = 1.3018\text{E-}004 * x + 3.1331\text{E-}006$$

$$R = 0.9999$$

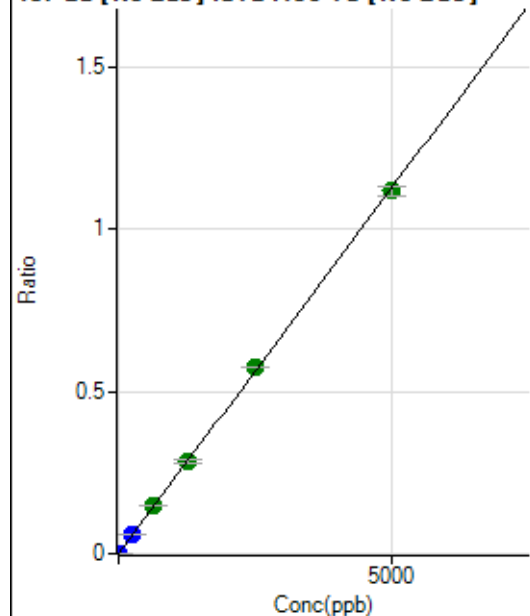
$$DL = 0.03819$$

$$BEC = 0.02407$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.34	0.0000	P	26.2
2	☐	1.000	0.997	3942.40	0.0002	P	6.9
3	☐	10.000	10.179	39941.83	0.0023	P	1.0
4	☐	250.000	265.350	1024474.73	0.0598	P	0.6
5	☐	625.000	653.379	2466908.47	0.1473	A	1.0
6	☐	1250.000	1260.078	4786192.73	0.2840	A	2.9
7	☐	2500.000	2558.563	9482225.39	0.5767	A	0.3
8	☐	5000.000	4963.884	18893549.55	1.1188	A	2.9
9	☐			5351.22	0.0003	P	3.7

$$y = 2.2539\text{E-}004 * x + 4.6949\text{E-}006$$

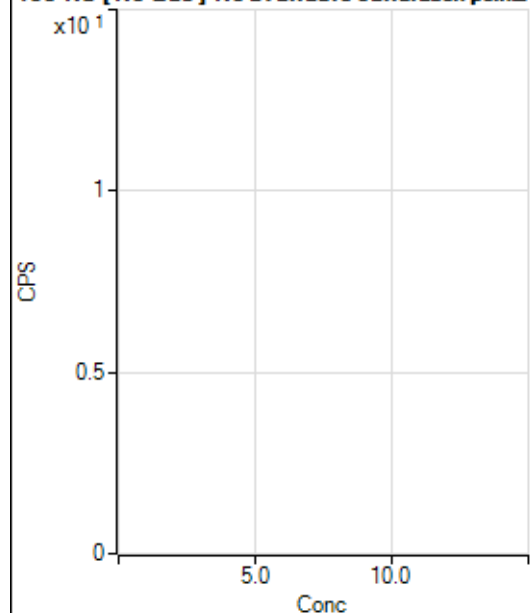
$$R = 0.9999$$

$$DL = 0.0164$$

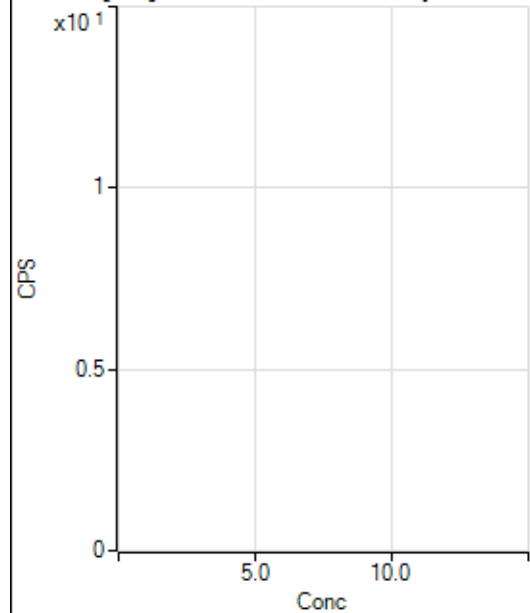
$$BEC = 0.02083$$

Weight: <None>

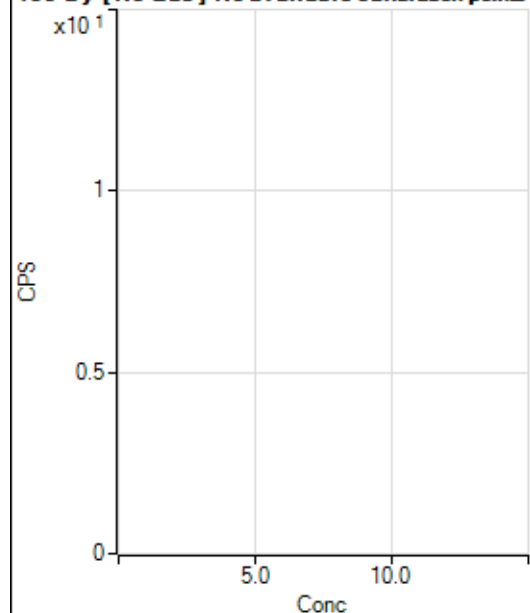
Min Conc: 0

150 Nd [No Gas] No available calibration points

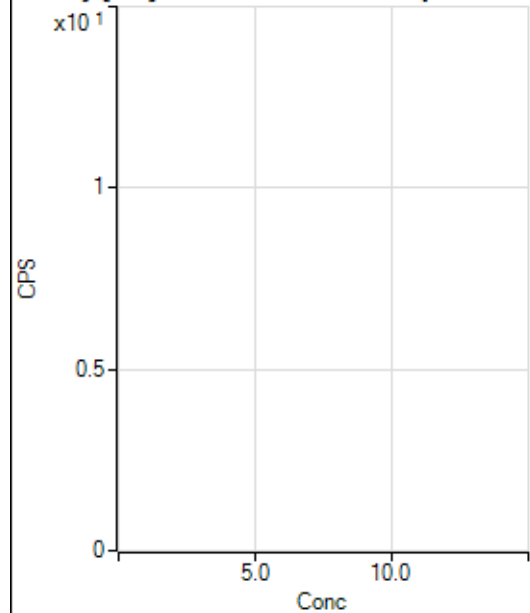
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.
2	☐			4.45		P	86.6
3	☐			0.00		P	
4	☐			26.67		P	25.0
5	☐			91.11		P	11.2
6	☐			157.79		P	2.4
7	☐			240.01		P	21.0
8	☐			615.59		P	12.0
9	☐			133.34		P	0.0

150 Nd [He] No available calibration points

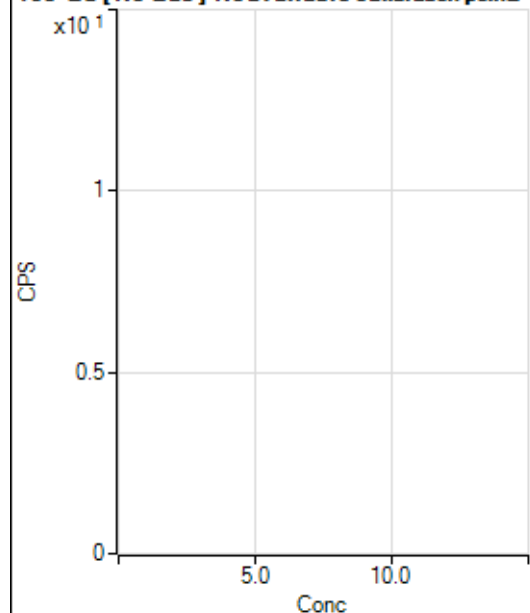
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			1.11		P	173.
3	☐			2.22		P	86.6
4	☐			5.56		P	91.6
5	☐			13.33		P	50.0
6	☐			20.00		P	50.0
7	☐			46.66		P	12.4
8	☐			60.00		P	9.6
9	☐			73.33		P	22.7

156 Dy [No Gas] No available calibration points

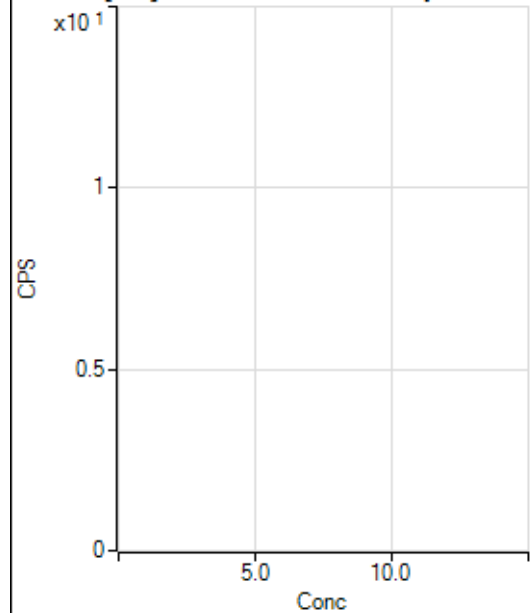
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.78		P	173.
2	☐			8.33		P	100.
3	☐			25.00		P	33.3
4	☐			11.11		P	114.
5	☐			25.00		P	66.7
6	☐			50.00		P	44.1
7	☐			91.67		P	24.1
8	☐			141.68		P	10.2
9	☐			113.90		P	15.2

156 Dy [He] No available calibration points

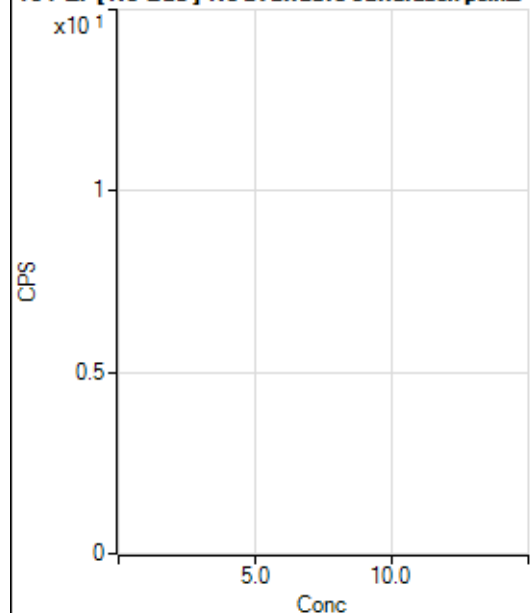
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.
2	☐			4.44		P	43.4
3	☐			5.55		P	69.3
4	☐			14.45		P	26.7
5	☐			22.22		P	22.9
6	☐			47.78		P	4.0
7	☐			80.00		P	29.2
8	☐			158.89		P	18.9
9	☐			43.33		P	40.7

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

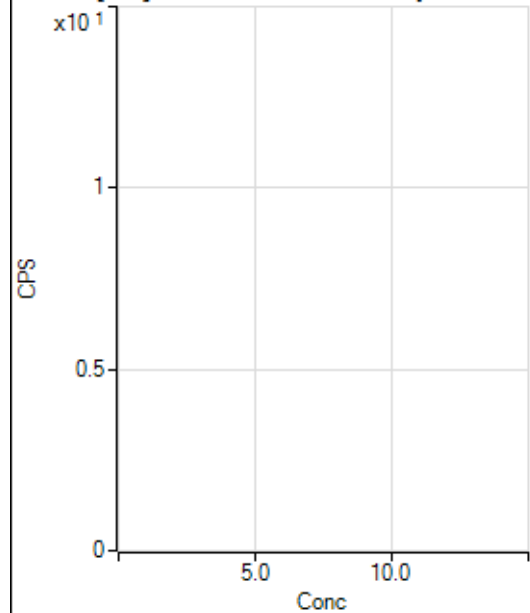
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			66.67		P	21.6
2	☐			52.78		P	50.8
3	☐			61.12		P	34.3
4	☐			91.67		P	24.1
5	☐			119.45		P	21.3
6	☐			94.45		P	20.4
7	☐			105.56		P	12.1
8	☐			119.45		P	14.5
9	☐			155.56		P	32.3

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			193.34		P	10.5
2	☐			216.67		P	20.1
3	☐			210.01		P	2.7
4	☐			222.23		P	8.3
5	☐			232.23		P	7.1
6	☐			186.67		P	20.1
7	☐			226.67		P	7.4
8	☐			238.89		P	12.7
9	☐			222.23		P	9.8

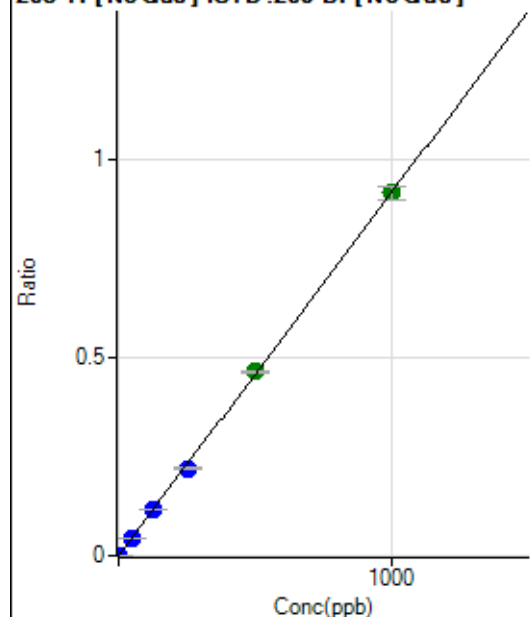
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	32.7
2	☐			50.00		P	0.0
3	☐			69.45		P	27.7
4	☐			72.23		P	24.0
5	☐			38.89		P	24.7
6	☐			55.56		P	31.2
7	☐			75.00		P	0.0
8	☐			69.45		P	13.9
9	☐			83.34		P	17.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	17.3
2	☐			26.67		P	0.0
3	☐			44.45		P	30.3
4	☐			35.56		P	21.6
5	☐			31.11		P	53.9
6	☐			26.67		P	21.7
7	☐			17.78		P	28.6
8	☐			44.44		P	11.5
9	☐			30.00		P	11.1

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.11	0.0000	P	49.6
2	☐	0.100	0.100	966.75	0.0001	P	11.0
3	☐	1.000	0.974	8764.40	0.0009	P	2.8
4	☐	50.000	49.826	439579.05	0.0457	P	0.7
5	☐	125.000	124.947	1076652.75	0.1147	P	0.2
6	☐	250.000	238.859	2068326.61	0.2192	P	2.1
7	☐	500.000	506.612	4211055.95	0.4649	A	0.3
8	☐	1000.000	999.494	8325615.46	0.9171	A	3.4
9	☐			5390.22	0.0007	P	1.8

$$y = 9.1757\text{E-}004 * x + 8.5912\text{E-}006$$

$$R = 0.9999$$

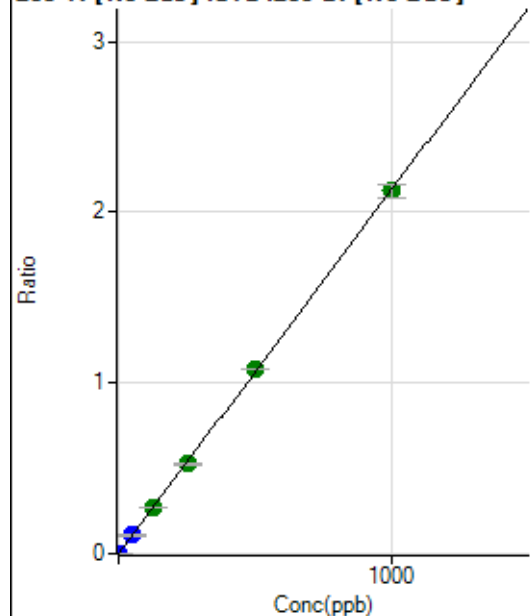
$$DL = 0.01393$$

$$BEC = 0.009363$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.67	0.0000	P	6.8
2	☐	0.100	0.101	2294.74	0.0002	P	9.4
3	☐	1.000	0.987	20644.65	0.0021	P	2.4
4	☐	50.000	50.251	1029723.42	0.1071	P	0.3
5	☐	125.000	124.586	2493485.47	0.2655	A	0.2
6	☐	250.000	246.297	4953080.41	0.5249	A	2.6
7	☐	500.000	507.799	9803815.24	1.0823	A	0.2
8	☐	1000.000	997.066	19290539.84	2.1250	A	3.4
9	☐			12361.77	0.0016	P	3.1

$$y = 0.0021 * x + 2.1625\text{E-}005$$

$$R = 1.0000$$

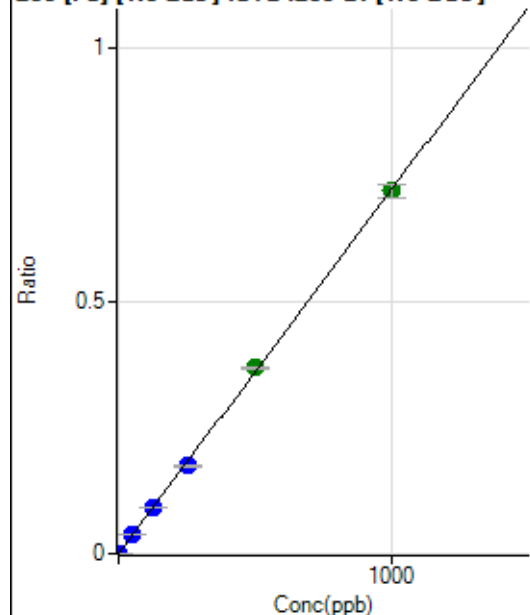
$$DL = 0.002071$$

$$BEC = 0.01015$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	318.53	0.0000	P	14.2
2	☐	0.100	0.098	988.96	0.0001	P	6.2
3	☐	1.000	0.998	7305.90	0.0008	P	2.2
4	☐	50.000	50.992	353781.77	0.0368	P	0.4
5	☐	125.000	127.339	862545.99	0.0919	P	0.6
6	☐	250.000	242.568	1650828.27	0.1749	P	2.3
7	☐	500.000	509.917	3331207.77	0.3677	A	0.1
8	☐	1000.000	996.557	6523630.30	0.7187	A	3.6
9	☐			34933.43	0.0047	P	0.8

$$y = 7.2110\text{E-}004 * x + 3.1792\text{E-}005$$

$$R = 0.9999$$

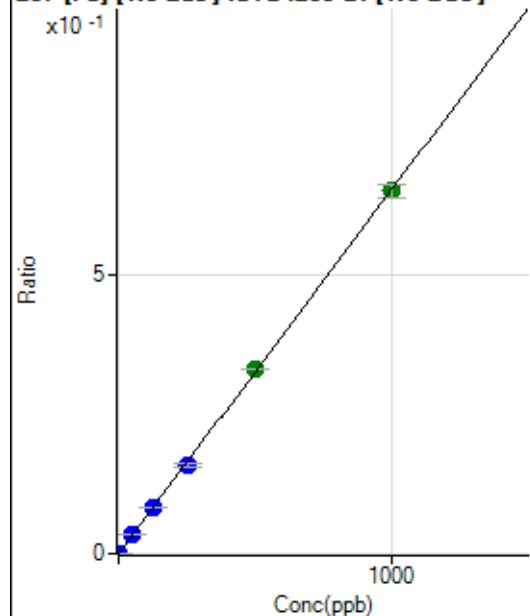
$$DL = 0.01873$$

$$BEC = 0.04409$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.35	0.0000	P	8.4
2	☐	0.100	0.094	863.02	0.0001	P	4.4
3	☐	1.000	0.947	6288.72	0.0006	P	1.0
4	☐	50.000	50.422	317111.18	0.0330	P	0.5
5	☐	125.000	127.376	782110.52	0.0833	P	0.4
6	☐	250.000	243.250	1500651.42	0.1590	P	2.3
7	☐	500.000	508.086	3008861.01	0.3321	A	0.3
8	☐	1000.000	997.326	5918093.48	0.6520	A	3.6
9	☐			28852.27	0.0038	P	0.8

$$y = 6.5367\text{E-}004 * x + 2.8276\text{E-}005$$

$$R = 0.9999$$

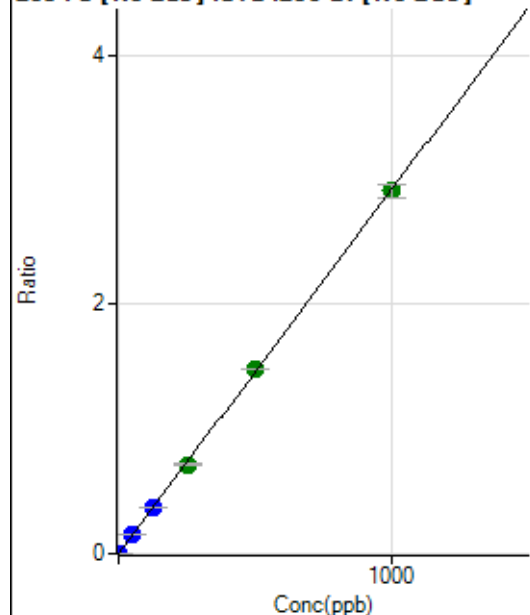
$$DL = 0.01092$$

$$BEC = 0.04326$$

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	1300.07	0.0001	P	5.1
2	☐	0.100	0.100	4063.35	0.0004	P	5.4
3	☐	1.000	0.980	29081.82	0.0030	P	1.0
4	☐	50.000	50.522	1420284.99	0.1477	P	0.3
5	☐	125.000	126.504	3471961.92	0.3697	P	0.4
6	☐	250.000	244.356	6737776.24	0.7141	A	2.6
7	☐	500.000	508.617	13463093.93	1.4862	A	0.2
8	☐	1000.000	996.889	26441660.90	2.9128	A	3.6
9	☐			135097.28	0.0180	P	0.5

$$y = 0.0029 * x + 1.2975E-004$$

$$R = 0.9999$$

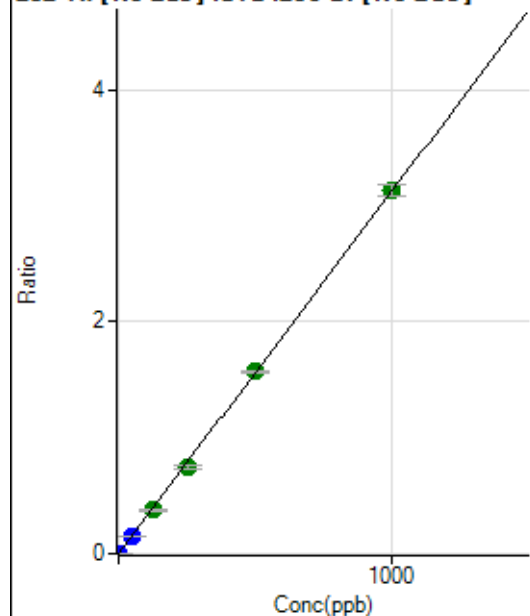
$$DL = 0.006846$$

$$BEC = 0.04441$$

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	240.75	0.0000	P	28.3
2	☐	0.100	0.092	3017.11	0.0003	P	2.8
3	☐	1.000	0.896	27427.54	0.0028	P	0.8
4	☐	50.000	46.931	1409249.57	0.1466	P	0.4
5	☐	125.000	119.701	3510681.39	0.3739	A	0.3
6	☐	250.000	239.632	7061272.67	0.7484	A	3.1
7	☐	500.000	502.328	14211696.84	1.5689	A	0.7
8	☐	1000.000	1002.244	28417304.80	3.1302	A	3.1
9	☐			11590.71	0.0015	P	8.7

$$y = 0.0031 * x + 2.4031E-005$$

$$R = 0.9999$$

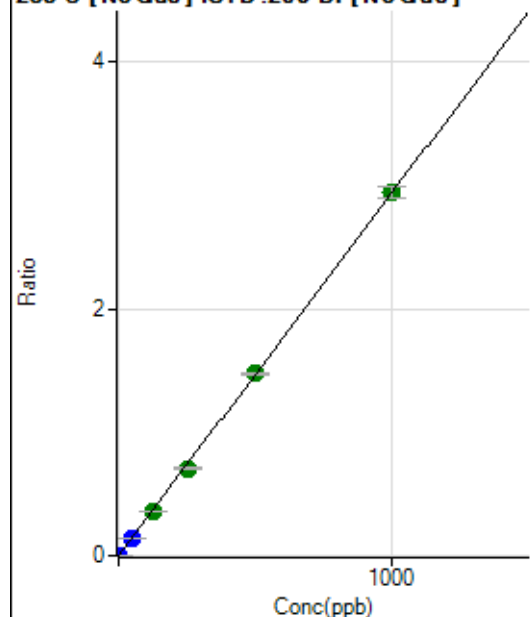
$$DL = 0.006533$$

$$BEC = 0.007695$$

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	38.89	0.0000	P	32.8
2	☐	0.100	0.100	2875.45	0.0003	P	3.1
3	☐	1.000	0.954	27235.27	0.0028	P	0.9
4	☐	50.000	47.974	1352499.50	0.1407	P	0.2
5	☐	125.000	119.994	3304393.15	0.3519	A	0.3
6	☐	250.000	240.712	6660901.15	0.7059	A	2.4
7	☐	500.000	503.219	13368253.77	1.4757	A	0.9
8	☐	1000.000	1001.439	26661174.21	2.9368	A	3.3
9	☐			4709.39	0.0006	P	6.4

$$y = 0.0029 * x + 3.8821E-006$$

$$R = 0.9999$$

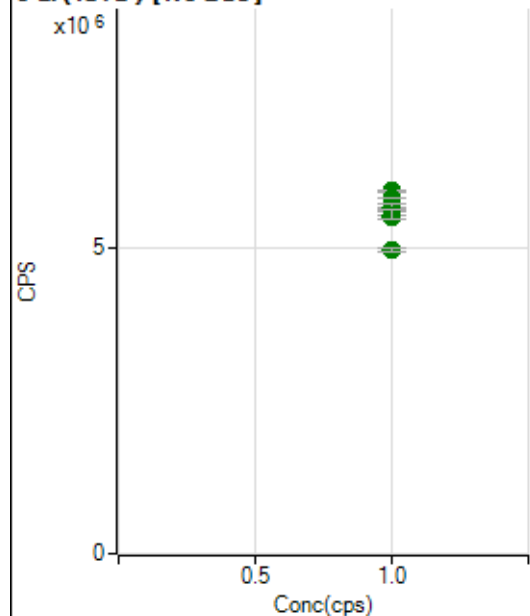
$$DL = 0.001304$$

$$BEC = 0.001324$$

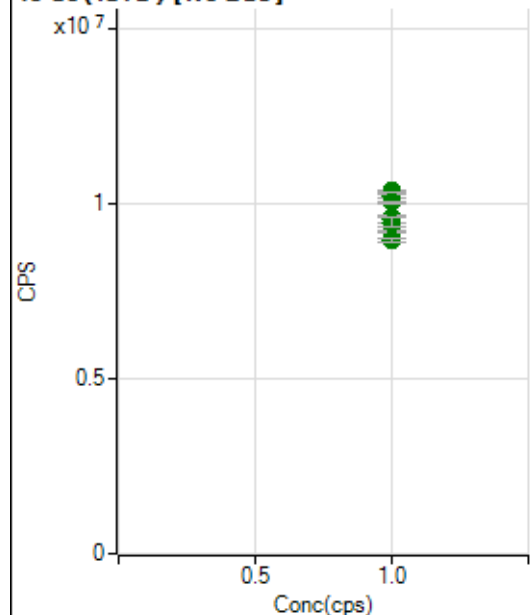
Weight: <None>

Min Conc: 0

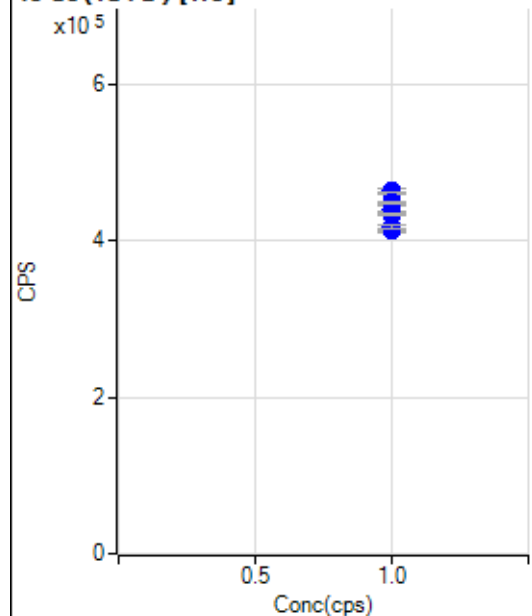
6 Li (ISTD) [No Gas]



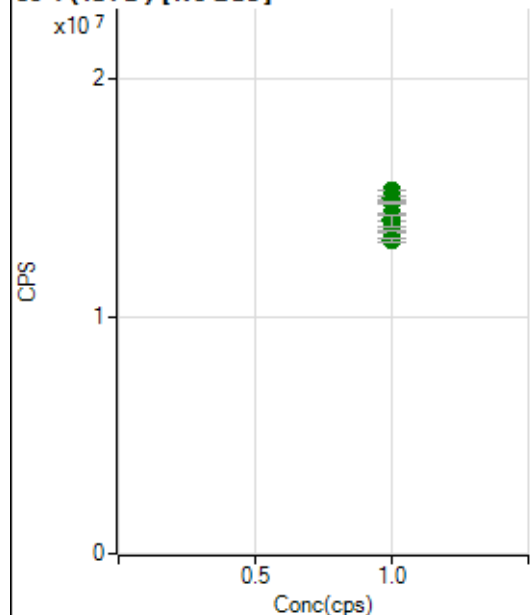
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5930857.06		A	0.5
2	☐	1.000		5916713.87		A	0.6
3	☐	1.000		5928334.08		A	0.4
4	☐	1.000		5815671.09		A	0.2
5	☐	1.000		5645053.87		A	0.5
6	☐	1.000		5646840.06		A	2.1
7	☐	1.000		5496711.65		A	1.3
8	☐	1.000		5543266.03		A	2.8
9	☐	1.000		4968595.45		A	1.0

45 Sc (ISTD) [No Gas]

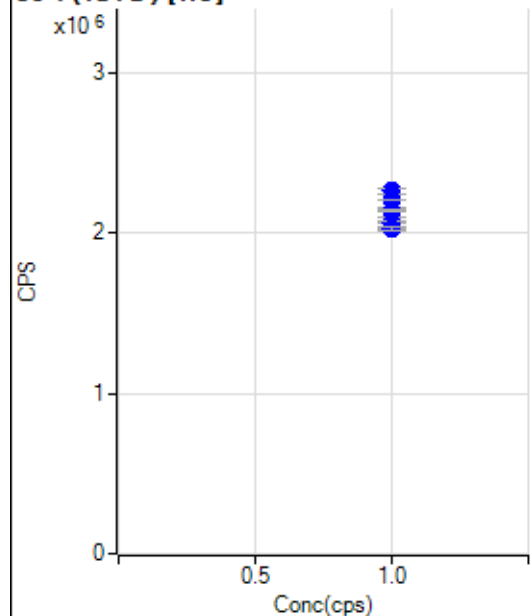
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10360628.53		A	0.1
2	☐	1.000		10214203.87		A	0.8
3	☐	1.000		10303218.89		A	0.3
4	☐	1.000		10040548.66		A	0.5
5	☐	1.000		9630964.10		A	0.4
6	☐	1.000		9546381.12		A	2.0
7	☐	1.000		9196893.09		A	0.4
8	☐	1.000		9467156.81		A	2.9
9	☐	1.000		8961835.96		A	1.3

45 Sc (ISTD) [He]

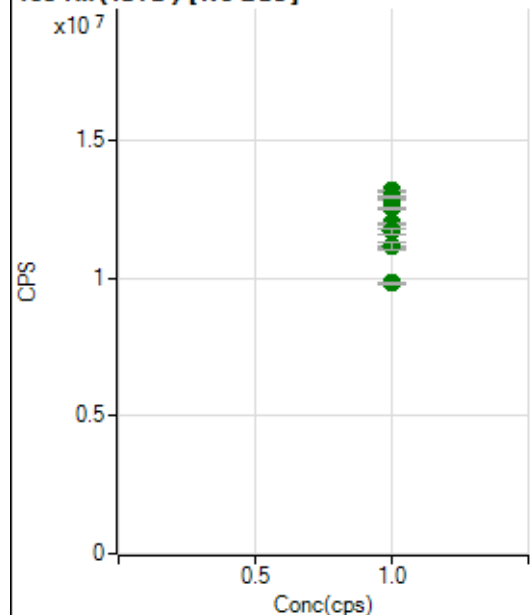
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		440292.75		P	1.9
2	☐	1.000		463211.28		P	1.3
3	☐	1.000		460850.58		P	0.7
4	☐	1.000		449223.57		P	0.5
5	☐	1.000		432896.75		P	0.4
6	☐	1.000		412443.50		P	0.8
7	☐	1.000		415656.12		P	1.9
8	☐	1.000		413235.36		P	0.2
9	☐	1.000		418494.14		P	1.2

89 Y (ISTD) [No Gas]

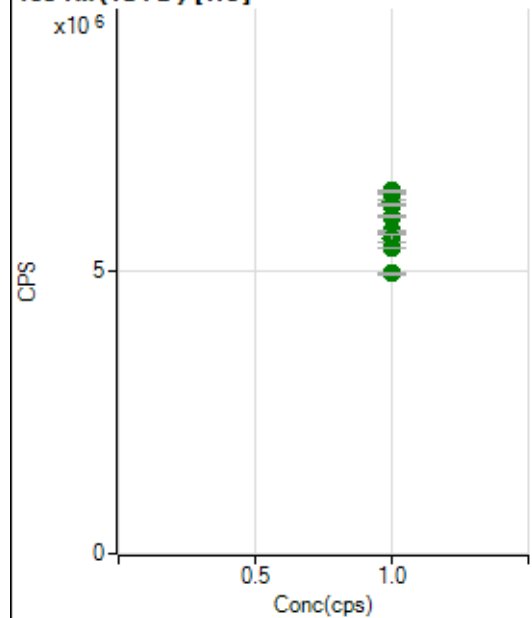
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15285357.55		A	0.2
2	☐	1.000		14993683.53		A	1.1
3	☐	1.000		15093614.64		A	0.2
4	☐	1.000		14794271.31		A	0.2
5	☐	1.000		14318026.87		A	0.7
6	☐	1.000		14102623.54		A	1.8
7	☐	1.000		13597573.55		A	0.5
8	☐	1.000		14019317.99		A	3.0
9	☐	1.000		13213685.64		A	1.5

89 Y (ISTD) [He]

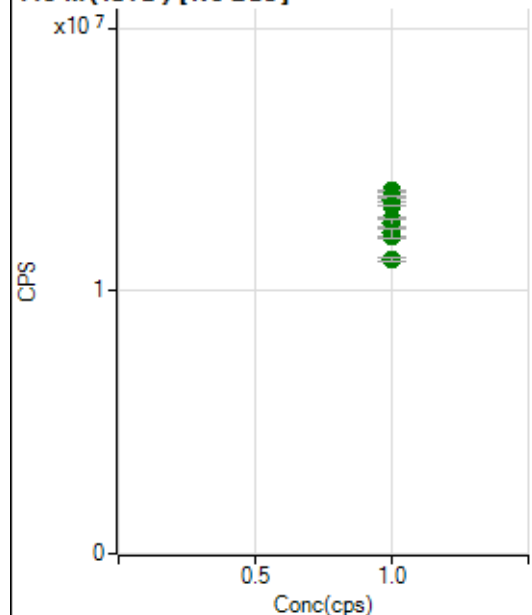
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2133863.18		M	2.7
2	☐	1.000		2265135.89		P	1.6
3	☐	1.000		2246609.55		P	0.4
4	☐	1.000		2207362.92		P	0.3
5	☐	1.000		2142795.13		P	0.4
6	☐	1.000		2062120.40		P	0.2
7	☐	1.000		2061361.18		P	1.7
8	☐	1.000		2032043.74		P	0.3
9	☐	1.000		2026433.20		P	1.0

103 Rh (ISTD) [No Gas]

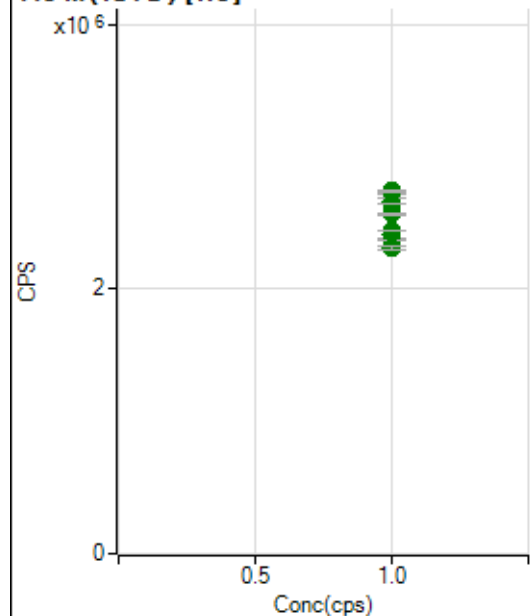
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13177236.32		A	0.2
2	☐	1.000		12886832.84		A	0.9
3	☐	1.000		12962044.39		A	0.3
4	☐	1.000		12542803.15		A	0.2
5	☐	1.000		12007700.10		A	0.5
6	☐	1.000		11707613.63		A	1.7
7	☐	1.000		11150558.41		A	0.2
8	☐	1.000		11153378.29		A	2.6
9	☐	1.000		9836117.75		A	0.8

103 Rh (ISTD) [He]

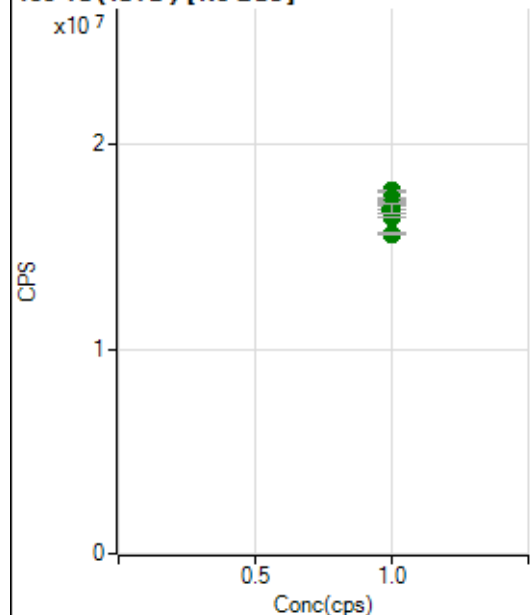
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6201135.74		A	1.7
2	☐	1.000		6373975.74		A	1.3
3	☐	1.000		6402403.86		A	0.4
4	☐	1.000		6153227.41		A	0.3
5	☐	1.000		5948387.90		A	0.3
6	☐	1.000		5684370.68		A	0.2
7	☐	1.000		5577304.15		A	2.3
8	☐	1.000		5401802.70		A	0.3
9	☐	1.000		4941806.73		A	0.3

115 In (ISTD) [No Gas]

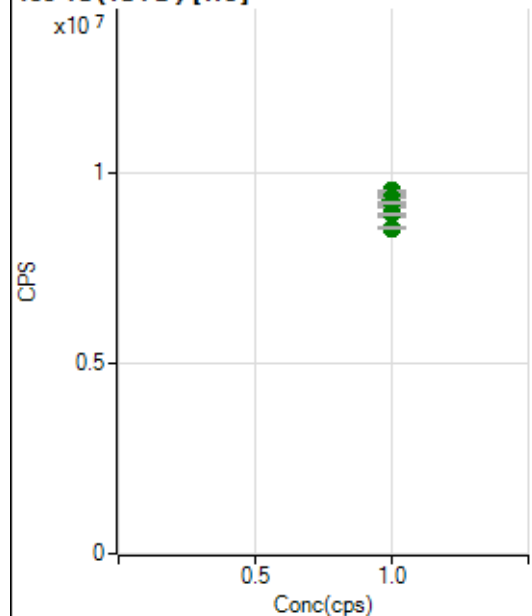
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13815579.03		A	0.4
2	☐	1.000		13472673.49		A	1.1
3	☐	1.000		13584628.41		A	0.2
4	☐	1.000		13240085.59		A	0.2
5	☐	1.000		12771250.42		A	0.7
6	☐	1.000		12616561.45		A	2.1
7	☐	1.000		12088682.77		A	0.4
8	☐	1.000		12200597.15		A	2.9
9	☐	1.000		11190450.80		A	1.1

115 In (ISTD) [He]

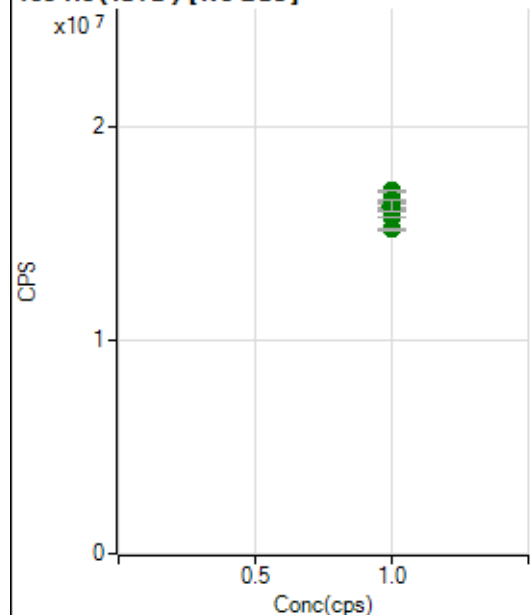
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2666112.84		A	1.9
2	☐	1.000		2732671.69		A	1.0
3	☐	1.000		2741951.80		A	0.2
4	☐	1.000		2645699.28		A	0.2
5	☐	1.000		2567247.22		A	0.5
6	☐	1.000		2444420.14		A	0.3
7	☐	1.000		2414738.64		A	2.6
8	☐	1.000		2369937.38		A	0.2
9	☐	1.000		2313401.17		A	1.4

159 Tb (ISTD) [No Gas]

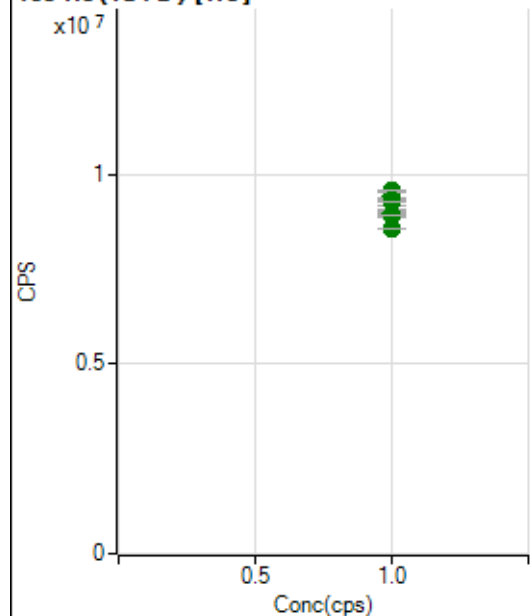
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17744851.68		A	0.3
2	☐	1.000		17183835.30		A	0.8
3	☐	1.000		17373987.80		A	0.5
4	☐	1.000		17128221.55		A	0.5
5	☐	1.000		16751450.44		A	0.9
6	☐	1.000		16859144.33		A	2.4
7	☐	1.000		16442384.06		A	0.4
8	☐	1.000		16896220.72		A	2.9
9	☐	1.000		15648483.24		A	0.4

159 Tb (ISTD) [He]

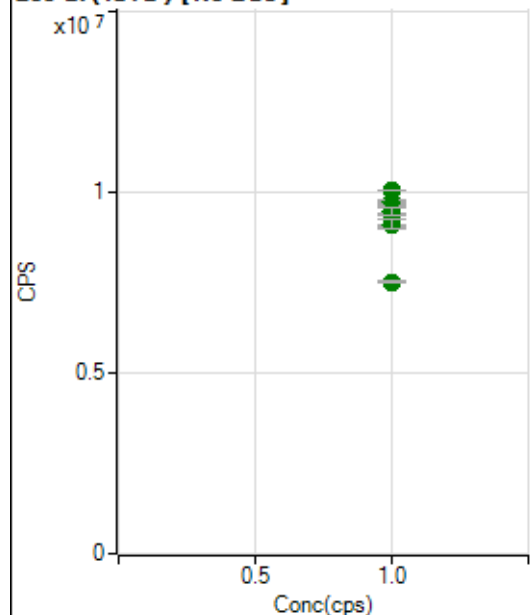
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9254632.92		A	2.5
2	☐	1.000		9448958.54		A	0.9
3	☐	1.000		9506132.77		A	0.6
4	☐	1.000		9316661.32		A	0.3
5	☐	1.000		9194606.04		A	0.4
6	☐	1.000		8930595.70		A	0.2
7	☐	1.000		8931531.25		A	2.7
8	☐	1.000		8904339.31		A	0.3
9	☐	1.000		8533715.22		A	0.2

165 Ho (ISTD) [No Gas]

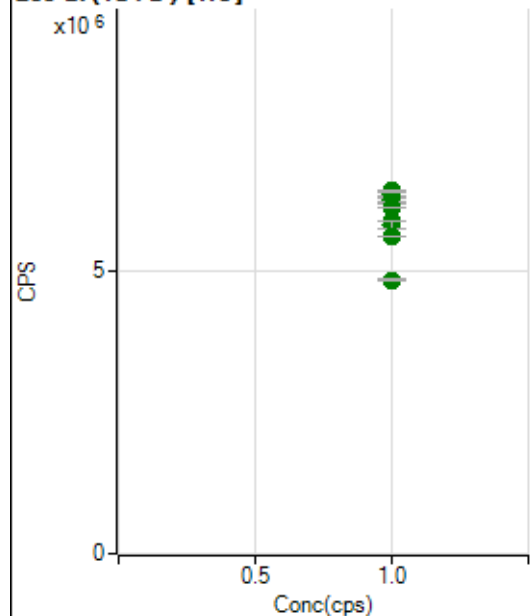
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16963070.00		A	0.3
2	☐	1.000		16456437.87		A	1.0
3	☐	1.000		16553400.02		A	0.4
4	☐	1.000		16411406.09		A	0.2
5	☐	1.000		16122571.37		A	0.4
6	☐	1.000		16209883.35		A	2.0
7	☐	1.000		15729550.53		A	0.4
8	☐	1.000		16278817.72		A	3.4
9	☐	1.000		15159608.67		A	0.8

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9259805.35		A	2.2
2	☐	1.000		9456117.84		A	1.2
3	☐	1.000		9570959.86		A	0.3
4	☐	1.000		9346800.14		A	0.1
5	☐	1.000		9286107.78		A	0.3
6	☐	1.000		9002066.60		A	0.4
7	☐	1.000		8986206.88		A	2.2
8	☐	1.000		8935335.63		A	0.4
9	☐	1.000		8572085.29		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10020057.70		A	0.1
2	☐	1.000		9652923.26		A	1.1
3	☐	1.000		9717977.29		A	0.8
4	☐	1.000		9613115.48		A	0.4
5	☐	1.000		9390194.58		A	0.3
6	☐	1.000		9439418.19		A	2.4
7	☐	1.000		9058765.91		A	0.4
8	☐	1.000		9083954.52		A	2.9
9	☐	1.000		7511456.07		A	1.1

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6276637.06		A	1.8
2	☐	1.000		6369197.69		A	1.5
3	☐	1.000		6430007.54		A	0.5
4	☐	1.000		6246864.77		A	0.2
5	☐	1.000		6141720.33		A	0.2
6	☐	1.000		5902494.57		A	0.3
7	☐	1.000		5821885.95		A	2.4
8	☐	1.000		5628597.42		A	0.3
9	☐	1.000		4855595.55		A	0.3

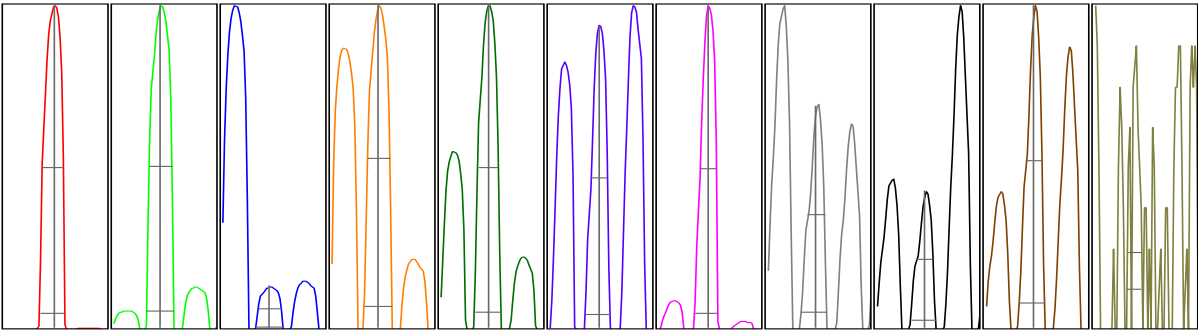
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7092018MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	17559	3.07	5.00	
24	1557223	3.25	5.00	
25	205160	3.29	5.00	
26	230927	3.41	5.00	
59	106082	3.18	5.00	
113	12619	3.08	5.00	
115	151128	3.08	5.00	
206	32069	3.11	5.00	
207	29610	3.25	5.00	
208	68318	3.06	5.00	
220	0	40.75		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	17873	17760	16601	17707	17852
24	1583394	1582437	1466881	1573263	1580137
25	209082	209078	193247	206282	208114
26	235088	235761	217037	232365	234383
59	108705	107623	100179	106900	107001
113	12863	12867	11940	12664	12762
115	154221	153958	143003	151732	152726
206	32300	32608	30301	32471	32664
207	29642	30124	27943	30064	30279
208	69044	69404	64607	68939	69596
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	30459	9.00	8.9 - 9.1		0.736	0.900	
24	2519844	23.90	23.9 - 24.1		0.786	0.900	
25	328125	24.90	24.9 - 25.1		0.786	0.900	
26	378262	25.90	25.9 - 26.1		0.809	0.900	
59	188019	58.95	58.9 - 59.1		0.775	0.900	
113	25881	113.00	112.9 - 113.1		0.719	0.900	
115	313004	115.00	114.9 - 115.1		0.670	0.900	
206	67761	205.95	205.9 - 206.1		0.733	0.900	
207	62555	206.95	206.9 - 207.1		0.724	0.900	
208	146789	207.95	207.9 - 208.1		0.727	0.900	
220	0	219.60	-		0.395		

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	6.3	V	Deflect	14.0	V
Extract 2	-100.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	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	200	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	27233	0.26	
89	652471	0.47	
205	29318	0.68	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	27155	27163	27276	27318	27254
89	650678	648068	653532	655552	654523
205	29036	29232	29571	29382	29369

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	7.6	V	Deflect	1.8	V
Extract 2	-110.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	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			