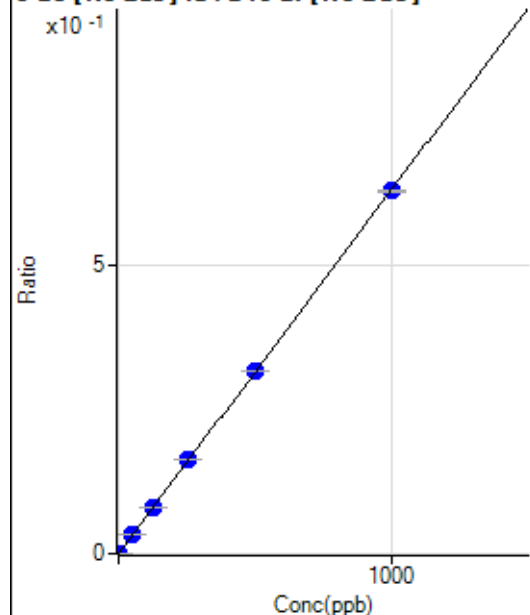


Calibration for 006CALS.d

Batch Folder: D:\ICP-MS Data\P7092619MS.b\
 Analysis File: P7092619MS.batch.bin
 DA Date-Time: 2019-09-27 00:02:13
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-09-26 10:59:48
2	003CALS.d	S02	2019-09-26 11:03:24
3	004CALS.d	S03	2019-09-26 11:08:12
4	005CALS.d	S04	2019-09-26 11:12:24
5	006CALS.d	S05	2019-09-26 11:16:14
6	007CALS.d	S06	2019-09-26 11:20:03
7	008CALS.d	S07	2019-09-26 11:23:49
8	009CALS.d	S08	2019-09-26 11:27:35

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0000	P	12.1
2	☐	1.000	1.015	2400.23	0.0007	P	6.2
3	☐	50.000	50.379	110259.44	0.0317	P	0.6
4	☐	125.000	127.553	260688.15	0.0802	P	0.3
5	☐	250.000	256.922	474679.80	0.1615	P	0.2
6	☐	500.000	501.480	869941.98	0.3153	P	0.2
7	☐	1000.000	997.191	1665843.17	0.6269	P	0.2
8	☐			261.12	0.0001	P	5.1

$$y = 6.2869\text{E-}004 * x + 2.0382\text{E-}005$$

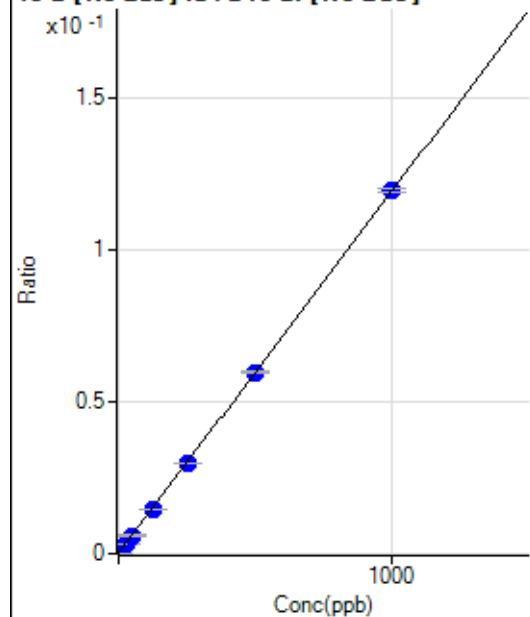
$$R = 1.0000$$

$$DL = 0.01174$$

$$BEC = 0.03242$$

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	716.72	0.0002	P	10.9
2	☐	25.000	22.898	10654.11	0.0029	P	2.2
3	☐	50.000	48.775	20881.79	0.0060	P	4.4
4	☐	125.000	120.424	47210.72	0.0145	P	1.4
5	☐	250.000	247.662	87164.65	0.0297	P	0.9
6	☐	500.000	498.516	164198.57	0.0595	P	1.1
7	☐	1000.000	1002.012	317288.00	0.1194	P	1.1
8	☐			14682.68	0.0054	P	5.4

$$y = 1.1898\text{E-}004 * x + 1.9940\text{E-}004$$

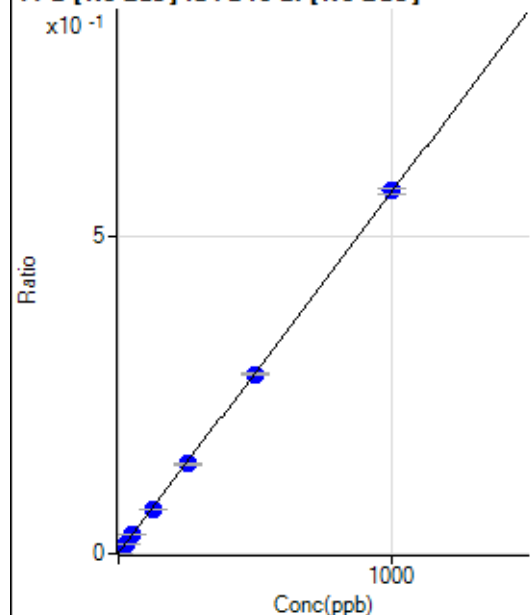
$$R = 1.0000$$

$$DL = 0.5469$$

$$BEC = 1.676$$

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	3278.26	0.0009	P	5.8
2	☐	25.000	23.188	51318.76	0.0141	P	0.4
3	☐	50.000	49.541	101070.42	0.0291	P	0.9
4	☐	125.000	120.416	225245.97	0.0693	P	1.2
5	☐	250.000	247.521	415739.35	0.1415	P	1.8
6	☐	500.000	495.680	779334.61	0.2825	P	1.2
7	☐	1000.000	1003.421	1516732.06	0.5709	P	1.6
8	☐			69215.05	0.0254	P	6.5

$$y = 5.6800\text{E-}004 * x + 9.1280\text{E-}004$$

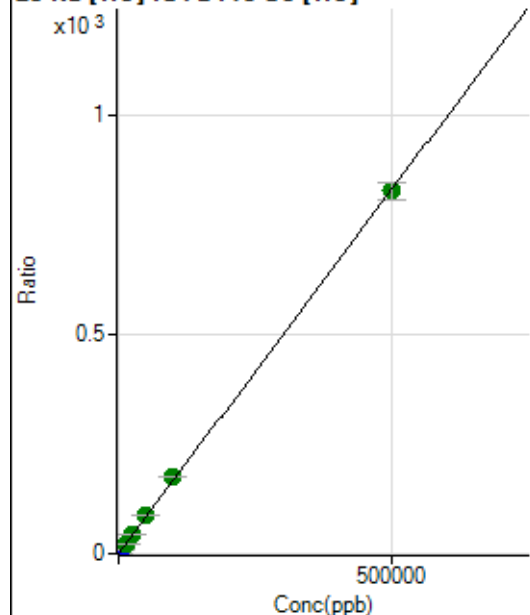
$$R = 1.0000$$

$$DL = 0.2792$$

$$BEC = 1.607$$

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	12561.28	0.0431	P	4.8
2	☐	500.000	481.499	251347.31	0.8441	P	2.3
3	☐	5000.000	5133.033	2360772.71	8.5820	P	0.5
4	☐	12500.000	12907.038	5528629.46	21.5142	A	0.2
5	☐	25000.000	26350.213	10216239.99	43.8772	A	0.6
6	☐	50000.000	52533.909	19490271.79	87.4343	A	0.2
7	☐	100000.00	106080.80	38839138.37	176.5107	A	0.2
8	☐	500000.00	498451.45	206879437.9	829.2272	A	5.0

$$y = 0.0017 * x + 0.0431$$

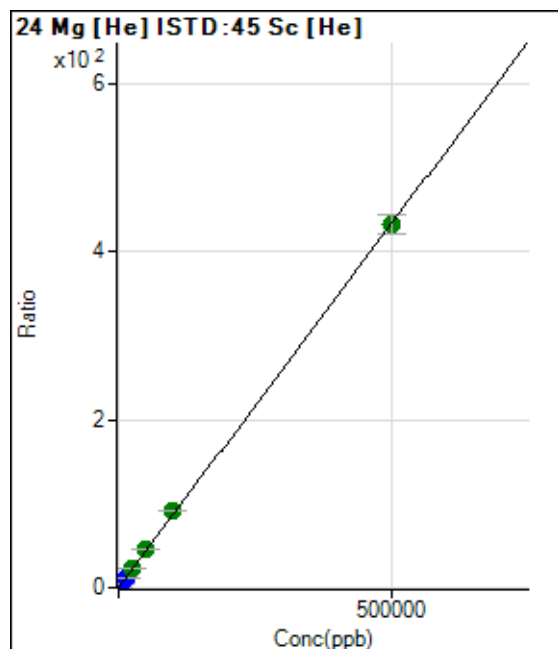
$$R = 0.9999$$

$$DL = 3.758$$

$$BEC = 25.89$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	372.24	0.0013	P	6.4
2	☐	500.000	501.141	129841.91	0.4360	P	2.3
3	☐	5000.000	5245.884	1252253.74	4.5522	P	0.2
4	☐	12500.000	13142.778	2930267.99	11.4029	P	0.6
5	☐	25000.000	26723.293	5398046.12	23.1843	A	1.0
6	☐	50000.000	53261.010	10300123.84	46.2063	A	0.2
7	☐	100000.00	106345.81	20300160.52	92.2584	A	0.4
8	☐	500000.00	498300.04	107837788.5	432.2865	A	5.3

$$y = 8.6752\text{E-}004 * x + 0.0013$$

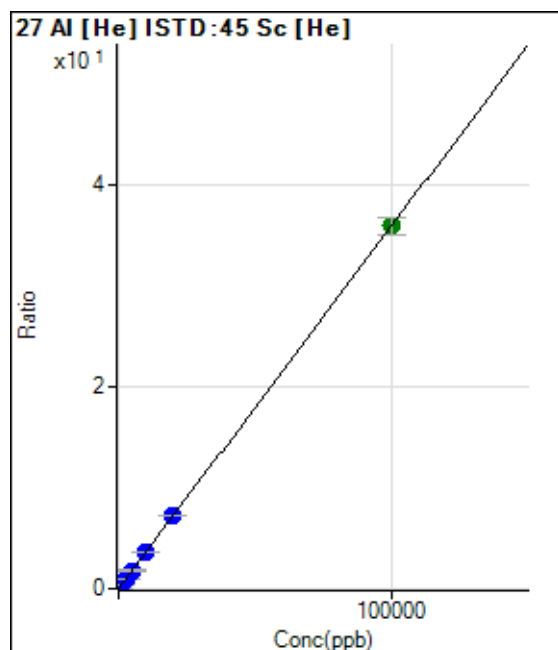
$$R = 0.9999$$

$$DL = 0.281$$

$$BEC = 1.471$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.00	0.0001	P	88.9
2	☐	20.000	19.166	2075.24	0.0070	P	8.0
3	☐	1000.000	1000.290	98817.37	0.3592	P	1.0
4	☐	2500.000	2476.726	228533.81	0.8893	P	0.5
5	☐	5000.000	5032.885	420760.15	1.8071	P	0.4
6	☐	10000.000	10002.946	800579.26	3.5915	P	0.6
7	☐	20000.000	19955.381	1576545.59	7.1648	P	0.5
8	☐	100000.00	100007.56	8958135.97	35.9064	A	5.0

$$y = 3.5904\text{E-}004 * x + 8.6015\text{E-}005$$

$$R = 1.0000$$

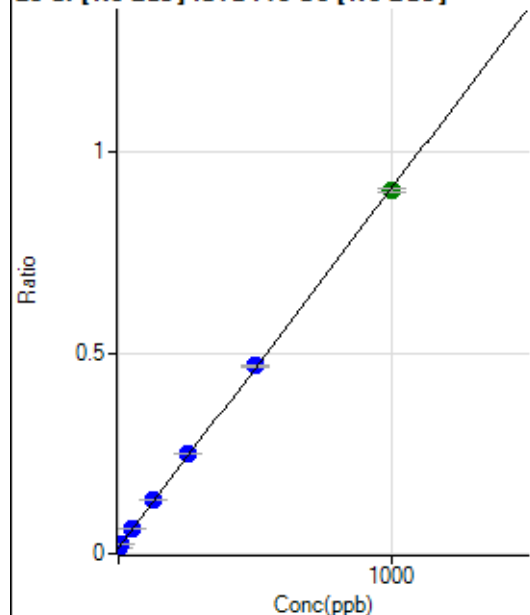
$$DL = 0.6387$$

$$BEC = 0.2396$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	104127.97	0.0148	P	3.3
2	☐	10.000	8.255	161959.80	0.0222	P	1.0
3	☐	50.000	52.532	432658.68	0.0618	P	0.2
4	☐	125.000	132.276	881858.68	0.1333	P	0.9
5	☐	250.000	262.593	1498788.78	0.2501	P	0.5
6	☐	500.000	506.135	2665180.16	0.4683	P	1.1
7	☐	1000.000	992.766	5014481.58	0.9043	A	1.0
8	☐			891774.28	0.1523	P	1.5

$$y = 8.9605E-004 * x + 0.0148$$

$$R = 0.9999$$

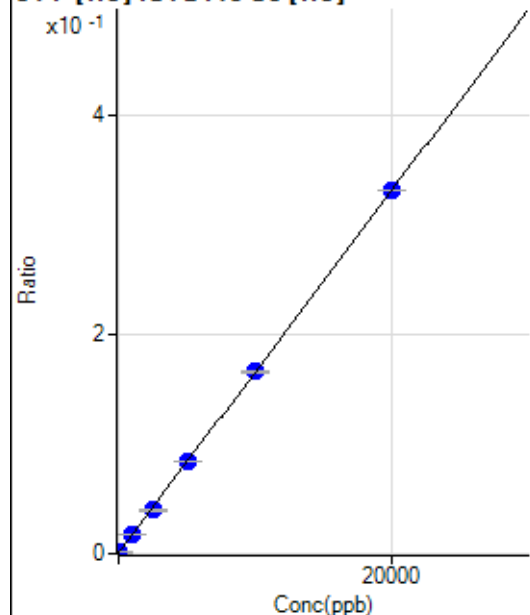
$$DL = 1.611$$

$$BEC = 16.49$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-22.964	83.34	0.0003	P	29.7
2	☐	0.000	22.964	311.13	0.0010	P	18.4
3	☐	1000.000	1018.542	4812.11	0.0175	P	5.9
4	☐	2500.000	2394.430	10334.54	0.0402	P	3.7
5	☐	5000.000	5063.148	19627.51	0.0843	P	1.2
6	☐	10000.000	10000.263	36971.71	0.1659	P	1.8
7	☐	20000.000	19996.351	72825.85	0.3310	P	0.1
8	☐			122.23	0.0005	P	57.2

$$y = 1.6518E-005 * x + 6.6478E-004$$

$$R = 1.0000$$

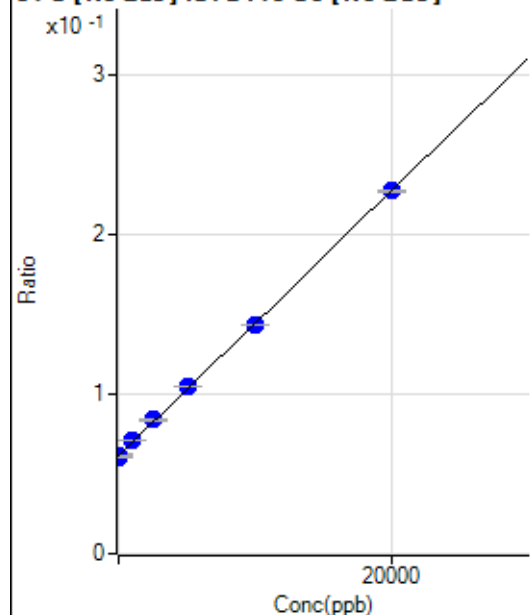
$$DL = 25.11$$

$$BEC = 40.25$$

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	71.888	435516.37	0.0618	P	2.3
2	☐	0.000	-71.888	442602.20	0.0606	P	1.2
3	☐	1000.000	1157.860	495351.39	0.0708	P	1.1
4	☐	2500.000	2712.723	553910.42	0.0837	P	0.9
5	☐	5000.000	5228.376	627077.82	0.1046	P	0.8
6	☐	10000.000	9909.458	816865.89	0.1435	P	0.3
7	☐	20000.000	19953.694	1258580.43	0.2270	P	0.2
8	☐			385351.37	0.0658	P	0.6

$$y = 8.3090E-006 * x + 0.0612$$

R = 0.9999

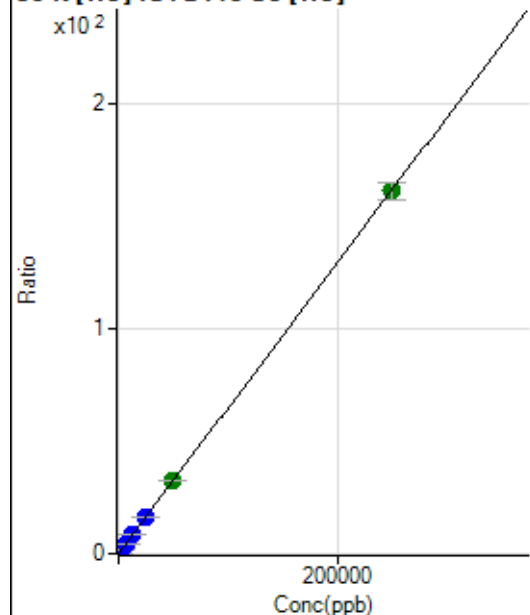
DL = 381

BEC = 7364

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	10909.96	0.0374	P	2.9
2	☐	500.000	484.942	104335.53	0.3504	P	2.3
3	☐	2500.000	2537.409	460760.14	1.6750	P	0.3
4	☐	6250.000	6295.680	1053706.77	4.1004	P	0.6
5	☐	12500.000	12783.419	1929615.41	8.2874	P	0.5
6	☐	25000.000	25408.304	3663602.12	16.4351	P	0.2
7	☐	50000.000	50753.338	7215369.78	32.7919	A	0.5
8	☐	250000.00	249792.84	40233585.28	161.2453	A	4.8

$$y = 6.4537E-004 * x + 0.0374$$

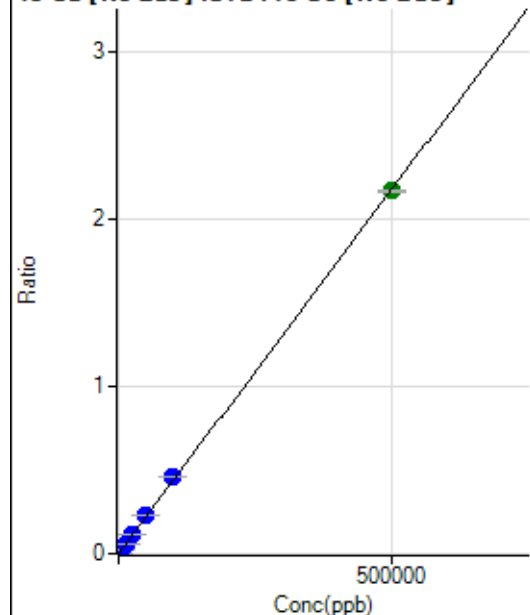
R = 1.0000

DL = 5

BEC = 57.95

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	141.67	0.0000	P	18.2
2	☐	500.000	514.041	16459.85	0.0023	P	2.5
3	☐	5000.000	5276.023	160481.88	0.0229	P	0.3
4	☐	12500.000	13214.300	379914.94	0.0574	P	0.2
5	☐	25000.000	26751.112	696597.66	0.1162	P	0.7
6	☐	50000.000	52841.250	1306535.10	0.2296	P	0.7
7	☐	100000.00	106099.93	2555769.39	0.4609	P	0.1
8	☐	500000.00	498387.70	12673989.08	2.1650	A	0.7

$$y = 4.3441\text{E-}006 * x + 2.0101\text{E-}005$$

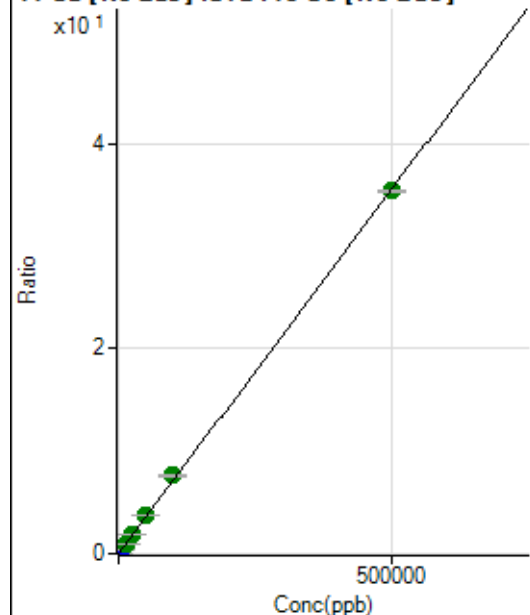
$$R = 0.9999$$

$$DL = 2.521$$

$$BEC = 4.627$$

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	6735.15	0.0010	P	4.7
2	☐	500.000	502.467	267795.53	0.0367	P	0.4
3	☐	5000.000	5254.306	2618574.54	0.3743	P	0.2
4	☐	12500.000	13142.636	6184773.62	0.9348	A	0.5
5	☐	25000.000	26782.161	11411519.35	1.9040	A	0.3
6	☐	50000.000	52636.286	21291992.49	3.7410	A	0.4
7	☐	100000.00	106964.79	42148621.43	7.6014	A	0.2
8	☐	500000.00	498235.69	207235347.6	35.4033	A	0.4

$$y = 7.1055\text{E-}005 * x + 9.5567\text{E-}004$$

$$R = 0.9999$$

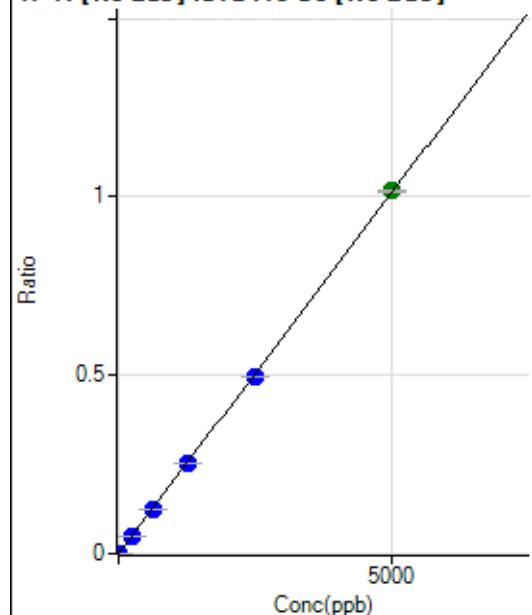
$$DL = 1.883$$

$$BEC = 13.45$$

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	50.00	0.0000	P	30.7
2	☐	5.000	5.215	7752.39	0.0011	P	4.6
3	☐	250.000	248.639	351638.86	0.0503	P	1.2
4	☐	625.000	616.836	824915.32	0.1247	P	0.1
5	☐	1250.000	1244.860	1508142.06	0.2516	P	0.4
6	☐	2500.000	2449.491	2817982.57	0.4951	P	0.3
7	☐	5000.000	5027.628	5634728.12	1.0162	A	0.5
8	☐			1602.94	0.0003	P	11.7

$$y = 2.0212\text{E-}004 * x + 7.1258\text{E-}006$$

$$R = 0.9999$$

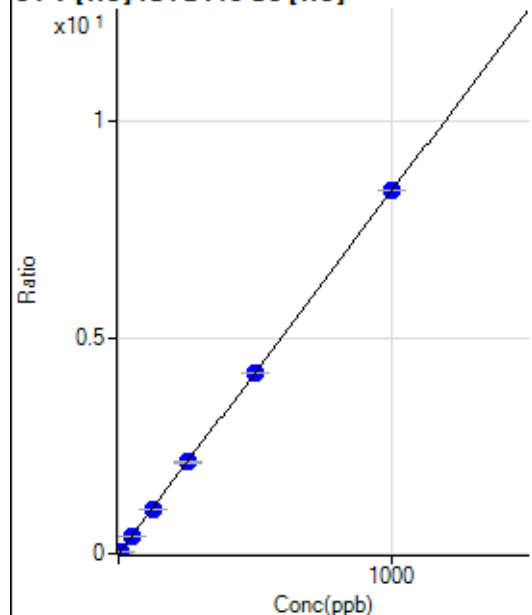
$$DL = 0.03247$$

$$BEC = 0.03525$$

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	7.78	0.0000	P	49.9
2	☐	5.000	4.930	12329.76	0.0414	P	2.6
3	☐	50.000	49.964	115352.23	0.4193	P	0.2
4	☐	125.000	124.116	267671.89	1.0416	P	0.3
5	☐	250.000	251.964	492339.79	2.1145	P	0.5
6	☐	500.000	497.752	931128.04	4.1772	P	0.7
7	☐	1000.000	1000.746	1847960.11	8.3983	P	0.2
8	☐			415.57	0.0017	P	12.7

$$y = 0.0084 * x + 2.6713\text{E-}005$$

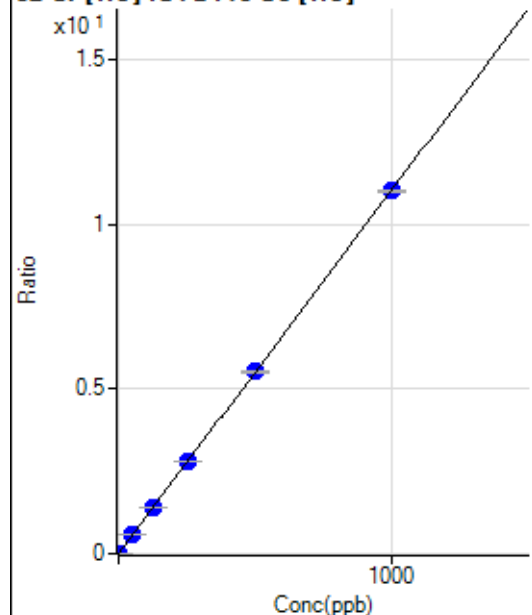
$$R = 1.0000$$

$$DL = 0.004761$$

$$BEC = 0.003183$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	517.80	0.0018	P	13.4
2	☐	2.000	1.823	6515.98	0.0219	P	2.3
3	☐	50.000	50.504	153720.62	0.5588	P	0.4
4	☐	125.000	125.577	356382.61	1.3868	P	0.2
5	☐	250.000	253.117	650433.51	2.7935	P	0.8
6	☐	500.000	501.069	1232319.49	5.5283	P	0.5
7	☐	1000.000	998.589	2423837.24	11.0158	P	0.7
8	☐			80698.28	0.3236	P	6.3

$$y = 0.0110 * x + 0.0018$$

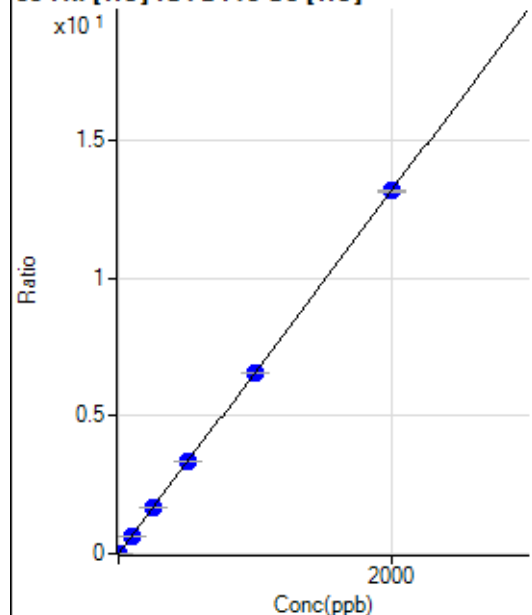
$$R = 1.0000$$

$$DL = 0.06496$$

$$BEC = 0.161$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	54.45	0.0002	P	25.2
2	☐	1.000	0.944	1905.72	0.0064	P	3.5
3	☐	100.000	99.698	180595.45	0.6565	P	0.2
4	☐	250.000	250.531	423869.15	1.6494	P	0.5
5	☐	500.000	507.318	777635.23	3.3399	P	1.1
6	☐	1000.000	996.917	1462981.32	6.5630	P	0.2
7	☐	2000.000	1999.661	2896562.00	13.1641	P	0.5
8	☐			10237.05	0.0410	P	4.0

$$y = 0.0066 * x + 1.8676E-004$$

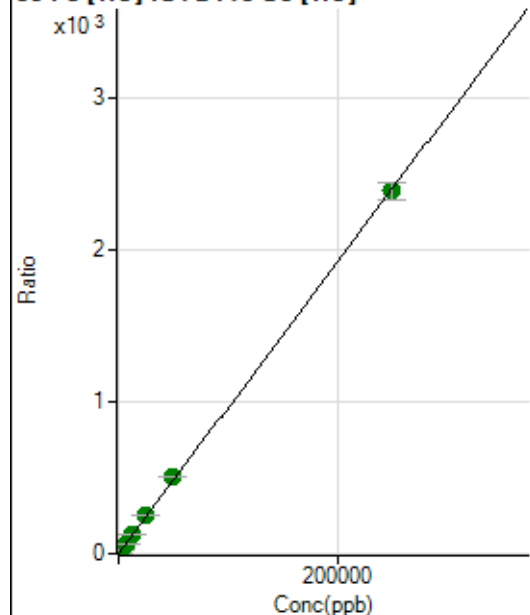
$$R = 1.0000$$

$$DL = 0.02141$$

$$BEC = 0.02837$$

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	1929.81	0.0066	P	9.1
2	☐	50.000	50.524	146031.33	0.4904	P	2.4
3	☐	2500.000	2634.715	6941555.77	25.2337	A	0.4
4	☐	6250.000	6579.348	16190283.23	63.0032	A	1.1
5	☐	12500.000	13421.239	29922452.29	128.5136	A	0.8
6	☐	25000.000	26303.090	56141867.92	251.8561	A	0.3
7	☐	50000.000	52851.191	111347982.1	506.0515	A	0.7
8	☐	250000.00	249243.81	595415561.4	2,386.491	A	4.9

$$y = 0.0096 * x + 0.0066$$

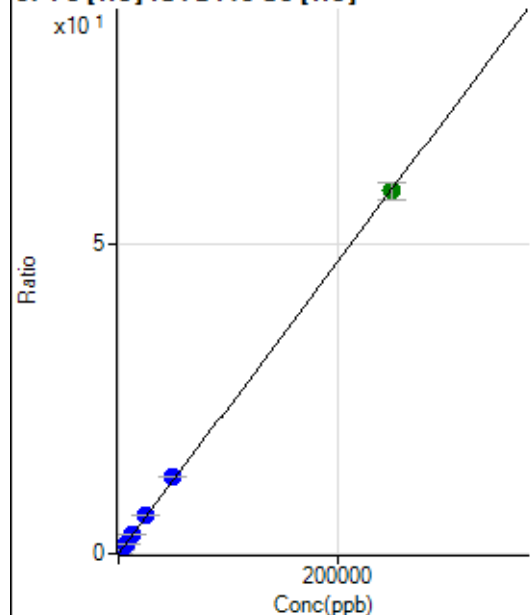
$$R = 0.9999$$

$$DL = 0.1886$$

$$BEC = 0.691$$

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	64.82	0.0002	P	27.5
2	☐	50.000	53.459	3796.89	0.0128	P	2.3
3	☐	2500.000	2640.686	170288.77	0.6191	P	0.9
4	☐	6250.000	6573.721	395939.07	1.5408	P	0.8
5	☐	12500.000	13470.189	735035.38	3.1569	P	1.1
6	☐	25000.000	26248.218	1371173.61	6.1514	P	1.1
7	☐	50000.000	52376.020	2700788.43	12.2744	P	0.6
8	☐	250000.00	249341.96	14579945.12	58.4328	A	4.7

$$y = 2.3435E-004 * x + 2.2219E-004$$

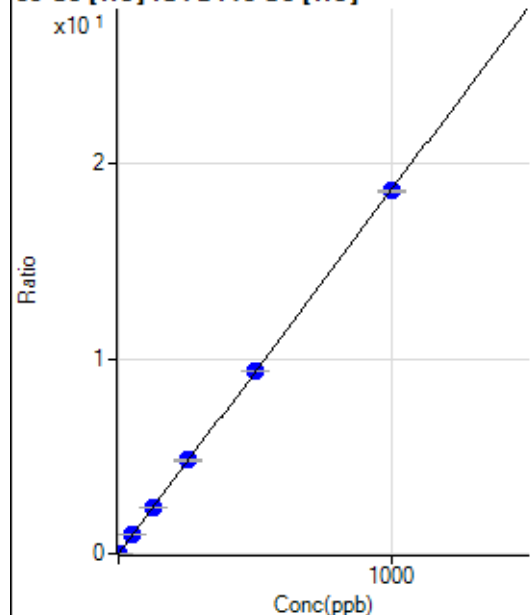
$$R = 0.9999$$

$$DL = 0.7815$$

$$BEC = 0.9481$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	64.44	0.0002	P	12.6
2	☐	1.000	0.972	5467.76	0.0184	P	0.9
3	☐	50.000	51.491	264393.89	0.9611	P	0.2
4	☐	125.000	127.874	613276.51	2.3865	P	0.6
5	☐	250.000	256.552	1114771.05	4.7878	P	0.7
6	☐	500.000	502.024	2088342.52	9.3686	P	0.7
7	☐	1000.000	996.917	4093539.07	18.6040	P	0.5
8	☐			54175.38	0.2172	P	5.4

$$y = 0.0187 * x + 2.2085E-004$$

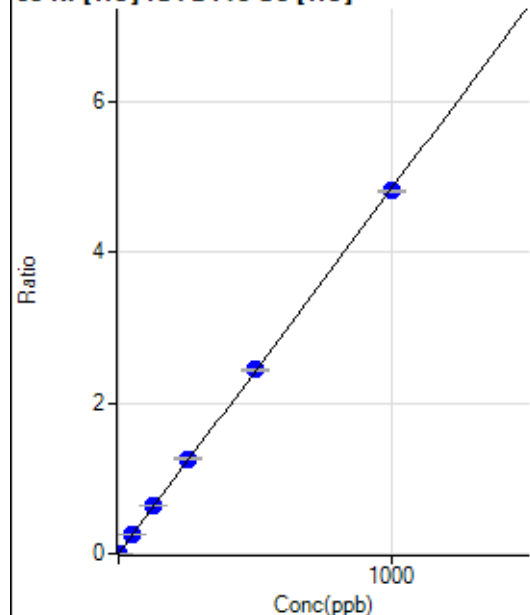
$$R = 1.0000$$

$$DL = 0.004472$$

$$BEC = 0.01183$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	155.56	0.0005	P	22.2
2	☐	1.000	1.023	1635.68	0.0055	P	2.7
3	☐	50.000	52.734	70458.38	0.2561	P	1.7
4	☐	125.000	129.799	161815.86	0.6297	P	0.4
5	☐	250.000	260.442	294053.88	1.2629	P	0.9
6	☐	500.000	505.051	545806.79	2.4486	P	0.9
7	☐	1000.000	994.127	1060404.95	4.8192	P	0.4
8	☐			33311.48	0.1335	P	4.6

$$y = 0.0048 * x + 5.3305E-004$$

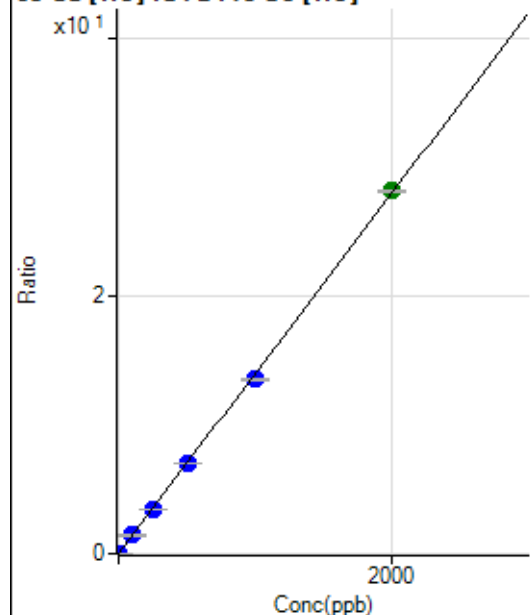
$$R = 0.9999$$

$$DL = 0.0731$$

$$BEC = 0.11$$

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	1208.96	0.0041	P	0.5
2	☐	2.000	1.880	9049.59	0.0304	P	3.0
3	☐	100.000	101.409	390520.89	1.4196	P	0.4
4	☐	250.000	249.697	896712.63	3.4895	P	0.5
5	☐	500.000	501.726	1631568.46	7.0074	P	0.6
6	☐	1000.000	968.715	3015009.64	13.5257	P	0.5
7	☐	2000.000	2015.178	6190160.39	28.1325	A	0.5
8	☐			11363.45	0.0455	P	3.8

$$y = 0.0140 * x + 0.0041$$

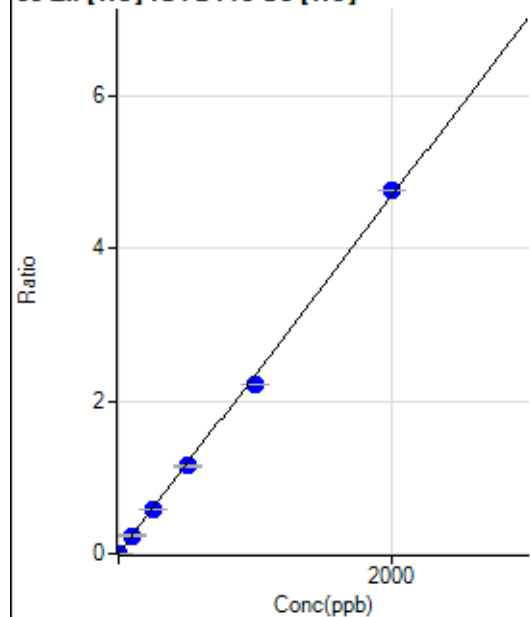
$$R = 0.9998$$

$$DL = 0.00471$$

$$BEC = 0.2969$$

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	1316.75	0.0045	P	11.1
2	☐	2.000	2.062	2780.31	0.0093	P	3.8
3	☐	100.000	100.159	65707.01	0.2388	P	0.7
4	☐	250.000	245.815	148950.77	0.5796	P	1.0
5	☐	500.000	488.568	267204.85	1.1476	P	0.2
6	☐	1000.000	946.364	494561.54	2.2187	P	0.6
7	☐	2000.000	2030.191	1046164.97	4.7544	P	0.1
8	☐			9990.23	0.0400	P	5.2

$$y = 0.0023 * x + 0.0045$$

$$R = 0.9994$$

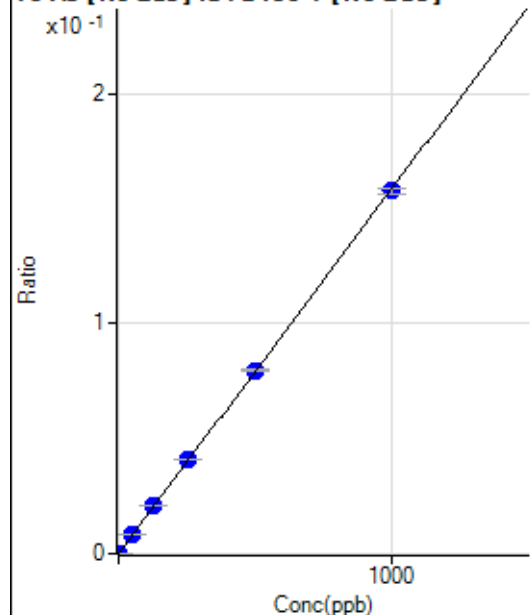
$$DL = 0.6397$$

$$BEC = 1.929$$

Weight: <None>

Min Conc: 0

75 As [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	-5530.16	-0.0004	P	-1.3
2	☐	1.000	1.125	-2982.78	-0.0002	P	-18.
3	☐	50.000	52.291	114264.49	0.0079	P	0.5
4	☐	125.000	130.456	281700.52	0.0203	P	1.1
5	☐	250.000	258.731	519663.15	0.0407	P	0.6
6	☐	500.000	501.895	967103.51	0.0793	P	0.8
7	☐	1000.000	996.073	1877819.68	0.1578	P	1.6
8	☐			-1808.34	-0.0001	P	-15.

$$y = 1.5882\text{E-}004 * x - 3.8036\text{E-}004$$

$$R = 0.9999$$

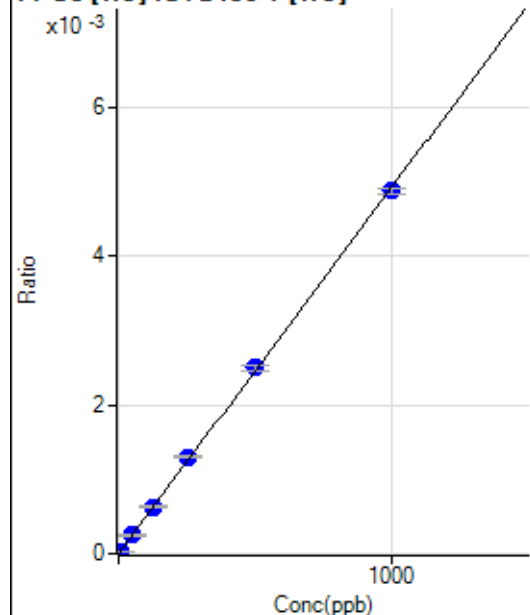
$$DL = 0.0908$$

$$BEC = -2.395$$

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	5.370	47.78	0.0000	P	48.9
3	☐	50.000	51.072	424.46	0.0003	P	11.4
4	☐	125.000	128.020	996.72	0.0006	P	5.8
5	☐	250.000	265.105	1890.15	0.0013	P	2.6
6	☐	500.000	508.695	3511.60	0.0025	P	2.8
7	☐	1000.000	991.443	6696.10	0.0049	P	1.7
8	☐			3.33	0.0000	P	5.9

$$y = 4.9147\text{E-}006 * x + 0.0000\text{E+}000$$

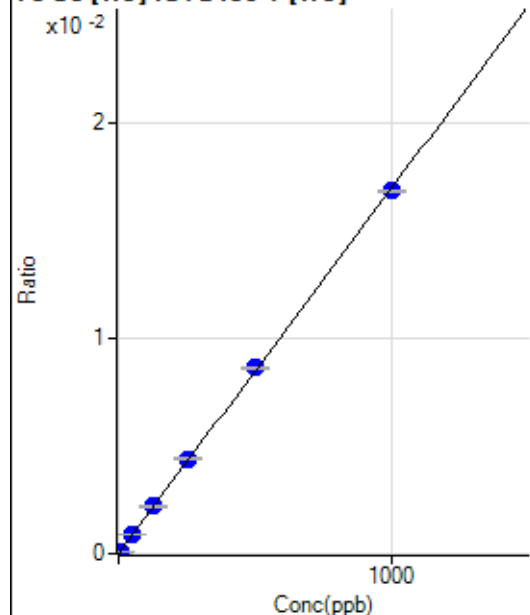
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

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	22.22	0.0000	P	28.6
2	☐	5.000	5.293	184.57	0.0001	P	5.8
3	☐	50.000	50.637	1467.99	0.0009	P	3.1
4	☐	125.000	129.709	3495.51	0.0022	P	3.4
5	☐	250.000	258.503	6361.94	0.0044	P	2.0
6	☐	500.000	508.107	12090.93	0.0086	P	1.5
7	☐	1000.000	993.199	23107.36	0.0168	P	0.7
8	☐			33.33	0.0000	P	9.8

$$y = 1.6918\text{E-}005 * x + 1.2450\text{E-}005$$

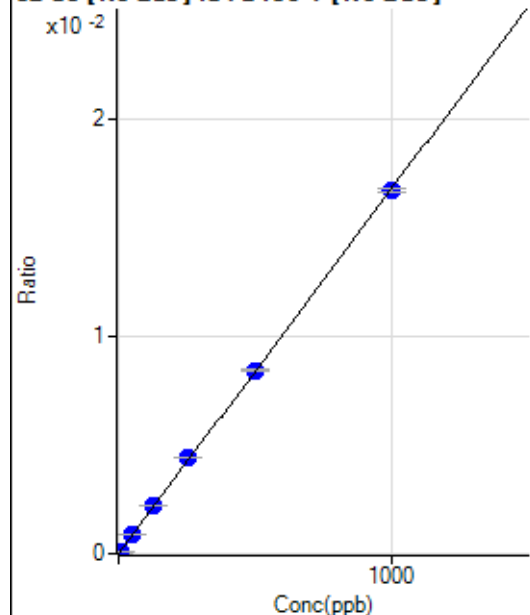
$$R = 0.9999$$

$$DL = 0.6307$$

$$BEC = 0.736$$

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	-101.44	0.0000	P	-72.
2	☐	5.000	5.752	1325.68	0.0001	P	20.4
3	☐	50.000	51.843	12456.62	0.0009	P	3.5
4	☐	125.000	131.771	30559.97	0.0022	P	1.0
5	☐	250.000	262.132	56116.54	0.0044	P	0.2
6	☐	500.000	502.722	102860.46	0.0084	P	0.6
7	☐	1000.000	994.663	198726.59	0.0167	P	0.9
8	☐			34.51	0.0000	P	118.

$$y = 1.6798\text{E-}005 * x - 6.9215\text{E-}006$$

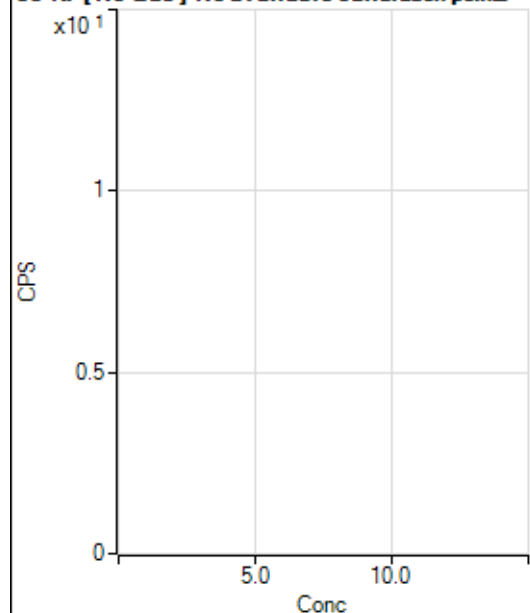
$$R = 0.9999$$

$$DL = 0.9014$$

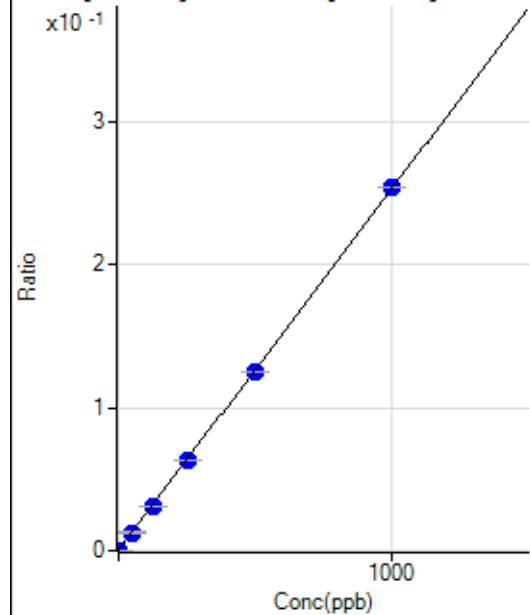
$$BEC = -0.412$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2358.01		P	4.7
2	☐			2295.78		P	5.3
3	☐			2130.19		P	6.0
4	☐			2085.74		P	7.2
5	☐			1867.93		P	4.6
6	☐			1837.93		P	1.3
7	☐			1849.04		P	6.2
8	☐			1892.38		P	3.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3595.05	0.0002	P	3.0
2	☐	1.000	1.036	7527.27	0.0005	P	0.6
3	☐	50.000	49.543	184096.02	0.0128	P	1.0
4	☐	125.000	122.828	433350.97	0.0313	P	0.4
5	☐	250.000	249.543	808141.73	0.0633	P	0.4
6	☐	500.000	493.902	1524630.20	0.1251	P	0.8
7	☐	1000.000	1003.457	3020522.72	0.2538	P	0.1
8	☐			14938.93	0.0012	P	0.9

$$y = 2.5272\text{E-}004 * x + 2.4731\text{E-}004$$

$$R = 1.0000$$

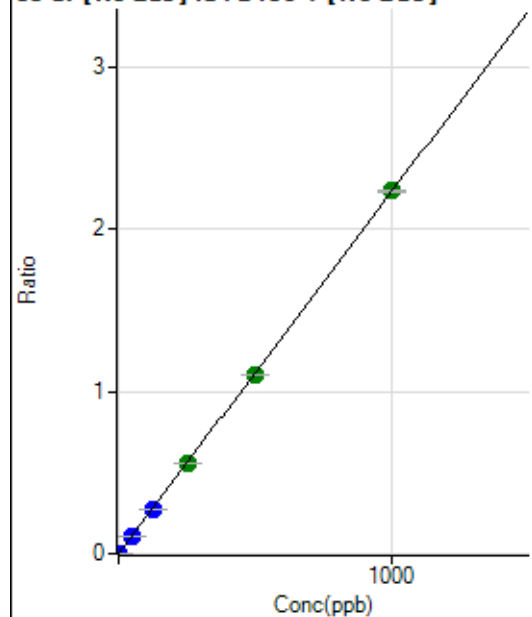
$$DL = 0.08693$$

$$BEC = 0.9786$$

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	180.56	0.0000	P	21.0
2	☐	1.000	0.954	31624.71	0.0021	P	2.4
3	☐	50.000	48.951	1574157.51	0.1092	P	0.3
4	☐	125.000	122.696	3789847.44	0.2736	P	0.2
5	☐	250.000	249.865	7112407.80	0.5572	A	0.0
6	☐	500.000	494.472	13442271.31	1.1027	A	0.7
7	☐	1000.000	1003.138	26618324.21	2.2370	A	0.3
8	☐			105662.69	0.0086	P	0.8

$$y = 0.0022 * x + 1.2456E-005$$

$$R = 1.0000$$

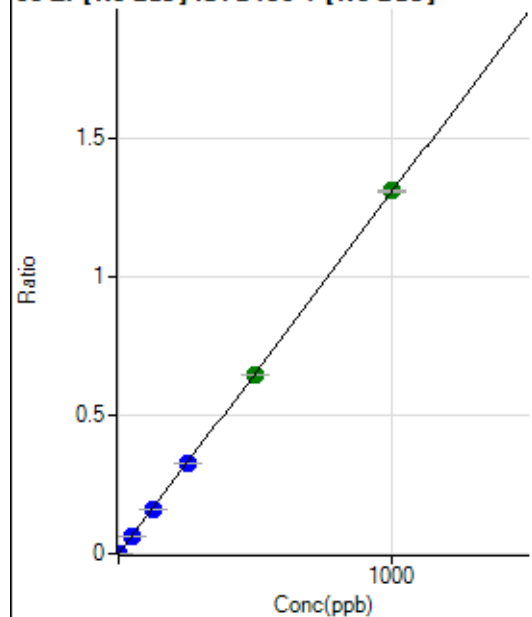
$$DL = 0.003525$$

$$BEC = 0.005586$$

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	1122.32	0.0001	P	8.8
2	☐	1.000	0.877	18067.55	0.0012	P	3.6
3	☐	50.000	49.049	923828.49	0.0641	P	0.7
4	☐	125.000	122.612	2216693.43	0.1600	P	0.4
5	☐	250.000	248.332	4136632.77	0.3241	P	0.6
6	☐	500.000	493.107	7843770.05	0.6434	A	0.3
7	☐	1000.000	1004.210	15590989.93	1.3103	A	0.6
8	☐			4692.63	0.0004	P	8.9

$$y = 0.0013 * x + 7.7294E-005$$

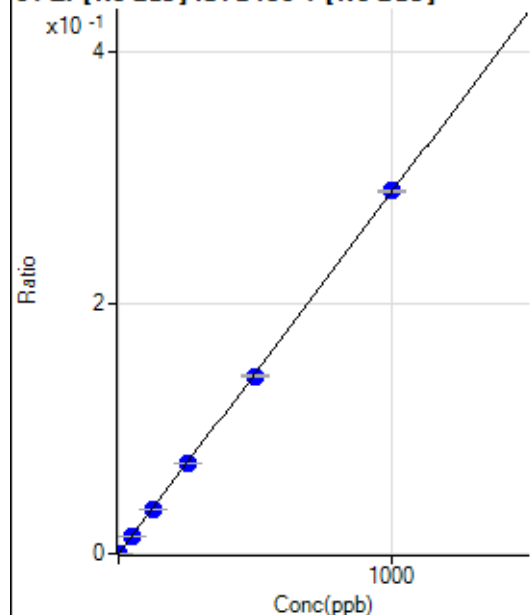
$$R = 1.0000$$

$$DL = 0.0157$$

$$BEC = 0.05924$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	219.46	0.0000	P	17.7
2	☐	1.000	0.862	3892.37	0.0003	P	3.4
3	☐	50.000	49.065	204012.28	0.0141	P	0.8
4	☐	125.000	123.905	494569.99	0.0357	P	0.6
5	☐	250.000	250.112	919866.02	0.0721	P	0.8
6	☐	500.000	492.055	1728140.08	0.1418	P	1.0
7	☐	1000.000	1004.128	3442075.81	0.2893	P	0.3
8	☐			975.08	0.0001	P	6.6

$$y = 2.8807E-004 * x + 1.5071E-005$$

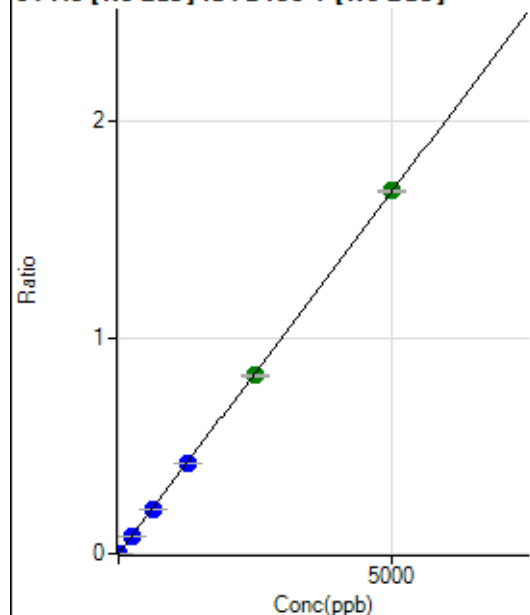
$$R = 1.0000$$

$$DL = 0.02785$$

$$BEC = 0.05232$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	322.24	0.0000	P	11.3
2	☐	5.000	4.639	23302.93	0.0016	P	1.6
3	☐	250.000	246.669	1191618.73	0.0826	P	0.7
4	☐	625.000	616.578	2860690.54	0.2065	P	0.1
5	☐	1250.000	1251.188	5349559.49	0.4191	P	0.2
6	☐	2500.000	2467.078	10073753.35	0.8264	A	1.1
7	☐	5000.000	5017.384	19996879.44	1.6806	A	0.8
8	☐			14435.62	0.0012	P	2.1

$$y = 3.3495E-004 * x + 2.2135E-005$$

$$R = 1.0000$$

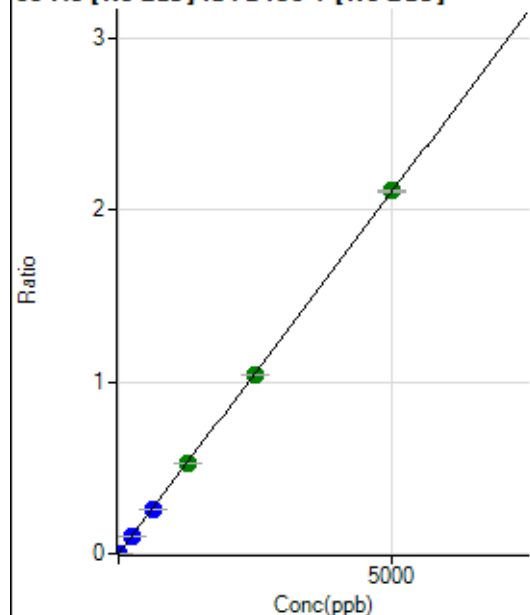
$$DL = 0.02239$$

$$BEC = 0.06608$$

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	33.34	0.0000	P	66.6
2	☐	5.000	4.761	29640.04	0.0020	P	1.9
3	☐	250.000	246.626	1495400.33	0.1037	P	0.7
4	☐	625.000	618.465	3602061.36	0.2601	P	0.3
5	☐	1250.000	1243.822	6676287.87	0.5230	A	0.8
6	☐	2500.000	2468.565	12654505.67	1.0381	A	0.4
7	☐	5000.000	5018.248	25109733.90	2.1102	A	0.4
8	☐			23330.95	0.0019	P	3.2

$$y = 4.2051\text{E-}004 * x + 2.2927\text{E-}006$$

$$R = 1.0000$$

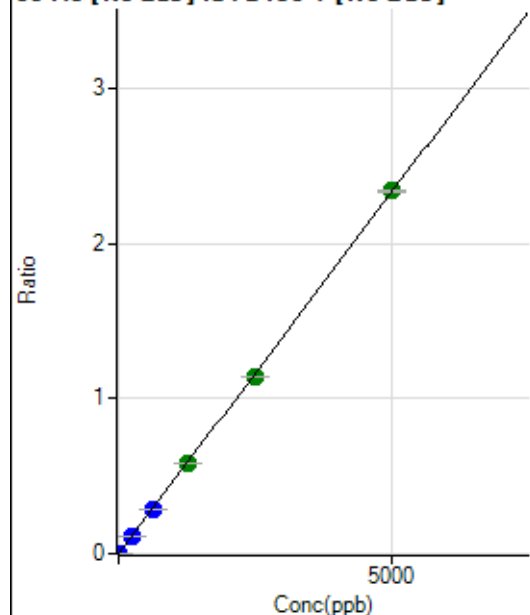
$$DL = 0.0109$$

$$BEC = 0.005452$$

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	116.67	0.0000	P	20.8
2	☐	5.000	4.723	32654.99	0.0022	P	1.4
3	☐	250.000	245.673	1650283.03	0.1145	P	0.3
4	☐	625.000	617.519	3984458.60	0.2877	P	0.2
5	☐	1250.000	1244.561	7400520.22	0.5798	A	0.9
6	☐	2500.000	2459.833	13969205.70	1.1459	A	0.2
7	☐	5000.000	5022.595	27840963.47	2.3398	A	0.3
8	☐			24883.60	0.0020	P	3.4

$$y = 4.6585\text{E-}004 * x + 8.0488\text{E-}006$$

$$R = 1.0000$$

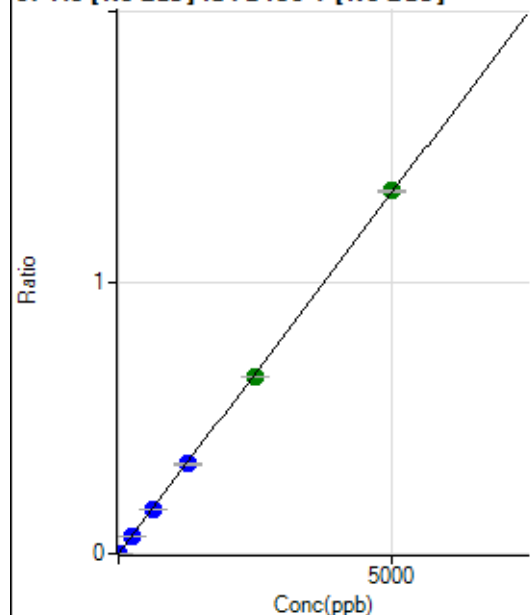
$$DL = 0.01078$$

$$BEC = 0.01728$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	17.9
2	☐	5.000	4.725	18598.87	0.0013	P	2.5
3	☐	250.000	244.988	938973.04	0.0651	P	0.4
4	☐	625.000	612.091	2253517.69	0.1627	P	0.4
5	☐	1250.000	1239.104	4204156.56	0.3294	P	0.8
6	☐	2500.000	2455.394	7956320.06	0.6527	A	0.4
7	☐	5000.000	5026.891	15899473.62	1.3362	A	0.2
8	☐			14110.23	0.0011	P	5.0

$$y = 2.6581\text{E-}004 * x + 1.9119\text{E-}006$$

$$R = 0.9999$$

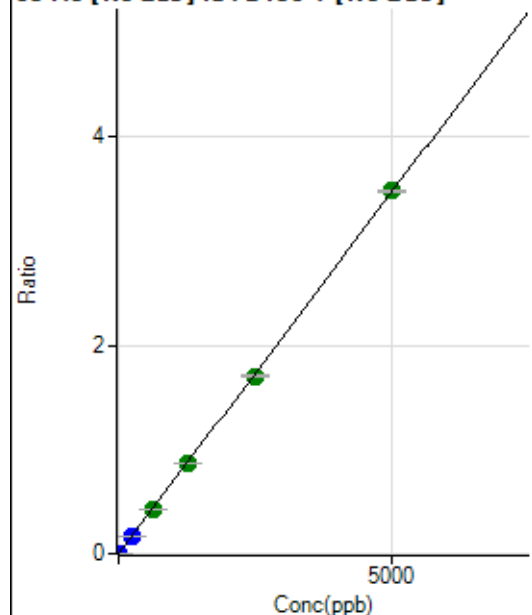
$$DL = 0.003864$$

$$BEC = 0.007193$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.89	0.0000	P	32.0
2	☐	5.000	4.708	48243.80	0.0033	P	1.5
3	☐	250.000	245.413	2450110.34	0.1699	P	0.8
4	☐	625.000	615.796	5905596.27	0.4264	A	0.3
5	☐	1250.000	1244.513	10999074.29	0.8617	A	0.8
6	☐	2500.000	2457.071	20739368.87	1.7013	A	0.7
7	☐	5000.000	5024.217	41393821.06	3.4788	A	0.6
8	☐			36767.70	0.0030	P	3.3

$$y = 6.9240\text{E-}004 * x + 2.6676\text{E-}006$$

$$R = 0.9999$$

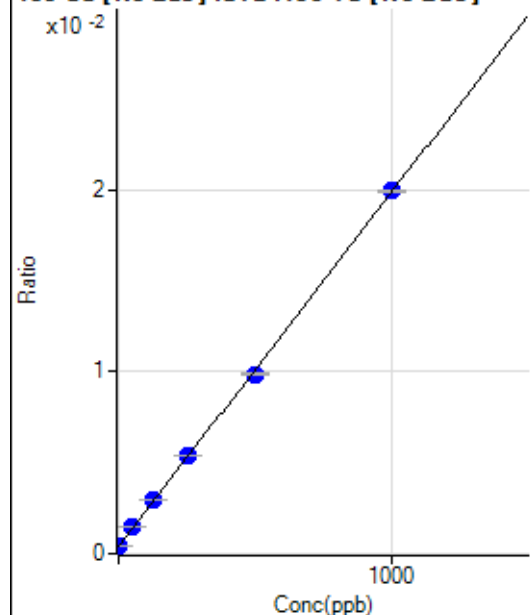
$$DL = 0.003703$$

$$BEC = 0.003853$$

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	7741.33	0.0004	P	0.7
2	☐	1.000	1.323	8152.72	0.0004	P	2.8
3	☐	50.000	54.757	28685.58	0.0015	P	1.8
4	☐	125.000	130.382	58095.20	0.0029	P	0.5
5	☐	250.000	257.129	102788.25	0.0054	P	1.3
6	☐	500.000	486.447	184683.02	0.0099	P	0.5
7	☐	1000.000	1004.083	369095.29	0.0200	P	0.7
8	☐			6754.66	0.0004	P	2.0

$$y = 1.9485\text{E-}005 * x + 3.8749\text{E-}004$$

R = 0.9998

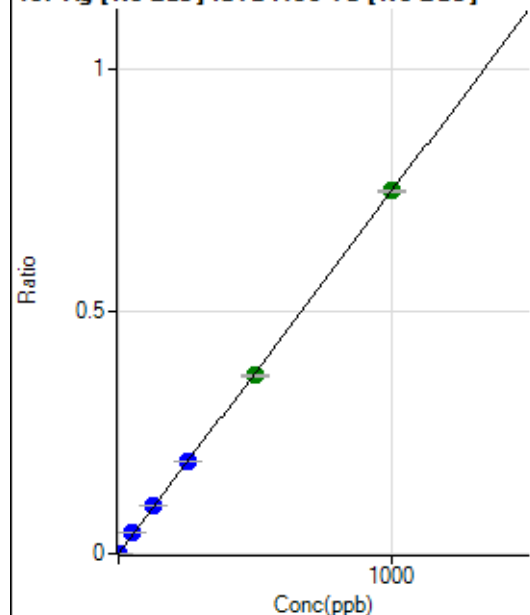
DL = 0.4073

BEC = 19.89

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	175.01	0.0000	P	30.8
2	☐	1.000	0.933	13938.00	0.0007	P	2.0
3	☐	50.000	56.240	829971.10	0.0421	P	0.5
4	☐	125.000	133.232	1977712.07	0.0997	P	0.3
5	☐	250.000	255.877	3645164.06	0.1914	P	0.8
6	☐	500.000	491.788	6886902.15	0.3679	A	0.6
7	☐	1000.000	1001.296	13856847.36	0.7491	A	0.5
8	☐			947.30	0.0001	P	9.6

$$y = 7.4809\text{E-}004 * x + 8.7892\text{E-}006$$

R = 0.9999

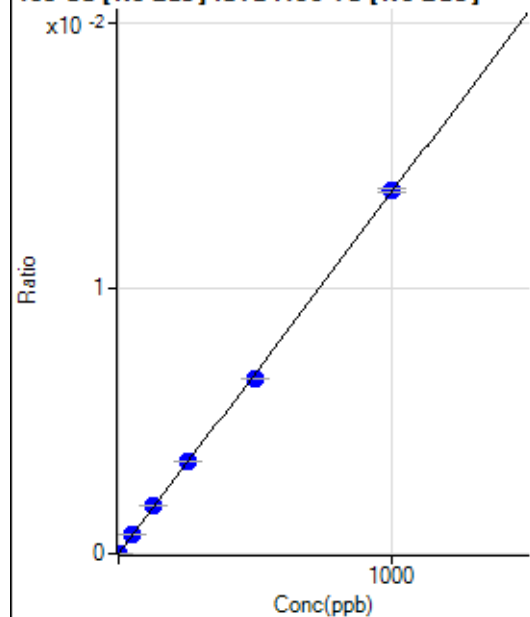
DL = 0.01087

BEC = 0.01175

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0000	P	37.3
2	☐	1.000	1.097	316.68	0.0000	P	5.1
3	☐	50.000	55.154	14846.89	0.0008	P	0.9
4	☐	125.000	132.224	35774.63	0.0018	P	1.2
5	☐	250.000	255.954	66444.16	0.0035	P	1.0
6	☐	500.000	485.949	123993.82	0.0066	P	0.3
7	☐	1000.000	1004.376	253238.23	0.0137	P	1.0
8	☐			76.39	0.0000	P	40.3

$$y = 1.3629\text{E-}005 * x + 1.1066\text{E-}006$$

$$R = 0.9998$$

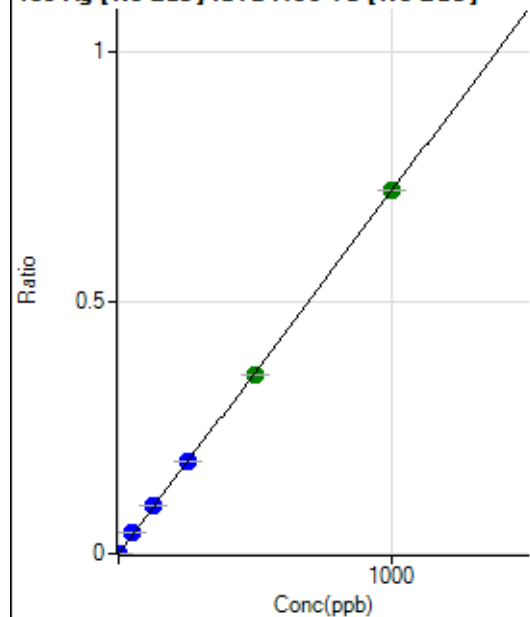
$$DL = 0.09092$$

$$BEC = 0.0812$$

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	72.23	0.0000	P	16.2
2	☐	1.000	0.910	13023.13	0.0007	P	4.4
3	☐	50.000	56.057	798024.93	0.0405	P	0.2
4	☐	125.000	133.940	1918136.11	0.0967	P	0.4
5	☐	250.000	256.481	3525000.73	0.1851	P	0.3
6	☐	500.000	493.493	6667282.22	0.3562	A	0.5
7	☐	1000.000	1000.213	13354164.79	0.7219	A	0.1
8	☐			833.39	0.0000	P	0.8

$$y = 7.2174\text{E-}004 * x + 3.6102\text{E-}006$$

$$R = 0.9999$$

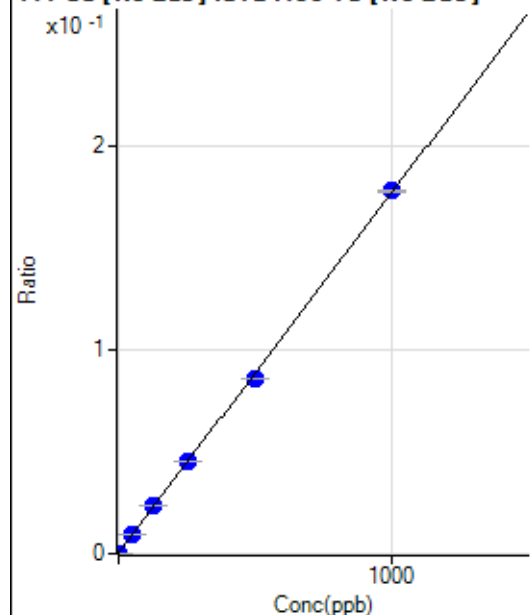
$$DL = 0.002438$$

$$BEC = 0.005002$$

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	5432.54	0.0003	P	1.0
2	☐	1.000	1.120	9269.15	0.0005	P	0.5
3	☐	50.000	53.761	192685.70	0.0098	P	0.2
4	☐	125.000	132.020	468163.27	0.0236	P	0.6
5	☐	250.000	254.263	860546.10	0.0452	P	0.5
6	☐	500.000	485.381	1610258.34	0.0860	P	0.5
7	☐	1000.000	1005.178	3290050.27	0.1779	P	0.3
8	☐			5090.09	0.0003	P	2.3

$$y = 1.7667\text{E-}004 * x + 2.7194\text{E-}004$$

R = 0.9998

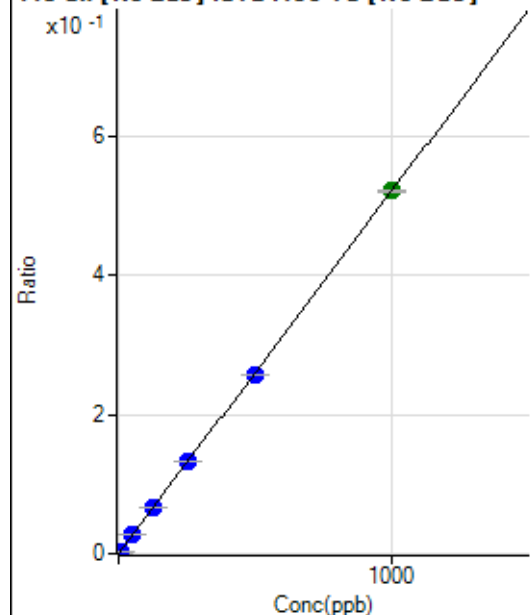
DL = 0.04783

BEC = 1.539

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	1497.38	0.0001	P	10.2
2	☐	5.000	5.467	57705.21	0.0029	P	1.8
3	☐	50.000	52.991	546370.38	0.0277	P	0.4
4	☐	125.000	128.728	1333098.07	0.0672	P	0.3
5	☐	250.000	255.472	2537725.66	0.1333	P	0.6
6	☐	500.000	493.728	4819973.11	0.2575	P	0.9
7	☐	1000.000	1001.150	9657174.61	0.5220	A	0.4
8	☐			4503.71	0.0002	P	3.5

$$y = 5.2137\text{E-}004 * x + 7.4924\text{E-}005$$

R = 0.9999

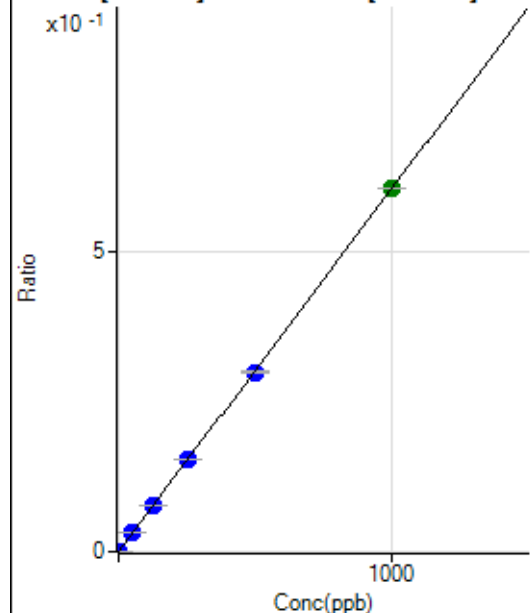
DL = 0.04392

BEC = 0.1437

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	116.67	0.0000	P	23.4
2	☐	2.000	2.003	23951.89	0.0012	P	2.2
3	☐	50.000	52.377	623385.52	0.0316	P	0.5
4	☐	125.000	128.771	1541649.79	0.0777	P	0.2
5	☐	250.000	255.268	2932843.58	0.1540	P	0.7
6	☐	500.000	495.465	5595964.88	0.2989	P	0.4
7	☐	1000.000	1000.360	11165342.18	0.6036	A	0.1
8	☐			16029.27	0.0009	P	2.8

$$y = 6.0335E-004 * x + 5.8252E-006$$

$$R = 1.0000$$

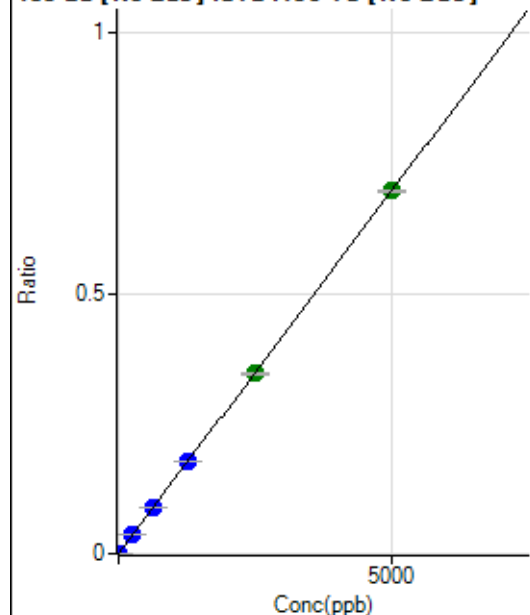
$$DL = 0.006784$$

$$BEC = 0.009655$$

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	72.23	0.0000	P	14.3
2	☐	10.000	10.577	29131.47	0.0015	P	2.1
3	☐	250.000	259.085	711671.15	0.0361	P	0.7
4	☐	625.000	640.169	1768914.54	0.0892	P	0.6
5	☐	1250.000	1269.961	3367678.22	0.1769	P	1.0
6	☐	2500.000	2481.614	6469176.66	0.3456	A	0.8
7	☐	5000.000	5001.851	12885518.95	0.6966	A	0.7
8	☐			1477.93	0.0001	P	2.4

$$y = 1.3926E-004 * x + 3.6187E-006$$

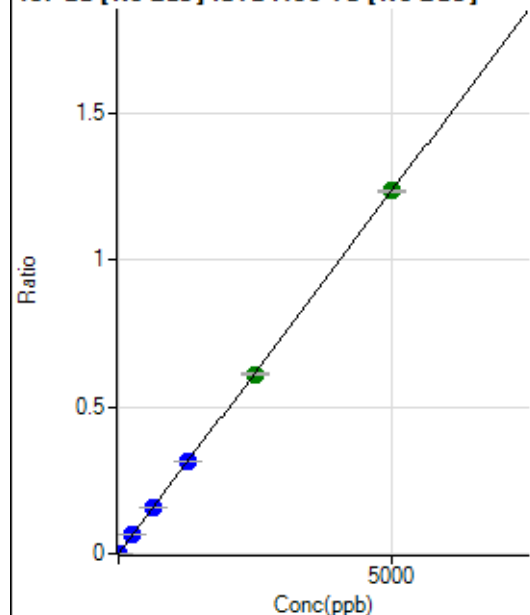
$$R = 1.0000$$

$$DL = 0.01112$$

$$BEC = 0.02599$$

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	72.22	0.0000	P	29.8
2	☐	10.000	10.735	52285.78	0.0027	P	0.2
3	☐	250.000	260.277	1265704.99	0.0642	P	0.4
4	☐	625.000	638.202	3122077.07	0.1574	P	0.6
5	☐	1250.000	1272.189	5972770.06	0.3137	P	1.1
6	☐	2500.000	2477.810	11435561.72	0.6109	A	0.3
7	☐	5000.000	5003.382	22819611.97	1.2336	A	0.3
8	☐			2647.60	0.0001	P	7.2

$$y = 2.4655E-004 * x + 3.6183E-006$$

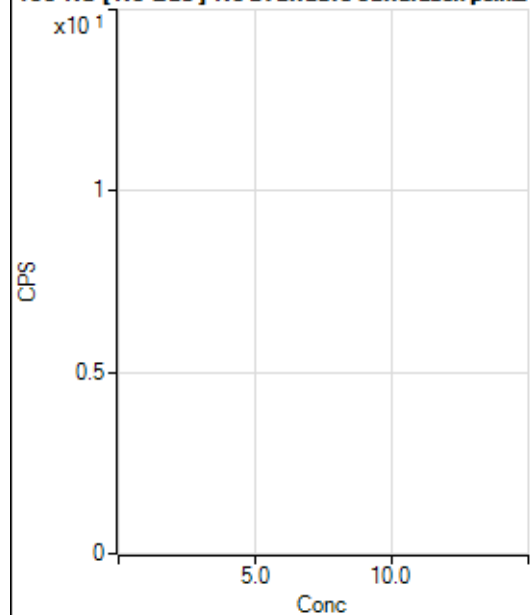
$$R = 1.0000$$

$$DL = 0.01313$$

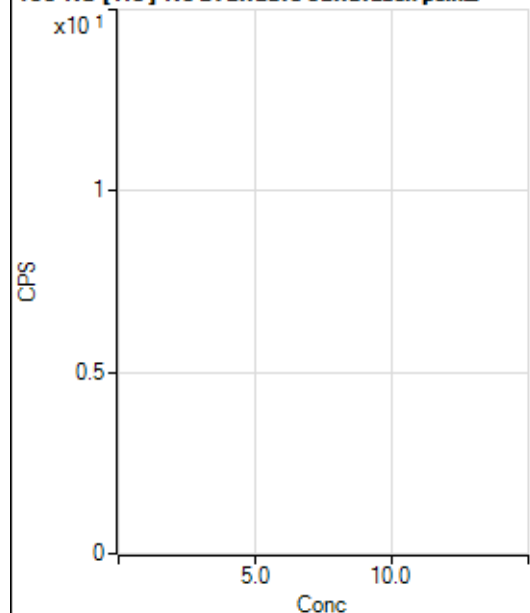
$$BEC = 0.01468$$

Weight: <None>

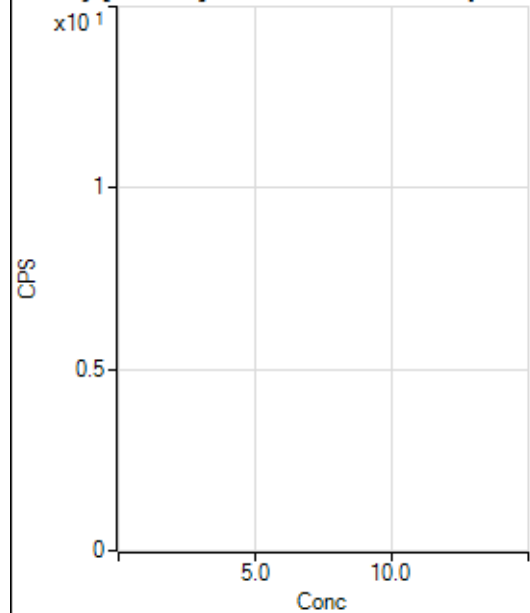
Min Conc: 0

150 Nd [No Gas] No available calibration points

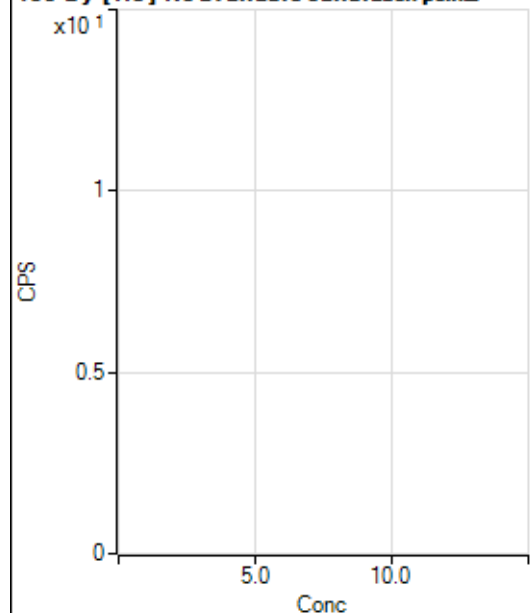
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐			28.89		P	74.2
3	☐			88.89		P	17.3
4	☐			168.90		P	12.7
5	☐			322.24		P	5.2
6	☐			620.04		P	9.9
7	☐			1102.31		P	4.1
8	☐			131.12		P	2.9

150 Nd [He] No available calibration points

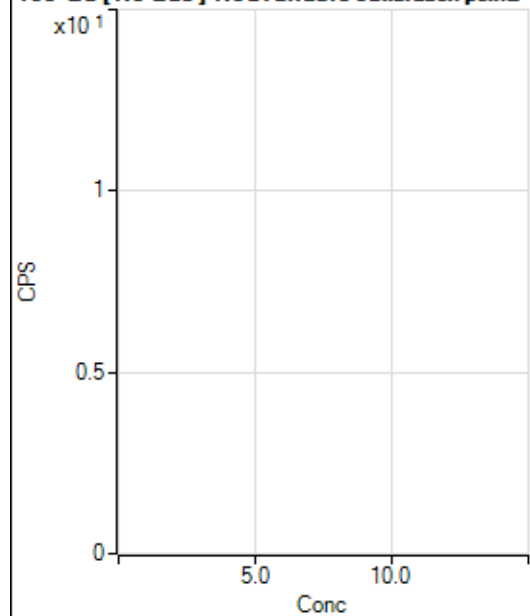
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	69.3
2	☐			15.56		P	32.7
3	☐			11.11		P	34.6
4	☐			21.11		P	63.8
5	☐			15.55		P	24.8
6	☐			52.22		P	14.7
7	☐			90.00		P	11.1
8	☐			61.11		P	50.4

156 Dy [No Gas] No available calibration points

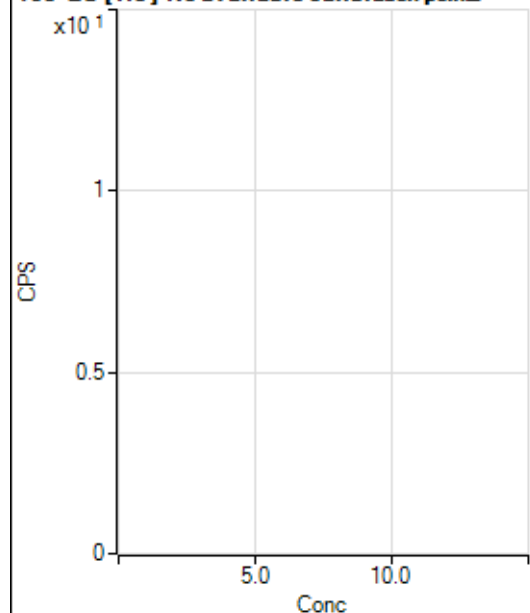
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	25.0
2	☐			8.33		P	100.
3	☐			25.00		P	66.7
4	☐			38.89		P	53.9
5	☐			111.11		P	24.1
6	☐			152.79		P	19.2
7	☐			269.46		P	12.9
8	☐			86.11		P	31.1

156 Dy [He] No available calibration points

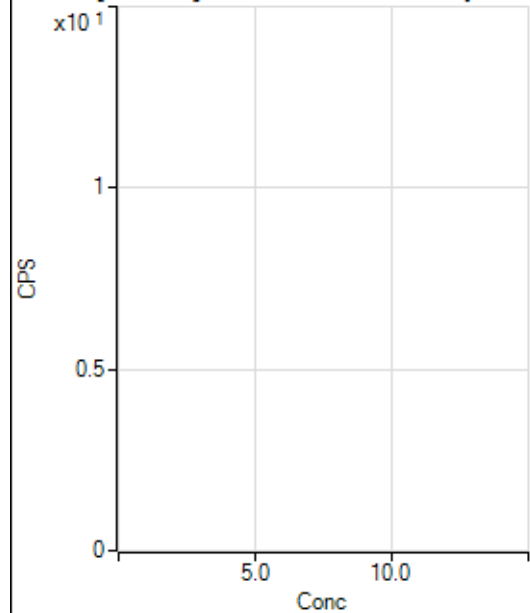
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			14.44		P	81.1
2	☐			33.33		P	26.4
3	☐			24.44		P	41.7
4	☐			41.11		P	38.3
5	☐			73.33		P	4.5
6	☐			95.56		P	14.5
7	☐			174.45		P	22.6
8	☐			64.45		P	10.8

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

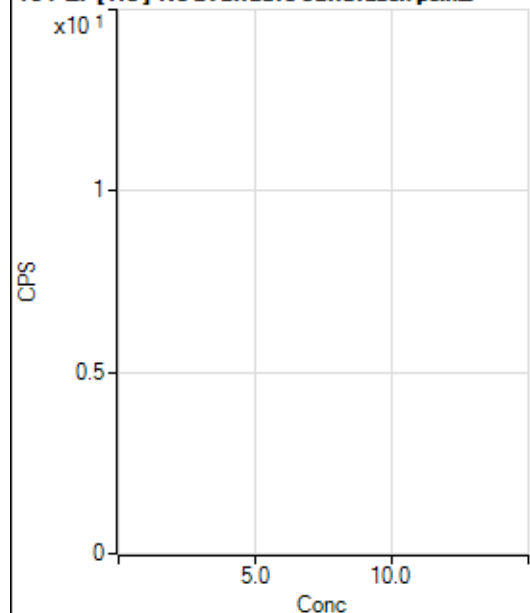
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			108.34		P	20.4
2	☐			127.78		P	7.5
3	☐			105.56		P	31.9
4	☐			122.23		P	23.9
5	☐			97.22		P	4.9
6	☐			144.45		P	12.0
7	☐			133.34		P	27.2
8	☐			152.78		P	12.6

160 Gd [He] No available calibration points

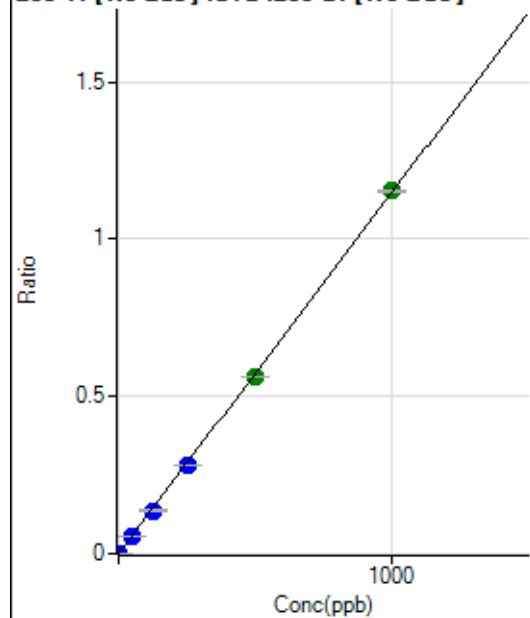
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			204.45		P	20.1
2	☐			208.89		P	8.8
3	☐			183.34		P	1.8
4	☐			172.22		P	11.3
5	☐			150.01		P	13.9
6	☐			180.00		P	19.3
7	☐			194.45		P	15.6
8	☐			187.78		P	15.1

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			91.67		P	24.1
2	☐			72.23		P	26.7
3	☐			100.00		P	16.7
4	☐			100.00		P	30.0
5	☐			108.34		P	23.1
6	☐			63.89		P	7.5
7	☐			94.45		P	13.5
8	☐			80.56		P	41.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			51.11		P	16.4
2	☐			55.56		P	21.1
3	☐			38.89		P	24.7
4	☐			44.45		P	30.3
5	☐			75.56		P	6.7
6	☐			58.89		P	23.6
7	☐			82.22		P	23.8
8	☐			65.55		P	5.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	672.27	0.0000	P	2.7
2	☐	1.000	0.916	15173.19	0.0011	P	2.4
3	☐	50.000	47.548	755956.80	0.0546	P	1.3
4	☐	125.000	119.533	1939572.20	0.1371	P	1.2
5	☐	250.000	245.929	3841287.28	0.2820	P	0.5
6	☐	500.000	491.304	7499242.27	0.5632	A	0.4
7	☐	1000.000	1006.172	14810784.36	1.1534	A	0.6
8	☐			3583.97	0.0003	P	6.4

$$y = 0.0011 * x + 4.6923E-005$$

$$R = 0.9999$$

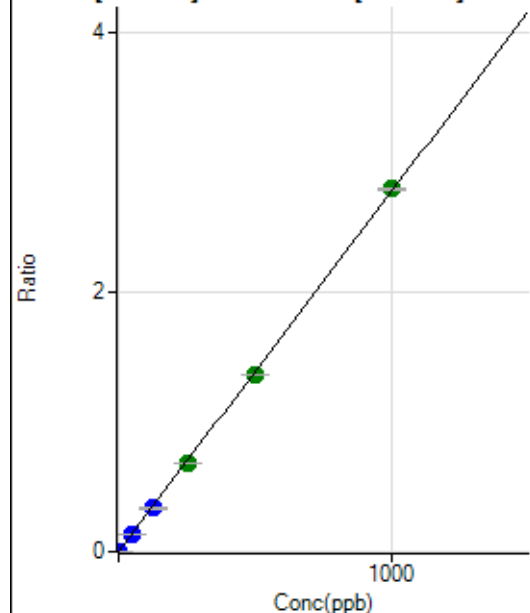
$$DL = 0.00328$$

$$BEC = 0.04093$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	969.53	0.0001	P	11.5
2	☐	1.000	0.940	37030.74	0.0027	P	2.0
3	☐	50.000	47.899	1844474.72	0.1331	P	0.3
4	☐	125.000	120.646	4742316.56	0.3351	P	1.4
5	☐	250.000	245.503	9290126.25	0.6819	A	0.2
6	☐	500.000	489.659	18108045.37	1.3600	A	0.2
7	☐	1000.000	1006.944	35911155.31	2.7966	A	0.6
8	☐			8272.43	0.0007	P	8.3

$$y = 0.0028 * x + 6.7792E-005$$

$$R = 0.9999$$

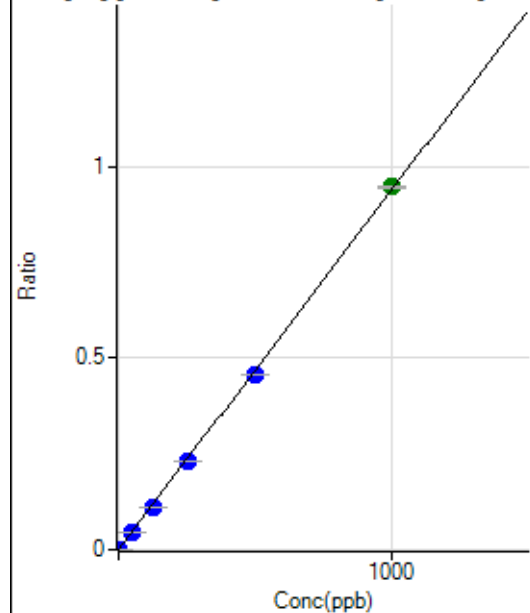
$$DL = 0.008401$$

$$BEC = 0.02441$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1342.70	0.0001	P	8.2
2	☐	1.000	0.905	13038.29	0.0009	P	0.8
3	☐	50.000	47.539	619184.04	0.0447	P	1.0
4	☐	125.000	119.148	1582614.39	0.1118	P	1.0
5	☐	250.000	244.514	3125629.61	0.2294	P	0.3
6	☐	500.000	486.579	6077573.57	0.4565	P	0.2
7	☐	1000.000	1008.937	12152198.30	0.9464	A	0.5
8	☐			9084.85	0.0008	P	5.1

$$y = 9.3789E-004 * x + 9.3759E-005$$

$$R = 0.9998$$

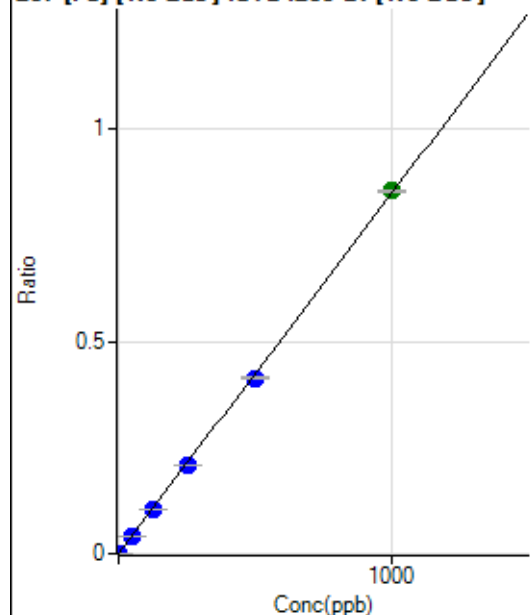
$$DL = 0.02454$$

$$BEC = 0.09997$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1257.51	0.0001	P	7.7
2	☐	1.000	0.925	12057.64	0.0009	P	3.0
3	☐	50.000	47.834	563156.02	0.0406	P	0.3
4	☐	125.000	120.433	1445925.70	0.1022	P	0.5
5	☐	250.000	246.130	2843813.17	0.2087	P	0.5
6	☐	500.000	488.063	5509974.43	0.4138	P	0.4
7	☐	1000.000	1007.615	10969633.46	0.8543	A	0.3
8	☐			8464.05	0.0007	P	0.6

$$y = 8.4771\text{E-}004 * x + 8.7860\text{E-}005$$

$$R = 0.9999$$

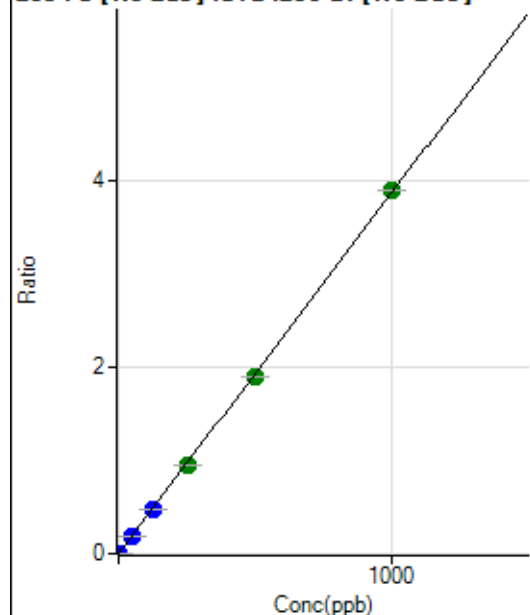
$$DL = 0.02406$$

$$BEC = 0.1036$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4752.31	0.0003	P	4.6
2	☐	1.000	0.924	53925.99	0.0039	P	2.0
3	☐	50.000	47.953	2569269.36	0.1854	P	0.6
4	☐	125.000	120.542	6587796.96	0.4655	P	0.3
5	☐	250.000	246.106	12944623.03	0.9501	A	0.4
6	☐	500.000	489.990	25183267.86	1.8914	A	0.1
7	☐	1000.000	1006.638	49891620.10	3.8853	A	0.1
8	☐			36822.66	0.0032	P	1.2

$$y = 0.0039 * x + 3.3186\text{E-}004$$

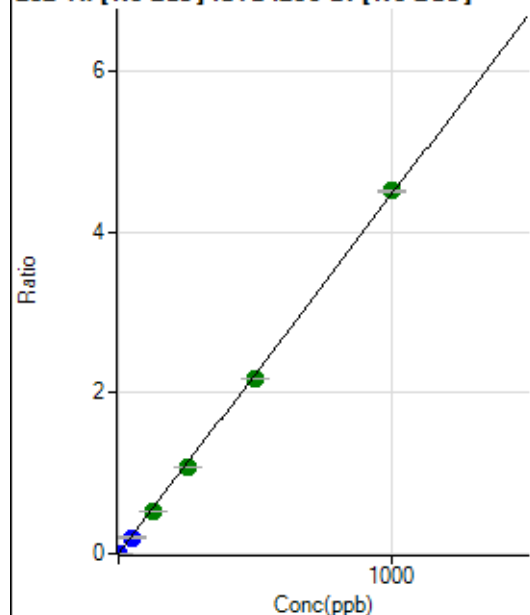
$$R = 0.9999$$

$$DL = 0.01175$$

$$BEC = 0.08599$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2598.50	0.0002	P	0.8
2	☐	1.000	0.793	51531.71	0.0037	P	0.2
3	☐	50.000	45.464	2817469.91	0.2033	P	0.5
4	☐	125.000	115.469	7303082.69	0.5161	A	0.1
5	☐	250.000	240.395	14635299.98	1.0743	A	1.0
6	☐	500.000	486.970	28972163.38	2.1759	A	0.4
7	☐	1000.000	1010.334	57966810.09	4.5143	A	0.8
8	☐			10035.56	0.0009	P	1.3

$$y = 0.0045 * x + 1.8133E-004$$

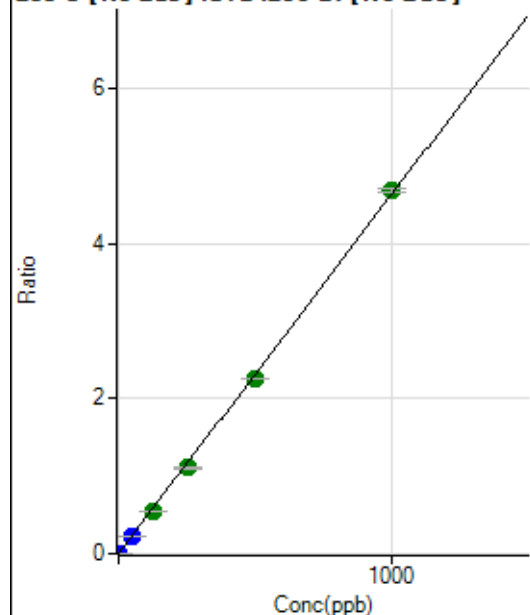
$$R = 0.9998$$

$$DL = 0.001014$$

$$BEC = 0.04058$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3025.50	0.0002	P	1.2
2	☐	1.000	0.873	58819.85	0.0043	P	1.3
3	☐	50.000	45.977	2952087.00	0.2130	P	0.3
4	☐	125.000	115.504	7568184.37	0.5348	A	0.6
5	☐	250.000	239.159	15083855.37	1.1072	A	0.8
6	☐	500.000	487.414	30041607.27	2.2563	A	0.4
7	☐	1000.000	1010.392	60054494.40	4.6769	A	1.0
8	☐			5337.43	0.0005	P	2.3

$$y = 0.0046 * x + 2.1117E-004$$

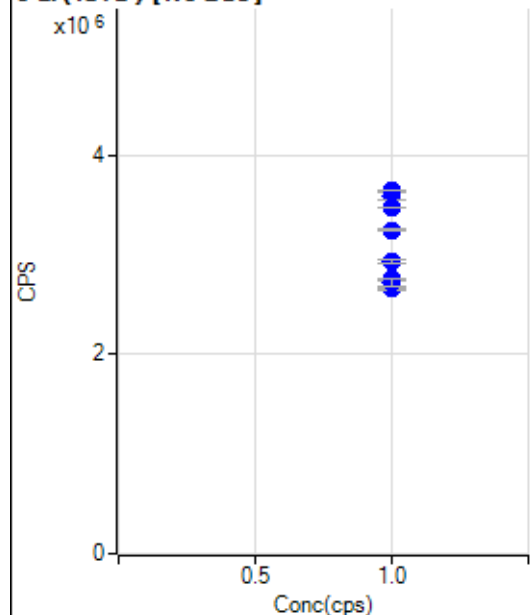
$$R = 0.9998$$

$$DL = 0.001698$$

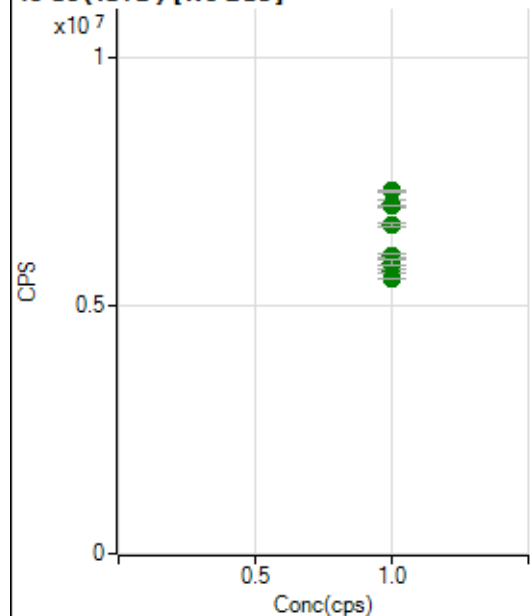
$$BEC = 0.04562$$

Weight: <None>

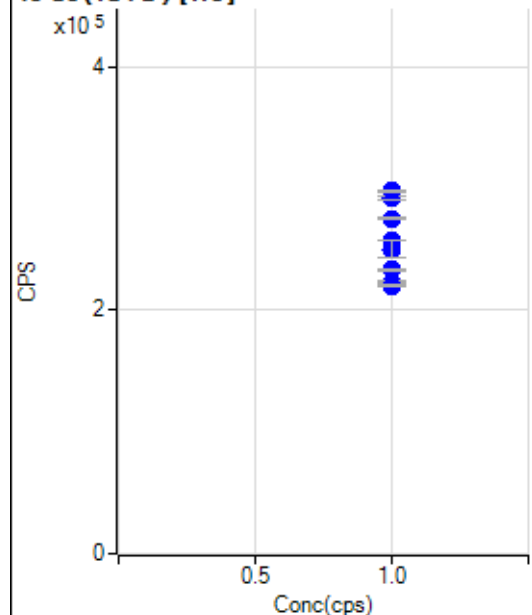
Min Conc: 0

6 Li (ISTD) [No Gas]

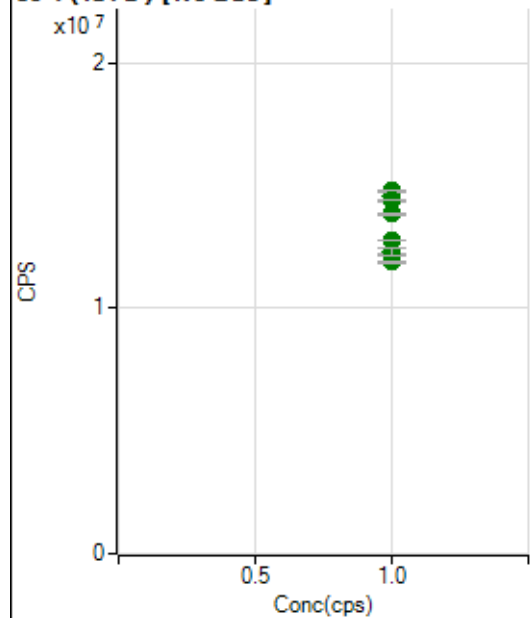
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3593561.20		P	1.8
2	☐	1.000		3643919.07		P	0.1
3	☐	1.000		3478951.33		P	0.2
4	☐	1.000		3249984.23		P	0.7
5	☐	1.000		2938383.40		P	1.1
6	☐	1.000		2759148.86		P	0.6
7	☐	1.000		2657071.94		P	0.5
8	☐	1.000		2726395.47		P	2.4

45 Sc (ISTD) [No Gas]

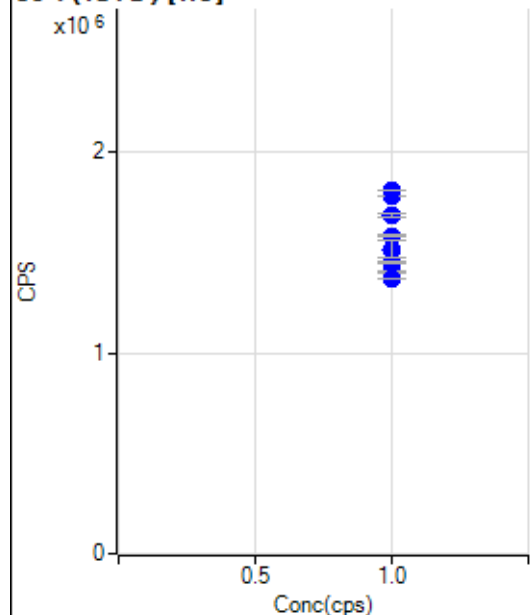
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7051658.49		A	2.4
2	☐	1.000		7305157.45		A	0.3
3	☐	1.000		6995876.37		A	0.2
4	☐	1.000		6615977.23		A	1.0
5	☐	1.000		5993708.25		A	1.3
6	☐	1.000		5691566.15		A	0.9
7	☐	1.000		5544876.56		A	0.3
8	☐	1.000		5853318.97		A	2.2

45 Sc (ISTD) [He]

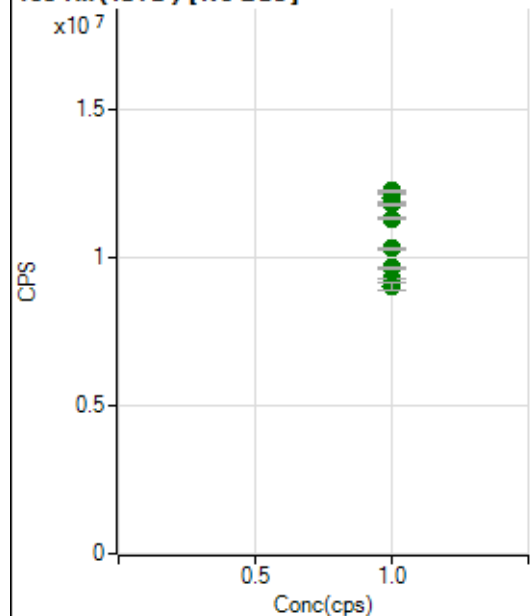
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		291711.12		P	0.8
2	☐	1.000		297768.69		P	0.6
3	☐	1.000		275088.89		P	0.7
4	☐	1.000		256976.40		P	0.1
5	☐	1.000		232843.57		P	0.8
6	☐	1.000		222915.02		P	0.7
7	☐	1.000		220039.77		P	0.6
8	☐	1.000		249949.10		P	5.6

89 Y (ISTD) [No Gas]

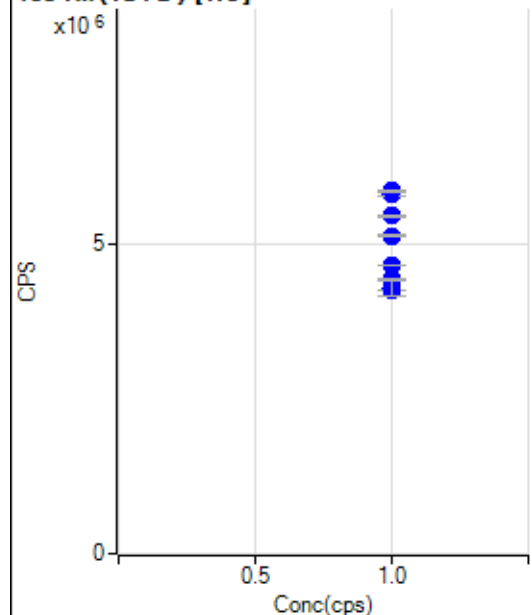
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14542068.25		A	2.6
2	☐	1.000		14787043.25		A	0.5
3	☐	1.000		14418810.48		A	0.2
4	☐	1.000		13850358.82		A	0.9
5	☐	1.000		12764310.09		A	0.2
6	☐	1.000		12190476.63		A	0.1
7	☐	1.000		11899189.82		A	0.5
8	☐	1.000		12317216.48		A	2.4

89 Y (ISTD) [He]

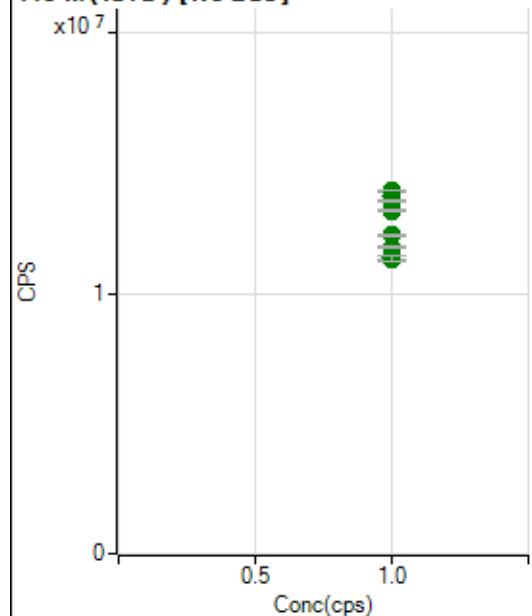
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1783540.22		P	0.4
2	☐	1.000		1809438.01		P	0.2
3	☐	1.000		1689486.49		P	1.3
4	☐	1.000		1583962.20		P	0.4
5	☐	1.000		1450715.60		P	0.5
6	☐	1.000		1404570.62		P	0.5
7	☐	1.000		1374203.94		P	0.2
8	☐	1.000		1517121.96		P	5.8

103 Rh (ISTD) [No Gas]

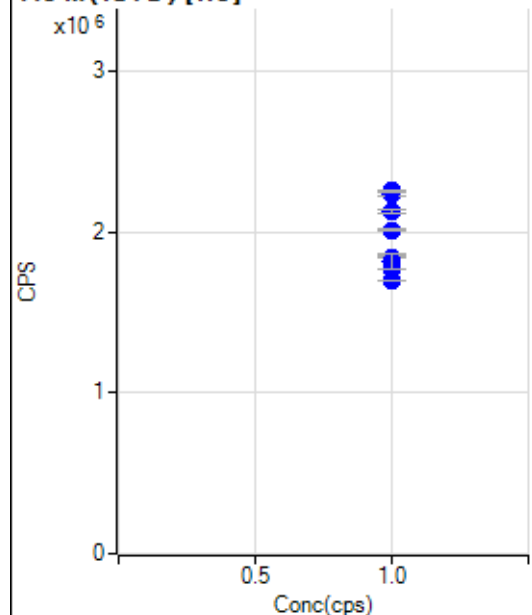
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12015017.89		A	2.1
2	☐	1.000		12255073.28		A	0.5
3	☐	1.000		11819579.08		A	0.6
4	☐	1.000		11318646.95		A	0.7
5	☐	1.000		10304410.13		A	0.8
6	☐	1.000		9650087.63		A	0.9
7	☐	1.000		9284171.39		A	0.3
8	☐	1.000		9024863.22		A	2.5

103 Rh (ISTD) [He]

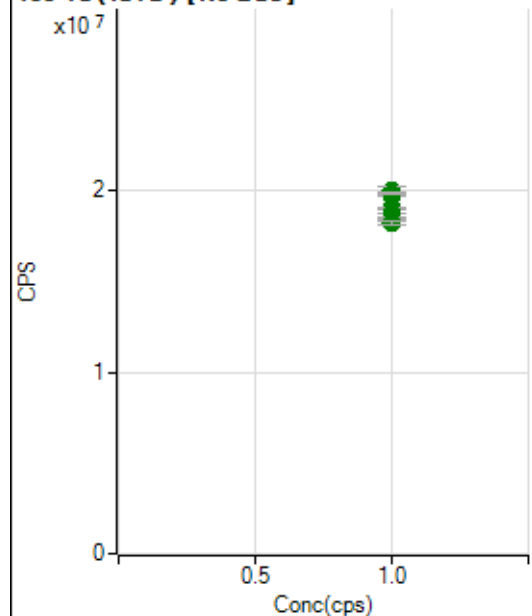
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5794716.72		P	0.8
2	☐	1.000		5846653.11		P	0.4
3	☐	1.000		5448856.48		P	0.4
4	☐	1.000		5119136.59		P	0.4
5	☐	1.000		4653167.92		P	0.4
6	☐	1.000		4426457.61		P	0.3
7	☐	1.000		4247813.27		P	0.1
8	☐	1.000		4274988.65		P	5.8

115 In (ISTD) [No Gas]

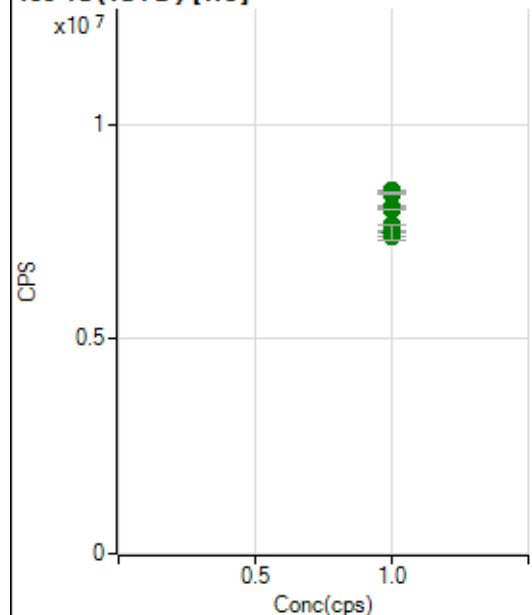
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13733528.47		A	2.3
2	☐	1.000		13936075.04		A	0.1
3	☐	1.000		13539274.18		A	0.5
4	☐	1.000		13179846.55		A	0.5
5	☐	1.000		12231089.64		A	0.5
6	☐	1.000		11748630.04		A	0.7
7	☐	1.000		11291862.14		A	0.3
8	☐	1.000		11340272.96		A	1.7

115 In (ISTD) [He]

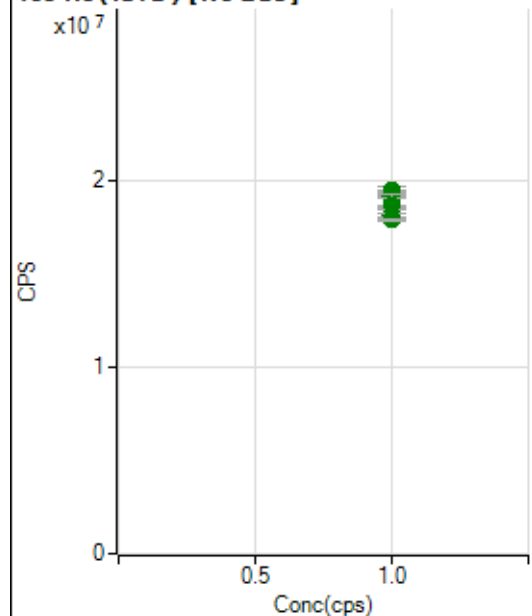
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2237131.21		P	0.6
2	☐	1.000		2256323.50		P	0.8
3	☐	1.000		2129832.66		P	0.8
4	☐	1.000		2012544.40		P	0.6
5	☐	1.000		1844291.13		P	0.4
6	☐	1.000		1769051.31		P	0.2
7	☐	1.000		1692903.18		P	0.0
8	☐	1.000		1816125.85		P	5.4

159 Tb (ISTD) [No Gas]

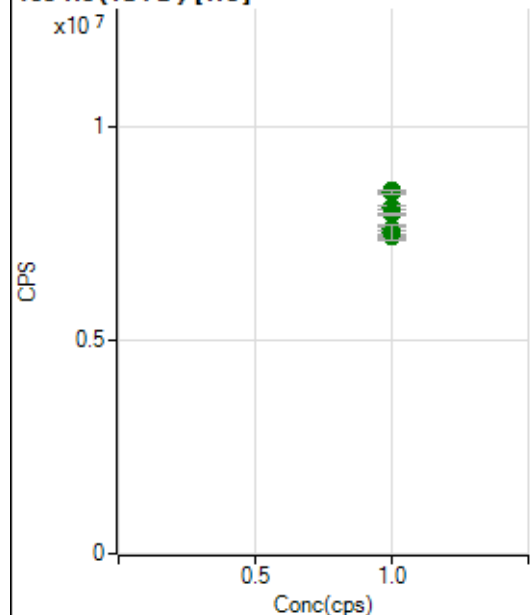
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19980521.78		A	2.5
2	☐	1.000		19728391.37		A	0.4
3	☐	1.000		19722737.76		A	0.3
4	☐	1.000		19841059.84		A	0.6
5	☐	1.000		19042249.16		A	0.6
6	☐	1.000		18718952.78		A	0.1
7	☐	1.000		18498671.53		A	0.2
8	☐	1.000		18257524.86		A	1.2

159 Tb (ISTD) [He]

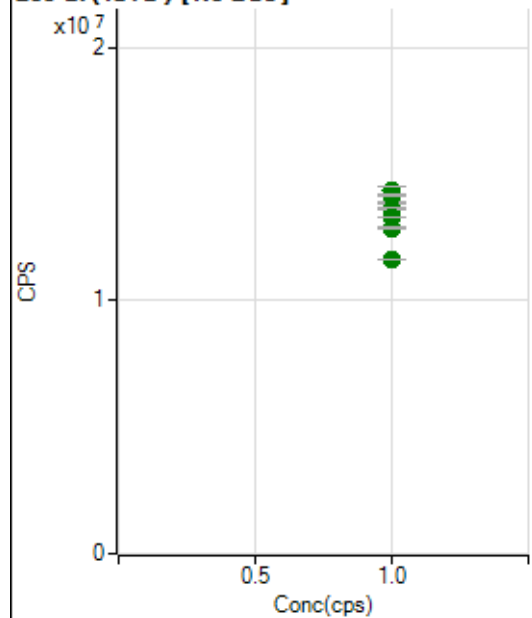
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8449426.61		A	0.7
2	☐	1.000		8388797.65		A	0.5
3	☐	1.000		8082002.66		A	1.0
4	☐	1.000		8004927.17		A	0.2
5	☐	1.000		7655757.04		A	0.5
6	☐	1.000		7502307.39		A	0.6
7	☐	1.000		7388469.40		A	0.4
8	☐	1.000		7481944.61		A	5.2

165 Ho (ISTD) [No Gas]

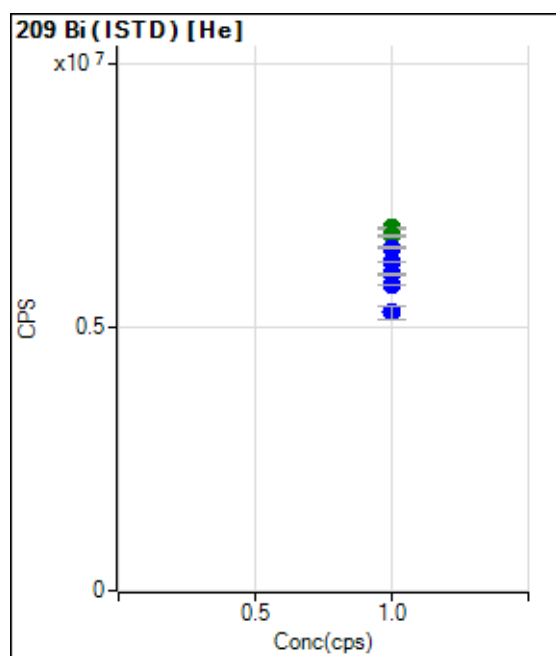
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19459469.71		A	2.2
2	☐	1.000		19472696.96		A	0.3
3	☐	1.000		19296061.20		A	0.4
4	☐	1.000		19223589.15		A	1.3
5	☐	1.000		18644459.27		A	0.7
6	☐	1.000		18505818.47		A	0.2
7	☐	1.000		18163916.90		A	0.7
8	☐	1.000		17925597.62		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8509251.68		A	0.8
2	☐	1.000		8483310.71		A	0.9
3	☐	1.000		8118513.35		A	0.7
4	☐	1.000		7966053.15		A	0.1
5	☐	1.000		7622346.76		A	0.7
6	☐	1.000		7486989.96		A	0.5
7	☐	1.000		7426298.36		A	0.5
8	☐	1.000		7530121.55		A	5.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14328996.31		A	2.6
2	☐	1.000		13829491.60		A	0.6
3	☐	1.000		13858202.29		A	0.6
4	☐	1.000		14150743.40		A	0.3
5	☐	1.000		13623914.66		A	0.4
6	☐	1.000		13314797.72		A	0.0
7	☐	1.000		12841058.56		A	0.5
8	☐	1.000		11614754.41		A	0.4



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6897550.32		A	0.3
2	☐	1.000		6748175.59		A	0.3
3	☐	1.000		6523365.60		P	0.6
4	☐	1.000		6519046.64		P	0.4
5	☐	1.000		6242782.41		P	0.3
6	☐	1.000		6021757.27		P	0.5
7	☐	1.000		5803060.61		P	0.3
8	☐	1.000		5290094.16		P	5.0

US EPA Tune Check Sample Report

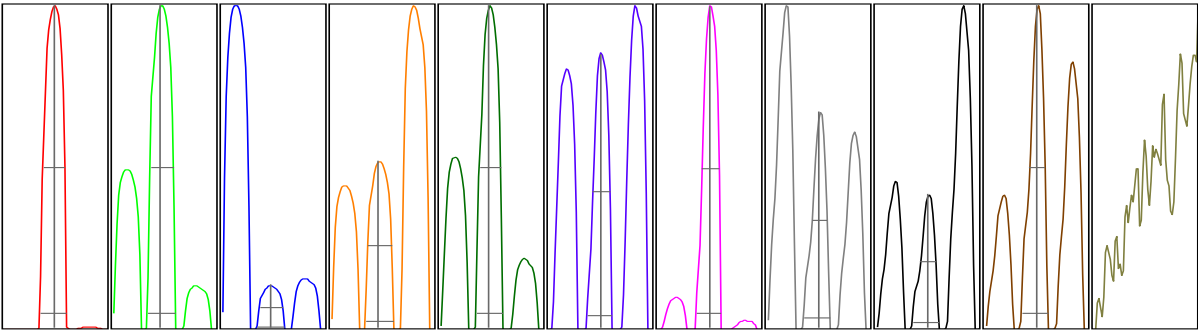
Batch Folder D:\ICP-MS Data\P7092619MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	11361	1.13	5.00	
24	134504	1.09	5.00	
25	18096	0.85	5.00	
26	21385	1.10	5.00	
59	104670	1.04	5.00	
113	16646	0.65	5.00	
115	198378	0.38	5.00	
206	57220	0.64	5.00	
207	52849	0.64	5.00	
208	126919	0.54	5.00	
220	136	2.90		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	11555	11410	11320	11305	11216
24	136748	134927	134331	133617	132896
25	18300	18139	18139	18009	17890
26	21733	21363	21420	21336	21073
59	106097	105233	104816	103815	103391
113	16822	16614	16641	16628	16525
115	199574	197867	198673	197886	197892
206	57740	57294	57301	56992	56774
207	53331	52997	52780	52715	52422
208	127332	127277	127281	126974	125729
220	136	140	130	137	139

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	18550	9.00	8.9 - 9.1		0.781	0.900	
24	210395	23.90	23.9 - 24.1		0.828	0.900	
25	28186	24.95	24.9 - 25.1		0.806	0.900	
26	33005	25.90	25.9 - 26.1		0.833	0.900	
59	177893	58.95	58.9 - 59.1		0.784	0.900	
113	32434	113.05	112.9 - 113.1		0.723	0.900	
115	386536	115.05	114.9 - 115.1		0.723	0.900	
206	121679	206.05	205.9 - 206.1		0.770	0.900	
207	110672	207.05	206.9 - 207.1		0.777	0.900	
208	265576	208.05	207.9 - 208.1		0.777	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	6.6	V	Deflect	12.2	V
Extract 2	-115.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	160	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	26445	0.84	
89	33680	0.92	
205	45239	0.44	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	26732	26461	26503	26412	26115
89	34174	33656	33522	33708	33342
205	45555	45169	45162	45031	45277

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	6.5	V	Deflect	1.2	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			