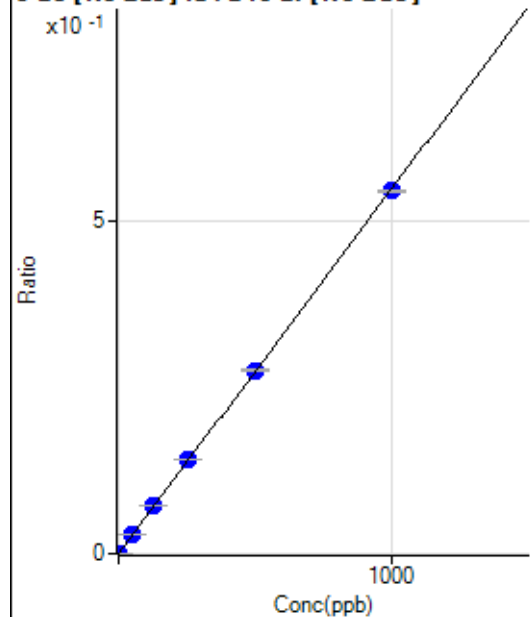


Calibration for 006CAL.S.d

Batch Folder: D:\ICP-MS Data\P7012320A.b\
 Analysis File: P7012320A.batch.bin
 DA Date-Time: 2020-01-23 17:30:35
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-01-23 15:50:10
2	004CAL.S.d	S02	2020-01-23 15:53:51
3	005CAL.S.d	S03	2020-01-23 15:58:20
4	006CAL.S.d	S04	2020-01-23 16:02:23
5	007CAL.S.d	S05	2020-01-23 16:06:23
6	008CAL.S.d	S06	2020-01-23 16:10:20
7	009CAL.S.d	S07	2020-01-23 16:14:15
8	010CAL.S.d	S08	2020-01-23 16:18:08

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133.34	0.0001	P	23.7
2	☐	1.000	1.017	1390.84	0.0006	P	6.1
3	☐	50.000	52.742	63969.87	0.0290	P	0.2
4	☐	125.000	132.418	154936.98	0.0726	P	0.1
5	☐	250.000	258.955	294936.08	0.1419	P	0.2
6	☐	500.000	502.800	567732.11	0.2755	P	0.5
7	☐	1000.000	995.297	1073424.20	0.5454	P	0.4
8	☐			894.50	0.0005	P	1.8

$$y = 5.4791\text{E-}004 * x + 5.8092\text{E-}005$$

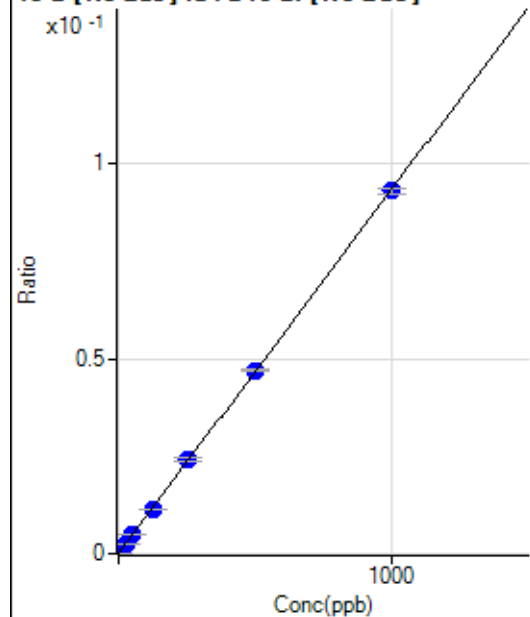
$$R = 0.9999$$

$$DL = 0.07535$$

$$BEC = 0.106$$

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	141.67	0.0001	P	16.0
2	☐	25.000	24.783	5373.41	0.0024	P	7.6
3	☐	50.000	51.869	10837.62	0.0049	P	2.4
4	☐	125.000	122.616	24565.14	0.0115	P	1.4
5	☐	250.000	256.664	49927.99	0.0240	P	3.5
6	☐	500.000	504.006	97119.96	0.0471	P	1.6
7	☐	1000.000	996.541	183285.02	0.0931	P	1.2
8	☐			4378.59	0.0025	P	9.2

$$y = 9.3389\text{E-}005 * x + 6.1891\text{E-}005$$

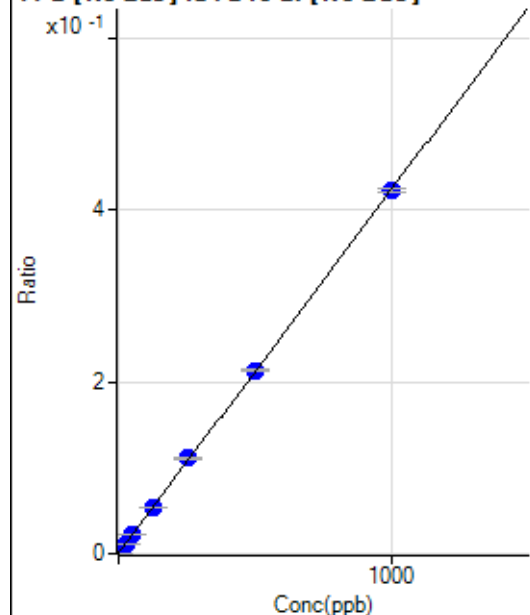
$$R = 1.0000$$

$$DL = 0.3184$$

$$BEC = 0.6627$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	825.06	0.0004	P	5.9
2	☐	25.000	24.072	23861.17	0.0106	P	3.0
3	☐	50.000	50.622	48136.02	0.0218	P	4.0
4	☐	125.000	127.147	115620.90	0.0542	P	0.8
5	☐	250.000	260.861	230200.80	0.1108	P	1.9
6	☐	500.000	501.996	438665.42	0.2129	P	1.0
7	☐	1000.000	996.011	830603.93	0.4220	P	1.1
8	☐			19149.02	0.0108	P	8.9

$$y = 4.2335E-004 * x + 3.6003E-004$$

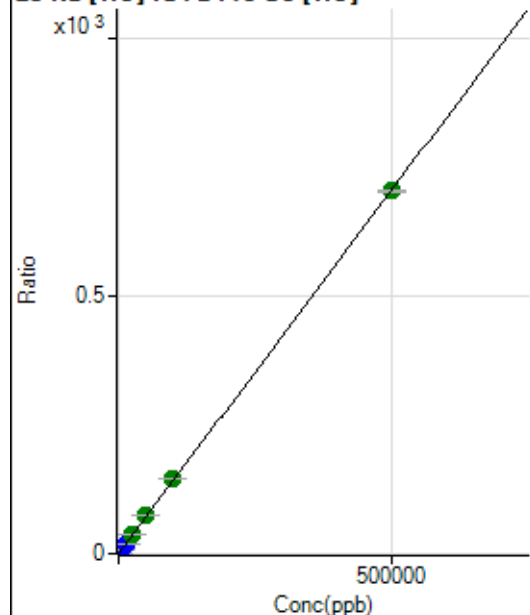
$$R = 0.9999$$

$$DL = 0.1507$$

$$BEC = 0.8504$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5420.65	0.0375	P	3.8
2	☐	500.000	514.244	112861.28	0.7630	P	0.5
3	☐	5000.000	5345.075	1089690.89	7.5788	P	0.8
4	☐	12500.000	13400.953	2639487.21	18.9448	P	0.1
5	☐	25000.000	26404.244	4986993.99	37.2911	A	1.0
6	☐	50000.000	52103.389	9803988.50	73.5499	A	0.3
7	☐	100000.00	102503.44	18819845.38	144.6590	A	1.1
8	☐	500000.00	499192.77	86126554.70	704.3457	A	0.7

$$y = 0.0014 * x + 0.0375$$

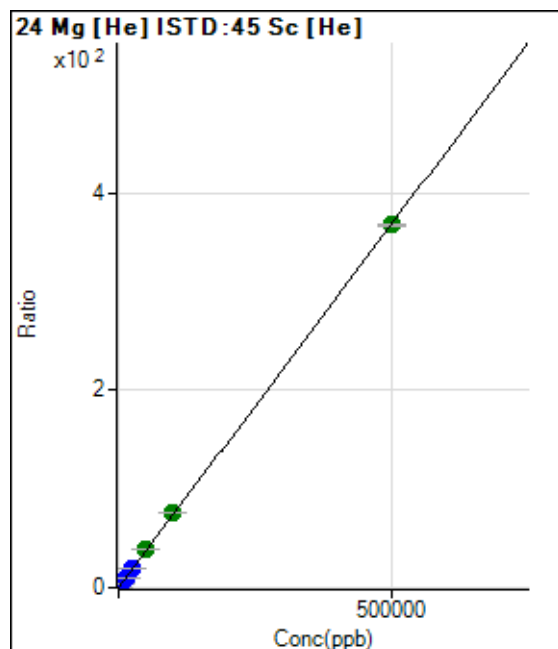
$$R = 1.0000$$

$$DL = 3.04$$

$$BEC = 26.56$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	213.90	0.0015	P	6.3
2	☐	500.000	532.724	58322.99	0.3943	P	1.8
3	☐	5000.000	5430.244	575884.04	4.0054	P	0.6
4	☐	12500.000	13580.835	1395333.00	10.0151	P	0.3
5	☐	25000.000	26995.663	2662097.48	19.9063	P	1.3
6	☐	50000.000	52773.786	5186840.52	38.9134	A	0.9
7	☐	100000.00	102385.14	9821528.95	75.4935	A	0.6
8	☐	500000.00	499114.45	45000586.77	368.0155	A	0.6

$$y = 7.3733\text{E-}004 * x + 0.0015$$

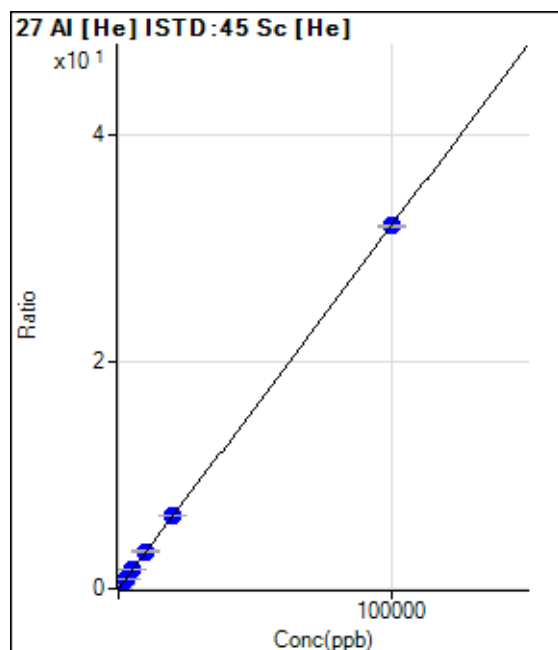
R = 1.0000

DL = 0.3809

BEC = 2.006

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0002	P	78.1
2	☐	20.000	20.775	1005.63	0.0068	P	6.0
3	☐	1000.000	1046.448	48161.75	0.3350	P	1.2
4	☐	2500.000	2595.442	115720.31	0.8306	P	0.9
5	☐	5000.000	5219.022	223343.80	1.6701	P	0.5
6	☐	10000.000	10275.673	438268.41	3.2881	P	1.1
7	☐	20000.000	20055.745	834902.69	6.4174	P	0.6
8	☐	100000.00	99947.482	3910513.15	31.9805	P	0.5

$$y = 3.1997\text{E-}004 * x + 1.5345\text{E-}004$$

R = 1.0000

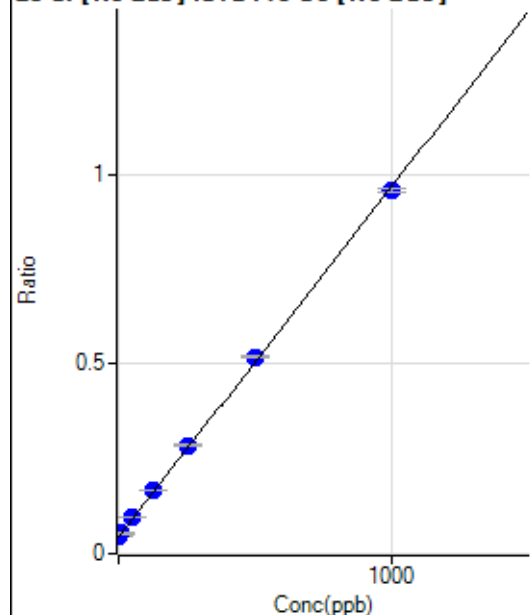
DL = 1.124

BEC = 0.4796

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	166477.41	0.0442	P	0.6
2	☐	10.000	9.879	198794.55	0.0533	P	1.2
3	☐	50.000	55.564	349060.57	0.0955	P	0.1
4	☐	125.000	133.603	594415.44	0.1677	P	0.5
5	☐	250.000	261.950	982410.82	0.2863	P	0.7
6	☐	500.000	514.782	1786124.82	0.5199	P	0.8
7	☐	1000.000	988.269	3194574.75	0.9575	P	0.9
8	☐			258988.55	0.0854	P	1.3

$$y = 9.2418\text{E-}004 * x + 0.0442$$

$$R = 0.9997$$

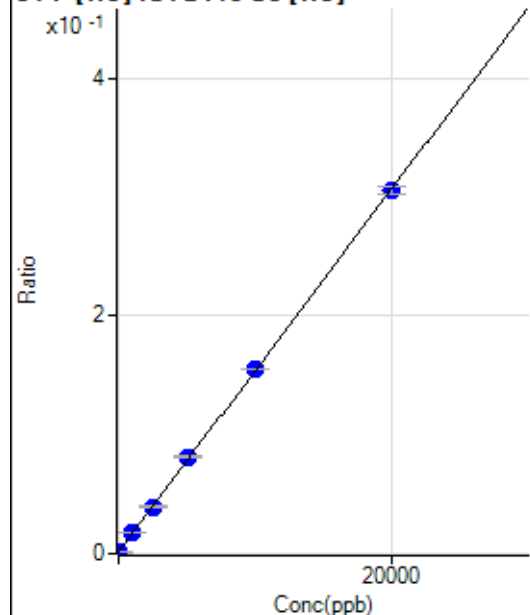
$$DL = 0.9288$$

$$BEC = 47.82$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-37.469	116.67	0.0008	P	7.5
2	☐	0.000	37.469	288.90	0.0020	P	20.2
3	☐	1000.000	1070.515	2550.34	0.0177	P	4.9
4	☐	2500.000	2498.706	5512.37	0.0396	P	4.1
5	☐	5000.000	5244.177	10898.84	0.0815	P	1.2
6	☐	10000.000	10064.081	20679.00	0.1551	P	0.6
7	☐	20000.000	19903.551	39742.94	0.3055	P	2.0
8	☐			125.00	0.0010	P	36.8

$$y = 1.5278\text{E-}005 * x + 0.0014$$

$$R = 0.9999$$

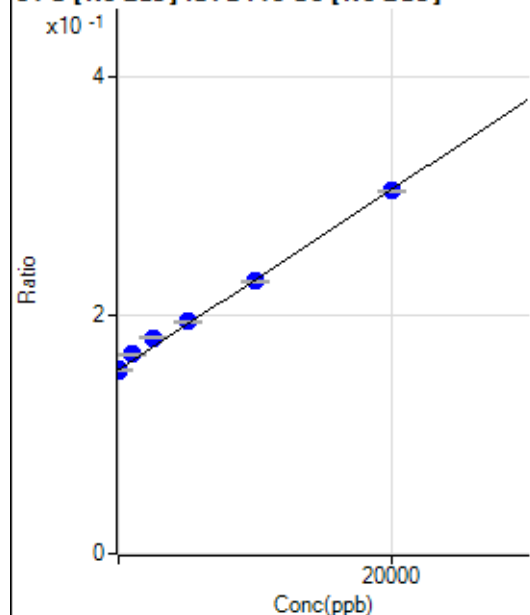
$$DL = 44.7$$

$$BEC = 90.28$$

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	-43.043	580918.90	0.1542	P	1.1
2	☐	0.000	43.043	577359.44	0.1549	P	0.8
3	☐	1000.000	1721.170	612208.26	0.1676	P	0.9
4	☐	2500.000	3550.112	643189.26	0.1814	P	0.6
5	☐	5000.000	5316.834	668506.17	0.1948	P	0.7
6	☐	10000.000	9835.705	786671.58	0.2290	P	0.9
7	☐	20000.000	19835.616	1016777.28	0.3048	P	0.4
8	☐			519501.86	0.1713	P	0.5

$$y = 7.5733\text{E-}006 * x + 0.1545$$

$$R = 0.9983$$

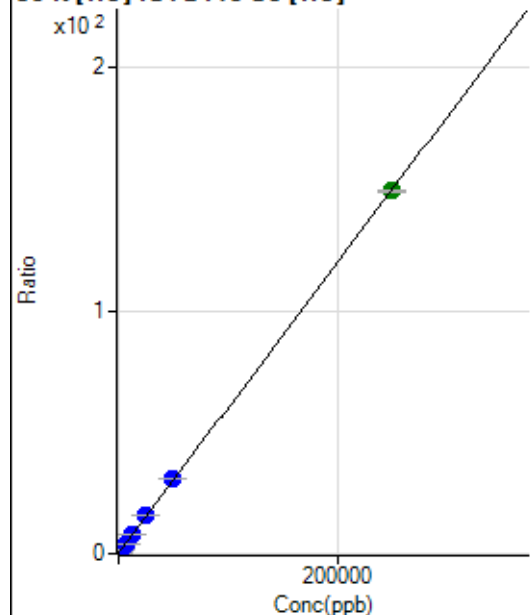
$$DL = 581.7$$

$$BEC = 2.041\text{E}+04$$

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	18331.44	0.1267	P	1.4
2	☐	500.000	502.211	63115.47	0.4267	P	2.1
3	☐	2500.000	2632.515	244355.67	1.6994	P	0.8
4	☐	6250.000	6604.690	567386.94	4.0724	P	0.1
5	☐	12500.000	13220.424	1073144.30	8.0246	P	1.0
6	☐	25000.000	26105.149	2095713.65	15.7220	P	0.3
7	☐	50000.000	51027.161	3982369.32	30.6104	P	0.4
8	☐	250000.00	249637.83	18251353.18	149.2607	A	0.6

$$y = 5.9740\text{E-}004 * x + 0.1267$$

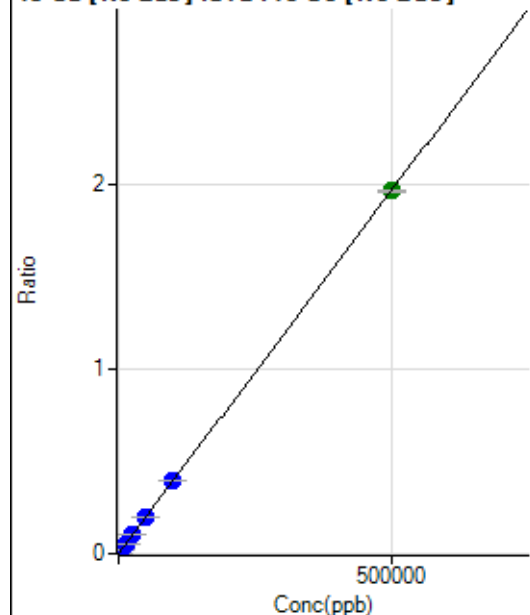
$$R = 1.0000$$

$$DL = 8.783$$

$$BEC = 212.1$$

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	77.78	0.0000	P	22.6
2	☐	500.000	494.854	7324.33	0.0020	P	2.8
3	☐	5000.000	5159.334	74122.35	0.0203	P	1.7
4	☐	12500.000	13012.503	181296.56	0.0511	P	0.8
5	☐	25000.000	25899.165	349194.46	0.1018	P	1.1
6	☐	50000.000	50983.598	688031.05	0.2003	P	1.1
7	☐	100000.00	101102.99	1325086.20	0.3972	P	0.6
8	☐	500000.00	499621.68	5953294.40	1.9626	A	0.5

$$y = 3.9282\text{E-}006 * x + 2.0657\text{E-}005$$

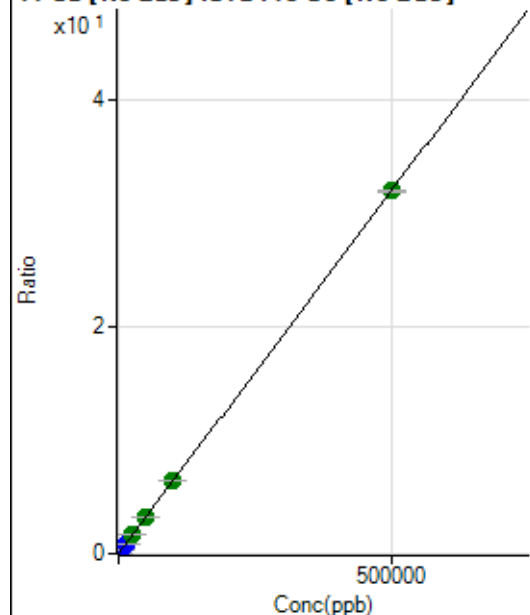
$$R = 1.0000$$

$$DL = 3.568$$

$$BEC = 5.259$$

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	9592.39	0.0025	P	2.4
2	☐	500.000	495.095	127677.74	0.0342	P	1.0
3	☐	5000.000	5105.352	1203536.55	0.3294	P	0.5
4	☐	12500.000	12939.310	2946152.95	0.8310	P	0.8
5	☐	25000.000	25643.913	5643192.31	1.6444	A	0.5
6	☐	50000.000	50557.517	11129378.63	3.2396	A	1.4
7	☐	100000.00	100388.50	21452778.95	6.4301	A	0.5
8	☐	500000.00	499822.32	97079963.98	32.0045	A	0.6

$$y = 6.4027\text{E-}005 * x + 0.0025$$

$$R = 1.0000$$

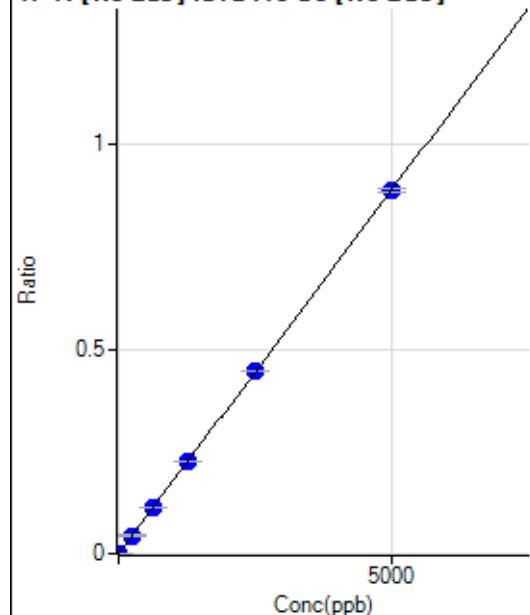
$$DL = 2.811$$

$$BEC = 39.77$$

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	86.11	0.0000	P	14.8
2	☐	5.000	5.090	3456.11	0.0009	P	4.5
3	☐	250.000	250.272	162502.64	0.0445	P	1.0
4	☐	625.000	636.051	400646.67	0.1130	P	0.7
5	☐	1250.000	1260.756	768612.33	0.2240	P	0.3
6	☐	2500.000	2512.039	1532832.39	0.4462	P	0.4
7	☐	5000.000	4989.896	2957233.14	0.8864	P	1.1
8	☐			694.49	0.0002	P	6.2

$$y = 1.7763\text{E-}004 * x + 2.2861\text{E-}005$$

R = 1.0000

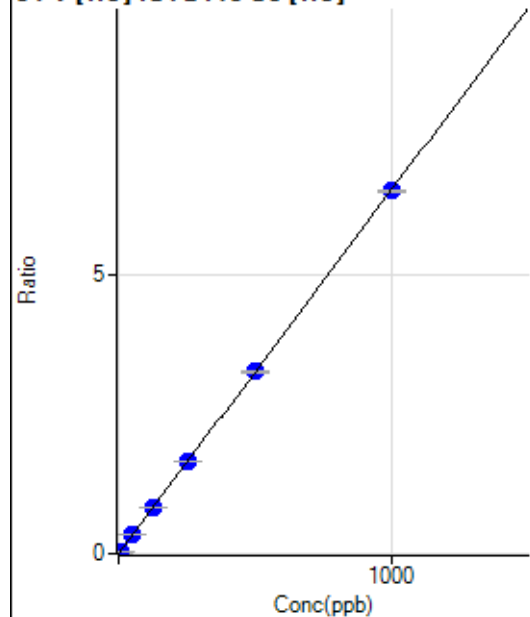
DL = 0.0572

BEC = 0.1287

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	7.78	0.0001	P	49.6
2	☐	5.000	5.070	4914.23	0.0332	P	1.9
3	☐	50.000	50.913	47895.41	0.3331	P	0.6
4	☐	125.000	128.231	116884.24	0.8389	P	0.6
5	☐	250.000	255.275	223337.53	1.6700	P	0.3
6	☐	500.000	501.639	437433.76	3.2817	P	0.8
7	☐	1000.000	997.412	848858.51	6.5251	P	0.7
8	☐			324.45	0.0027	P	3.2

$$y = 0.0065 * x + 5.3771\text{E-}005$$

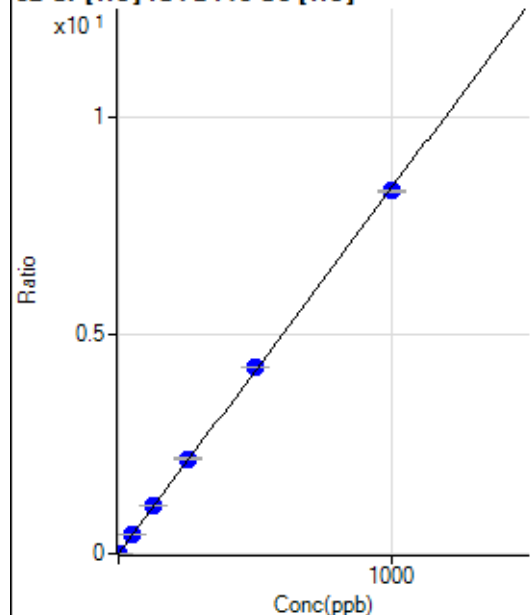
R = 1.0000

DL = 0.01222

BEC = 0.008219

Weight: <None>

Min Conc: 0

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

$$y = 0.0084 * x + 0.0026$$

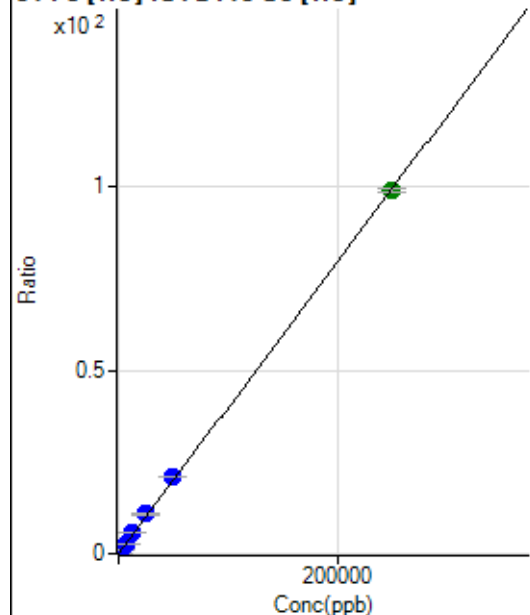
$$R = 0.9999$$

$$DL = 0.07647$$

$$BEC = 0.3071$$

Weight: <None>

Min Conc: 0

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

$$y = 3.9739E-004 * x + 0.0021$$

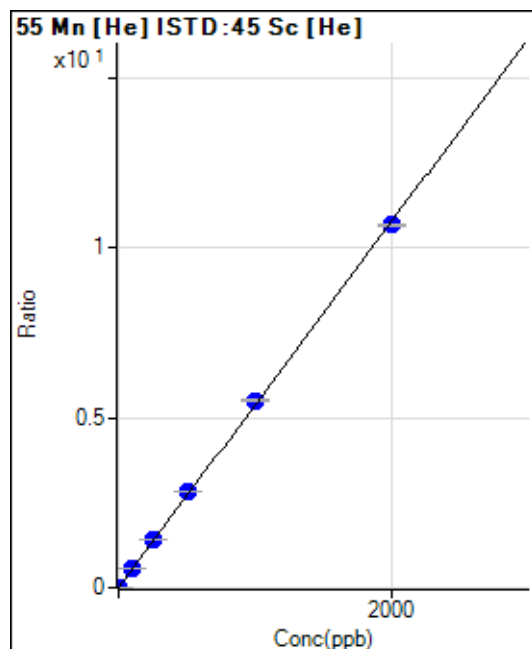
$$R = 0.9999$$

$$DL = 1.059$$

$$BEC = 5.34$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	78.89	0.0005	P	17.4
2	☐	1.000	1.007	883.37	0.0060	P	6.6
3	☐	100.000	104.159	80750.07	0.5616	P	0.3
4	☐	250.000	261.273	196154.99	1.4079	P	0.4
5	☐	500.000	523.334	377062.55	2.8196	P	0.8
6	☐	1000.000	1020.201	732576.41	5.4960	P	1.0
7	☐	2000.000	1982.449	1389333.54	10.6793	P	0.3
8	☐			6249.20	0.0511	P	1.5

$$y = 0.0054 * x + 5.4531E-004$$

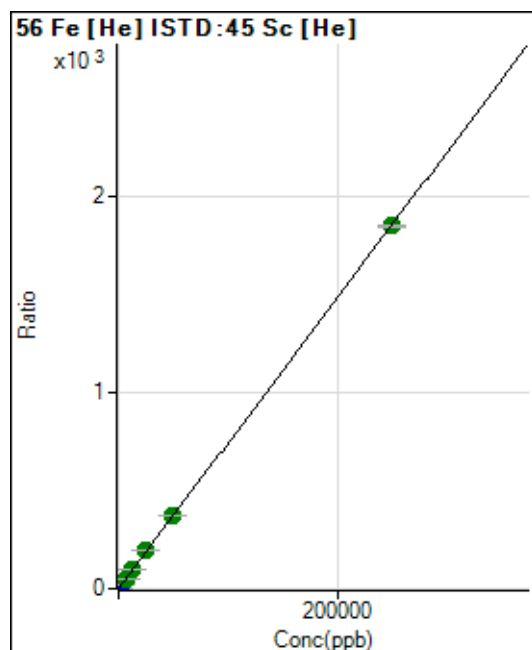
$$R = 0.9998$$

$$DL = 0.05288$$

$$BEC = 0.1012$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2461.38	0.0170	P	7.3
2	☐	50.000	54.390	62206.29	0.4206	P	0.9
3	☐	2500.000	2685.929	2867723.13	19.9450	P	0.5
4	☐	6250.000	6664.255	6891089.51	49.4617	A	0.6
5	☐	12500.000	13290.097	13188792.65	98.6215	A	0.7
6	☐	25000.000	25994.438	25709971.18	192.8800	A	0.6
7	☐	50000.000	50469.585	48716842.29	374.4707	A	1.1
8	☐	250000.00	249754.91	226586284.7	1,853.047	A	0.5

$$y = 0.0074 * x + 0.0170$$

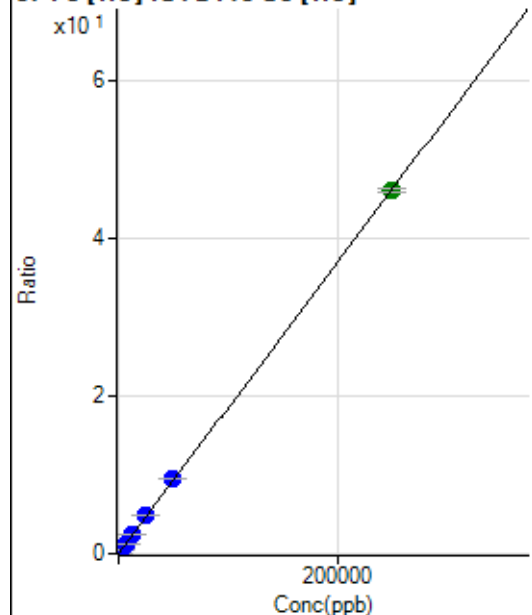
$$R = 1.0000$$

$$DL = 0.5014$$

$$BEC = 2.293$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	53.71	0.0004	P	30.7
2	☐	50.000	59.681	1685.33	0.0114	P	6.0
3	☐	2500.000	2722.402	72324.13	0.5030	P	0.3
4	☐	6250.000	6843.604	176093.22	1.2639	P	0.8
5	☐	12500.000	13508.754	333586.78	2.4945	P	0.8
6	☐	25000.000	26460.024	651266.87	4.8856	P	0.6
7	☐	50000.000	51148.378	1228596.84	9.4438	P	0.8
8	☐	250000.00	249556.81	5633949.89	46.0755	A	1.0

$$y = 1.8463\text{E-}004 * x + 3.7186\text{E-}004$$

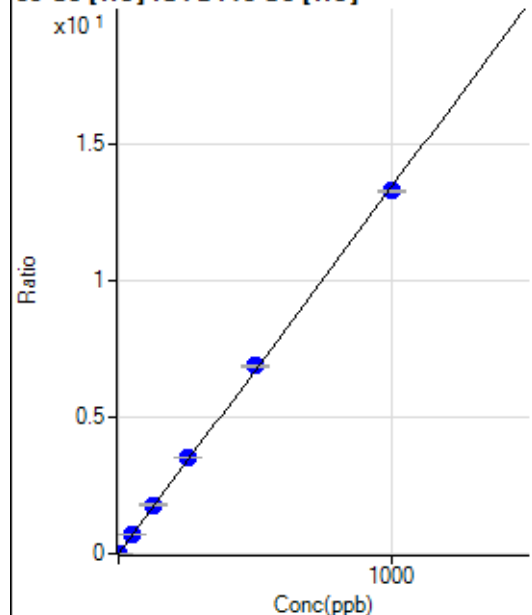
$$R = 1.0000$$

$$DL = 1.854$$

$$BEC = 2.014$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	66.67	0.0005	P	27.4
2	☐	1.000	0.950	1953.50	0.0132	P	6.3
3	☐	50.000	53.577	103376.37	0.7191	P	1.9
4	☐	125.000	133.601	249718.28	1.7924	P	0.7
5	☐	250.000	263.268	472284.50	3.5316	P	0.6
6	☐	500.000	511.722	914978.00	6.8640	P	0.2
7	☐	1000.000	989.568	1726766.95	13.2732	P	0.5
8	☐			3285.99	0.0269	P	4.1

$$y = 0.0134 * x + 4.6045\text{E-}004$$

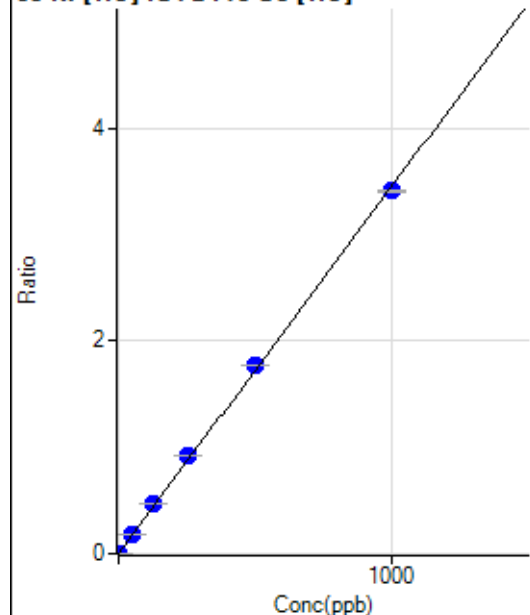
$$R = 0.9998$$

$$DL = 0.02827$$

$$BEC = 0.03433$$

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	178.89	0.0012	P	12.4
2	☐	1.000	1.249	820.04	0.0055	P	5.1
3	☐	50.000	54.049	26972.80	0.1876	P	2.2
4	☐	125.000	134.216	64658.56	0.4641	P	0.8
5	☐	250.000	265.644	122666.77	0.9173	P	0.5
6	☐	500.000	511.991	235509.48	1.7667	P	0.3
7	☐	1000.000	988.739	443717.55	3.4107	P	0.5
8	☐			6105.81	0.0499	P	1.4

$$y = 0.0034 * x + 0.0012$$

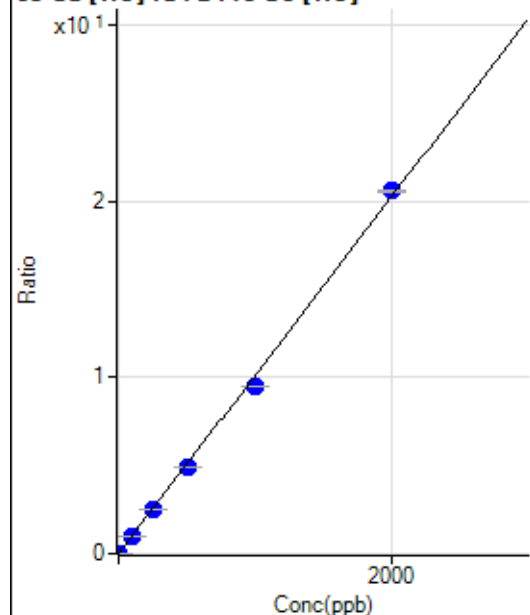
$$R = 0.9997$$

$$DL = 0.1334$$

$$BEC = 0.3587$$

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	866.71	0.0060	P	3.8
2	☐	2.000	1.908	3741.66	0.0253	P	3.0
3	☐	100.000	99.822	146066.22	1.0159	P	0.6
4	☐	250.000	247.839	350184.35	2.5134	P	0.5
5	☐	500.000	487.485	660354.33	4.9379	P	0.6
6	☐	1000.000	939.128	1267271.70	9.5073	P	0.6
7	☐	2000.000	2033.844	2677701.63	20.5826	P	0.4
8	☐			6022.44	0.0492	P	4.1

$$y = 0.0101 * x + 0.0060$$

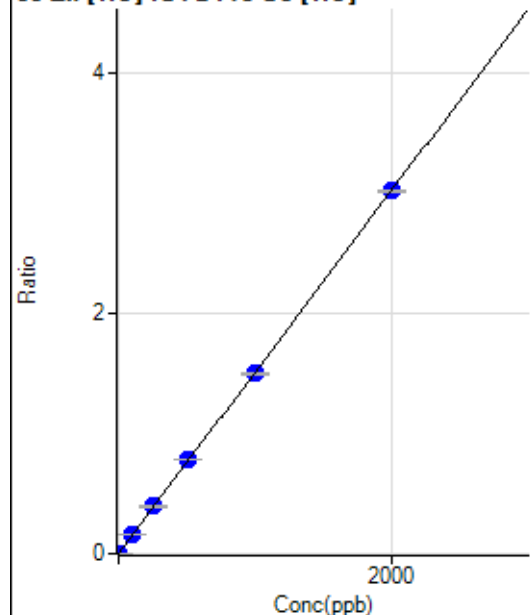
$$R = 0.9993$$

$$DL = 0.06693$$

$$BEC = 0.5924$$

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	122.23	0.0008	P	6.0
2	☐	2.000	2.042	581.13	0.0039	P	2.9
3	☐	100.000	104.661	22845.87	0.1589	P	1.8
4	☐	250.000	260.356	54894.03	0.3940	P	1.4
5	☐	500.000	519.785	105089.31	0.7858	P	0.2
6	☐	1000.000	990.174	199446.37	1.4962	P	0.2
7	☐	2000.000	1998.439	392737.79	3.0189	P	0.8
8	☐			4794.20	0.0392	P	4.2

$$y = 0.0015 * x + 8.4470E-004$$

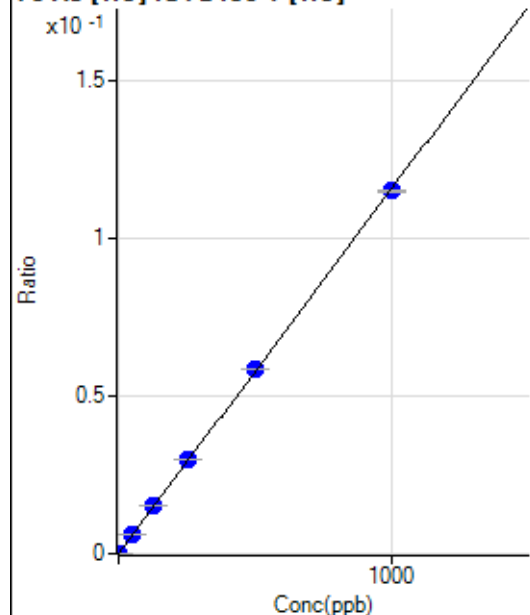
$$R = 0.9999$$

$$DL = 0.1012$$

$$BEC = 0.5593$$

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	1.23	0.0000	P	173.2
2	☐	1.000	1.067	125.31	0.0001	P	9.8
3	☐	50.000	52.926	5988.33	0.0061	P	2.2
4	☐	125.000	129.775	14422.67	0.0150	P	0.9
5	☐	250.000	256.095	27435.78	0.0296	P	0.1
6	☐	500.000	506.125	53909.93	0.0586	P	0.7
7	☐	1000.000	994.671	102913.89	0.1151	P	0.2
8	☐			67.90	0.0001	P	1.7

$$y = 1.1570E-004 * x + 1.2394E-006$$

$$R = 0.9999$$

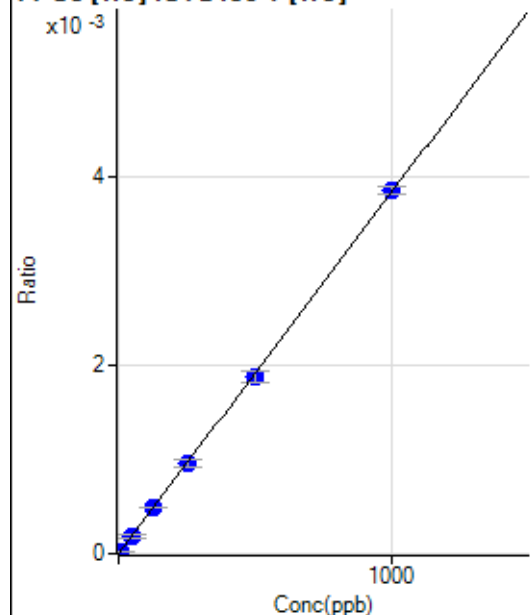
$$DL = 0.05566$$

$$BEC = 0.01071$$

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	5.475	21.11	0.0000	P	32.8
3	☐	50.000	49.768	186.67	0.0002	P	18.7
4	☐	125.000	129.660	477.79	0.0005	P	0.7
5	☐	250.000	251.446	893.38	0.0010	P	7.7
6	☐	500.000	490.558	1732.35	0.0019	P	6.6
7	☐	1000.000	1003.786	3443.80	0.0039	P	2.2
8	☐			2.22	0.0000	P	86.6

$$y = 3.8366\text{E-}06 * x + 0.0000\text{E+}000$$

$$R = 0.9999$$

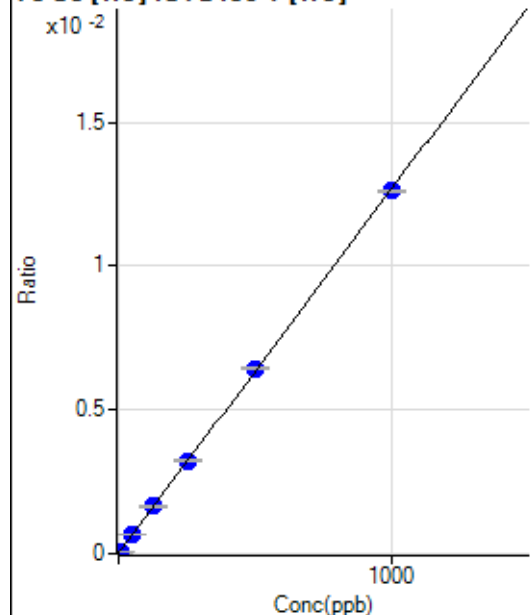
$$DL = 0$$

$$BEC = 0$$

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	12.96	0.0000	P	48.8
2	☐	5.000	5.565	83.95	0.0001	P	14.1
3	☐	50.000	52.297	660.52	0.0007	P	4.4
4	☐	125.000	129.125	1583.43	0.0016	P	3.7
5	☐	250.000	254.082	2992.31	0.0032	P	1.6
6	☐	500.000	506.877	5922.86	0.0064	P	1.0
7	☐	1000.000	994.908	11282.24	0.0126	P	0.7
8	☐			19.75	0.0000	P	14.3

$$y = 1.2668\text{E-}05 * x + 1.3041\text{E-}005$$

$$R = 1.0000$$

$$DL = 1.507$$

$$BEC = 1.029$$

Weight: <None>

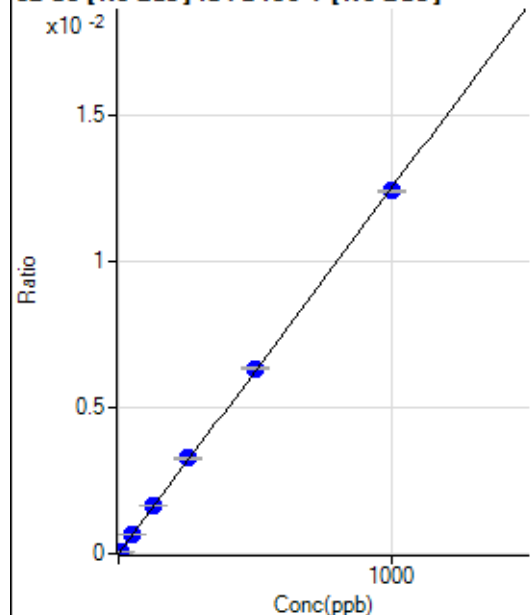
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			35423.25		P	1.4
2	☐			33426.66		P	1.8
3	☐			33878.10		P	3.1
4	☐			32633.92		P	1.4
5	☐			31446.62		P	0.6
6	☐			30764.84		P	2.1
7	☐			29477.38		P	1.0
8	☐			29049.33		P	1.1

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			20.02		P	50.0
2	☐			33.37		P	75.5
3	☐			16.68		P	91.7
4	☐			20.02		P	50.0
5	☐			20.02		P	50.0
6	☐			20.02		P	NaN
7	☐			13.35		P	114.6
8	☐			6.67		P	173.2

82 Se [No Gas] ISTD:89 Y [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-8.56	0.0000	P	-262.
2	☐	5.000	5.189	502.61	0.0001	P	0.6
3	☐	50.000	51.866	5030.10	0.0006	P	4.3
4	☐	125.000	131.517	12525.41	0.0016	P	0.5
5	☐	250.000	261.109	24261.14	0.0033	P	0.7
6	☐	500.000	506.593	47383.64	0.0063	P	0.7
7	☐	1000.000	993.017	89908.55	0.0124	P	0.3
8	☐			78.85	0.0000	P	7.9

$$y = 1.2479E-005 * x - 1.0530E-006$$

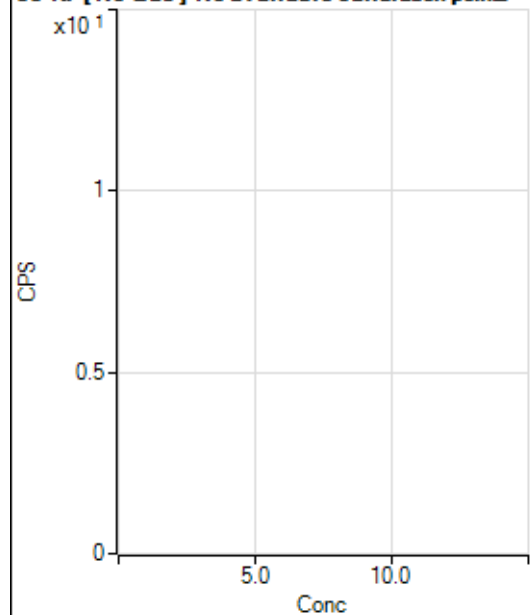
R = 0.9999

DL = 0.6654

BEC = -0.08438

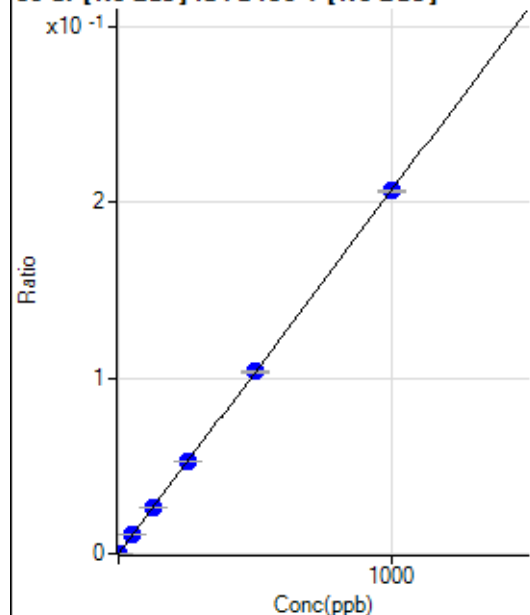
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			193.34		P	9.6
2	☐			178.89		P	10.3
3	☐			184.45		P	19.3
4	☐			196.67		P	9.0
5	☐			157.78		P	19.6
6	☐			183.34		P	11.9
7	☐			213.34		P	28.5
8	☐			146.67		P	12.7

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	297.24	0.0000	P	14.1
2	☐	1.000	0.934	1814.08	0.0002	P	3.0
3	☐	50.000	50.580	81791.95	0.0105	P	0.9
4	☐	125.000	128.165	202861.48	0.0266	P	0.6
5	☐	250.000	254.319	392314.67	0.0527	P	1.4
6	☐	500.000	500.035	776132.25	0.1035	P	0.4
7	☐	1000.000	998.478	1499869.59	0.2067	P	0.4
8	☐			3194.94	0.0005	P	4.6

$$y = 2.0698E-004 * x + 3.6548E-005$$

$$R = 1.0000$$

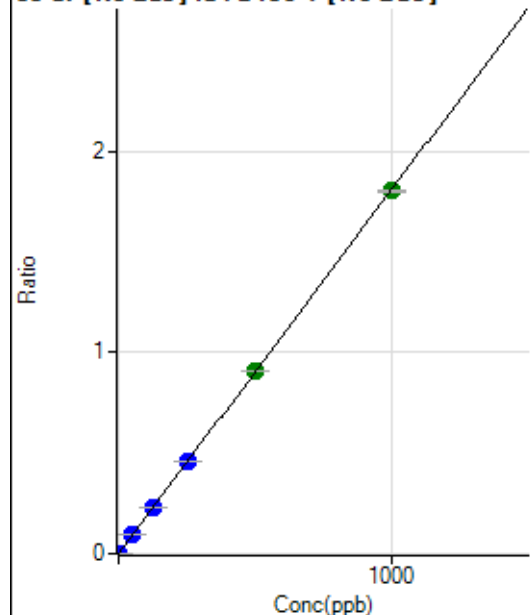
$$DL = 0.07477$$

$$BEC = 0.1766$$

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	105.56	0.0000	P	38.9
2	☐	1.000	0.993	14252.14	0.0018	P	2.7
3	☐	50.000	50.699	713325.73	0.0916	P	0.9
4	☐	125.000	128.455	1772696.39	0.2321	P	0.7
5	☐	250.000	255.488	3438627.47	0.4617	P	0.5
6	☐	500.000	502.443	6806109.79	0.9079	A	0.5
7	☐	1000.000	996.940	13071977.98	1.8015	A	0.5
8	☐			25915.89	0.0039	P	0.8

$$y = 0.0018 * x + 1.2980E-005$$

$$R = 1.0000$$

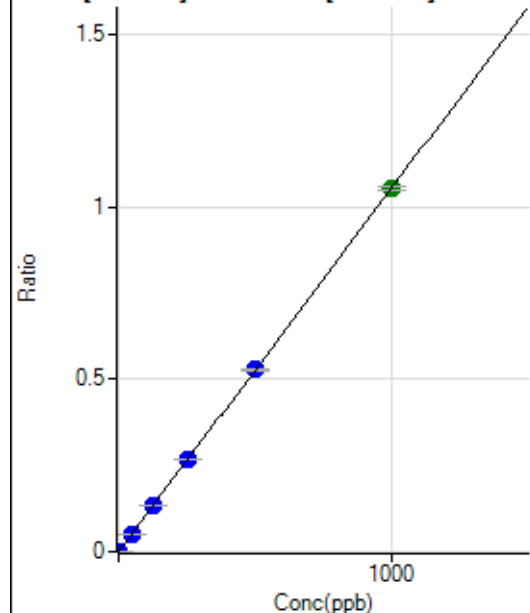
$$DL = 0.008391$$

$$BEC = 0.007183$$

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	508.37	0.0001	P	4.3
2	☐	1.000	0.787	7035.34	0.0009	P	5.7
3	☐	50.000	49.997	410494.11	0.0527	P	0.3
4	☐	125.000	126.828	1020667.28	0.1336	P	0.7
5	☐	250.000	252.948	1984843.27	0.2665	P	0.5
6	☐	500.000	501.293	3958400.74	0.5281	P	0.7
7	☐	1000.000	998.389	7631109.28	1.0517	A	1.0
8	☐			2630.91	0.0004	P	4.8

$$y = 0.0011 * x + 6.2508E-005$$

$$R = 1.0000$$

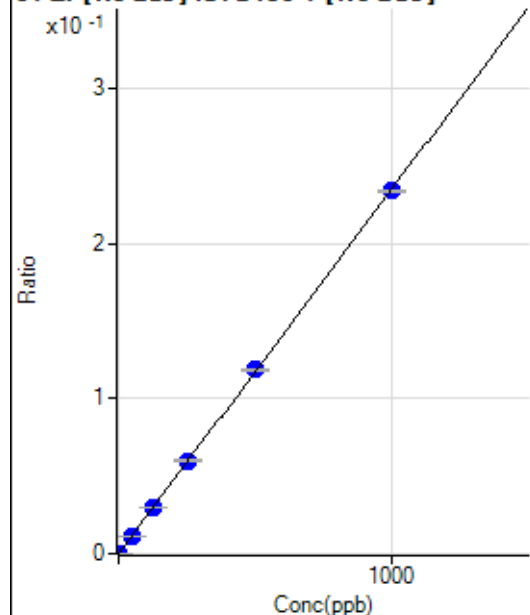
$$DL = 0.007701$$

$$BEC = 0.05935$$

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	86.12	0.0000	P	27.9
2	☐	1.000	0.786	1539.04	0.0002	P	12.2
3	☐	50.000	49.924	91290.54	0.0117	P	0.8
4	☐	125.000	126.222	226274.07	0.0296	P	0.2
5	☐	250.000	254.294	444491.93	0.0597	P	1.7
6	☐	500.000	504.961	888364.65	0.1185	P	0.6
7	☐	1000.000	996.297	1696511.28	0.2338	P	0.3
8	☐			602.82	0.0001	P	3.3

$$y = 2.3466E-004 * x + 1.0589E-005$$

$$R = 1.0000$$

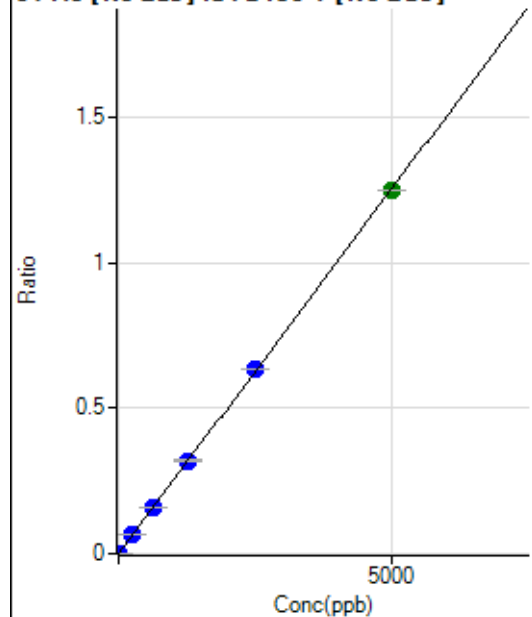
$$DL = 0.03781$$

$$BEC = 0.04512$$

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	155.56	0.0000	P	20.3
2	☐	5.000	4.612	9278.41	0.0012	P	3.4
3	☐	250.000	253.703	495537.64	0.0636	P	0.5
4	☐	625.000	641.452	1228722.11	0.1609	P	0.4
5	☐	1250.000	1276.657	2384841.79	0.3202	P	0.8
6	☐	2500.000	2531.110	4758789.95	0.6348	P	0.2
7	☐	5000.000	4975.540	9054863.22	1.2479	A	0.0
8	☐			5901.44	0.0009	P	5.5

$$y = 2.5080\text{E-}004 * x + 1.9128\text{E-}005$$

$$R = 1.0000$$

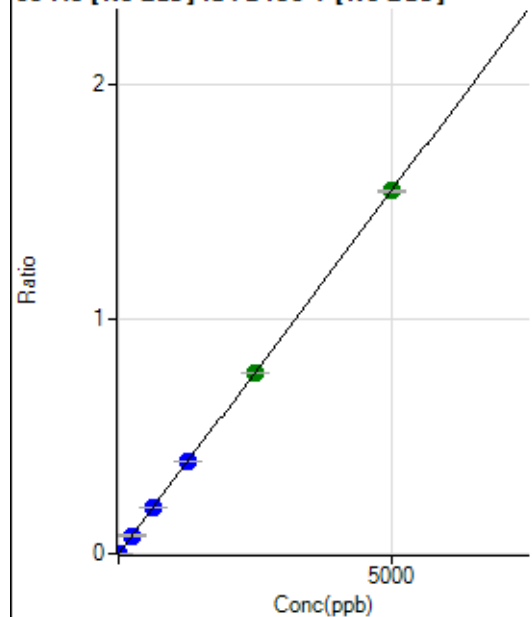
$$DL = 0.04643$$

$$BEC = 0.07627$$

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	130.56	0.0000	P	13.3
2	☐	5.000	5.104	12611.64	0.0016	P	4.3
3	☐	250.000	250.831	605411.50	0.0778	P	0.7
4	☐	625.000	636.923	1507786.57	0.1974	P	0.8
5	☐	1250.000	1268.103	2927562.09	0.3931	P	0.8
6	☐	2500.000	2489.641	5784981.16	0.7717	A	0.3
7	☐	5000.000	4999.122	11243638.36	1.5495	A	0.4
8	☐			8600.18	0.0013	P	4.5

$$y = 3.0995\text{E-}004 * x + 1.6054\text{E-}005$$

$$R = 1.0000$$

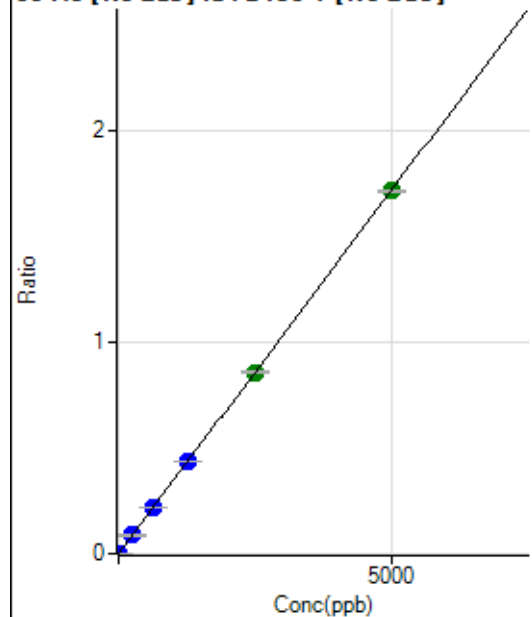
$$DL = 0.02066$$

$$BEC = 0.05179$$

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	97.23	0.0000	P	4.9
2	☐	5.000	5.168	14076.93	0.0018	P	2.2
3	☐	250.000	252.224	673367.52	0.0865	P	1.2
4	☐	625.000	638.839	1672863.56	0.2190	P	0.5
5	☐	1250.000	1279.285	3267030.98	0.4386	P	0.4
6	☐	2500.000	2499.057	6423409.04	0.8569	A	0.1
7	☐	5000.000	4991.309	12418150.45	1.7114	A	0.6
8	☐			9878.79	0.0015	P	1.9

$$y = 3.4287\text{E-}004 * x + 1.1955\text{E-}005$$

$$R = 1.0000$$

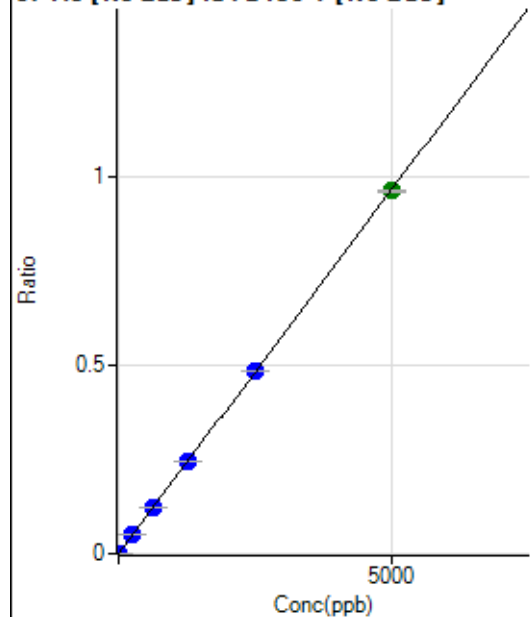
$$DL = 0.005172$$

$$BEC = 0.03487$$

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	44.45	0.0000	P	28.7
2	☐	5.000	5.032	7716.33	0.0010	P	1.9
3	☐	250.000	252.986	380660.86	0.0489	P	0.4
4	☐	625.000	640.804	945725.87	0.1238	P	1.0
5	☐	1250.000	1277.547	1838806.12	0.2469	P	0.5
6	☐	2500.000	2508.933	3634478.90	0.4848	P	0.6
7	☐	5000.000	4986.522	6992216.30	0.9636	A	0.7
8	☐			5334.54	0.0008	P	1.4

$$y = 1.9324\text{E-}004 * x + 5.4651\text{E-}006$$

$$R = 1.0000$$

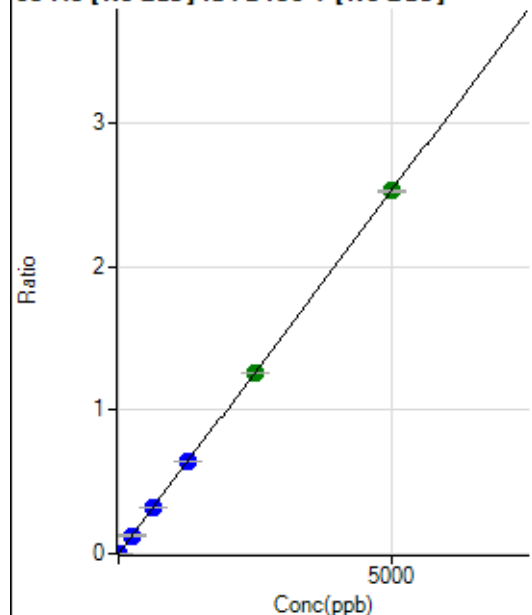
$$DL = 0.02431$$

$$BEC = 0.02828$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	86.11	0.0000	P	39.1
2	☐	5.000	5.106	20457.14	0.0026	P	0.3
3	☐	250.000	250.974	988247.77	0.1269	P	1.0
4	☐	625.000	634.685	2451395.56	0.3210	P	0.8
5	☐	1250.000	1267.277	4773709.09	0.6409	P	0.1
6	☐	2500.000	2492.274	9448867.57	1.2604	A	0.4
7	☐	5000.000	4998.284	18342535.65	2.5278	A	0.5
8	☐			13306.80	0.0020	P	1.1

$$y = 5.0574\text{E-}004 * x + 1.0588\text{E-}005$$

$$R = 1.0000$$

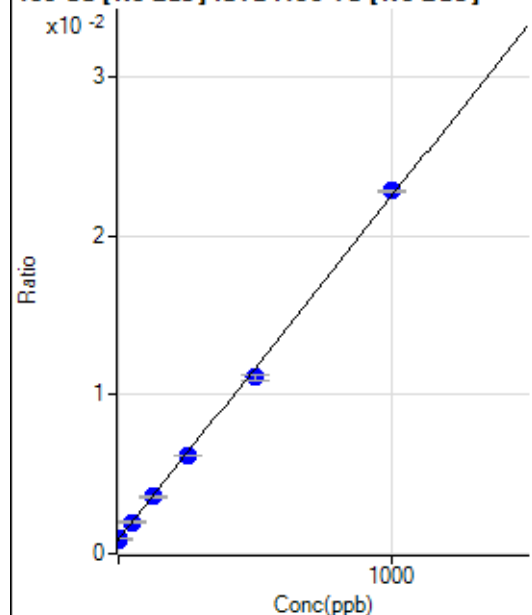
$$DL = 0.02456$$

$$BEC = 0.02094$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	9631.41	0.0009	P	4.0
2	☐	1.000	1.533	9645.37	0.0009	P	0.7
3	☐	50.000	50.496	20340.31	0.0020	P	1.0
4	☐	125.000	125.854	37489.57	0.0036	P	2.7
5	☐	250.000	242.830	62742.71	0.0061	P	0.7
6	☐	500.000	471.593	113644.96	0.0111	P	2.5
7	☐	1000.000	1015.864	225290.10	0.0228	P	0.8
8	☐			8183.28	0.0009	P	2.5

$$y = 2.1591\text{E-}005 * x + 9.0094\text{E-}004$$

$$R = 0.9994$$

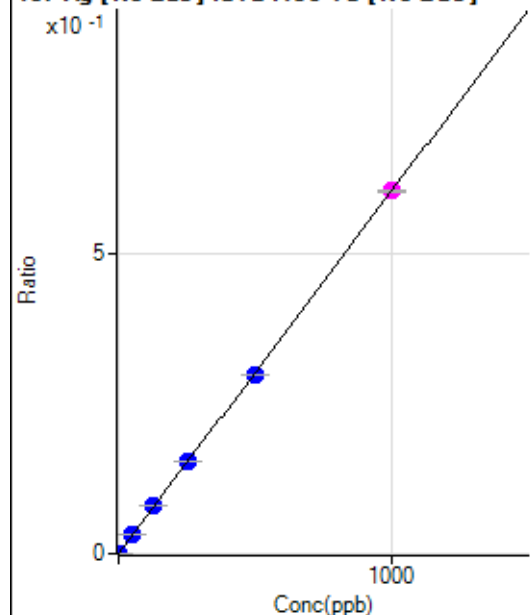
$$DL = 4.984$$

$$BEC = 41.73$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	155.56	0.0000	P	3.2
2	☐	1.000	0.977	6248.88	0.0006	P	3.1
3	☐	50.000	54.896	339141.30	0.0332	P	0.7
4	☐	125.000	131.643	824727.51	0.0796	P	0.6
5	☐	250.000	257.060	1587091.13	0.1554	P	0.0
6	☐	500.000	492.770	3055256.97	0.2979	P	0.5
7	☐	1000.000	1000.775	5969020.88	0.6050	M	0.3
8	☐			1527.93	0.0002	P	9.2

$$y = 6.0453\text{E-}004 * x + 1.4552\text{E-}005$$

$$R = 0.9999$$

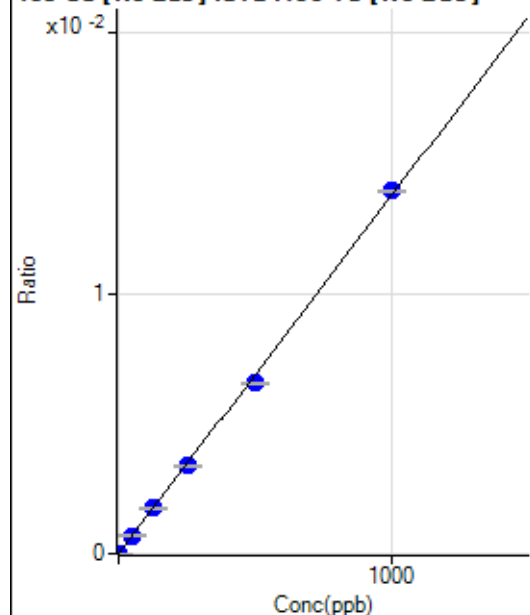
$$DL = 0.00232$$

$$BEC = 0.02407$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	18.06	0.0000	P	58.0
2	☐	1.000	0.914	147.23	0.0000	P	9.7
3	☐	50.000	50.318	7082.45	0.0007	P	2.7
4	☐	125.000	126.149	17983.95	0.0017	P	2.6
5	☐	250.000	245.213	34437.91	0.0034	P	0.9
6	☐	500.000	476.318	67155.95	0.0065	P	1.3
7	☐	1000.000	1012.878	137375.16	0.0139	P	0.7
8	☐			65.28	0.0000	P	7.0

$$y = 1.3746\text{E-}005 * x + 1.6884\text{E-}006$$

$$R = 0.9996$$

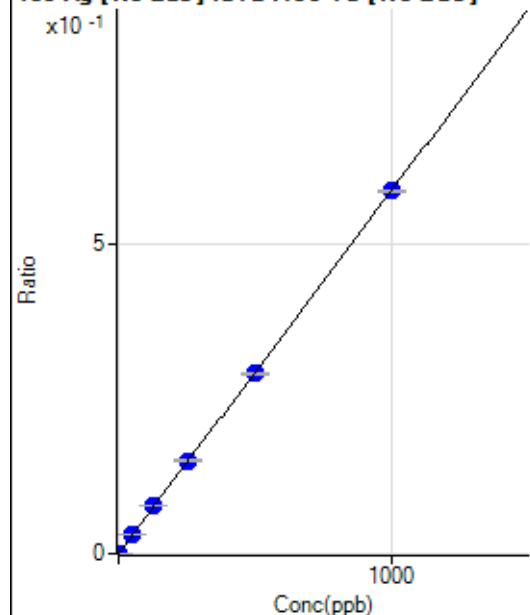
$$DL = 0.2136$$

$$BEC = 0.1228$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.78	0.0000	P	17.4
2	☐	1.000	0.981	5959.85	0.0006	P	2.1
3	☐	50.000	54.426	325745.34	0.0319	P	0.4
4	☐	125.000	131.880	800602.99	0.0773	P	0.7
5	☐	250.000	256.625	1535377.25	0.1504	P	1.1
6	☐	500.000	495.984	2979898.70	0.2906	P	1.0
7	☐	1000.000	999.270	5775944.27	0.5854	P	0.3
8	☐			1344.57	0.0002	P	11.9

$$y = 5.8586\text{E-}004 * x + 2.5988\text{E-}006$$

$$R = 0.9999$$

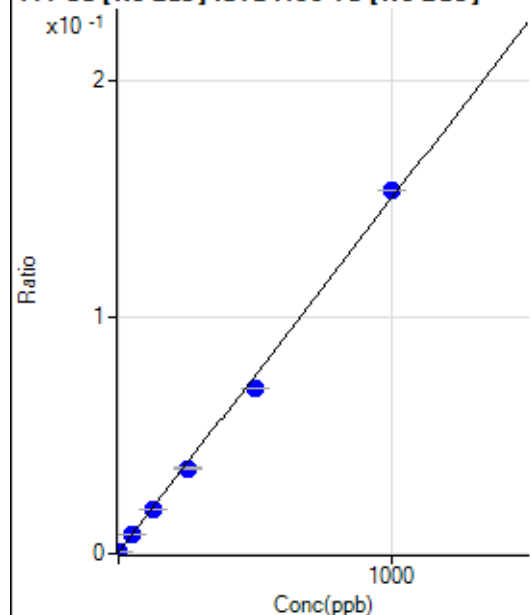
$$DL = 0.002318$$

$$BEC = 0.004436$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6743.24	0.0006	P	3.9
2	☐	1.000	1.033	8111.31	0.0008	P	0.8
3	☐	50.000	50.058	83017.39	0.0081	P	0.4
4	☐	125.000	121.987	195809.24	0.0189	P	1.2
5	☐	250.000	237.667	369897.72	0.0362	P	0.3
6	☐	500.000	463.744	718706.84	0.0701	P	0.5
7	☐	1000.000	1021.585	1515556.57	0.1536	P	0.1
8	☐			5989.55	0.0007	P	2.6

$$y = 1.4975\text{E-}004 * x + 6.3077\text{E-}004$$

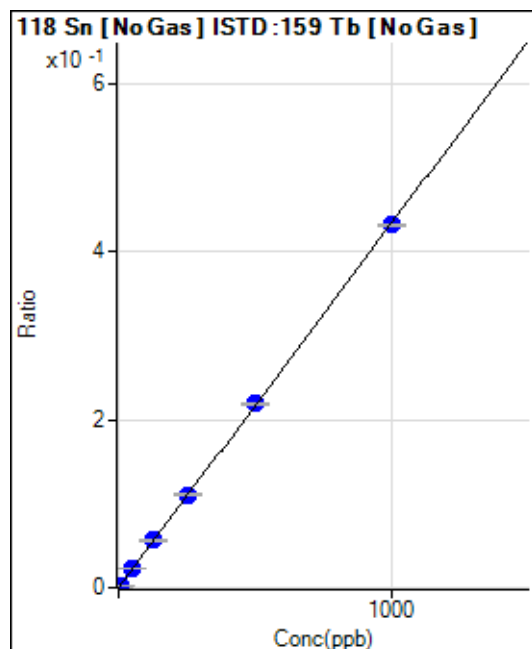
$$R = 0.9989$$

$$DL = 0.4948$$

$$BEC = 4.212$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	419.47	0.0000	P	9.3
2	☐	5.000	5.287	24063.47	0.0023	P	3.4
3	☐	50.000	52.494	232770.05	0.0228	P	0.8
4	☐	125.000	129.498	581881.84	0.0562	P	0.9
5	☐	250.000	255.217	1129830.37	0.1106	P	0.7
6	☐	500.000	504.815	2243806.54	0.2188	P	0.9
7	☐	1000.000	995.600	4256958.47	0.4315	P	0.3
8	☐			2828.19	0.0003	P	3.3

$$y = 4.3335\text{E-}004 * x + 3.9237\text{E-}005$$

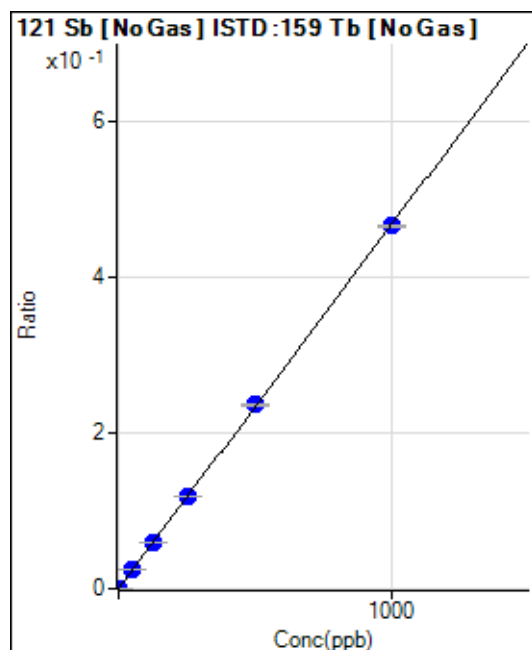
$$R = 1.0000$$

$$DL = 0.02538$$

$$BEC = 0.09054$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	52.78	0.0000	P	9.0
2	☐	2.000	1.978	9592.55	0.0009	P	4.4
3	☐	50.000	51.591	246145.61	0.0241	P	1.0
4	☐	125.000	128.205	620399.33	0.0599	P	1.3
5	☐	250.000	253.338	1208159.25	0.1183	P	0.2
6	☐	500.000	504.630	2416947.14	0.2357	P	0.2
7	☐	1000.000	996.370	4590426.58	0.4653	P	0.7
8	☐			6134.96	0.0007	P	10.0

$$y = 4.6697\text{E-}004 * x + 4.9368\text{E-}006$$

$$R = 1.0000$$

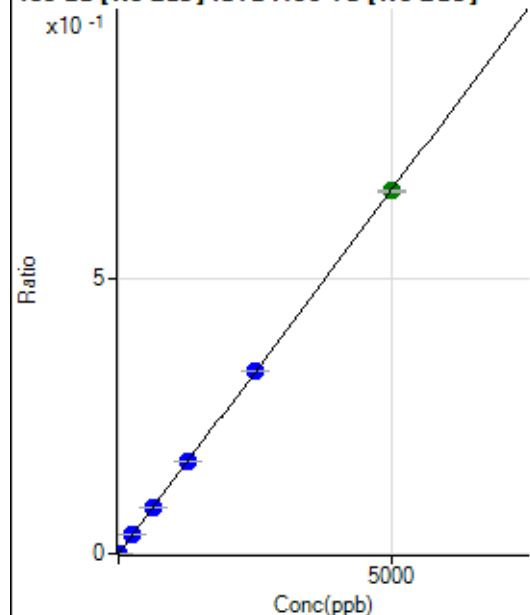
$$DL = 0.002852$$

$$BEC = 0.01057$$

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	30.55	0.0000	P	15.9
2	☐	10.000	10.165	13926.94	0.0013	P	3.3
3	☐	250.000	258.270	349298.75	0.0342	P	0.6
4	☐	625.000	641.308	879763.15	0.0849	P	1.4
5	☐	1250.000	1269.637	1716516.03	0.1681	P	0.8
6	☐	2500.000	2507.360	3404765.96	0.3319	P	0.6
7	☐	5000.000	4988.958	6516274.54	0.6605	A	0.3
8	☐			8792.01	0.0010	P	1.3

$$y = 1.3239\text{E-}004 * x + 2.8584\text{E-}006$$

$$R = 1.0000$$

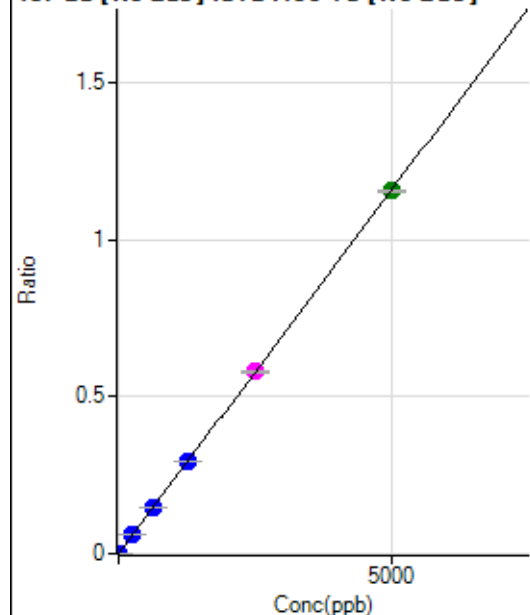
$$DL = 0.01027$$

$$BEC = 0.02159$$

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	38.89	0.0000	P	12.3
2	☐	10.000	10.296	24631.05	0.0024	P	1.3
3	☐	250.000	259.018	612035.92	0.0599	P	0.7
4	☐	625.000	640.549	1535188.28	0.1482	P	0.9
5	☐	1250.000	1276.207	3014513.65	0.2952	P	0.9
6	☐	2500.000	2502.468	5936716.80	0.5788	M	0.3
7	☐	5000.000	4989.819	11387059.20	1.1542	A	0.4
8	☐			15968.04	0.0018	P	3.6

$$y = 2.3130\text{E-}004 * x + 3.6377\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.005822$$

$$BEC = 0.01573$$

Weight: <None>

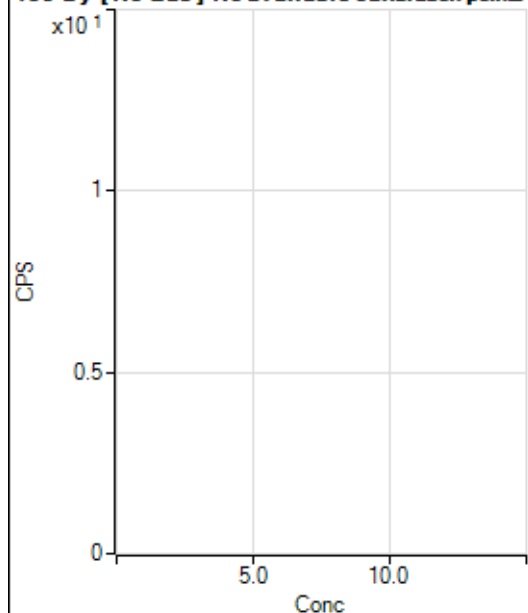
Min Conc: 0

150 Nd [No Gas] No available calibration points

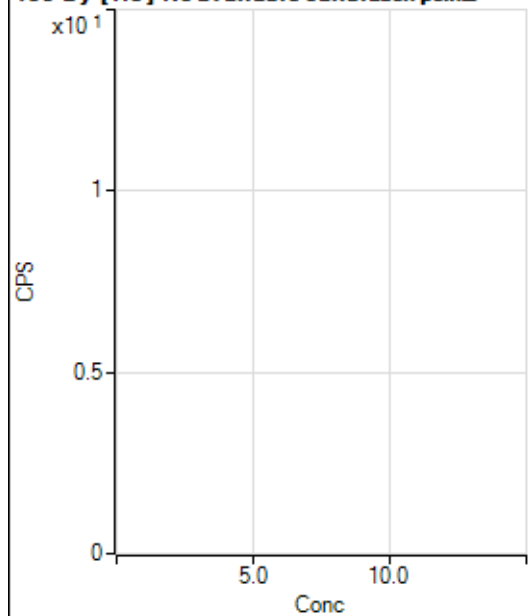
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.0
2	☐			17.78		P	78.1
3	☐			195.56		P	26.5
4	☐			611.15		P	9.5
5	☐			1066.75		P	10.6
6	☐			2093.57		P	5.7
7	☐			3951.81		P	1.1
8	☐			91.11		P	8.4

150 Nd [He] No available calibration points

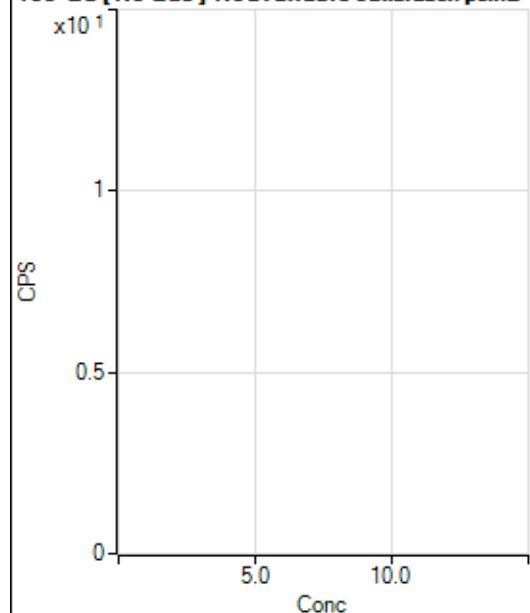
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐			4.44		P	43.4
3	☐			17.78		P	10.8
4	☐			22.22		P	22.9
5	☐			55.55		P	28.4
6	☐			142.23		P	20.2
7	☐			225.56		P	6.0
8	☐			33.33		P	26.4

156 Dy [No Gas] No available calibration points

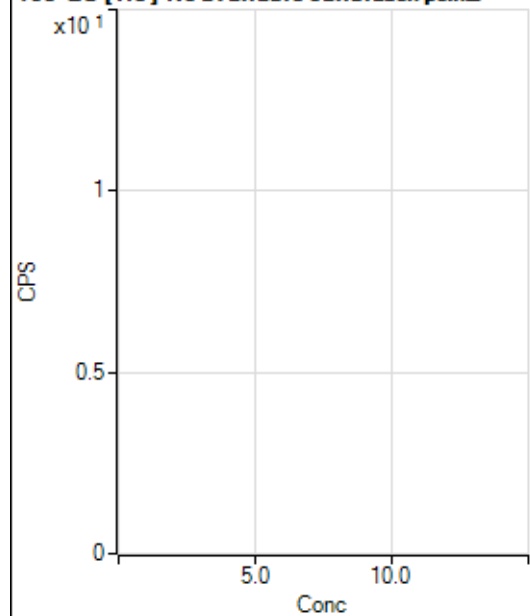
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.34		P	66.1
2	☐			30.56		P	83.3
3	☐			50.00		P	16.7
4	☐			147.23		P	16.3
5	☐			166.68		P	21.8
6	☐			244.46		P	5.2
7	☐			705.61		P	7.2
8	☐			319.46		P	10.5

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	25.0
2	☐			18.89		P	36.7
3	☐			20.00		P	44.1
4	☐			31.11		P	86.0
5	☐			81.11		P	20.3
6	☐			84.45		P	19.9
7	☐			150.00		P	5.9
8	☐			190.00		P	7.6

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

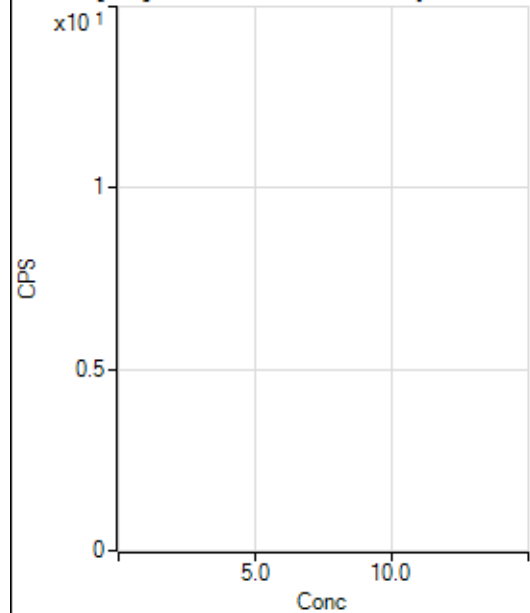
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			105.56		P	32.9
2	☐			83.34		P	10.0
3	☐			100.01		P	25.0
4	☐			122.23		P	38.8
5	☐			133.34		P	27.2
6	☐			130.56		P	35.2
7	☐			125.01		P	40.5
8	☐			405.58		P	16.7

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			218.89		P	4.7
2	☐			205.56		P	6.6
3	☐			193.34		P	11.9
4	☐			203.34		P	19.9
5	☐			217.78		P	6.9
6	☐			221.12		P	10.6
7	☐			237.78		P	15.0
8	☐			333.34		P	3.6

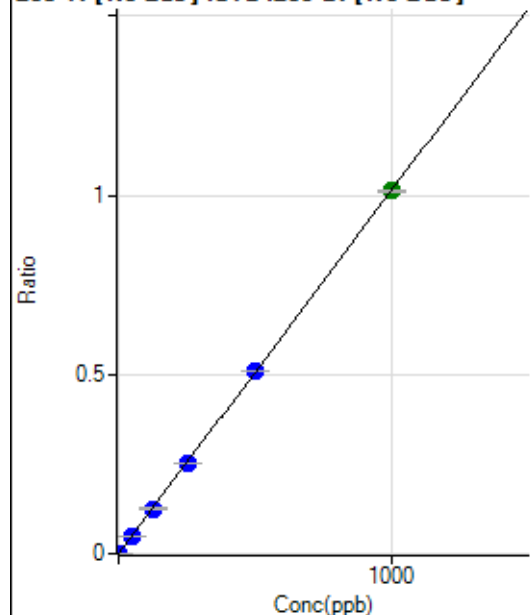
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			61.12		P	34.3
2	☐			47.22		P	88.8
3	☐			75.00		P	50.9
4	☐			50.00		P	44.1
5	☐			88.89		P	35.5
6	☐			55.56		P	8.7
7	☐			75.00		P	22.2
8	☐			108.34		P	33.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			34.45		P	20.1
2	☐			42.22		P	31.9
3	☐			41.11		P	18.7
4	☐			28.89		P	13.3
5	☐			50.00		P	37.1
6	☐			47.78		P	4.0
7	☐			57.78		P	12.0
8	☐			65.56		P	2.9

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	469.47	0.0001	P	8.8
2	☐	1.000	0.920	7352.35	0.0010	P	1.5
3	☐	50.000	49.024	359691.18	0.0497	P	1.0
4	☐	125.000	124.310	911502.67	0.1260	P	0.9
5	☐	250.000	250.560	1786858.66	0.2539	P	0.2
6	☐	500.000	502.508	3542102.21	0.5091	P	0.6
7	☐	1000.000	998.741	6665359.00	1.0118	A	0.2
8	☐			2266.96	0.0004	P	5.1

$$y = 0.0010 * x + 6.1483E-005$$

$$R = 1.0000$$

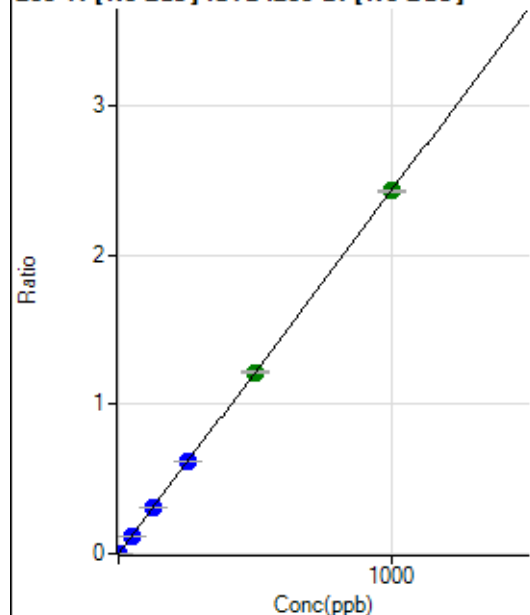
$$DL = 0.01596$$

$$BEC = 0.0607$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	769.51	0.0001	P	4.4
2	☐	1.000	0.941	17648.57	0.0024	P	1.8
3	☐	50.000	49.236	866003.58	0.1197	P	1.4
4	☐	125.000	125.096	2199431.58	0.3040	P	0.7
5	☐	250.000	252.942	4325640.16	0.6146	P	0.6
6	☐	500.000	500.045	8453071.72	1.2149	A	0.4
7	☐	1000.000	999.268	15992652.27	2.4276	A	0.5
8	☐			5198.48	0.0010	P	0.9

$$y = 0.0024 * x + 1.0081E-004$$

$$R = 1.0000$$

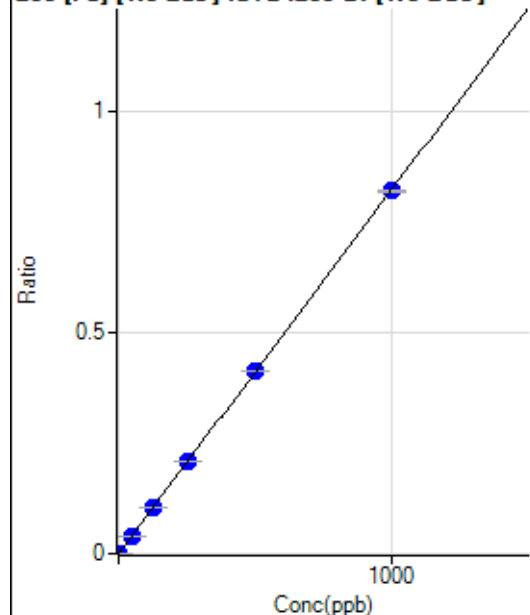
$$DL = 0.005492$$

$$BEC = 0.0415$$

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	629.66	0.0001	P	10.6
2	☐	1.000	0.931	6272.05	0.0008	P	3.1
3	☐	50.000	49.776	296707.82	0.0410	P	0.9
4	☐	125.000	126.111	750900.58	0.1038	P	0.8
5	☐	250.000	254.185	1471772.18	0.2091	P	0.5
6	☐	500.000	502.542	2876025.85	0.4133	P	0.7
7	☐	1000.000	997.555	5404542.60	0.8204	P	0.6
8	☐			23495.34	0.0044	P	0.2

$$y = 8.2233\text{E-}004 * x + 8.2497\text{E-}005$$

R = 1.0000

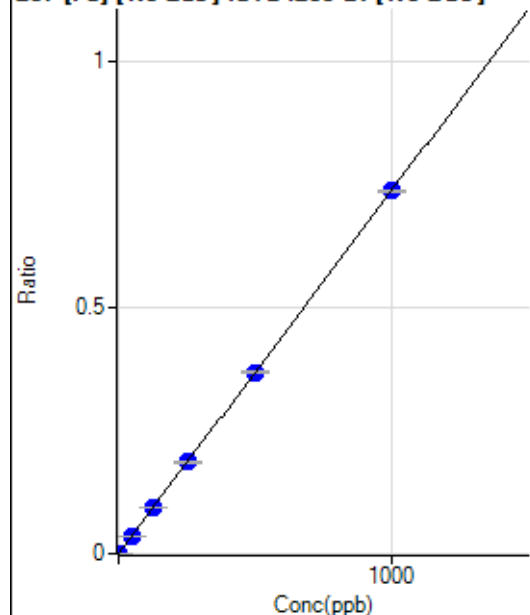
DL = 0.03194

BEC = 0.1003

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	527.81	0.0001	P	8.1
2	☐	1.000	0.941	5638.40	0.0008	P	0.9
3	☐	50.000	49.541	264413.49	0.0366	P	0.4
4	☐	125.000	125.027	666620.37	0.0921	P	0.4
5	☐	250.000	251.601	1304533.07	0.1853	P	0.2
6	☐	500.000	500.213	2563611.66	0.3684	P	1.1
7	☐	1000.000	999.513	4849149.18	0.7361	P	0.8
8	☐			21120.97	0.0039	P	0.9

$$y = 7.3639\text{E-}004 * x + 6.9155\text{E-}005$$

R = 1.0000

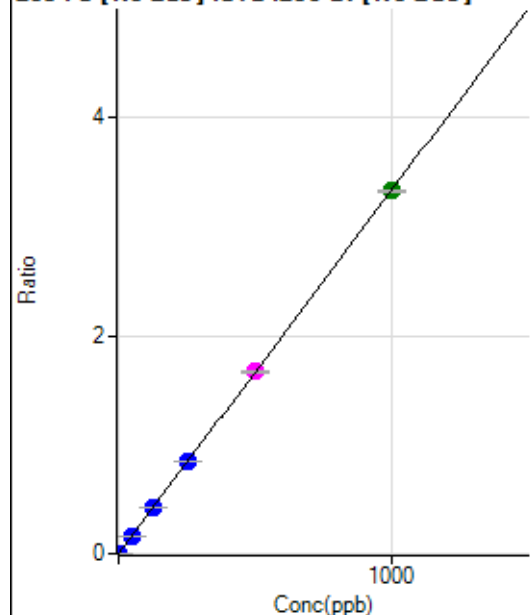
DL = 0.02277

BEC = 0.09391

Weight: <None>

Min Conc: 0

208 Pb [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2164.94	0.0003	P	6.2
2	☐	1.000	0.945	25395.42	0.0034	P	1.0
3	☐	50.000	49.700	1200300.21	0.1659	P	0.6
4	☐	125.000	125.562	3029653.79	0.4187	P	0.5
5	☐	250.000	253.919	5958202.63	0.8465	P	0.2
6	☐	500.000	500.982	11619644.42	1.6699	M	0.4
7	☐	1000.000	998.474	21923210.44	3.3279	A	0.8
8	☐			94913.70	0.0176	P	0.6

$$y = 0.0033 * x + 2.8365E-004$$

$$R = 1.0000$$

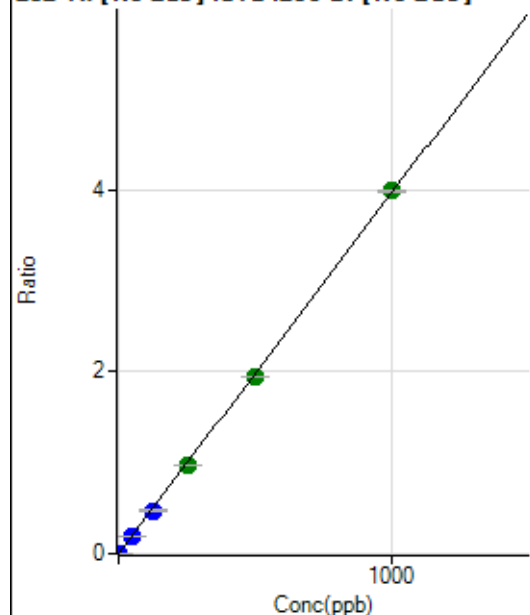
$$DL = 0.01582$$

$$BEC = 0.08511$$

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	1631.63	0.0002	P	3.0
2	☐	1.000	0.667	21102.63	0.0029	P	2.4
3	☐	50.000	45.904	1315628.54	0.1819	P	0.7
4	☐	125.000	119.739	3429587.81	0.4740	P	1.4
5	☐	250.000	243.849	6793068.21	0.9651	A	0.6
6	☐	500.000	491.421	13532039.07	1.9448	A	0.3
7	☐	1000.000	1006.690	26243983.69	3.9838	A	0.5
8	☐			6911.30	0.0013	P	7.6

$$y = 0.0040 * x + 2.1372E-004$$

$$R = 0.9999$$

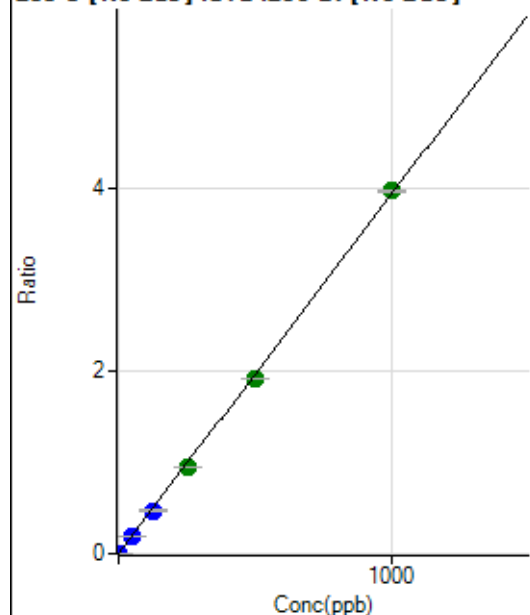
$$DL = 0.0049$$

$$BEC = 0.05401$$

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	1533.50	0.0002	P	7.0
2	☐	1.000	0.883	27154.25	0.0037	P	0.5
3	☐	50.000	47.315	1346036.04	0.1861	P	0.4
4	☐	125.000	119.877	3408428.03	0.4711	P	1.8
5	☐	250.000	240.284	6644918.38	0.9441	A	0.3
6	☐	500.000	488.155	13343806.81	1.9178	A	0.2
7	☐	1000.000	1009.126	26115891.38	3.9643	A	0.3
8	☐			5456.96	0.0010	P	5.6

$$y = 0.0039 * x + 2.0091E-004$$

$$R = 0.9998$$

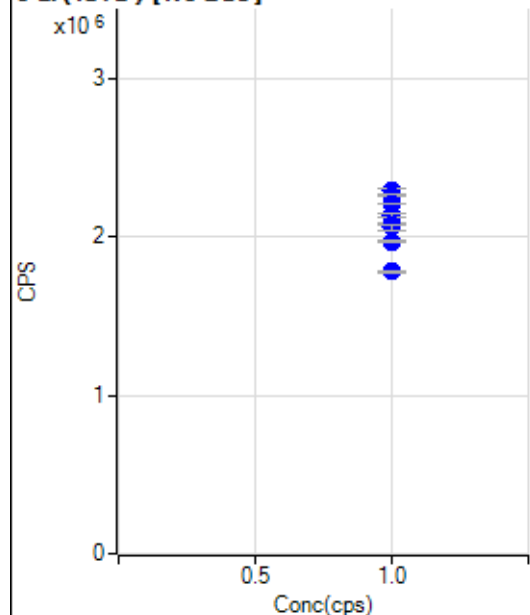
$$DL = 0.01076$$

$$BEC = 0.05114$$

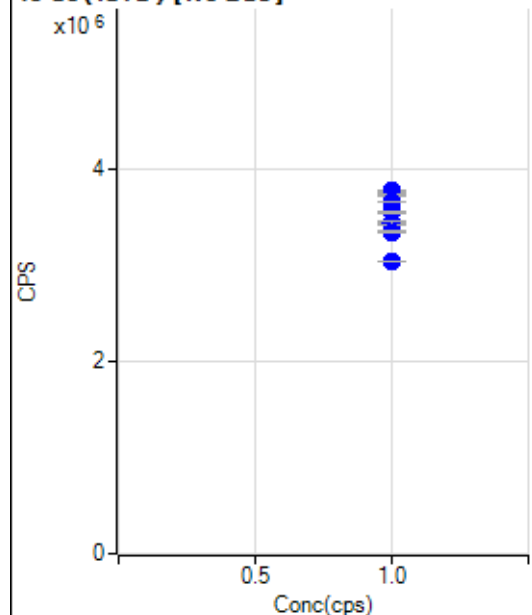
Weight: <None>

Min Conc: 0

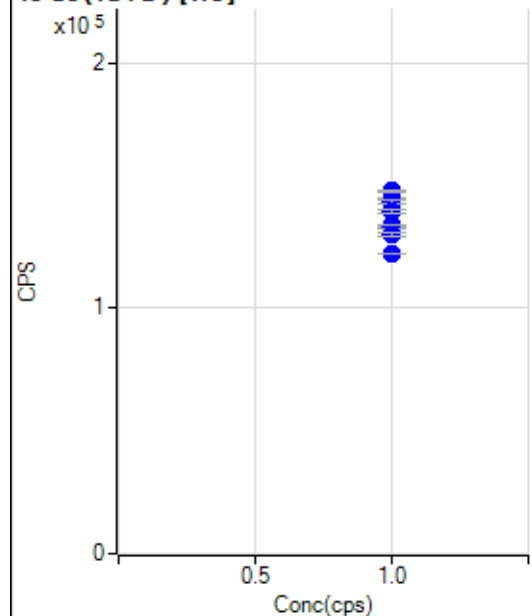
6 Li (ISTD) [No Gas]



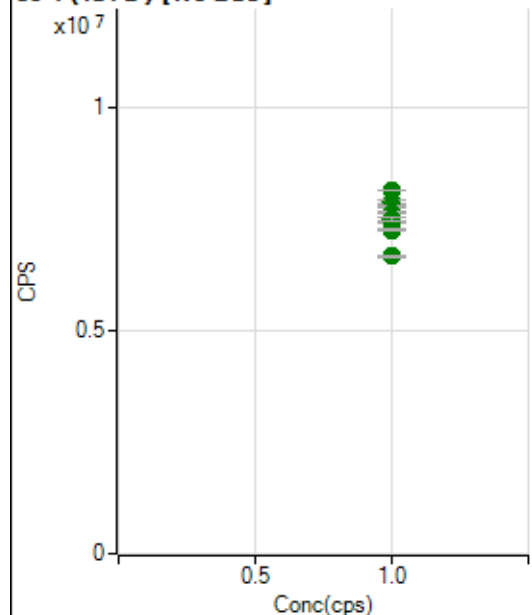
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2290433.42		P	1.4
2	☐	1.000		2261558.44		P	0.3
3	☐	1.000		2209204.97		P	0.3
4	☐	1.000		2133775.11		P	1.0
5	☐	1.000		2077869.41		P	0.6
6	☐	1.000		2060490.28		P	1.5
7	☐	1.000		1968207.84		P	0.7
8	☐	1.000		1780672.37		P	0.3

45 Sc (ISTD) [No Gas]

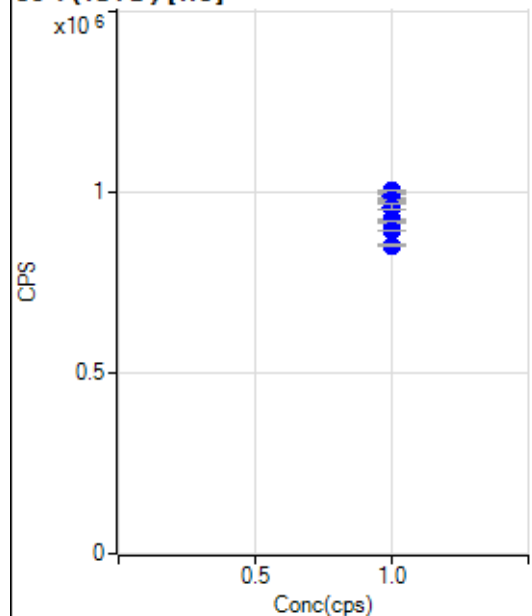
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3767191.58		P	0.6
2	☐	1.000		3728197.56		P	0.4
3	☐	1.000		3653487.67		P	0.4
4	☐	1.000		3545328.55		P	0.6
5	☐	1.000		3431700.12		P	0.3
6	☐	1.000		3435028.12		P	1.3
7	☐	1.000		3336371.36		P	0.5
8	☐	1.000		3033336.74		P	0.4

45 Sc (ISTD) [He]

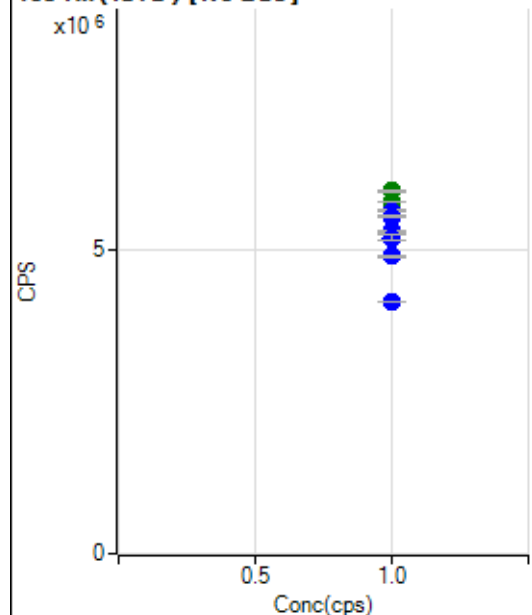
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		144648.99		P	0.8
2	☐	1.000		147912.03		P	0.8
3	☐	1.000		143783.76		P	1.1
4	☐	1.000		139325.95		P	1.0
5	☐	1.000		133731.55		P	0.1
6	☐	1.000		133300.01		P	1.2
7	☐	1.000		130096.54		P	0.7
8	☐	1.000		122279.79		P	0.5

89 Y (ISTD) [No Gas]

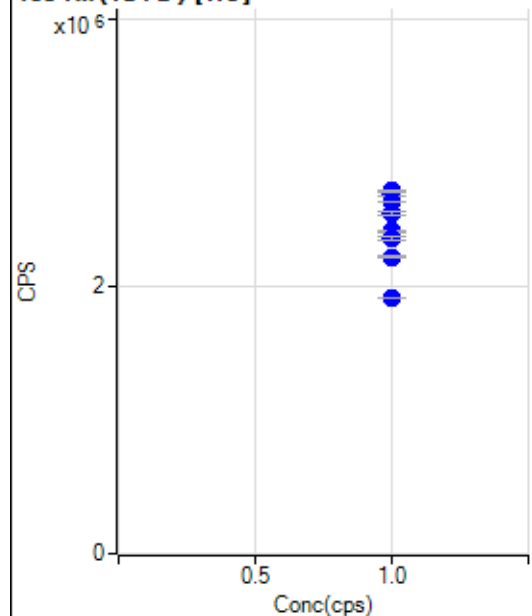
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8132818.70		A	0.0
2	☐	1.000		7890423.91		A	0.8
3	☐	1.000		7785678.42		A	0.7
4	☐	1.000		7636793.36		A	0.7
5	☐	1.000		7448240.17		A	0.7
6	☐	1.000		7496372.60		A	1.2
7	☐	1.000		7256282.39		A	0.3
8	☐	1.000		6671700.59		A	0.4

89 Y (ISTD) [He]

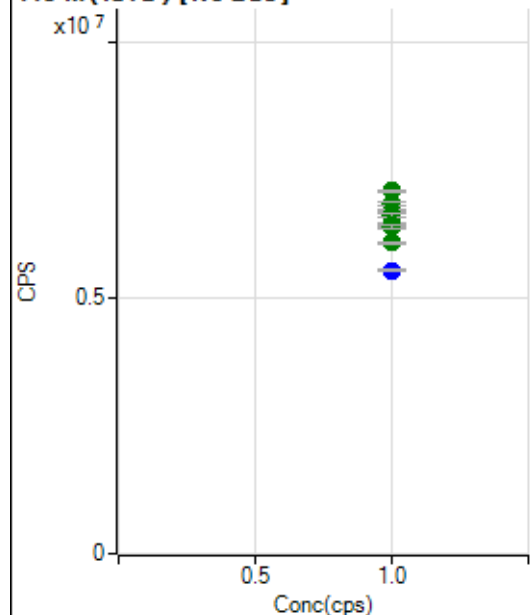
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		992086.73		P	0.9
2	☐	1.000		1004647.76		P	0.4
3	☐	1.000		977750.10		P	0.1
4	☐	1.000		960402.69		P	1.5
5	☐	1.000		925910.43		P	0.3
6	☐	1.000		920578.62		P	0.7
7	☐	1.000		894251.49		P	0.3
8	☐	1.000		853160.10		P	0.4

103 Rh (ISTD) [No Gas]

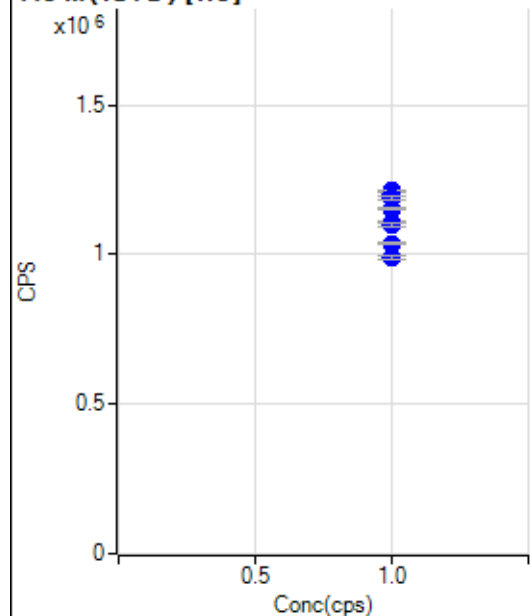
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5965472.22		A	0.3
2	☐	1.000		5786838.02		A	0.5
3	☐	1.000		5634997.96		P	0.4
4	☐	1.000		5535148.91		P	0.6
5	☐	1.000		5297159.28		P	0.1
6	☐	1.000		5191967.87		P	1.8
7	☐	1.000		4898134.87		P	0.7
8	☐	1.000		4135938.29		P	0.3

103 Rh (ISTD) [He]

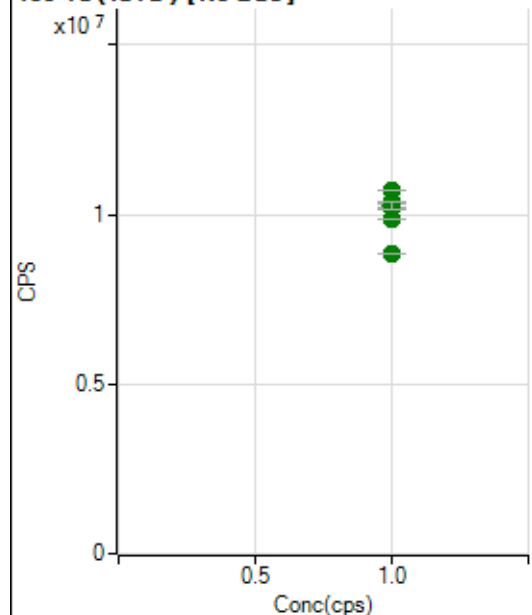
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2692088.61		P	1.1
2	☐	1.000		2712001.28		P	0.4
3	☐	1.000		2629322.90		P	0.4
4	☐	1.000		2542421.49		P	0.9
5	☐	1.000		2410326.88		P	0.4
6	☐	1.000		2356116.56		P	0.9
7	☐	1.000		2219443.92		P	0.3
8	☐	1.000		1909860.16		P	0.4

115 In (ISTD) [No Gas]

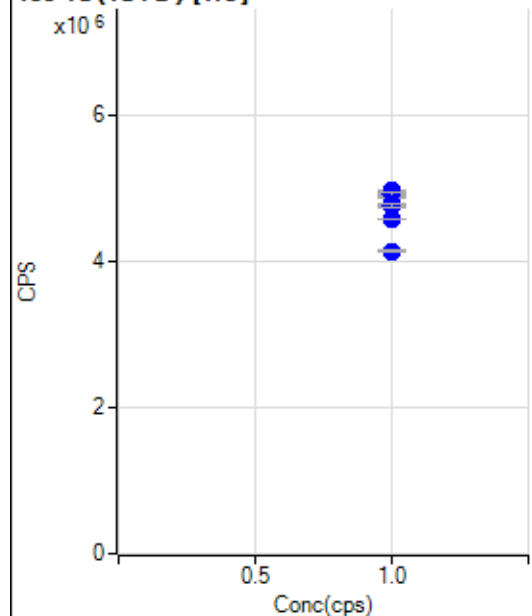
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7090795.84		A	0.3
2	☐	1.000		6840335.83		A	0.6
3	☐	1.000		6702213.64		A	0.2
4	☐	1.000		6605683.42		A	0.9
5	☐	1.000		6428146.22		A	0.7
6	☐	1.000		6400238.95		A	1.4
7	☐	1.000		6075050.75		A	0.5
8	☐	1.000		5528802.37		P	0.7

115 In (ISTD) [He]

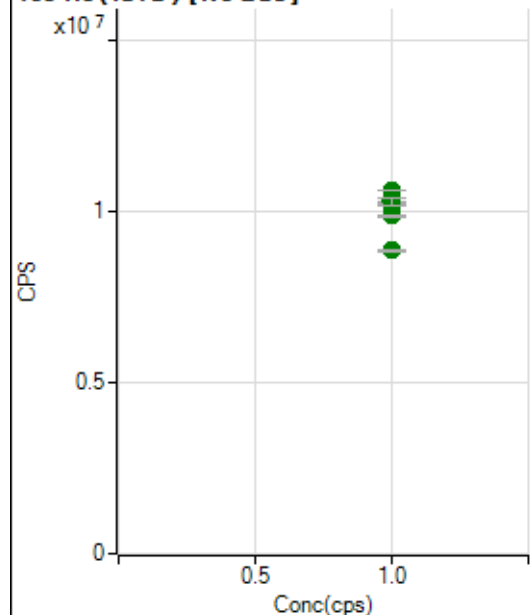
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1204061.45		P	1.0
2	☐	1.000		1212382.81		P	0.2
3	☐	1.000		1189333.40		P	0.7
4	☐	1.000		1153404.41		P	0.7
5	☐	1.000		1107119.15		P	0.5
6	☐	1.000		1100072.43		P	1.0
7	☐	1.000		1036501.89		P	0.6
8	☐	1.000		989181.60		P	0.9

159 Tb (ISTD) [No Gas]

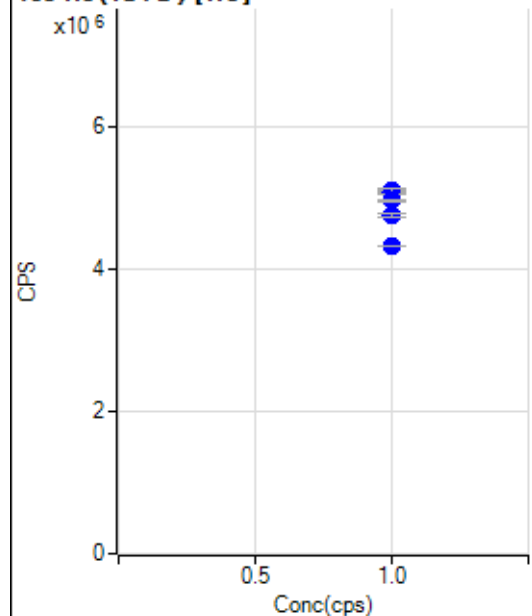
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10690338.59		A	0.1
2	☐	1.000		10326823.25		A	0.6
3	☐	1.000		10214967.00		A	0.1
4	☐	1.000		10361545.12		A	0.6
5	☐	1.000		10212042.69		A	0.1
6	☐	1.000		10256178.25		A	1.9
7	☐	1.000		9865978.95		A	0.3
8	☐	1.000		8839900.70		A	0.4

159 Tb (ISTD) [He]

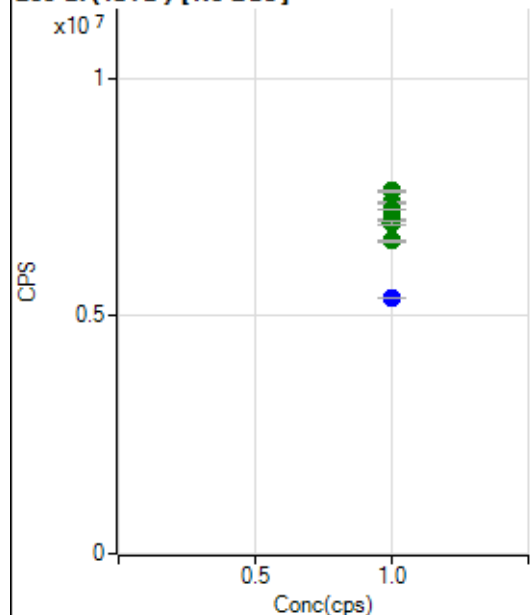
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4944040.00		P	1.5
2	☐	1.000		4971034.23		P	0.6
3	☐	1.000		4939244.75		P	0.5
4	☐	1.000		4919169.37		P	1.5
5	☐	1.000		4787883.30		P	0.3
6	☐	1.000		4777628.75		P	1.1
7	☐	1.000		4584963.93		P	0.5
8	☐	1.000		4144571.74		P	0.6

165 Ho (ISTD) [No Gas]

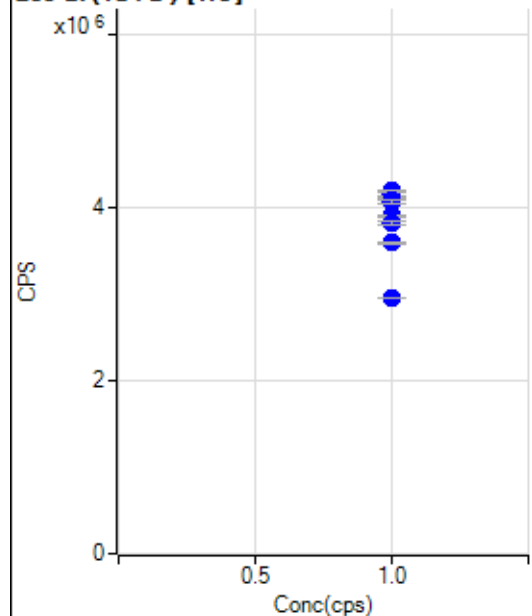
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10604904.75		A	0.1
2	☐	1.000		10278759.78		A	0.4
3	☐	1.000		10195431.39		A	0.6
4	☐	1.000		10348488.60		A	0.8
5	☐	1.000		10214609.60		A	0.5
6	☐	1.000		10279652.14		A	1.8
7	☐	1.000		9874916.19		A	0.8
8	☐	1.000		8867534.57		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5109735.20		P	1.3
2	☐	1.000		5101075.03		P	0.6
3	☐	1.000		5090074.92		P	0.5
4	☐	1.000		5101279.54		P	1.7
5	☐	1.000		4972447.70		P	0.2
6	☐	1.000		4974363.33		P	0.6
7	☐	1.000		4770643.19		P	0.8
8	☐	1.000		4333434.90		P	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7634289.95		A	0.6
2	☐	1.000		7397269.89		A	0.5
3	☐	1.000		7234236.35		A	0.3
4	☐	1.000		7235038.23		A	0.1
5	☐	1.000		7038383.09		A	0.1
6	☐	1.000		6957984.34		A	1.6
7	☐	1.000		6587810.73		A	0.6
8	☐	1.000		5383280.54		P	0.4

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4155288.17		P	1.3
2	☐	1.000		4191755.32		P	0.6
3	☐	1.000		4095100.84		P	0.5
4	☐	1.000		4066930.42		P	1.4
5	☐	1.000		3908098.62		P	0.6
6	☐	1.000		3824540.53		P	0.8
7	☐	1.000		3590926.41		P	0.3
8	☐	1.000		2960185.09		P	0.3

US EPA Tune Check Sample Report

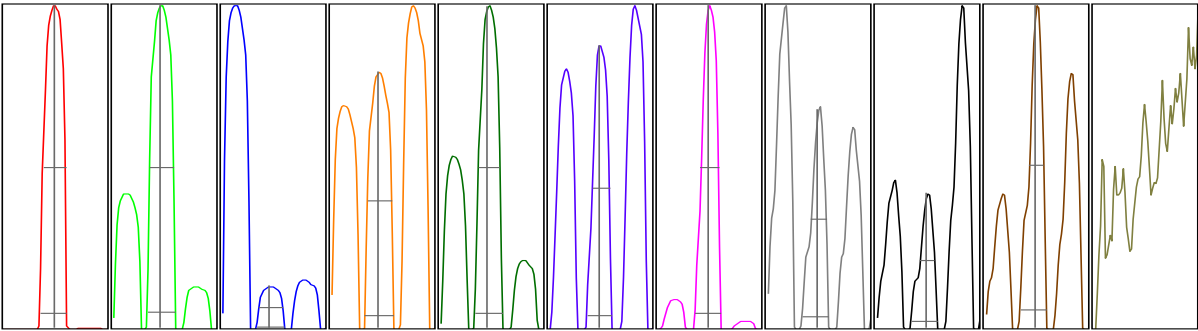
Batch Folder D:\ICP-MS Data\P7012320A.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5843	0.97	5.00	
24	85830	0.64	5.00	
25	11430	0.74	5.00	
26	13236	0.64	5.00	
59	39321	0.89	5.00	
113	5607	0.79	5.00	
115	69055	0.69	5.00	
206	20501	0.84	5.00	
207	18840	0.85	5.00	
208	44206	0.60	5.00	
220	64	2.58		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5808	5772	5881	5837	5916
24	85226	85324	85961	86100	86537
25	11357	11340	11424	11498	11532
26	13216	13100	13257	13293	13313
59	39094	38936	39218	39568	39789
113	5545	5598	5614	5608	5668
115	68858	68528	68965	69109	69813
206	20340	20306	20543	20613	20703
207	18727	18688	18759	19036	18989
208	43875	44005	44250	44387	44515
220	64	65	65	61	63

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	9265	9.00	8.9 - 9.1		0.786	0.900	
24	130680	23.90	23.9 - 24.1		0.830	0.900	
25	17352	24.90	24.9 - 25.1		0.828	0.900	
26	19866	25.90	25.9 - 26.1		0.836	0.900	
59	65793	58.90	58.9 - 59.1		0.819	0.900	
113	11056	113.00	112.9 - 113.1		0.726	0.900	
115	134704	115.00	114.9 - 115.1		0.749	0.900	
206	43430	206.00	205.9 - 206.1		0.768	0.900	
207	40045	207.00	206.9 - 207.1		0.773	0.900	
208	95362	208.00	207.9 - 208.1		0.771	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	6.8	V	Deflect	12.8	V
Extract 2	-95.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	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	130	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	8772	0.55	
89	16655	0.99	
205	17765	0.89	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	8814	8750	8777	8816	8702
89	16552	16661	16804	16822	16435
205	17786	17765	17801	17957	17516

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	7.4	V	Deflect	1.4	V
Extract 2	-105.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	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			