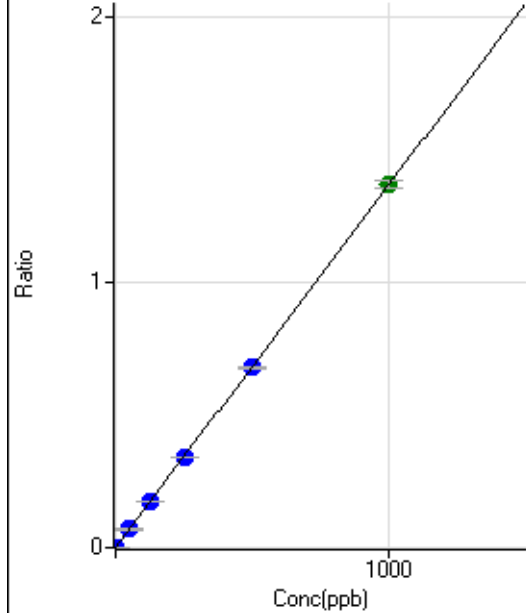


Batch Folder: D:\P8080917-MS .b\
Analysis File: P8080917-MS .batch.bin
DA Date-Time: 2017-08-10 00:43:55
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB P8080917-MS.D	S00	2017-08-09 09:32:11
2			
3	005CALS P8080917-MS.D	S02	2017-08-09 09:39:18
4	006CALS P8080917-MS.D	S03	2017-08-09 09:42:49
5	007CALS P8080917-MS.D	S04	2017-08-09 09:46:18
6	008CALS P8080917-MS.D	S05	2017-08-09 09:49:41
7	009CALS P8080917-MS.D	S06	2017-08-09 09:52:58
8	010CALS P8080917-MS.D	S07	2017-08-09 09:56:10
9	011CALS P8080917-MS.D	S08	2017-08-09 09:59:20

9 Be [NoGas] ISTD:6 Li [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	55.56	0.0001	P	54.2
2	☐	0.100					
3	☐	1.000	0.970	1148.23	0.0014	P	12.9
4	☐	50.000	50.535	56680.30	0.0692	P	1.4
5	☐	125.000	126.096	141195.02	0.1725	P	1.2
6	☐	250.000	250.619	281497.40	0.3428	P	0.3
7	☐	500.000	496.538	559508.61	0.6791	P	0.5
8	☐	1000.000	1001.412	1111294.35	1.3695	A	2.1
9	☐			394.46	0.0005	P	4.5

$$y = 0.0014 * x + 6.8087E-005$$

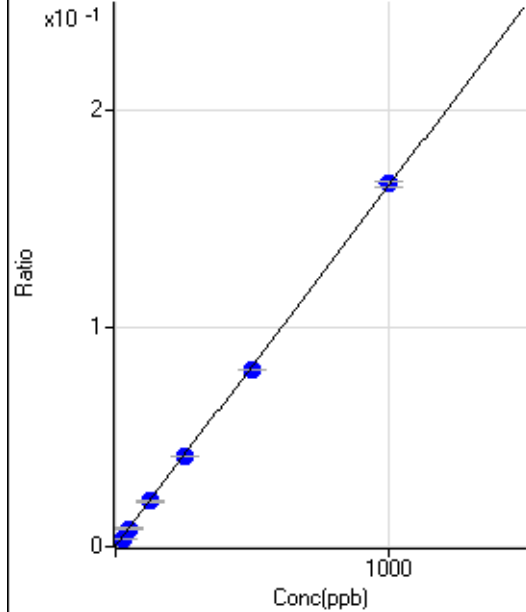
$$R = 1.0000$$

$$DL = 0.08094$$

$$BEC = 0.04979$$

Weight: <None>

Min Conc: 0

10 B [NoGas] ISTD:6 Li [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	202.79	0.0002	P	34.0
2	☐	2.500					
3	☐	25.000	20.074	2930.99	0.0036	P	9.8
4	☐	50.000	48.865	6810.24	0.0083	P	3.5
5	☐	125.000	125.181	17113.64	0.0209	P	3.6
6	☐	250.000	248.025	33818.62	0.0412	P	0.3
7	☐	500.000	490.483	66900.68	0.0812	P	0.3
8	☐	1000.000	1005.410	134855.91	0.1662	P	1.4
9	☐			4439.75	0.0058	P	6.5

$$y = 1.6505E-004 * x + 2.4694E-004$$

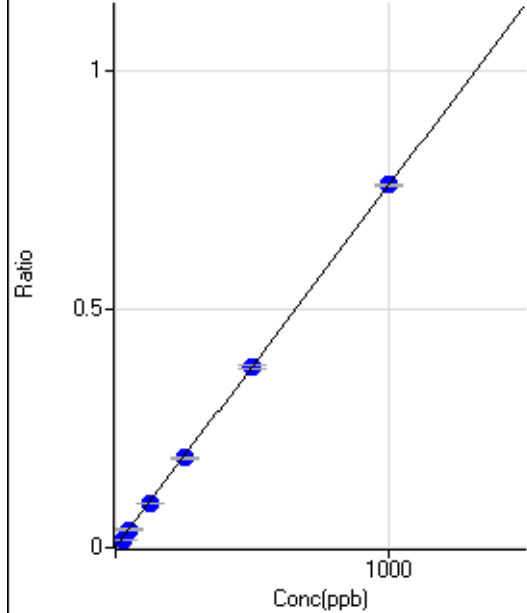
$$R = 0.9999$$

$$DL = 1.526$$

$$BEC = 1.496$$

Weight: <None>

Min Conc: 0

11 B [NoGas] ISTD:6 Li [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	672.27	0.0008	P	22.2
2	☐	2.500					
3	☐	25.000	21.035	13832.24	0.0168	P	3.4
4	☐	50.000	49.040	31198.70	0.0381	P	3.4
5	☐	125.000	122.607	76911.55	0.0940	P	1.7
6	☐	250.000	246.801	154644.19	0.1883	P	0.7
7	☐	500.000	498.706	312828.29	0.3797	P	1.6
8	☐	1000.000	1001.893	618372.59	0.7620	P	0.5
9	☐			20507.09	0.0268	P	8.7

$$y = 7.5974\text{E-}004 * x + 8.2131\text{E-}004$$

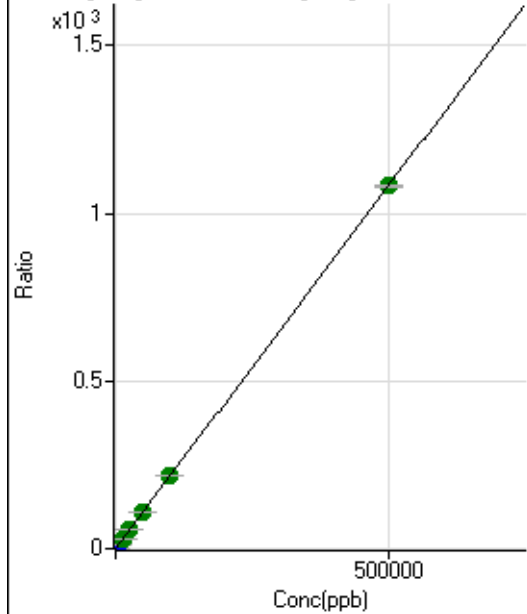
R = 1.0000

DL = 0.7195

BEC = 1.081

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3339.44	0.0764	P	0.1
2	☐	50.000					
3	☐	500.000	469.436	47499.86	1.0926	P	2.1
4	☐	5000.000	5089.641	490879.66	11.0946	P	1.9
5	☐	12500.000	12842.211	1240375.84	27.8776	A	0.6
6	☐	25000.000	26410.013	2427151.33	57.2496	A	6.1
7	☐	50000.000	50565.932	4551113.04	109.5431	A	1.4
8	☐	100000.00	100548.89	8869152.71	217.7477	A	0.7
9	☐	500000.00	499753.70	43217058.60	1,081.958	A	0.8

$$y = 0.0022 * x + 0.0764$$

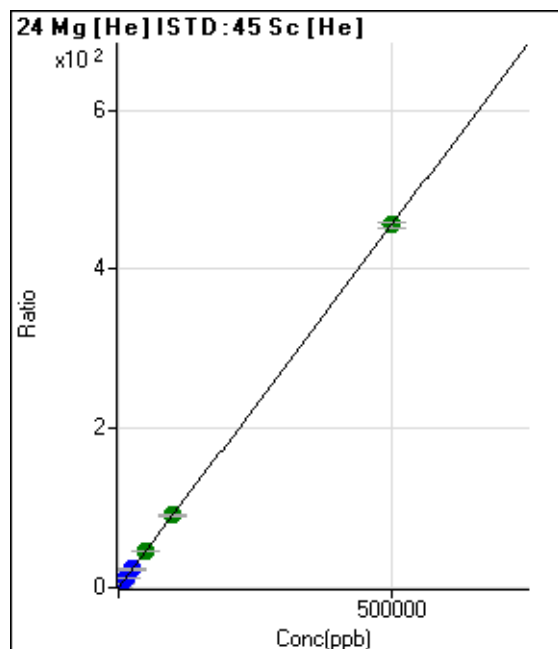
R = 1.0000

DL = 0.1061

BEC = 35.27

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0027	P	29.1
2	☐	50.000					
3	☐	500.000	460.235	18340.27	0.4221	P	4.6
4	☐	5000.000	5023.421	202666.49	4.5804	P	1.7
5	☐	12500.000	12286.965	498309.45	11.1996	P	0.7
6	☐	25000.000	25486.630	985020.09	23.2282	P	5.4
7	☐	50000.000	50244.825	1901994.75	45.7898	A	2.5
8	☐	100000.00	99438.756	3691083.98	90.6194	A	0.8
9	☐	500000.00	500068.56	18201720.20	455.7059	A	1.4

$$y = 9.1128\text{E-}004 * x + 0.0027$$

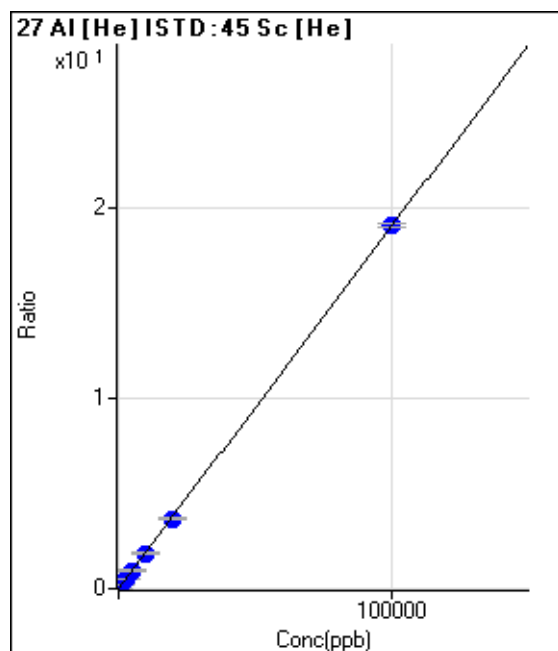
R = 1.0000

DL = 2.559

BEC = 2.931

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0005	P	21.2
2	☐	2.000					
3	☐	20.000	18.851	177.78	0.0041	P	7.2
4	☐	1000.000	1015.662	8564.04	0.1936	P	4.9
5	☐	2500.000	2474.153	20946.89	0.4709	P	4.5
6	☐	5000.000	4996.842	40288.81	0.9506	P	7.0
7	☐	10000.000	9760.762	77126.61	1.8563	P	1.5
8	☐	20000.000	19371.696	150043.54	3.6837	P	0.6
9	☐	100000.00	100150.23	760603.63	19.0424	P	1.2

$$y = 1.9013\text{E-}004 * x + 5.0775\text{E-}004$$

R = 1.0000

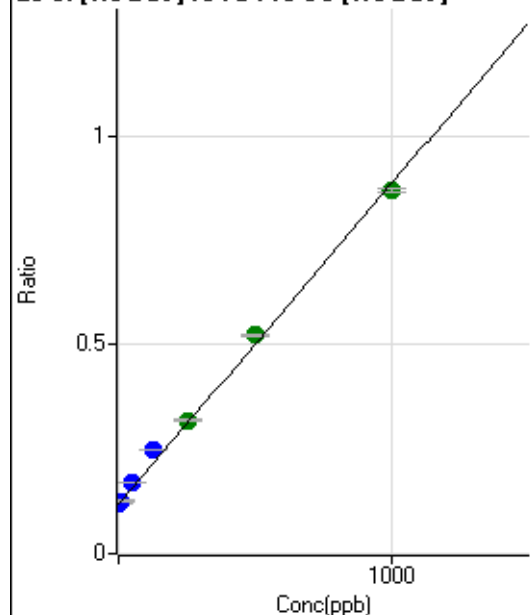
DL = 1.696

BEC = 2.671

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	457027.61	0.1184	P	0.6
2	☐	1.000					
3	☐	10.000	10.217	487200.67	0.1262	P	1.5
4	☐	50.000	66.824	658077.57	0.1697	P	0.9
5	☐	125.000	169.787	967646.75	0.2488	P	0.2
6	☐	250.000	262.181	1248128.91	0.3198	A	1.0
7	☐	500.000	527.038	2027291.73	0.5234	A	1.3
8	☐	1000.000	976.994	3275952.78	0.8691	A	1.0
9	☐			1073602.14	0.2915	A	1.0

$$y = 7.6848\text{E-}004 * x + 0.1184$$

$$R = 0.9985$$

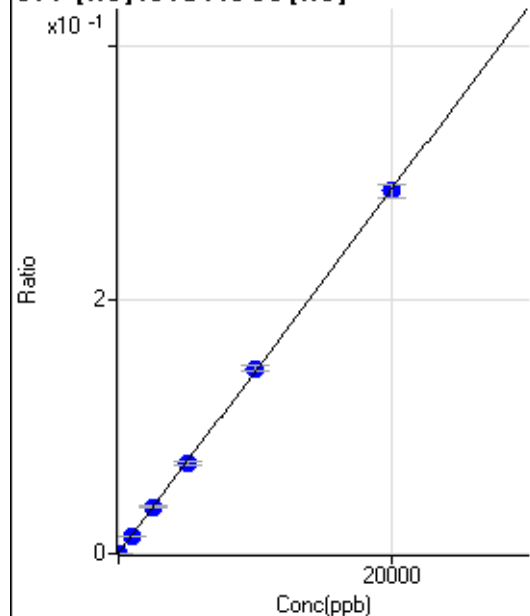
$$DL = 2.824$$

$$BEC = 154$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-4.376	11.11	0.0003	P	114.
2	☐	0.000					
3	☐	0.000	4.376	16.67	0.0004	P	85.4
4	☐	1000.000	948.352	616.70	0.0139	P	1.3
5	☐	2500.000	2522.527	1625.17	0.0365	P	4.4
6	☐	5000.000	4975.117	3044.93	0.0718	P	4.3
7	☐	10000.000	10163.864	6073.79	0.1462	P	3.5
8	☐	20000.000	19924.055	11666.41	0.2864	P	3.8
9	☐			11.11	0.0003	P	42.6

$$y = 1.4358\text{E-}005 * x + 3.1797\text{E-}004$$

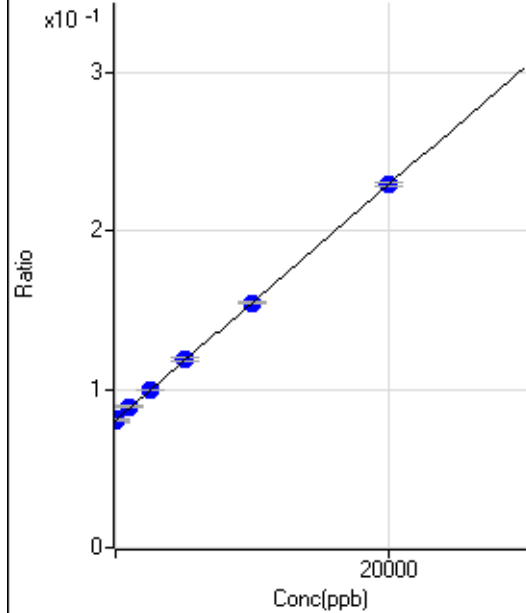
$$R = 0.9999$$

$$DL = 64.62$$

$$BEC = 22.15$$

Weight: <None>

Min Conc: 0

34 S [NoGas] ISTD:45 Sc [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-79.554	308511.07	0.0799	P	1.0
2	☐	0.000					
3	☐	0.000	79.554	312982.37	0.0811	P	1.9
4	☐	1000.000	1120.454	344439.35	0.0888	P	1.5
5	☐	2500.000	2548.669	386793.69	0.0995	P	1.0
6	☐	5000.000	5182.890	464678.55	0.1191	P	1.2
7	☐	10000.000	9961.471	599094.78	0.1547	P	0.8
8	☐	20000.000	19961.436	863586.08	0.2291	P	0.9
9	☐			314720.13	0.0855	P	2.3

$$y = 7.4460E-006 * x + 0.0805$$

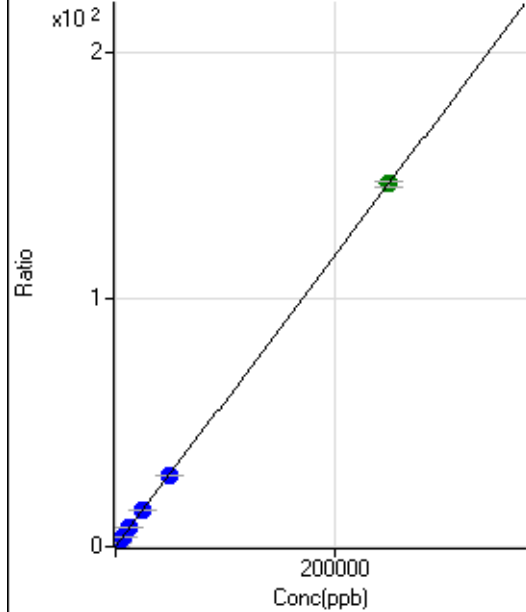
R = 0.9999

DL = 459.9

BEC = 1.081E+04

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3950.72	0.0903	P	5.2
2	☐	50.000					
3	☐	500.000	480.980	16190.34	0.3724	P	1.7
4	☐	2500.000	2548.872	70128.16	1.5849	P	1.3
5	☐	6250.000	6364.212	170050.92	3.8220	P	1.1
6	☐	12500.000	13040.732	328039.04	7.7369	P	5.9
7	☐	25000.000	24958.709	611719.16	14.7251	P	1.8
8	☐	50000.000	48803.823	1169290.94	28.7069	P	0.5
9	☐	250000.00	250213.02	5863556.42	146.8048	A	1.6

$$y = 5.8636E-004 * x + 0.0903$$

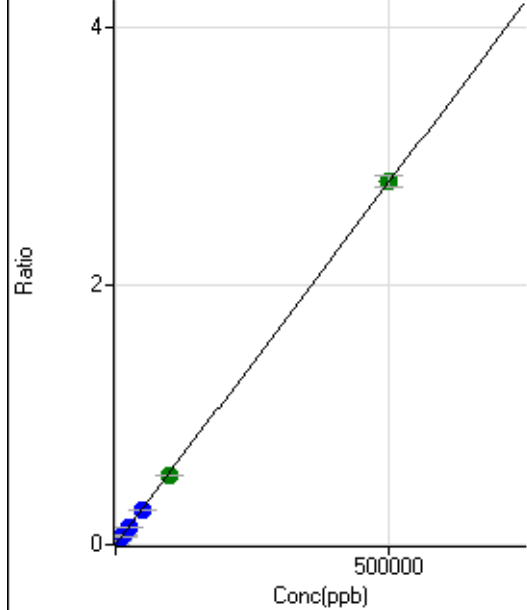
R = 1.0000

DL = 23.92

BEC = 154.1

Weight: <None>

Min Conc: 0

43 Ca [NoGas] ISTD:45 Sc [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2444.75	0.0006	P	7.1
2	☐	50.000					
3	☐	500.000	409.754	11288.40	0.0029	P	1.4
4	☐	5000.000	4715.710	104688.39	0.0270	P	1.6
5	☐	12500.000	11870.571	260551.39	0.0670	P	0.8
6	☐	25000.000	23687.005	519288.91	0.1331	P	0.9
7	☐	50000.000	47093.678	1022363.77	0.2639	P	1.1
8	☐	100000.00	95297.563	2010644.23	0.5334	A	0.5
9	☐	500000.00	501315.43	10318510.13	2.8035	A	3.3

$$y = 5.5909\text{E-}006 * x + 6.3321\text{E-}004$$

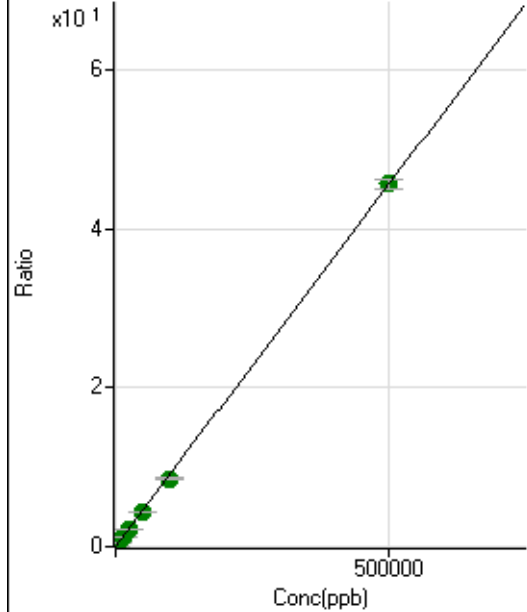
$$R = 0.9999$$

$$DL = 24.25$$

$$BEC = 113.3$$

Weight: <None>

Min Conc: 0

44 Ca [NoGas] ISTD:45 Sc [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42841.27	0.0111	P	1.8
2	☐	50.000					
3	☐	500.000	430.037	193724.29	0.0502	P	1.7
4	☐	5000.000	4900.247	1770192.20	0.4565	A	1.3
5	☐	12500.000	11944.291	4265253.27	1.0968	A	0.1
6	☐	25000.000	23913.804	8526094.98	2.1848	A	0.9
7	☐	50000.000	47206.917	16664315.83	4.3021	A	1.1
8	☐	100000.00	94063.911	32269218.78	8.5613	A	0.7
9	☐	500000.00	501535.79	167848803.7	45.5995	A	2.9

$$y = 9.0898\text{E-}005 * x + 0.0111$$

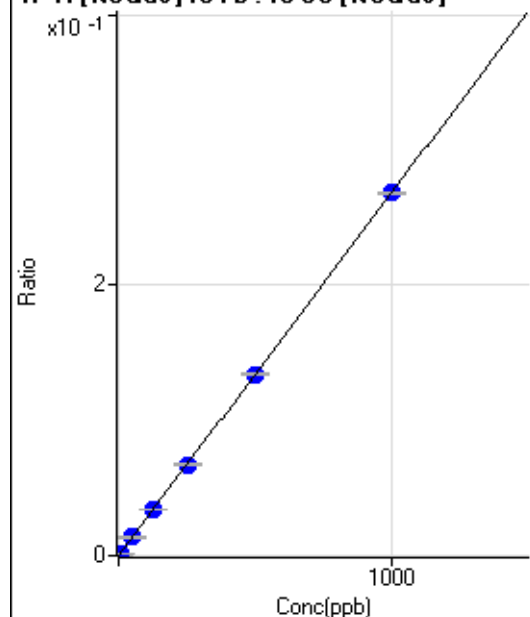
$$R = 0.9999$$

$$DL = 6.578$$

$$BEC = 122.1$$

Weight: <None>

Min Conc: 0

47 Ti [NoGas] ISTD : 45 Sc [NoGas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155.57	0.0000	P	35.0
2	☐	0.500					
3	☐	5.000	4.327	4634.32	0.0012	P	1.1
4	☐	50.000	50.666	52831.17	0.0136	P	1.9
5	☐	125.000	125.116	130595.54	0.0336	P	0.8
6	☐	250.000	251.239	262991.42	0.0674	P	1.2
7	☐	500.000	499.270	518636.22	0.1339	P	0.6
8	☐	1000.000	1000.011	1010635.88	0.2681	P	0.5
9	☐			1436.25	0.0004	P	4.8

$$y = 2.6808E-004 * x + 4.0367E-005$$

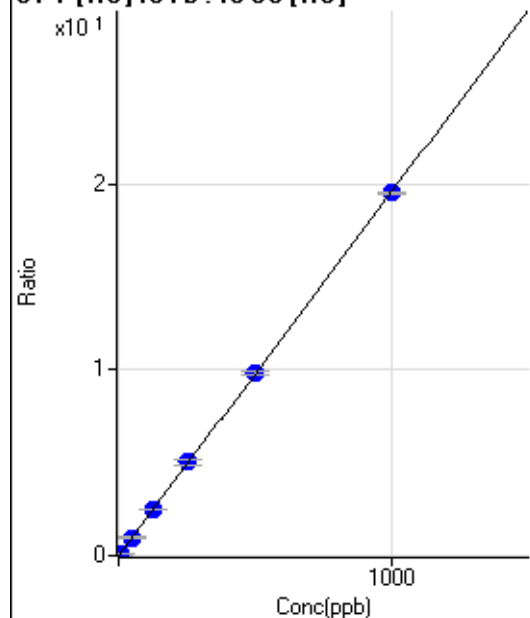
$$R = 1.0000$$

$$DL = 0.1581$$

$$BEC = 0.1506$$

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	18.89	0.0004	P	66.4
2	☐	0.500					
3	☐	5.000	4.587	3919.51	0.0902	P	5.8
4	☐	50.000	49.922	43257.85	0.9777	P	2.0
5	☐	125.000	124.800	108718.77	2.4435	P	0.6
6	☐	250.000	257.266	213558.31	5.0365	P	5.7
7	☐	500.000	501.064	407464.90	9.8090	P	2.2
8	☐	1000.000	997.683	795505.99	19.5306	P	0.8
9	☐			502.24	0.0126	P	6.4

$$y = 0.0196 * x + 4.3106E-004$$

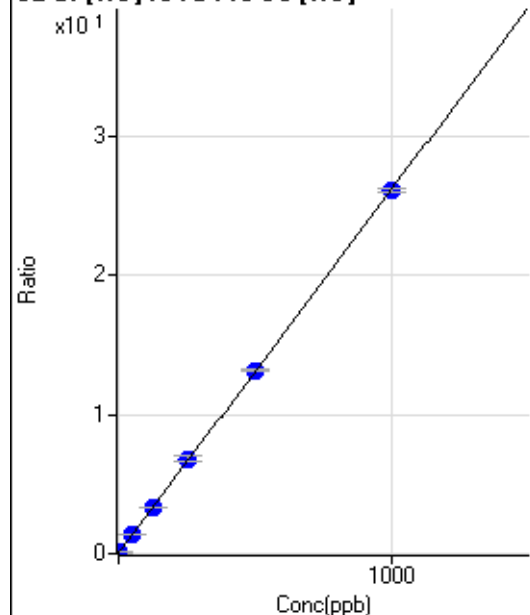
$$R = 1.0000$$

$$DL = 0.04388$$

$$BEC = 0.02202$$

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	1057.83	0.0242	P	4.2
2	☐	0.200					
3	☐	2.000	2.024	3348.24	0.0770	P	3.7
4	☐	50.000	50.937	59913.16	1.3542	P	2.4
5	☐	125.000	124.759	146011.99	3.2818	P	1.3
6	☐	250.000	260.346	289336.72	6.8221	P	5.0
7	☐	500.000	502.327	545938.99	13.1404	P	1.3
8	☐	1000.000	996.233	1060500.53	26.0368	P	1.0
9	☐			32826.46	0.8218	P	1.6

$$y = 0.0261 * x + 0.0242$$

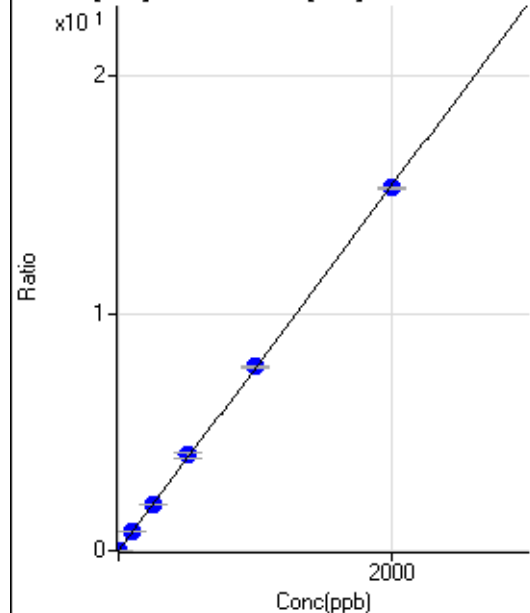
$$R = 0.9999$$

$$DL = 0.1164$$

$$BEC = 0.9263$$

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	57.78	0.0013	P	32.4
2	☐	0.100					
3	☐	1.000	1.008	395.57	0.0091	P	15.0
4	☐	100.000	103.050	35117.55	0.7936	P	1.1
5	☐	250.000	257.006	87977.98	1.9773	P	0.9
6	☐	500.000	523.811	170843.19	4.0287	P	5.4
7	☐	1000.000	1007.948	322029.75	7.7511	P	1.3
8	☐	2000.000	1989.045	622963.65	15.2944	P	0.7
9	☐			3351.57	0.0839	P	3.2

$$y = 0.0077 * x + 0.0013$$

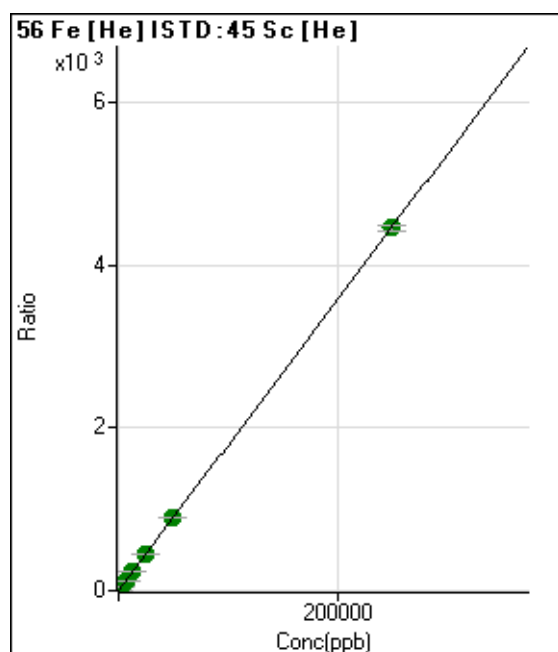
$$R = 0.9999$$

$$DL = 0.167$$

$$BEC = 0.1716$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2239.13	0.0512	P	8.5
2	☐	5.000					
3	☐	50.000	46.752	38479.70	0.8852	P	2.5
4	☐	2500.000	2610.734	2062773.51	46.6220	A	1.9
5	☐	6250.000	6362.448	5051908.21	113.5459	A	1.1
6	☐	12500.000	12980.953	9821117.70	231.6081	A	5.5
7	☐	25000.000	25216.681	18688471.02	449.8716	A	1.9
8	☐	50000.000	50164.608	36450706.83	894.8979	A	0.9
9	☐	250000.00	249917.44	178063887.3	4,458.130	A	1.5

$$y = 0.0178 * x + 0.0512$$

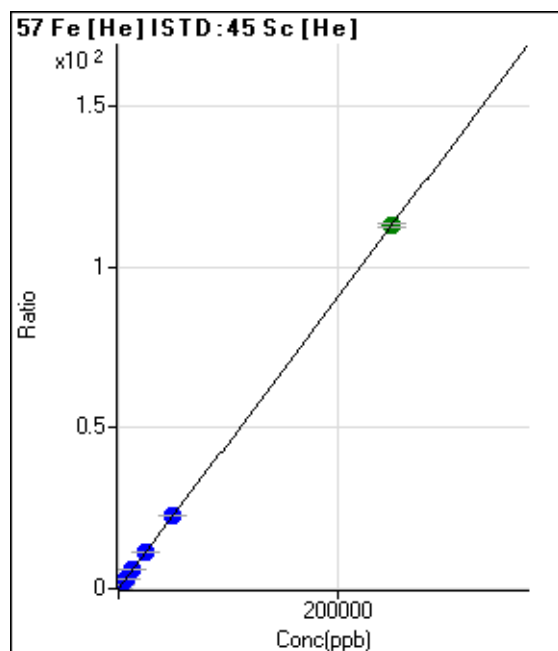
$$R = 1.0000$$

$$DL = 0.7294$$

$$BEC = 2.87$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	68.52	0.0016	P	17.3
2	☐	5.000					
3	☐	50.000	43.427	918.58	0.0212	P	10.3
4	☐	2500.000	2569.665	51365.41	1.1610	P	2.9
5	☐	6250.000	6309.214	126729.76	2.8484	P	1.7
6	☐	12500.000	13079.379	250311.31	5.9032	P	5.6
7	☐	25000.000	25244.720	473252.54	11.3924	P	2.0
8	☐	50000.000	50053.826	919982.58	22.5866	P	0.8
9	☐	250000.00	249933.61	4504517.40	112.7756	A	1.2

$$y = 4.5122E-004 * x + 0.0016$$

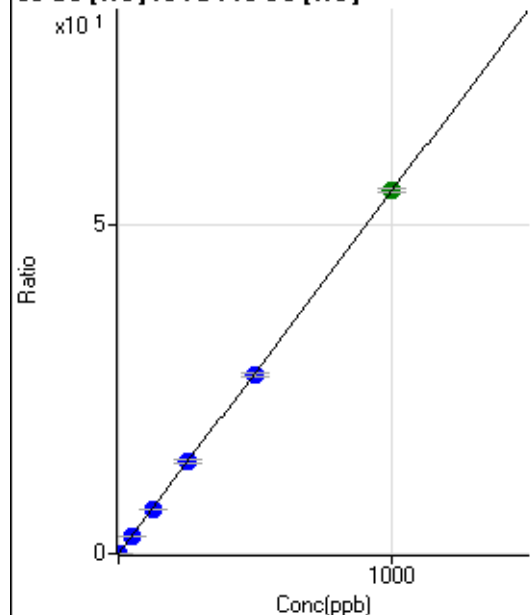
$$R = 1.0000$$

$$DL = 1.805$$

$$BEC = 3.474$$

Weight: <None>

Min Conc: 0

59 Co [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	65.56	0.0015	P	22.5
2	☐	0.100					
3	☐	1.000	0.843	2086.86	0.0480	P	4.8
4	☐	50.000	49.473	120816.96	2.7306	P	1.6
5	☐	125.000	122.797	301454.43	6.7753	P	0.8
6	☐	250.000	255.277	597167.24	14.0832	P	5.6
7	☐	500.000	495.031	1134471.48	27.3087	P	1.8
8	☐	1000.000	1001.467	2250196.56	55.2450	A	0.9
9	☐			3653.87	0.0915	P	1.4

$$y = 0.0552 * x + 0.0015$$

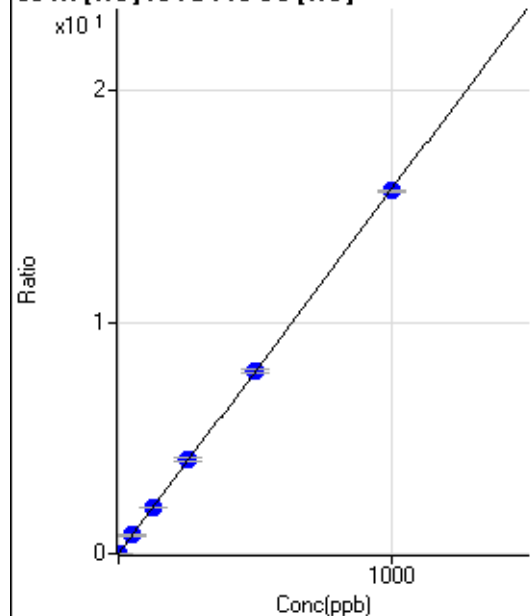
$$R = 1.0000$$

$$DL = 0.01836$$

$$BEC = 0.02716$$

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	150.00	0.0034	P	22.9
2	☐	0.100					
3	☐	1.000	0.918	777.81	0.0179	P	3.1
4	☐	50.000	50.022	34979.57	0.7906	P	1.8
5	☐	125.000	125.623	88101.91	1.9803	P	1.8
6	☐	250.000	259.764	173510.87	4.0911	P	5.1
7	☐	500.000	503.042	328983.42	7.9194	P	1.9
8	☐	1000.000	995.959	638519.87	15.6760	P	0.4
9	☐			10793.24	0.2702	P	1.7

$$y = 0.0157 * x + 0.0034$$

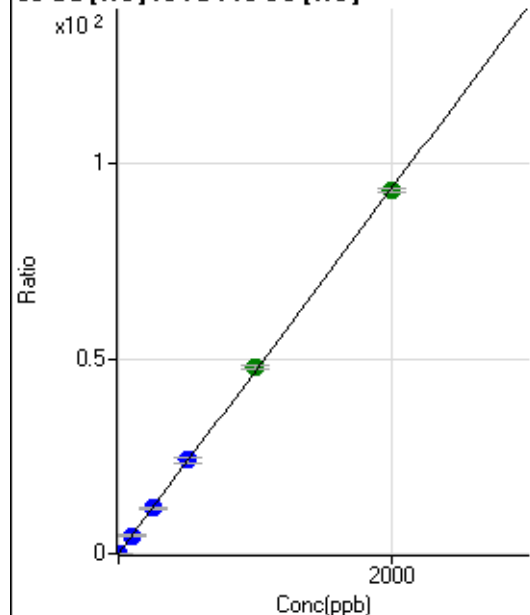
$$R = 0.9999$$

$$DL = 0.1501$$

$$BEC = 0.2181$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD: ⁴⁵Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	316.68	0.0072	P	2.3
2	☐	0.200					
3	☐	2.000	2.076	4543.05	0.1045	P	2.1
4	☐	100.000	99.903	207334.28	4.6864	P	2.6
5	☐	250.000	247.785	516686.56	11.6128	P	0.9
6	☐	500.000	513.713	1020540.92	24.0681	P	5.6
7	☐	1000.000	1018.740	1982378.65	47.7221	A	2.2
8	☐	2000.000	1987.483	3791932.17	93.0953	A	1.0
9	☐			8185.88	0.2050	P	3.1

$$y = 0.0468 * x + 0.0072$$

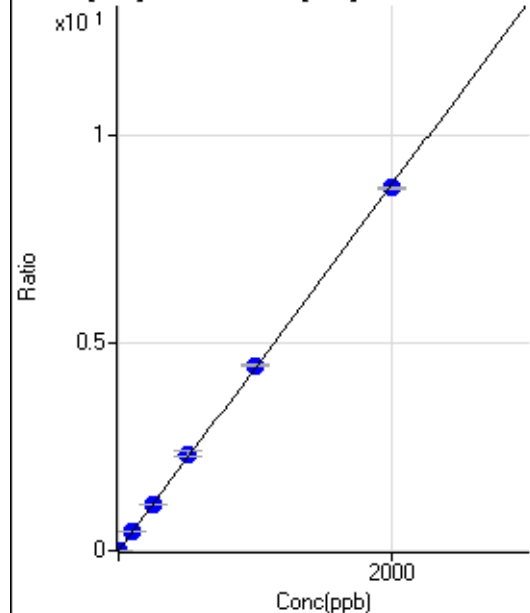
$$R = 0.9999$$

$$DL = 0.01052$$

$$BEC = 0.1546$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD: ⁴⁵Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	50.00	0.0011	P	26.7
2	☐	0.200					
3	☐	2.000	2.166	464.46	0.0107	P	5.3
4	☐	100.000	104.743	20477.53	0.4628	P	1.4
5	☐	250.000	255.004	50056.72	1.1251	P	1.2
6	☐	500.000	527.543	98622.98	2.3263	P	6.1
7	☐	1000.000	1014.447	185796.45	4.4723	P	1.7
8	☐	2000.000	1985.028	356406.02	8.7502	P	0.8
9	☐			3543.85	0.0887	P	4.6

$$y = 0.0044 * x + 0.0011$$

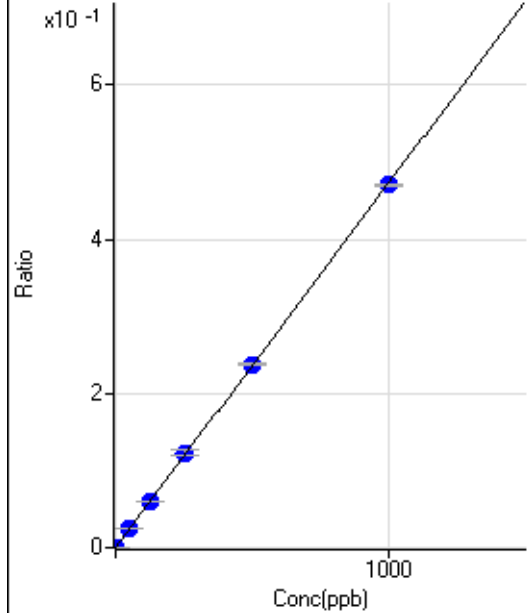
$$R = 0.9999$$

$$DL = 0.2076$$

$$BEC = 0.2594$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	7.41	0.0000	P	65.8
2	☐	0.100					
3	☐	1.000	0.967	145.68	0.0005	P	16.0
4	☐	50.000	51.167	7553.97	0.0242	P	3.1
5	☐	125.000	124.806	18543.99	0.0590	P	0.7
6	☐	250.000	260.804	36944.97	0.1233	P	5.8
7	☐	500.000	502.812	69926.92	0.2377	P	0.5
8	☐	1000.000	995.859	136425.31	0.4707	P	0.7
9	☐			83.34	0.0003	P	23.9

$$y = 4.7261\text{E-}004 * x + 2.4004\text{E-}005$$

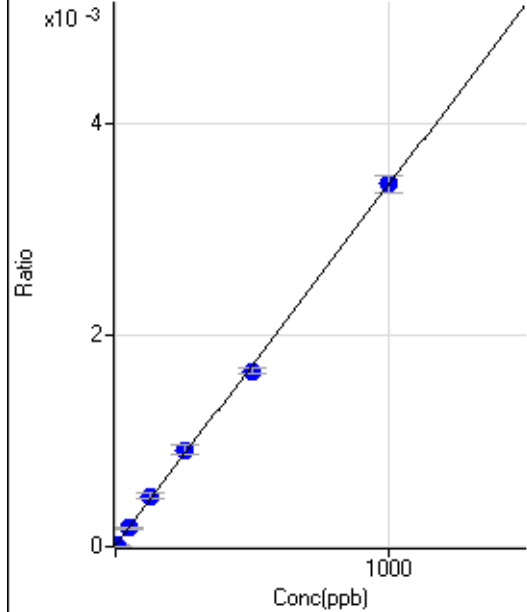
$$R = 0.9999$$

$$DL = 0.1002$$

$$BEC = 0.05079$$

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	3.33	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	-2.135	1.11	0.0000	P	173.
4	☐	50.000	48.118	54.44	0.0002	P	9.8
5	☐	125.000	137.152	150.00	0.0005	P	9.5
6	☐	250.000	264.908	274.45	0.0009	P	9.9
7	☐	500.000	483.250	486.69	0.0017	P	3.2
8	☐	1000.000	1003.259	992.27	0.0034	P	4.5
9	☐			3.33	0.0000	P	100.

$$y = 3.4009\text{E-}006 * x + 1.0845\text{E-}005$$

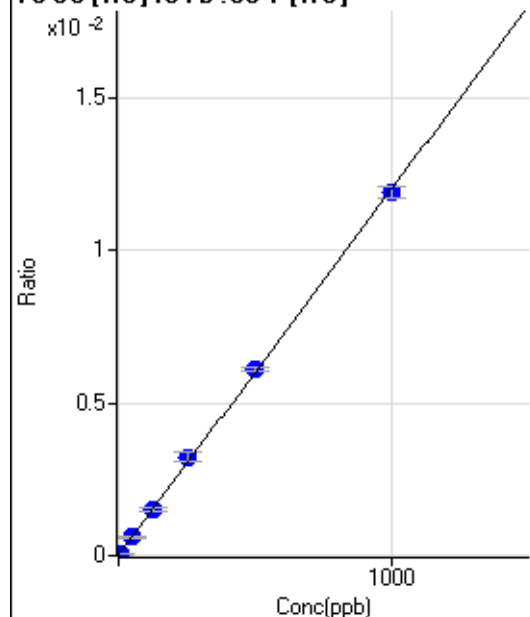
$$R = 0.9996$$

$$DL = 16.57$$

$$BEC = 3.189$$

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	3.70	0.0000	P	132.
2	☐	0.500					
3	☐	5.000	3.560	16.66	0.0001	P	28.2
4	☐	50.000	49.270	188.28	0.0006	P	13.5
5	☐	125.000	127.163	483.35	0.0015	P	7.4
6	☐	250.000	268.377	967.33	0.0032	P	10.2
7	☐	500.000	510.277	1805.69	0.0061	P	2.3
8	☐	1000.000	990.040	3447.37	0.0119	P	3.1
9	☐			3.70	0.0000	P	0.2

$$y = 1.2001\text{E-}005 * x + 1.2047\text{E-}005$$

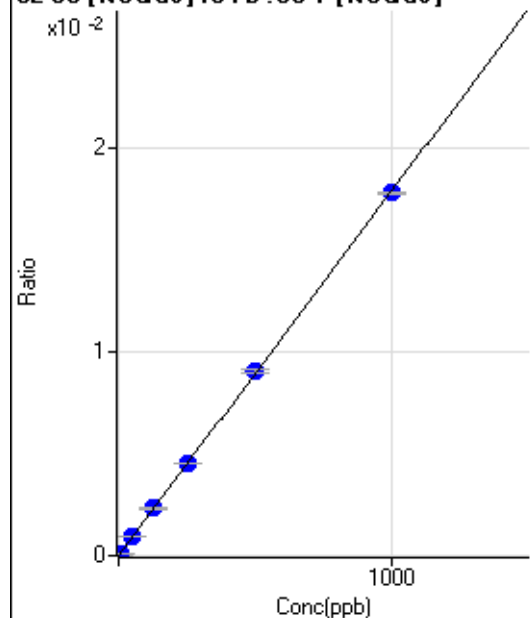
$$R = 0.9997$$

$$DL = 3.986$$

$$BEC = 1.004$$

Weight: <None>

Min Conc: 0

82 Se [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-40.42	0.0000	P	-77.
2	☐	0.500					
3	☐	5.000	4.888	576.62	0.0001	P	31.0
4	☐	50.000	50.948	6512.64	0.0009	P	0.4
5	☐	125.000	129.575	16687.38	0.0023	P	0.6
6	☐	250.000	253.397	33304.09	0.0045	P	1.0
7	☐	500.000	505.684	67009.57	0.0090	P	1.4
8	☐	1000.000	995.690	130757.20	0.0178	P	0.4
9	☐			172.72	0.0000	P	29.0

$$y = 1.7877\text{E-}005 * x - 5.6083\text{E-}006$$

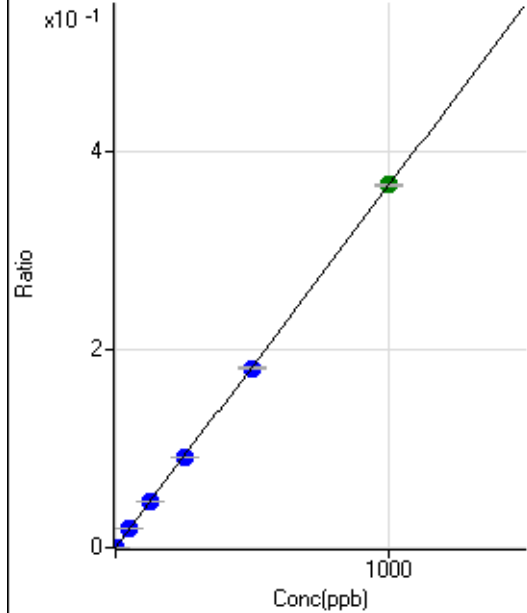
$$R = 1.0000$$

$$DL = 0.7268$$

$$BEC = -0.3137$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1297.35	0.0002	P	2.2
2	☐	0.100					
3	☐	1.000	1.076	4050.78	0.0006	P	4.2
4	☐	50.000	50.495	133997.22	0.0186	P	2.0
5	☐	125.000	126.542	335099.71	0.0464	P	1.0
6	☐	250.000	250.388	674603.16	0.0916	P	0.7
7	☐	500.000	495.166	1342996.54	0.1811	P	1.0
8	☐	1000.000	1002.103	2691211.07	0.3662	A	0.2
9	☐			92154.55	0.0129	P	5.5

$$y = 3.6529\text{E-}004 * x + 1.8026\text{E-}004$$

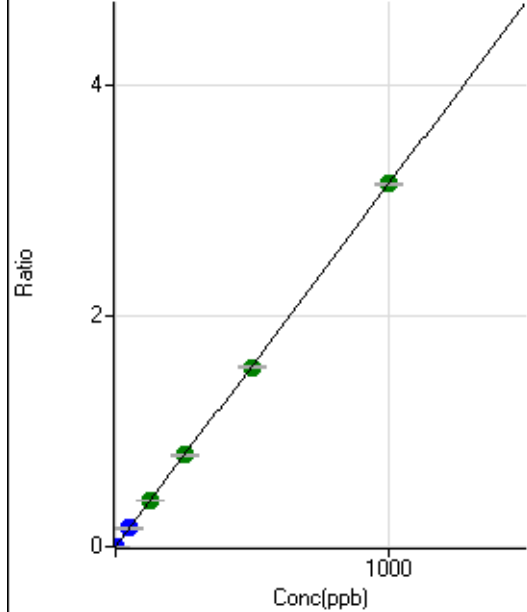
$$R = 1.0000$$

$$DL = 0.03244$$

$$BEC = 0.4935$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	158.34	0.0000	P	26.5
2	☐	0.100					
3	☐	1.000	0.956	21364.80	0.0030	P	1.9
4	☐	50.000	50.549	1141834.31	0.1587	P	1.1
5	☐	125.000	127.985	2901442.45	0.4018	A	1.0
6	☐	250.000	252.789	5841615.63	0.7936	A	0.7
7	☐	500.000	495.674	11542869.79	1.5561	A	0.3
8	☐	1000.000	1001.065	23092311.97	3.1426	A	0.5
9	☐			793801.05	0.1107	P	4.2

$$y = 0.0031 * x + 2.1977\text{E-}005$$

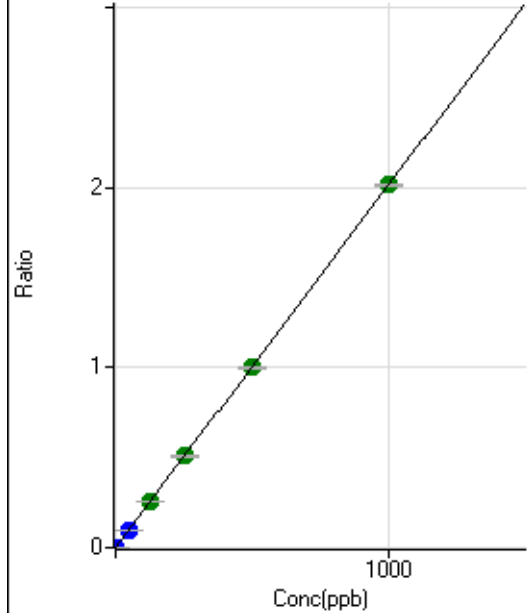
$$R = 1.0000$$

$$DL = 0.00556$$

$$BEC = 0.007001$$

Weight: <None>

Min Conc: 0

90 Zr [NoGas] ISTD:89 Y [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	438.92	0.0001	P	16.6
2	☐	0.100					
3	☐	1.000	0.878	12917.77	0.0018	P	0.9
4	☐	50.000	49.946	723609.19	0.1006	P	0.1
5	☐	125.000	127.629	1855150.47	0.2569	A	1.1
6	☐	250.000	253.073	3749331.90	0.5094	A	1.2
7	☐	500.000	496.924	7418291.05	1.0001	A	0.6
8	☐	1000.000	1000.444	14794823.94	2.0134	A	0.5
9	☐			3547.85	0.0005	P	7.8

$$y = 0.0020 * x + 6.1056E-005$$

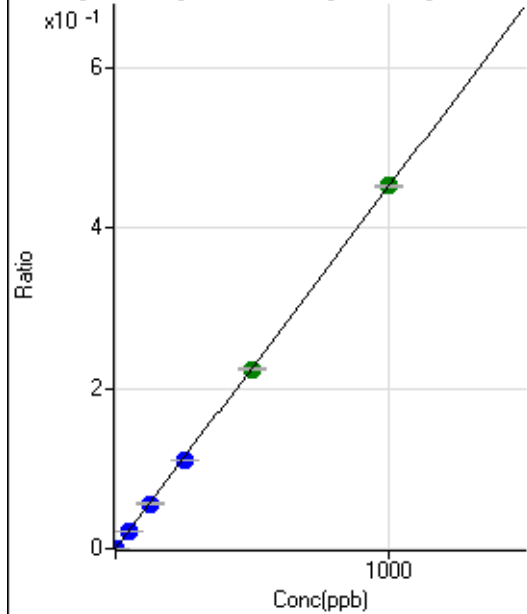
$$R = 1.0000$$

$$DL = 0.01512$$

$$BEC = 0.03034$$

Weight: <None>

Min Conc: 0

91 Zr [NoGas] ISTD:89 Y [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0000	P	23.2
2	☐	0.100					
3	☐	1.000	0.896	2939.36	0.0004	P	7.0
4	☐	50.000	49.278	160219.07	0.0223	P	0.1
5	☐	125.000	124.176	405098.48	0.0561	P	1.1
6	☐	250.000	245.874	817579.33	0.1111	P	0.6
7	☐	500.000	496.914	1664751.04	0.2245	A	1.8
8	☐	1000.000	1002.714	3328120.24	0.4529	A	0.8
9	☐			736.16	0.0001	P	19.2

$$y = 4.5168E-004 * x + 1.1221E-005$$

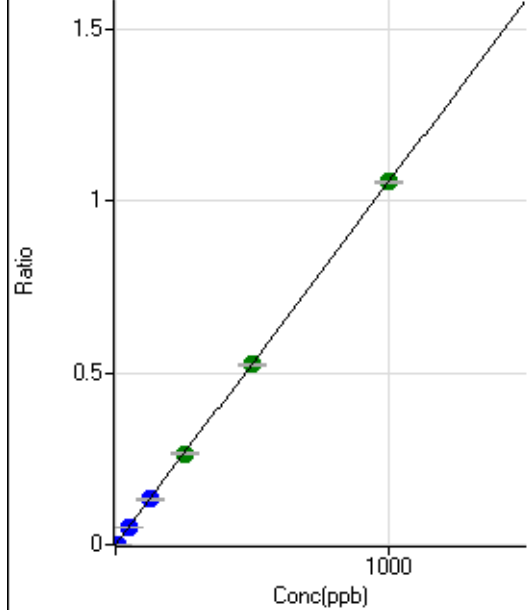
$$R = 1.0000$$

$$DL = 0.01726$$

$$BEC = 0.02484$$

Weight: <None>

Min Conc: 0

94 Mo [NoGas] ISTD : 89 Y [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.12	0.0000	P	42.5
2	☐	0.500					
3	☐	5.000	1.934	14544.50	0.0021	P	2.8
4	☐	50.000	49.666	376893.55	0.0524	P	0.4
5	☐	125.000	124.970	951650.31	0.1318	P	1.3
6	☐	250.000	251.895	1955176.52	0.2656	A	0.6
7	☐	500.000	497.238	3888823.00	0.5243	A	1.3
8	☐	1000.000	1000.943	7755198.18	1.0554	A	0.2
9	☐			12859.41	0.0018	P	7.5

$$y = 0.0011 * x + 1.9000E-005$$

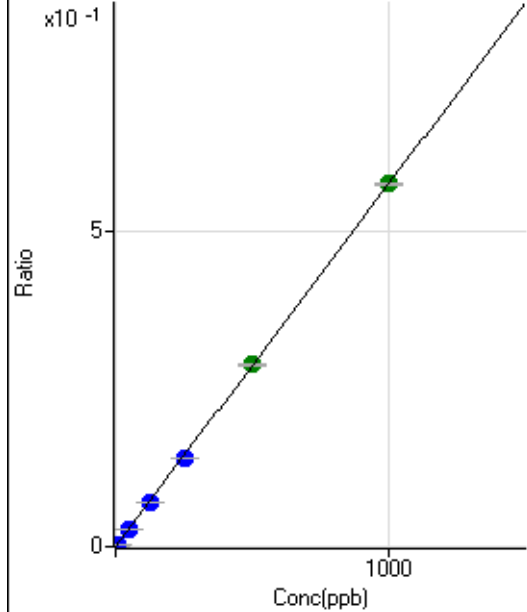
$$R = 1.0000$$

$$DL = 0.02297$$

$$BEC = 0.01802$$

Weight: <None>

Min Conc: 0

95 Mo [NoGas] ISTD : 89 Y [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.89	0.0000	P	61.0
2	☐	0.500					
3	☐	5.000	4.376	17790.06	0.0025	P	2.5
4	☐	50.000	49.184	203168.90	0.0282	P	0.9
5	☐	125.000	122.740	508838.32	0.0705	P	1.0
6	☐	250.000	243.868	1030536.24	0.1400	P	0.8
7	☐	500.000	501.506	2135366.00	0.2879	A	1.3
8	☐	1000.000	1001.106	4222922.79	0.5747	A	0.6
9	☐			20162.93	0.0028	P	3.2

$$y = 5.7405E-004 * x + 5.3876E-006$$

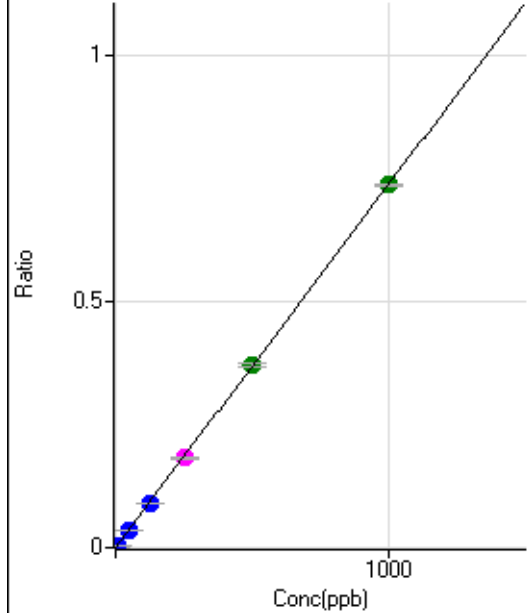
$$R = 1.0000$$

$$DL = 0.01717$$

$$BEC = 0.009385$$

Weight: <None>

Min Conc: 0

96 Mo [NoGas] ISTD : 89 Y [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.12	0.0000	P	35.3
2	☐	0.500					
3	☐	5.000	3.781	19846.01	0.0028	P	0.4
4	☐	50.000	49.447	262813.04	0.0365	P	1.3
5	☐	125.000	123.460	658473.40	0.0912	P	0.7
6	☐	250.000	247.241	1344063.67	0.1826	M	0.9
7	☐	500.000	503.265	2756730.38	0.3717	A	1.1
8	☐	1000.000	999.284	5422496.00	0.7379	A	0.6
9	☐			24433.95	0.0034	P	3.6

$$y = 7.3845E-004 * x + 1.5494E-005$$

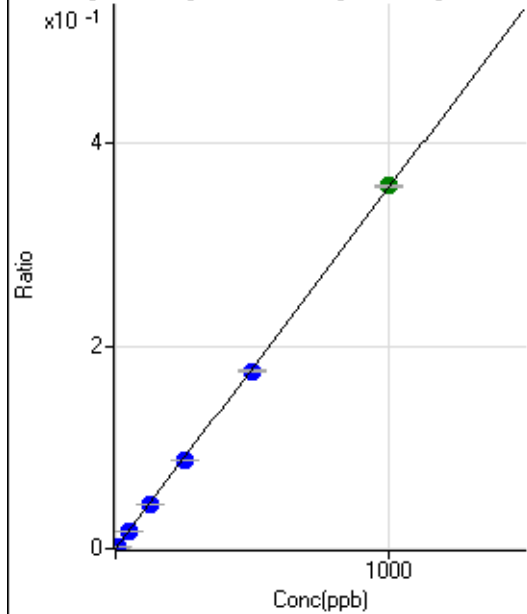
$$R = 1.0000$$

$$DL = 0.02222$$

$$BEC = 0.02098$$

Weight: <None>

Min Conc: 0

97 Mo [NoGas] ISTD : 89 Y [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	39.5
2	☐	0.500					
3	☐	5.000	4.396	11124.45	0.0016	P	1.3
4	☐	50.000	48.721	124897.39	0.0174	P	1.0
5	☐	125.000	123.249	317045.00	0.0439	P	0.8
6	☐	250.000	245.303	643170.07	0.0874	P	0.5
7	☐	500.000	490.835	1296735.92	0.1748	P	1.1
8	☐	1000.000	1006.042	2632945.63	0.3583	A	0.8
9	☐			12564.69	0.0018	P	6.0

$$y = 3.5615E-004 * x + 8.1400E-006$$

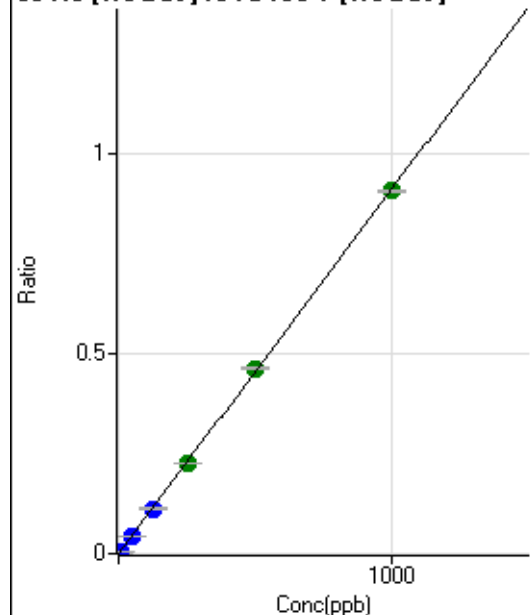
$$R = 0.9999$$

$$DL = 0.02708$$

$$BEC = 0.02286$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	105.56	0.0000	P	13.3
2	☐	0.500					
3	☐	5.000	4.498	29079.41	0.0041	P	3.7
4	☐	50.000	49.232	323015.30	0.0449	P	0.9
5	☐	125.000	124.017	816584.80	0.1131	P	0.5
6	☐	250.000	249.461	1674176.10	0.2274	A	0.9
7	☐	500.000	508.312	3437656.85	0.4634	A	1.0
8	☐	1000.000	996.143	6673435.83	0.9082	A	0.2
9	☐			32158.60	0.0045	P	4.2

$$y = 9.1166\text{E-}004 * x + 1.4686\text{E-}005$$

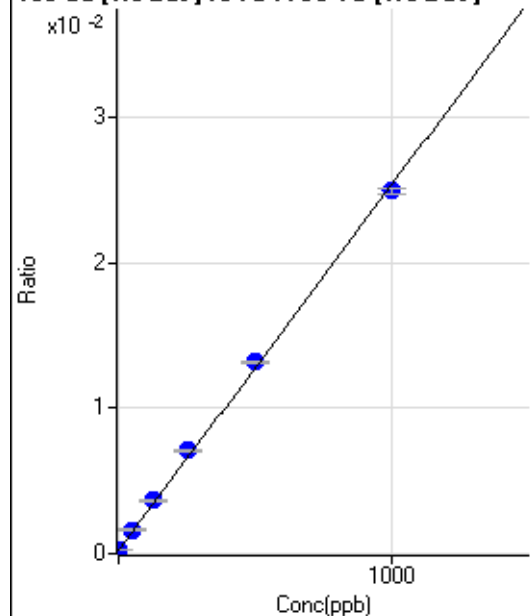
$$R = 0.9999$$

$$DL = 0.00641$$

$$BEC = 0.01611$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1711.30	0.0002	P	6.3
2	☐	0.100					
3	☐	1.000	0.264	1730.74	0.0002	P	10.4
4	☐	50.000	56.522	12598.02	0.0016	P	2.9
5	☐	125.000	136.584	28581.12	0.0036	P	1.2
6	☐	250.000	272.936	56865.34	0.0071	P	2.0
7	☐	500.000	516.518	112463.31	0.0132	P	0.8
8	☐	1000.000	984.234	221601.21	0.0249	P	1.7
9	☐			1625.17	0.0002	P	5.4

$$y = 2.5093\text{E-}005 * x + 2.1933\text{E-}004$$

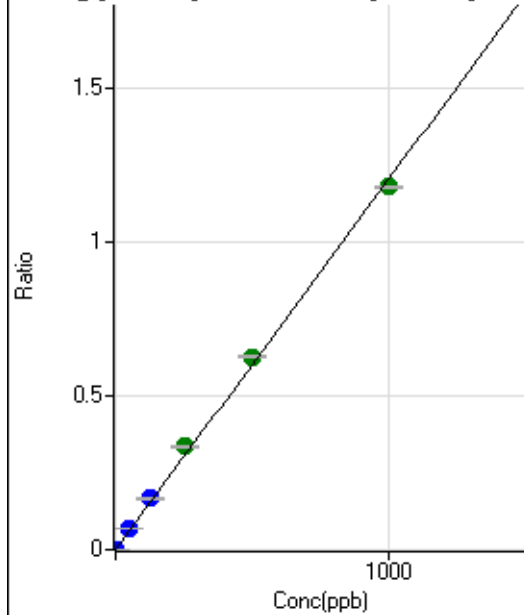
$$R = 0.9995$$

$$DL = 1.659$$

$$BEC = 8.741$$

Weight: <None>

Min Conc: 0

107 Ag [No Gas] ISTD : 159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	66.67	0.0000	P	13.0
2	☐	0.100					
3	☐	1.000	1.240	11505.39	0.0015	P	5.0
4	☐	50.000	56.008	519323.33	0.0675	P	1.7
5	☐	125.000	138.084	1304303.66	0.1664	P	1.3
6	☐	250.000	278.005	2695622.09	0.3350	A	0.9
7	☐	500.000	521.763	5365176.51	0.6288	A	0.7
8	☐	1000.000	980.181	10506707.18	1.1812	A	0.7
9	☐			2178.07	0.0003	P	3.6

$$y = 0.0012 * x + 8.5471E-006$$

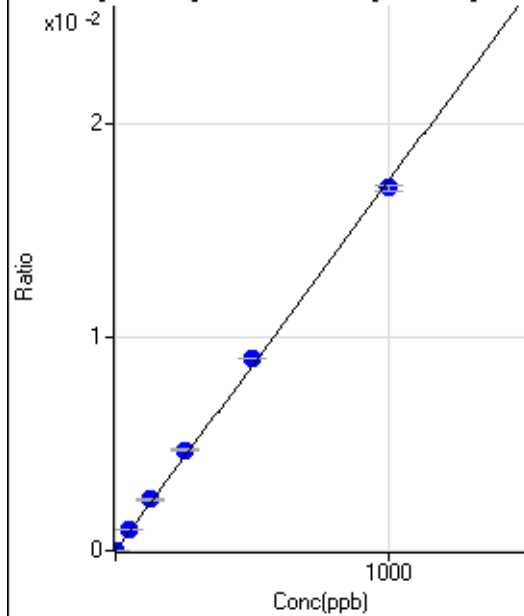
$$R = 0.9992$$

$$DL = 0.002774$$

$$BEC = 0.007092$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	9.72	0.0000	P	64.6
2	☐	0.100					
3	☐	1.000	0.974	138.89	0.0000	P	18.2
4	☐	50.000	57.173	7621.75	0.0010	P	4.3
5	☐	125.000	138.003	18734.10	0.0024	P	0.4
6	☐	250.000	272.972	38030.21	0.0047	P	1.3
7	☐	500.000	521.207	76990.59	0.0090	P	0.4
8	☐	1000.000	981.669	151139.79	0.0170	P	1.5
9	☐			36.11	0.0000	P	33.5

$$y = 1.7310E-005 * x + 1.2424E-006$$

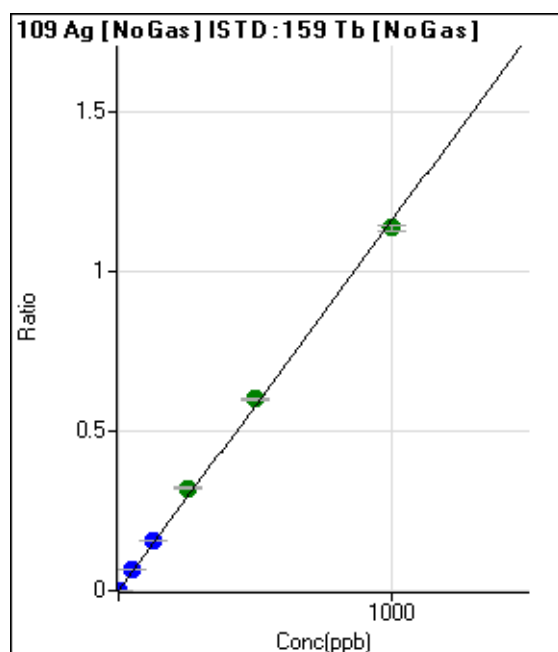
$$R = 0.9993$$

$$DL = 0.1392$$

$$BEC = 0.07178$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	41.67	0.0000	P	52.0
2	☐	0.100					
3	☐	1.000	1.211	10779.81	0.0014	P	2.9
4	☐	50.000	55.549	494966.93	0.0643	P	1.6
5	☐	125.000	136.770	1241512.96	0.1584	P	0.9
6	☐	250.000	277.815	2588834.93	0.3217	A	1.3
7	☐	500.000	519.673	5135169.91	0.6018	A	0.9
8	☐	1000.000	981.461	10109388.51	1.1366	A	1.3
9	☐			2105.81	0.0002	P	4.3

$$y = 0.0012 * x + 5.3253E-006$$

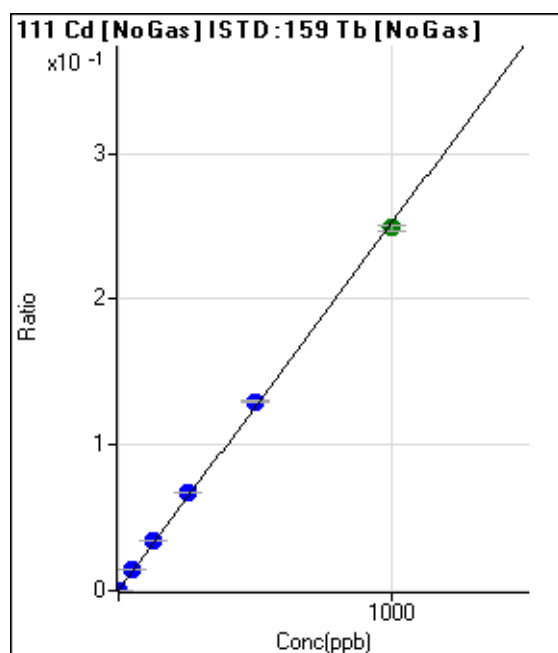
$$R = 0.9993$$

$$DL = 0.007174$$

$$BEC = 0.004598$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1202.21	0.0002	P	6.0
2	☐	0.100					
3	☐	1.000	0.979	3070.04	0.0004	P	5.8
4	☐	50.000	54.905	107646.43	0.0140	P	0.9
5	☐	125.000	136.051	269924.68	0.0344	P	1.3
6	☐	250.000	267.944	544542.42	0.0677	P	0.2
7	☐	500.000	513.040	1104475.56	0.1294	P	0.9
8	☐	1000.000	987.368	2214420.91	0.2490	A	1.4
9	☐			1662.37	0.0002	P	5.1

$$y = 2.5201E-004 * x + 1.5408E-004$$

$$R = 0.9997$$

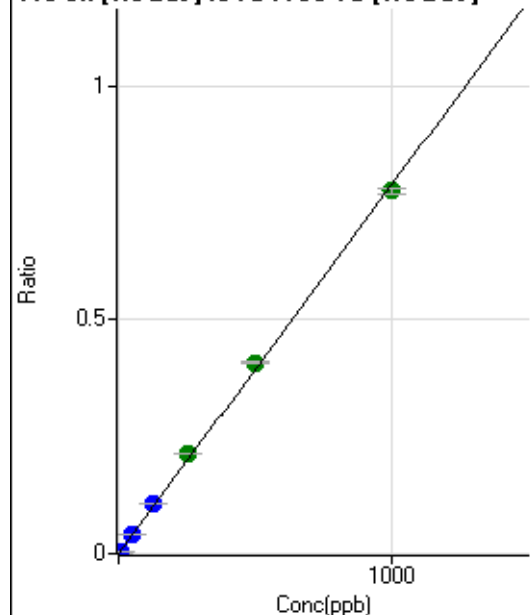
$$DL = 0.1102$$

$$BEC = 0.6114$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1372.36	0.0002	P	8.4
2	☐	0.500					
3	☐	5.000	4.830	30460.56	0.0040	P	1.6
4	☐	50.000	53.766	326989.83	0.0425	P	1.3
5	☐	125.000	134.545	831479.89	0.1061	P	1.8
6	☐	250.000	269.318	1707264.82	0.2122	A	0.4
7	☐	500.000	518.423	3483752.46	0.4083	A	0.8
8	☐	1000.000	984.579	6895142.34	0.7753	A	1.5
9	☐			9303.63	0.0011	P	4.4

$$y = 7.8722E-004 * x + 1.7582E-004$$

$$R = 0.9995$$

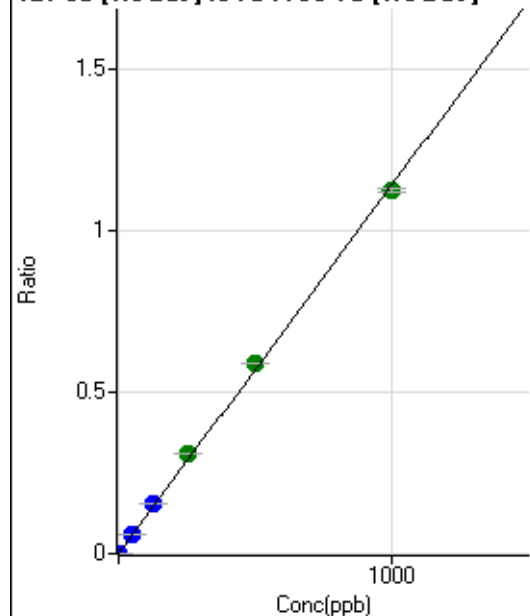
$$DL = 0.05646$$

$$BEC = 0.2233$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	52.78	0.0000	P	47.5
2	☐	0.200					
3	☐	2.000	1.897	16630.50	0.0022	P	3.4
4	☐	50.000	53.767	472270.21	0.0614	P	0.2
5	☐	125.000	133.983	1198728.77	0.1529	P	0.8
6	☐	250.000	269.677	2476903.03	0.3078	A	0.4
7	☐	500.000	517.025	5035606.93	0.5902	A	0.6
8	☐	1000.000	985.257	10002906.30	1.1246	A	1.2
9	☐			22925.98	0.0027	P	4.5

$$y = 0.0011 * x + 6.7432E-006$$

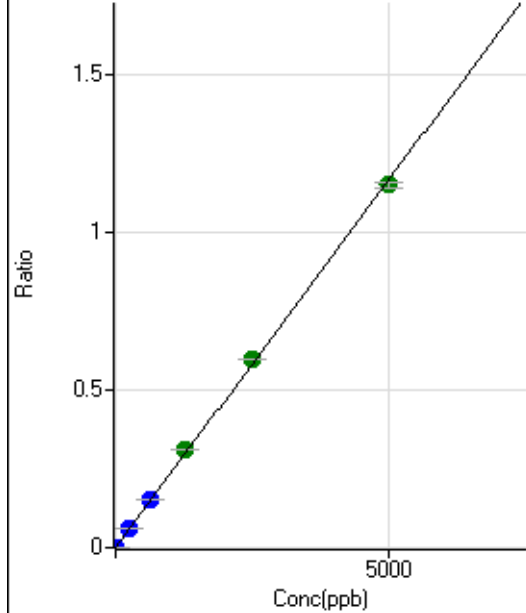
$$R = 0.9995$$

$$DL = 0.008423$$

$$BEC = 0.005908$$

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	30.56	0.0000	P	41.4
2	☐	1.000					
3	☐	10.000	9.288	16583.32	0.0022	P	0.4
4	☐	250.000	264.718	473905.28	0.0616	P	3.0
5	☐	625.000	659.033	1202040.10	0.1534	P	1.5
6	☐	1250.000	1337.553	2504510.30	0.3113	A	0.8
7	☐	2500.000	2570.239	5103657.80	0.5981	A	0.2
8	☐	5000.000	4938.004	10220882.69	1.1491	A	1.3
9	☐			5176.28	0.0006	P	3.2

$$y = 2.3271\text{E-}004 * x + 3.9093\text{E-}006$$

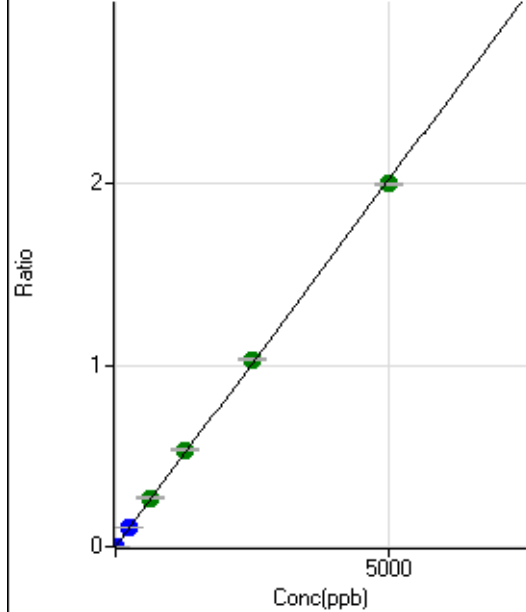
$$R = 0.9997$$

$$DL = 0.02084$$

$$BEC = 0.0168$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.00	0.0000	P	39.1
2	☐	1.000					
3	☐	10.000	9.416	29188.82	0.0038	P	3.4
4	☐	250.000	265.827	826163.65	0.1074	P	2.0
5	☐	625.000	667.025	2111988.50	0.2695	A	0.7
6	☐	1250.000	1321.981	4296467.94	0.5340	A	1.4
7	☐	2500.000	2554.435	8804457.75	1.0319	A	1.0
8	☐	5000.000	4948.744	17781235.81	1.9991	A	0.6
9	☐			8853.39	0.0010	P	4.9

$$y = 4.0395\text{E-}004 * x + 9.5874\text{E-}006$$

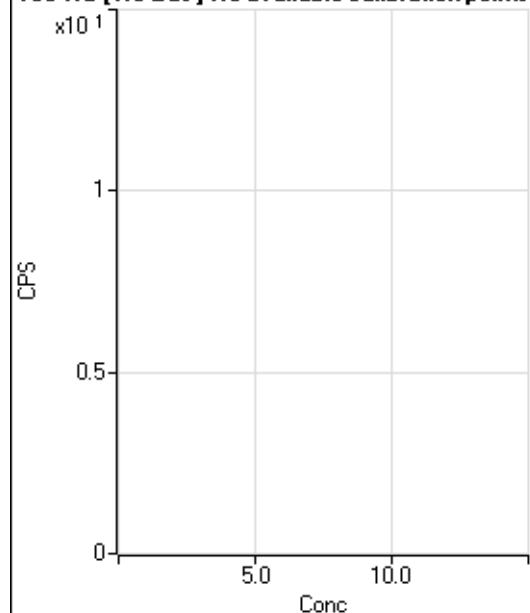
$$R = 0.9998$$

$$DL = 0.02784$$

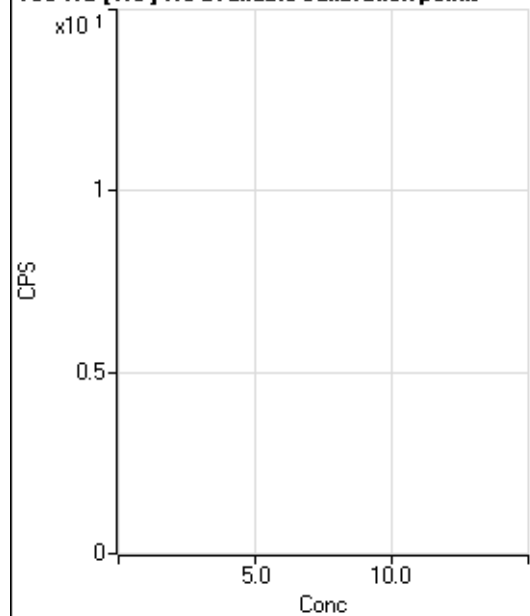
$$BEC = 0.02373$$

Weight: <None>

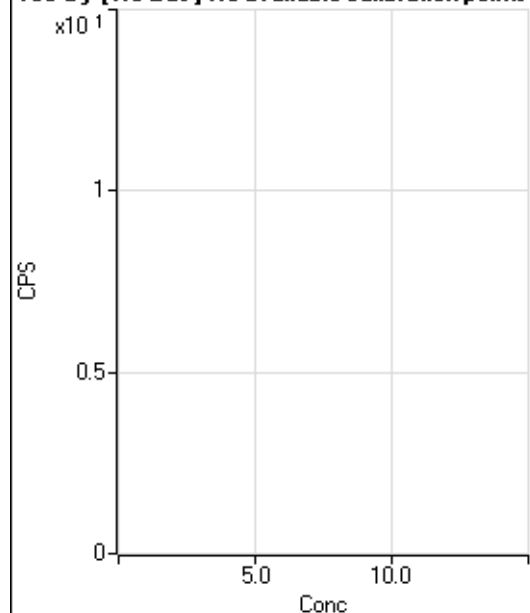
Min Conc: 0

150 Nd [No Gas] No available calibration points

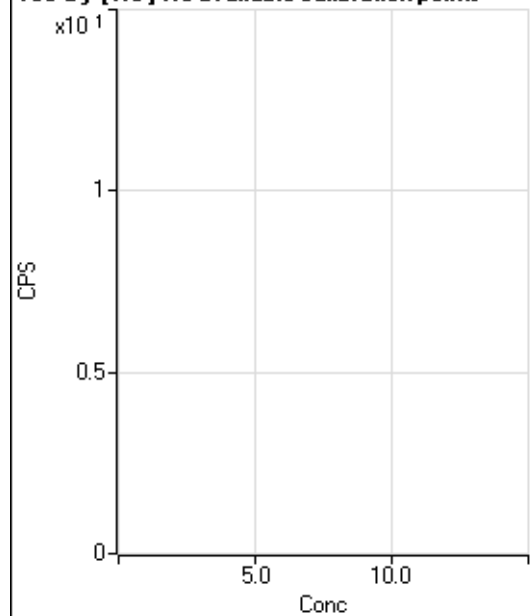
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			15.56		P	65.5
4	☐			24.44		P	31.5
5	☐			42.22		P	18.2
6	☐			88.90		P	30.3
7	☐			153.34		P	28.5
8	☐			300.02		P	25.6
9	☐			124.45		P	22.3

150 Nd [He] No available calibration points

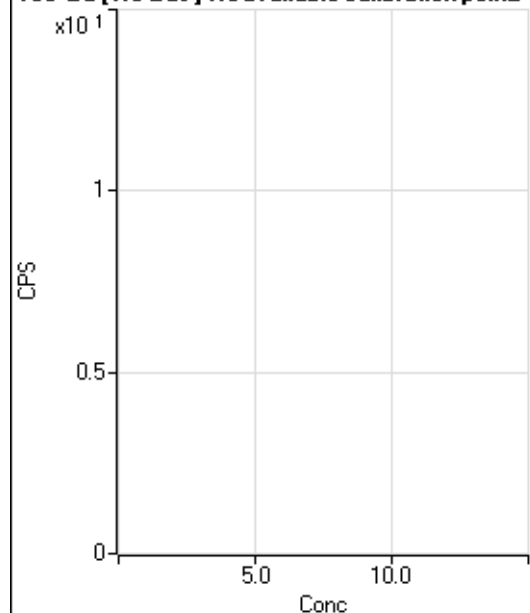
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			0.00		P	
6	☐			3.33		P	100.
7	☐			6.67		P	100.
8	☐			3.33		P	100.
9	☐			25.55		P	41.9

156 Dy [No Gas] No available calibration points

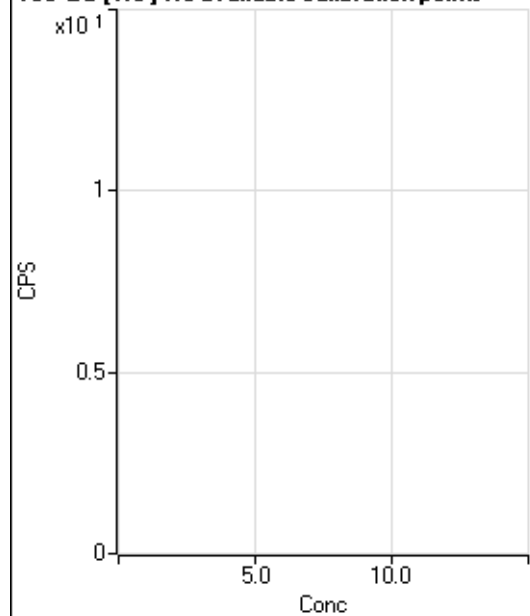
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	65.5
2	☐						
3	☐			19.44		P	65.5
4	☐			27.78		P	69.3
5	☐			44.45		P	43.3
6	☐			30.56		P	41.7
7	☐			214.06		P	85.6
8	☐			127.78		P	19.9
9	☐			197.23		P	6.5

156 Dy [He] No available calibration points

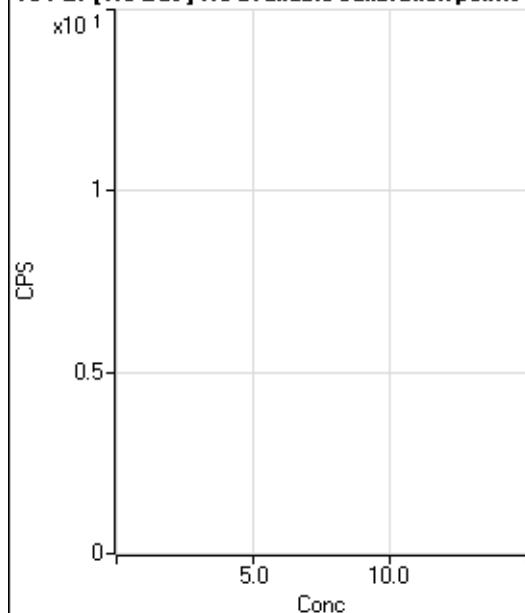
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			1.11		P	173.
4	☐			2.22		P	173.
5	☐			3.33		P	100.
6	☐			3.33		P	0.0
7	☐			18.89		P	27.0
8	☐			15.56		P	12.4
9	☐			18.89		P	56.7

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

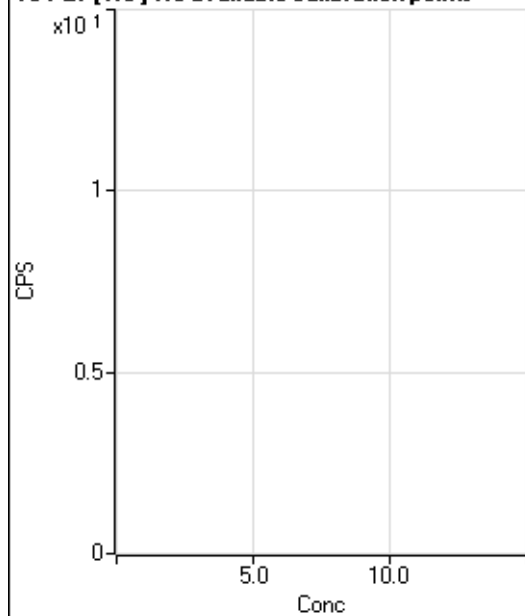
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			80.56		P	48.9
2	☐						
3	☐			91.67		P	59.6
4	☐			88.89		P	5.4
5	☐			75.01		P	29.4
6	☐			77.78		P	27.0
7	☐			122.23		P	38.8
8	☐			150.01		P	54.7
9	☐			150.01		P	19.2

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			20.00		P	60.1
2	☐						
3	☐			10.00		P	66.7
4	☐			15.56		P	81.1
5	☐			17.78		P	21.7
6	☐			18.89		P	44.4
7	☐			18.89		P	40.7
8	☐			27.78		P	18.3
9	☐			35.55		P	37.9

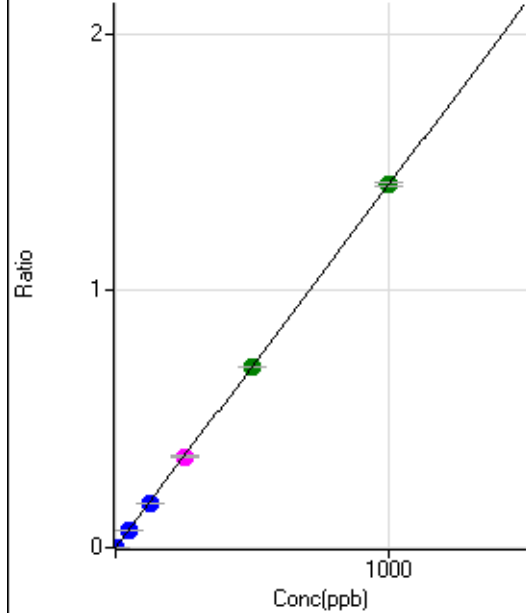
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.45		P	24.7
2	☐						
3	☐			47.22		P	27.0
4	☐			16.67		P	86.6
5	☐			30.56		P	41.7
6	☐			25.00		P	57.7
7	☐			44.45		P	28.6
8	☐			50.00		P	33.3
9	☐			111.12		P	28.4

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	57.8
2	☐						
3	☐			6.66		P	86.6
4	☐			1.11		P	173.
5	☐			5.55		P	69.3
6	☐			6.67		P	50.0
7	☐			3.33		P	100.
8	☐			5.55		P	69.3
9	☐			13.33		P	25.0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	59.9
2	☐	0.100					
3	☐	1.000	0.909	5448.68	0.0013	P	2.3
4	☐	50.000	48.834	299948.04	0.0690	P	0.4
5	☐	125.000	122.175	763297.78	0.1726	P	0.9
6	☐	250.000	249.635	1590712.23	0.3526	M	2.3
7	☐	500.000	500.155	3426183.15	0.7064	A	0.4
8	☐	1000.000	1000.425	7037408.32	1.4129	A	1.1
9	☐			4545.48	0.0010	P	3.6

$$y = 0.0014 * x + 1.4665E-005$$

$$R = 1.0000$$

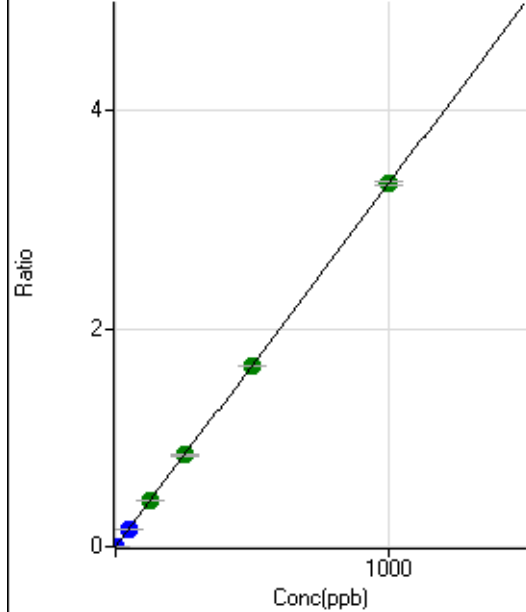
$$DL = 0.01867$$

$$BEC = 0.01038$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125.01	0.0000	P	27.0
2	☐	0.100					
3	☐	1.000	0.961	13524.52	0.0032	P	4.6
4	☐	50.000	49.329	713384.90	0.1641	P	0.6
5	☐	125.000	125.537	1846656.94	0.4175	A	1.2
6	☐	250.000	252.685	3791350.69	0.8403	A	2.1
7	☐	500.000	498.620	8042392.10	1.6582	A	0.9
8	☐	1000.000	999.985	16563352.80	3.3254	A	1.0
9	☐			11255.51	0.0024	P	5.2

$$y = 0.0033 * x + 2.8559E-005$$

$$R = 1.0000$$

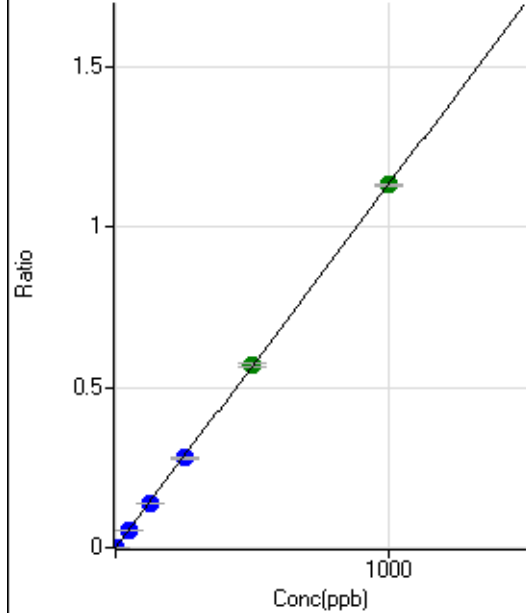
$$DL = 0.006966$$

$$BEC = 0.008588$$

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	381.50	0.0001	P	11.7
2	☐	0.100					
3	☐	1.000	1.176	5958.99	0.0014	P	3.2
4	☐	50.000	48.322	238479.24	0.0548	P	0.4
5	☐	125.000	121.490	609382.71	0.1378	P	0.5
6	☐	250.000	246.812	1262365.45	0.2798	P	1.7
7	☐	500.000	503.678	2768919.62	0.5709	A	1.5
8	☐	1000.000	999.481	5642199.89	1.1327	A	0.4
9	☐			11785.48	0.0026	P	3.4

$$y = 0.0011 * x + 8.7156E-005$$

$$R = 1.0000$$

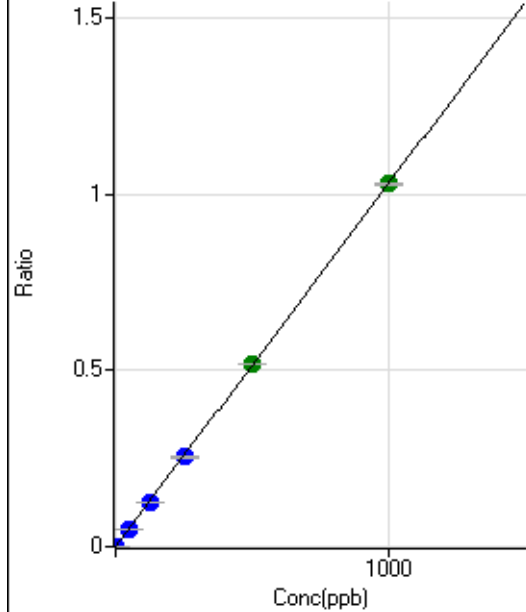
$$DL = 0.02706$$

$$BEC = 0.07691$$

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	300.01	0.0001	P	7.4
2	☐	0.100					
3	☐	1.000	1.170	5340.17	0.0013	P	1.5
4	☐	50.000	48.580	217715.28	0.0501	P	1.3
5	☐	125.000	121.318	552702.01	0.1249	P	0.5
6	☐	250.000	247.076	1147909.53	0.2544	P	1.0
7	☐	500.000	503.360	2513276.07	0.5182	A	0.4
8	☐	1000.000	999.582	5125293.23	1.0290	A	0.4
9	☐			9768.83	0.0021	P	3.8

$$y = 0.0010 * x + 6.8488E-005$$

$$R = 1.0000$$

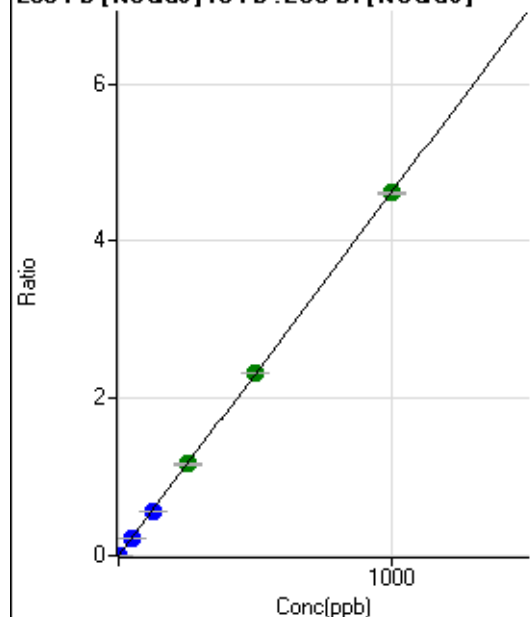
$$DL = 0.01481$$

$$BEC = 0.06654$$

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	1476.01	0.0003	P	3.5
2	☐	0.100					
3	☐	1.000	1.172	24126.39	0.0057	P	0.1
4	☐	50.000	48.514	975948.17	0.2245	P	0.9
5	☐	125.000	121.664	2487759.92	0.5624	P	0.2
6	☐	250.000	252.184	5258424.41	1.1654	A	1.2
7	☐	500.000	502.474	11260502.65	2.3216	A	0.6
8	☐	1000.000	998.708	22982873.49	4.6141	A	0.4
9	☐			45720.46	0.0099	P	3.4

$$y = 0.0046 * x + 3.3691E-004$$

$$R = 1.0000$$

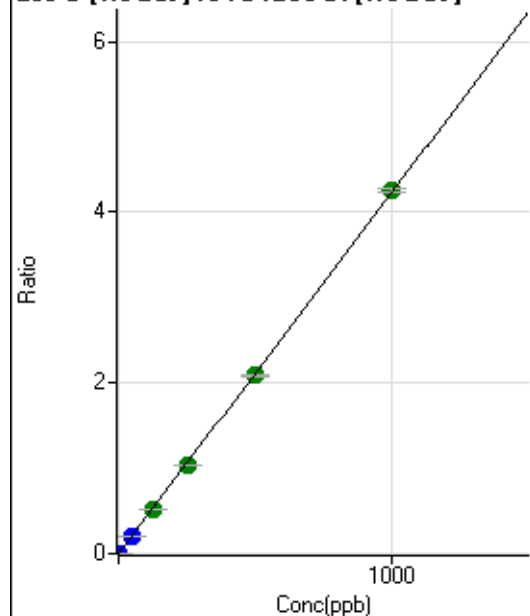
$$DL = 0.00759$$

$$BEC = 0.07293$$

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	152.79	0.0000	P	21.3
2	☐	0.100					
3	☐	1.000	0.866	15499.20	0.0037	P	1.7
4	☐	50.000	47.002	864129.90	0.1987	P	0.5
5	☐	125.000	122.963	2299469.30	0.5199	A	1.3
6	☐	250.000	245.137	4676227.88	1.0364	A	1.6
7	☐	500.000	492.965	10108224.19	2.0841	A	0.3
8	☐	1000.000	1005.138	21165222.00	4.2493	A	1.1
9	☐			5134.61	0.0011	P	1.4

$$y = 0.0042 * x + 3.4798E-005$$

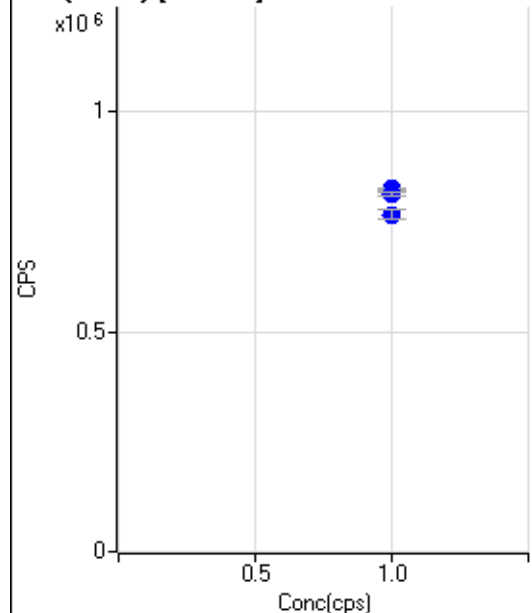
$$R = 1.0000$$

$$DL = 0.005262$$

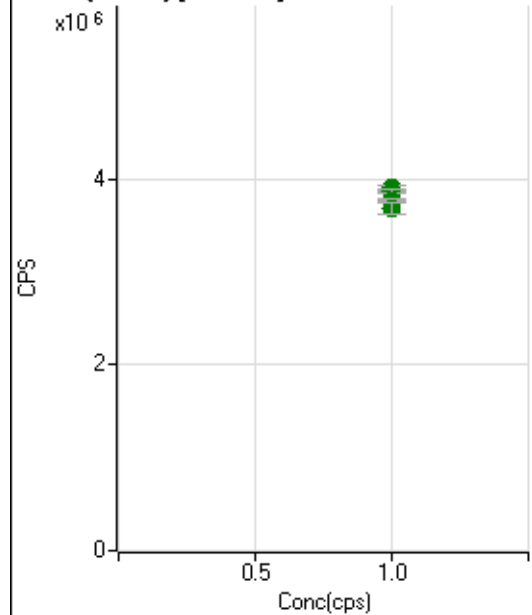
$$BEC = 0.008231$$

Weight: <None>

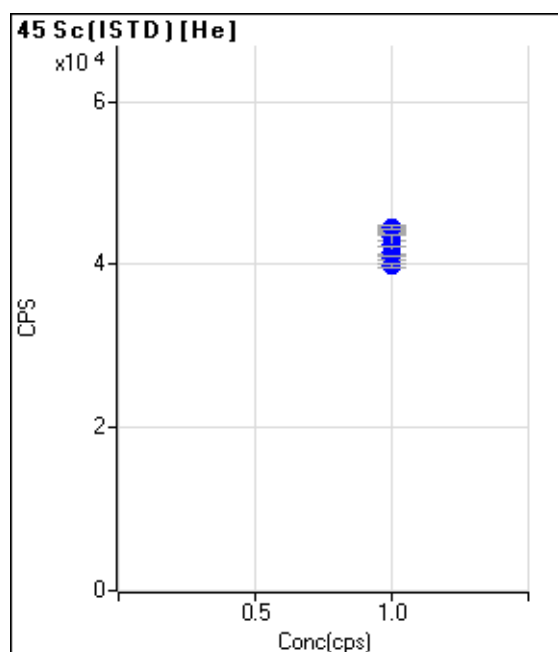
Min Conc: 0

6 Li(ISTD) [No Gas]

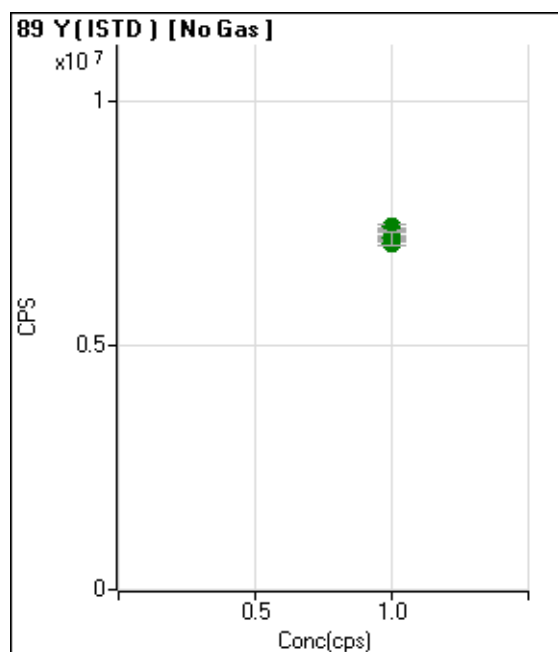
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		819483.17		P	1.2
2	☐	1.000					
3	☐	1.000		823164.65		P	0.4
4	☐	1.000		819353.63		P	0.2
5	☐	1.000		818483.12		P	0.3
6	☐	1.000		821173.08		P	0.5
7	☐	1.000		823885.84		P	0.5
8	☐	1.000		811537.57		P	1.1
9	☐	1.000		765298.80		P	3.1

45 Sc(ISTD) [No Gas]

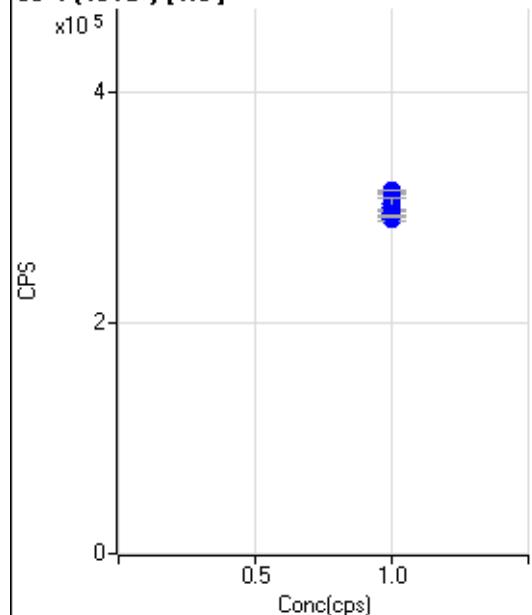
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3861736.15		A	0.9
2	☐	1.000					
3	☐	1.000		3860771.31		A	1.1
4	☐	1.000		3877855.81		A	0.8
5	☐	1.000		3888809.94		A	0.4
6	☐	1.000		3902686.94		A	1.2
7	☐	1.000		3873879.69		A	1.2
8	☐	1.000		3769291.84		A	0.6
9	☐	1.000		3683033.16		A	3.0



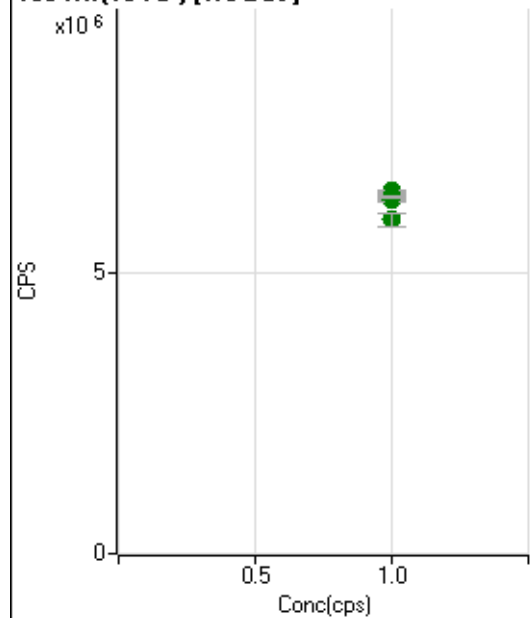
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		43733.58		P	0.6
2	☐	1.000					
3	☐	1.000		43491.74		P	3.0
4	☐	1.000		44252.93		P	1.5
5	☐	1.000		44495.91		P	1.2
6	☐	1.000		42490.02		P	5.5
7	☐	1.000		41555.90		P	2.7
8	☐	1.000		40733.45		P	1.1
9	☐	1.000		39945.61		P	1.1



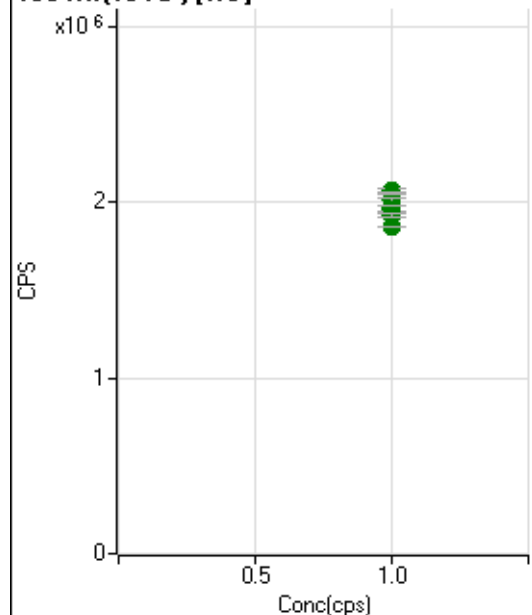
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7195453.85		A	1.5
2	☐	1.000					
3	☐	1.000		7068128.50		A	1.4
4	☐	1.000		7194734.68		A	0.6
5	☐	1.000		7221610.94		A	0.9
6	☐	1.000		7361277.32		A	0.6
7	☐	1.000		7418138.92		A	1.5
8	☐	1.000		7348278.43		A	0.5
9	☐	1.000		7176747.33		A	4.2

89 Y (ISTD) [He]

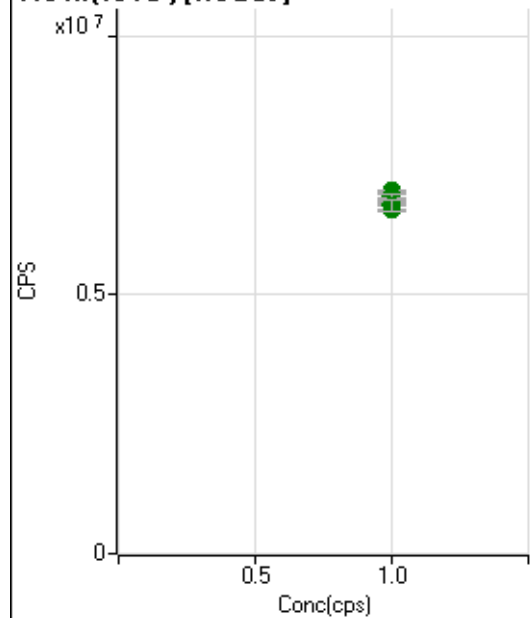
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		308104.52		P	0.4
2	☐	1.000					
3	☐	1.000		303834.25		P	3.2
4	☐	1.000		312098.96		P	0.5
5	☐	1.000		314261.17		P	0.1
6	☐	1.000		300283.50		P	5.2
7	☐	1.000		294241.07		P	1.5
8	☐	1.000		289858.45		P	0.7
9	☐	1.000		292562.75		P	0.2

103 Rh (ISTD) [NoGas]

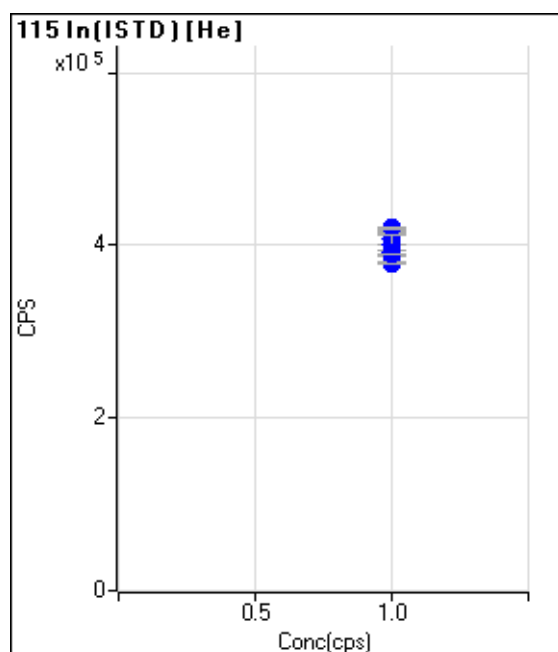
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6357000.06		A	1.0
2	☐	1.000					
3	☐	1.000		6279253.01		A	0.8
4	☐	1.000		6276849.80		A	0.4
5	☐	1.000		6291650.23		A	0.8
6	☐	1.000		6343966.20		A	0.4
7	☐	1.000		6446961.91		A	0.6
8	☐	1.000		6340005.31		A	0.9
9	☐	1.000		5931590.97		A	3.6

103 Rh(ISTD) [He]

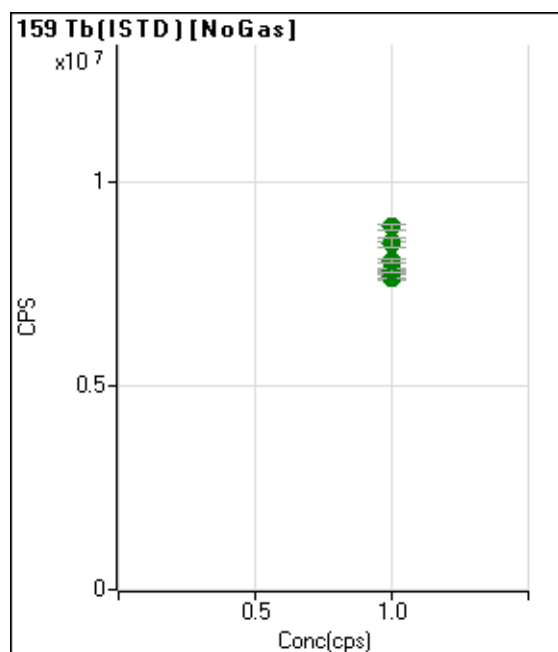
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2064846.20		A	1.1
2	☐	1.000					
3	☐	1.000		2011762.07		A	3.4
4	☐	1.000		2046310.96		A	0.1
5	☐	1.000		2051903.08		A	0.6
6	☐	1.000		1972289.17		A	5.9
7	☐	1.000		1963368.60		A	1.7
8	☐	1.000		1928598.86		A	1.2
9	☐	1.000		1855754.21		A	0.1

115 In(ISTD) [NoGas]

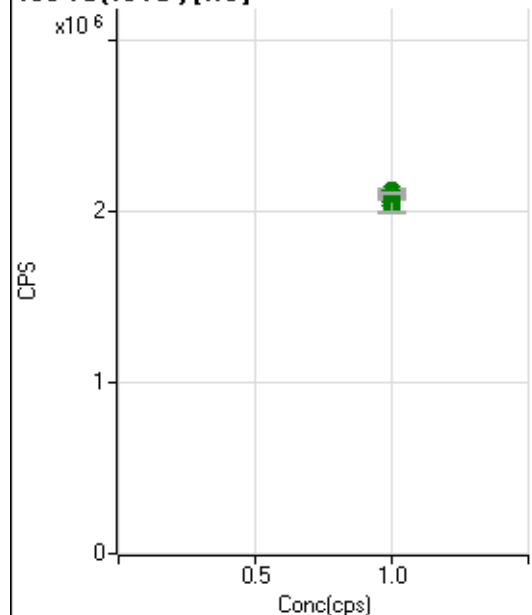
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6812025.74		A	1.7
2	☐	1.000					
3	☐	1.000		6635026.33		A	0.9
4	☐	1.000		6659233.78		A	0.1
5	☐	1.000		6764820.69		A	0.8
6	☐	1.000		6841714.98		A	0.6
7	☐	1.000		7012706.34		A	0.8
8	☐	1.000		6907477.83		A	1.0
9	☐	1.000		6735221.50		A	3.6



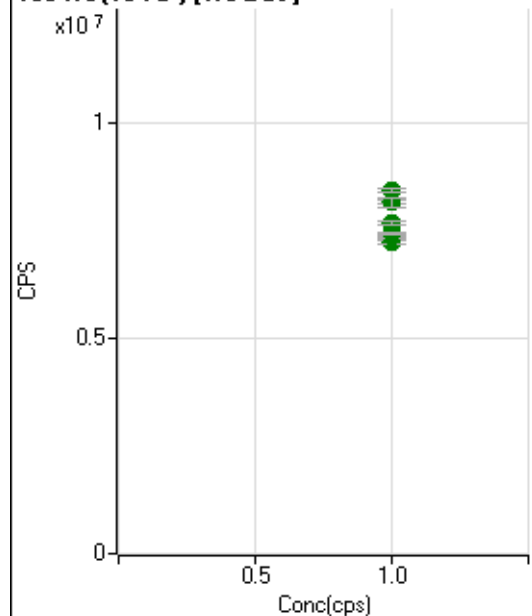
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		415333.59		P	0.1
2	☐	1.000					
3	☐	1.000		407543.56		P	3.0
4	☐	1.000		419952.39		P	0.1
5	☐	1.000		420135.32		P	0.2
6	☐	1.000		400812.67		P	5.4
7	☐	1.000		390854.27		P	2.0
8	☐	1.000		378611.59		P	0.6
9	☐	1.000		389372.76		P	0.1



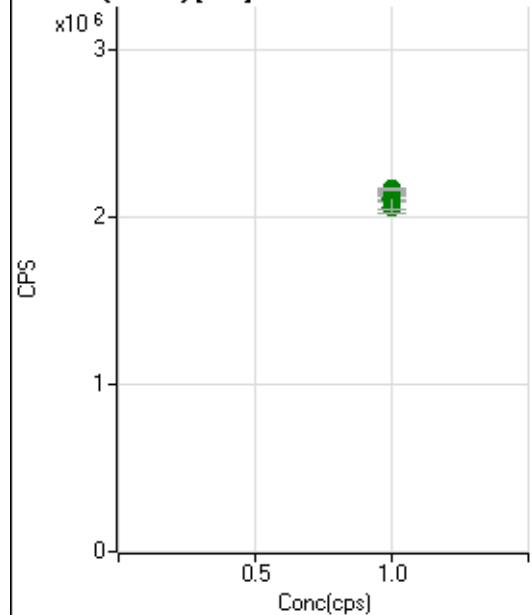
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7803712.45		A	1.0
2	☐	1.000					
3	☐	1.000		7658214.33		A	2.1
4	☐	1.000		7694580.37		A	1.5
5	☐	1.000		7838285.23		A	1.0
6	☐	1.000		8046235.64		A	1.0
7	☐	1.000		8532680.08		A	0.4
8	☐	1.000		8895316.81		A	1.5
9	☐	1.000		8499829.04		A	2.7

159 Tb(ISTD) [He]

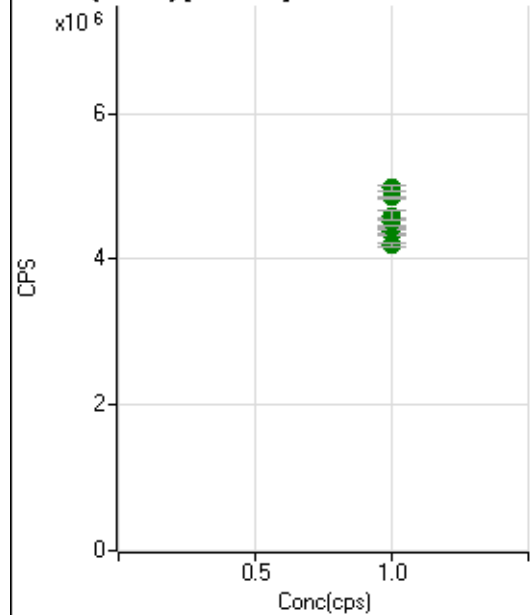
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2105366.95		A	0.8
2	☐	1.000					
3	☐	1.000		2031938.53		A	3.5
4	☐	1.000		2087595.66		A	0.9
5	☐	1.000		2114980.58		A	1.3
6	☐	1.000		2060812.99		A	5.5
7	☐	1.000		2105311.12		A	1.9
8	☐	1.000		2123706.13		A	1.0
9	☐	1.000		2106869.52		A	0.5

165 Ho(ISTD) [NoGas]

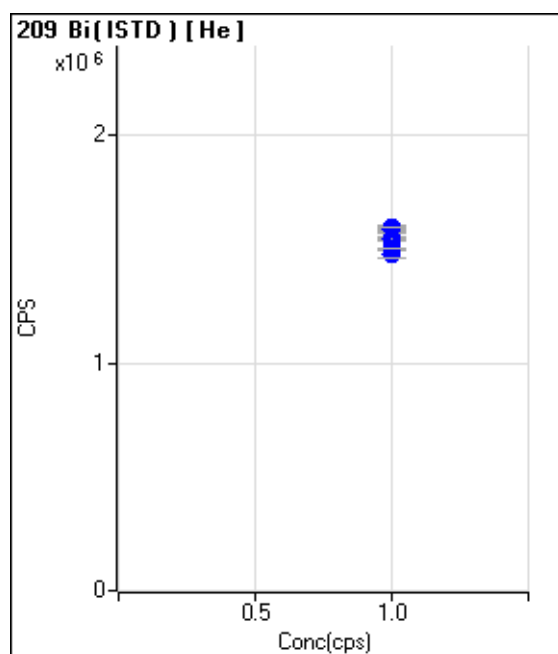
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7332748.69		A	1.1
2	☐	1.000					
3	☐	1.000		7235018.39		A	1.4
4	☐	1.000		7356305.63		A	0.8
5	☐	1.000		7453329.07		A	0.4
6	☐	1.000		7705242.27		A	1.2
7	☐	1.000		8181060.25		A	0.8
8	☐	1.000		8435356.53		A	1.1
9	☐	1.000		8162868.67		A	2.8

165 Ho(ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2131144.71		A	0.4
2	☐	1.000					
3	☐	1.000		2052423.30		A	3.4
4	☐	1.000		2114317.83		A	0.9
5	☐	1.000		2166693.46		A	0.5
6	☐	1.000		2099350.34		A	5.4
7	☐	1.000		2155173.46		A	1.9
8	☐	1.000		2156265.78		A	0.4
9	☐	1.000		2165725.94		A	0.9

209 Bi(ISTD) [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4382280.04		A	1.5
2	☐	1.000					
3	☐	1.000		4196461.85		A	1.4
4	☐	1.000		4348080.01		A	0.3
5	☐	1.000		4423485.46		A	0.9
6	☐	1.000		4512885.25		A	1.9
7	☐	1.000		4850174.06		A	0.5
8	☐	1.000		4981147.29		A	1.3
9	☐	1.000		4605974.58		A	2.4



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1545909.23		P	0.9
2	☐	1.000					
3	☐	1.000		1478833.99		P	2.6
4	☐	1.000		1542760.13		P	0.1
5	☐	1.000		1575540.76		P	0.5
6	☐	1.000		1542732.96		P	5.4
7	☐	1.000		1587271.61		P	2.2
8	☐	1.000		1592963.43		P	0.1
9	☐	1.000		1502030.48		P	0.1

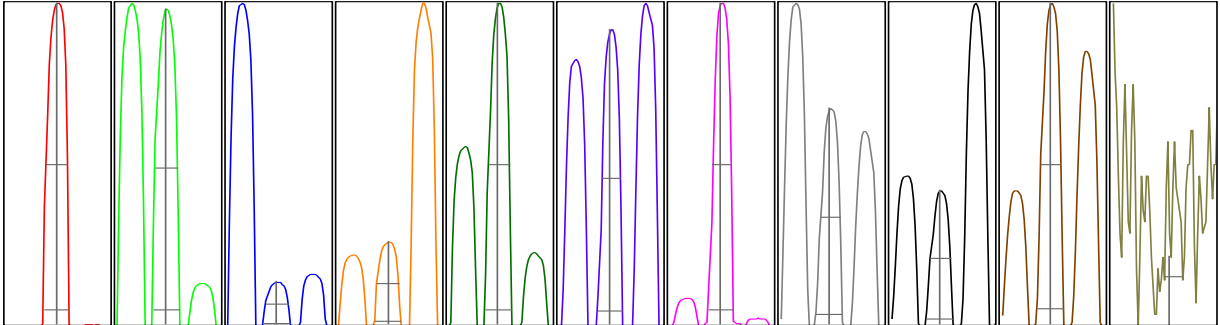
US EPA Tune Check Sample Report

Batch Folder D:\P8080917-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5969	0.71	5.00	
24	34918	0.59	5.00	
25	4742	0.40	5.00	
26	5413	0.62	5.00	
59	72183	0.43	5.00	
113	10005	0.82	5.00	
115	126552	1.06	5.00	
206	22573	0.62	5.00	
207	20360	0.76	5.00	
208	48899	1.14	5.00	
220	1	15.32		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	6027	5995	5965	5938	5922
24	35022	35227	34828	34742	34768
25	4758	4767	4728	4735	4725
26	5435	5439	5432	5361	5398
59	72012	72566	72408	71783	72148
113	10067	10102	10009	9930	9915
115	127929	127075	127455	124800	125499
206	22462	22558	22695	22417	22733
207	20219	20395	20377	20217	20595
208	48132	49123	49186	48531	49523
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% X% (Flag)
9	9856	9.00	8.9 - 9.1		0.740	0.900	
24	56856	23.95	23.9 - 24.1		0.786	0.900	
25	7675	24.95	24.9 - 25.1		0.786	0.900	
26	9127	26.00	25.9 - 26.1		0.755	0.900	
59	124318	58.95	58.9 - 59.1		0.776	0.900	
113	18665	113.00	112.9 - 113.1		0.718	0.900	
115	236158	115.00	114.9 - 115.1		0.727	0.900	
206	41493	205.95	205.9 - 206.1		0.755	0.900	
207	37163	206.95	206.9 - 207.1		0.770	0.900	
208	89098	207.95	207.9 - 208.1		0.761	0.900	
220	1	220.20	-				

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	8.1	V	Deflect	14.8	V
Extract 2	-245.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-110	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	11517	1.82	
89	3382	1.72	
205	14607	1.95	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	11726	11557	11545	11592	11165
89	3429	3393	3405	3404	3281
205	14871	14633	14709	14701	14123

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	8.1	V	Deflect	1.8	V
Extract 2	-245.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-110	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			