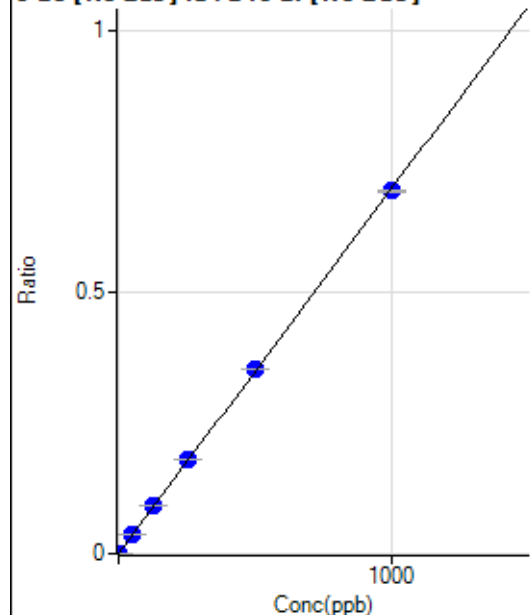


Batch Folder: D:\ICP-MS Data\P7060919MS.b\
Analysis File: P7060919MS.batch.bin
DA Date-Time: 2019-06-10 01:57:53
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-06-09 16:25:51
2	004CALS.d	S01	2019-06-09 16:29:26
3	005CALS.d	S02	2019-06-09 16:33:41
4	006CALS.d	S03	2019-06-09 16:37:37
5	008CALS.d	S04	2019-06-09 16:46:00
6	009CALS.d	S05	2019-06-09 16:49:52
7	010CALS.d	S06	2019-06-09 16:53:43
8	011CALS.d	S07	2019-06-09 16:57:33
9	012CALS.d	S08	2019-06-09 17:01:20

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0000	P	3.5
2	☐	0.100	0.114	183.34	0.0001	P	14.3
3	☐	1.000	0.962	1115.61	0.0007	P	1.4
4	☐	50.000	52.899	55471.93	0.0370	P	0.3
5	☐	125.000	132.661	134755.07	0.0927	P	0.4
6	☐	250.000	256.025	246267.59	0.1789	P	0.2
7	☐	500.000	506.599	479937.05	0.3539	P	0.4
8	☐	1000.000	994.092	929903.76	0.6945	P	0.4
9	☐			284.45	0.0002	P	12.1

$$y = 6.9854\text{E-}004 * x + 3.9989\text{E-}005$$

$$R = 0.9999$$

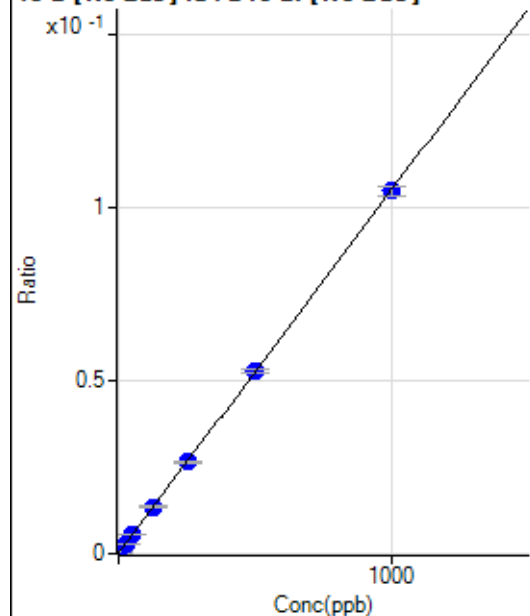
$$DL = 0.005957$$

$$BEC = 0.05725$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	238.90	0.0002	P	13.4
2	☐	2.500	2.559	650.04	0.0004	P	26.4
3	☐	25.000	23.152	4050.71	0.0026	P	6.2
4	☐	50.000	50.725	8210.87	0.0055	P	2.3
5	☐	125.000	127.125	19602.26	0.0135	P	2.2
6	☐	250.000	251.047	36458.90	0.0265	P	1.7
7	☐	500.000	503.381	71798.60	0.0529	P	2.1
8	☐	1000.000	997.792	140321.32	0.1048	P	3.0
9	☐			6935.25	0.0054	P	7.5

$$y = 1.0487\text{E-}004 * x + 1.5623\text{E-}004$$

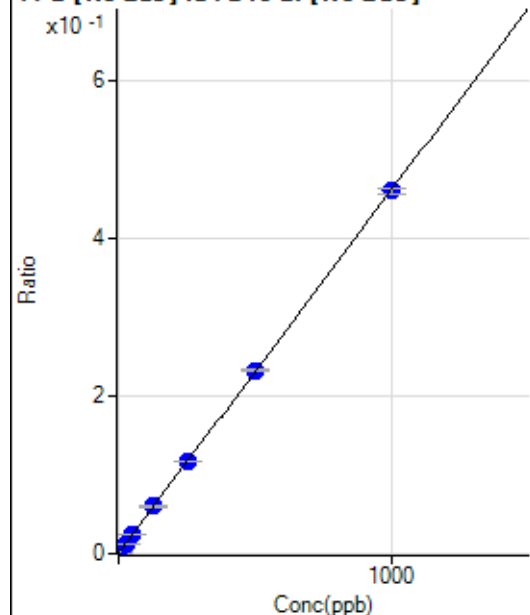
$$R = 1.0000$$

$$DL = 0.5994$$

$$BEC = 1.49$$

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	1175.10	0.0008	P	8.0
2	☐	2.500	2.253	2769.82	0.0018	P	5.5
3	☐	25.000	22.937	17752.69	0.0113	P	1.0
4	☐	50.000	51.404	36631.35	0.0244	P	1.0
5	☐	125.000	128.548	87103.94	0.0599	P	1.9
6	☐	250.000	252.070	160774.47	0.1168	P	1.5
7	☐	500.000	503.374	315226.84	0.2325	P	1.8
8	☐	1000.000	997.334	615685.43	0.4598	P	1.4
9	☐			29262.63	0.0230	P	8.2

$$y = 4.6026\text{E-}004 * x + 7.6898\text{E-}004$$

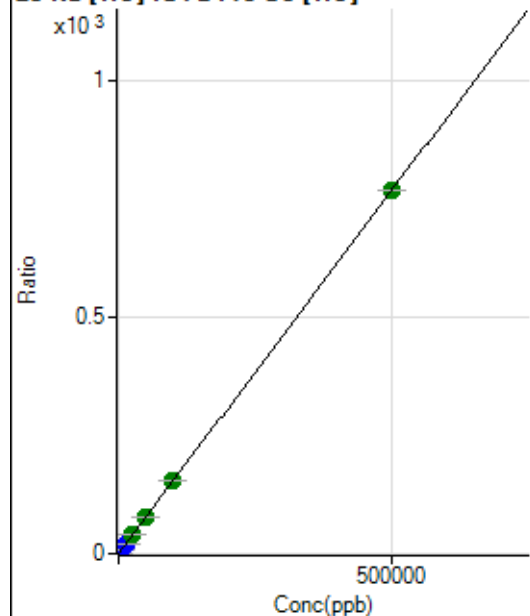
$$R = 1.0000$$

$$DL = 0.4028$$

$$BEC = 1.671$$

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	3036.55	0.0210	P	3.1
2	☐	50.000	48.998	13681.75	0.0964	P	3.3
3	☐	500.000	486.693	108152.08	0.7691	P	0.9
4	☐	5000.000	5213.056	1100396.36	8.0336	P	2.1
5	☐	12500.000	13199.600	2638912.60	20.3090	P	0.2
6	☐	25000.000	25477.161	4919161.70	39.1797	A	0.4
7	☐	50000.000	50537.634	9816960.29	77.6980	A	0.5
8	☐	100000.00	100608.09	19280998.52	154.6569	A	0.3
9	☐	500000.00	499781.15	94260250.72	768.1908	A	0.1

$$y = 0.0015 * x + 0.0210$$

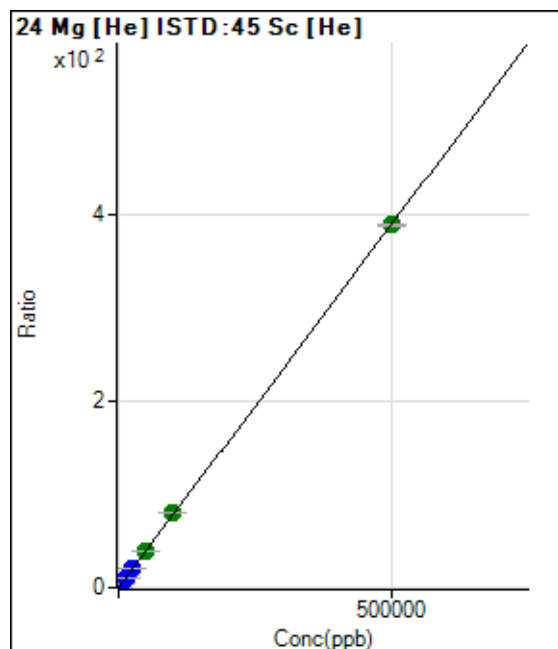
$$R = 1.0000$$

$$DL = 1.271$$

$$BEC = 13.69$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	575.03	0.0040	P	19.6
2	☐	50.000	51.363	6254.33	0.0440	P	4.7
3	☐	500.000	518.203	57388.67	0.4081	P	0.8
4	☐	5000.000	5277.989	564321.29	4.1200	P	2.2
5	☐	12500.000	13524.241	1370931.91	10.5507	P	0.5
6	☐	25000.000	26007.132	2546898.84	20.2853	P	0.1
7	☐	50000.000	51036.965	5029185.05	39.8044	A	0.5
8	☐	100000.00	102135.11	9930172.62	79.6526	A	0.4
9	☐	500000.00	499390.51	47786992.39	389.4464	A	0.4

$$y = 7.7984\text{E-}004 * x + 0.0040$$

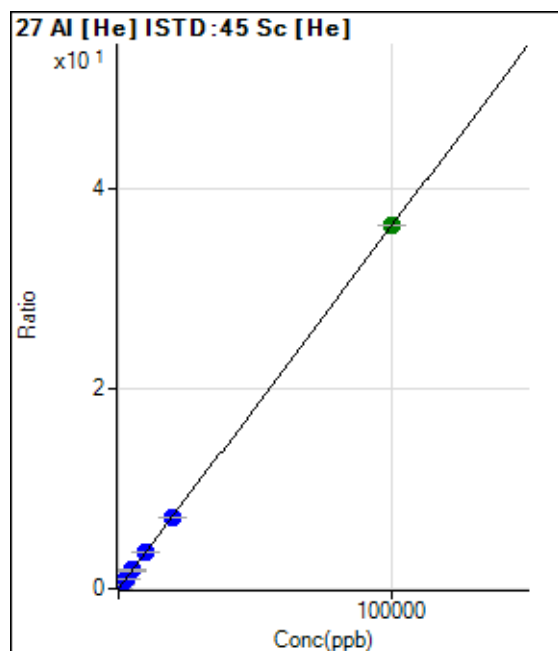
R = 1.0000

DL = 3.007

BEC = 5.119

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	105.56	0.0007	P	38.7
2	☐	2.000	2.239	219.46	0.0015	P	1.8
3	☐	20.000	19.841	1113.97	0.0079	P	3.3
4	☐	1000.000	1018.094	50622.85	0.3695	P	2.2
5	☐	2500.000	2602.098	122579.06	0.9434	P	0.4
6	☐	5000.000	5061.496	230303.67	1.8343	P	1.2
7	☐	10000.000	9955.668	455766.43	3.6072	P	0.9
8	☐	20000.000	19769.426	892908.25	7.1624	P	0.7
9	☐	100000.00	100044.74	4447109.17	36.2427	A	0.2

$$y = 3.6226\text{E-}004 * x + 7.3416\text{E-}004$$

R = 1.0000

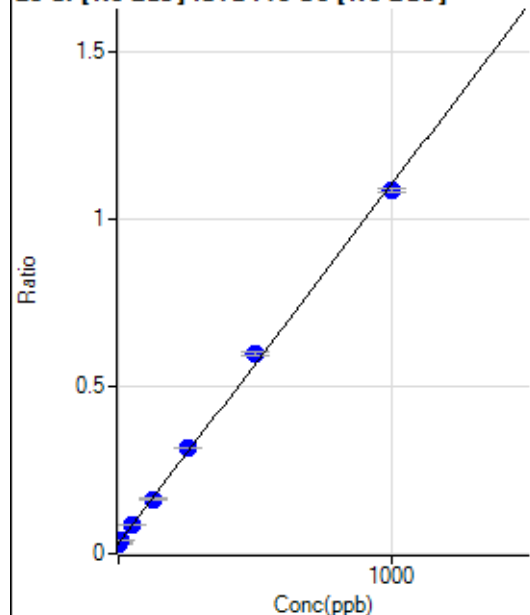
DL = 2.355

BEC = 2.027

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	92619.44	0.0309	P	0.5
2	☐	1.000	0.884	95825.40	0.0318	P	1.2
3	☐	10.000	8.189	122957.92	0.0397	P	0.2
4	☐	50.000	53.530	255498.56	0.0883	P	0.7
5	☐	125.000	123.517	457232.15	0.1635	P	1.4
6	☐	250.000	266.456	836361.40	0.3169	P	0.9
7	☐	500.000	527.950	1573747.19	0.5976	P	1.4
8	☐	1000.000	981.938	2829983.94	1.0849	P	0.9
9	☐			380854.34	0.1555	P	2.6

$$y = 0.0011 * x + 0.0309$$

$$R = 0.9993$$

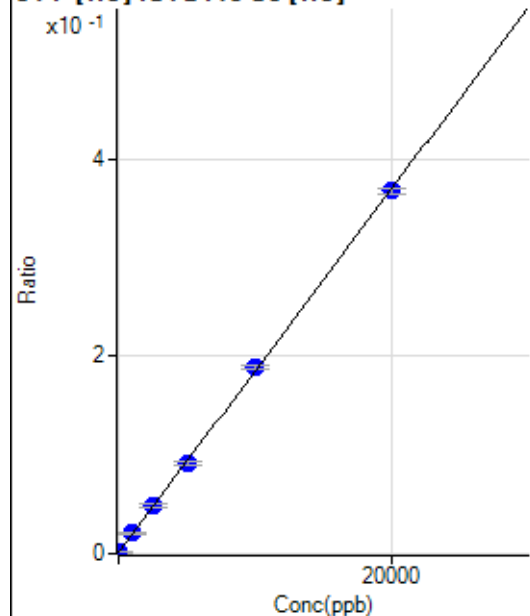
$$DL = 0.4287$$

$$BEC = 28.76$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	-12.089	122.23	0.0008	P	15.5
2	☐	0.000	-11.359	122.23	0.0009	P	25.4
3	☐	0.000	23.448	211.12	0.0015	P	16.4
4	☐	1000.000	1080.884	2875.40	0.0210	P	5.9
5	☐	2500.000	2590.039	6337.72	0.0488	P	5.9
6	☐	5000.000	4960.601	11607.75	0.0924	P	4.3
7	☐	10000.000	10193.927	23858.72	0.1888	P	2.4
8	☐	20000.000	19897.587	45824.26	0.3676	P	1.3
9	☐			133.34	0.0011	P	28.6

$$y = 1.8420E-005 * x + 0.0011$$

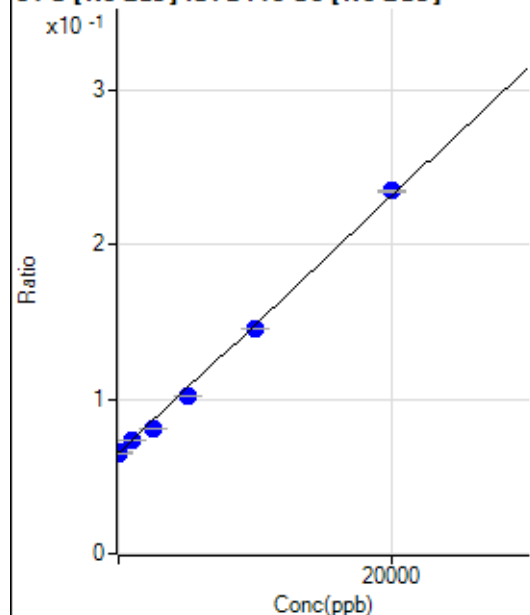
$$R = 0.9999$$

$$DL = 32.37$$

$$BEC = 58.06$$

Weight: <None>

Min Conc: 0

34 S [No Gas] ISTD:45 Sc [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.710	196191.77	0.0654	P	0.3
2	☐	0.000	75.427	198820.51	0.0660	P	1.6
3	☐	0.000	-74.718	200817.58	0.0648	P	0.2
4	☐	1000.000	1001.294	213274.70	0.0737	P	0.9
5	☐	2500.000	1884.273	226836.95	0.0811	P	0.3
6	☐	5000.000	4406.717	269408.84	0.1021	P	0.3
7	☐	10000.000	9681.855	384428.62	0.1460	P	0.4
8	☐	20000.000	20384.294	613089.51	0.2350	P	0.3
9	☐			143168.30	0.0584	P	1.5

$$y = 8.3213\text{E-}006 * x + 0.0654$$

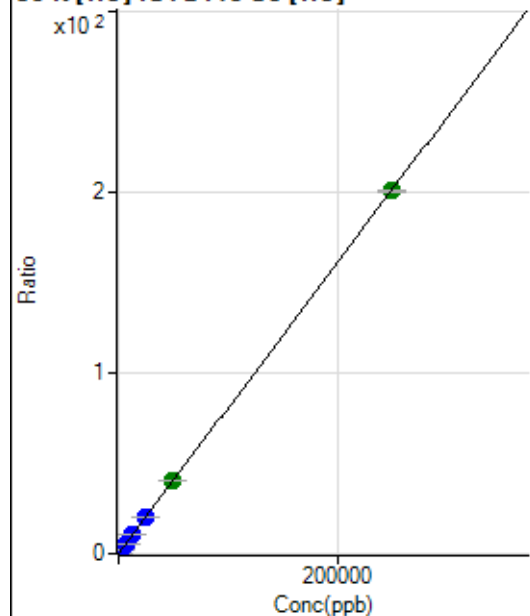
$$R = 0.9990$$

$$DL = 168.6$$

$$BEC = 7860$$

Weight: <None>

Min Conc: 0

39 K [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10570.83	0.0733	P	3.2
2	☐	50.000	46.860	15742.23	0.1109	P	1.4
3	☐	500.000	488.154	65375.01	0.4649	P	2.0
4	☐	2500.000	2647.833	301010.29	2.1976	P	2.2
5	☐	6250.000	6627.383	700405.24	5.3903	P	0.6
6	☐	12500.000	12931.408	1311774.02	10.4479	P	0.4
7	☐	25000.000	25689.814	2613384.57	20.6838	P	0.3
8	☐	50000.000	50663.686	5076501.03	40.7200	A	0.3
9	☐	250000.00	249765.82	24596980.76	200.4569	A	0.2

$$y = 8.0229\text{E-}004 * x + 0.0733$$

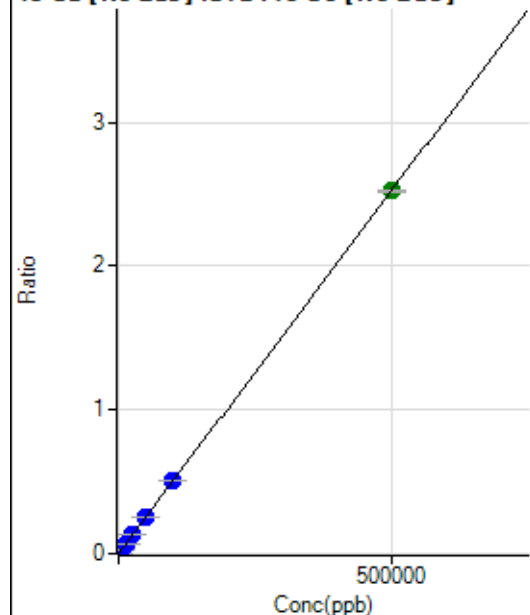
$$R = 1.0000$$

$$DL = 8.678$$

$$BEC = 91.31$$

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	144.45	0.0000	P	15.0
2	☐	50.000	51.412	925.07	0.0003	P	13.0
3	☐	500.000	458.933	7324.28	0.0024	P	5.0
4	☐	5000.000	5145.342	75208.08	0.0260	P	0.7
5	☐	12500.000	12943.792	182790.64	0.0653	P	0.1
6	☐	25000.000	25415.104	338482.65	0.1282	P	0.2
7	☐	50000.000	50376.335	669340.30	0.2542	P	0.2
8	☐	100000.00	100530.54	1322897.02	0.5071	P	0.2
9	☐	500000.00	499822.99	6176256.22	2.5212	A	0.2

$$y = 5.0441\text{E-}006 * x + 4.8180\text{E-}005$$

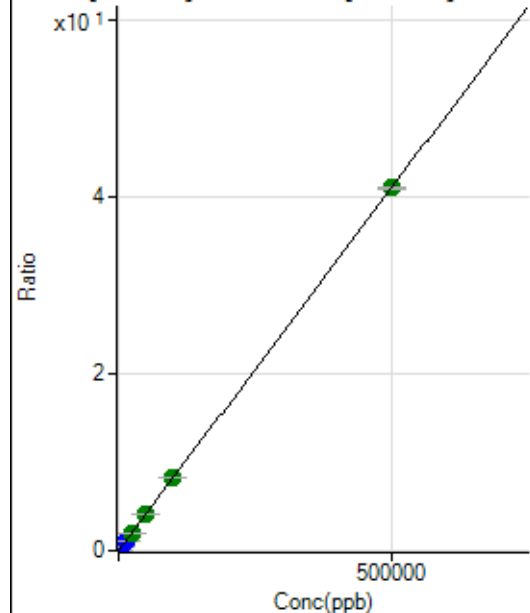
$$R = 1.0000$$

$$DL = 4.312$$

$$BEC = 9.552$$

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	3975.72	0.0013	P	5.0
2	☐	50.000	46.080	15372.43	0.0051	P	3.0
3	☐	500.000	460.956	121336.23	0.0391	P	0.6
4	☐	5000.000	5091.752	1212095.04	0.4191	P	0.2
5	☐	12500.000	12938.469	2973341.34	1.0628	P	0.3
6	☐	25000.000	25109.055	5440518.00	2.0613	A	0.4
7	☐	50000.000	49798.152	10763120.64	4.0869	A	0.7
8	☐	100000.00	99884.430	21379820.10	8.1961	A	0.3
9	☐	500000.00	500026.00	100497639.0	41.0245	A	0.2

$$y = 8.2042\text{E-}005 * x + 0.0013$$

$$R = 1.0000$$

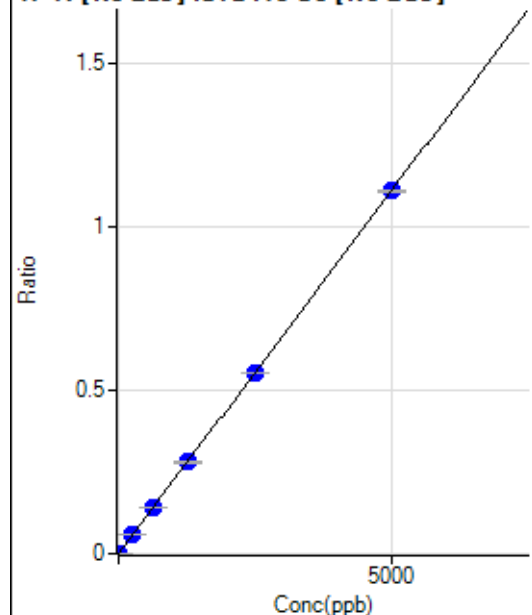
$$DL = 2.406$$

$$BEC = 16.15$$

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	94.45	0.0000	P	36.1
2	☐	0.500	0.474	411.14	0.0001	P	10.8
3	☐	5.000	5.124	3620.03	0.0012	P	1.2
4	☐	250.000	254.863	163542.94	0.0565	P	0.6
5	☐	625.000	639.490	396767.84	0.1418	P	0.7
6	☐	1250.000	1258.926	736838.53	0.2792	P	0.1
7	☐	2500.000	2493.525	1456178.79	0.5529	P	0.5
8	☐	5000.000	4998.951	2891477.32	1.1085	P	0.2
9	☐			1386.24	0.0006	P	5.5

$$y = 2.2173\text{E-}004 * x + 3.1511\text{E-}005$$

$$R = 1.0000$$

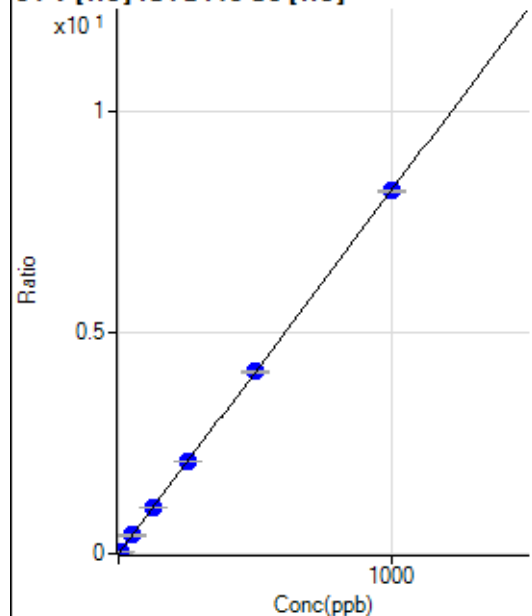
$$DL = 0.1537$$

$$BEC = 0.1421$$

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	14.44	0.0001	P	36.3
2	☐	0.500	0.477	571.13	0.0040	P	4.8
3	☐	5.000	4.894	5672.29	0.0403	P	1.8
4	☐	50.000	50.811	57228.24	0.4178	P	2.8
5	☐	125.000	129.129	137956.73	1.0617	P	0.5
6	☐	250.000	252.963	261123.61	2.0798	P	0.9
7	☐	500.000	500.241	519641.77	4.1128	P	0.7
8	☐	1000.000	998.582	1023521.78	8.2098	P	0.2
9	☐			194.45	0.0016	P	5.5

$$y = 0.0082 * x + 1.0028\text{E-}004$$

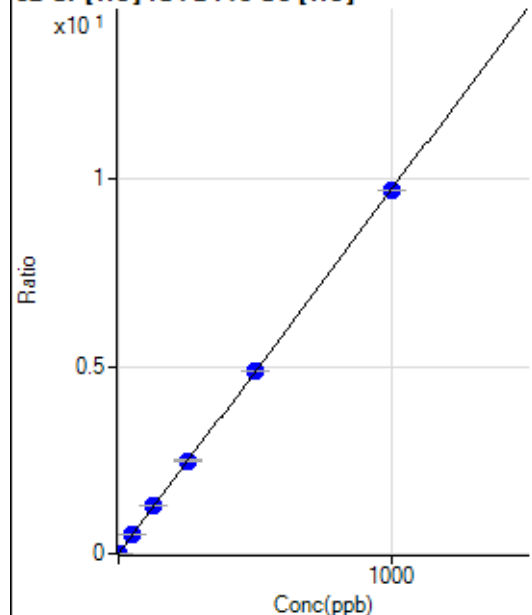
$$R = 1.0000$$

$$DL = 0.01329$$

$$BEC = 0.0122$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	425.57	0.0029	P	16.5
2	☐	0.200	0.167	648.91	0.0046	P	7.5
3	☐	2.000	1.918	3038.14	0.0216	P	4.5
4	☐	50.000	51.689	69280.81	0.5058	P	2.3
5	☐	125.000	131.574	166707.36	1.2830	P	0.5
6	☐	250.000	255.519	312476.72	2.4888	P	0.4
7	☐	500.000	502.596	618151.01	4.8925	P	0.6
8	☐	1000.000	996.417	1208888.58	9.6966	P	0.1
9	☐			8976.17	0.0732	P	2.6

$$y = 0.0097 * x + 0.0029$$

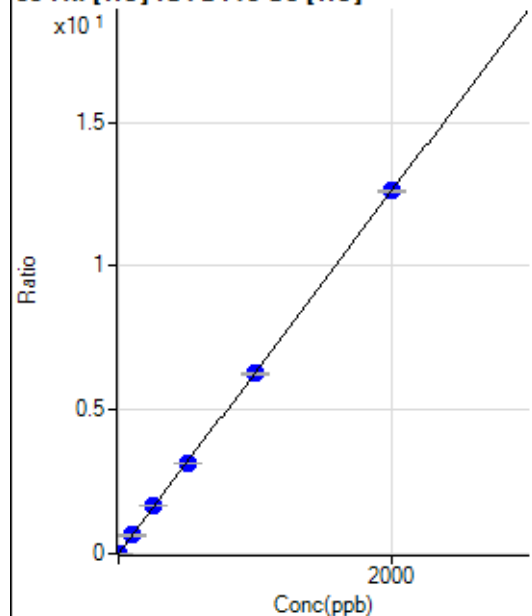
$$R = 1.0000$$

$$DL = 0.1503$$

$$BEC = 0.303$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37.78	0.0003	P	49.6
2	☐	0.100	0.098	124.45	0.0009	P	37.0
3	☐	1.000	1.021	941.16	0.0067	P	13.7
4	☐	100.000	100.949	87136.87	0.6361	P	1.5
5	☐	250.000	262.615	214965.93	1.6544	P	0.4
6	☐	500.000	502.001	397024.11	3.1622	P	0.5
7	☐	1000.000	992.887	790200.40	6.2541	P	0.3
8	☐	2000.000	2001.432	1571674.89	12.6066	P	0.3
9	☐			6125.81	0.0499	P	0.6

$$y = 0.0063 * x + 2.6230E-004$$

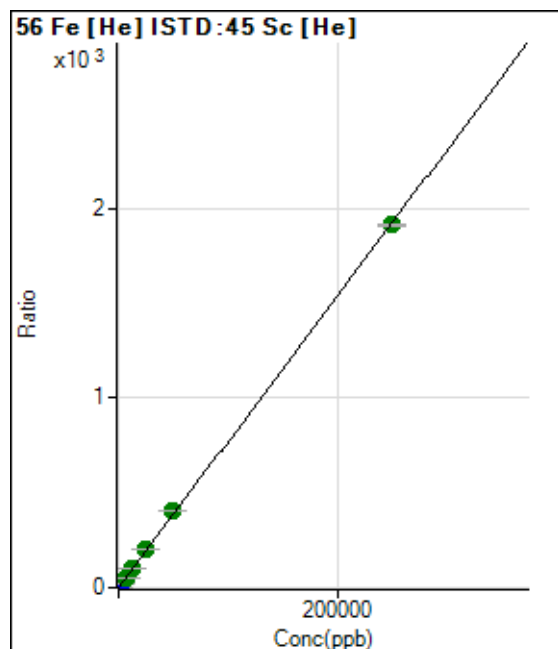
$$R = 1.0000$$

$$DL = 0.0619$$

$$BEC = 0.04164$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4287.79	0.0297	P	3.7
2	☐	5.000	5.457	10175.98	0.0717	P	4.0
3	☐	50.000	55.890	64597.47	0.4594	P	1.3
4	☐	2500.000	2775.989	2927290.75	21.3704	P	1.9
5	☐	6250.000	6916.517	6912866.71	53.2010	A	0.3
6	☐	12500.000	13536.770	13069477.95	104.0948	A	0.5
7	☐	25000.000	26719.423	25956553.36	205.4376	A	0.5
8	☐	50000.000	53086.571	50881698.82	408.1373	A	0.4
9	☐	250000.00	249139.48	235014290.4	1,915.310	A	0.3

$$y = 0.0077 * x + 0.0297$$

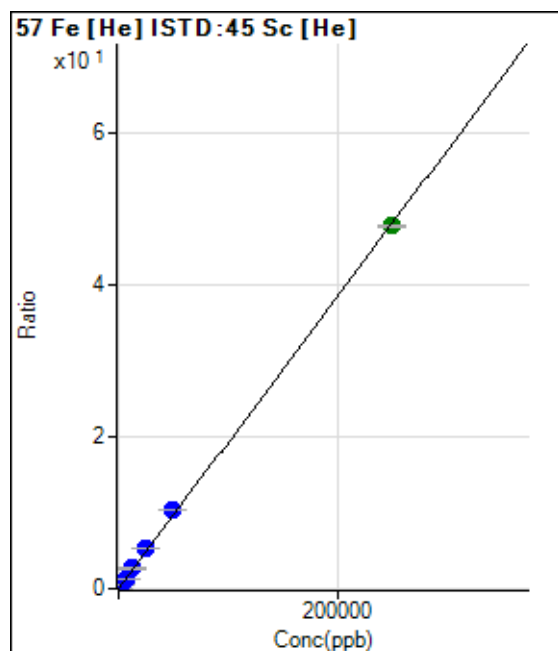
$$R = 0.9999$$

$$DL = 0.4265$$

$$BEC = 3.865$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	162.97	0.0011	P	10.1
2	☐	5.000	5.654	314.83	0.0022	P	13.7
3	☐	50.000	55.301	1651.99	0.0117	P	4.3
4	☐	2500.000	2829.200	74561.46	0.5443	P	2.3
5	☐	6250.000	7114.917	177648.11	1.3672	P	0.7
6	☐	12500.000	13859.351	334227.97	2.6620	P	0.5
7	☐	25000.000	27265.732	661556.99	5.2360	P	0.6
8	☐	50000.000	53980.966	1292197.77	10.3652	P	0.5
9	☐	250000.00	248884.35	5863411.76	47.7855	A	0.5

$$y = 1.9199E-004 * x + 0.0011$$

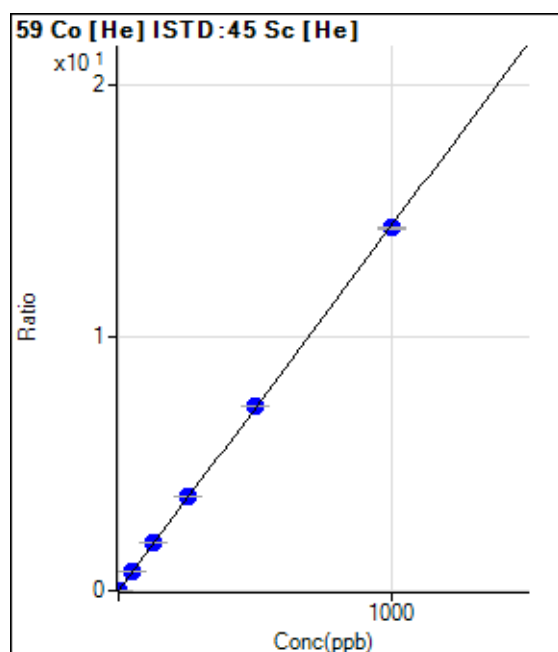
$$R = 0.9998$$

$$DL = 1.792$$

$$BEC = 5.888$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0004	P	6.6
2	☐	0.100	0.089	238.90	0.0017	P	7.3
3	☐	1.000	0.999	2082.41	0.0148	P	5.0
4	☐	50.000	52.964	104733.56	0.7647	P	2.6
5	☐	125.000	133.053	249522.16	1.9203	P	0.5
6	☐	250.000	258.928	469156.76	3.7367	P	0.2
7	☐	500.000	505.489	921641.89	7.2946	P	0.8
8	☐	1000.000	993.869	1787955.22	14.3418	P	0.5
9	☐			20111.74	0.1639	P	2.9

$$y = 0.0144 * x + 3.9279E-004$$

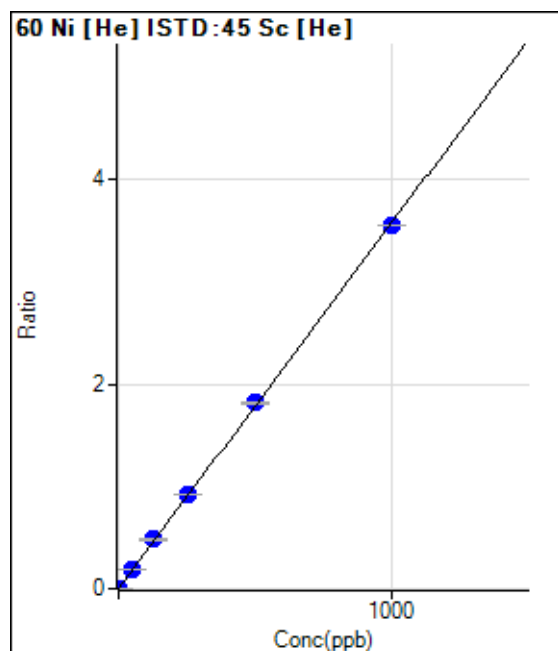
$$R = 0.9999$$

$$DL = 0.005396$$

$$BEC = 0.02722$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0003	P	29.3
2	☐	0.100	0.138	115.56	0.0008	P	37.0
3	☐	1.000	1.031	563.36	0.0040	P	5.1
4	☐	50.000	54.075	26520.83	0.1936	P	0.2
5	☐	125.000	134.624	62554.00	0.4814	P	1.0
6	☐	250.000	259.469	116460.75	0.9276	P	0.3
7	☐	500.000	508.119	229472.63	1.8162	P	0.3
8	☐	1000.000	992.167	442079.98	3.5460	P	0.1
9	☐			5179.88	0.0422	P	2.1

$$y = 0.0036 * x + 3.2232E-004$$

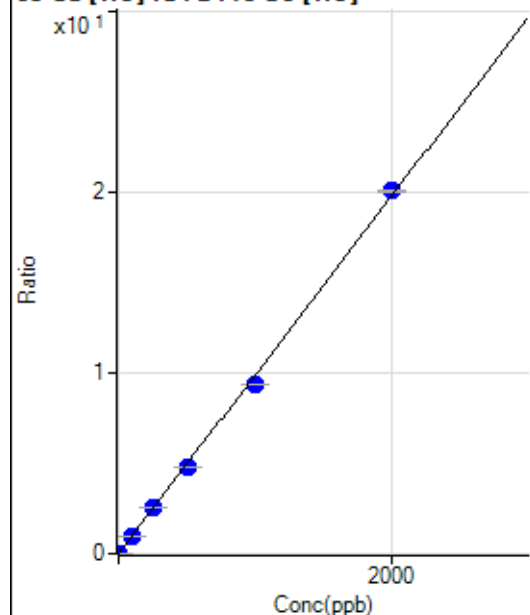
$$R = 0.9999$$

$$DL = 0.07935$$

$$BEC = 0.09019$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	342.23	0.0024	P	8.5
2	☐	0.200	0.183	593.35	0.0042	P	4.2
3	☐	2.000	1.923	3005.91	0.0214	P	2.1
4	☐	100.000	100.500	136354.25	0.9954	P	1.8
5	☐	250.000	255.604	328485.31	2.5280	P	0.5
6	☐	500.000	486.222	603511.70	4.8068	P	0.4
7	☐	1000.000	945.715	1181004.67	9.3471	P	0.1
8	☐	2000.000	2029.862	2500823.29	20.0598	P	0.4
9	☐			2894.78	0.0236	P	2.7

$$y = 0.0099 * x + 0.0024$$

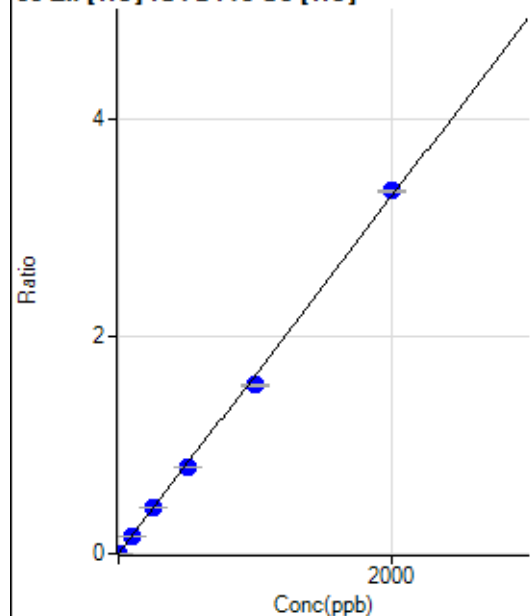
$$R = 0.9994$$

$$DL = 0.06137$$

$$BEC = 0.2402$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	154.45	0.0011	P	13.4
2	☐	0.200	0.851	351.14	0.0025	P	65.6
3	☐	2.000	2.008	615.58	0.0044	P	1.6
4	☐	100.000	98.210	22294.98	0.1628	P	2.3
5	☐	250.000	256.164	54941.93	0.4228	P	0.4
6	☐	500.000	483.937	100172.56	0.7979	P	0.9
7	☐	1000.000	943.130	196332.61	1.5539	P	0.7
8	☐	2000.000	2031.770	417177.29	3.3463	P	0.4
9	☐			3057.03	0.0249	P	2.6

$$y = 0.0016 * x + 0.0011$$

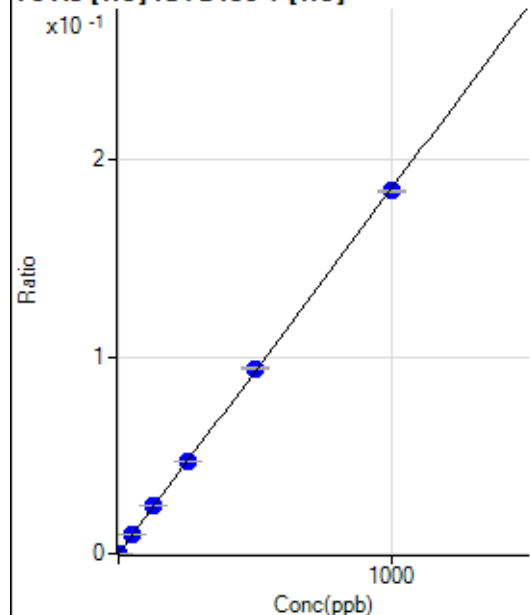
$$R = 0.9994$$

$$DL = 0.2618$$

$$BEC = 0.651$$

Weight: <None>

Min Conc: 0

75 As [He] ISTD:89 Y [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.32	0.0000	P	64.2
2	☐	0.100	0.142	24.69	0.0000	P	18.5
3	☐	1.000	1.068	156.18	0.0002	P	28.1
4	☐	50.000	52.295	7328.44	0.0097	P	2.3
5	☐	125.000	131.090	17497.01	0.0243	P	1.5
6	☐	250.000	255.338	33549.14	0.0473	P	0.1
7	☐	500.000	508.032	66449.51	0.0942	P	0.3
8	☐	1000.000	993.774	129887.06	0.1842	P	0.7
9	☐			175.31	0.0003	P	10.8

$$y = 1.8536E-004 * x + 5.4357E-006$$

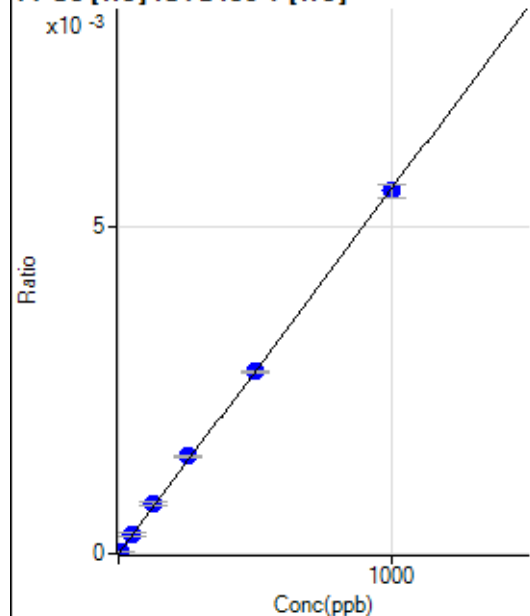
$$R = 0.9999$$

$$DL = 0.05646$$

$$BEC = 0.02933$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.000	0.00	0.0000	P	
3	☐	5.000	5.720	24.44	0.0000	P	31.5
4	☐	50.000	52.704	221.12	0.0003	P	26.5
5	☐	125.000	137.553	551.13	0.0008	P	8.1
6	☐	250.000	267.075	1053.39	0.0015	P	2.6
7	☐	500.000	498.625	1957.94	0.0028	P	0.2
8	☐	1000.000	994.711	3902.82	0.0055	P	3.9
9	☐			2.22	0.0000	P	173.

$$y = 5.5650E-006 * x + 0.0000E+000$$

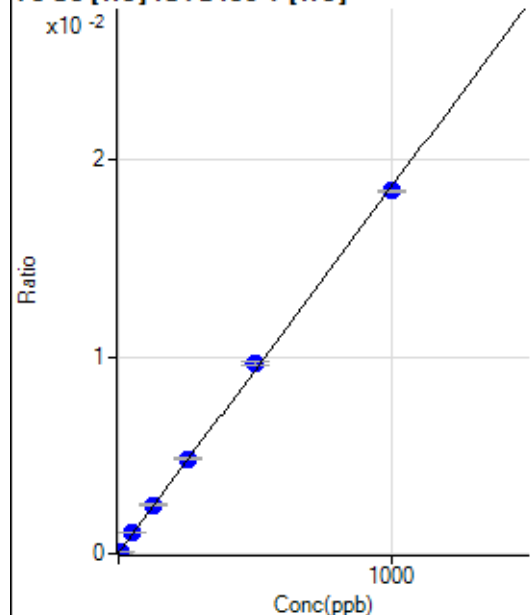
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.16	0.0000	P	16.0
2	☐	0.500	0.498	33.95	0.0000	P	27.8
3	☐	5.000	4.850	95.68	0.0001	P	11.8
4	☐	50.000	54.474	792.62	0.0010	P	2.6
5	☐	125.000	131.349	1785.31	0.0025	P	4.3
6	☐	250.000	257.475	3422.04	0.0048	P	3.2
7	☐	500.000	516.432	6808.45	0.0096	P	1.8
8	☐	1000.000	988.899	13005.89	0.0184	P	0.7
9	☐			30.86	0.0000	P	34.4

$$y = 1.8618\text{E-}005 * x + 3.4331\text{E-}005$$

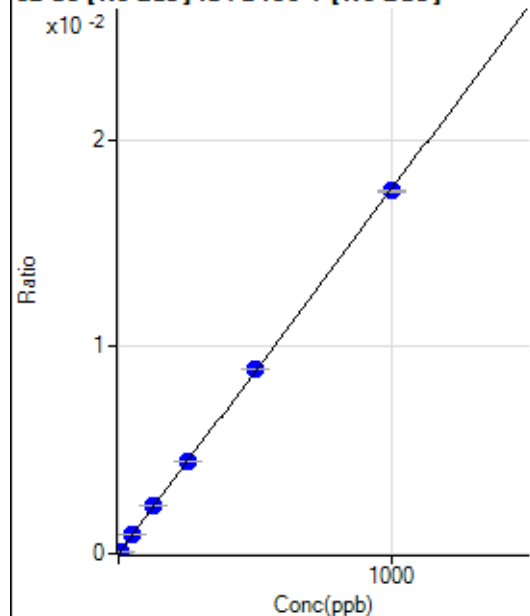
$$R = 0.9998$$

$$DL = 0.886$$

$$BEC = 1.844$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	14.11	0.0000	P	261.
2	☐	0.500	0.684	71.48	0.0000	P	24.6
3	☐	5.000	5.157	454.54	0.0001	P	5.3
4	☐	50.000	51.911	4210.55	0.0009	P	2.7
5	☐	125.000	130.894	10412.55	0.0023	P	1.3
6	☐	250.000	253.666	19557.25	0.0045	P	0.8
7	☐	500.000	506.039	38692.75	0.0089	P	0.5
8	☐	1000.000	995.231	75414.25	0.0175	P	0.2
9	☐			63.25	0.0000	P	74.4

$$y = 1.7616\text{E-}005 * x + 2.9794\text{E-}006$$

$$R = 1.0000$$

$$DL = 1.324$$

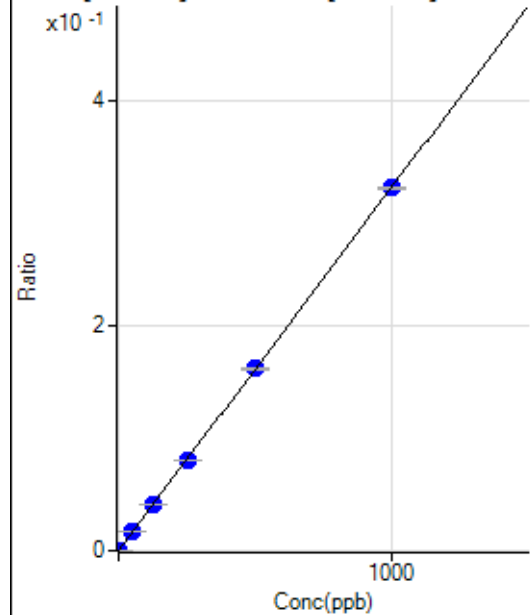
$$BEC = 0.1691$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			134.45		P	17.4
2	☐			121.11		P	15.7
3	☐			127.78		P	17.4
4	☐			144.45		P	16.7
5	☐			141.12		P	15.0
6	☐			124.45		P	25.3
7	☐			124.45		P	34.5
8	☐			122.23		P	17.7
9	☐			132.23		P	15.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	247.23	0.0001	P	12.9
2	☐	0.100	0.108	413.91	0.0001	P	13.7
3	☐	1.000	0.888	1639.06	0.0003	P	9.6
4	☐	50.000	51.020	75741.55	0.0165	P	0.5
5	☐	125.000	127.432	185549.25	0.0411	P	0.6
6	☐	250.000	250.620	353666.50	0.0809	P	0.4
7	☐	500.000	500.673	700700.84	0.1615	P	0.4
8	☐	1000.000	999.154	1385806.20	0.3222	P	0.4
9	☐			5459.62	0.0014	P	3.5

$$y = 3.2244\text{E-}004 * x + 5.2120\text{E-}005$$

$$R = 1.0000$$

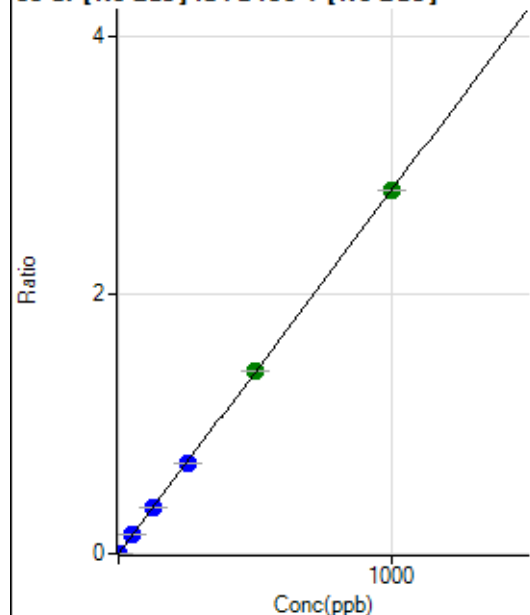
$$DL = 0.06243$$

$$BEC = 0.1616$$

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	308.35	0.0001	P	2.6
2	☐	0.100	0.086	1461.25	0.0003	P	4.7
3	☐	1.000	0.934	13020.31	0.0027	P	2.0
4	☐	50.000	50.970	657521.93	0.1433	P	0.7
5	☐	125.000	128.840	1632897.80	0.3620	P	1.0
6	☐	250.000	249.808	3069885.61	0.7019	P	0.3
7	☐	500.000	502.432	6125099.27	1.4116	A	0.4
8	☐	1000.000	998.304	12062732.30	2.8047	A	0.2
9	☐			46949.96	0.0118	P	0.7

$$y = 0.0028 * x + 6.4997E-005$$

$$R = 1.0000$$

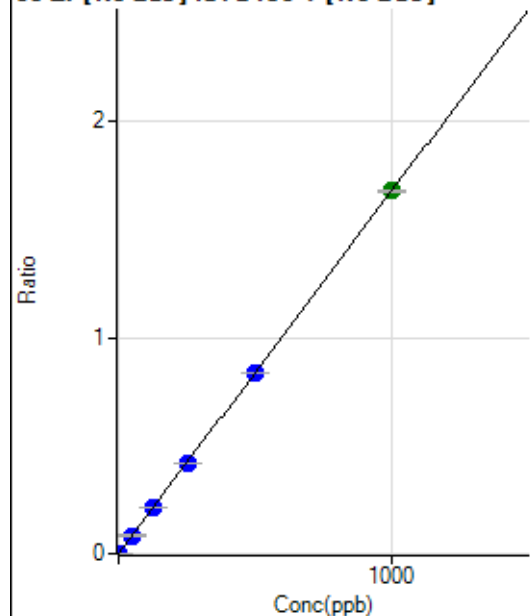
$$DL = 0.001783$$

$$BEC = 0.02314$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	411.13	0.0001	P	3.0
2	☐	0.100	0.074	1005.63	0.0002	P	9.9
3	☐	1.000	0.860	7407.77	0.0015	P	6.0
4	☐	50.000	50.210	387166.01	0.0844	P	1.2
5	☐	125.000	128.807	975446.79	0.2163	P	0.1
6	☐	250.000	248.394	1823816.82	0.4170	P	0.5
7	☐	500.000	498.459	3630495.31	0.8367	P	0.6
8	☐	1000.000	1000.686	7223878.03	1.6796	A	0.4
9	☐			2475.33	0.0006	P	9.6

$$y = 0.0017 * x + 8.6662E-005$$

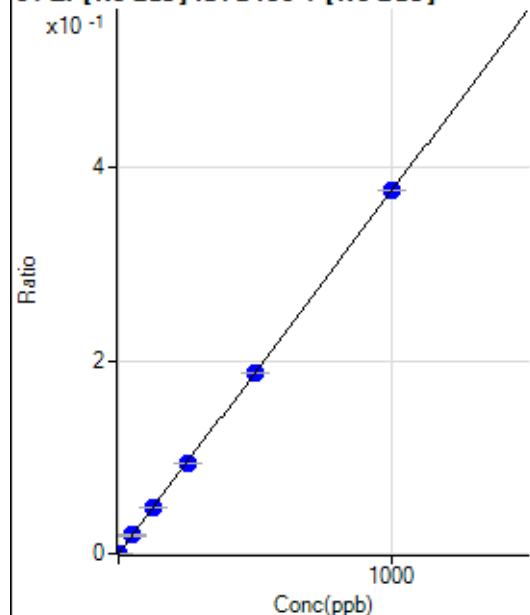
$$R = 1.0000$$

$$DL = 0.004579$$

$$BEC = 0.05163$$

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	100.00	0.0000	P	0.1
2	☐	0.100	0.096	272.24	0.0001	P	8.6
3	☐	1.000	0.918	1772.40	0.0004	P	7.8
4	☐	50.000	50.704	87511.62	0.0191	P	1.9
5	☐	125.000	129.101	218836.03	0.0485	P	0.5
6	☐	250.000	248.522	408429.94	0.0934	P	0.4
7	☐	500.000	498.734	813044.62	0.1874	P	0.5
8	☐	1000.000	1000.455	1616503.14	0.3759	P	0.0
9	☐			519.48	0.0001	P	5.2

$$y = 3.7566E-004 * x + 2.1080E-005$$

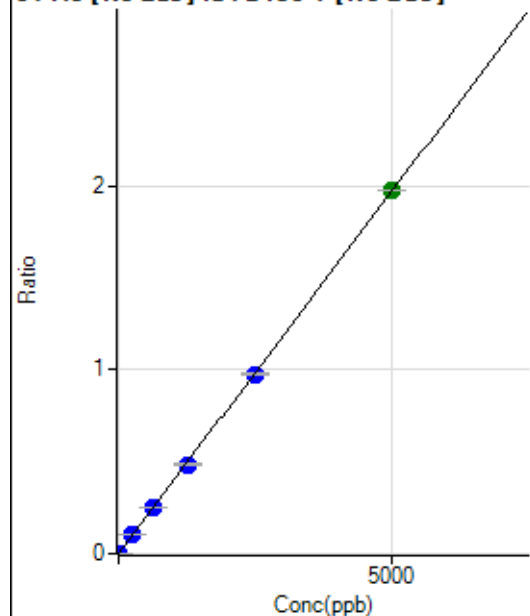
$$R = 1.0000$$

$$DL = 0.0002411$$

$$BEC = 0.05611$$

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	238.90	0.0001	P	19.2
2	☐	0.500	0.440	1063.98	0.0002	P	7.7
3	☐	5.000	4.682	9169.95	0.0019	P	1.4
4	☐	250.000	253.466	458080.30	0.0998	P	0.6
5	☐	625.000	642.100	1140016.34	0.2528	P	0.8
6	☐	1250.000	1234.443	2125225.31	0.4859	P	0.5
7	☐	2500.000	2480.688	4236632.34	0.9764	P	0.3
8	☐	5000.000	5011.235	8482814.43	1.9724	A	0.1
9	☐			4992.77	0.0013	P	5.4

$$y = 3.9358E-004 * x + 5.0362E-005$$

$$R = 1.0000$$

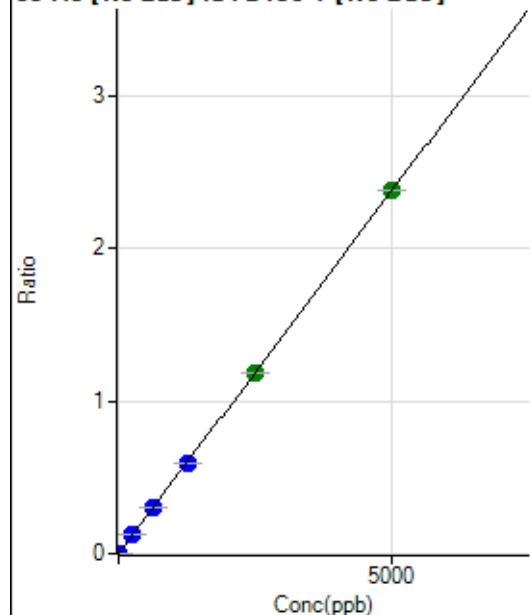
$$DL = 0.07389$$

$$BEC = 0.128$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0000	P	19.9
2	☐	0.500	0.444	1169.54	0.0002	P	6.5
3	☐	5.000	4.959	11569.05	0.0024	P	2.1
4	☐	250.000	255.784	557329.67	0.1214	P	0.3
5	☐	625.000	644.493	1379755.64	0.3059	P	0.3
6	☐	1250.000	1247.834	2590425.93	0.5923	P	0.4
7	☐	2500.000	2490.104	5128133.10	1.1818	A	0.2
8	☐	5000.000	5002.764	10211821.32	2.3744	A	0.1
9	☐			7507.81	0.0019	P	3.5

$$y = 4.7460\text{E-}004 * x + 3.5128\text{E-}005$$

$$R = 1.0000$$

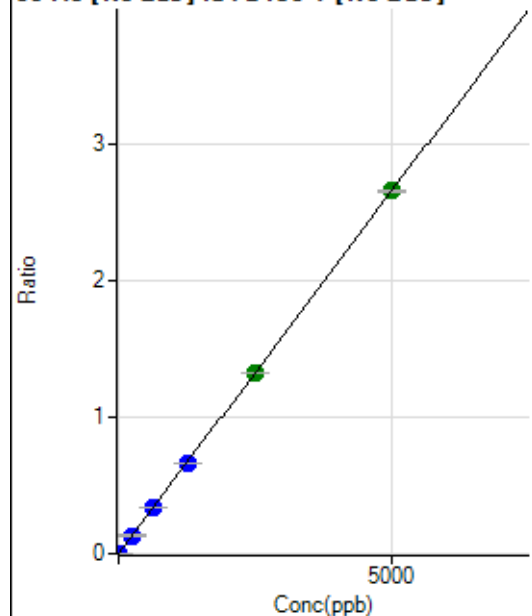
$$DL = 0.04411$$

$$BEC = 0.07401$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233.35	0.0000	P	14.2
2	☐	0.500	0.495	1483.47	0.0003	P	3.1
3	☐	5.000	4.610	12072.23	0.0025	P	1.6
4	☐	250.000	251.571	612086.41	0.1334	P	0.8
5	☐	625.000	642.644	1536224.31	0.3406	P	0.5
6	☐	1250.000	1243.572	2882509.62	0.6590	P	0.5
7	☐	2500.000	2486.549	5717711.98	1.3177	A	0.3
8	☐	5000.000	5006.049	11409661.37	2.6529	A	0.4
9	☐			10304.15	0.0026	P	3.8

$$y = 5.2992\text{E-}004 * x + 4.9183\text{E-}005$$

$$R = 1.0000$$

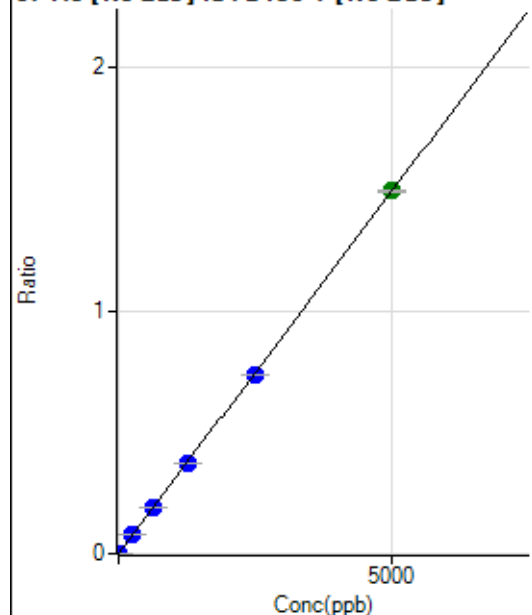
$$DL = 0.03947$$

$$BEC = 0.09281$$

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	119.45	0.0000	P	14.6
2	☐	0.500	0.423	719.50	0.0002	P	8.7
3	☐	5.000	4.736	6951.93	0.0014	P	2.1
4	☐	250.000	254.700	348145.80	0.0759	P	1.1
5	☐	625.000	643.458	864175.73	0.1916	P	0.1
6	☐	1250.000	1247.205	1624234.30	0.3714	P	0.5
7	☐	2500.000	2475.813	3198573.27	0.7372	P	0.4
8	☐	5000.000	5010.250	6415783.70	1.4917	A	0.5
9	☐			4384.19	0.0011	P	6.1

$$y = 2.9773\text{E-}004 * x + 2.5183\text{E-}005$$

$$R = 1.0000$$

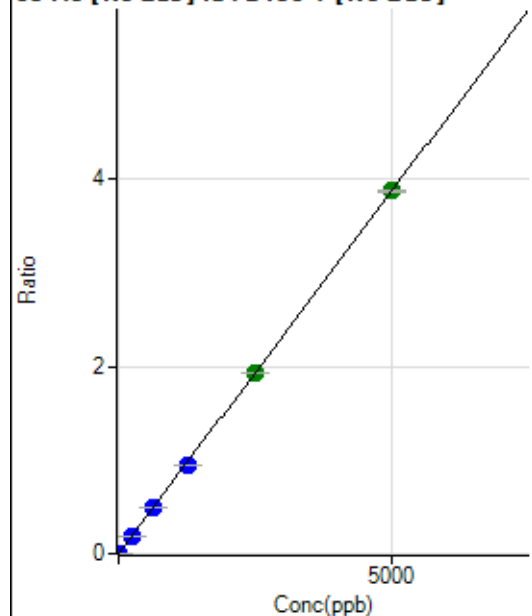
$$DL = 0.03714$$

$$BEC = 0.08458$$

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	244.46	0.0001	P	11.9
2	☐	0.500	0.497	2078.00	0.0004	P	1.3
3	☐	5.000	4.713	17931.40	0.0037	P	0.6
4	☐	250.000	251.368	893875.64	0.1948	P	0.5
5	☐	625.000	637.341	2226803.74	0.4937	P	0.2
6	☐	1250.000	1226.479	4155398.01	0.9501	P	0.4
7	☐	2500.000	2492.814	8378603.22	1.9310	A	0.7
8	☐	5000.000	5007.863	16683527.63	3.8791	A	0.4
9	☐			11449.46	0.0029	P	4.8

$$y = 7.7459\text{E-}004 * x + 5.1526\text{E-}005$$

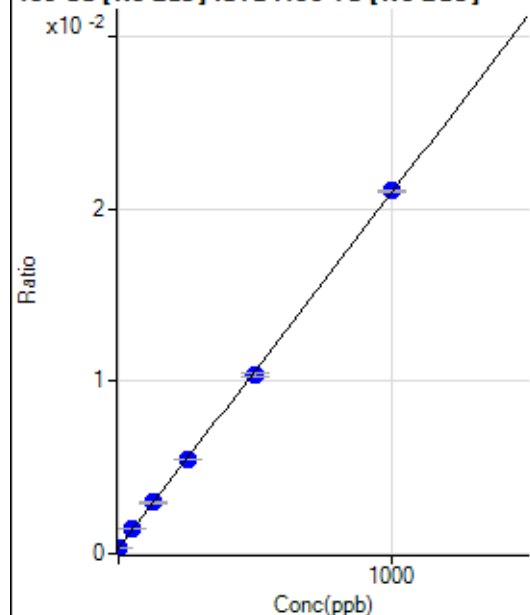
$$R = 1.0000$$

$$DL = 0.02366$$

$$BEC = 0.06652$$

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	2144.70	0.0003	P	7.6
2	☐	0.100	-1.238	1983.56	0.0003	P	11.5
3	☐	1.000	0.329	2230.82	0.0003	P	1.6
4	☐	50.000	54.777	9158.91	0.0015	P	2.6
5	☐	125.000	128.315	18665.65	0.0030	P	1.5
6	☐	250.000	248.309	33498.75	0.0054	P	0.8
7	☐	500.000	487.888	64399.92	0.0104	P	2.0
8	☐	1000.000	1005.826	131256.26	0.0210	P	0.6
9	☐			1780.74	0.0003	P	5.4

$$y = 2.0582\text{E-}005 * x + 3.3525\text{E-}004$$

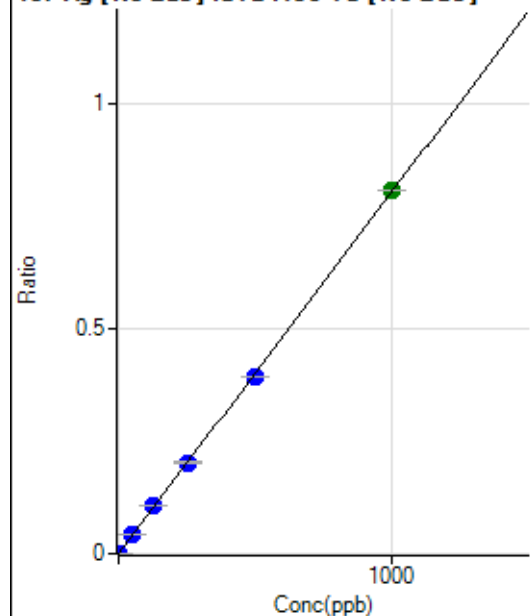
$$R = 0.9999$$

$$DL = 3.705$$

$$BEC = 16.29$$

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	63.89	0.0000	P	39.9
2	☐	0.100	0.094	547.26	0.0001	P	9.2
3	☐	1.000	0.992	5256.77	0.0008	P	2.9
4	☐	50.000	53.783	270331.71	0.0432	P	0.4
5	☐	125.000	133.686	672848.71	0.1073	P	0.8
6	☐	250.000	252.503	1246444.26	0.2026	P	0.5
7	☐	500.000	488.117	2430987.66	0.3917	P	0.2
8	☐	1000.000	1004.041	5027183.58	0.8057	A	0.1
9	☐			605.59	0.0001	P	17.4

$$y = 8.0249\text{E-}004 * x + 9.9890\text{E-}006$$

$$R = 0.9999$$

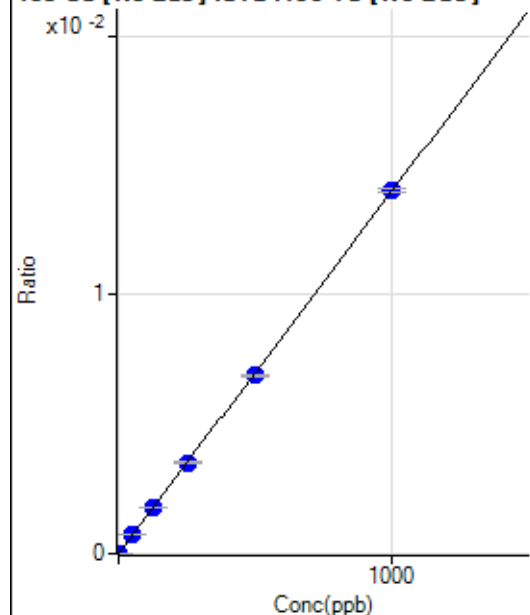
$$DL = 0.01491$$

$$BEC = 0.01245$$

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	12.50	0.0000	P	33.5
2	☐	0.100	0.108	22.22	0.0000	P	75.2
3	☐	1.000	1.049	108.34	0.0000	P	3.8
4	☐	50.000	52.511	4606.40	0.0007	P	4.0
5	☐	125.000	128.748	11293.58	0.0018	P	0.5
6	☐	250.000	251.346	21613.95	0.0035	P	1.6
7	☐	500.000	492.418	42710.10	0.0069	P	0.5
8	☐	1000.000	1002.861	87435.74	0.0140	P	1.1
9	☐			37.50	0.0000	P	10.9

$$y = 1.3972\text{E-}005 * x + 1.9546\text{E-}006$$

$$R = 1.0000$$

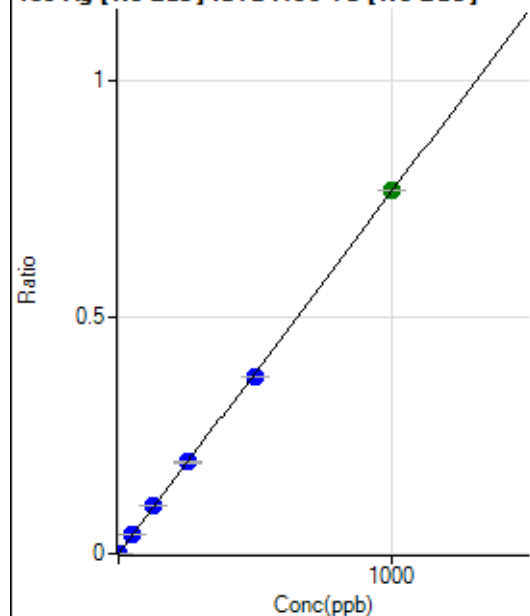
$$DL = 0.1407$$

$$BEC = 0.1399$$

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	27.78	0.0000	P	16.9
2	☐	0.100	0.093	483.36	0.0001	P	15.6
3	☐	1.000	0.959	4820.49	0.0007	P	4.6
4	☐	50.000	54.228	260098.48	0.0415	P	1.2
5	☐	125.000	134.104	644134.86	0.1027	P	1.2
6	☐	250.000	252.563	1189859.94	0.1934	P	0.2
7	☐	500.000	489.940	2328756.86	0.3752	P	0.3
8	☐	1000.000	1003.040	4793163.47	0.7682	A	0.2
9	☐			552.81	0.0001	P	4.2

$$y = 7.6590\text{E-}004 * x + 4.3404\text{E-}006$$

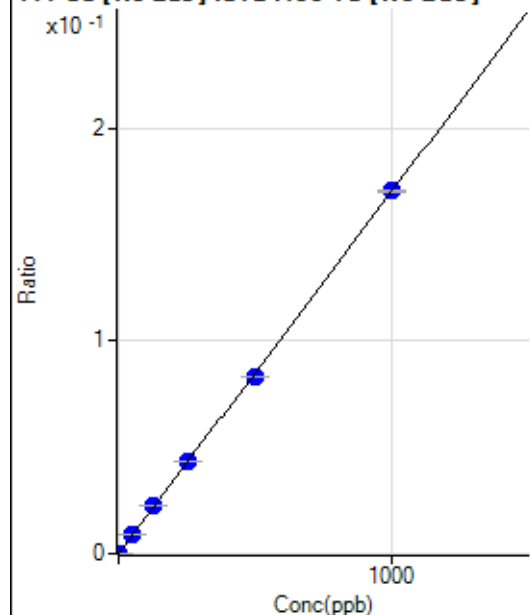
$$R = 0.9999$$

$$DL = 0.002865$$

$$BEC = 0.005667$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	118.38	0.0000	P	14.2
2	☐	0.100	0.079	204.34	0.0000	P	14.0
3	☐	1.000	0.965	1192.52	0.0002	P	0.9
4	☐	50.000	53.128	56743.22	0.0091	P	1.4
5	☐	125.000	132.123	141154.59	0.0225	P	1.1
6	☐	250.000	253.293	265306.42	0.0431	P	0.2
7	☐	500.000	490.738	518499.60	0.0835	P	0.3
8	☐	1000.000	1002.761	1065040.85	0.1707	P	0.4
9	☐			307.22	0.0001	P	14.4

$$y = 1.7021\text{E-}004 * x + 1.8506\text{E-}005$$

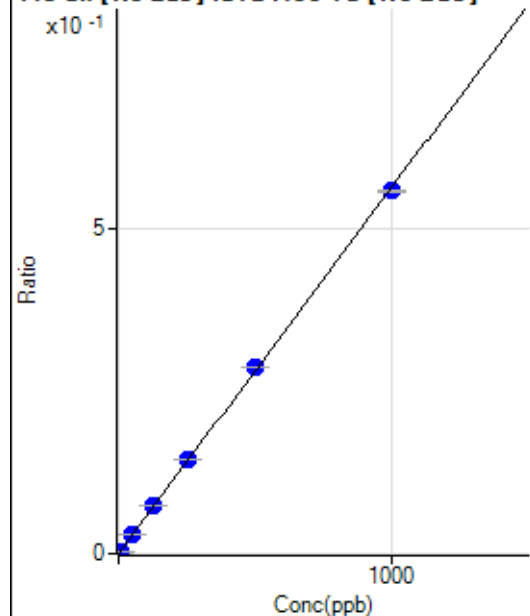
$$R = 0.9999$$

$$DL = 0.04635$$

$$BEC = 0.1087$$

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	250.01	0.0000	P	14.1
2	☐	0.500	0.488	2011.34	0.0003	P	1.2
3	☐	5.000	4.985	18596.31	0.0029	P	1.9
4	☐	50.000	53.915	190680.73	0.0305	P	1.4
5	☐	125.000	133.144	471229.38	0.0751	P	0.2
6	☐	250.000	258.763	898030.95	0.1460	P	0.3
7	☐	500.000	510.242	1786381.44	0.2879	P	0.2
8	☐	1000.000	991.475	3489547.99	0.5593	P	0.6
9	☐			2800.41	0.0005	P	2.5

$$y = 5.6407\text{E-}004 * x + 3.9071\text{E-}005$$

$$R = 0.9999$$

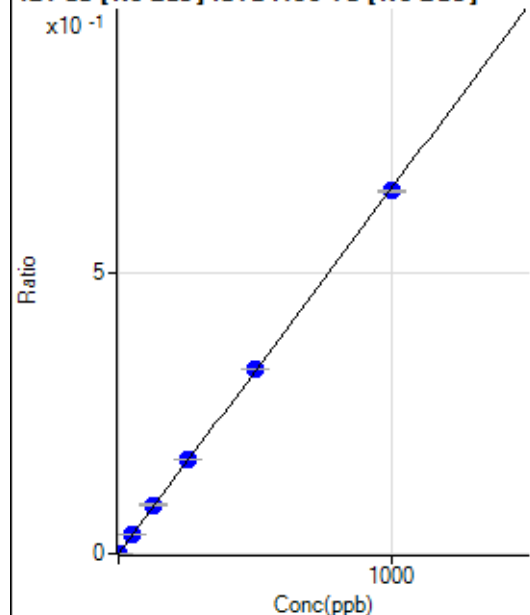
$$DL = 0.02927$$

$$BEC = 0.06927$$

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	75.00	0.0000	P	29.5
2	☐	0.200	0.169	780.61	0.0001	P	15.9
3	☐	2.000	1.874	8035.95	0.0012	P	3.2
4	☐	50.000	52.939	215955.77	0.0345	P	1.3
5	☐	125.000	133.744	546315.72	0.0871	P	0.8
6	☐	250.000	258.051	1033774.32	0.1681	P	0.3
7	☐	500.000	506.951	2048987.76	0.3302	P	0.3
8	☐	1000.000	993.272	4036002.83	0.6469	P	0.3
9	☐			5865.36	0.0010	P	6.7

$$y = 6.5125\text{E-}004 * x + 1.1727\text{E-}005$$

$$R = 0.9999$$

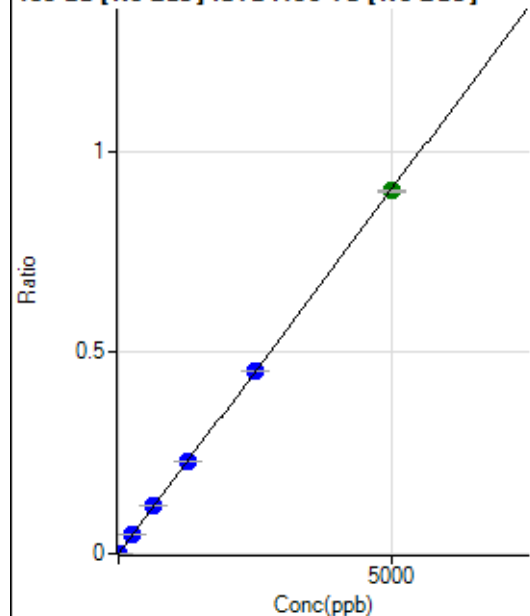
$$DL = 0.01594$$

$$BEC = 0.01801$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	83.34	0.0000	P	10.0
2	☐	1.000	1.012	1255.67	0.0002	P	11.9
3	☐	10.000	9.802	11660.88	0.0018	P	2.4
4	☐	250.000	263.196	298480.06	0.0477	P	0.5
5	☐	625.000	664.751	754868.12	0.1204	P	0.6
6	☐	1250.000	1275.348	1420368.97	0.2309	P	0.0
7	☐	2500.000	2515.110	2826070.90	0.4554	P	0.4
8	☐	5000.000	4980.480	5626156.29	0.9017	A	0.5
9	☐			1127.88	0.0002	P	3.9

$$y = 1.8105\text{E-}004 * x + 1.3028\text{E-}005$$

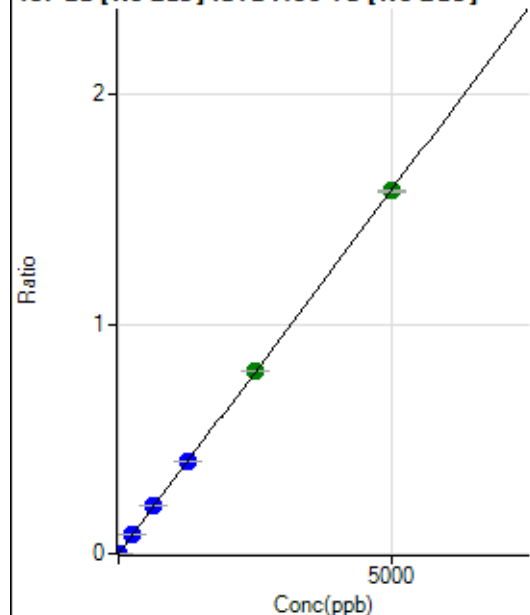
$$R = 1.0000$$

$$DL = 0.02149$$

$$BEC = 0.07196$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	111.11	0.0000	P	8.4
2	☐	1.000	0.998	2133.58	0.0003	P	6.5
3	☐	10.000	9.707	20162.46	0.0031	P	2.7
4	☐	250.000	260.584	516848.70	0.0825	P	0.5
5	☐	625.000	657.288	1305410.22	0.2082	P	0.3
6	☐	1250.000	1264.137	2462382.80	0.4003	P	0.4
7	☐	2500.000	2503.921	4920823.72	0.7929	A	0.2
8	☐	5000.000	4989.941	9858979.65	1.5802	A	0.2
9	☐			1969.67	0.0003	P	1.0

$$y = 3.1667\text{E-}004 * x + 1.7368\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.01382$$

$$BEC = 0.05485$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			2.22		P	173.
4	☐			42.23		P	32.9
5	☐			75.56		P	18.4
6	☐			115.56		P	14.5
7	☐			300.01		P	14.6
8	☐			593.37		P	10.1
9	☐			93.34		P	7.1

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			0.00		P	
4	☐			1.11		P	173.
5	☐			15.56		P	53.9
6	☐			14.45		P	26.7
7	☐			38.89		P	4.9
8	☐			44.45		P	15.6
9	☐			31.11		P	40.6

156 Dy [No Gas] No available calibration points

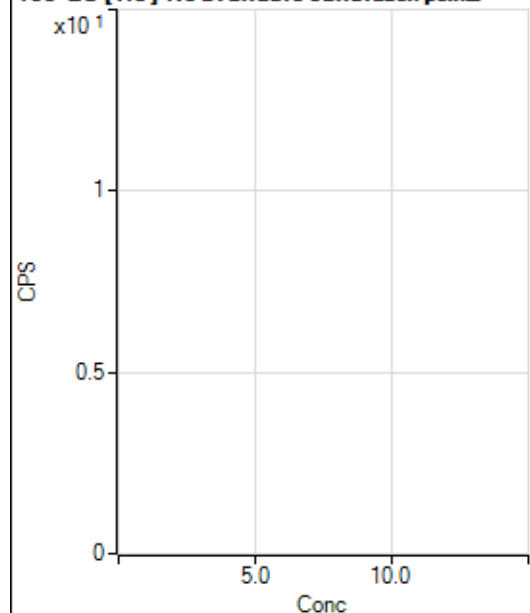
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.
2	☐			2.78		P	173.
3	☐			0.00		P	
4	☐			5.55		P	86.6
5	☐			16.67		P	86.6
6	☐			27.78		P	96.4
7	☐			41.67		P	52.9
8	☐			52.78		P	18.2
9	☐			33.33		P	25.0

156 Dy [He] No available calibration points

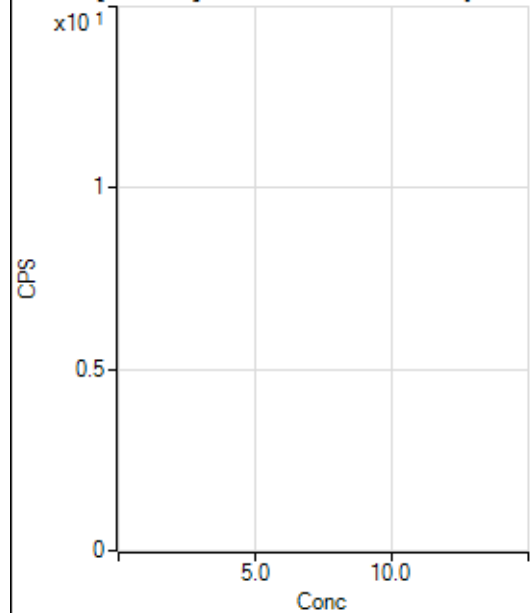
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			5.56		P	91.6
4	☐			6.67		P	50.0
5	☐			17.78		P	28.6
6	☐			38.89		P	40.5
7	☐			60.00		P	20.0
8	☐			125.56		P	13.6
9	☐			23.34		P	24.7

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	49.5
2	☐			25.00		P	33.3
3	☐			25.00		P	0.0
4	☐			16.67		P	100.
5	☐			25.00		P	88.2
6	☐			52.78		P	24.1
7	☐			38.89		P	44.6
8	☐			44.44		P	109.
9	☐			86.11		P	14.8

160 Gd [He] No available calibration points

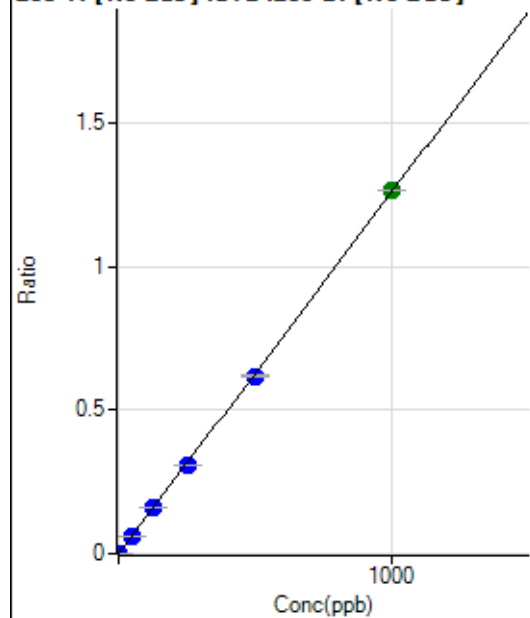
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			118.89		P	21.0
2	☐			126.67		P	18.4
3	☐			133.34		P	25.0
4	☐			123.34		P	7.1
5	☐			105.56		P	21.0
6	☐			97.78		P	7.9
7	☐			106.67		P	8.3
8	☐			111.12		P	18.3
9	☐			138.89		P	9.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.66		P	86.6
2	☐			27.78		P	45.8
3	☐			25.00		P	66.7
4	☐			13.89		P	34.7
5	☐			27.78		P	69.3
6	☐			30.56		P	83.3
7	☐			30.56		P	31.5
8	☐			19.44		P	49.5
9	☐			27.78		P	62.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	24.7
2	☐			13.33		P	NaN
3	☐			8.89		P	43.3
4	☐			18.89		P	62.0
5	☐			14.45		P	74.2
6	☐			14.44		P	13.4
7	☐			7.78		P	49.5
8	☐			14.44		P	35.3
9	☐			15.56		P	75.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	186.12	0.0000	P	7.4
2	☐	0.100	0.089	663.93	0.0002	P	5.5
3	☐	1.000	0.845	4792.74	0.0011	P	4.8
4	☐	50.000	49.339	259931.37	0.0621	P	0.9
5	☐	125.000	126.407	667749.57	0.1591	P	0.3
6	☐	250.000	245.559	1281360.92	0.3090	P	0.5
7	☐	500.000	492.488	2540331.44	0.6197	P	0.4
8	☐	1000.000	1004.724	5082828.54	1.2643	A	0.0
9	☐			1708.52	0.0005	P	11.7

$$y = 0.0013 * x + 4.3337E-005$$

$$R = 0.9999$$

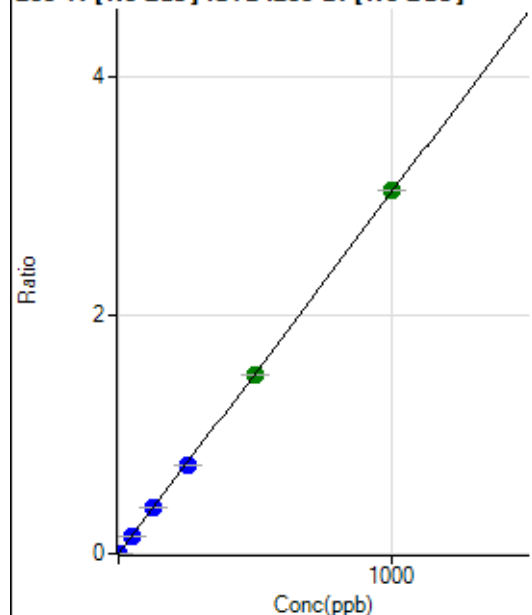
$$DL = 0.007603$$

$$BEC = 0.03444$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	386.14	0.0001	P	20.1
2	☐	0.100	0.096	1616.84	0.0004	P	16.6
3	☐	1.000	0.892	12089.27	0.0028	P	2.6
4	☐	50.000	49.248	624107.09	0.1492	P	0.3
5	☐	125.000	126.133	1602811.19	0.3819	P	0.5
6	☐	250.000	244.192	3065378.50	0.7393	P	0.6
7	☐	500.000	493.317	6121495.23	1.4934	A	0.2
8	☐	1000.000	1004.689	12227257.22	3.0414	A	0.1
9	☐			4164.74	0.0012	P	12.0

$$y = 0.0030 * x + 8.9953E-005$$

$$R = 0.9999$$

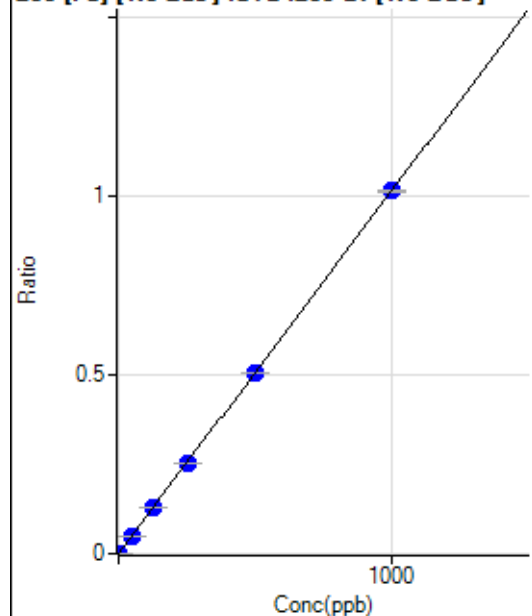
$$DL = 0.01792$$

$$BEC = 0.02972$$

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	212.97	0.0000	P	7.1
2	☐	0.100	0.089	598.18	0.0001	P	5.5
3	☐	1.000	0.951	4387.89	0.0010	P	3.3
4	☐	50.000	49.828	211473.46	0.0505	P	0.9
5	☐	125.000	128.522	546797.85	0.1303	P	0.9
6	☐	250.000	250.032	1050798.21	0.2534	P	0.2
7	☐	500.000	498.375	2070367.04	0.5051	P	0.3
8	☐	1000.000	1000.373	4075760.19	1.0138	P	0.4
9	☐			4430.50	0.0013	P	1.0

$$y = 0.0010 * x + 4.9590E-005$$

$$R = 1.0000$$

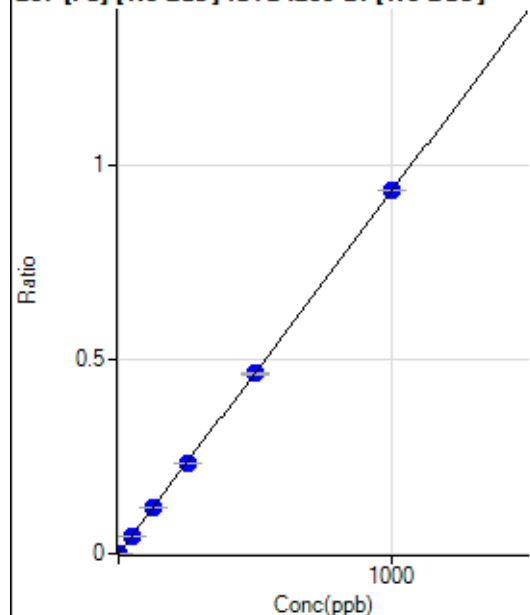
$$DL = 0.01045$$

$$BEC = 0.04894$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	175.93	0.0000	P	17.4
2	☐	0.100	0.101	577.81	0.0001	P	13.1
3	☐	1.000	0.889	3763.61	0.0009	P	1.4
4	☐	50.000	49.882	194469.92	0.0465	P	0.6
5	☐	125.000	127.330	497685.95	0.1186	P	0.3
6	☐	250.000	249.042	961511.98	0.2319	P	0.1
7	☐	500.000	496.997	1896745.14	0.4627	P	0.4
8	☐	1000.000	1001.456	3748398.35	0.9324	P	0.2
9	☐			3889.59	0.0011	P	6.5

$$y = 9.3097\text{E-}004 * x + 4.0953\text{E-}005$$

$$R = 1.0000$$

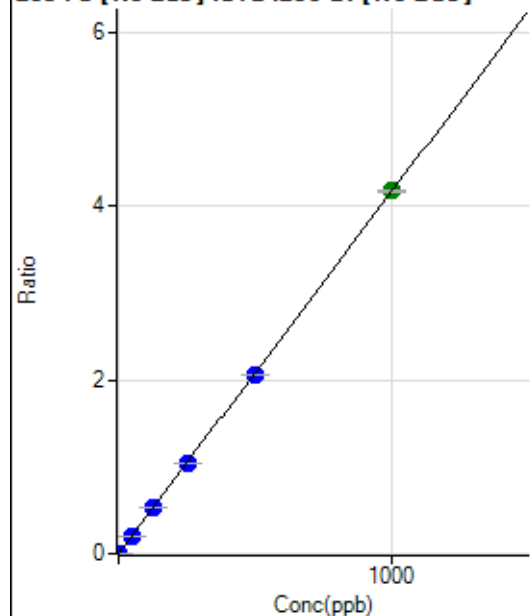
$$DL = 0.02302$$

$$BEC = 0.04399$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	888.93	0.0002	P	7.5
2	☐	0.100	0.092	2520.54	0.0006	P	2.5
3	☐	1.000	0.893	17001.01	0.0039	P	3.7
4	☐	50.000	49.753	867753.81	0.2074	P	0.3
5	☐	125.000	127.520	2229621.49	0.5313	P	0.5
6	☐	250.000	248.388	4289865.71	1.0346	P	0.3
7	☐	500.000	494.653	8444620.73	2.0601	P	0.2
8	☐	1000.000	1002.774	16789523.32	4.1762	A	0.4
9	☐			17744.05	0.0051	P	0.4

$$y = 0.0042 * x + 2.0686\text{E-}004$$

$$R = 1.0000$$

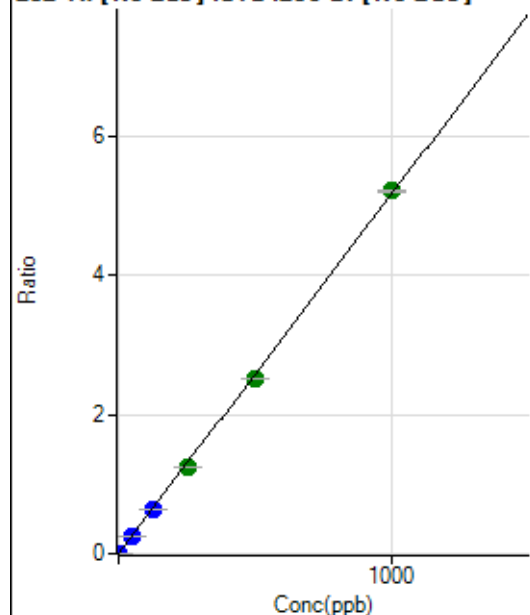
$$DL = 0.01113$$

$$BEC = 0.04967$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	251.86	0.0001	P	23.4
2	☐	0.100	0.082	2066.89	0.0005	P	5.9
3	☐	1.000	0.823	18667.46	0.0043	P	1.5
4	☐	50.000	47.192	1019311.74	0.2436	P	0.3
5	☐	125.000	122.192	2646993.20	0.6307	P	0.6
6	☐	250.000	240.235	5141280.96	1.2399	A	0.1
7	☐	500.000	488.222	10328897.57	2.5198	A	0.4
8	☐	1000.000	1008.822	20932778.94	5.2067	A	0.3
9	☐			5877.44	0.0017	P	8.5

$$y = 0.0052 * x + 5.8673E-005$$

$$R = 0.9999$$

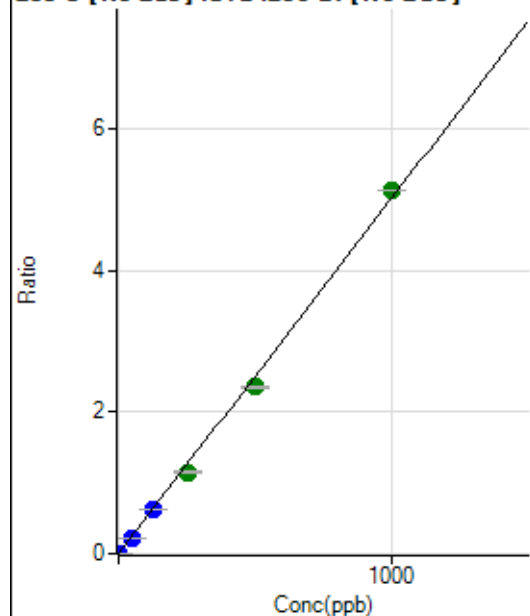
$$DL = 0.007987$$

$$BEC = 0.01137$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	305.58	0.0001	P	2.5
2	☐	0.100	0.088	2180.84	0.0005	P	4.7
3	☐	1.000	0.841	18597.35	0.0043	P	2.0
4	☐	50.000	45.268	950996.74	0.2273	P	0.8
5	☐	125.000	123.121	2593962.84	0.6181	P	0.7
6	☐	250.000	229.533	4777497.37	1.1522	A	0.7
7	☐	500.000	468.528	9640226.00	2.3518	A	0.2
8	☐	1000.000	1021.324	20610465.74	5.1266	A	0.1
9	☐			2603.17	0.0008	P	9.9

$$y = 0.0050 * x + 7.1125E-005$$

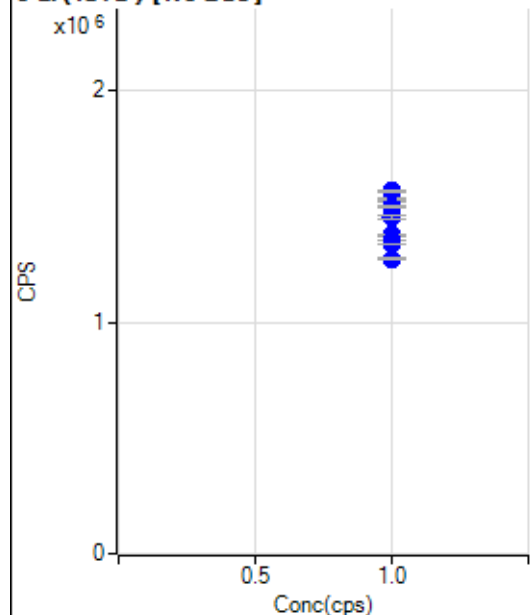
$$R = 0.9991$$

$$DL = 0.001044$$

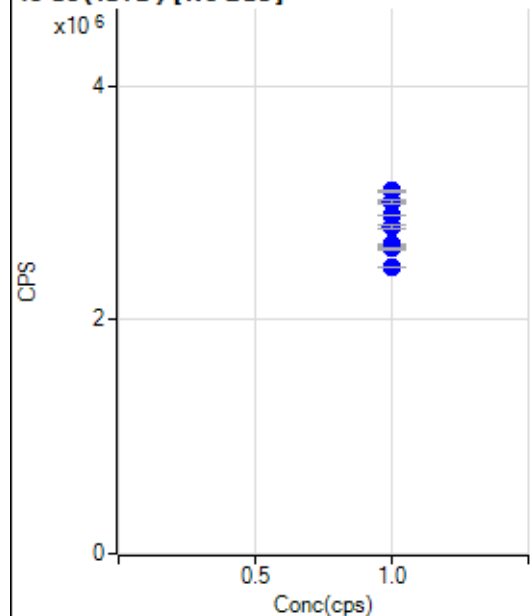
$$BEC = 0.01417$$

Weight: <None>

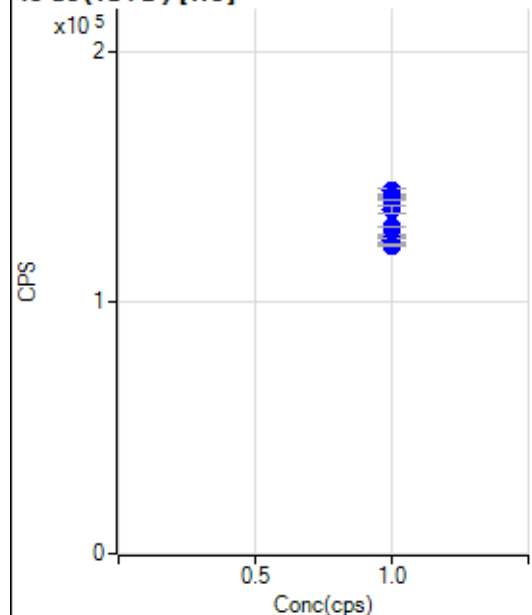
Min Conc: 0

6 Li (ISTD) [No Gas]

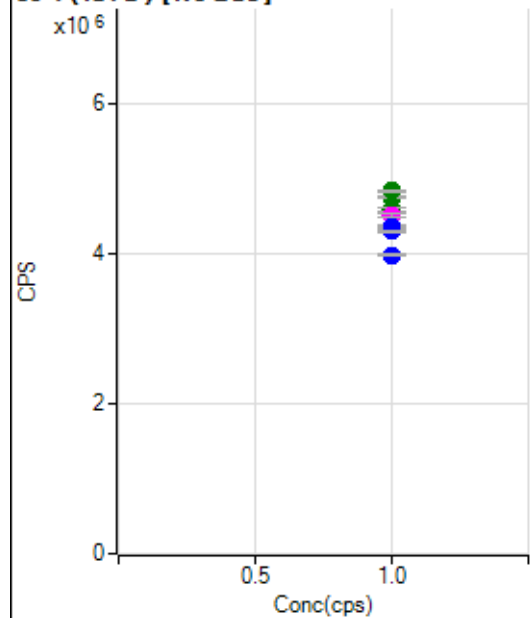
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1528314.15		P	0.8
2	☐	1.000		1533162.85		P	0.7
3	☐	1.000		1567405.82		P	0.2
4	☐	1.000		1499536.37		P	0.2
5	☐	1.000		1453502.87		P	1.0
6	☐	1.000		1376689.40		P	0.4
7	☐	1.000		1356048.98		P	0.3
8	☐	1.000		1339031.17		P	0.4
9	☐	1.000		1274902.03		P	0.6

45 Sc (ISTD) [No Gas]

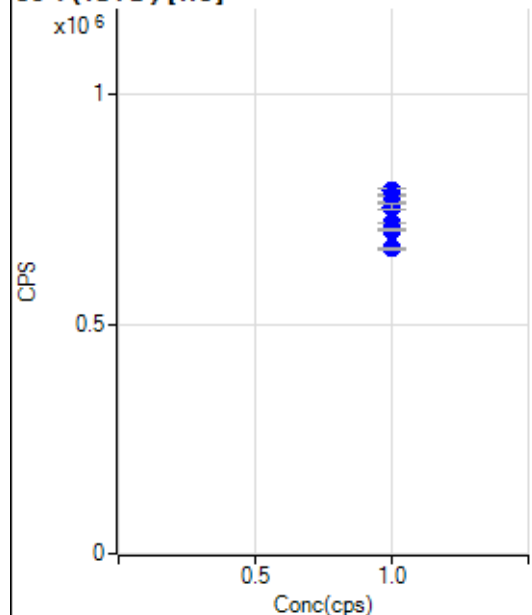
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2999904.75		P	0.7
2	☐	1.000		3011322.44		P	1.2
3	☐	1.000		3099867.85		P	0.5
4	☐	1.000		2892400.61		P	0.2
5	☐	1.000		2797607.22		P	1.4
6	☐	1.000		2639340.12		P	0.1
7	☐	1.000		2633610.32		P	0.2
8	☐	1.000		2608551.10		P	0.4
9	☐	1.000		2449711.34		P	0.5

45 Sc (ISTD) [He]

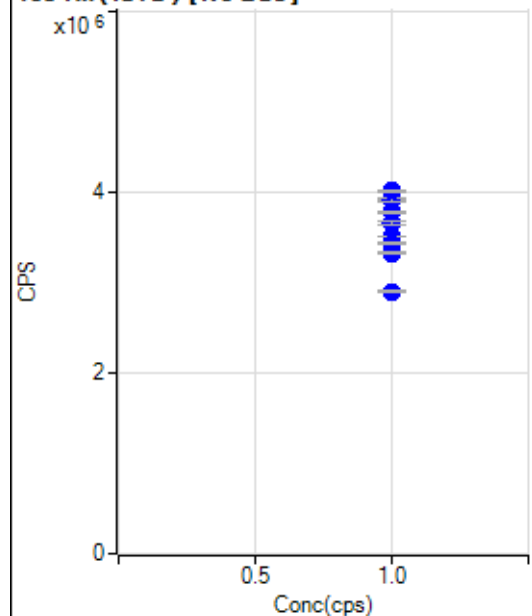
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		144319.31		P	1.7
2	☐	1.000		142007.17		P	0.5
3	☐	1.000		140622.60		P	0.1
4	☐	1.000		137010.27		P	1.9
5	☐	1.000		129938.08		P	0.4
6	☐	1.000		125553.92		P	0.3
7	☐	1.000		126349.56		P	0.5
8	☐	1.000		124670.98		P	0.9
9	☐	1.000		122703.87		P	0.4

89 Y (ISTD) [No Gas]

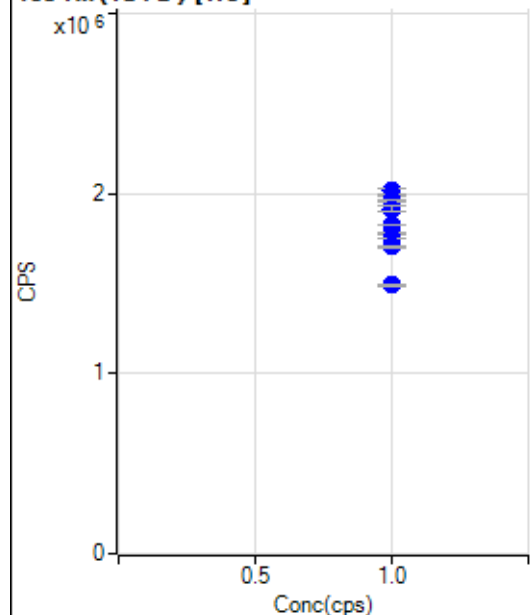
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4743951.67		A	0.1
2	☐	1.000		4760276.77		A	0.8
3	☐	1.000		4843627.53		A	0.4
4	☐	1.000		4589766.01		A	0.9
5	☐	1.000		4510216.95		M	1.0
6	☐	1.000		4373804.79		P	0.3
7	☐	1.000		4339092.16		P	0.3
8	☐	1.000		4300864.76		P	0.1
9	☐	1.000		3989759.56		P	0.5

89 Y (ISTD) [He]

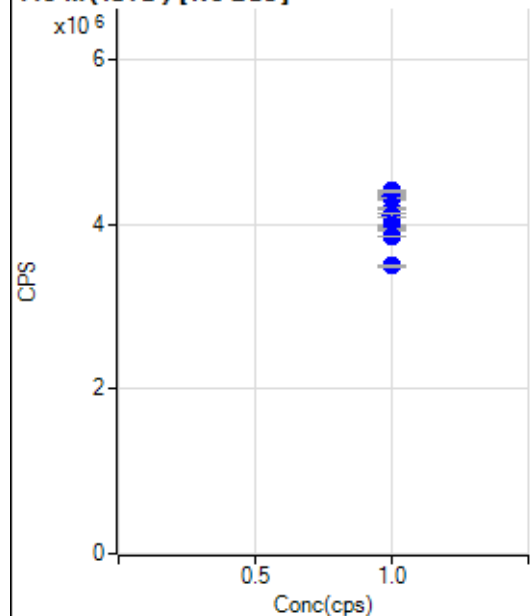
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		790176.36		P	1.4
2	☐	1.000		779168.23		P	0.4
3	☐	1.000		767824.39		P	0.1
4	☐	1.000		755791.44		P	2.0
5	☐	1.000		719927.31		P	0.2
6	☐	1.000		708761.33		P	0.2
7	☐	1.000		705601.92		P	0.1
8	☐	1.000		705082.52		P	0.5
9	☐	1.000		664622.63		P	0.5

103 Rh (ISTD) [No Gas]

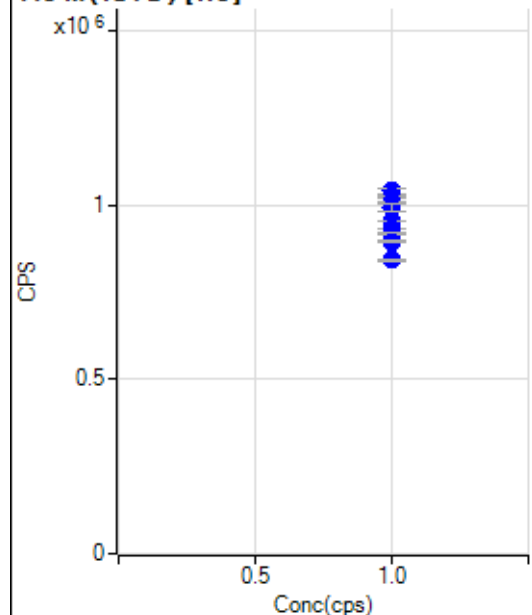
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3923594.27		P	0.7
2	☐	1.000		3918619.66		P	0.8
3	☐	1.000		4013712.94		P	0.6
4	☐	1.000		3779022.53		P	0.7
5	☐	1.000		3653549.86		P	0.9
6	☐	1.000		3505408.33		P	0.3
7	☐	1.000		3430135.93		P	0.4
8	☐	1.000		3326917.39		P	0.4
9	☐	1.000		2901599.37		P	0.7

103 Rh (ISTD) [He]

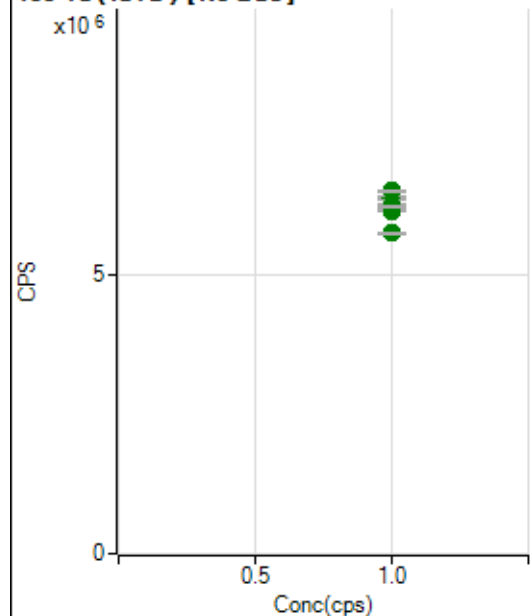
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2012768.60		P	1.5
2	☐	1.000		1989776.10		P	0.4
3	☐	1.000		1959426.20		P	0.2
4	☐	1.000		1912319.24		P	1.8
5	☐	1.000		1823317.47		P	0.1
6	☐	1.000		1774746.24		P	0.2
7	☐	1.000		1747604.82		P	0.3
8	☐	1.000		1702639.89		P	0.7
9	☐	1.000		1493196.84		P	0.7

115 In (ISTD) [No Gas]

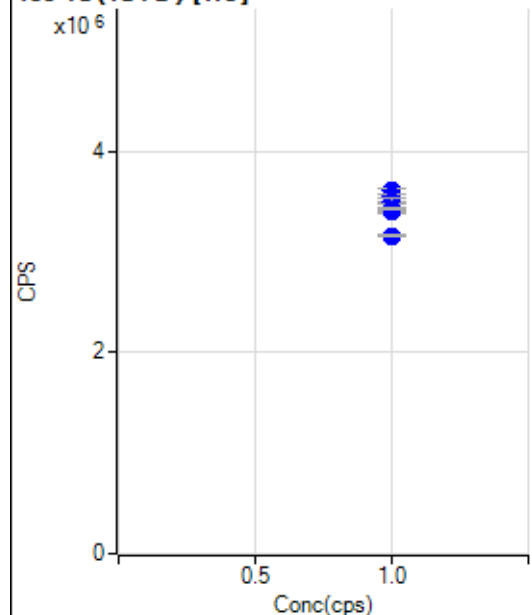
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4325570.39		P	1.1
2	☐	1.000		4340772.70		P	0.9
3	☐	1.000		4406346.31		P	0.4
4	☐	1.000		4185377.42		P	0.4
5	☐	1.000		4101540.54		P	1.1
6	☐	1.000		3983875.98		P	0.3
7	☐	1.000		3941054.26		P	0.6
8	☐	1.000		3852877.22		P	0.1
9	☐	1.000		3499774.15		P	0.5

115 In (ISTD) [He]

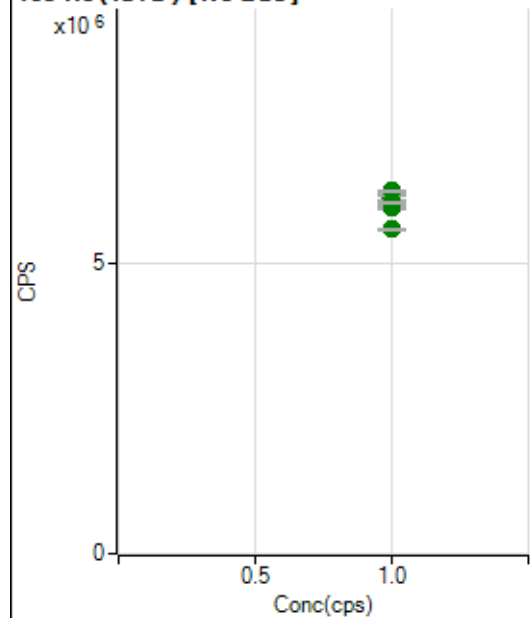
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1039675.71		P	1.5
2	☐	1.000		1024258.30		P	0.7
3	☐	1.000		1007552.69		P	0.2
4	☐	1.000		991814.12		P	1.7
5	☐	1.000		953013.53		P	0.2
6	☐	1.000		932560.07		P	0.1
7	☐	1.000		919152.54		P	0.5
8	☐	1.000		895429.62		P	0.7
9	☐	1.000		840476.87		P	0.7

159 Tb (ISTD) [No Gas]

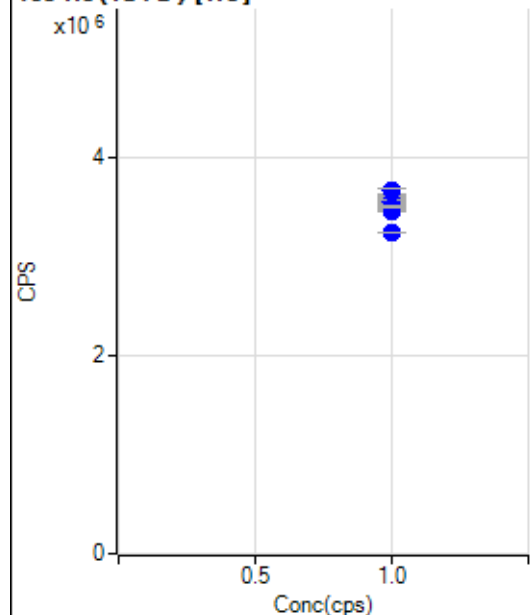
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6396449.00		A	0.4
2	☐	1.000		6402747.19		A	0.9
3	☐	1.000		6522461.22		A	0.3
4	☐	1.000		6262130.32		A	0.8
5	☐	1.000		6271286.64		A	0.6
6	☐	1.000		6150969.56		A	0.3
7	☐	1.000		6205935.81		A	0.4
8	☐	1.000		6239221.50		A	0.4
9	☐	1.000		5766132.62		A	0.5

159 Tb (ISTD) [He]

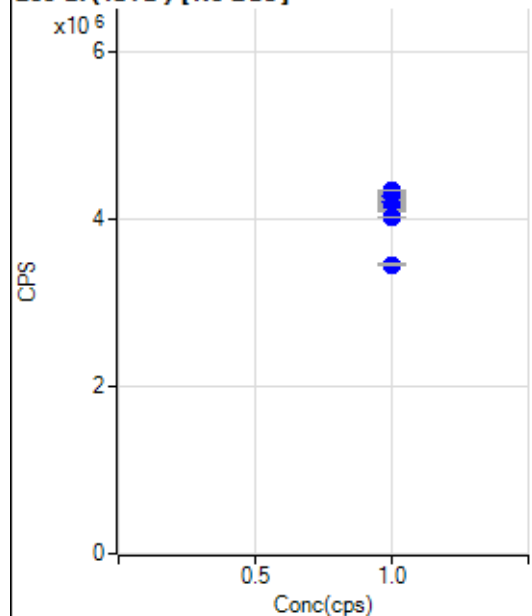
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3610821.68		P	1.7
2	☐	1.000		3551840.61		P	1.1
3	☐	1.000		3498762.76		P	0.2
4	☐	1.000		3506134.05		P	1.5
5	☐	1.000		3430237.03		P	0.6
6	☐	1.000		3400384.15		P	0.2
7	☐	1.000		3416119.19		P	0.4
8	☐	1.000		3433351.23		P	1.0
9	☐	1.000		3160167.31		P	0.5

165 Ho (ISTD) [No Gas]

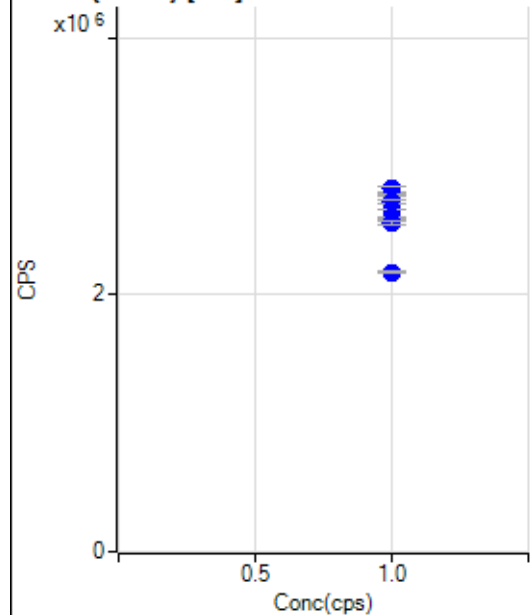
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6219295.41		A	0.8
2	☐	1.000		6136187.85		A	0.7
3	☐	1.000		6262093.63		A	0.2
4	☐	1.000		5997887.94		A	0.1
5	☐	1.000		6038478.61		A	0.6
6	☐	1.000		5958541.02		A	0.4
7	☐	1.000		5985471.75		A	0.5
8	☐	1.000		6049108.43		A	0.5
9	☐	1.000		5595807.81		A	0.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3662262.13		P	1.8
2	☐	1.000		3598493.04		P	0.7
3	☐	1.000		3549853.00		P	0.6
4	☐	1.000		3546982.55		P	1.6
5	☐	1.000		3493751.82		P	0.5
6	☐	1.000		3453732.59		P	0.3
7	☐	1.000		3491047.76		P	0.4
8	☐	1.000		3500671.03		P	0.7
9	☐	1.000		3240859.95		P	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4295846.26		P	0.7
2	☐	1.000		4268269.59		P	1.0
3	☐	1.000		4332400.28		P	0.2
4	☐	1.000		4183956.88		P	0.4
5	☐	1.000		4197048.48		P	1.0
6	☐	1.000		4146398.13		P	0.4
7	☐	1.000		4099045.22		P	0.0
8	☐	1.000		4020335.29		P	0.2
9	☐	1.000		3454603.07		P	0.8

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2822172.11		P	1.6
2	☐	1.000		2772893.08		P	0.9
3	☐	1.000		2722673.29		P	0.6
4	☐	1.000		2721327.77		P	1.5
5	☐	1.000		2666242.49		P	0.0
6	☐	1.000		2604996.63		P	0.2
7	☐	1.000		2598087.93		P	0.3
8	☐	1.000		2554391.25		P	1.1
9	☐	1.000		2173903.88		P	0.2

US EPA Tune Check Sample Report

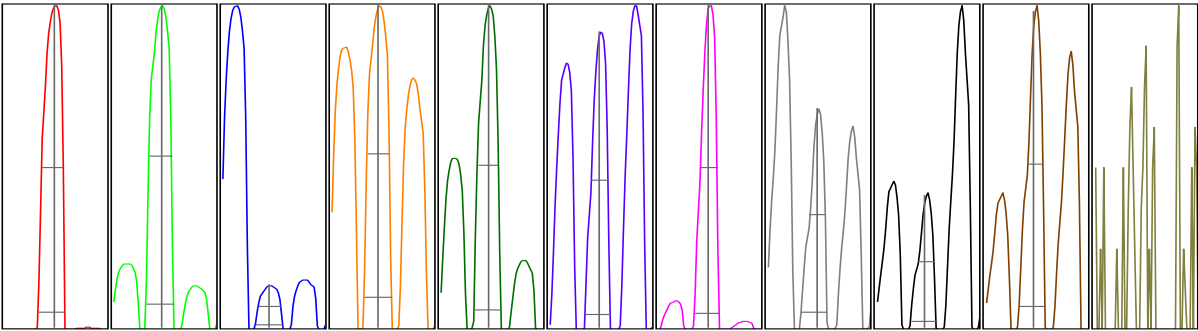
Batch Folder D:\ICP-MS Data\P7060919MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5725	1.57	5.00	
24	147185	1.52	5.00	
25	20085	1.63	5.00	
26	22746	1.57	5.00	
59	39835	1.47	5.00	
113	5454	1.10	5.00	
115	66223	1.09	5.00	
206	18267	1.87	5.00	
207	16616	1.72	5.00	
208	39469	1.60	5.00	
220	0	58.68		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5576	5806	5776	5749	5718
24	143420	149081	148392	148077	146953
25	19531	20342	20288	20211	20054
26	22145	23074	22940	22798	22775
59	38905	40450	40164	39919	39736
113	5397	5537	5492	5443	5401
115	65624	67150	66819	65977	65543
206	17685	18548	18398	18450	18255
207	16148	16906	16673	16752	16604
208	38389	40009	39816	39624	39506
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	9570	9.00	8.9 - 9.1		0.779	0.900	
24	237758	23.95	23.9 - 24.1		0.809	0.900	
25	31879	24.90	24.9 - 25.1		0.793	0.900	
26	36639	25.90	25.9 - 26.1		0.801	0.900	
59	68954	58.95	58.9 - 59.1		0.780	0.900	
113	10882	113.00	112.9 - 113.1		0.727	0.900	
115	135169	115.00	114.9 - 115.1		0.720	0.900	
206	37967	206.00	205.9 - 206.1		0.744	0.900	
207	34152	206.95	206.9 - 207.1		0.731	0.900	
208	81534	207.95	207.9 - 208.1		0.744	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	7.9	V	Deflect	14.4	V
Extract 2	-90.0	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	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	10199	0.17	
89	21020	0.11	
205	16930	0.34	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	10174	10193	10198	10222	10209
89	21022	21018	21054	20991	21015
205	16891	16989	16901	16875	16994

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	8.2	V	Deflect	1.6	V
Extract 2	-95.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	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	190	V			