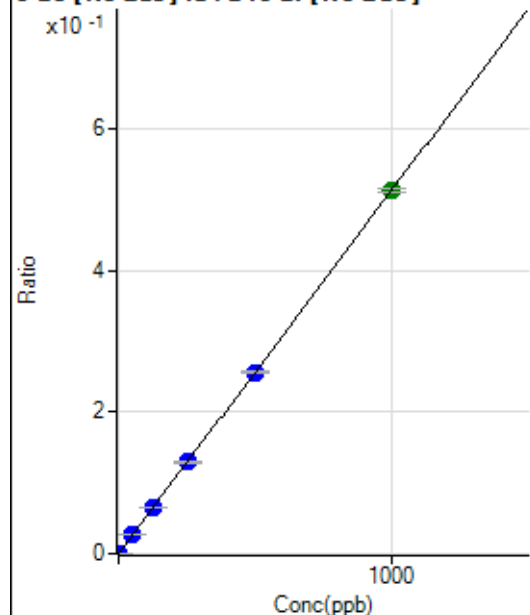


Batch Folder: D:\P8062918 MS.b\
Analysis File: P8062918 MS.batch.bin
DA Date-Time: 2018-06-29 16:29:16
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-06-29 15:41:59
2			
3	005CALS.d	S02	2018-06-29 15:49:23
4	006CALS.d	S03	2018-06-29 15:53:05
5	007CALS.d	S04	2018-06-29 15:56:47
6	008CALS.d	S05	2018-06-29 16:00:22
7	009CALS.d	S06	2018-06-29 16:03:51
8	010CALS.d	S07	2018-06-29 16:07:17
9	011CALS.d	S08	2018-06-29 16:10:37

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.37	0.0000	P	12.1
2	☐	0.100					
3	☐	1.000	1.061	1290.84	0.0006	P	10.5
4	☐	50.000	51.902	60012.21	0.0267	P	1.2
5	☐	125.000	126.528	150257.56	0.0649	P	1.1
6	☐	250.000	252.326	296871.45	0.1295	P	1.3
7	☐	500.000	500.034	584066.33	0.2566	P	1.1
8	☐	1000.000	999.116	1159198.69	0.5126	A	1.0
9	☐			498.18	0.0002	P	7.3

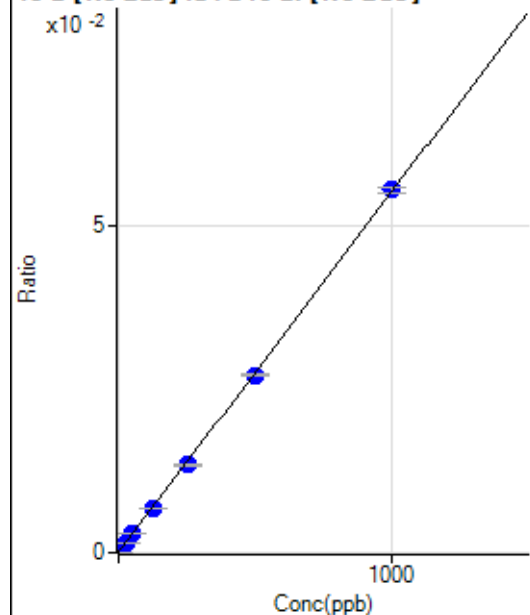
$$y = 5.1302\text{E-}004 * x + 3.1688\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.02251$$

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	133.34	0.0001	P	12.2
2	☐	2.500					
3	☐	25.000	24.565	3164.38	0.0014	P	6.8
4	☐	50.000	50.116	6343.35	0.0028	P	0.9
5	☐	125.000	120.547	15486.61	0.0067	P	1.8
6	☐	250.000	243.981	30914.82	0.0135	P	2.5
7	☐	500.000	491.782	61744.53	0.0271	P	1.2
8	☐	1000.000	1006.176	125325.51	0.0554	P	1.5
9	☐			6621.25	0.0029	P	7.5

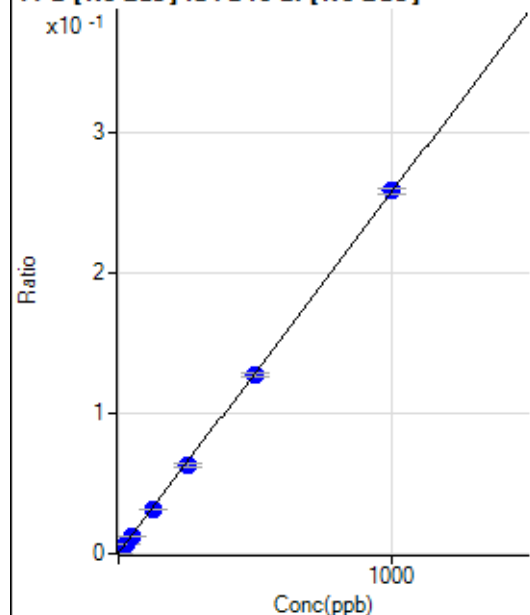
$$y = 5.5020\text{E-}005 * x + 6.0020\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.3984$$

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	566.70	0.0003	P	10.7
2	☐	2.500					
3	☐	25.000	24.146	14482.88	0.0065	P	6.1
4	☐	50.000	48.803	28807.55	0.0128	P	2.6
5	☐	125.000	120.237	72098.05	0.0312	P	1.1
6	☐	250.000	244.567	144700.78	0.0631	P	2.8
7	☐	500.000	494.882	290161.90	0.1274	P	1.4
8	☐	1000.000	1004.594	584457.24	0.2585	P	1.6
9	☐			31260.13	0.0139	P	8.0

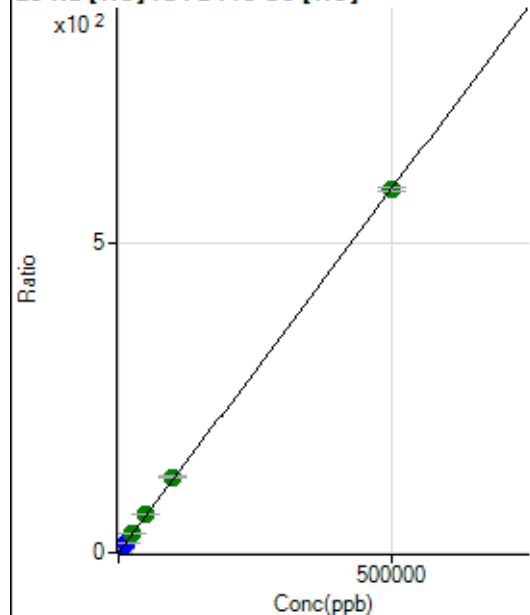
$$y = 2.5702E-004 * x + 2.5509E-004$$

$$R = 1.0000$$

$$DL = 0.3193$$

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	4070.20	0.0738	P	6.0
2	☐	50.000					
3	☐	500.000	546.761	36957.38	0.7179	P	15.6
4	☐	5000.000	5205.102	341774.62	6.2052	P	1.7
5	☐	12500.000	13220.886	836569.54	15.6475	P	3.6
6	☐	25000.000	26389.279	1680551.51	31.1594	A	1.1
7	☐	50000.000	52993.670	3308062.42	62.4984	A	0.7
8	☐	100000.00	104051.23	6563255.18	122.6423	A	2.1
9	☐	500000.00	498800.80	32113003.84	587.6424	A	1.0

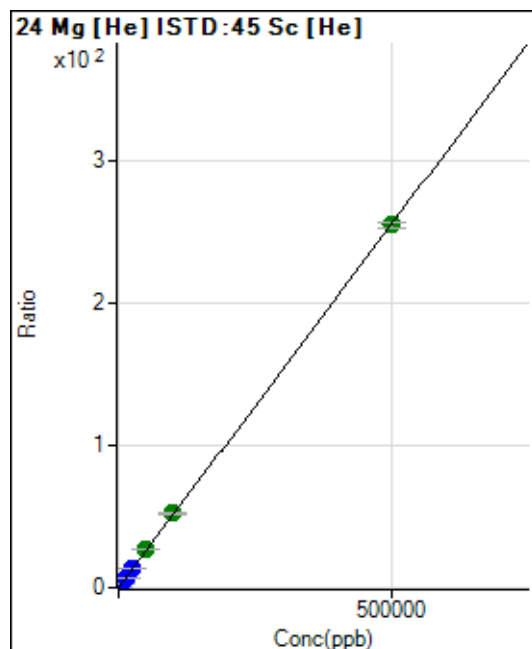
$$y = 0.0012 * x + 0.0738$$

$$R = 1.0000$$

$$DL = 11.29$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	163.90	0.0030	P	12.1
2	☐	50.000					
3	☐	500.000	536.285	14321.69	0.2774	P	12.0
4	☐	5000.000	5108.810	144168.74	2.6174	P	0.3
5	☐	12500.000	13035.949	356854.44	6.6742	P	3.3
6	☐	25000.000	25371.293	700430.67	12.9868	P	1.1
7	☐	50000.000	52702.385	1427668.53	26.9736	A	1.4
8	☐	100000.00	102741.33	2813976.97	52.5812	A	1.9
9	☐	500000.00	499148.40	13958633.82	255.4438	A	1.7

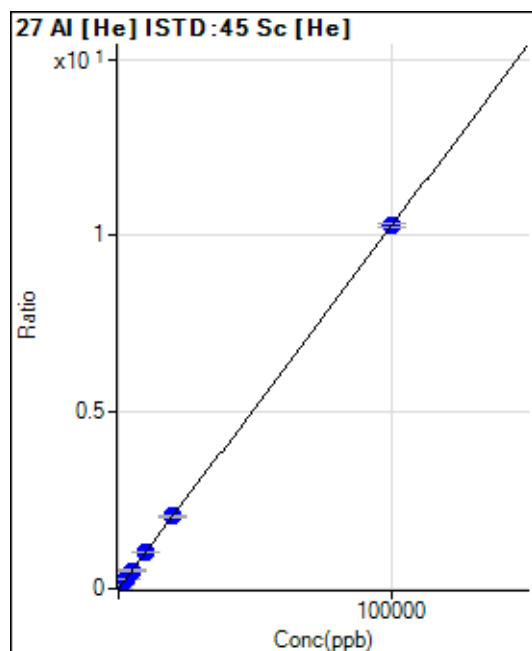
$$y = 5.1175\text{E-}004 * x + 0.0030$$

$$R = 1.0000$$

$$DL = 2.118$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	8.33	0.0002	P	1.1
2	☐	2.000					
3	☐	20.000	21.412	122.23	0.0024	P	16.7
4	☐	1000.000	1020.828	5784.78	0.1050	P	1.7
5	☐	2500.000	2555.641	14054.79	0.2627	P	1.0
6	☐	5000.000	4997.806	27697.37	0.5136	P	2.0
7	☐	10000.000	10172.726	55317.22	1.0452	P	2.0
8	☐	20000.000	19899.450	109408.78	2.0444	P	2.0
9	☐	100000.00	100001.34	561395.39	10.2732	P	1.1

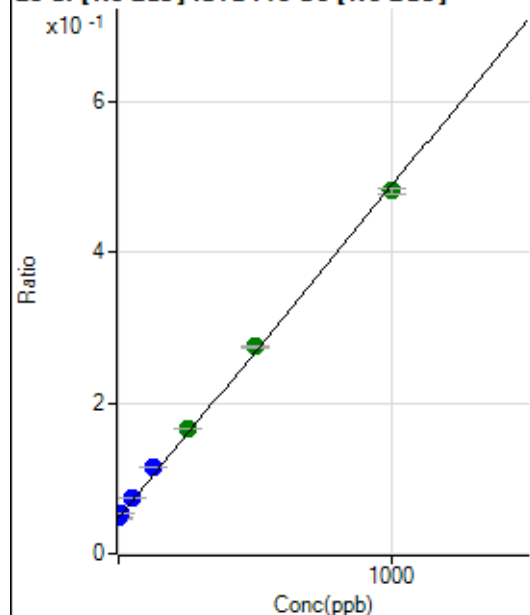
$$y = 1.0273\text{E-}004 * x + 1.5110\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.04772$$

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	340049.72	0.0475	P	3.0
2	☐	1.000					
3	☐	10.000	16.139	389290.36	0.0546	P	0.3
4	☐	50.000	60.820	535367.87	0.0744	P	0.5
5	☐	125.000	152.702	818327.28	0.1149	P	1.4
6	☐	250.000	266.292	1172817.84	0.1651	A	0.3
7	☐	500.000	515.277	1938673.85	0.2751	A	1.3
8	☐	1000.000	984.223	3391680.76	0.4822	A	1.3
9	☐			400208.05	0.0570	P	0.7

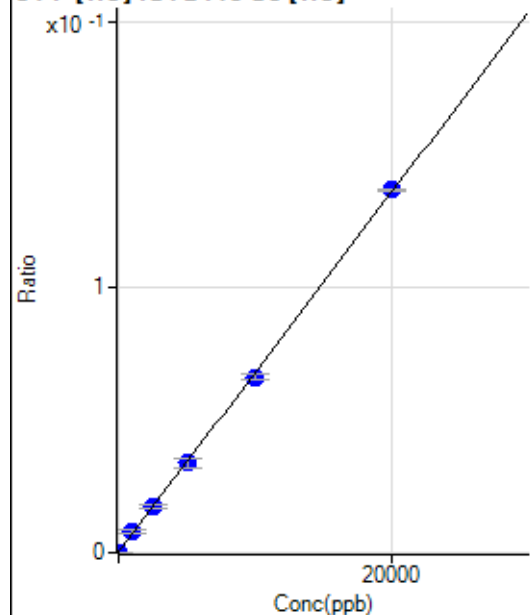
$$y = 4.4165\text{E-}004 * x + 0.0475$$

$$R = 0.9995$$

$$DL = 9.581$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	9.523	13.89	0.0003	P	35.0
2	☐	0.000					
3	☐	0.000	-9.523	5.56	0.0001	P	173.
4	☐	1000.000	1111.091	425.03	0.0077	P	17.0
5	☐	2500.000	2565.280	938.96	0.0176	P	7.0
6	☐	5000.000	4976.611	1830.76	0.0339	P	9.9
7	☐	10000.000	9711.456	3495.04	0.0660	P	3.1
8	☐	20000.000	20136.404	7316.11	0.1367	P	0.8
9	☐			11.11	0.0002	P	43.3

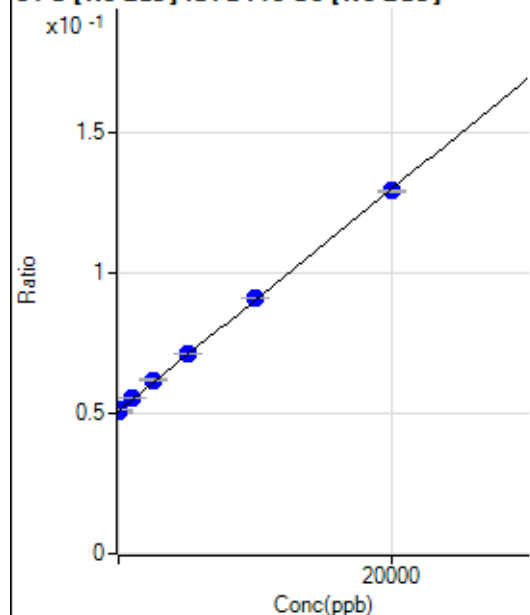
$$y = 6.7786\text{E-}006 * x + 1.8763\text{E-}004$$

$$R = 0.9998$$

$$DL = 66.68$$

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	-122.082	360573.22	0.0504	P	1.5
2	☐	0.000					
3	☐	0.000	122.082	365785.45	0.0513	P	1.0
4	☐	1000.000	1218.394	400757.03	0.0557	P	0.3
5	☐	2500.000	2804.344	440911.16	0.0619	P	1.6
6	☐	5000.000	5152.159	505833.79	0.0712	P	0.6
7	☐	10000.000	10177.744	641926.15	0.0911	P	0.6
8	☐	20000.000	19824.125	908885.26	0.1292	P	0.6
9	☐			362902.94	0.0516	P	1.1

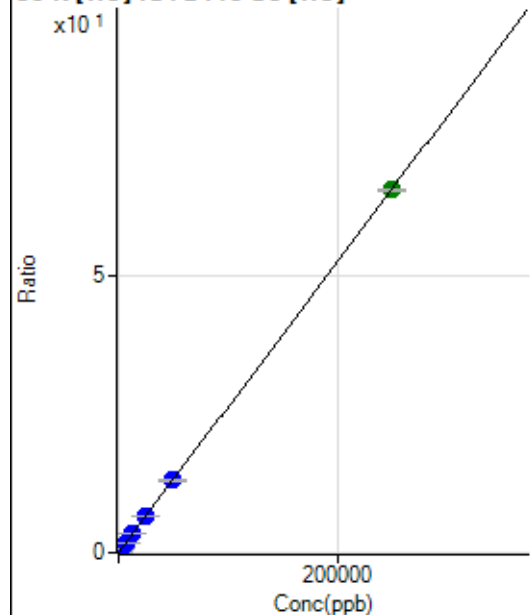
$$y = 3.9530\text{E-}006 * x + 0.0508$$

$$R = 0.9998$$

$$DL = 481.8$$

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	2116.91	0.0384	P	5.5
2	☐	50.000					
3	☐	500.000	553.997	9425.80	0.1830	P	15.1
4	☐	2500.000	2543.271	38681.85	0.7023	P	1.7
5	☐	6250.000	6555.008	93518.75	1.7496	P	4.4
6	☐	12500.000	12537.739	178603.19	3.3115	P	0.8
7	☐	25000.000	25265.490	351141.52	6.6341	P	1.0
8	☐	50000.000	50009.871	700722.24	13.0938	P	2.1
9	☐	250000.00	249961.42	3568107.33	65.2927	A	0.8

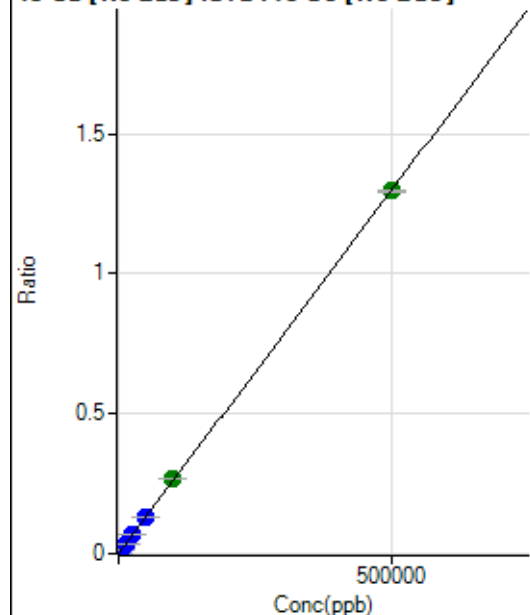
$$y = 2.6106\text{E-}004 * x + 0.0384$$

$$R = 1.0000$$

$$DL = 24.29$$

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	844.51	0.0001	P	6.4
2	☐	50.000					
3	☐	500.000	473.145	9589.80	0.0013	P	1.6
4	☐	5000.000	5068.961	95540.64	0.0133	P	1.0
5	☐	12500.000	12710.766	235612.21	0.0331	P	2.4
6	☐	25000.000	25372.933	468454.64	0.0659	P	0.2
7	☐	50000.000	51079.990	934919.05	0.1326	P	0.8
8	☐	100000.00	102992.71	1880477.43	0.2673	A	0.4
9	☐	500000.00	499268.88	9103380.07	1.2954	A	0.6

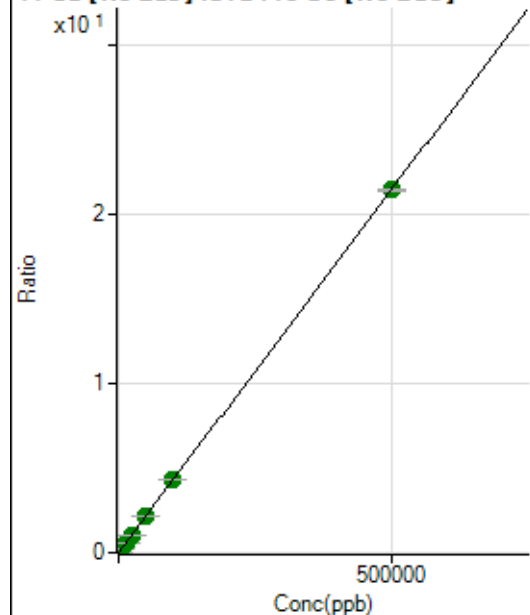
$$y = 2.5944\text{E-}006 * x + 1.1788\text{E-}004$$

$$R = 1.0000$$

$$DL = 8.668$$

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	19898.26	0.0028	P	0.8
2	☐	50.000					
3	☐	500.000	465.967	162131.83	0.0227	P	0.5
4	☐	5000.000	5109.405	1596675.00	0.2217	A	0.5
5	☐	12500.000	12627.489	3872682.86	0.5439	A	2.1
6	☐	25000.000	24997.251	7629797.22	1.0741	A	0.5
7	☐	50000.000	50448.882	15258561.97	2.1648	A	0.7
8	☐	100000.00	100711.82	30379892.35	4.3189	A	1.0
9	☐	500000.00	499808.63	150543858.9	21.4228	A	0.6

$$y = 4.2856\text{E-}005 * x + 0.0028$$

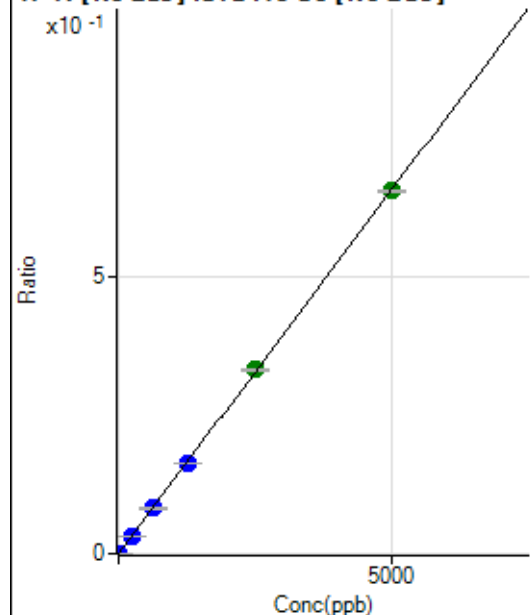
$$R = 1.0000$$

$$DL = 1.461$$

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	175.01	0.0000	P	5.3
2	☐	0.500					
3	☐	5.000	4.638	4503.68	0.0006	P	5.2
4	☐	250.000	248.614	234611.31	0.0326	P	0.9
5	☐	625.000	623.412	581448.92	0.0817	P	1.7
6	☐	1250.000	1238.169	1152041.03	0.1622	P	0.2
7	☐	2500.000	2530.198	2335673.19	0.3314	A	1.0
8	☐	5000.000	4988.127	4595431.14	0.6533	A	0.6
9	☐			2855.97	0.0004	P	9.2

$$y = 1.3096E-004 * x + 2.4446E-005$$

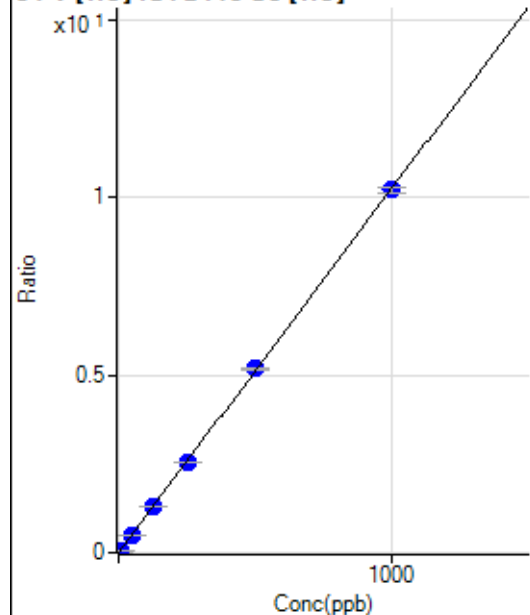
$$R = 1.0000$$

$$DL = 0.02975$$

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	11.11	0.0002	P	74.9
2	☐	0.500					
3	☐	5.000	4.991	2642.52	0.0513	P	14.2
4	☐	50.000	49.959	28168.61	0.5114	P	0.3
5	☐	125.000	126.540	69236.82	1.2950	P	3.6
6	☐	250.000	247.675	136700.52	2.5346	P	1.0
7	☐	500.000	506.498	274333.10	5.1830	P	1.1
8	☐	1000.000	997.142	546093.57	10.2036	P	1.5
9	☐			174.45	0.0032	P	5.6

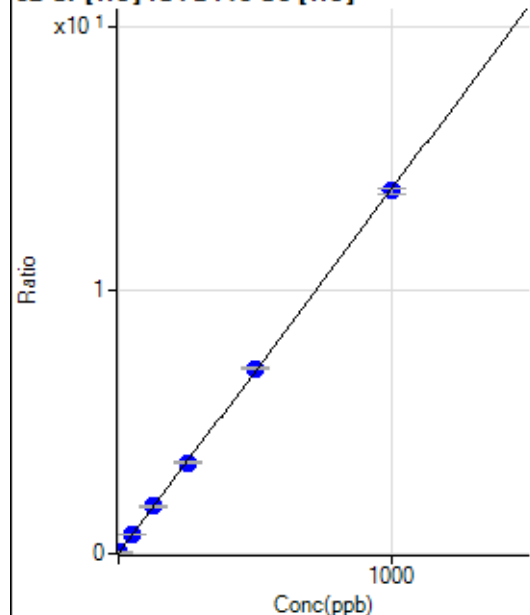
$$y = 0.0102 * x + 2.0123E-004$$

$$R = 1.0000$$

$$DL = 0.04417$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	457.79	0.0083	P	8.3
2	☐	0.200					
3	☐	2.000	2.157	1970.18	0.0382	P	12.7
4	☐	50.000	50.947	39304.18	0.7136	P	1.5
5	☐	125.000	129.295	96133.86	1.7982	P	3.7
6	☐	250.000	250.070	187158.11	3.4702	P	1.3
7	☐	500.000	508.167	372785.72	7.0432	P	1.2
8	☐	1000.000	995.315	737883.73	13.7870	P	1.5
9	☐			25362.19	0.4641	P	1.1

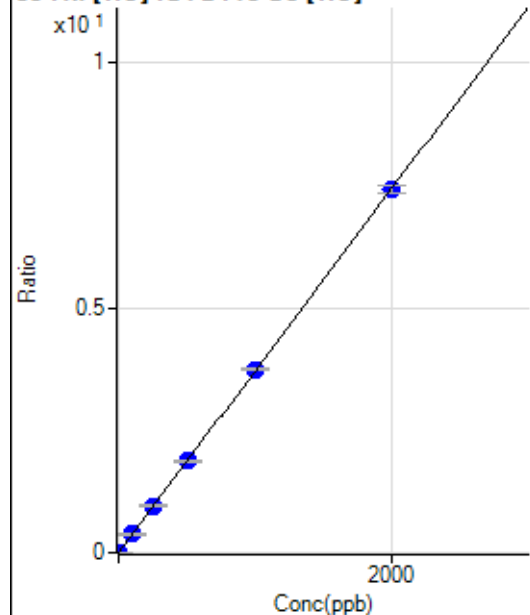
$$y = 0.0138 * x + 0.0083$$

$$R = 0.9999$$

$$DL = 0.1489$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.56	0.0005	P	54.9
2	☐	0.100					
3	☐	1.000	1.082	230.01	0.0045	P	19.4
4	☐	100.000	100.748	20617.64	0.3743	P	0.9
5	☐	250.000	256.929	50999.42	0.9539	P	3.5
6	☐	500.000	502.384	100572.14	1.8648	P	1.4
7	☐	1000.000	1007.288	197870.49	3.7384	P	1.1
8	☐	2000.000	1994.857	396185.85	7.4031	P	2.1
9	☐			1856.83	0.0340	P	3.4

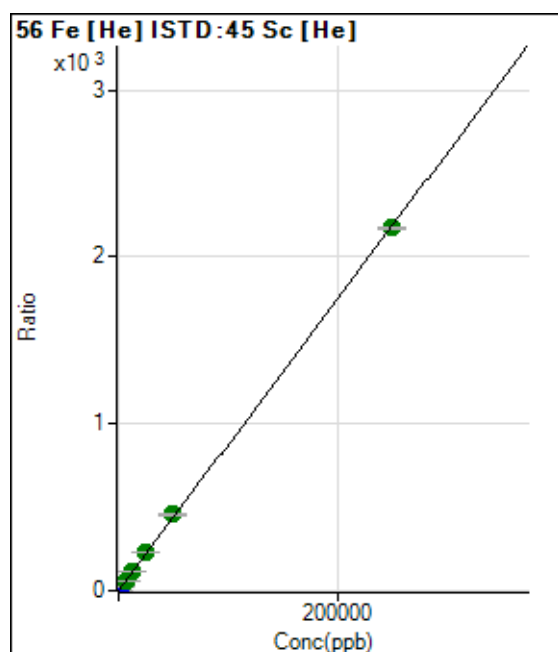
$$y = 0.0037 * x + 4.6502E-004$$

$$R = 1.0000$$

$$DL = 0.2065$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1027.85	0.0186	P	6.6
2	☐	5.000					
3	☐	50.000	55.397	25857.81	0.5020	P	14.8
4	☐	2500.000	2701.942	1299444.85	23.5922	P	0.7
5	☐	6250.000	6869.593	3205435.84	59.9535	A	3.4
6	☐	12500.000	13292.565	6255899.56	115.9918	A	1.1
7	☐	25000.000	26724.049	12341817.41	233.1770	A	1.1
8	☐	50000.000	52672.305	24594647.77	459.5669	A	2.0
9	☐	250000.00	249235.99	118832260.0	2,174.519	A	0.8

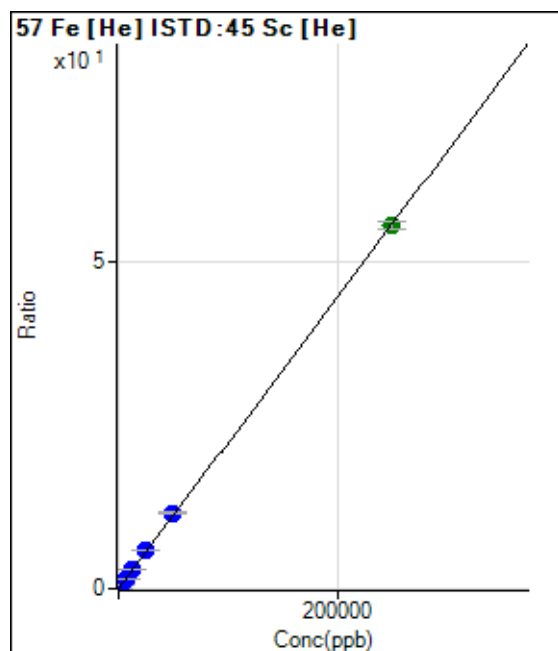
$$y = 0.0087 * x + 0.0186$$

$$R = 0.9999$$

$$DL = 0.4202$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0008	P	1.1
2	☐	5.000					
3	☐	50.000	52.463	640.78	0.0125	P	21.5
4	☐	2500.000	2632.451	32365.88	0.5876	P	0.8
5	☐	6250.000	6745.111	80445.94	1.5043	P	3.0
6	☐	12500.000	13144.886	158071.34	2.9309	P	1.5
7	☐	25000.000	26454.405	312158.95	5.8977	P	1.1
8	☐	50000.000	52068.818	621203.89	11.6073	P	1.7
9	☐	250000.00	249394.84	3037796.71	55.5928	A	2.0

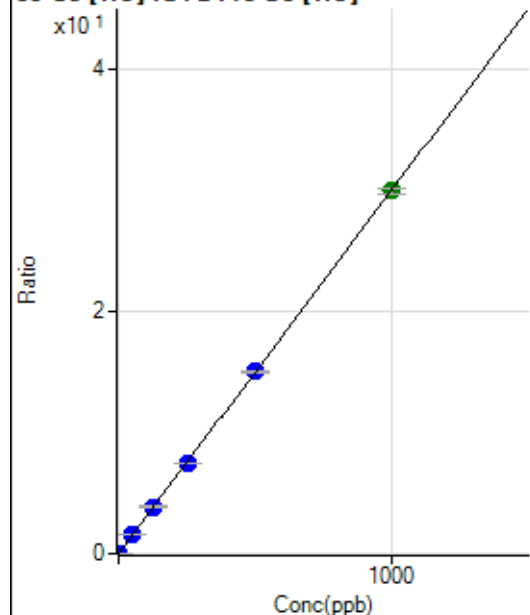
$$y = 2.2291E-004 * x + 8.0627E-004$$

$$R = 1.0000$$

$$DL = 0.1173$$

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	117.78	0.0021	P	8.6
2	☐	0.100					
3	☐	1.000	0.990	1647.90	0.0318	P	8.8
4	☐	50.000	50.796	83995.64	1.5250	P	1.3
5	☐	125.000	128.339	205832.13	3.8498	P	3.4
6	☐	250.000	249.233	403111.01	7.4742	P	1.3
7	☐	500.000	502.219	797061.43	15.0589	P	0.8
8	☐	1000.000	998.625	1602461.57	29.9413	A	1.7
9	☐			18338.95	0.3356	P	1.7

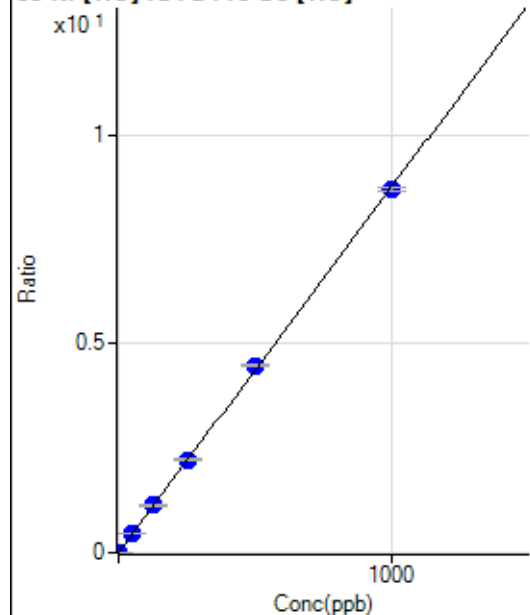
$$y = 0.0300 * x + 0.0021$$

$$R = 1.0000$$

$$DL = 0.0184$$

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	63.34	0.0011	P	15.0
2	☐	0.100					
3	☐	1.000	1.151	578.91	0.0112	P	12.6
4	☐	50.000	51.155	24699.89	0.4484	P	2.0
5	☐	125.000	131.163	61375.92	1.1480	P	3.7
6	☐	250.000	254.183	119934.19	2.2237	P	1.1
7	☐	500.000	511.286	236688.99	4.4718	P	1.2
8	☐	1000.000	992.483	464534.34	8.6794	P	1.2
9	☐			13307.62	0.2435	P	2.5

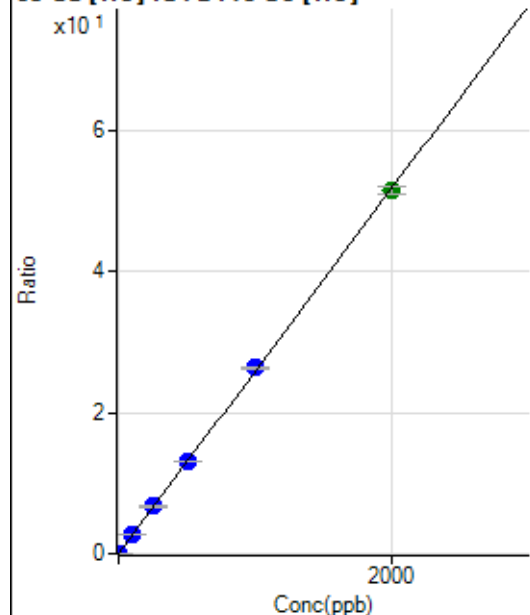
$$y = 0.0087 * x + 0.0011$$

$$R = 0.9999$$

$$DL = 0.05926$$

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	355.57	0.0064	P	4.8
2	☐	0.200					
3	☐	2.000	2.207	3276.00	0.0636	P	14.4
4	☐	100.000	102.278	146124.14	2.6530	P	1.2
5	☐	250.000	259.325	359132.88	6.7168	P	3.3
6	☐	500.000	505.939	706419.26	13.0982	P	1.6
7	☐	1000.000	1018.473	1395301.16	26.3607	P	0.5
8	☐	2000.000	1987.999	2753222.53	51.4484	A	2.3
9	☐			5908.02	0.1081	P	3.8

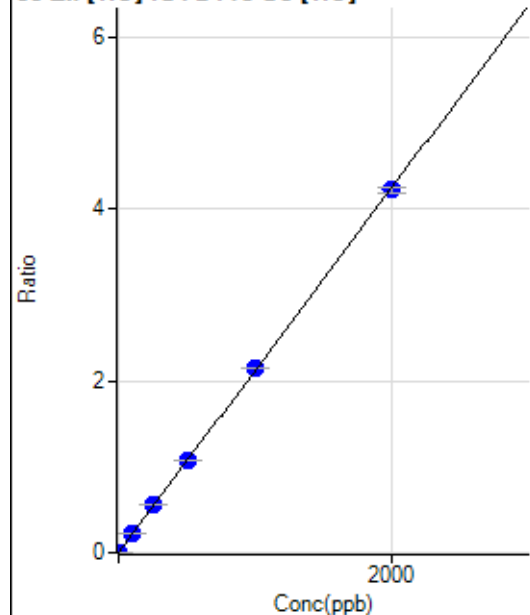
$$y = 0.0259 * x + 0.0064$$

$$R = 0.9999$$

$$DL = 0.03612$$

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	91.11	0.0017	P	12.1
2	☐	0.200					
3	☐	2.000	2.828	393.35	0.0076	P	16.5
4	☐	100.000	101.946	11987.56	0.2176	P	0.9
5	☐	250.000	261.156	29678.61	0.5549	P	2.4
6	☐	500.000	508.468	58189.47	1.0789	P	0.9
7	☐	1000.000	1012.362	113611.22	2.1464	P	0.7
8	☐	2000.000	1990.209	225738.49	4.2181	P	1.9
9	☐			1541.22	0.0282	P	4.4

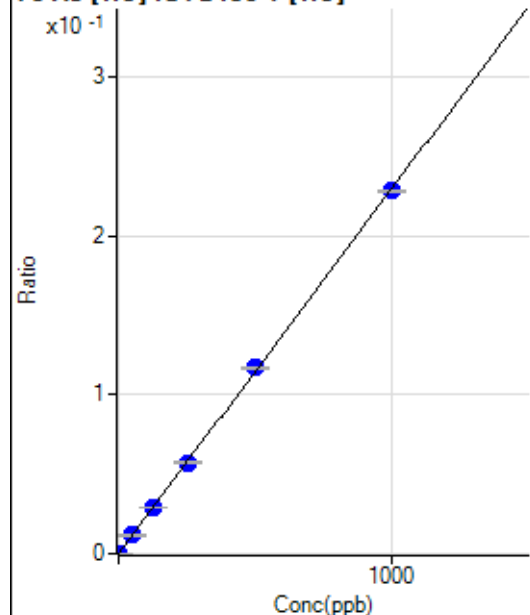
$$y = 0.0021 * x + 0.0017$$

$$R = 1.0000$$

$$DL = 0.2834$$

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	8.64	0.0000	P	24.3
2	☐	0.100					
3	☐	1.000	1.213	104.32	0.0003	P	5.7
4	☐	50.000	50.072	4145.10	0.0115	P	1.1
5	☐	125.000	128.021	10211.88	0.0294	P	1.5
6	☐	250.000	250.096	20092.46	0.0574	P	2.0
7	☐	500.000	509.022	40255.32	0.1168	P	1.3
8	☐	1000.000	995.084	79242.69	0.2282	P	0.7
9	☐			136.42	0.0004	P	1.2

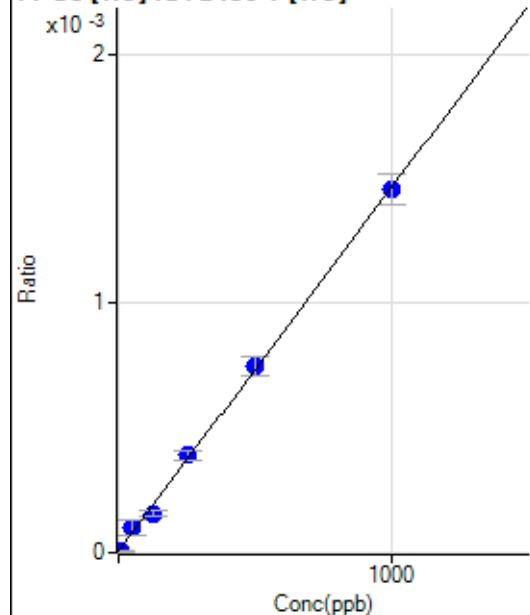
$$y = 2.2932\text{E-}004 * x + 2.4086\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.07668$$

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	0.320	2.22	0.0000	P	87.8
4	☐	50.000	63.600	35.56	0.0001	P	62.9
5	☐	125.000	103.520	54.44	0.0002	P	14.0
6	☐	250.000	263.325	136.67	0.0004	P	9.6
7	☐	500.000	510.216	258.90	0.0008	P	10.4
8	☐	1000.000	993.589	505.58	0.0015	P	8.7
9	☐			1.11	0.0000	P	173.

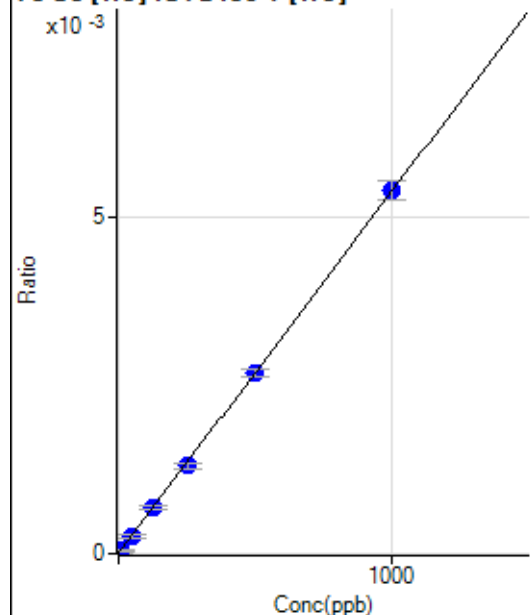
$$y = 1.4593\text{E-}006 * x + 6.1654\text{E-}006$$

$$R = 0.9994$$

$$DL = 10.98$$

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	1.85	0.0000	P	100.
2	☐	0.500					
3	☐	5.000	8.060	16.67	0.0000	P	51.8
4	☐	50.000	48.725	96.30	0.0003	P	19.8
5	☐	125.000	127.372	240.13	0.0007	P	6.0
6	☐	250.000	241.728	456.80	0.0013	P	6.7
7	☐	500.000	497.628	924.11	0.0027	P	4.2
8	☐	1000.000	1003.006	1874.22	0.0054	P	5.4
9	☐			1.23	0.0000	P	86.6

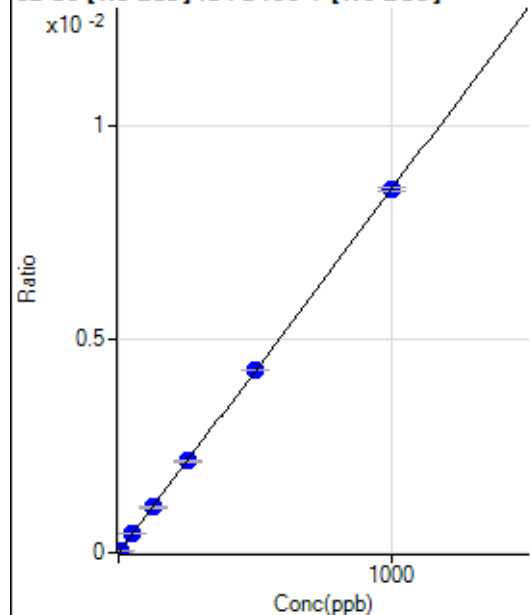
$$y = 5.3765E-006 * x + 5.1377E-006$$

$$R = 0.9999$$

$$DL = 2.867$$

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	10.66	0.0000	P	295.
2	☐	0.500					
3	☐	5.000	5.118	545.62	0.0000	P	7.8
4	☐	50.000	52.041	5505.39	0.0004	P	0.9
5	☐	125.000	125.938	13329.05	0.0011	P	2.7
6	☐	250.000	252.405	26464.10	0.0022	P	1.5
7	☐	500.000	502.077	52570.30	0.0043	P	0.4
8	☐	1000.000	998.140	104890.64	0.0085	P	1.0
9	☐			104.12	0.0000	P	56.4

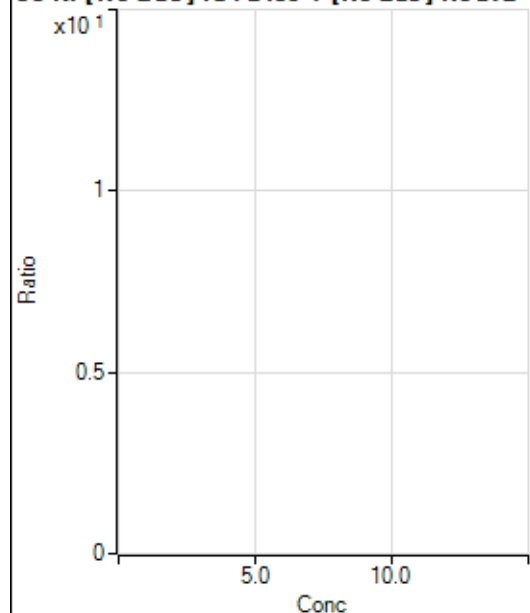
$$y = 8.5308E-006 * x + 8.6265E-007$$

$$R = 1.0000$$

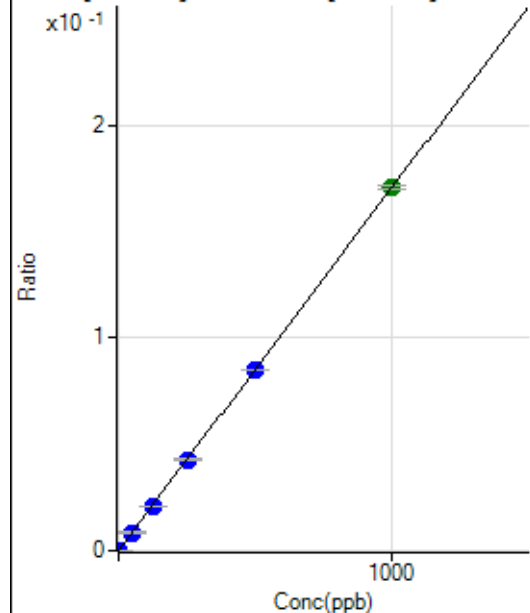
$$DL = 0.8975$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] ISTD:89 Y [No Gas] No av_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			292.23	0.0000	P	2.6
2	☐						
3	☐			284.45	0.0000	P	8.7
4	☐			274.45	0.0000	P	14.8
5	☐			355.57	0.0000	P	17.2
6	☐			310.01	0.0000	P	20.6
7	☐			321.12	0.0000	P	20.4
8	☐			337.79	0.0000	P	24.5
9	☐			311.12	0.0000	P	5.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	530.59	0.0000	P	13.4
2	☐	0.100					
3	☐	1.000	0.924	2453.12	0.0002	P	1.5
4	☐	50.000	49.885	105647.88	0.0085	P	1.7
5	☐	125.000	123.626	261469.79	0.0211	P	0.4
6	☐	250.000	250.339	524169.04	0.0427	P	1.1
7	☐	500.000	498.804	1042648.30	0.0850	P	0.9
8	☐	1000.000	1000.691	2099035.94	0.1704	A	1.2
9	☐			14221.93	0.0012	P	2.1

$$y = 1.7026E-004 * x + 4.2743E-005$$

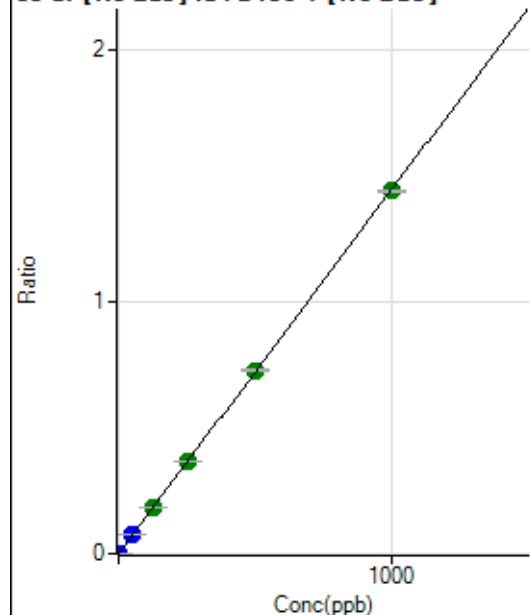
$$R = 1.0000$$

$$DL = 0.101$$

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	125.01	0.0000	P	6.8
2	☐	0.100					
3	☐	1.000	1.019	18135.03	0.0015	P	2.8
4	☐	50.000	50.860	908043.48	0.0734	P	0.6
5	☐	125.000	127.266	2275681.06	0.1836	A	1.2
6	☐	250.000	253.885	4498841.38	0.3662	A	1.4
7	☐	500.000	503.096	8904110.35	0.7256	A	0.9
8	☐	1000.000	997.154	17714743.45	1.4382	A	0.7
9	☐			115734.54	0.0096	P	0.9

$$y = 0.0014 * x + 1.0074E-005$$

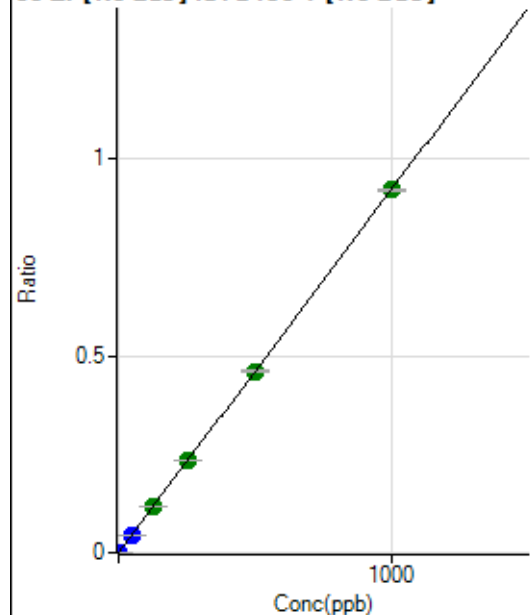
$$R = 1.0000$$

$$DL = 0.001419$$

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	1097.32	0.0001	P	3.2
2	☐	0.100					
3	☐	1.000	0.970	12050.31	0.0010	P	3.3
4	☐	50.000	49.847	570007.65	0.0461	P	0.5
5	☐	125.000	126.353	1445515.36	0.1166	A	0.7
6	☐	250.000	254.209	2881031.49	0.2345	A	1.0
7	☐	500.000	499.370	5651809.72	0.4606	A	0.4
8	☐	1000.000	999.101	11349143.65	0.9214	A	0.4
9	☐			5059.51	0.0004	P	8.4

$$y = 9.2213E-004 * x + 8.8418E-005$$

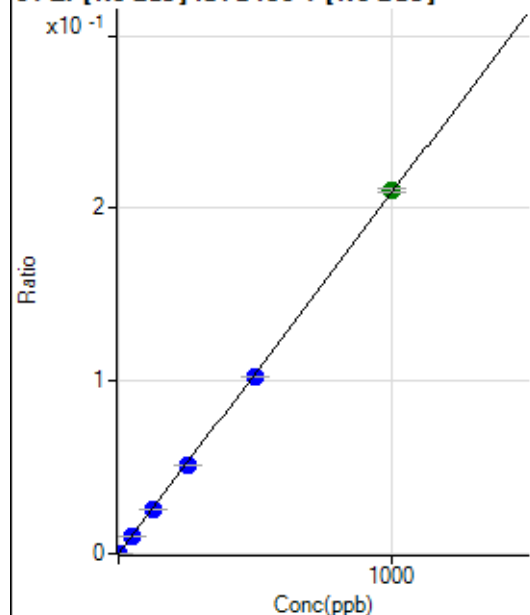
$$R = 1.0000$$

$$DL = 0.009118$$

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	222.23	0.0000	P	14.4
2	☐	0.100					
3	☐	1.000	0.955	2667.06	0.0002	P	2.6
4	☐	50.000	48.212	124921.39	0.0101	P	0.1
5	☐	125.000	121.896	316008.38	0.0255	P	1.3
6	☐	250.000	245.412	630301.22	0.0513	P	0.4
7	☐	500.000	492.091	1262118.62	0.1029	P	0.3
8	☐	1000.000	1005.579	2588512.19	0.2102	A	1.0
9	☐			1061.21	0.0001	P	24.0

$$y = 2.0897\text{E-}004 * x + 1.7911\text{E-}005$$

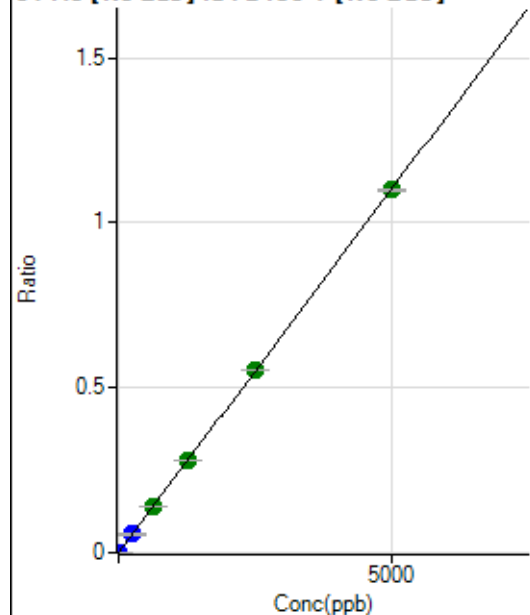
$$R = 0.9999$$

$$DL = 0.03713$$

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	402.81	0.0000	P	15.5
2	☐	0.500					
3	☐	5.000	4.960	13790.94	0.0011	P	1.1
4	☐	250.000	251.367	685634.52	0.0554	P	0.9
5	☐	625.000	631.692	1725207.92	0.1392	A	1.2
6	☐	1250.000	1260.601	3411699.12	0.2777	A	0.6
7	☐	2500.000	2510.445	6785549.72	0.5530	A	0.6
8	☐	5000.000	4991.223	13541256.90	1.0994	A	0.4
9	☐			18652.42	0.0015	P	5.3

$$y = 2.2025\text{E-}004 * x + 3.2456\text{E-}005$$

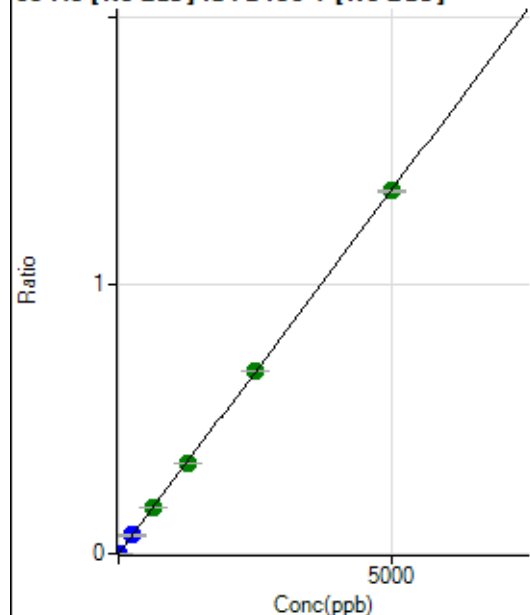
$$R = 1.0000$$

$$DL = 0.06852$$

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	147.23	0.0000	P	21.6
2	☐	0.500					
3	☐	5.000	4.881	16349.45	0.0013	P	3.2
4	☐	250.000	251.437	842992.15	0.0681	P	1.2
5	☐	625.000	632.051	2122299.40	0.1712	A	1.4
6	☐	1250.000	1254.213	4173643.37	0.3397	A	0.1
7	☐	2500.000	2513.672	8354312.17	0.6808	A	0.7
8	☐	5000.000	4991.158	16650879.37	1.3518	A	0.4
9	☐			30009.07	0.0025	P	5.8

$$y = 2.7084\text{E-}004 * x + 1.1867\text{E-}005$$

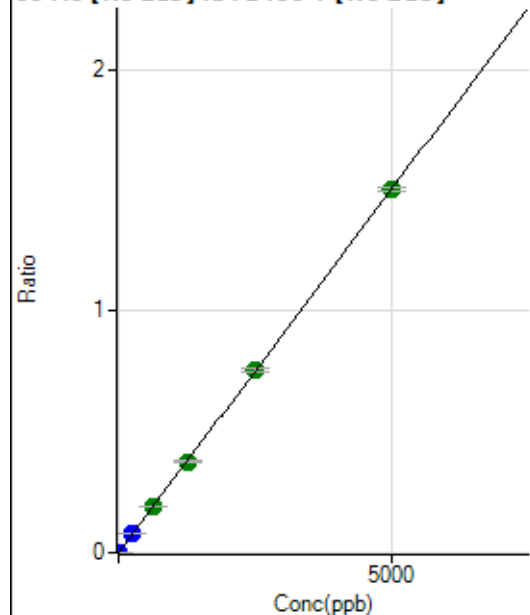
$$R = 1.0000$$

$$DL = 0.02838$$

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	252.79	0.0000	P	13.7
2	☐	0.500					
3	☐	5.000	4.910	18365.93	0.0015	P	3.3
4	☐	250.000	252.044	939262.78	0.0759	P	0.2
5	☐	625.000	628.602	2345917.15	0.1892	A	1.0
6	☐	1250.000	1254.598	4639791.16	0.3777	A	1.7
7	☐	2500.000	2512.860	9281661.15	0.7564	A	1.2
8	☐	5000.000	4991.868	18507563.09	1.5026	A	1.1
9	☐			33901.59	0.0028	P	4.5

$$y = 3.0100\text{E-}004 * x + 2.0377\text{E-}005$$

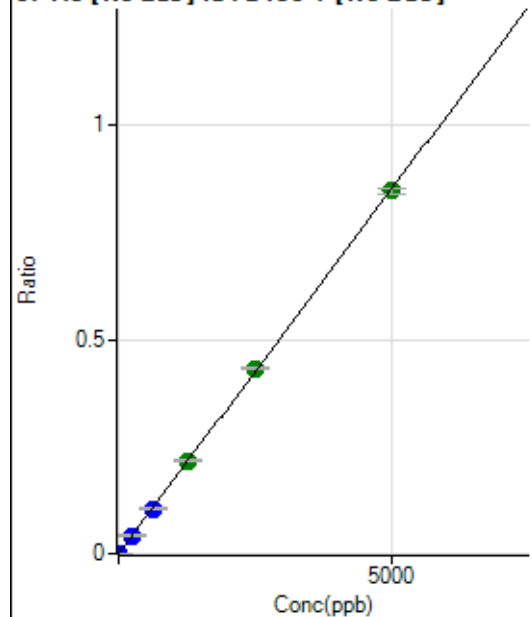
$$R = 1.0000$$

$$DL = 0.02778$$

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	113.90	0.0000	P	11.1
2	☐	0.500					
3	☐	5.000	4.849	10223.74	0.0008	P	1.1
4	☐	250.000	250.368	527187.86	0.0426	P	0.4
5	☐	625.000	618.305	1303833.38	0.1052	P	1.0
6	☐	1250.000	1276.628	2667876.10	0.2171	A	0.5
7	☐	2500.000	2534.856	5290709.66	0.4312	A	1.0
8	☐	5000.000	4976.734	10425998.93	0.8465	A	1.3
9	☐			18596.85	0.0015	P	3.6

$$y = 1.7009\text{E-}004 * x + 9.1769\text{E-}006$$

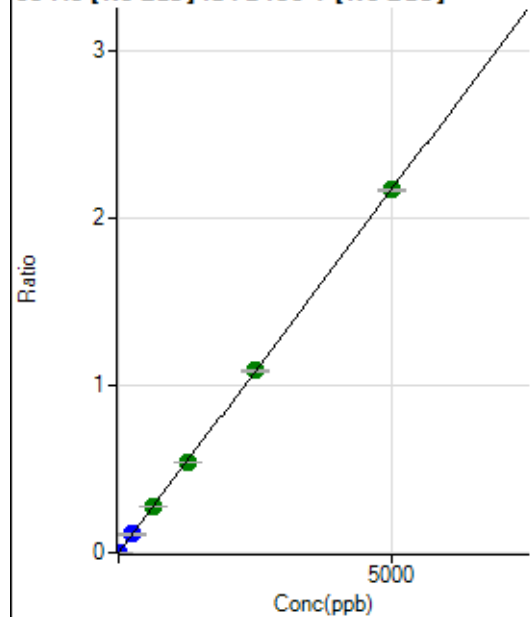
$$R = 0.9999$$

$$DL = 0.0179$$

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	216.68	0.0000	P	20.6
2	☐	0.500					
3	☐	5.000	4.873	26139.97	0.0021	P	2.5
4	☐	250.000	252.013	1354243.69	0.1094	P	0.6
5	☐	625.000	624.986	3363621.69	0.2713	A	0.6
6	☐	1250.000	1248.738	6660258.53	0.5421	A	0.7
7	☐	2500.000	2506.251	13350643.70	1.0880	A	0.7
8	☐	5000.000	4997.091	26719220.39	2.1693	A	0.8
9	☐			47565.42	0.0039	P	5.4

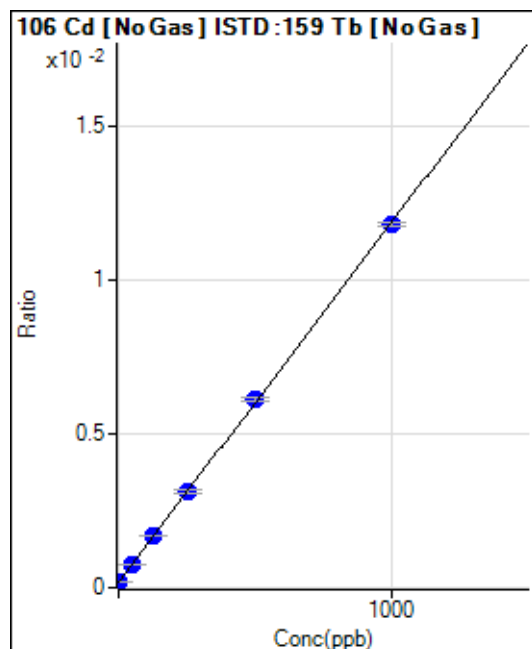
$$y = 4.3410\text{E-}004 * x + 1.7469\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.02493$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2436.45	0.0002	P	5.9
2	☐	0.100					
3	☐	1.000	0.815	2567.05	0.0002	P	1.5
4	☐	50.000	50.903	11091.14	0.0008	P	0.6
5	☐	125.000	129.889	25074.16	0.0017	P	3.1
6	☐	250.000	253.970	46553.60	0.0031	P	3.7
7	☐	500.000	509.122	91433.91	0.0061	P	1.9
8	☐	1000.000	993.790	178806.08	0.0118	P	1.2
9	☐			2497.59	0.0002	P	3.9

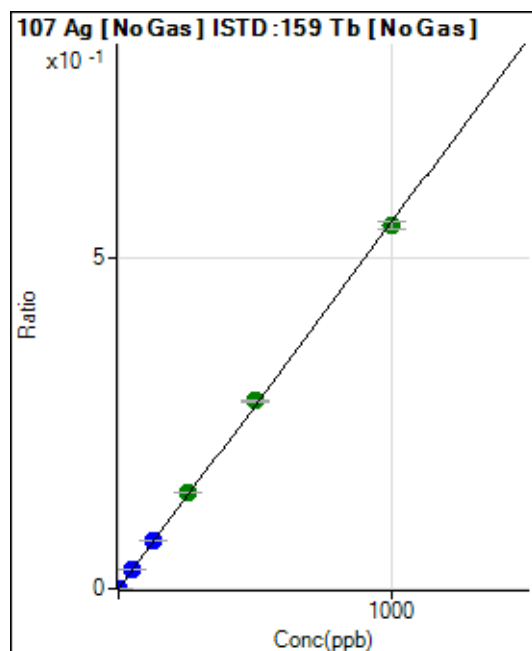
$$y = 1.1684\text{E-}005 * x + 1.6777\text{E-}004$$

$$R = 0.9999$$

$$DL = 2.537$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0000	P	25.0
2	☐	0.100					
3	☐	1.000	1.053	8558.69	0.0006	P	1.3
4	☐	50.000	53.519	431237.61	0.0296	P	0.5
5	☐	125.000	130.056	1071750.93	0.0720	P	0.9
6	☐	250.000	261.839	2153421.34	0.1450	A	0.5
7	☐	500.000	512.556	4243746.49	0.2839	A	0.5
8	☐	1000.000	989.954	8321826.84	0.5482	A	2.1
9	☐			1575.17	0.0001	P	13.0

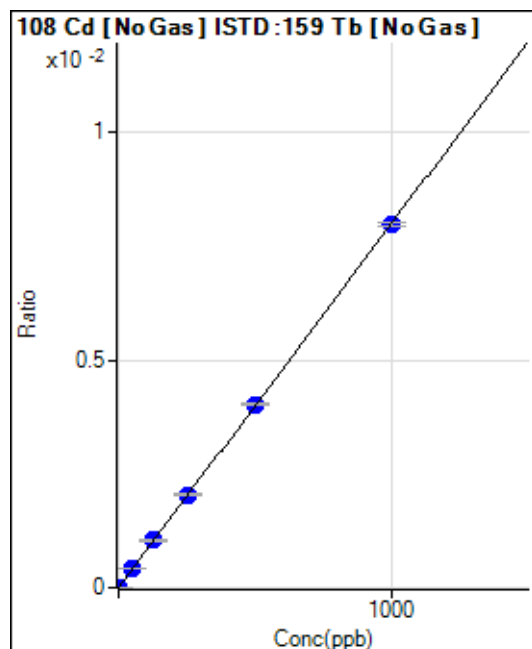
$$y = 5.5380\text{E-}004 * x + 8.0385\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.01087$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0000	P	94.3
2	☐	0.100					
3	☐	1.000	1.117	140.28	0.0000	P	36.5
4	☐	50.000	53.340	6221.02	0.0004	P	0.3
5	☐	125.000	129.734	15460.53	0.0010	P	1.3
6	☐	250.000	255.896	30426.26	0.0020	P	2.2
7	☐	500.000	502.699	60161.65	0.0040	P	1.0
8	☐	1000.000	996.418	121073.77	0.0080	P	1.2
9	☐			40.28	0.0000	P	32.0

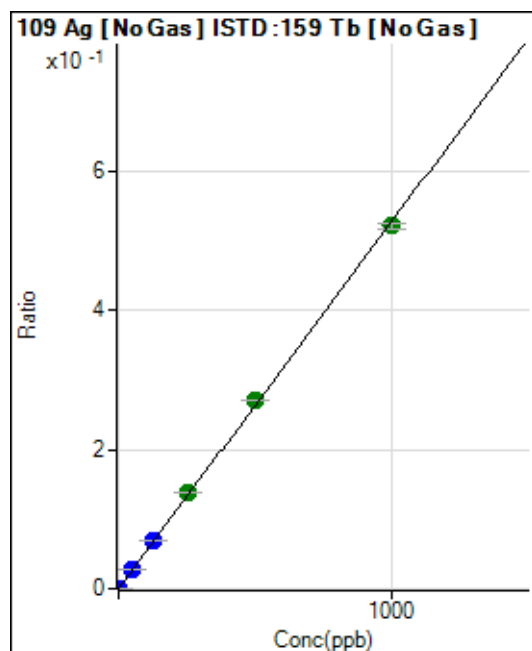
$$y = 8.0039\text{E-}006 * x + 7.6328\text{E-}007$$

$$R = 1.0000$$

$$DL = 0.2698$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	35.6
2	☐	0.100					
3	☐	1.000	1.073	8214.01	0.0006	P	2.2
4	☐	50.000	53.905	412912.52	0.0284	P	1.1
5	☐	125.000	131.181	1027838.57	0.0691	P	0.7
6	☐	250.000	261.994	2048751.05	0.1380	A	0.7
7	☐	500.000	514.160	4047828.47	0.2708	A	0.3
8	☐	1000.000	988.954	7905054.08	0.5208	A	1.7
9	☐			1536.27	0.0001	P	15.9

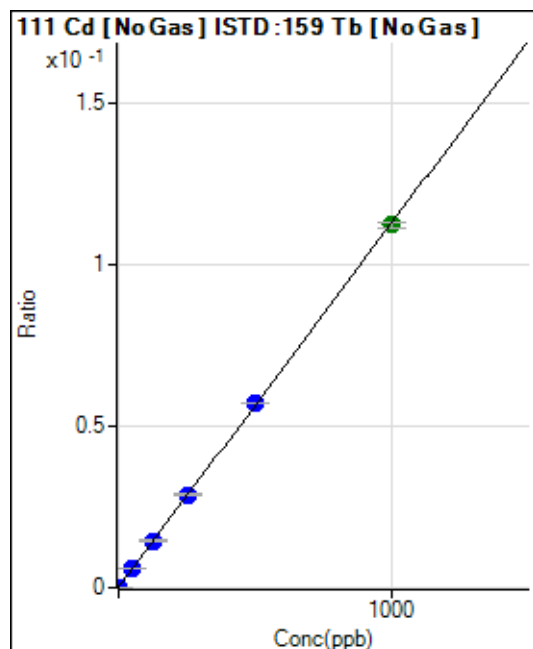
$$y = 5.2659\text{E-}004 * x + 2.4887\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.005051$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1718.57	0.0001	P	5.7
2	☐	0.100					
3	☐	1.000	0.986	3325.26	0.0002	P	1.2
4	☐	50.000	52.083	87267.14	0.0060	P	0.3
5	☐	125.000	128.117	217003.69	0.0146	P	1.0
6	☐	250.000	254.931	429224.92	0.0289	P	0.6
7	☐	500.000	506.072	856074.50	0.0573	P	0.7
8	☐	1000.000	995.237	1707671.34	0.1125	A	1.5
9	☐			2193.75	0.0001	P	2.5

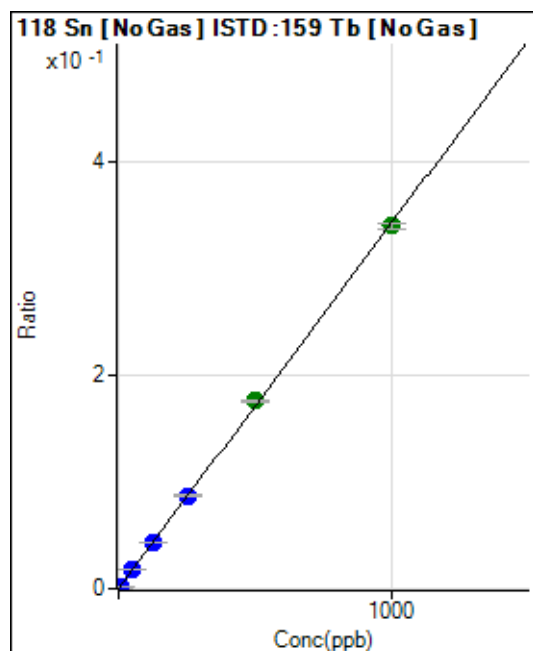
$$y = 1.1292\text{E-}004 * x + 1.1834\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.1786$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1277.91	0.0001	P	11.1
2	☐	0.500					
3	☐	5.000	5.213	27133.94	0.0019	P	2.2
4	☐	50.000	51.684	258804.41	0.0178	P	0.5
5	☐	125.000	126.400	645522.22	0.0434	P	1.7
6	☐	250.000	254.584	1296366.38	0.0873	P	0.8
7	☐	500.000	512.712	2627061.71	0.1757	A	0.5
8	☐	1000.000	992.238	5160986.18	0.3400	A	1.4
9	☐			14733.67	0.0010	P	4.7

$$y = 3.4256\text{E-}004 * x + 8.7982\text{E-}005$$

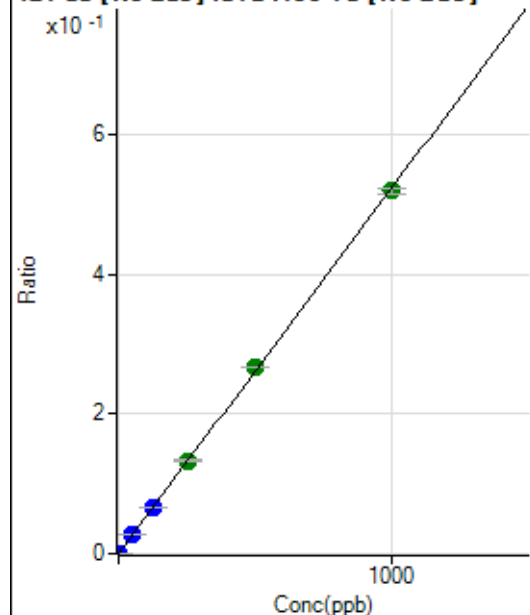
$$R = 0.9999$$

$$DL = 0.08584$$

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	69.45	0.0000	P	14.0
2	☐	0.200					
3	☐	2.000	1.961	14914.53	0.0010	P	3.8
4	☐	50.000	51.026	388105.84	0.0267	P	0.8
5	☐	125.000	126.876	987014.54	0.0663	P	1.1
6	☐	250.000	254.884	1978948.05	0.1333	A	0.8
7	☐	500.000	510.779	3992576.44	0.2671	A	0.5
8	☐	1000.000	993.104	7881813.02	0.5192	A	1.3
9	☐			23168.27	0.0016	P	7.7

$$y = 5.2283\text{E-}004 * x + 4.7831\text{E-}006$$

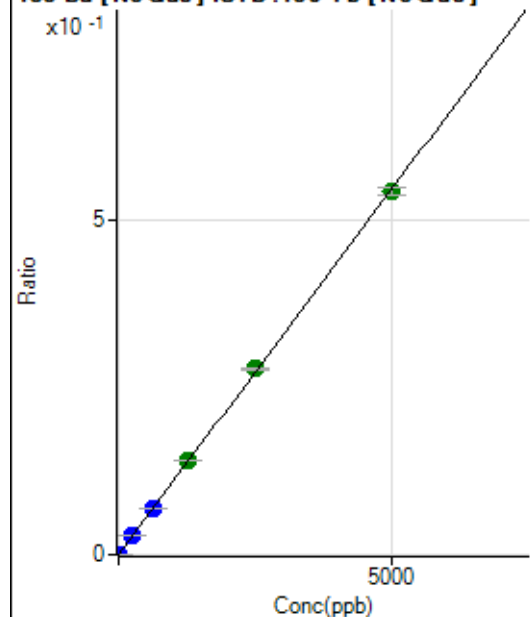
$$R = 0.9999$$

$$DL = 0.003831$$

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	72.23	0.0000	P	13.2
2	☐	1.000					
3	☐	10.000	9.593	15276.09	0.0011	P	1.7
4	☐	250.000	258.589	411808.44	0.0283	P	0.9
5	☐	625.000	637.342	1038088.42	0.0698	P	1.4
6	☐	1250.000	1291.441	2099384.38	0.1414	A	0.7
7	☐	2500.000	2542.503	4161020.27	0.2783	A	0.4
8	☐	5000.000	4966.417	8252244.72	0.5437	A	2.2
9	☐			1994.69	0.0001	P	11.1

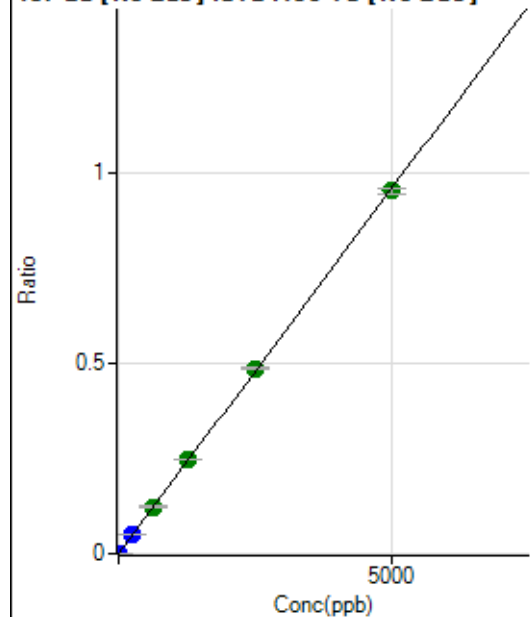
$$y = 1.0947\text{E-}004 * x + 4.9736\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.018$$

Weight: <None>

Min Conc: 0

¹³⁷Ba [No Gas] ISTD : ¹⁵⁹Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	72.22	0.0000	P	29.4
2	☐	1.000					
3	☐	10.000	9.548	26563.84	0.0018	P	1.1
4	☐	250.000	258.303	720048.46	0.0495	P	0.5
5	☐	625.000	645.155	1839483.57	0.1236	A	1.3
6	☐	1250.000	1285.850	3659143.05	0.2464	A	0.3
7	☐	2500.000	2535.620	7264184.45	0.4859	A	0.8
8	☐	5000.000	4970.294	14457873.94	0.9525	A	1.5
9	☐			3445.06	0.0002	P	15.5

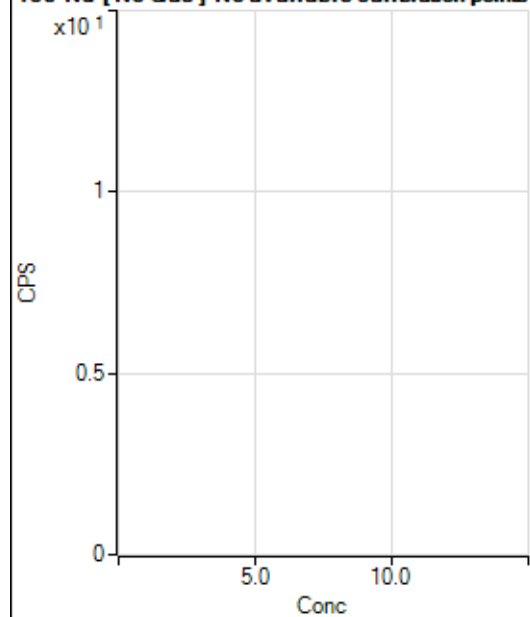
$$y = 1.9163E-004 * x + 4.9773E-006$$

$$R = 0.9999$$

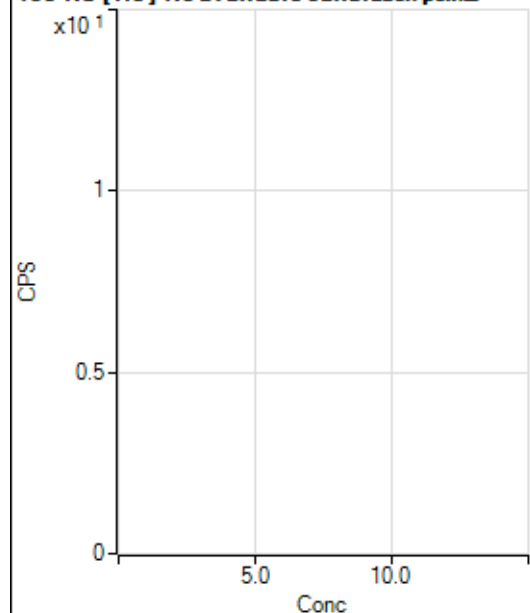
$$DL = 0.02289$$

Weight: <None>

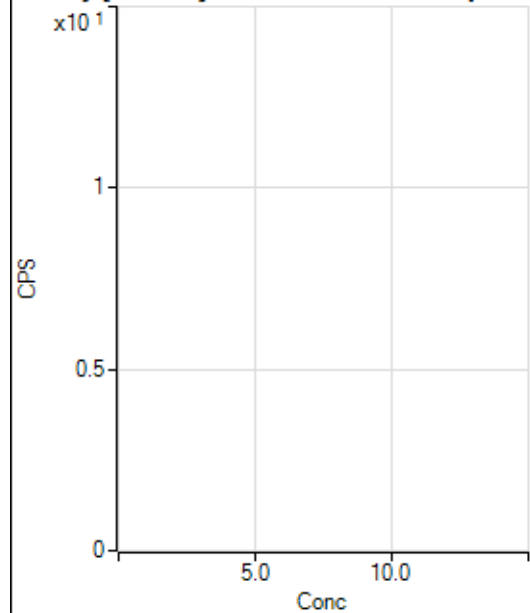
Min Conc: 0

¹⁵⁰Nd [No Gas] No available calibration points

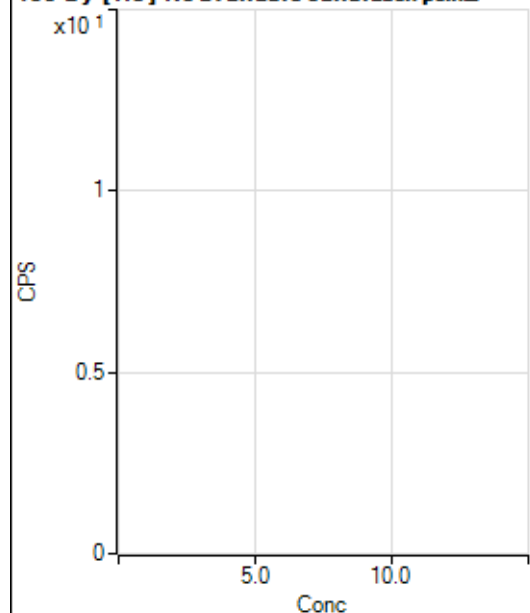
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	69.3
2	☐						
3	☐			2.22		P	173.
4	☐			35.55		P	65.9
5	☐			44.45		P	31.2
6	☐			73.34		P	24.1
7	☐			157.79		P	10.6
8	☐			324.46		P	7.2
9	☐			108.89		P	9.4

150 Nd [He] No available calibration points

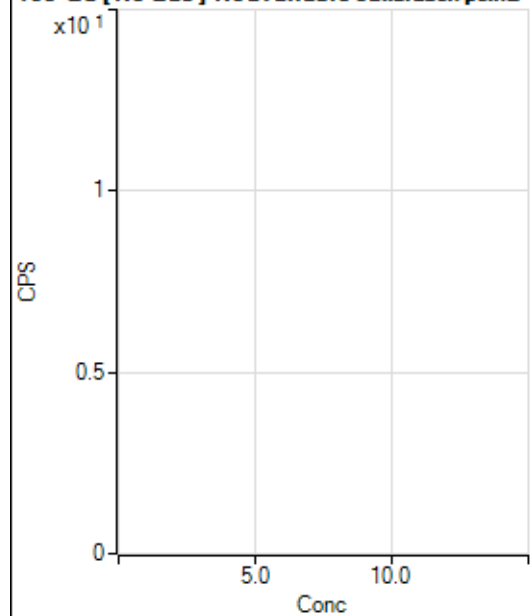
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			5.55		P	124.
6	☐			0.00		P	
7	☐			1.11		P	173.
8	☐			8.89		P	43.3
9	☐			8.89		P	21.6

156 Dy [No Gas] No available calibration points

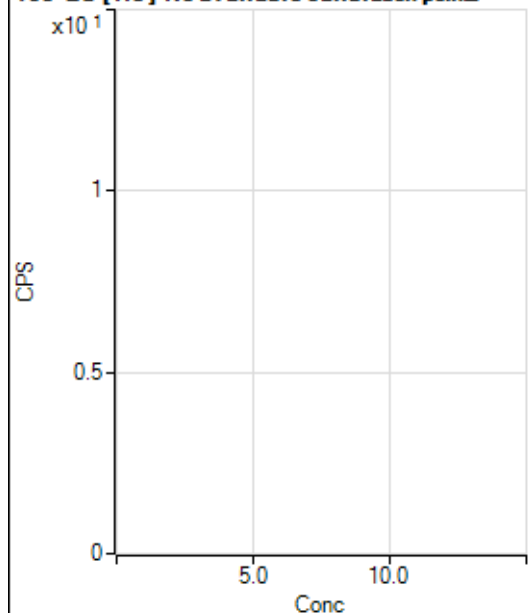
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.45		P	24.7
2	☐						
3	☐			13.89		P	124.
4	☐			16.67		P	50.0
5	☐			27.78		P	45.8
6	☐			16.67		P	50.0
7	☐			63.89		P	30.1
8	☐			105.56		P	12.1
9	☐			94.45		P	27.0

156 Dy [He] No available calibration points

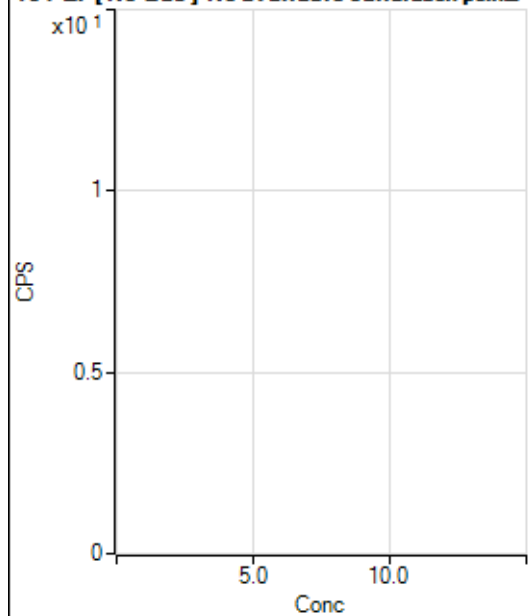
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	0.0
2	☐						
3	☐			2.22		P	173.
4	☐			0.00		P	
5	☐			5.55		P	69.3
6	☐			3.33		P	100.
7	☐			2.22		P	86.6
8	☐			14.44		P	53.3
9	☐			20.00		P	33.4

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

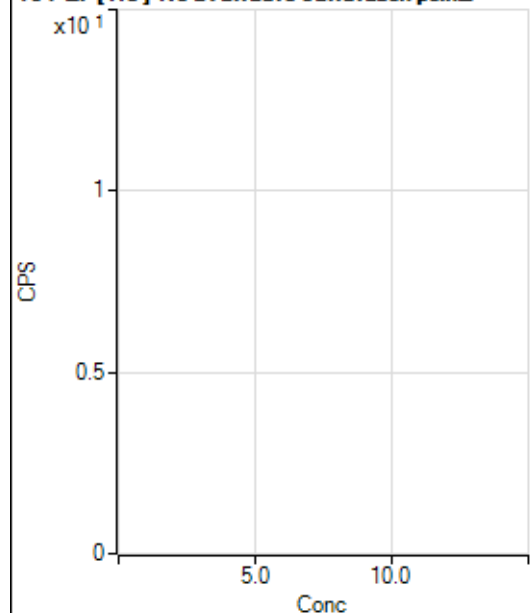
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			97.23		P	19.8
2	☐						
3	☐			91.67		P	48.1
4	☐			100.01		P	30.0
5	☐			102.78		P	36.6
6	☐			91.67		P	31.5
7	☐			100.01		P	30.0
8	☐			166.68		P	22.9
9	☐			133.34		P	10.8

160 Gd [He] No available calibration points

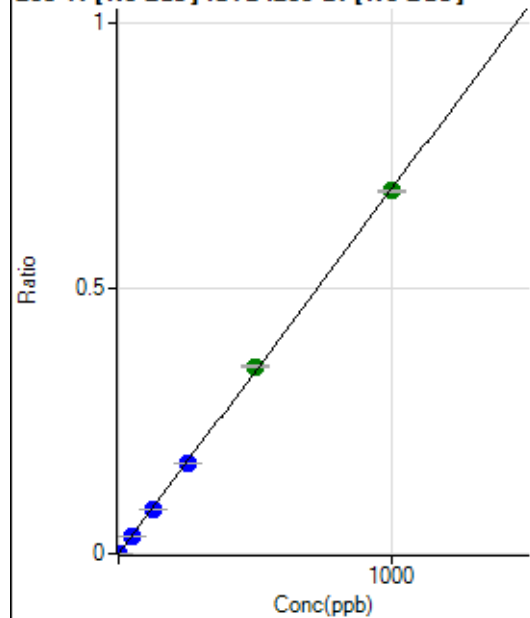
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	57.3
2	☐						
3	☐			14.44		P	96.1
4	☐			13.33		P	43.3
5	☐			11.11		P	17.3
6	☐			13.33		P	50.0
7	☐			8.89		P	57.3
8	☐			25.56		P	39.8
9	☐			33.33		P	17.3

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			50.00		P	44.1
2	☐						
3	☐			69.45		P	30.2
4	☐			41.67		P	20.0
5	☐			80.56		P	31.6
6	☐			61.11		P	20.8
7	☐			66.67		P	33.1
8	☐			88.89		P	51.6
9	☐			83.34		P	34.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	34.7
2	☐						
3	☐			12.22		P	41.7
4	☐			10.00		P	57.8
5	☐			5.55		P	69.3
6	☐			13.33		P	25.0
7	☐			13.33		P	25.0
8	☐			12.22		P	41.7
9	☐			13.33		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	341.69	0.0000	P	27.3
2	☐	0.100					
3	☐	1.000	0.974	6085.07	0.0007	P	3.6
4	☐	50.000	49.140	292686.07	0.0338	P	1.6
5	☐	125.000	122.356	743159.61	0.0841	P	1.2
6	☐	250.000	246.296	1499943.86	0.1692	P	0.5
7	☐	500.000	512.314	3108038.70	0.3520	A	0.8
8	☐	1000.000	995.143	6088427.91	0.6837	A	0.3
9	☐			3697.95	0.0005	P	9.5

$$y = 6.8696E-004 * x + 3.9336E-005$$

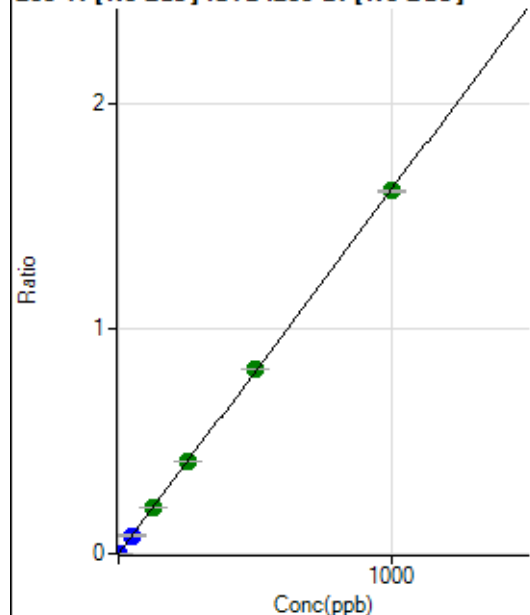
$$R = 0.9999$$

$$DL = 0.04686$$

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	816.74	0.0001	P	10.5
2	☐	0.100					
3	☐	1.000	0.967	14239.11	0.0017	P	2.5
4	☐	50.000	49.866	699854.62	0.0808	P	1.2
5	☐	125.000	125.567	1796973.91	0.2034	A	1.6
6	☐	250.000	252.704	3626322.26	0.4092	A	0.3
7	☐	500.000	506.015	7233533.32	0.8192	A	0.6
8	☐	1000.000	996.252	14362358.31	1.6127	A	0.2
9	☐			9056.40	0.0011	P	4.2

$$y = 0.0016 * x + 9.4201E-005$$

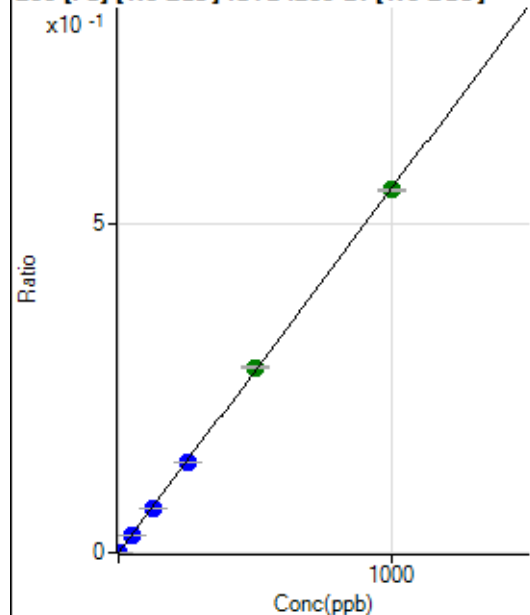
$$R = 1.0000$$

$$DL = 0.01831$$

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	351.87	0.0000	P	7.4
2	☐	0.100					
3	☐	1.000	0.928	4762.15	0.0006	P	5.8
4	☐	50.000	49.385	237364.63	0.0274	P	0.9
5	☐	125.000	122.364	599583.29	0.0679	P	1.6
6	☐	250.000	247.061	1213845.83	0.1370	P	0.1
7	☐	500.000	509.261	2492365.57	0.2823	A	0.9
8	☐	1000.000	996.465	4918087.44	0.5522	A	0.3
9	☐			29224.88	0.0036	P	1.5

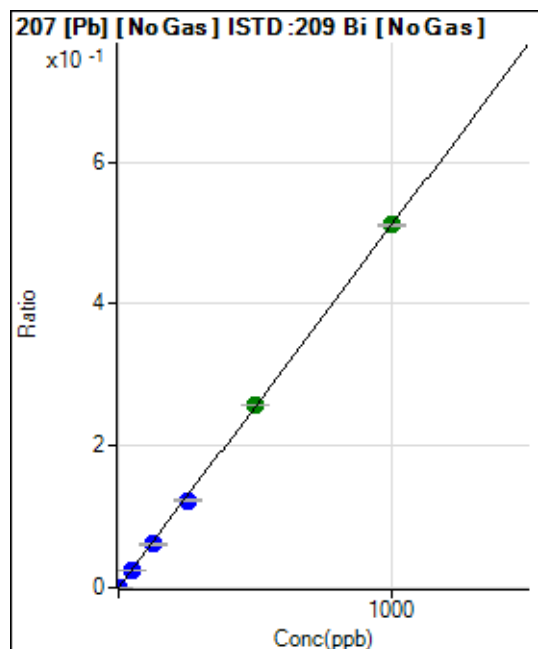
$$y = 5.5417E-004 * x + 4.0590E-005$$

$$R = 0.9999$$

$$DL = 0.01629$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	322.24	0.0000	P	8.8
2	☐	0.100					
3	☐	1.000	0.932	4402.75	0.0005	P	3.7
4	☐	50.000	48.063	212823.96	0.0246	P	0.7
5	☐	125.000	119.463	539284.08	0.0610	P	1.4
6	☐	250.000	241.024	1090924.93	0.1231	P	0.4
7	☐	500.000	503.865	2271659.54	0.2573	A	0.5
8	☐	1000.000	1001.101	4551836.97	0.5111	A	0.8
9	☐			24524.16	0.0030	P	1.6

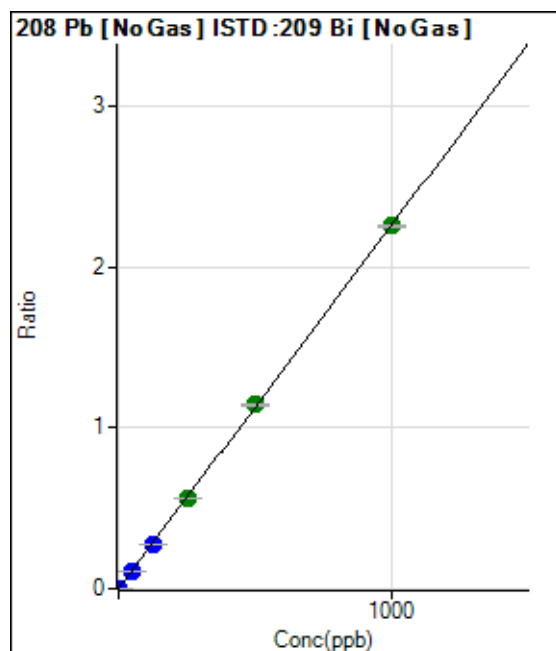
$$y = 5.1053\text{E-}004 * x + 3.7151\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.01925$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1403.78	0.0002	P	3.2
2	☐	0.100					
3	☐	1.000	0.956	19927.15	0.0023	P	2.4
4	☐	50.000	49.099	961903.47	0.1111	P	0.6
5	☐	125.000	121.985	2436412.12	0.2757	P	1.6
6	☐	250.000	248.138	4969376.84	0.5607	A	0.1
7	☐	500.000	505.514	10084293.40	1.1421	A	0.2
8	☐	1000.000	998.131	20080324.53	2.2548	A	0.6
9	☐			114304.56	0.0140	P	0.7

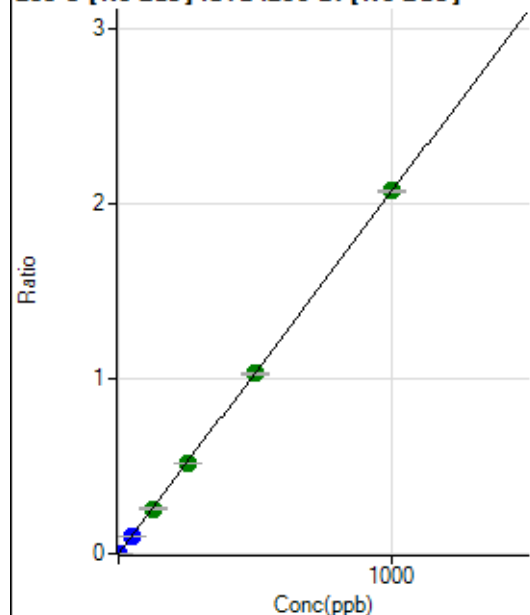
$$y = 0.0023 * x + 1.6190\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.006775$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	252.79	0.0000	P	10.6
2	☐	0.100					
3	☐	1.000	0.945	17056.86	0.0020	P	1.7
4	☐	50.000	48.703	874490.28	0.1010	P	1.1
5	☐	125.000	124.665	2283534.68	0.2584	A	2.1
6	☐	250.000	247.847	4553374.06	0.5138	A	0.7
7	☐	500.000	497.407	9103983.54	1.0310	A	0.4
8	☐	1000.000	1001.942	18495056.66	2.0768	A	0.5
9	☐			2967.18	0.0004	P	25.4

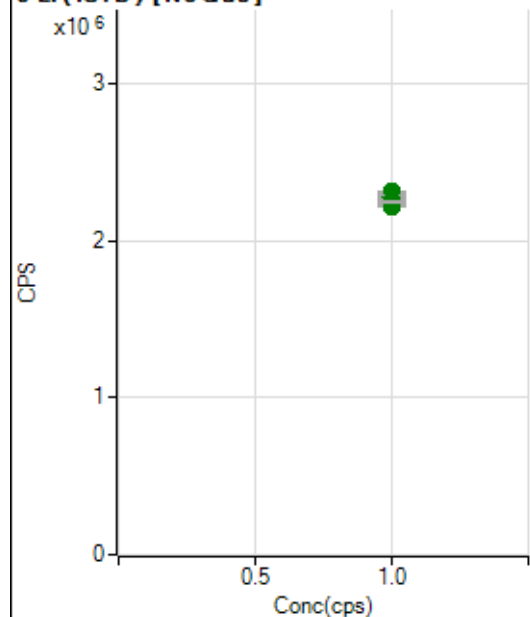
$$y = 0.0021 * x + 2.9160E-005$$

$$R = 1.0000$$

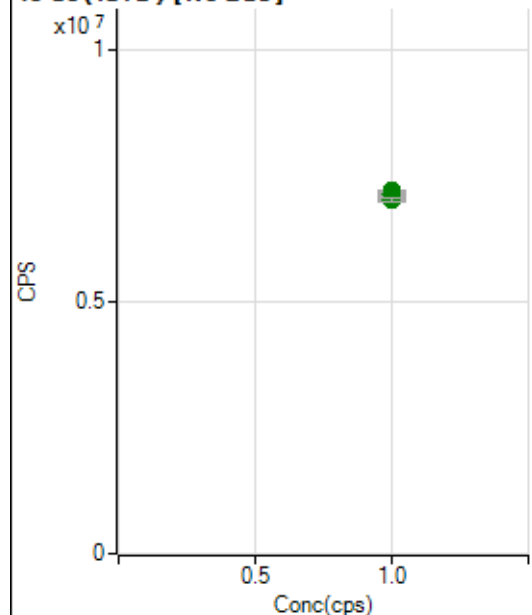
$$DL = 0.004474$$

Weight: <None>

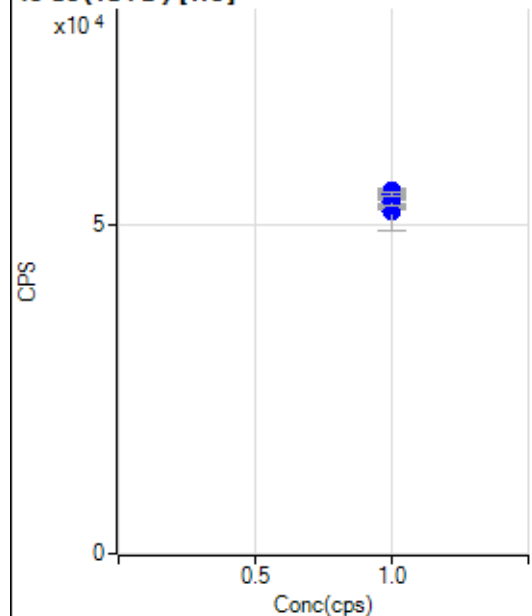
Min Conc: 0

6 Li (ISTD) [No Gas]

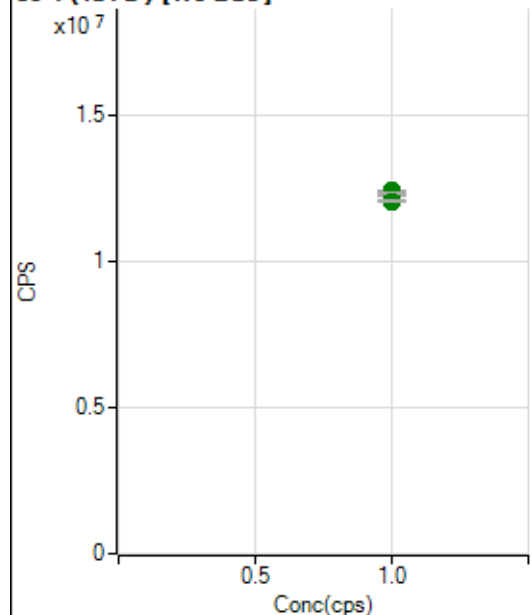
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2220957.19		A	0.4
2	☐	1.000					
3	☐	1.000		2242493.16		A	1.3
4	☐	1.000		2251331.56		A	1.2
5	☐	1.000		2313817.69		A	0.9
6	☐	1.000		2292901.65		A	0.7
7	☐	1.000		2276707.22		A	1.2
8	☐	1.000		2261396.62		A	0.1
9	☐	1.000		2248349.91		A	0.3

45 Sc (ISTD) [No Gas]

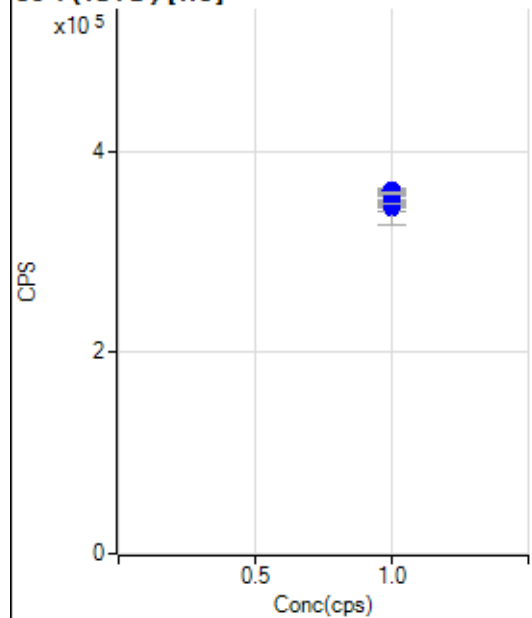
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7160804.76		A	1.1
2	☐	1.000					
3	☐	1.000		7127283.06		A	0.7
4	☐	1.000		7200338.70		A	0.1
5	☐	1.000		7120773.60		A	1.3
6	☐	1.000		7103682.71		A	0.4
7	☐	1.000		7048596.60		A	0.9
8	☐	1.000		7034590.95		A	1.0
9	☐	1.000		7027486.53		A	1.0

45 Sc (ISTD) [He]

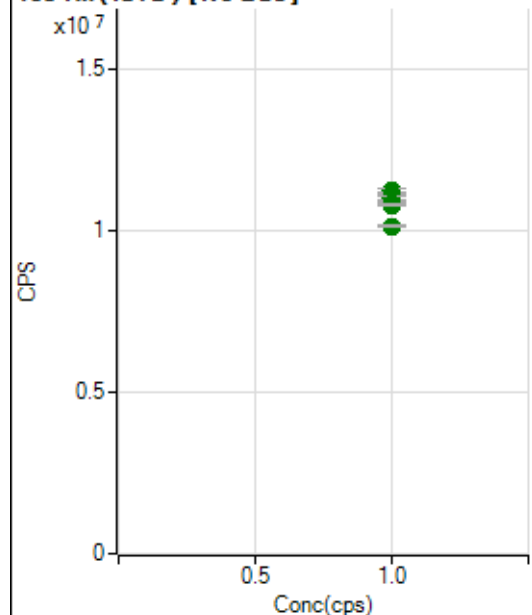
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		55134.41		P	1.1
2	☐	1.000					
3	☐	1.000		52109.20		P	11.6
4	☐	1.000		55080.83		P	0.6
5	☐	1.000		53516.28		P	4.2
6	☐	1.000		53937.57		P	0.9
7	☐	1.000		52932.70		P	1.0
8	☐	1.000		53529.53		P	1.9
9	☐	1.000		54650.24		P	0.9

89 Y (ISTD) [No Gas]

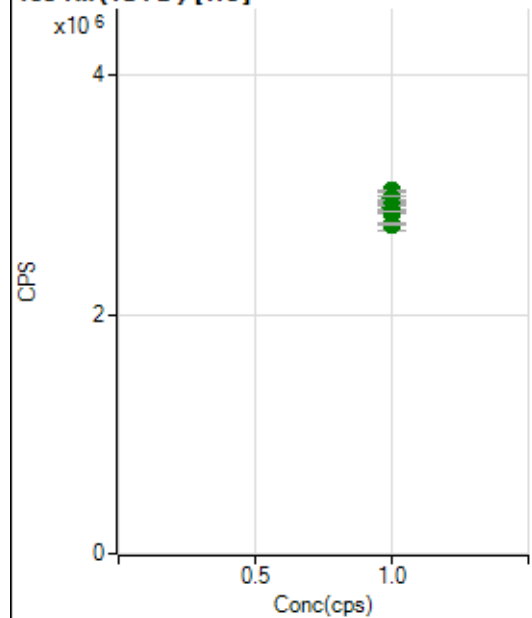
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12409989.54		A	0.4
2	☐	1.000					
3	☐	1.000		12258672.04		A	0.9
4	☐	1.000		12377207.32		A	0.5
5	☐	1.000		12397207.59		A	0.3
6	☐	1.000		12286214.26		A	0.5
7	☐	1.000		12271438.71		A	0.7
8	☐	1.000		12317589.12		A	0.6
9	☐	1.000		12047053.71		A	0.5

89 Y (ISTD) [He]

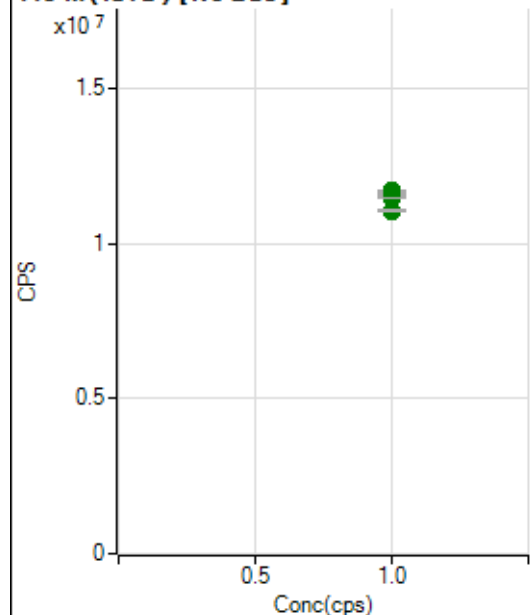
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		358660.47		P	0.7
2	☐	1.000					
3	☐	1.000		343823.54		P	10.0
4	☐	1.000		360260.02		P	0.9
5	☐	1.000		347689.40		P	4.5
6	☐	1.000		350231.04		P	0.9
7	☐	1.000		344816.24		P	0.8
8	☐	1.000		347228.33		P	0.2
9	☐	1.000		358339.83		P	0.7

103 Rh (ISTD) [No Gas]

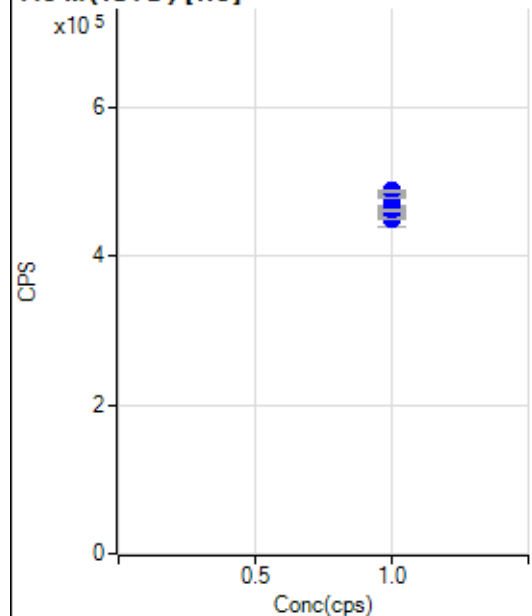
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11123312.92		A	0.6
2	☐	1.000					
3	☐	1.000		11212221.00		A	1.2
4	☐	1.000		11134367.70		A	0.5
5	☐	1.000		11095822.73		A	0.2
6	☐	1.000		10992551.81		A	0.9
7	☐	1.000		10844398.59		A	0.4
8	☐	1.000		10770975.07		A	0.7
9	☐	1.000		10129617.07		A	0.6

103 Rh (ISTD) [He]

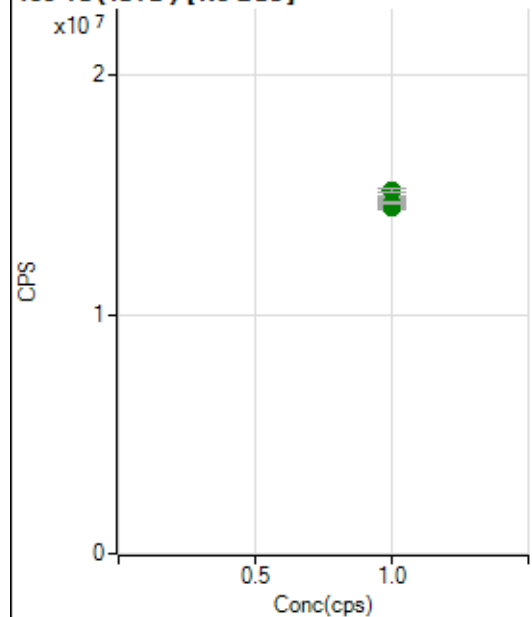
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3032110.41		A	0.3
2	☐	1.000					
3	☐	1.000		2843596.92		A	10.2
4	☐	1.000		2974119.54		A	1.3
5	☐	1.000		2897409.92		A	3.6
6	☐	1.000		2916861.49		A	1.0
7	☐	1.000		2889337.73		A	1.0
8	☐	1.000		2856075.06		A	0.1
9	☐	1.000		2755644.13		A	0.7

115 In (ISTD) [No Gas]

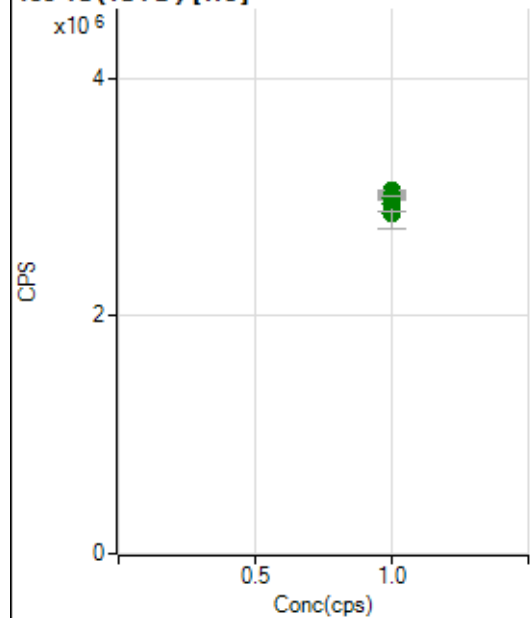
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11716894.71		A	0.8
2	☐	1.000					
3	☐	1.000		11581430.47		A	0.6
4	☐	1.000		11675805.89		A	0.6
5	☐	1.000		11715655.26		A	0.9
6	☐	1.000		11603618.37		A	0.4
7	☐	1.000		11567097.23		A	0.1
8	☐	1.000		11492344.21		A	0.4
9	☐	1.000		11069411.53		A	0.6

115 In (ISTD) [He]

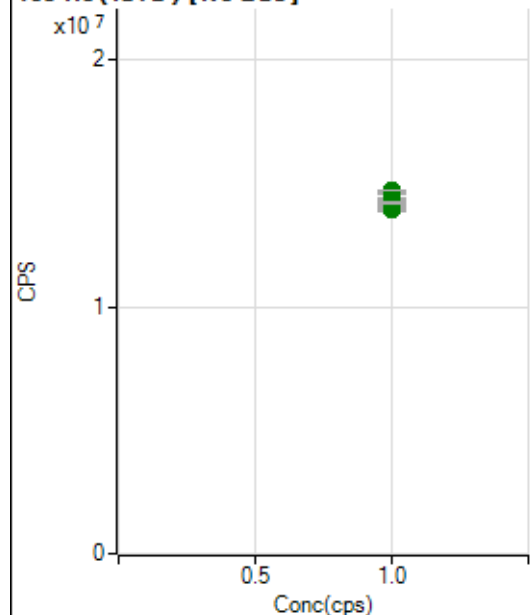
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		480440.98		P	0.5
2	☐	1.000					
3	☐	1.000		461339.21		P	9.4
4	☐	1.000		487104.10		P	0.5
5	☐	1.000		466566.38		P	4.3
6	☐	1.000		465892.72		P	0.9
7	☐	1.000		456003.57		P	0.3
8	☐	1.000		450011.49		P	0.3
9	☐	1.000		461747.39		P	0.4

159 Tb (ISTD) [No Gas]

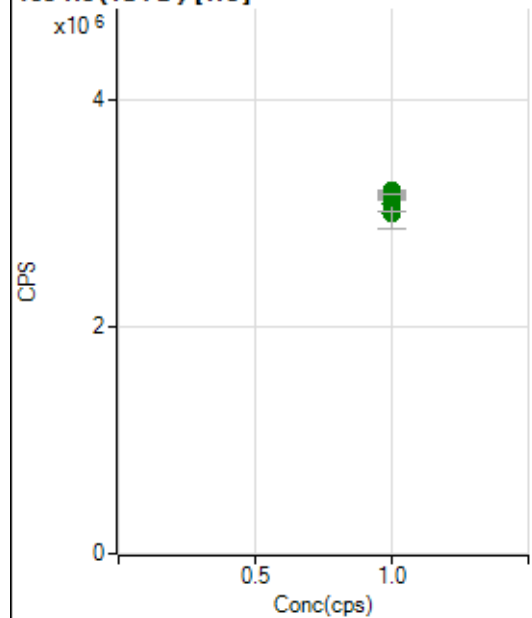
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14520788.12		A	0.4
2	☐	1.000					
3	☐	1.000		14479139.65		A	0.8
4	☐	1.000		14545706.45		A	0.5
5	☐	1.000		14879224.92		A	0.8
6	☐	1.000		14849708.11		A	0.2
7	☐	1.000		14950287.42		A	0.7
8	☐	1.000		15180984.36		A	1.0
9	☐	1.000		14659023.40		A	0.6

159 Tb (ISTD) [He]

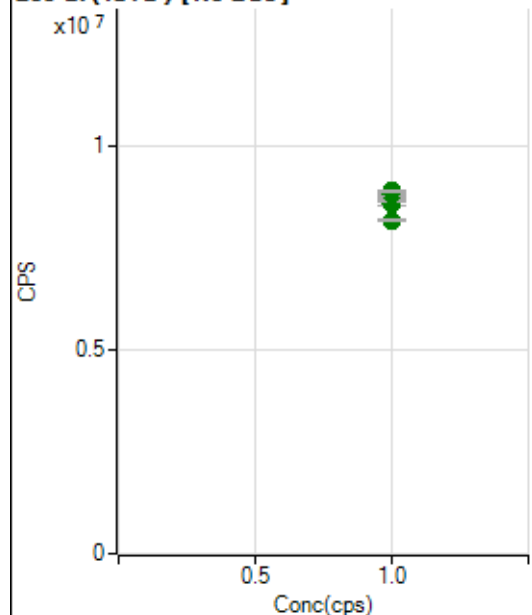
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3041771.07		A	0.7
2	☐	1.000					
3	☐	1.000		2869200.61		A	9.2
4	☐	1.000		3051212.80		A	0.7
5	☐	1.000		2942810.41		A	4.3
6	☐	1.000		2997685.03		A	0.9
7	☐	1.000		2980270.79		A	0.3
8	☐	1.000		2993960.37		A	0.8
9	☐	1.000		3005780.44		A	0.1

165 Ho (ISTD) [No Gas]

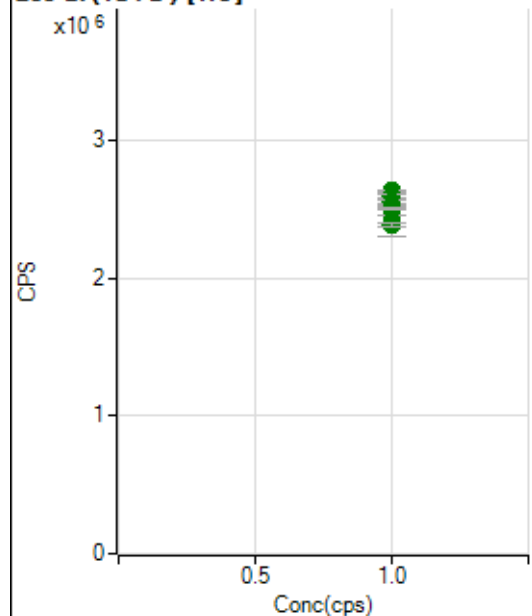
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13982386.08		A	1.1
2	☐	1.000					
3	☐	1.000		13975279.48		A	0.4
4	☐	1.000		14102013.85		A	0.3
5	☐	1.000		14428899.11		A	0.2
6	☐	1.000		14393122.02		A	0.3
7	☐	1.000		14595410.22		A	0.6
8	☐	1.000		14701189.74		A	0.2
9	☐	1.000		14237750.32		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3191780.92		A	0.8
2	☐	1.000					
3	☐	1.000		2996166.17		A	8.8
4	☐	1.000		3176255.75		A	1.0
5	☐	1.000		3075125.82		A	3.8
6	☐	1.000		3157424.33		A	1.2
7	☐	1.000		3123351.59		A	0.4
8	☐	1.000		3127535.44		A	0.2
9	☐	1.000		3166035.75		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8672460.08		A	0.9
2	☐	1.000					
3	☐	1.000		8585305.57		A	0.9
4	☐	1.000		8660465.15		A	0.3
5	☐	1.000		8838497.16		A	1.8
6	☐	1.000		8863163.13		A	0.5
7	☐	1.000		8829918.62		A	0.7
8	☐	1.000		8905578.34		A	0.2
9	☐	1.000		8183025.78		A	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2632740.86		A	0.5
2	☐	1.000					
3	☐	1.000		2461080.93		A	12.6
4	☐	1.000		2595262.12		A	1.0
5	☐	1.000		2512366.02		A	4.7
6	☐	1.000		2553898.17		A	1.1
7	☐	1.000		2519330.97		A	0.5
8	☐	1.000		2500706.96		A	0.7
9	☐	1.000		2387409.55		A	0.7

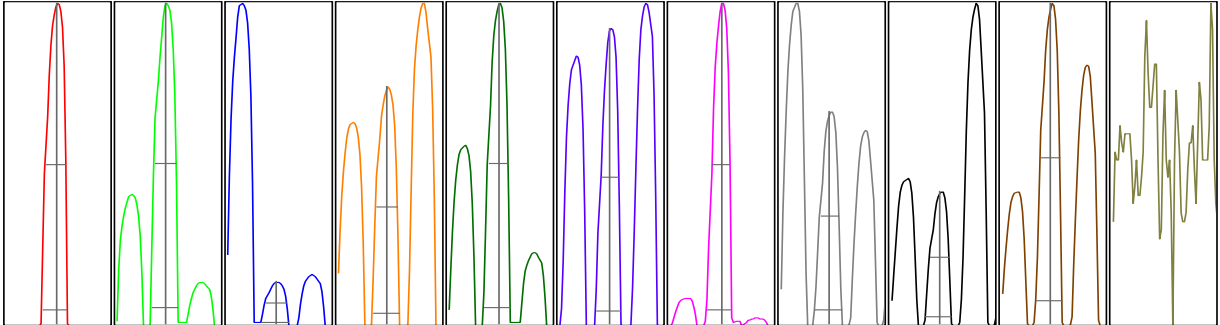
US EPA Tune Check Sample Report

Batch Folder D:\P8062918 MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7186	2.55	5.00	
24	123354	2.90	5.00	
25	16510	2.54	5.00	
26	19106	2.03	5.00	
59	77218	2.34	5.00	
113	10086	1.89	5.00	
115	128815	2.56	5.00	
206	27895	2.50	5.00	
207	25481	3.01	5.00	
208	60677	3.29	5.00	
220	1	18.25		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7000	7344	6975	7336	7274
24	118427	126098	120656	125851	125741
25	16065	16867	16044	16850	16727
26	18774	19536	18655	19423	19143
59	78125	79089	75738	78257	74883
113	10370	10120	9972	9862	10106
115	133347	127854	129372	124196	129305
206	28631	27217	27274	27731	28620
207	26108	25140	24355	25564	26238
208	62188	60271	57468	61037	62420
220	1	1	1	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	12682	9.00	8.9 - 9.1		0.736	0.900	
24	206641	23.95	23.9 - 24.1		0.783	0.900	
25	27888	24.95	24.9 - 25.1		0.787	0.900	
26	32689	25.95	25.9 - 26.1		0.781	0.900	
59	137368	59.00	58.9 - 59.1		0.767	0.900	
113	19481	113.00	112.9 - 113.1		0.724	0.900	
115	245852	115.05	114.9 - 115.1		0.721	0.900	
206	51878	205.95	205.9 - 206.1		0.777	0.900	
207	47455	206.95	206.9 - 207.1		0.734	0.900	
208	113922	207.95	207.9 - 208.1		0.743	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.9	V	Deflect	13.8	V
Extract 2	-225.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-100	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	9751	0.65	
89	9215	0.83	
205	14180	0.71	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	9758	9771	9695	9844	9689
89	9214	9217	9174	9337	9132
205	14167	14193	14058	14335	14148

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.9	V	Deflect	2.4	V
Extract 2	-225.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-100	V	Cell Exit	-60	V			

Cell Parameters

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