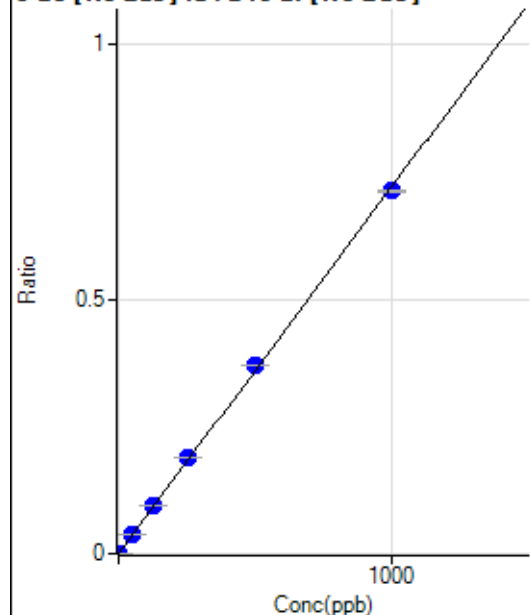


Calibration for 004CALS.d

Batch Folder: D:\ICP-MS Data\P7022620MS1.b\
 Analysis File: P7022620MS1.batch.bin
 DA Date-Time: 2020-02-27 11:28:14
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-02-26 15:33:37
2	004CALS.d	S02	2020-02-26 15:37:19
3	005CALS.d	S03	2020-02-26 15:42:24
4	006CALS.d	S04	2020-02-26 15:47:02
5	007CALS.d	S05	2020-02-26 15:52:06
6	008CALS.d	S06	2020-02-26 15:55:58
7	009CALS.d	S07	2020-02-26 15:59:50
8	010CALS.d	S08	2020-02-26 16:03:47

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	122.23	0.0000	P	34.9
2	☐	1.000	1.112	4367.42	0.0008	P	3.9
3	☐	50.000	52.890	202875.38	0.0381	P	0.8
4	☐	125.000	131.537	489954.25	0.0947	P	0.7
5	☐	250.000	260.475	949211.14	0.1876	P	0.2
6	☐	500.000	513.178	1811486.20	0.3696	P	0.3
7	☐	1000.000	989.830	3575087.81	0.7128	P	0.5
8	☐			620.40	0.0001	P	11.0

$$y = 7.2011\text{E-}004 * x + 2.2271\text{E-}005$$

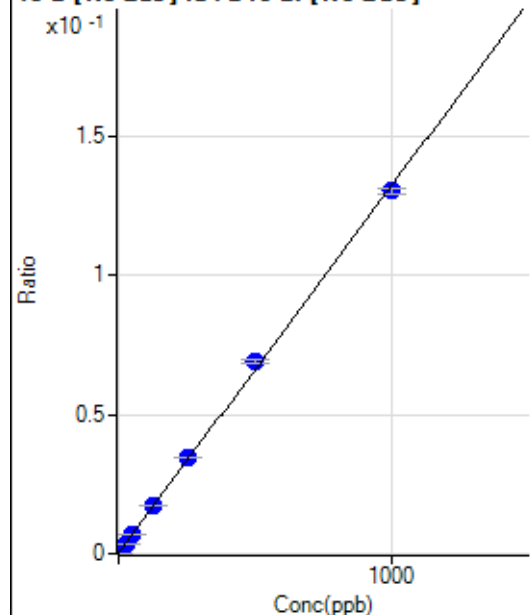
$$R = 0.9998$$

$$DL = 0.03234$$

$$BEC = 0.03093$$

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	1450.14	0.0003	P	5.9
2	☐	25.000	26.273	19819.17	0.0037	P	2.3
3	☐	50.000	52.336	38213.35	0.0072	P	0.9
4	☐	125.000	130.095	90238.99	0.0175	P	0.9
5	☐	250.000	258.964	174443.53	0.0345	P	1.2
6	☐	500.000	521.749	339140.98	0.0692	P	1.4
7	☐	1000.000	986.099	654657.94	0.1305	P	1.4
8	☐			18050.41	0.0041	P	8.5

$$y = 1.3211\text{E-}004 * x + 2.6381\text{E-}004$$

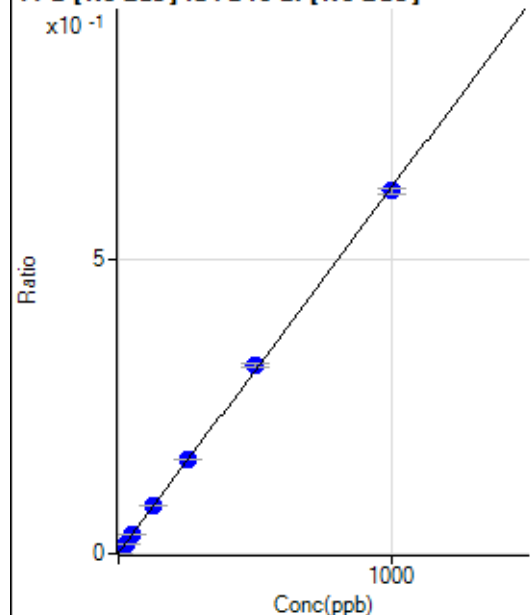
$$R = 0.9996$$

$$DL = 0.351$$

$$BEC = 1.997$$

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	6712.89	0.0012	P	2.3
2	☐	25.000	26.174	92797.07	0.0175	P	1.5
3	☐	50.000	52.357	179715.20	0.0338	P	0.6
4	☐	125.000	130.899	426954.18	0.0826	P	1.0
5	☐	250.000	256.732	813447.15	0.1608	P	0.8
6	☐	500.000	512.740	1567743.81	0.3199	P	1.6
7	☐	1000.000	991.062	3094795.53	0.6171	P	1.6
8	☐			84367.04	0.0191	P	8.0

$$y = 6.2142\text{E-}004 * x + 0.0012$$

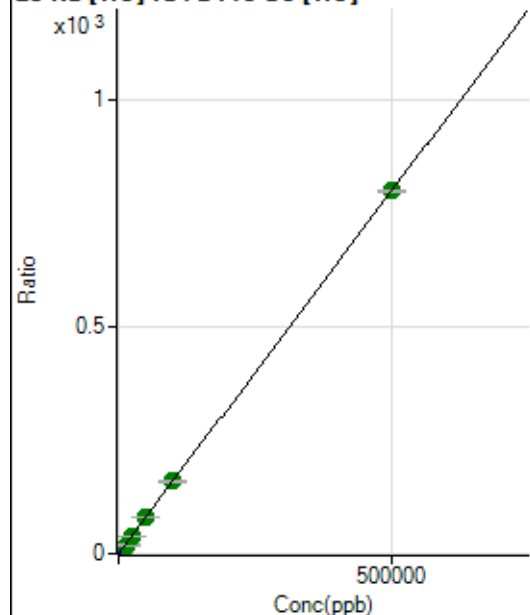
R = 0.9999

DL = 0.1346

BEC = 1.965

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	18292.28	0.0380	P	3.0
2	☐	500.000	485.192	397930.06	0.8140	P	3.3
3	☐	5000.000	5001.368	3883617.27	8.0371	P	1.5
4	☐	12500.000	11849.399	9042699.33	18.9896	A	2.3
5	☐	25000.000	24725.580	18555566.74	39.5833	A	0.4
6	☐	50000.000	49163.803	36466870.95	78.6690	A	0.2
7	☐	100000.00	99542.350	74247141.24	159.2428	A	2.5
8	☐	500000.00	500205.13	359615438.59	800.0497	A	0.6

$$y = 0.0016 * x + 0.0380$$

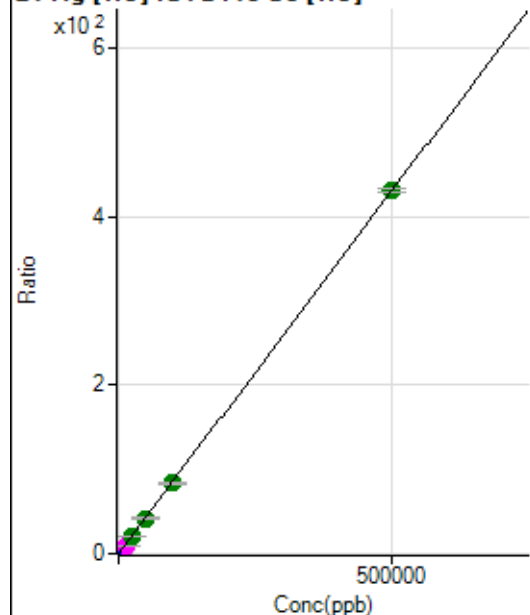
R = 1.0000

DL = 2.114

BEC = 23.78

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	513.92	0.0011	P	26.5
2	☐	500.000	472.938	199601.74	0.4083	P	4.5
3	☐	5000.000	4945.444	2058066.41	4.2592	P	2.0
4	☐	12500.000	11556.453	4738793.64	9.9514	M	2.7
5	☐	25000.000	24742.767	9987307.60	21.3051	A	0.2
6	☐	50000.000	48990.692	19553744.01	42.1831	A	0.6
7	☐	100000.00	97944.880	39317585.25	84.3337	A	3.0
8	☐	500000.00	500548.97	193724654.33	430.9845	A	1.0

$$y = 8.6102\text{E-}004 * x + 0.0011$$

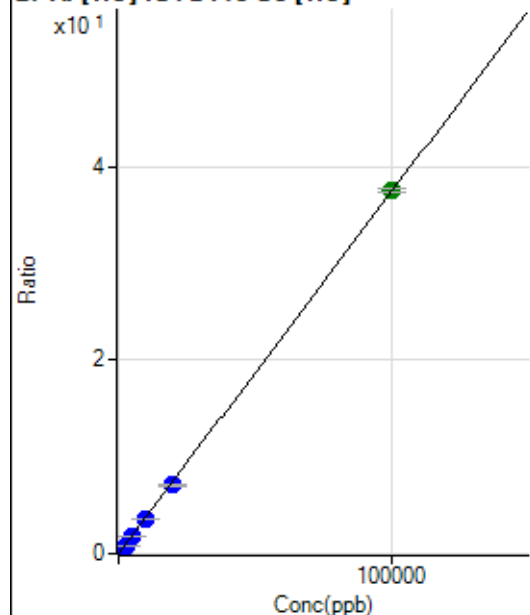
$$R = 1.0000$$

$$DL = 0.988$$

$$BEC = 1.241$$

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0002	P	30.3
2	☐	20.000	16.795	3156.02	0.0065	P	4.2
3	☐	1000.000	969.832	175575.13	0.3634	P	2.4
4	☐	2500.000	2253.099	401886.02	0.8440	P	3.2
5	☐	5000.000	4846.966	850999.07	1.8154	P	0.3
6	☐	10000.000	9600.725	1666747.67	3.5956	P	0.3
7	☐	20000.000	19070.579	3329808.32	7.1421	P	2.9
8	☐	100000.00	100239.93	16873979.02	37.5401	A	1.0

$$y = 3.7450\text{E-}004 * x + 1.6765\text{E-}004$$

$$R = 1.0000$$

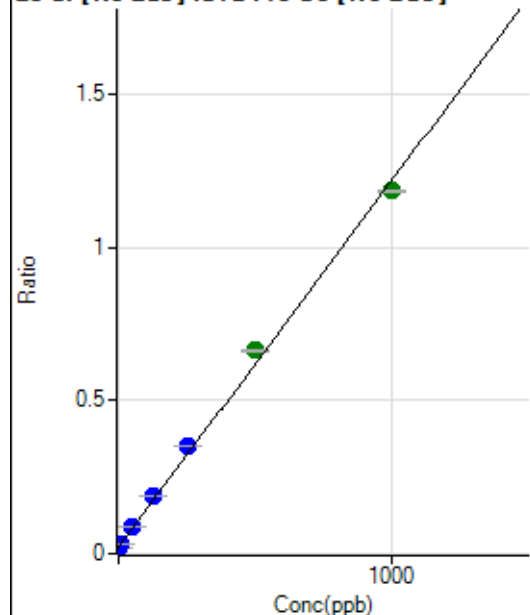
$$DL = 0.4075$$

$$BEC = 0.4477$$

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	269713.95	0.0218	P	0.2
2	☐	10.000	9.692	412837.13	0.0334	P	0.5
3	☐	50.000	53.919	1081779.43	0.0864	P	0.2
4	☐	125.000	138.817	2334722.75	0.1880	P	0.5
5	☐	250.000	275.935	4298662.55	0.3522	P	0.4
6	☐	500.000	537.717	8024720.84	0.6656	A	1.1
7	☐	1000.000	972.738	14892266.83	1.1864	A	0.9
8	☐			844394.04	0.0765	P	1.2

$$y = 0.0012 * x + 0.0218$$

$$R = 0.9985$$

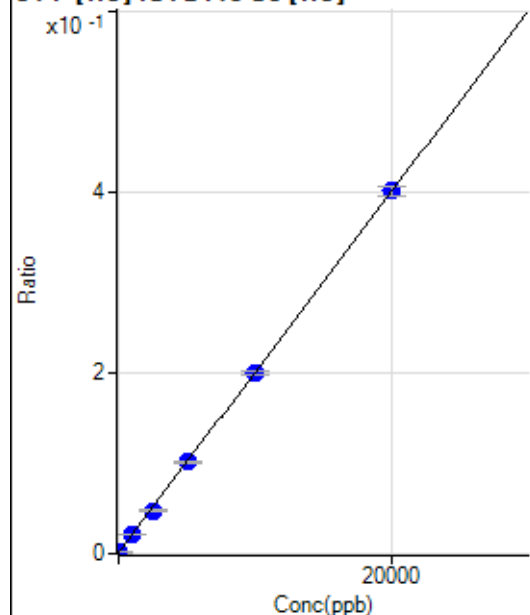
$$DL = 0.09875$$

$$BEC = 18.25$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-22.782	277.79	0.0006	P	28.2
2	☐	0.000	22.782	727.82	0.0015	P	10.1
3	☐	1000.000	1004.687	10206.72	0.0211	P	2.6
4	☐	2500.000	2334.331	22720.94	0.0477	P	3.4
5	☐	5000.000	5040.058	47733.12	0.1018	P	1.8
6	☐	10000.000	9953.488	92746.19	0.2001	P	1.4
7	☐	20000.000	20033.716	187257.55	0.4017	P	3.0
8	☐			311.13	0.0007	P	28.5

$$y = 1.9997E-005 * x + 0.0010$$

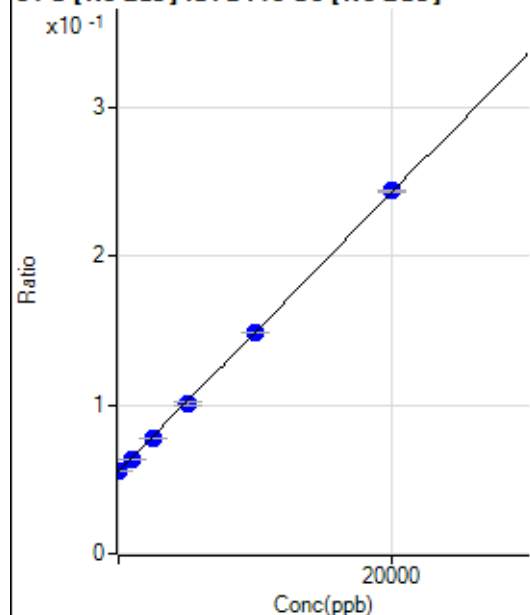
$$R = 1.0000$$

$$DL = 23.57$$

$$BEC = 51.69$$

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	11.402	683865.92	0.0554	P	1.0
2	☐	0.000	-11.402	680989.60	0.0552	P	0.2
3	☐	1000.000	868.340	794203.61	0.0634	P	0.6
4	☐	2500.000	2400.631	966139.99	0.0778	P	0.6
5	☐	5000.000	4841.286	1229201.17	0.1007	P	1.9
6	☐	10000.000	9912.950	1788288.39	0.1483	P	0.3
7	☐	20000.000	20102.207	3062387.89	0.2440	P	0.6
8	☐			543976.70	0.0493	P	0.8

$$y = 9.3865E-006 * x + 0.0553$$

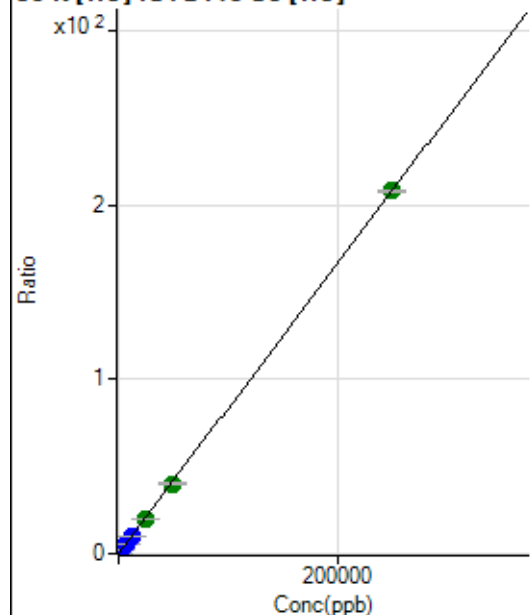
R = 0.9999

DL = 113.1

BEC = 5889

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	27788.04	0.0578	P	2.4
2	☐	500.000	488.112	226355.95	0.4631	P	2.4
3	☐	2500.000	2475.733	1021334.07	2.1136	P	0.7
4	☐	6250.000	6000.765	2400363.40	5.0408	P	1.7
5	☐	12500.000	12249.346	4795353.66	10.2295	P	0.4
6	☐	25000.000	24316.175	9386750.64	20.2497	A	0.2
7	☐	50000.000	48200.458	18688937.22	40.0830	A	2.4
8	☐	250000.00	250447.32	93506288.20	208.0267	A	0.8

$$y = 8.3039E-004 * x + 0.0578$$

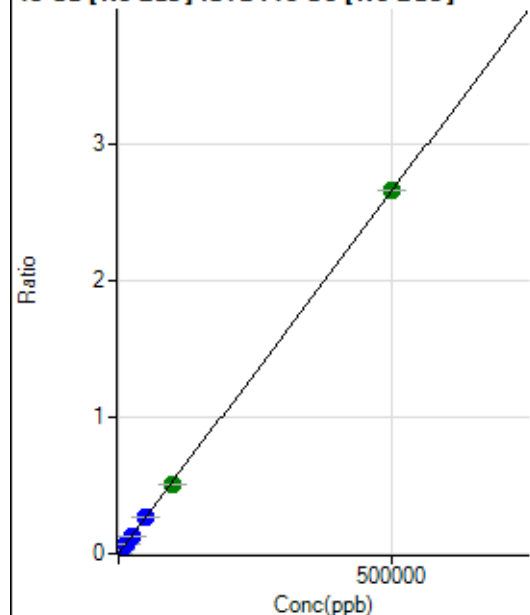
R = 1.0000

DL = 5.08

BEC = 69.58

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	886.18	0.0001	P	7.5
2	☐	500.000	529.388	35582.98	0.0029	P	1.5
3	☐	5000.000	5044.948	336310.75	0.0269	P	1.0
4	☐	12500.000	12474.891	823363.86	0.0663	P	0.2
5	☐	25000.000	25065.430	1625279.80	0.1332	P	0.7
6	☐	50000.000	49516.178	3170831.86	0.2630	P	0.3
7	☐	100000.00	96307.317	6420065.20	0.5115	A	0.4
8	☐	500000.00	500783.79	29349887.81	2.6592	A	0.1

$$y = 5.3100\text{E-}006 * x + 7.1782\text{E-}005$$

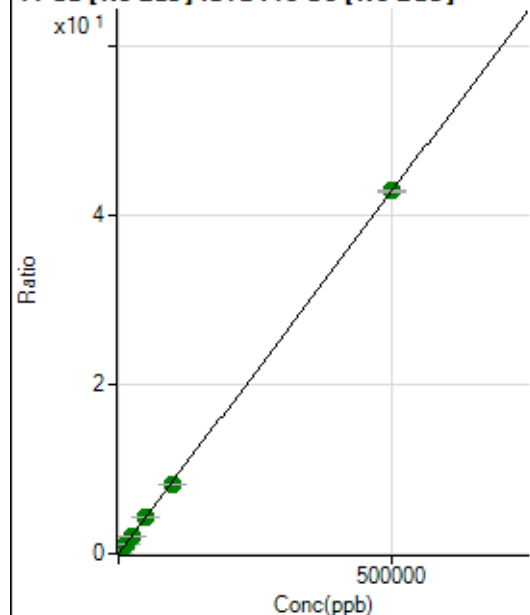
$$R = 1.0000$$

$$DL = 3.031$$

$$BEC = 13.52$$

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	9442.31	0.0008	P	2.9
2	☐	500.000	515.352	552991.22	0.0448	P	0.6
3	☐	5000.000	4977.363	5334998.51	0.4261	A	0.5
4	☐	12500.000	12337.808	13099799.43	1.0551	A	0.3
5	☐	25000.000	24686.494	25755391.90	2.1103	A	0.5
6	☐	50000.000	49317.316	50817809.12	4.2150	A	0.6
7	☐	100000.00	96085.565	103072895.36	8.2114	A	0.6
8	☐	500000.00	500871.09	472399977.23	42.8010	A	0.3

$$y = 8.5452\text{E-}005 * x + 7.6470\text{E-}004$$

$$R = 1.0000$$

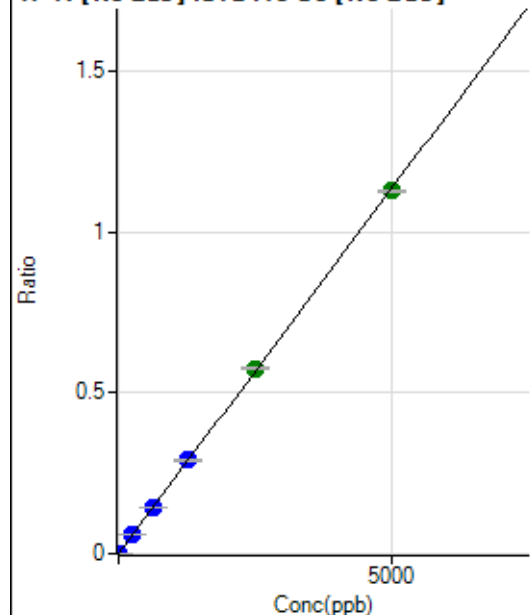
$$DL = 0.7827$$

$$BEC = 8.949$$

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	305.57	0.0000	P	18.2
2	☐	5.000	5.383	15372.48	0.0012	P	2.7
3	☐	250.000	255.053	724476.26	0.0579	P	0.3
4	☐	625.000	636.589	1792616.25	0.1444	P	0.4
5	☐	1250.000	1278.965	3539732.07	0.2900	P	1.3
6	☐	2500.000	2541.000	6947001.46	0.5762	A	0.2
7	☐	5000.000	4970.557	14148041.98	1.1271	A	0.8
8	☐			5462.35	0.0005	P	54.6

$$y = 2.2676\text{E-}004 * x + 2.4736\text{E-}005$$

$$R = 0.9999$$

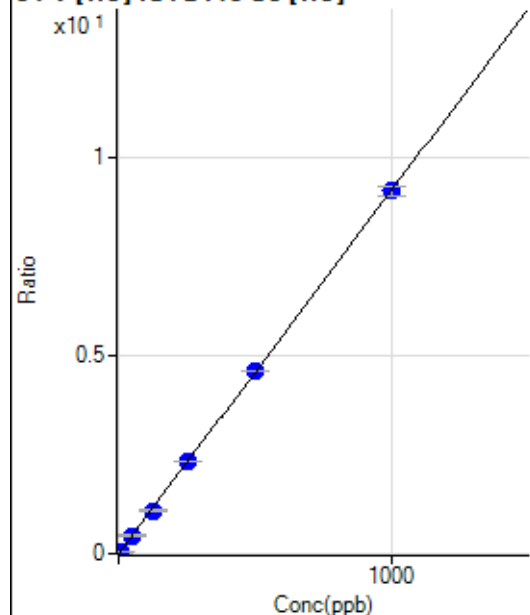
$$DL = 0.05962$$

$$BEC = 0.1091$$

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	44.44	0.0001	P	21.8
2	☐	5.000	4.905	22051.19	0.0451	P	3.0
3	☐	50.000	49.883	221260.72	0.4579	P	3.1
4	☐	125.000	117.907	515372.80	1.0823	P	3.2
5	☐	250.000	253.639	1091346.53	2.3281	P	0.2
6	☐	500.000	502.605	2138420.78	4.6132	P	0.3
7	☐	1000.000	998.681	4273723.93	9.1663	P	2.6
8	☐			1707.91	0.0038	P	4.7

$$y = 0.0092 * x + 9.2429\text{E-}005$$

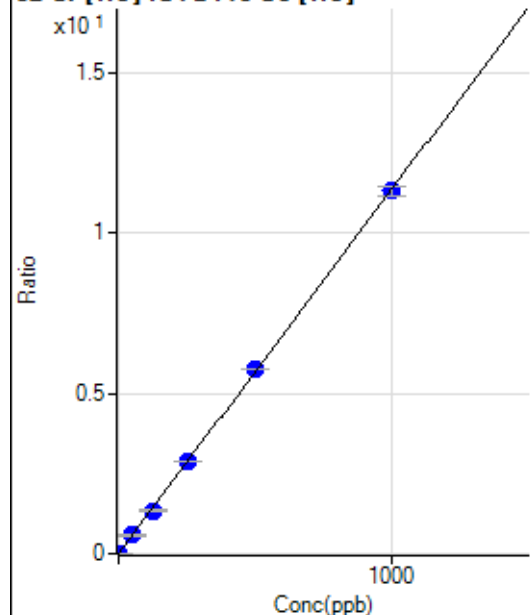
$$R = 1.0000$$

$$DL = 0.006578$$

$$BEC = 0.01007$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1694.58	0.0035	P	3.3
2	☐	2.000	1.866	12091.79	0.0247	P	4.2
3	☐	50.000	50.756	280438.25	0.5804	P	3.4
4	☐	125.000	117.814	639341.35	1.3426	P	3.6
5	☐	250.000	255.030	1360492.17	2.9022	P	0.4
6	☐	500.000	506.001	2667598.85	5.7548	P	0.3
7	☐	1000.000	996.603	5283025.13	11.3310	P	2.5
8	☐			134198.52	0.2986	P	0.9

$$y = 0.0114 * x + 0.0035$$

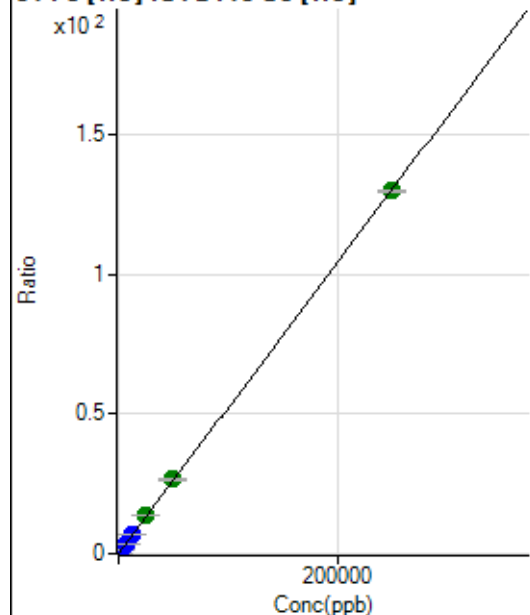
$$R = 0.9999$$

$$DL = 0.0306$$

$$BEC = 0.31$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	790.86	0.0016	P	11.3
2	☐	50.000	52.200	14068.19	0.0288	P	5.9
3	☐	2500.000	2654.854	667377.63	1.3813	P	3.5
4	☐	6250.000	6160.942	1525354.12	3.2032	P	3.4
5	☐	12500.000	13392.641	3263273.81	6.9612	P	0.4
6	☐	25000.000	26115.886	6291689.54	13.5729	A	0.3
7	☐	50000.000	51236.085	12414493.43	26.6268	A	2.6
8	☐	250000.00	249597.24	58301661.69	129.7063	A	0.8

$$y = 5.1966E-004 * x + 0.0016$$

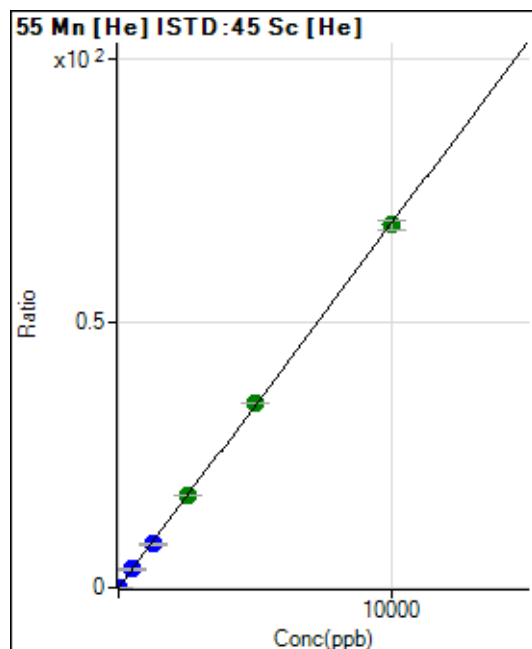
$$R = 1.0000$$

$$DL = 1.071$$

$$BEC = 3.165$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	302.23	0.0006	P	12.2
2	☐	1.000	0.925	3418.23	0.0070	P	1.8
3	☐	500.000	503.181	1673150.08	3.4628	P	2.7
4	☐	1250.000	1190.321	3900385.67	8.1907	P	3.3
5	☐	2500.000	2552.040	8231800.71	17.5602	A	0.1
6	☐	5000.000	5072.403	16178477.81	34.9018	A	0.8
7	☐	10000.000	9958.089	31947374.80	68.5182	A	2.4
8	☐			30345.97	0.0675	P	1.9

$$y = 0.0069 * x + 6.2833E-004$$

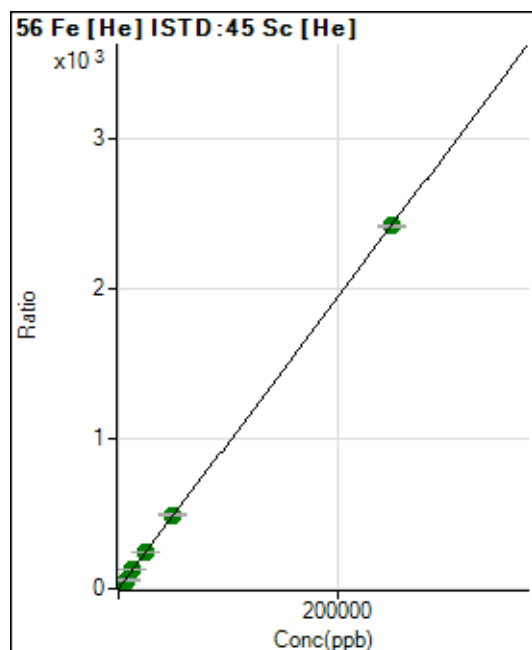
$$R = 0.9999$$

$$DL = 0.0334$$

$$BEC = 0.09132$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7848.60	0.0163	P	4.2
2	☐	50.000	49.148	240466.28	0.4919	P	4.7
3	☐	2500.000	2556.260	11958350.15	24.7495	A	3.0
4	☐	6250.000	5948.937	27417132.32	57.5755	A	3.3
5	☐	12500.000	12917.049	58594570.29	124.9957	A	0.4
6	☐	25000.000	25669.198	115134858.13	248.3796	A	0.8
7	☐	50000.000	50702.232	228741462.52	490.5876	A	2.5
8	☐	250000.00	249778.74	1086317527.9	2,416.759	A	0.5

$$y = 0.0097 * x + 0.0163$$

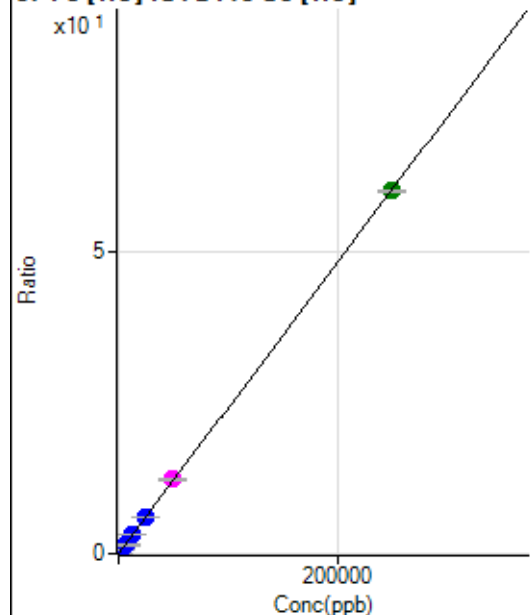
$$R = 1.0000$$

$$DL = 0.2142$$

$$BEC = 1.687$$

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	335.20	0.0007	P	14.0
2	☐	50.000	50.636	6301.52	0.0129	P	6.8
3	☐	2500.000	2562.446	298393.44	0.6175	P	2.2
4	☐	6250.000	5968.572	684529.20	1.4375	P	3.7
5	☐	12500.000	12941.036	1460677.12	3.1160	P	0.4
6	☐	25000.000	25592.185	2856105.39	6.1614	P	0.9
7	☐	50000.000	51213.902	5748539.31	12.3293	M	2.5
8	☐	250000.00	249682.36	27017214.73	60.1061	A	0.8

$$y = 2.4073\text{E-}004 * x + 6.9673\text{E-}004$$

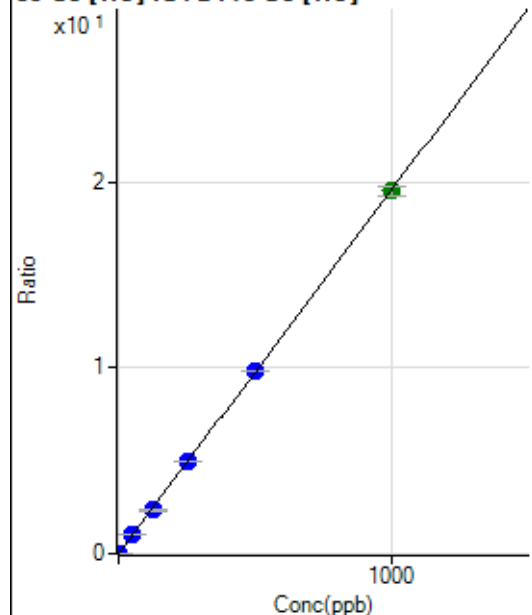
$$R = 1.0000$$

$$DL = 1.212$$

$$BEC = 2.894$$

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	185.56	0.0004	P	11.6
2	☐	1.000	0.927	9044.04	0.0185	P	4.2
3	☐	50.000	51.215	484020.84	1.0017	P	2.6
4	☐	125.000	120.026	1117683.68	2.3471	P	3.4
5	☐	250.000	255.618	2343048.41	4.9982	P	0.2
6	☐	500.000	502.312	4552722.68	9.8215	P	0.5
7	☐	1000.000	998.001	9097790.35	19.5132	A	2.7
8	☐			17342.68	0.0386	P	0.8

$$y = 0.0196 * x + 3.8581\text{E-}004$$

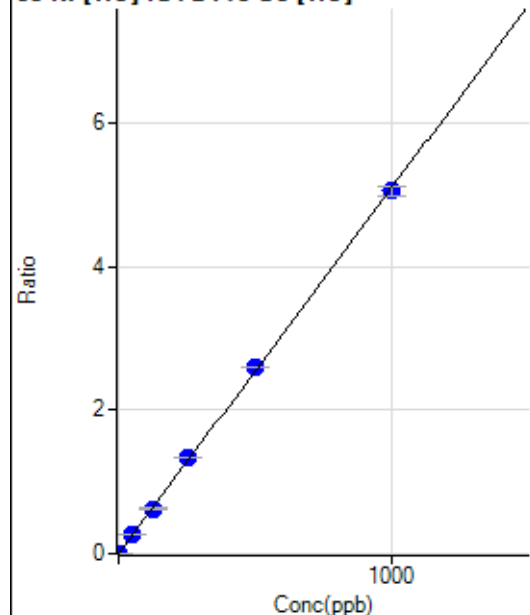
$$R = 1.0000$$

$$DL = 0.006862$$

$$BEC = 0.01973$$

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	61.11	0.0001	P	30.2
2	☐	1.000	1.111	2829.21	0.0058	P	3.9
3	☐	50.000	52.681	129732.29	0.2685	P	2.4
4	☐	125.000	123.519	299700.50	0.6294	P	3.6
5	☐	250.000	261.250	623939.38	1.3310	P	0.2
6	☐	500.000	509.550	1203317.54	2.5959	P	0.6
7	☐	1000.000	992.464	2357226.58	5.0560	P	2.8
8	☐			37944.77	0.0844	P	1.2

$$y = 0.0051 * x + 1.2711E-004$$

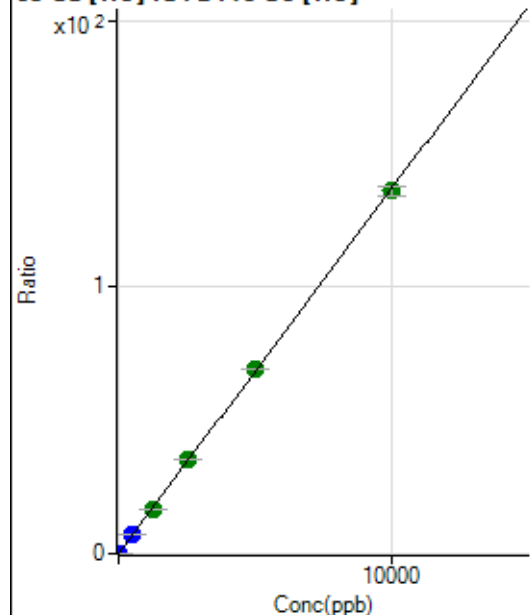
$$R = 0.9999$$

$$DL = 0.0226$$

$$BEC = 0.02495$$

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	1437.87	0.0030	P	2.8
2	☐	2.000	1.877	14016.90	0.0287	P	3.9
3	☐	500.000	525.325	3474328.35	7.1906	P	2.6
4	☐	1250.000	1220.210	7951513.35	16.6981	A	2.9
5	☐	2500.000	2596.390	16654270.17	35.5272	A	0.1
6	☐	5000.000	5068.110	32144723.69	69.3456	A	0.7
7	☐	10000.000	9944.305	63434304.61	136.0624	A	3.0
8	☐			19229.50	0.0428	P	1.0

$$y = 0.0137 * x + 0.0030$$

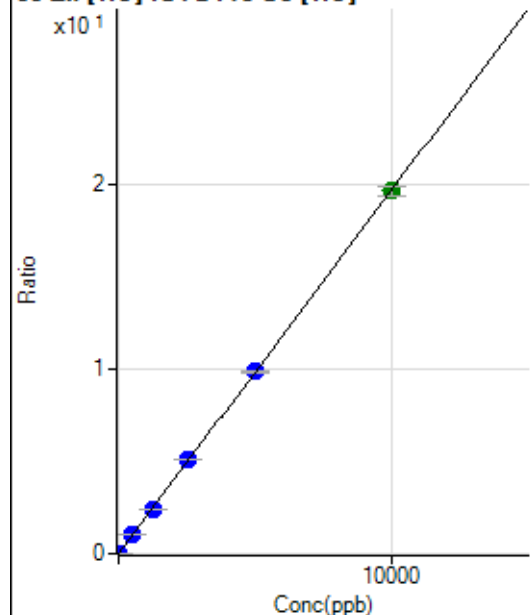
$$R = 0.9999$$

$$DL = 0.01806$$

$$BEC = 0.2185$$

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	846.71	0.0018	P	5.6
2	☐	2.000	2.561	3324.88	0.0068	P	1.5
3	☐	500.000	519.999	495534.06	1.0256	P	2.9
4	☐	1250.000	1220.230	1144910.57	2.4043	P	3.1
5	☐	2500.000	2573.195	2375815.76	5.0682	P	0.4
6	☐	5000.000	5004.092	4567960.38	9.8544	P	0.5
7	☐	10000.000	9982.377	9165072.57	19.6562	A	2.3
8	☐			22864.79	0.0509	P	0.9

$$y = 0.0020 * x + 0.0018$$

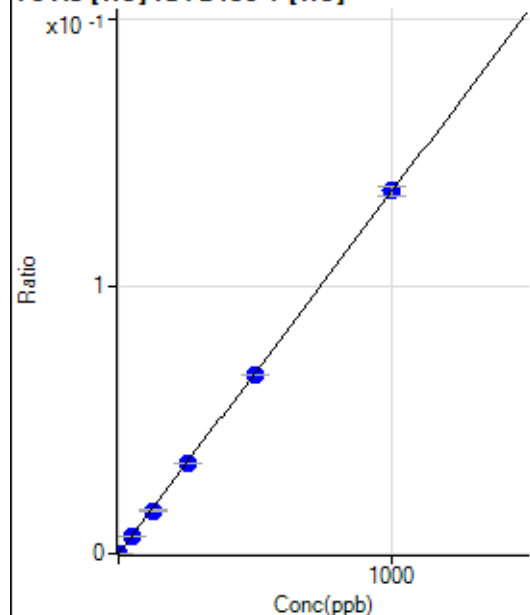
$$R = 1.0000$$

$$DL = 0.1492$$

$$BEC = 0.8941$$

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	6.17	0.0000	P	34.4
2	☐	1.000	1.015	577.80	0.0001	P	2.8
3	☐	50.000	49.928	28158.77	0.0068	P	1.2
4	☐	125.000	119.338	66348.62	0.0162	P	2.7
5	☐	250.000	251.348	138729.80	0.0341	P	0.8
6	☐	500.000	496.116	270290.64	0.0673	P	0.2
7	☐	1000.000	1002.317	547424.23	0.1359	P	2.8
8	☐			264.20	0.0001	P	8.6

$$y = 1.3563E-004 * x + 1.5122E-006$$

$$R = 1.0000$$

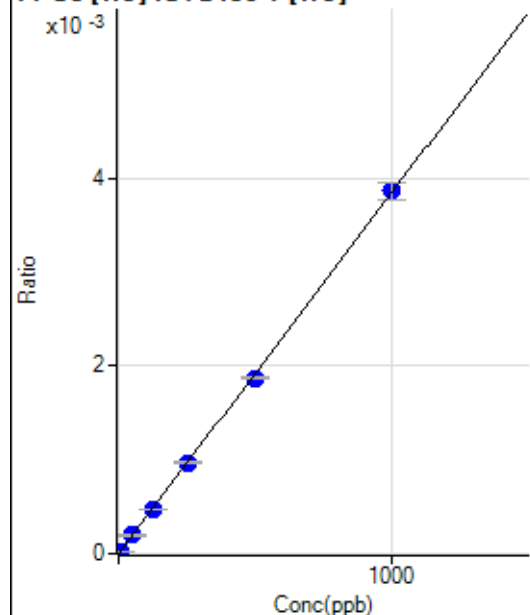
$$DL = 0.01149$$

$$BEC = 0.01115$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	4.867	77.78	0.0000	P	25.1
3	☐	50.000	52.087	832.26	0.0002	P	8.7
4	☐	125.000	123.151	1940.16	0.0005	P	2.6
5	☐	250.000	251.976	3941.72	0.0010	P	1.4
6	☐	500.000	487.714	7529.88	0.0019	P	1.8
7	☐	1000.000	1005.776	15561.92	0.0039	P	5.0
8	☐			6.66	0.0000	P	86.5

$$y = 3.8437\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9999$$

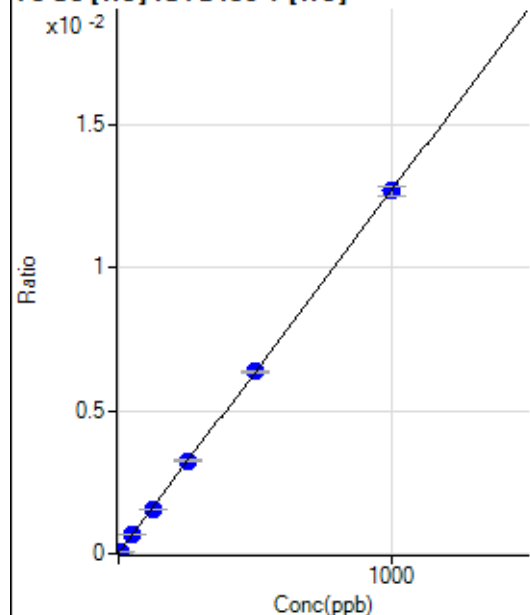
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	81.48	0.0000	P	15.0
2	☐	5.000	5.021	347.54	0.0001	P	9.3
3	☐	50.000	50.484	2745.96	0.0007	P	0.5
4	☐	125.000	122.129	6432.96	0.0016	P	0.4
5	☐	250.000	254.332	13212.28	0.0032	P	1.1
6	☐	500.000	500.462	25586.20	0.0064	P	1.2
7	☐	1000.000	999.020	51120.53	0.0127	P	3.0
8	☐			93.83	0.0000	P	11.7

$$y = 1.2688\text{E-}005 * x + 1.9982\text{E-}005$$

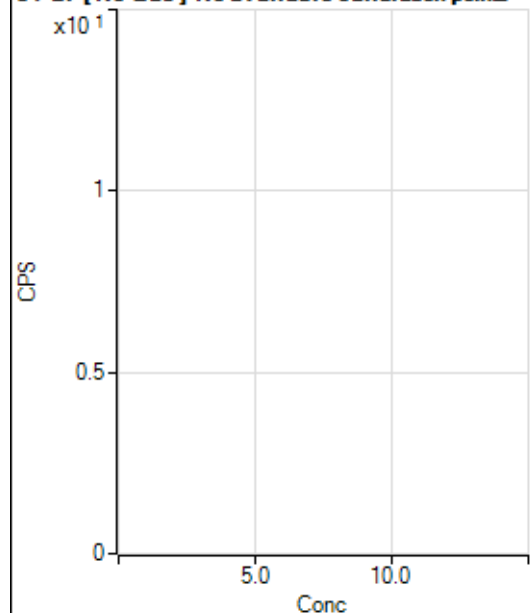
$$R = 1.0000$$

$$DL = 0.7109$$

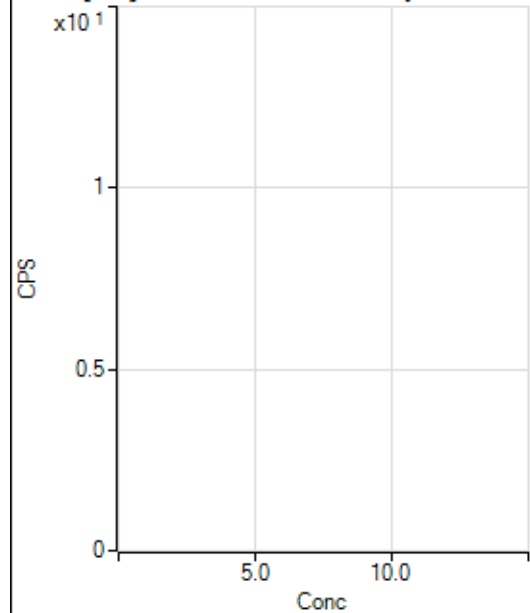
$$BEC = 1.575$$

Weight: <None>

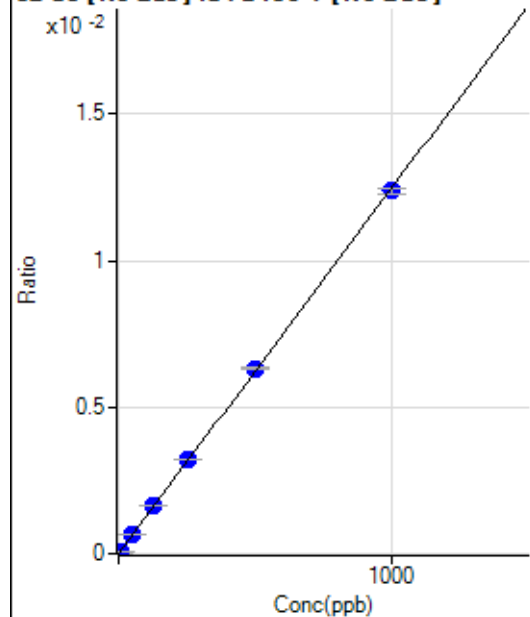
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			76413.19		P	1.0
2	☐			77691.40		P	1.1
3	☐			78968.87		P	2.8
4	☐			79948.95		P	0.7
5	☐			77852.68		P	0.9
6	☐			76718.95		P	1.3
7	☐			76238.87		P	1.6
8	☐			74491.11		P	0.3

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			80.08		P	33.1
2	☐			40.04		P	43.3
3	☐			70.07		P	24.7
4	☐			56.73		P	62.0
5	☐			46.71		P	44.6
6	☐			63.40		P	65.7
7	☐			60.06		P	57.7
8	☐			53.39		P	60.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.58	0.0000	P	52.2
2	☐	5.000	5.834	2421.19	0.0001	P	2.2
3	☐	50.000	53.034	22028.80	0.0007	P	0.8
4	☐	125.000	130.439	54377.94	0.0016	P	1.1
5	☐	250.000	259.487	106677.56	0.0032	P	0.5
6	☐	500.000	507.298	206939.22	0.0063	P	1.0
7	☐	1000.000	993.143	416399.57	0.0124	P	1.5
8	☐			415.70	0.0000	P	12.2

$$y = 1.2468E-005 * x + 1.4216E-006$$

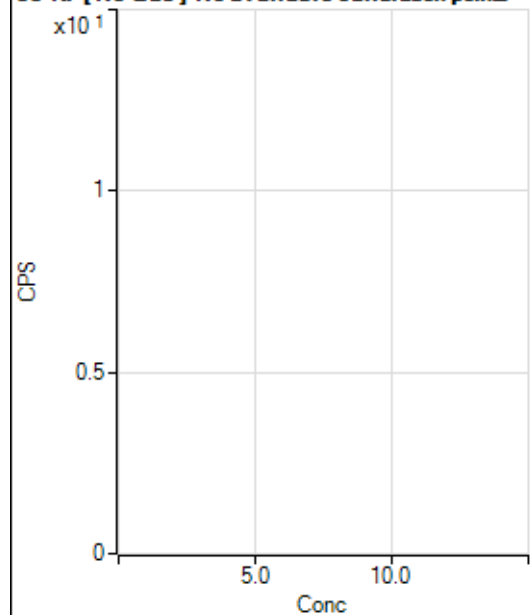
$$R = 0.9999$$

$$DL = 0.1785$$

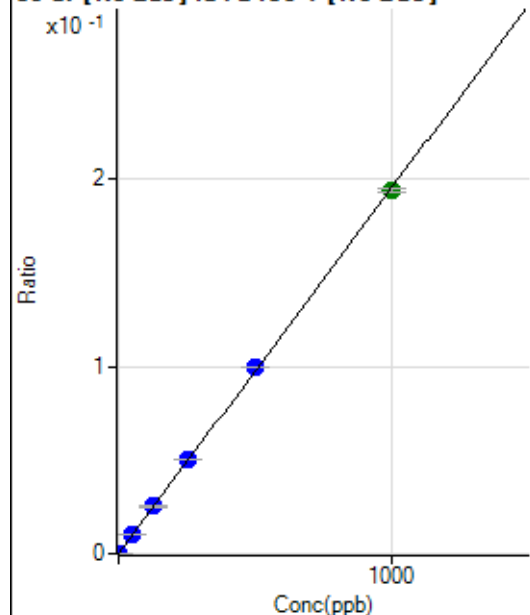
$$BEC = 0.114$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			393.35		P	8.3
2	☐			440.01		P	17.5
3	☐			421.12		P	13.5
4	☐			428.90		P	6.3
5	☐			418.90		P	5.2
6	☐			464.46		P	4.4
7	☐			474.46		P	4.7
8	☐			541.13		P	10.5

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	713.94	0.0000	P	13.4
2	☐	1.000	1.106	7749.64	0.0002	P	1.0
3	☐	50.000	52.232	339281.51	0.0102	P	0.6
4	☐	125.000	129.035	841237.03	0.0252	P	1.5
5	☐	250.000	258.592	1662562.05	0.0504	P	0.2
6	☐	500.000	509.492	3250331.45	0.0994	P	0.1
7	☐	1000.000	992.490	6507923.11	0.1935	A	1.0
8	☐			13626.51	0.0005	P	1.9

$$y = 1.9499\text{E-}004 * x + 2.1759\text{E-}005$$

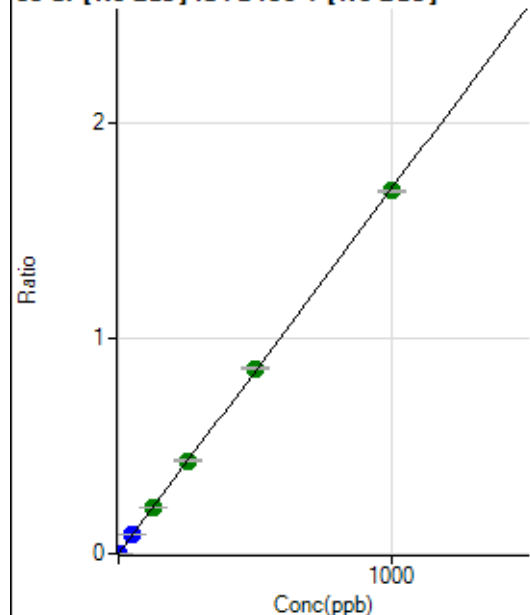
R = 0.9999

DL = 0.04499

BEC = 0.1116

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	644.49	0.0000	P	15.5
2	☐	1.000	1.077	60183.07	0.0018	P	1.7
3	☐	50.000	51.956	2926686.61	0.0880	P	0.6
4	☐	125.000	126.627	7167239.48	0.2145	A	0.9
5	☐	250.000	255.293	14255387.65	0.4325	A	0.3
6	☐	500.000	508.369	28172313.13	0.8613	A	0.3
7	☐	1000.000	994.191	56635616.54	1.6843	A	0.7
8	☐			113962.13	0.0038	P	0.9

$$y = 0.0017 * x + 1.9650\text{E-}005$$

R = 0.9999

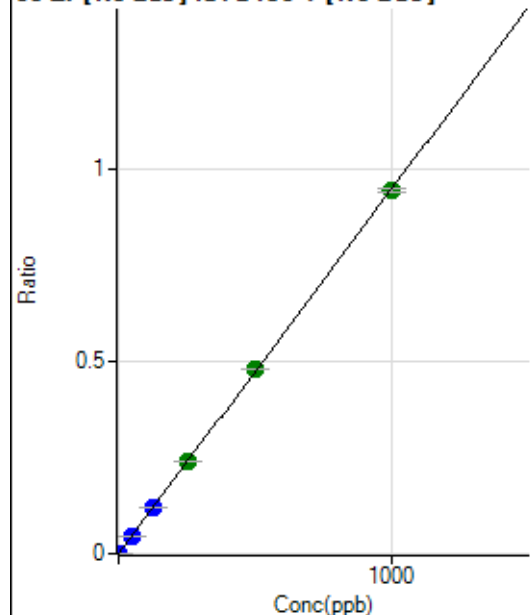
DL = 0.005383

BEC = 0.0116

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	1575.15	0.0000	P	1.5
2	☐	1.000	0.788	25935.53	0.0008	P	4.9
3	☐	50.000	50.016	1576920.60	0.0474	P	0.2
4	☐	125.000	126.477	4004915.45	0.1199	P	0.7
5	☐	250.000	253.636	7921934.98	0.2404	A	0.1
6	☐	500.000	506.412	15696365.45	0.4799	A	0.2
7	☐	1000.000	995.700	31723124.32	0.9434	A	1.0
8	☐			10896.24	0.0004	P	6.8

$$y = 9.4747\text{E-}004 * x + 4.8007\text{E-}005$$

$$R = 1.0000$$

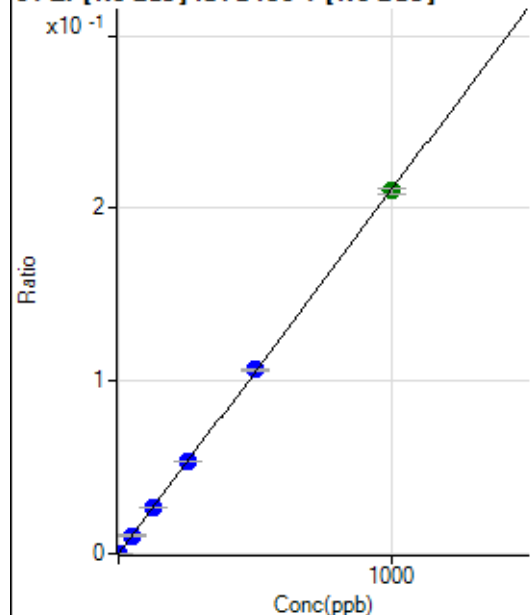
$$DL = 0.002317$$

$$BEC = 0.05067$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	297.24	0.0000	P	14.5
2	☐	1.000	0.801	5804.23	0.0002	P	5.1
3	☐	50.000	50.036	350949.92	0.0106	P	0.9
4	☐	125.000	125.840	886583.13	0.0265	P	0.9
5	☐	250.000	252.469	1754519.77	0.0532	P	0.3
6	☐	500.000	504.701	3480642.09	0.1064	P	0.5
7	☐	1000.000	996.925	7067070.30	0.2102	A	1.4
8	☐			2425.32	0.0001	P	2.9

$$y = 2.1082\text{E-}004 * x + 9.0629\text{E-}006$$

$$R = 1.0000$$

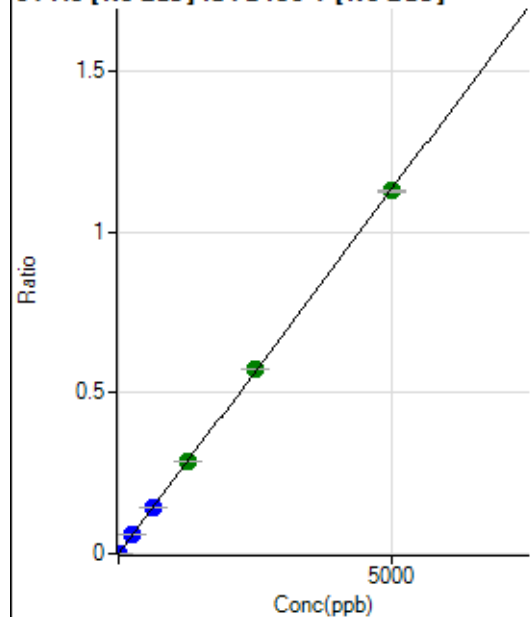
$$DL = 0.01871$$

$$BEC = 0.04299$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	725.05	0.0000	P	7.3
2	☐	5.000	5.008	37728.69	0.0012	P	1.9
3	☐	250.000	252.235	1898884.18	0.0571	P	0.3
4	☐	625.000	629.504	4761294.86	0.1425	P	1.1
5	☐	1250.000	1264.786	9437130.51	0.2863	A	0.8
6	☐	2500.000	2529.998	18734640.70	0.5727	A	0.7
7	☐	5000.000	4980.630	37912533.83	1.1275	A	0.8
8	☐			28657.47	0.0009	P	0.7

$$y = 2.2637\text{E-}004 * x + 2.2097\text{E-}005$$

$$R = 1.0000$$

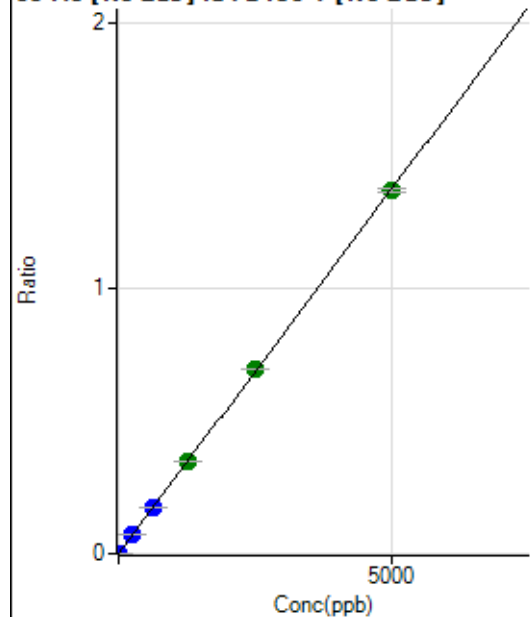
$$DL = 0.02151$$

$$BEC = 0.09761$$

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	519.47	0.0000	P	16.0
2	☐	5.000	5.493	49810.05	0.0015	P	0.6
3	☐	250.000	256.705	2346452.49	0.0706	P	0.5
4	☐	625.000	637.517	5855331.34	0.1753	P	0.9
5	☐	1250.000	1268.939	11497733.24	0.3488	A	1.1
6	☐	2500.000	2529.826	22748897.73	0.6955	A	0.7
7	☐	5000.000	4978.452	46017997.90	1.3686	A	1.2
8	☐			40341.56	0.0013	P	0.6

$$y = 2.7490\text{E-}004 * x + 1.5827\text{E-}005$$

$$R = 1.0000$$

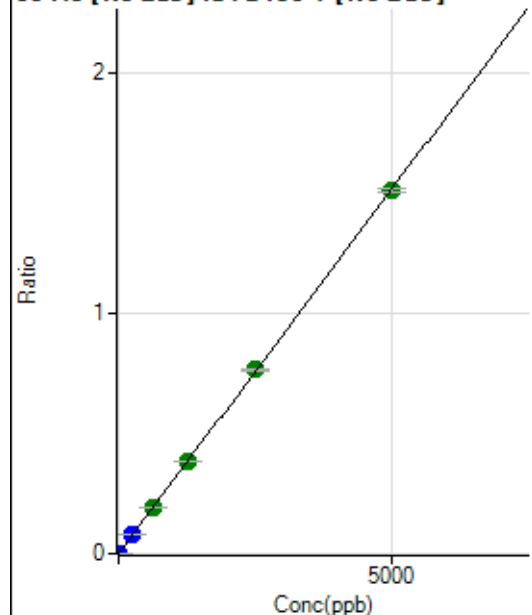
$$DL = 0.02771$$

$$BEC = 0.05757$$

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	794.51	0.0000	P	11.0
2	☐	5.000	5.448	54661.35	0.0017	P	0.8
3	☐	250.000	257.337	2591824.30	0.0780	P	0.4
4	☐	625.000	626.901	6344193.50	0.1899	A	0.6
5	☐	1250.000	1270.596	12684533.44	0.3849	A	1.2
6	☐	2500.000	2525.177	25018628.51	0.7649	A	0.7
7	☐	5000.000	4981.657	50735979.61	1.5089	A	0.9
8	☐			73409.45	0.0024	P	0.5

$$y = 3.0288\text{E-}004 * x + 2.4222\text{E-}005$$

$$R = 1.0000$$

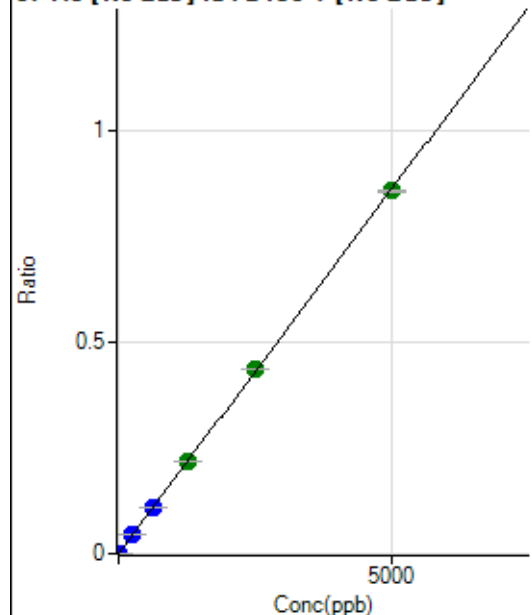
$$DL = 0.02636$$

$$BEC = 0.07997$$

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	363.91	0.0000	P	29.6
2	☐	5.000	5.405	30698.00	0.0009	P	0.8
3	☐	250.000	254.275	1453816.57	0.0437	P	0.3
4	☐	625.000	627.893	3607194.48	0.1080	P	0.6
5	☐	1250.000	1267.544	7183699.47	0.2180	A	0.6
6	☐	2500.000	2531.704	14239743.03	0.4353	A	0.5
7	☐	5000.000	4979.186	28788779.46	0.8562	A	0.8
8	☐			25106.36	0.0008	P	2.5

$$y = 1.7195\text{E-}004 * x + 1.1088\text{E-}005$$

$$R = 1.0000$$

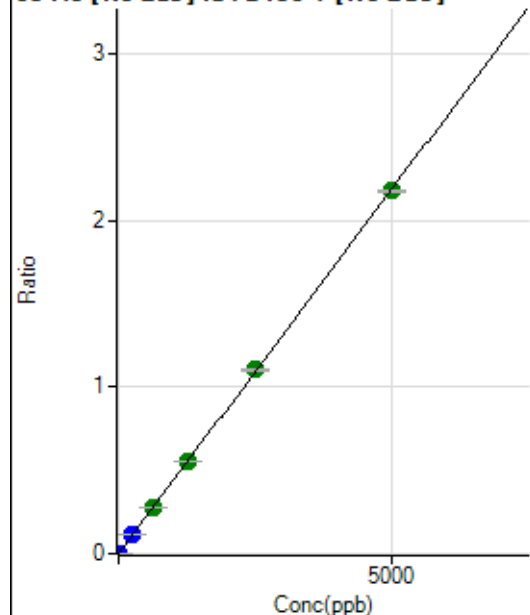
$$DL = 0.05726$$

$$BEC = 0.06449$$

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	727.83	0.0000	P	16.4
2	☐	5.000	5.425	78223.85	0.0024	P	1.4
3	☐	250.000	256.580	3733262.63	0.1123	P	0.4
4	☐	625.000	626.445	9159014.53	0.2742	A	0.4
5	☐	1250.000	1270.762	18328595.55	0.5561	A	0.0
6	☐	2500.000	2524.779	36140780.32	1.1049	A	0.3
7	☐	5000.000	4981.910	73307234.97	2.1801	A	0.7
8	☐			61829.63	0.0020	P	0.3

$$y = 4.3760\text{E-}004 * x + 2.2186\text{E-}005$$

$$R = 1.0000$$

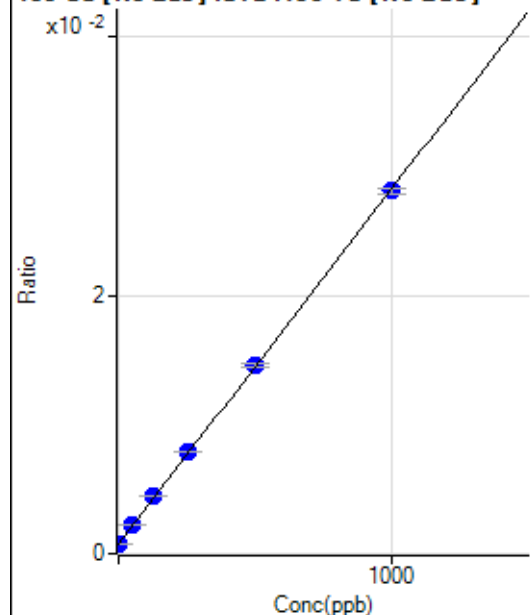
$$DL = 0.02494$$

$$BEC = 0.0507$$

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	15028.02	0.0008	P	0.6
2	☐	1.000	0.836	15726.10	0.0008	P	3.9
3	☐	50.000	54.445	46842.67	0.0022	P	2.0
4	☐	125.000	135.321	94641.33	0.0045	P	1.1
5	☐	250.000	257.898	169003.88	0.0078	P	0.0
6	☐	500.000	503.147	313923.32	0.0146	P	1.5
7	☐	1000.000	994.940	612200.91	0.0281	P	1.3
8	☐			13751.72	0.0007	P	3.4

$$y = 2.7443\text{E-}005 * x + 7.5398\text{E-}004$$

$$R = 0.9999$$

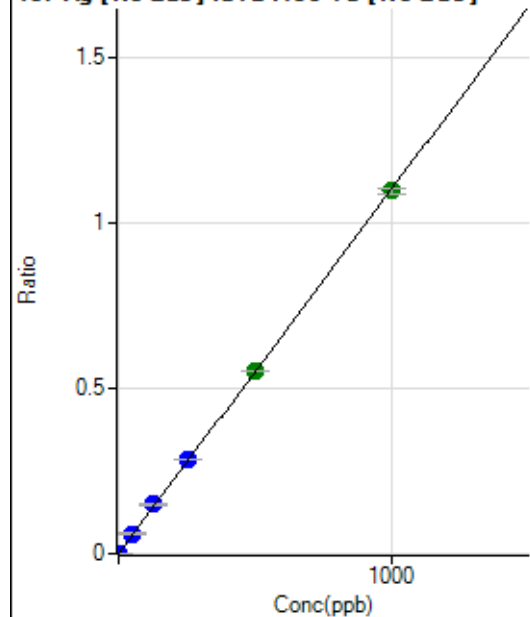
$$DL = 0.522$$

$$BEC = 27.47$$

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	441.70	0.0000	P	17.2
2	☐	1.000	1.339	30247.42	0.0015	P	1.2
3	☐	50.000	55.272	1266946.72	0.0608	P	0.7
4	☐	125.000	134.660	3137127.89	0.1481	P	1.2
5	☐	250.000	259.880	6167158.30	0.2858	P	0.3
6	☐	500.000	500.591	11867304.52	0.5505	A	0.6
7	☐	1000.000	995.763	23890446.02	1.0950	A	1.6
8	☐			6209.96	0.0003	P	5.6

$$y = 0.0011 * x + 2.2174E-005$$

$$R = 0.9999$$

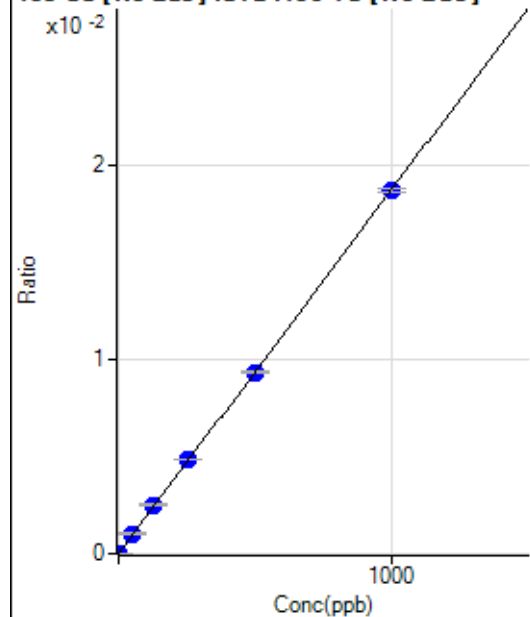
$$DL = 0.01043$$

$$BEC = 0.02017$$

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	37.50	0.0000	P	33.7
2	☐	1.000	1.125	463.91	0.0000	P	20.2
3	☐	50.000	55.027	21469.37	0.0010	P	2.2
4	☐	125.000	134.332	53223.76	0.0025	P	1.8
5	☐	250.000	259.079	104538.53	0.0048	P	0.8
6	☐	500.000	498.497	200898.36	0.0093	P	0.8
7	☐	1000.000	997.064	406649.32	0.0186	P	1.2
8	☐			145.84	0.0000	P	12.8

$$y = 1.8690E-005 * x + 1.8825E-006$$

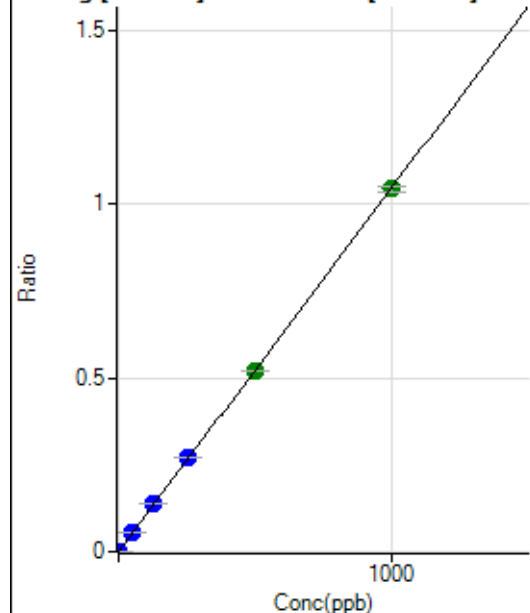
$$R = 0.9999$$

$$DL = 0.1018$$

$$BEC = 0.1007$$

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	255.57	0.0000	P	13.1
2	☐	1.000	1.335	28538.20	0.0014	P	1.9
3	☐	50.000	55.097	1201710.19	0.0577	P	0.9
4	☐	125.000	133.350	2956429.95	0.1396	P	0.7
5	☐	250.000	258.605	5840074.05	0.2706	P	0.5
6	☐	500.000	497.011	11212837.06	0.5201	A	0.6
7	☐	1000.000	998.044	22788173.95	1.0444	A	1.4
8	☐			5370.71	0.0003	P	2.9

$$y = 0.0010 * x + 1.2821E-005$$

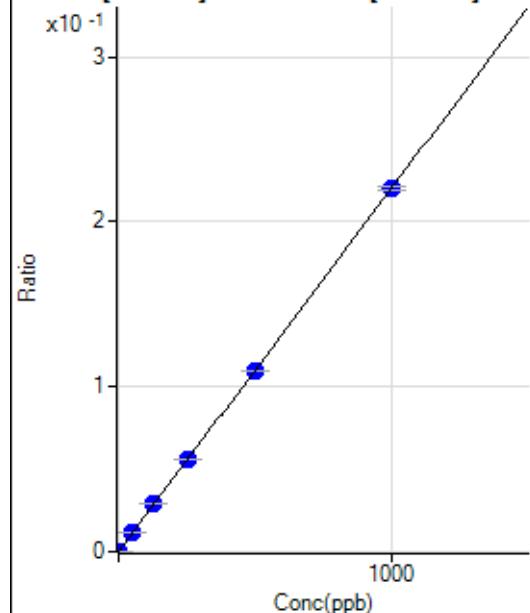
$$R = 0.9999$$

$$DL = 0.004807$$

$$BEC = 0.01225$$

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	1554.33	0.0001	P	1.2
2	☐	1.000	1.112	6532.32	0.0003	P	2.1
3	☐	50.000	54.532	251795.75	0.0121	P	1.0
4	☐	125.000	132.288	618625.00	0.0292	P	0.4
5	☐	250.000	256.116	1218480.89	0.0565	P	0.1
6	☐	500.000	497.591	2363376.58	0.1096	P	0.4
7	☐	1000.000	998.538	4798341.03	0.2199	P	1.0
8	☐			2348.15	0.0001	P	3.4

$$y = 2.2016E-004 * x + 7.7983E-005$$

$$R = 1.0000$$

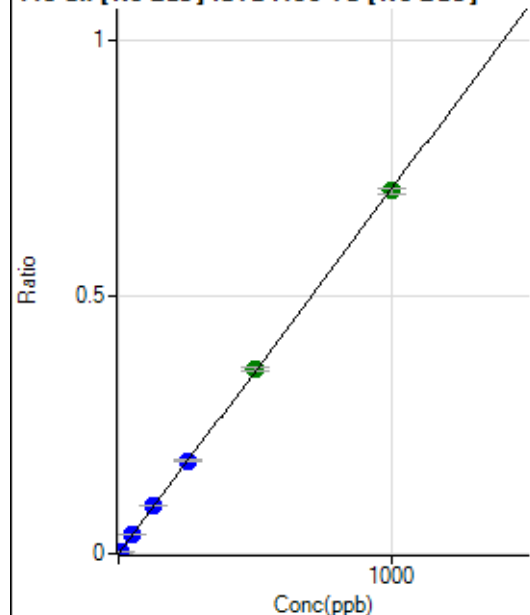
$$DL = 0.01284$$

$$BEC = 0.3542$$

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	1447.37	0.0001	P	13.9
2	☐	5.000	5.507	80520.29	0.0040	P	2.2
3	☐	50.000	52.617	779042.29	0.0374	P	0.4
4	☐	125.000	129.866	1952411.09	0.0922	P	0.1
5	☐	250.000	255.459	3910713.89	0.1812	P	0.9
6	☐	500.000	505.947	7735863.63	0.3588	A	1.2
7	☐	1000.000	994.920	15394966.49	0.7056	A	1.3
8	☐			14627.60	0.0008	P	3.2

$$y = 7.0911\text{E-}004 * x + 7.2640\text{E-}005$$

$$R = 1.0000$$

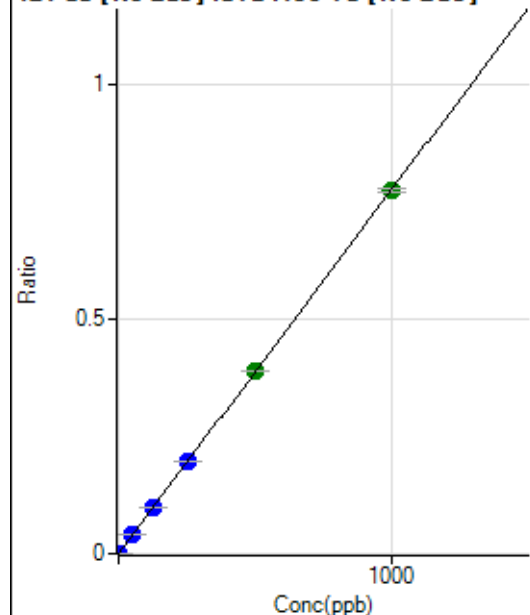
$$DL = 0.04258$$

$$BEC = 0.1024$$

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	566.70	0.0000	P	8.5
2	☐	2.000	2.151	34346.06	0.0017	P	1.2
3	☐	50.000	52.446	848308.93	0.0407	P	0.4
4	☐	125.000	128.711	2115514.78	0.0999	P	0.5
5	☐	250.000	255.155	4271437.12	0.1979	P	0.5
6	☐	500.000	501.887	8392856.44	0.3893	A	0.9
7	☐	1000.000	997.181	16876775.90	0.7735	A	1.2
8	☐			23946.38	0.0013	P	7.6

$$y = 7.7565\text{E-}004 * x + 2.8437\text{E-}005$$

$$R = 1.0000$$

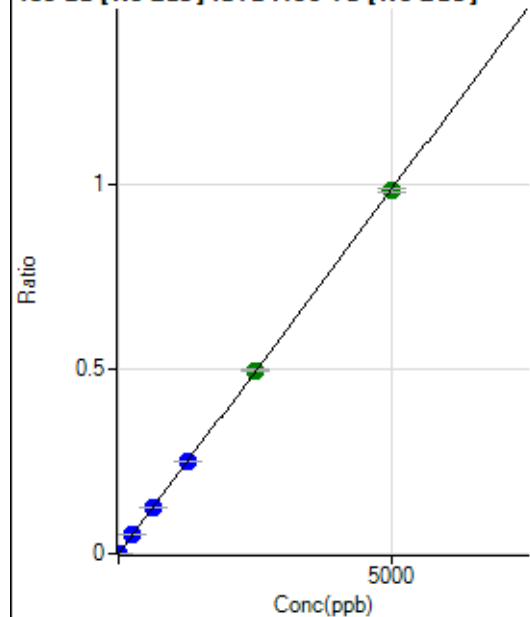
$$DL = 0.009362$$

$$BEC = 0.03666$$

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	202.79	0.0000	P	8.3
2	☐	10.000	10.777	43305.34	0.0021	P	2.2
3	☐	250.000	261.220	1075650.09	0.0516	P	0.8
4	☐	625.000	642.823	2690728.94	0.1270	P	0.1
5	☐	1250.000	1277.696	5447706.85	0.2524	P	0.1
6	☐	2500.000	2517.585	10723606.75	0.4974	A	0.6
7	☐	5000.000	4981.493	21474629.99	0.9842	A	1.0
8	☐			37201.44	0.0020	P	1.7

$$y = 1.9757E-004 * x + 1.0173E-005$$

$$R = 1.0000$$

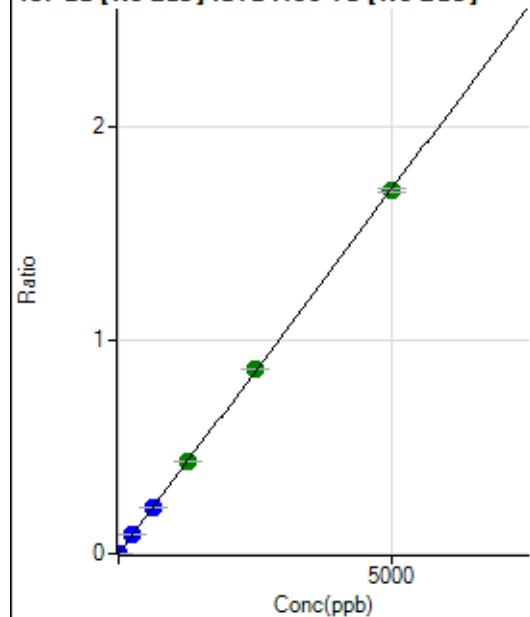
$$DL = 0.01285$$

$$BEC = 0.05149$$

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	241.68	0.0000	P	12.7
2	☐	10.000	10.803	74999.91	0.0037	P	1.7
3	☐	250.000	259.486	1848898.54	0.0887	P	0.8
4	☐	625.000	642.276	4651987.60	0.2196	P	0.4
5	☐	1250.000	1271.630	9382145.43	0.4348	A	0.1
6	☐	2500.000	2528.271	18635391.56	0.8644	A	0.1
7	☐	5000.000	4977.822	37133356.04	1.7019	A	1.1
8	☐			64861.91	0.0034	P	1.2

$$y = 3.4189E-004 * x + 1.2128E-005$$

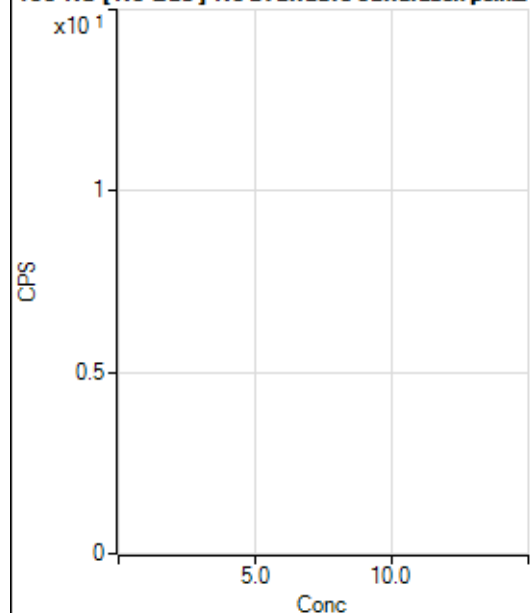
$$R = 1.0000$$

$$DL = 0.01351$$

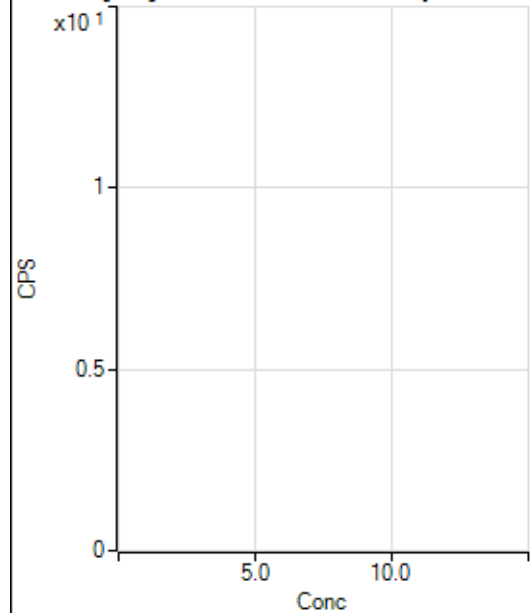
$$BEC = 0.03547$$

Weight: <None>

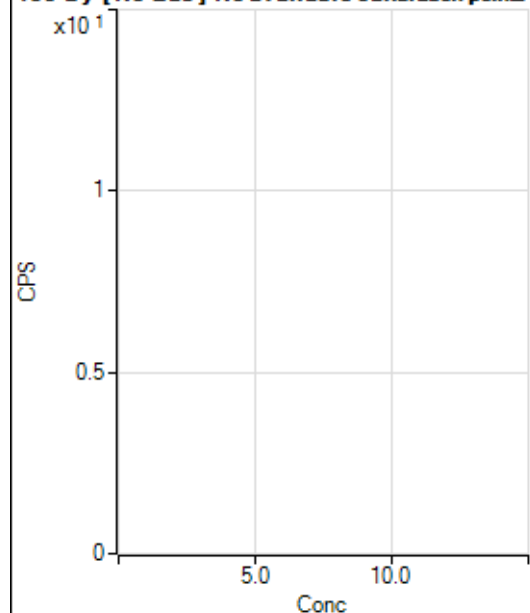
Min Conc: 0

150 Nd [No Gas] No available calibration points

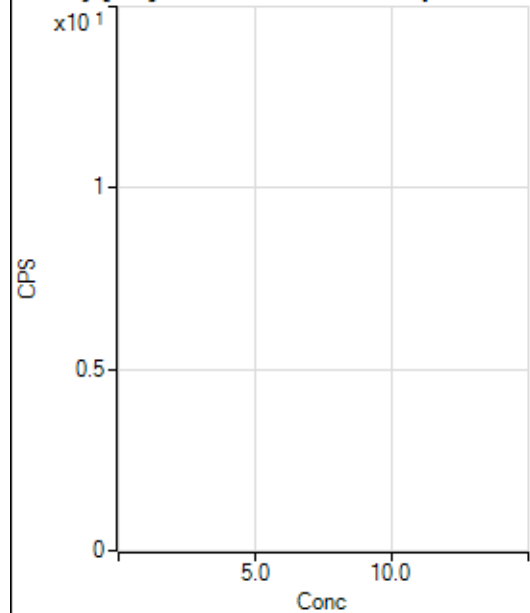
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐			6.67		P	100.
3	☐			175.56		P	2.2
4	☐			368.91		P	8.1
5	☐			677.82		P	16.0
6	☐			1353.45		P	6.4
7	☐			2722.59		P	2.1
8	☐			217.79		P	4.7

150 Nd [He] No available calibration points

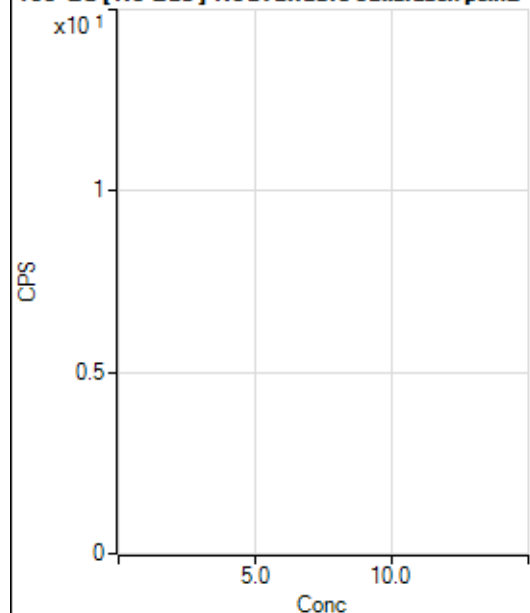
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			1.11		P	173.
3	☐			15.56		P	32.7
4	☐			26.67		P	33.1
5	☐			48.89		P	21.9
6	☐			67.78		P	12.4
7	☐			201.12		P	14.9
8	☐			74.44		P	17.0

156 Dy [No Gas] No available calibration points

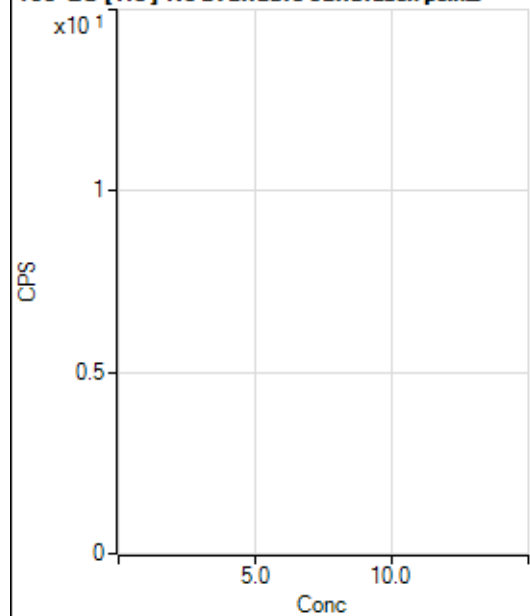
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	33.3
2	☐			19.44		P	49.5
3	☐			63.89		P	19.9
4	☐			94.45		P	50.9
5	☐			136.12		P	27.6
6	☐			283.35		P	15.6
7	☐			550.04		P	6.1
8	☐			1136.22		P	12.6

156 Dy [He] No available calibration points

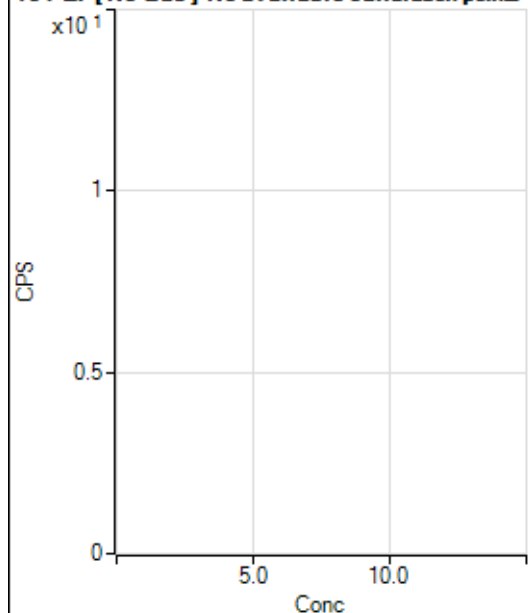
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			14.44		P	35.3
2	☐			7.78		P	65.5
3	☐			30.00		P	22.2
4	☐			53.33		P	16.5
5	☐			127.78		P	20.9
6	☐			255.56		P	14.4
7	☐			445.57		P	11.9
8	☐			524.46		P	6.4

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

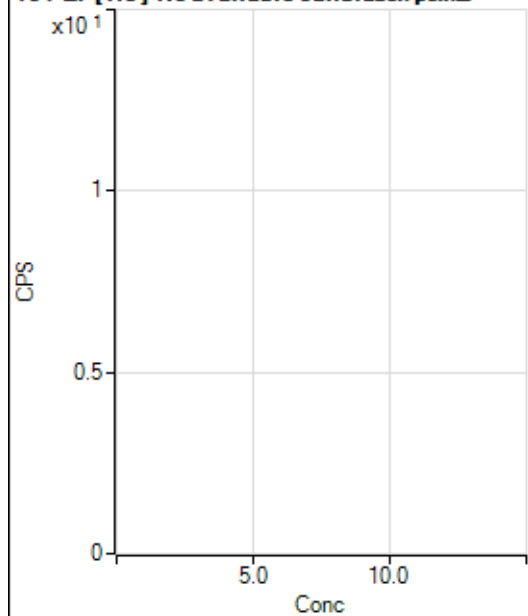
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			111.12		P	15.6
2	☐			111.12		P	41.3
3	☐			125.01		P	33.3
4	☐			161.12		P	7.9
5	☐			175.01		P	21.8
6	☐			238.90		P	8.1
7	☐			372.24		P	20.3
8	☐			1250.11		P	2.3

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			286.67		P	5.3
2	☐			343.35		P	16.8
3	☐			287.79		P	17.2
4	☐			345.56		P	2.0
5	☐			340.01		P	8.4
6	☐			358.90		P	8.8
7	☐			383.35		P	15.3
8	☐			827.82		P	9.7

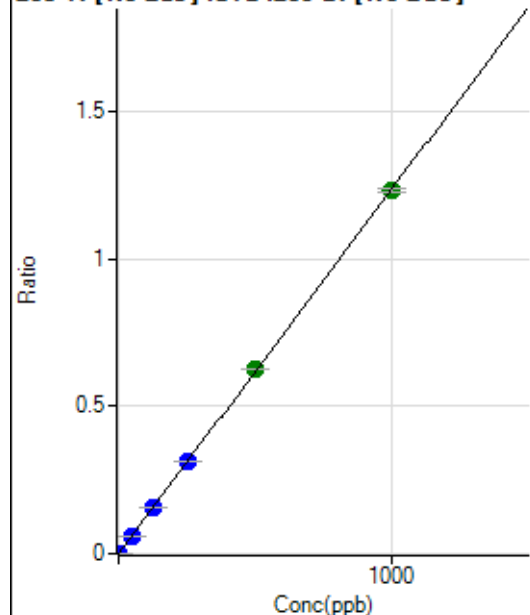
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			75.00		P	11.1
2	☐			105.56		P	35.6
3	☐			94.45		P	25.5
4	☐			122.23		P	14.2
5	☐			94.45		P	43.5
6	☐			141.68		P	23.5
7	☐			163.90		P	15.5
8	☐			241.68		P	28.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.67		P	36.4
2	☐			56.67		P	17.6
3	☐			52.22		P	14.7
4	☐			34.45		P	20.1
5	☐			45.55		P	15.2
6	☐			64.44		P	7.9
7	☐			67.78		P	36.9
8	☐			105.56		P	28.6

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	291.68	0.0000	P	2.3
2	☐	1.000	1.009	15634.92	0.0013	P	2.8
3	☐	50.000	49.449	770531.74	0.0612	P	0.6
4	☐	125.000	124.814	1944756.75	0.1545	P	0.7
5	☐	250.000	253.690	3958602.13	0.3140	P	0.1
6	☐	500.000	505.793	7768298.70	0.6261	A	0.3
7	☐	1000.000	996.232	15191156.41	1.2331	A	0.9
8	☐			3756.26	0.0004	P	2.3

$$y = 0.0012 * x + 2.4107E-005$$

$$R = 1.0000$$

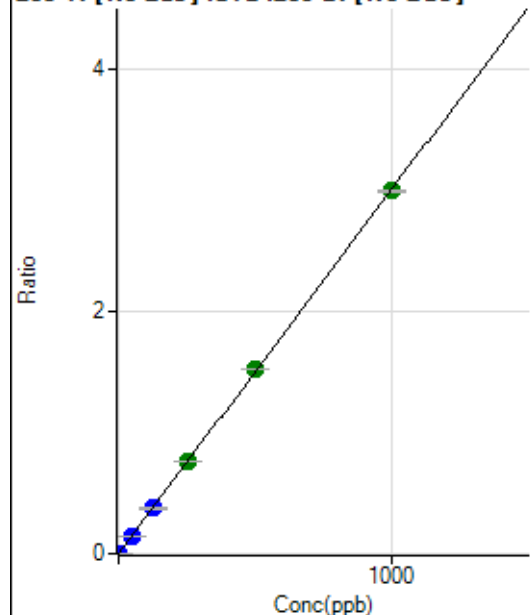
$$DL = 0.001352$$

$$BEC = 0.01948$$

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	708.39	0.0001	P	17.4
2	☐	1.000	0.992	37256.93	0.0030	P	0.7
3	☐	50.000	49.222	1858702.01	0.1477	P	0.8
4	☐	125.000	124.308	4693811.04	0.3729	P	0.5
5	☐	250.000	251.754	9519799.78	0.7552	A	0.4
6	☐	500.000	506.391	18847710.32	1.5190	A	0.1
7	☐	1000.000	996.492	36823976.17	2.9890	A	0.5
8	☐			9295.38	0.0010	P	4.4

$$y = 0.0030 * x + 5.8586E-005$$

$$R = 1.0000$$

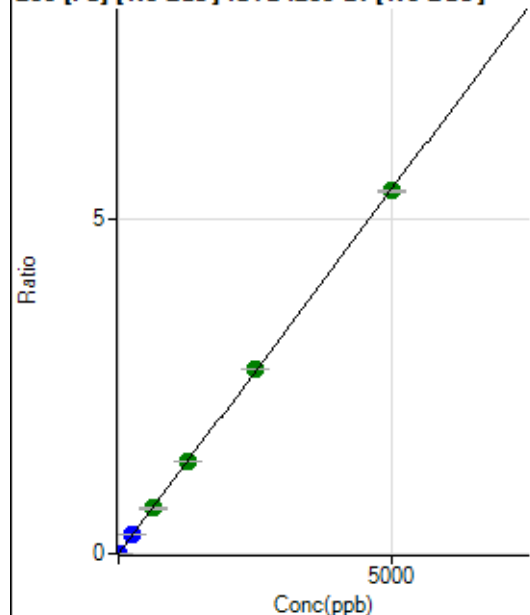
$$DL = 0.01022$$

$$BEC = 0.01953$$

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	1220.47	0.0001	P	10.2
2	☐	1.000	0.919	13531.41	0.0011	P	3.6
3	☐	250.000	252.763	3465186.07	0.2753	P	1.4
4	☐	625.000	620.280	8503313.04	0.6756	A	0.1
5	☐	1250.000	1264.846	17363864.28	1.3775	A	0.4
6	☐	2500.000	2534.103	34242362.80	2.7596	A	0.1
7	☐	5000.000	4979.689	66806764.46	5.4227	A	0.8
8	☐			51411.64	0.0055	P	1.0

$$y = 0.0011 * x + 1.0092E-004$$

$$R = 1.0000$$

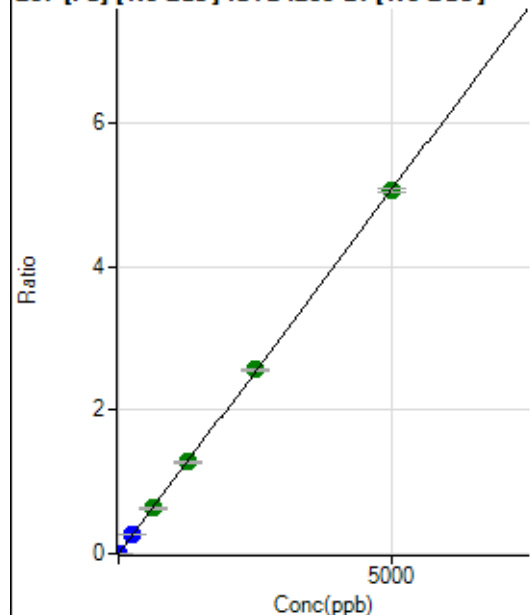
$$DL = 0.0283$$

$$BEC = 0.09267$$

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	1174.17	0.0001	P	10.7
2	☐	1.000	0.878	12133.73	0.0010	P	5.7
3	☐	250.000	252.292	3223233.84	0.2561	P	0.9
4	☐	625.000	621.074	7934749.08	0.6304	A	0.5
5	☐	1250.000	1255.368	16060494.46	1.2741	A	0.6
6	☐	2500.000	2527.147	31824263.67	2.5647	A	0.4
7	☐	5000.000	4985.461	62330417.60	5.0595	A	1.0
8	☐			47799.77	0.0051	P	0.7

$$y = 0.0010 * x + 9.7033E-005$$

$$R = 1.0000$$

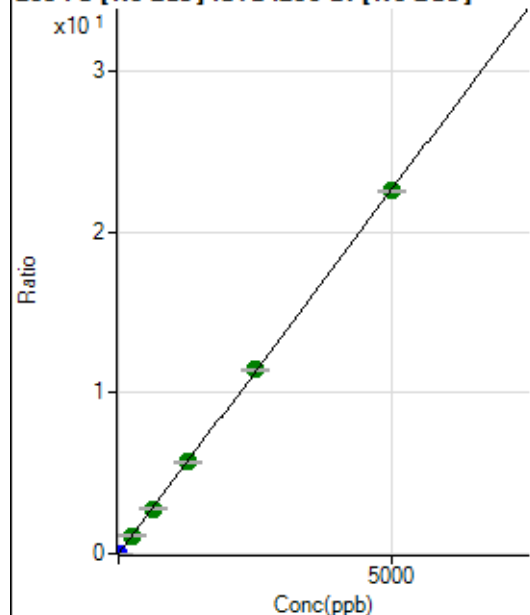
$$DL = 0.03072$$

$$BEC = 0.09562$$

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	5232.07	0.0004	P	3.5
2	☐	1.000	0.885	54512.05	0.0044	P	1.6
3	☐	250.000	250.359	14263759.54	1.1335	A	0.7
4	☐	625.000	620.758	35366298.99	2.8097	A	0.3
5	☐	1250.000	1258.266	71786717.47	5.6948	A	0.5
6	☐	2500.000	2525.841	141845423.07	11.4314	A	0.3
7	☐	5000.000	4985.525	277964719.64	22.5629	A	0.8
8	☐			214029.23	0.0227	P	0.4

$$y = 0.0045 * x + 4.3243E-004$$

$$R = 1.0000$$

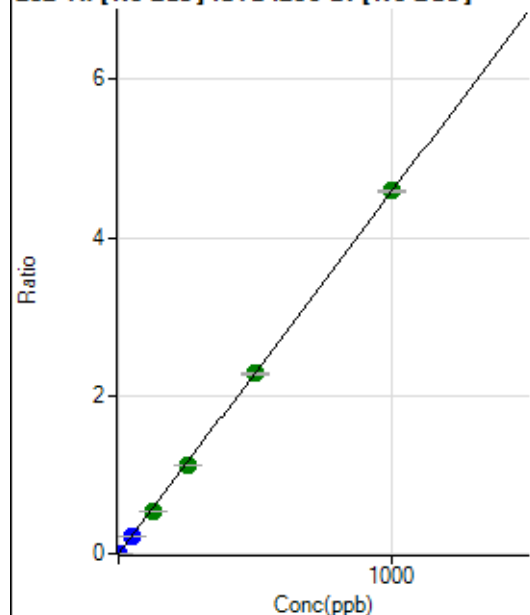
$$DL = 0.009935$$

$$BEC = 0.09555$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1905.76	0.0002	P	9.0
2	☐	1.000	0.678	40004.46	0.0033	P	3.1
3	☐	50.000	46.359	2669842.97	0.2122	P	0.2
4	☐	125.000	118.271	6809664.04	0.5410	A	0.7
5	☐	250.000	244.064	14071318.37	1.1163	A	0.6
6	☐	500.000	498.627	28295324.01	2.2804	A	0.7
7	☐	1000.000	1003.194	56520008.67	4.5878	A	0.8
8	☐			17004.08	0.0018	P	4.5

$$y = 0.0046 * x + 1.5746E-004$$

$$R = 1.0000$$

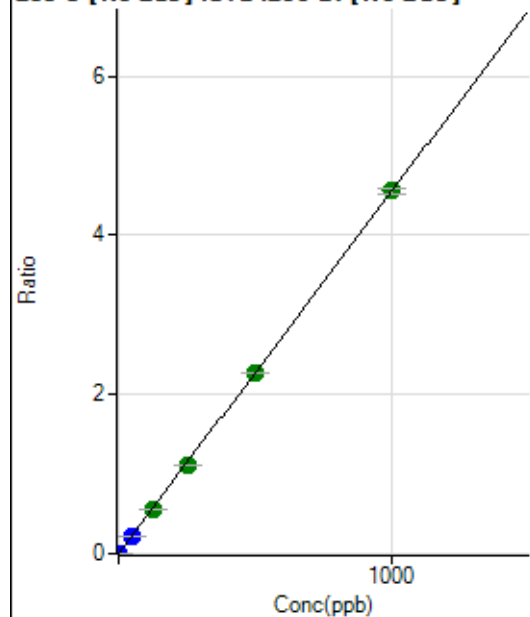
$$DL = 0.009337$$

$$BEC = 0.03443$$

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	494.48	0.0000	P	11.5
2	☐	1.000	0.945	53308.46	0.0043	P	0.9
3	☐	50.000	48.113	2755286.22	0.2189	P	1.2
4	☐	125.000	120.318	6890635.61	0.5474	A	0.7
5	☐	250.000	245.378	14073723.58	1.1164	A	0.4
6	☐	500.000	499.863	28219507.40	2.2743	A	0.6
7	☐	1000.000	1001.904	56156025.91	4.5584	A	1.3
8	☐			7994.58	0.0008	P	10.7

$$y = 0.0045 * x + 4.0888E-005$$

$$R = 1.0000$$

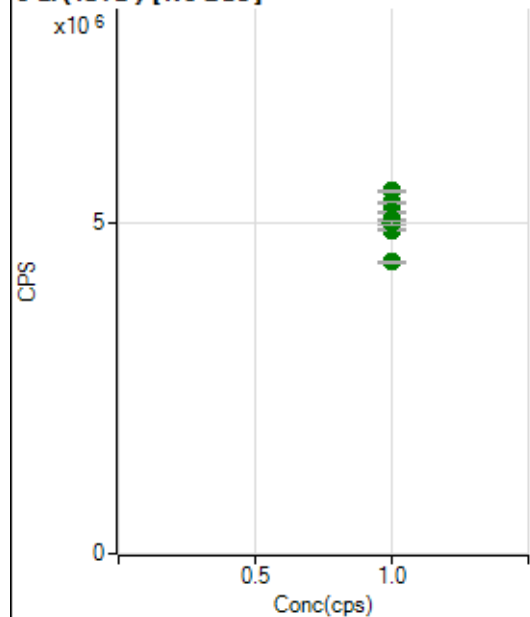
$$DL = 0.003101$$

$$BEC = 0.008987$$

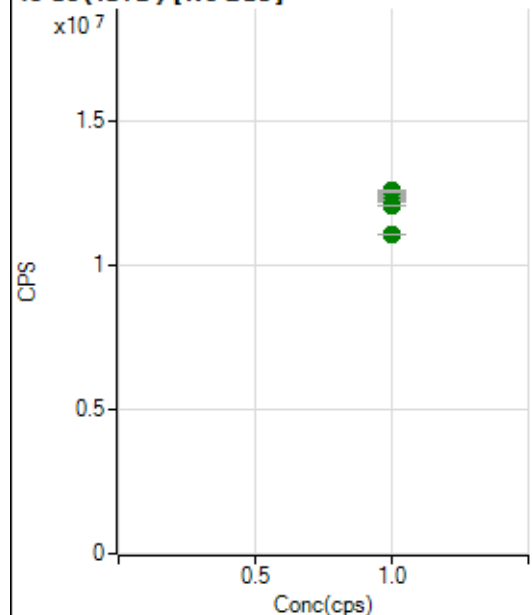
Weight: <None>

Min Conc: 0

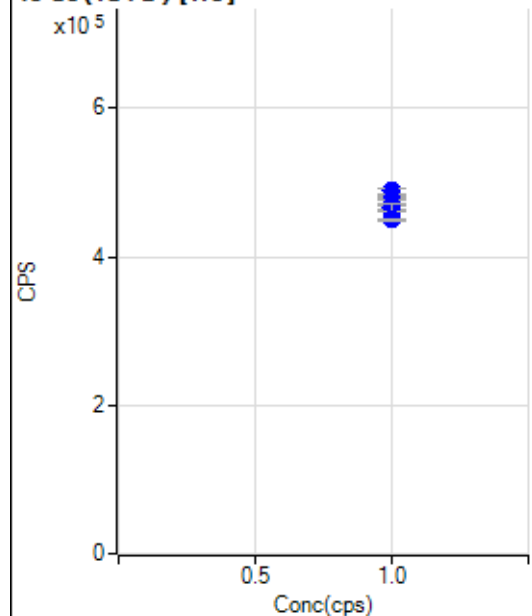
6 Li (ISTD) [No Gas]



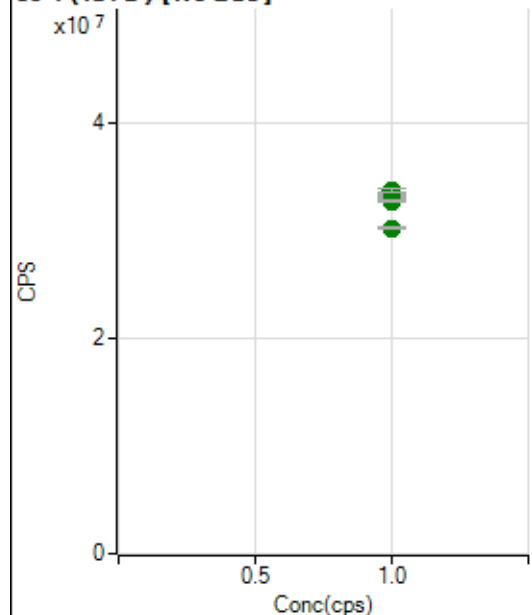
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5496438.88		A	0.7
2	☐	1.000		5306731.66		A	0.3
3	☐	1.000		5323702.49		A	0.5
4	☐	1.000		5171404.82		A	0.8
5	☐	1.000		5059908.47		A	0.3
6	☐	1.000		4901646.35		A	0.3
7	☐	1.000		5015601.91		A	0.9
8	☐	1.000		4419522.96		A	0.5

45 Sc (ISTD) [No Gas]

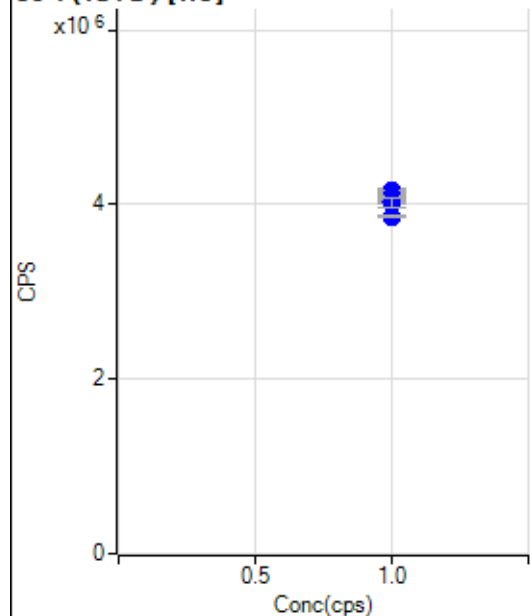
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12347303.71		A	0.4
2	☐	1.000		12342893.29		A	0.2
3	☐	1.000		12521104.40		A	0.6
4	☐	1.000		12416392.45		A	0.6
5	☐	1.000		12205164.12		A	0.9
6	☐	1.000		12056306.07		A	0.2
7	☐	1.000		12552663.01		A	0.7
8	☐	1.000		11037074.98		A	0.4

45 Sc (ISTD) [He]

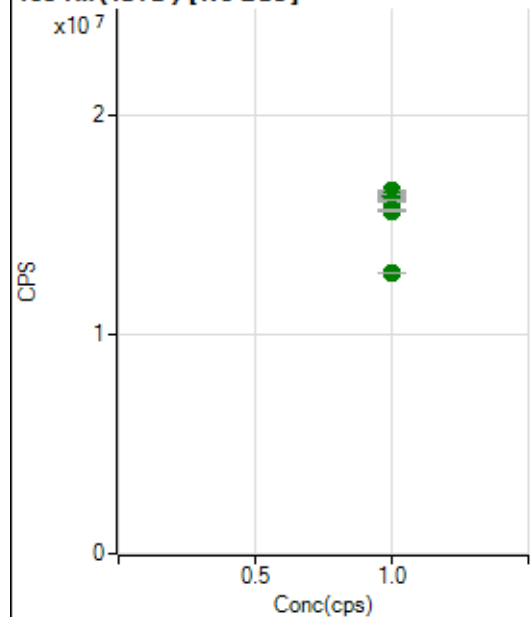
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		480937.38		P	0.4
2	☐	1.000		488655.11		P	1.7
3	☐	1.000		483228.28		P	0.7
4	☐	1.000		476187.23		P	0.1
5	☐	1.000		468776.77		P	0.4
6	☐	1.000		463549.99		P	0.4
7	☐	1.000		466447.23		P	2.5
8	☐	1.000		449490.70		P	0.3

89 Y (ISTD) [No Gas]

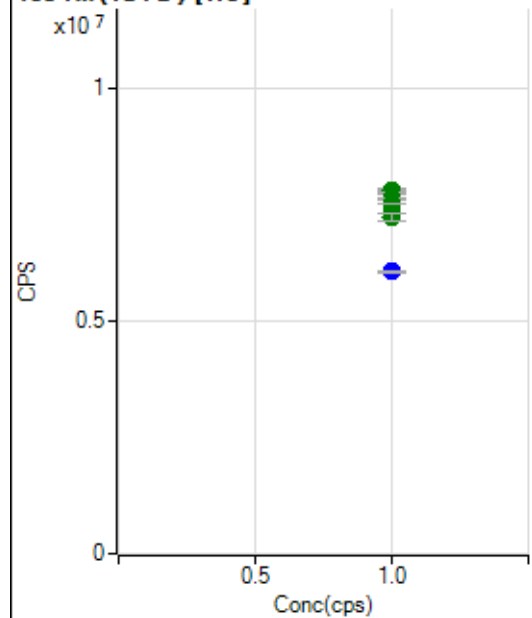
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		32809553.40		A	0.4
2	☐	1.000		32643749.24		A	0.4
3	☐	1.000		33242803.95		A	0.5
4	☐	1.000		33408867.84		A	1.0
5	☐	1.000		32958597.84		A	0.4
6	☐	1.000		32710475.90		A	0.3
7	☐	1.000		33626802.83		A	0.9
8	☐	1.000		30201408.16		A	0.2

89 Y (ISTD) [He]

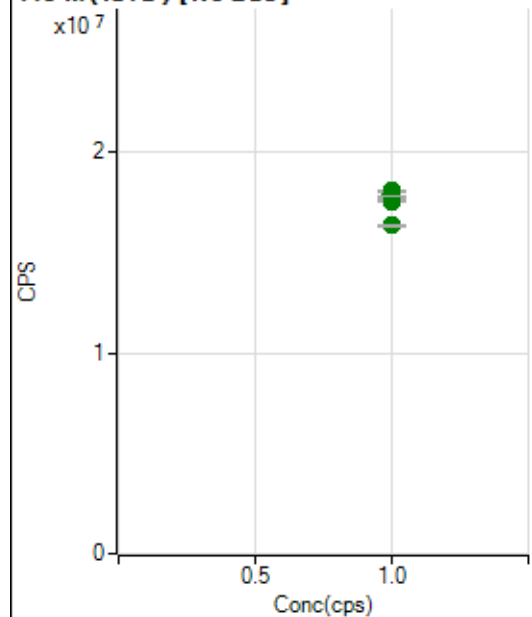
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4078058.48		P	0.7
2	☐	1.000		4151029.31		P	1.4
3	☐	1.000		4157345.88		P	0.2
4	☐	1.000		4098712.47		P	0.2
5	☐	1.000		4069448.87		P	1.0
6	☐	1.000		4016844.45		P	0.2
7	☐	1.000		4028900.29		P	2.8
8	☐	1.000		3864880.81		P	0.4

103 Rh (ISTD) [No Gas]

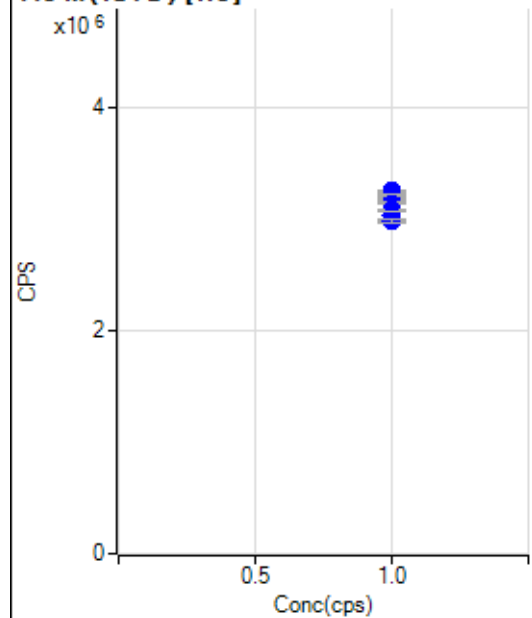
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16363123.92		A	0.8
2	☐	1.000		16379326.15		A	0.6
3	☐	1.000		16571454.75		A	0.5
4	☐	1.000		16353492.67		A	0.8
5	☐	1.000		16101215.18		A	0.7
6	☐	1.000		15637621.16		A	0.1
7	☐	1.000		15691156.99		A	0.9
8	☐	1.000		12826700.36		A	0.3

103 Rh (ISTD) [He]

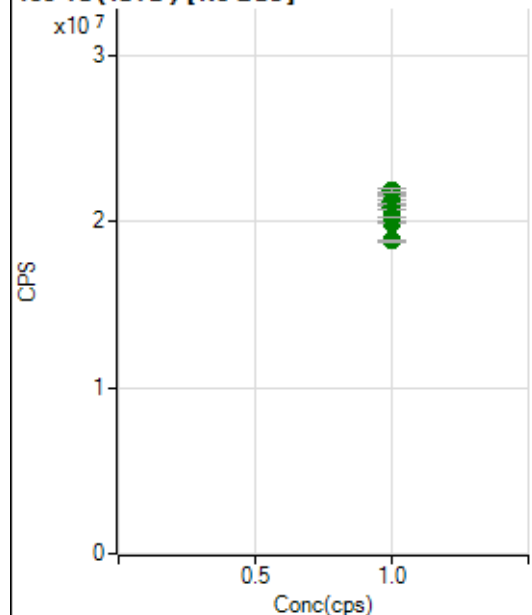
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		7776096.27		A	1.0
2	☐	1.000		7793715.44		A	1.1
3	☐	1.000		7759699.47		A	0.3
4	☐	1.000		7625228.92		A	0.3
5	☐	1.000		7524918.36		A	0.4
6	☐	1.000		7321806.07		A	0.3
7	☐	1.000		7215721.49		A	2.3
8	☐	1.000		6069316.23		P	0.6

115 In (ISTD) [No Gas]

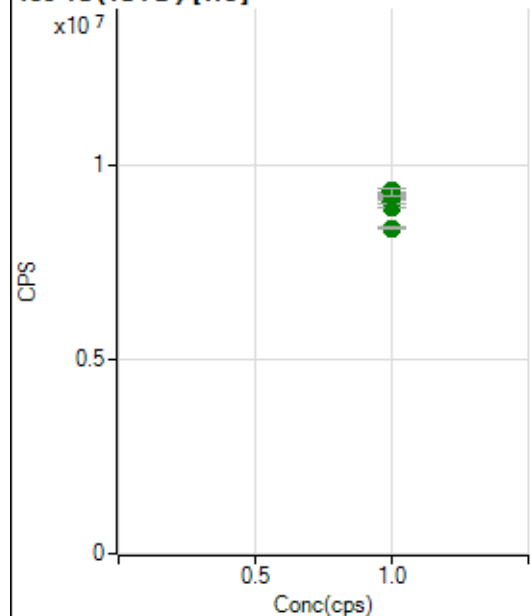
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17570659.14		A	0.7
2	☐	1.000		17769344.96		A	0.4
3	☐	1.000		18046950.49		A	0.8
4	☐	1.000		18082393.03		A	0.6
5	☐	1.000		17915124.62		A	1.4
6	☐	1.000		17740633.01		A	0.3
7	☐	1.000		17844473.37		A	0.3
8	☐	1.000		16350431.03		A	0.3

115 In (ISTD) [He]

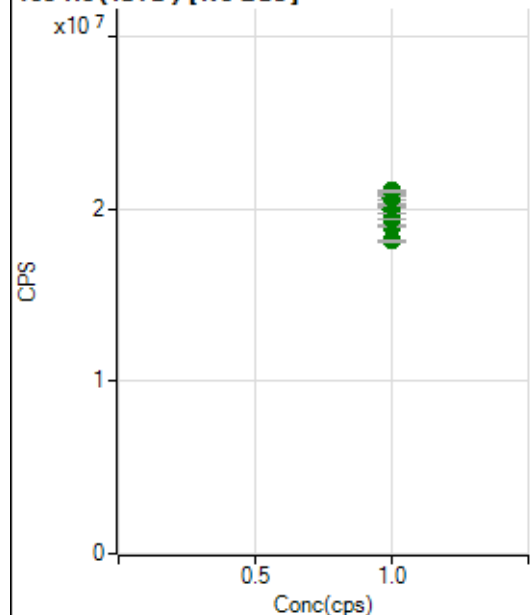
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3176316.37		P	0.7
2	☐	1.000		3252257.75		P	0.8
3	☐	1.000		3238660.42		P	0.5
4	☐	1.000		3210728.37		P	0.4
5	☐	1.000		3143349.09		P	0.5
6	☐	1.000		3077957.13		P	0.5
7	☐	1.000		3026204.45		P	2.7
8	☐	1.000		2987818.20		P	1.1

159 Tb (ISTD) [No Gas]

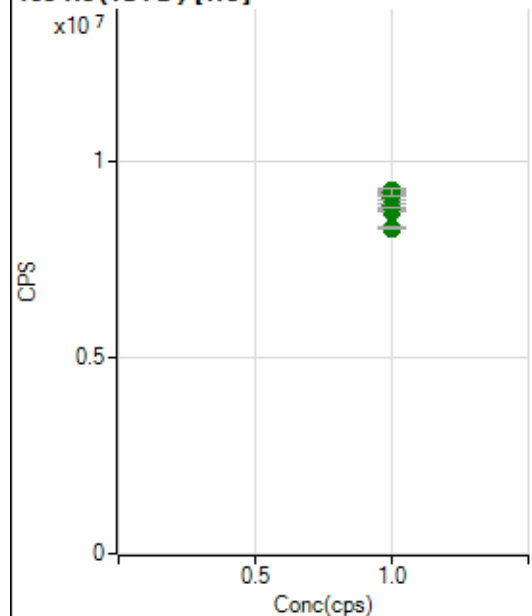
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19932207.20		A	0.7
2	☐	1.000		20241180.12		A	0.1
3	☐	1.000		20839219.69		A	1.1
4	☐	1.000		21184580.38		A	0.7
5	☐	1.000		21579923.01		A	1.0
6	☐	1.000		21558873.15		A	0.8
7	☐	1.000		21820443.43		A	0.9
8	☐	1.000		18819861.53		A	0.9

159 Tb (ISTD) [He]

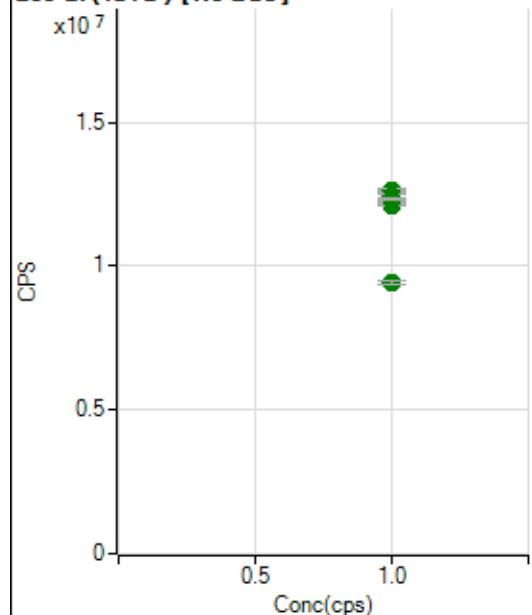
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8916056.95		A	0.4
2	☐	1.000		9054313.61		A	0.8
3	☐	1.000		9190098.82		A	0.6
4	☐	1.000		9277891.32		A	0.8
5	☐	1.000		9339624.37		A	1.4
6	☐	1.000		9308378.47		A	0.2
7	☐	1.000		9313053.89		A	2.5
8	☐	1.000		8386045.36		A	0.6

165 Ho (ISTD) [No Gas]

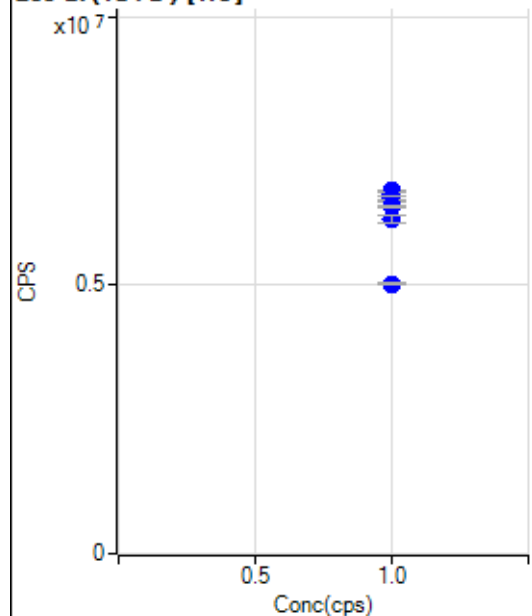
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19009350.55		A	0.5
2	☐	1.000		19391532.35		A	0.1
3	☐	1.000		19948040.95		A	1.7
4	☐	1.000		20268364.84		A	0.6
5	☐	1.000		20677059.97		A	1.4
6	☐	1.000		20811224.83		A	0.4
7	☐	1.000		21073499.13		A	0.6
8	☐	1.000		18163517.09		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8755520.56		A	0.7
2	☐	1.000		8895747.50		A	1.0
3	☐	1.000		9082130.91		A	0.9
4	☐	1.000		9156513.89		A	0.8
5	☐	1.000		9239666.74		A	1.5
6	☐	1.000		9259571.11		A	0.4
7	☐	1.000		9231361.60		A	2.5
8	☐	1.000		8315184.74		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12098341.35		A	0.6
2	☐	1.000		12280003.43		A	0.5
3	☐	1.000		12583975.09		A	0.9
4	☐	1.000		12587096.06		A	1.0
5	☐	1.000		12606082.03		A	1.1
6	☐	1.000		12408419.81		A	0.9
7	☐	1.000		12320007.18		A	0.7
8	☐	1.000		9422625.41		A	0.8

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6555584.07		P	0.4
2	☐	1.000		6717811.57		P	1.2
3	☐	1.000		6759920.18		P	0.7
4	☐	1.000		6692031.77		P	0.8
5	☐	1.000		6639008.86		P	1.1
6	☐	1.000		6470987.34		P	0.4
7	☐	1.000		6230014.15		P	2.2
8	☐	1.000		5024675.86		P	0.4

US EPA Tune Check Sample Report

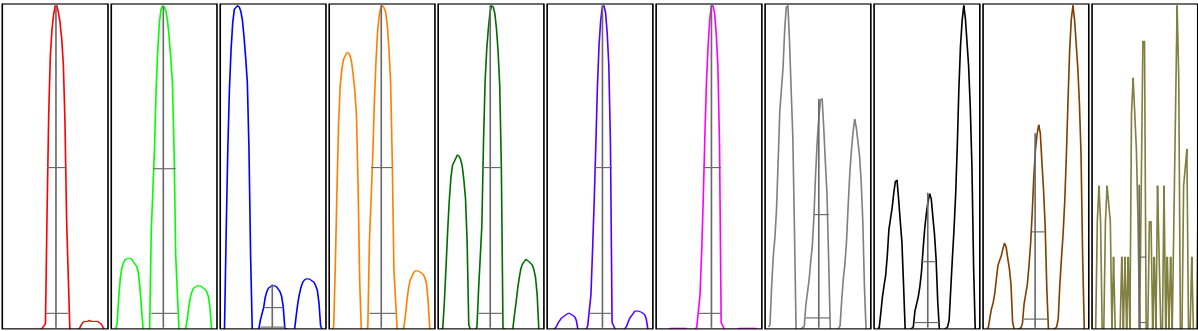
Batch Folder D:\ICP-MS Data\P7022620MS1.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	15701	1.99	5.00	
24	261251	1.47	5.00	
25	34546	2.17	5.00	
26	40449	2.21	5.00	
59	167791	2.39	5.00	
113	10782	1.78	5.00	
115	243799	1.80	5.00	
206	45169	2.20	5.00	
207	41594	2.10	5.00	
208	98082	2.15	5.00	
220	0	34.31		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15522	15446	15546	15778	16215
24	258537	257439	260011	263543	266724
25	34129	33974	34137	34700	35791
26	40026	39821	39803	40676	41918
59	165220	164838	165645	168914	174340
113	10719	10679	10604	10807	11100
115	245046	240033	239896	243418	250604
206	44901	44268	44314	45797	46563
207	41495	40540	41138	41935	42864
208	97412	95784	97078	98806	101329
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	29674	9.05	8.9 - 9.1		0.688	0.900	
24	442522	24.00	23.9 - 24.1		0.781	0.900	
25	59965	25.00	24.9 - 25.1		0.738	0.900	
26	70047	26.00	25.9 - 26.1		0.778	0.900	
59	311932	59.00	58.9 - 59.1		0.727	0.900	
113	22923	113.10	112.9 - 113.1		0.677	0.900	
115	515348	115.10	114.9 - 115.1		0.676	0.900	
206	106532	206.05	205.9 - 206.1		0.721	0.900	
207	97253	207.05	206.9 - 207.1		0.723	0.900	
208	221547	208.00	207.9 - 208.1		0.727	0.900	
220	0	219.85	-		0.196		

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	8.5	V	Deflect	11.8	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	160	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	40220	1.28	
89	73703	1.20	
205	33351	1.20	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	40520	40553	39506	39847	40675
89	74321	74198	72317	73309	74368
205	33709	33714	32771	33141	33421

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	8.6	V	Deflect	0.6	V
Extract 2	-135.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	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			