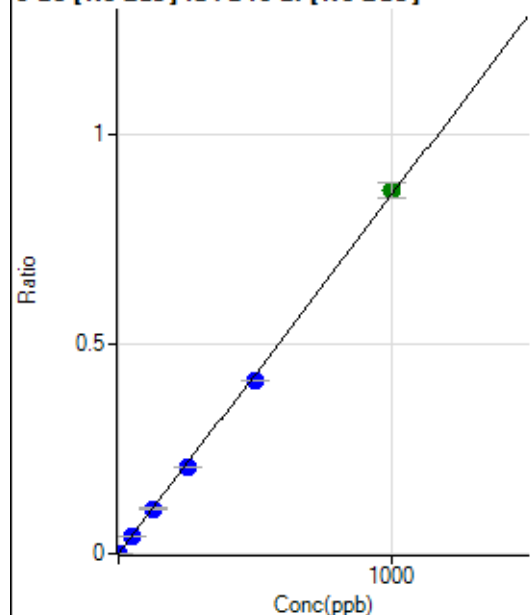


Batch Folder: D:\P8121018 MS.b\
Analysis File: P8121018 MS.batch.bin
DA Date-Time: 2018-12-10 18:32:24
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-12-10 14:32:44
2			
3	005CALS.d	S02	2018-12-10 14:40:22
4	006CALS.d	S03	2018-12-10 14:44:07
5	007CALS.d	S04	2018-12-10 14:47:51
6	008CALS.d	S05	2018-12-10 14:51:28
7	009CALS.d	S06	2018-12-10 14:54:59
8	010CALS.d	S07	2018-12-10 14:58:26
9	011CALS.d	S08	2018-12-10 15:01:44

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26.67	0.0000	P	34.7
2	☐	0.100					
3	☐	1.000	0.866	1413.43	0.0008	P	5.3
4	☐	50.000	50.018	80930.15	0.0428	P	1.8
5	☐	125.000	125.518	200284.55	0.1074	P	3.7
6	☐	250.000	241.240	390126.45	0.2064	P	0.9
7	☐	500.000	481.456	763333.94	0.4120	P	0.7
8	☐	1000.000	1011.397	1489822.77	0.8654	A	4.2
9	☐			170.01	0.0001	P	19.5

$$y = 8.5563\text{E-}004 * x + 1.4532\text{E-}005$$

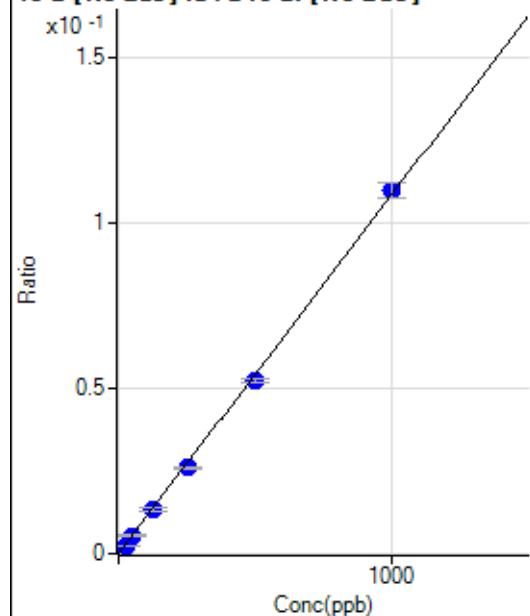
$$R = 0.9997$$

$$DL = 0.0177$$

$$BEC = 0.01698$$

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	150.01	0.0001	P	12.3
2	☐	2.500					
3	☐	25.000	22.616	4737.09	0.0025	P	2.2
4	☐	50.000	48.798	10148.40	0.0054	P	6.7
5	☐	125.000	122.273	24855.78	0.0133	P	7.4
6	☐	250.000	240.027	49321.63	0.0261	P	2.4
7	☐	500.000	482.996	97150.12	0.0524	P	2.5
8	☐	1000.000	1011.456	188877.16	0.1097	P	4.4
9	☐			4225.82	0.0024	P	10.0

$$y = 1.0840\text{E-}004 * x + 8.1552\text{E-}005$$

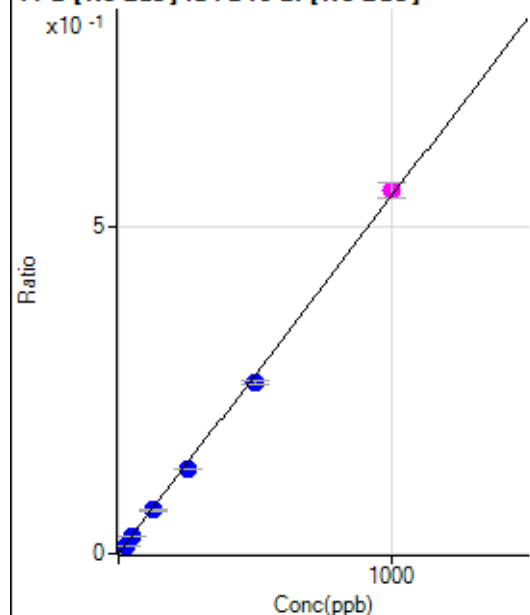
$$R = 0.9997$$

$$DL = 0.2771$$

$$BEC = 0.7524$$

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	727.83	0.0004	P	9.1
2	☐	2.500					
3	☐	25.000	21.762	22991.52	0.0123	P	3.6
4	☐	50.000	48.345	50718.43	0.0268	P	2.4
5	☐	125.000	122.564	125723.03	0.0674	P	3.9
6	☐	250.000	235.952	244596.94	0.1294	P	2.0
7	☐	500.000	478.231	485299.61	0.2619	P	1.6
8	☐	1000.000	1014.865	956138.52	0.5554	M	4.2
9	☐			20827.04	0.0120	P	6.7

$$y = 5.4686\text{E-}004 * x + 3.9492\text{E-}004$$

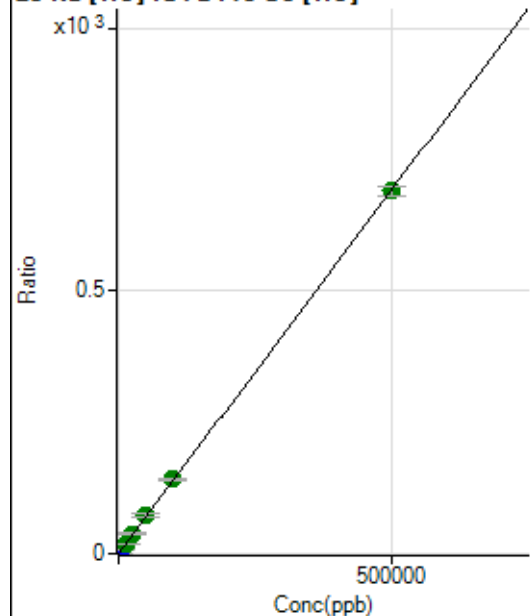
$$R = 0.9996$$

$$DL = 0.1974$$

$$BEC = 0.7221$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11324.46	0.1217	P	0.7
2	☐	50.000					
3	☐	500.000	493.982	75061.61	0.8047	P	2.2
4	☐	5000.000	5724.858	726273.51	8.0368	P	0.9
5	☐	12500.000	14023.858	1792625.52	19.5109	A	2.0
6	☐	25000.000	27492.027	3481766.62	38.1317	A	4.6
7	☐	50000.000	54058.273	6850989.56	74.8616	A	10.1
8	☐	100000.00	101983.69	13280492.66	141.1224	A	1.1
9	☐	500000.00	499027.49	65921201.48	690.0671	A	2.9

$$y = 0.0014 * x + 0.1217$$

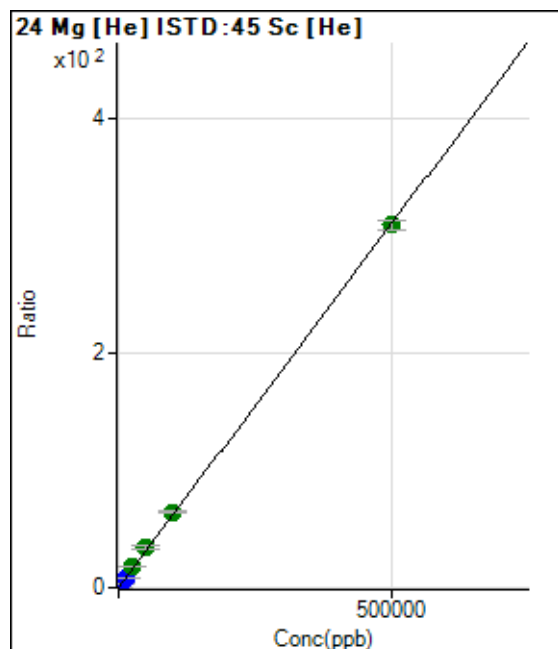
$$R = 1.0000$$

$$DL = 1.832$$

$$BEC = 88.06$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	305.57	0.0033	P	15.3
2	☐	50.000					
3	☐	500.000	517.229	30199.77	0.3238	P	2.7
4	☐	5000.000	5921.911	331879.88	3.6727	P	0.1
5	☐	12500.000	14187.593	807890.36	8.7944	P	2.9
6	☐	25000.000	28492.759	1612406.55	17.6583	A	4.5
7	☐	50000.000	55821.335	3166584.69	34.5920	A	9.6
8	☐	100000.00	104189.82	6075739.94	64.5627	A	1.0
9	☐	500000.00	498353.83	29499414.55	308.7995	A	2.9

$$y = 6.1963\text{E-}004 * x + 0.0033$$

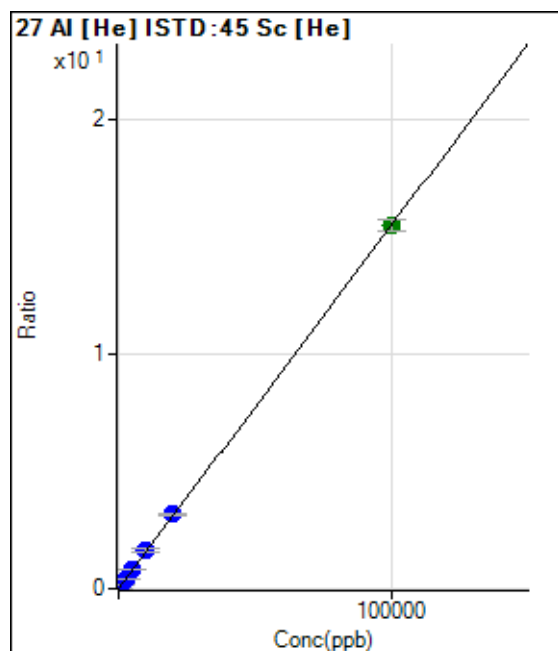
$$R = 0.9999$$

$$DL = 2.436$$

$$BEC = 5.304$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	46.68	0.0005	P	28.8
2	☐	2.000					
3	☐	20.000	19.320	325.93	0.0035	P	13.1
4	☐	1000.000	1131.202	15892.94	0.1759	P	2.1
5	☐	2500.000	2700.793	38510.71	0.4192	P	2.8
6	☐	5000.000	5350.212	75786.24	0.8300	P	4.4
7	☐	10000.000	10728.922	152292.02	1.6638	P	9.8
8	☐	20000.000	20478.487	298817.49	3.1753	P	1.1
9	☐	100000.00	99807.568	1478172.11	15.4739	A	3.1

$$y = 1.5503\text{E-}004 * x + 5.0125\text{E-}004$$

$$R = 1.0000$$

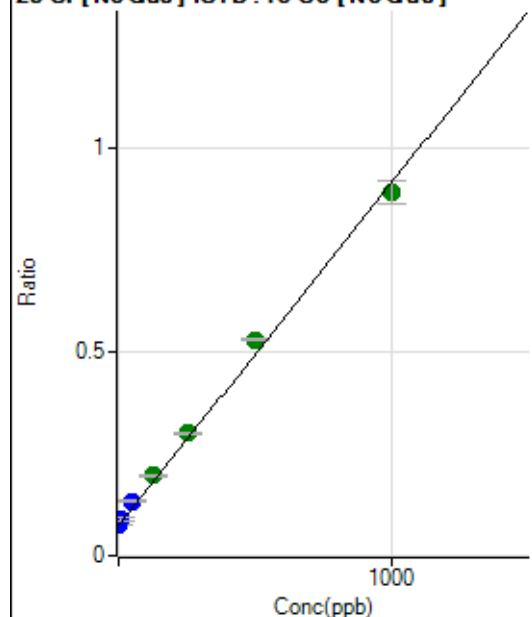
$$DL = 2.795$$

$$BEC = 3.233$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	407838.95	0.0734	P	0.7
2	☐	1.000					
3	☐	10.000	19.467	481243.51	0.0898	P	9.6
4	☐	50.000	71.791	724343.05	0.1337	P	3.0
5	☐	125.000	146.294	1056581.63	0.1963	A	3.2
6	☐	250.000	268.807	1660062.88	0.2991	A	1.7
7	☐	500.000	541.850	2895297.12	0.5284	A	0.7
8	☐	1000.000	970.528	4622996.54	0.8884	A	6.4
9	☐			615994.71	0.1152	P	2.2

$$y = 8.3971\text{E-}004 * x + 0.0734$$

$$R = 0.9985$$

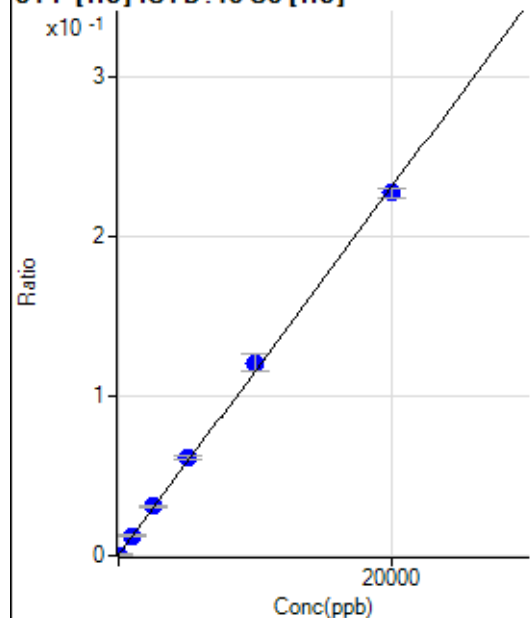
$$DL = 1.958$$

$$BEC = 87.44$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-12.917	25.00	0.0003	P	33.0
2	☐	0.000					
3	☐	0.000	12.917	52.78	0.0006	P	25.3
4	☐	1000.000	1052.186	1136.21	0.0126	P	6.5
5	☐	2500.000	2659.224	2861.54	0.0311	P	5.3
6	☐	5000.000	5268.823	5593.02	0.0613	P	4.9
7	☐	10000.000	10450.642	11090.95	0.1211	P	9.0
8	☐	20000.000	19684.961	21428.15	0.2277	P	2.7
9	☐			41.67	0.0004	P	36.6

$$y = 1.1547\text{E-}005 * x + 4.1768\text{E-}004$$

$$R = 0.9995$$

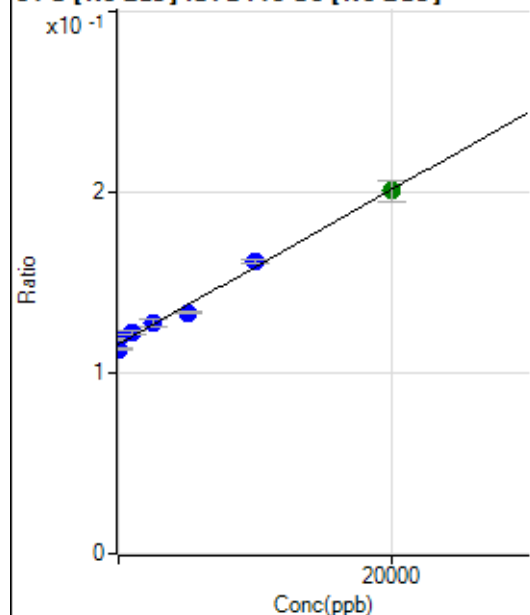
$$DL = 30.13$$

$$BEC = 36.17$$

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	-670.206	627641.52	0.1130	P	0.6
2	☐	0.000					
3	☐	0.000	670.206	636057.93	0.1187	P	1.3
4	☐	1000.000	1434.181	660938.30	0.1220	P	2.2
5	☐	2500.000	2726.942	686338.14	0.1275	P	3.6
6	☐	5000.000	4095.517	740094.30	0.1334	P	0.8
7	☐	10000.000	10729.141	885933.67	0.1617	P	1.6
8	☐	20000.000	19811.474	1043613.36	0.2005	A	6.1
9	☐			546054.93	0.1021	P	2.2

$$y = 4.2732\text{E-}006 * x + 0.1159$$

$$R = 0.9961$$

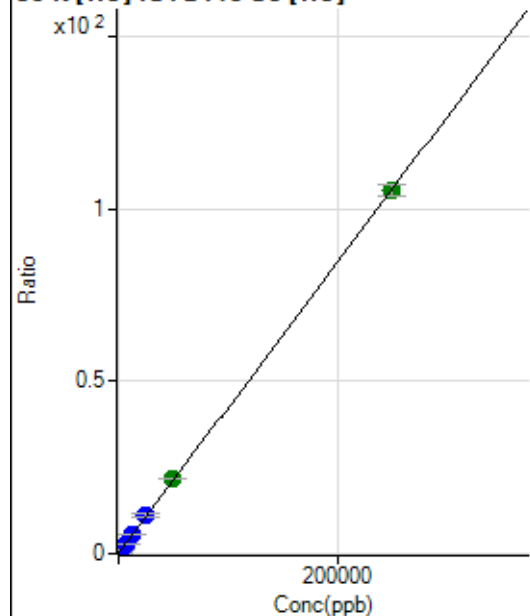
$$DL = 791.8$$

$$BEC = 2.711\text{E}+04$$

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	8347.23	0.0898	P	4.9
2	☐	50.000					
3	☐	500.000	476.252	27074.30	0.2902	P	0.9
4	☐	2500.000	2767.184	113370.71	1.2545	P	1.1
5	☐	6250.000	6737.275	268750.62	2.9256	P	2.9
6	☐	12500.000	13373.285	522265.13	5.7187	P	3.9
7	☐	25000.000	26731.342	1038093.60	11.3413	P	9.8
8	☐	50000.000	51162.904	2035034.21	21.6249	A	1.0
9	☐	250000.00	249535.81	10042020.80	105.1225	A	3.1

$$y = 4.2091\text{E-}004 * x + 0.0898$$

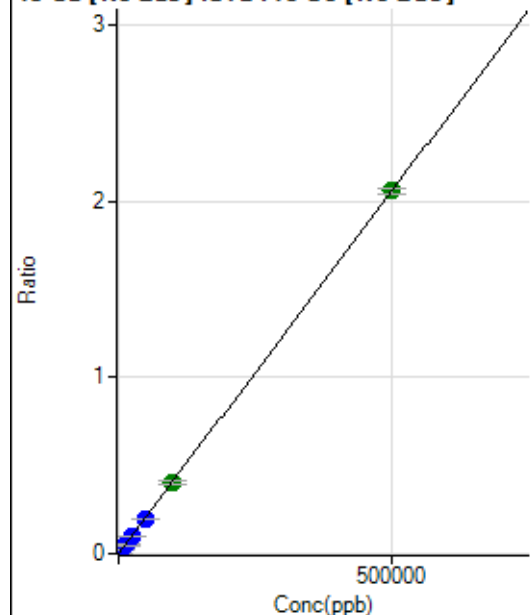
$$R = 1.0000$$

$$DL = 31.49$$

$$BEC = 213.3$$

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD:45 Sc [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	693.36	0.0001	P	2.5
2	☐	50.000					
3	☐	500.000	440.703	10380.63	0.0019	P	0.5
4	☐	5000.000	4799.849	107643.93	0.0199	P	2.1
5	☐	12500.000	12060.905	267658.07	0.0497	P	4.1
6	☐	25000.000	23153.026	529143.18	0.0954	P	1.5
7	☐	50000.000	46806.774	1055455.91	0.1926	P	1.1
8	☐	100000.00	98013.843	2098785.46	0.4032	A	5.9
9	☐	500000.00	500821.94	11015753.03	2.0600	A	1.5

$$y = 4.1129\text{E-}006 * x + 1.2483\text{E-}004$$

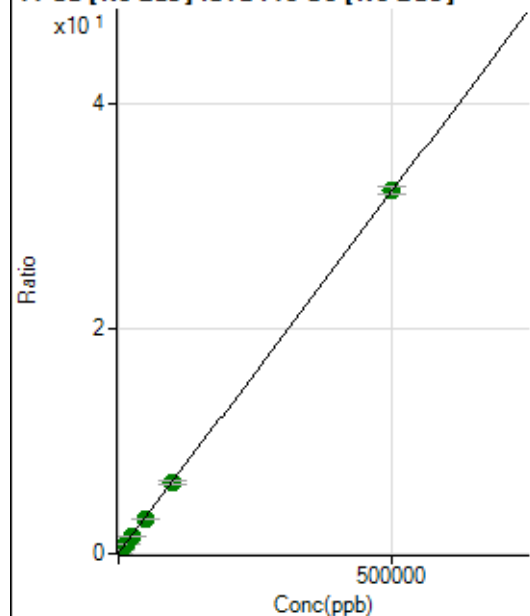
$$R = 1.0000$$

$$DL = 2.26$$

$$BEC = 30.35$$

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	284127.49	0.0511	P	0.3
2	☐	50.000					
3	☐	500.000	470.302	435765.83	0.0813	P	0.4
4	☐	5000.000	5023.304	2023711.10	0.3735	A	2.5
5	☐	12500.000	12155.871	4474716.08	0.8312	A	3.4
6	☐	25000.000	23157.835	8531506.82	1.5373	A	0.8
7	☐	50000.000	46611.525	16669167.53	3.0424	A	1.3
8	☐	100000.00	96479.313	32494745.35	6.2427	A	5.7
9	☐	500000.00	501143.49	172237240.7	32.2118	A	2.3

$$y = 6.4175\text{E-}005 * x + 0.0511$$

$$R = 1.0000$$

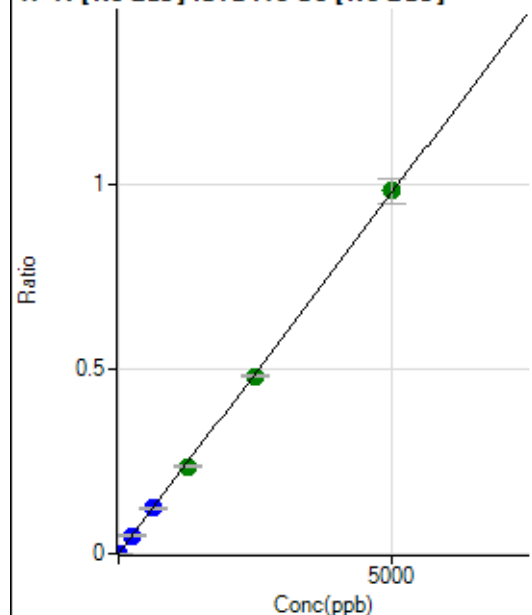
$$DL = 7.981$$

$$BEC = 797$$

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	236.12	0.0000	P	40.8
2	☐	0.500					
3	☐	5.000	4.822	5281.79	0.0010	P	8.3
4	☐	250.000	250.057	265315.02	0.0490	P	3.3
5	☐	625.000	628.720	662507.42	0.1231	P	3.7
6	☐	1250.000	1210.971	1315268.15	0.2370	A	2.2
7	☐	2500.000	2463.302	2641550.97	0.4821	A	0.5
8	☐	5000.000	5027.639	5119436.35	0.9839	A	6.7
9	☐			1844.65	0.0003	P	11.1

$$y = 1.9569E-004 * x + 4.2552E-005$$

$$R = 0.9999$$

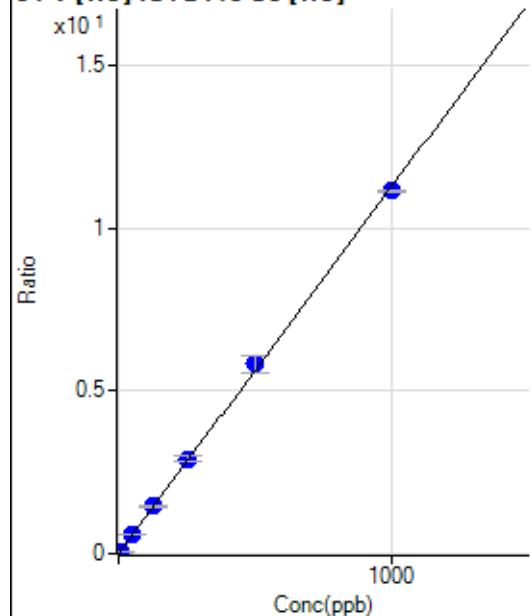
$$DL = 0.2661$$

$$BEC = 0.2174$$

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	18.89	0.0002	P	26.6
2	☐	0.500					
3	☐	5.000	4.868	5135.48	0.0550	P	1.6
4	☐	50.000	53.538	54524.61	0.6034	P	0.9
5	☐	125.000	129.059	133570.56	1.4542	P	3.6
6	☐	250.000	258.726	266163.91	2.9150	P	4.7
7	☐	500.000	516.698	532827.84	5.8214	P	9.8
8	☐	1000.000	988.786	1048358.99	11.1400	P	0.7
9	☐			361.12	0.0038	P	6.2

$$y = 0.0113 * x + 2.0286E-004$$

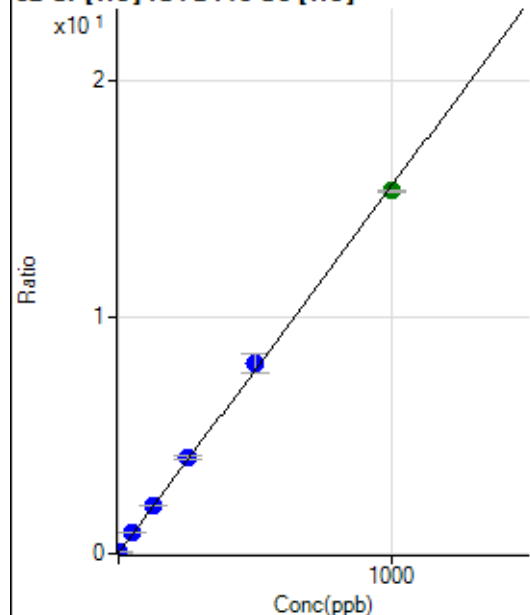
$$R = 0.9997$$

$$DL = 0.01435$$

$$BEC = 0.01801$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1473.44	0.0158	P	0.9
2	☐	0.200					
3	☐	2.000	1.927	4268.49	0.0458	P	1.4
4	☐	50.000	54.300	77618.32	0.8589	P	1.1
5	☐	125.000	130.177	187111.76	2.0369	P	3.2
6	☐	250.000	260.582	370911.75	4.0616	P	4.0
7	☐	500.000	518.649	738323.09	8.0682	P	10.2
8	☐	1000.000	987.168	1443898.69	15.3423	A	0.6
9	☐			57647.05	0.6034	P	2.8

$$y = 0.0155 * x + 0.0158$$

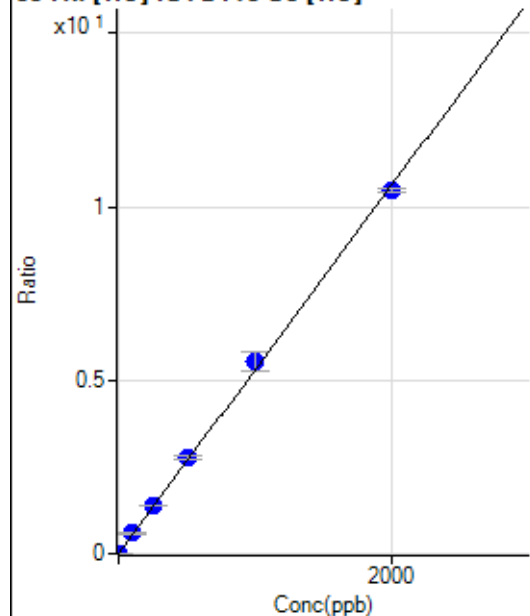
$$R = 0.9997$$

$$DL = 0.02745$$

$$BEC = 1.02$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64.45	0.0007	P	25.7
2	☐	0.100					
3	☐	1.000	0.951	535.58	0.0057	P	6.9
4	☐	100.000	110.004	52811.83	0.5844	P	1.3
5	☐	250.000	261.557	127546.77	1.3885	P	3.1
6	☐	500.000	523.206	253574.54	2.7768	P	4.1
7	☐	1000.000	1043.234	506716.92	5.5360	P	9.8
8	☐	2000.000	1970.636	984040.35	10.4567	P	1.1
9	☐			6400.46	0.0670	P	5.6

$$y = 0.0053 * x + 6.9263E-004$$

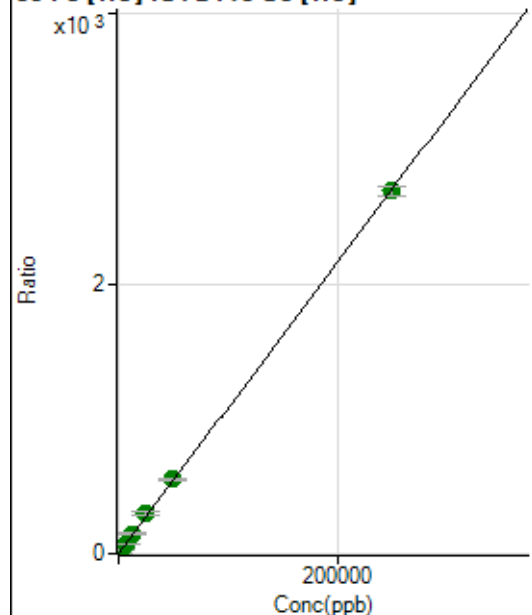
$$R = 0.9996$$

$$DL = 0.1008$$

$$BEC = 0.1305$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3300.48	0.0355	P	3.4
2	☐	5.000					
3	☐	50.000	53.241	56815.98	0.6091	P	1.7
4	☐	2500.000	2891.966	2818900.87	31.1925	A	0.8
5	☐	6250.000	6831.897	6764966.82	73.6400	A	2.8
6	☐	12500.000	13628.292	13410884.21	146.8619	A	4.3
7	☐	25000.000	27190.977	26812070.28	292.9816	A	10.1
8	☐	50000.000	50992.054	51703823.84	549.4060	A	0.7
9	☐	250000.00	249507.60	256804935.3	2,688.143	A	2.7

$$y = 0.0108 * x + 0.0355$$

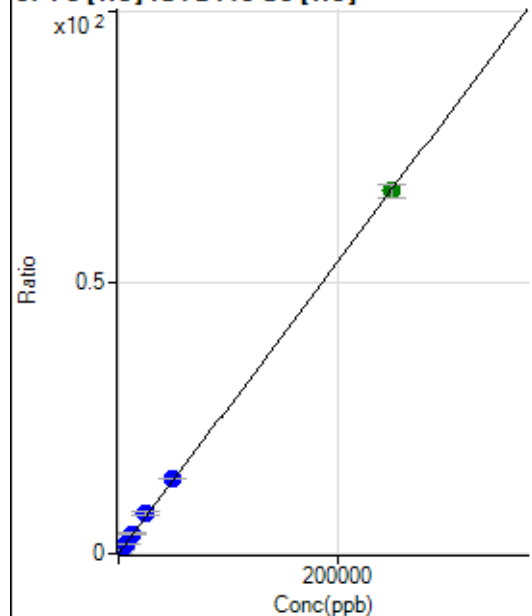
$$R = 1.0000$$

$$DL = 0.3344$$

$$BEC = 3.293$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	87.04	0.0009	P	9.0
2	☐	5.000					
3	☐	50.000	55.260	1468.65	0.0157	P	2.6
4	☐	2500.000	2864.146	69441.22	0.7685	P	1.1
5	☐	6250.000	6867.443	169184.15	1.8414	P	2.0
6	☐	12500.000	13685.986	335072.17	3.6688	P	3.6
7	☐	25000.000	27180.604	666696.68	7.2853	P	10.1
8	☐	50000.000	51363.662	1295536.04	13.7663	P	0.4
9	☐	250000.00	249430.82	6385236.43	66.8480	A	3.5

$$y = 2.6800E-004 * x + 9.3537E-004$$

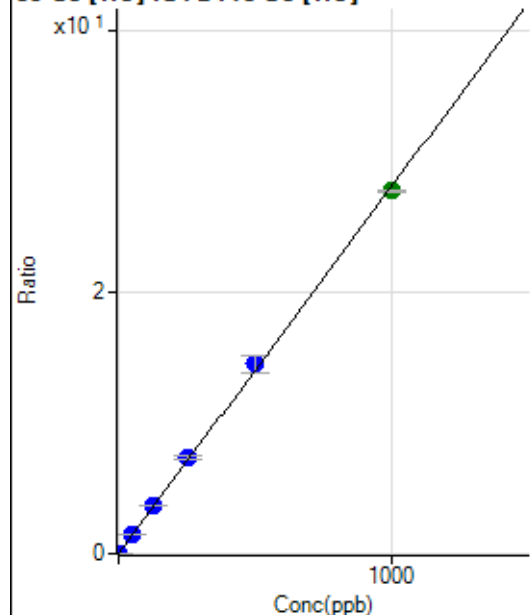
$$R = 1.0000$$

$$DL = 0.946$$

$$BEC = 3.49$$

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	173.34	0.0019	P	7.8
2	☐	0.100					
3	☐	1.000	0.991	2768.11	0.0297	P	2.5
4	☐	50.000	54.170	137547.55	1.5221	P	0.4
5	☐	125.000	130.601	336886.39	3.6670	P	2.5
6	☐	250.000	260.402	667572.81	7.3097	P	3.8
7	☐	500.000	516.264	1326298.35	14.4902	P	9.8
8	☐	1000.000	988.359	2610526.26	27.7390	A	0.4
9	☐			32197.34	0.3371	P	4.1

$$y = 0.0281 * x + 0.0019$$

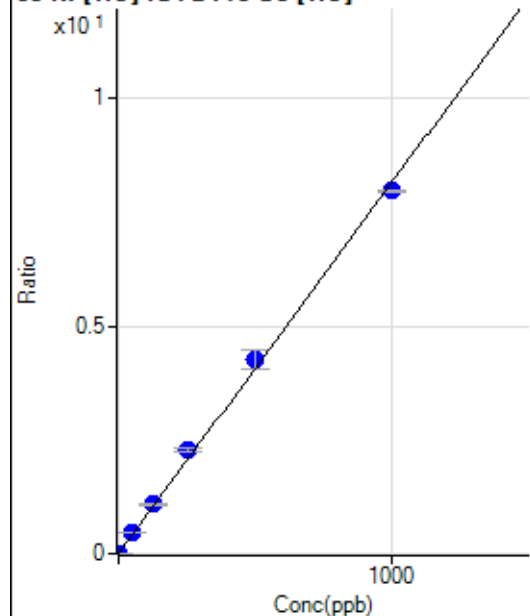
$$R = 0.9997$$

$$DL = 0.01552$$

$$BEC = 0.06639$$

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.34	0.0010	P	10.1
2	☐	0.100					
3	☐	1.000	0.994	848.93	0.0091	P	5.6
4	☐	50.000	55.732	41112.89	0.4550	P	0.9
5	☐	125.000	133.647	100102.25	1.0896	P	2.7
6	☐	250.000	280.777	208944.41	2.2881	P	4.2
7	☐	500.000	524.318	391035.88	4.2719	P	9.7
8	☐	1000.000	978.780	750404.22	7.9738	P	0.5
9	☐			25562.56	0.2676	P	2.8

$$y = 0.0081 * x + 0.0010$$

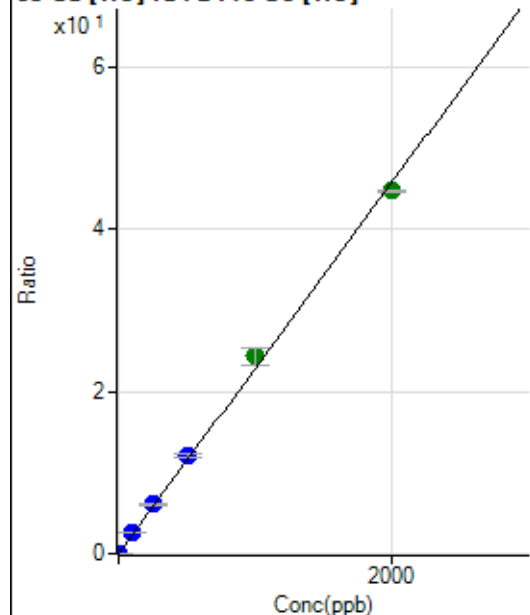
$$R = 0.9990$$

$$DL = 0.03735$$

$$BEC = 0.1232$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	334.45	0.0036	P	3.5
2	☐	0.200					
3	☐	2.000	1.918	4429.66	0.0475	P	1.6
4	☐	100.000	111.065	229932.86	2.5445	P	0.2
5	☐	250.000	267.027	561582.30	6.1127	P	2.4
6	☐	500.000	532.339	1112574.53	12.1825	P	3.9
7	☐	1000.000	1063.620	2227783.00	24.3372	A	9.7
8	☐	2000.000	1957.424	4214739.73	44.7857	A	0.5
9	☐			9314.37	0.0975	P	3.8

$$y = 0.0229 * x + 0.0036$$

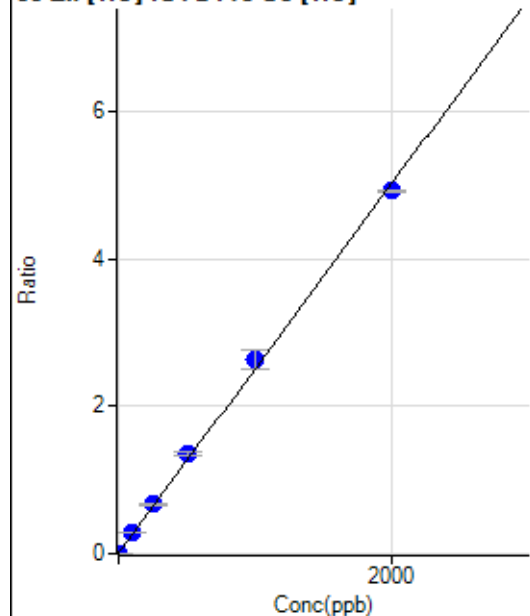
$$R = 0.9991$$

$$DL = 0.0165$$

$$BEC = 0.1572$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	366.56	0.0039	P	10.6
2	☐	0.200					
3	☐	2.000	2.592	973.45	0.0104	P	6.0
4	☐	100.000	111.368	25594.84	0.2833	P	1.0
5	☐	250.000	267.640	62023.21	0.6752	P	3.2
6	☐	500.000	536.232	123170.78	1.3489	P	4.3
7	☐	1000.000	1050.795	241638.02	2.6394	P	9.5
8	☐	2000.000	1962.771	463642.55	4.9267	P	0.7
9	☐			4742.74	0.0496	P	0.7

$$y = 0.0025 * x + 0.0039$$

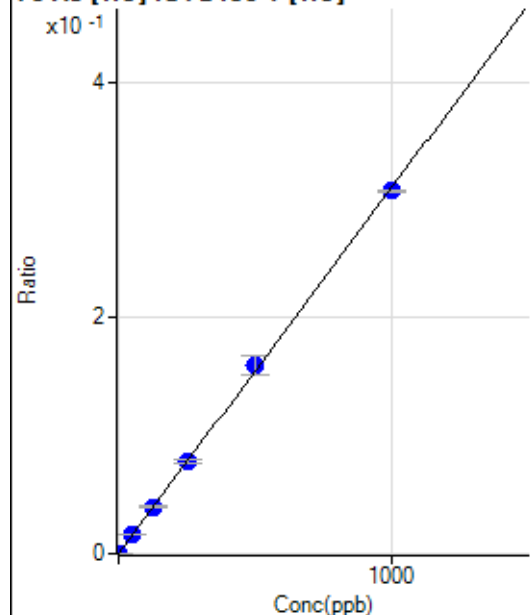
$$R = 0.9993$$

$$DL = 0.4979$$

$$BEC = 1.57$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	9.88	0.0000	P	28.1
2	☐	0.100					
3	☐	1.000	0.857	153.71	0.0003	P	12.7
4	☐	50.000	52.281	8517.50	0.0162	P	0.7
5	☐	125.000	126.711	20989.46	0.0394	P	3.3
6	☐	250.000	253.560	41546.82	0.0787	P	3.7
7	☐	500.000	513.944	83682.77	0.1596	P	9.8
8	☐	1000.000	991.810	164273.66	0.3079	P	0.4
9	☐			222.23	0.0004	P	6.3

$$y = 3.1047\text{E-}004 * x + 1.8462\text{E-}005$$

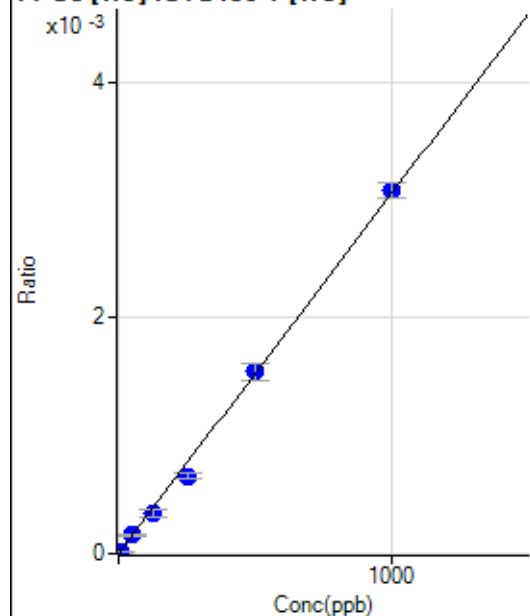
$$R = 0.9998$$

$$DL = 0.05014$$

$$BEC = 0.05947$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	4.722	8.89	0.0000	P	94.0
4	☐	50.000	51.325	83.34	0.0002	P	12.7
5	☐	125.000	111.269	182.23	0.0003	P	15.5
6	☐	250.000	215.463	347.79	0.0007	P	7.9
7	☐	500.000	505.141	811.15	0.0015	P	9.9
8	☐	1000.000	1007.715	1642.35	0.0031	P	4.4
9	☐			1.11	0.0000	P	173.

$$y = 3.0529\text{E-}006 * x + 2.0666\text{E-}006$$

$$R = 0.9993$$

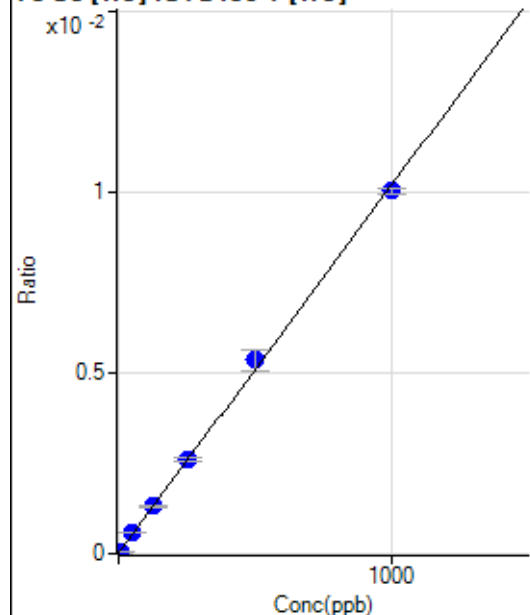
$$DL = 3.517$$

$$BEC = 0.6769$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.17	0.0000	P	75.9
2	☐	0.500					
3	☐	5.000	4.348	30.25	0.0001	P	33.0
4	☐	50.000	55.121	300.63	0.0006	P	2.3
5	☐	125.000	127.496	699.41	0.0013	P	6.1
6	☐	250.000	256.026	1382.80	0.0026	P	5.2
7	☐	500.000	526.236	2817.60	0.0054	P	10.8
8	☐	1000.000	984.811	5361.59	0.0101	P	1.9
9	☐			7.41	0.0000	P	42.3

$$y = 1.0194\text{E-}005 * x + 1.1582\text{E-}005$$

$$R = 0.9995$$

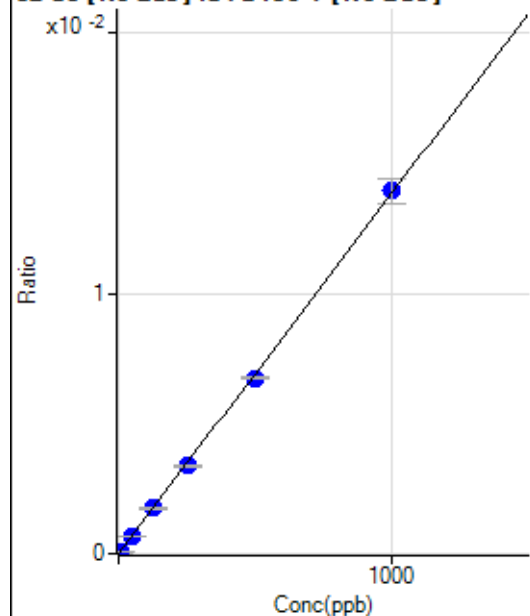
$$DL = 2.587$$

$$BEC = 1.136$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-44.75	0.0000	P	-57.
2	☐	0.500					
3	☐	5.000	5.514	538.97	0.0001	P	16.9
4	☐	50.000	50.647	5382.28	0.0007	P	0.1
5	☐	125.000	126.345	13503.24	0.0017	P	3.5
6	☐	250.000	243.183	26910.32	0.0034	P	1.6
7	☐	500.000	487.088	53634.53	0.0067	P	0.8
8	☐	1000.000	1007.958	104232.06	0.0139	P	6.6
9	☐			134.98	0.0000	P	29.8

$$y = 1.3835\text{E-}005 * x - 5.8303\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.7212$$

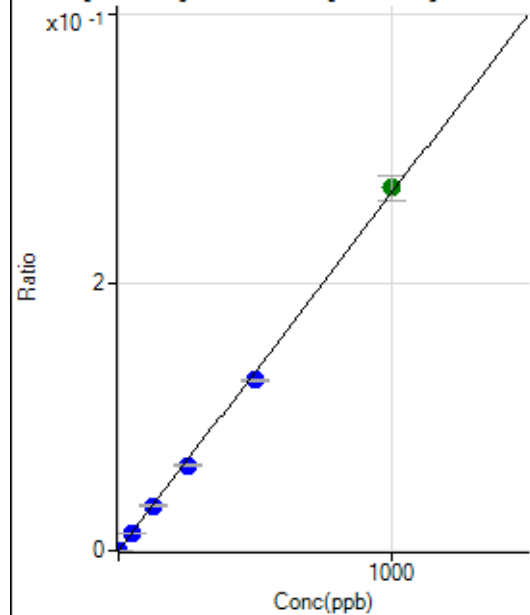
$$BEC = -0.4214$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1034.50		P	4.3
2	☐						
3	☐			991.17		P	9.2
4	☐			986.72		P	8.2
5	☐			1045.61		P	7.0
6	☐			1002.27		P	4.3
7	☐			1001.17		P	7.0
8	☐			987.83		P	6.1
9	☐			944.50		P	7.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1630.73	0.0002	P	9.5
2	☐	0.100					
3	☐	1.000	0.894	3450.63	0.0005	P	4.1
4	☐	50.000	49.823	104562.61	0.0135	P	0.7
5	☐	125.000	124.061	258023.39	0.0333	P	4.7
6	☐	250.000	237.579	509384.39	0.0636	P	1.8
7	☐	500.000	476.803	1014678.39	0.1274	P	0.6
8	☐	1000.000	1014.830	2025082.07	0.2709	A	7.1
9	☐			10649.05	0.0014	P	3.8

$$y = 2.6671\text{E-}004 * x + 2.1230\text{E-}004$$

$$R = 0.9995$$

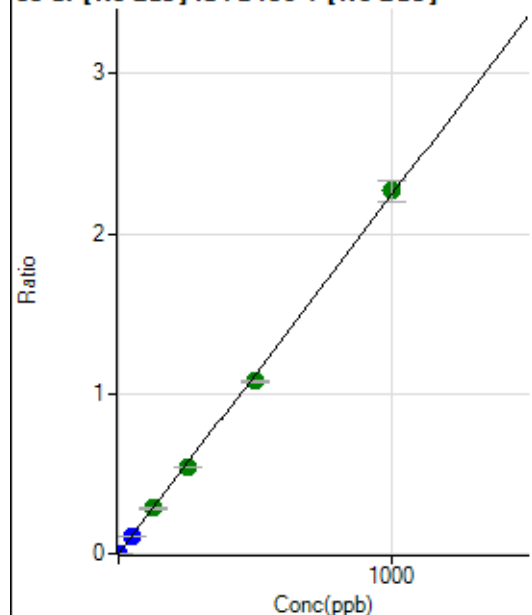
$$DL = 0.2267$$

$$BEC = 0.796$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	175.01	0.0000	P	16.7
2	☐	0.100					
3	☐	1.000	0.919	15940.45	0.0021	P	2.5
4	☐	50.000	50.096	869505.52	0.1123	P	2.0
5	☐	125.000	126.556	2198168.49	0.2836	A	3.8
6	☐	250.000	240.291	4314857.78	0.5385	A	0.9
7	☐	500.000	480.830	8583473.80	1.0775	A	1.1
8	☐	1000.000	1011.813	16957846.04	2.2674	A	6.2
9	☐			79322.57	0.0104	P	3.9

$$y = 0.0022 * x + 2.2775E-005$$

$$R = 0.9997$$

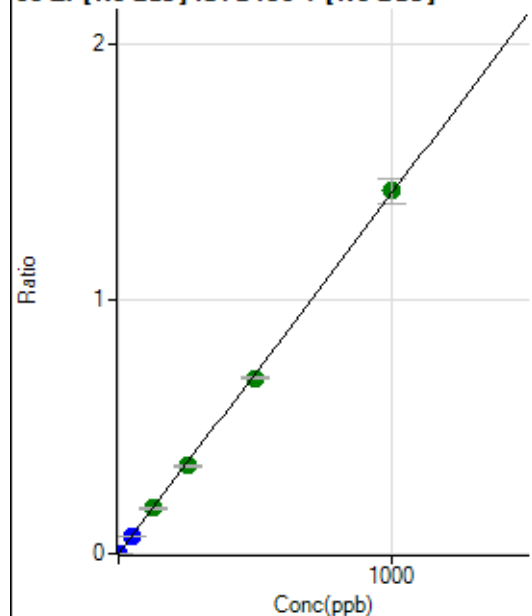
$$DL = 0.00509$$

$$BEC = 0.01016$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	683.38	0.0001	P	9.0
2	☐	0.100					
3	☐	1.000	0.902	10462.79	0.0014	P	1.8
4	☐	50.000	49.544	543885.38	0.0702	P	1.8
5	☐	125.000	126.990	1394029.64	0.1799	A	4.0
6	☐	250.000	243.136	2758963.08	0.3443	A	0.9
7	☐	500.000	487.989	5504275.43	0.6910	A	0.5
8	☐	1000.000	1007.496	10664654.92	1.4265	A	7.1
9	☐			5273.49	0.0007	P	0.4

$$y = 0.0014 * x + 8.9001E-005$$

$$R = 0.9999$$

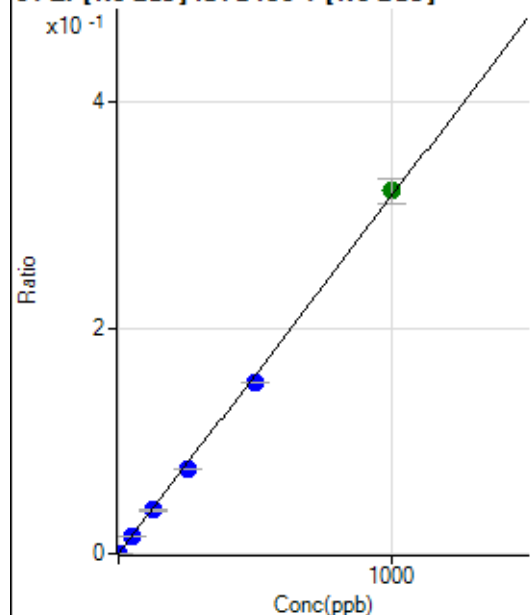
$$DL = 0.01699$$

$$BEC = 0.06286$$

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	125.01	0.0000	P	30.6
2	☐	0.100					
3	☐	1.000	0.864	2219.74	0.0003	P	3.2
4	☐	50.000	49.484	121469.11	0.0157	P	2.2
5	☐	125.000	122.786	301396.88	0.0389	P	4.8
6	☐	250.000	235.868	598602.07	0.0747	P	1.3
7	☐	500.000	478.240	1206519.19	0.1515	P	0.2
8	☐	1000.000	1014.716	2402910.71	0.3213	A	6.6
9	☐			1102.88	0.0001	P	5.2

$$y = 3.1667\text{E-}004 * x + 1.6285\text{E-}005$$

$$R = 0.9995$$

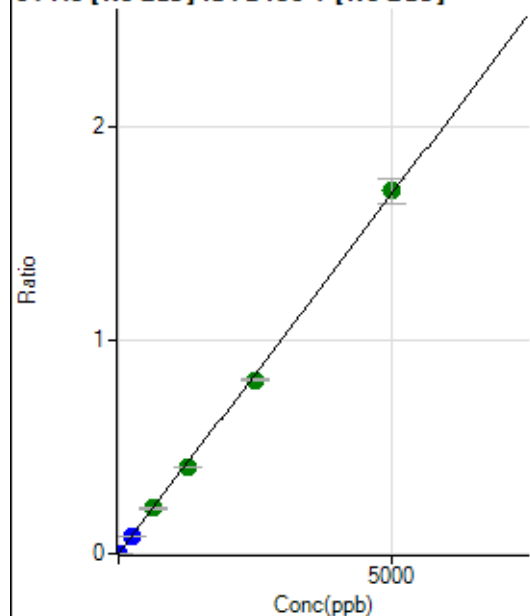
$$DL = 0.04727$$

$$BEC = 0.05143$$

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	283.35	0.0000	P	11.6
2	☐	0.500					
3	☐	5.000	4.720	12475.65	0.0016	P	2.6
4	☐	250.000	249.478	651959.24	0.0842	P	2.5
5	☐	625.000	635.788	1662562.99	0.2145	A	3.8
6	☐	1250.000	1203.382	3253007.95	0.4060	A	1.4
7	☐	2500.000	2421.476	6507446.98	0.8169	A	0.9
8	☐	5000.000	5049.594	12736564.96	1.7035	A	6.9
9	☐			14005.09	0.0018	P	0.2

$$y = 3.3735\text{E-}004 * x + 3.6894\text{E-}005$$

$$R = 0.9998$$

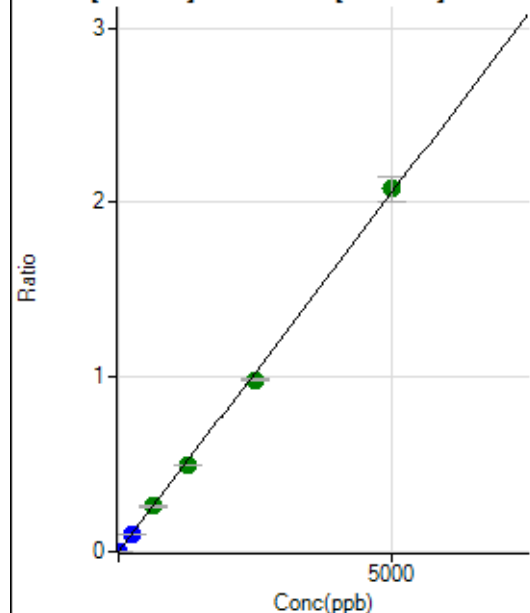
$$DL = 0.03822$$

$$BEC = 0.1094$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	72.5
2	☐	0.500					
3	☐	5.000	4.907	15492.88	0.0020	P	2.0
4	☐	250.000	251.250	799185.26	0.1032	P	2.3
5	☐	625.000	640.572	2039197.64	0.2631	A	4.0
6	☐	1250.000	1211.903	3988652.13	0.4978	A	0.9
7	☐	2500.000	2398.610	7848225.00	0.9852	A	0.5
8	☐	5000.000	5058.210	15535008.68	2.0777	A	6.8
9	☐			20416.23	0.0027	P	2.7

$$y = 4.1075\text{E-}004 * x + 8.3427\text{E-}006$$

$$R = 0.9996$$

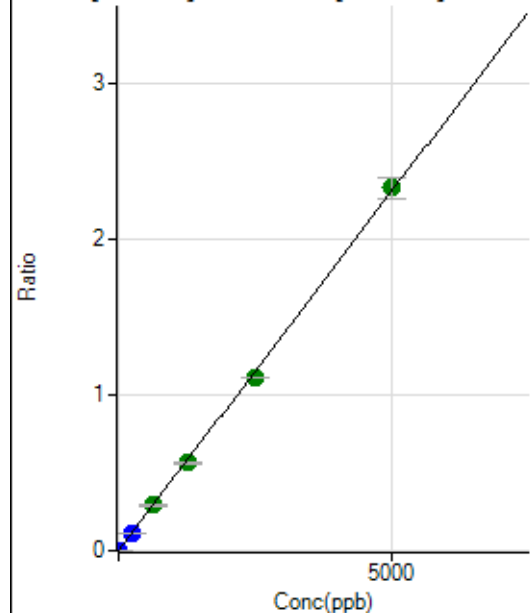
$$DL = 0.04416$$

$$BEC = 0.02031$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144.45	0.0000	P	23.8
2	☐	0.500					
3	☐	5.000	4.850	17242.25	0.0023	P	5.1
4	☐	250.000	249.455	889535.33	0.1149	P	2.4
5	☐	625.000	640.882	2286722.94	0.2951	A	4.5
6	☐	1250.000	1220.652	4503589.12	0.5620	A	0.9
7	☐	2500.000	2407.997	8832094.90	1.1087	A	0.2
8	☐	5000.000	5051.380	17397227.99	2.3258	A	5.8
9	☐			23985.90	0.0031	P	2.8

$$y = 4.6043\text{E-}004 * x + 1.8826\text{E-}005$$

$$R = 0.9997$$

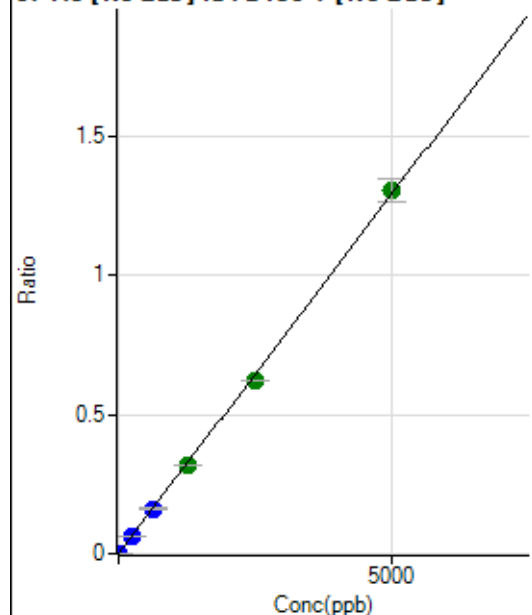
$$DL = 0.02923$$

$$BEC = 0.04089$$

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	61.12	0.0000	P	34.9
2	☐	0.500					
3	☐	5.000	4.816	9581.60	0.0013	P	4.6
4	☐	250.000	248.509	496893.21	0.0642	P	1.7
5	☐	625.000	626.472	1253601.54	0.1617	P	3.6
6	☐	1250.000	1231.631	2547829.44	0.3180	A	0.9
7	☐	2500.000	2409.766	4955758.66	0.6221	A	0.6
8	☐	5000.000	5049.600	9749927.91	1.3036	A	6.2
9	☐			12625.82	0.0017	P	5.8

$$y = 2.5816\text{E-}004 * x + 7.9677\text{E-}006$$

$$R = 0.9997$$

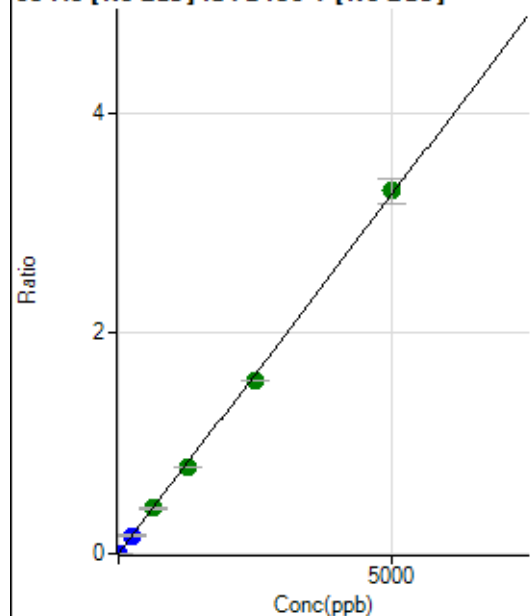
$$DL = 0.03229$$

$$BEC = 0.03086$$

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	108.34	0.0000	P	14.9
2	☐	0.500					
3	☐	5.000	4.898	24514.63	0.0032	P	1.6
4	☐	250.000	252.894	1274784.08	0.1646	P	1.4
5	☐	625.000	637.362	3215005.30	0.4148	A	3.9
6	☐	1250.000	1208.350	6301863.07	0.7865	A	0.7
7	☐	2500.000	2409.497	12492179.79	1.5682	A	1.0
8	☐	5000.000	5053.974	24597083.19	3.2894	A	6.6
9	☐			32440.10	0.0043	P	2.9

$$y = 6.5084\text{E-}004 * x + 1.4100\text{E-}005$$

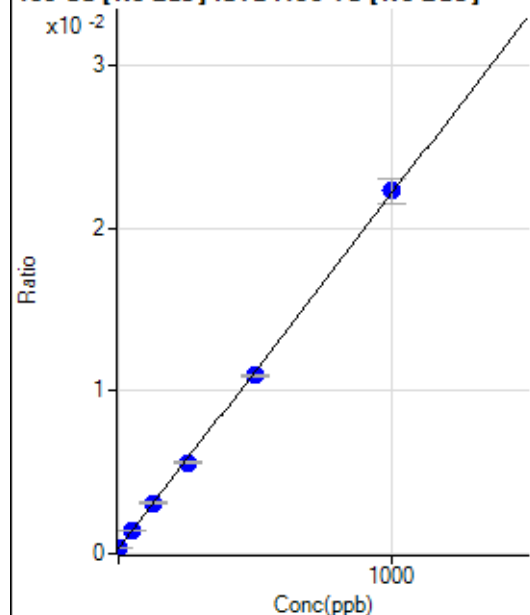
$$R = 0.9997$$

$$DL = 0.009657$$

$$BEC = 0.02166$$

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	2303.08	0.0003	P	10.6
2	☐	0.100					
3	☐	1.000	0.454	2419.78	0.0003	P	2.9
4	☐	50.000	50.489	10551.83	0.0014	P	0.9
5	☐	125.000	128.981	23641.17	0.0031	P	5.6
6	☐	250.000	242.000	43524.18	0.0056	P	1.5
7	☐	500.000	487.062	83310.14	0.0109	P	1.8
8	☐	1000.000	1007.948	160498.15	0.0223	P	6.9
9	☐			2297.51	0.0003	P	5.9

$$y = 2.1780\text{E-}005 * x + 3.1748\text{E-}004$$

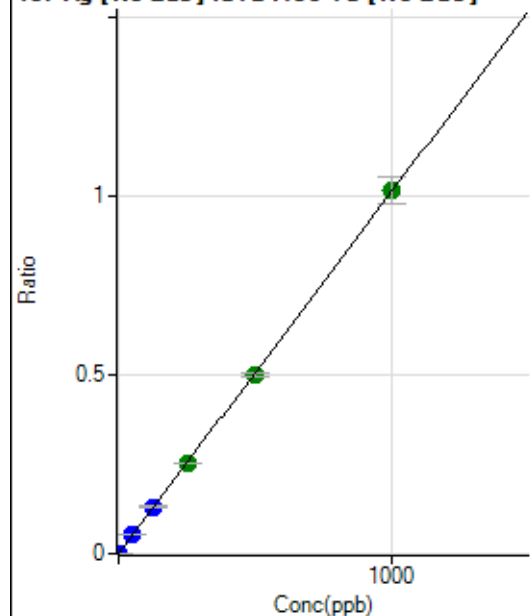
$$R = 0.9998$$

$$DL = 4.649$$

$$BEC = 14.58$$

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	147.23	0.0000	P	14.1
2	☐	0.100					
3	☐	1.000	0.877	6704.77	0.0009	P	4.5
4	☐	50.000	52.171	392890.17	0.0528	P	3.0
5	☐	125.000	128.503	983182.36	0.1300	P	4.4
6	☐	250.000	248.152	1954881.25	0.2510	A	0.7
7	☐	500.000	493.784	3808121.79	0.4994	A	1.4
8	☐	1000.000	1003.023	7309367.35	1.0145	A	7.3
9	☐			1250.13	0.0002	P	16.4

$$y = 0.0010 * x + 2.0288\text{E-}005$$

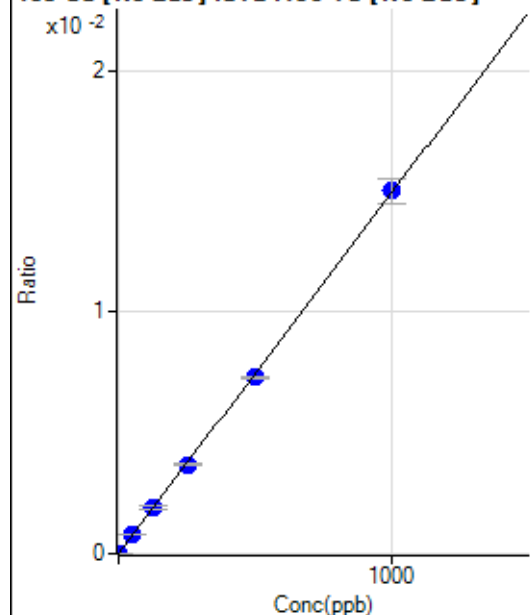
$$R = 1.0000$$

$$DL = 0.008465$$

$$BEC = 0.02006$$

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	2.78	0.0000	P	173.
2	☐	0.100					
3	☐	1.000	0.932	105.56	0.0000	P	13.8
4	☐	50.000	51.537	5723.55	0.0008	P	2.4
5	☐	125.000	126.848	14300.87	0.0019	P	6.5
6	☐	250.000	246.241	28600.16	0.0037	P	1.9
7	☐	500.000	488.554	55550.46	0.0073	P	1.2
8	☐	1000.000	1006.355	108127.92	0.0150	P	7.2
9	☐			30.56	0.0000	P	49.2

$$y = 1.4911\text{E-}005 * x + 3.8169\text{E-}007$$

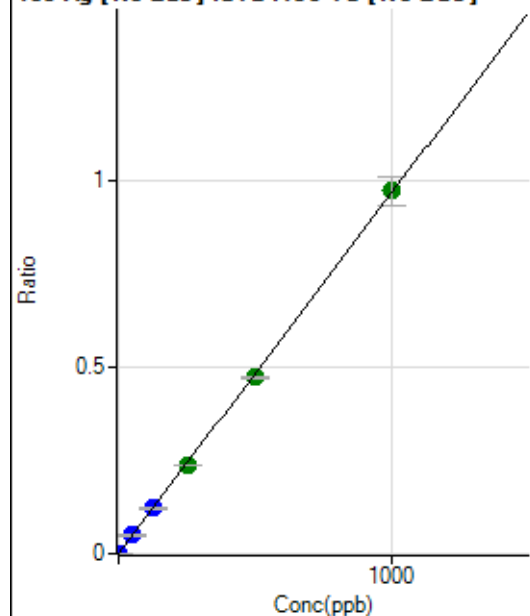
$$R = 0.9999$$

$$DL = 0.133$$

$$BEC = 0.0256$$

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	119.45	0.0000	P	35.8
2	☐	0.100					
3	☐	1.000	0.889	6485.16	0.0009	P	1.6
4	☐	50.000	51.273	369460.12	0.0496	P	3.0
5	☐	125.000	126.919	929188.49	0.1228	P	4.4
6	☐	250.000	245.293	1849075.13	0.2374	A	0.3
7	☐	500.000	489.460	3612227.68	0.4737	A	0.9
8	☐	1000.000	1006.143	7015130.63	0.9738	A	7.7
9	☐			1372.36	0.0002	P	13.0

$$y = 9.6780\text{E-}004 * x + 1.6465\text{E-}005$$

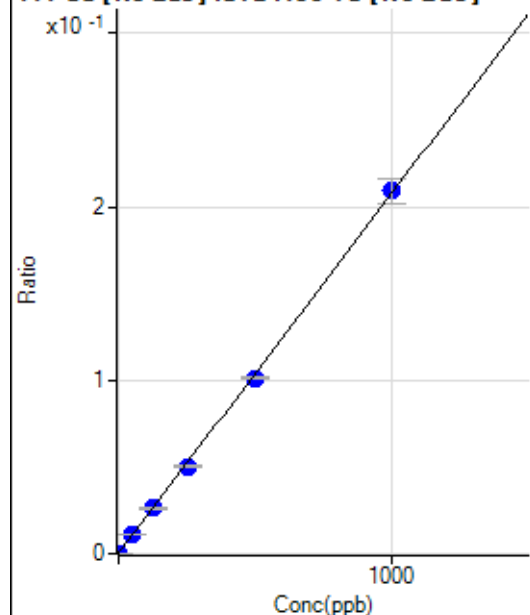
$$R = 0.9999$$

$$DL = 0.01827$$

$$BEC = 0.01701$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1619.94	0.0002	P	10.7
2	☐	0.100					
3	☐	1.000	0.908	3042.29	0.0004	P	1.5
4	☐	50.000	51.141	80592.70	0.0108	P	1.9
5	☐	125.000	126.667	200344.07	0.0265	P	3.9
6	☐	250.000	242.196	392824.74	0.0504	P	0.5
7	☐	500.000	487.632	772594.54	0.1013	P	0.9
8	☐	1000.000	1007.870	1507448.04	0.2092	P	6.9
9	☐			1763.26	0.0002	P	8.1

$$y = 2.0732E-004 * x + 2.2331E-004$$

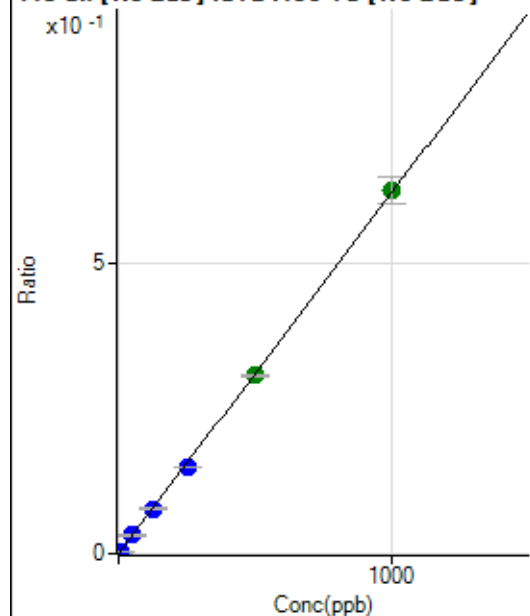
$$R = 0.9998$$

$$DL = 0.3467$$

$$BEC = 1.077$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	366.69	0.0001	P	2.1
2	☐	0.500					
3	☐	5.000	4.741	22202.55	0.0030	P	1.4
4	☐	50.000	50.725	235529.42	0.0316	P	3.1
5	☐	125.000	125.077	589691.20	0.0780	P	4.1
6	☐	250.000	240.430	1166781.67	0.1498	P	0.5
7	☐	500.000	493.365	2343551.47	0.3074	A	1.5
8	☐	1000.000	1005.665	4513542.77	0.6264	A	7.3
9	☐			5754.28	0.0008	P	7.0

$$y = 6.2287E-004 * x + 5.0536E-005$$

$$R = 0.9999$$

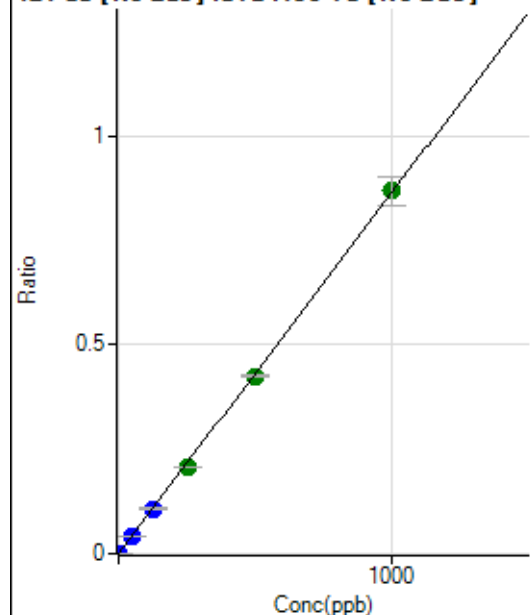
$$DL = 0.005131$$

$$BEC = 0.08113$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	11.9
2	☐	0.200					
3	☐	2.000	1.773	11399.80	0.0015	P	1.8
4	☐	50.000	50.012	321540.74	0.0432	P	1.1
5	☐	125.000	124.846	815156.33	0.1078	P	5.0
6	☐	250.000	240.758	1618933.46	0.2079	A	1.1
7	☐	500.000	491.896	3238179.52	0.4247	A	1.2
8	☐	1000.000	1006.381	6258681.39	0.8688	A	7.8
9	☐			9284.15	0.0013	P	4.8

$$y = 8.6331\text{E-}004 * x + 1.1102\text{E-}005$$

$$R = 0.9999$$

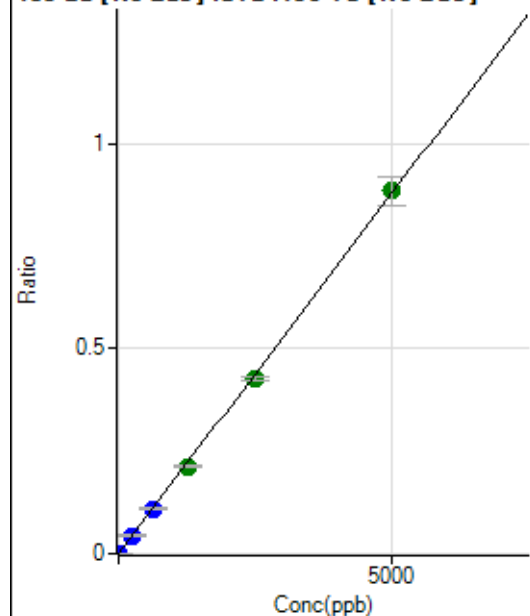
$$DL = 0.004593$$

$$BEC = 0.01286$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	69.6
2	☐	1.000					
3	☐	10.000	9.435	12259.01	0.0017	P	0.7
4	☐	250.000	251.958	328983.94	0.0442	P	1.7
5	☐	625.000	622.724	825965.39	0.1092	P	4.8
6	☐	1250.000	1209.984	1652757.79	0.2122	A	1.3
7	☐	2500.000	2437.925	3260058.97	0.4276	A	1.7
8	☐	5000.000	5041.229	6368906.48	0.8841	A	7.8
9	☐			1008.42	0.0001	P	13.7

$$y = 1.7538\text{E-}004 * x + 3.8334\text{E-}006$$

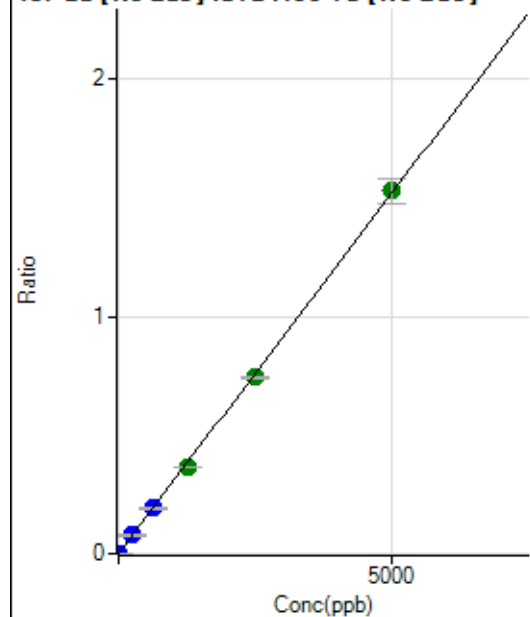
$$R = 0.9998$$

$$DL = 0.04561$$

$$BEC = 0.02186$$

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	55.56	0.0000	P	45.6
2	☐	1.000					
3	☐	10.000	9.391	21145.56	0.0029	P	0.8
4	☐	250.000	253.720	573856.42	0.0771	P	2.5
5	☐	625.000	629.631	1446775.48	0.1913	P	4.9
6	☐	1250.000	1212.182	2868484.03	0.3683	A	0.4
7	☐	2500.000	2445.373	5665515.41	0.7430	A	1.3
8	☐	5000.000	5036.004	11025684.02	1.5301	A	7.0
9	☐			1802.98	0.0002	P	5.4

$$y = 3.0382E-004 * x + 7.6533E-006$$

$$R = 0.9999$$

$$DL = 0.03448$$

$$BEC = 0.02519$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.
2	☐						
3	☐			15.56		P	49.5
4	☐			33.34		P	20.0
5	☐			44.44		P	85.3
6	☐			97.78		P	43.8
7	☐			122.23		P	35.5
8	☐			295.57		P	21.7
9	☐			95.56		P	24.5

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			4.44		P	114.
6	☐			5.56		P	91.6
7	☐			3.33		P	173.
8	☐			15.56		P	12.4
9	☐			18.89		P	27.0

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	34.7
2	☐						
3	☐			33.33		P	50.0
4	☐			11.11		P	43.3
5	☐			16.67		P	NaN
6	☐			50.00		P	16.7
7	☐			69.45		P	18.3
8	☐			63.89		P	19.9
9	☐			36.11		P	13.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			3.33		P	100.
4	☐			1.11		P	173.
5	☐			4.45		P	86.6
6	☐			3.33		P	100.
7	☐			3.33		P	0.0
8	☐			11.11		P	75.5
9	☐			17.78		P	60.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			91.67		P	15.8
2	☐						
3	☐			113.89		P	30.5
4	☐			86.12		P	68.0
5	☐			105.56		P	24.1
6	☐			75.00		P	29.4
7	☐			102.79		P	55.2
8	☐			77.78		P	52.9
9	☐			116.67		P	25.8

160 Gd [He] No available calibration points

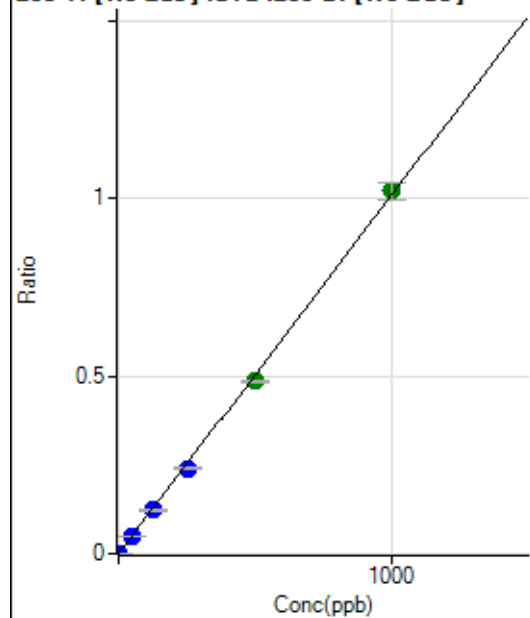
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	NaN
2	☐						
3	☐			13.33		P	25.0
4	☐			18.89		P	40.7
5	☐			23.34		P	49.5
6	☐			32.22		P	15.8
7	☐			26.67		P	25.0
8	☐			28.89		P	40.5
9	☐			41.11		P	24.8

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	48.0
2	☐						
3	☐			33.33		P	43.3
4	☐			38.89		P	24.7
5	☐			30.56		P	41.7
6	☐			50.00		P	33.3
7	☐			50.00		P	66.7
8	☐			52.78		P	24.1
9	☐			50.00		P	50.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	43.3
2	☐						
3	☐			6.67		P	50.0
4	☐			7.78		P	24.7
5	☐			14.44		P	35.3
6	☐			14.44		P	13.4
7	☐			13.33		P	66.1
8	☐			16.67		P	20.0
9	☐			8.89		P	43.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	33.34	0.0000	P	24.8
2	☐	0.100					
3	☐	1.000	0.912	3870.24	0.0009	P	2.1
4	☐	50.000	48.317	204476.75	0.0487	P	1.4
5	☐	125.000	121.701	518384.72	0.1226	P	4.3
6	☐	250.000	238.791	1039916.75	0.2405	P	1.3
7	☐	500.000	481.362	2054716.50	0.4848	A	0.8
8	☐	1000.000	1012.618	3962361.24	1.0199	A	4.9
9	☐			888.96	0.0002	P	0.3

$$y = 0.0010 * x + 8.1487E-006$$

$$R = 0.9997$$

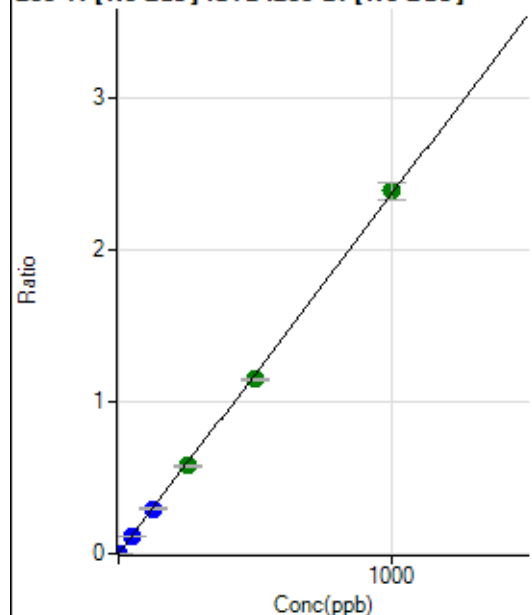
$$DL = 0.006023$$

$$BEC = 0.00809$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	29.8
2	☐	0.100					
3	☐	1.000	0.870	8672.77	0.0021	P	0.6
4	☐	50.000	49.362	491154.61	0.1169	P	1.2
5	☐	125.000	124.079	1242828.05	0.2939	P	3.6
6	☐	250.000	243.932	2497429.22	0.5777	A	2.4
7	☐	500.000	484.695	4864494.51	1.1479	A	0.4
8	☐	1000.000	1009.317	9285840.92	2.3902	A	5.0
9	☐			1964.13	0.0005	P	3.7

$$y = 0.0024 * x + 1.5610E-005$$

$$R = 0.9998$$

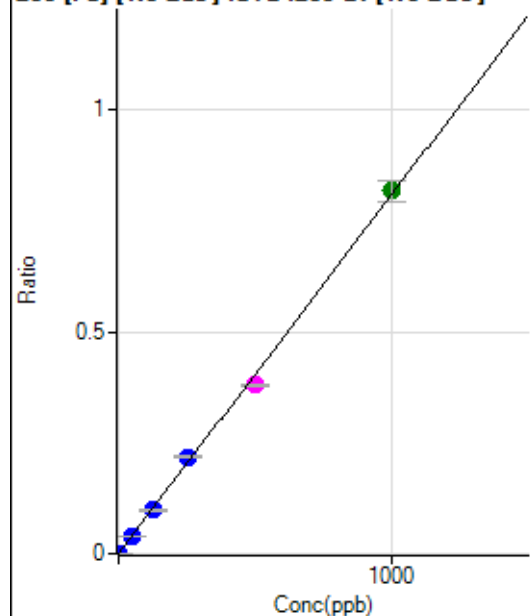
$$DL = 0.00589$$

$$BEC = 0.006592$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	148.15	0.0000	P	6.2
2	☐	0.100					
3	☐	1.000	0.889	3156.05	0.0008	P	4.0
4	☐	50.000	48.603	165294.72	0.0393	P	0.9
5	☐	125.000	121.649	416199.55	0.0984	P	4.4
6	☐	250.000	269.994	944258.73	0.2184	P	1.7
7	☐	500.000	469.288	1608661.54	0.3796	M	1.1
8	☐	1000.000	1010.846	3175172.96	0.8176	A	5.8
9	☐			5495.81	0.0014	P	1.4

$$y = 8.0880E-004 * x + 3.6236E-005$$

$$R = 0.9991$$

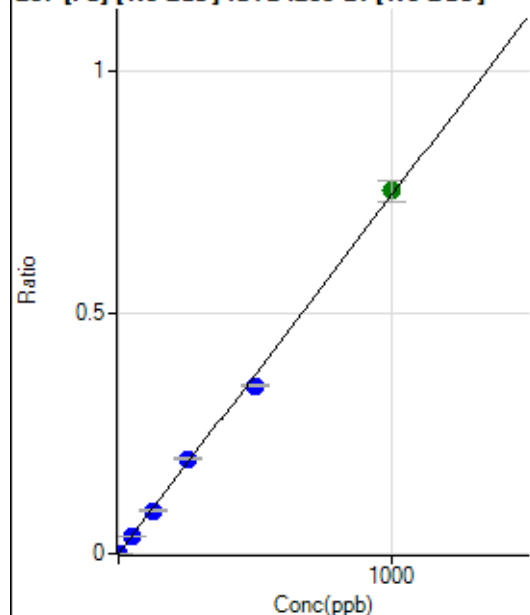
$$DL = 0.008338$$

$$BEC = 0.0448$$

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	129.64	0.0000	P	29.9
2	☐	0.100					
3	☐	1.000	0.845	2754.09	0.0007	P	4.0
4	☐	50.000	48.003	149950.38	0.0357	P	1.0
5	☐	125.000	120.591	378919.79	0.0896	P	4.9
6	☐	250.000	264.147	848572.92	0.1963	P	1.4
7	☐	500.000	469.156	1477223.28	0.3486	P	0.4
8	☐	1000.000	1012.537	2921363.69	0.7523	A	5.9
9	☐			4678.80	0.0012	P	3.5

$$y = 7.4292\text{E-}004 * x + 3.1671\text{E-}005$$

$$R = 0.9992$$

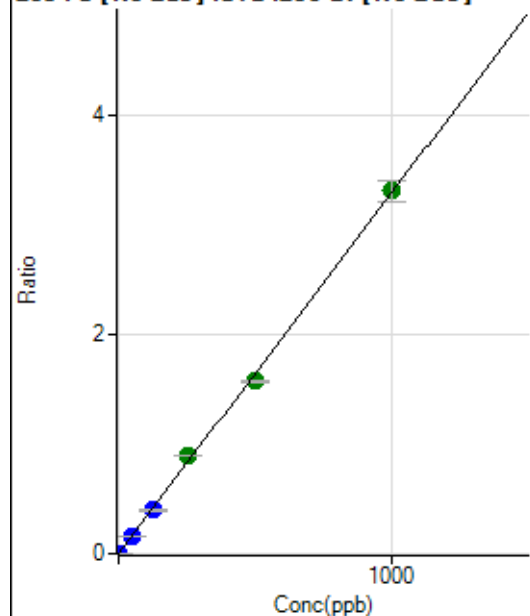
$$DL = 0.03827$$

$$BEC = 0.04263$$

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	572.25	0.0001	P	6.3
2	☐	0.100					
3	☐	1.000	0.861	12428.70	0.0030	P	2.2
4	☐	50.000	48.753	675133.98	0.1607	P	1.2
5	☐	125.000	122.428	1705620.74	0.4034	P	4.4
6	☐	250.000	272.013	3873907.22	0.8960	A	1.4
7	☐	500.000	477.316	6662737.42	1.5722	A	0.2
8	☐	1000.000	1006.223	12869445.54	3.3141	A	6.0
9	☐			21665.34	0.0056	P	2.1

$$y = 0.0033 * x + 1.3991\text{E-}004$$

$$R = 0.9993$$

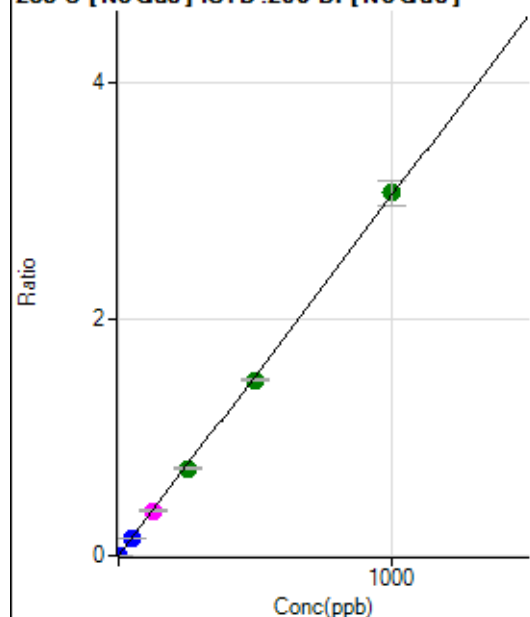
$$DL = 0.008037$$

$$BEC = 0.04248$$

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	36.11	0.0000	P	74.1
2	☐	0.100					
3	☐	1.000	0.863	11016.47	0.0026	P	1.9
4	☐	50.000	48.305	617903.60	0.1471	P	2.0
5	☐	125.000	124.028	1597010.72	0.3777	M	4.3
6	☐	250.000	241.982	3185669.19	0.7368	A	1.5
7	☐	500.000	487.455	6290066.90	1.4843	A	1.1
8	☐	1000.000	1008.483	11918713.55	3.0707	A	7.2
9	☐			1878.02	0.0005	P	6.3

$$y = 0.0030 * x + 8.8338E-006$$

$$R = 0.9998$$

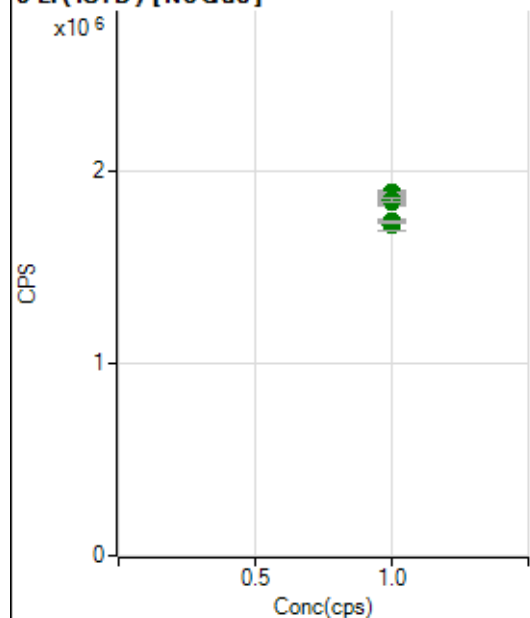
$$DL = 0.006453$$

$$BEC = 0.002901$$

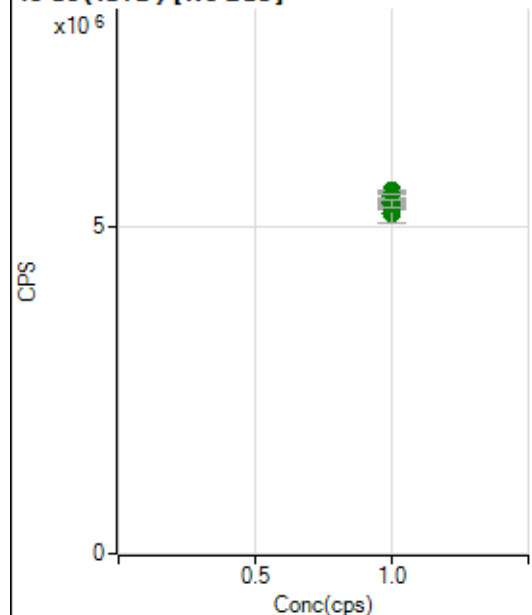
Weight: <None>

Min Conc: 0

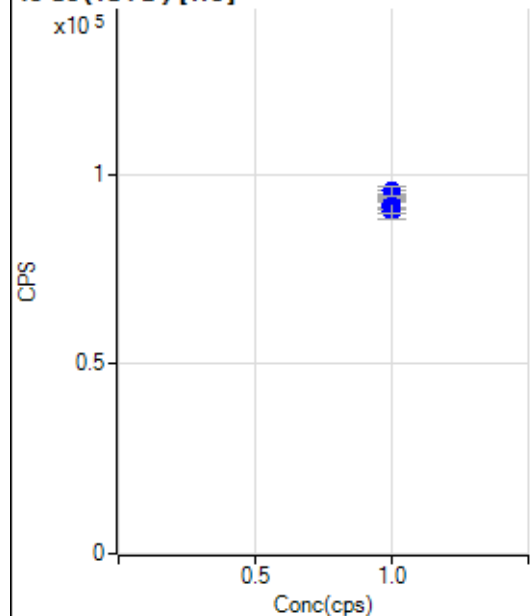
6 Li (ISTD) [No Gas]



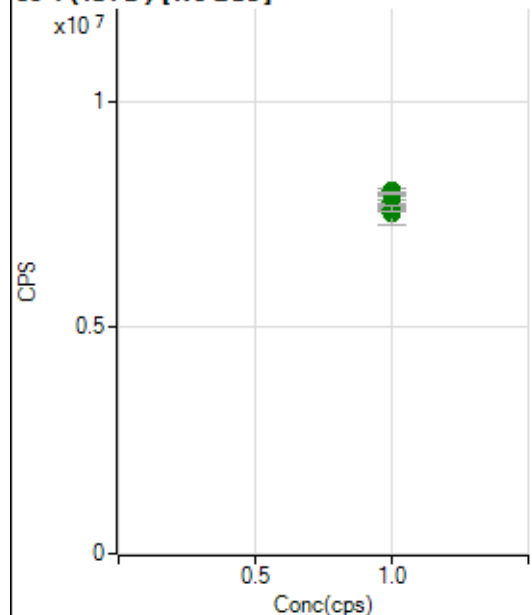
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1841159.66		A	1.8
2	☐	1.000					
3	☐	1.000		1870140.89		A	0.7
4	☐	1.000		1890706.29		A	1.9
5	☐	1.000		1866175.56		A	3.3
6	☐	1.000		1890006.69		A	0.9
7	☐	1.000		1852999.78		A	0.9
8	☐	1.000		1723351.83		A	3.8
9	☐	1.000		1739097.98		A	0.9

45 Sc (ISTD) [No Gas]

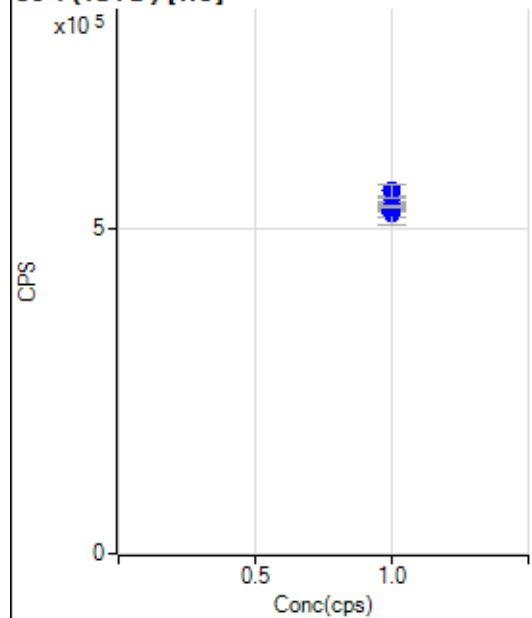
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5555072.91		A	0.8
2	☐	1.000					
3	☐	1.000		5358157.63		A	0.8
4	☐	1.000		5420483.67		A	2.7
5	☐	1.000		5387838.14		A	3.9
6	☐	1.000		5549987.54		A	1.0
7	☐	1.000		5479377.90		A	0.9
8	☐	1.000		5217024.47		A	6.0
9	☐	1.000		5348648.56		A	2.0

45 Sc (ISTD) [He]

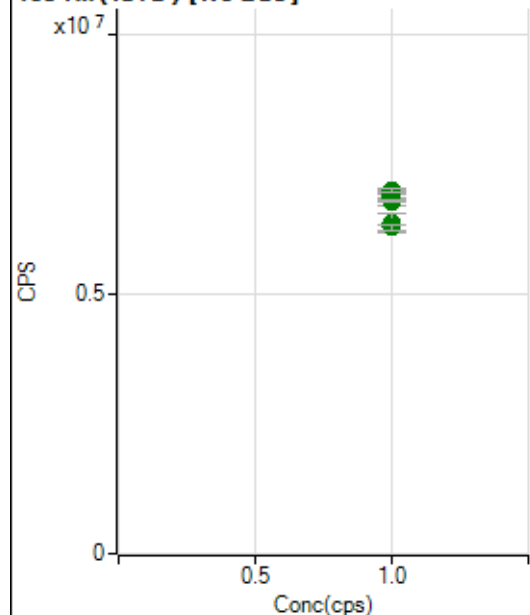
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		93012.82		P	0.7
2	☐	1.000					
3	☐	1.000		93292.58		P	1.1
4	☐	1.000		90364.63		P	1.4
5	☐	1.000		91910.92		P	2.7
6	☐	1.000		91415.14		P	3.8
7	☐	1.000		92047.08		P	8.6
8	☐	1.000		94111.23		P	0.8
9	☐	1.000		95579.95		P	2.8

89 Y (ISTD) [No Gas]

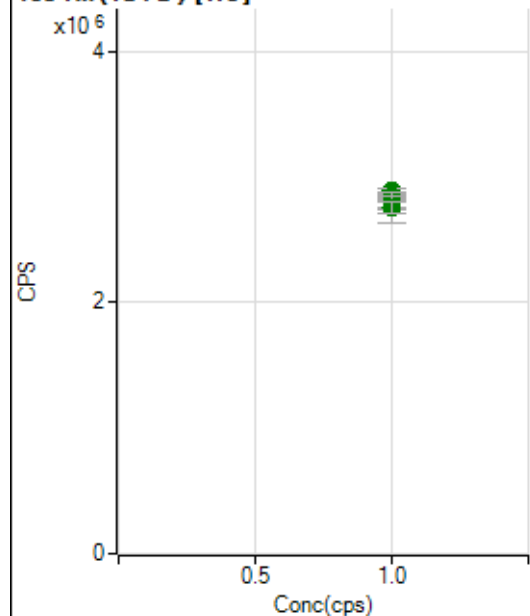
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7679578.08		A	0.6
2	☐	1.000					
3	☐	1.000		7656527.73		A	0.8
4	☐	1.000		7745829.12		A	2.1
5	☐	1.000		7757686.14		A	3.8
6	☐	1.000		8013127.94		A	1.0
7	☐	1.000		7965864.19		A	0.1
8	☐	1.000		7497806.55		A	6.2
9	☐	1.000		7617206.69		A	2.0

89 Y (ISTD) [He]

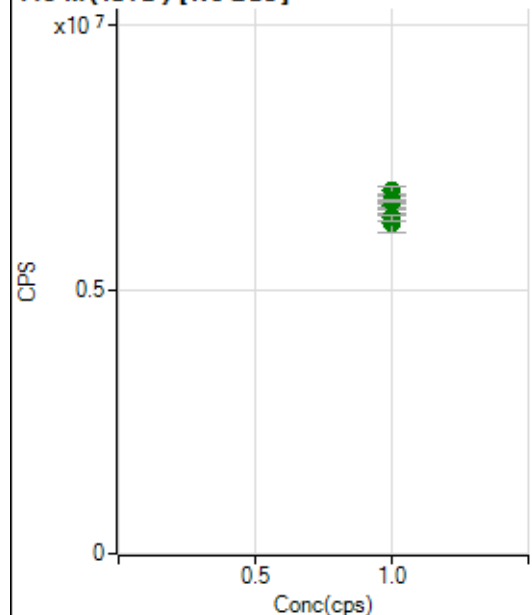
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		534456.32		P	0.5
2	☐	1.000					
3	☐	1.000		540129.98		P	0.9
4	☐	1.000		524163.96		P	2.1
5	☐	1.000		533624.42		P	2.9
6	☐	1.000		528142.12		P	3.8
7	☐	1.000		527362.49		P	8.7
8	☐	1.000		533457.25		P	0.3
9	☐	1.000		557776.15		P	3.4

103 Rh (ISTD) [No Gas]

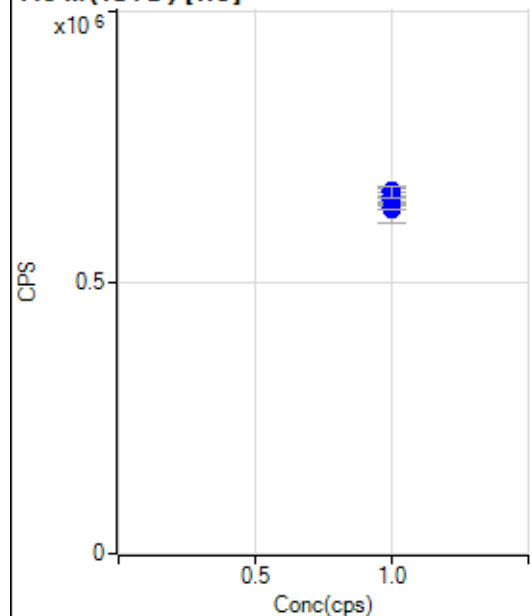
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6873956.66		A	1.0
2	☐	1.000					
3	☐	1.000		6846227.06		A	0.6
4	☐	1.000		6918553.02		A	2.2
5	☐	1.000		6855213.61		A	4.2
6	☐	1.000		6987696.86		A	1.0
7	☐	1.000		6792088.78		A	0.5
8	☐	1.000		6367471.37		A	6.3
9	☐	1.000		6283045.15		A	1.9

103 Rh (ISTD) [He]

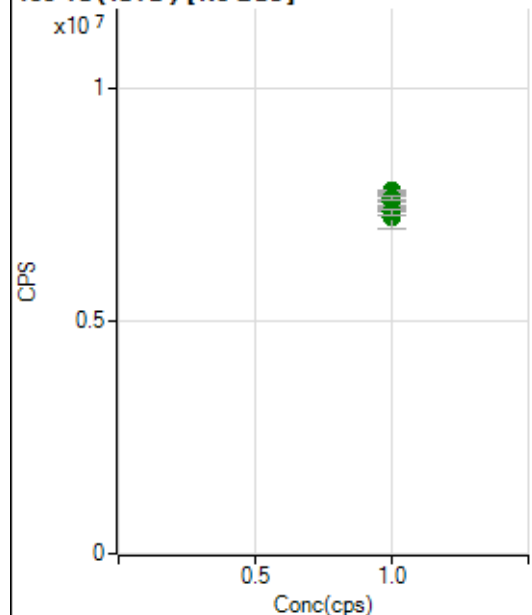
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2848217.74		A	1.3
2	☐	1.000					
3	☐	1.000		2887784.75		A	0.9
4	☐	1.000		2797171.59		A	2.7
5	☐	1.000		2842462.25		A	2.4
6	☐	1.000		2796885.69		A	4.1
7	☐	1.000		2754857.29		A	9.1
8	☐	1.000		2751506.77		A	0.6
9	☐	1.000		2753445.06		A	3.1

115 In (ISTD) [No Gas]

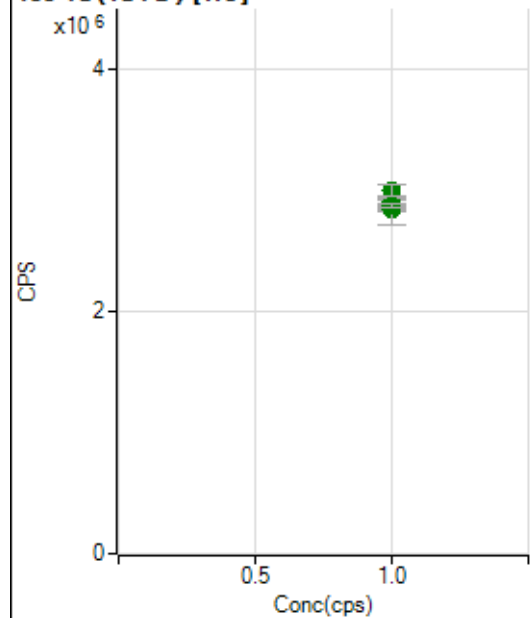
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6589811.25		A	1.1
2	☐	1.000					
3	☐	1.000		6646064.67		A	0.1
4	☐	1.000		6659147.59		A	3.1
5	☐	1.000		6662210.33		A	4.5
6	☐	1.000		6864056.34		A	2.1
7	☐	1.000		6685229.70		A	0.6
8	☐	1.000		6248806.33		A	6.0
9	☐	1.000		6360356.14		A	1.9

115 In (ISTD) [He]

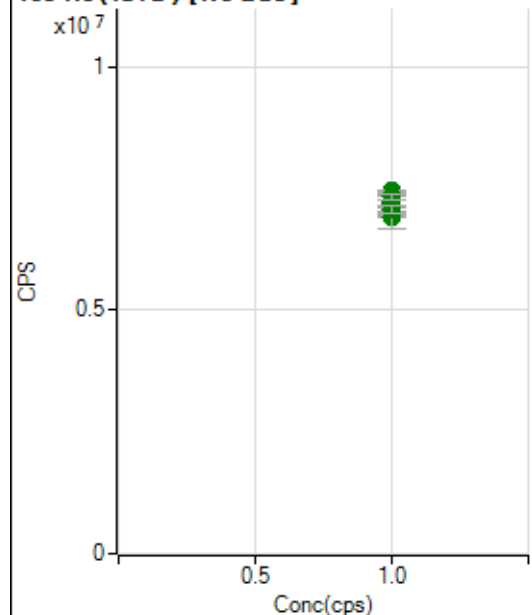
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		659446.62		P	0.5
2	☐	1.000					
3	☐	1.000		669983.92		P	0.9
4	☐	1.000		652119.22		P	1.8
5	☐	1.000		660278.25		P	2.7
6	☐	1.000		655051.85		P	3.9
7	☐	1.000		638721.35		P	9.2
8	☐	1.000		636371.92		P	0.3
9	☐	1.000		668316.55		P	3.3

159 Tb (ISTD) [No Gas]

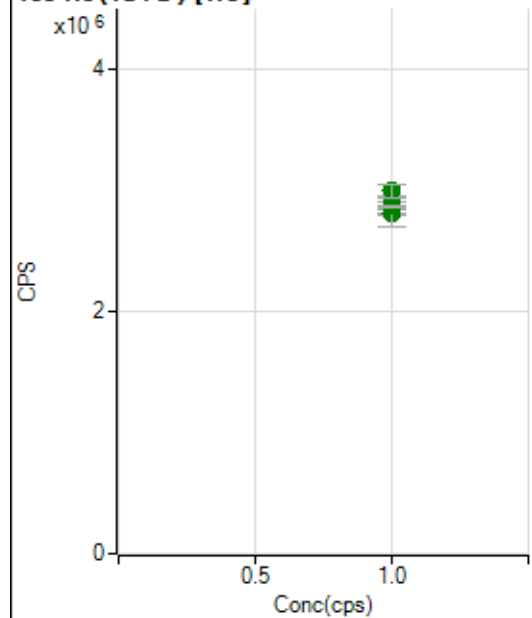
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7255820.38		A	0.3
2	☐	1.000					
3	☐	1.000		7391800.72		A	0.7
4	☐	1.000		7446757.95		A	2.6
5	☐	1.000		7572368.50		A	4.0
6	☐	1.000		7788507.39		A	0.2
7	☐	1.000		7625783.22		A	1.2
8	☐	1.000		7228305.45		A	6.6
9	☐	1.000		7329298.02		A	1.5

159 Tb (ISTD) [He]

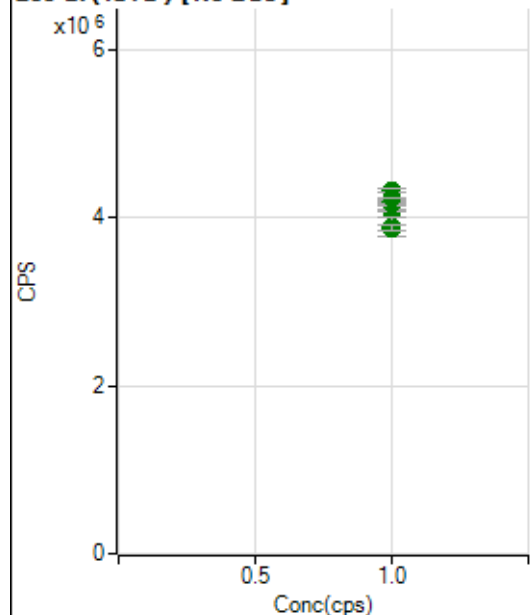
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2855297.53		A	1.4
2	☐	1.000					
3	☐	1.000		2924099.58		A	0.6
4	☐	1.000		2842896.31		A	1.4
5	☐	1.000		2908278.71		A	3.0
6	☐	1.000		2874636.17		A	4.2
7	☐	1.000		2829664.39		A	8.7
8	☐	1.000		2866756.59		A	0.8
9	☐	1.000		2990520.55		A	3.4

165 Ho (ISTD) [No Gas]

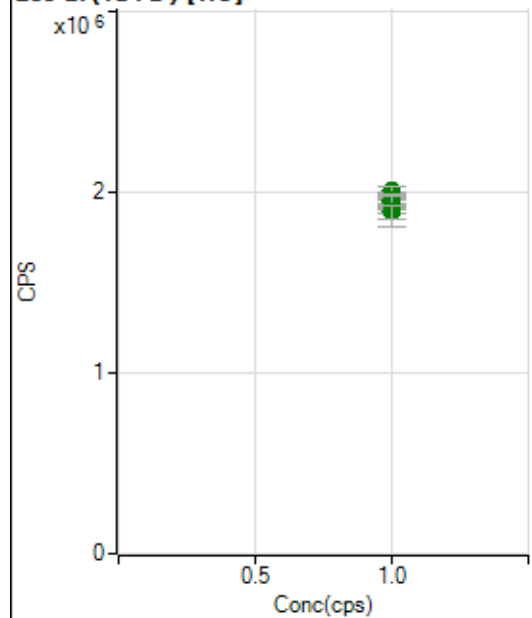
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6957445.99		A	1.0
2	☐	1.000					
3	☐	1.000		6994539.22		A	1.3
4	☐	1.000		7187394.69		A	2.4
5	☐	1.000		7237740.79		A	3.3
6	☐	1.000		7450491.49		A	0.5
7	☐	1.000		7333549.47		A	1.3
8	☐	1.000		6913282.19		A	7.1
9	☐	1.000		7058519.95		A	2.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2813668.81		A	0.1
2	☐	1.000					
3	☐	1.000		2880965.68		A	1.1
4	☐	1.000		2814977.91		A	1.7
5	☐	1.000		2911168.40		A	3.2
6	☐	1.000		2849435.44		A	4.0
7	☐	1.000		2815139.71		A	8.2
8	☐	1.000		2869234.64		A	0.4
9	☐	1.000		2994815.13		A	3.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4089329.04		A	0.5
2	☐	1.000					
3	☐	1.000		4178062.75		A	1.0
4	☐	1.000		4201299.52		A	1.0
5	☐	1.000		4233059.04		A	3.6
6	☐	1.000		4323974.35		A	1.2
7	☐	1.000		4237902.23		A	0.2
8	☐	1.000		3892703.79		A	6.1
9	☐	1.000		3884280.88		A	2.1

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1945503.69		A	1.4
2	☐	1.000					
3	☐	1.000		1987262.12		A	1.6
4	☐	1.000		1943394.42		A	2.2
5	☐	1.000		2005530.42		A	2.2
6	☐	1.000		1954590.68		A	3.9
7	☐	1.000		1893594.96		A	8.8
8	☐	1.000		1895902.04		A	1.2
9	☐	1.000		1887416.64		A	4.0

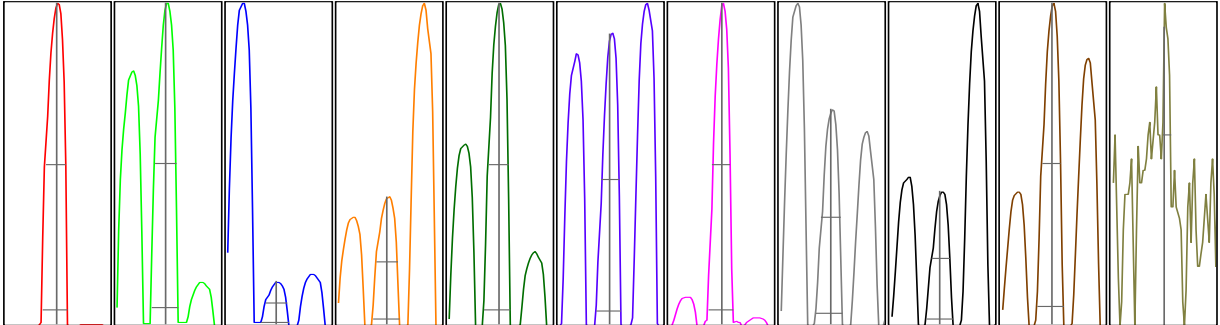
US EPA Tune Check Sample Report

Batch Folder D:\P8121018 MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7669	1.92	5.00	
24	75572	2.02	5.00	
25	10239	2.12	5.00	
26	11993	1.76	5.00	
59	68834	1.83	5.00	
113	6908	2.11	5.00	
115	84575	2.33	5.00	
206	14715	1.66	5.00	
207	13320	1.44	5.00	
208	31836	1.91	5.00	
220	2	16.87		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7520	7836	7508	7730	7752
24	73781	76095	74242	76299	77443
25	10032	10399	9976	10360	10428
26	11806	12180	11729	12082	12166
59	67667	70068	67428	68956	70051
113	6859	7061	6695	6897	7026
115	84866	86281	81280	84585	85861
206	14490	14857	14448	14753	15026
207	13123	13494	13104	13397	13483
208	31243	32239	31115	32168	32413
220	1	2	2	2	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	13676	9.00	8.9 - 9.1		0.738	0.900	
24	131696	23.95	23.9 - 24.1		0.782	0.900	
25	17879	24.95	24.9 - 25.1		0.784	0.900	
26	21154	25.95	25.9 - 26.1		0.776	0.900	
59	125282	59.00	58.9 - 59.1		0.762	0.900	
113	13825	113.00	112.9 - 113.1		0.709	0.900	
115	169971	115.05	114.9 - 115.1		0.726	0.900	
206	28511	206.00	205.9 - 206.1		0.760	0.900	
207	25555	206.95	206.9 - 207.1		0.769	0.900	
208	61749	208.00	207.9 - 208.1		0.762	0.900	
220	2	220.05	-				

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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.0	V	Deflect	15.4	V
Extract 2	-245.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-115	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	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	12673	1.75	
89	10280	1.79	
205	11429	1.52	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	12278	12756	12800	12763	12765
89	9952	10390	10379	10342	10335
205	11121	11531	11515	11473	11507

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.0	V	Deflect	1.8	V
Extract 2	-245.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-115	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	5.0	mL/min	OctP RF	200	V			