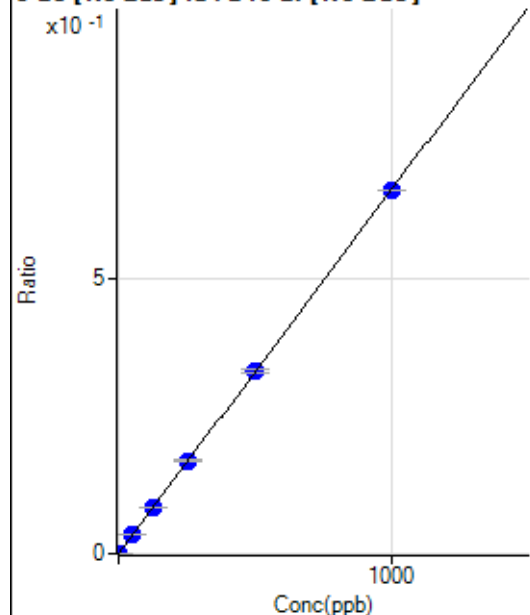


Batch Folder: D:\ICP-MS Data\1\DATA\P7032720IMS.b\
Analysis File: P7032720IMS.batch.bin
DA Date-Time: 2020-03-27 17:10:34
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-03-27 16:41:48
2	004CALS.d	S02	2020-03-27 16:45:21
3	005CALS.d	S03	2020-03-27 16:50:06
4	006CALS.d	S04	2020-03-27 16:54:20
5	007CALS.d	S05	2020-03-27 16:58:02
6	011CALS.d	S06	2020-03-27 17:12:37
7	012CALS.d	S07	2020-03-27 17:16:07
8	013CALS.d	S08	2020-03-27 17:19:36

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	90.74	0.0000	P	7.9
2	☐	1.000	1.042	3572.73	0.0007	P	2.9
3	☐	50.000	53.091	174162.60	0.0352	P	0.6
4	☐	125.000	127.104	432620.45	0.0844	P	2.5
5	☐	250.000	256.017	820928.72	0.1699	P	0.4
6	☐	500.000	502.834	1610428.68	0.3337	P	1.9
7	☐	1000.000	996.661	3048408.43	0.6613	P	0.1
8	☐			570.40	0.0001	P	15.5

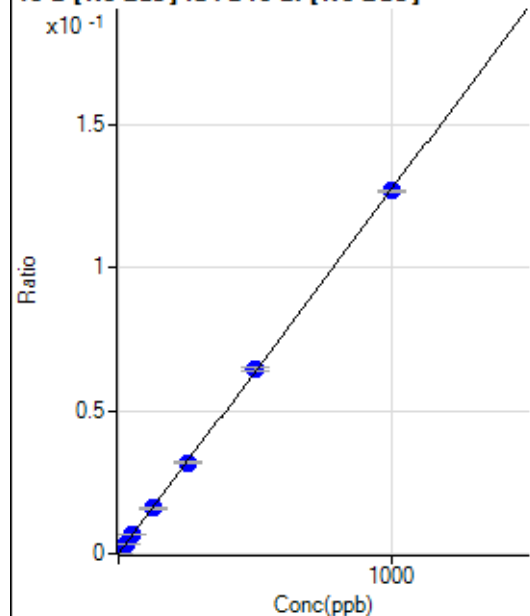
$$y = 6.6353\text{E-}004 * x + 1.8132\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.006497$$

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	255.57	0.0001	P	20.2
2	☐	25.000	25.040	16273.24	0.0032	P	4.9
3	☐	50.000	51.881	32831.04	0.0066	P	1.4
4	☐	125.000	124.010	81092.38	0.0158	P	2.0
5	☐	250.000	249.153	153243.09	0.0317	P	1.1
6	☐	500.000	508.454	312113.51	0.0647	P	2.1
7	☐	1000.000	996.013	583707.68	0.1266	P	0.9
8	☐			16262.18	0.0038	P	5.8

$$y = 1.2708\text{E-}004 * x + 5.1006\text{E-}005$$

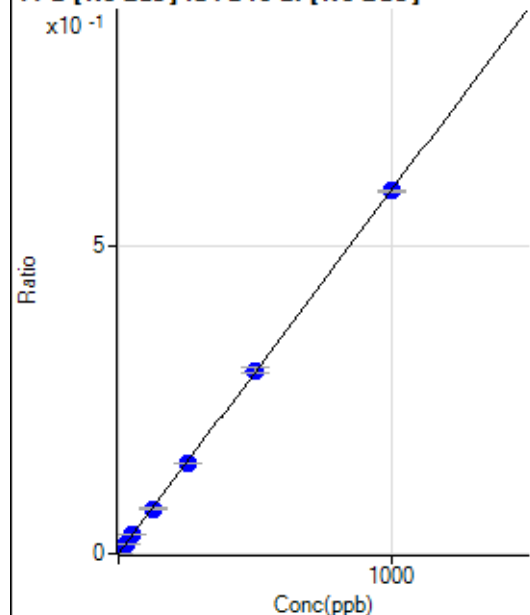
$$R = 0.9999$$

$$DL = 0.243$$

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	1239.00	0.0002	P	4.6
2	☐	25.000	25.394	76633.68	0.0152	P	1.4
3	☐	50.000	51.539	151390.00	0.0306	P	1.5
4	☐	125.000	122.931	373056.92	0.0727	P	2.2
5	☐	250.000	248.765	709992.82	0.1469	P	1.0
6	☐	500.000	504.702	1437458.74	0.2978	P	2.7
7	☐	1000.000	998.130	2714136.49	0.5888	P	0.6
8	☐			76117.80	0.0178	P	5.7

$$y = 5.8965E-004 * x + 2.4783E-004$$

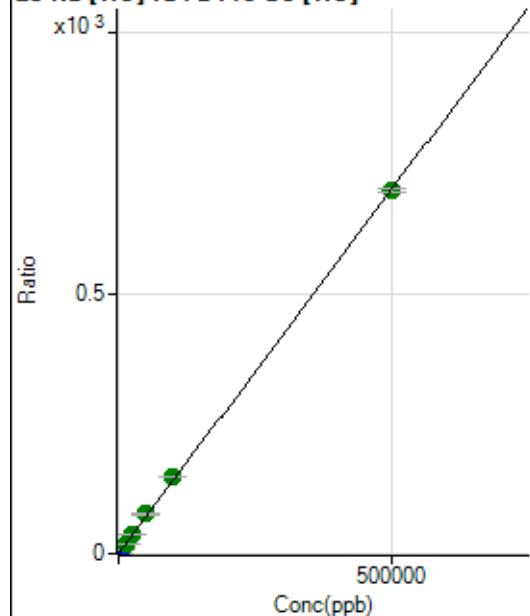
$$R = 1.0000$$

$$DL = 0.05832$$

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	8572.19	0.0223	P	4.6
2	☐	500.000	558.253	312351.57	0.8036	P	1.1
3	☐	5000.000	5331.326	2961794.75	7.4840	P	5.7
4	☐	12500.000	13618.958	7276935.06	19.0833	A	4.4
5	☐	25000.000	26636.385	13875707.08	37.3023	A	4.4
6	☐	50000.000	54235.774	29067332.94	75.9301	A	1.8
7	☐	100000.00	106311.08	56161456.81	148.8141	A	0.6
8	☐	500000.00	498201.04	253162936.2	697.2991	A	1.0

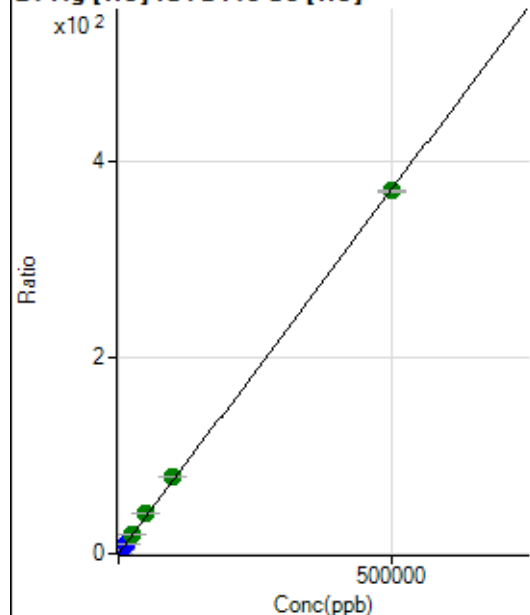
$$y = 0.0014 * x + 0.0223$$

$$R = 0.9999$$

$$DL = 2.217$$

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	208.35	0.0005	P	23.6
2	☐	500.000	565.854	163376.39	0.4203	P	0.4
3	☐	5000.000	5450.185	1600422.26	4.0438	P	5.6
4	☐	12500.000	13894.644	3930959.55	10.3085	P	4.4
5	☐	25000.000	27130.482	7487018.92	20.1276	A	4.4
6	☐	50000.000	54660.457	15524773.96	40.5511	A	1.2
7	☐	100000.00	105123.42	29432314.20	77.9877	A	0.5
8	☐	500000.00	498363.31	134233803.0	369.7178	A	0.4

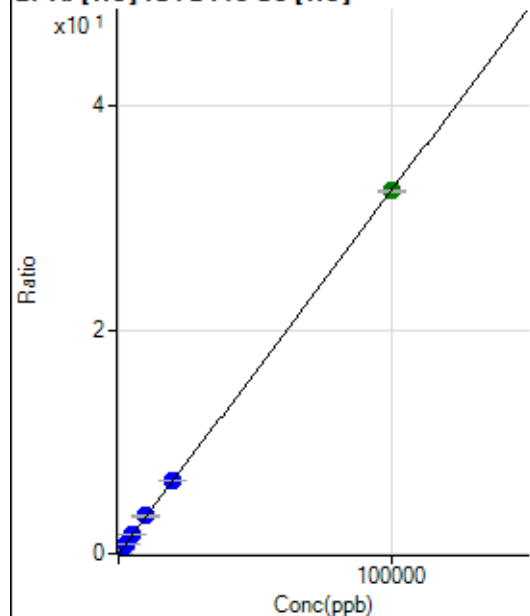
$$y = 7.4186E-004 * x + 5.4422E-004$$

$$R = 0.9999$$

$$DL = 0.52$$

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	55.56	0.0001	P	59.1
2	☐	20.000	21.030	2705.91	0.0070	P	7.7
3	☐	1000.000	1028.072	132042.97	0.3336	P	5.2
4	☐	2500.000	2651.398	328001.10	0.8601	P	4.0
5	☐	5000.000	5136.301	619771.50	1.6660	P	4.1
6	☐	10000.000	10407.409	1292257.72	3.3756	P	1.8
7	☐	20000.000	20130.200	2463978.57	6.5290	P	0.7
8	☐	100000.00	99922.338	11766287.15	32.4080	A	0.2

$$y = 3.2433E-004 * x + 1.4345E-004$$

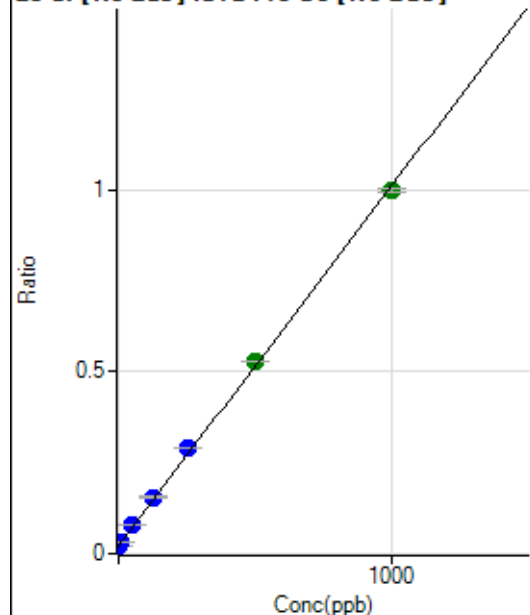
$$R = 1.0000$$

$$DL = 0.7841$$

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	223910.21	0.0217	P	2.5
2	☐	10.000	10.308	336440.89	0.0318	P	1.9
3	☐	50.000	58.366	832251.81	0.0793	P	0.9
4	☐	125.000	134.773	1699011.36	0.1549	P	4.9
5	☐	250.000	272.512	3049239.02	0.2910	P	0.4
6	☐	500.000	511.808	5511161.32	0.5275	A	0.4
7	☐	1000.000	986.825	10305459.52	0.9971	A	1.0
8	☐			419705.95	0.0440	P	0.9

$$y = 9.8844\text{E-}004 * x + 0.0217$$

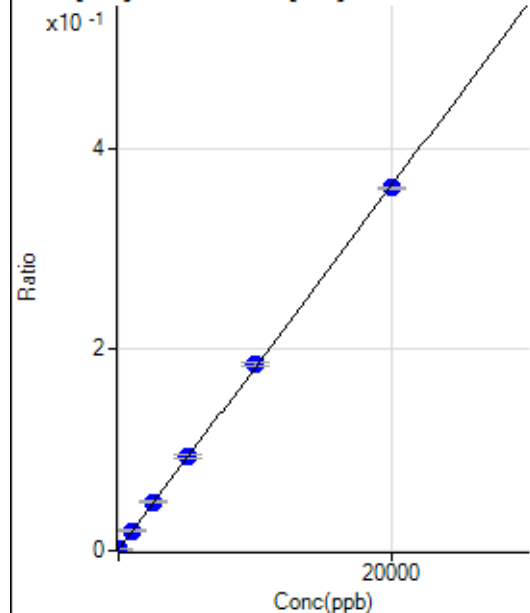
$$R = 0.9996$$

$$DL = 1.635$$

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	-33.993	191.68	0.0005	P	23.3
2	☐	0.000	33.993	672.27	0.0017	P	4.2
3	☐	1000.000	1016.479	7713.41	0.0195	P	7.9
4	☐	2500.000	2606.581	18409.28	0.0483	P	4.9
5	☐	5000.000	5128.839	34930.87	0.0939	P	4.8
6	☐	10000.000	10170.960	70885.89	0.1851	P	1.6
7	☐	20000.000	19868.164	136088.35	0.3606	P	0.4
8	☐			230.57	0.0006	P	22.7

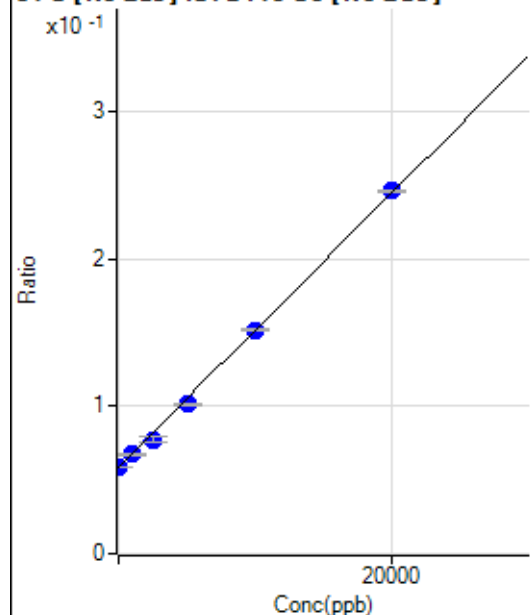
$$y = 1.8093\text{E-}005 * x + 0.0011$$

$$R = 0.9999$$

$$DL = 15.68$$

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	-4.628	606971.54	0.0587	P	1.2
2	☐	0.000	4.628	621028.84	0.0588	P	1.1
3	☐	1000.000	950.567	708965.69	0.0676	P	1.6
4	☐	2500.000	2018.951	850701.60	0.0776	P	5.4
5	☐	5000.000	4617.160	1066449.43	0.1018	P	1.2
6	☐	10000.000	10024.403	1590073.17	0.1522	P	0.5
7	☐	20000.000	20146.112	2548871.28	0.2466	P	0.6
8	☐			536673.14	0.0563	P	0.6

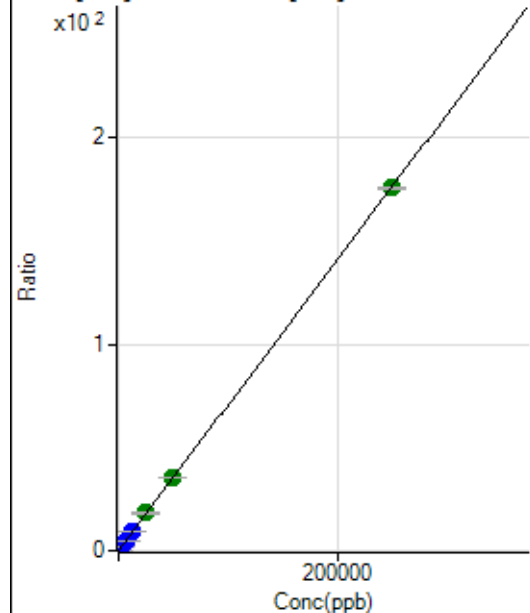
$$y = 9.3257\text{E-}006 * x + 0.0587$$

R = 0.9996

DL = 218.7

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	21627.63	0.0563	P	3.9
2	☐	500.000	541.540	169888.21	0.4371	P	1.0
3	☐	2500.000	2545.037	730586.09	1.8460	P	5.6
4	☐	6250.000	6554.923	1779276.27	4.6659	P	4.4
5	☐	12500.000	12794.996	3368117.83	9.0540	P	4.2
6	☐	25000.000	25944.089	7005548.42	18.3008	A	2.3
7	☐	50000.000	50511.122	13426390.75	35.5770	A	0.6
8	☐	250000.00	249780.46	63793433.37	175.7083	A	0.7

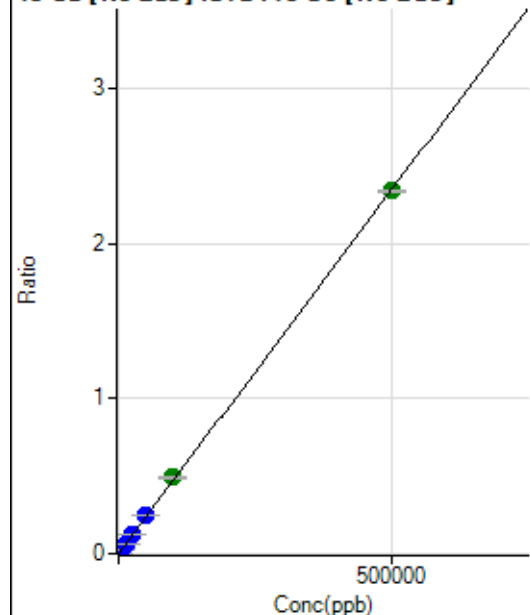
$$y = 7.0323\text{E-}004 * x + 0.0563$$

R = 1.0000

DL = 9.354

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	325.02	0.0000	P	9.5
2	☐	500.000	537.021	26994.87	0.0026	P	1.3
3	☐	5000.000	5310.764	262062.45	0.0250	P	1.5
4	☐	12500.000	12725.776	656261.51	0.0598	P	5.2
5	☐	25000.000	25946.720	1277682.72	0.1219	P	1.1
6	☐	50000.000	52686.291	2586376.01	0.2476	P	0.5
7	☐	100000.00	104464.05	5073547.46	0.4909	A	0.7
8	☐	500000.00	498782.43	22353639.21	2.3436	A	0.4

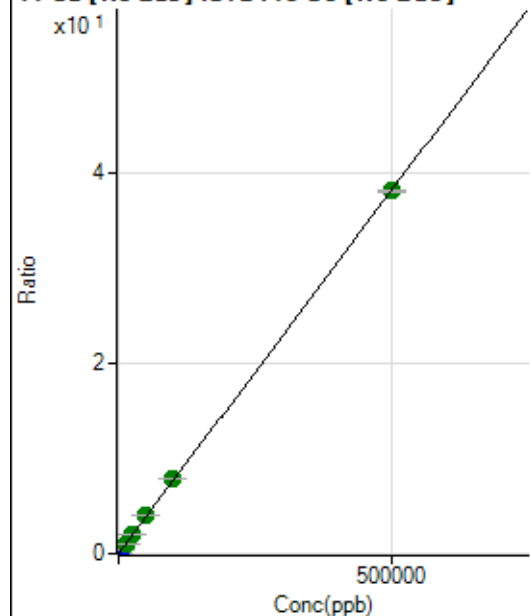
$$y = 4.6986\text{E-}006 * x + 3.1389\text{E-}005$$

$$R = 0.9999$$

$$DL = 1.908$$

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	5904.21	0.0006	P	2.5
2	☐	500.000	530.924	435210.53	0.0412	P	1.1
3	☐	5000.000	5252.099	4220276.18	0.4023	P	1.1
4	☐	12500.000	12350.828	10368242.25	0.9454	A	5.9
5	☐	25000.000	25323.632	20302974.93	1.9378	A	1.2
6	☐	50000.000	52197.226	41716644.33	3.9936	A	1.6
7	☐	100000.00	102024.93	80676254.58	7.8053	A	0.2
8	☐	500000.00	499360.28	364359194.2	38.2006	A	0.3

$$y = 7.6498\text{E-}005 * x + 5.7062\text{E-}004$$

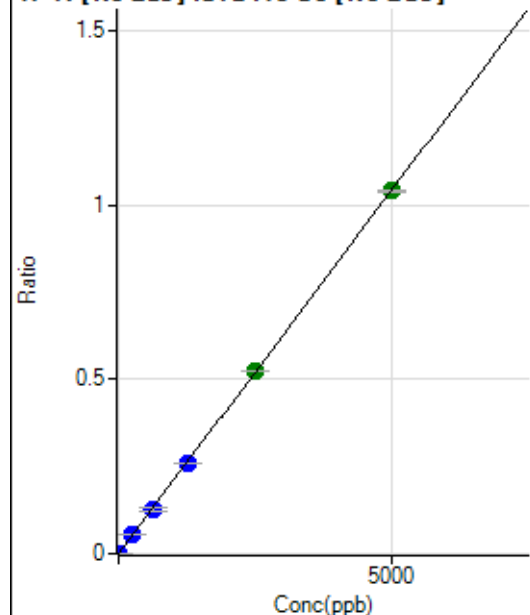
$$R = 1.0000$$

$$DL = 0.566$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.68	0.0000	P	35.1
2	☐	5.000	5.311	11935.82	0.0011	P	2.6
3	☐	250.000	254.260	556755.90	0.0531	P	1.2
4	☐	625.000	609.856	1396209.73	0.1273	P	5.2
5	☐	1250.000	1238.299	2707651.88	0.2584	P	0.8
6	☐	2500.000	2521.410	5496664.18	0.5262	A	0.3
7	☐	5000.000	4993.900	10771247.98	1.0421	A	0.3
8	☐			4077.50	0.0004	P	29.2

$$y = 2.0867E-004 * x + 2.1025E-005$$

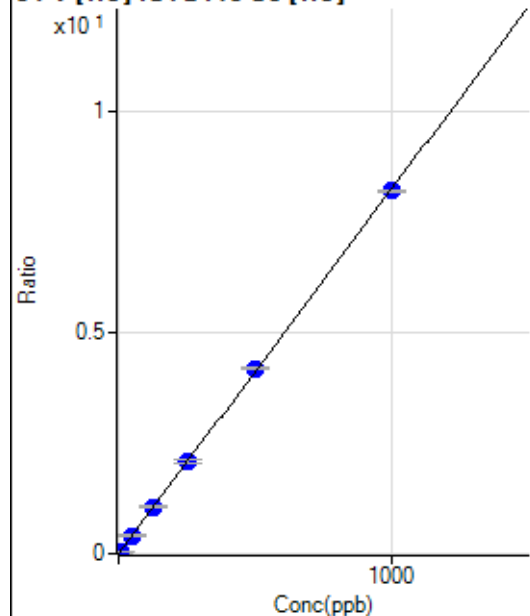
$$R = 1.0000$$

$$DL = 0.1061$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	48.4
2	☐	5.000	5.421	17373.71	0.0447	P	0.9
3	☐	50.000	49.139	160315.35	0.4051	P	5.6
4	☐	125.000	127.940	402177.83	1.0546	P	4.1
5	☐	250.000	251.583	771307.30	2.0738	P	4.8
6	☐	500.000	507.743	1602267.10	4.1853	P	1.3
7	☐	1000.000	995.406	3096492.73	8.2050	P	0.3
8	☐			1088.95	0.0030	P	6.2

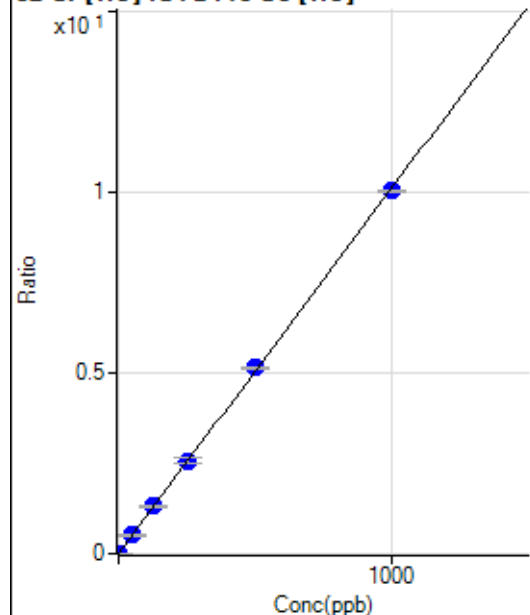
$$y = 0.0082 * x + 1.7231E-005$$

$$R = 0.9999$$

$$DL = 0.003036$$

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	513.35	0.0013	P	9.1
2	☐	2.000	2.152	8977.31	0.0231	P	1.7
3	☐	50.000	50.568	202885.71	0.5127	P	5.9
4	☐	125.000	130.242	502752.25	1.3184	P	4.2
5	☐	250.000	254.566	957888.87	2.5756	P	4.9
6	☐	500.000	509.362	1972405.63	5.1521	P	1.3
7	☐	1000.000	993.494	3791900.12	10.0477	P	0.6
8	☐			91399.81	0.2517	P	0.1

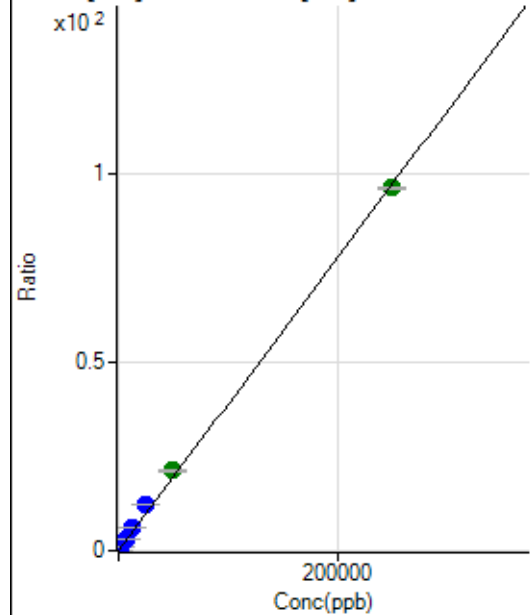
$$y = 0.0101 * x + 0.0013$$

$$R = 0.9999$$

$$DL = 0.0362$$

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	627.34	0.0016	P	11.2
2	☐	50.000	69.600	11119.15	0.0286	P	3.0
3	☐	2500.000	3111.406	477983.54	1.2076	P	5.3
4	☐	6250.000	8064.168	1192568.29	3.1272	P	4.2
5	☐	12500.000	15745.685	2270318.94	6.1045	P	5.0
6	☐	25000.000	31351.112	4652471.84	12.1531	P	1.7
7	☐	50000.000	54749.692	8009000.70	21.2222	A	0.6
8	☐	250000.00	248201.19	34928318.34	96.2023	A	0.2

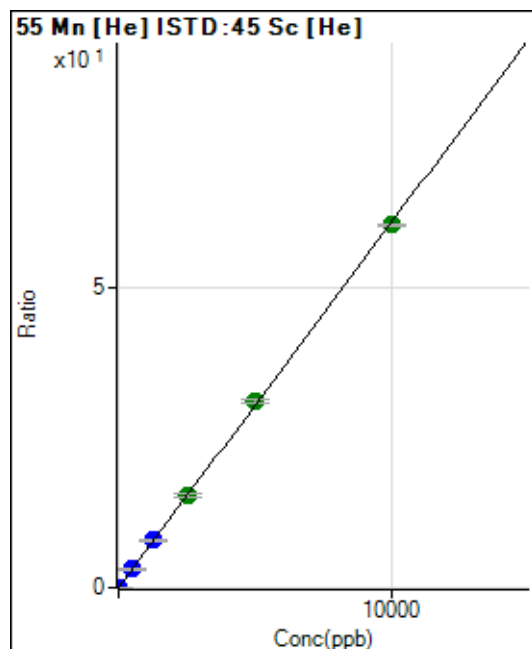
$$y = 3.8759E-004 * x + 0.0016$$

$$R = 0.9996$$

$$DL = 1.413$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	86.67	0.0002	P	29.4
2	☐	1.000	1.113	2722.52	0.0070	P	4.3
3	☐	500.000	504.955	1217696.35	3.0767	P	5.6
4	☐	1250.000	1297.685	3015241.73	7.9065	P	4.1
5	☐	2500.000	2524.102	5718917.41	15.3786	A	5.3
6	☐	5000.000	5110.836	11920542.60	31.1387	A	1.7
7	☐	10000.000	9932.348	22837777.44	60.5143	A	0.5
8	☐			21485.91	0.0592	P	1.3

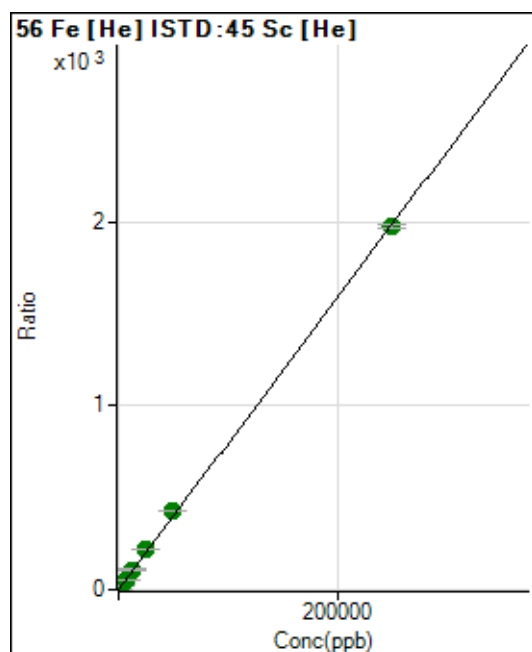
$$y = 0.0061 * x + 2.2659E-004$$

$$R = 0.9999$$

$$DL = 0.03283$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5343.70	0.0139	P	3.2
2	☐	50.000	61.688	195389.80	0.5027	P	1.3
3	☐	2500.000	2716.745	8526512.40	21.5414	A	5.3
4	☐	6250.000	6987.830	21125132.65	55.3855	A	3.5
5	☐	12500.000	13729.821	40472940.72	108.8091	A	4.5
6	☐	25000.000	27596.732	83727722.24	218.6906	A	0.9
7	☐	50000.000	54238.999	162205283.2	429.8042	A	0.1
8	☐	250000.00	248810.42	715810356.7	1,971.589	A	0.9

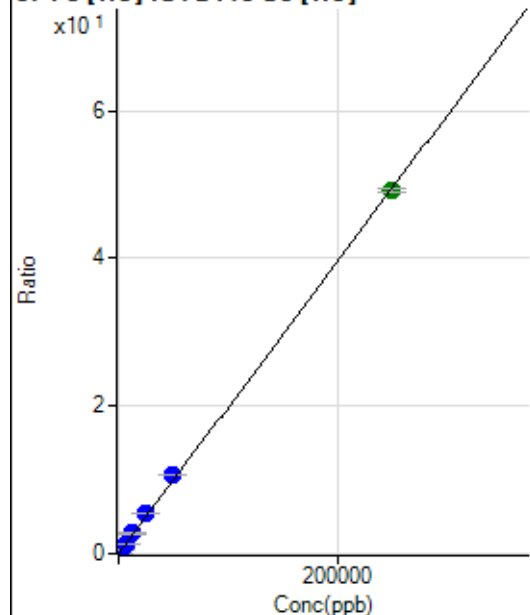
$$y = 0.0079 * x + 0.0139$$

$$R = 0.9998$$

$$DL = 0.1668$$

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	192.60	0.0005	P	20.9
2	☐	50.000	63.186	5047.31	0.0130	P	5.0
3	☐	2500.000	2747.786	215015.27	0.5433	P	5.8
4	☐	6250.000	7089.479	534286.10	1.4010	P	4.1
5	☐	12500.000	13849.285	1017790.68	2.7364	P	4.7
6	☐	25000.000	27811.300	2103496.98	5.4945	P	1.4
7	☐	50000.000	53989.326	4025196.70	10.6659	P	0.7
8	☐	250000.00	248830.07	17846586.51	49.1561	A	0.9

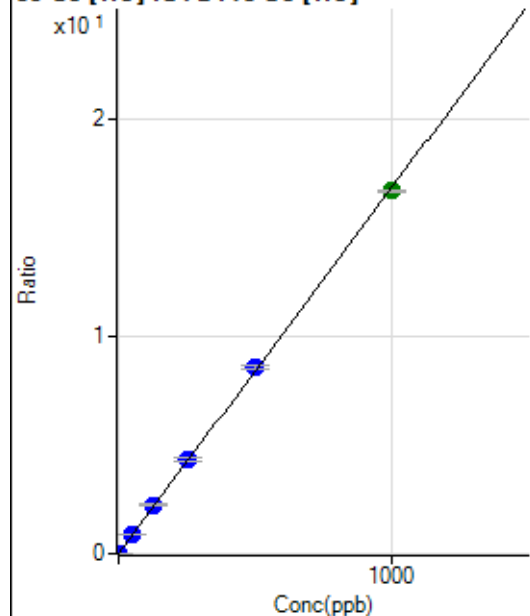
$$y = 1.9755E-004 * x + 5.0280E-004$$

$$R = 0.9998$$

$$DL = 1.597$$

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	126.67	0.0003	P	19.0
2	☐	1.000	1.087	7224.10	0.0186	P	0.4
3	☐	50.000	51.526	342573.67	0.8656	P	5.6
4	☐	125.000	131.967	845174.01	2.2164	P	4.4
5	☐	250.000	257.400	1607549.75	4.3228	P	5.3
6	☐	500.000	510.303	3280651.76	8.5697	P	1.8
7	☐	1000.000	992.051	6287170.67	16.6595	A	0.7
8	☐			11750.42	0.0324	P	0.6

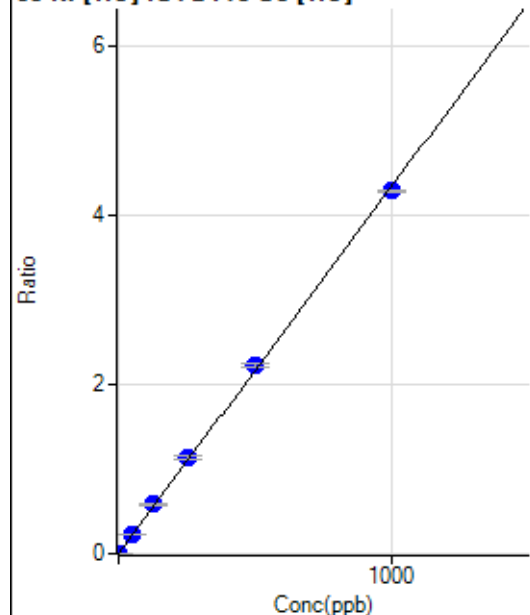
$$y = 0.0168 * x + 3.3009E-004$$

$$R = 0.9999$$

$$DL = 0.01122$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	96.67	0.0003	P	17.1
2	☐	1.000	1.256	2219.09	0.0057	P	3.2
3	☐	50.000	52.931	91137.76	0.2302	P	4.7
4	☐	125.000	134.633	223145.30	0.5851	P	4.1
5	☐	250.000	262.473	424170.98	1.1405	P	5.0
6	☐	500.000	514.358	855511.84	2.2348	P	1.7
7	☐	1000.000	988.352	1620497.34	4.2939	P	0.2
8	☐			25202.95	0.0694	P	1.3

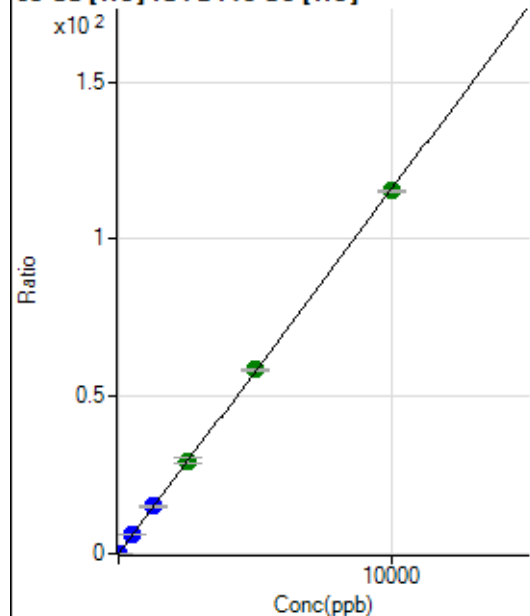
$$y = 0.0043 * x + 2.5096E-004$$

$$R = 0.9997$$

$$DL = 0.02969$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	686.69	0.0018	P	2.7
2	☐	2.000	2.224	10705.18	0.0275	P	0.8
3	☐	500.000	523.112	2398081.20	6.0588	P	5.4
4	☐	1250.000	1314.773	5806554.77	15.2252	P	3.9
5	☐	2500.000	2557.790	11014818.59	29.6177	A	5.1
6	☐	5000.000	5040.902	22346308.00	58.3689	A	1.1
7	☐	10000.000	9955.849	43504852.69	115.2776	A	0.3
8	☐			12721.23	0.0350	P	2.4

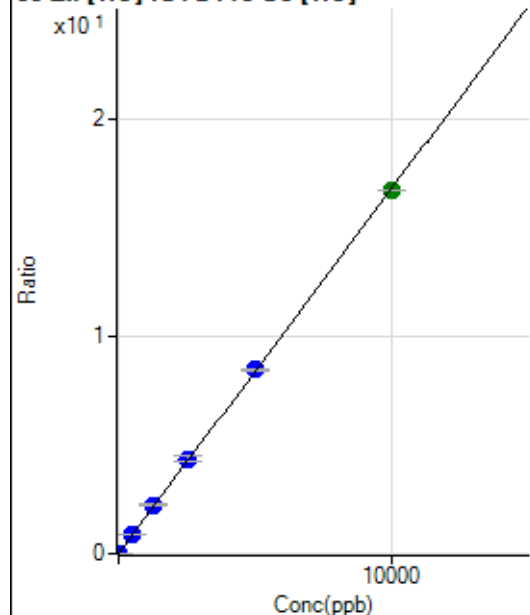
$$y = 0.0116 * x + 0.0018$$

$$R = 1.0000$$

$$DL = 0.0123$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1311.19	0.0034	P	7.6
2	☐	2.000	2.342	2853.66	0.0073	P	6.2
3	☐	500.000	528.664	352320.17	0.8902	P	5.6
4	☐	1250.000	1340.464	858835.44	2.2519	P	3.9
5	☐	2500.000	2601.336	1623964.53	4.3670	P	5.3
6	☐	5000.000	5039.817	3237692.14	8.4573	P	1.5
7	☐	10000.000	9942.017	6295066.71	16.6804	A	0.1
8	☐			23169.71	0.0638	P	1.9

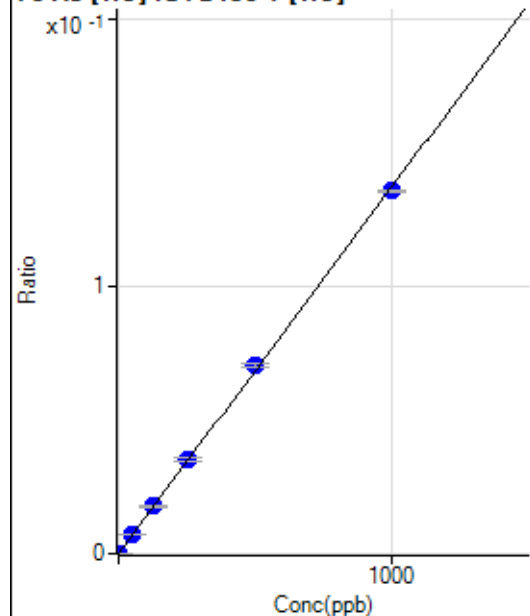
$$y = 0.0017 * x + 0.0034$$

$$R = 0.9999$$

$$DL = 0.4651$$

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	13.58	0.0000	P	60.7
2	☐	1.000	1.129	454.33	0.0002	P	2.1
3	☐	50.000	51.153	20423.69	0.0070	P	4.2
4	☐	125.000	129.949	50634.01	0.0178	P	3.3
5	☐	250.000	258.050	97188.58	0.0354	P	5.3
6	☐	500.000	513.596	198323.65	0.0704	P	2.0
7	☐	1000.000	990.513	375206.24	0.1358	P	0.5
8	☐			211.11	0.0001	P	9.3

$$y = 1.3713E-004 * x + 4.8094E-006$$

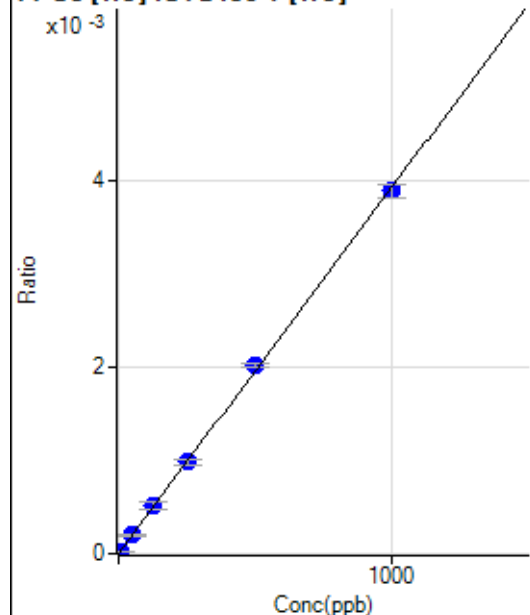
$$R = 0.9998$$

$$DL = 0.06387$$

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	5.571	62.22	0.0000	P	3.0
3	☐	50.000	50.942	578.91	0.0002	P	16.1
4	☐	125.000	130.248	1447.87	0.0005	P	15.1
5	☐	250.000	251.703	2711.41	0.0010	P	6.1
6	☐	500.000	514.698	5685.65	0.0020	P	2.9
7	☐	1000.000	991.519	10745.25	0.0039	P	3.7
8	☐			2.22	0.0000	P	86.6

$$y = 3.9235E-006 * x + 0.0000E+000$$

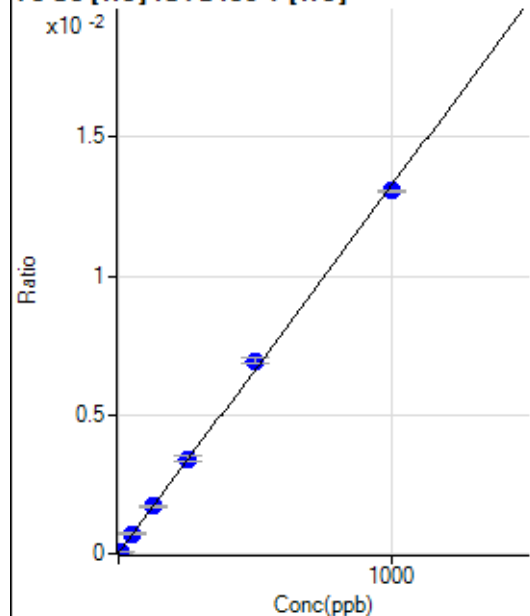
$$R = 0.9998$$

$$DL = 0$$

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	43.83	0.0000	P	45.1
2	☐	5.000	5.824	263.58	0.0001	P	13.4
3	☐	50.000	53.202	2089.06	0.0007	P	10.7
4	☐	125.000	127.601	4840.36	0.0017	P	5.3
5	☐	250.000	257.788	9417.94	0.0034	P	4.1
6	☐	500.000	523.201	19544.11	0.0069	P	2.8
7	☐	1000.000	985.963	36096.74	0.0131	P	0.8
8	☐			57.41	0.0000	P	5.0

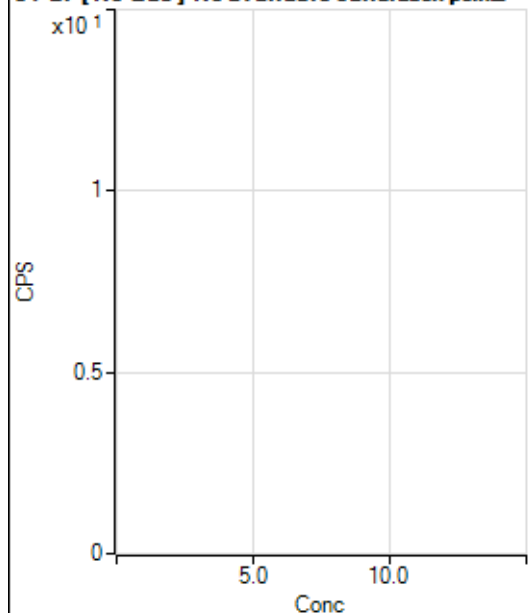
$$y = 1.3238E-005 * x + 1.5513E-005$$

$$R = 0.9996$$

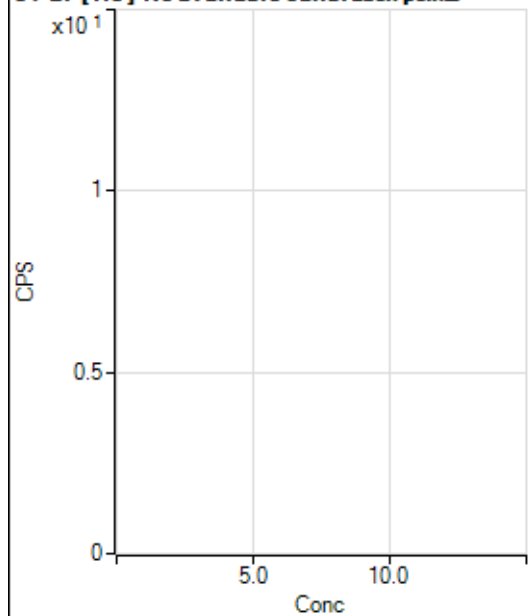
$$DL = 1.584$$

Weight: <None>

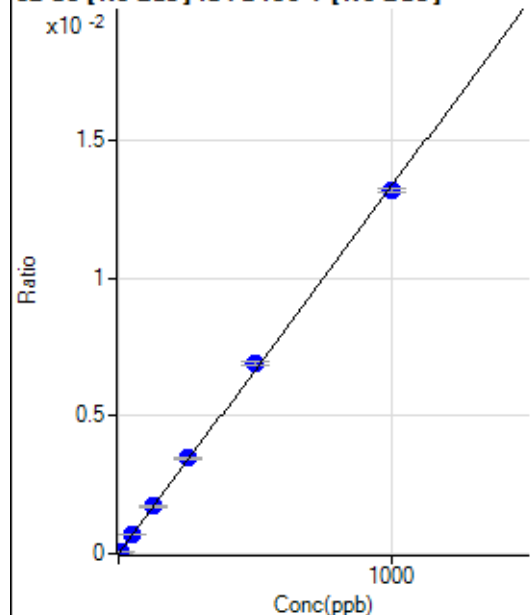
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			67641.31		P	0.9
2	☐			69219.89		P	0.2
3	☐			69300.10		P	2.6
4	☐			67627.56		P	2.4
5	☐			66880.58		P	2.8
6	☐			71748.04		P	0.9
7	☐			68746.58		P	2.2
8	☐			65167.06		P	2.0

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			76.75		P	41.9
2	☐			63.40		P	50.8
3	☐			40.04		P	25.0
4	☐			50.05		P	52.9
5	☐			50.05		P	0.0
6	☐			53.39		P	21.7
7	☐			26.69		P	142.
8	☐			40.04		P	43.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-37.74	0.0000	P	-39.
2	☐	5.000	5.898	1810.46	0.0001	P	6.7
3	☐	50.000	54.002	16861.13	0.0007	P	1.0
4	☐	125.000	129.093	42561.89	0.0017	P	4.2
5	☐	250.000	259.913	82270.16	0.0035	P	0.7
6	☐	500.000	518.541	164712.88	0.0069	P	1.5
7	☐	1000.000	987.535	307921.48	0.0131	P	0.9
8	☐			323.22	0.0000	P	29.4

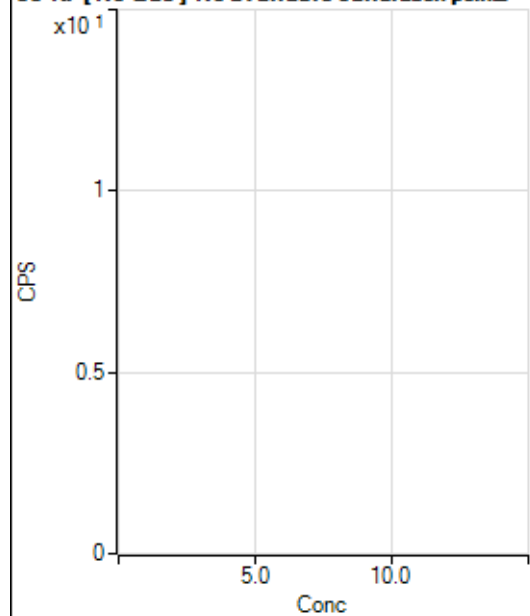
$$y = 1.3317E-005 * x - 1.5644E-006$$

$$R = 0.9997$$

$$DL = 0.1405$$

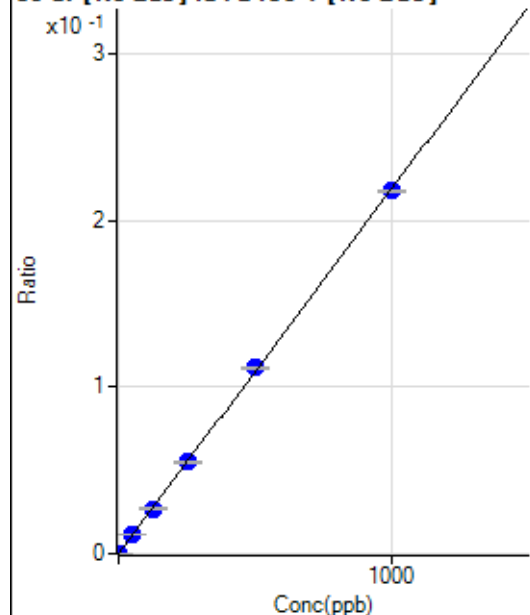
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			490.01		P	7.8
2	☐			455.57		P	18.4
3	☐			478.90		P	7.7
4	☐			491.13		P	10.3
5	☐			543.35		P	7.2
6	☐			506.68		P	4.6
7	☐			591.14		P	1.2
8	☐			520.02		P	13.5

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	650.04	0.0000	P	9.0
2	☐	1.000	1.087	6240.51	0.0003	P	1.2
3	☐	50.000	51.383	265162.44	0.0113	P	1.5
4	☐	125.000	122.908	667895.57	0.0270	P	4.5
5	☐	250.000	251.406	1310437.56	0.0551	P	1.4
6	☐	500.000	509.233	2662558.24	0.1116	P	1.4
7	☐	1000.000	995.224	5106795.73	0.2181	P	0.8
8	☐			10443.17	0.0005	P	2.7

$$y = 2.1909E-004 * x + 2.7133E-005$$

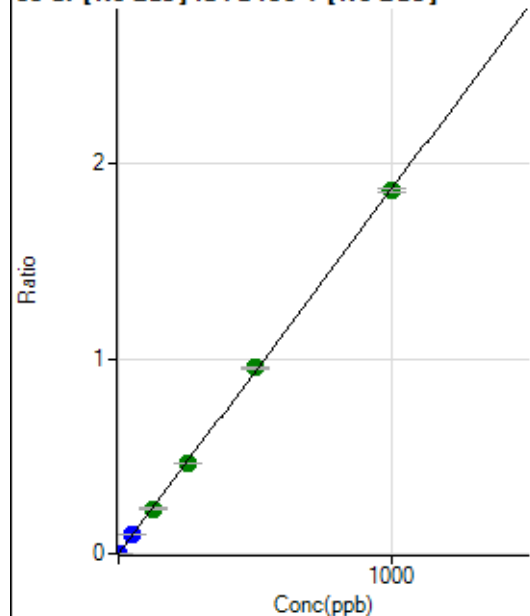
$$R = 0.9999$$

$$DL = 0.03339$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	208.34	0.0000	P	44.7
2	☐	1.000	1.063	47000.34	0.0020	P	1.1
3	☐	50.000	51.834	2279624.97	0.0970	P	0.8
4	☐	125.000	123.191	5710926.91	0.2306	A	5.7
5	☐	250.000	249.724	11113960.23	0.4674	A	0.2
6	☐	500.000	509.981	22771494.61	0.9544	A	1.3
7	☐	1000.000	995.213	43615999.59	1.8625	A	1.0
8	☐			85359.47	0.0040	P	1.4

$$y = 0.0019 * x + 8.7862E-006$$

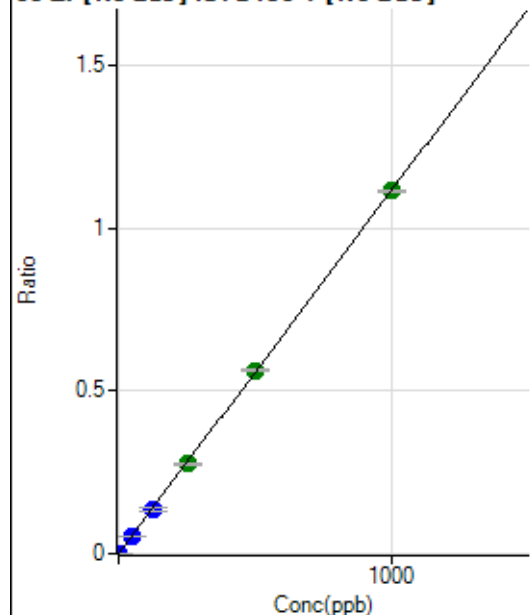
$$R = 0.9999$$

$$DL = 0.006289$$

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	1425.14	0.0001	P	13.9
2	☐	1.000	0.782	21914.64	0.0009	P	1.9
3	☐	50.000	50.060	1312956.48	0.0559	P	0.7
4	☐	125.000	121.429	3355839.07	0.1355	P	4.9
5	☐	250.000	246.371	6533726.01	0.2748	A	1.0
6	☐	500.000	504.872	13432276.17	0.5630	A	1.3
7	☐	1000.000	998.915	26083765.86	1.1138	A	0.3
8	☐			8947.59	0.0004	P	4.0

$$y = 0.0011 * x + 5.9791E-005$$

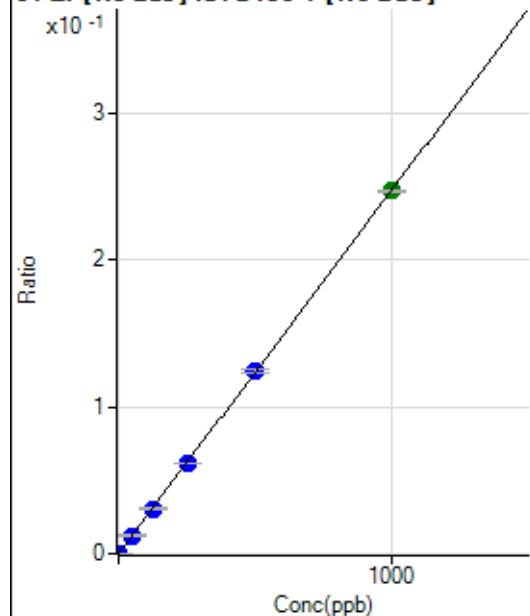
$$R = 1.0000$$

$$DL = 0.02233$$

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	286.13	0.0000	P	13.5
2	☐	1.000	0.774	4776.01	0.0002	P	4.8
3	☐	50.000	50.018	290468.39	0.0124	P	1.6
4	☐	125.000	122.430	749310.57	0.0302	P	4.5
5	☐	250.000	248.781	1460963.82	0.0614	P	1.3
6	☐	500.000	503.070	2963836.50	0.1242	P	1.4
7	☐	1000.000	999.090	5777137.45	0.2467	A	0.5
8	☐			2094.68	0.0001	P	3.9

$$y = 2.4691E-004 * x + 1.1987E-005$$

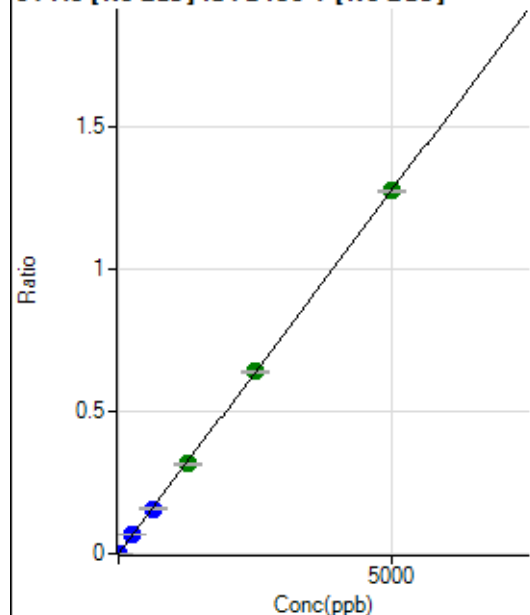
$$R = 1.0000$$

$$DL = 0.01971$$

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	458.36	0.0000	P	11.0
2	☐	5.000	4.961	30268.94	0.0013	P	1.1
3	☐	250.000	255.533	1534835.44	0.0653	P	1.3
4	☐	625.000	615.325	3897144.71	0.1573	P	4.1
5	☐	1250.000	1235.381	7507719.70	0.3157	A	0.7
6	☐	2500.000	2513.373	15325263.19	0.6423	A	0.8
7	☐	5000.000	4997.901	29909202.40	1.2772	A	0.8
8	☐			24043.32	0.0011	P	3.0

$$y = 2.5555\text{E-}004 * x + 1.9123\text{E-}005$$

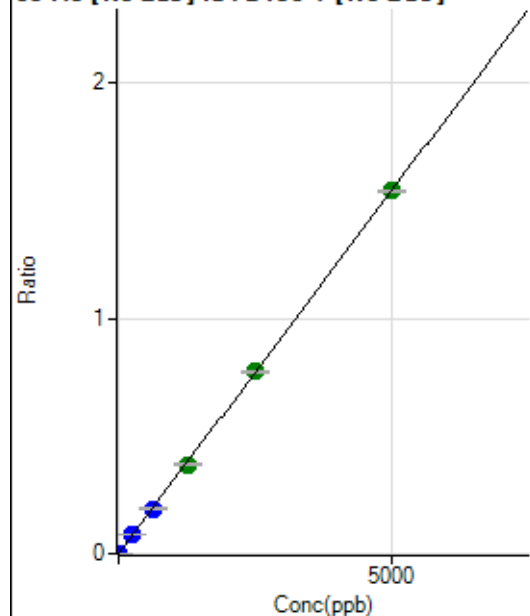
$$R = 1.0000$$

$$DL = 0.02461$$

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	80.56	0.0000	P	26.4
2	☐	5.000	5.574	40511.46	0.0017	P	1.6
3	☐	250.000	255.979	1855047.26	0.0789	P	1.0
4	☐	625.000	613.619	4688371.29	0.1892	P	5.0
5	☐	1250.000	1231.191	9028903.33	0.3797	A	1.5
6	☐	2500.000	2511.885	18483537.74	0.7747	A	0.9
7	☐	5000.000	4999.883	36108838.66	1.5419	A	0.8
8	☐			35483.94	0.0017	P	0.9

$$y = 3.0840\text{E-}004 * x + 3.3508\text{E-}006$$

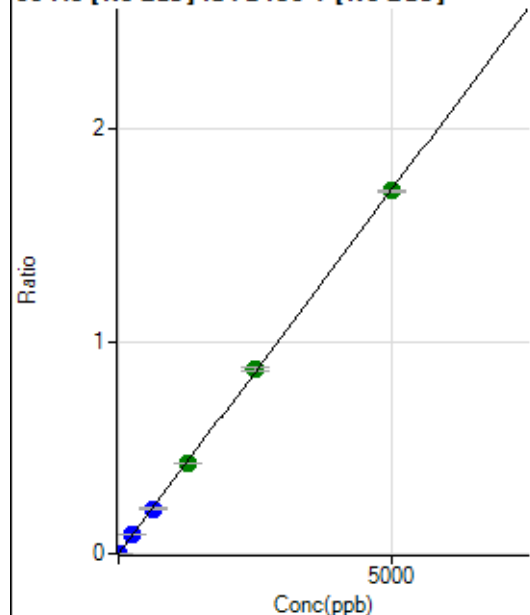
$$R = 1.0000$$

$$DL = 0.008604$$

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	288.90	0.0000	P	10.6
2	☐	5.000	5.342	43356.14	0.0018	P	0.9
3	☐	250.000	256.285	2064385.13	0.0879	P	1.1
4	☐	625.000	611.687	5195435.66	0.2097	P	4.4
5	☐	1250.000	1235.730	10072333.56	0.4236	A	0.7
6	☐	2500.000	2535.041	20730615.05	0.8689	A	1.8
7	☐	5000.000	4987.396	40032374.16	1.7095	A	0.9
8	☐			61238.14	0.0029	P	1.0

$$y = 3.4276E-004 * x + 1.2112E-005$$

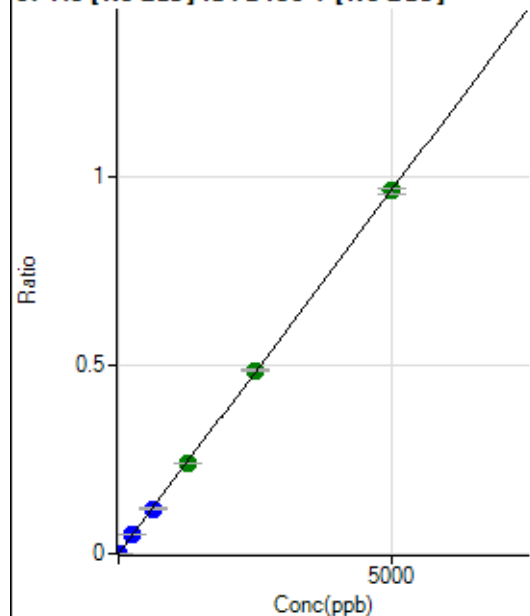
$$R = 1.0000$$

$$DL = 0.01123$$

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	86.12	0.0000	P	6.8
2	☐	5.000	5.501	25050.58	0.0011	P	0.8
3	☐	250.000	256.045	1160851.72	0.0494	P	0.8
4	☐	625.000	614.968	2939873.96	0.1187	P	4.7
5	☐	1250.000	1242.609	5700897.74	0.2397	A	1.2
6	☐	2500.000	2518.297	11592538.54	0.4859	A	1.3
7	☐	5000.000	4993.650	22561031.93	0.9634	A	1.3
8	☐			21970.53	0.0010	P	3.1

$$y = 1.9293E-004 * x + 3.6048E-006$$

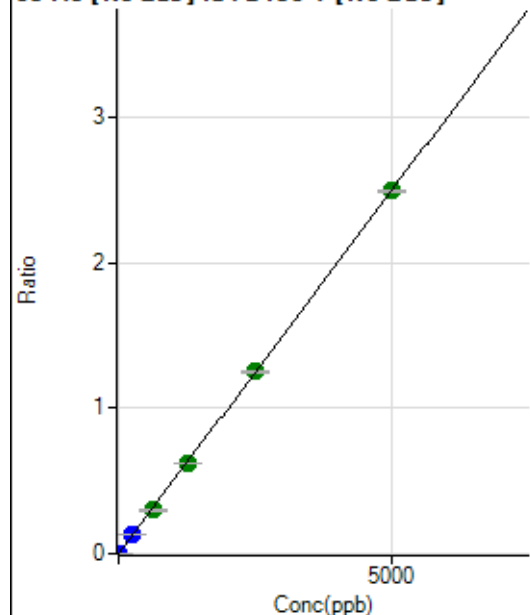
$$R = 1.0000$$

$$DL = 0.003819$$

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	150.01	0.0000	P	7.4
2	☐	5.000	5.442	63986.20	0.0027	P	0.6
3	☐	250.000	254.441	2981873.24	0.1269	P	1.0
4	☐	625.000	603.254	7455405.46	0.3009	A	4.2
5	☐	1250.000	1239.451	14699169.77	0.6181	A	1.2
6	☐	2500.000	2512.455	29897114.21	1.2530	A	1.2
7	☐	5000.000	4998.906	58381658.94	2.4931	A	0.8
8	☐			55012.72	0.0026	P	1.5

$$y = 4.9872E-004 * x + 6.2674E-006$$

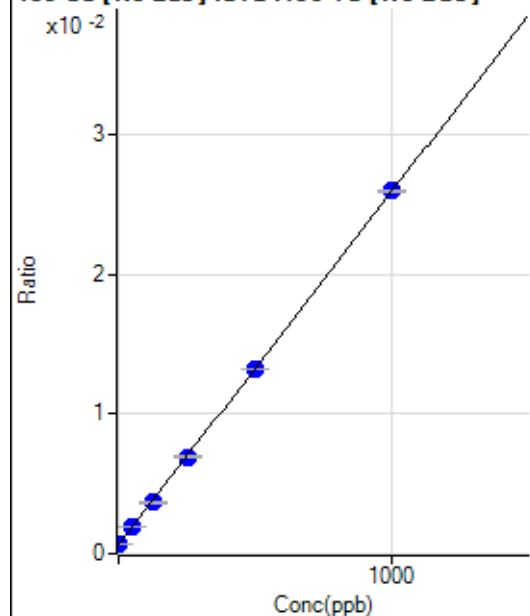
$$R = 1.0000$$

$$DL = 0.002777$$

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	12781.27	0.0006	P	1.7
2	☐	1.000	0.748	13390.18	0.0007	P	3.7
3	☐	50.000	52.137	39690.24	0.0020	P	1.0
4	☐	125.000	121.478	80213.32	0.0037	P	3.8
5	☐	250.000	247.948	143841.20	0.0069	P	1.5
6	☐	500.000	496.453	272649.60	0.0132	P	0.1
7	☐	1000.000	1002.620	518659.28	0.0260	P	0.8
8	☐			12147.36	0.0007	P	3.9

$$y = 2.5251E-005 * x + 6.3830E-004$$

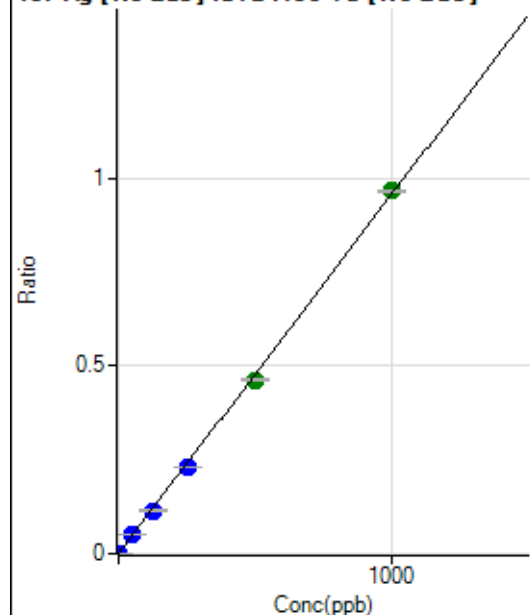
$$R = 1.0000$$

$$DL = 1.299$$

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	275.02	0.0000	P	18.8
2	☐	1.000	1.135	22412.95	0.0011	P	1.7
3	☐	50.000	51.551	1002520.97	0.0494	P	1.7
4	☐	125.000	120.135	2490083.26	0.1151	P	4.3
5	☐	250.000	242.034	4832688.65	0.2318	P	0.3
6	☐	500.000	484.483	9602030.34	0.4640	A	0.4
7	☐	1000.000	1010.280	19332490.71	0.9675	A	0.6
8	☐			4286.95	0.0002	P	1.5

$$y = 9.5762\text{E-}004 * x + 1.3691\text{E-}005$$

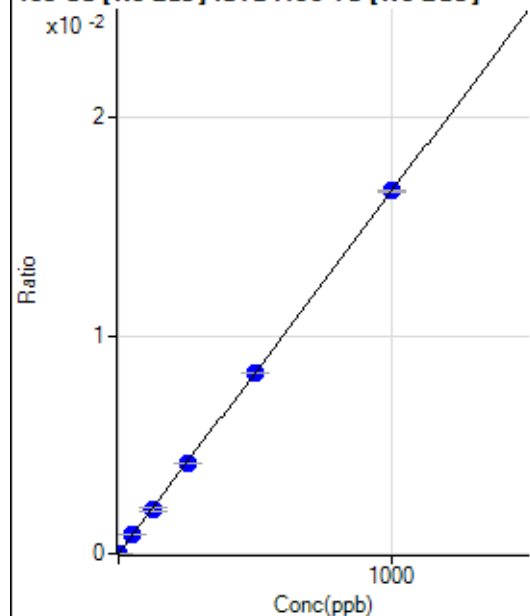
$$R = 0.9998$$

$$DL = 0.008079$$

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	26.39	0.0000	P	35.0
2	☐	1.000	0.988	361.12	0.0000	P	10.5
3	☐	50.000	52.277	17655.69	0.0009	P	1.7
4	☐	125.000	122.409	44014.36	0.0020	P	5.3
5	☐	250.000	249.619	86468.92	0.0041	P	0.8
6	☐	500.000	497.727	171114.20	0.0083	P	0.5
7	☐	1000.000	1001.442	332395.26	0.0166	P	0.7
8	☐			145.84	0.0000	P	24.0

$$y = 1.6609\text{E-}005 * x + 1.3274\text{E-}006$$

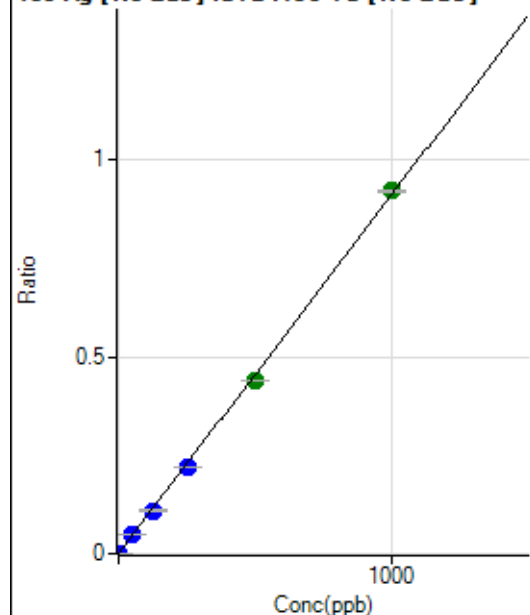
$$R = 1.0000$$

$$DL = 0.08383$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	32.2
2	☐	1.000	1.144	21283.51	0.0010	P	3.3
3	☐	50.000	51.600	955231.01	0.0470	P	1.0
4	☐	125.000	119.970	2367341.76	0.1094	P	4.1
5	☐	250.000	241.108	4583540.47	0.2198	P	0.2
6	☐	500.000	482.964	9113479.29	0.4404	A	0.8
7	☐	1000.000	1011.290	18424774.02	0.9221	A	0.2
8	☐			4017.40	0.0002	P	4.5

$$y = 9.1177\text{E-}004 * x + 1.7928\text{E-}006$$

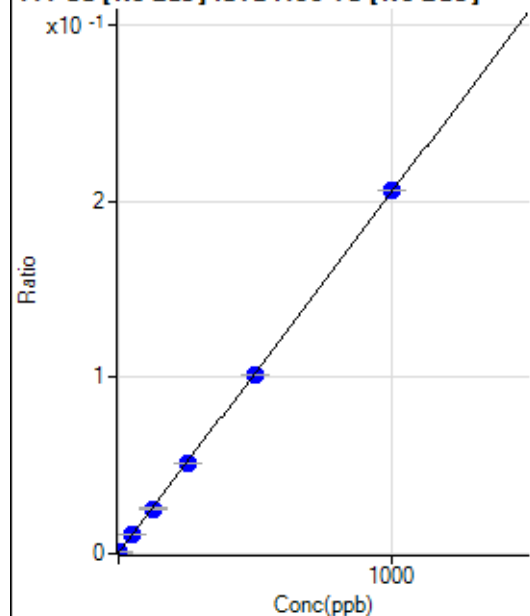
$$R = 0.9997$$

$$DL = 0.001897$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8983.97	0.0004	P	1.7
2	☐	1.000	1.026	13416.92	0.0007	P	1.9
3	☐	50.000	52.226	226170.09	0.0111	P	1.2
4	☐	125.000	122.634	552941.96	0.0256	P	4.7
5	☐	250.000	248.287	1069095.75	0.0513	P	0.4
6	☐	500.000	494.278	2103329.67	0.1016	P	0.5
7	☐	1000.000	1003.474	4113765.85	0.2059	P	0.1
8	☐			9376.12	0.0005	P	3.2

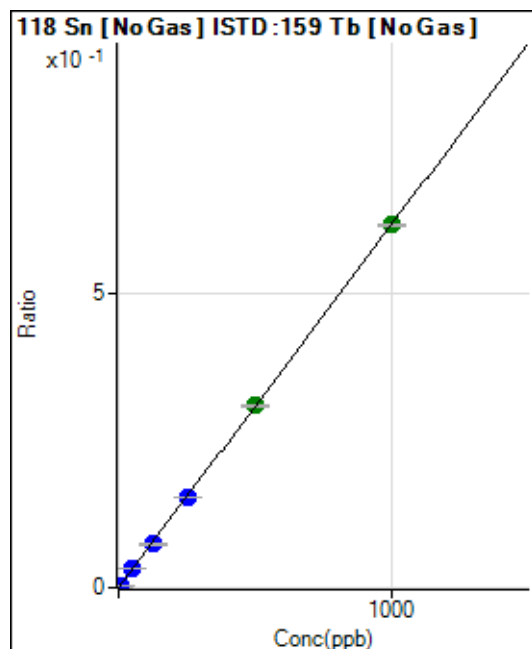
$$y = 2.0471\text{E-}004 * x + 4.4866\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.1114$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.60	0.0000	P	9.0
2	☐	5.000	5.165	65729.98	0.0032	P	0.3
3	☐	50.000	51.365	645723.17	0.0318	P	1.7
4	☐	125.000	121.432	1626256.96	0.0751	P	4.3
5	☐	250.000	248.347	3203626.89	0.1537	P	0.8
6	☐	500.000	502.719	6436273.28	0.3110	A	0.9
7	☐	1000.000	999.430	12354440.12	0.6183	A	0.3
8	☐			14928.06	0.0008	P	3.2

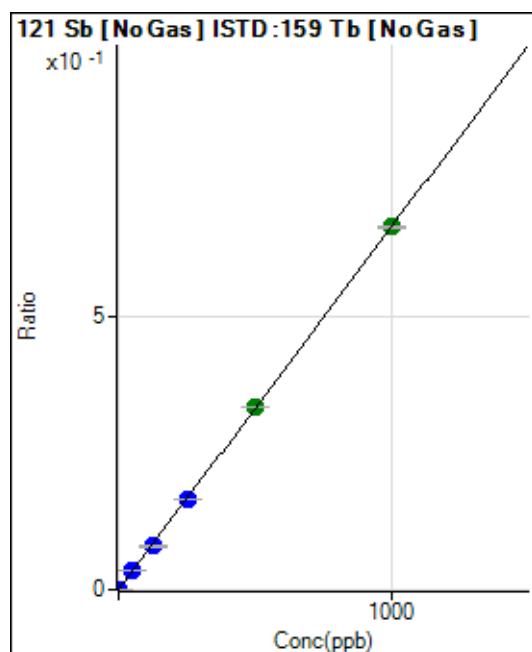
$$y = 6.1859\text{E-}004 * x + 3.1509\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.01369$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.45	0.0000	P	15.4
2	☐	2.000	2.048	27864.76	0.0014	P	1.8
3	☐	50.000	50.894	688615.95	0.0339	P	1.4
4	☐	125.000	121.335	1749921.70	0.0809	P	4.1
5	☐	250.000	248.694	3455159.36	0.1657	P	0.7
6	☐	500.000	501.713	6918892.52	0.3343	A	0.2
7	☐	1000.000	999.883	13313844.74	0.6663	A	0.2
8	☐			17625.67	0.0010	P	7.9

$$y = 6.6635\text{E-}004 * x + 3.4599\text{E-}006$$

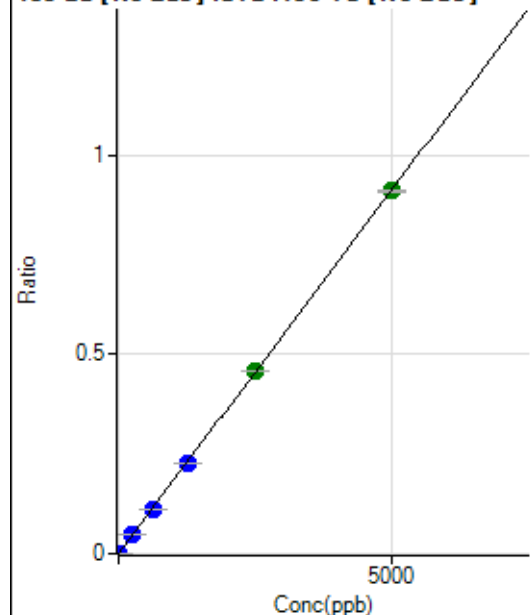
$$R = 1.0000$$

$$DL = 0.002404$$

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	36.11	0.0000	P	25.5
2	☐	10.000	10.687	39741.14	0.0020	P	1.4
3	☐	250.000	259.604	961283.00	0.0473	P	0.8
4	☐	625.000	609.831	2407241.66	0.1112	P	3.7
5	☐	1250.000	1242.903	4725979.92	0.2267	P	0.2
6	☐	2500.000	2520.980	9514618.96	0.4598	A	0.4
7	☐	5000.000	4992.699	18194128.36	0.9105	A	0.3
8	☐			31834.59	0.0018	P	0.9

$$y = 1.8237E-004 * x + 1.7998E-006$$

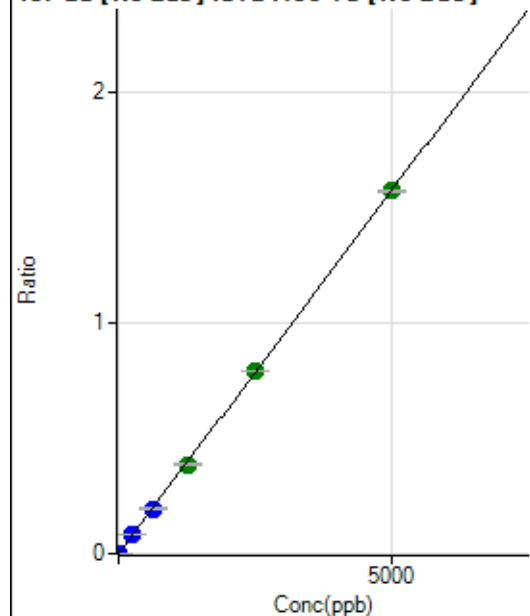
$$R = 1.0000$$

$$DL = 0.007542$$

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	55.56	0.0000	P	19.3
2	☐	10.000	10.644	68260.35	0.0034	P	2.6
3	☐	250.000	258.573	1651609.38	0.0813	P	1.2
4	☐	625.000	611.170	4161238.07	0.1923	P	4.1
5	☐	1250.000	1231.716	8079053.04	0.3875	A	0.3
6	☐	2500.000	2514.727	16372472.76	0.7911	A	0.3
7	☐	5000.000	4998.506	31421973.62	1.5725	A	0.4
8	☐			54650.49	0.0031	P	1.9

$$y = 3.1459E-004 * x + 2.7825E-006$$

$$R = 1.0000$$

$$DL = 0.005109$$

Weight: <None>

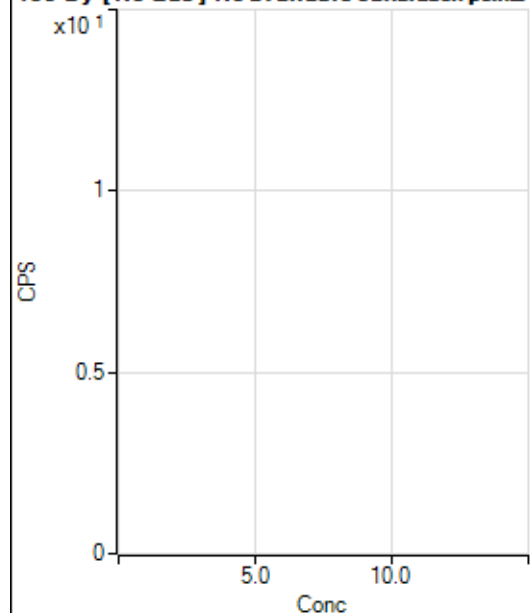
Min Conc: 0

150 Nd [No Gas] No available calibration points

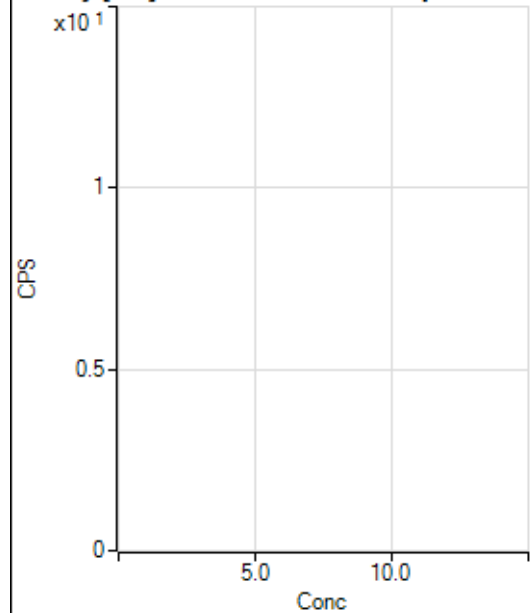
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	50.0
2	☐			2.22		P	173.
3	☐			177.79		P	16.9
4	☐			395.58		P	3.9
5	☐			800.05		P	15.8
6	☐			1515.70		P	4.7
7	☐			3076.02		P	2.6
8	☐			144.45		P	30.7

150 Nd [He] No available calibration points

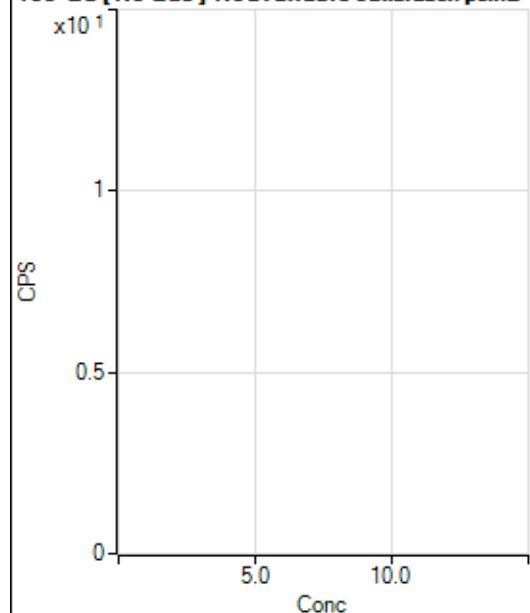
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			3.33		P	100.
3	☐			8.89		P	57.3
4	☐			31.11		P	37.6
5	☐			51.11		P	18.8
6	☐			106.67		P	13.6
7	☐			181.12		P	17.9
8	☐			58.89		P	6.5

156 Dy [No Gas] No available calibration points

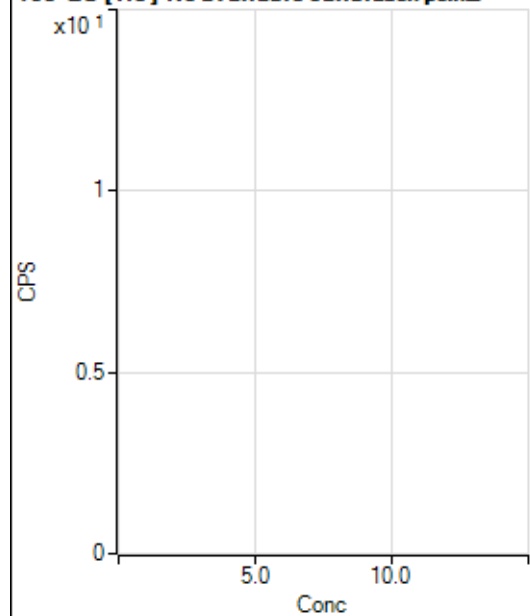
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			55.56		P	56.8
2	☐			47.22		P	44.4
3	☐			88.90		P	30.1
4	☐			136.12		P	21.5
5	☐			216.68		P	34.2
6	☐			361.13		P	11.4
7	☐			594.48		P	4.9
8	☐			1058.42		P	1.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	45.8
2	☐			16.67		P	NaN
3	☐			27.78		P	13.9
4	☐			67.78		P	31.6
5	☐			126.67		P	13.7
6	☐			232.23		P	6.8
7	☐			408.90		P	1.7
8	☐			468.90		P	17.4

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

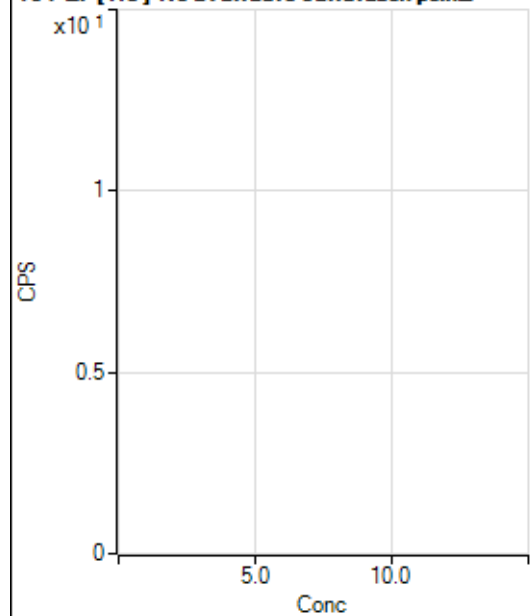
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			152.78		P	35.5
2	☐			147.23		P	8.6
3	☐			150.01		P	22.2
4	☐			202.79		P	12.6
5	☐			188.90		P	22.6
6	☐			252.79		P	7.6
7	☐			366.69		P	14.2
8	☐			1077.87		P	7.9

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			330.01		P	9.6
2	☐			340.01		P	11.6
3	☐			338.90		P	13.8
4	☐			363.34		P	8.4
5	☐			331.12		P	11.3
6	☐			380.01		P	4.6
7	☐			456.68		P	2.9
8	☐			760.04		P	4.2

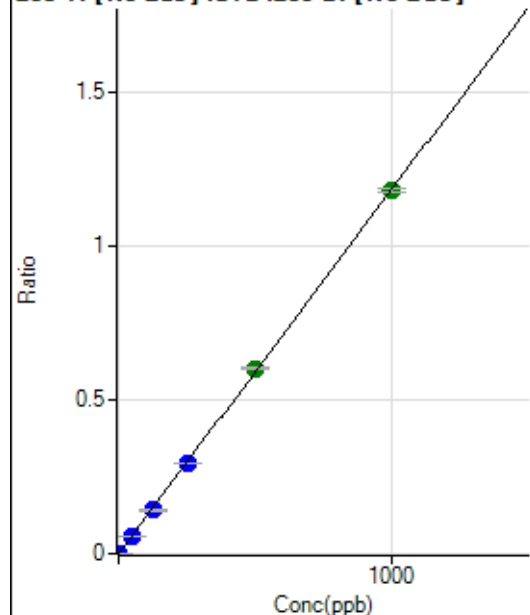
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			91.67		P	36.4
2	☐			83.34		P	10.0
3	☐			80.56		P	15.8
4	☐			122.23		P	39.4
5	☐			80.56		P	52.1
6	☐			133.34		P	10.8
7	☐			136.12		P	34.8
8	☐			216.68		P	16.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	26.5
2	☐			31.11		P	30.9
3	☐			26.67		P	54.5
4	☐			46.67		P	7.1
5	☐			40.00		P	36.3
6	☐			71.11		P	16.5
7	☐			53.33		P	6.3
8	☐			121.11		P	4.2

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	277.79	0.0000	P	17.7
2	☐	1.000	0.991	15212.09	0.0012	P	0.9
3	☐	50.000	49.894	737817.51	0.0590	P	0.8
4	☐	125.000	120.194	1863519.33	0.1420	P	4.2
5	☐	250.000	248.177	3677153.56	0.2932	P	0.1
6	☐	500.000	508.473	7164211.53	0.6007	A	1.5
7	☐	1000.000	996.825	13420041.27	1.1776	A	1.1
8	☐			3595.10	0.0004	P	5.9

$$y = 0.0012 * x + 2.1994E-005$$

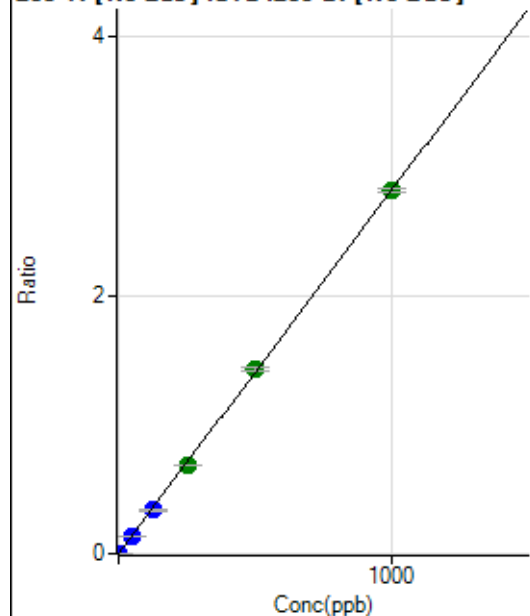
$$R = 0.9999$$

$$DL = 0.00987$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	558.37	0.0000	P	8.8
2	☐	1.000	1.001	36439.93	0.0029	P	2.6
3	☐	50.000	49.991	1758090.77	0.1405	P	1.0
4	☐	125.000	120.169	4430588.29	0.3377	P	4.6
5	☐	250.000	244.212	8605832.83	0.6862	A	0.3
6	☐	500.000	506.300	16965796.39	1.4226	A	1.9
7	☐	1000.000	998.901	31984495.51	2.8066	A	1.2
8	☐			8444.69	0.0009	P	0.9

$$y = 0.0028 * x + 4.4194E-005$$

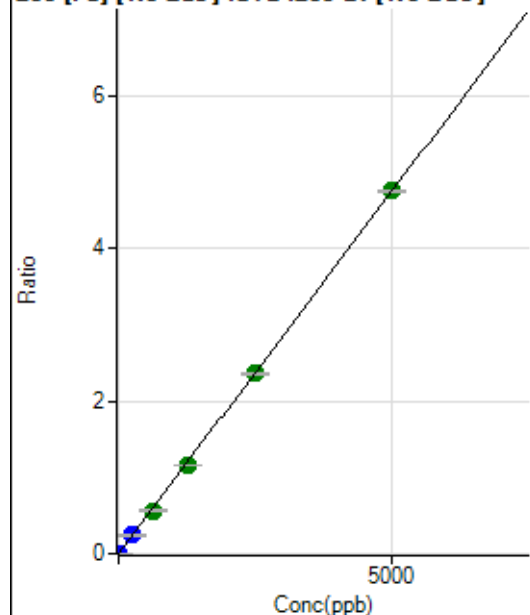
$$R = 0.9999$$

$$DL = 0.004172$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	592.62	0.0000	P	6.8
2	☐	1.000	1.006	12765.72	0.0010	P	4.3
3	☐	250.000	253.401	3007920.73	0.2404	P	1.0
4	☐	625.000	594.163	7395213.77	0.5636	A	4.4
5	☐	1250.000	1227.803	14605264.79	1.1646	A	0.3
6	☐	2500.000	2494.605	28219762.20	2.3661	A	1.0
7	☐	5000.000	5011.931	54173713.71	4.7536	A	0.4
8	☐			47585.59	0.0052	P	1.8

$$y = 9.4845\text{E-}004 * x + 4.6945\text{E-}005$$

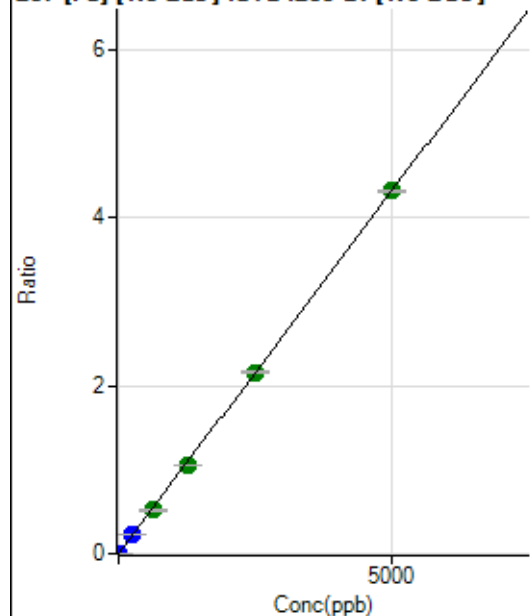
$$R = 1.0000$$

$$DL = 0.01006$$

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	529.66	0.0000	P	5.6
2	☐	1.000	0.979	11308.77	0.0009	P	1.4
3	☐	250.000	253.185	2732399.54	0.2184	P	0.9
4	☐	625.000	597.803	6764212.42	0.5155	A	4.7
5	☐	1250.000	1222.229	13218449.25	1.0540	A	0.5
6	☐	2500.000	2506.862	25782356.13	2.1617	A	1.1
7	☐	5000.000	5006.752	49201876.56	4.3174	A	0.8
8	☐			42471.89	0.0047	P	0.6

$$y = 8.6231\text{E-}004 * x + 4.1930\text{E-}005$$

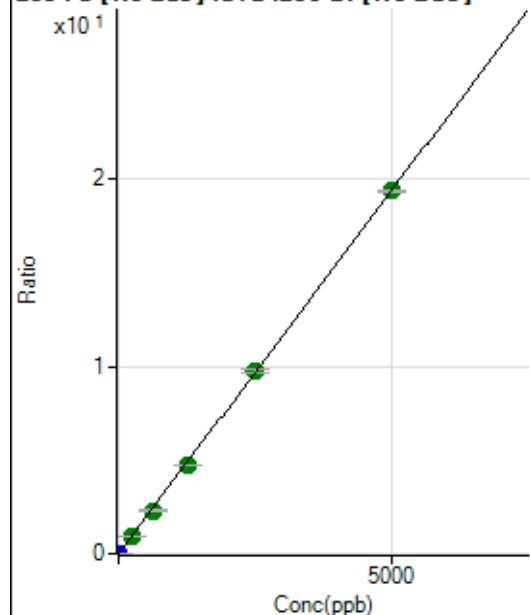
$$R = 1.0000$$

$$DL = 0.008208$$

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	2329.78	0.0002	P	7.4
2	☐	1.000	0.998	51670.17	0.0041	P	2.1
3	☐	250.000	249.659	12101070.24	0.9671	A	1.1
4	☐	625.000	593.930	30181151.09	2.3004	A	4.8
5	☐	1250.000	1227.451	59621399.25	4.7540	A	0.1
6	☐	2500.000	2521.815	116483000.7	9.7669	A	1.8
7	☐	5000.000	4998.630	220623351.2	19.3594	A	0.6
8	☐			192262.36	0.0211	P	0.5

$$y = 0.0039 * x + 1.8453E-004$$

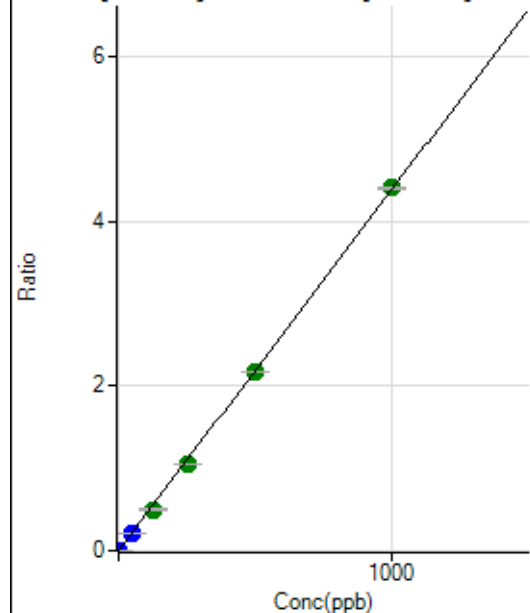
$$R = 1.0000$$

$$DL = 0.01057$$

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	7809.99	0.0006	P	8.0
2	☐	1.000	0.676	45628.11	0.0036	P	2.2
3	☐	50.000	45.713	2512512.82	0.2008	P	1.8
4	☐	125.000	113.299	6518692.97	0.4968	A	4.2
5	☐	250.000	239.732	13173635.13	1.0504	A	0.1
6	☐	500.000	495.777	25901024.42	2.1717	A	0.9
7	☐	1000.000	1006.356	50228472.42	4.4075	A	0.9
8	☐			22764.76	0.0025	P	5.4

$$y = 0.0044 * x + 6.1791E-004$$

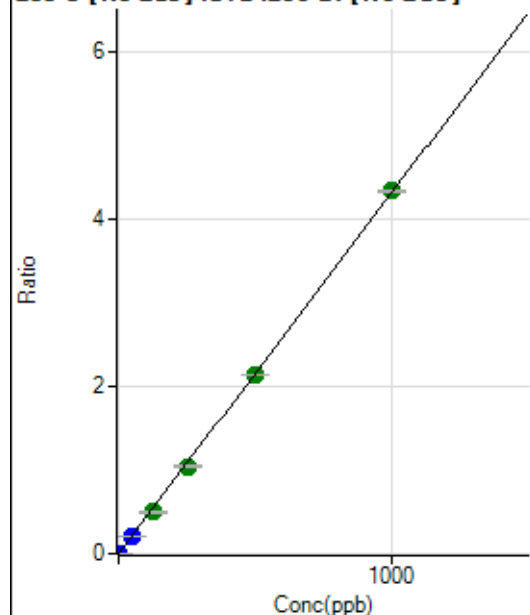
$$R = 0.9999$$

$$DL = 0.03366$$

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	119.45	0.0000	P	40.1
2	☐	1.000	0.939	51865.23	0.0041	P	1.4
3	☐	50.000	48.212	2606698.24	0.2083	P	1.1
4	☐	125.000	115.435	6544665.73	0.4988	A	4.4
5	☐	250.000	242.455	13138322.69	1.0476	A	0.7
6	☐	500.000	495.135	25515837.38	2.1393	A	0.7
7	☐	1000.000	1005.604	49516147.63	4.3449	A	0.6
8	☐			6037.81	0.0007	P	4.1

$$y = 0.0043 * x + 9.4621E-006$$

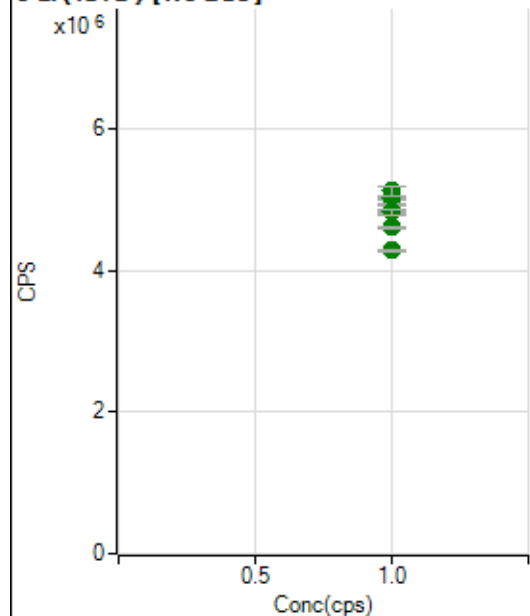
$$R = 0.9999$$

$$DL = 0.002634$$

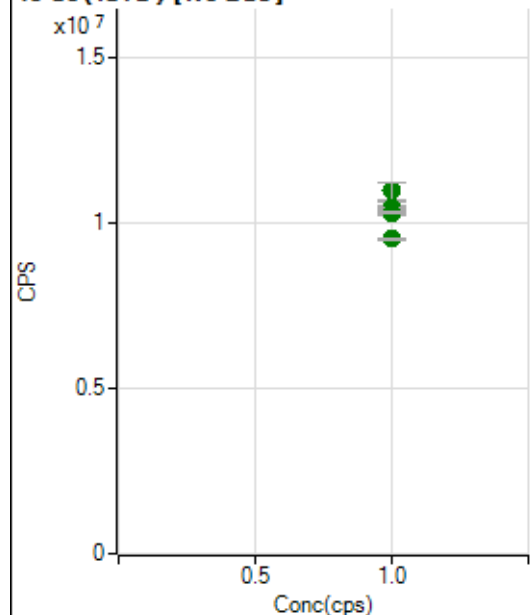
Weight: <None>

Min Conc: 0

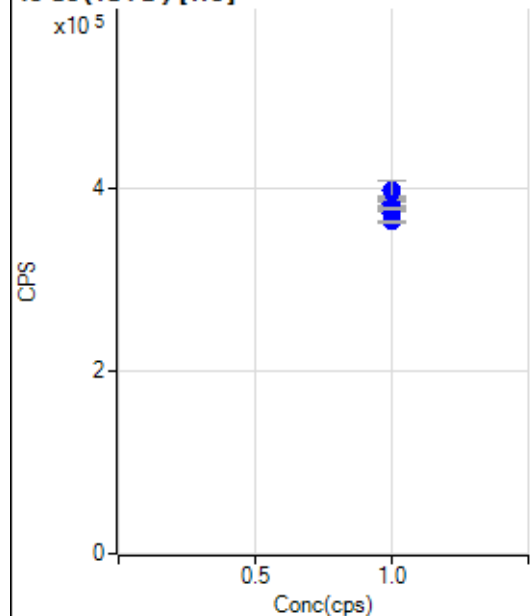
6 Li (ISTD) [No Gas]



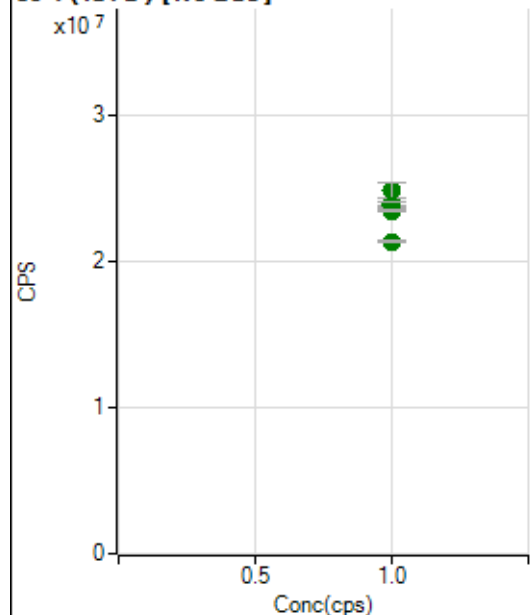
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		5001157.29		A	1.6
2	☐	1.000		5034902.11		A	1.1
3	☐	1.000		4941454.68		A	0.5
4	☐	1.000		5130647.84		A	2.5
5	☐	1.000		4832115.07		A	0.3
6	☐	1.000		4827600.94		A	1.8
7	☐	1.000		4609544.13		A	0.4
8	☐	1.000		4288100.04		A	0.7

45 Sc (ISTD) [No Gas]

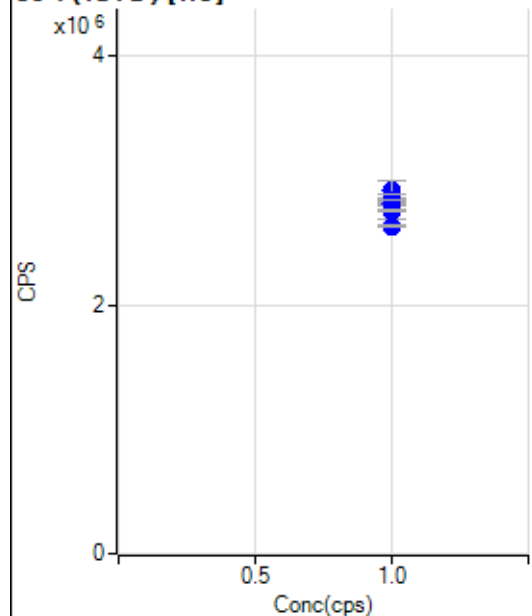
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10344725.33		A	1.9
2	☐	1.000		10568003.32		A	1.2
3	☐	1.000		10489872.27		A	0.9
4	☐	1.000		10988562.68		A	5.0
5	☐	1.000		10478182.90		A	0.9
6	☐	1.000		10446723.87		A	0.8
7	☐	1.000		10336078.94		A	0.4
8	☐	1.000		9538116.38		A	0.7

45 Sc (ISTD) [He]

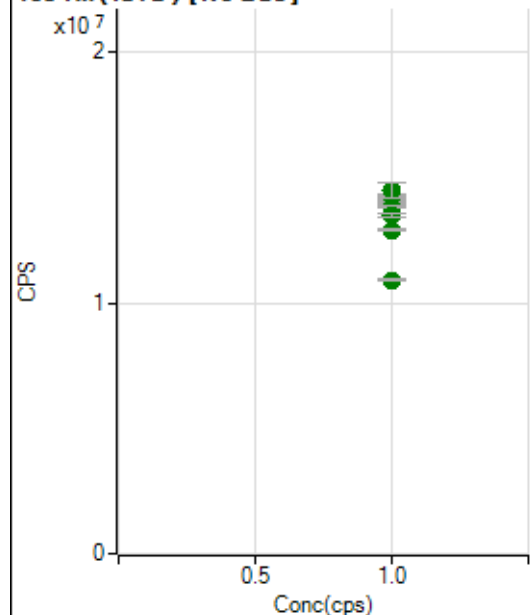
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		384210.55		P	2.3
2	☐	1.000		388689.82		P	0.7
3	☐	1.000		396605.25		P	5.7
4	☐	1.000		381740.64		P	3.7
5	☐	1.000		372449.79		P	4.4
6	☐	1.000		382884.33		P	1.5
7	☐	1.000		377393.68		P	0.3
8	☐	1.000		363069.69		P	0.5

89 Y (ISTD) [No Gas]

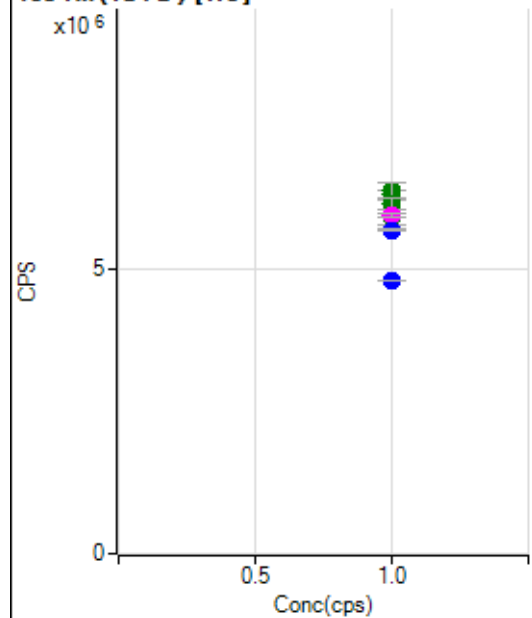
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23911122.42		A	3.4
2	☐	1.000		23523100.21		A	1.2
3	☐	1.000		23498349.65		A	0.5
4	☐	1.000		24809142.69		A	4.2
5	☐	1.000		23780468.81		A	0.6
6	☐	1.000		23861749.37		A	1.4
7	☐	1.000		23418197.71		A	0.5
8	☐	1.000		21356419.40		A	0.7

89 Y (ISTD) [He]

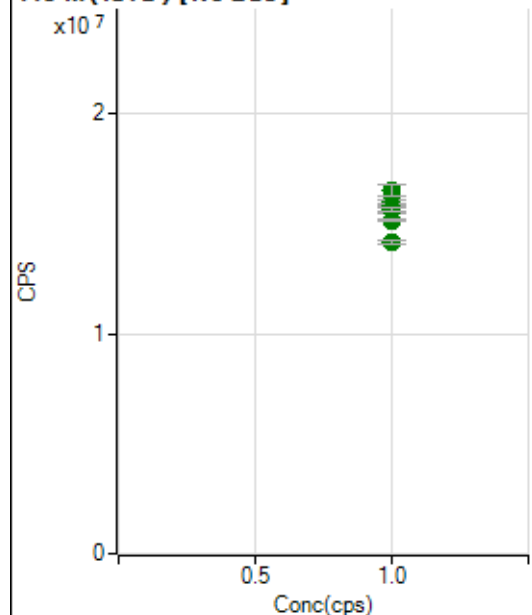
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2803876.45		P	2.7
2	☐	1.000		2846583.99		P	0.7
3	☐	1.000		2914559.30		P	6.0
4	☐	1.000		2842826.80		P	3.3
5	☐	1.000		2750759.23		P	4.7
6	☐	1.000		2816560.55		P	2.0
7	☐	1.000		2762374.72		P	0.4
8	☐	1.000		2627776.40		P	0.6

103 Rh (ISTD) [No Gas]

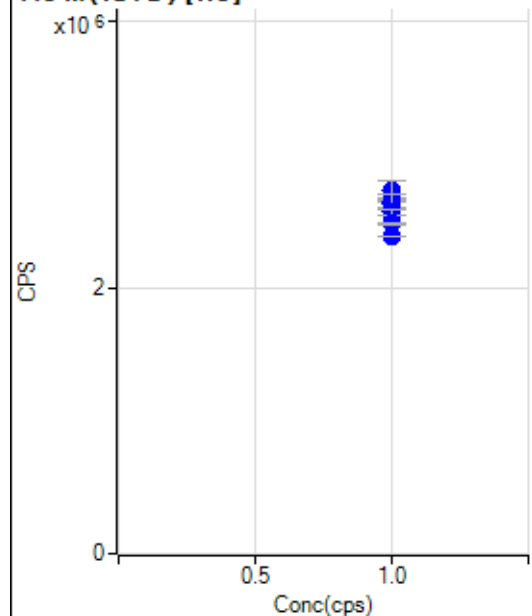
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14169632.84		A	2.4
2	☐	1.000		14210914.93		A	1.2
3	☐	1.000		13998416.04		A	0.8
4	☐	1.000		14471688.95		A	4.3
5	☐	1.000		13845203.96		A	0.2
6	☐	1.000		13517167.85		A	1.3
7	☐	1.000		12917491.75		A	0.1
8	☐	1.000		10915197.82		A	0.8

103 Rh (ISTD) [He]

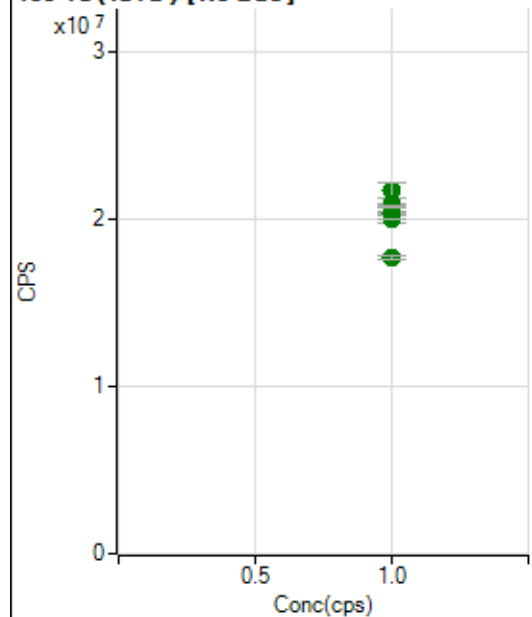
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6307128.72		A	2.1
2	☐	1.000		6227673.80		A	0.6
3	☐	1.000		6357866.02		A	5.1
4	☐	1.000		6144577.27		A	3.4
5	☐	1.000		5891690.60		A	4.3
6	☐	1.000		5935469.63		M	1.4
7	☐	1.000		5675092.90		P	0.4
8	☐	1.000		4796178.71		P	0.1

115 In (ISTD) [No Gas]

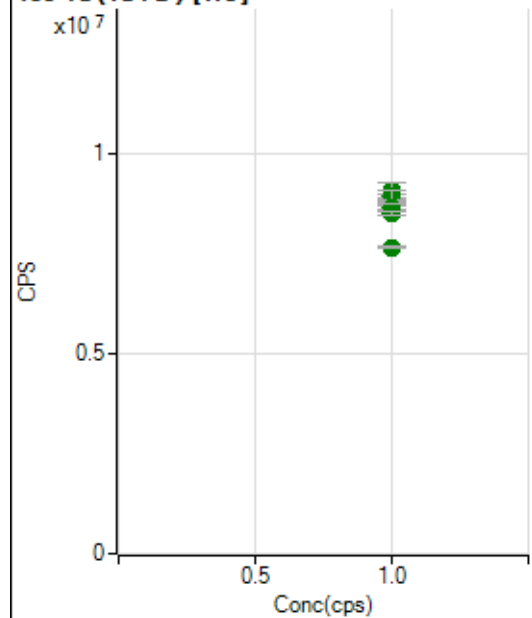
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15654383.61		A	2.6
2	☐	1.000		15958218.00		A	1.8
3	☐	1.000		15796053.09		A	0.2
4	☐	1.000		16478887.43		A	3.2
5	☐	1.000		15835638.67		A	1.0
6	☐	1.000		15655792.44		A	0.8
7	☐	1.000		15133218.53		A	0.6
8	☐	1.000		14122020.99		A	1.1

115 In (ISTD) [He]

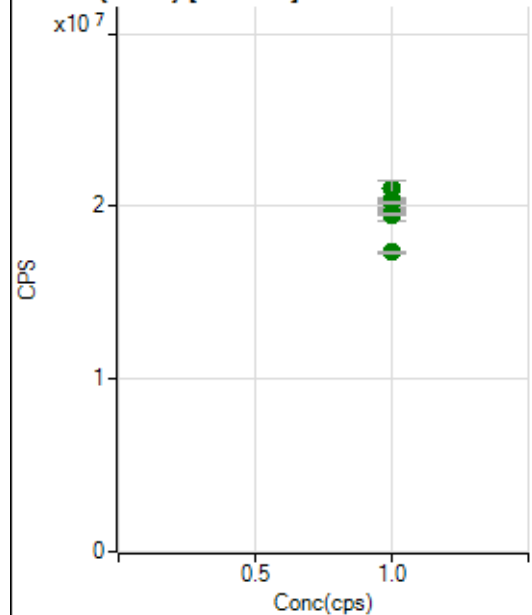
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2634386.98		P	2.4
2	☐	1.000		2677521.12		P	0.2
3	☐	1.000		2728909.75		P	5.6
4	☐	1.000		2651111.40		P	4.3
5	☐	1.000		2541494.12		P	4.8
6	☐	1.000		2568816.94		P	1.9
7	☐	1.000		2482089.57		P	0.6
8	☐	1.000		2385519.35		P	0.1

159 Tb (ISTD) [No Gas]

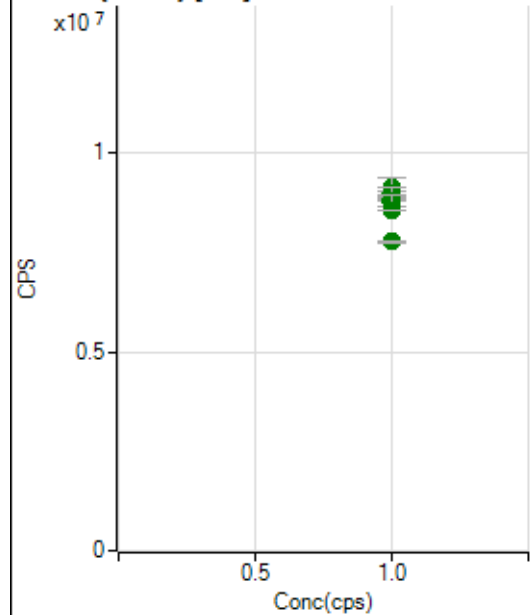
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20017386.37		A	3.0
2	☐	1.000		20370471.36		A	0.8
3	☐	1.000		20304685.11		A	1.2
4	☐	1.000		21667413.43		A	4.3
5	☐	1.000		20849654.83		A	0.6
6	☐	1.000		20695403.30		A	0.6
7	☐	1.000		19982250.26		A	0.3
8	☐	1.000		17731533.35		A	1.2

159 Tb (ISTD) [He]

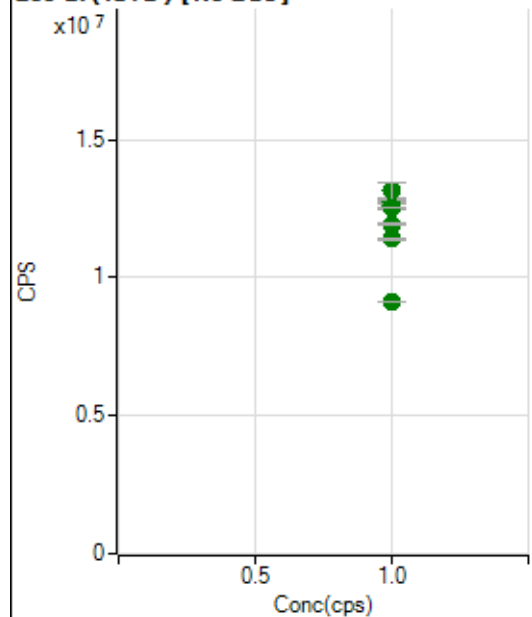
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8825134.73		A	3.0
2	☐	1.000		8777774.31		A	1.8
3	☐	1.000		9048940.70		A	5.0
4	☐	1.000		8911579.17		A	3.0
5	☐	1.000		8639262.02		A	4.4
6	☐	1.000		8645292.51		A	1.5
7	☐	1.000		8486513.14		A	0.8
8	☐	1.000		7636038.22		A	0.4

165 Ho (ISTD) [No Gas]

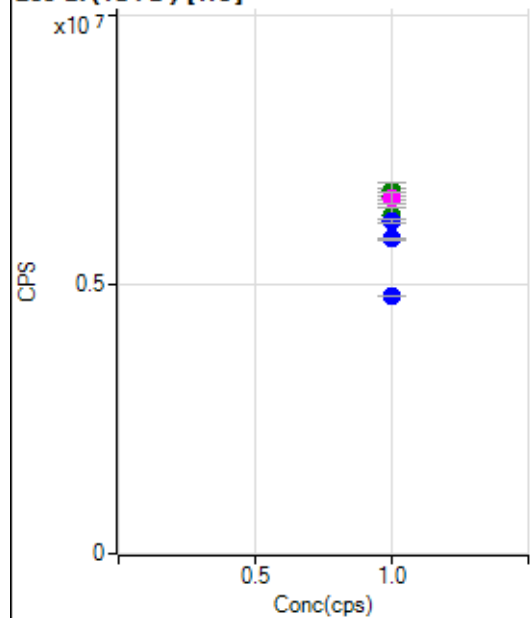
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19550251.79		A	4.1
2	☐	1.000		19851765.26		A	0.5
3	☐	1.000		19644502.76		A	0.3
4	☐	1.000		21012103.71		A	4.7
5	☐	1.000		20345464.00		A	0.8
6	☐	1.000		20240332.34		A	0.8
7	☐	1.000		19518511.65		A	0.3
8	☐	1.000		17328750.72		A	0.9

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8935125.49		A	2.2
2	☐	1.000		8876775.22		A	1.7
3	☐	1.000		9132373.34		A	5.3
4	☐	1.000		8982186.74		A	4.1
5	☐	1.000		8772181.81		A	4.2
6	☐	1.000		8811026.39		A	3.1
7	☐	1.000		8566867.09		A	0.3
8	☐	1.000		7775841.13		A	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12632071.76		A	1.5
2	☐	1.000		12759575.37		A	1.5
3	☐	1.000		12513431.34		A	0.6
4	☐	1.000		13140345.64		A	4.9
5	☐	1.000		12541354.40		A	0.4
6	☐	1.000		11927443.02		A	0.8
7	☐	1.000		11396401.92		A	0.4
8	☐	1.000		9126506.74		A	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6724940.88		A	2.1
2	☐	1.000		6657000.73		A	1.8
3	☐	1.000		6747349.90		A	4.9
4	☐	1.000		6608631.85		M	3.0
5	☐	1.000		6299385.18		A	4.8
6	☐	1.000		6183327.62		P	1.5
7	☐	1.000		5847371.16		P	0.4
8	☐	1.000		4794586.35		P	0.1

US EPA Tune Check Sample Report

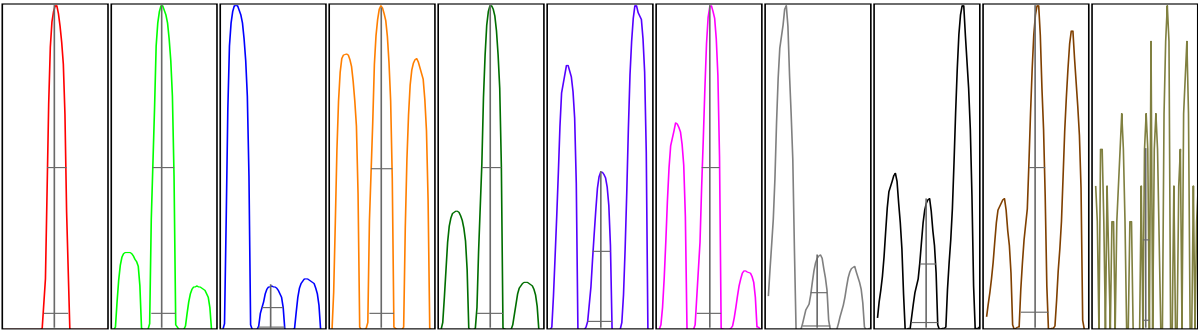
Batch Folder D:\ICP-MS Data\1\DATA\P7032720IMS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	15129	0.34	5.00	
24	191004	0.30	5.00	
25	25658	0.44	5.00	
26	29479	0.46	5.00	
59	105954	0.46	5.00	
113	19796	0.49	5.00	
115	63373	1.78	5.00	
206	25474	0.44	5.00	
207	21338	0.54	5.00	
208	52565	0.38	5.00	
220	0	63.74		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15221	15103	15117	15102	15104
24	191646	191517	190602	190932	190323
25	25809	25721	25584	25521	25653
26	29695	29478	29490	29365	29364
59	106732	105838	105971	105386	105845
113	19861	19829	19631	19791	19869
115	65083	63842	62878	62901	62161
206	25645	25351	25482	25487	25406
207	21520	21254	21241	21291	21384
208	52757	52791	52477	52317	52484
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	27890	9.00	8.9 - 9.1		0.728	0.900	
24	321463	23.95	23.9 - 24.1		0.741	0.900	
25	42929	24.95	24.9 - 25.1		0.761	0.900	
26	49973	26.00	25.9 - 26.1		0.741	0.900	
59	185032	59.00	58.9 - 59.1		0.758	0.900	
113	37931	113.05	112.9 - 113.1		0.700	0.900	
115	122660	115.05	114.9 - 115.1		0.725	0.900	
206	51348	206.00	205.9 - 206.1		0.794	0.900	
207	43422	207.00	206.9 - 207.1		0.773	0.900	
208	107997	208.00	207.9 - 208.1		0.810	0.900	
220	0	220.05	-		0.195		

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	7.8	V	Deflect	12.4	V
Extract 2	-120.0	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	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	23655	0.56	
89	70005	0.44	
205	58132	0.59	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	23834	23734	23557	23508	23641
89	70504	69857	69848	69734	70081
205	58645	57788	57990	57938	58298

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	8.4	V	Deflect	0.6	V
Extract 2	-120.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	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			