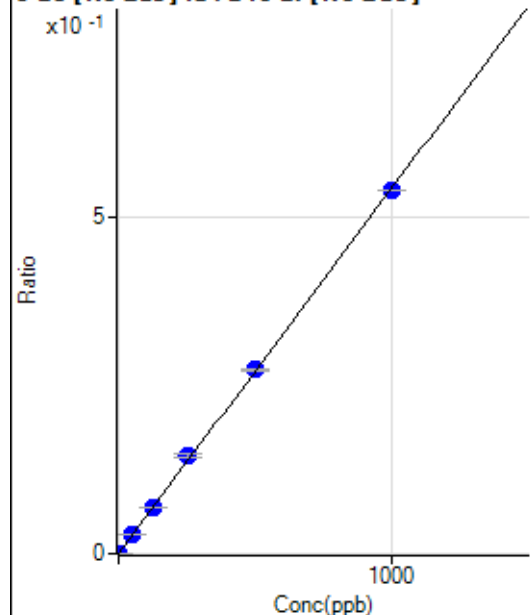


Calibration for 006CAL.S.d

Batch Folder: D:\ICP-MS Data\P7011620-MS.b\
 Analysis File: P7011620-MS.batch.bin
 DA Date-Time: 2020-01-16 17:39:01
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-01-16 14:58:53
2	004CAL.S.d	S02	2020-01-16 15:02:34
3	005CAL.S.d	S03	2020-01-16 15:07:13
4	006CAL.S.d	S04	2020-01-16 15:11:16
5	007CAL.S.d	S05	2020-01-16 15:15:13
6	008CAL.S.d	S06	2020-01-16 15:19:08
7	009CAL.S.d	S07	2020-01-16 15:23:01
8	010CAL.S.d	S08	2020-01-16 15:26:53

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	146.30	0.0000	P	15.3
2	☐	1.000	0.998	1839.06	0.0006	P	8.8
3	☐	50.000	52.481	86438.07	0.0285	P	0.2
4	☐	125.000	127.017	208034.08	0.0689	P	1.5
5	☐	250.000	266.989	403328.80	0.1447	P	3.5
6	☐	500.000	503.432	781891.99	0.2728	P	1.5
7	☐	1000.000	993.661	1509280.60	0.5385	P	0.2
8	☐			996.35	0.0004	P	4.5

$$y = 5.4188\text{E-}004 * x + 4.6964\text{E-}005$$

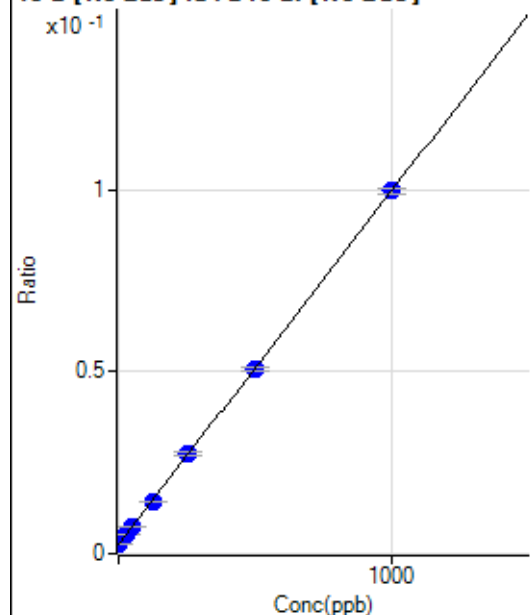
$$R = 0.9998$$

$$DL = 0.03967$$

$$BEC = 0.08667$$

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	7855.19	0.0025	P	4.7
2	☐	25.000	27.048	16109.18	0.0051	P	4.9
3	☐	50.000	51.117	22720.56	0.0075	P	1.7
4	☐	125.000	120.233	42886.73	0.0142	P	1.3
5	☐	250.000	256.840	76555.60	0.0275	P	2.2
6	☐	500.000	497.029	145524.51	0.0508	P	2.1
7	☐	1000.000	1000.264	279288.80	0.0997	P	1.4
8	☐			12052.54	0.0047	P	3.9

$$y = 9.7102\text{E-}005 * x + 0.0025$$

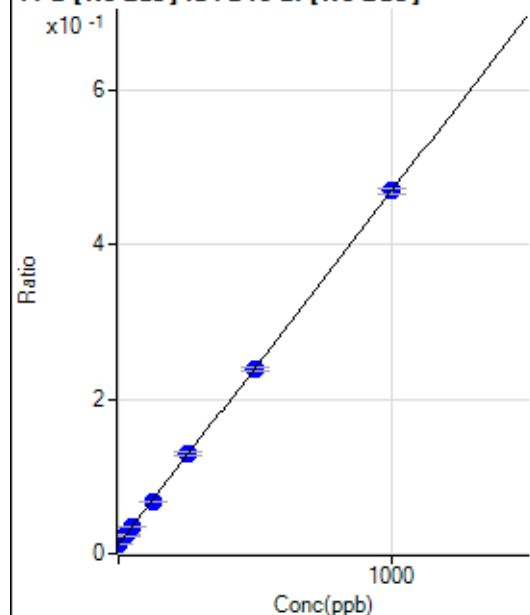
$$R = 0.9999$$

$$DL = 3.672$$

$$BEC = 25.99$$

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	38026.61	0.0122	P	2.4
2	☐	25.000	25.406	74503.74	0.0238	P	2.5
3	☐	50.000	48.676	104507.87	0.0344	P	2.1
4	☐	125.000	118.849	200821.59	0.0665	P	1.0
5	☐	250.000	256.388	360358.25	0.1293	P	2.8
6	☐	500.000	497.396	685785.13	0.2393	P	2.4
7	☐	1000.000	1000.530	1314632.20	0.4691	P	1.5
8	☐			55765.00	0.0219	P	4.7

$$y = 4.5663\text{E-}004 * x + 0.0122$$

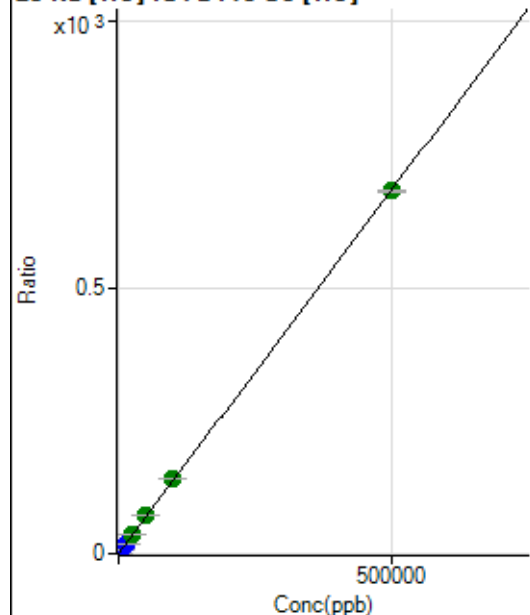
R = 0.9999

DL = 1.935

BEC = 26.75

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	7743.98	0.0313	P	0.6
2	☐	500.000	561.241	186708.90	0.7974	P	11.0
3	☐	5000.000	5409.716	1782342.84	7.4157	P	0.9
4	☐	12500.000	12922.210	4223247.54	17.6703	P	0.2
5	☐	25000.000	26676.182	8161476.05	36.4448	A	3.4
6	☐	50000.000	52019.684	16046336.30	71.0391	A	0.6
7	☐	100000.00	103405.14	31632976.05	141.1812	A	0.8
8	☐	500000.00	499018.47	142734574.0	681.2006	A	0.5

$$y = 0.0014 * x + 0.0313$$

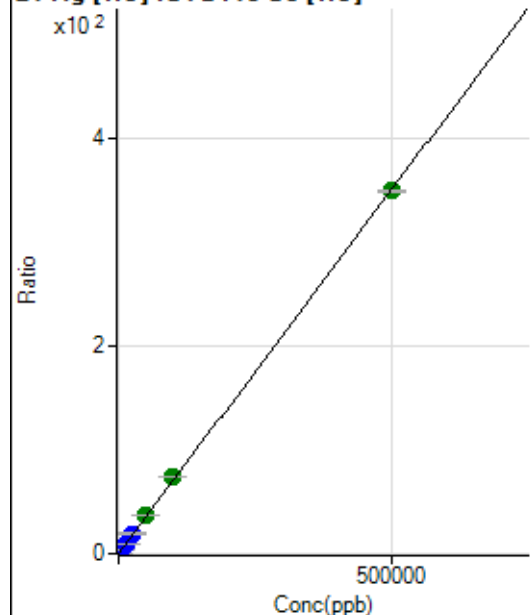
R = 1.0000

DL = 0.4243

BEC = 22.93

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	380.58	0.0015	P	10.0
2	☐	500.000	582.531	95847.60	0.4090	P	9.9
3	☐	5000.000	5596.327	941291.27	3.9164	P	1.0
4	☐	12500.000	13300.626	2224028.44	9.3058	P	0.8
5	☐	25000.000	27424.558	4296222.58	19.1860	P	3.7
6	☐	50000.000	53143.535	8397637.60	37.1774	A	0.7
7	☐	100000.00	105165.69	16484489.26	73.5688	A	0.4
8	☐	500000.00	498505.21	73070115.52	348.7241	A	0.2

$$y = 6.9954\text{E-}004 * x + 0.0015$$

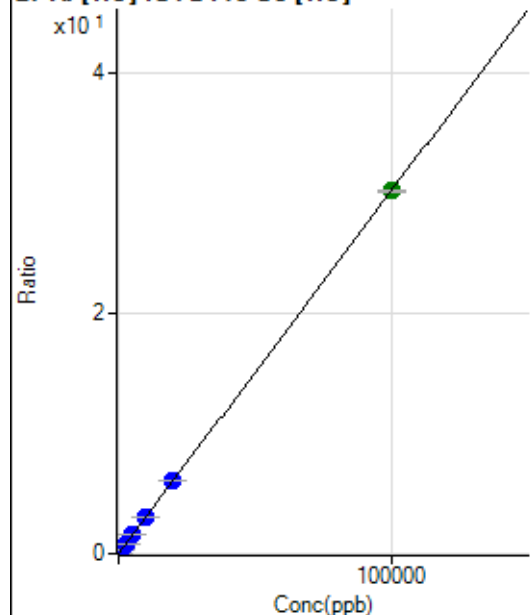
$$R = 0.9999$$

$$DL = 0.6603$$

$$BEC = 2.198$$

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	44.45	0.0002	P	28.0
2	☐	20.000	22.283	1622.38	0.0069	P	7.7
3	☐	1000.000	1059.937	77040.77	0.3206	P	2.2
4	☐	2500.000	2528.149	182669.12	0.7644	P	1.3
5	☐	5000.000	5205.315	352348.58	1.5736	P	3.9
6	☐	10000.000	10150.022	693055.03	3.0682	P	0.3
7	☐	20000.000	20168.511	1366003.46	6.0965	P	0.3
8	☐	100000.00	99939.726	6329729.40	30.2087	A	0.4

$$y = 3.0227\text{E-}004 * x + 1.7941\text{E-}004$$

$$R = 1.0000$$

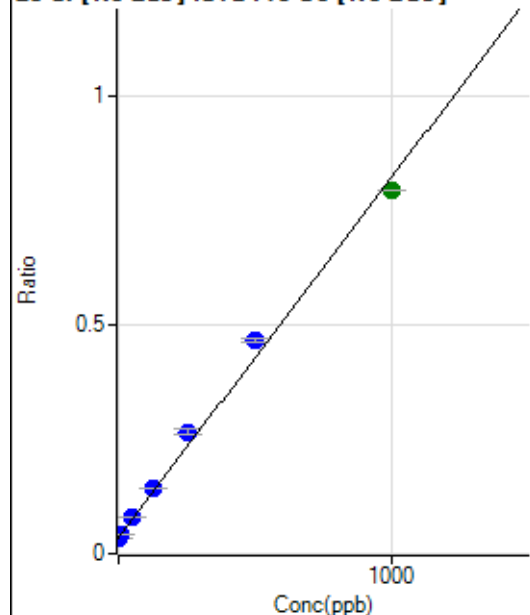
$$DL = 0.4983$$

$$BEC = 0.5935$$

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	218596.25	0.0350	P	0.5
2	☐	10.000	10.425	270843.93	0.0432	P	1.1
3	☐	50.000	57.656	488511.95	0.0804	P	0.8
4	☐	125.000	137.154	870429.85	0.1431	P	0.4
5	☐	250.000	294.239	1499743.10	0.2669	P	3.9
6	☐	500.000	548.822	2736982.42	0.4675	P	1.4
7	☐	1000.000	962.623	4592553.36	0.7937	A	0.1
8	☐			350422.87	0.0666	P	0.7

$$y = 7.8820\text{E-}004 * x + 0.0350$$

$$R = 0.9970$$

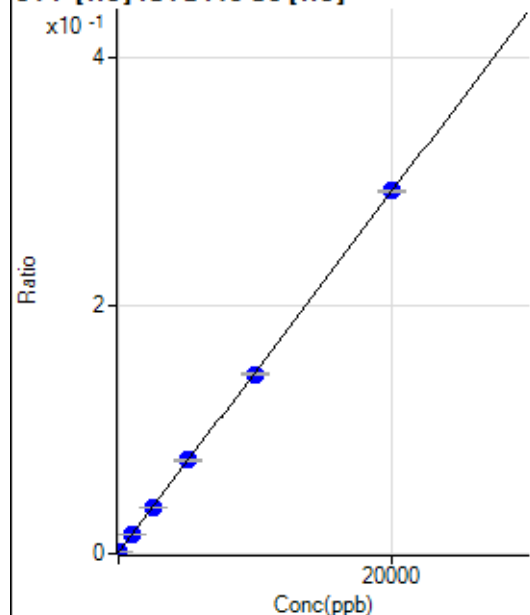
$$DL = 0.6284$$

$$BEC = 44.35$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-21.181	241.68	0.0010	P	7.6
2	☐	0.000	21.181	372.24	0.0016	P	15.6
3	☐	1000.000	1014.266	3847.88	0.0160	P	2.6
4	☐	2500.000	2463.991	8855.76	0.0371	P	2.0
5	☐	5000.000	5112.555	16913.07	0.0755	P	2.6
6	☐	10000.000	9861.912	32631.07	0.1445	P	0.6
7	☐	20000.000	20044.693	65492.02	0.2923	P	0.8
8	☐			208.34	0.0010	P	14.4

$$y = 1.4518\text{E-}005 * x + 0.0013$$

$$R = 0.9999$$

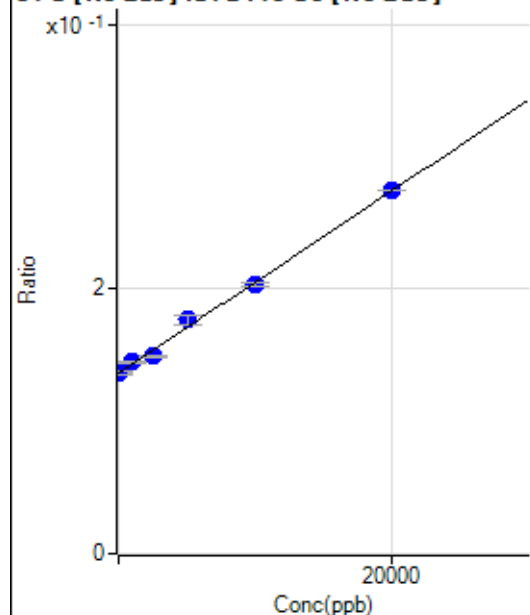
$$DL = 33.42$$

$$BEC = 88.49$$

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	-68.605	849156.06	0.1358	P	0.6
2	☐	0.000	68.605	857791.86	0.1368	P	1.6
3	☐	1000.000	1247.976	880229.48	0.1449	P	0.5
4	☐	2500.000	1900.350	908768.03	0.1494	P	0.7
5	☐	5000.000	5889.895	993696.46	0.1769	P	4.4
6	☐	10000.000	9689.112	1188384.54	0.2030	P	1.8
7	☐	20000.000	19995.528	1585518.47	0.2740	P	0.2
8	☐			754850.28	0.1435	P	1.9

$$y = 6.8883E-006 * x + 0.1363$$

$$R = 0.9980$$

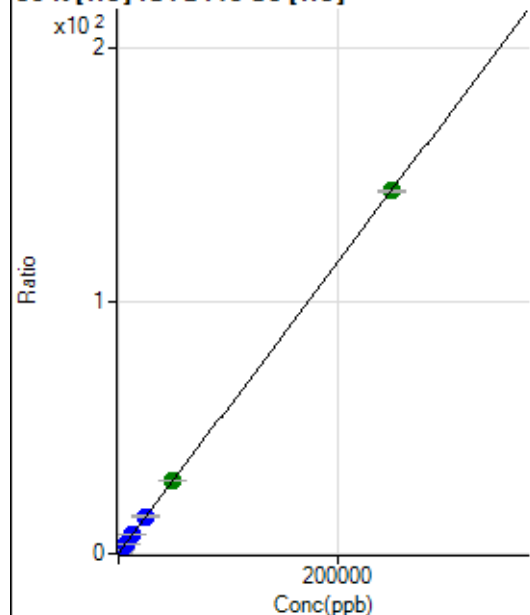
$$DL = 680.6$$

$$BEC = 1.978E+04$$

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	26635.88	0.1076	P	1.4
2	☐	500.000	552.031	99541.36	0.4249	P	10.3
3	☐	2500.000	2650.040	391951.40	1.6308	P	1.3
4	☐	6250.000	6340.149	896664.40	3.7517	P	1.1
5	☐	12500.000	13087.525	1708554.12	7.6297	P	3.6
6	☐	25000.000	25564.587	3343224.51	14.8010	P	0.9
7	☐	50000.000	50646.012	6546269.33	29.2166	A	0.6
8	☐	250000.00	249781.10	30103449.63	143.6701	A	0.9

$$y = 5.7475E-004 * x + 0.1076$$

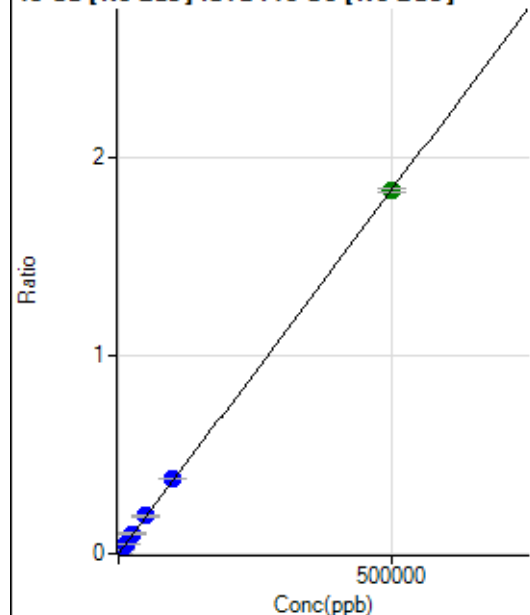
$$R = 1.0000$$

$$DL = 8.022$$

$$BEC = 187.3$$

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	166.67	0.0000	P	13.9
2	☐	500.000	525.140	12277.78	0.0020	P	2.2
3	☐	5000.000	5411.422	121033.99	0.0199	P	1.1
4	☐	12500.000	12938.163	289552.55	0.0476	P	0.7
5	☐	25000.000	27402.844	566303.09	0.1008	P	3.8
6	☐	50000.000	51579.957	1110267.64	0.1897	P	1.2
7	☐	100000.00	103381.65	2199336.53	0.3801	P	0.6
8	☐	500000.00	499030.43	9654047.27	1.8347	A	0.9

$$y = 3.6764\text{E-}006 * x + 2.6672\text{E-}005$$

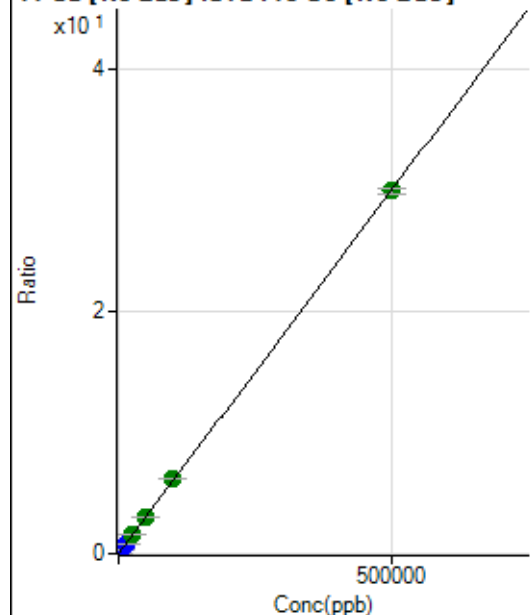
$$R = 1.0000$$

$$DL = 3.014$$

$$BEC = 7.255$$

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	23931.36	0.0038	P	3.1
2	☐	500.000	514.539	217658.31	0.0347	P	0.7
3	☐	5000.000	5291.397	1952047.48	0.3213	P	0.3
4	☐	12500.000	12825.787	4704807.40	0.7733	P	0.7
5	☐	25000.000	27050.754	9141981.45	1.6267	A	3.7
6	☐	50000.000	51046.694	17950014.81	3.0664	A	1.4
7	☐	100000.00	102935.33	35755419.90	6.1794	A	0.7
8	☐	500000.00	499194.65	157605739.6	29.9528	A	1.3

$$y = 5.9995\text{E-}005 * x + 0.0038$$

$$R = 1.0000$$

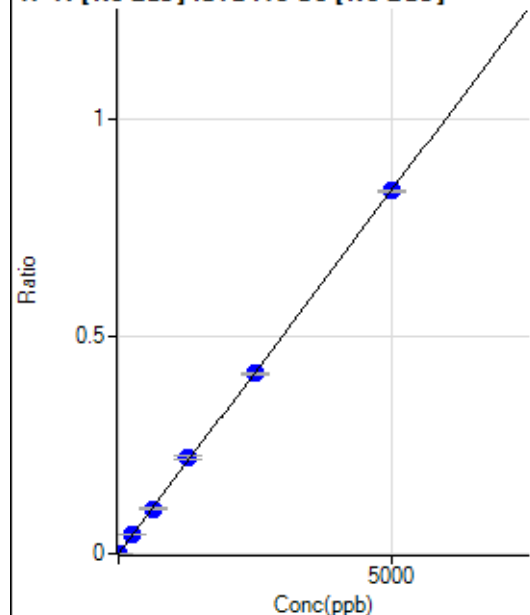
$$DL = 5.98$$

$$BEC = 63.8$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0000	P	42.7
2	☐	5.000	5.282	5615.17	0.0009	P	6.3
3	☐	250.000	256.087	259816.81	0.0428	P	0.2
4	☐	625.000	620.262	630032.19	0.1036	P	1.0
5	☐	1250.000	1315.209	1233898.85	0.2196	P	3.9
6	☐	2500.000	2480.101	2423763.68	0.4140	P	1.3
7	☐	5000.000	4993.935	4823899.89	0.8337	P	0.6
8	☐			822.28	0.0002	P	3.6

$$y = 1.6694E-004 * x + 1.2872E-005$$

$$R = 0.9999$$

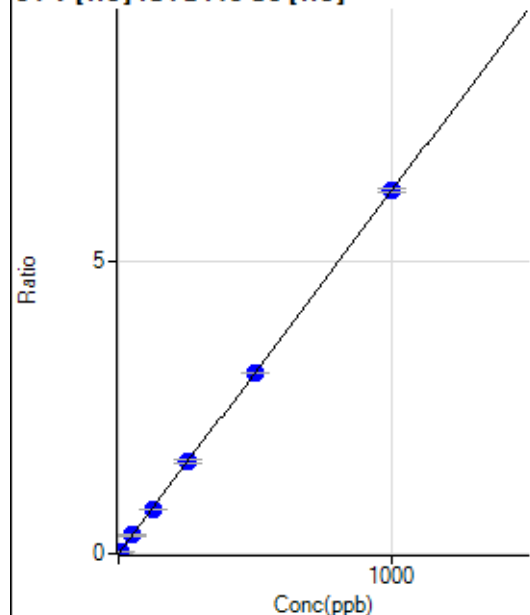
$$DL = 0.09889$$

$$BEC = 0.07711$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6.66	0.0000	P	86.1
2	☐	5.000	5.644	8206.84	0.0350	P	11.0
3	☐	50.000	50.535	75374.65	0.3136	P	1.0
4	☐	125.000	122.196	181223.11	0.7583	P	0.9
5	☐	250.000	255.994	355692.72	1.5886	P	4.0
6	☐	500.000	497.127	696814.90	3.0849	P	0.4
7	☐	1000.000	1000.259	1390678.62	6.2070	P	1.2
8	☐			533.36	0.0025	P	9.3

$$y = 0.0062 * x + 2.6848E-005$$

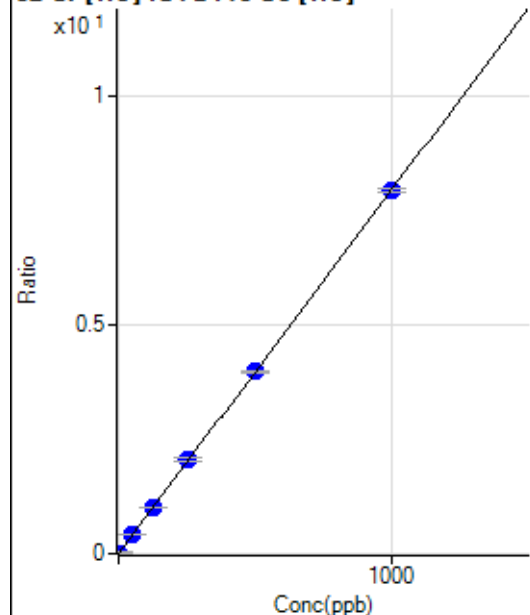
$$R = 1.0000$$

$$DL = 0.01118$$

$$BEC = 0.004327$$

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	692.25	0.0028	P	1.6
2	☐	2.000	2.181	4711.94	0.0201	P	10.5
3	☐	50.000	52.303	100469.24	0.4180	P	0.6
4	☐	125.000	124.919	237670.83	0.9945	P	0.8
5	☐	250.000	258.143	459529.27	2.0521	P	3.6
6	☐	500.000	500.032	897267.62	3.9723	P	1.1
7	☐	1000.000	997.843	1775473.55	7.9243	P	1.0
8	☐			45299.57	0.2162	P	0.4

$$y = 0.0079 * x + 0.0028$$

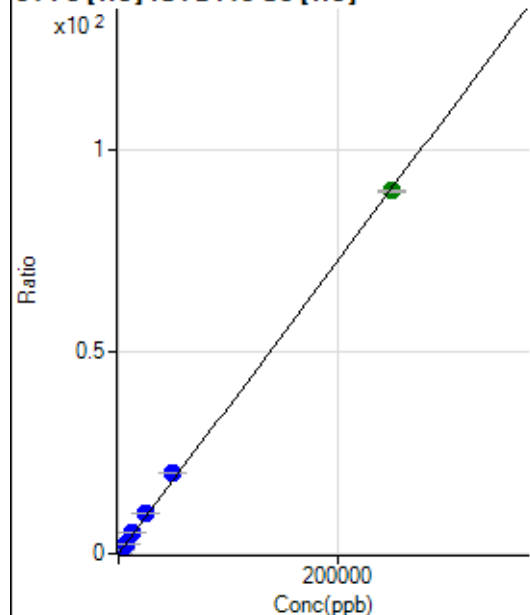
$$R = 1.0000$$

$$DL = 0.01739$$

$$BEC = 0.3524$$

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	473.84	0.0019	P	10.5
2	☐	50.000	63.911	5854.00	0.0250	P	9.9
3	☐	2500.000	2915.873	253412.65	1.0543	P	0.5
4	☐	6250.000	7002.511	604469.71	2.5293	P	0.9
5	☐	12500.000	14401.674	1164508.97	5.1998	P	3.2
6	☐	25000.000	27951.288	2279170.15	10.0902	P	1.0
7	☐	50000.000	55248.905	4468486.35	19.9426	P	0.1
8	☐	250000.00	248537.03	18795870.63	89.7052	A	0.8

$$y = 3.6093E-004 * x + 0.0019$$

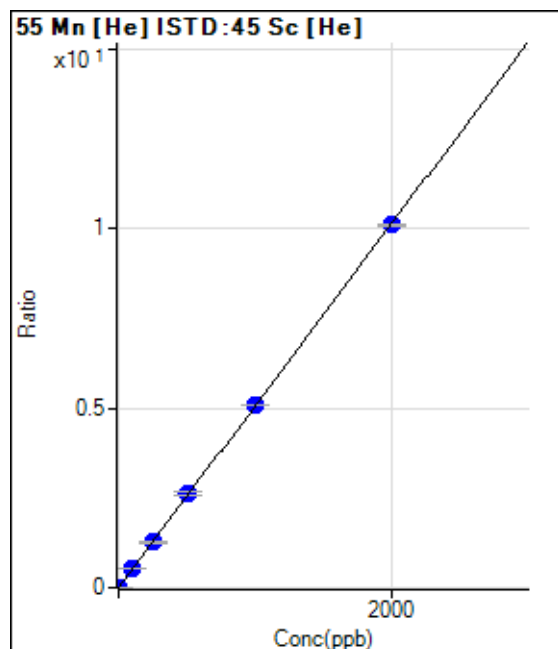
$$R = 0.9997$$

$$DL = 1.675$$

$$BEC = 5.306$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	92.22	0.0004	P	8.4
2	☐	1.000	1.084	1373.42	0.0059	P	10.4
3	☐	100.000	104.342	127093.17	0.5288	P	1.0
4	☐	250.000	248.749	301159.91	1.2601	P	0.6
5	☐	500.000	517.264	586710.96	2.6200	P	3.4
6	☐	1000.000	1003.745	1148286.08	5.0836	P	0.9
7	☐	2000.000	1993.751	2262427.41	10.0973	P	0.5
8	☐			9028.45	0.0431	P	1.9

$$y = 0.0051 * x + 3.7256E-004$$

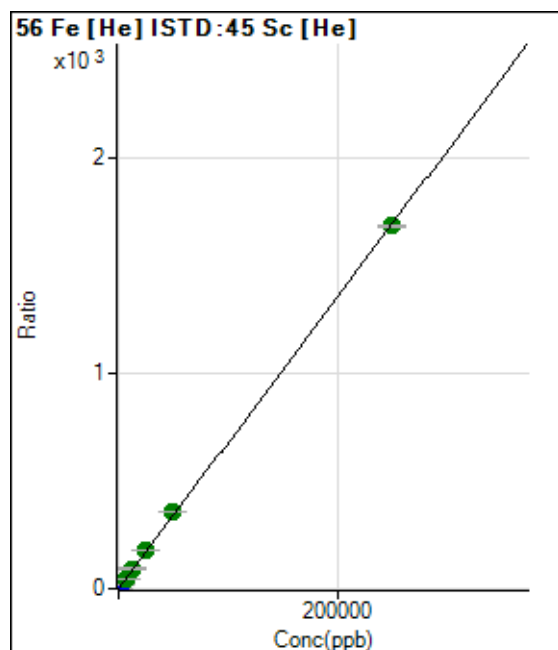
$$R = 1.0000$$

$$DL = 0.01845$$

$$BEC = 0.07357$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2974.46	0.0120	P	5.7
2	☐	50.000	61.946	100816.20	0.4303	P	10.0
3	☐	2500.000	2802.106	4550307.63	18.9327	P	1.3
4	☐	6250.000	6658.717	10748513.90	44.9737	A	0.5
5	☐	12500.000	13834.304	20923057.64	93.4255	A	3.1
6	☐	25000.000	26766.869	40828072.67	180.7501	A	0.5
7	☐	50000.000	52876.931	80000514.75	357.0533	A	0.7
8	☐	250000.00	249167.97	352532707.8	1,682.470	A	0.6

$$y = 0.0068 * x + 0.0120$$

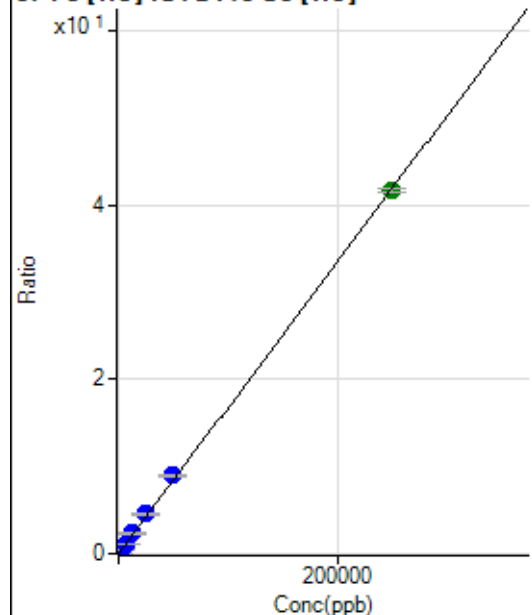
$$R = 0.9999$$

$$DL = 0.3039$$

$$BEC = 1.78$$

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	50.00	0.0002	P	29.7
2	☐	50.000	64.158	2555.86	0.0109	P	12.9
3	☐	2500.000	2842.588	114254.29	0.4754	P	1.6
4	☐	6250.000	6788.253	271249.06	1.1350	P	0.7
5	☐	12500.000	14006.638	524327.13	2.3417	P	3.9
6	☐	25000.000	27136.698	1024706.79	4.5366	P	1.1
7	☐	50000.000	53503.181	2004021.28	8.9442	P	0.7
8	☐	250000.00	248993.47	8721376.06	41.6238	A	1.2

$$y = 1.6717E-004 * x + 2.0225E-004$$

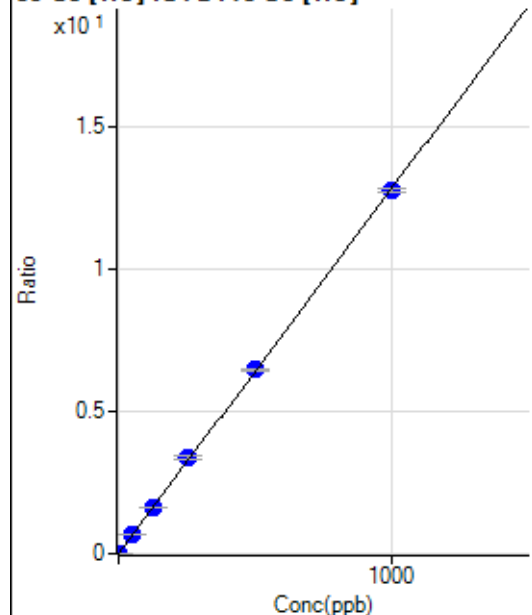
$$R = 0.9999$$

$$DL = 1.078$$

$$BEC = 1.21$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	78.89	0.0003	P	22.0
2	☐	1.000	1.107	3404.90	0.0145	P	7.3
3	☐	50.000	53.044	163463.68	0.6801	P	1.3
4	☐	125.000	127.107	389407.55	1.6293	P	0.4
5	☐	250.000	262.555	753602.02	3.3653	P	3.5
6	☐	500.000	504.129	1459465.73	6.4613	P	1.3
7	☐	1000.000	994.381	2855451.14	12.7444	P	1.0
8	☐			5298.82	0.0253	P	5.4

$$y = 0.0128 * x + 3.1913E-004$$

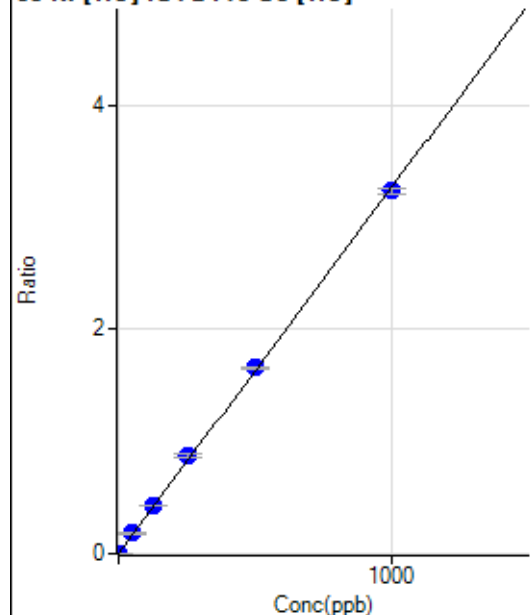
$$R = 0.9999$$

$$DL = 0.0164$$

$$BEC = 0.0249$$

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	227.78	0.0009	P	11.1
2	☐	1.000	1.254	1175.62	0.0050	P	9.2
3	☐	50.000	54.959	43335.11	0.1803	P	0.9
4	☐	125.000	129.863	101517.02	0.4248	P	0.8
5	☐	250.000	266.533	194978.84	0.8708	P	4.3
6	☐	500.000	507.616	374428.98	1.6577	P	1.7
7	☐	1000.000	991.203	725047.54	3.2361	P	1.4
8	☐			13495.26	0.0644	P	1.6

$$y = 0.0033 * x + 9.2104E-004$$

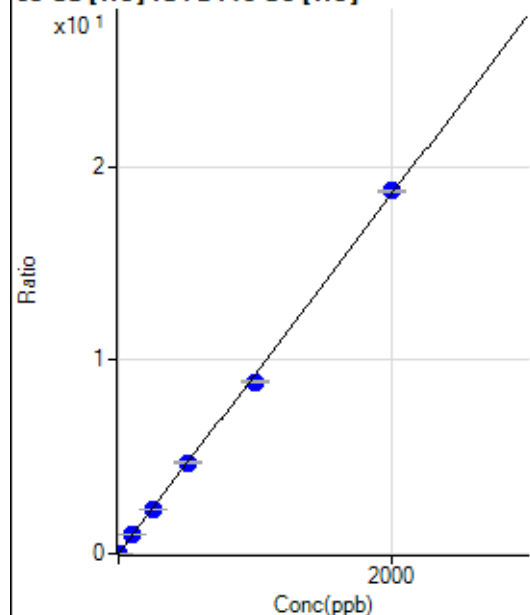
$$R = 0.9998$$

$$DL = 0.09367$$

$$BEC = 0.2822$$

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	717.81	0.0029	P	3.0
2	☐	2.000	2.276	5626.73	0.0240	P	10.6
3	☐	100.000	105.654	236390.93	0.9835	P	0.2
4	☐	250.000	246.654	547819.83	2.2922	P	0.4
5	☐	500.000	506.634	1053631.94	4.7051	P	3.5
6	☐	1000.000	957.193	2007313.51	8.8868	P	1.3
7	☐	2000.000	2019.880	4201045.63	18.7499	P	0.7
8	☐			7783.30	0.0371	P	1.8

$$y = 0.0093 * x + 0.0029$$

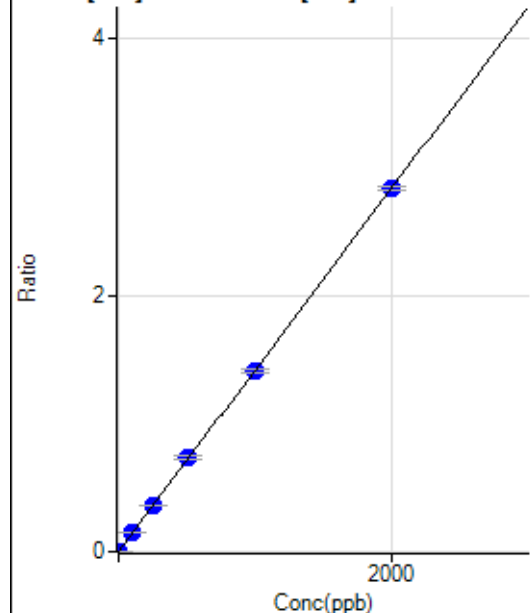
$$R = 0.9996$$

$$DL = 0.02784$$

$$BEC = 0.3126$$

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	192.23	0.0008	P	7.9
2	☐	2.000	2.367	964.49	0.0041	P	16.6
3	☐	100.000	108.137	37024.83	0.1540	P	1.2
4	☐	250.000	251.553	85391.14	0.3573	P	1.7
5	☐	500.000	521.776	165784.52	0.7403	P	3.7
6	☐	1000.000	993.743	318320.79	1.4093	P	1.8
7	☐	2000.000	1997.083	634397.99	2.8314	P	1.0
8	☐			9372.01	0.0447	P	1.9

$$y = 0.0014 * x + 7.7717E-004$$

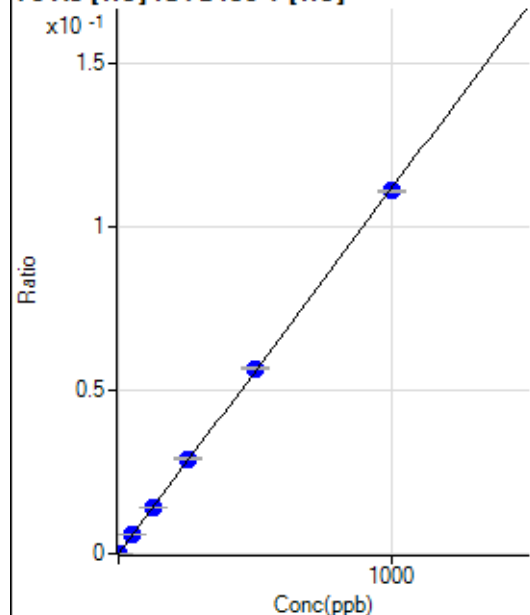
$$R = 0.9999$$

$$DL = 0.1295$$

$$BEC = 0.5483$$

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	1.85	0.0000	P	100.
2	☐	1.000	1.162	200.00	0.0001	P	11.2
3	☐	50.000	53.193	9323.43	0.0059	P	1.2
4	☐	125.000	125.063	21874.53	0.0140	P	1.9
5	☐	250.000	259.144	42501.39	0.0289	P	2.2
6	☐	500.000	507.739	84217.72	0.0566	P	1.6
7	☐	1000.000	993.677	164752.35	0.1109	P	0.3
8	☐			85.19	0.0001	P	14.0

$$y = 1.1156E-004 * x + 1.1612E-006$$

$$R = 0.9999$$

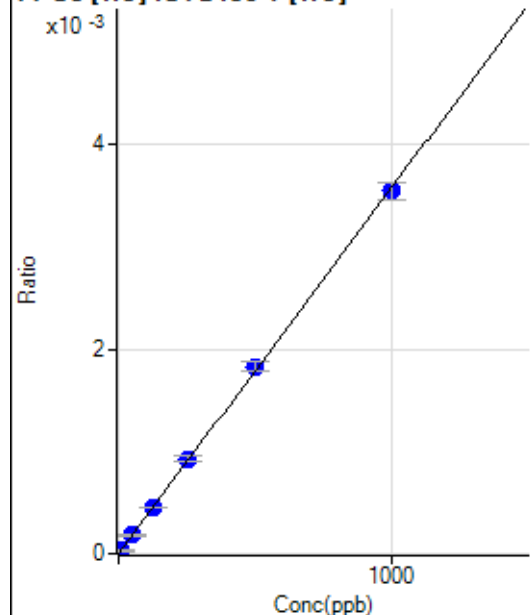
$$DL = 0.03141$$

$$BEC = 0.01041$$

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	8.184	45.56	0.0000	P	24.3
3	☐	50.000	50.998	286.67	0.0002	P	13.3
4	☐	125.000	126.103	707.81	0.0005	P	4.0
5	☐	250.000	259.328	1364.53	0.0009	P	5.5
6	☐	500.000	511.672	2723.64	0.0018	P	5.4
7	☐	1000.000	991.628	5276.61	0.0036	P	4.8
8	☐			3.33	0.0000	P	0.8

$$y = 3.5802\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9999$$

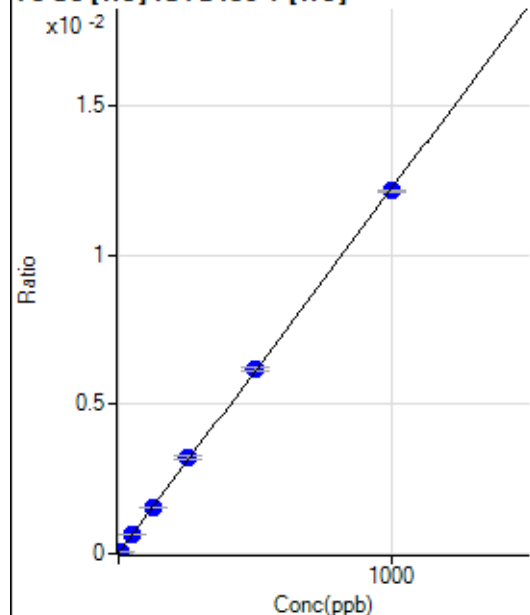
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.25	0.0000	P	27.5
2	☐	5.000	5.412	129.63	0.0001	P	13.4
3	☐	50.000	51.066	1008.69	0.0006	P	3.0
4	☐	125.000	124.749	2417.51	0.0015	P	2.9
5	☐	250.000	261.710	4722.41	0.0032	P	4.3
6	☐	500.000	506.040	9212.87	0.0062	P	2.6
7	☐	1000.000	994.028	18061.32	0.0122	P	0.8
8	☐			33.33	0.0000	P	20.1

$$y = 1.2207\text{E-}005 * x + 1.8833\text{E-}005$$

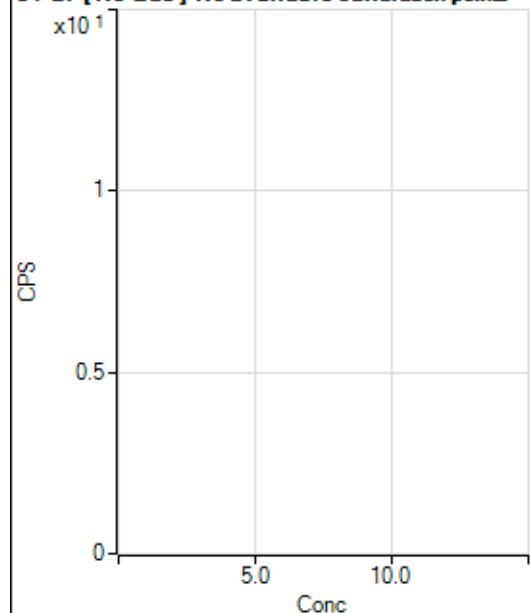
$$R = 0.9999$$

$$DL = 1.271$$

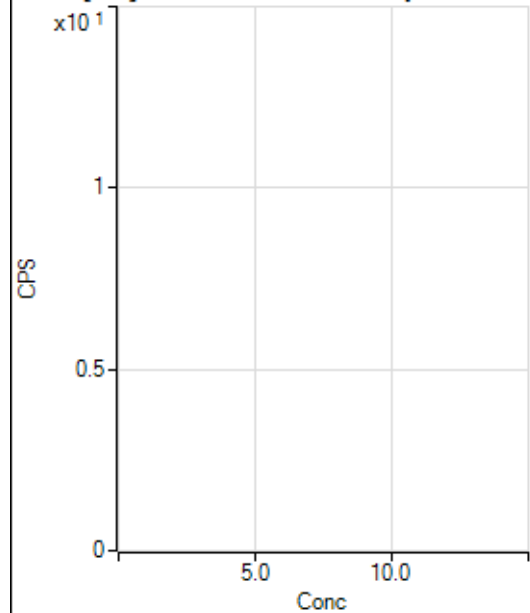
$$BEC = 1.543$$

Weight: <None>

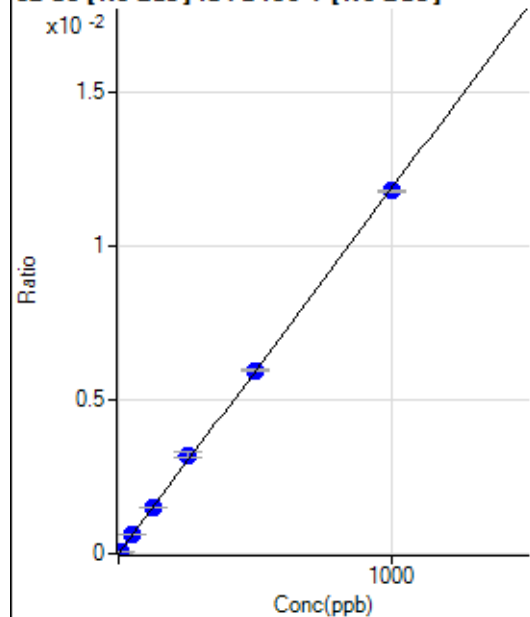
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41017.46		P	0.4
2	☐			40321.06		P	2.5
3	☐			39816.25		P	2.8
4	☐			38280.64		P	0.6
5	☐			37052.72		P	1.8
6	☐			36637.60		P	1.3
7	☐			36654.26		P	1.4
8	☐			34456.82		P	2.5

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.69		P	57.3
2	☐			33.37		P	96.4
3	☐			30.03		P	33.3
4	☐			13.35		P	86.6
5	☐			10.01		P	100.
6	☐			10.01		P	NaN
7	☐			23.36		P	24.7
8	☐			16.68		P	69.3

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.12	0.0000	P	149.
2	☐	5.000	5.684	928.48	0.0001	P	6.7
3	☐	50.000	52.649	8131.39	0.0006	P	2.2
4	☐	125.000	128.479	20003.21	0.0015	P	0.4
5	☐	250.000	270.150	38950.70	0.0032	P	4.8
6	☐	500.000	501.429	75594.77	0.0059	P	0.9
7	☐	1000.000	993.677	148198.97	0.0118	P	0.4
8	☐			117.62	0.0000	P	30.8

$$y = 1.1856E-005 * x + 2.0245E-006$$

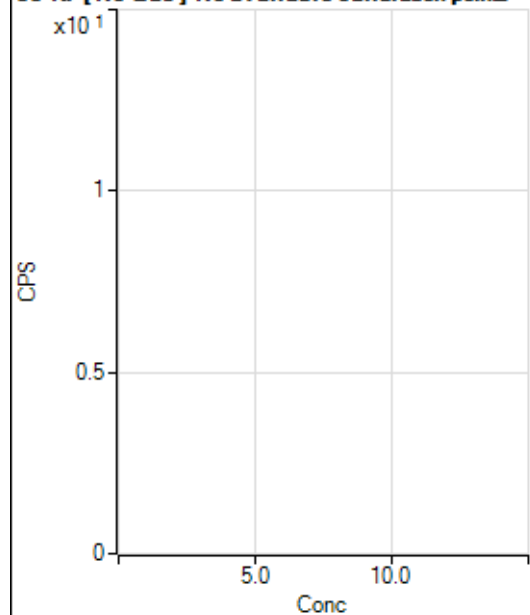
R = 0.9998

DL = 0.7649

BEC = 0.1708

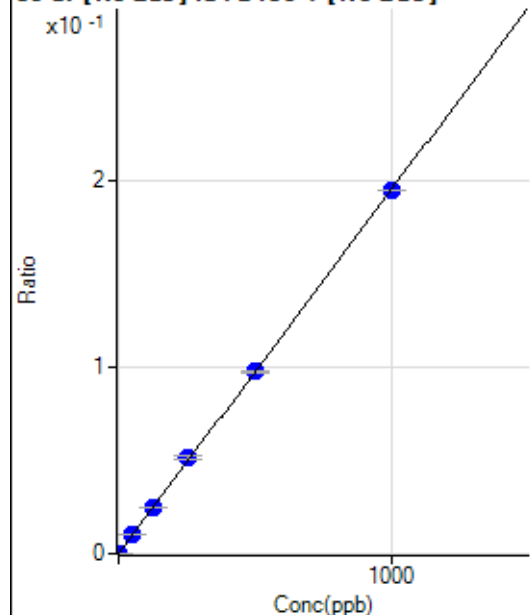
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			258.89		P	7.9
2	☐			274.45		P	19.6
3	☐			278.90		P	8.6
4	☐			278.90		P	3.0
5	☐			291.12		P	5.8
6	☐			285.56		P	14.8
7	☐			305.57		P	9.3
8	☐			262.23		P	4.1

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	502.81	0.0000	P	18.9
2	☐	1.000	0.968	3031.00	0.0002	P	2.7
3	☐	50.000	52.073	132365.82	0.0102	P	0.2
4	☐	125.000	125.616	321776.21	0.0245	P	0.2
5	☐	250.000	265.511	629866.57	0.0518	P	4.4
6	☐	500.000	499.454	1238584.59	0.0974	P	1.6
7	☐	1000.000	996.215	2444094.61	0.1943	P	0.1
8	☐			4537.01	0.0004	P	2.0

$$y = 1.9502\text{E-}004 * x + 3.7773\text{E-}005$$

$$R = 0.9999$$

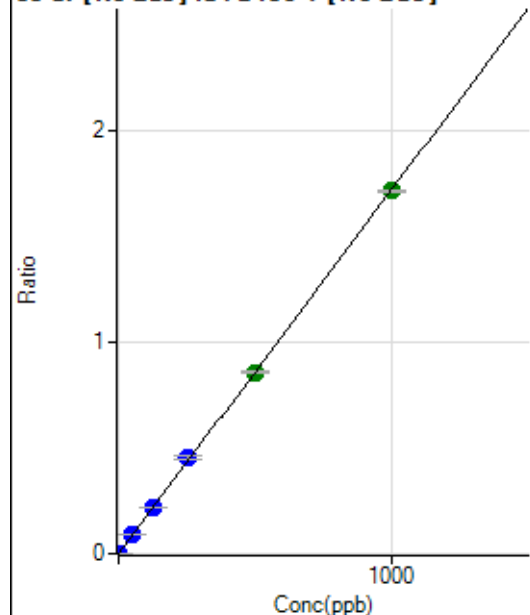
$$DL = 0.1097$$

$$BEC = 0.1937$$

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	191.68	0.0000	P	16.1
2	☐	1.000	1.001	23225.20	0.0017	P	2.0
3	☐	50.000	51.771	1156034.30	0.0890	P	0.3
4	☐	125.000	125.094	2820695.99	0.2151	P	0.4
5	☐	250.000	264.676	5532056.20	0.4551	P	3.9
6	☐	500.000	497.811	10878931.75	0.8559	A	1.4
7	☐	1000.000	997.325	21566545.97	1.7147	A	0.3
8	☐			39182.22	0.0035	P	0.5

$$y = 0.0017 * x + 1.4395\text{E-}005$$

$$R = 0.9999$$

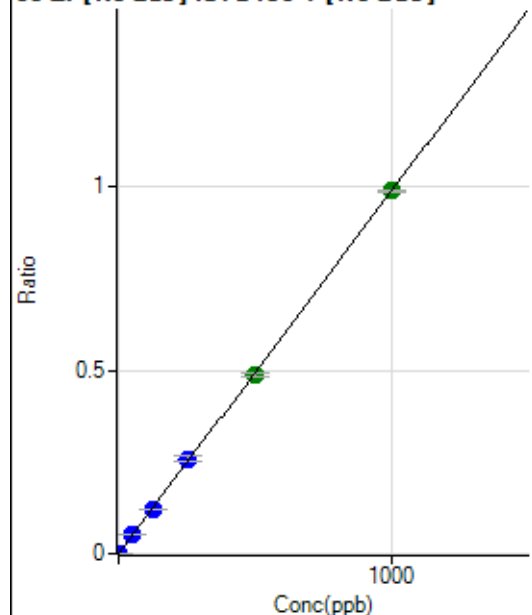
$$DL = 0.004055$$

$$BEC = 0.008373$$

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	733.38	0.0001	P	16.0
2	☐	1.000	0.777	10996.36	0.0008	P	3.6
3	☐	50.000	50.724	651060.95	0.0501	P	0.6
4	☐	125.000	123.519	1600130.79	0.1220	P	0.2
5	☐	250.000	262.347	3149238.48	0.2591	P	4.4
6	☐	500.000	493.303	6191690.63	0.4871	A	1.4
7	☐	1000.000	1000.411	12424158.96	0.9878	A	0.4
8	☐			3436.67	0.0003	P	7.3

$$y = 9.8735\text{E-}004 * x + 5.5002\text{E-}005$$

$$R = 0.9999$$

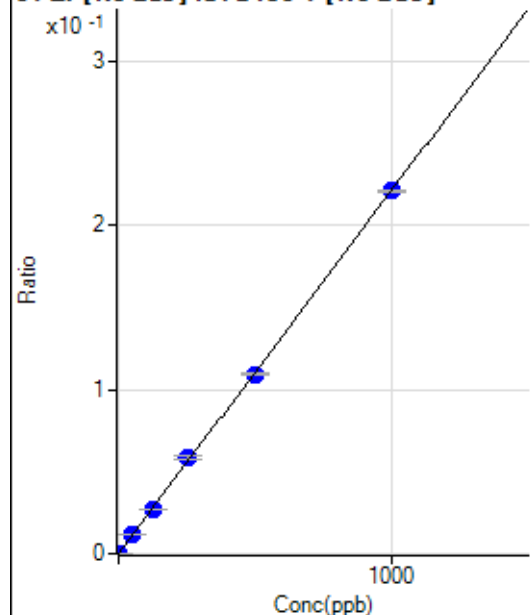
$$DL = 0.02674$$

$$BEC = 0.05571$$

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	119.45	0.0000	P	11.4
2	☐	1.000	0.781	2433.65	0.0002	P	9.1
3	☐	50.000	51.186	147272.88	0.0113	P	0.4
4	☐	125.000	123.899	359865.61	0.0274	P	0.2
5	☐	250.000	264.708	712521.73	0.0586	P	4.2
6	☐	500.000	494.529	1391789.22	0.1095	P	1.6
7	☐	1000.000	999.137	2782341.99	0.2212	P	0.3
8	☐			752.84	0.0001	P	5.4

$$y = 2.2140\text{E-}004 * x + 8.9704\text{E-}006$$

$$R = 0.9999$$

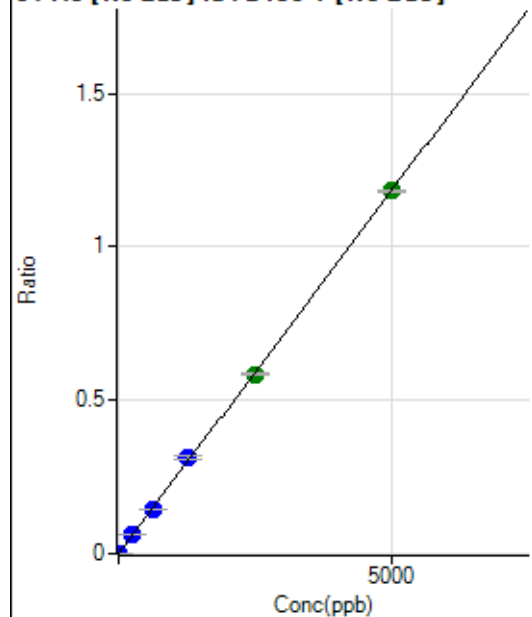
$$DL = 0.01391$$

$$BEC = 0.04052$$

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	325.02	0.0000	P	7.3
2	☐	5.000	4.811	15545.12	0.0012	P	1.9
3	☐	250.000	255.913	786129.26	0.0605	P	0.8
4	☐	625.000	620.777	1925407.46	0.1468	P	0.4
5	☐	1250.000	1318.590	3790634.59	0.3118	P	4.0
6	☐	2500.000	2470.494	7425439.40	0.5842	A	1.6
7	☐	5000.000	4997.838	14864482.80	1.1818	A	0.2
8	☐			9628.60	0.0009	P	5.2

$$y = 2.3646E-004 * x + 2.4390E-005$$

R = 0.9999

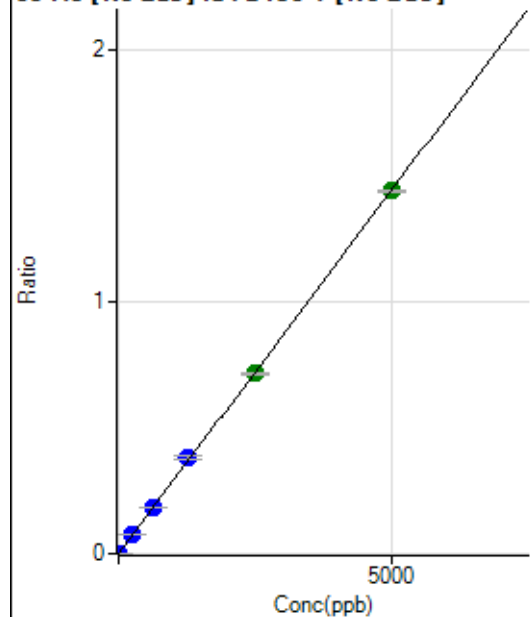
DL = 0.02262

BEC = 0.1031

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	191.68	0.0000	P	26.5
2	☐	5.000	5.158	20106.51	0.0015	P	3.5
3	☐	250.000	255.659	958470.94	0.0738	P	0.2
4	☐	625.000	624.579	2364574.56	0.1803	P	0.3
5	☐	1250.000	1324.510	4647442.42	0.3823	P	4.3
6	☐	2500.000	2478.295	9093412.96	0.7154	A	1.2
7	☐	5000.000	4991.994	18123859.61	1.4410	A	0.5
8	☐			14663.62	0.0013	P	3.4

$$y = 2.8865E-004 * x + 1.4372E-005$$

R = 0.9999

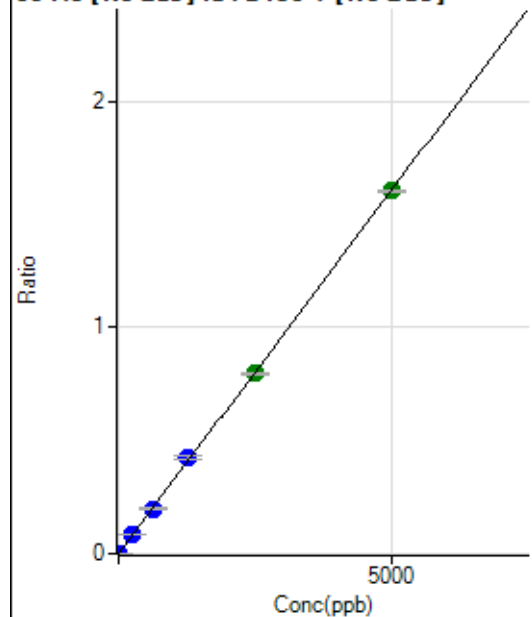
DL = 0.03958

BEC = 0.04979

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	119.45	0.0000	P	21.7
2	☐	5.000	5.181	22376.63	0.0017	P	0.6
3	☐	250.000	256.567	1070064.64	0.0824	P	0.7
4	☐	625.000	621.276	2616647.00	0.1995	P	0.7
5	☐	1250.000	1319.016	5149032.84	0.4236	P	4.4
6	☐	2500.000	2482.766	10135234.52	0.7973	A	1.1
7	☐	5000.000	4991.500	20161842.29	1.6030	A	0.4
8	☐			17361.23	0.0015	P	1.8

$$y = 3.2114\text{E-}004 * x + 8.9556\text{E-}006$$

$$R = 0.9999$$

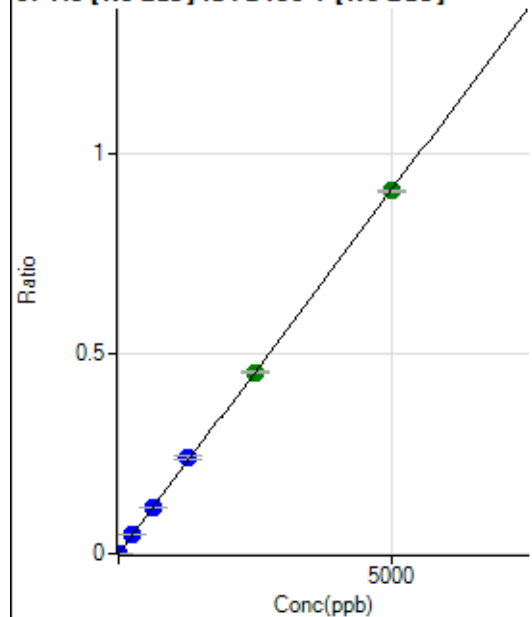
$$DL = 0.01812$$

$$BEC = 0.02789$$

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	61.12	0.0000	P	7.2
2	☐	5.000	5.127	12511.53	0.0009	P	3.4
3	☐	250.000	255.136	601538.92	0.0463	P	1.0
4	☐	625.000	623.235	1483910.76	0.1132	P	0.5
5	☐	1250.000	1314.511	2900750.82	0.2386	P	4.5
6	☐	2500.000	2489.889	5745813.06	0.4520	A	1.4
7	☐	5000.000	4988.891	11391867.09	0.9057	A	0.5
8	☐			9044.90	0.0008	P	6.1

$$y = 1.8155\text{E-}004 * x + 4.5855\text{E-}006$$

$$R = 0.9999$$

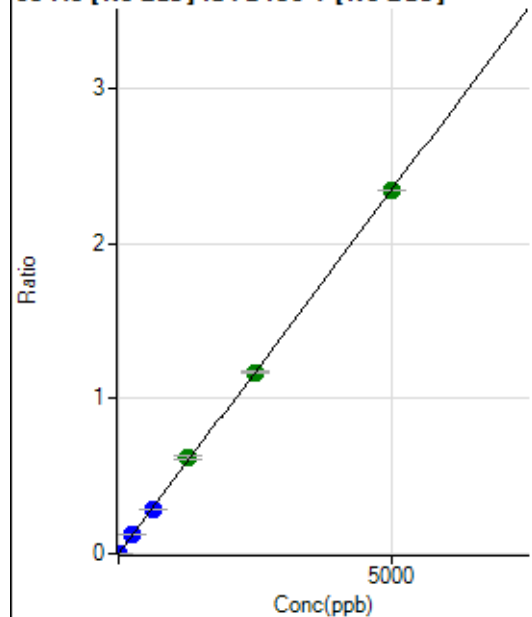
$$DL = 0.005435$$

$$BEC = 0.02526$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	20.9
2	☐	5.000	5.164	32521.39	0.0024	P	1.3
3	☐	250.000	254.986	1554987.05	0.1197	P	0.6
4	☐	625.000	620.522	3821682.46	0.2914	P	0.1
5	☐	1250.000	1310.499	7481042.87	0.6154	A	4.2
6	☐	2500.000	2490.033	14863761.10	1.1693	A	1.2
7	☐	5000.000	4990.169	29474310.38	2.3434	A	0.1
8	☐			23264.31	0.0021	P	1.7

$$y = 4.6960\text{E-}004 * x + 6.0414\text{E-}006$$

$$R = 0.9999$$

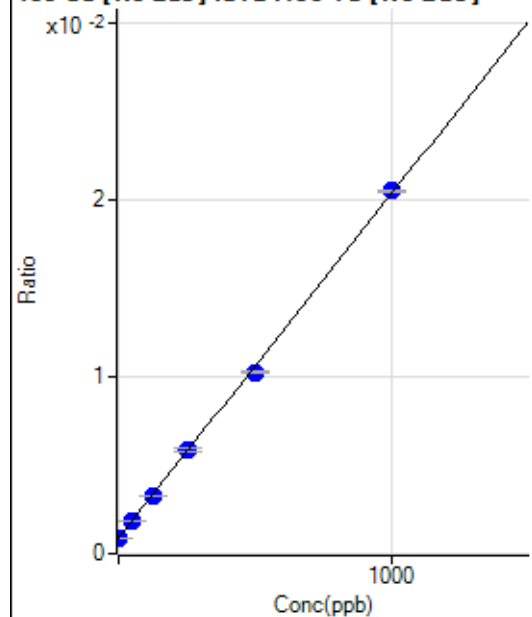
$$DL = 0.008065$$

$$BEC = 0.01286$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15664.88	0.0009	P	2.4
2	☐	1.000	0.436	15873.39	0.0009	P	3.4
3	☐	50.000	51.076	32273.96	0.0019	P	0.6
4	☐	125.000	121.667	57288.76	0.0033	P	1.2
5	☐	250.000	256.423	95909.56	0.0059	P	3.3
6	☐	500.000	481.739	175883.21	0.0103	P	1.4
7	☐	1000.000	1007.888	346941.56	0.0205	P	0.6
8	☐			13259.44	0.0009	P	3.6

$$y = 1.9474\text{E-}005 * x + 8.9715\text{E-}004$$

$$R = 0.9997$$

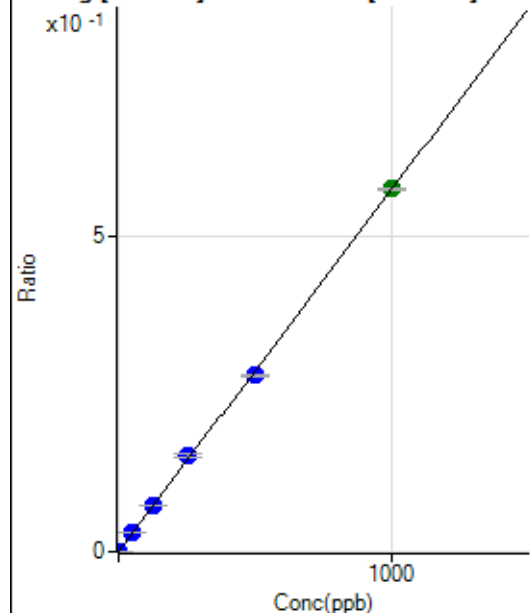
$$DL = 3.324$$

$$BEC = 46.07$$

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	211.12	0.0000	P	34.2
2	☐	1.000	1.101	11299.36	0.0006	P	2.4
3	☐	50.000	54.643	535962.10	0.0314	P	0.4
4	☐	125.000	128.685	1297219.61	0.0740	P	0.4
5	☐	250.000	266.266	2490958.06	0.1530	P	4.4
6	☐	500.000	486.235	4781199.72	0.2795	P	1.3
7	☐	1000.000	1002.123	9735564.71	0.5760	A	0.8
8	☐			1330.69	0.0001	P	10.4

$$y = 5.7473\text{E-}004 * x + 1.2107\text{E-}005$$

$$R = 0.9997$$

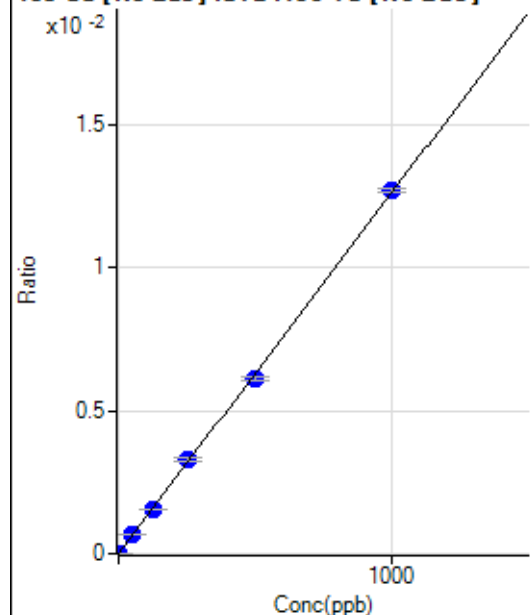
$$DL = 0.02159$$

$$BEC = 0.02107$$

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	31.94	0.0000	P	40.4
2	☐	1.000	0.993	251.40	0.0000	P	14.7
3	☐	50.000	53.266	11474.29	0.0007	P	3.4
4	☐	125.000	122.991	27190.23	0.0016	P	1.2
5	☐	250.000	260.589	53440.87	0.0033	P	4.2
6	☐	500.000	483.073	104084.22	0.0061	P	2.2
7	☐	1000.000	1005.904	214139.67	0.0127	P	1.1
8	☐			75.00	0.0000	P	62.4

$$y = 1.2592\text{E-}005 * x + 1.8322\text{E-}006$$

$$R = 0.9997$$

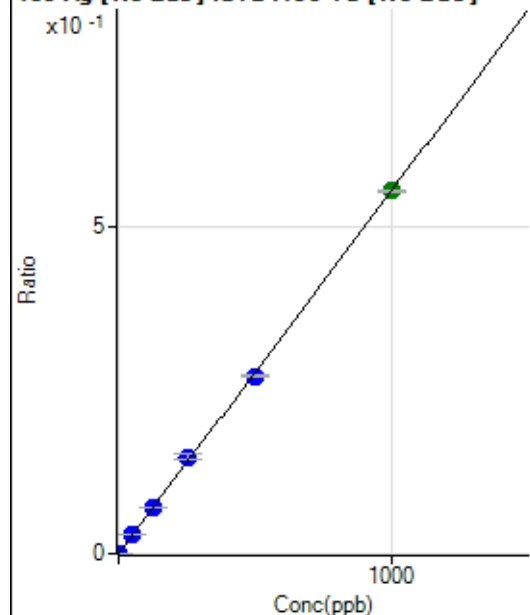
$$DL = 0.1764$$

$$BEC = 0.1455$$

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	36.11	0.0000	P	58.6
2	☐	1.000	1.109	10815.65	0.0006	P	1.8
3	☐	50.000	54.915	519613.66	0.0305	P	0.7
4	☐	125.000	128.250	1247447.09	0.0711	P	0.8
5	☐	250.000	267.421	2414006.87	0.1483	P	4.5
6	☐	500.000	490.212	4651687.30	0.2719	P	1.4
7	☐	1000.000	999.886	9374005.51	0.5546	A	0.6
8	☐			1030.64	0.0001	P	5.8

$$y = 5.5463\text{E-}004 * x + 2.0719\text{E-}006$$

$$R = 0.9998$$

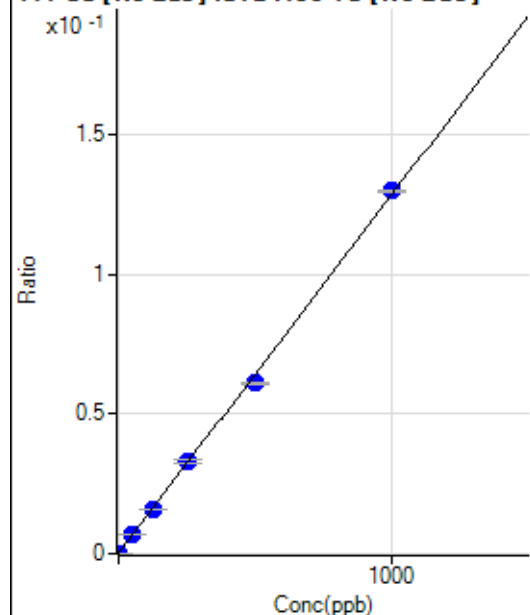
$$DL = 0.006564$$

$$BEC = 0.003736$$

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	3124.51	0.0002	P	2.5
2	☐	1.000	0.986	5354.50	0.0003	P	1.9
3	☐	50.000	51.257	115317.24	0.0068	P	1.1
4	☐	125.000	121.909	277634.07	0.0158	P	0.4
5	☐	250.000	256.361	538524.89	0.0331	P	5.1
6	☐	500.000	474.405	1045166.32	0.0611	P	0.9
7	☐	1000.000	1011.531	2198219.32	0.1300	P	0.8
8	☐			2942.45	0.0002	P	4.7

$$y = 1.2839\text{E-}004 * x + 1.7894\text{E-}004$$

$$R = 0.9995$$

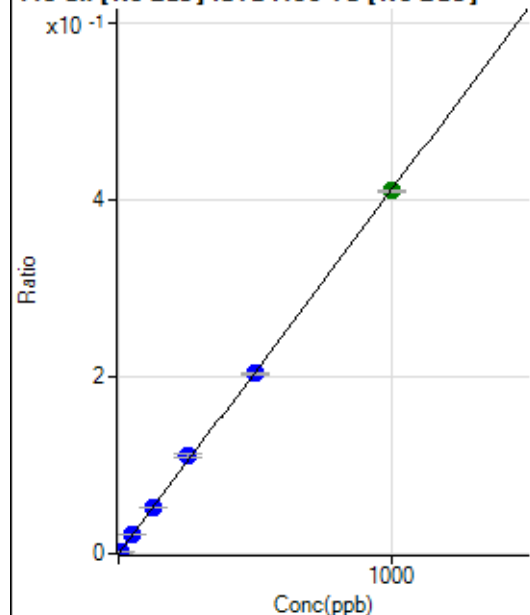
$$DL = 0.1042$$

$$BEC = 1.394$$

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	700.06	0.0000	P	8.9
2	☐	5.000	5.114	37595.66	0.0021	P	1.6
3	☐	50.000	52.847	371728.16	0.0218	P	0.7
4	☐	125.000	125.897	909395.39	0.0519	P	0.6
5	☐	250.000	267.797	1794634.22	0.1103	P	4.3
6	☐	500.000	495.070	3486671.04	0.2038	P	1.2
7	☐	1000.000	997.761	6942043.21	0.4107	A	0.5
8	☐			4634.28	0.0003	P	6.3

$$y = 4.1158E-004 * x + 4.0094E-005$$

$$R = 0.9998$$

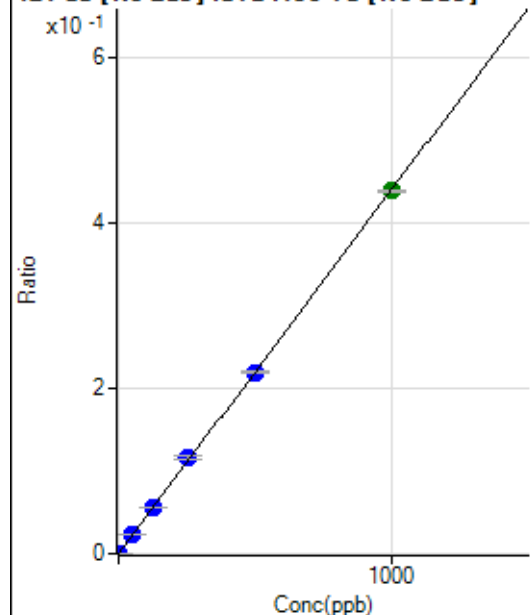
$$DL = 0.02604$$

$$BEC = 0.09741$$

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	186.12	0.0000	P	8.8
2	☐	2.000	2.059	16040.28	0.0009	P	2.1
3	☐	50.000	51.687	387497.99	0.0227	P	0.9
4	☐	125.000	124.825	961707.03	0.0548	P	0.4
5	☐	250.000	266.089	1902700.00	0.1169	P	4.0
6	☐	500.000	497.436	3738184.63	0.2185	P	1.3
7	☐	1000.000	997.197	7403956.68	0.4380	A	0.3
8	☐			11608.07	0.0008	P	7.2

$$y = 4.3924E-004 * x + 1.0656E-005$$

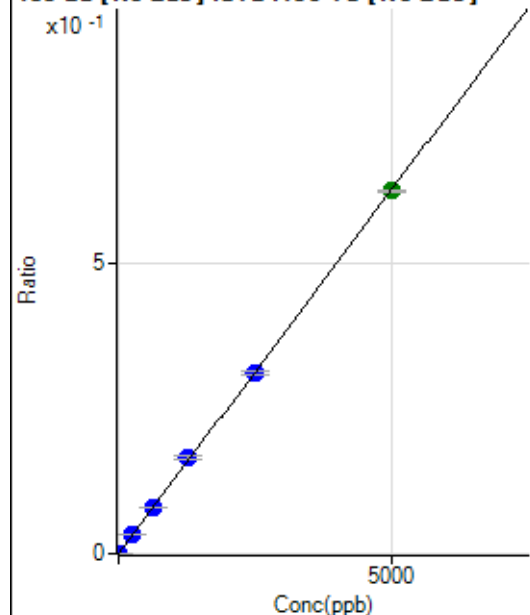
$$R = 0.9998$$

$$DL = 0.006403$$

$$BEC = 0.02426$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.89	0.0000	P	69.9
2	☐	10.000	10.281	22638.70	0.0013	P	0.6
3	☐	250.000	262.728	562796.48	0.0330	P	0.8
4	☐	625.000	629.869	1386964.12	0.0791	P	0.2
5	☐	1250.000	1325.860	2709649.09	0.1665	P	4.4
6	☐	2500.000	2487.157	5342216.40	0.3123	P	1.9
7	☐	5000.000	4986.211	10582665.00	0.6261	A	0.7
8	☐			2366.96	0.0002	P	4.3

$$y = 1.2556\text{E-}004 * x + 7.9732\text{E-}007$$

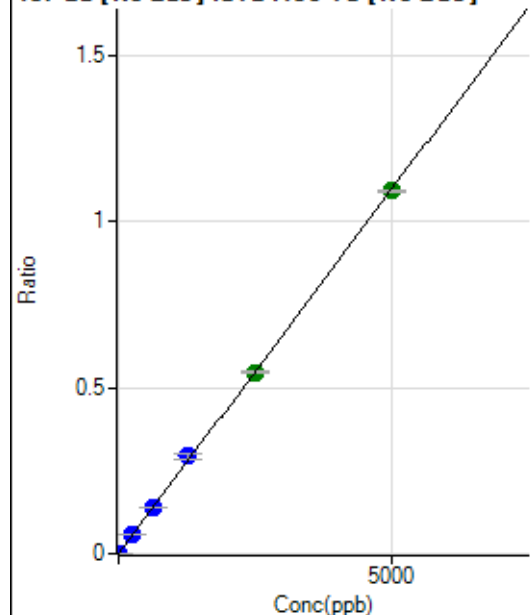
$$R = 0.9999$$

$$DL = 0.01331$$

$$BEC = 0.00635$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	24.5
2	☐	10.000	10.365	39838.81	0.0023	P	0.7
3	☐	250.000	262.902	982805.24	0.0576	P	0.7
4	☐	625.000	632.554	2430693.37	0.1386	P	0.6
5	☐	1250.000	1334.091	4757495.55	0.2923	P	4.7
6	☐	2500.000	2493.643	9347753.25	0.5464	A	1.5
7	☐	5000.000	4980.566	18447361.52	1.0913	A	0.6
8	☐			4236.93	0.0003	P	6.7

$$y = 2.1912\text{E-}004 * x + 1.9075\text{E-}006$$

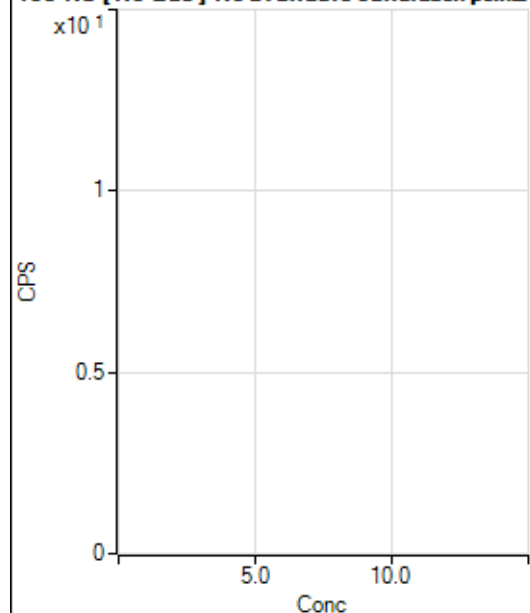
$$R = 0.9998$$

$$DL = 0.006403$$

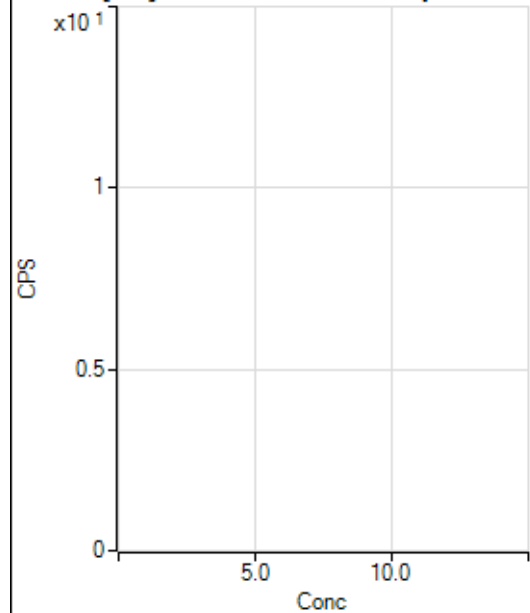
$$BEC = 0.008705$$

Weight: <None>

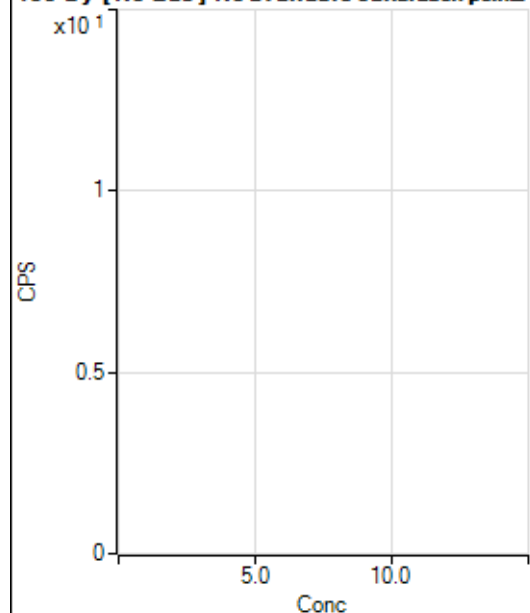
Min Conc: 0

150 Nd [No Gas] No available calibration points

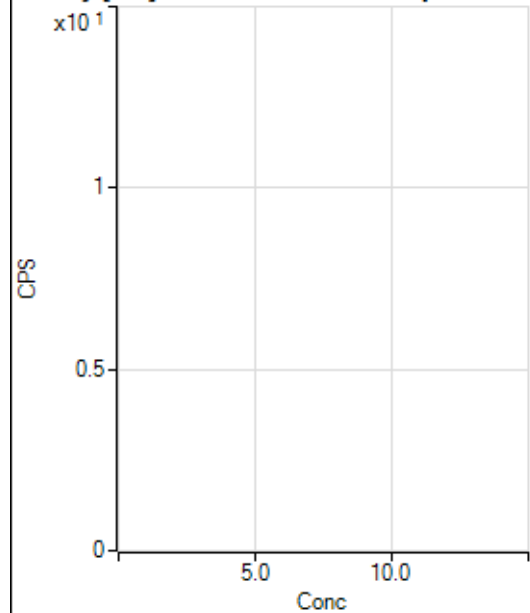
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐			24.44		P	56.8
3	☐			315.57		P	4.4
4	☐			668.93		P	9.8
5	☐			1404.58		P	7.6
6	☐			2853.73		P	0.5
7	☐			5574.66		P	2.2
8	☐			115.56		P	31.8

150 Nd [He] No available calibration points

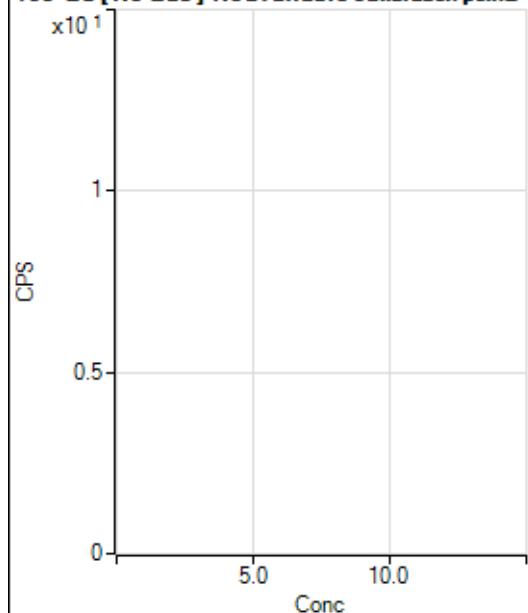
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	34.7
2	☐			10.00		P	57.7
3	☐			27.78		P	6.9
4	☐			54.44		P	18.7
5	☐			71.11		P	9.8
6	☐			137.78		P	29.1
7	☐			294.45		P	4.7
8	☐			44.45		P	30.3

156 Dy [No Gas] No available calibration points

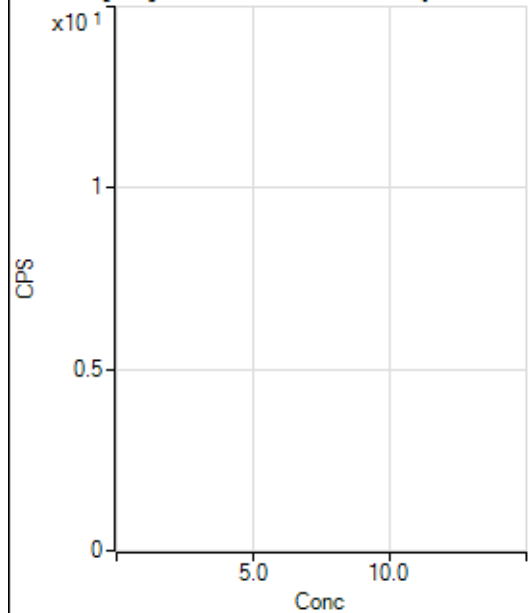
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	81.1
2	☐			13.89		P	34.7
3	☐			80.56		P	6.0
4	☐			111.12		P	48.8
5	☐			177.79		P	14.3
6	☐			386.14		P	12.3
7	☐			855.62		P	9.2
8	☐			400.03		P	12.7

156 Dy [He] No available calibration points

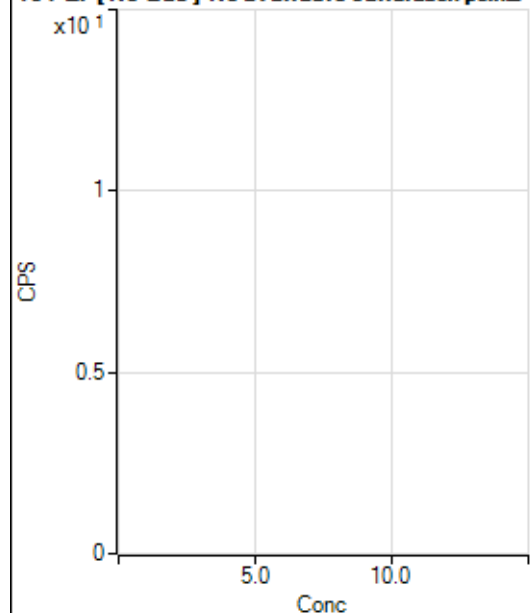
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			20.00		P	28.9
2	☐			16.66		P	69.3
3	☐			23.33		P	14.3
4	☐			56.67		P	5.9
5	☐			85.56		P	19.2
6	☐			133.34		P	2.5
7	☐			284.45		P	5.9
8	☐			163.34		P	8.9

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

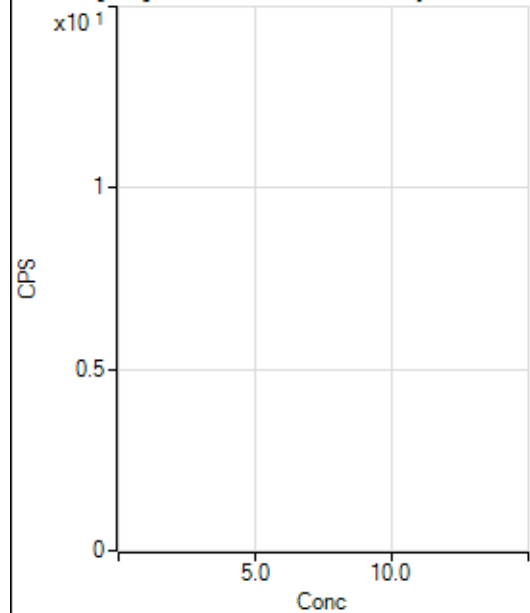
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			144.45		P	43.7
2	☐			197.23		P	36.9
3	☐			208.35		P	8.0
4	☐			191.68		P	13.0
5	☐			183.34		P	19.8
6	☐			180.56		P	18.7
7	☐			222.23		P	44.7
8	☐			463.92		P	14.4

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			323.34		P	10.7
2	☐			290.01		P	10.5
3	☐			302.23		P	10.5
4	☐			290.01		P	6.4
5	☐			284.45		P	9.8
6	☐			321.12		P	4.7
7	☐			361.12		P	6.8
8	☐			408.90		P	2.9

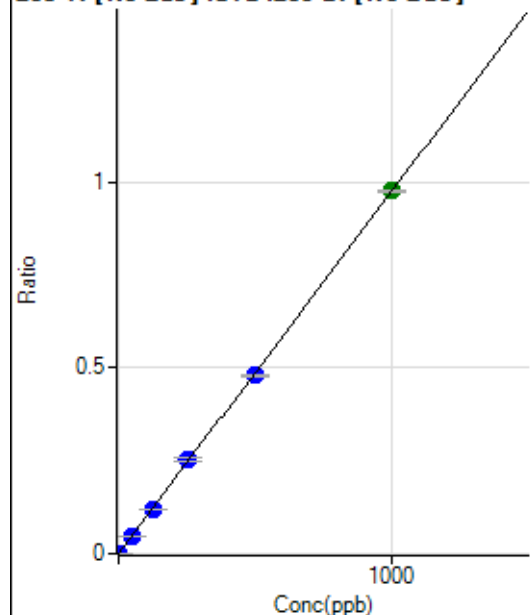
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			94.45		P	39.8
2	☐			77.78		P	40.6
3	☐			119.45		P	40.9
4	☐			105.56		P	19.9
5	☐			100.01		P	30.0
6	☐			97.23		P	17.8
7	☐			122.23		P	31.5
8	☐			152.79		P	24.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			56.67		P	17.6
2	☐			58.89		P	18.2
3	☐			71.11		P	19.5
4	☐			65.56		P	19.2
5	☐			71.11		P	39.3
6	☐			65.56		P	19.2
7	☐			76.67		P	13.0
8	☐			81.11		P	12.6

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	600.05	0.0001	P	9.1
2	☐	1.000	0.943	11460.92	0.0010	P	2.6
3	☐	50.000	49.507	557316.53	0.0483	P	0.3
4	☐	125.000	121.096	1395308.79	0.1181	P	1.0
5	☐	250.000	261.242	2740779.08	0.2547	P	3.5
6	☐	500.000	491.457	5325596.04	0.4790	P	1.3
7	☐	1000.000	1001.974	10457176.54	0.9766	A	0.6
8	☐			3275.55	0.0004	P	4.4

$$y = 9.7465E-004 * x + 5.0904E-005$$

$$R = 0.9999$$

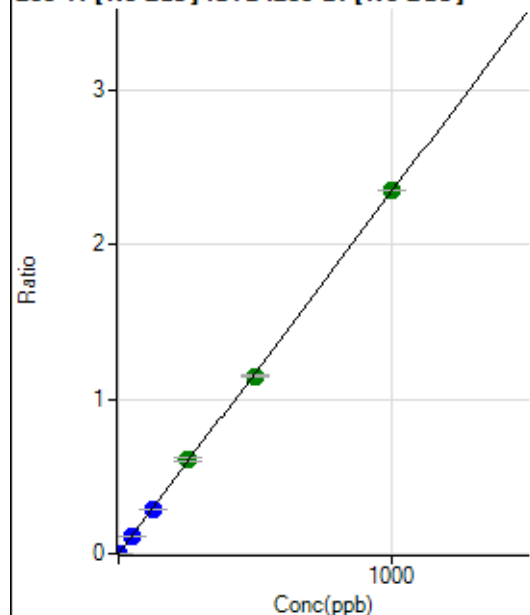
$$DL = 0.01432$$

$$BEC = 0.05223$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	916.74	0.0001	P	10.7
2	☐	1.000	0.954	27326.20	0.0023	P	2.4
3	☐	50.000	49.861	1349090.01	0.1169	P	0.4
4	☐	125.000	120.771	3345608.54	0.2831	P	0.5
5	☐	250.000	258.987	6532313.38	0.6070	A	3.7
6	☐	500.000	491.496	12805603.32	1.1519	A	1.4
7	☐	1000.000	1002.541	25157941.88	2.3495	A	0.2
8	☐			7130.02	0.0008	P	2.0

$$y = 0.0023 * x + 7.7773E-005$$

$$R = 0.9999$$

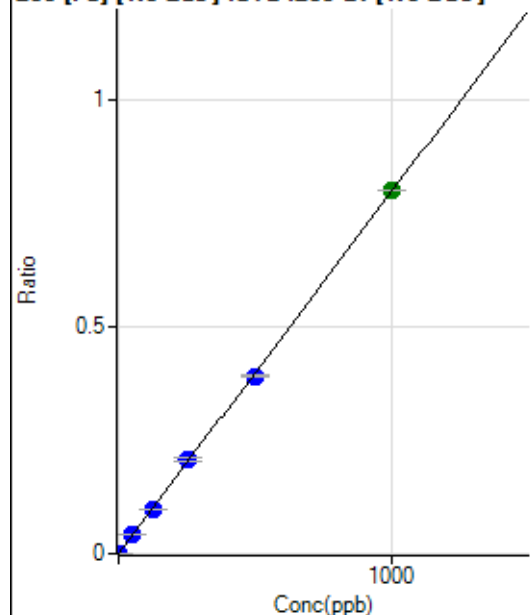
$$DL = 0.01063$$

$$BEC = 0.03319$$

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	874.13	0.0001	P	10.4
2	☐	1.000	0.948	9809.44	0.0008	P	2.9
3	☐	50.000	50.676	467538.87	0.0405	P	0.8
4	☐	125.000	121.860	1150324.00	0.0973	P	0.5
5	☐	250.000	261.868	2250288.17	0.2091	P	3.6
6	☐	500.000	490.095	4349656.55	0.3913	P	1.4
7	☐	1000.000	1002.344	8567618.77	0.8001	A	0.0
8	☐			34902.08	0.0041	P	0.5

$$y = 7.9819\text{E-}004 * x + 7.4109\text{E-}005$$

R = 0.9998

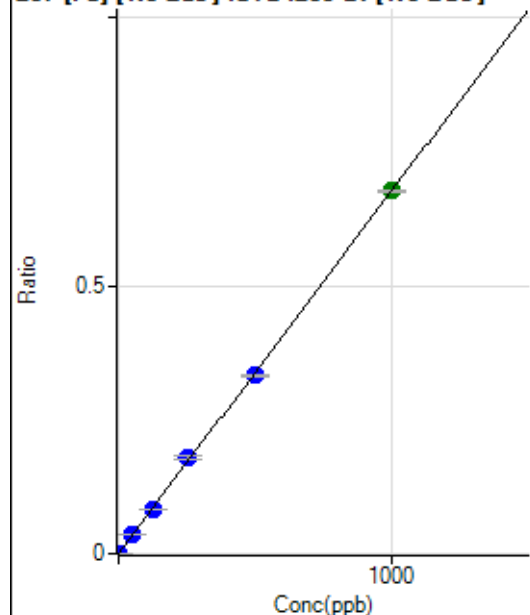
DL = 0.02909

BEC = 0.09285

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	814.86	0.0001	P	2.6
2	☐	1.000	0.951	8408.48	0.0007	P	4.0
3	☐	50.000	50.898	397705.42	0.0345	P	0.6
4	☐	125.000	121.888	974371.87	0.0825	P	0.3
5	☐	250.000	263.263	1915565.36	0.1780	P	3.8
6	☐	500.000	492.824	3703996.76	0.3332	P	1.1
7	☐	1000.000	1000.616	7242381.24	0.6764	A	0.4
8	☐			30179.25	0.0035	P	1.8

$$y = 6.7589\text{E-}004 * x + 6.9110\text{E-}005$$

R = 0.9999

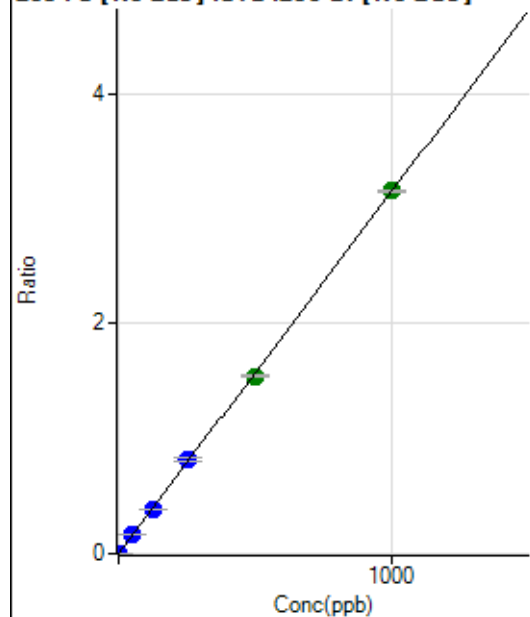
DL = 0.007932

BEC = 0.1023

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	3052.07	0.0003	P	6.8
2	☐	1.000	0.957	38611.79	0.0033	P	0.6
3	☐	50.000	50.538	1836752.93	0.1592	P	0.6
4	☐	125.000	121.627	4523314.16	0.3828	P	0.2
5	☐	250.000	261.757	8861503.21	0.8235	P	3.8
6	☐	500.000	490.297	17144545.35	1.5422	A	1.4
7	☐	1000.000	1002.307	33755329.11	3.1524	A	0.2
8	☐			137356.12	0.0160	P	0.5

$$y = 0.0031 * x + 2.5878E-004$$

$$R = 0.9998$$

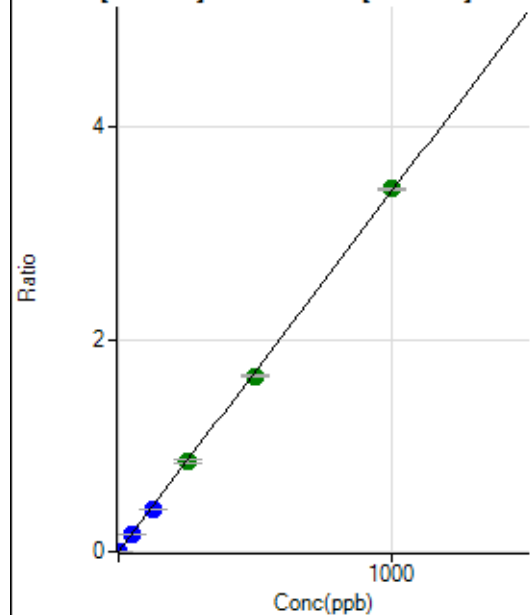
$$DL = 0.01671$$

$$BEC = 0.08229$$

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	2622.56	0.0002	P	7.6
2	☐	1.000	0.686	30097.00	0.0025	P	1.3
3	☐	50.000	46.524	1822656.44	0.1580	P	0.4
4	☐	125.000	115.655	4636882.98	0.3924	P	0.4
5	☐	250.000	252.649	9219918.90	0.8569	A	4.3
6	☐	500.000	486.774	18352472.75	1.6507	A	1.0
7	☐	1000.000	1007.293	36573609.38	3.4157	A	0.5
8	☐			8945.94	0.0010	P	0.2

$$y = 0.0034 * x + 2.2240E-004$$

$$R = 0.9998$$

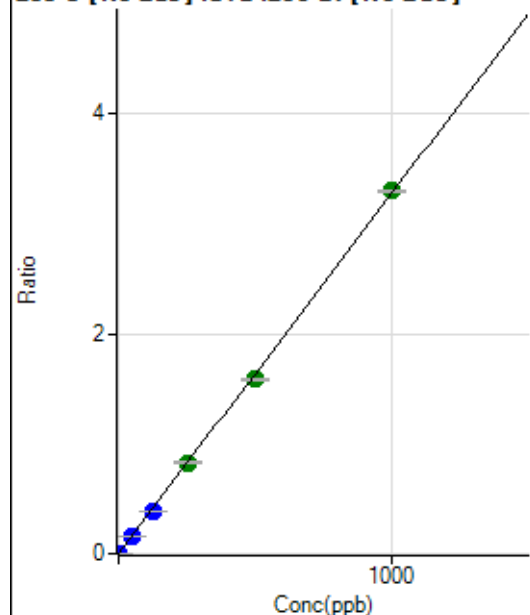
$$DL = 0.01491$$

$$BEC = 0.06559$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2539.27	0.0002	P	8.9
2	☐	1.000	0.888	36899.10	0.0031	P	0.9
3	☐	50.000	47.835	1809686.99	0.1569	P	0.7
4	☐	125.000	116.871	4525047.37	0.3829	P	0.2
5	☐	250.000	253.184	8924123.20	0.8293	A	3.7
6	☐	500.000	484.809	17651091.19	1.5877	A	1.3
7	☐	1000.000	1007.924	35342457.73	3.3007	A	0.5
8	☐			5901.58	0.0007	P	1.2

$$y = 0.0033 * x + 2.1541E-004$$

R = 0.9998

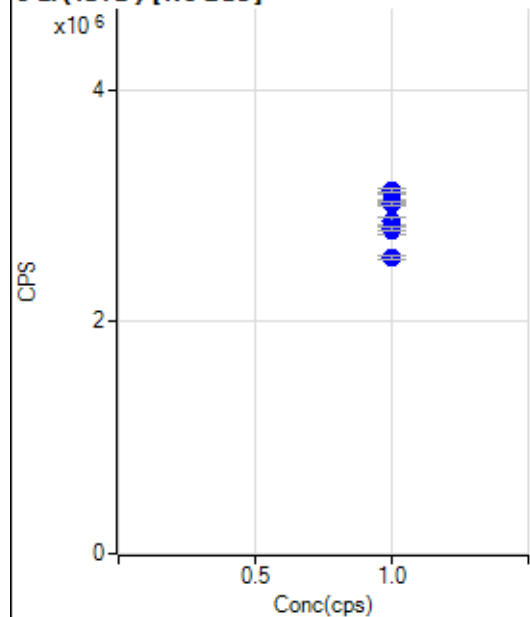
DL = 0.01753

BEC = 0.06578

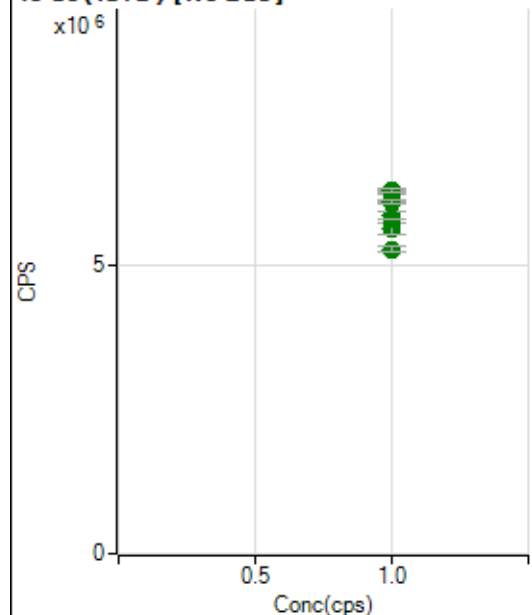
Weight: <None>

Min Conc: 0

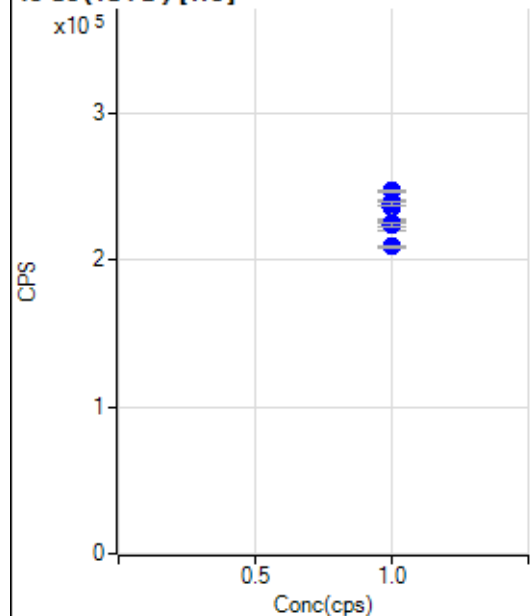
6 Li (ISTD) [No Gas]



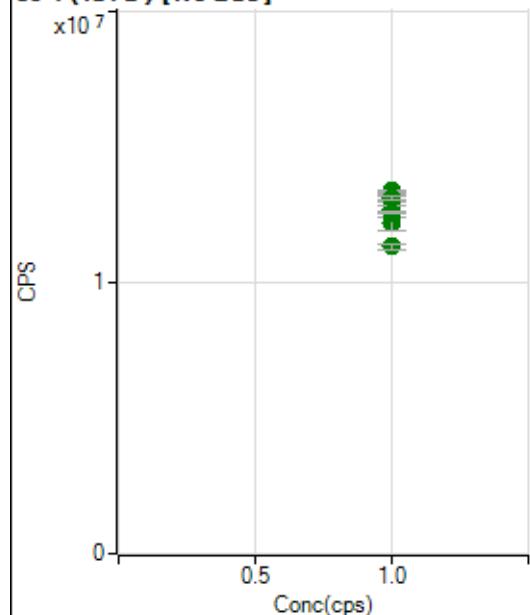
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3113431.13		P	0.6
2	☐	1.000		3128893.39		P	1.0
3	☐	1.000		3034524.43		P	0.9
4	☐	1.000		3020756.83		P	1.0
5	☐	1.000		2788779.85		P	2.9
6	☐	1.000		2866371.87		P	2.4
7	☐	1.000		2802803.92		P	0.8
8	☐	1.000		2548089.18		P	1.3

45 Sc (ISTD) [No Gas]

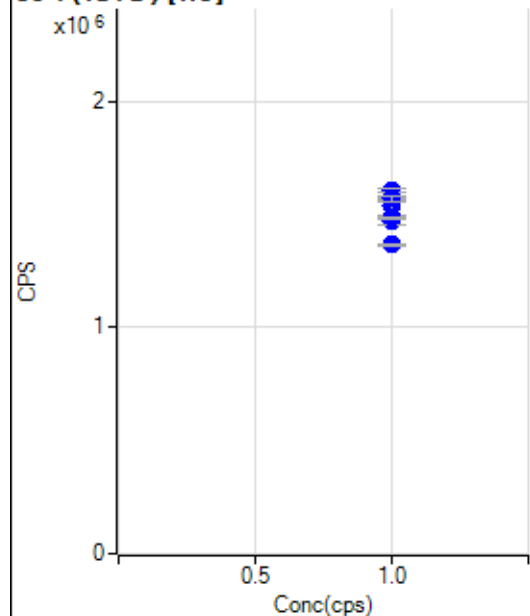
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6252840.68		A	0.7
2	☐	1.000		6273333.69		A	1.2
3	☐	1.000		6075763.33		A	0.6
4	☐	1.000		6084261.81		A	0.9
5	☐	1.000		5624849.04		A	3.6
6	☐	1.000		5855179.52		A	2.4
7	☐	1.000		5786236.59		A	0.1
8	☐	1.000		5262545.60		A	1.6

45 Sc (ISTD) [He]

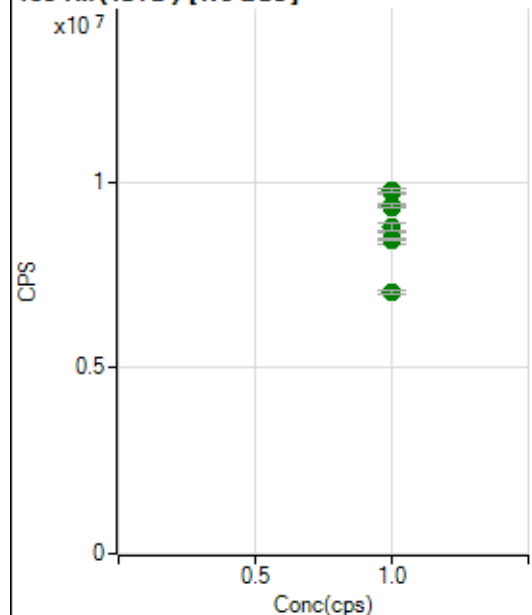
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		247428.55		P	0.8
2	☐	1.000		235670.49		P	8.8
3	☐	1.000		240357.99		P	0.8
4	☐	1.000		239005.00		P	1.2
5	☐	1.000		224109.44		P	3.3
6	☐	1.000		225885.07		P	0.5
7	☐	1.000		224068.33		P	1.0
8	☐	1.000		209537.56		P	0.8

89 Y (ISTD) [No Gas]

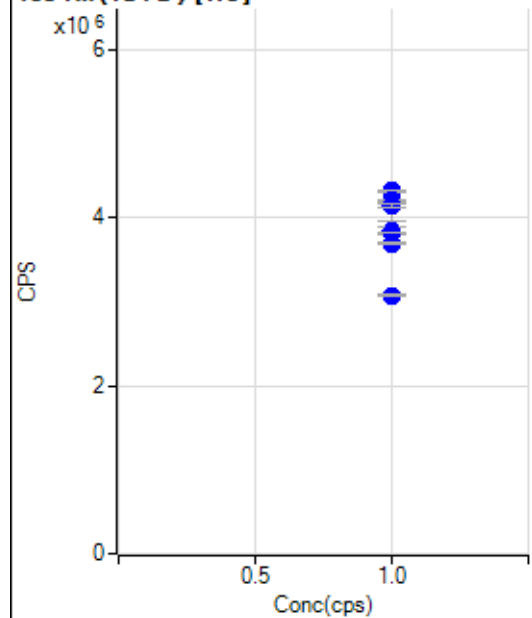
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13323973.27		A	0.8
2	☐	1.000		13376927.16		A	0.2
3	☐	1.000		12985705.78		A	0.7
4	☐	1.000		13114671.06		A	0.8
5	☐	1.000		12170469.82		A	4.3
6	☐	1.000		12713730.37		A	2.4
7	☐	1.000		12577591.34		A	0.4
8	☐	1.000		11315622.33		A	1.6

89 Y (ISTD) [He]

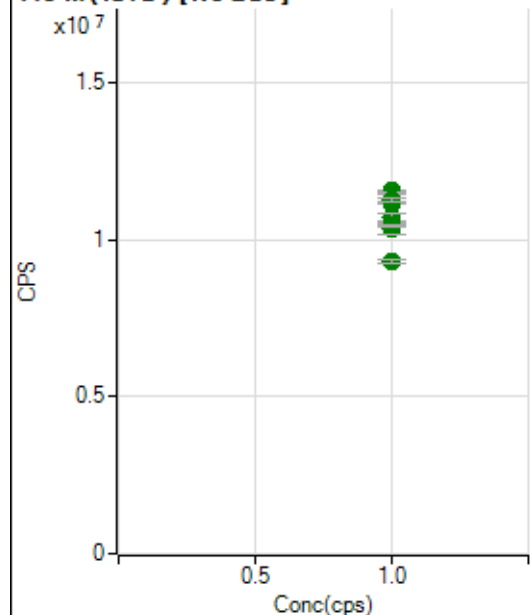
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1603213.78		P	1.0
2	☐	1.000		1536403.95		P	7.7
3	☐	1.000		1570784.89		P	0.6
4	☐	1.000		1567950.58		P	1.6
5	☐	1.000		1470617.09		P	2.6
6	☐	1.000		1486872.29		P	0.7
7	☐	1.000		1486186.37		P	0.6
8	☐	1.000		1365572.93		P	0.8

103 Rh (ISTD) [No Gas]

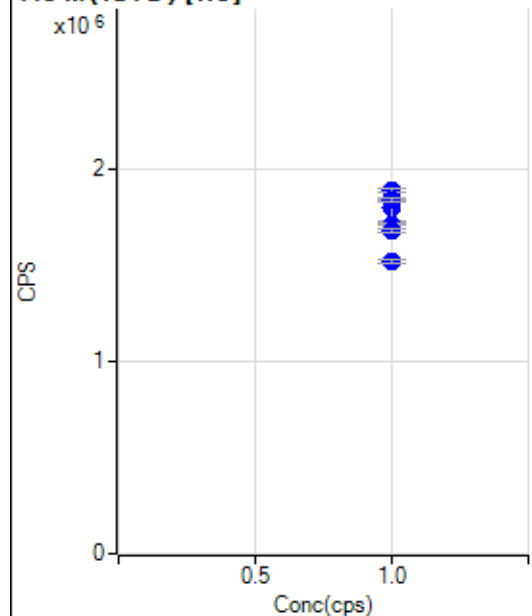
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9718529.21		A	0.9
2	☐	1.000		9774622.96		A	0.9
3	☐	1.000		9349269.48		A	0.8
4	☐	1.000		9376711.32		A	1.1
5	☐	1.000		8516495.33		A	3.8
6	☐	1.000		8816334.22		A	2.5
7	☐	1.000		8466458.09		A	0.4
8	☐	1.000		7064231.23		A	1.4

103 Rh (ISTD) [He]

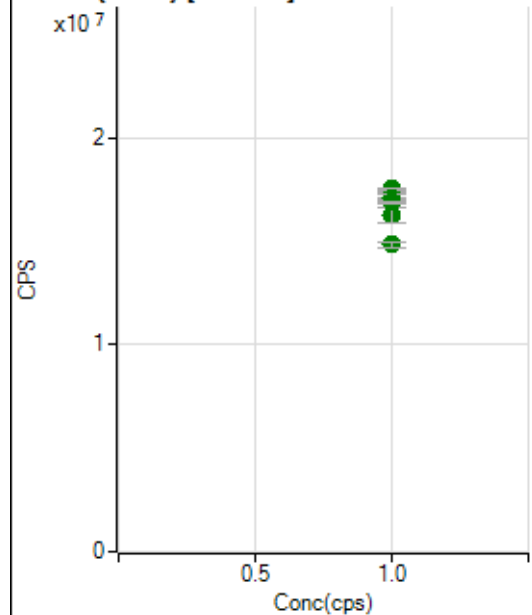
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4320547.85		P	0.8
2	☐	1.000		4138641.92		P	8.0
3	☐	1.000		4206107.37		P	0.5
4	☐	1.000		4143738.06		P	1.4
5	☐	1.000		3853460.91		P	2.5
6	☐	1.000		3825332.10		P	0.4
7	☐	1.000		3697547.79		P	0.7
8	☐	1.000		3076700.58		P	0.7

115 In (ISTD) [No Gas]

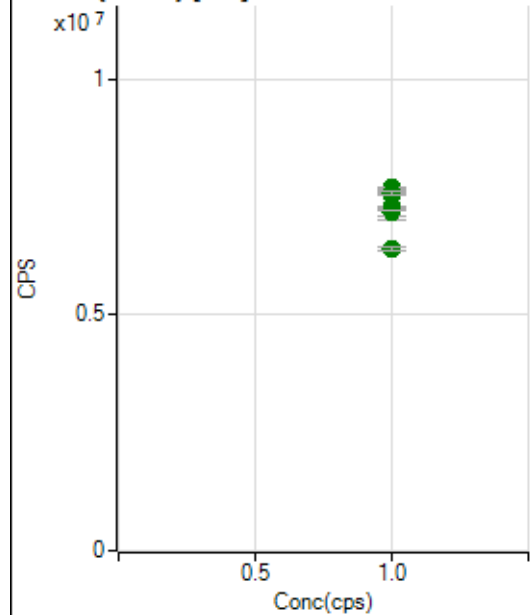
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11566411.58		A	0.5
2	☐	1.000		11503400.32		A	0.8
3	☐	1.000		11145383.02		A	0.3
4	☐	1.000		11275562.19		A	0.8
5	☐	1.000		10379934.43		A	3.7
6	☐	1.000		10749718.58		A	2.1
7	☐	1.000		10460382.80		A	0.4
8	☐	1.000		9311702.57		A	1.0

115 In (ISTD) [He]

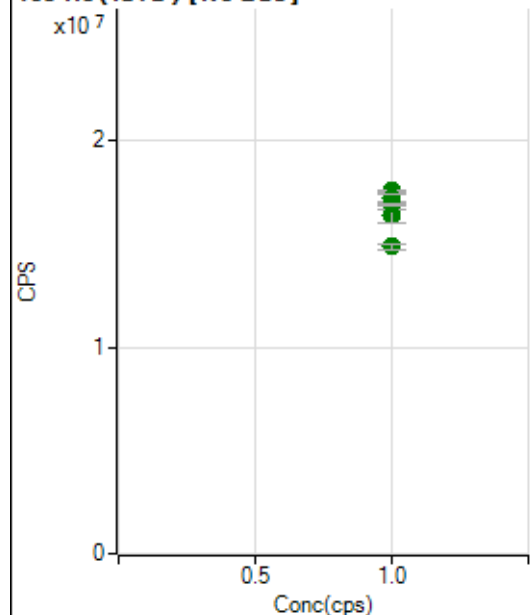
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1886066.47		P	1.1
2	☐	1.000		1802205.97		P	8.1
3	☐	1.000		1836166.71		P	0.2
4	☐	1.000		1840394.43		P	1.2
5	☐	1.000		1706884.93		P	2.5
6	☐	1.000		1713310.93		P	0.6
7	☐	1.000		1677379.03		P	0.9
8	☐	1.000		1518508.60		P	1.1

159 Tb (ISTD) [No Gas]

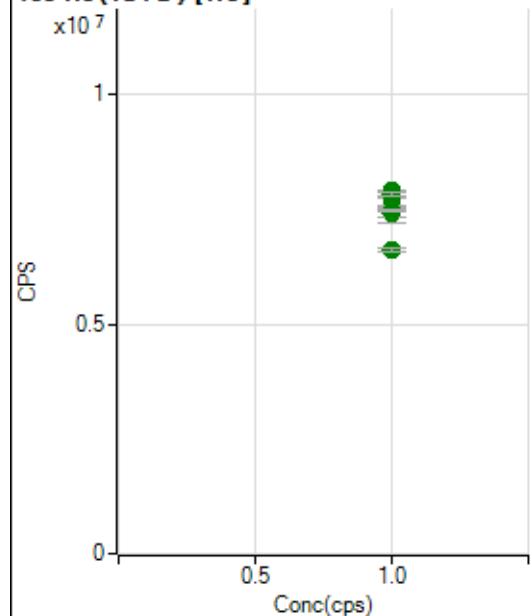
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17460128.91		A	0.5
2	☐	1.000		17526374.46		A	0.5
3	☐	1.000		17059436.97		A	0.6
4	☐	1.000		17537117.80		A	0.8
5	☐	1.000		16297188.51		A	4.4
6	☐	1.000		17111271.83		A	2.3
7	☐	1.000		16903336.83		A	0.6
8	☐	1.000		14828324.50		A	1.6

159 Tb (ISTD) [He]

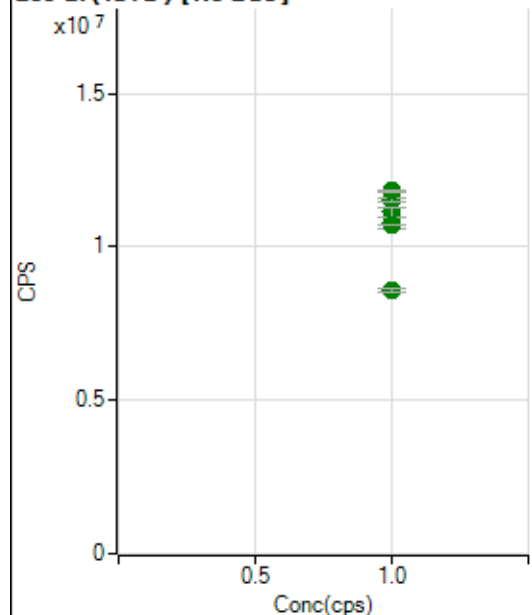
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7695563.29		A	0.6
2	☐	1.000		7286099.82		A	7.7
3	☐	1.000		7533945.65		A	0.2
4	☐	1.000		7597794.54		A	1.1
5	☐	1.000		7186061.84		A	2.4
6	☐	1.000		7284139.69		A	1.0
7	☐	1.000		7222576.90		A	0.4
8	☐	1.000		6404465.95		A	1.3

165 Ho (ISTD) [No Gas]

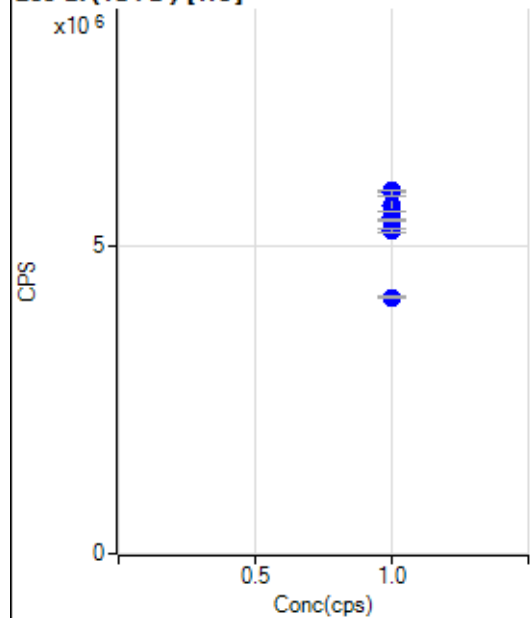
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17456932.85		A	0.8
2	☐	1.000		17496081.82		A	0.5
3	☐	1.000		16964913.23		A	0.4
4	☐	1.000		17556150.22		A	0.3
5	☐	1.000		16343952.62		A	4.1
6	☐	1.000		17199311.32		A	2.7
7	☐	1.000		16903116.00		A	0.7
8	☐	1.000		14853349.29		A	1.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7907364.33		A	0.4
2	☐	1.000		7488658.01		A	7.3
3	☐	1.000		7773461.55		A	0.1
4	☐	1.000		7824327.31		A	1.0
5	☐	1.000		7409429.54		A	2.4
6	☐	1.000		7548964.12		A	0.5
7	☐	1.000		7477921.97		A	0.7
8	☐	1.000		6629980.74		A	1.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11791306.35		A	0.5
2	☐	1.000		11812208.16		A	0.6
3	☐	1.000		11538083.86		A	1.0
4	☐	1.000		11817543.58		A	0.8
5	☐	1.000		10771284.98		A	3.7
6	☐	1.000		11119347.75		A	2.4
7	☐	1.000		10707647.34		A	0.4
8	☐	1.000		8593329.94		A	1.3

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5909175.12		P	0.6
2	☐	1.000		5657163.56		P	7.9
3	☐	1.000		5910621.16		P	0.5
4	☐	1.000		5874261.86		P	1.6
5	☐	1.000		5493850.65		P	2.8
6	☐	1.000		5434299.61		P	0.8
7	☐	1.000		5263526.86		P	0.7
8	☐	1.000		4176032.13		P	0.6

US EPA Tune Check Sample Report

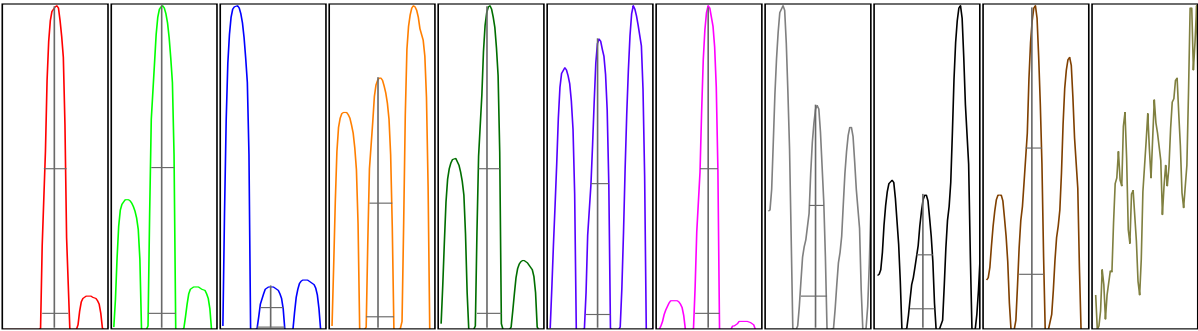
Batch Folder D:\ICP-MS Data\P7011620-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7733	1.48	5.00	
24	133771	1.04	5.00	
25	17381	0.98	5.00	
26	20059	1.05	5.00	
59	62262	1.30	5.00	
113	9682	1.48	5.00	
115	120607	1.62	5.00	
206	35947	1.53	5.00	
207	34803	2.44	5.00	
208	79051	1.62	5.00	
220	115	3.37		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7609	7693	7669	7795	7899
24	132467	133157	132698	135050	135484
25	17189	17333	17270	17521	17591
26	19896	19933	19889	20276	20300
59	61158	62092	61978	62848	63237
113	9471	9704	9623	9769	9843
115	117431	120431	120767	122180	122228
206	35004	35998	36064	36331	36340
207	33409	34720	34933	35508	35445
208	77042	79060	78834	80085	80234
220	112	113	115	122	114

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	12720	9.00	8.9 - 9.1		0.782	0.900	
24	206973	23.95	23.9 - 24.1		0.790	0.900	
25	27377	24.95	24.9 - 25.1		0.789	0.900	
26	31727	25.90	25.9 - 26.1		0.788	0.900	
59	105886	58.90	58.9 - 59.1		0.740	0.900	
113	18505	112.95	112.9 - 113.1		0.726	0.900	
115	227300	115.00	114.9 - 115.1		0.727	0.900	
206	72308	205.95	205.9 - 206.1		0.758	0.900	
207	65208	206.90	206.9 - 207.1		0.741	0.900	
208	156123	207.90	207.9 - 208.1		0.746	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.0	V	Deflect	12.8	V
Extract 2	-105.0	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	13833	1.45	
89	26397	1.54	
205	27098	0.79	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	13680	14004	13561	13998	13921
89	26190	26700	25800	26792	26505
205	26848	27298	26922	27320	27102

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	-115.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	V	Cell Exit	-60	V			

Cell Parameters

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