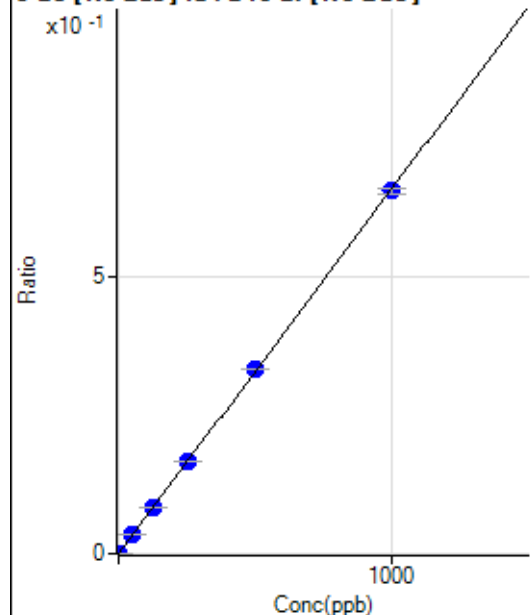


Calibration for 006CALS.d

Batch Folder: D:\ICP-MS Data\1\DATA\P7070920 MS.b\
 Analysis File: P7070920 MS.batch.bin
 DA Date-Time: 2020-07-09 16:34:53
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	005CALB.d	S00	2020-07-09 09:55:15
2	007CALS.d	S02	2020-07-09 10:04:01
3	008CALS.d	S03	2020-07-09 10:08:05
4	009CALS.d	S04	2020-07-09 10:12:39
5	010CALS.d	S05	2020-07-09 10:16:25
6	011CALS.d	S06	2020-07-09 10:20:04
7	012CALS.d	S07	2020-07-09 10:23:36
8	013CALS.d	S08	2020-07-09 10:27:09

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	35.19	0.0000	P	65.1
2	☐	1.000	0.905	4041.39	0.0006	P	3.8
3	☐	50.000	53.024	228844.53	0.0350	P	0.7
4	☐	125.000	127.239	549123.94	0.0839	P	0.6
5	☐	250.000	253.639	1058660.56	0.1673	P	0.9
6	☐	500.000	506.333	2030828.10	0.3340	P	0.1
7	☐	1000.000	995.493	3916701.13	0.6567	P	1.4
8	☐			966.73	0.0002	P	16.6

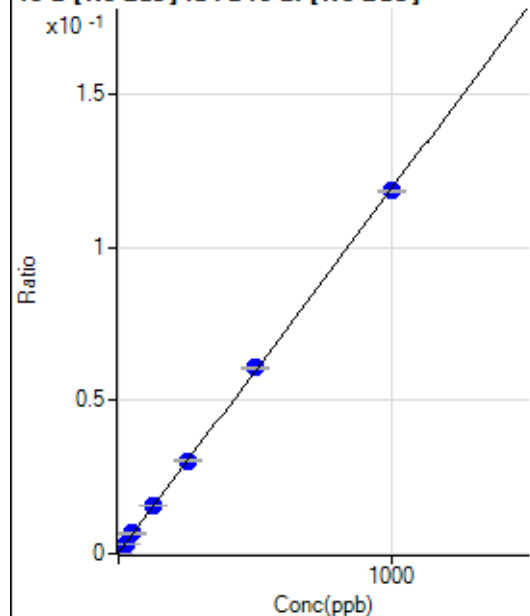
$$y = 6.5962\text{E-}004 * x + 5.7339\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.01697$$

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	1561.26	0.0002	P	17.1
2	☐	25.000	23.346	20230.91	0.0030	P	1.7
3	☐	50.000	53.508	43196.02	0.0066	P	1.4
4	☐	125.000	128.736	101710.37	0.0155	P	1.3
5	☐	250.000	253.476	192195.40	0.0304	P	2.1
6	☐	500.000	508.409	368989.86	0.0607	P	1.5
7	☐	1000.000	994.326	706604.60	0.1185	P	0.6
8	☐			20606.39	0.0039	P	7.9

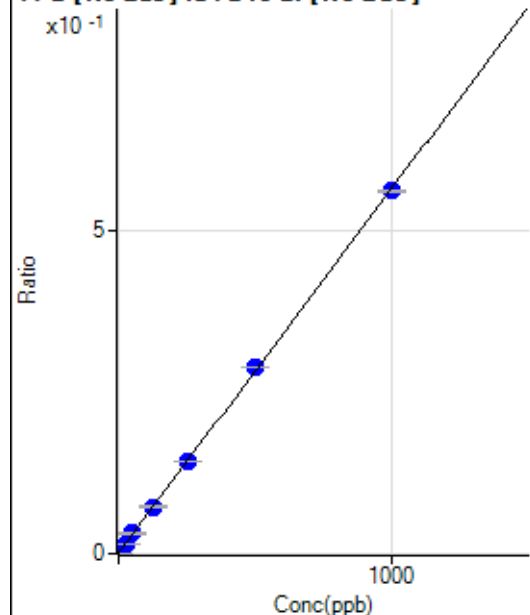
$$y = 1.1889\text{E-}004 * x + 2.4159\text{E-}004$$

$$R = 0.9999$$

$$DL = 1.043$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6904.62	0.0011	P	16.7
2	☐	25.000	23.079	94123.84	0.0140	P	0.3
3	☐	50.000	53.560	203881.89	0.0312	P	1.5
4	☐	125.000	127.436	475496.99	0.0727	P	1.0
5	☐	250.000	251.615	901392.90	0.1425	P	2.0
6	☐	500.000	509.642	1747906.49	0.2875	P	0.6
7	☐	1000.000	994.341	3339468.82	0.5598	P	0.2
8	☐			97664.90	0.0184	P	6.8

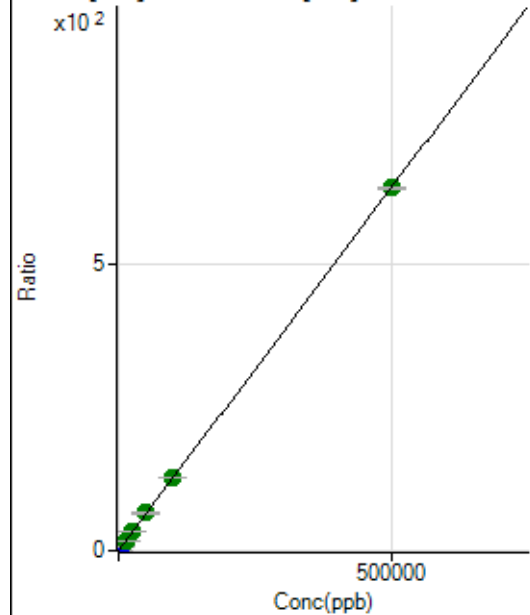
$$y = 5.6196E-004 * x + 0.0011$$

$$R = 0.9999$$

$$DL = 0.9494$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	42162.44	0.0723	P	0.8
2	☐	500.000	473.604	388792.07	0.6742	P	1.6
3	☐	5000.000	5368.914	3895084.94	6.8958	P	0.4
4	☐	12500.000	13097.643	8881795.51	16.7183	A	0.4
5	☐	25000.000	25908.176	17323720.01	32.9995	A	0.5
6	☐	50000.000	51608.544	33742040.47	65.6625	A	0.8
7	☐	100000.00	101167.39	68067980.15	128.6478	A	0.2
8	☐	500000.00	499541.65	323074976.9	634.9487	A	0.8

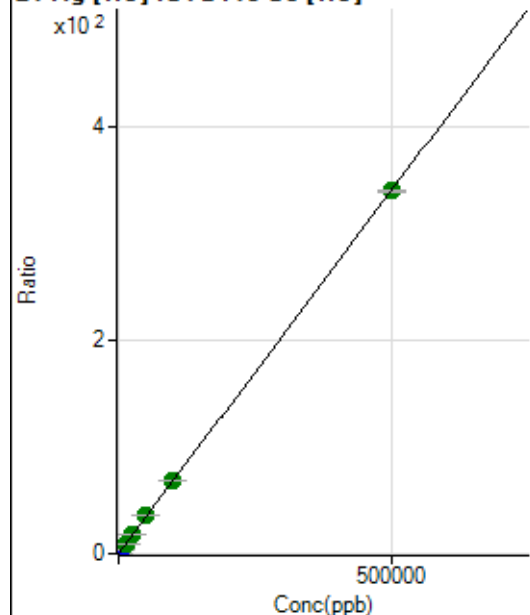
$$y = 0.0013 * x + 0.0723$$

$$R = 1.0000$$

$$DL = 1.348$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8882.25	0.0152	P	2.5
2	☐	500.000	481.127	197585.30	0.3427	P	1.7
3	☐	5000.000	5542.600	2139116.27	3.7870	P	0.3
4	☐	12500.000	13477.628	4880652.04	9.1869	A	0.3
5	☐	25000.000	26464.989	9462595.92	18.0249	A	0.6
6	☐	50000.000	52596.285	18400704.91	35.8076	A	0.5
7	☐	100000.00	101518.12	36561113.23	69.0994	A	0.3
8	☐	500000.00	499333.65	172909926.9	339.8171	A	0.4

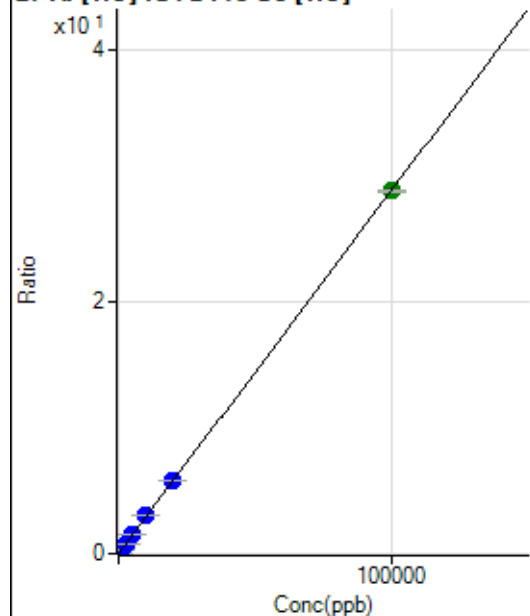
$$y = 6.8051E-004 * x + 0.0152$$

$$R = 1.0000$$

$$DL = 1.661$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	703.22	0.0012	P	6.7
2	☐	20.000	15.757	3315.74	0.0058	P	2.8
3	☐	1000.000	1077.310	176228.76	0.3120	P	0.9
4	☐	2500.000	2673.494	410382.01	0.7725	P	0.7
5	☐	5000.000	5254.046	796338.70	1.5169	P	0.5
6	☐	10000.000	10429.012	1546672.46	3.0098	P	0.6
7	☐	20000.000	20281.256	3096375.33	5.8521	P	0.3
8	☐	100000.00	99883.036	14662511.35	28.8161	A	0.5

$$y = 2.8849E-004 * x + 0.0012$$

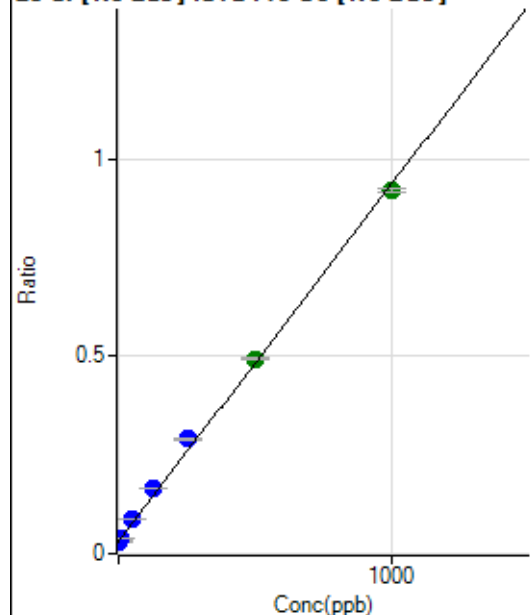
$$R = 1.0000$$

$$DL = 0.8422$$

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	452361.69	0.0310	P	21.4
2	☐	10.000	8.262	581102.08	0.0385	P	1.0
3	☐	50.000	60.377	1277712.06	0.0857	P	0.8
4	☐	125.000	148.741	2375121.37	0.1657	P	0.8
5	☐	250.000	286.379	4123485.42	0.2902	P	0.8
6	☐	500.000	512.048	6869873.07	0.4945	A	0.4
7	☐	1000.000	981.412	12962488.57	0.9194	A	1.0
8	☐			713348.06	0.0558	P	3.3

$$y = 9.0524\text{E-}004 * x + 0.0310$$

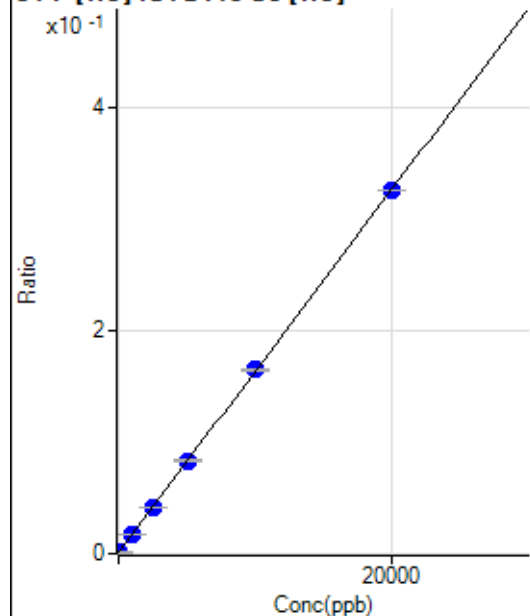
$$R = 0.9990$$

$$DL = 21.98$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	1.904	550.04	0.0009	P	20.8
2	☐	0.000	-1.904	508.36	0.0009	P	9.1
3	☐	1000.000	1007.547	9786.95	0.0173	P	2.5
4	☐	2500.000	2505.550	22167.25	0.0417	P	2.3
5	☐	5000.000	5067.226	43812.62	0.0835	P	1.1
6	☐	10000.000	10072.259	84782.10	0.1650	P	1.0
7	☐	20000.000	19945.993	172396.47	0.3258	P	0.2
8	☐			558.37	0.0011	P	12.1

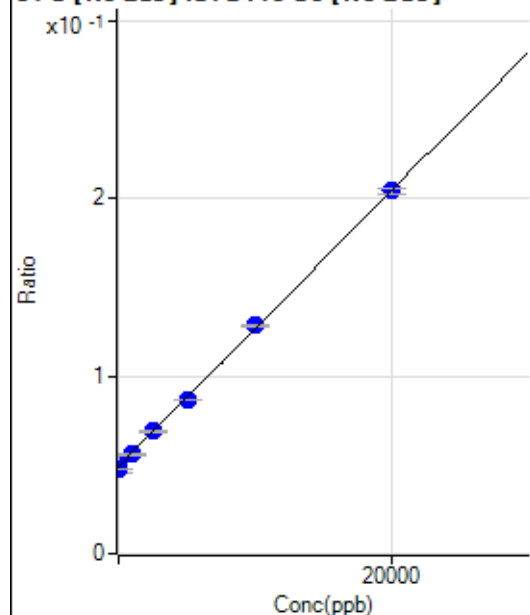
$$y = 1.6290\text{E-}005 * x + 9.1341\text{E-}004$$

$$R = 1.0000$$

$$DL = 25.43$$

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	179.441	738565.63	0.0506	P	20.9
2	☐	0.000	-179.441	721659.30	0.0478	P	0.8
3	☐	1000.000	858.122	833307.85	0.0559	P	0.7
4	☐	2500.000	2532.643	987895.95	0.0689	P	0.6
5	☐	5000.000	4783.012	1227504.65	0.0864	P	0.6
6	☐	10000.000	10204.013	1786149.65	0.1286	P	0.6
7	☐	20000.000	19955.254	2882355.94	0.2044	P	1.4
8	☐			563228.52	0.0440	P	2.1

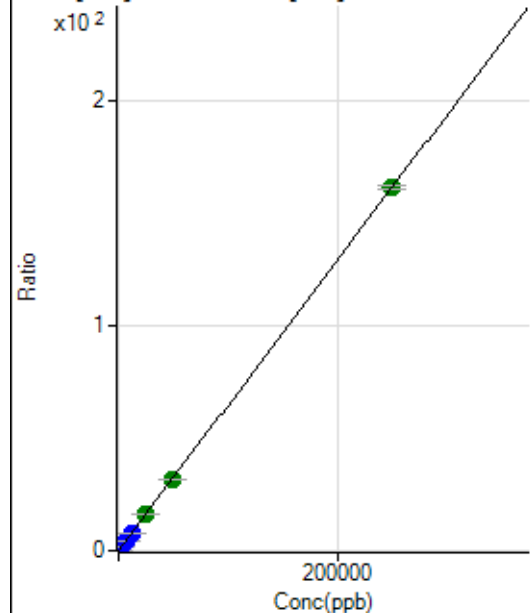
$$y = 7.7801E-006 * x + 0.0492$$

$$R = 0.9997$$

$$DL = 2111$$

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	34118.25	0.0585	P	0.9
2	☐	500.000	456.785	203570.01	0.3530	P	1.7
3	☐	2500.000	2549.608	961522.11	1.7023	P	0.4
4	☐	6250.000	6308.387	2191746.62	4.1255	P	0.2
5	☐	12500.000	12384.811	4222337.98	8.0430	P	0.4
6	☐	25000.000	24982.194	8306571.66	16.1646	A	0.6
7	☐	50000.000	49060.130	16766332.84	31.6877	A	0.8
8	☐	250000.00	250193.64	82103118.65	161.3587	A	1.0

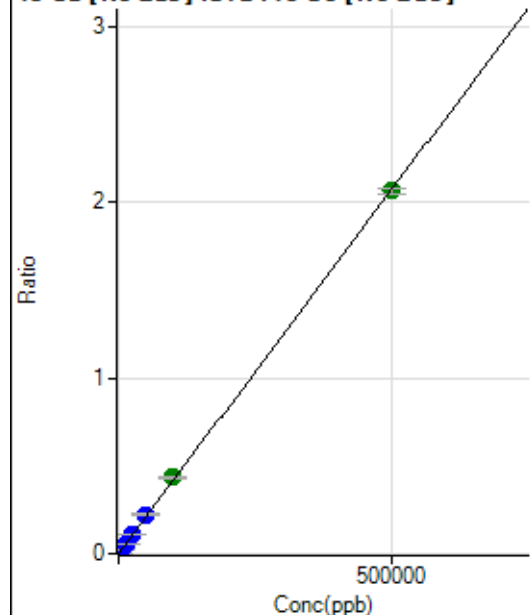
$$y = 6.4470E-004 * x + 0.0585$$

$$R = 1.0000$$

$$DL = 2.323$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1944.42	0.0001	P	20.9
2	☐	500.000	463.034	30924.07	0.0020	P	1.0
3	☐	5000.000	5457.498	338674.51	0.0227	P	0.5
4	☐	12500.000	13542.803	805044.28	0.0561	P	0.8
5	☐	25000.000	26707.803	1571257.76	0.1106	P	0.3
6	☐	50000.000	53859.805	3096334.76	0.2229	P	1.1
7	☐	100000.00	104859.97	6116430.72	0.4338	A	1.8
8	☐	500000.00	498526.02	26391214.21	2.0621	A	1.6

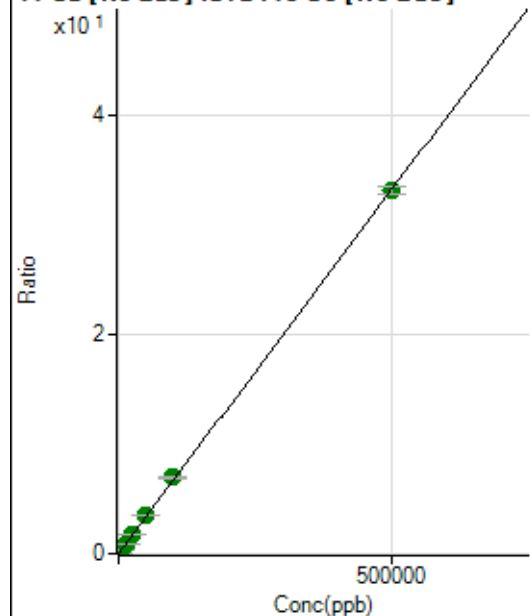
$$y = 4.1362\text{E-}006 * x + 1.3297\text{E-}004$$

$$R = 0.9999$$

$$DL = 20.19$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50096.22	0.0034	P	20.6
2	☐	500.000	462.955	515989.06	0.0342	P	0.5
3	☐	5000.000	5333.949	5334596.82	0.3576	A	0.1
4	☐	12500.000	13241.039	12657147.65	0.8827	A	0.3
5	☐	25000.000	26199.467	24766219.27	1.7433	A	0.3
6	☐	50000.000	52875.983	48824521.48	3.5148	A	0.9
7	☐	100000.00	104511.76	97895929.57	6.9439	A	1.6
8	☐	500000.00	498728.24	423876522.6	33.1230	A	2.1

$$y = 6.6408\text{E-}005 * x + 0.0034$$

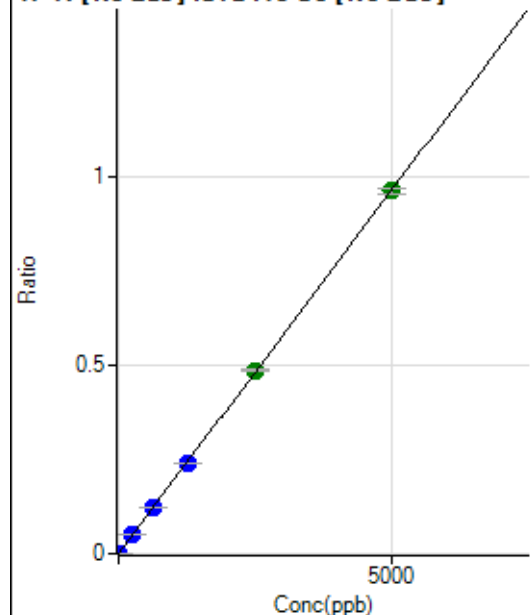
$$R = 0.9999$$

$$DL = 31.97$$

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	286.12	0.0000	P	21.3
2	☐	5.000	4.664	13837.52	0.0009	P	4.4
3	☐	250.000	254.623	730738.30	0.0490	P	0.9
4	☐	625.000	628.375	1733211.61	0.1209	P	0.6
5	☐	1250.000	1233.945	3371858.63	0.2373	P	0.3
6	☐	2500.000	2520.241	6733861.13	0.4847	A	0.8
7	☐	5000.000	4993.240	13539596.83	0.9604	A	1.4
8	☐			4414.74	0.0003	P	9.4

$$y = 1.9233\text{E-}004 * x + 1.9486\text{E-}005$$

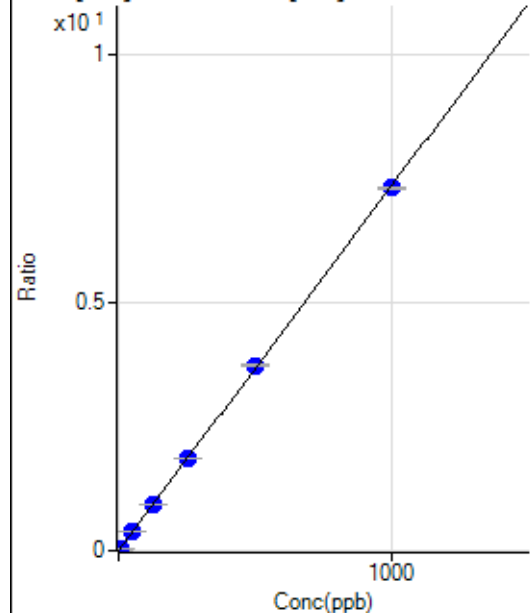
$$R = 1.0000$$

$$DL = 0.06475$$

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	5.55	0.0000	P	69.7
2	☐	5.000	4.758	20196.26	0.0350	P	2.8
3	☐	50.000	51.445	213865.65	0.3786	P	0.3
4	☐	125.000	128.243	501408.83	0.9438	P	0.3
5	☐	250.000	253.259	978475.32	1.8639	P	0.3
6	☐	500.000	508.307	1922364.10	3.7409	P	0.5
7	☐	1000.000	994.555	3872775.81	7.3195	P	0.2
8	☐			613.36	0.0012	P	7.0

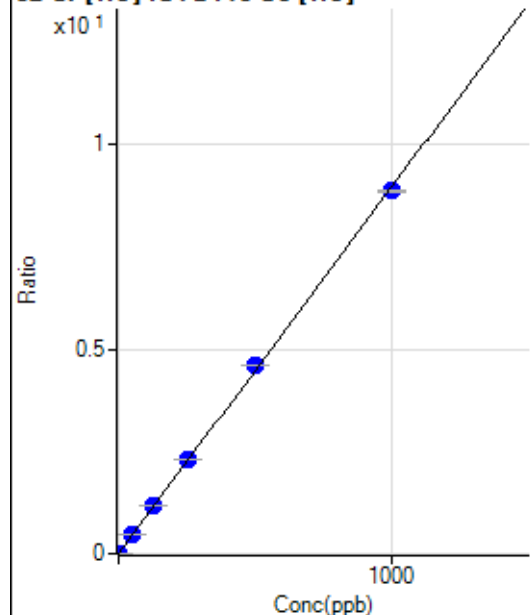
$$y = 0.0074 * x + 9.5388\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.002709$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	752.26	0.0013	P	5.7
2	☐	2.000	2.006	11097.66	0.0192	P	3.0
3	☐	50.000	52.732	267344.09	0.4733	P	0.3
4	☐	125.000	131.640	626674.43	1.1796	P	0.3
5	☐	250.000	258.642	1216048.52	2.3164	P	0.3
6	☐	500.000	513.473	2362495.49	4.5974	P	0.7
7	☐	1000.000	990.136	4689973.37	8.8641	P	0.6
8	☐			7379.44	0.0145	P	5.7

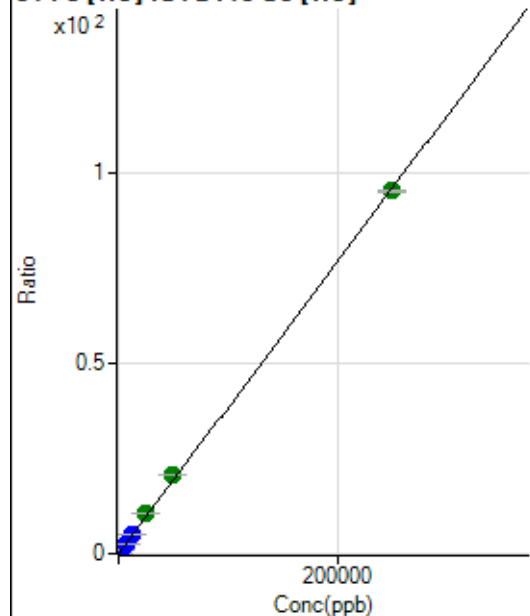
$$y = 0.0090 * x + 0.0013$$

$$R = 0.9998$$

$$DL = 0.0247$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3016.40	0.0052	P	2.9
2	☐	50.000	43.740	12636.32	0.0219	P	1.5
3	☐	2500.000	2810.254	610408.30	1.0807	P	0.6
4	☐	6250.000	7020.662	1430144.13	2.6920	P	0.3
5	☐	12500.000	13768.780	2768937.43	5.2745	P	0.1
6	☐	25000.000	27484.731	5407937.73	10.5235	A	0.5
7	☐	50000.000	53679.547	10872166.21	20.5483	A	0.3
8	☐	250000.00	248929.81	48476296.80	95.2703	A	0.3

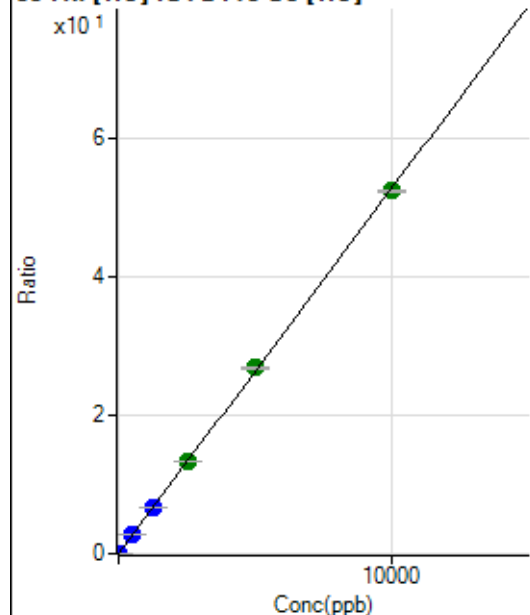
$$y = 3.8270E-004 * x + 0.0052$$

$$R = 0.9999$$

$$DL = 1.174$$

Weight: <None>

Min Conc: 0

⁵⁵Mn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	314.45	0.0005	P	8.1
2	☐	1.000	0.952	3199.29	0.0055	P	3.4
3	☐	500.000	520.139	1547116.30	2.7390	P	0.4
4	☐	1250.000	1283.421	3589947.00	6.7575	P	0.6
5	☐	2500.000	2529.820	6992296.63	13.3195	A	0.7
6	☐	5000.000	5094.623	13783672.16	26.8226	A	0.6
7	☐	10000.000	9940.049	27689412.37	52.3327	A	0.2
8	☐			16817.57	0.0331	P	1.1

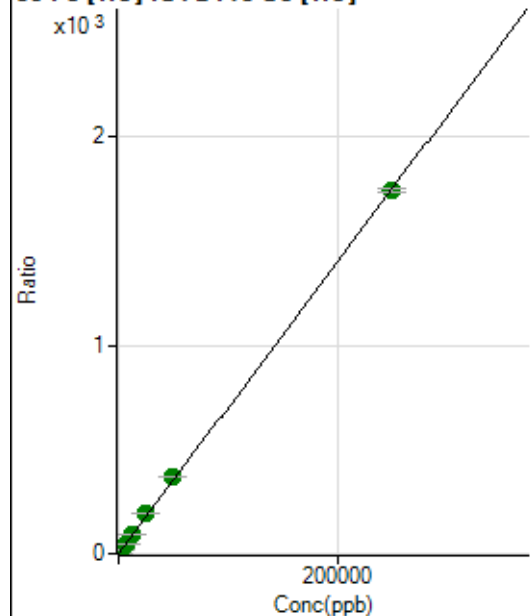
$$y = 0.0053 * x + 5.3890E-004$$

$$R = 0.9999$$

$$DL = 0.02477$$

Weight: <None>

Min Conc: 0

⁵⁶Fe [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	48309.31	0.0829	P	2.3
2	☐	50.000	42.248	218058.69	0.3782	P	1.9
3	☐	2500.000	2732.732	10835371.82	19.1825	A	0.6
4	☐	6250.000	6858.665	25510943.63	48.0195	A	0.2
5	☐	12500.000	13578.331	49864271.82	94.9847	A	0.1
6	☐	25000.000	27252.494	97923558.04	190.5563	A	0.6
7	☐	50000.000	52992.689	196012562.9	370.4600	A	0.1
8	☐	250000.00	249104.75	885945640.1	1,741.128	A	0.9

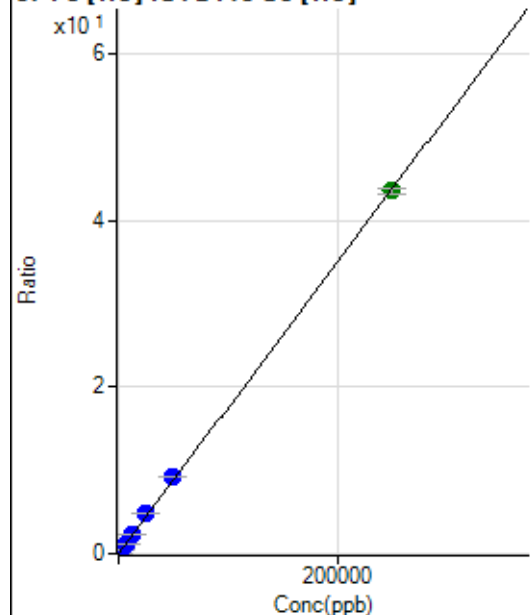
$$y = 0.0070 * x + 0.0829$$

$$R = 0.9999$$

$$DL = 0.8231$$

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	1298.48	0.0022	P	4.4
2	☐	50.000	43.906	5705.34	0.0099	P	3.8
3	☐	2500.000	2782.538	275782.50	0.4882	P	0.7
4	☐	6250.000	6966.718	647639.64	1.2191	P	0.6
5	☐	12500.000	13687.049	1256186.63	2.3929	P	0.1
6	☐	25000.000	27196.719	2442245.61	4.7525	P	0.2
7	☐	50000.000	52348.212	4838983.25	9.1456	P	0.1
8	☐	250000.00	249230.59	22150947.24	43.5339	A	1.3

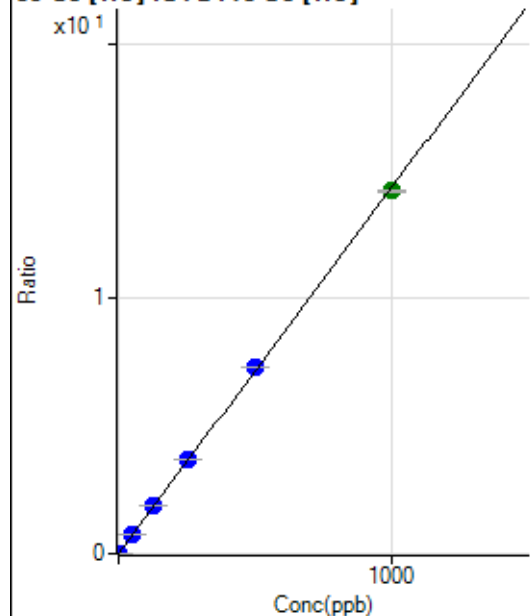
$$y = 1.7466\text{E-}004 * x + 0.0022$$

$$R = 0.9999$$

$$DL = 1.676$$

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	55.56	0.0001	P	38.3
2	☐	1.000	0.981	8164.62	0.0142	P	2.3
3	☐	50.000	53.536	433639.96	0.7677	P	0.6
4	☐	125.000	132.771	1011418.00	1.9038	P	0.3
5	☐	250.000	259.027	1949788.48	3.7141	P	0.2
6	☐	500.000	510.096	3758504.70	7.3140	P	0.5
7	☐	1000.000	991.547	7522470.58	14.2172	A	0.2
8	☐			11367.90	0.0223	P	1.4

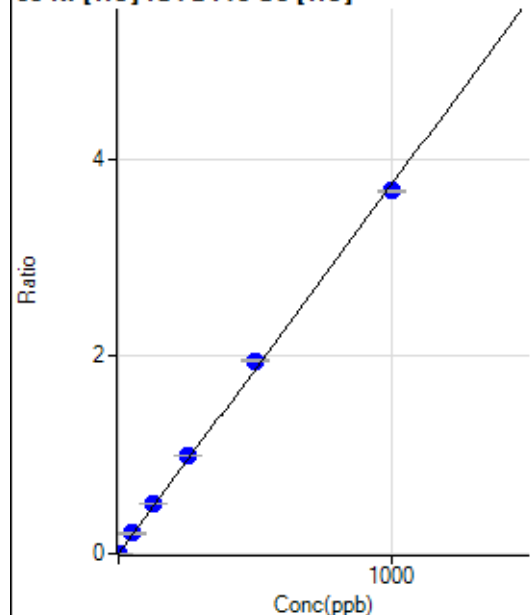
$$y = 0.0143 * x + 9.4907\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.007613$$

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	212.23	0.0004	P	7.3
2	☐	1.000	1.046	2461.36	0.0043	P	3.9
3	☐	50.000	54.882	115978.49	0.2053	P	1.2
4	☐	125.000	135.564	269163.28	0.5067	P	0.1
5	☐	250.000	264.642	519046.80	0.9887	P	0.6
6	☐	500.000	522.366	1002692.83	1.9512	P	0.8
7	☐	1000.000	983.592	1943802.61	3.6738	P	0.3
8	☐			2890.33	0.0057	P	1.5

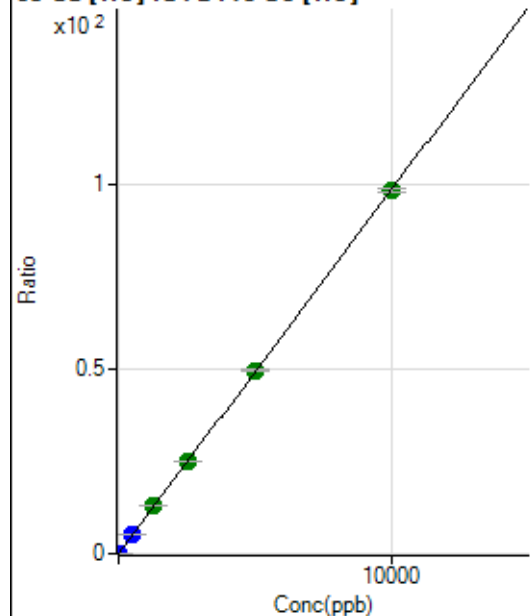
$$y = 0.0037 * x + 3.6372E-004$$

$$R = 0.9995$$

$$DL = 0.02142$$

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	721.14	0.0012	P	5.7
2	☐	2.000	2.192	13190.55	0.0229	P	2.6
3	☐	500.000	532.155	2968254.54	5.2550	P	0.8
4	☐	1250.000	1303.702	6838517.68	12.8721	A	0.5
5	☐	2500.000	2547.305	13202941.33	25.1497	A	0.6
6	☐	5000.000	5028.784	25513234.07	49.6483	A	0.7
7	☐	10000.000	9965.461	52055802.56	98.3860	A	0.9
8	☐			9001.79	0.0177	P	2.7

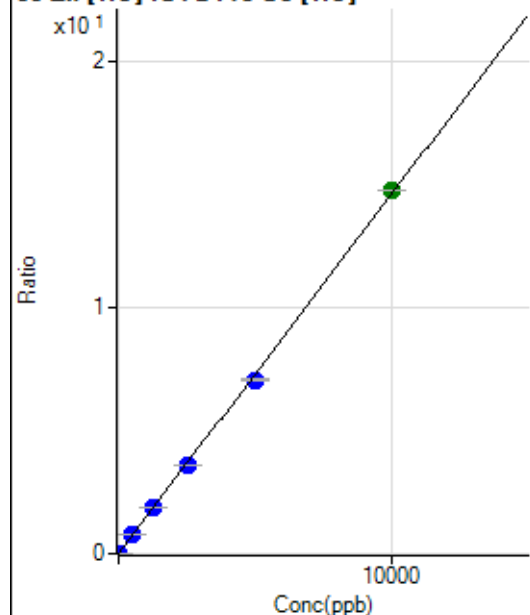
$$y = 0.0099 * x + 0.0012$$

$$R = 1.0000$$

$$DL = 0.02142$$

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	1202.29	0.0021	P	2.7
2	☐	2.000	2.009	2880.34	0.0050	P	2.8
3	☐	500.000	509.110	420543.27	0.7445	P	0.4
4	☐	1250.000	1260.009	977288.17	1.8396	P	0.5
5	☐	2500.000	2466.586	1889463.13	3.5992	P	0.1
6	☐	5000.000	4832.959	3622891.16	7.0501	P	0.7
7	☐	10000.000	10090.167	7786824.12	14.7169	A	0.1
8	☐			7688.80	0.0151	P	3.7

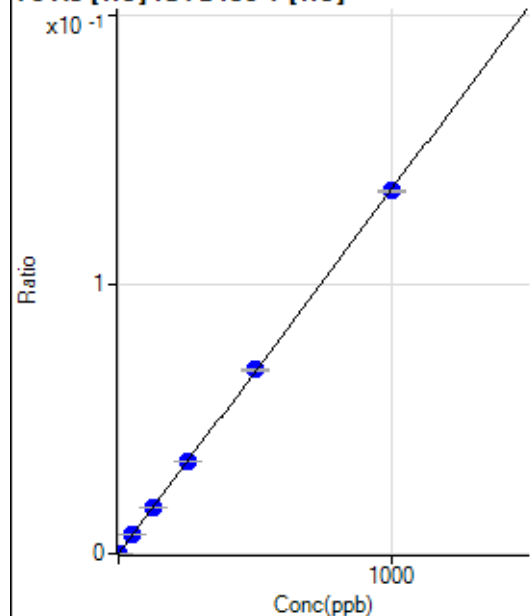
$$y = 0.0015 * x + 0.0021$$

$$R = 0.9998$$

$$DL = 0.1125$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13.58	0.0000	P	29.6
2	☐	1.000	1.018	506.19	0.0001	P	5.9
3	☐	50.000	51.351	24690.15	0.0069	P	0.7
4	☐	125.000	127.120	58269.22	0.0172	P	0.2
5	☐	250.000	252.613	115148.93	0.0341	P	0.6
6	☐	500.000	505.576	226076.82	0.0683	P	0.6
7	☐	1000.000	996.226	455681.11	0.1346	P	0.6
8	☐			211.11	0.0001	P	8.2

$$y = 1.3514E-004 * x + 3.7768E-006$$

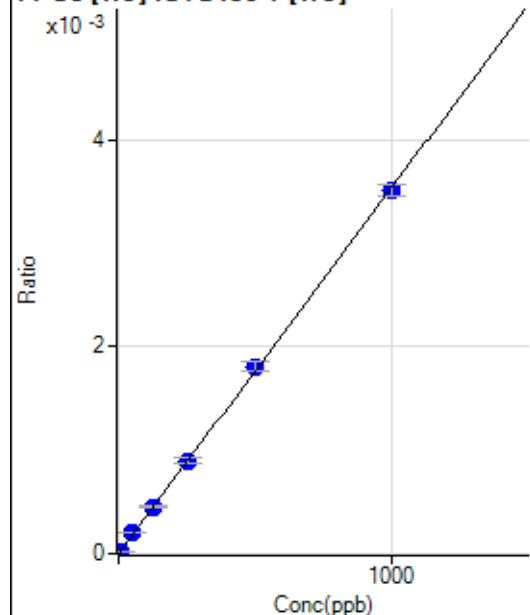
$$R = 1.0000$$

$$DL = 0.02481$$

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	5.703	72.22	0.0000	P	9.0
3	☐	50.000	58.101	730.03	0.0002	P	2.5
4	☐	125.000	127.604	1528.99	0.0005	P	3.4
5	☐	250.000	254.574	3033.70	0.0009	P	6.6
6	☐	500.000	512.182	5989.11	0.0018	P	5.2
7	☐	1000.000	992.031	11863.91	0.0035	P	3.2
8	☐			5.56	0.0000	P	173.2

$$y = 3.5335\text{E-}006 * x + 0.0000\text{E+}000$$

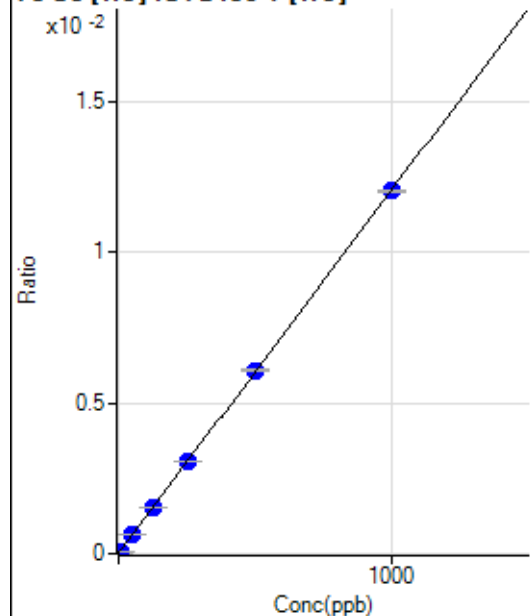
$$R = 0.9999$$

$$DL = 0$$

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	50.00	0.0000	P	30.7
2	☐	5.000	4.656	250.62	0.0001	P	6.6
3	☐	50.000	49.971	2190.31	0.0006	P	2.5
4	☐	125.000	126.004	5195.41	0.0015	P	0.8
5	☐	250.000	251.016	10246.91	0.0030	P	0.4
6	☐	500.000	503.169	20103.51	0.0061	P	1.5
7	☐	1000.000	998.039	40745.85	0.0120	P	0.8
8	☐			75.93	0.0000	P	19.4

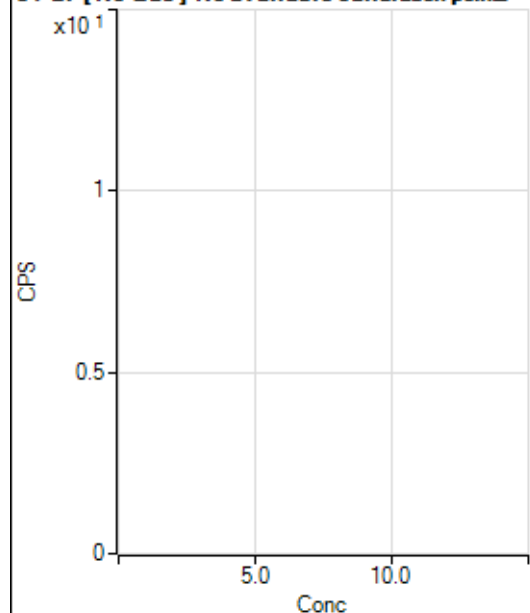
$$y = 1.2049\text{E-}005 * x + 1.3897\text{E-}005$$

$$R = 1.0000$$

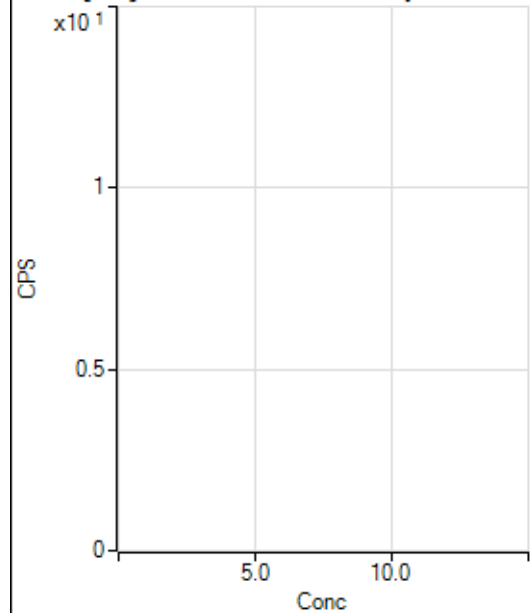
$$DL = 1.064$$

Weight: <None>

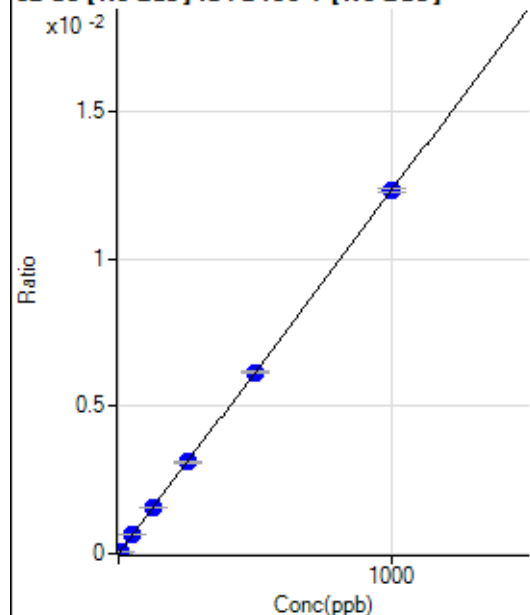
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			53125.46		P	2.9
2	☐			52081.27		P	0.2
3	☐			51987.30		P	1.3
4	☐			48756.34		P	2.4
5	☐			47359.73		P	0.6
6	☐			48755.77		P	3.7
7	☐			49951.06		P	1.7
8	☐			47483.40		P	1.4

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			70.07		P	24.7
2	☐			56.72		P	20.4
3	☐			36.70		P	56.8
4	☐			33.37		P	45.8
5	☐			43.38		P	48.0
6	☐			50.05		P	80.0
7	☐			63.40		P	36.5
8	☐			83.42		P	36.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-8.56	0.0000	P	-3121.
2	☐	5.000	4.906	1756.70	0.0001	P	2.4
3	☐	50.000	52.004	18329.64	0.0006	P	0.8
4	☐	125.000	127.143	43840.89	0.0016	P	0.9
5	☐	250.000	252.295	85227.88	0.0031	P	0.7
6	☐	500.000	499.449	168839.17	0.0061	P	0.8
7	☐	1000.000	999.334	340487.97	0.0123	P	1.1
8	☐			286.51	0.0000	P	8.1

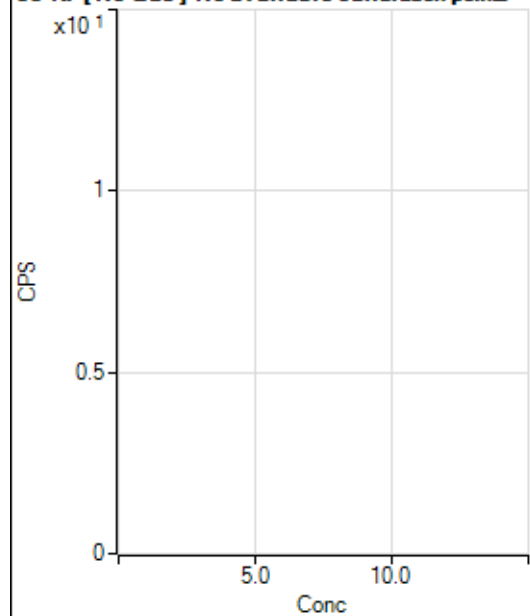
$$y = 1.2312\text{E-}005 * x - 5.8917\text{E-}008$$

$$R = 1.0000$$

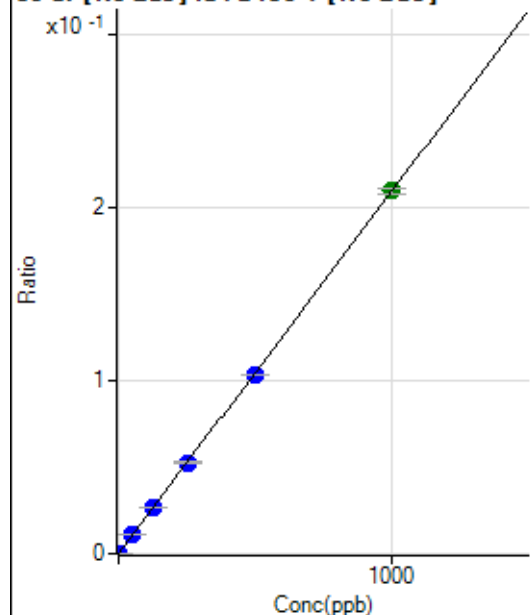
$$DL = 0.4481$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			415.57		P	4.9
2	☐			375.57		P	2.0
3	☐			427.79		P	4.8
4	☐			385.57		P	6.3
5	☐			410.01		P	8.0
6	☐			462.24		P	11.6
7	☐			453.35		P	2.7
8	☐			482.24		P	9.4

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	763.95	0.0000	P	18.2
2	☐	1.000	0.922	6410.05	0.0002	P	4.1
3	☐	50.000	51.724	310234.47	0.0108	P	0.4
4	☐	125.000	126.709	742325.53	0.0265	P	1.0
5	☐	250.000	251.664	1443659.57	0.0526	P	0.6
6	☐	500.000	494.570	2838435.18	0.1034	P	0.6
7	☐	1000.000	1001.999	5794939.28	0.2094	A	1.4
8	☐			28879.99	0.0012	P	2.9

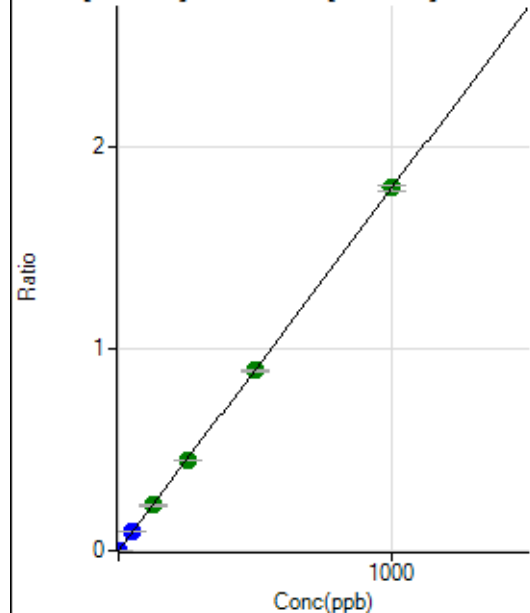
$$y = 2.0896E-004 * x + 2.7425E-005$$

$$R = 1.0000$$

$$DL = 0.07179$$

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	691.72	0.0000	P	17.9
2	☐	1.000	0.966	51225.62	0.0018	P	0.8
3	☐	50.000	51.567	2651557.44	0.0926	P	0.2
4	☐	125.000	124.828	6277841.64	0.2241	A	1.4
5	☐	250.000	250.109	12322110.08	0.4491	A	0.4
6	☐	500.000	496.809	24492900.37	0.8920	A	1.0
7	☐	1000.000	1001.512	49763250.76	1.7982	A	1.3
8	☐			249396.50	0.0101	P	1.4

$$y = 0.0018 * x + 2.4392E-005$$

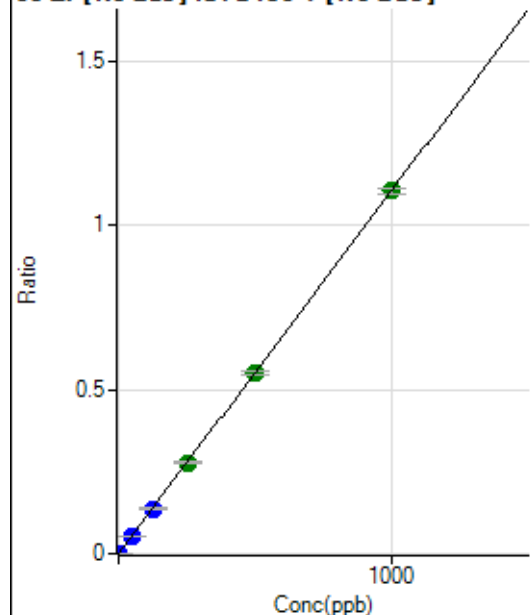
$$R = 1.0000$$

$$DL = 0.007304$$

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	1569.60	0.0001	P	6.2
2	☐	1.000	0.838	28593.24	0.0010	P	3.1
3	☐	50.000	49.814	1579826.65	0.0552	P	0.7
4	☐	125.000	124.056	3846419.83	0.1373	P	1.2
5	☐	250.000	251.331	7632693.92	0.2782	A	0.6
6	☐	500.000	499.891	15189724.65	0.5532	A	1.8
7	☐	1000.000	999.850	30621094.43	1.1065	A	1.3
8	☐			13028.92	0.0005	P	5.3

$$y = 0.0011 * x + 5.4596E-005$$

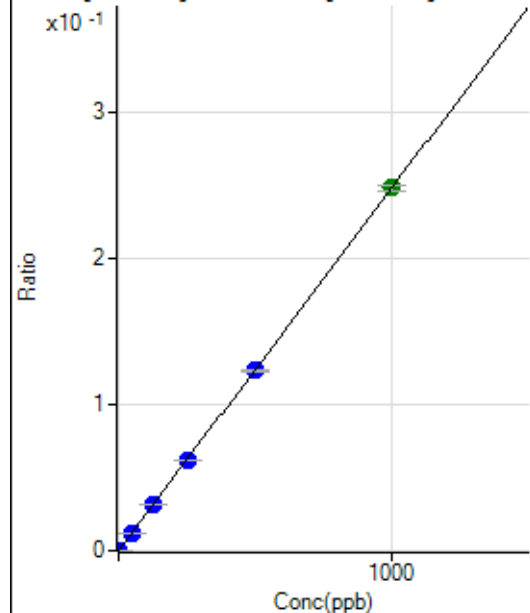
$$R = 1.0000$$

$$DL = 0.009198$$

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	275.01	0.0000	P	22.0
2	☐	1.000	0.845	6362.77	0.0002	P	2.9
3	☐	50.000	49.884	353732.01	0.0124	P	0.9
4	☐	125.000	126.005	873640.84	0.0312	P	1.1
5	☐	250.000	249.733	1696028.75	0.0618	P	0.7
6	☐	500.000	496.648	3375089.74	0.1229	P	0.7
7	☐	1000.000	1001.623	6860025.33	0.2479	A	1.6
8	☐			2800.39	0.0001	P	7.9

$$y = 2.4748E-004 * x + 9.4810E-006$$

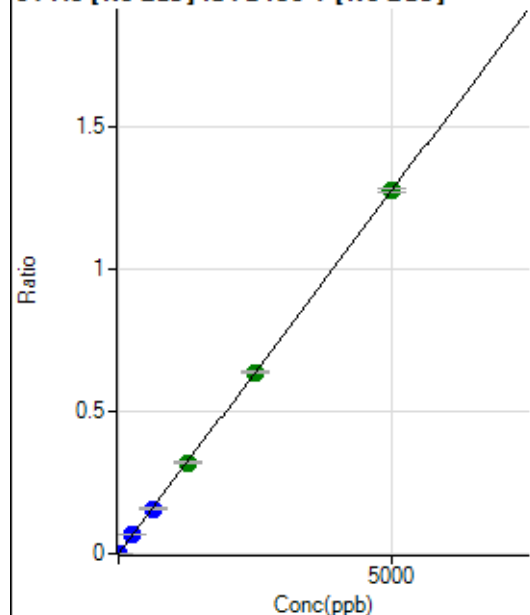
$$R = 1.0000$$

$$DL = 0.02523$$

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	536.15	0.0000	P	15.6
2	☐	5.000	4.581	34567.95	0.0012	P	1.4
3	☐	250.000	253.145	1848786.33	0.0646	P	0.3
4	☐	625.000	619.903	4427972.36	0.1581	P	1.0
5	☐	1250.000	1252.591	8764744.90	0.3194	A	1.0
6	☐	2500.000	2500.205	17506672.61	0.6376	A	0.7
7	☐	5000.000	4999.730	35284661.55	1.2750	A	1.1
8	☐			17589.30	0.0007	P	7.4

$$y = 2.5500\text{E-}004 * x + 1.9157\text{E-}005$$

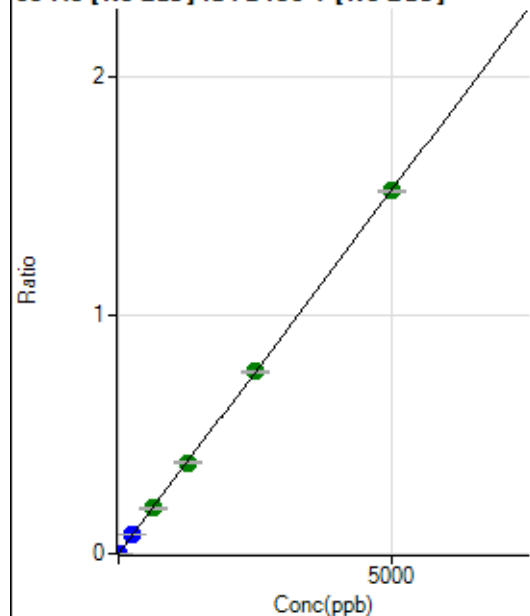
$$R = 1.0000$$

$$DL = 0.03521$$

Weight: <None>

Min Conc: 0

95 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	58.2
2	☐	5.000	4.691	41770.22	0.0014	P	1.1
3	☐	250.000	256.630	2240621.40	0.0783	P	0.4
4	☐	625.000	624.760	5335816.83	0.1905	A	0.9
5	☐	1250.000	1254.551	10496502.06	0.3826	A	0.5
6	☐	2500.000	2509.235	21009818.53	0.7651	A	0.7
7	☐	5000.000	4993.944	42143482.88	1.5228	A	0.7
8	☐			19750.40	0.0008	P	8.1

$$y = 3.0493\text{E-}004 * x + 4.4556\text{E-}006$$

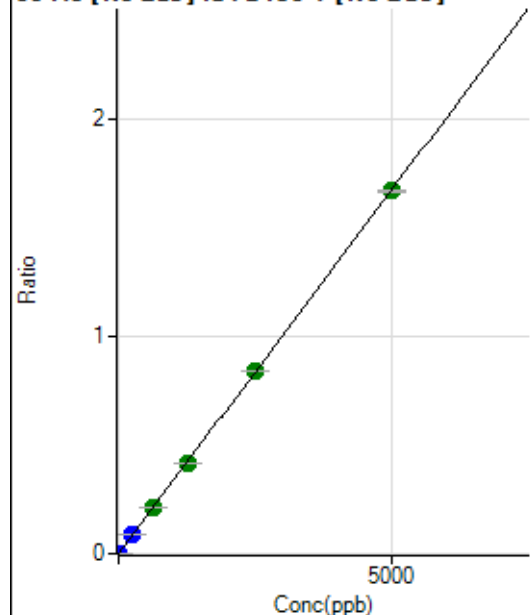
$$R = 1.0000$$

$$DL = 0.0255$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	250.01	0.0000	P	20.5
2	☐	5.000	4.792	46981.13	0.0016	P	1.7
3	☐	250.000	257.257	2468147.69	0.0862	P	0.9
4	☐	625.000	629.916	5911641.88	0.2111	A	0.5
5	☐	1250.000	1250.978	11500943.49	0.4192	A	0.7
6	☐	2500.000	2516.610	23154118.57	0.8432	A	0.1
7	☐	5000.000	4990.473	46276300.68	1.6721	A	0.7
8	☐			41740.36	0.0017	P	5.2

$$y = 3.3506\text{E-}004 * x + 8.5333\text{E-}006$$

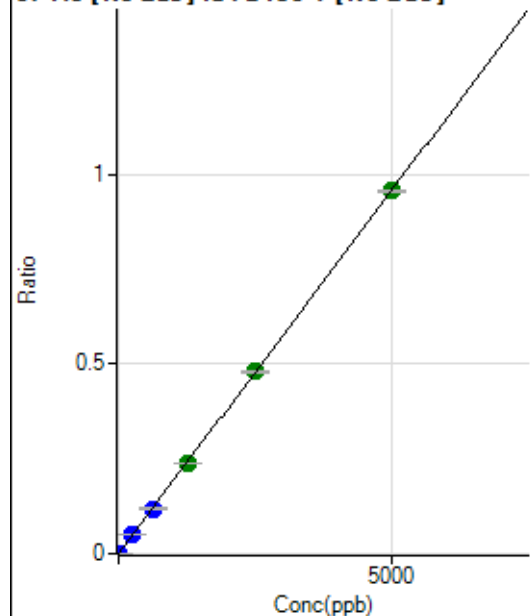
$$R = 1.0000$$

$$DL = 0.01569$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	52.78	0.0000	P	28.2
2	☐	5.000	4.657	25985.61	0.0009	P	1.4
3	☐	250.000	254.706	1394819.90	0.0487	P	0.1
4	☐	625.000	620.500	3323946.73	0.1187	P	0.7
5	☐	1250.000	1251.605	6568168.68	0.2394	A	0.8
6	☐	2500.000	2504.774	13153573.30	0.4791	A	1.4
7	☐	5000.000	4997.539	26452599.03	0.9558	A	0.8
8	☐			12364.14	0.0005	P	8.9

$$y = 1.9126\text{E-}004 * x + 1.9214\text{E-}006$$

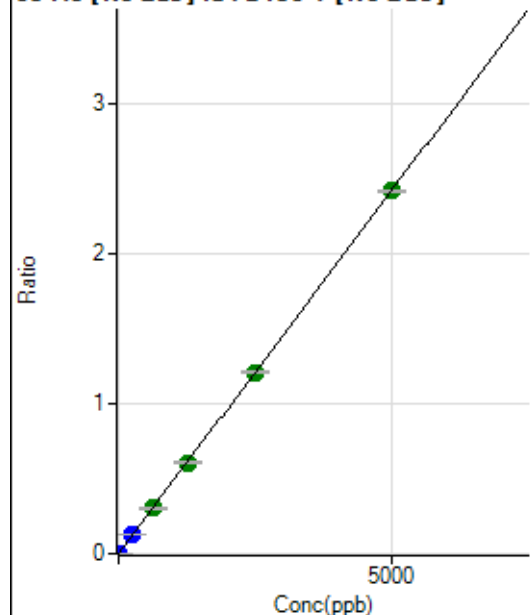
$$R = 1.0000$$

$$DL = 0.008512$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	136.12	0.0000	P	37.1
2	☐	5.000	4.764	67337.38	0.0023	P	1.5
3	☐	250.000	254.964	3537582.59	0.1236	P	0.3
4	☐	625.000	624.703	8478663.73	0.3027	A	1.5
5	☐	1250.000	1257.865	16724790.48	0.6095	A	0.6
6	☐	2500.000	2499.198	33252198.66	1.2111	A	1.5
7	☐	5000.000	4998.224	67031785.52	2.4221	A	0.7
8	☐			30347.26	0.0012	P	7.2

$$y = 4.8459\text{E-}004 * x + 4.7343\text{E-}006$$

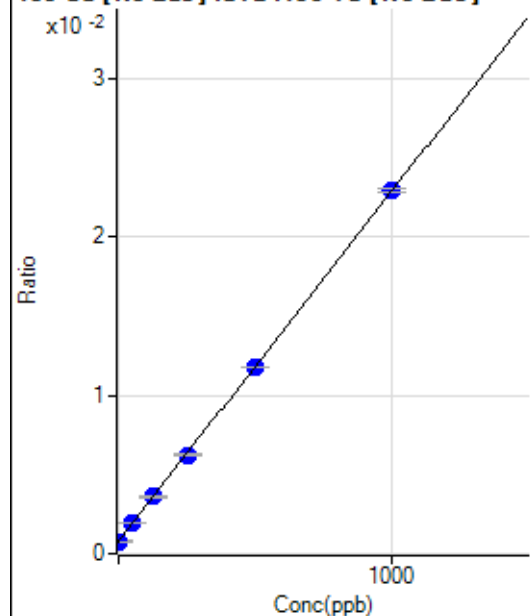
$$R = 1.0000$$

$$DL = 0.01087$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19242.18	0.0008	P	1.4
2	☐	1.000	-0.724	19338.95	0.0008	P	3.8
3	☐	50.000	50.538	47157.18	0.0019	P	1.5
4	☐	125.000	127.985	88179.74	0.0036	P	2.0
5	☐	250.000	246.274	151317.95	0.0062	P	1.3
6	☐	500.000	497.783	281676.82	0.0118	P	0.9
7	☐	1000.000	1001.642	558863.45	0.0229	P	1.1
8	☐			15767.69	0.0007	P	1.1

$$y = 2.2076\text{E-}005 * x + 7.8879\text{E-}004$$

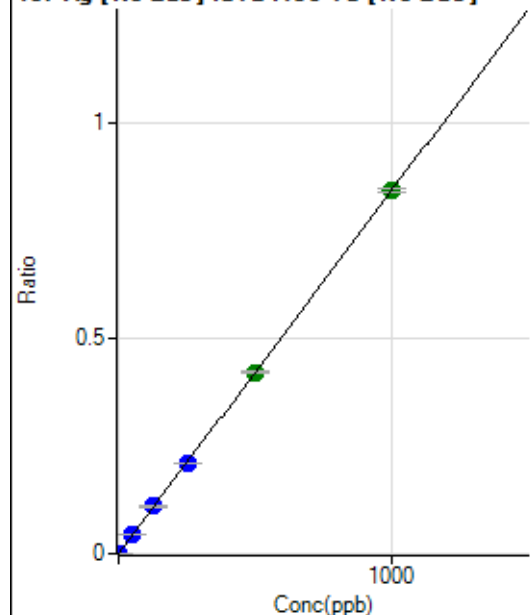
$$R = 1.0000$$

$$DL = 1.534$$

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	238.90	0.0000	P	3.2
2	☐	1.000	0.990	21097.12	0.0008	P	3.1
3	☐	50.000	54.178	1129202.90	0.0456	P	0.3
4	☐	125.000	129.820	2665857.40	0.1093	P	1.3
5	☐	250.000	247.772	5068539.65	0.2085	P	0.4
6	☐	500.000	500.065	10064800.92	0.4209	A	0.9
7	☐	1000.000	999.713	20531371.99	0.8413	A	1.1
8	☐			6012.65	0.0003	P	10.9

$$y = 8.4158\text{E-}004 * x + 9.8048\text{E-}006$$

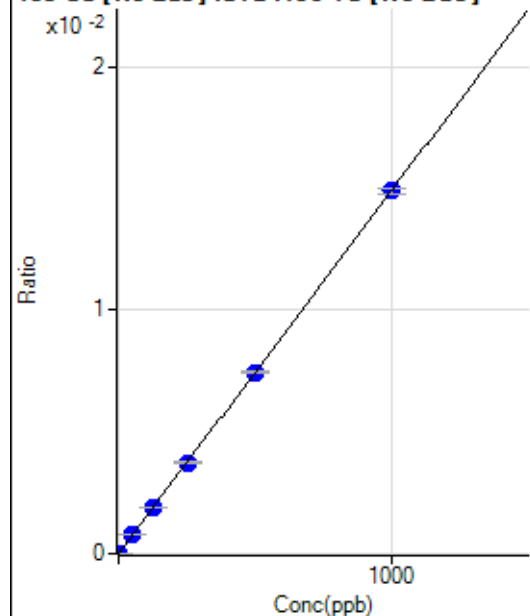
$$R = 1.0000$$

$$DL = 0.001124$$

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	44.44	0.0000	P	34.9
2	☐	1.000	0.944	395.85	0.0000	P	10.4
3	☐	50.000	52.695	19501.17	0.0008	P	1.5
4	☐	125.000	127.856	46564.12	0.0019	P	1.0
5	☐	250.000	250.782	90945.12	0.0037	P	0.7
6	☐	500.000	499.013	178014.30	0.0074	P	0.9
7	☐	1000.000	999.806	363869.30	0.0149	P	1.9
8	☐			313.90	0.0000	P	22.6

$$y = 1.4913\text{E-}005 * x + 1.7402\text{E-}006$$

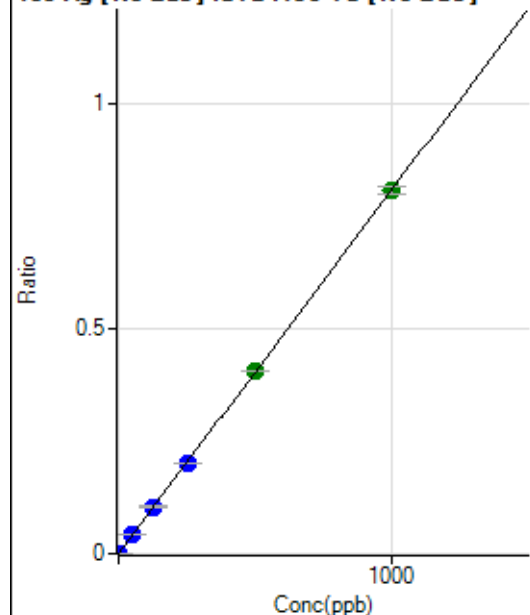
$$R = 1.0000$$

$$DL = 0.1223$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33.34	0.0000	P	48.4
2	☐	1.000	0.999	20237.58	0.0008	P	0.9
3	☐	50.000	54.360	1087746.89	0.0439	P	0.3
4	☐	125.000	129.463	2552638.08	0.1046	P	1.1
5	☐	250.000	247.913	4869602.06	0.2003	P	0.2
6	☐	500.000	502.958	9720473.22	0.4064	A	0.2
7	☐	1000.000	998.267	19684621.27	0.8067	A	2.1
8	☐			5812.56	0.0003	P	5.5

$$y = 8.0811\text{E-}004 * x + 1.3551\text{E-}006$$

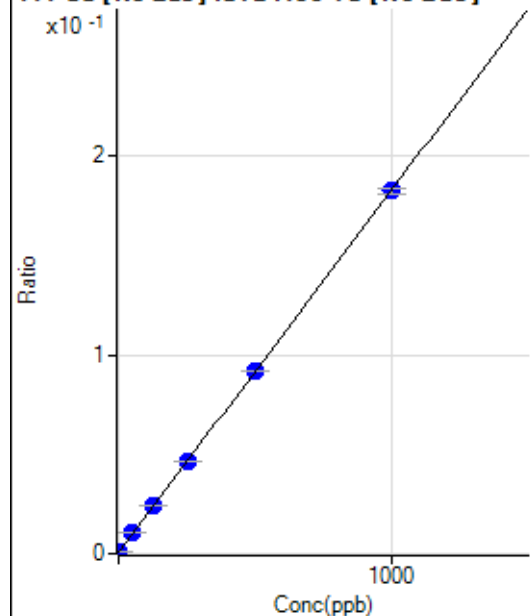
$$R = 1.0000$$

$$DL = 0.002436$$

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	13448.14	0.0006	P	1.5
2	☐	1.000	0.761	17270.54	0.0007	P	2.9
3	☐	50.000	52.899	252384.40	0.0102	P	0.7
4	☐	125.000	129.658	590047.84	0.0242	P	0.9
5	☐	250.000	251.512	1127627.66	0.0464	P	0.5
6	☐	500.000	501.361	2198610.25	0.0919	P	0.1
7	☐	1000.000	998.215	4453052.34	0.1825	P	1.7
8	☐			12712.27	0.0006	P	2.3

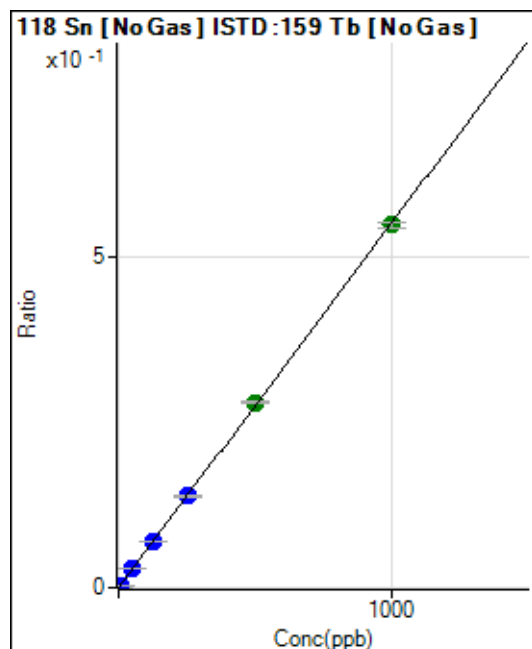
$$y = 1.8226\text{E-}004 * x + 5.5137\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.1377$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1464.04	0.0001	P	21.4
2	☐	5.000	4.803	67878.14	0.0027	P	1.8
3	☐	50.000	52.718	722039.15	0.0292	P	0.4
4	☐	125.000	128.567	1732998.65	0.0710	P	0.3
5	☐	250.000	250.704	3364994.78	0.1384	P	0.6
6	☐	500.000	507.277	6697950.49	0.2801	A	1.0
7	☐	1000.000	995.605	13411689.36	0.5496	A	1.7
8	☐			6993.71	0.0003	P	2.3

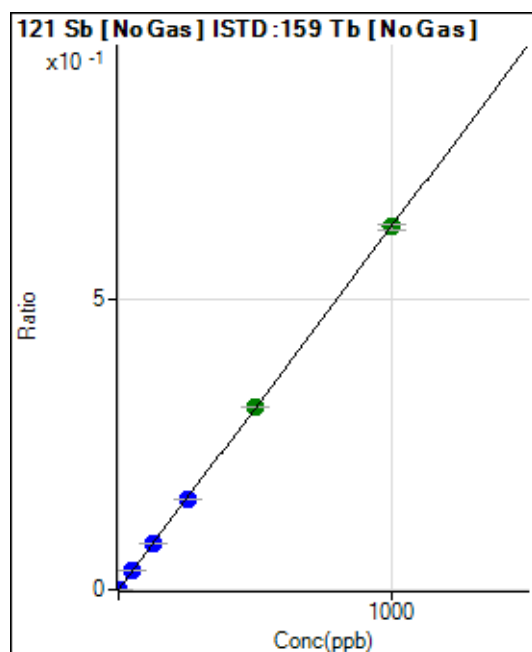
$$y = 5.5197\text{E-}004 * x + 6.1601\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.07151$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	86.12	0.0000	P	41.1
2	☐	2.000	1.852	29119.88	0.0012	P	0.8
3	☐	50.000	52.252	810651.85	0.0327	P	0.7
4	☐	125.000	126.487	1933493.36	0.0792	P	1.0
5	☐	250.000	247.898	3774898.56	0.1553	P	1.0
6	☐	500.000	502.708	7531951.38	0.3149	A	0.9
7	☐	1000.000	998.873	15270280.90	0.6258	A	1.7
8	☐			15539.69	0.0007	P	3.8

$$y = 6.2648\text{E-}004 * x + 3.7249\text{E-}006$$

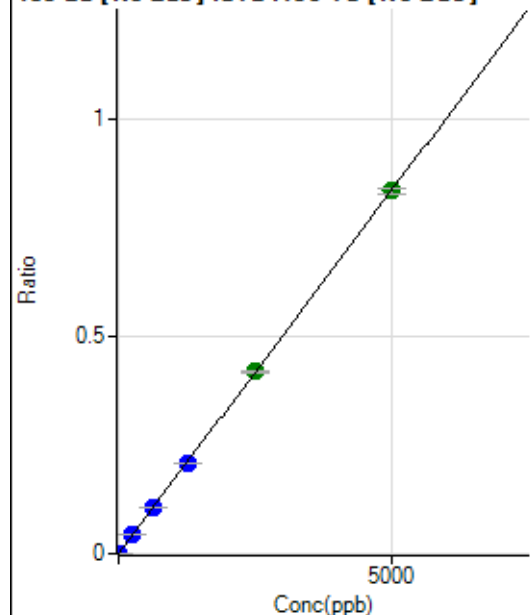
$$R = 1.0000$$

$$DL = 0.007337$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111.12	0.0000	P	35.9
2	☐	10.000	9.554	40142.27	0.0016	P	1.0
3	☐	250.000	262.815	1089746.55	0.0440	P	0.3
4	☐	625.000	631.836	2581415.97	0.1058	P	1.1
5	☐	1250.000	1235.107	5026905.84	0.2068	P	0.6
6	☐	2500.000	2512.285	10060575.31	0.4207	A	1.1
7	☐	5000.000	4996.087	20414242.29	0.8366	A	1.4
8	☐			33580.65	0.0015	P	4.3

$$y = 1.6744\text{E-}004 * x + 4.3484\text{E-}006$$

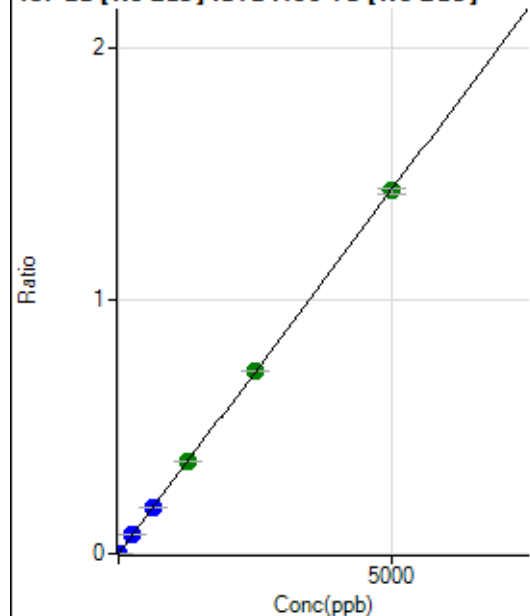
$$R = 1.0000$$

$$DL = 0.02798$$

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	180.56	0.0000	P	41.4
2	☐	10.000	9.624	69368.26	0.0028	P	0.4
3	☐	250.000	263.897	1877052.65	0.0758	P	0.4
4	☐	625.000	631.171	4423426.05	0.1813	P	1.6
5	☐	1250.000	1259.303	8792125.54	0.3617	A	0.3
6	☐	2500.000	2516.475	17286804.90	0.7228	A	0.5
7	☐	5000.000	4987.971	34960019.88	1.4327	A	1.9
8	☐			57971.82	0.0027	P	3.0

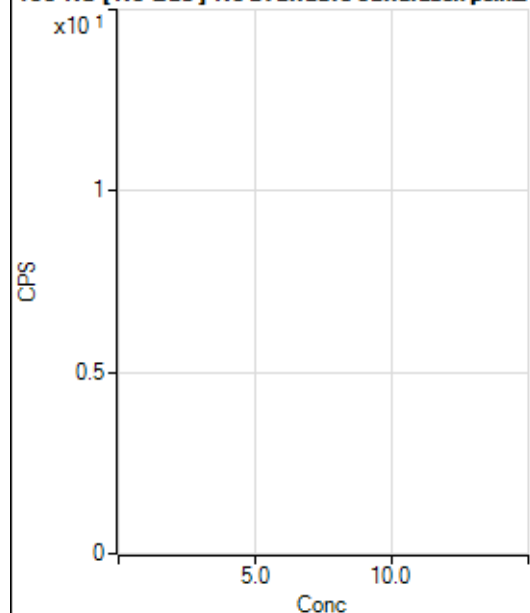
$$y = 2.8723\text{E-}004 * x + 7.7618\text{E-}006$$

$$R = 1.0000$$

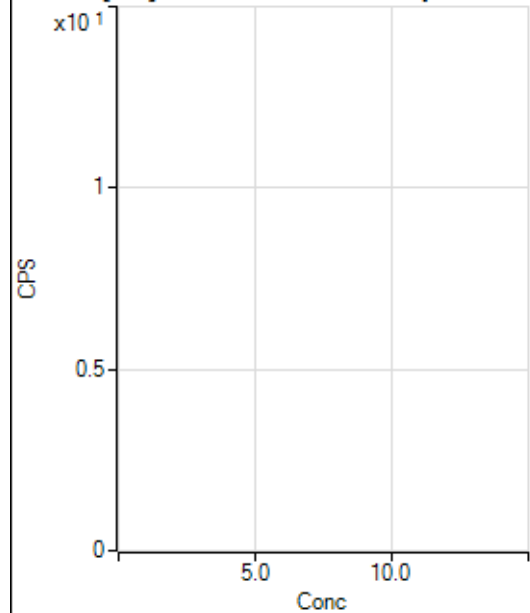
$$DL = 0.03357$$

Weight: <None>

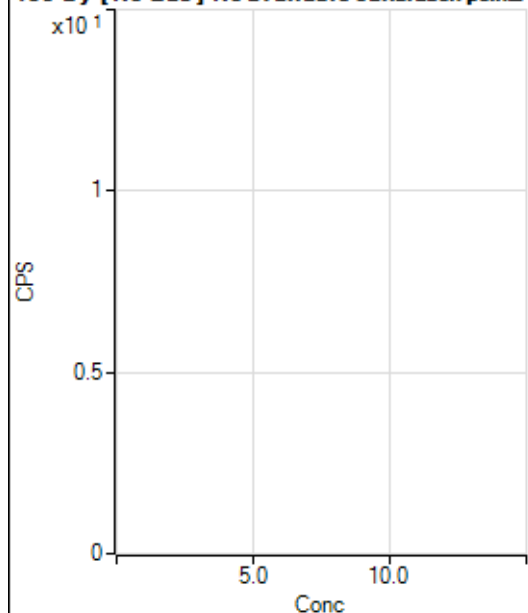
Min Conc: 0

150 Nd [No Gas] No available calibration points

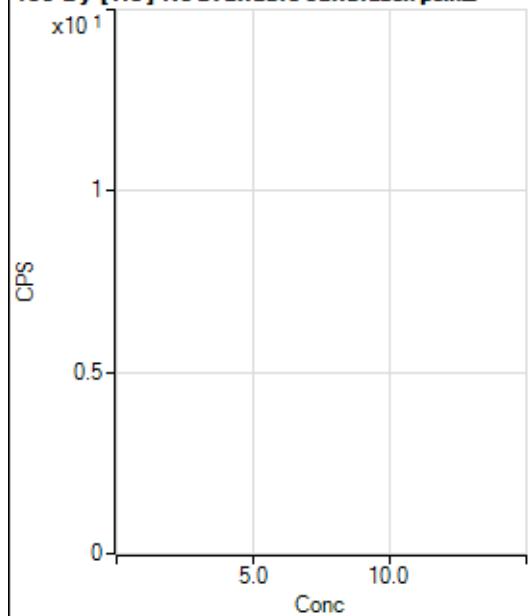
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	100.0
2	☐			15.56		P	65.5
3	☐			168.90		P	16.0
4	☐			393.35		P	12.2
5	☐			757.82		P	1.3
6	☐			1404.58		P	7.6
7	☐			2713.70		P	9.6
8	☐			57.78		P	33.3

150 Nd [He] No available calibration points

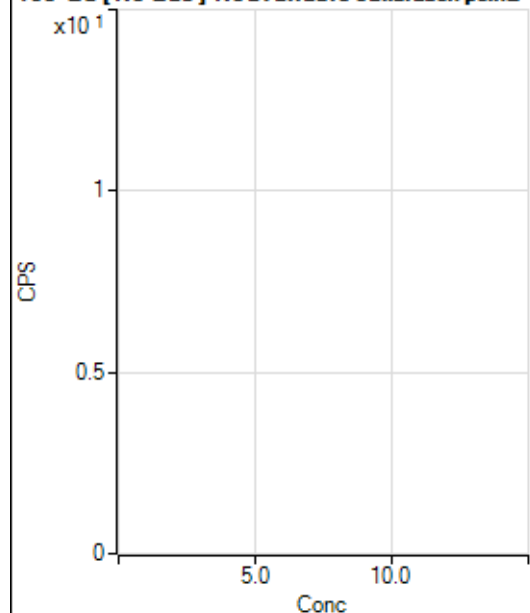
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	0.0
2	☐			4.44		P	43.4
3	☐			11.11		P	17.3
4	☐			27.78		P	25.0
5	☐			48.89		P	58.8
6	☐			112.22		P	28.8
7	☐			196.67		P	6.1
8	☐			17.78		P	10.8

156 Dy [No Gas] No available calibration points

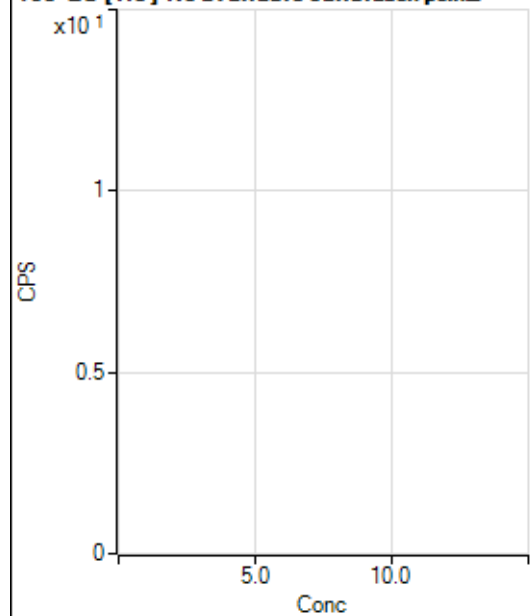
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	26.7
2	☐			25.00		P	0.0
3	☐			63.89		P	27.2
4	☐			130.56		P	22.4
5	☐			208.34		P	17.4
6	☐			375.02		P	9.7
7	☐			705.61		P	8.0
8	☐			1108.43		P	7.5

156 Dy [He] No available calibration points

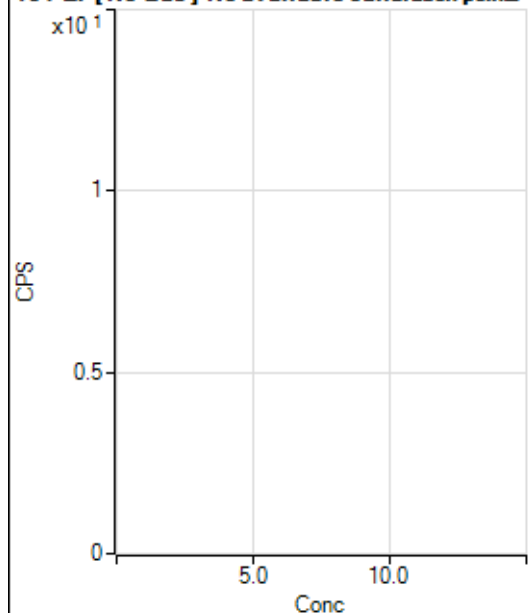
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			14.45		P	48.0
2	☐			18.89		P	66.8
3	☐			48.89		P	15.7
4	☐			73.33		P	12.0
5	☐			131.12		P	12.8
6	☐			256.67		P	9.4
7	☐			487.80		P	9.9
8	☐			561.13		P	5.3

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

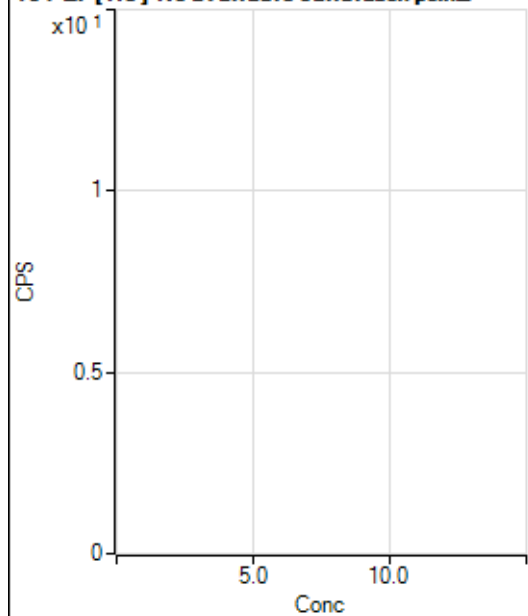
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			205.57		P	34.5
2	☐			227.79		P	20.1
3	☐			227.79		P	14.8
4	☐			219.46		P	15.3
5	☐			300.02		P	21.7
6	☐			386.13		P	6.9
7	☐			572.26		P	5.5
8	☐			1344.57		P	11.5

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			451.13		P	1.7
2	☐			390.01		P	3.9
3	☐			451.13		P	10.1
4	☐			427.79		P	10.2
5	☐			423.35		P	11.6
6	☐			446.68		P	7.8
7	☐			564.47		P	4.8
8	☐			1016.72		P	5.4

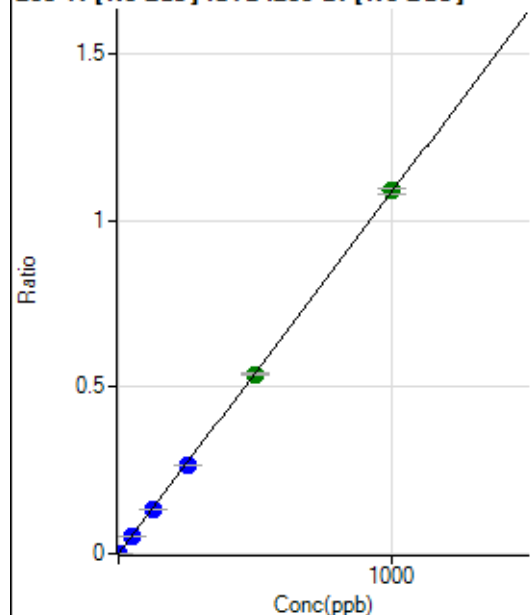
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			150.01		P	5.6
2	☐			144.45		P	38.4
3	☐			141.68		P	31.1
4	☐			163.90		P	7.8
5	☐			172.23		P	12.2
6	☐			116.67		P	37.8
7	☐			197.23		P	20.0
8	☐			250.01		P	15.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			54.44		P	15.4
2	☐			40.00		P	25.0
3	☐			58.89		P	26.8
4	☐			46.67		P	18.9
5	☐			57.78		P	13.3
6	☐			76.67		P	15.1
7	☐			81.11		P	17.1
8	☐			107.78		P	31.3

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	94.45	0.0000	P	15.0
2	☐	1.000	0.903	14514.08	0.0010	P	3.1
3	☐	50.000	49.176	785779.48	0.0534	P	1.0
4	☐	125.000	123.145	1907160.76	0.1336	P	0.7
5	☐	250.000	243.775	3714085.59	0.2645	P	1.4
6	☐	500.000	496.364	7368445.56	0.5386	A	1.0
7	☐	1000.000	1003.647	14552158.83	1.0890	A	1.4
8	☐			2803.21	0.0003	P	19.5

$$y = 0.0011 * x + 6.5082E-006$$

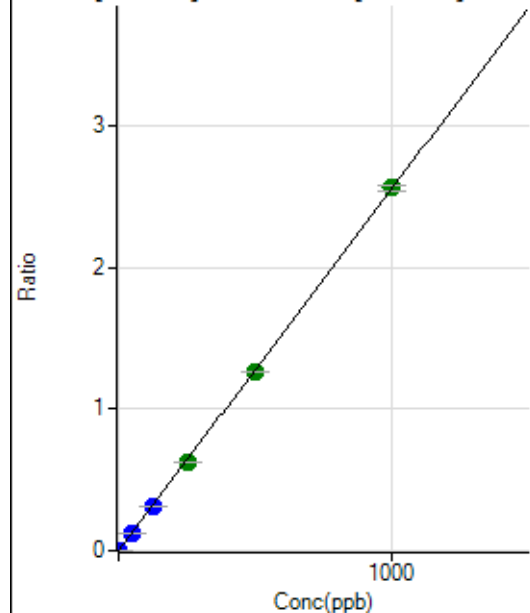
$$R = 1.0000$$

$$DL = 0.002708$$

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	244.46	0.0000	P	28.1
2	☐	1.000	0.933	35322.96	0.0024	P	1.4
3	☐	50.000	49.852	1875253.91	0.1274	P	0.9
4	☐	125.000	122.878	4479767.98	0.3139	P	0.1
5	☐	250.000	245.047	8789580.23	0.6259	A	0.3
6	☐	500.000	496.057	17335215.84	1.2671	A	0.5
7	☐	1000.000	1003.482	34250819.17	2.5631	A	1.3
8	☐			6954.99	0.0006	P	14.3

$$y = 0.0026 * x + 1.7441E-005$$

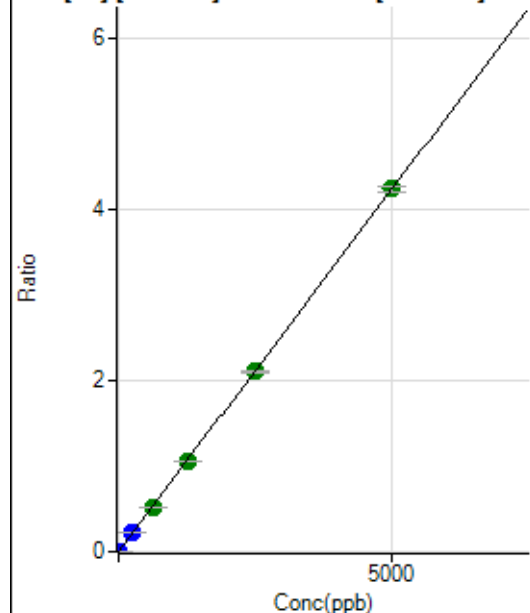
$$R = 1.0000$$

$$DL = 0.005752$$

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	1977.99	0.0001	P	22.1
2	☐	1.000	0.949	13890.92	0.0009	P	4.1
3	☐	250.000	253.228	3155789.51	0.2143	P	0.4
4	☐	625.000	616.818	7447687.55	0.5218	A	1.1
5	☐	1250.000	1240.005	14728973.25	1.0489	A	0.2
6	☐	2500.000	2485.380	28760782.12	2.1022	A	0.9
7	☐	5000.000	5010.670	56630067.93	4.2380	A	1.7
8	☐			17476.74	0.0016	P	10.1

$$y = 8.4578E-004 * x + 1.4100E-004$$

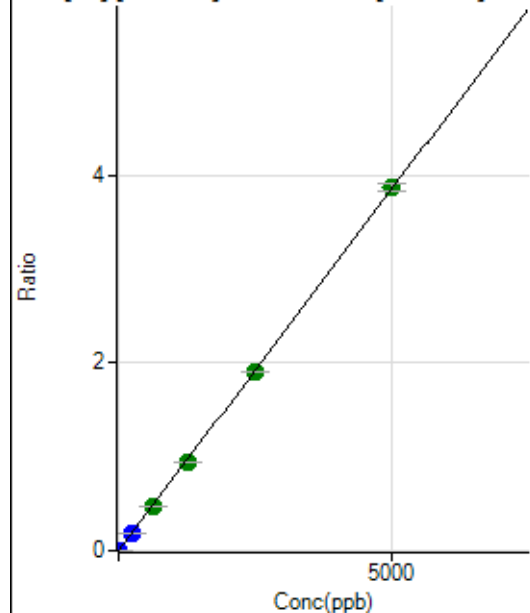
$$R = 1.0000$$

$$DL = 0.1105$$

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	1739.05	0.0001	P	12.9
2	☐	1.000	0.898	11974.24	0.0008	P	1.0
3	☐	250.000	251.465	2851651.86	0.1937	P	0.3
4	☐	625.000	618.476	6795289.50	0.4761	A	0.8
5	☐	1250.000	1232.153	13317664.65	0.9484	A	0.5
6	☐	2500.000	2468.866	25998157.76	1.9002	A	0.2
7	☐	5000.000	5020.771	51633771.52	3.8642	A	2.1
8	☐			14769.77	0.0014	P	12.5

$$y = 7.6963E-004 * x + 1.2227E-004$$

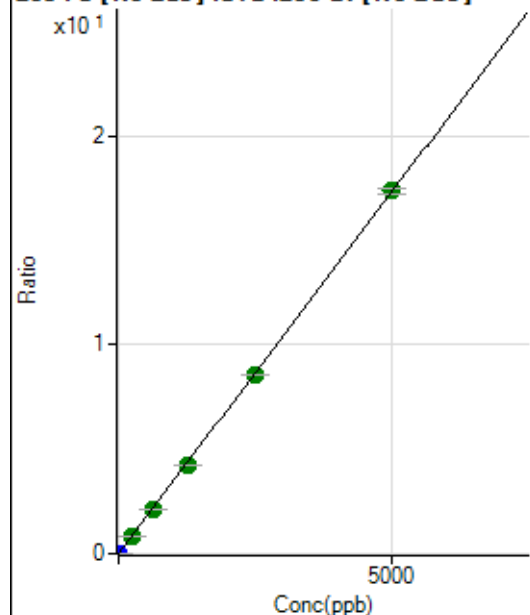
$$R = 1.0000$$

$$DL = 0.06171$$

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	7669.60	0.0005	P	16.8
2	☐	1.000	0.924	55027.40	0.0037	P	0.5
3	☐	250.000	248.927	12688808.12	0.8617	A	0.3
4	☐	625.000	616.953	30470128.92	2.1349	A	0.7
5	☐	1250.000	1230.909	59804761.06	4.2589	A	0.2
6	☐	2500.000	2475.133	117158946.8	8.5634	A	0.5
7	☐	5000.000	5018.266	231990420.0	17.3614	A	1.6
8	☐			68225.77	0.0064	P	11.0

$$y = 0.0035 * x + 5.4269E-004$$

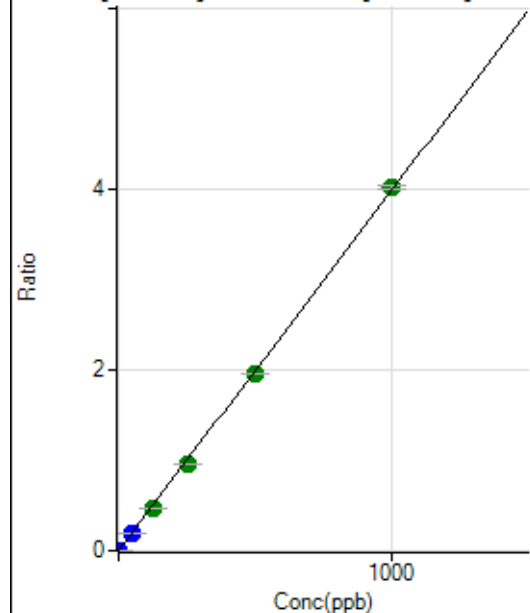
$$R = 1.0000$$

$$DL = 0.0792$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	761.16	0.0001	P	26.3
2	☐	1.000	-0.001	714.86	0.0000	P	3.3
3	☐	50.000	46.576	2734293.49	0.1857	P	0.1
4	☐	125.000	119.026	6771627.06	0.4745	A	0.3
5	☐	250.000	239.891	13426427.15	0.9562	A	0.8
6	☐	500.000	491.705	26814656.16	1.9598	A	0.6
7	☐	1000.000	1007.594	53665042.40	4.0160	A	1.2
8	☐			16316.16	0.0015	P	8.6

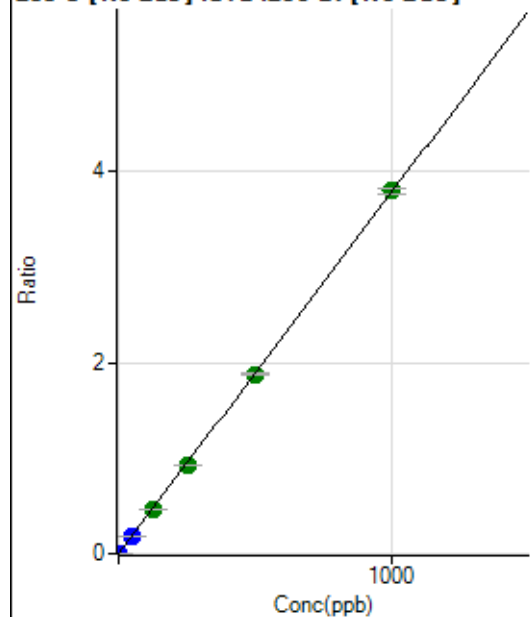
$$y = 0.0040 * x + 5.4192E-005$$

$$R = 0.9999$$

$$DL = 0.01073$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.11	0.0000	P	42.6
2	☐	1.000	0.835	46535.01	0.0032	P	0.5
3	☐	50.000	47.090	2623970.79	0.1782	P	1.0
4	☐	125.000	121.897	6583698.80	0.4613	A	0.4
5	☐	250.000	244.278	12979936.49	0.9244	A	0.9
6	☐	500.000	496.180	25688940.68	1.8776	A	1.2
7	☐	1000.000	1003.874	50762870.23	3.7989	A	1.4
8	☐			10446.41	0.0010	P	17.9

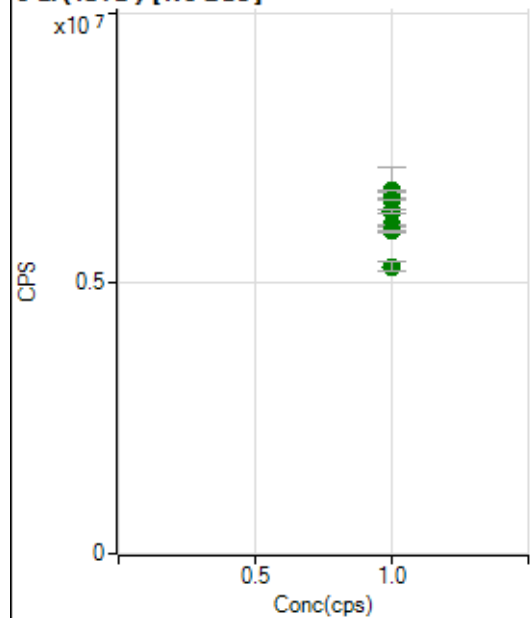
$$y = 0.0038 * x + 2.4408E-006$$

$$R = 1.0000$$

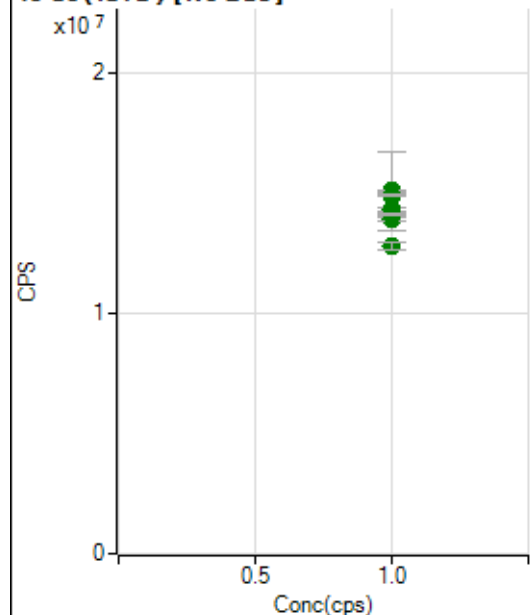
$$DL = 0.0008247$$

Weight: <None>

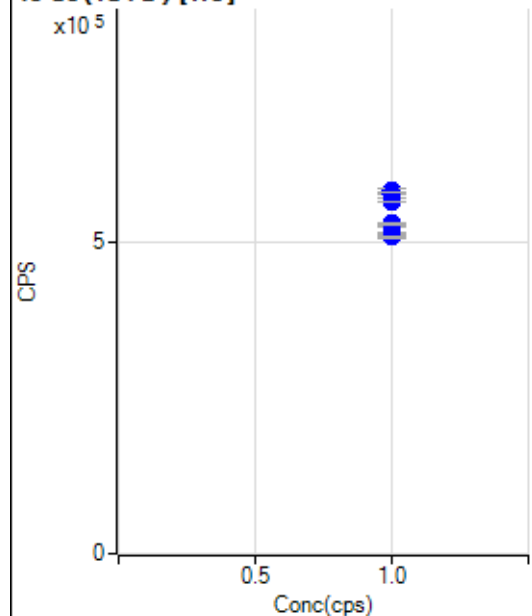
Min Conc: 0

6 Li (ISTD) [No Gas]

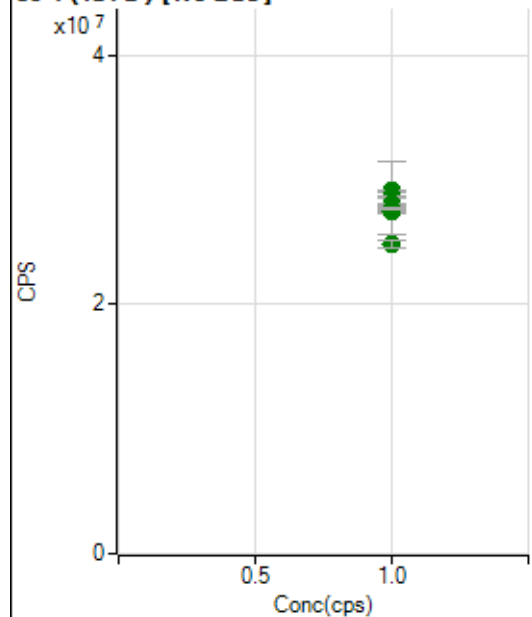
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		6590221.43		A	17.1
2	☐	1.000		6705414.41		A	0.5
3	☐	1.000		6542079.62		A	0.5
4	☐	1.000		6542219.62		A	0.1
5	☐	1.000		6327881.36		A	1.0
6	☐	1.000		6080431.78		A	0.3
7	☐	1.000		5964992.48		A	0.7
8	☐	1.000		5311003.43		A	3.0

45 Sc (ISTD) [No Gas]

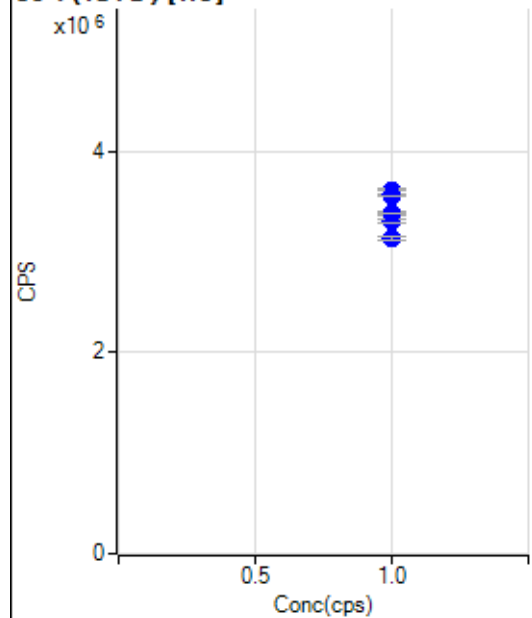
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15053537.83		A	21.8
2	☐	1.000		15098859.22		A	0.3
3	☐	1.000		14915806.17		A	0.4
4	☐	1.000		14338487.98		A	0.8
5	☐	1.000		14206678.26		A	0.3
6	☐	1.000		13891966.32		A	1.1
7	☐	1.000		14099287.29		A	0.8
8	☐	1.000		12801551.06		A	2.6

45 Sc (ISTD) [He]

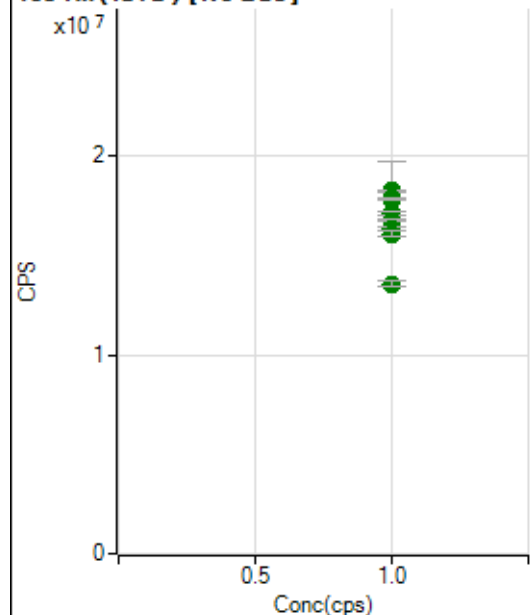
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		583045.83		P	1.6
2	☐	1.000		576755.90		P	1.9
3	☐	1.000		564855.20		P	0.3
4	☐	1.000		531259.06		P	0.4
5	☐	1.000		524970.76		P	0.2
6	☐	1.000		513889.12		P	0.7
7	☐	1.000		529107.05		P	0.4
8	☐	1.000		508833.34		P	0.5

89 Y (ISTD) [No Gas]

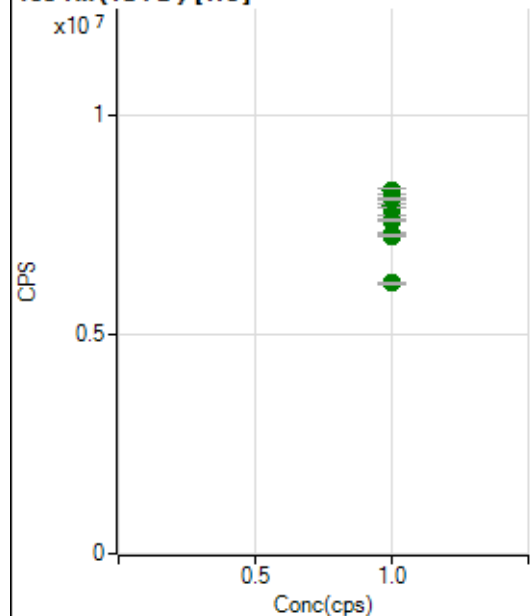
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		28508917.35		A	20.4
2	☐	1.000		29110849.29		A	0.7
3	☐	1.000		28631283.74		A	0.1
4	☐	1.000		28008634.58		A	0.4
5	☐	1.000		27438404.87		A	0.3
6	☐	1.000		27458870.98		A	0.8
7	☐	1.000		27675840.70		A	0.9
8	☐	1.000		24817357.41		A	2.1

89 Y (ISTD) [He]

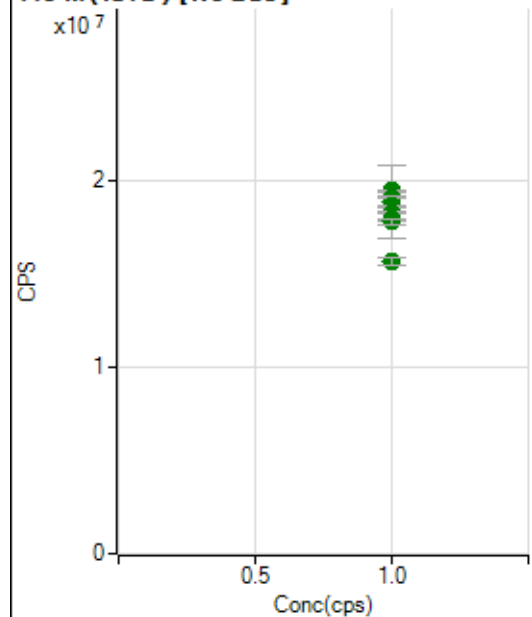
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3605421.93		P	1.5
2	☐	1.000		3582994.39		P	1.7
3	☐	1.000		3555806.44		P	0.4
4	☐	1.000		3391056.79		P	0.3
5	☐	1.000		3372575.33		P	0.1
6	☐	1.000		3308762.17		P	1.0
7	☐	1.000		3384535.16		P	0.2
8	☐	1.000		3135738.29		P	0.8

103 Rh (ISTD) [No Gas]

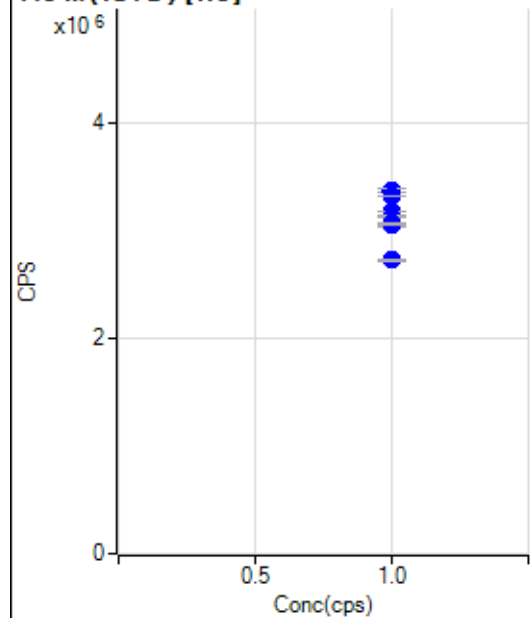
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		17847926.68		A	21.1
2	☐	1.000		18259031.81		A	0.6
3	☐	1.000		17860968.90		A	0.1
4	☐	1.000		17133177.52		A	1.4
5	☐	1.000		16760534.75		A	0.8
6	☐	1.000		16341813.37		A	1.0
7	☐	1.000		16095813.09		A	1.5
8	☐	1.000		13584780.63		A	2.6

103 Rh (ISTD) [He]

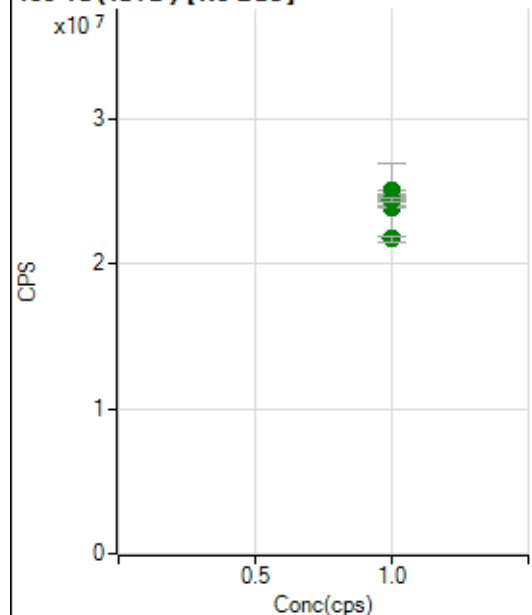
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		7932846.27		A	1.3
2	☐	1.000		8267365.57		A	1.3
3	☐	1.000		8093864.53		A	0.2
4	☐	1.000		7716586.48		A	0.3
5	☐	1.000		7594545.44		A	0.5
6	☐	1.000		7287717.95		A	0.6
7	☐	1.000		7234480.38		A	0.6
8	☐	1.000		6158511.23		A	0.8

115 In (ISTD) [No Gas]

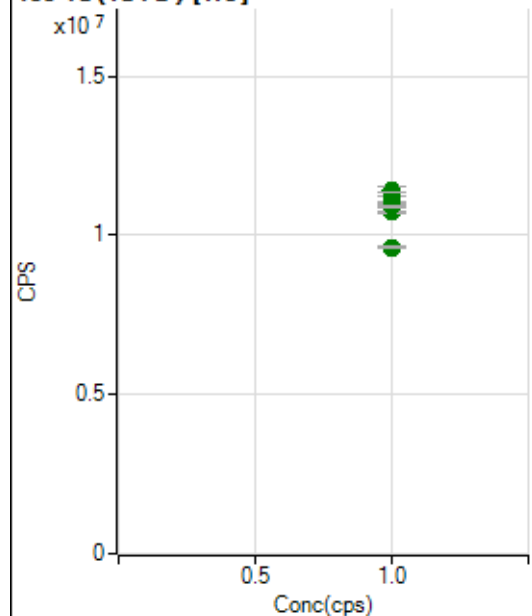
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18853395.45		A	20.7
2	☐	1.000		19401938.10		A	0.6
3	☐	1.000		19061418.08		A	0.5
4	☐	1.000		18563783.16		A	0.7
5	☐	1.000		18250323.99		A	0.3
6	☐	1.000		17869110.52		A	0.8
7	☐	1.000		17760269.10		A	1.8
8	☐	1.000		15634398.95		A	2.2

115 In (ISTD) [He]

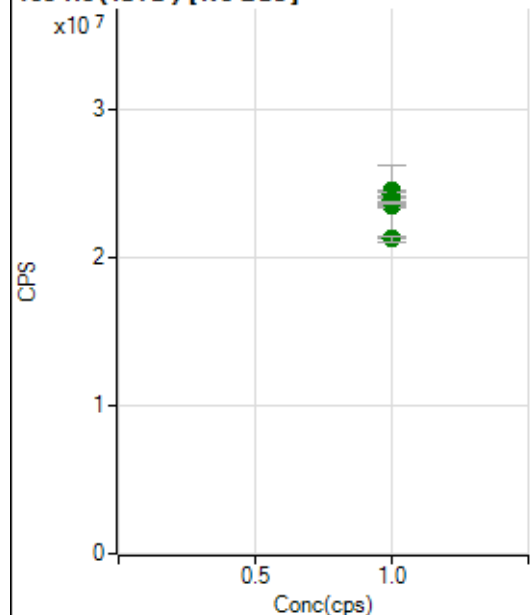
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3368037.57		P	1.2
2	☐	1.000		3353835.01		P	2.0
3	☐	1.000		3317779.70		P	0.2
4	☐	1.000		3179225.53		P	0.3
5	☐	1.000		3128277.04		P	0.4
6	☐	1.000		3049679.77		P	1.4
7	☐	1.000		3063334.92		P	0.4
8	☐	1.000		2724246.97		P	0.7

159 Tb (ISTD) [No Gas]

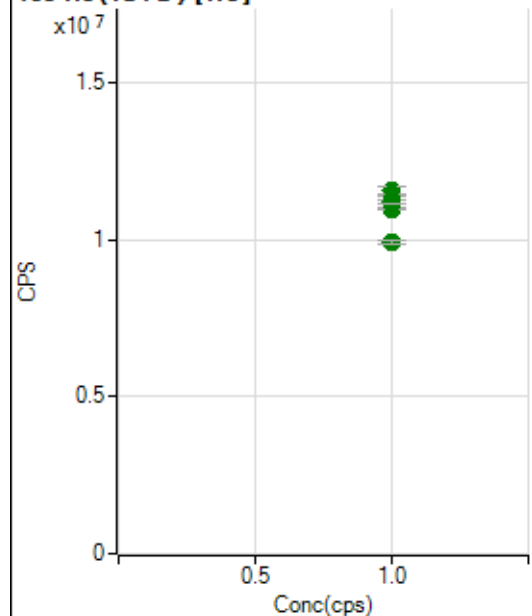
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		24421929.08		A	21.0
2	☐	1.000		25023562.40		A	0.1
3	☐	1.000		24760723.24		A	0.3
4	☐	1.000		24399380.75		A	0.5
5	☐	1.000		24306227.69		A	0.3
6	☐	1.000		23915737.98		A	0.4
7	☐	1.000		24405147.41		A	1.3
8	☐	1.000		21704897.73		A	1.9

159 Tb (ISTD) [He]

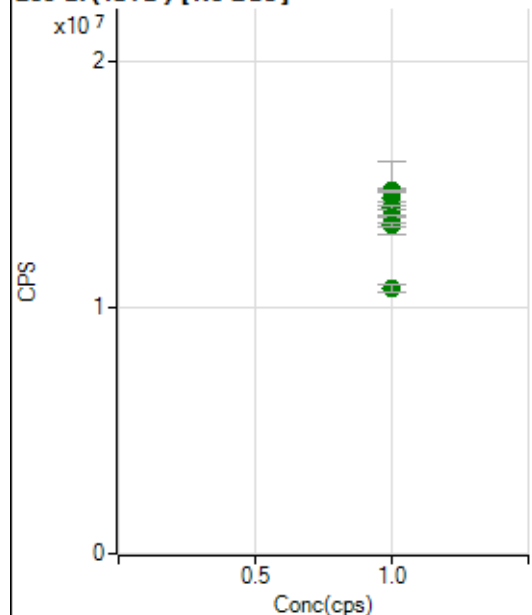
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11046073.31		A	0.4
2	☐	1.000		11398822.19		A	2.3
3	☐	1.000		11356958.16		A	0.1
4	☐	1.000		11014642.13		A	0.7
5	☐	1.000		11016376.92		A	0.3
6	☐	1.000		10740561.71		A	0.6
7	☐	1.000		10911922.75		A	0.7
8	☐	1.000		9634137.49		A	0.5

165 Ho (ISTD) [No Gas]

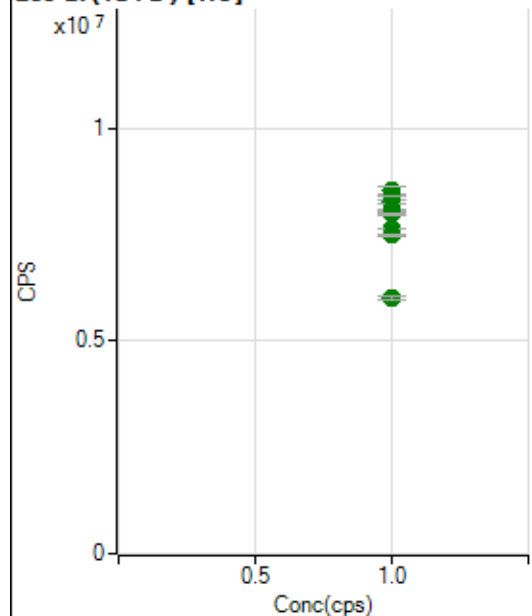
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		23768838.95		A	20.6
2	☐	1.000		24493533.80		A	0.4
3	☐	1.000		24258266.86		A	1.0
4	☐	1.000		23824193.26		A	1.2
5	☐	1.000		23837529.64		A	1.1
6	☐	1.000		23459416.32		A	0.7
7	☐	1.000		23699656.87		A	0.1
8	☐	1.000		21254000.80		A	1.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		11208593.17		A	1.6
2	☐	1.000		11552935.39		A	2.7
3	☐	1.000		11435680.94		A	0.6
4	☐	1.000		11269512.19		A	0.4
5	☐	1.000		11212436.22		A	0.8
6	☐	1.000		10985260.53		A	0.7
7	☐	1.000		11140956.08		A	0.1
8	☐	1.000		9927528.12		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14466137.15		A	20.6
2	☐	1.000		14722166.03		A	1.0
3	☐	1.000		14725159.09		A	0.6
4	☐	1.000		14272452.15		A	0.2
5	☐	1.000		14042377.43		A	1.1
6	☐	1.000		13681761.46		A	0.8
7	☐	1.000		13364025.78		A	1.1
8	☐	1.000		10746717.90		A	2.8

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8272254.46		A	1.4
2	☐	1.000		8525525.01		A	2.0
3	☐	1.000		8400448.49		A	0.0
4	☐	1.000		8082833.21		A	0.6
5	☐	1.000		7987161.20		A	0.3
6	☐	1.000		7639613.15		A	0.2
7	☐	1.000		7485013.01		A	0.2
8	☐	1.000		6010690.26		A	1.0

US EPA Tune Check Sample Report

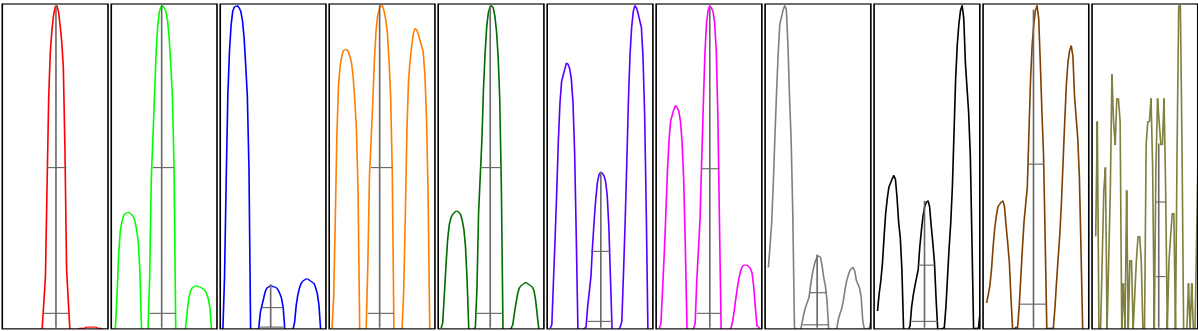
Batch Folder D:\ICP-MS Data\1\DATA\P7070920 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	14321	2.56	5.00	
24	197265	2.70	5.00	
25	26101	2.25	5.00	
26	30518	2.89	5.00	
59	102485	2.85	5.00	
113	16644	2.60	5.00	
115	49649	2.51	5.00	
206	20748	2.77	5.00	
207	17385	3.07	5.00	
208	43143	2.69	5.00	
220	0	39.09		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	14070	14131	14283	14157	14961
24	194290	194501	195664	195138	206732
25	25619	25807	26075	25896	27110
26	29842	29992	30504	30221	32033
59	100465	101057	101750	101514	107640
113	16366	16492	16521	16431	17411
115	51466	49968	49040	48087	49685
206	20246	20417	20714	20643	21720
207	16869	17049	17309	17448	18252
208	42277	42327	43231	42781	45100
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	27365	9.05	8.9 - 9.1		0.722	0.900	
24	324435	23.95	23.9 - 24.1		0.780	0.900	
25	43449	24.95	24.9 - 25.1		0.743	0.900	
26	50226	25.95	25.9 - 26.1		0.783	0.900	
59	176727	59.00	58.9 - 59.1		0.776	0.900	
113	32064	113.05	112.9 - 113.1		0.730	0.900	
115	95533	115.05	114.9 - 115.1		0.730	0.900	
206	41853	206.00	205.9 - 206.1		0.773	0.900	
207	34788	206.95	206.9 - 207.1		0.775	0.900	
208	87035	207.95	207.9 - 208.1		0.781	0.900	
220	0	220.40	-		0.314		

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	0.76	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.7	V	Deflect	13.2	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	22644	4.36	
89	65909	4.40	
205	54009	3.89	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	22978	23109	23029	23221	20886
89	66955	67356	67043	67453	60739
205	55213	54949	54759	54866	50260

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.76	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.1	V	Deflect	2.0	V
Extract 2	-150.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	200	V			