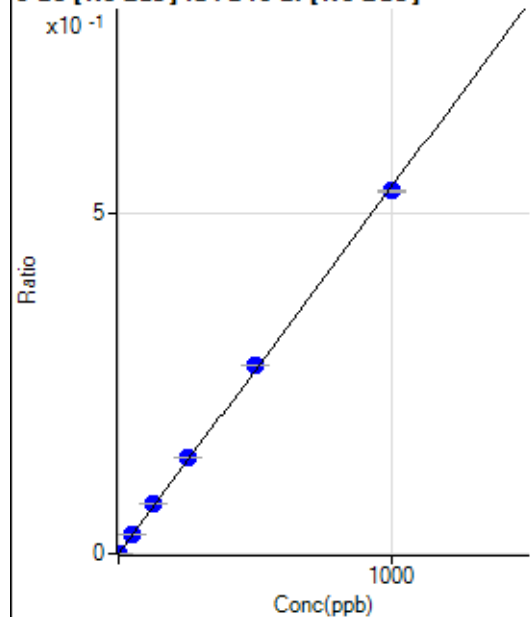


Batch Folder: D:\ICP-MS Data\P7081419 MS.b\
Analysis File: P7081419 MS.batch.bin
DA Date-Time: 2019-08-14 17:06:47
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-08-14 13:21:36
2	003CALS.d	S02	2019-08-14 13:25:13
3	004CALS.d	S03	2019-08-14 13:29:35
4	005CALS.d	S04	2019-08-14 13:33:31
5	006CALS.d	S05	2019-08-14 13:37:24
6	007CALS.d	S06	2019-08-14 13:41:14
7	008CALS.d	S07	2019-08-14 13:45:03
8	009CALS.d	S08	2019-08-14 13:48:49

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0000	P	6.9
2	☐	1.000	1.070	1313.41	0.0006	P	3.3
3	☐	50.000	53.746	63913.78	0.0291	P	0.7
4	☐	125.000	134.515	155001.87	0.0727	P	0.8
5	☐	250.000	263.758	278815.35	0.1425	P	0.4
6	☐	500.000	511.890	518420.84	0.2766	P	0.1
7	☐	1000.000	989.239	1020701.61	0.5344	P	0.5
8	☐			220.01	0.0001	P	18.7

$$y = 5.4022\text{E-}004 * x + 2.1337\text{E-}005$$

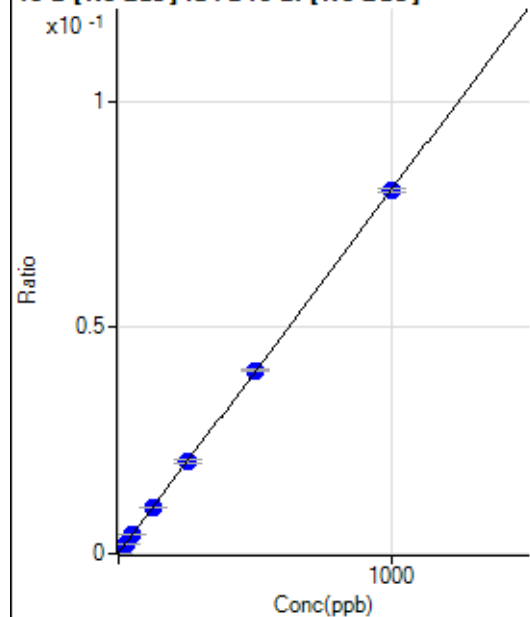
R = 0.9998

DL = 0.00821

BEC = 0.0395

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	222.23	0.0001	P	5.5
2	☐	25.000	24.421	4525.88	0.0021	P	1.1
3	☐	50.000	50.590	9169.83	0.0042	P	3.5
4	☐	125.000	127.281	22039.14	0.0103	P	0.9
5	☐	250.000	252.851	39970.43	0.0204	P	2.6
6	☐	500.000	503.917	76144.89	0.0406	P	1.6
7	☐	1000.000	997.028	153301.46	0.0803	P	1.1
8	☐			8116.37	0.0043	P	8.0

$$y = 8.0403\text{E-}005 * x + 1.0161\text{E-}004$$

R = 1.0000

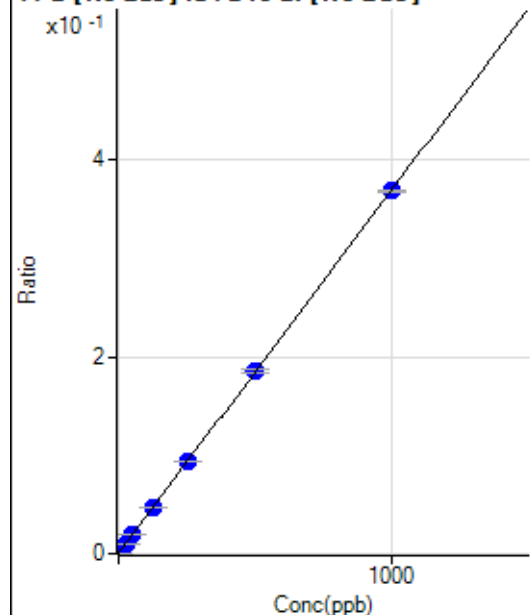
DL = 0.2084

BEC = 1.264

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1033.42	0.0005	P	4.8
2	☐	25.000	24.369	20706.46	0.0094	P	1.6
3	☐	50.000	50.782	42179.21	0.0192	P	3.4
4	☐	125.000	126.651	100480.11	0.0471	P	2.6
5	☐	250.000	253.049	183260.07	0.0937	P	1.1
6	☐	500.000	501.412	347095.13	0.1852	P	1.9
7	☐	1000.000	998.302	703181.38	0.3682	P	0.7
8	☐			36598.21	0.0195	P	6.1

$$y = 3.6833\text{E-}004 * x + 4.7251\text{E-}004$$

$$R = 1.0000$$

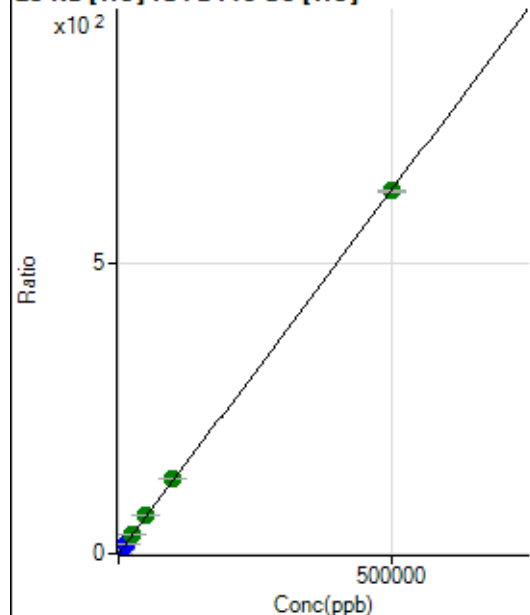
$$DL = 0.1848$$

$$BEC = 1.283$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3950.68	0.0227	P	5.6
2	☐	500.000	495.851	109436.06	0.6422	P	1.6
3	☐	5000.000	5053.214	1050301.90	6.3363	P	0.8
4	☐	12500.000	12639.987	2493090.25	15.8152	P	2.5
5	☐	25000.000	26402.836	4550566.99	33.0107	A	0.7
6	☐	50000.000	52842.121	9184201.16	66.0441	A	0.7
7	☐	100000.00	102750.19	18537998.16	128.3997	A	1.0
8	☐	500000.00	499091.57	93134902.78	623.5919	A	0.4

$$y = 0.0012 * x + 0.0227$$

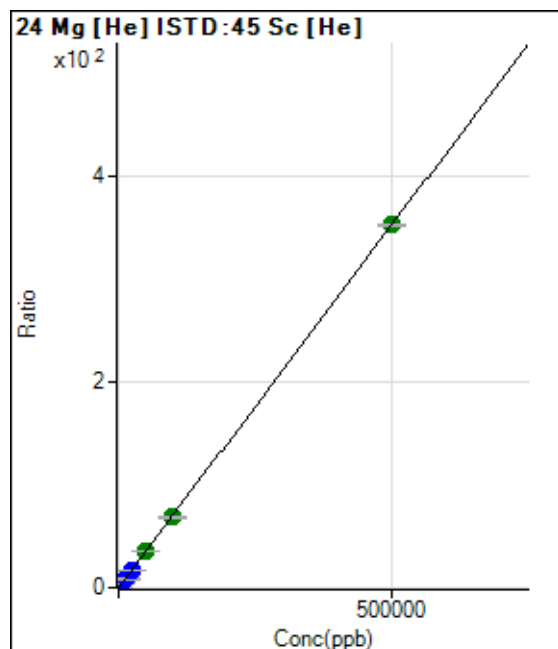
$$R = 1.0000$$

$$DL = 3.057$$

$$BEC = 18.19$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	61.11	0.0004	P	23.1
2	☐	500.000	473.745	57026.05	0.3347	P	1.4
3	☐	5000.000	4829.663	565061.10	3.4089	P	0.6
4	☐	12500.000	11966.879	1331424.00	8.4459	P	2.4
5	☐	25000.000	24750.318	2407951.07	17.4677	P	0.6
6	☐	50000.000	50273.147	4934022.72	35.4803	A	0.6
7	☐	100000.00	97238.435	9908016.63	68.6258	A	1.0
8	☐	500000.00	500552.54	52759464.03	353.2623	A	0.6

$$y = 7.0574\text{E-}004 * x + 3.5277\text{E-}004$$

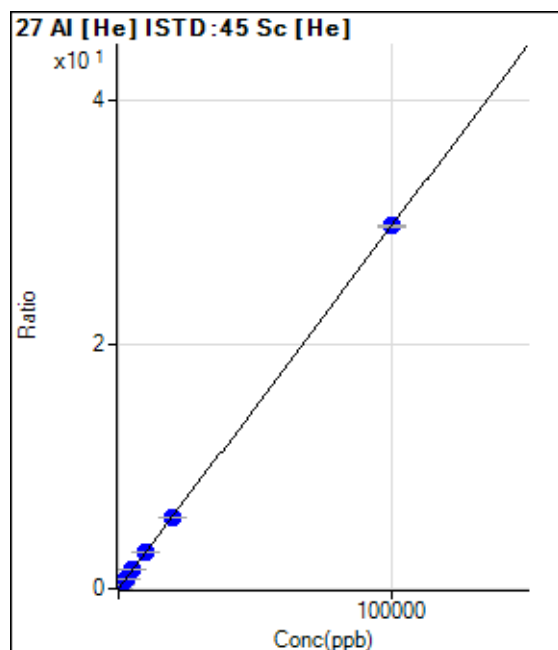
$$R = 1.0000$$

$$DL = 0.3458$$

$$BEC = 0.4999$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0001	P	76.2
2	☐	20.000	18.957	980.63	0.0058	P	14.0
3	☐	1000.000	986.676	48616.20	0.2933	P	0.6
4	☐	2500.000	2466.239	115523.46	0.7329	P	3.0
5	☐	5000.000	5108.260	209235.19	1.5178	P	1.0
6	☐	10000.000	10245.024	423320.53	3.0440	P	0.4
7	☐	20000.000	19651.331	842978.98	5.8387	P	1.0
8	☐	100000.00	100040.79	4439224.84	29.7232	P	0.3

$$y = 2.9711\text{E-}004 * x + 1.2687\text{E-}004$$

$$R = 1.0000$$

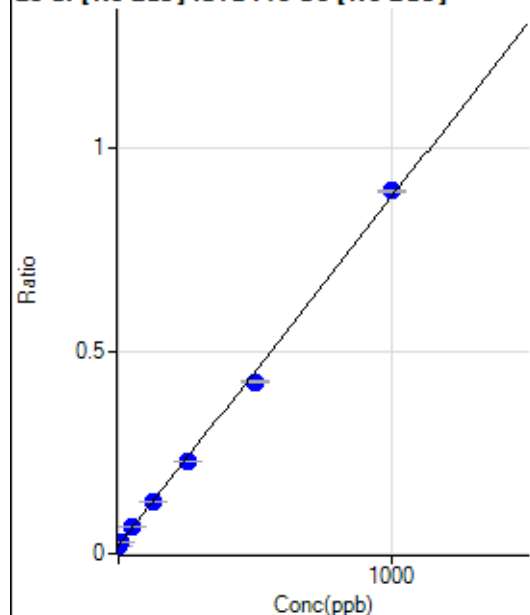
$$DL = 0.9757$$

$$BEC = 0.427$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	84519.40	0.0200	P	0.4
2	☐	10.000	9.560	118995.77	0.0282	P	2.0
3	☐	50.000	52.661	275688.02	0.0652	P	0.7
4	☐	125.000	123.437	508915.88	0.1261	P	0.6
5	☐	250.000	239.993	821503.09	0.2262	P	0.4
6	☐	500.000	470.331	1473930.62	0.4242	P	0.4
7	☐	1000.000	1017.403	3207371.99	0.8944	P	0.7
8	☐			166273.08	0.0466	P	0.7

$$y = 8.5943\text{E-}004 * x + 0.0200$$

$$R = 0.9993$$

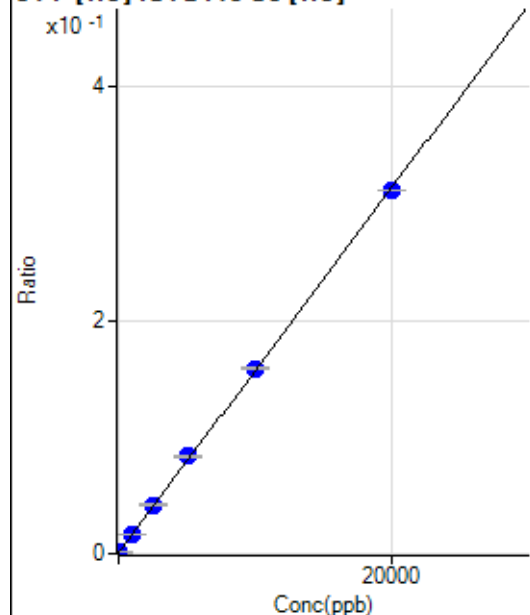
$$DL = 0.2826$$

$$BEC = 23.26$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-24.599	47.23	0.0003	P	73.2
2	☐	0.000	24.599	177.79	0.0010	P	25.3
3	☐	1000.000	1033.209	2786.50	0.0168	P	1.3
4	☐	2500.000	2625.927	6576.70	0.0417	P	4.5
5	☐	5000.000	5309.727	11532.65	0.0837	P	2.3
6	☐	10000.000	10124.381	22097.76	0.1589	P	1.9
7	☐	20000.000	19842.976	44879.56	0.3108	P	0.2
8	☐			55.56	0.0004	P	23.3

$$y = 1.5632\text{E-}005 * x + 6.5818\text{E-}004$$

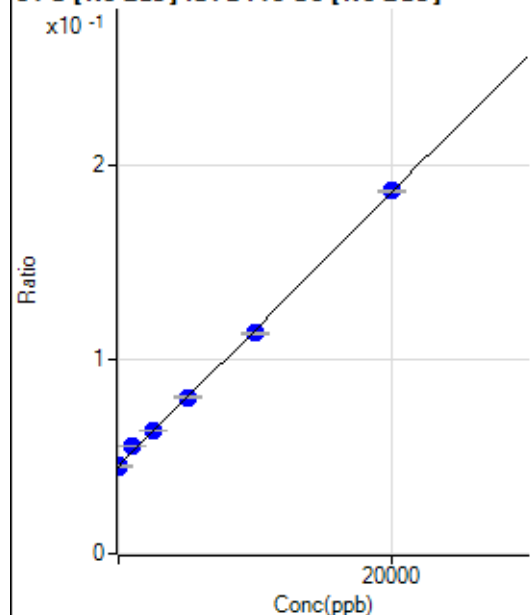
$$R = 0.9998$$

$$DL = 44.56$$

$$BEC = 42.11$$

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	-22.806	189560.89	0.0448	P	0.7
2	☐	0.000	22.806	190506.96	0.0451	P	1.9
3	☐	1000.000	1468.382	233847.02	0.0553	P	0.3
4	☐	2500.000	2650.459	257019.96	0.0637	P	0.3
5	☐	5000.000	5021.526	291896.73	0.0804	P	0.8
6	☐	10000.000	9724.756	394476.19	0.1135	P	0.6
7	☐	20000.000	20090.014	669176.69	0.1866	P	0.5
8	☐			141802.41	0.0397	P	2.2

$$y = 7.0489\text{E-}006 * x + 0.0450$$

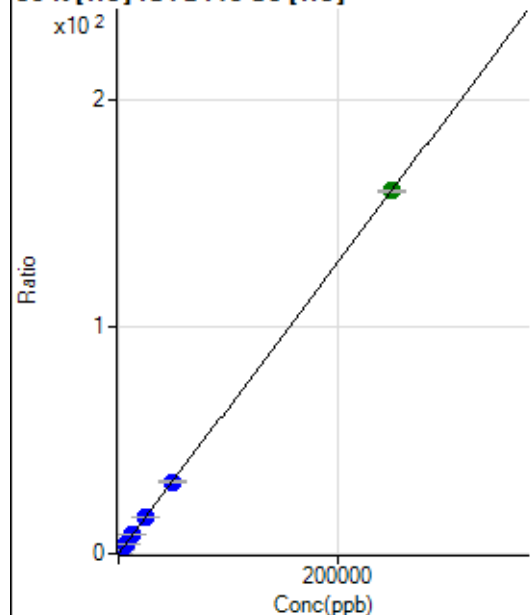
$$R = 0.9996$$

$$DL = 249.2$$

$$BEC = 6382$$

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	10056.65	0.0579	P	4.7
2	☐	500.000	511.232	65461.94	0.3842	P	0.3
3	☐	2500.000	2556.522	280057.23	1.6895	P	0.7
4	☐	6250.000	6316.268	644646.49	4.0891	P	1.8
5	☐	12500.000	12832.370	1136967.82	8.2478	P	0.8
6	☐	25000.000	25624.916	2282402.53	16.4123	P	0.3
7	☐	50000.000	49449.006	4564856.61	31.6173	P	0.9
8	☐	250000.00	250028.84	23841164.94	159.6316	A	0.5

$$y = 6.3822\text{E-}004 * x + 0.0579$$

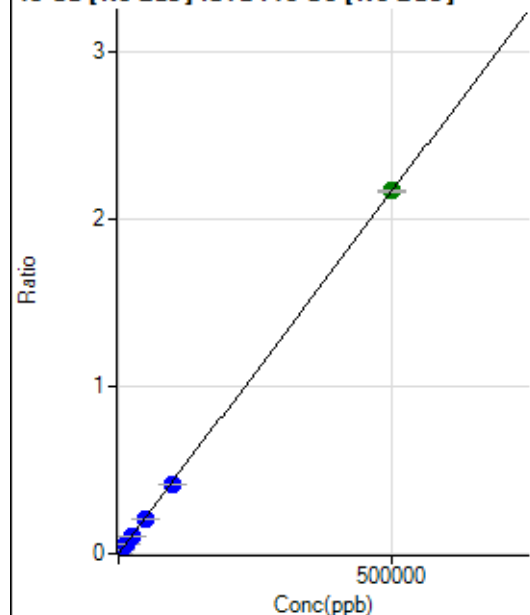
$$R = 1.0000$$

$$DL = 12.69$$

$$BEC = 90.71$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.56	0.0000	P	74.1
2	☐	500.000	466.925	8569.50	0.0020	P	4.2
3	☐	5000.000	4790.159	87537.14	0.0207	P	1.2
4	☐	12500.000	12159.382	212186.64	0.0526	P	0.1
5	☐	25000.000	24563.073	385541.63	0.1062	P	0.9
6	☐	50000.000	48861.080	733772.79	0.2112	P	0.5
7	☐	100000.00	95969.364	1487465.82	0.4148	P	0.6
8	☐	500000.00	500952.51	7731280.81	2.1651	A	0.2

$$y = 4.3219\text{E-}006 * x + 1.3138\text{E-}005$$

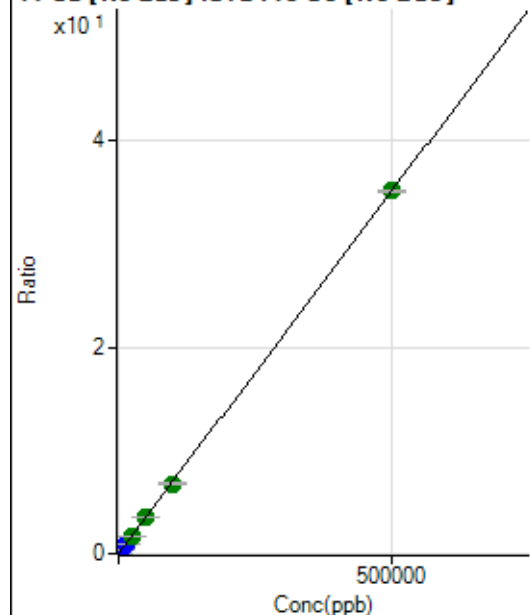
$$R = 1.0000$$

$$DL = 6.754$$

$$BEC = 3.04$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4059.48	0.0010	P	6.6
2	☐	500.000	474.339	144392.72	0.0342	P	0.7
3	☐	5000.000	4831.585	1435701.77	0.3398	P	0.4
4	☐	12500.000	12226.701	3464738.14	0.8583	P	0.4
5	☐	25000.000	24575.131	6260586.16	1.7242	A	0.3
6	☐	50000.000	49280.802	12009817.45	3.4566	A	0.2
7	☐	100000.00	96704.795	24321013.22	6.7819	A	0.5
8	☐	500000.00	500760.74	125391327.8	35.1145	A	0.5

$$y = 7.0120\text{E-}005 * x + 9.6012\text{E-}004$$

$$R = 1.0000$$

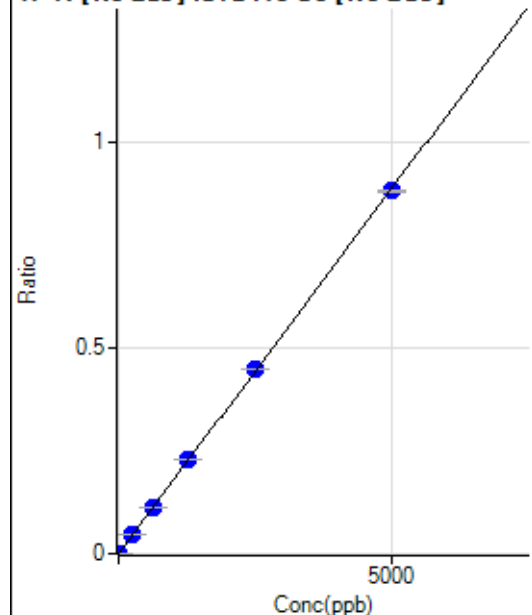
$$DL = 2.701$$

$$BEC = 13.69$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44.44	0.0000	P	43.4
2	☐	5.000	5.167	3914.58	0.0009	P	4.7
3	☐	250.000	255.287	191556.82	0.0453	P	0.2
4	☐	625.000	642.218	460283.85	0.1140	P	0.8
5	☐	1250.000	1280.912	825757.87	0.2274	P	0.4
6	☐	2500.000	2535.371	1563946.05	0.4501	P	0.3
7	☐	5000.000	4972.170	3165612.51	0.8827	P	0.8
8	☐			1383.46	0.0004	P	4.9

$$y = 1.7753\text{E-}004 * x + 1.0511\text{E-}005$$

$$R = 0.9999$$

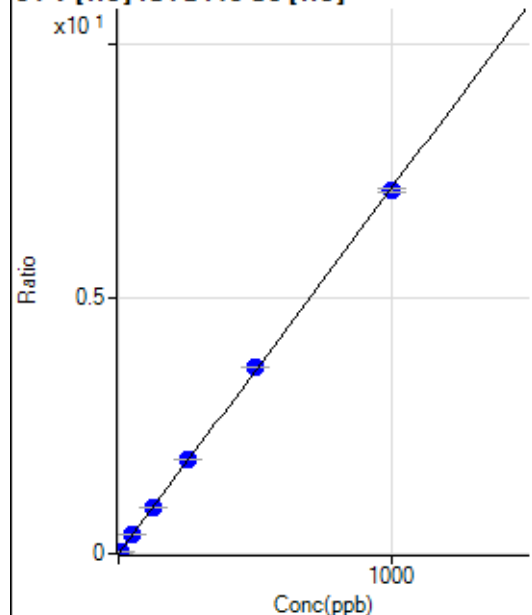
$$DL = 0.077$$

$$BEC = 0.05921$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6.67	0.0000	P	48.2
2	☐	5.000	5.251	6412.60	0.0376	P	1.3
3	☐	50.000	51.187	60761.35	0.3666	P	1.1
4	☐	125.000	124.866	140963.30	0.8941	P	1.8
5	☐	250.000	257.022	253708.54	1.8405	P	0.8
6	☐	500.000	510.806	508653.37	3.6577	P	0.6
7	☐	1000.000	992.798	1026380.12	7.1090	P	1.1
8	☐			197.78	0.0013	P	3.2

$$y = 0.0072 * x + 3.8082\text{E-}005$$

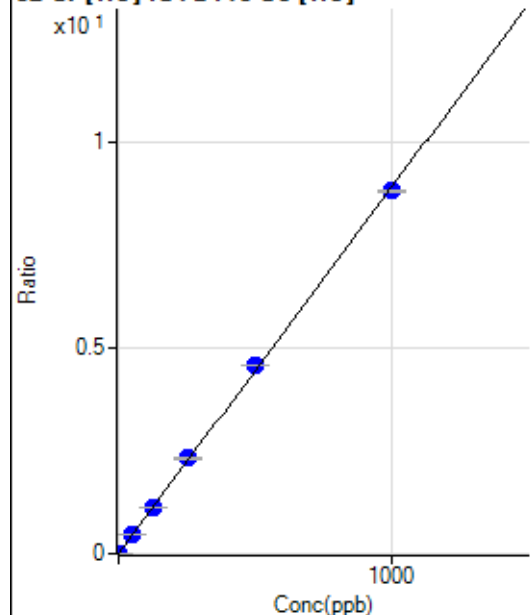
$$R = 0.9999$$

$$DL = 0.00769$$

$$BEC = 0.005318$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	244.45	0.0014	P	3.6
2	☐	2.000	2.027	3315.99	0.0195	P	4.0
3	☐	50.000	51.770	76673.61	0.4625	P	0.5
4	☐	125.000	127.270	178944.89	1.1351	P	1.8
5	☐	250.000	259.856	319275.01	2.3161	P	0.7
6	☐	500.000	513.180	635892.84	4.5726	P	0.4
7	☐	1000.000	990.574	1274142.43	8.8250	P	0.7
8	☐			25596.80	0.1714	P	1.7

$$y = 0.0089 * x + 0.0014$$

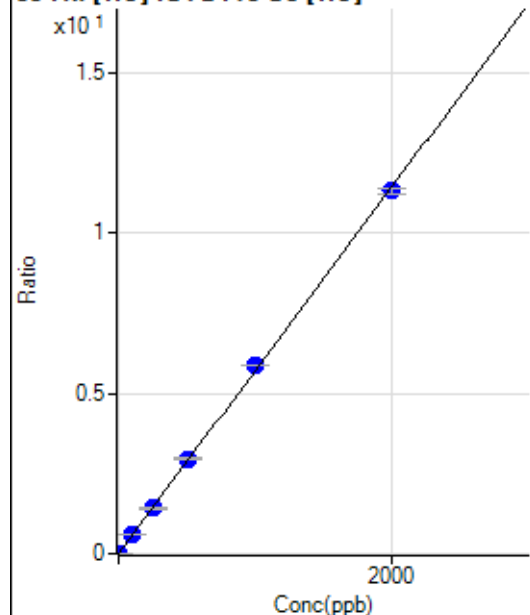
$$R = 0.9998$$

$$DL = 0.01728$$

$$BEC = 0.1578$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	54.44	0.0003	P	26.3
2	☐	1.000	1.040	1065.62	0.0063	P	5.0
3	☐	100.000	100.424	95112.61	0.5738	P	1.4
4	☐	250.000	249.172	224365.79	1.4233	P	2.3
5	☐	500.000	518.387	408129.71	2.9607	P	0.8
6	☐	1000.000	1029.163	817360.22	5.8776	P	0.5
7	☐	2000.000	1980.904	1633269.85	11.3127	P	1.4
8	☐			9651.09	0.0646	P	2.7

$$y = 0.0057 * x + 3.1265E-004$$

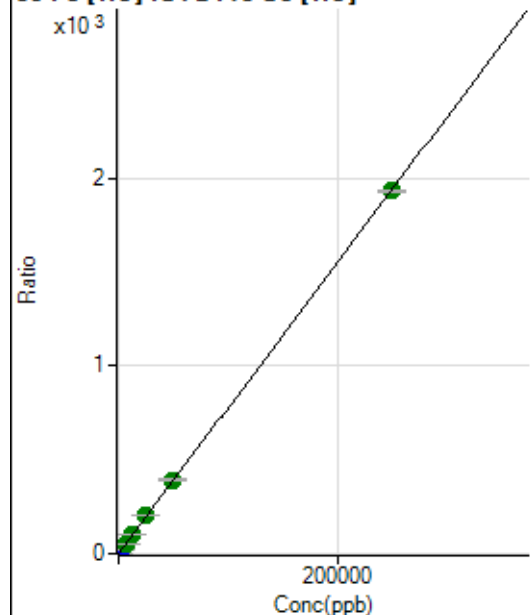
$$R = 0.9998$$

$$DL = 0.04313$$

$$BEC = 0.05475$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2003.90	0.0115	P	2.8
2	☐	50.000	54.688	74026.84	0.4345	P	0.7
3	☐	2500.000	2596.689	3330526.78	20.0925	P	1.0
4	☐	6250.000	6439.452	7852309.55	49.8097	A	2.1
5	☐	12500.000	13318.104	14199275.09	103.0043	A	0.7
6	☐	25000.000	26360.942	28350932.35	203.8683	A	0.5
7	☐	50000.000	50860.045	56787520.25	393.3270	A	1.0
8	☐	250000.00	249645.28	288338395.3	1,930.590	A	0.4

$$y = 0.0077 * x + 0.0115$$

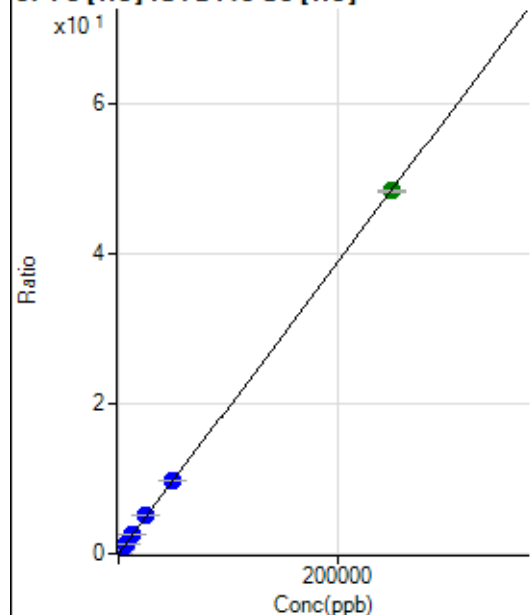
$$R = 1.0000$$

$$DL = 0.1232$$

$$BEC = 1.491$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	122.22	0.0007	P	11.7
2	☐	50.000	55.844	1965.00	0.0115	P	2.9
3	☐	2500.000	2612.655	84084.25	0.5073	P	1.4
4	☐	6250.000	6465.088	197713.19	1.2542	P	2.6
5	☐	12500.000	13316.052	356009.30	2.5825	P	0.5
6	☐	25000.000	26346.892	710517.93	5.1091	P	0.5
7	☐	50000.000	50648.084	1417921.53	9.8208	P	0.8
8	☐	250000.00	249688.38	7230599.93	48.4126	A	0.4

$$y = 1.9389E-004 * x + 7.0308E-004$$

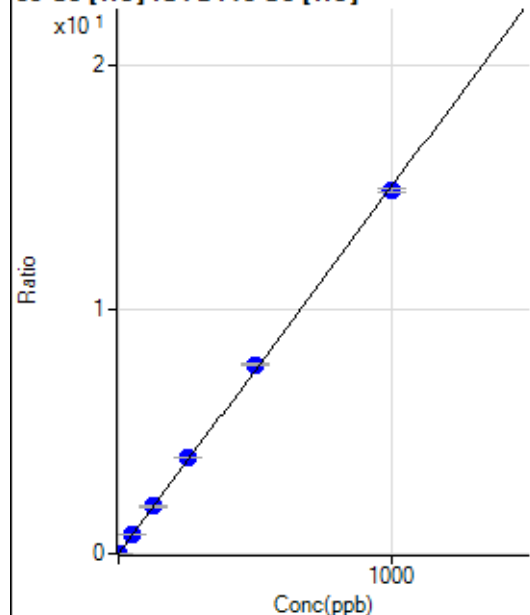
$$R = 1.0000$$

$$DL = 1.277$$

$$BEC = 3.626$$

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	61.11	0.0004	P	7.8
2	☐	1.000	1.030	2696.96	0.0158	P	4.0
3	☐	50.000	52.997	132022.83	0.7965	P	1.2
4	☐	125.000	129.102	305792.66	1.9397	P	2.1
5	☐	250.000	263.258	545209.58	3.9550	P	0.4
6	☐	500.000	515.214	1076372.64	7.7400	P	0.4
7	☐	1000.000	988.416	2143776.42	14.8484	P	1.2
8	☐			26495.24	0.1774	P	1.3

$$y = 0.0150 * x + 3.5153E-004$$

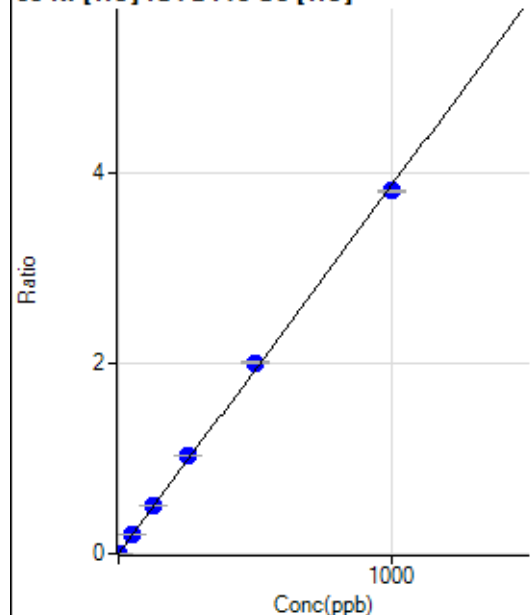
$$R = 0.9997$$

$$DL = 0.005501$$

$$BEC = 0.0234$$

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	33.33	0.0002	P	43.4
2	☐	1.000	1.126	775.59	0.0046	P	5.2
3	☐	50.000	54.126	34769.15	0.2097	P	0.6
4	☐	125.000	131.642	80379.77	0.5099	P	2.0
5	☐	250.000	265.102	141516.16	1.0266	P	0.3
6	☐	500.000	518.509	279218.28	2.0077	P	0.6
7	☐	1000.000	985.934	551153.79	3.8174	P	0.8
8	☐			12089.58	0.0810	P	1.2

$$y = 0.0039 * x + 1.9163E-004$$

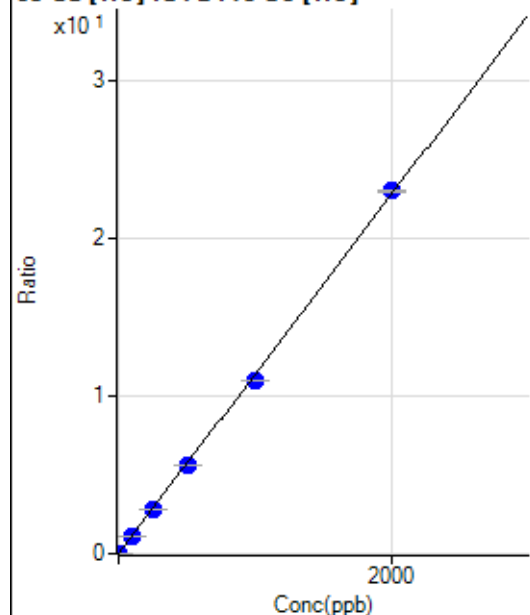
$$R = 0.9996$$

$$DL = 0.06447$$

$$BEC = 0.0495$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	408.90	0.0024	P	7.9
2	☐	2.000	1.978	4244.02	0.0249	P	1.8
3	☐	100.000	100.144	189746.92	1.1447	P	0.3
4	☐	250.000	244.264	439618.33	2.7886	P	2.0
5	☐	500.000	495.471	779424.33	5.6541	P	0.4
6	☐	1000.000	963.898	1529390.76	10.9973	P	0.2
7	☐	2000.000	2019.893	3326903.39	23.0428	P	0.7
8	☐			5543.37	0.0371	P	1.2

$$y = 0.0114 * x + 0.0024$$

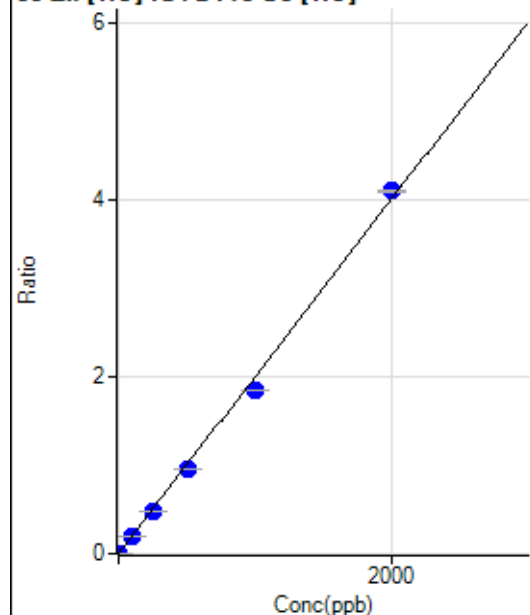
$$R = 0.9998$$

$$DL = 0.04909$$

$$BEC = 0.206$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.67	0.0012	P	10.3
2	☐	2.000	1.903	861.15	0.0051	P	4.2
3	☐	100.000	92.026	30728.08	0.1854	P	0.6
4	☐	250.000	236.563	74811.54	0.4746	P	2.3
5	☐	500.000	477.956	131998.65	0.9575	P	0.5
6	☐	1000.000	921.056	256453.81	1.8441	P	0.3
7	☐	2000.000	2047.061	591524.75	4.0970	P	0.8
8	☐			9127.43	0.0611	P	1.9

$$y = 0.0020 * x + 0.0012$$

$$R = 0.9988$$

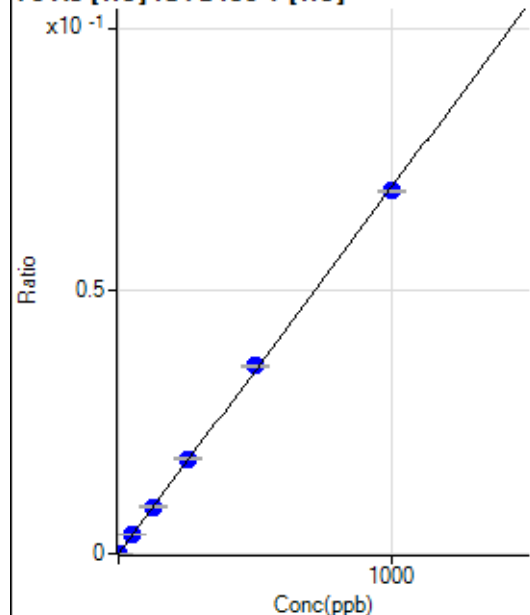
$$DL = 0.1932$$

$$BEC = 0.6223$$

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	4.32	0.0000	P	64.9
2	☐	1.000	0.977	174.70	0.0001	P	6.8
3	☐	50.000	53.507	9172.09	0.0037	P	1.3
4	☐	125.000	128.523	21363.90	0.0090	P	2.7
5	☐	250.000	259.417	38349.84	0.0181	P	0.8
6	☐	500.000	512.955	76538.13	0.0358	P	0.6
7	☐	1000.000	990.553	152195.68	0.0691	P	0.3
8	☐			239.51	0.0001	P	3.3

$$y = 6.9708\text{E-}005 * x + 1.6887\text{E-}006$$

$$R = 0.9998$$

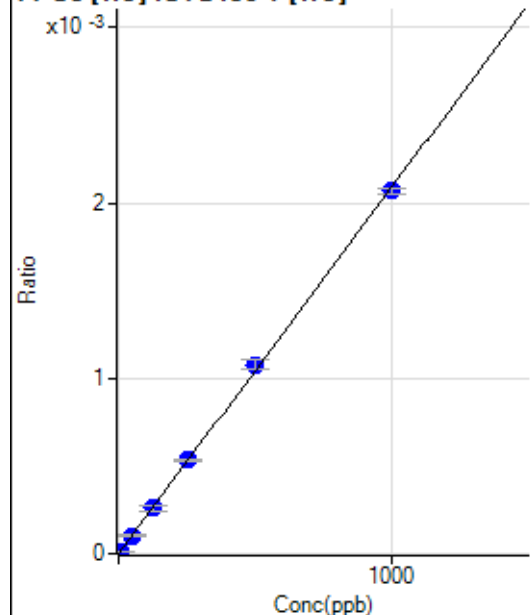
$$DL = 0.04718$$

$$BEC = 0.02423$$

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	☐	5.000	5.103	26.67	0.0000	P	32.8
3	☐	50.000	48.515	248.89	0.0001	P	15.9
4	☐	125.000	123.918	616.69	0.0003	P	11.0
5	☐	250.000	255.597	1131.17	0.0005	P	3.2
6	☐	500.000	516.152	2305.78	0.0011	P	5.6
7	☐	1000.000	990.734	4557.46	0.0021	P	1.7
8	☐			1.11	0.0000	P	173.

$$y = 2.0870\text{E-}006 * x + 0.0000\text{E+}000$$

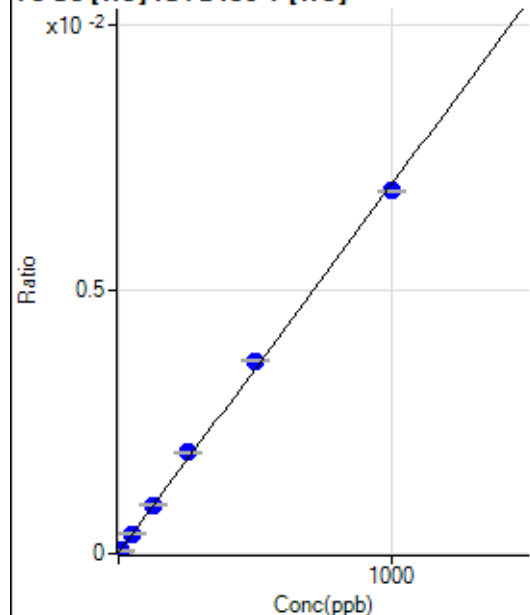
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

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	47.53	0.0000	P	23.3
2	☐	5.000	5.468	141.98	0.0001	P	11.7
3	☐	50.000	51.974	935.84	0.0004	P	5.2
4	☐	125.000	130.369	2210.69	0.0009	P	0.9
5	☐	250.000	272.469	4065.42	0.0019	P	0.6
6	☐	500.000	520.792	7807.72	0.0036	P	1.2
7	☐	1000.000	983.215	15141.31	0.0069	P	0.6
8	☐			41.36	0.0000	P	27.6

$$y = 6.9679\text{E-}006 * x + 1.8631\text{E-}005$$

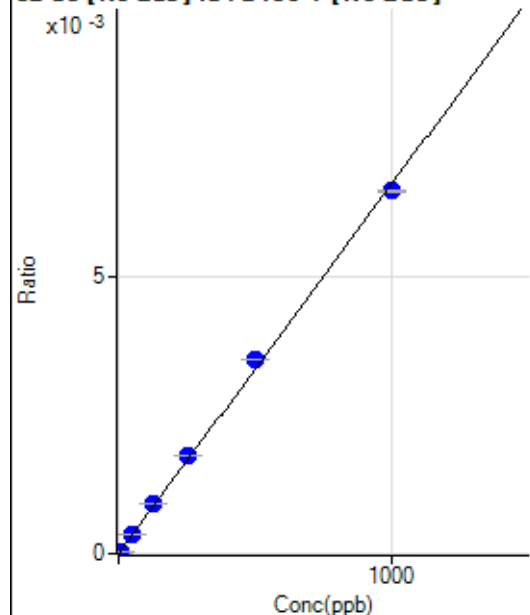
$$R = 0.9994$$

$$DL = 1.866$$

$$BEC = 2.674$$

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	25.80	0.0000	P	84.3
2	☐	5.000	5.486	691.72	0.0000	P	2.6
3	☐	50.000	53.145	6528.78	0.0004	P	0.4
4	☐	125.000	135.743	16067.96	0.0009	P	1.6
5	☐	250.000	266.699	29306.55	0.0018	P	0.4
6	☐	500.000	524.253	55870.59	0.0035	P	0.4
7	☐	1000.000	982.196	108848.64	0.0066	P	0.3
8	☐			101.48	0.0000	P	15.3

$$y = 6.6685\text{E-}006 * x + 1.4175\text{E-}006$$

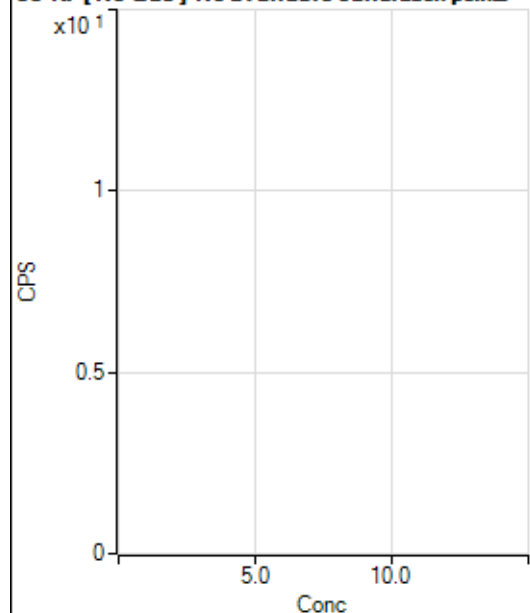
$$R = 0.9994$$

$$DL = 0.5373$$

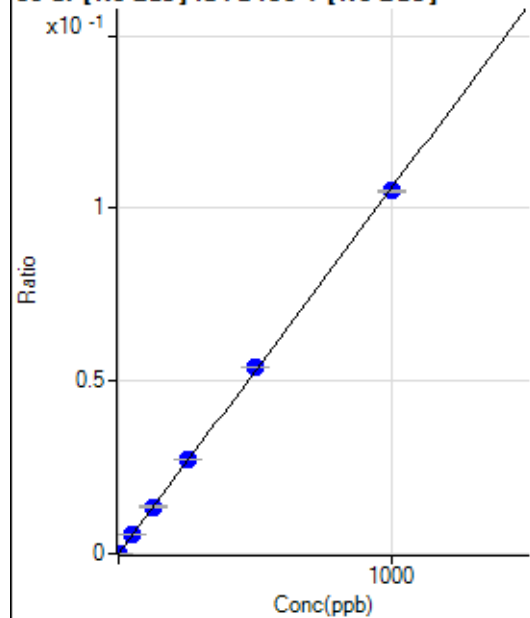
$$BEC = 0.2126$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			165.56		P	12.9
2	☐			162.22		P	14.0
3	☐			174.45		P	12.7
4	☐			166.67		P	14.0
5	☐			156.67		P	11.8
6	☐			136.67		P	22.4
7	☐			146.67		P	6.0
8	☐			168.89		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	294.46	0.0000	P	3.9
2	☐	1.000	1.016	2250.29	0.0001	P	8.7
3	☐	50.000	50.747	98774.64	0.0054	P	0.4
4	☐	125.000	128.661	241443.83	0.0136	P	1.2
5	☐	250.000	257.178	448099.25	0.0272	P	0.5
6	☐	500.000	509.610	861244.88	0.0539	P	0.3
7	☐	1000.000	992.906	1744999.34	0.1050	P	0.2
8	☐			7946.95	0.0005	P	2.0

$$y = 1.0576E-004 * x + 1.6129E-005$$

$$R = 0.9999$$

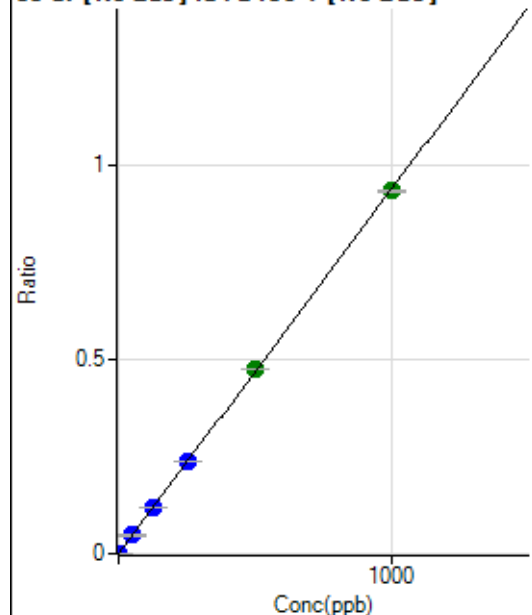
$$DL = 0.0179$$

$$BEC = 0.1525$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.00	0.0000	P	11.6
2	☐	1.000	0.980	16799.37	0.0009	P	1.2
3	☐	50.000	50.130	862618.26	0.0470	P	0.3
4	☐	125.000	126.288	2098871.05	0.1184	P	0.7
5	☐	250.000	252.506	3898572.61	0.2368	P	0.1
6	☐	500.000	507.350	7600425.08	0.4758	A	0.5
7	☐	1000.000	995.531	15510569.96	0.9335	A	0.3
8	☐			67989.54	0.0042	P	0.4

$$y = 9.3772\text{E-}004 * x + 4.1103\text{E-}006$$

$$R = 1.0000$$

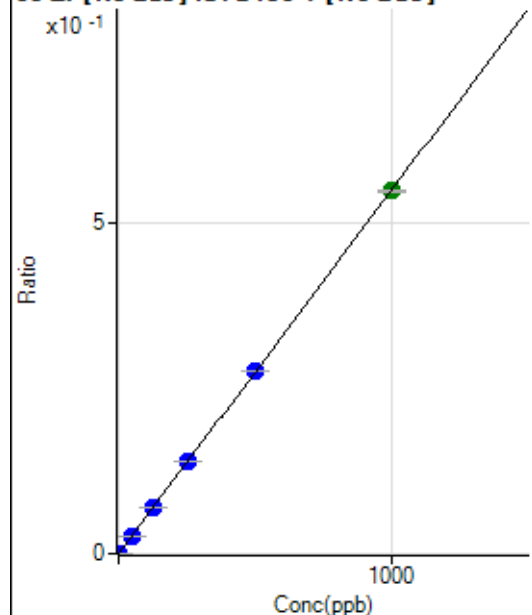
$$DL = 0.001524$$

$$BEC = 0.004383$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	719.49	0.0000	P	21.3
2	☐	1.000	0.862	9317.28	0.0005	P	6.1
3	☐	50.000	49.656	500399.64	0.0273	P	0.2
4	☐	125.000	126.121	1226533.58	0.0692	P	0.5
5	☐	250.000	252.791	2283223.25	0.1387	P	0.2
6	☐	500.000	501.787	4396822.84	0.2752	P	0.2
7	☐	1000.000	998.286	9096991.00	0.5475	A	0.4
8	☐			3047.68	0.0002	P	4.4

$$y = 5.4841\text{E-}004 * x + 3.9442\text{E-}005$$

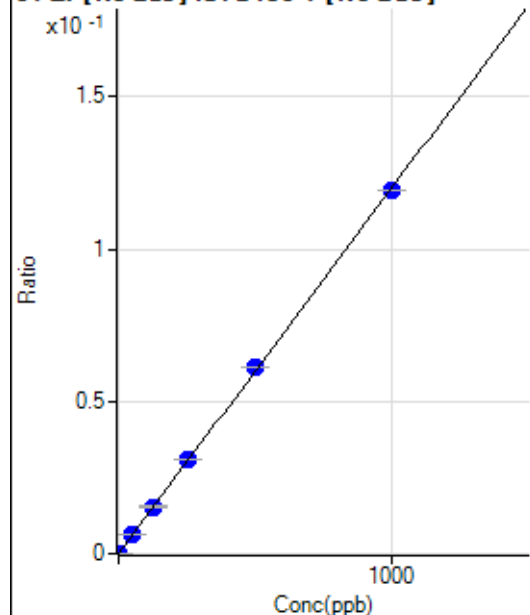
$$R = 1.0000$$

$$DL = 0.04596$$

$$BEC = 0.07192$$

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	144.45	0.0000	P	11.5
2	☐	1.000	0.882	2069.68	0.0001	P	5.4
3	☐	50.000	50.887	112133.50	0.0061	P	0.6
4	☐	125.000	128.671	273648.17	0.0154	P	1.4
5	☐	250.000	257.037	507709.25	0.0308	P	0.4
6	☐	500.000	509.104	975577.50	0.0611	P	0.3
7	☐	1000.000	993.186	1979319.99	0.1191	P	0.1
8	☐			633.37	0.0000	P	7.9

$$y = 1.1994\text{E-}004 * x + 7.9104\text{E-}006$$

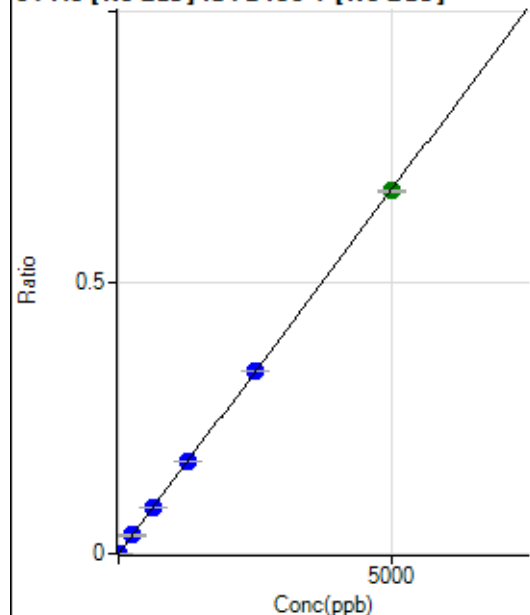
$$R = 0.9999$$

$$DL = 0.02284$$

$$BEC = 0.06595$$

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	269.46	0.0000	P	4.6
2	☐	5.000	4.689	11727.55	0.0006	P	3.5
3	☐	250.000	251.417	619517.79	0.0338	P	0.6
4	☐	625.000	638.020	1518149.80	0.0857	P	0.6
5	☐	1250.000	1272.559	2812864.30	0.1708	P	0.4
6	☐	2500.000	2518.833	5401668.78	0.3381	P	0.3
7	☐	5000.000	4983.246	11114537.31	0.6689	A	0.2
8	☐			7688.51	0.0005	P	6.0

$$y = 1.3424\text{E-}004 * x + 1.4761\text{E-}005$$

$$R = 1.0000$$

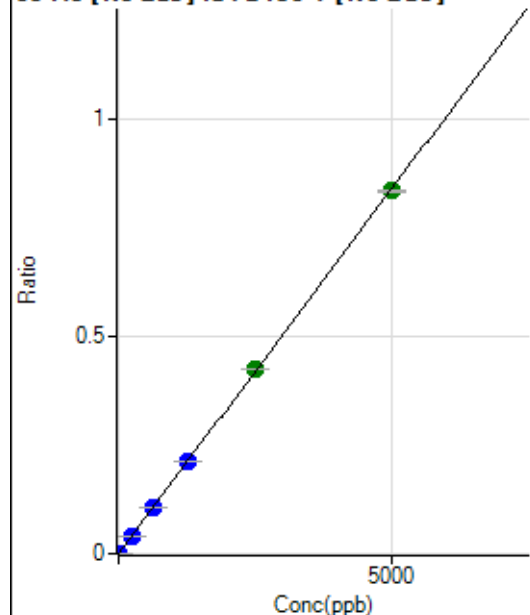
$$DL = 0.01509$$

$$BEC = 0.11$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0000	P	11.3
2	☐	5.000	4.848	14822.13	0.0008	P	0.2
3	☐	250.000	249.926	767932.80	0.0419	P	0.4
4	☐	625.000	633.325	1879533.98	0.1061	P	0.3
5	☐	1250.000	1261.506	3477929.50	0.2112	P	0.3
6	☐	2500.000	2540.213	6795015.69	0.4254	A	0.4
7	☐	5000.000	4975.980	13843839.20	0.8332	A	0.2
8	☐			11438.39	0.0007	P	5.6

$$y = 1.6745E-004 * x + 2.4358E-006$$

$$R = 0.9999$$

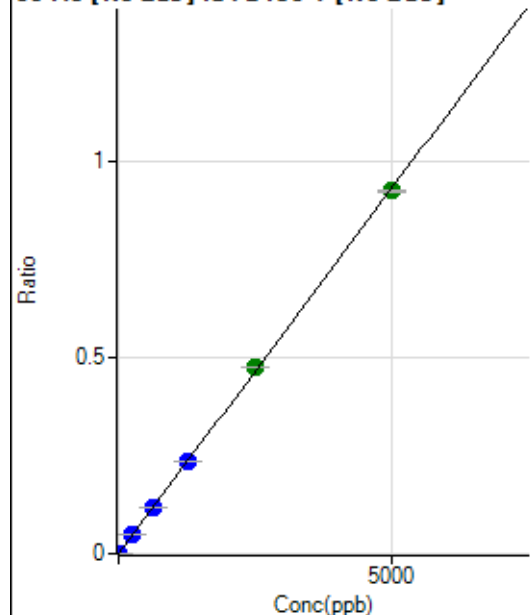
$$DL = 0.00495$$

$$BEC = 0.01455$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	97.23	0.0000	P	36.0
2	☐	5.000	4.869	16574.14	0.0009	P	2.6
3	☐	250.000	251.438	857919.63	0.0468	P	0.3
4	☐	625.000	632.728	2085122.18	0.1177	P	0.2
5	☐	1250.000	1264.949	3872581.29	0.2352	P	0.1
6	☐	2500.000	2551.867	7579868.66	0.4745	A	0.2
7	☐	5000.000	4969.291	15351717.36	0.9240	A	0.3
8	☐			17700.49	0.0011	P	1.2

$$y = 1.8593E-004 * x + 5.3315E-006$$

$$R = 0.9999$$

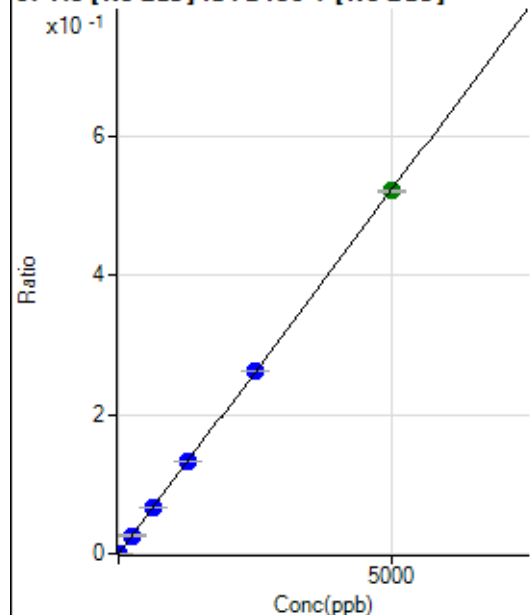
$$DL = 0.03099$$

$$BEC = 0.02867$$

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	22.22	0.0000	P	94.1
2	☐	5.000	4.883	9325.71	0.0005	P	5.1
3	☐	250.000	250.331	480767.57	0.0262	P	0.8
4	☐	625.000	635.607	1179039.97	0.0665	P	0.3
5	☐	1250.000	1266.830	2183068.28	0.1326	P	0.3
6	☐	2500.000	2513.067	4201848.31	0.2630	P	0.4
7	☐	5000.000	4987.917	8674032.22	0.5221	A	0.5
8	☐			7074.27	0.0004	P	6.5

$$y = 1.0466\text{E-}004 * x + 1.2174\text{E-}006$$

$$R = 1.0000$$

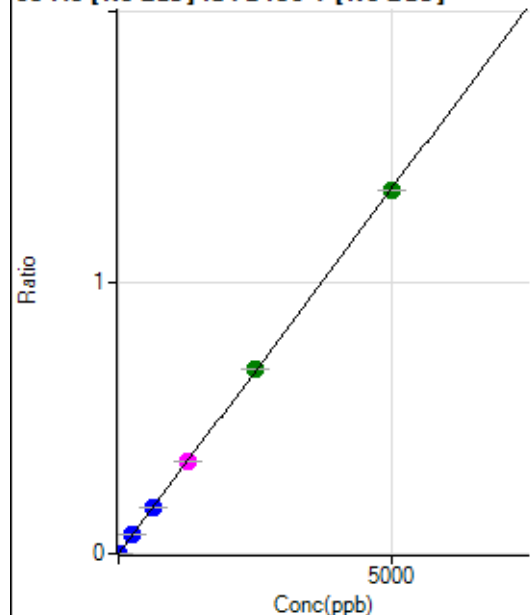
$$DL = 0.03284$$

$$BEC = 0.01163$$

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	55.56	0.0000	P	56.4
2	☐	5.000	4.958	24324.30	0.0013	P	1.3
3	☐	250.000	251.174	1239392.17	0.0675	P	0.3
4	☐	625.000	636.333	3032717.04	0.1711	P	0.7
5	☐	1250.000	1271.454	5629309.85	0.3419	M	0.4
6	☐	2500.000	2541.052	10915921.77	0.6833	A	0.2
7	☐	5000.000	4972.635	22217309.70	1.3372	A	0.1
8	☐			17542.04	0.0011	P	7.4

$$y = 2.6891\text{E-}004 * x + 3.0394\text{E-}006$$

$$R = 0.9999$$

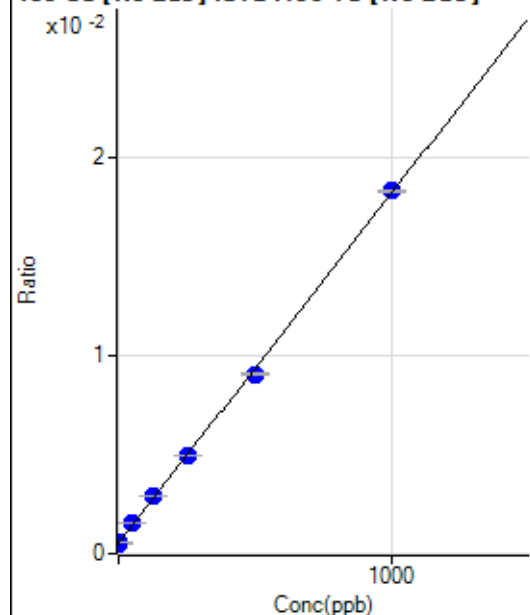
$$DL = 0.01914$$

$$BEC = 0.0113$$

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	5284.53	0.0005	P	0.6
2	☐	1.000	2.190	5648.59	0.0006	P	4.4
3	☐	50.000	57.331	15617.51	0.0015	P	2.4
4	☐	125.000	134.502	29225.44	0.0029	P	3.1
5	☐	250.000	251.031	48481.08	0.0050	P	0.4
6	☐	500.000	483.411	88272.02	0.0091	P	0.6
7	☐	1000.000	1006.481	184473.22	0.0184	P	0.3
8	☐			4842.71	0.0005	P	3.1

$$y = 1.7703\text{E-}005 * x + 5.3457\text{E-}004$$

$$R = 0.9997$$

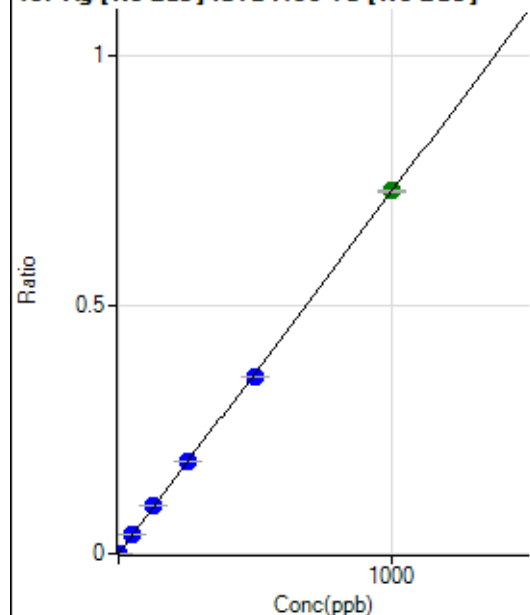
$$DL = 0.5014$$

$$BEC = 30.2$$

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	102.78	0.0000	P	4.4
2	☐	1.000	1.119	8119.37	0.0008	P	4.2
3	☐	50.000	54.940	402719.11	0.0400	P	0.6
4	☐	125.000	134.530	980691.09	0.0978	P	0.9
5	☐	250.000	256.236	1814443.98	0.1863	P	0.5
6	☐	500.000	488.605	3449180.68	0.3553	P	0.2
7	☐	1000.000	1002.700	7328687.66	0.7291	A	0.5
8	☐			744.50	0.0001	P	15.3

$$y = 7.2714\text{E-}004 * x + 1.0396\text{E-}005$$

$$R = 0.9998$$

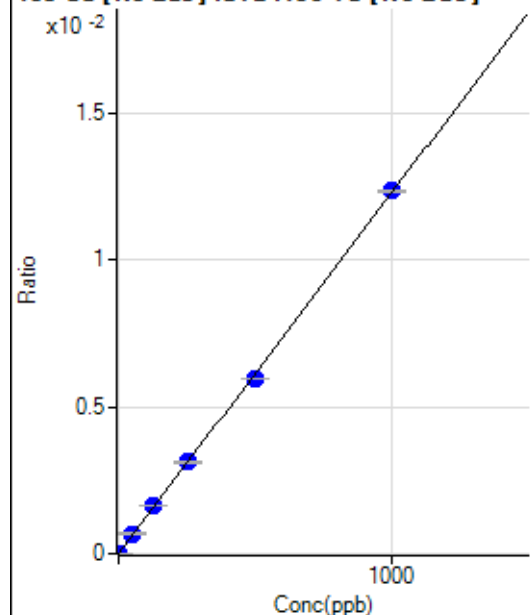
$$DL = 0.001895$$

$$BEC = 0.0143$$

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	16.67	0.0000	P	24.9
2	☐	1.000	0.942	130.56	0.0000	P	22.2
3	☐	50.000	55.494	6885.15	0.0007	P	2.9
4	☐	125.000	132.770	16358.33	0.0016	P	1.8
5	☐	250.000	253.966	30382.87	0.0031	P	1.4
6	☐	500.000	484.047	57714.44	0.0059	P	0.6
7	☐	1000.000	1005.739	124146.01	0.0124	P	0.7
8	☐			27.78	0.0000	P	31.1

$$y = 1.2279E-005 * x + 1.6861E-006$$

$$R = 0.9998$$

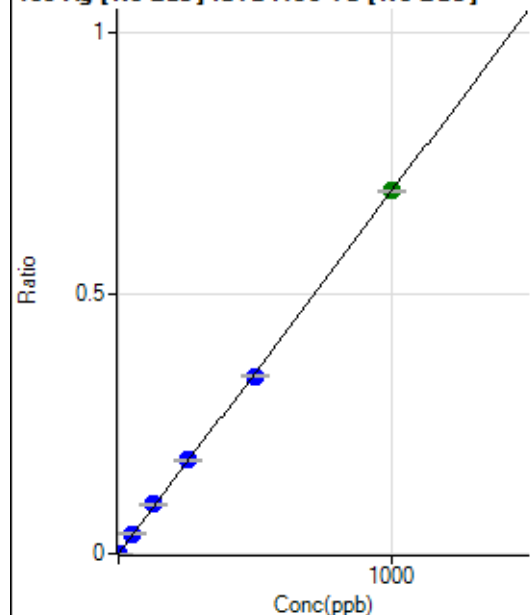
$$DL = 0.1028$$

$$BEC = 0.1373$$

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	38.89	0.0000	P	32.8
2	☐	1.000	1.153	7952.62	0.0008	P	4.4
3	☐	50.000	55.594	390343.78	0.0387	P	0.6
4	☐	125.000	135.601	946932.37	0.0945	P	0.8
5	☐	250.000	257.512	1746854.90	0.1794	P	0.8
6	☐	500.000	490.659	3318158.34	0.3418	P	0.2
7	☐	1000.000	1001.188	7010264.22	0.6974	A	0.2
8	☐			591.71	0.0001	P	8.1

$$y = 6.9660E-004 * x + 3.9351E-006$$

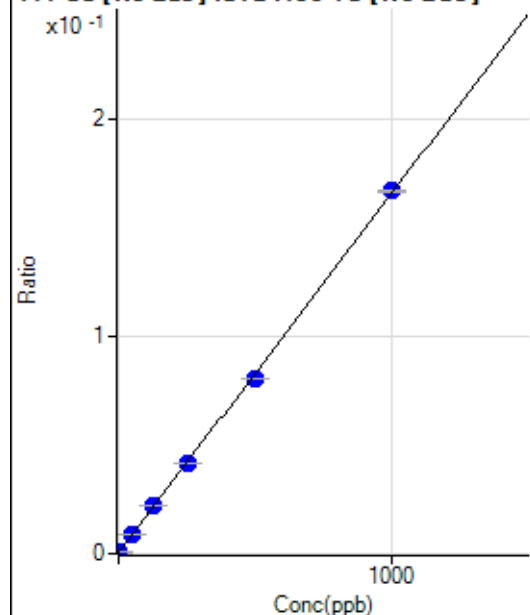
$$R = 0.9999$$

$$DL = 0.005552$$

$$BEC = 0.005649$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3705.56	0.0004	P	0.6
2	☐	1.000	1.140	5547.49	0.0006	P	3.3
3	☐	50.000	53.317	92474.58	0.0092	P	0.6
4	☐	125.000	131.383	221150.12	0.0221	P	1.3
5	☐	250.000	250.610	406477.55	0.0417	P	0.2
6	☐	500.000	483.027	777670.43	0.0801	P	0.1
7	☐	1000.000	1007.370	1675164.27	0.1667	P	0.4
8	☐			3616.30	0.0004	P	2.4

$$y = 1.6507\text{E-}004 * x + 3.7485\text{E-}004$$

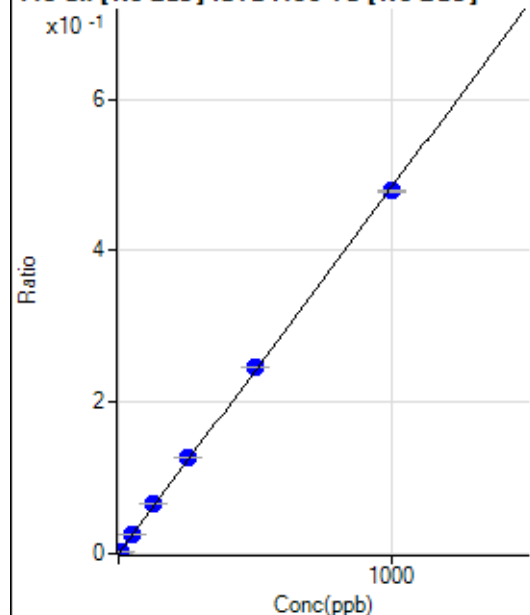
$$R = 0.9998$$

$$DL = 0.0425$$

$$BEC = 2.271$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	536.15	0.0001	P	9.1
2	☐	5.000	5.476	26620.44	0.0027	P	0.8
3	☐	50.000	54.477	266010.10	0.0264	P	0.7
4	☐	125.000	134.853	654170.79	0.0653	P	0.5
5	☐	250.000	260.754	1228267.56	0.1261	P	0.5
6	☐	500.000	510.022	2394534.82	0.2467	P	0.3
7	☐	1000.000	990.843	4816117.69	0.4791	P	0.4
8	☐			3664.52	0.0004	P	3.5

$$y = 4.8352\text{E-}004 * x + 5.4222\text{E-}005$$

$$R = 0.9998$$

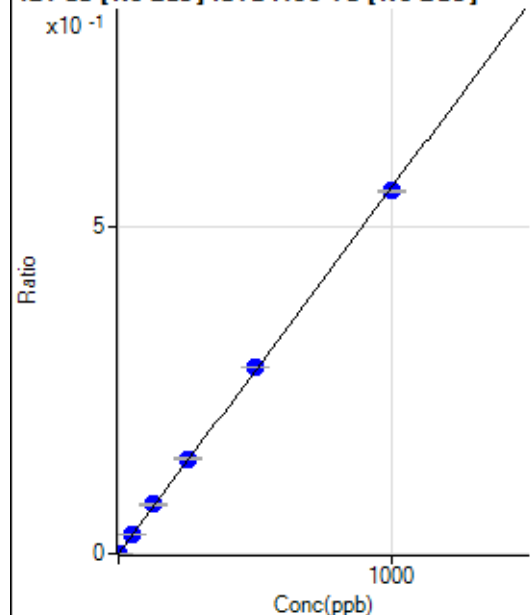
$$DL = 0.03062$$

$$BEC = 0.1121$$

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	72.22	0.0000	P	6.9
2	☐	2.000	2.053	11371.70	0.0012	P	0.5
3	☐	50.000	53.524	301498.77	0.0299	P	0.3
4	☐	125.000	134.030	750823.06	0.0749	P	1.2
5	☐	250.000	259.963	1414624.84	0.1453	P	0.3
6	☐	500.000	509.831	2765741.75	0.2849	P	0.1
7	☐	1000.000	991.289	5567770.31	0.5539	P	0.5
8	☐			9345.19	0.0010	P	2.1

$$y = 5.5879\text{E-}004 * x + 7.3068\text{E-}006$$

$$R = 0.9999$$

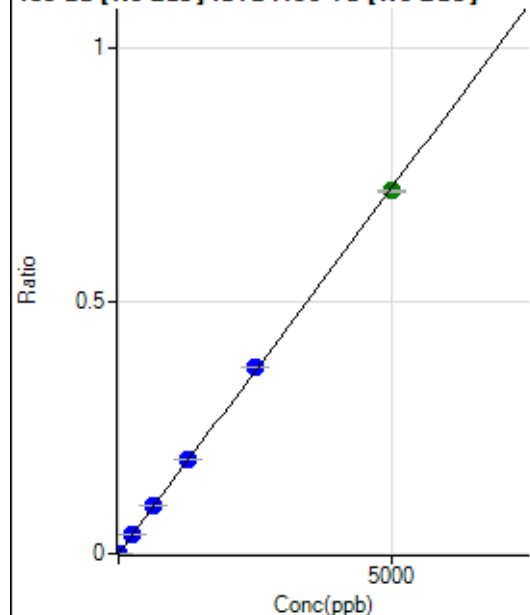
$$DL = 0.002707$$

$$BEC = 0.01308$$

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	25.00	0.0000	P	33.8
2	☐	10.000	10.834	15461.99	0.0016	P	2.0
3	☐	250.000	267.585	390060.64	0.0387	P	0.2
4	☐	625.000	664.033	962725.52	0.0960	P	0.9
5	☐	1250.000	1289.183	1815658.00	0.1865	P	0.1
6	☐	2500.000	2542.043	3569197.30	0.3677	P	0.2
7	☐	5000.000	4963.423	7215501.72	0.7179	A	0.4
8	☐			1527.93	0.0002	P	17.3

$$y = 1.4463\text{E-}004 * x + 2.5314\text{E-}006$$

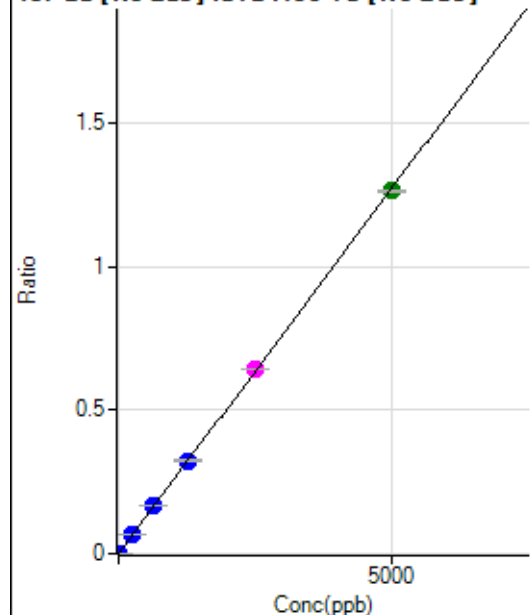
$$R = 0.9999$$

$$DL = 0.01774$$

$$BEC = 0.0175$$

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	30.55	0.0000	P	68.4
2	☐	10.000	10.713	26871.39	0.0027	P	2.1
3	☐	250.000	262.443	672664.07	0.0667	P	0.8
4	☐	625.000	657.264	1675570.24	0.1672	P	0.9
5	☐	1250.000	1277.411	3163447.68	0.3249	P	0.3
6	☐	2500.000	2533.424	6254769.80	0.6443	M	0.4
7	☐	5000.000	4971.778	12708995.94	1.2644	A	0.2
8	☐			2561.44	0.0003	P	6.5

$$y = 2.5431E-004 * x + 3.0839E-006$$

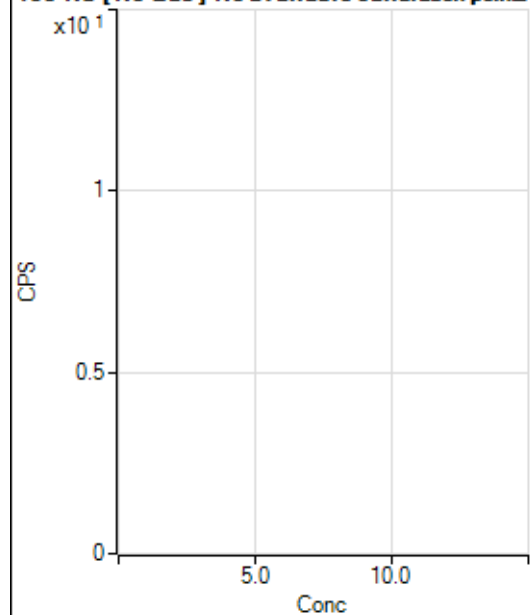
$$R = 0.9999$$

$$DL = 0.0249$$

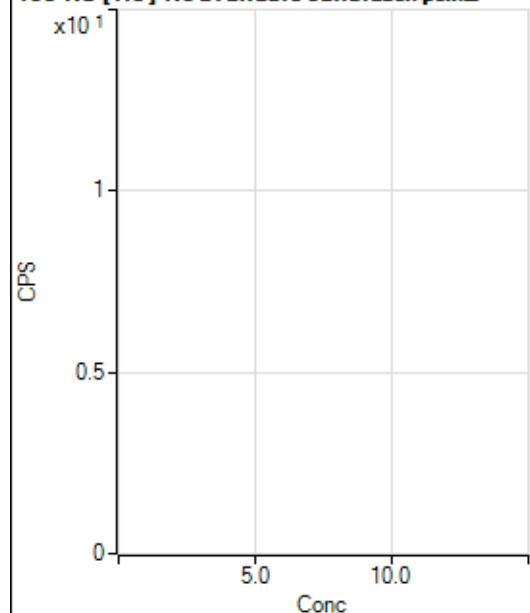
$$BEC = 0.01213$$

Weight: <None>

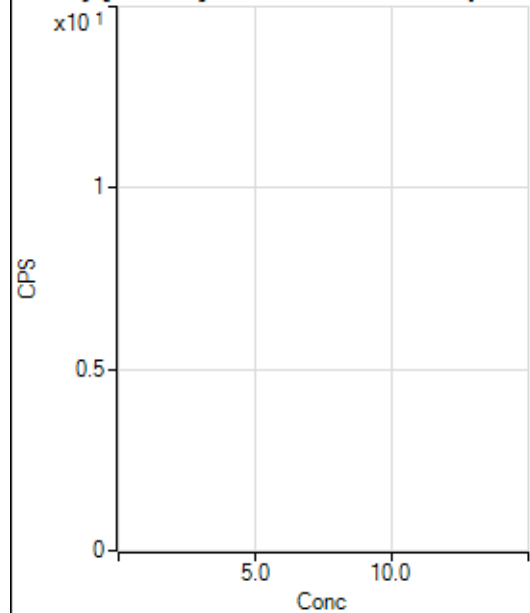
Min Conc: 0

150 Nd [No Gas] No available calibration points

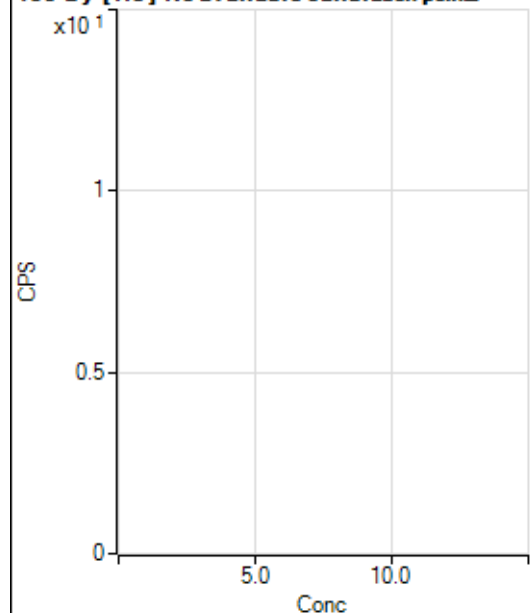
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			0.00		P	
2	☐			11.11		P	124.
3	☐			48.89		P	55.1
4	☐			106.67		P	22.5
5	☐			126.67		P	26.3
6	☐			302.24		P	11.1
7	☐			588.92		P	6.8
8	☐			155.56		P	6.5

150 Nd [He] No available calibration points

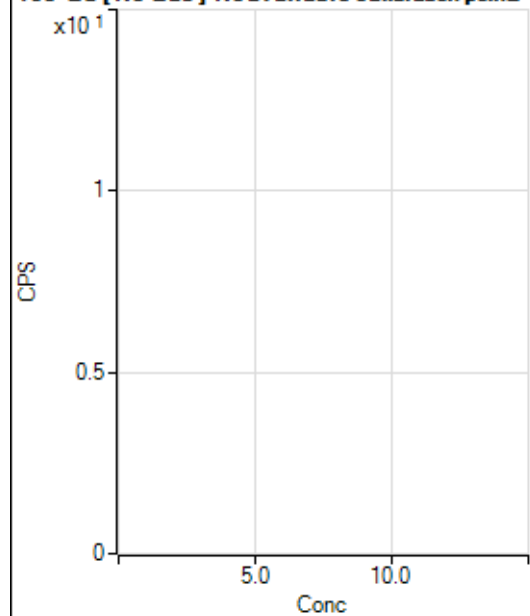
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.
2	☐			7.78		P	24.7
3	☐			10.00		P	88.2
4	☐			11.11		P	62.5
5	☐			22.22		P	56.8
6	☐			27.78		P	25.0
7	☐			44.44		P	48.2
8	☐			78.89		P	6.5

156 Dy [No Gas] No available calibration points

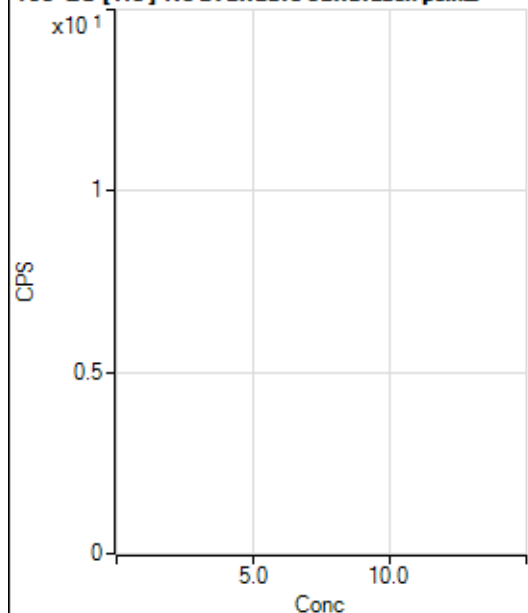
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	91.6
2	☐			13.89		P	34.7
3	☐			13.89		P	69.3
4	☐			22.22		P	21.6
5	☐			33.33		P	25.0
6	☐			86.12		P	5.6
7	☐			63.89		P	54.3
8	☐			111.12		P	28.4

156 Dy [He] No available calibration points

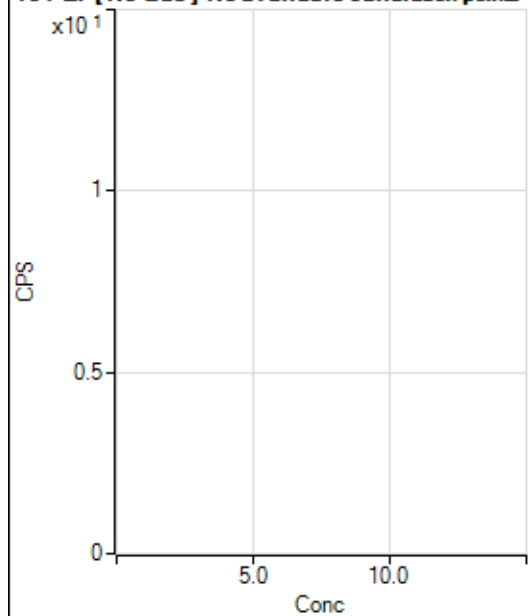
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	52.9
2	☐			11.11		P	69.3
3	☐			20.00		P	44.1
4	☐			33.33		P	10.0
5	☐			53.33		P	48.8
6	☐			66.67		P	18.0
7	☐			148.89		P	3.4
8	☐			63.34		P	22.9

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

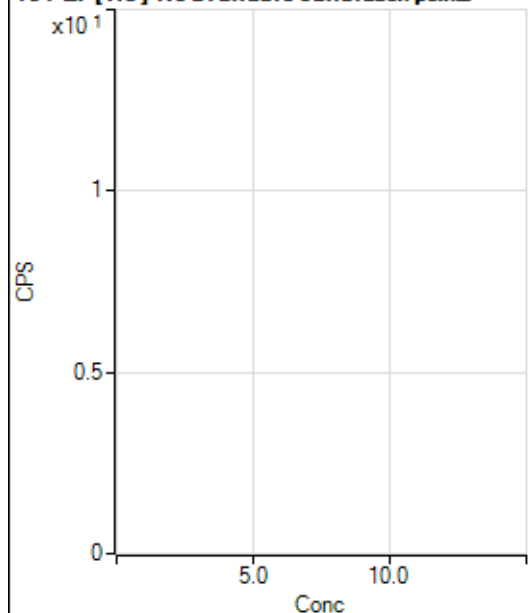
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			52.78		P	81.0
2	☐			36.11		P	58.1
3	☐			38.89		P	32.7
4	☐			47.22		P	62.0
5	☐			75.00		P	22.2
6	☐			47.23		P	20.4
7	☐			38.89		P	12.4
8	☐			102.79		P	4.7

160 Gd [He] No available calibration points

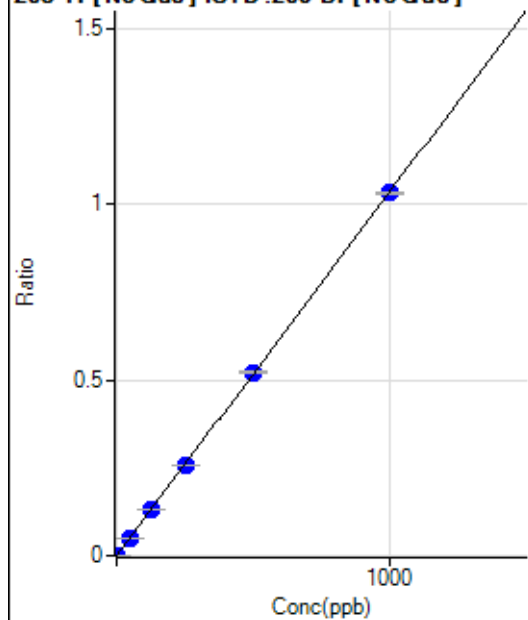
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			170.00		P	15.7
2	☐			170.01		P	17.1
3	☐			161.12		P	10.4
4	☐			148.90		P	19.3
5	☐			130.00		P	27.1
6	☐			135.56		P	9.3
7	☐			133.34		P	13.9
8	☐			177.78		P	1.1

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			55.56		P	45.8
2	☐			50.00		P	88.2
3	☐			33.33		P	66.2
4	☐			61.11		P	15.7
5	☐			47.22		P	27.0
6	☐			58.34		P	42.9
7	☐			75.00		P	0.0
8	☐			61.11		P	43.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			42.22		P	22.8
2	☐			42.22		P	4.6
3	☐			32.22		P	41.8
4	☐			33.33		P	55.7
5	☐			42.22		P	9.1
6	☐			55.56		P	25.0
7	☐			48.89		P	23.9
8	☐			66.67		P	26.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	366.69	0.0001	P	20.3
2	☐	1.000	0.959	6696.43	0.0010	P	4.2
3	☐	50.000	49.028	330167.62	0.0507	P	1.1
4	☐	125.000	124.689	843899.17	0.1289	P	0.6
5	☐	250.000	248.729	1658124.38	0.2570	P	0.6
6	☐	500.000	504.631	3316655.26	0.5213	P	0.4
7	☐	1000.000	998.090	6648467.59	1.0310	P	0.5
8	☐			1747.42	0.0003	P	5.0

$$y = 0.0010 * x + 5.7037E-005$$

$$R = 1.0000$$

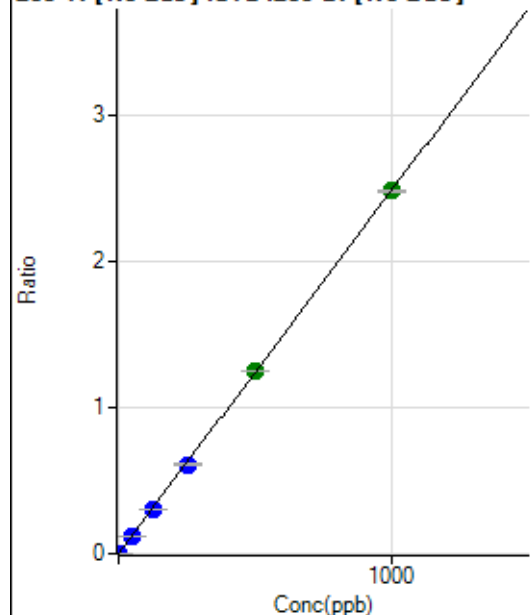
$$DL = 0.0336$$

$$BEC = 0.05522$$

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	480.58	0.0001	P	11.0
2	☐	1.000	0.924	15178.73	0.0024	P	2.9
3	☐	50.000	48.422	785327.55	0.1206	P	0.3
4	☐	125.000	122.638	1999538.24	0.3053	P	0.4
5	☐	250.000	245.990	3950788.89	0.6123	P	0.8
6	☐	500.000	504.517	7989298.62	1.2557	A	0.2
7	☐	1000.000	999.118	16035428.83	2.4867	A	0.6
8	☐			3750.71	0.0007	P	7.2

$$y = 0.0025 * x + 7.4760E-005$$

$$R = 1.0000$$

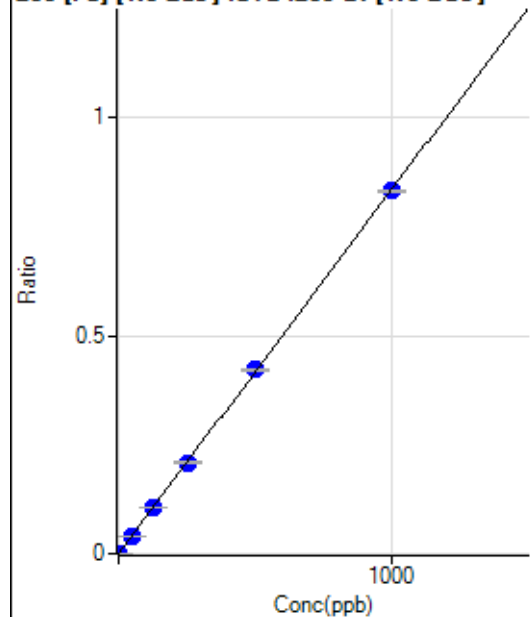
$$DL = 0.009868$$

$$BEC = 0.03004$$

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	603.74	0.0001	P	6.3
2	☐	1.000	0.947	5655.08	0.0009	P	1.0
3	☐	50.000	48.941	266704.24	0.0410	P	0.2
4	☐	125.000	124.926	683679.93	0.1044	P	0.8
5	☐	250.000	250.701	1351103.08	0.2094	P	0.5
6	☐	500.000	505.656	2686483.71	0.4222	P	0.7
7	☐	1000.000	997.059	5368344.62	0.8325	P	0.6
8	☐			8165.70	0.0015	P	2.0

$$y = 8.3487E-004 * x + 9.3938E-005$$

$$R = 1.0000$$

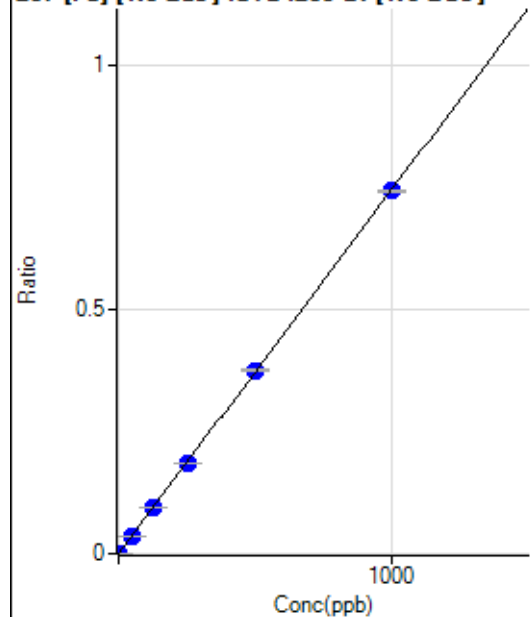
$$DL = 0.0213$$

$$BEC = 0.1125$$

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	603.73	0.0001	P	3.3
2	☐	1.000	0.954	5132.64	0.0008	P	3.6
3	☐	50.000	48.991	237675.30	0.0365	P	0.7
4	☐	125.000	124.781	607858.95	0.0928	P	0.5
5	☐	250.000	250.495	1201588.48	0.1862	P	0.4
6	☐	500.000	504.755	2386824.07	0.3751	P	0.9
7	☐	1000.000	997.577	4780450.69	0.7413	P	0.6
8	☐			7148.43	0.0013	P	5.7

$$y = 7.4304\text{E-}004 * x + 9.3926\text{E-}005$$

$$R = 1.0000$$

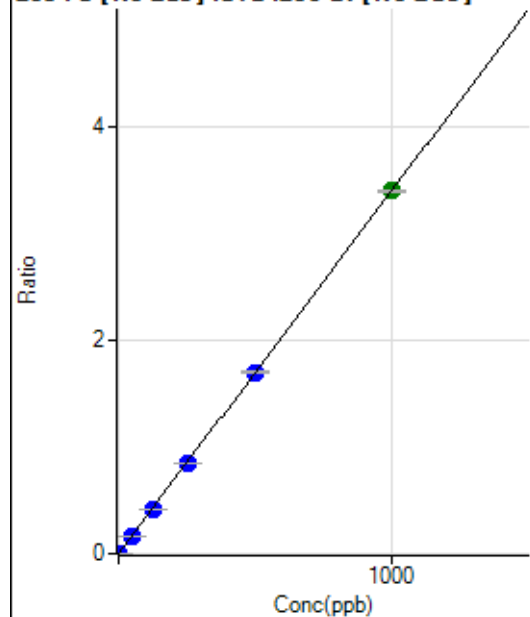
$$DL = 0.01248$$

$$BEC = 0.1264$$

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	2153.83	0.0003	P	1.2
2	☐	1.000	0.938	22537.70	0.0035	P	1.8
3	☐	50.000	48.550	1077869.06	0.1655	P	0.5
4	☐	125.000	123.696	2758385.04	0.4212	P	0.8
5	☐	250.000	247.803	5442115.15	0.8434	P	0.1
6	☐	500.000	500.756	10841406.52	1.7040	P	0.6
7	☐	1000.000	1000.406	21949981.57	3.4039	A	0.4
8	☐			32275.33	0.0057	P	2.6

$$y = 0.0034 * x + 3.3509\text{E-}004$$

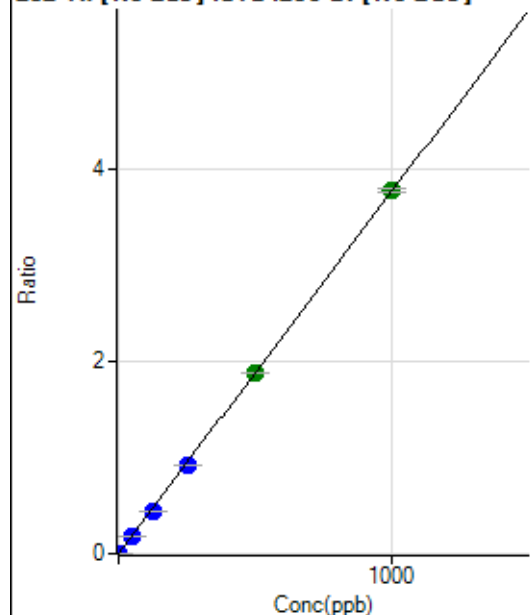
$$R = 1.0000$$

$$DL = 0.003438$$

$$BEC = 0.09849$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1539.03	0.0002	P	6.6
2	☐	1.000	0.816	21200.92	0.0033	P	3.5
3	☐	50.000	45.677	1123490.90	0.1725	P	0.1
4	☐	125.000	118.418	2926799.63	0.4469	P	0.3
5	☐	250.000	244.567	5953371.08	0.9227	P	0.7
6	☐	500.000	499.428	11985673.88	1.8839	A	0.3
7	☐	1000.000	1002.683	24387902.40	3.7820	A	0.9
8	☐			7344.89	0.0013	P	4.5

$$y = 0.0038 * x + 2.3943E-004$$

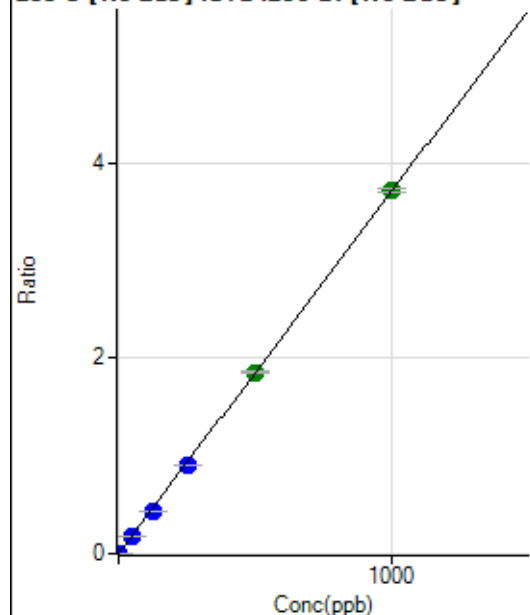
$$R = 1.0000$$

$$DL = 0.01249$$

$$BEC = 0.06348$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1878.00	0.0003	P	3.1
2	☐	1.000	0.883	22798.45	0.0036	P	1.8
3	☐	50.000	45.710	1105975.36	0.1698	P	0.6
4	☐	125.000	117.964	2867384.24	0.4378	P	0.5
5	☐	250.000	244.418	5851219.92	0.9068	P	0.2
6	☐	500.000	501.451	11834571.10	1.8601	A	0.1
7	☐	1000.000	1001.764	23960641.68	3.7158	A	1.0
8	☐			4320.37	0.0008	P	10.6

$$y = 0.0037 * x + 2.9219E-004$$

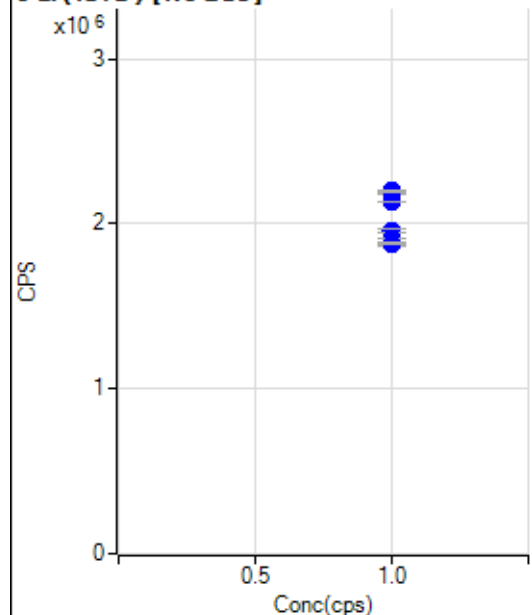
$$R = 1.0000$$

$$DL = 0.007274$$

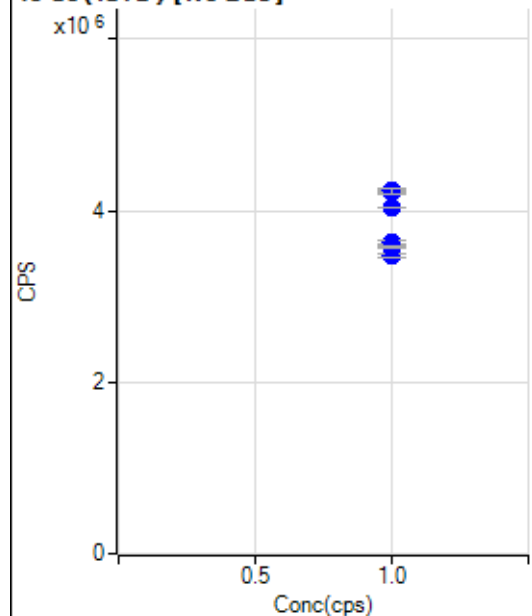
$$BEC = 0.07878$$

Weight: <None>

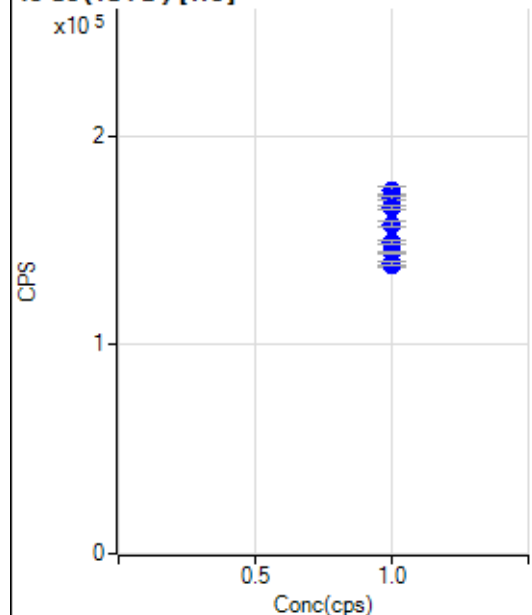
Min Conc: 0

6 Li (ISTD) [No Gas]

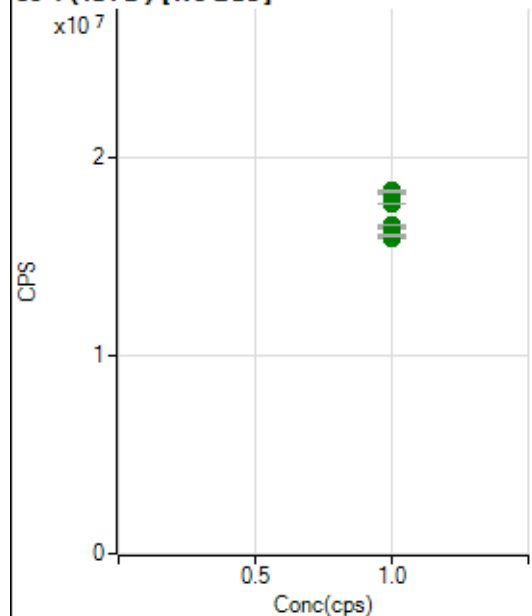
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2186930.90		P	0.2
2	☐	1.000		2191531.04		P	0.1
3	☐	1.000		2199738.83		P	0.6
4	☐	1.000		2132378.72		P	0.1
5	☐	1.000		1956440.24		P	1.1
6	☐	1.000		1874564.62		P	0.6
7	☐	1.000		1909891.51		P	0.4
8	☐	1.000		1880420.64		P	0.6

45 Sc (ISTD) [No Gas]

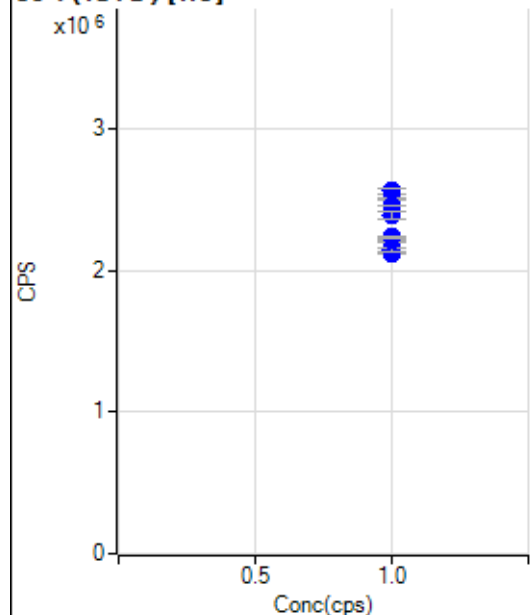
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4228709.47		P	0.4
2	☐	1.000		4219513.50		P	0.5
3	☐	1.000		4225646.10		P	1.2
4	☐	1.000		4036703.30		P	0.3
5	☐	1.000		3631058.63		P	1.1
6	☐	1.000		3474525.60		P	0.9
7	☐	1.000		3586166.79		P	0.2
8	☐	1.000		3570928.42		P	0.4

45 Sc (ISTD) [He]

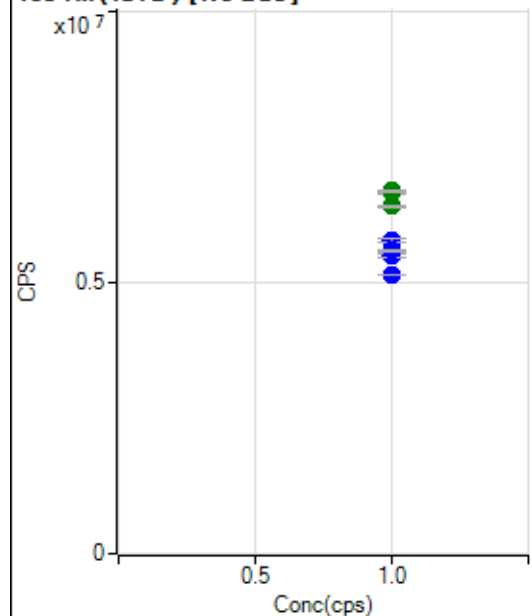
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		173825.35		P	2.2
2	☐	1.000		170394.44		P	0.8
3	☐	1.000		165766.52		P	0.7
4	☐	1.000		157682.18		P	1.6
5	☐	1.000		137852.75		P	0.3
6	☐	1.000		139070.64		P	1.4
7	☐	1.000		144382.98		P	0.6
8	☐	1.000		149356.37		P	1.1

89 Y (ISTD) [No Gas]

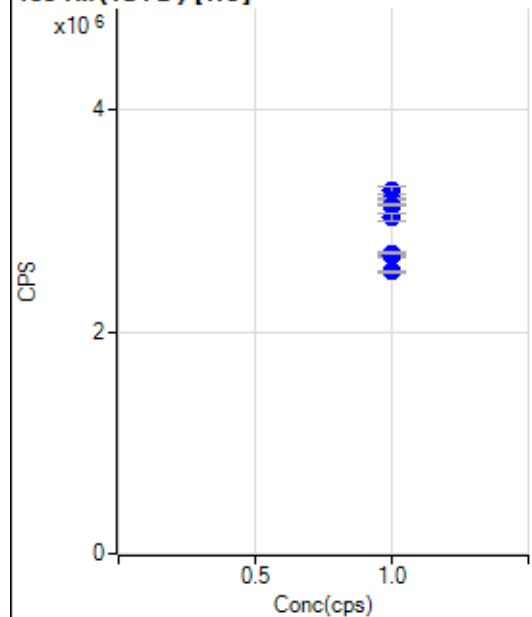
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18254265.14		A	0.5
2	☐	1.000		18202548.34		A	0.4
3	☐	1.000		18348792.78		A	0.6
4	☐	1.000		17722986.26		A	0.1
5	☐	1.000		16464876.42		A	0.9
6	☐	1.000		15975193.37		A	0.8
7	☐	1.000		16615027.95		A	0.4
8	☐	1.000		16074194.06		A	0.6

89 Y (ISTD) [He]

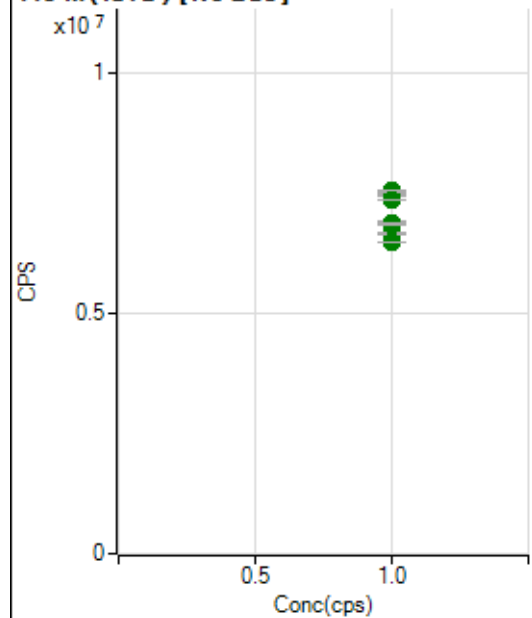
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2558486.00		P	1.9
2	☐	1.000		2502376.78		P	0.7
3	☐	1.000		2457921.49		P	0.2
4	☐	1.000		2384976.27		P	2.0
5	☐	1.000		2120530.30		P	0.2
6	☐	1.000		2140420.63		P	1.2
7	☐	1.000		2204107.59		P	0.3
8	☐	1.000		2231072.95		P	0.8

103 Rh (ISTD) [No Gas]

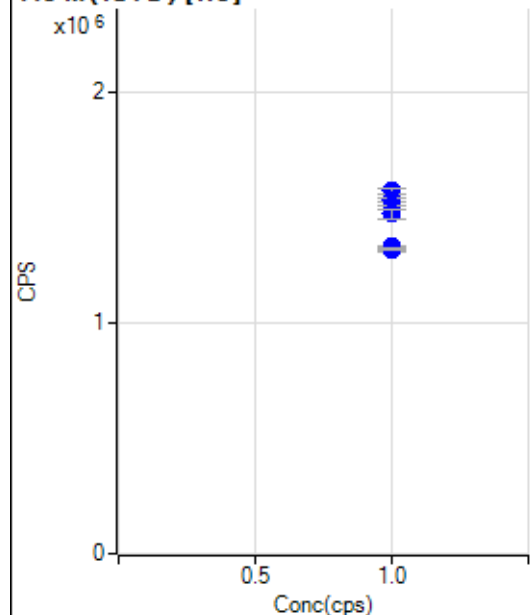
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6669355.36		A	0.1
2	☐	1.000		6650949.72		A	0.2
3	☐	1.000		6685925.15		A	0.7
4	☐	1.000		6402384.08		A	0.5
5	☐	1.000		5778254.39		P	0.9
6	☐	1.000		5497006.50		P	0.9
7	☐	1.000		5586568.05		P	0.3
8	☐	1.000		5138619.78		P	0.3

103 Rh (ISTD) [He]

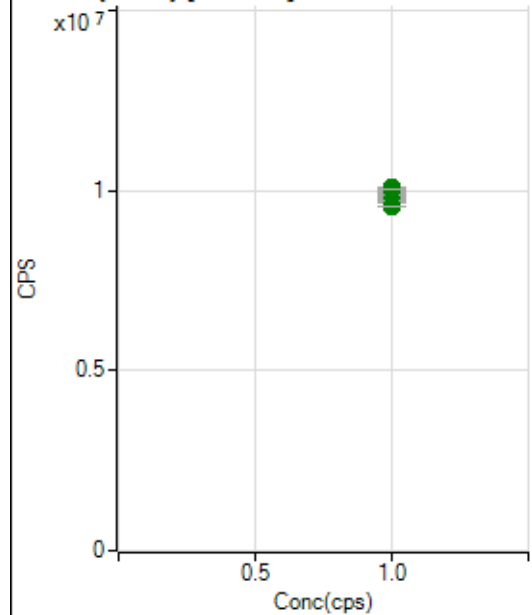
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3271025.02		P	1.9
2	☐	1.000		3197366.52		P	0.8
3	☐	1.000		3144347.07		P	0.3
4	☐	1.000		3037814.57		P	2.2
5	☐	1.000		2692424.93		P	0.2
6	☐	1.000		2686636.80		P	1.4
7	☐	1.000		2713266.87		P	0.3
8	☐	1.000		2540345.31		P	0.6

115 In (ISTD) [No Gas]

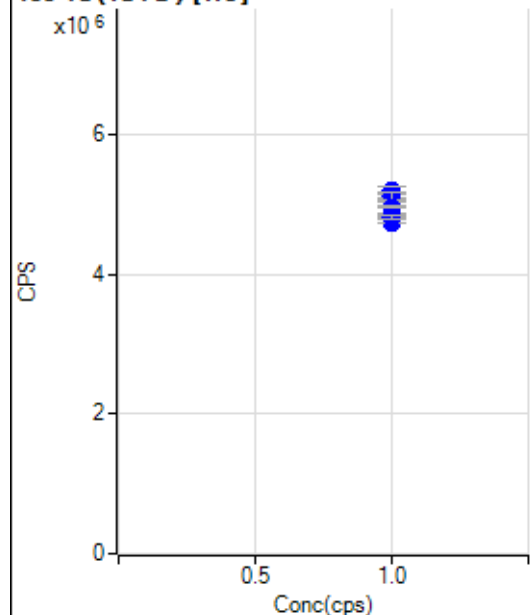
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7517627.77		A	0.7
2	☐	1.000		7463750.49		A	0.5
3	☐	1.000		7559499.22		A	0.5
4	☐	1.000		7380836.83		A	0.2
5	☐	1.000		6896597.27		A	0.9
6	☐	1.000		6690368.42		A	0.6
7	☐	1.000		6867274.47		A	0.2
8	☐	1.000		6492395.24		A	0.0

115 In (ISTD) [He]

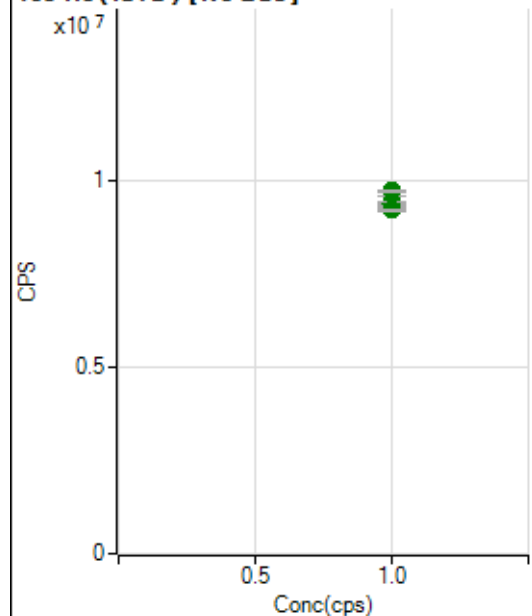
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1568972.69		P	1.7
2	☐	1.000		1530230.12		P	0.8
3	☐	1.000		1507758.71		P	0.2
4	☐	1.000		1470914.46		P	2.7
5	☐	1.000		1314249.85		P	0.2
6	☐	1.000		1317097.06		P	1.6
7	☐	1.000		1330627.03		P	0.5
8	☐	1.000		1318293.21		P	0.7

159 Tb (ISTD) [No Gas]

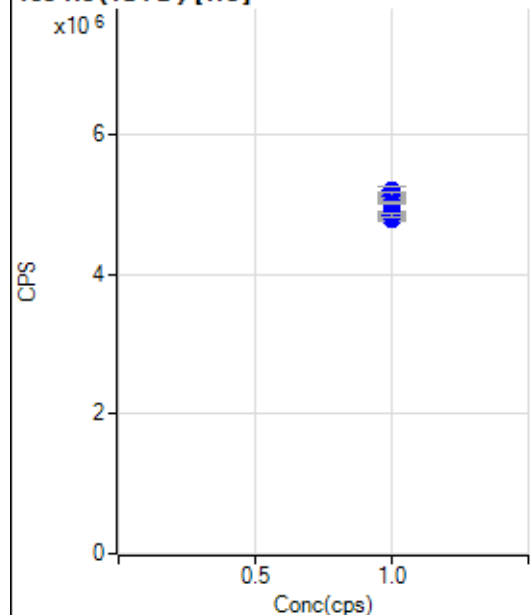
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9885635.06		A	0.5
2	☐	1.000		9851900.76		A	0.2
3	☐	1.000		10078348.81		A	0.6
4	☐	1.000		10024524.99		A	0.6
5	☐	1.000		9737743.33		A	0.2
6	☐	1.000		9707950.48		A	0.7
7	☐	1.000		10051517.07		A	0.2
8	☐	1.000		9558512.29		A	0.4

159 Tb (ISTD) [He]

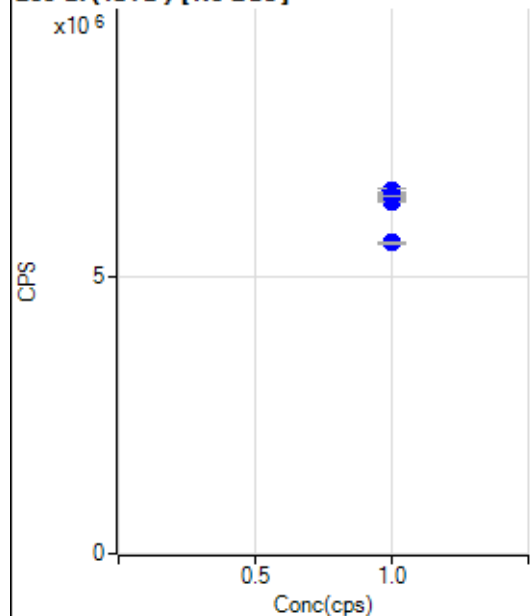
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5189599.96		P	2.1
2	☐	1.000		5073437.25		P	1.0
3	☐	1.000		5055498.19		P	0.4
4	☐	1.000		5107038.64		P	2.0
5	☐	1.000		4726827.95		P	0.3
6	☐	1.000		4836253.02		P	1.5
7	☐	1.000		4960754.20		P	0.7
8	☐	1.000		4801582.05		P	1.2

165 Ho (ISTD) [No Gas]

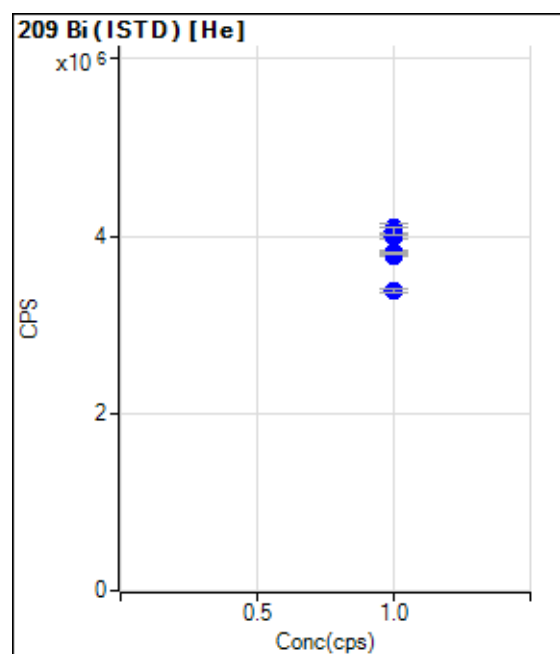
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9394509.06		A	0.5
2	☐	1.000		9348356.72		A	0.6
3	☐	1.000		9558207.59		A	0.0
4	☐	1.000		9582770.87		A	0.3
5	☐	1.000		9346301.51		A	0.6
6	☐	1.000		9345582.41		A	1.4
7	☐	1.000		9712938.15		A	0.2
8	☐	1.000		9208485.79		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5203063.29		P	2.0
2	☐	1.000		5068853.47		P	0.7
3	☐	1.000		5110060.13		P	0.9
4	☐	1.000		5140662.77		P	2.0
5	☐	1.000		4786663.47		P	0.6
6	☐	1.000		4875444.03		P	1.0
7	☐	1.000		5032106.70		P	0.6
8	☐	1.000		4855805.76		P	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6427506.78		P	0.2
2	☐	1.000		6393901.01		P	0.1
3	☐	1.000		6512386.08		P	0.3
4	☐	1.000		6549586.92		P	1.0
5	☐	1.000		6452516.36		P	0.5
6	☐	1.000		6362209.63		P	0.6
7	☐	1.000		6448475.87		P	0.2
8	☐	1.000		5618724.36		P	0.8



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4093585.15		P	2.4
2	☐	1.000		3997069.77		P	1.2
3	☐	1.000		4024055.18		P	0.2
4	☐	1.000		4054842.85		P	2.2
5	☐	1.000		3774532.41		P	0.2
6	☐	1.000		3817419.74		P	1.1
7	☐	1.000		3816536.57		P	0.7
8	☐	1.000		3383864.64		P	0.7

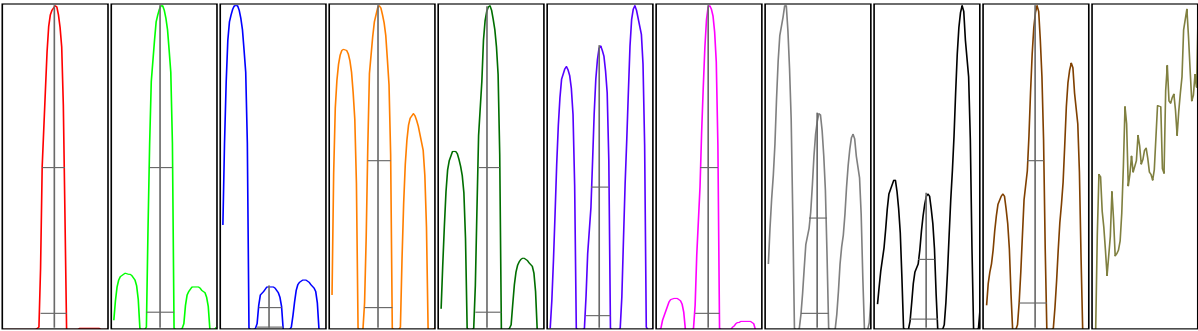
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7081419 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	6644	0.56	5.00	
24	203427	0.41	5.00	
25	26504	0.36	5.00	
26	30735	0.48	5.00	
59	54581	0.52	5.00	
113	8196	0.51	5.00	
115	96794	0.52	5.00	
206	23910	0.68	5.00	
207	22094	0.68	5.00	
208	51675	0.58	5.00	
220	77	1.10		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	6650	6653	6631	6592	6695
24	203121	203141	203100	202873	204900
25	26555	26496	26435	26397	26637
26	30745	30820	30647	30540	30924
59	54609	54798	54336	54257	54905
113	8231	8211	8133	8173	8230
115	97352	97039	96184	96340	97055
206	23757	24033	23793	23837	24131
207	21956	22085	22019	22060	22348
208	51318	51598	51590	51727	52144
220	76	79	78	77	78

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	10978	9.00	8.9 - 9.1		0.781	0.900	
24	317020	23.90	23.9 - 24.1		0.788	0.900	
25	42027	24.90	24.9 - 25.1		0.775	0.900	
26	48587	25.90	25.9 - 26.1		0.803	0.900	
59	91049	58.90	58.9 - 59.1		0.777	0.900	
113	15601	113.00	112.9 - 113.1		0.725	0.900	
115	186072	115.00	114.9 - 115.1		0.713	0.900	
206	47418	206.00	205.9 - 206.1		0.787	0.900	
207	43018	207.00	206.9 - 207.1		0.778	0.900	
208	102527	208.00	207.9 - 208.1		0.785	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
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	7.1	V	Deflect	14.8	V
Extract 2	-80.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-42	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	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	13385	0.83	
89	26843	0.87	
205	22458	0.89	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	13537	13366	13454	13285	13281
89	27152	26974	26859	26574	26657
205	22797	22456	22396	22351	22288

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	7.6	V	Deflect	2.0	V
Extract 2	-85.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-45	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			