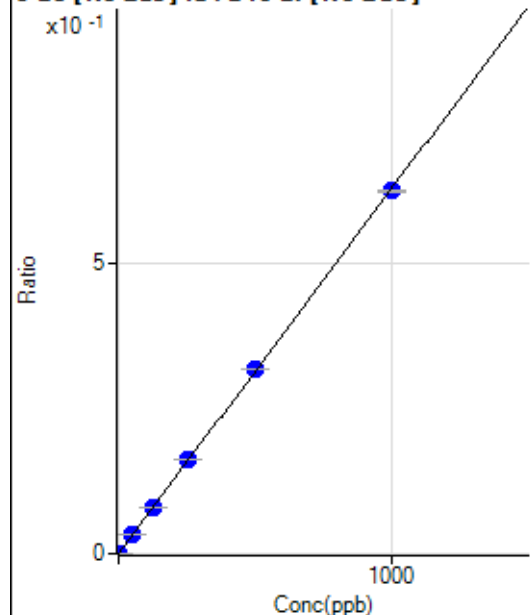


Calibration for 008CALS.d

Batch Folder: D:\ICP-MS Data\P7080919-MS.b\
 Analysis File: P7080919-MS.batch.bin
 DA Date-Time: 2019-08-10 01:04:57
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-08-09 12:02:20
2	003CALS.d	S02	2019-08-09 12:05:57
3	004CALS.d	S03	2019-08-09 12:10:19
4	005CALS.d	S04	2019-08-09 12:14:15
5	006CALS.d	S05	2019-08-09 12:18:08
6	007CALS.d	S06	2019-08-09 12:21:58
7	008CALS.d	S07	2019-08-09 12:25:47
8	009CALS.d	S08	2019-08-09 12:29:33

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	51.11	0.0000	P	3.7
2	☐	1.000	0.959	1305.63	0.0006	P	1.9
3	☐	50.000	52.317	68261.28	0.0330	P	1.4
4	☐	125.000	128.455	165078.32	0.0809	P	0.6
5	☐	250.000	259.071	319557.09	0.1632	P	0.9
6	☐	500.000	505.469	627119.29	0.3183	P	0.3
7	☐	1000.000	994.450	1220935.13	0.6263	P	0.3
8	☐			322.23	0.0002	P	8.3

$$y = 6.2974\text{E-}004 * x + 2.5240\text{E-}005$$

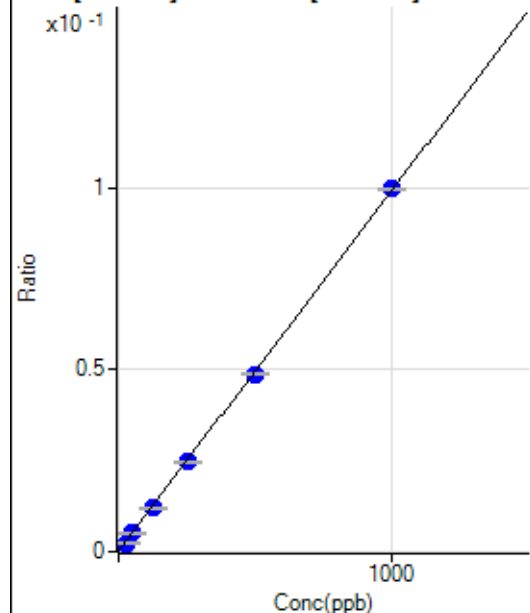
$$R = 0.9999$$

$$DL = 0.004455$$

$$BEC = 0.04008$$

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	372.24	0.0002	P	14.3
2	☐	25.000	22.157	4926.00	0.0024	P	4.2
3	☐	50.000	49.518	10512.35	0.0051	P	3.4
4	☐	125.000	119.161	24403.83	0.0120	P	2.0
5	☐	250.000	247.620	48286.24	0.0247	P	2.6
6	☐	500.000	491.575	96076.45	0.0488	P	1.9
7	☐	1000.000	1005.632	194135.84	0.0996	P	0.4
8	☐			10429.06	0.0054	P	7.3

$$y = 9.8840\text{E-}005 * x + 1.8381\text{E-}004$$

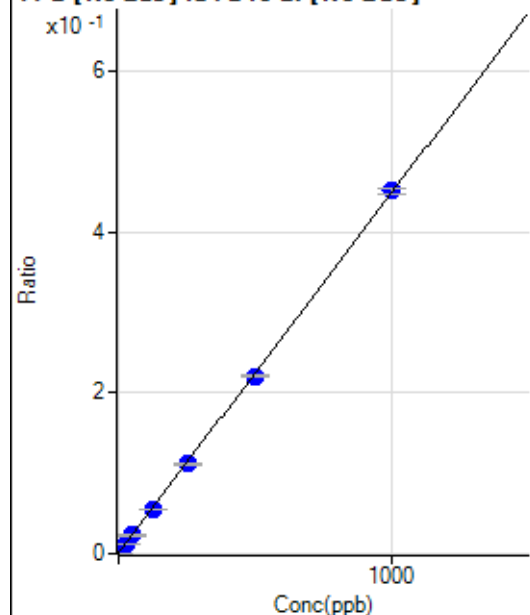
$$R = 0.9999$$

$$DL = 0.7981$$

$$BEC = 1.86$$

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	1566.82	0.0008	P	7.9
2	☐	25.000	22.786	22817.96	0.0110	P	2.8
3	☐	50.000	49.569	47634.38	0.0230	P	3.6
4	☐	125.000	121.908	113135.32	0.0555	P	1.8
5	☐	250.000	247.667	219082.58	0.1119	P	2.0
6	☐	500.000	491.122	435539.46	0.2211	P	1.0
7	☐	1000.000	1005.486	880866.25	0.4518	P	1.4
8	☐			46676.06	0.0244	P	7.2

$$y = 4.4860\text{E-}004 * x + 7.7368\text{E-}004$$

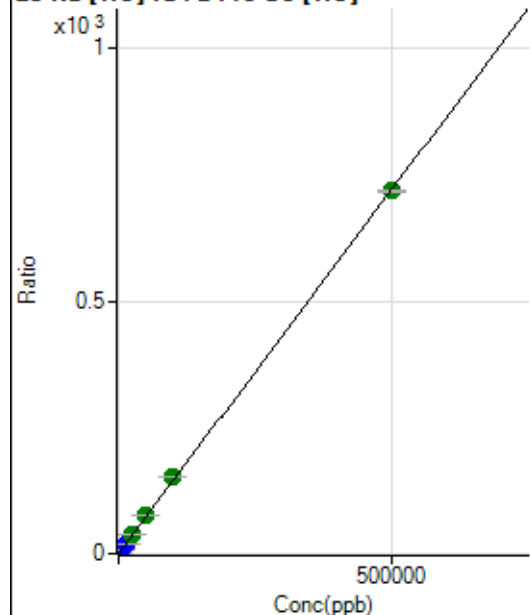
R = 0.9999

DL = 0.4072

BEC = 1.725

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	3533.89	0.0265	P	4.0
2	☐	500.000	483.681	99380.61	0.7225	P	1.5
3	☐	5000.000	5190.729	1002306.75	7.4955	P	0.8
4	☐	12500.000	12822.722	2366813.51	18.4773	P	1.2
5	☐	25000.000	26392.356	4596988.73	38.0028	A	2.0
6	☐	50000.000	52665.758	9430916.18	75.8078	A	0.3
7	☐	100000.00	105057.35	19438268.49	151.1947	A	0.2
8	☐	500000.00	498642.37	94856493.09	717.5286	A	0.3

$$y = 0.0014 * x + 0.0265$$

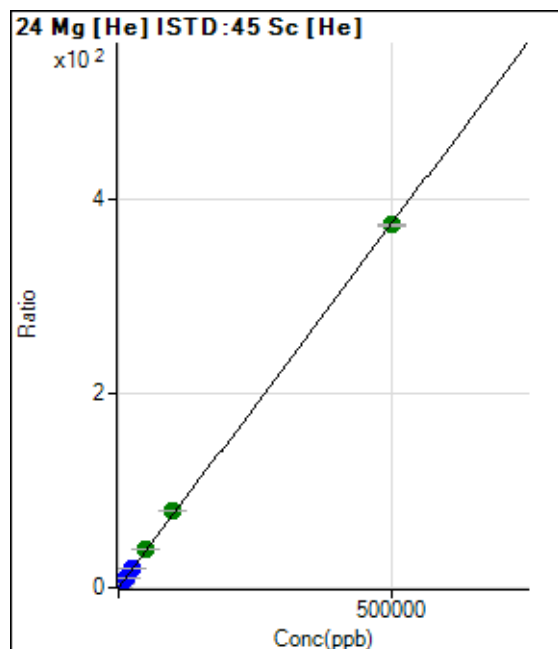
R = 0.9999

DL = 2.236

BEC = 18.41

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0005	P	39.7
2	☐	500.000	506.616	52395.04	0.3809	P	0.4
3	☐	5000.000	5265.290	528762.32	3.9542	P	0.5
4	☐	12500.000	13027.063	1253129.70	9.7826	P	0.6
5	☐	25000.000	26495.788	2406451.88	19.8964	P	2.7
6	☐	50000.000	53149.242	4965184.18	39.9107	A	0.6
7	☐	100000.00	105578.79	10192549.10	79.2805	A	0.3
8	☐	500000.00	498478.69	49482649.37	374.3123	A	0.3

$$y = 7.5091\text{E-}004 * x + 4.5880\text{E-}004$$

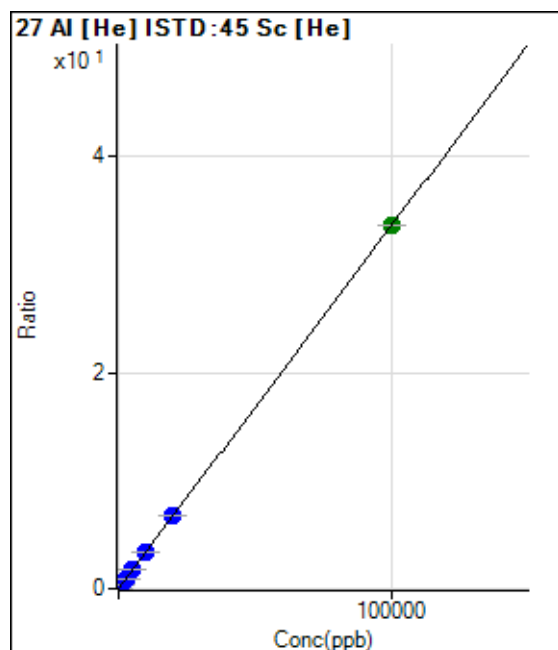
$$R = 0.9999$$

$$DL = 0.7279$$

$$BEC = 0.611$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.78	0.0000	P	173.
2	☐	20.000	18.934	877.85	0.0064	P	7.5
3	☐	1000.000	1029.810	46266.92	0.3460	P	1.8
4	☐	2500.000	2539.713	109306.22	0.8533	P	0.3
5	☐	5000.000	5105.238	207467.05	1.7152	P	2.4
6	☐	10000.000	10193.605	426069.72	3.4248	P	0.3
7	☐	20000.000	20234.922	874046.21	6.7984	P	0.6
8	☐	100000.00	99927.103	4438313.55	33.5730	A	0.1

$$y = 3.3597\text{E-}004 * x + 2.0697\text{E-}005$$

$$R = 1.0000$$

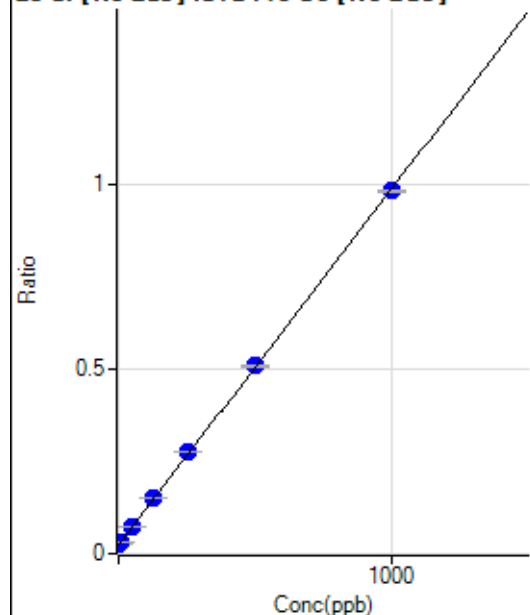
$$DL = 0.3201$$

$$BEC = 0.0616$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	84306.47	0.0237	P	0.3
2	☐	10.000	9.390	119997.76	0.0327	P	0.5
3	☐	50.000	52.467	268984.25	0.0743	P	1.0
4	☐	125.000	131.046	531602.41	0.1501	P	0.5
5	☐	250.000	261.392	929767.13	0.2759	P	0.7
6	☐	500.000	502.450	1718505.40	0.5085	P	0.4
7	☐	1000.000	995.054	3323627.37	0.9839	P	0.3
8	☐			161875.44	0.0481	P	0.7

$$y = 9.6499\text{E-}004 * x + 0.0237$$

$$R = 0.9999$$

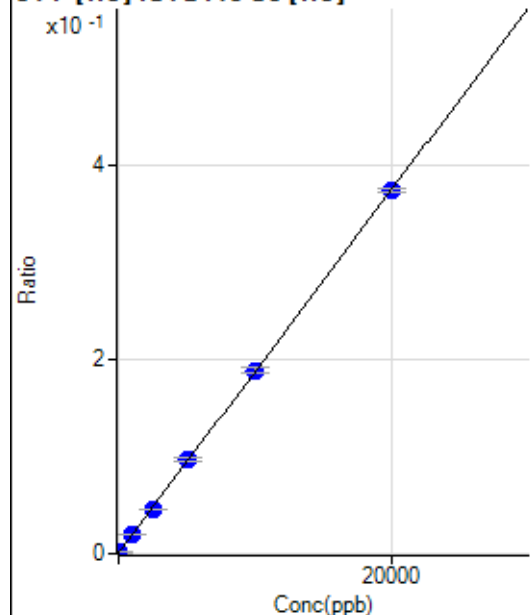
$$DL = 0.1991$$

$$BEC = 24.55$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-23.031	30.56	0.0002	P	41.4
2	☐	0.000	23.031	150.01	0.0011	P	5.3
3	☐	1000.000	1006.292	2605.89	0.0195	P	6.7
4	☐	2500.000	2444.134	5940.32	0.0464	P	0.6
5	☐	5000.000	5130.376	11685.59	0.0966	P	4.7
6	☐	10000.000	10068.647	23508.20	0.1890	P	2.7
7	☐	20000.000	19939.751	48034.00	0.3736	P	1.0
8	☐			72.23	0.0005	P	23.2

$$y = 1.8704\text{E-}005 * x + 6.5960\text{E-}004$$

$$R = 1.0000$$

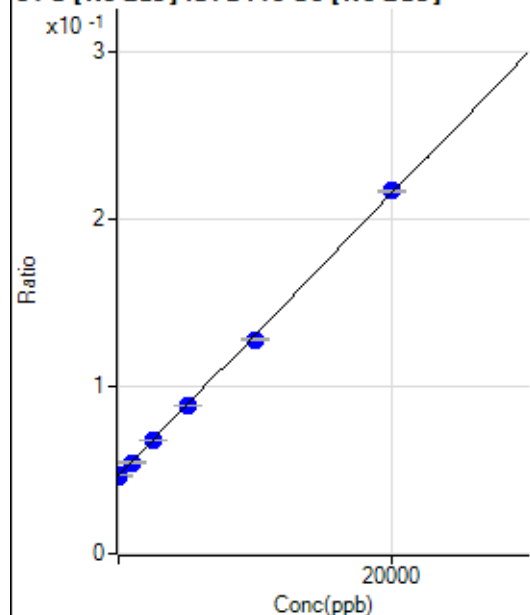
$$DL = 12.25$$

$$BEC = 35.27$$

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	-51.699	164265.49	0.0462	P	1.3
2	☐	0.000	51.699	172306.33	0.0470	P	0.5
3	☐	1000.000	943.241	197433.44	0.0545	P	1.5
4	☐	2500.000	2518.681	240166.80	0.0678	P	1.1
5	☐	5000.000	4977.201	298429.15	0.0886	P	0.8
6	☐	10000.000	9652.384	432518.93	0.1280	P	0.7
7	☐	20000.000	20180.011	732272.96	0.2168	P	0.5
8	☐			134345.86	0.0399	P	3.2

$$y = 8.4335\text{E-}006 * x + 0.0466$$

R = 0.9998

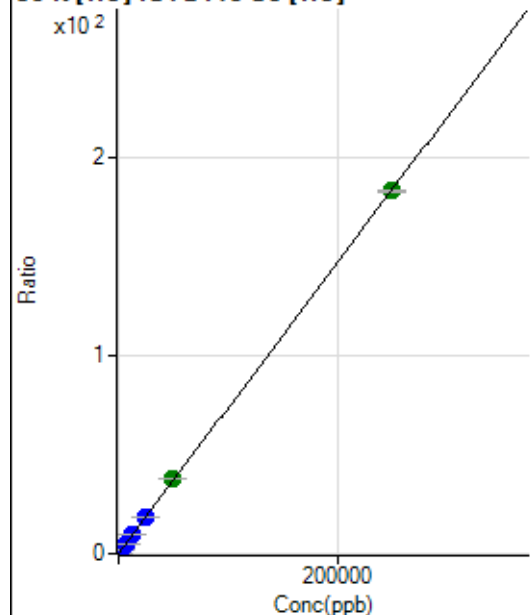
DL = 147.2

BEC = 5524

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	7768.99	0.0583	P	1.5
2	☐	500.000	490.091	57406.60	0.4173	P	0.6
3	☐	2500.000	2567.018	259273.26	1.9389	P	0.5
4	☐	6250.000	6289.822	597727.84	4.6662	P	0.7
5	☐	12500.000	12775.522	1139133.01	9.4177	P	2.4
6	☐	25000.000	25285.517	2311816.15	18.5827	P	0.3
7	☐	50000.000	51079.966	4818540.87	37.4800	A	0.6
8	☐	250000.00	249740.03	24195411.82	183.0204	A	0.3

$$y = 7.3261\text{E-}004 * x + 0.0583$$

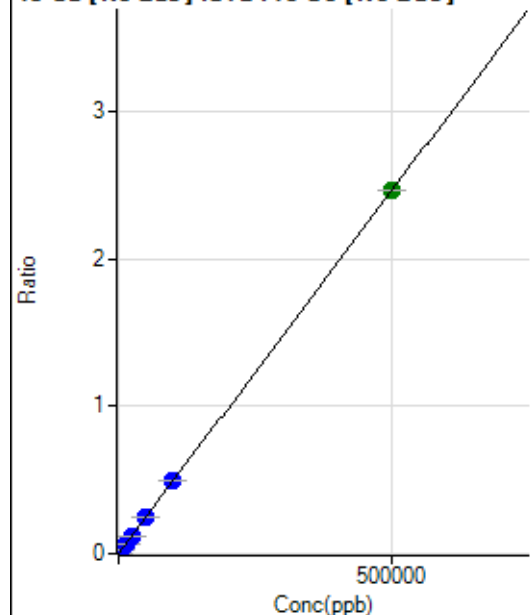
R = 1.0000

DL = 3.641

BEC = 79.51

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	75.00	0.0000	P	29.4
2	☐	500.000	473.004	8619.57	0.0024	P	6.2
3	☐	5000.000	4945.118	88296.56	0.0244	P	0.7
4	☐	12500.000	12165.225	212368.78	0.0600	P	1.0
5	☐	25000.000	24760.591	411294.57	0.1221	P	0.7
6	☐	50000.000	49464.854	823901.54	0.2438	P	0.4
7	☐	100000.00	100169.44	1667763.44	0.4937	P	0.6
8	☐	500000.00	500040.54	8301088.81	2.4645	A	0.2

$$y = 4.9286\text{E-}006 * x + 2.1076\text{E-}005$$

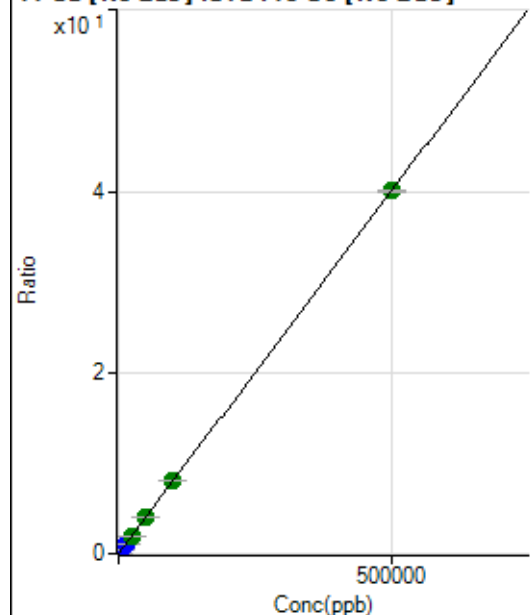
$$R = 1.0000$$

$$DL = 3.776$$

$$BEC = 4.276$$

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	2878.29	0.0008	P	4.6
2	☐	500.000	460.786	138249.08	0.0377	P	1.0
3	☐	5000.000	4906.322	1425870.15	0.3939	P	0.6
4	☐	12500.000	12027.883	3415145.00	0.9646	P	0.5
5	☐	25000.000	24738.586	6682074.02	1.9831	A	1.1
6	☐	50000.000	49651.882	13447070.09	3.9793	A	0.3
7	☐	100000.00	100275.28	27144237.24	8.0356	A	0.2
8	☐	500000.00	500005.60	134948501.6	40.0652	A	0.3

$$y = 8.0128\text{E-}005 * x + 8.0866\text{E-}004$$

$$R = 1.0000$$

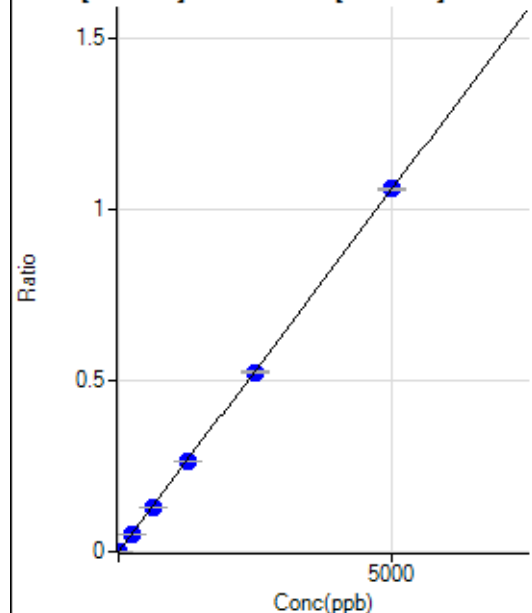
$$DL = 1.392$$

$$BEC = 10.09$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0000	P	29.1
2	☐	5.000	5.149	4042.40	0.0011	P	9.1
3	☐	250.000	248.747	190511.39	0.0526	P	0.1
4	☐	625.000	617.957	462884.34	0.1307	P	0.4
5	☐	1250.000	1250.185	891171.41	0.2645	P	1.1
6	☐	2500.000	2481.264	1773747.83	0.5249	P	0.4
7	☐	5000.000	5010.265	3580197.22	1.0599	P	0.7
8	☐			1594.59	0.0005	P	8.4

$$y = 2.1154E-004 * x + 1.4055E-005$$

$$R = 1.0000$$

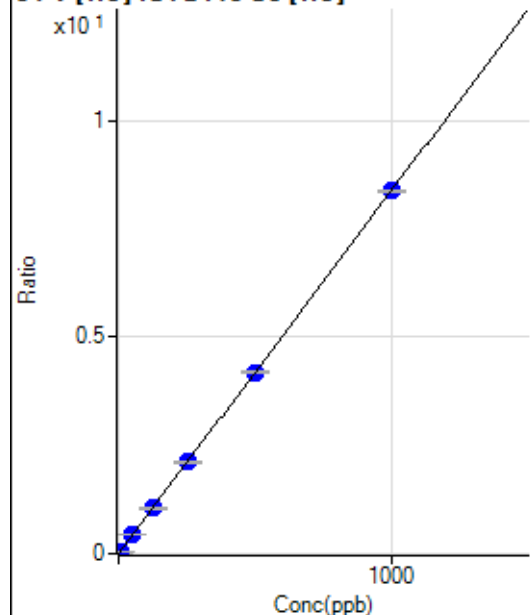
$$DL = 0.05801$$

$$BEC = 0.06644$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.33	0.0000	P	0.6
2	☐	5.000	5.136	5924.61	0.0431	P	3.1
3	☐	50.000	50.572	56688.41	0.4239	P	0.2
4	☐	125.000	124.820	134024.99	1.0463	P	0.8
5	☐	250.000	251.868	255368.07	2.1112	P	2.4
6	☐	500.000	500.477	521896.50	4.1951	P	0.3
7	☐	1000.000	999.288	1076869.43	8.3762	P	0.2
8	☐			185.56	0.0014	P	33.7

$$y = 0.0084 * x + 2.4968E-005$$

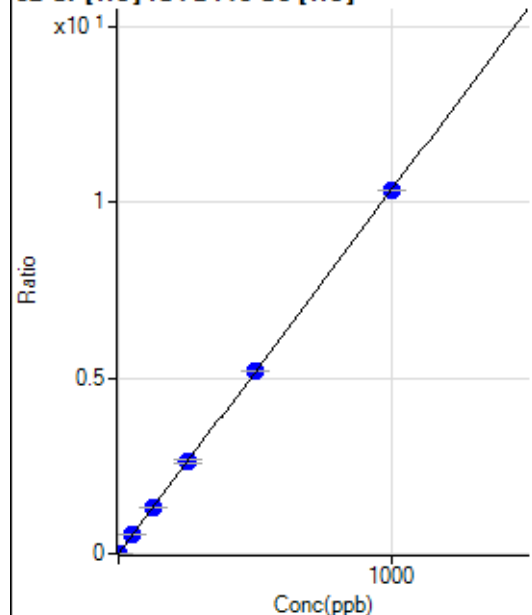
$$R = 1.0000$$

$$DL = 5.46E-05$$

$$BEC = 0.002979$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	225.56	0.0017	P	12.0
2	☐	2.000	1.871	2892.55	0.0210	P	0.8
3	☐	50.000	51.248	71059.02	0.5314	P	0.7
4	☐	125.000	125.916	166935.70	1.3032	P	0.7
5	☐	250.000	254.152	317934.07	2.6287	P	2.8
6	☐	500.000	502.454	646311.56	5.1952	P	0.3
7	☐	1000.000	997.559	1325855.22	10.3128	P	0.1
8	☐			22583.06	0.1708	P	2.1

$$y = 0.0103 * x + 0.0017$$

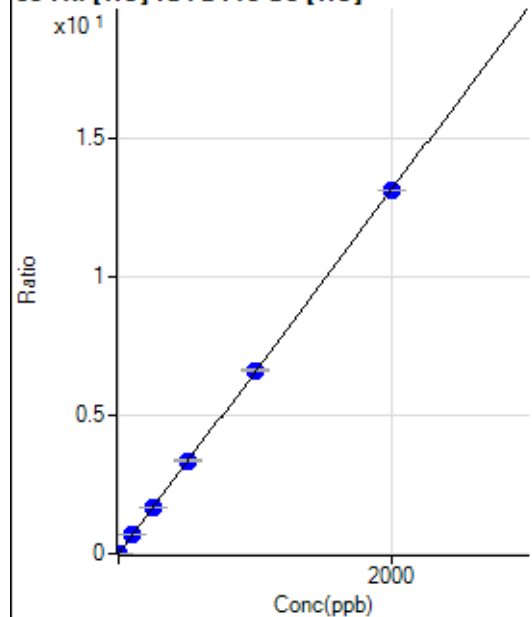
$$R = 1.0000$$

$$DL = 0.05911$$

$$BEC = 0.1637$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	23.33	0.0002	P	37.2
2	☐	1.000	0.992	918.94	0.0067	P	8.9
3	☐	100.000	102.287	89764.10	0.6713	P	1.0
4	☐	250.000	250.144	210253.78	1.6413	P	0.8
5	☐	500.000	510.207	404905.25	3.3475	P	2.4
6	☐	1000.000	1006.845	821800.25	6.6059	P	0.5
7	☐	2000.000	1993.893	1681847.41	13.0817	P	0.1
8	☐			6203.64	0.0469	P	2.7

$$y = 0.0066 * x + 1.7470E-004$$

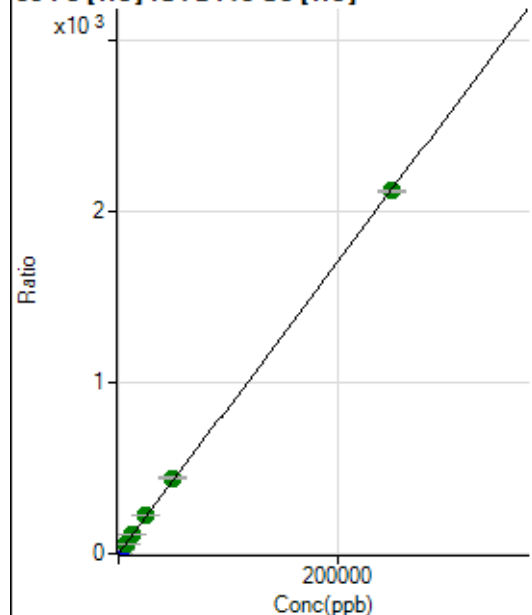
$$R = 1.0000$$

$$DL = 0.02972$$

$$BEC = 0.02663$$

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	1696.45	0.0127	P	2.8
2	☐	50.000	53.675	64595.93	0.4696	P	2.0
3	☐	2500.000	2684.015	3056701.05	22.8582	P	0.6
4	☐	6250.000	6520.824	7111602.59	55.5159	A	0.2
5	☐	12500.000	13316.299	13711881.67	113.3568	A	2.1
6	☐	25000.000	26348.747	27902154.33	224.2848	A	0.3
7	☐	50000.000	52187.416	57109869.33	444.2153	A	0.3
8	☐	250000.00	249378.21	280598635.9	2,122.640	A	0.5

$$y = 0.0085 * x + 0.0127$$

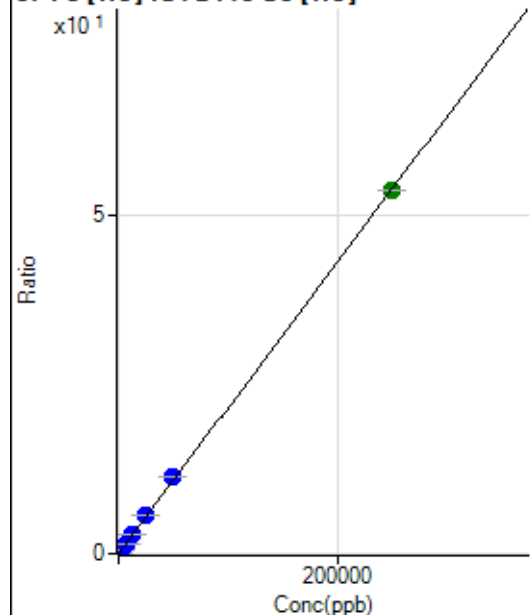
$$R = 1.0000$$

$$DL = 0.1239$$

$$BEC = 1.495$$

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	0.0007	P	16.3
2	☐	50.000	54.202	1694.59	0.0123	P	7.0
3	☐	2500.000	2688.043	77431.56	0.5791	P	1.2
4	☐	6250.000	6621.413	182596.76	1.4254	P	0.8
5	☐	12500.000	13510.273	351697.29	2.9078	P	2.7
6	☐	25000.000	26477.373	708871.31	5.6981	P	0.1
7	☐	50000.000	52377.981	1449065.79	11.2714	P	0.4
8	☐	250000.00	249314.98	7092266.83	53.6483	A	0.2

$$y = 2.1518E-004 * x + 6.5282E-004$$

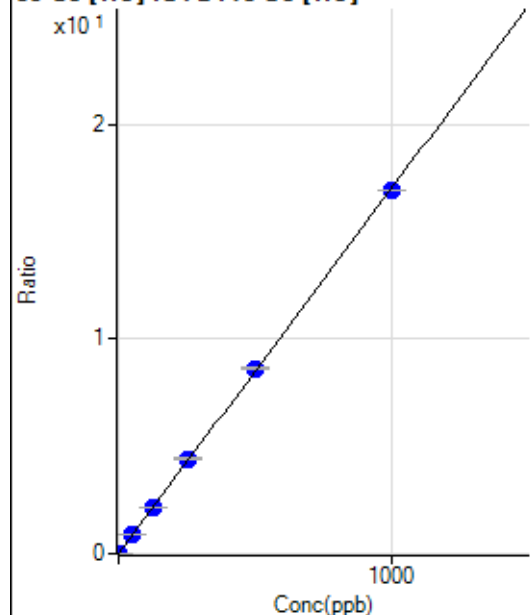
$$R = 0.9999$$

$$DL = 1.487$$

$$BEC = 3.034$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	45.56	0.0003	P	40.8
2	☐	1.000	0.996	2379.12	0.0173	P	0.9
3	☐	50.000	52.776	120174.65	0.8987	P	0.3
4	☐	125.000	128.543	280319.53	2.1883	P	0.6
5	☐	250.000	259.138	533561.79	4.4113	P	2.5
6	☐	500.000	507.509	1074710.39	8.6389	P	0.6
7	☐	1000.000	993.380	2173897.33	16.9092	P	0.2
8	☐			25720.47	0.1946	P	0.3

$$y = 0.0170 * x + 3.4213E-004$$

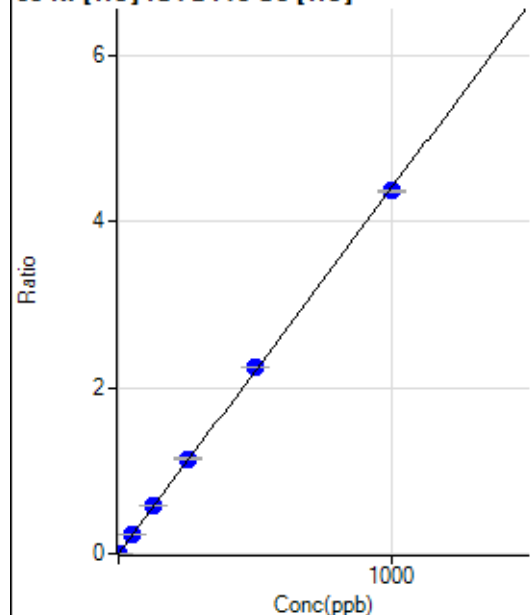
$$R = 0.9999$$

$$DL = 0.02462$$

$$BEC = 0.0201$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.67	0.0003	P	46.7
2	☐	1.000	0.969	624.47	0.0045	P	3.5
3	☐	50.000	53.943	31796.90	0.2378	P	1.9
4	☐	125.000	130.010	73353.36	0.5726	P	0.4
5	☐	250.000	259.688	138299.00	1.1435	P	3.1
6	☐	500.000	508.853	278726.09	2.2405	P	0.2
7	☐	1000.000	992.328	561681.41	4.3689	P	0.3
8	☐			10501.69	0.0794	P	2.6

$$y = 0.0044 * x + 2.7451E-004$$

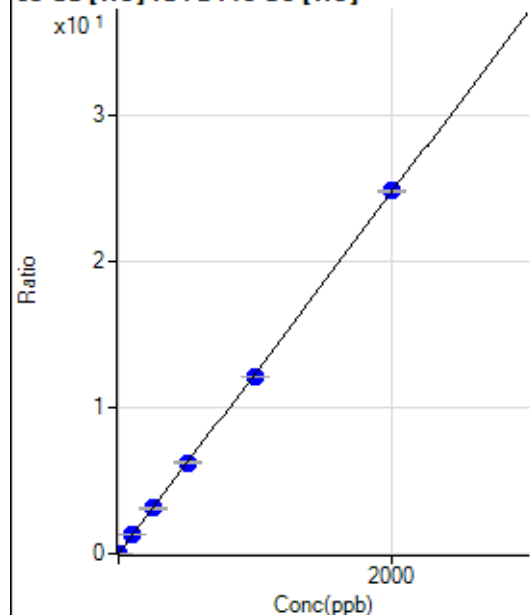
$$R = 0.9999$$

$$DL = 0.08729$$

$$BEC = 0.06235$$

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	374.46	0.0028	P	13.6
2	☐	2.000	1.918	3649.41	0.0265	P	1.3
3	☐	100.000	103.244	171104.52	1.2796	P	0.6
4	☐	250.000	250.606	397335.58	3.1019	P	0.8
5	☐	500.000	504.480	754967.10	6.2414	P	2.1
6	☐	1000.000	978.634	1505915.17	12.1049	P	0.3
7	☐	2000.000	2009.325	3194855.96	24.8508	P	0.4
8	☐			4777.52	0.0361	P	2.5

$$y = 0.0124 * x + 0.0028$$

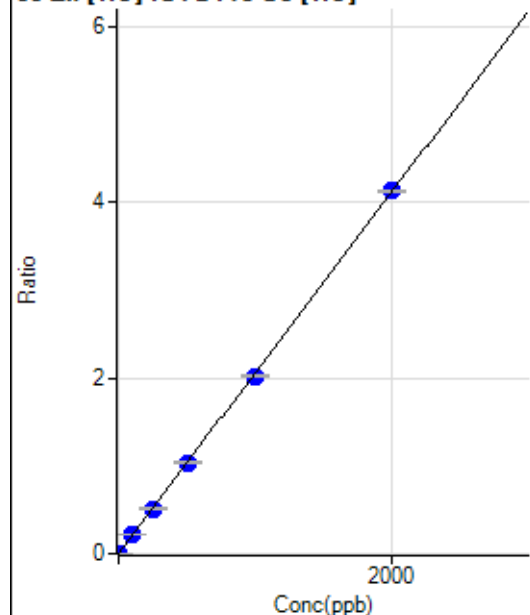
$$R = 0.9999$$

$$DL = 0.09285$$

$$BEC = 0.2269$$

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	157.78	0.0012	P	9.7
2	☐	2.000	1.923	706.69	0.0051	P	3.0
3	☐	100.000	101.617	28092.75	0.2101	P	1.7
4	☐	250.000	247.676	65375.52	0.5104	P	1.6
5	☐	500.000	503.097	125230.94	1.0355	P	3.0
6	☐	1000.000	983.903	251782.23	2.0239	P	0.8
7	☐	2000.000	2007.484	530727.72	4.1282	P	0.5
8	☐			5463.32	0.0413	P	2.1

$$y = 0.0021 * x + 0.0012$$

$$R = 0.9999$$

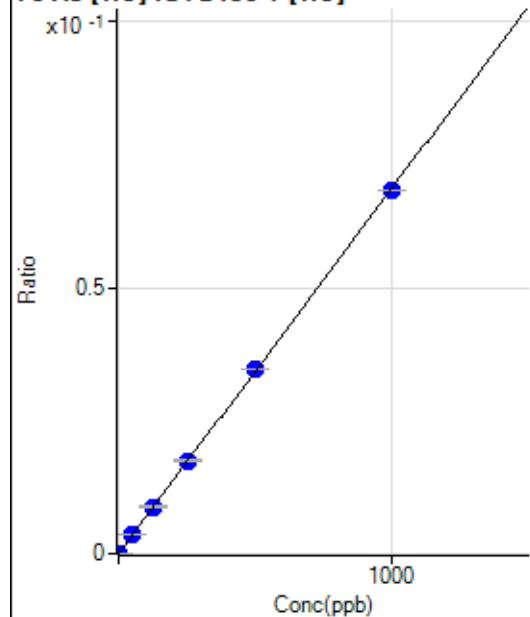
$$DL = 0.1683$$

$$BEC = 0.5755$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.55	0.0000	P	58.1
2	☐	1.000	1.040	175.31	0.0001	P	7.7
3	☐	50.000	51.869	8299.34	0.0036	P	1.5
4	☐	125.000	128.376	19754.82	0.0088	P	1.4
5	☐	250.000	254.956	37526.70	0.0175	P	2.2
6	☐	500.000	507.434	76767.63	0.0348	P	0.4
7	☐	1000.000	994.528	153424.03	0.0681	P	0.1
8	☐			206.79	0.0001	P	9.9

$$y = 6.8516\text{E-}005 * x + 2.3864\text{E-}006$$

$$R = 0.9999$$

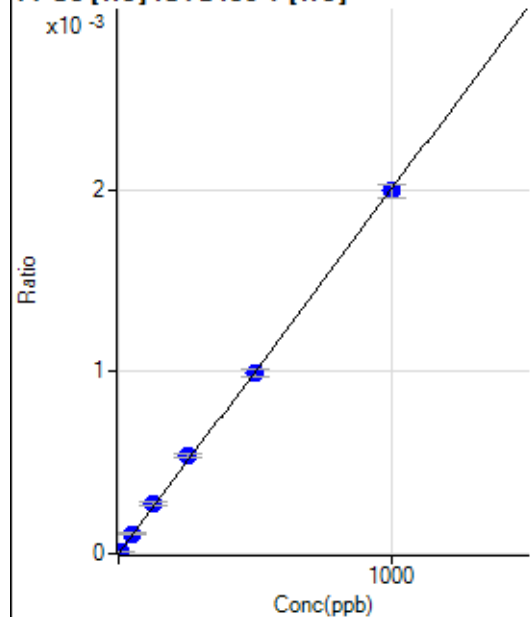
$$DL = 0.06068$$

$$BEC = 0.03483$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	6.054	28.89	0.0000	P	43.6
3	☐	50.000	54.582	255.56	0.0001	P	16.2
4	☐	125.000	137.715	620.02	0.0003	P	7.8
5	☐	250.000	270.146	1163.40	0.0005	P	3.3
6	☐	500.000	495.904	2195.76	0.0010	P	4.8
7	☐	1000.000	995.188	4492.99	0.0020	P	4.0
8	☐			3.33	0.0000	P	100.

$$y = 2.0053\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9997$$

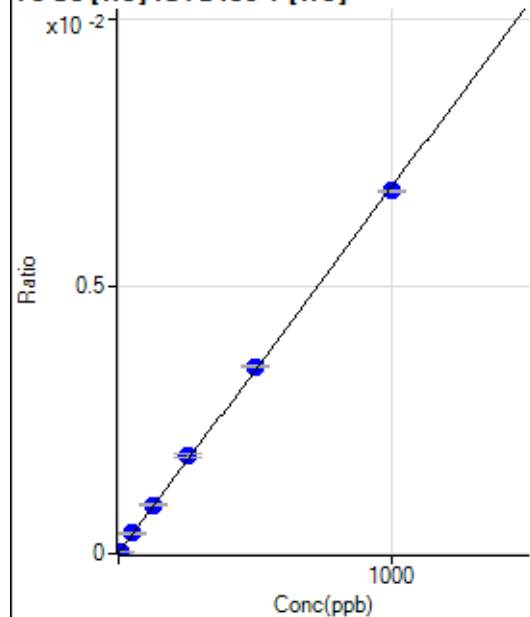
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.31	0.0000	P	4.3
2	☐	5.000	5.051	108.03	0.0000	P	5.8
3	☐	50.000	53.838	884.60	0.0004	P	4.5
4	☐	125.000	130.283	2024.24	0.0009	P	4.1
5	☐	250.000	266.100	3931.43	0.0018	P	3.1
6	☐	500.000	510.613	7731.14	0.0035	P	1.4
7	☐	1000.000	989.816	15259.32	0.0068	P	0.8
8	☐			31.48	0.0000	P	18.5

$$y = 6.8364\text{E-}006 * x + 1.0866\text{E-}005$$

$$R = 0.9998$$

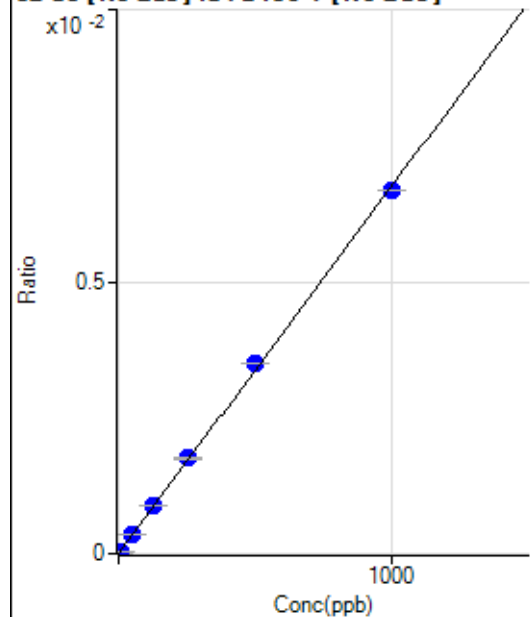
$$DL = 0.2033$$

$$BEC = 1.589$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	43.54	0.0000	P	56.1
2	☐	5.000	4.519	579.98	0.0000	P	12.6
3	☐	50.000	52.440	6197.03	0.0004	P	1.1
4	☐	125.000	128.408	14941.97	0.0009	P	0.4
5	☐	250.000	260.116	29369.65	0.0018	P	1.4
6	☐	500.000	517.930	58957.54	0.0035	P	0.6
7	☐	1000.000	987.960	112159.70	0.0067	P	0.1
8	☐			93.25	0.0000	P	44.2

$$y = 6.7520\text{E-}006 * x + 2.5483\text{E-}006$$

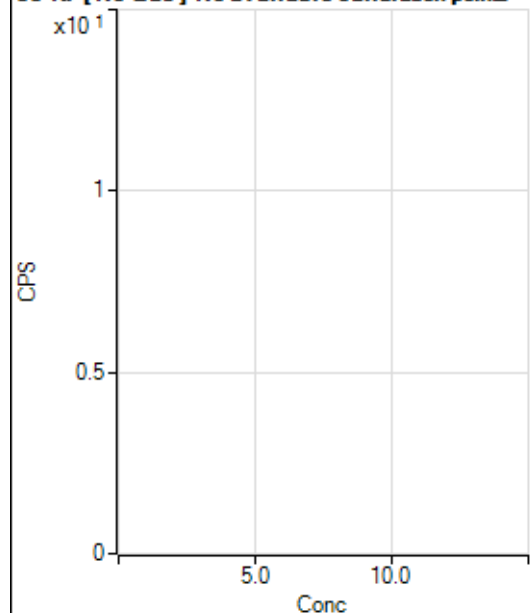
$$R = 0.9997$$

$$DL = 0.6352$$

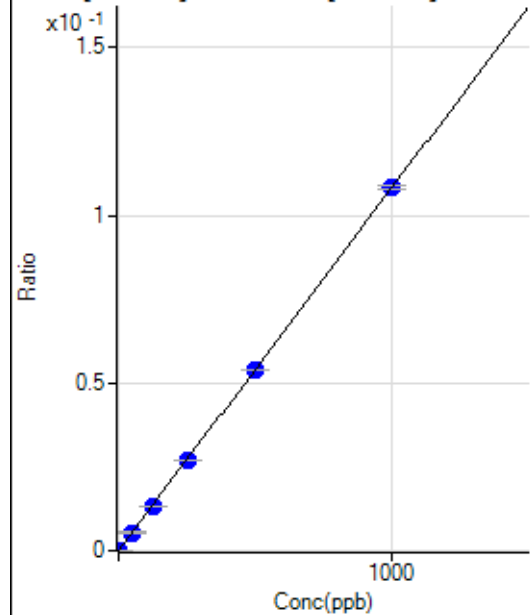
$$BEC = 0.3774$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			140.00		P	21.2
2	☐			190.00		P	9.1
3	☐			178.89		P	14.0
4	☐			162.23		P	4.7
5	☐			182.23		P	23.0
6	☐			172.23		P	15.6
7	☐			164.45		P	19.3
8	☐			191.12		P	9.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	313.91	0.0000	P	11.1
2	☐	1.000	0.877	1986.34	0.0001	P	3.8
3	☐	50.000	49.977	94182.93	0.0054	P	1.2
4	☐	125.000	123.532	229710.51	0.0134	P	1.2
5	☐	250.000	249.217	450060.47	0.0270	P	2.0
6	☐	500.000	498.736	908413.53	0.0539	P	0.5
7	☐	1000.000	1001.012	1818680.25	0.1082	P	1.0
8	☐			7905.29	0.0005	P	0.9

$$y = 1.0808\text{E-}004 * x + 1.8383\text{E-}005$$

$$R = 1.0000$$

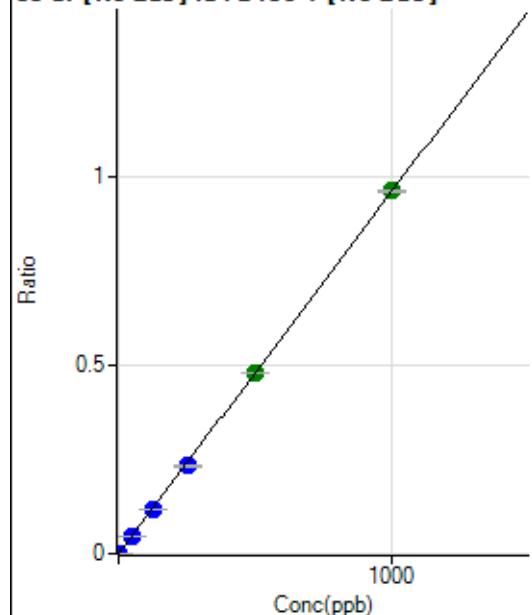
$$DL = 0.05647$$

$$BEC = 0.1701$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0000	P	54.5
2	☐	1.000	0.898	15225.15	0.0009	P	1.0
3	☐	50.000	48.959	818003.13	0.0471	P	1.4
4	☐	125.000	120.822	1995968.16	0.1162	P	0.8
5	☐	250.000	243.570	3910379.99	0.2342	P	1.4
6	☐	500.000	498.110	8068049.83	0.4789	A	0.3
7	☐	1000.000	1003.127	16209663.73	0.9644	A	0.4
8	☐			65352.46	0.0040	P	1.1

$$y = 9.6142\text{E-}004 * x + 3.9050\text{E-}006$$

$$R = 1.0000$$

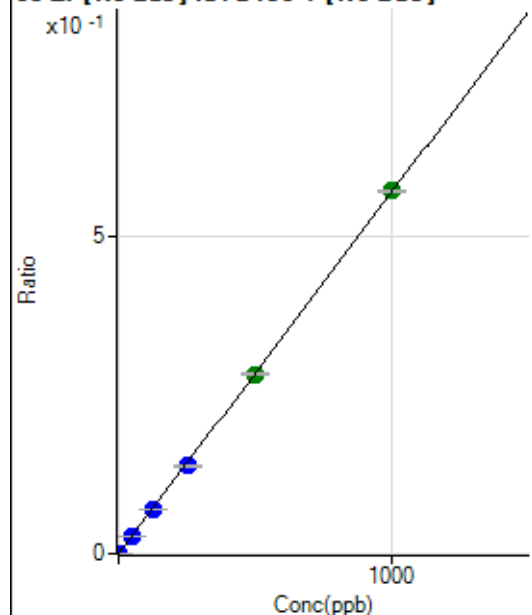
$$DL = 0.00664$$

$$BEC = 0.004062$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	597.26	0.0000	P	10.4
2	☐	1.000	0.781	8397.28	0.0005	P	2.7
3	☐	50.000	48.436	478755.76	0.0276	P	1.3
4	☐	125.000	119.982	1171830.33	0.0682	P	0.2
5	☐	250.000	243.262	2308331.04	0.1382	P	1.1
6	☐	500.000	496.202	4749662.56	0.2819	A	0.8
7	☐	1000.000	1004.289	9589939.54	0.5706	A	0.2
8	☐			3950.72	0.0002	P	6.7

$$y = 5.6811\text{E-}004 * x + 3.4972\text{E-}005$$

$$R = 1.0000$$

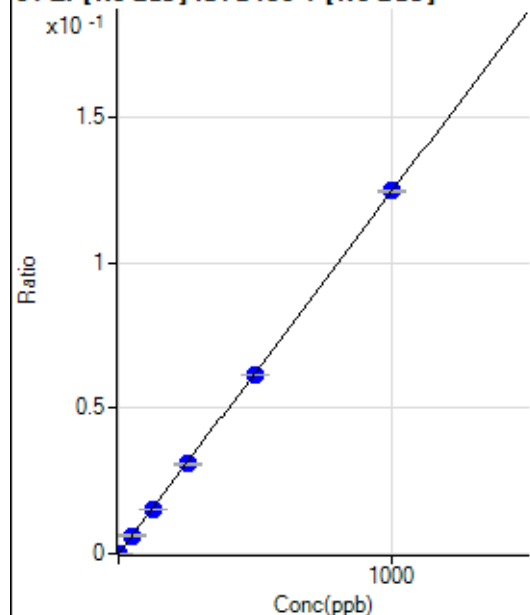
$$DL = 0.01917$$

$$BEC = 0.06156$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0000	P	6.1
2	☐	1.000	0.908	2061.36	0.0001	P	5.3
3	☐	50.000	49.942	107913.20	0.0062	P	2.4
4	☐	125.000	123.615	264036.89	0.0154	P	0.5
5	☐	250.000	248.446	515602.80	0.0309	P	1.5
6	☐	500.000	494.860	1036050.12	0.0615	P	0.9
7	☐	1000.000	1003.135	2095193.67	0.1247	P	0.3
8	☐			866.73	0.0001	P	7.1

$$y = 1.2426\text{E-}004 * x + 4.7180\text{E-}006$$

$$R = 1.0000$$

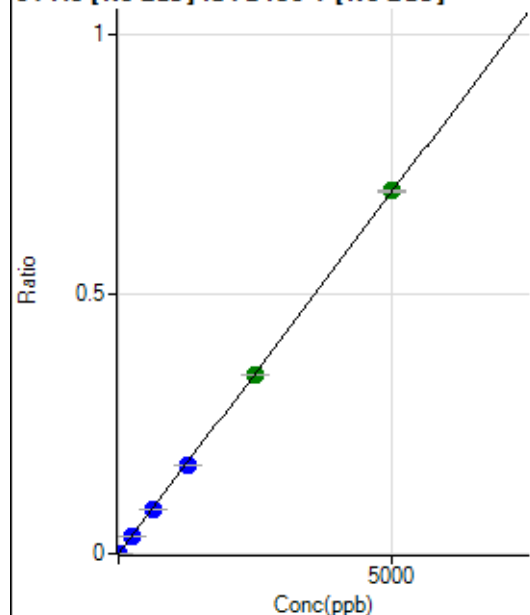
$$DL = 0.00695$$

$$BEC = 0.03797$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	158.34	0.0000	P	10.4
2	☐	5.000	4.430	10999.07	0.0006	P	1.3
3	☐	250.000	245.141	593941.36	0.0342	P	1.5
4	☐	625.000	604.460	1447988.29	0.0843	P	0.2
5	☐	1250.000	1222.098	2844900.39	0.1704	P	0.9
6	☐	2500.000	2476.798	5816605.34	0.3453	A	0.8
7	☐	5000.000	5021.388	11764696.79	0.7000	A	0.3
8	☐			7460.59	0.0005	P	7.1

$$y = 1.3940\text{E-}004 * x + 9.2717\text{E-}006$$

$$R = 1.0000$$

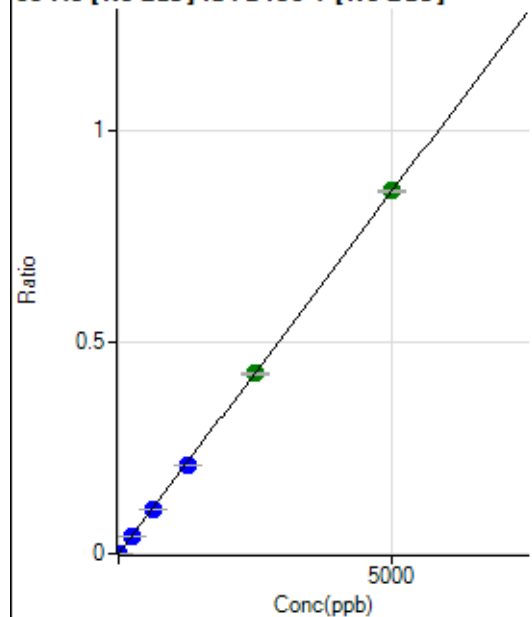
$$DL = 0.02072$$

$$BEC = 0.06651$$

Weight: <None>

Min Conc: 0

95 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	68.6
2	☐	5.000	4.498	13556.94	0.0008	P	4.2
3	☐	250.000	247.099	734267.22	0.0423	P	0.9
4	☐	625.000	606.617	1782342.62	0.1037	P	0.2
5	☐	1250.000	1223.212	3492664.83	0.2092	P	1.3
6	☐	2500.000	2487.052	7164309.27	0.4253	A	0.5
7	☐	5000.000	5015.615	14414149.28	0.8576	A	0.4
8	☐			10709.99	0.0007	P	4.1

$$y = 1.7099\text{E-}004 * x + 3.5764\text{E-}006$$

$$R = 1.0000$$

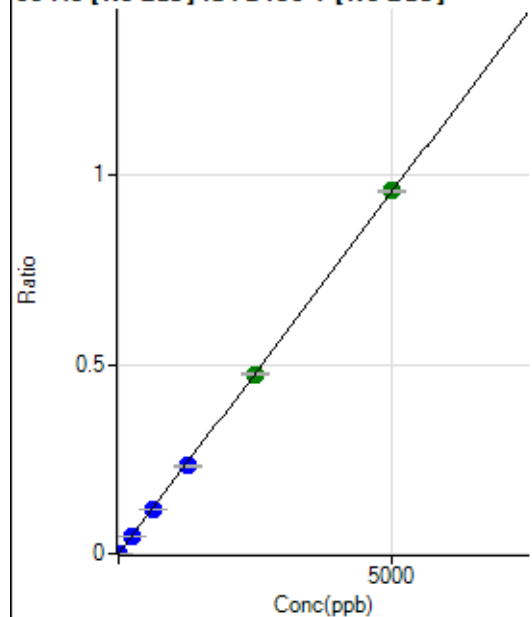
$$DL = 0.04303$$

$$BEC = 0.02092$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144.45	0.0000	P	37.7
2	☐	5.000	4.459	15094.62	0.0009	P	1.0
3	☐	250.000	245.232	814260.36	0.0469	P	1.1
4	☐	625.000	605.048	1986289.52	0.1156	P	0.7
5	☐	1250.000	1215.437	3877568.32	0.2322	P	1.3
6	☐	2500.000	2480.138	7982437.33	0.4738	A	0.8
7	☐	5000.000	5021.305	16123351.58	0.9593	A	0.3
8	☐			16802.19	0.0010	P	1.6

$$y = 1.9104\text{E-}004 * x + 8.4627\text{E-}006$$

$$R = 1.0000$$

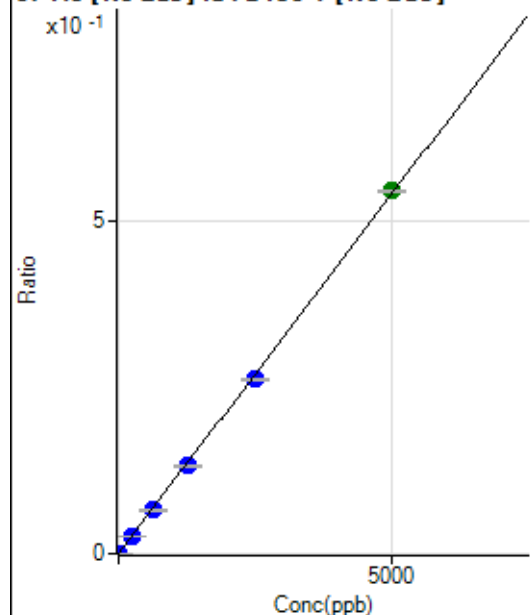
$$DL = 0.05012$$

$$BEC = 0.0443$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.34	0.0000	P	25.2
2	☐	5.000	4.602	8755.79	0.0005	P	4.9
3	☐	250.000	245.767	461230.48	0.0265	P	1.2
4	☐	625.000	604.528	1121748.08	0.0653	P	1.0
5	☐	1250.000	1223.038	2205547.06	0.1321	P	1.3
6	☐	2500.000	2421.946	4406402.88	0.2616	P	0.7
7	☐	5000.000	5048.539	9163438.92	0.5452	A	0.3
8	☐			6715.78	0.0004	P	8.0

$$y = 1.0799\text{E-}004 * x + 1.9528\text{E-}006$$

$$R = 0.9998$$

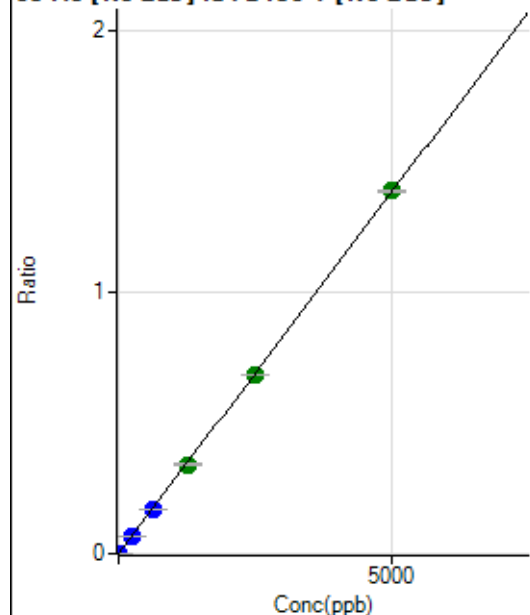
$$DL = 0.01365$$

$$BEC = 0.01808$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.00	0.0000	P	30.2
2	☐	5.000	4.440	21661.53	0.0012	P	1.2
3	☐	250.000	245.058	1178403.46	0.0678	P	1.2
4	☐	625.000	601.329	2859103.99	0.1664	P	0.7
5	☐	1250.000	1227.515	5671716.62	0.3397	A	1.9
6	☐	2500.000	2475.830	11541570.92	0.6851	A	0.7
7	☐	5000.000	5020.913	23350922.40	1.3893	A	0.3
8	☐			16051.40	0.0010	P	8.4

$$y = 2.7671\text{E-}004 * x + 5.8585\text{E-}006$$

$$R = 1.0000$$

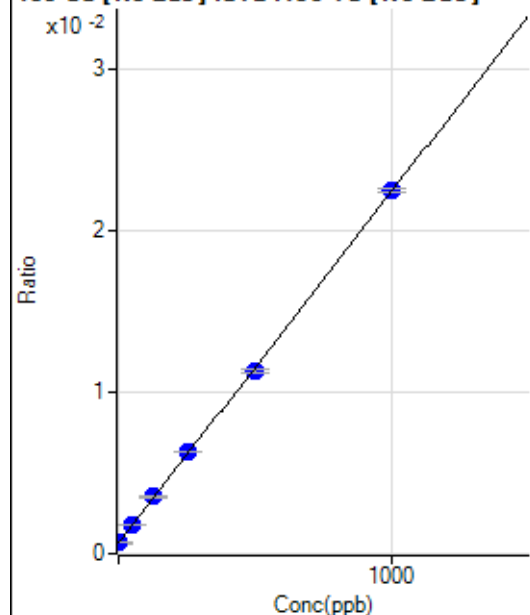
$$DL = 0.01921$$

$$BEC = 0.02117$$

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	4873.25	0.0007	P	5.2
2	☐	1.000	4.619	5687.50	0.0008	P	2.1
3	☐	50.000	53.505	13818.38	0.0018	P	0.9
4	☐	125.000	131.121	26645.16	0.0035	P	1.4
5	☐	250.000	259.717	48049.07	0.0063	P	1.7
6	☐	500.000	489.171	88643.94	0.0113	P	1.3
7	☐	1000.000	1002.041	175884.51	0.0224	P	1.0
8	☐			4981.64	0.0007	P	3.0

$$y = 2.1732\text{E-}005 * x + 6.6266\text{E-}004$$

$$R = 0.9999$$

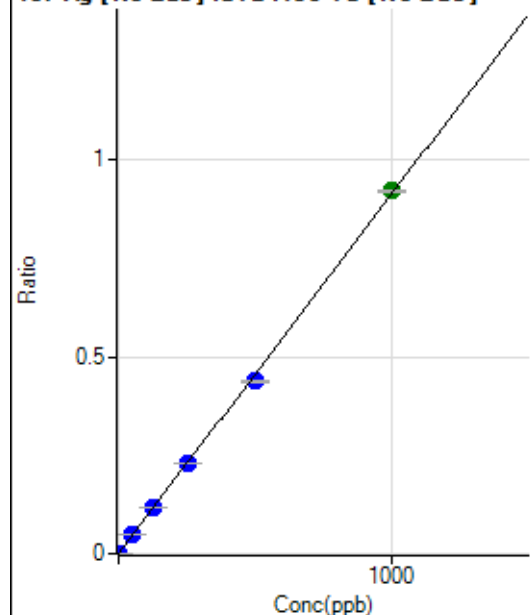
$$DL = 4.737$$

$$BEC = 30.49$$

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	91.67	0.0000	P	16.0
2	☐	1.000	1.066	7343.90	0.0010	P	3.3
3	☐	50.000	53.610	370417.66	0.0489	P	0.9
4	☐	125.000	129.299	895258.71	0.1180	P	0.4
5	☐	250.000	250.719	1743229.25	0.2288	P	1.2
6	☐	500.000	479.430	3434279.85	0.4375	P	0.4
7	☐	1000.000	1009.387	7220262.92	0.9212	A	0.5
8	☐			1277.89	0.0002	P	18.3

$$y = 9.1259\text{E-}004 * x + 1.2468\text{E-}005$$

$$R = 0.9997$$

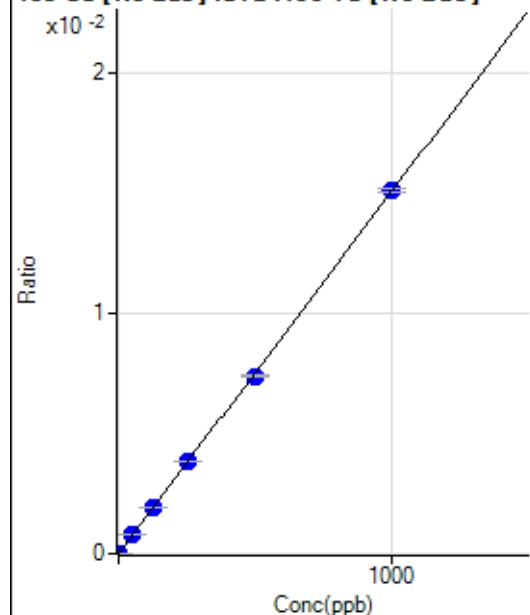
$$DL = 0.00655$$

$$BEC = 0.01366$$

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	9.72	0.0000	P	65.8
2	☐	1.000	1.238	148.62	0.0000	P	5.1
3	☐	50.000	52.729	6009.72	0.0008	P	4.1
4	☐	125.000	128.438	14656.42	0.0019	P	1.0
5	☐	250.000	254.724	29181.65	0.0038	P	1.4
6	☐	500.000	491.117	57956.99	0.0074	P	1.5
7	☐	1000.000	1002.694	118149.69	0.0151	P	1.2
8	☐			31.94	0.0000	P	54.5

$$y = 1.5033\text{E-}005 * x + 1.3241\text{E-}006$$

$$R = 0.9999$$

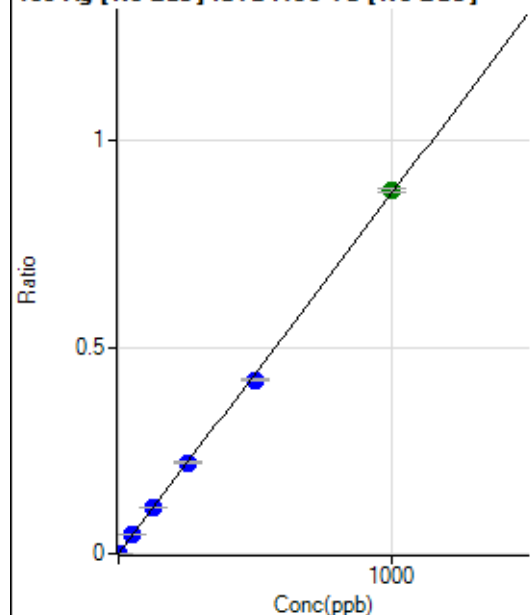
$$DL = 0.1738$$

$$BEC = 0.08808$$

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	13.89	0.0000	P	34.9
2	☐	1.000	1.039	6771.38	0.0009	P	2.2
3	☐	50.000	53.914	356145.39	0.0471	P	1.3
4	☐	125.000	129.551	857704.96	0.1131	P	0.3
5	☐	250.000	252.117	1676189.62	0.2200	P	1.5
6	☐	500.000	482.561	3305519.54	0.4211	P	1.0
7	☐	1000.000	1007.425	6890922.12	0.8792	A	1.0
8	☐			1100.09	0.0001	P	20.2

$$y = 8.7270\text{E-}004 * x + 1.8898\text{E-}006$$

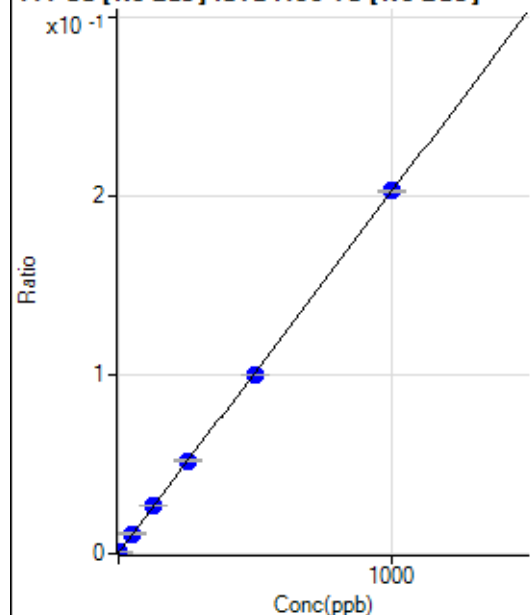
$$R = 0.9998$$

$$DL = 0.002264$$

$$BEC = 0.002165$$

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	3416.97	0.0005	P	5.0
2	☐	1.000	1.291	5403.72	0.0007	P	3.5
3	☐	50.000	53.230	84777.15	0.0112	P	1.5
4	☐	125.000	129.060	200994.57	0.0265	P	0.4
5	☐	250.000	254.607	394747.48	0.0518	P	1.7
6	☐	500.000	492.241	782914.61	0.0997	P	0.5
7	☐	1000.000	1002.058	1587766.56	0.2026	P	0.5
8	☐			3767.58	0.0005	P	2.9

$$y = 2.0169\text{E-}004 * x + 4.6464\text{E-}004$$

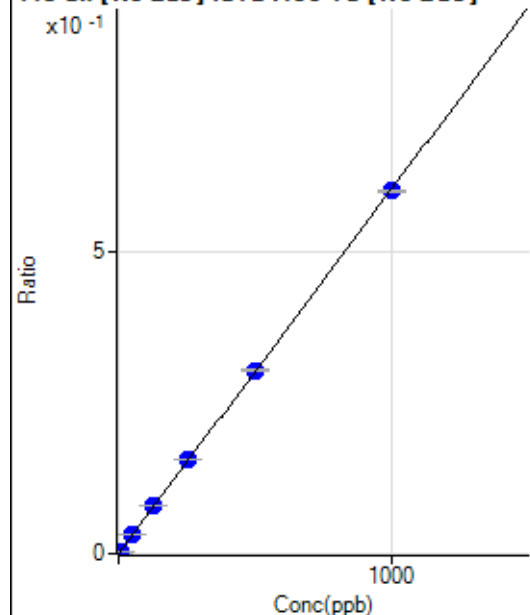
$$R = 0.9999$$

$$DL = 0.3475$$

$$BEC = 2.304$$

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	552.81	0.0001	P	0.6
2	☐	5.000	5.215	23943.49	0.0032	P	1.7
3	☐	50.000	53.399	243715.50	0.0322	P	1.0
4	☐	125.000	130.693	596988.20	0.0787	P	0.7
5	☐	250.000	258.091	1183356.38	0.1553	P	1.3
6	☐	500.000	503.097	2376067.83	0.3027	P	0.6
7	☐	1000.000	995.546	4694555.01	0.5990	P	0.8
8	☐			3300.53	0.0004	P	2.2

$$y = 6.0156\text{E-}004 * x + 7.5167\text{E-}005$$

$$R = 1.0000$$

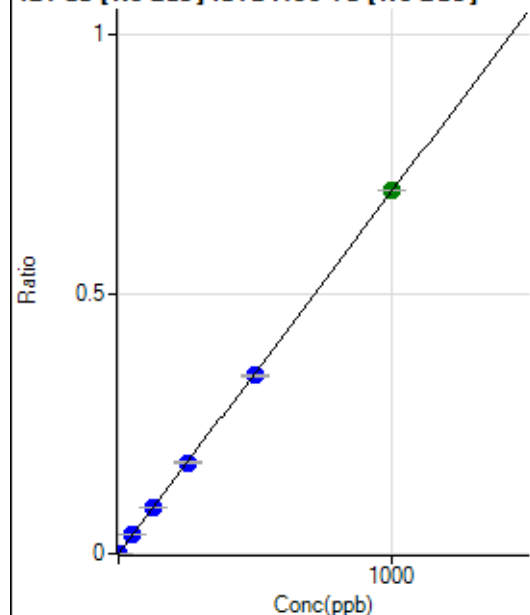
$$DL = 0.002434$$

$$BEC = 0.125$$

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	127.78	0.0000	P	19.1
2	☐	2.000	1.854	9751.05	0.0013	P	2.9
3	☐	50.000	51.538	271784.50	0.0359	P	1.3
4	☐	125.000	127.573	674066.37	0.0889	P	0.5
5	☐	250.000	252.272	1338467.67	0.1757	P	1.4
6	☐	500.000	492.183	2690373.43	0.3428	P	0.2
7	☐	1000.000	1002.942	5474503.38	0.6984	A	0.1
8	☐			8644.67	0.0012	P	4.6

$$y = 6.9637E-004 * x + 1.7381E-005$$

$$R = 0.9999$$

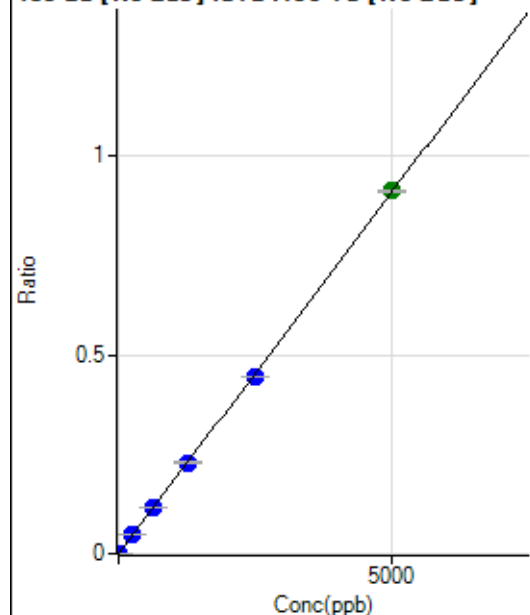
$$DL = 0.01427$$

$$BEC = 0.02496$$

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	41.67	0.0000	P	59.8
2	☐	10.000	10.088	13682.31	0.0018	P	1.5
3	☐	250.000	256.563	352316.98	0.0465	P	1.5
4	☐	625.000	633.252	871509.35	0.1149	P	0.7
5	☐	1250.000	1258.805	1739675.30	0.2284	P	1.6
6	☐	2500.000	2442.568	3477952.29	0.4431	P	0.2
7	☐	5000.000	5025.155	7145139.74	0.9116	A	0.4
8	☐			1675.18	0.0002	P	15.6

$$y = 1.8140E-004 * x + 5.6583E-006$$

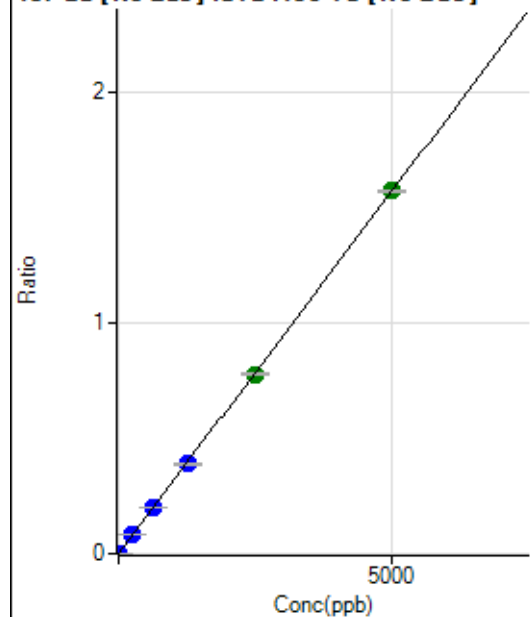
$$R = 0.9999$$

$$DL = 0.05592$$

$$BEC = 0.03119$$

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	19.44	0.0000	P	65.4
2	☐	10.000	9.785	22916.81	0.0031	P	1.0
3	☐	250.000	255.395	606860.35	0.0802	P	1.1
4	☐	625.000	626.101	1491035.71	0.1965	P	0.4
5	☐	1250.000	1237.179	2958751.19	0.3884	P	1.2
6	☐	2500.000	2482.446	6116726.35	0.7793	A	0.4
7	☐	5000.000	5011.575	12330861.91	1.5732	A	0.8
8	☐			2900.44	0.0004	P	11.7

$$y = 3.1392E-004 * x + 2.6443E-006$$

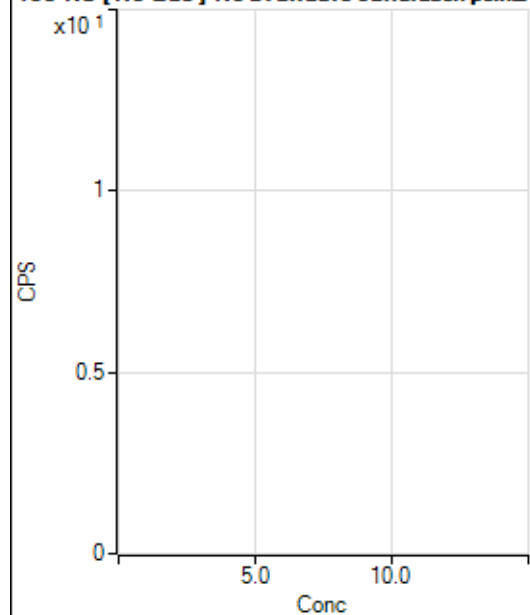
$$R = 1.0000$$

$$DL = 0.01653$$

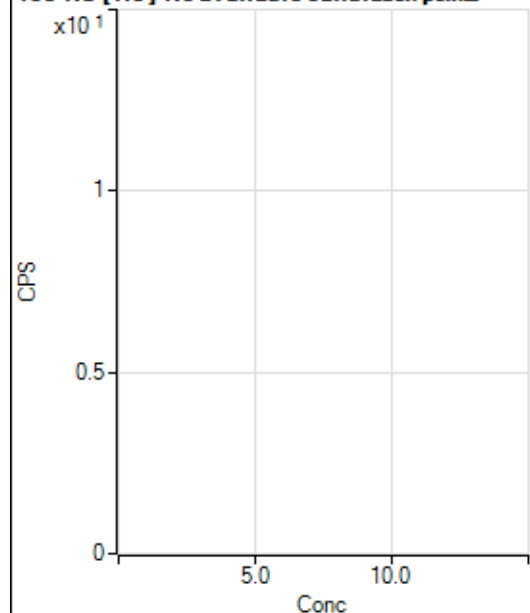
$$BEC = 0.008424$$

Weight: <None>

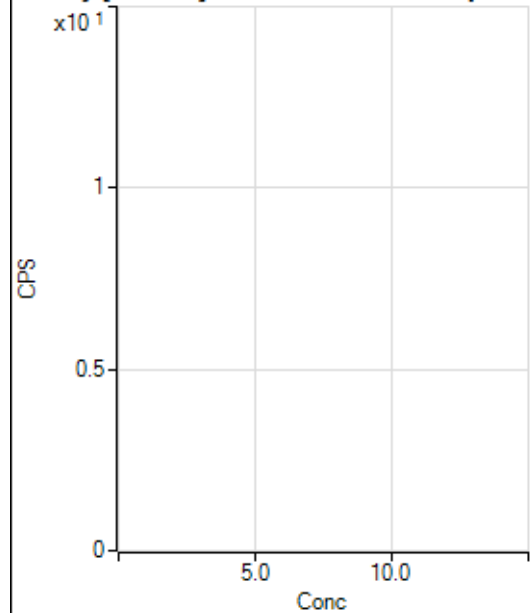
Min Conc: 0

150 Nd [No Gas] No available calibration points

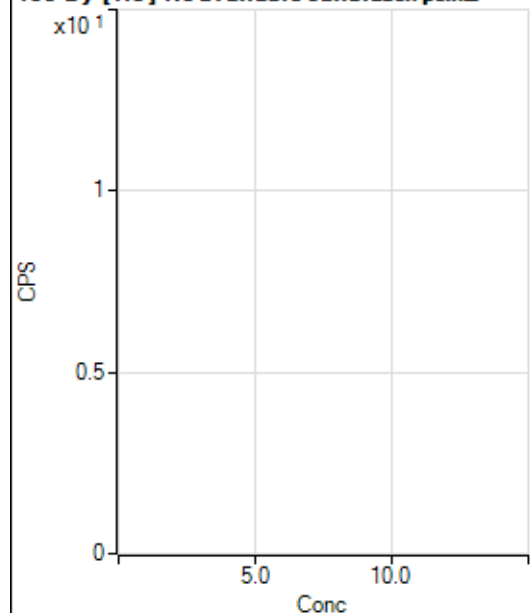
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐			6.67		P	100.
3	☐			40.00		P	44.1
4	☐			75.56		P	41.7
5	☐			166.67		P	13.9
6	☐			264.46		P	16.8
7	☐			537.81		P	10.0
8	☐			135.56		P	17.3

150 Nd [He] No available calibration points

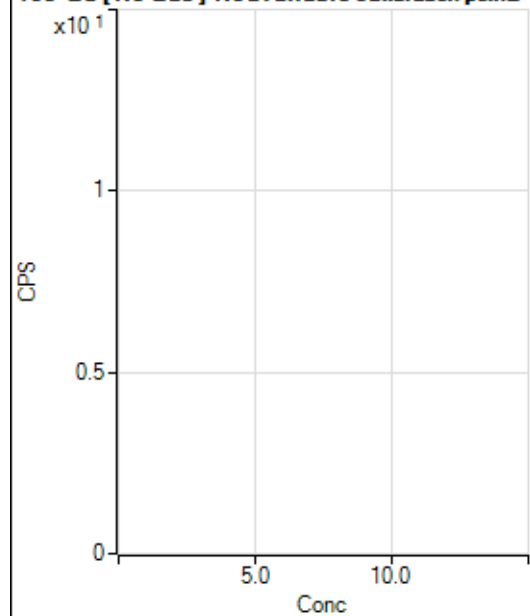
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.66		P	86.6
2	☐			7.78		P	107.
3	☐			6.67		P	50.0
4	☐			14.44		P	66.6
5	☐			22.22		P	45.8
6	☐			45.56		P	37.5
7	☐			50.00		P	30.6
8	☐			37.78		P	28.4

156 Dy [No Gas] No available calibration points

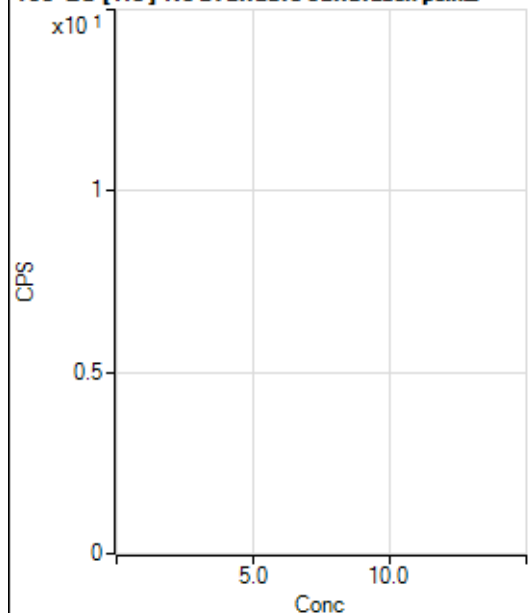
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	34.7
2	☐			16.67		P	100.
3	☐			13.89		P	69.3
4	☐			22.22		P	78.1
5	☐			30.56		P	63.0
6	☐			36.11		P	48.0
7	☐			136.12		P	30.2
8	☐			72.23		P	13.3

156 Dy [He] No available calibration points

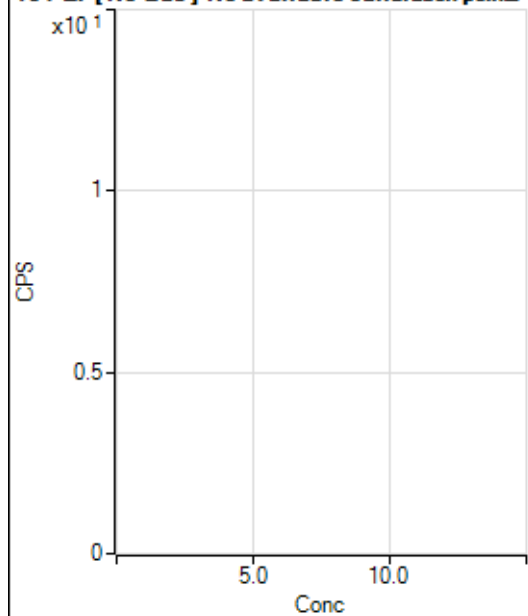
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			21.11		P	24.1
2	☐			14.44		P	35.3
3	☐			16.67		P	20.0
4	☐			32.22		P	53.1
5	☐			40.00		P	38.2
6	☐			70.00		P	42.9
7	☐			126.67		P	7.0
8	☐			37.78		P	41.7

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

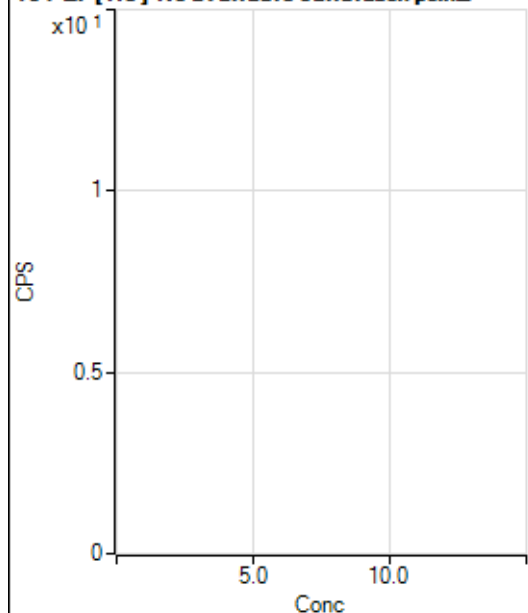
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	12.4
2	☐			38.89		P	44.6
3	☐			41.67		P	34.7
4	☐			52.78		P	24.1
5	☐			44.45		P	47.2
6	☐			41.67		P	34.7
7	☐			55.56		P	8.7
8	☐			108.34		P	48.0

160 Gd [He] No available calibration points

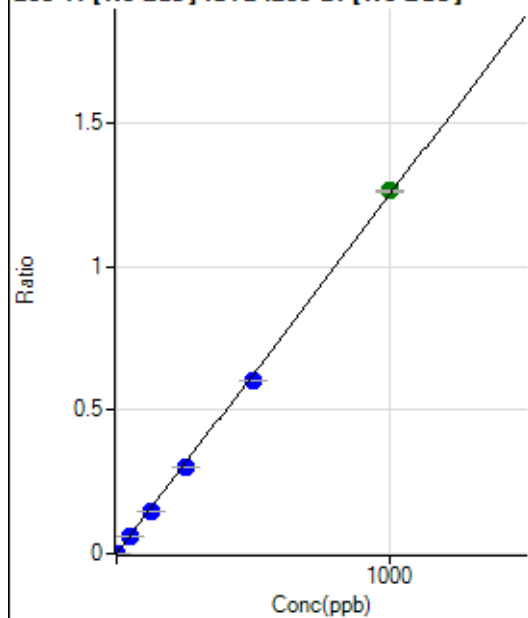
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			135.56		P	12.6
2	☐			116.67		P	7.6
3	☐			121.11		P	28.2
4	☐			115.56		P	6.0
5	☐			115.56		P	11.7
6	☐			122.22		P	11.0
7	☐			134.45		P	8.7
8	☐			144.45		P	8.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	25.0
2	☐			33.33		P	66.2
3	☐			41.67		P	52.9
4	☐			13.89		P	91.6
5	☐			44.45		P	10.8
6	☐			52.78		P	24.1
7	☐			38.89		P	32.7
8	☐			33.33		P	0.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			37.78		P	27.0
2	☐			28.89		P	37.1
3	☐			42.22		P	19.9
4	☐			40.00		P	16.7
5	☐			32.22		P	43.1
6	☐			40.00		P	36.3
7	☐			34.44		P	43.6
8	☐			28.89		P	13.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	394.47	0.0001	P	11.3
2	☐	1.000	0.869	5290.16	0.0012	P	3.7
3	☐	50.000	48.311	274049.77	0.0604	P	0.9
4	☐	125.000	118.913	683718.92	0.1485	P	0.1
5	☐	250.000	241.254	1403576.58	0.3012	P	1.8
6	☐	500.000	483.731	2862161.89	0.6038	P	0.5
7	☐	1000.000	1011.166	5831735.11	1.2621	A	0.2
8	☐			1936.33	0.0005	P	7.6

$$y = 0.0012 * x + 8.9294E-005$$

$$R = 0.9998$$

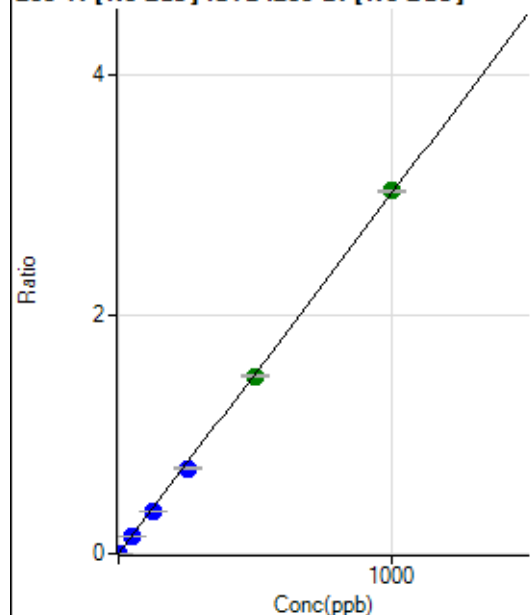
$$DL = 0.02417$$

$$BEC = 0.07154$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	519.48	0.0001	P	14.7
2	☐	1.000	0.875	12403.47	0.0028	P	2.1
3	☐	50.000	47.983	656435.71	0.1447	P	0.6
4	☐	125.000	117.662	1632240.64	0.3545	P	0.4
5	☐	250.000	237.518	3334557.00	0.7156	P	1.4
6	☐	500.000	492.960	7038816.82	1.4850	A	0.5
7	☐	1000.000	1007.659	14024907.43	3.0354	A	0.5
8	☐			4198.07	0.0010	P	9.7

$$y = 0.0030 * x + 1.1760E-004$$

$$R = 0.9999$$

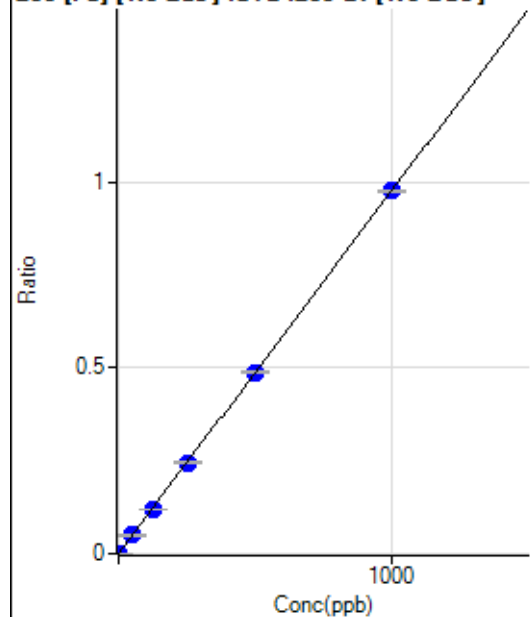
$$DL = 0.0172$$

$$BEC = 0.03904$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	620.40	0.0001	P	9.2
2	☐	1.000	0.963	4869.55	0.0011	P	3.8
3	☐	50.000	50.371	223892.16	0.0493	P	0.7
4	☐	125.000	123.732	556992.11	0.1210	P	0.9
5	☐	250.000	250.771	1141970.10	0.2451	P	1.6
6	☐	500.000	499.178	2311461.09	0.4877	P	1.2
7	☐	1000.000	1000.358	4514955.14	0.9772	P	0.7
8	☐			4258.22	0.0011	P	2.6

$$y = 9.7667E-004 * x + 1.4042E-004$$

$$R = 1.0000$$

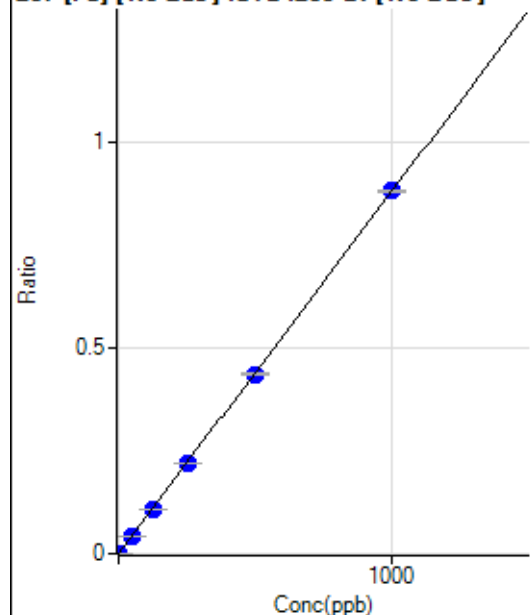
$$DL = 0.03968$$

$$BEC = 0.1438$$

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	577.81	0.0001	P	20.1
2	☐	1.000	0.912	4198.93	0.0009	P	6.7
3	☐	50.000	49.665	198509.28	0.0437	P	0.2
4	☐	125.000	122.701	496632.64	0.1079	P	0.9
5	☐	250.000	249.782	1022683.57	0.2195	P	1.6
6	☐	500.000	495.779	2064110.26	0.4355	P	0.7
7	☐	1000.000	1002.469	4067917.39	0.8804	P	0.4
8	☐			3841.42	0.0010	P	5.0

$$y = 8.7811\text{E-}004 * x + 1.3084\text{E-}004$$

$$R = 1.0000$$

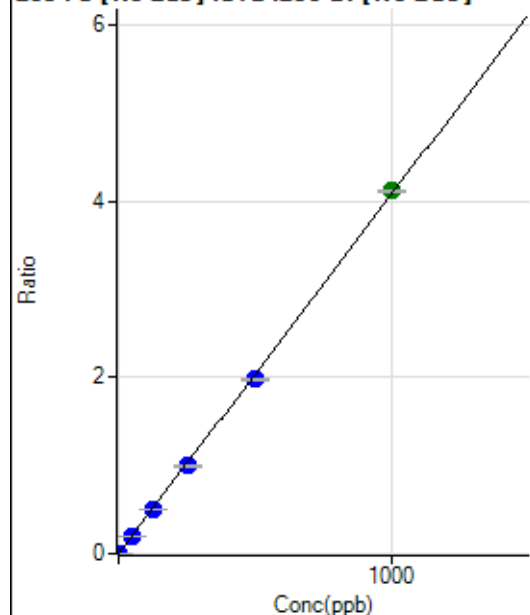
$$DL = 0.09002$$

$$BEC = 0.149$$

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	2174.20	0.0005	P	4.7
2	☐	1.000	0.899	18740.78	0.0042	P	1.9
3	☐	50.000	48.989	909157.12	0.2003	P	0.5
4	☐	125.000	120.756	2270219.56	0.4931	P	0.4
5	☐	250.000	244.573	4651714.58	0.9982	P	1.4
6	☐	500.000	484.338	9367563.94	1.9763	P	0.7
7	☐	1000.000	1009.769	19035514.66	4.1198	A	0.3
8	☐			17114.05	0.0043	P	4.3

$$y = 0.0041 * x + 4.9209\text{E-}004$$

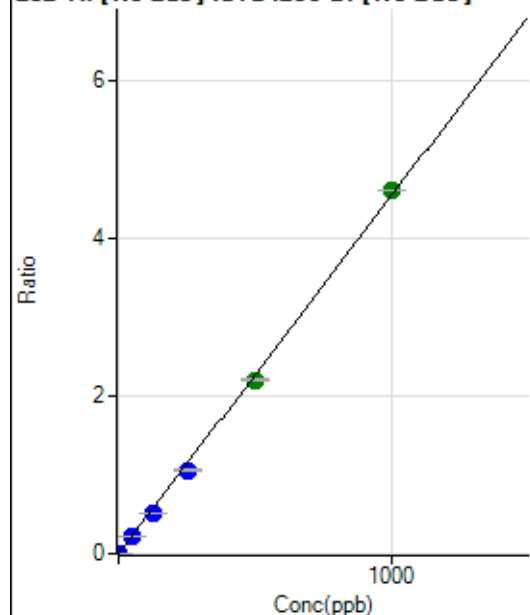
$$R = 0.9998$$

$$DL = 0.01697$$

$$BEC = 0.1206$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1681.64	0.0004	P	5.9
2	☐	1.000	0.743	16941.09	0.0038	P	2.9
3	☐	50.000	45.791	946245.49	0.2085	P	0.7
4	☐	125.000	113.862	2384423.20	0.5179	P	0.4
5	☐	250.000	232.328	4922606.71	1.0564	P	1.6
6	☐	500.000	485.825	10468573.73	2.2086	A	0.6
7	☐	1000.000	1013.109	21278634.04	4.6053	A	0.1
8	☐			7682.13	0.0019	P	7.9

$$y = 0.0045 * x + 3.8059E-004$$

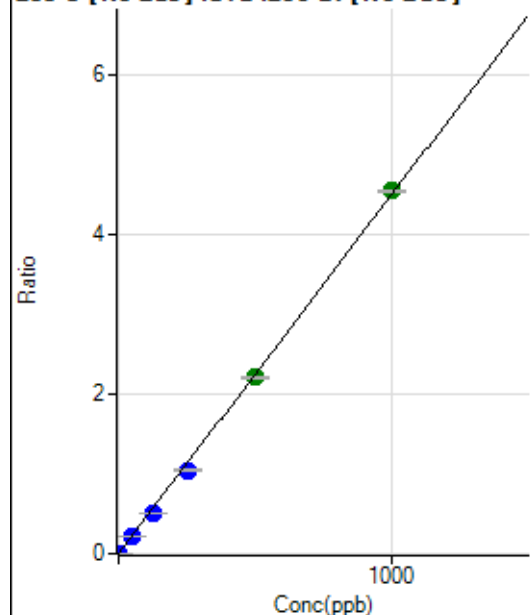
$$R = 0.9997$$

$$DL = 0.01487$$

$$BEC = 0.08373$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2114.17	0.0005	P	9.4
2	☐	1.000	0.822	18797.54	0.0042	P	2.2
3	☐	50.000	45.782	935788.51	0.2062	P	1.3
4	☐	125.000	114.160	2363988.36	0.5135	P	1.0
5	☐	250.000	232.709	4875643.86	1.0462	P	1.0
6	☐	500.000	490.312	10445941.73	2.2038	A	0.9
7	☐	1000.000	1010.733	20988700.82	4.5425	A	0.3
8	☐			5718.19	0.0014	P	12.6

$$y = 0.0045 * x + 4.7832E-004$$

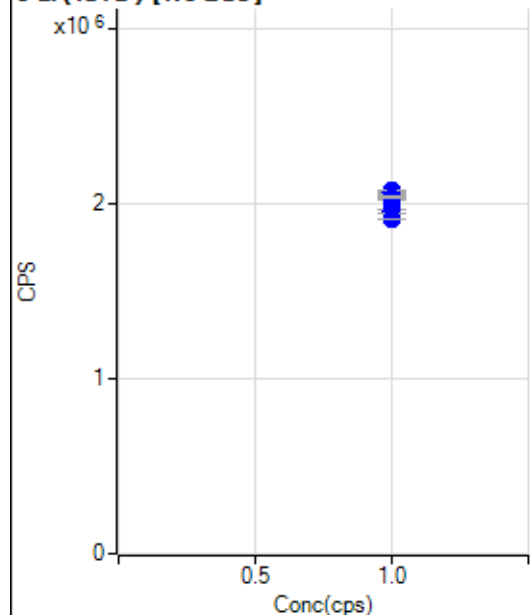
$$R = 0.9998$$

$$DL = 0.03008$$

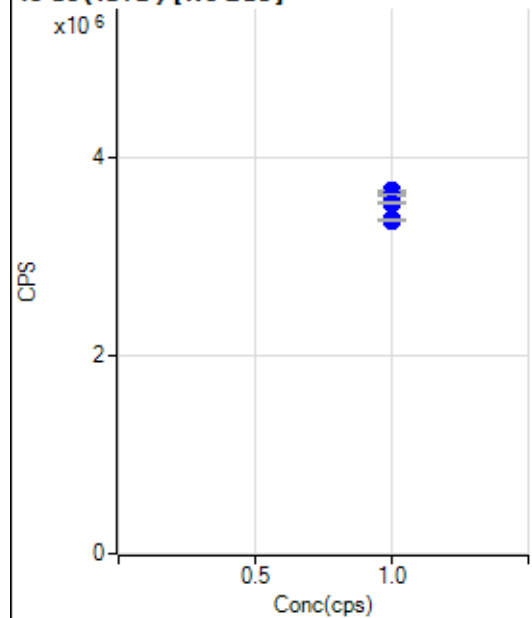
$$BEC = 0.1064$$

Weight: <None>

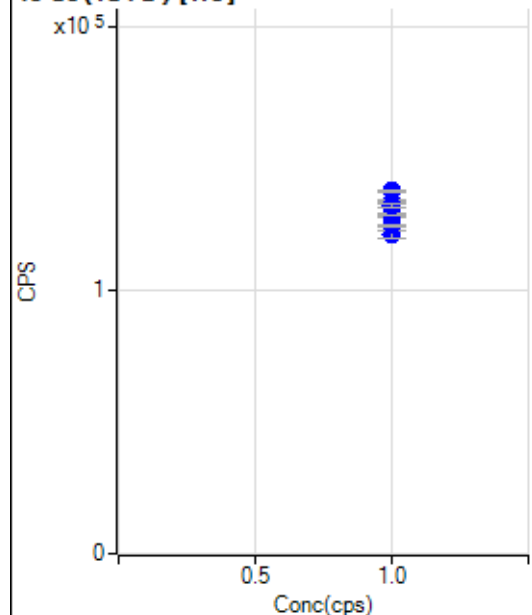
Min Conc: 0

6 Li (ISTD) [No Gas]

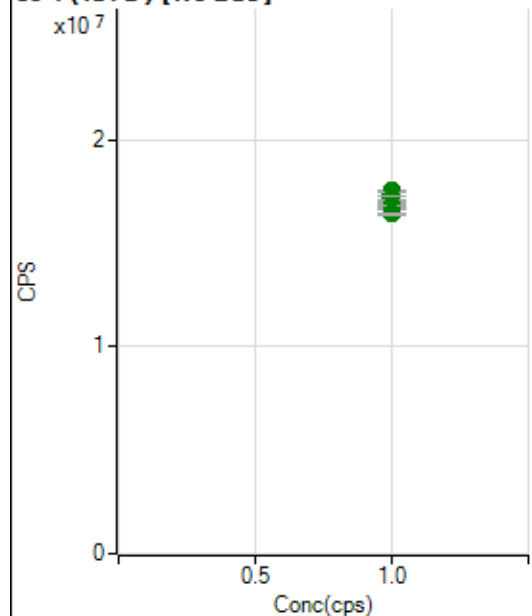
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2024948.99		P	0.2
2	☐	1.000		2075309.51		P	0.3
3	☐	1.000		2070508.12		P	0.9
4	☐	1.000		2040131.94		P	1.0
5	☐	1.000		1958526.33		P	1.1
6	☐	1.000		1969978.78		P	0.1
7	☐	1.000		1949548.48		P	0.1
8	☐	1.000		1914146.91		P	0.5

45 Sc (ISTD) [No Gas]

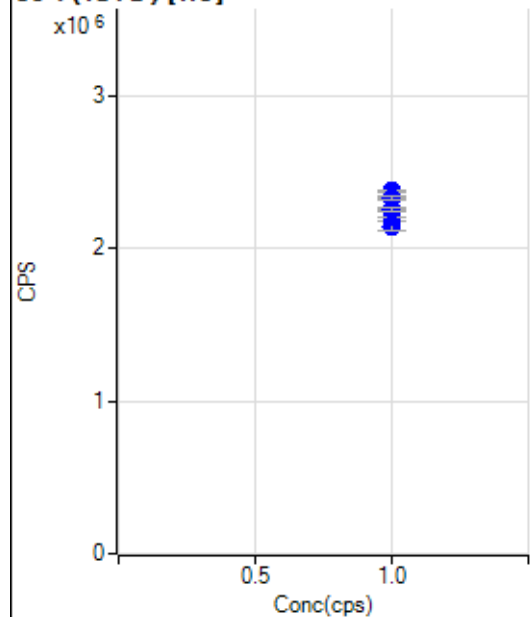
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3559146.39		P	0.2
2	☐	1.000		3664227.73		P	0.4
3	☐	1.000		3619579.12		P	0.6
4	☐	1.000		3540615.05		P	0.6
5	☐	1.000		3369781.07		P	1.1
6	☐	1.000		3379269.84		P	0.4
7	☐	1.000		3377987.97		P	0.4
8	☐	1.000		3368232.56		P	0.5

45 Sc (ISTD) [He]

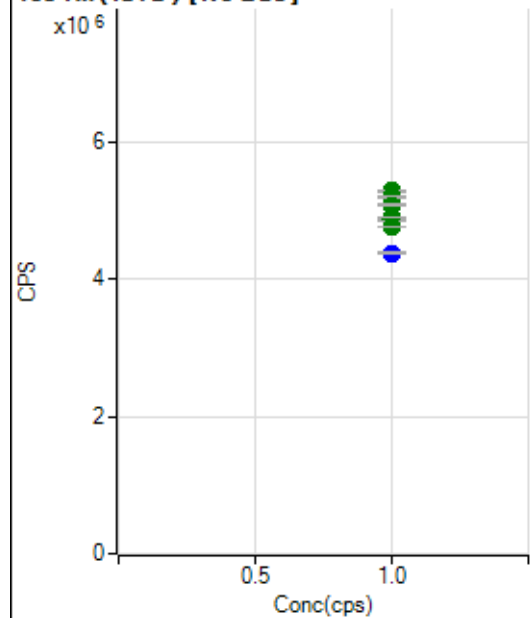
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		133374.64		P	0.6
2	☐	1.000		137564.80		P	0.6
3	☐	1.000		133723.48		P	0.8
4	☐	1.000		128099.83		P	0.7
5	☐	1.000		121010.70		P	2.8
6	☐	1.000		124405.92		P	0.4
7	☐	1.000		128564.20		P	0.8
8	☐	1.000		132197.70		P	1.2

89 Y (ISTD) [No Gas]

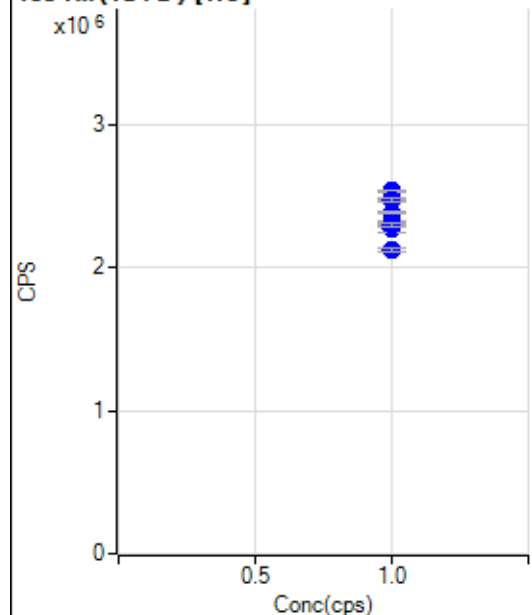
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17075914.89		A	0.2
2	☐	1.000		17547539.32		A	0.5
3	☐	1.000		17378386.68		A	1.1
4	☐	1.000		17183080.99		A	1.1
5	☐	1.000		16699844.61		A	1.0
6	☐	1.000		16847268.91		A	0.5
7	☐	1.000		16807424.47		A	0.1
8	☐	1.000		16423655.59		A	0.5

89 Y(ISTD) [He]

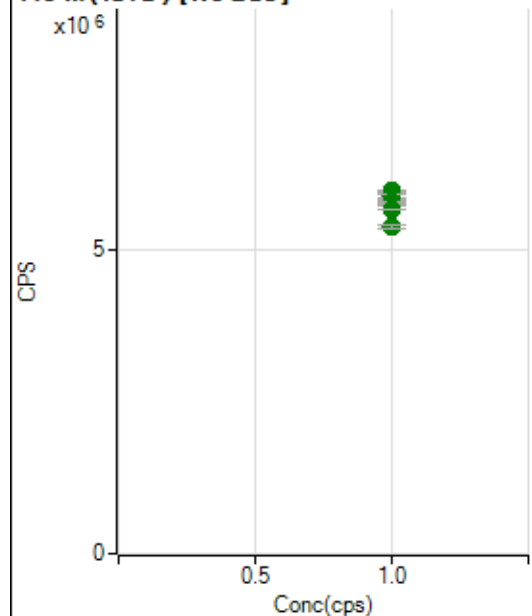
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2329277.22		P	0.3
2	☐	1.000		2379522.66		P	0.4
3	☐	1.000		2333955.92		P	0.9
4	☐	1.000		2245386.86		P	0.4
5	☐	1.000		2148816.64		P	2.8
6	☐	1.000		2207885.00		P	0.2
7	☐	1.000		2251507.55		P	0.6
8	☐	1.000		2259968.93		P	0.9

103 Rh(ISTD) [No Gas]

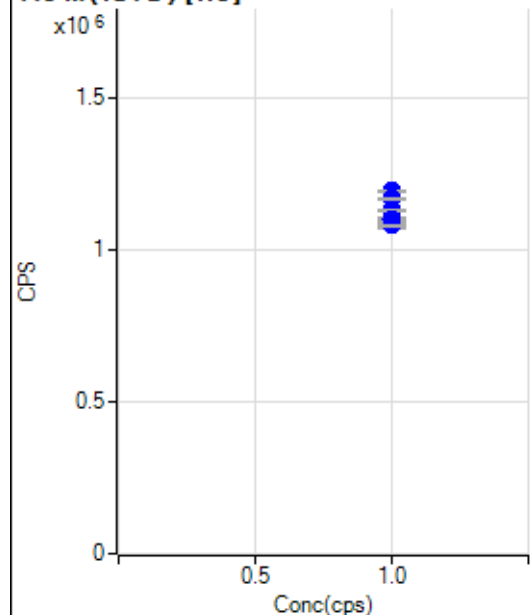
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5267357.37		A	0.3
2	☐	1.000		5285060.40		A	0.8
3	☐	1.000		5208913.66		A	0.6
4	☐	1.000		5076278.59		A	0.8
5	☐	1.000		4895997.07		A	0.4
6	☐	1.000		4870386.74		A	1.0
7	☐	1.000		4758599.24		A	0.4
8	☐	1.000		4377467.85		P	0.8

103 Rh (ISTD) [He]

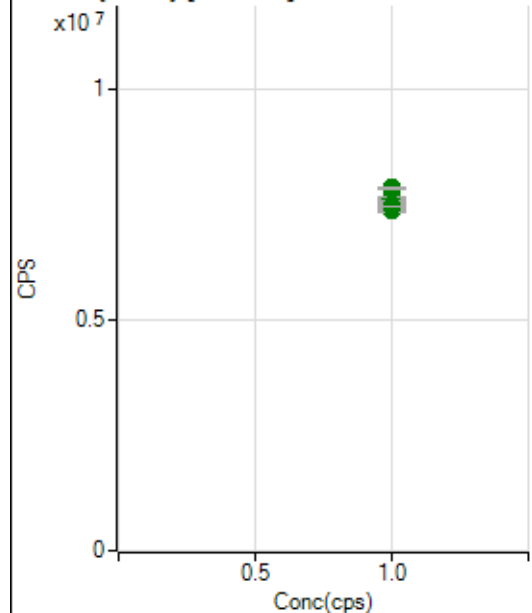
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2482831.94		P	0.3
2	☐	1.000		2535580.62		P	0.4
3	☐	1.000		2470697.86		P	0.9
4	☐	1.000		2384670.87		P	0.4
5	☐	1.000		2273682.85		P	2.6
6	☐	1.000		2311332.95		P	0.8
7	☐	1.000		2300254.53		P	0.8
8	☐	1.000		2122601.86		P	1.0

115 In (ISTD) [No Gas]

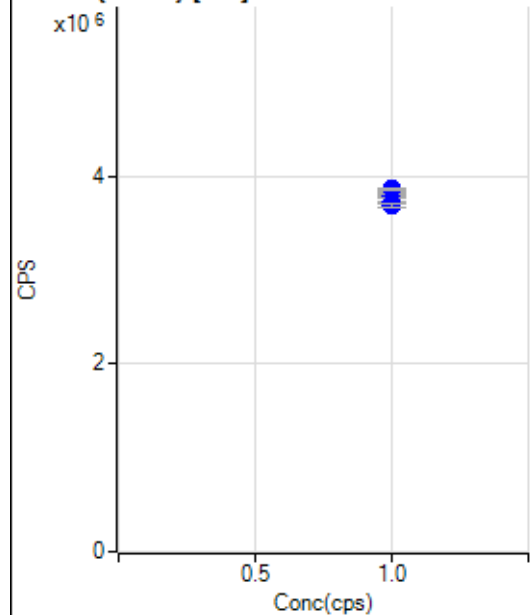
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5832325.91		A	0.4
2	☐	1.000		5988027.49		A	0.0
3	☐	1.000		5940752.82		A	0.4
4	☐	1.000		5912629.26		A	0.9
5	☐	1.000		5759262.40		A	1.0
6	☐	1.000		5793810.69		A	0.4
7	☐	1.000		5673533.03		A	0.2
8	☐	1.000		5403811.45		A	0.9

115 In (ISTD) [He]

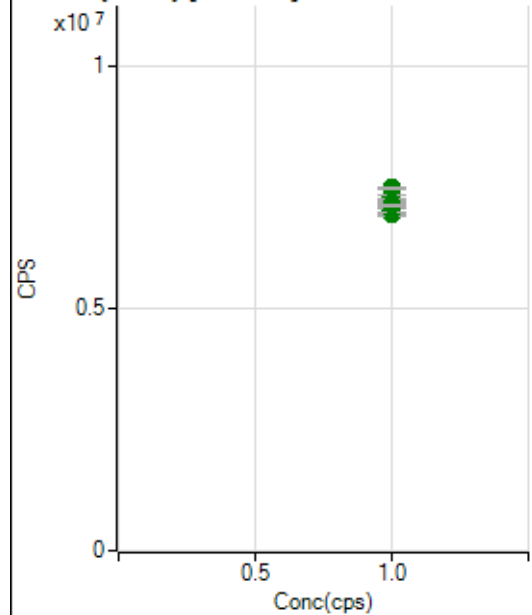
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1168204.34		P	0.4
2	☐	1.000		1192984.45		P	0.4
3	☐	1.000		1168099.97		P	0.8
4	☐	1.000		1129711.91		P	0.5
5	☐	1.000		1083515.35		P	2.5
6	☐	1.000		1101771.07		P	0.9
7	☐	1.000		1092099.10		P	0.4
8	☐	1.000		1078124.33		P	0.9

159 Tb (ISTD) [No Gas]

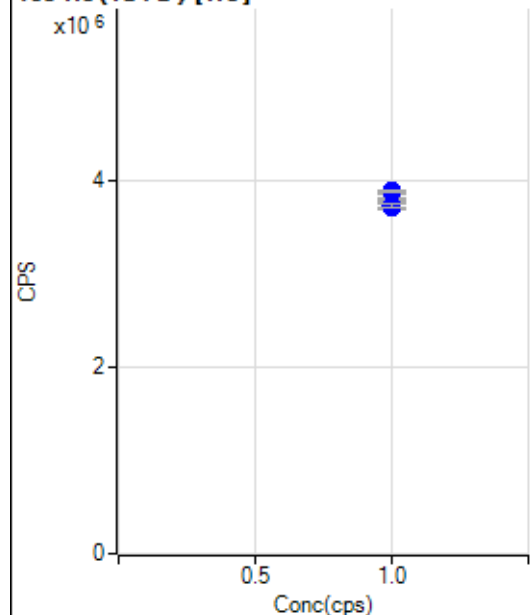
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7354376.21		A	0.3
2	☐	1.000		7454105.23		A	0.8
3	☐	1.000		7569874.82		A	1.2
4	☐	1.000		7586218.50		A	0.8
5	☐	1.000		7618782.87		A	0.8
6	☐	1.000		7849193.70		A	0.4
7	☐	1.000		7838243.35		A	0.7
8	☐	1.000		7449722.74		A	0.4

159 Tb (ISTD) [He]

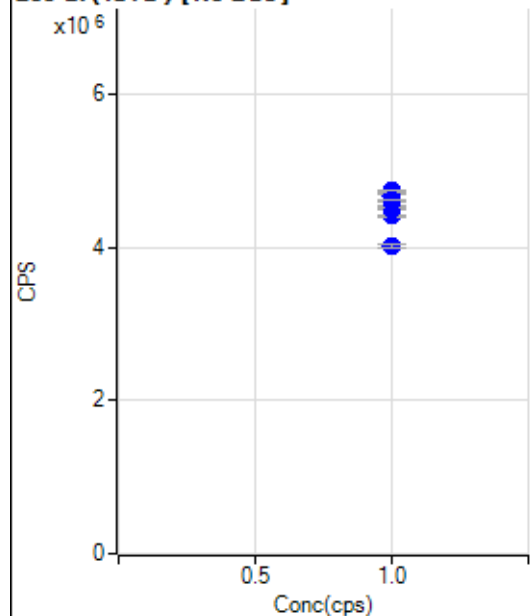
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3722560.57		P	0.3
2	☐	1.000		3784160.22		P	0.6
3	☐	1.000		3804750.88		P	0.7
4	☐	1.000		3787631.33		P	0.8
5	☐	1.000		3737525.91		P	2.1
6	☐	1.000		3825623.83		P	0.3
7	☐	1.000		3866150.22		P	0.5
8	☐	1.000		3694942.65		P	1.2

165 Ho (ISTD) [No Gas]

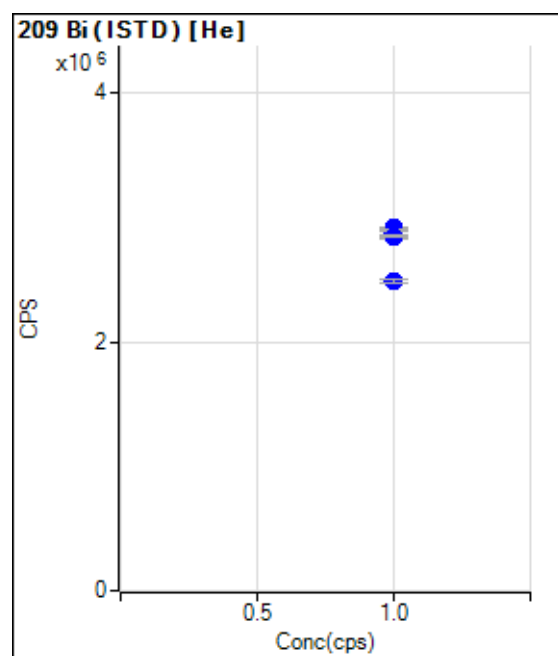
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6923768.34		A	0.7
2	☐	1.000		7007234.75		A	1.0
3	☐	1.000		7129991.13		A	0.8
4	☐	1.000		7226723.34		A	0.5
5	☐	1.000		7288955.98		A	0.9
6	☐	1.000		7482153.29		A	0.2
7	☐	1.000		7477189.75		A	0.4
8	☐	1.000		7121366.00		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3694360.43		P	0.6
2	☐	1.000		3780921.89		P	0.3
3	☐	1.000		3799888.45		P	0.8
4	☐	1.000		3784457.55		P	1.1
5	☐	1.000		3749499.29		P	2.1
6	☐	1.000		3863323.03		P	0.8
7	☐	1.000		3880520.15		P	0.9
8	☐	1.000		3728924.49		P	1.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4418929.97		P	0.5
2	☐	1.000		4505808.62		P	0.1
3	☐	1.000		4538155.87		P	0.6
4	☐	1.000		4603929.52		P	0.6
5	☐	1.000		4660490.83		P	1.2
6	☐	1.000		4739989.03		P	0.5
7	☐	1.000		4620500.83		P	0.3
8	☐	1.000		4021205.39		P	0.8



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2854539.78		P	0.5
2	☐	1.000		2918529.75		P	0.1
3	☐	1.000		2912096.41		P	0.7
4	☐	1.000		2910117.21		P	1.0
5	☐	1.000		2872875.83		P	2.9
6	☐	1.000		2900005.89		P	0.3
7	☐	1.000		2853630.96		P	0.8
8	☐	1.000		2490353.61		P	0.9

US EPA Tune Check Sample Report

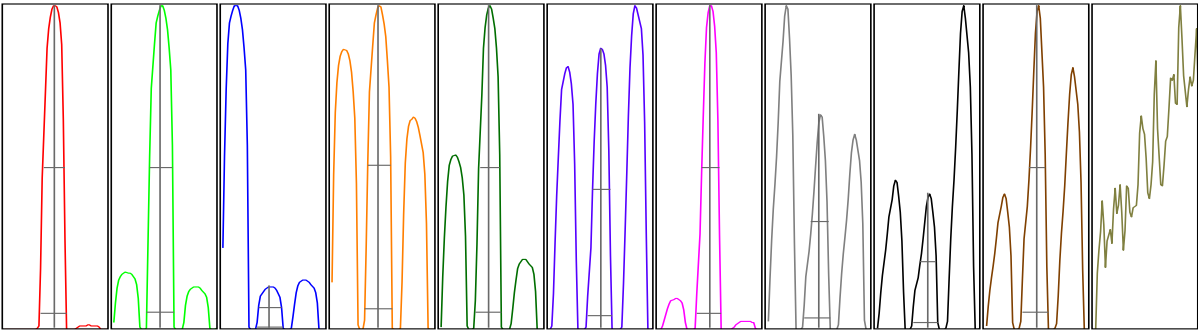
Batch Folder D:\ICP-MS Data\P7080919-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5993	0.34	5.00	
24	176979	0.37	5.00	
25	23162	0.22	5.00	
26	26470	0.48	5.00	
59	43197	0.13	5.00	
113	6192	0.26	5.00	
115	74527	0.19	5.00	
206	17367	0.67	5.00	
207	15944	0.69	5.00	
208	37957	0.59	5.00	
220	94	3.82		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5981	5983	5988	6030	5985
24	176179	176499	177071	177871	177272
25	23137	23087	23210	23208	23168
26	26331	26434	26474	26676	26438
59	43153	43176	43291	43154	43209
113	6202	6200	6208	6178	6171
115	74388	74479	74604	74426	74738
206	17269	17222	17442	17409	17494
207	15813	15853	16007	16082	15966
208	37622	37889	37957	38206	38113
220	90	91	96	98	97

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	10019	9.00	8.9 - 9.1		0.780	0.900	
24	278859	23.90	23.9 - 24.1		0.787	0.900	
25	36742	24.90	24.9 - 25.1		0.782	0.900	
26	42519	25.90	25.9 - 26.1		0.787	0.900	
59	74543	58.95	58.9 - 59.1		0.767	0.900	
113	12318	113.05	112.9 - 113.1		0.722	0.900	
115	148121	115.05	114.9 - 115.1		0.720	0.900	
206	36495	206.05	205.9 - 206.1		0.770	0.900	
207	33048	207.05	206.9 - 207.1		0.740	0.900	
208	79169	208.05	207.9 - 208.1		0.777	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.0	V	Deflect	14.2	V
Extract 2	-85.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-45	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	9791	1.57	
89	20382	1.59	
205	16469	1.39	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	9739	9752	9738	9665	10059
89	20250	20314	20314	20095	20939
205	16363	16488	16465	16204	16827

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.7	V	Deflect	2.0	V
Extract 2	-105.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	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			