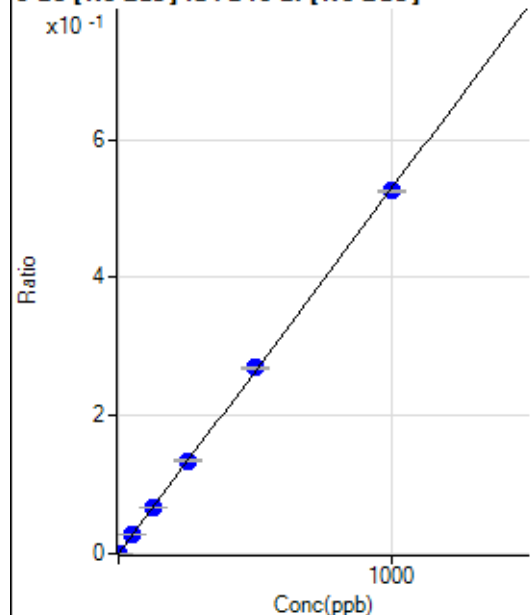


Calibration for 004CALS.d

Batch Folder: D:\ICP-MS Data\P7011420-MS2.b\
 Analysis File: P7011420-MS2.batch.bin
 DA Date-Time: 2020-01-14 22:47:16
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S0	2020-01-14 17:25:52
2	004CALS.d	S02	2020-01-14 17:29:35
3	005CALS.d	S03	2020-01-14 17:34:20
4	006CALS.d	S04	2020-01-14 17:38:34
5	007CALS.d	S05	2020-01-14 17:42:33
6	008CALS.d	S06	2020-01-14 17:46:30
7	009CALS.d	S07	2020-01-14 17:50:25
8	010CALS.d	S08	2020-01-14 17:54:20

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	135.19	0.0000	P	12.6
2	☐	1.000	0.990	2750.33	0.0006	P	9.0
3	☐	50.000	51.856	131709.62	0.0275	P	1.8
4	☐	125.000	126.864	320314.12	0.0671	P	1.0
5	☐	250.000	253.824	627954.49	0.1343	P	1.6
6	☐	500.000	509.358	1248762.85	0.2694	P	0.7
7	☐	1000.000	994.039	2492658.91	0.5258	P	0.4
8	☐			953.76	0.0002	P	11.9

$$y = 5.2889\text{E-}004 * x + 2.6981\text{E-}005$$

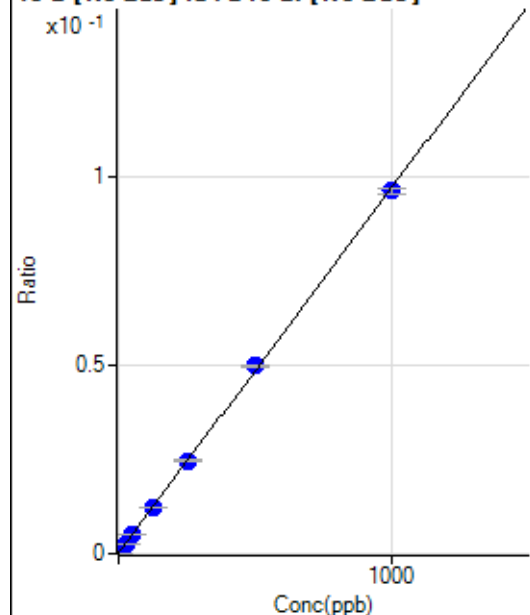
$$R = 0.9999$$

$$DL = 0.01925$$

$$BEC = 0.05102$$

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	872.28	0.0002	P	10.7
2	☐	25.000	24.955	12958.82	0.0026	P	5.1
3	☐	50.000	51.219	24673.72	0.0051	P	2.3
4	☐	125.000	125.145	58773.74	0.0123	P	2.3
5	☐	250.000	253.565	115895.90	0.0248	P	1.7
6	☐	500.000	513.569	231742.94	0.0500	P	0.7
7	☐	1000.000	992.246	457195.58	0.0964	P	1.3
8	☐			11588.17	0.0027	P	8.3

$$y = 9.7016\text{E-}005 * x + 1.7418\text{E-}004$$

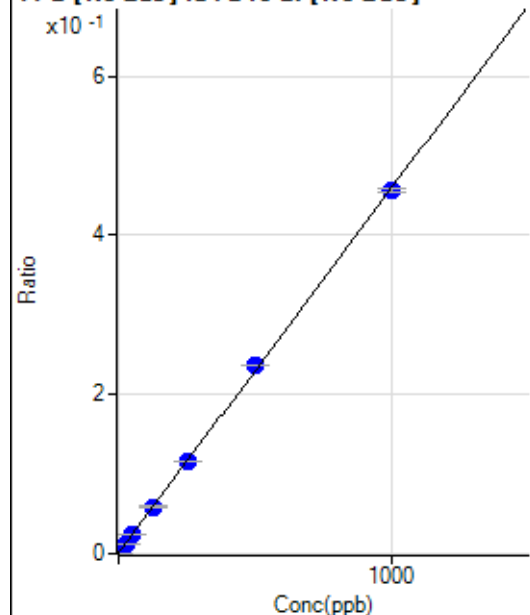
$$R = 0.9999$$

$$DL = 0.5777$$

$$BEC = 1.795$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4575.87	0.0009	P	2.7
2	☐	25.000	24.614	60882.05	0.0122	P	0.7
3	☐	50.000	50.238	114816.09	0.0239	P	1.7
4	☐	125.000	126.018	279917.99	0.0587	P	1.7
5	☐	250.000	251.659	543624.89	0.1162	P	0.4
6	☐	500.000	514.146	1096104.03	0.2365	P	0.6
7	☐	1000.000	992.382	2159920.95	0.4556	P	1.1
8	☐			54335.27	0.0124	P	7.4

$$y = 4.5818\text{E-}004 * x + 9.1380\text{E-}004$$

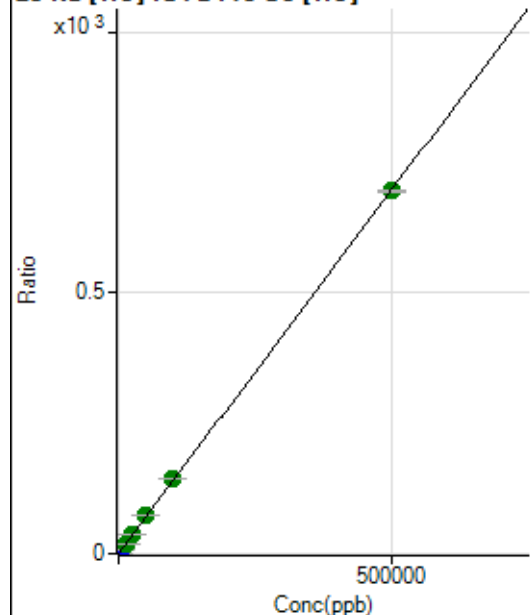
$$R = 0.9998$$

$$DL = 0.163$$

$$BEC = 1.994$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12085.88	0.0300	P	2.5
2	☐	500.000	532.709	307678.17	0.7721	P	0.4
3	☐	5000.000	5446.593	2952553.24	7.6173	P	0.9
4	☐	12500.000	13236.433	7196696.69	18.4688	A	0.4
5	☐	25000.000	26144.833	14630505.19	36.4507	A	0.7
6	☐	50000.000	52680.723	29013434.33	73.4160	A	0.4
7	☐	100000.00	103428.36	58015136.71	144.1092	A	0.6
8	☐	500000.00	498966.10	271211306.0	695.1065	A	0.6

$$y = 0.0014 * x + 0.0300$$

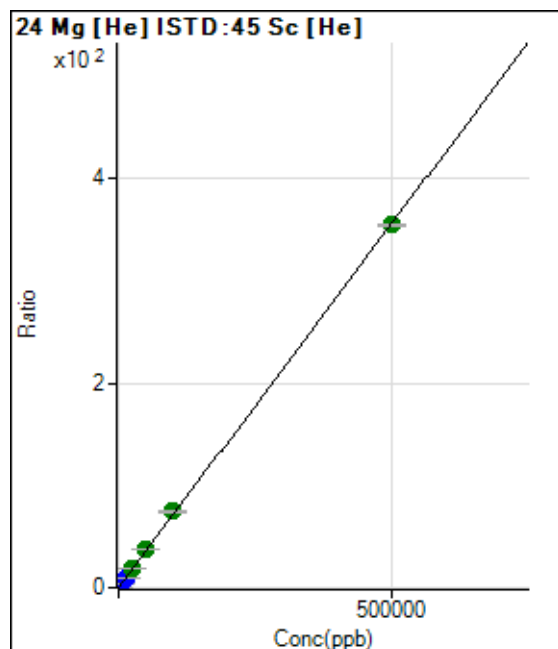
$$R = 1.0000$$

$$DL = 1.629$$

$$BEC = 21.55$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	330.57	0.0008	P	20.4
2	☐	500.000	554.121	157294.35	0.3947	P	1.0
3	☐	5000.000	5592.829	1541366.54	3.9765	P	1.8
4	☐	12500.000	13658.977	3783754.86	9.7104	P	0.8
5	☐	25000.000	26594.672	7588544.27	18.9059	A	0.4
6	☐	50000.000	53425.037	15009035.92	37.9785	A	0.4
7	☐	100000.00	104663.32	29951644.42	74.4018	A	0.5
8	☐	500000.00	498610.14	138291964.2	354.4427	A	0.8

$$y = 7.1086\text{E-}004 * x + 8.2132\text{E-}004$$

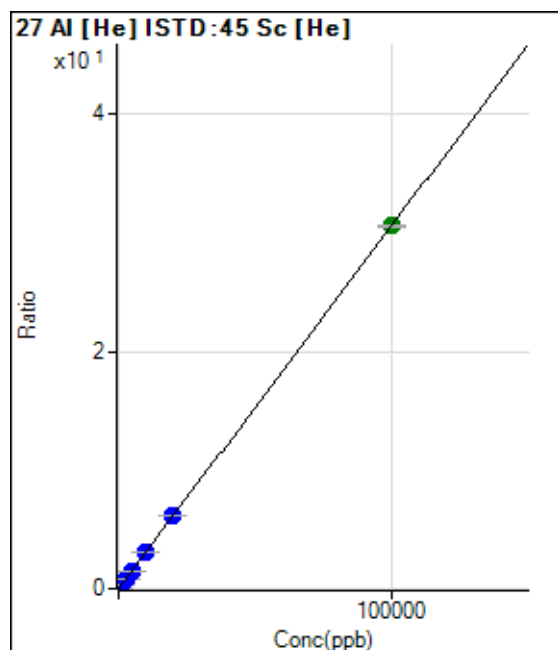
$$R = 0.9999$$

$$DL = 0.7072$$

$$BEC = 1.155$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44.45	0.0001	P	57.8
2	☐	20.000	19.714	2444.75	0.0061	P	7.8
3	☐	1000.000	1046.323	123980.96	0.3199	P	1.0
4	☐	2500.000	2591.898	308680.97	0.7922	P	0.7
5	☐	5000.000	4952.020	607461.26	1.5134	P	0.4
6	☐	10000.000	10082.782	1217732.92	3.0813	P	0.6
7	☐	20000.000	19959.901	2455572.88	6.0997	P	0.4
8	☐	100000.00	99999.380	11923643.58	30.5593	A	0.2

$$y = 3.0559\text{E-}004 * x + 1.1065\text{E-}004$$

$$R = 1.0000$$

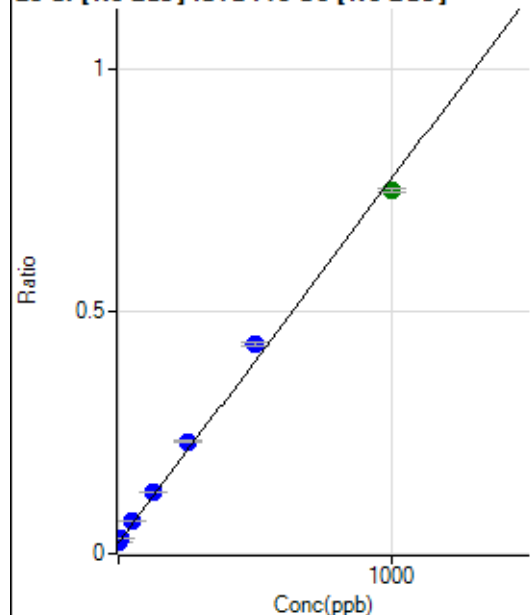
$$DL = 0.6273$$

$$BEC = 0.3621$$

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	216298.99	0.0228	P	0.7
2	☐	10.000	10.731	288579.44	0.0309	P	0.9
3	☐	50.000	58.532	600114.45	0.0667	P	2.1
4	☐	125.000	139.606	1163425.76	0.1276	P	1.0
5	☐	250.000	278.635	2104345.19	0.2319	P	1.2
6	☐	500.000	547.117	3939813.20	0.4334	P	1.8
7	☐	1000.000	967.023	7025171.25	0.7485	A	0.9
8	☐			339253.97	0.0381	P	1.1

$$y = 7.5042\text{E-}004 * x + 0.0228$$

R = 0.9978

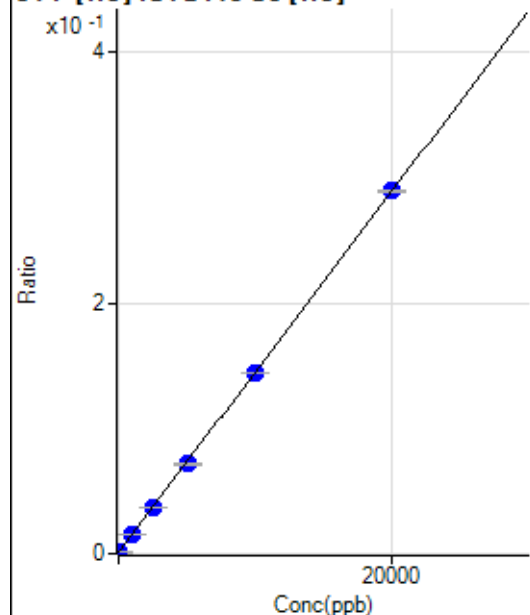
DL = 0.6672

BEC = 30.38

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-24.952	238.90	0.0006	P	17.4
2	☐	0.000	24.952	522.25	0.0013	P	7.2
3	☐	1000.000	993.091	5901.41	0.0152	P	5.9
4	☐	2500.000	2529.248	14535.45	0.0373	P	0.9
5	☐	5000.000	4913.743	28725.73	0.0716	P	2.7
6	☐	10000.000	9927.123	56756.26	0.1436	P	0.4
7	☐	20000.000	20054.692	116408.96	0.2892	P	0.3
8	☐			355.57	0.0009	P	21.1

$$y = 1.4371\text{E-}005 * x + 9.5200\text{E-}004$$

R = 1.0000

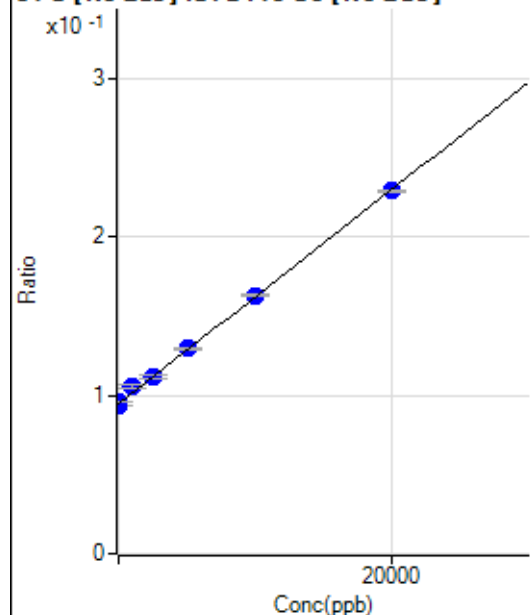
DL = 20.65

BEC = 66.24

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	-179.912	886928.28	0.0935	P	0.6
2	☐	0.000	179.912	897263.49	0.0959	P	0.4
3	☐	1000.000	1576.587	947808.53	0.1054	P	2.1
4	☐	2500.000	2522.371	1019461.34	0.1118	P	1.7
5	☐	5000.000	5142.097	1175298.13	0.1295	P	1.6
6	☐	10000.000	10132.238	1484665.33	0.1633	P	1.2
7	☐	20000.000	19866.731	2151346.27	0.2292	P	0.7
8	☐			861379.33	0.0968	P	1.1

$$y = 6.7698\text{E-}006 * x + 0.0947$$

R = 0.9995

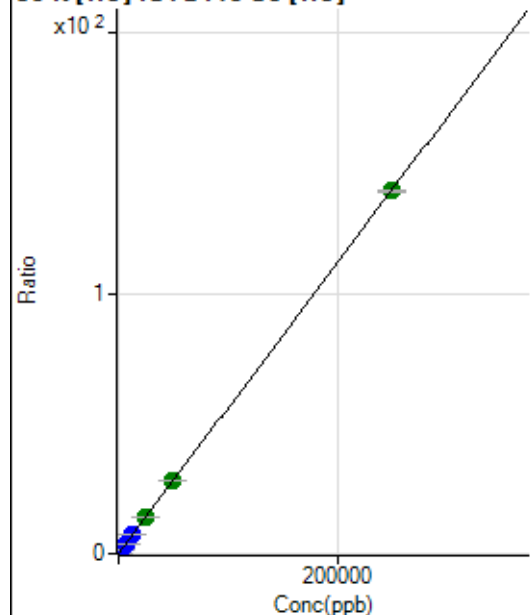
DL = 226.1

BEC = 1.399E+04

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30187.01	0.0750	P	0.8
2	☐	500.000	514.840	144332.37	0.3622	P	0.9
3	☐	2500.000	2628.223	597371.88	1.5412	P	0.5
4	☐	6250.000	6445.431	1430342.30	3.6707	P	0.4
5	☐	12500.000	12781.004	2891979.47	7.2051	P	0.6
6	☐	25000.000	25352.272	5618908.46	14.2182	A	0.1
7	☐	50000.000	50683.592	11412845.05	28.3498	A	0.2
8	☐	250000.00	249807.80	54405388.02	139.4348	A	0.3

$$y = 5.5787\text{E-}004 * x + 0.0750$$

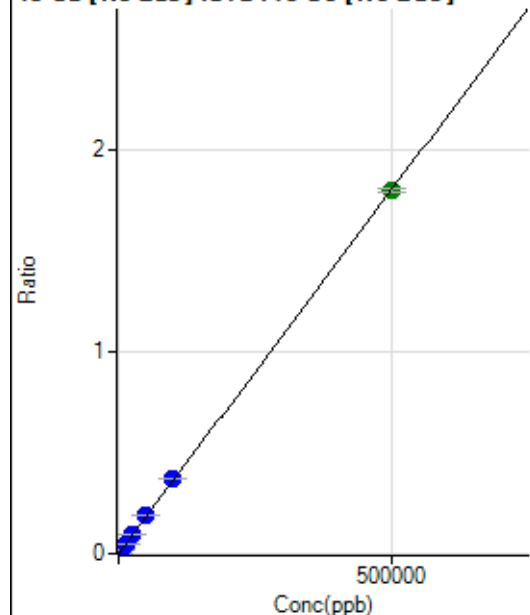
R = 1.0000

DL = 3.048

BEC = 134.4

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	133.34	0.0000	P	57.7
2	☐	500.000	534.460	18103.55	0.0019	P	2.2
3	☐	5000.000	5295.824	171336.44	0.0191	P	2.7
4	☐	12500.000	13001.004	426367.85	0.0468	P	1.4
5	☐	25000.000	26324.587	858912.78	0.0946	P	1.3
6	☐	50000.000	53295.095	1741911.34	0.1916	P	1.5
7	☐	100000.00	103917.40	3506497.34	0.3736	P	1.0
8	☐	500000.00	498805.26	15962533.34	1.7932	A	1.1

$$y = 3.5949\text{E-}006 * x + 1.4068\text{E-}005$$

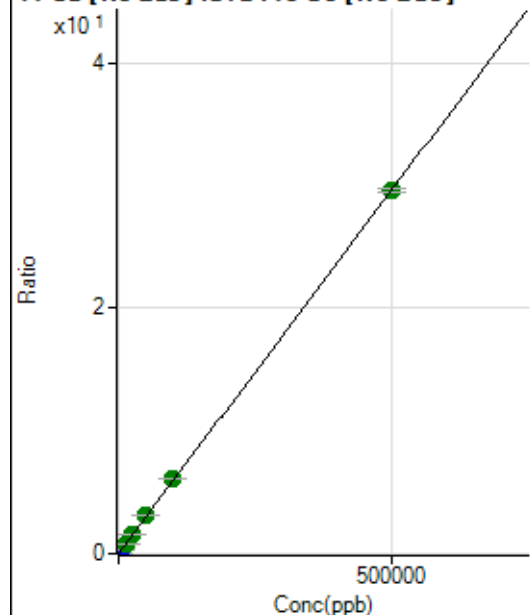
$$R = 1.0000$$

$$DL = 6.773$$

$$BEC = 3.913$$

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	10879.44	0.0011	P	1.3
2	☐	500.000	510.940	293603.99	0.0314	P	0.2
3	☐	5000.000	5240.768	2800482.14	0.3114	P	1.5
4	☐	12500.000	12752.700	6894918.47	0.7560	A	1.0
5	☐	25000.000	25638.100	13781031.91	1.5187	A	1.5
6	☐	50000.000	51956.315	27970067.64	3.0765	A	0.8
7	☐	100000.00	102420.99	56913458.22	6.0635	A	0.3
8	☐	500000.00	499279.52	263087078.1	29.5540	A	0.9

$$y = 5.9191\text{E-}005 * x + 0.0011$$

$$R = 1.0000$$

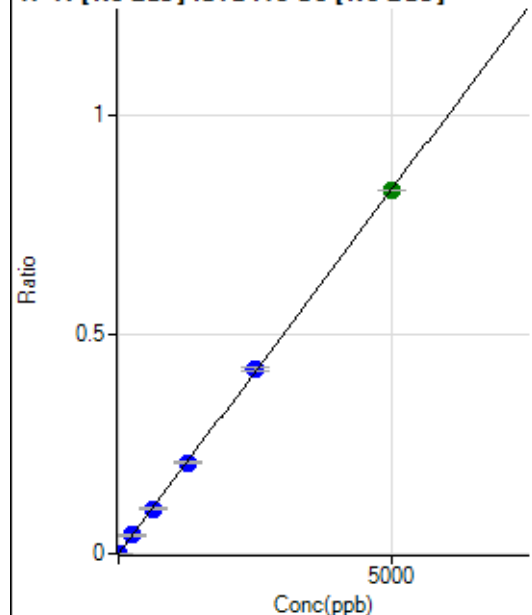
$$DL = 0.7535$$

$$BEC = 19.37$$

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	144.45	0.0000	P	14.6
2	☐	5.000	4.989	7888.62	0.0008	P	3.9
3	☐	250.000	251.513	375579.91	0.0418	P	2.9
4	☐	625.000	618.265	936144.74	0.1026	P	0.8
5	☐	1250.000	1246.038	1877012.15	0.2068	P	1.5
6	☐	2500.000	2536.316	3827710.29	0.4210	P	1.3
7	☐	5000.000	4983.599	7764715.97	0.8272	A	0.1
8	☐			1811.31	0.0002	P	4.5

$$y = 1.6599\text{E-}004 * x + 1.5226\text{E-}005$$

$$R = 1.0000$$

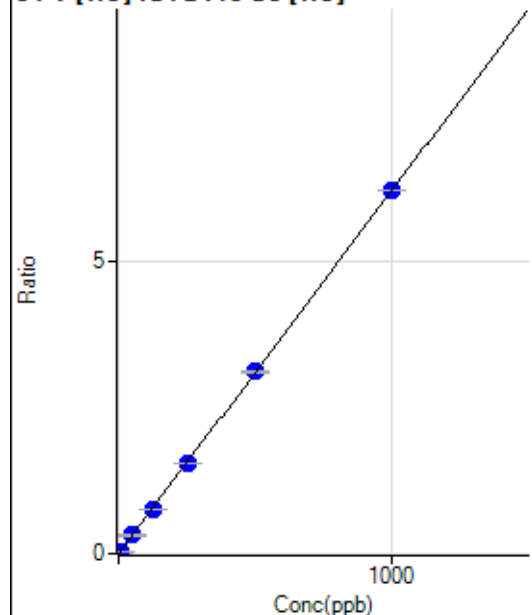
$$DL = 0.04007$$

$$BEC = 0.09173$$

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	4.44	0.0000	P	114.
2	☐	5.000	5.172	12770.12	0.0320	P	0.9
3	☐	50.000	50.644	121588.26	0.3137	P	1.9
4	☐	125.000	124.314	300040.17	0.7700	P	0.2
5	☐	250.000	246.871	613742.26	1.5291	P	0.1
6	☐	500.000	501.175	1226715.97	3.1041	P	0.5
7	☐	1000.000	1000.248	2494021.19	6.1953	P	0.1
8	☐			992.27	0.0025	P	4.3

$$y = 0.0062 * x + 1.0991\text{E-}005$$

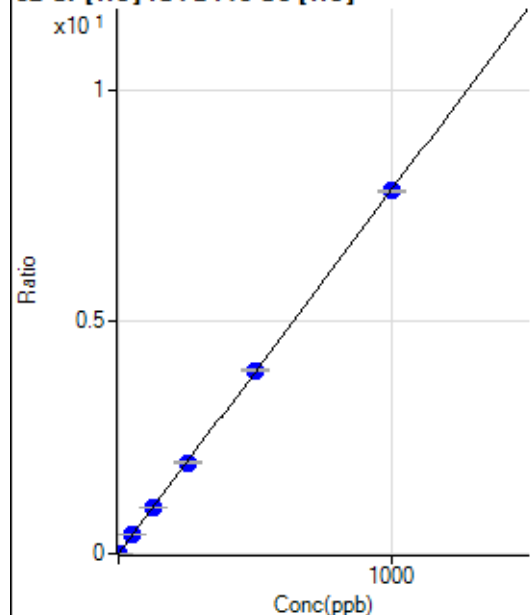
$$R = 1.0000$$

$$DL = 0.0061$$

$$BEC = 0.001774$$

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	1221.18	0.0030	P	2.0
2	☐	2.000	1.967	7346.40	0.0184	P	2.0
3	☐	50.000	51.869	158590.00	0.4091	P	1.0
4	☐	125.000	127.301	389574.70	0.9998	P	0.2
5	☐	250.000	250.577	788701.78	1.9650	P	0.5
6	☐	500.000	503.585	1559338.31	3.9459	P	0.9
7	☐	1000.000	997.682	3145863.36	7.8146	P	0.3
8	☐			83426.56	0.2138	P	1.2

$$y = 0.0078 * x + 0.0030$$

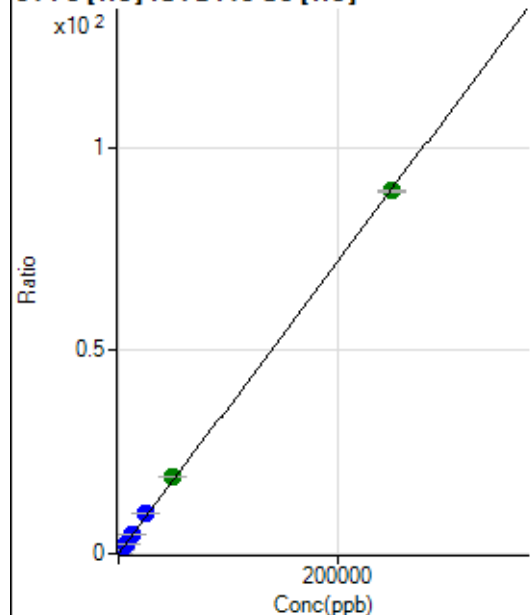
$$R = 1.0000$$

$$DL = 0.02286$$

$$BEC = 0.3874$$

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	481.13	0.0012	P	6.3
2	☐	50.000	58.440	8821.67	0.0221	P	0.3
3	☐	2500.000	2838.730	394771.69	1.0185	P	1.6
4	☐	6250.000	6931.045	968312.26	2.4850	P	0.3
5	☐	12500.000	13621.647	1959766.22	4.8826	P	0.7
6	☐	25000.000	27201.777	3852749.42	9.7491	P	0.5
7	☐	50000.000	53266.285	7685004.68	19.0895	A	0.6
8	☐	250000.00	249050.06	34823193.65	89.2496	A	0.7

$$y = 3.5836E-004 * x + 0.0012$$

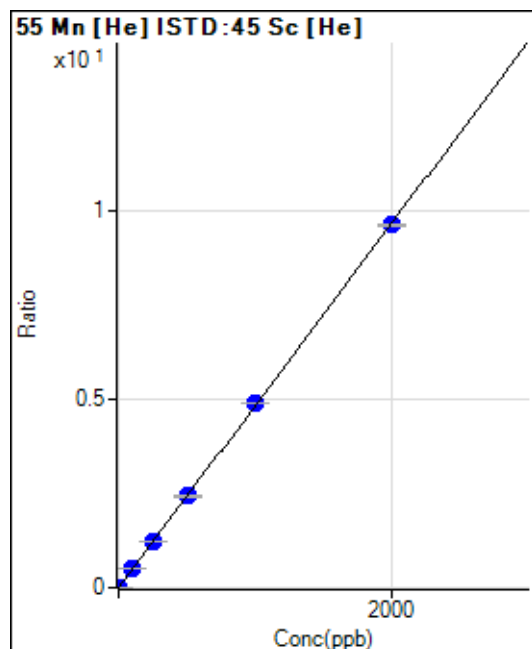
$$R = 0.9999$$

$$DL = 0.6313$$

$$BEC = 3.336$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31.11	0.0001	P	22.5
2	☐	1.000	1.085	2113.52	0.0053	P	4.4
3	☐	100.000	104.273	194744.84	0.5024	P	1.2
4	☐	250.000	255.100	478912.50	1.2291	P	0.8
5	☐	500.000	501.968	970692.35	2.4184	P	0.3
6	☐	1000.000	1011.327	1925500.39	4.8723	P	0.2
7	☐	2000.000	1992.994	3865253.03	9.6016	P	0.8
8	☐			16193.56	0.0415	P	0.9

$$y = 0.0048 * x + 7.7308E-005$$

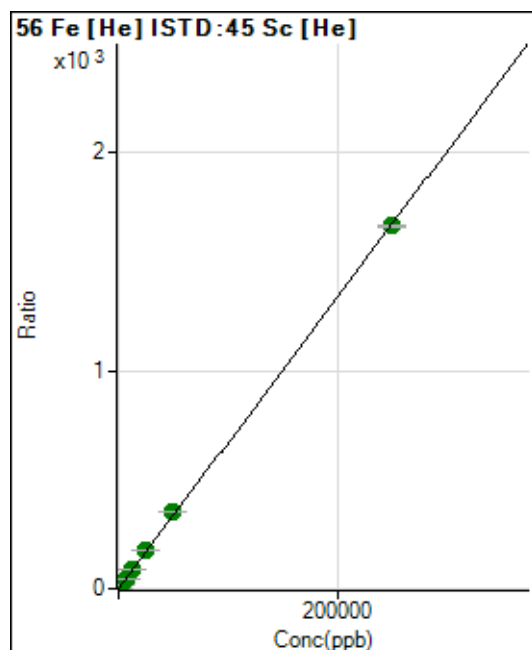
$$R = 1.0000$$

$$DL = 0.01081$$

$$BEC = 0.01605$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2594.75	0.0064	P	4.2
2	☐	50.000	55.957	151499.85	0.3802	P	2.2
3	☐	2500.000	2750.827	7123969.72	18.3791	A	1.5
4	☐	6250.000	6703.801	17449624.58	44.7808	A	0.5
5	☐	12500.000	13163.756	35291780.65	87.9265	A	1.0
6	☐	25000.000	26623.481	70273260.83	177.8234	A	0.3
7	☐	50000.000	52424.460	140958839.2	350.1469	A	0.2
8	☐	250000.00	249305.71	649685170.0	1,665.107	A	0.4

$$y = 0.0067 * x + 0.0064$$

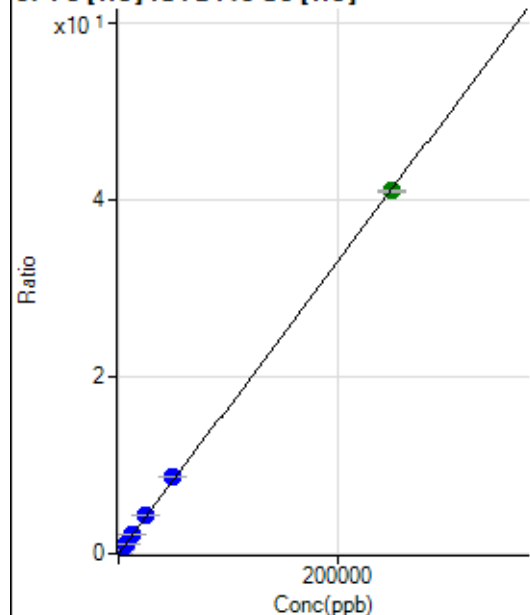
$$R = 0.9999$$

$$DL = 0.1221$$

$$BEC = 0.9649$$

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	59.26	0.0001	P	51.2
2	☐	50.000	57.903	3859.89	0.0097	P	2.9
3	☐	2500.000	2794.283	178496.02	0.4605	P	2.3
4	☐	6250.000	6789.583	435922.15	1.1187	P	0.4
5	☐	12500.000	13389.251	885441.55	2.2060	P	0.6
6	☐	25000.000	26727.800	1740185.45	4.4035	P	0.6
7	☐	50000.000	53134.447	3523919.09	8.7539	P	0.6
8	☐	250000.00	249139.43	16014720.38	41.0450	A	0.4

$$y = 1.6475E-004 * x + 1.4707E-004$$

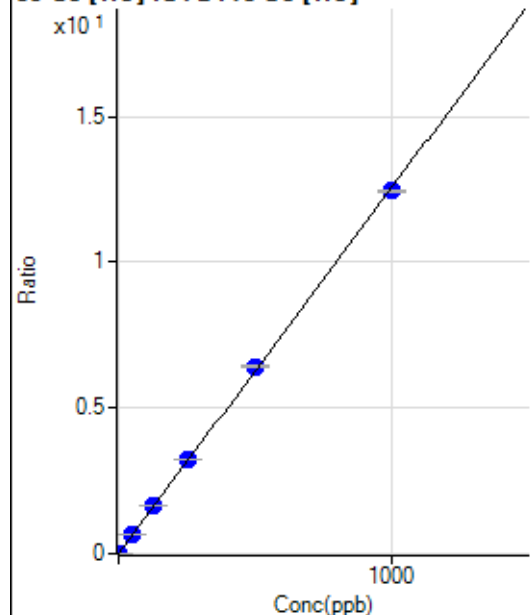
R = 0.9999

DL = 1.372

BEC = 0.8927

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	75.55	0.0002	P	25.3
2	☐	1.000	1.028	5214.34	0.0131	P	1.1
3	☐	50.000	53.761	261506.72	0.6747	P	1.3
4	☐	125.000	130.052	635847.51	1.6318	P	0.4
5	☐	250.000	255.952	1288948.23	3.2113	P	0.6
6	☐	500.000	511.578	2536422.83	6.4183	P	0.7
7	☐	1000.000	991.904	5009620.38	12.4443	P	0.3
8	☐			10073.59	0.0258	P	3.1

$$y = 0.0125 * x + 1.8745E-004$$

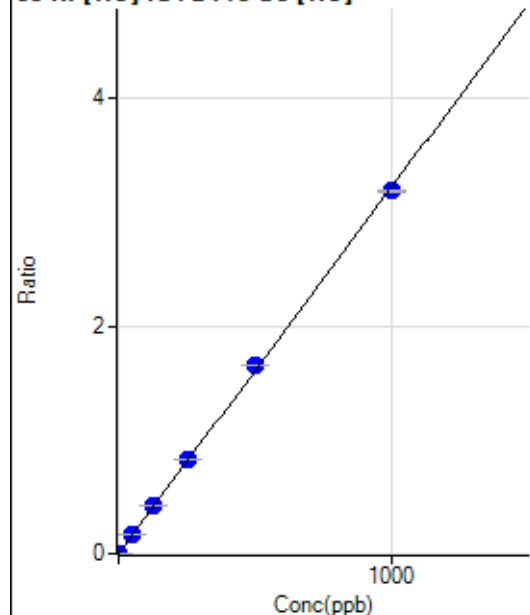
R = 0.9999

DL = 0.01132

BEC = 0.01494

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	252.23	0.0006	P	8.2
2	☐	1.000	1.174	1756.80	0.0044	P	2.5
3	☐	50.000	54.450	68234.74	0.1760	P	0.7
4	☐	125.000	131.835	165744.78	0.4253	P	0.2
5	☐	250.000	258.192	334112.97	0.8324	P	0.8
6	☐	500.000	513.456	653948.67	1.6548	P	0.1
7	☐	1000.000	990.147	1284402.81	3.1905	P	0.4
8	☐			24727.72	0.0634	P	2.1

$$y = 0.0032 * x + 6.2648E-004$$

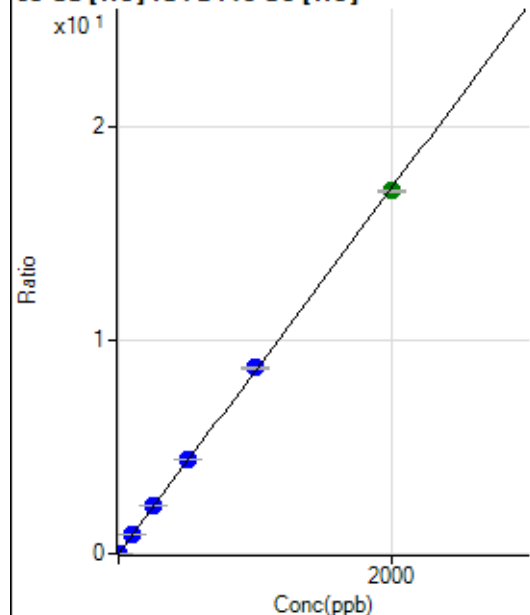
$$R = 0.9998$$

$$DL = 0.04798$$

$$BEC = 0.1945$$

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	1316.75	0.0033	P	1.9
2	☐	2.000	2.185	8748.29	0.0220	P	2.0
3	☐	100.000	109.119	362925.81	0.9363	P	1.2
4	☐	250.000	262.781	876827.43	2.2502	P	0.5
5	☐	500.000	514.766	1768033.21	4.4049	P	0.9
6	☐	1000.000	1017.088	3438073.87	8.7000	P	0.6
7	☐	2000.000	1985.711	6836619.27	16.9824	A	0.2
8	☐			14535.15	0.0373	P	0.6

$$y = 0.0086 * x + 0.0033$$

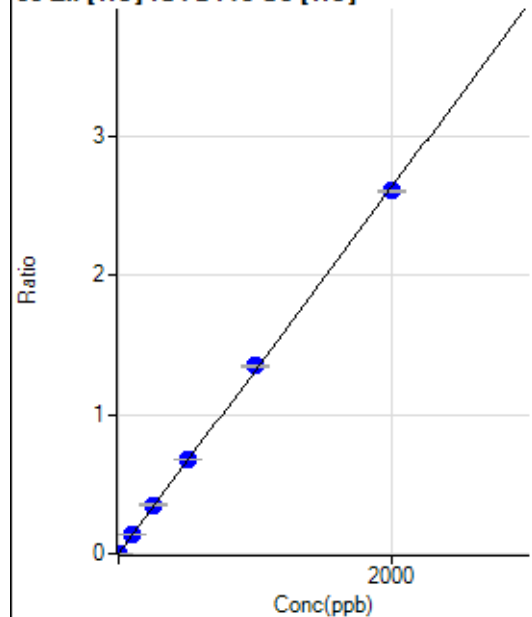
$$R = 0.9999$$

$$DL = 0.02193$$

$$BEC = 0.3826$$

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	256.67	0.0006	P	13.9
2	☐	2.000	2.326	1474.55	0.0037	P	2.2
3	☐	100.000	108.924	55828.75	0.1440	P	0.7
4	☐	250.000	267.146	137292.85	0.3523	P	0.4
5	☐	500.000	518.145	274050.99	0.6828	P	0.2
6	☐	1000.000	1024.270	533114.84	1.3491	P	1.1
7	☐	2000.000	1980.739	1049982.08	2.6082	P	0.4
8	☐			17172.50	0.0440	P	3.4

$$y = 0.0013 * x + 6.3776E-004$$

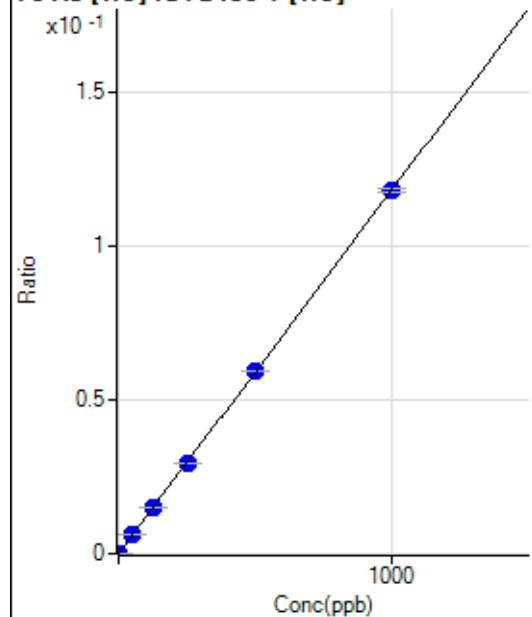
$$R = 0.9998$$

$$DL = 0.2027$$

$$BEC = 0.4844$$

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	5.56	0.0000	P	0.6
2	☐	1.000	1.044	298.15	0.0001	P	5.4
3	☐	50.000	51.258	14045.13	0.0061	P	1.0
4	☐	125.000	125.633	34537.28	0.0149	P	0.9
5	☐	250.000	249.701	70856.58	0.0295	P	1.1
6	☐	500.000	502.388	140599.15	0.0594	P	0.2
7	☐	1000.000	998.739	283260.82	0.1181	P	0.9
8	☐			157.41	0.0001	P	16.0

$$y = 1.1823E-004 * x + 2.3093E-006$$

$$R = 1.0000$$

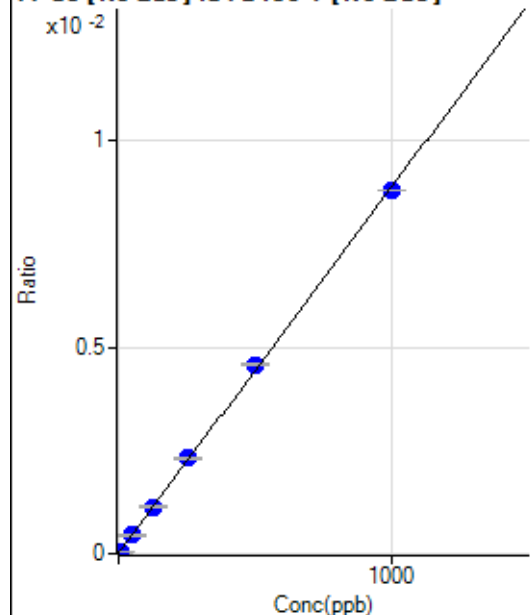
$$DL = 0.000366$$

$$BEC = 0.01953$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	180.19	0.0000	P	35.8
2	☐	5.000	5.557	1151.25	0.0001	P	5.2
3	☐	50.000	51.141	8771.85	0.0005	P	8.9
4	☐	125.000	127.016	21805.82	0.0011	P	1.7
5	☐	250.000	259.399	44741.70	0.0023	P	1.5
6	☐	500.000	514.697	88278.22	0.0046	P	1.3
7	☐	1000.000	989.990	175801.92	0.0088	P	0.1
8	☐			266.95	0.0000	P	7.2

$$y = 8.8716\text{E-}006 * x + 8.9910\text{E-}006$$

$$R = 0.9998$$

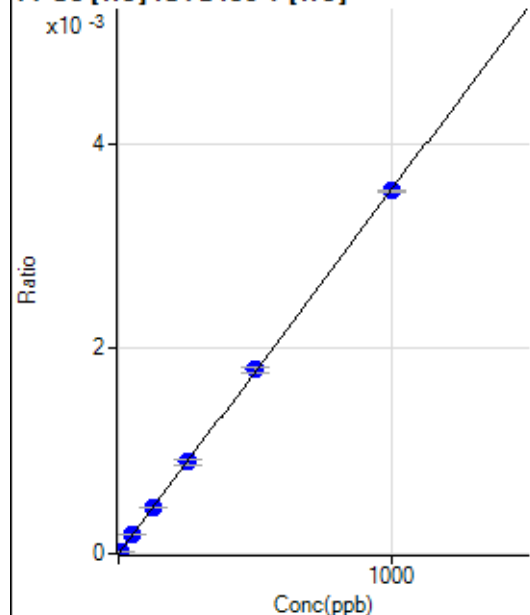
$$DL = 1.088$$

$$BEC = 1.013$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	5.544	46.67	0.0000	P	32.9
3	☐	50.000	51.890	426.68	0.0002	P	4.9
4	☐	125.000	126.023	1040.06	0.0004	P	2.3
5	☐	250.000	251.985	2146.86	0.0009	P	5.0
6	☐	500.000	505.169	4245.13	0.0018	P	3.1
7	☐	1000.000	996.694	8488.17	0.0035	P	0.8
8	☐			11.11	0.0000	P	74.5

$$y = 3.5501\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 1.0000$$

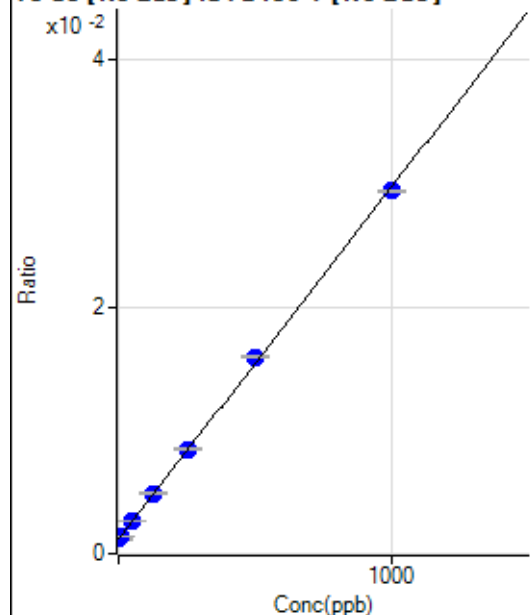
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23423.22	0.0012	P	2.5
2	☐	5.000	6.113	26565.12	0.0013	P	1.9
3	☐	50.000	52.954	50868.16	0.0027	P	3.1
4	☐	125.000	130.904	94179.42	0.0049	P	1.9
5	☐	250.000	254.414	163286.23	0.0084	P	1.7
6	☐	500.000	517.017	307277.56	0.0159	P	0.8
7	☐	1000.000	989.496	588057.70	0.0294	P	0.5
8	☐			28367.14	0.0015	P	4.3

$$y = 2.8538\text{E-}005 * x + 0.0012$$

R = 0.9998

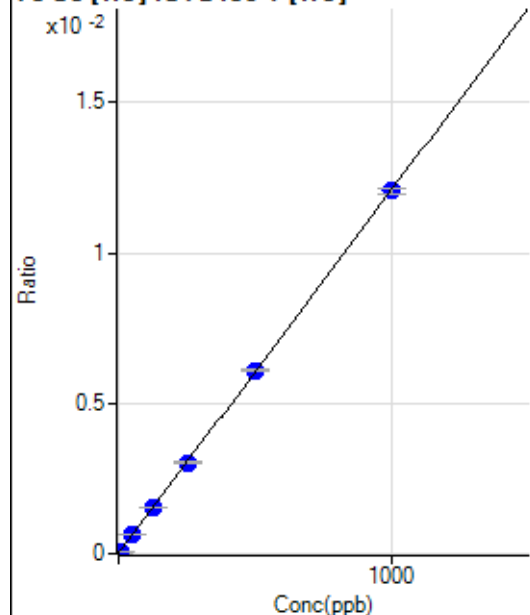
DL = 3.138

BEC = 41.02

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	25.31	0.0000	P	11.0
2	☐	5.000	5.463	181.48	0.0001	P	12.4
3	☐	50.000	50.649	1442.06	0.0006	P	4.7
4	☐	125.000	127.121	3595.54	0.0015	P	0.9
5	☐	250.000	250.154	7279.66	0.0030	P	1.7
6	☐	500.000	504.291	14449.87	0.0061	P	1.6
7	☐	1000.000	997.516	28940.00	0.0121	P	1.5
8	☐			35.81	0.0000	P	29.7

$$y = 1.2084\text{E-}005 * x + 1.0510\text{E-}005$$

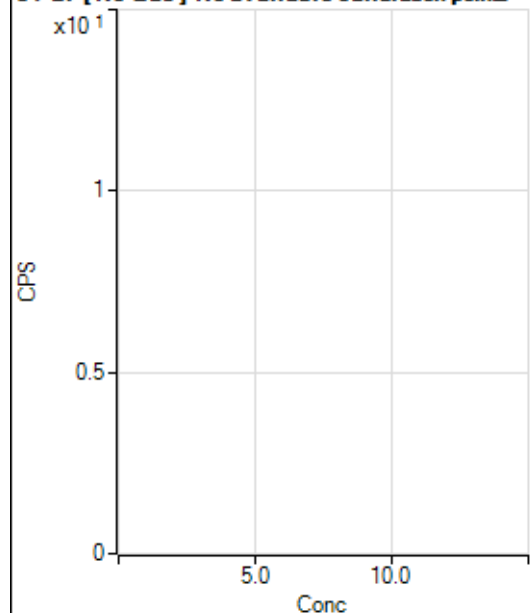
R = 1.0000

DL = 0.2865

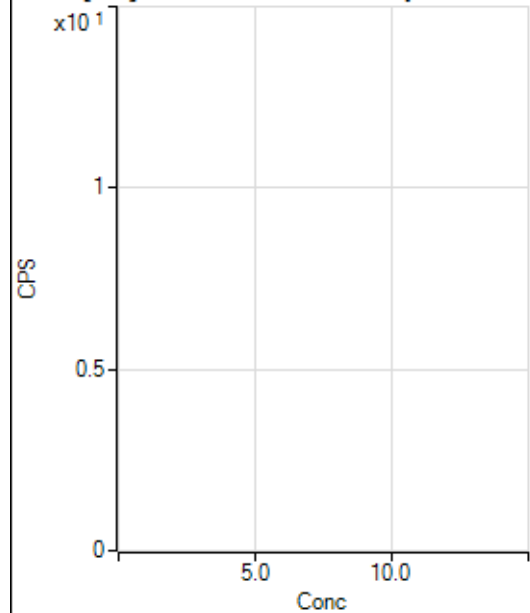
BEC = 0.8698

Weight: <None>

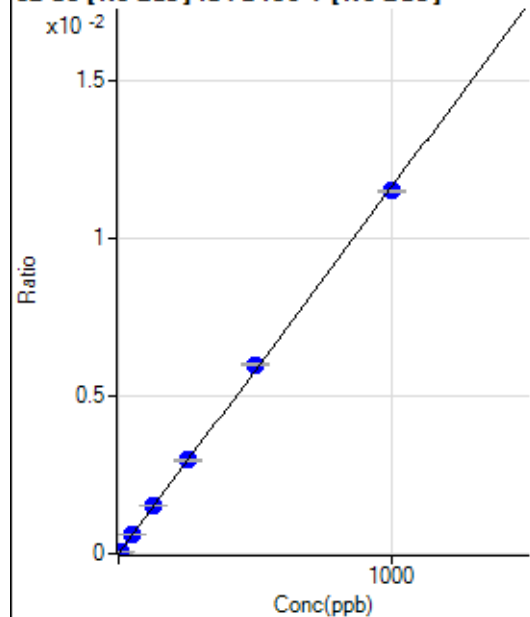
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			23022.37		P	2.9
2	☐			23005.85		P	0.9
3	☐			22183.73		P	2.5
4	☐			22808.35		P	1.0
5	☐			23035.74		P	1.9
6	☐			22942.12		P	2.0
7	☐			23289.79		P	3.4
8	☐			22992.25		P	0.8

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	26.4
2	☐			41.11		P	12.4
3	☐			32.22		P	21.5
4	☐			24.44		P	41.7
5	☐			26.66		P	43.3
6	☐			24.44		P	20.8
7	☐			30.00		P	40.1
8	☐			34.44		P	47.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.67	0.0000	P	84.3
2	☐	5.000	4.971	1211.36	0.0001	P	6.4
3	☐	50.000	51.974	11514.88	0.0006	P	1.6
4	☐	125.000	129.044	28823.40	0.0015	P	0.9
5	☐	250.000	254.933	57378.21	0.0030	P	0.9
6	☐	500.000	516.420	115724.26	0.0060	P	1.1
7	☐	1000.000	989.953	229833.60	0.0115	P	0.5
8	☐			137.74	0.0000	P	30.1

$$y = 1.1607E-005 * x + 3.6446E-006$$

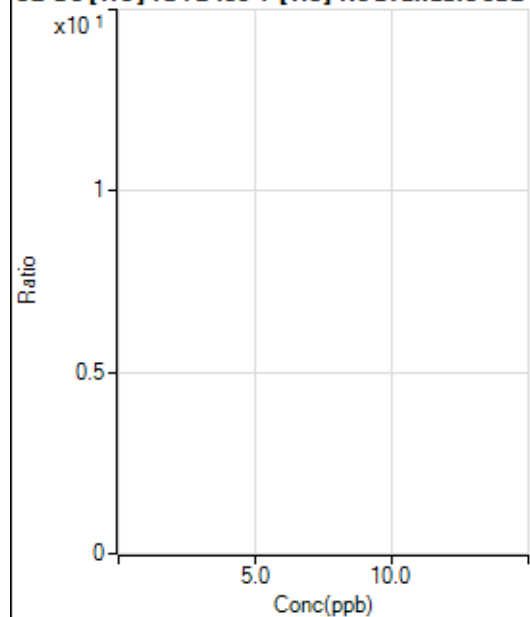
R = 0.9998

DL = 0.794

BEC = 0.314

Weight: <None>

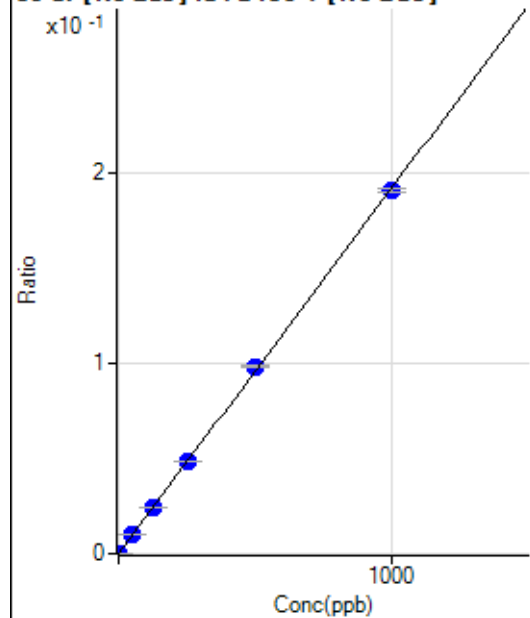
Min Conc: 0

82 Se [He] ISTD:89 Y [He] No available ca_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	5.000					
3	☐	50.000					
4	☐	125.000					
5	☐	250.000					
6	☐	500.000					
7	☐	1000.000					
8	☐						

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			357.79		P	13.5
2	☐			386.68		P	5.2
3	☐			404.46		P	15.0
4	☐			386.68		P	3.1
5	☐			374.46		P	15.8
6	☐			434.46		P	7.1
7	☐			468.91		P	9.6
8	☐			443.35		P	6.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	636.15	0.0000	P	19.1
2	☐	1.000	1.012	4459.21	0.0002	P	3.7
3	☐	50.000	50.964	185999.32	0.0098	P	1.7
4	☐	125.000	126.899	467699.90	0.0244	P	0.6
5	☐	250.000	252.159	937000.64	0.0484	P	0.8
6	☐	500.000	512.228	1895673.52	0.0982	P	0.4
7	☐	1000.000	993.061	3807943.96	0.1904	P	0.9
8	☐			7983.06	0.0004	P	2.1

$$y = 1.9174\text{E-}004 * x + 3.1790\text{E-}005$$

$$R = 0.9999$$

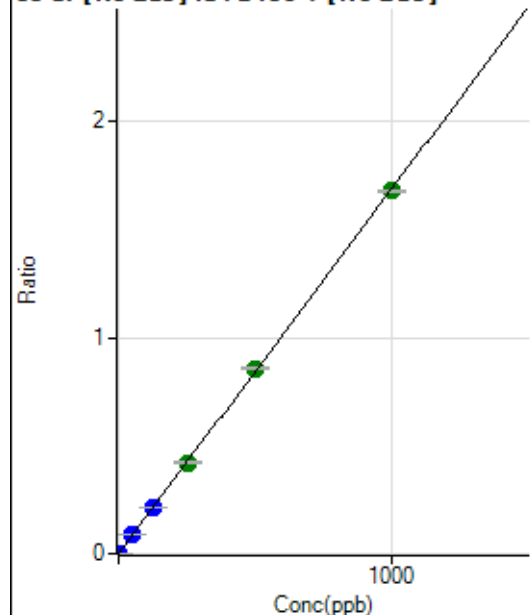
$$DL = 0.09521$$

$$BEC = 0.1658$$

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	102.78	0.0000	P	34.0
2	☐	1.000	0.976	32621.40	0.0017	P	1.6
3	☐	50.000	51.046	1634379.20	0.0861	P	2.0
4	☐	125.000	125.461	4064400.87	0.2117	P	0.6
5	☐	250.000	250.034	8171210.08	0.4219	A	1.4
6	☐	500.000	508.666	16562408.70	0.8584	A	0.7
7	☐	1000.000	995.548	33592518.11	1.6800	A	0.7
8	☐			63803.77	0.0034	P	0.3

$$y = 0.0017 * x + 5.1374E-006$$

$$R = 0.9999$$

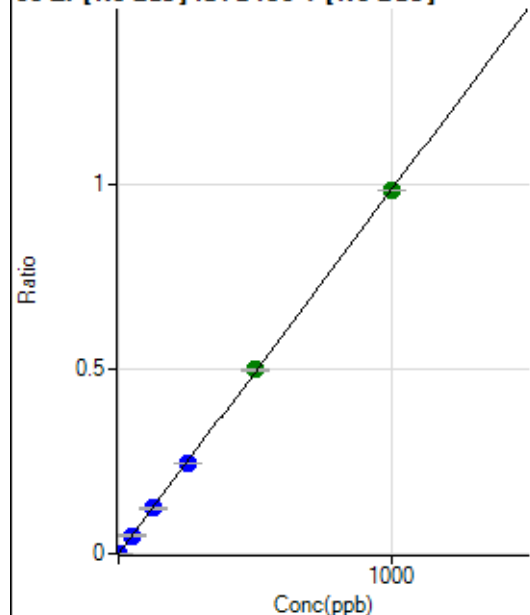
$$DL = 0.003105$$

$$BEC = 0.003044$$

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	1211.22	0.0001	P	8.2
2	☐	1.000	0.856	17850.61	0.0009	P	3.0
3	☐	50.000	49.984	935448.27	0.0493	P	2.5
4	☐	125.000	124.361	2353544.93	0.1226	P	0.7
5	☐	250.000	248.624	4745446.42	0.2450	P	1.3
6	☐	500.000	506.217	9625027.12	0.4989	A	1.2
7	☐	1000.000	997.316	19651060.16	0.9827	A	0.2
8	☐			6215.50	0.0003	P	6.4

$$y = 9.8533E-004 * x + 6.0509E-005$$

$$R = 1.0000$$

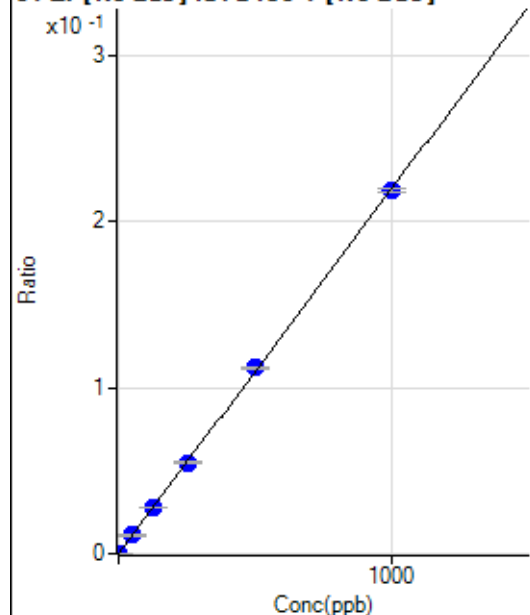
$$DL = 0.01511$$

$$BEC = 0.06141$$

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	202.79	0.0000	P	21.2
2	☐	1.000	0.819	3750.66	0.0002	P	7.5
3	☐	50.000	50.693	211317.34	0.0111	P	2.9
4	☐	125.000	125.096	527448.68	0.0275	P	0.5
5	☐	250.000	249.683	1061895.02	0.0548	P	0.9
6	☐	500.000	510.167	2161394.01	0.1120	P	0.8
7	☐	1000.000	994.949	4368111.64	0.2185	P	1.1
8	☐			1241.77	0.0001	P	4.7

$$y = 2.1955\text{E-}004 * x + 1.0142\text{E-}005$$

$$R = 0.9999$$

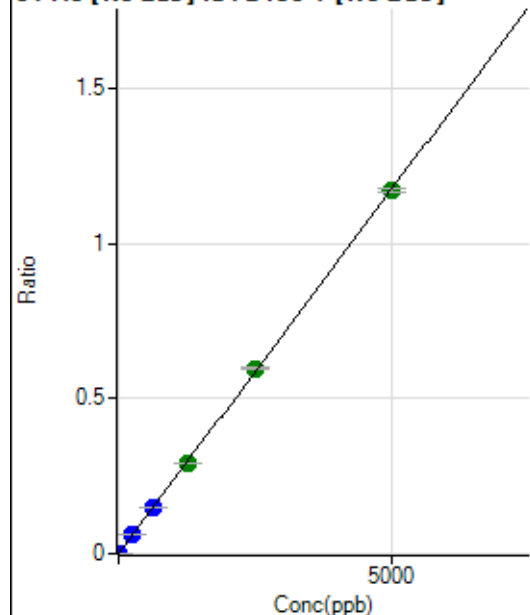
$$DL = 0.02944$$

$$BEC = 0.04619$$

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	372.24	0.0000	P	13.2
2	☐	5.000	4.888	23063.86	0.0012	P	2.1
3	☐	250.000	254.715	1136369.90	0.0599	P	2.1
4	☐	625.000	630.671	2846637.06	0.1483	P	0.3
5	☐	1250.000	1239.008	5641453.16	0.2913	A	1.1
6	☐	2500.000	2543.356	11536650.86	0.5979	A	1.3
7	☐	5000.000	4980.126	23410899.31	1.1708	A	0.9
8	☐			17035.77	0.0009	P	2.8

$$y = 2.3509\text{E-}004 * x + 1.8592\text{E-}005$$

$$R = 0.9999$$

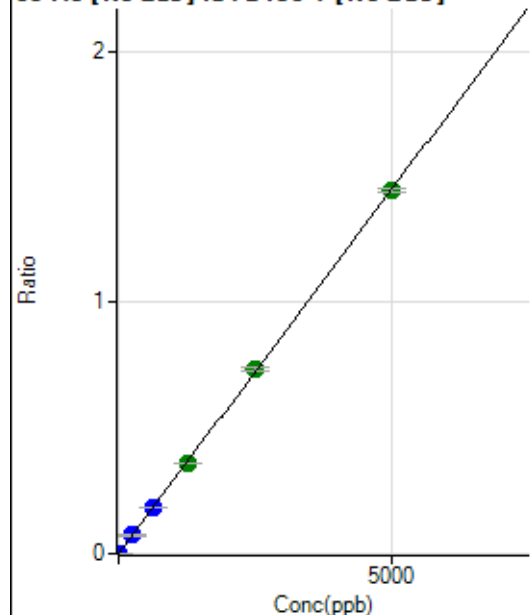
$$DL = 0.03122$$

$$BEC = 0.07908$$

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	108.34	0.0000	P	30.2
2	☐	5.000	5.078	29166.87	0.0015	P	1.8
3	☐	250.000	253.367	1392646.27	0.0734	P	2.3
4	☐	625.000	628.432	3495201.99	0.1821	P	0.8
5	☐	1250.000	1242.557	6972100.76	0.3600	A	0.7
6	☐	2500.000	2536.288	14177390.25	0.7348	A	1.4
7	☐	5000.000	4983.119	28868256.90	1.4437	A	0.9
8	☐			28688.07	0.0015	P	5.9

$$y = 2.8971E-004 * x + 5.4074E-006$$

$$R = 1.0000$$

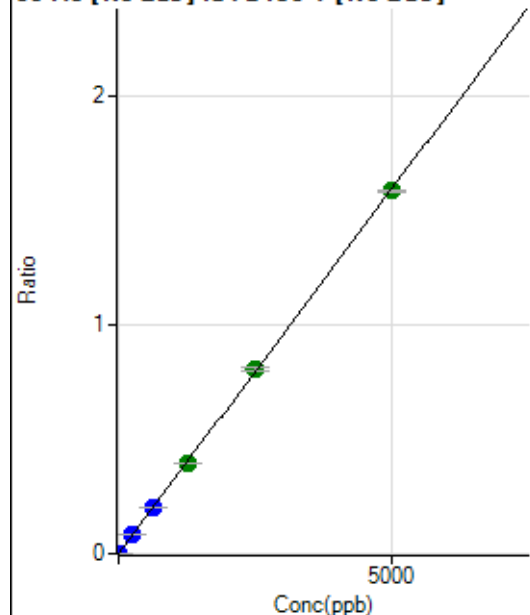
$$DL = 0.01691$$

$$BEC = 0.01866$$

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	197.23	0.0000	P	19.6
2	☐	5.000	5.141	32571.48	0.0016	P	2.9
3	☐	250.000	254.710	1540859.59	0.0812	P	3.0
4	☐	625.000	630.531	3859944.62	0.2011	P	0.4
5	☐	1250.000	1243.652	7680241.32	0.3966	A	1.2
6	☐	2500.000	2543.891	15650381.77	0.8112	A	2.0
7	☐	5000.000	4978.714	31745796.54	1.5876	A	0.8
8	☐			28095.17	0.0015	P	1.2

$$y = 3.1887E-004 * x + 9.8625E-006$$

$$R = 0.9999$$

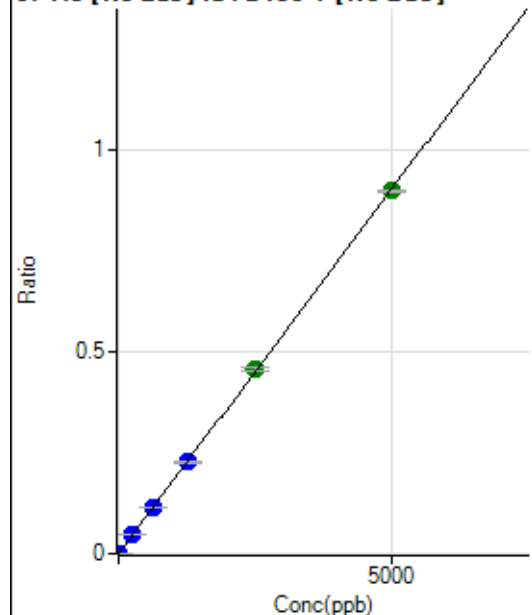
$$DL = 0.01815$$

$$BEC = 0.03093$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	43.7
2	☐	5.000	5.223	18729.55	0.0009	P	2.4
3	☐	250.000	254.825	873565.06	0.0460	P	2.5
4	☐	625.000	636.964	2209499.98	0.1151	P	0.3
5	☐	1250.000	1255.451	4393280.78	0.2268	P	1.3
6	☐	2500.000	2534.383	8834750.80	0.4579	A	2.3
7	☐	5000.000	4979.709	17991697.28	0.8998	A	0.5
8	☐			15873.32	0.0009	P	4.9

$$y = 1.8068\text{E-}004 * x + 4.4467\text{E-}006$$

$$R = 1.0000$$

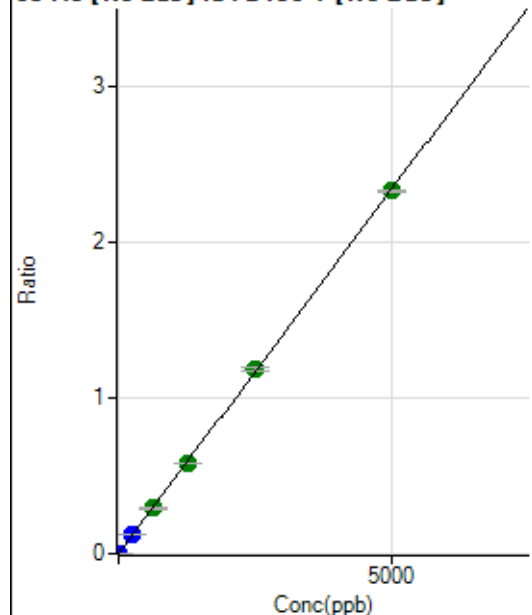
$$DL = 0.03228$$

$$BEC = 0.02461$$

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	147.23	0.0000	P	19.9
2	☐	5.000	5.097	47206.90	0.0024	P	0.3
3	☐	250.000	254.413	2255986.05	0.1189	P	2.8
4	☐	625.000	622.732	5587933.24	0.2911	A	0.9
5	☐	1250.000	1240.452	11229181.67	0.5798	A	1.2
6	☐	2500.000	2545.078	22952283.15	1.1896	A	1.9
7	☐	5000.000	4979.911	46545150.35	2.3277	A	0.8
8	☐			39709.11	0.0021	P	2.2

$$y = 4.6742\text{E-}004 * x + 7.3560\text{E-}006$$

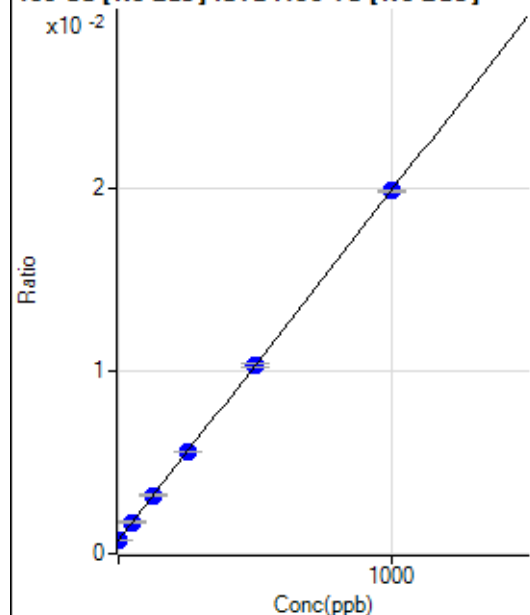
$$R = 0.9999$$

$$DL = 0.00938$$

$$BEC = 0.01574$$

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	18145.67	0.0007	P	2.6
2	☐	1.000	0.876	18548.89	0.0008	P	1.8
3	☐	50.000	50.527	40085.76	0.0017	P	5.3
4	☐	125.000	128.066	75518.52	0.0032	P	1.1
5	☐	250.000	253.322	132219.32	0.0056	P	1.0
6	☐	500.000	500.299	244232.86	0.0103	P	2.1
7	☐	1000.000	998.611	480365.66	0.0199	P	0.9
8	☐			17589.40	0.0008	P	3.4

$$y = 1.9162\text{E-}005 * x + 7.4802\text{E-}004$$

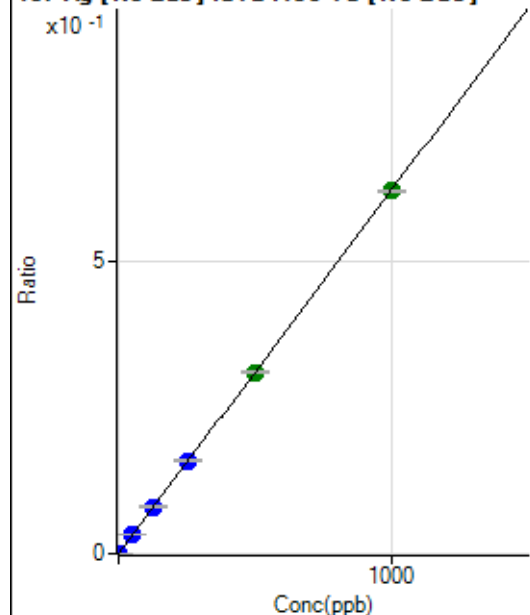
$$R = 1.0000$$

$$DL = 3.044$$

$$BEC = 39.04$$

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	297.24	0.0000	P	18.7
2	☐	1.000	1.213	18599.07	0.0008	P	0.9
3	☐	50.000	52.688	766043.55	0.0328	P	2.2
4	☐	125.000	129.073	1894181.51	0.0803	P	1.2
5	☐	250.000	256.440	3765589.19	0.1596	P	1.3
6	☐	500.000	499.737	7347737.23	0.3109	A	1.4
7	☐	1000.000	997.878	14998364.40	0.6209	A	0.5
8	☐			2630.93	0.0001	P	7.3

$$y = 6.2216\text{E-}004 * x + 1.2260\text{E-}005$$

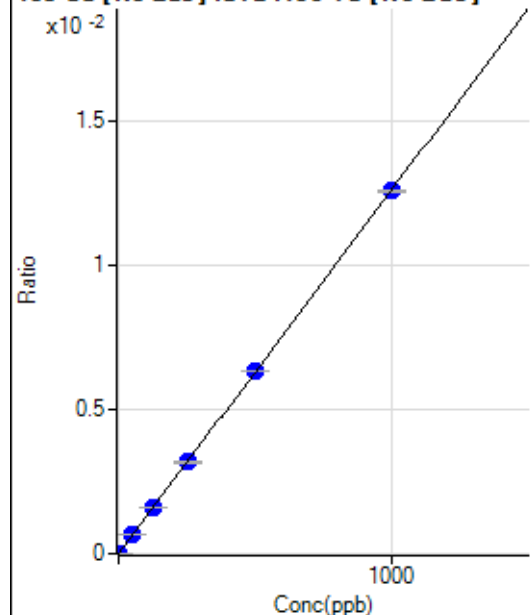
$$R = 1.0000$$

$$DL = 0.01105$$

$$BEC = 0.0197$$

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	27.78	0.0000	P	53.0
2	☐	1.000	1.043	347.23	0.0000	P	12.6
3	☐	50.000	52.508	15505.93	0.0007	P	3.0
4	☐	125.000	126.508	37679.40	0.0016	P	2.2
5	☐	250.000	251.840	75040.86	0.0032	P	1.7
6	☐	500.000	502.429	149888.84	0.0063	P	0.5
7	☐	1000.000	998.012	304339.38	0.0126	P	0.6
8	☐			113.89	0.0000	P	14.0

$$y = 1.2622\text{E-}005 * x + 1.1471\text{E-}006$$

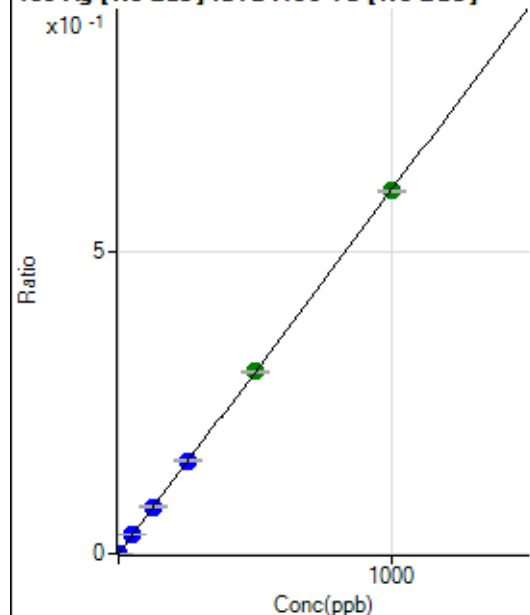
$$R = 1.0000$$

$$DL = 0.1444$$

$$BEC = 0.09088$$

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	72.23	0.0000	P	36.8
2	☐	1.000	1.192	17450.37	0.0007	P	1.2
3	☐	50.000	53.015	744838.06	0.0319	P	2.2
4	☐	125.000	128.879	1827944.53	0.0775	P	1.2
5	☐	250.000	256.439	3639573.82	0.1542	P	1.3
6	☐	500.000	500.033	7106427.42	0.3007	A	0.8
7	☐	1000.000	997.738	14495434.87	0.6000	A	0.3
8	☐			2439.21	0.0001	P	8.9

$$y = 6.0139\text{E-}004 * x + 2.9743\text{E-}006$$

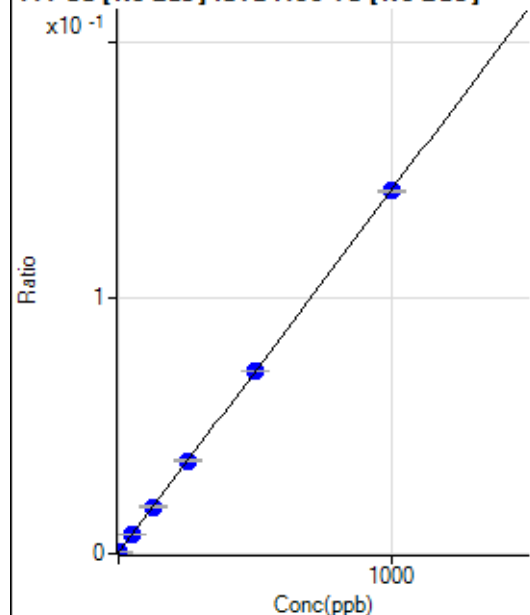
$$R = 1.0000$$

$$DL = 0.005456$$

$$BEC = 0.004946$$

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	9077.00	0.0004	P	2.6
2	☐	1.000	1.008	12536.05	0.0005	P	1.1
3	☐	50.000	51.628	179426.40	0.0077	P	2.5
4	☐	125.000	126.833	432172.05	0.0183	P	1.4
5	☐	250.000	253.891	856871.42	0.0363	P	1.3
6	☐	500.000	501.532	1686315.92	0.0714	P	0.4
7	☐	1000.000	997.951	3421218.43	0.1416	P	0.5
8	☐			9402.51	0.0004	P	3.1

$$y = 1.4153\text{E-}004 * x + 3.7418\text{E-}004$$

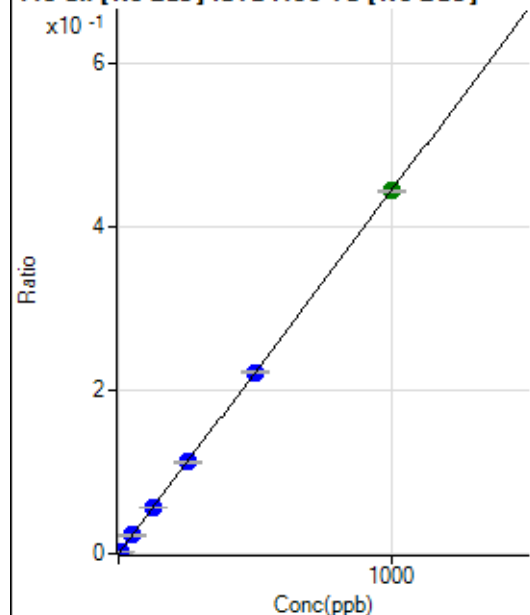
$$R = 1.0000$$

$$DL = 0.2067$$

$$BEC = 2.644$$

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	1100.10	0.0000	P	5.9
2	☐	5.000	4.991	54818.93	0.0023	P	0.4
3	☐	50.000	50.715	526792.88	0.0226	P	2.9
4	☐	125.000	125.247	1312010.83	0.0556	P	1.4
5	☐	250.000	252.134	2641889.82	0.1119	P	1.6
6	☐	500.000	500.373	5249137.49	0.2221	P	1.2
7	☐	1000.000	999.214	10714625.41	0.4435	A	0.3
8	☐			7744.18	0.0004	P	0.9

$$y = 4.4383\text{E-}004 * x + 4.5343\text{E-}005$$

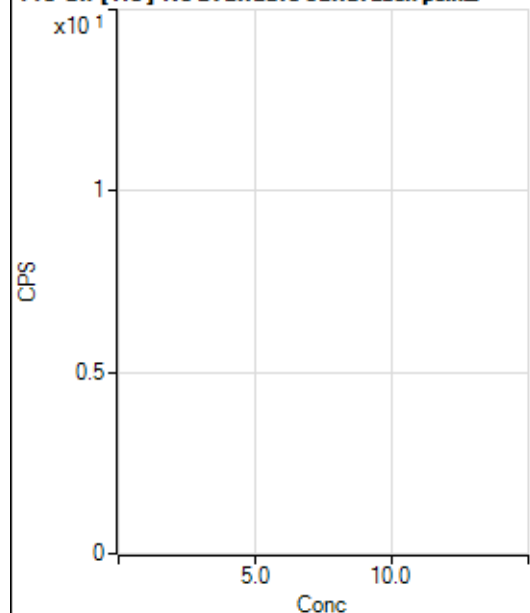
$$R = 1.0000$$

$$DL = 0.01809$$

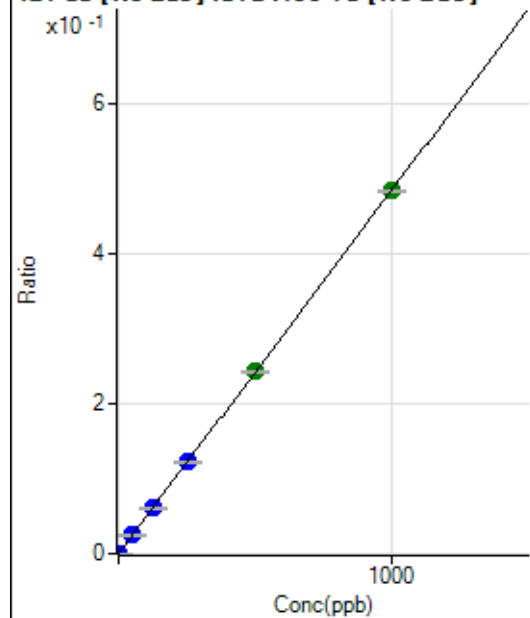
$$BEC = 0.1022$$

Weight: <None>

Min Conc: 0

118 Sn [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			246.68		P	15.0
2	☐			11073.40		P	2.4
3	☐			109780.10		P	2.0
4	☐			272169.23		P	1.1
5	☐			553950.46		P	0.3
6	☐			1098413.35		P	1.2
7	☐			2211108.65		P	0.5
8	☐			1857.93		P	8.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	216.68	0.0000	P	33.0
2	☐	2.000	1.922	22788.78	0.0009	P	1.2
3	☐	50.000	50.325	569494.48	0.0244	P	2.9
4	☐	125.000	124.497	1421906.55	0.0603	P	2.3
5	☐	250.000	251.818	2878272.89	0.1220	P	1.3
6	☐	500.000	500.795	5731505.47	0.2425	A	0.9
7	☐	1000.000	999.195	11689806.77	0.4839	A	0.9
8	☐			17483.74	0.0008	P	3.5

$$y = 4.8428\text{E-}004 * x + 8.9310\text{E-}006$$

$$R = 1.0000$$

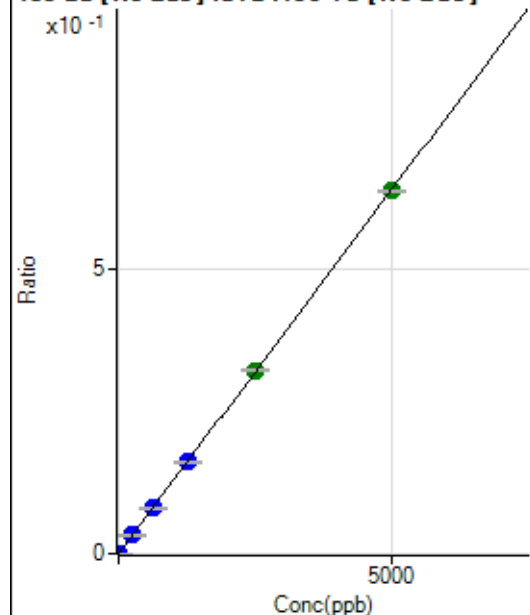
$$DL = 0.01823$$

$$BEC = 0.01844$$

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	19.44	0.0000	P	49.8
2	☐	10.000	9.949	30840.72	0.0013	P	1.0
3	☐	250.000	251.912	751608.07	0.0322	P	2.8
4	☐	625.000	625.363	1883653.01	0.0799	P	2.3
5	☐	1250.000	1260.122	3798690.67	0.1610	P	1.4
6	☐	2500.000	2520.198	7607530.38	0.3219	A	0.7
7	☐	5000.000	4987.230	15389459.89	0.6371	A	0.9
8	☐			4253.60	0.0002	P	5.0

$$y = 1.2774\text{E-}004 * x + 8.0297\text{E-}007$$

$$R = 1.0000$$

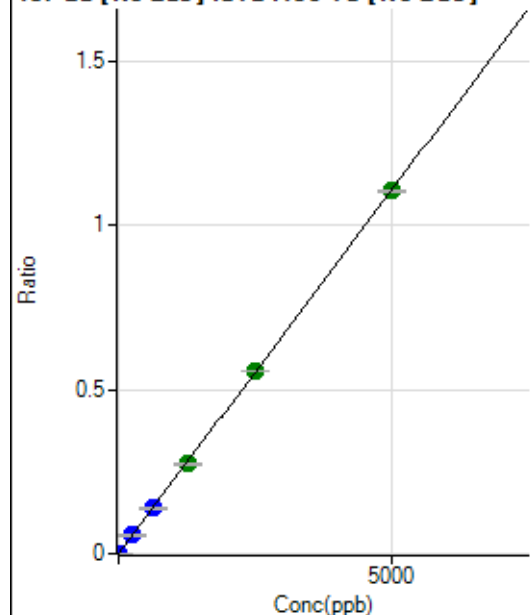
$$DL = 0.009395$$

$$BEC = 0.006286$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	0.6
2	☐	10.000	10.184	54739.47	0.0023	P	1.3
3	☐	250.000	253.360	1310930.34	0.0561	P	2.9
4	☐	625.000	626.756	3274167.30	0.1388	P	1.7
5	☐	1250.000	1240.737	6485688.17	0.2748	A	2.1
6	☐	2500.000	2518.204	13182566.78	0.5578	A	0.4
7	☐	5000.000	4992.826	26718735.32	1.1060	A	0.4
8	☐			7607.95	0.0004	P	3.2

$$y = 2.2152\text{E-}004 * x + 1.3739\text{E-}006$$

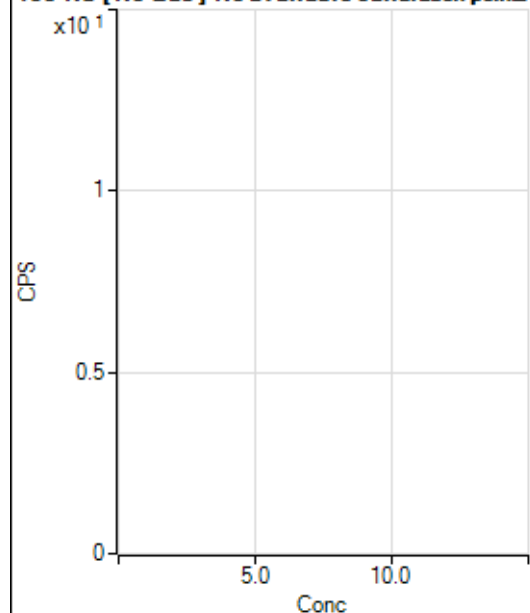
$$R = 1.0000$$

$$DL = 0.0001072$$

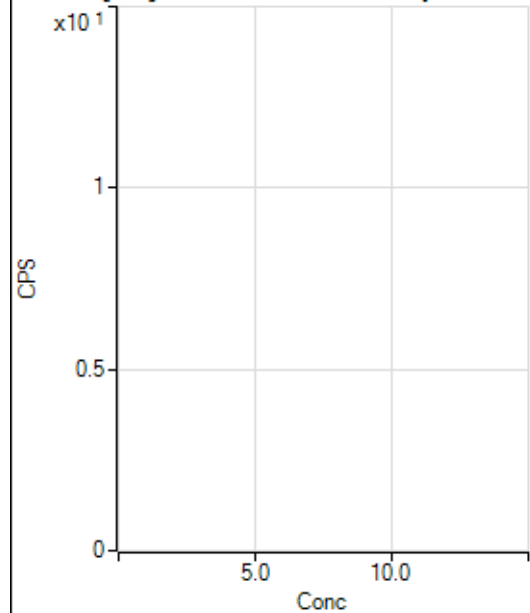
$$BEC = 0.006202$$

Weight: <None>

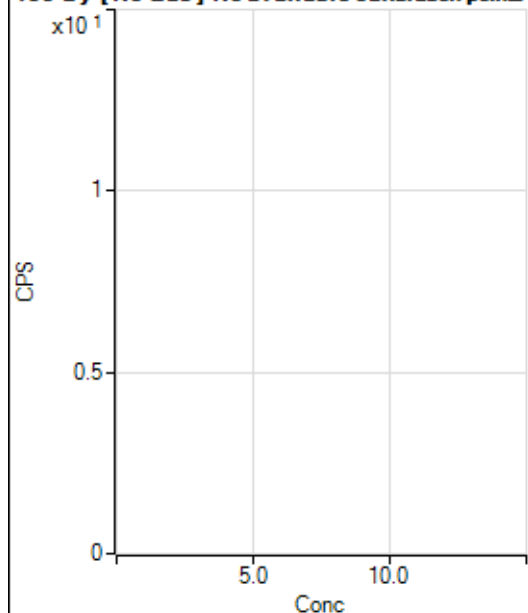
Min Conc: 0

150 Nd [No Gas] No available calibration points

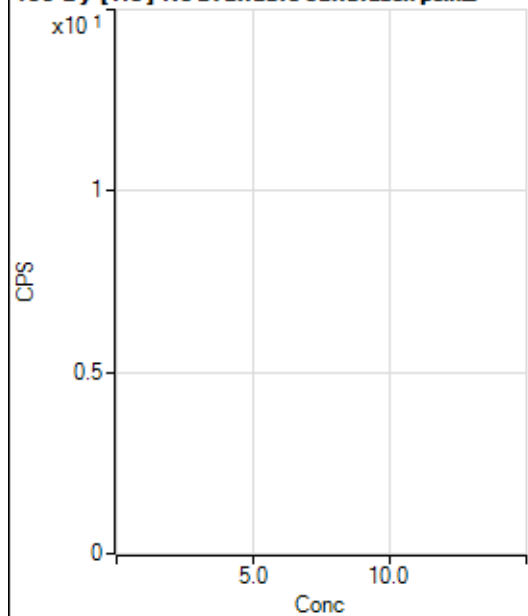
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	124.
2	☐			13.33		P	NaN
3	☐			211.12		P	7.9
4	☐			560.03		P	3.1
5	☐			1106.75		P	7.3
6	☐			2158.02		P	2.9
7	☐			4218.57		P	0.6
8	☐			137.78		P	15.6

150 Nd [He] No available calibration points

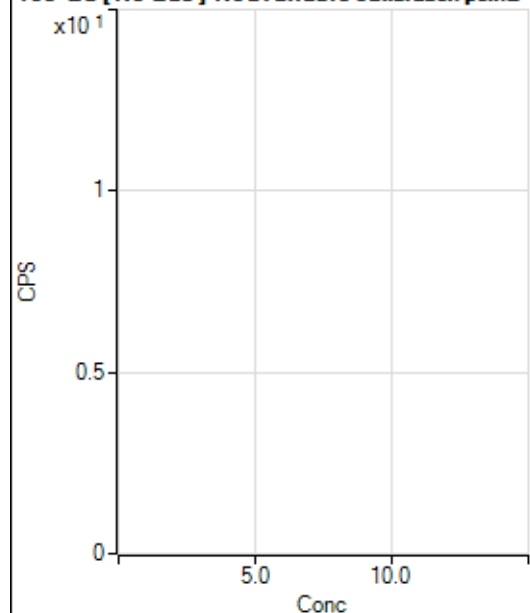
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	43.3
2	☐			7.78		P	24.7
3	☐			24.44		P	34.3
4	☐			32.22		P	36.3
5	☐			55.56		P	15.1
6	☐			110.00		P	16.9
7	☐			227.79		P	3.0
8	☐			56.67		P	41.2

156 Dy [No Gas] No available calibration points

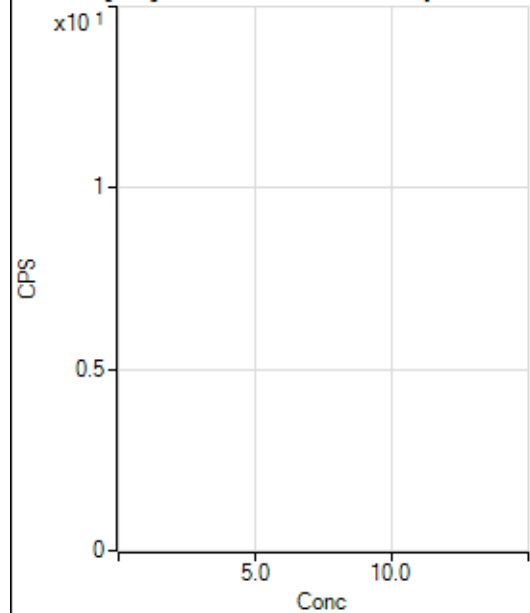
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	41.7
2	☐			33.33		P	43.3
3	☐			63.89		P	39.8
4	☐			130.56		P	14.7
5	☐			169.45		P	15.8
6	☐			305.57		P	14.0
7	☐			663.93		P	6.9
8	☐			536.15		P	9.4

156 Dy [He] No available calibration points

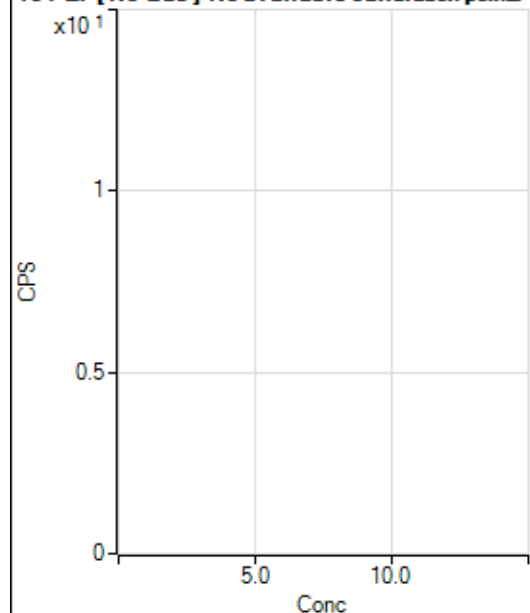
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.67		P	33.1
2	☐			25.56		P	45.8
3	☐			34.44		P	29.6
4	☐			53.33		P	16.5
5	☐			98.89		P	15.2
6	☐			190.01		P	8.0
7	☐			311.12		P	14.0
8	☐			238.90		P	31.9

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

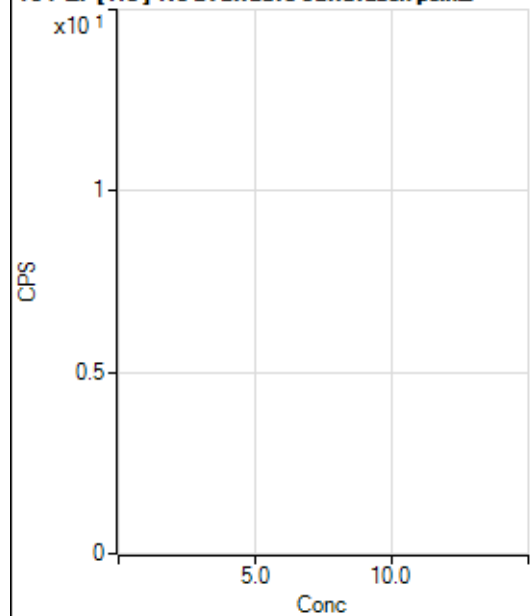
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			236.13		P	28.5
2	☐			200.01		P	11.0
3	☐			183.34		P	25.3
4	☐			247.24		P	7.8
5	☐			230.57		P	22.1
6	☐			244.46		P	24.2
7	☐			302.79		P	8.4
8	☐			694.50		P	12.9

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			360.01		P	2.4
2	☐			362.24		P	8.7
3	☐			325.57		P	5.6
4	☐			317.79		P	16.3
5	☐			362.23		P	6.0
6	☐			367.79		P	7.3
7	☐			410.02		P	4.3
8	☐			556.69		P	0.0

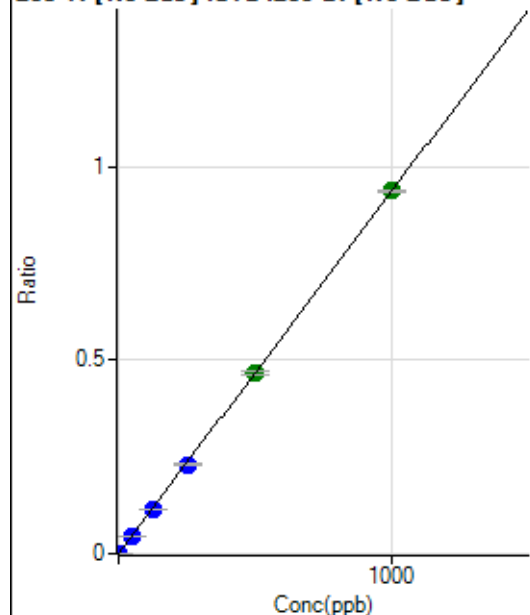
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			163.90		P	10.6
2	☐			108.34		P	27.7
3	☐			113.90		P	11.2
4	☐			158.34		P	24.1
5	☐			133.34		P	16.5
6	☐			141.67		P	15.6
7	☐			152.78		P	17.5
8	☐			169.45		P	38.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			77.78		P	27.9
2	☐			72.22		P	25.4
3	☐			77.78		P	13.8
4	☐			83.34		P	18.3
5	☐			61.11		P	11.4
6	☐			98.89		P	22.4
7	☐			76.67		P	19.0
8	☐			102.23		P	12.3

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	661.16	0.0000	P	19.7
2	☐	1.000	0.962	15723.79	0.0009	P	0.5
3	☐	50.000	49.536	746106.91	0.0464	P	1.3
4	☐	125.000	122.562	1843730.23	0.1146	P	0.5
5	☐	250.000	246.681	3663114.23	0.2307	P	0.7
6	☐	500.000	499.046	7254416.48	0.4667	A	1.6
7	☐	1000.000	1001.635	14548344.94	0.9366	A	0.6
8	☐			5117.88	0.0004	P	0.7

$$y = 9.3504\text{E-}004 * x + 3.8897\text{E-}005$$

$$R = 1.0000$$

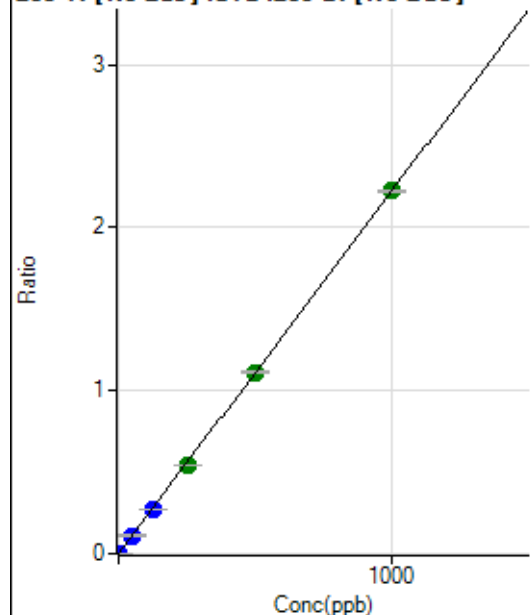
$$DL = 0.02456$$

$$BEC = 0.0416$$

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	1225.11	0.0001	P	4.0
2	☐	1.000	0.970	37312.06	0.0022	P	1.0
3	☐	50.000	50.004	1789622.39	0.1112	P	1.7
4	☐	125.000	123.025	4398291.24	0.2735	P	0.6
5	☐	250.000	244.849	8640744.81	0.5442	A	1.0
6	☐	500.000	500.125	17278680.25	1.1115	A	1.5
7	☐	1000.000	1001.472	34571636.54	2.2256	A	0.2
8	☐			11588.85	0.0009	P	4.8

$$y = 0.0022 * x + 7.2079\text{E-}005$$

$$R = 1.0000$$

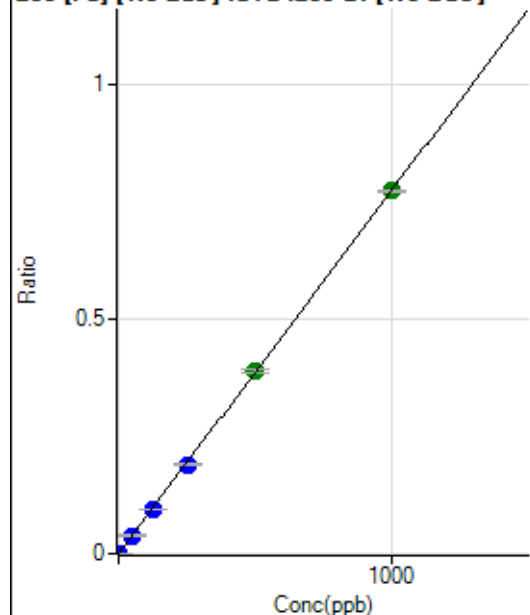
$$DL = 0.003845$$

$$BEC = 0.03243$$

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	920.43	0.0001	P	9.0
2	☐	1.000	0.989	13705.55	0.0008	P	1.0
3	☐	50.000	49.854	620827.31	0.0386	P	1.9
4	☐	125.000	123.445	1534901.99	0.0954	P	0.8
5	☐	250.000	245.950	3018439.33	0.1901	P	0.6
6	☐	500.000	503.080	6043752.16	0.3888	A	1.4
7	☐	1000.000	999.674	11999141.24	0.7725	A	0.8
8	☐			49938.73	0.0040	P	0.3

$$y = 7.7269E-004 * x + 5.4147E-005$$

$$R = 1.0000$$

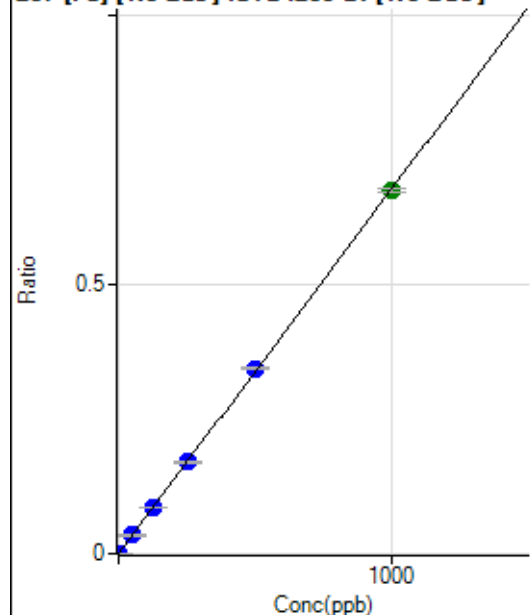
$$DL = 0.01898$$

$$BEC = 0.07008$$

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	920.43	0.0001	P	11.5
2	☐	1.000	0.989	12107.66	0.0007	P	2.8
3	☐	50.000	50.450	549492.95	0.0341	P	2.7
4	☐	125.000	125.272	1362265.97	0.0847	P	1.4
5	☐	250.000	251.068	2695013.60	0.1697	P	0.7
6	☐	500.000	507.998	5337715.34	0.3433	P	0.7
7	☐	1000.000	995.678	10451976.27	0.6729	A	1.1
8	☐			44922.85	0.0036	P	0.5

$$y = 6.7576E-004 * x + 5.4149E-005$$

$$R = 1.0000$$

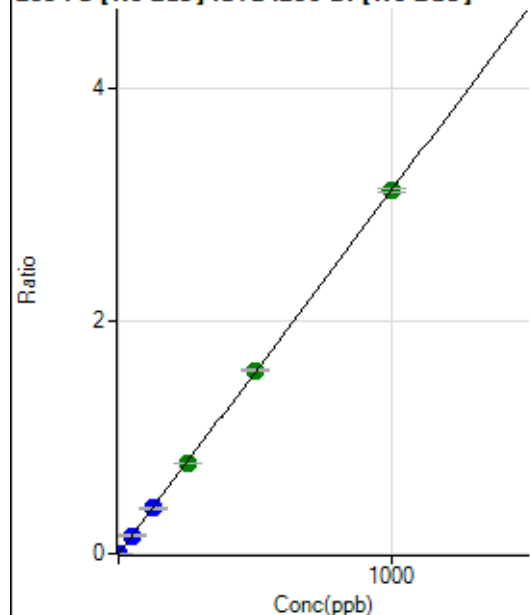
$$DL = 0.02761$$

$$BEC = 0.08013$$

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	3461.39	0.0002	P	3.8
2	☐	1.000	0.972	54192.32	0.0032	P	1.7
3	☐	50.000	49.996	2512984.75	0.1562	P	2.3
4	☐	125.000	124.581	6252789.62	0.3888	P	1.2
5	☐	250.000	247.167	12245638.03	0.7712	A	0.4
6	☐	500.000	504.419	24463250.66	1.5736	A	0.9
7	☐	1000.000	998.552	48384051.89	3.1149	A	1.0
8	☐			203710.78	0.0161	P	0.5

$$y = 0.0031 * x + 2.0364E-004$$

$$R = 1.0000$$

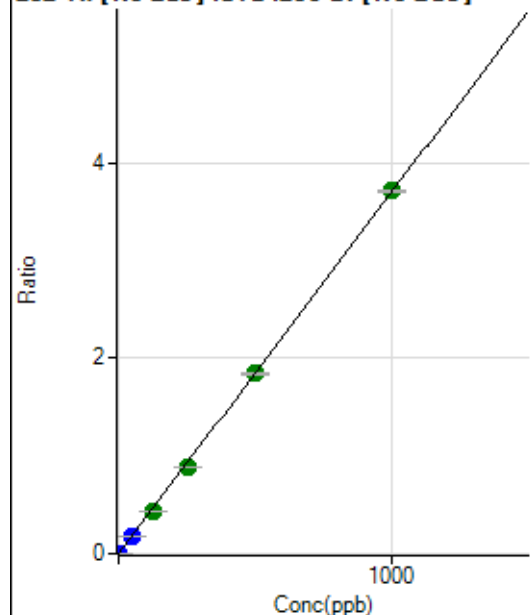
$$DL = 0.007529$$

$$BEC = 0.06529$$

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	2991.18	0.0002	P	4.2
2	☐	1.000	0.779	51144.67	0.0031	P	1.6
3	☐	50.000	46.821	2787370.95	0.1732	P	2.0
4	☐	125.000	117.343	6976570.59	0.4338	A	0.8
5	☐	250.000	239.681	14065762.12	0.8859	A	1.1
6	☐	500.000	499.380	28690961.52	1.8456	A	1.0
7	☐	1000.000	1004.006	57633931.84	3.7104	A	0.4
8	☐			15652.42	0.0012	P	2.7

$$y = 0.0037 * x + 1.7599E-004$$

$$R = 0.9999$$

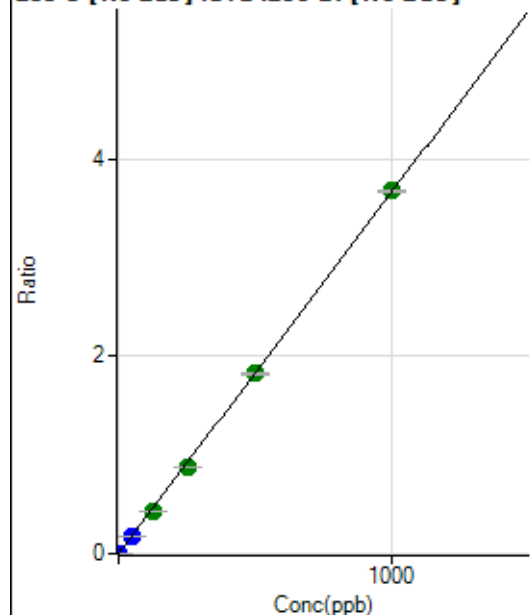
$$DL = 0.005949$$

$$BEC = 0.04762$$

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	2780.97	0.0002	P	3.1
2	☐	1.000	0.906	58315.15	0.0035	P	1.4
3	☐	50.000	48.129	2840109.52	0.1765	P	2.3
4	☐	125.000	118.411	6979101.98	0.4340	A	0.8
5	☐	250.000	240.941	14017894.41	0.8828	A	0.8
6	☐	500.000	499.065	28424707.58	1.8285	A	1.3
7	☐	1000.000	1003.649	57116847.80	3.6770	A	0.6
8	☐			10785.36	0.0009	P	3.5

$$y = 0.0037 * x + 1.6362E-004$$

$$R = 0.9999$$

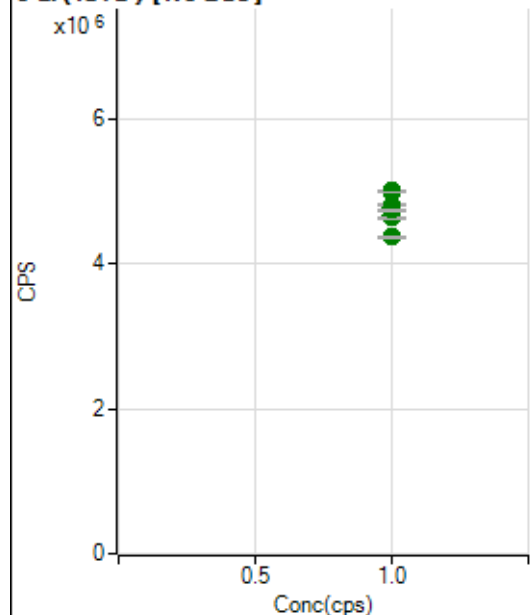
$$DL = 0.004097$$

$$BEC = 0.04466$$

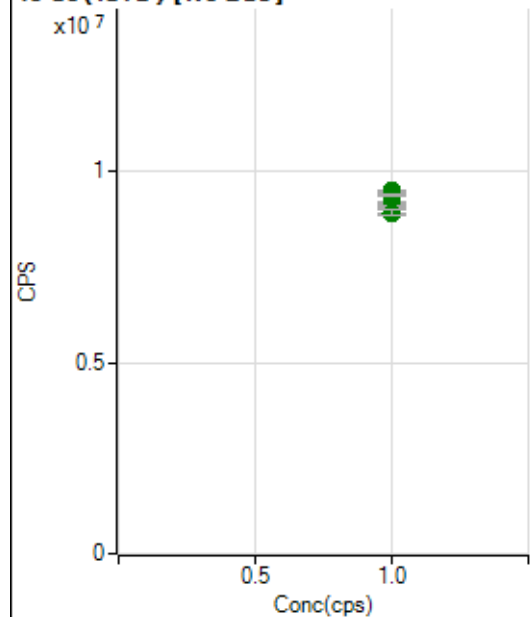
Weight: <None>

Min Conc: 0

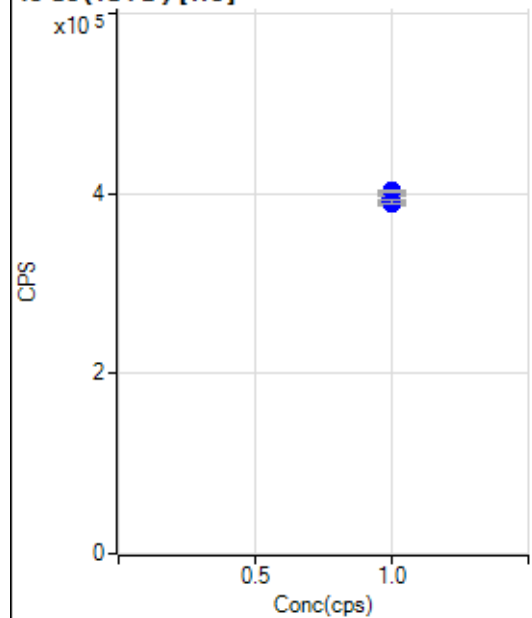
6 Li (ISTD) [No Gas]



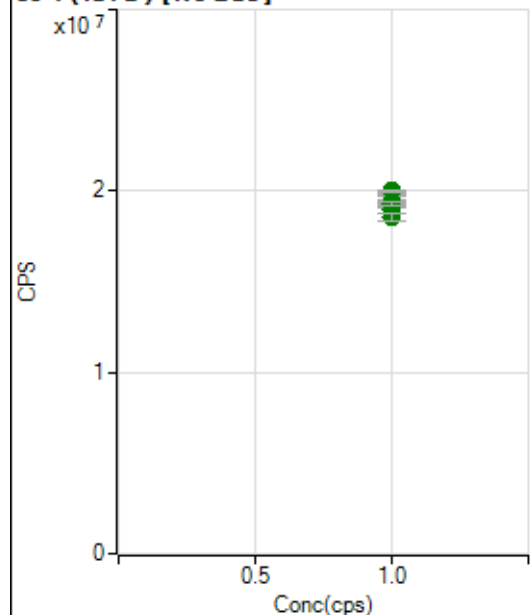
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		5007977.98		A	0.6
2	☐	1.000		4993759.20		A	0.2
3	☐	1.000		4798392.67		A	1.4
4	☐	1.000		4772250.94		A	0.9
5	☐	1.000		4677605.97		A	1.7
6	☐	1.000		4635041.56		A	0.2
7	☐	1.000		4741076.32		A	0.7
8	☐	1.000		4367848.06		A	1.0

45 Sc (ISTD) [No Gas]

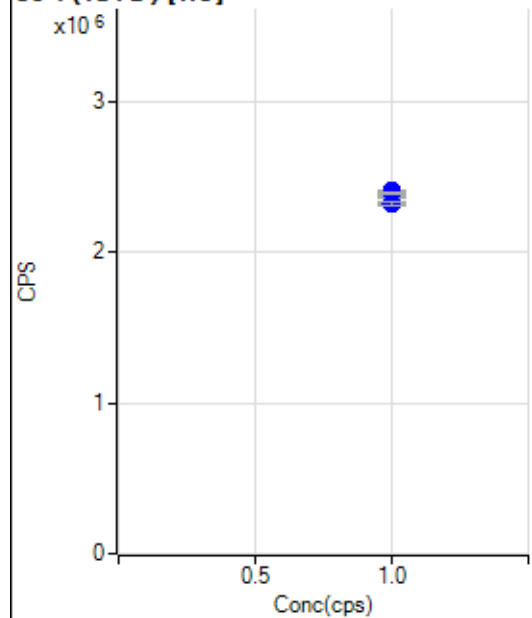
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9486819.05		A	0.7
2	☐	1.000		9353534.24		A	0.5
3	☐	1.000		8996268.17		A	2.0
4	☐	1.000		9121331.45		A	1.6
5	☐	1.000		9076048.20		A	2.0
6	☐	1.000		9091880.06		A	0.7
7	☐	1.000		9386275.47		A	0.5
8	☐	1.000		8902462.35		A	1.7

45 Sc (ISTD) [He]

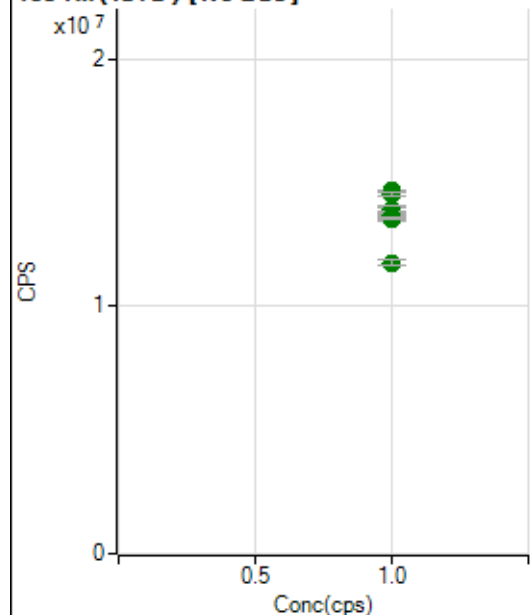
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		402559.31		P	0.7
2	☐	1.000		398491.35		P	0.1
3	☐	1.000		387606.61		P	0.2
4	☐	1.000		389671.34		P	0.7
5	☐	1.000		401386.20		P	0.4
6	☐	1.000		395191.03		P	0.9
7	☐	1.000		402567.85		P	0.8
8	☐	1.000		390184.48		P	0.9

89 Y (ISTD) [No Gas]

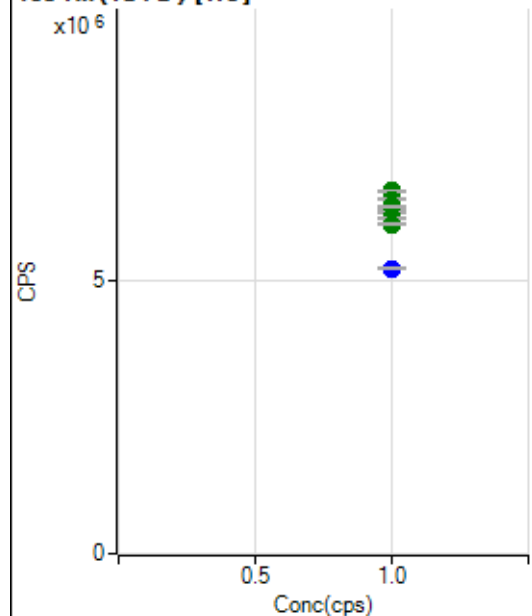
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20012946.09		A	0.7
2	☐	1.000		19752370.26		A	0.4
3	☐	1.000		18977862.77		A	2.4
4	☐	1.000		19197769.71		A	0.9
5	☐	1.000		19368762.49		A	1.6
6	☐	1.000		19295892.49		A	1.0
7	☐	1.000		19996099.01		A	0.6
8	☐	1.000		18576755.14		A	1.9

89 Y (ISTD) [He]

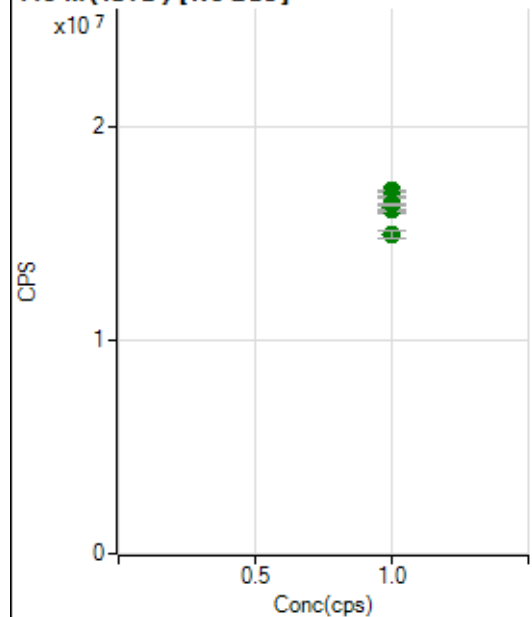
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2407713.14		P	0.6
2	☐	1.000		2372014.05		P	0.2
3	☐	1.000		2316656.14		P	0.6
4	☐	1.000		2324787.74		P	0.4
5	☐	1.000		2399961.73		P	0.3
6	☐	1.000		2367010.01		P	0.8
7	☐	1.000		2398860.49		P	0.5
8	☐	1.000		2322142.10		P	1.3

103 Rh (ISTD) [No Gas]

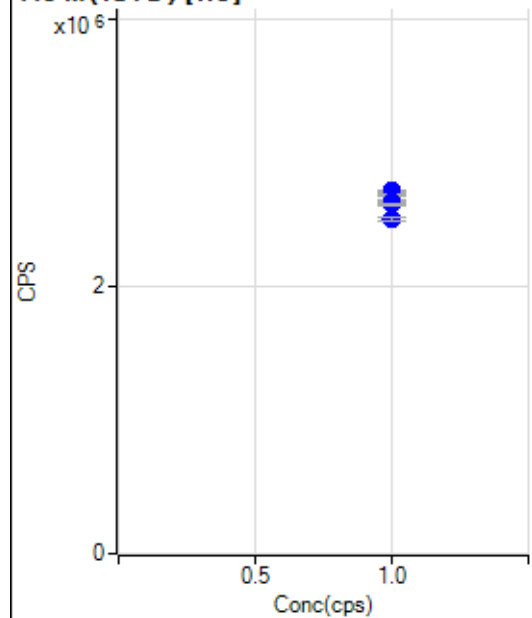
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14664762.31		A	0.1
2	☐	1.000		14536772.20		A	0.6
3	☐	1.000		13826096.49		A	2.4
4	☐	1.000		13936328.44		A	2.2
5	☐	1.000		13708210.38		A	2.0
6	☐	1.000		13486559.50		A	0.5
7	☐	1.000		13566214.54		A	1.1
8	☐	1.000		11761480.47		A	2.0

103 Rh (ISTD) [He]

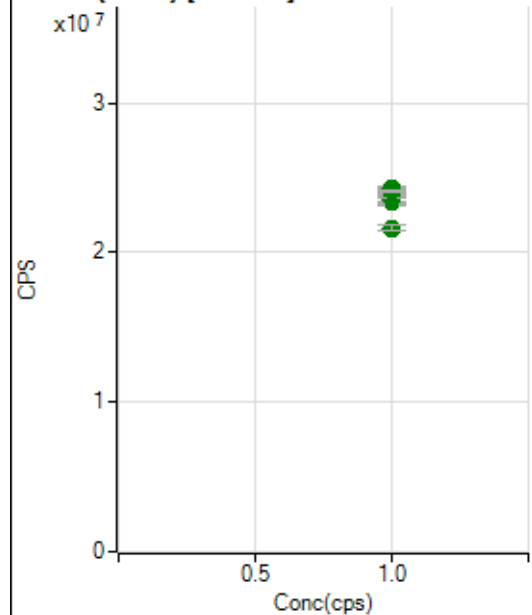
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6639424.48		A	0.5
2	☐	1.000		6490538.72		A	0.3
3	☐	1.000		6290570.81		A	0.4
4	☐	1.000		6245705.60		A	0.6
5	☐	1.000		6362243.38		A	0.6
6	☐	1.000		6152915.88		A	0.6
7	☐	1.000		6030319.91		A	0.3
8	☐	1.000		5216444.64		P	0.9

115 In (ISTD) [No Gas]

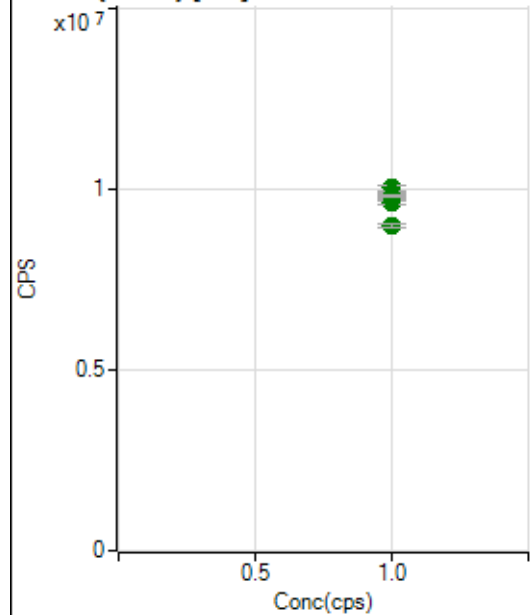
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17011655.68		A	0.8
2	☐	1.000		16752719.52		A	0.6
3	☐	1.000		16170977.27		A	2.4
4	☐	1.000		16221838.75		A	1.5
5	☐	1.000		16276456.48		A	1.9
6	☐	1.000		16104544.36		A	0.5
7	☐	1.000		16368943.46		A	0.2
8	☐	1.000		14975522.58		A	2.0

115 In (ISTD) [He]

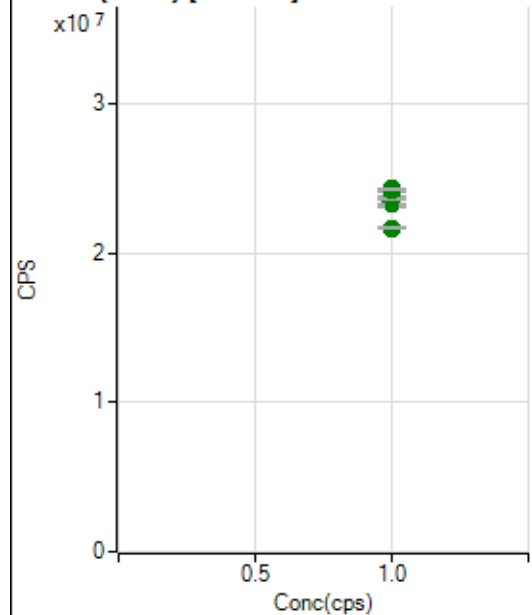
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2710011.47		P	0.8
2	☐	1.000		2703875.53		P	0.4
3	☐	1.000		2628459.06		P	0.5
4	☐	1.000		2625670.55		P	0.4
5	☐	1.000		2685045.76		P	0.6
6	☐	1.000		2629285.67		P	0.6
7	☐	1.000		2607926.01		P	0.6
8	☐	1.000		2502731.54		P	1.0

159 Tb (ISTD) [No Gas]

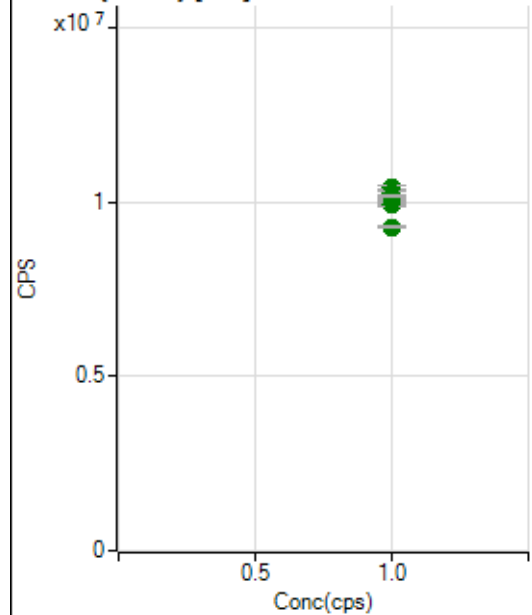
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		24260662.14		A	0.6
2	☐	1.000		24251853.53		A	1.0
3	☐	1.000		23367507.99		A	2.4
4	☐	1.000		23587631.87		A	2.1
5	☐	1.000		23604268.54		A	2.3
6	☐	1.000		23631777.43		A	0.1
7	☐	1.000		24158219.92		A	0.7
8	☐	1.000		21659518.43		A	1.7

159 Tb (ISTD) [He]

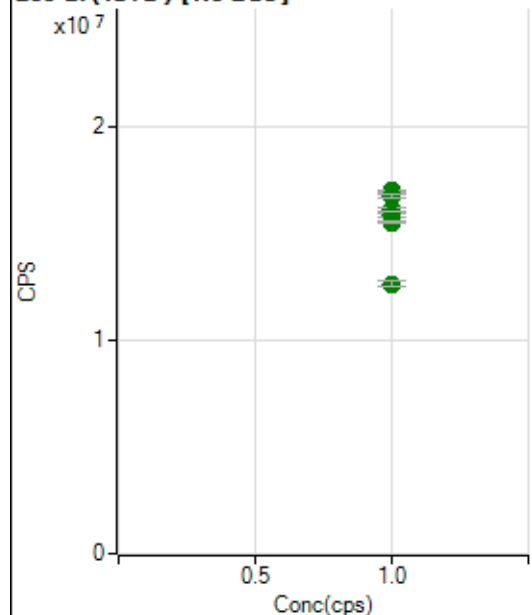
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10037602.28		A	1.2
2	☐	1.000		9854091.10		A	0.7
3	☐	1.000		9703657.63		A	0.1
4	☐	1.000		9648870.76		A	1.0
5	☐	1.000		9898558.95		A	0.5
6	☐	1.000		9726605.90		A	0.4
7	☐	1.000		9809013.67		A	0.6
8	☐	1.000		8996497.36		A	0.8

165 Ho (ISTD) [No Gas]

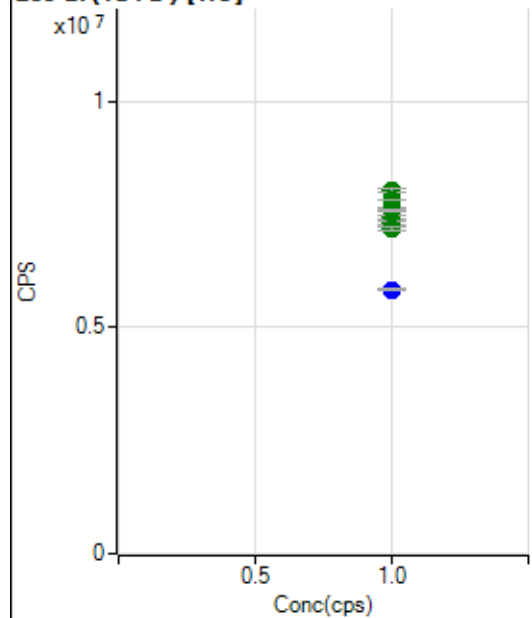
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		24315755.41		A	0.5
2	☐	1.000		24139531.44		A	0.4
3	☐	1.000		23324776.74		A	2.0
4	☐	1.000		23399890.28		A	1.4
5	☐	1.000		23610201.57		A	2.4
6	☐	1.000		23666594.11		A	0.8
7	☐	1.000		24259977.45		A	0.4
8	☐	1.000		21680770.80		A	0.8

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10397573.67		A	0.9
2	☐	1.000		10125737.07		A	0.5
3	☐	1.000		9976997.21		A	0.7
4	☐	1.000		9916871.52		A	1.1
5	☐	1.000		10248420.06		A	1.0
6	☐	1.000		10045230.82		A	0.4
7	☐	1.000		10157714.01		A	0.6
8	☐	1.000		9265288.75		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16997580.03		A	0.2
2	☐	1.000		16750580.03		A	0.9
3	☐	1.000		16097366.84		A	1.8
4	☐	1.000		16083774.48		A	1.7
5	☐	1.000		15879348.65		A	1.6
6	☐	1.000		15546601.16		A	0.8
7	☐	1.000		15533391.99		A	0.5
8	☐	1.000		12624241.90		A	2.0

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8025479.74		A	1.2
2	☐	1.000		7817767.80		A	0.2
3	☐	1.000		7629639.33		A	0.4
4	☐	1.000		7442640.93		A	1.5
5	☐	1.000		7604243.22		A	0.5
6	☐	1.000		7314747.88		A	0.7
7	☐	1.000		7192630.38		A	0.9
8	☐	1.000		5848454.77		P	0.6

US EPA Tune Check Sample Report

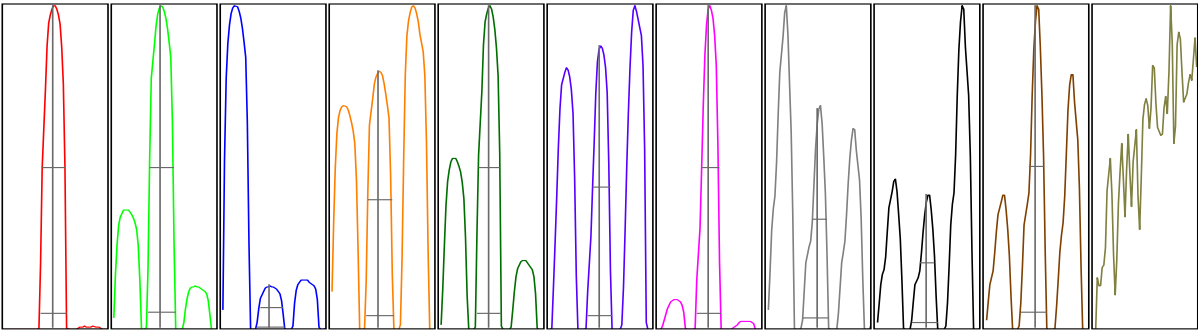
Batch Folder D:\ICP-MS Data\P7011420-MS2.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	12964	0.97	5.00	
24	214952	1.03	5.00	
25	28942	0.90	5.00	
26	32772	0.78	5.00	
59	101436	1.06	5.00	
113	13953	1.14	5.00	
115	170318	0.97	5.00	
206	46189	1.24	5.00	
207	42277	1.10	5.00	
208	100232	1.20	5.00	
220	126	3.65		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	13152	12882	13029	12841	12914
24	218710	213435	214834	213204	214575
25	29330	28811	28998	28624	28945
26	33169	32706	32690	32475	32818
59	103136	100987	101767	100331	100959
113	14167	13919	14012	13937	13728
115	173148	169468	170400	169224	169351
206	47167	46165	45697	45895	46018
207	43011	42166	42376	41757	42076
208	102157	100016	100446	99050	99490
220	125	132	128	127	119

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	20812	8.95	8.9 - 9.1		0.783	0.900	
24	335088	23.90	23.9 - 24.1		0.827	0.900	
25	44659	24.90	24.9 - 25.1		0.828	0.900	
26	51627	25.90	25.9 - 26.1		0.825	0.900	
59	173273	58.95	58.9 - 59.1		0.739	0.900	
113	28157	113.00	112.9 - 113.1		0.721	0.900	
115	342830	115.00	114.9 - 115.1		0.722	0.900	
206	102747	206.00	205.9 - 206.1		0.739	0.900	
207	93358	207.00	206.9 - 207.1		0.752	0.900	
208	225098	208.00	207.9 - 208.1		0.757	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	7.5	V	Deflect	12.6	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	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	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	24489	0.62	
89	39866	0.72	
205	32603	0.77	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	24443	24681	24494	24267	24559
89	39843	40016	40020	39378	40072
205	32444	32919	32502	32333	32819

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.4	V	Deflect	1.2	V
Extract 2	-130.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	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			