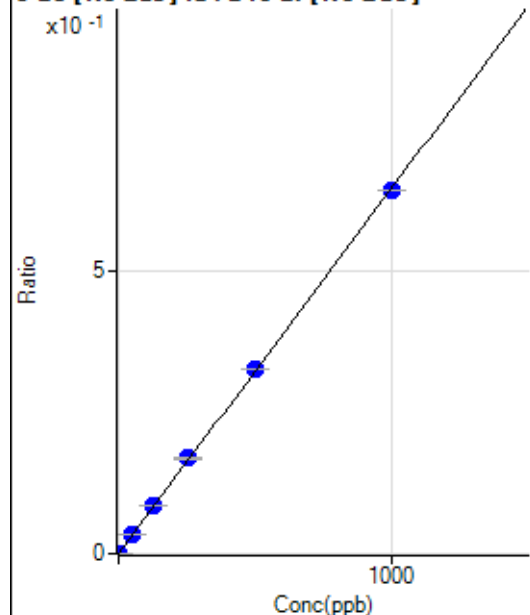


Batch Folder: D:\ICP-MS Data\P7120218MS.b\
Analysis File: P7120218MS.batch.bin
DA Date-Time: 2018-12-02 14:32:41
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-12-02 14:10:43
2	009CAL.S.d	S01	2018-12-02 14:51:23
3	010CAL.S.d	S02	2018-12-02 14:55:11
4	011CAL.S.d	S03	2018-12-02 14:58:58
5	012CAL.S.d	S04	2018-12-02 15:03:08
6	013CAL.S.d	S05	2018-12-02 15:06:56
7	014CAL.S.d	S06	2018-12-02 15:10:42
8	015CAL.S.d	S07	2018-12-02 15:14:27
9	016CAL.S.d	S08	2018-12-02 15:18:12

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.78	0.0000	P	52.3
2	☐	0.100	0.101	401.87	0.0001	P	4.6
3	☐	1.000	0.942	3459.75	0.0006	P	5.1
4	☐	50.000	53.281	193570.42	0.0343	P	0.4
5	☐	125.000	132.673	480672.44	0.0855	P	0.9
6	☐	250.000	260.786	926640.54	0.1680	P	0.7
7	☐	500.000	505.485	1706252.57	0.3256	P	1.0
8	☐	1000.000	993.438	3382877.97	0.6399	P	0.1
9	☐			627.81	0.0001	P	6.2

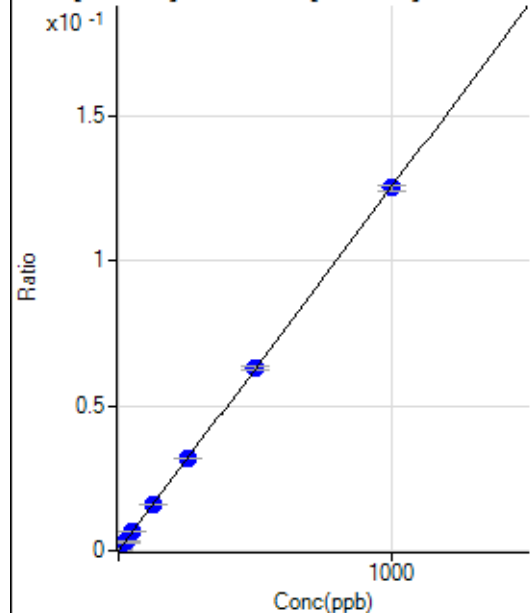
$$y = 6.4408\text{E-}004 * x + 4.8861\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.01191$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	263.90	0.0000	P	14.0
2	☐	2.500	2.597	2133.58	0.0004	P	6.8
3	☐	25.000	23.635	17037.94	0.0030	P	2.7
4	☐	50.000	50.557	36030.24	0.0064	P	0.6
5	☐	125.000	126.360	89419.18	0.0159	P	1.3
6	☐	250.000	252.878	175248.21	0.0318	P	1.4
7	☐	500.000	502.883	330826.69	0.0631	P	2.3
8	☐	1000.000	997.675	661925.99	0.1252	P	1.6
9	☐			15436.24	0.0031	P	9.0

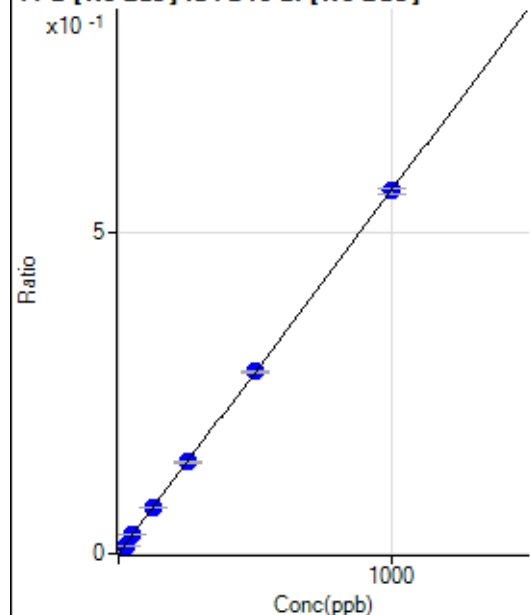
$$y = 1.2545\text{E-}004 * x + 4.6481\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.1555$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1455.68	0.0003	P	2.5
2	☐	2.500	2.502	9589.47	0.0017	P	2.3
3	☐	25.000	23.084	75368.68	0.0133	P	2.0
4	☐	50.000	50.794	163568.67	0.0290	P	1.9
5	☐	125.000	126.231	403266.06	0.0717	P	2.1
6	☐	250.000	252.759	790521.31	0.1433	P	1.9
7	☐	500.000	500.491	1485746.45	0.2835	P	1.7
8	☐	1000.000	998.919	2990296.31	0.5656	P	1.6
9	☐			69385.15	0.0138	P	7.4

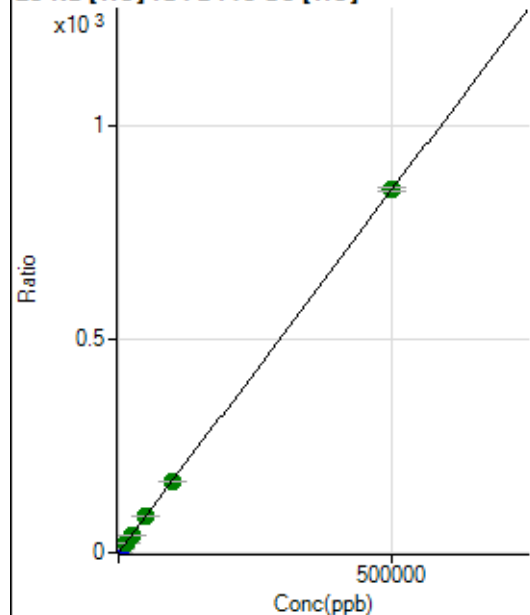
$$y = 5.6596E-004 * x + 2.5654E-004$$

$$R = 1.0000$$

$$DL = 0.03344$$

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	7983.02	0.0252	P	7.4
2	☐	50.000	51.122	33468.78	0.1120	P	5.1
3	☐	500.000	466.359	259947.82	0.8163	P	0.7
4	☐	5000.000	5025.944	2710131.94	8.5509	P	0.5
5	☐	12500.000	12333.575	6474244.85	20.9472	A	0.4
6	☐	25000.000	24757.294	12429767.47	42.0220	A	0.8
7	☐	50000.000	49452.560	24025642.55	83.9135	A	0.3
8	☐	100000.00	97712.565	49946408.76	165.7789	A	0.3
9	☐	500000.00	500528.30	281547231.2	849.0910	A	0.9

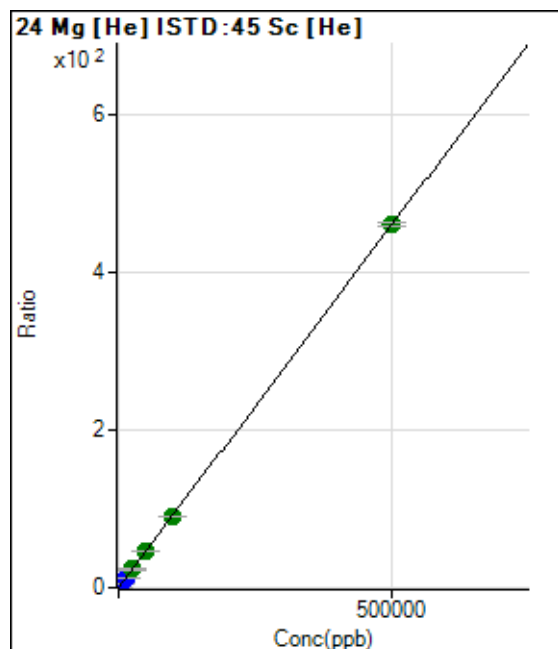
$$y = 0.0017 * x + 0.0252$$

$$R = 1.0000$$

$$DL = 3.318$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	72.22	0.0002	P	29.2
2	☐	50.000	50.081	13845.82	0.0464	P	8.1
3	☐	500.000	466.340	136880.68	0.4299	P	0.8
4	☐	5000.000	5139.305	1500771.06	4.7352	P	0.1
5	☐	12500.000	12727.452	3624329.68	11.7264	P	0.3
6	☐	25000.000	25268.291	6885945.81	23.2806	A	1.2
7	☐	50000.000	50197.385	13241508.89	46.2484	A	0.4
8	☐	100000.00	98368.222	27304903.04	90.6296	A	0.6
9	☐	500000.00	500286.15	152841165.9	460.9275	A	1.2

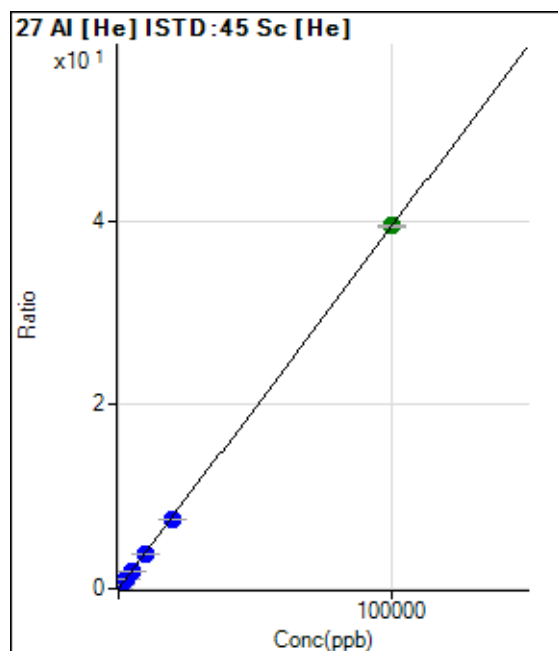
$$y = 9.2133\text{E-}004 * x + 2.2839\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.2168$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33.33	0.0001	P	50.0
2	☐	2.000	2.208	291.68	0.0010	P	6.1
3	☐	20.000	18.490	2353.06	0.0074	P	7.3
4	☐	1000.000	1000.939	125060.97	0.3946	P	0.5
5	☐	2500.000	2475.594	301588.09	0.9758	P	0.3
6	☐	5000.000	4918.205	573366.71	1.9384	P	1.0
7	☐	10000.000	9757.394	1101083.82	3.8456	P	0.1
8	☐	20000.000	19245.830	2285280.67	7.5852	P	0.4
9	☐	100000.00	100179.78	13091887.01	39.4824	A	0.7

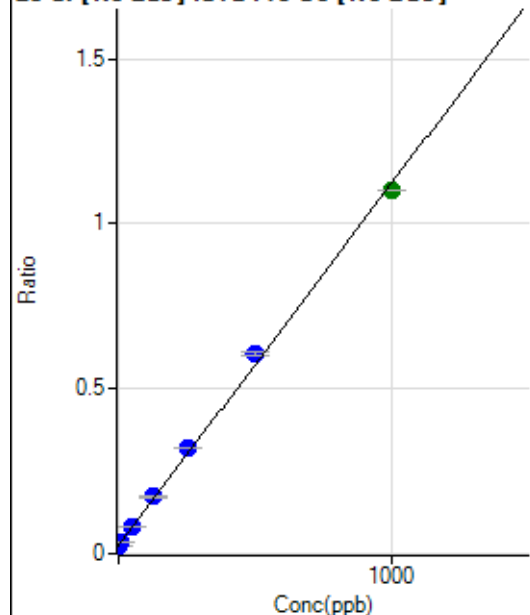
$$y = 3.9411\text{E-}004 * x + 1.0537\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.4011$$

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	194039.72	0.0246	P	1.3
2	☐	1.000	0.312	200741.17	0.0249	P	0.4
3	☐	10.000	9.336	274343.23	0.0348	P	0.8
4	☐	50.000	53.849	653173.31	0.0837	P	0.7
5	☐	125.000	134.601	1331763.58	0.1722	P	0.8
6	☐	250.000	268.292	2393927.85	0.3189	P	0.7
7	☐	500.000	528.842	4269429.44	0.6047	P	1.5
8	☐	1000.000	979.621	7983692.02	1.0993	A	0.1
9	☐			628555.88	0.0846	P	1.2

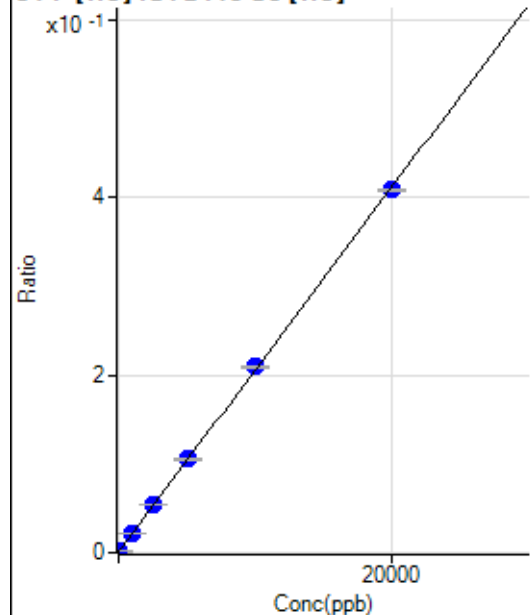
$$y = 0.0011 * x + 0.0246$$

$$R = 0.9992$$

$$DL = 0.8797$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-17.525	102.78	0.0003	P	25.9
2	☐	0.000	-10.351	141.68	0.0005	P	4.1
3	☐	0.000	27.876	400.03	0.0013	P	4.8
4	☐	1000.000	1027.007	6896.33	0.0218	P	1.9
5	☐	2500.000	2619.781	16826.70	0.0544	P	2.4
6	☐	5000.000	5112.694	31233.46	0.1056	P	2.5
7	☐	10000.000	10168.482	59937.98	0.2093	P	1.3
8	☐	20000.000	19871.263	123057.70	0.4084	P	0.4
9	☐			197.23	0.0006	P	14.3

$$y = 2.0520E-005 * x + 6.8450E-004$$

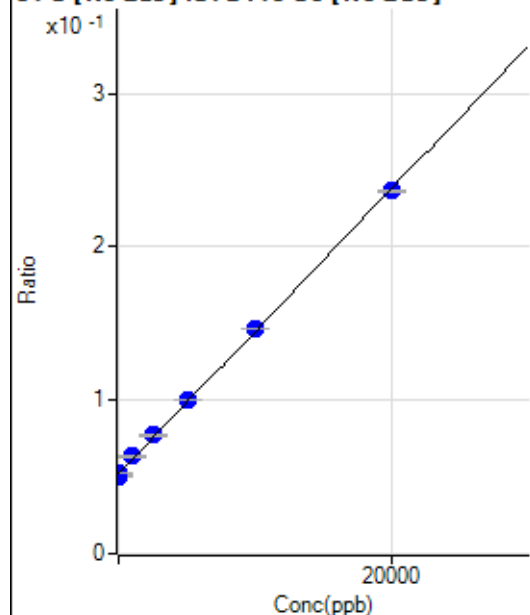
$$R = 0.9999$$

$$DL = 8.005$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	64.472	415392.94	0.0526	P	1.3
2	☐	0.000	-153.212	407533.90	0.0506	P	0.9
3	☐	0.000	88.740	416336.26	0.0528	P	0.8
4	☐	1000.000	1212.147	494148.59	0.0633	P	1.2
5	☐	2500.000	2719.451	597695.89	0.0773	P	0.7
6	☐	5000.000	5174.536	751635.99	0.1001	P	0.6
7	☐	10000.000	10181.093	1035594.52	0.1467	P	0.3
8	☐	20000.000	19827.781	1716634.17	0.2364	P	0.2
9	☐			352161.47	0.0474	P	0.6

$$y = 9.2973\text{E-}006 * x + 0.0520$$

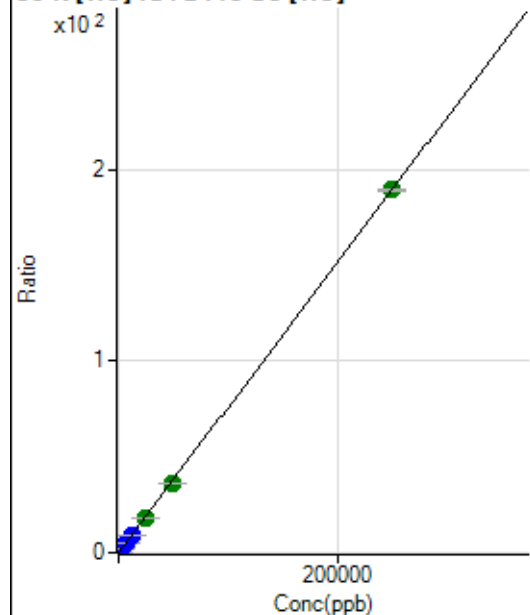
$$R = 0.9998$$

$$DL = 171.6$$

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	15453.04	0.0489	P	1.3
2	☐	50.000	50.245	25970.79	0.0869	P	5.2
3	☐	500.000	471.906	129275.99	0.4060	P	0.7
4	☐	2500.000	2504.864	616261.31	1.9444	P	0.4
5	☐	6250.000	6206.534	1466758.26	4.7457	P	0.5
6	☐	12500.000	12333.204	2775120.87	9.3820	P	0.8
7	☐	25000.000	24331.250	5286003.50	18.4616	A	0.3
8	☐	50000.000	48031.178	10965386.44	36.3965	A	0.8
9	☐	250000.00	250470.07	62865858.35	189.5924	A	0.5

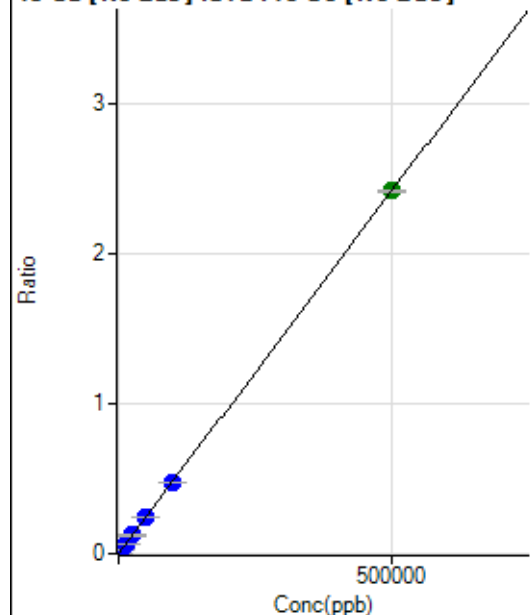
$$y = 7.5675\text{E-}004 * x + 0.0489$$

$$R = 1.0000$$

$$DL = 2.431$$

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	63.89	0.0000	P	14.3
2	☐	50.000	45.904	1855.75	0.0002	P	6.0
3	☐	500.000	463.454	17738.96	0.0023	P	0.6
4	☐	5000.000	5004.105	189194.94	0.0242	P	0.3
5	☐	12500.000	12529.159	468985.02	0.0607	P	0.6
6	☐	25000.000	25195.670	915593.74	0.1220	P	0.4
7	☐	50000.000	50070.226	1711195.74	0.2424	P	0.7
8	☐	100000.00	98018.947	3445871.95	0.4745	P	0.3
9	☐	500000.00	500378.67	17990700.40	2.4220	A	0.5

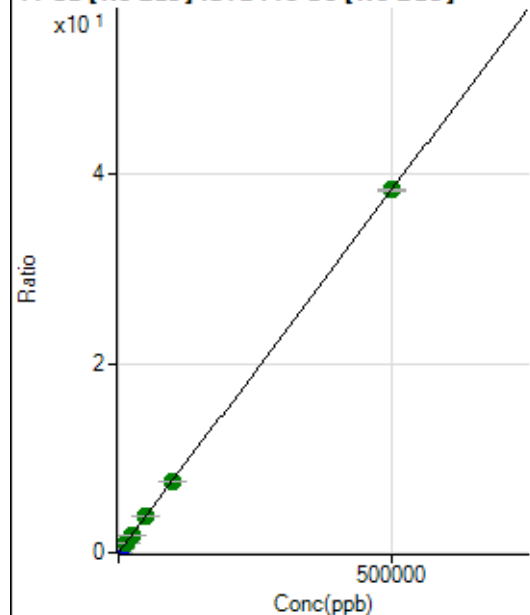
$$y = 4.8404\text{E-}006 * x + 8.0871\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.7161$$

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	6363.46	0.0008	P	1.1
2	☐	50.000	46.101	34970.63	0.0043	P	2.4
3	☐	500.000	470.377	290569.19	0.0369	P	0.4
4	☐	5000.000	5055.744	3033756.77	0.3885	P	0.6
5	☐	12500.000	12443.160	7384790.96	0.9551	A	0.2
6	☐	25000.000	24916.294	14350645.46	1.9116	A	0.4
7	☐	50000.000	49817.482	26980487.76	3.8213	A	0.3
8	☐	100000.00	98815.850	55044825.54	7.5790	A	0.3
9	☐	500000.00	500260.16	284990789.7	38.3659	A	0.4

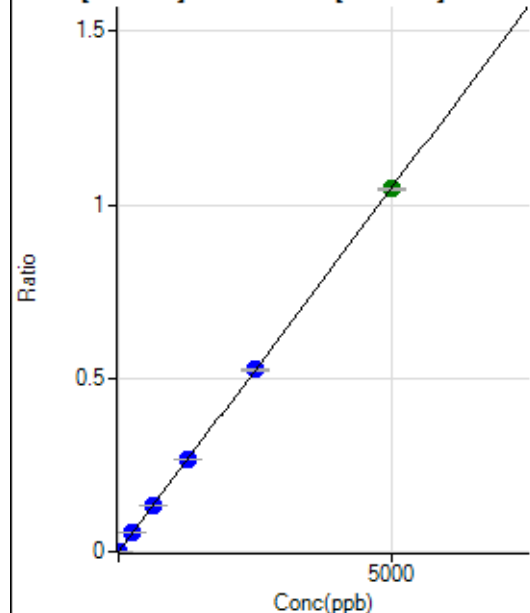
$$y = 7.6690\text{E-}005 * x + 8.0595\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.3378$$

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	63.89	0.0000	P	20.6
2	☐	0.500	0.487	886.17	0.0001	P	6.6
3	☐	5.000	5.005	8327.70	0.0011	P	3.5
4	☐	250.000	254.433	416325.63	0.0533	P	0.5
5	☐	625.000	635.741	1030015.29	0.1332	P	0.4
6	☐	1250.000	1269.253	1996468.27	0.2660	P	0.6
7	☐	2500.000	2506.389	3707797.96	0.5252	P	0.9
8	☐	5000.000	4990.428	7594169.44	1.0456	A	0.4
9	☐			5890.36	0.0008	P	4.3

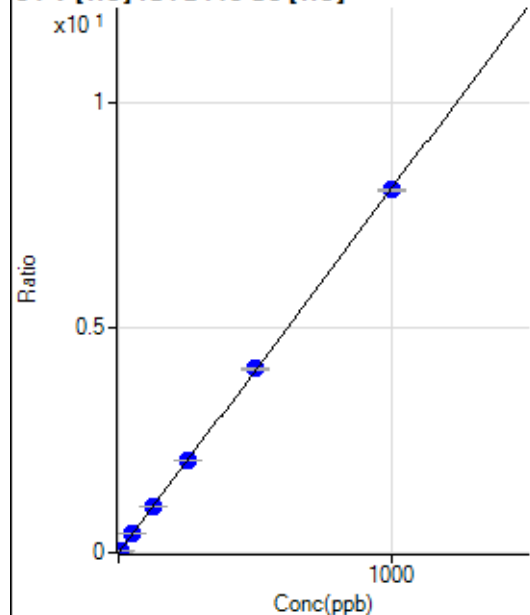
$$y = 2.0953\text{E-}004 * x + 8.1003\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.02385$$

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	3.33	0.0000	P	100.0
2	☐	0.500	0.522	1270.08	0.0042	P	4.2
3	☐	5.000	5.050	13031.47	0.0409	P	0.9
4	☐	50.000	51.419	132027.51	0.4166	P	0.7
5	☐	125.000	127.297	318743.60	1.0313	P	0.1
6	☐	250.000	252.749	605685.04	2.0476	P	0.4
7	☐	500.000	505.128	1171668.85	4.0922	P	0.3
8	☐	1000.000	996.390	2431941.32	8.0720	P	0.5
9	☐			1004.50	0.0030	P	10.1

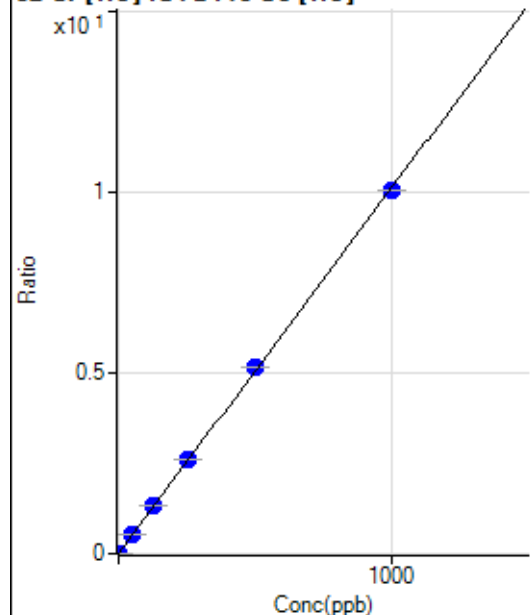
$$y = 0.0081 * x + 1.0529\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.003899$$

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	743.37	0.0024	P	3.4
2	☐	0.200	0.246	1446.76	0.0048	P	4.9
3	☐	2.000	2.006	7199.65	0.0226	P	2.2
4	☐	50.000	52.453	168706.75	0.5323	P	0.4
5	☐	125.000	129.440	404927.03	1.3101	P	0.5
6	☐	250.000	256.657	767736.18	2.5955	P	0.5
7	☐	500.000	511.146	1479266.63	5.1667	P	0.5
8	☐	1000.000	992.085	3020621.69	10.0257	P	0.2
9	☐			112687.35	0.3398	P	1.3

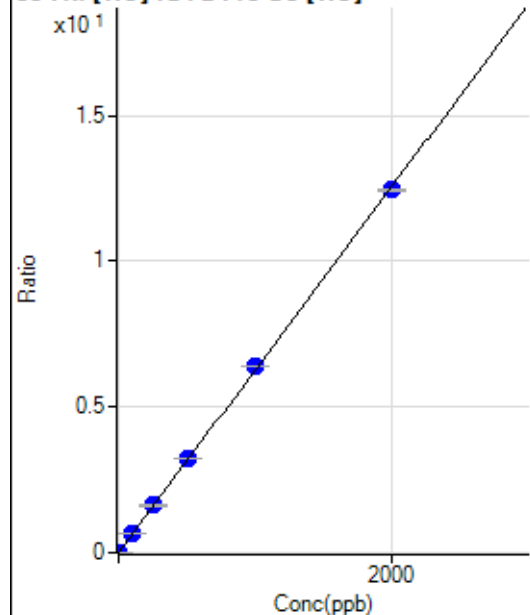
$$y = 0.0101 * x + 0.0024$$

$$R = 0.9999$$

$$DL = 0.02377$$

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	28.89	0.0001	P	46.7
2	☐	0.100	0.164	333.34	0.0011	P	10.1
3	☐	1.000	1.079	2183.53	0.0069	P	5.0
4	☐	100.000	104.166	207055.88	0.6533	P	0.5
5	☐	250.000	257.996	500060.07	1.6179	P	0.5
6	☐	500.000	513.353	952213.81	3.2192	P	0.9
7	☐	1000.000	1021.407	1833871.80	6.4051	P	0.6
8	☐	2000.000	1984.750	3749865.47	12.4461	P	0.3
9	☐			27845.35	0.0840	P	1.8

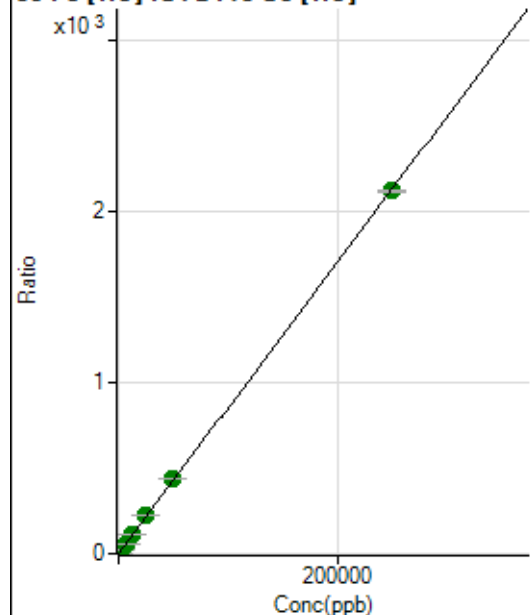
$$y = 0.0063 * x + 9.1369E-005$$

$$R = 0.9999$$

$$DL = 0.02042$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3333.81	0.0105	P	2.8
2	☐	5.000	6.065	18541.71	0.0620	P	6.0
3	☐	50.000	54.249	150043.44	0.4712	P	0.8
4	☐	2500.000	2738.471	7373407.81	23.2645	A	0.3
5	☐	6250.000	6780.373	17798570.54	57.5867	A	0.8
6	☐	12500.000	13479.964	33859948.21	114.4769	A	1.2
7	☐	25000.000	26828.640	65229044.97	227.8283	A	0.7
8	☐	50000.000	51969.194	132958595.5	441.3116	A	0.5
9	☐	250000.00	249358.65	702124052.7	2,117.461	A	0.8

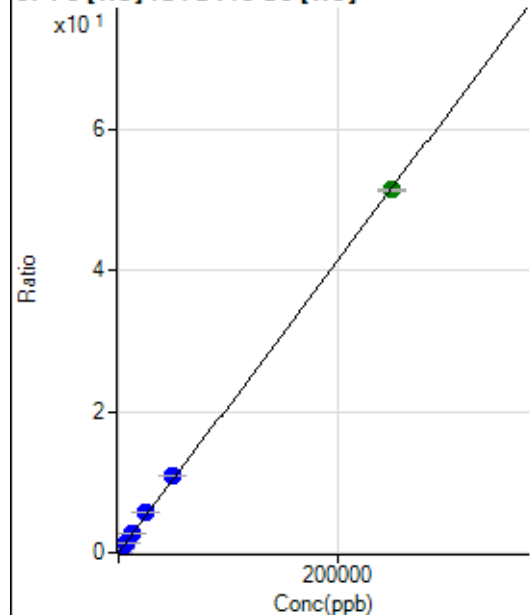
$$y = 0.0085 * x + 0.0105$$

$$R = 0.9999$$

$$DL = 0.1058$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0002	P	18.8
2	☐	5.000	6.321	464.84	0.0016	P	11.1
3	☐	50.000	57.474	3859.87	0.0121	P	0.6
4	☐	2500.000	2757.189	180635.88	0.5699	P	0.2
5	☐	6250.000	6857.892	438029.98	1.4172	P	0.4
6	☐	12500.000	13644.431	833942.04	2.8195	P	1.3
7	☐	25000.000	27133.878	1605280.84	5.6067	P	0.2
8	☐	50000.000	53020.381	3300739.63	10.9554	P	0.6
9	☐	250000.00	249107.54	17066791.82	51.4711	A	0.2

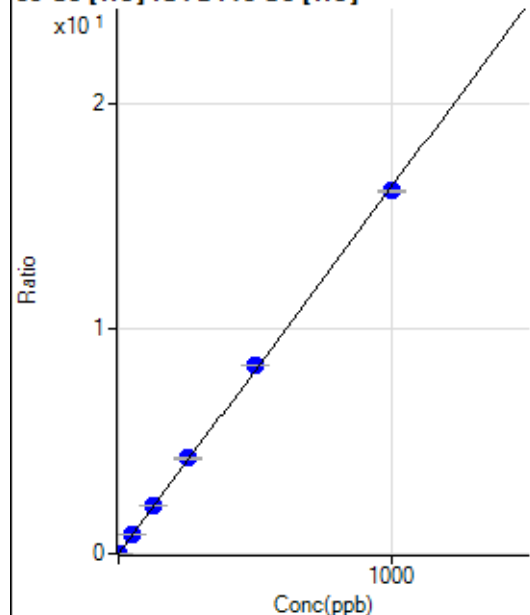
$$y = 2.0662E-004 * x + 2.4588E-004$$

$$R = 0.9999$$

$$DL = 0.6727$$

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	66.66	0.0002	P	17.2
2	☐	0.100	0.104	572.24	0.0019	P	6.1
3	☐	1.000	1.007	5294.36	0.0166	P	3.4
4	☐	50.000	53.529	276598.33	0.8727	P	0.5
5	☐	125.000	131.420	662130.71	2.1423	P	0.3
6	☐	250.000	260.250	1254797.31	4.2422	P	0.8
7	☐	500.000	514.605	2401655.48	8.3880	P	0.1
8	☐	1000.000	989.156	4857746.11	16.1230	P	0.5
9	☐			63741.19	0.1922	P	0.5

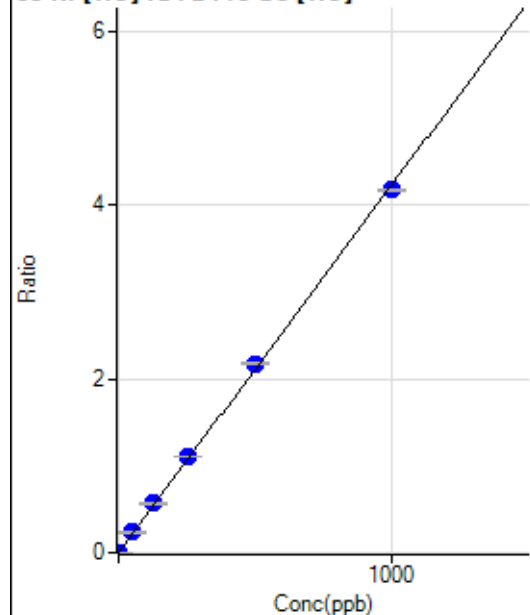
$$y = 0.0163 * x + 2.1073E-004$$

$$R = 0.9998$$

$$DL = 0.006687$$

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	43.33	0.0001	P	40.8
2	☐	0.100	0.134	210.01	0.0007	P	5.2
3	☐	1.000	1.195	1652.35	0.0052	P	3.6
4	☐	50.000	55.060	73808.99	0.2329	P	0.5
5	☐	125.000	133.983	175087.59	0.5665	P	0.8
6	☐	250.000	262.511	328257.13	1.1098	P	1.1
7	☐	500.000	515.347	623754.80	2.1786	P	0.3
8	☐	1000.000	987.823	1258115.23	4.1757	P	0.3
9	☐			40299.81	0.1215	P	1.6

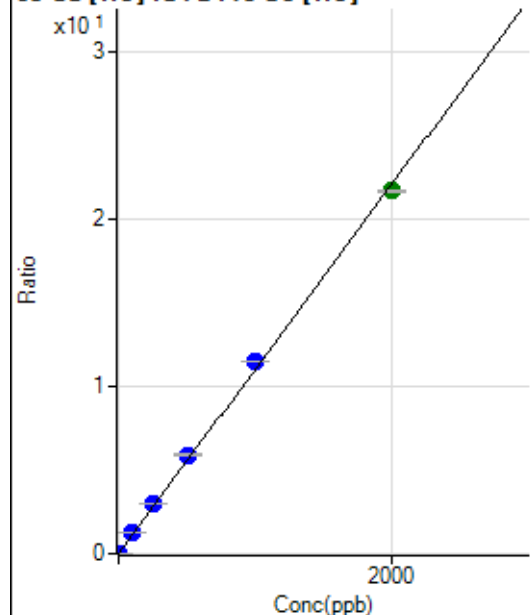
$$y = 0.0042 * x + 1.3705E-004$$

$$R = 0.9997$$

$$DL = 0.03969$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	321.12	0.0010	P	9.8
2	☐	0.200	0.255	1147.84	0.0038	P	2.7
3	☐	2.000	2.135	7823.33	0.0246	P	3.0
4	☐	100.000	111.301	389512.55	1.2290	P	0.6
5	☐	250.000	272.568	929766.28	3.0082	P	0.4
6	☐	500.000	535.530	1747959.05	5.9094	P	0.9
7	☐	1000.000	1042.208	3292572.03	11.4996	P	0.1
8	☐	2000.000	1966.627	6537336.71	21.6985	A	0.5
9	☐			16913.28	0.0510	P	0.7

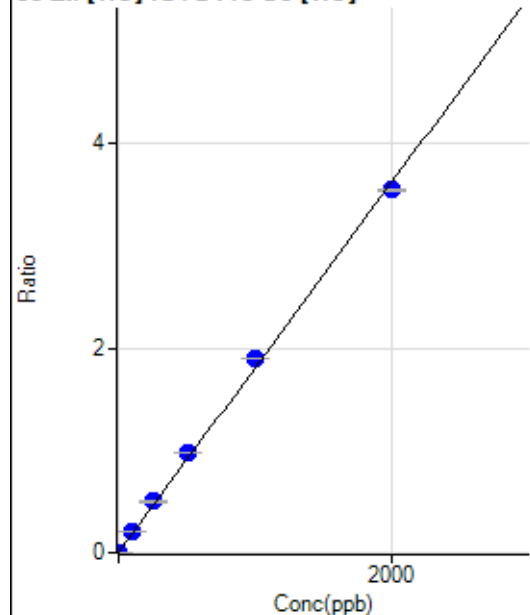
$$y = 0.0110 * x + 0.0010$$

$$R = 0.9995$$

$$DL = 0.02713$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	203.34	0.0006	P	10.4
2	☐	0.200	0.427	423.35	0.0014	P	3.8
3	☐	2.000	2.461	1623.45	0.0051	P	12.4
4	☐	100.000	111.513	64133.52	0.2024	P	0.3
5	☐	250.000	275.178	154043.47	0.4984	P	0.5
6	☐	500.000	539.301	288753.36	0.9762	P	0.5
7	☐	1000.000	1051.847	544940.20	1.9033	P	0.3
8	☐	2000.000	1960.528	1068650.96	3.5469	P	0.2
9	☐			9973.52	0.0301	P	1.2

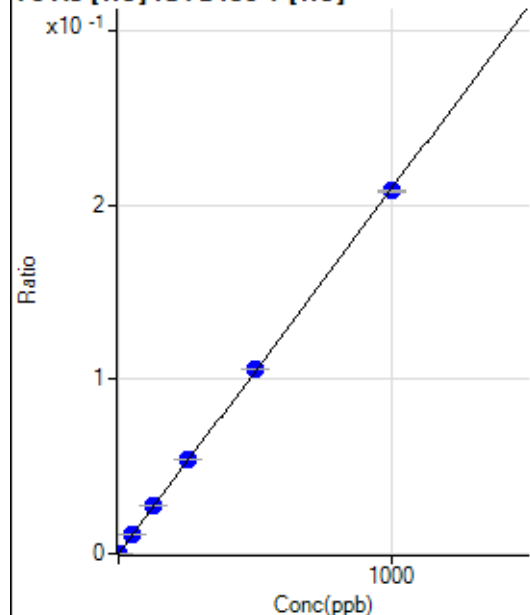
$$y = 0.0018 * x + 6.4289E-004$$

$$R = 0.9993$$

$$DL = 0.1104$$

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	7.40	0.0000	P	86.5
2	☐	0.100	0.110	43.21	0.0000	P	26.3
3	☐	1.000	0.974	347.54	0.0002	P	7.9
4	☐	50.000	53.461	18555.14	0.0112	P	0.8
5	☐	125.000	130.327	44390.92	0.0273	P	0.6
6	☐	250.000	257.147	84291.67	0.0538	P	0.2
7	☐	500.000	505.727	161326.22	0.1058	P	0.1
8	☐	1000.000	994.511	328370.52	0.2081	P	0.2
9	☐			650.02	0.0004	P	1.3

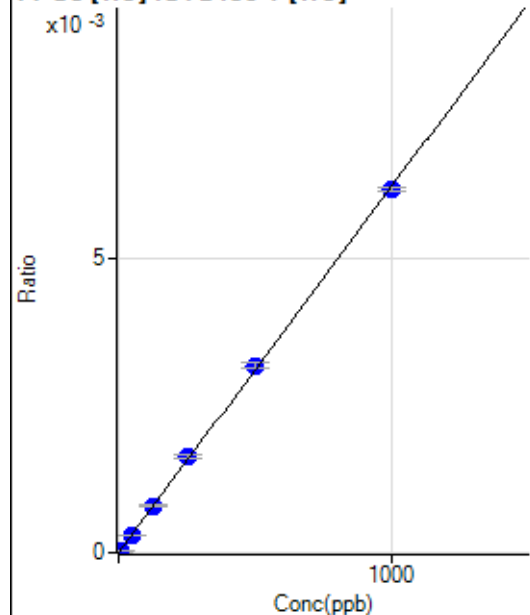
$$y = 2.0924\text{E-}004 * x + 4.4795\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.05556$$

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	0.571	5.56	0.0000	P	36.9
3	☐	5.000	4.941	51.11	0.0000	P	40.6
4	☐	50.000	48.444	498.90	0.0003	P	5.5
5	☐	125.000	126.961	1283.41	0.0008	P	3.2
6	☐	250.000	262.770	2555.82	0.0016	P	4.1
7	☐	500.000	511.271	4840.88	0.0032	P	2.6
8	☐	1000.000	991.005	9713.39	0.0062	P	1.0
9	☐			8.89	0.0000	P	43.2

$$y = 6.2109\text{E-}006 * x + 0.0000\text{E+}000$$

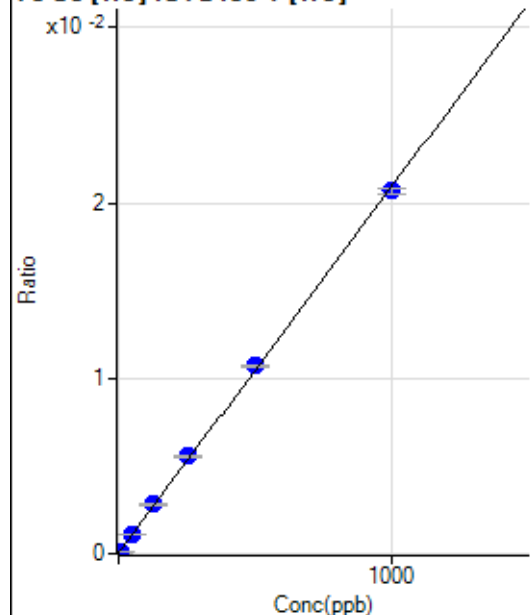
$$R = 0.9998$$

$$DL = 0$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	53.09	0.0000	P	25.0
2	☐	0.500	-0.001	50.62	0.0000	P	20.5
3	☐	5.000	5.275	237.66	0.0001	P	10.0
4	☐	50.000	53.508	1906.93	0.0012	P	0.3
5	☐	125.000	133.195	4581.63	0.0028	P	1.9
6	☐	250.000	265.209	8728.62	0.0056	P	2.5
7	☐	500.000	512.108	16360.53	0.0107	P	0.8
8	☐	1000.000	988.943	32651.53	0.0207	P	1.4
9	☐			85.80	0.0001	P	12.8

$$y = 2.0893E-005 * x + 3.2158E-005$$

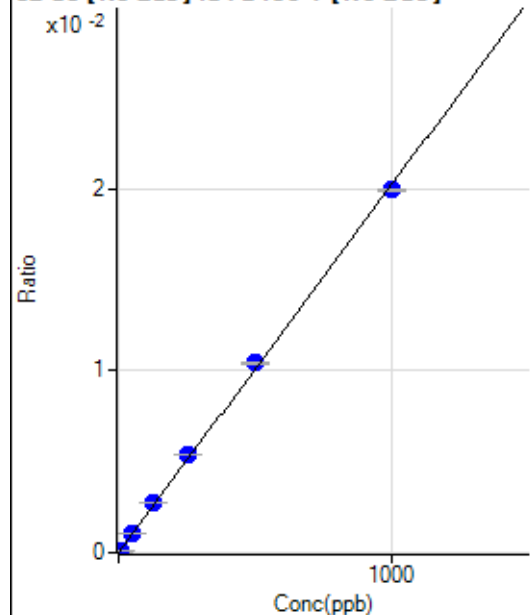
$$R = 0.9997$$

$$DL = 1.152$$

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	-3.96	0.0000	P	-2021.
2	☐	0.500	0.580	141.49	0.0000	P	44.8
3	☐	5.000	5.520	1352.25	0.0001	P	1.7
4	☐	50.000	54.464	13300.23	0.0011	P	0.8
5	☐	125.000	135.069	32699.50	0.0027	P	1.0
6	☐	250.000	267.453	63178.65	0.0054	P	1.2
7	☐	500.000	515.140	116201.38	0.0104	P	0.9
8	☐	1000.000	986.583	228522.25	0.0199	P	0.4
9	☐			315.20	0.0000	P	15.8

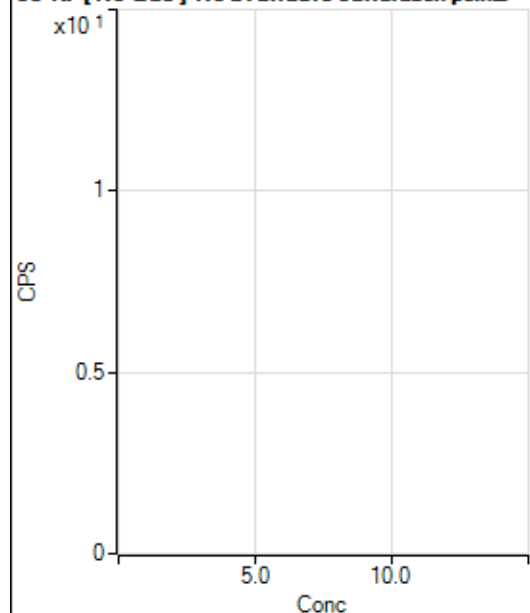
$$y = 2.0196E-005 * x - 2.9563E-007$$

$$R = 0.9996$$

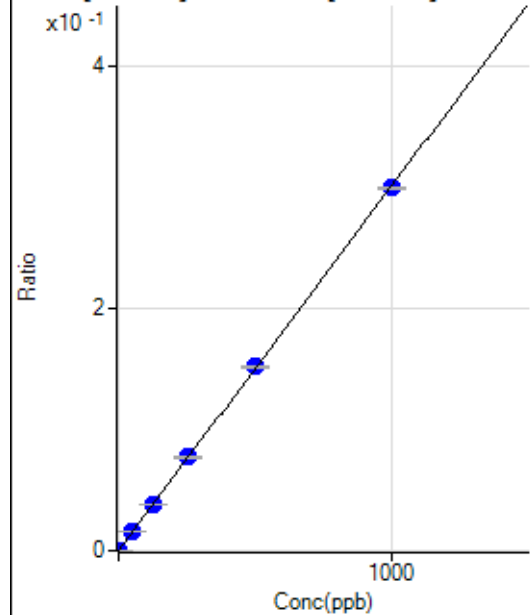
$$DL = 0.8878$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			608.91		P	10.9
2	☐			584.46		P	5.4
3	☐			554.47		P	2.4
4	☐			601.13		P	8.1
5	☐			647.80		P	9.8
6	☐			541.13		P	5.7
7	☐			572.24		P	3.5
8	☐			533.35		P	4.9
9	☐			636.69		P	2.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	919.51	0.0001	P	7.4
2	☐	0.100	0.066	1180.65	0.0001	P	0.5
3	☐	1.000	0.915	4267.47	0.0004	P	1.0
4	☐	50.000	50.608	185302.22	0.0153	P	0.8
5	☐	125.000	128.189	463869.72	0.0387	P	0.7
6	☐	250.000	256.020	903054.24	0.0772	P	1.2
7	☐	500.000	505.638	1702252.04	0.1524	P	1.1
8	☐	1000.000	995.247	3439657.45	0.2999	P	0.8
9	☐			16676.88	0.0014	P	3.0

$$y = 3.0125E-004 * x + 7.5134E-005$$

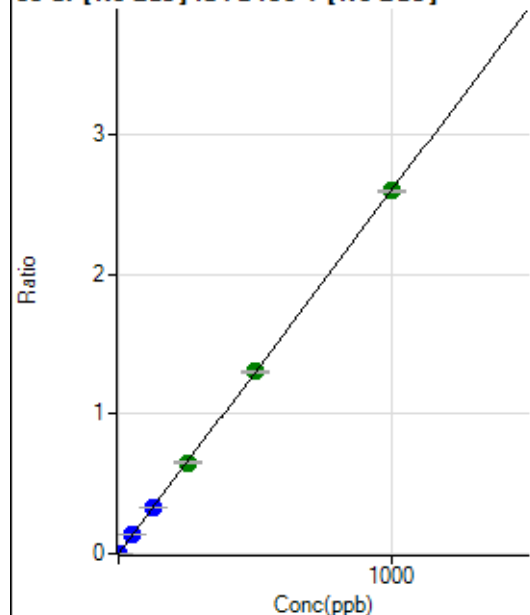
$$R = 1.0000$$

$$DL = 0.05569$$

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	111.11	0.0000	P	24.3
2	☐	0.100	0.089	3000.45	0.0002	P	4.6
3	☐	1.000	0.936	29728.89	0.0024	P	2.4
4	☐	50.000	51.397	1618421.06	0.1338	P	0.6
5	☐	125.000	128.607	4013995.14	0.3348	P	0.2
6	☐	250.000	251.273	7652377.86	0.6541	A	0.6
7	☐	500.000	500.844	14563995.47	1.3038	A	0.4
8	☐	1000.000	998.739	29820762.82	2.6000	A	0.4
9	☐			139174.64	0.0121	P	0.6

$$y = 0.0026 * x + 9.0849E-006$$

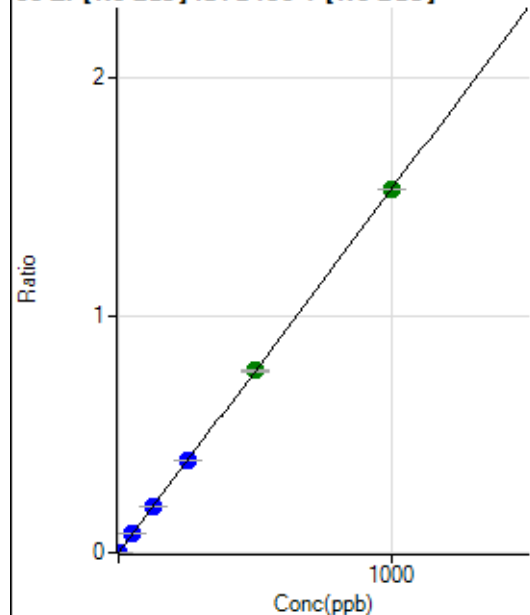
$$R = 1.0000$$

$$DL = 0.002545$$

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	938.96	0.0001	P	6.9
2	☐	0.100	0.087	2605.91	0.0002	P	4.5
3	☐	1.000	0.939	18423.56	0.0015	P	1.2
4	☐	50.000	50.455	935813.62	0.0774	P	0.9
5	☐	125.000	127.436	2341553.42	0.1953	P	0.2
6	☐	250.000	255.111	4572874.67	0.3909	P	0.5
7	☐	500.000	500.641	8568189.08	0.7671	A	0.4
8	☐	1000.000	998.074	17538224.18	1.5291	A	0.2
9	☐			8839.21	0.0008	P	2.7

$$y = 0.0015 * x + 7.6725E-005$$

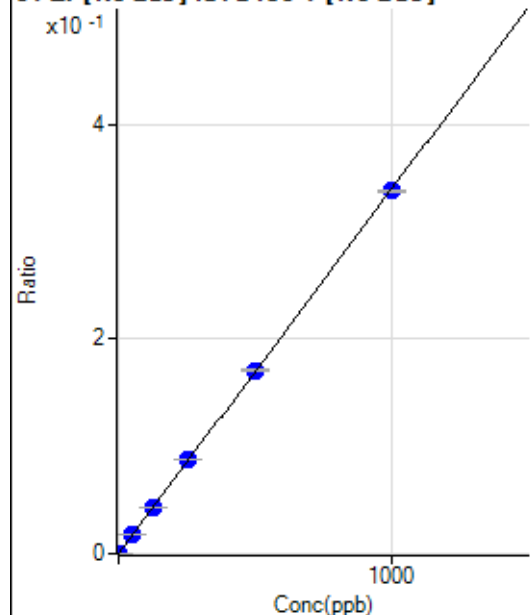
$$R = 1.0000$$

$$DL = 0.01031$$

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	186.12	0.0000	P	20.9
2	☐	0.100	0.101	613.93	0.0000	P	8.9
3	☐	1.000	0.940	4067.42	0.0003	P	2.9
4	☐	50.000	50.510	207786.51	0.0172	P	1.1
5	☐	125.000	128.383	523231.96	0.0436	P	0.7
6	☐	250.000	257.780	1024929.85	0.0876	P	0.7
7	☐	500.000	503.633	1911888.21	0.1712	P	0.4
8	☐	1000.000	995.790	3881461.02	0.3384	P	0.7
9	☐			2061.35	0.0002	P	4.3

$$y = 3.3983\text{E-}004 * x + 1.5206\text{E-}005$$

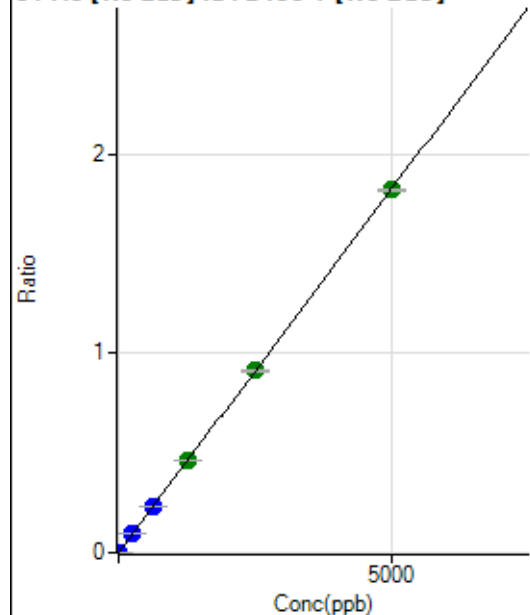
$$R = 1.0000$$

$$DL = 0.02805$$

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	241.68	0.0000	P	5.8
2	☐	0.500	0.496	2497.55	0.0002	P	3.2
3	☐	5.000	4.890	21964.85	0.0018	P	2.6
4	☐	250.000	256.354	1132906.03	0.0937	P	0.4
5	☐	625.000	644.178	2821436.59	0.2353	P	0.6
6	☐	1250.000	1267.528	5416951.86	0.4631	A	0.5
7	☐	2500.000	2506.539	10227851.96	0.9157	A	0.7
8	☐	5000.000	4989.634	20905865.40	1.8228	A	0.3
9	☐			26247.15	0.0023	P	1.2

$$y = 3.6530\text{E-}004 * x + 1.9754\text{E-}005$$

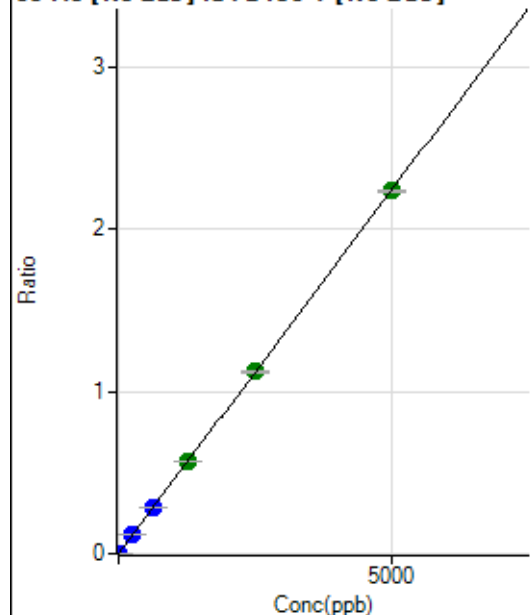
$$R = 1.0000$$

$$DL = 0.009383$$

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	44.45	0.0000	P	53.9
2	☐	0.500	0.487	2758.71	0.0002	P	4.2
3	☐	5.000	4.950	27045.91	0.0022	P	3.4
4	☐	250.000	255.188	1384663.12	0.1145	P	0.8
5	☐	625.000	641.340	3449417.31	0.2877	P	0.2
6	☐	1250.000	1268.415	6656555.57	0.5690	A	0.6
7	☐	2500.000	2504.646	12550644.03	1.1236	A	0.7
8	☐	5000.000	4990.771	25679264.46	2.2389	A	0.6
9	☐			41149.07	0.0036	P	1.9

$$y = 4.4861\text{E-}004 * x + 3.6268\text{E-}006$$

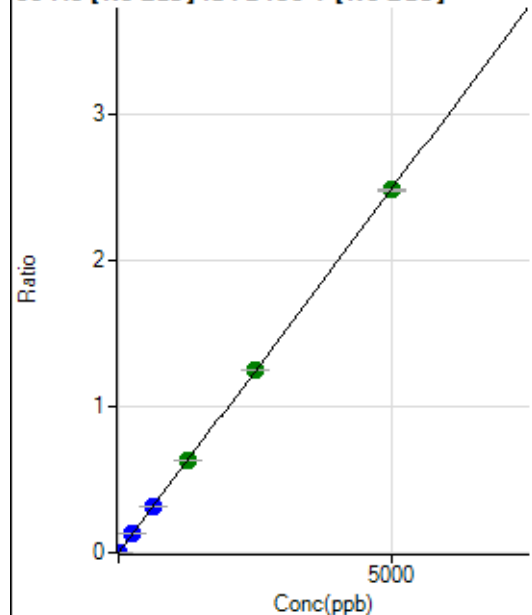
$$R = 1.0000$$

$$DL = 0.01307$$

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	141.67	0.0000	P	5.8
2	☐	0.500	0.484	3128.26	0.0003	P	8.6
3	☐	5.000	4.930	29929.60	0.0025	P	2.2
4	☐	250.000	255.023	1532791.58	0.1267	P	0.8
5	☐	625.000	641.791	3823455.73	0.3189	P	0.2
6	☐	1250.000	1263.051	7341846.17	0.6276	A	0.7
7	☐	2500.000	2508.805	13924798.58	1.2466	A	0.3
8	☐	5000.000	4989.985	28438659.32	2.4795	A	0.5
9	☐			51920.37	0.0045	P	1.4

$$y = 4.9690\text{E-}004 * x + 1.1580\text{E-}005$$

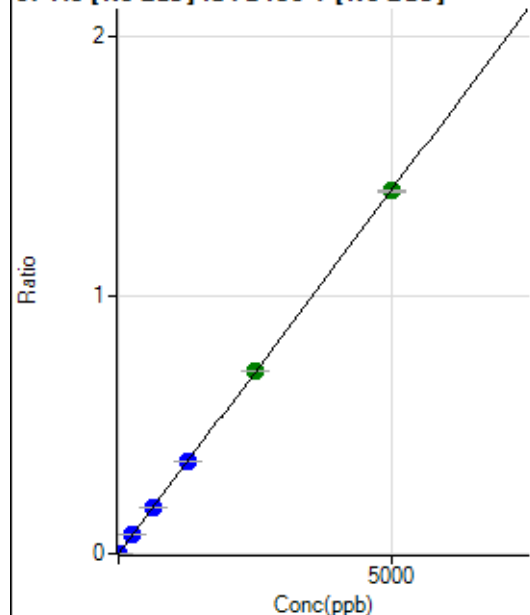
$$R = 1.0000$$

$$DL = 0.004059$$

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	27.78	0.0000	P	17.9
2	☐	0.500	0.470	1672.40	0.0001	P	3.9
3	☐	5.000	4.939	16932.86	0.0014	P	3.3
4	☐	250.000	253.548	863274.82	0.0714	P	0.8
5	☐	625.000	640.023	2159967.02	0.1802	P	0.3
6	☐	1250.000	1266.161	4169321.40	0.3564	P	0.7
7	☐	2500.000	2507.326	7883765.02	0.7058	A	0.3
8	☐	5000.000	4990.242	16111263.21	1.4047	A	0.2
9	☐			25359.39	0.0022	P	1.9

$$y = 2.8149\text{E-}004 * x + 2.2720\text{E-}006$$

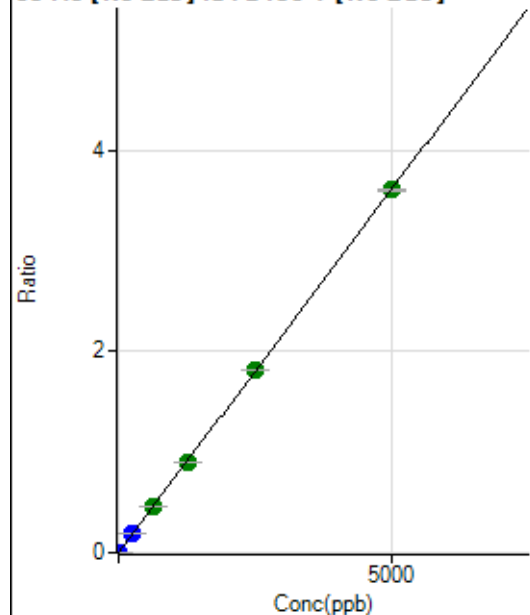
$$R = 1.0000$$

$$DL = 0.004329$$

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	122.23	0.0000	P	4.7
2	☐	0.500	0.467	4309.17	0.0003	P	4.8
3	☐	5.000	4.849	42692.62	0.0035	P	0.5
4	☐	250.000	254.810	2224914.65	0.1840	P	0.9
5	☐	625.000	627.609	5431890.27	0.4531	A	0.5
6	☐	1250.000	1250.590	10561118.03	0.9028	A	0.6
7	☐	2500.000	2507.853	20222559.48	1.8104	A	0.2
8	☐	5000.000	4995.360	41360818.29	3.6062	A	0.3
9	☐			63695.50	0.0055	P	2.3

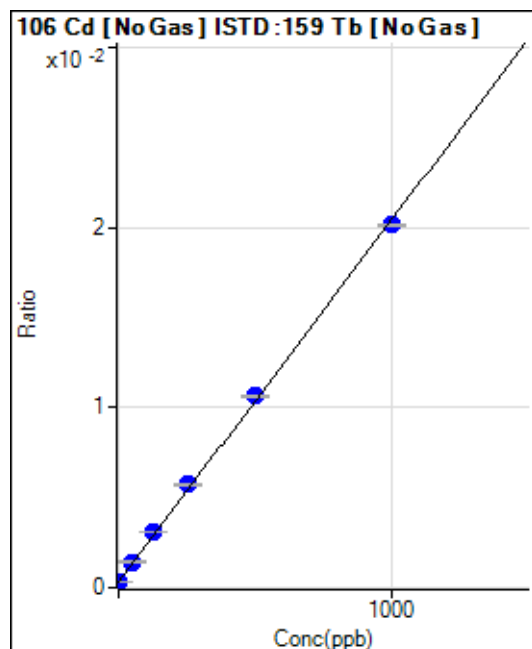
$$y = 7.2190\text{E-}004 * x + 9.9937\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.001948$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5251.23	0.0003	P	2.2
2	☐	0.100	-1.032	4987.23	0.0003	P	4.8
3	☐	1.000	1.264	5648.62	0.0003	P	5.6
4	☐	50.000	55.706	23731.82	0.0014	P	2.4
5	☐	125.000	137.920	51226.87	0.0031	P	0.7
6	☐	250.000	269.158	94553.68	0.0057	P	1.5
7	☐	500.000	513.720	171230.25	0.0106	P	0.9
8	☐	1000.000	986.450	332687.50	0.0201	P	0.8
9	☐			4848.25	0.0003	P	4.8

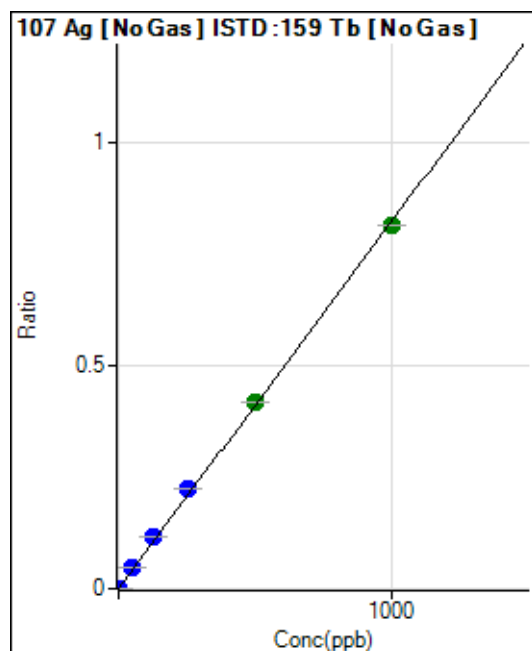
$$y = 2.0082\text{E-}005 * x + 3.1624\text{E-}004$$

$$R = 0.9996$$

$$DL = 1.021$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69.45	0.0000	P	36.2
2	☐	0.100	0.086	1269.55	0.0001	P	1.5
3	☐	1.000	0.838	11482.93	0.0007	P	2.5
4	☐	50.000	57.003	776864.15	0.0470	P	0.2
5	☐	125.000	140.177	1917480.62	0.1155	P	0.6
6	☐	250.000	271.100	3691677.56	0.2234	P	0.7
7	☐	500.000	508.135	6743056.23	0.4187	A	0.6
8	☐	1000.000	988.410	13463119.57	0.8145	A	0.1
9	☐			1458.47	0.0001	P	0.5

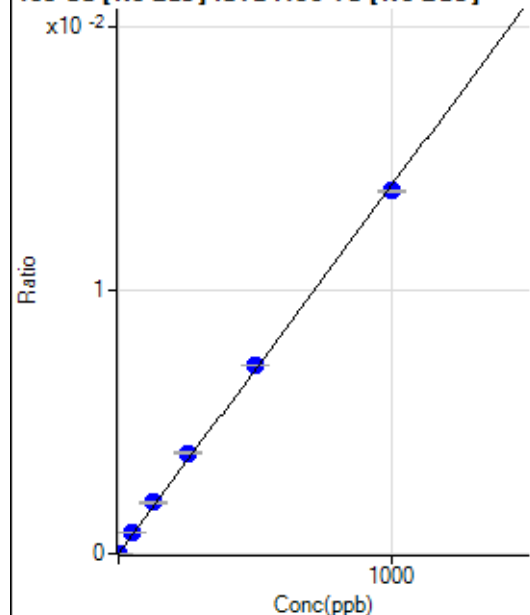
$$y = 8.2401\text{E-}004 * x + 4.1776\text{E-}006$$

$$R = 0.9996$$

$$DL = 0.005511$$

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	15.28	0.0000	P	15.4
2	☐	0.100	0.081	34.72	0.0000	P	7.8
3	☐	1.000	0.919	227.78	0.0000	P	4.2
4	☐	50.000	55.398	12831.04	0.0008	P	1.3
5	☐	125.000	139.338	32370.55	0.0019	P	1.4
6	☐	250.000	272.406	62982.46	0.0038	P	1.8
7	☐	500.000	512.720	115514.20	0.0072	P	0.7
8	☐	1000.000	985.976	227999.50	0.0138	P	0.5
9	☐			116.67	0.0000	P	12.9

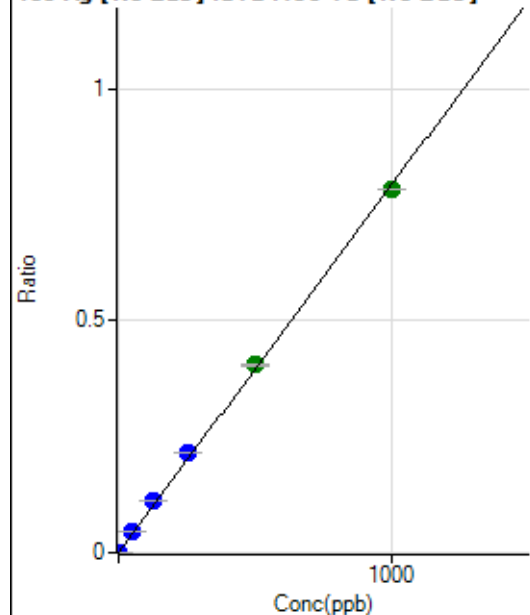
$$y = 1.3988\text{E-}005 * x + 9.1989\text{E-}007$$

$$R = 0.9995$$

$$DL = 0.03039$$

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	30.56	0.0000	P	95.7
2	☐	0.100	0.080	1108.42	0.0001	P	7.8
3	☐	1.000	0.848	11154.79	0.0007	P	1.3
4	☐	50.000	56.941	746773.21	0.0452	P	1.0
5	☐	125.000	140.340	1847467.34	0.1113	P	0.5
6	☐	250.000	272.666	3573279.29	0.2162	P	0.4
7	☐	500.000	510.603	6520894.07	0.4049	A	0.3
8	☐	1000.000	986.767	12935135.79	0.7825	A	0.1
9	☐			1361.24	0.0001	P	5.9

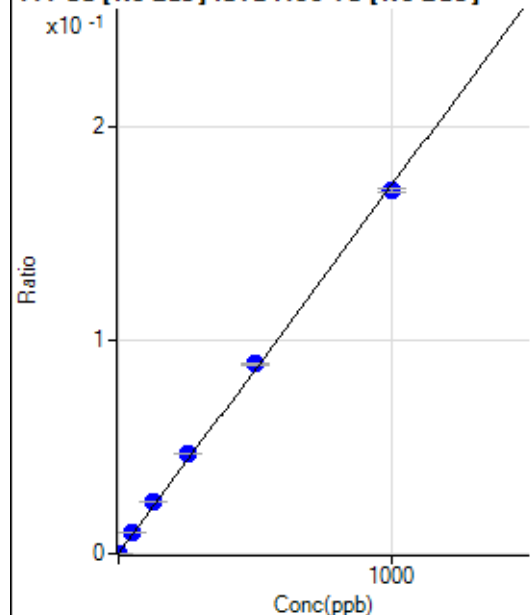
$$y = 7.9301\text{E-}004 * x + 1.8449\text{E-}006$$

$$R = 0.9996$$

$$DL = 0.006678$$

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	1045.10	0.0001	P	2.4
2	☐	0.100	0.068	1259.26	0.0001	P	3.5
3	☐	1.000	1.058	4056.78	0.0002	P	2.9
4	☐	50.000	56.153	161080.20	0.0097	P	0.7
5	☐	125.000	138.911	398443.26	0.0240	P	1.1
6	☐	250.000	271.248	773560.03	0.0468	P	0.4
7	☐	500.000	514.930	1430116.16	0.0888	P	1.2
8	☐	1000.000	985.177	2807657.52	0.1698	P	1.1
9	☐			1821.37	0.0001	P	1.3

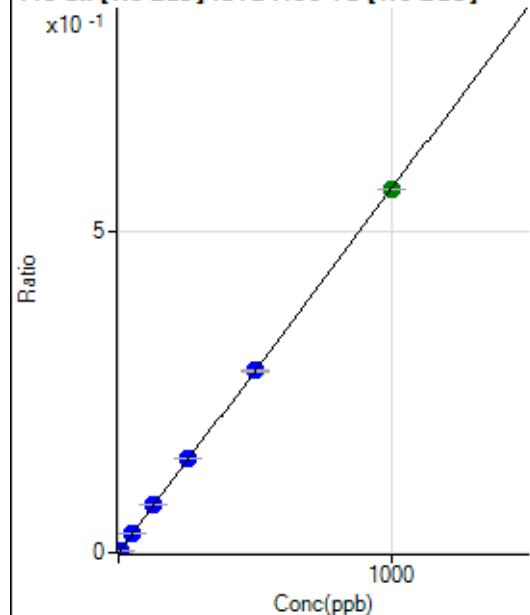
$$y = 1.7234\text{E-}004 * x + 6.2938\text{E-}005$$

$$R = 0.9995$$

$$DL = 0.02593$$

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	505.59	0.0000	P	15.5
2	☐	0.500	0.527	5548.56	0.0003	P	1.4
3	☐	5.000	5.053	47773.73	0.0029	P	3.1
4	☐	50.000	52.798	494497.57	0.0299	P	0.6
5	☐	125.000	132.419	1244137.67	0.0749	P	0.5
6	☐	250.000	259.623	2427827.35	0.1469	P	0.3
7	☐	500.000	499.445	4550945.37	0.2826	P	0.9
8	☐	1000.000	996.804	9322729.89	0.5640	A	0.1
9	☐			22424.20	0.0014	P	0.7

$$y = 5.6576\text{E-}004 * x + 3.0458\text{E-}005$$

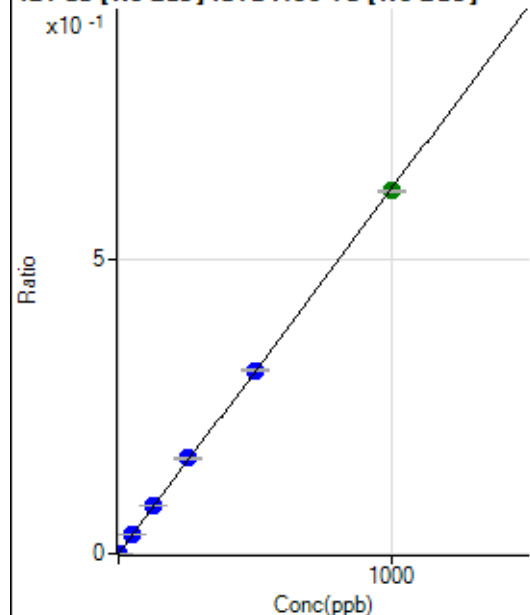
$$R = 0.9999$$

$$DL = 0.0251$$

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	30.56	0.0000	P	16.2
2	☐	0.200	0.190	2016.91	0.0001	P	12.8
3	☐	2.000	1.929	19759.01	0.0012	P	3.0
4	☐	50.000	53.181	544009.61	0.0329	P	0.7
5	☐	125.000	132.767	1363206.86	0.0821	P	0.5
6	☐	250.000	261.045	2668255.20	0.1615	P	0.4
7	☐	500.000	503.164	5011901.98	0.3112	P	0.5
8	☐	1000.000	994.527	10168275.32	0.6151	A	0.2
9	☐			13671.08	0.0008	P	1.7

$$y = 6.1852\text{E-}004 * x + 1.8413\text{E-}006$$

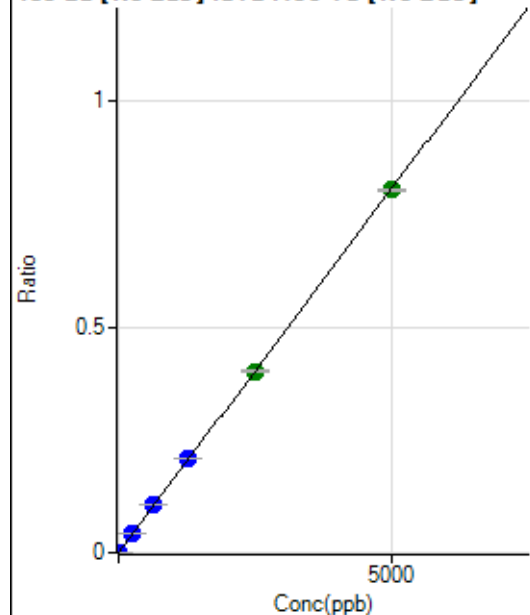
$$R = 0.9999$$

$$DL = 0.001447$$

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	19.44	0.0000	P	65.6
2	☐	1.000	0.957	2625.36	0.0002	P	1.4
3	☐	10.000	9.766	26075.16	0.0016	P	1.3
4	☐	250.000	262.405	700128.13	0.0423	P	0.8
5	☐	625.000	656.829	1759087.15	0.1060	P	0.8
6	☐	1250.000	1296.786	3457349.64	0.2092	P	0.7
7	☐	2500.000	2495.861	6484660.87	0.4027	A	0.1
8	☐	5000.000	4985.774	13296327.90	0.8044	A	0.5
9	☐			2428.09	0.0001	P	2.7

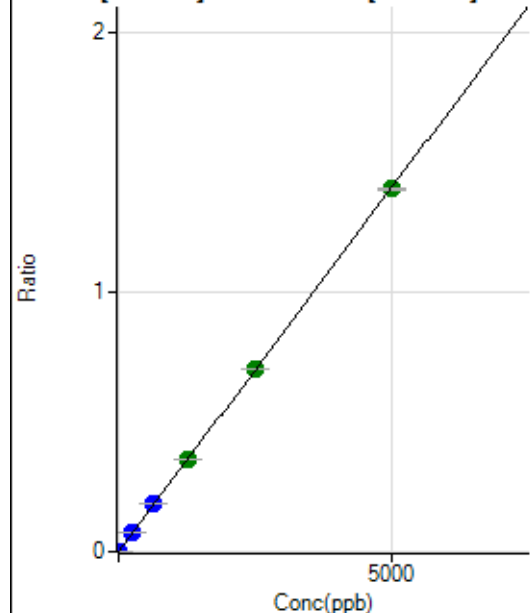
$$y = 1.6133\text{E-}004 * x + 1.1724\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.01429$$

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	27.78	0.0000	P	46.2
2	☐	1.000	0.958	4562.04	0.0003	P	5.3
3	☐	10.000	9.811	45542.19	0.0028	P	0.7
4	☐	250.000	264.217	1225857.13	0.0741	P	1.0
5	☐	625.000	657.738	3063152.52	0.1845	P	0.5
6	☐	1250.000	1277.467	5922526.35	0.3584	A	0.4
7	☐	2500.000	2504.767	11316479.33	0.7027	A	0.2
8	☐	5000.000	4985.947	23122000.34	1.3988	A	0.3
9	☐			4109.13	0.0003	P	7.6

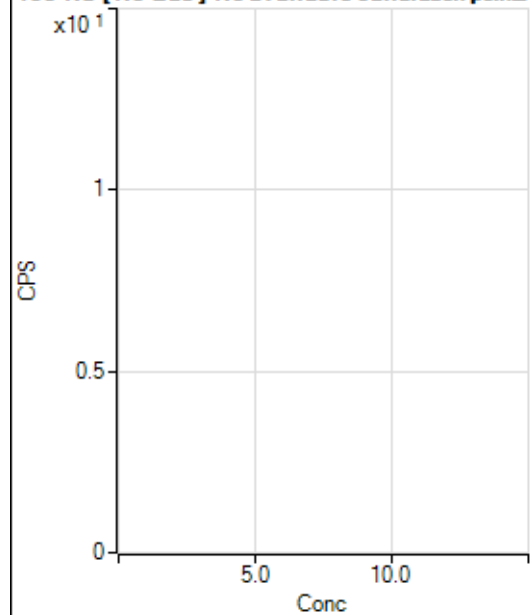
$$y = 2.8055E-004 * x + 1.6745E-006$$

$$R = 1.0000$$

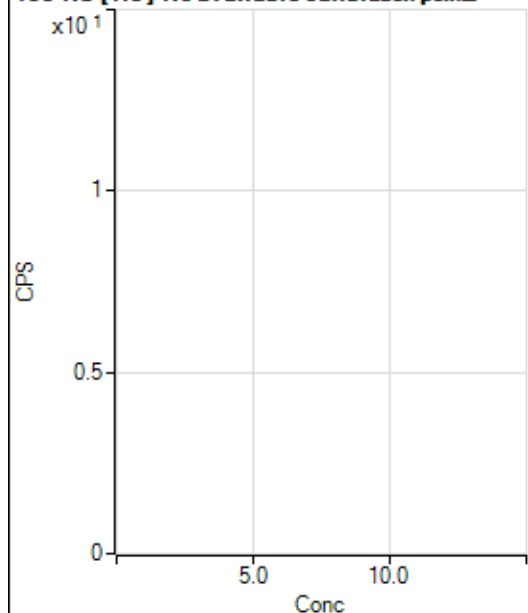
$$DL = 0.008271$$

Weight: <None>

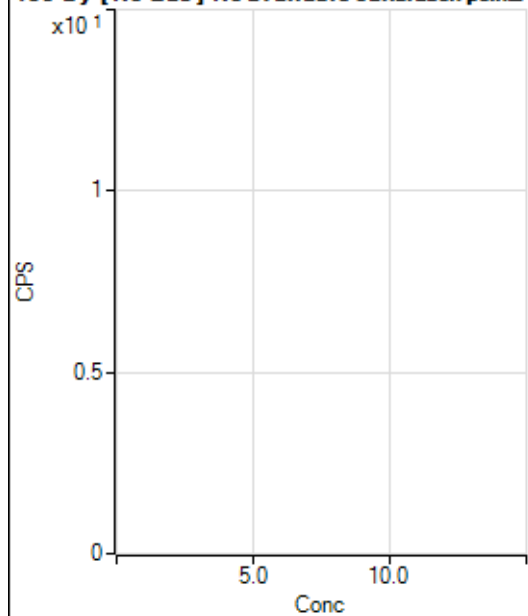
Min Conc: 0

150 Nd [No Gas] No available calibration points

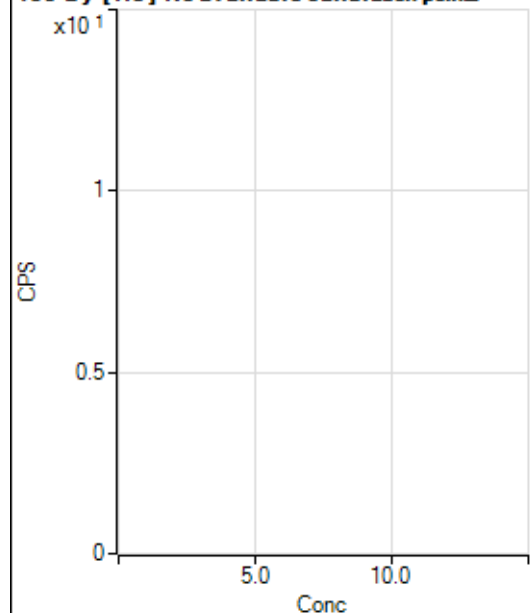
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			2.22		P	173.2
2	☐			4.45		P	86.6
3	☐			0.00		P	
4	☐			88.89		P	31.2
5	☐			137.78		P	7.4
6	☐			311.13		P	19.3
7	☐			624.48		P	13.2
8	☐			1264.54		P	5.2
9	☐			295.57		P	11.4

150 Nd [He] No available calibration points

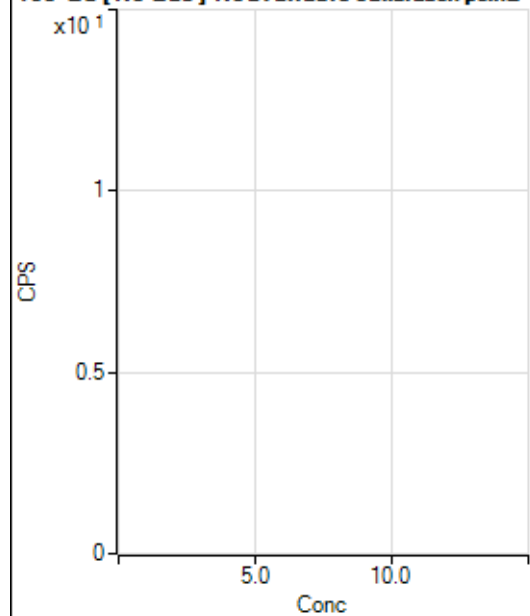
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			1.11		P	173.2
3	☐			1.11		P	173.2
4	☐			5.55		P	69.3
5	☐			14.45		P	48.0
6	☐			34.45		P	20.1
7	☐			47.78		P	35.8
8	☐			106.67		P	14.3
9	☐			96.67		P	9.1

156 Dy [No Gas] No available calibration points

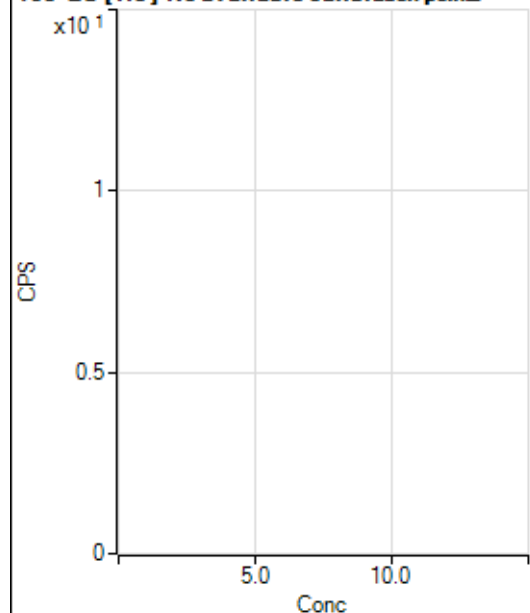
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	114.6
2	☐			5.55		P	86.6
3	☐			5.55		P	86.6
4	☐			11.11		P	43.3
5	☐			41.67		P	87.2
6	☐			86.12		P	24.4
7	☐			150.01		P	14.7
8	☐			283.35		P	7.8
9	☐			252.79		P	18.7

156 Dy [He] No available calibration points

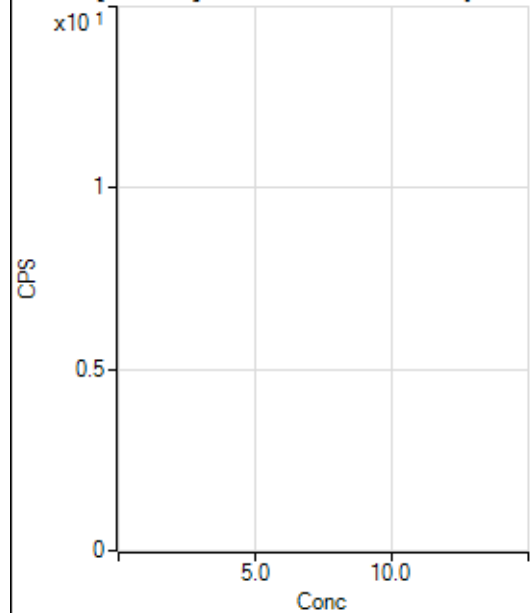
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	69.3
2	☐			4.44		P	114.6
3	☐			5.55		P	124.9
4	☐			16.67		P	40.0
5	☐			27.78		P	30.2
6	☐			80.00		P	23.2
7	☐			128.89		P	9.1
8	☐			255.56		P	2.7
9	☐			114.45		P	16.6

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

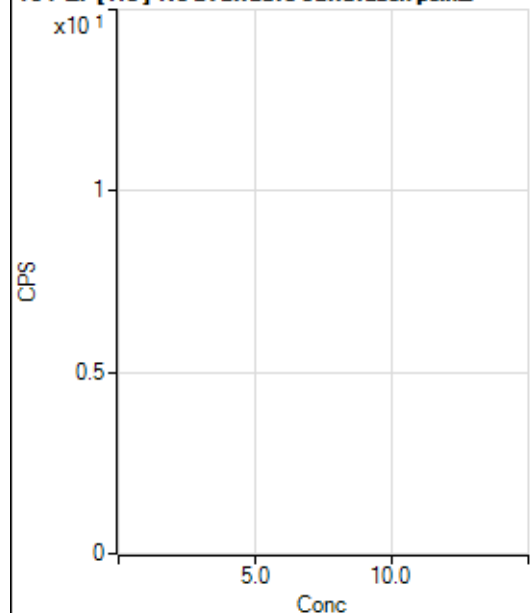
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			72.23		P	26.7
2	☐			69.45		P	18.3
3	☐			66.67		P	21.7
4	☐			94.45		P	27.0
5	☐			97.22		P	21.6
6	☐			77.78		P	60.9
7	☐			83.34		P	10.0
8	☐			125.01		P	46.2
9	☐			147.23		P	3.3

160 Gd [He] No available calibration points

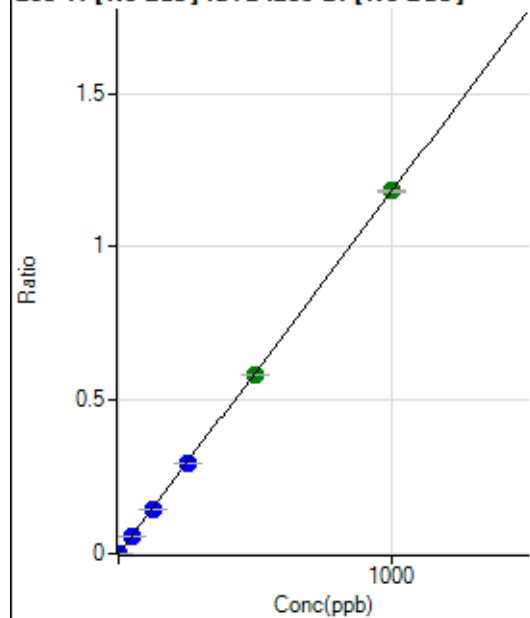
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			206.67		P	16.8
2	☐			197.78		P	15.7
3	☐			216.67		P	3.1
4	☐			178.89		P	13.5
5	☐			214.45		P	10.0
6	☐			197.79		P	6.8
7	☐			201.11		P	6.3
8	☐			235.56		P	10.8
9	☐			217.78		P	2.3

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	57.7
2	☐			52.78		P	48.2
3	☐			63.89		P	7.5
4	☐			66.67		P	50.0
5	☐			58.34		P	37.8
6	☐			47.22		P	81.5
7	☐			72.22		P	6.7
8	☐			77.78		P	50.6
9	☐			108.34		P	23.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			26.66		P	21.7
2	☐			22.22		P	17.3
3	☐			35.55		P	10.8
4	☐			31.11		P	30.9
5	☐			31.11		P	16.4
6	☐			18.89		P	20.4
7	☐			27.78		P	18.3
8	☐			31.11		P	40.6
9	☐			50.00		P	11.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	244.46	0.0000	P	17.5
2	☐	0.100	0.087	1436.25	0.0001	P	4.8
3	☐	1.000	0.889	11978.06	0.0011	P	2.0
4	☐	50.000	48.847	643755.50	0.0576	P	1.0
5	☐	125.000	123.585	1626011.30	0.1458	P	0.6
6	☐	250.000	249.891	3232298.27	0.2947	P	0.7
7	☐	500.000	496.035	6195730.30	0.5850	A	0.1
8	☐	1000.000	1002.244	12530669.55	1.1821	A	0.7
9	☐			12147.73	0.0013	P	5.2

$$y = 0.0012 * x + 2.1382E-005$$

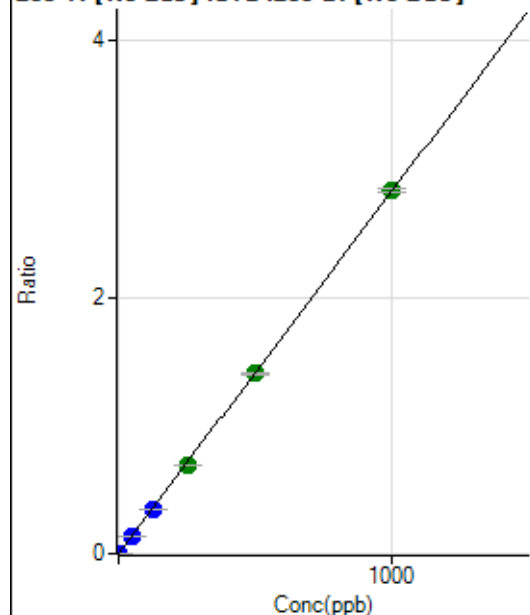
$$R = 1.0000$$

$$DL = 0.009533$$

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	530.59	0.0000	P	16.6
2	☐	0.100	0.087	3353.36	0.0003	P	0.9
3	☐	1.000	0.895	28818.46	0.0026	P	1.2
4	☐	50.000	49.370	1557765.57	0.1395	P	0.6
5	☐	125.000	123.973	3905172.53	0.3501	P	0.0
6	☐	250.000	246.398	7630839.49	0.6958	A	0.4
7	☐	500.000	497.020	14863608.15	1.4035	A	0.1
8	☐	1000.000	1002.550	30010160.74	2.8310	A	1.0
9	☐			29333.35	0.0031	P	1.0

$$y = 0.0028 * x + 4.6357E-005$$

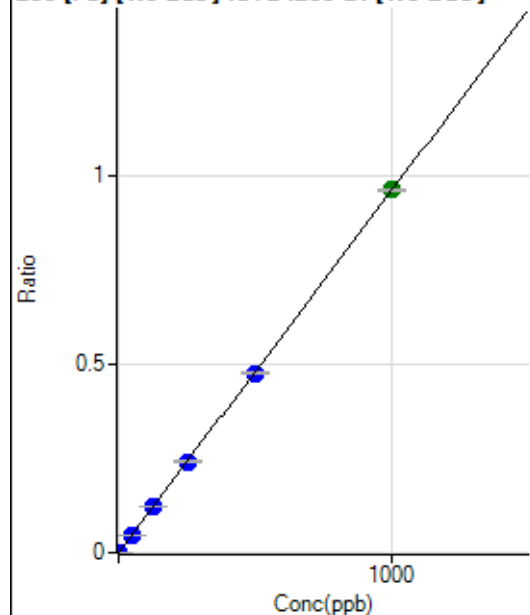
$$R = 1.0000$$

$$DL = 0.008189$$

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	322.24	0.0000	P	13.9
2	☐	0.100	0.092	1340.84	0.0001	P	2.2
3	☐	1.000	0.915	10167.11	0.0009	P	2.7
4	☐	50.000	49.401	531253.30	0.0476	P	0.8
5	☐	125.000	125.171	1343636.44	0.1205	P	0.1
6	☐	250.000	252.101	2660426.22	0.2426	P	0.3
7	☐	500.000	494.622	5040154.86	0.4759	P	0.8
8	☐	1000.000	1002.173	10221920.60	0.9643	A	0.9
9	☐			52591.34	0.0056	P	0.1

$$y = 9.6217E-004 * x + 2.8182E-005$$

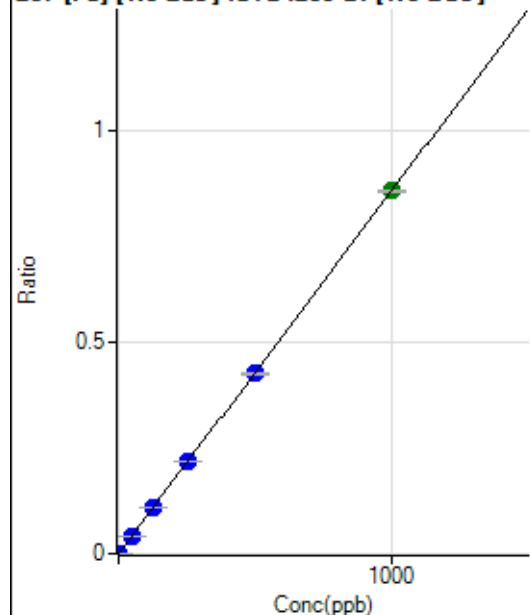
$$R = 1.0000$$

$$DL = 0.01223$$

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	279.64	0.0000	P	14.0
2	☐	0.100	0.088	1155.64	0.0001	P	1.8
3	☐	1.000	0.876	8677.14	0.0008	P	2.7
4	☐	50.000	49.379	472885.69	0.0423	P	0.3
5	☐	125.000	125.324	1198012.24	0.1074	P	0.2
6	☐	250.000	253.168	2379236.48	0.2170	P	0.3
7	☐	500.000	497.745	4516734.91	0.4265	P	1.1
8	☐	1000.000	1000.326	9086328.33	0.8572	A	0.6
9	☐			43488.33	0.0046	P	1.1

$$y = 8.5685\text{E-}004 * x + 2.4438\text{E-}005$$

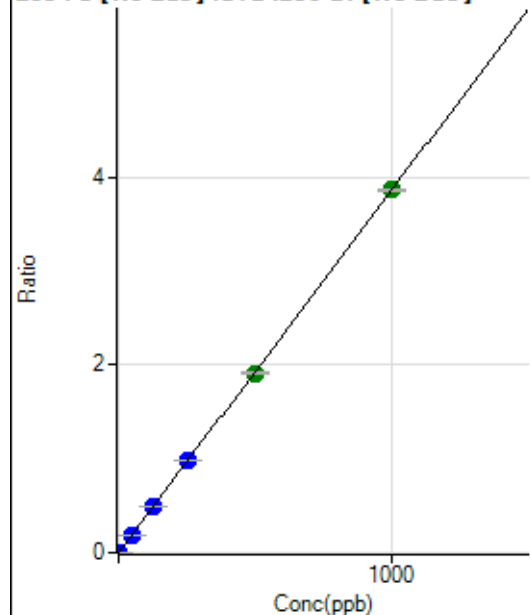
$$R = 1.0000$$

$$DL = 0.01199$$

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	1275.99	0.0001	P	6.2
2	☐	0.100	0.091	5328.36	0.0005	P	1.3
3	☐	1.000	0.887	39575.73	0.0035	P	0.8
4	☐	50.000	49.428	2131679.85	0.1908	P	0.4
5	☐	125.000	125.193	5389431.32	0.4832	P	0.3
6	☐	250.000	252.888	10702539.74	0.9759	P	0.4
7	☐	500.000	495.355	20242913.96	1.9115	A	0.5
8	☐	1000.000	1001.605	40971177.88	3.8650	A	0.5
9	☐			204069.08	0.0218	P	0.7

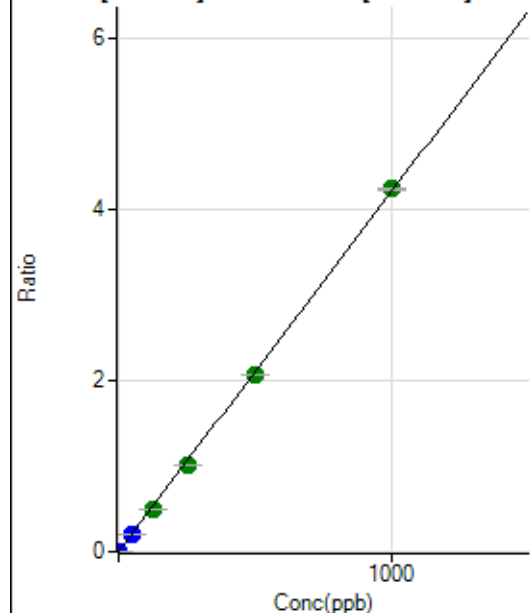
$$y = 0.0039 * x + 1.1155\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.00542$$

Weight: <None>

Min Conc: 0

²³²Th [No Gas] ISTD :²⁰⁹Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	127.78	0.0000	P	15.2
2	☐	0.100	0.088	4391.61	0.0004	P	3.8
3	☐	1.000	0.848	40101.14	0.0036	P	0.6
4	☐	50.000	46.503	2188485.68	0.1959	P	1.0
5	☐	125.000	117.345	5514093.29	0.4944	A	0.4
6	☐	250.000	239.771	11077962.52	1.0101	A	0.2
7	☐	500.000	492.854	21988802.81	2.0764	A	0.0
8	☐	1000.000	1007.262	44984528.78	4.2435	A	0.2
9	☐			7222.58	0.0008	P	3.5

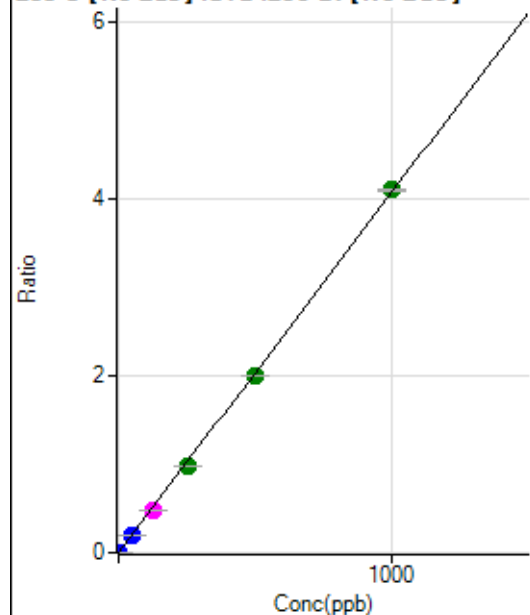
$$y = 0.0042 * x + 1.1165E-005$$

$$R = 0.9999$$

$$DL = 0.001207$$

Weight: <None>

Min Conc: 0

²³⁸U [No Gas] ISTD :²⁰⁹Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	72.23	0.0000	P	40.8
2	☐	0.100	0.081	3859.10	0.0003	P	3.8
3	☐	1.000	0.844	38466.79	0.0034	P	1.9
4	☐	50.000	46.789	2123309.03	0.1901	P	1.1
5	☐	125.000	118.345	5362568.04	0.4808	M	1.3
6	☐	250.000	240.142	10698934.09	0.9756	A	0.3
7	☐	500.000	491.156	21130793.35	1.9953	A	0.1
8	☐	1000.000	1007.879	43404652.01	4.0945	A	0.6
9	☐			3686.81	0.0004	P	4.9

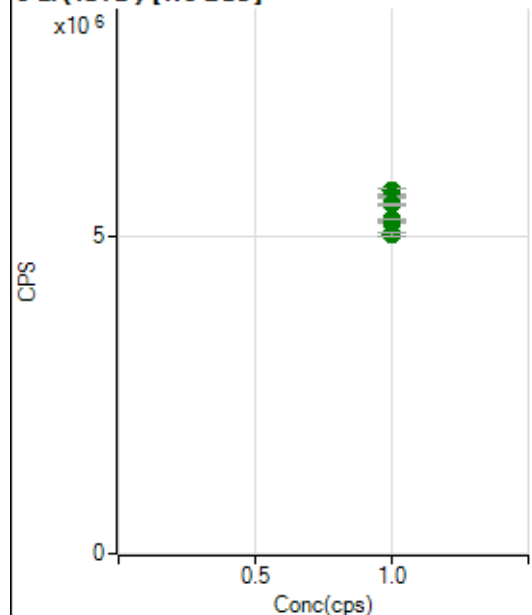
$$y = 0.0041 * x + 6.3170E-006$$

$$R = 0.9999$$

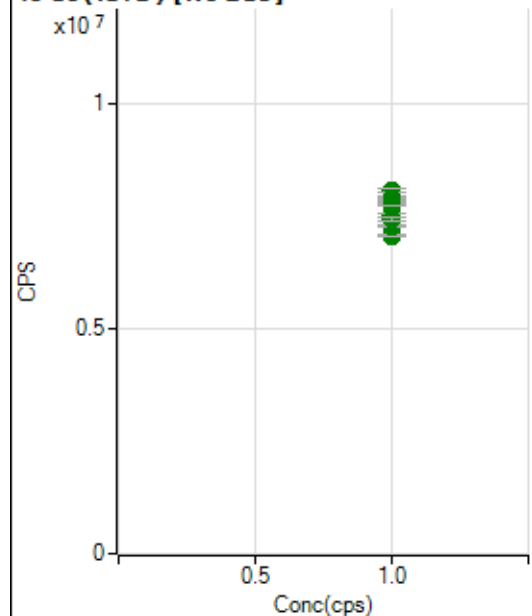
$$DL = 0.001902$$

Weight: <None>

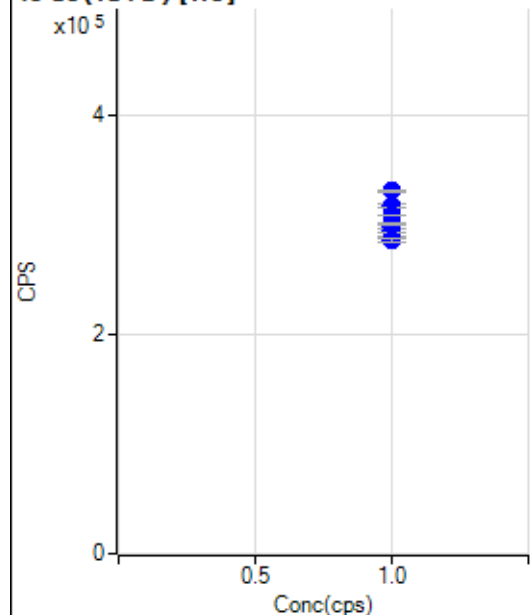
Min Conc: 0

6 Li (ISTD) [No Gas]

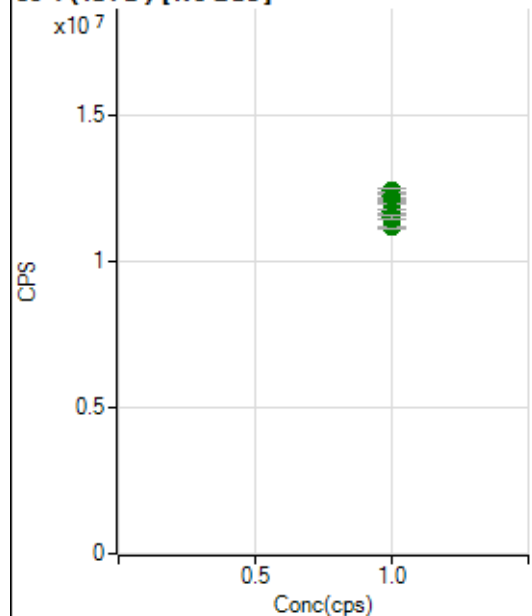
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5674625.88		A	0.6
2	☐	1.000		5733577.62		A	1.5
3	☐	1.000		5657882.41		A	0.3
4	☐	1.000		5639820.20		A	0.4
5	☐	1.000		5624947.28		A	0.6
6	☐	1.000		5516575.05		A	0.5
7	☐	1.000		5240971.03		A	0.8
8	☐	1.000		5286905.62		A	0.1
9	☐	1.000		5047922.39		A	0.7

45 Sc (ISTD) [No Gas]

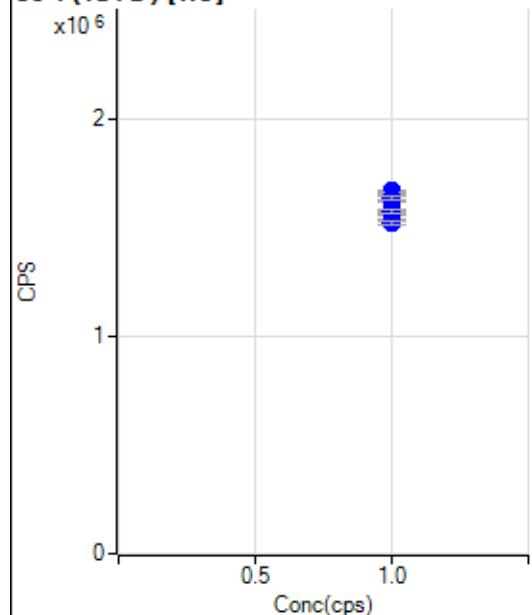
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7895199.22		A	0.7
2	☐	1.000		8055303.22		A	1.1
3	☐	1.000		7879024.31		A	0.5
4	☐	1.000		7808326.13		A	0.4
5	☐	1.000		7732145.22		A	0.3
6	☐	1.000		7507150.95		A	1.1
7	☐	1.000		7060650.33		A	0.9
8	☐	1.000		7262803.81		A	0.5
9	☐	1.000		7428193.92		A	1.4

45 Sc (ISTD) [He]

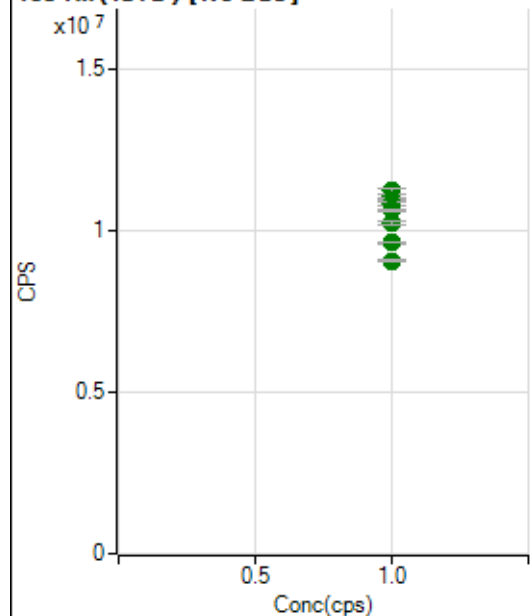
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		316308.93		P	0.1
2	☐	1.000		299592.25		P	6.3
3	☐	1.000		318430.70		P	0.9
4	☐	1.000		316938.62		P	0.1
5	☐	1.000		309076.49		P	0.2
6	☐	1.000		295814.06		P	1.4
7	☐	1.000		286319.64		P	1.0
8	☐	1.000		301286.74		P	0.7
9	☐	1.000		331578.94		P	0.7

89 Y (ISTD) [No Gas]

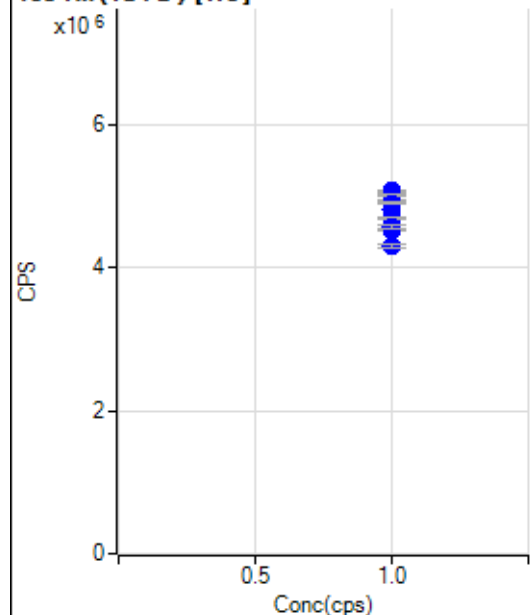
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12233654.68		A	0.8
2	☐	1.000		12419613.15		A	1.1
3	☐	1.000		12161237.32		A	0.4
4	☐	1.000		12095206.62		A	0.7
5	☐	1.000		11988908.99		A	0.4
6	☐	1.000		11698624.55		A	1.4
7	☐	1.000		11170028.44		A	0.5
8	☐	1.000		11469447.33		A	0.2
9	☐	1.000		11548297.74		A	1.1

89 Y (ISTD) [He]

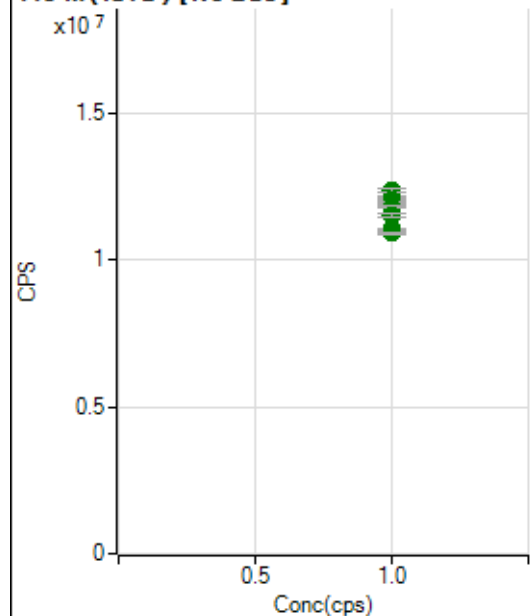
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1651463.32		P	0.3
2	☐	1.000		1579153.14		P	5.5
3	☐	1.000		1668626.66		P	0.7
4	☐	1.000		1658062.48		P	0.1
5	☐	1.000		1627571.22		P	0.1
6	☐	1.000		1566461.73		P	1.1
7	☐	1.000		1524487.96		P	1.2
8	☐	1.000		1577989.63		P	1.2
9	☐	1.000		1638430.93		P	1.2

103 Rh (ISTD) [No Gas]

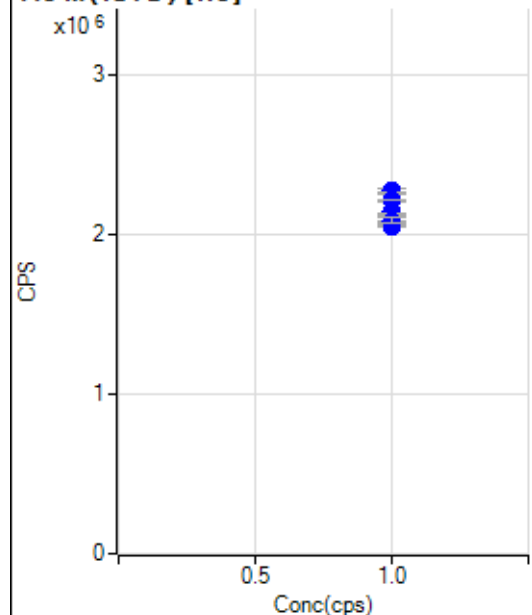
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		11078196.43		A	0.9
2	☐	1.000		11236073.86		A	1.5
3	☐	1.000		10980592.43		A	0.7
4	☐	1.000		10827741.30		A	1.2
5	☐	1.000		10633044.07		A	0.1
6	☐	1.000		10215868.46		A	1.2
7	☐	1.000		9638039.19		A	0.6
8	☐	1.000		9631426.34		A	0.1
9	☐	1.000		9076352.28		A	0.9

103 Rh (ISTD) [He]

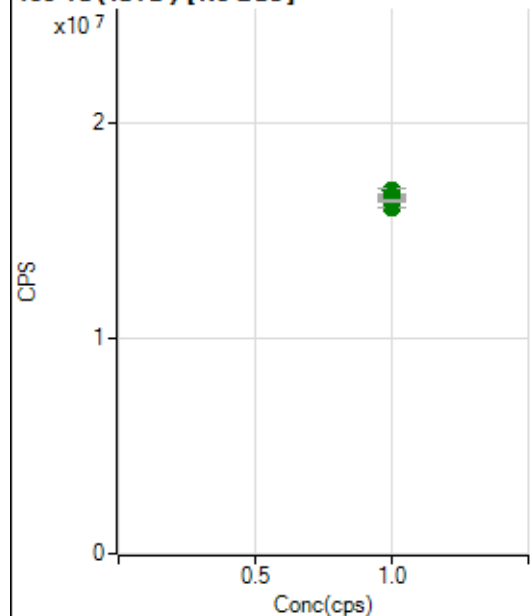
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		5037337.98		P	0.5
2	☐	1.000		4802981.24		P	5.8
3	☐	1.000		5070818.26		P	0.8
4	☐	1.000		5021550.06		P	0.4
5	☐	1.000		4901945.24		P	0.4
6	☐	1.000		4694673.40		P	0.9
7	☐	1.000		4526932.12		P	1.1
8	☐	1.000		4569445.76		P	1.1
9	☐	1.000		4290859.10		P	1.4

115 In (ISTD) [No Gas]

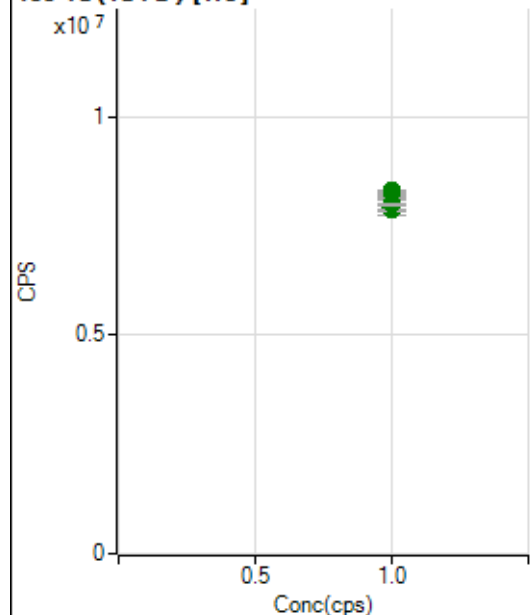
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		12179848.18		A	0.6
2	☐	1.000		12359643.52		A	1.2
3	☐	1.000		12060849.96		A	0.2
4	☐	1.000		11973431.90		A	0.8
5	☐	1.000		11806801.36		A	0.5
6	☐	1.000		11544071.20		A	0.8
7	☐	1.000		10975374.91		A	0.4
8	☐	1.000		11056982.01		A	0.5
9	☐	1.000		10918574.64		A	0.8

115 In (ISTD) [He]

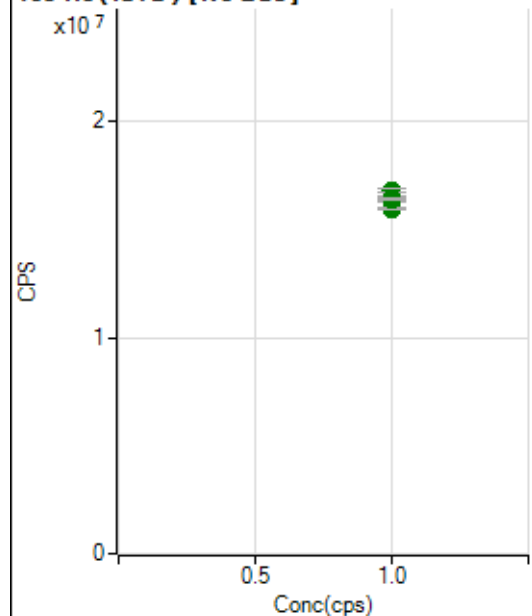
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2247179.49		P	0.3
2	☐	1.000		2144482.50		P	5.8
3	☐	1.000		2269538.95		P	1.1
4	☐	1.000		2256380.82		P	0.4
5	☐	1.000		2213311.43		P	0.3
6	☐	1.000		2121511.53		P	0.9
7	☐	1.000		2050242.97		P	1.1
8	☐	1.000		2071217.79		P	1.2
9	☐	1.000		2083291.17		P	1.7

159 Tb (ISTD) [No Gas]

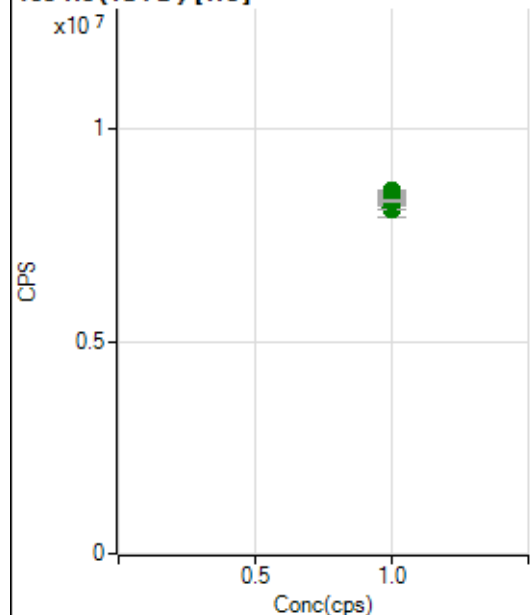
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16604014.20		A	0.5
2	☐	1.000		16878595.16		A	1.3
3	☐	1.000		16536924.34		A	0.4
4	☐	1.000		16537896.28		A	0.6
5	☐	1.000		16600156.70		A	0.4
6	☐	1.000		16525545.45		A	0.6
7	☐	1.000		16104260.04		A	0.3
8	☐	1.000		16530098.09		A	0.3
9	☐	1.000		16381972.39		A	0.7

159 Tb (ISTD) [He]

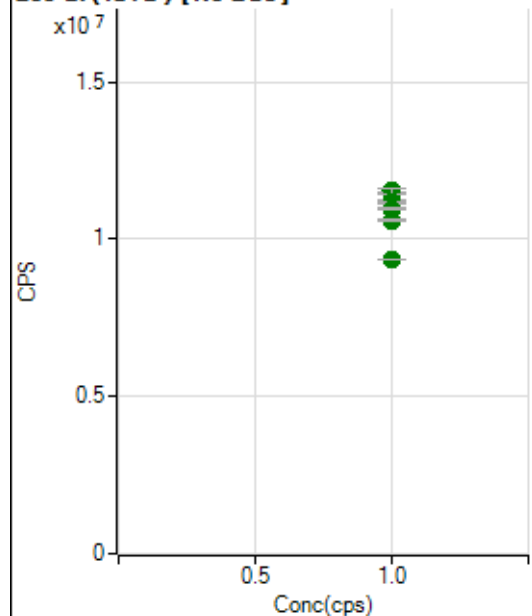
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8309760.43		A	0.4
2	☐	1.000		7925834.26		A	4.4
3	☐	1.000		8267066.34		A	0.8
4	☐	1.000		8202811.96		A	0.6
5	☐	1.000		8143754.67		A	0.5
6	☐	1.000		7983093.07		A	0.5
7	☐	1.000		7872134.81		A	0.5
8	☐	1.000		8026429.60		A	0.3
9	☐	1.000		8006141.89		A	0.5

165 Ho (ISTD) [No Gas]

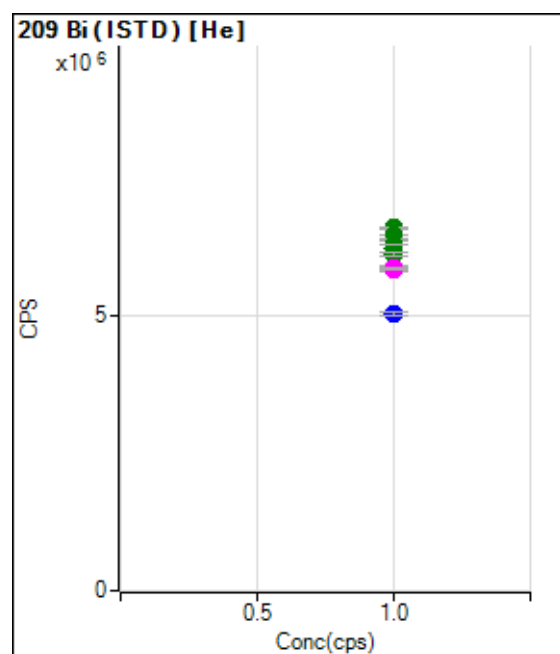
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		16465222.77		A	0.9
2	☐	1.000		16775155.06		A	1.1
3	☐	1.000		16315325.71		A	0.7
4	☐	1.000		16364062.69		A	0.4
5	☐	1.000		16436916.34		A	0.3
6	☐	1.000		16311856.62		A	0.8
7	☐	1.000		15958672.75		A	0.1
8	☐	1.000		16462101.24		A	0.3
9	☐	1.000		16387777.45		A	0.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8544283.41		A	0.5
2	☐	1.000		8142712.38		A	5.0
3	☐	1.000		8480222.93		A	0.7
4	☐	1.000		8446165.85		A	0.2
5	☐	1.000		8408649.87		A	0.5
6	☐	1.000		8234348.00		A	0.6
7	☐	1.000		8121921.27		A	0.0
8	☐	1.000		8340784.53		A	0.4
9	☐	1.000		8299565.02		A	0.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		11438472.47		A	0.6
2	☐	1.000		11529847.05		A	1.5
3	☐	1.000		11196335.67		A	0.7
4	☐	1.000		11170114.55		A	0.0
5	☐	1.000		11153810.53		A	0.3
6	☐	1.000		10966810.05		A	0.7
7	☐	1.000		10590118.11		A	0.4
8	☐	1.000		10600897.06		A	0.7
9	☐	1.000		9358545.35		A	0.3



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		6608896.84		A	0.3
2	☐	1.000		6230552.48		A	4.4
3	☐	1.000		6480680.25		A	0.5
4	☐	1.000		6392938.65		A	0.5
5	☐	1.000		6308745.88		A	0.2
6	☐	1.000		6119913.52		A	1.0
7	☐	1.000		5868564.36		M	1.3
8	☐	1.000		5866161.65		M	1.1
9	☐	1.000		5037869.78		P	1.2

US EPA Tune Check Sample Report

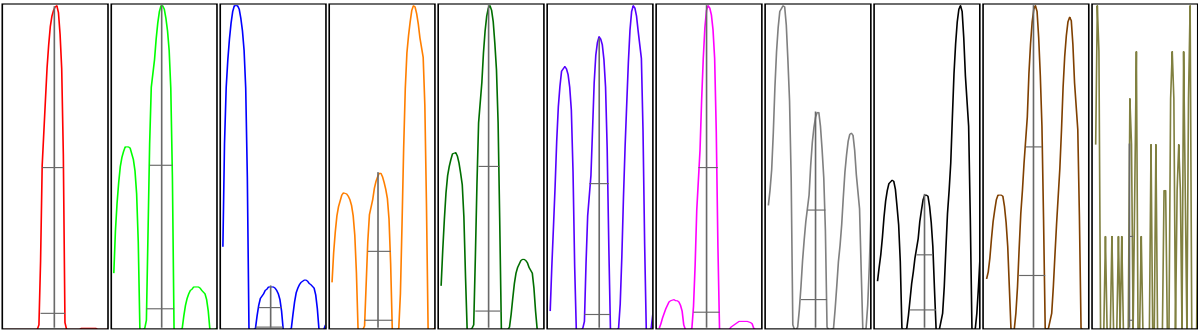
Batch Folder D:\ICP-MS Data\P7120218MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	13671	0.32	5.00	
24	110394	0.56	5.00	
25	14495	0.63	5.00	
26	16639	0.58	5.00	
59	81986	0.51	5.00	
113	11455	1.04	5.00	
115	139650	1.68	5.00	
206	36711	0.64	5.00	
207	34967	0.70	5.00	
208	79562	0.26	5.00	
220	0	37.27		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	13602	13668	13668	13707	13712
24	109682	109891	110398	110830	111170
25	14404	14427	14501	14503	14639
26	16514	16656	16602	16642	16781
59	81289	81921	82327	82263	82130
113	11565	11557	11498	11314	11343
115	141812	141757	140174	138015	136490
206	36373	36654	36720	36786	37022
207	34683	34863	35069	34894	35327
208	79216	79547	79709	79719	79617
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	23766	9.00	8.9 - 9.1		0.738	0.900	
24	177658	23.95	23.9 - 24.1		0.787	0.900	
25	23483	24.95	24.9 - 25.1		0.787	0.900	
26	26966	25.90	25.9 - 26.1		0.786	0.900	
59	142278	58.95	58.9 - 59.1		0.781	0.900	
113	22052	113.00	112.9 - 113.1		0.735	0.900	
115	271243	114.95	114.9 - 115.1		0.754	0.900	
206	68358	205.95	205.9 - 206.1		0.762	0.900	
207	61819	206.95	206.9 - 207.1		0.759	0.900	
208	148507	207.95	207.9 - 208.1		0.761	0.900	
220	0	219.60	-		0.146		

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.2	V	Deflect	13.8	V
Extract 2	-95.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	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	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	19340	0.56	
89	25849	0.78	
205	32237	0.55	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	19421	19371	19406	19154	19348
89	26075	26003	25839	25568	25762
205	32377	32406	32296	31995	32113

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.1	V	Deflect	1.4	V
Extract 2	-115.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	V	Cell Exit	-60	V			

Cell Parameters

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