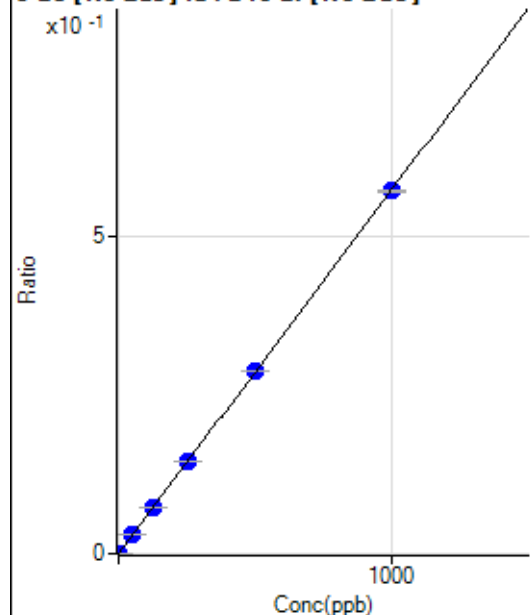


Batch Folder: D:\ICP-MS Data\P7091419MS .b\
Analysis File: P7091419MS .batch.bin
DA Date-Time: 2019-09-14 18:52:13
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB P7091419MS.D	S00	2019-09-14 12:34:14
2	003CALS P7091419MS.D	S02	2019-09-14 12:37:49
3	004CALS P7091419MS.D	S03	2019-09-14 12:42:37
4	005CALS P7091419MS.D	S04	2019-09-14 12:46:40
5	006CALS P7091419MS.D	S05	2019-09-14 12:50:30
6	007CALS P7091419MS.D	S06	2019-09-14 12:54:17
7	008CALS P7091419MS.D	S07	2019-09-14 12:58:02
8	009CALS P7091419MS.D	S08	2019-09-14 13:01:49

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71.11	0.0000	P	5.5
2	☐	1.000	1.003	2751.41	0.0006	P	2.4
3	☐	50.000	51.889	137387.45	0.0297	P	0.2
4	☐	125.000	127.770	329113.78	0.0732	P	0.7
5	☐	250.000	254.620	604967.29	0.1458	P	0.5
6	☐	500.000	501.165	1114984.45	0.2869	P	0.5
7	☐	1000.000	997.822	2140121.53	0.5712	P	0.6
8	☐			327.79	0.0001	P	6.4

$$y = 5.7247\text{E-}004 * x + 1.5614\text{E-}005$$

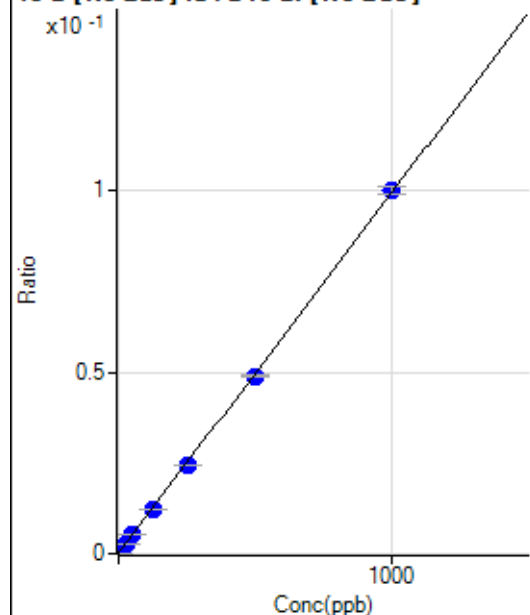
$$R = 1.0000$$

$$DL = 0.004509$$

$$BEC = 0.02728$$

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	633.37	0.0001	P	12.2
2	☐	25.000	24.450	11955.12	0.0026	P	1.1
3	☐	50.000	50.204	23658.26	0.0051	P	2.8
4	☐	125.000	121.853	54989.73	0.0122	P	0.7
5	☐	250.000	244.353	101136.82	0.0244	P	1.8
6	☐	500.000	491.599	189998.39	0.0489	P	1.3
7	☐	1000.000	1006.009	374286.09	0.0999	P	2.1
8	☐			18331.17	0.0046	P	5.7

$$y = 9.9176\text{E-}005 * x + 1.3902\text{E-}004$$

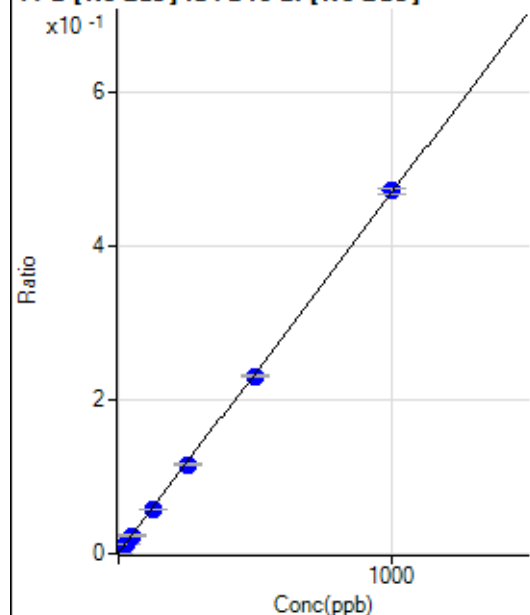
$$R = 0.9999$$

$$DL = 0.5118$$

$$BEC = 1.402$$

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	3200.48	0.0007	P	3.2
2	☐	25.000	24.086	55954.53	0.0120	P	0.3
3	☐	50.000	49.069	109631.74	0.0237	P	2.3
4	☐	125.000	121.624	259744.10	0.0577	P	3.0
5	☐	250.000	245.876	481467.97	0.1160	P	1.1
6	☐	500.000	491.558	898625.73	0.2313	P	1.5
7	☐	1000.000	1005.744	1769844.64	0.4724	P	1.3
8	☐			90277.69	0.0228	P	5.3

$$y = 4.6902\text{E-}004 * x + 7.0276\text{E-}004$$

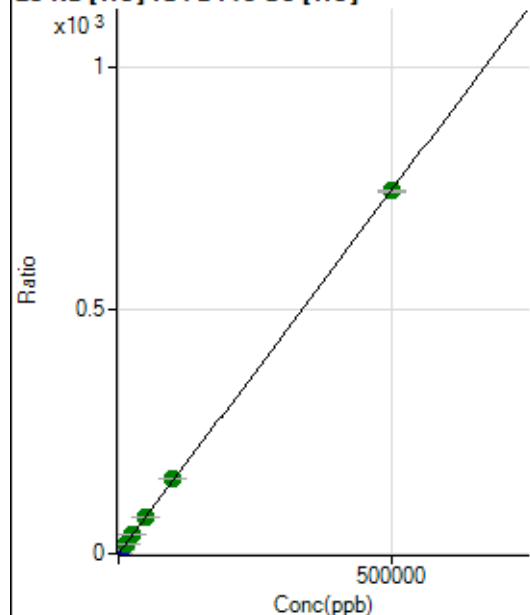
R = 0.9999

DL = 0.1443

BEC = 1.498

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	15781.02	0.0386	P	1.8
2	☐	500.000	497.870	324521.42	0.7820	P	0.3
3	☐	5000.000	5096.207	3091558.60	7.6472	P	0.4
4	☐	12500.000	12809.229	7401309.11	19.1625	A	0.8
5	☐	25000.000	25777.804	13449909.85	38.5243	A	0.4
6	☐	50000.000	51249.957	25940904.75	76.5536	A	0.4
7	☐	100000.00	102931.45	51529599.07	153.7129	A	1.0
8	☐	500000.00	499241.13	284858098.0	745.3941	A	0.6

$$y = 0.0015 * x + 0.0386$$

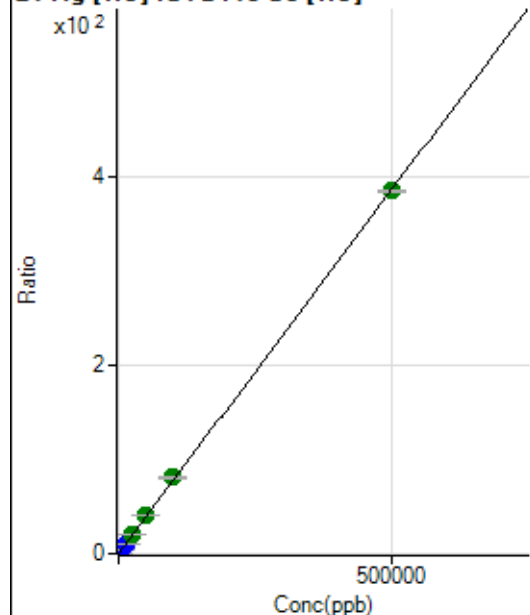
R = 1.0000

DL = 1.391

BEC = 25.89

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	483.36	0.0012	P	5.2
2	☐	500.000	534.089	171509.25	0.4133	P	0.8
3	☐	5000.000	5277.623	1646662.38	4.0731	P	0.2
4	☐	12500.000	13216.089	3938890.97	10.1981	P	0.7
5	☐	25000.000	26446.578	7124336.97	20.4060	A	0.7
6	☐	50000.000	52528.967	13734008.47	40.5299	A	0.4
7	☐	100000.00	104705.09	27082572.48	80.7864	A	0.7
8	☐	500000.00	498713.04	147047032.4	384.7830	A	0.6

$$y = 7.7155\text{E-}004 * x + 0.0012$$

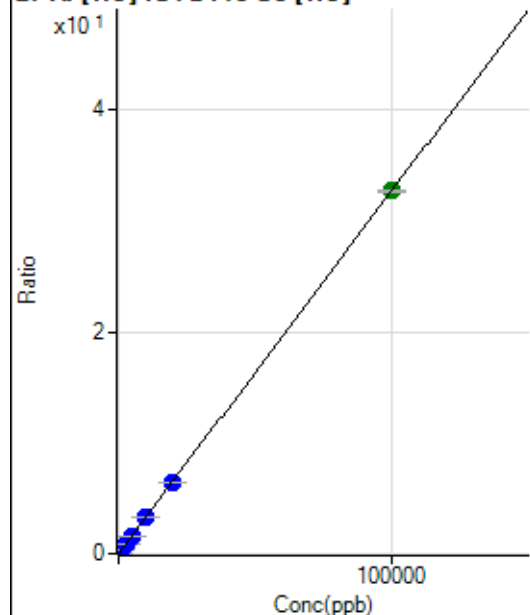
$$R = 0.9999$$

$$DL = 0.2386$$

$$BEC = 1.534$$

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	88.89	0.0002	P	10.9
2	☐	20.000	18.949	2661.47	0.0064	P	5.2
3	☐	1000.000	999.020	132144.16	0.3268	P	1.3
4	☐	2500.000	2515.192	317706.18	0.8226	P	0.7
5	☐	5000.000	4961.738	566445.58	1.6225	P	0.5
6	☐	10000.000	9852.125	1091594.85	3.2214	P	0.3
7	☐	20000.000	19766.306	2166592.76	6.4628	P	0.7
8	☐	100000.00	100063.07	12502752.89	32.7160	A	0.5

$$y = 3.2695\text{E-}004 * x + 2.1770\text{E-}004$$

$$R = 1.0000$$

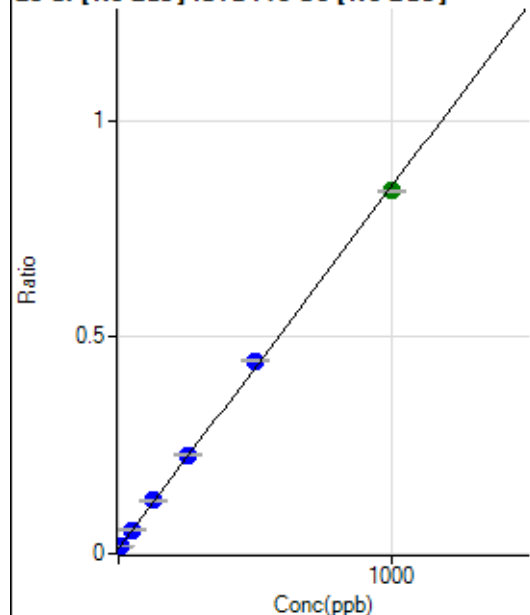
$$DL = 0.2176$$

$$BEC = 0.6658$$

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	111029.43	0.0119	P	1.5
2	☐	10.000	8.966	186836.59	0.0194	P	0.5
3	☐	50.000	51.932	528652.83	0.0553	P	1.5
4	☐	125.000	132.018	1135126.30	0.1223	P	1.2
5	☐	250.000	258.679	1969974.41	0.2283	P	0.5
6	☐	500.000	518.156	3600367.18	0.4453	P	0.8
7	☐	1000.000	987.789	6680410.35	0.8382	A	0.8
8	☐			289391.34	0.0341	P	0.6

$$y = 8.3654E-004 * x + 0.0119$$

$$R = 0.9997$$

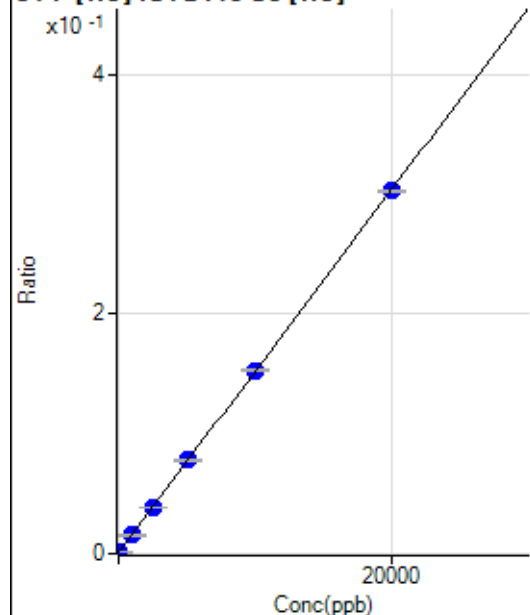
$$DL = 0.6258$$

$$BEC = 14.21$$

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	-33.617	130.56	0.0003	P	9.9
2	☐	0.000	33.617	555.59	0.0013	P	21.0
3	☐	1000.000	975.019	6307.18	0.0156	P	4.5
4	☐	2500.000	2487.161	14877.46	0.0385	P	1.3
5	☐	5000.000	5110.222	27325.95	0.0783	P	1.6
6	☐	10000.000	10065.954	51969.25	0.1534	P	0.6
7	☐	20000.000	19942.322	101589.26	0.3030	P	0.4
8	☐			177.79	0.0005	P	27.8

$$y = 1.5154E-005 * x + 8.2917E-004$$

$$R = 1.0000$$

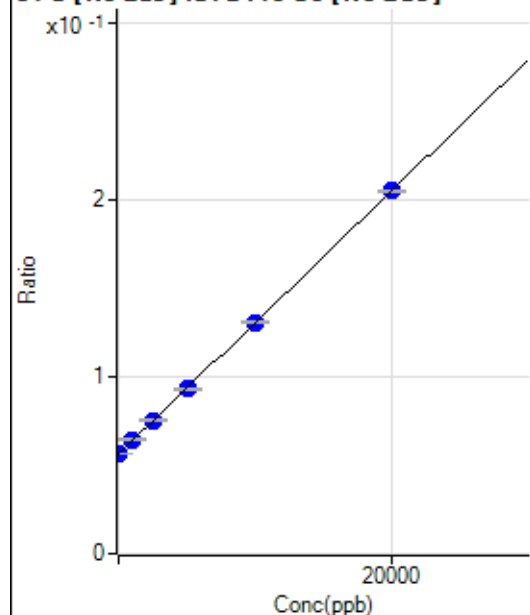
$$DL = 30.94$$

$$BEC = 54.72$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	20.624	528255.50	0.0565	P	0.0
2	☐	0.000	-20.624	542021.39	0.0562	P	0.5
3	☐	1000.000	1096.331	616785.73	0.0646	P	0.9
4	☐	2500.000	2549.835	699374.48	0.0754	P	0.8
5	☐	5000.000	4936.131	803621.29	0.0931	P	0.4
6	☐	10000.000	10015.111	1058281.50	0.1309	P	0.7
7	☐	20000.000	19997.366	1635178.31	0.2052	P	0.5
8	☐			476858.46	0.0562	P	0.4

$$y = 7.4397\text{E-}006 * x + 0.0564$$

R = 1.0000

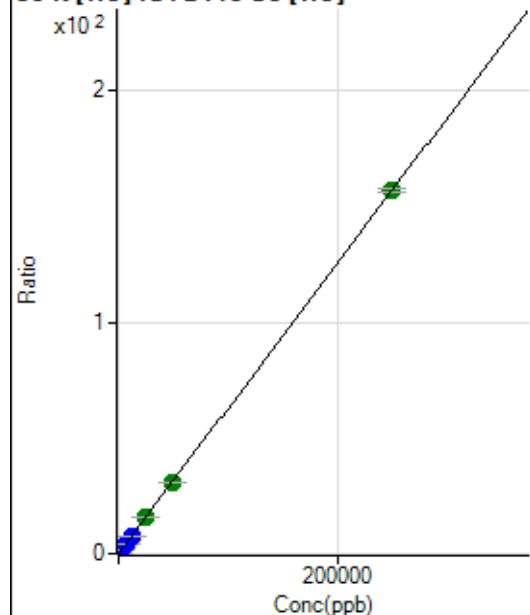
DL = 61.84

BEC = 7580

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16729.50	0.0410	P	3.3
2	☐	500.000	492.621	144912.74	0.3492	P	0.4
3	☐	2500.000	2498.779	648588.38	1.6043	P	0.1
4	☐	6250.000	6229.905	1521292.23	3.9387	P	0.4
5	☐	12500.000	12360.212	2714159.39	7.7741	P	0.7
6	☐	25000.000	24664.084	5242827.20	15.4721	A	0.3
7	☐	50000.000	48987.331	10288552.14	30.6899	A	0.6
8	☐	250000.00	250243.64	59848908.28	156.6060	A	0.9

$$y = 6.2565\text{E-}004 * x + 0.0410$$

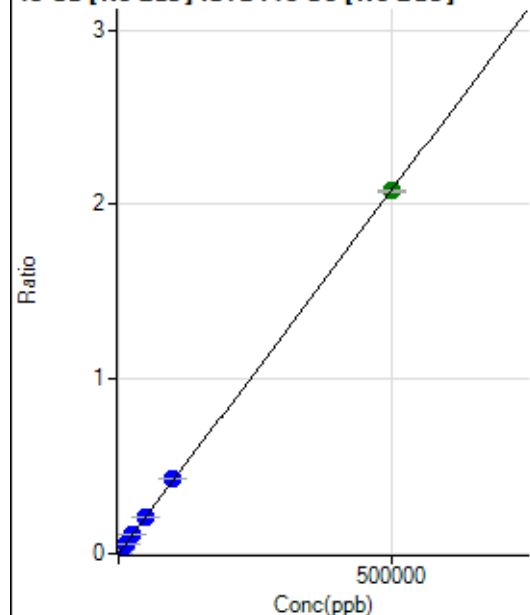
R = 1.0000

DL = 6.401

BEC = 65.48

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	147.23	0.0000	P	18.1
2	☐	500.000	507.270	20501.03	0.0021	P	1.2
3	☐	5000.000	5166.951	205660.44	0.0215	P	0.6
4	☐	12500.000	12960.304	500776.42	0.0540	P	1.0
5	☐	25000.000	25579.966	919019.78	0.1065	P	0.4
6	☐	50000.000	51316.156	1727028.12	0.2136	P	0.8
7	☐	100000.00	102417.24	3397932.07	0.4263	P	0.3
8	☐	500000.00	499342.75	17638848.14	2.0786	A	0.4

$$y = 4.1627\text{E-}006 * x + 1.5758\text{E-}005$$

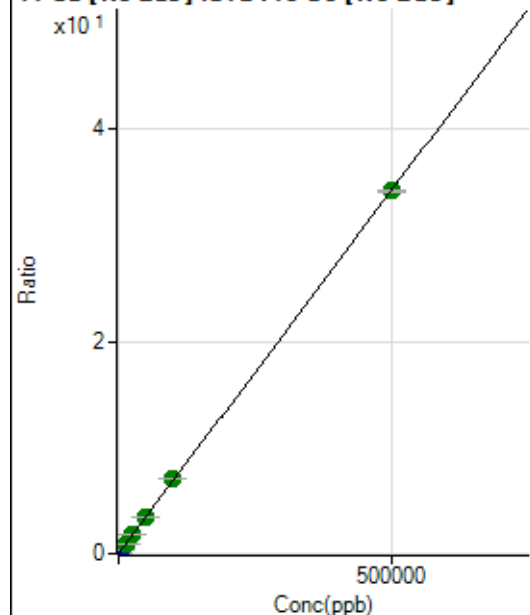
$$R = 1.0000$$

$$DL = 2.054$$

$$BEC = 3.786$$

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	14071.84	0.0015	P	0.7
2	☐	500.000	499.582	343800.59	0.0357	P	0.2
3	☐	5000.000	5155.425	3383477.42	0.3541	P	0.1
4	☐	12500.000	12846.509	8167252.87	0.8801	A	0.2
5	☐	25000.000	25555.287	15095984.19	1.7493	A	0.4
6	☐	50000.000	51119.117	28276304.10	3.4976	A	0.4
7	☐	100000.00	102134.49	55682979.02	6.9867	A	0.4
8	☐	500000.00	499423.20	289863578.7	34.1581	A	0.6

$$y = 6.8392\text{E-}005 * x + 0.0015$$

$$R = 1.0000$$

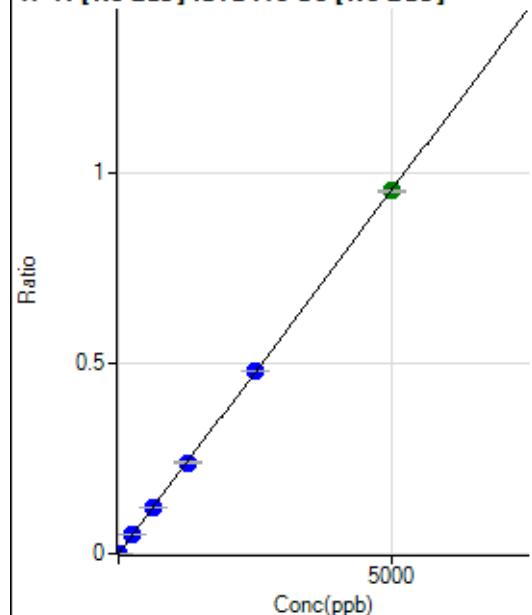
$$DL = 0.4524$$

$$BEC = 22.03$$

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	86.12	0.0000	P	23.6
2	☐	5.000	5.219	9670.21	0.0010	P	3.7
3	☐	250.000	252.975	460565.73	0.0482	P	0.3
4	☐	625.000	627.989	1110244.76	0.1196	P	0.1
5	☐	1250.000	1255.296	2063709.62	0.2391	P	0.3
6	☐	2500.000	2507.287	3861445.49	0.4776	P	0.3
7	☐	5000.000	4994.510	7582940.19	0.9514	A	0.3
8	☐			1725.18	0.0002	P	10.3

$$y = 1.9050E-004 * x + 9.2086E-006$$

$$R = 1.0000$$

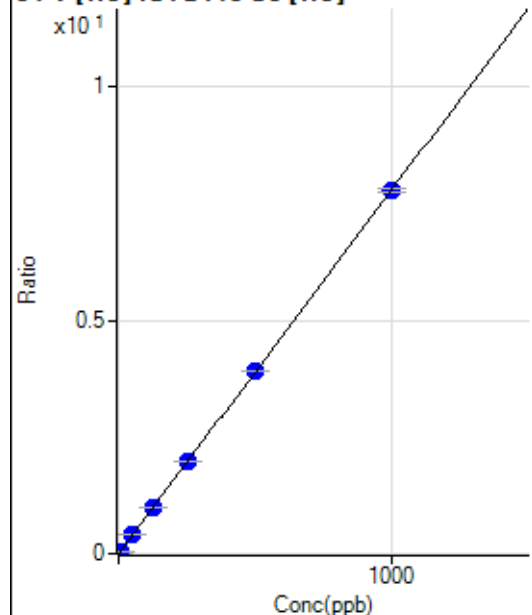
$$DL = 0.03421$$

$$BEC = 0.04834$$

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	13.33	0.0000	P	0.1
2	☐	5.000	5.313	17193.55	0.0414	P	0.9
3	☐	50.000	50.830	160132.59	0.3961	P	0.6
4	☐	125.000	126.883	381864.97	0.9887	P	0.7
5	☐	250.000	252.984	688210.46	1.9712	P	0.6
6	☐	500.000	501.934	1325264.15	3.9110	P	0.4
7	☐	1000.000	998.008	2606837.46	7.7763	P	1.2
8	☐			523.35	0.0014	P	2.6

$$y = 0.0078 * x + 3.2643E-005$$

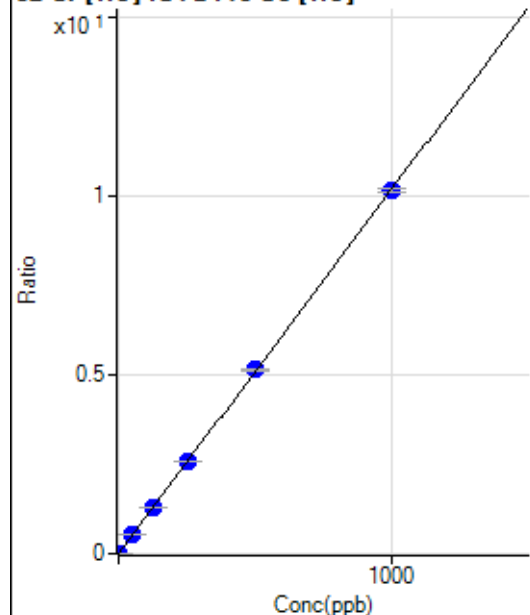
$$R = 1.0000$$

$$DL = 1.794E-05$$

$$BEC = 0.004189$$

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	627.80	0.0015	P	5.4
2	☐	2.000	2.013	9151.86	0.0221	P	2.4
3	☐	50.000	51.492	212780.94	0.5263	P	0.2
4	☐	125.000	127.952	504271.80	1.3056	P	0.7
5	☐	250.000	254.657	906669.88	2.5969	P	0.5
6	☐	500.000	504.668	1743435.93	5.1450	P	0.3
7	☐	1000.000	996.058	3403673.94	10.1531	P	0.9
8	☐			115853.07	0.3032	P	1.8

$$y = 0.0102 * x + 0.0015$$

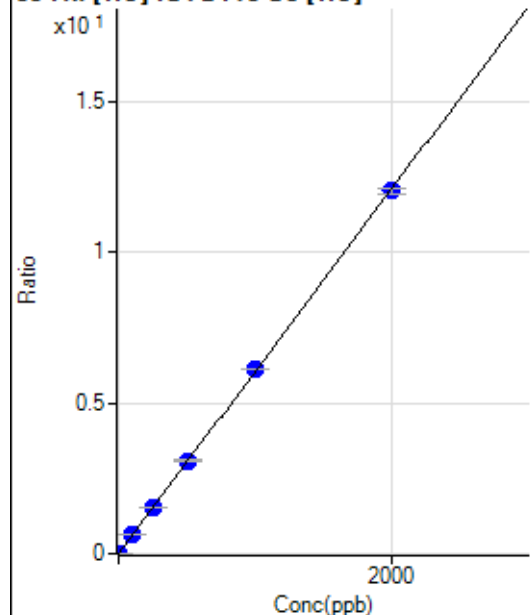
$$R = 1.0000$$

$$DL = 0.02465$$

$$BEC = 0.1508$$

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	50.00	0.0001	P	17.7
2	☐	1.000	1.067	2726.97	0.0066	P	2.9
3	☐	100.000	102.845	251274.83	0.6215	P	0.1
4	☐	250.000	256.263	598105.56	1.5485	P	0.9
5	☐	500.000	509.970	1075837.81	3.0815	P	0.8
6	☐	1000.000	1012.564	2073228.41	6.1183	P	0.3
7	☐	2000.000	1990.301	4031455.77	12.0260	P	1.4
8	☐			15283.67	0.0400	P	1.7

$$y = 0.0060 * x + 1.2245E-004$$

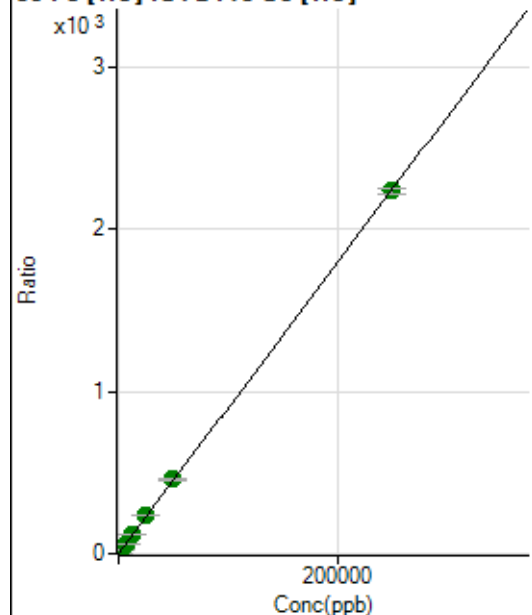
$$R = 1.0000$$

$$DL = 0.01076$$

$$BEC = 0.02027$$

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	2426.20	0.0059	P	5.3
2	☐	50.000	53.849	202585.07	0.4881	P	0.3
3	☐	2500.000	2623.615	9500019.89	23.4995	A	0.6
4	☐	6250.000	6578.340	22754413.01	58.9127	A	0.6
5	☐	12500.000	13020.795	40709419.89	116.6026	A	0.9
6	☐	25000.000	25999.601	78894135.09	232.8233	A	0.3
7	☐	50000.000	51013.662	153139023.7	456.8155	A	1.2
8	☐	250000.00	249661.82	854333722.8	2,235.640	A	1.3

$$y = 0.0090 * x + 0.0059$$

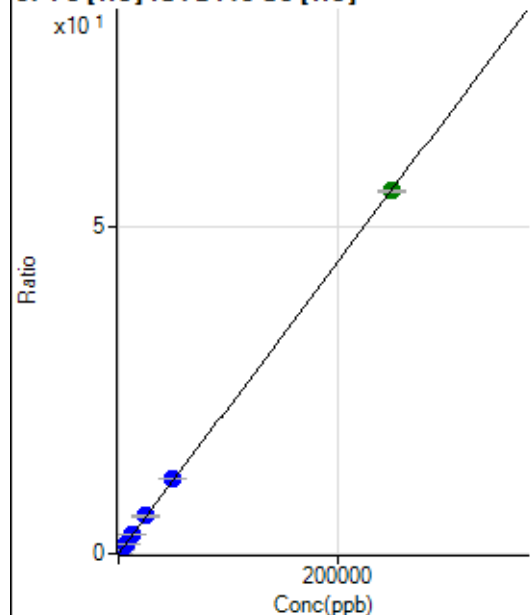
$$R = 1.0000$$

$$DL = 0.1046$$

$$BEC = 0.6635$$

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	92.59	0.0002	P	36.2
2	☐	50.000	55.981	5245.52	0.0126	P	7.1
3	☐	2500.000	2611.795	234200.38	0.5793	P	0.7
4	☐	6250.000	6587.570	564239.47	1.4609	P	0.7
5	☐	12500.000	12988.839	1005546.78	2.8802	P	0.7
6	☐	25000.000	25800.395	1938561.11	5.7208	P	0.1
7	☐	50000.000	51483.884	3826907.55	11.4155	P	0.7
8	☐	250000.00	249589.18	21148696.77	55.3403	A	0.8

$$y = 2.2172E-004 * x + 2.2675E-004$$

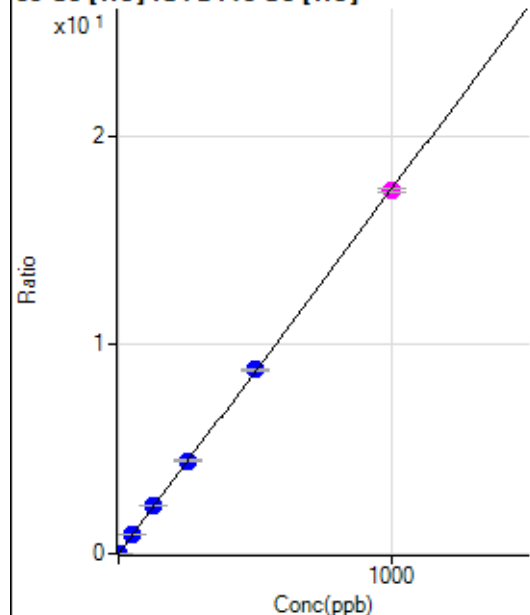
$$R = 1.0000$$

$$DL = 1.111$$

$$BEC = 1.023$$

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	92.22	0.0002	P	14.5
2	☐	1.000	1.005	7368.65	0.0178	P	2.0
3	☐	50.000	52.183	368171.13	0.9107	P	0.8
4	☐	125.000	130.214	877595.60	2.2722	P	0.4
5	☐	250.000	255.524	1556597.39	4.4585	P	0.8
6	☐	500.000	504.461	2982579.68	8.8019	P	0.4
7	☐	1000.000	995.628	5823581.23	17.3717	M	1.0
8	☐			79116.36	0.2070	P	0.5

$$y = 0.0174 * x + 2.2581E-004$$

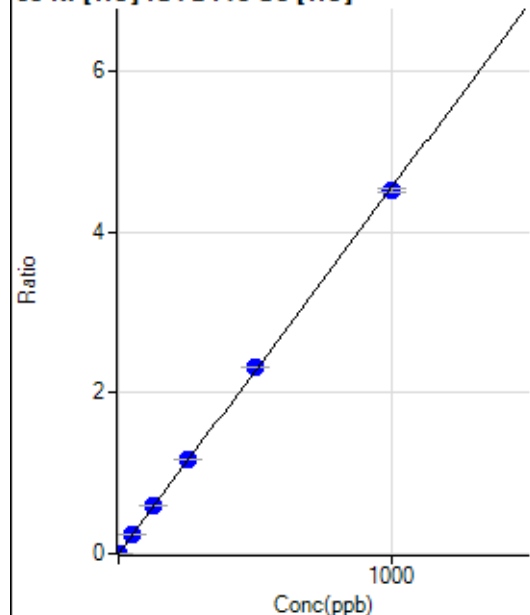
$$R = 1.0000$$

$$DL = 0.005619$$

$$BEC = 0.01294$$

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	188.89	0.0005	P	10.8
2	☐	1.000	1.123	2312.44	0.0056	P	4.8
3	☐	50.000	53.797	99170.05	0.2453	P	0.8
4	☐	125.000	132.565	233218.03	0.6038	P	0.3
5	☐	250.000	258.955	411643.42	1.1791	P	0.6
6	☐	500.000	509.830	786462.29	2.3209	P	0.5
7	☐	1000.000	991.711	1513291.28	4.5141	P	1.0
8	☐			47797.85	0.1251	P	1.9

$$y = 0.0046 * x + 4.6256E-004$$

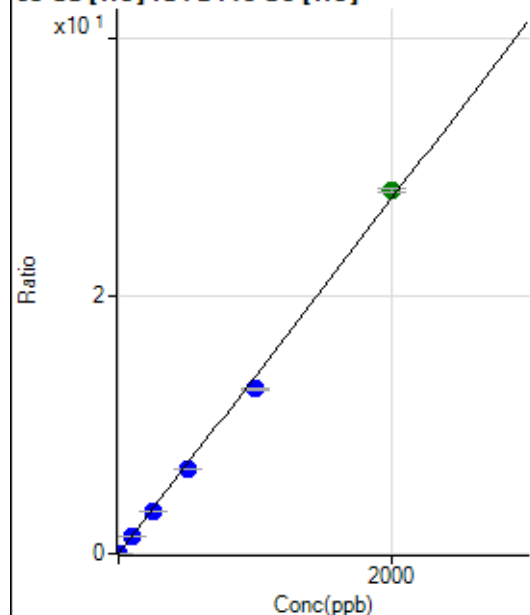
$$R = 0.9999$$

$$DL = 0.0328$$

$$BEC = 0.1016$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1145.62	0.0028	P	3.6
2	☐	2.000	1.914	12115.19	0.0292	P	2.3
3	☐	100.000	97.036	541973.29	1.3406	P	0.7
4	☐	250.000	239.515	1276510.59	3.3050	P	0.5
5	☐	500.000	473.299	2279146.20	6.5281	P	0.4
6	☐	1000.000	927.736	4335124.49	12.7934	P	0.4
7	☐	2000.000	2044.266	9449159.24	28.1869	A	1.0
8	☐			15835.42	0.0414	P	2.4

$$y = 0.0138 * x + 0.0028$$

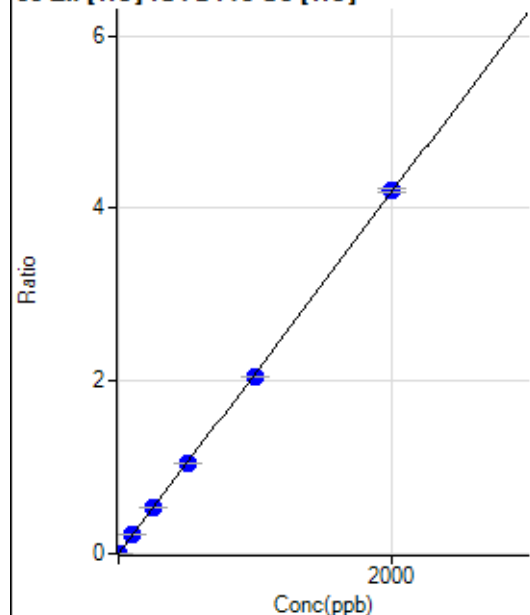
$$R = 0.9989$$

$$DL = 0.02172$$

$$BEC = 0.2035$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	192.23	0.0005	P	9.4
2	☐	2.000	2.270	2165.75	0.0052	P	5.0
3	☐	100.000	101.853	86332.20	0.2135	P	0.2
4	☐	250.000	253.380	204919.30	0.5305	P	0.9
5	☐	500.000	501.332	366327.40	1.0493	P	0.4
6	☐	1000.000	980.591	695310.94	2.0519	P	0.1
7	☐	2000.000	2008.856	1408997.69	4.2031	P	1.0
8	☐			13870.10	0.0363	P	2.9

$$y = 0.0021 * x + 4.7069E-004$$

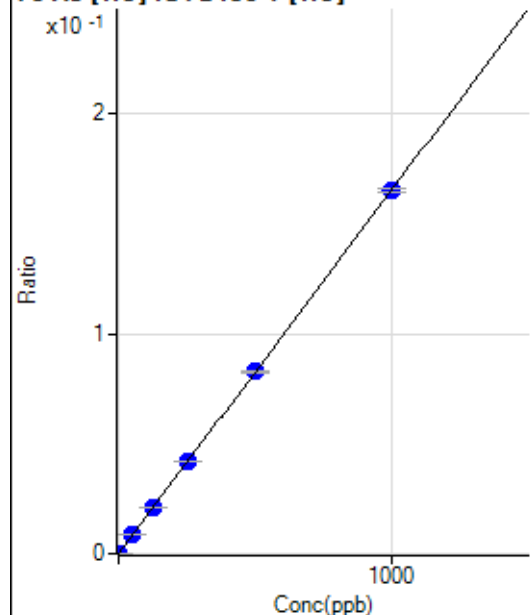
$$R = 0.9999$$

$$DL = 0.06347$$

$$BEC = 0.225$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	18.52	0.0000	P	70.2
2	☐	1.000	0.977	441.99	0.0002	P	2.7
3	☐	50.000	51.366	21896.16	0.0085	P	0.9
4	☐	125.000	129.276	52717.25	0.0214	P	0.1
5	☐	250.000	253.769	94030.97	0.0419	P	0.2
6	☐	500.000	500.296	180721.94	0.0827	P	0.4
7	☐	1000.000	998.307	354605.95	0.1650	P	1.2
8	☐			532.12	0.0002	P	6.3

$$y = 1.6523\text{E-}004 * x + 7.1339\text{E-}006$$

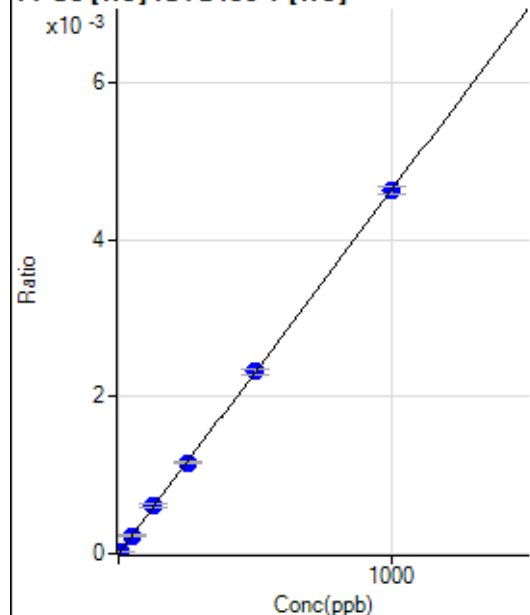
$$R = 1.0000$$

$$DL = 0.09096$$

$$BEC = 0.04318$$

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	5.580	67.78	0.0000	P	28.2
3	☐	50.000	48.687	581.14	0.0002	P	6.6
4	☐	125.000	131.828	1505.66	0.0006	P	9.8
5	☐	250.000	250.526	2600.28	0.0012	P	1.2
6	☐	500.000	501.865	5078.74	0.0023	P	3.3
7	☐	1000.000	998.145	9932.46	0.0046	P	2.3
8	☐			5.56	0.0000	P	35.0

$$y = 4.6290\text{E-}006 * x + 0.0000\text{E+}000$$

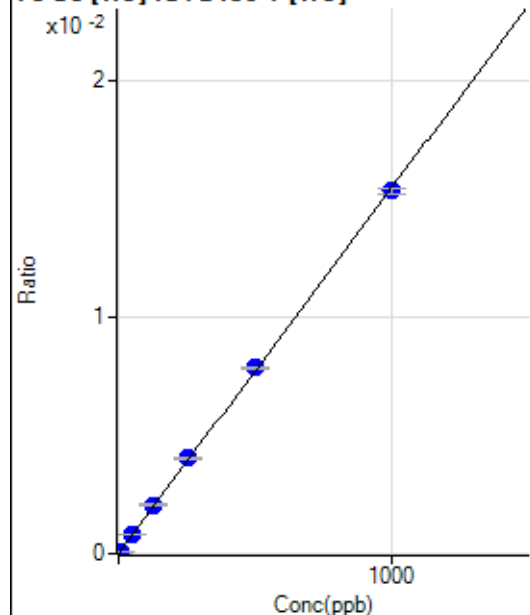
$$R = 1.0000$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.86	0.0000	P	19.1
2	☐	5.000	6.496	294.45	0.0001	P	16.1
3	☐	50.000	52.847	2137.22	0.0008	P	3.3
4	☐	125.000	132.221	5073.77	0.0021	P	2.3
5	☐	250.000	259.867	9036.85	0.0040	P	1.2
6	☐	500.000	508.134	17202.87	0.0079	P	1.5
7	☐	1000.000	992.414	33014.07	0.0154	P	1.3
8	☐			46.91	0.0000	P	24.1

$$y = 1.5463\text{E-}005 * x + 1.1872\text{E-}005$$

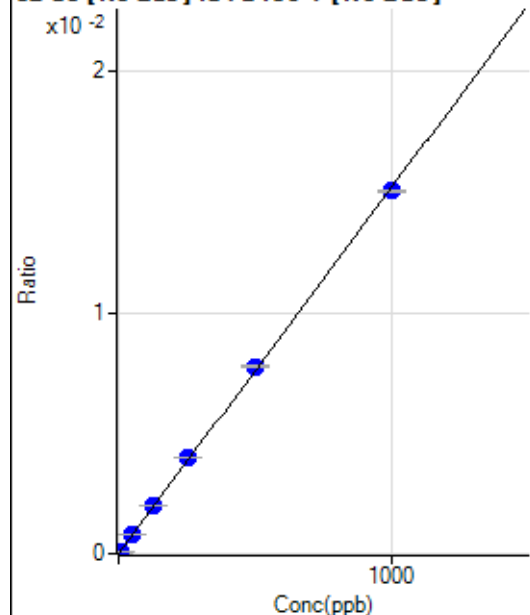
$$R = 0.9999$$

$$DL = 0.4395$$

$$BEC = 0.7678$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37.99	0.0000	P	485.
2	☐	5.000	5.304	1675.03	0.0001	P	23.9
3	☐	50.000	52.998	16242.27	0.0008	P	0.2
4	☐	125.000	130.826	39343.95	0.0020	P	0.2
5	☐	250.000	261.474	73357.12	0.0040	P	1.1
6	☐	500.000	510.509	137110.48	0.0078	P	0.6
7	☐	1000.000	990.997	261589.35	0.0151	P	0.6
8	☐			15.32	0.0000	P	287.

$$y = 1.5190\text{E-}005 * x + 1.9663\text{E-}006$$

$$R = 0.9998$$

$$DL = 1.886$$

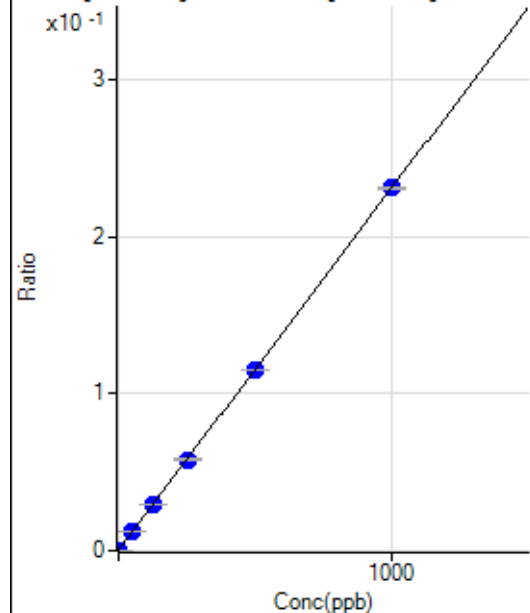
$$BEC = 0.1294$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4053.97		P	3.5
2	☐			4189.56		P	6.9
3	☐			4043.97		P	3.6
4	☐			3886.14		P	3.7
5	☐			3622.74		P	2.9
6	☐			3549.39		P	2.3
7	☐			3519.38		P	2.6
8	☐			3601.61		P	3.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	6629.57	0.0003	P	2.3
2	☐	1.000	0.935	11199.31	0.0006	P	3.1
3	☐	50.000	50.267	240216.78	0.0119	P	0.1
4	☐	125.000	124.272	573836.11	0.0290	P	0.6
5	☐	250.000	250.322	1072587.86	0.0581	P	0.7
6	☐	500.000	497.545	2035469.71	0.1151	P	0.3
7	☐	1000.000	1001.224	4020312.72	0.2314	P	0.5
8	☐			22212.36	0.0012	P	2.2

$$y = 2.3076E-004 * x + 3.3557E-004$$

$$R = 1.0000$$

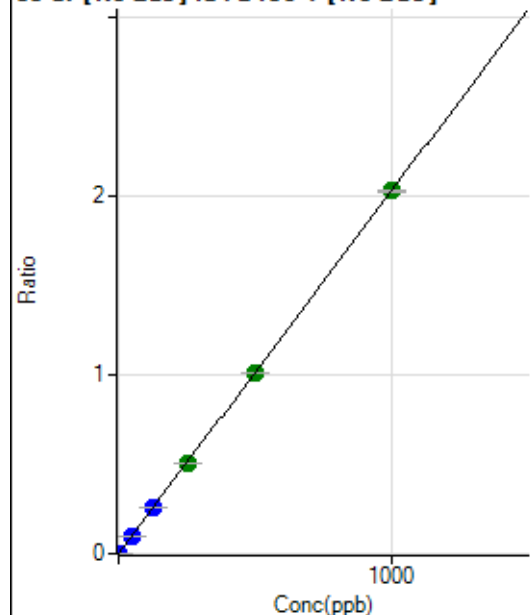
$$DL = 0.0995$$

$$BEC = 1.454$$

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	286.13	0.0000	P	8.5
2	☐	1.000	0.992	41146.25	0.0020	P	1.4
3	☐	50.000	50.212	2050018.86	0.1019	P	0.4
4	☐	125.000	125.716	5043380.45	0.2550	P	0.4
5	☐	250.000	250.706	9387343.87	0.5085	A	0.6
6	☐	500.000	499.666	17914231.65	1.0134	A	0.3
7	☐	1000.000	999.891	35236879.26	2.0279	A	0.7
8	☐			146786.20	0.0082	P	0.6

$$y = 0.0020 * x + 1.4482E-005$$

$$R = 1.0000$$

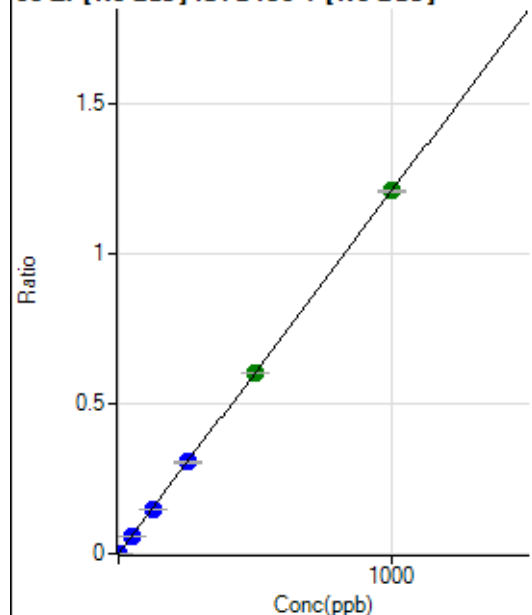
$$DL = 0.001815$$

$$BEC = 0.00714$$

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	1500.15	0.0001	P	15.7
2	☐	1.000	0.885	23244.71	0.0011	P	2.1
3	☐	50.000	49.921	1214600.99	0.0603	P	0.3
4	☐	125.000	124.351	2971028.12	0.1502	P	0.1
5	☐	250.000	252.221	5623432.94	0.3046	P	0.5
6	☐	500.000	497.346	10615818.03	0.6005	A	0.4
7	☐	1000.000	1000.857	20997773.91	1.2084	A	0.4
8	☐			6938.11	0.0004	P	3.8

$$y = 0.0012 * x + 7.5975E-005$$

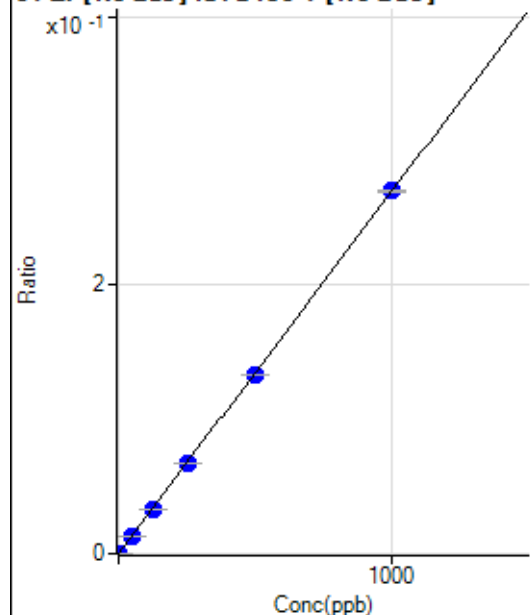
$$R = 1.0000$$

$$DL = 0.02966$$

$$BEC = 0.06293$$

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	3.7
2	☐	1.000	0.840	4920.52	0.0002	P	6.3
3	☐	50.000	49.958	271337.41	0.0135	P	1.0
4	☐	125.000	124.454	663786.51	0.0336	P	0.3
5	☐	250.000	250.640	1247479.72	0.0676	P	0.5
6	☐	500.000	495.592	2361513.99	0.1336	P	0.2
7	☐	1000.000	1002.115	4693444.59	0.2701	P	0.6
8	☐			1327.90	0.0001	P	8.4

$$y = 2.6953E-004 * x + 1.5890E-005$$

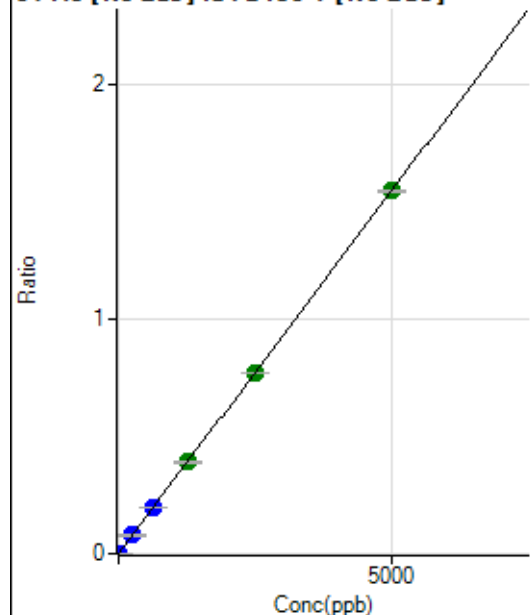
$$R = 1.0000$$

$$DL = 0.006488$$

$$BEC = 0.05895$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	608.37	0.0000	P	12.4
2	☐	5.000	4.722	30235.72	0.0015	P	1.6
3	☐	250.000	251.774	1565021.43	0.0778	P	0.1
4	☐	625.000	632.079	3860153.69	0.1952	P	0.3
5	☐	1250.000	1259.188	7177218.13	0.3888	A	0.5
6	☐	2500.000	2492.447	13602272.18	0.7695	A	0.3
7	☐	5000.000	5000.506	26823953.73	1.5438	A	0.8
8	☐			21288.91	0.0012	P	0.9

$$y = 3.0871E-004 * x + 3.0812E-005$$

$$R = 1.0000$$

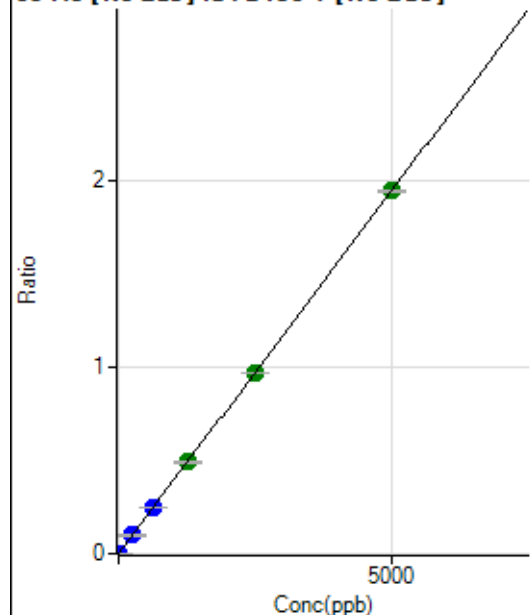
$$DL = 0.03722$$

$$BEC = 0.09981$$

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	197.23	0.0000	P	33.7
2	☐	5.000	5.014	39839.88	0.0020	P	0.8
3	☐	250.000	251.800	1972572.29	0.0980	P	0.5
4	☐	625.000	628.642	4839189.78	0.2447	P	0.4
5	☐	1250.000	1260.632	9057924.77	0.4906	A	0.3
6	☐	2500.000	2492.126	17144672.26	0.9699	A	0.4
7	☐	5000.000	5000.734	33815863.25	1.9462	A	0.7
8	☐			33985.78	0.0019	P	6.2

$$y = 3.8917E-004 * x + 9.9744E-006$$

$$R = 1.0000$$

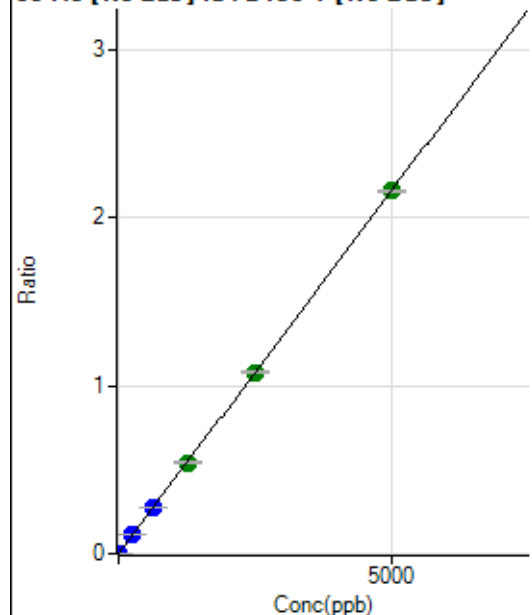
$$DL = 0.02588$$

$$BEC = 0.02563$$

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	294.46	0.0000	P	5.6
2	☐	5.000	4.863	42990.59	0.0021	P	0.5
3	☐	250.000	252.869	2199613.72	0.1093	P	0.5
4	☐	625.000	630.992	5393615.09	0.2727	P	0.2
5	☐	1250.000	1257.995	10037050.48	0.5436	A	0.2
6	☐	2500.000	2496.498	19071038.10	1.0788	A	0.8
7	☐	5000.000	4998.860	37535617.85	2.1602	A	0.4
8	☐			38001.80	0.0021	P	4.5

$$y = 4.3214E-004 * x + 1.4905E-005$$

$$R = 1.0000$$

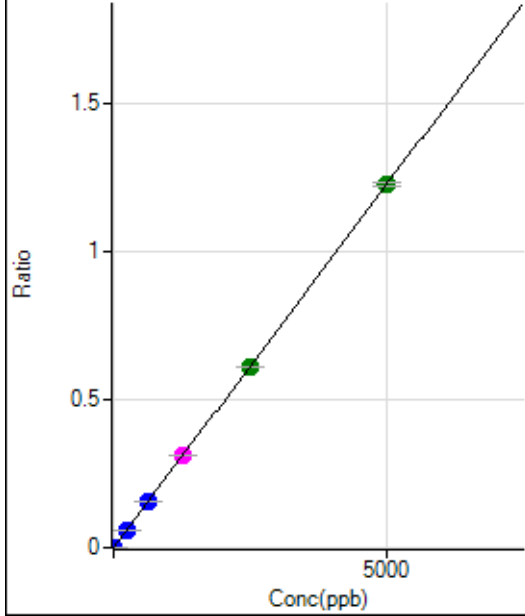
$$DL = 0.005746$$

$$BEC = 0.03449$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	122.23	0.0000	P	3.5
2	☐	5.000	4.898	24558.02	0.0012	P	2.0
3	☐	250.000	250.559	1238673.22	0.0615	P	0.2
4	☐	625.000	627.187	3046843.04	0.1540	P	0.1
5	☐	1250.000	1260.651	5716239.62	0.3096	M	0.3
6	☐	2500.000	2497.406	10842598.42	0.6134	A	0.4
7	☐	5000.000	4998.333	21330108.98	1.2276	A	0.9
8	☐			21380.69	0.0012	P	3.4

$$y = 2.4560E-004 * x + 6.1871E-006$$

$$R = 1.0000$$

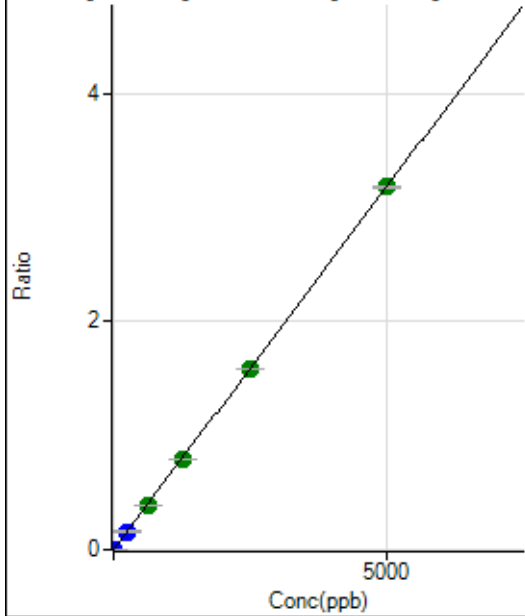
$$DL = 0.002623$$

$$BEC = 0.02519$$

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	319.46	0.0000	P	15.0
2	☐	5.000	4.831	62758.70	0.0031	P	1.1
3	☐	250.000	250.998	3214613.46	0.1597	P	0.8
4	☐	625.000	619.851	7801339.58	0.3944	A	0.2
5	☐	1250.000	1255.409	14748286.61	0.7988	A	0.3
6	☐	2500.000	2497.036	28086476.32	1.5889	A	0.4
7	☐	5000.000	5000.724	55288876.93	3.1819	A	0.5
8	☐			54842.32	0.0031	P	4.1

$$y = 6.3629E-004 * x + 1.6184E-005$$

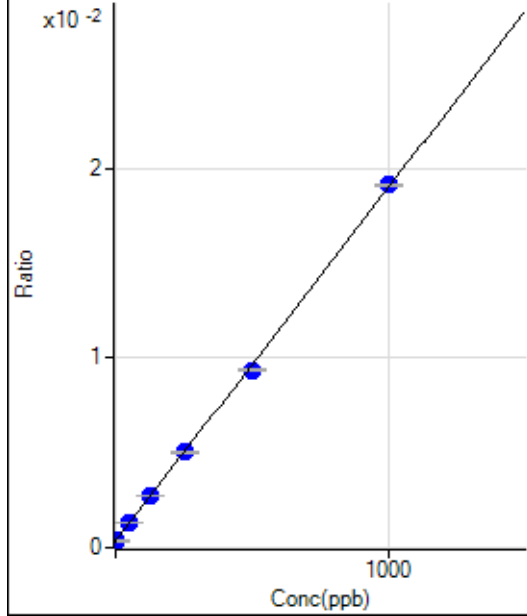
$$R = 1.0000$$

$$DL = 0.01148$$

$$BEC = 0.02544$$

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	9189.45	0.0003	P	1.8
2	☐	1.000	0.612	9756.57	0.0004	P	2.1
3	☐	50.000	53.349	36868.62	0.0013	P	0.4
4	☐	125.000	127.691	74337.51	0.0027	P	1.1
5	☐	250.000	251.864	133165.88	0.0050	P	1.3
6	☐	500.000	483.486	241641.05	0.0094	P	0.9
7	☐	1000.000	1007.288	485954.91	0.0192	P	0.5
8	☐			8836.45	0.0004	P	1.8

$$y = 1.8671\text{E-}005 * x + 3.4484\text{E-}004$$

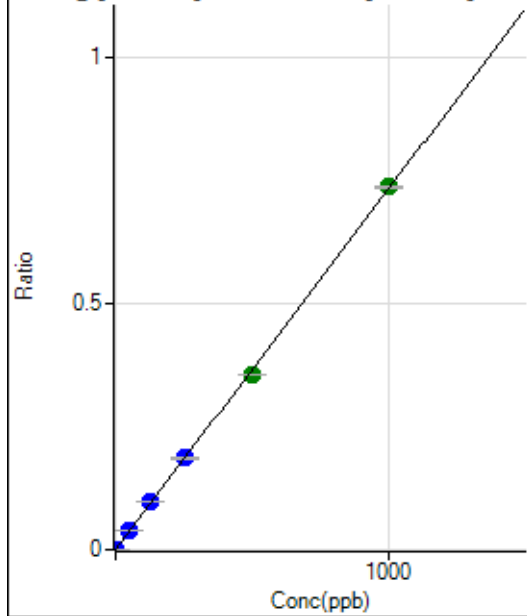
$$R = 0.9998$$

$$DL = 1.014$$

$$BEC = 18.47$$

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	244.46	0.0000	P	29.1
2	☐	1.000	0.955	19394.52	0.0007	P	3.5
3	☐	50.000	53.532	1077895.70	0.0392	P	0.4
4	☐	125.000	131.775	2628358.13	0.0965	P	0.3
5	☐	250.000	253.449	4895977.02	0.1856	P	0.7
6	☐	500.000	485.566	9166453.59	0.3555	A	0.4
7	☐	1000.000	1005.331	18676924.55	0.7361	A	0.5
8	☐			900.07	0.0000	P	10.7

$$y = 7.3216\text{E-}004 * x + 9.1766\text{E-}006$$

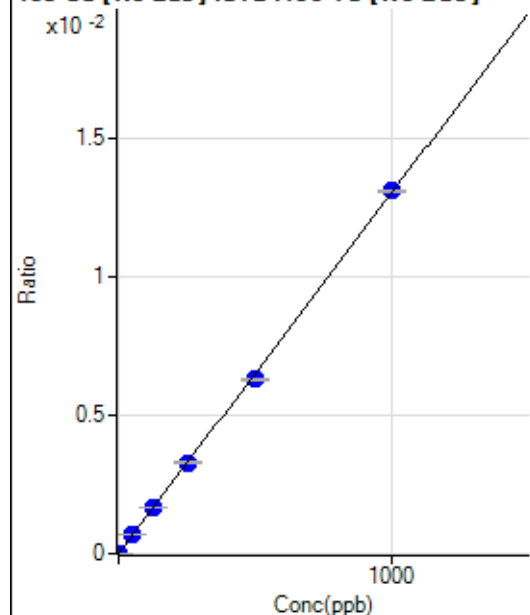
$$R = 0.9998$$

$$DL = 0.01094$$

$$BEC = 0.01253$$

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	19.44	0.0000	P	13.0
2	☐	1.000	1.055	395.85	0.0000	P	4.8
3	☐	50.000	52.944	18957.44	0.0007	P	2.4
4	☐	125.000	129.006	45733.75	0.0017	P	0.3
5	☐	250.000	252.356	86629.74	0.0033	P	1.2
6	☐	500.000	484.450	162502.68	0.0063	P	1.0
7	☐	1000.000	1006.538	332258.19	0.0131	P	0.7
8	☐			100.00	0.0000	P	7.6

$$y = 1.3009\text{E-}005 * x + 7.3004\text{E-}007$$

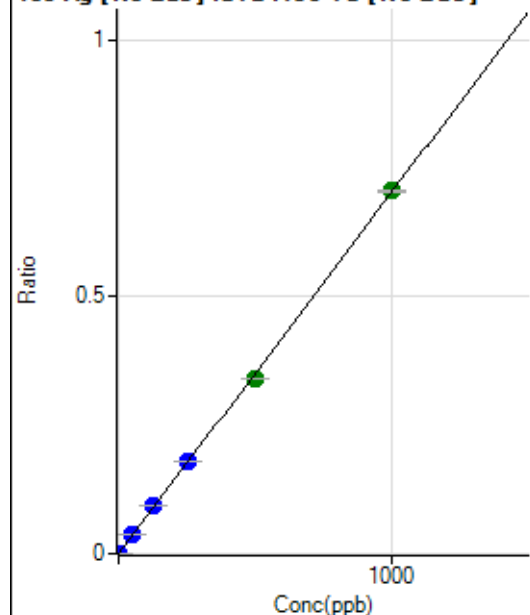
$$R = 0.9998$$

$$DL = 0.02181$$

$$BEC = 0.05612$$

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	111.12	0.0000	P	33.3
2	☐	1.000	0.958	18557.33	0.0007	P	4.3
3	☐	50.000	53.791	1039480.34	0.0378	P	1.0
4	☐	125.000	131.867	2524322.60	0.0927	P	0.8
5	☐	250.000	253.871	4706921.67	0.1784	P	0.2
6	☐	500.000	486.046	8806606.88	0.3416	A	0.5
7	☐	1000.000	1004.961	17919451.79	0.7062	A	0.6
8	☐			766.72	0.0000	P	8.9

$$y = 7.0273\text{E-}004 * x + 4.1658\text{E-}006$$

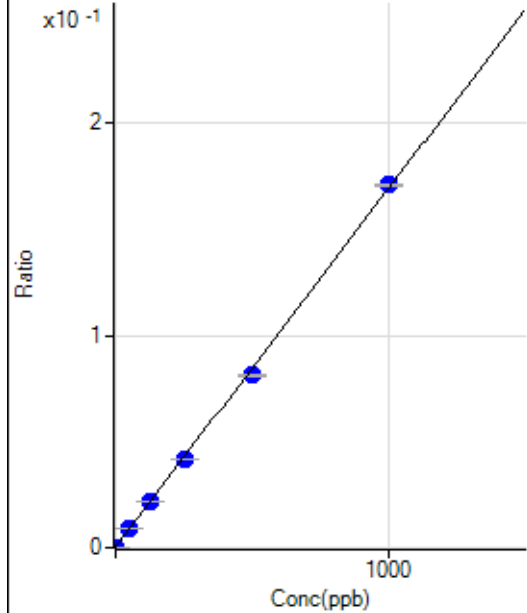
$$R = 0.9998$$

$$DL = 0.005922$$

$$BEC = 0.005928$$

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	6464.84	0.0002	P	1.7
2	☐	1.000	1.002	11279.79	0.0004	P	1.7
3	☐	50.000	52.024	248229.42	0.0090	P	0.6
4	☐	125.000	127.578	593468.40	0.0218	P	0.1
5	☐	250.000	247.332	1108334.47	0.0420	P	0.3
6	☐	500.000	479.540	2094138.55	0.0812	P	0.9
7	☐	1000.000	1010.473	4335916.02	0.1709	P	0.3
8	☐			6509.97	0.0003	P	1.5

$$y = 1.6887\text{E-}004 * x + 2.4260\text{E-}004$$

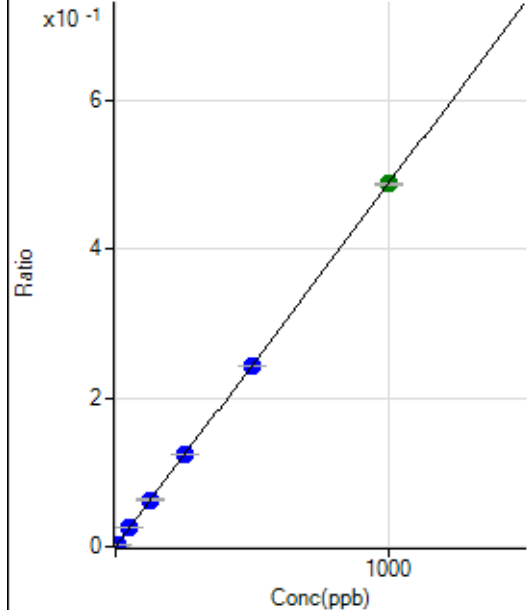
$$R = 0.9997$$

$$DL = 0.07269$$

$$BEC = 1.437$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1683.52	0.0001	P	1.7
2	☐	5.000	5.308	72612.90	0.0027	P	1.4
3	☐	50.000	52.438	704822.06	0.0256	P	0.3
4	☐	125.000	129.341	1719811.41	0.0631	P	0.8
5	☐	250.000	253.994	3269501.55	0.1239	P	0.7
6	☐	500.000	497.501	6256727.83	0.2427	P	0.7
7	☐	1000.000	999.585	12369927.10	0.4875	A	0.5
8	☐			6182.21	0.0002	P	2.3

$$y = 4.8765\text{E-}004 * x + 6.3174\text{E-}005$$

$$R = 1.0000$$

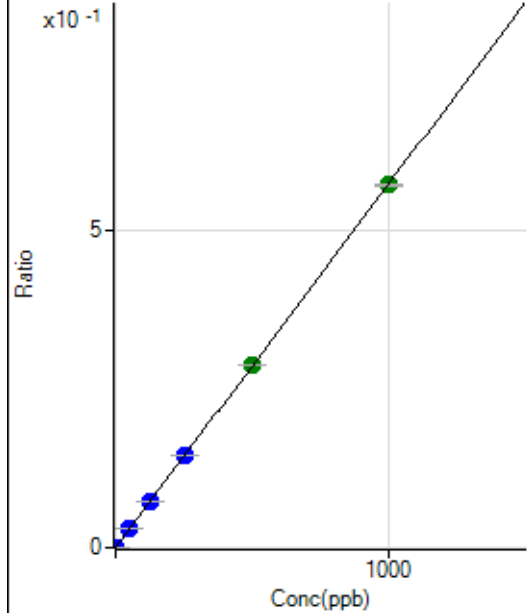
$$DL = 0.006618$$

$$BEC = 0.1295$$

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	175.01	0.0000	P	12.8
2	☐	2.000	1.987	31291.52	0.0011	P	1.8
3	☐	50.000	52.020	817856.93	0.0297	P	0.7
4	☐	125.000	128.532	2001798.59	0.0735	P	0.6
5	☐	250.000	254.132	3833310.16	0.1453	P	0.6
6	☐	500.000	500.706	7380783.50	0.2863	A	0.2
7	☐	1000.000	998.071	14478324.28	0.5706	A	0.5
8	☐			21294.69	0.0009	P	2.6

$$y = 5.7170\text{E-}004 * x + 6.5684\text{E-}006$$

$$R = 1.0000$$

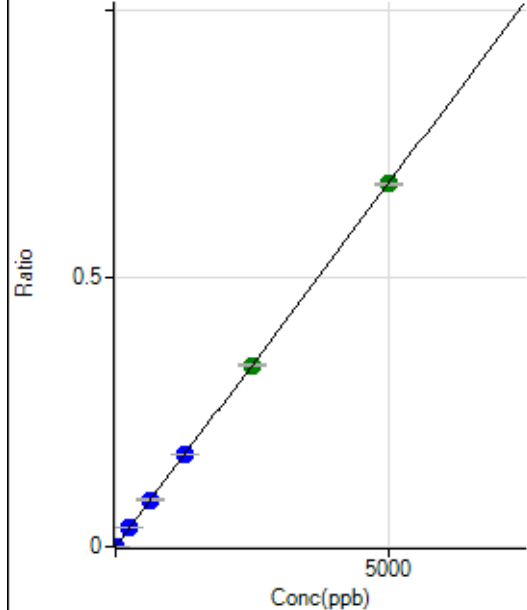
$$DL = 0.004399$$

$$BEC = 0.01149$$

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	111.12	0.0000	P	8.7
2	☐	10.000	10.467	38905.27	0.0014	P	0.8
3	☐	250.000	261.031	971358.20	0.0353	P	0.5
4	☐	625.000	646.386	2382827.35	0.0875	P	1.4
5	☐	1250.000	1276.228	4556698.84	0.1727	P	0.4
6	☐	2500.000	2496.332	8710081.10	0.3378	A	0.9
7	☐	5000.000	4992.051	17141669.48	0.6756	A	0.4
8	☐			1480.70	0.0001	P	12.6

$$y = 1.3533\text{E-}004 * x + 4.1698\text{E-}006$$

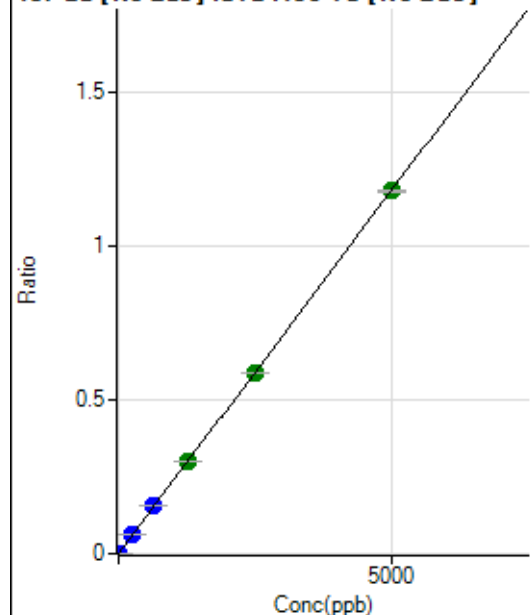
$$R = 1.0000$$

$$DL = 0.008012$$

$$BEC = 0.03081$$

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	61.11	0.0000	P	39.8
2	☐	10.000	10.508	68053.46	0.0025	P	2.3
3	☐	250.000	261.738	1700262.56	0.0618	P	0.1
4	☐	625.000	651.113	4190271.41	0.1538	P	0.4
5	☐	1250.000	1269.310	7911776.04	0.2999	A	0.5
6	☐	2500.000	2494.892	15197428.46	0.5894	A	0.4
7	☐	5000.000	4993.874	29936465.95	1.1798	A	0.6
8	☐			2747.61	0.0001	P	5.2

$$y = 2.3625E-004 * x + 2.2972E-006$$

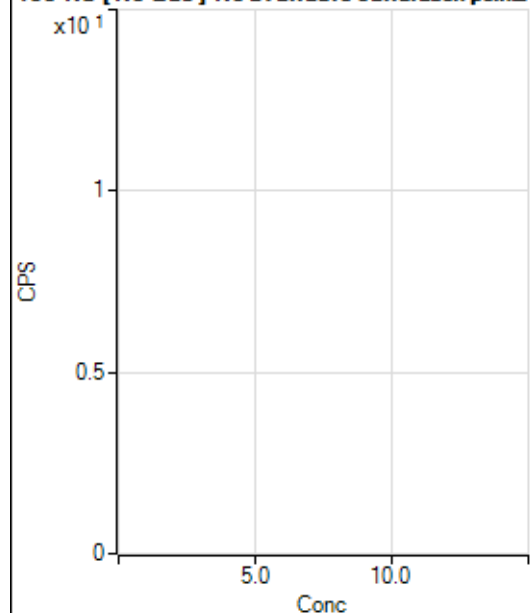
$$R = 1.0000$$

$$DL = 0.01161$$

$$BEC = 0.009723$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	34.6
2	☐			4.45		P	86.6
3	☐			97.78		P	17.2
4	☐			240.01		P	18.2
5	☐			377.80		P	3.7
6	☐			704.50		P	9.5
7	☐			1429.02		P	4.0
8	☐			168.89		P	2.3

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	99.0
2	☐			12.22		P	41.7
3	☐			22.22		P	34.7
4	☐			30.00		P	22.2
5	☐			48.89		P	25.8
6	☐			62.22		P	8.2
7	☐			91.12		P	14.8
8	☐			67.78		P	14.2

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	57.7
2	☐			36.11		P	35.3
3	☐			50.00		P	16.7
4	☐			66.67		P	12.5
5	☐			100.01		P	36.3
6	☐			158.34		P	38.0
7	☐			336.13		P	7.6
8	☐			72.23		P	26.7

156 Dy [He] No available calibration points

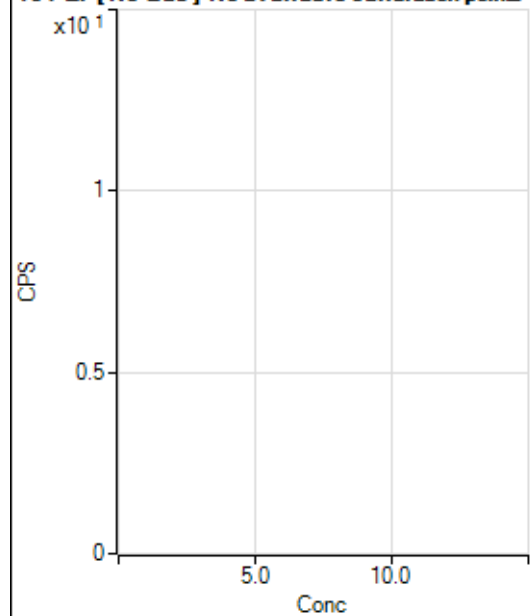
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.56		P	32.8
2	☐			31.11		P	34.4
3	☐			44.44		P	11.5
4	☐			42.22		P	39.7
5	☐			83.34		P	22.3
6	☐			128.89		P	3.9
7	☐			258.90		P	4.9
8	☐			55.55		P	6.9

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			169.45		P	41.8
2	☐			202.79		P	22.6
3	☐			175.01		P	8.3
4	☐			219.46		P	24.7
5	☐			177.79		P	53.9
6	☐			161.12		P	6.0
7	☐			222.24		P	5.7
8	☐			183.34		P	7.9

160 Gd [He] No available calibration points

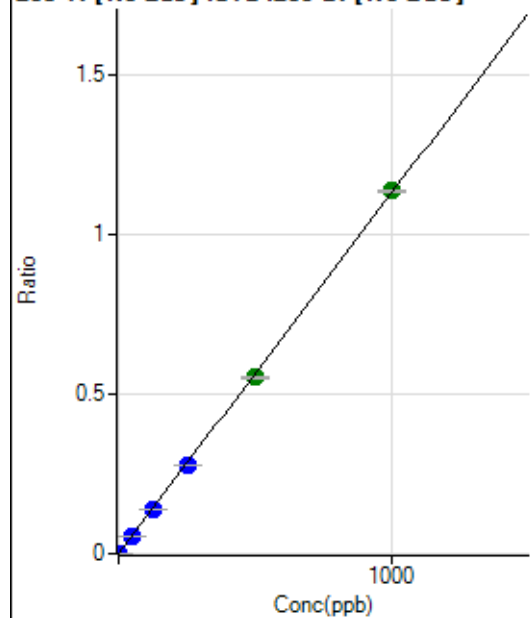
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			291.12		P	11.8
2	☐			318.90		P	11.1
3	☐			306.68		P	8.6
4	☐			288.89		P	5.5
5	☐			294.45		P	7.3
6	☐			280.01		P	10.6
7	☐			316.67		P	12.0
8	☐			276.67		P	5.3

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			100.01		P	0.0
2	☐			105.56		P	22.8
3	☐			122.23		P	37.6
4	☐			116.67		P	12.4
5	☐			105.56		P	37.3
6	☐			88.89		P	14.3
7	☐			138.90		P	9.2
8	☐			150.01		P	19.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			87.78		P	34.5
2	☐			81.11		P	16.6
3	☐			93.34		P	10.7
4	☐			80.00		P	15.0
5	☐			77.78		P	16.2
6	☐			86.67		P	13.3
7	☐			100.00		P	15.3
8	☐			101.12		P	23.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	827.84	0.0000	P	13.4
2	☐	1.000	0.936	20319.09	0.0011	P	1.9
3	☐	50.000	48.479	1001909.25	0.0548	P	0.6
4	☐	125.000	121.265	2492779.09	0.1370	P	1.0
5	☐	250.000	246.864	4852256.53	0.2789	P	0.6
6	☐	500.000	489.172	9376588.49	0.5527	A	0.5
7	☐	1000.000	1006.741	18401076.10	1.1374	A	0.2
8	☐			4273.12	0.0003	P	7.8

$$y = 0.0011 * x + 4.6937E-005$$

$$R = 0.9999$$

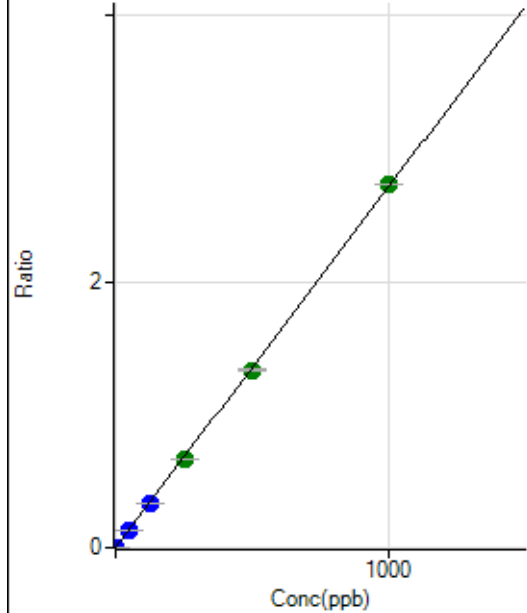
$$DL = 0.0167$$

$$BEC = 0.04155$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1236.23	0.0001	P	11.2
2	☐	1.000	0.929	47658.53	0.0026	P	1.4
3	☐	50.000	48.531	2407351.77	0.1317	P	0.7
4	☐	125.000	122.312	6035882.64	0.3318	P	1.5
5	☐	250.000	245.178	11569980.64	0.6651	A	0.3
6	☐	500.000	492.295	22656064.74	1.3354	A	0.5
7	☐	1000.000	1005.467	44123903.76	2.7273	A	0.1
8	☐			9359.26	0.0006	P	5.2

$$y = 0.0027 * x + 7.0111E-005$$

$$R = 0.9999$$

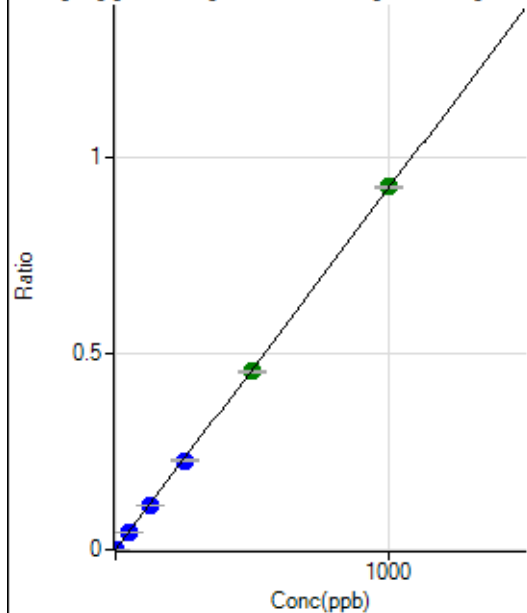
$$DL = 0.008687$$

$$BEC = 0.02585$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1629.78	0.0001	P	8.0
2	☐	1.000	0.927	17413.67	0.0009	P	4.0
3	☐	50.000	48.523	818895.82	0.0448	P	0.4
4	☐	125.000	120.942	2028698.58	0.1115	P	1.0
5	☐	250.000	247.389	3966903.70	0.2280	P	0.5
6	☐	500.000	493.084	7709639.12	0.4544	A	0.5
7	☐	1000.000	1004.692	14978122.10	0.9258	A	0.5
8	☐			11401.53	0.0008	P	5.1

$$y = 9.2138E-004 * x + 9.2416E-005$$

$$R = 1.0000$$

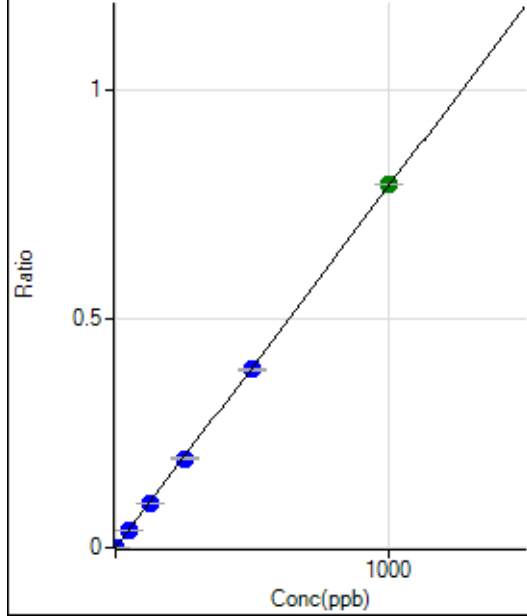
$$DL = 0.02403$$

$$BEC = 0.1003$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1479.76	0.0001	P	6.8
2	☐	1.000	0.947	15279.64	0.0008	P	2.2
3	☐	50.000	48.722	703617.93	0.0385	P	0.2
4	☐	125.000	122.177	1753503.06	0.0964	P	1.4
5	☐	250.000	246.968	3388365.73	0.1948	P	0.7
6	☐	500.000	492.661	6590794.65	0.3885	P	0.2
7	☐	1000.000	1004.844	12817543.46	0.7922	A	0.2
8	☐			9991.06	0.0007	P	1.6

$$y = 7.8833\text{E-}004 * x + 8.3917\text{E-}005$$

$$R = 1.0000$$

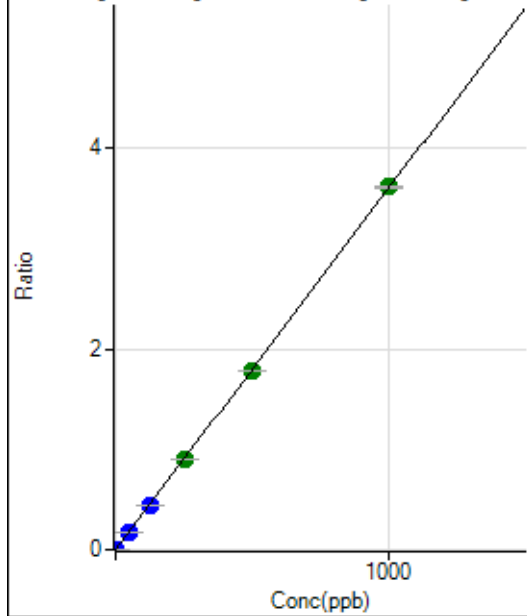
$$DL = 0.02157$$

$$BEC = 0.1064$$

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	5643.20	0.0003	P	3.6
2	☐	1.000	0.943	68412.30	0.0037	P	2.1
3	☐	50.000	49.087	3238196.77	0.1772	P	0.4
4	☐	125.000	122.561	8037366.21	0.4418	P	0.9
5	☐	250.000	247.847	15538461.11	0.8932	A	0.0
6	☐	500.000	493.313	30157411.21	1.7775	A	0.3
7	☐	1000.000	1004.232	58536333.14	3.6181	A	0.3
8	☐			44587.45	0.0030	P	3.1

$$y = 0.0036 * x + 3.2002\text{E-}004$$

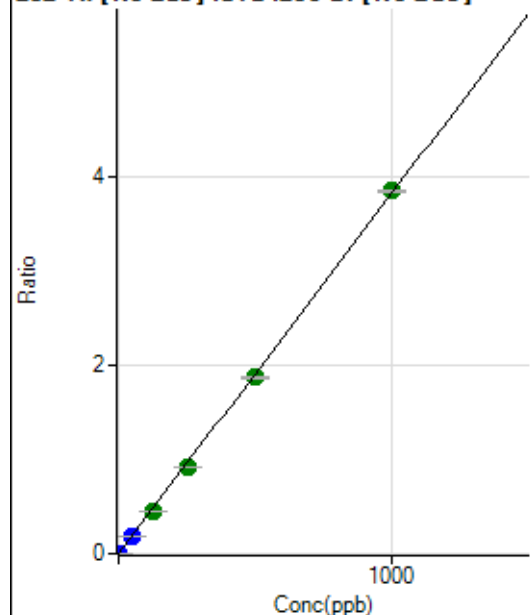
$$R = 1.0000$$

$$DL = 0.00954$$

$$BEC = 0.08883$$

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	3382.04	0.0002	P	3.2
2	☐	1.000	0.761	57072.09	0.0031	P	0.5
3	☐	50.000	46.640	3265110.20	0.1786	P	0.2
4	☐	125.000	117.761	8199001.51	0.4507	A	0.3
5	☐	250.000	241.744	16092403.72	0.9250	A	0.3
6	☐	500.000	489.935	31804158.58	1.8746	A	0.5
7	☐	1000.000	1008.170	62404487.04	3.8572	A	0.4
8	☐			11616.65	0.0008	P	4.6

$$y = 0.0038 * x + 1.9182E-004$$

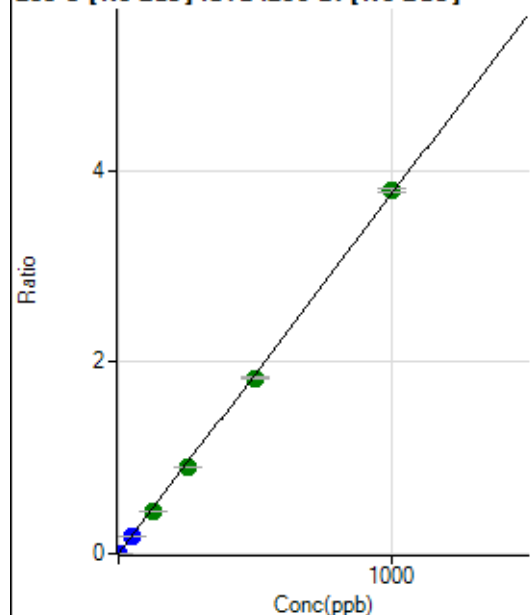
$$R = 0.9999$$

$$DL = 0.004865$$

$$BEC = 0.05014$$

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	4150.84	0.0002	P	1.6
2	☐	1.000	0.875	64747.26	0.0035	P	1.1
3	☐	50.000	46.801	3216543.36	0.1760	P	0.5
4	☐	125.000	116.501	7962095.14	0.4377	A	0.5
5	☐	250.000	241.632	15788398.10	0.9076	A	0.2
6	☐	500.000	488.494	31124768.92	1.8345	A	1.0
7	☐	1000.000	1009.067	61305235.05	3.7893	A	0.9
8	☐			5220.69	0.0004	P	2.4

$$y = 0.0038 * x + 2.3541E-004$$

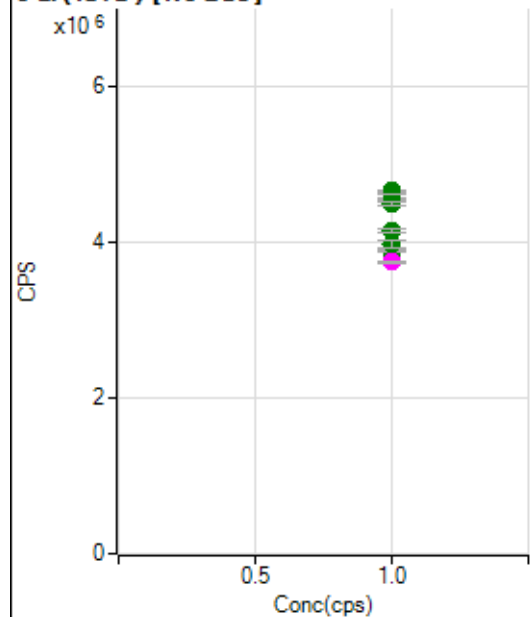
$$R = 0.9998$$

$$DL = 0.003019$$

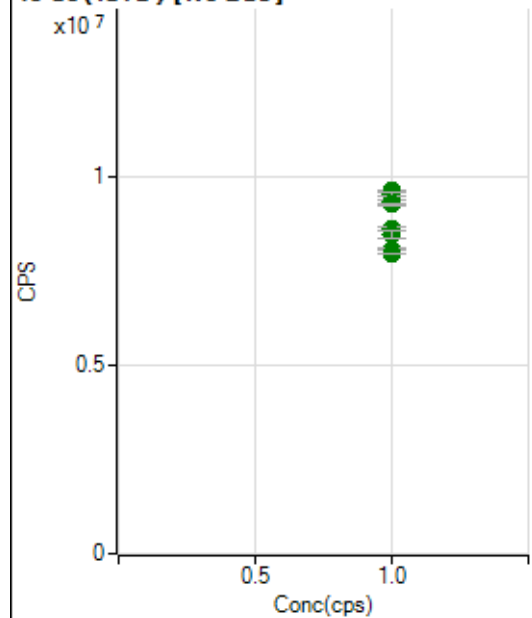
$$BEC = 0.06269$$

Weight: <None>

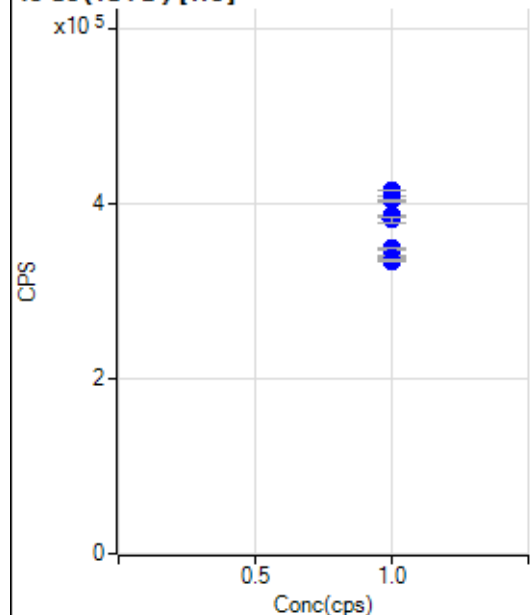
Min Conc: 0

6 Li (ISTD) [No Gas]

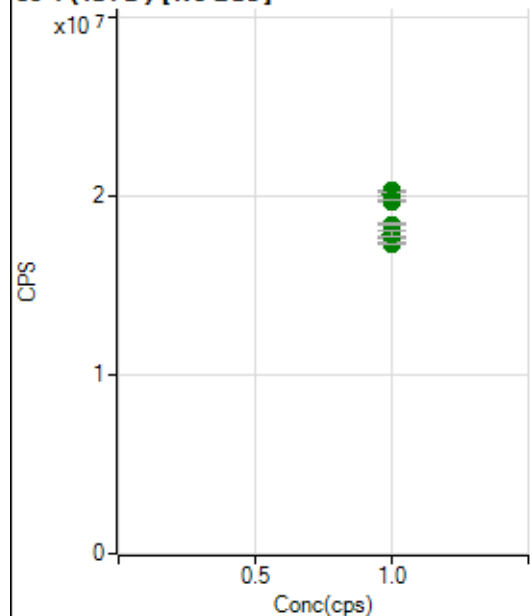
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4554602.91		A	0.5
2	☐	1.000		4662961.80		A	0.2
3	☐	1.000		4622641.95		A	0.4
4	☐	1.000		4498685.21		A	0.8
5	☐	1.000		4150073.14		A	1.2
6	☐	1.000		3886066.97		A	0.4
7	☐	1.000		3746557.57		M	0.7
8	☐	1.000		3970439.30		A	2.3

45 Sc (ISTD) [No Gas]

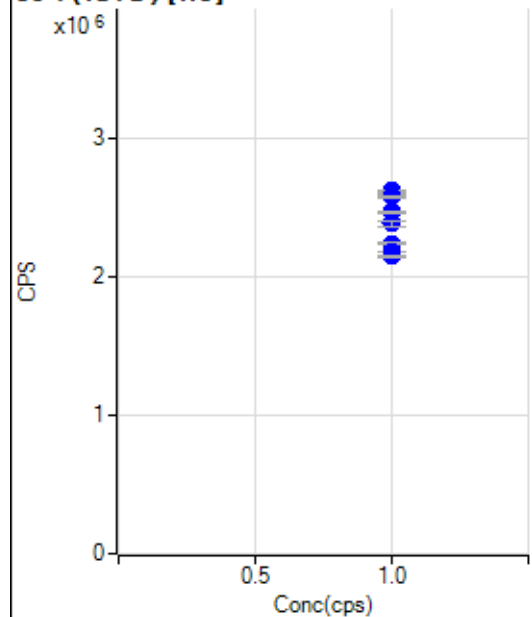
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9341480.24		A	0.8
2	☐	1.000		9637306.46		A	0.6
3	☐	1.000		9555203.95		A	0.8
4	☐	1.000		9279903.33		A	0.5
5	☐	1.000		8629802.36		A	1.0
6	☐	1.000		8084479.87		A	0.5
7	☐	1.000		7969900.27		A	0.2
8	☐	1.000		8485462.78		A	2.2

45 Sc (ISTD) [He]

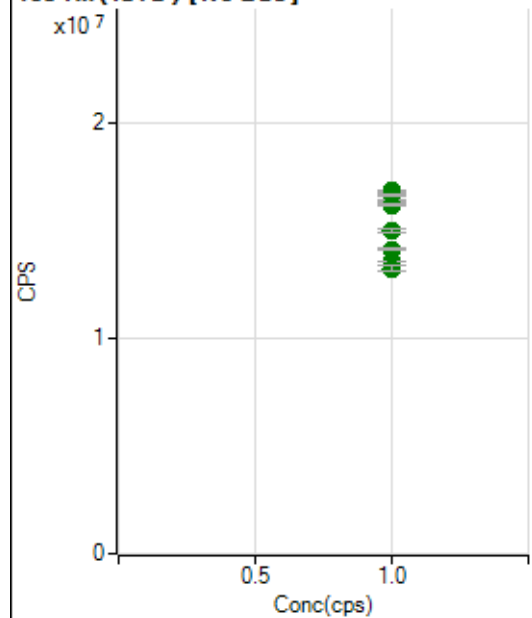
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		408353.67		P	0.1
2	☐	1.000		415013.60		P	0.1
3	☐	1.000		404276.40		P	0.7
4	☐	1.000		386240.60		P	0.1
5	☐	1.000		349128.43		P	0.3
6	☐	1.000		338861.59		P	0.6
7	☐	1.000		335247.94		P	0.7
8	☐	1.000		382179.35		P	1.6

89 Y (ISTD) [No Gas]

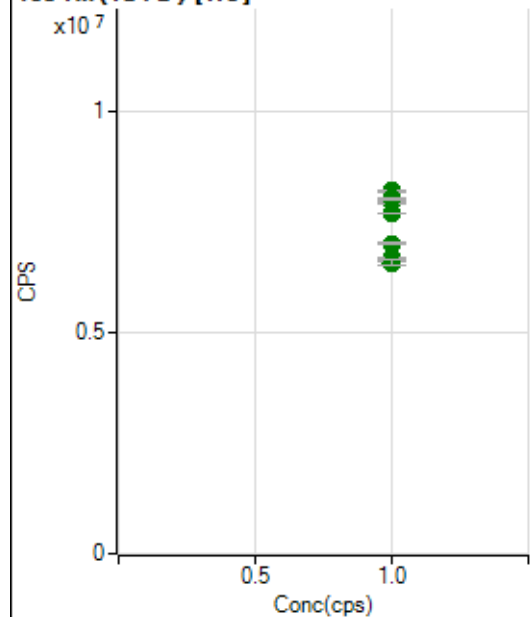
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19753708.46		A	0.8
2	☐	1.000		20311691.36		A	0.6
3	☐	1.000		20127190.95		A	1.0
4	☐	1.000		19779264.01		A	0.1
5	☐	1.000		18462330.14		A	1.0
6	☐	1.000		17677179.74		A	0.1
7	☐	1.000		17376194.05		A	0.6
8	☐	1.000		17894625.70		A	1.7

89 Y (ISTD) [He]

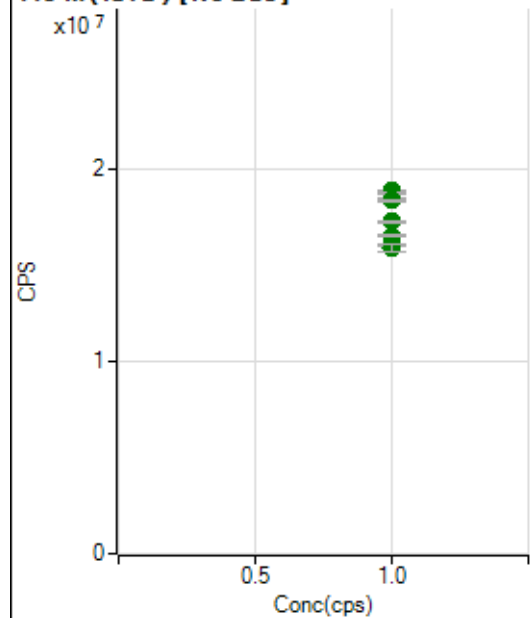
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2598855.85		P	0.4
2	☐	1.000		2620938.50		P	0.7
3	☐	1.000		2577819.54		P	0.7
4	☐	1.000		2467200.87		P	0.4
5	☐	1.000		2242170.82		P	0.6
6	☐	1.000		2186056.16		P	0.2
7	☐	1.000		2149827.19		P	0.9
8	☐	1.000		2384951.74		P	1.8

103 Rh (ISTD) [No Gas]

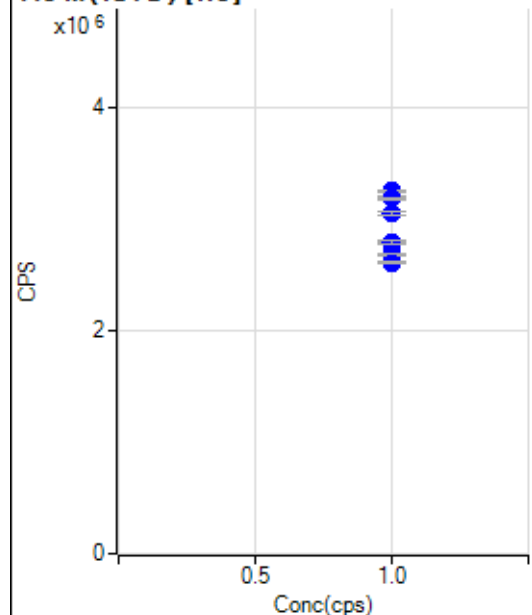
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16368301.23		A	0.7
2	☐	1.000		16853165.13		A	0.6
3	☐	1.000		16679775.55		A	0.3
4	☐	1.000		16211113.56		A	0.5
5	☐	1.000		14996301.03		A	1.1
6	☐	1.000		14144771.32		A	0.3
7	☐	1.000		13587557.94		A	0.4
8	☐	1.000		13264475.04		A	1.8

103 Rh (ISTD) [He]

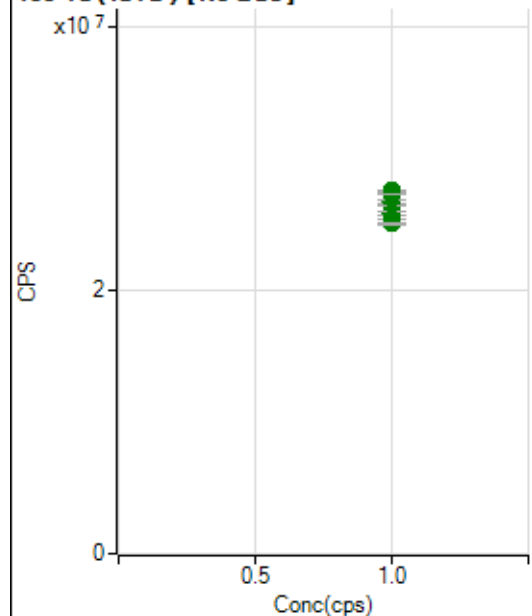
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7940852.45		A	0.4
2	☐	1.000		8198189.74		A	0.3
3	☐	1.000		8018077.94		A	0.4
4	☐	1.000		7684151.97		A	0.2
5	☐	1.000		7004628.30		A	0.7
6	☐	1.000		6697676.22		A	0.3
7	☐	1.000		6549044.00		A	1.3
8	☐	1.000		6579228.17		A	1.7

115 In (ISTD) [No Gas]

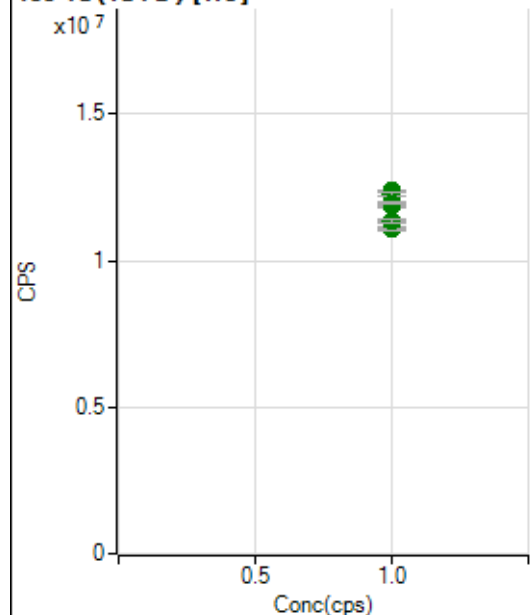
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18415092.62		A	0.7
2	☐	1.000		18900877.55		A	0.2
3	☐	1.000		18770565.35		A	0.7
4	☐	1.000		18420997.66		A	0.5
5	☐	1.000		17306447.52		A	0.8
6	☐	1.000		16554299.61		A	0.6
7	☐	1.000		16008520.70		A	0.3
8	☐	1.000		15928687.34		A	2.2

115 In (ISTD) [He]

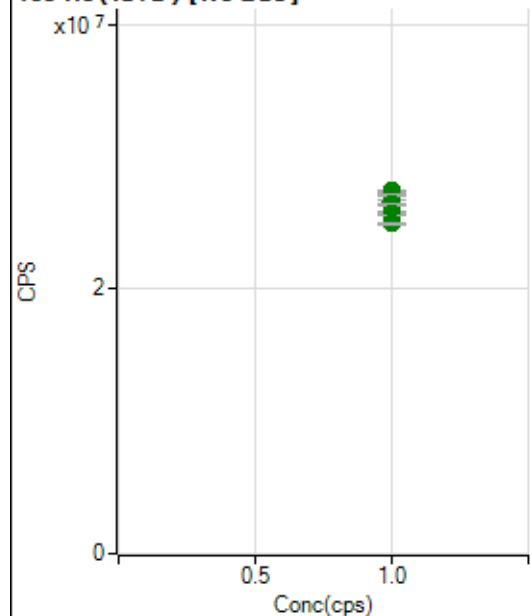
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3215262.45		P	0.1
2	☐	1.000		3258344.05		P	0.5
3	☐	1.000		3187213.29		P	0.5
4	☐	1.000		3056741.34		P	0.6
5	☐	1.000		2782930.89		P	0.6
6	☐	1.000		2686894.70		P	0.4
7	☐	1.000		2611126.71		P	0.6
8	☐	1.000		2793549.95		P	1.2

159 Tb (ISTD) [No Gas]

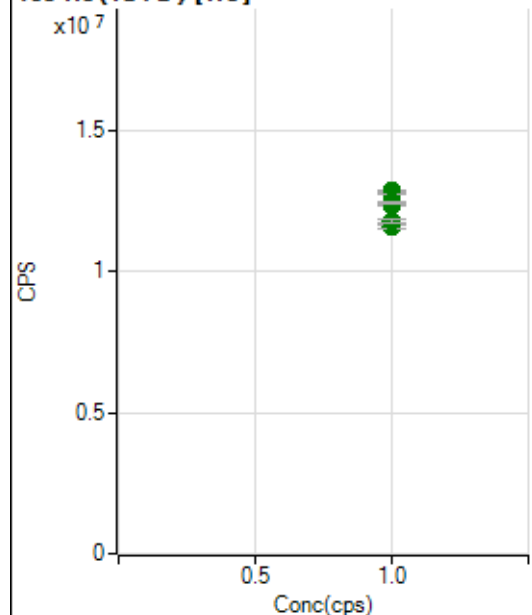
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		26648509.60		A	0.7
2	☐	1.000		27385139.04		A	0.3
3	☐	1.000		27494966.26		A	0.5
4	☐	1.000		27239755.98		A	0.3
5	☐	1.000		26382807.38		A	0.3
6	☐	1.000		25783642.11		A	0.7
7	☐	1.000		25373620.74		A	0.2
8	☐	1.000		25021183.79		A	0.7

159 Tb (ISTD) [He]

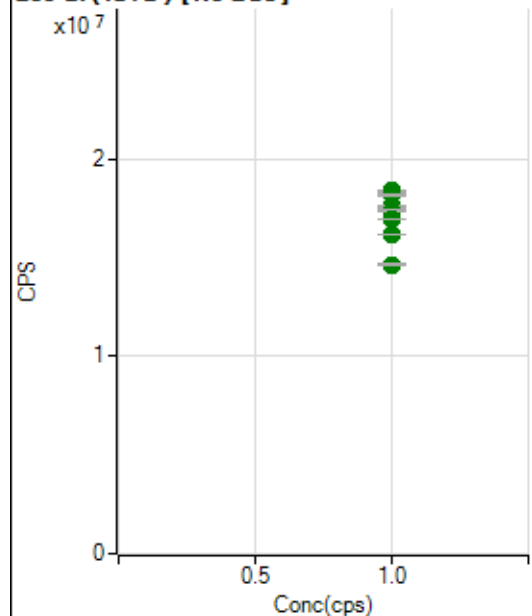
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11865358.99		A	0.6
2	☐	1.000		12381429.12		A	0.2
3	☐	1.000		12267406.21		A	0.8
4	☐	1.000		11964453.16		A	0.3
5	☐	1.000		11305144.69		A	0.6
6	☐	1.000		11146700.95		A	0.3
7	☐	1.000		11076563.31		A	0.7
8	☐	1.000		11333772.19		A	1.1

165 Ho (ISTD) [No Gas]

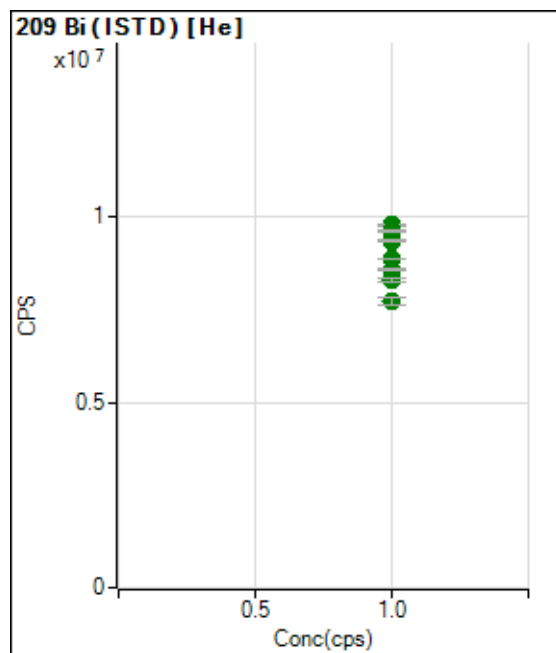
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		26565229.59		A	1.0
2	☐	1.000		27359270.75		A	0.5
3	☐	1.000		27412479.78		A	0.6
4	☐	1.000		27129503.04		A	0.4
5	☐	1.000		26379600.42		A	0.3
6	☐	1.000		25759940.33		A	0.6
7	☐	1.000		25554492.41		A	0.3
8	☐	1.000		24977920.17		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12340604.68		A	0.6
2	☐	1.000		12841725.51		A	0.4
3	☐	1.000		12716321.76		A	0.3
4	☐	1.000		12426890.09		A	0.2
5	☐	1.000		11771318.58		A	0.7
6	☐	1.000		11621508.16		A	0.2
7	☐	1.000		11598704.69		A	1.6
8	☐	1.000		11781648.16		A	1.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17631992.38		A	0.6
2	☐	1.000		18397730.56		A	0.4
3	☐	1.000		18279096.12		A	0.6
4	☐	1.000		18191293.34		A	0.9
5	☐	1.000		17396462.94		A	0.5
6	☐	1.000		16966249.61		A	0.1
7	☐	1.000		16178859.90		A	0.5
8	☐	1.000		14628616.73		A	0.7



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9377095.77		A	0.4
2	☐	1.000		9787645.69		A	0.5
3	☐	1.000		9623825.00		A	0.5
4	☐	1.000		9349889.58		A	0.6
5	☐	1.000		8866292.64		A	0.4
6	☐	1.000		8585734.53		A	0.7
7	☐	1.000		8311254.81		A	1.1
8	☐	1.000		7723685.79		A	2.2

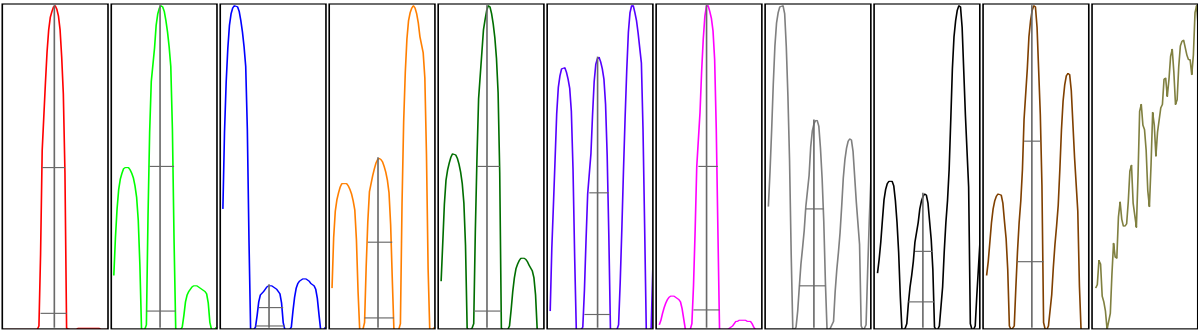
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7091419MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	15863	2.44	5.00	
24	192525	2.51	5.00	
25	25847	2.48	5.00	
26	30464	2.41	5.00	
59	162508	2.27	5.00	
113	25467	2.34	5.00	
115	294760	2.52	5.00	
206	84421	1.84	5.00	
207	84535	1.64	5.00	
208	182936	1.81	5.00	
220	188	1.54		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	16124	16206	16006	15249	15731
24	196302	195739	194945	184743	190897
25	26291	26331	26047	24764	25802
26	30982	31082	30737	29295	30224
59	164449	165847	164177	156547	161517
113	25713	26017	25731	24475	25397
115	298391	301585	297674	282493	293655
206	84822	85933	85034	81808	84508
207	85213	85804	84877	82197	84583
208	183725	185597	184712	177208	183436
220	185	189	190	184	190

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	25593	9.00	8.9 - 9.1		0.786	0.900	
24	294549	23.90	23.9 - 24.1		0.834	0.900	
25	39401	24.90	24.9 - 25.1		0.823	0.900	
26	46119	25.90	25.9 - 26.1		0.834	0.900	
59	262486	58.90	58.9 - 59.1		0.787	0.900	
113	45906	112.95	112.9 - 113.1		0.775	0.900	
115	536523	114.95	114.9 - 115.1		0.773	0.900	
206	155298	205.90	205.9 - 206.1		0.753	0.900	
207	141934	206.90	206.9 - 207.1		0.725	0.900	
208	339364	207.90	207.9 - 208.1		0.742	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	6.9	V	Deflect	12.2	V
Extract 2	-140.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-70	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	42418	0.54	
89	53260	0.54	
205	74336	0.29	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	42592	42718	42273	42350	42159
89	53651	53476	53141	53007	53023
205	74726	74248	74237	74233	74238

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	6.6	V	Deflect	1.4	V
Extract 2	-125.0	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			