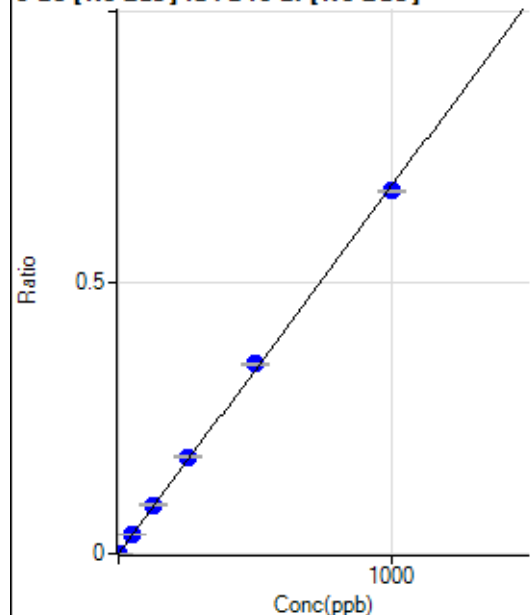


Batch Folder: D:\ICP-MS Data\P7032519MS.b\
Analysis File: P7032519MS.batch.bin
DA Date-Time: 2019-03-25 12:10:26
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-03-25 11:15:52
2			
3	005CALS.d	S02	2019-03-25 11:23:56
4	006CALS.d	S03	2019-03-25 11:27:51
5	007CALS.d	S04	2019-03-25 11:32:03
6	008CALS.d	S05	2019-03-25 11:35:51
7	009CALS.d	S06	2019-03-25 11:39:37
8	011CALS.d	S07	2019-03-25 11:47:06
9	012CALS.d	S08	2019-03-25 11:50:53

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	208.89	0.0000	P	15.3
2	☐	0.100					
3	☐	1.000	0.942	4794.17	0.0007	P	5.5
4	☐	50.000	54.254	258513.93	0.0368	P	0.4
5	☐	125.000	133.330	605243.02	0.0905	P	5.0
6	☐	250.000	264.180	1107054.23	0.1793	P	0.4
7	☐	500.000	515.939	2061085.21	0.3502	P	0.4
8	☐	1000.000	987.232	3997595.11	0.6700	P	0.8
9	☐			498.90	0.0001	P	10.1

$$y = 6.7863\text{E-}004 * x + 2.9294\text{E-}005$$

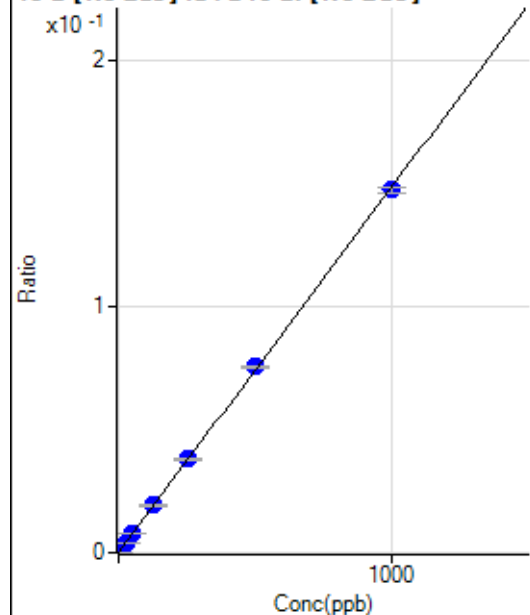
$$R = 0.9997$$

$$DL = 0.01977$$

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	586.14	0.0001	P	10.2
2	☐	2.500					
3	☐	25.000	23.728	25825.79	0.0036	P	1.2
4	☐	50.000	52.177	54892.11	0.0078	P	2.6
5	☐	125.000	128.620	128197.39	0.0192	P	4.3
6	☐	250.000	257.457	236341.40	0.0383	P	2.1
7	☐	500.000	508.831	444870.94	0.0756	P	1.3
8	☐	1000.000	993.191	879796.23	0.1475	P	1.6
9	☐			27987.93	0.0045	P	8.9

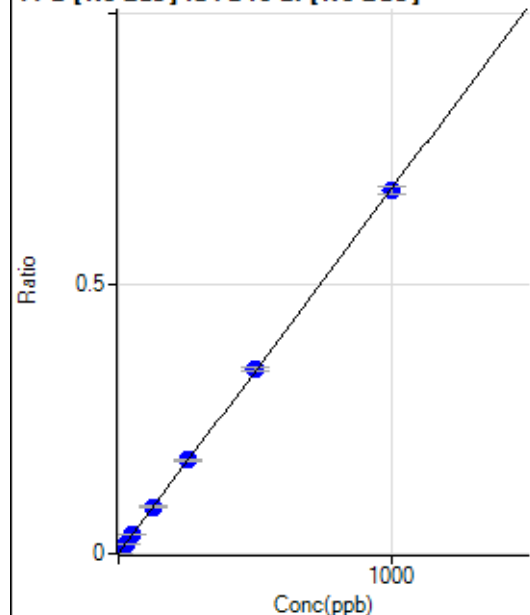
$$y = 1.4838\text{E-}004 * x + 8.2211\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.1696$$

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	2969.84	0.0004	P	6.1
2	☐	2.500					
3	☐	25.000	24.031	119243.24	0.0166	P	1.2
4	☐	50.000	52.116	249697.08	0.0356	P	1.1
5	☐	125.000	127.996	580678.38	0.0868	P	4.1
6	☐	250.000	255.283	1066254.45	0.1727	P	1.9
7	☐	500.000	507.196	2017234.55	0.3427	P	2.1
8	☐	1000.000	994.625	4007955.34	0.6717	P	2.3
9	☐			130666.65	0.0212	P	7.9

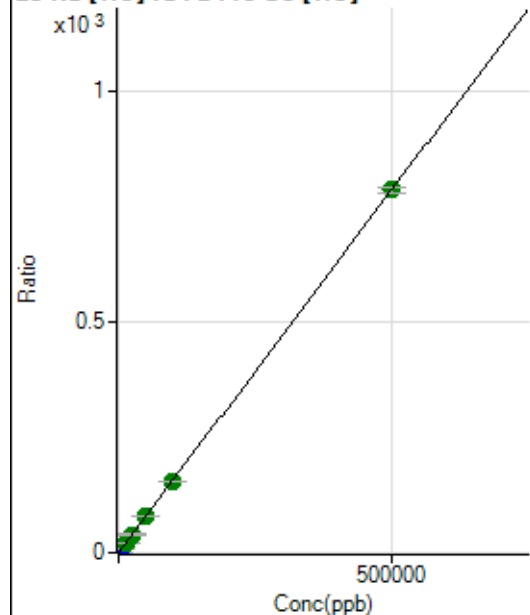
$$y = 6.7495\text{E-}004 * x + 4.1649\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.1127$$

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	11285.16	0.0191	P	1.4
2	☐	50.000					
3	☐	500.000	471.092	444886.51	0.7604	P	0.2
4	☐	5000.000	5022.912	4548424.80	7.9230	P	0.4
5	☐	12500.000	12752.629	10458327.49	20.0864	A	1.6
6	☐	25000.000	25112.524	19493831.17	39.5357	A	1.0
7	☐	50000.000	49648.221	38029908.49	78.1445	A	1.0
8	☐	100000.00	98666.099	78320151.06	155.2781	A	0.9
9	☐	500000.00	500289.81	447696937.79	787.2653	A	1.2

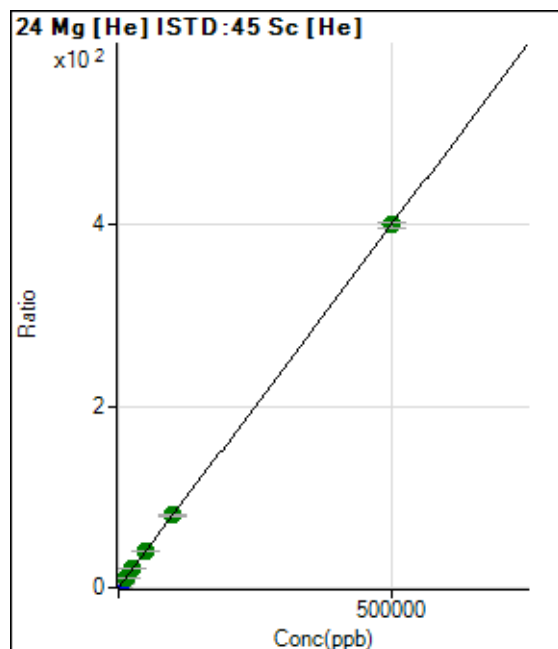
$$y = 0.0016 * x + 0.0191$$

$$R = 1.0000$$

$$DL = 0.4939$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	183.34	0.0003	P	21.6
2	☐	50.000					
3	☐	500.000	502.080	235266.69	0.4021	P	0.7
4	☐	5000.000	5230.514	2403174.92	4.1862	P	0.6
5	☐	12500.000	13200.515	5500428.77	10.5644	A	1.2
6	☐	25000.000	25934.016	10233442.59	20.7548	A	0.8
7	☐	50000.000	51307.930	19982750.97	41.0610	A	1.1
8	☐	100000.00	99948.697	40343613.75	79.9873	A	1.5
9	☐	500000.00	499812.94	227465488.42	399.9909	A	1.8

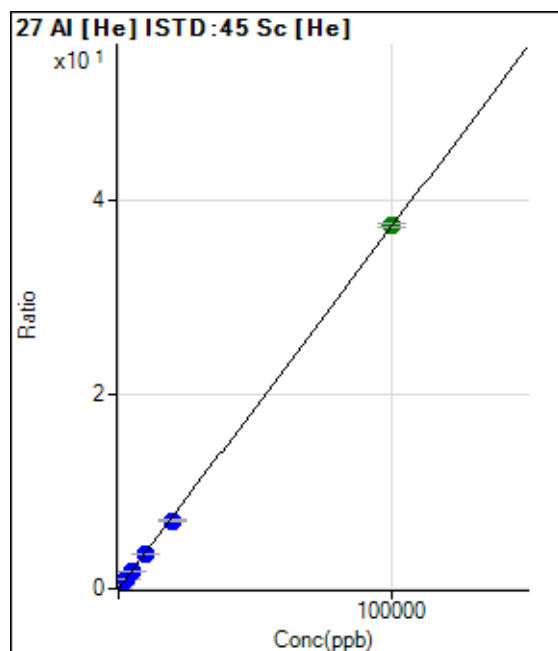
$$y = 8.0028\text{E-}004 * x + 3.1033\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.2518$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	41.67	0.0001	P	34.4
2	☐	2.000					
3	☐	20.000	17.226	3797.87	0.0065	P	2.3
4	☐	1000.000	977.921	209275.77	0.3645	P	0.3
5	☐	2500.000	2485.250	482330.66	0.9263	P	0.6
6	☐	5000.000	4856.858	892596.05	1.8102	P	0.1
7	☐	10000.000	9578.837	1737464.43	3.5702	P	0.8
8	☐	20000.000	18863.264	3546251.82	7.0305	P	0.2
9	☐	100000.00	100277.21	21252982.94	37.3739	A	1.2

$$y = 3.7271\text{E-}004 * x + 7.0410\text{E-}005$$

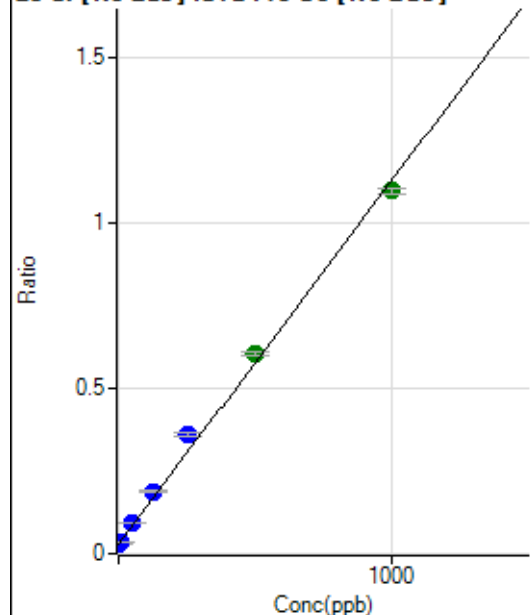
$$R = 0.9999$$

$$DL = 0.1949$$

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD :45 Sc [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	345234.34	0.0282	P	0.5
2	☐	1.000					
3	☐	10.000	8.537	455197.71	0.0376	P	0.6
4	☐	50.000	57.285	1080370.08	0.0911	P	2.3
5	☐	125.000	146.150	2135021.07	0.1886	P	5.0
6	☐	250.000	300.575	3687318.57	0.3580	P	2.7
7	☐	500.000	523.999	5943705.99	0.6032	A	1.8
8	☐	1000.000	972.363	10911737.57	1.0951	A	1.8
9	☐			1084595.25	0.1031	P	2.0

$$y = 0.0011 * x + 0.0282$$

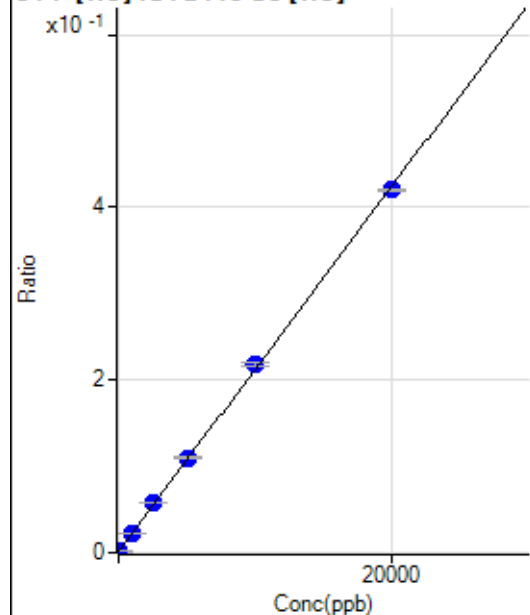
$$R = 0.9980$$

$$DL = 0.4157$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-30.659	436.14	0.0007	P	8.4
2	☐	0.000					
3	☐	0.000	30.659	1188.99	0.0020	P	5.7
4	☐	1000.000	997.578	12892.26	0.0225	P	4.1
5	☐	2500.000	2643.335	29794.52	0.0572	P	1.3
6	☐	5000.000	5148.240	54302.57	0.1101	P	3.1
7	☐	10000.000	10233.188	105866.26	0.2175	P	1.7
8	☐	20000.000	19828.550	211961.65	0.4202	P	0.4
9	☐			638.93	0.0011	P	4.3

$$y = 2.1123E-005 * x + 0.0014$$

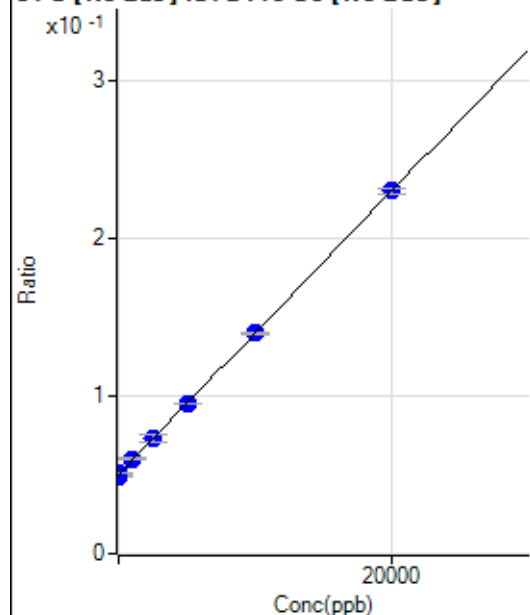
$$R = 0.9998$$

$$DL = 12.66$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-101.015	603940.63	0.0494	P	0.4
2	☐	0.000					
3	☐	0.000	101.015	619956.33	0.0512	P	0.5
4	☐	1000.000	1111.231	715328.35	0.0603	P	1.3
5	☐	2500.000	2523.495	826417.74	0.0730	P	5.8
6	☐	5000.000	5001.820	982211.36	0.0954	P	0.4
7	☐	10000.000	9981.715	1381941.02	0.1402	P	0.6
8	☐	20000.000	20000.189	2296705.39	0.2305	P	1.7
9	☐			495431.88	0.0471	P	1.9

$$y = 9.0100\text{E-}006 * x + 0.0503$$

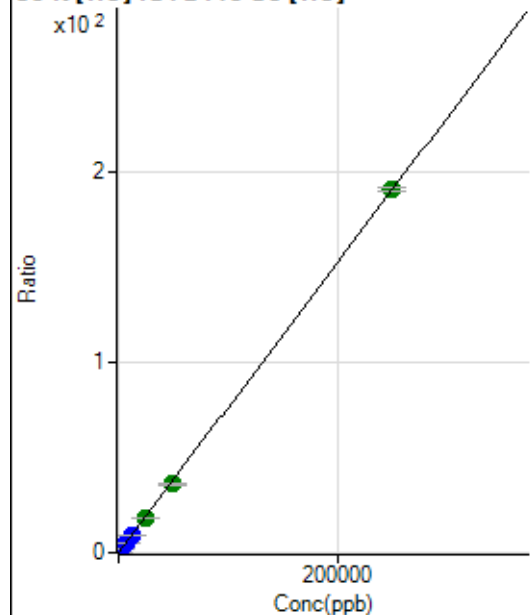
$$R = 1.0000$$

$$DL = 73.6$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24387.51	0.0412	P	0.9
2	☐	50.000					
3	☐	500.000	465.840	230806.20	0.3945	P	1.7
4	☐	2500.000	2470.042	1098990.19	1.9144	P	0.7
5	☐	6250.000	6228.371	2480671.13	4.7645	P	1.3
6	☐	12500.000	12187.517	4577607.14	9.2837	P	0.1
7	☐	25000.000	23942.381	8856244.64	18.1980	A	1.1
8	☐	50000.000	47222.990	18084613.42	35.8530	A	0.9
9	☐	250000.00	250677.69	108130930.89	190.1438	A	1.1

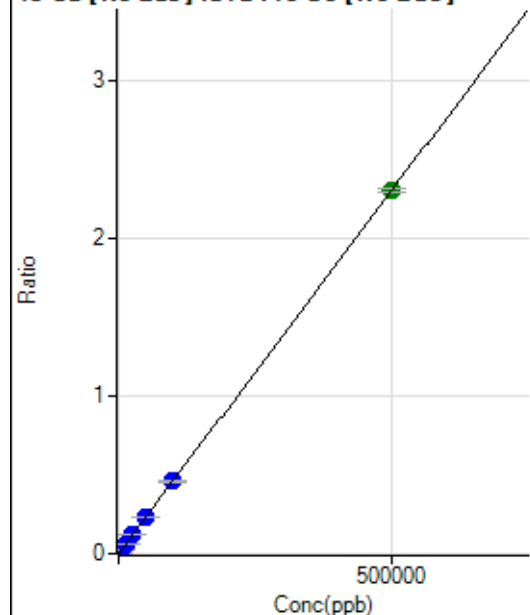
$$y = 7.5835\text{E-}004 * x + 0.0412$$

$$R = 0.9999$$

$$DL = 1.429$$

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	205.57	0.0000	P	30.6
2	☐	50.000					
3	☐	500.000	471.557	26485.59	0.0022	P	2.7
4	☐	5000.000	5109.335	279187.00	0.0235	P	0.2
5	☐	12500.000	12732.579	663509.04	0.0586	P	5.3
6	☐	25000.000	25471.786	1207809.40	0.1173	P	0.2
7	☐	50000.000	50661.643	2298233.88	0.2332	P	1.0
8	☐	100000.00	100011.93	4587025.41	0.4603	P	1.3
9	☐	500000.00	499900.98	24198840.47	2.3009	A	1.1

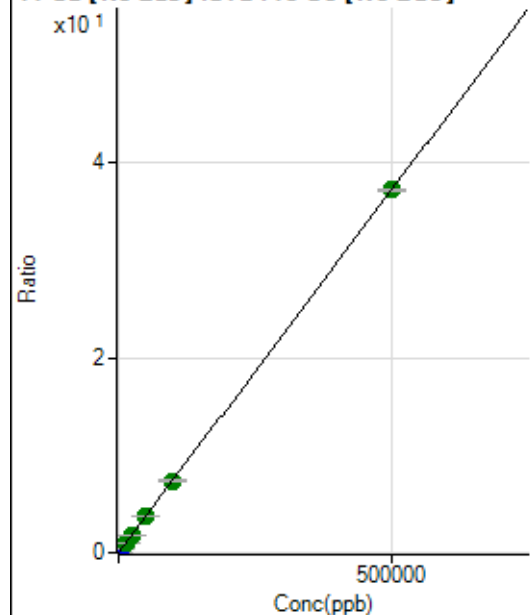
$$y = 4.6027E-006 * x + 1.6815E-005$$

$$R = 1.0000$$

$$DL = 3.353$$

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	20259.91	0.0017	P	2.6
2	☐	50.000					
3	☐	500.000	469.038	442919.23	0.0366	P	0.1
4	☐	5000.000	5114.994	4537748.36	0.3825	P	0.8
5	☐	12500.000	12412.856	10480126.54	0.9259	A	5.3
6	☐	25000.000	25008.094	19197150.43	1.8637	A	0.3
7	☐	50000.000	50133.188	36805437.28	3.7344	A	0.3
8	☐	100000.00	98944.108	73424187.75	7.3688	A	1.4
9	☐	500000.00	500198.51	391721875.42	37.2451	A	0.7

$$y = 7.4457E-005 * x + 0.0017$$

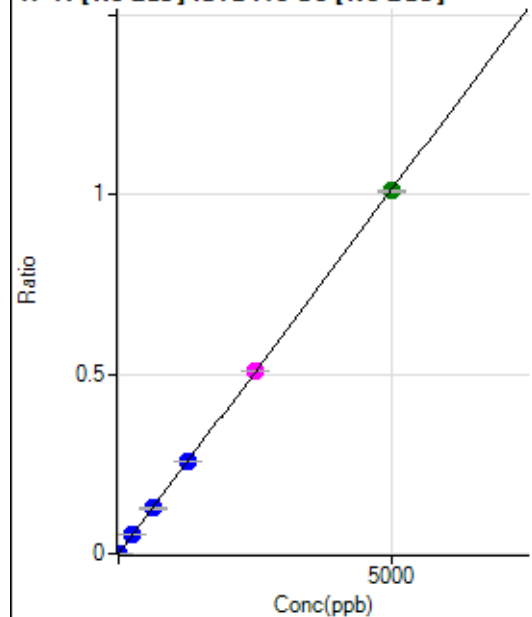
$$R = 1.0000$$

$$DL = 1.768$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	252.79	0.0000	P	14.8
2	☐	0.500					
3	☐	5.000	4.836	12105.37	0.0010	P	1.6
4	☐	250.000	254.969	612608.37	0.0516	P	1.1
5	☐	625.000	629.686	1443168.34	0.1275	P	5.4
6	☐	1250.000	1269.514	2647630.73	0.2570	P	0.3
7	☐	2500.000	2515.366	5019144.77	0.5093	M	0.3
8	☐	5000.000	4986.605	10060176.96	1.0096	A	0.3
9	☐			4164.67	0.0004	P	8.5

$$y = 2.0246\text{E-}004 * x + 2.0668\text{E-}005$$

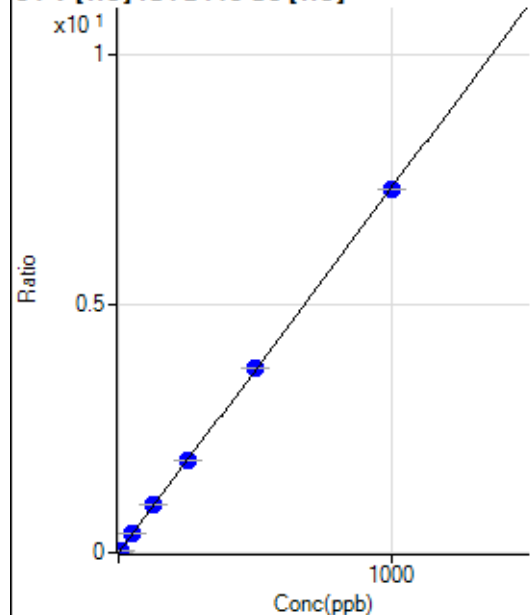
$$R = 1.0000$$

$$DL = 0.04535$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71.11	0.0001	P	23.7
2	☐	0.500					
3	☐	5.000	5.071	21845.28	0.0373	P	0.9
4	☐	50.000	51.651	217688.27	0.3792	P	0.8
5	☐	125.000	131.020	500723.37	0.9617	P	1.5
6	☐	250.000	254.599	921406.61	1.8687	P	0.6
7	☐	500.000	507.340	1812221.73	3.7237	P	0.1
8	☐	1000.000	994.345	3681184.91	7.2980	P	0.1
9	☐			611.14	0.0011	P	5.5

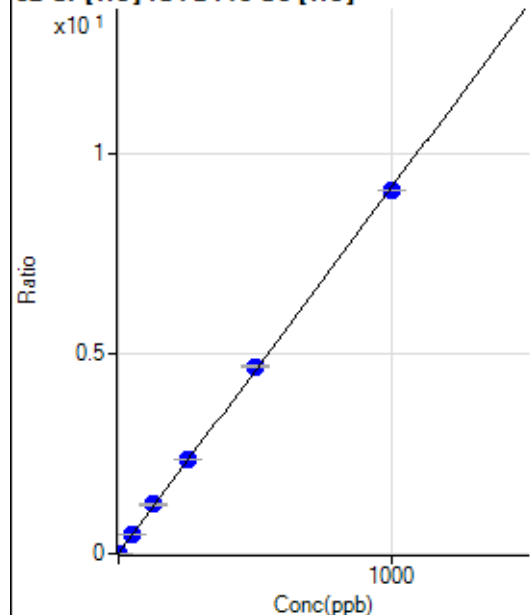
$$y = 0.0073 * x + 1.2028\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.01168$$

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	2998.13	0.0051	P	4.1
2	☐	0.200					
3	☐	2.000	1.992	13627.57	0.0233	P	1.0
4	☐	50.000	52.294	277507.33	0.4834	P	1.0
5	☐	125.000	133.549	638668.74	1.2267	P	1.3
6	☐	250.000	258.322	1167582.35	2.3680	P	0.6
7	☐	500.000	511.418	2279132.50	4.6831	P	0.2
8	☐	1000.000	991.027	4575025.24	9.0702	P	0.1
9	☐			35999.69	0.0633	P	2.5

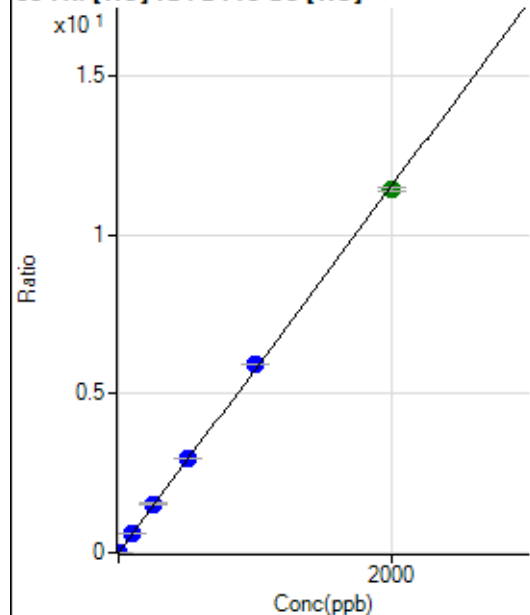
$$y = 0.0091 * x + 0.0051$$

$$R = 0.9998$$

$$DL = 0.06801$$

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	144.45	0.0002	P	10.9
2	☐	0.100					
3	☐	1.000	1.017	3580.49	0.0061	P	0.5
4	☐	100.000	104.112	345388.40	0.6016	P	0.4
5	☐	250.000	266.600	801922.51	1.5403	P	1.9
6	☐	500.000	517.811	1474980.73	2.9914	P	0.4
7	☐	1000.000	1028.062	2890261.97	5.9389	P	0.3
8	☐	2000.000	1979.235	5766780.05	11.4334	A	1.0
9	☐			25702.74	0.0452	P	2.8

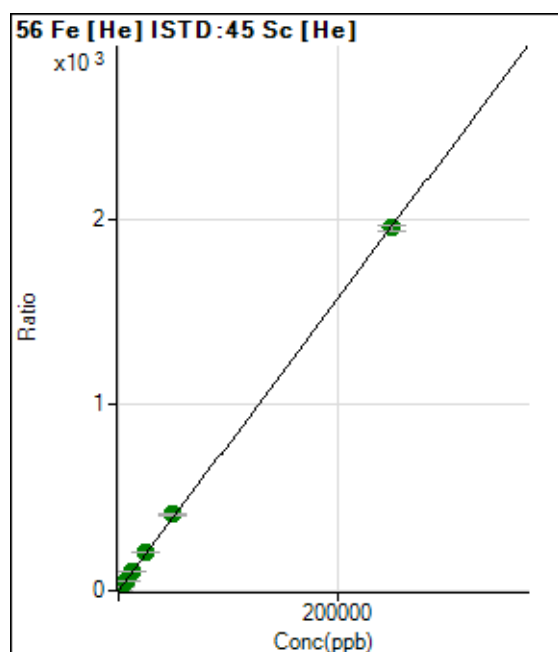
$$y = 0.0058 * x + 2.4415E-004$$

$$R = 0.9998$$

$$DL = 0.01381$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	9010.41	0.0152	P	1.6
2	☐	5.000					
3	☐	50.000	54.447	258720.99	0.4422	P	0.9
4	☐	2500.000	2743.292	12358424.12	21.5281	A	1.1
5	☐	6250.000	7032.863	28723377.96	55.1670	A	1.5
6	☐	12500.000	13663.958	52841797.01	107.1680	A	0.3
7	☐	25000.000	26859.452	102515155.99	210.6471	A	1.0
8	☐	50000.000	52285.778	206823187.96	410.0404	A	0.5
9	☐	250000.00	249276.69	1111611217.4	1,954.843	A	1.5

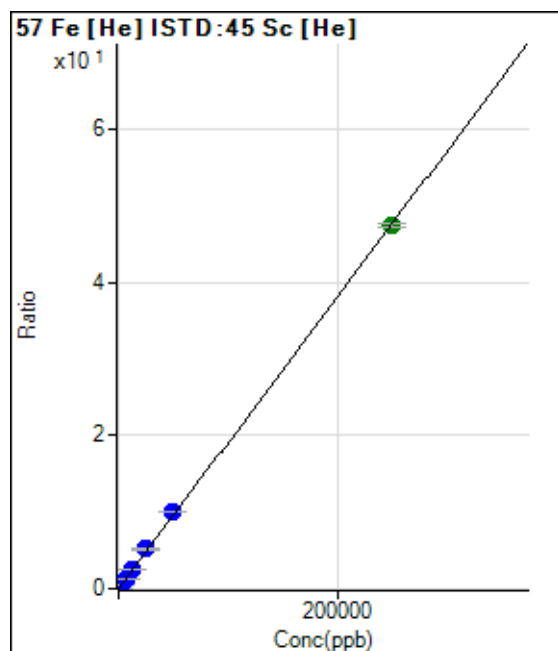
$$y = 0.0078 * x + 0.0152$$

$$R = 0.9999$$

$$DL = 0.09402$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	185.19	0.0003	P	27.3
2	☐	5.000					
3	☐	50.000	57.073	6525.69	0.0112	P	5.1
4	☐	2500.000	2763.547	301597.55	0.5254	P	0.5
5	☐	6250.000	7099.671	702480.89	1.3492	P	1.1
6	☐	12500.000	13798.115	1292789.71	2.6219	P	0.8
7	☐	25000.000	27113.817	2507204.72	5.1518	P	0.6
8	☐	50000.000	52831.350	5063170.66	10.0379	P	0.1
9	☐	250000.00	249133.56	26916934.63	47.3340	A	1.2

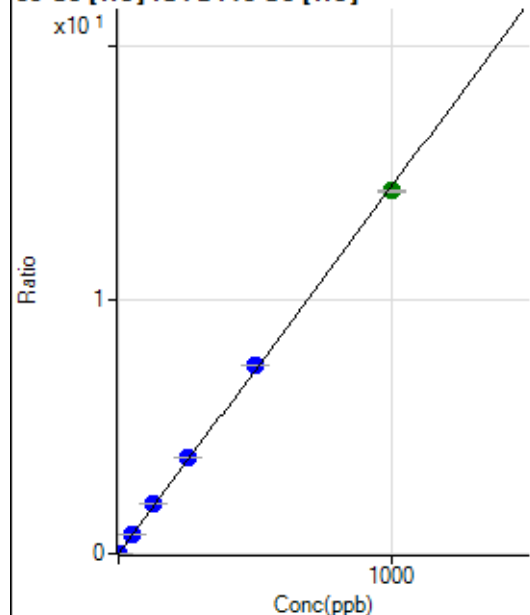
$$y = 1.8999E-004 * x + 3.1272E-004$$

$$R = 0.9999$$

$$DL = 1.35$$

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	306.68	0.0005	P	10.0
2	☐	0.100					
3	☐	1.000	0.988	8660.47	0.0148	P	2.8
4	☐	50.000	53.727	446479.61	0.7777	P	0.4
5	☐	125.000	136.265	1026576.37	1.9717	P	1.7
6	☐	250.000	262.758	1874449.40	3.8016	P	0.5
7	☐	500.000	513.812	3617613.17	7.4333	P	0.3
8	☐	1000.000	988.310	7211440.87	14.2974	A	0.8
9	☐			90160.53	0.1586	P	0.8

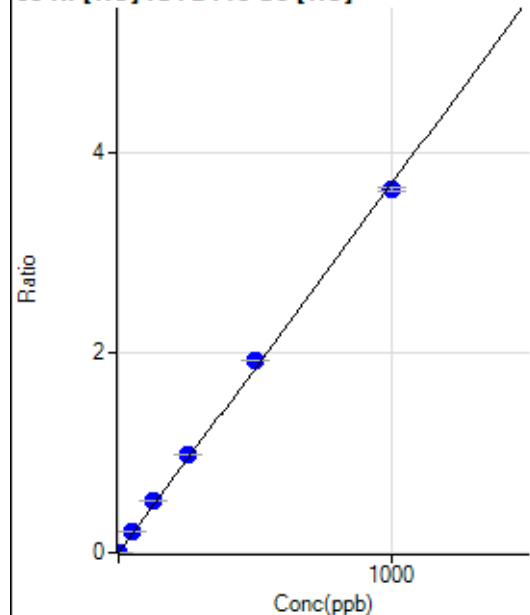
$$y = 0.0145 * x + 5.1853E-004$$

$$R = 0.9997$$

$$DL = 0.01072$$

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	271.12	0.0005	P	19.7
2	☐	0.100					
3	☐	1.000	1.039	2515.81	0.0043	P	5.0
4	☐	50.000	54.997	116928.59	0.2037	P	0.9
5	☐	125.000	139.096	267856.67	0.5145	P	1.0
6	☐	250.000	265.506	483982.07	0.9816	P	0.6
7	☐	500.000	521.389	937868.19	1.9271	P	0.4
8	☐	1000.000	983.417	1833172.54	3.6344	P	0.9
9	☐			23872.92	0.0420	P	1.5

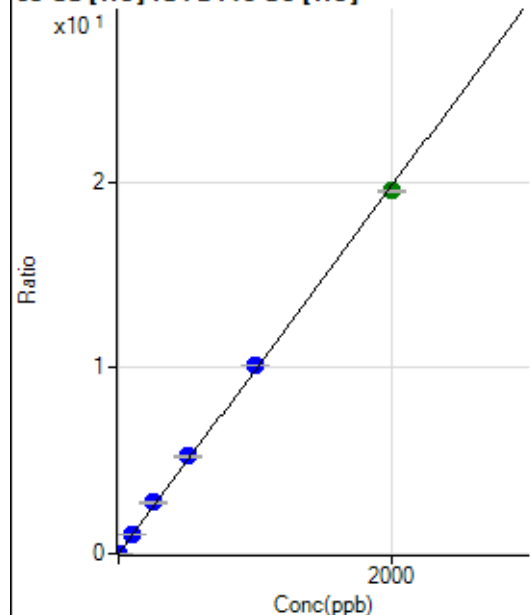
$$y = 0.0037 * x + 4.5875E-004$$

$$R = 0.9995$$

$$DL = 0.07339$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1183.40	0.0020	P	8.2
2	☐	0.200					
3	☐	2.000	2.082	13212.82	0.0226	P	2.1
4	☐	100.000	109.583	623066.90	1.0853	P	0.2
5	☐	250.000	277.999	1431994.79	2.7503	P	1.2
6	☐	500.000	528.657	2577917.44	5.2283	P	0.8
7	☐	1000.000	1028.081	4947311.04	10.1657	P	0.5
8	☐	2000.000	1974.816	9848360.97	19.5252	A	0.7
9	☐			15757.59	0.0277	P	0.4

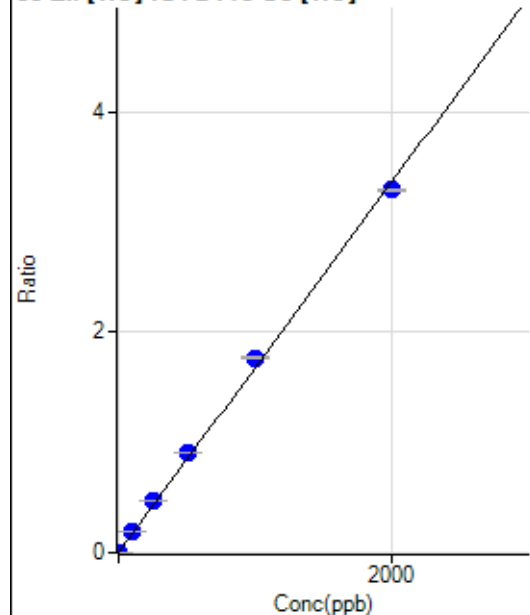
$$y = 0.0099 * x + 0.0020$$

$$R = 0.9997$$

$$DL = 0.04984$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	321.12	0.0005	P	17.2
2	☐	0.200					
3	☐	2.000	2.089	2371.34	0.0041	P	2.9
4	☐	100.000	109.453	105882.37	0.1844	P	0.8
5	☐	250.000	281.248	246319.21	0.4731	P	1.1
6	☐	500.000	540.194	447784.25	0.9082	P	0.8
7	☐	1000.000	1051.445	860028.47	1.7672	P	0.9
8	☐	2000.000	1959.850	1661192.11	3.2934	P	0.4
9	☐			10227.04	0.0180	P	2.9

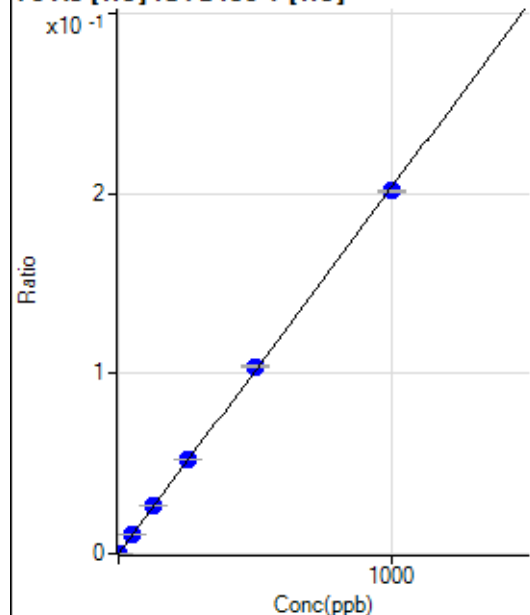
$$y = 0.0017 * x + 5.4244E-004$$

$$R = 0.9992$$

$$DL = 0.1662$$

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	17.28	0.0000	P	38.1
2	☐	0.100					
3	☐	1.000	0.920	550.01	0.0002	P	3.6
4	☐	50.000	52.960	30468.34	0.0108	P	0.3
5	☐	125.000	133.462	70854.22	0.0272	P	0.6
6	☐	250.000	259.223	131066.72	0.0528	P	0.2
7	☐	500.000	511.248	255184.13	0.1040	P	1.2
8	☐	1000.000	990.865	505298.78	0.2017	P	0.4
9	☐			698.79	0.0003	P	4.7

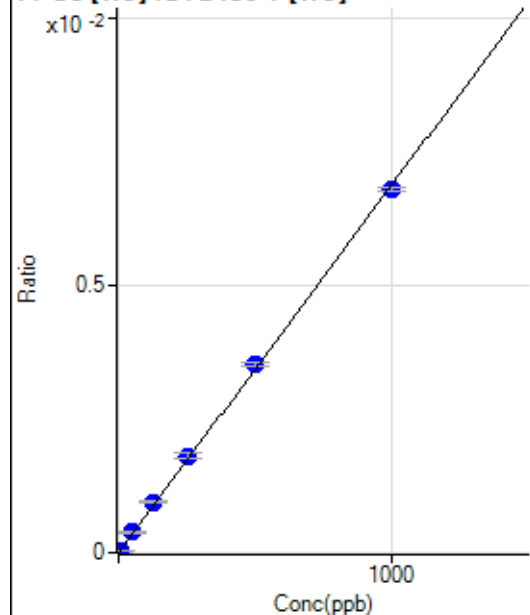
$$y = 2.0351\text{E-}004 * x + 5.9977\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.03371$$

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	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	6.358	125.56	0.0000	P	20.0
4	☐	50.000	55.441	1076.73	0.0004	P	10.9
5	☐	125.000	137.943	2472.48	0.0009	P	4.0
6	☐	250.000	264.179	4508.54	0.0018	P	4.3
7	☐	500.000	513.437	8652.71	0.0035	P	1.5
8	☐	1000.000	987.840	17005.72	0.0068	P	1.2
9	☐			11.11	0.0000	P	47.0

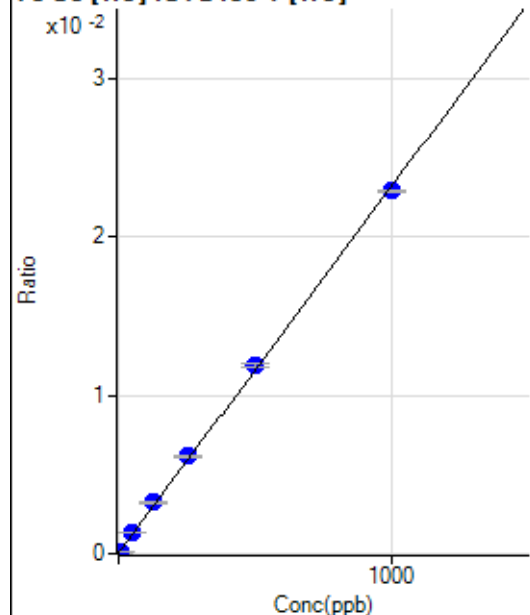
$$y = 6.8696\text{E-}006 * x + 3.8658\text{E-}007$$

$$R = 0.9997$$

$$DL = 0.2924$$

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	90.12	0.0000	P	12.0
2	☐	0.500					
3	☐	5.000	5.575	456.80	0.0002	P	8.9
4	☐	50.000	54.836	3678.90	0.0013	P	3.6
5	☐	125.000	137.785	8409.30	0.0032	P	1.7
6	☐	250.000	263.683	15257.49	0.0061	P	1.4
7	☐	500.000	513.568	29266.56	0.0119	P	1.5
8	☐	1000.000	987.952	57450.19	0.0229	P	0.3
9	☐			112.96	0.0000	P	7.6

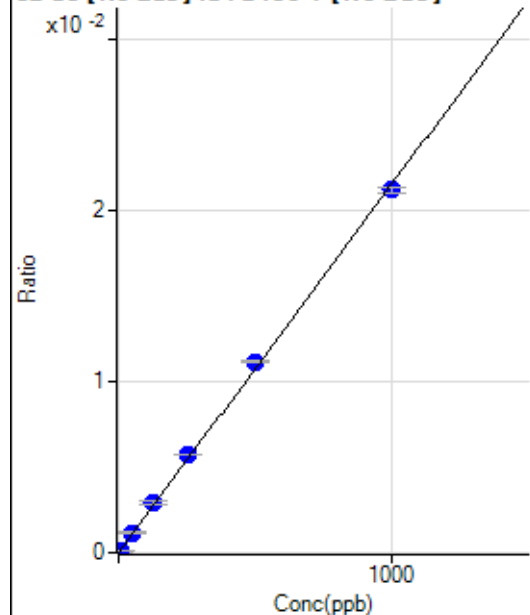
$$y = 2.3175\text{E-}005 * x + 3.1217\text{E-}005$$

$$R = 0.9997$$

$$DL = 0.486$$

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	50.04	0.0000	P	49.0
2	☐	0.500					
3	☐	5.000	5.189	2069.91	0.0001	P	0.5
4	☐	50.000	54.448	20824.17	0.0012	P	1.6
5	☐	125.000	135.905	49907.86	0.0029	P	6.4
6	☐	250.000	265.192	91807.95	0.0057	P	0.1
7	☐	500.000	517.871	172966.72	0.0112	P	0.7
8	☐	1000.000	985.680	330141.09	0.0212	P	1.4
9	☐			78.19	0.0000	P	44.3

$$y = 2.1539\text{E-}005 * x + 2.7279\text{E-}006$$

$$R = 0.9996$$

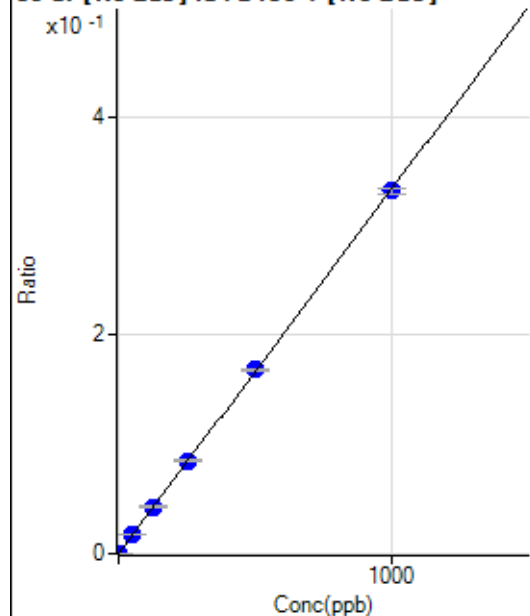
$$DL = 0.1861$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			635.58		P	4.2
2	☐						
3	☐			623.36		P	8.8
4	☐			652.25		P	3.0
5	☐			680.03		P	4.4
6	☐			568.91		P	4.7
7	☐			526.69		P	2.5
8	☐			614.47		P	1.9
9	☐			700.03		P	6.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1022.30	0.0001	P	3.5
2	☐	0.100					
3	☐	1.000	0.826	5982.02	0.0003	P	4.0
4	☐	50.000	51.127	302694.28	0.0171	P	1.1
5	☐	125.000	127.918	726812.21	0.0427	P	6.1
6	☐	250.000	255.645	1368822.24	0.0852	P	1.0
7	☐	500.000	504.852	2607755.39	0.1682	P	0.7
8	☐	1000.000	995.742	5157615.05	0.3317	P	1.7
9	☐			19934.01	0.0013	P	2.0

$$y = 3.3308\text{E-}004 * x + 5.5903\text{E-}005$$

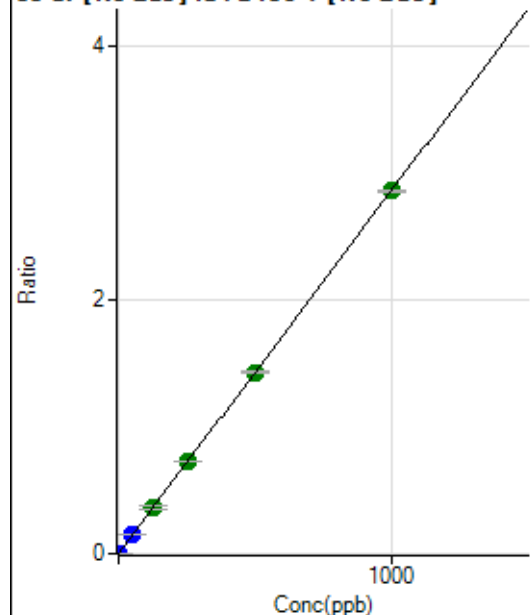
$$R = 1.0000$$

$$DL = 0.0177$$

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	116.67	0.0000	P	39.5
2	☐	0.100					
3	☐	1.000	0.820	42594.60	0.0024	P	2.3
4	☐	50.000	51.658	2622102.86	0.1480	P	0.5
5	☐	125.000	126.076	6152254.35	0.3612	A	6.6
6	☐	250.000	252.542	11624039.76	0.7235	A	0.7
7	☐	500.000	500.214	22216810.04	1.4331	A	0.8
8	☐	1000.000	999.040	44501925.99	2.8622	A	0.7
9	☐			165083.28	0.0107	P	1.1

$$y = 0.0029 * x + 6.3780E-006$$

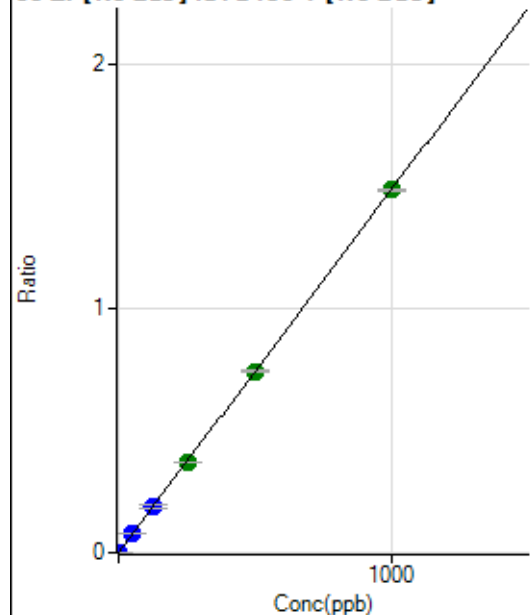
$$R = 1.0000$$

$$DL = 0.00264$$

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	1461.25	0.0001	P	9.3
2	☐	0.100					
3	☐	1.000	0.901	25637.64	0.0014	P	1.9
4	☐	50.000	51.256	1350794.40	0.0762	P	0.6
5	☐	125.000	127.299	3224133.30	0.1892	P	5.8
6	☐	250.000	250.787	5987946.75	0.3727	A	0.3
7	☐	500.000	500.245	11524809.46	0.7434	A	0.7
8	☐	1000.000	999.331	23088520.31	1.4850	A	0.3
9	☐			6943.62	0.0005	P	6.8

$$y = 0.0015 * x + 7.9930E-005$$

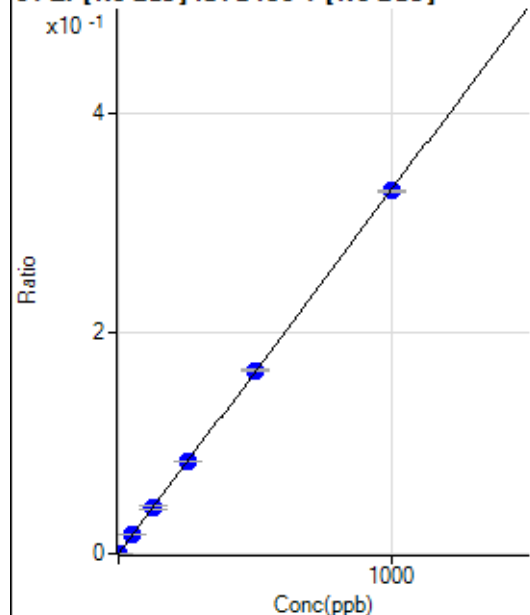
$$R = 1.0000$$

$$DL = 0.01505$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.68	0.0000	P	8.5
2	☐	0.100					
3	☐	1.000	0.908	5676.38	0.0003	P	3.1
4	☐	50.000	51.194	299488.82	0.0169	P	1.3
5	☐	125.000	128.164	720423.99	0.0423	P	6.7
6	☐	250.000	253.438	1343497.04	0.0836	P	1.3
7	☐	500.000	503.917	2577661.97	0.1663	P	0.6
8	☐	1000.000	996.727	5113149.72	0.3289	P	0.8
9	☐			1494.59	0.0001	P	4.0

$$y = 3.2993\text{E-}004 * x + 1.4574\text{E-}005$$

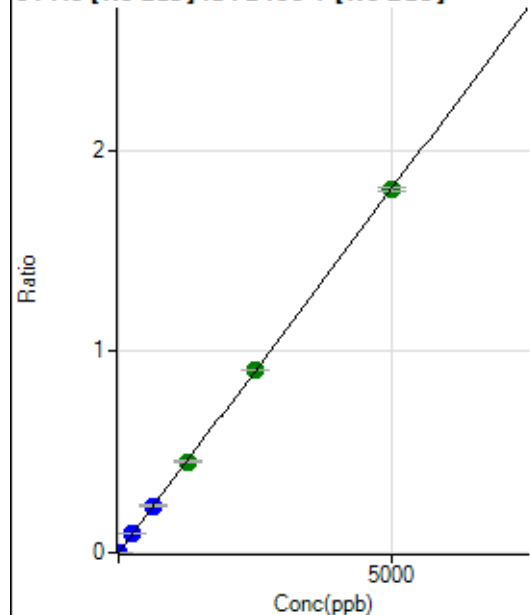
$$R = 1.0000$$

$$DL = 0.01132$$

Weight: <None>

Min Conc: 0

94 Mo [No Gas] ISTD: 89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	566.70	0.0000	P	10.6
2	☐	0.500					
3	☐	5.000	4.698	31273.98	0.0017	P	1.1
4	☐	250.000	258.981	1659754.48	0.0937	P	0.5
5	☐	625.000	645.213	3975372.79	0.2334	P	6.1
6	☐	1250.000	1254.956	7291297.21	0.4539	A	0.2
7	☐	2500.000	2515.678	14104080.17	0.9098	A	0.6
8	☐	5000.000	4987.946	28045078.75	1.8038	A	1.0
9	☐			14012.88	0.0009	P	7.7

$$y = 3.6162\text{E-}004 * x + 3.0986\text{E-}005$$

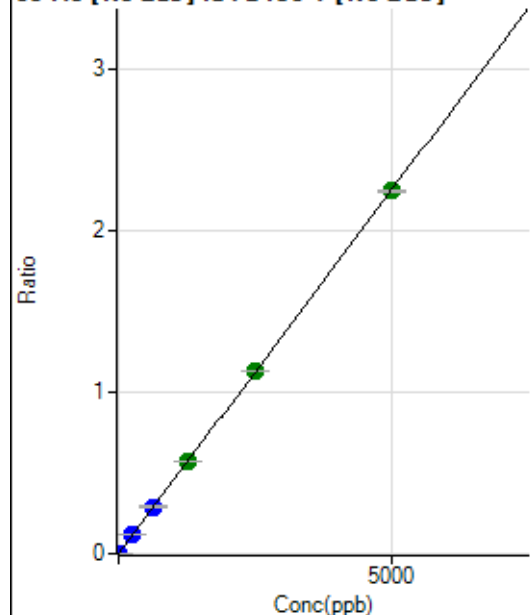
$$R = 1.0000$$

$$DL = 0.02724$$

Weight: <None>

Min Conc: 0

95 Mo [No Gas] ISTD:89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	211.12	0.0000	P	28.5
2	☐	0.500					
3	☐	5.000	4.723	38583.78	0.0021	P	2.5
4	☐	250.000	256.484	2042436.46	0.1153	P	0.3
5	☐	625.000	645.010	4938463.30	0.2899	P	6.1
6	☐	1250.000	1260.432	9100502.98	0.5665	A	0.6
7	☐	2500.000	2510.189	17489710.46	1.1282	A	0.3
8	☐	5000.000	4989.472	34864406.33	2.2424	A	0.8
9	☐			20593.39	0.0013	P	6.3

$$y = 4.4943\text{E-}004 * x + 1.1526\text{E-}005$$

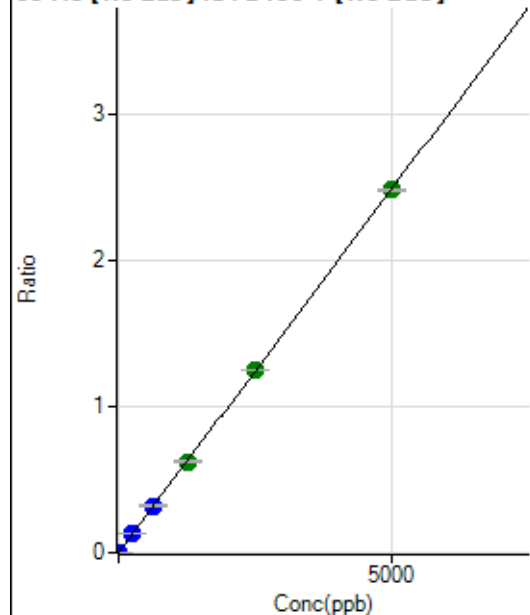
$$R = 1.0000$$

$$DL = 0.02193$$

Weight: <None>

Min Conc: 0

96 Mo [No Gas] ISTD:89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	361.13	0.0000	P	9.2
2	☐	0.500					
3	☐	5.000	4.686	42517.31	0.0024	P	1.3
4	☐	250.000	257.557	2270957.60	0.1282	P	1.2
5	☐	625.000	644.195	5461447.26	0.3206	P	6.1
6	☐	1250.000	1252.904	10016592.59	0.6235	A	0.7
7	☐	2500.000	2511.349	19374424.91	1.2497	A	0.3
8	☐	5000.000	4990.822	38613786.28	2.4836	A	0.5
9	☐			32351.65	0.0021	P	3.5

$$y = 4.9762\text{E-}004 * x + 1.9745\text{E-}005$$

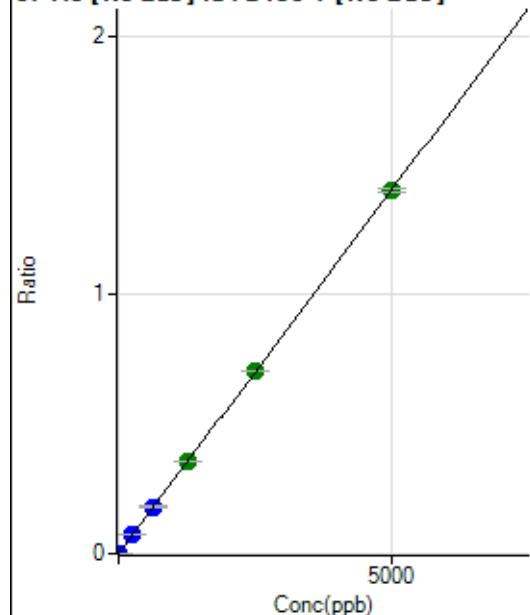
$$R = 1.0000$$

$$DL = 0.01099$$

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	122.23	0.0000	P	13.4
2	☐	0.500					
3	☐	5.000	4.777	24388.27	0.0013	P	1.8
4	☐	250.000	257.109	1280022.95	0.0723	P	0.2
5	☐	625.000	643.552	3080753.50	0.1808	P	6.0
6	☐	1250.000	1262.807	5700582.64	0.3548	A	0.4
7	☐	2500.000	2507.595	10923332.19	0.7046	A	0.4
8	☐	5000.000	4990.327	21801167.68	1.4022	A	0.9
9	☐			12300.21	0.0008	P	8.7

$$y = 2.8098E-004 * x + 6.6783E-006$$

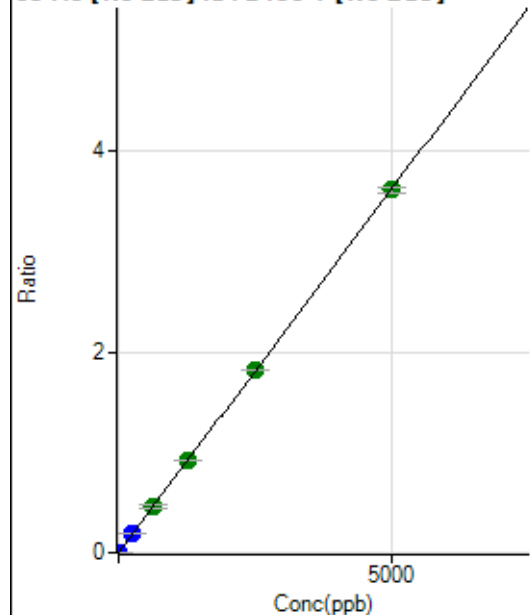
$$R = 1.0000$$

$$DL = 0.00958$$

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	341.68	0.0000	P	5.6
2	☐	0.500					
3	☐	5.000	4.743	62482.18	0.0035	P	1.6
4	☐	250.000	258.170	3314740.22	0.1871	P	0.7
5	☐	625.000	629.054	7765872.83	0.4559	A	6.1
6	☐	1250.000	1259.050	14657733.66	0.9124	A	0.2
7	☐	2500.000	2511.702	28217536.05	1.8201	A	0.4
8	☐	5000.000	4990.971	56232265.84	3.6168	A	1.4
9	☐			30864.90	0.0020	P	5.5

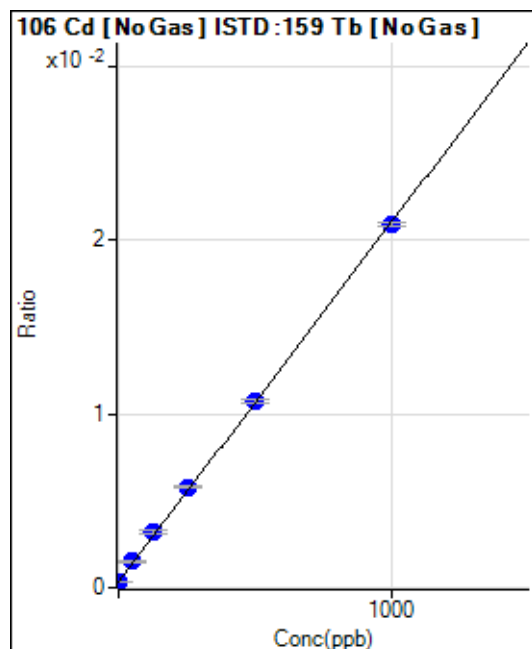
$$y = 7.2466E-004 * x + 1.8675E-005$$

$$R = 1.0000$$

$$DL = 0.004331$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7777.43	0.0003	P	3.8
2	☐	0.100					
3	☐	1.000	1.561	8294.40	0.0004	P	3.3
4	☐	50.000	57.030	35072.23	0.0015	P	1.5
5	☐	125.000	139.081	74426.11	0.0032	P	4.6
6	☐	250.000	264.418	130460.15	0.0058	P	0.5
7	☐	500.000	503.468	237711.92	0.0108	P	1.3
8	☐	1000.000	992.549	462083.18	0.0209	P	1.0
9	☐			7093.76	0.0003	P	4.1

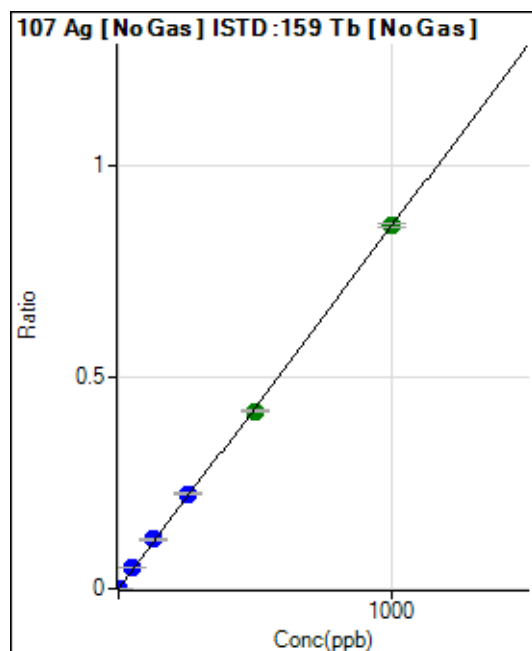
$$y = 2.0725\text{E-}005 * x + 3.2109\text{E-}004$$

$$R = 0.9998$$

$$DL = 1.772$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	186.12	0.0000	P	8.9
2	☐	0.100					
3	☐	1.000	1.117	22607.77	0.0010	P	2.2
4	☐	50.000	56.812	1134433.35	0.0486	P	0.1
5	☐	125.000	136.514	2713218.62	0.1168	P	5.1
6	☐	250.000	261.012	5022139.87	0.2233	P	1.3
7	☐	500.000	489.900	9264020.26	0.4192	A	1.6
8	☐	1000.000	1000.517	18934162.92	0.8561	A	1.0
9	☐			1352.91	0.0001	P	2.0

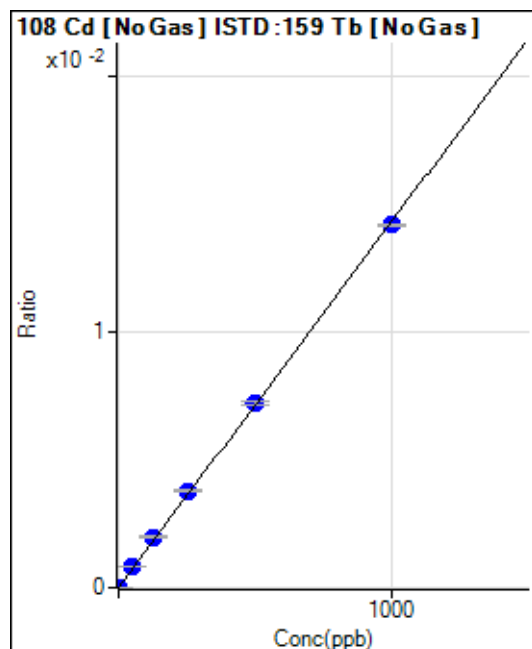
$$y = 8.5560\text{E-}004 * x + 7.6820\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.002406$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0000	P	54.4
2	☐	0.100					
3	☐	1.000	1.160	411.13	0.0000	P	15.8
4	☐	50.000	57.926	19370.50	0.0008	P	1.4
5	☐	125.000	138.509	46064.04	0.0020	P	6.0
6	☐	250.000	264.793	85256.30	0.0038	P	0.9
7	☐	500.000	504.941	159764.14	0.0072	P	1.3
8	☐	1000.000	991.746	313996.67	0.0142	P	0.2
9	☐			63.89	0.0000	P	19.8

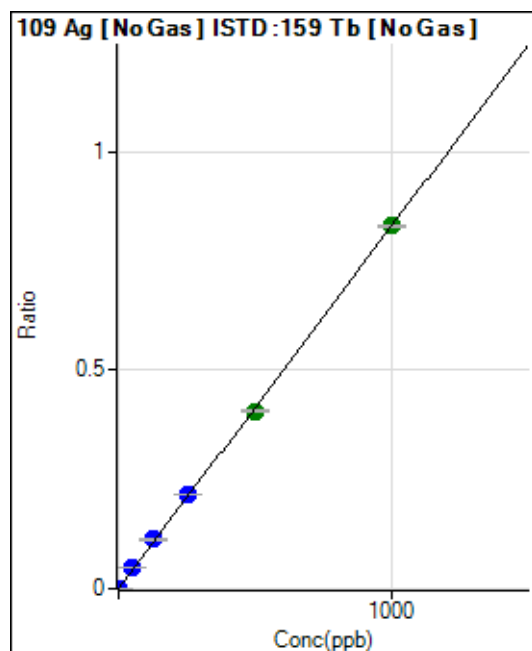
$$y = 1.4314\text{E-}005 * x + 9.1912\text{E-}007$$

$$R = 0.9998$$

$$DL = 0.1048$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0000	P	12.4
2	☐	0.100					
3	☐	1.000	1.112	21731.36	0.0009	P	2.1
4	☐	50.000	57.299	1110067.76	0.0476	P	0.8
5	☐	125.000	135.886	2618501.25	0.1128	P	6.9
6	☐	250.000	259.821	4850472.94	0.2157	P	0.8
7	☐	500.000	490.028	8991824.77	0.4068	A	1.0
8	☐	1000.000	1000.805	18375733.39	0.8308	A	0.5
9	☐			1175.11	0.0001	P	25.8

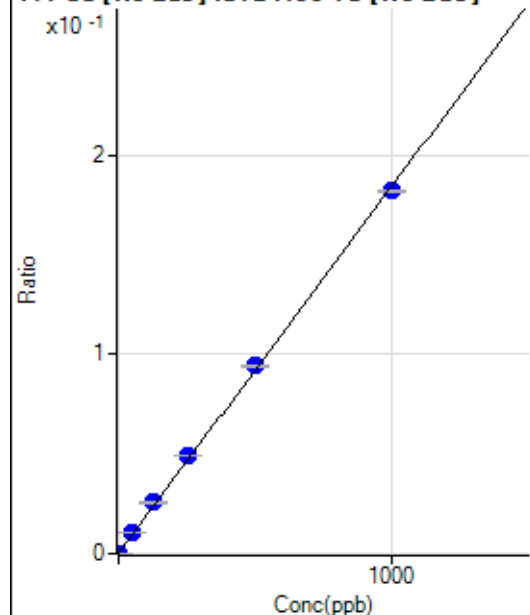
$$y = 8.3014\text{E-}004 * x + 3.2113\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.00144$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5518.93	0.0002	P	3.8
2	☐	0.100					
3	☐	1.000	1.049	9876.01	0.0004	P	2.1
4	☐	50.000	57.139	250598.68	0.0107	P	1.0
5	☐	125.000	138.059	595033.04	0.0256	P	6.0
6	☐	250.000	266.821	1108967.48	0.0493	P	1.1
7	☐	500.000	510.360	2080090.12	0.0941	P	1.5
8	☐	1000.000	988.625	4027726.44	0.1821	P	0.8
9	☐			5304.25	0.0003	P	4.3

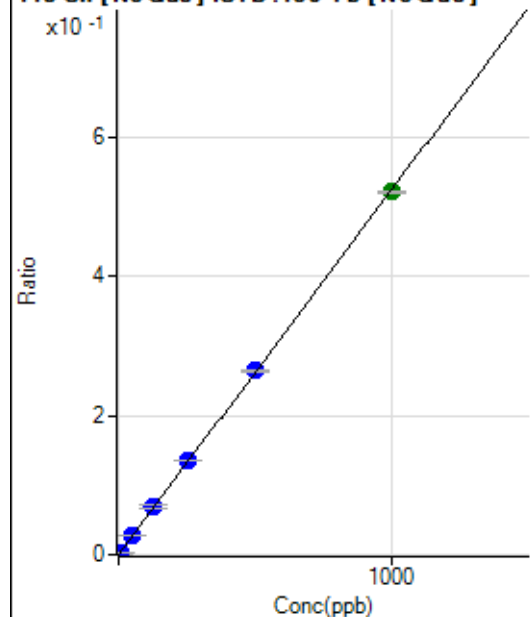
$$y = 1.8397\text{E-}004 * x + 2.2784\text{E-}004$$

$$R = 0.9997$$

$$DL = 0.1419$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	950.07	0.0000	P	3.6
2	☐	0.500					
3	☐	5.000	5.377	67002.08	0.0029	P	0.3
4	☐	50.000	54.402	665762.69	0.0285	P	0.6
5	☐	125.000	132.562	1613111.20	0.0695	P	5.9
6	☐	250.000	258.662	3047275.18	0.1355	P	1.7
7	☐	500.000	503.754	5832076.82	0.2639	P	1.3
8	☐	1000.000	994.791	11524426.22	0.5211	A	0.8
9	☐			7721.91	0.0004	P	4.3

$$y = 5.2374\text{E-}004 * x + 3.9227\text{E-}005$$

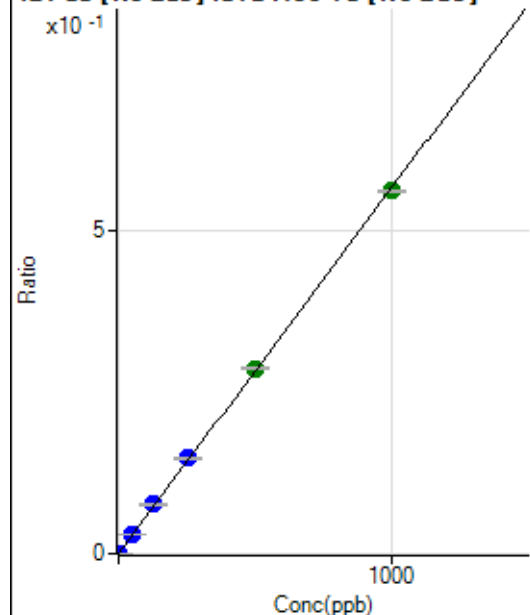
$$R = 0.9999$$

$$DL = 0.008017$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	28.9
2	☐	0.200					
3	☐	2.000	1.997	26614.97	0.0011	P	1.8
4	☐	50.000	54.748	724328.07	0.0310	P	0.3
5	☐	125.000	134.295	1767488.91	0.0761	P	6.6
6	☐	250.000	261.067	3328483.71	0.1480	P	0.8
7	☐	500.000	507.430	6358750.79	0.2877	A	0.5
8	☐	1000.000	992.119	12440526.49	0.5625	A	0.4
9	☐			13668.31	0.0007	P	0.3

$$y = 5.6694\text{E-}004 * x + 2.0643\text{E-}006$$

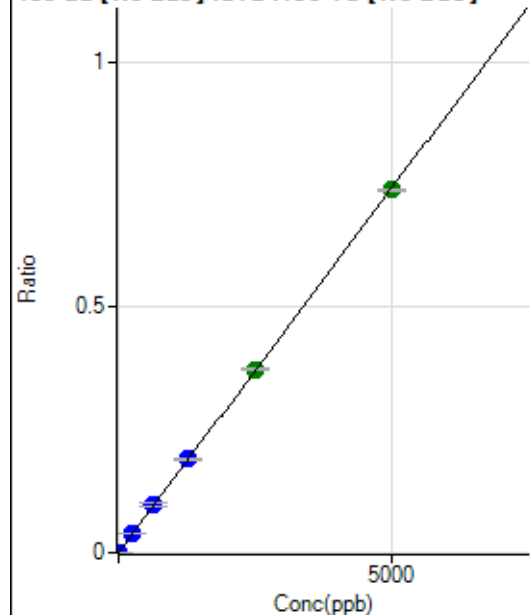
$$R = 0.9999$$

$$DL = 0.003152$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0000	P	29.6
2	☐	1.000					
3	☐	10.000	10.111	35345.94	0.0015	P	1.0
4	☐	250.000	268.956	931762.33	0.0399	P	0.3
5	☐	625.000	660.175	2275446.58	0.0980	P	6.2
6	☐	1250.000	1289.341	4303979.61	0.1914	P	1.9
7	☐	2500.000	2509.746	8234342.11	0.3726	A	1.0
8	☐	5000.000	4979.947	16350288.39	0.7392	A	0.9
9	☐			2355.86	0.0001	P	5.7

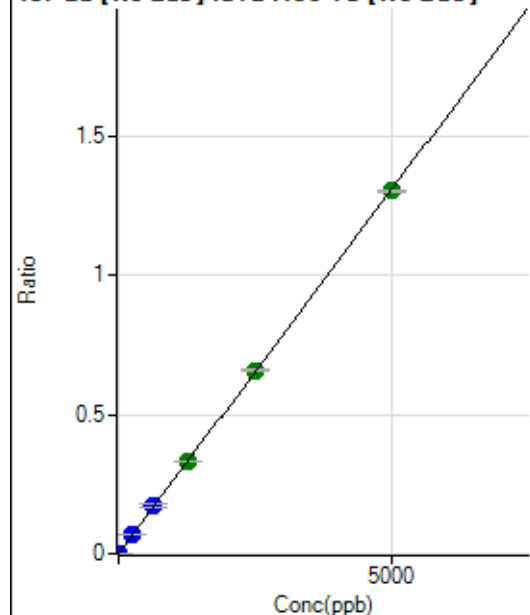
$$y = 1.4844\text{E-}004 * x + 5.3842\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.03221$$

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	236.12	0.0000	P	17.4
2	☐	1.000					
3	☐	10.000	9.988	61593.19	0.0026	P	1.1
4	☐	250.000	267.373	1633751.59	0.0700	P	0.4
5	☐	625.000	657.733	3999996.44	0.1722	P	5.2
6	☐	1250.000	1259.233	7414542.61	0.3297	A	0.4
7	☐	2500.000	2518.695	14575529.49	0.6594	A	0.7
8	☐	5000.000	4983.384	28857592.66	1.3047	A	0.2
9	☐			4125.80	0.0002	P	3.8

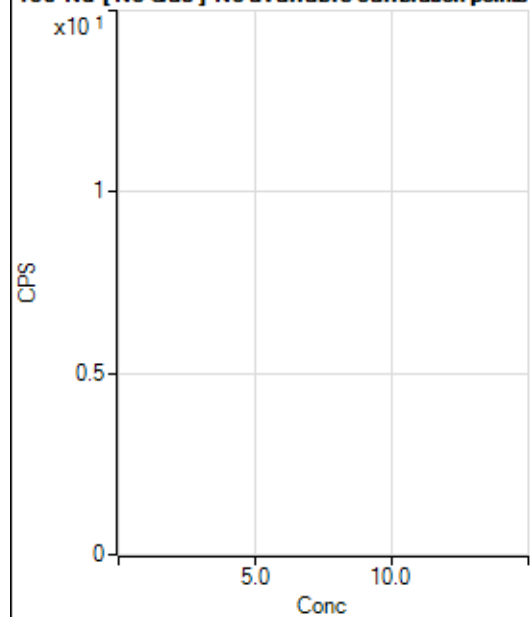
$$y = 2.6182E-004 * x + 9.7488E-006$$

$$R = 1.0000$$

$$DL = 0.01949$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			0.00		P	
2	☐						
3	☐			4.45		P	86.6
4	☐			97.78		P	21.9
5	☐			275.57		P	25.4
6	☐			462.24		P	5.8
7	☐			791.16		P	11.7
8	☐			1353.45		P	6.4
9	☐			244.45		P	31.6

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	☐			15.56		P	61.9
5	☐			23.33		P	24.7
6	☐			38.89		P	50.2
7	☐			73.33		P	18.2
8	☐			140.00		P	28.1
9	☐			118.89		P	25.9

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	17.3
2	☐						
3	☐			36.11		P	81.1
4	☐			36.11		P	58.1
5	☐			55.56		P	17.3
6	☐			80.56		P	31.6
7	☐			147.23		P	21.4
8	☐			247.24		P	3.9
9	☐			158.34		P	27.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	57.3
2	☐						
3	☐			4.45		P	86.6
4	☐			33.33		P	10.0
5	☐			64.44		P	15.8
6	☐			103.34		P	21.2
7	☐			152.23		P	21.0
8	☐			351.12		P	11.9
9	☐			76.67		P	19.0

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			133.34		P	43.8
2	☐						
3	☐			119.45		P	22.4
4	☐			113.89		P	11.2
5	☐			161.12		P	11.9
6	☐			133.34		P	34.8
7	☐			127.78		P	26.4
8	☐			144.45		P	3.3
9	☐			202.79		P	19.4

160 Gd [He] No available calibration points

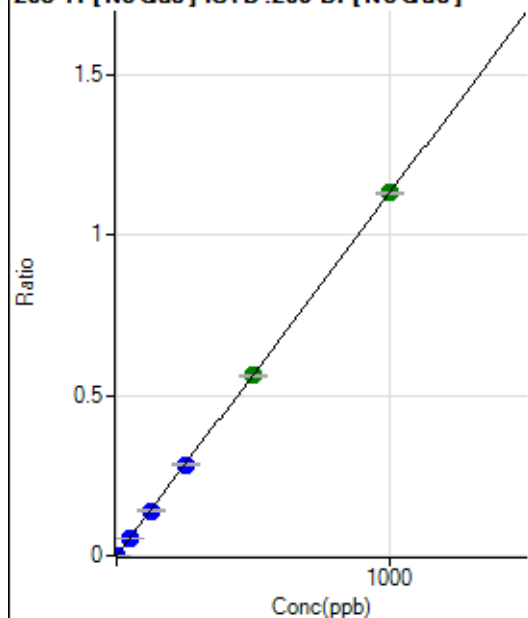
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			371.12		P	8.1
2	☐						
3	☐			364.46		P	5.2
4	☐			331.12		P	6.1
5	☐			300.01		P	9.1
6	☐			312.23		P	8.6
7	☐			302.23		P	10.6
8	☐			328.90		P	14.6
9	☐			381.12		P	8.8

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			58.34		P	0.0
2	☐						
3	☐			63.89		P	19.9
4	☐			77.78		P	24.7
5	☐			88.89		P	14.3
6	☐			75.00		P	40.1
7	☐			66.67		P	12.5
8	☐			72.23		P	13.3
9	☐			83.34		P	55.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			37.78		P	33.4
2	☐						
3	☐			35.55		P	10.8
4	☐			22.22		P	17.3
5	☐			25.55		P	27.1
6	☐			38.89		P	51.7
7	☐			36.67		P	32.8
8	☐			30.00		P	44.4
9	☐			40.00		P	25.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	291.68	0.0000	P	9.8
2	☐	0.100					
3	☐	1.000	0.899	16513.59	0.0010	P	1.6
4	☐	50.000	49.125	878723.32	0.0554	P	0.5
5	☐	125.000	123.348	2182919.90	0.1392	P	5.7
6	☐	250.000	251.497	4278756.65	0.2838	P	0.7
7	☐	500.000	497.132	8177203.39	0.5609	A	1.4
8	☐	1000.000	1001.310	16099471.37	1.1298	A	0.6
9	☐			2444.80	0.0002	P	11.3

$$y = 0.0011 * x + 1.7517E-005$$

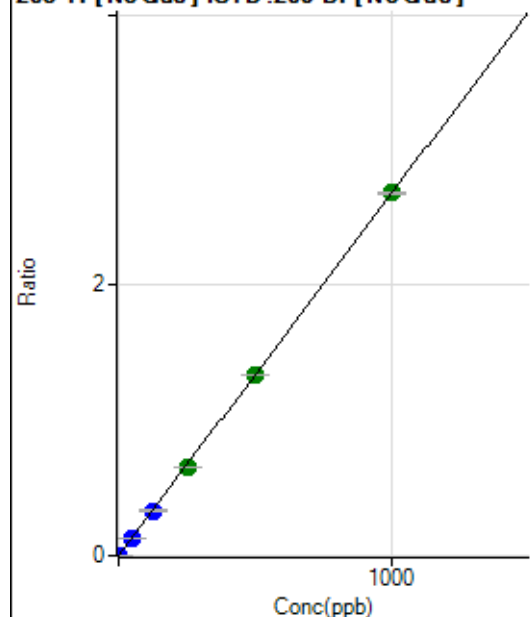
$$R = 1.0000$$

$$DL = 0.004578$$

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	866.74	0.0001	P	14.1
2	☐	0.100					
3	☐	1.000	0.887	38877.44	0.0024	P	1.4
4	☐	50.000	49.842	2118390.04	0.1337	P	0.7
5	☐	125.000	124.683	5243548.86	0.3343	P	5.3
6	☐	250.000	245.299	9915387.81	0.6576	A	0.4
7	☐	500.000	499.071	19504079.78	1.3380	A	0.5
8	☐	1000.000	1001.687	38265015.09	2.6854	A	0.4
9	☐			5609.79	0.0005	P	7.0

$$y = 0.0027 * x + 5.2047E-005$$

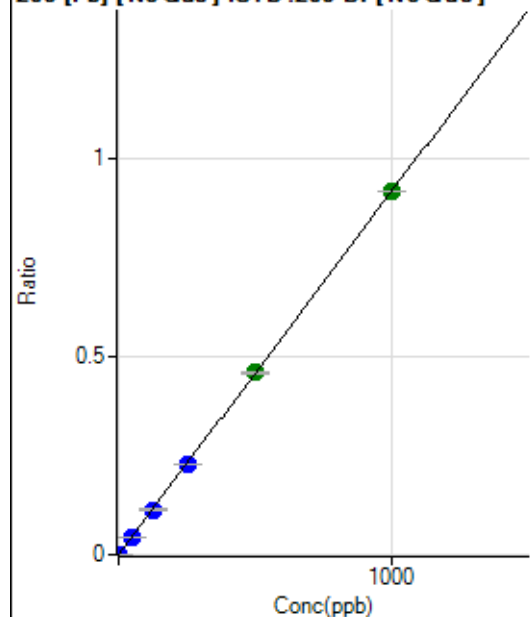
$$R = 1.0000$$

$$DL = 0.008219$$

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	1063.04	0.0001	P	16.3
2	☐	0.100					
3	☐	1.000	0.875	13829.76	0.0009	P	2.2
4	☐	50.000	50.027	726015.65	0.0458	P	0.7
5	☐	125.000	123.683	1774409.60	0.1132	P	6.0
6	☐	250.000	250.876	3459861.54	0.2295	P	0.2
7	☐	500.000	501.246	6682781.22	0.4584	A	1.0
8	☐	1000.000	999.322	13022674.37	0.9139	A	0.1
9	☐			13051.15	0.0011	P	1.7

$$y = 9.1445E-004 * x + 6.3867E-005$$

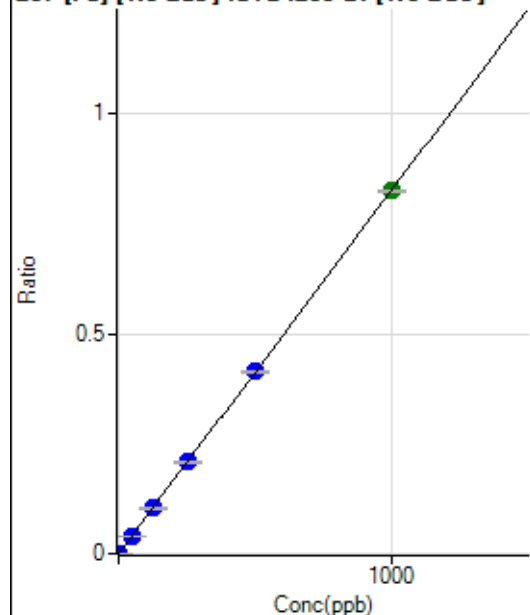
$$R = 1.0000$$

$$DL = 0.03415$$

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	1020.44	0.0001	P	6.9
2	☐	0.100					
3	☐	1.000	0.871	12496.97	0.0008	P	2.5
4	☐	50.000	50.059	656232.94	0.0414	P	0.6
5	☐	125.000	124.799	1617628.77	0.1031	P	5.3
6	☐	250.000	251.995	3139019.28	0.2082	P	0.7
7	☐	500.000	501.363	6037359.16	0.4142	P	0.8
8	☐	1000.000	998.842	11756637.19	0.8251	A	0.2
9	☐			10850.97	0.0009	P	1.7

$$y = 8.2595E-004 * x + 6.1317E-005$$

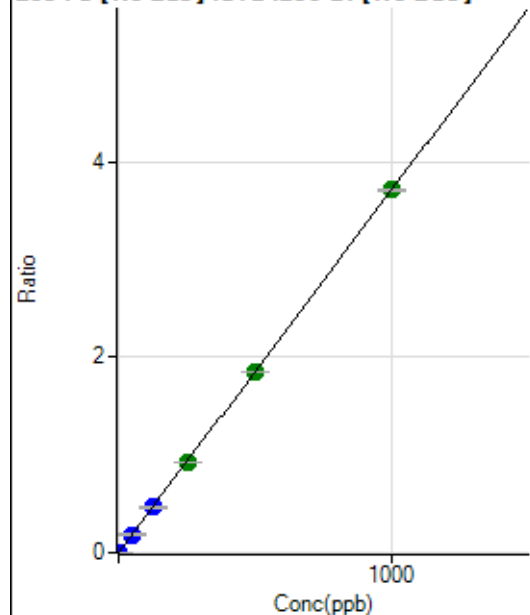
$$R = 1.0000$$

$$DL = 0.0153$$

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	4387.46	0.0003	P	1.9
2	☐	0.100					
3	☐	1.000	0.884	56743.67	0.0035	P	0.5
4	☐	50.000	50.262	2962884.93	0.1870	P	0.3
5	☐	125.000	124.865	7277423.87	0.4641	P	5.7
6	☐	250.000	249.289	13964659.69	0.9262	A	0.2
7	☐	500.000	499.511	27050445.34	1.8556	A	0.5
8	☐	1000.000	1000.426	52955276.30	3.7162	A	0.4
9	☐			51004.42	0.0044	P	0.5

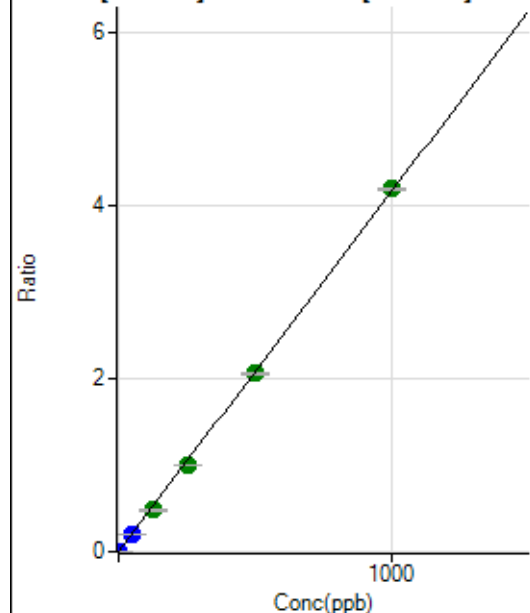
$$y = 0.0037 * x + 2.6358E-004$$

$$R = 1.0000$$

$$DL = 0.004068$$

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	135.19	0.0000	P	11.4
2	☐	0.100					
3	☐	1.000	0.810	54093.68	0.0034	P	0.8
4	☐	50.000	46.646	3079332.42	0.1943	P	0.6
5	☐	125.000	115.835	7566146.87	0.4825	A	5.8
6	☐	250.000	238.709	14991173.02	0.9943	A	0.7
7	☐	500.000	493.832	29985049.51	2.0569	A	0.3
8	☐	1000.000	1007.220	59782369.86	4.1953	A	0.6
9	☐			16004.66	0.0014	P	10.9

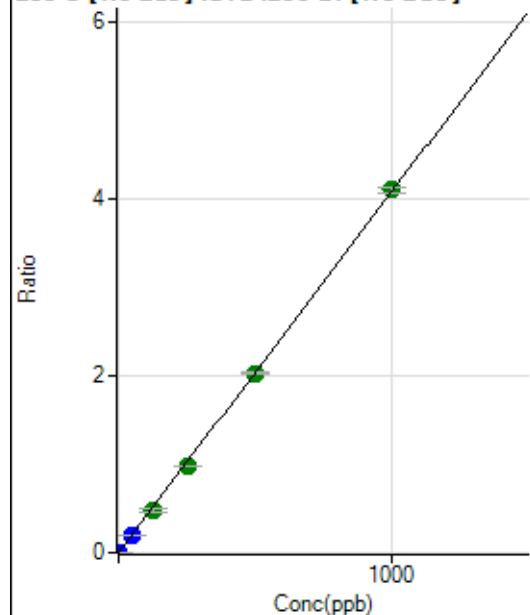
$$y = 0.0042 * x + 8.1180E-006$$

$$R = 0.9999$$

$$DL = 0.0006642$$

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	1953.02	0.0001	P	4.7
2	☐	0.100					
3	☐	1.000	0.833	56200.71	0.0035	P	0.9
4	☐	50.000	47.725	3085756.84	0.1947	P	0.7
5	☐	125.000	117.506	7515813.19	0.4792	A	5.5
6	☐	250.000	239.807	14743723.07	0.9779	A	0.6
7	☐	500.000	496.188	29493395.45	2.0232	A	0.9
8	☐	1000.000	1005.505	58422052.35	4.0999	A	1.5
9	☐			3850.75	0.0003	P	15.8

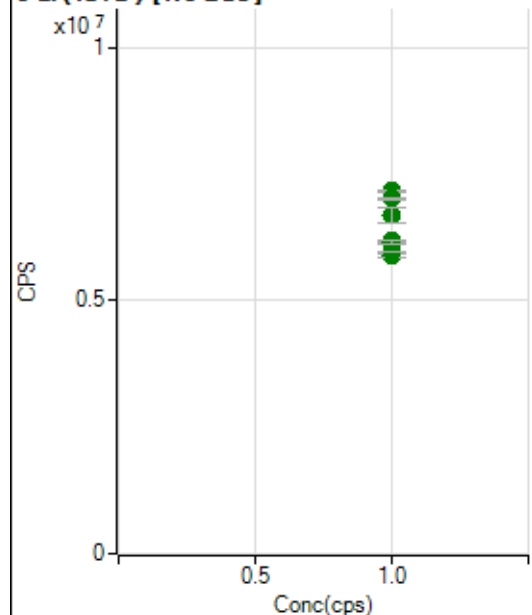
$$y = 0.0041 * x + 1.1734E-004$$

$$R = 0.9999$$

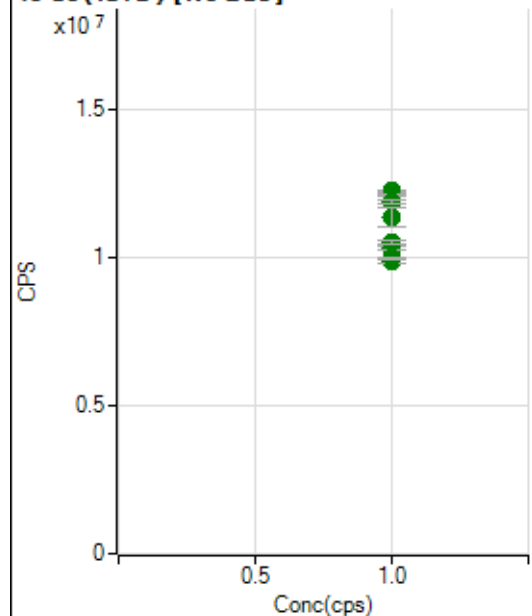
$$DL = 0.004052$$

Weight: <None>

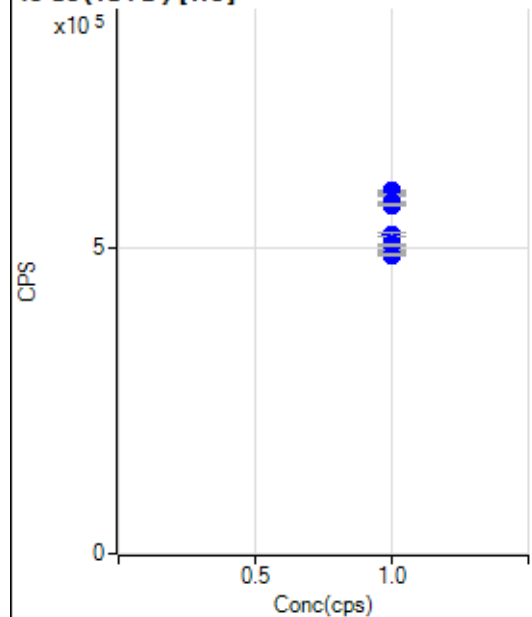
Min Conc: 0

6 Li (ISTD) [No Gas]

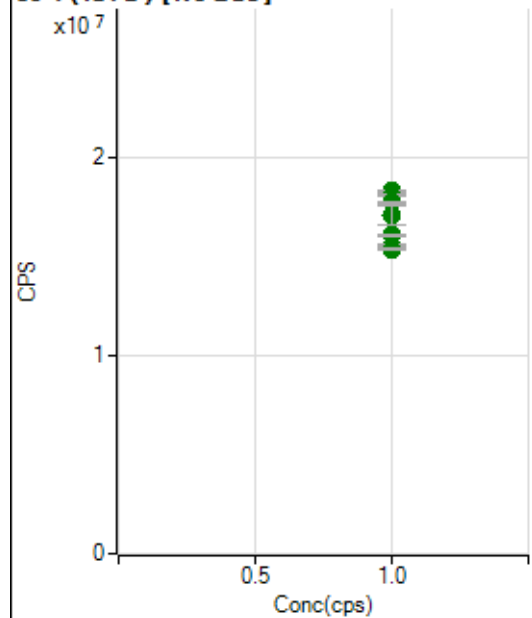
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		7130310.62		A	0.1
2	☐	1.000					
3	☐	1.000		7168018.54		A	0.3
4	☐	1.000		7015786.55		A	0.5
5	☐	1.000		6696711.67		A	4.3
6	☐	1.000		6174118.37		A	1.0
7	☐	1.000		5886280.43		A	1.0
8	☐	1.000		5966611.39		A	0.5
9	☐	1.000		6164533.86		A	1.0

45 Sc (ISTD) [No Gas]

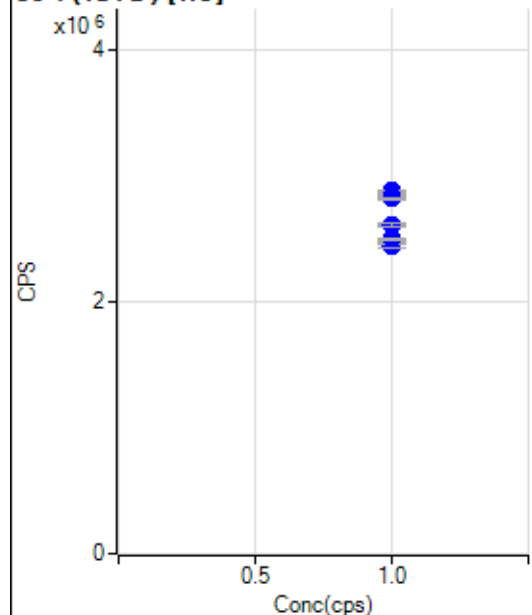
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12230303.75		A	0.2
2	☐	1.000					
3	☐	1.000		12108319.89		A	0.6
4	☐	1.000		11863386.46		A	1.1
5	☐	1.000		11341791.14		A	5.8
6	☐	1.000		10300483.74		A	0.8
7	☐	1.000		9855509.86		A	1.1
8	☐	1.000		9964651.96		A	0.4
9	☐	1.000		10517875.67		A	1.5

45 Sc (ISTD) [He]

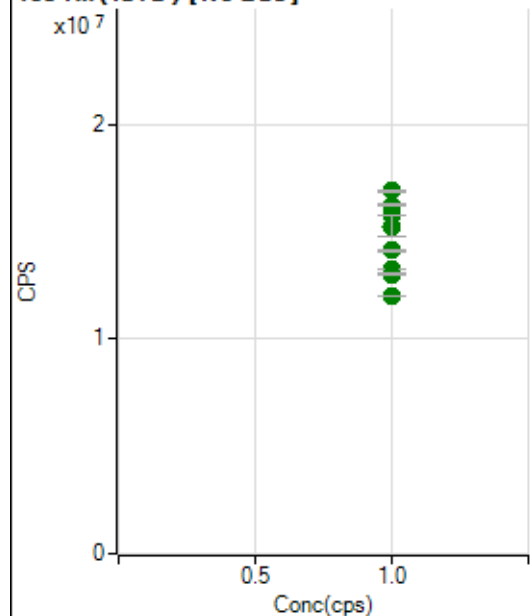
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		591466.87		P	0.8
2	☐	1.000					
3	☐	1.000		585084.43		P	0.8
4	☐	1.000		574075.66		P	0.4
5	☐	1.000		520707.10		P	1.2
6	☐	1.000		493081.46		P	0.7
7	☐	1.000		486672.08		P	0.4
8	☐	1.000		504405.81		P	0.7
9	☐	1.000		568669.51		P	0.8

89 Y (ISTD) [No Gas]

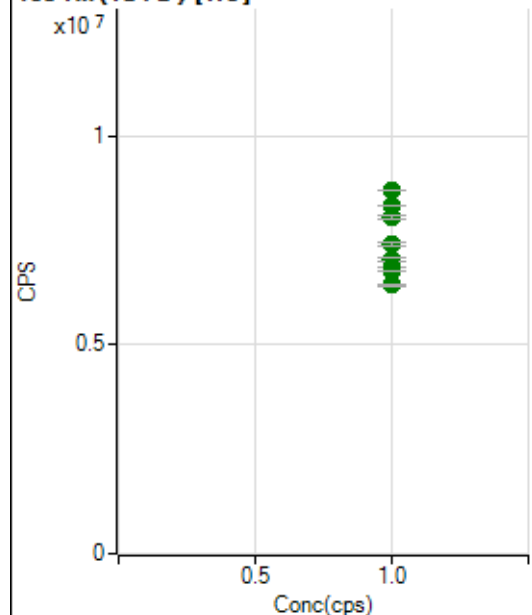
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18289889.73		A	0.9
2	☐	1.000					
3	☐	1.000		18079189.18		A	0.4
4	☐	1.000		17716706.82		A	0.8
5	☐	1.000		17076500.02		A	5.9
6	☐	1.000		16065186.98		A	0.6
7	☐	1.000		15502838.10		A	0.4
8	☐	1.000		15547835.46		A	0.3
9	☐	1.000		15364753.80		A	0.7

89 Y(ISTD) [He]

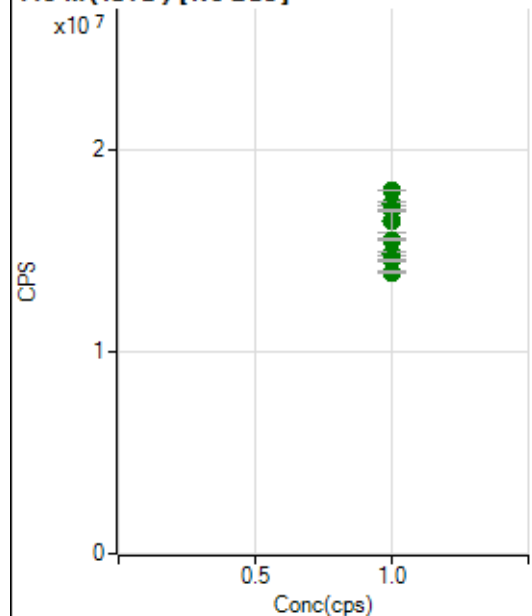
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2885791.17		P	0.6
2	☐	1.000					
3	☐	1.000		2847995.55		P	0.6
4	☐	1.000		2825399.89		P	0.6
5	☐	1.000		2608242.43		P	0.9
6	☐	1.000		2484252.08		P	0.8
7	☐	1.000		2452776.94		P	1.1
8	☐	1.000		2505796.42		P	0.7
9	☐	1.000		2616248.95		P	1.5

103 Rh(ISTD) [No Gas]

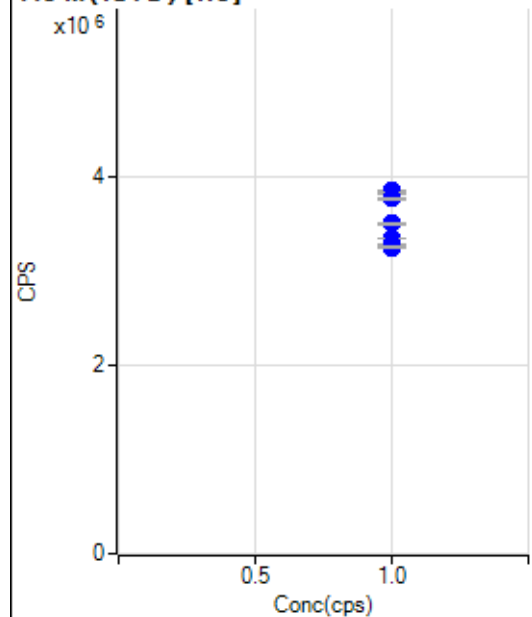
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16899650.20		A	0.6
2	☐	1.000					
3	☐	1.000		16238341.34		A	0.7
4	☐	1.000		15766556.08		A	0.5
5	☐	1.000		15241102.94		A	6.4
6	☐	1.000		14118965.25		A	0.6
7	☐	1.000		13270707.07		A	0.4
8	☐	1.000		13029789.79		A	0.3
9	☐	1.000		11980644.80		A	0.1

103 Rh (ISTD) [He]

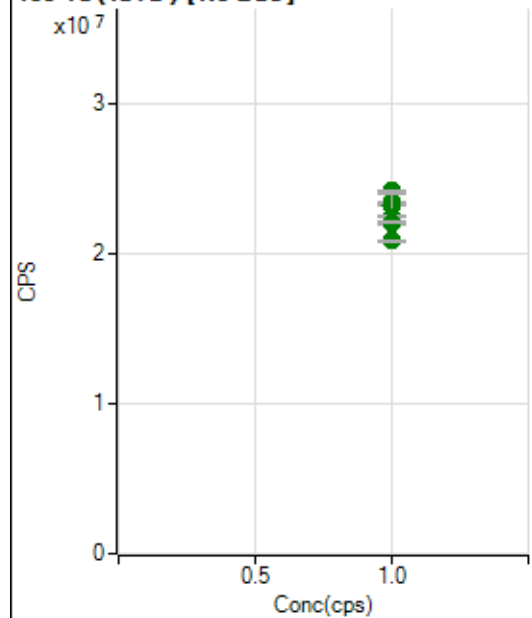
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8680325.70		A	0.1
2	☐	1.000					
3	☐	1.000		8327178.49		A	0.3
4	☐	1.000		8051757.38		A	0.9
5	☐	1.000		7401455.86		A	1.5
6	☐	1.000		7042712.26		A	1.0
7	☐	1.000		6861107.40		A	0.4
8	☐	1.000		6765498.44		A	0.2
9	☐	1.000		6435906.57		A	0.8

115 In (ISTD) [No Gas]

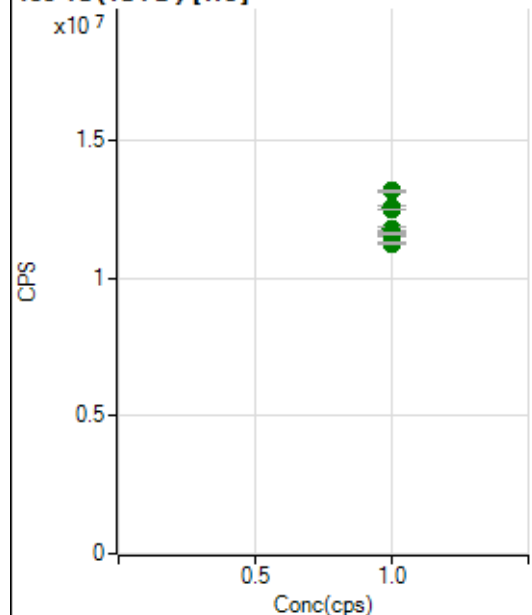
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17980443.40		A	0.1
2	☐	1.000					
3	☐	1.000		17340035.84		A	0.9
4	☐	1.000		17018014.51		A	0.1
5	☐	1.000		16462375.37		A	6.2
6	☐	1.000		15559454.22		A	0.3
7	☐	1.000		14868346.81		A	0.7
8	☐	1.000		14563607.62		A	0.6
9	☐	1.000		13942964.47		A	0.7

115 In (ISTD) [He]

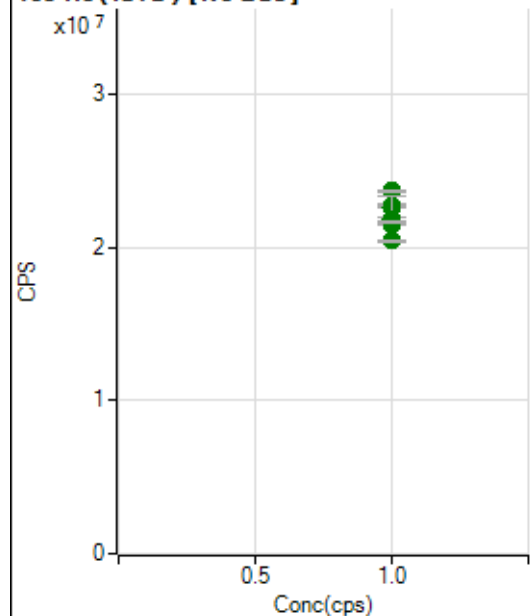
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3845982.81		P	0.8
2	☐	1.000					
3	☐	1.000		3817732.02		P	0.8
4	☐	1.000		3761460.89		P	0.7
5	☐	1.000		3499086.98		P	1.0
6	☐	1.000		3343847.91		P	0.1
7	☐	1.000		3278837.85		P	0.7
8	☐	1.000		3256134.02		P	0.6
9	☐	1.000		3251219.82		P	1.2

159 Tb (ISTD) [No Gas]

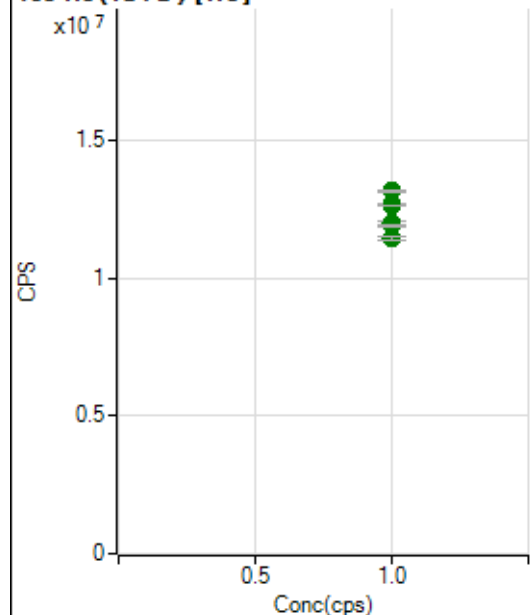
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		24222477.69		A	0.6
2	☐	1.000					
3	☐	1.000		23467068.54		A	0.4
4	☐	1.000		23334729.37		A	0.6
5	☐	1.000		23274486.32		A	5.9
6	☐	1.000		22488606.89		A	0.6
7	☐	1.000		22104150.50		A	1.4
8	☐	1.000		22117387.73		A	0.4
9	☐	1.000		20893659.41		A	0.5

159 Tb (ISTD) [He]

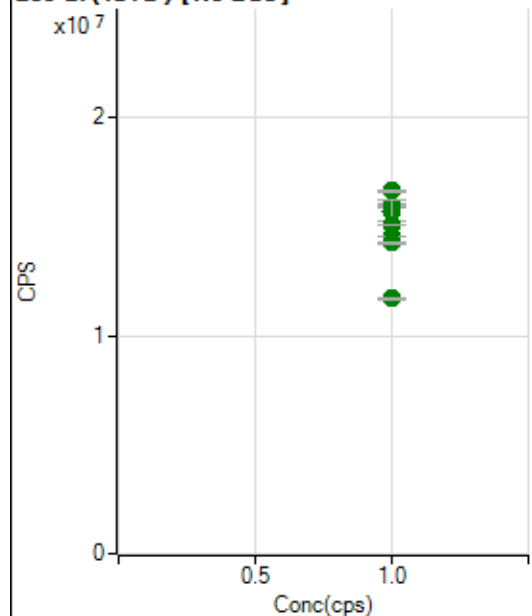
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		13165967.44		A	0.4
2	☐	1.000					
3	☐	1.000		12555065.78		A	1.2
4	☐	1.000		12497731.62		A	0.2
5	☐	1.000		11799693.71		A	1.1
6	☐	1.000		11676157.05		A	1.1
7	☐	1.000		11551854.83		A	0.5
8	☐	1.000		11616085.38		A	0.7
9	☐	1.000		11251415.53		A	0.6

165 Ho (ISTD) [No Gas]

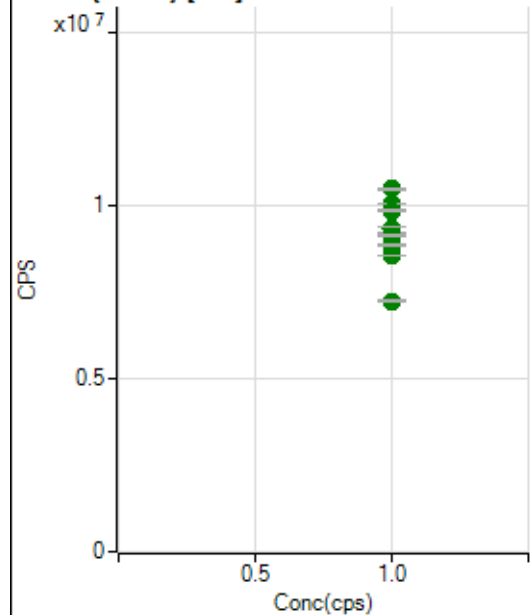
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		23717277.79		A	0.2
2	☐	1.000					
3	☐	1.000		22759611.62		A	0.8
4	☐	1.000		22758690.27		A	0.5
5	☐	1.000		22648145.47		A	6.0
6	☐	1.000		21874048.24		A	0.7
7	☐	1.000		21549140.41		A	0.9
8	☐	1.000		21699584.86		A	0.5
9	☐	1.000		20452615.04		A	0.9

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		13155287.44		A	0.3
2	☐	1.000					
3	☐	1.000		12699266.20		A	0.3
4	☐	1.000		12602618.98		A	0.0
5	☐	1.000		12014491.35		A	1.2
6	☐	1.000		11894298.02		A	0.6
7	☐	1.000		11900158.44		A	0.7
8	☐	1.000		11896407.18		A	0.5
9	☐	1.000		11447598.85		A	1.0

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16646225.59		A	0.6
2	☐	1.000					
3	☐	1.000		16002754.48		A	0.7
4	☐	1.000		15848170.74		A	0.1
5	☐	1.000		15717863.10		A	6.1
6	☐	1.000		15077140.61		A	0.2
7	☐	1.000		14577559.92		A	0.3
8	☐	1.000		14249651.45		A	0.5
9	☐	1.000		11699513.16		A	0.3

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10487638.87		A	0.5
2	☐	1.000					
3	☐	1.000		10041062.42		A	0.1
4	☐	1.000		9864569.72		A	0.2
5	☐	1.000		9315805.35		A	1.5
6	☐	1.000		9131259.72		A	0.7
7	☐	1.000		8862084.93		A	0.4
8	☐	1.000		8547304.46		A	0.3
9	☐	1.000		7228499.68		A	0.7

US EPA Tune Check Sample Report

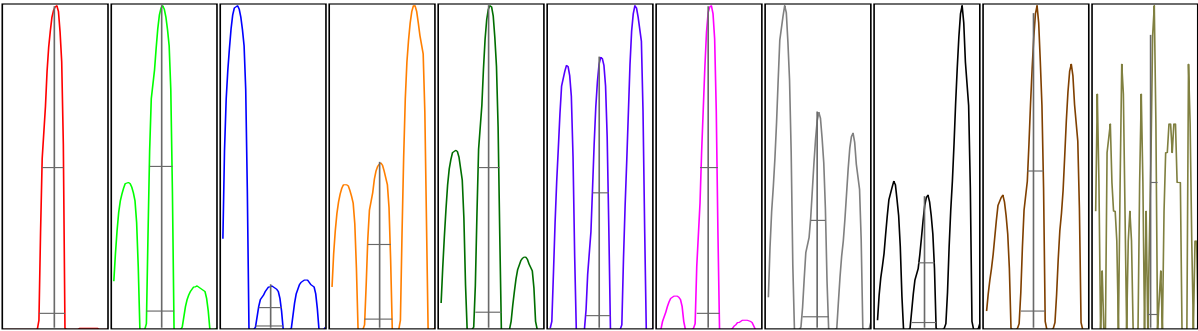
Batch Folder D:\ICP-MS Data\P7032519MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	26338	0.95	5.00	
24	238095	0.37	5.00	
25	31573	0.96	5.00	
26	36467	0.95	5.00	
59	163981	0.39	5.00	
113	20156	0.57	5.00	
115	227377	0.77	5.00	
206	59901	0.92	5.00	
207	54611	0.96	5.00	
208	129668	1.17	5.00	
220	0	31.04		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	26291	26756	26353	26176	26116
24	237791	239507	238234	237154	237787
25	31552	31979	31751	31380	31204
26	36152	37001	36629	36289	36264
59	163839	164756	163794	164427	163088
113	20021	20324	20161	20188	20087
115	224981	229041	229093	226548	227220
206	58973	59983	60397	59936	60217
207	53686	54843	54923	54713	54892
208	127262	130704	130374	130889	129111
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	45080	9.00	8.9 - 9.1		0.742	0.900	
24	389372	23.95	23.9 - 24.1		0.786	0.900	
25	51838	24.95	24.9 - 25.1		0.786	0.900	
26	59590	25.95	25.9 - 26.1		0.785	0.900	
59	296567	58.95	58.9 - 59.1		0.773	0.900	
113	42131	113.00	112.9 - 113.1		0.709	0.900	
115	478369	115.00	114.9 - 115.1		0.683	0.900	
206	128898	206.00	205.9 - 206.1		0.762	0.900	
207	114225	206.95	206.9 - 207.1		0.728	0.900	
208	273460	207.95	207.9 - 208.1		0.725	0.900	
220	1	220.20	-		0.288		

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	8.6	V	Deflect	13.6	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	42484	0.44	
89	37628	0.63	
205	56008	0.68	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	42562	42684	42522	42469	42182
89	37697	37809	37854	37502	37280
205	55996	56599	55909	56003	55534

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	9.0	V	Deflect	1.8	V
Extract 2	-135.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	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			