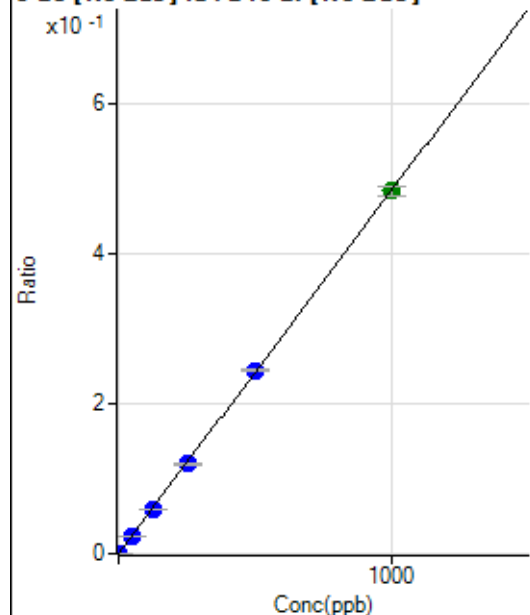


Calibration for 006CALS.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P8042023MS.b\
 Analysis File: P8042023MS.batch.bin
 DA Date-Time: 2023-04-20 12:45:52
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2023-04-20 10:15:42
2	006CALS.d	S02	2023-04-20 10:21:52
3	007CALS.d	S03	2023-04-20 10:24:56
4	008CALS.d	S04	2023-04-20 10:27:56
5	009CALS.d	S05	2023-04-20 10:30:55
6	010CALS.d	S06	2023-04-20 10:33:55
7	011CALS.d	S07	2023-04-20 10:36:54
8	012CALS.d	S08	2023-04-20 10:39:54

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.50	0.0000	P	18.6
2	☐	1.000	1.124	1654.89	0.0006	P	2.3
3	☐	50.000	49.364	74439.28	0.0239	P	0.1
4	☐	125.000	121.717	184675.67	0.0589	P	1.5
5	☐	250.000	248.126	361516.58	0.1201	P	1.7
6	☐	500.000	503.666	719885.10	0.2439	P	0.9
7	☐	1000.000	999.078	1408747.31	0.4837	A	2.3
8	☐			590.77	0.0002	P	5.8

$$y = 4.8417\text{E-}004 * x + 8.8753\text{E-}006$$

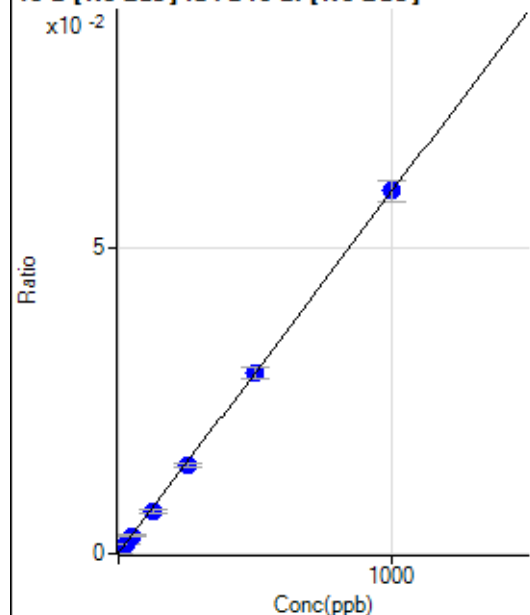
$$R = 1.0000$$

$$DL = 0.01023$$

$$BEC = 0.01833$$

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	253.29	0.0001	P	8.7
2	☐	25.000	24.443	4571.82	0.0015	P	5.5
3	☐	50.000	48.107	9117.05	0.0029	P	5.9
4	☐	125.000	116.571	21862.67	0.0070	P	6.5
5	☐	250.000	242.901	43489.60	0.0145	P	5.8
6	☐	500.000	500.408	87641.27	0.0297	P	6.0
7	☐	1000.000	1002.733	173011.95	0.0594	P	5.9
8	☐			10971.97	0.0038	P	10.4

$$y = 5.9167\text{E-}005 * x + 8.1488\text{E-}005$$

$$R = 0.9999$$

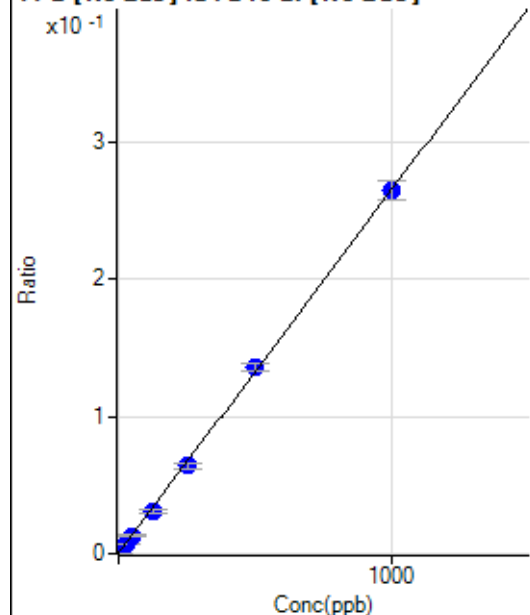
$$DL = 0.3581$$

$$BEC = 1.377$$

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	1059.17	0.0003	P	6.7
2	☐	25.000	24.458	20368.77	0.0068	P	2.5
3	☐	50.000	48.411	40914.77	0.0131	P	3.8
4	☐	125.000	116.353	97438.68	0.0311	P	6.6
5	☐	250.000	241.621	193229.46	0.0642	P	6.2
6	☐	500.000	511.807	400426.29	0.1357	P	4.5
7	☐	1000.000	997.365	768845.30	0.2640	P	5.5
8	☐			49599.69	0.0172	P	11.2

$$y = 2.6438E-004 * x + 3.4109E-004$$

$$R = 0.9998$$

$$DL = 0.2598$$

$$BEC = 1.29$$

Weight: <None>

Min Conc: 0

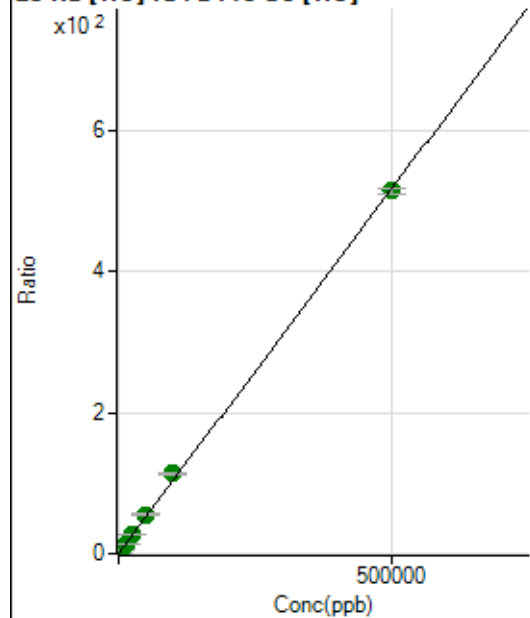
12 C [No Gas] No available calibration points



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			3966643.06		A	1.2
2	☐			3884953.21		A	0.5
3	☐			3867925.52		A	1.2
4	☐			3917362.85		A	1.2
5	☐			3948191.71		A	0.6
6	☐			4123303.74		A	1.1
7	☐			4308827.75		A	2.0
8	☐			3893418.27		A	1.9

12 C [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			49416.94		P	0.3
2	☐			49486.74		P	1.0
3	☐			50699.31		P	2.9
4	☐			50802.49		P	1.1
5	☐			51162.01		P	1.2
6	☐			54936.51		P	1.5
7	☐			58475.12		P	1.2
8	☐			55413.50		P	1.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	21519.11	0.1058	P	1.3
2	☐	500.000	522.808	133115.99	0.6462	P	6.1
3	☐	5000.000	5499.366	1178274.44	5.7904	A	2.1
4	☐	12500.000	13922.410	2890874.55	14.4973	A	3.3
5	☐	25000.000	27023.352	5595089.41	28.0397	A	2.8
6	☐	50000.000	53900.221	11160242.18	55.8222	A	3.5
7	☐	100000.00	109611.07	22442940.78	113.4103	A	1.2
8	☐	500000.00	497546.01	103839842.6	514.4170	A	1.3

$$y = 0.0010 * x + 0.1058$$

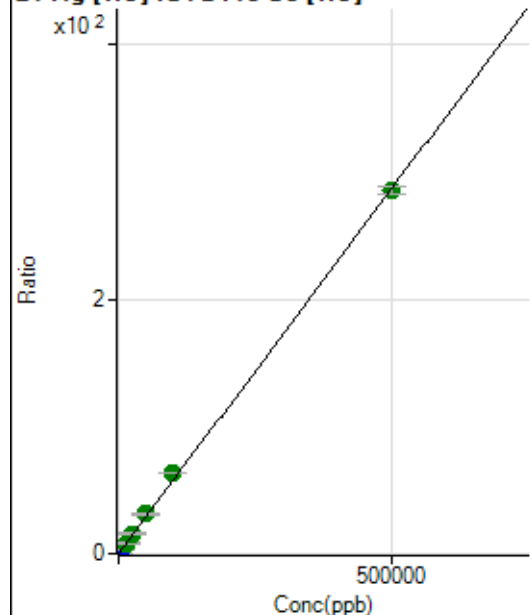
$$R = 0.9998$$

$$DL = 3.902$$

$$BEC = 102.3$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	375.01	0.0018	P	11.1
2	☐	500.000	515.972	61232.49	0.2973	P	7.2
3	☐	5000.000	5489.552	640089.76	3.1456	P	2.4
4	☐	12500.000	14459.188	1651503.40	8.2824	A	3.7
5	☐	25000.000	27521.635	3145337.70	15.7631	A	3.2
6	☐	50000.000	54479.482	6238214.90	31.2014	A	1.9
7	☐	100000.00	110428.06	12515661.39	63.2423	A	1.5
8	☐	500000.00	497286.46	57489601.28	284.7903	A	2.2

$$y = 5.7268\text{E-}004 * x + 0.0018$$

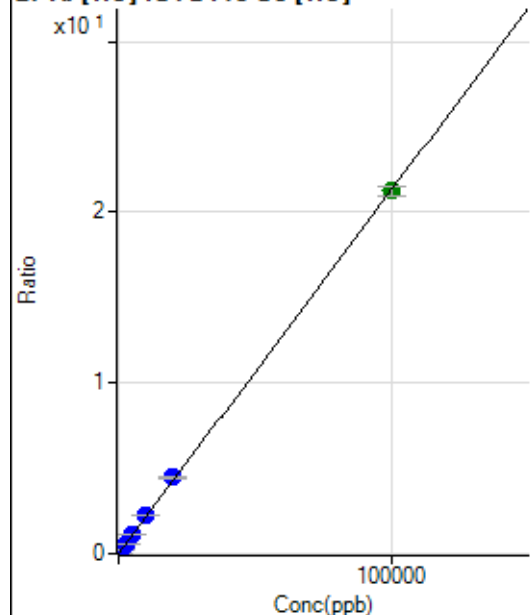
$$R = 0.9998$$

$$DL = 1.07$$

$$BEC = 3.221$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	64.57	0.0003	P	8.1
2	☐	20.000	22.158	1037.83	0.0050	P	6.7
3	☐	1000.000	1059.503	45998.85	0.2261	P	2.7
4	☐	2500.000	2677.031	113815.67	0.5707	P	3.3
5	☐	5000.000	5207.550	221493.50	1.1099	P	2.3
6	☐	10000.000	10453.726	445394.46	2.2278	P	2.5
7	☐	20000.000	20890.560	881049.79	4.4517	P	2.3
8	☐	100000.00	99761.117	4290964.99	21.2574	A	2.9

$$y = 2.1308\text{E-}004 * x + 3.1747\text{E-}004$$

$$R = 1.0000$$

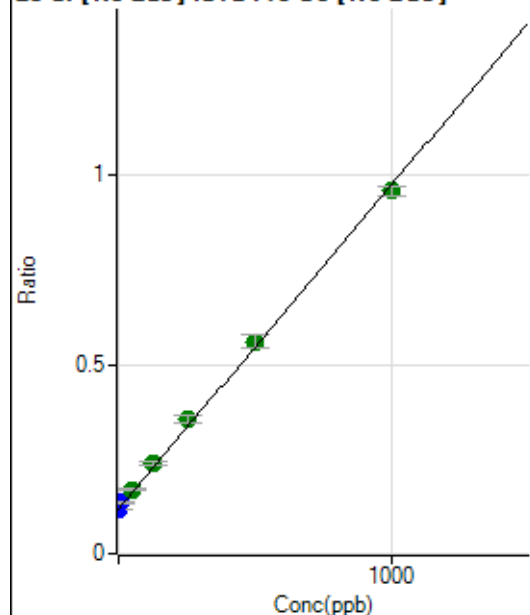
$$DL = 0.3639$$

$$BEC = 1.49$$

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	759243.06	0.1179	P	0.9
2	☐	10.000	20.617	826767.82	0.1356	P	3.0
3	☐	50.000	59.534	1077801.22	0.1690	A	2.0
4	☐	125.000	142.174	1515463.09	0.2399	A	3.9
5	☐	250.000	279.772	2229332.76	0.3580	A	5.4
6	☐	500.000	517.634	3519248.58	0.5622	A	6.6
7	☐	1000.000	981.010	5920420.49	0.9600	A	2.8
8	☐			1305031.28	0.2120	A	3.9

$$y = 8.5840\text{E-}004 * x + 0.1179$$

R = 0.9993

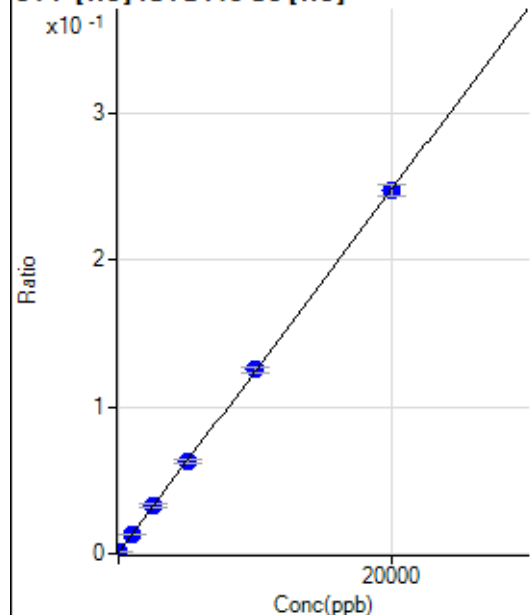
DL = 3.659

BEC = 137.3

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	6.075	186.11	0.0009	P	4.7
2	☐	0.000	-6.075	158.34	0.0008	P	13.9
3	☐	1000.000	1003.046	2694.77	0.0132	P	4.0
4	☐	2500.000	2597.286	6571.10	0.0330	P	6.4
5	☐	5000.000	5052.978	12639.15	0.0633	P	3.7
6	☐	10000.000	10079.992	25094.50	0.1255	P	2.7
7	☐	20000.000	19934.446	48969.66	0.2474	P	3.0
8	☐			202.79	0.0010	P	17.0

$$y = 1.2369\text{E-}005 * x + 8.3960\text{E-}004$$

R = 1.0000

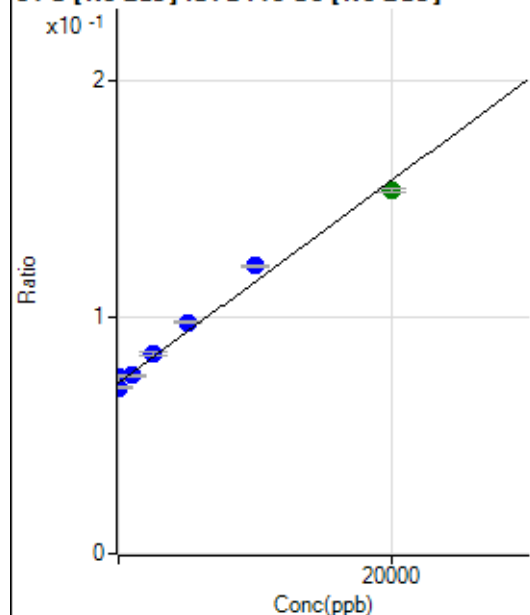
DL = 18.1

BEC = 67.88

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	-513.500	451181.79	0.0701	P	1.4
2	☐	0.000	513.500	453966.10	0.0744	P	2.6
3	☐	1000.000	745.407	481089.03	0.0754	P	0.8
4	☐	2500.000	2807.480	532031.27	0.0842	P	2.3
5	☐	5000.000	5990.261	609114.15	0.0978	P	1.4
6	☐	10000.000	11539.646	761222.89	0.1215	P	1.0
7	☐	20000.000	18956.906	944876.08	0.1532	A	1.2
8	☐			405184.69	0.0658	P	2.6

$$y = 4.2713\text{E-}006 * x + 0.0723$$

$$R = 0.9926$$

$$DL = 1008$$

$$BEC = 1.692\text{E}+04$$

Weight: <None>

Min Conc: 0

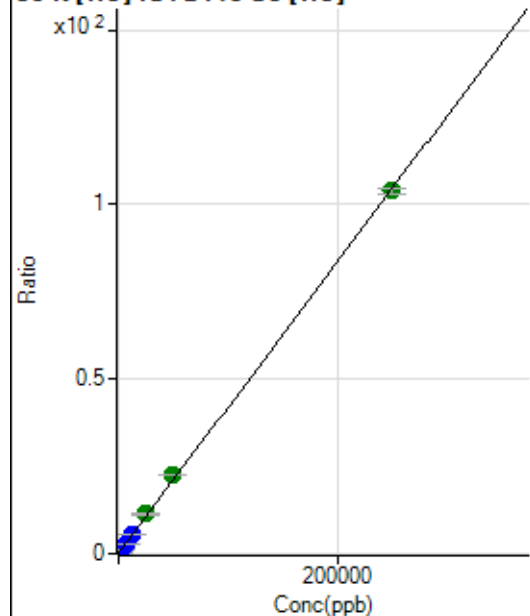
35 Cl [No Gas] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			191599.34		P	2.1
2	☐			219943.30		P	0.8
3	☐			215824.78		P	0.6
4	☐			213237.11		P	1.2
5	☐			210790.17		P	0.4
6	☐			202828.31		P	0.3
7	☐			206056.16		P	0.4
8	☐			203640.12		P	0.4

35 Cl [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1247.31		P	1.9
2	☐			1580.68		P	5.6
3	☐			1533.46		P	12.5
4	☐			1539.01		P	11.2
5	☐			1561.24		P	0.8
6	☐			1272.31		P	11.5
7	☐			1430.67		P	7.6
8	☐			1416.78		P	5.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	27443.29	0.1349	P	1.7
2	☐	500.000	491.985	70039.99	0.3400	P	6.3
3	☐	2500.000	2585.930	246748.54	1.2127	P	2.4
4	☐	6250.000	6475.361	565106.17	2.8338	P	2.8
5	☐	12500.000	12797.190	1091228.41	5.4688	P	3.3
6	☐	25000.000	26862.188	2265227.39	11.3310	A	2.5
7	☐	50000.000	53893.855	4471890.51	22.5978	A	1.1
8	☐	250000.00	249013.67	20977752.03	103.9233	A	1.6

$$y = 4.1680E-004 * x + 0.1349$$

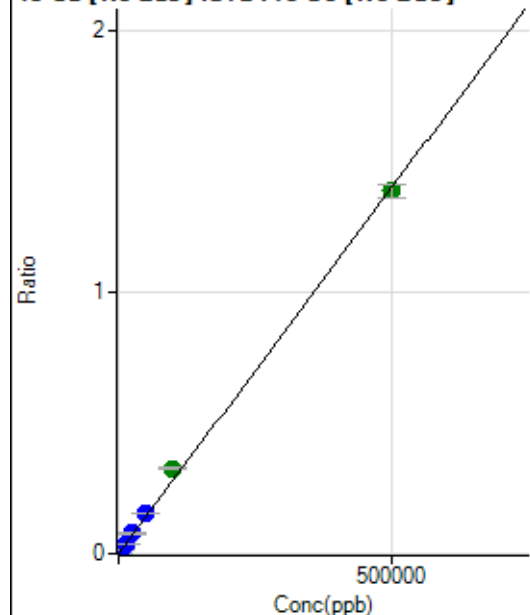
$$R = 0.9999$$

$$DL = 16.05$$

$$BEC = 323.7$$

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	122.07	0.0000	P	10.9
2	☐	500.000	526.382	9109.68	0.0015	P	0.6
3	☐	5000.000	5529.346	98888.81	0.0155	P	1.3
4	☐	12500.000	13832.483	244808.82	0.0388	P	2.5
5	☐	25000.000	27744.674	483927.83	0.0777	P	1.2
6	☐	50000.000	55731.006	977714.51	0.1561	P	1.4
7	☐	100000.00	116495.29	2012233.94	0.3263	A	1.7
8	☐	500000.00	495951.97	8550090.00	1.3891	A	3.6

$$y = 2.8008\text{E-}006 * x + 1.8934\text{E-}005$$

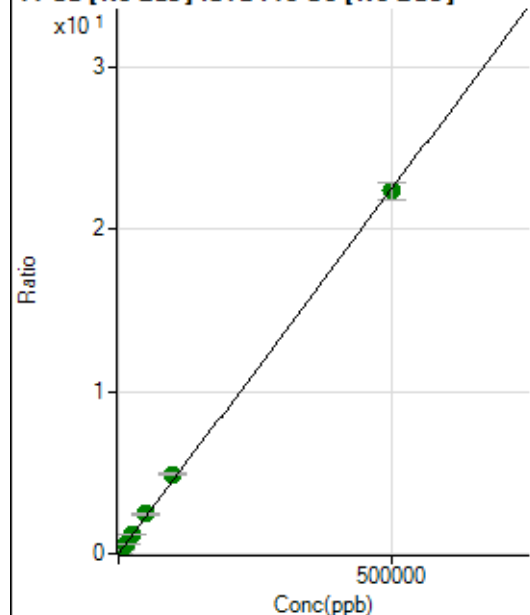
$$R = 0.9994$$

$$DL = 2.207$$

$$BEC = 6.76$$

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	15029.56	0.0023	P	1.7
2	☐	500.000	536.928	161216.46	0.0264	P	2.4
3	☐	5000.000	5507.421	1591610.95	0.2496	A	0.4
4	☐	12500.000	13539.929	3853870.02	0.6101	A	1.7
5	☐	25000.000	27085.431	7583762.04	1.2182	A	2.2
6	☐	50000.000	54043.181	15208458.34	2.4283	A	1.2
7	☐	100000.00	109252.14	30257870.94	4.9065	A	0.5
8	☐	500000.00	497609.87	137465443.7	22.3395	A	4.7

$$y = 4.4889\text{E-}005 * x + 0.0023$$

$$R = 0.9998$$

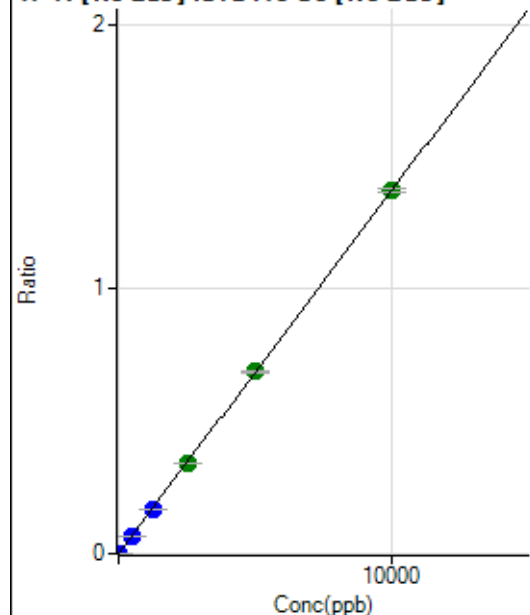
$$DL = 2.575$$

$$BEC = 51.99$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	94.45	0.0000	P	47.2
2	☐	5.000	5.377	4584.20	0.0008	P	5.0
3	☐	500.000	494.898	432953.23	0.0679	P	0.9
4	☐	1250.000	1220.164	1056996.92	0.1673	P	1.9
5	☐	2500.000	2498.494	2133357.73	0.3427	A	1.2
6	☐	5000.000	5009.509	4302924.36	0.6870	A	1.3
7	☐	10000.000	9999.606	8457007.83	1.3714	A	1.1
8	☐			1375.11	0.0002	P	18.6

$$y = 1.3714\text{E-}004 * x + 1.4605\text{E-}005$$

$$R = 1.0000$$

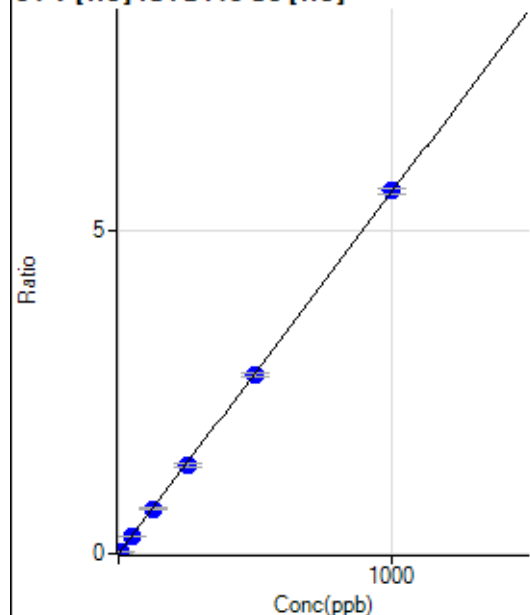
$$DL = 0.1509$$

$$BEC = 0.1065$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	8.89	0.0000	P	94.4
2	☐	5.000	4.947	5695.64	0.0277	P	6.4
3	☐	50.000	48.333	54890.45	0.2698	P	2.3
4	☐	125.000	124.781	138873.21	0.6964	P	1.4
5	☐	250.000	245.358	273228.20	1.3693	P	2.7
6	☐	500.000	495.040	552317.00	2.7626	P	2.4
7	☐	1000.000	1003.752	1108553.83	5.6015	P	1.6
8	☐			380.01	0.0019	P	8.2

$$y = 0.0056 * x + 4.3999\text{E-}005$$

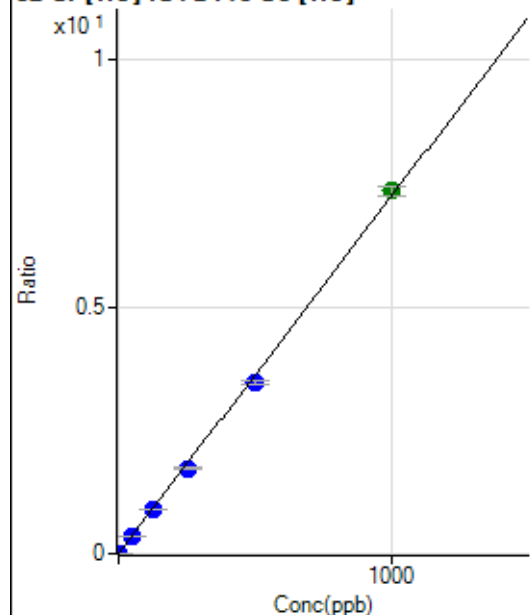
$$R = 1.0000$$

$$DL = 0.02232$$

$$BEC = 0.007885$$

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	530.02	0.0026	P	11.9
2	☐	2.000	1.959	3457.12	0.0168	P	5.7
3	☐	50.000	48.213	71529.09	0.3515	P	1.7
4	☐	125.000	122.319	177047.07	0.8878	P	2.0
5	☐	250.000	237.660	343731.01	1.7225	P	2.1
6	☐	500.000	477.553	691453.79	3.4586	P	2.2
7	☐	1000.000	1014.733	1454028.12	7.3461	A	2.9
8	☐			11003.23	0.0545	P	0.4

$$y = 0.0072 * x + 0.0026$$

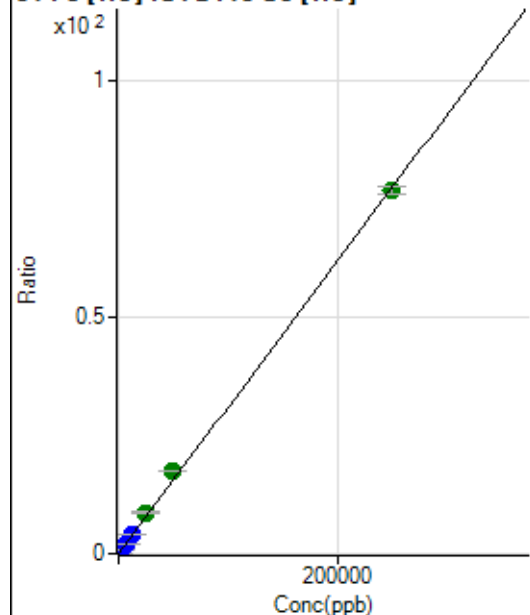
$$R = 0.9995$$

$$DL = 0.1281$$

$$BEC = 0.3597$$

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	657.43	0.0032	P	9.4
2	☐	50.000	52.646	4019.15	0.0195	P	6.7
3	☐	2500.000	2678.877	169196.11	0.8315	P	2.9
4	☐	6250.000	6790.940	419394.13	2.1030	P	1.8
5	☐	12500.000	13236.361	817315.73	4.0960	P	2.7
6	☐	25000.000	28103.248	1737895.80	8.6928	A	1.8
7	☐	50000.000	56461.104	3454876.06	17.4612	A	0.7
8	☐	250000.00	248345.32	15501345.02	76.7923	A	2.0

$$y = 3.0920E-004 * x + 0.0032$$

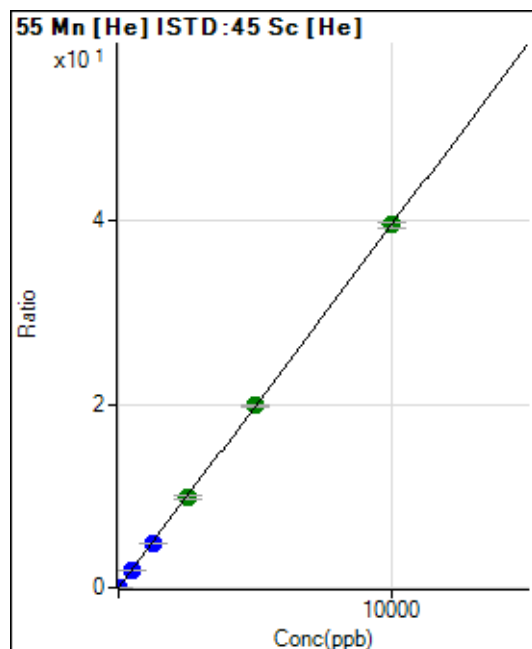
$$R = 0.9996$$

$$DL = 2.948$$

$$BEC = 10.45$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	65.56	0.0003	P	16.4
2	☐	1.000	0.981	866.70	0.0042	P	8.8
3	☐	500.000	477.185	384353.09	1.8888	P	1.9
4	☐	1250.000	1224.895	966778.42	4.8479	P	1.5
5	☐	2500.000	2498.105	1972783.22	9.8868	A	3.9
6	☐	5000.000	5012.314	3965836.09	19.8370	A	1.8
7	☐	10000.000	9998.595	7831091.97	39.5706	A	1.4
8	☐			3589.38	0.0178	P	1.2

$$y = 0.0040 * x + 3.2257E-004$$

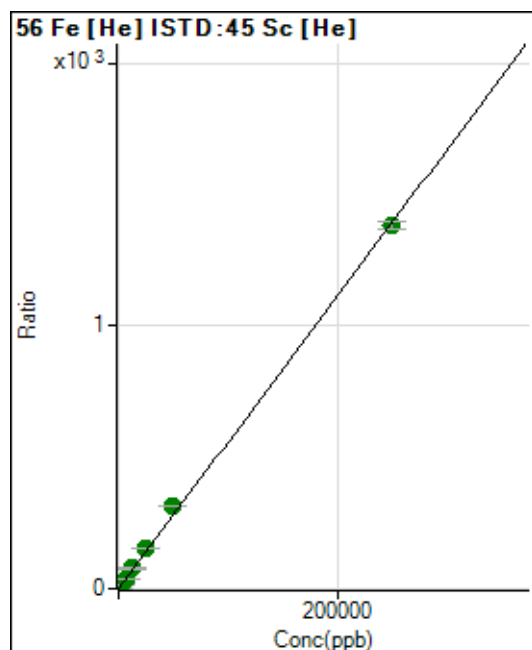
$$R = 1.0000$$

$$DL = 0.0401$$

$$BEC = 0.08151$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3891.33	0.0191	P	6.2
2	☐	50.000	52.515	64125.19	0.3113	P	6.2
3	☐	2500.000	2791.257	3164028.83	15.5480	A	0.6
4	☐	6250.000	7088.358	7868119.85	39.4545	A	2.0
5	☐	12500.000	13920.952	15458729.05	77.4669	A	2.9
6	☐	25000.000	27874.588	31007650.00	155.0964	A	1.3
7	☐	50000.000	56369.040	62066674.54	313.6223	A	1.4
8	☐	250000.00	248343.81	278911098.8	1,381.653	A	2.3

$$y = 0.0056 * x + 0.0191$$

$$R = 0.9996$$

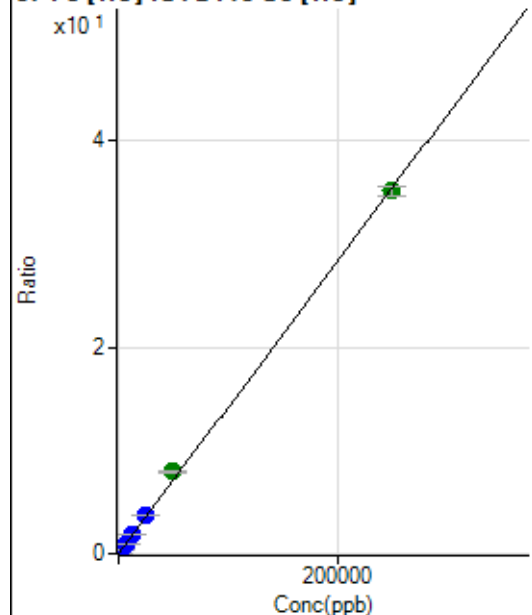
$$DL = 0.6366$$

$$BEC = 3.439$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138.89	0.0007	P	16.1
2	☐	50.000	53.356	1692.72	0.0082	P	7.0
3	☐	2500.000	2622.844	75474.97	0.3710	P	4.0
4	☐	6250.000	6649.919	187374.18	0.9395	P	0.3
5	☐	12500.000	12929.619	364380.73	1.8260	P	3.0
6	☐	25000.000	26160.917	738550.19	3.6940	P	1.4
7	☐	50000.000	56040.379	1565745.39	7.9123	A	1.3
8	☐	250000.00	248643.12	7085828.05	35.1033	A	2.4

$$y = 1.4118\text{E-}004 * x + 6.8277\text{E-}004$$

$$R = 0.9997$$

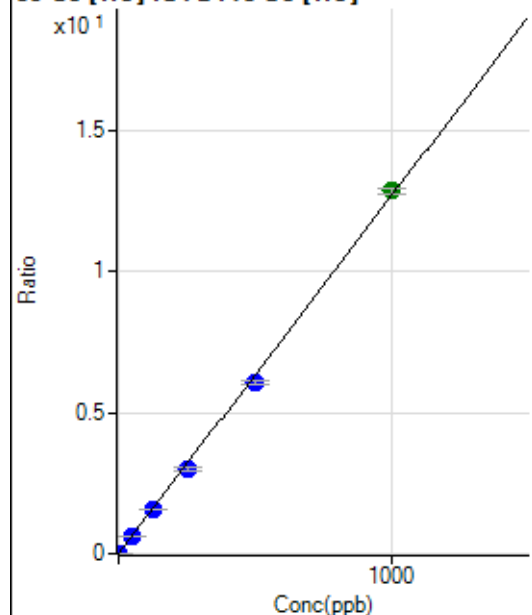
$$DL = 2.341$$

$$BEC = 4.836$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	62.22	0.0003	P	42.3
2	☐	1.000	0.950	2540.26	0.0123	P	11.6
3	☐	50.000	47.851	123323.24	0.6061	P	2.4
4	☐	125.000	122.840	310184.69	1.5555	P	1.6
5	☐	250.000	237.048	598908.51	3.0014	P	2.9
6	☐	500.000	479.643	1214076.78	6.0728	P	2.5
7	☐	1000.000	1013.794	2540089.32	12.8354	A	1.3
8	☐			2040.17	0.0101	P	2.2

$$y = 0.0127 * x + 3.0483\text{E-}004$$

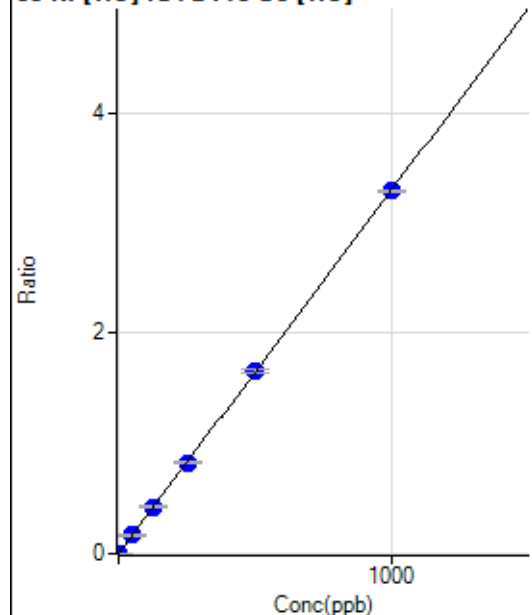
$$R = 0.9996$$

$$DL = 0.03057$$

$$BEC = 0.02408$$

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	112.22	0.0006	P	15.4
2	☐	1.000	1.027	810.03	0.0039	P	10.7
3	☐	50.000	50.513	33990.63	0.1671	P	1.7
4	☐	125.000	129.003	84912.85	0.4258	P	1.0
5	☐	250.000	251.102	165282.87	0.8283	P	2.0
6	☐	500.000	502.483	331238.25	1.6569	P	2.7
7	☐	1000.000	997.957	651021.51	3.2901	P	0.7
8	☐			1976.82	0.0098	P	1.7

$$y = 0.0033 * x + 5.5108E-004$$

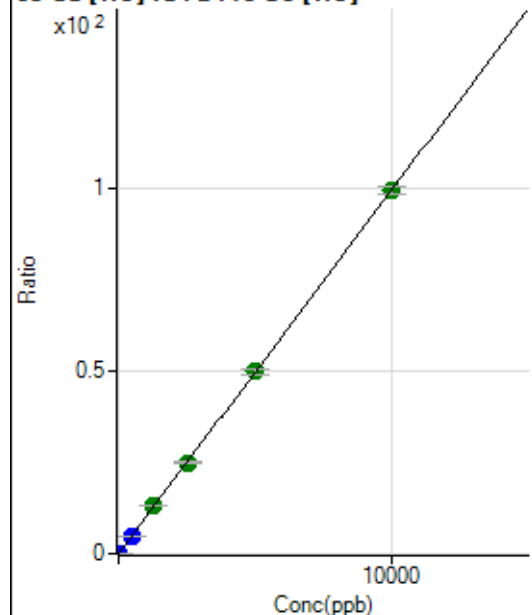
$$R = 1.0000$$

$$DL = 0.07707$$

$$BEC = 0.1672$$

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	956.71	0.0047	P	8.9
2	☐	2.000	1.992	5042.05	0.0245	P	7.3
3	☐	500.000	486.568	983974.35	4.8357	P	1.6
4	☐	1250.000	1327.870	2630088.17	13.1887	A	2.5
5	☐	2500.000	2502.649	4959295.10	24.8528	A	2.7
6	☐	5000.000	5011.317	9947810.06	49.7606	A	2.5
7	☐	10000.000	9984.617	19618914.43	99.1391	A	2.1
8	☐			4032.84	0.0200	P	4.1

$$y = 0.0099 * x + 0.0047$$

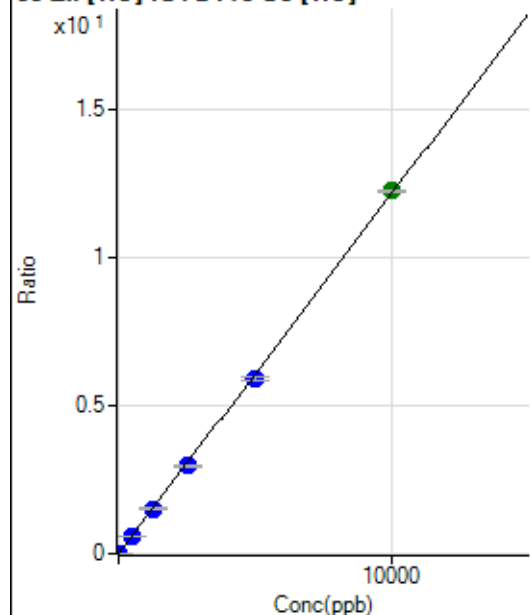
$$R = 1.0000$$

$$DL = 0.1271$$

$$BEC = 0.4738$$

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	127.78	0.0006	P	25.4
2	☐	2.000	2.107	655.58	0.0032	P	8.9
3	☐	500.000	497.757	122984.69	0.6043	P	2.2
4	☐	1250.000	1251.334	302752.12	1.5183	P	2.4
5	☐	2500.000	2436.821	589880.95	2.9561	P	3.1
6	☐	5000.000	4863.559	1179414.53	5.8993	P	2.5
7	☐	10000.000	10083.961	2420127.72	12.2309	A	0.2
8	☐			10019.18	0.0496	P	1.7

$$y = 0.0012 * x + 6.2686E-004$$

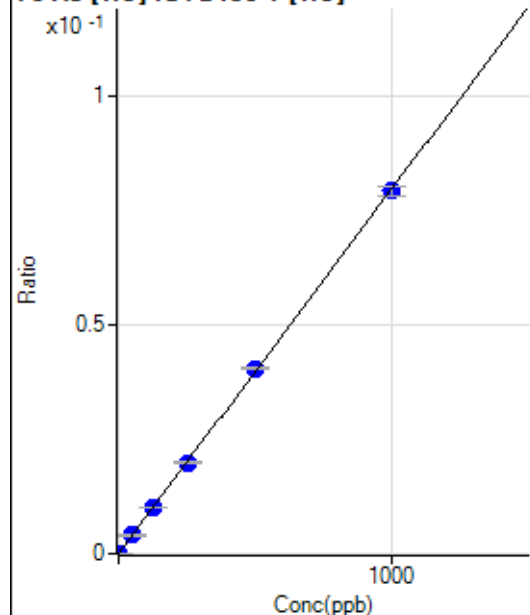
$$R = 0.9998$$

$$DL = 0.3932$$

$$BEC = 0.5169$$

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	2.00	0.0000	P	49.7
2	☐	1.000	1.098	153.68	0.0001	P	16.8
3	☐	50.000	50.872	6894.05	0.0041	P	3.3
4	☐	125.000	125.792	17186.15	0.0100	P	0.7
5	☐	250.000	249.781	34031.85	0.0199	P	3.2
6	☐	500.000	508.527	68182.08	0.0406	P	1.4
7	☐	1000.000	995.648	136817.71	0.0794	P	2.3
8	☐			25.67	0.0000	P	36.3

$$y = 7.9762E-005 * x + 1.1591E-006$$

$$R = 0.9999$$

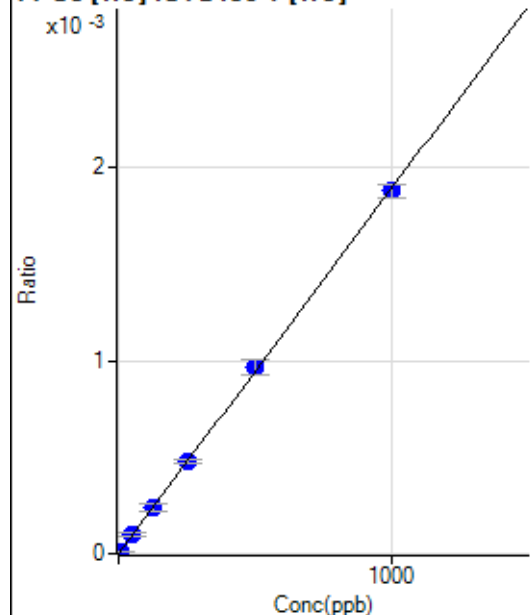
$$DL = 0.02166$$

$$BEC = 0.01453$$

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	4.798	15.56	0.0000	P	51.4
3	☐	50.000	51.913	166.67	0.0001	P	23.9
4	☐	125.000	126.610	410.01	0.0002	P	15.8
5	☐	250.000	251.701	814.48	0.0005	P	4.7
6	☐	500.000	511.395	1627.89	0.0010	P	7.9
7	☐	1000.000	993.581	3240.41	0.0019	P	3.8
8	☐			2.22	0.0000	P	173.

$$y = 1.8931\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9999$$

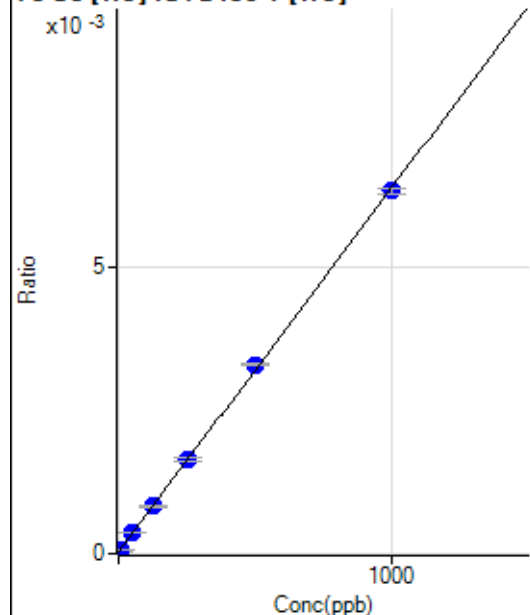
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	52.34	0.0000	P	6.8
2	☐	5.000	5.230	109.68	0.0001	P	14.5
3	☐	50.000	53.424	626.08	0.0004	P	2.6
4	☐	125.000	125.184	1409.21	0.0008	P	0.8
5	☐	250.000	252.168	2778.22	0.0016	P	3.8
6	☐	500.000	513.775	5517.31	0.0033	P	1.0
7	☐	1000.000	992.375	10874.29	0.0063	P	1.5
8	☐			56.01	0.0000	P	0.7

$$y = 6.3301\text{E-}006 * x + 3.0380\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.9723$$

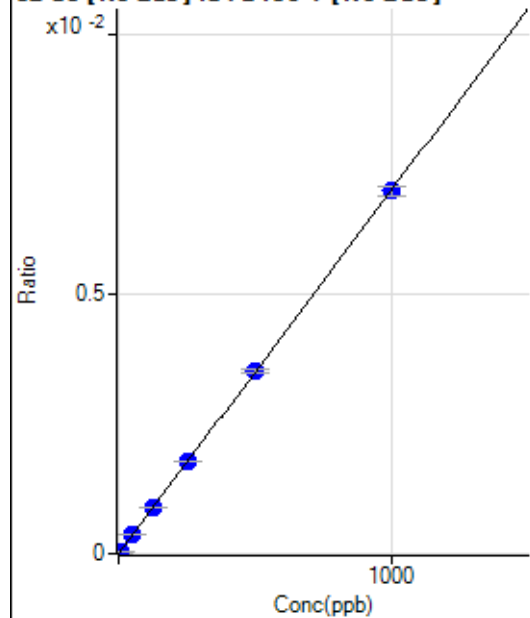
$$BEC = 4.799$$

Weight: <None>

Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			29596.06		P	2.5
2	☐			30320.06		P	1.0
3	☐			29743.68		P	1.9
4	☐			29203.48		P	2.5
5	☐			29309.09		P	2.4
6	☐			29284.32		P	3.4
7	☐			29598.84		P	1.6
8	☐			30873.86		P	2.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	13.33	0.0000	P	188.
2	☐	5.000	5.037	533.29	0.0000	P	12.2
3	☐	50.000	51.056	5495.96	0.0004	P	1.8
4	☐	125.000	126.311	13572.29	0.0009	P	0.9
5	☐	250.000	253.845	27058.59	0.0018	P	1.9
6	☐	500.000	501.658	53840.61	0.0035	P	2.5
7	☐	1000.000	997.993	106148.84	0.0070	P	2.6
8	☐			137.07	0.0000	P	21.6

$$y = 6.9896E-006 * x + 8.6571E-007$$

$$R = 1.0000$$

$$DL = 0.6995$$

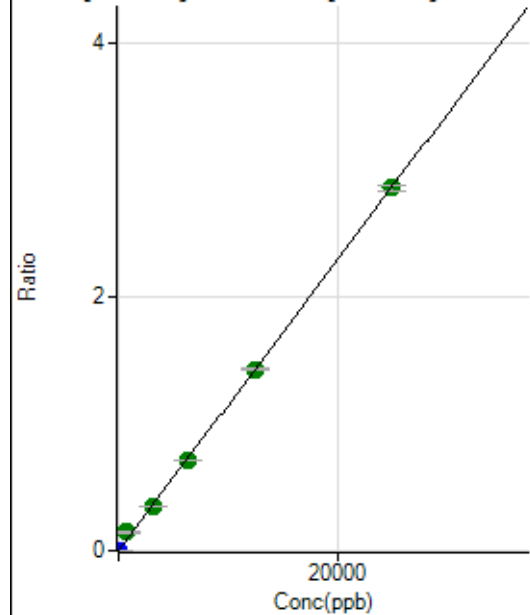
$$BEC = 0.1239$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			352.04		P	6.6
2	☐			363.29		P	1.6
3	☐			337.88		P	6.3
4	☐			351.21		P	6.2
5	☐			314.96		P	3.8
6	☐			365.38		P	1.0
7	☐			355.79		P	3.3
8	☐			339.96		P	7.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	608.36	0.0000	P	23.4
2	☐	1.000	0.996	2261.35	0.0002	P	8.4
3	☐	625.000	1262.514	2216030.33	0.1442	A	1.0
4	☐	3125.000	3083.727	5409712.54	0.3522	A	0.8
5	☐	6250.000	6255.149	10891086.44	0.7144	A	1.0
6	☐	12500.000	12506.485	21931629.14	1.4284	A	1.0
7	☐	25000.000	24984.691	43421775.28	2.8535	A	1.9
8	☐			11427.22	0.0007	P	8.2

$$y = 1.1421\text{E-}004 * x + 3.9122\text{E-}005$$

$$R = 0.9997$$

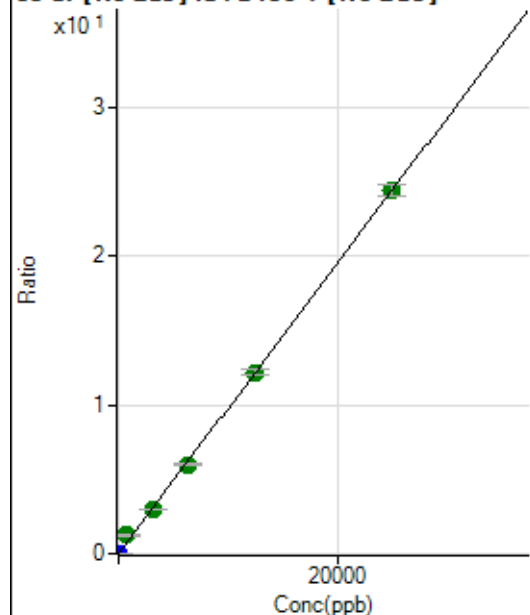
$$DL = 0.2404$$

$$BEC = 0.3426$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	313.93	0.0000	P	44.9
2	☐	1.000	1.041	15311.54	0.0010	P	2.7
3	☐	625.000	1261.083	18860472.30	1.2275	A	0.4
4	☐	3125.000	3067.479	45857460.75	2.9857	A	0.3
5	☐	6250.000	6139.241	91102981.90	5.9755	A	0.9
6	☐	12500.000	12494.807	186673268.0	12.1616	A	3.4
7	☐	25000.000	25021.574	370514188.8	24.3544	A	3.3
8	☐			95256.69	0.0062	P	9.5

$$y = 9.7333\text{E-}004 * x + 2.0230\text{E-}005$$

$$R = 0.9996$$

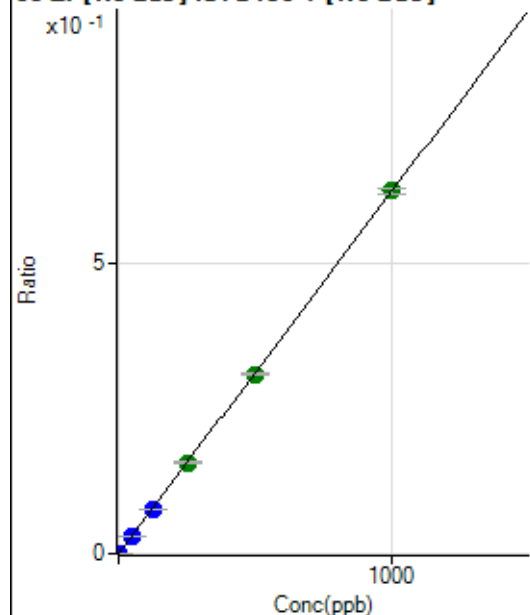
$$DL = 0.02802$$

$$BEC = 0.02078$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	591.69	0.0000	P	6.4
2	☐	1.000	0.988	9656.39	0.0007	P	6.3
3	☐	50.000	49.107	469522.75	0.0306	P	1.2
4	☐	125.000	120.628	1152105.84	0.0750	P	1.5
5	☐	250.000	251.118	2380052.83	0.1561	A	1.0
6	☐	500.000	495.633	4730505.27	0.3081	A	0.6
7	☐	1000.000	1002.495	9482581.20	0.6231	A	1.8
8	☐			2233.58	0.0001	P	8.1

$$y = 6.2153\text{E-}004 * x + 3.8084\text{E-}005$$

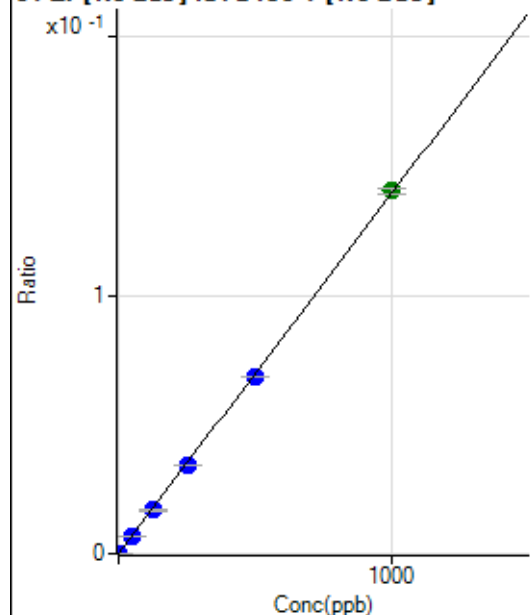
$$R = 1.0000$$

$$DL = 0.0117$$

$$BEC = 0.06127$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	86.12	0.0000	P	23.7
2	☐	1.000	1.057	2264.13	0.0002	P	3.3
3	☐	50.000	48.869	104704.22	0.0068	P	1.5
4	☐	125.000	120.245	257392.28	0.0168	P	0.4
5	☐	250.000	243.929	518190.15	0.0340	P	0.2
6	☐	500.000	489.643	1047600.76	0.0682	P	0.4
7	☐	1000.000	1007.347	2135968.84	0.1404	A	1.7
8	☐			402.80	0.0000	P	28.6

$$y = 1.3933\text{E-}004 * x + 5.5372\text{E-}006$$

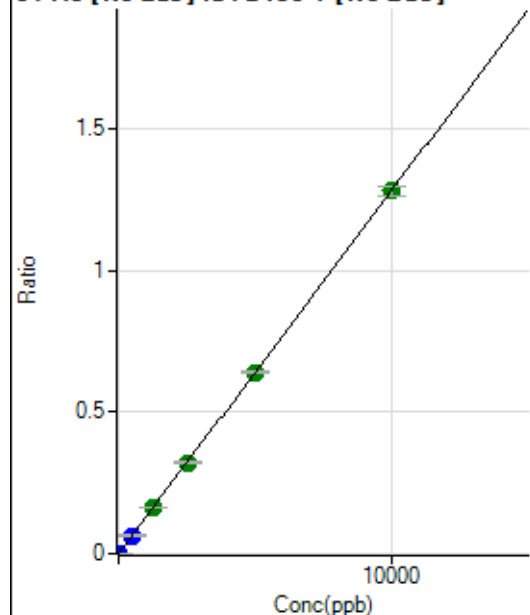
$$R = 0.9999$$

$$DL = 0.0282$$

$$BEC = 0.03974$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	163.90	0.0000	P	17.0
2	☐	5.000	5.839	11224.26	0.0008	P	7.2
3	☐	500.000	500.555	985208.66	0.0641	P	1.5
4	☐	1250.000	1254.912	2468974.90	0.1607	A	0.6
5	☐	2500.000	2503.030	4887673.72	0.3206	A	1.5
6	☐	5000.000	5002.464	9838309.51	0.6408	A	0.9
7	☐	10000.000	9997.368	19482066.93	1.2805	A	3.0
8	☐			4220.23	0.0003	P	18.7

$$y = 1.2809\text{E-}004 * x + 1.0558\text{E-}005$$

$$R = 1.0000$$

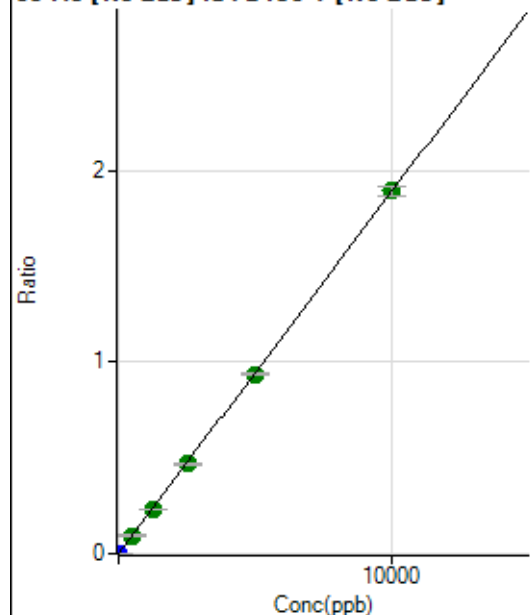
$$DL = 0.04196$$

$$BEC = 0.08243$$

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	55.56	0.0000	P	75.8
2	☐	5.000	4.913	13796.10	0.0009	P	2.5
3	☐	500.000	502.183	1457176.89	0.0948	A	1.9
4	☐	1250.000	1228.877	3564927.59	0.2321	A	1.2
5	☐	2500.000	2483.837	7152598.08	0.4691	A	2.1
6	☐	5000.000	4960.767	14384019.76	0.9369	A	1.6
7	☐	10000.000	10026.188	28811028.42	1.8936	A	3.0
8	☐			5529.14	0.0004	P	20.5

$$y = 1.8886E-004 * x + 3.5866E-006$$

$$R = 1.0000$$

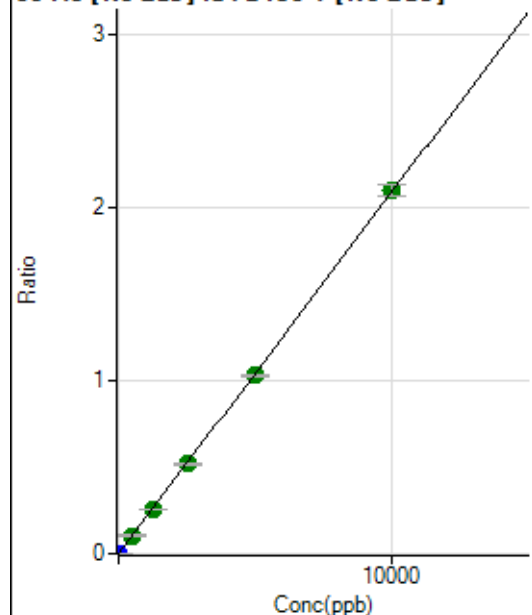
$$DL = 0.04317$$

$$BEC = 0.01899$$

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	75.00	0.0000	P	29.3
2	☐	5.000	4.967	15408.87	0.0010	P	4.8
3	☐	500.000	502.449	1610231.20	0.1048	A	1.8
4	☐	1250.000	1219.228	3906122.96	0.2543	A	1.0
5	☐	2500.000	2477.815	7879196.18	0.5168	A	0.5
6	☐	5000.000	4928.987	15783789.07	1.0281	A	1.8
7	☐	10000.000	10044.777	31875096.89	2.0952	A	3.2
8	☐			10842.63	0.0007	P	15.9

$$y = 2.0858E-004 * x + 4.8258E-006$$

$$R = 1.0000$$

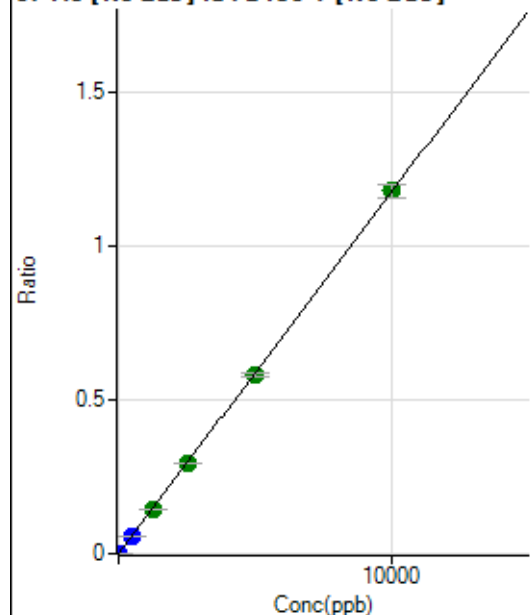
$$DL = 0.02034$$

$$BEC = 0.02314$$

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	19.45	0.0000	P	23.9
2	☐	5.000	4.863	8475.04	0.0006	P	2.9
3	☐	500.000	494.364	891924.15	0.0580	P	0.7
4	☐	1250.000	1231.163	2220319.10	0.1446	A	1.4
5	☐	2500.000	2491.544	4460171.76	0.2926	A	1.2
6	☐	5000.000	4941.233	8907693.69	0.5802	A	1.7
7	☐	10000.000	10034.134	17924445.02	1.1782	A	3.5
8	☐			3725.61	0.0002	P	16.8

$$y = 1.1742\text{E-}004 * x + 1.2503\text{E-}006$$

$$R = 1.0000$$

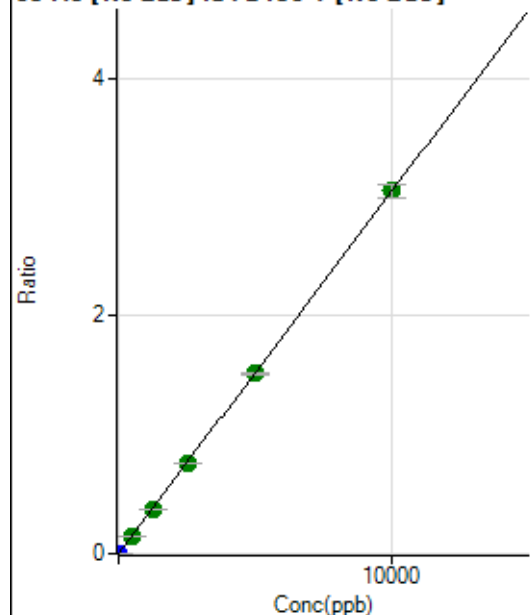
$$DL = 0.007649$$

$$BEC = 0.01065$$

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	52.78	0.0000	P	46.0
2	☐	5.000	4.945	22337.93	0.0015	P	5.0
3	☐	500.000	499.828	2337856.30	0.1522	A	1.8
4	☐	1250.000	1227.264	5738666.93	0.3736	A	1.3
5	☐	2500.000	2496.874	11588990.36	0.7601	A	0.9
6	☐	5000.000	4967.434	23218266.14	1.5123	A	1.8
7	☐	10000.000	10019.915	46407774.65	3.0504	A	3.4
8	☐			8803.08	0.0006	P	16.1

$$y = 3.0443\text{E-}004 * x + 3.4047\text{E-}006$$

$$R = 1.0000$$

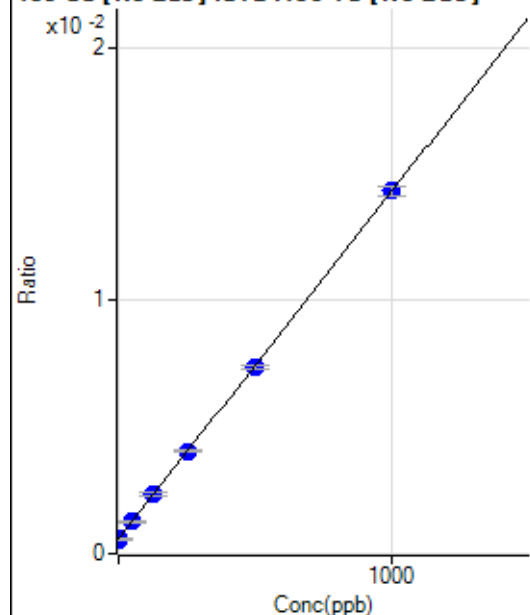
$$DL = 0.01544$$

$$BEC = 0.01118$$

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	6098.74	0.0006	P	1.9
2	☐	1.000	-0.965	5856.98	0.0006	P	3.7
3	☐	50.000	49.251	13367.92	0.0013	P	3.4
4	☐	125.000	129.230	24831.31	0.0024	P	3.7
5	☐	250.000	251.081	42187.45	0.0040	P	2.0
6	☐	500.000	494.943	78658.33	0.0074	P	1.2
7	☐	1000.000	1001.769	150119.57	0.0143	P	2.9
8	☐			5831.96	0.0006	P	2.2

$$y = 1.3726\text{E-}005 * x + 5.8300\text{E-}004$$

$$R = 1.0000$$

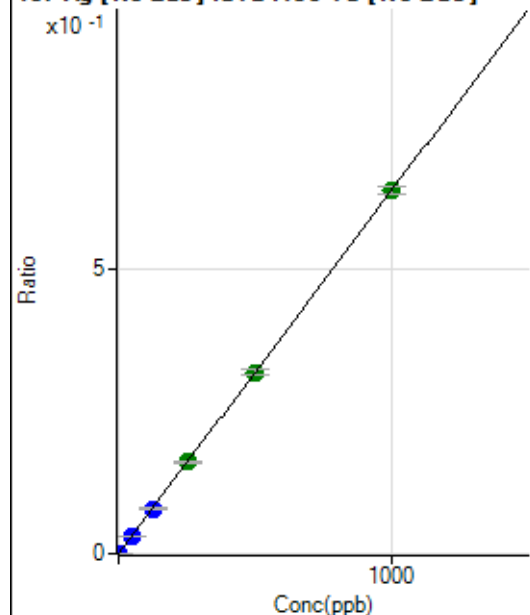
$$DL = 2.378$$

$$BEC = 42.47$$

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	88.89	0.0000	P	14.3
2	☐	1.000	1.050	6979.72	0.0007	P	1.7
3	☐	50.000	49.423	335230.24	0.0316	P	2.1
4	☐	125.000	122.890	826925.90	0.0785	P	2.8
5	☐	250.000	252.682	1689613.82	0.1614	A	1.7
6	☐	500.000	500.526	3407767.57	0.3197	A	2.5
7	☐	1000.000	999.359	6684907.66	0.6382	A	2.2
8	☐			2728.13	0.0003	P	1.9

$$y = 6.3862\text{E-}004 * x + 8.4976\text{E-}006$$

$$R = 1.0000$$

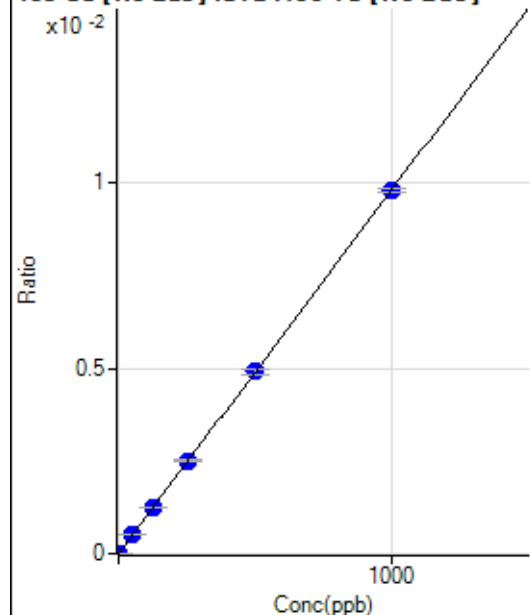
$$DL = 0.005702$$

$$BEC = 0.01331$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12.50	0.0000	P	33.1
2	☐	1.000	0.870	100.00	0.0000	P	6.1
3	☐	50.000	51.032	5326.10	0.0005	P	2.7
4	☐	125.000	127.917	13231.49	0.0013	P	1.6
5	☐	250.000	255.124	26207.07	0.0025	P	2.4
6	☐	500.000	500.402	52325.60	0.0049	P	2.9
7	☐	1000.000	998.102	102543.08	0.0098	P	1.2
8	☐			65.28	0.0000	P	16.3

$$y = 9.8065\text{E-}006 * x + 1.1941\text{E-}006$$

$$R = 1.0000$$

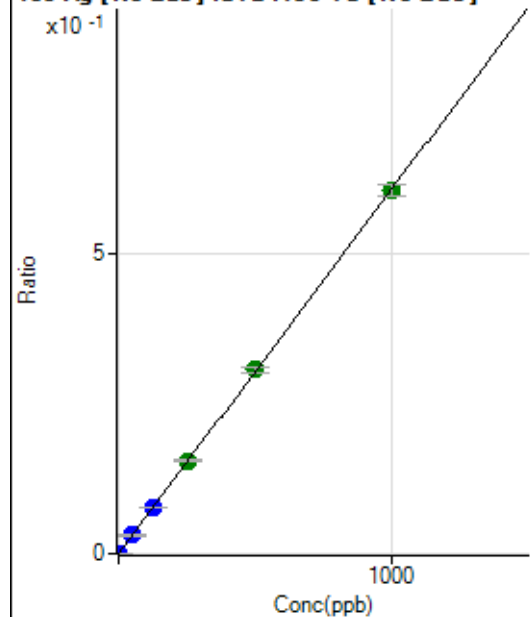
$$DL = 0.121$$

$$BEC = 0.1218$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.22	0.0000	P	83.1
2	☐	1.000	1.067	6712.91	0.0007	P	4.3
3	☐	50.000	50.478	325755.45	0.0307	P	2.3
4	☐	125.000	125.668	804699.07	0.0764	P	2.5
5	☐	250.000	254.787	1621188.34	0.1548	A	1.4
6	☐	500.000	505.067	3271794.58	0.3069	A	3.3
7	☐	1000.000	996.162	6340049.79	0.6054	A	3.3
8	☐			2341.93	0.0002	P	4.4

$$y = 6.0771\text{E-}004 * x + 4.5055\text{E-}006$$

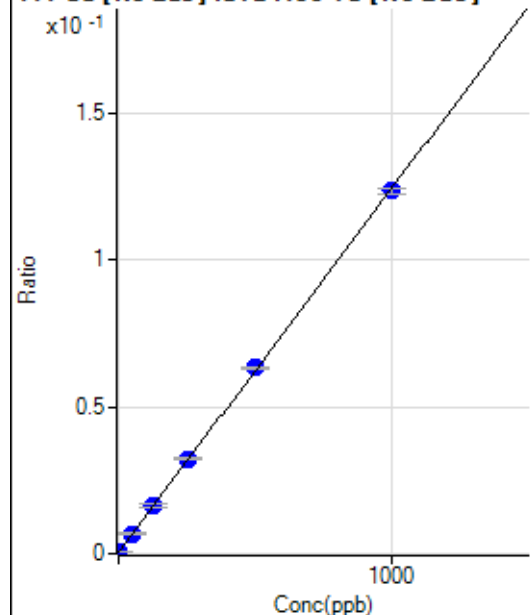
$$R = 1.0000$$

$$DL = 0.01849$$

$$BEC = 0.007414$$

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	4268.70	0.0004	P	1.7
2	☐	1.000	0.967	5425.82	0.0005	P	4.4
3	☐	50.000	52.122	72891.34	0.0069	P	1.2
4	☐	125.000	129.126	172784.41	0.0164	P	4.4
5	☐	250.000	257.531	338272.37	0.0323	P	1.2
6	☐	500.000	506.883	673789.79	0.0632	P	1.7
7	☐	1000.000	994.054	1294049.83	0.1235	P	1.7
8	☐			4518.64	0.0004	P	2.3

$$y = 1.2387\text{E-}004 * x + 4.0806\text{E-}004$$

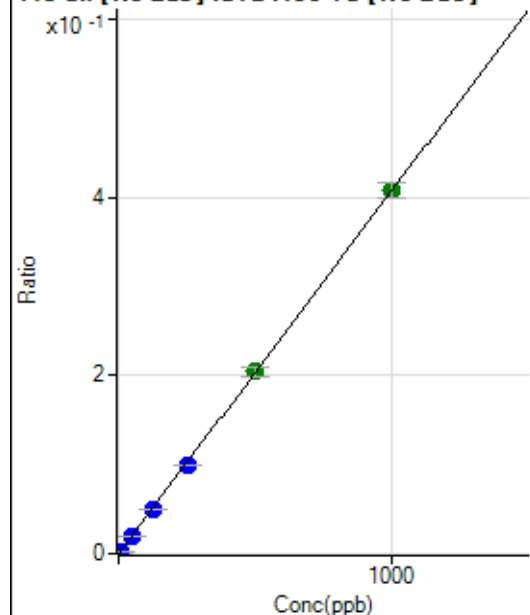
$$R = 0.9999$$

$$DL = 0.1711$$

$$BEC = 3.294$$

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	691.70	0.0001	P	10.1
2	☐	5.000	5.000	21628.81	0.0021	P	1.3
3	☐	50.000	49.615	215391.43	0.0203	P	1.5
4	☐	125.000	122.167	525163.95	0.0499	P	3.3
5	☐	250.000	245.176	1046773.56	0.1000	P	0.8
6	☐	500.000	502.036	2181116.63	0.2047	A	4.9
7	☐	1000.000	1000.562	4270472.15	0.4078	A	4.1
8	☐			2169.67	0.0002	P	7.5

$$y = 4.0751\text{E-}004 * x + 6.6106\text{E-}005$$

$$R = 1.0000$$

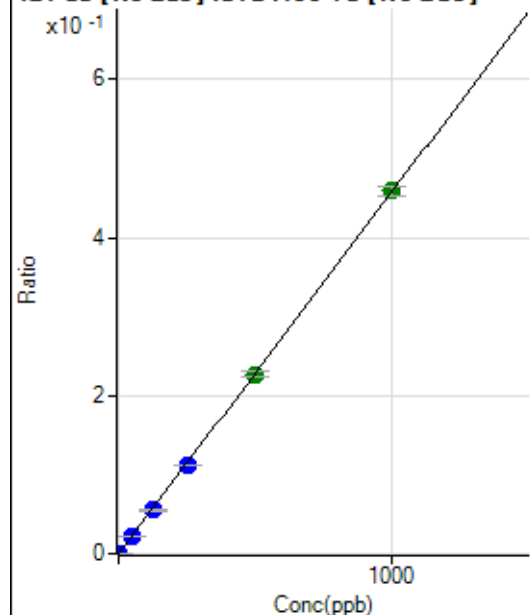
$$DL = 0.04926$$

$$BEC = 0.1622$$

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	52.78	0.0000	P	63.7
2	☐	2.000	2.030	9589.72	0.0009	P	3.9
3	☐	50.000	48.645	236160.86	0.0222	P	1.3
4	☐	125.000	120.345	579605.86	0.0550	P	2.9
5	☐	250.000	243.752	1166580.47	0.1114	P	1.3
6	☐	500.000	496.107	2417210.86	0.2268	A	3.3
7	☐	1000.000	1004.158	4807441.47	0.4590	A	2.4
8	☐			2497.52	0.0002	P	7.8

$$y = 4.5709\text{E-}004 * x + 5.0383\text{E-}006$$

$$R = 1.0000$$

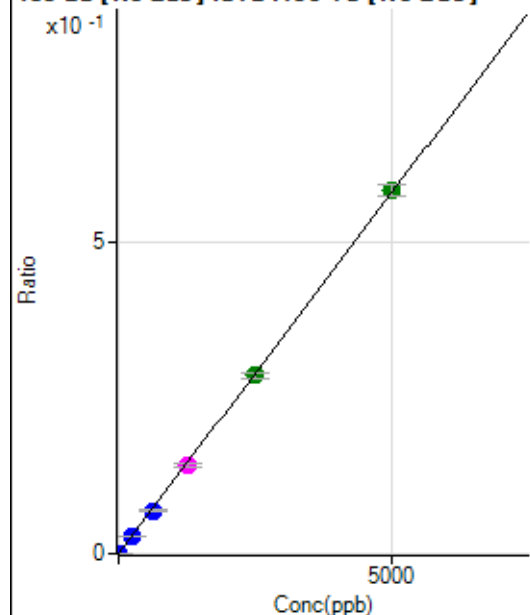
$$DL = 0.02106$$

$$BEC = 0.01102$$

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	38.89	0.0000	P	81.6
2	☐	10.000	9.825	11716.47	0.0011	P	1.4
3	☐	250.000	236.040	289808.70	0.0273	P	1.5
4	☐	625.000	597.690	727905.16	0.0691	P	4.1
5	☐	1250.000	1217.706	1473997.64	0.1408	M	3.8
6	☐	2500.000	2467.144	3040419.30	0.2852	A	3.2
7	☐	5000.000	5028.614	6088748.10	0.5814	A	3.1
8	☐			3564.46	0.0003	P	6.3

$$y = 1.1561\text{E-}004 * x + 3.7260\text{E-}006$$

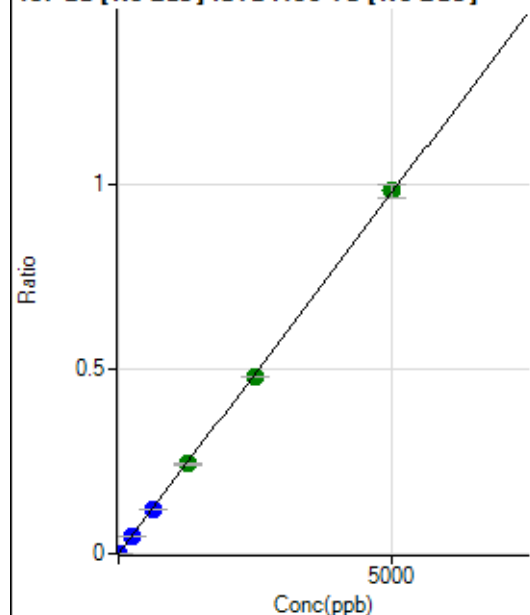
$$R = 0.9999$$

$$DL = 0.07885$$

$$BEC = 0.03223$$

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	27.78	0.0000	P	45.5
2	☐	10.000	10.189	20468.78	0.0020	P	0.5
3	☐	250.000	242.827	503124.73	0.0474	P	2.5
4	☐	625.000	608.889	1251770.77	0.1188	P	2.8
5	☐	1250.000	1245.119	2543803.99	0.2430	A	2.0
6	☐	2500.000	2452.015	5101836.88	0.4785	A	1.0
7	☐	5000.000	5027.585	10273881.22	0.9810	A	3.6
8	☐			6354.49	0.0006	P	7.1

$$y = 1.9513E-004 * x + 2.6526E-006$$

$$R = 0.9999$$

$$DL = 0.01855$$

$$BEC = 0.01359$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐			8.89		P	43.3
3	☐			26.67		P	43.3
4	☐			82.22		P	24.8
5	☐			182.23		P	18.0
6	☐			326.68		P	10.6
7	☐			640.03		P	4.8
8	☐			44.45		P	37.7

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.
2	☐			4.44		P	43.4
3	☐			0.00		P	
4	☐			5.55		P	69.3
5	☐			11.11		P	62.5
6	☐			20.00		P	28.9
7	☐			41.11		P	30.7
8	☐			3.33		P	173.

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐			5.56		P	173.
3	☐			13.89		P	91.6
4	☐			50.00		P	16.7
5	☐			97.23		P	13.1
6	☐			186.12		P	5.2
7	☐			283.35		P	5.1
8	☐			991.73		P	7.2

156 Dy [He] No available calibration points

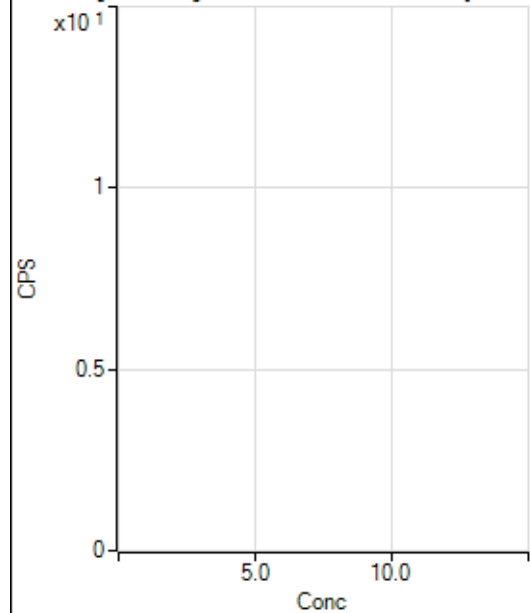
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			3.33		P	100.
3	☐			10.00		P	57.7
4	☐			15.55		P	68.9
5	☐			43.33		P	13.3
6	☐			74.44		P	11.3
7	☐			143.34		P	6.2
8	☐			445.57		P	12.7

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			86.11		P	22.4
2	☐			94.45		P	33.4
3	☐			102.78		P	16.9
4	☐			102.78		P	40.0
5	☐			133.34		P	45.1
6	☐			244.45		P	7.9
7	☐			336.12		P	23.0
8	☐			1169.53		P	7.3

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			124.45		P	11.1
2	☐			104.44		P	24.0
3	☐			125.56		P	8.5
4	☐			120.00		P	34.1
5	☐			142.23		P	21.1
6	☐			156.67		P	29.8
7	☐			218.89		P	15.6
8	☐			631.14		P	7.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			75.01		P	19.2
2	☐			83.34		P	10.0
3	☐			75.00		P	29.4
4	☐			63.89		P	41.9
5	☐			75.00		P	29.4
6	☐			116.67		P	64.3
7	☐			94.45		P	13.5
8	☐			116.67		P	18.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	6.9
2	☐			27.78		P	25.0
3	☐			24.44		P	20.8
4	☐			30.00		P	38.5
5	☐			40.00		P	16.7
6	☐			31.11		P	37.6
7	☐			41.11		P	23.4
8	☐			42.22		P	31.9

172 Yb [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			55.56		P	17.3
2	☐			86.11		P	11.2
3	☐			77.78		P	24.7
4	☐			86.11		P	20.1
5	☐			83.34		P	17.3
6	☐			105.56		P	16.4
7	☐			152.78		P	6.3
8	☐			477.80		P	14.1

172 Yb [He] No available calibration points

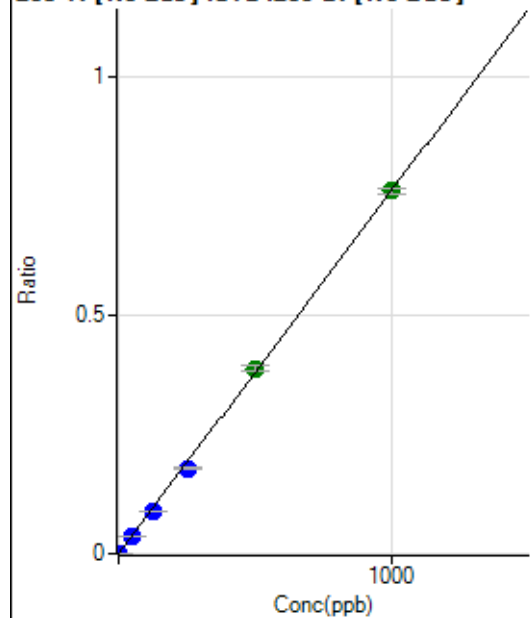
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			31.48		P	20.4
2	☐			37.04		P	34.7
3	☐			40.74		P	47.9
4	☐			42.59		P	45.8
5	☐			44.45		P	50.0
6	☐			44.45		P	33.1
7	☐			64.82		P	17.8
8	☐			194.45		P	15.9

176 Yb [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1883.52		P	1.8
2	☐			1769.62		P	8.7
3	☐			2853.17		P	4.8
4	☐			4250.81		P	4.5
5	☐			6660.19		P	3.8
6	☐			11394.13		P	2.9
7	☐			21097.85		P	4.3
8	☐			1891.85		P	2.2

176 Yb [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8767.85		P	2.2
2	☐			8723.42		P	4.6
3	☐			8932.79		P	0.3
4	☐			9629.61		P	3.2
5	☐			10643.35		P	2.4
6	☐			12678.49		P	1.4
7	☐			16718.27		P	1.6
8	☐			8693.74		P	4.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	63.89	0.0000	P	50.6
2	☐	1.000	0.994	4637.07	0.0008	P	2.3
3	☐	50.000	47.296	225224.91	0.0361	P	1.2
4	☐	125.000	117.939	566992.22	0.0899	P	1.7
5	☐	250.000	234.557	1114679.01	0.1788	P	2.1
6	☐	500.000	510.676	2427193.43	0.3893	A	2.8
7	☐	1000.000	999.541	4690606.70	0.7619	A	1.8
8	☐			1000.07	0.0002	P	4.1

$$y = 7.6226E-004 * x + 1.0129E-005$$

$$R = 0.9998$$

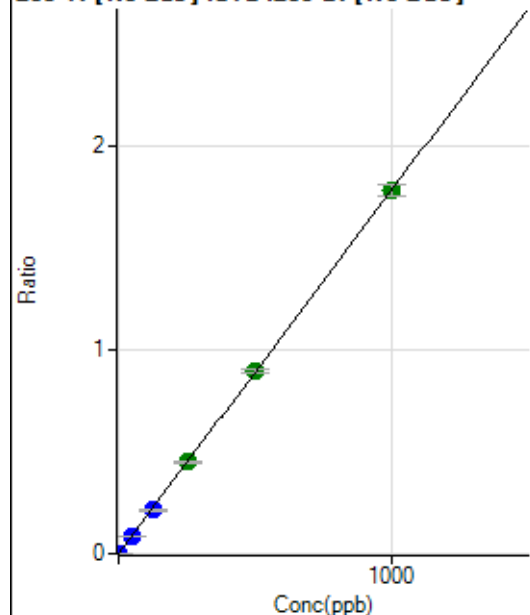
$$DL = 0.02019$$

$$BEC = 0.01329$$

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	200.01	0.0000	P	9.2
2	☐	1.000	0.990	10827.05	0.0018	P	1.1
3	☐	50.000	47.936	532521.59	0.0853	P	3.1
4	☐	125.000	119.198	1337119.37	0.2120	P	3.1
5	☐	250.000	252.228	2796978.99	0.4487	A	1.5
6	☐	500.000	503.755	5587459.11	0.8960	A	2.0
7	☐	1000.000	998.394	10929259.88	1.7758	A	3.1
8	☐			2344.72	0.0004	P	6.4

$$y = 0.0018 * x + 3.1642E-005$$

$$R = 1.0000$$

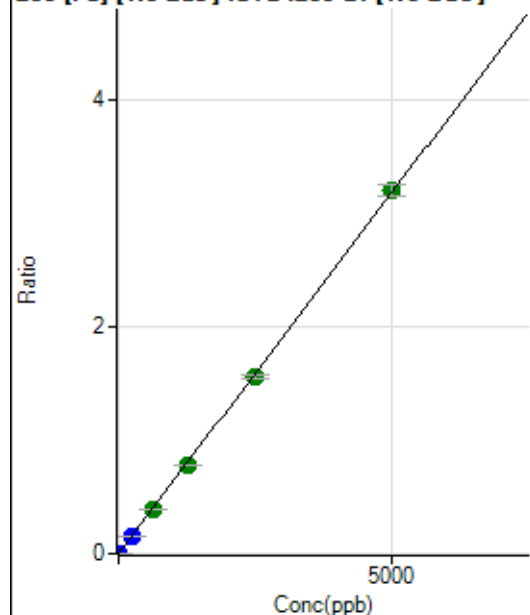
$$DL = 0.004888$$

$$BEC = 0.01779$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	435.20	0.0001	P	6.1
2	☐	1.000	0.972	4152.59	0.0007	P	6.8
3	☐	250.000	230.475	916206.18	0.1467	P	2.6
4	☐	625.000	616.762	2475604.22	0.3925	A	1.9
5	☐	1250.000	1224.927	4860003.64	0.7796	A	0.4
6	☐	2500.000	2453.747	9737103.34	1.5615	A	2.5
7	☐	5000.000	5031.401	19705769.19	3.2018	A	3.1
8	☐			3730.24	0.0007	P	11.4

$$y = 6.3636E-004 * x + 6.8793E-005$$

$$R = 0.9999$$

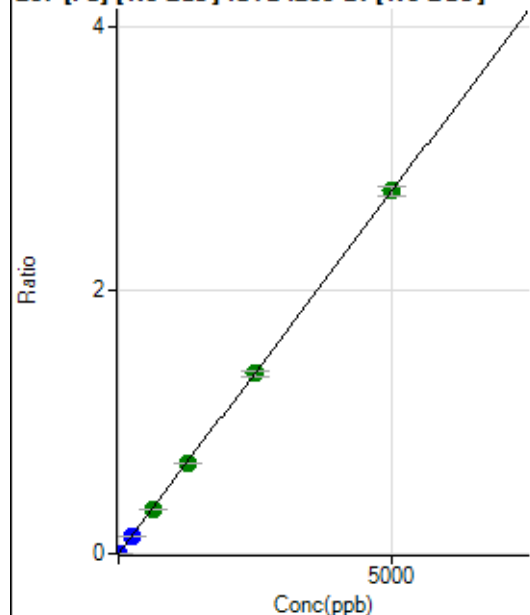
$$DL = 0.01968$$

$$BEC = 0.1081$$

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	394.46	0.0001	P	13.2
2	☐	1.000	0.933	3472.75	0.0006	P	7.7
3	☐	250.000	235.373	808188.31	0.1294	P	2.5
4	☐	625.000	614.330	2129881.21	0.3377	A	1.3
5	☐	1250.000	1254.277	4298238.67	0.6895	A	1.1
6	☐	2500.000	2484.606	8515743.19	1.3657	A	2.9
7	☐	5000.000	5008.693	16944694.13	2.7530	A	2.9
8	☐			3409.77	0.0006	P	2.2

$$y = 5.4964\text{E-}004 * x + 6.2387\text{E-}005$$

$$R = 1.0000$$

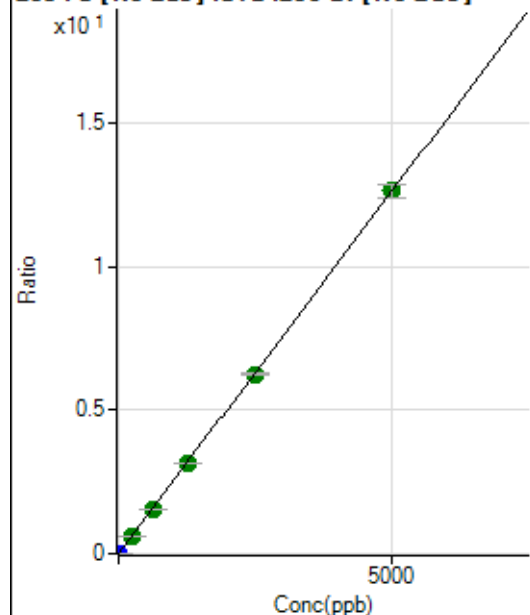
$$DL = 0.04499$$

$$BEC = 0.1135$$

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	1814.91	0.0003	P	6.9
2	☐	1.000	0.963	16402.55	0.0027	P	0.9
3	☐	250.000	242.005	3812797.96	0.6106	A	2.4
4	☐	625.000	616.411	9805464.95	1.5548	A	1.5
5	☐	1250.000	1248.835	19636595.32	3.1498	A	0.7
6	☐	2500.000	2479.975	39005267.83	6.2547	A	1.5
7	☐	5000.000	5011.777	77790047.58	12.6398	A	3.4
8	☐			15155.61	0.0027	P	6.6

$$y = 0.0025 * x + 2.8703\text{E-}004$$

$$R = 1.0000$$

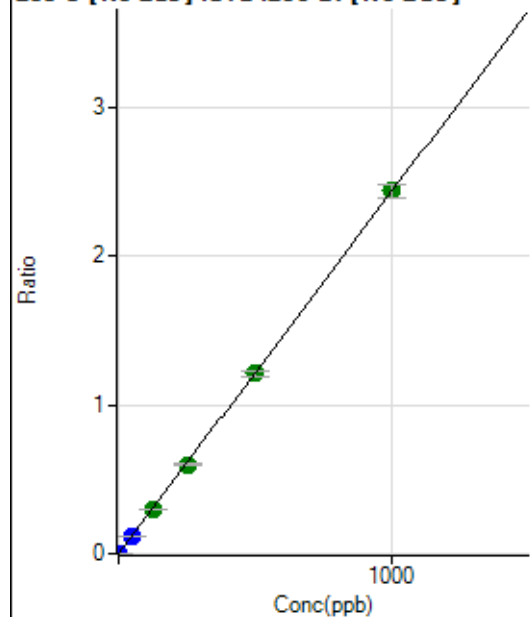
$$DL = 0.02367$$

$$BEC = 0.1138$$

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	22.22	0.0000	P	44.6
2	☐	1.000	0.973	14316.84	0.0024	P	1.5
3	☐	50.000	47.695	724234.84	0.1160	P	3.0
4	☐	125.000	121.802	1868079.21	0.2962	A	2.3
5	☐	250.000	246.565	3738517.01	0.5997	A	1.7
6	☐	500.000	497.018	7537426.47	1.2088	A	2.2
7	☐	1000.000	1002.865	15008630.02	2.4390	A	4.0
8	☐			1113.98	0.0002	P	25.5

$$y = 0.0024 * x + 3.5244E-006$$

$$R = 1.0000$$

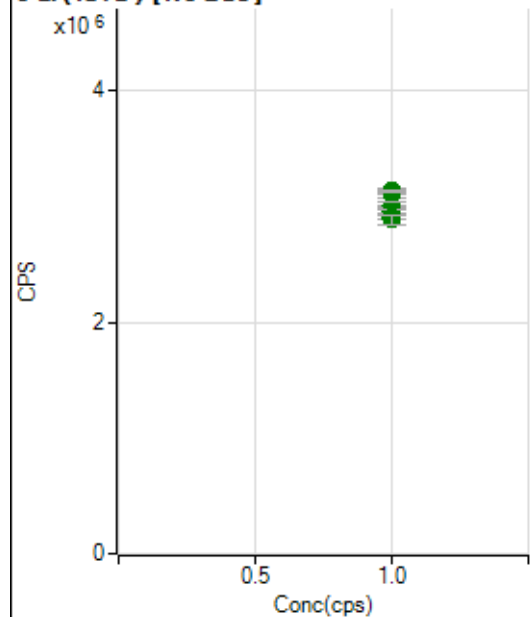
$$DL = 0.00194$$

$$BEC = 0.001449$$

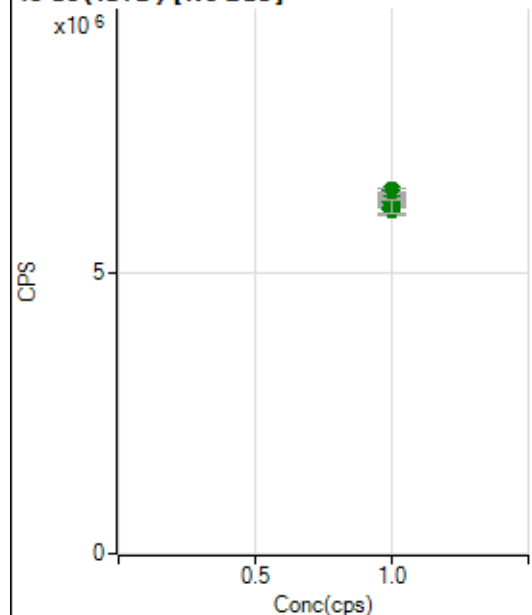
Weight: <None>

Min Conc: 0

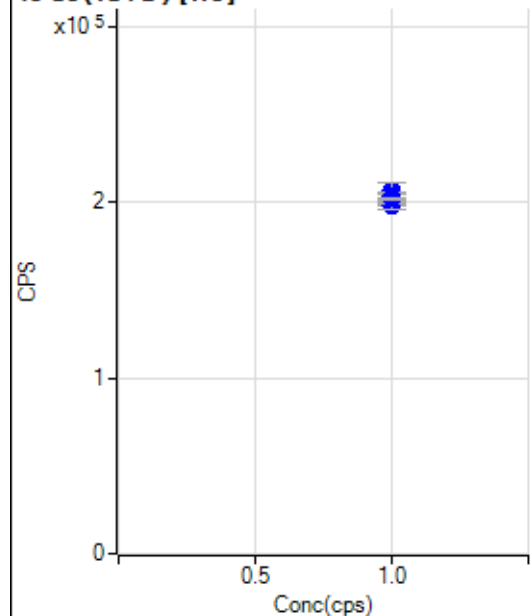
6 Li (ISTD) [No Gas]



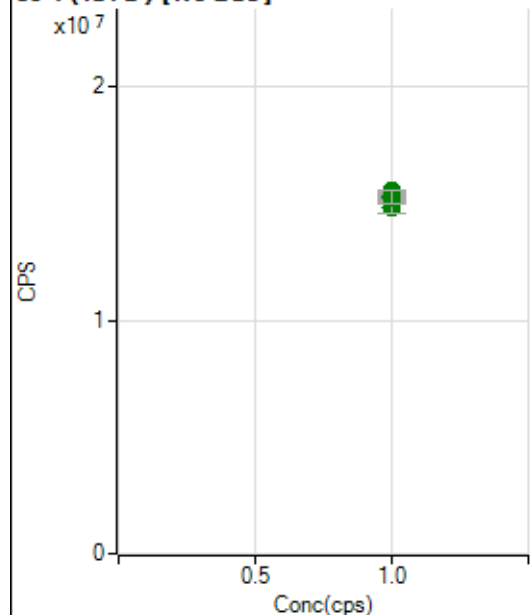
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3108150.50		A	2.6
2	☐	1.000		2991601.91		A	1.2
3	☐	1.000		3113391.59		A	0.4
4	☐	1.000		3133427.31		A	0.5
5	☐	1.000		3009578.70		A	1.7
6	☐	1.000		2952017.33		A	1.3
7	☐	1.000		2912752.78		A	1.1
8	☐	1.000		2881716.72		A	2.8

45 Sc (ISTD) [No Gas]

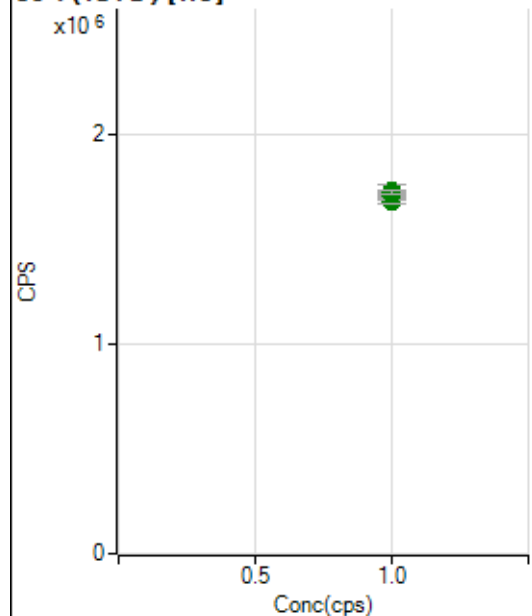
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6440837.54		A	1.5
2	☐	1.000		6101033.87		A	2.8
3	☐	1.000		6377957.47		A	1.1
4	☐	1.000		6317210.39		A	1.8
5	☐	1.000		6226345.12		A	1.0
6	☐	1.000		6263878.66		A	1.7
7	☐	1.000		6166884.63		A	0.3
8	☐	1.000		6160316.51		A	3.5

45 Sc (ISTD) [He]

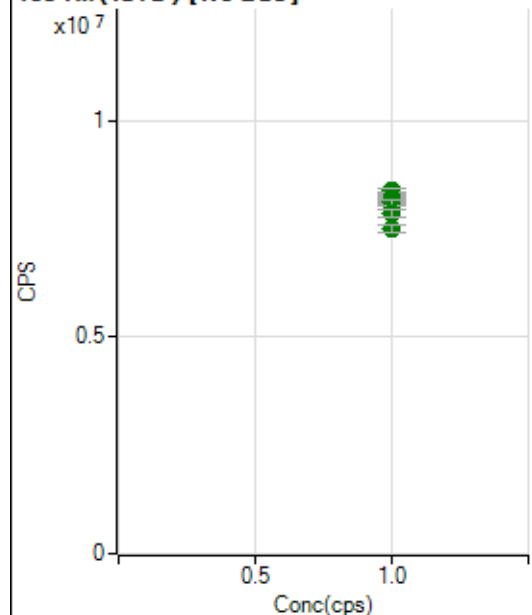
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		203438.30		P	1.2
2	☐	1.000		206342.06		P	4.1
3	☐	1.000		203505.24		P	1.6
4	☐	1.000		199440.71		P	1.5
5	☐	1.000		199570.41		P	0.8
6	☐	1.000		199934.53		P	0.7
7	☐	1.000		197872.13		P	1.6
8	☐	1.000		201864.50		P	0.3

89 Y (ISTD) [No Gas]

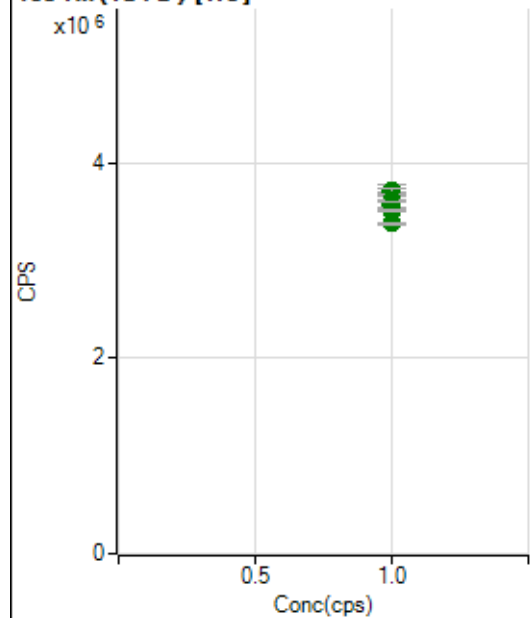
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15536087.13		A	0.7
2	☐	1.000		14816519.22		A	2.9
3	☐	1.000		15365383.38		A	1.0
4	☐	1.000		15358771.99		A	1.0
5	☐	1.000		15244903.66		A	1.1
6	☐	1.000		15355509.77		A	1.8
7	☐	1.000		15222239.63		A	2.7
8	☐	1.000		15288312.96		A	3.6

89 Y (ISTD) [He]

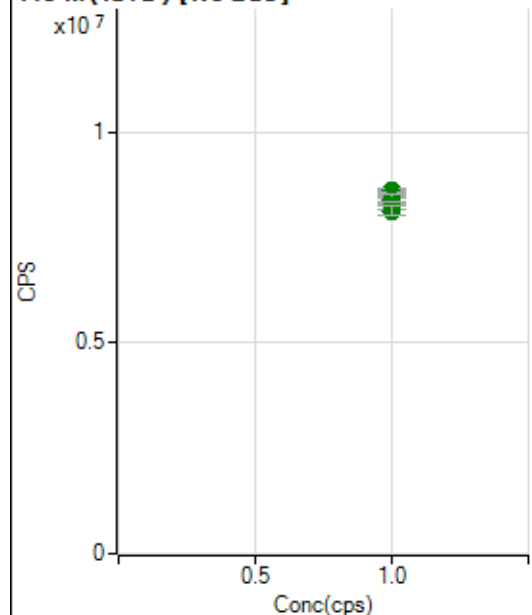
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1722989.96		A	0.5
2	☐	1.000		1733714.44		A	3.7
3	☐	1.000		1699035.35		A	1.4
4	☐	1.000		1712642.32		A	1.1
5	☐	1.000		1708694.13		A	2.0
6	☐	1.000		1680830.27		A	1.0
7	☐	1.000		1722675.55		A	0.6
8	☐	1.000		1723707.60		A	1.1

103 Rh (ISTD) [No Gas]

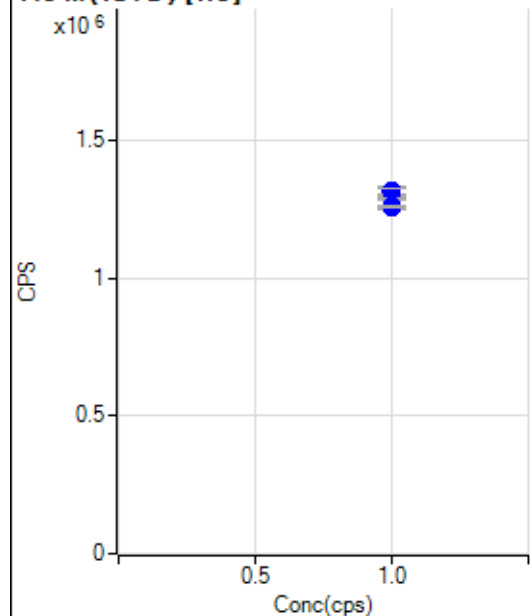
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8382364.86		A	1.1
2	☐	1.000		8059693.15		A	2.4
3	☐	1.000		8218903.83		A	1.9
4	☐	1.000		8238044.89		A	0.8
5	☐	1.000		8166780.74		A	1.8
6	☐	1.000		8110098.96		A	2.0
7	☐	1.000		7850761.29		A	2.4
8	☐	1.000		7507311.28		A	2.2

103 Rh (ISTD) [He]

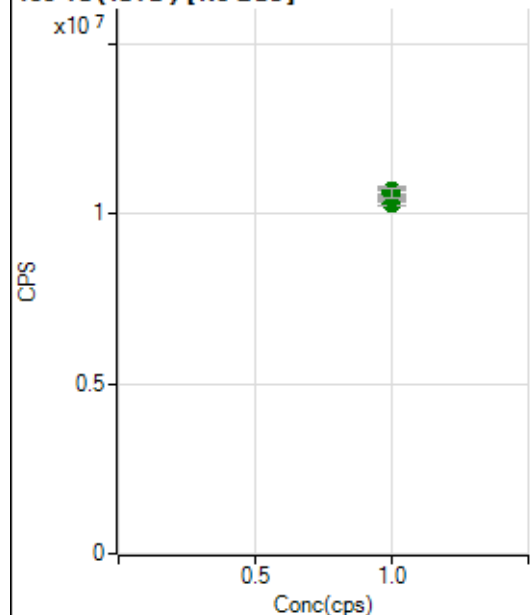
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3681330.02		A	1.1
2	☐	1.000		3689772.13		A	4.6
3	☐	1.000		3710174.60		A	1.8
4	☐	1.000		3580601.37		A	2.2
5	☐	1.000		3616067.90		A	0.4
6	☐	1.000		3565548.90		A	1.7
7	☐	1.000		3508880.64		A	0.5
8	☐	1.000		3376687.83		A	0.6

115 In (ISTD) [No Gas]

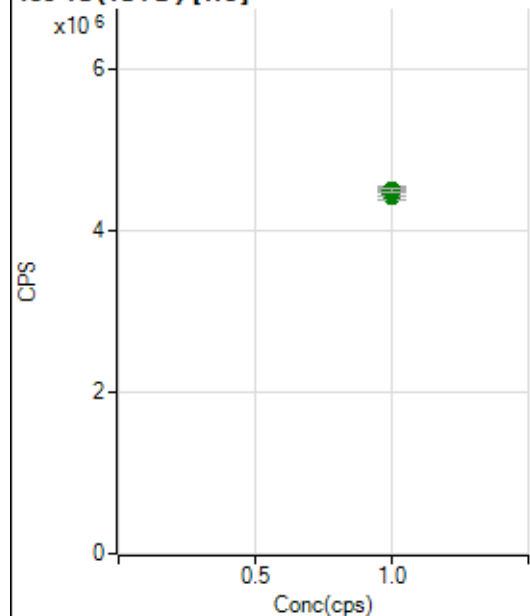
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8584866.64		A	1.2
2	☐	1.000		8390048.10		A	1.4
3	☐	1.000		8603547.15		A	1.0
4	☐	1.000		8392824.35		A	1.4
5	☐	1.000		8517758.58		A	1.2
6	☐	1.000		8400571.72		A	2.6
7	☐	1.000		8247785.49		A	2.2
8	☐	1.000		8127202.18		A	2.8

115 In (ISTD) [He]

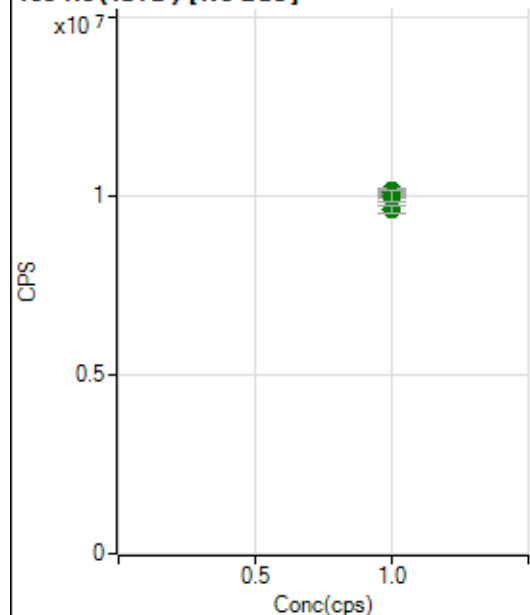
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1300717.06		P	1.5
2	☐	1.000		1316788.12		P	2.9
3	☐	1.000		1318645.56		P	1.4
4	☐	1.000		1292668.77		P	1.0
5	☐	1.000		1291244.41		P	0.7
6	☐	1.000		1263363.37		P	0.5
7	☐	1.000		1257061.29		P	0.7
8	☐	1.000		1263763.46		P	0.5

159 Tb (ISTD) [No Gas]

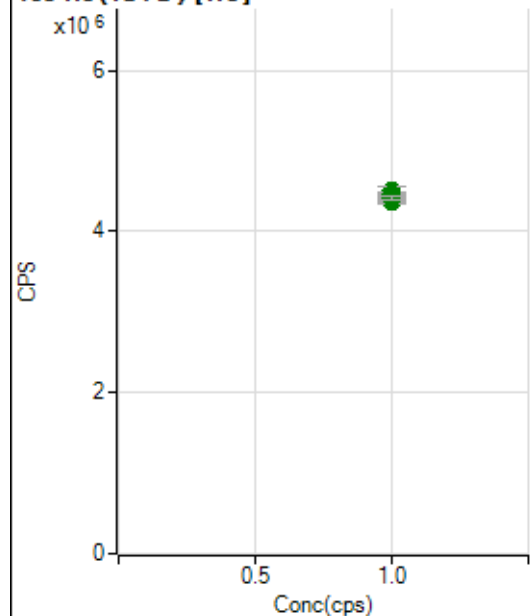
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10460620.05		A	0.4
2	☐	1.000		10282256.93		A	1.1
3	☐	1.000		10619889.63		A	1.4
4	☐	1.000		10539973.59		A	2.3
5	☐	1.000		10470151.58		A	0.1
6	☐	1.000		10664531.85		A	2.3
7	☐	1.000		10476594.91		A	1.6
8	☐	1.000		10597169.63		A	2.6

159 Tb (ISTD) [He]

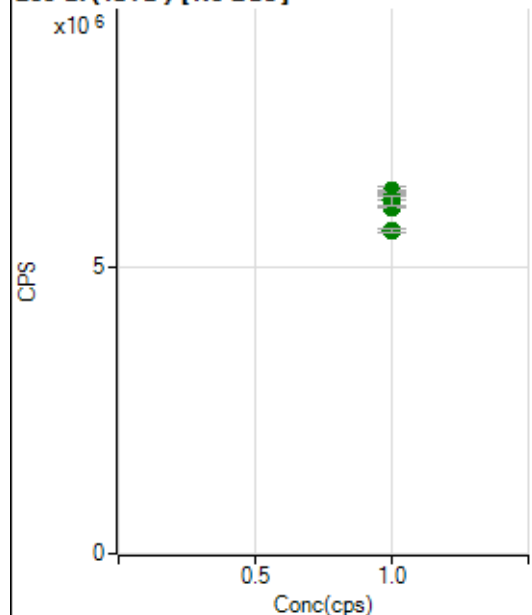
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4435380.11		A	2.8
2	☐	1.000		4459474.31		A	3.8
3	☐	1.000		4487607.50		A	2.3
4	☐	1.000		4489103.86		A	2.2
5	☐	1.000		4476810.42		A	1.9
6	☐	1.000		4488075.87		A	0.5
7	☐	1.000		4469194.69		A	1.8
8	☐	1.000		4494073.55		A	1.1

165 Ho (ISTD) [No Gas]

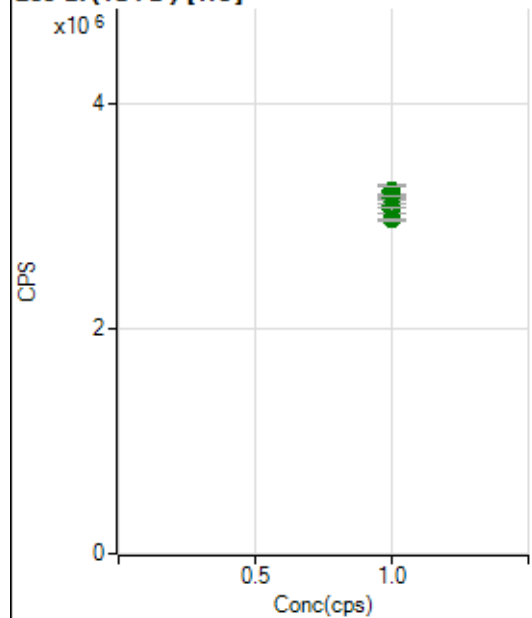
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10085148.83		A	1.3
2	☐	1.000		9642105.94		A	1.9
3	☐	1.000		10068755.35		A	1.2
4	☐	1.000		10000877.65		A	2.5
5	☐	1.000		10030885.38		A	0.5
6	☐	1.000		10156420.97		A	1.9
7	☐	1.000		10106082.52		A	2.6
8	☐	1.000		10016378.96		A	2.9

165 Ho (ISTD) [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4362181.22		A	0.6
2	☐	1.000		4501463.27		A	2.5
3	☐	1.000		4464409.27		A	0.9
4	☐	1.000		4407522.78		A	2.6
5	☐	1.000		4463596.53		A	1.3
6	☐	1.000		4436036.88		A	0.5
7	☐	1.000		4389001.98		A	1.8
8	☐	1.000		4424584.45		A	1.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6328935.67		A	2.1
2	☐	1.000		6039102.20		A	0.5
3	☐	1.000		6246626.92		A	2.6
4	☐	1.000		6306628.79		A	0.6
5	☐	1.000		6234294.22		A	0.3
6	☐	1.000		6237479.98		A	2.1
7	☐	1.000		6157581.72		A	2.5
8	☐	1.000		5634203.04		A	1.4

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3190984.53		A	0.6
2	☐	1.000		3222213.91		A	3.6
3	☐	1.000		3208567.10		A	3.3
4	☐	1.000		3181049.99		A	1.1
5	☐	1.000		3157678.88		A	1.3
6	☐	1.000		3087131.83		A	1.3
7	☐	1.000		3050560.54		A	1.6
8	☐	1.000		2963951.03		A	0.9

US EPA Tune Check Report

Operator Name Jaswal
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\IP8042023MS.b
Acq. Date-Time 2023-04-20 09:06:51
Report Comment ---
Instrument Name G8403A SG19224459

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		10480	104798.14			0.876	5.000
24		97284	972844.41			0.856	5.000
25		13031	130310.79			0.682	5.000
26		14677	146774.33			0.394	5.000
59		80912	809123.84			0.670	5.000
113		8419	84191.58			0.988	5.000
115		108038	1080375.65			1.464	5.000
206		22075	220751.10			1.483	5.000
207		20136	201363.55			1.644	5.000
208		47805	478050.11			1.150	5.000
220		1	5.30			51.066	

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
113	
115	
206	
207	
208	
220	

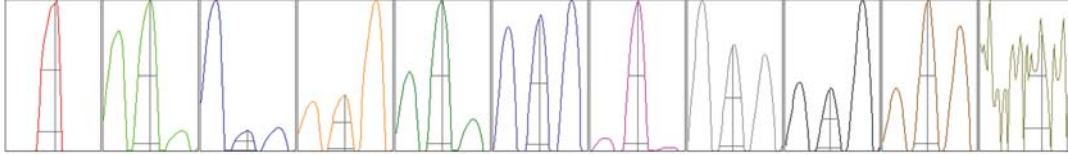
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	10569	10556	10405	10363	10505
24	97240	97378	96025	97417	98362
25	13125	13131	12972	12958	12969
26	14672	14757	14701	14657	14600
59	80827	80005	81163	81349	81218
113	8466	8431	8331	8341	8526
115	107759	110202	105858	108660	107709
206	21908	21962	21846	22010	22650
207	19783	19957	19995	20345	20603
208	47646	47333	47639	47649	48759

US EPA Tune Check Report

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
220	1	1	0	0	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	18305.51	9.10	8.90 - 9.10	
24	171731.20	24.00	23.90 - 24.10	
25	22944.66	25.00	24.90 - 25.10	
26	26017.77	26.00	25.90 - 26.10	
59	150312.31	59.00	58.90 - 59.10	
113	16848.19	113.00	112.90 - 113.10	
115	217943.11	115.05	114.90 - 115.10	
206	44070.96	205.95	205.90 - 206.10	
207	40507.82	206.95	206.90 - 207.10	
208	96494.09	207.95	207.90 - 208.10	
220	0.65	220.50	-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.58	0.751	0.900	
24	0.59	0.822	0.900	
25	0.59	0.774	0.900	
26	0.60	0.825	0.900	
59	0.56	0.771	0.900	
113	0.52	0.719	0.900	
115	0.51	0.762	0.900	
206	0.51	0.771	0.900	
207	0.50	0.775	0.900	
208	0.50	0.777	0.900	
220	0.54	0.805		

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.84 L/min Dilution Gas 0.40 L/min

US EPA Tune Check Report

RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.40 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	10.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	10.4 V	Deflect	16.0 V
Extract 2	-180.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	4.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	170 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9991	QP Bias	-4.0 V
Mass Offset	125	Axis Offset	0.00		

Hardware Settings

Torch

Torch H	1.2 mm	Torch V	-1.0 mm
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EM

Discriminator	4.5 mV	Analog HV	2316 V	Pulse HV	1698 V
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[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		16261	162609.59			0.687	
89		13271	132705.49			1.053	
205		15662	156624.86			1.519	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	16374	16375	16138	16250	16167
89	13432	13338	13202	13312	13068
205	15947	15689	15614	15763	15299

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.84 L/min	Dilution Gas	0.40 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.40 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	10.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	10.4 V	Deflect	4.4 V
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US EPA Tune Check Report

Extract 2	-180.0 V	Cell Entrance	-50 V	Plate Bias	-60 V
Omega Bias	-90 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	4.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	190 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9991	QP Bias	-13.0 V
Mass Offset	125	Axis Offset	0.00		

Hardware Settings

Torch

Torch H	1.2 mm	Torch V	-1.0 mm
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EM

Discriminator	4.5 mV	Analog HV	2316 V	Pulse HV	1698 V
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