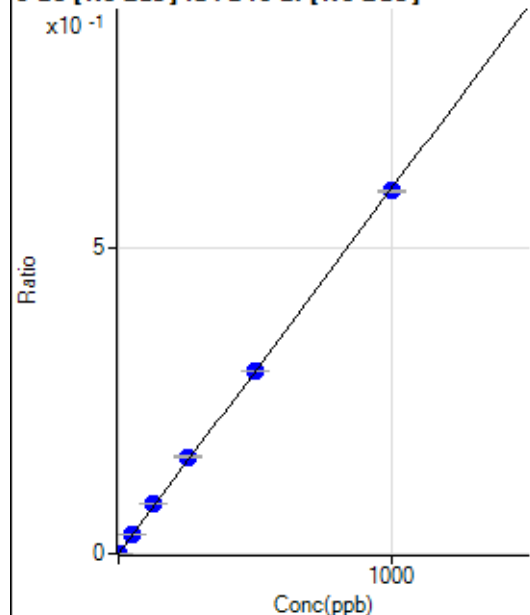


Batch Folder: D:\ICP-MS Data\P7040219-MS.b\
Analysis File: P7040219-MS.batch.bin
DA Date-Time: 2019-04-02 23:22:30
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-04-02 11:34:12
2			
3	005CALS.d	S02	2019-04-02 11:42:43
4	006CALS.d	S03	2019-04-02 11:46:38
5	007CALS.d	S04	2019-04-02 11:50:48
6	008CALS.d	S05	2019-04-02 11:54:37
7	009CALS.d	S06	2019-04-02 11:58:23
8	010CALS.d	S07	2019-04-02 12:02:08
9	012CALS.d	S08	2019-04-02 12:09:41

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	85.56	0.0000	P	12.5
2	☐	0.100					
3	☐	1.000	0.971	4598.55	0.0006	P	4.1
4	☐	50.000	53.450	246004.22	0.0320	P	0.7
5	☐	125.000	137.496	617661.72	0.0823	P	0.4
6	☐	250.000	265.099	1143559.37	0.1587	P	2.1
7	☐	500.000	500.917	2111539.52	0.2999	P	0.8
8	☐	1000.000	994.032	4105863.79	0.5952	P	0.4
9	☐			740.03	0.0001	P	5.3

$$y = 5.9872\text{E-}004 * x + 1.1341\text{E-}005$$

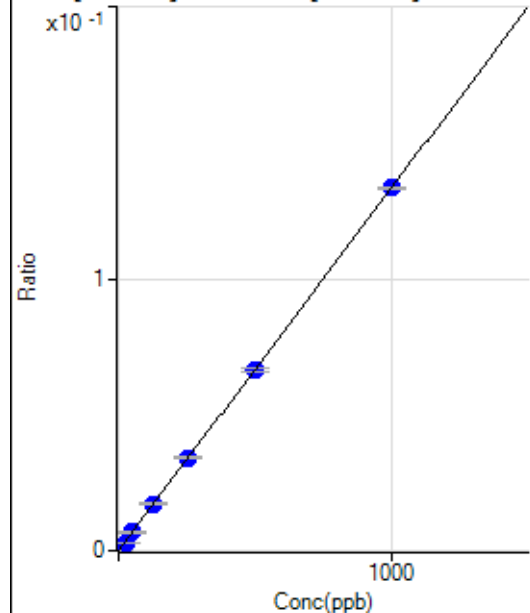
$$R = 0.9998$$

$$DL = 0.007109$$

$$BEC = 0.01894$$

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	522.25	0.0001	P	13.6
2	☐	2.500					
3	☐	25.000	22.907	24259.24	0.0031	P	1.6
4	☐	50.000	50.209	52018.24	0.0068	P	1.6
5	☐	125.000	129.136	129791.90	0.0173	P	2.0
6	☐	250.000	255.680	246287.23	0.0342	P	2.9
7	☐	500.000	496.193	466654.62	0.0663	P	2.2
8	☐	1000.000	1000.008	921126.54	0.1335	P	0.8
9	☐			32316.11	0.0051	P	8.6

$$y = 1.3345\text{E-}004 * x + 6.9229\text{E-}005$$

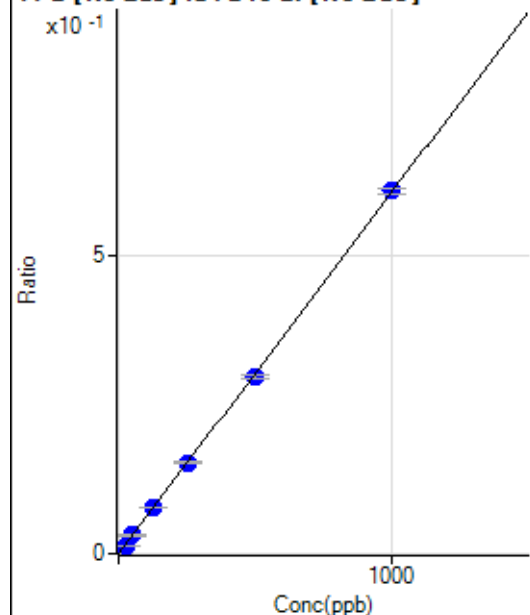
$$R = 1.0000$$

$$DL = 0.2119$$

$$BEC = 0.5188$$

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	2539.19	0.0003	P	4.5
2	☐	2.500					
3	☐	25.000	22.913	110107.99	0.0142	P	2.0
4	☐	50.000	50.194	235777.67	0.0307	P	0.7
5	☐	125.000	127.353	580106.87	0.0773	P	1.6
6	☐	250.000	251.328	1097077.48	0.1523	P	2.2
7	☐	500.000	488.785	2082790.74	0.2958	P	1.8
8	☐	1000.000	1005.024	4194279.74	0.6079	P	1.4
9	☐			148159.99	0.0232	P	9.1

$$y = 6.0457\text{E-}004 * x + 3.3656\text{E-}004$$

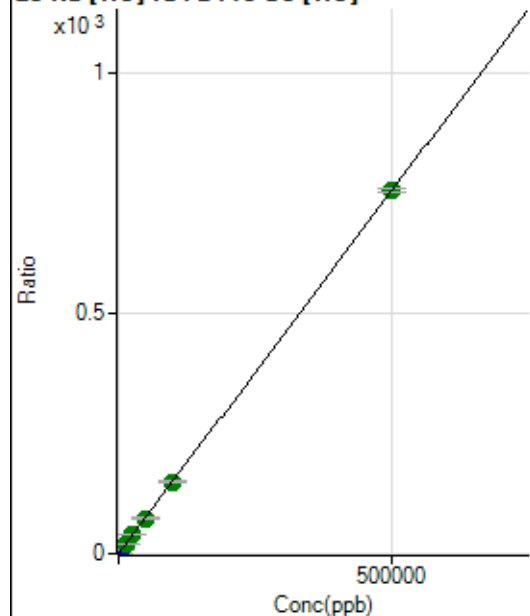
$$R = 0.9999$$

$$DL = 0.07554$$

$$BEC = 0.5567$$

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	13542.70	0.0252	P	4.4
2	☐	50.000					
3	☐	500.000	468.719	399750.69	0.7325	P	1.3
4	☐	5000.000	5127.952	4206701.13	7.7624	P	0.7
5	☐	12500.000	12947.834	10400045.37	19.5613	A	0.9
6	☐	25000.000	25809.966	19922651.14	38.9681	A	0.7
7	☐	50000.000	49024.611	38082222.03	73.9950	A	0.5
8	☐	100000.00	99366.676	78448418.42	149.9525	A	1.2
9	☐	500000.00	500171.26	387483675.3	754.6978	A	1.2

$$y = 0.0015 * x + 0.0252$$

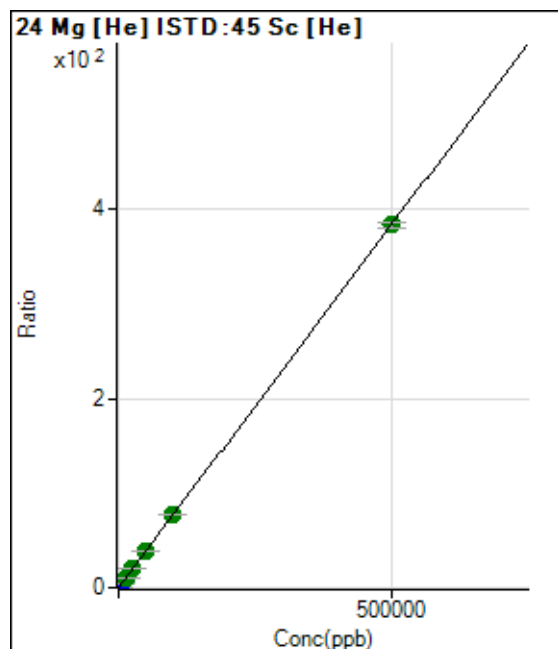
$$R = 1.0000$$

$$DL = 2.19$$

$$BEC = 16.73$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	177.79	0.0003	P	4.7
2	☐	50.000					
3	☐	500.000	502.081	210626.64	0.3859	P	1.6
4	☐	5000.000	5265.326	2191662.87	4.0442	P	0.3
5	☐	12500.000	13271.112	5419089.71	10.1927	A	0.6
6	☐	25000.000	26507.645	10408557.43	20.3584	A	0.5
7	☐	50000.000	50308.564	19885379.96	38.6378	A	0.7
8	☐	100000.00	100328.37	40311309.24	77.0534	A	1.1
9	☐	500000.00	499806.15	197066754.4	383.8560	A	1.7

$$y = 7.6801\text{E-}004 * x + 3.3129\text{E-}004$$

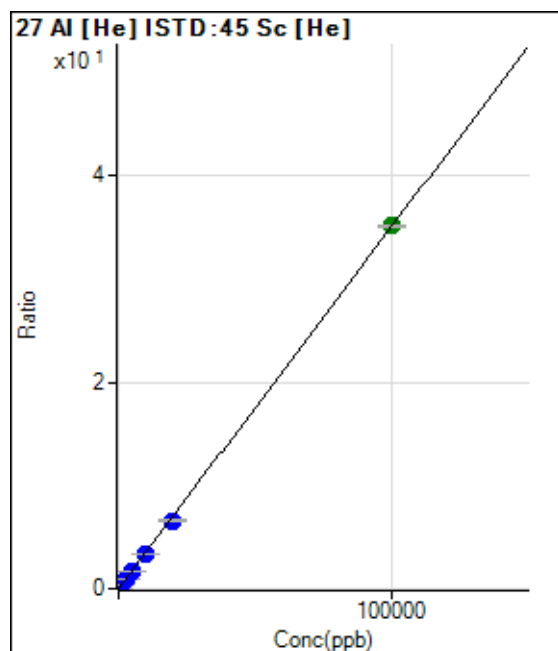
$$R = 1.0000$$

$$DL = 0.06128$$

$$BEC = 0.4314$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.44	0.0001	P	75.4
2	☐	2.000					
3	☐	20.000	17.497	3394.97	0.0062	P	14.9
4	☐	1000.000	981.217	186418.94	0.3440	P	1.0
5	☐	2500.000	2502.012	466272.75	0.8770	P	1.0
6	☐	5000.000	4962.776	889368.55	1.7395	P	0.6
7	☐	10000.000	9481.071	1710318.74	3.3232	P	1.4
8	☐	20000.000	18782.640	3444194.13	6.5834	P	1.0
9	☐	100000.00	100297.36	18050876.27	35.1545	A	0.6

$$y = 3.5050\text{E-}004 * x + 8.2737\text{E-}005$$

$$R = 0.9999$$

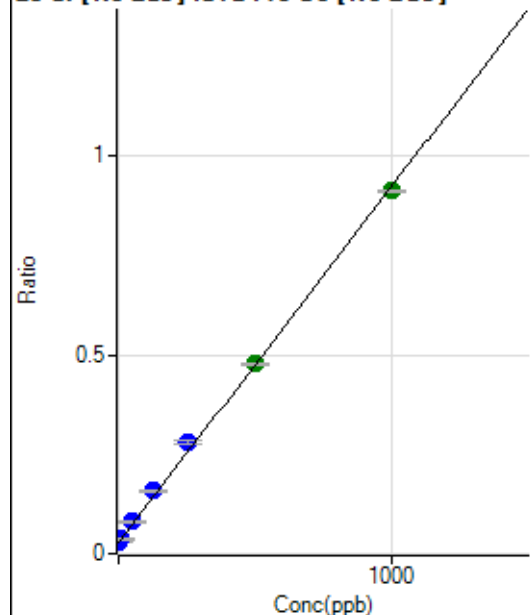
$$DL = 0.5338$$

$$BEC = 0.2361$$

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	307917.27	0.0283	P	0.2
2	☐	1.000					
3	☐	10.000	9.205	404222.89	0.0365	P	1.2
4	☐	50.000	57.768	874010.01	0.0800	P	2.9
5	☐	125.000	144.588	1694561.05	0.1578	P	1.8
6	☐	250.000	281.158	2881649.87	0.2801	P	2.5
7	☐	500.000	502.508	4875336.18	0.4784	A	0.7
8	☐	1000.000	988.128	9340243.44	0.9134	A	0.5
9	☐			578643.09	0.0590	P	2.6

$$y = 8.9575E-004 * x + 0.0283$$

$$R = 0.9993$$

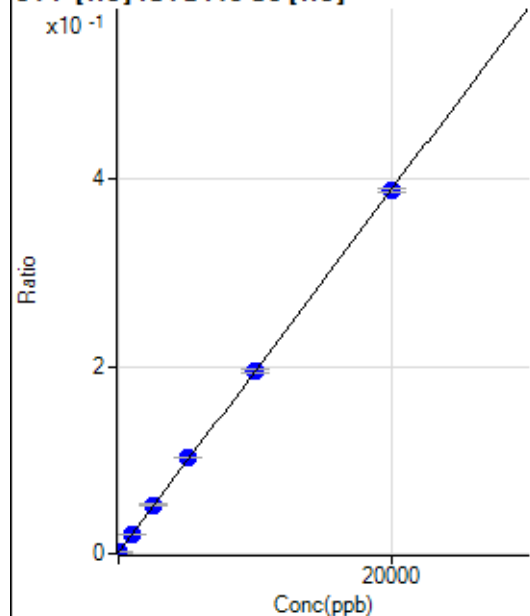
$$DL = 0.2008$$

$$BEC = 31.55$$

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	-25.784	405.58	0.0008	P	4.7
2	☐	0.000					
3	☐	0.000	25.784	958.40	0.0018	P	6.4
4	☐	1000.000	998.843	11174.05	0.0206	P	1.7
5	☐	2500.000	2620.318	27670.88	0.0520	P	1.5
6	☐	5000.000	5227.801	52448.76	0.1026	P	1.1
7	☐	10000.000	10000.035	100403.65	0.1951	P	2.8
8	☐	20000.000	19928.050	202742.30	0.3875	P	1.1
9	☐			536.14	0.0010	P	9.6

$$y = 1.9384E-005 * x + 0.0013$$

$$R = 0.9999$$

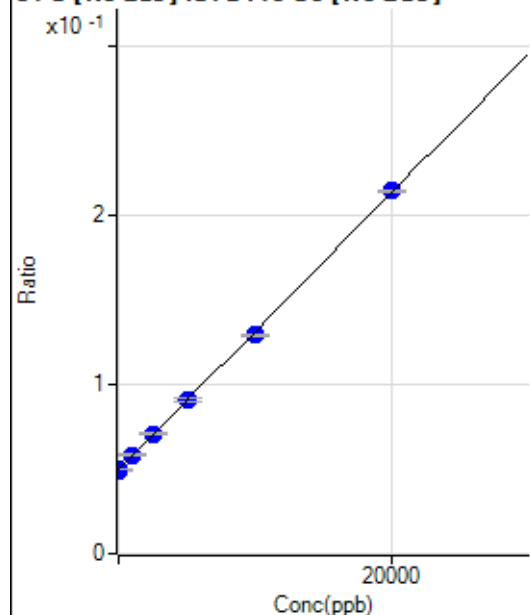
$$DL = 11.39$$

$$BEC = 64.78$$

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	-51.359	535301.84	0.0491	P	0.6
2	☐	0.000					
3	☐	0.000	51.359	553326.09	0.0500	P	1.4
4	☐	1000.000	1099.894	640058.25	0.0586	P	0.8
5	☐	2500.000	2595.138	761128.83	0.0709	P	1.5
6	☐	5000.000	5042.033	935934.63	0.0910	P	1.6
7	☐	10000.000	9735.971	1320062.20	0.1295	P	0.8
8	☐	20000.000	20104.619	2195589.65	0.2147	P	0.3
9	☐			467242.54	0.0477	P	0.8

$$y = 8.2150E-006 * x + 0.0495$$

$$R = 0.9998$$

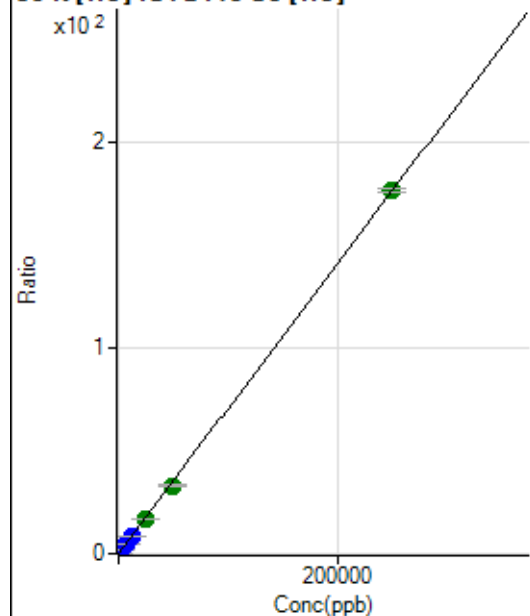
$$DL = 183.1$$

$$BEC = 6031$$

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	21096.30	0.0393	P	2.3
2	☐	50.000					
3	☐	500.000	447.935	192996.09	0.3536	P	0.9
4	☐	2500.000	2419.287	941160.17	1.7367	P	0.6
5	☐	6250.000	6173.384	2323632.47	4.3706	P	1.1
6	☐	12500.000	12188.370	4392121.02	8.5908	P	0.4
7	☐	25000.000	23292.858	8430968.77	16.3817	A	0.7
8	☐	50000.000	47110.517	17312506.12	33.0923	A	1.0
9	☐	250000.00	250767.01	90354660.35	175.9789	A	1.1

$$y = 7.0161E-004 * x + 0.0393$$

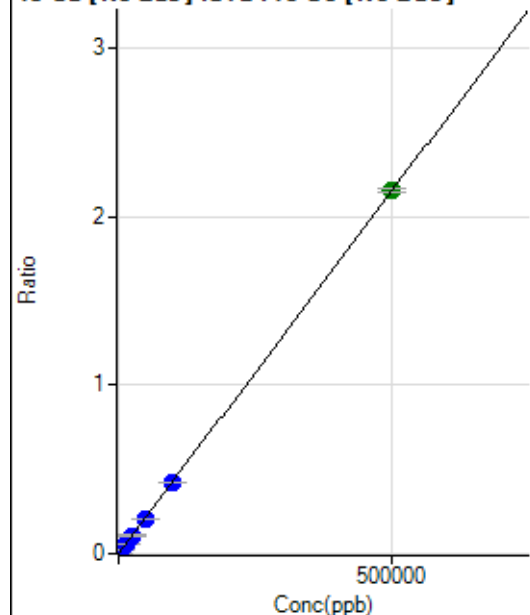
$$R = 0.9999$$

$$DL = 3.917$$

$$BEC = 56.05$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0000	P	13.1
2	☐	50.000					
3	☐	500.000	439.607	21104.76	0.0019	P	2.4
4	☐	5000.000	4889.775	229883.17	0.0210	P	1.8
5	☐	12500.000	12604.819	582335.19	0.0542	P	1.8
6	☐	25000.000	24898.500	1101581.30	0.1071	P	3.0
7	☐	50000.000	47571.991	2085000.20	0.2046	P	1.0
8	☐	100000.00	97491.372	4287323.40	0.4192	P	0.8
9	☐	500000.00	500748.14	21111367.83	2.1533	A	0.9

$$y = 4.3002\text{E-}006 * x + 1.5293\text{E-}005$$

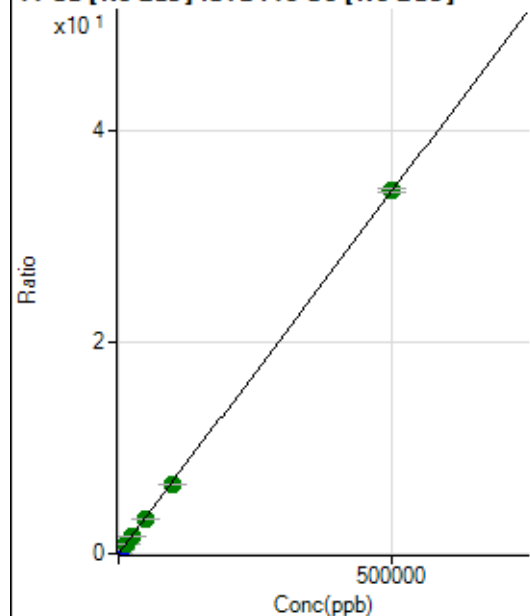
$$R = 1.0000$$

$$DL = 1.399$$

$$BEC = 3.556$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18936.25	0.0017	P	2.2
2	☐	50.000					
3	☐	500.000	447.272	358372.18	0.0324	P	0.7
4	☐	5000.000	4888.783	3675794.26	0.3364	P	1.1
5	☐	12500.000	12302.173	9065438.22	0.8440	A	1.5
6	☐	25000.000	24495.741	17271722.26	1.6788	A	2.1
7	☐	50000.000	47034.191	32835199.35	3.2218	A	0.6
8	☐	100000.00	96591.609	67641612.62	6.6146	A	0.3
9	☐	500000.00	501009.58	336294768.6	34.3020	A	0.9

$$y = 6.8462\text{E-}005 * x + 0.0017$$

$$R = 1.0000$$

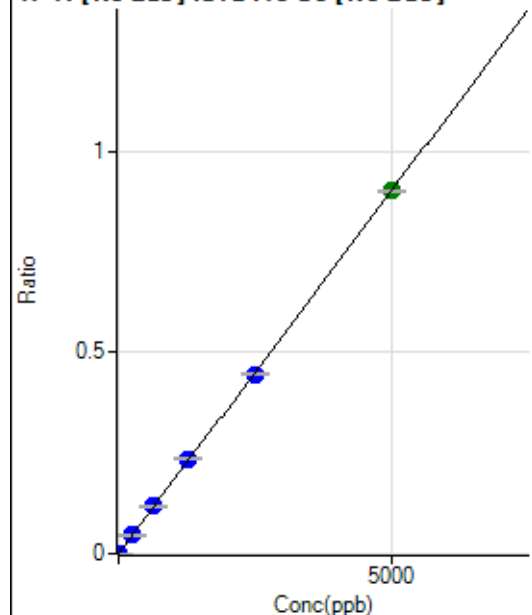
$$DL = 1.67$$

$$BEC = 25.38$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	252.79	0.0000	P	5.2
2	☐	0.500					
3	☐	5.000	4.665	9578.48	0.0009	P	6.7
4	☐	250.000	252.417	498075.78	0.0456	P	1.9
5	☐	625.000	651.712	1263911.60	0.1177	P	1.0
6	☐	1250.000	1302.481	2419380.91	0.2351	P	1.8
7	☐	2500.000	2467.963	4540757.96	0.4455	P	1.0
8	☐	5000.000	4999.439	9229278.51	0.9025	A	0.2
9	☐			5076.11	0.0005	P	0.1

$$y = 1.8052E-004 * x + 2.3200E-005$$

$$R = 0.9999$$

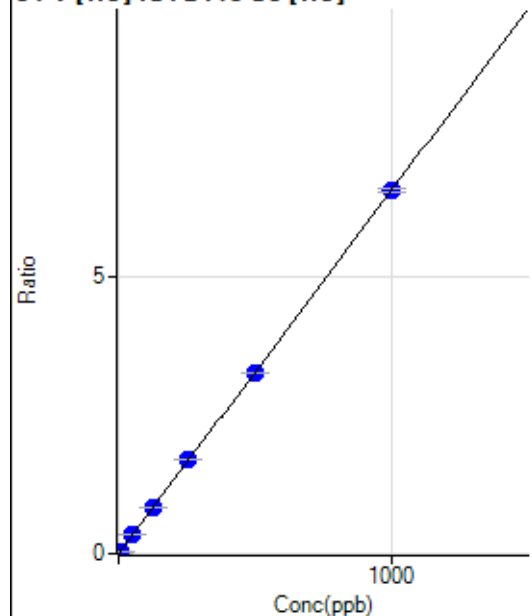
$$DL = 0.02018$$

$$BEC = 0.1285$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11.11	0.0000	P	46.5
2	☐	0.500					
3	☐	5.000	4.884	17482.79	0.0320	P	0.9
4	☐	50.000	50.883	180735.70	0.3335	P	0.5
5	☐	125.000	129.358	450747.86	0.8478	P	0.2
6	☐	250.000	259.185	868459.58	1.6987	P	0.3
7	☐	500.000	497.254	1677227.20	3.2589	P	0.9
8	☐	1000.000	998.488	3423504.36	6.5439	P	1.0
9	☐			671.14	0.0013	P	8.0

$$y = 0.0066 * x + 2.0750E-005$$

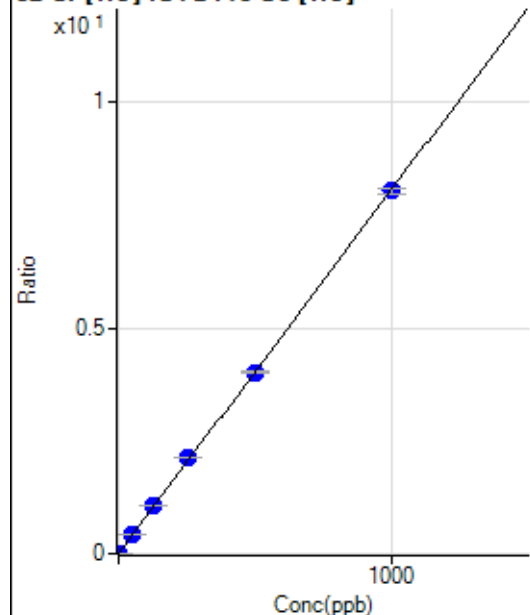
$$R = 0.9999$$

$$DL = 0.004417$$

$$BEC = 0.003166$$

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	2217.98	0.0041	P	2.4
2	☐	0.200					
3	☐	2.000	1.918	10699.61	0.0196	P	2.0
4	☐	50.000	52.088	229924.47	0.4243	P	0.2
5	☐	125.000	132.539	570546.48	1.0732	P	0.7
6	☐	250.000	263.576	1089025.97	2.1301	P	0.6
7	☐	500.000	497.853	2068770.68	4.0197	P	1.1
8	☐	1000.000	996.633	4207551.81	8.0428	P	1.4
9	☐			29654.48	0.0578	P	3.0

$$y = 0.0081 * x + 0.0041$$

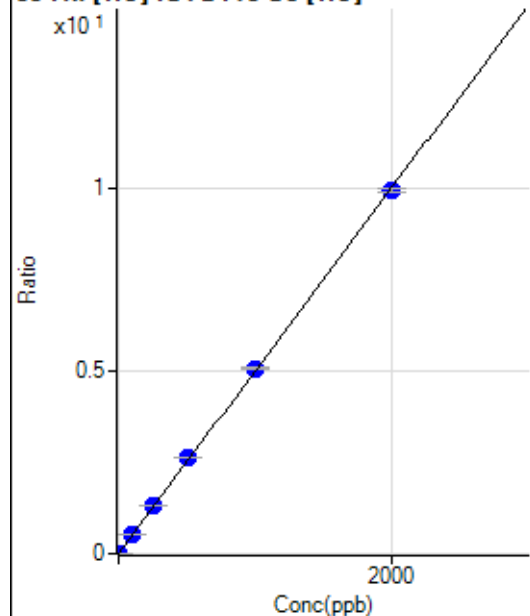
$$R = 0.9999$$

$$DL = 0.03759$$

$$BEC = 0.5125$$

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	51.11	0.0001	P	39.0
2	☐	0.100					
3	☐	1.000	0.972	2709.18	0.0050	P	2.6
4	☐	100.000	105.687	287019.31	0.5296	P	0.3
5	☐	250.000	262.852	700212.89	1.3171	P	0.8
6	☐	500.000	525.249	1345481.91	2.6318	P	1.0
7	☐	1000.000	1014.491	2616011.61	5.0830	P	0.7
8	☐	2000.000	1984.551	5202035.03	9.9433	P	1.2
9	☐			21118.66	0.0411	P	3.2

$$y = 0.0050 * x + 9.5455E-005$$

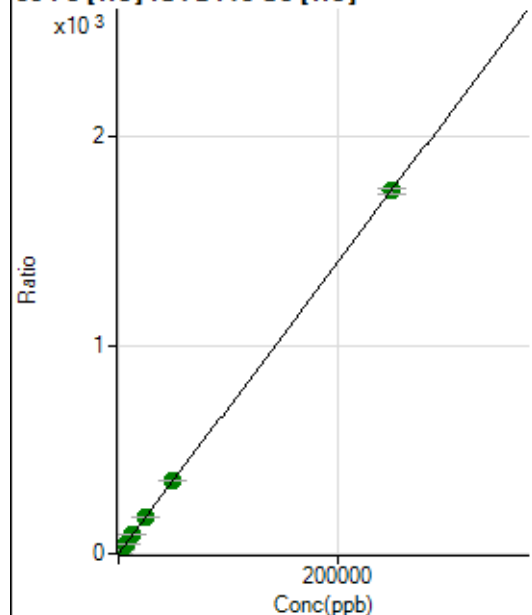
$$R = 0.9999$$

$$DL = 0.02231$$

$$BEC = 0.01905$$

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	6770.28	0.0126	P	5.0
2	☐	5.000					
3	☐	50.000	51.524	202926.89	0.3718	P	2.1
4	☐	2500.000	2643.439	9993405.66	18.4406	A	0.9
5	☐	6250.000	6694.415	24818148.93	46.6808	A	0.2
6	☐	12500.000	13330.877	47519426.06	92.9451	A	0.9
7	☐	25000.000	25447.629	91307571.49	177.4136	A	0.3
8	☐	50000.000	50385.750	183767043.0	351.2627	A	0.7
9	☐	250000.00	249823.99	894167857.0	1,741.590	A	1.4

$$y = 0.0070 * x + 0.0126$$

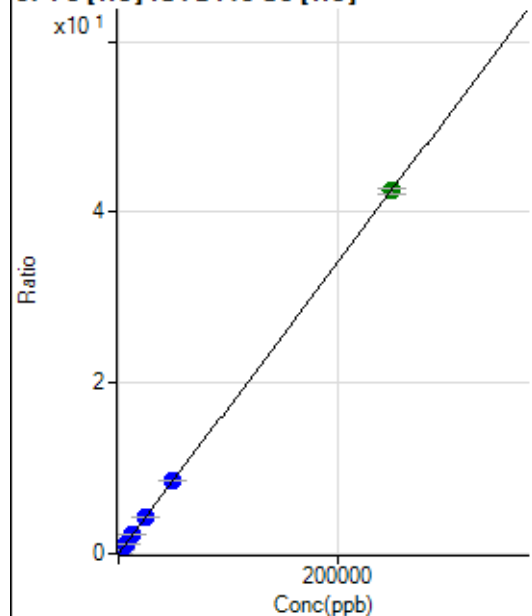
$$R = 1.0000$$

$$DL = 0.2726$$

$$BEC = 1.811$$

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	150.01	0.0003	P	16.3
2	☐	5.000					
3	☐	50.000	53.251	5097.32	0.0093	P	1.9
4	☐	2500.000	2672.736	246559.63	0.4549	P	1.2
5	☐	6250.000	6795.256	614708.01	1.1562	P	0.9
6	☐	12500.000	13364.056	1162413.34	2.2737	P	1.3
7	☐	25000.000	25358.112	2220252.21	4.3140	P	0.6
8	☐	50000.000	50626.016	4505565.90	8.6125	P	1.3
9	☐	250000.00	249780.42	21814608.59	42.4913	A	1.8

$$y = 1.7011E-004 * x + 2.7964E-004$$

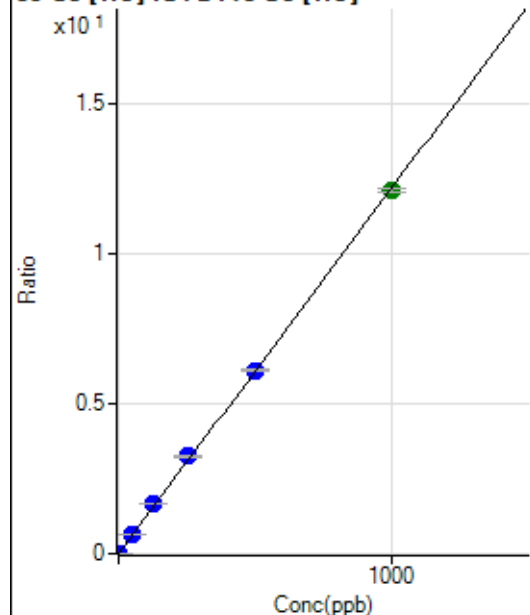
$$R = 1.0000$$

$$DL = 0.8048$$

$$BEC = 1.644$$

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	92.23	0.0002	P	11.9
2	☐	0.100					
3	☐	1.000	0.952	6421.50	0.0118	P	2.0
4	☐	50.000	53.790	355096.37	0.6553	P	0.6
5	☐	125.000	135.723	878836.04	1.6531	P	1.0
6	☐	250.000	266.975	1662398.22	3.2515	P	1.0
7	☐	500.000	502.349	3148674.43	6.1180	P	1.0
8	☐	1000.000	993.052	6326921.30	12.0940	A	1.1
9	☐			71697.53	0.1396	P	1.5

$$y = 0.0122 * x + 1.7179E-004$$

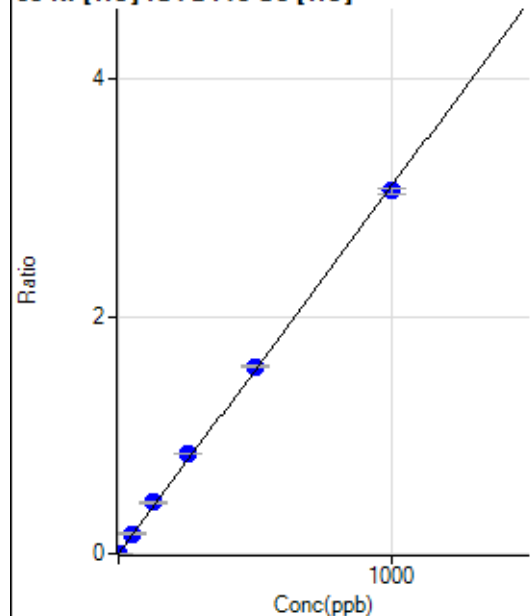
$$R = 0.9998$$

$$DL = 0.005047$$

$$BEC = 0.01411$$

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	104.45	0.0002	P	17.7
2	☐	0.100					
3	☐	1.000	1.013	1820.14	0.0033	P	8.2
4	☐	50.000	54.714	92014.73	0.1698	P	0.8
5	☐	125.000	138.846	228911.93	0.4306	P	1.1
6	☐	250.000	272.941	432642.43	0.8462	P	0.8
7	☐	500.000	509.916	813571.15	1.5808	P	0.3
8	☐	1000.000	987.340	1601168.14	3.0607	P	1.3
9	☐			18734.41	0.0365	P	2.2

$$y = 0.0031 * x + 1.9454E-004$$

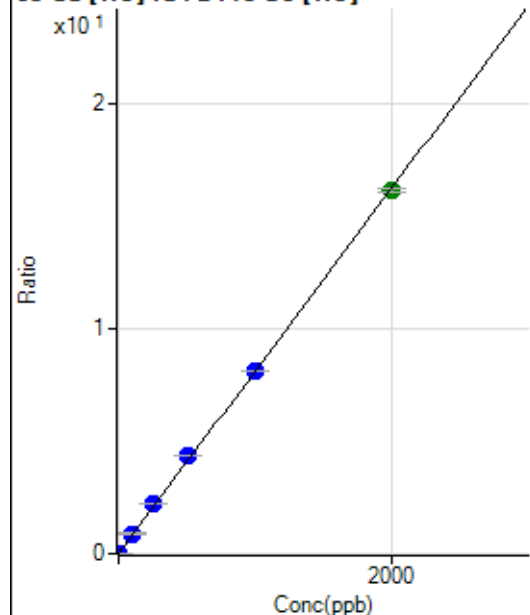
$$R = 0.9996$$

$$DL = 0.03323$$

$$BEC = 0.06276$$

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	633.36	0.0012	P	1.4
2	☐	0.200					
3	☐	2.000	1.988	9443.19	0.0173	P	0.2
4	☐	100.000	110.425	485981.44	0.8968	P	0.4
5	☐	250.000	277.424	1196831.29	2.2512	P	0.8
6	☐	500.000	538.748	2234487.24	4.3706	P	0.6
7	☐	1000.000	999.398	4172120.00	8.1066	P	0.8
8	☐	2000.000	1986.665	8429825.64	16.1136	A	1.1
9	☐			12733.47	0.0248	P	1.3

$$y = 0.0081 * x + 0.0012$$

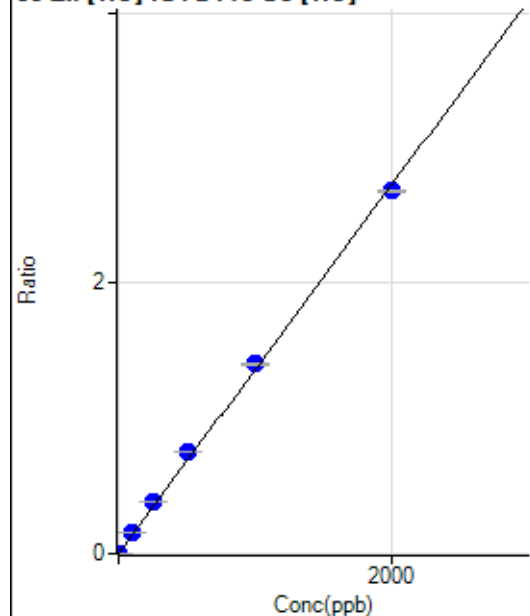
$$R = 0.9997$$

$$DL = 0.006162$$

$$BEC = 0.1456$$

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	151.11	0.0003	P	17.1
2	☐	0.200					
3	☐	2.000	2.060	1685.68	0.0031	P	3.3
4	☐	100.000	112.981	83577.46	0.1542	P	1.6
5	☐	250.000	282.031	204457.69	0.3846	P	1.6
6	☐	500.000	550.107	383369.51	0.7499	P	0.9
7	☐	1000.000	1028.385	721329.97	1.4016	P	0.6
8	☐	2000.000	1968.628	1403517.65	2.6828	P	0.8
9	☐			8479.25	0.0165	P	1.1

$$y = 0.0014 * x + 2.8181E-004$$

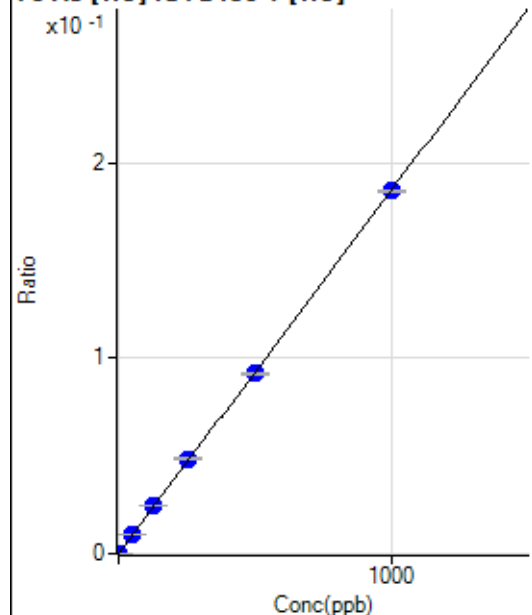
$$R = 0.9994$$

$$DL = 0.1061$$

$$BEC = 0.2068$$

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	12.96	0.0000	P	24.8
2	☐	0.100					
3	☐	1.000	0.895	423.47	0.0002	P	6.3
4	☐	50.000	52.901	24234.41	0.0099	P	0.9
5	☐	125.000	133.799	59870.77	0.0249	P	1.6
6	☐	250.000	260.964	114775.81	0.0486	P	1.2
7	☐	500.000	495.976	218614.00	0.0924	P	0.7
8	☐	1000.000	998.026	442391.24	0.1859	P	0.2
9	☐			591.99	0.0003	P	6.0

$$y = 1.8623\text{E-}004 * x + 5.3558\text{E-}006$$

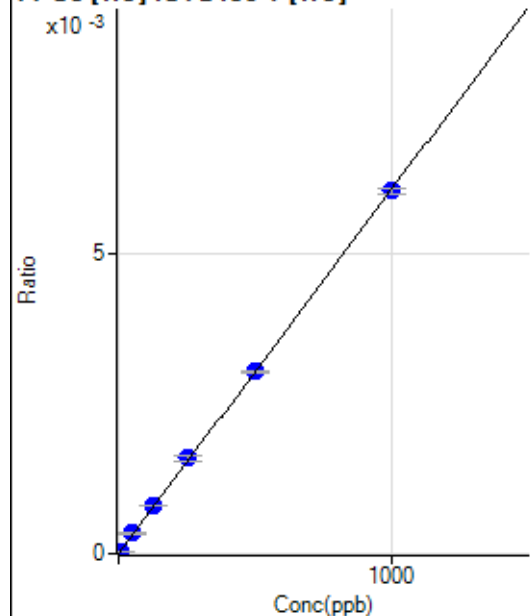
$$R = 0.9999$$

$$DL = 0.02144$$

$$BEC = 0.02876$$

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	4.151	62.22	0.0000	P	24.0
4	☐	50.000	55.831	835.59	0.0003	P	3.2
5	☐	125.000	131.716	1925.71	0.0008	P	2.4
6	☐	250.000	261.499	3757.22	0.0016	P	4.4
7	☐	500.000	499.826	7199.68	0.0030	P	1.4
8	☐	1000.000	996.085	14428.49	0.0061	P	1.9
9	☐			5.55	0.0000	P	70.3

$$y = 6.0860\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9999$$

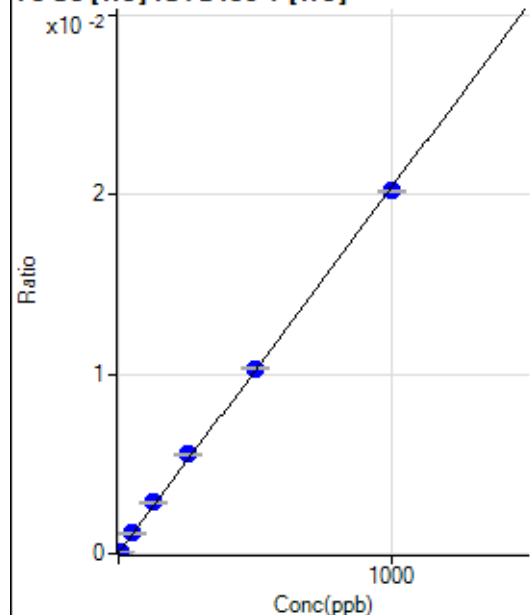
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	79.63	0.0000	P	17.2
2	☐	0.500					
3	☐	5.000	4.994	330.87	0.0001	P	6.6
4	☐	50.000	54.060	2785.48	0.0011	P	5.6
5	☐	125.000	138.843	6867.11	0.0029	P	2.2
6	☐	250.000	270.161	13060.90	0.0055	P	1.3
7	☐	500.000	504.049	24356.89	0.0103	P	0.9
8	☐	1000.000	991.002	48083.70	0.0202	P	0.2
9	☐			79.63	0.0000	P	10.4

$$y = 2.0352\text{E-}005 * x + 3.2922\text{E-}005$$

$$R = 0.9997$$

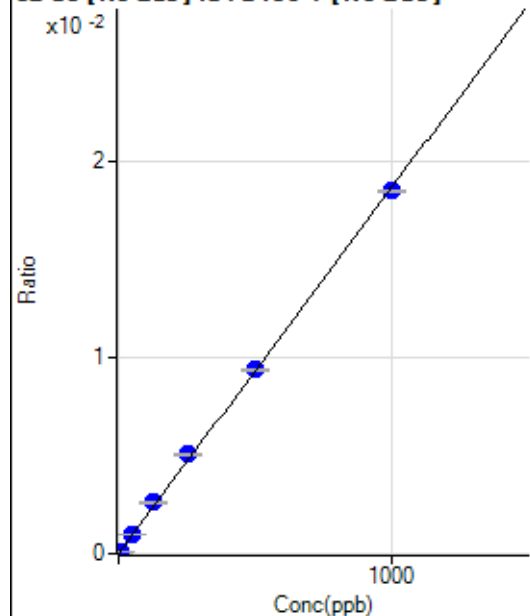
$$DL = 0.8369$$

$$BEC = 1.618$$

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	52.38	0.0000	P	77.0
2	☐	0.500					
3	☐	5.000	4.925	1481.20	0.0001	P	3.2
4	☐	50.000	53.728	15553.16	0.0010	P	1.8
5	☐	125.000	139.487	39726.85	0.0026	P	0.7
6	☐	250.000	271.506	74880.38	0.0051	P	3.1
7	☐	500.000	502.026	138299.51	0.0094	P	0.3
8	☐	1000.000	991.614	269938.08	0.0185	P	0.9
9	☐			129.34	0.0000	P	34.6

$$y = 1.8692\text{E-}005 * x + 3.4069\text{E-}006$$

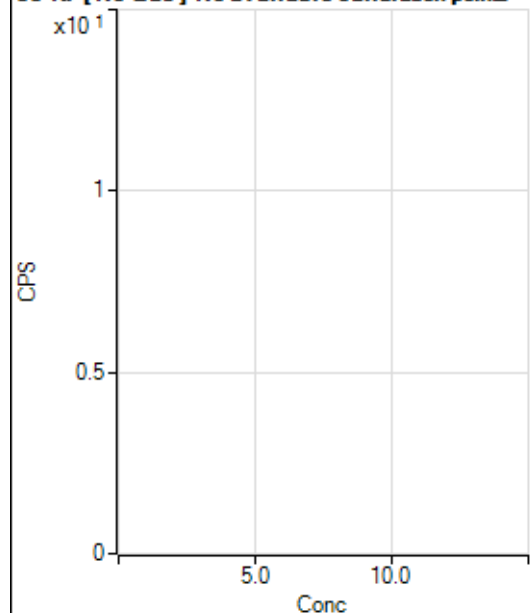
$$R = 0.9997$$

$$DL = 0.4209$$

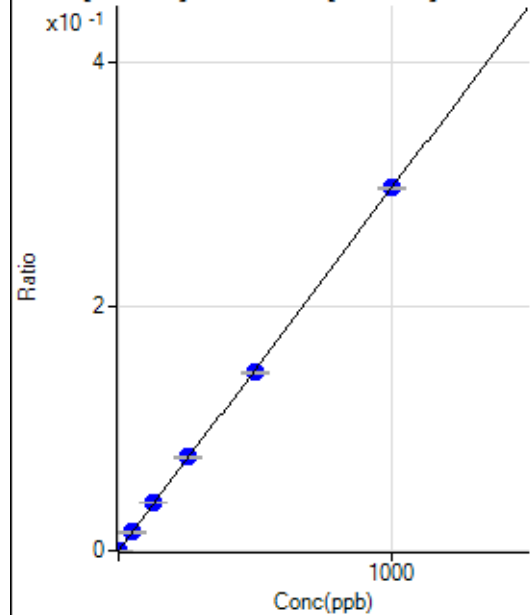
$$BEC = 0.1823$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			501.13		P	4.9
2	☐						
3	☐			544.47		P	16.2
4	☐			531.13		P	3.8
5	☐			551.13		P	5.1
6	☐			493.35		P	8.3
7	☐			511.13		P	10.2
8	☐			561.13		P	19.9
9	☐			578.91		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	861.18	0.0001	P	12.7
2	☐	0.100					
3	☐	1.000	0.786	4492.58	0.0003	P	1.5
4	☐	50.000	50.360	231812.70	0.0150	P	0.7
5	☐	125.000	131.189	593972.54	0.0390	P	1.0
6	☐	250.000	259.546	1138009.61	0.0772	P	2.2
7	☐	500.000	491.871	2153919.86	0.1462	P	0.7
8	☐	1000.000	1000.886	4330742.50	0.2974	P	0.6
9	☐			16465.55	0.0012	P	2.8

$$y = 2.9712E-004 * x + 5.6002E-005$$

$$R = 0.9999$$

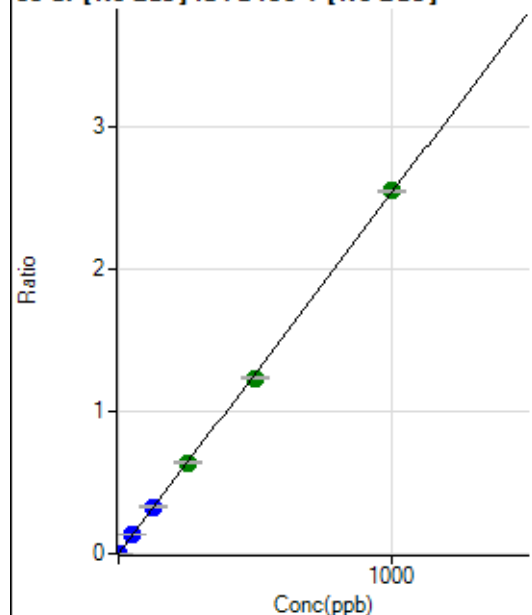
$$DL = 0.07155$$

$$BEC = 0.1885$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	102.78	0.0000	P	46.8
2	☐	0.100					
3	☐	1.000	0.805	31819.52	0.0021	P	0.6
4	☐	50.000	50.880	1993554.12	0.1292	P	0.4
5	☐	125.000	130.123	5026058.62	0.3303	P	1.7
6	☐	250.000	251.336	9408850.12	0.6380	A	1.7
7	☐	500.000	487.296	18222577.67	1.2370	A	1.3
8	☐	1000.000	1005.334	37156570.62	2.5519	A	0.4
9	☐			137682.42	0.0099	P	1.2

$$y = 0.0025 * x + 6.6801E-006$$

$$R = 0.9999$$

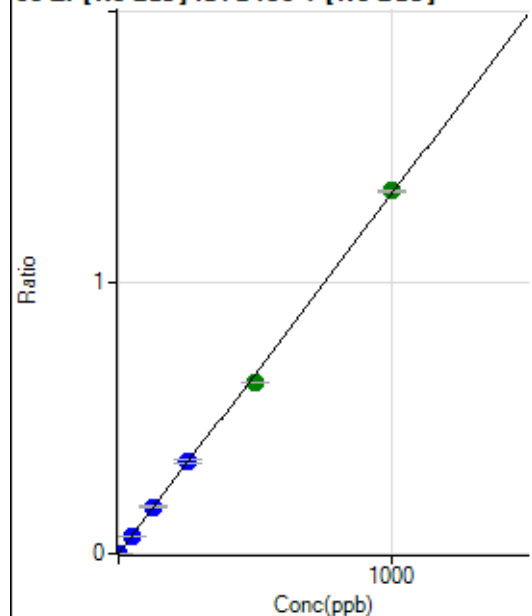
$$DL = 0.003691$$

$$BEC = 0.002632$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	977.86	0.0001	P	11.5
2	☐	0.100					
3	☐	1.000	0.875	18968.81	0.0012	P	1.1
4	☐	50.000	49.375	1010721.81	0.0655	P	0.2
5	☐	125.000	130.913	2640363.69	0.1735	P	1.2
6	☐	250.000	256.443	5011272.98	0.3398	P	2.6
7	☐	500.000	477.661	9324972.00	0.6330	A	0.3
8	☐	1000.000	1008.851	19463895.92	1.3368	A	0.5
9	☐			6585.12	0.0005	P	1.7

$$y = 0.0013 * x + 6.3592E-005$$

$$R = 0.9996$$

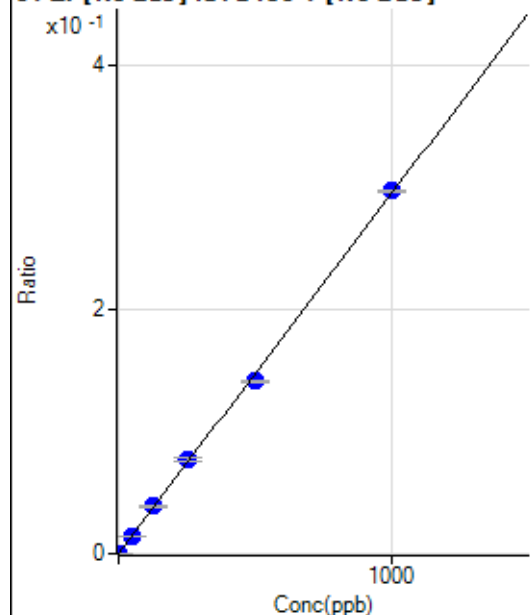
$$DL = 0.01661$$

$$BEC = 0.04799$$

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	205.57	0.0000	P	6.8
2	☐	0.100					
3	☐	1.000	0.899	4320.29	0.0003	P	1.1
4	☐	50.000	49.536	225758.47	0.0146	P	1.3
5	☐	125.000	131.519	590555.11	0.0388	P	2.5
6	☐	250.000	261.657	1138382.10	0.0772	P	2.8
7	☐	500.000	478.467	2079700.61	0.1412	P	0.8
8	☐	1000.000	1007.061	4325852.57	0.2971	P	0.4
9	☐			1427.92	0.0001	P	1.9

$$y = 2.9500\text{E-}004 * x + 1.3367\text{E-}005$$

$$R = 0.9996$$

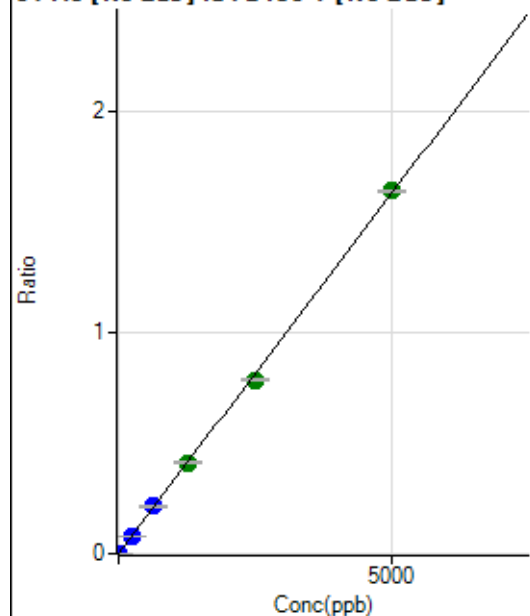
$$DL = 0.009247$$

$$BEC = 0.04531$$

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	436.14	0.0000	P	14.8
2	☐	0.500					
3	☐	5.000	4.466	23038.85	0.0015	P	2.8
4	☐	250.000	250.729	1262690.83	0.0818	P	1.0
5	☐	625.000	654.351	3247988.59	0.2135	P	1.8
6	☐	1250.000	1262.643	6073869.02	0.4119	A	1.8
7	☐	2500.000	2414.573	11602964.58	0.7876	A	0.5
8	☐	5000.000	5035.848	23915905.74	1.6426	A	0.9
9	☐			13584.74	0.0010	P	3.7

$$y = 3.2617\text{E-}004 * x + 2.8334\text{E-}005$$

$$R = 0.9998$$

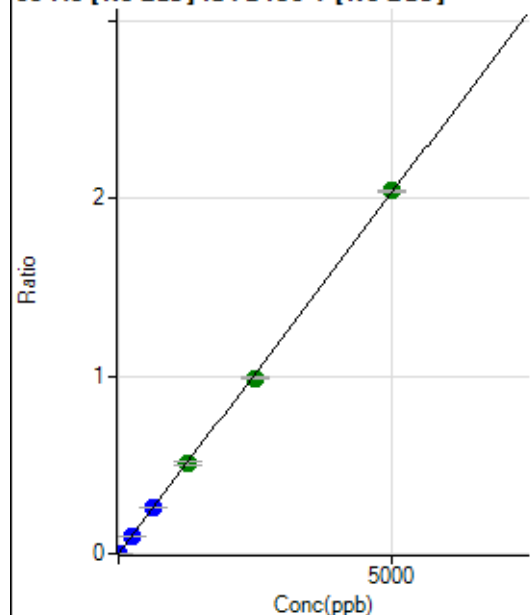
$$DL = 0.03862$$

$$BEC = 0.08687$$

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	194.45	0.0000	P	27.9
2	☐	0.500					
3	☐	5.000	4.495	28507.21	0.0018	P	0.7
4	☐	250.000	250.302	1568690.68	0.1016	P	1.1
5	☐	625.000	647.499	4000216.19	0.2629	P	1.6
6	☐	1250.000	1253.080	7502148.17	0.5088	A	2.4
7	☐	2500.000	2433.863	14557285.92	0.9881	A	0.8
8	☐	5000.000	5029.472	29731279.14	2.0419	A	0.5
9	☐			19792.24	0.0014	P	6.1

$$y = 4.0599\text{E-}004 * x + 1.2628\text{E-}005$$

$$R = 0.9999$$

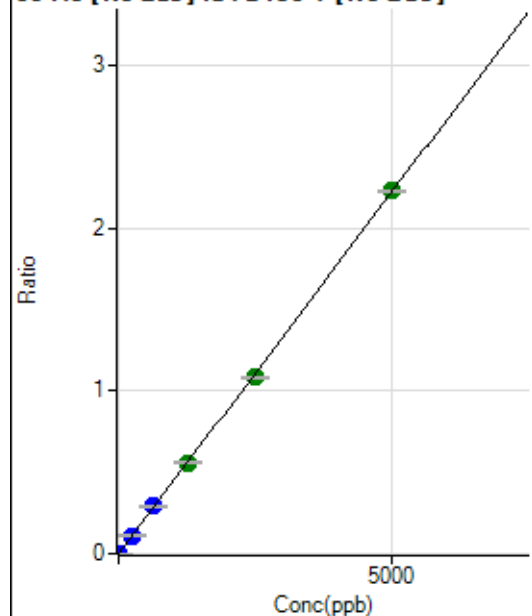
$$DL = 0.02607$$

$$BEC = 0.0311$$

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	283.35	0.0000	P	2.3
2	☐	0.500					
3	☐	5.000	4.561	31694.32	0.0020	P	1.7
4	☐	250.000	252.602	1730859.70	0.1121	P	0.6
5	☐	625.000	653.468	4413844.02	0.2901	P	1.7
6	☐	1250.000	1263.625	8272423.54	0.5609	A	1.3
7	☐	2500.000	2438.123	15943271.88	1.0822	A	1.1
8	☐	5000.000	5023.844	32469086.14	2.2300	A	0.7
9	☐			28000.60	0.0020	P	6.1

$$y = 4.4387\text{E-}004 * x + 1.8417\text{E-}005$$

$$R = 0.9999$$

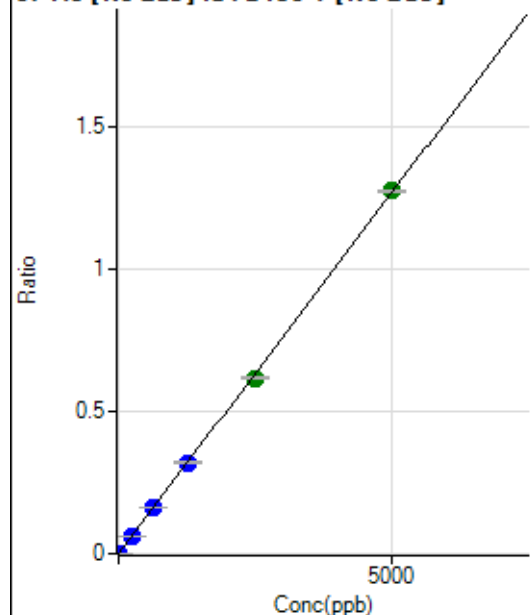
$$DL = 0.002869$$

$$BEC = 0.04149$$

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	116.67	0.0000	P	37.2
2	☐	0.500					
3	☐	5.000	4.494	17772.88	0.0011	P	1.1
4	☐	250.000	250.019	977484.81	0.0633	P	0.5
5	☐	625.000	645.358	2487214.88	0.1635	P	1.6
6	☐	1250.000	1257.974	4698170.11	0.3186	P	2.8
7	☐	2500.000	2436.589	9091487.79	0.6171	A	0.9
8	☐	5000.000	5027.167	18538095.73	1.2733	A	0.6
9	☐			11855.36	0.0009	P	5.5

$$y = 2.5327\text{E-}004 * x + 7.5856\text{E-}006$$

$$R = 0.9999$$

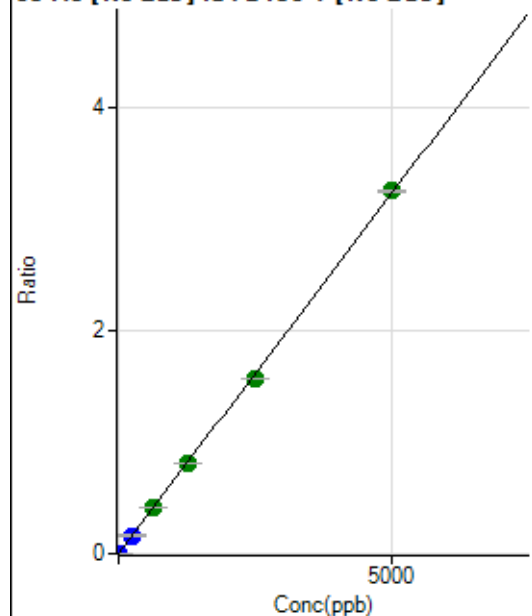
$$DL = 0.03339$$

$$BEC = 0.02995$$

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	338.91	0.0000	P	17.8
2	☐	0.500					
3	☐	5.000	4.579	46128.49	0.0030	P	1.9
4	☐	250.000	252.557	2512837.69	0.1628	P	1.3
5	☐	625.000	632.753	6206147.45	0.4079	A	0.7
6	☐	1250.000	1254.550	11925498.53	0.8086	A	1.5
7	☐	2500.000	2421.907	22997058.68	1.5610	A	0.5
8	☐	5000.000	5036.812	47265748.97	3.2464	A	0.8
9	☐			30586.75	0.0022	P	6.7

$$y = 6.4453\text{E-}004 * x + 2.2014\text{E-}005$$

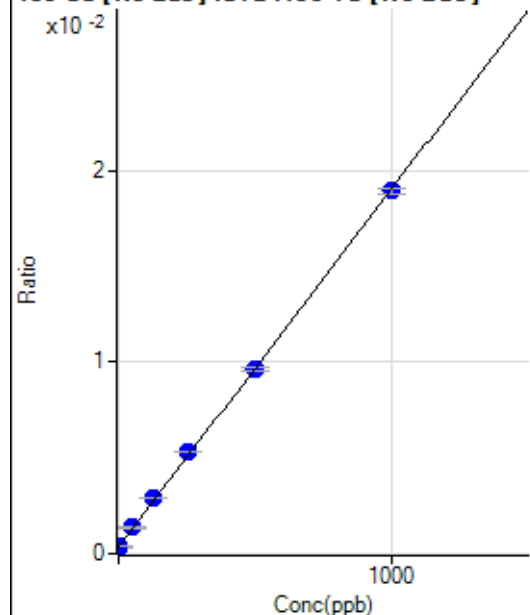
$$R = 0.9998$$

$$DL = 0.01828$$

$$BEC = 0.03416$$

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	6826.94	0.0003	P	3.5
2	☐	0.100					
3	☐	1.000	0.943	7202.16	0.0004	P	5.1
4	☐	50.000	54.528	27268.64	0.0014	P	2.2
5	☐	125.000	138.345	58814.29	0.0029	P	0.7
6	☐	250.000	268.071	105981.27	0.0054	P	0.6
7	☐	500.000	497.015	189554.72	0.0096	P	1.5
8	☐	1000.000	995.080	373940.99	0.0189	P	1.5
9	☐			6512.90	0.0004	P	5.0

$$y = 1.8674\text{E-}005 * x + 3.4511\text{E-}004$$

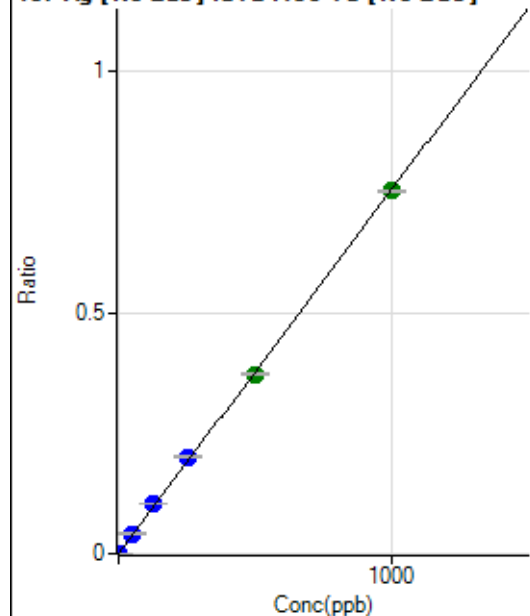
$$R = 0.9998$$

$$DL = 1.937$$

$$BEC = 18.48$$

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	147.23	0.0000	P	14.8
2	☐	0.100					
3	☐	1.000	1.035	15662.05	0.0008	P	2.9
4	☐	50.000	55.452	837140.07	0.0419	P	1.0
5	☐	125.000	139.524	2114630.12	0.1053	P	0.7
6	☐	250.000	265.939	3974581.77	0.2007	P	1.5
7	☐	500.000	493.526	7334004.33	0.3724	A	0.4
8	☐	1000.000	997.164	14865859.53	0.7525	A	0.5
9	☐			1802.97	0.0001	P	1.8

$$y = 7.5463\text{E-}004 * x + 7.4478\text{E-}006$$

$$R = 0.9998$$

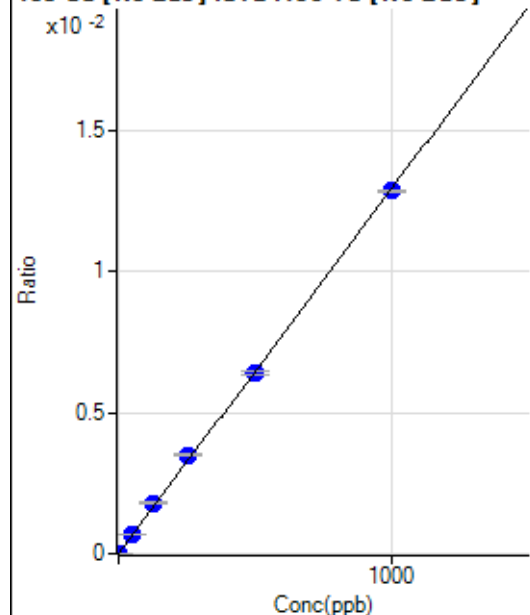
$$DL = 0.004373$$

$$BEC = 0.009869$$

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	15.28	0.0000	P	15.4
2	☐	0.100					
3	☐	1.000	1.011	275.01	0.0000	P	11.4
4	☐	50.000	54.235	14040.53	0.0007	P	2.4
5	☐	125.000	138.967	36097.60	0.0018	P	1.2
6	☐	250.000	269.823	69099.65	0.0035	P	2.2
7	☐	500.000	496.666	126460.25	0.0064	P	1.5
8	☐	1000.000	994.754	254093.00	0.0129	P	0.8
9	☐			56.94	0.0000	P	11.5

$$y = 1.2929\text{E-}005 * x + 7.7221\text{E-}007$$

$$R = 0.9997$$

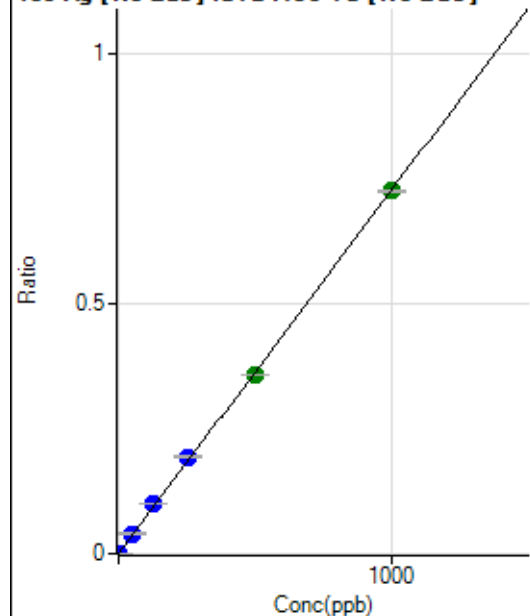
$$DL = 0.02761$$

$$BEC = 0.05973$$

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	88.90	0.0000	P	37.2
2	☐	0.100					
3	☐	1.000	1.012	14722.15	0.0007	P	3.5
4	☐	50.000	55.402	807035.60	0.0403	P	0.5
5	☐	125.000	139.092	2034169.88	0.1013	P	1.1
6	☐	250.000	266.593	3844555.55	0.1941	P	2.3
7	☐	500.000	491.530	7048370.99	0.3579	A	0.6
8	☐	1000.000	998.055	14357489.90	0.7268	A	0.9
9	☐			1572.38	0.0001	P	10.9

$$y = 7.2820\text{E-}004 * x + 4.4878\text{E-}006$$

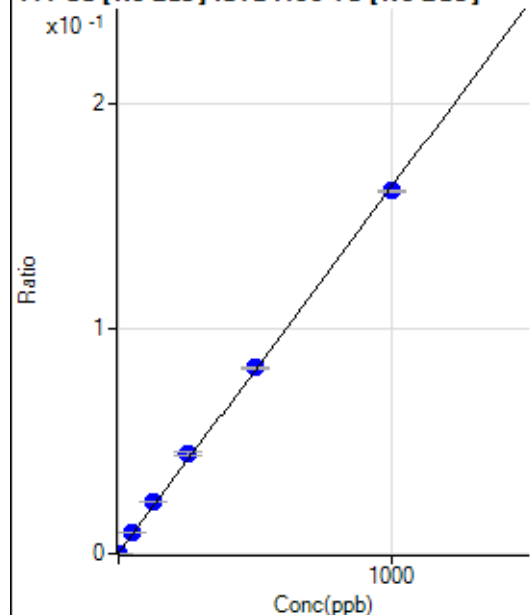
$$R = 0.9997$$

$$DL = 0.006886$$

$$BEC = 0.006163$$

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	4779.28	0.0002	P	3.5
2	☐	0.100					
3	☐	1.000	1.007	8048.04	0.0004	P	2.8
4	☐	50.000	55.142	184216.80	0.0092	P	1.5
5	☐	125.000	140.692	464380.23	0.0231	P	1.1
6	☐	250.000	271.766	880100.78	0.0444	P	2.2
7	☐	500.000	506.036	1625367.41	0.0825	P	1.5
8	☐	1000.000	989.322	3183533.07	0.1611	P	0.9
9	☐			5053.92	0.0003	P	5.5

$$y = 1.6264\text{E-}004 * x + 2.4160\text{E-}004$$

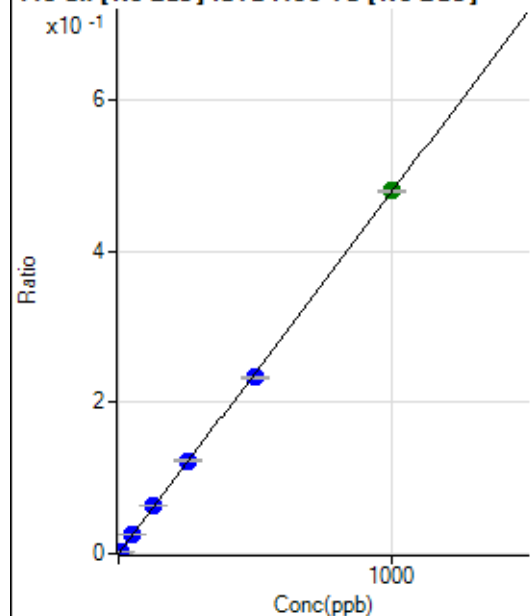
$$R = 0.9996$$

$$DL = 0.1578$$

$$BEC = 1.485$$

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	777.83	0.0000	P	3.8
2	☐	0.500					
3	☐	5.000	5.050	48755.12	0.0025	P	0.8
4	☐	50.000	52.165	499974.66	0.0250	P	0.9
5	☐	125.000	132.714	1275859.19	0.0635	P	1.3
6	☐	250.000	257.287	2438117.00	0.1231	P	3.4
7	☐	500.000	487.371	4592107.61	0.2332	P	1.3
8	☐	1000.000	1003.420	9484313.32	0.4801	A	0.4
9	☐			6929.75	0.0004	P	3.8

$$y = 4.7841\text{E-}004 * x + 3.9320\text{E-}005$$

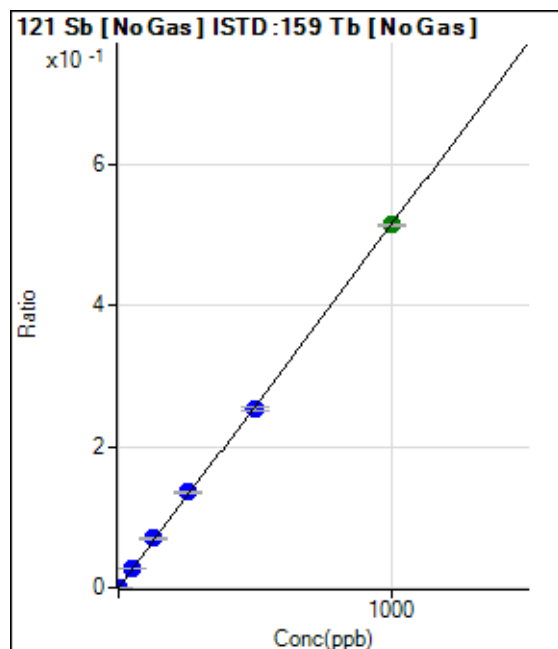
$$R = 0.9998$$

$$DL = 0.009306$$

$$BEC = 0.08219$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	25.5
2	☐	0.200					
3	☐	2.000	1.881	19288.97	0.0010	P	3.1
4	☐	50.000	52.779	544237.44	0.0272	P	0.0
5	☐	125.000	135.036	1398035.02	0.0696	P	1.0
6	☐	250.000	262.948	2684262.32	0.1356	P	2.5
7	☐	500.000	492.743	5001755.97	0.2540	P	1.5
8	☐	1000.000	998.998	10173550.92	0.5150	A	0.5
9	☐			12461.58	0.0007	P	2.9

$$y = 5.1550\text{E-}004 * x + 1.6868\text{E-}006$$

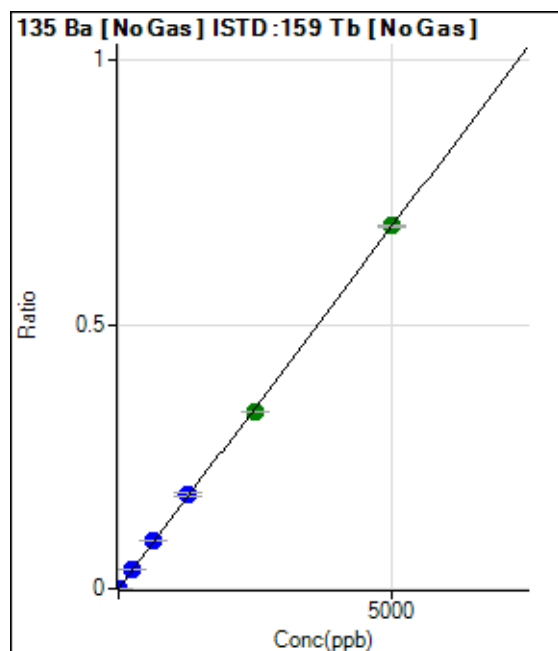
$$R = 0.9998$$

$$DL = 0.002499$$

$$BEC = 0.003272$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	20.5
2	☐	1.000					
3	☐	10.000	9.560	26055.84	0.0013	P	3.0
4	☐	250.000	261.057	715016.88	0.0357	P	0.8
5	☐	625.000	661.313	1818509.14	0.0906	P	1.0
6	☐	1250.000	1293.359	3506610.71	0.1771	P	3.6
7	☐	2500.000	2438.236	6574102.49	0.3339	A	0.5
8	☐	5000.000	5014.951	13564851.34	0.6867	A	0.8
9	☐			2961.57	0.0002	P	5.3

$$y = 1.3692\text{E-}004 * x + 3.2330\text{E-}006$$

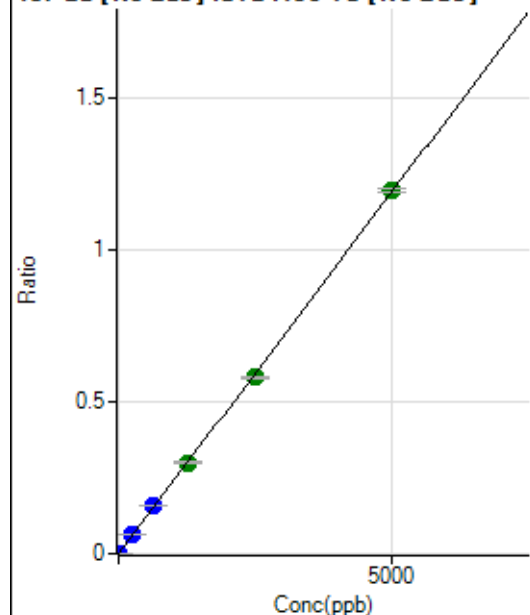
$$R = 0.9998$$

$$DL = 0.01453$$

$$BEC = 0.02361$$

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	52.78	0.0000	P	17.9
2	☐	1.000					
3	☐	10.000	9.732	45957.67	0.0023	P	1.5
4	☐	250.000	257.315	1222739.37	0.0611	P	1.0
5	☐	625.000	659.193	3145006.43	0.1566	P	1.3
6	☐	1250.000	1257.977	5918543.97	0.2989	A	1.5
7	☐	2500.000	2438.228	11406076.30	0.5792	A	0.8
8	☐	5000.000	5024.252	23579438.03	1.1936	A	1.1
9	☐			5009.43	0.0003	P	1.6

$$y = 2.3756E-004 * x + 2.6673E-006$$

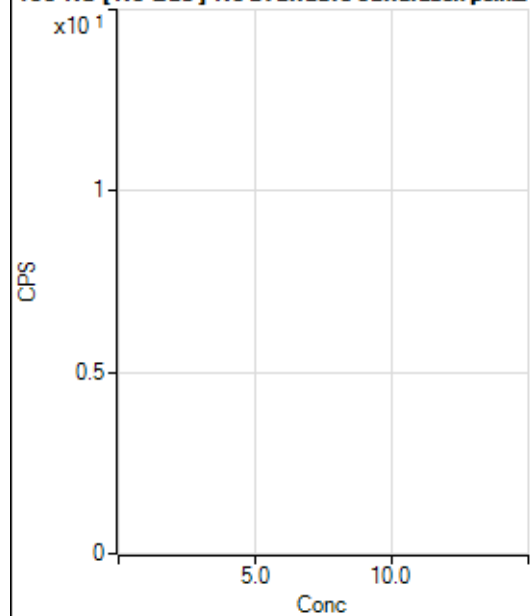
$$R = 0.9999$$

$$DL = 0.006027$$

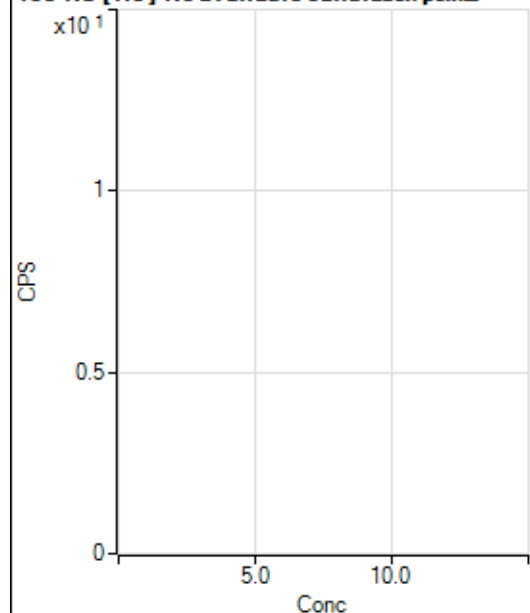
$$BEC = 0.01123$$

Weight: <None>

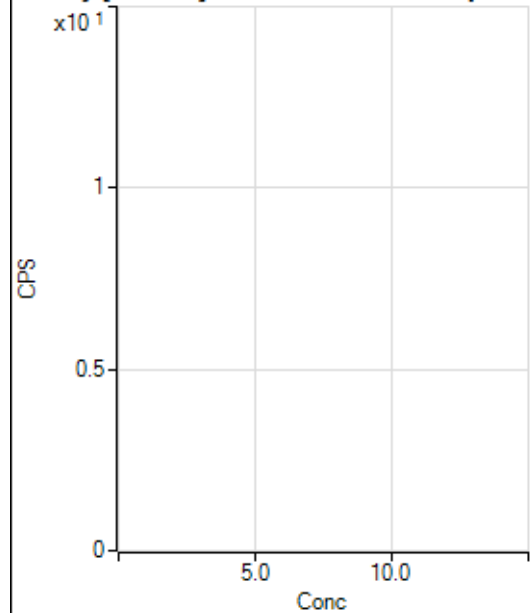
Min Conc: 0

150 Nd [No Gas] No available calibration points

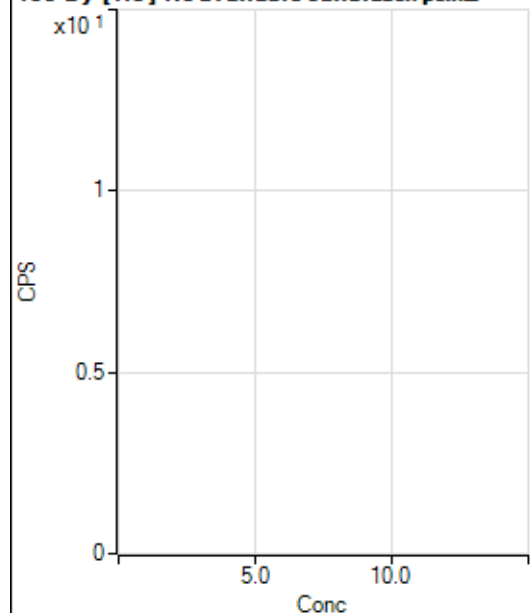
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			6.67		P	100.
4	☐			73.33		P	15.7
5	☐			188.90		P	32.0
6	☐			384.47		P	19.5
7	☐			626.70		P	1.8
8	☐			1240.10		P	6.5
9	☐			242.24		P	14.1

150 Nd [He] No available calibration points

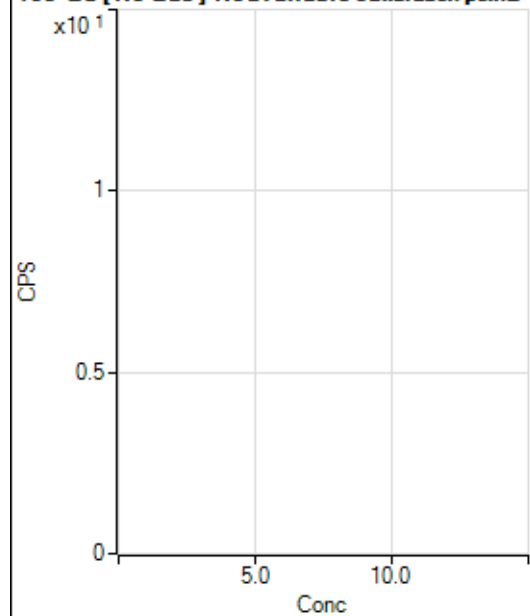
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			4.45		P	86.6
5	☐			26.67		P	33.1
6	☐			36.67		P	9.1
7	☐			64.45		P	10.8
8	☐			112.23		P	1.7
9	☐			96.67		P	21.5

156 Dy [No Gas] No available calibration points

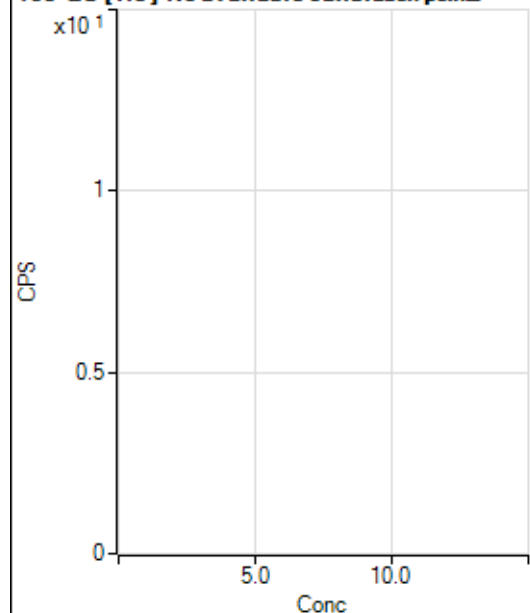
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	114.
2	☐						
3	☐			16.67		P	132.
4	☐			41.67		P	34.7
5	☐			61.11		P	31.5
6	☐			66.67		P	33.1
7	☐			125.01		P	17.6
8	☐			247.23		P	14.0
9	☐			127.79		P	3.8

156 Dy [He] No available calibration points

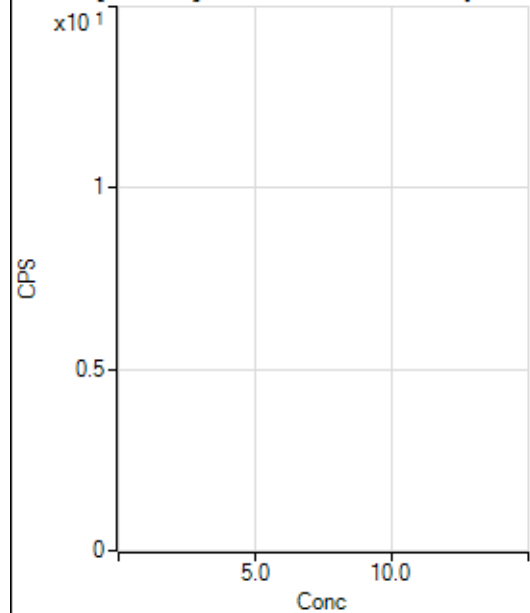
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	33.3
2	☐						
3	☐			4.44		P	43.4
4	☐			15.56		P	49.5
5	☐			34.44		P	53.3
6	☐			87.78		P	17.1
7	☐			142.23		P	13.3
8	☐			238.90		P	14.3
9	☐			81.11		P	19.0

160 Gd [No Gas] Noavailable calibration poin_

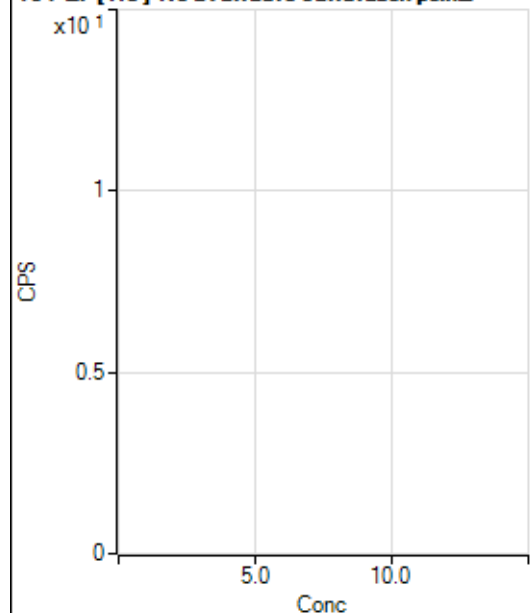
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			100.00		P	8.3
2	☐						
3	☐			100.00		P	33.3
4	☐			100.01		P	30.0
5	☐			102.79		P	55.2
6	☐			100.00		P	22.0
7	☐			111.12		P	15.6
8	☐			152.78		P	38.7
9	☐			191.68		P	21.7

160 Gd [He] No available calibration points

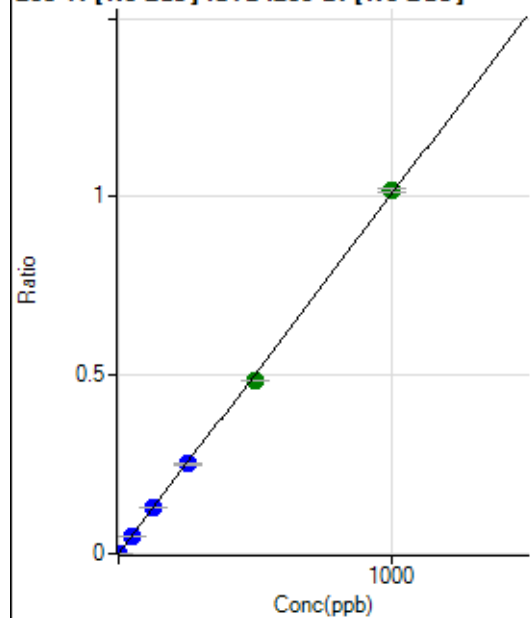
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			261.12		P	13.0
2	☐						
3	☐			241.12		P	7.6
4	☐			256.68		P	8.1
5	☐			274.45		P	9.3
6	☐			236.67		P	7.5
7	☐			247.78		P	8.8
8	☐			232.23		P	13.8
9	☐			266.67		P	11.3

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			83.34		P	45.8
2	☐						
3	☐			72.23		P	46.6
4	☐			50.00		P	60.1
5	☐			58.33		P	24.7
6	☐			77.78		P	34.4
7	☐			63.89		P	27.2
8	☐			75.00		P	48.4
9	☐			97.23		P	38.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			28.89		P	6.7
2	☐						
3	☐			18.89		P	27.0
4	☐			34.44		P	47.7
5	☐			31.11		P	43.3
6	☐			27.78		P	48.5
7	☐			44.45		P	8.7
8	☐			46.67		P	25.8
9	☐			45.56		P	33.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	155.56	0.0000	P	15.9
2	☐	0.100					
3	☐	1.000	0.853	11658.42	0.0009	P	3.8
4	☐	50.000	48.210	647923.97	0.0486	P	0.4
5	☐	125.000	127.751	1688645.33	0.1287	P	1.5
6	☐	250.000	249.932	3247224.62	0.2518	P	2.9
7	☐	500.000	481.636	6172488.68	0.4851	A	0.6
8	☐	1000.000	1008.945	12521745.24	1.0163	A	1.0
9	☐			2453.11	0.0002	P	10.8

$$y = 0.0010 * x + 1.1645E-005$$

$$R = 0.9997$$

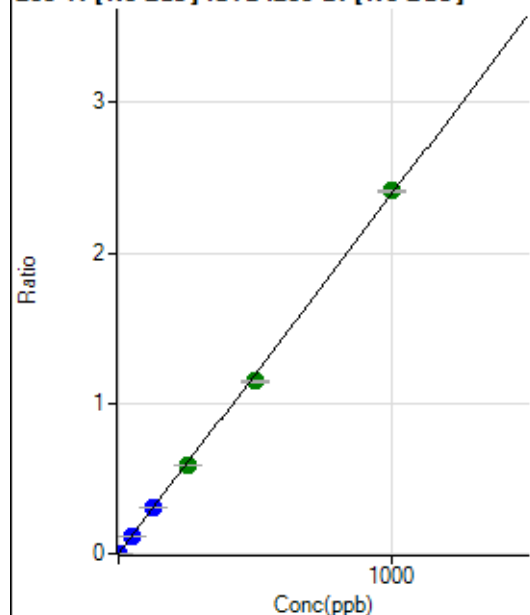
$$DL = 0.005514$$

$$BEC = 0.01156$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	366.69	0.0000	P	18.4
2	☐	0.100					
3	☐	1.000	0.886	28687.46	0.0021	P	1.7
4	☐	50.000	49.459	1575274.04	0.1181	P	0.6
5	☐	125.000	128.841	4035775.61	0.3076	P	3.1
6	☐	250.000	245.359	7556151.38	0.5857	A	1.4
7	☐	500.000	481.169	14613384.70	1.1486	A	1.2
8	☐	1000.000	1010.123	29711070.45	2.4113	A	0.4
9	☐			5946.03	0.0006	P	3.5

$$y = 0.0024 * x + 2.7454E-005$$

$$R = 0.9997$$

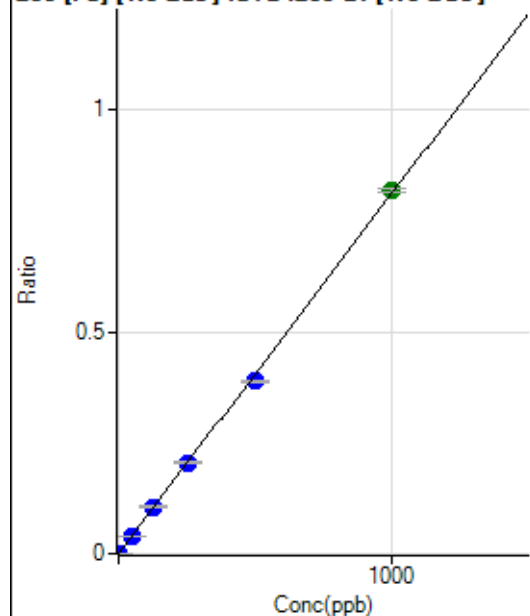
$$DL = 0.006363$$

$$BEC = 0.0115$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	838.94	0.0001	P	13.9
2	☐	0.100					
3	☐	1.000	0.874	10320.96	0.0008	P	3.4
4	☐	50.000	49.350	534588.55	0.0401	P	0.4
5	☐	125.000	129.830	1382048.89	0.1053	P	2.3
6	☐	250.000	253.456	2651585.71	0.2056	P	2.4
7	☐	500.000	480.072	4952887.03	0.3893	P	1.5
8	☐	1000.000	1008.529	10076052.77	0.8178	A	1.1
9	☐			11364.41	0.0011	P	2.9

$$y = 8.1081E-004 * x + 6.2807E-005$$

$$R = 0.9997$$

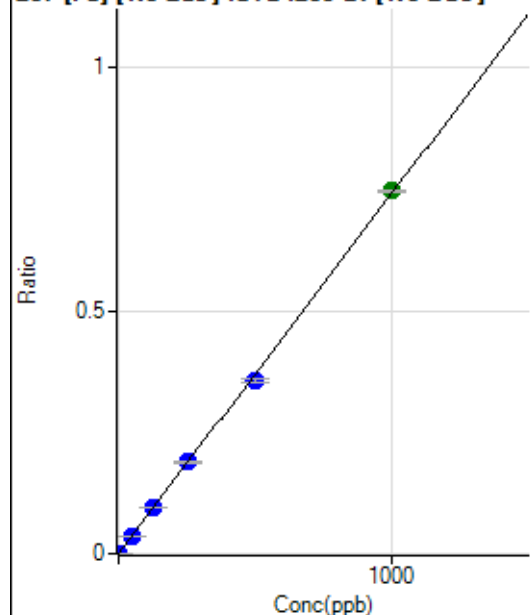
$$DL = 0.03241$$

$$BEC = 0.07746$$

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	755.60	0.0001	P	12.3
2	☐	0.100					
3	☐	1.000	0.867	9338.77	0.0007	P	0.8
4	☐	50.000	49.156	485852.14	0.0364	P	0.5
5	☐	125.000	127.955	1242827.23	0.0947	P	1.9
6	☐	250.000	254.625	2430503.64	0.1884	P	2.4
7	☐	500.000	480.122	4519587.40	0.3552	P	1.7
8	☐	1000.000	1008.456	9193280.53	0.7461	A	0.3
9	☐			9338.71	0.0009	P	1.4

$$y = 7.3979\text{E-}004 * x + 5.6616\text{E-}005$$

$$R = 0.9997$$

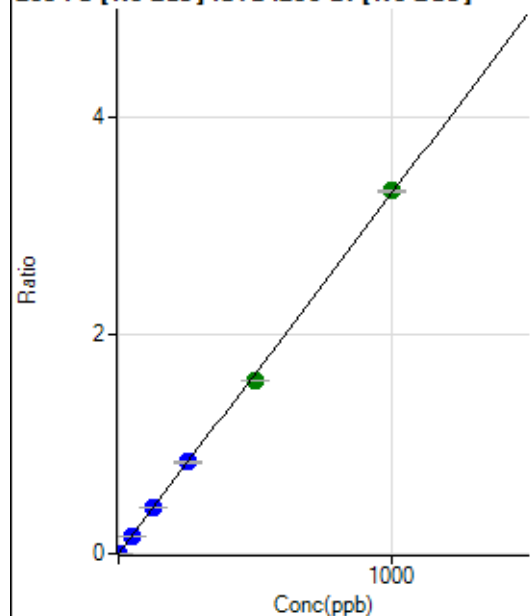
$$DL = 0.02829$$

$$BEC = 0.07653$$

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	3478.06	0.0003	P	2.2
2	☐	0.100					
3	☐	1.000	0.866	41654.29	0.0031	P	0.3
4	☐	50.000	49.380	2172569.01	0.1629	P	0.7
5	☐	125.000	128.622	5560927.11	0.4238	P	2.0
6	☐	250.000	255.281	10846148.68	0.8409	P	2.6
7	☐	500.000	481.320	20167981.85	1.5852	A	0.8
8	☐	1000.000	1007.598	40885697.90	3.3182	A	0.4
9	☐			44037.16	0.0044	P	1.1

$$y = 0.0033 * x + 2.6046\text{E-}004$$

$$R = 0.9997$$

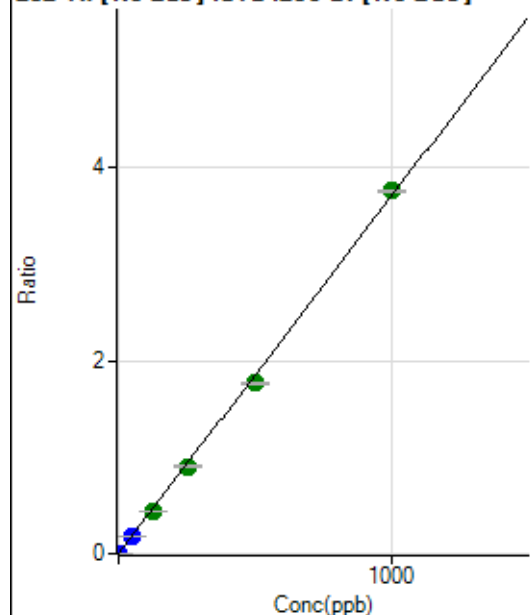
$$DL = 0.00518$$

$$BEC = 0.0791$$

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	131.49	0.0000	P	13.4
2	☐	0.100					
3	☐	1.000	0.795	39523.14	0.0030	P	0.7
4	☐	50.000	46.410	2291178.78	0.1718	P	0.4
5	☐	125.000	118.869	5772728.31	0.4399	A	0.2
6	☐	250.000	242.637	11583225.14	0.8979	A	1.8
7	☐	500.000	476.442	22432521.10	1.7632	A	0.3
8	☐	1000.000	1014.566	46262386.22	3.7546	A	0.7
9	☐			15570.81	0.0016	P	4.6

$$y = 0.0037 * x + 9.8509E-006$$

$$R = 0.9996$$

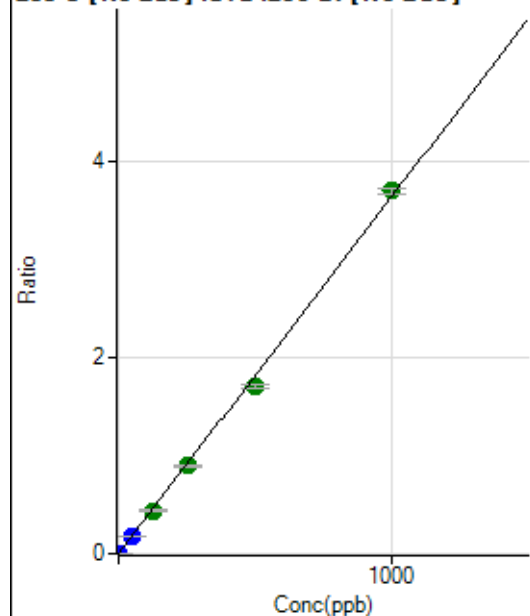
$$DL = 0.001071$$

$$BEC = 0.002662$$

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	275.02	0.0000	P	22.3
2	☐	0.100					
3	☐	1.000	0.824	40274.96	0.0030	P	1.4
4	☐	50.000	46.091	2231350.40	0.1673	P	0.7
5	☐	125.000	121.032	5763623.05	0.4392	A	0.8
6	☐	250.000	245.343	11485644.35	0.8903	A	1.4
7	☐	500.000	469.398	21671030.17	1.7034	A	1.3
8	☐	1000.000	1017.157	45478797.54	3.6911	A	1.3
9	☐			4695.50	0.0005	P	2.6

$$y = 0.0036 * x + 2.0576E-005$$

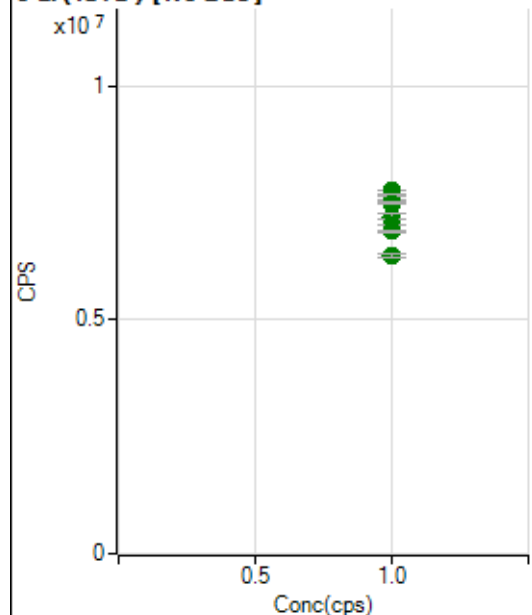
$$R = 0.9993$$

$$DL = 0.003787$$

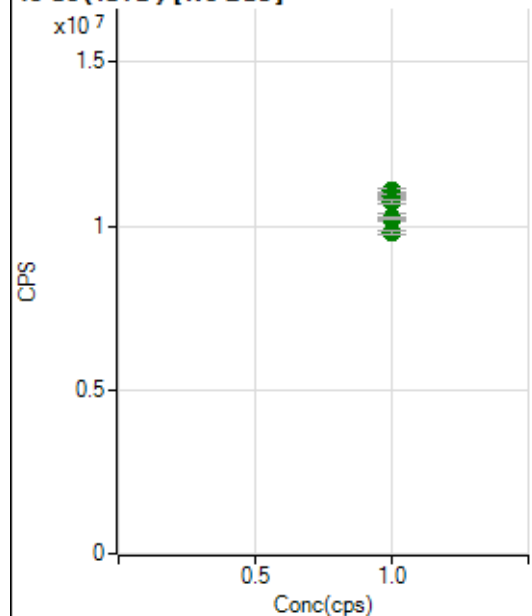
$$BEC = 0.00567$$

Weight: <None>

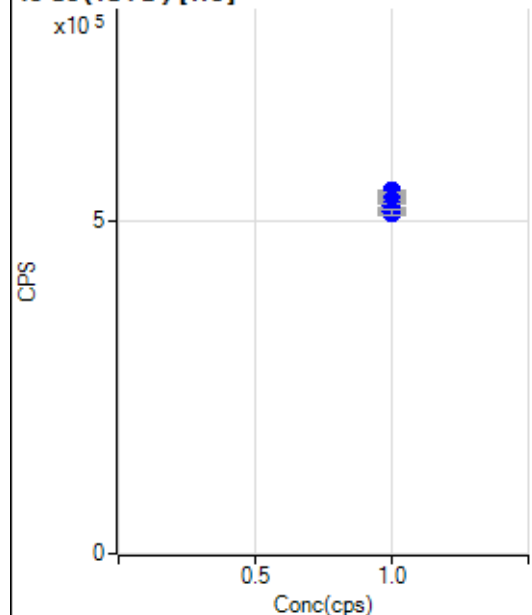
Min Conc: 0

6 Li (ISTD) [No Gas]

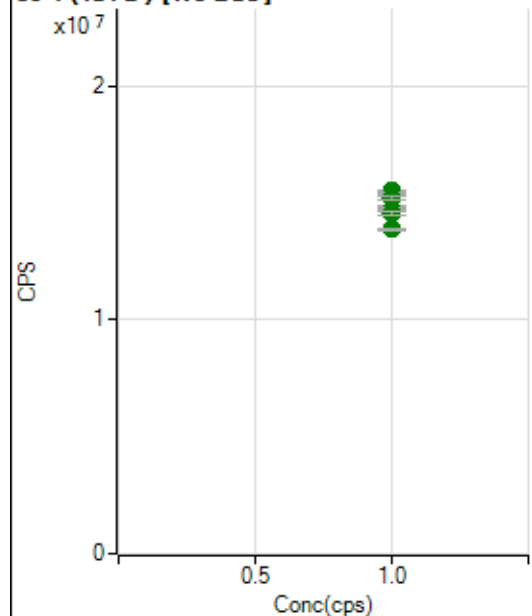
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7544140.23		A	0.2
2	☐	1.000					
3	☐	1.000		7760121.81		A	0.2
4	☐	1.000		7684572.17		A	0.4
5	☐	1.000		7502106.18		A	0.5
6	☐	1.000		7205863.65		A	1.5
7	☐	1.000		7040462.89		A	0.3
8	☐	1.000		6898736.04		A	0.6
9	☐	1.000		6387967.91		A	1.1

45 Sc (ISTD) [No Gas]

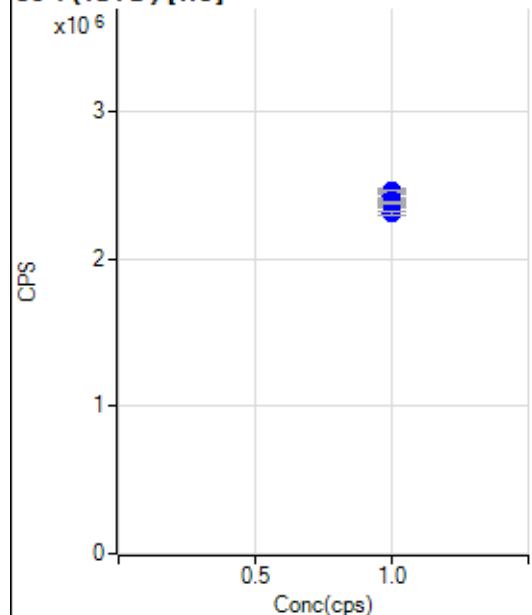
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10897055.54		A	0.2
2	☐	1.000					
3	☐	1.000		11074972.73		A	1.2
4	☐	1.000		10926807.80		A	1.4
5	☐	1.000		10741831.75		A	1.1
6	☐	1.000		10290822.80		A	1.7
7	☐	1.000		10191449.18		A	0.3
8	☐	1.000		10226048.93		A	0.6
9	☐	1.000		9804898.05		A	1.7

45 Sc (ISTD) [He]

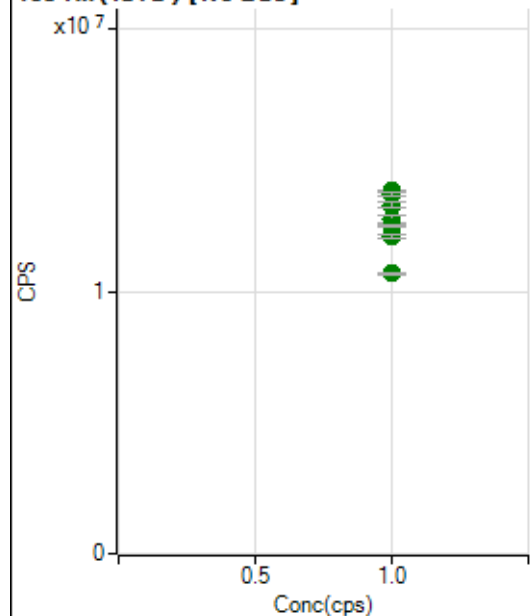
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		536531.43		P	0.8
2	☐	1.000					
3	☐	1.000		545801.85		P	0.9
4	☐	1.000		541940.83		P	0.8
5	☐	1.000		531658.82		P	0.5
6	☐	1.000		511263.29		P	0.5
7	☐	1.000		514659.50		P	0.1
8	☐	1.000		523183.63		P	1.0
9	☐	1.000		513499.45		P	1.9

89 Y (ISTD) [No Gas]

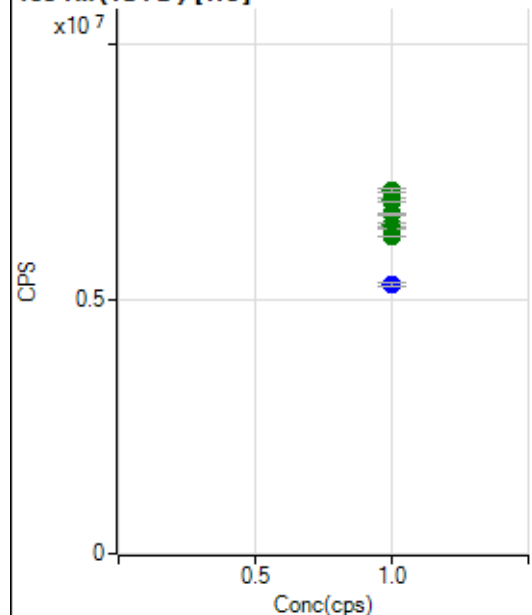
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15383504.63		A	0.6
2	☐	1.000					
3	☐	1.000		15512713.52		A	0.6
4	☐	1.000		15434529.21		A	0.2
5	☐	1.000		15217200.61		A	0.7
6	☐	1.000		14750560.34		A	1.9
7	☐	1.000		14732389.78		A	0.6
8	☐	1.000		14560011.87		A	0.8
9	☐	1.000		13854858.13		A	0.9

89 Y(ISTD) [He]

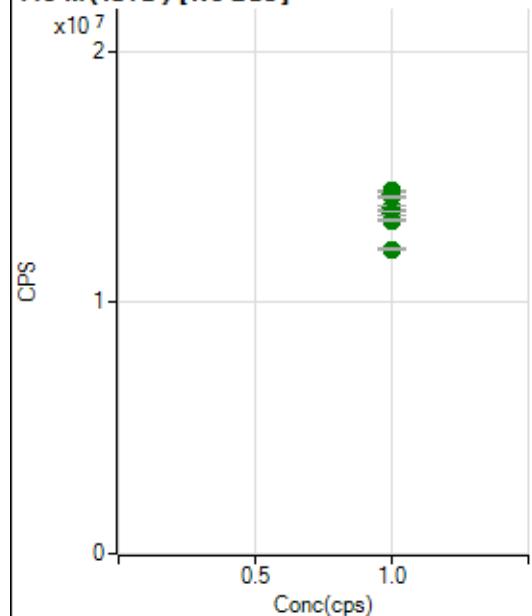
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2420417.79		P	0.9
2	☐	1.000					
3	☐	1.000		2459995.35		P	1.1
4	☐	1.000		2458675.22		P	0.9
5	☐	1.000		2402409.18		P	0.6
6	☐	1.000		2361510.24		P	1.2
7	☐	1.000		2366714.58		P	0.6
8	☐	1.000		2380152.45		P	1.0
9	☐	1.000		2306281.88		P	1.0

103 Rh(ISTD) [No Gas]

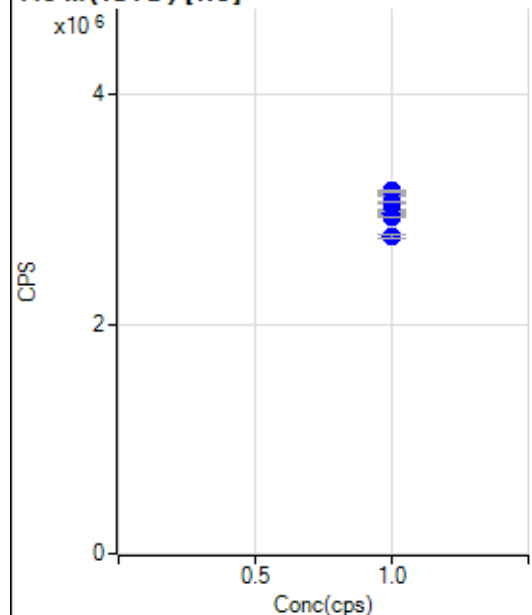
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13775305.52		A	0.3
2	☐	1.000					
3	☐	1.000		13829636.42		A	0.6
4	☐	1.000		13705685.38		A	0.6
5	☐	1.000		13303096.56		A	1.4
6	☐	1.000		12756106.36		A	1.9
7	☐	1.000		12473979.10		A	0.4
8	☐	1.000		12096853.13		A	0.7
9	☐	1.000		10673613.43		A	1.2

103 Rh (ISTD) [He]

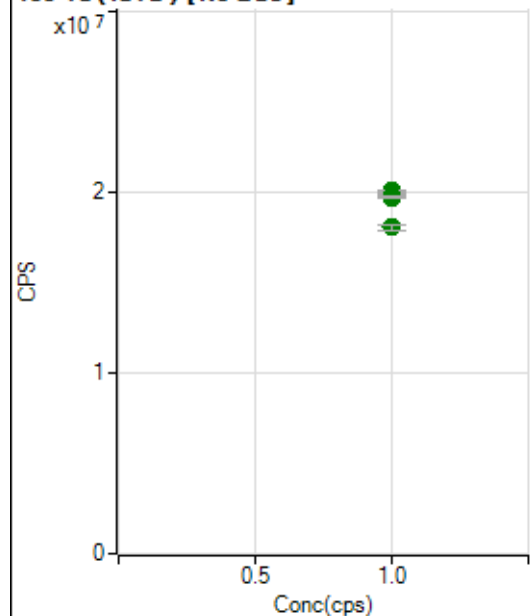
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6945755.45		A	1.4
2	☐	1.000					
3	☐	1.000		7124667.18		A	1.1
4	☐	1.000		6918456.42		A	0.3
5	☐	1.000		6676478.79		A	0.4
6	☐	1.000		6457933.31		A	1.5
7	☐	1.000		6369061.22		A	0.2
8	☐	1.000		6232962.48		A	0.4
9	☐	1.000		5295032.49		P	1.4

115 In (ISTD) [No Gas]

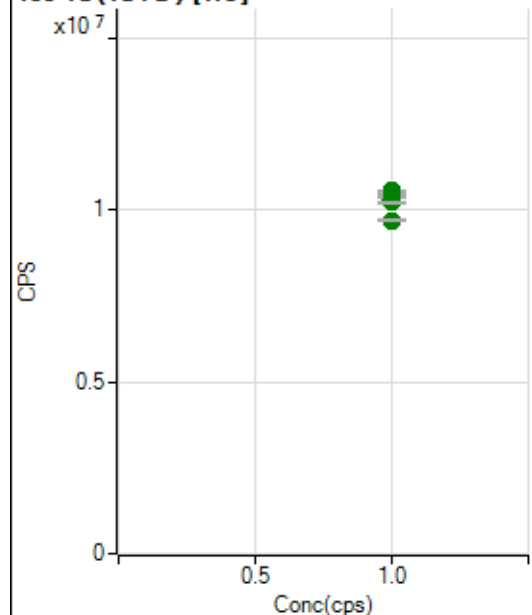
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14395158.89		A	0.4
2	☐	1.000					
3	☐	1.000		14450326.83		A	0.4
4	☐	1.000		14327940.65		A	1.4
5	☐	1.000		14209994.19		A	0.6
6	☐	1.000		13775322.57		A	1.1
7	☐	1.000		13534509.52		A	1.0
8	☐	1.000		13266998.01		A	0.4
9	☐	1.000		12120640.32		A	0.8

115 In (ISTD) [He]

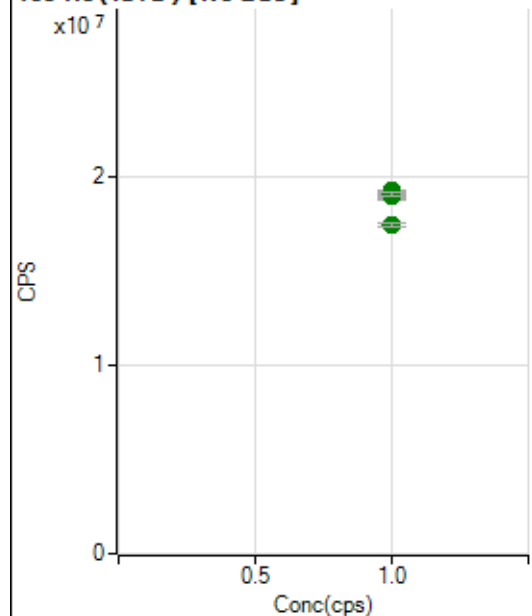
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3064157.78		P	0.6
2	☐	1.000					
3	☐	1.000		3123638.19		P	0.5
4	☐	1.000		3160764.59		P	0.3
5	☐	1.000		3062257.30		P	0.3
6	☐	1.000		2975824.75		P	1.0
7	☐	1.000		2966193.39		P	0.9
8	☐	1.000		2931116.05		P	0.3
9	☐	1.000		2769790.30		P	1.0

159 Tb (ISTD) [No Gas]

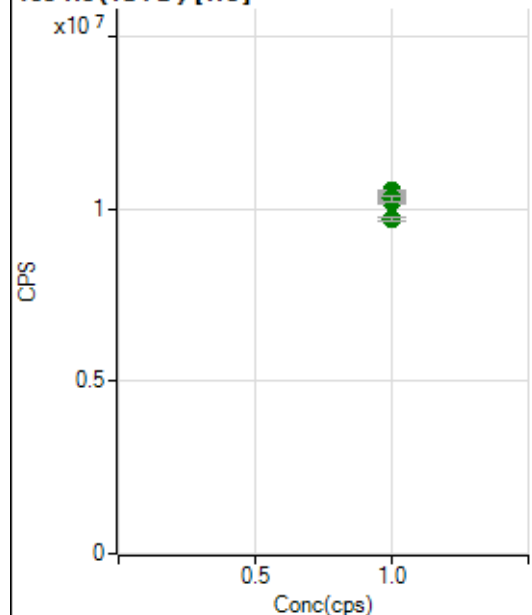
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19779668.46		A	0.7
2	☐	1.000					
3	☐	1.000		19855860.54		A	0.1
4	☐	1.000		20002107.48		A	0.4
5	☐	1.000		20083094.28		A	0.5
6	☐	1.000		19806469.84		A	1.1
7	☐	1.000		19692006.24		A	0.4
8	☐	1.000		19755573.46		A	0.8
9	☐	1.000		18074127.51		A	1.8

159 Tb (ISTD) [He]

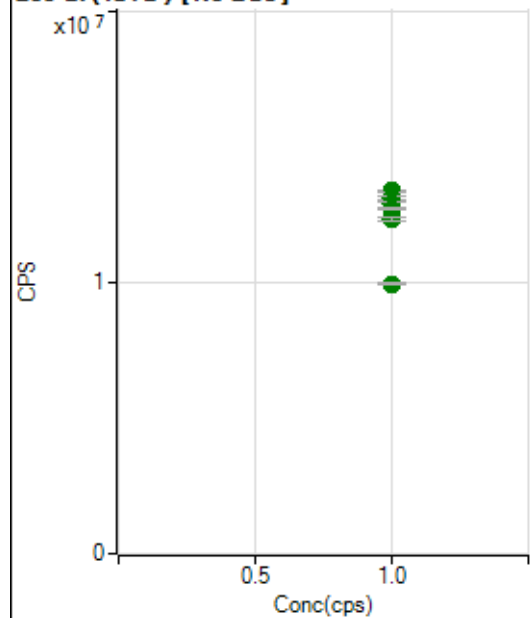
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10375178.74		A	0.3
2	☐	1.000					
3	☐	1.000		10552822.13		A	0.8
4	☐	1.000		10435359.15		A	0.1
5	☐	1.000		10409792.55		A	0.4
6	☐	1.000		10277519.99		A	0.8
7	☐	1.000		10302585.75		A	0.8
8	☐	1.000		10218112.21		A	0.6
9	☐	1.000		9693209.44		A	0.8

165 Ho (ISTD) [No Gas]

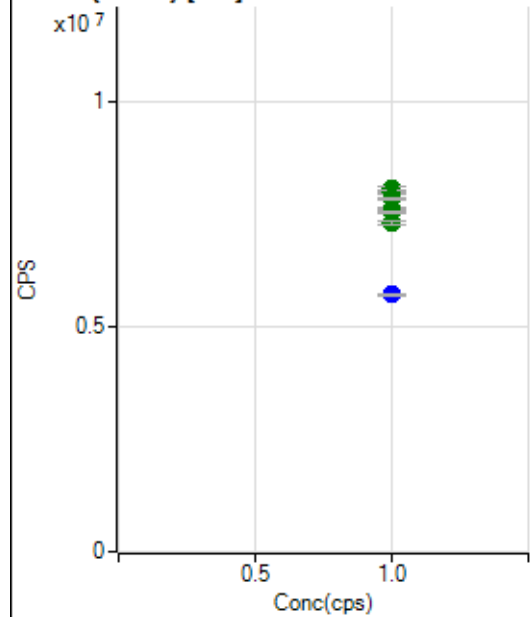
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18973293.13		A	0.8
2	☐	1.000					
3	☐	1.000		18957014.66		A	0.7
4	☐	1.000		19192689.14		A	0.4
5	☐	1.000		19266200.43		A	0.8
6	☐	1.000		18953941.05		A	1.7
7	☐	1.000		19043690.70		A	0.6
8	☐	1.000		19113880.11		A	1.1
9	☐	1.000		17484024.35		A	1.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10312114.50		A	0.9
2	☐	1.000					
3	☐	1.000		10478206.02		A	1.0
4	☐	1.000		10515178.94		A	0.8
5	☐	1.000		10325391.93		A	0.3
6	☐	1.000		10218776.58		A	1.0
7	☐	1.000		10317202.90		A	0.6
8	☐	1.000		10286515.75		A	1.3
9	☐	1.000		9720363.05		A	1.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13353121.33		A	0.7
2	☐	1.000					
3	☐	1.000		13384843.13		A	0.6
4	☐	1.000		13339331.61		A	0.2
5	☐	1.000		13122550.64		A	0.7
6	☐	1.000		12902466.48		A	1.8
7	☐	1.000		12722805.23		A	0.5
8	☐	1.000		12321873.57		A	1.1
9	☐	1.000		9941164.30		A	0.6

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7972766.76		A	0.6
2	☐	1.000					
3	☐	1.000		8050495.57		A	0.9
4	☐	1.000		7978702.31		A	0.6
5	☐	1.000		7833182.66		A	0.7
6	☐	1.000		7616473.22		A	0.7
7	☐	1.000		7532047.60		A	0.9
8	☐	1.000		7290558.78		A	1.1
9	☐	1.000		5701673.81		P	1.1

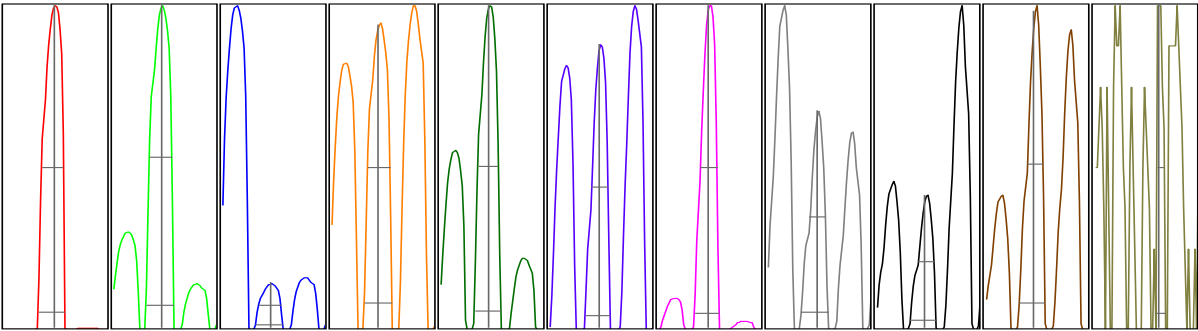
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7040219-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	21224	1.49	5.00	
24	294308	1.89	5.00	
25	40934	1.08	5.00	
26	47369	1.31	5.00	
59	105138	0.96	5.00	
113	13118	2.39	5.00	
115	153783	3.98	5.00	
206	38189	0.99	5.00	
207	35199	1.01	5.00	
208	83166	0.99	5.00	
220	0	81.96		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	21428	21421	21300	21300	20669
24	290859	294246	289521	293207	303705
25	41105	41332	40986	41066	40178
26	47643	47985	47350	47524	46343
59	105503	106173	104491	105793	103729
113	13427	13357	13113	13059	12633
115	160993	158517	152816	150988	145602
206	38269	38583	38092	38408	37593
207	35249	35430	35351	35388	34576
208	83754	83564	83477	83307	81728
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	35340	9.00	8.9 - 9.1		0.780	0.900	
24	479247	23.95	23.9 - 24.1		0.810	0.900	
25	67245	24.95	24.9 - 25.1		0.789	0.900	
26	76860	25.90	25.9 - 26.1		0.804	0.900	
59	188439	58.95	58.9 - 59.1		0.776	0.900	
113	26851	113.00	112.9 - 113.1		0.725	0.900	
115	315436	115.00	114.9 - 115.1		0.719	0.900	
206	79309	206.00	205.9 - 206.1		0.775	0.900	
207	71315	206.95	206.9 - 207.1		0.734	0.900	
208	169904	207.95	207.9 - 208.1		0.740	0.900	
220	0	220.40	-		0.244		

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	7.9	V	Deflect	13.4	V
Extract 2	-115.0	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	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	28395	2.53	
89	63855	2.36	
205	34891	1.89	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	29642	28034	27827	28178	28293
89	66507	62985	63389	62874	63518
205	36045	34567	34712	34740	34392

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	7.8	V	Deflect	1.6	V
Extract 2	-105.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	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			