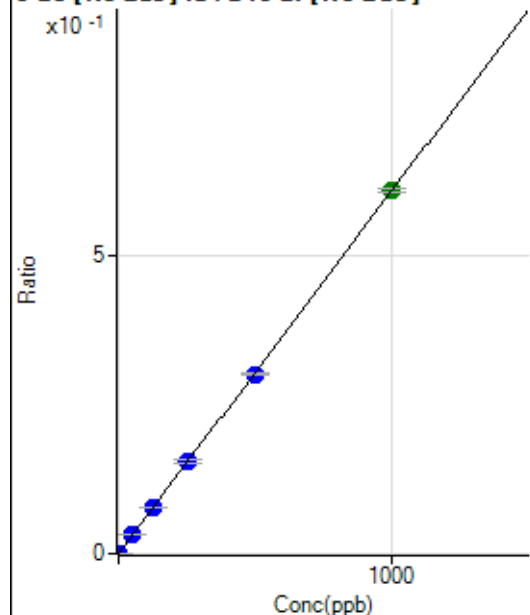


Batch Folder: D:\P8101818-MS.b\
Analysis File: P8101818-MS.batch.bin
DA Date-Time: 2018-10-18 12:53:41
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-10-18 12:12:39
2	004CALB.d	S01	2018-10-18 12:16:00
3	005CALS.d	S02	2018-10-18 12:19:22
4	006CALS.d	S03	2018-10-18 12:23:43
5	007CALS.d	S04	2018-10-18 12:27:24
6	008CALS.d	S05	2018-10-18 12:30:55
7	009CALS.d	S06	2018-10-18 12:34:22
8	010CALS.d	S07	2018-10-18 12:37:46
9	011CALS.d	S08	2018-10-18 12:41:05

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	81.48	0.0000	P	34.8
2	☐	0.100	0.110	288.90	0.0001	P	10.1
3	☐	1.000	1.001	2044.65	0.0006	P	7.0
4	☐	50.000	51.467	101041.50	0.0312	P	0.1
5	☐	125.000	128.356	249149.14	0.0779	P	1.3
6	☐	250.000	254.616	472435.19	0.1545	P	2.5
7	☐	500.000	495.082	856703.74	0.3004	P	0.9
8	☐	1000.000	1000.812	1640053.55	0.6072	A	1.2
9	☐			838.94	0.0003	P	10.0

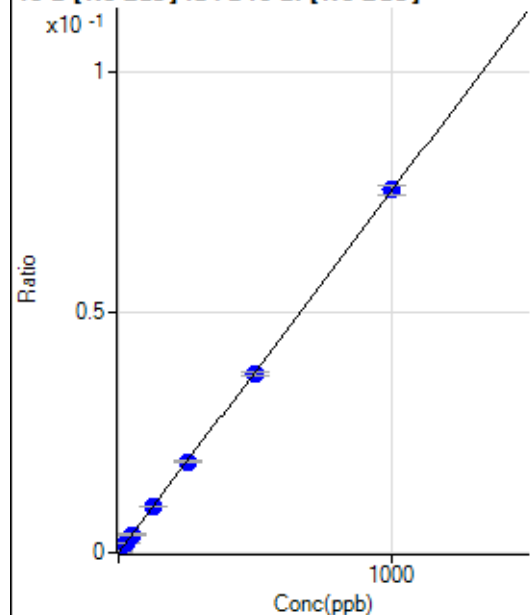
$$y = 6.0665\text{E-}004 * x + 2.5641\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.04411$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	130.56	0.0000	P	13.9
2	☐	2.500	2.684	761.17	0.0002	P	1.5
3	☐	25.000	24.646	6107.14	0.0019	P	7.8
4	☐	50.000	49.936	12258.51	0.0038	P	3.2
5	☐	125.000	126.907	30617.05	0.0096	P	2.8
6	☐	250.000	252.038	58029.77	0.0190	P	0.8
7	☐	500.000	491.882	105477.42	0.0370	P	2.2
8	☐	1000.000	1003.323	203655.36	0.0754	P	2.6
9	☐			8269.37	0.0029	P	10.1

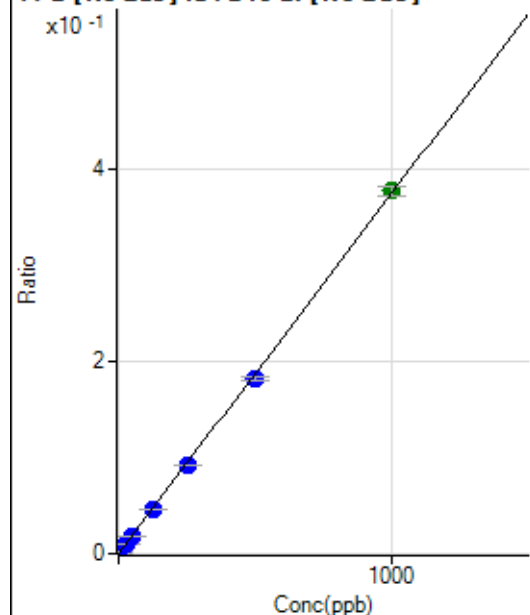
$$y = 7.5111\text{E-}005 * x + 4.1079\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.2274$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	736.16	0.0002	P	14.9
2	☐	2.500	2.436	3583.97	0.0011	P	11.4
3	☐	25.000	24.730	30619.77	0.0095	P	2.1
4	☐	50.000	49.601	60743.29	0.0188	P	2.2
5	☐	125.000	122.092	146839.26	0.0459	P	1.7
6	☐	250.000	246.903	283238.01	0.0926	P	0.7
7	☐	500.000	486.154	519315.07	0.1821	P	2.7
8	☐	1000.000	1008.087	1019322.46	0.3774	A	2.6
9	☐			39196.32	0.0139	P	9.6

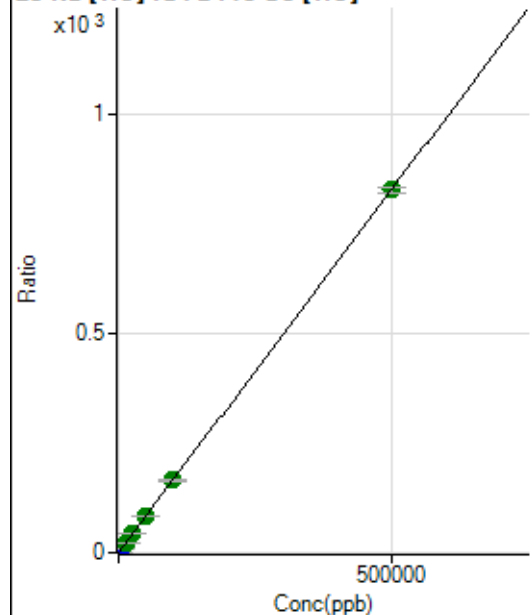
$$y = 3.7412\text{E-}004 * x + 2.3137\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.2763$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5434.61	0.0758	P	7.6
2	☐	50.000	46.383	10929.61	0.1525	P	2.3
3	☐	500.000	487.150	63146.64	0.8814	P	2.4
4	☐	5000.000	5035.650	571142.24	8.4024	P	3.3
5	☐	12500.000	12804.548	1434885.84	21.2484	A	1.4
6	☐	25000.000	25750.200	2614128.38	42.6542	A	2.6
7	☐	50000.000	50286.563	4729631.01	83.2255	A	0.2
8	☐	100000.00	100114.93	9196983.10	165.6176	A	1.8
9	☐	500000.00	499902.89	53936186.97	826.6737	A	1.4

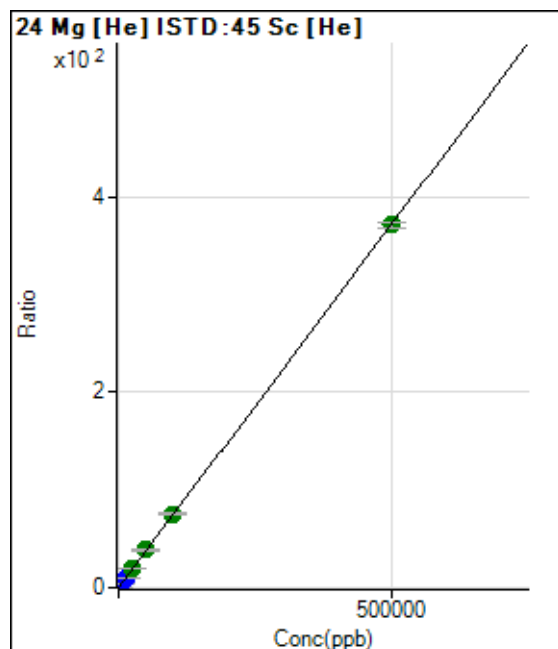
$$y = 0.0017 * x + 0.0758$$

$$R = 1.0000$$

$$DL = 10.45$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.68	0.0037	P	2.9
2	☐	50.000	47.096	2775.41	0.0387	P	1.8
3	☐	500.000	494.822	26614.70	0.3715	P	2.2
4	☐	5000.000	5226.027	264260.69	3.8879	P	3.7
5	☐	12500.000	12772.350	641290.79	9.4965	P	0.1
6	☐	25000.000	26301.609	1197870.89	19.5519	A	3.8
7	☐	50000.000	51721.526	2184770.41	38.4448	A	0.5
8	☐	100000.00	101674.86	4196746.88	75.5717	A	1.4
9	☐	500000.00	499418.73	24218123.28	371.1875	A	1.5

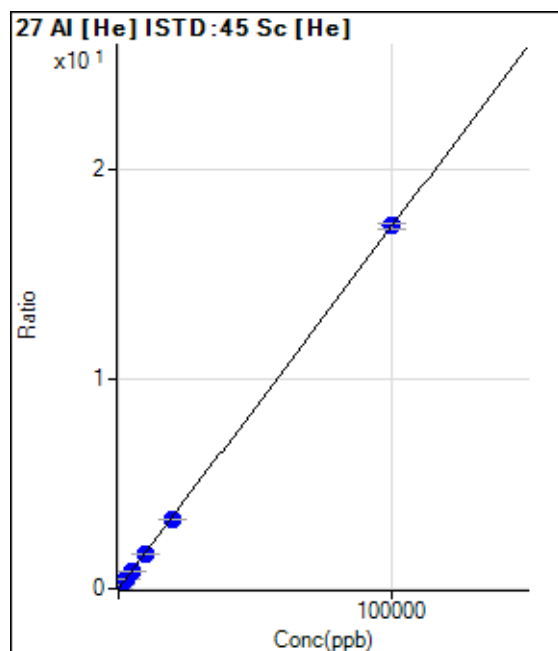
$$y = 7.4323\text{E-}004 * x + 0.0037$$

$$R = 1.0000$$

$$DL = 0.4396$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9.17	0.0001	P	42.3
2	☐	2.000	1.615	29.18	0.0004	P	17.1
3	☐	20.000	17.725	228.40	0.0032	P	12.2
4	☐	1000.000	998.539	11724.56	0.1725	P	3.2
5	☐	2500.000	2457.171	28646.02	0.4242	P	0.4
6	☐	5000.000	4928.914	52132.11	0.8508	P	3.3
7	☐	10000.000	9635.986	94517.11	1.6632	P	0.2
8	☐	20000.000	19182.630	183868.83	3.3108	P	1.0
9	☐	100000.00	100204.51	1128390.40	17.2943	P	1.5

$$y = 1.7259\text{E-}004 * x + 1.2800\text{E-}004$$

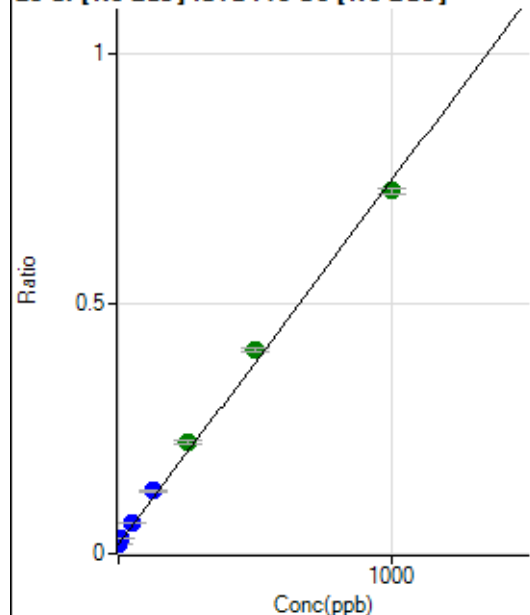
$$R = 1.0000$$

$$DL = 0.9411$$

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	166710.24	0.0187	P	0.7
2	☐	1.000	1.440	174362.37	0.0198	P	0.9
3	☐	10.000	15.104	267746.23	0.0297	P	3.1
4	☐	50.000	57.216	543297.37	0.0604	P	1.4
5	☐	125.000	146.403	1101230.04	0.1253	P	1.3
6	☐	250.000	282.216	1858615.41	0.2241	A	3.4
7	☐	500.000	534.591	3178218.82	0.4077	A	2.0
8	☐	1000.000	971.563	5387195.74	0.7256	A	1.7
9	☐			265869.38	0.0331	P	1.1

$$y = 7.2759\text{E-}004 * x + 0.0187$$

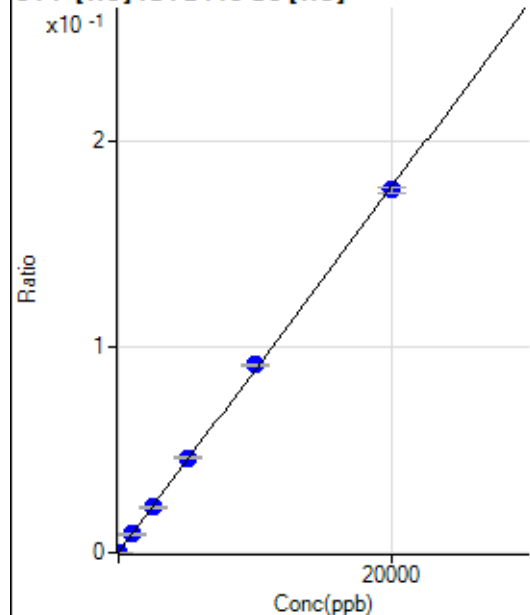
$$R = 0.9985$$

$$DL = 0.5169$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	2.885	11.11	0.0002	P	86.6
2	☐	0.000	-10.203	2.78	0.0000	P	173.
3	☐	0.000	7.317	13.89	0.0002	P	91.2
4	☐	1000.000	1006.492	616.71	0.0091	P	11.8
5	☐	2500.000	2463.098	1489.04	0.0220	P	8.0
6	☐	5000.000	5168.082	2828.18	0.0461	P	2.1
7	☐	10000.000	10248.644	5190.06	0.0913	P	0.9
8	☐	20000.000	19837.946	9812.20	0.1767	P	1.7
9	☐			2.78	0.0000	P	173.

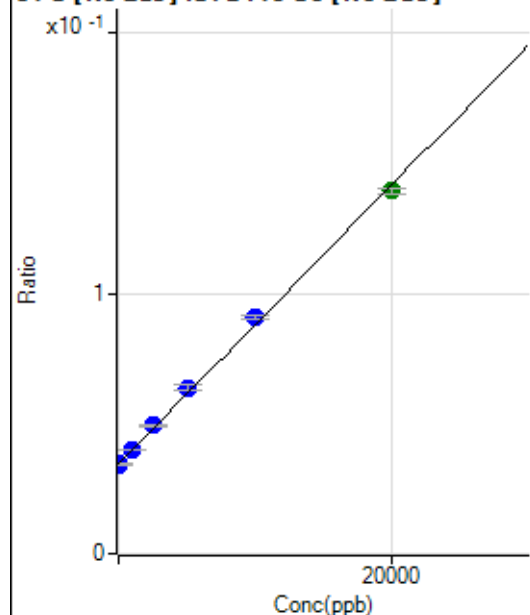
$$y = 8.8988\text{E-}006 * x + 1.2917\text{E-}004$$

$$R = 0.9998$$

$$DL = 42.45$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-17.832	305301.07	0.0343	P	0.6
2	☐	0.000	-0.554	303242.57	0.0344	P	0.5
3	☐	0.000	18.385	310808.76	0.0345	P	2.9
4	☐	1000.000	1052.730	360515.68	0.0401	P	0.8
5	☐	2500.000	2764.548	432859.47	0.0492	P	1.1
6	☐	5000.000	5479.418	529135.71	0.0638	P	3.6
7	☐	10000.000	10577.436	710449.73	0.0911	P	1.7
8	☐	20000.000	19555.723	1034053.96	0.1393	A	1.6
9	☐			263452.81	0.0328	P	0.8

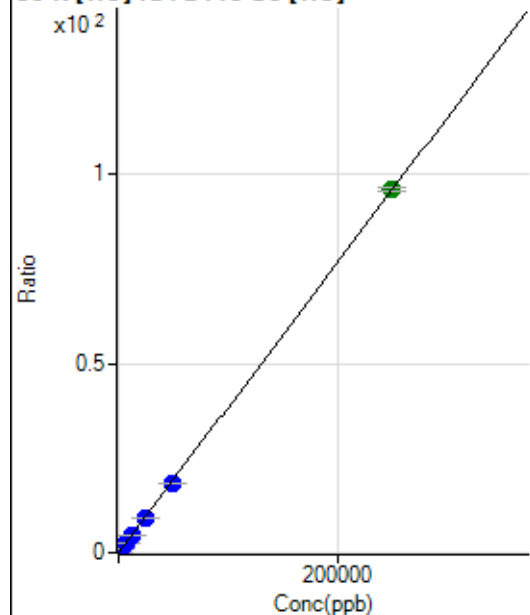
$$y = 5.3628\text{E-}006 * x + 0.0344$$

$$R = 0.9990$$

$$DL = 263.4$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2039.13	0.0285	P	10.7
2	☐	50.000	48.102	3361.66	0.0469	P	7.1
3	☐	500.000	487.781	15409.09	0.2151	P	3.6
4	☐	2500.000	2501.821	66995.98	0.9856	P	3.4
5	☐	6250.000	6163.632	161160.16	2.3866	P	1.1
6	☐	12500.000	12338.949	291036.22	4.7492	P	2.9
7	☐	25000.000	23961.468	522595.13	9.1958	P	0.5
8	☐	50000.000	47502.989	1010886.82	18.2025	P	1.0
9	☐	250000.00	250613.47	6257877.22	95.9102	A	1.1

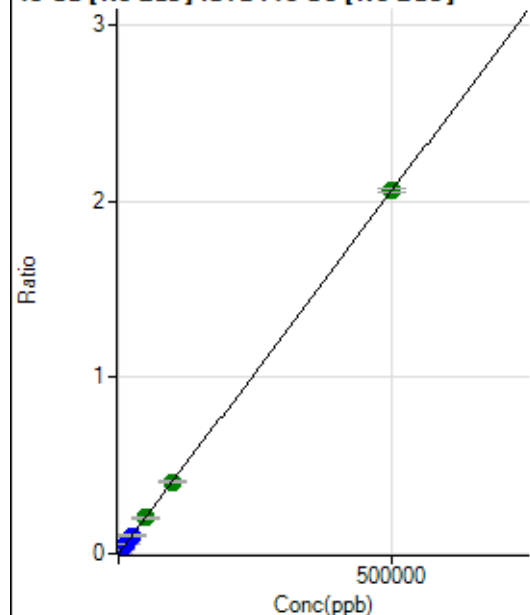
$$y = 3.8259\text{E-}004 * x + 0.0285$$

$$R = 0.9999$$

$$DL = 23.83$$

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	386.13	0.0000	P	16.8
2	☐	50.000	48.384	2136.38	0.0002	P	1.1
3	☐	500.000	473.951	17945.55	0.0020	P	3.3
4	☐	5000.000	4882.483	181118.28	0.0201	P	0.2
5	☐	12500.000	12358.727	447199.48	0.0509	P	1.3
6	☐	25000.000	24916.691	850237.79	0.1025	P	3.5
7	☐	50000.000	49376.687	1583277.14	0.2031	A	1.6
8	☐	100000.00	99003.985	3022735.51	0.4072	A	2.2
9	☐	500000.00	500270.43	16518973.98	2.0573	A	0.9

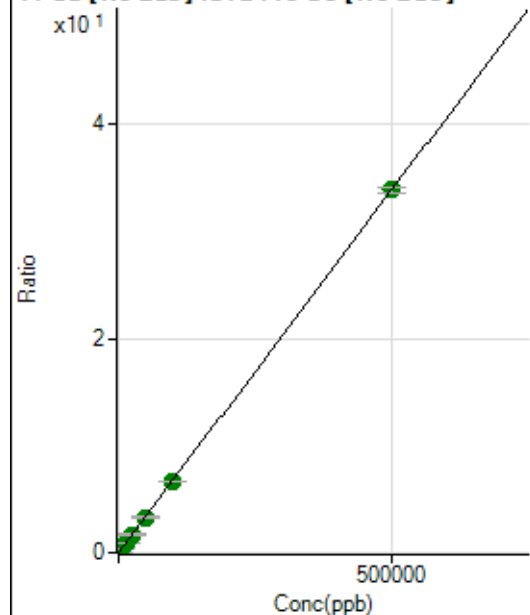
$$y = 4.1122\text{E-}006 * x + 4.3408\text{E-}005$$

$$R = 1.0000$$

$$DL = 5.306$$

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	14867.20	0.0017	P	1.6
2	☐	50.000	48.644	43758.70	0.0050	P	0.6
3	☐	500.000	470.519	302079.80	0.0335	P	1.8
4	☐	5000.000	4921.196	3014356.30	0.3349	A	1.1
5	☐	12500.000	12271.677	7320372.65	0.8326	A	1.1
6	☐	25000.000	24767.049	13924577.39	1.6787	A	3.4
7	☐	50000.000	48595.243	25664934.25	3.2922	A	2.0
8	☐	100000.00	97975.747	49265673.33	6.6360	A	1.7
9	☐	500000.00	500563.50	272167767.1	33.8966	A	1.3

$$y = 6.7714\text{E-}005 * x + 0.0017$$

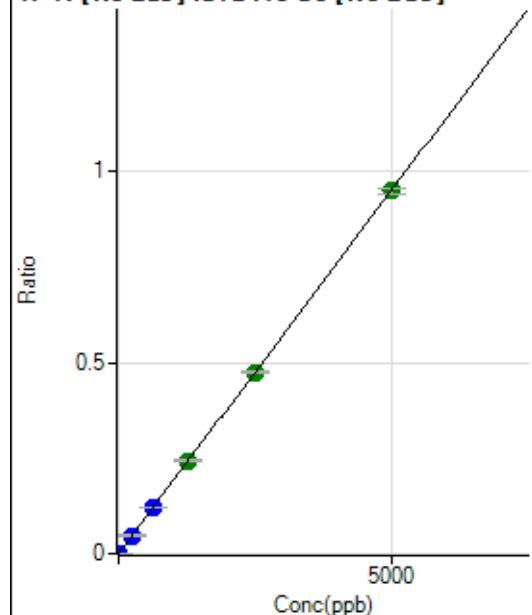
$$R = 1.0000$$

$$DL = 1.159$$

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	166.68	0.0000	P	5.7
2	☐	0.500	0.473	958.41	0.0001	P	4.9
3	☐	5.000	5.220	9108.90	0.0010	P	3.0
4	☐	250.000	250.952	429604.04	0.0477	P	1.0
5	☐	625.000	634.451	1060683.12	0.1206	P	0.7
6	☐	1250.000	1274.888	2010915.45	0.2424	A	2.6
7	☐	2500.000	2499.091	3704203.08	0.4751	A	1.6
8	☐	5000.000	4993.003	7047882.19	0.9493	A	1.4
9	☐			2822.64	0.0004	P	9.8

$$y = 1.9012\text{E-}004 * x + 1.8737\text{E-}005$$

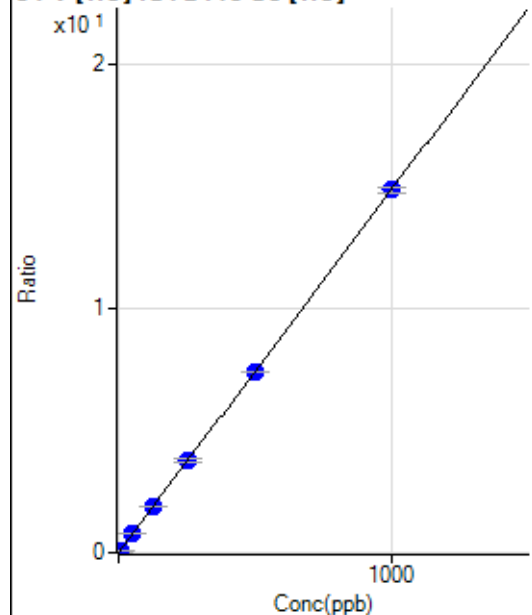
$$R = 1.0000$$

$$DL = 0.01674$$

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	0.0001	P	50.5
2	☐	0.500	0.498	537.80	0.0075	P	3.3
3	☐	5.000	4.870	5201.07	0.0726	P	3.7
4	☐	50.000	51.398	51989.54	0.7649	P	3.9
5	☐	125.000	125.446	126062.02	1.8668	P	0.4
6	☐	250.000	254.484	232023.52	3.7870	P	3.6
7	☐	500.000	498.254	421351.74	7.4144	P	0.5
8	☐	1000.000	999.627	826057.46	14.8752	P	1.6
9	☐			432.24	0.0066	P	7.8

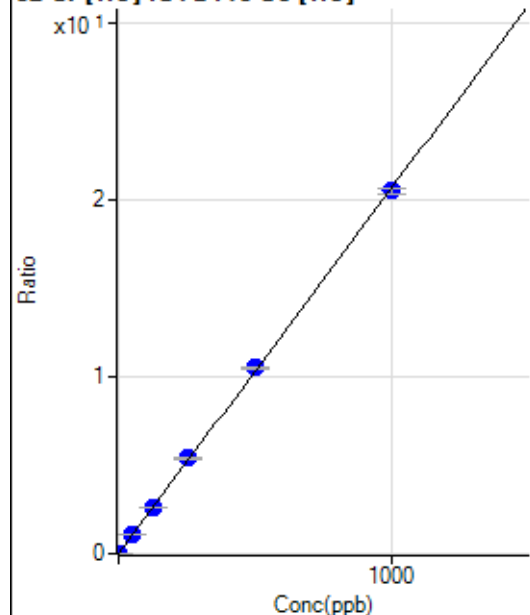
$$y = 0.0149 * x + 9.3309\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.009497$$

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	374.46	0.0052	P	6.4
2	☐	0.200	0.232	716.70	0.0100	P	8.8
3	☐	2.000	2.045	3399.37	0.0474	P	3.3
4	☐	50.000	52.978	74679.87	1.0985	P	2.8
5	☐	125.000	127.515	178044.84	2.6367	P	1.1
6	☐	250.000	260.954	330276.45	5.3904	P	3.5
7	☐	500.000	507.867	595894.19	10.4859	P	0.5
8	☐	1000.000	992.865	1138125.82	20.4946	P	1.5
9	☐			55992.60	0.8582	P	1.4

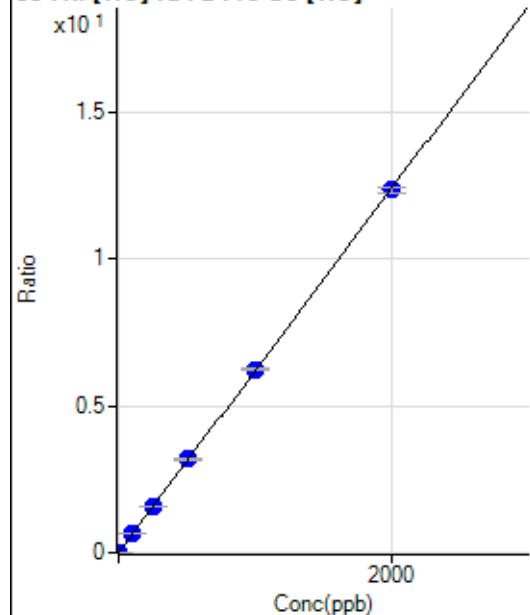
$$y = 0.0206 * x + 0.0052$$

$$R = 0.9999$$

$$DL = 0.04825$$

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	24.45	0.0003	P	44.0
2	☐	0.100	0.157	94.45	0.0013	P	7.7
3	☐	1.000	0.978	458.91	0.0064	P	7.1
4	☐	100.000	103.403	43613.61	0.6415	P	2.7
5	☐	250.000	252.599	105795.50	1.5667	P	0.0
6	☐	500.000	513.502	195120.36	3.1845	P	3.4
7	☐	1000.000	1006.274	354612.25	6.2401	P	0.5
8	☐	2000.000	1992.993	686306.81	12.3586	P	1.5
9	☐			4659.74	0.0714	P	4.7

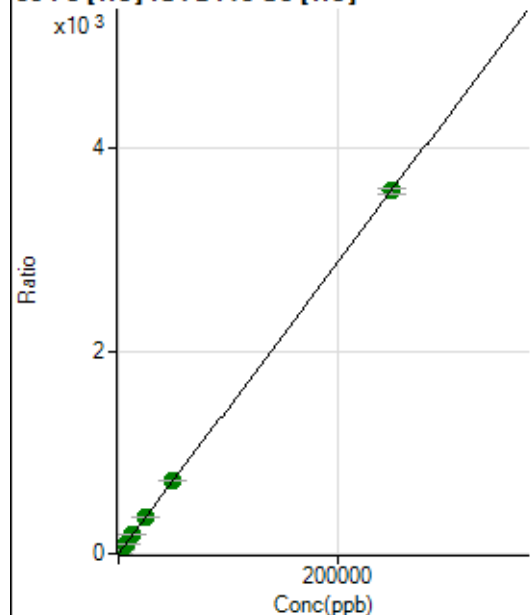
$$y = 0.0062 * x + 3.4096E-004$$

$$R = 1.0000$$

$$DL = 0.07255$$

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	938.95	0.0131	P	4.6
2	☐	5.000	4.955	6025.55	0.0841	P	2.0
3	☐	50.000	50.871	53162.59	0.7419	P	1.9
4	☐	2500.000	2635.410	2567395.69	37.7693	A	3.4
5	☐	6250.000	6384.837	6177976.64	91.4855	A	0.4
6	☐	12500.000	12903.246	11328150.48	184.8716	A	3.2
7	☐	25000.000	25484.316	20748831.25	365.1144	A	0.8
8	☐	50000.000	50367.395	40072519.88	721.6021	A	1.6
9	☐	250000.00	249853.20	233539614.4	3,579.537	A	1.6

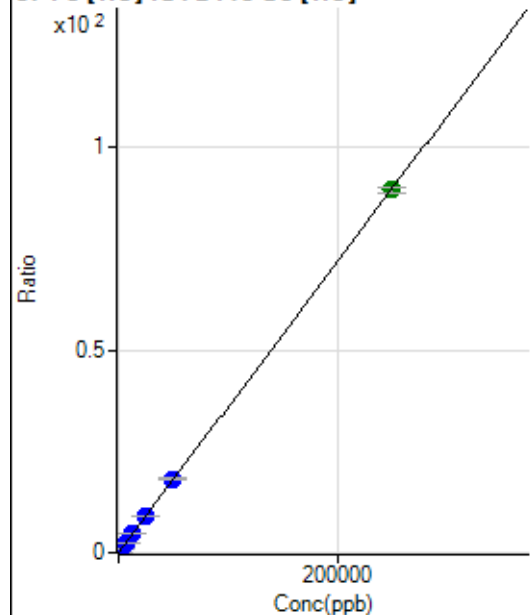
$$y = 0.0143 * x + 0.0131$$

$$R = 1.0000$$

$$DL = 0.1271$$

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	24.08	0.0003	P	27.9
2	☐	5.000	6.184	183.34	0.0026	P	28.2
3	☐	50.000	52.042	1361.22	0.0190	P	2.5
4	☐	2500.000	2609.400	63602.45	0.9357	P	3.6
5	☐	6250.000	6380.134	154469.52	2.2875	P	0.4
6	☐	12500.000	12969.640	284913.38	4.6497	P	3.2
7	☐	25000.000	25583.288	521200.43	9.1714	P	0.4
8	☐	50000.000	50639.418	1008121.58	18.1535	P	1.4
9	☐	250000.00	249785.95	5841861.76	89.5432	A	1.9

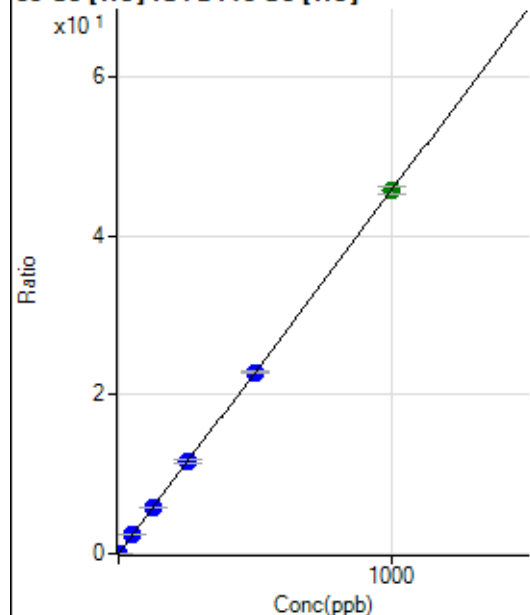
$$y = 3.5848E-004 * x + 3.3678E-004$$

$$R = 1.0000$$

$$DL = 0.7857$$

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	83.34	0.0012	P	33.3
2	☐	0.100	0.096	396.68	0.0055	P	0.7
3	☐	1.000	1.001	3359.36	0.0469	P	3.0
4	☐	50.000	51.700	160623.94	2.3630	P	3.3
5	☐	125.000	125.667	387747.67	5.7421	P	0.8
6	☐	250.000	254.319	711975.77	11.6193	P	3.2
7	☐	500.000	499.527	1296886.75	22.8212	P	0.6
8	☐	1000.000	998.989	2534336.61	45.6383	A	2.0
9	☐			4838.71	0.0742	P	3.8

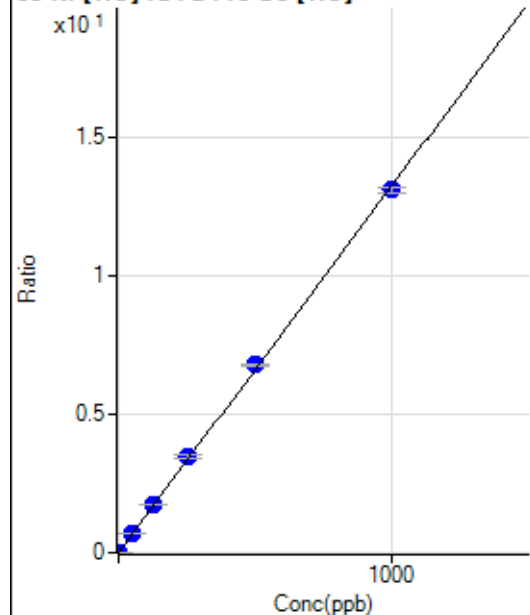
$$y = 0.0457 * x + 0.0012$$

$$R = 1.0000$$

$$DL = 0.02543$$

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	151.11	0.0021	P	5.2
2	☐	0.100	0.175	316.68	0.0044	P	11.5
3	☐	1.000	1.156	1248.97	0.0174	P	6.1
4	☐	50.000	53.249	48129.78	0.7081	P	3.6
5	☐	125.000	129.964	116499.54	1.7252	P	0.7
6	☐	250.000	262.592	213450.49	3.4836	P	3.4
7	☐	500.000	512.002	385887.02	6.7904	P	0.5
8	☐	1000.000	990.068	729075.17	13.1287	P	1.5
9	☐			22557.44	0.3458	P	1.6

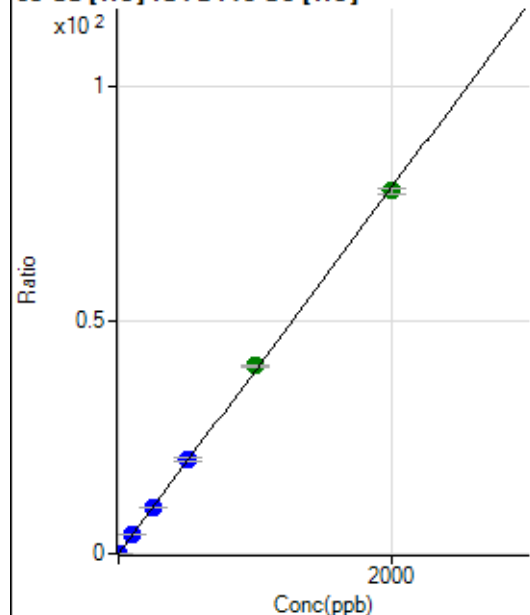
$$y = 0.0133 * x + 0.0021$$

$$R = 0.9998$$

$$DL = 0.02473$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	390.01	0.0054	P	13.3
2	☐	0.200	0.208	974.50	0.0136	P	3.2
3	☐	2.000	2.022	6071.43	0.0847	P	2.3
4	☐	100.000	104.181	278050.42	4.0906	P	3.4
5	☐	250.000	254.536	674349.25	9.9863	P	0.5
6	☐	500.000	516.066	1240165.04	20.2415	P	3.7
7	☐	1000.000	1026.871	2288527.12	40.2712	A	1.3
8	☐	2000.000	1981.772	4315645.80	77.7149	A	1.8
9	☐			12558.08	0.1925	P	2.3

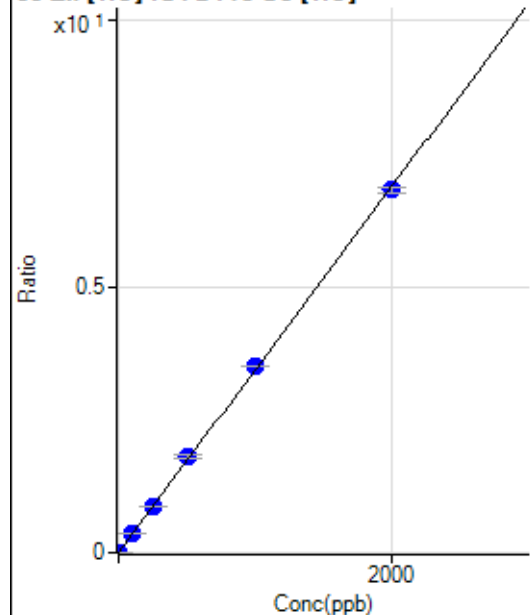
$$y = 0.0392 * x + 0.0054$$

$$R = 0.9998$$

$$DL = 0.05535$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	142.23	0.0020	P	22.6
2	☐	0.200	0.413	243.34	0.0034	P	13.1
3	☐	2.000	2.218	687.81	0.0096	P	10.9
4	☐	100.000	105.066	24686.64	0.3631	P	2.5
5	☐	250.000	254.439	59189.14	0.8765	P	0.8
6	☐	500.000	521.735	109994.43	1.7953	P	3.7
7	☐	1000.000	1019.620	199275.35	3.5066	P	0.2
8	☐	2000.000	1983.948	378800.66	6.8212	P	1.5
9	☐			2374.69	0.0364	P	3.6

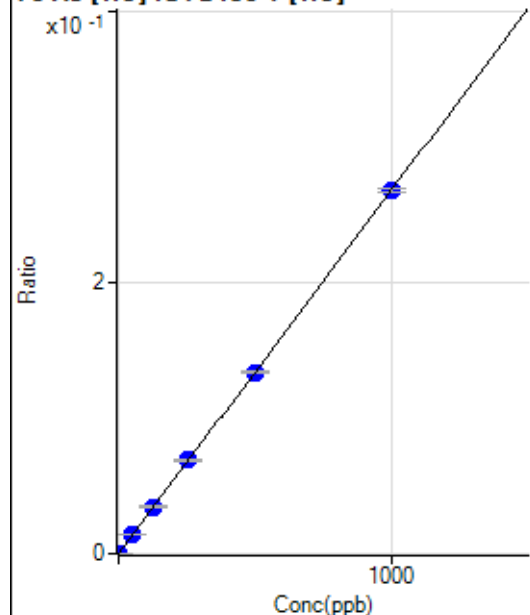
$$y = 0.0034 * x + 0.0020$$

$$R = 0.9999$$

$$DL = 0.3908$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.32	0.0000	P	89.2
2	☐	0.100	0.101	19.13	0.0000	P	44.6
3	☐	1.000	1.040	157.41	0.0003	P	4.5
4	☐	50.000	52.024	7303.85	0.0139	P	2.4
5	☐	125.000	128.956	18027.89	0.0346	P	1.0
6	☐	250.000	258.174	32984.36	0.0692	P	2.8
7	☐	500.000	498.949	59777.25	0.1337	P	0.5
8	☐	1000.000	997.886	116590.76	0.2674	P	1.0
9	☐			67.90	0.0001	P	10.4

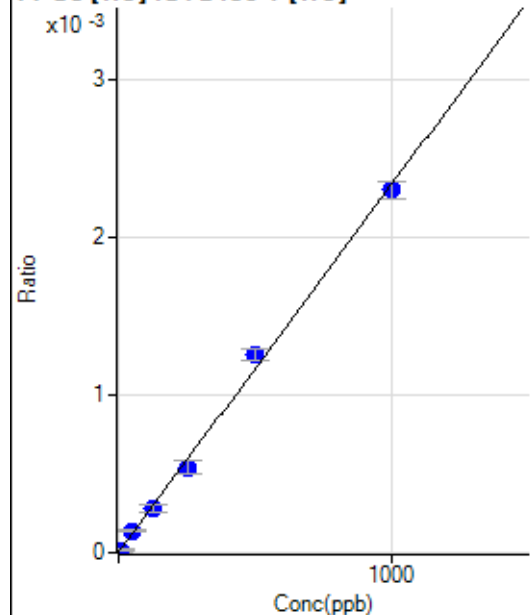
$$y = 2.6797\text{E-}004 * x + 7.9707\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.07963$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500	0.882	2.22	0.0000	P	173.
3	☐	5.000	5.205	7.78	0.0000	P	108.
4	☐	50.000	58.354	72.22	0.0001	P	11.9
5	☐	125.000	119.670	146.67	0.0003	P	19.2
6	☐	250.000	231.798	257.79	0.0005	P	17.0
7	☐	500.000	538.327	562.24	0.0013	P	5.4
8	☐	1000.000	985.634	1003.39	0.0023	P	4.8
9	☐			3.33	0.0000	P	100.

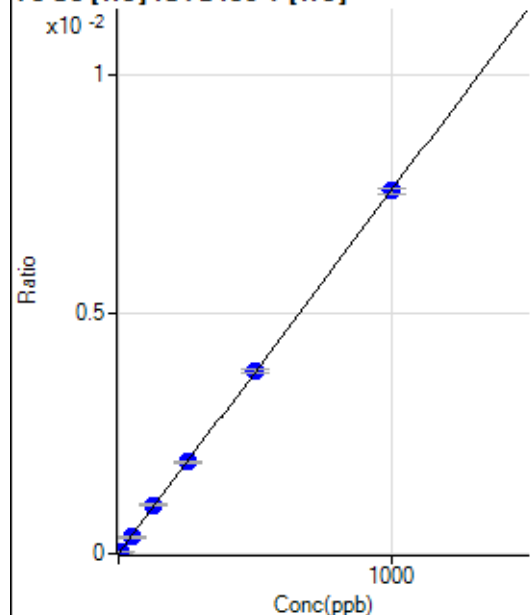
$$y = 2.3320\text{E-}006 * x + 2.0478\text{E-}006$$

$$R = 0.9988$$

$$DL = 4.563$$

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	2.47	0.0000	P	42.9
2	☐	0.500	0.300	3.70	0.0000	P	50.8
3	☐	5.000	5.788	26.55	0.0000	P	4.9
4	☐	50.000	44.440	178.40	0.0003	P	14.6
5	☐	125.000	133.486	529.65	0.0010	P	5.5
6	☐	250.000	251.940	911.77	0.0019	P	3.2
7	☐	500.000	501.161	1698.89	0.0038	P	1.9
8	☐	1000.000	998.148	3297.96	0.0076	P	1.3
9	☐			4.32	0.0000	P	64.9

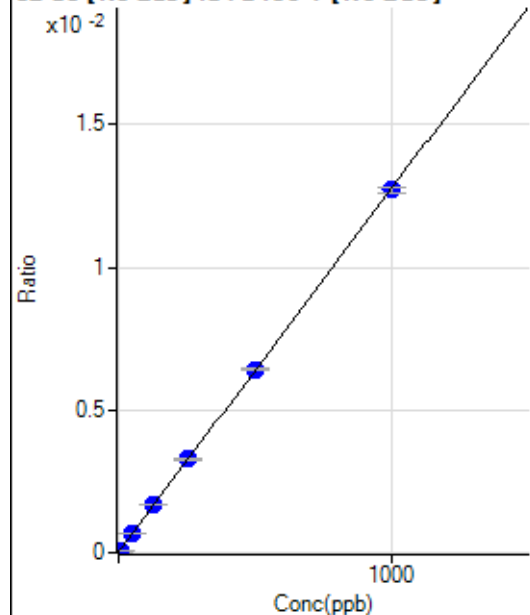
$$y = 7.5738\text{E-}006 * x + 4.5323\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.7697$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	404.11	0.0000	P	12.0
2	☐	0.500	0.366	479.25	0.0000	P	5.1
3	☐	5.000	5.086	1540.90	0.0001	P	1.9
4	☐	50.000	52.274	12082.30	0.0007	P	0.3
5	☐	125.000	129.706	28937.78	0.0017	P	1.5
6	☐	250.000	256.617	54556.21	0.0033	P	2.6
7	☐	500.000	502.285	101330.95	0.0064	P	0.6
8	☐	1000.000	996.501	193305.49	0.0127	P	1.4
9	☐			539.61	0.0000	P	2.1

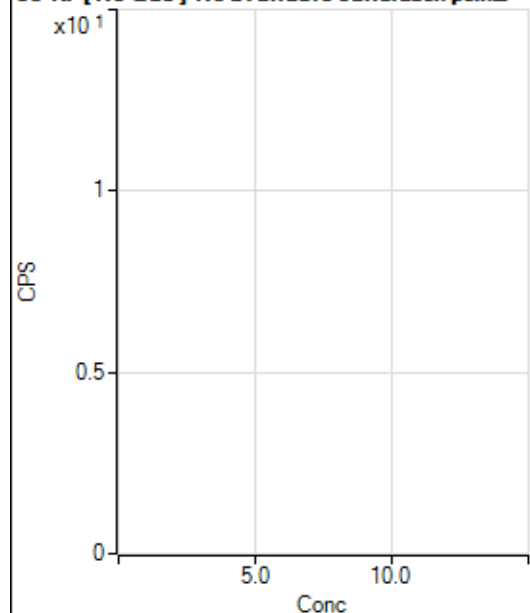
$$y = 1.2736\text{E-}005 * x + 2.3402\text{E-}005$$

$$R = 1.0000$$

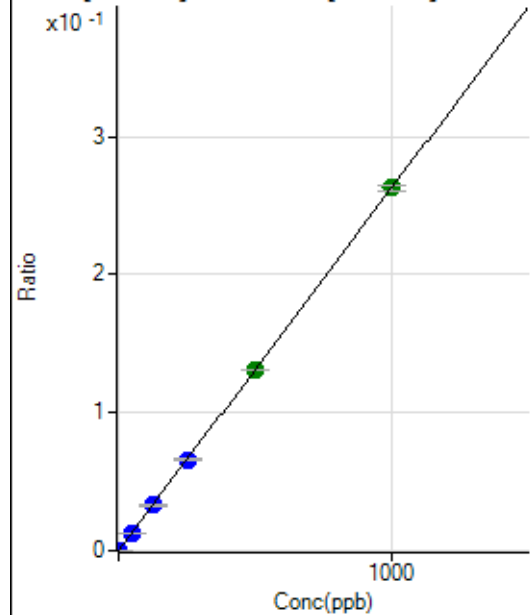
$$DL = 0.6599$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			391.12		P	10.2
2	☐			401.13		P	1.7
3	☐			435.57		P	10.8
4	☐			391.12		P	11.9
5	☐			391.12		P	9.4
6	☐			364.45		P	8.6
7	☐			315.57		P	14.3
8	☐			305.56		P	10.6
9	☐			348.90		P	5.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	650.05	0.0000	P	8.5
2	☐	0.100	0.108	1127.88	0.0001	P	6.2
3	☐	1.000	0.998	5240.14	0.0003	P	1.7
4	☐	50.000	49.542	228827.28	0.0131	P	0.6
5	☐	125.000	124.660	566264.02	0.0328	P	1.5
6	☐	250.000	249.778	1088156.86	0.0657	P	2.2
7	☐	500.000	498.585	2067656.38	0.1310	A	0.6
8	☐	1000.000	1000.829	3997513.15	0.2629	A	1.8
9	☐			22168.84	0.0014	P	1.9

$$y = 2.6269E-004 * x + 3.7638E-005$$

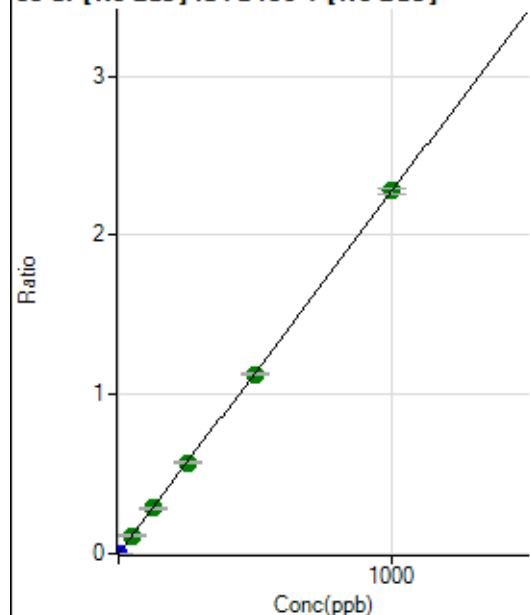
$$R = 1.0000$$

$$DL = 0.03672$$

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	263.90	0.0000	P	24.5
2	☐	0.100	0.105	4337.00	0.0003	P	7.8
3	☐	1.000	1.016	40650.44	0.0023	P	2.1
4	☐	50.000	50.352	2008892.73	0.1146	A	1.1
5	☐	125.000	125.523	4933567.77	0.2856	A	1.7
6	☐	250.000	250.393	9443490.66	0.5698	A	2.5
7	☐	500.000	495.929	17809681.30	1.1285	A	0.8
8	☐	1000.000	1001.854	34658382.02	2.2796	A	1.4
9	☐			188999.67	0.0120	P	0.7

$$y = 0.0023 * x + 1.5287E-005$$

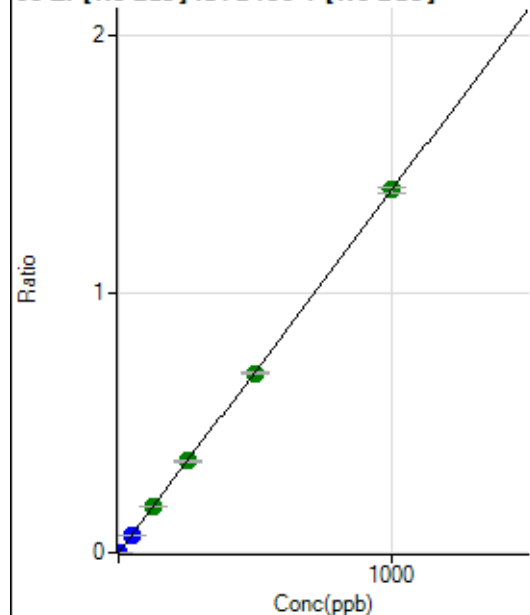
$$R = 1.0000$$

$$DL = 0.004931$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1511.26	0.0001	P	1.9
2	☐	0.100	0.083	3475.60	0.0002	P	7.2
3	☐	1.000	0.961	25018.12	0.0014	P	1.1
4	☐	50.000	49.449	1214757.62	0.0693	P	0.9
5	☐	125.000	126.670	3063556.99	0.1774	A	1.1
6	☐	250.000	253.171	5873435.03	0.3544	A	3.0
7	☐	500.000	494.853	10931165.87	0.6926	A	0.7
8	☐	1000.000	1001.600	21311824.78	1.4018	A	1.5
9	☐			13774.22	0.0009	P	4.2

$$y = 0.0014 * x + 8.7491E-005$$

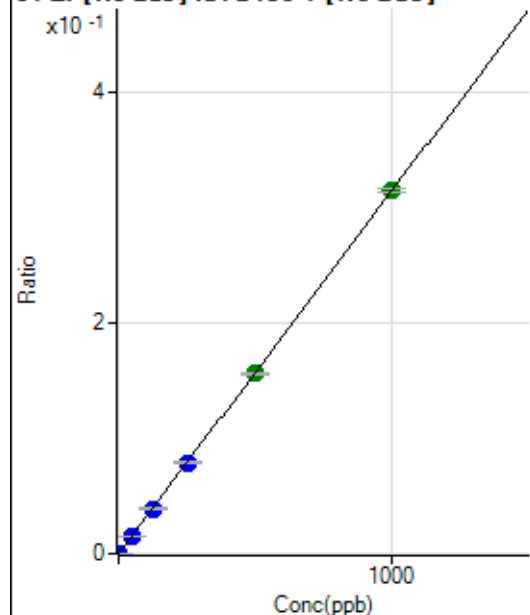
$$R = 1.0000$$

$$DL = 0.00354$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	294.46	0.0000	P	14.1
2	☐	0.100	0.078	708.38	0.0000	P	14.3
3	☐	1.000	0.940	5451.32	0.0003	P	0.7
4	☐	50.000	49.169	270673.82	0.0154	P	1.6
5	☐	125.000	124.516	674884.50	0.0391	P	1.7
6	☐	250.000	251.994	1310274.19	0.0791	P	2.9
7	☐	500.000	496.697	2459060.93	0.1558	A	1.0
8	☐	1000.000	1001.255	4775126.10	0.3141	A	1.1
9	☐			2972.72	0.0002	P	7.6

$$y = 3.1366\text{E-}004 * x + 1.7046\text{E-}005$$

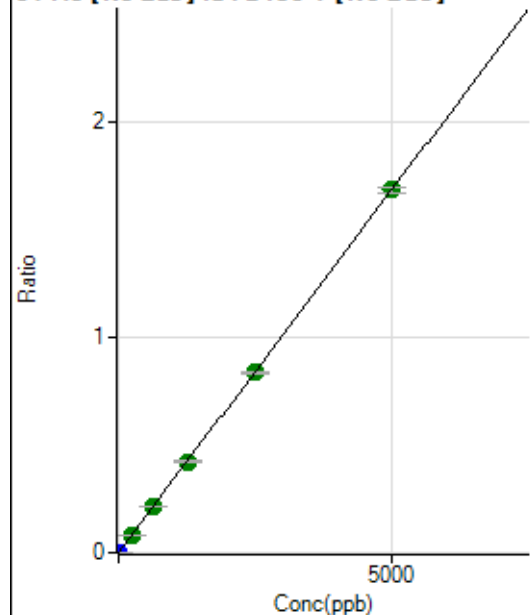
$$R = 1.0000$$

$$DL = 0.02296$$

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	705.61	0.0000	P	5.8
2	☐	0.500	0.488	3506.17	0.0002	P	3.3
3	☐	5.000	4.905	29577.44	0.0017	P	2.0
4	☐	250.000	250.527	1480271.86	0.0844	A	1.1
5	☐	625.000	632.060	3678406.46	0.2130	A	1.3
6	☐	1250.000	1255.417	7009541.22	0.4229	A	3.0
7	☐	2500.000	2485.798	13215956.37	0.8374	A	1.0
8	☐	5000.000	5004.838	25632254.05	1.6860	A	1.4
9	☐			34191.33	0.0022	P	2.8

$$y = 3.3686\text{E-}004 * x + 4.0855\text{E-}005$$

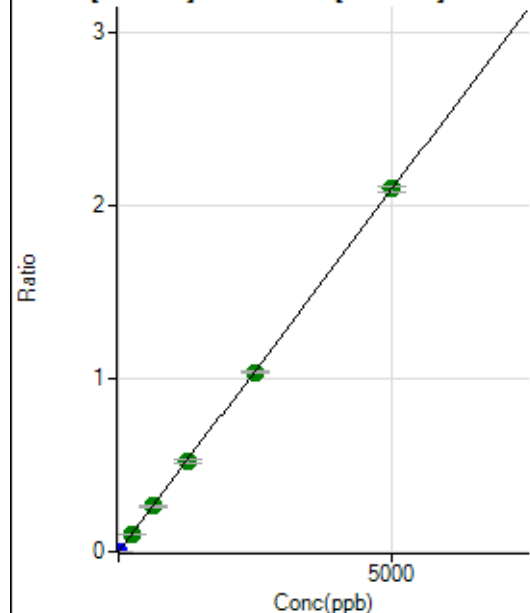
$$R = 1.0000$$

$$DL = 0.02128$$

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	219.46	0.0000	P	31.9
2	☐	0.500	0.491	3731.23	0.0002	P	3.2
3	☐	5.000	4.951	36438.93	0.0021	P	2.6
4	☐	250.000	250.119	1836425.54	0.1048	A	1.3
5	☐	625.000	627.190	4536634.82	0.2627	A	1.6
6	☐	1250.000	1249.290	8670357.48	0.5232	A	3.1
7	☐	2500.000	2479.708	16387643.42	1.0384	A	1.3
8	☐	5000.000	5010.044	31896503.14	2.0980	A	1.5
9	☐			52120.54	0.0033	P	2.8

$$y = 4.1875E-004 * x + 1.2715E-005$$

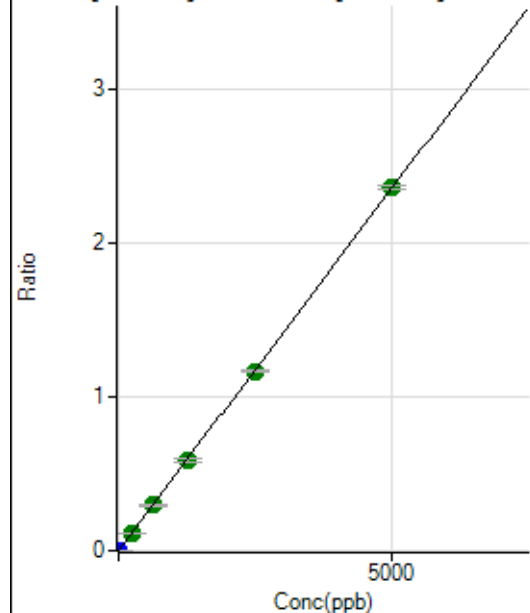
$$R = 1.0000$$

$$DL = 0.02906$$

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	21.5
2	☐	0.500	0.491	4228.65	0.0002	P	6.7
3	☐	5.000	4.903	40606.25	0.0023	P	1.3
4	☐	250.000	248.713	2052403.04	0.1171	A	0.9
5	☐	625.000	625.790	5087522.12	0.2945	A	1.1
6	☐	1250.000	1251.365	9761311.76	0.5889	A	2.6
7	☐	2500.000	2474.547	18380384.09	1.1646	A	0.8
8	☐	5000.000	5012.351	35866010.53	2.3590	A	0.9
9	☐			61590.59	0.0039	P	1.6

$$y = 4.7063E-004 * x + 1.6722E-005$$

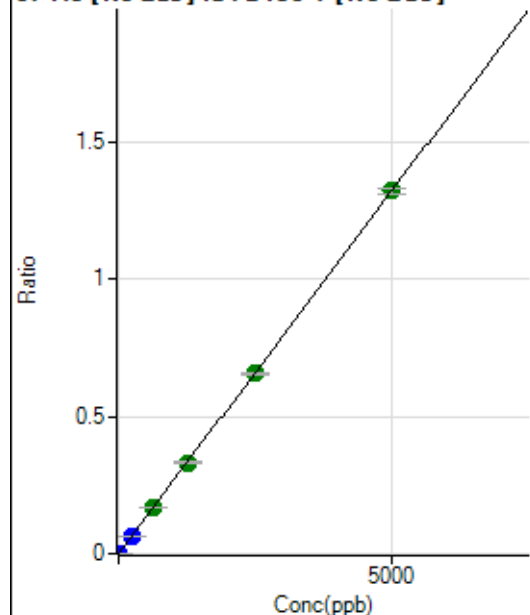
$$R = 1.0000$$

$$DL = 0.02287$$

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	152.79	0.0000	P	8.6
2	☐	0.500	0.474	2291.97	0.0001	P	5.4
3	☐	5.000	4.926	22897.97	0.0013	P	1.2
4	☐	250.000	244.557	1133078.95	0.0646	P	0.8
5	☐	625.000	630.534	2878035.29	0.1666	A	1.0
6	☐	1250.000	1253.799	5491391.70	0.3313	A	2.2
7	☐	2500.000	2483.735	10357794.85	0.6563	A	1.0
8	☐	5000.000	5006.764	20113577.88	1.3230	A	1.4
9	☐			32398.02	0.0021	P	4.4

$$y = 2.6423\text{E-}004 * x + 8.8468\text{E-}006$$

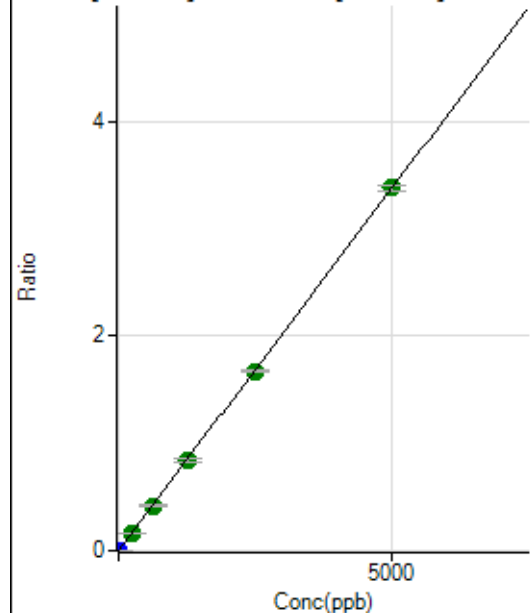
$$R = 1.0000$$

$$DL = 0.008613$$

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	322.24	0.0000	P	20.1
2	☐	0.500	0.476	5807.05	0.0003	P	0.7
3	☐	5.000	4.922	58348.58	0.0033	P	1.6
4	☐	250.000	246.838	2920595.29	0.1666	A	0.8
5	☐	625.000	619.762	7224205.98	0.4182	A	1.6
6	☐	1250.000	1254.002	14024954.30	0.8462	A	3.1
7	☐	2500.000	2477.973	26390322.81	1.6722	A	1.2
8	☐	5000.000	5010.826	51408326.15	3.3814	A	1.5
9	☐			81634.33	0.0052	P	2.6

$$y = 6.7481\text{E-}004 * x + 1.8665\text{E-}005$$

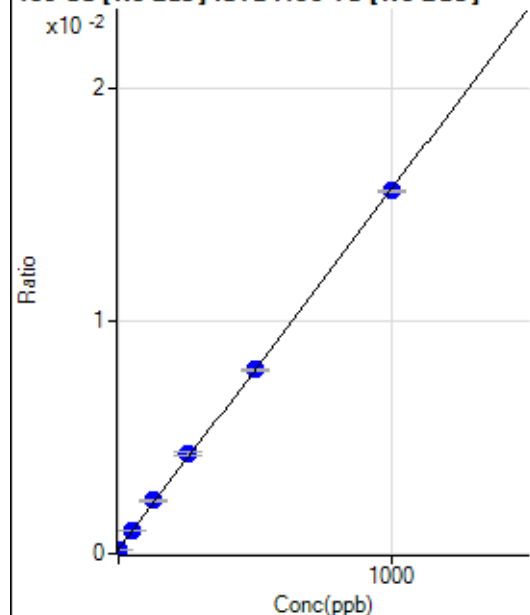
$$R = 1.0000$$

$$DL = 0.01668$$

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	4500.98	0.0002	P	8.0
2	☐	0.100	-0.350	4334.24	0.0002	P	2.0
3	☐	1.000	0.611	4792.74	0.0002	P	4.2
4	☐	50.000	52.962	25413.71	0.0010	P	3.9
5	☐	125.000	135.137	56993.75	0.0023	P	2.5
6	☐	250.000	264.925	105900.07	0.0043	P	2.6
7	☐	500.000	499.173	193451.08	0.0079	P	1.2
8	☐	1000.000	995.268	370216.30	0.0156	P	0.8
9	☐			4159.17	0.0002	P	4.6

$$y = 1.5489\text{E-}005 * x + 1.8407\text{E-}004$$

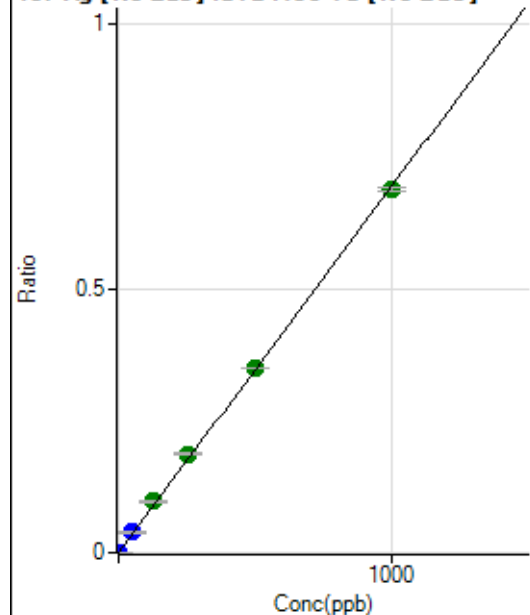
$$R = 0.9998$$

$$DL = 2.841$$

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	152.79	0.0000	P	16.8
2	☐	0.100	0.113	2050.26	0.0001	P	4.3
3	☐	1.000	1.139	19695.81	0.0008	P	0.7
4	☐	50.000	55.177	967743.84	0.0382	P	1.4
5	☐	125.000	139.570	2420750.12	0.0967	A	0.6
6	☐	250.000	269.580	4613408.52	0.1868	A	2.9
7	☐	500.000	504.193	8538171.11	0.3494	A	1.0
8	☐	1000.000	990.928	16295078.49	0.6866	A	1.0
9	☐			2116.94	0.0001	P	11.2

$$y = 6.9291\text{E-}004 * x + 6.2479\text{E-}006$$

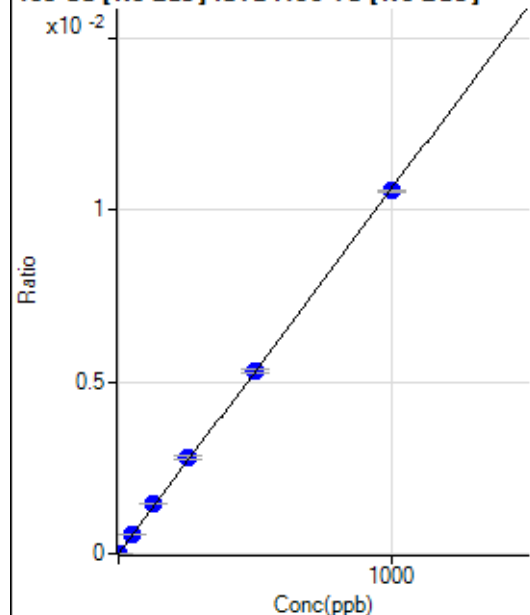
$$R = 0.9997$$

$$DL = 0.00455$$

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	12.50	0.0000	P	57.9
2	☐	0.100	0.141	48.61	0.0000	P	34.5
3	☐	1.000	1.184	323.62	0.0000	P	6.7
4	☐	50.000	53.345	14334.26	0.0006	P	2.2
5	☐	125.000	137.175	36434.22	0.0015	P	2.1
6	☐	250.000	263.857	69136.03	0.0028	P	3.6
7	☐	500.000	500.818	129860.74	0.0053	P	1.1
8	☐	1000.000	994.437	250377.78	0.0106	P	0.4
9	☐			105.56	0.0000	P	14.1

$$y = 1.0609\text{E-}005 * x + 5.1197\text{E-}007$$

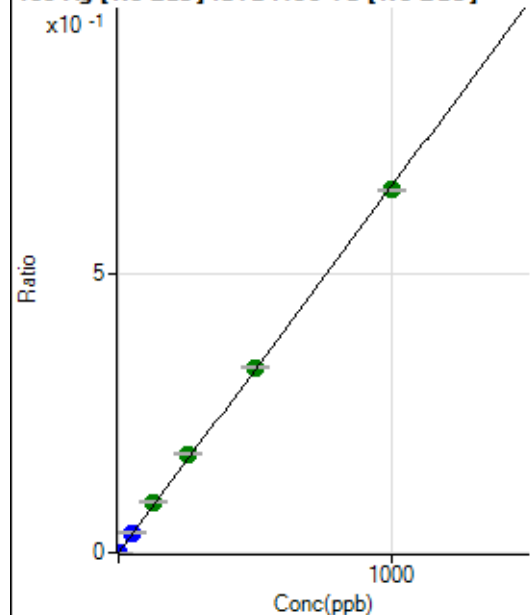
$$R = 0.9998$$

$$DL = 0.08381$$

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	113.90	0.0000	P	28.1
2	☐	0.100	0.114	1944.67	0.0001	P	8.6
3	☐	1.000	1.093	17951.59	0.0007	P	2.2
4	☐	50.000	55.099	919271.70	0.0363	P	1.1
5	☐	125.000	138.948	2292529.00	0.0916	A	1.1
6	☐	250.000	269.423	4385971.93	0.1776	A	3.0
7	☐	500.000	505.750	8147506.95	0.3334	A	0.5
8	☐	1000.000	990.271	15491134.38	0.6527	A	0.4
9	☐			2008.58	0.0001	P	8.9

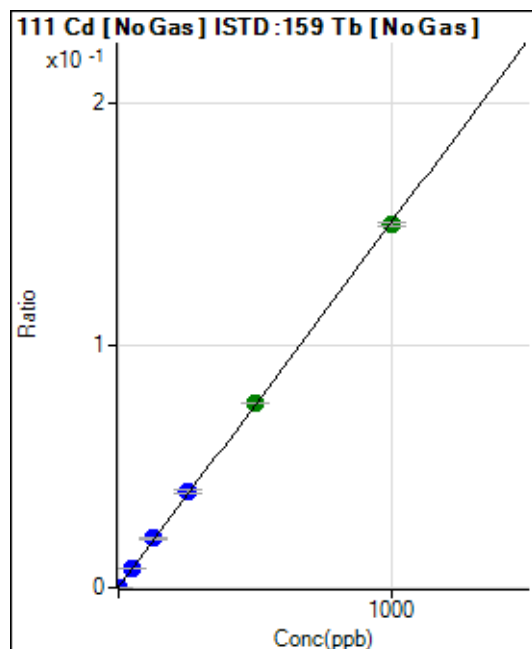
$$y = 6.5915\text{E-}004 * x + 4.6598\text{E-}006$$

$$R = 0.9997$$

$$DL = 0.005955$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3184.44	0.0001	P	8.0
2	☐	0.100	0.078	3445.79	0.0001	P	1.4
3	☐	1.000	1.043	7116.81	0.0003	P	4.4
4	☐	50.000	53.172	205968.69	0.0081	P	1.3
5	☐	125.000	133.544	506680.34	0.0202	P	1.0
6	☐	250.000	261.440	975681.77	0.0395	P	2.9
7	☐	500.000	506.041	1865987.37	0.0763	A	0.4
8	☐	1000.000	992.893	3552059.11	0.1497	A	1.1
9	☐			3486.72	0.0001	P	4.1

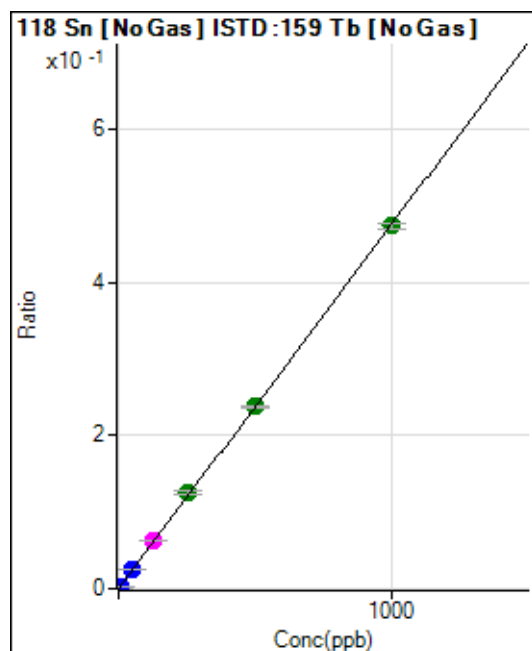
$$y = 1.5061\text{E-}004 * x + 1.3023\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.208$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1277.90	0.0001	P	10.2
2	☐	0.500	0.505	7093.92	0.0003	P	4.8
3	☐	5.000	5.311	63880.82	0.0026	P	1.4
4	☐	50.000	52.374	632133.38	0.0250	P	0.6
5	☐	125.000	131.545	1568160.46	0.0627	M	0.7
6	☐	250.000	263.216	3094867.58	0.1253	A	3.0
7	☐	500.000	499.268	5808066.84	0.2376	A	0.8
8	☐	1000.000	996.124	11251081.24	0.4741	A	1.3
9	☐			16068.79	0.0007	P	8.2

$$y = 4.7589\text{E-}004 * x + 5.2253\text{E-}005$$

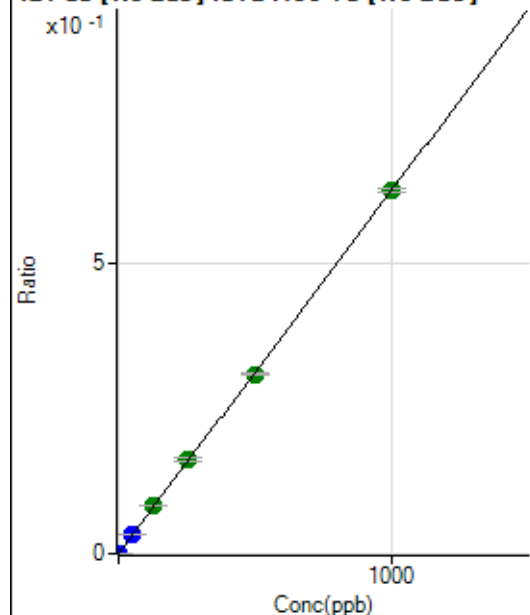
$$R = 0.9999$$

$$DL = 0.03358$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	205.57	0.0000	P	16.5
2	☐	0.200	0.200	3239.44	0.0001	P	11.0
3	☐	2.000	2.074	32298.43	0.0013	P	1.6
4	☐	50.000	51.121	808432.33	0.0319	P	2.0
5	☐	125.000	131.579	2057676.65	0.0822	A	1.3
6	☐	250.000	259.785	4008904.39	0.1623	A	2.3
7	☐	500.000	494.764	7554330.64	0.3091	A	0.9
8	☐	1000.000	999.293	14816119.95	0.6243	A	1.0
9	☐			37236.15	0.0016	P	2.7

$$y = 6.2475E-004 * x + 8.4014E-006$$

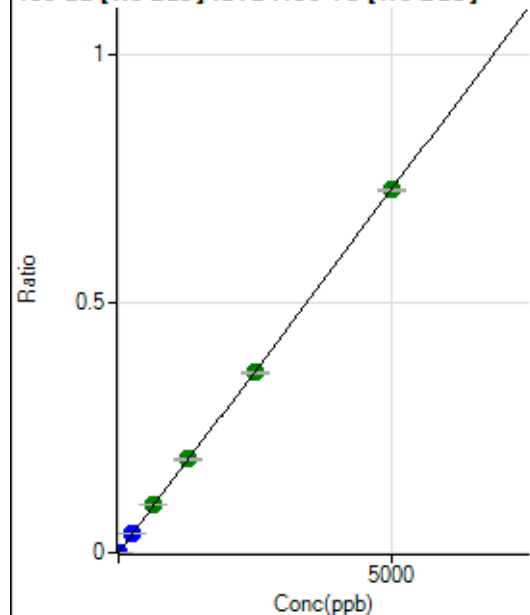
$$R = 0.9999$$

$$DL = 0.006657$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0000	P	40.3
2	☐	1.000	1.063	3836.85	0.0002	P	6.8
3	☐	10.000	10.301	37275.73	0.0015	P	2.5
4	☐	250.000	261.591	965669.02	0.0382	P	1.2
5	☐	625.000	661.943	2416526.70	0.0965	A	0.8
6	☐	1250.000	1289.272	4643943.16	0.1880	A	3.2
7	☐	2500.000	2481.973	8846858.18	0.3620	A	1.0
8	☐	5000.000	4993.997	17286096.04	0.7284	A	0.7
9	☐			5048.42	0.0002	P	6.0

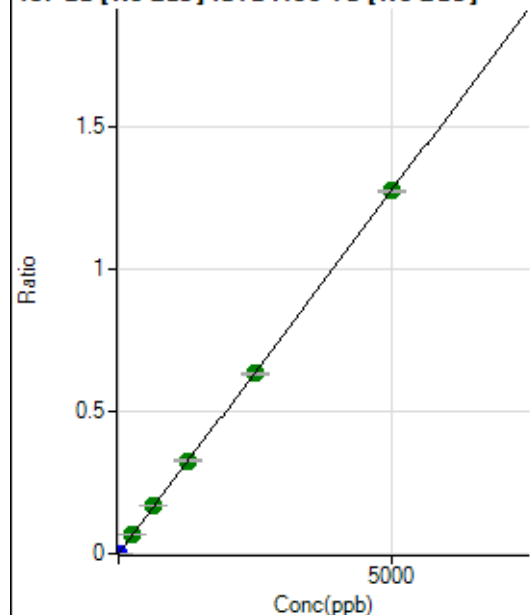
$$y = 1.4585E-004 * x + 3.1769E-006$$

$$R = 0.9999$$

$$DL = 0.02632$$

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	161.12	0.0000	P	7.6
2	☐	1.000	1.030	6543.53	0.0003	P	3.3
3	☐	10.000	10.257	65061.10	0.0026	P	3.1
4	☐	250.000	261.442	1691163.77	0.0668	A	0.8
5	☐	625.000	653.246	4178692.15	0.1670	A	0.9
6	☐	1250.000	1281.413	8088475.96	0.3275	A	2.4
7	☐	2500.000	2480.921	15494865.80	0.6340	A	1.2
8	☐	5000.000	4997.583	30310635.75	1.2772	A	0.5
9	☐			8808.89	0.0004	P	3.4

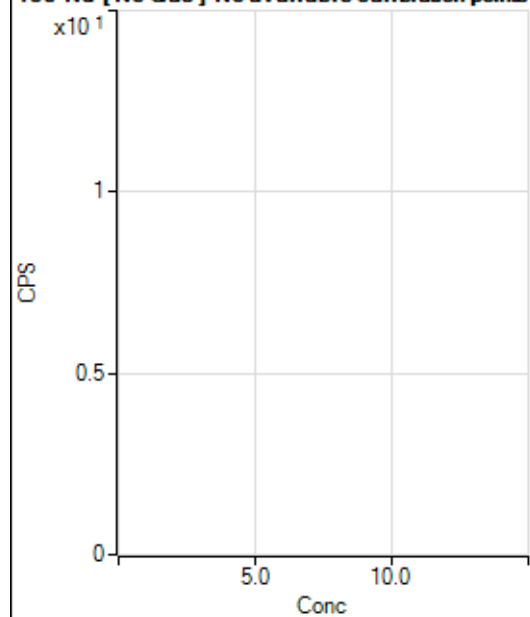
$$y = 2.5556E-004 * x + 6.5868E-006$$

$$R = 1.0000$$

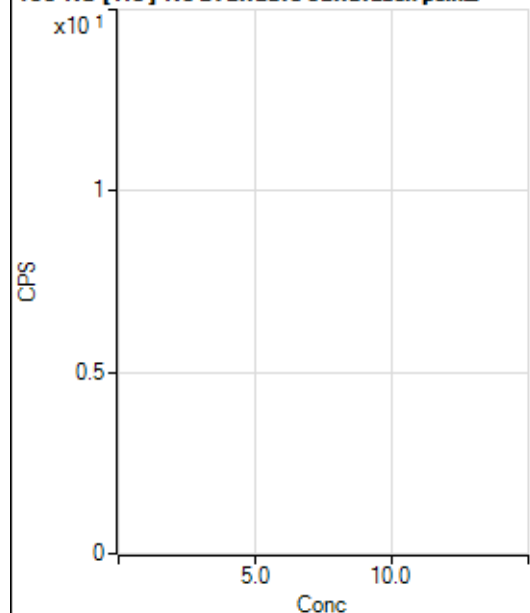
$$DL = 0.005876$$

Weight: <None>

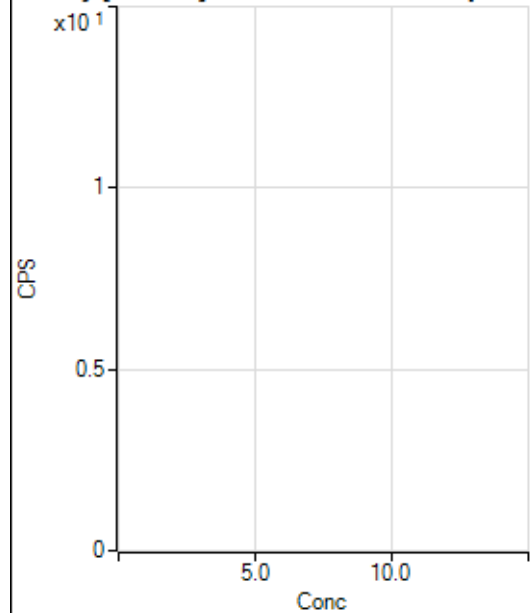
Min Conc: 0

150 Nd [No Gas] No available calibration points

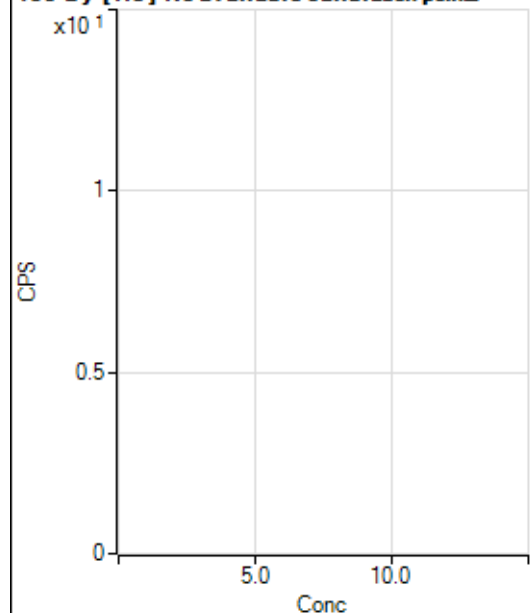
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐			2.22		P	173.
3	☐			4.44		P	173.
4	☐			53.34		P	25.0
5	☐			117.78		P	55.8
6	☐			288.90		P	32.3
7	☐			591.15		P	21.9
8	☐			1075.65		P	5.4
9	☐			313.35		P	9.3

150 Nd [He] No available calibration points

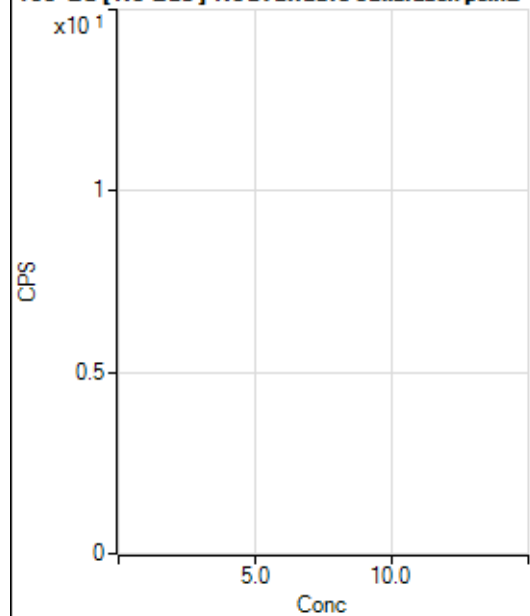
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			2.22		P	86.6
6	☐			5.55		P	124.
7	☐			14.45		P	48.0
8	☐			15.56		P	12.4
9	☐			27.78		P	30.2

156 Dy [No Gas] No available calibration points

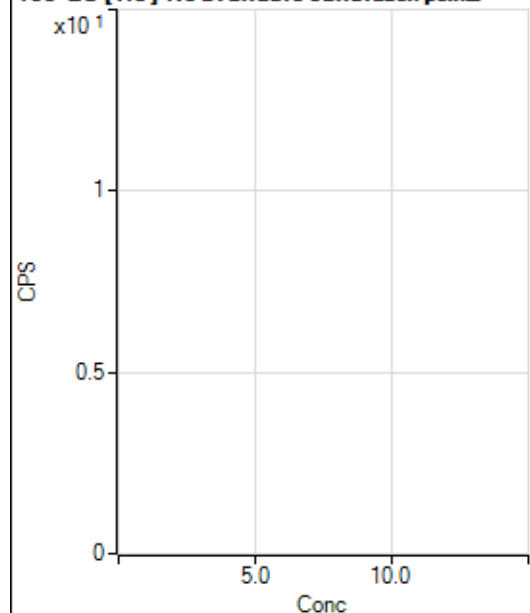
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	100.
2	☐			13.89		P	69.3
3	☐			27.78		P	45.8
4	☐			47.22		P	27.0
5	☐			41.67		P	20.0
6	☐			97.23		P	4.9
7	☐			122.23		P	27.6
8	☐			250.02		P	20.0
9	☐			175.01		P	20.8

156 Dy [He] No available calibration points

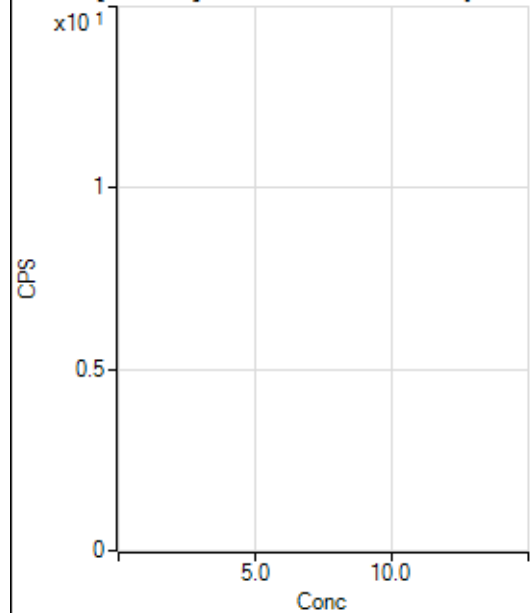
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	34.7
2	☐			1.11		P	173.
3	☐			3.33		P	100.
4	☐			12.22		P	41.7
5	☐			3.33		P	100.
6	☐			8.89		P	21.6
7	☐			5.55		P	124.
8	☐			18.89		P	66.8
9	☐			27.78		P	25.0

160 Gd [No Gas] Noavailable calibration poin_

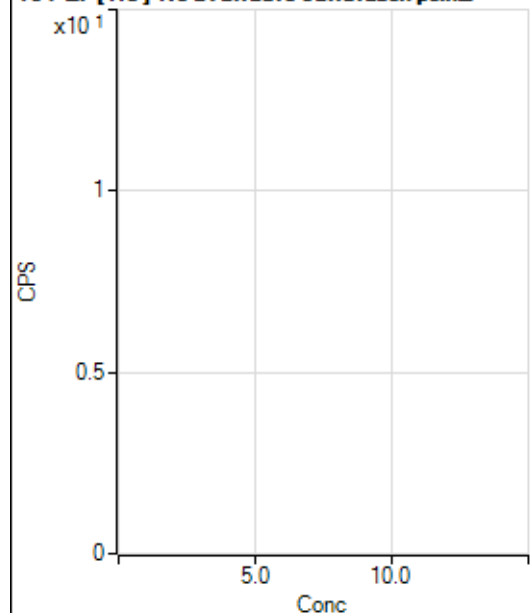
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			152.79		P	46.4
2	☐			147.23		P	22.9
3	☐			158.34		P	5.3
4	☐			138.90		P	15.1
5	☐			147.23		P	11.8
6	☐			180.57		P	27.8
7	☐			194.46		P	15.0
8	☐			250.01		P	21.9
9	☐			272.24		P	3.5

160 Gd [He] No available calibration points

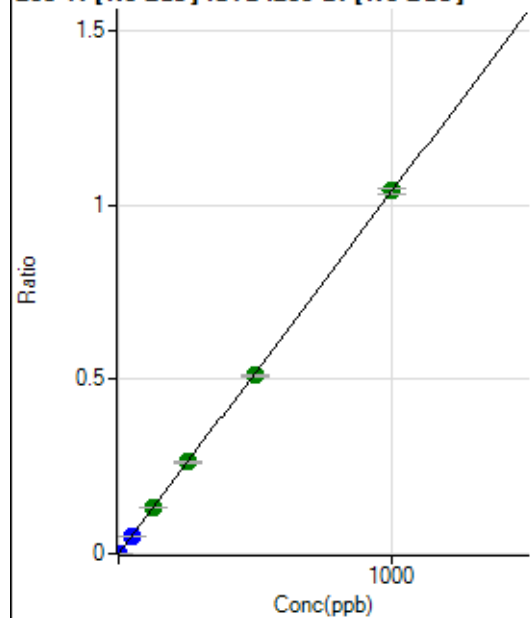
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			18.89		P	27.0
2	☐			14.44		P	58.1
3	☐			15.55		P	44.6
4	☐			8.89		P	21.6
5	☐			16.67		P	20.0
6	☐			17.78		P	88.6
7	☐			30.00		P	29.4
8	☐			37.78		P	25.5
9	☐			44.44		P	17.3

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			75.00		P	44.4
2	☐			100.01		P	14.4
3	☐			122.23		P	34.3
4	☐			77.78		P	71.3
5	☐			91.67		P	0.0
6	☐			83.34		P	45.8
7	☐			105.56		P	25.4
8	☐			119.45		P	14.5
9	☐			108.34		P	13.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	43.3
2	☐			12.22		P	78.7
3	☐			20.00		P	44.1
4	☐			13.33		P	25.0
5	☐			13.33		P	25.0
6	☐			15.56		P	12.4
7	☐			21.11		P	36.5
8	☐			12.22		P	87.7
9	☐			15.55		P	24.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	100.01	0.0000	P	55.5
2	☐	0.100	0.101	1816.89	0.0001	P	7.9
3	☐	1.000	1.005	17576.80	0.0011	P	2.5
4	☐	50.000	48.240	867918.72	0.0501	P	1.0
5	☐	125.000	125.763	2225576.55	0.1307	A	1.2
6	☐	250.000	253.850	4391758.65	0.2637	A	2.9
7	☐	500.000	492.355	8438217.29	0.5115	A	1.4
8	☐	1000.000	1002.852	16486480.23	1.0418	A	1.7
9	☐			7194.03	0.0005	P	6.8

$$y = 0.0010 * x + 6.0567E-006$$

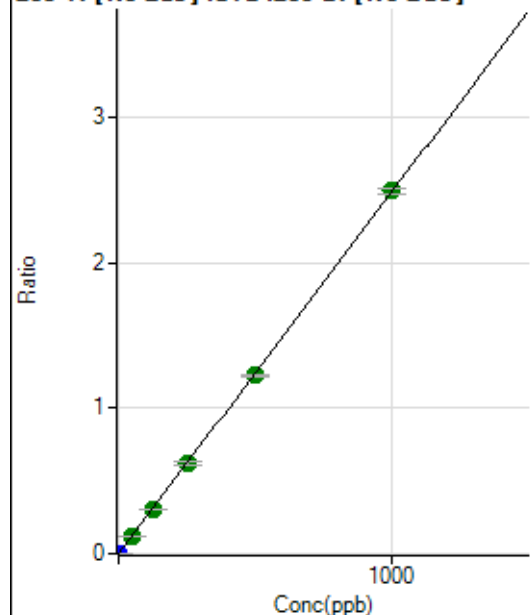
$$R = 1.0000$$

$$DL = 0.009707$$

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	327.80	0.0000	P	16.6
2	☐	0.100	0.094	4156.44	0.0003	P	1.4
3	☐	1.000	0.981	41117.48	0.0025	P	2.8
4	☐	50.000	48.852	2102450.54	0.1214	A	0.2
5	☐	125.000	124.069	5251593.22	0.3083	A	1.0
6	☐	250.000	249.040	10304661.34	0.6188	A	3.3
7	☐	500.000	493.058	20212170.77	1.2251	A	1.4
8	☐	1000.000	1003.885	39474935.61	2.4944	A	1.4
9	☐			16937.04	0.0012	P	8.5

$$y = 0.0025 * x + 1.9787E-005$$

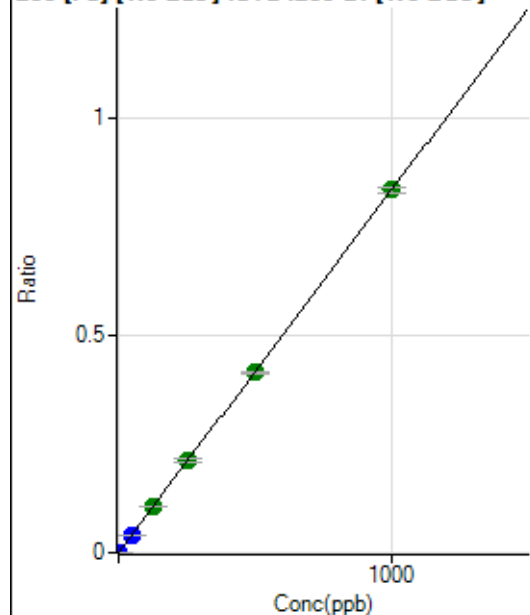
$$R = 1.0000$$

$$DL = 0.003968$$

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	614.85	0.0000	P	7.8
2	☐	0.100	0.094	1896.50	0.0001	P	3.2
3	☐	1.000	1.006	14699.64	0.0009	P	0.6
4	☐	50.000	48.374	700830.82	0.0405	P	0.9
5	☐	125.000	125.560	1788325.17	0.1050	A	1.2
6	☐	250.000	255.670	3559084.51	0.2137	A	3.5
7	☐	500.000	496.138	6841943.21	0.4147	A	1.6
8	☐	1000.000	1000.525	13235307.47	0.8363	A	1.3
9	☐			23863.60	0.0016	P	0.3

$$y = 8.3586E-004 * x + 3.7118E-005$$

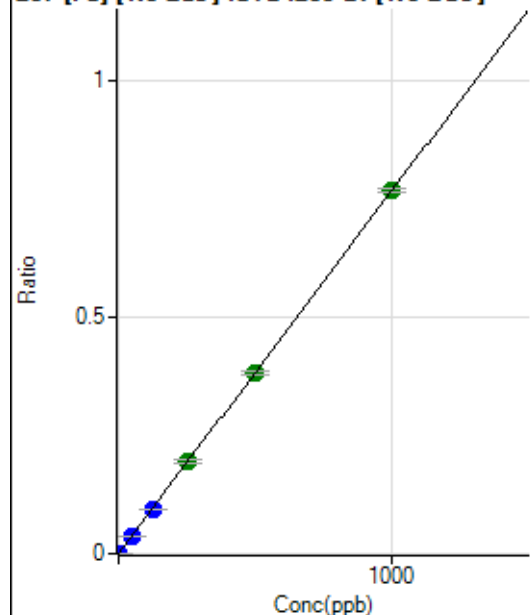
$$R = 1.0000$$

$$DL = 0.01033$$

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	583.36	0.0000	P	11.0
2	☐	0.100	0.084	1635.34	0.0001	P	2.9
3	☐	1.000	0.996	13387.10	0.0008	P	6.2
4	☐	50.000	48.226	641532.79	0.0370	P	1.4
5	☐	125.000	122.606	1603430.45	0.0941	P	1.3
6	☐	250.000	253.973	3246440.17	0.1950	A	3.2
7	☐	500.000	497.259	6296247.42	0.3817	A	1.9
8	☐	1000.000	1000.765	12155787.31	0.7681	A	1.2
9	☐			20235.12	0.0014	P	1.8

$$y = 7.6748\text{E-}004 * x + 3.5187\text{E-}005$$

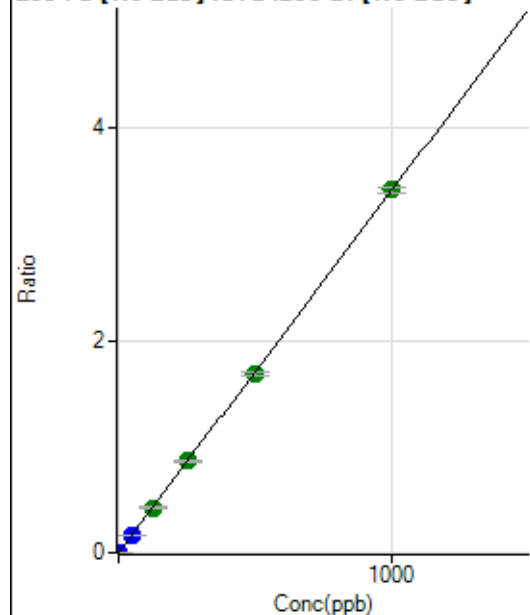
$$R = 1.0000$$

$$DL = 0.01509$$

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	2516.84	0.0002	P	5.6
2	☐	0.100	0.091	7582.62	0.0005	P	2.0
3	☐	1.000	1.004	59932.76	0.0036	P	2.4
4	☐	50.000	48.611	2876238.57	0.1661	P	1.2
5	☐	125.000	124.417	7237269.54	0.4249	A	1.1
6	☐	250.000	252.746	14369608.25	0.8630	A	3.4
7	☐	500.000	494.407	27844847.90	1.6879	A	1.8
8	☐	1000.000	1002.252	54146939.17	3.4216	A	1.4
9	☐			93203.37	0.0064	P	1.2

$$y = 0.0034 * x + 1.5187\text{E-}004$$

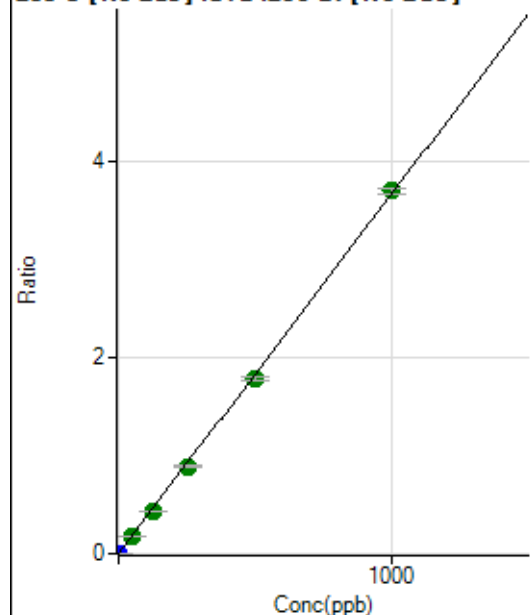
$$R = 1.0000$$

$$DL = 0.00741$$

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	1083.44	0.0001	P	10.2
2	☐	0.100	0.085	6207.39	0.0004	P	4.7
3	☐	1.000	0.932	58451.85	0.0035	P	2.3
4	☐	50.000	47.270	3009340.89	0.1738	A	1.4
5	☐	125.000	119.498	7481655.20	0.4392	A	1.0
6	☐	250.000	243.150	14882155.37	0.8936	A	2.8
7	☐	500.000	487.361	29545307.26	1.7911	A	2.4
8	☐	1000.000	1008.856	58675600.62	3.7076	A	1.3
9	☐			12061.90	0.0008	P	3.9

$$y = 0.0037 * x + 6.5371E-005$$

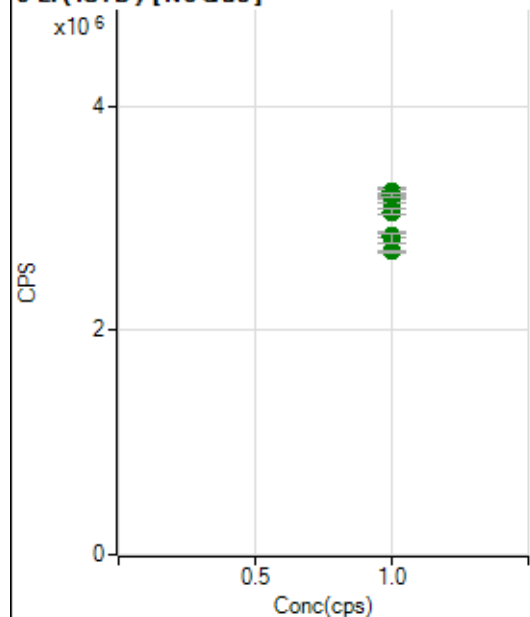
$$R = 0.9999$$

$$DL = 0.005445$$

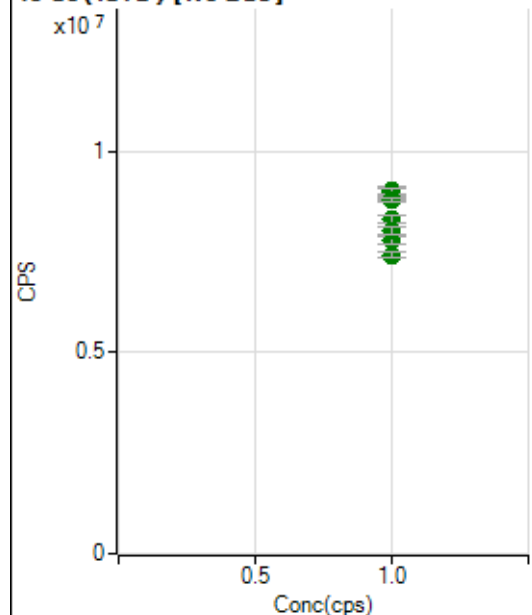
Weight: <None>

Min Conc: 0

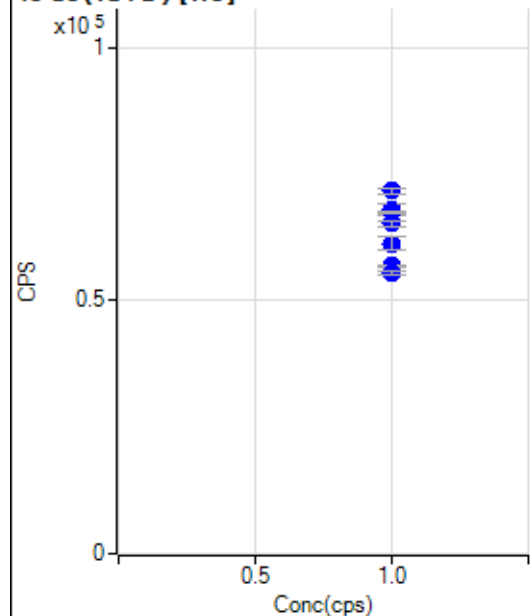
6 Li (ISTD) [No Gas]



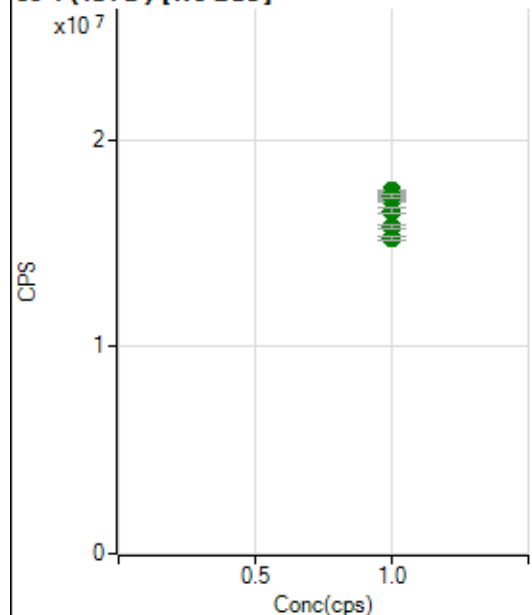
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3180155.65		A	1.0
2	☐	1.000		3136311.34		A	0.2
3	☐	1.000		3229816.51		A	2.4
4	☐	1.000		3233475.99		A	0.9
5	☐	1.000		3198867.45		A	1.1
6	☐	1.000		3058768.43		A	1.5
7	☐	1.000		2852442.35		A	1.6
8	☐	1.000		2701246.90		A	0.7
9	☐	1.000		2819373.68		A	2.4

45 Sc (ISTD) [No Gas]

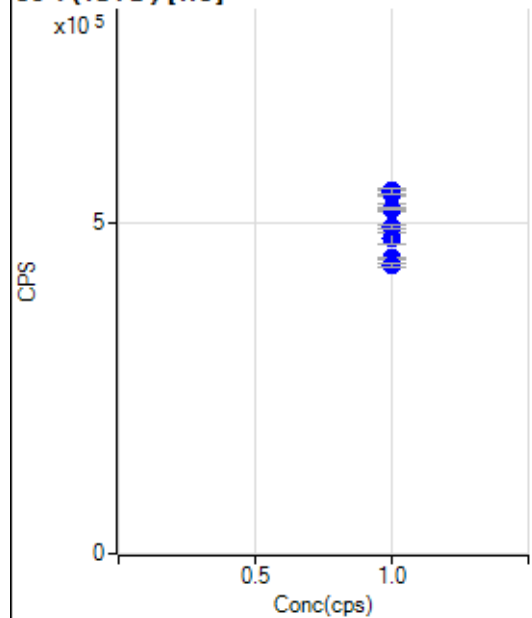
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8897813.91		A	0.7
2	☐	1.000		8814007.06		A	0.8
3	☐	1.000		9011446.64		A	2.5
4	☐	1.000		9001397.60		A	1.5
5	☐	1.000		8792365.65		A	0.8
6	☐	1.000		8299494.19		A	2.6
7	☐	1.000		7797603.73		A	2.2
8	☐	1.000		7425509.97		A	1.7
9	☐	1.000		8030489.76		A	2.0

45 Sc (ISTD) [He]

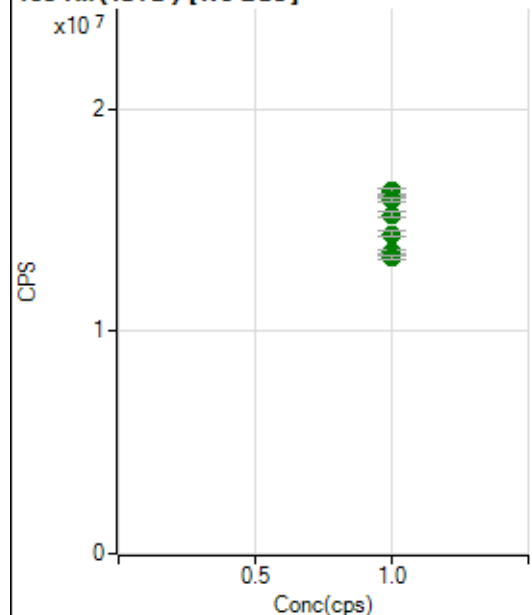
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		71700.50		P	1.7
2	☐	1.000		71668.08		P	1.4
3	☐	1.000		71657.02		P	1.3
4	☐	1.000		68024.00		P	3.3
5	☐	1.000		67529.13		P	0.8
6	☐	1.000		61328.79		P	4.0
7	☐	1.000		56828.85		P	0.4
8	☐	1.000		55540.40		P	1.4
9	☐	1.000		65251.88		P	1.7

89 Y (ISTD) [No Gas]

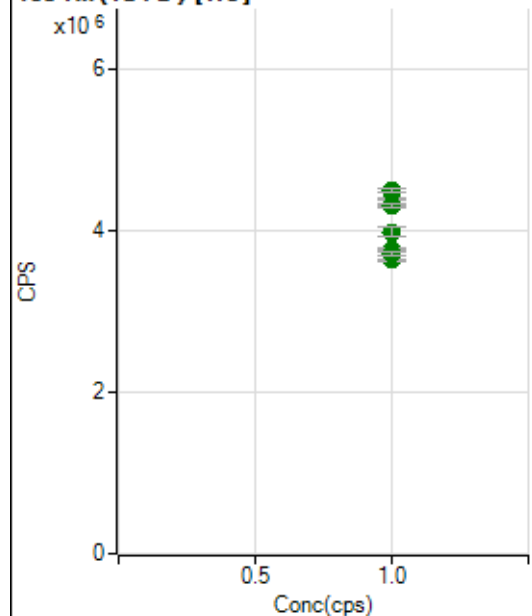
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17272608.49		A	0.3
2	☐	1.000		17082499.75		A	0.7
3	☐	1.000		17472223.49		A	1.4
4	☐	1.000		17532497.79		A	0.8
5	☐	1.000		17274555.99		A	1.1
6	☐	1.000		16579376.00		A	1.8
7	☐	1.000		15783500.32		A	1.4
8	☐	1.000		15205314.63		A	1.4
9	☐	1.000		15791810.18		A	1.7

89 Y (ISTD) [He]

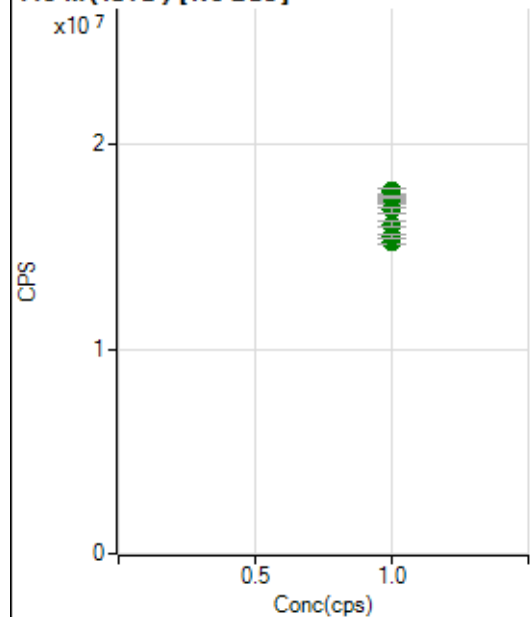
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		543653.38		P	0.4
2	☐	1.000		546132.00		P	1.0
3	☐	1.000		548961.88		P	1.4
4	☐	1.000		523771.33		P	2.2
5	☐	1.000		521559.24		P	0.4
6	☐	1.000		477034.91		P	3.6
7	☐	1.000		447062.18		P	0.7
8	☐	1.000		436026.66		P	1.1
9	☐	1.000		494103.22		P	1.1

103 Rh (ISTD) [No Gas]

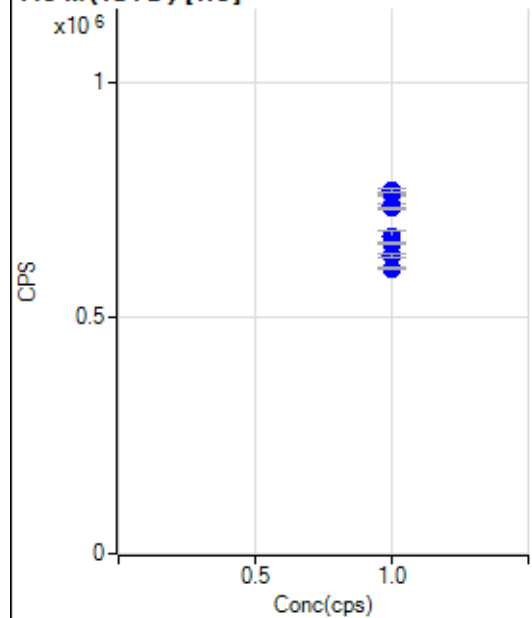
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16093110.60		A	0.4
2	☐	1.000		16019329.52		A	0.6
3	☐	1.000		16286975.19		A	1.8
4	☐	1.000		16304456.62		A	1.4
5	☐	1.000		15902780.56		A	0.6
6	☐	1.000		15224861.28		A	1.8
7	☐	1.000		14364761.60		A	1.8
8	☐	1.000		13592766.28		A	1.5
9	☐	1.000		13329863.15		A	1.6

103 Rh (ISTD) [He]

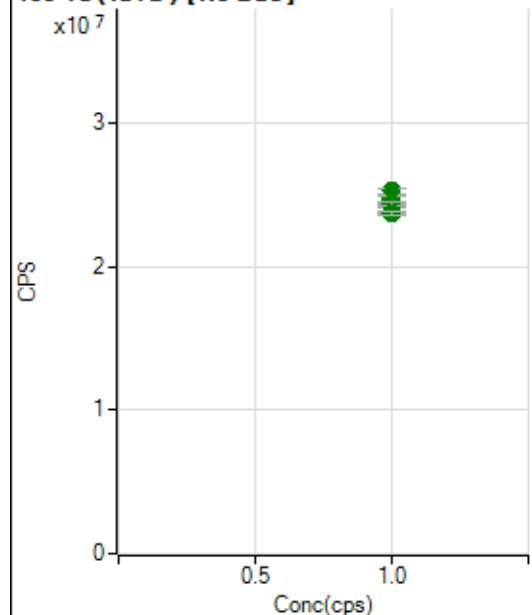
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4339522.16		A	1.4
2	☐	1.000		4389311.91		A	0.7
3	☐	1.000		4490749.55		A	1.1
4	☐	1.000		4331870.70		A	2.4
5	☐	1.000		4306772.12		A	1.1
6	☐	1.000		3986763.31		A	3.3
7	☐	1.000		3771386.47		A	0.4
8	☐	1.000		3638811.30		A	0.6
9	☐	1.000		3711164.56		A	0.8

115 In (ISTD) [No Gas]

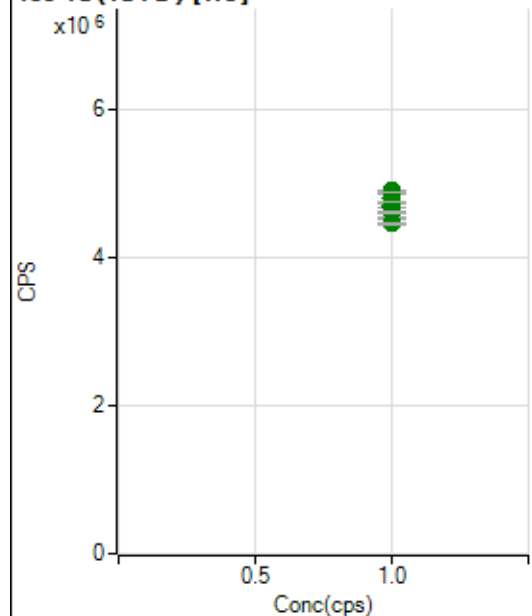
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17290974.63		A	0.3
2	☐	1.000		17112077.86		A	0.5
3	☐	1.000		17622410.01		A	2.2
4	☐	1.000		17721817.89		A	1.6
5	☐	1.000		17408199.22		A	0.7
6	☐	1.000		16780791.89		A	1.6
7	☐	1.000		16098607.99		A	1.4
8	☐	1.000		15246157.73		A	1.5
9	☐	1.000		15502012.73		A	1.1

115 In (ISTD) [He]

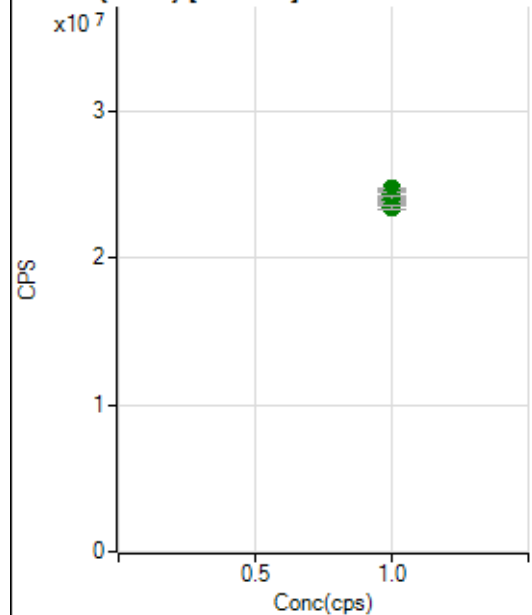
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		762362.58		P	1.0
2	☐	1.000		764612.55		P	0.8
3	☐	1.000		769419.36		P	1.2
4	☐	1.000		737957.84		P	1.5
5	☐	1.000		732933.04		P	0.5
6	☐	1.000		673639.46		P	3.7
7	☐	1.000		632245.33		P	0.7
8	☐	1.000		604166.25		P	0.8
9	☐	1.000		658435.94		P	0.9

159 Tb (ISTD) [No Gas]

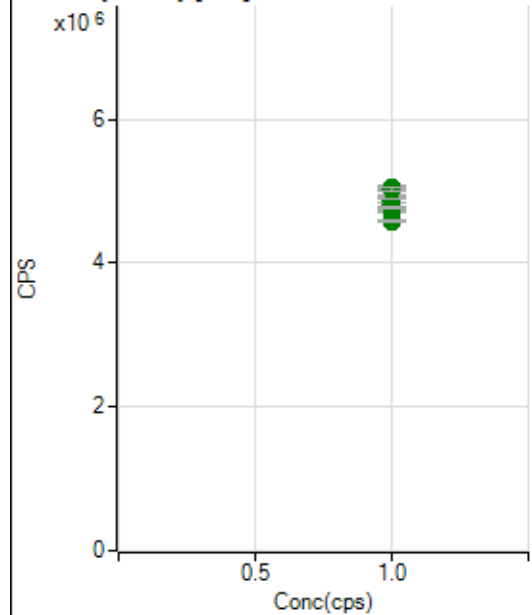
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		24457731.58		A	0.4
2	☐	1.000		24262195.75		A	1.0
3	☐	1.000		24767059.91		A	1.9
4	☐	1.000		25310800.18		A	1.5
5	☐	1.000		25029977.40		A	0.5
6	☐	1.000		24707774.91		A	2.3
7	☐	1.000		24440551.02		A	1.1
8	☐	1.000		23732736.31		A	0.6
9	☐	1.000		23715572.70		A	1.0

159 Tb (ISTD) [He]

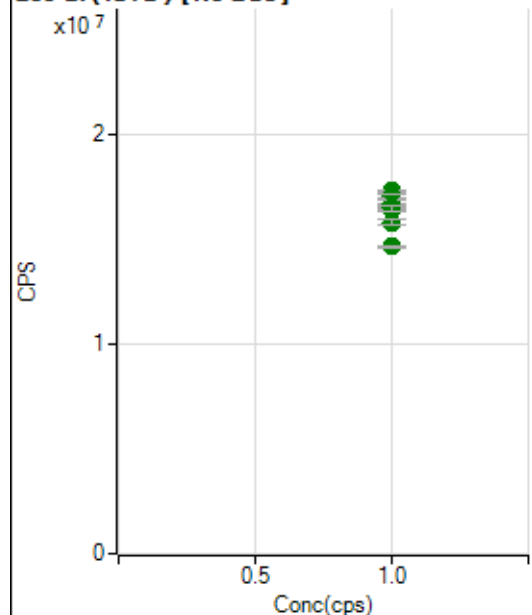
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4711725.52		A	1.2
2	☐	1.000		4700157.81		A	1.0
3	☐	1.000		4899451.11		A	0.7
4	☐	1.000		4806497.85		A	1.9
5	☐	1.000		4887182.19		A	0.2
6	☐	1.000		4662006.29		A	3.3
7	☐	1.000		4532798.65		A	1.0
8	☐	1.000		4456379.27		A	0.9
9	☐	1.000		4613262.81		A	0.6

165 Ho (ISTD) [No Gas]

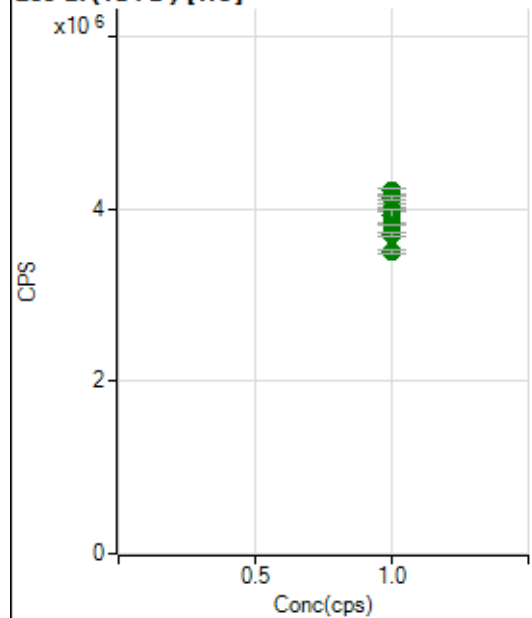
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23877306.26		A	0.6
2	☐	1.000		23711863.73		A	0.4
3	☐	1.000		24296505.23		A	1.4
4	☐	1.000		24702795.34		A	0.6
5	☐	1.000		24698844.82		A	0.7
6	☐	1.000		24289247.07		A	1.7
7	☐	1.000		23993075.54		A	1.6
8	☐	1.000		23473983.51		A	1.4
9	☐	1.000		23379747.57		A	1.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4859794.65		A	1.0
2	☐	1.000		4904211.04		A	0.6
3	☐	1.000		5044900.37		A	1.3
4	☐	1.000		4989436.32		A	1.3
5	☐	1.000		5028166.18		A	0.7
6	☐	1.000		4822450.38		A	3.2
7	☐	1.000		4708477.36		A	0.5
8	☐	1.000		4585679.51		A	1.0
9	☐	1.000		4766150.35		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16572848.36		A	1.2
2	☐	1.000		16414533.64		A	1.3
3	☐	1.000		16745383.64		A	2.1
4	☐	1.000		17317767.66		A	0.9
5	☐	1.000		17035088.22		A	1.0
6	☐	1.000		16660651.84		A	2.4
7	☐	1.000		16500331.28		A	1.9
8	☐	1.000		15827491.71		A	1.5
9	☐	1.000		14653185.48		A	0.8

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3980949.73		A	1.1
2	☐	1.000		3976445.15		A	0.3
3	☐	1.000		4205569.24		A	1.7
4	☐	1.000		4106815.46		A	1.9
5	☐	1.000		4125466.92		A	0.6
6	☐	1.000		3918545.39		A	3.8
7	☐	1.000		3812286.19		A	0.5
8	☐	1.000		3703296.61		A	1.0
9	☐	1.000		3500308.32		A	0.9

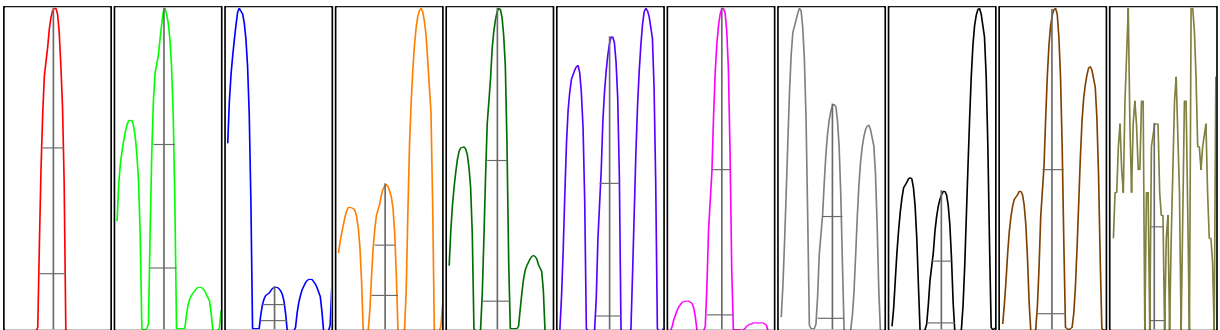
US EPA Tune Check Sample Report

Batch Folder D:\P8101818-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	10674	0.46	5.00	
24	104143	0.54	5.00	
25	14914	0.43	5.00	
26	18083	0.25	5.00	
59	122366	0.30	5.00	
113	19081	0.39	5.00	
115	228726	0.79	5.00	
206	68004	0.22	5.00	
207	61782	0.13	5.00	
208	143917	0.17	5.00	
220	0	20.41		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10756	10657	10652	10676	10629
24	105123	104055	103983	103701	103852
25	15015	14937	14892	14872	14853
26	18150	18086	18058	18093	18030
59	122817	121978	122015	122388	122634
113	19207	19063	19046	19013	19078
115	231691	228845	228313	227923	226857
206	68137	67781	67954	68010	68136
207	61822	61816	61716	61677	61880
208	143909	144324	143918	143738	143696
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	18017	8.90	8.9 - 9.1		0.749	0.900	
24	177283	23.90	23.9 - 24.1		0.745	0.900	
25	24080	24.90	24.9 - 25.1		0.742	0.900	
26	28380	25.90	25.9 - 26.1		0.745	0.900	
59	211926	58.95	58.9 - 59.1		0.789	0.900	
113	35700	113.00	112.9 - 113.1		0.724	0.900	
115	424479	115.05	114.9 - 115.1		0.774	0.900	
206	124136	206.05	205.9 - 206.1		0.781	0.900	
207	112572	207.00	206.9 - 207.1		0.786	0.900	
208	259887	208.00	207.9 - 208.1		0.808	0.900	
220	0	219.75	-		0.393		

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	9.8	V	Deflect	14.0	V
Extract 2	-205.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-100	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	15473	0.83	
89	4502	1.03	
205	27842	0.57	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	15664	15372	15348	15452	15529
89	4574	4478	4457	4481	4522
205	28002	27759	27708	27715	28026

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	9.8	V	Deflect	1.0	V
Extract 2	-205.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-100	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			