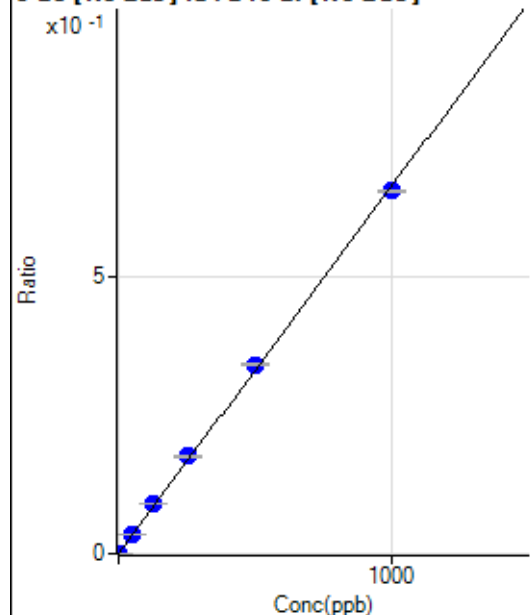


Batch Folder: D:\ICP-MS Data\P7121818 MS.b\
Analysis File: P7121818 MS.batch.bin
DA Date-Time: 2018-12-19 00:30:30
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-12-18 12:49:51
2			
3	005CALS.d	S02	2018-12-18 12:58:17
4	006CALS.d	S03	2018-12-18 13:02:12
5	007CALS.d	S04	2018-12-18 13:06:21
6	008CALS.d	S05	2018-12-18 13:10:09
7	009CALS.d	S06	2018-12-18 13:13:53
8	012CALS.d	S07	2018-12-18 13:25:12
9	013CALS.d	S08	2018-12-18 13:28:57

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	31.48	0.0000	P	20.3
2	☐	0.100					
3	☐	1.000	0.992	4185.87	0.0007	P	1.6
4	☐	50.000	53.751	220394.57	0.0357	P	0.4
5	☐	125.000	135.441	511133.08	0.0899	P	0.6
6	☐	250.000	264.887	905116.98	0.1757	P	0.5
7	☐	500.000	514.042	1710005.48	0.3410	P	0.7
8	☐	1000.000	987.764	3727868.05	0.6553	P	0.8
9	☐			664.85	0.0001	P	8.0

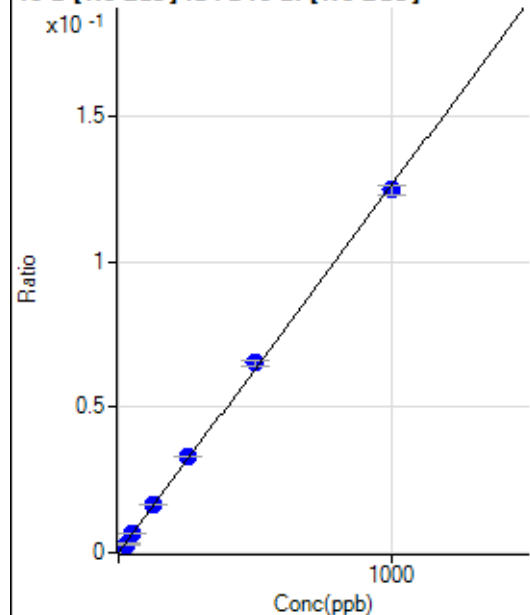
$$y = 6.6343\text{E-}004 * x + 5.1306\text{E-}006$$

$$R = 0.9997$$

$$DL = 0.004708$$

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	247.23	0.0000	P	21.9
2	☐	2.500					
3	☐	25.000	23.237	18748.49	0.0030	P	1.5
4	☐	50.000	51.090	40048.30	0.0065	P	0.8
5	☐	125.000	130.308	93652.99	0.0165	P	1.8
6	☐	250.000	262.234	170455.88	0.0331	P	1.4
7	☐	500.000	517.056	327025.89	0.0652	P	2.9
8	☐	1000.000	987.740	708499.16	0.1246	P	3.0
9	☐			20194.72	0.0038	P	9.7

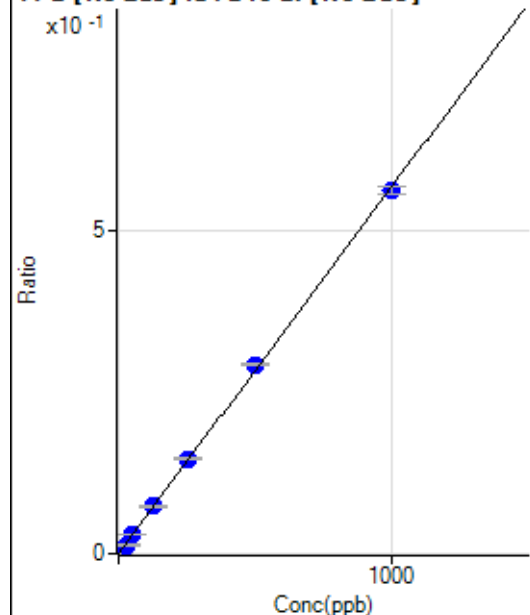
$$y = 1.2606\text{E-}004 * x + 4.0292\text{E-}005$$

$$R = 0.9997$$

$$DL = 0.2096$$

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	1272.34	0.0002	P	7.2
2	☐	2.500					
3	☐	25.000	23.145	84126.09	0.0133	P	2.8
4	☐	50.000	51.117	180292.62	0.0292	P	3.2
5	☐	125.000	129.613	418934.41	0.0737	P	2.2
6	☐	250.000	258.264	754860.12	0.1466	P	2.0
7	☐	500.000	515.464	1465856.35	0.2923	P	1.5
8	☐	1000.000	989.616	3191542.85	0.5611	P	2.0
9	☐			89796.04	0.0167	P	10.5

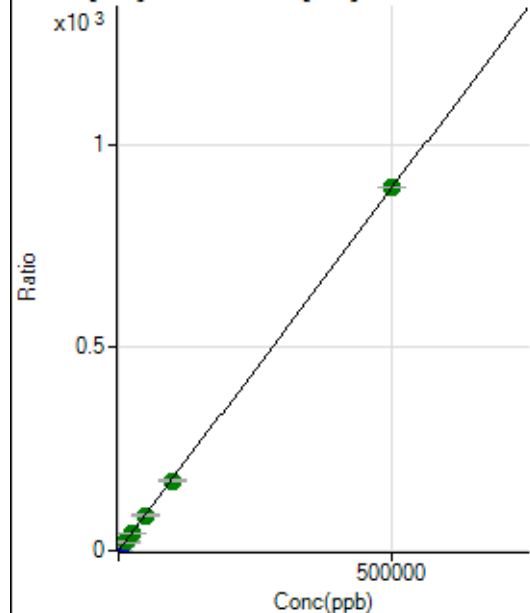
$$y = 5.6674\text{E-}004 * x + 2.0736\text{E-}004$$

$$R = 0.9998$$

$$DL = 0.07917$$

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	7299.30	0.0174	P	5.0
2	☐	50.000					
3	☐	500.000	427.918	340332.51	0.7806	P	2.2
4	☐	5000.000	4782.262	3441906.72	8.5467	P	0.5
5	☐	12500.000	11960.924	7861033.42	21.3499	A	4.2
6	☐	25000.000	24799.184	14737646.51	44.2472	A	0.2
7	☐	50000.000	49094.107	29146279.13	87.5777	A	0.7
8	☐	100000.00	96770.203	65104392.43	172.6089	A	0.6
9	☐	500000.00	500762.31	339879782.5	893.1365	A	0.1

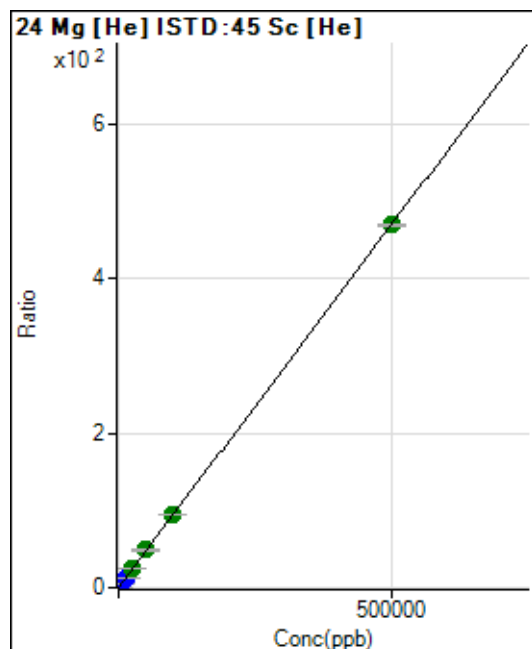
$$y = 0.0018 * x + 0.0174$$

$$R = 1.0000$$

$$DL = 1.459$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	113.89	0.0003	P	14.8
2	☐	50.000					
3	☐	500.000	447.735	183736.11	0.4215	P	3.6
4	☐	5000.000	5074.248	1922778.49	4.7745	P	0.7
5	☐	12500.000	12740.922	4413217.33	11.9878	P	4.6
6	☐	25000.000	26250.064	8226312.60	24.6980	A	0.2
7	☐	50000.000	51666.916	16178446.71	48.6119	A	0.5
8	☐	100000.00	100514.21	35670037.26	94.5706	A	0.6
9	☐	500000.00	499661.24	178896674.8	470.1139	A	0.6

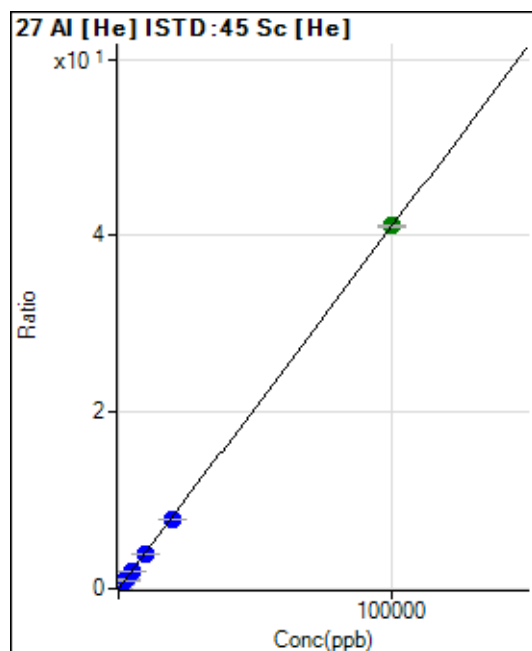
$$y = 9.4086\text{E-}004 * x + 2.7140\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.1284$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	36.11	0.0001	P	36.1
2	☐	2.000					
3	☐	20.000	17.637	3189.36	0.0073	P	6.4
4	☐	1000.000	959.192	158418.81	0.3934	P	1.1
5	☐	2500.000	2394.616	361532.35	0.9819	P	4.3
6	☐	5000.000	4889.511	667775.52	2.0049	P	0.4
7	☐	10000.000	9644.565	1316027.55	3.9545	P	1.4
8	☐	20000.000	19004.763	2939162.76	7.7924	P	0.3
9	☐	100000.00	100243.15	15640748.27	41.1016	A	0.7

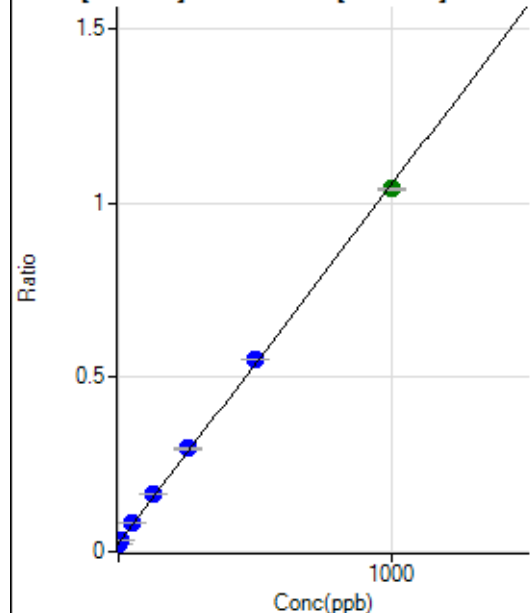
$$y = 4.1002\text{E-}004 * x + 8.6232\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.2277$$

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	246935.82	0.0240	P	1.2
2	☐	1.000					
3	☐	10.000	8.956	348666.71	0.0332	P	0.6
4	☐	50.000	55.173	815942.46	0.0808	P	0.5
5	☐	125.000	136.438	1520405.10	0.1645	P	0.2
6	☐	250.000	263.581	2473873.86	0.2954	P	0.5
7	☐	500.000	514.007	4506724.45	0.5533	P	0.1
8	☐	1000.000	987.923	9578876.69	1.0412	A	0.3
9	☐			679391.69	0.0765	P	1.0

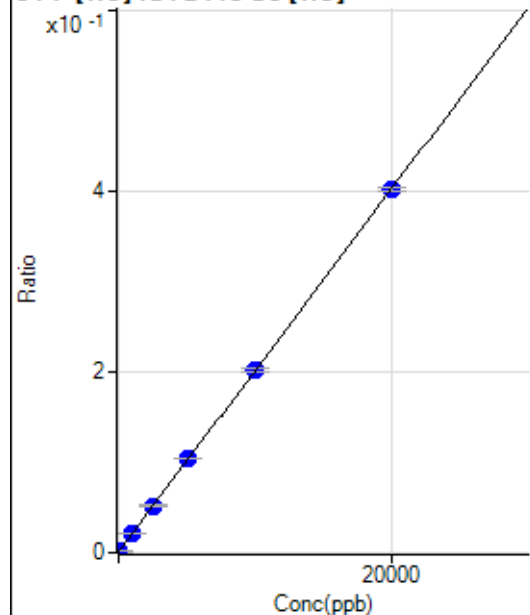
$$y = 0.0010 * x + 0.0240$$

$$R = 0.9997$$

$$DL = 0.8293$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-24.818	127.79	0.0003	P	17.2
2	☐	0.000					
3	☐	0.000	24.818	569.48	0.0013	P	16.1
4	☐	1000.000	1026.163	8627.82	0.0214	P	3.6
5	☐	2500.000	2553.006	19174.22	0.0521	P	5.5
6	☐	5000.000	5150.660	34735.81	0.1043	P	1.5
7	☐	10000.000	10001.754	67140.57	0.2018	P	2.0
8	☐	20000.000	19953.524	151510.15	0.4017	P	1.1
9	☐			277.79	0.0007	P	22.8

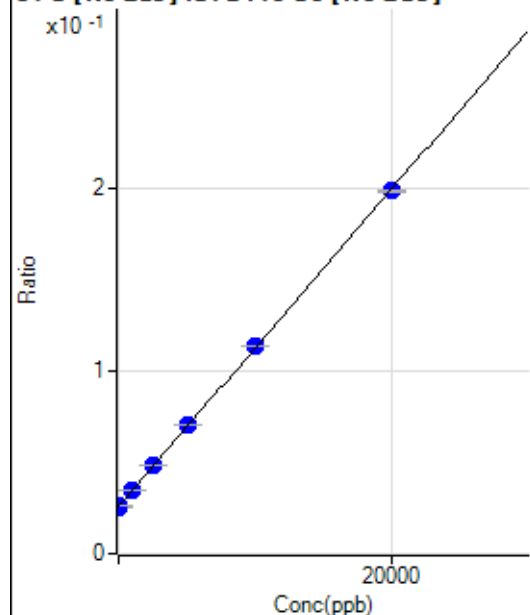
$$y = 2.0092E-005 * x + 8.0351E-004$$

$$R = 1.0000$$

$$DL = 19.53$$

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	-21.573	263497.98	0.0256	P	0.3
2	☐	0.000					
3	☐	0.000	21.573	272627.55	0.0260	P	0.8
4	☐	1000.000	1015.390	349174.04	0.0346	P	0.5
5	☐	2500.000	2648.330	450389.02	0.0487	P	0.4
6	☐	5000.000	5115.935	587164.84	0.0701	P	0.5
7	☐	10000.000	10128.752	924921.89	0.1135	P	0.2
8	☐	20000.000	19887.329	1822485.83	0.1981	P	0.2
9	☐			236472.49	0.0266	P	1.4

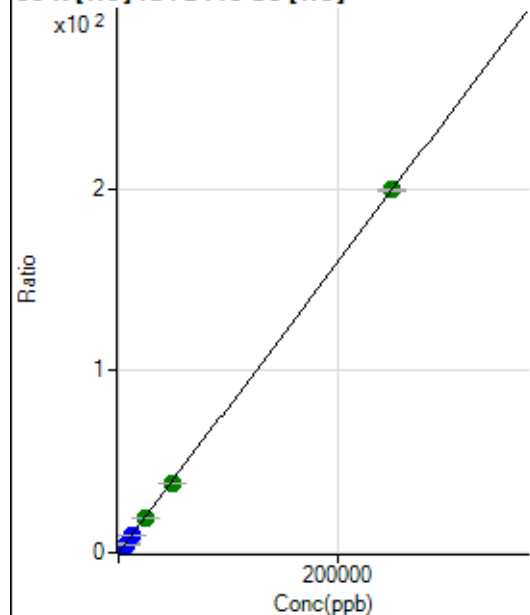
$$y = 8.6655\text{E-}006 * x + 0.0258$$

$$R = 0.9999$$

$$DL = 50.94$$

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	13979.39	0.0333	P	2.1
2	☐	50.000					
3	☐	500.000	433.933	165113.98	0.3788	P	3.9
4	☐	2500.000	2386.891	778782.04	1.9338	P	1.0
5	☐	6250.000	5913.433	1745629.64	4.7417	P	4.7
6	☐	12500.000	12172.885	3239374.22	9.7256	P	0.2
7	☐	25000.000	24095.756	6396218.67	19.2189	A	0.5
8	☐	50000.000	47852.272	14383359.00	38.1343	A	0.8
9	☐	250000.00	250546.00	75927098.92	199.5233	A	0.6

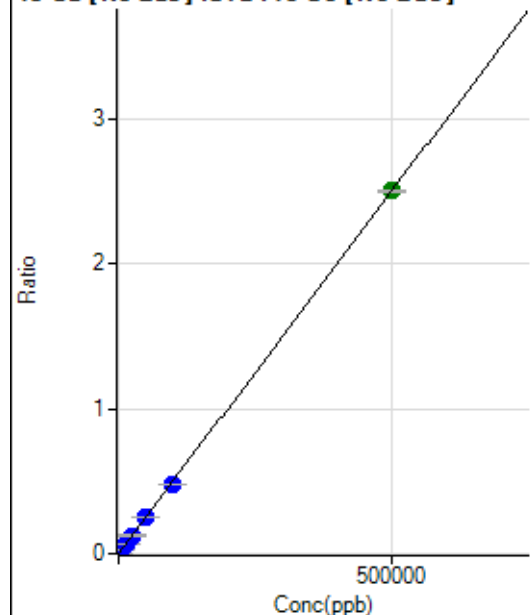
$$y = 7.9622\text{E-}004 * x + 0.0333$$

$$R = 1.0000$$

$$DL = 2.678$$

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	172.23	0.0000	P	12.1
2	☐	50.000					
3	☐	500.000	451.955	23883.93	0.0023	P	2.5
4	☐	5000.000	4892.415	246999.42	0.0245	P	0.5
5	☐	12500.000	12622.841	583043.70	0.0631	P	0.5
6	☐	25000.000	25184.470	1053783.92	0.1258	P	0.4
7	☐	50000.000	49844.570	2028428.33	0.2490	P	0.4
8	☐	100000.00	96478.578	4433868.16	0.4820	P	0.5
9	☐	500000.00	500708.65	22223956.23	2.5013	A	0.6

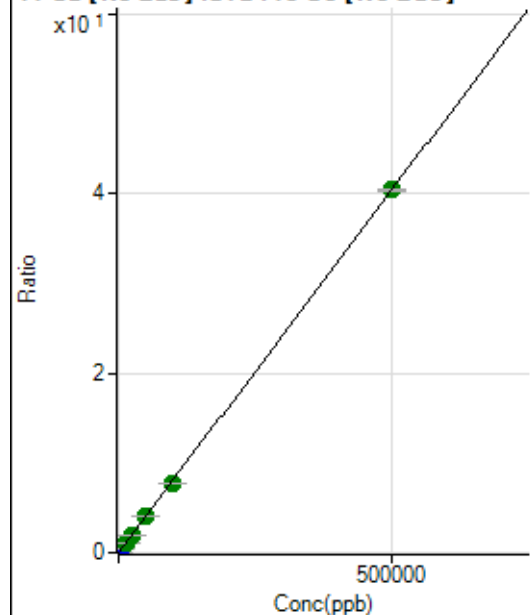
$$y = 4.9955\text{E-}006 * x + 1.6724\text{E-}005$$

$$R = 1.0000$$

$$DL = 1.214$$

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	9657.23	0.0009	P	0.3
2	☐	50.000					
3	☐	500.000	441.698	384489.43	0.0366	P	0.9
4	☐	5000.000	4889.624	3997966.50	0.3959	P	0.3
5	☐	12500.000	12481.641	9327643.09	1.0090	A	0.1
6	☐	25000.000	25051.819	16953727.81	2.0243	A	0.3
7	☐	50000.000	49665.347	32682975.03	4.0122	A	0.1
8	☐	100000.00	96614.862	71794027.30	7.8041	A	0.1
9	☐	500000.00	500709.52	359325652.4	40.4413	A	0.2

$$y = 8.0766\text{E-}005 * x + 9.3777\text{E-}004$$

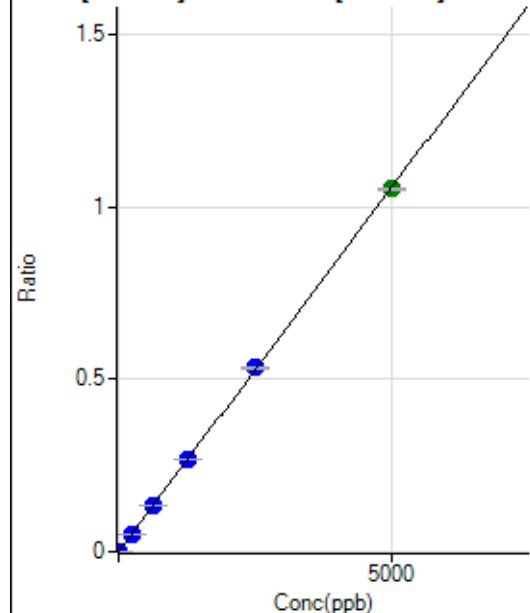
$$R = 1.0000$$

$$DL = 0.1156$$

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	83.34	0.0000	P	9.9
2	☐	0.500					
3	☐	5.000	4.760	10648.68	0.0010	P	2.8
4	☐	250.000	249.633	532886.81	0.0528	P	0.3
5	☐	625.000	636.376	1243303.21	0.1345	P	0.3
6	☐	1250.000	1266.790	2242174.20	0.2677	P	0.4
7	☐	2500.000	2522.875	4343176.10	0.5332	P	0.3
8	☐	5000.000	4982.962	9687679.73	1.0531	A	0.3
9	☐			5556.84	0.0006	P	10.1

$$y = 2.1133\text{E-}004 * x + 8.0920\text{E-}006$$

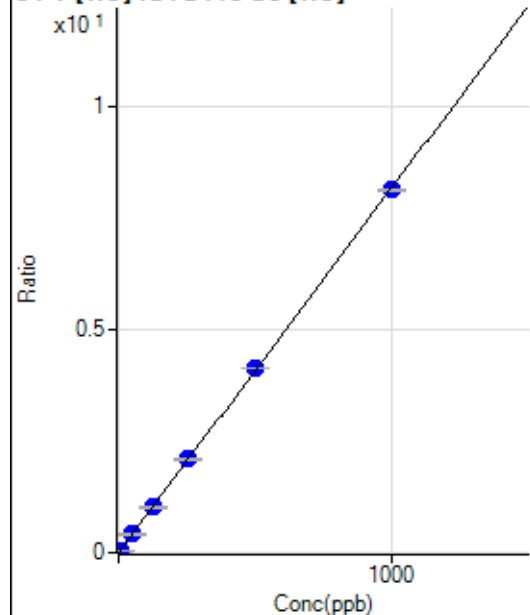
$$R = 1.0000$$

$$DL = 0.0114$$

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	10.00	0.0000	P	116.
2	☐	0.500					
3	☐	5.000	4.816	17170.20	0.0394	P	3.9
4	☐	50.000	50.363	165810.87	0.4117	P	1.0
5	☐	125.000	124.769	375450.98	1.0200	P	5.0
6	☐	250.000	256.280	697807.39	2.0951	P	0.4
7	☐	500.000	506.110	1376942.49	4.1374	P	0.5
8	☐	1000.000	995.387	3069169.16	8.1371	P	0.4
9	☐			1222.29	0.0032	P	4.5

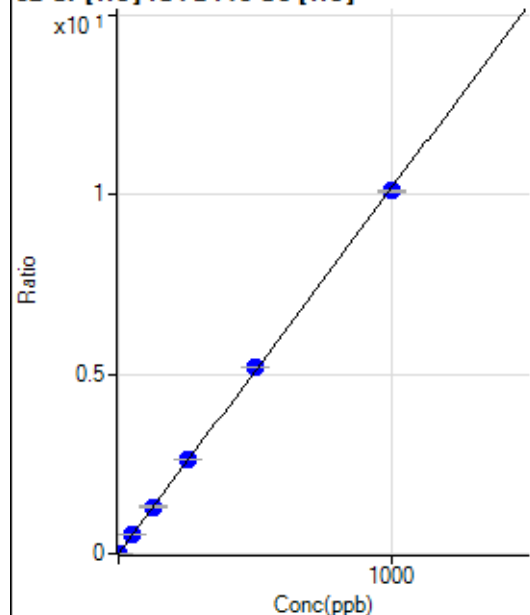
$$y = 0.0082 * x + 2.3986\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.01022$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1098.95	0.0026	P	3.9
2	☐	0.200					
3	☐	2.000	1.859	9393.14	0.0216	P	4.1
4	☐	50.000	51.203	211019.83	0.5240	P	0.5
5	☐	125.000	126.659	475709.90	1.2923	P	4.9
6	☐	250.000	259.933	882409.63	2.6493	P	0.1
7	☐	500.000	509.902	1728728.03	5.1945	P	0.9
8	☐	1000.000	992.299	3811868.73	10.1063	P	0.7
9	☐			149467.34	0.3928	P	0.3

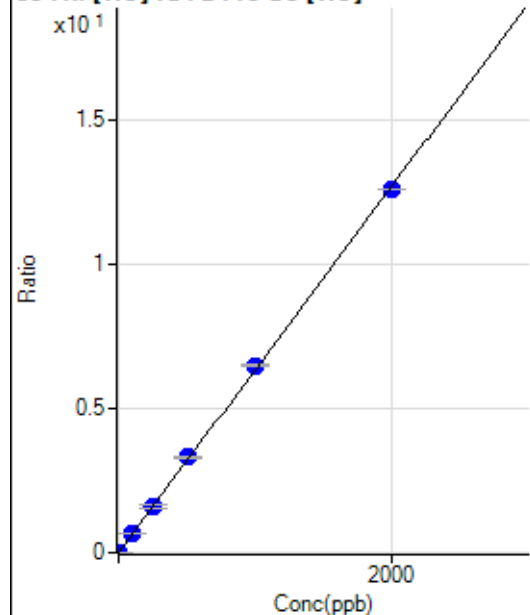
$$y = 0.0102 * x + 0.0026$$

$$R = 0.9999$$

$$DL = 0.03044$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0002	P	10.9
2	☐	0.100					
3	☐	1.000	0.975	2775.87	0.0064	P	9.5
4	☐	100.000	101.123	258371.77	0.6416	P	0.3
5	☐	250.000	252.338	589253.17	1.6006	P	4.7
6	☐	500.000	520.364	1099348.33	3.3006	P	0.3
7	☐	1000.000	1023.573	2160631.06	6.4922	P	0.8
8	☐	2000.000	1982.774	4743529.76	12.5760	P	0.1
9	☐			31870.30	0.0838	P	1.7

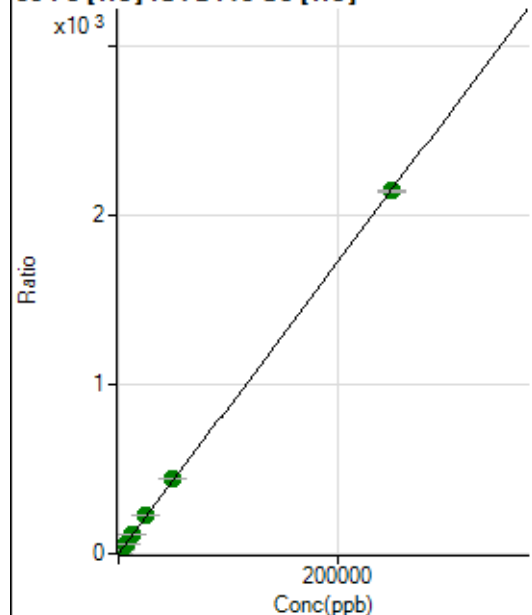
$$y = 0.0063 * x + 1.9071E-004$$

$$R = 0.9998$$

$$DL = 0.009868$$

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	3815.42	0.0091	P	4.0
2	☐	5.000					
3	☐	50.000	51.153	195731.35	0.4490	P	3.5
4	☐	2500.000	2652.988	9192741.64	22.8262	A	0.8
5	☐	6250.000	6618.055	20957202.32	56.9280	A	4.7
6	☐	12500.000	13602.765	38969766.15	117.0003	A	0.5
7	☐	25000.000	26778.218	76652069.31	230.3165	A	0.5
8	☐	50000.000	51404.625	166759087.0	442.1171	A	0.4
9	☐	250000.00	249475.38	816513203.4	2,145.634	A	0.5

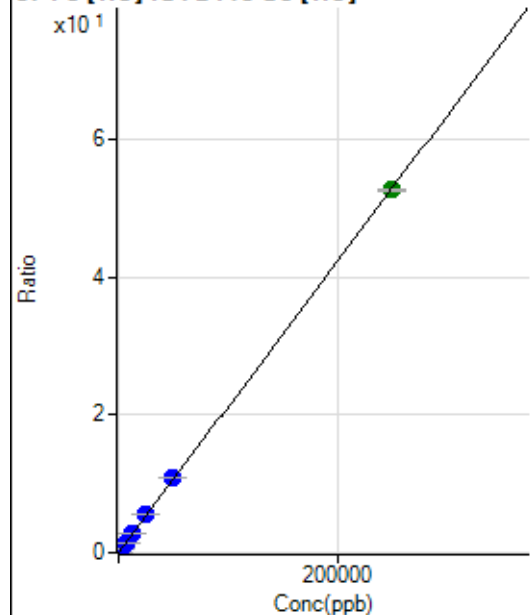
$$y = 0.0086 * x + 0.0091$$

$$R = 1.0000$$

$$DL = 0.1284$$

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	124.08	0.0003	P	15.8
2	☐	5.000					
3	☐	50.000	51.740	4889.85	0.0112	P	5.9
4	☐	2500.000	2670.501	227182.96	0.5641	P	0.9
5	☐	6250.000	6628.519	515228.18	1.3997	P	5.1
6	☐	12500.000	13662.309	960833.30	2.8847	P	0.2
7	☐	25000.000	26711.282	1876912.76	5.6397	P	0.6
8	☐	50000.000	51409.102	4093930.99	10.8540	P	0.4
9	☐	250000.00	249477.76	20043564.80	52.6709	A	0.5

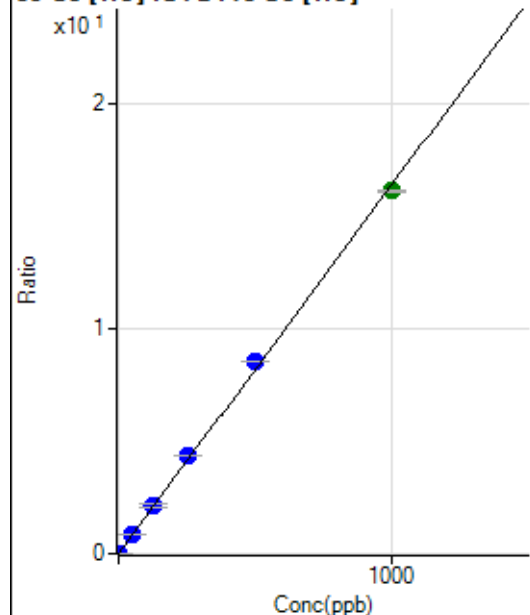
$$y = 2.1112E-004 * x + 2.9584E-004$$

$$R = 1.0000$$

$$DL = 0.6644$$

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	88.89	0.0002	P	29.6
2	☐	0.100					
3	☐	1.000	0.966	6999.56	0.0161	P	4.6
4	☐	50.000	52.923	349900.44	0.8689	P	0.6
5	☐	125.000	130.509	788616.63	2.1423	P	4.9
6	☐	250.000	265.880	1453610.43	4.3642	P	0.3
7	☐	500.000	521.579	2849122.08	8.5611	P	0.9
8	☐	1000.000	984.406	6094273.94	16.1576	A	0.7
9	☐			75948.67	0.1996	P	1.1

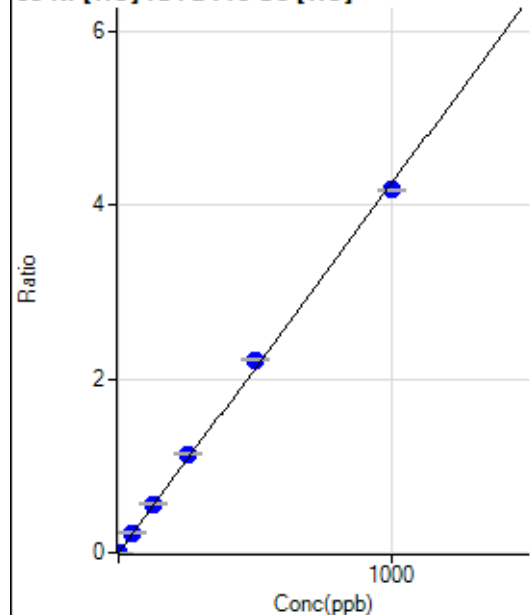
$$y = 0.0164 * x + 2.1210E-004$$

$$R = 0.9995$$

$$DL = 0.01147$$

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	82.22	0.0002	P	53.2
2	☐	0.100					
3	☐	1.000	0.984	1905.71	0.0044	P	4.6
4	☐	50.000	54.596	93369.18	0.2319	P	0.6
5	☐	125.000	132.657	207334.63	0.5631	P	4.0
6	☐	250.000	268.228	379145.34	1.1383	P	0.4
7	☐	500.000	521.908	737053.05	2.2147	P	0.9
8	☐	1000.000	983.302	1573797.62	4.1724	P	0.2
9	☐			51048.68	0.1341	P	0.6

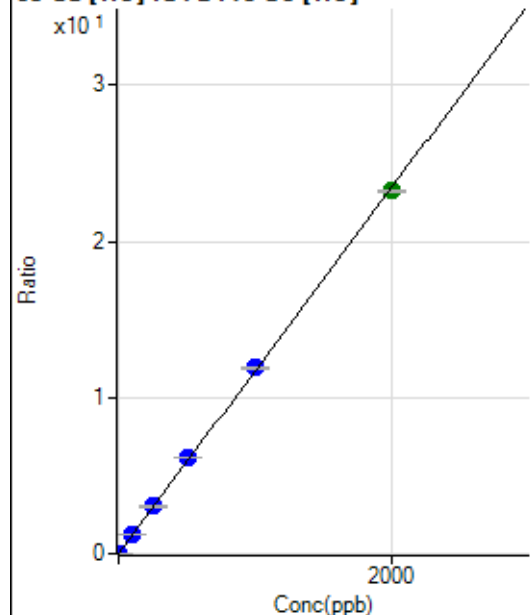
$$y = 0.0042 * x + 1.9661E-004$$

$$R = 0.9994$$

$$DL = 0.07391$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	397.79	0.0009	P	3.4
2	☐	0.200					
3	☐	2.000	1.928	10261.52	0.0235	P	2.4
4	☐	100.000	106.796	504204.70	1.2520	P	0.2
5	☐	250.000	260.778	1125005.30	3.0558	P	4.5
6	☐	500.000	526.458	2054417.37	6.1680	P	0.3
7	☐	1000.000	1017.089	3965355.49	11.9154	P	1.3
8	☐	2000.000	1983.154	8762652.30	23.2322	A	0.7
9	☐			17436.12	0.0458	P	0.5

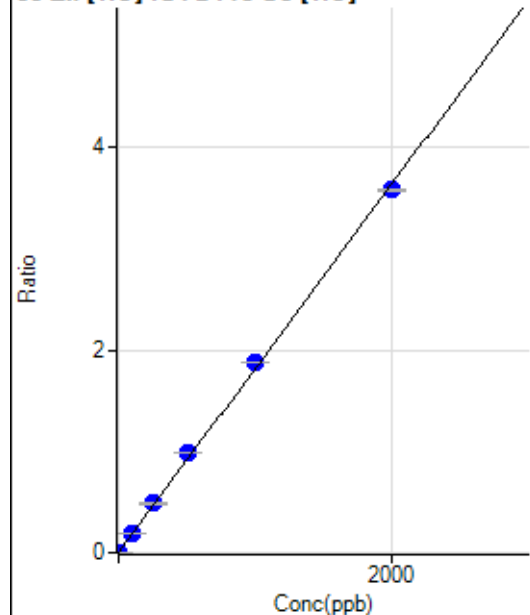
$$y = 0.0117 * x + 9.4835E-004$$

$$R = 0.9998$$

$$DL = 0.008275$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	833.37	0.0020	P	5.1
2	☐	0.200					
3	☐	2.000	2.103	2530.27	0.0058	P	6.1
4	☐	100.000	106.768	78911.81	0.1959	P	0.4
5	☐	250.000	265.740	178450.10	0.4847	P	4.7
6	☐	500.000	539.338	327002.08	0.9818	P	0.3
7	☐	1000.000	1034.205	625917.59	1.8808	P	0.9
8	☐	2000.000	1970.757	1351129.09	3.5821	P	0.5
9	☐			10671.82	0.0280	P	0.5

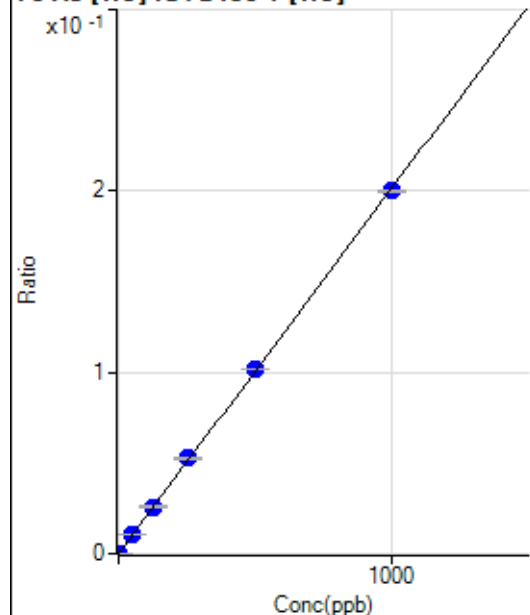
$$y = 0.0018 * x + 0.0020$$

$$R = 0.9996$$

$$DL = 0.1671$$

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	3.70	0.0000	P	86.9
2	☐	0.100					
3	☐	1.000	0.929	433.35	0.0002	P	1.1
4	☐	50.000	52.903	22664.64	0.0107	P	1.3
5	☐	125.000	127.810	50756.01	0.0257	P	3.6
6	☐	250.000	260.866	94532.82	0.0525	P	0.8
7	☐	500.000	505.623	183924.22	0.1018	P	0.1
8	☐	1000.000	993.976	396700.56	0.2001	P	0.3
9	☐			571.00	0.0003	P	9.4

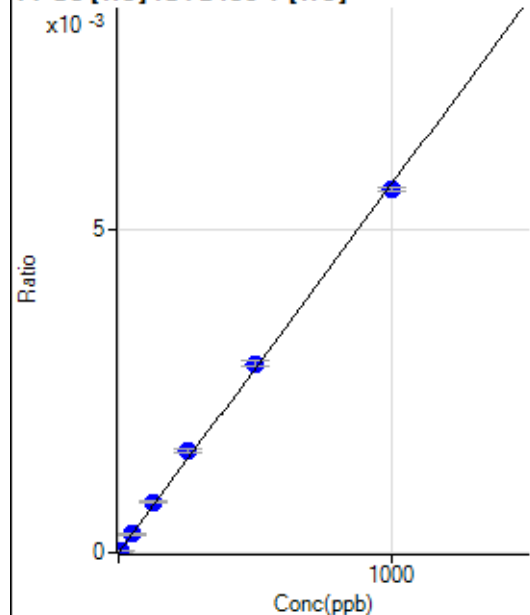
$$y = 2.0136\text{E-}004 * x + 1.6866\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.02184$$

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	2.22	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	6.041	81.11	0.0000	P	9.4
4	☐	50.000	51.527	625.58	0.0003	P	8.7
5	☐	125.000	137.374	1544.56	0.0008	P	4.6
6	☐	250.000	276.500	2832.55	0.0016	P	3.3
7	☐	500.000	513.767	5281.04	0.0029	P	3.8
8	☐	1000.000	984.863	11106.62	0.0056	P	1.1
9	☐			6.67	0.0000	P	49.8

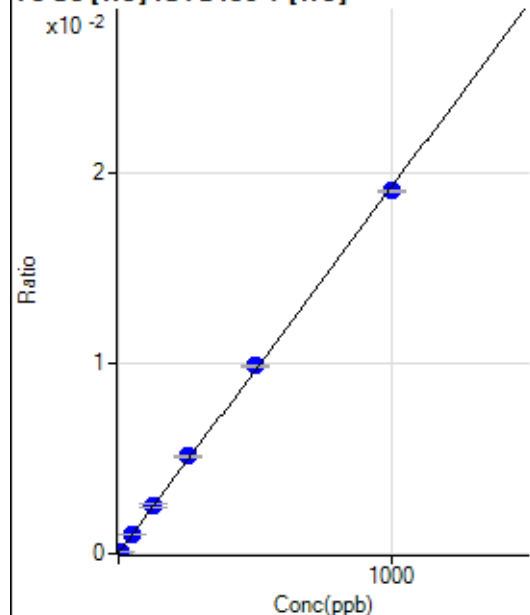
$$y = 5.6885\text{E-}006 * x + 1.0103\text{E-}006$$

$$R = 0.9994$$

$$DL = 0.4615$$

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	56.17	0.0000	P	12.6
2	☐	0.500					
3	☐	5.000	5.240	290.74	0.0001	P	7.7
4	☐	50.000	50.993	2144.62	0.0010	P	0.9
5	☐	125.000	130.918	5023.13	0.0025	P	5.7
6	☐	250.000	264.930	9233.26	0.0051	P	0.8
7	☐	500.000	511.582	17854.88	0.0099	P	0.6
8	☐	1000.000	989.686	37850.47	0.0191	P	0.7
9	☐			57.41	0.0000	P	20.7

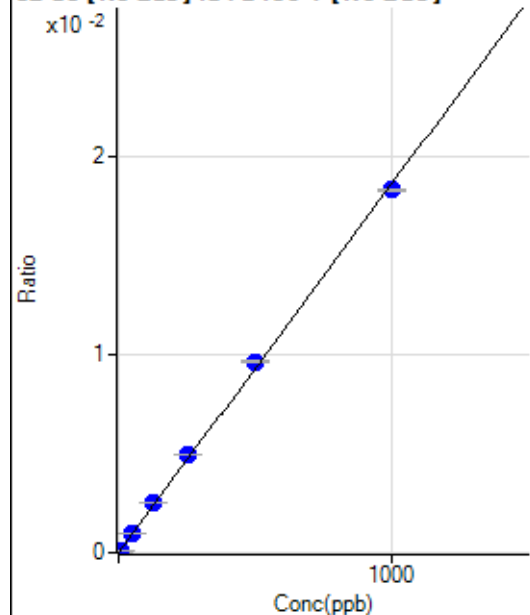
$$y = 1.9270\text{E-}005 * x + 2.5550\text{E-}005$$

$$R = 0.9998$$

$$DL = 0.5021$$

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	39.30	0.0000	P	131.
2	☐	0.500					
3	☐	5.000	5.556	1750.98	0.0001	P	4.0
4	☐	50.000	53.749	16111.37	0.0010	P	0.2
5	☐	125.000	137.601	38201.10	0.0026	P	0.4
6	☐	250.000	267.285	68990.85	0.0050	P	0.1
7	☐	500.000	518.606	132000.76	0.0096	P	1.1
8	☐	1000.000	984.610	271853.38	0.0183	P	0.8
9	☐			238.40	0.0000	P	20.9

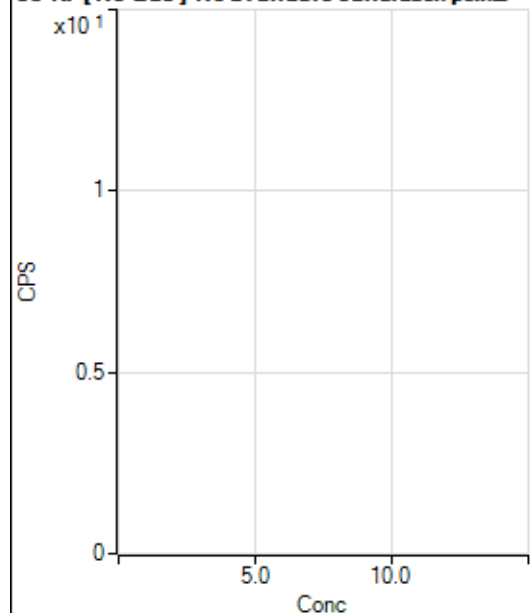
$$y = 1.8574\text{E-}005 * x + 2.4183\text{E-}006$$

$$R = 0.9995$$

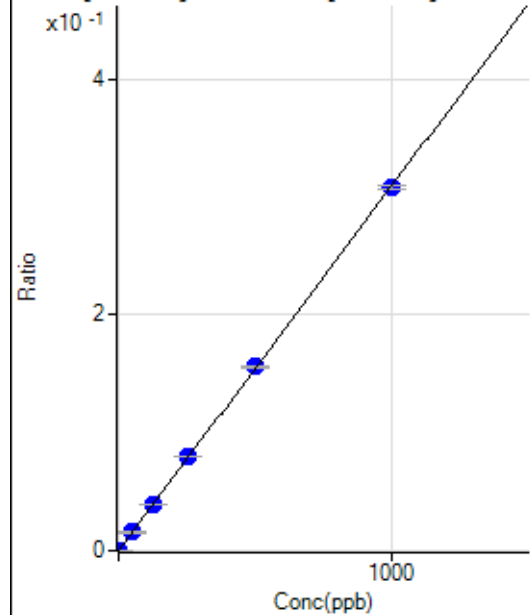
$$DL = 0.5119$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			438.90		P	10.7
2	☐						
3	☐			405.57		P	13.8
4	☐			373.35		P	3.9
5	☐			386.68		P	9.8
6	☐			367.79		P	16.1
7	☐			361.12		P	9.0
8	☐			417.79		P	8.5
9	☐			478.90		P	6.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	619.49	0.0000	P	5.4
2	☐	0.100					
3	☐	1.000	0.928	5381.79	0.0003	P	1.7
4	☐	50.000	50.045	249406.91	0.0155	P	0.6
5	☐	125.000	128.644	593794.58	0.0398	P	0.3
6	☐	250.000	257.427	1104684.15	0.0795	P	0.4
7	☐	500.000	504.626	2135406.28	0.1559	P	0.6
8	☐	1000.000	995.372	4569135.00	0.3074	P	1.2
9	☐			20954.88	0.0015	P	2.5

$$y = 3.0880E-004 * x + 3.8123E-005$$

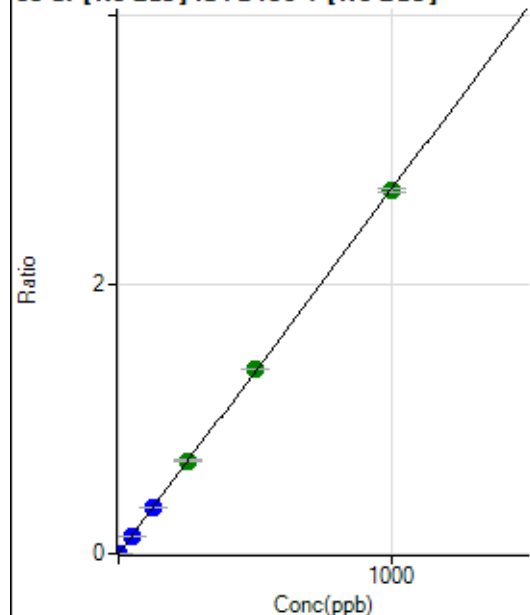
$$R = 0.9999$$

$$DL = 0.01984$$

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	197.23	0.0000	P	24.6
2	☐	0.100					
3	☐	1.000	0.906	40822.98	0.0025	P	1.2
4	☐	50.000	49.508	2156011.29	0.1339	P	0.8
5	☐	125.000	127.981	5169453.15	0.3462	P	0.2
6	☐	250.000	255.804	9610472.79	0.6919	A	0.2
7	☐	500.000	504.911	18710013.27	1.3657	A	0.1
8	☐	1000.000	995.746	40030633.88	2.6932	A	1.0
9	☐			176186.53	0.0125	P	0.4

$$y = 0.0027 * x + 1.2142E-005$$

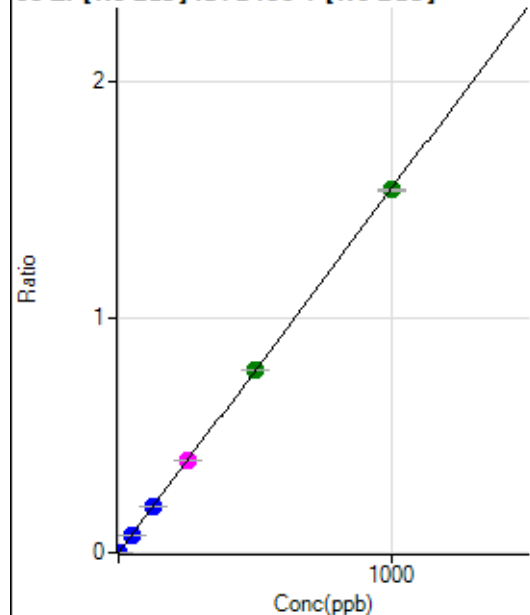
$$R = 1.0000$$

$$DL = 0.003308$$

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	941.73	0.0001	P	3.4
2	☐	0.100					
3	☐	1.000	0.900	24034.86	0.0014	P	0.5
4	☐	50.000	49.747	1239418.20	0.0770	P	0.2
5	☐	125.000	128.289	2963239.71	0.1984	P	0.5
6	☐	250.000	255.201	5482276.29	0.3947	M	0.3
7	☐	500.000	503.910	10676410.92	0.7793	A	0.1
8	☐	1000.000	996.347	22901039.75	1.5408	A	0.4
9	☐			11919.30	0.0008	P	4.1

$$y = 0.0015 * x + 5.7963E-005$$

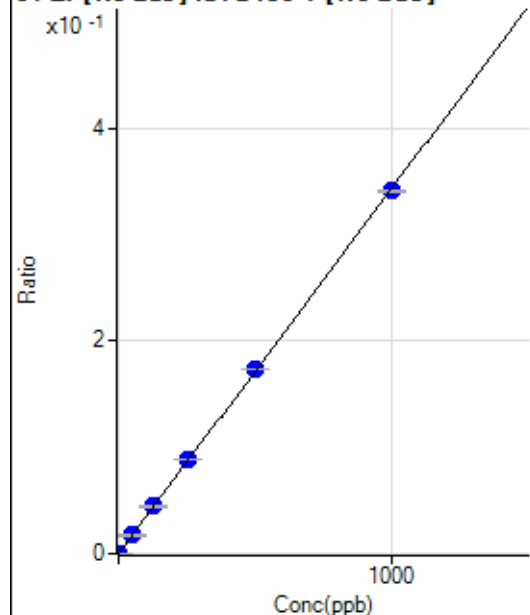
$$R = 1.0000$$

$$DL = 0.003783$$

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	202.79	0.0000	P	15.6
2	☐	0.100					
3	☐	1.000	0.950	5609.66	0.0003	P	4.5
4	☐	50.000	50.047	276586.66	0.0172	P	0.4
5	☐	125.000	129.136	661664.27	0.0443	P	0.5
6	☐	250.000	257.402	1226585.86	0.0883	P	0.5
7	☐	500.000	506.489	2380435.19	0.1737	P	0.5
8	☐	1000.000	994.386	5070063.48	0.3411	P	0.6
9	☐			2669.81	0.0002	P	4.1

$$y = 3.4302\text{E-}004 * x + 1.2481\text{E-}005$$

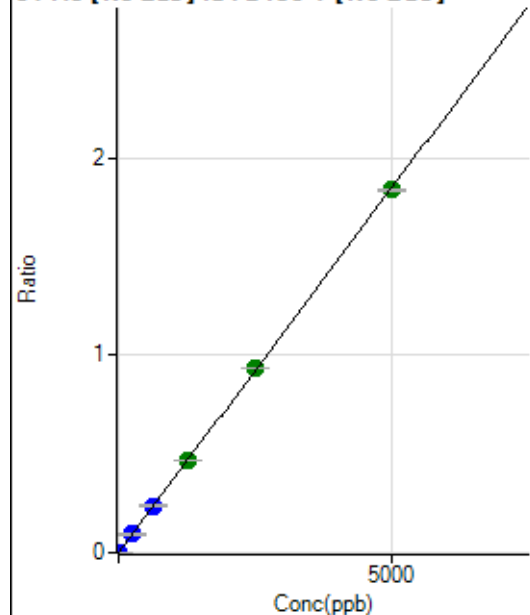
$$R = 0.9999$$

$$DL = 0.01703$$

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	280.57	0.0000	P	26.9
2	☐	0.500					
3	☐	5.000	4.753	29375.38	0.0018	P	1.5
4	☐	250.000	250.728	1490391.69	0.0926	P	0.9
5	☐	625.000	645.489	3558672.61	0.2383	P	0.2
6	☐	1250.000	1273.004	6527674.80	0.4700	A	0.3
7	☐	2500.000	2530.784	12799819.13	0.9343	A	0.3
8	☐	5000.000	4976.260	27304291.93	1.8370	A	0.7
9	☐			32014.47	0.0023	P	0.9

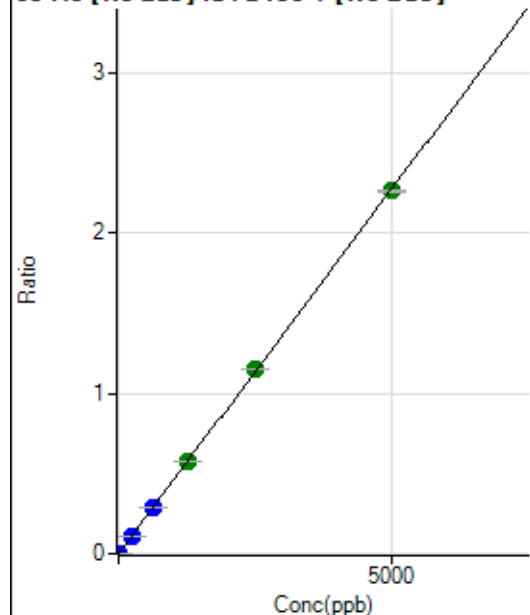
$$y = 3.6915\text{E-}004 * x + 1.7277\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.03783$$

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	63.89	0.0000	P	32.6
2	☐	0.500					
3	☐	5.000	4.846	36559.01	0.0022	P	0.7
4	☐	250.000	249.662	1825916.08	0.1134	P	0.5
5	☐	625.000	644.439	4371683.52	0.2927	P	0.3
6	☐	1250.000	1270.820	8018556.87	0.5773	A	0.4
7	☐	2500.000	2528.294	15734954.69	1.1485	A	0.5
8	☐	5000.000	4978.235	33612503.53	2.2614	A	0.6
9	☐			49132.94	0.0035	P	0.8

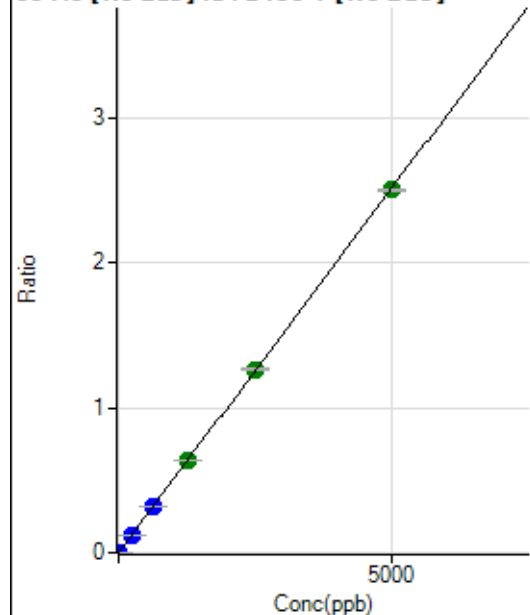
$$y = 4.5426\text{E-}004 * x + 3.9298\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.008457$$

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	144.45	0.0000	P	21.6
2	☐	0.500					
3	☐	5.000	4.692	39282.75	0.0024	P	0.8
4	☐	250.000	249.458	2020760.68	0.1255	P	0.9
5	☐	625.000	643.988	4838660.96	0.3240	P	0.1
6	☐	1250.000	1271.754	8887769.73	0.6399	A	0.2
7	☐	2500.000	2521.488	17380778.69	1.2686	A	0.1
8	☐	5000.000	4981.471	37252871.32	2.5063	A	0.3
9	☐			63539.12	0.0045	P	0.7

$$y = 5.0313\text{E-}004 * x + 8.8865\text{E-}006$$

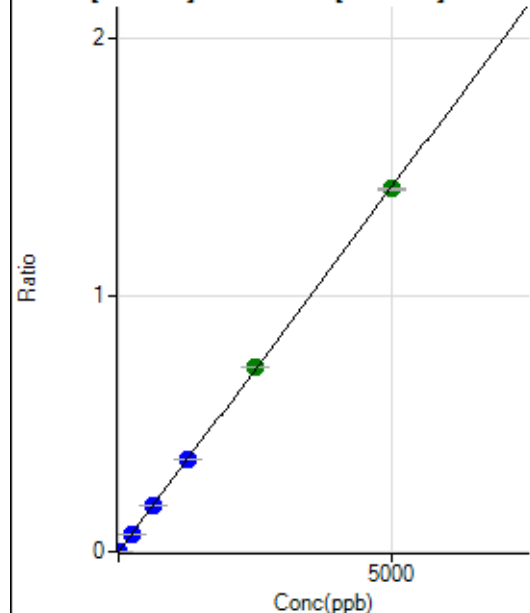
$$R = 1.0000$$

$$DL = 0.01144$$

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	38.89	0.0000	P	61.6
2	☐	0.500					
3	☐	5.000	4.769	22490.79	0.0014	P	0.6
4	☐	250.000	247.326	1130750.02	0.0702	P	0.6
5	☐	625.000	641.657	2721084.11	0.1822	P	0.2
6	☐	1250.000	1269.831	5008727.98	0.3606	P	0.4
7	☐	2500.000	2530.888	9846495.27	0.7187	A	0.2
8	☐	5000.000	4977.650	21009765.58	1.4135	A	0.5
9	☐			29834.79	0.0021	P	1.4

$$y = 2.8397\text{E-}004 * x + 2.3915\text{E-}006$$

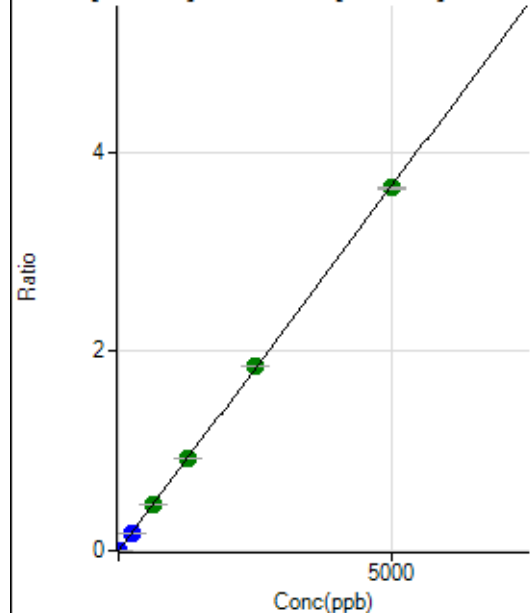
$$R = 1.0000$$

$$DL = 0.01557$$

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	72.23	0.0000	P	35.1
2	☐	0.500					
3	☐	5.000	4.729	57383.05	0.0035	P	1.0
4	☐	250.000	249.087	2931427.93	0.1821	P	0.4
5	☐	625.000	636.645	6949490.61	0.4654	A	0.4
6	☐	1250.000	1267.434	12868886.14	0.9265	A	0.4
7	☐	2500.000	2536.158	25398662.37	1.8539	A	0.1
8	☐	5000.000	4976.153	54065105.37	3.6374	A	0.6
9	☐			75879.56	0.0054	P	2.3

$$y = 7.3097\text{E-}004 * x + 4.4433\text{E-}006$$

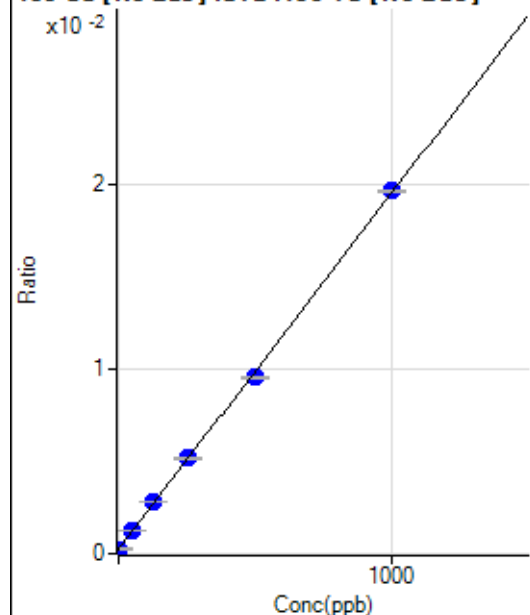
$$R = 1.0000$$

$$DL = 0.006402$$

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	5312.31	0.0002	P	3.7
2	☐	0.100					
3	☐	1.000	0.938	5829.22	0.0003	P	4.1
4	☐	50.000	54.316	28688.44	0.0013	P	0.5
5	☐	125.000	132.821	59869.06	0.0028	P	0.6
6	☐	250.000	255.224	105608.60	0.0052	P	1.9
7	☐	500.000	482.002	196777.88	0.0095	P	0.6
8	☐	1000.000	1006.500	423857.07	0.0196	P	0.4
9	☐			4620.38	0.0002	P	5.2

$$y = 1.9272\text{E-}005 * x + 2.4117\text{E-}004$$

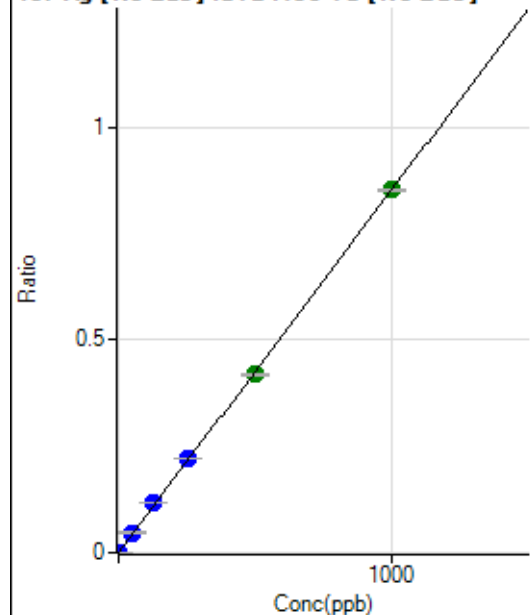
$$R = 0.9997$$

$$DL = 1.404$$

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	163.89	0.0000	P	38.1
2	☐	0.100					
3	☐	1.000	1.058	20448.89	0.0009	P	1.7
4	☐	50.000	55.632	1056525.66	0.0474	P	0.5
5	☐	125.000	136.127	2480587.97	0.1160	P	0.7
6	☐	250.000	258.325	4507373.10	0.2202	P	0.6
7	☐	500.000	491.146	8644992.73	0.4187	A	0.7
8	☐	1000.000	1000.673	18411225.58	0.8530	A	0.6
9	☐			2003.00	0.0001	P	6.9

$$y = 8.5245\text{E-}004 * x + 7.4404\text{E-}006$$

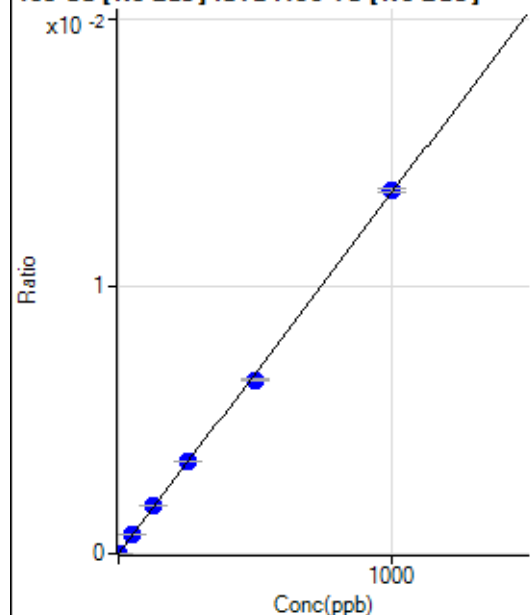
$$R = 0.9999$$

$$DL = 0.009978$$

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	18.06	0.0000	P	35.2
2	☐	0.100					
3	☐	1.000	0.955	308.34	0.0000	P	2.3
4	☐	50.000	54.288	16336.01	0.0007	P	1.3
5	☐	125.000	132.812	38325.57	0.0018	P	1.2
6	☐	250.000	255.619	70617.99	0.0035	P	0.7
7	☐	500.000	482.402	134426.09	0.0065	P	0.5
8	☐	1000.000	1006.203	293077.85	0.0136	P	0.9
9	☐			54.17	0.0000	P	7.7

$$y = 1.3494\text{E-}005 * x + 8.1971\text{E-}007$$

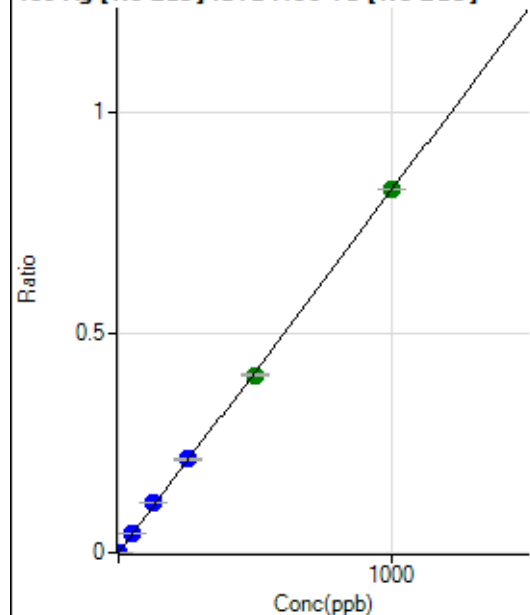
$$R = 0.9997$$

$$DL = 0.06412$$

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	91.67	0.0000	P	9.3
2	☐	0.100					
3	☐	1.000	1.059	19722.77	0.0009	P	2.0
4	☐	50.000	55.411	1017497.26	0.0457	P	0.8
5	☐	125.000	136.046	2397258.45	0.1121	P	0.8
6	☐	250.000	257.546	4345324.53	0.2123	P	0.8
7	☐	500.000	490.664	8351263.99	0.4045	A	0.3
8	☐	1000.000	1001.130	17811496.41	0.8252	A	0.2
9	☐			1991.89	0.0001	P	5.5

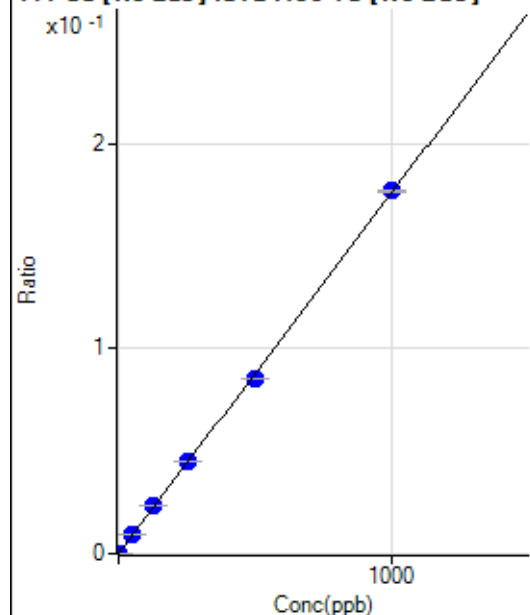
$$y = 8.2430\text{E-}004 * x + 4.1624\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.001407$$

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	1593.55	0.0001	P	3.9
2	☐	0.100					
3	☐	1.000	0.970	5462.72	0.0002	P	4.8
4	☐	50.000	53.124	209737.76	0.0094	P	0.3
5	☐	125.000	132.221	498634.15	0.0233	P	0.4
6	☐	250.000	254.261	916797.99	0.0448	P	0.1
7	☐	500.000	483.284	1756573.70	0.0851	P	0.2
8	☐	1000.000	1006.234	3821325.94	0.1770	P	0.7
9	☐			1959.33	0.0001	P	0.6

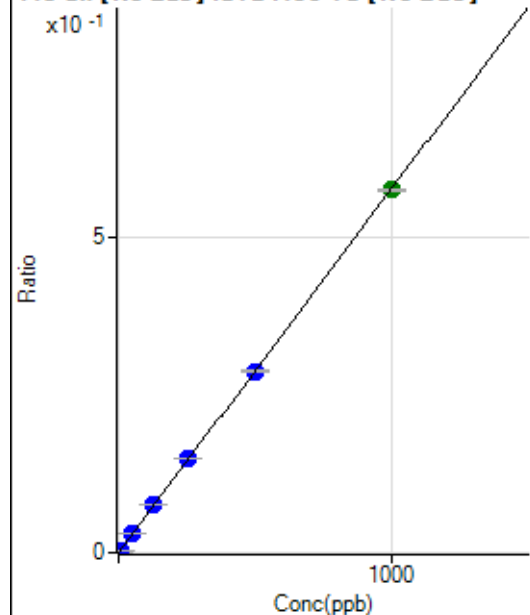
$$y = 1.7588\text{E-}004 * x + 7.2345\text{E-}005$$

$$R = 0.9998$$

$$DL = 0.04796$$

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	969.53	0.0000	P	12.6
2	☐	0.500					
3	☐	5.000	4.941	65095.60	0.0029	P	1.6
4	☐	50.000	52.604	677160.83	0.0304	P	0.3
5	☐	125.000	131.690	1625317.21	0.0760	P	0.3
6	☐	250.000	259.824	3069719.34	0.1500	P	0.5
7	☐	500.000	498.769	5943757.21	0.2879	P	0.7
8	☐	1000.000	997.193	12420771.46	0.5755	A	0.6
9	☐			15406.33	0.0008	P	1.9

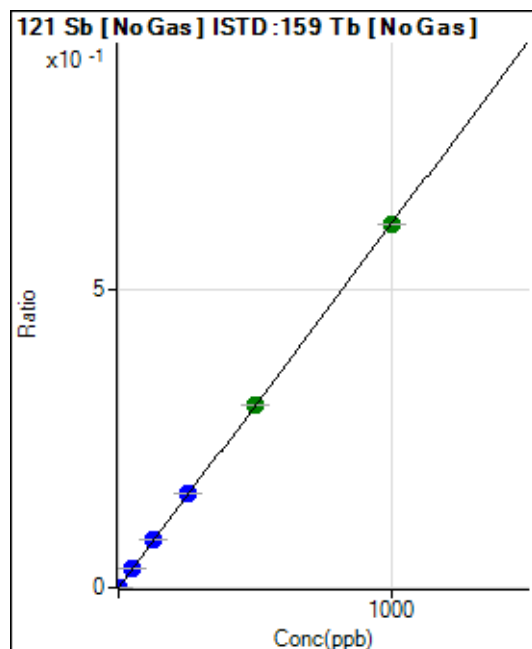
$$y = 5.7706\text{E-}004 * x + 4.4014\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.02885$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.89	0.0000	P	32.8
2	☐	0.200					
3	☐	2.000	1.906	26292.19	0.0012	P	1.8
4	☐	50.000	52.351	714237.53	0.0321	P	0.3
5	☐	125.000	131.677	1723889.43	0.0806	P	0.2
6	☐	250.000	258.361	3238813.01	0.1582	P	0.2
7	☐	500.000	501.087	6336835.99	0.3069	A	0.3
8	☐	1000.000	996.414	13171718.09	0.6103	A	0.1
9	☐			17035.90	0.0008	P	1.7

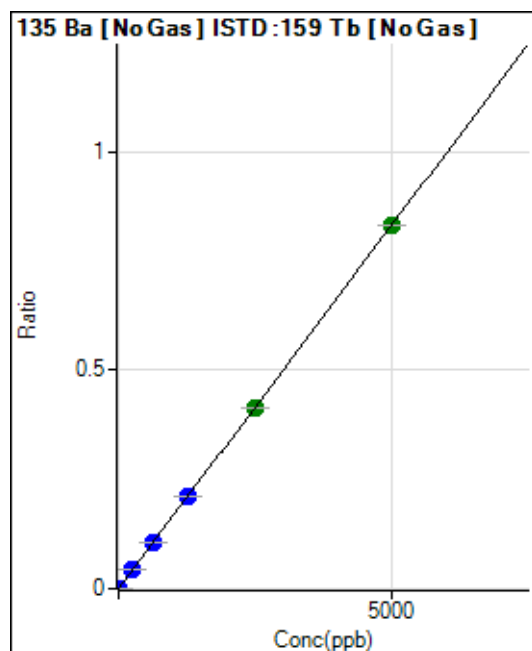
$$y = 6.1246\text{E-}004 * x + 1.7658\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.002833$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	44.0
2	☐	1.000					
3	☐	10.000	9.755	36482.09	0.0016	P	0.4
4	☐	250.000	257.537	952811.42	0.0428	P	0.4
5	☐	625.000	646.583	2295451.74	0.1074	P	0.4
6	☐	1250.000	1279.603	4349900.01	0.2125	P	0.4
7	☐	2500.000	2490.651	8541165.99	0.4137	A	0.4
8	☐	5000.000	4994.200	17902480.78	0.8295	A	0.2
9	☐			3583.96	0.0002	P	7.2

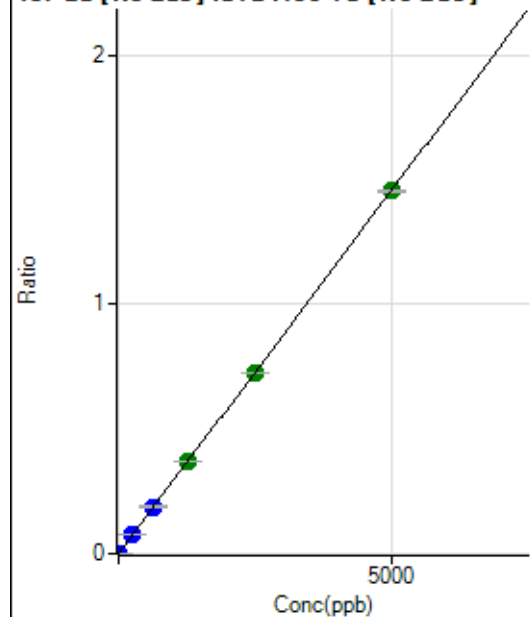
$$y = 1.6608\text{E-}004 * x + 2.2696\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.01804$$

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	77.78	0.0000	P	37.5
2	☐	1.000					
3	☐	10.000	9.662	63426.33	0.0028	P	0.4
4	☐	250.000	256.335	1664923.50	0.0747	P	0.6
5	☐	625.000	648.300	4040563.89	0.1890	P	0.1
6	☐	1250.000	1275.575	7612554.60	0.3719	A	0.2
7	☐	2500.000	2490.952	14996469.61	0.7263	A	0.3
8	☐	5000.000	4994.902	31433216.33	1.4564	A	0.5
9	☐			6237.79	0.0003	P	1.5

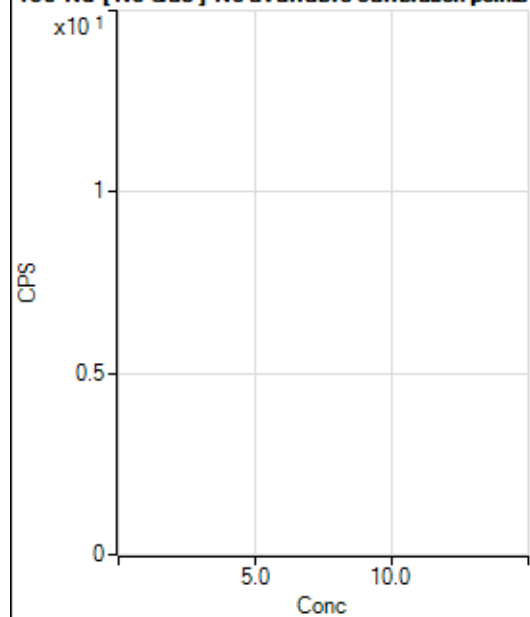
$$y = 2.9157E-004 * x + 3.5294E-006$$

$$R = 1.0000$$

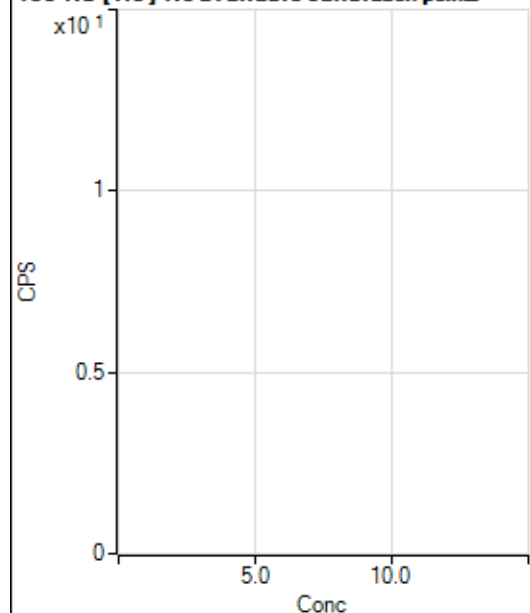
$$DL = 0.0136$$

Weight: <None>

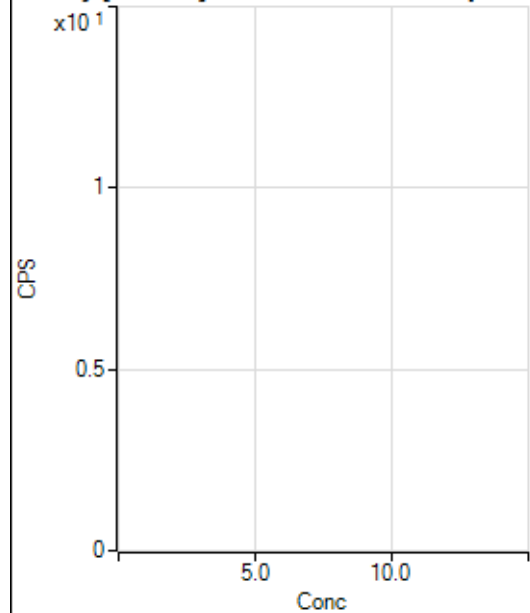
Min Conc: 0

150 Nd [No Gas] No available calibration points

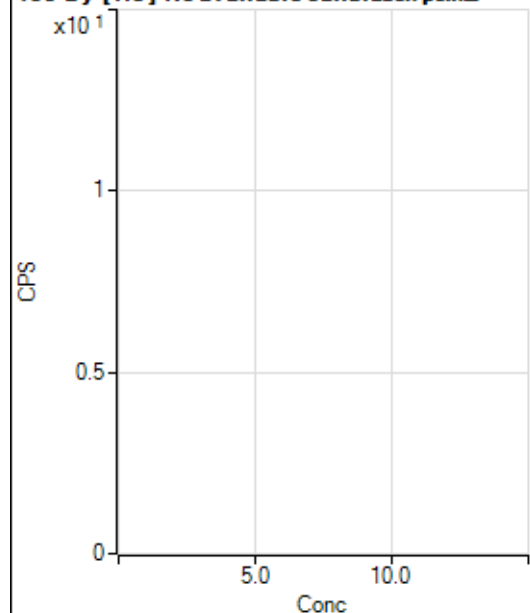
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			0.00		P	
4	☐			57.78		P	24.0
5	☐			166.68		P	17.4
6	☐			277.79		P	16.0
7	☐			511.14		P	12.1
8	☐			1106.75		P	8.8
9	☐			293.35		P	19.8

150 Nd [He] No available calibration points

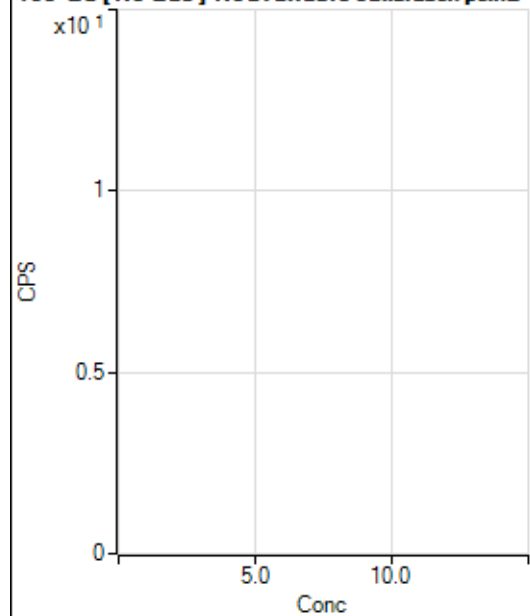
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			1.11		P	173.
4	☐			6.67		P	50.0
5	☐			14.44		P	58.1
6	☐			26.67		P	21.7
7	☐			56.67		P	5.9
8	☐			120.00		P	14.7
9	☐			107.78		P	6.4

156 Dy [No Gas] No available calibration points

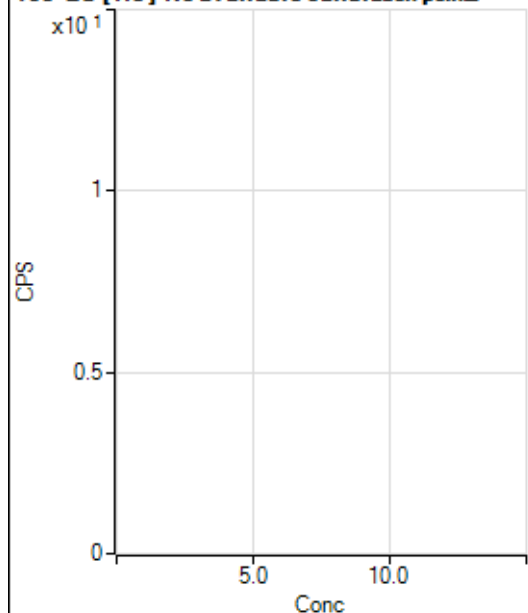
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐						
3	☐			13.89		P	91.6
4	☐			22.22		P	57.3
5	☐			50.00		P	50.0
6	☐			80.56		P	41.8
7	☐			155.56		P	8.2
8	☐			286.13		P	7.3
9	☐			172.23		P	15.6

156 Dy [He] No available calibration points

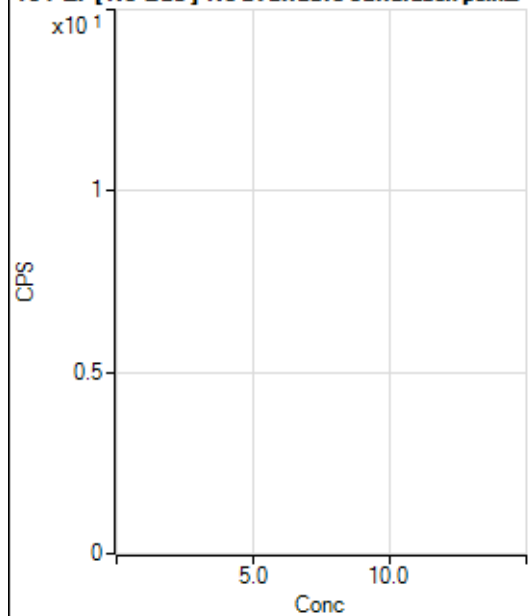
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	69.3
2	☐						
3	☐			2.22		P	86.6
4	☐			14.45		P	48.0
5	☐			31.11		P	16.4
6	☐			70.00		P	33.3
7	☐			118.89		P	13.2
8	☐			284.45		P	9.0
9	☐			87.78		P	28.0

160 Gd [No Gas] Noavailable calibration poin_

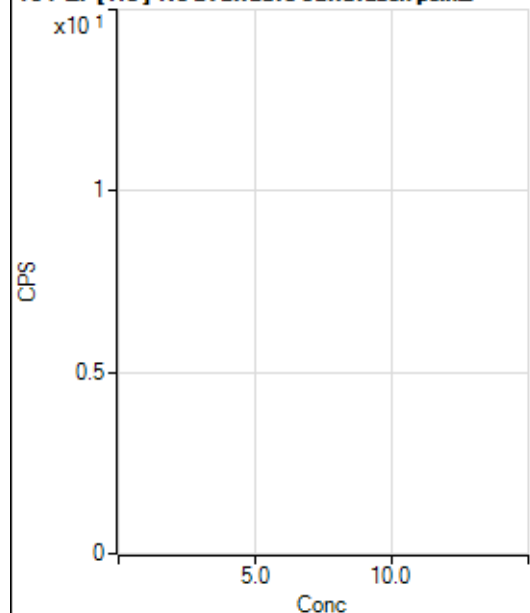
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			91.67		P	32.8
2	☐						
3	☐			83.34		P	26.5
4	☐			75.00		P	50.9
5	☐			108.34		P	20.4
6	☐			94.45		P	25.5
7	☐			102.78		P	9.4
8	☐			138.90		P	33.0
9	☐			244.46		P	21.9

160 Gd [He] No available calibration points

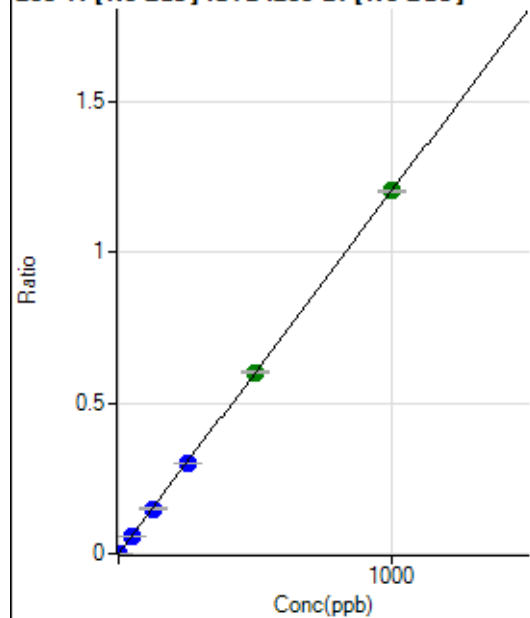
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			251.12		P	17.1
2	☐						
3	☐			264.45		P	9.3
4	☐			247.79		P	4.3
5	☐			258.89		P	19.0
6	☐			216.67		P	4.1
7	☐			243.34		P	4.7
8	☐			255.57		P	17.0
9	☐			262.23		P	0.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			69.45		P	25.0
2	☐						
3	☐			72.22		P	46.6
4	☐			86.12		P	14.8
5	☐			83.34		P	17.3
6	☐			77.78		P	22.3
7	☐			66.67		P	0.0
8	☐			130.56		P	38.5
9	☐			100.00		P	30.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			31.11		P	16.4
2	☐						
3	☐			28.89		P	35.2
4	☐			35.56		P	28.6
5	☐			26.67		P	33.1
6	☐			28.89		P	17.6
7	☐			46.67		P	31.1
8	☐			44.45		P	37.7
9	☐			60.00		P	29.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	247.24	0.0000	P	21.8
2	☐	0.100					
3	☐	1.000	0.848	16533.16	0.0010	P	1.6
4	☐	50.000	47.822	901230.92	0.0575	P	0.4
5	☐	125.000	124.090	2233310.36	0.1492	P	1.1
6	☐	250.000	249.017	4315687.42	0.2993	P	0.5
7	☐	500.000	499.260	8538167.72	0.6001	A	0.8
8	☐	1000.000	1000.839	17168445.87	1.2030	A	0.7
9	☐			4876.11	0.0004	P	1.2

$$y = 0.0012 * x + 1.5796E-005$$

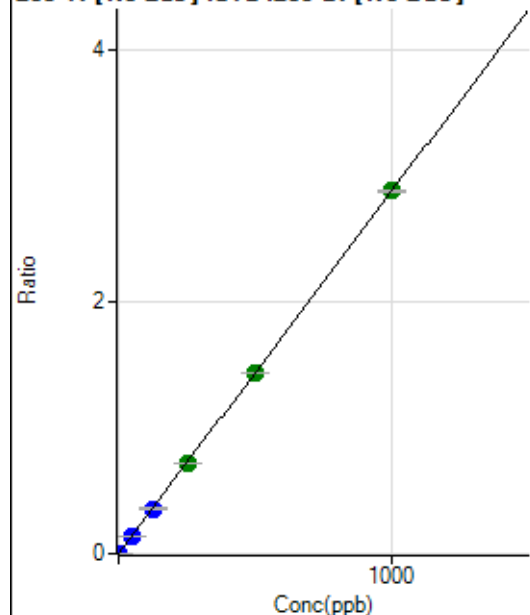
$$R = 1.0000$$

$$DL = 0.00858$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	483.37	0.0000	P	8.7
2	☐	0.100					
3	☐	1.000	0.863	40195.18	0.0025	P	0.6
4	☐	50.000	48.196	2176830.61	0.1389	P	0.3
5	☐	125.000	124.682	5378198.17	0.3592	P	1.2
6	☐	250.000	248.020	10302173.41	0.7146	A	0.4
7	☐	500.000	498.434	20430319.55	1.4360	A	0.5
8	☐	1000.000	1001.408	41172725.57	2.8851	A	0.2
9	☐			11569.43	0.0009	P	0.5

$$y = 0.0029 * x + 3.0880E-005$$

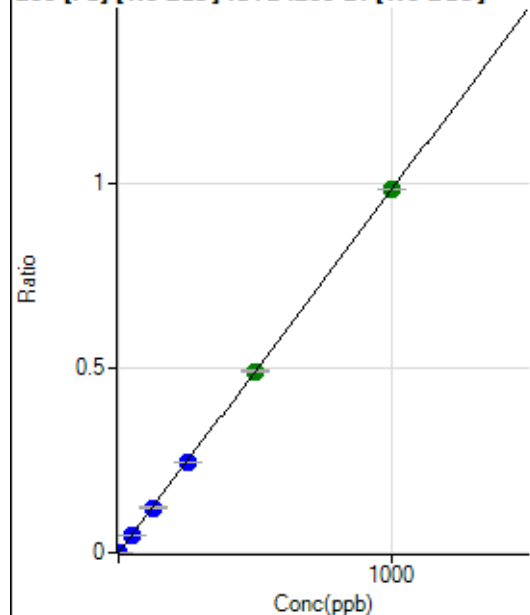
$$R = 1.0000$$

$$DL = 0.002804$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1161.20	0.0001	P	11.1
2	☐	0.100					
3	☐	1.000	0.874	14890.24	0.0009	P	1.3
4	☐	50.000	48.273	744611.21	0.0475	P	0.2
5	☐	125.000	124.157	1827491.33	0.1221	P	1.0
6	☐	250.000	249.492	3535393.19	0.2452	P	0.6
7	☐	500.000	500.754	7001157.68	0.4921	A	0.6
8	☐	1000.000	999.942	14022480.52	0.9826	A	0.1
9	☐			19561.14	0.0016	P	2.1

$$y = 9.8257E-004 * x + 7.4182E-005$$

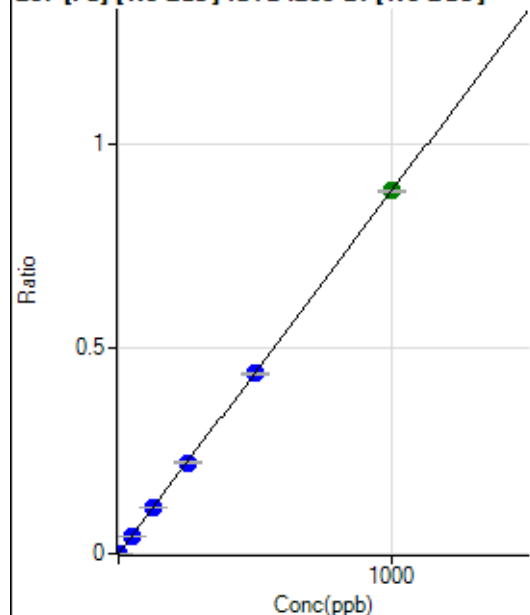
$$R = 1.0000$$

$$DL = 0.02512$$

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	959.32	0.0001	P	4.2
2	☐	0.100					
3	☐	1.000	0.852	12984.44	0.0008	P	3.0
4	☐	50.000	48.228	668470.52	0.0426	P	0.2
5	☐	125.000	125.281	1657183.76	0.1107	P	0.8
6	☐	250.000	251.278	3199920.21	0.2220	P	0.6
7	☐	500.000	497.962	6256879.13	0.4398	P	1.2
8	☐	1000.000	1000.753	12612073.08	0.8838	A	0.3
9	☐			16340.07	0.0013	P	0.8

$$y = 8.8304\text{E-}004 * x + 6.1281\text{E-}005$$

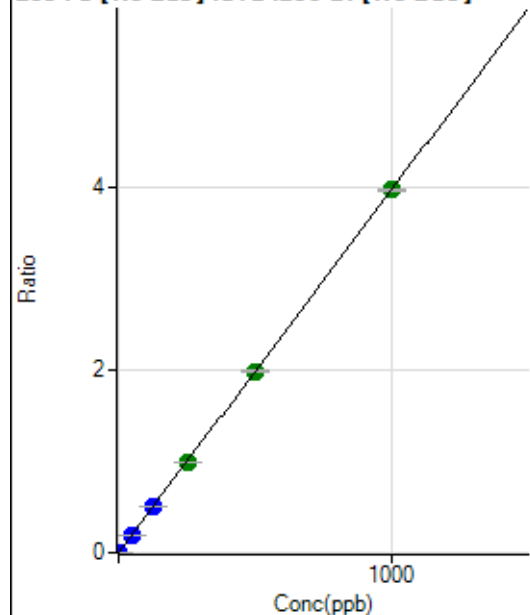
$$R = 1.0000$$

$$DL = 0.008845$$

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	4500.44	0.0003	P	2.8
2	☐	0.100					
3	☐	1.000	0.869	59631.64	0.0037	P	0.7
4	☐	50.000	48.442	3016520.02	0.1925	P	0.1
5	☐	125.000	125.324	7447408.17	0.4974	P	0.7
6	☐	250.000	250.793	14347679.89	0.9952	A	0.5
7	☐	500.000	499.872	28216109.71	1.9833	A	0.6
8	☐	1000.000	999.903	56610060.75	3.9669	A	0.3
9	☐			76543.43	0.0063	P	1.3

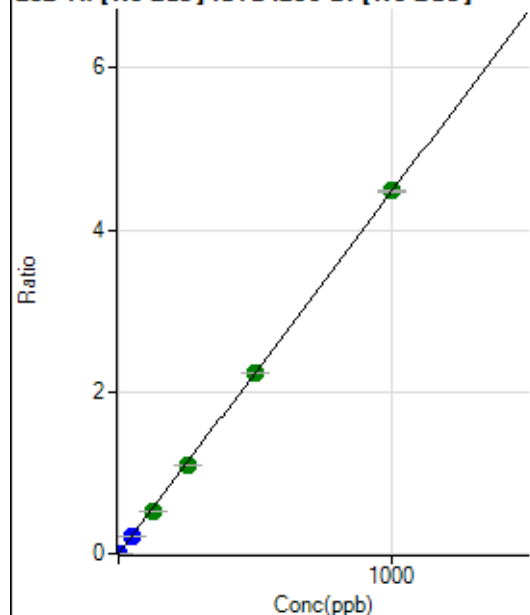
$$y = 0.0040 * x + 2.8749\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.006064$$

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	68.52	0.0000	P	24.7
2	☐	0.100					
3	☐	1.000	0.811	57937.63	0.0036	P	0.8
4	☐	50.000	45.681	3198745.01	0.2041	P	1.2
5	☐	125.000	119.298	7979476.45	0.5330	A	0.3
6	☐	250.000	244.552	15751442.95	1.0925	A	0.1
7	☐	500.000	498.251	31669059.97	2.2260	A	0.4
8	☐	1000.000	1003.165	63957942.63	4.4817	A	0.3
9	☐			12437.70	0.0010	P	2.4

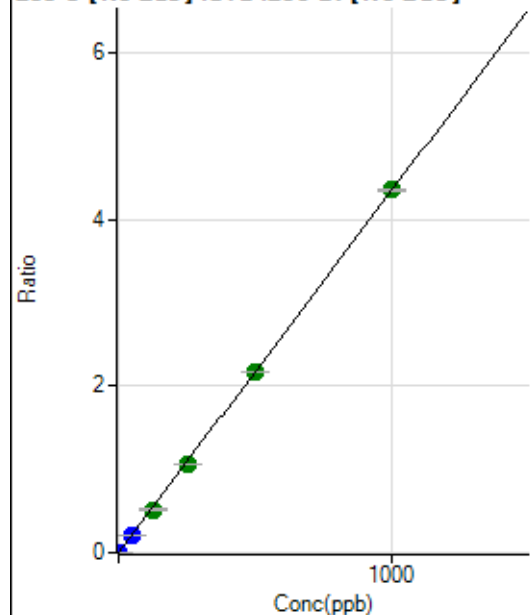
$$y = 0.0045 * x + 4.3766E-006$$

$$R = 1.0000$$

$$DL = 0.0007265$$

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	86.12	0.0000	P	47.6
2	☐	0.100					
3	☐	1.000	0.809	56239.23	0.0035	P	0.6
4	☐	50.000	45.728	3114739.35	0.1987	P	0.8
5	☐	125.000	119.370	7766399.30	0.5187	A	0.5
6	☐	250.000	245.780	15398664.06	1.0681	A	0.4
7	☐	500.000	499.024	30852763.88	2.1686	A	0.4
8	☐	1000.000	1002.460	62168583.33	4.3563	A	0.5
9	☐			12528.86	0.0010	P	6.5

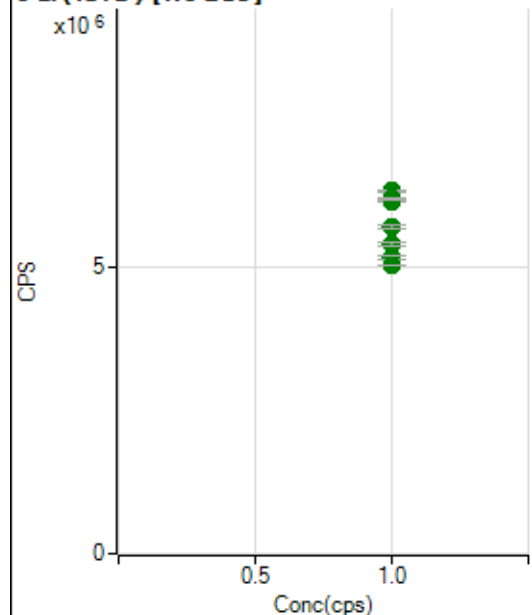
$$y = 0.0043 * x + 5.4999E-006$$

$$R = 1.0000$$

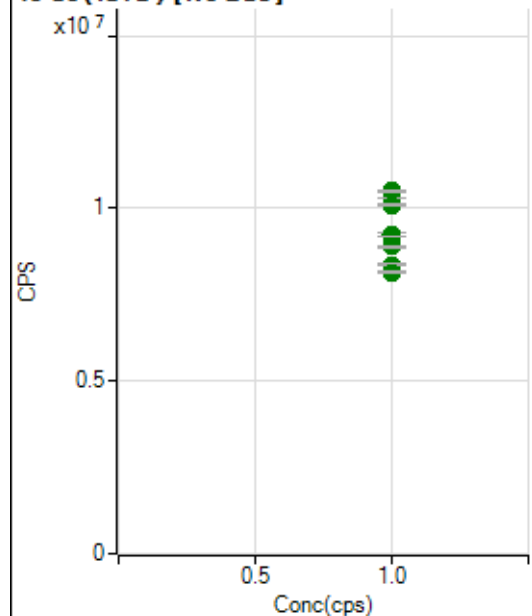
$$DL = 0.001809$$

Weight: <None>

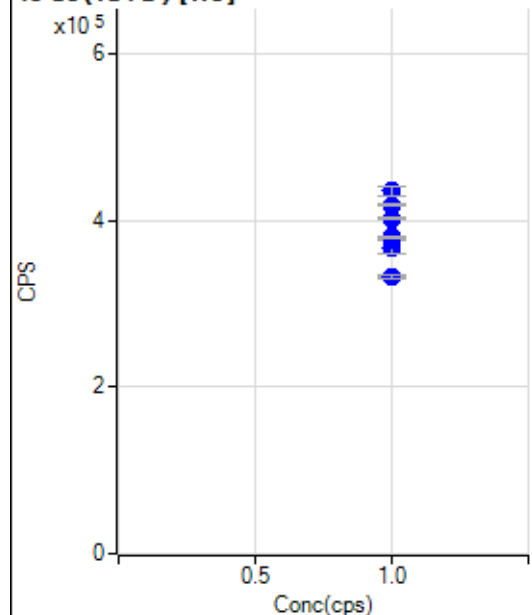
Min Conc: 0

6 Li (ISTD) [No Gas]

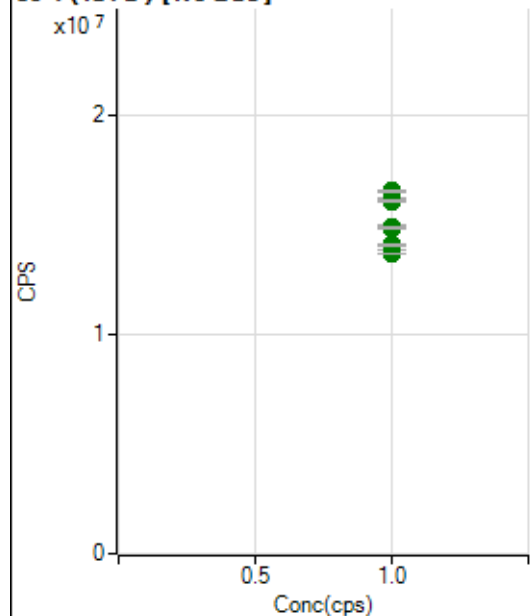
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6135739.56		A	0.3
2	☐	1.000					
3	☐	1.000		6313315.39		A	0.5
4	☐	1.000		6179499.98		A	0.3
5	☐	1.000		5688391.58		A	1.5
6	☐	1.000		5150491.48		A	0.8
7	☐	1.000		5014201.24		A	0.3
8	☐	1.000		5688843.46		A	0.6
9	☐	1.000		5382817.21		A	0.8

45 Sc (ISTD) [No Gas]

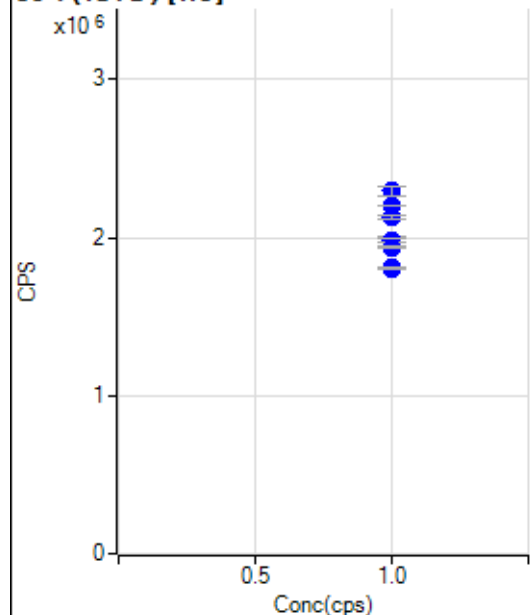
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10298073.06		A	0.1
2	☐	1.000					
3	☐	1.000		10501650.23		A	0.5
4	☐	1.000		10099619.24		A	0.7
5	☐	1.000		9244151.07		A	1.3
6	☐	1.000		8375165.12		A	0.7
7	☐	1.000		8145877.18		A	0.2
8	☐	1.000		9199492.83		A	0.2
9	☐	1.000		8885189.43		A	0.7

45 Sc (ISTD) [He]

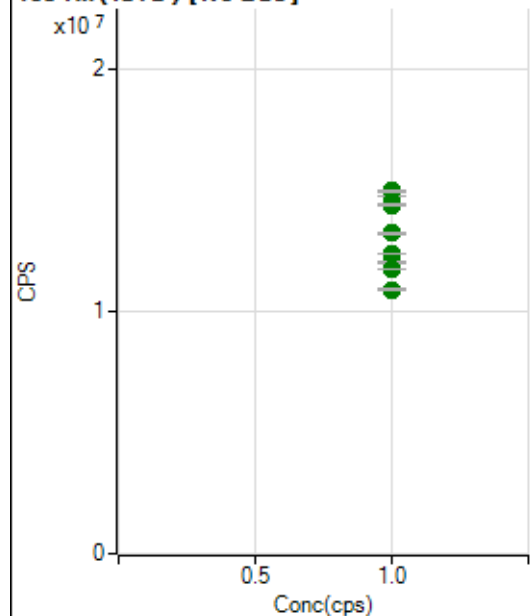
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		419489.44		P	0.9
2	☐	1.000					
3	☐	1.000		436163.21		P	2.7
4	☐	1.000		402721.15		P	0.6
5	☐	1.000		368700.76		P	4.9
6	☐	1.000		333075.81		P	0.2
7	☐	1.000		332817.48		P	0.9
8	☐	1.000		377190.78		P	0.8
9	☐	1.000		380544.57		P	0.5

89 Y (ISTD) [No Gas]

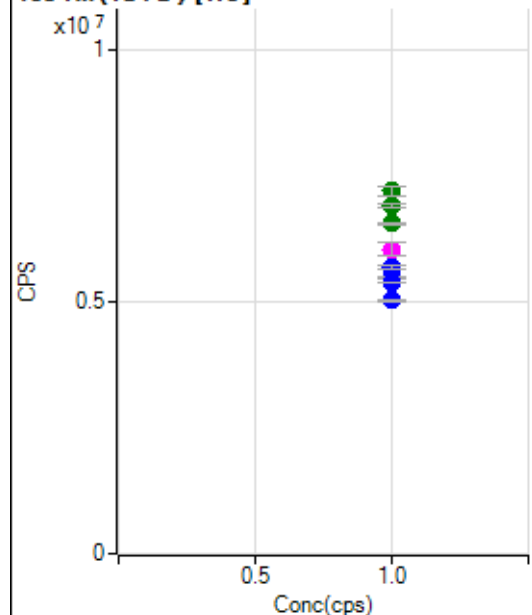
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16248322.40		A	0.3
2	☐	1.000					
3	☐	1.000		16578001.70		A	0.4
4	☐	1.000		16099661.43		A	0.5
5	☐	1.000		14933482.83		A	1.1
6	☐	1.000		13890204.79		A	0.4
7	☐	1.000		13700399.52		A	0.0
8	☐	1.000		14863741.03		A	0.6
9	☐	1.000		14111769.93		A	0.6

89 Y(ISTD) [He]

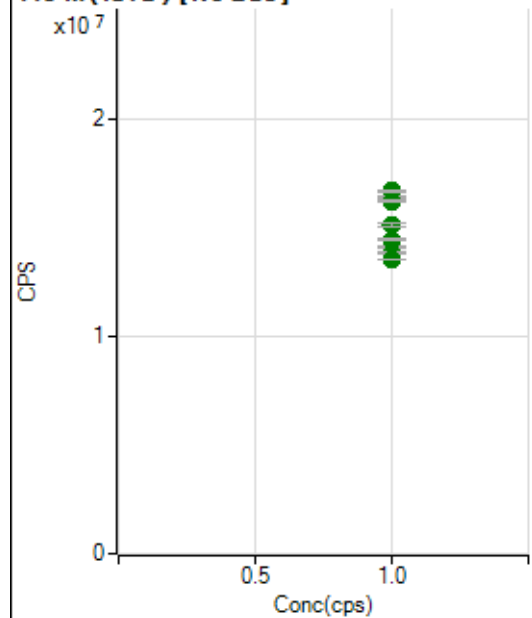
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2198825.06		P	0.2
2	☐	1.000					
3	☐	1.000		2295076.13		P	2.7
4	☐	1.000		2127340.21		P	0.9
5	☐	1.000		1973868.79		P	3.8
6	☐	1.000		1799662.59		P	0.5
7	☐	1.000		1806495.63		P	0.3
8	☐	1.000		1982018.77		P	0.7
9	☐	1.000		1937762.12		P	1.0

103 Rh(ISTD) [No Gas]

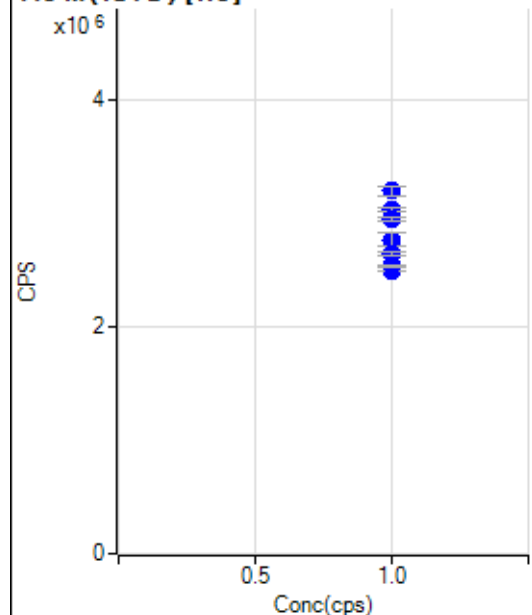
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14771338.35		A	0.2
2	☐	1.000					
3	☐	1.000		14986011.97		A	0.4
4	☐	1.000		14415363.87		A	0.5
5	☐	1.000		13244991.79		A	0.7
6	☐	1.000		12055201.40		A	0.5
7	☐	1.000		11743314.24		A	0.4
8	☐	1.000		12388807.22		A	0.3
9	☐	1.000		10912996.95		A	0.5

103 Rh (ISTD) [He]

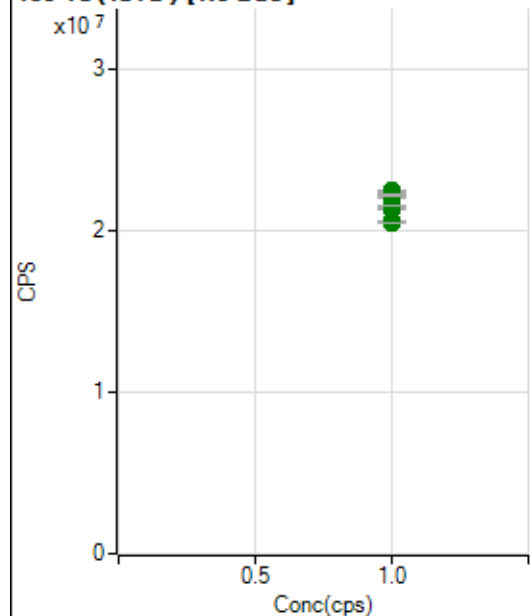
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6924378.72		A	0.9
2	☐	1.000					
3	☐	1.000		7210566.14		A	2.5
4	☐	1.000		6565320.04		A	0.7
5	☐	1.000		6054144.29		M	4.4
6	☐	1.000		5491190.27		P	0.4
7	☐	1.000		5399522.70		P	0.1
8	☐	1.000		5695873.73		P	1.0
9	☐	1.000		5035010.27		P	0.9

115 In (ISTD) [No Gas]

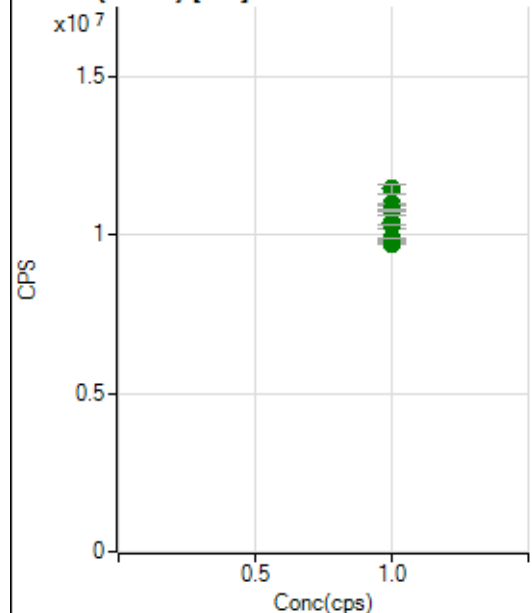
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16460217.63		A	0.3
2	☐	1.000					
3	☐	1.000		16727347.05		A	0.2
4	☐	1.000		16230403.23		A	0.6
5	☐	1.000		15154755.10		A	0.7
6	☐	1.000		14149706.14		A	0.7
7	☐	1.000		13848917.74		A	0.5
8	☐	1.000		14483685.08		A	0.8
9	☐	1.000		13567588.62		A	0.6

115 In (ISTD) [He]

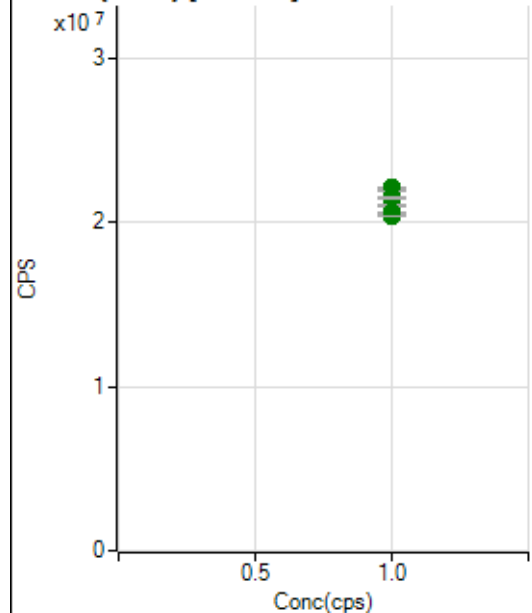
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3033903.90		P	0.9
2	☐	1.000					
3	☐	1.000		3192826.27		P	2.9
4	☐	1.000		2951188.67		P	1.2
5	☐	1.000		2763556.28		P	4.4
6	☐	1.000		2520816.88		P	0.5
7	☐	1.000		2489051.44		P	0.3
8	☐	1.000		2635736.97		P	1.2
9	☐	1.000		2532634.47		P	0.9

159 Tb (ISTD) [No Gas]

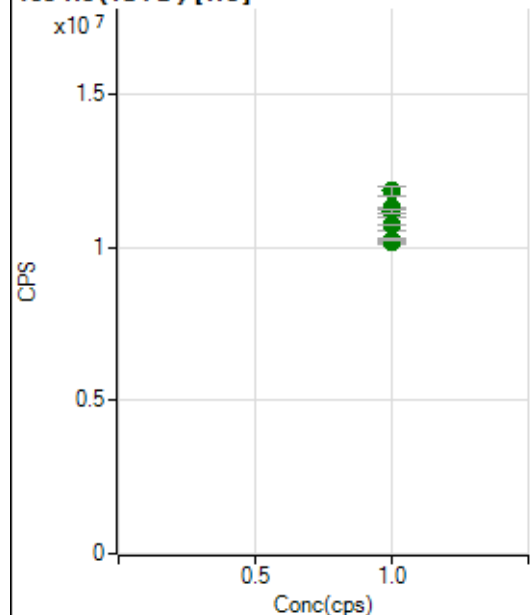
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		22026960.23		A	0.2
2	☐	1.000					
3	☐	1.000		22485989.94		A	0.3
4	☐	1.000		22275223.84		A	0.4
5	☐	1.000		21375526.35		A	0.5
6	☐	1.000		20468082.75		A	0.2
7	☐	1.000		20648079.42		A	0.1
8	☐	1.000		21583610.23		A	0.4
9	☐	1.000		20537252.75		A	0.1

159 Tb (ISTD) [He]

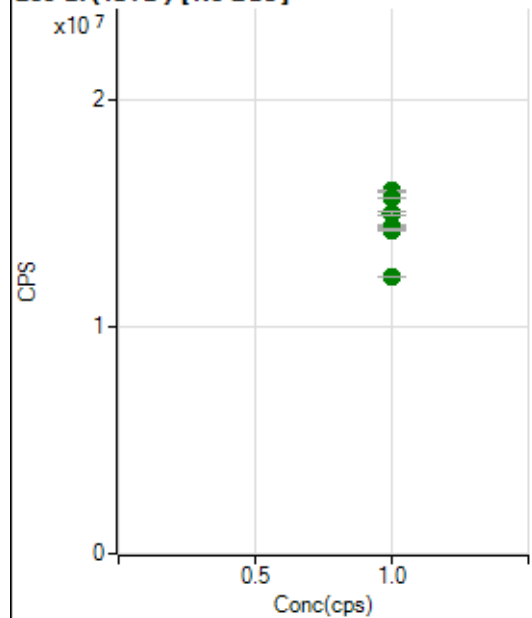
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10972013.17		A	0.4
2	☐	1.000					
3	☐	1.000		11451806.49		A	2.3
4	☐	1.000		10787063.04		A	0.7
5	☐	1.000		10396989.98		A	4.1
6	☐	1.000		9732211.87		A	0.5
7	☐	1.000		9832575.96		A	0.5
8	☐	1.000		10321771.72		A	0.4
9	☐	1.000		9879255.62		A	0.2

165 Ho (ISTD) [No Gas]

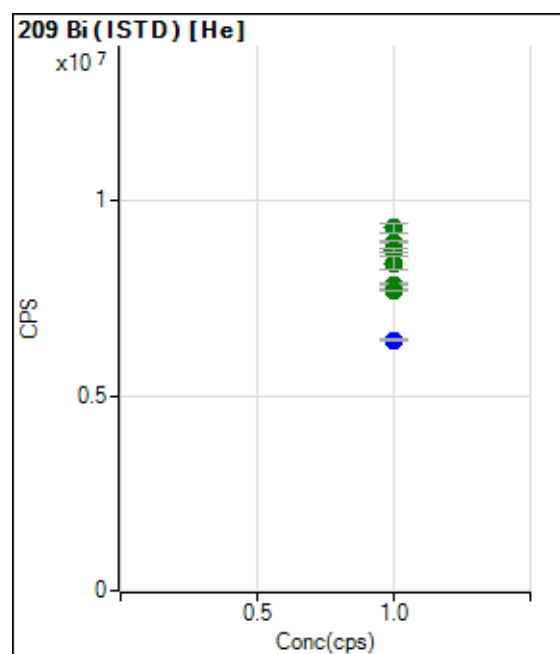
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		21582998.92		A	0.1
2	☐	1.000					
3	☐	1.000		22130225.32		A	0.3
4	☐	1.000		21948287.47		A	0.4
5	☐	1.000		21038540.23		A	0.2
6	☐	1.000		20439834.83		A	0.4
7	☐	1.000		20603161.92		A	0.4
8	☐	1.000		21531630.69		A	0.4
9	☐	1.000		20428918.17		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11278450.53		A	0.7
2	☐	1.000					
3	☐	1.000		11831833.43		A	2.4
4	☐	1.000		11162341.92		A	0.8
5	☐	1.000		10750966.23		A	4.5
6	☐	1.000		10131415.82		A	0.2
7	☐	1.000		10200297.83		A	0.6
8	☐	1.000		10722142.48		A	0.2
9	☐	1.000		10250995.96		A	0.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15654029.35		A	0.1
2	☐	1.000					
3	☐	1.000		15967349.48		A	0.4
4	☐	1.000		15673960.04		A	0.3
5	☐	1.000		14971817.00		A	0.7
6	☐	1.000		14417215.20		A	0.2
7	☐	1.000		14227130.90		A	0.2
8	☐	1.000		14270967.01		A	0.6
9	☐	1.000		12178698.71		A	0.0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8944858.48		A	0.6
2	☐	1.000					
3	☐	1.000		9298844.03		A	2.5
4	☐	1.000		8714988.48		A	0.8
5	☐	1.000		8400606.40		A	4.3
6	☐	1.000		7861222.31		A	0.1
7	☐	1.000		7701043.15		A	0.4
8	☐	1.000		7705231.07		A	0.0
9	☐	1.000		6414501.92		P	1.0

US EPA Tune Check Sample Report

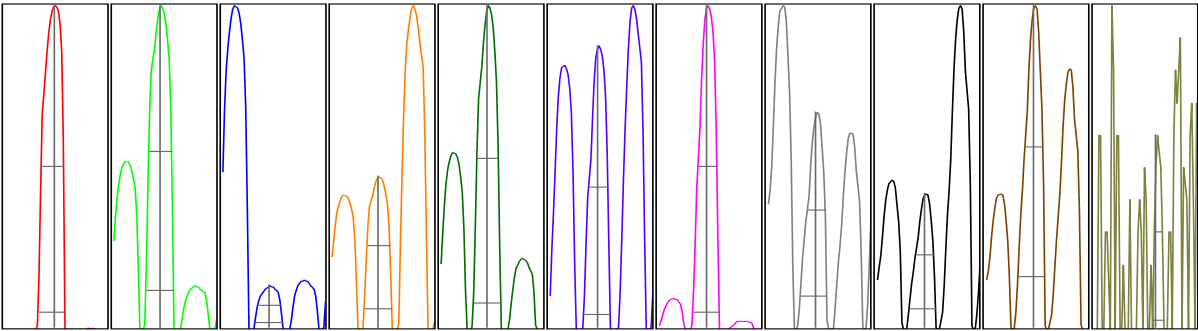
Batch Folder D:\ICP-MS Data\P7121818 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	17952	0.96	5.00	
24	154358	1.14	5.00	
25	20780	1.09	5.00	
26	24388	1.25	5.00	
59	120275	1.26	5.00	
113	16481	1.90	5.00	
115	198374	1.97	5.00	
206	56564	2.06	5.00	
207	54179	2.29	5.00	
208	123494	1.87	5.00	
220	0	70.71		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	18132	18063	18025	17795	17744
24	156368	155053	155259	153080	152029
25	21043	20912	20803	20694	20450
26	24701	24599	24503	24139	23997
59	121879	121296	120648	119479	118073
113	16841	16611	16612	16307	16035
115	202281	201497	199050	196287	192757
206	57397	57270	57164	56384	54608
207	55255	54691	54758	54110	52083
208	125530	125213	123879	123076	119772
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	29188	9.00	8.9 - 9.1		0.780	0.900	
24	245292	23.90	23.9 - 24.1		0.805	0.900	
25	32663	24.90	24.9 - 25.1		0.793	0.900	
26	37212	25.90	25.9 - 26.1		0.798	0.900	
59	206034	58.90	58.9 - 59.1		0.799	0.900	
113	30701	112.95	112.9 - 113.1		0.770	0.900	
115	370744	114.95	114.9 - 115.1		0.768	0.900	
206	103244	205.95	205.9 - 206.1		0.763	0.900	
207	93725	206.95	206.9 - 207.1		0.762	0.900	
208	224723	207.95	207.9 - 208.1		0.772	0.900	
220	0	220.35	-		0.290		

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	6.4	V	Deflect	14.0	V
Extract 2	-100.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	28558	0.72	
89	37160	0.73	
205	47744	0.54	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	28706	28747	28667	28347	28323
89	37388	37338	37329	36972	36772
205	47835	48055	47833	47634	47365

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	6.9	V	Deflect	1.8	V
Extract 2	-100.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	V	Cell Exit	-60	V			

Cell Parameters

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