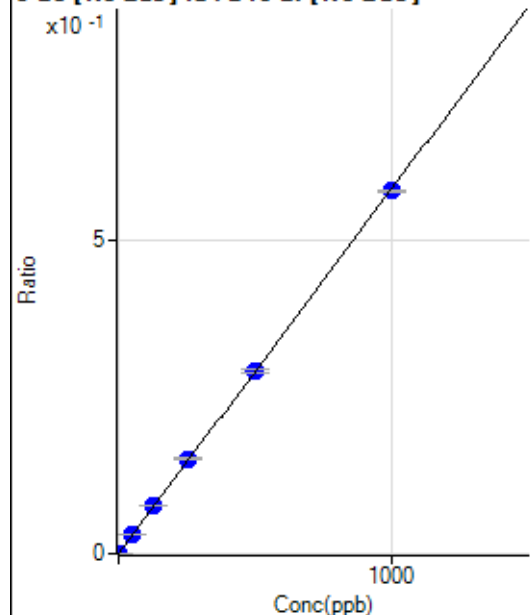


Calibration for 006CAL.S.d

Batch Folder: D:\ICP-MS Data\1\DATA\P7031920MS.b\
 Analysis File: P7031920MS.batch.bin
 DA Date-Time: 2020-03-19 13:55:42
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-03-19 11:53:54
2	004CAL.S.d	S02	2020-03-19 11:57:27
3	005CAL.S.d	S03	2020-03-19 12:02:10
4	006CAL.S.d	S04	2020-03-19 12:06:28
5	007CAL.S.d	S05	2020-03-19 12:10:10
6	008CAL.S.d	S06	2020-03-19 12:13:44
7	009CAL.S.d	S07	2020-03-19 12:17:12
8	010CAL.S.d	S08	2020-03-19 12:20:40

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.30	0.0000	P	28.2
2	☐	1.000	1.108	3971.00	0.0007	P	3.4
3	☐	50.000	54.106	187167.83	0.0315	P	0.8
4	☐	125.000	133.309	458504.43	0.0777	P	0.7
5	☐	250.000	260.737	865458.90	0.1520	P	0.6
6	☐	500.000	502.122	1579896.58	0.2927	P	1.6
7	☐	1000.000	995.011	3036174.29	0.5799	P	0.5
8	☐			461.13	0.0001	P	17.7

$$y = 5.8284\text{E-}004 * x + 8.0492\text{E-}006$$

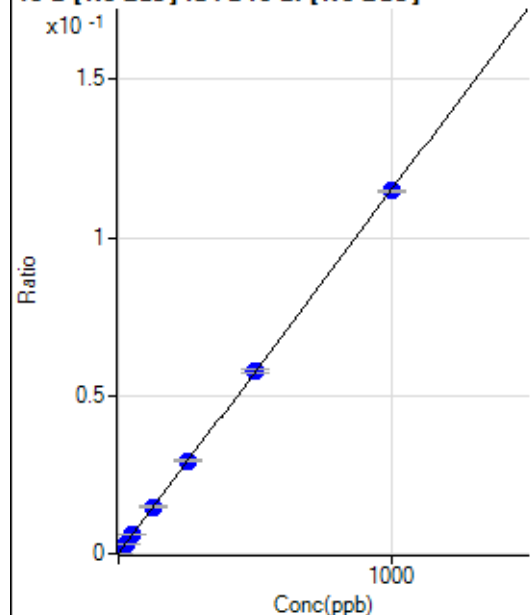
$$R = 0.9999$$

$$DL = 0.01169$$

$$BEC = 0.01381$$

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	477.80	0.0001	P	1.3
2	☐	25.000	25.118	18042.00	0.0030	P	2.5
3	☐	50.000	51.777	35829.74	0.0060	P	1.1
4	☐	125.000	128.346	87590.04	0.0148	P	2.0
5	☐	250.000	254.904	167418.11	0.0294	P	2.7
6	☐	500.000	501.629	311870.70	0.0578	P	2.2
7	☐	1000.000	997.449	601049.01	0.1148	P	0.5
8	☐			13342.58	0.0028	P	8.6

$$y = 1.1501\text{E-}004 * x + 8.3386\text{E-}005$$

$$R = 1.0000$$

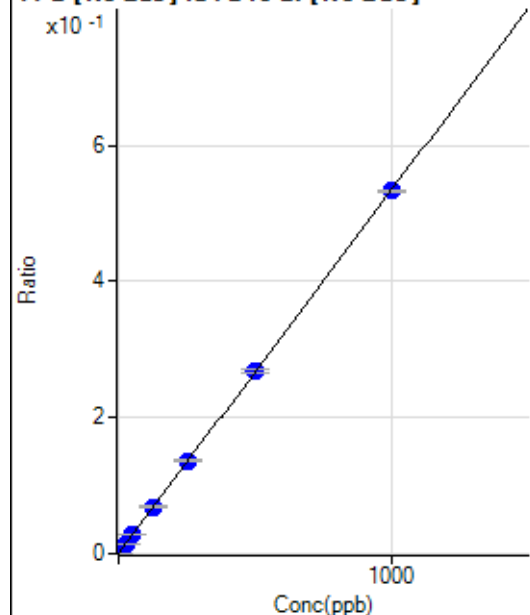
$$DL = 0.02832$$

$$BEC = 0.725$$

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	2180.80	0.0004	P	6.9
2	☐	25.000	25.847	86051.54	0.0142	P	0.7
3	☐	50.000	52.039	167060.72	0.0282	P	0.7
4	☐	125.000	128.680	407482.79	0.0691	P	0.6
5	☐	250.000	255.266	777981.02	0.1366	P	1.5
6	☐	500.000	500.665	1444442.11	0.2676	P	1.8
7	☐	1000.000	997.768	2789949.26	0.5329	P	0.6
8	☐			62349.97	0.0130	P	9.4

$$y = 5.3370\text{E-}004 * x + 3.8031\text{E-}004$$

$$R = 1.0000$$

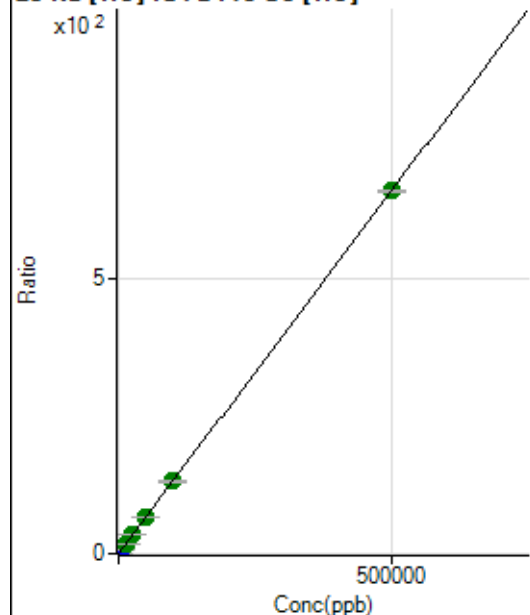
$$DL = 0.1466$$

$$BEC = 0.7126$$

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	10868.23	0.0243	P	1.7
2	☐	500.000	521.728	314022.74	0.7115	P	0.4
3	☐	5000.000	5159.768	2935783.20	6.8209	P	0.8
4	☐	12500.000	12890.085	7144316.13	17.0036	A	0.6
5	☐	25000.000	25502.952	13772143.54	33.6178	A	0.1
6	☐	50000.000	50226.705	26535713.44	66.1850	A	0.7
7	☐	100000.00	99716.547	53488181.06	131.3750	A	1.0
8	☐	500000.00	499997.50	262584844.7	658.6418	A	0.5

$$y = 0.0013 * x + 0.0243$$

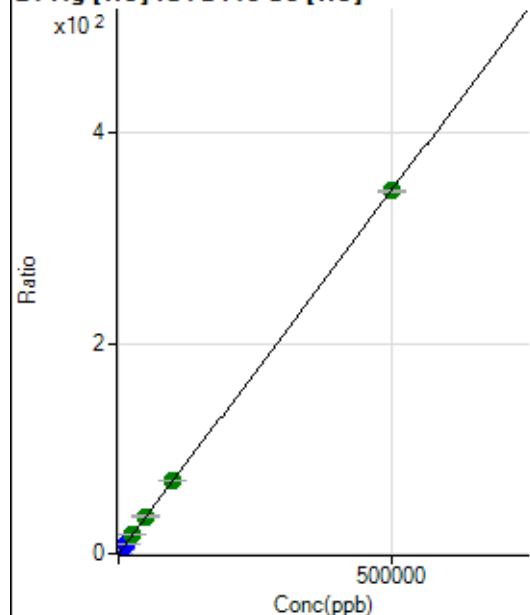
$$R = 1.0000$$

$$DL = 0.9612$$

$$BEC = 18.41$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	175.01	0.0004	P	4.8
2	☐	500.000	541.022	164977.22	0.3738	P	1.0
3	☐	5000.000	5327.367	1582772.14	3.6774	P	0.7
4	☐	12500.000	13310.310	3860098.26	9.1872	P	0.5
5	☐	25000.000	26384.312	7460365.45	18.2109	A	0.3
6	☐	50000.000	51492.389	14249363.69	35.5406	A	0.8
7	☐	100000.00	100833.93	28336323.90	69.5962	A	0.3
8	☐	500000.00	499591.18	137475576.6	344.8194	A	0.2

$$y = 6.9020\text{E-}004 * x + 3.9058\text{E-}004$$

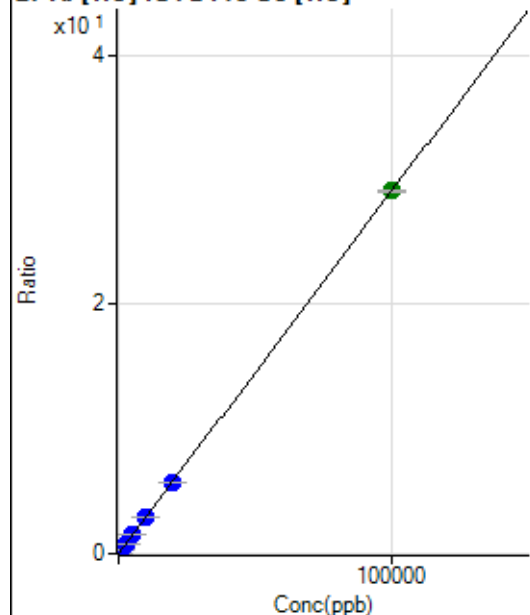
$$R = 1.0000$$

$$DL = 0.08069$$

$$BEC = 0.5659$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	38.89	0.0001	P	75.0
2	☐	20.000	20.811	2711.49	0.0061	P	3.7
3	☐	1000.000	1038.482	130137.37	0.3023	P	0.6
4	☐	2500.000	2574.946	314934.00	0.7496	P	0.1
5	☐	5000.000	5089.195	606866.19	1.4814	P	0.3
6	☐	10000.000	9949.040	1161063.29	2.8959	P	0.3
7	☐	20000.000	19522.327	2313560.66	5.6823	P	0.6
8	☐	100000.00	100093.91	11615099.48	29.1336	A	0.8

$$y = 2.9106\text{E-}004 * x + 8.6651\text{E-}005$$

$$R = 1.0000$$

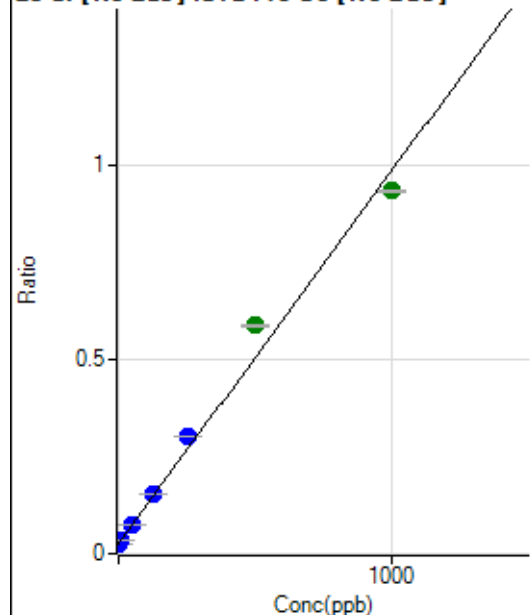
$$DL = 0.6696$$

$$BEC = 0.2977$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	309607.97	0.0258	P	0.4
2	☐	10.000	7.621	417450.99	0.0331	P	0.8
3	☐	50.000	52.302	927537.59	0.0758	P	1.1
4	☐	125.000	131.973	1840178.53	0.1521	P	0.6
5	☐	250.000	287.858	3582129.20	0.3013	P	0.7
6	☐	500.000	585.213	6723678.54	0.5860	A	1.5
7	☐	1000.000	946.966	10837710.23	0.9323	A	0.5
8	☐			1215846.38	0.1103	P	1.6

$$y = 9.5727\text{E-}004 * x + 0.0258$$

$$R = 0.9933$$

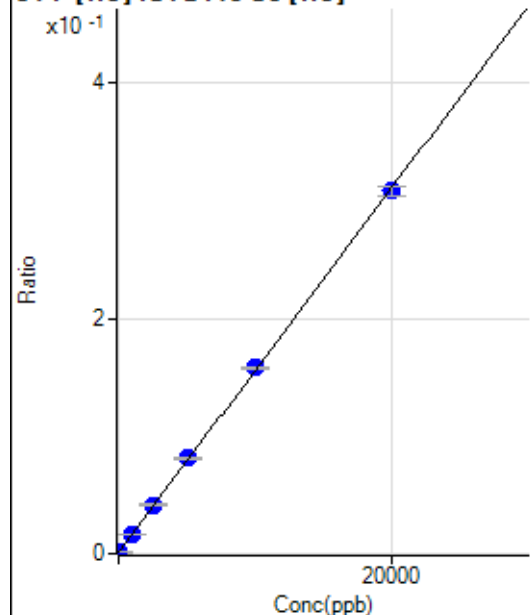
$$DL = 0.2947$$

$$BEC = 26.93$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-32.707	194.45	0.0004	P	25.9
2	☐	0.000	32.707	638.93	0.0014	P	10.5
3	☐	1000.000	1033.653	7296.54	0.0170	P	0.6
4	☐	2500.000	2627.185	17494.26	0.0416	P	0.8
5	☐	5000.000	5172.507	33210.33	0.0811	P	0.7
6	☐	10000.000	10171.952	63550.19	0.1585	P	1.0
7	☐	20000.000	19853.316	125601.01	0.3085	P	2.5
8	☐			305.58	0.0008	P	10.4

$$y = 1.5490\text{E-}005 * x + 9.4062\text{E-}004$$

$$R = 0.9999$$

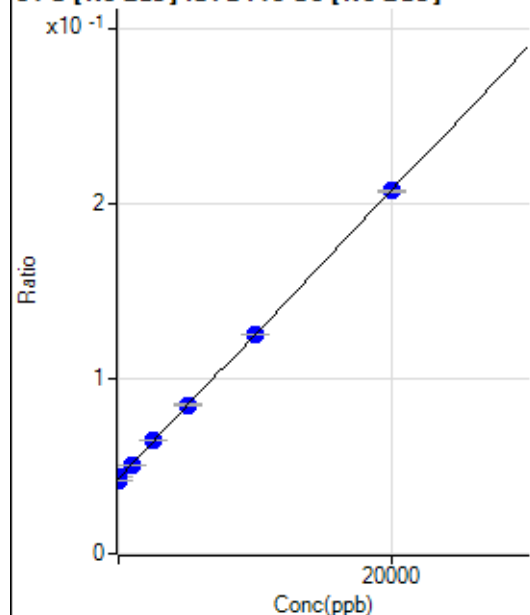
$$DL = 25.57$$

$$BEC = 60.72$$

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	130.952	529754.65	0.0441	P	0.6
2	☐	0.000	-130.952	529528.52	0.0420	P	1.3
3	☐	1000.000	876.157	614298.52	0.0502	P	0.9
4	☐	2500.000	2657.785	784795.29	0.0649	P	0.4
5	☐	5000.000	5077.754	1007533.53	0.0848	P	0.8
6	☐	10000.000	10025.974	1439069.70	0.1254	P	0.3
7	☐	20000.000	19954.044	2406356.30	0.2070	P	0.8
8	☐			460942.67	0.0418	P	1.6

$$y = 8.2175E-006 * x + 0.0430$$

R = 0.9999

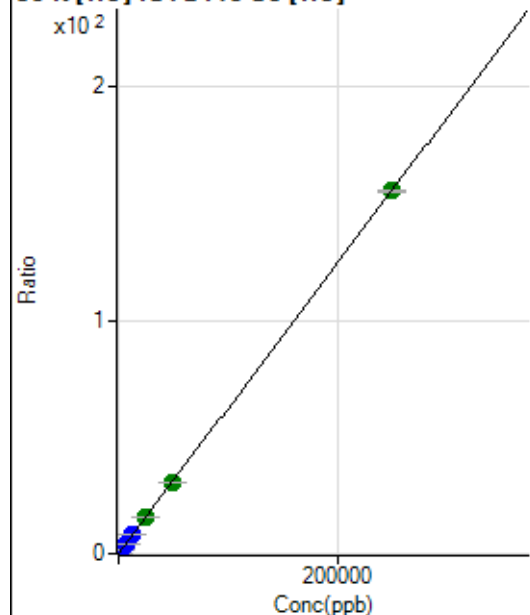
DL = 150.9

BEC = 5236

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	18690.27	0.0417	P	2.3
2	☐	500.000	526.076	162604.74	0.3684	P	0.5
3	☐	2500.000	2566.027	703842.38	1.6353	P	1.0
4	☐	6250.000	6365.100	1678409.91	3.9946	P	0.3
5	☐	12500.000	12708.169	3250237.01	7.9339	P	0.5
6	☐	25000.000	25010.054	6244345.67	15.5738	A	0.6
7	☐	50000.000	49371.938	12501185.78	30.7033	A	0.8
8	☐	250000.00	250110.60	61941427.08	155.3685	A	0.6

$$y = 6.2103E-004 * x + 0.0417$$

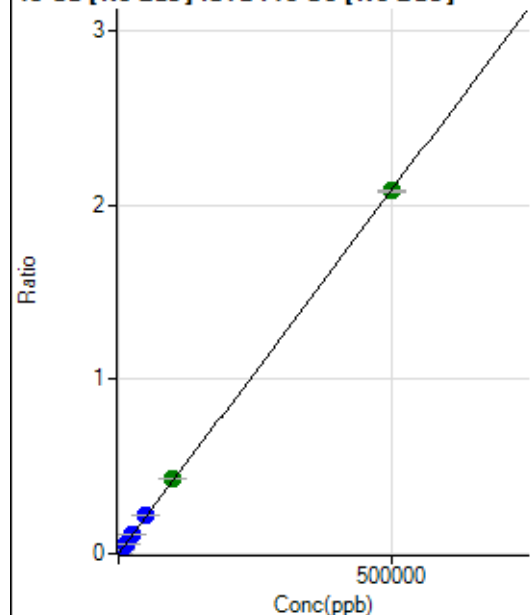
R = 1.0000

DL = 4.683

BEC = 67.16

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	383.35	0.0000	P	1.9
2	☐	500.000	537.767	28720.49	0.0023	P	3.8
3	☐	5000.000	5260.163	268766.37	0.0220	P	0.5
4	☐	12500.000	13193.198	666221.81	0.0551	P	0.5
5	☐	25000.000	26150.884	1297240.74	0.1091	P	0.4
6	☐	50000.000	52035.450	2491183.06	0.2171	P	0.3
7	☐	100000.00	102926.37	4992134.66	0.4294	A	0.3
8	☐	500000.00	499133.66	22960208.50	2.0823	A	0.6

$$y = 4.1718\text{E-}006 * x + 3.1917\text{E-}005$$

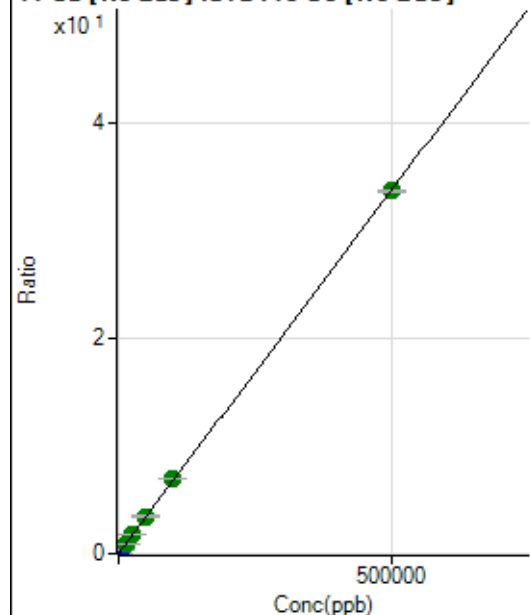
$$R = 1.0000$$

$$DL = 0.4473$$

$$BEC = 7.651$$

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	7093.69	0.0006	P	2.1
2	☐	500.000	523.178	453801.72	0.0360	P	0.5
3	☐	5000.000	5180.380	4289551.35	0.3507	P	0.4
4	☐	12500.000	12988.964	10628072.55	0.8785	A	0.7
5	☐	25000.000	25795.637	20733465.22	1.7442	A	0.7
6	☐	50000.000	51550.282	39985569.99	3.4849	A	1.8
7	☐	100000.00	102643.53	80657229.58	6.9384	A	0.8
8	☐	500000.00	499262.43	372100391.6	33.7465	A	0.7

$$y = 6.7591\text{E-}005 * x + 5.9061\text{E-}004$$

$$R = 1.0000$$

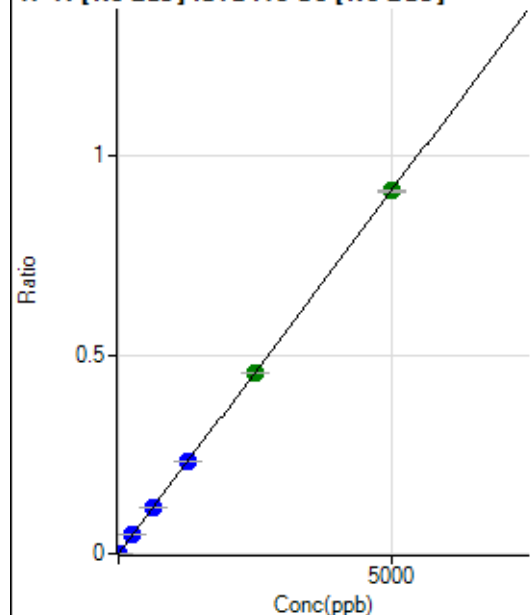
$$DL = 0.5522$$

$$BEC = 8.738$$

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	197.23	0.0000	P	12.2
2	☐	5.000	5.456	12781.02	0.0010	P	1.1
3	☐	250.000	256.398	572747.36	0.0468	P	0.3
4	☐	625.000	638.847	1411276.41	0.1167	P	0.4
5	☐	1250.000	1264.470	2744643.66	0.2309	P	0.4
6	☐	2500.000	2492.371	5221703.29	0.4551	A	0.5
7	☐	5000.000	4998.146	10608572.63	0.9126	A	0.7
8	☐			3197.70	0.0003	P	4.6

$$y = 1.8258\text{E-}004 * x + 1.6421\text{E-}005$$

$$R = 1.0000$$

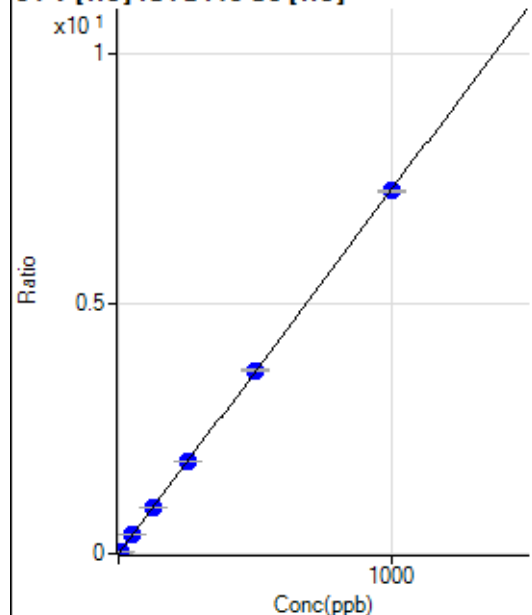
$$DL = 0.03283$$

$$BEC = 0.08994$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6.67	0.0000	P	50.1
2	☐	5.000	5.417	17431.62	0.0395	P	0.4
3	☐	50.000	51.033	160101.81	0.3720	P	0.6
4	☐	125.000	127.265	389738.60	0.9276	P	0.2
5	☐	250.000	253.889	758086.57	1.8505	P	0.4
6	☐	500.000	504.096	1473130.55	3.6742	P	0.4
7	☐	1000.000	996.643	2957616.10	7.2641	P	0.5
8	☐			1363.42	0.0034	P	4.0

$$y = 0.0073 * x + 1.4877\text{E-}005$$

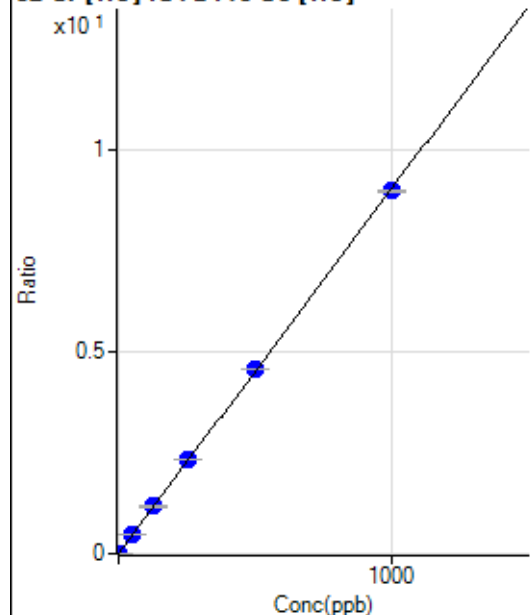
$$R = 1.0000$$

$$DL = 0.003069$$

$$BEC = 0.002041$$

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	383.34	0.0009	P	5.5
2	☐	2.000	2.092	8731.61	0.0198	P	1.3
3	☐	50.000	51.673	201574.29	0.4683	P	0.2
4	☐	125.000	129.226	491554.19	1.1699	P	0.6
5	☐	250.000	256.510	950996.17	2.3214	P	0.3
6	☐	500.000	506.274	1836683.48	4.5809	P	0.3
7	☐	1000.000	994.623	3663856.51	8.9988	P	0.9
8	☐			94010.66	0.2358	P	0.2

$$y = 0.0090 * x + 8.5561E-004$$

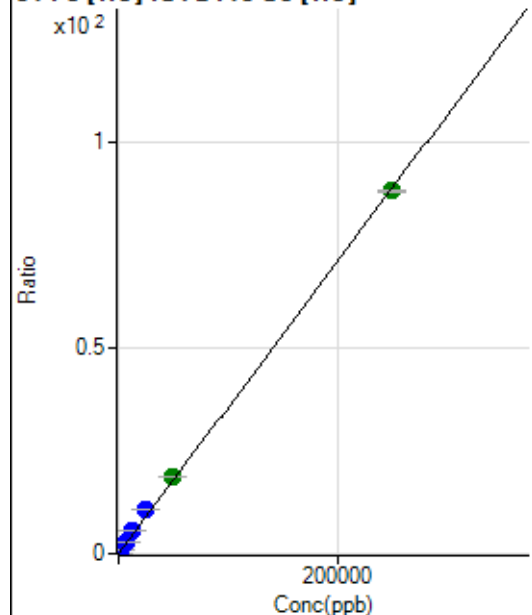
$$R = 0.9999$$

$$DL = 0.01565$$

$$BEC = 0.09458$$

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	490.52	0.0011	P	25.7
2	☐	50.000	69.804	11406.38	0.0258	P	0.5
3	☐	2500.000	3085.080	471275.14	1.0949	P	0.5
4	☐	6250.000	7768.785	1157819.11	2.7556	P	0.8
5	☐	12500.000	15353.976	2230608.27	5.4450	P	0.5
6	☐	25000.000	30176.462	4290251.04	10.7004	P	0.5
7	☐	50000.000	52892.538	7635745.58	18.7546	A	1.6
8	☐	250000.00	248717.32	35157729.82	88.1858	A	0.6

$$y = 3.5456E-004 * x + 0.0011$$

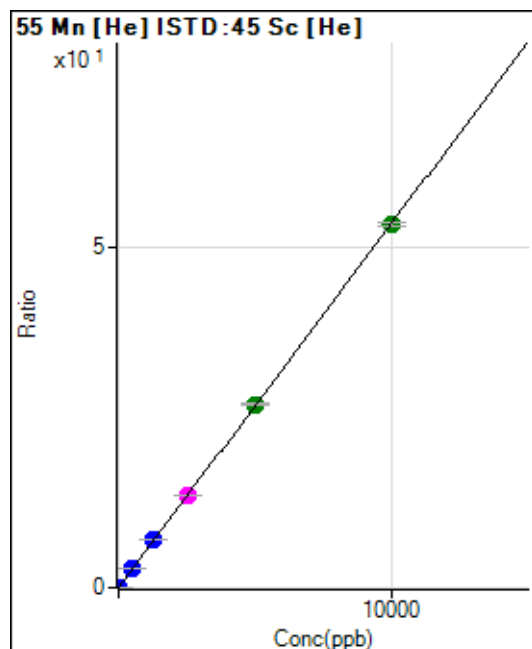
$$R = 0.9997$$

$$DL = 2.382$$

$$BEC = 3.086$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	83.33	0.0002	P	15.6
2	☐	1.000	1.061	2594.71	0.0059	P	3.9
3	☐	500.000	517.657	1195242.39	2.7770	P	0.7
4	☐	1250.000	1297.576	2924539.96	6.9605	P	0.5
5	☐	2500.000	2557.150	5619400.54	13.7170	M	0.3
6	☐	5000.000	5033.426	10825327.62	27.0001	A	0.6
7	☐	10000.000	9962.169	21758060.79	53.4384	A	1.0
8	☐			20739.28	0.0520	P	0.4

$$y = 0.0054 * x + 1.8591E-004$$

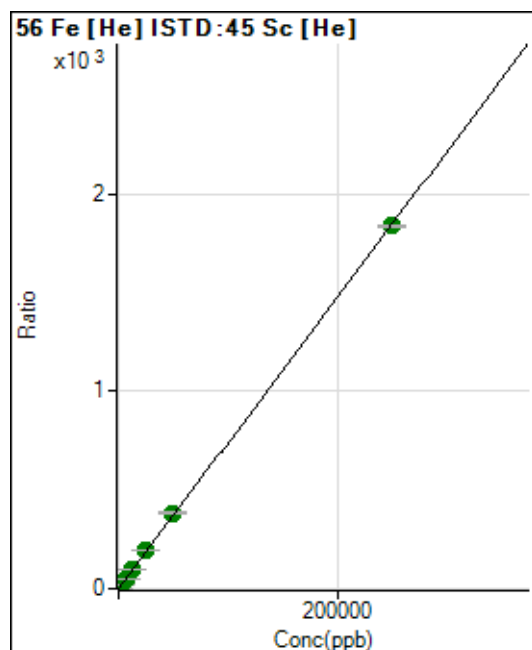
$$R = 1.0000$$

$$DL = 0.01626$$

$$BEC = 0.03466$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6169.98	0.0138	P	1.6
2	☐	50.000	57.845	194180.11	0.4400	P	0.2
3	☐	2500.000	2693.709	8548535.03	19.8602	A	1.3
4	☐	6250.000	6720.771	20810466.67	49.5303	A	1.1
5	☐	12500.000	13334.362	40252474.97	98.2572	A	0.9
6	☐	25000.000	26448.829	78135953.60	194.8805	A	0.5
7	☐	50000.000	51968.189	155896246.0	382.8992	A	1.3
8	☐	250000.00	249406.05	732607757.1	1,837.559	A	0.7

$$y = 0.0074 * x + 0.0138$$

$$R = 1.0000$$

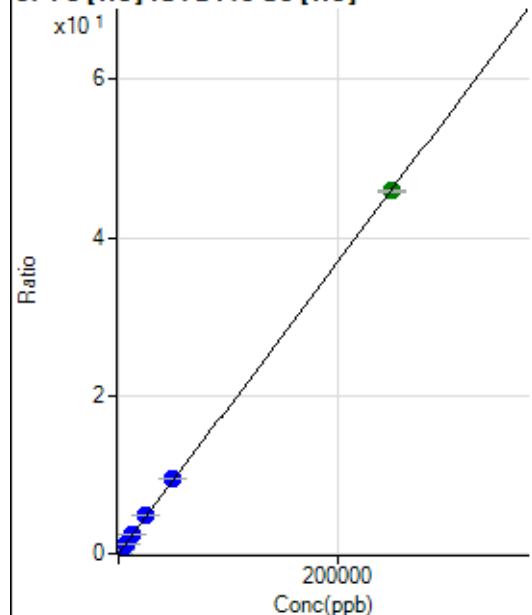
$$DL = 0.09214$$

$$BEC = 1.869$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	172.23	0.0004	P	3.2
2	☐	50.000	57.030	4797.21	0.0109	P	4.5
3	☐	2500.000	2704.641	214215.23	0.4977	P	0.6
4	☐	6250.000	6744.155	521185.94	1.2405	P	0.7
5	☐	12500.000	13428.177	1011661.99	2.4695	P	0.5
6	☐	25000.000	26302.521	1939290.78	4.8367	P	0.6
7	☐	50000.000	51426.263	3850138.89	9.4563	P	0.8
8	☐	250000.00	249523.68	18291543.70	45.8813	A	0.9

$$y = 1.8387E-004 * x + 3.8437E-004$$

R = 1.0000

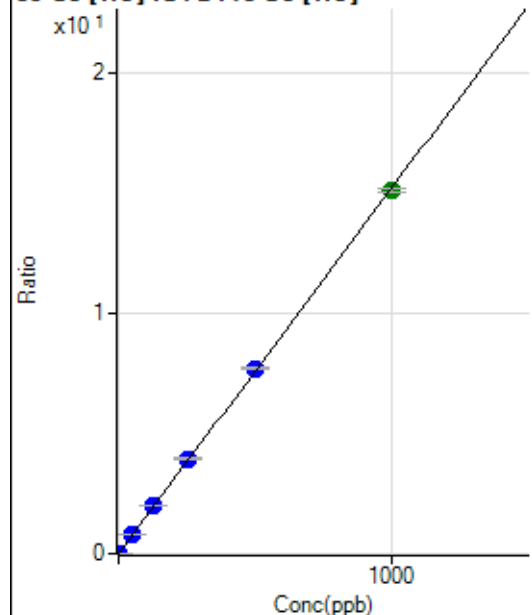
DL = 0.2022

BEC = 2.09

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.22	0.0002	P	22.1
2	☐	1.000	1.024	6940.64	0.0157	P	2.7
3	☐	50.000	53.070	347174.23	0.8066	P	0.2
4	☐	125.000	131.604	840311.56	2.0000	P	0.4
5	☐	250.000	260.072	1619030.13	3.9521	P	0.7
6	☐	500.000	506.627	3086698.91	7.6986	P	0.6
7	☐	1000.000	993.189	6144939.84	15.0922	A	0.9
8	☐			11782.66	0.0296	P	2.4

$$y = 0.0152 * x + 1.6125E-004$$

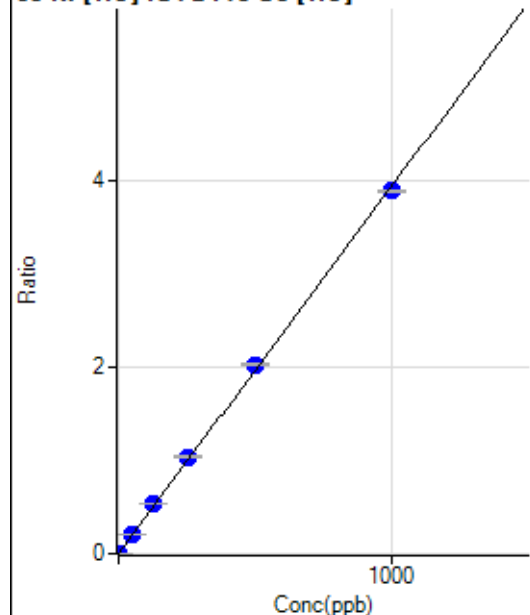
R = 0.9999

DL = 0.007024

BEC = 0.01061

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	101.11	0.0002	P	18.5
2	☐	1.000	1.221	2215.76	0.0050	P	3.1
3	☐	50.000	54.478	92204.24	0.2142	P	0.9
4	☐	125.000	134.352	221828.13	0.5280	P	0.6
5	☐	250.000	264.203	425231.63	1.0380	P	0.6
6	☐	500.000	514.089	809734.21	2.0195	P	0.9
7	☐	1000.000	988.012	1580193.34	3.8811	P	0.3
8	☐			26109.05	0.0655	P	0.9

$$y = 0.0039 * x + 2.2559E-004$$

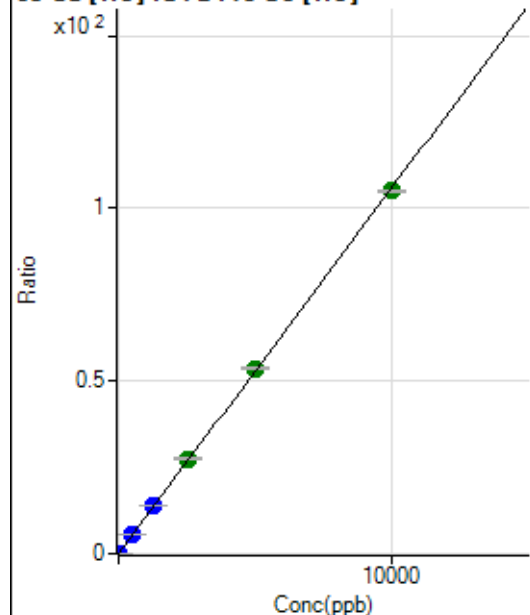
$$R = 0.9997$$

$$DL = 0.03183$$

$$BEC = 0.05743$$

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	874.49	0.0020	P	7.2
2	☐	2.000	2.238	11306.75	0.0256	P	0.9
3	☐	500.000	538.921	2454260.14	5.7021	P	0.7
4	☐	1250.000	1315.861	5848555.95	13.9199	P	0.4
5	☐	2500.000	2600.356	11268156.64	27.5060	A	0.6
6	☐	5000.000	5071.481	21507512.74	53.6432	A	0.6
7	☐	10000.000	9928.992	42760083.53	105.0212	A	0.2
8	☐			13336.26	0.0335	P	2.0

$$y = 0.0106 * x + 0.0020$$

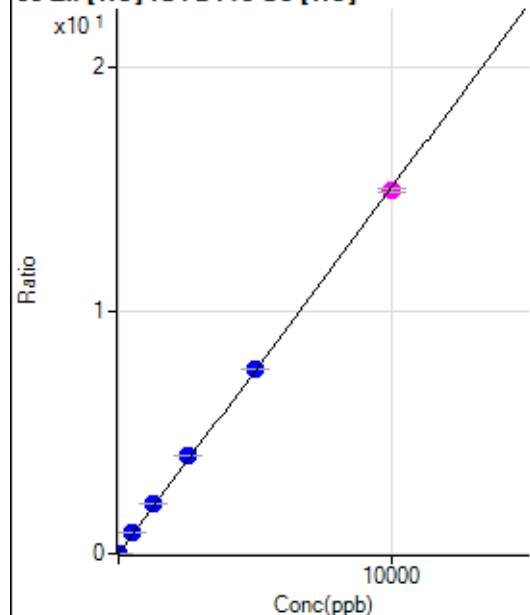
$$R = 0.9999$$

$$DL = 0.03982$$

$$BEC = 0.1845$$

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	1860.15	0.0042	P	8.3
2	☐	2.000	2.427	3447.13	0.0078	P	5.5
3	☐	500.000	558.222	363881.04	0.8454	P	0.8
4	☐	1250.000	1382.548	877167.90	2.0877	P	0.8
5	☐	2500.000	2670.929	1650712.72	4.0294	P	0.5
6	☐	5000.000	5049.994	3053098.84	7.6148	P	0.5
7	☐	10000.000	9912.791	6084499.77	14.9434	M	1.1
8	☐			18442.94	0.0463	P	0.3

$$y = 0.0015 * x + 0.0042$$

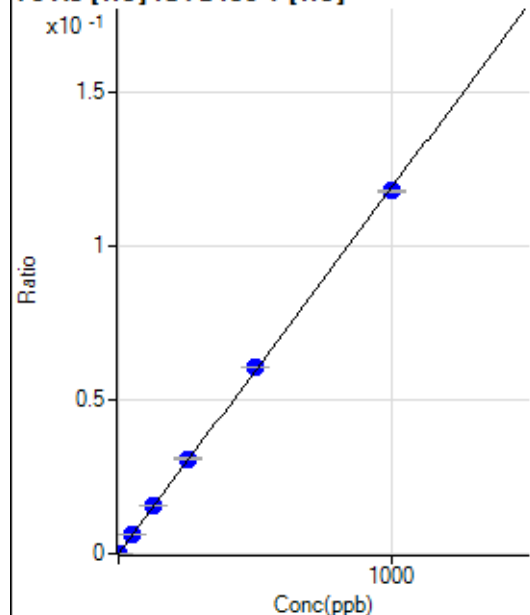
$$R = 0.9998$$

$$DL = 0.6901$$

$$BEC = 2.755$$

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	9.88	0.0000	P	43.2
2	☐	1.000	1.072	432.73	0.0001	P	12.3
3	☐	50.000	53.443	20727.19	0.0064	P	1.9
4	☐	125.000	133.438	50777.10	0.0159	P	0.3
5	☐	250.000	259.280	97340.78	0.0308	P	1.6
6	☐	500.000	509.865	186113.92	0.0607	P	0.9
7	☐	1000.000	991.521	363621.04	0.1179	P	0.8
8	☐			190.74	0.0001	P	3.3

$$y = 1.1895E-004 * x + 2.9520E-006$$

$$R = 0.9999$$

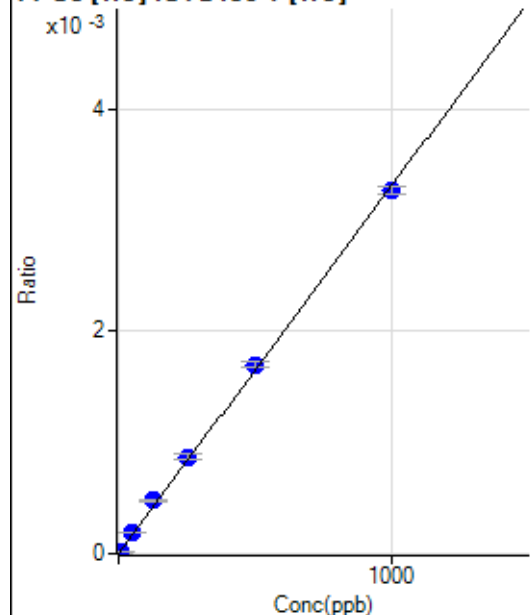
$$DL = 0.0322$$

$$BEC = 0.02482$$

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	1.11	0.0000	P	173.
2	☐	5.000	5.474	61.11	0.0000	P	18.3
3	☐	50.000	56.095	605.58	0.0002	P	2.2
4	☐	125.000	144.070	1524.55	0.0005	P	1.6
5	☐	250.000	263.817	2753.64	0.0009	P	4.3
6	☐	500.000	514.232	5217.69	0.0017	P	2.5
7	☐	1000.000	986.739	10059.20	0.0033	P	2.1
8	☐			4.44	0.0000	P	114.

$$y = 3.3063\text{E-}006 * x + 3.3103\text{E-}007$$

$$R = 0.9996$$

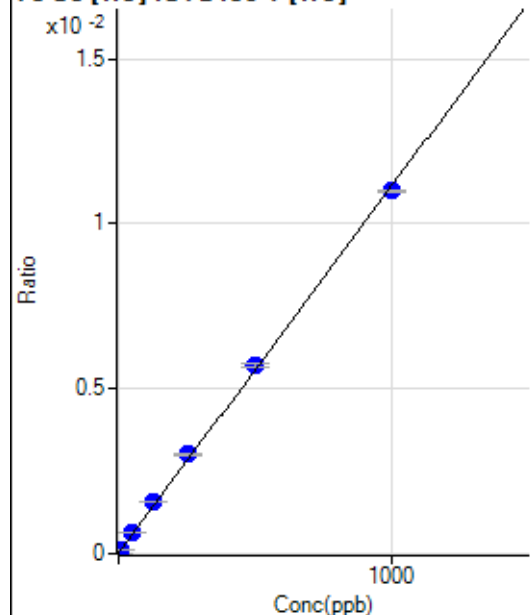
$$DL = 0.5203$$

$$BEC = 0.1001$$

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	58.64	0.0000	P	17.2
2	☐	5.000	6.856	311.12	0.0001	P	5.8
3	☐	50.000	56.721	2113.14	0.0006	P	4.0
4	☐	125.000	139.129	5004.60	0.0016	P	2.0
5	☐	250.000	268.576	9481.56	0.0030	P	2.5
6	☐	500.000	511.951	17523.01	0.0057	P	1.5
7	☐	1000.000	987.269	33901.91	0.0110	P	0.9
8	☐			61.73	0.0000	P	19.7

$$y = 1.1121\text{E-}005 * x + 1.7523\text{E-}005$$

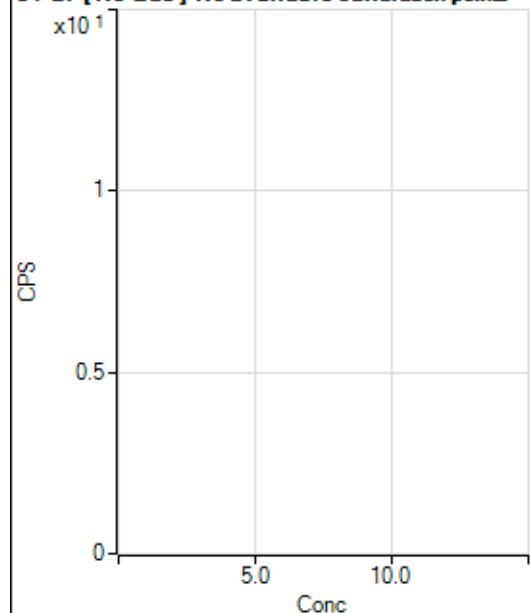
$$R = 0.9997$$

$$DL = 0.8129$$

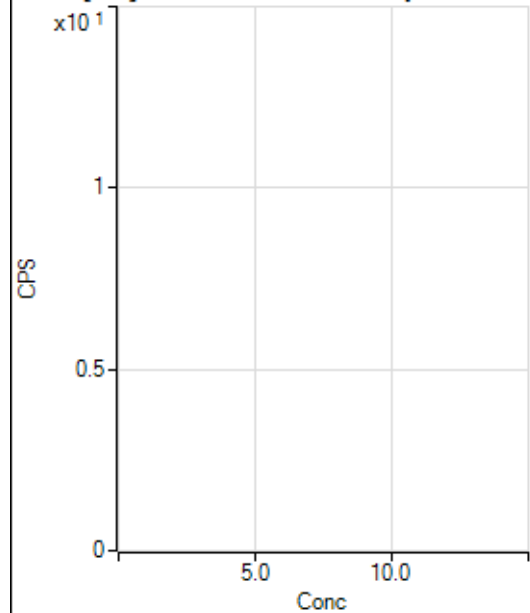
$$BEC = 1.576$$

Weight: <None>

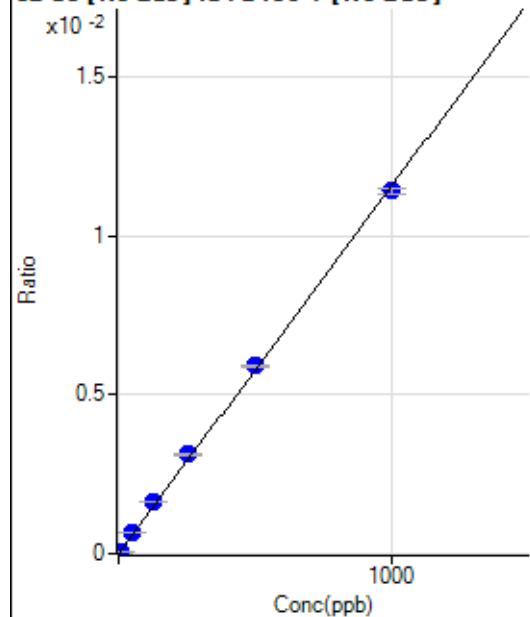
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			56894.00		P	1.6
2	☐			56659.34		P	1.9
3	☐			56237.37		P	1.5
4	☐			56502.04		P	0.8
5	☐			53618.04		P	1.2
6	☐			56106.48		P	0.8
7	☐			57252.36		P	2.0
8	☐			54669.63		P	2.2

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			56.73		P	73.5
2	☐			66.74		P	37.8
3	☐			33.37		P	62.4
4	☐			46.72		P	86.6
5	☐			60.06		P	66.7
6	☐			46.71		P	12.4
7	☐			80.08		P	33.1
8	☐			66.74		P	45.8

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.09	0.0000	P	13.5
2	☐	5.000	6.093	2049.30	0.0001	P	2.3
3	☐	50.000	56.956	17947.31	0.0007	P	0.7
4	☐	125.000	141.525	43925.63	0.0016	P	0.8
5	☐	250.000	269.522	82871.36	0.0031	P	1.2
6	☐	500.000	510.960	153262.29	0.0059	P	0.5
7	☐	1000.000	987.221	300640.87	0.0114	P	1.9
8	☐			314.74	0.0000	P	9.6

$$y = 1.1573\text{E-}005 * x + 2.6022\text{E-}006$$

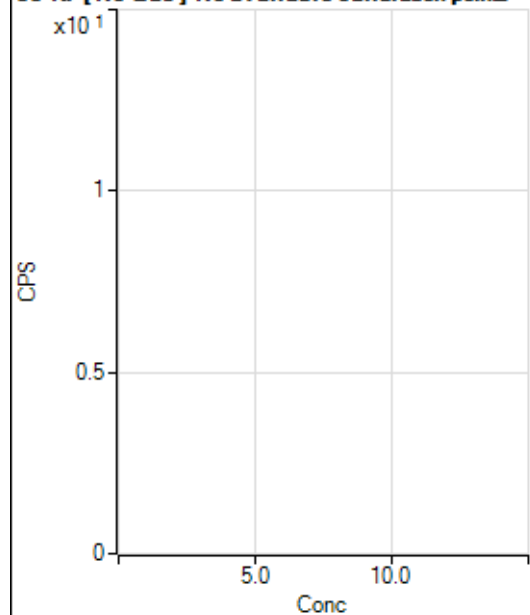
$$R = 0.9996$$

$$DL = 0.09084$$

$$BEC = 0.2248$$

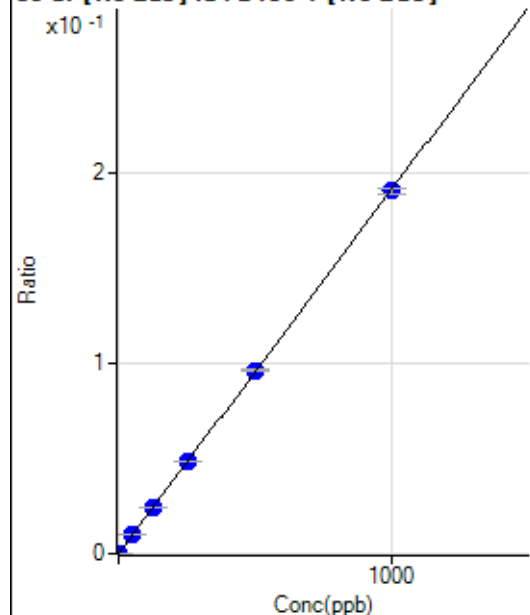
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			370.01		P	3.1
2	☐			378.90		P	13.2
3	☐			387.79		P	3.0
4	☐			375.57		P	13.8
5	☐			381.12		P	8.1
6	☐			427.79		P	17.0
7	☐			474.46		P	5.7
8	☐			440.01		P	4.2

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	619.49	0.0000	P	7.7
2	☐	1.000	1.009	6045.98	0.0002	P	5.1
3	☐	50.000	51.186	265405.88	0.0098	P	0.8
4	☐	125.000	128.249	655592.15	0.0245	P	0.9
5	☐	250.000	254.478	1289113.53	0.0486	P	0.8
6	☐	500.000	503.312	2487507.22	0.0960	P	1.2
7	☐	1000.000	996.759	5002366.30	0.1901	P	1.6
8	☐			11051.92	0.0004	P	4.3

$$y = 1.9073\text{E-}004 * x + 2.3318\text{E-}005$$

R = 1.0000

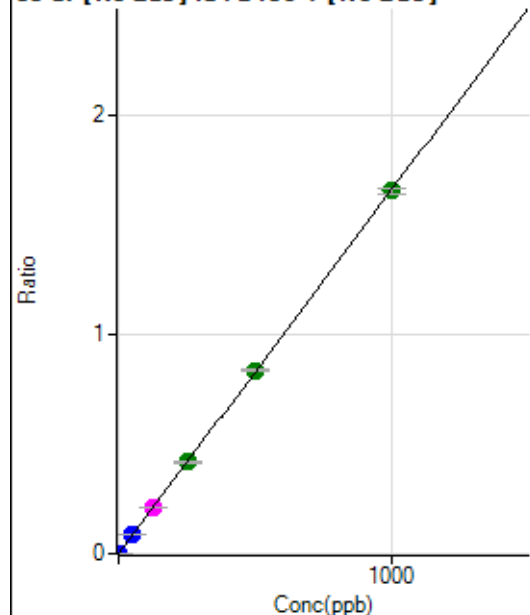
DL = 0.0282

BEC = 0.1223

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	244.46	0.0000	P	18.2
2	☐	1.000	1.034	48449.45	0.0017	P	2.4
3	☐	50.000	51.006	2300077.61	0.0848	P	0.9
4	☐	125.000	128.207	5707752.04	0.2132	M	0.9
5	☐	250.000	251.446	11098138.96	0.4181	A	0.4
6	☐	500.000	503.281	21676823.40	0.8367	A	1.4
7	☐	1000.000	997.547	43633219.72	1.6585	A	1.6
8	☐			88631.93	0.0035	P	1.4

$$y = 0.0017 * x + 9.1938\text{E-}006$$

R = 1.0000

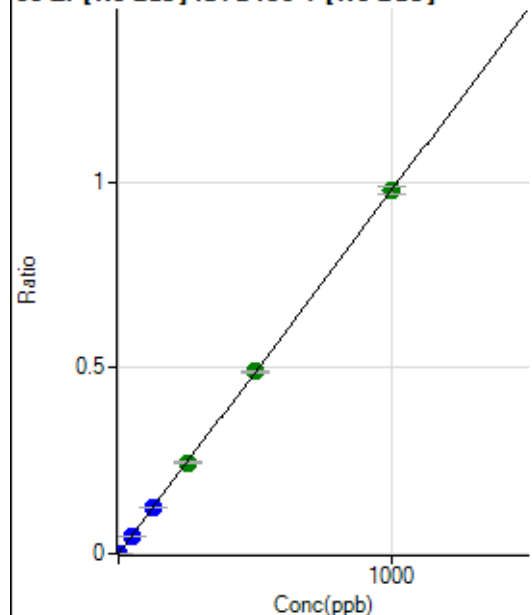
DL = 0.003012

BEC = 0.00553

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	1252.89	0.0000	P	7.3
2	☐	1.000	0.705	20612.77	0.0007	P	4.9
3	☐	50.000	48.975	1297938.62	0.0479	P	0.9
4	☐	125.000	127.804	3342009.43	0.1248	P	0.6
5	☐	250.000	250.824	6501682.04	0.2449	A	0.9
6	☐	500.000	500.933	12670090.65	0.4891	A	0.5
7	☐	1000.000	999.029	25657790.51	0.9753	A	2.1
8	☐			9042.09	0.0004	P	4.8

$$y = 9.7621\text{E-}004 * x + 4.7167\text{E-}005$$

$$R = 1.0000$$

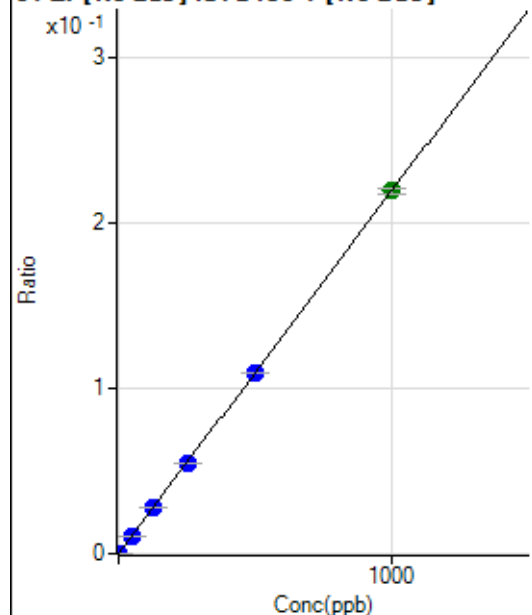
$$DL = 0.01052$$

$$BEC = 0.04832$$

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	247.24	0.0000	P	18.3
2	☐	1.000	0.667	4356.43	0.0002	P	4.9
3	☐	50.000	48.562	288613.04	0.0106	P	0.4
4	☐	125.000	126.600	742431.40	0.0277	P	0.3
5	☐	250.000	250.135	1454051.08	0.0548	P	0.7
6	☐	500.000	498.268	2826431.81	0.1091	P	0.2
7	☐	1000.000	1000.705	5764129.69	0.2191	A	1.8
8	☐			2066.91	0.0001	P	7.4

$$y = 2.1894\text{E-}004 * x + 9.3027\text{E-}006$$

$$R = 1.0000$$

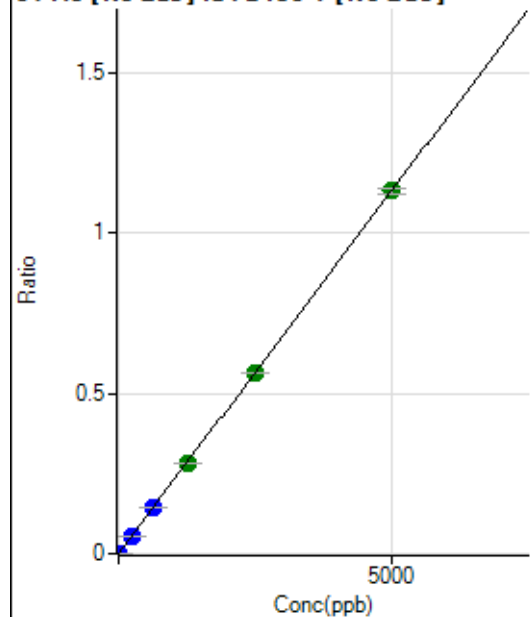
$$DL = 0.02333$$

$$BEC = 0.04249$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	469.47	0.0000	P	15.0
2	☐	5.000	4.726	30502.93	0.0011	P	2.0
3	☐	250.000	249.546	1533831.35	0.0566	P	0.6
4	☐	625.000	634.939	3852341.75	0.1439	P	0.2
5	☐	1250.000	1252.016	7530832.89	0.2837	A	0.9
6	☐	2500.000	2493.975	14638588.70	0.5651	A	0.8
7	☐	5000.000	5001.289	29810343.72	1.1331	A	1.8
8	☐			22624.28	0.0009	P	0.2

$$y = 2.2656E-004 * x + 1.7681E-005$$

$$R = 1.0000$$

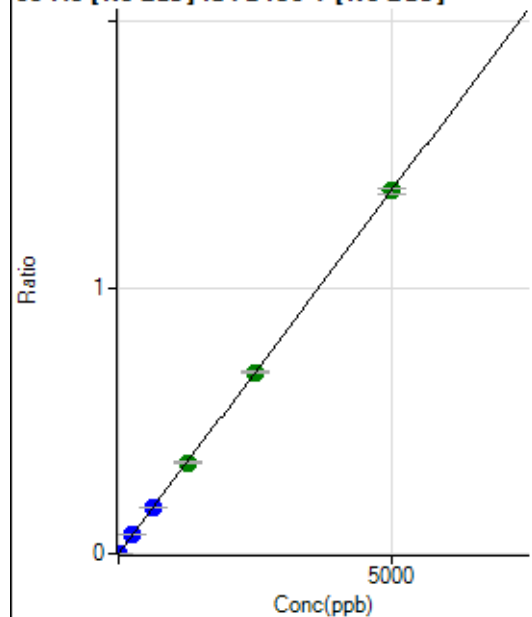
$$DL = 0.03506$$

$$BEC = 0.07804$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119.45	0.0000	P	10.4
2	☐	5.000	5.336	40945.83	0.0015	P	1.0
3	☐	250.000	252.589	1870090.80	0.0690	P	0.4
4	☐	625.000	639.211	4672151.40	0.1745	P	0.6
5	☐	1250.000	1251.978	9072243.35	0.3417	A	1.3
6	☐	2500.000	2500.099	17679146.23	0.6824	A	1.1
7	☐	5000.000	4997.550	35888336.57	1.3642	A	1.9
8	☐			32560.26	0.0013	P	0.9

$$y = 2.7296E-004 * x + 4.4952E-006$$

$$R = 1.0000$$

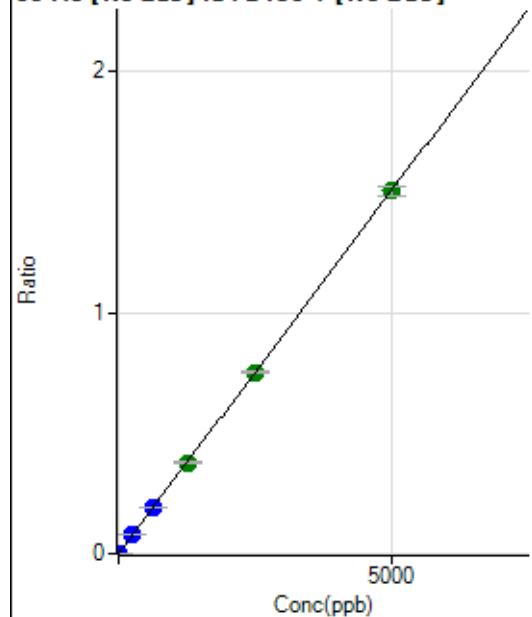
$$DL = 0.005119$$

$$BEC = 0.01647$$

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	375.02	0.0000	P	14.0
2	☐	5.000	5.274	44880.05	0.0016	P	1.3
3	☐	250.000	253.281	2067887.65	0.0762	P	0.6
4	☐	625.000	638.596	5146743.08	0.1922	P	0.6
5	☐	1250.000	1253.723	10017488.59	0.3773	A	0.7
6	☐	2500.000	2501.223	19501816.93	0.7528	A	1.3
7	☐	5000.000	4996.594	39560763.04	1.5038	A	2.4
8	☐			56270.51	0.0022	P	2.8

$$y = 3.0097\text{E-}004 * x + 1.4124\text{E-}005$$

$$R = 1.0000$$

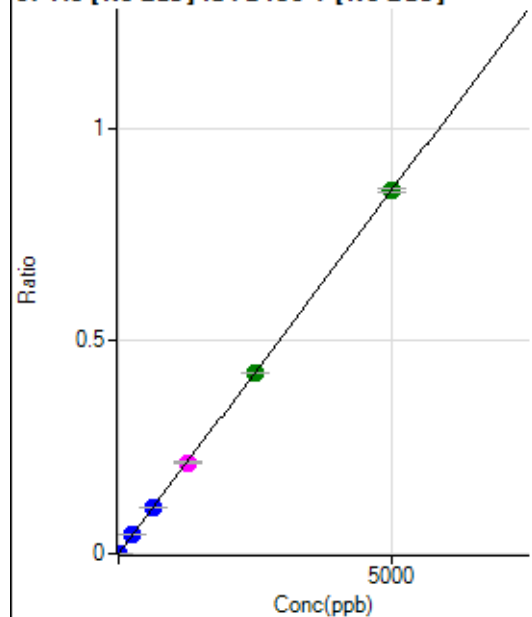
$$DL = 0.01972$$

$$BEC = 0.04693$$

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	130.56	0.0000	P	14.0
2	☐	5.000	5.313	25556.98	0.0009	P	1.1
3	☐	250.000	253.079	1171874.11	0.0432	P	0.3
4	☐	625.000	636.542	2909836.35	0.1087	P	0.7
5	☐	1250.000	1256.307	5693754.21	0.2145	M	0.6
6	☐	2500.000	2499.126	11052998.60	0.4266	A	0.2
7	☐	5000.000	4997.263	22446176.54	0.8531	A	1.0
8	☐			20031.50	0.0008	P	4.4

$$y = 1.7071\text{E-}004 * x + 4.9174\text{E-}006$$

$$R = 1.0000$$

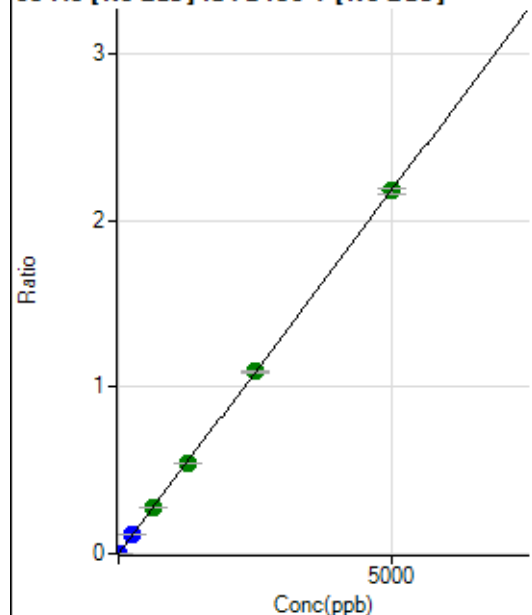
$$DL = 0.01211$$

$$BEC = 0.0288$$

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	222.23	0.0000	P	22.3
2	☐	5.000	5.306	65118.85	0.0023	P	1.6
3	☐	250.000	253.987	3005285.18	0.1108	P	0.7
4	☐	625.000	629.222	7350269.78	0.2745	A	0.9
5	☐	1250.000	1248.684	14461448.76	0.5448	A	0.7
6	☐	2500.000	2506.408	28326233.62	1.0934	A	1.1
7	☐	5000.000	4996.398	57348378.37	2.1797	A	1.3
8	☐			51103.50	0.0020	P	1.1

$$y = 4.3625\text{E-}004 * x + 8.3686\text{E-}006$$

$$R = 1.0000$$

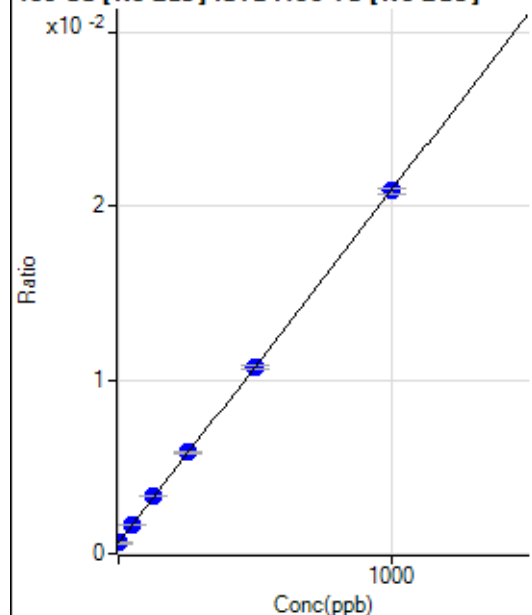
$$DL = 0.01283$$

$$BEC = 0.01918$$

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	14494.07	0.0006	P	2.4
2	☐	1.000	-0.546	14900.06	0.0006	P	2.8
3	☐	50.000	50.746	39469.89	0.0017	P	2.4
4	☐	125.000	133.775	79873.04	0.0033	P	0.7
5	☐	250.000	257.803	137745.42	0.0059	P	1.6
6	☐	500.000	497.916	249922.32	0.0107	P	1.6
7	☐	1000.000	997.959	490994.94	0.0209	P	1.9
8	☐			12706.22	0.0006	P	3.3

$$y = 2.0300\text{E-}005 * x + 6.2208\text{E-}004$$

$$R = 0.9999$$

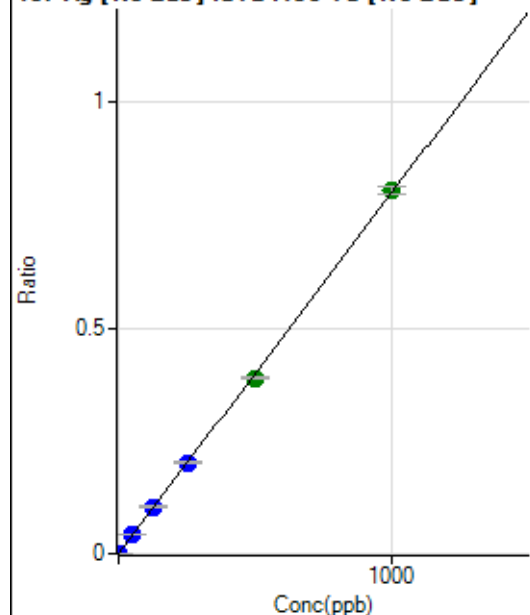
$$DL = 2.185$$

$$BEC = 30.65$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	250.02	0.0000	P	19.9
2	☐	1.000	1.151	22721.77	0.0009	P	0.2
3	☐	50.000	53.129	1015659.34	0.0425	P	0.5
4	☐	125.000	130.265	2494578.36	0.1042	P	0.6
5	☐	250.000	252.740	4757641.86	0.2022	P	1.4
6	☐	500.000	486.521	9067934.58	0.3893	A	0.8
7	☐	1000.000	1005.240	18914604.59	0.8043	A	1.9
8	☐			4806.60	0.0002	P	5.3

$$y = 8.0014\text{E-}004 * x + 1.0751\text{E-}005$$

$$R = 0.9998$$

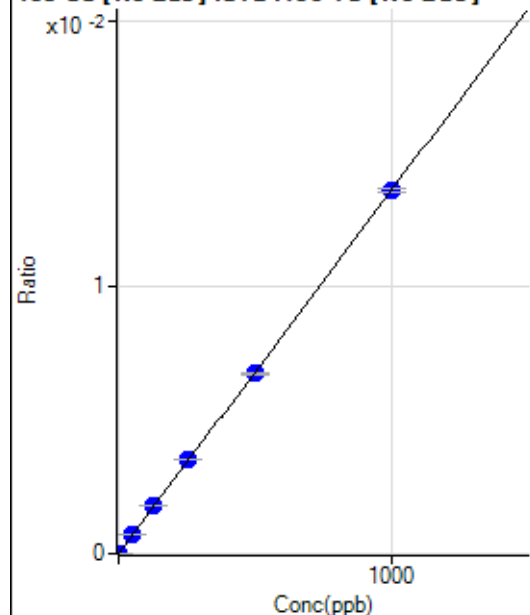
$$DL = 0.008026$$

$$BEC = 0.01344$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	34.72	0.0000	P	40.0
2	☐	1.000	1.010	372.24	0.0000	P	7.1
3	☐	50.000	53.785	17538.92	0.0007	P	1.9
4	☐	125.000	133.238	43480.72	0.0018	P	0.5
5	☐	250.000	258.728	82970.54	0.0035	P	0.9
6	☐	500.000	496.738	157688.38	0.0068	P	1.0
7	☐	1000.000	998.230	319891.59	0.0136	P	1.0
8	☐			130.56	0.0000	P	10.3

$$y = 1.3625\text{E-}005 * x + 1.4958\text{E-}006$$

$$R = 0.9999$$

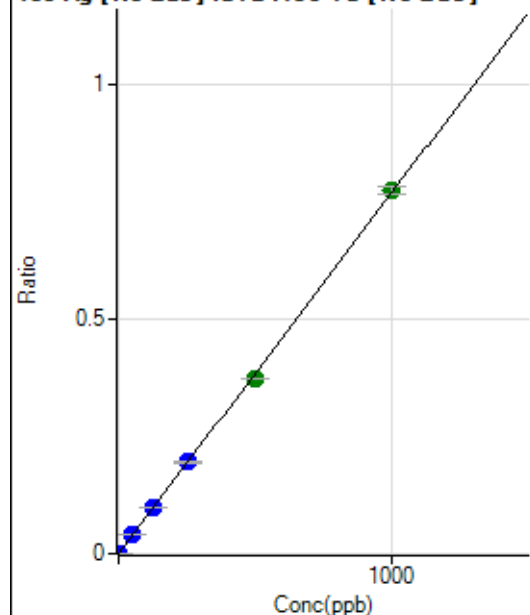
$$DL = 0.1319$$

$$BEC = 0.1098$$

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	66.67	0.0000	P	32.4
2	☐	1.000	1.159	21789.86	0.0009	P	0.7
3	☐	50.000	52.719	967614.05	0.0405	P	0.7
4	☐	125.000	128.933	2370853.72	0.0991	P	1.1
5	☐	250.000	253.439	4581316.46	0.1947	P	1.1
6	☐	500.000	484.639	8674078.32	0.3724	A	0.8
7	☐	1000.000	1006.193	18180121.59	0.7731	A	2.2
8	☐			4350.86	0.0002	P	6.3

$$y = 7.6838\text{E-}004 * x + 2.8591\text{E-}006$$

$$R = 0.9998$$

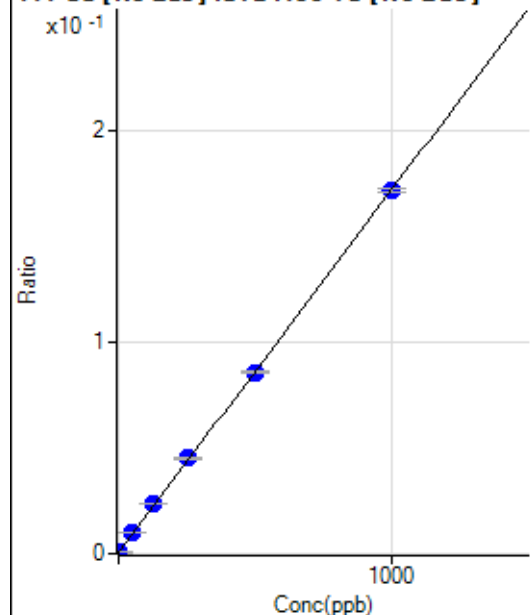
$$DL = 0.003617$$

$$BEC = 0.003721$$

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	10153.49	0.0004	P	2.5
2	☐	1.000	0.995	14781.43	0.0006	P	1.7
3	☐	50.000	54.175	232039.93	0.0097	P	0.6
4	☐	125.000	132.939	555314.62	0.0232	P	0.1
5	☐	250.000	260.914	1061561.28	0.0451	P	1.0
6	☐	500.000	497.167	1993602.92	0.0856	P	0.9
7	☐	1000.000	997.487	4027876.39	0.1713	P	1.2
8	☐			9837.74	0.0005	P	3.0

$$y = 1.7127\text{E-}004 * x + 4.3578\text{E-}004$$

$$R = 0.9999$$

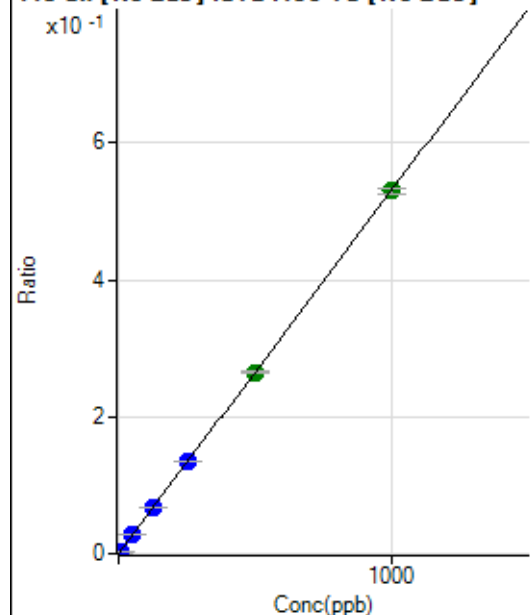
$$DL = 0.192$$

$$BEC = 2.544$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	638.93	0.0000	P	26.2
2	☐	5.000	5.057	66117.06	0.0027	P	1.5
3	☐	50.000	51.581	654499.09	0.0274	P	0.6
4	☐	125.000	129.187	1641364.41	0.0686	P	0.1
5	☐	250.000	254.451	3177480.61	0.1351	P	1.1
6	☐	500.000	499.363	6173582.56	0.2650	A	1.1
7	☐	1000.000	998.603	12463375.19	0.5300	A	1.3
8	☐			13701.68	0.0006	P	2.3

$$y = 5.3070\text{E-}004 * x + 2.7451\text{E-}005$$

$$R = 1.0000$$

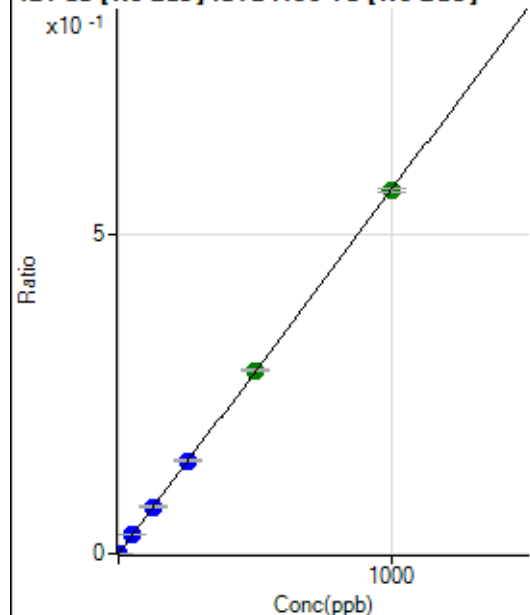
$$DL = 0.04064$$

$$BEC = 0.05173$$

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD :159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	43.4
2	☐	2.000	2.062	28772.11	0.0012	P	1.9
3	☐	50.000	51.021	695833.01	0.0291	P	1.3
4	☐	125.000	129.282	1766521.55	0.0738	P	0.2
5	☐	250.000	255.943	3437974.04	0.1461	P	0.8
6	☐	500.000	502.661	6685165.38	0.2870	A	0.8
7	☐	1000.000	996.597	13381273.47	0.5690	A	1.1
8	☐			17033.26	0.0008	P	6.7

$$y = 5.7096\text{E-}004 * x + 2.1417\text{E-}006$$

$$R = 1.0000$$

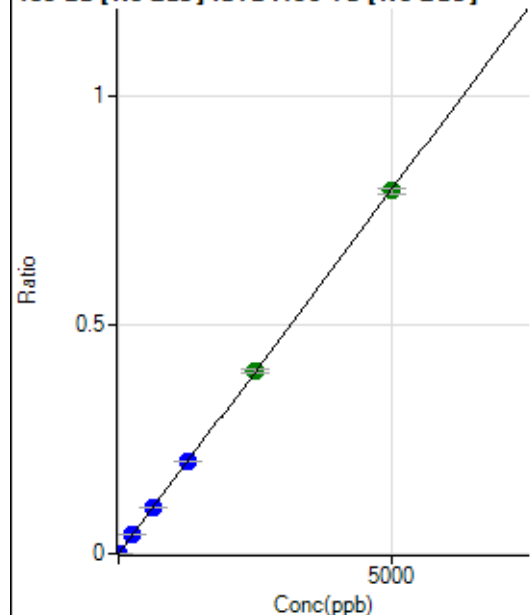
$$DL = 0.004879$$

$$BEC = 0.003751$$

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	86.11	0.0000	P	32.6
2	☐	10.000	10.597	41248.43	0.0017	P	1.9
3	☐	250.000	258.289	982608.00	0.0411	P	1.7
4	☐	625.000	643.363	2452197.45	0.1025	P	1.0
5	☐	1250.000	1273.028	4769853.80	0.2028	P	1.2
6	☐	2500.000	2509.216	9308593.70	0.3996	A	1.6
7	☐	5000.000	4986.924	18677864.31	0.7943	A	1.6
8	☐			33733.49	0.0015	P	1.0

$$y = 1.5927E-004 * x + 3.7074E-006$$

$$R = 1.0000$$

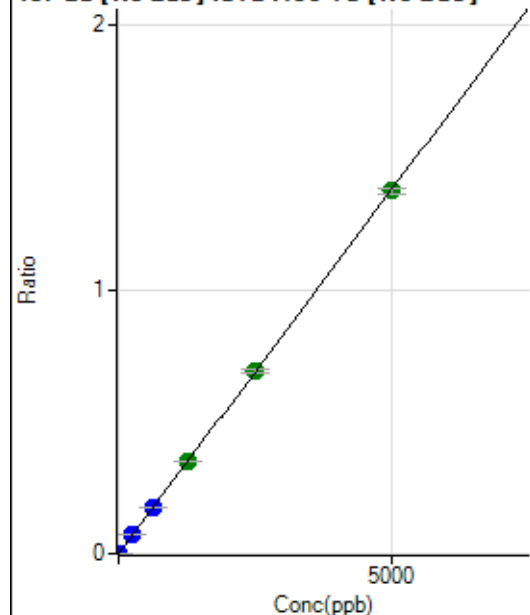
$$DL = 0.02275$$

$$BEC = 0.02328$$

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	147.23	0.0000	P	11.3
2	☐	10.000	10.588	71252.67	0.0029	P	0.5
3	☐	250.000	259.108	1704115.55	0.0713	P	1.4
4	☐	625.000	644.832	4249064.24	0.1776	P	0.7
5	☐	1250.000	1269.350	8222642.98	0.3495	A	0.8
6	☐	2500.000	2511.238	16105703.83	0.6915	A	1.4
7	☐	5000.000	4986.608	32287882.67	1.3730	A	1.5
8	☐			59162.68	0.0027	P	1.3

$$y = 2.7534E-004 * x + 6.3187E-006$$

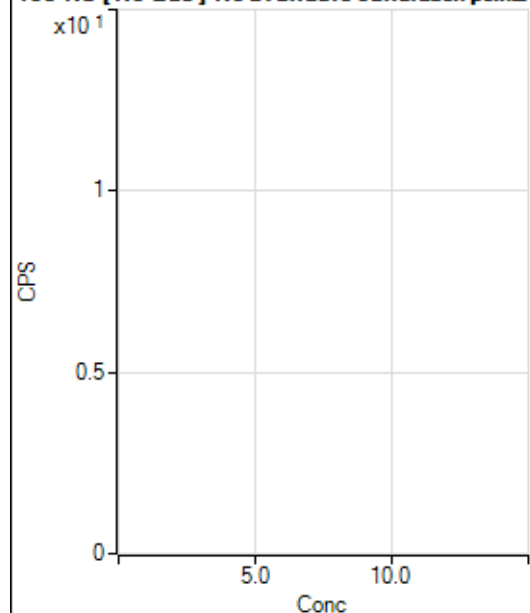
$$R = 1.0000$$

$$DL = 0.007793$$

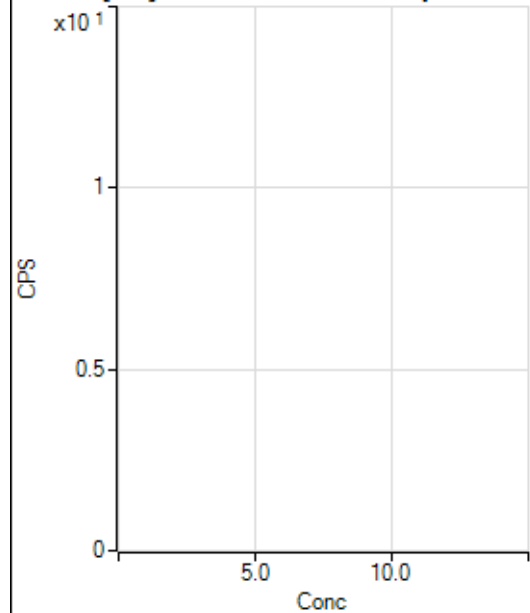
$$BEC = 0.02295$$

Weight: <None>

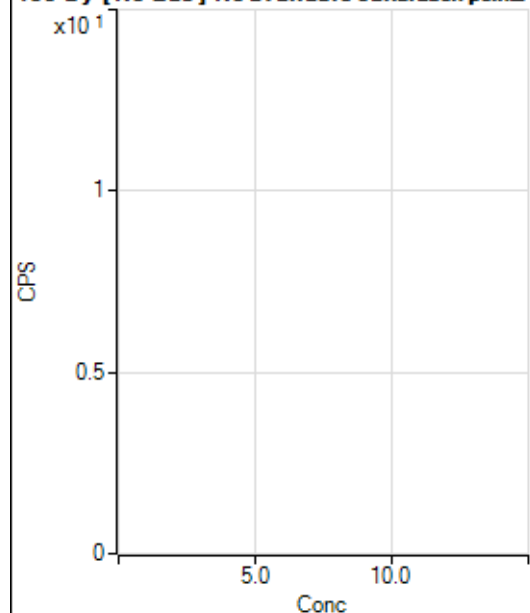
Min Conc: 0

150 Nd [No Gas] No available calibration points

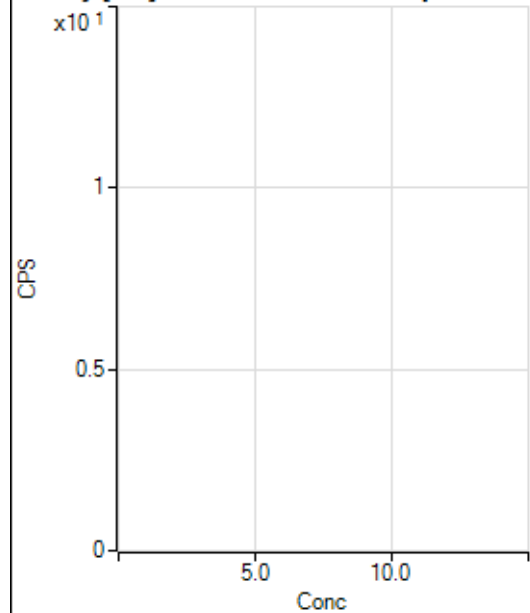
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.
2	☐			8.89		P	43.3
3	☐			146.67		P	22.7
4	☐			328.91		P	10.2
5	☐			666.71		P	9.8
6	☐			1222.32		P	3.8
7	☐			2273.60		P	5.9
8	☐			162.23		P	30.3

150 Nd [He] No available calibration points

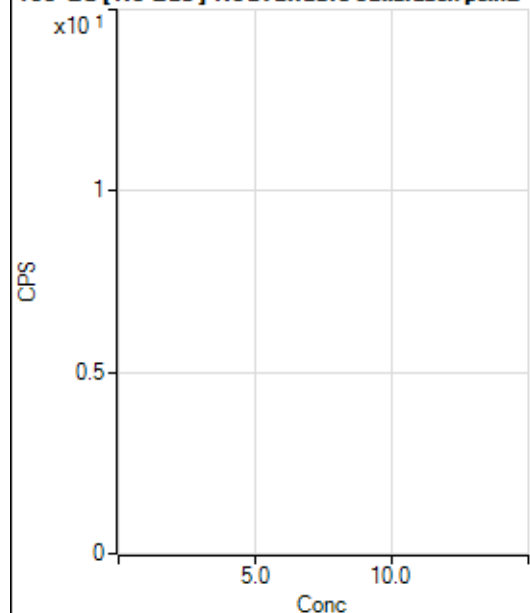
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐			0.00		P	
3	☐			12.22		P	56.8
4	☐			21.11		P	39.7
5	☐			32.22		P	48.9
6	☐			66.67		P	5.0
7	☐			147.78		P	18.8
8	☐			57.78		P	23.3

156 Dy [No Gas] No available calibration points

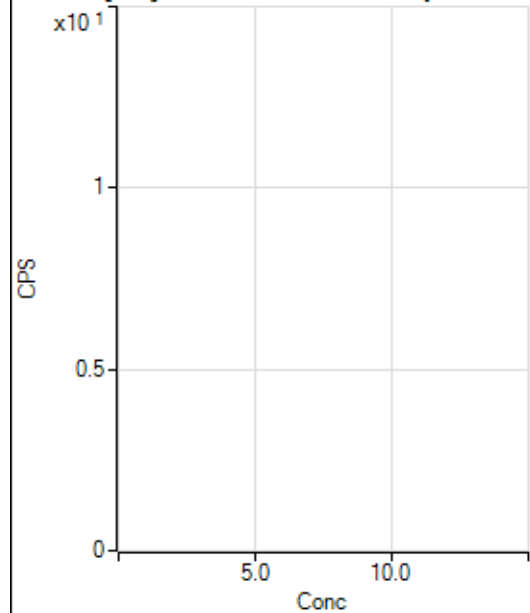
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	43.3
2	☐			22.22		P	43.3
3	☐			69.45		P	18.3
4	☐			100.00		P	22.0
5	☐			205.57		P	20.0
6	☐			308.35		P	11.8
7	☐			547.26		P	15.3
8	☐			869.51		P	10.2

156 Dy [He] No available calibration points

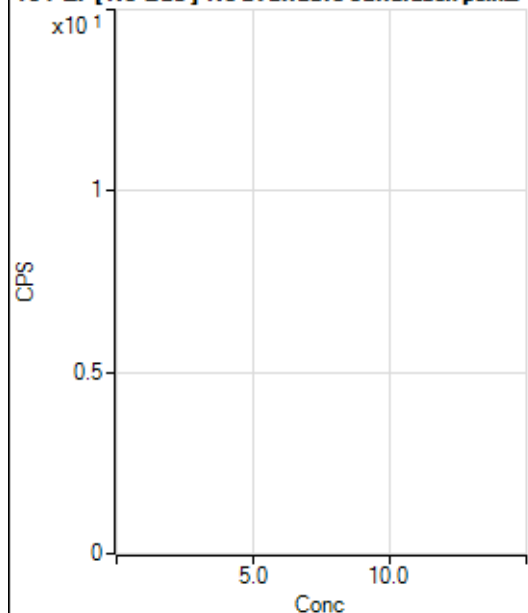
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			14.44		P	13.4
2	☐			16.67		P	34.6
3	☐			28.89		P	24.0
4	☐			66.67		P	18.0
5	☐			117.78		P	18.8
6	☐			201.12		P	16.6
7	☐			354.46		P	11.2
8	☐			492.24		P	8.1

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

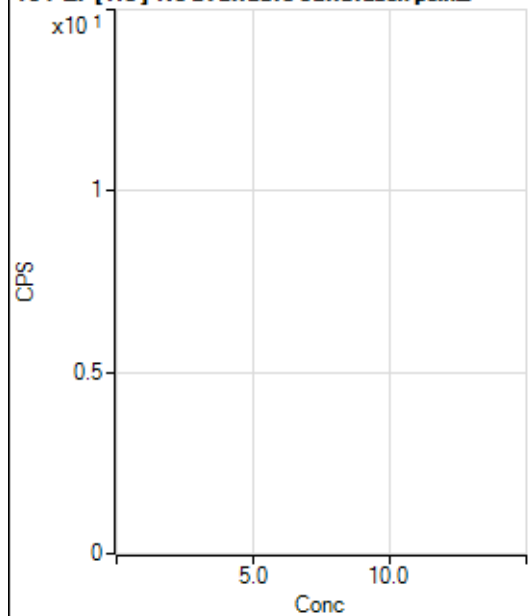
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			116.67		P	14.3
2	☐			141.67		P	27.0
3	☐			111.12		P	24.1
4	☐			166.68		P	21.8
5	☐			197.24		P	13.6
6	☐			291.68		P	5.7
7	☐			341.69		P	12.2
8	☐			1186.22		P	8.0

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			361.12		P	12.0
2	☐			324.45		P	8.3
3	☐			346.67		P	15.5
4	☐			344.45		P	3.4
5	☐			361.12		P	5.9
6	☐			375.56		P	5.4
7	☐			444.46		P	17.3
8	☐			815.59		P	0.9

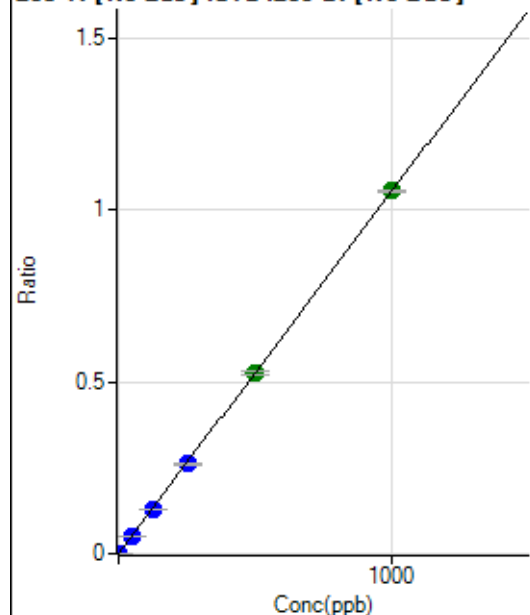
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			125.00		P	24.0
2	☐			97.23		P	21.6
3	☐			113.90		P	15.2
4	☐			105.56		P	45.6
5	☐			138.90		P	33.0
6	☐			125.01		P	46.7
7	☐			177.79		P	17.7
8	☐			222.23		P	13.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			50.00		P	13.3
2	☐			60.00		P	29.4
3	☐			47.78		P	20.1
4	☐			72.22		P	17.5
5	☐			48.89		P	45.4
6	☐			62.22		P	25.3
7	☐			62.22		P	25.3
8	☐			106.67		P	24.4

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	236.13	0.0000	P	7.7
2	☐	1.000	0.954	15871.16	0.0010	P	0.6
3	☐	50.000	48.997	777856.56	0.0517	P	0.5
4	☐	125.000	123.568	1946769.88	0.1302	P	0.5
5	☐	250.000	248.244	3810644.14	0.2616	P	1.2
6	☐	500.000	497.546	7265334.19	0.5243	A	1.9
7	☐	1000.000	1001.895	14353995.11	1.0558	A	0.6
8	☐			3711.82	0.0003	P	3.0

$$y = 0.0011 * x + 1.6083E-005$$

$$R = 1.0000$$

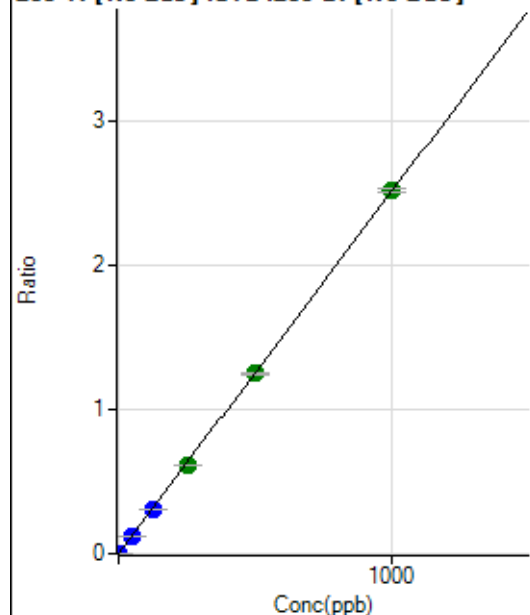
$$DL = 0.003521$$

$$BEC = 0.01526$$

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	558.37	0.0000	P	9.3
2	☐	1.000	0.970	38465.08	0.0025	P	2.3
3	☐	50.000	49.222	1863037.17	0.1237	P	0.6
4	☐	125.000	123.686	4645739.64	0.3108	P	0.2
5	☐	250.000	245.469	8983587.44	0.6168	A	0.7
6	☐	500.000	497.869	17333813.41	1.2509	A	1.6
7	☐	1000.000	1002.401	34238073.68	2.5185	A	1.1
8	☐			9231.41	0.0008	P	6.9

$$y = 0.0025 * x + 3.8034E-005$$

$$R = 1.0000$$

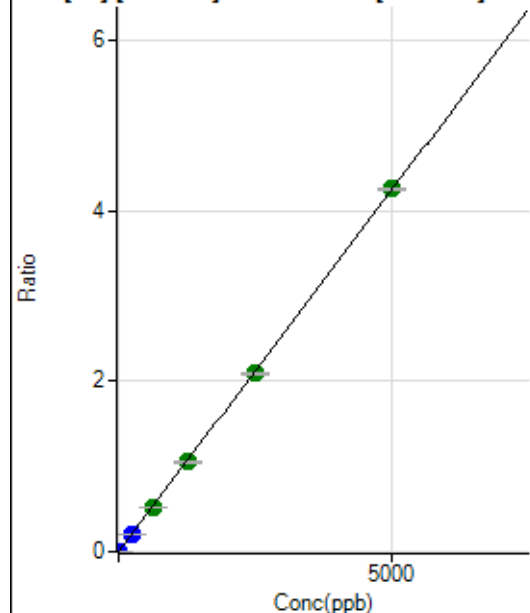
$$DL = 0.004231$$

$$BEC = 0.01514$$

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	1050.08	0.0001	P	9.9
2	☐	1.000	0.986	14107.82	0.0009	P	2.2
3	☐	250.000	249.225	3184649.75	0.2115	P	0.5
4	☐	625.000	617.828	7834351.28	0.5241	A	0.7
5	☐	1250.000	1239.150	15309727.66	1.0511	A	1.1
6	☐	2500.000	2469.728	29033561.30	2.0949	A	1.0
7	☐	5000.000	5018.784	57872577.22	4.2569	A	0.4
8	☐			53102.62	0.0047	P	1.5

$$y = 8.4819E-004 * x + 7.1526E-005$$

$$R = 1.0000$$

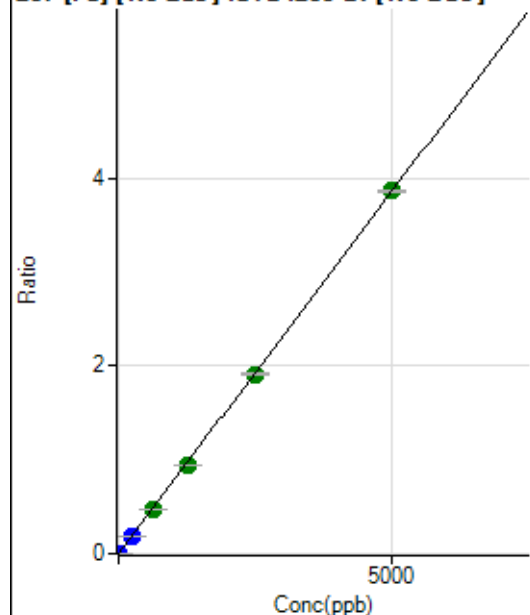
$$DL = 0.02498$$

$$BEC = 0.08433$$

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	957.47	0.0001	P	12.5
2	☐	1.000	0.948	12354.17	0.0008	P	3.8
3	☐	250.000	246.852	2864009.04	0.1902	P	0.7
4	☐	625.000	617.647	7111313.18	0.4757	A	0.6
5	☐	1250.000	1226.408	13757645.33	0.9445	A	1.1
6	☐	2500.000	2482.355	26493559.39	1.9118	A	1.0
7	☐	5000.000	5015.797	52514862.29	3.8628	A	0.4
8	☐			46953.74	0.0041	P	2.5

$$y = 7.7012E-004 * x + 6.5211E-005$$

$$R = 1.0000$$

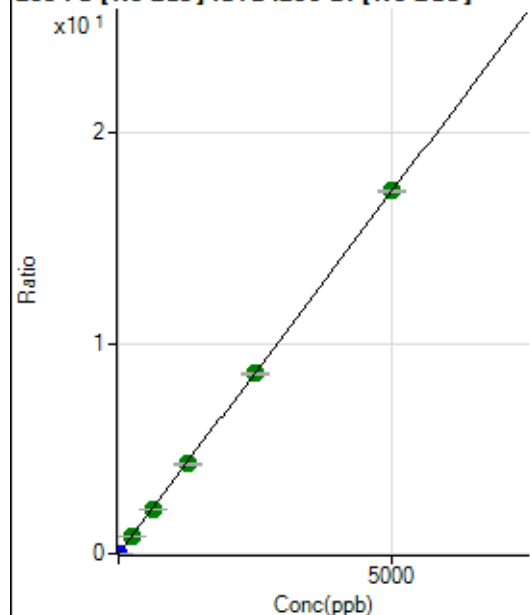
$$DL = 0.03186$$

$$BEC = 0.08468$$

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	4220.76	0.0003	P	6.6
2	☐	1.000	0.974	56568.82	0.0036	P	2.0
3	☐	250.000	246.139	12769349.51	0.8479	A	0.2
4	☐	625.000	615.628	31693244.11	2.1202	A	0.3
5	☐	1250.000	1236.927	62044553.82	4.2597	A	1.0
6	☐	2500.000	2484.626	118571730.8	8.5562	A	1.2
7	☐	5000.000	5012.320	234654507.1	17.2605	A	0.4
8	☐			214059.61	0.0187	P	1.0

$$y = 0.0034 * x + 2.8744E-004$$

$$R = 1.0000$$

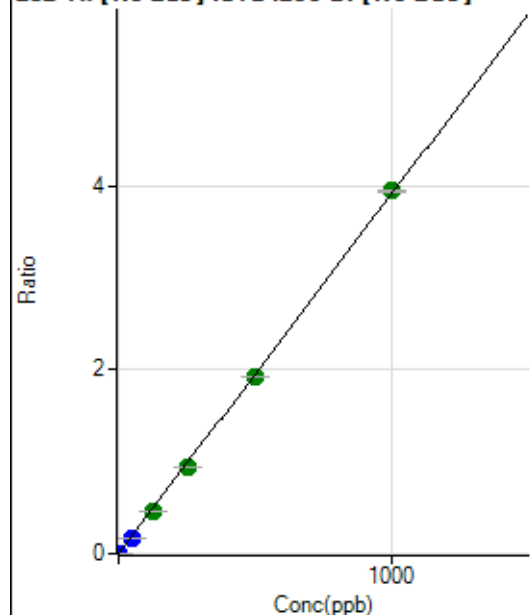
$$DL = 0.0165$$

$$BEC = 0.08347$$

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	2415.11	0.0002	P	7.7
2	☐	1.000	0.591	38501.64	0.0025	P	2.4
3	☐	50.000	44.278	2612810.56	0.1735	P	1.2
4	☐	125.000	117.785	6894462.42	0.4612	A	0.7
5	☐	250.000	238.819	13619535.72	0.9350	A	0.5
6	☐	500.000	490.382	26605614.02	1.9198	A	0.2
7	☐	1000.000	1008.793	53687470.65	3.9491	A	0.8
8	☐			26924.44	0.0024	P	4.0

$$y = 0.0039 * x + 1.6450E-004$$

$$R = 0.9999$$

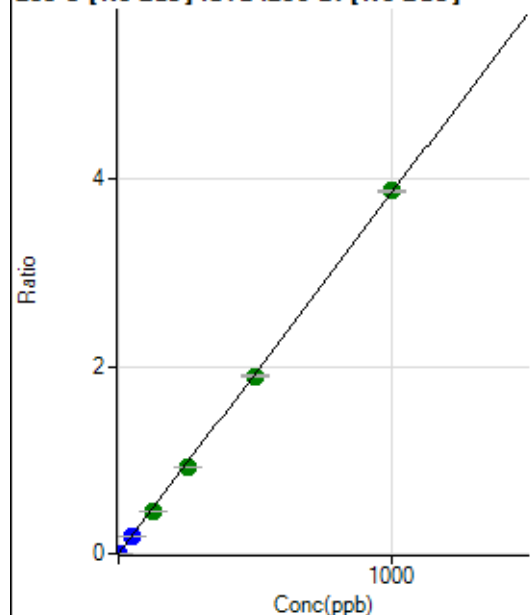
$$DL = 0.009709$$

$$BEC = 0.04202$$

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	47.22	0.0000	P	37.0
2	☐	1.000	0.897	53786.99	0.0035	P	1.0
3	☐	50.000	47.496	2757090.95	0.1831	P	0.7
4	☐	125.000	118.498	6827449.29	0.4567	A	1.3
5	☐	250.000	241.910	13581728.26	0.9324	A	0.5
6	☐	500.000	492.844	26324164.13	1.8996	A	1.0
7	☐	1000.000	1006.538	52743083.82	3.8797	A	0.6
8	☐			6521.40	0.0006	P	5.4

$$y = 0.0039 * x + 3.2173E-006$$

$$R = 0.9999$$

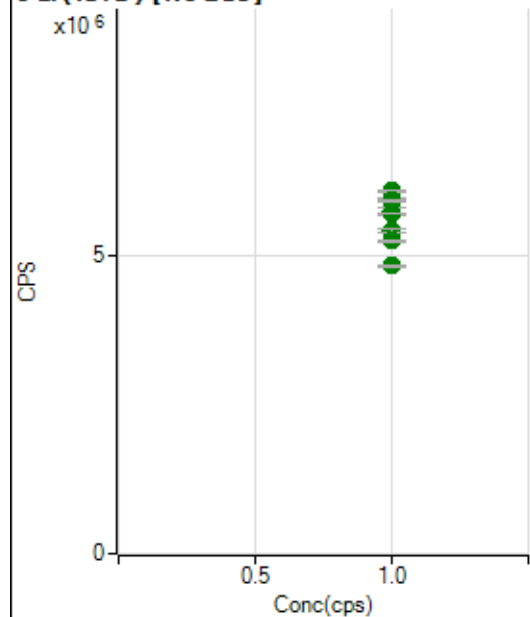
$$DL = 0.000926$$

$$BEC = 0.0008347$$

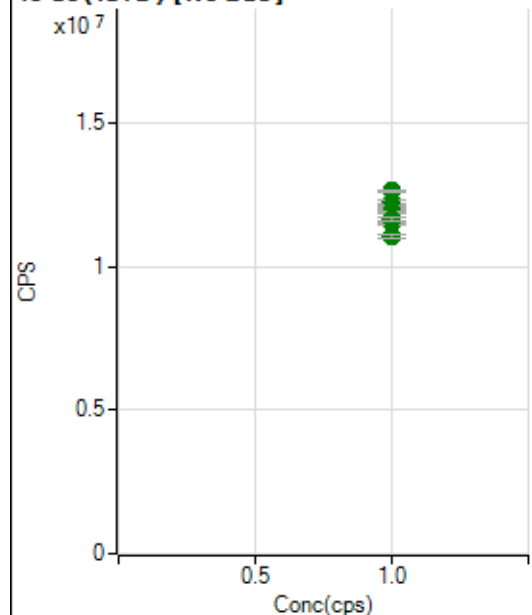
Weight: <None>

Min Conc: 0

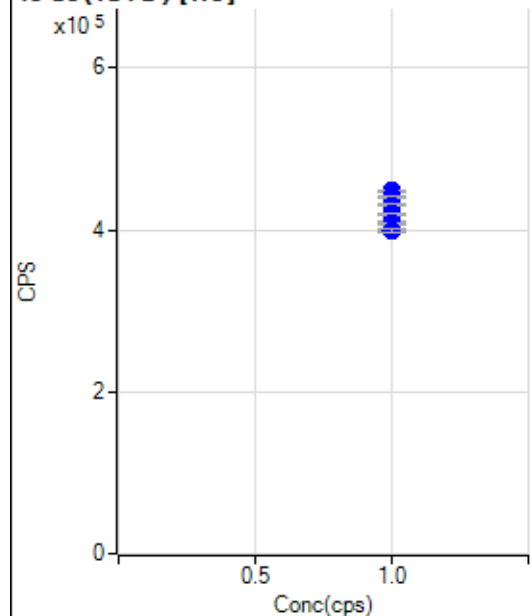
6 Li (ISTD) [No Gas]



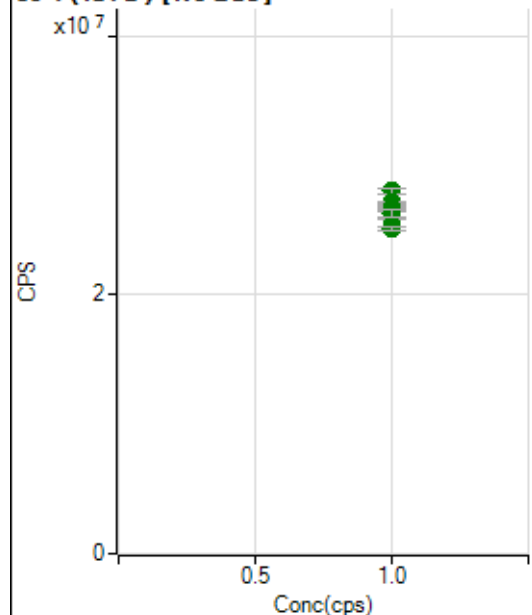
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		5730329.01		A	2.0
2	☐	1.000		6070821.02		A	0.8
3	☐	1.000		5933947.27		A	0.9
4	☐	1.000		5900678.60		A	0.4
5	☐	1.000		5694810.47		A	0.4
6	☐	1.000		5398853.64		A	1.2
7	☐	1.000		5235458.50		A	0.6
8	☐	1.000		4810796.91		A	1.2

45 Sc (ISTD) [No Gas]

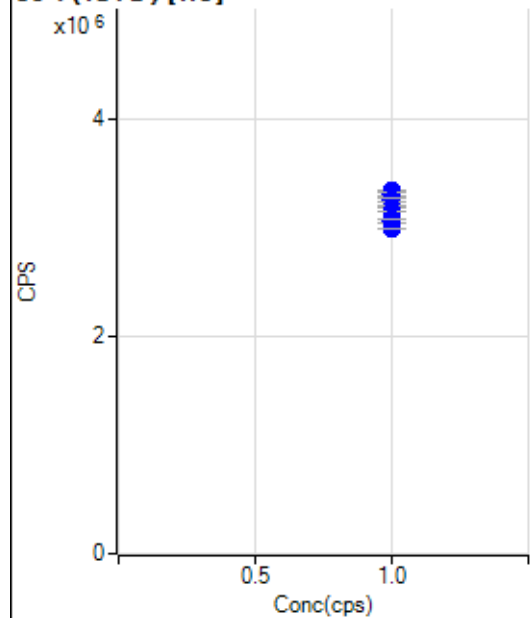
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12010656.91		A	0.2
2	☐	1.000		12622339.95		A	0.8
3	☐	1.000		12230279.26		A	0.9
4	☐	1.000		12097644.96		A	0.4
5	☐	1.000		11887533.43		A	0.5
6	☐	1.000		11474153.02		A	0.4
7	☐	1.000		11625200.38		A	0.9
8	☐	1.000		11026233.03		A	1.2

45 Sc (ISTD) [He]

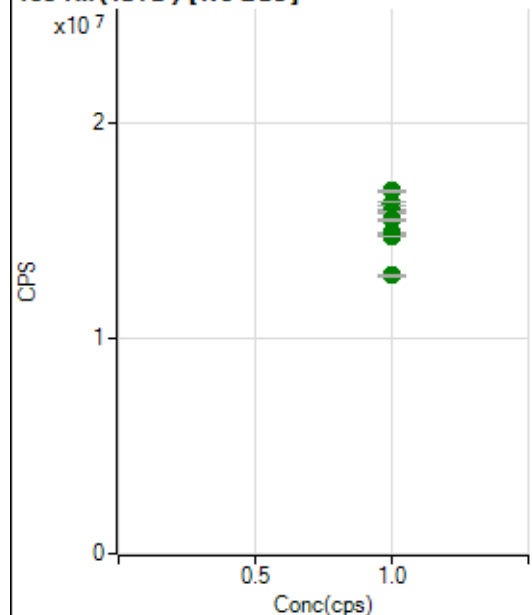
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		448074.98		P	0.4
2	☐	1.000		441359.68		P	0.5
3	☐	1.000		430420.69		P	0.5
4	☐	1.000		420160.35		P	0.6
5	☐	1.000		409668.96		P	0.5
6	☐	1.000		400942.18		P	0.7
7	☐	1.000		407153.85		P	0.6
8	☐	1.000		398685.59		P	0.8

89 Y (ISTD) [No Gas]

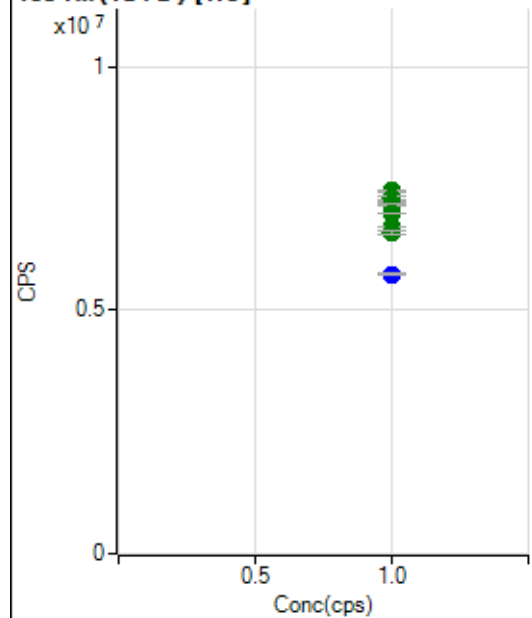
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		26568657.10		A	0.7
2	☐	1.000		28028200.14		A	1.3
3	☐	1.000		27121439.04		A	0.5
4	☐	1.000		26776875.43		A	0.7
5	☐	1.000		26547589.05		A	0.7
6	☐	1.000		25907529.61		A	1.0
7	☐	1.000		26314636.28		A	2.0
8	☐	1.000		25035446.57		A	1.2

89 Y (ISTD) [He]

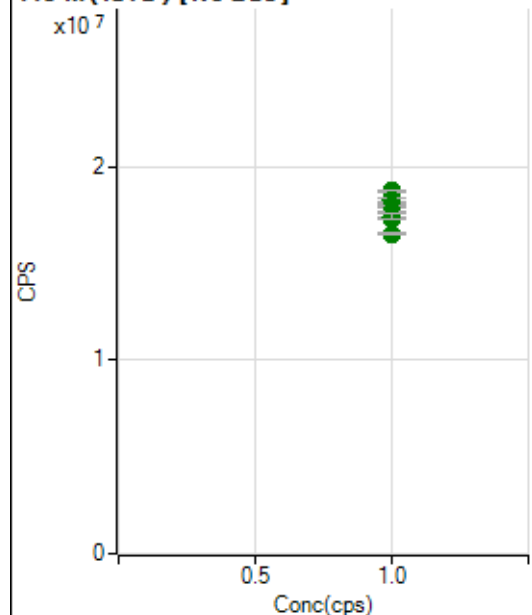
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3345697.31		P	0.2
2	☐	1.000		3319038.56		P	0.8
3	☐	1.000		3259136.65		P	0.8
4	☐	1.000		3198511.31		P	0.8
5	☐	1.000		3155990.65		P	0.4
6	☐	1.000		3068632.07		P	0.6
7	☐	1.000		3083002.59		P	0.1
8	☐	1.000		2998758.85		P	0.3

103 Rh (ISTD) [No Gas]

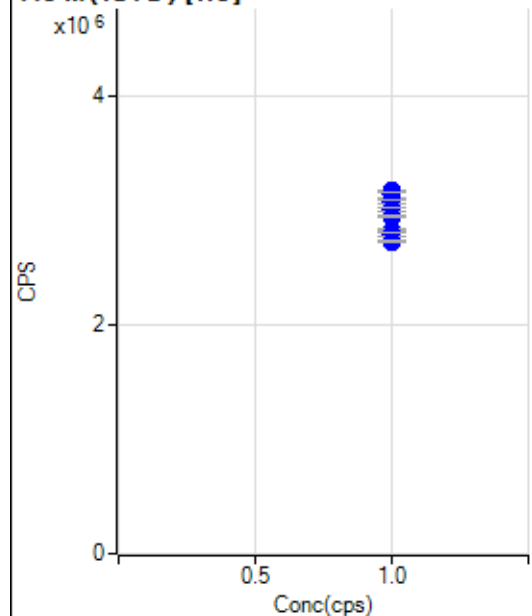
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15930009.76		A	0.8
2	☐	1.000		16810321.69		A	0.8
3	☐	1.000		16180622.40		A	1.0
4	☐	1.000		15839644.77		A	0.5
5	☐	1.000		15477513.80		A	0.6
6	☐	1.000		14836071.17		A	0.4
7	☐	1.000		14703442.00		A	0.2
8	☐	1.000		12884627.45		A	0.3

103 Rh (ISTD) [He]

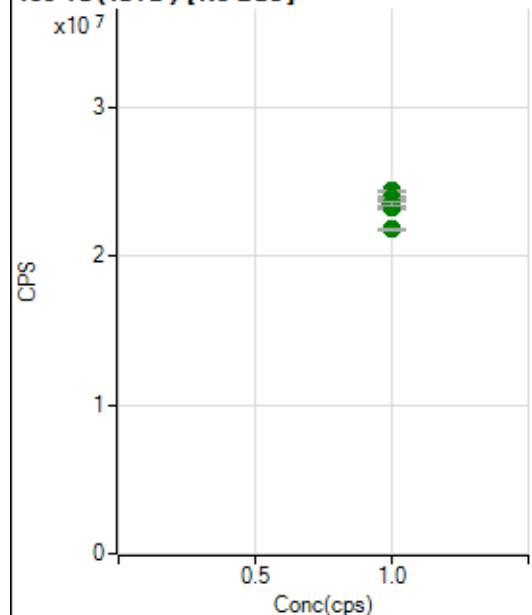
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7260120.52		A	0.7
2	☐	1.000		7451722.67		A	0.4
3	☐	1.000		7305493.78		A	1.2
4	☐	1.000		7173771.14		A	0.7
5	☐	1.000		7008574.48		A	0.1
6	☐	1.000		6711752.05		A	0.3
7	☐	1.000		6592784.00		A	0.8
8	☐	1.000		5735242.69		P	0.5

115 In (ISTD) [No Gas]

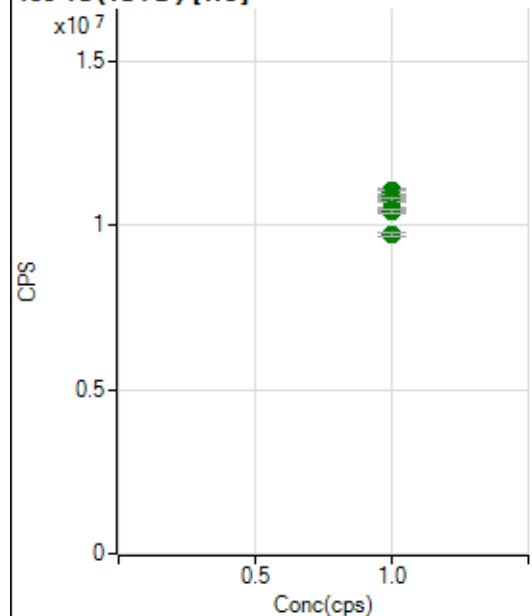
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18004937.31		A	0.9
2	☐	1.000		18740709.38		A	0.6
3	☐	1.000		18289756.48		A	0.7
4	☐	1.000		17978951.40		A	0.4
5	☐	1.000		17665995.81		A	0.4
6	☐	1.000		17312723.77		A	0.3
7	☐	1.000		17400749.01		A	1.7
8	☐	1.000		16504183.76		A	0.5

115 In (ISTD) [He]

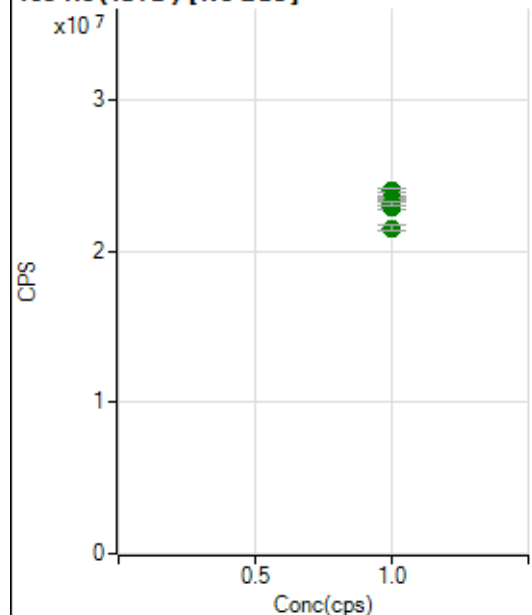
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3169354.42		P	0.2
2	☐	1.000		3133888.56		P	1.2
3	☐	1.000		3075272.97		P	0.7
4	☐	1.000		3003402.83		P	1.0
5	☐	1.000		2947954.35		P	0.8
6	☐	1.000		2825109.50		P	0.6
7	☐	1.000		2790320.66		P	0.8
8	☐	1.000		2724682.19		P	0.6

159 Tb (ISTD) [No Gas]

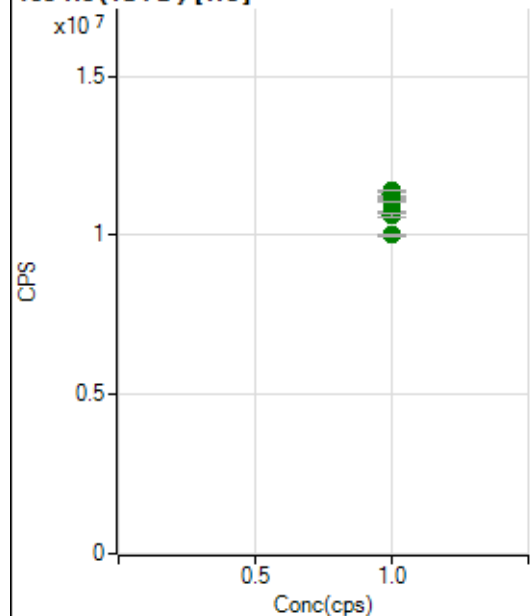
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23294710.21		A	1.3
2	☐	1.000		24387327.14		A	0.4
3	☐	1.000		23886124.92		A	0.9
4	☐	1.000		23931002.15		A	0.3
5	☐	1.000		23527165.48		A	1.0
6	☐	1.000		23293793.82		A	0.6
7	☐	1.000		23518481.87		A	1.2
8	☐	1.000		21786660.65		A	0.8

159 Tb (ISTD) [He]

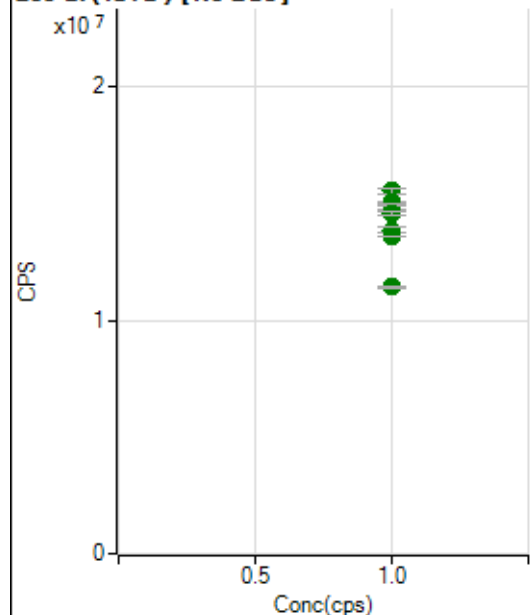
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10836207.41		A	0.9
2	☐	1.000		11042907.75		A	1.4
3	☐	1.000		10999238.45		A	1.3
4	☐	1.000		10859766.16		A	1.3
5	☐	1.000		10774966.30		A	1.1
6	☐	1.000		10473956.72		A	1.4
7	☐	1.000		10403174.01		A	0.9
8	☐	1.000		9723004.02		A	0.8

165 Ho (ISTD) [No Gas]

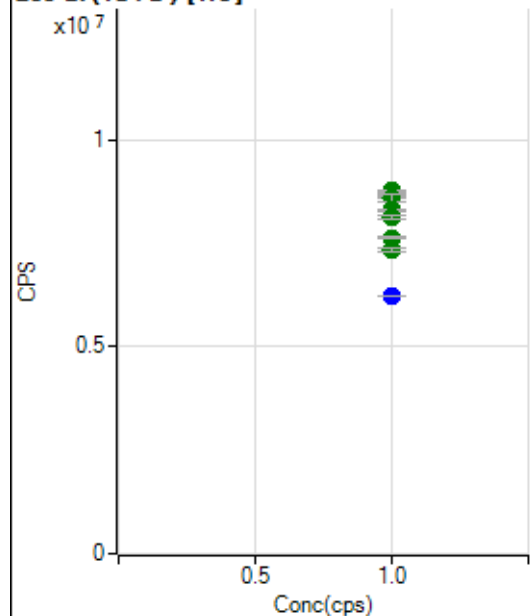
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		22844086.05		A	0.8
2	☐	1.000		23965809.09		A	1.0
3	☐	1.000		23487827.98		A	0.5
4	☐	1.000		23441362.98		A	1.5
5	☐	1.000		23418564.10		A	0.9
6	☐	1.000		23008236.32		A	0.2
7	☐	1.000		23155890.21		A	1.1
8	☐	1.000		21529472.04		A	1.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11174150.67		A	0.0
2	☐	1.000		11393891.64		A	0.9
3	☐	1.000		11319992.75		A	1.6
4	☐	1.000		11081902.47		A	0.8
5	☐	1.000		11053086.08		A	0.5
6	☐	1.000		10722022.41		A	1.0
7	☐	1.000		10622251.16		A	0.9
8	☐	1.000		9995984.78		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14684341.03		A	0.4
2	☐	1.000		15535431.29		A	1.6
3	☐	1.000		15060343.25		A	0.4
4	☐	1.000		14948046.72		A	0.4
5	☐	1.000		14566374.51		A	1.0
6	☐	1.000		13859042.01		A	1.8
7	☐	1.000		13594990.63		A	0.4
8	☐	1.000		11418760.94		A	0.9

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8628402.93		A	0.7
2	☐	1.000		8761697.92		A	0.6
3	☐	1.000		8606758.41		A	2.0
4	☐	1.000		8303987.10		A	0.4
5	☐	1.000		8127002.24		A	0.7
6	☐	1.000		7623462.04		A	0.7
7	☐	1.000		7340559.05		A	1.0
8	☐	1.000		6225621.30		P	0.5

US EPA Tune Check Sample Report

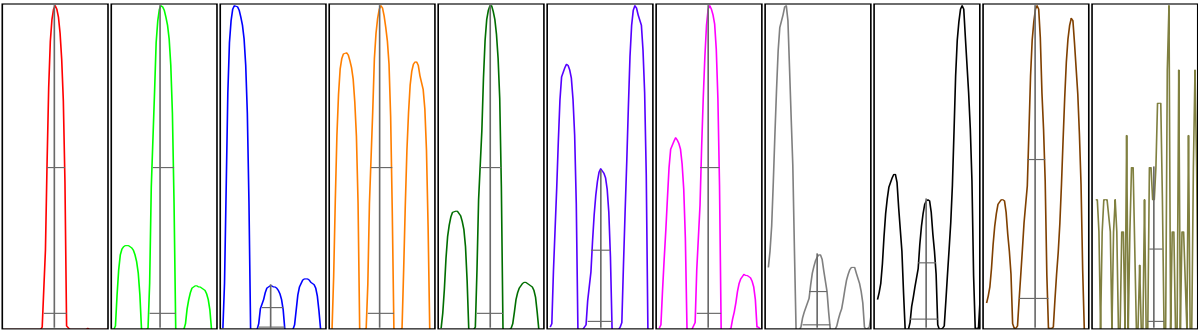
Batch Folder D:\ICP-MS Data\1\DATA\P7031920MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	16168	0.57	5.00	
24	216862	0.51	5.00	
25	29490	0.26	5.00	
26	33245	0.49	5.00	
59	118792	0.31	5.00	
113	22099	0.35	5.00	
115	75601	2.96	5.00	
206	30343	0.34	5.00	
207	25853	0.28	5.00	
208	63039	0.33	5.00	
220	0	66.90		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	16279	16041	16122	16176	16221
24	217994	217173	215105	216608	217430
25	29531	29495	29359	29504	29564
26	33391	33332	33019	33131	33354
59	118583	118887	118378	118748	119363
113	22152	22148	22163	22029	22004
115	77766	77645	75897	74023	72675
206	30505	30315	30257	30383	30255
207	25815	25964	25845	25771	25869
208	62686	63151	63106	63044	63205
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	31051	9.00	8.9 - 9.1		0.687	0.900	
24	363825	23.90	23.9 - 24.1		0.777	0.900	
25	48780	24.95	24.9 - 25.1		0.776	0.900	
26	57118	25.95	25.9 - 26.1		0.776	0.900	
59	200878	59.00	58.9 - 59.1		0.781	0.900	
113	40765	113.05	112.9 - 113.1		0.739	0.900	
115	140671	115.00	114.9 - 115.1		0.736	0.900	
206	58117	206.00	205.9 - 206.1		0.823	0.900	
207	48574	207.00	206.9 - 207.1		0.785	0.900	
208	121042	208.00	207.9 - 208.1		0.820	0.900	
220	0	220.30	-		0.444		

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	7.4	V	Deflect	12.2	V
Extract 2	-105.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	26930	0.20	
89	80400	0.17	
205	79039	0.14	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	26929	26993	26853	26970	26905
89	80323	80592	80231	80410	80446
205	78948	79045	79168	79126	78906

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	8.3	V	Deflect	1.0	V
Extract 2	-120.0	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			