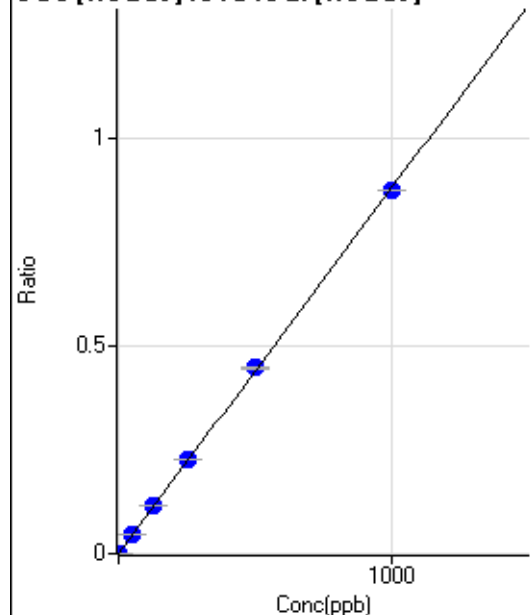


Batch Folder: D:\MSP8031018.b\
Analysis File: MSP8031018.batch.bin
DA Date-Time: 2018-03-11 01:14:05
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2018-03-10 19:48:15
2			
3	006CAL.S.d	S02	2018-03-10 19:55:43
4	007CAL.S.d	S03	2018-03-10 19:59:27
5	008CAL.S.d	S04	2018-03-10 20:03:12
6	009CAL.S.d	S05	2018-03-10 20:06:52
7	010CAL.S.d	S06	2018-03-10 20:10:25
8	011CAL.S.d	S07	2018-03-10 20:13:55
9	012CAL.S.d	S08	2018-03-10 20:17:20

9 Be [NoGas] ISTD:6 Li [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	94.45	0.0001	P	31.3
2	☐	0.100					
3	☐	1.000	1.068	900.05	0.0011	P	6.8
4	☐	50.000	53.749	39358.12	0.0474	P	1.6
5	☐	125.000	133.156	97793.28	0.1173	P	0.5
6	☐	250.000	258.740	189828.17	0.2279	P	0.5
7	☐	500.000	508.054	368392.15	0.4474	P	0.4
8	☐	1000.000	992.581	712223.54	0.8740	P	0.2
9	☐			444.47	0.0006	P	2.2

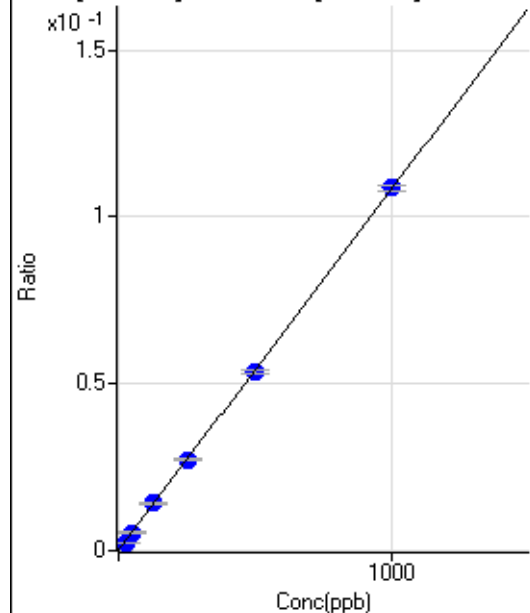
$$y = 8.8040\text{E-}004 * x + 1.0969\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.1172$$

Weight: <None>

Min Conc: 0

10 B [NoGas] ISTD:6 Li [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	147.23	0.0002	P	11.5
2	☐	2.500					
3	☐	25.000	21.037	2097.47	0.0024	P	8.9
4	☐	50.000	48.185	4467.56	0.0054	P	4.0
5	☐	125.000	129.329	11802.56	0.0142	P	3.2
6	☐	250.000	250.264	22693.80	0.0272	P	1.0
7	☐	500.000	492.441	44007.33	0.0534	P	2.1
8	☐	1000.000	1003.362	88597.93	0.1087	P	1.3
9	☐			3033.79	0.0038	P	3.4

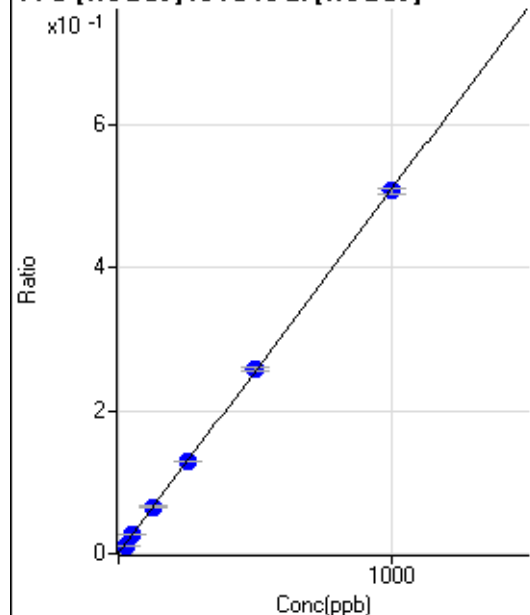
$$y = 1.0819\text{E-}004 * x + 1.7087\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.5466$$

Weight: <None>

Min Conc: 0

11 B [NoGas] ISTD: 6 Li [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	675.04	0.0008	P	6.3
2	☐	2.500					
3	☐	25.000	21.336	9984.47	0.0116	P	3.6
4	☐	50.000	51.020	22206.87	0.0268	P	3.3
5	☐	125.000	126.817	54468.30	0.0654	P	2.6
6	☐	250.000	252.122	107576.18	0.1292	P	1.8
7	☐	500.000	506.636	213049.74	0.2587	P	2.2
8	☐	1000.000	995.965	413880.85	0.5079	P	1.7
9	☐			13859.98	0.0172	P	9.6

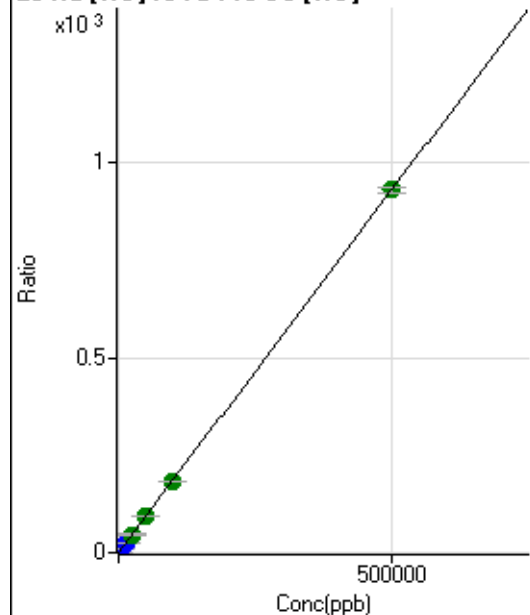
$$y = 5.0916\text{E-}004 * x + 7.8366\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.2917$$

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	4170.26	0.1478	P	2.4
2	☐	50.000					
3	☐	500.000	446.178	27850.41	0.9769	P	3.5
4	☐	5000.000	4945.768	256601.57	9.3380	P	1.9
5	☐	12500.000	12670.167	622358.64	23.6914	P	2.5
6	☐	25000.000	25122.708	1230020.11	46.8307	A	0.9
7	☐	50000.000	49937.663	2351370.45	92.9418	A	0.7
8	☐	100000.00	97429.237	4423274.80	181.1905	A	0.1
9	☐	500000.00	500510.59	21004377.55	930.1948	A	1.9

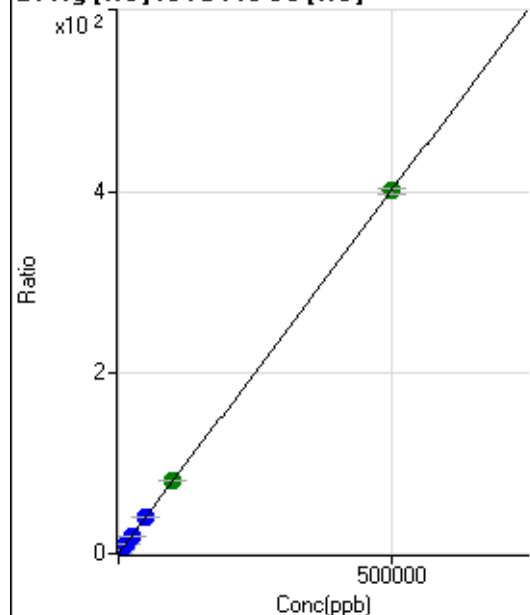
$$y = 0.0019 * x + 0.1478$$

$$R = 1.0000$$

$$DL = 5.732$$

Weight: <None>

Min Conc: 0

²⁴Mg [He] ISTD : ⁴⁵Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	258.35	0.0091	P	15.7
2	☐	50.000					
3	☐	500.000	433.750	10173.53	0.3568	P	2.1
4	☐	5000.000	5025.975	110947.33	4.0376	P	1.8
5	☐	12500.000	12868.139	271223.27	10.3232	P	1.7
6	☐	25000.000	24975.951	526026.12	20.0278	P	0.0
7	☐	50000.000	49708.747	1008226.46	39.8516	P	0.5
8	☐	100000.00	100762.65	1971669.42	80.7723	A	1.1
9	☐	500000.00	499868.39	9047369.38	400.6631	A	1.7

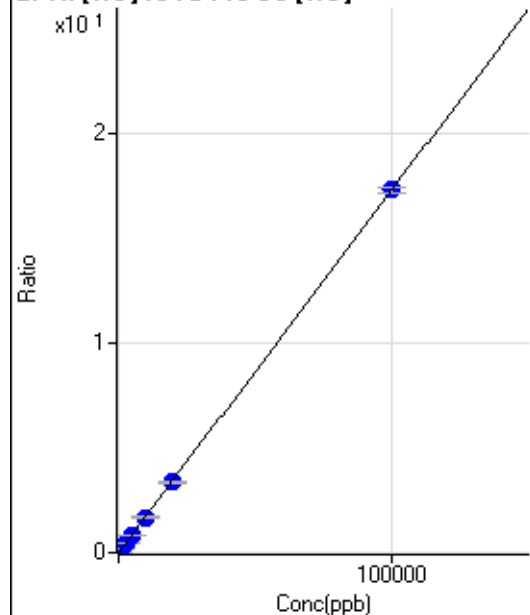
$$y = 8.0152E-004 * x + 0.0091$$

$$R = 1.0000$$

$$DL = 5.364$$

Weight: <None>

Min Conc: 0

²⁷Al [He] ISTD : ⁴⁵Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13.89	0.0005	P	92.2
2	☐	2.000					
3	☐	20.000	18.619	105.56	0.0037	P	16.7
4	☐	1000.000	962.307	4575.95	0.1666	P	7.9
5	☐	2500.000	2563.398	11644.17	0.4430	P	2.1
6	☐	5000.000	4890.188	22182.02	0.8446	P	1.9
7	☐	10000.000	9802.014	42818.52	1.6924	P	1.3
8	☐	20000.000	19385.763	81704.77	3.3466	P	0.7
9	☐	100000.00	100146.92	390359.15	17.2868	P	1.5

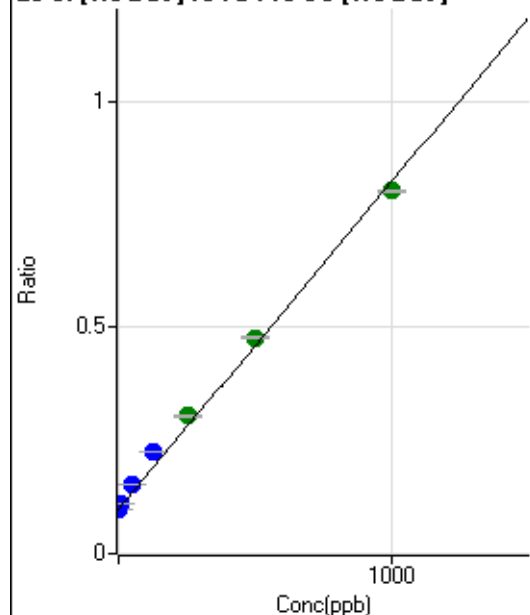
$$y = 1.7261E-004 * x + 4.8949E-004$$

$$R = 1.0000$$

$$DL = 7.842$$

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	350573.89	0.0985	P	0.4
2	☐	1.000					
3	☐	10.000	14.832	388002.93	0.1093	P	0.9
4	☐	50.000	77.600	535068.59	0.1547	P	0.4
5	☐	125.000	172.786	763881.83	0.2236	P	0.1
6	☐	250.000	284.785	1041099.38	0.3047	A	1.1
7	☐	500.000	523.902	1605681.48	0.4778	A	1.0
8	☐	1000.000	971.951	2661360.56	0.8021	A	0.5
9	☐			1016896.10	0.3227	A	1.4

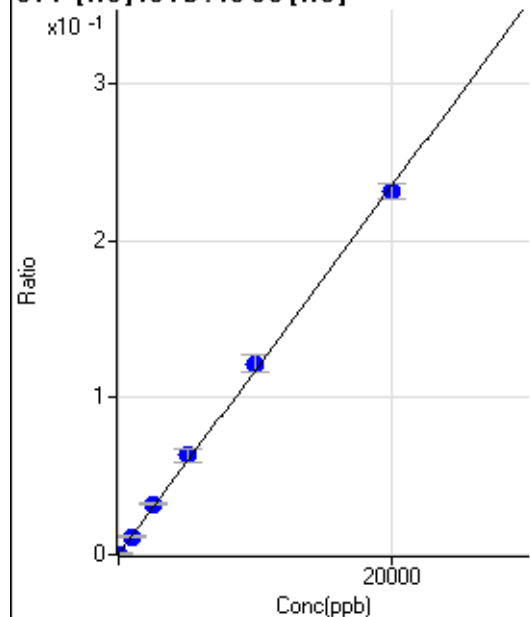
$$y = 7.2392\text{E-}004 * x + 0.0985$$

$$R = 0.9982$$

$$DL = 1.575$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-16.645	0.00	0.0000	P	
2	☐	0.000					
3	☐	0.000	16.645	11.11	0.0004	P	114.9
4	☐	1000.000	967.428	316.69	0.0115	P	18.6
5	☐	2500.000	2733.164	847.29	0.0322	P	4.7
6	☐	5000.000	5372.774	1658.50	0.0631	P	12.0
7	☐	10000.000	10351.220	3072.69	0.1214	P	9.3
8	☐	20000.000	19703.680	5640.30	0.2310	P	4.3
9	☐			8.33	0.0004	P	99.4

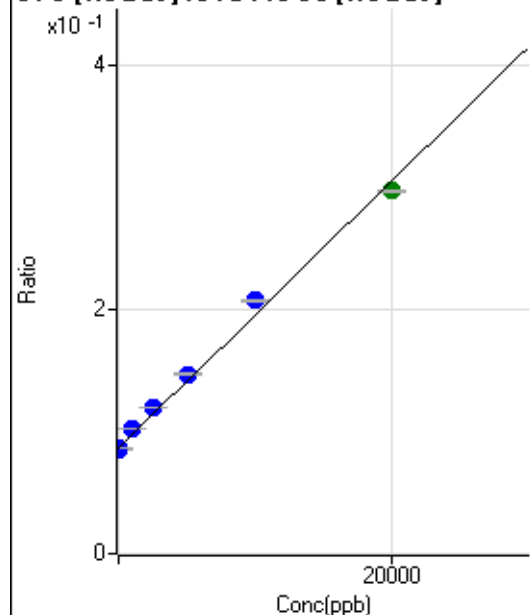
$$y = 1.1714\text{E-}005 * x + 1.9497\text{E-}004$$

$$R = 0.9995$$

$$DL = 57.39$$

Weight: <None>

Min Conc: 0

34 S [NoGas] ISTD:45 Sc [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-69.058	304151.07	0.0855	P	0.7
2	☐	0.000					
3	☐	0.000	69.058	308923.67	0.0870	P	0.7
4	☐	1000.000	1474.372	354081.64	0.1024	P	0.3
5	☐	2500.000	3047.874	408548.22	0.1196	P	0.7
6	☐	5000.000	5550.097	502221.89	0.1470	P	0.5
7	☐	10000.000	11050.022	696217.88	0.2072	P	0.7
8	☐	20000.000	19245.262	984898.16	0.2969	A	0.8
9	☐			278959.52	0.0885	P	0.8

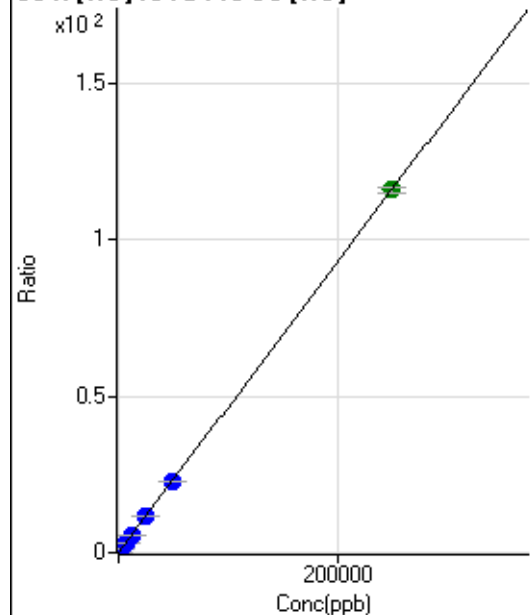
$$y = 1.0944\text{E-}005 * x + 0.0862$$

$$R = 0.9972$$

$$DL = 155.8$$

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	2025.24	0.0718	P	8.4
2	☐	50.000					
3	☐	500.000	458.777	8102.69	0.2842	P	2.8
4	☐	2500.000	2610.544	35186.52	1.2804	P	1.1
5	☐	6250.000	6410.689	79851.30	3.0398	P	2.6
6	☐	12500.000	12415.608	152854.59	5.8198	P	0.5
7	☐	25000.000	24826.053	292602.42	11.5655	P	0.3
8	☐	50000.000	49052.524	556145.17	22.7815	P	0.6
9	☐	250000.00	250206.06	2617372.82	115.9089	A	1.5

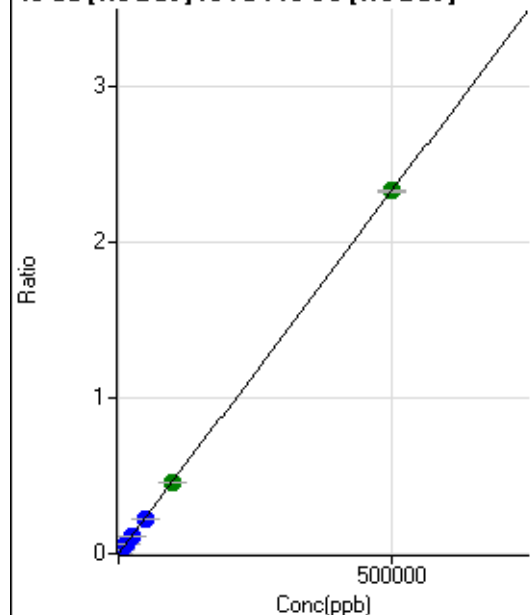
$$y = 4.6297\text{E-}004 * x + 0.0718$$

$$R = 1.0000$$

$$DL = 39.19$$

Weight: <None>

Min Conc: 0

43 Ca [NoGas] ISTD:45 Sc [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	608.38	0.0002	P	6.7
2	☐	50.000					
3	☐	500.000	429.961	7702.42	0.0022	P	5.6
4	☐	5000.000	4868.381	78860.52	0.0228	P	2.0
5	☐	12500.000	12258.660	195233.38	0.0572	P	0.5
6	☐	25000.000	24326.148	386941.85	0.1132	P	1.1
7	☐	50000.000	48886.813	764239.61	0.2274	P	0.5
8	☐	100000.00	98307.346	1516617.25	0.4571	A	1.3
9	☐	500000.00	500490.96	7329967.70	2.3266	A	0.5

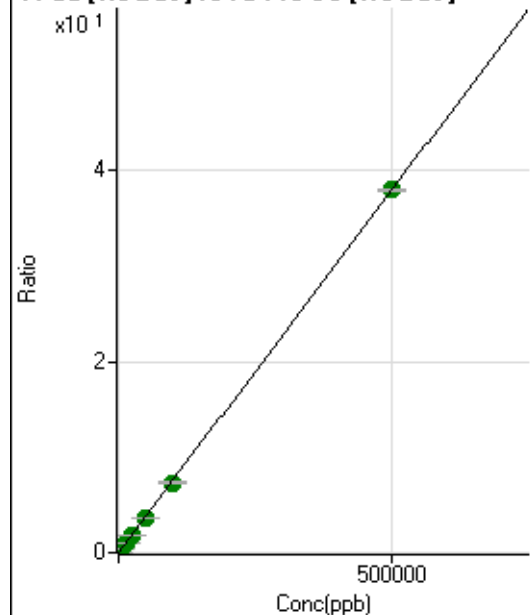
$$y = 4.6482\text{E-}006 * x + 1.7096\text{E-}004$$

$$R = 1.0000$$

$$DL = 7.42$$

Weight: <None>

Min Conc: 0

44 Ca [NoGas] ISTD:45 Sc [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12795.18	0.0036	P	2.9
2	☐	50.000					
3	☐	500.000	436.593	130393.75	0.0367	P	1.4
4	☐	5000.000	4956.813	1313196.86	0.3797	A	0.4
5	☐	12500.000	12381.173	3221301.83	0.9430	A	0.9
6	☐	25000.000	24109.167	6262758.74	1.8329	A	0.7
7	☐	50000.000	48707.235	12431507.65	3.6992	A	1.1
8	☐	100000.00	96628.169	24336723.81	7.3352	A	0.5
9	☐	500000.00	500851.65	119740445.7	38.0054	A	0.3

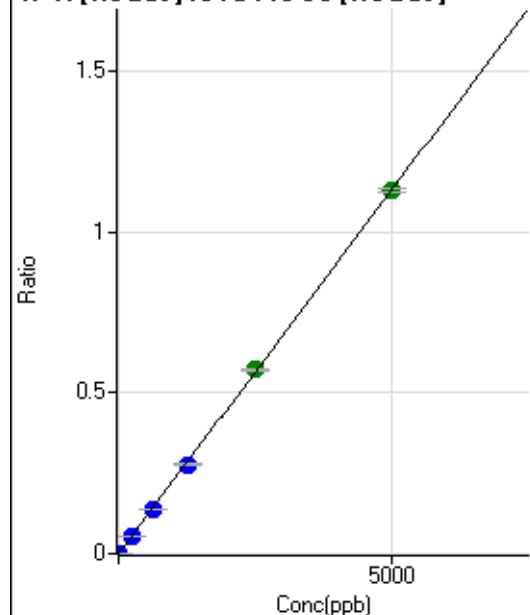
$$y = 7.5874\text{E-}005 * x + 0.0036$$

$$R = 1.0000$$

$$DL = 4.174$$

Weight: <None>

Min Conc: 0

47 Ti [NoGas] ISTD : 45 Sc [NoGas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.12	0.0000	P	26.7
2	☐	0.500					
3	☐	5.000	4.331	3586.73	0.0010	P	3.2
4	☐	250.000	244.525	191246.75	0.0553	P	0.4
5	☐	625.000	618.792	477838.32	0.1399	P	0.8
6	☐	1250.000	1227.713	948196.81	0.2775	P	0.9
7	☐	2500.000	2530.164	1921810.89	0.5719	A	1.2
8	☐	5000.000	4991.540	3742949.39	1.1282	A	1.1
9	☐			1275.13	0.0004	P	11.0

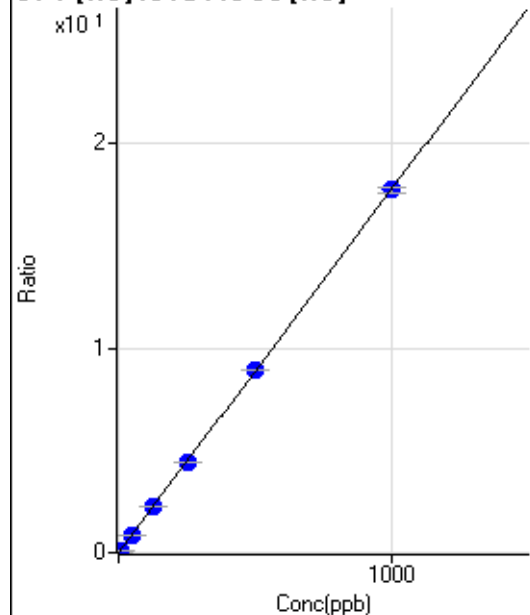
$$y = 2.2601\text{E-}004 * x + 3.1253\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.1109$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.55	0.0002	P	70.8
2	☐	0.500					
3	☐	5.000	4.557	2313.57	0.0811	P	1.0
4	☐	50.000	49.209	24025.24	0.8743	P	1.1
5	☐	125.000	126.195	58894.50	2.2418	P	2.1
6	☐	250.000	249.443	116377.07	4.4309	P	0.6
7	☐	500.000	502.288	225724.65	8.9221	P	0.6
8	☐	1000.000	998.888	433107.23	17.7430	P	1.3
9	☐			125.56	0.0056	P	5.1

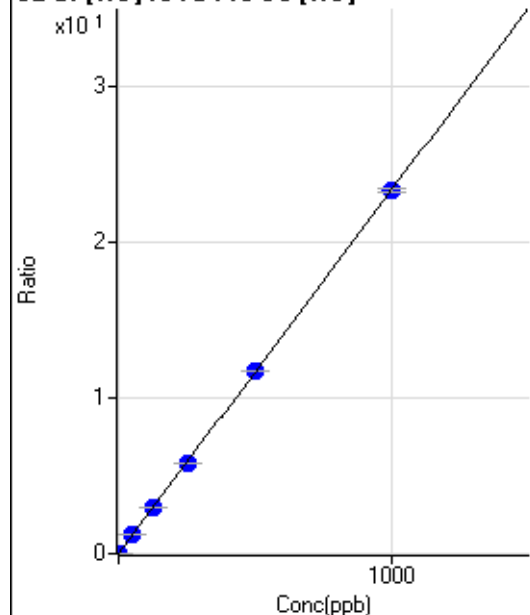
$$y = 0.0178 * x + 1.9803\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.02368$$

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	262.23	0.0093	P	21.3
2	☐	0.200					
3	☐	2.000	1.997	1594.56	0.0559	P	4.2
4	☐	50.000	50.671	32769.63	1.1926	P	2.6
5	☐	125.000	127.558	78496.15	2.9881	P	2.5
6	☐	250.000	249.857	153491.50	5.8440	P	0.6
7	☐	500.000	503.678	297810.99	11.7714	P	0.2
8	☐	1000.000	997.843	569048.25	23.3113	P	0.9
9	☐			13403.28	0.5935	P	1.1

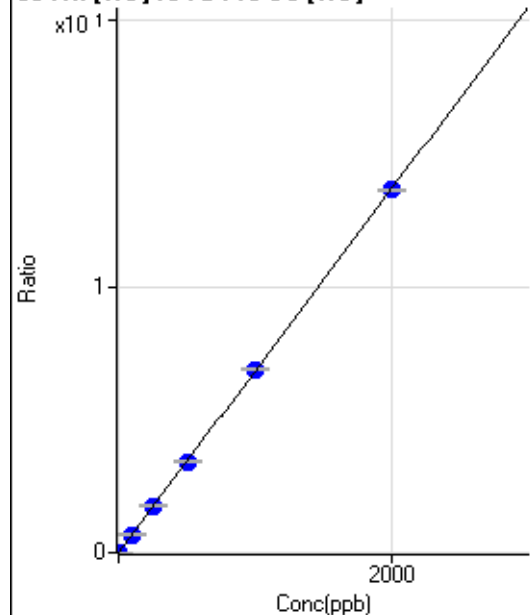
$$y = 0.0234 * x + 0.0093$$

$$R = 1.0000$$

$$DL = 0.2542$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12.22	0.0004	P	42.4
2	☐	0.100					
3	☐	1.000	0.962	200.01	0.0070	P	12.9
4	☐	100.000	100.091	18819.55	0.6848	P	2.0
5	☐	250.000	256.629	46109.33	1.7552	P	2.3
6	☐	500.000	501.611	90093.60	3.4303	P	1.0
7	☐	1000.000	1006.850	174183.68	6.8849	P	0.6
8	☐	2000.000	1995.339	333063.60	13.6439	P	0.7
9	☐			1123.40	0.0497	P	7.8

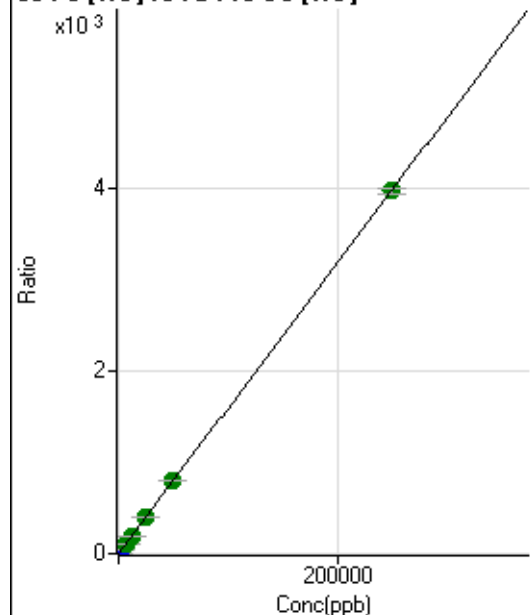
$$y = 0.0068 * x + 4.3479E-004$$

$$R = 1.0000$$

$$DL = 0.08095$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1007.48	0.0357	P	4.7
2	☐	5.000					
3	☐	50.000	45.430	21617.22	0.7582	P	1.7
4	☐	2500.000	2489.492	1088901.93	39.6261	P	1.6
5	☐	6250.000	6460.708	2700090.22	102.7805	A	2.3
6	☐	12500.000	12510.122	5226210.59	198.9844	A	0.8
7	☐	25000.000	24965.107	10045194.32	397.0563	A	0.9
8	☐	50000.000	50016.041	19417127.98	795.4418	A	1.0
9	☐	250000.00	249994.61	89774822.38	3,975.705	A	1.8

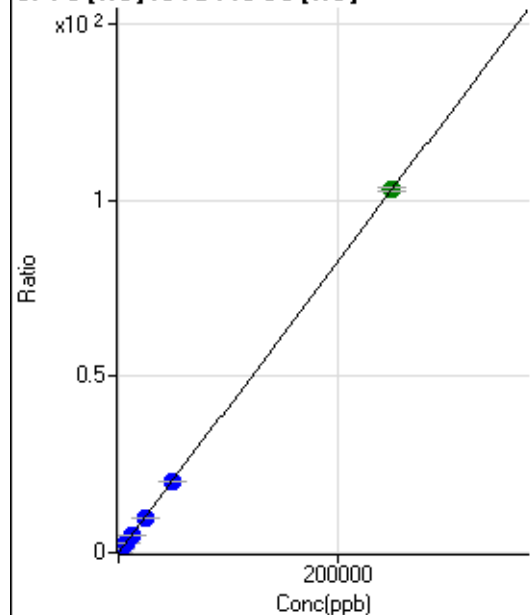
$$y = 0.0159 * x + 0.0357$$

$$R = 1.0000$$

$$DL = 0.3183$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35.18	0.0012	P	39.7
2	☐	5.000					
3	☐	50.000	50.376	625.96	0.0220	P	8.0
4	☐	2500.000	2415.547	27323.57	0.9941	P	1.3
5	☐	6250.000	6178.800	66748.67	2.5410	P	2.7
6	☐	12500.000	12184.794	131577.77	5.0097	P	0.3
7	☐	25000.000	24475.717	254557.09	10.0618	P	0.4
8	☐	50000.000	48898.413	490650.91	20.1005	P	1.4
9	☐	250000.00	250291.13	2323295.63	102.8813	A	1.1

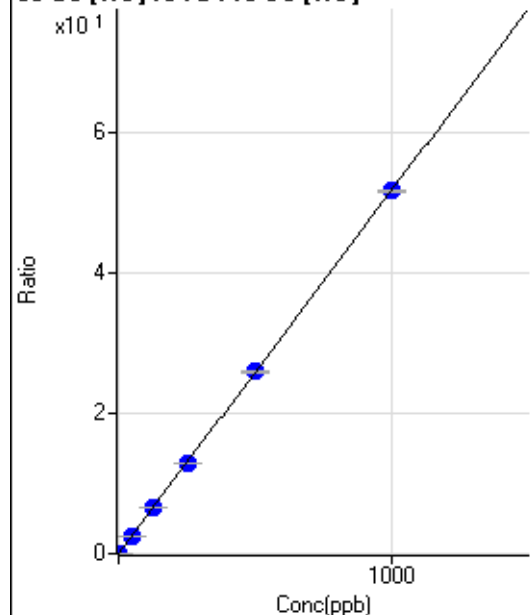
$$y = 4.1104E-004 * x + 0.0012$$

$$R = 1.0000$$

$$DL = 3.61$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	45.56	0.0016	P	25.3
2	☐	0.100					
3	☐	1.000	0.909	1386.76	0.0486	P	3.4
4	☐	50.000	49.779	70813.15	2.5769	P	1.2
5	☐	125.000	127.567	173424.99	6.6012	P	2.1
6	☐	250.000	250.275	340109.91	12.9495	P	0.7
7	☐	500.000	500.961	655724.20	25.9186	P	0.5
8	☐	1000.000	999.141	1261846.74	51.6916	P	0.7
9	☐			1601.23	0.0709	P	6.2

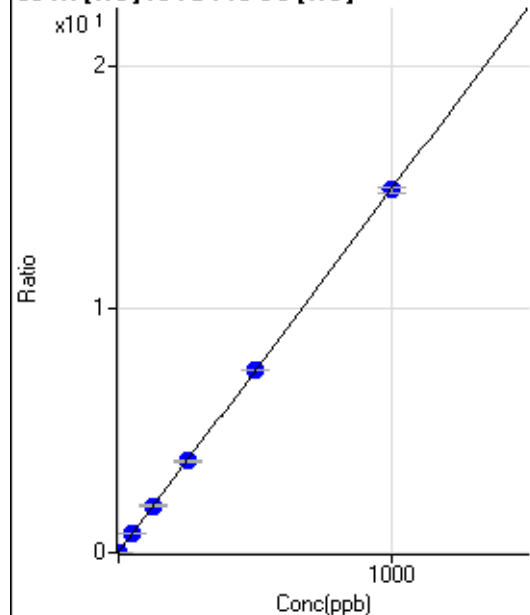
$$y = 0.0517 * x + 0.0016$$

$$R = 1.0000$$

$$DL = 0.02364$$

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	416.68	0.0148	P	13.9
2	☐	0.100					
3	☐	1.000	1.089	884.49	0.0310	P	0.4
4	☐	50.000	49.795	20804.68	0.7571	P	1.6
5	☐	125.000	128.351	50648.55	1.9282	P	2.9
6	☐	250.000	250.727	98557.73	3.7525	P	0.3
7	☐	500.000	503.251	190174.08	7.5169	P	0.4
8	☐	1000.000	997.784	363449.07	14.8891	P	1.3
9	☐			5363.34	0.2374	P	3.4

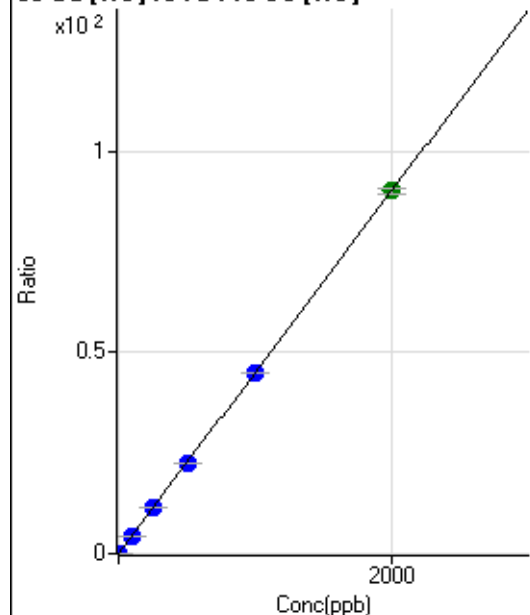
$$y = 0.0149 * x + 0.0148$$

$$R = 1.0000$$

$$DL = 0.4142$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	114.44	0.0041	P	23.4
2	☐	0.200					
3	☐	2.000	1.810	2443.59	0.0857	P	0.4
4	☐	100.000	99.244	123108.04	4.4801	P	1.7
5	☐	250.000	253.868	300936.49	11.4538	P	1.6
6	☐	500.000	496.403	588127.09	22.3924	P	0.3
7	☐	1000.000	998.546	1139475.61	45.0396	P	0.5
8	☐	2000.000	2001.181	2203114.67	90.2597	A	1.9
9	☐			3205.98	0.1420	P	5.9

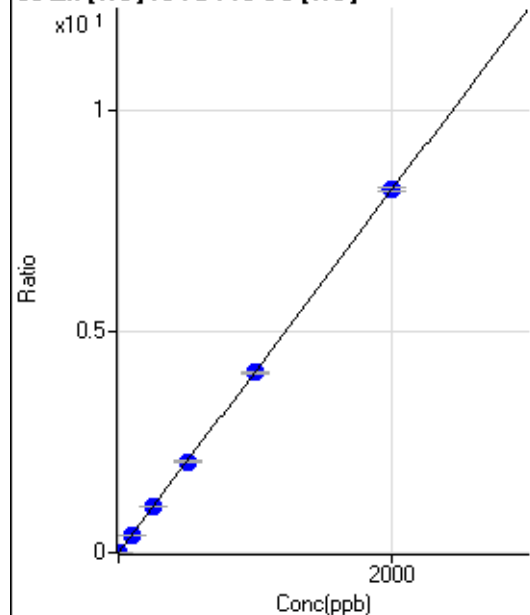
$$y = 0.0451 * x + 0.0041$$

$$R = 1.0000$$

$$DL = 0.0631$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	35.56	0.0013	P	33.8
2	☐	0.200					
3	☐	2.000	2.254	298.90	0.0105	P	14.8
4	☐	100.000	98.192	11077.93	0.4032	P	3.8
5	☐	250.000	253.828	27326.05	1.0403	P	2.8
6	☐	500.000	503.751	54192.04	2.0633	P	0.4
7	☐	1000.000	992.932	102862.13	4.0657	P	1.1
8	☐	2000.000	2002.208	200093.33	8.1970	P	1.1
9	☐			725.59	0.0321	P	13.2

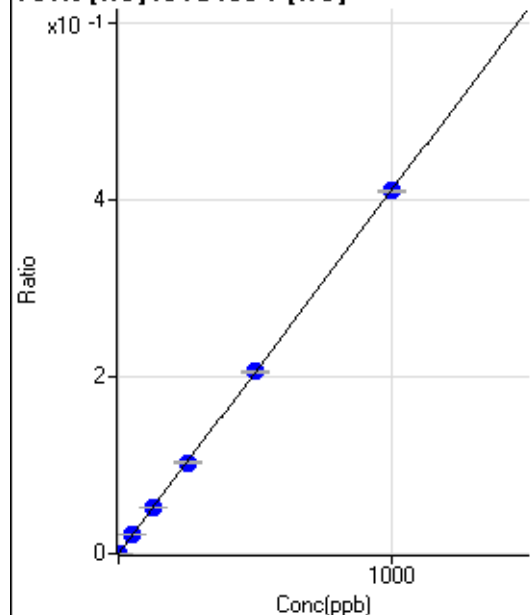
$$y = 0.0041 * x + 0.0013$$

$$R = 1.0000$$

$$DL = 0.3128$$

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	0.62	0.0000	P	173.2
2	☐	0.100					
3	☐	1.000	0.874	76.54	0.0004	P	17.9
4	☐	50.000	51.365	4294.54	0.0211	P	4.2
5	☐	125.000	128.013	10473.81	0.0525	P	2.0
6	☐	250.000	250.105	20489.95	0.1026	P	2.2
7	☐	500.000	501.313	40436.68	0.2056	P	0.7
8	☐	1000.000	998.873	78395.23	0.4097	P	0.5
9	☐			44.45	0.0002	P	19.4

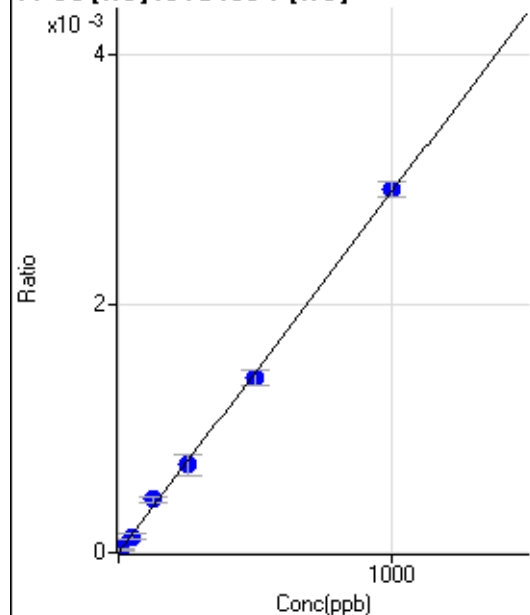
$$y = 4.1019\text{E-}004 * x + 2.9420\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.03727$$

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	☐	0.500					
3	☐	5.000	9.089	5.56	0.0000	P	91.5
4	☐	50.000	45.139	26.67	0.0001	P	44.8
5	☐	125.000	148.183	85.56	0.0004	P	10.5
6	☐	250.000	243.576	141.11	0.0007	P	24.7
7	☐	500.000	485.698	276.67	0.0014	P	9.7
8	☐	1000.000	1006.082	557.80	0.0029	P	4.1
9	☐			2.22	0.0000	P	173.2

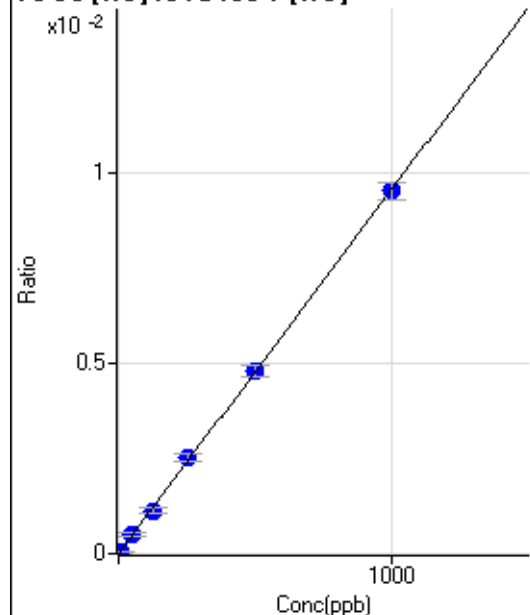
$$y = 2.8974\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9995$$

$$DL = 0$$

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	0.62	0.0000	P	173.2
2	☐	0.500					
3	☐	5.000	4.277	9.26	0.0000	P	19.9
4	☐	50.000	50.846	99.38	0.0005	P	17.3
5	☐	125.000	118.330	225.32	0.0011	P	10.0
6	☐	250.000	263.574	502.48	0.0025	P	8.2
7	☐	500.000	501.302	940.78	0.0048	P	5.7
8	☐	1000.000	996.751	1819.27	0.0095	P	4.8
9	☐			3.09	0.0000	P	69.1

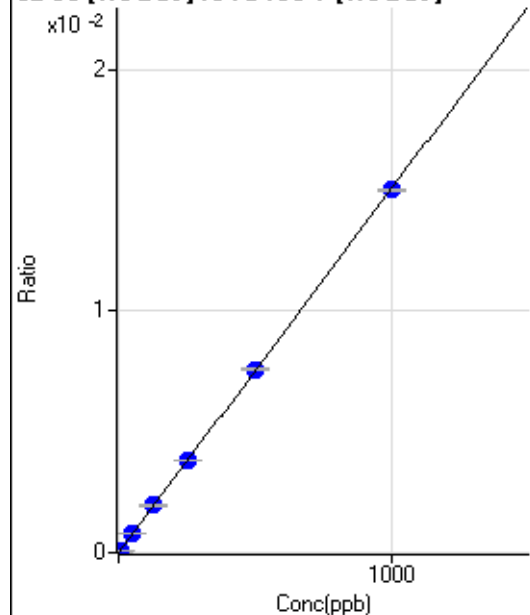
$$y = 9.5366\text{E-}006 * x + 2.9420\text{E-}006$$

$$R = 0.9999$$

$$DL = 1.603$$

Weight: <None>

Min Conc: 0

82 Se [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-17.54	0.0000	P	-103.
2	☐	0.500					
3	☐	5.000	4.966	480.47	0.0001	P	8.7
4	☐	50.000	50.996	4943.69	0.0008	P	2.5
5	☐	125.000	129.821	12653.66	0.0020	P	1.8
6	☐	250.000	255.446	25009.81	0.0039	P	0.6
7	☐	500.000	502.714	49669.75	0.0076	P	1.0
8	☐	1000.000	996.629	98085.76	0.0150	P	0.7
9	☐			150.74	0.0000	P	14.9

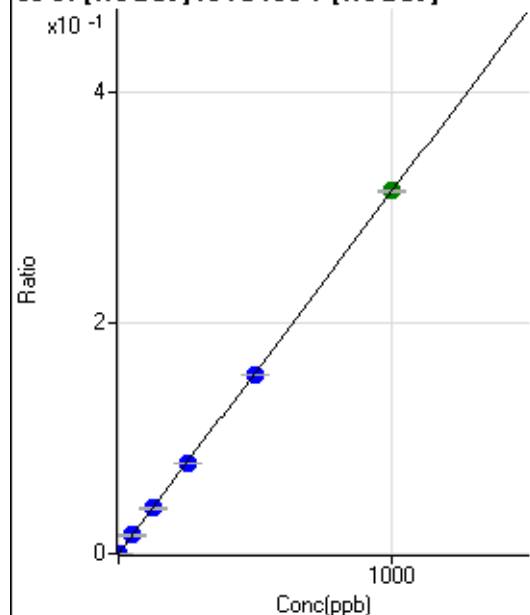
$$y = 1.5085\text{E-}005 * x - 2.6265\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.5411$$

Weight: <None>

Min Conc: 0

86 Sr [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	497.25	0.0001	P	12.7
2	☐	0.100					
3	☐	1.000	0.905	2380.87	0.0004	P	6.9
4	☐	50.000	50.287	102075.00	0.0158	P	1.8
5	☐	125.000	124.950	253771.99	0.0392	P	1.1
6	☐	250.000	249.419	507997.90	0.0782	P	0.6
7	☐	500.000	495.061	1016739.27	0.1552	P	0.6
8	☐	1000.000	1002.607	2050224.74	0.3142	A	0.6
9	☐			66233.22	0.0106	P	1.0

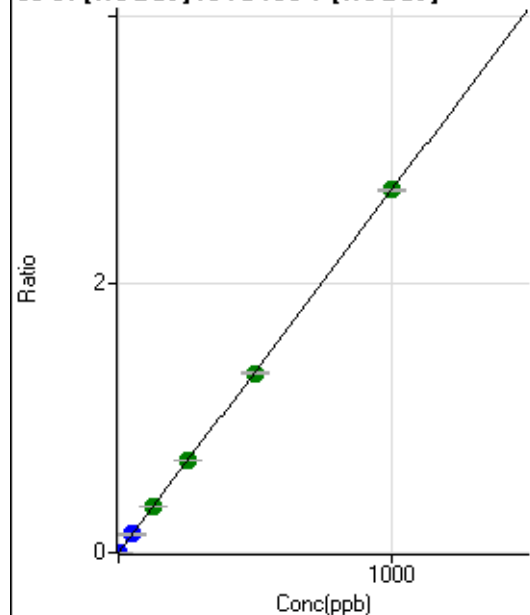
$$y = 3.1330\text{E-}004 * x + 7.4529\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.0908$$

Weight: <None>

Min Conc: 0

88 Sr [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	88.89	0.0000	P	19.6
2	☐	0.100					
3	☐	1.000	0.914	16510.70	0.0025	P	2.8
4	☐	50.000	50.420	878537.00	0.1362	P	1.0
5	☐	125.000	128.600	2248079.43	0.3475	A	1.0
6	☐	250.000	253.421	4446839.51	0.6847	A	0.3
7	☐	500.000	495.589	8772922.50	1.3389	A	0.2
8	☐	1000.000	1000.879	17645215.85	2.7041	A	0.7
9	☐			581663.38	0.0934	P	0.7

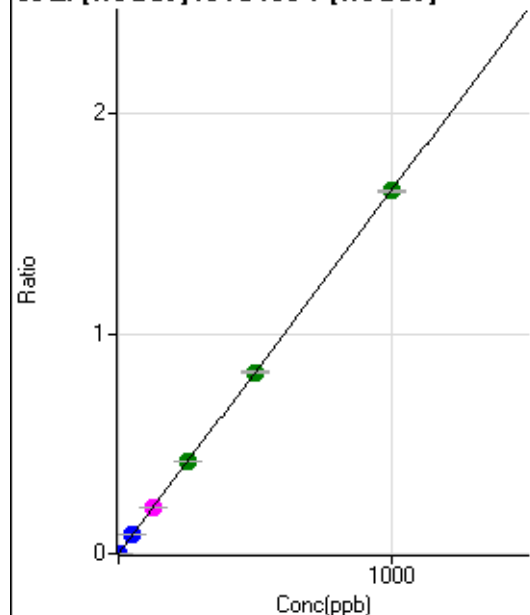
$$y = 0.0027 * x + 1.3320\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.002895$$

Weight: <None>

Min Conc: 0

90 Zr [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	361.13	0.0001	P	13.6
2	☐	0.100					
3	☐	1.000	0.875	9973.48	0.0015	P	2.3
4	☐	50.000	50.509	538584.02	0.0835	P	0.8
5	☐	125.000	127.171	1360113.20	0.2102	M	0.9
6	☐	250.000	255.077	2737840.80	0.4216	A	1.1
7	☐	500.000	498.728	5400089.18	0.8242	A	1.1
8	☐	1000.000	999.070	10773109.53	1.6510	A	0.8
9	☐			3511.75	0.0006	P	11.5

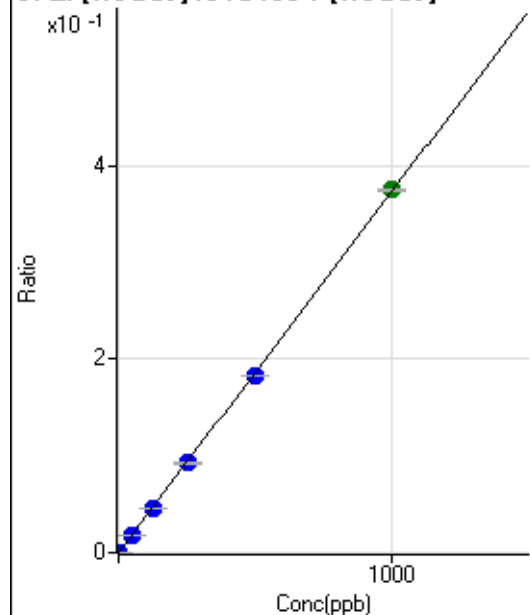
$$y = 0.0017 * x + 5.4097E-005$$

$$R = 1.0000$$

$$DL = 0.01337$$

Weight: <None>

Min Conc: 0

91 Zr [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0000	P	55.3
2	☐	0.100					
3	☐	1.000	0.823	2116.93	0.0003	P	5.8
4	☐	50.000	48.728	117307.72	0.0182	P	2.0
5	☐	125.000	123.300	297720.28	0.0460	P	0.5
6	☐	250.000	247.870	600683.97	0.0925	P	0.4
7	☐	500.000	490.645	1199464.18	0.1831	P	0.5
8	☐	1000.000	1005.486	2447954.68	0.3751	A	0.6
9	☐			780.61	0.0001	P	13.3

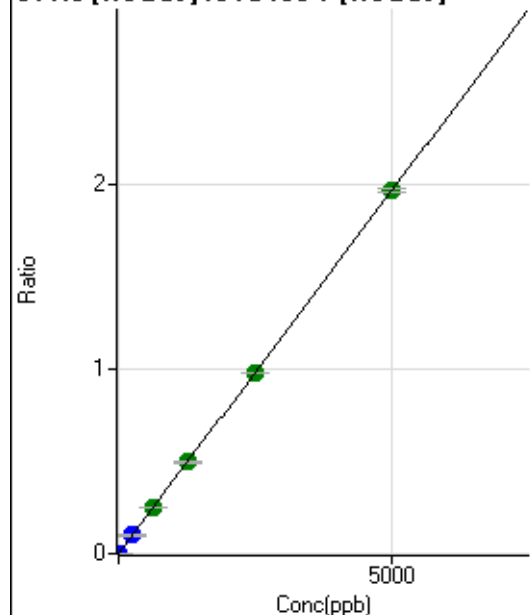
$$y = 3.7309E-004 * x + 1.1663E-005$$

$$R = 0.9999$$

$$DL = 0.05184$$

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	288.91	0.0000	P	8.8
2	☐	0.500					
3	☐	5.000	4.595	12311.69	0.0019	P	1.4
4	☐	250.000	251.933	639769.73	0.0992	P	0.6
5	☐	625.000	642.426	1636419.37	0.2529	A	1.4
6	☐	1250.000	1264.859	3233745.91	0.4979	A	1.0
7	☐	2500.000	2484.186	6407031.65	0.9779	A	0.3
8	☐	5000.000	5001.918	12847547.86	1.9689	A	0.9
9	☐			13384.99	0.0021	P	2.4

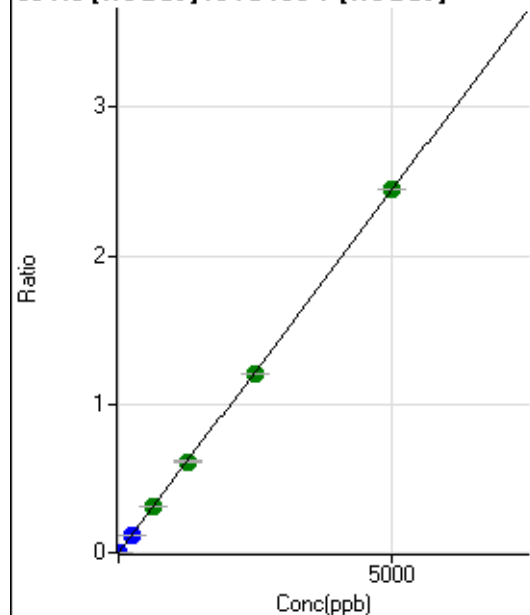
$$y = 3.9362\text{E-}004 * x + 4.3288\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.02911$$

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	202.79	0.0000	P	18.8
2	☐	0.500					
3	☐	5.000	4.443	14605.66	0.0022	P	1.3
4	☐	250.000	248.013	780142.82	0.1210	P	0.4
5	☐	625.000	639.730	2018702.19	0.3120	A	0.7
6	☐	1250.000	1259.696	3989765.10	0.6143	A	1.3
7	☐	2500.000	2472.856	7901345.40	1.2059	A	0.3
8	☐	5000.000	5009.406	15941078.31	2.4429	A	0.1
9	☐			21278.67	0.0034	P	7.4

$$y = 4.8765\text{E-}004 * x + 3.0397\text{E-}005$$

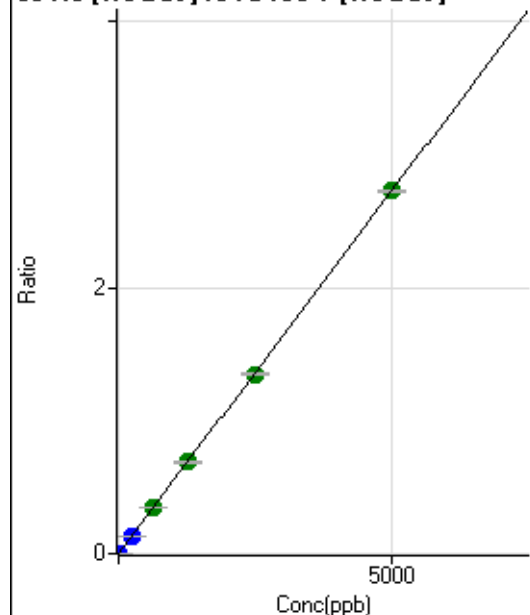
$$R = 1.0000$$

$$DL = 0.03514$$

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	305.57	0.0000	P	8.6
2	☐	0.500					
3	☐	5.000	4.421	16313.21	0.0025	P	2.2
4	☐	250.000	247.997	871502.51	0.1351	P	0.6
5	☐	625.000	634.601	2237077.52	0.3457	A	0.6
6	☐	1250.000	1262.307	4466309.43	0.6877	A	0.6
7	☐	2500.000	2480.460	8853702.63	1.3513	A	0.4
8	☐	5000.000	5005.594	17793646.06	2.7269	A	0.7
9	☐			24319.95	0.0039	P	4.4

$$y = 5.4475\text{E-}004 * x + 4.5793\text{E-}005$$

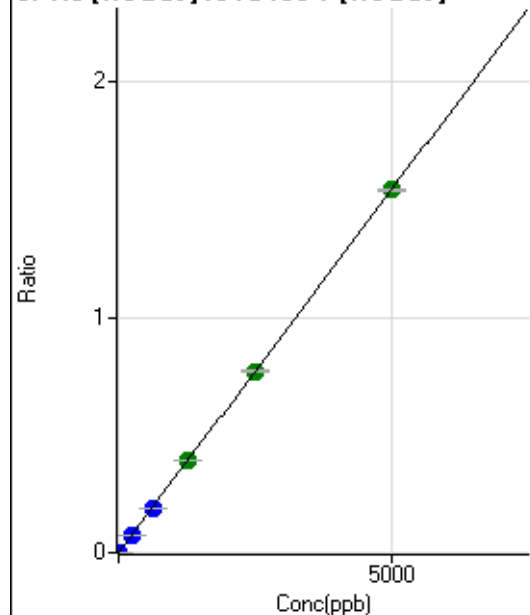
$$R = 1.0000$$

$$DL = 0.02164$$

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	163.90	0.0000	P	6.2
2	☐	0.500					
3	☐	5.000	4.262	8892.23	0.0013	P	3.4
4	☐	250.000	245.427	487833.99	0.0757	P	1.4
5	☐	625.000	616.252	1228804.15	0.1899	P	0.9
6	☐	1250.000	1273.080	2547886.32	0.3923	A	1.1
7	☐	2500.000	2492.465	5032290.78	0.7681	A	1.0
8	☐	5000.000	4999.321	10052571.75	1.5405	A	0.4
9	☐			13440.54	0.0022	P	5.3

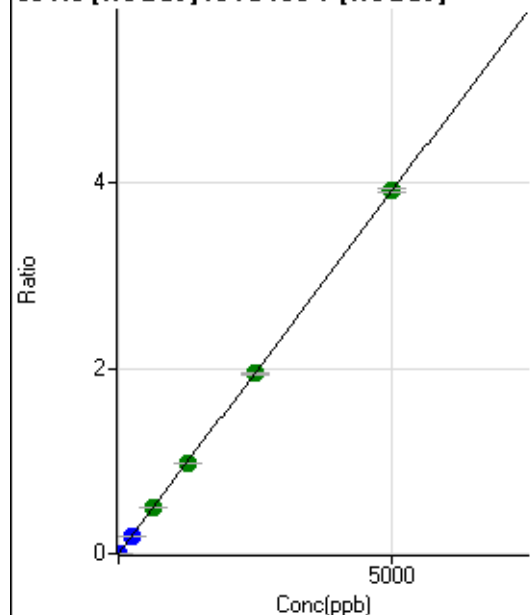
$$y = 3.0814\text{E-}004 * x + 2.4561\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.0148$$

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	380.58	0.0001	P	32.0
2	☐	0.500					
3	☐	5.000	4.275	22575.22	0.0034	P	1.4
4	☐	250.000	249.112	1255146.90	0.1946	P	0.9
5	☐	625.000	633.240	3200624.68	0.4947	A	1.1
6	☐	1250.000	1242.119	6301529.92	0.9703	A	0.7
7	☐	2500.000	2484.067	12713226.15	1.9403	A	0.9
8	☐	5000.000	5008.952	25530070.36	3.9125	A	1.2
9	☐			33979.80	0.0055	P	4.6

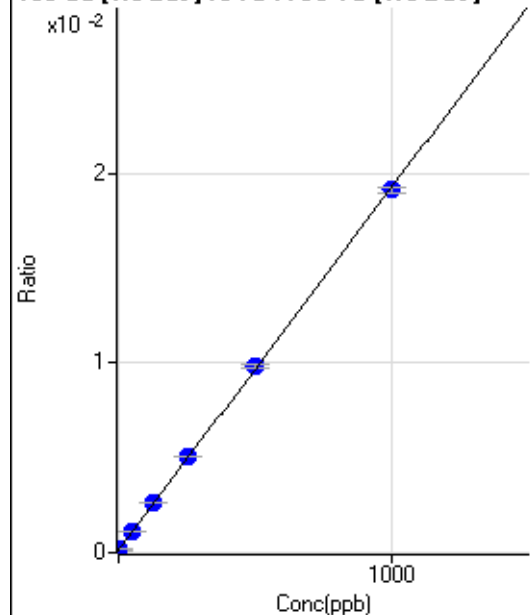
$$y = 7.8109\text{E-}004 * x + 5.7075\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.07013$$

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	1102.87	0.0001	P	8.7
2	☐	0.100					
3	☐	1.000	1.913	1411.26	0.0002	P	7.8
4	☐	50.000	51.981	9320.28	0.0011	P	1.2
5	☐	125.000	130.468	22085.52	0.0026	P	0.9
6	☐	250.000	258.531	43236.98	0.0051	P	1.2
7	☐	500.000	507.120	85366.71	0.0098	P	2.2
8	☐	1000.000	993.524	167687.71	0.0191	P	1.5
9	☐			1125.10	0.0001	P	6.4

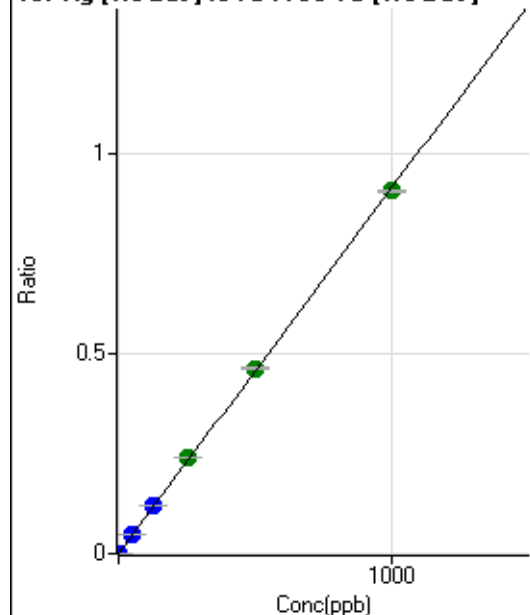
$$y = 1.9133\text{E-}005 * x + 1.2917\text{E-}004$$

$$R = 0.9999$$

$$DL = 1.756$$

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	66.67	0.0000	P	45.2
2	☐	0.100					
3	☐	1.000	0.959	7521.87	0.0009	P	0.8
4	☐	50.000	52.907	400631.57	0.0483	P	0.3
5	☐	125.000	129.965	998056.61	0.1186	P	0.2
6	☐	250.000	264.323	2055565.97	0.2413	A	0.8
7	☐	500.000	505.867	4009809.07	0.4618	A	0.8
8	☐	1000.000	992.720	7940460.85	0.9062	A	0.5
9	☐			1144.54	0.0001	P	3.1

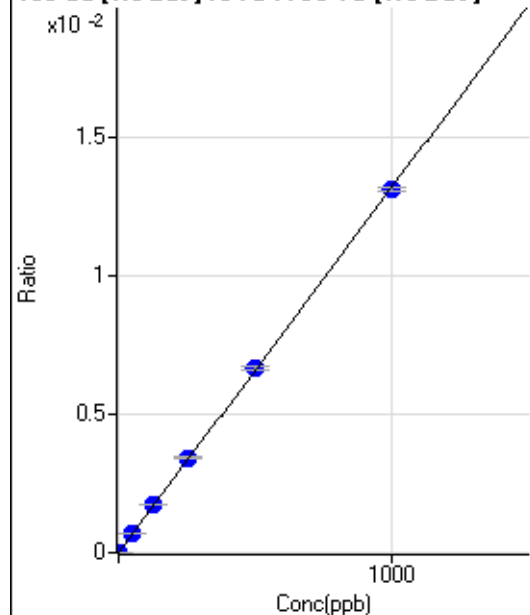
$$y = 9.1287\text{E-}004 * x + 7.8135\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.01161$$

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	4.17	0.0000	P	99.9
2	☐	0.100					
3	☐	1.000	0.891	104.17	0.0000	P	29.0
4	☐	50.000	53.739	5881.97	0.0007	P	1.0
5	☐	125.000	131.361	14574.81	0.0017	P	3.0
6	☐	250.000	259.224	29124.81	0.0034	P	1.3
7	☐	500.000	504.850	57809.77	0.0067	P	2.0
8	☐	1000.000	994.287	114898.39	0.0131	P	0.9
9	☐			31.94	0.0000	P	19.8

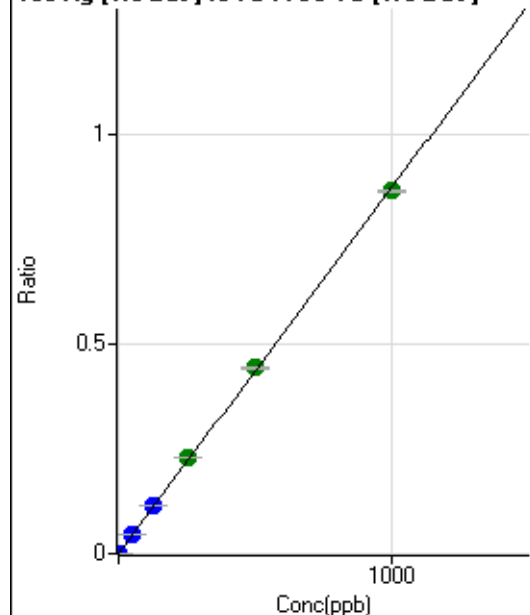
$$y = 1.3188\text{E-}005 * x + 4.8888\text{E-}007$$

$$R = 0.9999$$

$$DL = 0.1111$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0000	P	10.5
2	☐	0.100					
3	☐	1.000	0.979	7335.64	0.0009	P	2.9
4	☐	50.000	52.851	383273.55	0.0462	P	0.4
5	☐	125.000	130.555	960192.58	0.1141	P	0.3
6	☐	250.000	262.712	1956705.58	0.2297	A	0.1
7	☐	500.000	508.135	3857570.27	0.4443	A	0.7
8	☐	1000.000	991.917	7598744.44	0.8672	A	0.2
9	☐			1002.86	0.0001	P	18.4

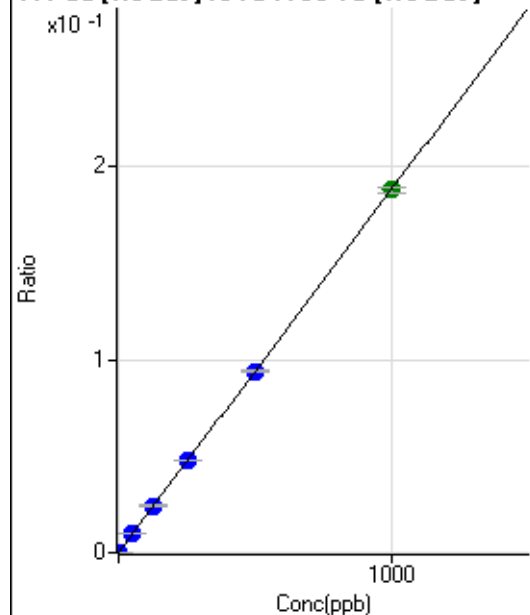
$$y = 8.7429\text{E-}004 * x + 5.2045\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.001869$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	788.54	0.0001	P	8.8
2	☐	0.100					
3	☐	1.000	1.020	2417.86	0.0003	P	3.1
4	☐	50.000	51.740	81392.54	0.0098	P	0.7
5	☐	125.000	129.259	205073.29	0.0244	P	0.7
6	☐	250.000	254.352	407892.04	0.0479	P	1.1
7	☐	500.000	498.404	813914.70	0.0937	P	1.1
8	☐	1000.000	999.091	1645600.24	0.1878	A	1.3
9	☐			1066.60	0.0001	P	3.8

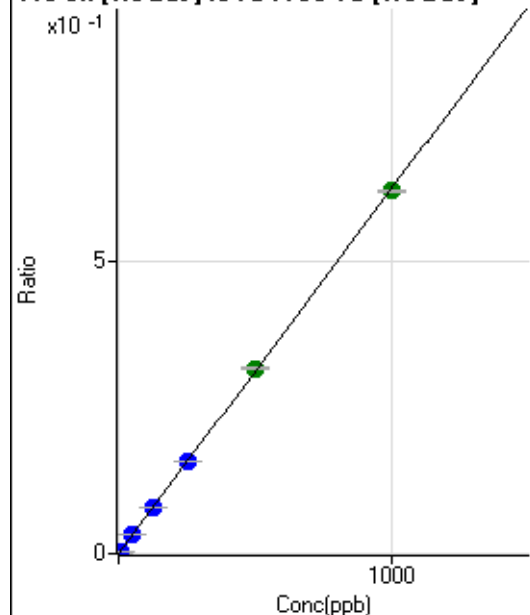
$$y = 1.8789\text{E-}004 * x + 9.2352\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.1301$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	497.26	0.0001	P	18.6
2	☐	0.500					
3	☐	5.000	4.543	24579.22	0.0029	P	3.4
4	☐	50.000	51.435	266117.05	0.0321	P	1.2
5	☐	125.000	127.821	670019.04	0.0797	P	0.7
6	☐	250.000	254.273	1349317.53	0.1584	P	0.8
7	☐	500.000	508.356	2749138.67	0.3166	A	1.0
8	☐	1000.000	994.332	5425764.19	0.6192	A	0.7
9	☐			8961.72	0.0010	P	3.1

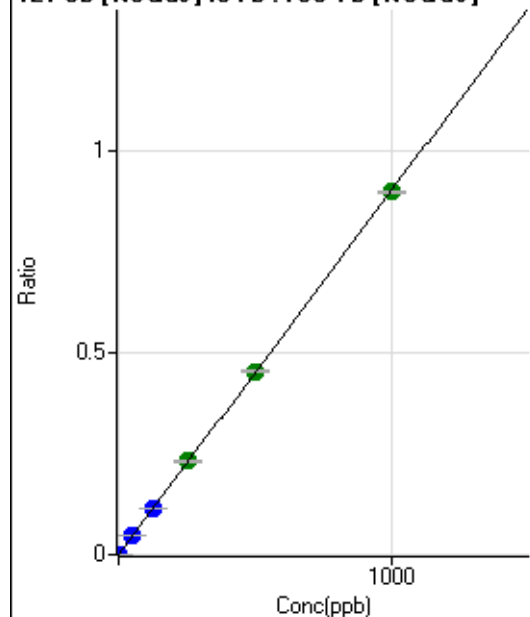
$$y = 6.2271\text{E-}004 * x + 5.8254\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.05212$$

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD : 159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	444.47	0.0001	P	28.9
2	☐	0.200					
3	☐	2.000	1.809	14363.78	0.0017	P	2.6
4	☐	50.000	50.290	377310.59	0.0455	P	0.5
5	☐	125.000	126.892	964899.86	0.1147	P	0.4
6	☐	250.000	256.536	1975037.59	0.2319	A	1.0
7	☐	500.000	503.617	3951594.23	0.4551	A	1.3
8	☐	1000.000	996.307	7888429.86	0.9003	A	0.3
9	☐			26143.31	0.0030	P	8.0

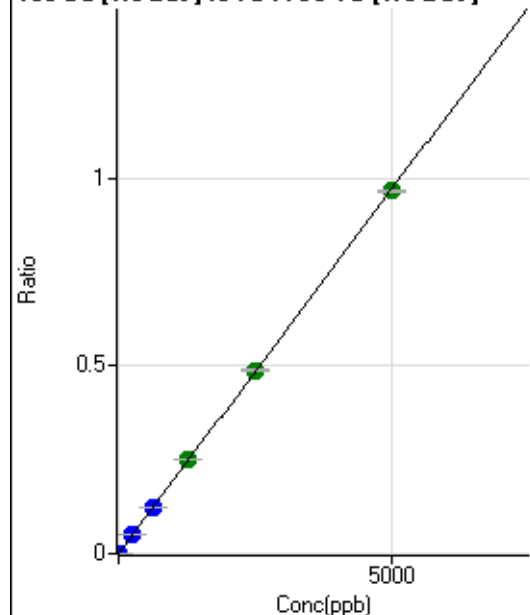
$$y = 9.0358\text{E-}004 * x + 5.2034\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.04998$$

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	33.33	0.0000	P	50.2
2	☐	1.000					
3	☐	10.000	9.168	15192.72	0.0018	P	0.3
4	☐	250.000	256.041	412416.63	0.0497	P	0.6
5	☐	625.000	639.167	1044119.88	0.1241	P	0.3
6	☐	1250.000	1288.884	2132179.62	0.2503	A	0.8
7	☐	2500.000	2516.653	4243528.13	0.4887	A	1.0
8	☐	5000.000	4979.881	8473590.12	0.9671	A	0.3
9	☐			2692.07	0.0003	P	7.5

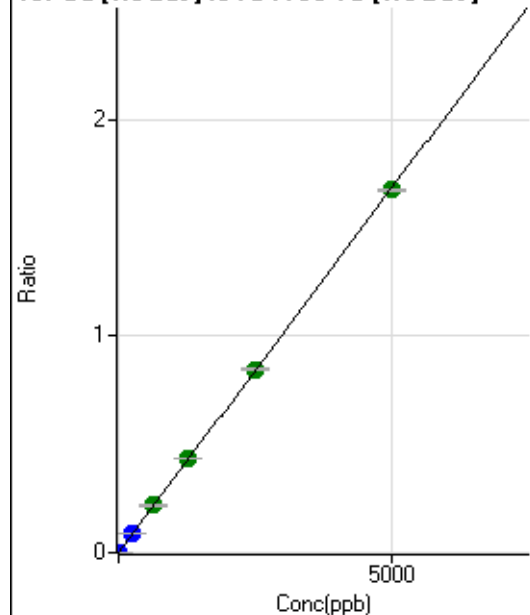
$$y = 1.9419\text{E-}004 * x + 3.9083\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.03033$$

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	100.00	0.0000	P	8.1
2	☐	1.000					
3	☐	10.000	9.180	26416.29	0.0031	P	3.4
4	☐	250.000	256.090	715333.42	0.0863	P	0.5
5	☐	625.000	647.581	1834463.34	0.2181	A	0.5
6	☐	1250.000	1287.915	3694734.24	0.4337	A	0.5
7	☐	2500.000	2516.143	7357210.84	0.8473	A	1.1
8	☐	5000.000	4979.324	14692268.04	1.6768	A	0.2
9	☐			4870.55	0.0006	P	4.3

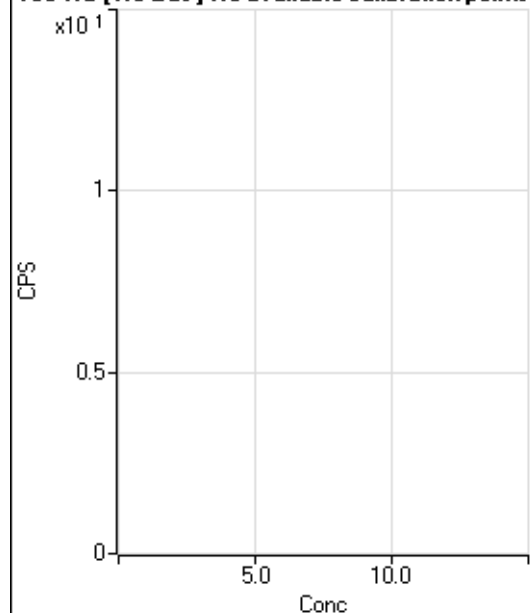
$$y = 3.3675\text{E-}004 * x + 1.1711\text{E-}005$$

$$R = 1.0000$$

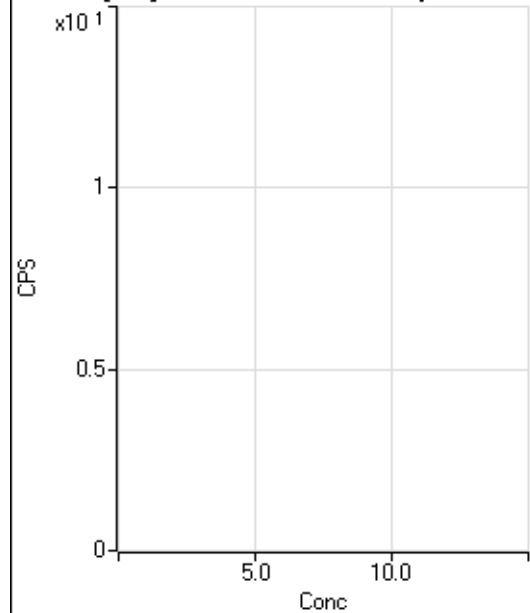
$$DL = 0.008412$$

Weight: <None>

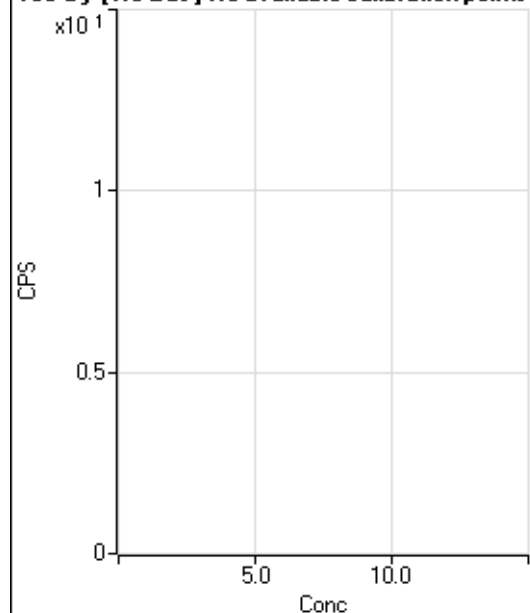
Min Conc: 0

150 Nd [No Gas] No available calibration points

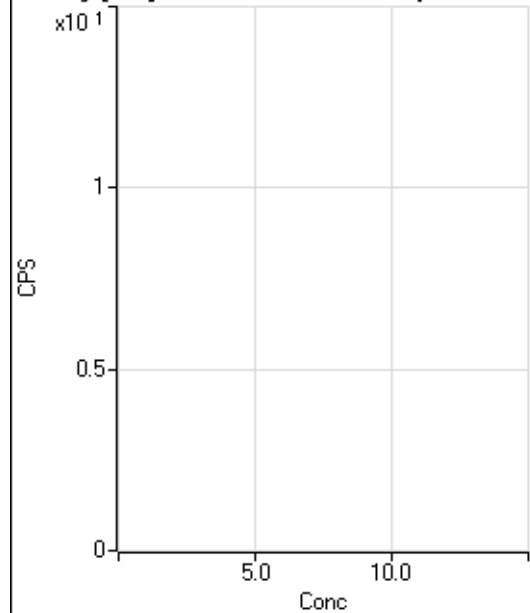
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.55		P	24.8
2	☐						
3	☐			2.22		P	173.2
4	☐			24.44		P	31.5
5	☐			51.12		P	7.5
6	☐			84.45		P	12.1
7	☐			208.90		P	13.3
8	☐			286.68		P	14.1
9	☐			82.23		P	16.9

150 Nd [He] No available calibration points

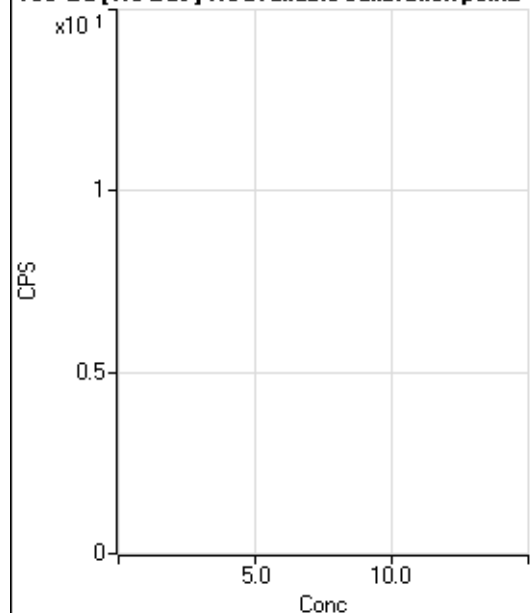
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.2
5	☐			1.11		P	173.2
6	☐			3.33		P	100.1
7	☐			3.33		P	100.1
8	☐			6.67		P	50.0
9	☐			8.89		P	94.4

156 Dy [No Gas] No available calibration points

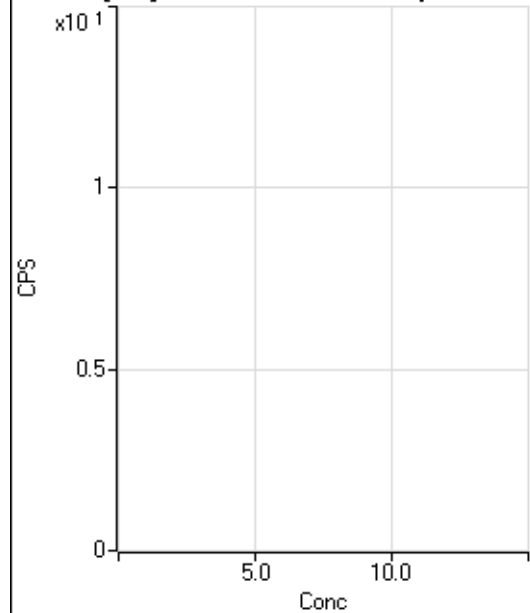
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	99.0
2	☐						
3	☐			11.11		P	43.3
4	☐			5.56		P	173.2
5	☐			27.78		P	96.4
6	☐			33.33		P	75.0
7	☐			47.23		P	71.3
8	☐			86.12		P	47.7
9	☐			63.89		P	15.1

156 Dy [He] No available calibration points

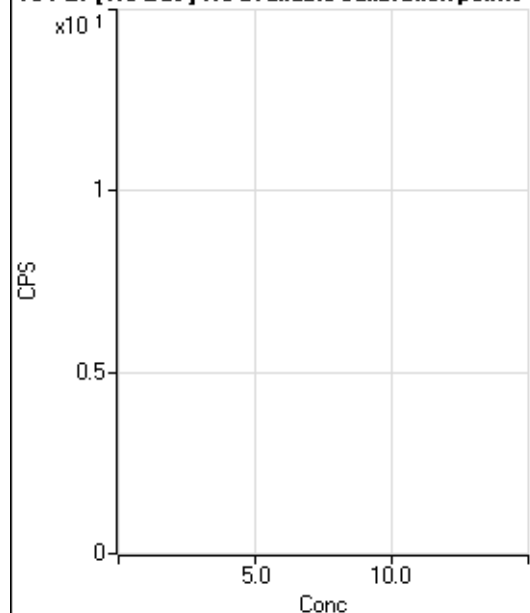
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			1.11		P	173.2
4	☐			0.00		P	
5	☐			5.56		P	34.7
6	☐			2.22		P	86.6
7	☐			4.44		P	43.4
8	☐			7.78		P	49.5
9	☐			13.33		P	25.0

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

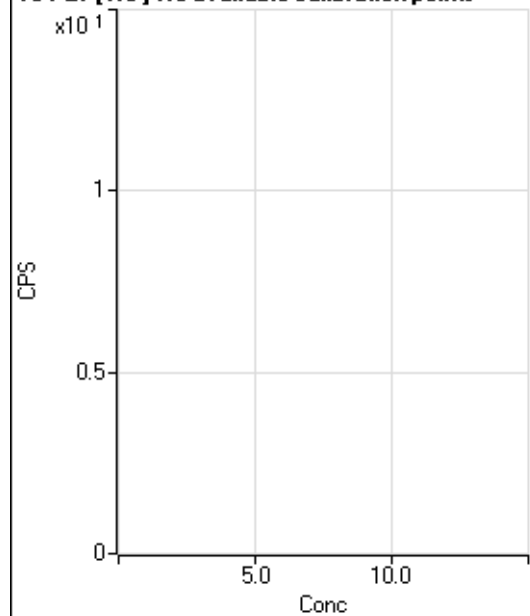
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			50.00		P	16.7
2	☐						
3	☐			36.11		P	35.3
4	☐			30.56		P	31.5
5	☐			30.56		P	56.8
6	☐			36.11		P	48.0
7	☐			44.45		P	28.7
8	☐			50.00		P	44.1
9	☐			66.67		P	21.6

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	173.2
2	☐						
3	☐			4.44		P	43.4
4	☐			5.56		P	34.7
5	☐			3.33		P	100.1
6	☐			3.33		P	100.1
7	☐			10.00		P	33.3
8	☐			11.11		P	62.5
9	☐			16.67		P	60.0

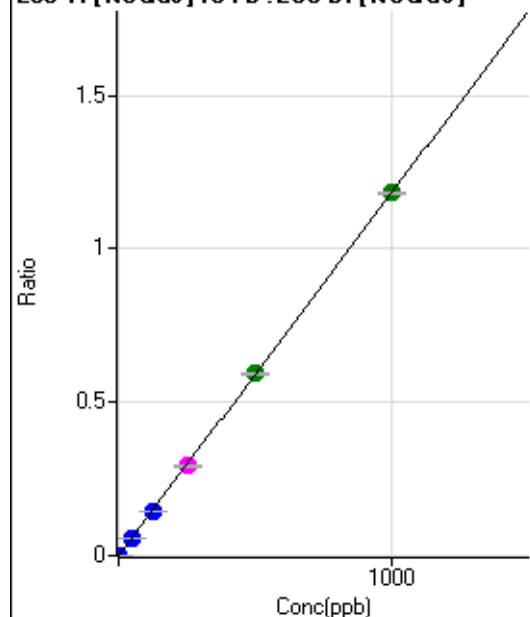
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	105.4
2	☐						
3	☐			58.33		P	37.8
4	☐			33.34		P	43.3
5	☐			41.67		P	72.1
6	☐			30.56		P	83.3
7	☐			52.78		P	32.9
8	☐			66.67		P	21.6
9	☐			50.00		P	16.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	91.6
2	☐						
3	☐			5.56		P	34.7
4	☐			4.44		P	43.4
5	☐			4.44		P	43.4
6	☐			7.78		P	65.5
7	☐			7.78		P	24.7
8	☐			8.89		P	21.6
9	☐			2.22		P	173.2

203 Tl [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	9.6
2	☐	0.100					
3	☐	1.000	0.907	6112.83	0.0011	P	3.0
4	☐	50.000	49.555	313441.32	0.0586	P	1.3
5	☐	125.000	123.044	796313.66	0.1455	P	1.4
6	☐	250.000	247.302	1624841.23	0.2924	M	1.2
7	☐	500.000	501.371	3335488.62	0.5928	A	0.4
8	☐	1000.000	1000.256	6688218.29	1.1826	A	0.3
9	☐			3700.73	0.0007	P	5.2

$$y = 0.0012 * x + 2.1091E-005$$

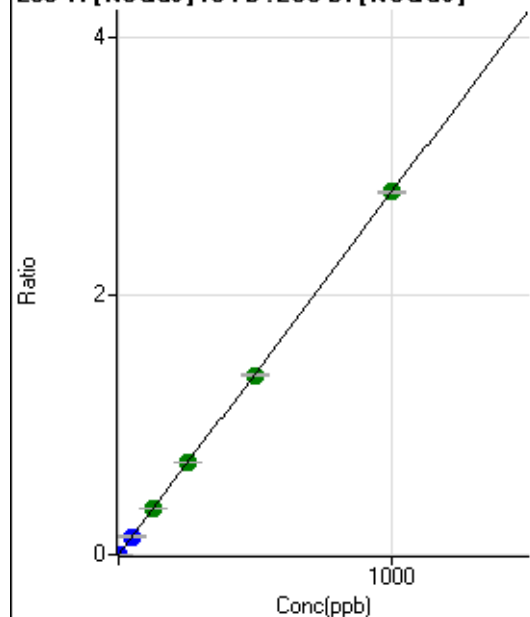
$$R = 1.0000$$

$$DL = 0.005162$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	286.13	0.0001	P	25.4
2	☐	0.100					
3	☐	1.000	0.898	14350.45	0.0026	P	2.6
4	☐	50.000	50.089	750397.27	0.1403	P	1.5
5	☐	125.000	127.669	1956999.85	0.3575	A	0.8
6	☐	250.000	252.829	3934548.92	0.7080	A	0.5
7	☐	500.000	495.899	7813938.80	1.3886	A	0.4
8	☐	1000.000	1001.005	15852979.00	2.8030	A	0.7
9	☐			8806.21	0.0016	P	9.7

$$y = 0.0028 * x + 5.0597E-005$$

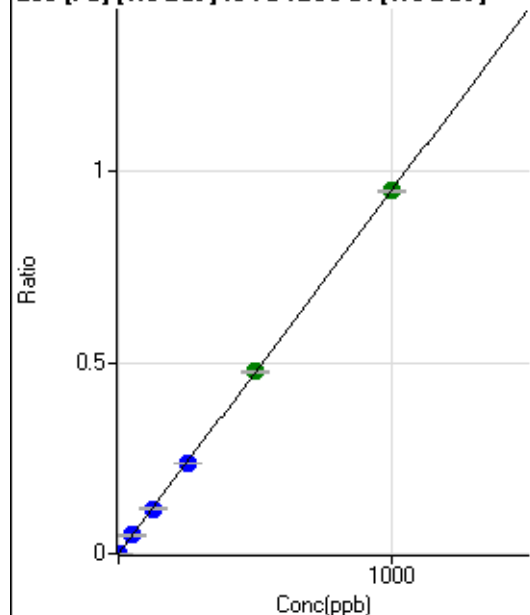
$$R = 1.0000$$

$$DL = 0.01377$$

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	237.05	0.0000	P	23.2
2	☐	0.100					
3	☐	1.000	0.921	5127.13	0.0009	P	4.8
4	☐	50.000	50.574	257165.99	0.0481	P	1.3
5	☐	125.000	124.459	647352.24	0.1183	P	0.5
6	☐	250.000	248.704	1313139.96	0.2363	P	0.3
7	☐	500.000	500.986	2678143.49	0.4759	A	1.0
8	☐	1000.000	999.870	5372083.57	0.9499	A	0.7
9	☐			10423.11	0.0019	P	2.4

$$y = 9.4994\text{E-}004 * x + 4.1922\text{E-}005$$

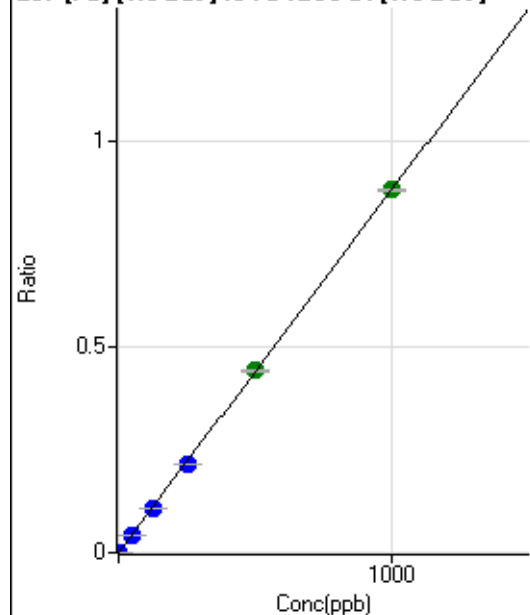
$$R = 1.0000$$

$$DL = 0.03076$$

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	200.01	0.0000	P	8.9
2	☐	0.100					
3	☐	1.000	0.872	4484.27	0.0008	P	5.4
4	☐	50.000	49.185	231432.43	0.0433	P	0.6
5	☐	125.000	122.867	591360.47	0.1080	P	0.9
6	☐	250.000	244.406	1194150.52	0.2149	P	0.2
7	☐	500.000	501.907	2482858.50	0.4412	A	0.6
8	☐	1000.000	1000.753	4975621.47	0.8798	A	0.6
9	☐			8984.91	0.0017	P	2.1

$$y = 8.7906\text{E-}004 * x + 3.5350\text{E-}005$$

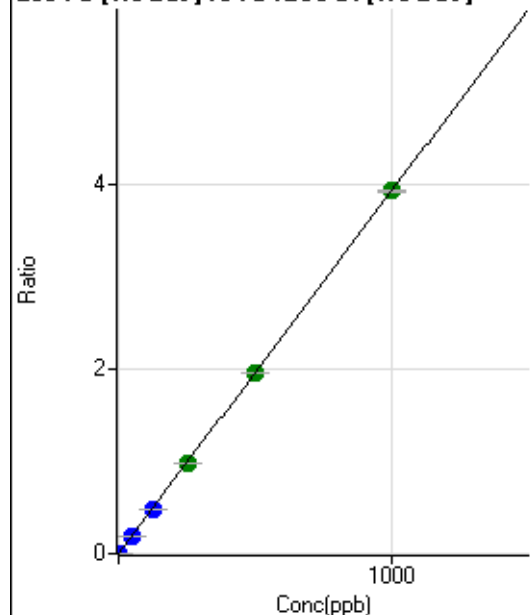
$$R = 1.0000$$

$$DL = 0.0107$$

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	913.01	0.0002	P	8.2
2	☐	0.100					
3	☐	1.000	0.890	20410.75	0.0036	P	1.6
4	☐	50.000	49.753	1043867.85	0.1952	P	0.9
5	☐	125.000	123.325	2646743.00	0.4836	P	0.4
6	☐	250.000	249.781	5441765.08	0.9792	A	0.4
7	☐	500.000	499.580	11019631.93	1.9583	A	0.4
8	☐	1000.000	1000.486	22180007.85	3.9217	A	0.6
9	☐			41468.41	0.0077	P	2.6

$$y = 0.0039 * x + 1.6140E-004$$

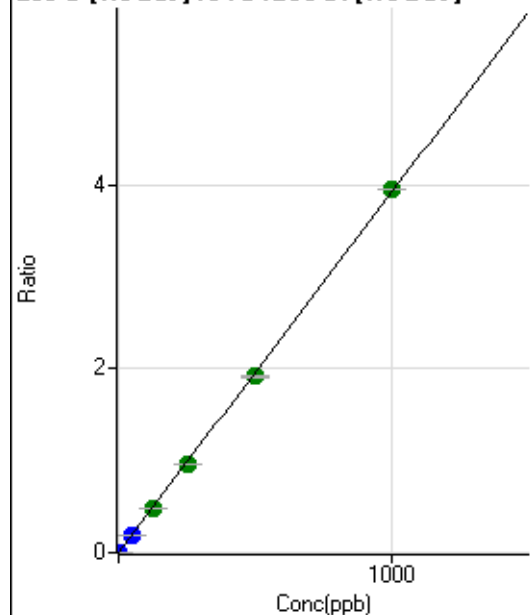
$$R = 1.0000$$

$$DL = 0.01015$$

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	127.79	0.0000	P	13.0
2	☐	0.100					
3	☐	1.000	0.850	18759.36	0.0034	P	1.2
4	☐	50.000	48.020	1007355.46	0.1883	P	0.5
5	☐	125.000	123.565	2652556.89	0.4846	A	0.7
6	☐	250.000	245.443	5349452.72	0.9626	A	0.8
7	☐	500.000	488.902	10789197.55	1.9174	A	0.3
8	☐	1000.000	1006.967	22335389.56	3.9491	A	0.1
9	☐			3097.77	0.0006	P	2.0

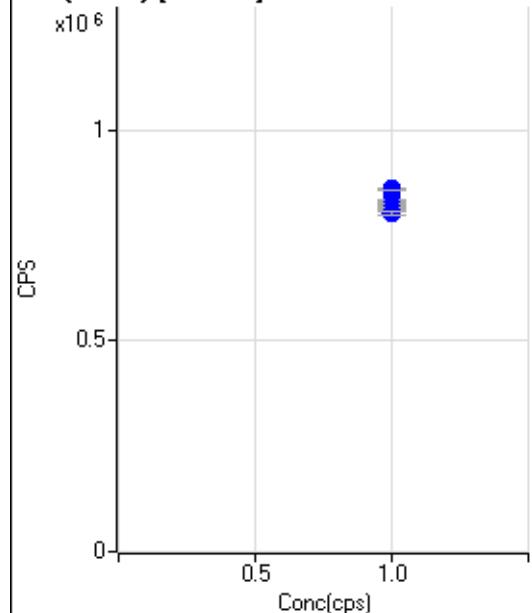
$$y = 0.0039 * x + 2.2565E-005$$

$$R = 0.9999$$

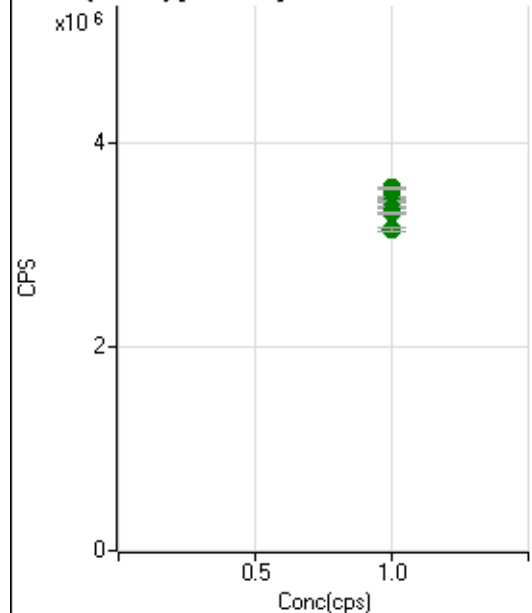
$$DL = 0.002242$$

Weight: <None>

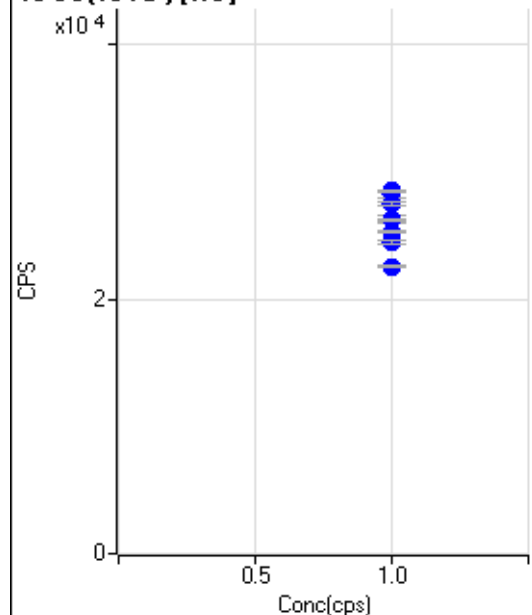
Min Conc: 0

6 Li(ISTD) [No Gas]

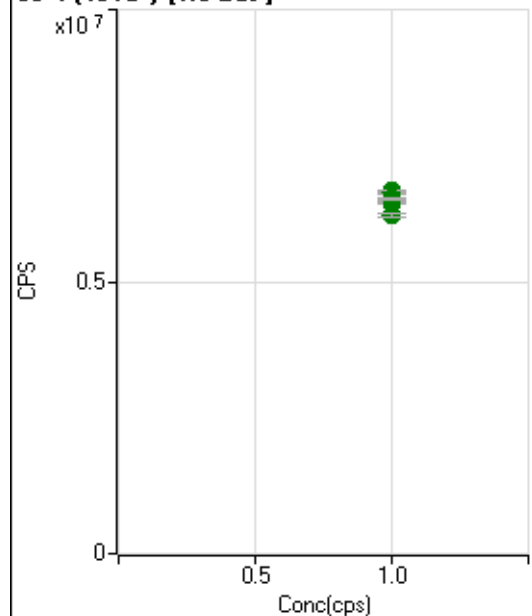
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		861450.24		P	0.2
2	☐	1.000					
3	☐	1.000		857217.79		P	0.2
4	☐	1.000		829803.47		P	0.1
5	☐	1.000		833419.16		P	0.3
6	☐	1.000		832932.49		P	0.2
7	☐	1.000		823401.11		P	0.4
8	☐	1.000		814921.60		P	0.2
9	☐	1.000		804504.61		P	1.1

45 Sc(ISTD) [No Gas]

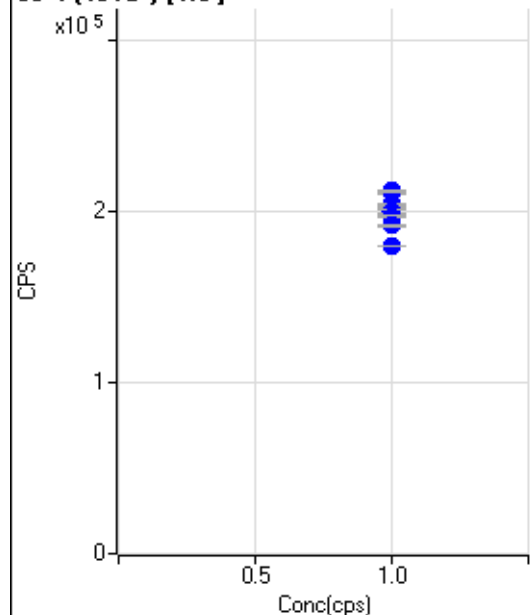
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3557931.72		A	0.4
2	☐	1.000					
3	☐	1.000		3550994.09		A	0.5
4	☐	1.000		3458606.28		A	0.4
5	☐	1.000		3416065.05		A	0.5
6	☐	1.000		3416998.30		A	0.7
7	☐	1.000		3360662.97		A	0.4
8	☐	1.000		3317842.98		A	0.5
9	☐	1.000		3150633.86		A	0.7

45 Sc(ISTD) [He]

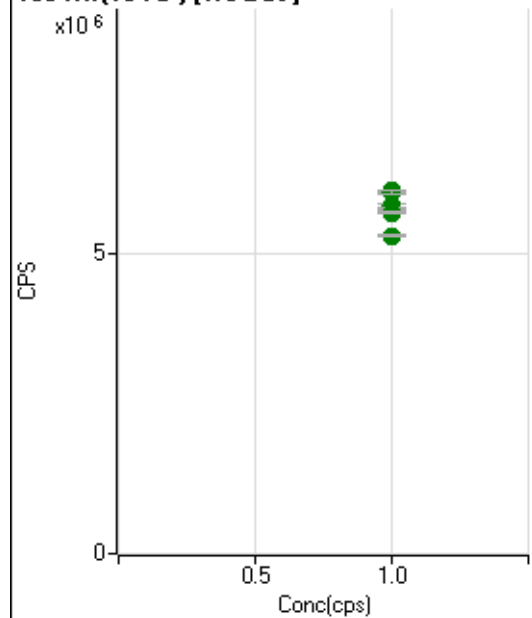
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		28222.96		P	1.7
2	☐	1.000					
3	☐	1.000		28511.27		P	0.6
4	☐	1.000		27482.58		P	1.1
5	☐	1.000		26281.48		P	2.7
6	☐	1.000		26264.77		P	0.4
7	☐	1.000		25299.67		P	0.3
8	☐	1.000		24412.51		P	1.3
9	☐	1.000		22583.84		P	1.1

89 Y(ISTD) [No Gas]

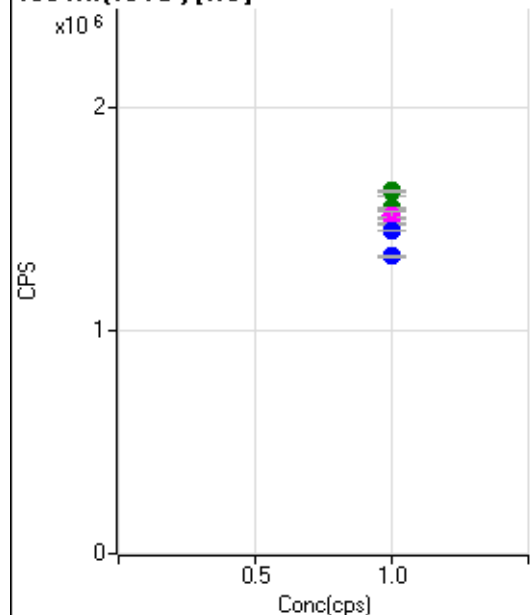
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6673996.77		A	0.4
2	☐	1.000					
3	☐	1.000		6648100.32		A	0.8
4	☐	1.000		6448892.12		A	0.6
5	☐	1.000		6470446.64		A	0.6
6	☐	1.000		6494705.46		A	0.3
7	☐	1.000		6552100.32		A	0.2
8	☐	1.000		6525506.78		A	0.6
9	☐	1.000		6227619.77		A	0.7

89 Y (ISTD) [He]

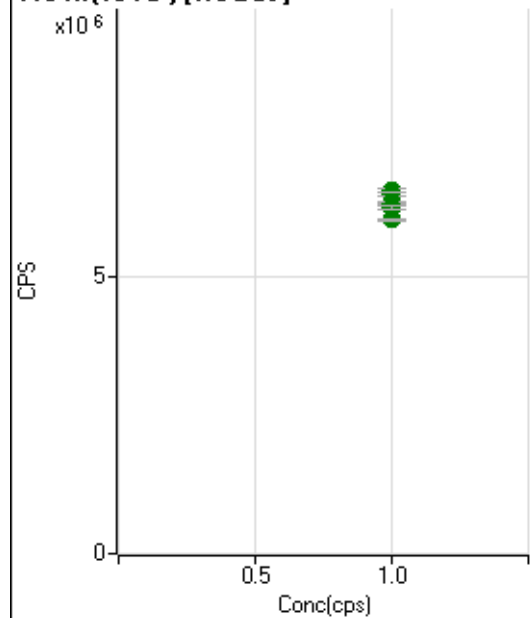
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		211420.50		P	1.1
2	☐	1.000					
3	☐	1.000		211716.12		P	0.7
4	☐	1.000		203816.00		P	0.5
5	☐	1.000		199523.73		P	2.9
6	☐	1.000		199738.35		P	0.7
7	☐	1.000		196644.23		P	0.3
8	☐	1.000		191334.78		P	0.4
9	☐	1.000		179796.15		P	0.3

103 Rh (ISTD) [NoGas]

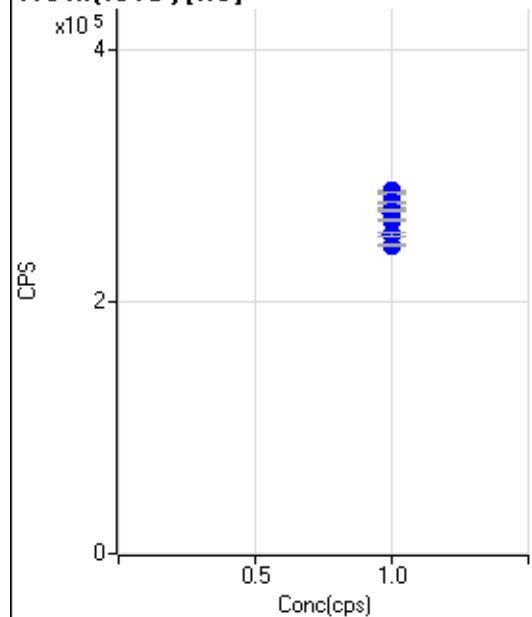
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6052557.04		A	0.5
2	☐	1.000					
3	☐	1.000		6039545.06		A	0.9
4	☐	1.000		5768421.26		A	0.3
5	☐	1.000		5812387.84		A	0.8
6	☐	1.000		5751801.65		A	0.2
7	☐	1.000		5760476.13		A	0.3
8	☐	1.000		5691002.64		A	0.8
9	☐	1.000		5302343.00		A	0.7

103Rh(ISTD)[He]

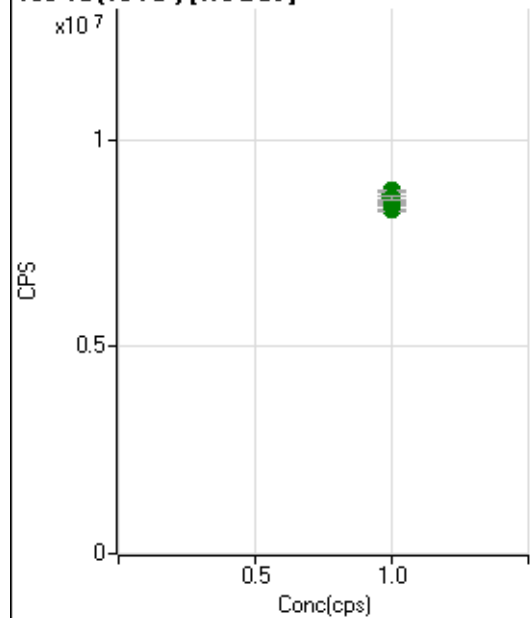
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1617689.75		A	1.6
2	☐	1.000					
3	☐	1.000		1625416.69		A	0.3
4	☐	1.000		1549921.59		A	0.6
5	☐	1.000		1514872.74		A	2.1
6	☐	1.000		1519497.48		M	1.3
7	☐	1.000		1477244.65		M	1.0
8	☐	1.000		1445503.83		P	0.2
9	☐	1.000		1331890.35		P	0.3

115In(ISTD)[NoGas]

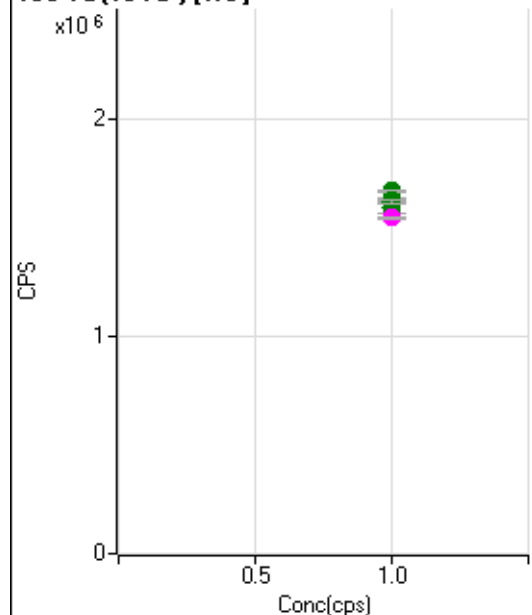
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6538868.34		A	1.0
2	☐	1.000					
3	☐	1.000		6487894.70		A	1.0
4	☐	1.000		6279766.92		A	0.1
5	☐	1.000		6301996.34		A	0.1
6	☐	1.000		6338221.72		A	0.7
7	☐	1.000		6308290.99		A	0.6
8	☐	1.000		6239893.23		A	1.1
9	☐	1.000		6014179.17		A	0.2

115 In(ISTD) [He]

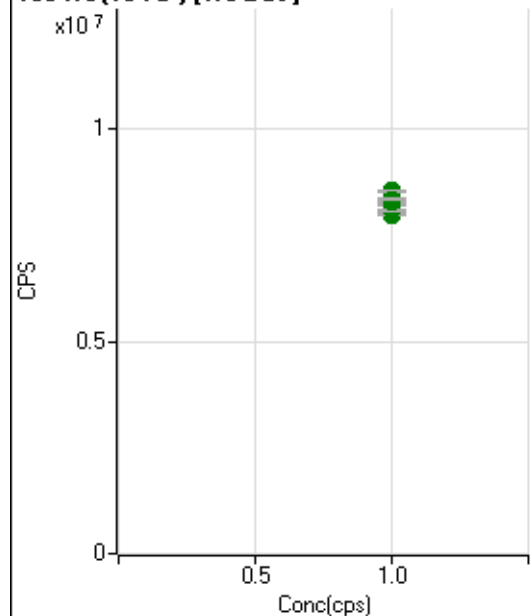
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		288153.85		P	0.4
2	☐	1.000					
3	☐	1.000		286469.92		P	0.4
4	☐	1.000		278750.77		P	0.9
5	☐	1.000		270277.00		P	3.4
6	☐	1.000		272253.65		P	0.7
7	☐	1.000		264745.71		P	0.7
8	☐	1.000		253712.78		P	0.9
9	☐	1.000		244990.91		P	0.4

159 Tb(ISTD) [NoGas]

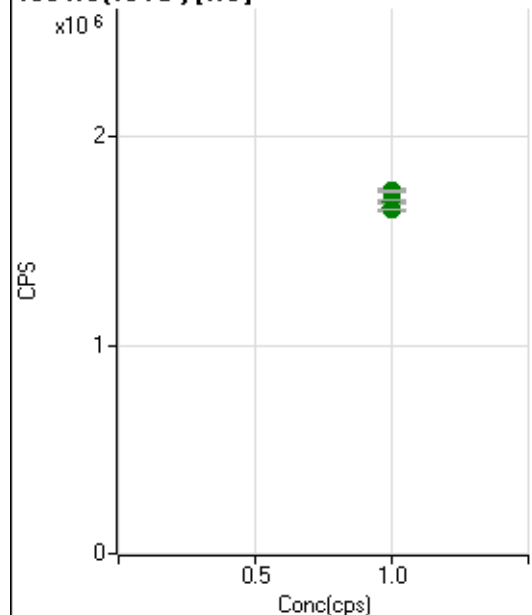
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8538039.94		A	0.3
2	☐	1.000					
3	☐	1.000		8514860.08		A	0.9
4	☐	1.000		8293839.04		A	0.6
5	☐	1.000		8411867.17		A	0.6
6	☐	1.000		8518854.18		A	0.6
7	☐	1.000		8683385.36		A	0.9
8	☐	1.000		8762134.31		A	0.4
9	☐	1.000		8606532.37		A	0.9

159 Tb(ISTD) [He]

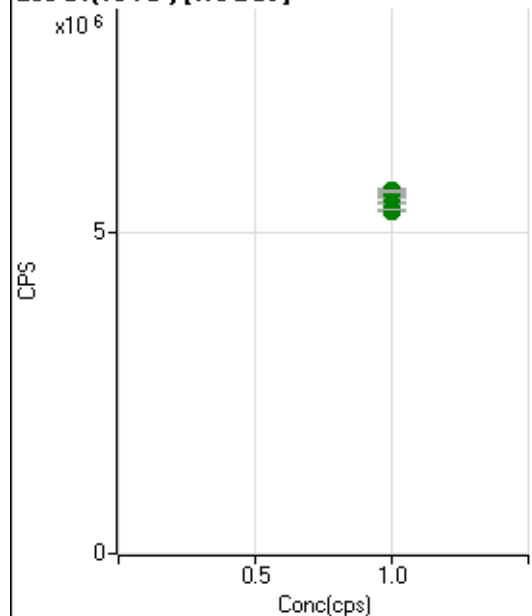
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1669165.98		A	0.6
2	☐	1.000					
3	☐	1.000		1664911.28		A	0.4
4	☐	1.000		1612912.41		A	0.6
5	☐	1.000		1594954.82		A	3.5
6	☐	1.000		1614457.51		A	0.7
7	☐	1.000		1625902.16		A	1.0
8	☐	1.000		1619256.50		A	1.2
9	☐	1.000		1545358.05		M	0.4

165 Ho(ISTD) [NoGas]

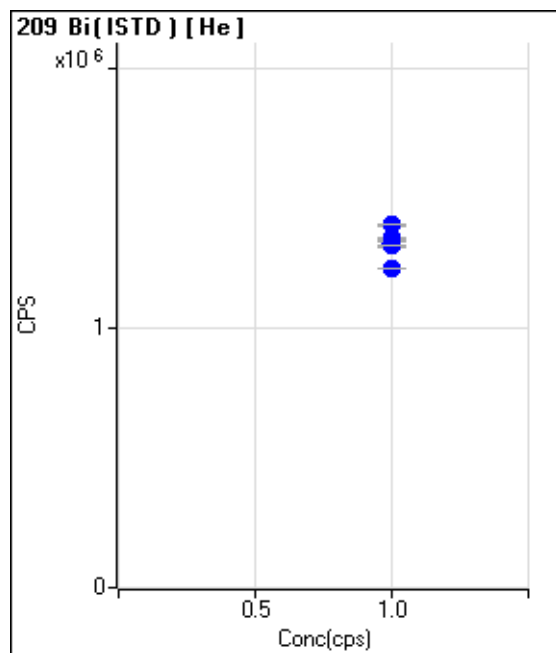
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8242649.92		A	1.0
2	☐	1.000					
3	☐	1.000		8289659.04		A	0.8
4	☐	1.000		7979648.44		A	0.4
5	☐	1.000		8091290.54		A	0.9
6	☐	1.000		8284081.18		A	0.3
7	☐	1.000		8372267.11		A	0.3
8	☐	1.000		8545150.71		A	0.3
9	☐	1.000		8354528.31		A	0.9

165 Ho(ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1742149.21		A	1.0
2	☐	1.000					
3	☐	1.000		1739175.70		A	0.6
4	☐	1.000		1682837.68		A	0.7
5	☐	1.000		1659574.35		A	2.1
6	☐	1.000		1687906.97		A	1.1
7	☐	1.000		1692811.23		A	0.3
8	☐	1.000		1688333.43		A	0.9
9	☐	1.000		1655784.23		A	0.1

209 Bi(ISTD) [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5659988.53		A	1.0
2	☐	1.000					
3	☐	1.000		5592232.21		A	0.6
4	☐	1.000		5348476.66		A	0.6
5	☐	1.000		5473604.85		A	0.6
6	☐	1.000		5557228.25		A	0.4
7	☐	1.000		5627045.82		A	0.3
8	☐	1.000		5655796.65		A	0.5
9	☐	1.000		5368939.30		A	0.4



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1395887.51		P	0.4
2	☐	1.000					
3	☐	1.000		1396368.99		P	0.1
4	☐	1.000		1343481.96		P	0.4
5	☐	1.000		1327808.55		P	2.5
6	☐	1.000		1344782.56		P	0.0
7	☐	1.000		1331304.34		P	0.2
8	☐	1.000		1318943.66		P	0.3
9	☐	1.000		1228882.91		P	0.2

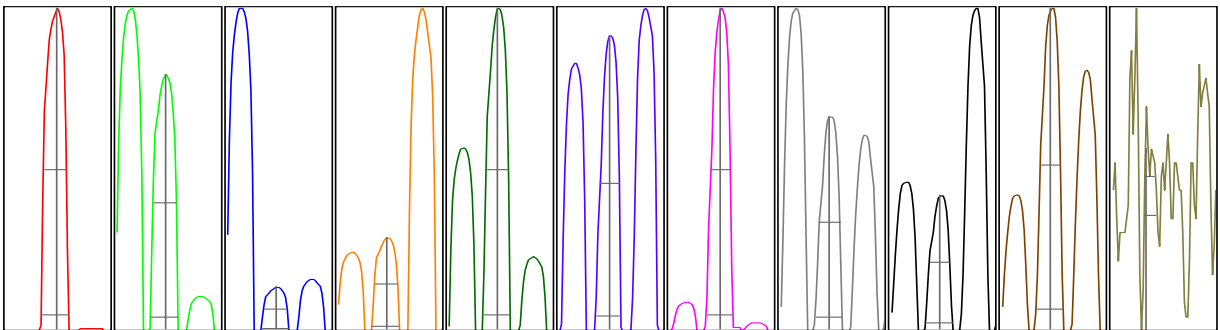
US EPA Tune Check Sample Report

Batch Folder D:\MSP8031018.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	3757	0.41	5.00	
24	27813	0.34	5.00	
25	3791	0.30	5.00	
26	4408	0.32	5.00	
59	48925	0.32	5.00	
113	7076	0.46	5.00	
115	89191	0.61	5.00	
206	22086	0.42	5.00	
207	20073	0.40	5.00	
208	47564	0.41	5.00	
220	1	30.09		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	3742	3774	3759	3742	3771
24	27681	27779	27892	27791	27920
25	3784	3795	3776	3806	3794
26	4403	4408	4387	4418	4422
59	48818	48759	48890	49008	49147
113	7072	7034	7056	7103	7113
115	88766	88871	88747	89767	89806
206	22031	22007	22026	22217	22147
207	19943	20049	20111	20146	20117
208	47366	47342	47709	47720	47685
220	1	1	2	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	6039	9.00	8.9 - 9.1		0.785	0.900	
24	44093	23.95	23.9 - 24.1		0.787	0.900	
25	6006	24.95	24.9 - 25.1		0.787	0.900	
26	7071	25.95	25.9 - 26.1		0.786	0.900	
59	81372	58.95	58.9 - 59.1		0.781	0.900	
113	13001	113.00	112.9 - 113.1		0.726	0.900	
115	161536	115.00	114.9 - 115.1		0.770	0.900	
206	39686	205.95	205.9 - 206.1		0.775	0.900	
207	36225	206.95	206.9 - 207.1		0.773	0.900	
208	86193	207.95	207.9 - 208.1		0.776	0.900	
220	1	219.55	-		0.346		

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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.4	V	Deflect	14.0	V
Extract 2	-240.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-95	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination	5.0	V
He Flow	0.0	mL/min	OctP RF	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	6253	0.73	
89	1886	0.76	
205	9619	0.81	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	6321	6263	6249	6232	6198
89	1902	1887	1898	1872	1872
205	9720	9634	9657	9561	9523

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.4	V	Deflect	2.0	V
Extract 2	-240.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-95	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	5.0	mL/min	OctP RF	200	V			