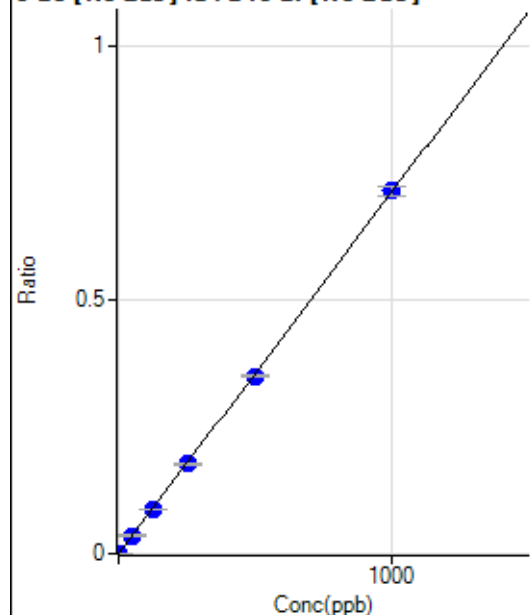


Batch Folder: D:\ICP-MS Data\P7103119 MS.b\
Analysis File: P7103119 MS.batch.bin
DA Date-Time: 2019-10-31 18:10:08
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-10-31 10:58:02
2	004CALS.d	S01	2019-10-31 11:01:35
3	005CALS.d	S02	2019-10-31 11:06:34
4	006CALS.d	S03	2019-10-31 11:10:28
5	007CALS.d	S04	2019-10-31 11:14:38
6	008CALS.d	S05	2019-10-31 11:18:25
7	009CALS.d	S06	2019-10-31 11:22:11
8	010CALS.d	S07	2019-10-31 11:25:55
9	011CALS.d	S08	2019-10-31 11:29:41

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	59.26	0.0000	P	13.8
2	☐	0.100	0.097	440.76	0.0001	P	15.5
3	☐	1.000	1.012	4052.49	0.0007	P	2.9
4	☐	50.000	50.536	198550.67	0.0359	P	1.0
5	☐	125.000	121.994	498577.03	0.0868	P	1.9
6	☐	250.000	247.818	992811.95	0.1762	P	0.6
7	☐	500.000	492.064	1950787.72	0.3499	P	0.4
8	☐	1000.000	1004.863	3816643.84	0.7146	P	2.3
9	☐			585.21	0.0001	P	6.7

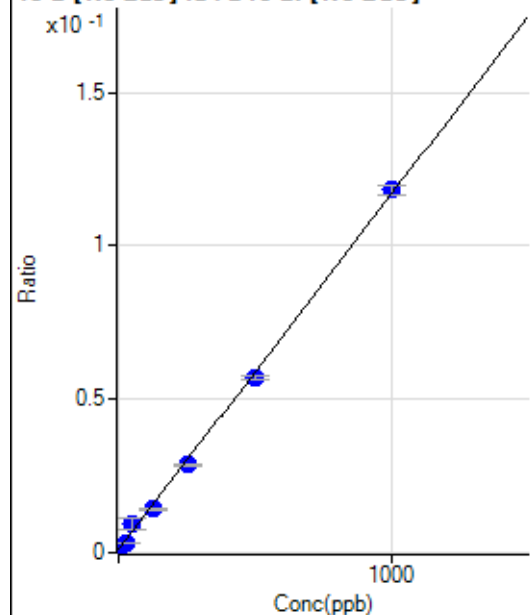
$$y = 7.1112\text{E-}004 * x + 1.0854\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.006301$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5615.16	0.0010	P	4.4
2	☐	2.500	1.207	6465.54	0.0012	P	4.6
3	☐	25.000	19.967	18539.85	0.0033	P	3.0
4	☐	50.000	72.288	51437.28	0.0094	P	39.5
5	☐	125.000	114.690	82269.05	0.0143	P	4.7
6	☐	250.000	237.950	161161.14	0.0286	P	1.4
7	☐	500.000	483.680	318261.93	0.0571	P	2.3
8	☐	1000.000	1011.476	631658.65	0.1183	P	2.5
9	☐			27728.84	0.0055	P	3.9

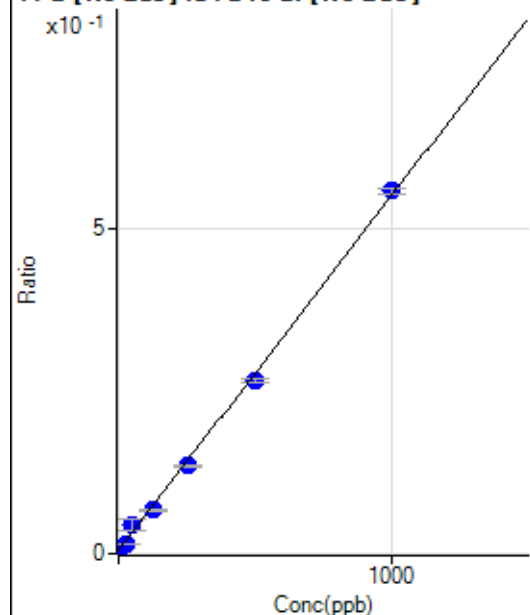
$$y = 1.1591\text{E-}004 * x + 0.0010$$

$$R = 0.9993$$

$$DL = 1.179$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27222.66	0.0050	P	3.0
2	☐	2.500	0.647	29543.53	0.0053	P	2.9
3	☐	25.000	19.875	87791.75	0.0158	P	0.8
4	☐	50.000	71.198	239606.86	0.0438	P	39.4
5	☐	125.000	113.077	382988.03	0.0667	P	4.2
6	☐	250.000	237.635	758267.05	0.1346	P	2.2
7	☐	500.000	480.384	1488607.23	0.2670	P	2.4
8	☐	1000.000	1013.462	2979664.71	0.5578	P	1.5
9	☐			131657.13	0.0262	P	4.9

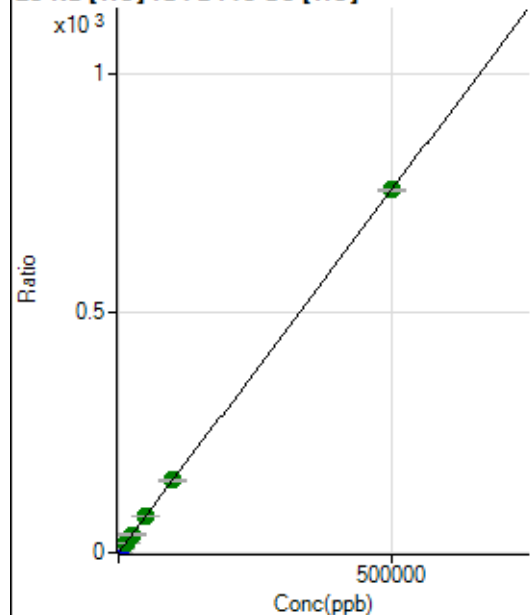
$$y = 5.4549\text{E-}004 * x + 0.0050$$

$$R = 0.9993$$

$$DL = 0.8158$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14702.20	0.0339	P	3.5
2	☐	50.000	46.891	45040.75	0.1048	P	2.2
3	☐	500.000	521.133	350221.61	0.8223	P	0.6
4	☐	5000.000	5074.496	3396191.44	7.7109	P	0.4
5	☐	12500.000	12531.038	8438095.41	18.9916	A	0.1
6	☐	25000.000	25124.064	16905622.08	38.0430	A	0.4
7	☐	50000.000	49913.374	33776778.18	75.5457	A	1.4
8	☐	100000.00	99588.792	68597960.56	150.6974	A	1.0
9	☐	500000.00	500083.15	343387035.4	756.5879	A	0.4

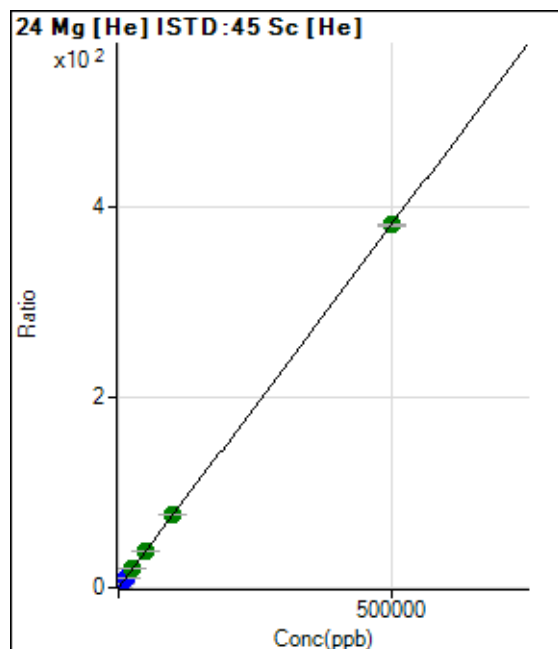
$$y = 0.0015 * x + 0.0339$$

$$R = 1.0000$$

$$DL = 2.329$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	219.45	0.0005	P	17.5
2	☐	50.000	46.549	15480.75	0.0360	P	8.8
3	☐	500.000	551.722	179597.32	0.4217	P	0.7
4	☐	5000.000	5175.681	1740493.23	3.9516	P	1.5
5	☐	12500.000	12855.807	4360716.81	9.8146	P	0.2
6	☐	25000.000	25639.565	8698193.16	19.5737	A	0.6
7	☐	50000.000	50707.210	17307448.82	38.7102	A	1.4
8	☐	100000.00	100360.55	34874591.06	76.6154	A	1.3
9	☐	500000.00	499814.48	173174367.7	381.5571	A	0.5

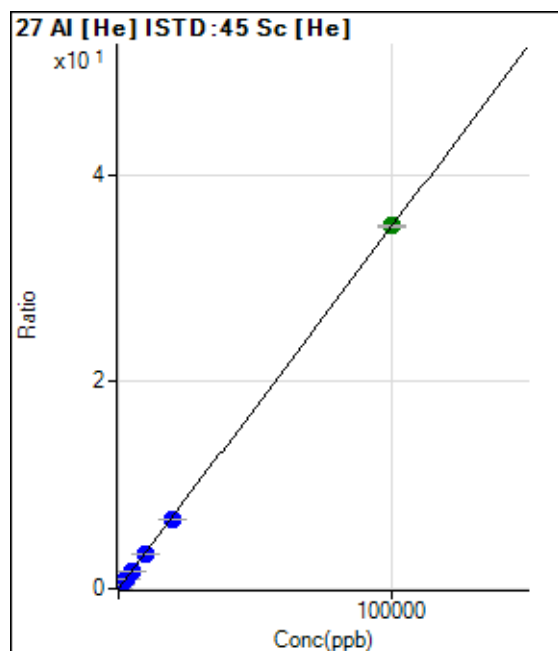
$$y = 7.6340\text{E-}004 * x + 5.0592\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.3489$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0001	P	48.3
2	☐	2.000	1.904	322.24	0.0007	P	29.5
3	☐	20.000	20.498	3092.10	0.0073	P	3.8
4	☐	1000.000	972.381	149967.36	0.3405	P	0.8
5	☐	2500.000	2406.337	374321.26	0.8425	P	0.8
6	☐	5000.000	4836.478	752444.38	1.6932	P	1.0
7	☐	10000.000	9613.187	1504715.60	3.3654	P	0.9
8	☐	20000.000	19144.106	3050694.92	6.7020	P	1.6
9	☐	100000.00	100220.65	15923686.47	35.0849	A	0.6

$$y = 3.5008\text{E-}004 * x + 8.3384\text{E-}005$$

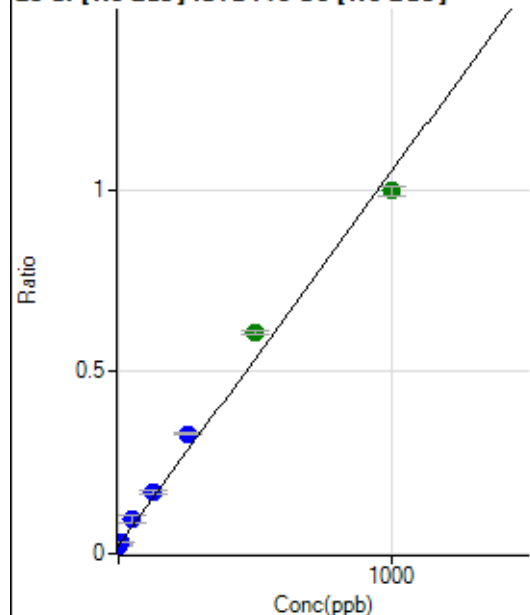
$$R = 1.0000$$

$$DL = 0.3451$$

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	239816.89	0.0228	P	0.4
2	☐	1.000	0.813	251845.34	0.0237	P	1.5
3	☐	10.000	9.168	342447.90	0.0322	P	0.8
4	☐	50.000	69.811	993341.00	0.0945	P	19.6
5	☐	125.000	142.917	1882613.63	0.1695	P	4.3
6	☐	250.000	298.936	3603168.48	0.3296	P	0.9
7	☐	500.000	571.717	6686509.31	0.6095	A	1.7
8	☐	1000.000	948.686	10719090.43	0.9963	A	2.3
9	☐			1119859.97	0.1080	P	1.3

$$y = 0.0010 * x + 0.0228$$

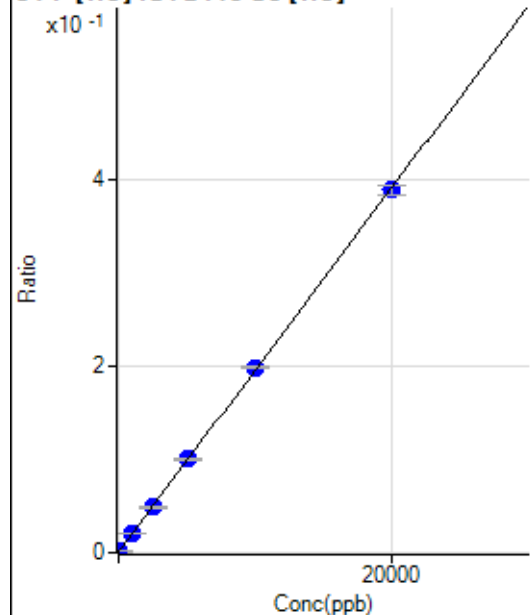
$$R = 0.9947$$

$$DL = 0.2392$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-19.995	111.12	0.0003	P	28.0
2	☐	0.000	-15.231	150.01	0.0003	P	20.2
3	☐	0.000	35.225	569.48	0.0013	P	19.9
4	☐	1000.000	1036.748	9217.08	0.0209	P	2.1
5	☐	2500.000	2463.473	21699.89	0.0488	P	2.3
6	☐	5000.000	5126.335	44851.86	0.1009	P	1.5
7	☐	10000.000	10140.083	88979.50	0.1990	P	1.1
8	☐	20000.000	19901.103	177492.47	0.3900	P	2.9
9	☐			230.57	0.0005	P	29.5

$$y = 1.9562E-005 * x + 6.4722E-004$$

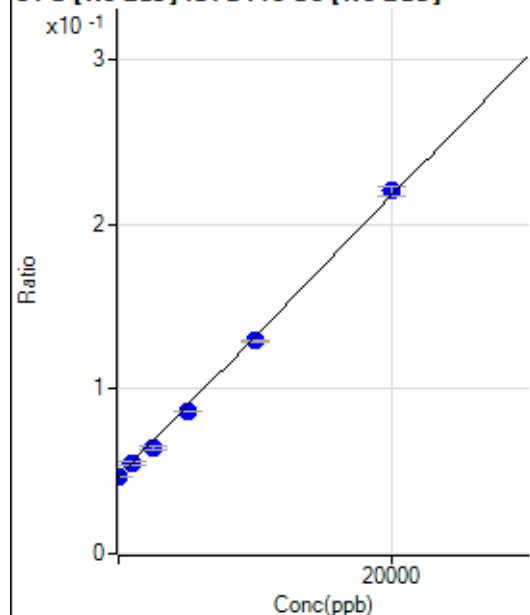
$$R = 0.9999$$

$$DL = 20.87$$

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	13.536	492934.18	0.0469	P	0.8
2	☐	0.000	33.225	501214.60	0.0471	P	0.6
3	☐	0.000	-46.762	493080.90	0.0464	P	1.0
4	☐	1000.000	986.601	583063.16	0.0553	P	3.9
5	☐	2500.000	2041.959	714119.32	0.0643	P	2.7
6	☐	5000.000	4663.304	947435.68	0.0867	P	0.3
7	☐	10000.000	9636.137	1416776.85	0.1291	P	0.4
8	☐	20000.000	20324.031	2371367.46	0.2204	P	2.9
9	☐			453857.50	0.0438	P	0.5

$$y = 8.5418\text{E-}006 * x + 0.0468$$

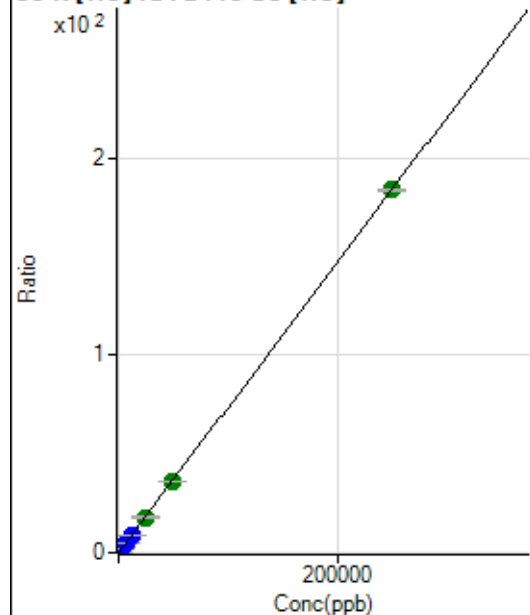
$$R = 0.9994$$

$$DL = 129.6$$

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	23235.58	0.0536	P	0.9
2	☐	50.000	46.269	37609.93	0.0876	P	2.9
3	☐	500.000	507.503	181465.31	0.4261	P	0.7
4	☐	2500.000	2469.216	821816.48	1.8659	P	0.3
5	☐	6250.000	6108.083	2015672.90	4.5367	P	0.1
6	☐	12500.000	12261.333	4022987.94	9.0529	P	0.7
7	☐	25000.000	24455.318	8049282.64	18.0027	A	0.6
8	☐	50000.000	48670.721	16285718.94	35.7758	A	1.0
9	☐	250000.00	250336.09	83415119.23	183.7895	A	0.2

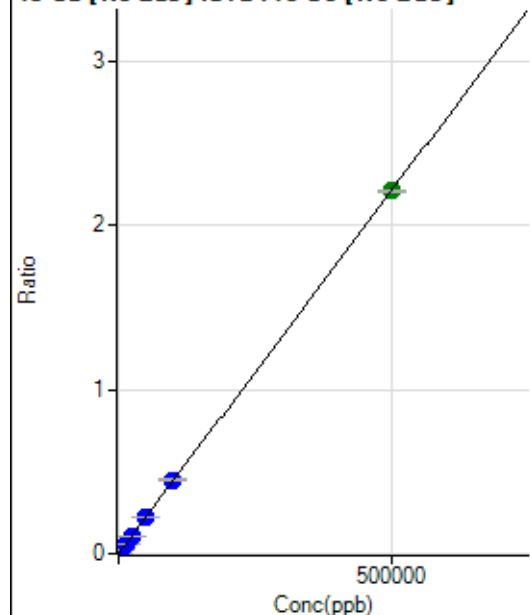
$$y = 7.3396\text{E-}004 * x + 0.0536$$

$$R = 1.0000$$

$$DL = 1.997$$

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD:45 Sc [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	263.90	0.0000	P	21.7
2	☐	50.000	50.556	2644.79	0.0002	P	5.2
3	☐	500.000	513.423	24357.02	0.0023	P	2.8
4	☐	5000.000	5271.788	245967.65	0.0233	P	6.0
5	☐	12500.000	12272.113	602733.30	0.0543	P	3.3
6	☐	25000.000	24778.366	1197243.39	0.1095	P	0.6
7	☐	50000.000	49249.631	2387823.53	0.2176	P	0.5
8	☐	100000.00	101651.27	4832668.68	0.4492	P	2.5
9	☐	500000.00	499758.83	22894684.36	2.2083	A	0.2

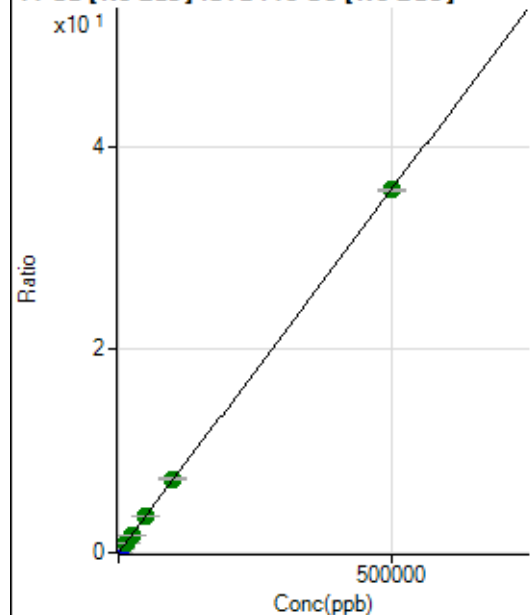
$$y = 4.4188\text{E-}006 * x + 2.5142\text{E-}005$$

$$R = 1.0000$$

$$DL = 3.705$$

Weight: <None>

Min Conc: 0

44 Ca [No Gas] ISTD:45 Sc [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14505.73	0.0014	P	2.7
2	☐	50.000	52.601	54669.61	0.0051	P	1.6
3	☐	500.000	512.462	403355.56	0.0380	P	1.0
4	☐	5000.000	5331.103	4029742.71	0.3821	P	6.7
5	☐	12500.000	12301.192	9776767.06	0.8799	A	2.9
6	☐	25000.000	24751.226	19341017.44	1.7691	A	0.4
7	☐	50000.000	49323.758	38663939.40	3.5242	A	0.8
8	☐	100000.00	101840.72	78267792.03	7.2750	A	2.5
9	☐	500000.00	499713.56	370029116.6	35.6916	A	0.2

$$y = 7.1421\text{E-}005 * x + 0.0014$$

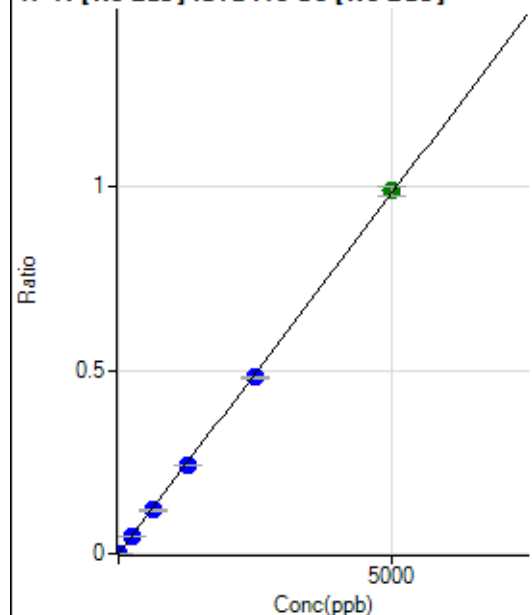
$$R = 1.0000$$

$$DL = 1.56$$

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	202.79	0.0000	P	19.9
2	☐	0.500	0.502	1255.66	0.0001	P	6.9
3	☐	5.000	5.206	11074.09	0.0010	P	2.4
4	☐	250.000	247.885	514929.60	0.0487	P	0.7
5	☐	625.000	603.790	1318803.21	0.1187	P	3.4
6	☐	1250.000	1220.545	2623233.94	0.2399	P	0.3
7	☐	2500.000	2449.741	5283191.40	0.4816	P	0.8
8	☐	5000.000	5035.250	10648528.10	0.9898	A	2.7
9	☐			4017.41	0.0004	P	6.5

$$y = 1.9657E-004 * x + 1.9305E-005$$

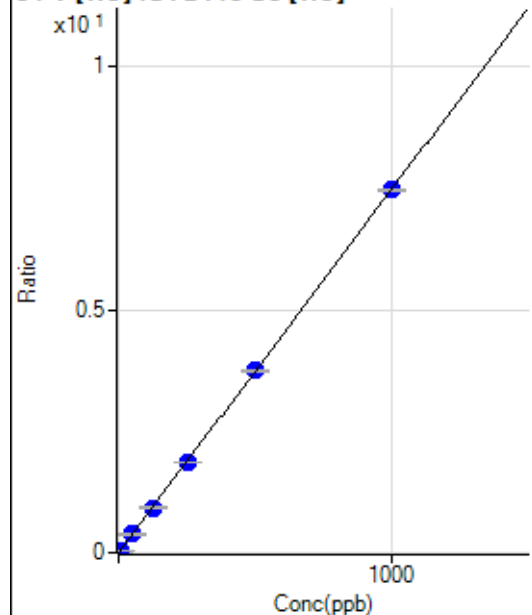
$$R = 0.9999$$

$$DL = 0.05876$$

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	6.67	0.0000	P	99.7
2	☐	0.500	0.448	1444.54	0.0034	P	11.7
3	☐	5.000	5.477	17421.64	0.0409	P	2.9
4	☐	50.000	50.354	165600.94	0.3760	P	1.1
5	☐	125.000	124.257	412223.77	0.9278	P	0.4
6	☐	250.000	250.770	832061.57	1.8724	P	0.5
7	☐	500.000	501.604	1674531.38	3.7452	P	0.9
8	☐	1000.000	999.078	3395643.18	7.4596	P	0.8
9	☐			1073.39	0.0024	P	3.0

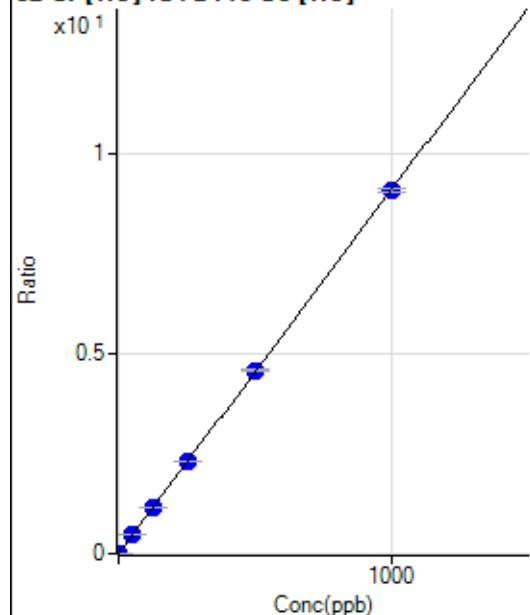
$$y = 0.0075 * x + 1.5377E-005$$

$$R = 1.0000$$

$$DL = 0.006161$$

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	1488.99	0.0034	P	2.7
2	☐	0.200	0.147	2050.18	0.0048	P	6.2
3	☐	2.000	2.118	9655.51	0.0227	P	1.4
4	☐	50.000	51.910	209132.57	0.4748	P	0.7
5	☐	125.000	126.809	513177.41	1.1550	P	0.5
6	☐	250.000	255.075	1030855.55	2.3198	P	0.4
7	☐	500.000	503.177	2044516.52	4.5728	P	1.1
8	☐	1000.000	996.821	4122118.34	9.0556	P	0.9
9	☐			152341.36	0.3357	P	0.6

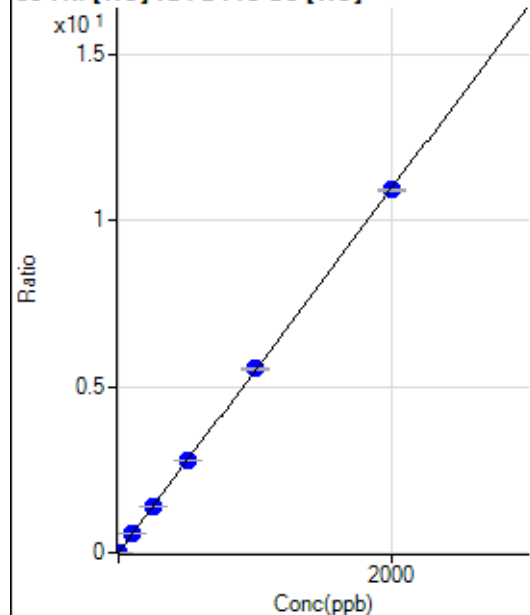
$$y = 0.0091 * x + 0.0034$$

$$R = 1.0000$$

$$DL = 0.03114$$

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	2309.11	0.0053	P	5.3
2	☒	0.100					
3	☐	1.000	1.092	4819.76	0.0113	P	2.6
4	☐	100.000	103.682	252770.73	0.5739	P	0.1
5	☐	250.000	254.096	621485.73	1.3988	P	0.3
6	☐	500.000	508.420	1241352.11	2.7935	P	0.2
7	☐	1000.000	1010.504	2480059.84	5.5468	P	1.0
8	☐	2000.000	1991.947	4974947.67	10.9290	P	0.8
9	☐			20027.20	0.0441	P	2.0

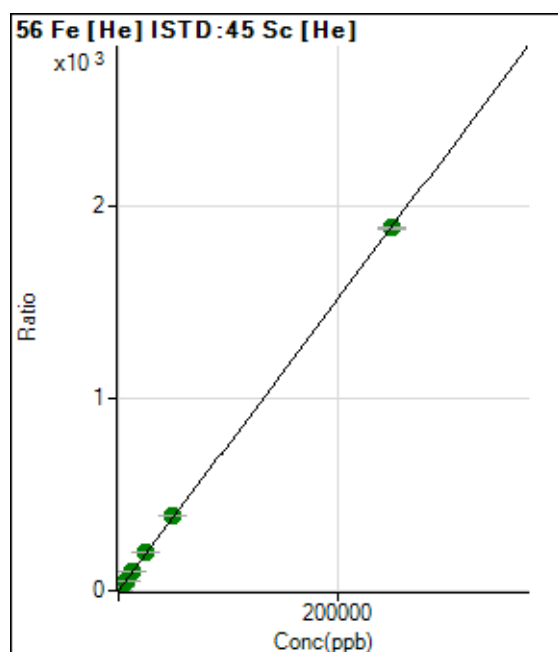
$$y = 0.0055 * x + 0.0053$$

$$R = 1.0000$$

$$DL = 0.1549$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10744.90	0.0248	P	1.8
2	☐	5.000	4.747	26058.83	0.0607	P	4.6
3	☐	50.000	58.428	198633.28	0.4664	P	0.0
4	☐	2500.000	2679.652	8931046.38	20.2774	A	0.8
5	☐	6250.000	6573.213	22084311.37	49.7047	A	0.3
6	☐	12500.000	13130.893	44112022.28	99.2672	A	0.7
7	☐	25000.000	26081.494	88146425.12	197.1469	A	0.8
8	☐	50000.000	51489.357	177157024.3	389.1778	A	1.1
9	☐	250000.00	249552.55	856043611.7	1,886.126	A	0.3

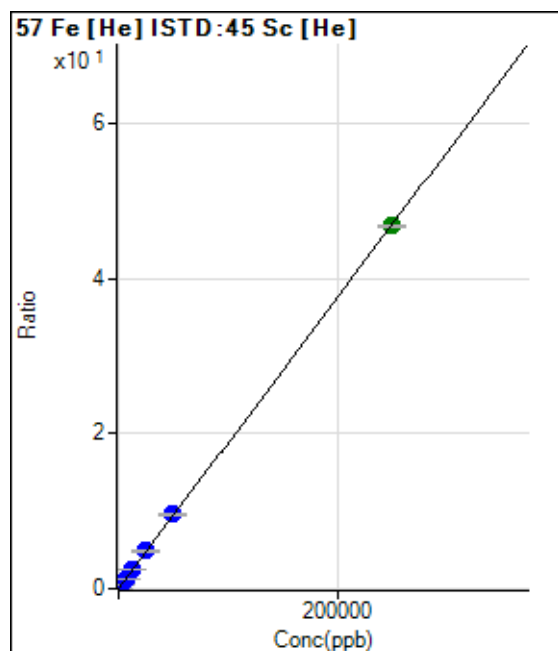
$$y = 0.0076 * x + 0.0248$$

$$R = 1.0000$$

$$DL = 0.1814$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	422.24	0.0010	P	3.0
2	☐	5.000	4.307	764.86	0.0018	P	8.0
3	☐	50.000	59.571	5167.73	0.0121	P	3.8
4	☐	2500.000	2682.714	221773.55	0.5035	P	0.9
5	☐	6250.000	6557.257	546198.75	1.2293	P	0.3
6	☐	12500.000	13063.358	1087882.45	2.4481	P	0.5
7	☐	25000.000	25858.459	2166212.67	4.8450	P	1.0
8	☐	50000.000	51024.783	4351559.36	9.5593	P	0.7
9	☐	250000.00	249671.51	21227641.68	46.7711	A	0.3

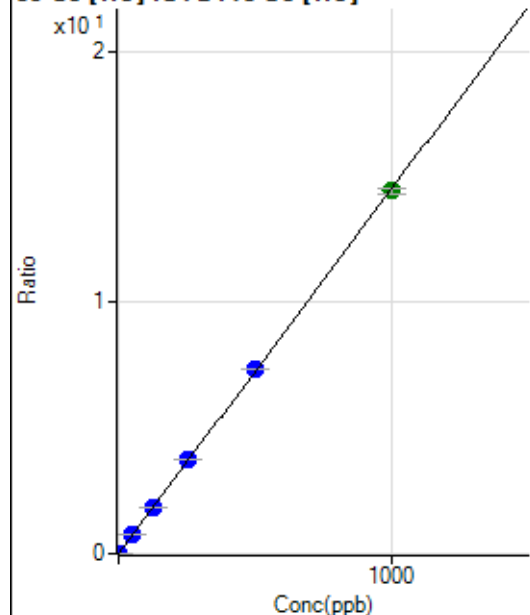
$$y = 1.8733E-004 * x + 9.7384E-004$$

$$R = 1.0000$$

$$DL = 0.4741$$

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	390.01	0.0009	P	9.2
2	☐	0.100	0.091	954.49	0.0022	P	7.4
3	☐	1.000	1.089	7122.95	0.0167	P	2.1
4	☐	50.000	52.626	337172.59	0.7655	P	0.7
5	☐	125.000	128.702	831234.41	1.8709	P	0.2
6	☐	250.000	256.785	1658344.78	3.7318	P	0.0
7	☐	500.000	505.685	3285504.08	7.3482	P	0.2
8	☐	1000.000	994.867	6580123.58	14.4557	A	1.2
9	☐			15447.23	0.0340	P	2.5

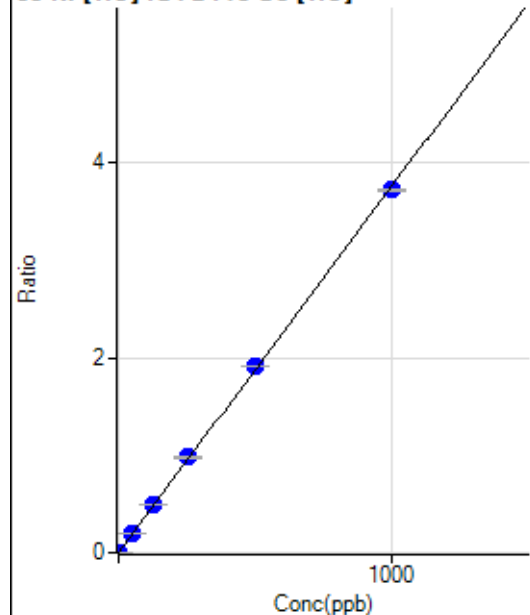
$$y = 0.0145 * x + 8.9939E-004$$

$$R = 0.9999$$

$$DL = 0.01703$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	82.22	0.0002	P	46.6
2	☐	0.100	0.096	235.56	0.0005	P	9.2
3	☐	1.000	1.142	1905.72	0.0045	P	0.5
4	☐	50.000	53.781	88947.96	0.2019	P	1.3
5	☐	125.000	130.931	218316.84	0.4914	P	0.4
6	☐	250.000	260.743	434769.77	0.9784	P	0.9
7	☐	500.000	510.757	856798.75	1.9163	P	0.2
8	☐	1000.000	991.005	1692442.98	3.7179	P	0.3
9	☐			43020.88	0.0948	P	1.0

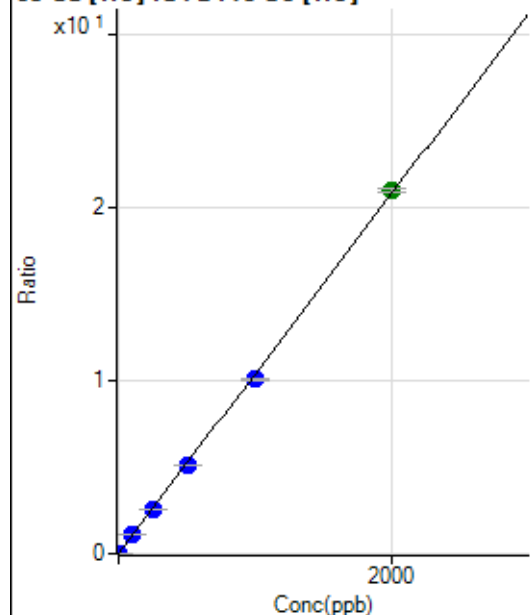
$$y = 0.0038 * x + 1.8952E-004$$

$$R = 0.9998$$

$$DL = 0.07056$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2444.70	0.0056	P	4.3
2	☐	0.200	0.165	3157.06	0.0073	P	7.1
3	☐	2.000	2.064	11536.94	0.0271	P	1.3
4	☐	100.000	102.341	470801.65	1.0689	P	0.4
5	☐	250.000	250.159	1157295.34	2.6047	P	0.3
6	☐	500.000	494.129	2283888.73	5.1395	P	0.4
7	☐	1000.000	969.482	4506063.37	10.0782	P	0.8
8	☐	2000.000	2016.590	9539709.23	20.9573	A	1.0
9	☐			17050.11	0.0376	P	1.4

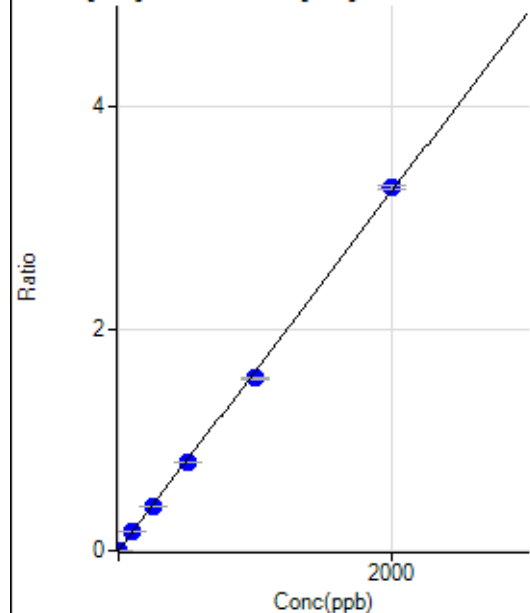
$$y = 0.0104 * x + 0.0056$$

$$R = 0.9998$$

$$DL = 0.06986$$

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	322.23	0.0007	P	8.5
2	☒	0.200					
3	☐	2.000	2.188	1823.48	0.0043	P	3.8
4	☐	100.000	104.113	74484.56	0.1691	P	1.1
5	☐	250.000	250.459	180296.17	0.4058	P	0.3
6	☐	500.000	494.075	355403.05	0.7998	P	0.4
7	☐	1000.000	960.801	695059.48	1.5546	P	1.0
8	☐	2000.000	2020.818	1487976.90	3.2688	P	0.9
9	☐			15016.80	0.0331	P	0.8

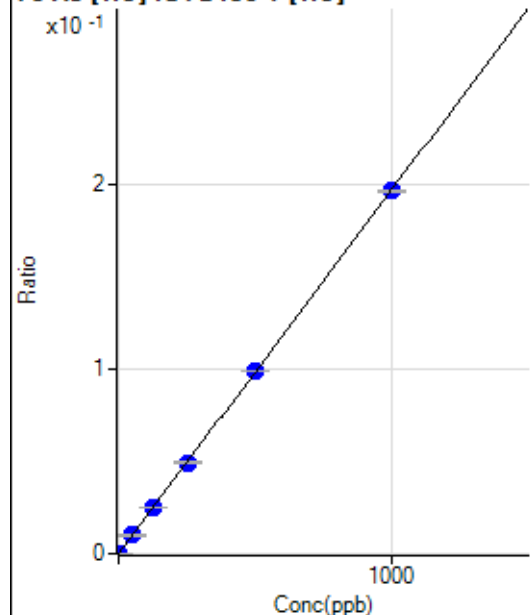
$$y = 0.0016 * x + 7.4320E-004$$

$$R = 0.9997$$

$$DL = 0.1169$$

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	19.14	0.0000	P	55.1
2	☐	0.100	0.084	54.94	0.0000	P	8.7
3	☐	1.000	1.148	504.33	0.0002	P	2.6
4	☐	50.000	50.366	22128.01	0.0099	P	1.1
5	☐	125.000	126.740	55188.80	0.0249	P	0.7
6	☐	250.000	250.584	110042.11	0.0493	P	1.0
7	☐	500.000	503.418	220910.60	0.0989	P	0.3
8	☐	1000.000	997.909	438813.23	0.1961	P	0.7
9	☐			232.72	0.0001	P	8.5

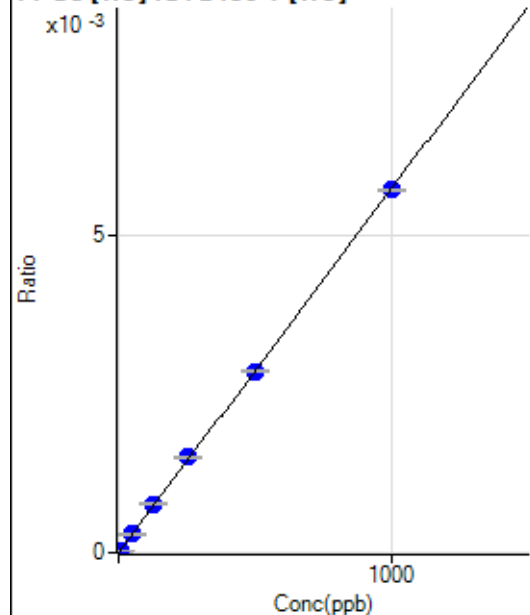
$$y = 1.9653\text{E-}004 * x + 8.7762\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.07385$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500	0.446	6.67	0.0000	P	49.8
3	☐	5.000	6.219	77.78	0.0000	P	18.1
4	☐	50.000	50.376	646.69	0.0003	P	2.0
5	☐	125.000	133.434	1696.80	0.0008	P	3.9
6	☐	250.000	261.561	3353.78	0.0015	P	1.7
7	☐	500.000	498.964	6392.62	0.0029	P	1.9
8	☐	1000.000	996.548	12793.58	0.0057	P	0.7
9	☐			4.44	0.0000	P	43.6

$$y = 5.7374\text{E-}006 * x + 5.0628\text{E-}007$$

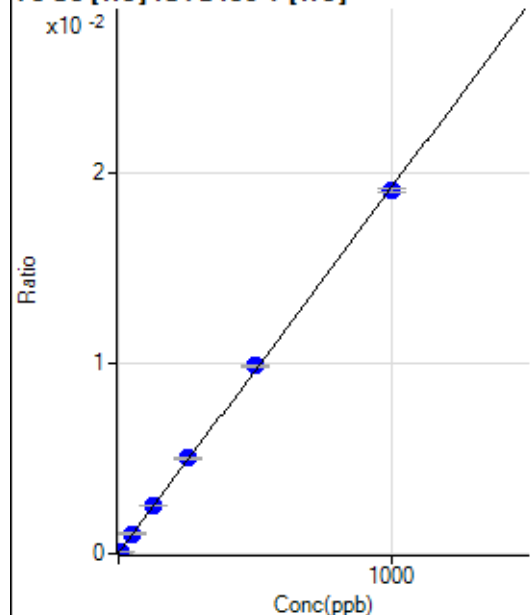
$$R = 0.9999$$

$$DL = 0.4585$$

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	68.52	0.0000	P	23.2
2	☐	0.500	0.613	93.83	0.0000	P	20.8
3	☐	5.000	6.064	318.52	0.0001	P	3.8
4	☐	50.000	53.375	2363.18	0.0011	P	2.4
5	☐	125.000	129.990	5607.92	0.0025	P	2.1
6	☐	250.000	259.713	11231.58	0.0050	P	1.6
7	☐	500.000	511.871	22055.12	0.0099	P	1.0
8	☐	1000.000	990.838	42716.39	0.0191	P	1.1
9	☐			112.35	0.0001	P	11.2

$$y = 1.9237\text{E-}005 * x + 3.1372\text{E-}005$$

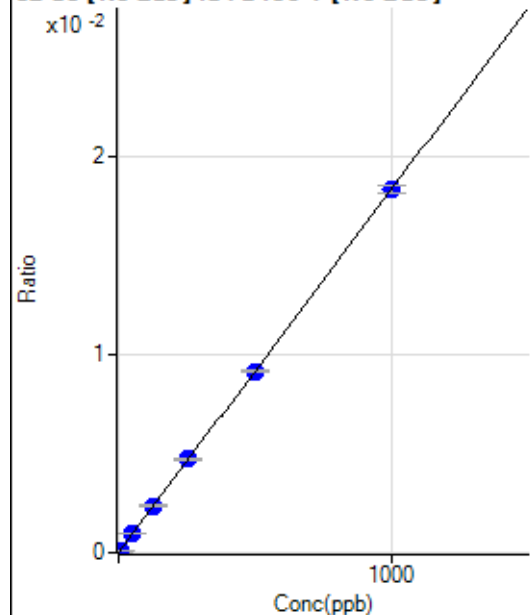
$$R = 0.9998$$

$$DL = 1.134$$

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	164.29	0.0000	P	18.0
2	☒	0.500					
3	☐	5.000	5.578	1823.84	0.0001	P	1.3
4	☐	50.000	53.466	15928.21	0.0010	P	0.8
5	☐	125.000	127.482	39675.51	0.0024	P	2.8
6	☐	250.000	257.374	78676.53	0.0047	P	1.1
7	☐	500.000	498.748	153441.46	0.0092	P	0.8
8	☐	1000.000	998.296	298665.86	0.0183	P	2.1
9	☐			378.59	0.0000	P	6.4

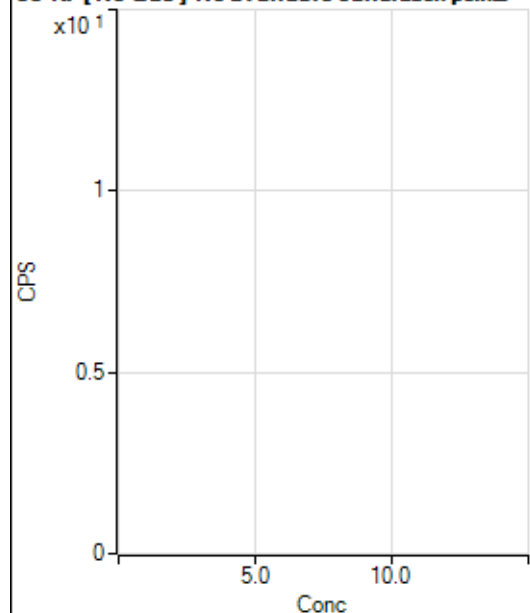
$$y = 1.8365\text{E-}005 * x + 1.0240\text{E-}005$$

$$R = 1.0000$$

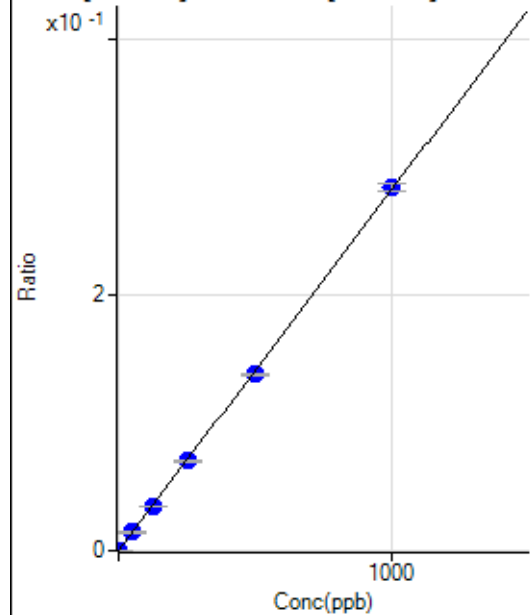
$$DL = 0.301$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1615.67		P	2.4
2	☐			1709.02		P	3.1
3	☐			1526.78		P	1.7
4	☐			1592.34		P	4.5
5	☐			1620.12		P	10.1
6	☐			1680.13		P	3.1
7	☐			1653.46		P	2.8
8	☐			1772.36		P	4.2
9	☐			1636.79		P	2.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2500.32	0.0002	P	5.9
2	☐	0.100	0.141	3175.49	0.0002	P	0.2
3	☐	1.000	1.039	7260.45	0.0004	P	2.5
4	☐	50.000	50.358	230364.36	0.0143	P	0.9
5	☐	125.000	122.171	583675.16	0.0346	P	2.5
6	☐	250.000	247.996	1163569.90	0.0701	P	0.7
7	☐	500.000	489.105	2309458.47	0.1380	P	0.7
8	☐	1000.000	1006.284	4620533.22	0.2838	P	2.0
9	☐			20479.17	0.0013	P	2.2

$$y = 2.8185E-004 * x + 1.5575E-004$$

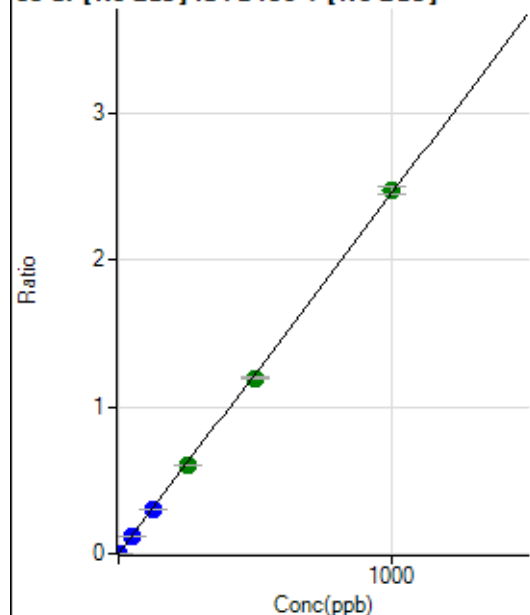
$$R = 0.9999$$

$$DL = 0.09861$$

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	516.70	0.0000	P	26.2
2	☐	0.100	0.104	4667.63	0.0003	P	3.0
3	☐	1.000	1.015	40828.59	0.0025	P	2.1
4	☐	50.000	50.078	1973475.09	0.1229	P	0.7
5	☐	125.000	122.376	5067827.63	0.3004	P	3.2
6	☐	250.000	244.751	9977115.76	0.6007	A	1.0
7	☐	500.000	487.905	20037626.67	1.1974	A	0.8
8	☐	1000.000	1007.684	40264223.12	2.4730	A	2.2
9	☐			158431.48	0.0101	P	1.4

$$y = 0.0025 * x + 3.2196E-005$$

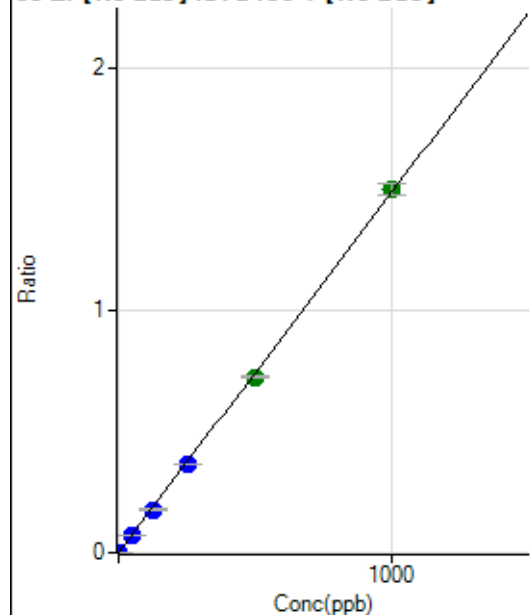
$$R = 0.9999$$

$$DL = 0.0103$$

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	1000.08	0.0001	P	4.5
2	☐	0.100	0.085	3058.81	0.0002	P	7.4
3	☐	1.000	0.877	22070.50	0.0014	P	1.3
4	☐	50.000	48.820	1164220.79	0.0725	P	0.4
5	☐	125.000	119.605	2996235.55	0.1776	P	2.7
6	☐	250.000	246.037	6066047.49	0.3652	P	0.2
7	☐	500.000	487.526	12108465.90	0.7236	A	0.6
8	☐	1000.000	1007.961	24352132.66	1.4960	A	3.1
9	☐			7013.12	0.0004	P	6.0

$$y = 0.0015 * x + 6.2266E-005$$

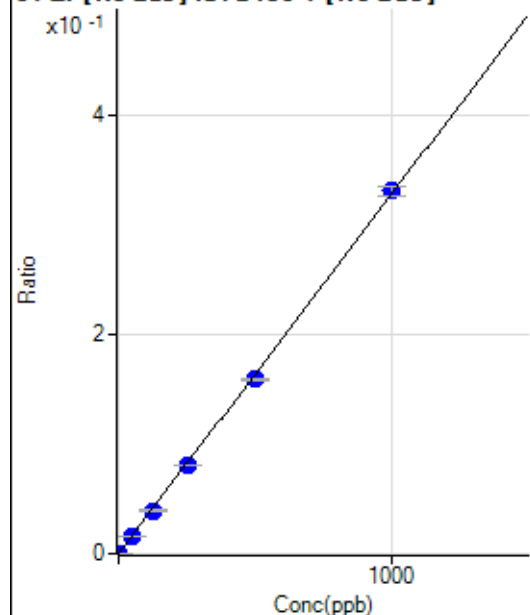
$$R = 0.9999$$

$$DL = 0.005642$$

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	244.46	0.0000	P	8.4
2	☐	0.100	0.076	650.04	0.0000	P	3.1
3	☐	1.000	0.920	5128.94	0.0003	P	5.1
4	☐	50.000	48.901	257739.15	0.0161	P	0.7
5	☐	125.000	119.848	663423.57	0.0393	P	3.1
6	☐	250.000	245.739	1338854.56	0.0806	P	0.4
7	☐	500.000	484.498	2659115.47	0.1589	P	0.2
8	☐	1000.000	1009.515	5389849.82	0.3311	P	2.8
9	☐			1491.82	0.0001	P	5.9

$$y = 3.2795\text{E-}004 * x + 1.5222\text{E-}005$$

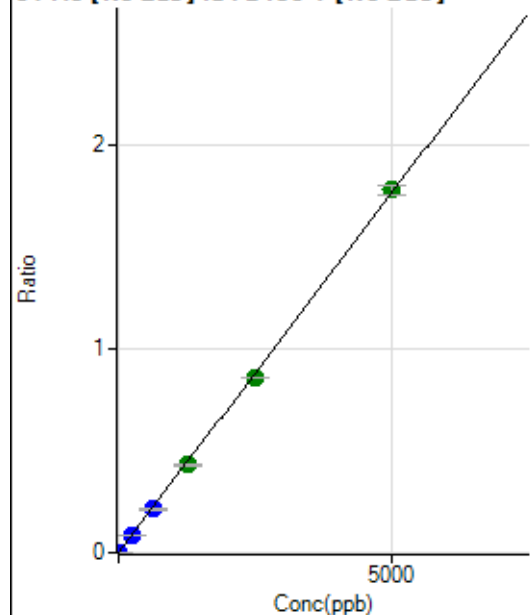
$$R = 0.9998$$

$$DL = 0.01165$$

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	358.36	0.0000	P	16.2
2	☐	0.500	0.485	3144.93	0.0002	P	6.2
3	☐	5.000	4.989	28843.83	0.0018	P	0.8
4	☐	250.000	247.629	1402626.68	0.0874	P	0.7
5	☐	625.000	604.610	3598795.92	0.2133	P	2.7
6	☐	1250.000	1221.255	7155157.19	0.4308	A	0.7
7	☐	2500.000	2427.086	14325794.42	0.8561	A	0.3
8	☐	5000.000	5046.310	28975345.78	1.7800	A	3.0
9	☐			24624.86	0.0016	P	2.7

$$y = 3.5272\text{E-}004 * x + 2.2302\text{E-}005$$

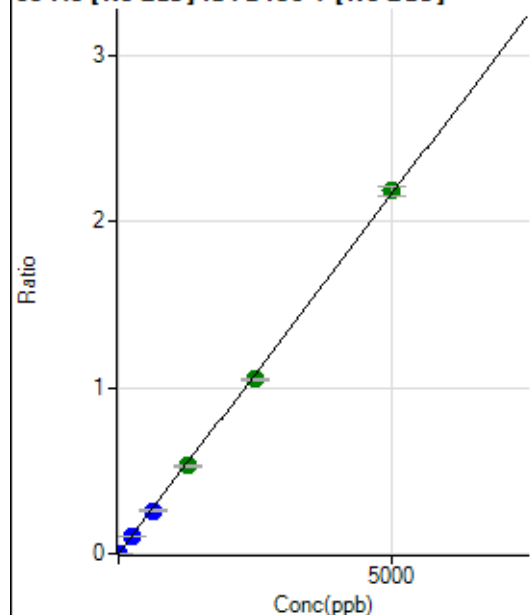
$$R = 0.9998$$

$$DL = 0.03065$$

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	61.12	0.0000	P	33.9
2	☐	0.500	0.526	3767.34	0.0002	P	3.5
3	☐	5.000	5.183	36411.23	0.0022	P	1.6
4	☐	250.000	246.412	1713803.41	0.1068	P	1.0
5	☐	625.000	599.817	4385133.56	0.2599	P	2.3
6	☐	1250.000	1218.933	8771385.44	0.5281	A	0.8
7	☐	2500.000	2427.132	17595772.27	1.0515	A	0.7
8	☐	5000.000	5047.528	35598434.48	2.1868	A	2.9
9	☐			37177.22	0.0024	P	0.7

$$y = 4.3324\text{E-}004 * x + 3.8017\text{E-}006$$

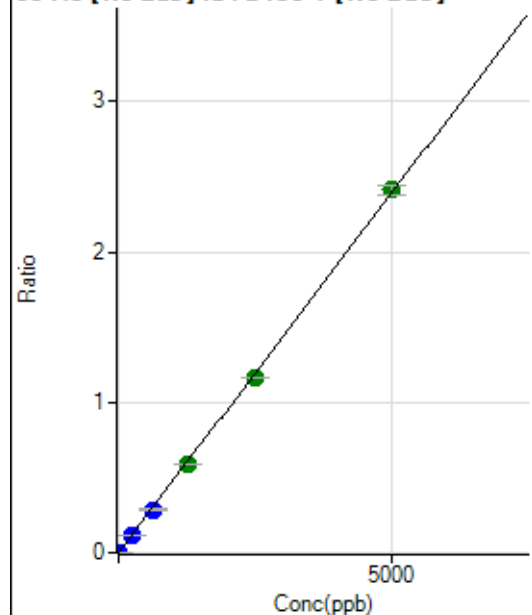
$$R = 0.9998$$

$$DL = 0.008928$$

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	322.24	0.0000	P	10.2
2	☐	0.500	0.522	4384.19	0.0003	P	1.7
3	☐	5.000	5.025	39227.06	0.0024	P	0.8
4	☐	250.000	247.284	1898476.08	0.1183	P	1.7
5	☐	625.000	601.126	4852022.03	0.2875	P	2.3
6	☐	1250.000	1223.789	9722506.47	0.5853	A	0.1
7	☐	2500.000	2430.213	19450535.16	1.1624	A	0.7
8	☐	5000.000	5044.566	39281485.60	2.4128	A	2.4
9	☐			58275.33	0.0037	P	1.5

$$y = 4.7829\text{E-}004 * x + 2.0065\text{E-}005$$

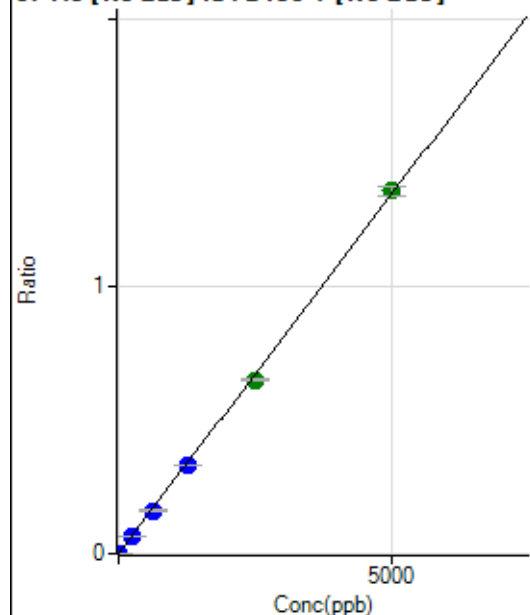
$$R = 0.9998$$

$$DL = 0.01284$$

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	36.11	0.0000	P	74.9
2	☐	0.500	0.517	2294.73	0.0001	P	11.3
3	☐	5.000	5.123	22323.72	0.0014	P	4.2
4	☐	250.000	246.322	1062447.10	0.0662	P	1.2
5	☐	625.000	599.091	2716714.25	0.1610	P	2.0
6	☐	1250.000	1224.848	5466821.56	0.3291	P	0.5
7	☐	2500.000	2421.096	10886641.82	0.6506	A	0.3
8	☐	5000.000	5049.162	22089404.83	1.3568	A	2.4
9	☐			23086.33	0.0015	P	1.8

$$y = 2.6871\text{E-}004 * x + 2.2568\text{E-}006$$

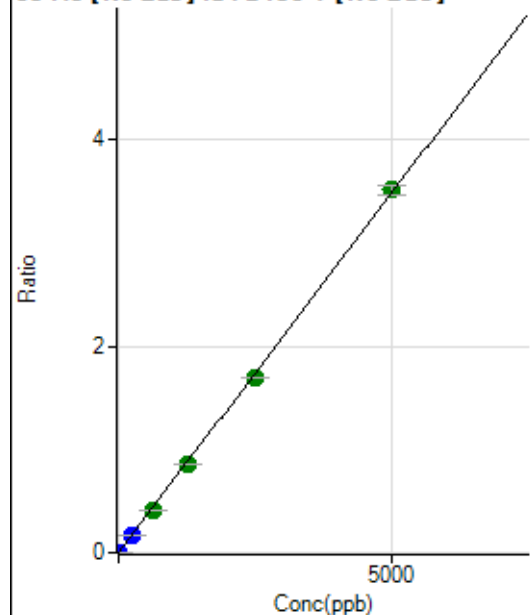
$$R = 0.9998$$

$$DL = 0.01888$$

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	75.00	0.0000	P	22.9
2	☐	0.500	0.520	5962.63	0.0004	P	1.9
3	☐	5.000	5.062	57168.56	0.0035	P	0.8
4	☐	250.000	244.302	2732893.79	0.1702	P	0.5
5	☐	625.000	594.917	6994835.14	0.4145	A	1.9
6	☐	1250.000	1218.099	14096188.86	0.8487	A	0.2
7	☐	2500.000	2432.558	28360117.30	1.6948	A	0.2
8	☐	5000.000	5045.741	57227486.70	3.5154	A	2.9
9	☐			59326.98	0.0038	P	0.1

$$y = 6.9671\text{E-}004 * x + 4.6758\text{E-}006$$

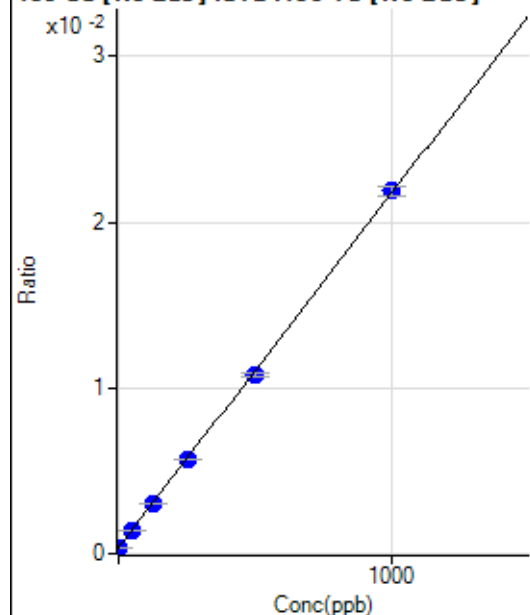
$$R = 0.9998$$

$$DL = 0.004616$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7491.15	0.0004	P	2.5
2	☐	0.100	0.307	7491.16	0.0004	P	2.0
3	☐	1.000	0.962	7771.96	0.0004	P	5.7
4	☐	50.000	48.092	27683.66	0.0014	P	2.4
5	☐	125.000	123.667	62008.54	0.0030	P	3.6
6	☐	250.000	249.744	116173.12	0.0057	P	0.9
7	☐	500.000	487.162	219919.98	0.0108	P	1.3
8	☐	1000.000	1006.745	434256.03	0.0219	P	2.4
9	☐			6554.57	0.0003	P	2.8

$$y = 2.1366\text{E-}005 * x + 3.7111\text{E-}004$$

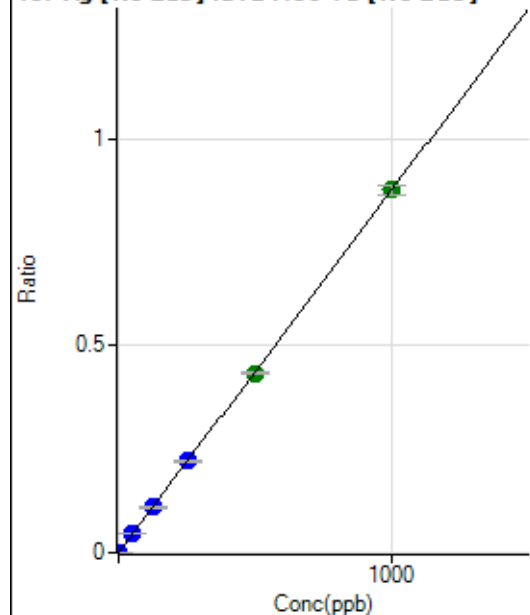
$$R = 0.9999$$

$$DL = 1.31$$

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	247.24	0.0000	P	25.9
2	☐	0.100	0.099	1952.99	0.0001	P	5.0
3	☐	1.000	1.002	17625.53	0.0009	P	2.4
4	☐	50.000	52.437	907080.70	0.0459	P	1.0
5	☐	125.000	126.827	2282747.29	0.1109	P	3.9
6	☐	250.000	252.740	4500070.54	0.2211	P	0.5
7	☐	500.000	495.229	8836877.54	0.4332	A	1.1
8	☐	1000.000	1001.350	17380335.63	0.8758	A	3.0
9	☐			3664.52	0.0002	P	7.7

$$y = 8.7462\text{E-}004 * x + 1.2257\text{E-}005$$

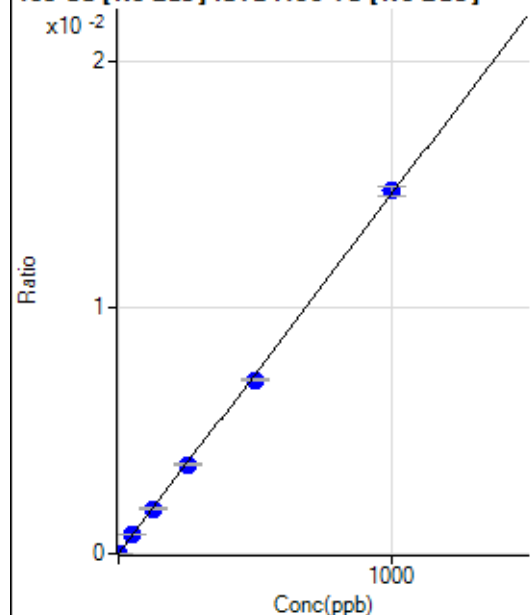
$$R = 1.0000$$

$$DL = 0.01089$$

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	36.11	0.0000	P	17.7
2	☐	0.100	0.065	54.17	0.0000	P	53.8
3	☐	1.000	1.068	344.45	0.0000	P	12.8
4	☐	50.000	51.615	14923.44	0.0008	P	0.7
5	☐	125.000	124.724	37469.16	0.0018	P	3.2
6	☐	250.000	248.395	73775.78	0.0036	P	1.3
7	☐	500.000	482.372	143553.05	0.0070	P	1.4
8	☐	1000.000	1009.169	292111.26	0.0147	P	2.7
9	☐			108.34	0.0000	P	3.8

$$y = 1.4584\text{E-}005 * x + 1.7893\text{E-}006$$

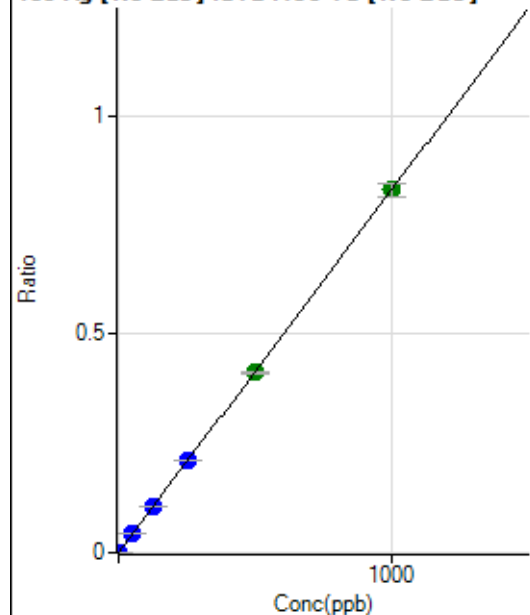
$$R = 0.9998$$

$$DL = 0.06499$$

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	133.34	0.0000	P	29.3
2	☐	0.100	0.100	1780.74	0.0001	P	7.0
3	☐	1.000	1.032	17122.14	0.0009	P	0.9
4	☐	50.000	52.481	861468.10	0.0436	P	0.5
5	☐	125.000	127.726	2181741.41	0.1060	P	2.7
6	☐	250.000	253.571	4283888.72	0.2104	P	0.7
7	☐	500.000	496.368	8404160.69	0.4119	A	1.3
8	☐	1000.000	1000.458	16475744.12	0.8303	A	3.4
9	☐			3333.89	0.0002	P	2.2

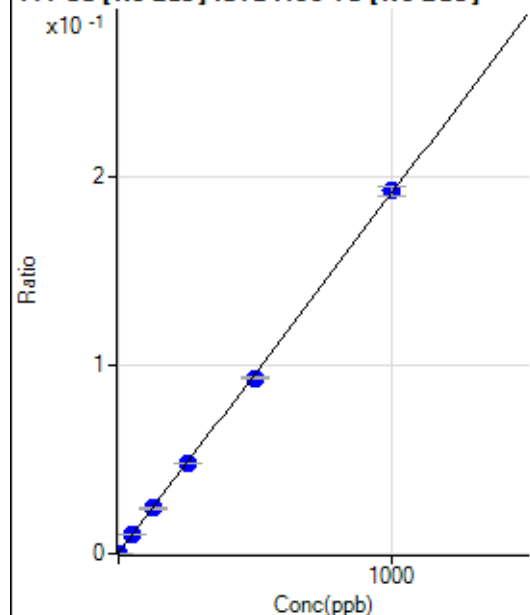
$$y = 8.2990\text{E-}004 * x + 6.6134\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.007001$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5261.58	0.0003	P	2.3
2	☐	0.100	0.123	5637.86	0.0003	P	1.7
3	☐	1.000	1.018	9038.74	0.0005	P	6.7
4	☐	50.000	50.981	198124.83	0.0100	P	1.0
5	☐	125.000	124.269	494950.03	0.0240	P	2.8
6	☐	250.000	249.432	977287.23	0.0480	P	0.5
7	☐	500.000	486.616	1905734.47	0.0934	P	1.2
8	☐	1000.000	1006.876	3830407.50	0.1930	P	2.6
9	☐			5452.69	0.0003	P	3.4

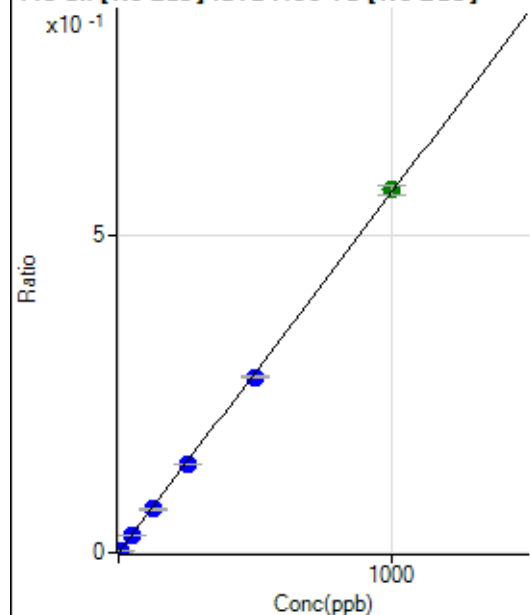
$$y = 1.9143\text{E-}004 * x + 2.6065\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.09587$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	875.07	0.0000	P	20.6
2	☐	0.500	0.528	6799.15	0.0003	P	1.9
3	☐	5.000	5.245	59867.16	0.0030	P	1.2
4	☐	50.000	49.808	559312.90	0.0283	P	1.4
5	☐	125.000	121.654	1420573.59	0.0690	P	3.0
6	☐	250.000	246.915	2851040.47	0.1401	P	0.2
7	☐	500.000	487.707	5642910.37	0.2766	P	0.9
8	☐	1000.000	1007.344	11337113.19	0.5713	A	2.6
9	☐			5701.37	0.0003	P	1.9

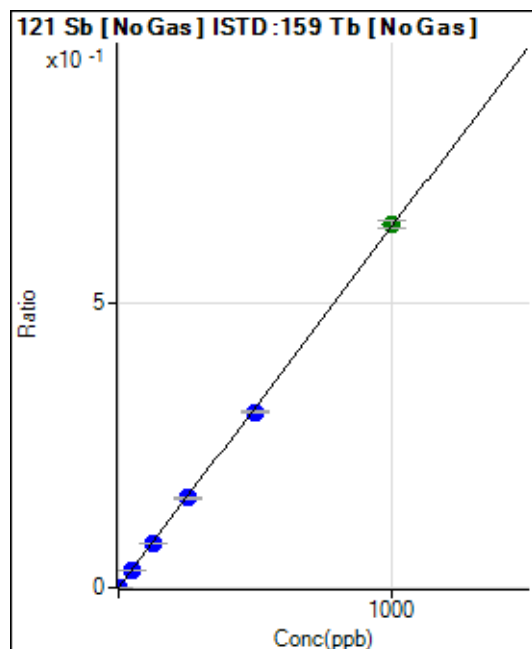
$$y = 5.6704\text{E-}004 * x + 4.3384\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.04723$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	23.1
2	☐	0.200	0.197	2567.01	0.0001	P	10.7
3	☐	2.000	2.012	25429.39	0.0013	P	1.3
4	☐	50.000	49.708	623983.95	0.0316	P	1.1
5	☐	125.000	122.676	1602720.01	0.0779	P	2.9
6	☐	250.000	248.572	3212037.90	0.1578	P	0.9
7	☐	500.000	488.076	6320699.45	0.3098	P	1.5
8	☐	1000.000	1006.624	12681962.44	0.6390	A	2.3
9	☐			11855.49	0.0006	P	3.7

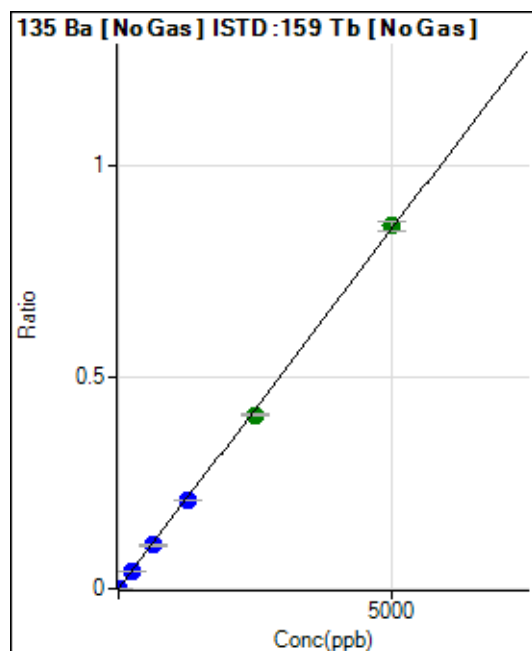
$$y = 6.3477\text{E-}004 * x + 4.4000\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.004808$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	575.03	0.0000	P	7.3
2	☐	1.000	1.016	3984.07	0.0002	P	3.4
3	☐	10.000	10.151	34724.75	0.0018	P	0.9
4	☐	250.000	247.878	832004.09	0.0421	P	0.6
5	☐	625.000	608.509	2124846.38	0.1032	P	2.7
6	☐	1250.000	1234.588	4263322.05	0.2094	P	0.6
7	☐	2500.000	2420.263	8375616.08	0.4105	A	1.2
8	☐	5000.000	5045.889	16986709.75	0.8559	A	2.4
9	☐			4081.35	0.0002	P	1.2

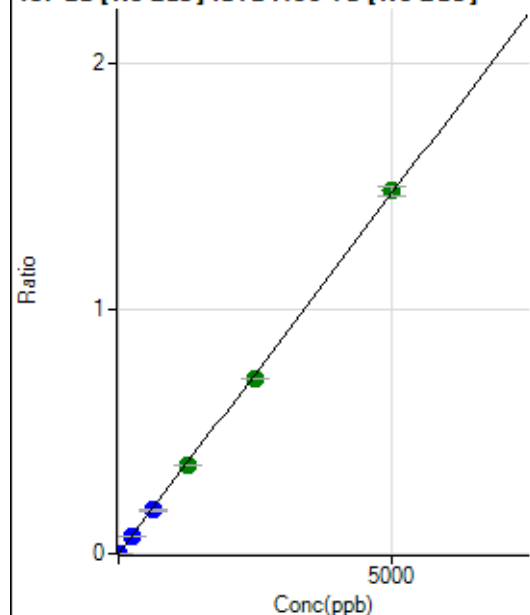
$$y = 1.6962\text{E-}004 * x + 2.8482\text{E-}005$$

$$R = 0.9998$$

$$DL = 0.0368$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	827.84	0.0000	P	5.1
2	☐	1.000	1.021	6771.39	0.0003	P	4.5
3	☐	10.000	10.244	60577.36	0.0031	P	1.9
4	☐	250.000	249.002	1448401.95	0.0733	P	1.3
5	☐	625.000	607.604	3677775.47	0.1787	P	2.7
6	☐	1250.000	1228.683	7354955.46	0.3613	A	0.6
7	☐	2500.000	2432.590	14593202.41	0.7153	A	0.7
8	☐	5000.000	5041.258	29416663.85	1.4823	A	2.9
9	☐			6943.66	0.0004	P	1.2

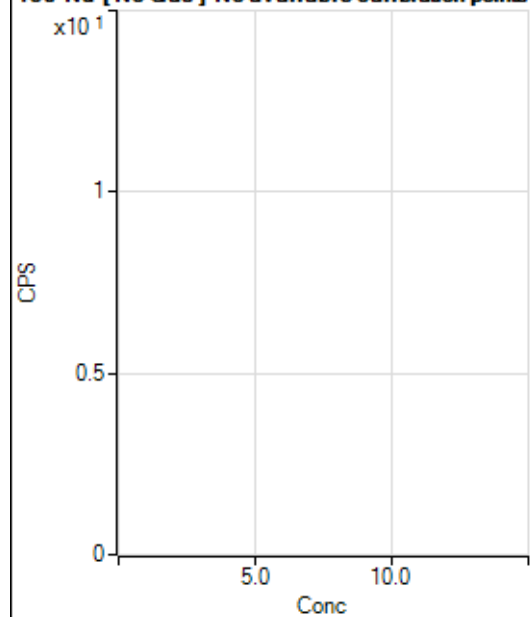
$$y = 2.9403E-004 * x + 4.1005E-005$$

$$R = 0.9999$$

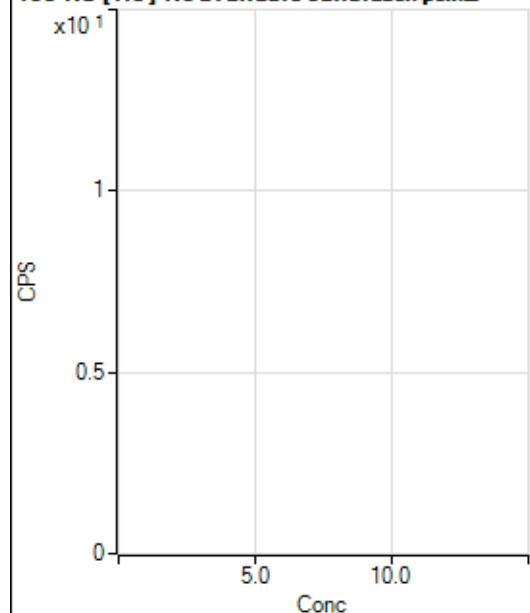
$$DL = 0.0212$$

Weight: <None>

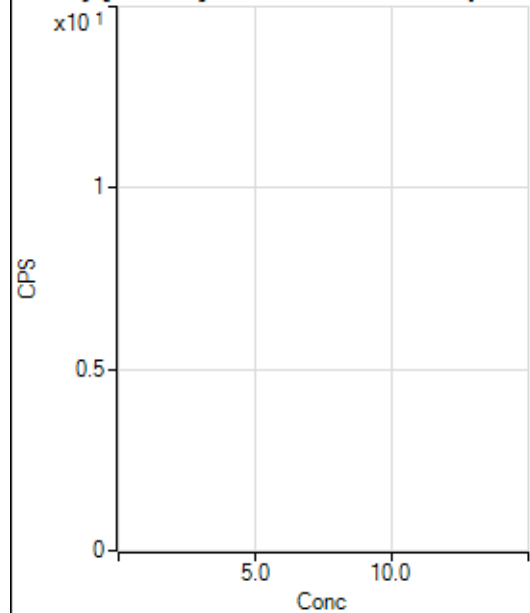
Min Conc: 0

150 Nd [No Gas] No available calibration points

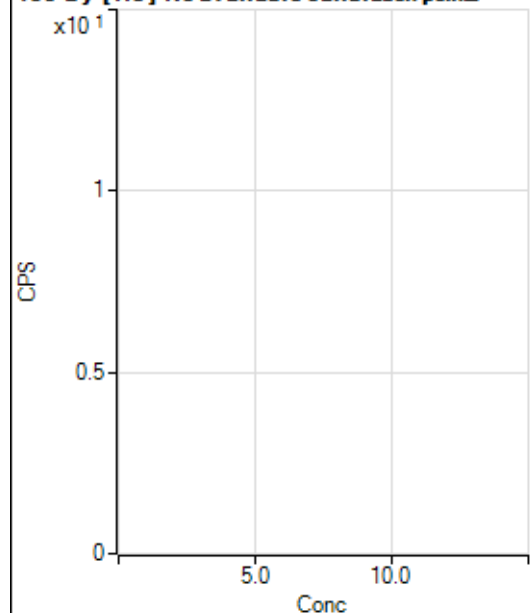
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			35.56		P	75.8
2	☐			15.56		P	49.5
3	☐			26.67		P	90.1
4	☐			91.12		P	36.1
5	☐			197.79		P	18.6
6	☐			380.02		P	10.7
7	☐			733.38		P	7.3
8	☐			1420.12		P	8.9
9	☐			180.01		P	12.8

150 Nd [He] No available calibration points

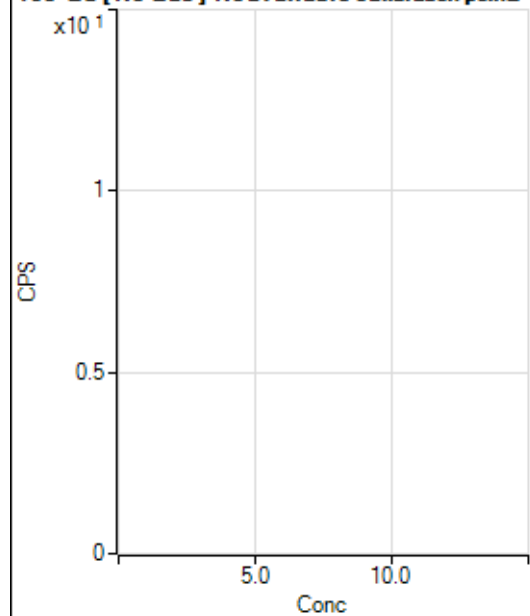
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.66		P	86.6
2	☐			5.55		P	69.3
3	☐			7.78		P	49.5
4	☐			11.11		P	34.6
5	☐			34.44		P	14.8
6	☐			42.22		P	24.1
7	☐			53.33		P	65.0
8	☐			108.89		P	13.8
9	☐			58.89		P	34.6

156 Dy [No Gas] No available calibration points

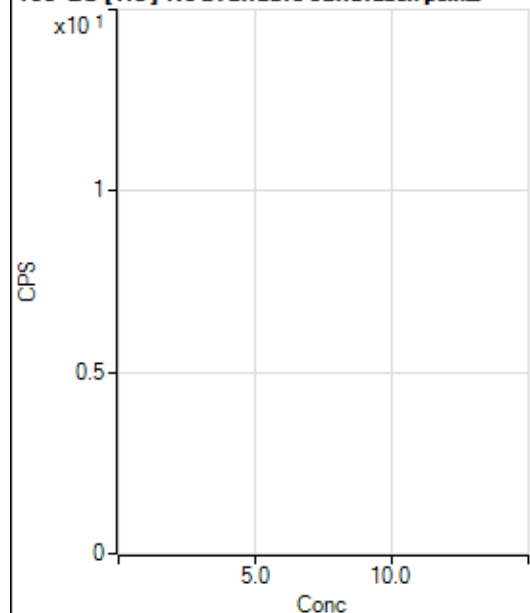
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			475.03		P	24.6
2	☐			363.91		P	13.8
3	☐			394.47		P	10.0
4	☐			533.37		P	46.2
5	☐			561.15		P	8.7
6	☐			488.92		P	12.9
7	☐			458.36		P	10.1
8	☐			644.49		P	2.7
9	☐			238.90		P	12.2

156 Dy [He] No available calibration points

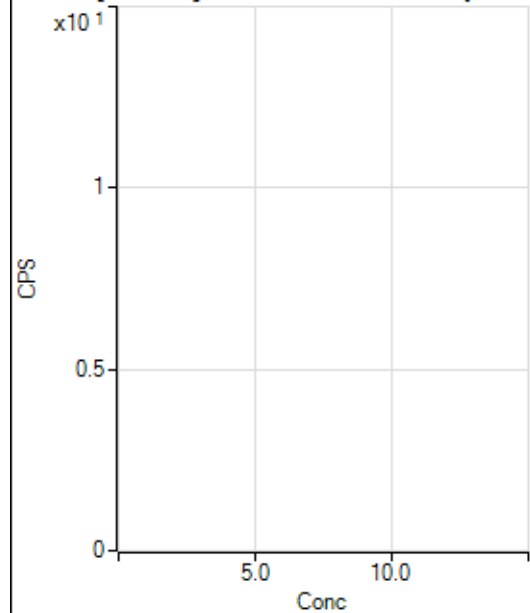
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			58.89		P	41.0
2	☐			53.33		P	16.5
3	☐			45.55		P	29.6
4	☐			77.78		P	10.8
5	☐			86.67		P	30.5
6	☐			121.11		P	15.7
7	☐			177.78		P	18.8
8	☐			355.57		P	18.1
9	☐			63.33		P	5.3

160 Gd [No Gas] Noavailable calibration poin_

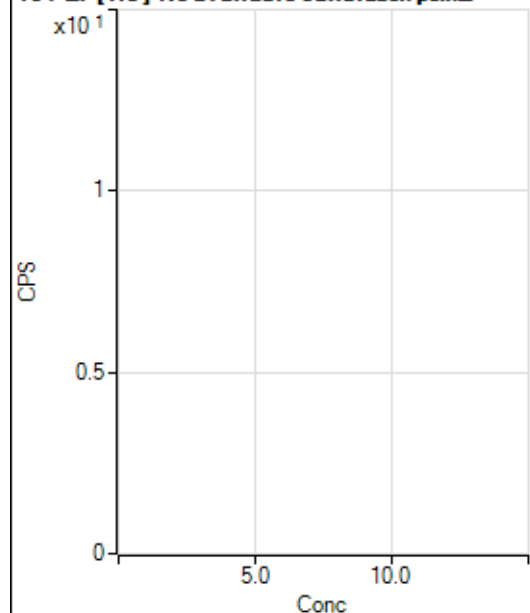
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			155.56		P	29.5
2	☐			133.34		P	16.5
3	☐			136.12		P	46.4
4	☐			150.01		P	16.7
5	☐			150.01		P	5.6
6	☐			166.68		P	37.8
7	☐			94.45		P	10.2
8	☐			186.12		P	30.5
9	☐			152.79		P	19.2

160 Gd [He] No available calibration points

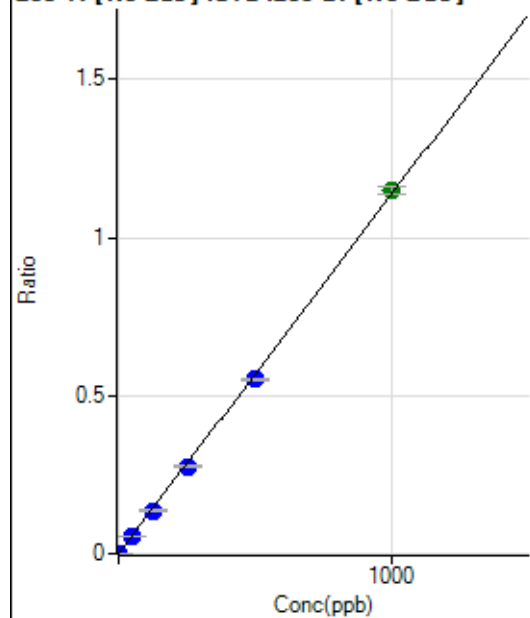
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			324.45		P	2.6
2	☐			325.57		P	9.7
3	☐			354.46		P	7.1
4	☐			353.34		P	8.1
5	☐			348.90		P	13.5
6	☐			341.12		P	10.4
7	☐			331.12		P	20.7
8	☐			345.57		P	13.0
9	☐			342.23		P	13.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			94.45		P	53.9
2	☐			136.12		P	28.9
3	☐			127.78		P	13.6
4	☐			100.00		P	52.0
5	☐			111.12		P	4.3
6	☐			138.90		P	24.2
7	☐			105.56		P	16.4
8	☐			163.90		P	5.9
9	☐			133.34		P	27.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			65.56		P	26.1
2	☐			55.56		P	17.3
3	☐			54.45		P	43.0
4	☐			68.89		P	10.1
5	☐			82.22		P	20.4
6	☐			77.78		P	25.8
7	☐			63.33		P	29.3
8	☐			82.22		P	24.4
9	☐			66.67		P	22.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	563.93	0.0000	P	5.3
2	☐	0.100	0.115	2191.95	0.0002	P	2.4
3	☐	1.000	0.978	14361.08	0.0012	P	2.5
4	☐	50.000	47.829	664268.27	0.0544	P	1.1
5	☐	125.000	119.280	1701737.63	0.1355	P	2.8
6	☐	250.000	243.161	3367316.57	0.2763	P	1.2
7	☐	500.000	485.371	6593049.19	0.5514	P	0.5
8	☐	1000.000	1009.848	13092096.73	1.1472	A	2.2
9	☐			3970.23	0.0004	P	2.4

$$y = 0.0011 * x + 4.4409E-005$$

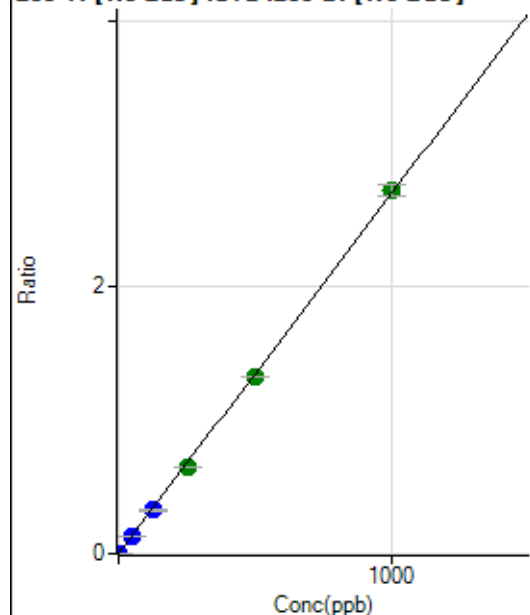
$$R = 0.9998$$

$$DL = 0.006248$$

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	1041.75	0.0001	P	9.6
2	☐	0.100	0.099	4353.71	0.0003	P	4.6
3	☐	1.000	0.964	33376.23	0.0027	P	3.2
4	☐	50.000	48.183	1590253.82	0.1302	P	1.1
5	☐	125.000	120.754	4093662.42	0.3261	P	3.4
6	☐	250.000	240.448	7913650.61	0.6492	A	1.3
7	☐	500.000	490.559	15836834.55	1.3245	A	0.7
8	☐	1000.000	1007.730	31045569.10	2.7208	A	3.2
9	☐			9142.43	0.0009	P	6.1

$$y = 0.0027 * x + 8.2008E-005$$

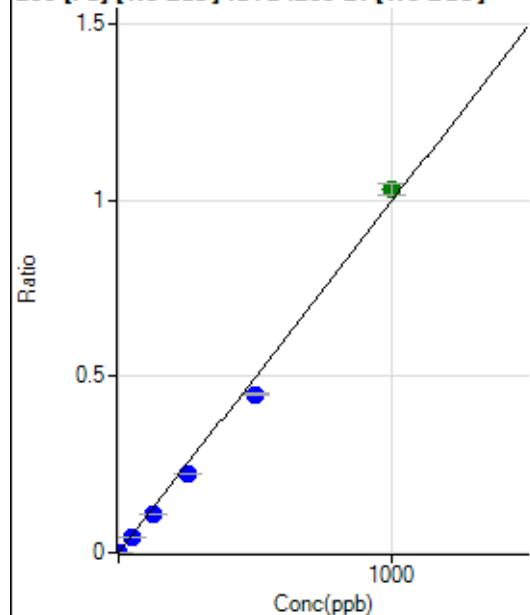
$$R = 0.9999$$

$$DL = 0.008712$$

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	1479.76	0.0001	P	6.1
2	☐	0.100	0.098	2679.98	0.0002	P	4.3
3	☐	1.000	0.904	12650.77	0.0010	P	0.7
4	☐	50.000	44.578	544462.34	0.0446	P	0.6
5	☐	125.000	109.947	1378149.89	0.1098	P	2.6
6	☐	250.000	223.828	2722215.63	0.2233	P	1.0
7	☐	500.000	450.833	5377207.06	0.4497	P	1.3
8	☐	1000.000	1033.279	11759432.44	1.0306	A	3.2
9	☐			26100.29	0.0026	P	1.2

$$y = 9.9727E-004 * x + 1.1648E-004$$

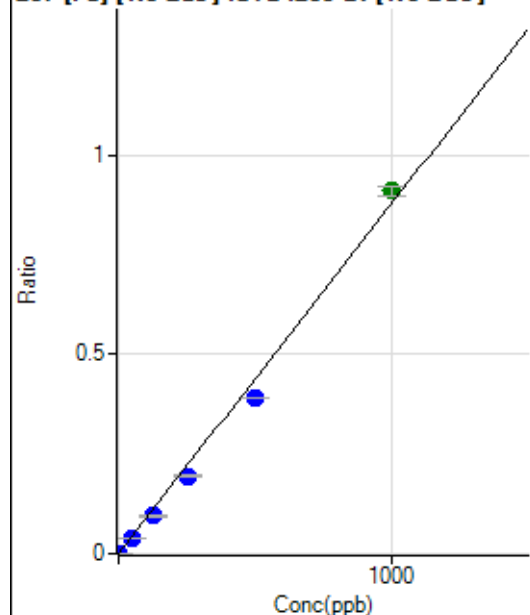
$$R = 0.9979$$

$$DL = 0.02135$$

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	1333.44	0.0001	P	5.1
2	☐	0.100	0.098	2387.32	0.0002	P	1.9
3	☐	1.000	0.867	10776.87	0.0009	P	0.9
4	☐	50.000	44.002	473450.57	0.0388	P	0.7
5	☐	125.000	108.252	1195273.39	0.0952	P	2.5
6	☐	250.000	222.345	2381979.60	0.1954	P	1.1
7	☐	500.000	445.189	4677227.02	0.3912	P	1.1
8	☐	1000.000	1036.713	10393479.52	0.9108	A	2.7
9	☐			23862.69	0.0024	P	0.5

$$y = 8.7843E-004 * x + 1.0498E-004$$

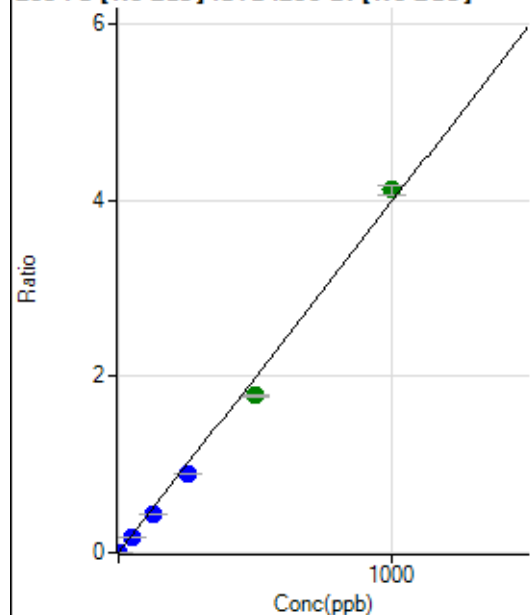
$$R = 0.9975$$

$$DL = 0.0183$$

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	5591.35	0.0004	P	0.9
2	☐	0.100	0.095	10203.62	0.0008	P	1.2
3	☐	1.000	0.888	49407.16	0.0040	P	1.4
4	☐	50.000	44.497	2167702.34	0.1775	P	0.5
5	☐	125.000	109.449	5472741.05	0.4359	P	2.5
6	☐	250.000	224.534	10893842.05	0.8937	P	0.9
7	☐	500.000	448.385	21334777.39	1.7843	A	0.9
8	☐	1000.000	1034.393	46965615.28	4.1157	A	2.8
9	☐			105867.75	0.0106	P	0.4

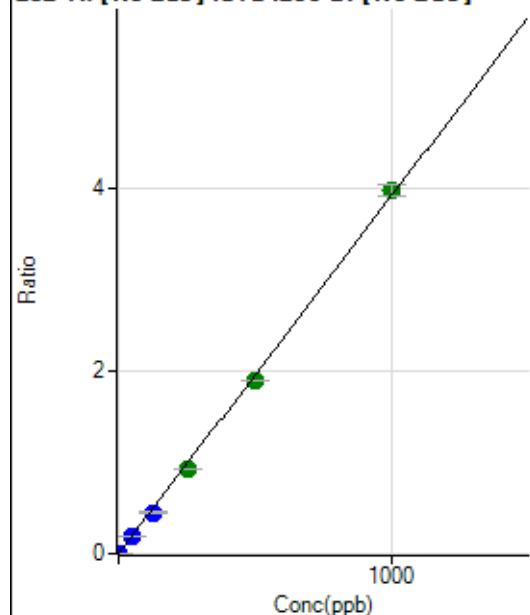
$$y = 0.0040 * x + 4.4023E-004$$

$$R = 0.9978$$

$$DL = 0.002892$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1827.97	0.0001	P	8.1
2	☐	0.100	0.078	5612.49	0.0004	P	0.9
3	☐	1.000	0.843	42785.63	0.0034	P	2.1
4	☐	50.000	46.255	2210869.41	0.1810	P	0.4
5	☐	125.000	114.300	5613155.51	0.4471	P	2.8
6	☐	250.000	235.298	11216546.20	0.9202	A	0.7
7	☐	500.000	482.670	22568641.94	1.8875	A	0.0
8	☐	1000.000	1013.865	45237802.86	3.9645	A	3.1
9	☐			10044.90	0.0010	P	2.6

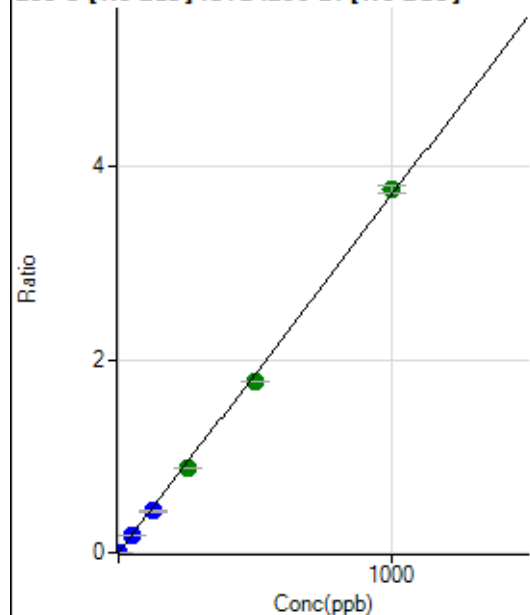
$$y = 0.0039 * x + 1.4394E-004$$

$$R = 0.9996$$

$$DL = 0.008995$$

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	1969.68	0.0002	P	0.8
2	☐	0.100	0.095	6357.38	0.0005	P	2.8
3	☐	1.000	0.931	44862.29	0.0036	P	2.0
4	☐	50.000	47.168	2138334.92	0.1751	P	0.7
5	☐	125.000	115.695	5388054.33	0.4292	P	3.3
6	☐	250.000	237.130	10720408.92	0.8795	A	0.8
7	☐	500.000	479.502	21263223.04	1.7783	A	0.1
8	☐	1000.000	1014.771	42947999.57	3.7632	A	2.2
9	☐			6451.92	0.0006	P	1.7

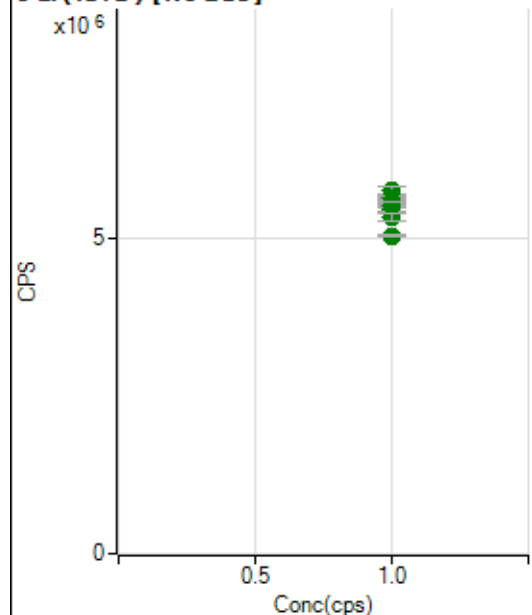
$$y = 0.0037 * x + 1.5508E-004$$

$$R = 0.9996$$

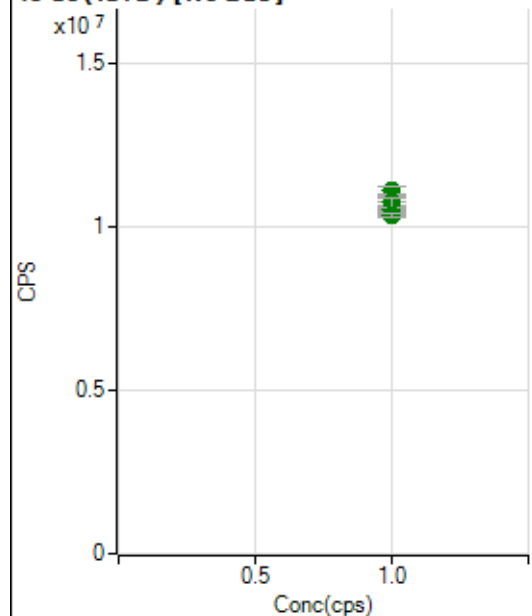
$$DL = 0.001006$$

Weight: <None>

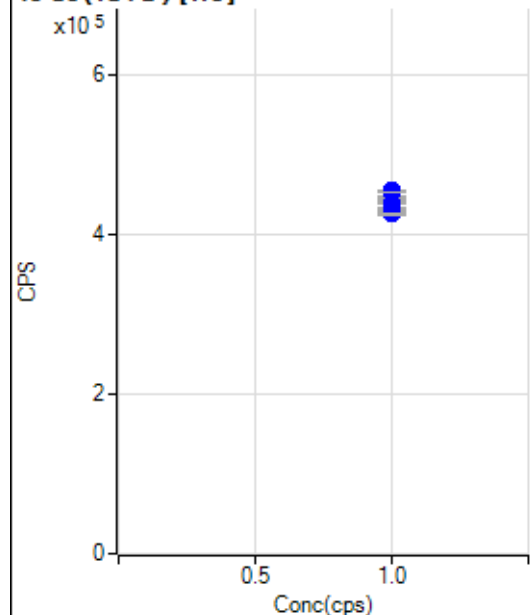
Min Conc: 0

6 Li (ISTD) [No Gas]

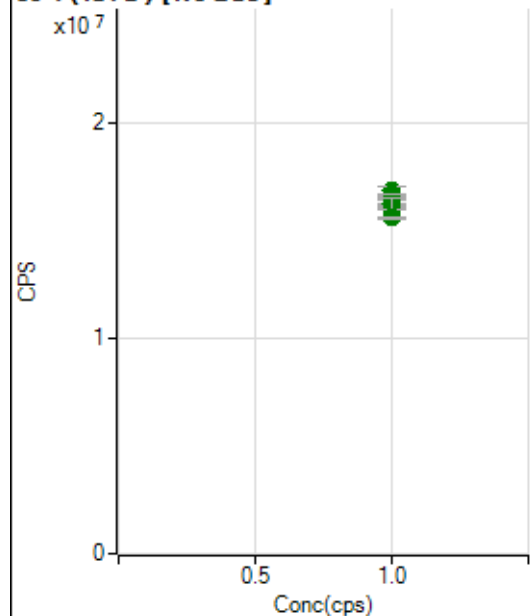
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5456599.15		A	0.8
2	☐	1.000		5531180.06		A	0.5
3	☐	1.000		5546098.46		A	0.5
4	☐	1.000		5523733.22		A	4.5
5	☐	1.000		5747873.39		A	2.1
6	☐	1.000		5633489.85		A	0.8
7	☐	1.000		5574833.67		A	0.2
8	☐	1.000		5342847.84		A	2.3
9	☐	1.000		5031828.85		A	0.6

45 Sc (ISTD) [No Gas]

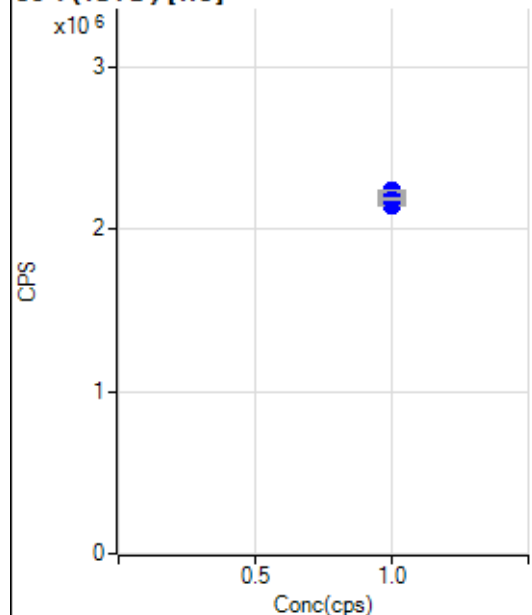
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10500432.70		A	0.4
2	☐	1.000		10638821.33		A	0.8
3	☐	1.000		10620191.73		A	0.9
4	☐	1.000		10562437.74		A	3.8
5	☐	1.000		11117040.18		A	3.0
6	☐	1.000		10932518.82		A	0.6
7	☐	1.000		10971056.41		A	0.6
8	☐	1.000		10762980.80		A	2.6
9	☐	1.000		10367511.86		A	0.8

45 Sc (ISTD) [He]

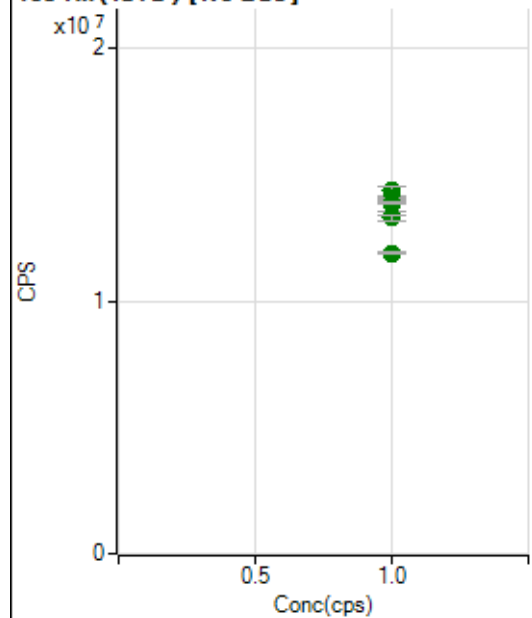
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		433544.65		P	0.5
2	☐	1.000		429588.86		P	0.2
3	☐	1.000		425901.21		P	0.5
4	☐	1.000		440437.99		P	0.4
5	☐	1.000		444308.32		P	0.4
6	☐	1.000		444379.46		P	0.4
7	☐	1.000		447122.20		P	0.5
8	☐	1.000		455224.96		P	0.9
9	☐	1.000		453863.02		P	0.1

89 Y (ISTD) [No Gas]

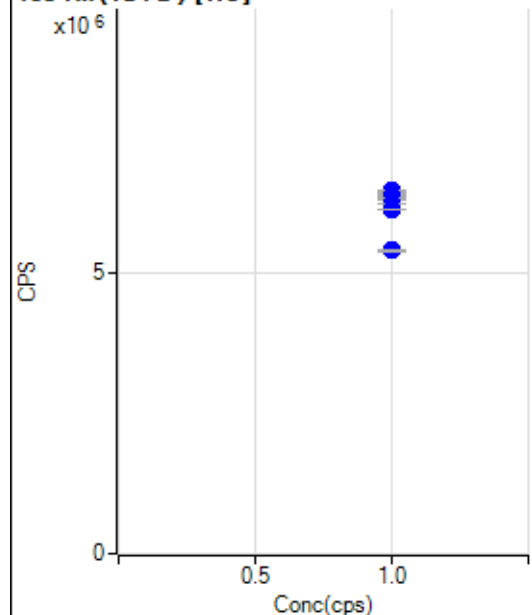
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16057946.84		A	0.7
2	☐	1.000		16250163.37		A	0.9
3	☐	1.000		16187315.73		A	0.3
4	☐	1.000		16056691.71		A	4.5
5	☐	1.000		16880585.58		A	2.3
6	☐	1.000		16609883.09		A	0.3
7	☐	1.000		16733780.72		A	0.3
8	☐	1.000		16288333.37		A	3.0
9	☐	1.000		15625718.10		A	0.2

89 Y (ISTD) [He]

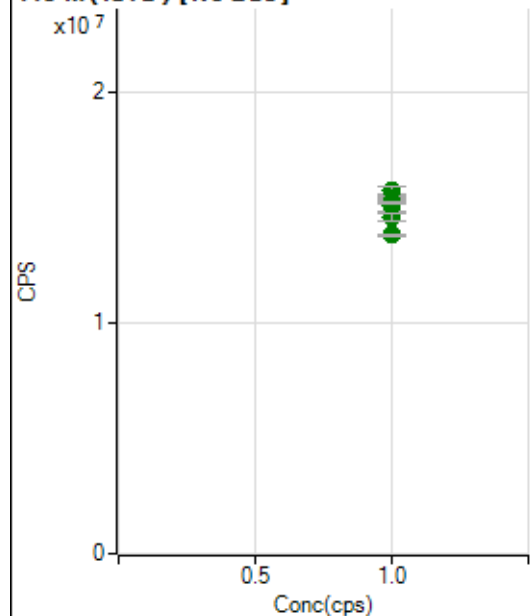
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2182978.75		P	0.4
2	☐	1.000		2172965.73		P	0.2
3	☐	1.000		2151605.16		P	0.9
4	☐	1.000		2233445.37		P	0.5
5	☐	1.000		2214958.51		P	0.6
6	☐	1.000		2233963.23		P	0.9
7	☐	1.000		2232654.08		P	0.2
8	☐	1.000		2237437.83		P	0.6
9	☐	1.000		2185932.47		P	0.2

103 Rh (ISTD) [No Gas]

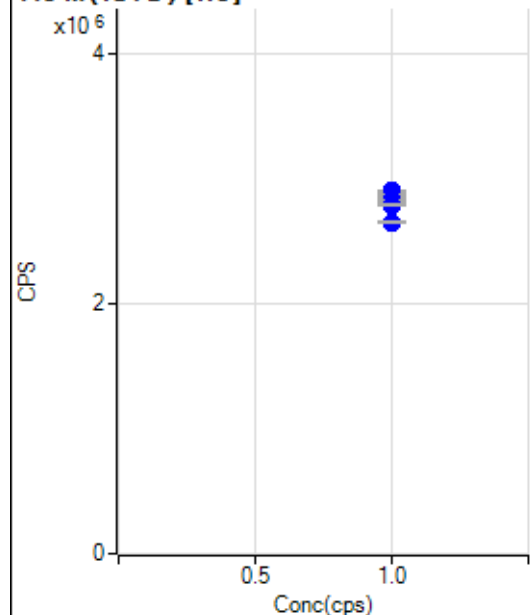
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14128694.41		A	0.4
2	☐	1.000		14081983.47		A	0.2
3	☐	1.000		13995671.15		A	0.6
4	☐	1.000		13826208.90		A	4.2
5	☐	1.000		14359429.32		A	2.5
6	☐	1.000		14080556.04		A	0.1
7	☐	1.000		13882488.33		A	0.6
8	☐	1.000		13285989.54		A	2.1
9	☐	1.000		11901032.12		A	0.5

103 Rh (ISTD) [He]

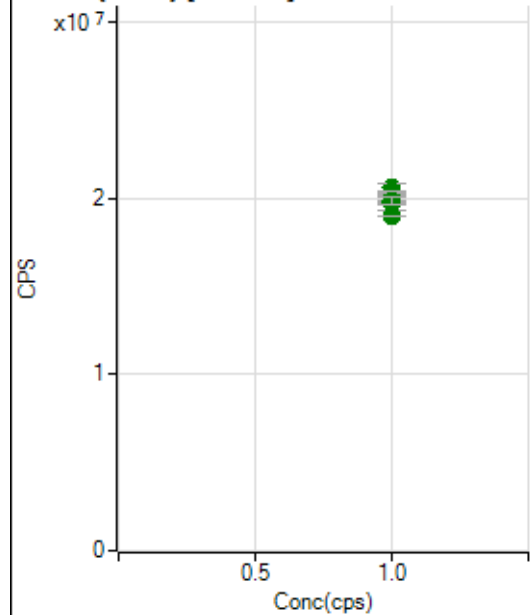
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6331542.68		P	0.8
2	☐	1.000		6374064.63		P	0.7
3	☐	1.000		6294791.78		P	0.7
4	☐	1.000		6443437.34		P	0.3
5	☐	1.000		6343958.38		P	0.5
6	☐	1.000		6313925.46		P	0.4
7	☐	1.000		6214633.38		P	0.0
8	☐	1.000		6104734.08		P	0.2
9	☐	1.000		5379156.31		P	0.9

115 In (ISTD) [No Gas]

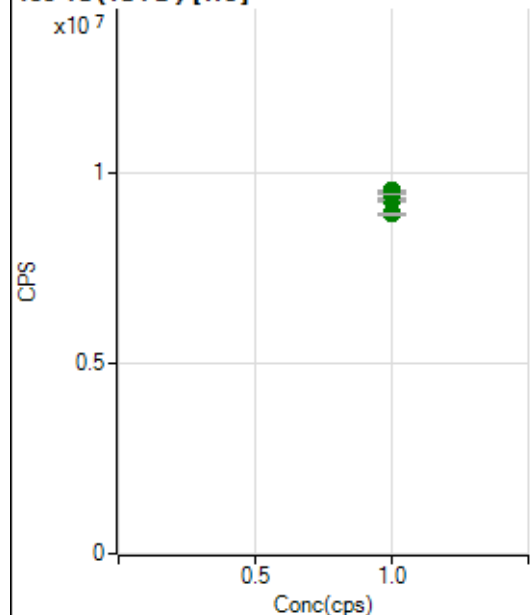
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15522900.85		A	0.6
2	☐	1.000		15304123.46		A	0.1
3	☐	1.000		15234101.79		A	0.5
4	☐	1.000		15090729.94		A	3.7
5	☐	1.000		15701544.71		A	2.5
6	☐	1.000		15401507.31		A	0.6
7	☐	1.000		15222050.12		A	0.5
8	☐	1.000		14571494.87		A	2.6
9	☐	1.000		13780065.67		A	0.3

115 In (ISTD) [He]

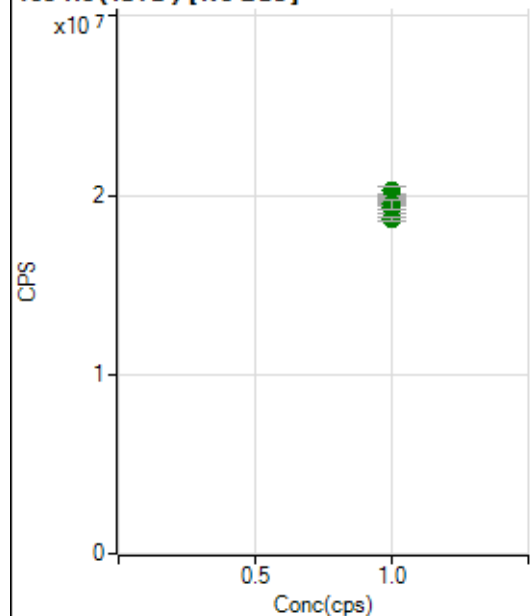
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2853017.30		P	0.7
2	☐	1.000		2851663.04		P	0.7
3	☐	1.000		2825972.01		P	0.5
4	☐	1.000		2902401.01		P	0.3
5	☐	1.000		2886569.01		P	0.6
6	☐	1.000		2873175.19		P	0.5
7	☐	1.000		2828931.00		P	0.3
8	☐	1.000		2790116.91		P	0.5
9	☐	1.000		2649944.19		P	0.7

159 Tb (ISTD) [No Gas]

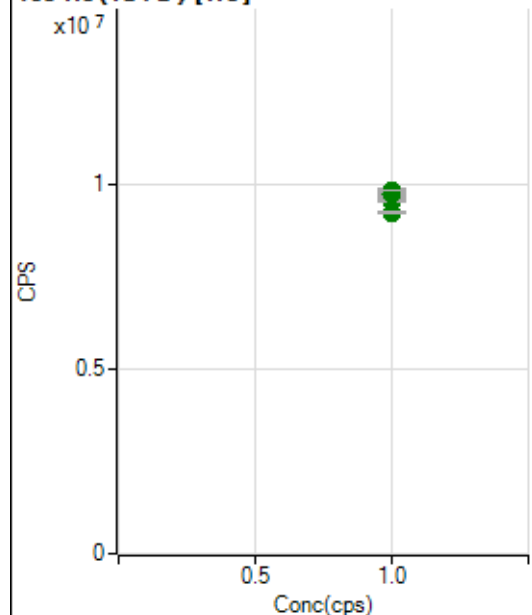
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20185802.61		A	0.6
2	☐	1.000		19836679.56		A	0.6
3	☐	1.000		19840286.23		A	0.5
4	☐	1.000		19779013.32		A	4.7
5	☐	1.000		20591155.39		A	2.7
6	☐	1.000		20356518.86		A	0.3
7	☐	1.000		20401958.59		A	0.5
8	☐	1.000		19854787.76		A	2.6
9	☐	1.000		18992221.80		A	0.1

159 Tb (ISTD) [He]

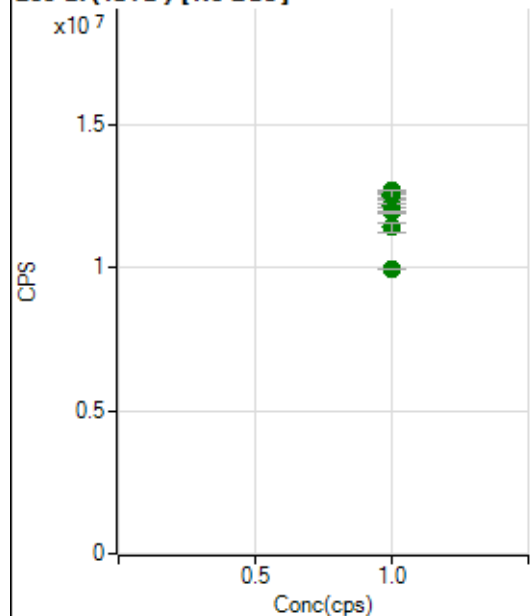
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9464192.36		A	0.6
2	☐	1.000		9293582.78		A	0.4
3	☐	1.000		9341160.21		A	0.6
4	☐	1.000		9538661.45		A	0.4
5	☐	1.000		9515624.09		A	0.4
6	☐	1.000		9492546.52		A	0.2
7	☐	1.000		9499058.47		A	0.5
8	☐	1.000		9467674.72		A	0.2
9	☐	1.000		8929618.55		A	0.9

165 Ho (ISTD) [No Gas]

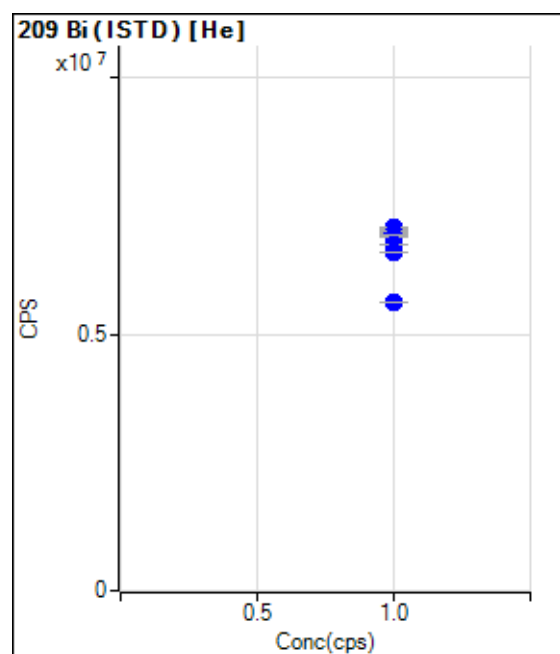
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19814536.55		A	1.2
2	☐	1.000		19592646.62		A	0.6
3	☐	1.000		19360021.44		A	1.1
4	☐	1.000		19318991.23		A	3.8
5	☐	1.000		20246368.16		A	2.7
6	☐	1.000		20006737.95		A	1.0
7	☐	1.000		19918916.07		A	0.2
8	☐	1.000		19491963.11		A	2.9
9	☐	1.000		18676943.48		A	0.9

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9646094.23		A	0.8
2	☐	1.000		9571427.15		A	0.1
3	☐	1.000		9536155.90		A	0.1
4	☐	1.000		9767754.72		A	0.6
5	☐	1.000		9715699.85		A	0.7
6	☐	1.000		9804910.69		A	0.9
7	☐	1.000		9784970.76		A	0.5
8	☐	1.000		9804619.02		A	0.1
9	☐	1.000		9215401.04		A	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12701060.23		A	0.6
2	☐	1.000		12494096.06		A	1.1
3	☐	1.000		12431482.17		A	0.6
4	☐	1.000		12213996.49		A	3.5
5	☐	1.000		12561372.31		A	2.7
6	☐	1.000		12189568.43		A	0.7
7	☐	1.000		11957132.32		A	0.5
8	☐	1.000		11416909.00		A	2.6
9	☐	1.000		9981391.45		A	0.2



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6942388.65		P	0.4
2	☐	1.000		7031247.33		M	1.2
3	☐	1.000		6936944.27		P	0.6
4	☐	1.000		7068100.73		P	0.2
5	☐	1.000		6980967.32		P	1.0
6	☐	1.000		6901104.76		P	0.4
7	☐	1.000		6749519.34		P	0.3
8	☐	1.000		6596358.03		P	0.2
9	☐	1.000		5610497.00		P	0.3

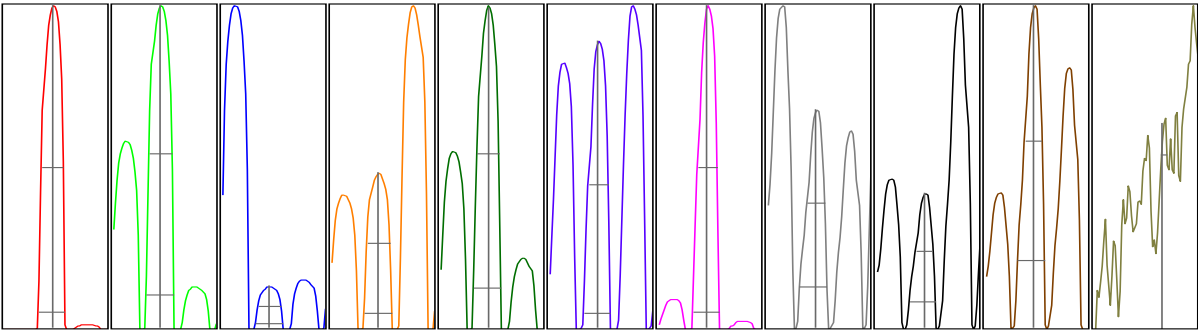
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7103119 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	17234	0.71	5.00	
24	170273	0.97	5.00	
25	22613	1.42	5.00	
26	26975	1.03	5.00	
59	128715	1.33	5.00	
113	16327	1.18	5.00	
115	192863	1.37	5.00	
206	45341	0.68	5.00	
207	44312	0.63	5.00	
208	97145	0.89	5.00	
220	68	3.04		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	17099	17154	17311	17403	17202
24	168175	168959	170692	171942	171597
25	22210	22347	22706	22945	22858
26	26538	26949	27228	27199	26961
59	126415	127489	130517	129908	129246
113	16011	16303	16515	16435	16373
115	188378	193879	195253	193926	192880
206	44958	45260	45589	45711	45189
207	43940	44302	44151	44628	44538
208	96174	96503	97053	98276	97720
220	65	69	69	69	70

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	28415	8.95	8.9 - 9.1		0.780	0.900	
24	264800	23.90	23.9 - 24.1		0.808	0.900	
25	35192	24.90	24.9 - 25.1		0.797	0.900	
26	40813	25.90	25.9 - 26.1		0.813	0.900	
59	211324	58.95	58.9 - 59.1		0.796	0.900	
113	29067	112.95	112.9 - 113.1		0.778	0.900	
115	350464	114.95	114.9 - 115.1		0.777	0.900	
206	80653	205.95	205.9 - 206.1		0.794	0.900	
207	72945	206.95	206.9 - 207.1		0.753	0.900	
208	173438	207.95	207.9 - 208.1		0.774	0.900	
220	72	220.50	-				

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

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.0	V	Deflect	13.6	V
Extract 2	-120.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	190	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	31601	0.98	
89	27059	1.31	
205	38495	1.70	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	31445	32021	31655	31696	31190
89	27100	27485	27026	27173	26510
205	38783	39103	38412	38767	37409

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.5	V	Deflect	1.6	V
Extract 2	-135.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	V	Cell Exit	-60	V			

Cell Parameters

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