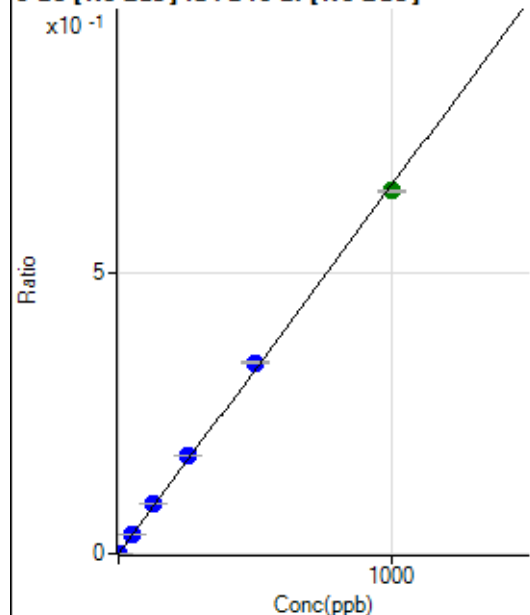


Batch Folder: D:\ICP-MS Data\P7031419MS.b\
Analysis File: P7031419MS.batch.bin
DA Date-Time: 2019-03-15 00:25:14
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-03-14 14:39:46
2			
3	005CALS.d	S02	2019-03-14 14:48:21
4	006CALS.d	S03	2019-03-14 14:52:16
5	007CALS.d	S04	2019-03-14 14:56:27
6	008CALS.d	S05	2019-03-14 15:00:15
7	009CALS.d	S06	2019-03-14 15:04:00
8	010CALS.d	S07	2019-03-14 15:07:46
9	011CALS.d	S08	2019-03-14 15:11:36

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	147.78	0.0000	P	13.1
2	☐	0.100					
3	☐	1.000	0.998	7230.71	0.0007	P	4.7
4	☐	50.000	54.592	373691.74	0.0359	P	0.7
5	☐	125.000	134.765	876270.18	0.0886	P	0.4
6	☐	250.000	265.148	1632855.50	0.1743	P	0.7
7	☐	500.000	519.153	3147628.36	0.3412	P	0.8
8	☐	1000.000	985.187	5793621.44	0.6475	A	0.5
9	☐			880.04	0.0001	P	20.1

$$y = 6.5719\text{E-}004 * x + 1.4092\text{E-}005$$

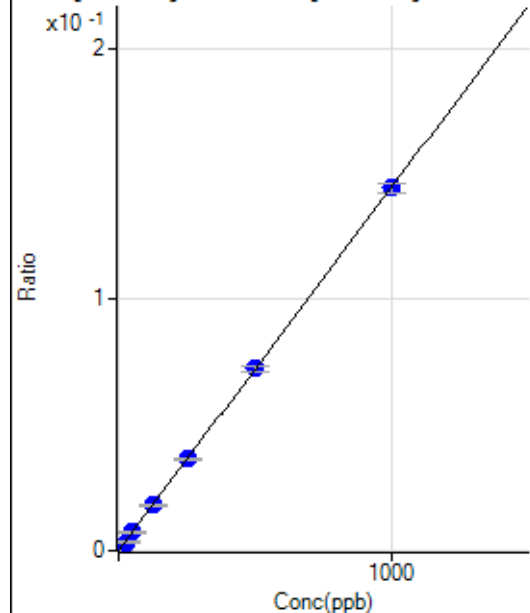
$$R = 0.9996$$

$$DL = 0.008402$$

$$BEC = 0.02144$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	769.49	0.0001	P	3.5
2	☐	2.500					
3	☐	25.000	22.907	36508.97	0.0034	P	4.7
4	☐	50.000	50.496	76731.44	0.0074	P	3.1
5	☐	125.000	125.435	179988.32	0.0182	P	4.1
6	☐	250.000	253.470	343921.09	0.0367	P	2.0
7	☐	500.000	501.339	668986.22	0.0725	P	2.8
8	☐	1000.000	998.436	1291653.31	0.1444	P	2.9
9	☐			62380.72	0.0077	P	12.3

$$y = 1.4450\text{E-}004 * x + 7.3363\text{E-}005$$

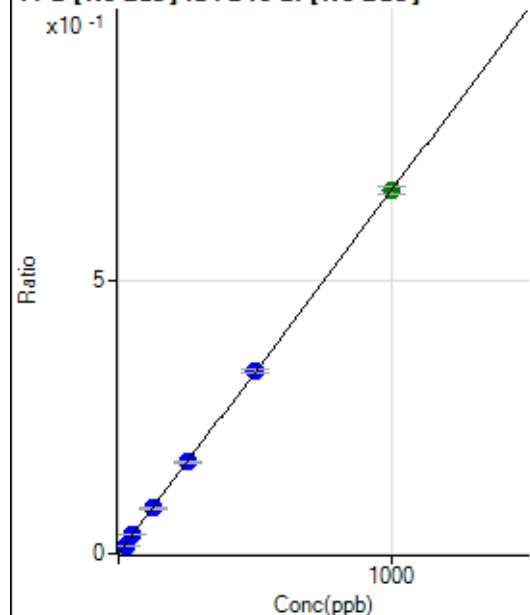
$$R = 1.0000$$

$$DL = 0.05369$$

$$BEC = 0.5077$$

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	3845.10	0.0004	P	5.6
2	☐	2.500					
3	☐	25.000	22.462	165378.20	0.0153	P	3.8
4	☐	50.000	50.783	355832.51	0.0342	P	2.4
5	☐	125.000	124.941	826384.99	0.0836	P	3.3
6	☐	250.000	251.485	1572610.72	0.1678	P	2.2
7	☐	500.000	501.434	3083323.48	0.3342	P	1.8
8	☐	1000.000	998.943	5954759.95	0.6655	A	2.3
9	☐			291814.79	0.0359	P	11.0

$$y = 6.6582E-004 * x + 3.6658E-004$$

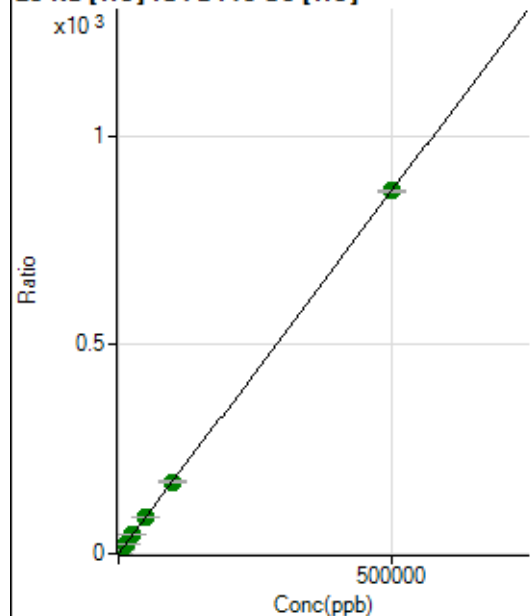
$$R = 1.0000$$

$$DL = 0.09313$$

$$BEC = 0.5506$$

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	32747.73	0.0354	P	1.7
2	☐	50.000					
3	☐	500.000	470.686	787866.41	0.8519	P	1.9
4	☐	5000.000	5126.428	7860327.87	8.9281	A	1.4
5	☐	12500.000	12708.322	18420582.35	22.0802	A	0.7
6	☐	25000.000	25439.665	36148736.92	44.1649	A	0.4
7	☐	50000.000	49648.397	72166648.84	86.1591	A	0.8
8	☐	100000.00	98972.438	143047722.64	171.7201	A	0.9
9	☐	500000.00	500212.24	715619615.99	867.7394	A	0.4

$$y = 0.0017 * x + 0.0354$$

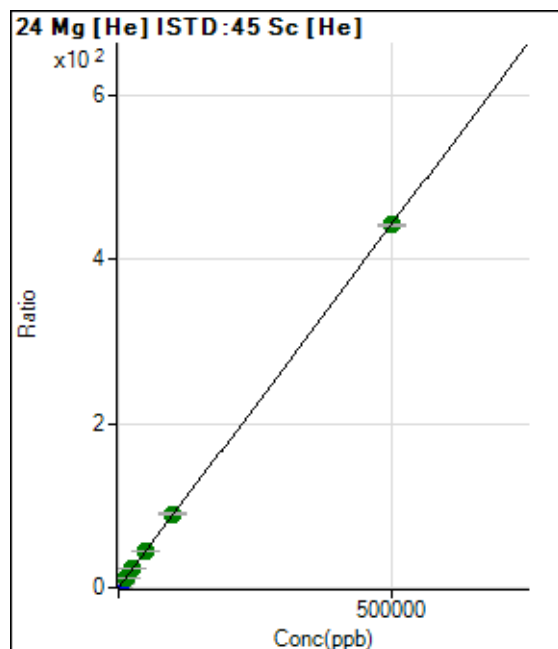
$$R = 1.0000$$

$$DL = 1.065$$

$$BEC = 20.41$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	380.58	0.0004	P	13.6
2	☐	50.000					
3	☐	500.000	503.651	412531.87	0.4460	P	1.1
4	☐	5000.000	5314.597	4140340.85	4.7027	P	1.2
5	☐	12500.000	13290.648	9810636.33	11.7599	A	1.3
6	☐	25000.000	26440.952	19149024.04	23.3951	A	0.2
7	☐	50000.000	50863.974	37691747.37	45.0044	A	1.8
8	☐	100000.00	101681.13	74944948.20	89.9670	A	0.6
9	☐	500000.00	499482.41	364461908.15	441.9381	A	0.5

$$y = 8.8479\text{E-}004 * x + 4.1156\text{E-}004$$

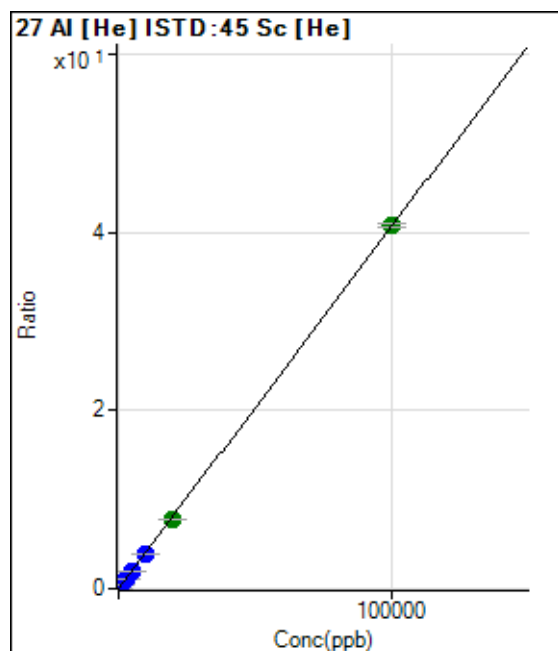
$$R = 1.0000$$

$$DL = 0.1897$$

$$BEC = 0.4651$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	130.56	0.0001	P	20.9
2	☐	2.000					
3	☐	20.000	18.307	7013.07	0.0076	P	4.8
4	☐	1000.000	1007.801	360726.70	0.4097	P	1.4
5	☐	2500.000	2506.523	849980.02	1.0188	P	1.0
6	☐	5000.000	4981.308	1657147.21	2.0246	P	0.1
7	☐	10000.000	9738.254	3314949.27	3.9579	P	1.3
8	☐	20000.000	19225.086	6509019.15	7.8134	A	0.4
9	☐	100000.00	100181.85	33576970.54	40.7152	A	1.0

$$y = 4.0641\text{E-}004 * x + 1.4123\text{E-}004$$

$$R = 1.0000$$

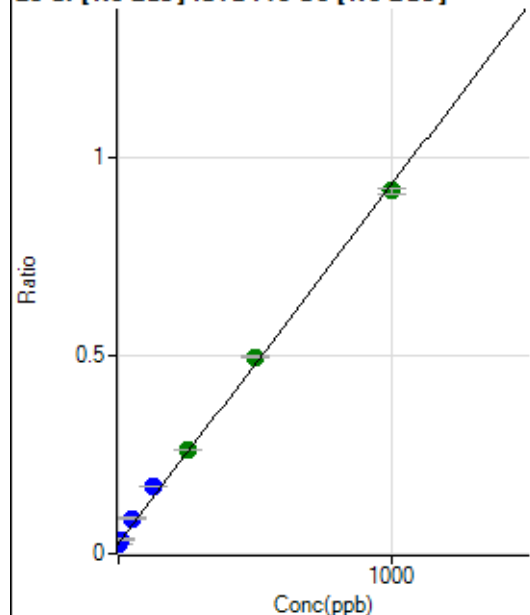
$$DL = 0.2176$$

$$BEC = 0.3475$$

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	450419.83	0.0265	P	0.2
2	☐	1.000					
3	☐	10.000	10.349	612677.06	0.0359	P	5.8
4	☐	50.000	69.617	1462631.18	0.0895	P	1.8
5	☐	125.000	157.717	2622905.11	0.1692	P	1.2
6	☐	250.000	261.621	3886102.39	0.2632	A	0.3
7	☐	500.000	518.335	7383247.65	0.4954	A	0.9
8	☐	1000.000	982.853	13493549.09	0.9157	A	1.3
9	☐			1013292.99	0.0717	P	1.1

$$y = 9.0469\text{E-}004 * x + 0.0265$$

$$R = 0.9992$$

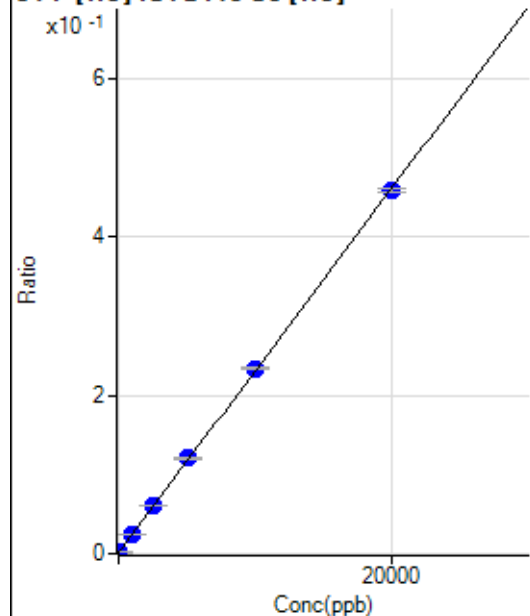
$$DL = 0.1826$$

$$BEC = 29.3$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-26.021	419.47	0.0005	P	12.9
2	☐	0.000					
3	☐	0.000	26.021	1525.14	0.0016	P	3.3
4	☐	1000.000	991.760	20990.58	0.0238	P	2.6
5	☐	2500.000	2564.436	50040.47	0.0600	P	0.7
6	☐	5000.000	5185.716	98405.04	0.1202	P	1.8
7	☐	10000.000	10136.754	196009.03	0.2340	P	0.2
8	☐	20000.000	19877.552	381400.34	0.4578	P	0.9
9	☐			569.48	0.0007	P	12.6

$$y = 2.2980\text{E-}005 * x + 0.0011$$

$$R = 0.9999$$

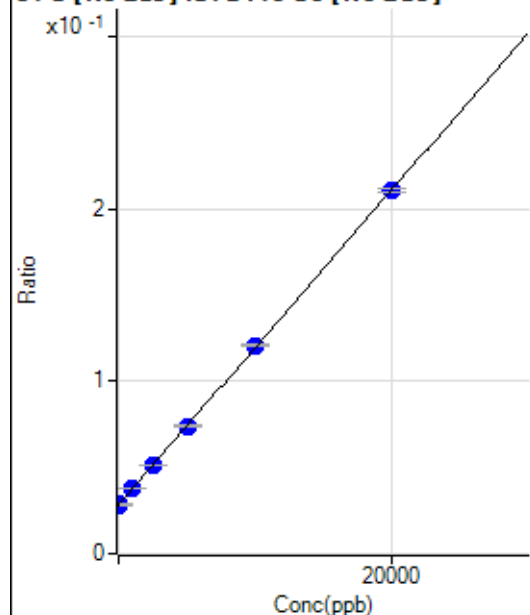
$$DL = 7.36$$

$$BEC = 45.75$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-28.937	477661.48	0.0281	P	0.5
2	☐	0.000					
3	☐	0.000	28.937	489315.78	0.0286	P	5.1
4	☐	1000.000	1083.133	625509.39	0.0383	P	0.1
5	☐	2500.000	2533.135	798705.41	0.0515	P	0.7
6	☐	5000.000	4979.394	1090393.44	0.0739	P	1.1
7	☐	10000.000	10098.316	1797416.73	0.1206	P	0.8
8	☐	20000.000	19947.695	3103044.81	0.2106	P	1.2
9	☐			369680.23	0.0261	P	2.4

$$y = 9.1338\text{E-}006 * x + 0.0284$$

R = 1.0000

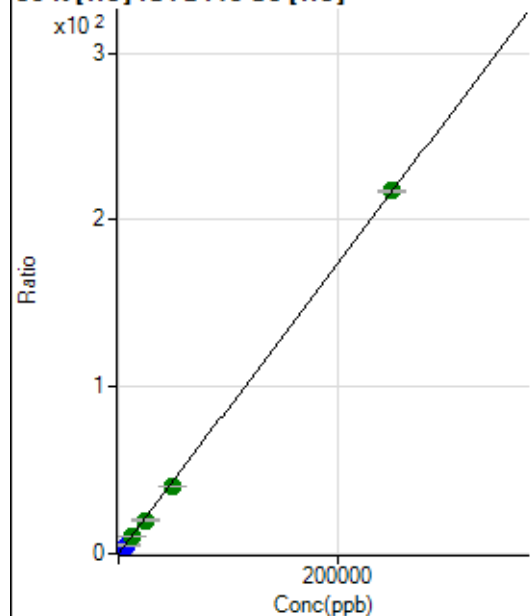
DL = 262.3

BEC = 3107

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	31732.18	0.0343	P	2.1
2	☐	50.000					
3	☐	500.000	440.310	384522.21	0.4158	P	1.3
4	☐	2500.000	2397.513	1858906.85	2.1114	P	1.0
5	☐	6250.000	5934.830	4318033.47	5.1759	P	1.2
6	☐	12500.000	11772.897	8376146.20	10.2337	A	0.7
7	☐	25000.000	23232.776	16887093.09	20.1619	A	1.1
8	☐	50000.000	46753.054	33771219.85	40.5385	A	0.3
9	☐	250000.00	250871.49	179267190.12	217.3752	A	0.5

$$y = 8.6634\text{E-}004 * x + 0.0343$$

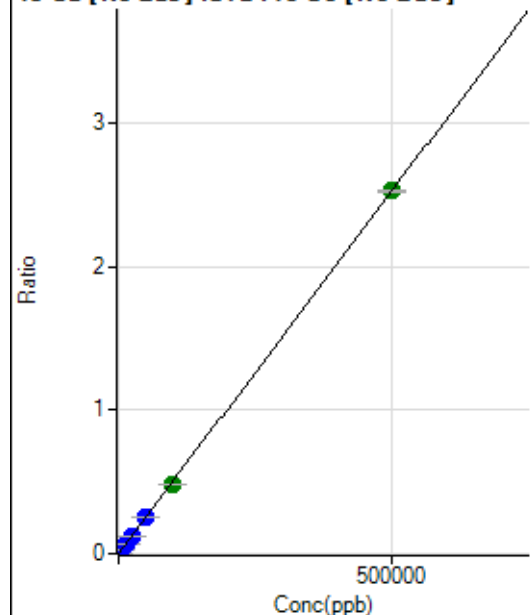
R = 0.9999

DL = 2.494

BEC = 39.6

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	388.91	0.0000	P	15.1
2	☐	50.000					
3	☐	500.000	437.576	38077.90	0.0022	P	4.9
4	☐	5000.000	5014.815	413542.35	0.0253	P	0.7
5	☐	12500.000	12512.322	978092.06	0.0631	P	1.5
6	☐	25000.000	24904.843	1853883.22	0.1256	P	1.4
7	☐	50000.000	49568.263	3723926.43	0.2499	P	0.3
8	☐	100000.00	96252.255	7149858.32	0.4852	A	1.1
9	☐	500000.00	500797.08	35686300.80	2.5244	A	0.4

$$y = 5.0407\text{E-}006 * x + 2.2879\text{E-}005$$

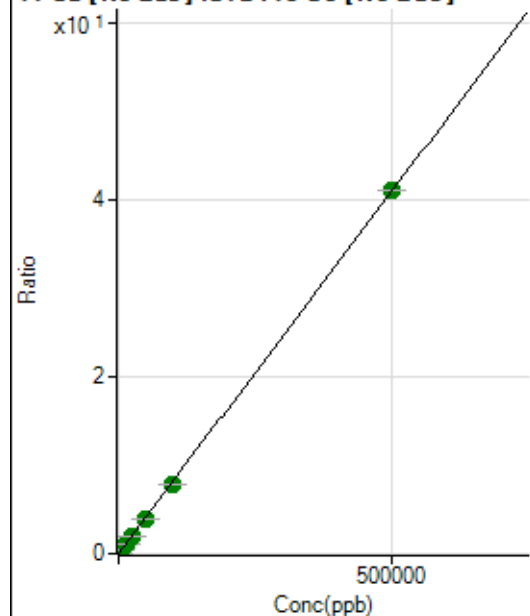
$$R = 1.0000$$

$$DL = 2.056$$

$$BEC = 4.539$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36581.18	0.0022	P	1.4
2	☐	50.000					
3	☐	500.000	437.707	648736.70	0.0380	P	6.0
4	☐	5000.000	4854.783	6530998.02	0.3996	A	1.2
5	☐	12500.000	12115.964	15410212.50	0.9940	A	0.4
6	☐	25000.000	24325.354	29430639.20	1.9934	A	1.1
7	☐	50000.000	48145.597	58767827.70	3.9434	A	0.2
8	☐	100000.00	95639.565	115404187.30	7.8312	A	0.2
9	☐	500000.00	501102.37	579931474.07	41.0225	A	0.2

$$y = 8.1860\text{E-}005 * x + 0.0022$$

$$R = 1.0000$$

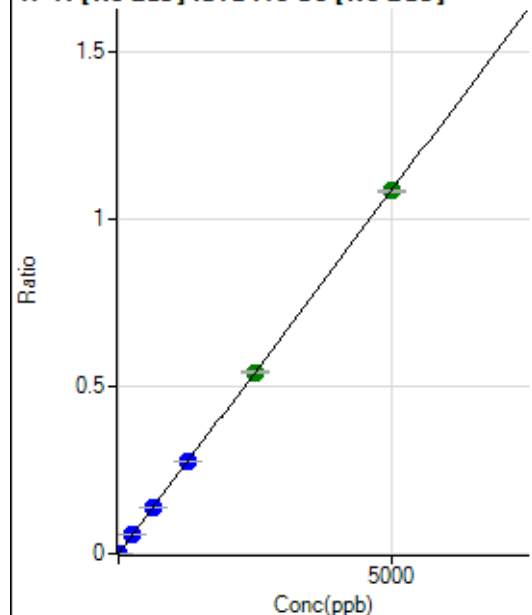
$$DL = 1.089$$

$$BEC = 26.3$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	366.69	0.0000	P	26.3
2	☐	0.500					
3	☐	5.000	4.679	17744.66	0.0010	P	8.1
4	☐	250.000	253.486	901740.36	0.0552	P	0.7
5	☐	625.000	635.249	2142903.24	0.1382	P	0.9
6	☐	1250.000	1275.058	4095983.42	0.2774	P	0.6
7	☐	2500.000	2499.433	8103866.15	0.5438	A	1.2
8	☐	5000.000	4992.564	16006042.02	1.0862	A	0.8
9	☐			6379.40	0.0005	P	6.8

$$y = 2.1756\text{E-}004 * x + 2.1601\text{E-}005$$

$$R = 1.0000$$

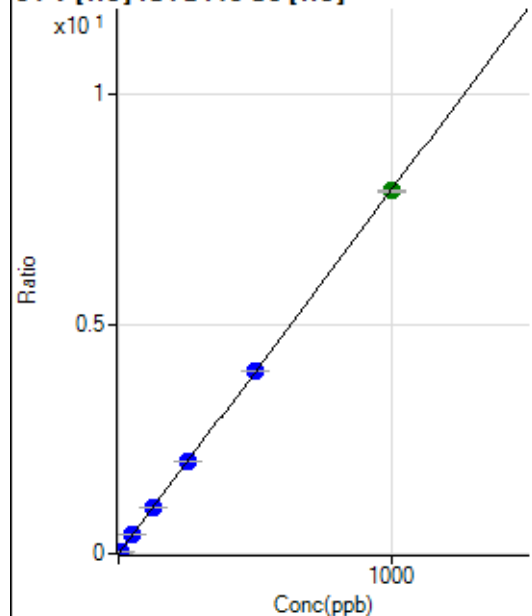
$$DL = 0.07821$$

$$BEC = 0.09929$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15.56	0.0000	P	53.6
2	☐	0.500					
3	☐	5.000	4.860	35606.47	0.0385	P	0.9
4	☐	50.000	50.758	353842.24	0.4019	P	0.3
5	☐	125.000	126.385	834812.87	1.0007	P	0.8
6	☐	250.000	254.772	1651056.97	2.0172	P	0.3
7	☐	500.000	502.335	3331562.31	3.9772	P	0.3
8	☐	1000.000	997.429	6578523.23	7.8971	A	0.8
9	☐			1183.40	0.0014	P	6.7

$$y = 0.0079 * x + 1.6793\text{E-}005$$

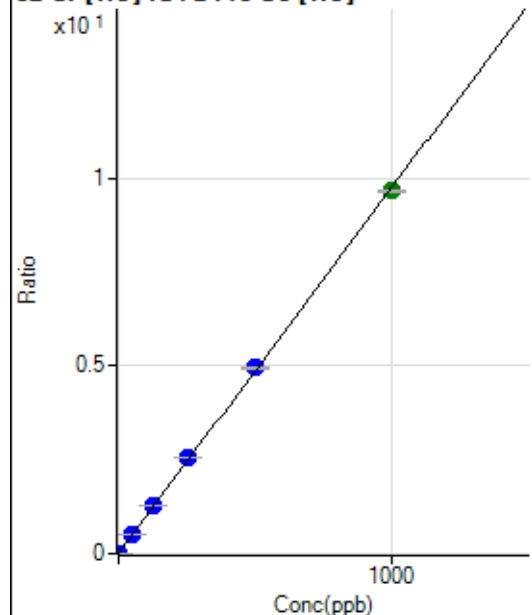
$$R = 1.0000$$

$$DL = 0.00341$$

$$BEC = 0.002121$$

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	4684.15	0.0051	P	2.3
2	☐	0.200					
3	☐	2.000	1.911	21890.91	0.0237	P	2.1
4	☐	50.000	52.215	452082.46	0.5135	P	0.5
5	☐	125.000	129.671	1057525.92	1.2676	P	1.0
6	☐	250.000	261.679	2089521.86	2.5529	P	0.8
7	☐	500.000	508.896	4154410.63	4.9600	P	0.9
8	☐	1000.000	991.938	8049715.99	9.6631	A	0.7
9	☐			56625.07	0.0687	P	1.3

$$y = 0.0097 * x + 0.0051$$

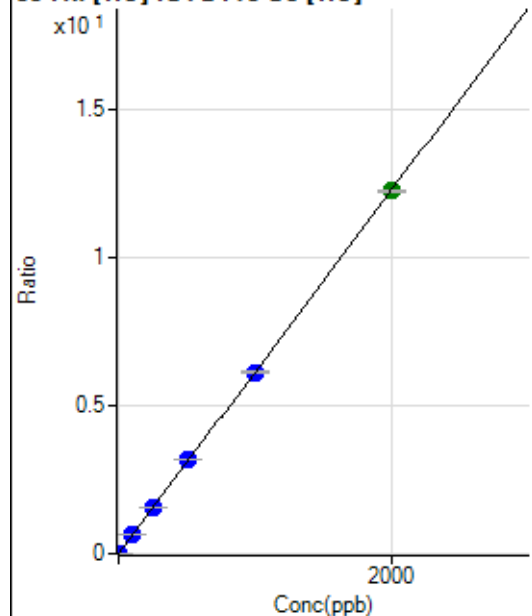
$$R = 0.9999$$

$$DL = 0.03652$$

$$BEC = 0.5202$$

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	126.67	0.0001	P	16.4
2	☐	0.100					
3	☐	1.000	0.975	5674.52	0.0061	P	3.0
4	☐	100.000	102.986	557716.30	0.6335	P	0.8
5	☐	250.000	256.670	1316913.02	1.5786	P	1.0
6	☐	500.000	514.425	2589405.38	3.1636	P	0.4
7	☐	1000.000	999.236	5146932.66	6.1450	P	1.0
8	☐	2000.000	1995.793	10224031.86	12.2734	A	0.8
9	☐			40317.60	0.0489	P	0.4

$$y = 0.0061 * x + 1.3695E-004$$

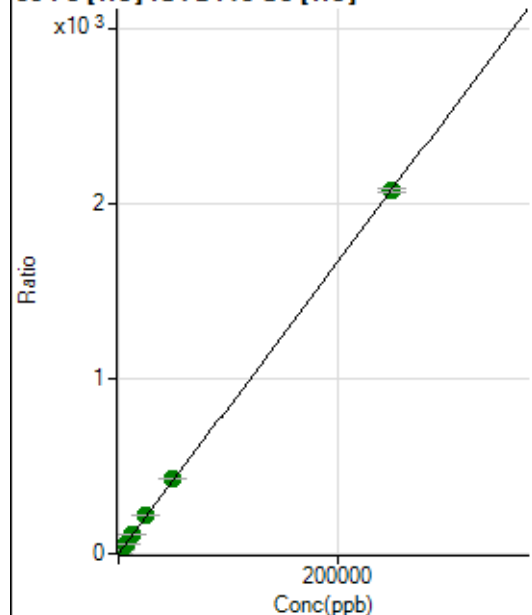
$$R = 1.0000$$

$$DL = 0.01093$$

$$BEC = 0.02227$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10559.63	0.0114	P	3.9
2	☐	5.000					
3	☐	50.000	52.240	411611.94	0.4450	P	0.2
4	☐	2500.000	2713.109	19837617.80	22.5310	A	0.5
5	☐	6250.000	6758.776	46810706.60	56.1113	A	1.4
6	☐	12500.000	13489.810	91655582.60	111.9809	A	1.7
7	☐	25000.000	26274.940	182676531.86	218.1012	A	1.0
8	☐	50000.000	51761.188	357907656.15	429.6447	A	0.8
9	☐	250000.00	249455.92	1707533297.4	2,070.569	A	0.9

$$y = 0.0083 * x + 0.0114$$

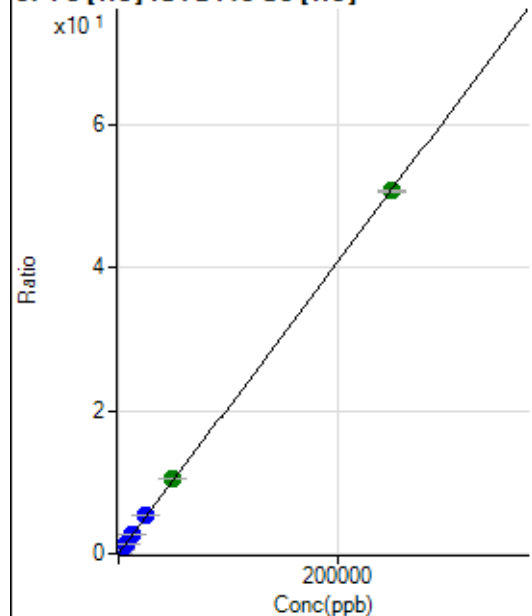
$$R = 1.0000$$

$$DL = 0.1591$$

$$BEC = 1.375$$

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	331.49	0.0004	P	6.9
2	☐	5.000					
3	☐	50.000	53.144	10324.31	0.0112	P	2.5
4	☐	2500.000	2728.273	488734.85	0.5551	P	0.2
5	☐	6250.000	6810.424	1155519.79	1.3851	P	1.4
6	☐	12500.000	13571.314	2258827.97	2.7598	P	0.9
7	☐	25000.000	26581.287	4527412.89	5.4051	P	0.8
8	☐	50000.000	51578.552	8736698.29	10.4877	A	0.8
9	☐	250000.00	249456.30	41829437.05	50.7218	A	0.5

$$y = 2.0333E-004 * x + 3.5839E-004$$

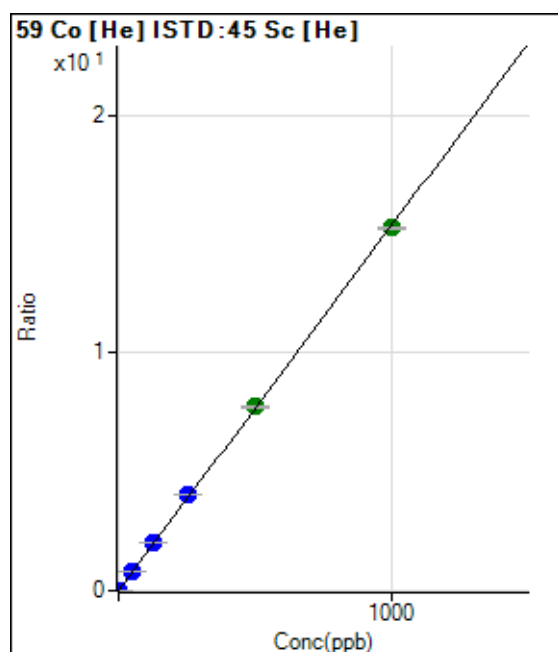
$$R = 1.0000$$

$$DL = 0.3664$$

$$BEC = 1.763$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	317.79	0.0003	P	10.2
2	☐	0.100					
3	☐	1.000	0.958	13942.37	0.0151	P	3.3
4	☐	50.000	53.644	726166.46	0.8248	P	1.0
5	☐	125.000	133.518	1712156.24	2.0523	P	1.1
6	☐	250.000	263.443	3314087.55	4.0491	P	1.0
7	☐	500.000	503.556	6481790.04	7.7393	A	1.7
8	☐	1000.000	993.614	12721331.62	15.2708	A	0.2
9	☐			141165.45	0.1712	P	0.4

$$y = 0.0154 * x + 3.4367E-004$$

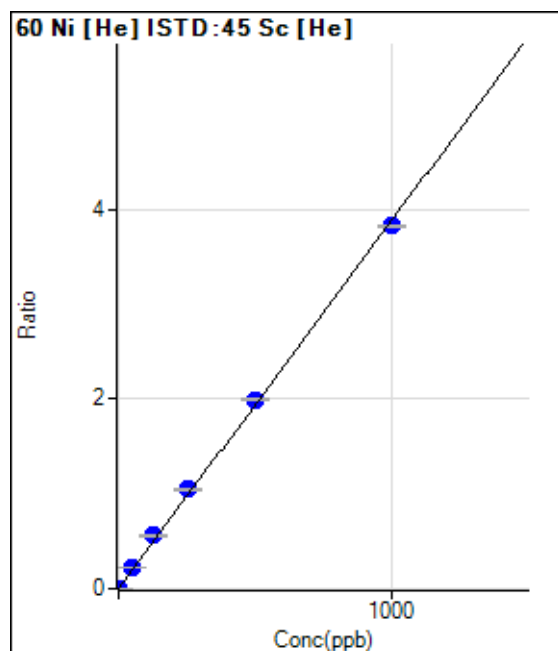
$$R = 0.9999$$

$$DL = 0.006814$$

$$BEC = 0.02236$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	145.56	0.0002	P	6.0
2	☐	0.100					
3	☐	1.000	1.032	3847.24	0.0042	P	2.8
4	☐	50.000	55.224	188759.25	0.2144	P	1.1
5	☐	125.000	143.815	465583.19	0.5581	P	0.5
6	☐	250.000	269.446	855680.46	1.0455	P	1.1
7	☐	500.000	512.613	1665781.88	1.9888	P	1.1
8	☐	1000.000	986.219	3187398.18	3.8261	P	0.2
9	☐			36179.21	0.0439	P	1.9

$$y = 0.0039 * x + 1.5739E-004$$

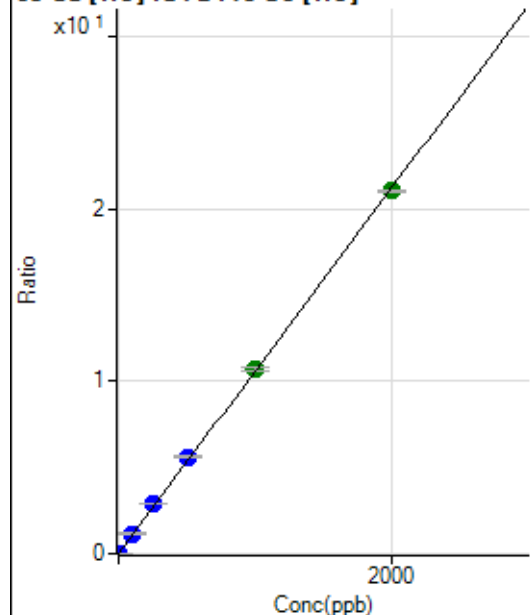
$$R = 0.9996$$

$$DL = 0.007278$$

$$BEC = 0.04057$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1403.42	0.0015	P	3.3
2	☐	0.200					
3	☐	2.000	2.003	21036.50	0.0227	P	1.0
4	☐	100.000	109.958	1027298.36	1.1668	P	0.8
5	☐	250.000	271.397	2400771.18	2.8777	P	0.5
6	☐	500.000	530.614	4603794.65	5.6248	P	0.8
7	☐	1000.000	1007.549	8943917.30	10.6792	A	1.9
8	☐	2000.000	1985.400	17528435.71	21.0421	A	0.8
9	☐			19727.98	0.0239	P	2.7

$$y = 0.0106 * x + 0.0015$$

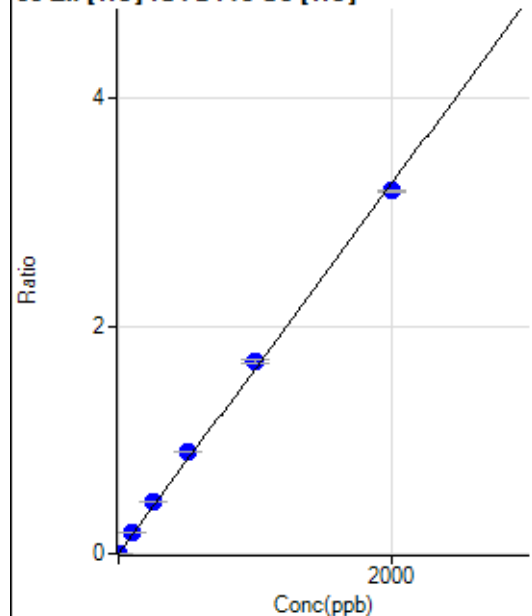
$$R = 0.9998$$

$$DL = 0.01415$$

$$BEC = 0.1432$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	465.57	0.0005	P	3.9
2	☐	0.200					
3	☐	2.000	2.050	3544.94	0.0038	P	2.2
4	☐	100.000	113.030	162092.29	0.1841	P	1.6
5	☐	250.000	280.197	380136.52	0.4557	P	0.7
6	☐	500.000	552.492	734960.74	0.8980	P	1.2
7	☐	1000.000	1040.494	1416017.41	1.6907	P	1.4
8	☐	2000.000	1962.204	2655743.99	3.1879	P	0.4
9	☐			13926.82	0.0169	P	0.5

$$y = 0.0016 * x + 5.0338E-004$$

$$R = 0.9993$$

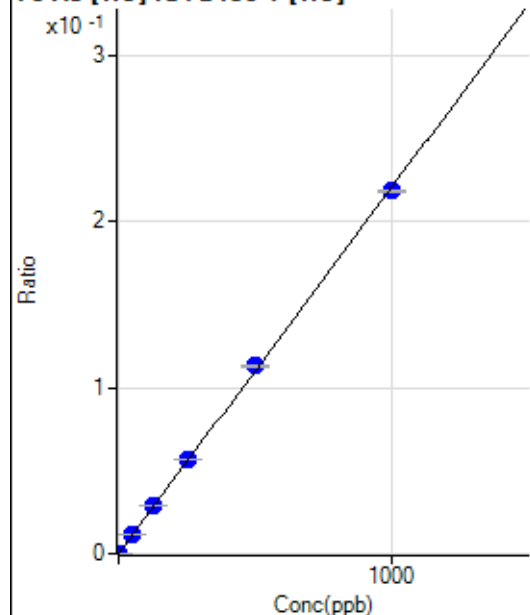
$$DL = 0.03609$$

$$BEC = 0.3099$$

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	24.08	0.0000	P	41.1
2	☐	0.100					
3	☐	1.000	0.964	920.41	0.0002	P	8.3
4	☐	50.000	53.336	47225.24	0.0118	P	1.5
5	☐	125.000	130.705	110738.86	0.0288	P	1.1
6	☐	250.000	256.720	217207.10	0.0566	P	0.5
7	☐	500.000	512.583	434785.75	0.1129	P	0.5
8	☐	1000.000	991.149	832719.30	0.2183	P	0.5
9	☐			1040.79	0.0003	P	3.7

$$y = 2.2028\text{E-}004 * x + 5.7985\text{E-}006$$

$$R = 0.9999$$

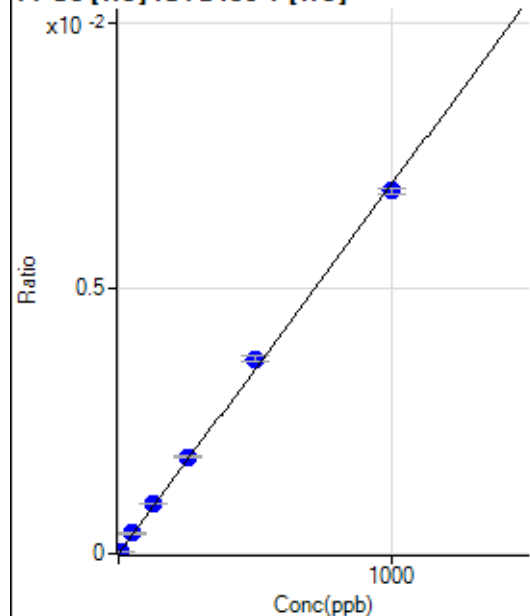
$$DL = 0.03244$$

$$BEC = 0.02632$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	5.142	151.11	0.0000	P	4.7
4	☐	50.000	55.200	1544.55	0.0004	P	4.4
5	☐	125.000	135.591	3631.64	0.0009	P	1.6
6	☐	250.000	261.254	6988.46	0.0018	P	2.2
7	☐	500.000	526.113	14107.05	0.0037	P	3.0
8	☐	1000.000	982.545	26098.18	0.0068	P	1.4
9	☐			2.22	0.0000	P	86.6

$$y = 6.9649\text{E-}006 * x + 0.0000\text{E+}000$$

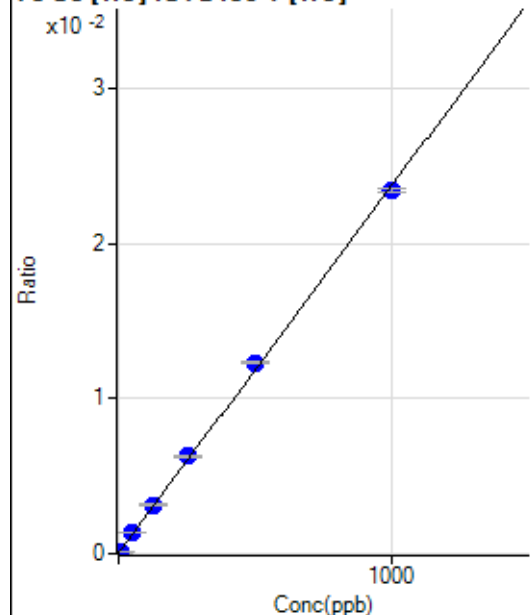
$$R = 0.9994$$

$$DL = 0$$

$$BEC = 0$$

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	146.92	0.0000	P	9.1
2	☐	0.500					
3	☐	5.000	5.615	709.90	0.0002	P	10.2
4	☐	50.000	55.258	5398.58	0.0013	P	1.1
5	☐	125.000	131.515	12110.08	0.0031	P	2.0
6	☐	250.000	263.137	24064.49	0.0063	P	0.2
7	☐	500.000	517.718	47336.21	0.0123	P	1.0
8	☐	1000.000	986.777	89245.74	0.0234	P	1.0
9	☐			149.38	0.0000	P	19.6

$$y = 2.3678E-005 * x + 3.5347E-005$$

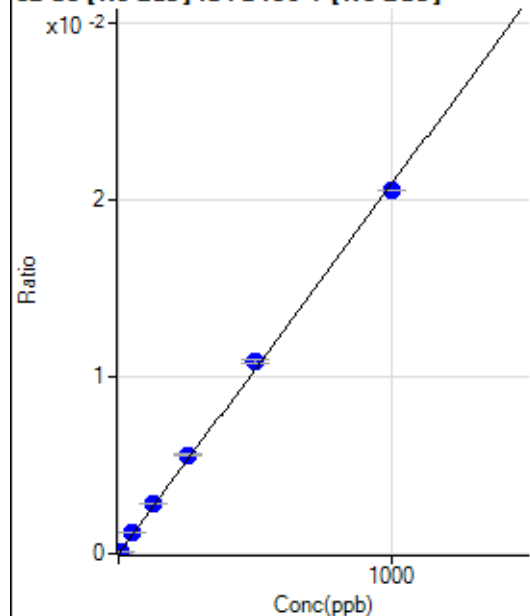
$$R = 0.9997$$

$$DL = 0.4066$$

$$BEC = 1.493$$

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	12.01	0.0000	P	560.
2	☐	0.500					
3	☐	5.000	5.352	2774.22	0.0001	P	11.4
4	☐	50.000	55.698	27681.13	0.0012	P	1.1
5	☐	125.000	136.636	65613.69	0.0029	P	1.3
6	☐	250.000	268.072	125204.56	0.0056	P	1.5
7	☐	500.000	522.721	245031.64	0.0109	P	1.9
8	☐	1000.000	982.380	458172.66	0.0205	P	0.1
9	☐			124.68	0.0000	P	96.6

$$y = 2.0902E-005 * x + 4.8721E-007$$

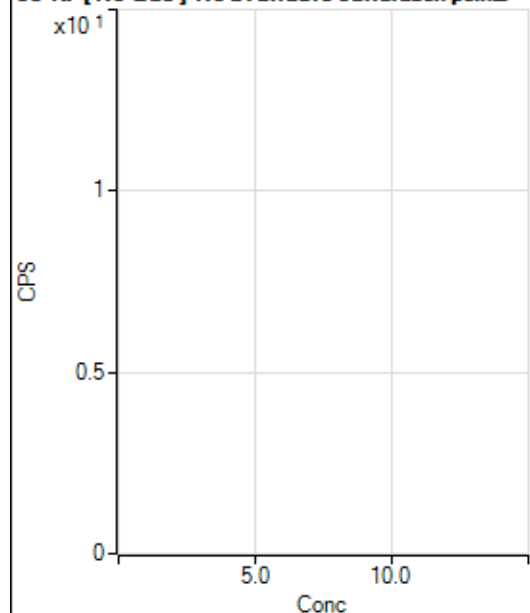
$$R = 0.9994$$

$$DL = 0.3921$$

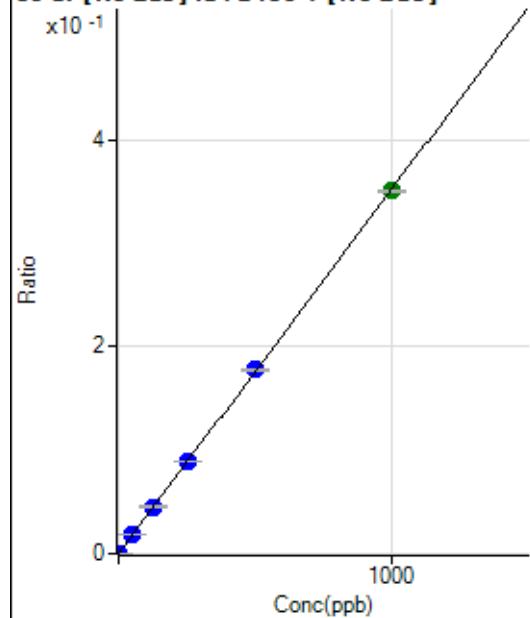
$$BEC = 0.02331$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			1315.64		P	4.6
2	☐						
3	☐			1252.29		P	6.4
4	☐			1300.08		P	2.7
5	☐			1257.85		P	8.6
6	☐			1237.85		P	10.2
7	☐			1250.08		P	1.6
8	☐			1270.08		P	5.8
9	☐			1355.65		P	9.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2172.48	0.0001	P	2.3
2	☐	0.100					
3	☐	1.000	0.799	9169.96	0.0004	P	6.4
4	☐	50.000	51.250	431124.15	0.0181	P	0.6
5	☐	125.000	128.890	1044838.59	0.0455	P	1.1
6	☐	250.000	254.144	2001905.30	0.0896	P	0.9
7	☐	500.000	504.311	3985513.20	0.1777	P	0.9
8	☐	1000.000	996.260	7831126.22	0.3510	A	0.3
9	☐			29770.54	0.0014	P	1.7

$$y = 3.5220E-004 * x + 8.9150E-005$$

$$R = 1.0000$$

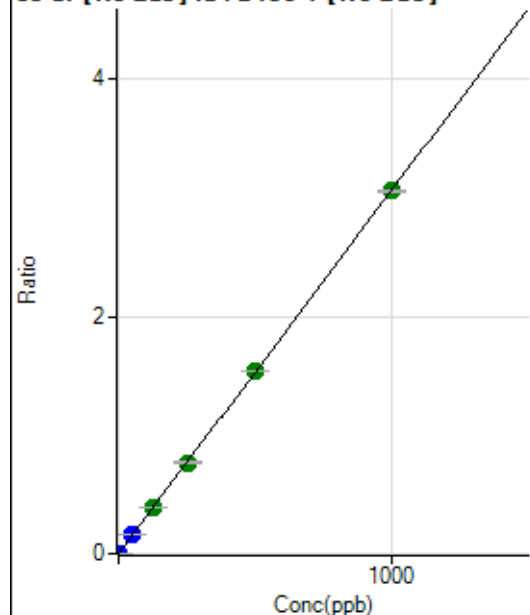
$$DL = 0.01778$$

$$BEC = 0.2531$$

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	183.34	0.0000	P	43.7
2	☐	0.100					
3	☐	1.000	0.799	60676.91	0.0025	P	5.3
4	☐	50.000	51.244	3727677.77	0.1568	P	0.3
5	☐	125.000	126.480	8892471.81	0.3871	A	0.3
6	☐	250.000	251.183	17174624.86	0.7688	A	1.7
7	☐	500.000	501.258	34407565.70	1.5341	A	0.3
8	☐	1000.000	998.828	68208423.75	3.0569	A	0.3
9	☐			248396.33	0.0120	P	0.6

$$y = 0.0031 * x + 7.5306E-006$$

$$R = 1.0000$$

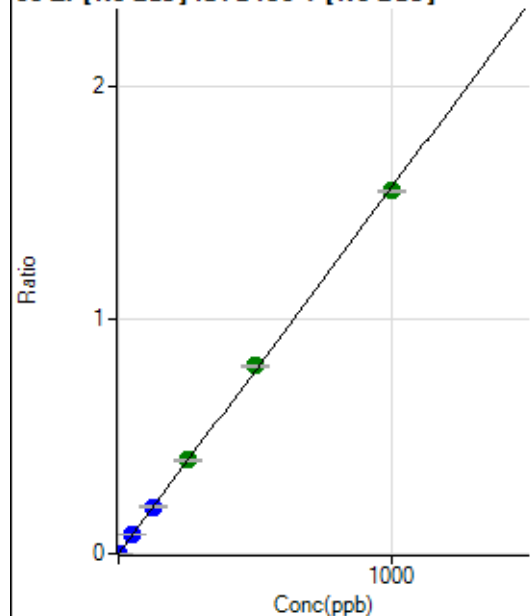
$$DL = 0.003223$$

$$BEC = 0.002461$$

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	1864.09	0.0001	P	2.2
2	☐	0.100					
3	☐	1.000	0.901	36770.72	0.0015	P	8.0
4	☐	50.000	51.323	1912703.36	0.0805	P	0.6
5	☐	125.000	128.476	4624895.02	0.2013	P	1.1
6	☐	250.000	255.735	8952066.09	0.4007	A	1.5
7	☐	500.000	514.306	18070628.18	0.8058	A	1.1
8	☐	1000.000	990.913	34637466.40	1.5524	A	0.5
9	☐			11149.17	0.0005	P	5.6

$$y = 0.0016 * x + 7.6496E-005$$

$$R = 0.9998$$

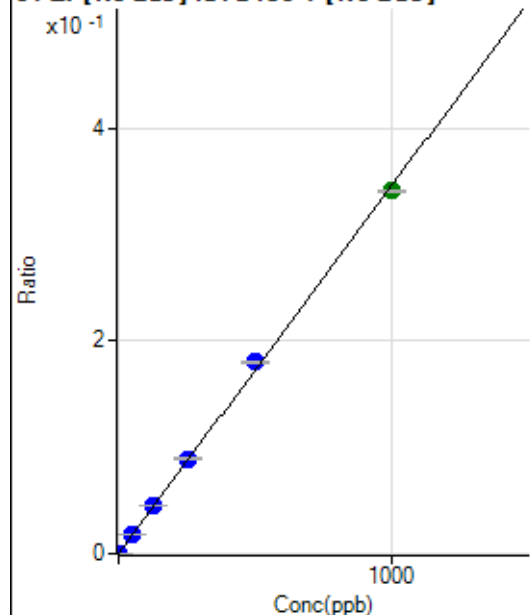
$$DL = 0.003287$$

$$BEC = 0.04883$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	352.80	0.0000	P	24.2
2	☐	0.100					
3	☐	1.000	0.901	8060.92	0.0003	P	7.1
4	☐	50.000	51.807	425955.68	0.0179	P	0.5
5	☐	125.000	130.188	1034053.62	0.0450	P	0.8
6	☐	250.000	258.739	1998507.62	0.0894	P	1.0
7	☐	500.000	520.545	4036023.70	0.1799	P	0.5
8	☐	1000.000	986.804	7610981.94	0.3411	A	0.4
9	☐			2744.82	0.0001	P	8.7

$$y = 3.4565\text{E-}004 * x + 1.4478\text{E-}005$$

$$R = 0.9996$$

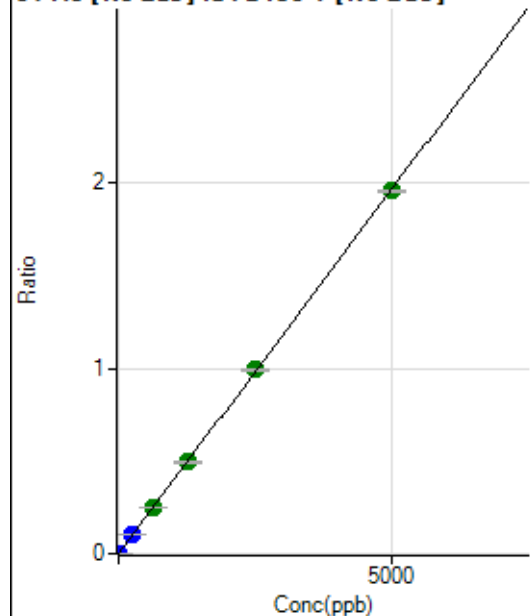
$$DL = 0.03043$$

$$BEC = 0.04189$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	761.17	0.0000	P	6.4
2	☐	0.500					
3	☐	5.000	4.518	44715.61	0.0018	P	6.0
4	☐	250.000	256.044	2393697.10	0.1007	P	0.5
5	☐	625.000	627.720	5670709.98	0.2469	A	1.1
6	☐	1250.000	1259.451	11064541.83	0.4953	A	2.0
7	☐	2500.000	2529.212	22306003.62	0.9946	A	0.8
8	☐	5000.000	4982.390	43714919.38	1.9592	A	0.7
9	☐			21870.31	0.0011	P	4.3

$$y = 3.9322\text{E-}004 * x + 3.1239\text{E-}005$$

$$R = 1.0000$$

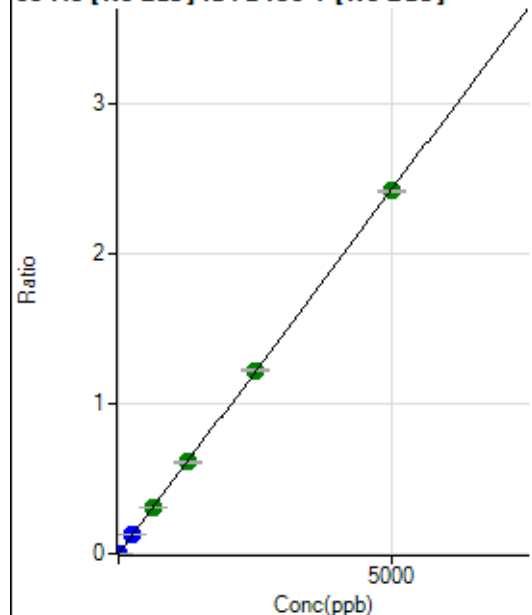
$$DL = 0.01516$$

$$BEC = 0.07944$$

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	119.45	0.0000	P	21.6
2	☐	0.500					
3	☐	5.000	4.583	55219.64	0.0022	P	4.6
4	☐	250.000	257.667	2974985.61	0.1252	P	0.8
5	☐	625.000	630.318	7033717.87	0.3062	A	0.7
6	☐	1250.000	1263.318	13710114.72	0.6137	A	1.8
7	☐	2500.000	2520.473	27459905.48	1.2244	A	0.8
8	☐	5000.000	4985.386	54036553.99	2.4218	A	0.6
9	☐			32081.61	0.0015	P	6.0

$$y = 4.8577\text{E-}004 * x + 4.9040\text{E-}006$$

$$R = 1.0000$$

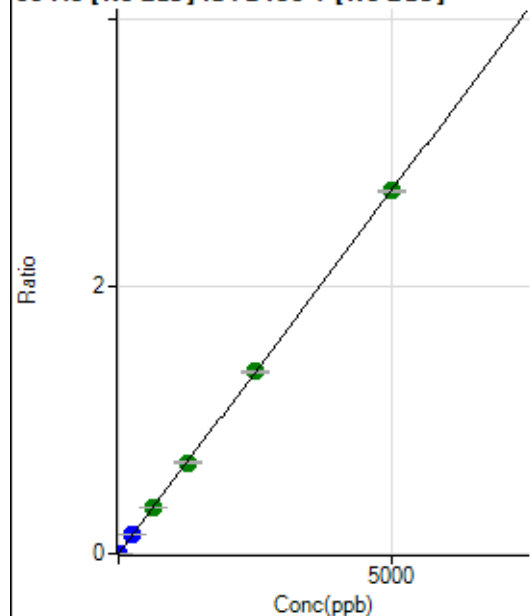
$$DL = 0.006535$$

$$BEC = 0.0101$$

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	252.79	0.0000	P	16.2
2	☐	0.500					
3	☐	5.000	4.535	61288.70	0.0025	P	4.4
4	☐	250.000	255.199	3298552.05	0.1388	P	0.9
5	☐	625.000	625.482	7813850.17	0.3401	A	0.2
6	☐	1250.000	1248.217	15164562.15	0.6788	A	1.9
7	☐	2500.000	2507.015	30575931.24	1.3633	A	0.6
8	☐	5000.000	4996.619	60627545.10	2.7171	A	0.6
9	☐			49562.38	0.0024	P	4.2

$$y = 5.4379\text{E-}004 * x + 1.0373\text{E-}005$$

$$R = 1.0000$$

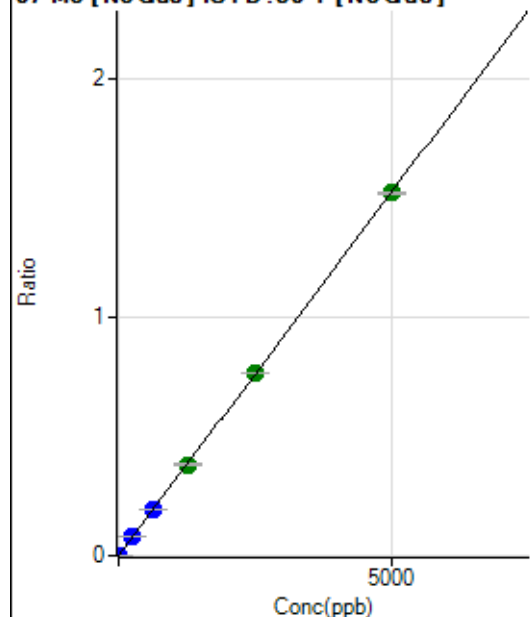
$$DL = 0.009263$$

$$BEC = 0.01908$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111.11	0.0000	P	43.7
2	☐	0.500					
3	☐	5.000	4.594	34757.02	0.0014	P	6.5
4	☐	250.000	256.617	1859689.80	0.0782	P	1.0
5	☐	625.000	636.763	4459856.61	0.1942	P	0.8
6	☐	1250.000	1250.752	8519566.77	0.3814	A	2.0
7	☐	2500.000	2514.642	17195797.09	0.7667	A	0.4
8	☐	5000.000	4990.690	33952763.26	1.5216	A	0.7
9	☐			18857.63	0.0009	P	5.1

$$y = 3.0490\text{E-}004 * x + 4.5577\text{E-}006$$

$$R = 1.0000$$

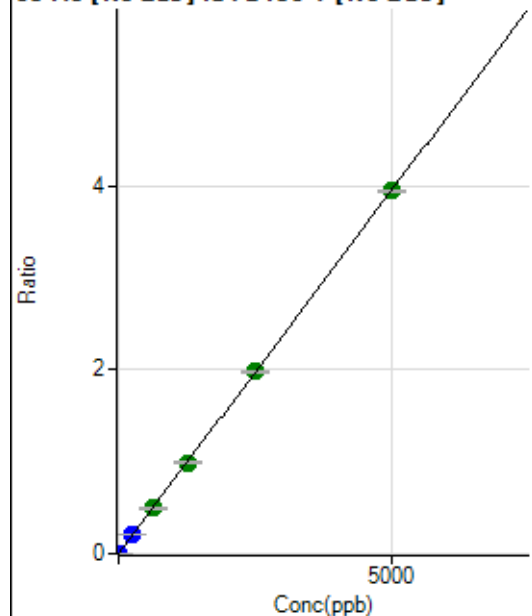
$$DL = 0.01961$$

$$BEC = 0.01495$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	227.79	0.0000	P	8.2
2	☐	0.500					
3	☐	5.000	4.539	88832.95	0.0036	P	6.2
4	☐	250.000	254.714	4777100.32	0.2010	P	1.6
5	☐	625.000	624.549	11320780.81	0.4928	A	1.0
6	☐	1250.000	1250.905	22051194.24	0.9871	A	2.1
7	☐	2500.000	2508.318	44389796.48	1.9793	A	0.8
8	☐	5000.000	4995.436	87953204.74	3.9418	A	0.8
9	☐			48051.84	0.0023	P	6.5

$$y = 7.8908\text{E-}004 * x + 9.3470\text{E-}006$$

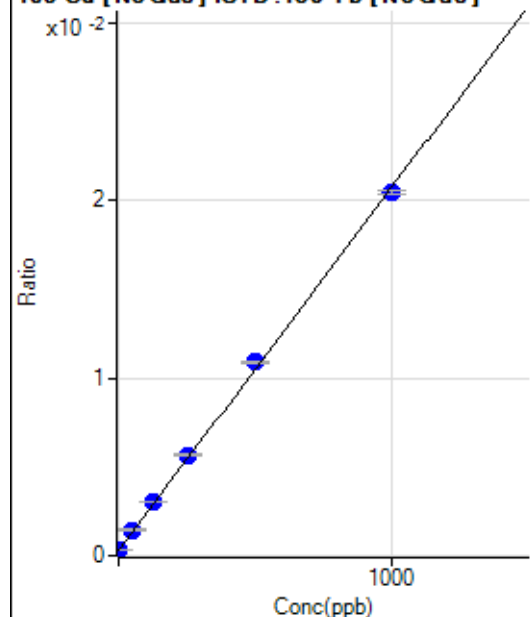
$$R = 1.0000$$

$$DL = 0.002926$$

$$BEC = 0.01185$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9122.79	0.0003	P	1.8
2	☐	0.100					
3	☐	1.000	1.334	10156.87	0.0003	P	1.9
4	☐	50.000	57.290	45933.71	0.0015	P	2.0
5	☐	125.000	135.511	96780.40	0.0031	P	1.0
6	☐	250.000	263.194	175648.91	0.0057	P	1.5
7	☐	500.000	519.053	340049.60	0.0109	P	1.3
8	☐	1000.000	985.496	633001.97	0.0205	P	1.2
9	☐			7977.62	0.0003	P	2.6

$$y = 2.0465\text{E-}005 * x + 2.8239\text{E-}004$$

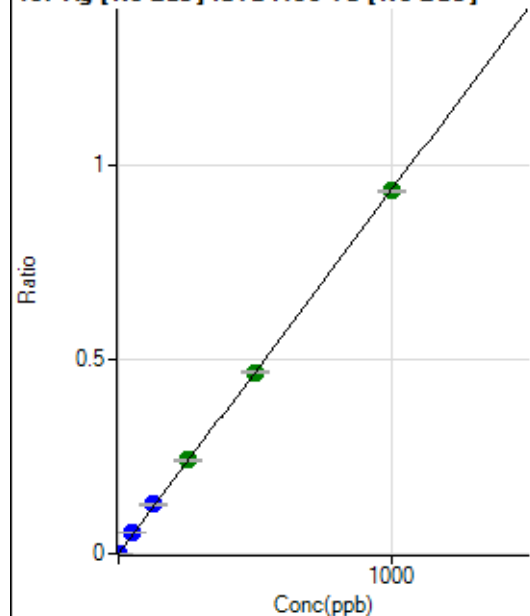
$$R = 0.9996$$

$$DL = 0.7277$$

$$BEC = 13.8$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	169.45	0.0000	P	33.1
2	☐	0.100					
3	☐	1.000	1.101	34008.51	0.0010	P	4.0
4	☐	50.000	56.718	1679066.14	0.0532	P	0.4
5	☐	125.000	135.524	4024619.01	0.1271	P	1.4
6	☐	250.000	257.079	7468406.33	0.2410	A	1.3
7	☐	500.000	497.699	14550419.25	0.4666	A	1.2
8	☐	1000.000	997.729	28951497.17	0.9354	A	0.4
9	☐			2900.43	0.0001	P	12.2

$$y = 9.3750\text{E-}004 * x + 5.2495\text{E-}006$$

$$R = 0.9999$$

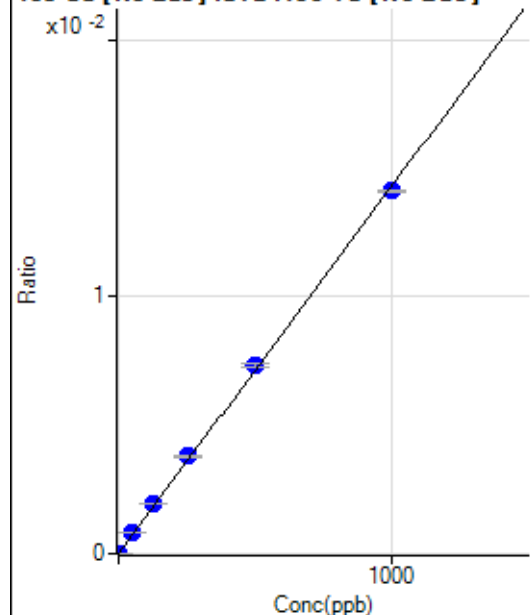
$$DL = 0.005566$$

$$BEC = 0.005599$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.11	0.0000	P	46.3
2	☐	0.100					
3	☐	1.000	1.030	520.85	0.0000	P	6.3
4	☐	50.000	56.868	25704.24	0.0008	P	0.6
5	☐	125.000	135.407	61347.88	0.0019	P	0.8
6	☐	250.000	264.654	117283.85	0.0038	P	0.4
7	☐	500.000	513.083	228763.19	0.0073	P	1.3
8	☐	1000.000	988.151	437264.96	0.0141	P	0.4
9	☐			87.50	0.0000	P	16.3

$$y = 1.4296E-005 * x + 1.1168E-006$$

$$R = 0.9997$$

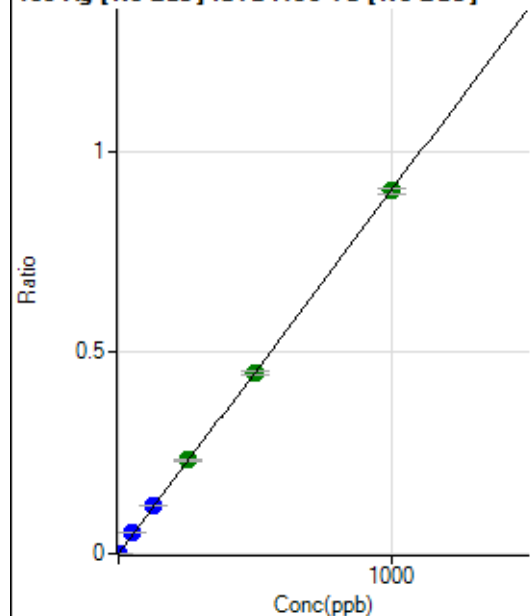
$$DL = 0.1085$$

$$BEC = 0.07812$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	91.67	0.0000	P	23.7
2	☐	0.100					
3	☐	1.000	1.098	32594.14	0.0010	P	4.9
4	☐	50.000	56.920	1623420.36	0.0514	P	0.6
5	☐	125.000	134.110	3836938.67	0.1211	P	0.6
6	☐	250.000	258.082	7223128.03	0.2331	A	2.1
7	☐	500.000	496.496	13984669.41	0.4485	A	1.5
8	☐	1000.000	998.247	27904422.50	0.9017	A	1.4
9	☐			2647.59	0.0001	P	13.4

$$y = 9.0326E-004 * x + 2.8362E-006$$

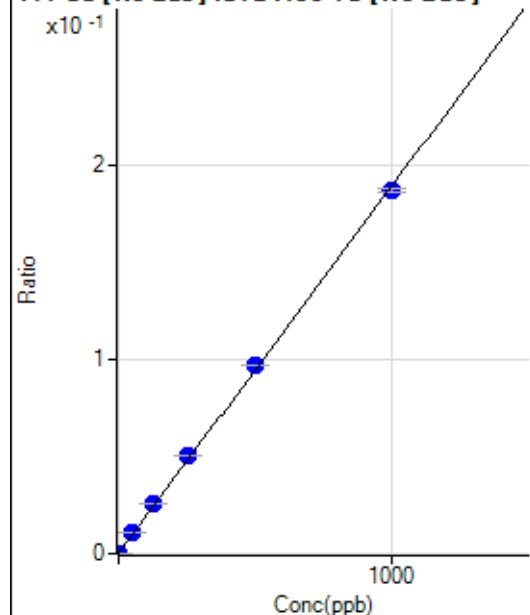
$$R = 0.9999$$

$$DL = 0.002231$$

$$BEC = 0.00314$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6398.18	0.0002	P	1.7
2	☐	0.100					
3	☐	1.000	1.027	12857.75	0.0004	P	3.7
4	☐	50.000	56.384	343111.19	0.0109	P	1.0
5	☐	125.000	136.763	825925.54	0.0261	P	0.8
6	☐	250.000	265.894	1565347.46	0.0505	P	0.6
7	☐	500.000	512.427	3029841.35	0.0972	P	0.5
8	☐	1000.000	988.023	5791980.83	0.1872	P	1.1
9	☐			6224.50	0.0002	P	2.2

$$y = 1.8922\text{E-}004 * x + 1.9805\text{E-}004$$

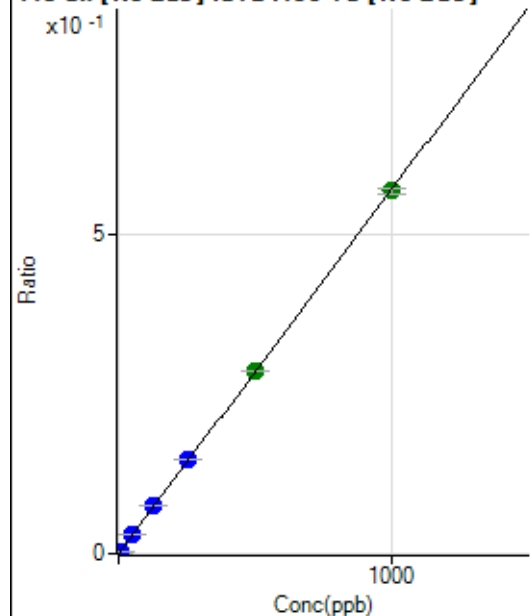
$$R = 0.9997$$

$$DL = 0.05302$$

$$BEC = 1.047$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1602.95	0.0000	P	7.2
2	☐	0.500					
3	☐	5.000	4.972	94224.17	0.0029	P	5.1
4	☐	50.000	53.859	968283.47	0.0307	P	1.8
5	☐	125.000	130.694	2354739.75	0.0743	P	1.3
6	☐	250.000	257.286	4534092.07	0.1463	P	0.8
7	☐	500.000	501.113	8884958.36	0.2849	A	0.6
8	☐	1000.000	996.718	17536677.99	0.5667	A	1.3
9	☐			11268.88	0.0004	P	4.2

$$y = 5.6848\text{E-}004 * x + 4.9624\text{E-}005$$

$$R = 1.0000$$

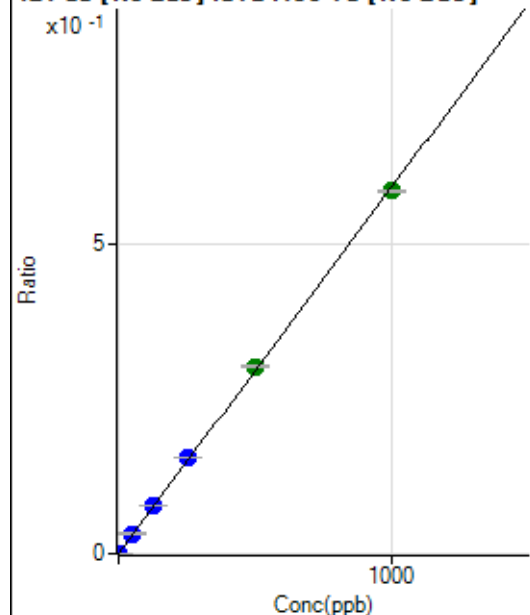
$$DL = 0.01893$$

$$BEC = 0.08729$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	130.56	0.0000	P	39.3
2	☐	0.200					
3	☐	2.000	1.855	36114.34	0.0011	P	3.9
4	☐	50.000	54.869	1025714.64	0.0325	P	1.7
5	☐	125.000	132.408	2482811.54	0.0784	P	1.1
6	☐	250.000	263.225	4829081.19	0.1558	P	0.6
7	☐	500.000	510.334	9421465.83	0.3021	A	0.6
8	☐	1000.000	990.357	18145682.87	0.5863	A	0.5
9	☐			19750.76	0.0007	P	1.1

$$y = 5.9200\text{E-}004 * x + 4.0458\text{E-}006$$

$$R = 0.9998$$

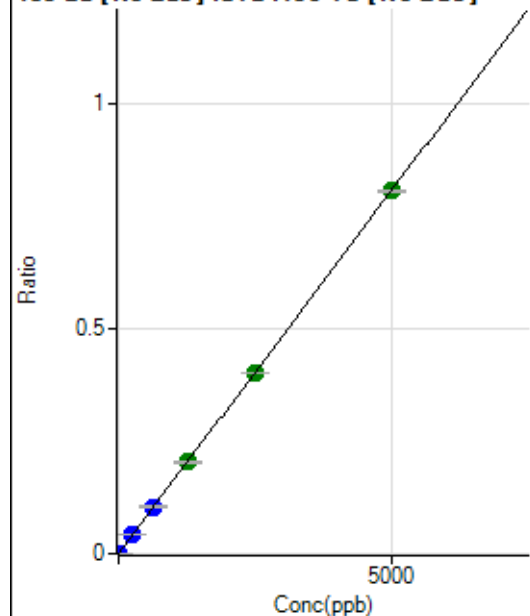
$$DL = 0.008063$$

$$BEC = 0.006834$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.56	0.0000	P	87.6
2	☐	1.000					
3	☐	10.000	9.414	49740.34	0.0015	P	5.1
4	☐	250.000	262.999	1338445.11	0.0424	P	1.2
5	☐	625.000	645.448	3294940.35	0.1040	P	1.8
6	☐	1250.000	1258.835	6287278.66	0.2029	A	1.1
7	☐	2500.000	2496.568	12548467.21	0.4024	A	0.4
8	☐	5000.000	4996.303	24923315.49	0.8053	A	0.7
9	☐			4242.53	0.0002	P	9.7

$$y = 1.6118\text{E-}004 * x + 9.4385\text{E-}007$$

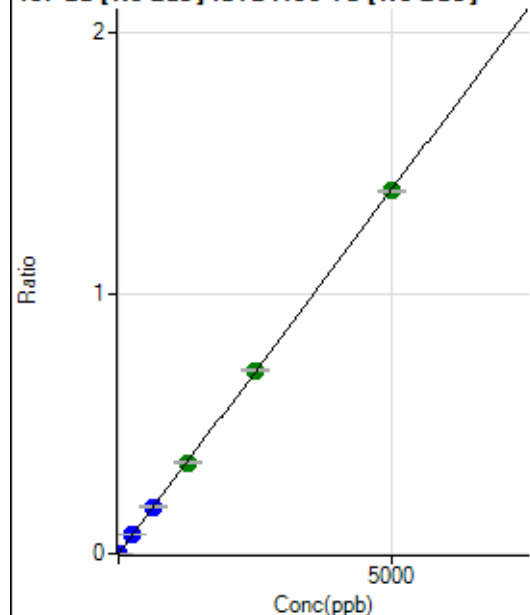
$$R = 1.0000$$

$$DL = 0.01539$$

$$BEC = 0.005856$$

Weight: <None>

Min Conc: 0

¹³⁷Ba [No Gas] ISTD : ¹⁵⁹Tb [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	65.7
2	☐	1.000					
3	☐	10.000	9.583	87854.39	0.0027	P	6.3
4	☐	250.000	265.442	2344260.40	0.0742	P	1.9
5	☐	625.000	645.814	5721169.92	0.1806	P	1.8
6	☐	1250.000	1254.661	10874027.93	0.3509	A	1.5
7	☐	2500.000	2518.520	21968084.69	0.7044	A	0.7
8	☐	5000.000	4986.202	43164432.56	1.3947	A	0.3
9	☐			7669.12	0.0003	P	15.1

$$y = 2.7970\text{E-}004 * x + 2.4940\text{E-}006$$

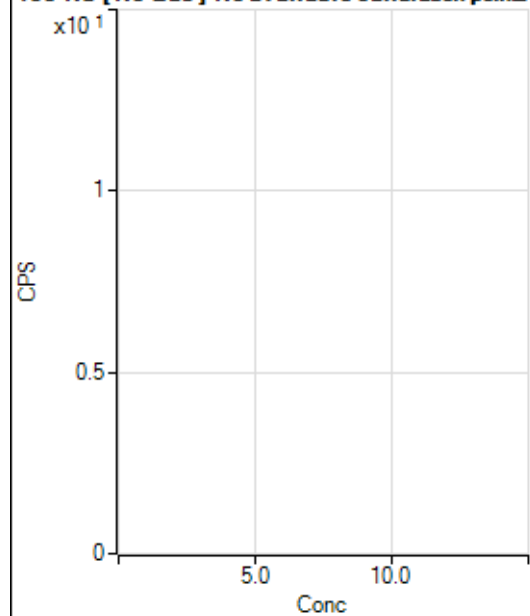
$$R = 1.0000$$

$$DL = 0.01758$$

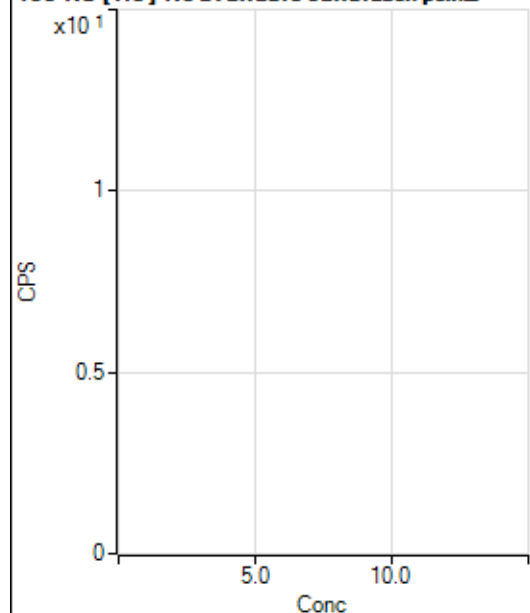
$$BEC = 0.008917$$

Weight: <None>

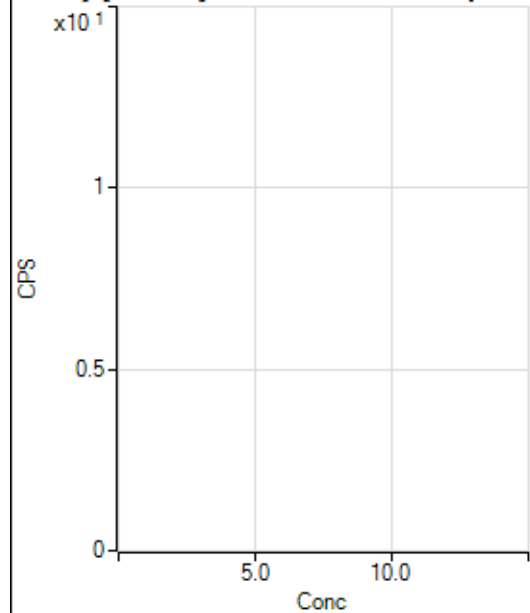
Min Conc: 0

¹⁵⁰Nd [No Gas] No available calibration points

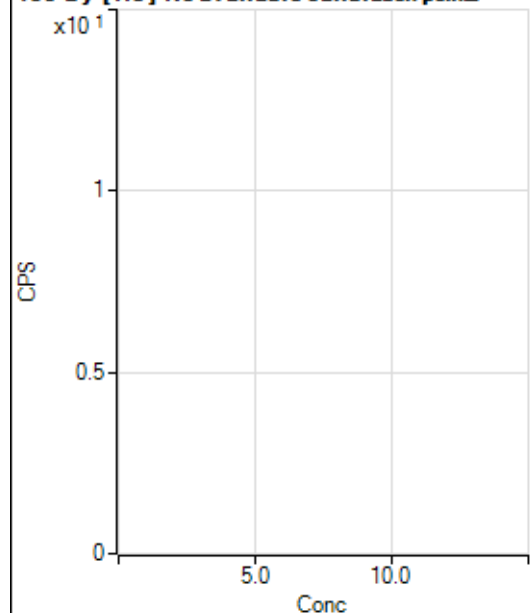
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			6.67		P	100.
4	☐			75.56		P	10.2
5	☐			215.56		P	9.4
6	☐			382.24		P	14.8
7	☐			842.28		P	15.9
8	☐			1495.69		P	7.6
9	☐			444.47		P	19.1

150 Nd [He] No available calibration points

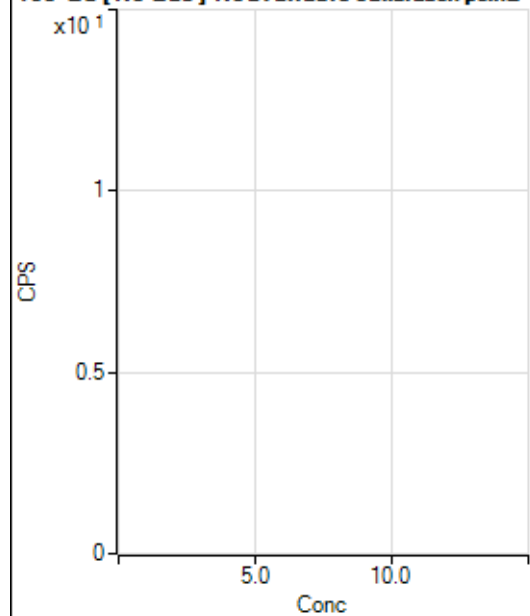
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	0.0
2	☐						
3	☐			1.11		P	173.
4	☐			8.89		P	43.3
5	☐			31.11		P	22.3
6	☐			54.44		P	9.4
7	☐			102.23		P	12.3
8	☐			161.11		P	13.3
9	☐			174.45		P	14.6

156 Dy [No Gas] No available calibration points

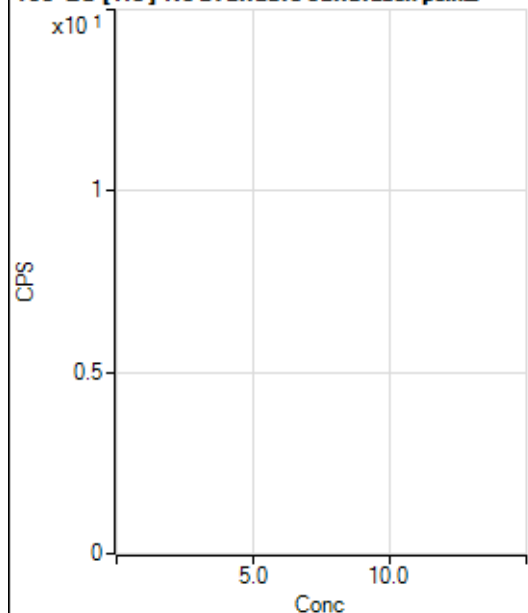
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	91.6
2	☐						
3	☐			19.45		P	65.5
4	☐			36.11		P	58.1
5	☐			55.56		P	67.6
6	☐			97.23		P	9.9
7	☐			180.56		P	22.8
8	☐			347.24		P	6.9
9	☐			183.34		P	29.8

156 Dy [He] No available calibration points

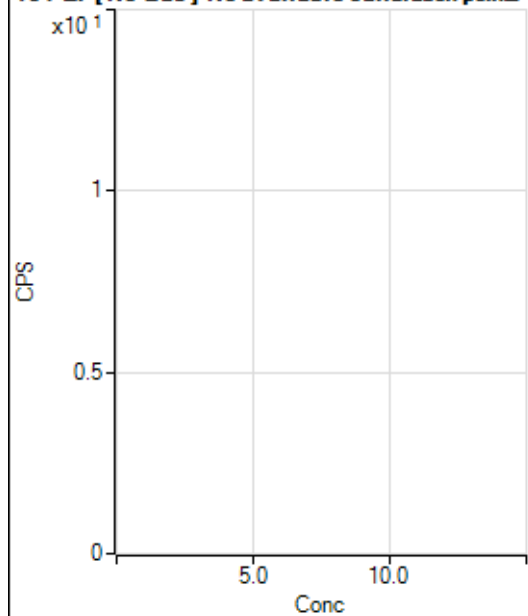
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	43.3
2	☐						
3	☐			14.44		P	133.
4	☐			35.55		P	37.9
5	☐			76.67		P	15.1
6	☐			178.90		P	2.8
7	☐			262.23		P	17.8
8	☐			563.35		P	10.1
9	☐			102.23		P	27.7

160 Gd [No Gas] Noavailable calibration poin_

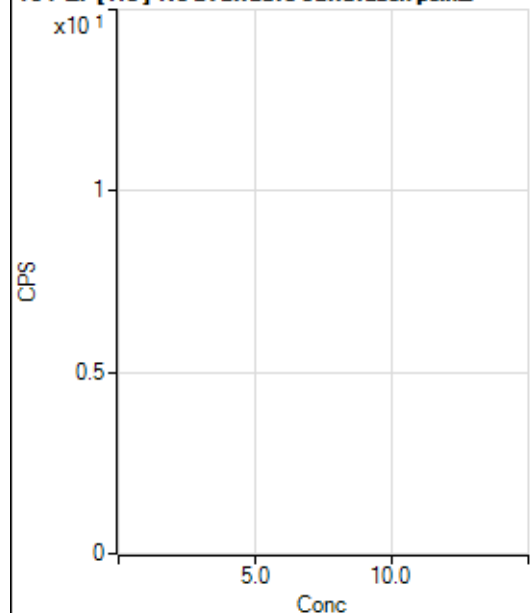
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			169.45		P	22.2
2	☐						
3	☐			175.01		P	19.1
4	☐			130.56		P	40.5
5	☐			147.23		P	40.9
6	☐			144.45		P	12.0
7	☐			194.46		P	21.6
8	☐			222.23		P	2.2
9	☐			305.57		P	20.5

160 Gd [He] No available calibration points

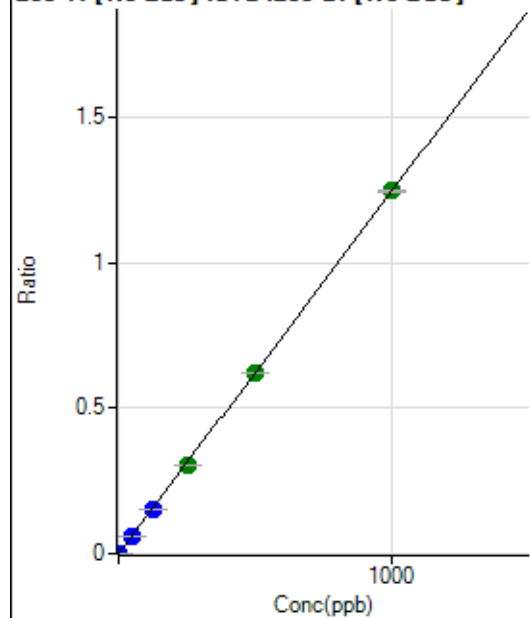
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			491.13		P	3.3
2	☐						
3	☐			488.91		P	4.5
4	☐			471.12		P	8.6
5	☐			513.35		P	3.6
6	☐			476.68		P	2.5
7	☐			464.46		P	3.0
8	☐			482.24		P	10.6
9	☐			467.79		P	10.1

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			97.23		P	17.8
2	☐						
3	☐			100.01		P	22.0
4	☐			97.22		P	39.6
5	☐			122.23		P	20.8
6	☐			116.67		P	12.4
7	☐			144.45		P	27.3
8	☐			180.57		P	14.8
9	☐			108.34		P	42.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			43.33		P	7.7
2	☐						
3	☐			63.33		P	27.4
4	☐			36.67		P	31.5
5	☐			63.33		P	32.0
6	☐			60.00		P	25.5
7	☐			55.56		P	15.1
8	☐			51.11		P	10.0
9	☐			71.11		P	23.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	616.71	0.0000	P	17.6
2	☐	0.100					
3	☐	1.000	0.856	23822.25	0.0011	P	5.1
4	☐	50.000	49.166	1279690.67	0.0613	P	1.1
5	☐	125.000	123.022	3174974.10	0.1534	P	1.8
6	☐	250.000	245.727	6150708.95	0.3063	A	0.7
7	☐	500.000	498.700	12201181.26	0.6216	A	0.6
8	☐	1000.000	1002.007	23431012.68	1.2490	A	0.6
9	☐			3784.06	0.0003	P	9.7

$$y = 0.0012 * x + 2.8405E-005$$

$$R = 1.0000$$

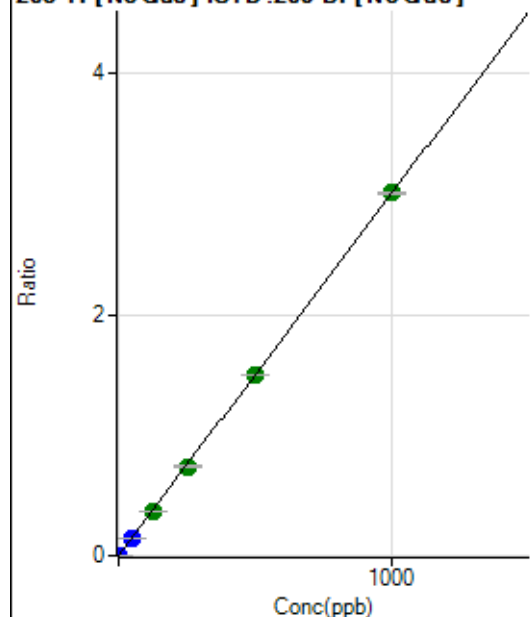
$$DL = 0.01201$$

$$BEC = 0.02279$$

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	1489.04	0.0001	P	7.8
2	☐	0.100					
3	☐	1.000	0.832	55891.19	0.0026	P	5.1
4	☐	50.000	49.408	3102312.92	0.1486	P	2.1
5	☐	125.000	121.219	7547768.23	0.3646	A	0.9
6	☐	250.000	246.408	14877601.03	0.7410	A	1.9
7	☐	500.000	499.336	29472296.49	1.5015	A	0.2
8	☐	1000.000	1001.733	56509424.88	3.0121	A	0.5
9	☐			8945.11	0.0006	P	13.1

$$y = 0.0030 * x + 6.8561E-005$$

$$R = 1.0000$$

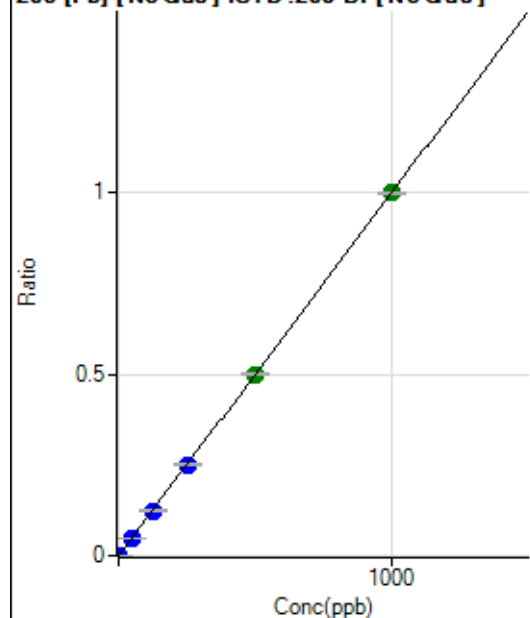
$$DL = 0.005316$$

$$BEC = 0.0228$$

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	1179.72	0.0001	P	10.2
2	☐	0.100					
3	☐	1.000	0.867	20032.23	0.0009	P	2.1
4	☐	50.000	49.703	1037284.57	0.0497	P	1.2
5	☐	125.000	124.474	2574796.53	0.1244	P	1.9
6	☐	250.000	250.861	5032325.75	0.2506	P	1.4
7	☐	500.000	499.618	9795061.91	0.4991	A	1.3
8	☐	1000.000	1000.057	18740089.31	0.9989	A	0.2
9	☐			16132.37	0.0011	P	0.9

$$y = 9.9878E-004 * x + 5.4349E-005$$

$$R = 1.0000$$

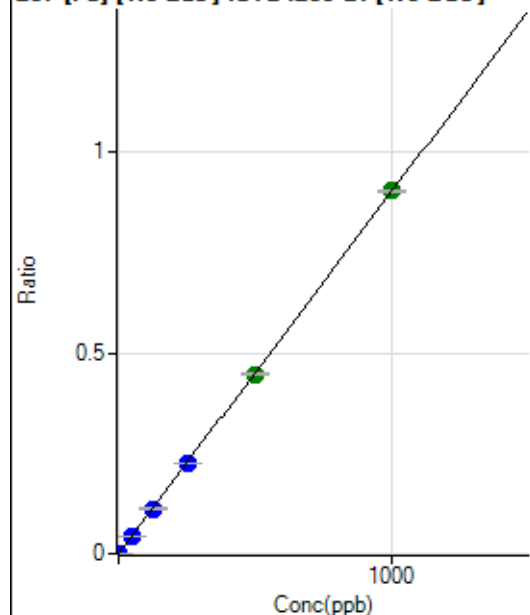
$$DL = 0.01664$$

$$BEC = 0.05442$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	964.88	0.0000	P	8.2
2	☐	0.100					
3	☐	1.000	0.836	17346.91	0.0008	P	4.9
4	☐	50.000	49.570	933157.20	0.0447	P	1.2
5	☐	125.000	123.977	2313517.99	0.1118	P	1.9
6	☐	250.000	249.405	4513133.58	0.2248	P	0.9
7	☐	500.000	495.551	8764380.11	0.4465	A	1.2
8	☐	1000.000	1002.523	16947231.75	0.9033	A	0.4
9	☐			13205.07	0.0009	P	3.3

$$y = 9.0102\text{E-}004 * x + 4.4451\text{E-}005$$

$$R = 1.0000$$

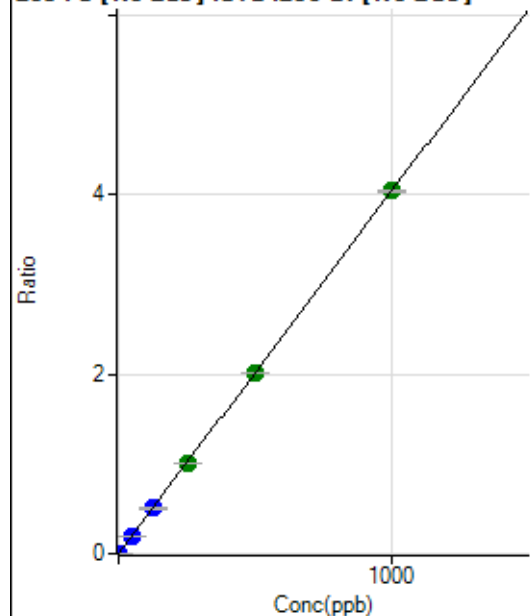
$$DL = 0.0122$$

$$BEC = 0.04933$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4556.01	0.0002	P	8.4
2	☐	0.100					
3	☐	1.000	0.855	79626.94	0.0037	P	5.0
4	☐	50.000	49.853	4203713.22	0.2014	P	0.7
5	☐	125.000	125.193	10463784.09	0.5054	P	1.6
6	☐	250.000	248.368	20130584.10	1.0025	A	0.8
7	☐	500.000	498.918	39523444.11	2.0137	A	0.8
8	☐	1000.000	1000.932	75786269.18	4.0396	A	0.5
9	☐			62336.44	0.0042	P	0.7

$$y = 0.0040 * x + 2.0992\text{E-}004$$

$$R = 1.0000$$

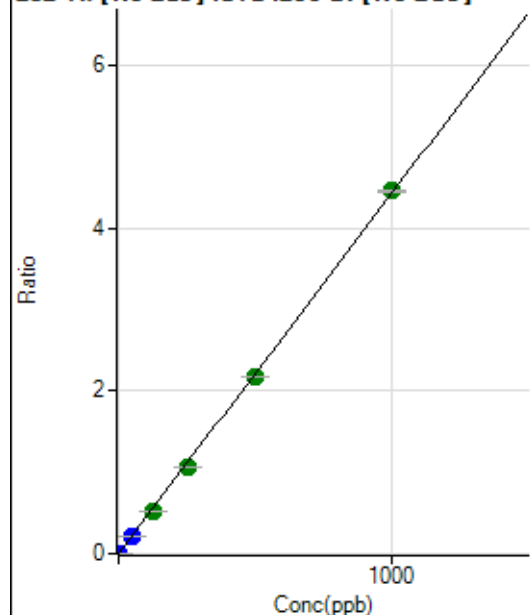
$$DL = 0.01311$$

$$BEC = 0.05202$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	870.43	0.0000	P	9.3
2	☐	0.100					
3	☐	1.000	0.775	75479.92	0.0035	P	6.0
4	☐	50.000	46.847	4328323.39	0.2074	P	0.9
5	☐	125.000	116.707	10694285.42	0.5165	A	0.7
6	☐	250.000	239.944	21322528.72	1.0619	A	1.4
7	☐	500.000	492.380	42771391.70	2.1791	A	0.5
8	☐	1000.000	1007.518	83651091.68	4.4590	A	0.9
9	☐			21063.98	0.0014	P	12.1

$$y = 0.0044 * x + 4.0101E-005$$

$$R = 0.9999$$

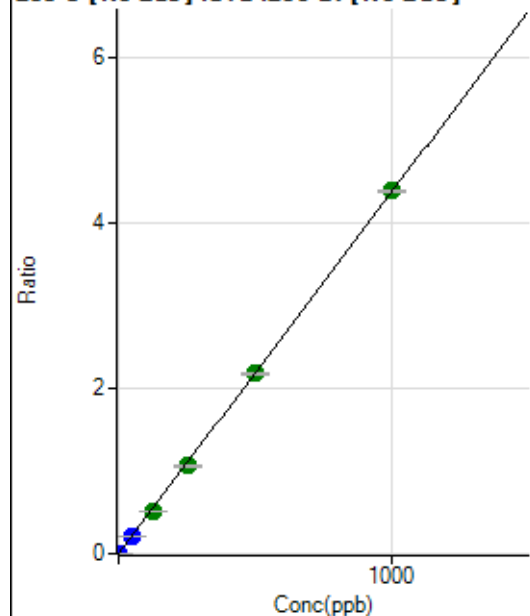
$$DL = 0.002535$$

$$BEC = 0.009061$$

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	122.23	0.0000	P	14.7
2	☐	0.100					
3	☐	1.000	0.793	75471.87	0.0035	P	4.5
4	☐	50.000	47.507	4329964.07	0.2075	P	1.4
5	☐	125.000	117.954	10663759.96	0.5151	A	0.5
6	☐	250.000	242.939	21301457.60	1.0608	A	1.1
7	☐	500.000	498.296	42708125.96	2.1759	A	0.4
8	☐	1000.000	1003.623	82215462.95	4.3824	A	0.9
9	☐			8717.28	0.0006	P	14.8

$$y = 0.0044 * x + 5.6323E-006$$

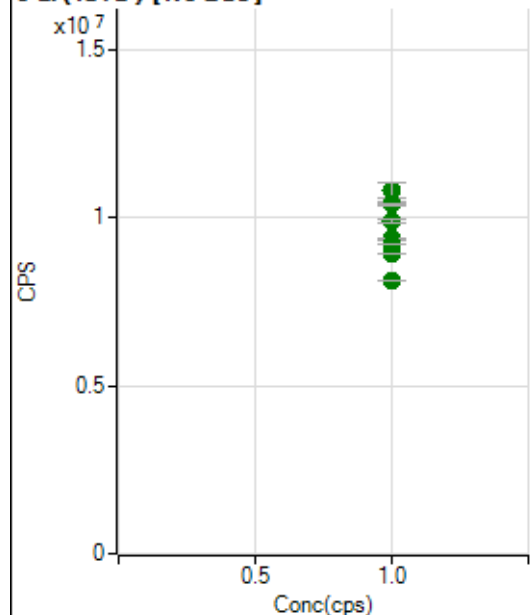
$$R = 1.0000$$

$$DL = 0.0005693$$

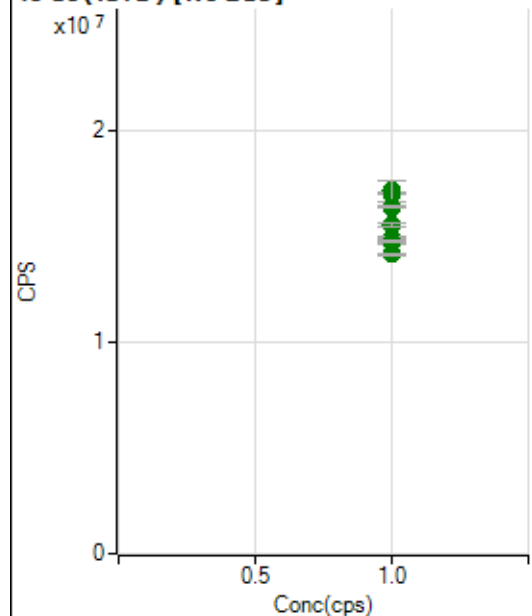
$$BEC = 0.00129$$

Weight: <None>

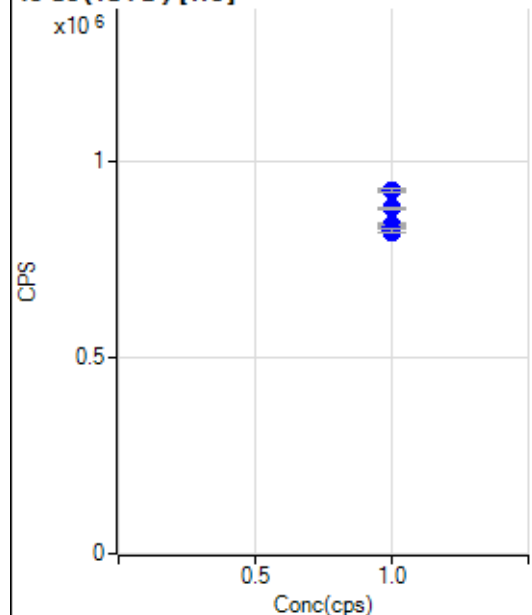
Min Conc: 0

6 Li (ISTD) [No Gas]

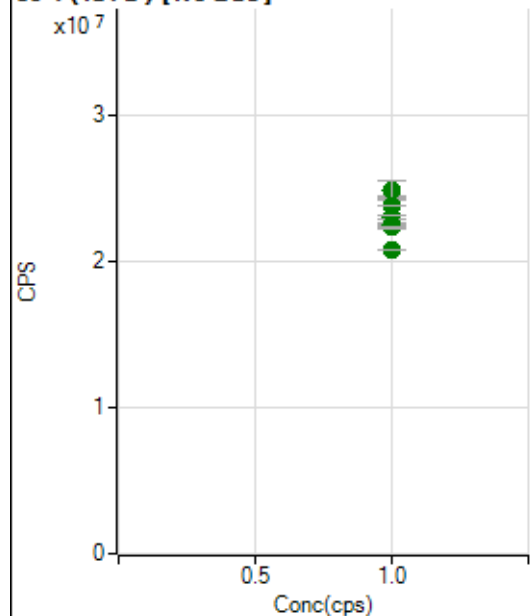
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10489431.89		A	0.3
2	☐	1.000					
3	☐	1.000		10803123.75		A	4.3
4	☐	1.000		10412062.24		A	0.7
5	☐	1.000		9892513.81		A	1.0
6	☐	1.000		9370238.93		A	1.0
7	☐	1.000		9225450.25		A	0.3
8	☐	1.000		8948224.95		A	0.3
9	☐	1.000		8120043.91		A	0.3

45 Sc (ISTD) [No Gas]

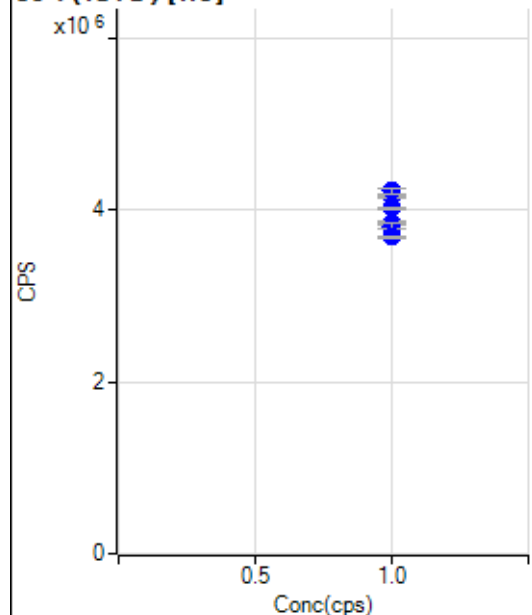
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16992414.44		A	0.6
2	☐	1.000					
3	☐	1.000		17116996.04		A	5.5
4	☐	1.000		16345344.64		A	0.5
5	☐	1.000		15504198.26		A	1.3
6	☐	1.000		14765682.45		A	1.7
7	☐	1.000		14903002.76		A	0.6
8	☐	1.000		14736366.65		A	0.4
9	☐	1.000		14136841.64		A	0.5

45 Sc (ISTD) [He]

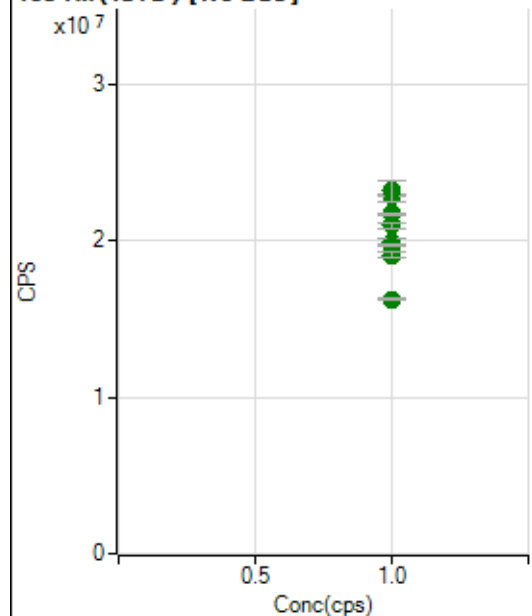
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		924938.83		P	0.4
2	☐	1.000					
3	☐	1.000		924931.00		P	1.1
4	☐	1.000		880458.98		P	0.7
5	☐	1.000		834271.17		P	0.3
6	☐	1.000		818503.03		P	0.5
7	☐	1.000		837661.00		P	1.5
8	☐	1.000		833054.81		P	0.8
9	☐	1.000		824718.65		P	1.2

89 Y (ISTD) [No Gas]

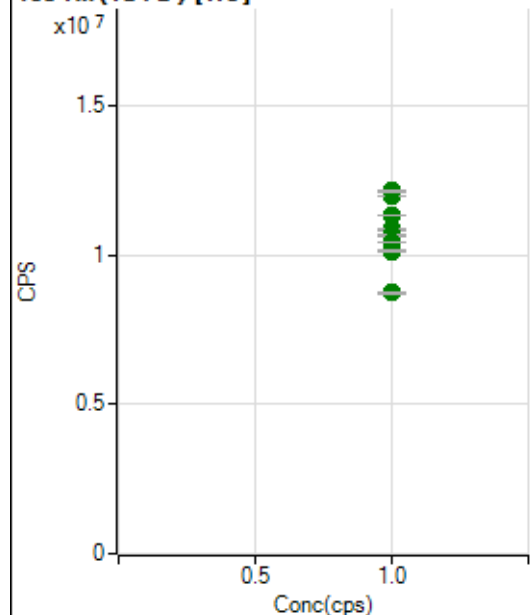
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		24367815.19		A	0.3
2	☐	1.000					
3	☐	1.000		24790621.02		A	5.4
4	☐	1.000		23767565.75		A	0.3
5	☐	1.000		22972394.94		A	1.1
6	☐	1.000		22344923.56		A	1.6
7	☐	1.000		22428771.05		A	1.2
8	☐	1.000		22312844.11		A	0.4
9	☐	1.000		20754420.38		A	0.2

89 Y(ISTD) [He]

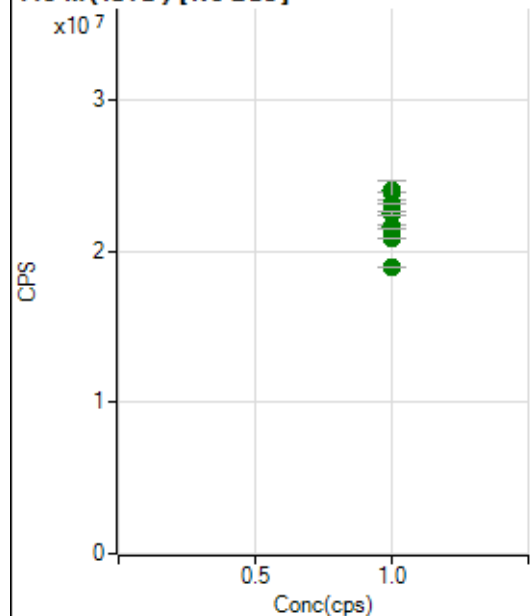
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4156313.10		P	0.4
2	☐	1.000					
3	☐	1.000		4220949.80		P	1.4
4	☐	1.000		4017638.31		P	0.2
5	☐	1.000		3845583.35		P	0.6
6	☐	1.000		3840569.01		P	0.2
7	☐	1.000		3850565.08		P	1.1
8	☐	1.000		3814087.69		P	1.2
9	☐	1.000		3682981.96		P	0.9

103 Rh(ISTD) [No Gas]

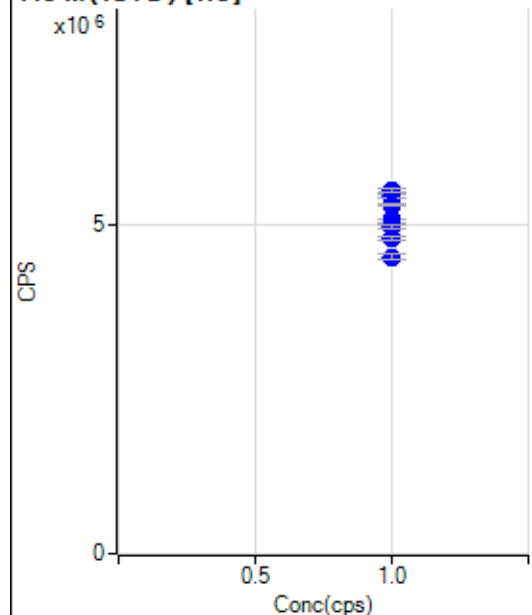
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		22908963.71		A	0.8
2	☐	1.000					
3	☐	1.000		23190796.00		A	5.7
4	☐	1.000		21714304.65		A	0.3
5	☐	1.000		20967359.32		A	1.8
6	☐	1.000		19941848.19		A	1.9
7	☐	1.000		19690008.60		A	0.4
8	☐	1.000		19106997.47		A	1.4
9	☐	1.000		16269900.19		A	0.7

103 Rh (ISTD) [He]

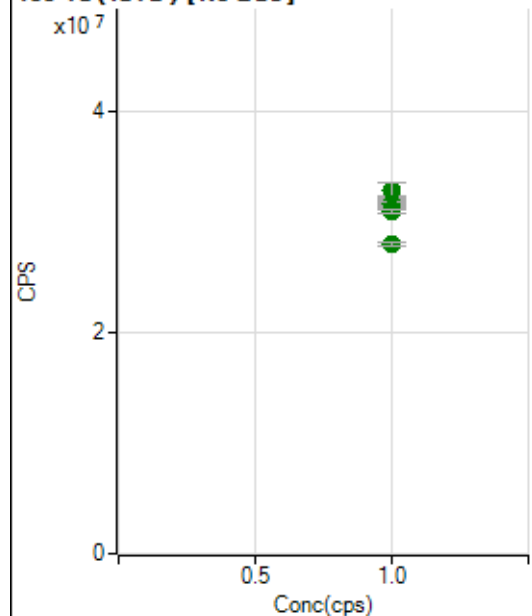
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11968243.16		A	0.4
2	☐	1.000					
3	☐	1.000		12144607.46		A	0.5
4	☐	1.000		11331993.16		A	0.3
5	☐	1.000		10866931.51		A	0.6
6	☐	1.000		10654434.56		A	0.2
7	☐	1.000		10429839.57		A	0.3
8	☐	1.000		10125794.36		A	1.0
9	☐	1.000		8723909.11		A	0.7

115 In (ISTD) [No Gas]

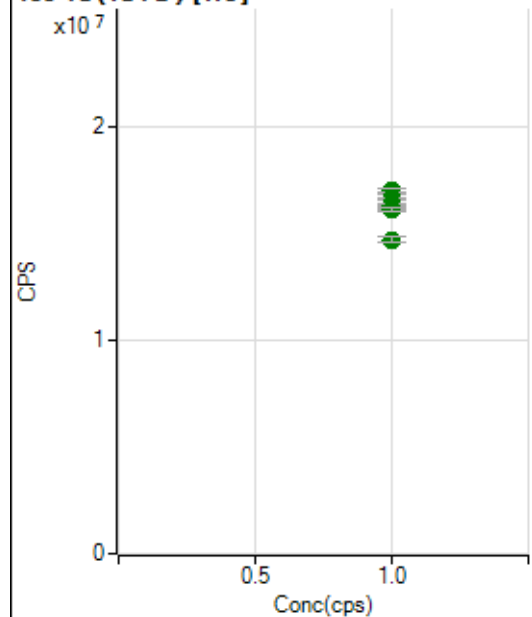
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		23949311.53		A	0.4
2	☐	1.000					
3	☐	1.000		24029564.08		A	5.2
4	☐	1.000		23158251.07		A	0.1
5	☐	1.000		22571123.79		A	1.0
6	☐	1.000		21674309.71		A	1.4
7	☐	1.000		21562368.31		A	0.2
8	☐	1.000		20878867.63		A	0.1
9	☐	1.000		19006904.08		A	0.3

115 In (ISTD) [He]

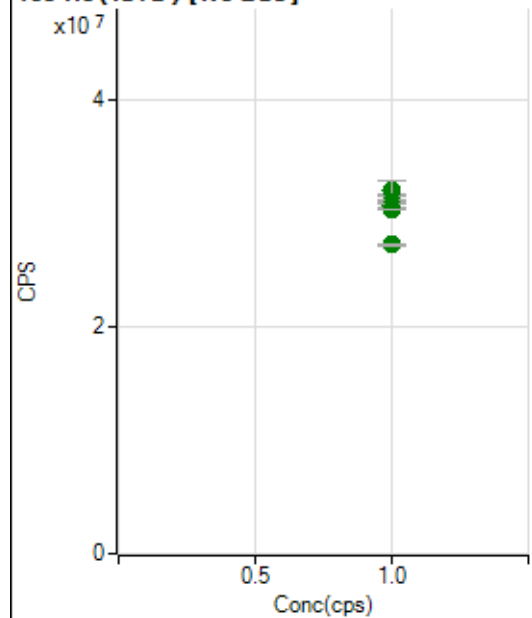
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5436195.69		P	1.0
2	☐	1.000					
3	☐	1.000		5513349.89		P	0.9
4	☐	1.000		5294630.42		P	0.5
5	☐	1.000		5084902.62		P	0.4
6	☐	1.000		5023327.64		P	0.4
7	☐	1.000		4977022.89		P	1.1
8	☐	1.000		4797388.37		P	1.3
9	☐	1.000		4514898.46		P	1.6

159 Tb (ISTD) [No Gas]

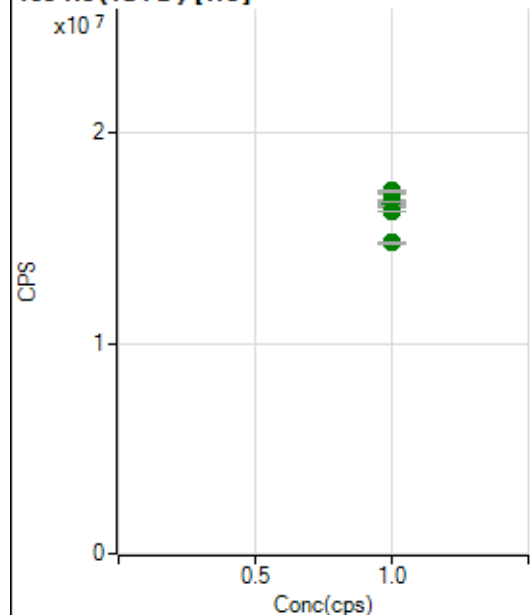
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		32304978.41		A	0.4
2	☐	1.000					
3	☐	1.000		32816573.68		A	5.1
4	☐	1.000		31574090.92		A	0.1
5	☐	1.000		31674745.08		A	0.8
6	☐	1.000		30990191.21		A	1.4
7	☐	1.000		31184641.48		A	0.5
8	☐	1.000		30950650.93		A	1.2
9	☐	1.000		27965104.58		A	1.0

159 Tb (ISTD) [He]

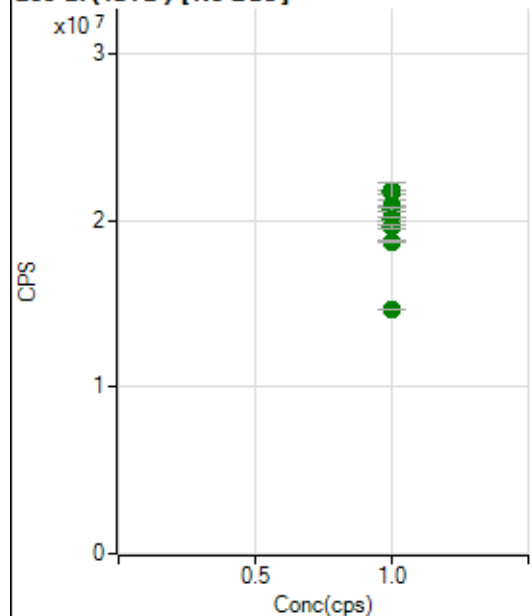
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16872919.33		A	0.6
2	☐	1.000					
3	☐	1.000		16970971.55		A	1.2
4	☐	1.000		16620365.86		A	0.8
5	☐	1.000		16334995.03		A	0.4
6	☐	1.000		16142596.70		A	0.5
7	☐	1.000		16251464.62		A	1.0
8	☐	1.000		16087441.43		A	1.4
9	☐	1.000		14695918.67		A	1.4

165 Ho (ISTD) [No Gas]

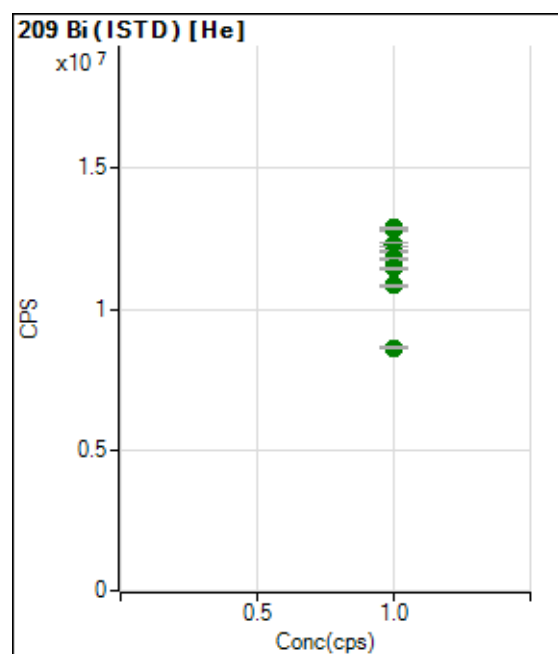
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		31520003.48		A	0.6
2	☐	1.000					
3	☐	1.000		31946059.74		A	5.3
4	☐	1.000		30942371.18		A	0.8
5	☐	1.000		31067907.64		A	0.9
6	☐	1.000		30599546.86		A	1.3
7	☐	1.000		30716551.04		A	1.0
8	☐	1.000		30273116.99		A	0.3
9	☐	1.000		27192829.43		A	0.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17097305.02		A	0.4
2	☐	1.000					
3	☐	1.000		17254880.30		A	0.6
4	☐	1.000		16762488.92		A	0.8
5	☐	1.000		16586630.31		A	0.7
6	☐	1.000		16451632.25		A	0.2
7	☐	1.000		16632448.50		A	0.7
8	☐	1.000		16304161.42		A	0.1
9	☐	1.000		14778236.03		A	0.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		21711306.76		A	0.7
2	☐	1.000					
3	☐	1.000		21786052.59		A	4.4
4	☐	1.000		20872698.30		A	0.3
5	☐	1.000		20704515.66		A	1.1
6	☐	1.000		20080763.87		A	1.1
7	☐	1.000		19628330.40		A	0.9
8	☐	1.000		18760721.94		A	0.5
9	☐	1.000		14690787.97		A	0.3



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12829978.28		A	0.7
2	☐	1.000					
3	☐	1.000		12889816.48		A	0.4
4	☐	1.000		12317096.49		A	1.1
5	☐	1.000		12057301.35		A	0.4
6	☐	1.000		11804524.13		A	0.4
7	☐	1.000		11453725.80		A	0.4
8	☐	1.000		10835166.58		A	0.9
9	☐	1.000		8625273.21		A	0.5

US EPA Tune Check Sample Report

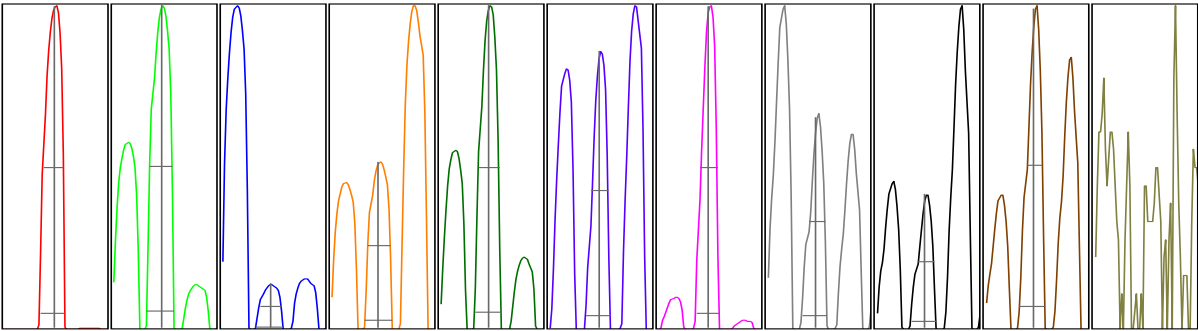
Batch Folder D:\ICP-MS Data\P7031419MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	32830	0.73	5.00	
24	303735	0.91	5.00	
25	41785	0.68	5.00	
26	48105	0.84	5.00	
59	211966	1.02	5.00	
113	24674	0.44	5.00	
115	286996	0.84	5.00	
206	74532	0.75	5.00	
207	69114	0.78	5.00	
208	163734	0.82	5.00	
220	0	53.93		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	32929	33078	32691	32485	32968
24	304857	304792	304759	298798	305468
25	41668	41869	41938	41354	42095
26	48351	47969	48175	47487	48544
59	213127	212701	214370	208919	210713
113	24700	24672	24676	24512	24813
115	287153	286382	290477	283724	287243
206	74086	74591	74952	73850	75181
207	69034	69194	69873	68348	69124
208	164476	163157	165092	161677	164269
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	57592	9.00	8.9 - 9.1		0.738	0.900	
24	505161	23.95	23.9 - 24.1		0.784	0.900	
25	69631	24.95	24.9 - 25.1		0.784	0.900	
26	79137	25.90	25.9 - 26.1		0.784	0.900	
59	388784	58.95	58.9 - 59.1		0.770	0.900	
113	52620	113.00	112.9 - 113.1		0.712	0.900	
115	612981	115.00	114.9 - 115.1		0.682	0.900	
206	158525	205.95	205.9 - 206.1		0.729	0.900	
207	146284	206.95	206.9 - 207.1		0.728	0.900	
208	349308	207.95	207.9 - 208.1		0.731	0.900	
220			-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.0	V	Deflect	13.6	V
Extract 2	-135.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	58911	2.31	
89	49468	2.24	
205	64526	2.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	58704	60360	57561	57655	60276
89	49123	50634	48509	48422	50650
205	64689	65542	62561	64071	65765

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V	Deflect	1.6	V
Extract 2	-130.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	200	V			