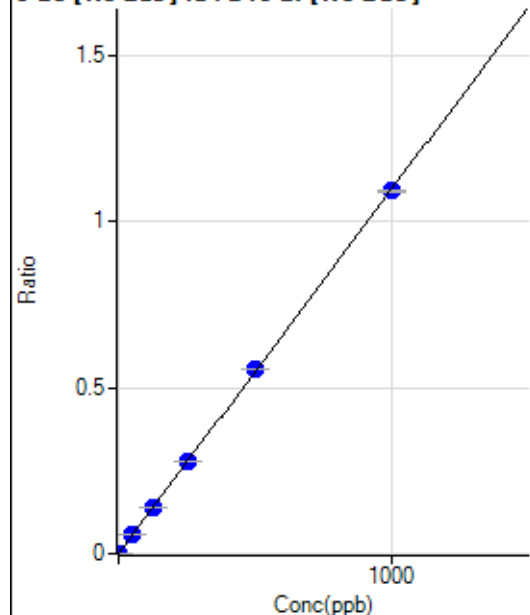


Batch Folder: D:\P8022618- MS .b\
Analysis File: P8022618- MS .batch.bin
DA Date-Time:
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB P8022618- MS.D	S00	2018-02-26 13:08:21
2			
3	006CALS P8022618- MS.D	S02	2018-02-26 13:15:39
4	007CALS P8022618- MS.D	S03	2018-02-26 13:19:20
5	008CALS P8022618- MS.D	S04	2018-02-26 13:23:00
6	009CALS P8022618- MS.D	S05	2018-02-26 13:26:34
7	010CALS P8022618- MS.D	S06	2018-02-26 13:30:02
8	011CALS P8022618- MS.D	S07	2018-02-26 13:33:27
9	012CALS P8022618- MS.D	S08	2018-02-26 13:36:47

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	201.86	0.0002	P	8.8
2	☐	0.100					
3	☐	1.000	0.942	1116.75	0.0013	P	4.6
4	☐	50.000	51.702	50457.18	0.0568	P	0.3
5	☐	125.000	127.331	124420.33	0.1397	P	0.4
6	☐	250.000	253.204	252653.15	0.2775	P	1.4
7	☐	500.000	505.772	494033.10	0.5541	P	0.2
8	☐	1000.000	995.937	953958.14	1.0908	P	0.9
9	☐			607.44	0.0007	P	8.6

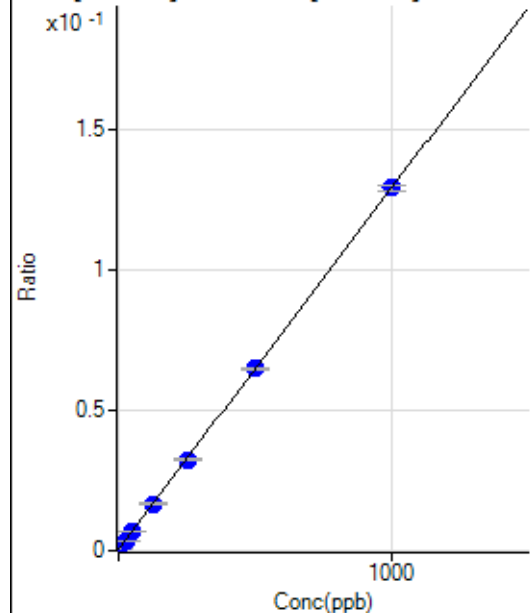
$$y = 0.0011 * x + 2.2629E-004$$

$$R = 1.0000$$

$$DL = 0.05483$$

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	458.36	0.0005	P	9.7
2	☐	2.500					
3	☐	25.000	21.355	2892.10	0.0033	P	4.4
4	☐	50.000	47.027	5815.31	0.0066	P	1.0
5	☐	125.000	125.458	14808.30	0.0166	P	2.9
6	☐	250.000	248.635	29531.04	0.0324	P	0.9
7	☐	500.000	499.873	57677.80	0.0647	P	1.5
8	☐	1000.000	1000.587	112825.44	0.1290	P	1.3
9	☐			4978.88	0.0059	P	9.8

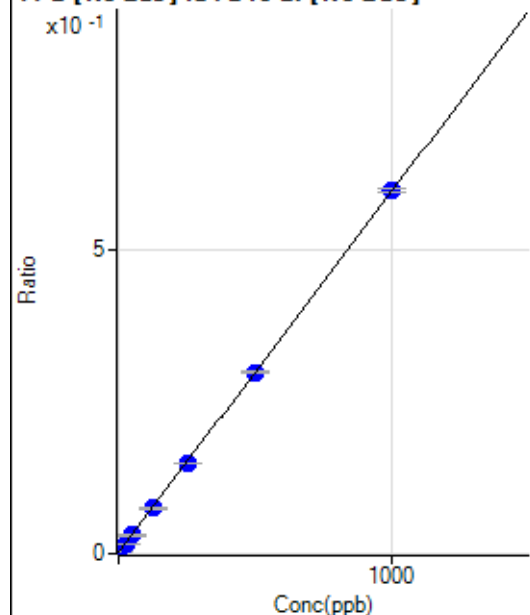
$$y = 1.2838E-004 * x + 5.1384E-004$$

$$R = 1.0000$$

$$DL = 1.159$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2139.14	0.0024	P	5.1
2	☐	2.500					
3	☐	25.000	20.844	13142.64	0.0148	P	5.3
4	☐	50.000	47.450	27190.64	0.0306	P	3.2
5	☐	125.000	121.567	66566.14	0.0747	P	1.4
6	☐	250.000	246.081	135485.19	0.1488	P	1.4
7	☐	500.000	498.246	266414.69	0.2988	P	0.8
8	☐	1000.000	1002.517	523775.71	0.5988	P	0.9
9	☐			23447.81	0.0280	P	7.0

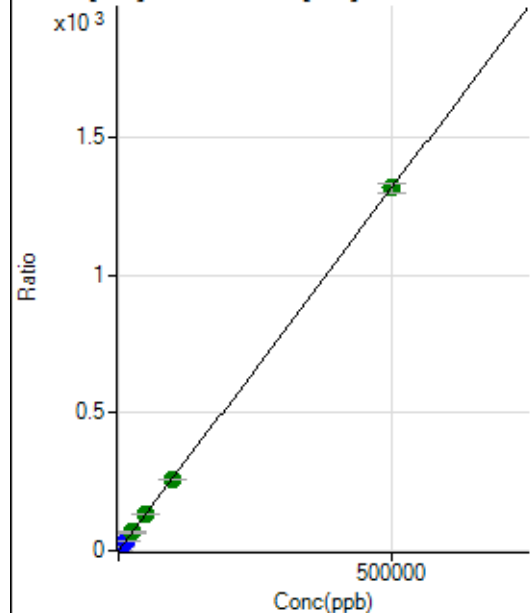
$$y = 5.9486\text{E-}004 * x + 0.0024$$

$$R = 1.0000$$

$$DL = 0.6144$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6187.74	0.3357	P	4.1
2	☐	50.000					
3	☐	500.000	460.546	29679.12	1.5492	P	1.6
4	☐	5000.000	5124.774	269872.67	13.8389	P	1.8
5	☐	12500.000	12955.516	652506.11	34.4720	P	4.7
6	☐	25000.000	25256.558	1333836.41	66.8837	A	1.8
7	☐	50000.000	50301.562	2555088.49	132.8743	A	1.0
8	☐	100000.00	97482.270	5055251.68	257.1897	A	0.8
9	☐	500000.00	500447.96	24263726.93	1,318.955	A	2.4

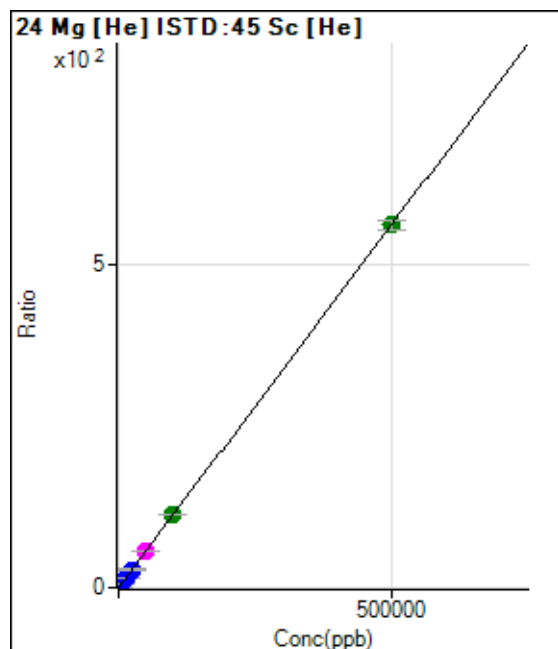
$$y = 0.0026 * x + 0.3357$$

$$R = 1.0000$$

$$DL = 15.61$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	158.34	0.0086	P	2.7
2	☐	50.000					
3	☐	500.000	492.310	10740.60	0.5606	P	1.5
4	☐	5000.000	5237.044	114692.97	5.8812	P	1.6
5	☐	12500.000	13235.941	281088.45	14.8509	P	4.9
6	☐	25000.000	25046.200	560291.01	28.0944	P	1.6
7	☐	50000.000	50909.180	1097872.37	57.0962	M	1.1
8	☐	100000.00	100017.53	2204702.15	112.1644	A	0.6
9	☐	500000.00	499882.50	10311533.13	560.5574	A	2.6

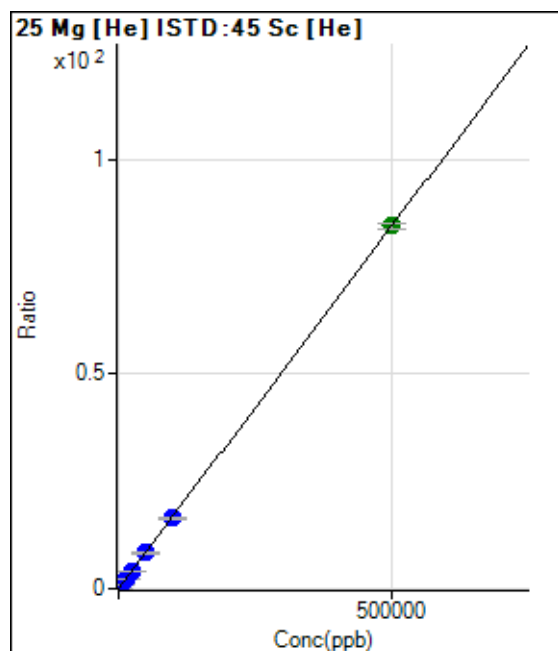
$$y = 0.0011 * x + 0.0086$$

$$R = 1.0000$$

$$DL = 0.624$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13.89	0.0008	P	38.2
2	☐	50.000					
3	☐	500.000	455.202	1486.26	0.0776	P	2.8
4	☐	5000.000	5158.319	16988.56	0.8711	P	3.1
5	☐	12500.000	13017.779	41589.50	2.1971	P	4.6
6	☐	25000.000	24911.940	83841.39	4.2040	P	1.9
7	☐	50000.000	49320.607	160031.39	8.3222	P	2.7
8	☐	100000.00	97029.569	321784.33	16.3718	P	1.3
9	☐	500000.00	500651.94	1554144.76	84.4717	A	1.6

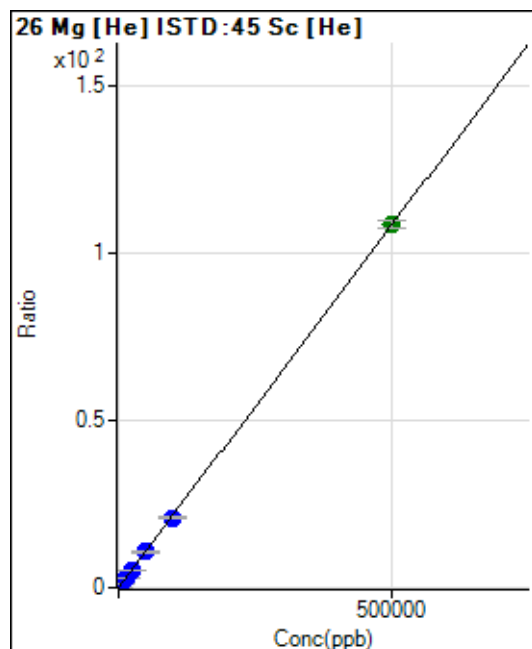
$$y = 1.6872E-004 * x + 7.6260E-004$$

$$R = 1.0000$$

$$DL = 5.176$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.56	0.0016	P	38.4
2	☐	50.000					
3	☐	500.000	449.048	1894.66	0.0989	P	6.0
4	☐	5000.000	5047.781	21350.14	1.0951	P	4.4
5	☐	12500.000	13017.148	53404.46	2.8214	P	4.7
6	☐	25000.000	24535.591	106010.41	5.3165	P	3.0
7	☐	50000.000	49307.565	205399.79	10.6825	P	2.3
8	☐	100000.00	96780.228	412080.47	20.9659	P	1.4
9	☐	500000.00	500723.06	1995528.32	108.4669	A	2.1

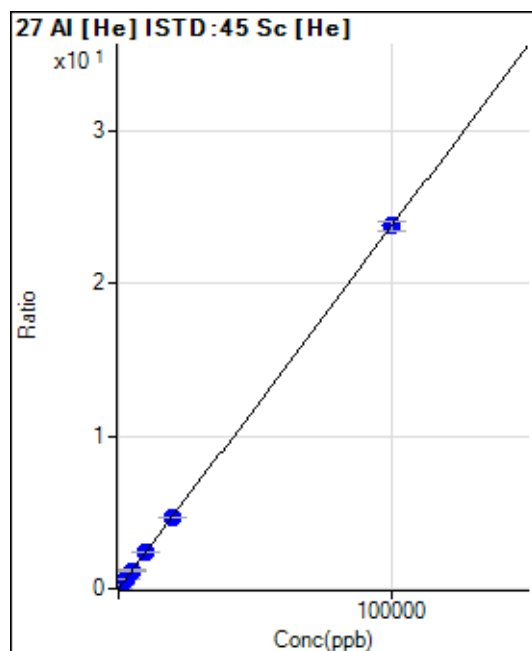
$$y = 2.1662\text{E-}004 * x + 0.0016$$

$$R = 1.0000$$

$$DL = 8.728$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11.11	0.0006	P	86.8
2	☐	2.000					
3	☐	20.000	14.039	75.01	0.0039	P	21.2
4	☐	1000.000	1007.809	4675.99	0.2398	P	3.2
5	☐	2500.000	2524.077	11360.57	0.5997	P	2.7
6	☐	5000.000	5021.080	23779.11	1.1924	P	2.2
7	☐	10000.000	9917.216	45270.50	2.3546	P	1.7
8	☐	20000.000	19547.846	91220.96	4.6405	P	1.6
9	☐	100000.00	100096.97	437060.94	23.7600	P	2.8

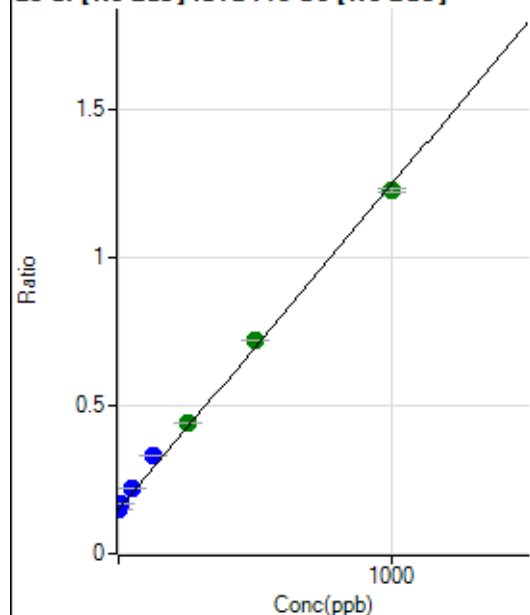
$$y = 2.3736\text{E-}004 * x + 5.9481\text{E-}004$$

$$R = 1.0000$$

$$DL = 6.529$$

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	398653.33	0.1493	P	0.1
2	☐	1.000					
3	☐	10.000	16.415	442582.33	0.1674	P	1.0
4	☐	50.000	65.743	583341.83	0.2216	P	0.4
5	☐	125.000	168.070	880160.07	0.3340	P	0.4
6	☐	250.000	266.471	1189900.28	0.4422	A	0.2
7	☐	500.000	519.266	1954563.61	0.7200	A	0.5
8	☐	1000.000	980.014	3273131.61	1.2263	A	1.1
9	☐			515745.18	0.2063	P	1.2

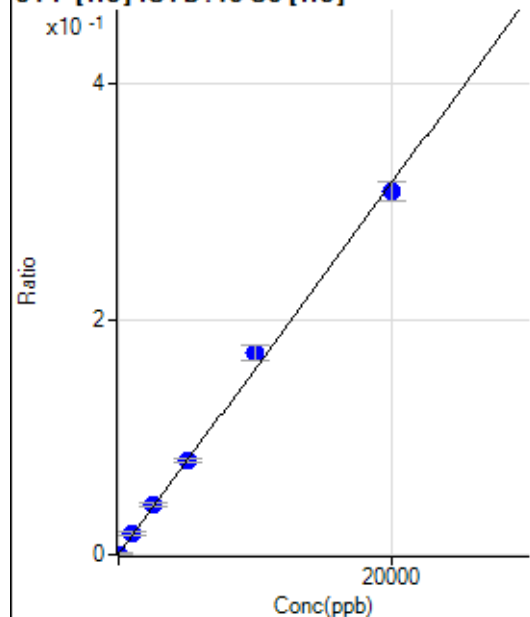
$$y = 0.0011 * x + 0.1493$$

$$R = 0.9989$$

$$DL = 0.4885$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-18.449	0.00	0.0000	P	
2	☐	0.000					
3	☐	0.000	18.449	11.11	0.0006	P	116.0
4	☐	1000.000	1093.670	341.69	0.0175	P	16.3
5	☐	2500.000	2633.661	791.72	0.0418	P	8.2
6	☐	5000.000	5067.567	1600.17	0.0803	P	4.8
7	☐	10000.000	10866.392	3303.32	0.1718	P	6.8
8	☐	20000.000	19528.521	6059.88	0.3084	P	5.2
9	☐			5.55	0.0003	P	86.7

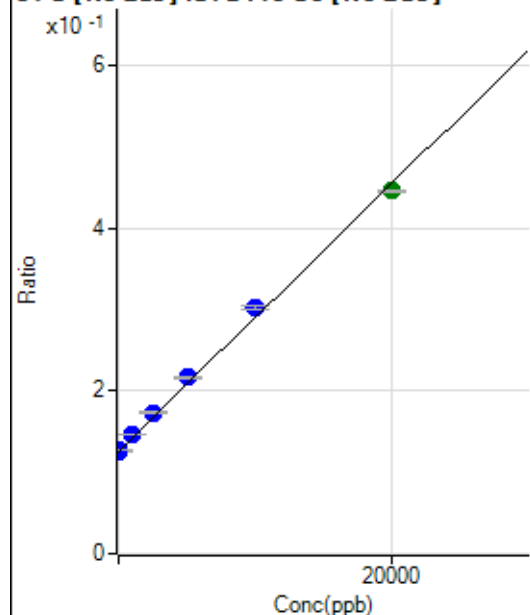
$$y = 1.5780E-005 * x + 2.9112E-004$$

$$R = 0.9986$$

$$DL = 64.22$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-71.730	333934.90	0.1251	P	0.6
2	☐	0.000					
3	☐	0.000	71.730	337004.70	0.1274	P	1.1
4	☐	1000.000	1220.596	385241.30	0.1463	P	0.6
5	☐	2500.000	2885.041	457670.12	0.1737	P	1.1
6	☐	5000.000	5503.713	583308.46	0.2168	P	0.6
7	☐	10000.000	10725.144	821487.58	0.3026	P	1.1
8	☐	20000.000	19452.340	1190826.73	0.4461	A	0.6
9	☐			317226.59	0.1269	P	1.3

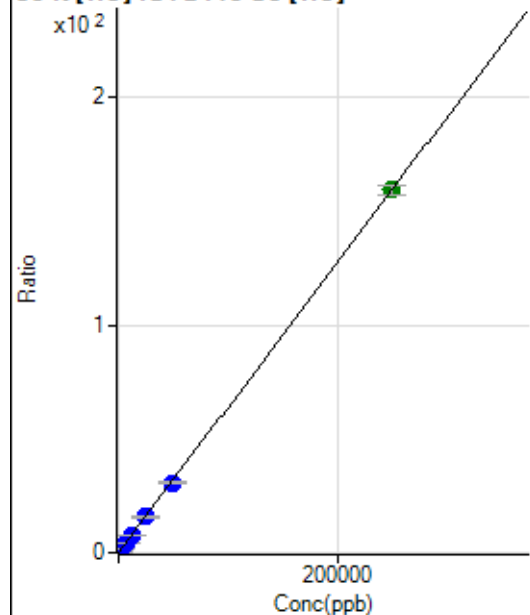
$$y = 1.6443\text{E-}005 * x + 0.1263$$

$$R = 0.9985$$

$$DL = 200$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1989.12	0.1080	P	6.3
2	☐	50.000					
3	☐	500.000	484.228	7972.06	0.4162	P	4.8
4	☐	2500.000	2526.728	33471.31	1.7163	P	1.6
5	☐	6250.000	6419.239	79401.65	4.1940	P	4.0
6	☐	12500.000	12185.207	156840.12	7.8641	P	1.4
7	☐	25000.000	24608.292	303273.86	15.7717	P	2.1
8	☐	50000.000	48221.582	605393.95	30.8020	P	1.5
9	☐	250000.00	250406.12	2934139.95	159.4966	A	2.3

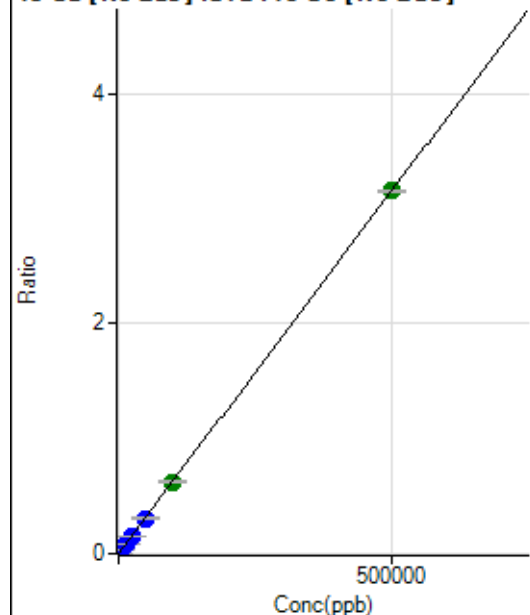
$$y = 6.3652\text{E-}004 * x + 0.1080$$

$$R = 1.0000$$

$$DL = 31.9$$

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	1075.10	0.0004	P	1.3
2	☐	50.000					
3	☐	500.000	429.020	8219.43	0.0031	P	1.2
4	☐	5000.000	4967.604	83537.68	0.0317	P	0.6
5	☐	12500.000	12404.241	207159.43	0.0786	P	1.7
6	☐	25000.000	24851.844	422823.31	0.1571	P	1.0
7	☐	50000.000	48943.349	838952.92	0.3090	P	0.9
8	☐	100000.00	99293.809	1672324.55	0.6265	A	1.1
9	☐	500000.00	500257.10	7886992.19	3.1550	A	0.6

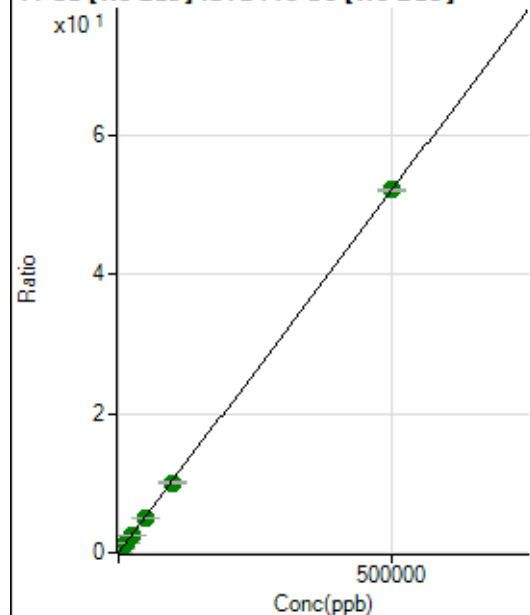
$$y = 6.3060\text{E-}006 * x + 4.0265\text{E-}004$$

$$R = 1.0000$$

$$DL = 2.41$$

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	18824.43	0.0071	P	2.1
2	☐	50.000					
3	☐	500.000	435.357	138396.86	0.0523	P	0.2
4	☐	5000.000	4985.754	1383873.88	0.5256	A	0.8
5	☐	12500.000	12358.962	3405624.38	1.2925	A	1.3
6	☐	25000.000	24451.299	6862860.31	2.5502	A	0.5
7	☐	50000.000	48427.053	13692465.24	5.0438	A	1.1
8	☐	100000.00	96683.841	26860580.98	10.0629	A	1.0
9	☐	500000.00	500851.69	130245543.1	52.0996	A	0.4

$$y = 1.0401\text{E-}004 * x + 0.0071$$

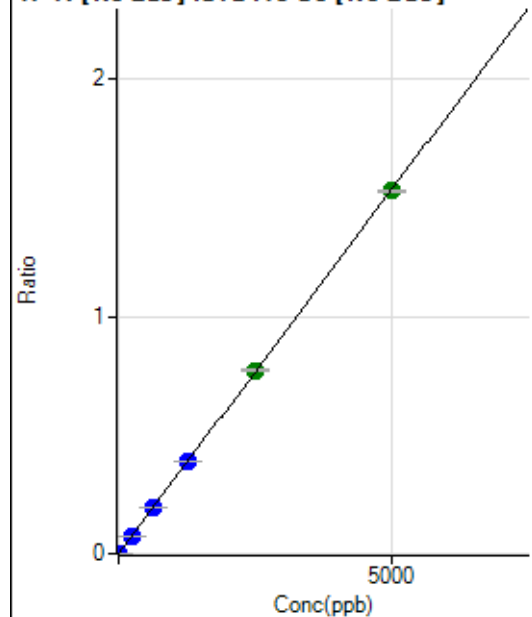
$$R = 1.0000$$

$$DL = 4.262$$

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	122.23	0.0000	P	7.1
2	☐	0.500					
3	☐	5.000	4.631	3878.50	0.0015	P	6.7
4	☐	250.000	249.785	201912.25	0.0767	P	0.5
5	☐	625.000	632.789	511741.68	0.1942	P	1.2
6	☐	1250.000	1265.805	1045389.83	0.3885	P	0.2
7	☐	2500.000	2518.336	2097928.02	0.7728	A	0.8
8	☐	5000.000	4985.918	4084226.04	1.5300	A	0.7
9	☐			972.31	0.0004	P	6.9

$$y = 3.0685E-004 * x + 4.5764E-005$$

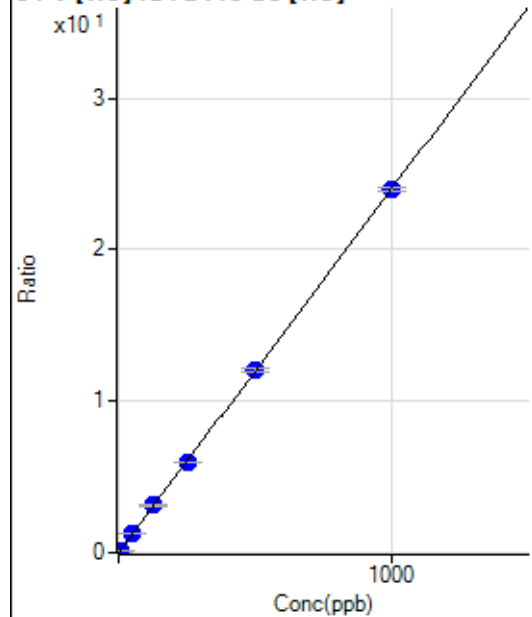
$$R = 1.0000$$

$$DL = 0.03173$$

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	0.0006	P	60.2
2	☐	0.500					
3	☐	5.000	4.621	2135.76	0.1115	P	1.9
4	☐	50.000	51.298	24011.92	1.2315	P	2.8
5	☐	125.000	129.648	58912.16	3.1114	P	3.6
6	☐	250.000	249.342	119332.77	5.9833	P	1.1
7	☐	500.000	503.420	232286.50	12.0797	P	1.7
8	☐	1000.000	997.811	470590.84	23.9422	P	1.2
9	☐			130.01	0.0071	P	12.2

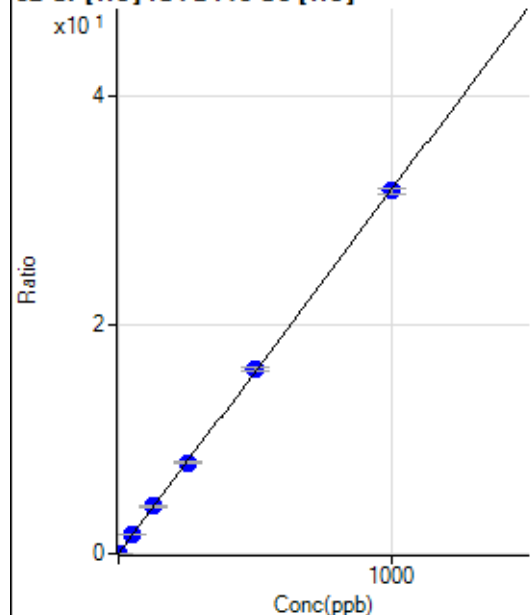
$$y = 0.0240 * x + 5.9443E-004$$

$$R = 1.0000$$

$$DL = 0.04475$$

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	298.90	0.0163	P	12.2
2	☐	0.200					
3	☐	2.000	1.861	1445.65	0.0755	P	6.3
4	☐	50.000	51.470	32260.77	1.6542	P	1.4
5	☐	125.000	130.207	78723.35	4.1600	P	5.5
6	☐	250.000	249.477	158663.64	7.9556	P	1.4
7	☐	500.000	505.185	309478.89	16.0932	P	1.8
8	☐	1000.000	996.814	623798.11	31.7387	P	1.6
9	☐			14832.50	0.8062	P	2.3

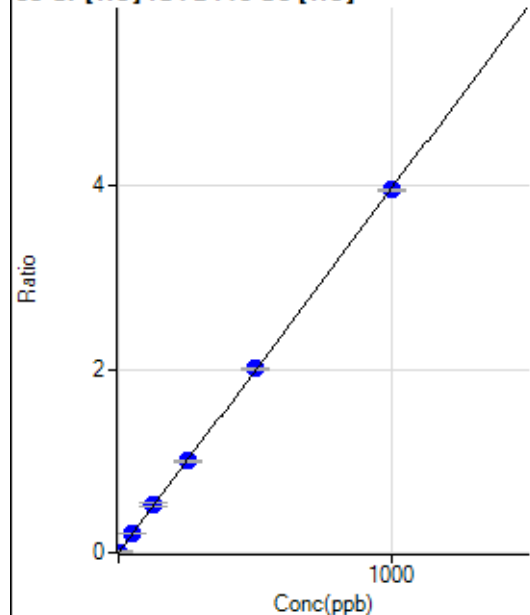
$$y = 0.0318 * x + 0.0163$$

$$R = 1.0000$$

$$DL = 0.1872$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	28.89	0.0016	P	27.4
2	☐	0.200					
3	☐	2.000	2.238	201.12	0.0105	P	22.0
4	☐	50.000	52.321	4082.89	0.2093	P	1.7
5	☐	125.000	132.845	10008.17	0.5290	P	6.6
6	☐	250.000	250.939	19899.90	0.9978	P	2.0
7	☐	500.000	505.004	38585.63	2.0065	P	0.9
8	☐	1000.000	996.166	77767.96	3.9565	P	0.8
9	☐			1760.14	0.0957	P	7.3

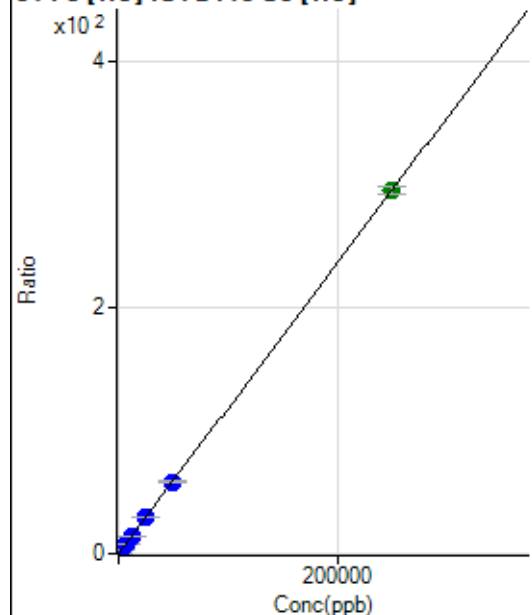
$$y = 0.0040 * x + 0.0016$$

$$R = 1.0000$$

$$DL = 0.327$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0033	P	9.2
2	☐	5.000					
3	☐	50.000	49.198	1174.52	0.0613	P	6.4
4	☐	2500.000	2577.420	59363.18	3.0441	P	2.0
5	☐	6250.000	6498.756	145204.56	7.6705	P	4.3
6	☐	12500.000	12435.443	292672.17	14.6745	P	1.2
7	☐	25000.000	25194.532	571635.16	29.7275	P	1.6
8	☐	50000.000	49638.448	1151163.51	58.5662	P	0.9
9	☐	250000.00	250049.09	5427051.73	295.0084	A	2.3

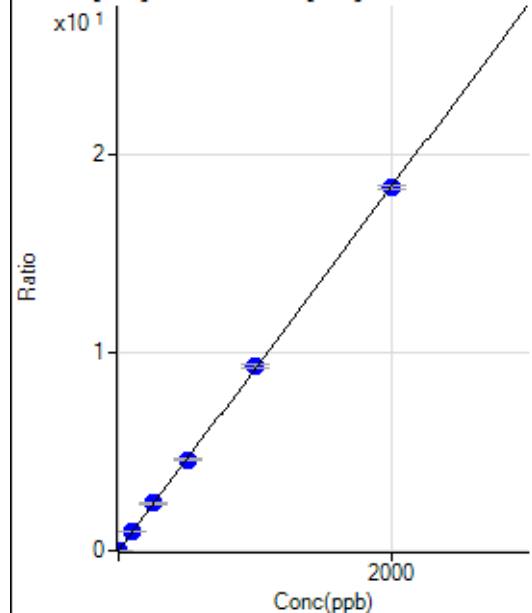
$$y = 0.0012 * x + 0.0033$$

$$R = 1.0000$$

$$DL = 0.7756$$

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	13.33	0.0007	P	26.2
2	☐	0.100					
3	☐	1.000	1.036	196.67	0.0102	P	22.8
4	☐	100.000	102.564	18381.24	0.9427	P	2.8
5	☐	250.000	259.051	45045.93	2.3798	P	4.9
6	☐	500.000	497.860	91195.11	4.5730	P	2.4
7	☐	1000.000	1012.620	178840.93	9.3006	P	1.7
8	☐	2000.000	1992.966	359782.30	18.3040	P	1.2
9	☐			1148.96	0.0625	P	5.4

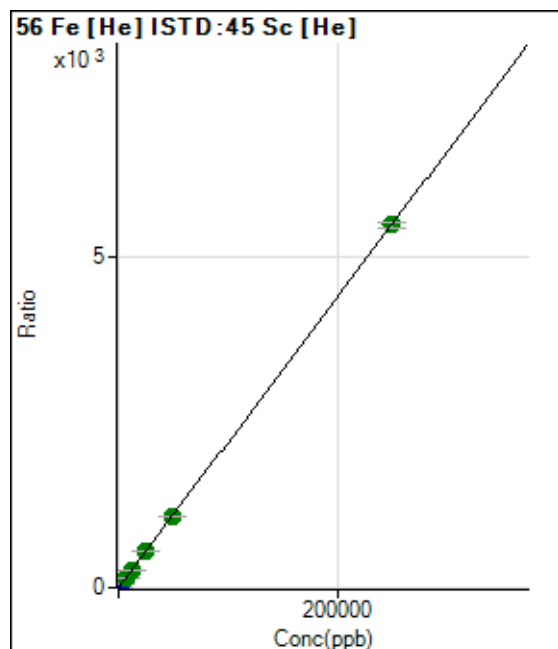
$$y = 0.0092 * x + 7.2384E-004$$

$$R = 1.0000$$

$$DL = 0.06203$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	803.76	0.0436	P	6.2
2	☐	5.000					
3	☐	50.000	47.232	20632.44	1.0773	P	3.4
4	☐	2500.000	2553.703	1090738.04	55.9357	P	2.4
5	☐	6250.000	6621.460	2743925.70	144.9656	A	4.7
6	☐	12500.000	12477.465	5447242.89	273.1343	A	1.4
7	☐	25000.000	25053.735	10545201.85	548.3875	A	1.6
8	☐	50000.000	49323.473	21219082.42	1,079.572	A	1.2
9	☐	250000.00	250121.23	100716858.7	5,474.375	A	1.8

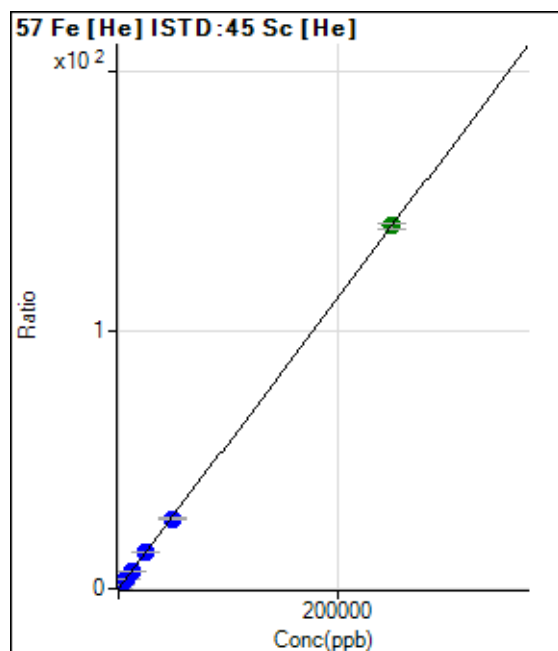
$$y = 0.0219 * x + 0.0436$$

$$R = 1.0000$$

$$DL = 0.3713$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.93	0.0014	P	36.3
2	☐	5.000					
3	☐	50.000	46.729	529.66	0.0276	P	6.5
4	☐	2500.000	2514.248	27540.70	1.4125	P	3.6
5	☐	6250.000	6366.132	67656.46	3.5744	P	4.8
6	☐	12500.000	12225.987	136873.21	6.8632	P	1.7
7	☐	25000.000	24765.663	267323.25	13.9011	P	1.4
8	☐	50000.000	48363.386	533545.87	27.1453	P	1.0
9	☐	250000.00	250361.41	2585260.39	140.5162	A	1.7

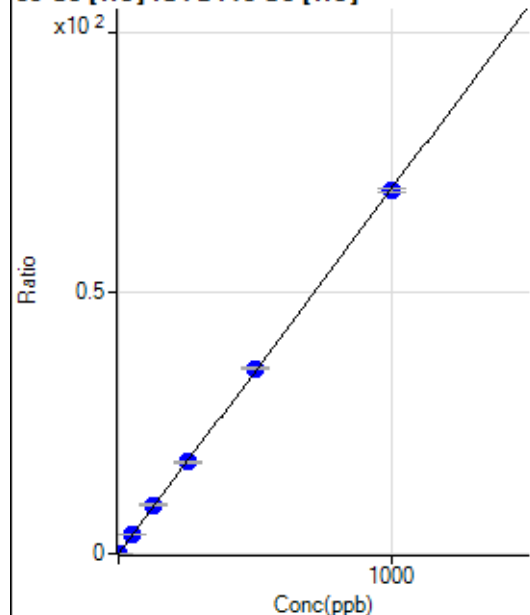
$$y = 5.6125E-004 * x + 0.0014$$

$$R = 1.0000$$

$$DL = 2.757$$

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	78.89	0.0043	P	14.4
2	☐	0.100					
3	☐	1.000	0.957	1365.64	0.0713	P	7.9
4	☐	50.000	51.740	70660.45	3.6235	P	2.0
5	☐	125.000	132.144	175054.25	9.2477	P	4.5
6	☐	250.000	251.339	350717.36	17.5854	P	1.3
7	☐	500.000	508.502	684055.68	35.5739	P	1.6
8	☐	1000.000	994.434	1367333.28	69.5647	P	1.1
9	☐			1797.93	0.0977	P	4.1

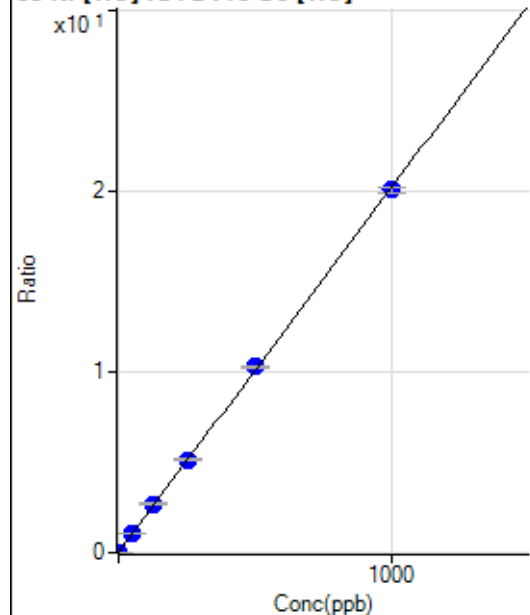
$$y = 0.0699 * x + 0.0043$$

$$R = 0.9999$$

$$DL = 0.02648$$

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	256.67	0.0139	P	4.7
2	☐	0.100					
3	☐	1.000	0.972	643.36	0.0335	P	7.0
4	☐	50.000	52.358	20900.38	1.0720	P	4.0
5	☐	125.000	133.332	51251.87	2.7083	P	5.6
6	☐	250.000	254.351	102789.16	5.1538	P	1.1
7	☐	500.000	508.192	197740.21	10.2834	P	0.4
8	☐	1000.000	993.657	394945.23	20.0937	P	1.3
9	☐			6030.29	0.3278	P	4.1

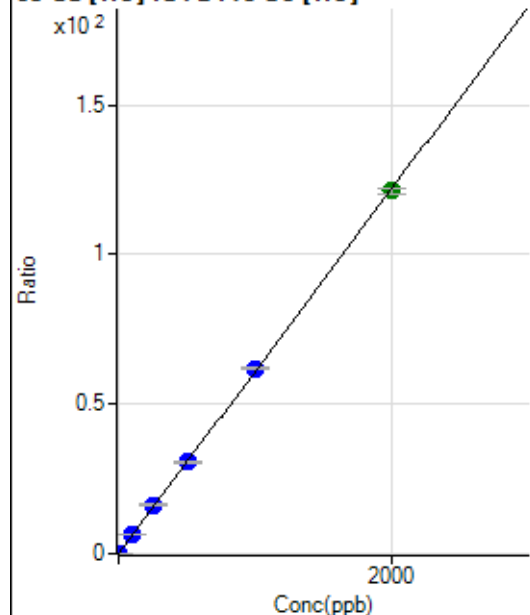
$$y = 0.0202 * x + 0.0139$$

$$R = 0.9999$$

$$DL = 0.09657$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	105.56	0.0058	P	21.5
2	☐	0.200					
3	☐	2.000	1.956	2393.58	0.1250	P	5.1
4	☐	100.000	103.093	122654.99	6.2897	P	1.8
5	☐	250.000	266.003	306994.85	16.2197	P	4.9
6	☐	500.000	503.406	612093.23	30.6903	P	1.1
7	☐	1000.000	1014.694	1189442.83	61.8553	P	1.2
8	☐	2000.000	1989.646	2383792.59	121.2825	A	1.4
9	☐			3564.96	0.1938	P	4.0

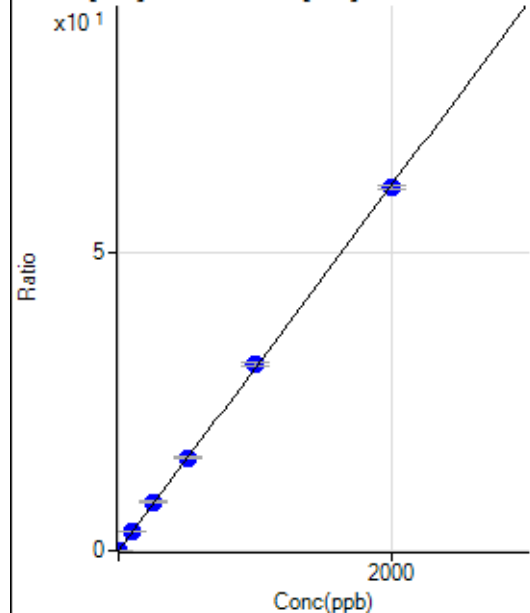
$$y = 0.0610 * x + 0.0058$$

$$R = 0.9999$$

$$DL = 0.06101$$

Weight: <None>

Min Conc: 0

⁶⁵Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0029	P	29.9
2	☐	0.200					
3	☐	2.000	1.816	1123.40	0.0587	P	3.2
4	☐	100.000	104.582	62676.39	3.2137	P	1.1
5	☐	250.000	266.804	155130.87	8.1941	P	4.0
6	☐	500.000	506.392	310107.29	15.5498	P	1.8
7	☐	1000.000	1020.639	602632.22	31.3378	P	1.5
8	☐	2000.000	1985.753	1198345.56	60.9681	P	1.2
9	☐			1724.58	0.0937	P	4.3

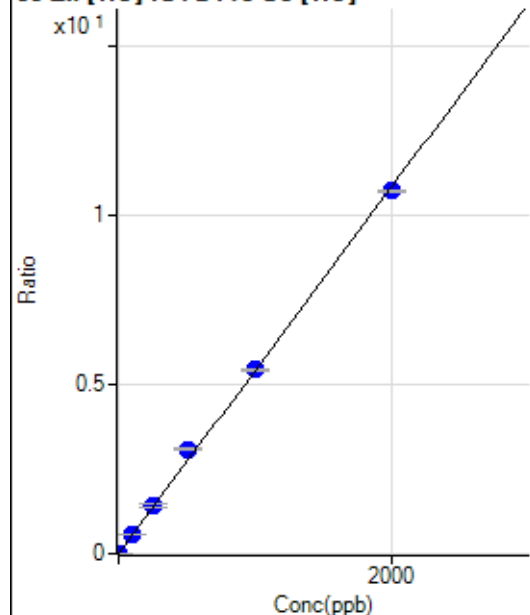
$$y = 0.0307 * x + 0.0029$$

$$R = 0.9999$$

$$DL = 0.08497$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.00	0.0016	P	40.3
2	☐	0.200					
3	☐	2.000	2.199	260.01	0.0136	P	11.5
4	☐	100.000	103.692	11000.09	0.5642	P	3.9
5	☐	250.000	262.464	26977.57	1.4256	P	5.5
6	☐	500.000	568.077	61498.00	3.0836	P	1.4
7	☐	1000.000	1004.267	104803.26	5.4501	P	1.1
8	☐	2000.000	1979.105	211082.15	10.7388	P	0.6
9	☐			743.37	0.0403	P	11.5

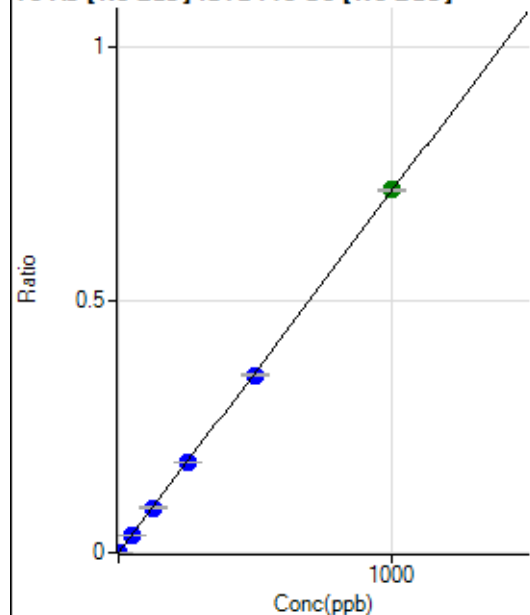
$$y = 0.0054 * x + 0.0016$$

$$R = 0.9993$$

$$DL = 0.362$$

Weight: <None>

Min Conc: 0

75 As [No Gas] ISTD:45 Sc [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	172.23	0.0001	P	8.0
2	☐	0.100					
3	☐	1.000	0.884	1841.88	0.0007	P	8.0
4	☐	50.000	49.929	94196.37	0.0358	P	0.5
5	☐	125.000	124.778	235342.59	0.0893	P	1.2
6	☐	250.000	250.373	482130.10	0.1792	P	0.5
7	☐	500.000	491.037	953652.92	0.3513	P	1.2
8	☐	1000.000	1004.420	1917990.99	0.7185	A	0.6
9	☐			872.30	0.0003	P	12.2

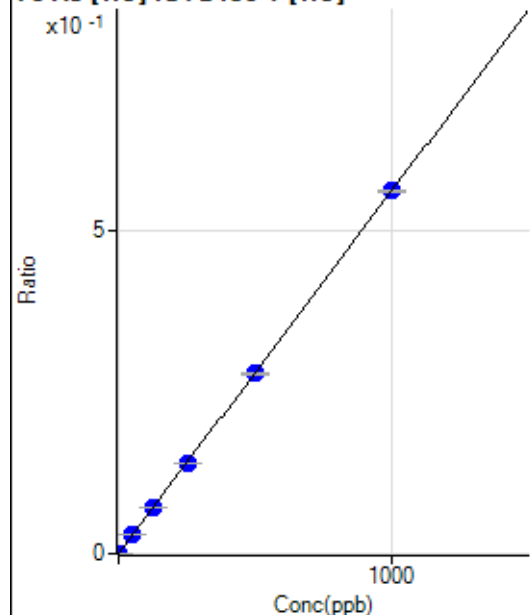
$$y = 7.1529E-004 * x + 6.4531E-005$$

$$R = 0.9999$$

$$DL = 0.02166$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.70	0.0000	P	5.6
2	☐	0.100					
3	☐	1.000	1.086	90.12	0.0006	P	10.1
4	☐	50.000	50.938	4082.74	0.0286	P	2.2
5	☐	125.000	128.552	9968.49	0.0720	P	1.7
6	☐	250.000	248.911	19907.00	0.1394	P	0.7
7	☐	500.000	498.001	39346.01	0.2789	P	1.0
8	☐	1000.000	1000.781	79872.16	0.5604	P	0.6
9	☐			38.27	0.0003	P	27.9

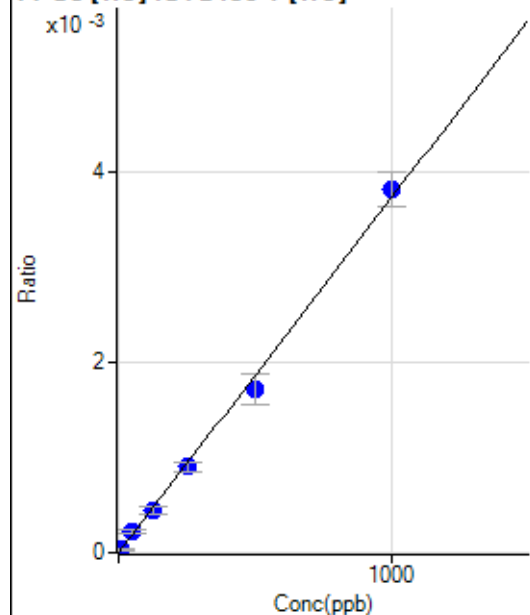
$$y = 5.5995\text{E-}004 * x + 2.7578\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.008204$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	8.407	4.44	0.0000	P	43.1
4	☐	50.000	60.477	32.22	0.0002	P	15.4
5	☐	125.000	120.273	62.22	0.0004	P	16.3
6	☐	250.000	242.301	128.89	0.0009	P	10.3
7	☐	500.000	460.038	242.23	0.0017	P	18.0
8	☐	1000.000	1021.956	542.24	0.0038	P	9.6
9	☐			0.00	0.0000	P	

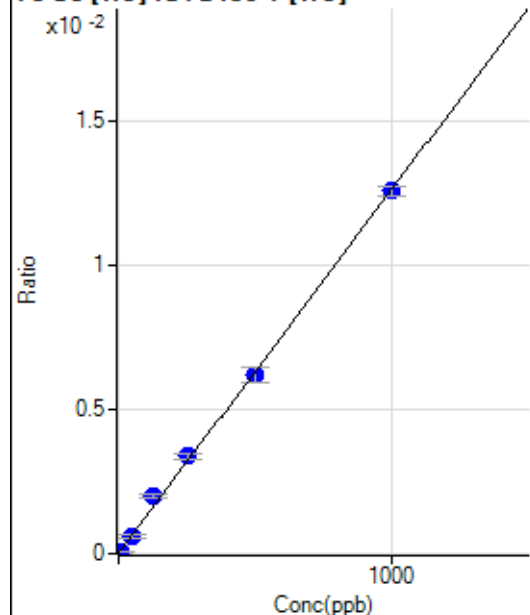
$$y = 3.7249\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9986$$

$$DL = 0$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.85	0.0000	P	97.0
2	☐	0.500					
3	☐	5.000	3.086	7.41	0.0001	P	43.4
4	☐	50.000	46.557	85.81	0.0006	P	14.7
5	☐	125.000	158.560	279.02	0.0020	P	5.3
6	☐	250.000	266.871	482.73	0.0034	P	7.0
7	☐	500.000	489.877	872.26	0.0062	P	8.0
8	☐	1000.000	996.830	1793.35	0.0126	P	2.6
9	☐			1.23	0.0000	P	86.6

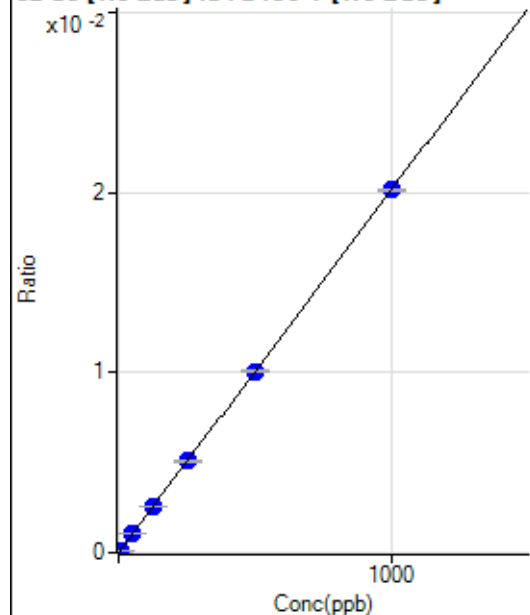
$$y = 1.2611\text{E-}005 * x + 1.3328\text{E-}005$$

$$R = 0.9992$$

$$DL = 3.075$$

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	-26.43	0.0000	P	-227.
2	☐	0.500					
3	☐	5.000	4.795	444.71	0.0001	P	1.7
4	☐	50.000	51.281	5018.54	0.0010	P	1.1
5	☐	125.000	126.078	12490.47	0.0025	P	0.5
6	☐	250.000	252.603	25662.89	0.0051	P	1.6
7	☐	500.000	499.015	50897.40	0.0100	P	0.8
8	☐	1000.000	999.644	100910.74	0.0201	P	0.8
9	☐			49.21	0.0000	P	145.0

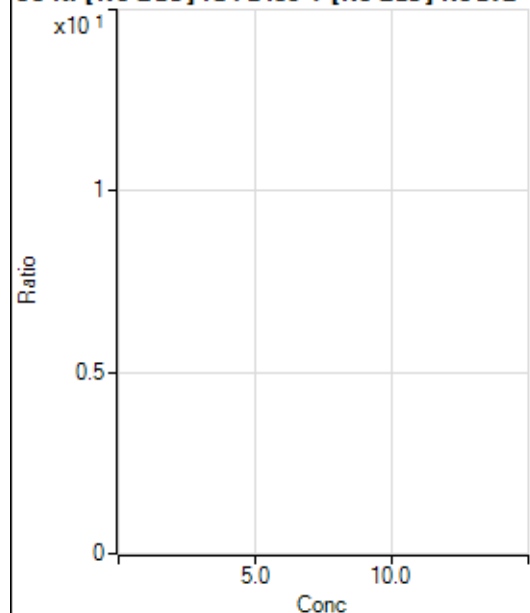
$$y = 2.0150\text{E-}005 * x - 5.4007\text{E-}006$$

$$R = 1.0000$$

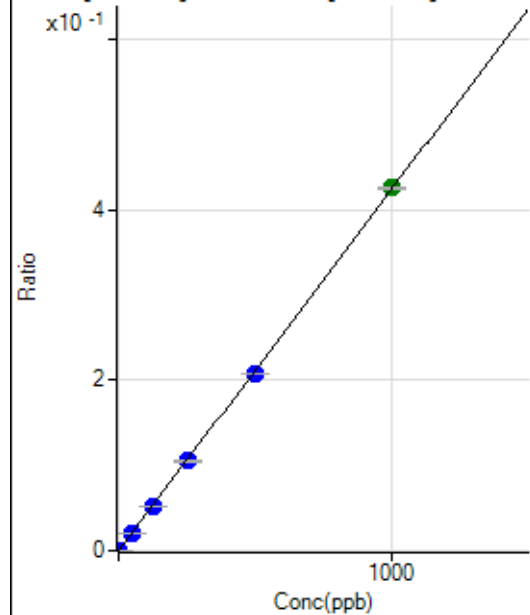
$$DL = 1.832$$

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	☐			340.01	0.0001	P	10.9
2	☐						
3	☐			302.23	0.0001	P	5.6
4	☐			305.57	0.0001	P	7.8
5	☐			312.23	0.0001	P	9.3
6	☐			305.57	0.0001	P	8.0
7	☐			317.79	0.0001	P	9.0
8	☐			306.68	0.0001	P	10.7
9	☐			335.57	0.0001	P	11.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	541.70	0.0001	P	15.3
2	☐	0.100					
3	☐	1.000	0.844	2286.39	0.0005	P	0.6
4	☐	50.000	49.456	102852.85	0.0211	P	1.9
5	☐	125.000	123.695	258726.41	0.0525	P	1.2
6	☐	250.000	247.689	530207.32	0.1050	P	1.4
7	☐	500.000	491.503	1055164.31	0.2083	P	0.3
8	☐	1000.000	1005.017	2134087.87	0.4259	A	0.8
9	☐			67813.54	0.0143	P	0.9

$$y = 4.2366E-004 * x + 1.1138E-004$$

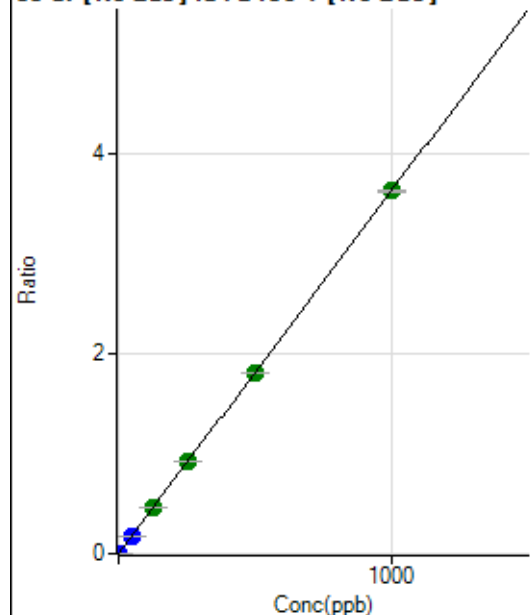
$$R = 0.9999$$

$$DL = 0.1207$$

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	119.45	0.0000	P	16.7
2	☐	0.100					
3	☐	1.000	0.913	16307.57	0.0033	P	6.0
4	☐	50.000	49.805	884296.03	0.1811	P	0.3
5	☐	125.000	127.606	2286081.84	0.4640	A	0.2
6	☐	250.000	253.263	4648105.83	0.9209	A	1.2
7	☐	500.000	498.333	9176829.63	1.8120	A	0.4
8	☐	1000.000	999.702	18214857.87	3.6349	A	0.4
9	☐			590478.46	0.1244	P	0.5

$$y = 0.0036 * x + 2.4553E-005$$

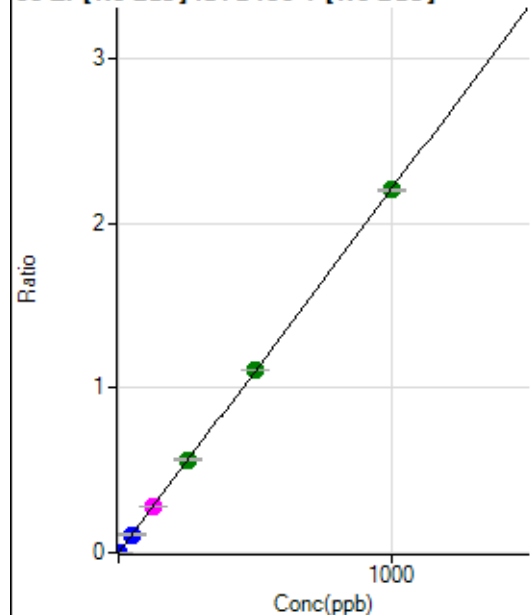
$$R = 1.0000$$

$$DL = 0.003379$$

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	322.24	0.0001	P	5.4
2	☐	0.100					
3	☐	1.000	0.917	10198.70	0.0021	P	0.4
4	☐	50.000	50.066	540297.62	0.1107	P	0.8
5	☐	125.000	125.699	1368334.59	0.2777	M	0.6
6	☐	250.000	256.029	2854848.20	0.5656	A	1.6
7	☐	500.000	501.021	5605404.03	1.1068	A	0.4
8	☐	1000.000	997.891	11047423.94	2.2044	A	0.7
9	☐			2903.23	0.0006	P	5.0

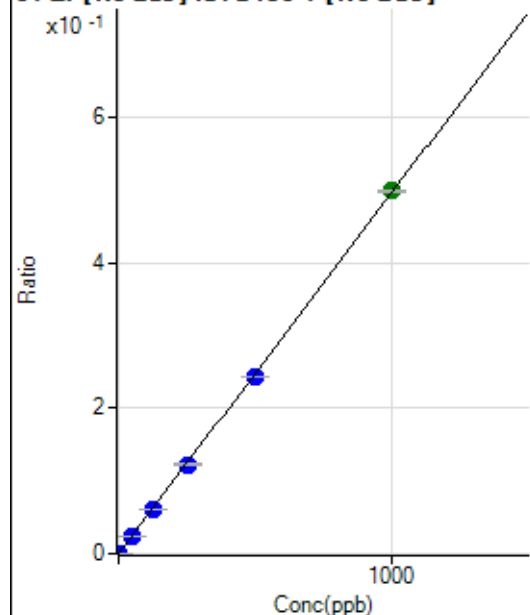
$$y = 0.0022 * x + 6.6308E-005$$

$$R = 1.0000$$

$$DL = 0.004854$$

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	69.45	0.0000	P	17.9
2	☐	0.100					
3	☐	1.000	0.988	2461.45	0.0005	P	6.8
4	☐	50.000	48.992	118865.54	0.0243	P	0.8
5	☐	125.000	123.291	301741.75	0.0612	P	0.9
6	☐	250.000	246.602	618223.45	0.1225	P	1.8
7	☐	500.000	491.575	1236529.56	0.2442	P	0.3
8	☐	1000.000	1005.326	2501992.57	0.4993	A	0.6
9	☐			594.48	0.0001	P	9.3

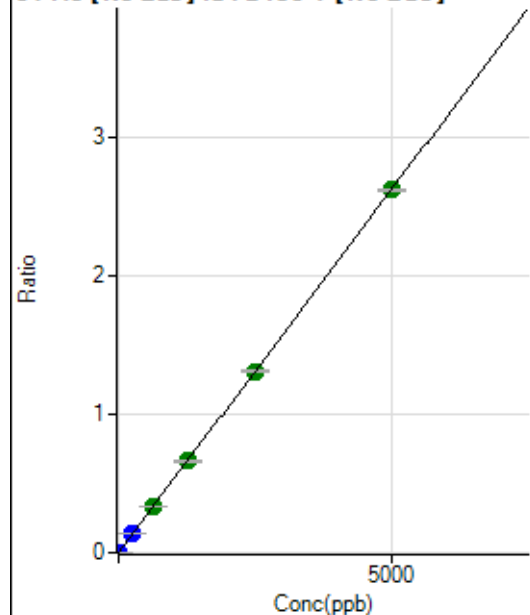
$$y = 4.9665\text{E-}004 * x + 1.4284\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.01541$$

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	180.56	0.0000	P	32.1
2	☐	0.500					
3	☐	5.000	4.565	11841.81	0.0024	P	2.1
4	☐	250.000	252.103	645169.81	0.1321	P	0.2
5	☐	625.000	636.410	1643124.69	0.3335	A	1.1
6	☐	1250.000	1264.868	3345607.54	0.6628	A	1.2
7	☐	2500.000	2496.893	6626636.69	1.3084	A	0.5
8	☐	5000.000	4996.306	13120471.91	2.6181	A	0.5
9	☐			9167.39	0.0019	P	1.3

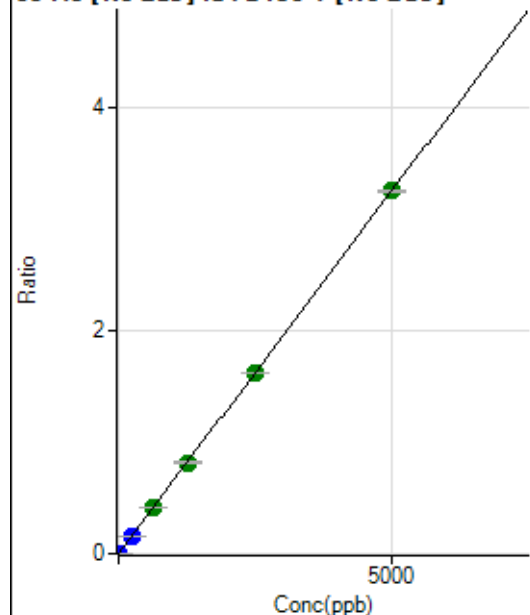
$$y = 5.2401\text{E-}004 * x + 3.7219\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.06847$$

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	75.00	0.0000	P	33.0
2	☐	0.500					
3	☐	5.000	4.439	14163.50	0.0029	P	1.9
4	☐	250.000	247.870	788038.98	0.1614	P	0.4
5	☐	625.000	633.980	2033716.97	0.4128	A	1.4
6	☐	1250.000	1252.919	4117434.60	0.8158	A	1.4
7	☐	2500.000	2486.472	8199019.54	1.6189	A	0.4
8	☐	5000.000	5005.019	16330239.43	3.2587	A	0.3
9	☐			14207.99	0.0030	P	3.1

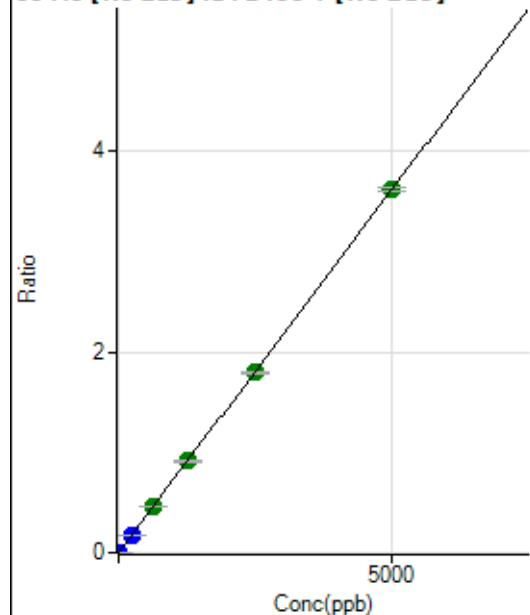
$$y = 6.5108\text{E-}004 * x + 1.5426\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.02343$$

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	136.12	0.0000	P	8.5
2	☐	0.500					
3	☐	5.000	4.508	16007.42	0.0033	P	2.4
4	☐	250.000	248.965	877962.80	0.1798	P	0.5
5	☐	625.000	633.795	2255103.78	0.4577	A	0.8
6	☐	1250.000	1262.747	4602815.60	0.9119	A	1.4
7	☐	2500.000	2483.372	9083001.59	1.7934	A	0.6
8	☐	5000.000	5004.080	18108614.47	3.6138	A	1.0
9	☐			17122.64	0.0036	P	3.5

$$y = 7.2217\text{E-}004 * x + 2.7995\text{E-}005$$

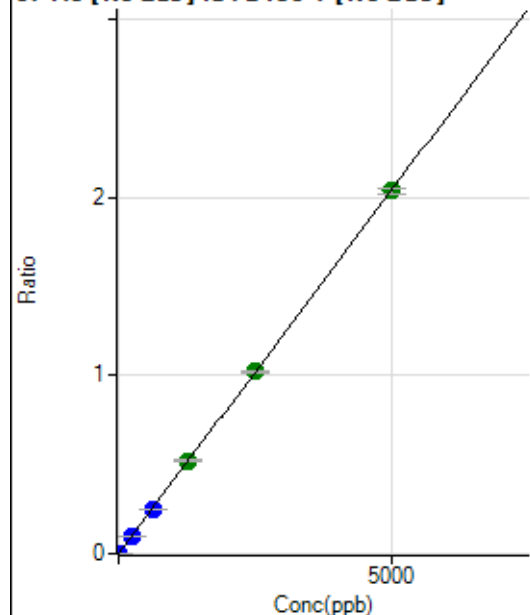
$$R = 1.0000$$

$$DL = 0.009872$$

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	83.34	0.0000	P	10.2
2	☐	0.500					
3	☐	5.000	4.452	8939.47	0.0018	P	2.8
4	☐	250.000	246.139	490460.55	0.1005	P	0.4
5	☐	625.000	617.606	1241639.00	0.2520	P	1.1
6	☐	1250.000	1276.005	2627902.99	0.5207	A	1.8
7	☐	2500.000	2505.772	5178353.37	1.0225	A	0.7
8	☐	5000.000	4991.731	10205846.58	2.0368	A	1.4
9	☐			8433.57	0.0018	P	4.1

$$y = 4.0804E-004 * x + 1.7151E-005$$

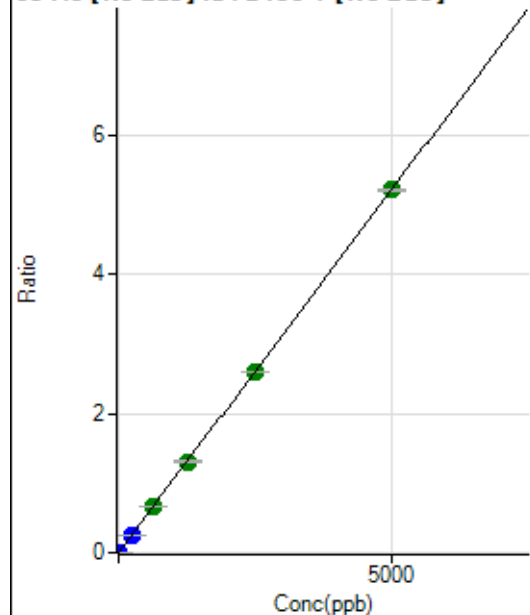
$$R = 1.0000$$

$$DL = 0.01287$$

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	119.45	0.0000	P	43.7
2	☐	0.500					
3	☐	5.000	4.454	22731.04	0.0047	P	0.8
4	☐	250.000	249.209	1267346.71	0.2596	P	0.2
5	☐	625.000	634.789	3257192.09	0.6612	A	1.3
6	☐	1250.000	1255.830	6601462.56	1.3080	A	1.7
7	☐	2500.000	2495.399	13162562.71	2.5990	A	0.4
8	☐	5000.000	4999.660	26092437.04	5.2071	A	0.7
9	☐			22497.14	0.0047	P	2.6

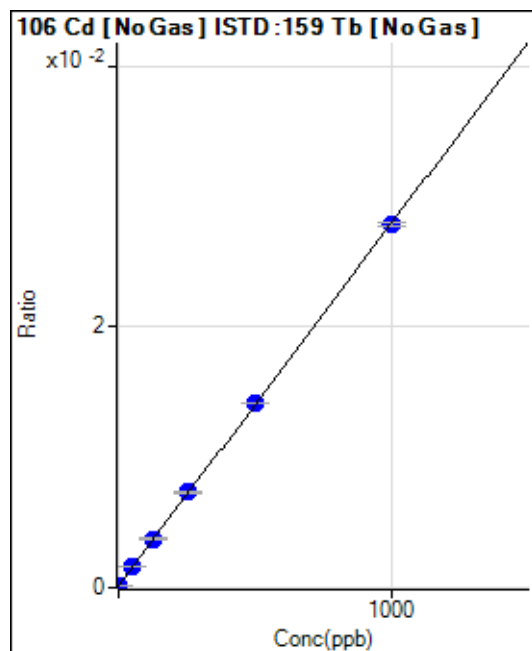
$$y = 0.0010 * x + 2.4510E-005$$

$$R = 1.0000$$

$$DL = 0.03086$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	919.52	0.0002	P	14.1
2	☐	0.100					
3	☐	1.000	1.761	1200.12	0.0002	P	11.3
4	☐	50.000	53.648	9740.07	0.0016	P	1.9
5	☐	125.000	129.290	22458.40	0.0037	P	1.5
6	☐	250.000	257.614	44850.73	0.0073	P	0.7
7	☐	500.000	503.509	88202.44	0.0141	P	0.7
8	☐	1000.000	995.622	171660.12	0.0278	P	1.1
9	☐			916.74	0.0002	P	8.2

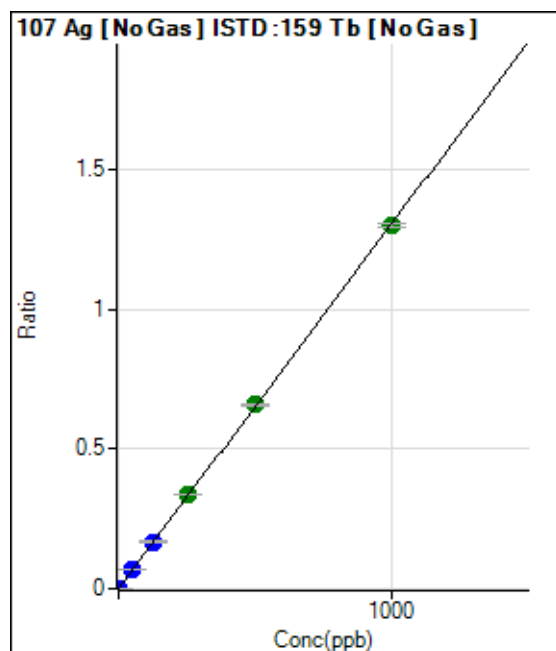
$$y = 2.7793\text{E-}005 * x + 1.5510\text{E-}004$$

$$R = 1.0000$$

$$DL = 2.363$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	119.45	0.0000	P	17.2
2	☐	0.100					
3	☐	1.000	0.969	7549.67	0.0013	P	4.3
4	☐	50.000	51.567	398032.08	0.0673	P	1.1
5	☐	125.000	129.077	1008563.26	0.1683	P	0.7
6	☐	250.000	259.828	2077669.01	0.3388	A	0.3
7	☐	500.000	503.951	4096870.36	0.6572	A	0.1
8	☐	1000.000	994.980	8004276.91	1.2975	A	0.9
9	☐			641.72	0.0001	P	18.1

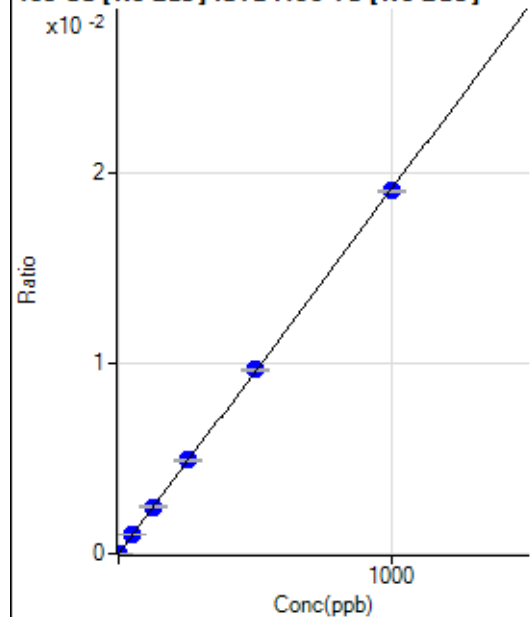
$$y = 0.0013 * x + 2.0132\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.007982$$

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	8.33	0.0000	P	0.5
2	☐	0.100					
3	☐	1.000	0.964	116.67	0.0000	P	37.3
4	☐	50.000	51.809	5875.01	0.0010	P	2.2
5	☐	125.000	127.284	14601.20	0.0024	P	4.0
6	☐	250.000	257.106	30175.82	0.0049	P	1.5
7	☐	500.000	504.367	60178.18	0.0097	P	1.0
8	☐	1000.000	995.664	117566.52	0.0191	P	0.6
9	☐			33.33	0.0000	P	10.7

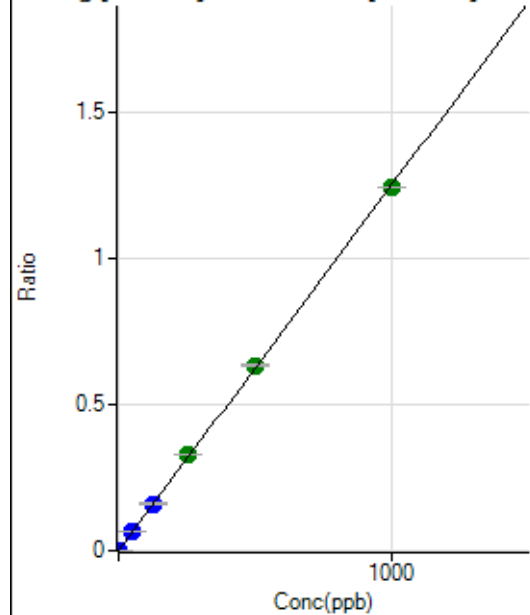
$$y = 1.9137\text{E-}005 * x + 1.4045\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.001074$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	58.34	0.0000	P	14.7
2	☐	0.100					
3	☐	1.000	0.938	6960.48	0.0012	P	4.6
4	☐	50.000	51.536	381647.27	0.0645	P	0.8
5	☐	125.000	128.805	965716.20	0.1612	P	0.8
6	☐	250.000	263.104	2018630.17	0.3292	A	1.7
7	☐	500.000	507.180	3956552.00	0.6347	A	0.7
8	☐	1000.000	992.582	7663166.40	1.2421	A	0.0
9	☐			688.94	0.0001	P	7.8

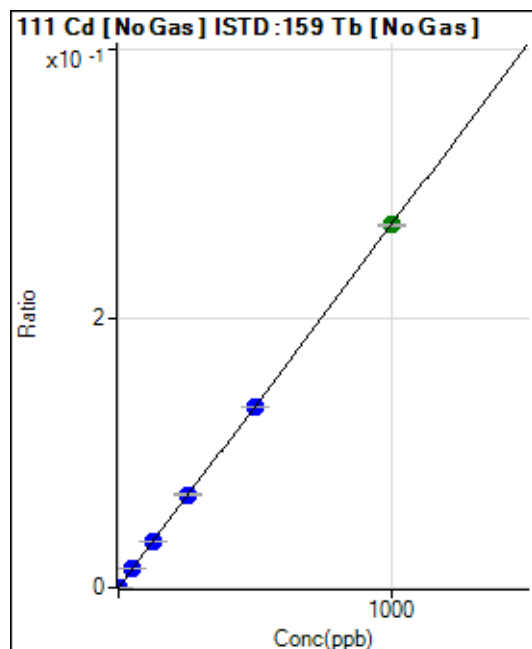
$$y = 0.0013 * x + 9.8396\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.003467$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	655.89	0.0001	P	14.8
2	☐	0.100					
3	☐	1.000	1.041	2298.82	0.0004	P	7.2
4	☐	50.000	51.407	82540.50	0.0139	P	0.6
5	☐	125.000	126.952	205406.94	0.0343	P	1.0
6	☐	250.000	256.022	423241.00	0.0690	P	0.7
7	☐	500.000	497.687	835842.62	0.1341	P	0.5
8	☐	1000.000	999.336	1660520.79	0.2691	A	0.8
9	☐			864.23	0.0001	P	4.3

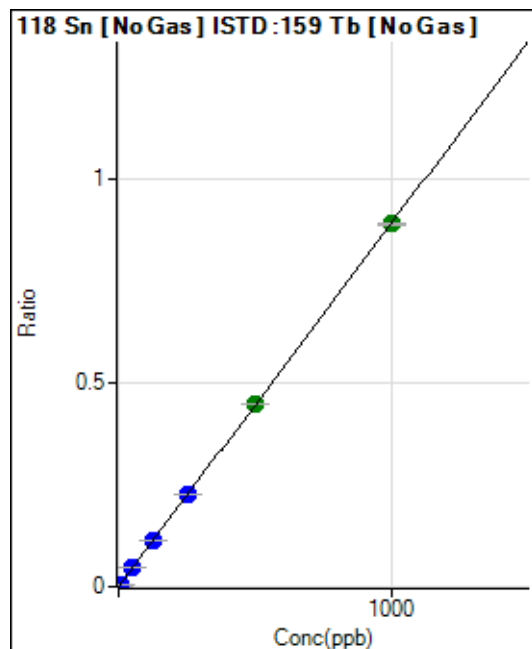
$$y = 2.6919\text{E-}004 * x + 1.1064\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.1828$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1114.00	0.0002	P	8.7
2	☐	0.500					
3	☐	5.000	4.563	25024.25	0.0043	P	1.6
4	☐	50.000	50.631	268080.64	0.0453	P	1.4
5	☐	125.000	125.818	672868.69	0.1123	P	1.0
6	☐	250.000	253.674	1387237.05	0.2263	P	0.6
7	☐	500.000	501.822	2788960.00	0.4474	A	0.4
8	☐	1000.000	998.039	5488097.09	0.8896	A	0.8
9	☐			7274.53	0.0012	P	3.3

$$y = 8.9115\text{E-}004 * x + 1.8784\text{E-}004$$

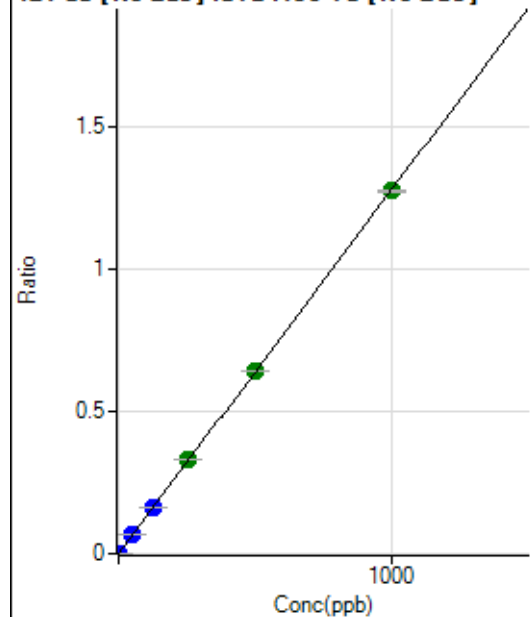
$$R = 1.0000$$

$$DL = 0.05484$$

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	188.90	0.0000	P	8.8
2	☐	0.200					
3	☐	2.000	1.749	13340.60	0.0023	P	3.6
4	☐	50.000	50.802	384403.20	0.0650	P	1.1
5	☐	125.000	126.277	967185.75	0.1614	P	0.5
6	☐	250.000	257.689	2019653.43	0.3294	A	0.8
7	☐	500.000	501.033	3992354.47	0.6404	A	0.4
8	☐	1000.000	997.362	7865142.01	1.2748	A	0.2
9	☐			9792.93	0.0016	P	7.4

$$y = 0.0013 * x + 3.1843E-005$$

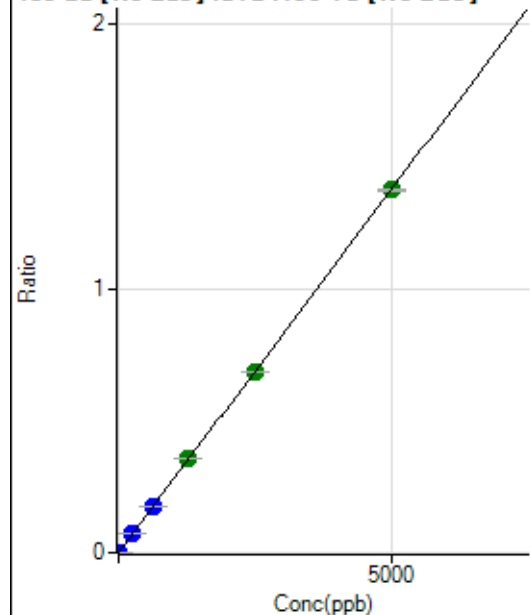
$$R = 1.0000$$

$$DL = 0.00658$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	47.23	0.0000	P	20.2
2	☐	1.000					
3	☐	10.000	9.226	14964.56	0.0025	P	2.0
4	☐	250.000	253.050	411640.65	0.0696	P	1.1
5	☐	625.000	629.630	1036911.79	0.1731	P	0.6
6	☐	1250.000	1289.119	2172673.53	0.3543	A	0.5
7	☐	2500.000	2493.932	4273410.34	0.6855	A	0.5
8	☐	5000.000	4992.525	8465935.78	1.3723	A	0.7
9	☐			2325.32	0.0004	P	2.5

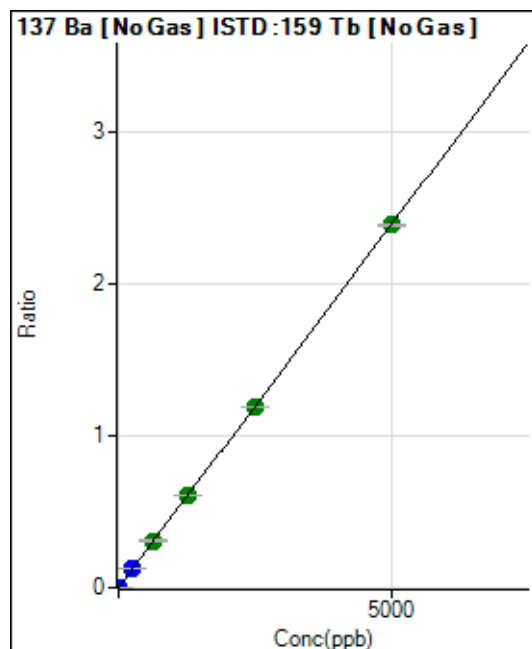
$$y = 2.7487E-004 * x + 7.9608E-006$$

$$R = 1.0000$$

$$DL = 0.01753$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69.45	0.0000	P	14.1
2	☐	1.000					
3	☐	10.000	9.074	25553.34	0.0043	P	1.1
4	☐	250.000	252.774	714225.16	0.1207	P	0.2
5	☐	625.000	644.500	1843653.19	0.3077	A	1.3
6	☐	1250.000	1278.760	3743882.85	0.6106	A	0.6
7	☐	2500.000	2492.294	7418227.60	1.1900	A	0.3
8	☐	5000.000	4994.088	14711747.90	2.3845	A	0.3
9	☐			4189.73	0.0007	P	2.4

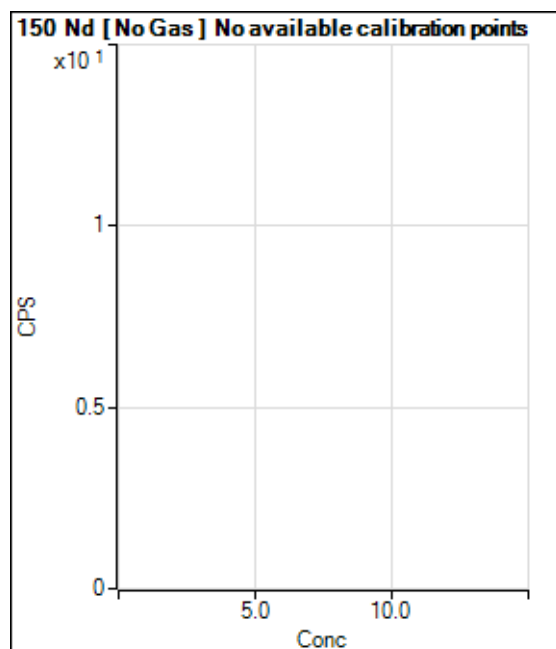
$$y = 4.7746E-004 * x + 1.1712E-005$$

$$R = 1.0000$$

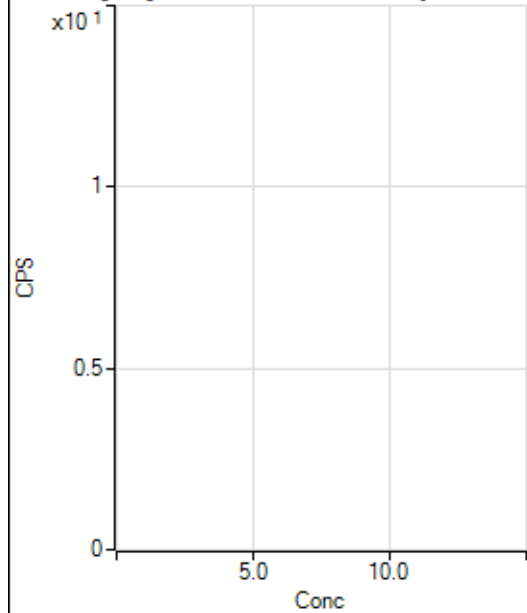
$$DL = 0.0104$$

Weight: <None>

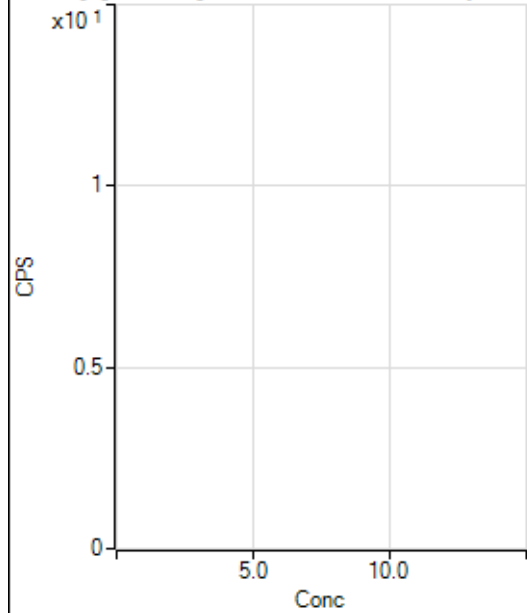
Min Conc: 0



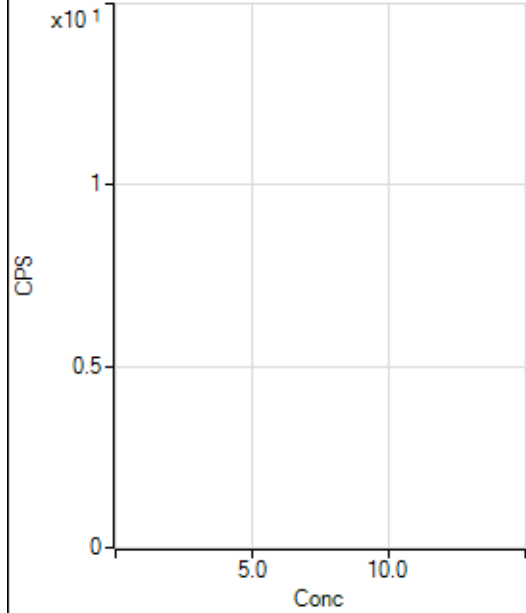
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			17.78		P	43.3
2	☐						
3	☐			11.11		P	69.3
4	☐			37.78		P	36.7
5	☐			51.11		P	15.1
6	☐			68.89		P	5.6
7	☐			197.79		P	22.4
8	☐			348.91		P	27.2
9	☐			95.56		P	8.1

150 Nd [He] No available calibration points

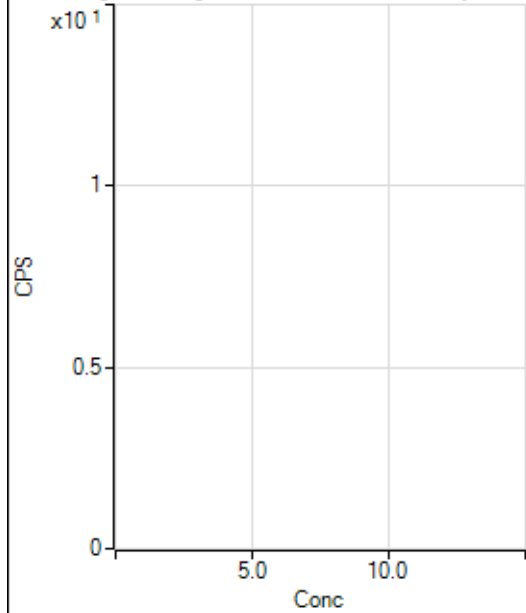
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			0.00		P	
6	☐			2.22		P	86.6
7	☐			3.33		P	100.1
8	☐			7.78		P	49.5
9	☐			12.22		P	68.7

156 Dy [No Gas] No available calibration points

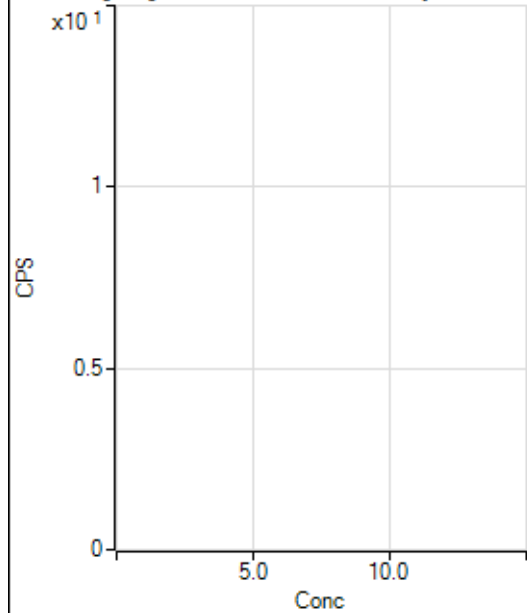
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	43.3
2	☐						
3	☐			11.11		P	173.2
4	☐			8.33		P	173.2
5	☐			25.00		P	66.7
6	☐			22.22		P	86.6
7	☐			36.11		P	53.3
8	☐			102.78		P	33.8
9	☐			83.34		P	40.0

156 Dy [He] No available calibration points

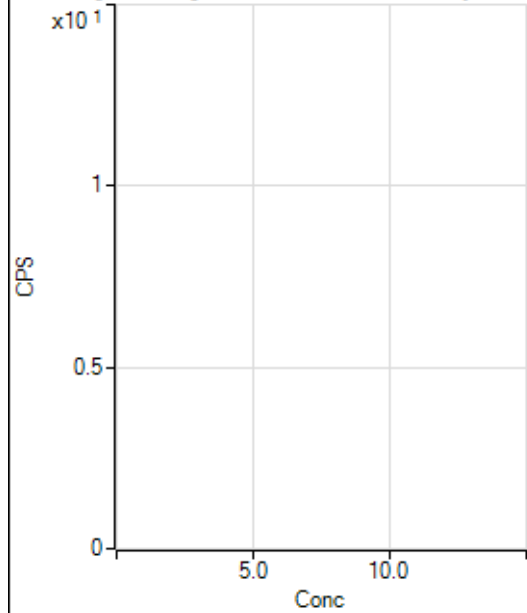
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			1.11		P	173.2
4	☐			0.00		P	
5	☐			0.00		P	
6	☐			6.67		P	0.0
7	☐			3.33		P	100.1
8	☐			5.56		P	91.6
9	☐			11.11		P	34.6

160 Gd [No Gas] Noavailable calibration poin_

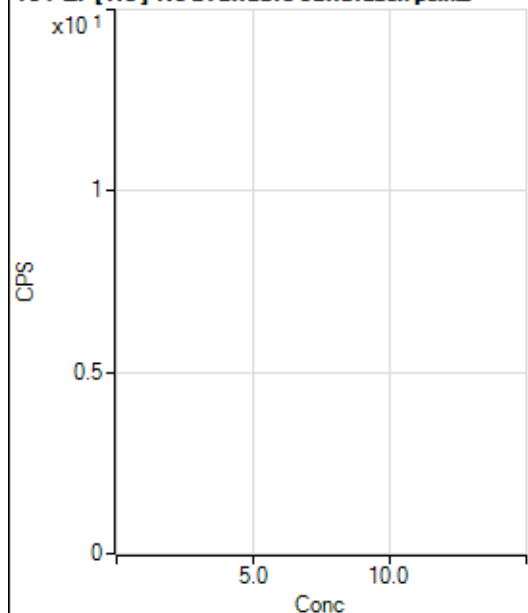
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			50.00		P	86.6
2	☐						
3	☐			61.11		P	20.8
4	☐			44.45		P	39.0
5	☐			38.89		P	53.9
6	☐			52.78		P	24.1
7	☐			52.78		P	32.9
8	☐			72.22		P	6.7
9	☐			52.78		P	32.9

160 Gd [He] No available calibration points

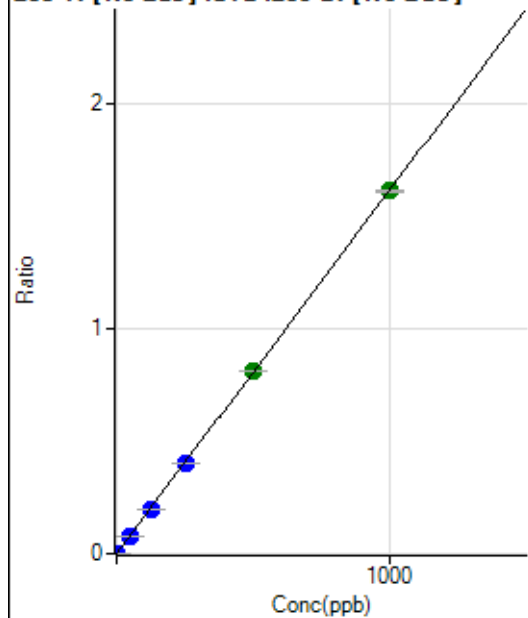
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.2
2	☐						
3	☐			2.22		P	86.6
4	☐			4.44		P	114.6
5	☐			4.44		P	43.4
6	☐			7.78		P	89.2
7	☐			7.78		P	89.2
8	☐			14.45		P	48.0
9	☐			15.55		P	24.8

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	57.7
2	☐						
3	☐			30.55		P	68.6
4	☐			16.67		P	50.0
5	☐			33.33		P	25.0
6	☐			25.00		P	57.7
7	☐			30.55		P	15.7
8	☐			27.78		P	69.3
9	☐			33.34		P	43.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	173.2
2	☐						
3	☐			5.56		P	91.6
4	☐			0.00		P	
5	☐			2.22		P	86.6
6	☐			2.22		P	86.6
7	☐			5.55		P	124.9
8	☐			6.67		P	100.0
9	☐			5.55		P	69.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	211.12	0.0001	P	26.9
2	☐	0.100					
3	☐	1.000	0.880	5673.77	0.0015	P	3.5
4	☐	50.000	49.278	304739.20	0.0795	P	2.0
5	☐	125.000	123.354	775636.68	0.1988	P	1.0
6	☐	250.000	249.452	1611383.91	0.4020	P	0.2
7	☐	500.000	503.327	3242139.05	0.8111	A	0.2
8	☐	1000.000	998.715	6329478.00	1.6094	A	0.5
9	☐			3028.30	0.0008	P	4.6

$$y = 0.0016 * x + 5.4513E-005$$

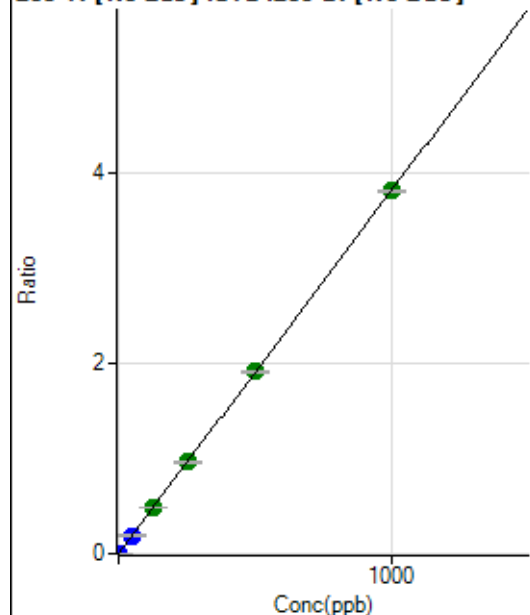
$$R = 1.0000$$

$$DL = 0.02729$$

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	525.04	0.0001	P	17.8
2	☐	0.100					
3	☐	1.000	0.927	14180.72	0.0037	P	1.4
4	☐	50.000	50.211	736885.38	0.1921	P	1.1
5	☐	125.000	126.357	1885435.61	0.4833	A	1.2
6	☐	250.000	252.022	3863288.24	0.9638	A	0.7
7	☐	500.000	500.518	7650696.00	1.9141	A	0.9
8	☐	1000.000	999.055	15025524.47	3.8204	A	0.5
9	☐			7355.24	0.0020	P	7.3

$$y = 0.0038 * x + 1.3534E-004$$

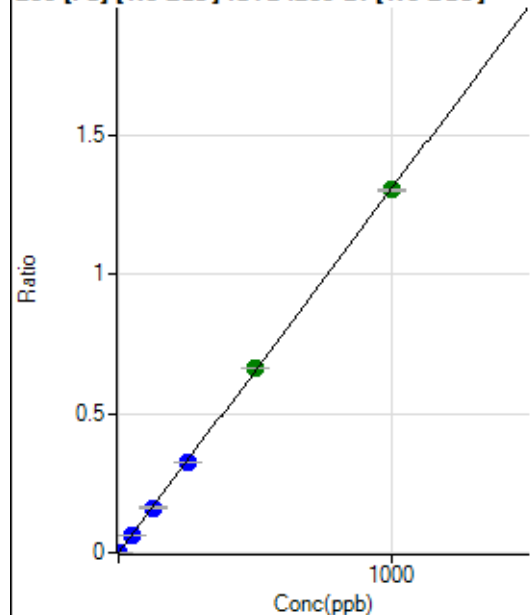
$$R = 1.0000$$

$$DL = 0.01885$$

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	3.5
2	☐	0.100					
3	☐	1.000	0.895	4880.73	0.0013	P	5.1
4	☐	50.000	49.810	249774.50	0.0651	P	0.3
5	☐	125.000	124.103	632430.99	0.1621	P	1.5
6	☐	250.000	248.997	1303379.35	0.3252	P	0.2
7	☐	500.000	506.373	2642882.87	0.6612	A	0.5
8	☐	1000.000	997.186	5120374.83	1.3020	A	0.7
9	☐			9778.11	0.0026	P	1.0

$$y = 0.0013 * x + 9.8420E-005$$

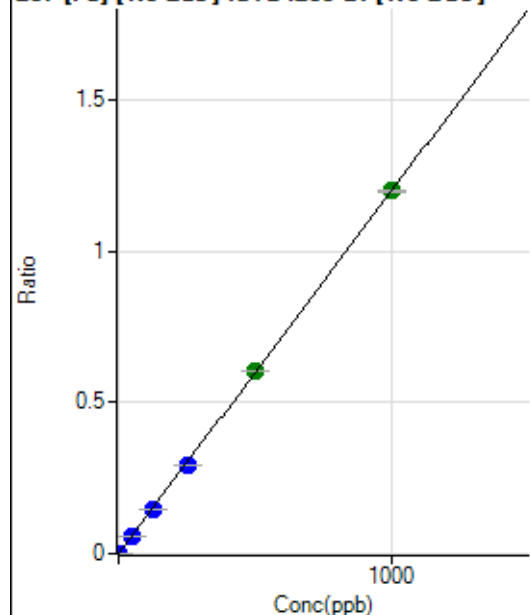
$$R = 1.0000$$

$$DL = 0.007974$$

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	383.35	0.0001	P	21.7
2	☐	0.100					
3	☐	1.000	0.854	4326.81	0.0011	P	3.3
4	☐	50.000	48.670	224177.32	0.0585	P	1.2
5	☐	125.000	122.421	572993.51	0.1469	P	1.0
6	☐	250.000	244.387	1174869.37	0.2931	P	0.4
7	☐	500.000	503.317	2412506.91	0.6036	A	0.6
8	☐	1000.000	1000.134	4716715.15	1.1992	A	0.5
9	☐			8567.97	0.0023	P	1.1

$$y = 0.0012 * x + 9.8926E-005$$

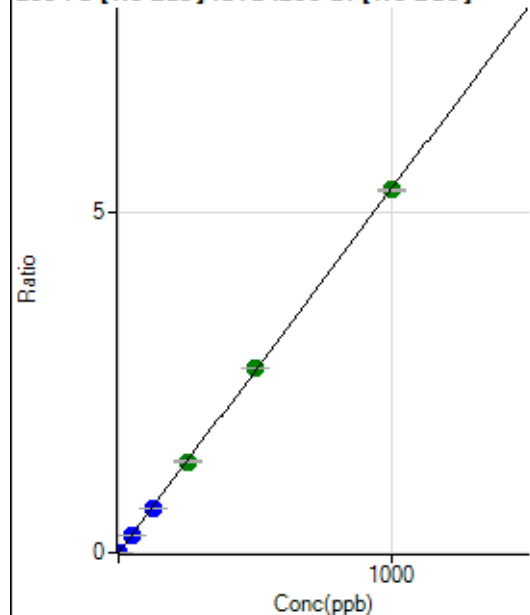
$$R = 1.0000$$

$$DL = 0.0536$$

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	1527.87	0.0004	P	8.0
2	☐	0.100					
3	☐	1.000	0.897	20008.73	0.0052	P	1.2
4	☐	50.000	49.282	1012456.69	0.2640	P	0.8
5	☐	125.000	123.408	2576596.78	0.6605	P	1.1
6	☐	250.000	250.957	5381957.24	1.3427	A	0.4
7	☐	500.000	505.788	10815335.45	2.7058	A	0.2
8	☐	1000.000	997.101	20977007.13	5.3337	A	0.5
9	☐			38655.41	0.0104	P	0.6

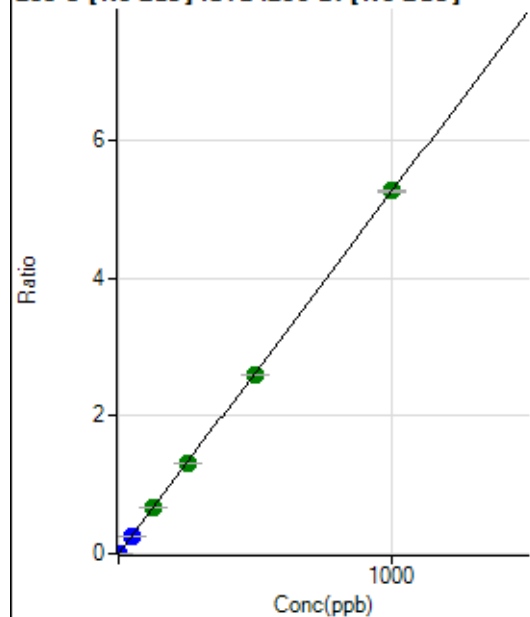
$$y = 0.0053 * x + 3.9419E-004$$

$$R = 1.0000$$

$$DL = 0.01771$$

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	200.01	0.0001	P	21.9
2	☐	0.100					
3	☐	1.000	0.868	17769.02	0.0046	P	1.4
4	☐	50.000	48.868	984533.82	0.2567	P	1.1
5	☐	125.000	126.082	2583535.30	0.6622	A	1.0
6	☐	250.000	248.539	5232386.10	1.3054	A	0.2
7	☐	500.000	494.728	10386344.68	2.5984	A	0.4
8	☐	1000.000	1002.923	20715602.02	5.2675	A	0.8
9	☐			1352.92	0.0004	P	5.1

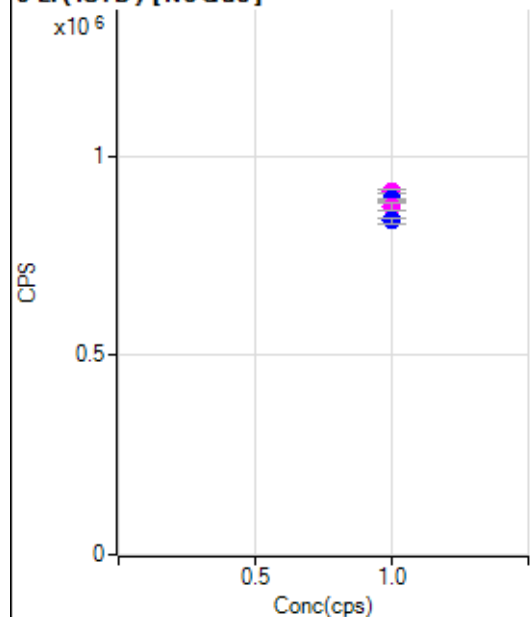
$$y = 0.0053 * x + 5.1580E-005$$

$$R = 1.0000$$

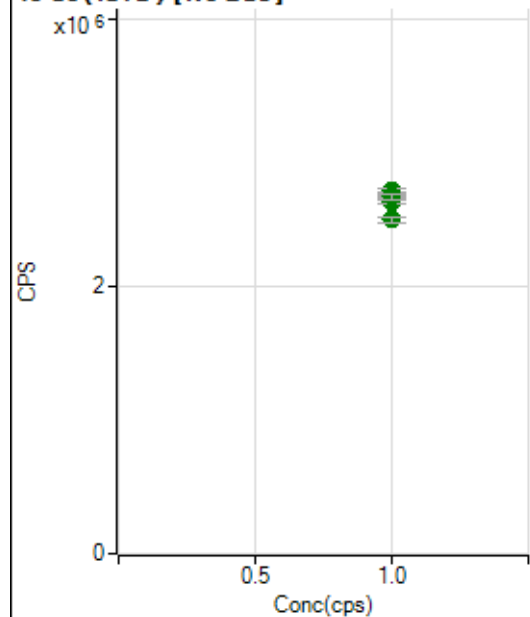
$$DL = 0.00645$$

Weight: <None>

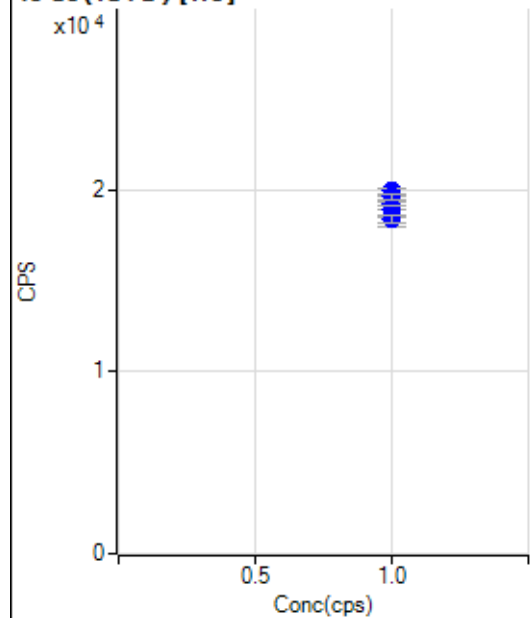
Min Conc: 0

6 Li (ISTD) [No Gas]

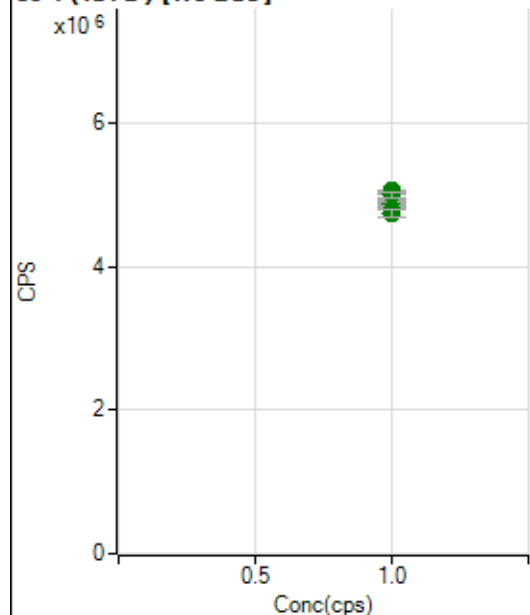
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		892049.97		P	0.0
2	☐	1.000					
3	☐	1.000		888241.62		M	0.8
4	☐	1.000		887693.08		P	1.0
5	☐	1.000		890900.39		P	0.6
6	☐	1.000		910568.99		M	1.2
7	☐	1.000		891649.09		P	0.4
8	☐	1.000		874647.08		M	2.4
9	☐	1.000		838241.23		P	1.8

45 Sc (ISTD) [No Gas]

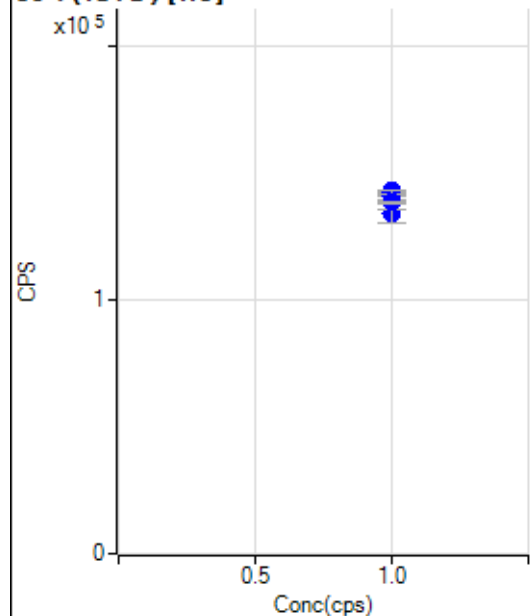
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2669874.32		A	0.8
2	☐	1.000					
3	☐	1.000		2644585.85		A	0.2
4	☐	1.000		2632835.11		A	0.7
5	☐	1.000		2635152.01		A	1.1
6	☐	1.000		2691144.52		A	0.2
7	☐	1.000		2714876.56		A	1.0
8	☐	1.000		2669425.75		A	1.8
9	☐	1.000		2499938.40		A	1.7

45 Sc (ISTD) [He]

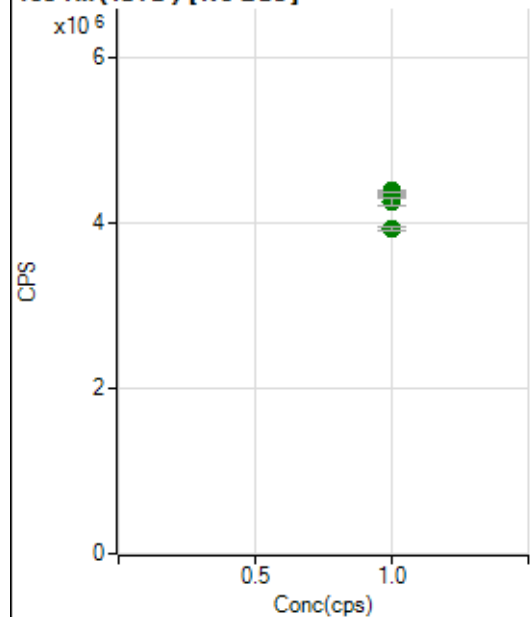
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18452.45		P	5.1
2	☐	1.000					
3	☐	1.000		19161.08		P	2.3
4	☐	1.000		19504.86		P	1.6
5	☐	1.000		18954.12		P	4.3
6	☐	1.000		19946.53		P	1.6
7	☐	1.000		19228.92		P	1.3
8	☐	1.000		19657.27		P	1.6
9	☐	1.000		18403.41		P	2.6

89 Y (ISTD) [No Gas]

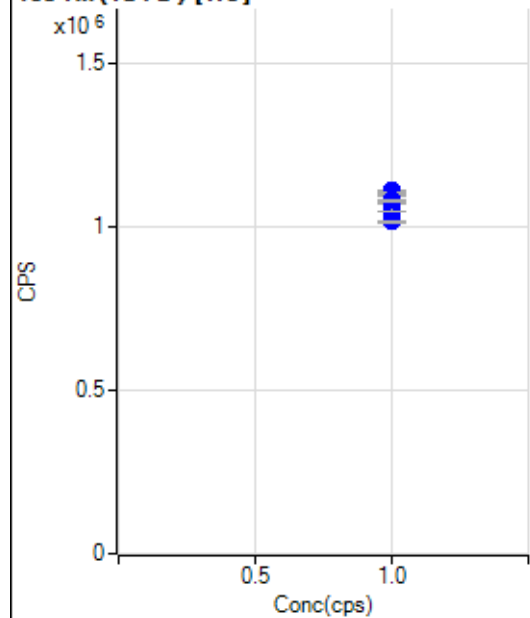
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4859995.38		A	1.0
2	☐	1.000					
3	☐	1.000		4874935.28		A	0.2
4	☐	1.000		4882457.04		A	0.8
5	☐	1.000		4926894.72		A	0.9
6	☐	1.000		5047948.81		A	1.4
7	☐	1.000		5064550.34		A	0.3
8	☐	1.000		5011268.22		A	1.8
9	☐	1.000		4746870.00		A	2.0

89 Y (ISTD) [He]

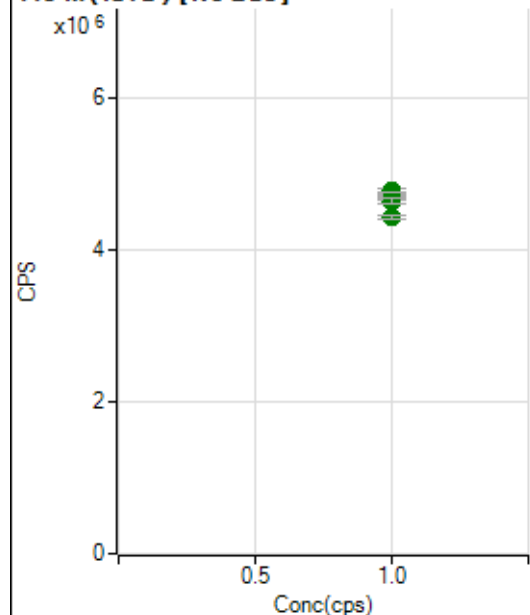
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		134451.61		P	5.7
2	☐	1.000					
3	☐	1.000		141791.19		P	0.3
4	☐	1.000		142993.72		P	0.7
5	☐	1.000		138485.15		P	3.6
6	☐	1.000		142802.51		P	1.1
7	☐	1.000		141063.68		P	2.5
8	☐	1.000		142517.79		P	1.1
9	☐	1.000		138548.15		P	0.6

103 Rh (ISTD) [No Gas]

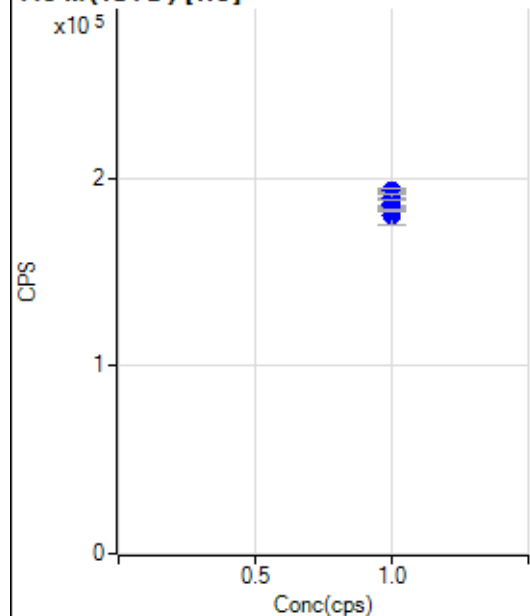
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4325724.88		A	1.5
2	☐	1.000					
3	☐	1.000		4317506.30		A	1.0
4	☐	1.000		4319297.58		A	1.1
5	☐	1.000		4310237.17		A	0.4
6	☐	1.000		4388588.64		A	0.3
7	☐	1.000		4369147.11		A	0.3
8	☐	1.000		4257568.32		A	2.4
9	☐	1.000		3921490.63		A	1.2

103 Rh (ISTD) [He]

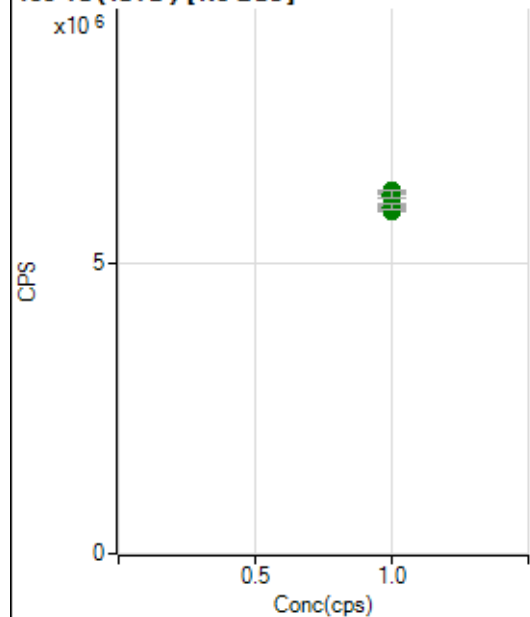
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1045394.29		P	5.4
2	☐	1.000					
3	☐	1.000		1109926.41		P	0.3
4	☐	1.000		1109304.48		P	0.5
5	☐	1.000		1069611.87		P	4.1
6	☐	1.000		1102380.31		P	0.9
7	☐	1.000		1080455.46		P	2.3
8	☐	1.000		1081127.52		P	0.8
9	☐	1.000		1014968.76		P	0.2

115 In (ISTD) [No Gas]

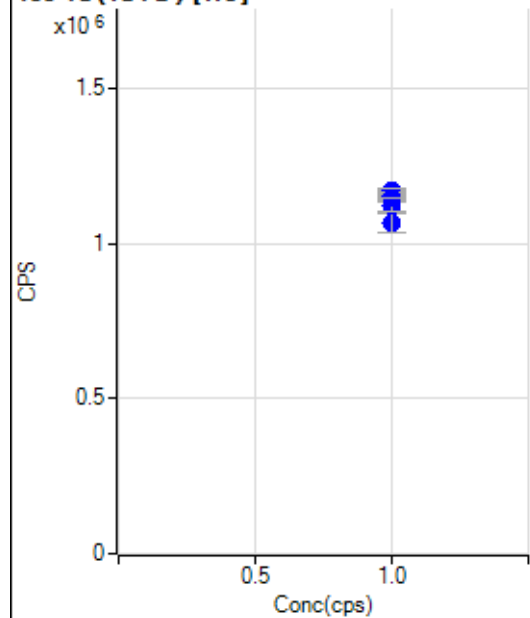
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4713255.94		A	0.7
2	☐	1.000					
3	☐	1.000		4654671.50		A	0.4
4	☐	1.000		4671339.81		A	0.7
5	☐	1.000		4690222.60		A	0.4
6	☐	1.000		4772234.88		A	1.6
7	☐	1.000		4749650.22		A	0.3
8	☐	1.000		4641027.89		A	1.9
9	☐	1.000		4430558.16		A	1.4

115 In (ISTD) [He]

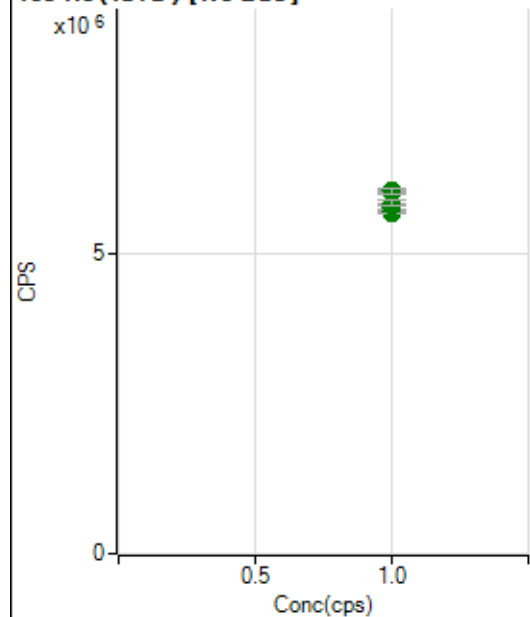
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		180417.88		P	5.7
2	☐	1.000					
3	☐	1.000		193117.42		P	0.6
4	☐	1.000		193350.51		P	1.1
5	☐	1.000		186321.18		P	3.5
6	☐	1.000		190065.04		P	1.2
7	☐	1.000		185804.51		P	2.5
8	☐	1.000		183643.03		P	0.5
9	☐	1.000		182734.76		P	0.3

159 Tb (ISTD) [No Gas]

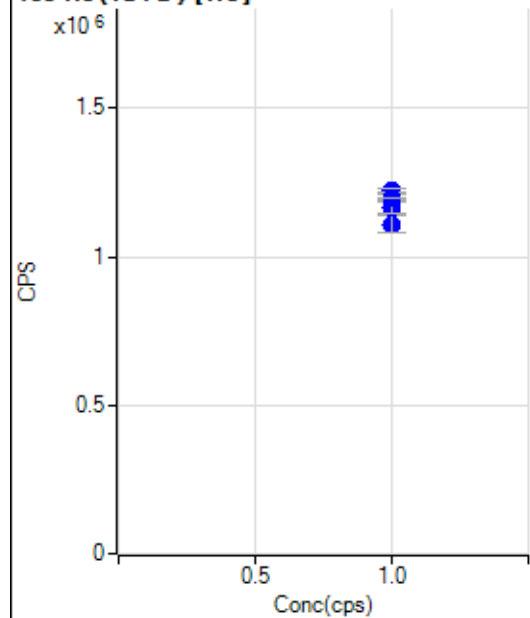
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5931013.73		A	0.5
2	☐	1.000					
3	☐	1.000		5882367.14		A	0.3
4	☐	1.000		5917318.59		A	0.8
5	☐	1.000		5991318.59		A	0.6
6	☐	1.000		6131698.73		A	1.0
7	☐	1.000		6233893.17		A	0.4
8	☐	1.000		6169584.91		A	1.9
9	☐	1.000		5955686.16		A	1.8

159 Tb (ISTD) [He]

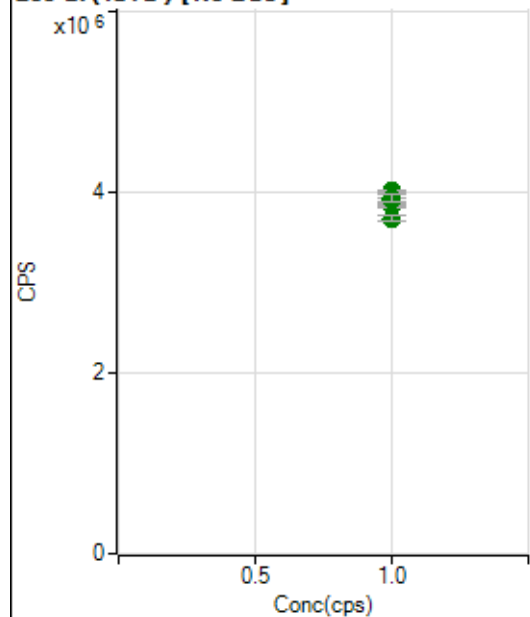
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1067408.29		P	5.6
2	☐	1.000					
3	☐	1.000		1137902.67		P	0.1
4	☐	1.000		1151529.67		P	0.4
5	☐	1.000		1123004.67		P	3.7
6	☐	1.000		1168598.67		P	1.1
7	☐	1.000		1154356.93		P	2.5
8	☐	1.000		1170868.67		P	1.1
9	☐	1.000		1148837.92		P	0.2

165 Ho (ISTD) [No Gas]

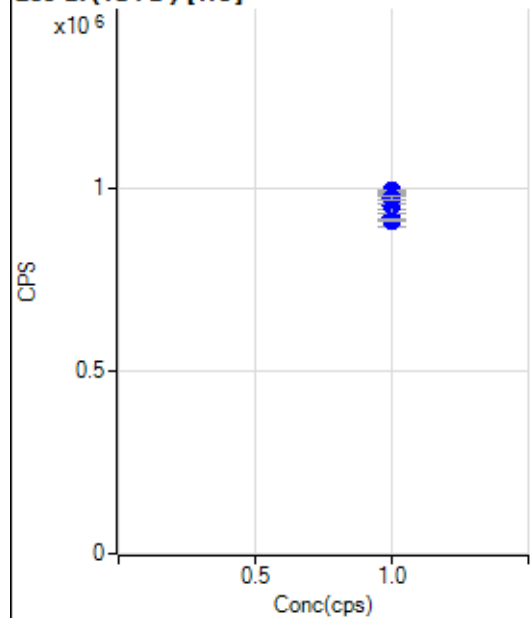
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5752550.26		A	1.3
2	☐	1.000					
3	☐	1.000		5671484.24		A	1.0
4	☐	1.000		5687996.44		A	1.1
5	☐	1.000		5796032.38		A	0.9
6	☐	1.000		6003253.82		A	1.0
7	☐	1.000		6023636.59		A	0.6
8	☐	1.000		6030181.47		A	1.4
9	☐	1.000		5830329.00		A	1.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1109160.82		P	5.5
2	☐	1.000					
3	☐	1.000		1185923.95		P	0.5
4	☐	1.000		1195064.38		P	0.7
5	☐	1.000		1168495.22		P	3.9
6	☐	1.000		1221807.60		P	1.2
7	☐	1.000		1198019.27		P	2.4
8	☐	1.000		1221794.77		P	1.1
9	☐	1.000		1199003.95		P	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3876706.61		A	0.6
2	☐	1.000					
3	☐	1.000		3852293.24		A	0.1
4	☐	1.000		3835184.42		A	0.5
5	☐	1.000		3901371.29		A	1.0
6	☐	1.000		4008270.11		A	0.2
7	☐	1.000		3997172.89		A	0.5
8	☐	1.000		3933179.52		A	2.1
9	☐	1.000		3700366.02		A	1.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		917252.65		P	4.9
2	☐	1.000					
3	☐	1.000		981673.41		P	0.2
4	☐	1.000		983531.60		P	0.5
5	☐	1.000		950720.79		P	3.8
6	☐	1.000		991550.69		P	0.8
7	☐	1.000		969443.79		P	2.2
8	☐	1.000		973299.62		P	0.8
9	☐	1.000		911204.47		P	0.6

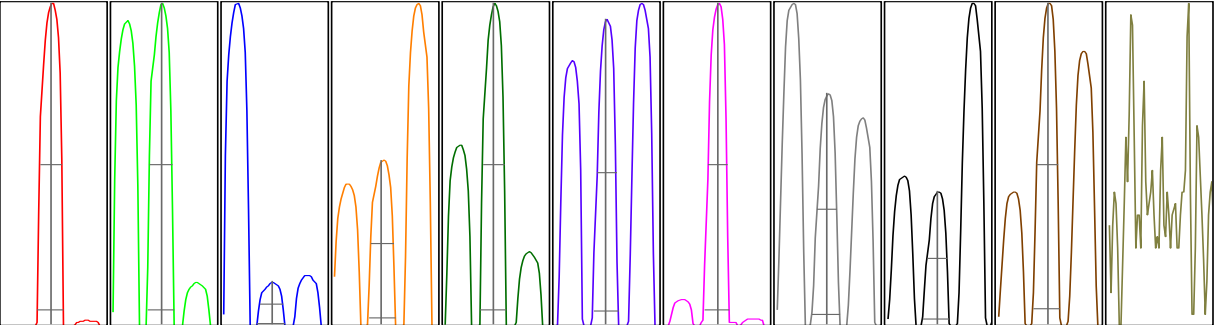
US EPA Tune Check Sample Report

Batch Folder D:\P8022618- MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5310	0.60	5.00	
24	55787	0.79	5.00	
25	7695	0.86	5.00	
26	8828	0.47	5.00	
59	57079	0.52	5.00	
113	7729	0.58	5.00	
115	102329	0.60	5.00	
206	23959	0.61	5.00	
207	21645	0.61	5.00	
208	52166	0.80	5.00	
220	1	15.84		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5301	5304	5366	5284	5299
24	55298	55826	56298	55391	56125
25	7649	7640	7784	7653	7749
26	8799	8810	8887	8788	8853
59	56783	57186	57293	56745	57388
113	7716	7774	7764	7660	7734
115	102731	103160	101854	102214	101685
206	23847	23956	24146	23791	24056
207	21463	21678	21788	21562	21732
208	51676	52375	52503	51749	52526
220	1	1	1	2	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	8874	8.95	8.9 - 9.1		0.739	0.900	
24	93340	23.95	23.9 - 24.1		0.779	0.900	
25	12530	24.95	24.9 - 25.1		0.786	0.900	
26	14586	25.90	25.9 - 26.1		0.783	0.900	
59	97326	58.95	58.9 - 59.1		0.738	0.900	
113	14359	113.00	112.9 - 113.1		0.732	0.900	
115	187729	115.05	114.9 - 115.1		0.733	0.900	
206	43283	206.00	205.9 - 206.1		0.791	0.900	
207	38817	207.00	206.9 - 207.1		0.760	0.900	
208	93248	208.00	207.9 - 208.1		0.772	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	9.4	V	Deflect	13.2	V
Extract 2	-225.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-95	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	7035	0.48	
89	1287	0.49	
205	10649	0.48	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	7054	7063	7055	7024	6981
89	1296	1291	1280	1285	1285
205	10655	10657	10704	10667	10564

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	9.4	V	Deflect	2.0	V
Extract 2	-225.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-95	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			