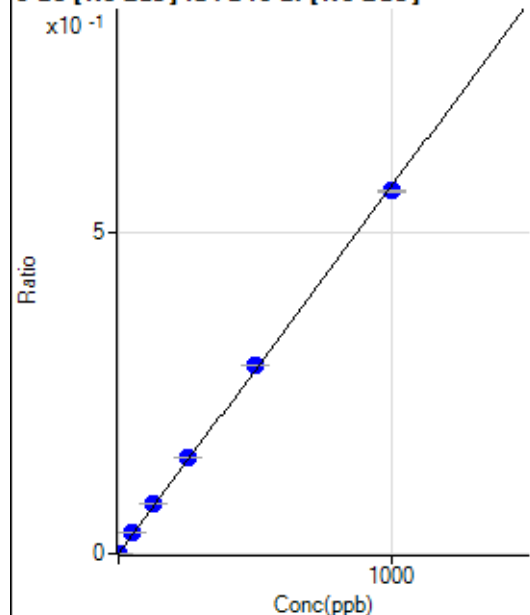


Calibration for 006CALS.d

Batch Folder: D:\ICP-MS Data\P7121018-MS.b\
 Analysis File: P7121018-MS.batch.bin
 DA Date-Time: 2018-12-10 20:00:08
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-12-10 12:50:19
2			
3	005CALS.d	S02	2018-12-10 12:58:45
4	006CALS.d	S03	2018-12-10 13:02:38
5	007CALS.d	S04	2018-12-10 13:06:48
6	008CALS.d	S05	2018-12-10 13:10:36
7	009CALS.d	S06	2018-12-10 13:14:22
8	010CALS.d	S07	2018-12-10 13:18:06
9	011CALS.d	S08	2018-12-10 13:21:49

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12.97	0.0000	P	98.7
2	☐	0.100					
3	☐	1.000	1.034	3624.60	0.0006	P	4.0
4	☐	50.000	56.023	188435.29	0.0321	P	2.7
5	☐	125.000	136.822	447696.54	0.0785	P	0.2
6	☐	250.000	262.590	782063.92	0.1506	P	0.2
7	☐	500.000	514.921	1462203.00	0.2953	P	0.2
8	☐	1000.000	987.613	2852931.58	0.5665	P	0.3
9	☐			435.20	0.0001	P	8.2

$$y = 5.7356\text{E-}004 * x + 2.1913\text{E-}006$$

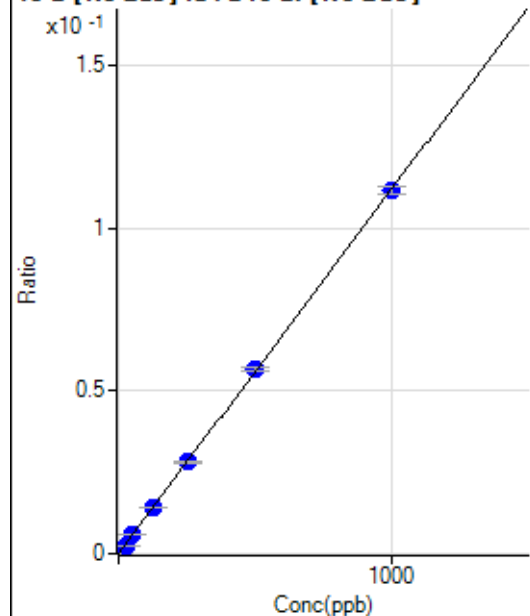
$$R = 0.9997$$

$$DL = 0.01132$$

$$BEC = 0.00382$$

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	272.23	0.0000	P	28.8
2	☐	2.500					
3	☐	25.000	22.288	15491.82	0.0025	P	1.2
4	☐	50.000	52.511	34774.26	0.0059	P	3.0
5	☐	125.000	126.809	81318.77	0.0143	P	2.5
6	☐	250.000	251.812	146744.93	0.0283	P	1.5
7	☐	500.000	506.987	281500.94	0.0569	P	2.6
8	☐	1000.000	995.769	562323.32	0.1116	P	2.2
9	☐			18214.38	0.0036	P	8.8

$$y = 1.1206\text{E-}004 * x + 4.6099\text{E-}005$$

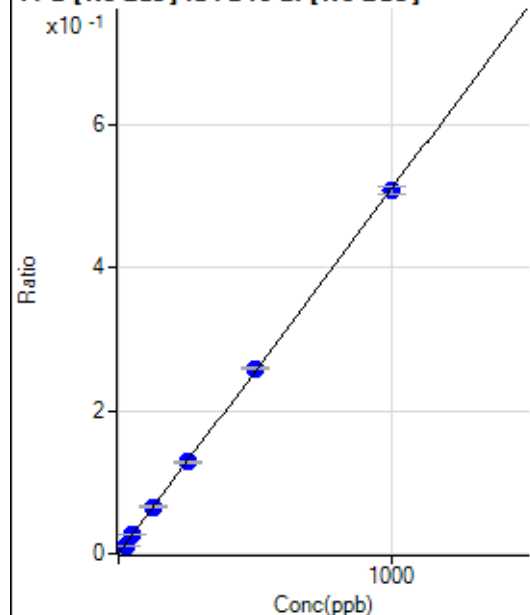
$$R = 1.0000$$

$$DL = 0.3557$$

$$BEC = 0.4114$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1111.20	0.0002	P	4.4
2	☐	2.500					
3	☐	25.000	22.963	72521.42	0.0119	P	2.9
4	☐	50.000	52.705	158814.33	0.0271	P	4.3
5	☐	125.000	128.594	375504.71	0.0658	P	1.9
6	☐	250.000	252.224	669416.28	0.1289	P	1.9
7	☐	500.000	508.394	1285750.54	0.2597	P	1.9
8	☐	1000.000	994.714	2558591.03	0.5080	P	2.0
9	☐			84263.72	0.0165	P	9.9

$$y = 5.1046\text{E-}004 * x + 1.8806\text{E-}004$$

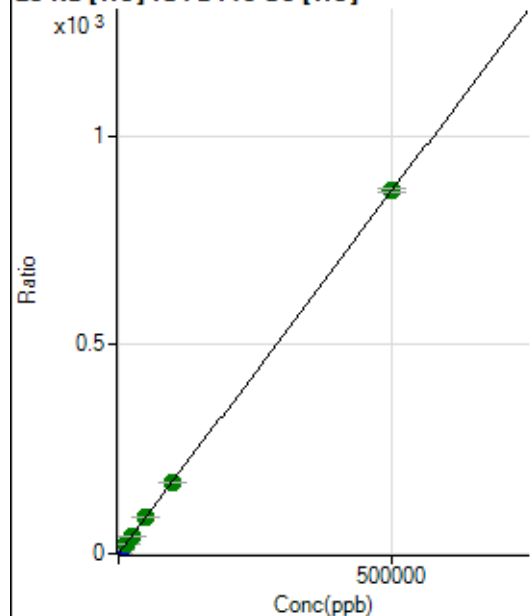
$$R = 0.9999$$

$$DL = 0.04835$$

$$BEC = 0.3684$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5929.17	0.0161	P	1.5
2	☐	50.000					
3	☐	500.000	443.305	294012.34	0.7845	P	0.0
4	☐	5000.000	4827.386	3044013.72	8.3836	P	0.2
5	☐	12500.000	12286.695	7021807.88	21.3130	A	0.5
6	☐	25000.000	24481.162	12525503.40	42.4500	A	0.7
7	☐	50000.000	49677.179	24726680.41	86.1229	A	0.9
8	☐	100000.00	98043.779	51184409.48	169.9581	A	0.3
9	☐	500000.00	500456.58	290345670.3	867.4712	A	1.0

$$y = 0.0017 * x + 0.0161$$

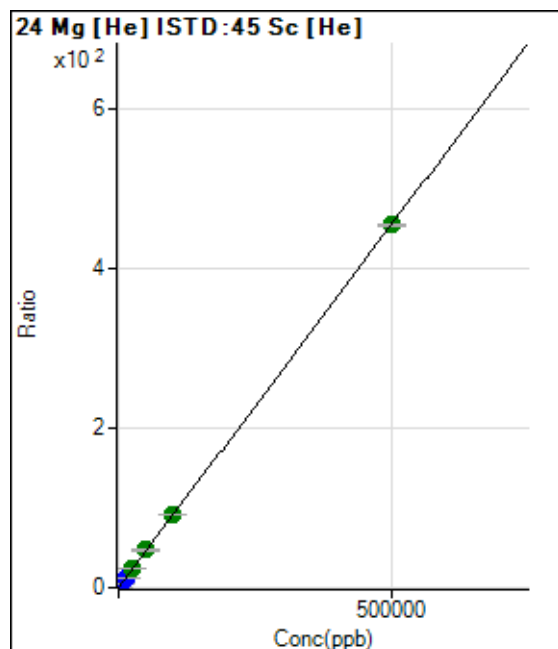
$$R = 1.0000$$

$$DL = 0.406$$

$$BEC = 9.307$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	122.23	0.0003	P	46.6
2	☐	50.000					
3	☐	500.000	463.449	158145.17	0.4220	P	0.7
4	☐	5000.000	5079.353	1678064.35	4.6216	P	0.2
5	☐	12500.000	12856.966	3853908.98	11.6978	P	0.3
6	☐	25000.000	25605.771	6874037.39	23.2968	A	0.9
7	☐	50000.000	51676.343	13498783.46	47.0162	A	1.0
8	☐	100000.00	101147.84	27714539.51	92.0260	A	0.3
9	☐	500000.00	499562.82	152139706.1	454.5095	A	0.8

$$y = 9.0981\text{E-}004 * x + 3.2997\text{E-}004$$

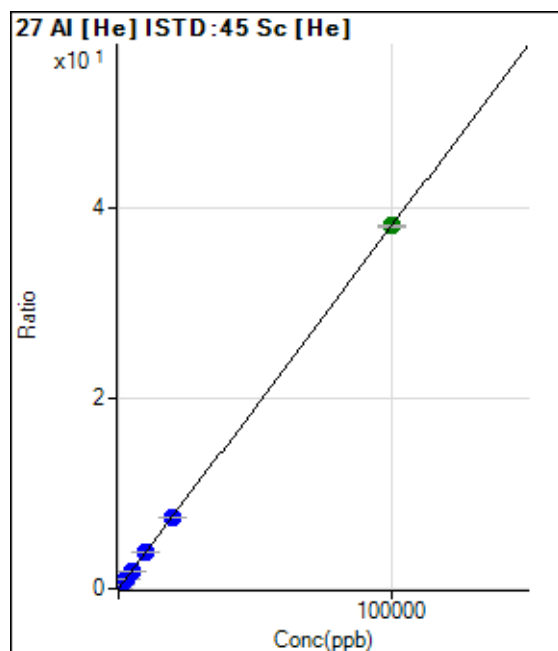
$$R = 1.0000$$

$$DL = 0.5067$$

$$BEC = 0.3627$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	52.78	0.0001	P	45.0
2	☐	2.000					
3	☐	20.000	17.778	2597.55	0.0069	P	1.4
4	☐	1000.000	986.239	136772.77	0.3767	P	0.9
5	☐	2500.000	2490.629	313343.88	0.9511	P	0.6
6	☐	5000.000	4942.453	556864.20	1.8873	P	0.5
7	☐	10000.000	9885.067	1083683.09	3.7744	P	0.6
8	☐	20000.000	19767.013	2272983.47	7.5475	P	0.5
9	☐	100000.00	100061.34	12788170.08	38.2052	A	0.6

$$y = 3.8182\text{E-}004 * x + 1.4316\text{E-}004$$

$$R = 1.0000$$

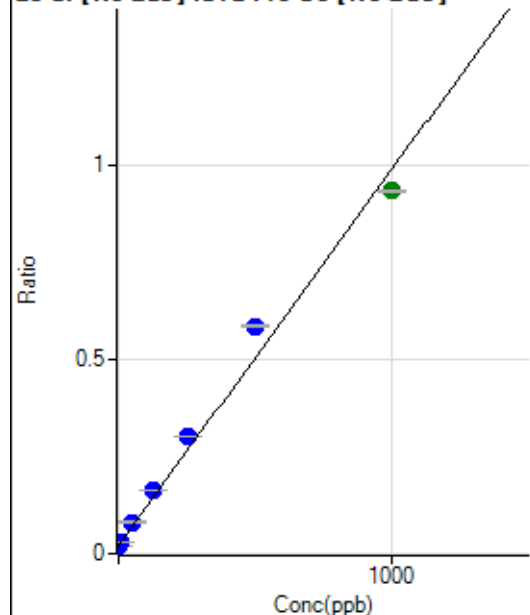
$$DL = 0.5063$$

$$BEC = 0.3749$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	189814.20	0.0212	P	0.5
2	☐	1.000					
3	☐	10.000	8.921	273001.39	0.0298	P	0.7
4	☐	50.000	61.908	707172.40	0.0810	P	5.2
5	☐	125.000	148.946	1402772.10	0.1651	P	0.6
6	☐	250.000	289.675	2291453.42	0.3011	P	0.8
7	☐	500.000	584.645	4206474.92	0.5862	P	0.6
8	☐	1000.000	944.181	6819837.18	0.9337	A	0.6
9	☐			692059.60	0.0914	P	1.7

$$y = 9.6647\text{E-}004 * x + 0.0212$$

$$R = 0.9933$$

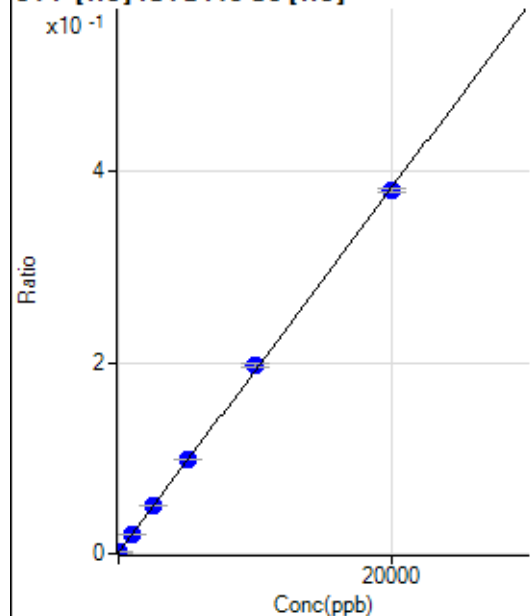
$$DL = 0.3535$$

$$BEC = 21.9$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-25.816	161.12	0.0004	P	23.8
2	☐	0.000					
3	☐	0.000	25.816	533.36	0.0014	P	11.6
4	☐	1000.000	1008.986	7324.31	0.0202	P	4.3
5	☐	2500.000	2582.539	16531.94	0.0502	P	3.4
6	☐	5000.000	5087.681	28898.36	0.0979	P	0.6
7	☐	10000.000	10244.595	56348.74	0.1963	P	1.9
8	☐	20000.000	19845.015	114231.76	0.3793	P	1.2
9	☐			161.12	0.0005	P	25.2

$$y = 1.9067\text{E-}005 * x + 9.3070\text{E-}004$$

$$R = 0.9999$$

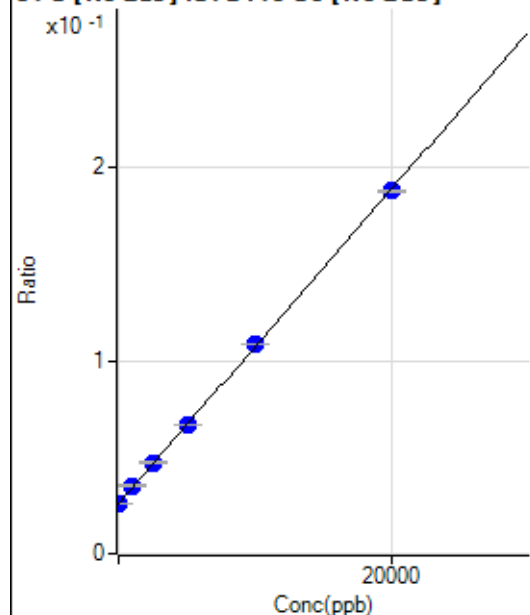
$$DL = 21.15$$

$$BEC = 48.81$$

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	-23.495	231234.01	0.0258	P	0.7
2	☐	0.000					
3	☐	0.000	23.495	239802.64	0.0262	P	1.2
4	☐	1000.000	1135.460	307649.81	0.0352	P	4.4
5	☐	2500.000	2614.287	401744.48	0.0473	P	0.4
6	☐	5000.000	5019.232	509097.09	0.0669	P	0.6
7	☐	10000.000	10182.580	782146.15	0.1090	P	0.3
8	☐	20000.000	19882.843	1373824.95	0.1881	P	0.8
9	☐			177273.03	0.0234	P	1.4

$$y = 8.1539\text{E-}006 * x + 0.0260$$

$$R = 0.9999$$

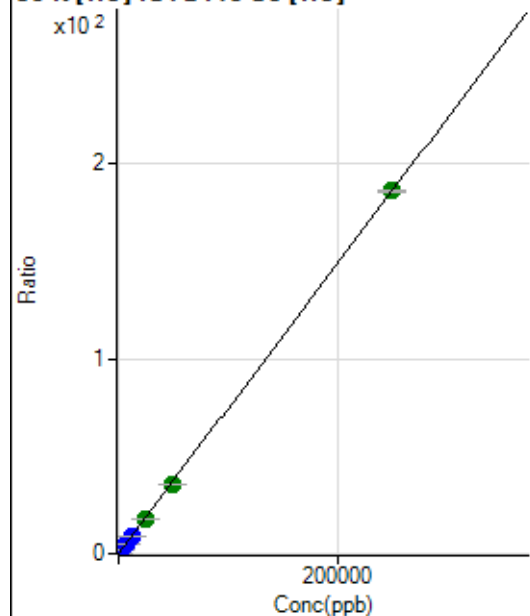
$$DL = 93.9$$

$$BEC = 3185$$

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	11226.89	0.0305	P	1.0
2	☐	50.000					
3	☐	500.000	462.833	140408.54	0.3747	P	0.7
4	☐	2500.000	2445.408	671252.53	1.8487	P	0.1
5	☐	6250.000	6136.479	1513221.46	4.5930	P	0.3
6	☐	12500.000	11994.681	2640461.56	8.9486	P	0.4
7	☐	25000.000	24172.200	5168730.89	18.0027	A	1.0
8	☐	50000.000	47946.230	10745044.08	35.6788	A	0.3
9	☐	250000.00	250522.25	62358775.70	186.2949	A	0.4

$$y = 7.4350\text{E-}004 * x + 0.0305$$

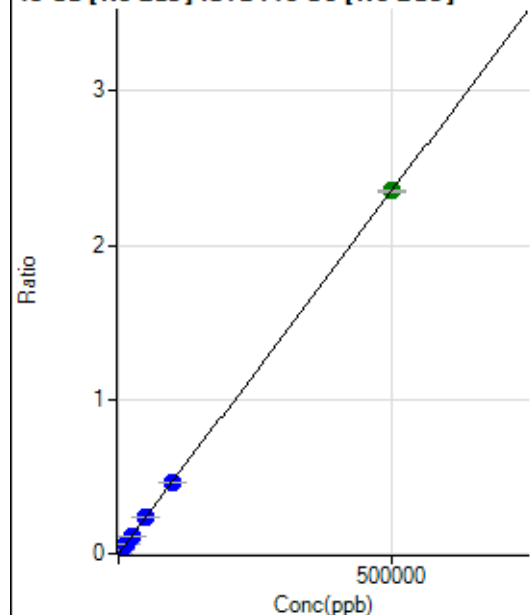
$$R = 1.0000$$

$$DL = 1.176$$

$$BEC = 41.08$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	250.01	0.0000	P	14.6
2	☐	50.000					
3	☐	500.000	457.066	19936.36	0.0022	P	2.6
4	☐	5000.000	5098.177	209439.16	0.0240	P	3.8
5	☐	12500.000	12614.817	503715.01	0.0593	P	0.4
6	☐	25000.000	24848.211	888543.72	0.1168	P	0.7
7	☐	50000.000	49791.890	1678656.72	0.2339	P	0.7
8	☐	100000.00	97877.645	3358781.04	0.4598	P	0.3
9	☐	500000.00	500449.06	17797206.12	2.3510	A	0.5

$$y = 4.6978\text{E-}006 * x + 2.7874\text{E-}005$$

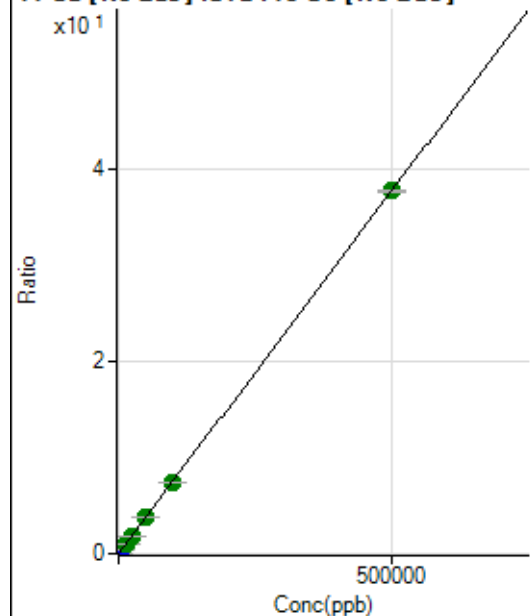
$$R = 1.0000$$

$$DL = 2.598$$

$$BEC = 5.933$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9899.01	0.0011	P	6.1
2	☐	50.000					
3	☐	500.000	455.740	324656.68	0.0354	P	1.0
4	☐	5000.000	5115.518	3373403.35	0.3863	P	4.3
5	☐	12500.000	12423.805	7956957.12	0.9365	A	0.4
6	☐	25000.000	24694.743	14158502.92	1.8605	A	0.4
7	☐	50000.000	49623.515	26818875.77	3.7375	A	0.2
8	☐	100000.00	98256.718	54046205.72	7.3992	A	0.3
9	☐	500000.00	500402.36	285221584.1	37.6784	A	0.4

$$y = 7.5294\text{E-}005 * x + 0.0011$$

$$R = 1.0000$$

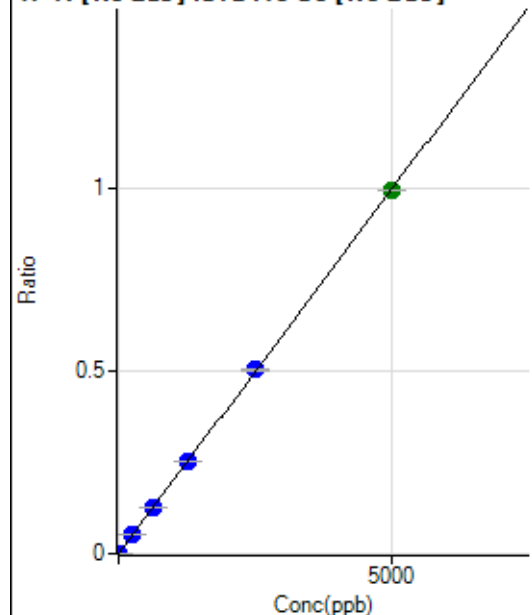
$$DL = 2.674$$

$$BEC = 14.66$$

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	102.78	0.0000	P	20.8
2	☐	0.500					
3	☐	5.000	4.955	9133.75	0.0010	P	4.6
4	☐	250.000	264.140	458763.46	0.0525	P	4.0
5	☐	625.000	641.910	1084345.75	0.1276	P	0.4
6	☐	1250.000	1262.387	1910027.21	0.2510	P	0.2
7	☐	2500.000	2524.188	3601115.71	0.5018	P	0.2
8	☐	5000.000	4981.988	7234737.49	0.9905	A	0.1
9	☐			4014.60	0.0005	P	5.4

$$y = 1.9881\text{E-}004 * x + 1.1465\text{E-}005$$

$$R = 1.0000$$

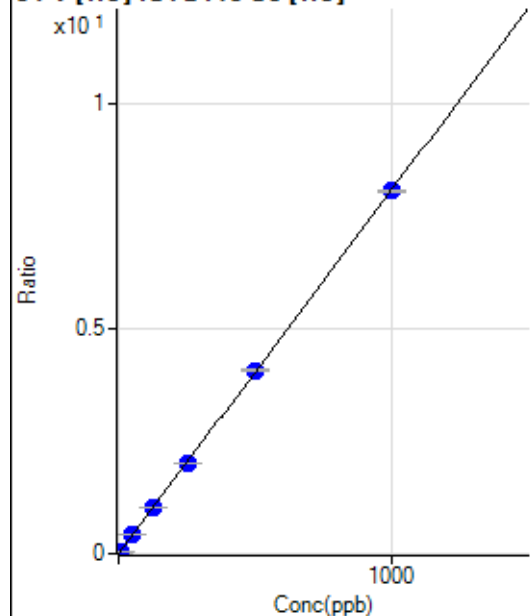
$$DL = 0.03597$$

$$BEC = 0.05767$$

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	7.78	0.0000	P	26.3
2	☐	0.500					
3	☐	5.000	5.056	15324.81	0.0409	P	1.2
4	☐	50.000	50.660	148704.89	0.4096	P	0.1
5	☐	125.000	127.220	338839.16	1.0285	P	0.1
6	☐	250.000	248.975	593887.01	2.0127	P	0.5
7	☐	500.000	504.147	1170114.04	4.0755	P	0.9
8	☐	1000.000	997.872	2429384.88	8.0667	P	0.7
9	☐			831.15	0.0025	P	3.3

$$y = 0.0081 * x + 2.1219\text{E-}005$$

$$R = 1.0000$$

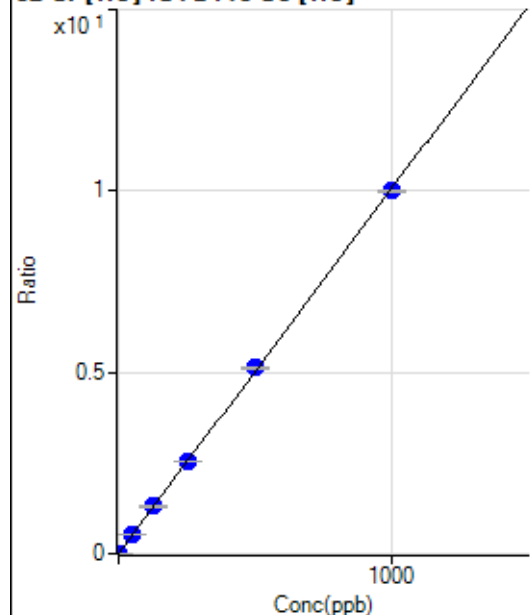
$$DL = 0.002068$$

$$BEC = 0.002625$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1005.61	0.0027	P	0.9
2	☐	0.200					
3	☐	2.000	1.932	8305.79	0.0222	P	5.1
4	☐	50.000	51.669	189656.76	0.5223	P	0.7
5	☐	125.000	128.963	428181.91	1.2997	P	0.5
6	☐	250.000	253.329	752526.39	2.5503	P	0.1
7	☐	500.000	508.567	1469191.87	5.1172	P	0.6
8	☐	1000.000	994.306	3012219.95	10.0020	P	0.3
9	☐			128339.21	0.3834	P	0.6

$$y = 0.0101 * x + 0.0027$$

$$R = 0.9999$$

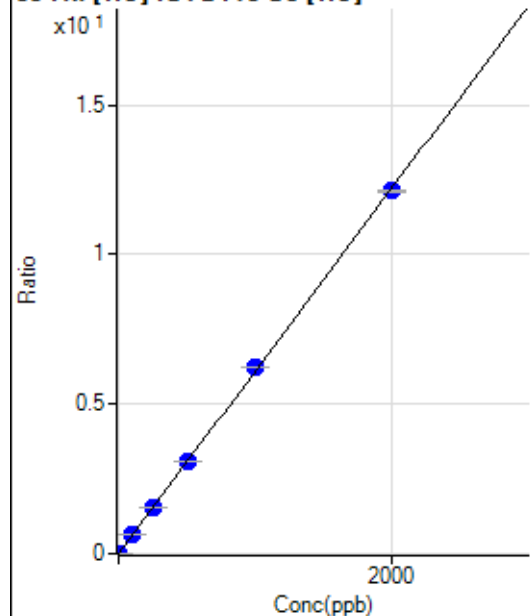
$$DL = 0.007751$$

$$BEC = 0.272$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0002	P	7.5
2	☐	0.100					
3	☐	1.000	0.971	2309.11	0.0062	P	2.0
4	☐	100.000	101.878	225734.42	0.6217	P	0.6
5	☐	250.000	256.117	514794.86	1.5625	P	0.3
6	☐	500.000	507.043	912697.40	3.0932	P	0.2
7	☐	1000.000	1018.908	1784564.04	6.2155	P	0.4
8	☐	2000.000	1987.927	3652036.96	12.1265	P	0.7
9	☐			26543.04	0.0793	P	2.1

$$y = 0.0061 * x + 2.4159E-004$$

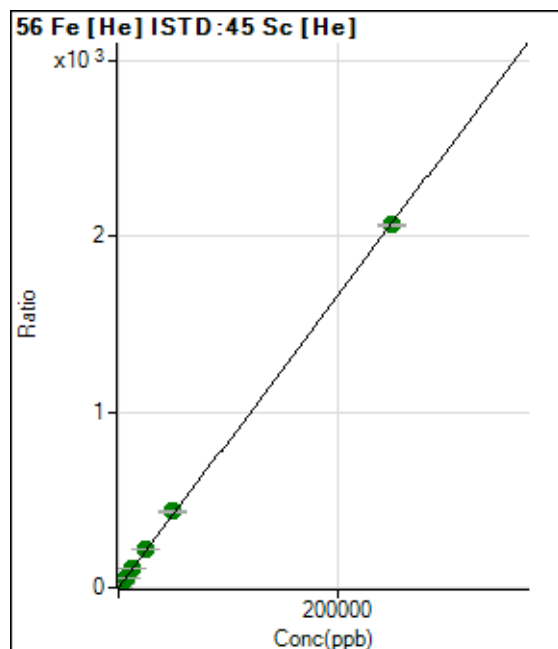
$$R = 0.9999$$

$$DL = 0.008918$$

$$BEC = 0.0396$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3287.50	0.0089	P	2.3
2	☐	5.000					
3	☐	50.000	52.567	166360.08	0.4439	P	0.2
4	☐	2500.000	2693.913	8096777.96	22.2997	A	0.3
5	☐	6250.000	6797.748	18534452.50	56.2568	A	0.6
6	☐	12500.000	13424.039	32777563.46	111.0860	A	0.8
7	☐	25000.000	26833.020	63749524.11	222.0384	A	0.9
8	☐	50000.000	52221.694	130136805.6	432.1166	A	0.1
9	☐	250000.00	249310.52	690482489.5	2,062.925	A	0.5

$$y = 0.0083 * x + 0.0089$$

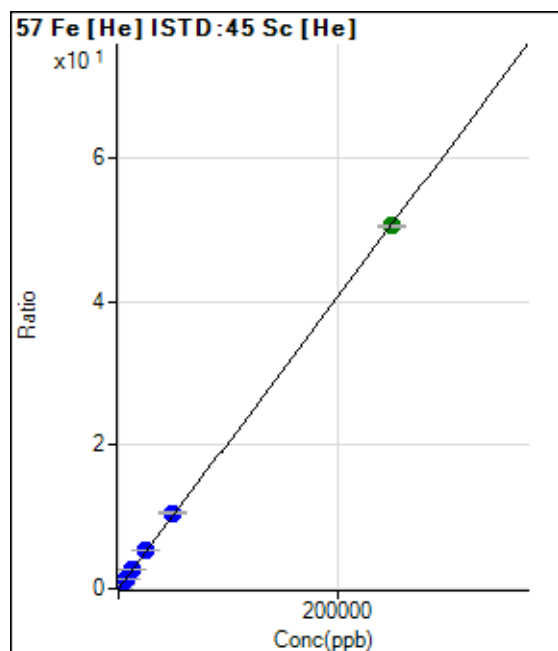
$$R = 0.9999$$

$$DL = 0.07619$$

$$BEC = 1.081$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0002	P	12.8
2	☐	5.000					
3	☐	50.000	55.441	4310.03	0.0115	P	1.7
4	☐	2500.000	2695.551	198840.73	0.5476	P	0.2
5	☐	6250.000	6799.598	454989.92	1.3810	P	0.6
6	☐	12500.000	13454.795	806270.61	2.7325	P	0.9
7	☐	25000.000	26824.319	1564048.54	5.4475	P	0.6
8	☐	50000.000	52073.017	3184759.50	10.5748	P	0.7
9	☐	250000.00	249339.52	16948049.10	50.6340	A	0.2

$$y = 2.0307E-004 * x + 2.4187E-004$$

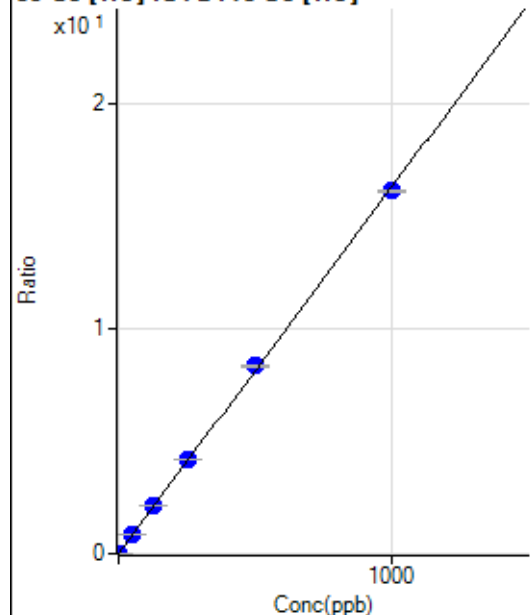
$$R = 0.9999$$

$$DL = 0.4559$$

$$BEC = 1.191$$

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	98.89	0.0003	P	34.5
2	☐	0.100					
3	☐	1.000	1.001	6204.73	0.0166	P	1.5
4	☐	50.000	53.102	313888.64	0.8645	P	0.3
5	☐	125.000	132.239	709139.59	2.1525	P	0.4
6	☐	250.000	256.853	1233540.36	4.1805	P	0.2
7	☐	500.000	513.431	2399204.51	8.3563	P	0.6
8	☐	1000.000	990.511	4855003.47	16.1207	P	0.8
9	☐			63688.60	0.1903	P	0.6

$$y = 0.0163 * x + 2.7045E-004$$

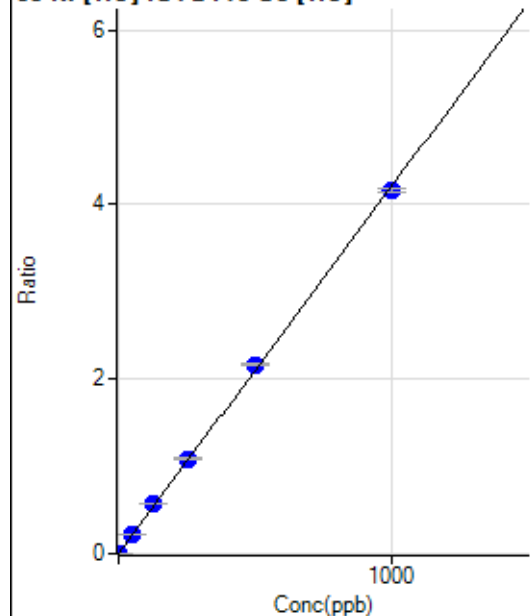
$$R = 0.9998$$

$$DL = 0.01718$$

$$BEC = 0.01662$$

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	75.56	0.0002	P	43.3
2	☐	0.100					
3	☐	1.000	1.044	1723.46	0.0046	P	3.1
4	☐	50.000	54.816	83801.99	0.2308	P	0.3
5	☐	125.000	134.932	187077.64	0.5678	P	0.1
6	☐	250.000	259.196	321791.32	1.0906	P	0.1
7	☐	500.000	515.920	623198.01	2.1705	P	0.3
8	☐	1000.000	988.259	1252085.27	4.1575	P	1.0
9	☐			43078.86	0.1287	P	1.1

$$y = 0.0042 * x + 2.0700E-004$$

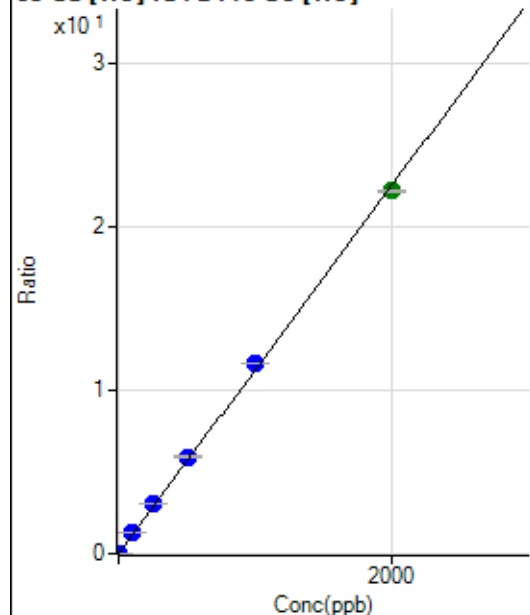
$$R = 0.9997$$

$$DL = 0.06394$$

$$BEC = 0.04921$$

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	403.34	0.0011	P	12.1
2	☐	0.200					
3	☐	2.000	2.058	9076.28	0.0242	P	1.1
4	☐	100.000	110.280	450195.38	1.2399	P	0.5
5	☐	250.000	273.574	1012845.22	3.0742	P	0.4
6	☐	500.000	527.599	1749098.45	5.9277	P	0.2
7	☐	1000.000	1033.811	3334602.14	11.6141	P	0.3
8	☐	2000.000	1972.734	6674085.11	22.1613	A	0.3
9	☐			14709.78	0.0440	P	1.9

$$y = 0.0112 * x + 0.0011$$

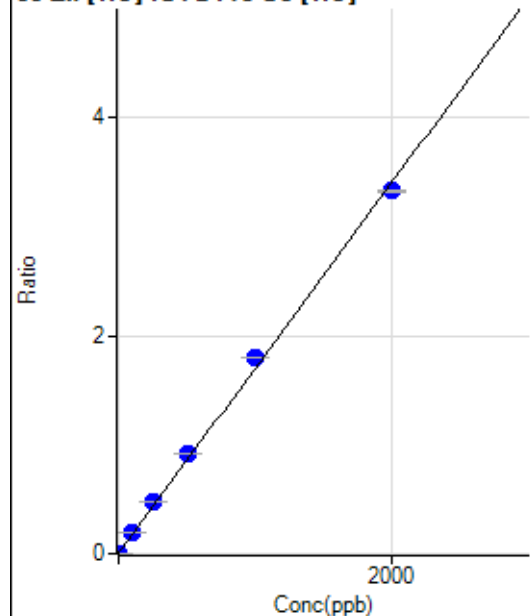
$$R = 0.9996$$

$$DL = 0.03533$$

$$BEC = 0.09774$$

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	1015.61	0.0028	P	5.0
2	☐	0.200					
3	☐	2.000	2.098	2372.46	0.0063	P	4.9
4	☐	100.000	109.563	68623.61	0.1890	P	0.1
5	☐	250.000	274.788	154790.27	0.4698	P	0.8
6	☐	500.000	538.898	271101.54	0.9188	P	0.2
7	☐	1000.000	1057.918	517083.19	1.8010	P	0.8
8	☐	2000.000	1957.740	1003015.91	3.3305	P	0.5
9	☐			8822.81	0.0264	P	1.2

$$y = 0.0017 * x + 0.0028$$

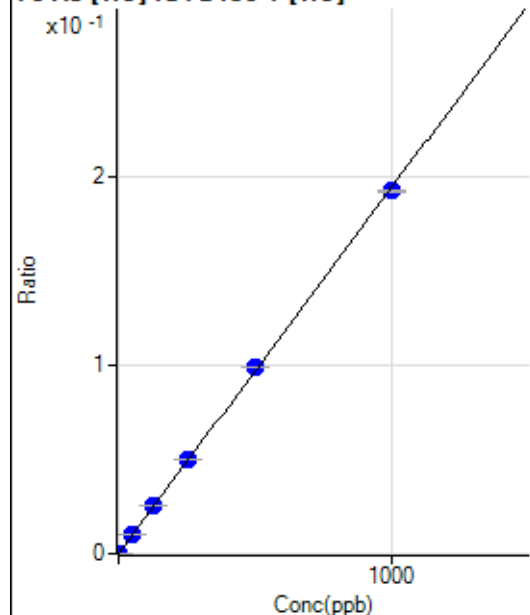
$$R = 0.9991$$

$$DL = 0.245$$

$$BEC = 1.626$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.85	0.0000	P	101.
2	☐	0.100					
3	☐	1.000	0.957	359.88	0.0002	P	4.1
4	☐	50.000	54.643	19885.28	0.0106	P	1.0
5	☐	125.000	133.124	44874.49	0.0258	P	0.5
6	☐	250.000	256.688	78402.20	0.0498	P	0.2
7	☐	500.000	511.492	152817.77	0.0992	P	0.1
8	☐	1000.000	991.334	306609.22	0.1922	P	0.4
9	☐			456.80	0.0003	P	9.6

$$y = 1.9386\text{E-}004 * x + 9.8448\text{E-}007$$

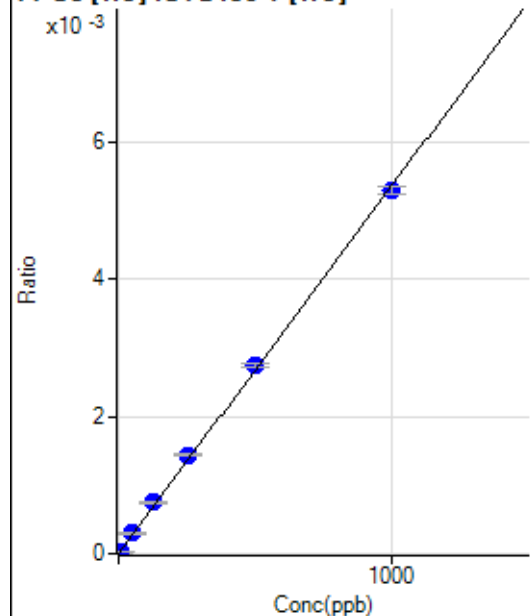
$$R = 0.9999$$

$$DL = 0.01547$$

$$BEC = 0.005078$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	5.374	56.67	0.0000	P	31.1
4	☐	50.000	56.099	564.46	0.0003	P	6.7
5	☐	125.000	140.239	1305.64	0.0008	P	3.8
6	☐	250.000	268.508	2264.66	0.0014	P	3.1
7	☐	500.000	512.130	4224.01	0.0027	P	1.5
8	☐	1000.000	987.096	8428.14	0.0053	P	2.1
9	☐			3.33	0.0000	P	98.8

$$y = 5.3508\text{E-}006 * x + 5.9952\text{E-}007$$

$$R = 0.9996$$

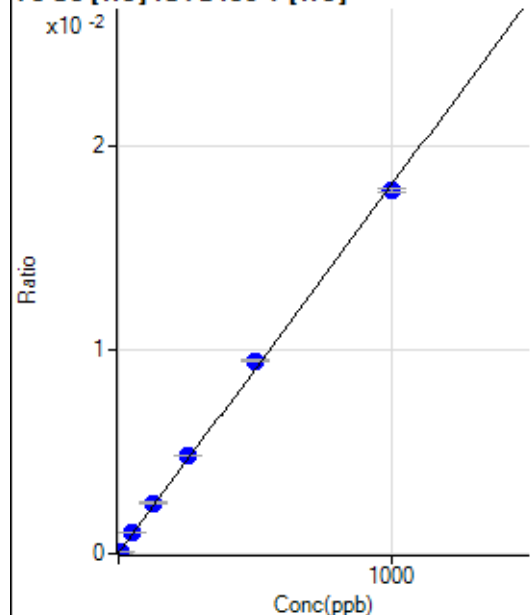
$$DL = 0.5822$$

$$BEC = 0.112$$

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	55.55	0.0000	P	20.4
2	☐	0.500					
3	☐	5.000	5.267	240.13	0.0001	P	9.4
4	☐	50.000	53.950	1882.85	0.0010	P	0.5
5	☐	125.000	135.589	4306.84	0.0025	P	3.3
6	☐	250.000	264.732	7574.26	0.0048	P	0.8
7	☐	500.000	521.528	14551.82	0.0094	P	1.1
8	☐	1000.000	984.030	28381.46	0.0178	P	0.9
9	☐			62.35	0.0000	P	12.3

$$y = 1.8049E-005 * x + 2.9385E-005$$

$$R = 0.9995$$

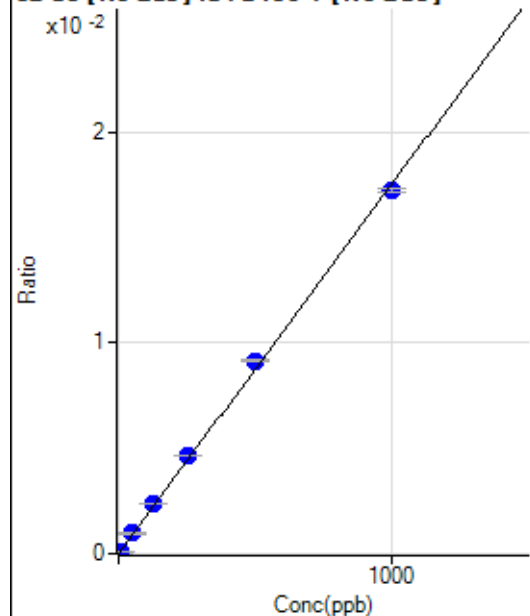
$$DL = 0.9976$$

$$BEC = 1.628$$

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	13.53	0.0000	P	260.
2	☐	0.500					
3	☐	5.000	5.621	1459.46	0.0001	P	4.2
4	☐	50.000	55.887	13812.52	0.0010	P	4.9
5	☐	125.000	136.813	32950.39	0.0024	P	0.4
6	☐	250.000	266.657	58697.27	0.0047	P	0.4
7	☐	500.000	522.186	109098.51	0.0092	P	0.9
8	☐	1000.000	982.969	208581.26	0.0172	P	0.9
9	☐			179.43	0.0000	P	19.9

$$y = 1.7523E-005 * x + 9.2404E-007$$

$$R = 0.9995$$

$$DL = 0.4119$$

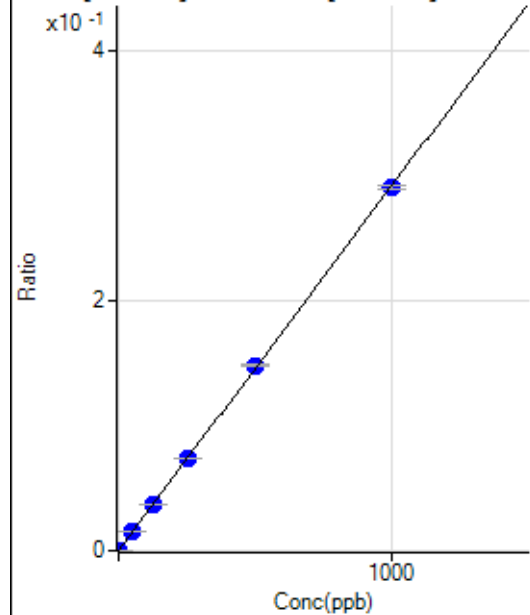
$$BEC = 0.05273$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			536.69		P	3.1
2	☐						
3	☐			515.58		P	16.5
4	☐			552.24		P	8.2
5	☐			540.02		P	8.6
6	☐			447.79		P	2.8
7	☐			446.68		P	5.2
8	☐			491.13		P	3.1
9	☐			522.24		P	8.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	852.84	0.0001	P	6.0
2	☐	0.100					
3	☐	1.000	0.917	4792.66	0.0003	P	5.4
4	☐	50.000	52.240	215857.74	0.0153	P	4.7
5	☐	125.000	128.601	516876.34	0.0376	P	0.7
6	☐	250.000	253.439	930498.17	0.0741	P	0.6
7	☐	500.000	507.157	1766758.90	0.1482	P	0.8
8	☐	1000.000	995.000	3519957.67	0.2907	P	1.1
9	☐			16774.31	0.0014	P	2.7

$$y = 2.9210\text{E-}004 * x + 5.8707\text{E-}005$$

$$R = 1.0000$$

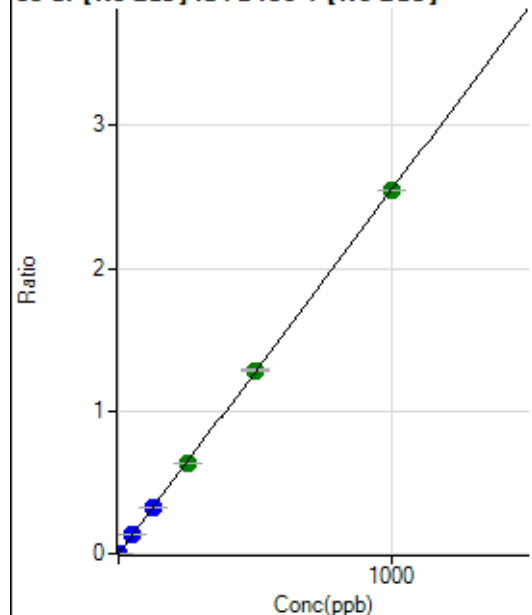
$$DL = 0.03611$$

$$BEC = 0.201$$

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	252.79	0.0000	P	22.4
2	☐	0.100					
3	☐	1.000	0.915	34484.06	0.0023	P	1.1
4	☐	50.000	52.007	1868813.78	0.1326	P	4.8
5	☐	125.000	128.442	4499495.76	0.3275	P	0.7
6	☐	250.000	249.824	8000474.31	0.6370	A	0.1
7	☐	500.000	504.036	15321162.67	1.2852	A	0.9
8	☐	1000.000	997.495	30796636.10	2.5434	A	0.1
9	☐			140669.48	0.0116	P	0.9

$$y = 0.0025 * x + 1.7406E-005$$

$$R = 1.0000$$

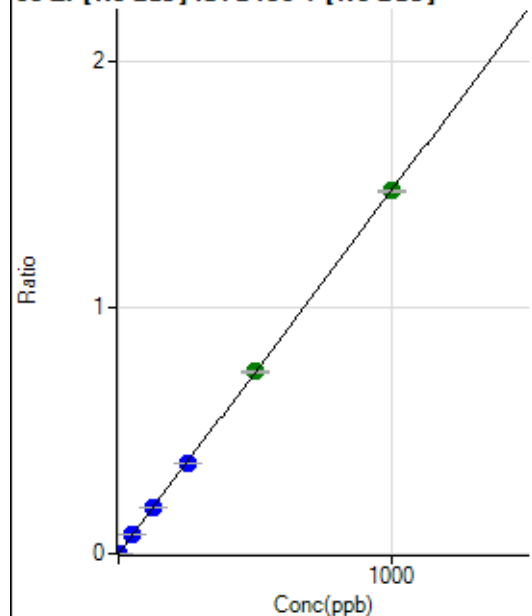
$$DL = 0.004592$$

$$BEC = 0.006826$$

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	1033.41	0.0001	P	18.0
2	☐	0.100					
3	☐	1.000	0.945	21503.01	0.0015	P	2.6
4	☐	50.000	51.971	1081604.12	0.0768	P	4.6
5	☐	125.000	127.815	2592095.30	0.1887	P	0.4
6	☐	250.000	250.035	4634188.91	0.3690	P	0.6
7	☐	500.000	500.826	8810319.81	0.7390	A	0.6
8	☐	1000.000	999.128	17851057.17	1.4743	A	0.4
9	☐			9061.65	0.0007	P	3.1

$$y = 0.0015 * x + 7.1174E-005$$

$$R = 1.0000$$

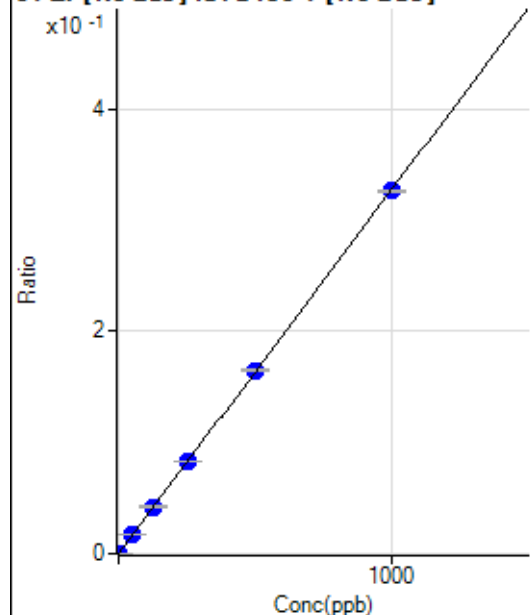
$$DL = 0.02604$$

$$BEC = 0.04824$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	225.01	0.0000	P	10.7
2	☐	0.100					
3	☐	1.000	0.910	4592.62	0.0003	P	3.6
4	☐	50.000	51.982	239744.87	0.0170	P	4.9
5	☐	125.000	129.111	580274.74	0.0422	P	0.6
6	☐	250.000	252.528	1037309.15	0.0826	P	0.6
7	☐	500.000	502.761	1960218.64	0.1644	P	0.9
8	☐	1000.000	997.375	3949453.73	0.3262	P	0.8
9	☐			2039.12	0.0002	P	4.1

$$y = 3.2701\text{E-}004 * x + 1.5488\text{E-}005$$

$$R = 1.0000$$

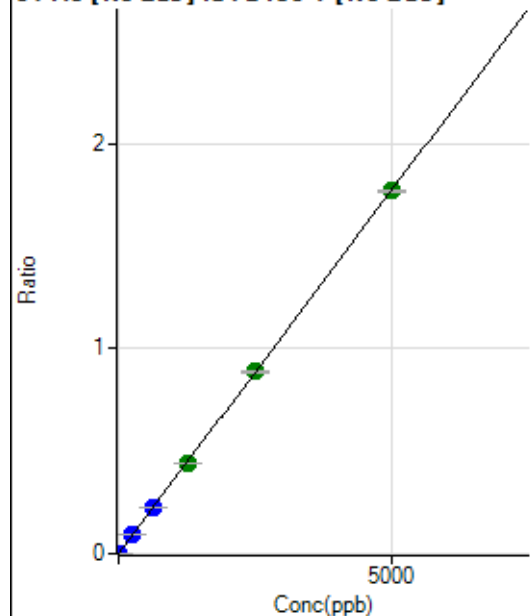
$$DL = 0.01526$$

$$BEC = 0.04736$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	386.13	0.0000	P	12.4
2	☐	0.500					
3	☐	5.000	4.908	25902.10	0.0018	P	3.1
4	☐	250.000	259.945	1297792.79	0.0921	P	4.2
5	☐	625.000	645.129	3139284.51	0.2285	P	0.2
6	☐	1250.000	1246.658	5545191.75	0.4415	A	0.4
7	☐	2500.000	2507.368	10586180.27	0.8880	A	0.6
8	☐	5000.000	4994.138	21415670.27	1.7687	A	0.2
9	☐			25131.14	0.0021	P	1.0

$$y = 3.5414\text{E-}004 * x + 2.6595\text{E-}005$$

$$R = 1.0000$$

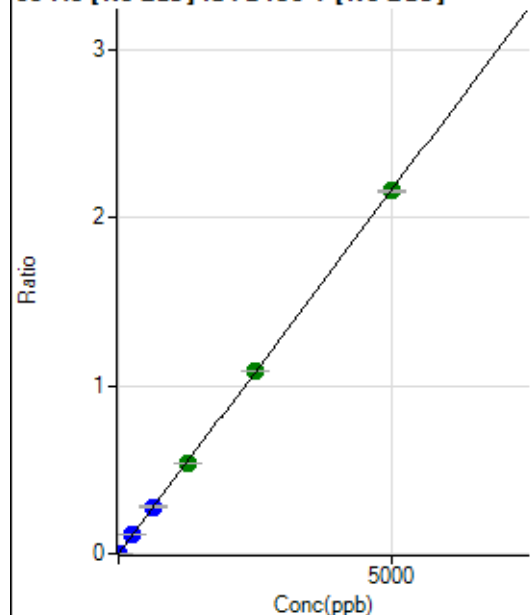
$$DL = 0.02786$$

$$BEC = 0.0751$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.89	0.0000	P	61.7
2	☐	0.500					
3	☐	5.000	4.878	30990.07	0.0021	P	1.9
4	☐	250.000	261.176	1591441.29	0.1129	P	4.3
5	☐	625.000	645.702	3835343.75	0.2792	P	0.8
6	☐	1250.000	1249.816	6786647.11	0.5404	A	0.4
7	☐	2500.000	2510.993	12942246.82	1.0856	A	0.8
8	☐	5000.000	4991.403	26130472.46	2.1580	A	0.4
9	☐			38775.97	0.0032	P	2.4

$$y = 4.3235E-004 * x + 2.6764E-006$$

$$R = 1.0000$$

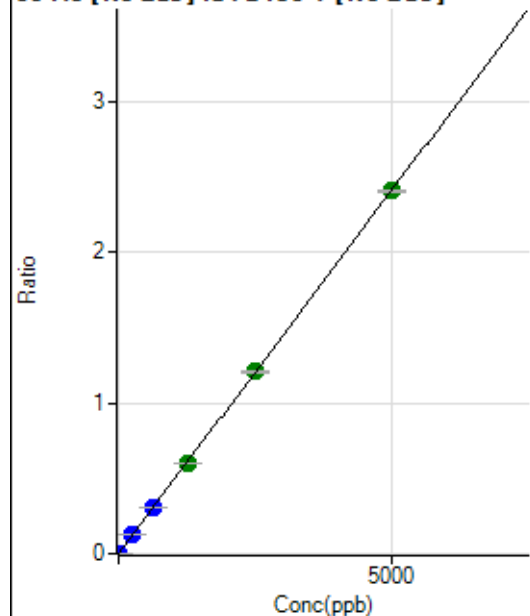
$$DL = 0.01147$$

$$BEC = 0.00619$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.89	0.0000	P	3.6
2	☐	0.500					
3	☐	5.000	4.891	34707.06	0.0024	P	0.5
4	☐	250.000	259.415	1762210.44	0.1250	P	4.1
5	☐	625.000	642.370	4253363.46	0.3096	P	0.7
6	☐	1250.000	1244.846	7535161.80	0.6000	A	0.6
7	☐	2500.000	2505.579	14396053.10	1.2076	A	0.6
8	☐	5000.000	4995.857	29154181.90	2.4078	A	0.2
9	☐			50295.20	0.0041	P	1.1

$$y = 4.8195E-004 * x + 7.8404E-006$$

$$R = 1.0000$$

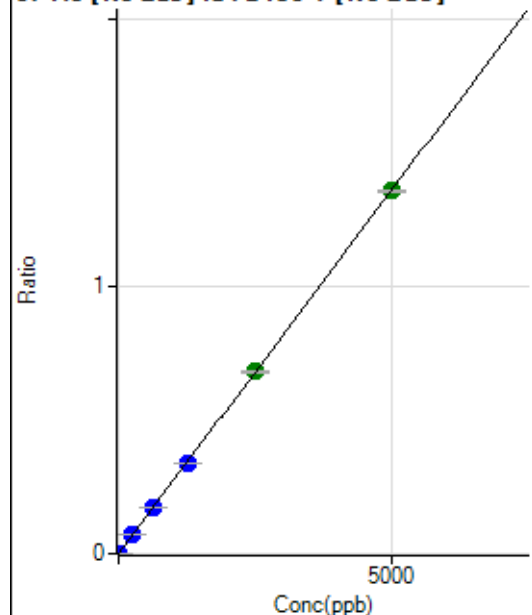
$$DL = 0.001779$$

$$BEC = 0.01627$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	21.7
2	☐	0.500					
3	☐	5.000	4.951	19769.97	0.0013	P	3.0
4	☐	250.000	259.298	993121.73	0.0705	P	4.9
5	☐	625.000	641.700	2396398.40	0.1744	P	0.4
6	☐	1250.000	1251.748	4273084.47	0.3402	P	0.2
7	☐	2500.000	2509.123	8130182.65	0.6820	A	1.0
8	☐	5000.000	4992.449	16430632.83	1.3570	A	0.4
9	☐			23528.48	0.0019	P	2.4

$$y = 2.7180\text{E-}004 * x + 1.5304\text{E-}006$$

$$R = 1.0000$$

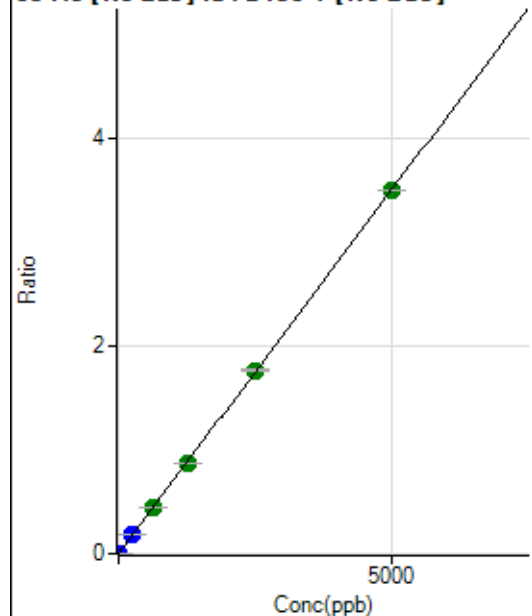
$$DL = 0.003674$$

$$BEC = 0.00563$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.12	0.0000	P	7.8
2	☐	0.500					
3	☐	5.000	4.902	50362.37	0.0034	P	2.9
4	☐	250.000	260.278	2564850.64	0.1820	P	4.9
5	☐	625.000	631.606	6068847.66	0.4417	A	0.5
6	☐	1250.000	1251.230	10989855.02	0.8750	A	0.3
7	☐	2500.000	2519.363	21004089.18	1.7619	A	0.6
8	☐	5000.000	4988.671	42243025.94	3.4887	A	0.1
9	☐			60468.03	0.0050	P	1.1

$$y = 6.9933\text{E-}004 * x + 4.2077\text{E-}006$$

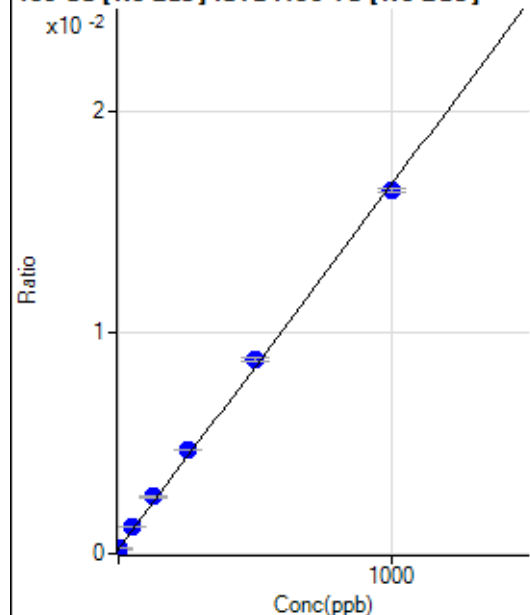
$$R = 1.0000$$

$$DL = 0.001403$$

$$BEC = 0.006017$$

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	4317.53	0.0002	P	3.8
2	☐	0.100					
3	☐	1.000	1.017	4667.63	0.0002	P	2.1
4	☐	50.000	60.219	23762.32	0.0012	P	3.4
5	☐	125.000	143.301	50866.89	0.0026	P	0.9
6	☐	250.000	271.362	87942.02	0.0047	P	1.1
7	☐	500.000	518.285	160352.77	0.0088	P	2.1
8	☐	1000.000	982.719	306050.39	0.0164	P	0.9
9	☐			3511.72	0.0002	P	5.0

$$y = 1.6485\text{E-}005 * x + 2.1210\text{E-}004$$

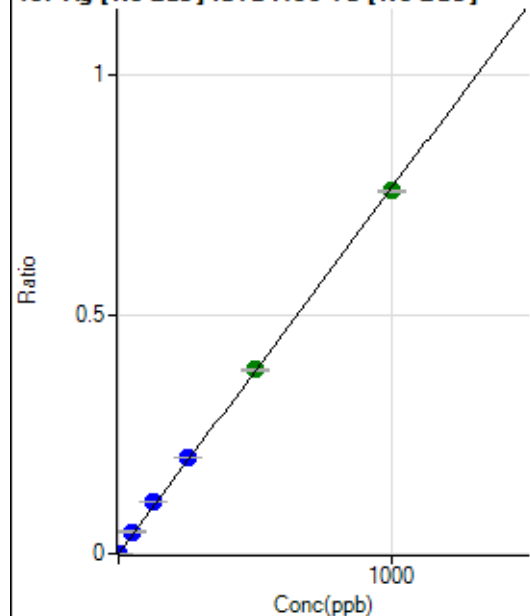
$$R = 0.9994$$

$$DL = 1.477$$

$$BEC = 12.87$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	10.8
2	☐	0.100					
3	☐	1.000	1.032	16157.01	0.0008	P	3.4
4	☐	50.000	59.273	892325.30	0.0453	P	4.5
5	☐	125.000	141.645	2136770.01	0.1081	P	0.8
6	☐	250.000	264.224	3786172.52	0.2017	P	0.3
7	☐	500.000	502.690	7028593.65	0.3838	A	0.7
8	☐	1000.000	992.554	14130822.36	0.7578	A	0.8
9	☐			1175.10	0.0001	P	7.7

$$y = 7.6346\text{E-}004 * x + 4.3671\text{E-}006$$

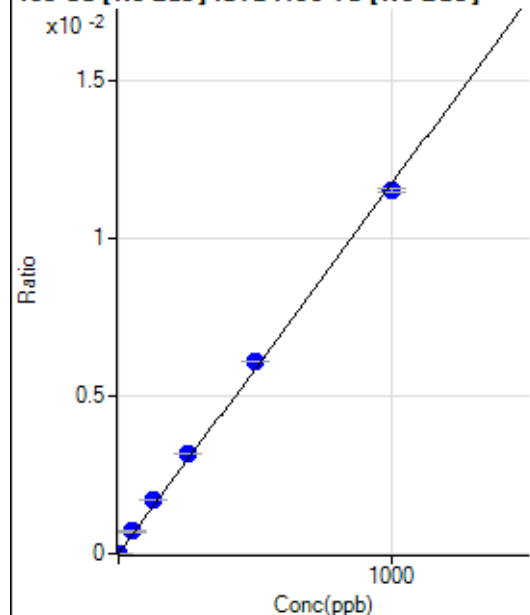
$$R = 0.9998$$

$$DL = 0.001862$$

$$BEC = 0.00572$$

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	8.33	0.0000	P	50.1
2	☐	0.100					
3	☐	1.000	1.113	275.01	0.0000	P	10.1
4	☐	50.000	59.793	13848.65	0.0007	P	4.6
5	☐	125.000	144.728	33576.01	0.0017	P	1.1
6	☐	250.000	270.005	59495.17	0.0032	P	1.0
7	☐	500.000	521.101	112034.99	0.0061	P	0.3
8	☐	1000.000	981.492	214861.17	0.0115	P	1.1
9	☐			55.56	0.0000	P	30.4

$$y = 1.1739\text{E-}005 * x + 4.0948\text{E-}007$$

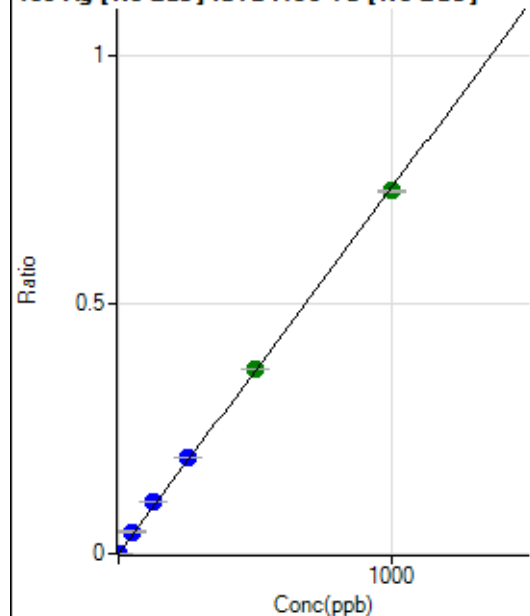
$$R = 0.9993$$

$$DL = 0.05242$$

$$BEC = 0.03488$$

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	44.44	0.0000	P	21.6
2	☐	0.100					
3	☐	1.000	1.041	15625.84	0.0008	P	3.3
4	☐	50.000	59.685	863884.09	0.0438	P	4.2
5	☐	125.000	141.370	2050283.81	0.1038	P	1.1
6	☐	250.000	263.292	3627219.18	0.1933	P	0.6
7	☐	500.000	504.286	6778822.72	0.3701	A	0.5
8	☐	1000.000	992.003	13578238.67	0.7281	A	0.3
9	☐			1122.32	0.0001	P	7.3

$$y = 7.3400\text{E-}004 * x + 2.1833\text{E-}006$$

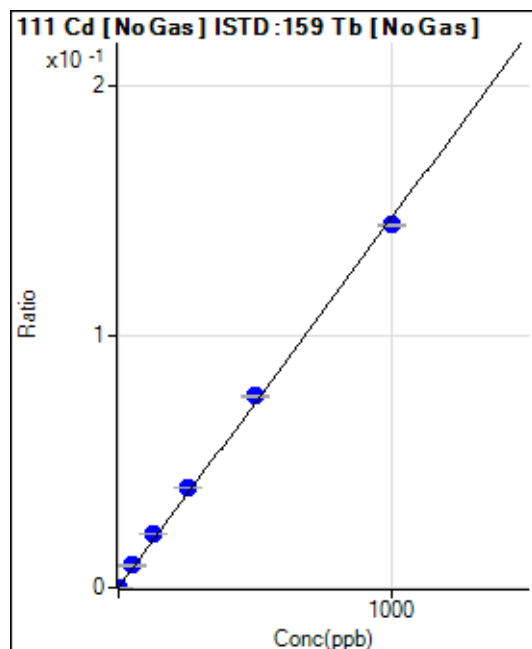
$$R = 0.9998$$

$$DL = 0.001931$$

$$BEC = 0.002974$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	860.73	0.0000	P	4.1
2	☐	0.100					
3	☐	1.000	1.003	3867.29	0.0002	P	3.4
4	☐	50.000	59.786	174060.83	0.0088	P	4.5
5	☐	125.000	143.797	418359.03	0.0212	P	0.6
6	☐	250.000	271.985	750958.65	0.0400	P	0.6
7	☐	500.000	519.630	1399230.26	0.0764	P	0.9
8	☐	1000.000	981.850	2691442.68	0.1443	P	0.7
9	☐			1074.58	0.0001	P	4.5

$$y = 1.4695E-004 * x + 4.2284E-005$$

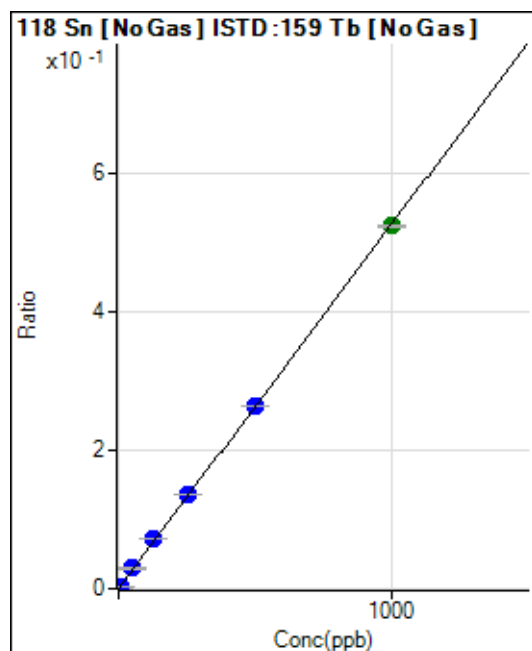
$$R = 0.9994$$

$$DL = 0.0351$$

$$BEC = 0.2877$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	730.61	0.0000	P	10.5
2	☐	0.500					
3	☐	5.000	5.144	56051.49	0.0027	P	2.5
4	☐	50.000	55.919	582222.64	0.0295	P	4.3
5	☐	125.000	135.797	1415776.85	0.0717	P	0.1
6	☐	250.000	257.844	2552930.52	0.1360	P	0.2
7	☐	500.000	501.089	4840511.35	0.2643	P	0.4
8	☐	1000.000	995.848	9794570.01	0.5252	A	0.6
9	☐			12239.14	0.0007	P	5.2

$$y = 5.2739E-004 * x + 3.5891E-005$$

$$R = 0.9999$$

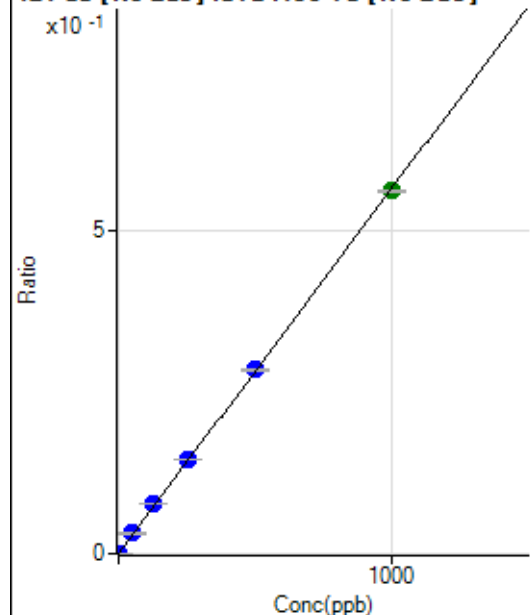
$$DL = 0.02147$$

$$BEC = 0.06805$$

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	25.00	0.0000	P	66.7
2	☐	0.200					
3	☐	2.000	1.946	22502.14	0.0011	P	2.8
4	☐	50.000	55.943	624672.88	0.0317	P	4.5
5	☐	125.000	135.765	1519156.96	0.0769	P	0.3
6	☐	250.000	259.072	2753665.19	0.1467	P	0.2
7	☐	500.000	503.359	5220590.13	0.2851	P	0.8
8	☐	1000.000	994.410	10501473.24	0.5631	A	0.4
9	☐			13821.20	0.0008	P	1.5

$$y = 5.6631\text{E-}004 * x + 1.2278\text{E-}006$$

$$R = 0.9999$$

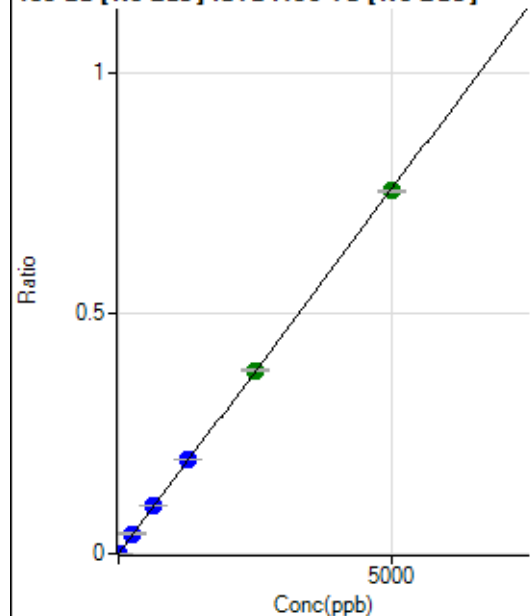
$$DL = 0.004338$$

$$BEC = 0.002168$$

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	83.34	0.0000	P	10.1
2	☐	1.000					
3	☐	10.000	10.110	31378.03	0.0015	P	2.9
4	☐	250.000	275.246	823807.16	0.0418	P	4.3
5	☐	625.000	664.938	1994137.24	0.1009	P	0.6
6	☐	1250.000	1284.201	3658304.55	0.1949	P	0.2
7	☐	2500.000	2517.940	6998917.52	0.3822	A	0.6
8	☐	5000.000	4976.225	14084475.14	0.7553	A	0.4
9	☐			2225.28	0.0001	P	5.5

$$y = 1.5178\text{E-}004 * x + 4.0944\text{E-}006$$

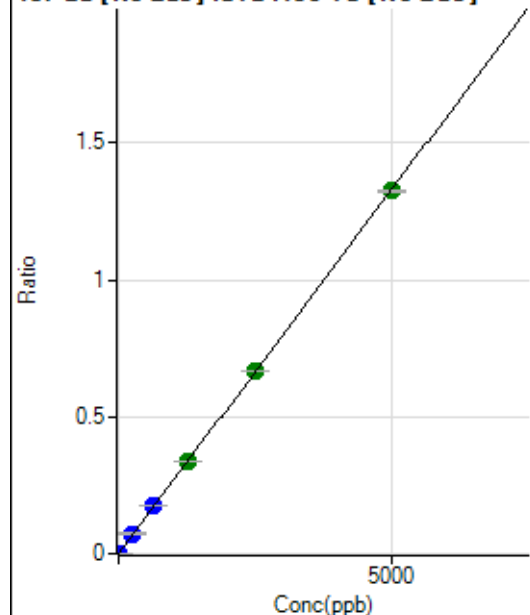
$$R = 0.9999$$

$$DL = 0.008182$$

$$BEC = 0.02698$$

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	91.67	0.0000	P	36.3
2	☐	1.000					
3	☐	10.000	10.070	54686.25	0.0027	P	1.4
4	☐	250.000	274.573	1439375.53	0.0730	P	4.3
5	☐	625.000	664.070	3488200.17	0.1765	P	0.3
6	☐	1250.000	1269.894	6336219.24	0.3376	A	0.6
7	☐	2500.000	2509.842	12219489.34	0.6672	A	0.2
8	☐	5000.000	4983.993	24707463.40	1.3250	A	0.4
9	☐			4056.34	0.0002	P	1.2

$$y = 2.6584E-004 * x + 4.5028E-006$$

$$R = 1.0000$$

$$DL = 0.01846$$

$$BEC = 0.01694$$

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	☐			4.44		P	173.
4	☐			44.45		P	60.6
5	☐			140.00		P	8.2
6	☐			260.01		P	11.2
7	☐			435.58		P	9.7
8	☐			784.50		P	12.7
9	☐			253.35		P	7.0

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	☐			4.44		P	43.4
5	☐			11.11		P	17.3
6	☐			20.00		P	33.4
7	☐			34.44		P	24.3
8	☐			100.00		P	28.9
9	☐			91.11		P	26.5

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.78		P	173.
2	☐						
3	☐			8.33		P	0.0
4	☐			13.89		P	91.6
5	☐			41.67		P	40.0
6	☐			75.00		P	33.3
7	☐			111.11		P	24.1
8	☐			205.57		P	18.3
9	☐			133.34		P	0.0

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	0.0
2	☐						
3	☐			3.33		P	100.
4	☐			17.78		P	28.6
5	☐			32.22		P	86.1
6	☐			40.00		P	8.3
7	☐			104.45		P	6.6
8	☐			210.01		P	8.4
9	☐			53.33		P	31.2

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			61.11		P	28.4
2	☐						
3	☐			66.67		P	45.1
4	☐			66.67		P	25.0
5	☐			72.22		P	40.5
6	☐			50.00		P	72.7
7	☐			69.45		P	50.0
8	☐			105.56		P	43.5
9	☐			152.78		P	30.0

160 Gd [He] No available calibration points

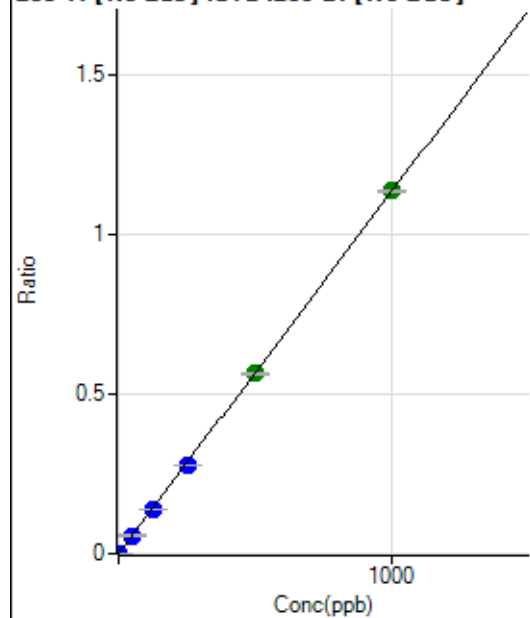
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			194.45		P	12.0
2	☐						
3	☐			212.23		P	7.7
4	☐			227.78		P	2.2
5	☐			214.45		P	17.1
6	☐			190.01		P	9.1
7	☐			184.45		P	10.9
8	☐			212.23		P	1.8
9	☐			212.23		P	18.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			58.34		P	51.5
2	☐						
3	☐			69.45		P	25.0
4	☐			44.45		P	28.7
5	☐			61.12		P	7.9
6	☐			61.12		P	34.3
7	☐			66.67		P	25.0
8	☐			77.78		P	40.6
9	☐			105.56		P	25.4

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.66		P	43.3
2	☐						
3	☐			33.33		P	10.0
4	☐			23.34		P	49.5
5	☐			25.55		P	15.1
6	☐			22.22		P	52.7
7	☐			34.45		P	20.1
8	☐			44.44		P	26.3
9	☐			36.67		P	39.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	122.23	0.0000	P	3.7
2	☐	0.100					
3	☐	1.000	0.861	14180.28	0.0010	P	1.7
4	☐	50.000	50.125	791020.67	0.0568	P	4.8
5	☐	125.000	124.513	1946370.33	0.1410	P	0.2
6	☐	250.000	246.193	3671476.60	0.2787	P	0.6
7	☐	500.000	497.127	7107123.16	0.5628	A	0.9
8	☐	1000.000	1002.443	14218905.70	1.1349	A	0.4
9	☐			3670.11	0.0003	P	10.6

$$y = 0.0011 * x + 8.4337E-006$$

$$R = 1.0000$$

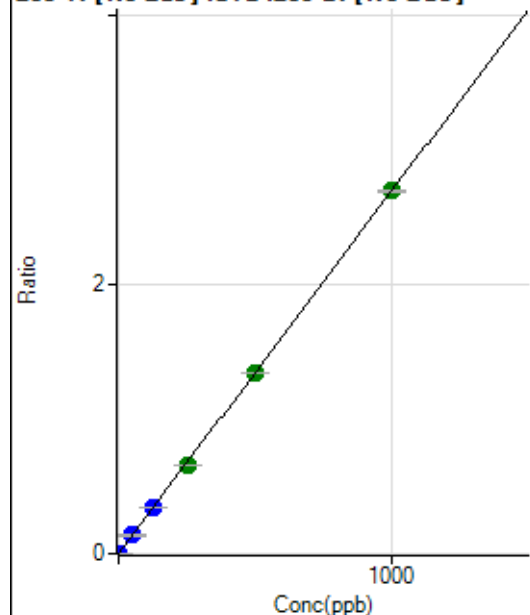
$$DL = 0.0008351$$

$$BEC = 0.007449$$

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	341.69	0.0000	P	6.3
2	☐	0.100					
3	☐	1.000	0.892	35061.00	0.0024	P	1.7
4	☐	50.000	50.787	1909141.45	0.1370	P	4.7
5	☐	125.000	125.986	4691098.80	0.3398	P	0.3
6	☐	250.000	245.937	8736543.77	0.6633	A	0.2
7	☐	500.000	499.983	17026915.49	1.3484	A	0.4
8	☐	1000.000	1000.862	33815592.08	2.6992	A	0.5
9	☐			8917.28	0.0008	P	4.9

$$y = 0.0027 * x + 2.3575E-005$$

$$R = 1.0000$$

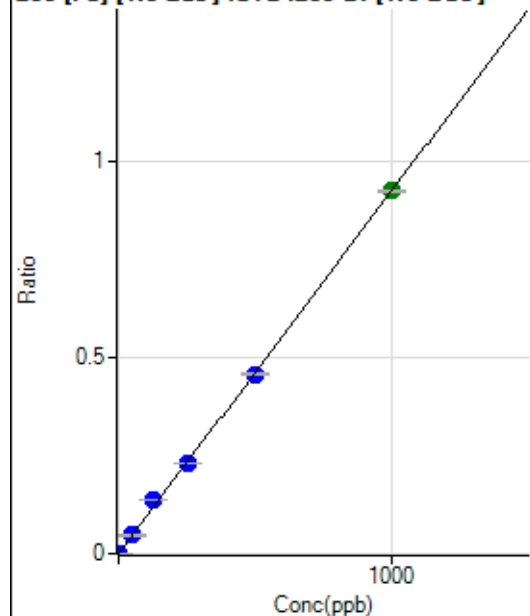
$$DL = 0.00164$$

$$BEC = 0.008742$$

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	351.87	0.0000	P	6.5
2	☐	0.100					
3	☐	1.000	0.880	12115.13	0.0008	P	2.0
4	☐	50.000	50.522	652766.51	0.0468	P	4.8
5	☐	125.000	149.897	1917956.38	0.1389	P	0.4
6	☐	250.000	247.358	3019342.51	0.2292	P	0.6
7	☐	500.000	494.075	5781526.11	0.4578	P	1.2
8	☐	1000.000	1000.485	11614688.11	0.9271	A	0.2
9	☐			15348.07	0.0014	P	0.8

$$y = 9.2661E-004 * x + 2.4281E-005$$

$$R = 0.9996$$

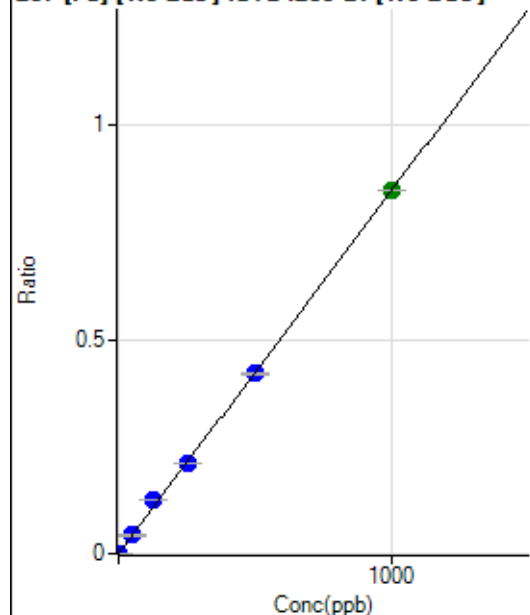
$$DL = 0.005143$$

$$BEC = 0.0262$$

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	288.90	0.0000	P	8.6
2	☐	0.100					
3	☐	1.000	0.852	10699.04	0.0007	P	0.7
4	☐	50.000	50.322	594056.21	0.0426	P	5.1
5	☐	125.000	147.107	1719972.12	0.1246	P	0.3
6	☐	250.000	247.865	2764680.96	0.2099	P	0.4
7	☐	500.000	496.484	5308817.48	0.4204	P	0.7
8	☐	1000.000	999.513	10603112.50	0.8463	A	0.1
9	☐			13106.72	0.0012	P	1.3

$$y = 8.4673\text{E-}004 * x + 1.9937\text{E-}005$$

$$R = 0.9997$$

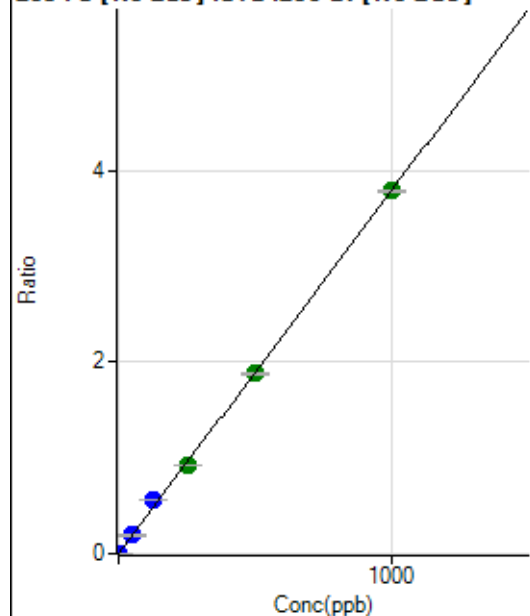
$$DL = 0.006074$$

$$BEC = 0.02355$$

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	1440.82	0.0001	P	3.6
2	☐	0.100					
3	☐	1.000	0.873	49127.70	0.0034	P	1.6
4	☐	50.000	50.439	2663700.57	0.1911	P	4.8
5	☐	125.000	148.349	7758511.57	0.5620	P	0.3
6	☐	250.000	246.020	12274704.58	0.9319	A	0.3
7	☐	500.000	496.492	23746880.56	1.8805	A	0.7
8	☐	1000.000	999.809	47442005.57	3.7868	A	0.3
9	☐			60271.16	0.0055	P	1.0

$$y = 0.0038 * x + 9.9425\text{E-}005$$

$$R = 0.9997$$

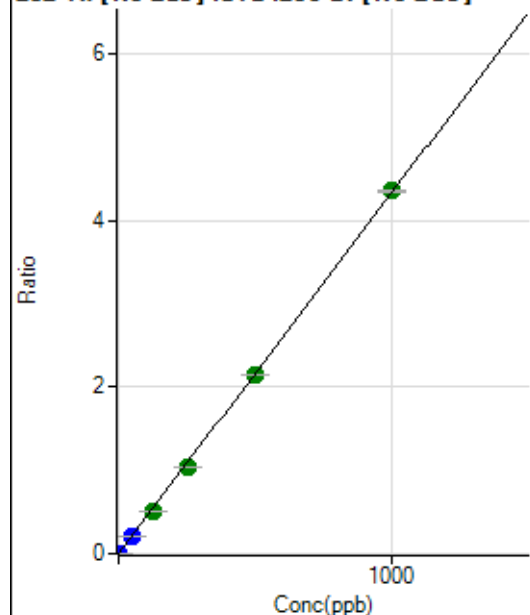
$$DL = 0.002811$$

$$BEC = 0.02625$$

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	112.97	0.0000	P	7.5
2	☐	0.100					
3	☐	1.000	0.815	51023.93	0.0035	P	2.2
4	☐	50.000	47.326	2855624.95	0.2049	P	5.0
5	☐	125.000	117.644	7032335.69	0.5094	A	0.3
6	☐	250.000	239.601	13664519.40	1.0374	A	0.1
7	☐	500.000	495.125	27070085.56	2.1437	A	0.4
8	☐	1000.000	1006.091	54573053.07	4.3560	A	0.3
9	☐			8654.97	0.0008	P	8.6

$$y = 0.0043 * x + 7.7949E-006$$

$$R = 0.9999$$

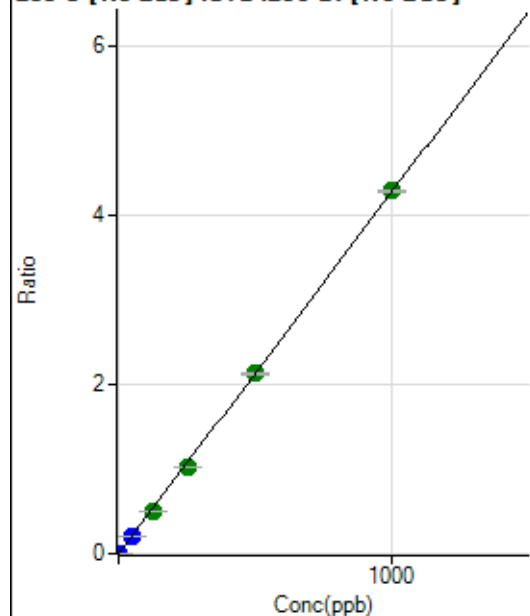
$$DL = 0.0004039$$

$$BEC = 0.0018$$

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	11.11	0.0000	P	43.6
2	☐	0.100					
3	☐	1.000	0.815	50253.38	0.0035	P	2.4
4	☐	50.000	47.341	2818105.19	0.2022	P	4.6
5	☐	125.000	117.560	6932192.43	0.5021	A	0.3
6	☐	250.000	238.761	13432323.04	1.0198	A	0.1
7	☐	500.000	498.249	26871896.08	2.1281	A	0.7
8	☐	1000.000	1004.748	53762881.41	4.2914	A	0.3
9	☐			8845.02	0.0008	P	3.5

$$y = 0.0043 * x + 7.6708E-007$$

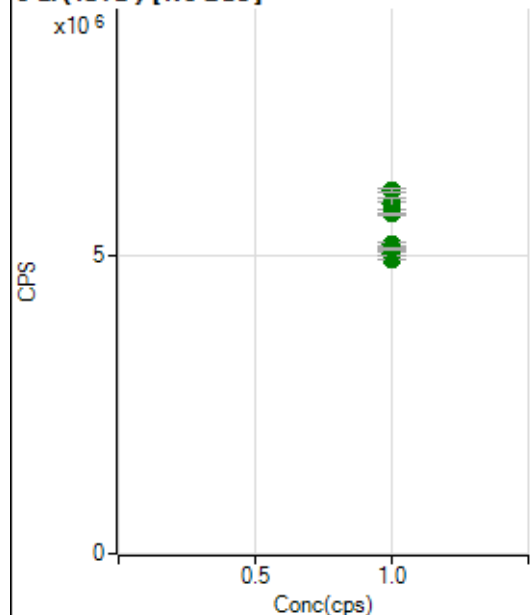
$$R = 0.9999$$

$$DL = 0.0002348$$

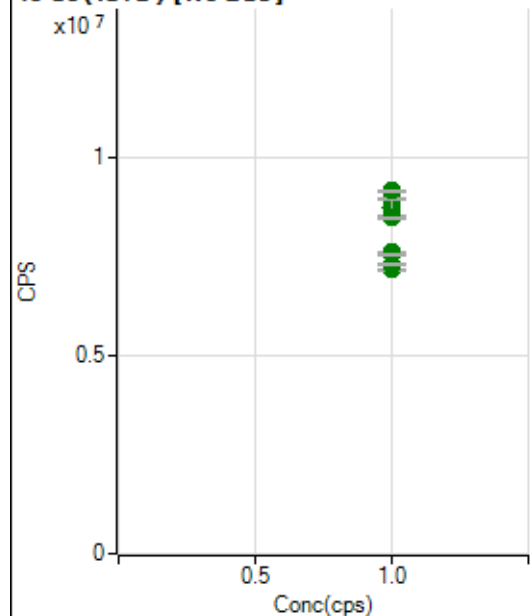
$$BEC = 0.0001796$$

Weight: <None>

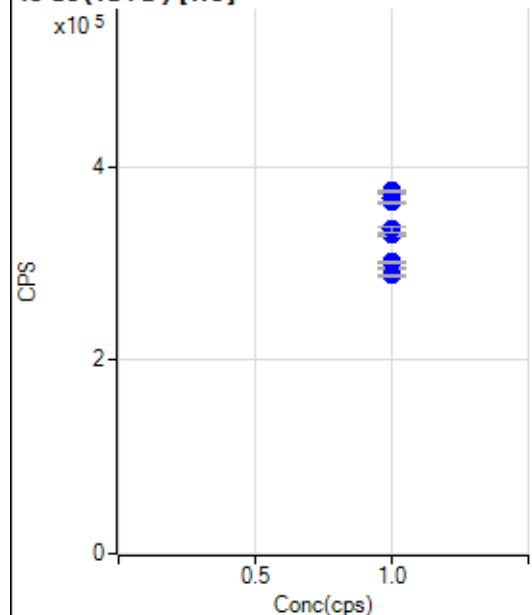
Min Conc: 0

6 Li (ISTD) [No Gas]

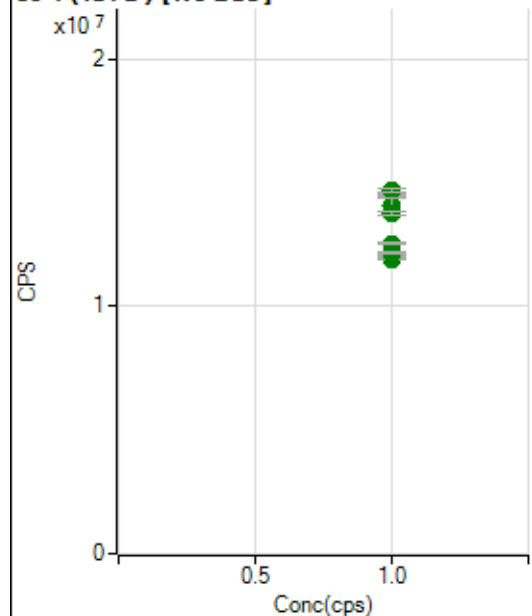
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5909207.00		A	0.4
2	☐	1.000					
3	☐	1.000		6090505.05		A	1.1
4	☐	1.000		5867316.93		A	3.3
5	☐	1.000		5704690.47		A	0.8
6	☐	1.000		5192417.39		A	1.1
7	☐	1.000		4950871.59		A	0.1
8	☐	1.000		5036533.81		A	1.1
9	☐	1.000		5117529.09		A	1.0

45 Sc (ISTD) [No Gas]

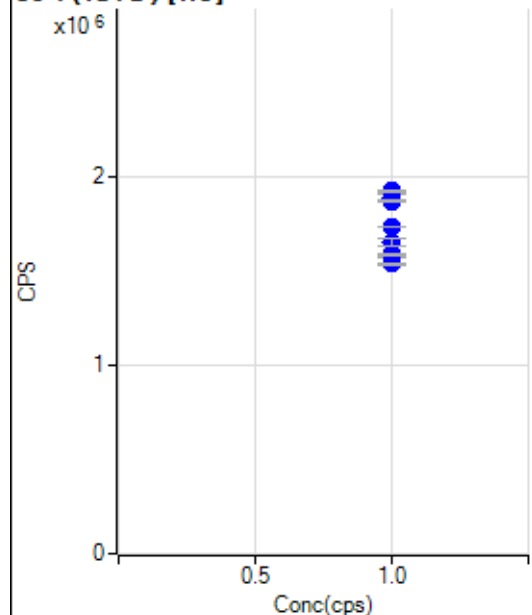
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8969900.89		A	0.4
2	☐	1.000					
3	☐	1.000		9166714.79		A	0.7
4	☐	1.000		8743502.71		A	4.1
5	☐	1.000		8495968.50		A	0.7
6	☐	1.000		7609993.92		A	0.9
7	☐	1.000		7175751.64		A	0.6
8	☐	1.000		7304246.43		A	0.8
9	☐	1.000		7569784.63		A	0.9

45 Sc (ISTD) [He]

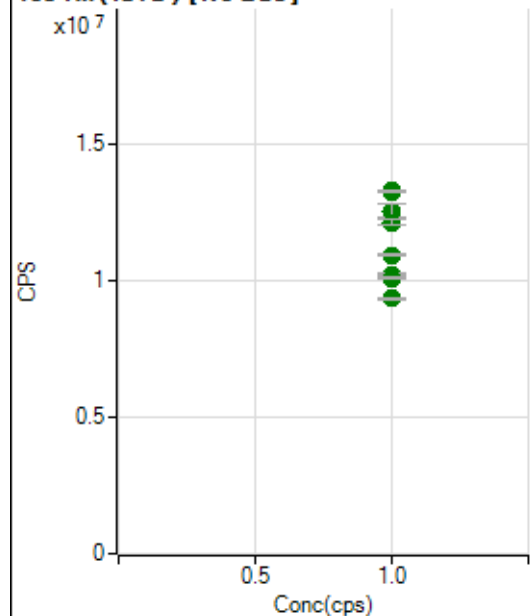
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		367615.22		P	2.5
2	☐	1.000					
3	☐	1.000		374765.24		P	0.2
4	☐	1.000		363090.17		P	0.6
5	☐	1.000		329462.14		P	0.7
6	☐	1.000		295069.01		P	0.3
7	☐	1.000		287119.06		P	0.6
8	☐	1.000		301162.09		P	0.5
9	☐	1.000		334721.99		P	1.4

89 Y (ISTD) [No Gas]

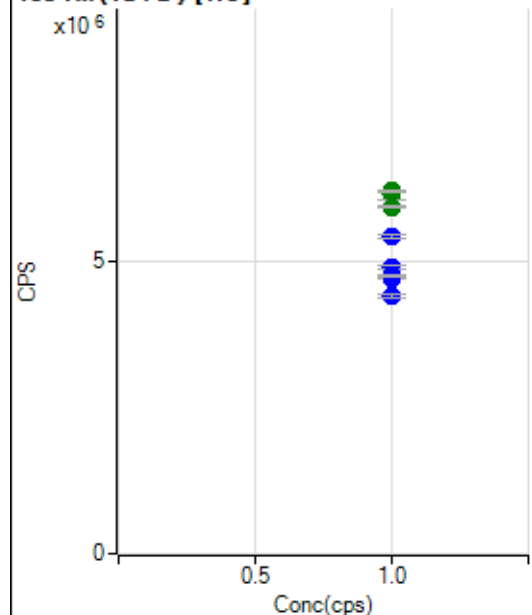
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14524355.06		A	0.6
2	☐	1.000					
3	☐	1.000		14676343.95		A	1.1
4	☐	1.000		14110499.93		A	4.3
5	☐	1.000		13739018.13		A	1.2
6	☐	1.000		12559458.01		A	0.9
7	☐	1.000		11921723.29		A	0.6
8	☐	1.000		12108443.29		A	0.4
9	☐	1.000		12141051.76		A	0.6

89 Y (ISTD) [He]

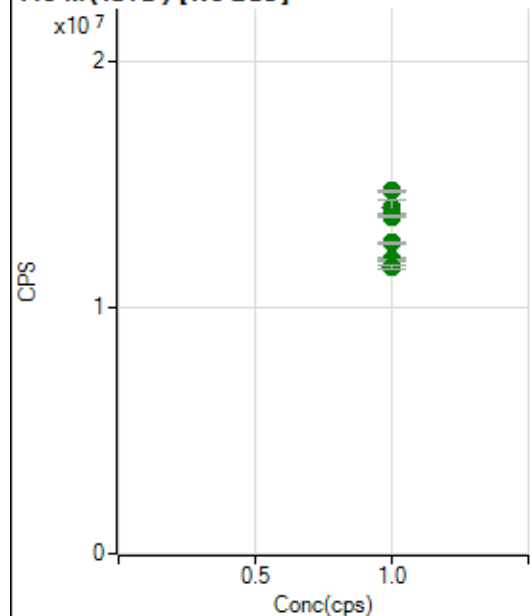
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1890987.02		P	2.3
2	☐	1.000					
3	☐	1.000		1929975.79		P	0.4
4	☐	1.000		1876977.87		P	0.3
5	☐	1.000		1738792.11		P	0.5
6	☐	1.000		1575524.23		P	0.3
7	☐	1.000		1541152.96		P	0.4
8	☐	1.000		1595417.50		P	0.7
9	☐	1.000		1657497.70		P	1.9

103 Rh (ISTD) [No Gas]

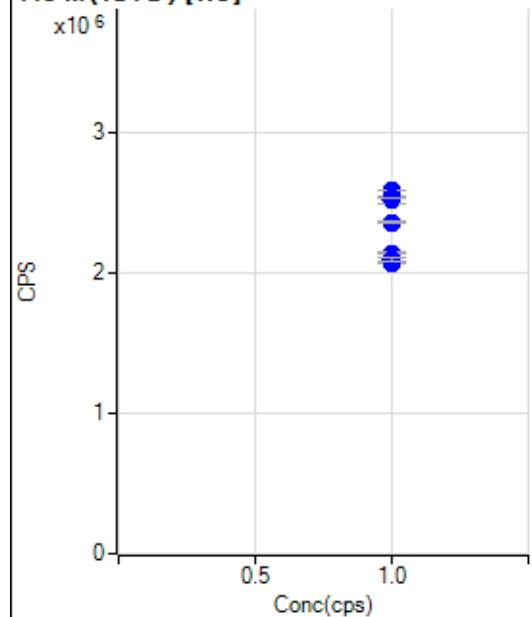
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13234806.11		A	0.3
2	☐	1.000					
3	☐	1.000		13290915.14		A	0.3
4	☐	1.000		12572732.05		A	4.2
5	☐	1.000		12140793.50		A	1.7
6	☐	1.000		10938195.91		A	0.7
7	☐	1.000		10243299.01		A	0.5
8	☐	1.000		10086617.93		A	0.8
9	☐	1.000		9347230.24		A	0.5

103 Rh (ISTD) [He]

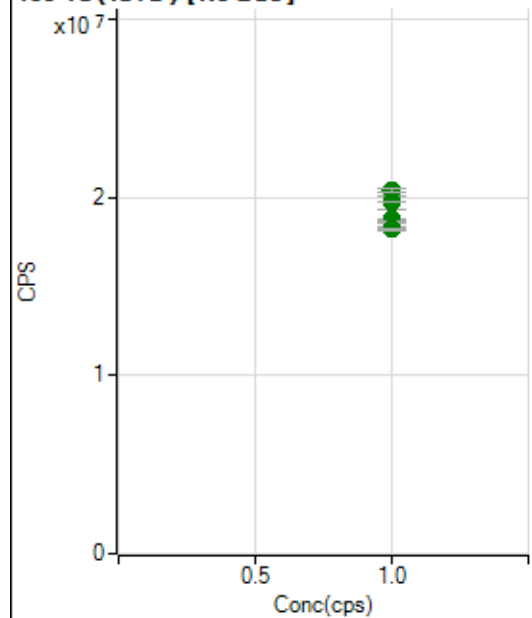
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6152657.69		A	3.0
2	☐	1.000					
3	☐	1.000		6218126.23		A	0.4
4	☐	1.000		5937254.15		A	0.4
5	☐	1.000		5441136.66		P	0.8
6	☐	1.000		4911744.48		P	0.8
7	☐	1.000		4728016.25		P	0.8
8	☐	1.000		4765883.47		P	0.8
9	☐	1.000		4428641.60		P	1.6

115 In (ISTD) [No Gas]

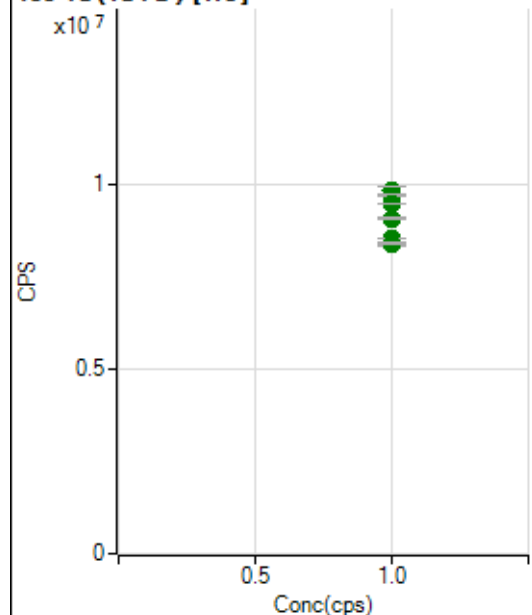
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14739738.41		A	0.2
2	☐	1.000					
3	☐	1.000		14751897.64		A	0.8
4	☐	1.000		14096180.47		A	4.1
5	☐	1.000		13719897.41		A	0.6
6	☐	1.000		12641581.42		A	0.5
7	☐	1.000		11994005.63		A	0.3
8	☐	1.000		11958805.68		A	0.6
9	☐	1.000		11665370.22		A	1.1

115 In (ISTD) [He]

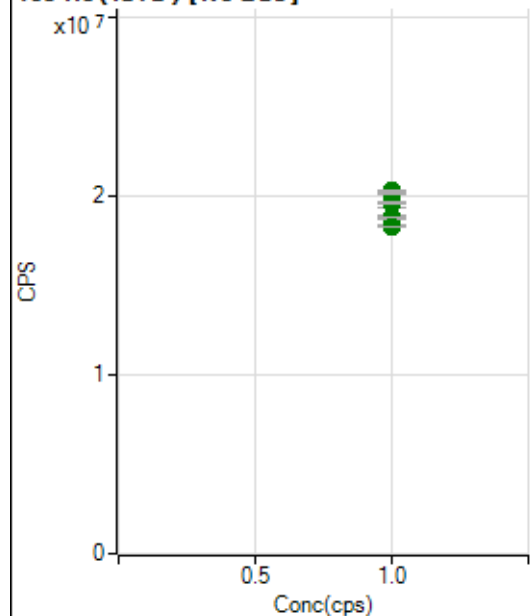
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2524517.77		P	2.3
2	☐	1.000					
3	☐	1.000		2586294.38		P	0.1
4	☐	1.000		2537017.52		P	0.3
5	☐	1.000		2364393.03		P	0.4
6	☐	1.000		2142313.65		P	0.4
7	☐	1.000		2069433.45		P	0.4
8	☐	1.000		2083209.66		P	0.7
9	☐	1.000		2098497.77		P	1.6

159 Tb (ISTD) [No Gas]

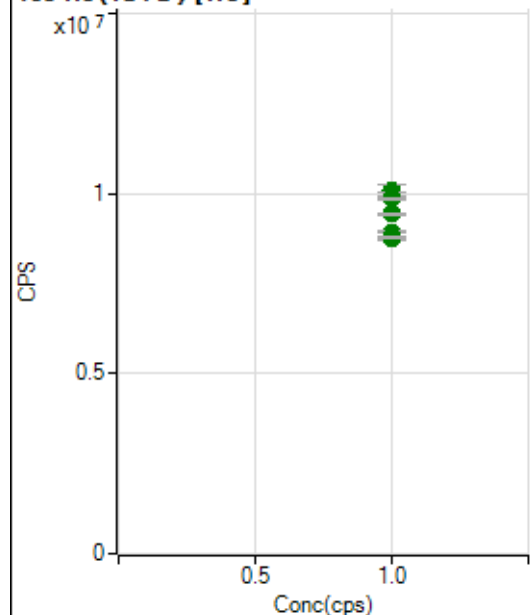
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20355669.56		A	0.2
2	☐	1.000					
3	☐	1.000		20396163.03		A	0.9
4	☐	1.000		19740467.62		A	4.0
5	☐	1.000		19758403.87		A	0.2
6	☐	1.000		18768625.00		A	0.2
7	☐	1.000		18313975.98		A	0.5
8	☐	1.000		18647929.72		A	0.4
9	☐	1.000		18250489.31		A	0.6

159 Tb (ISTD) [He]

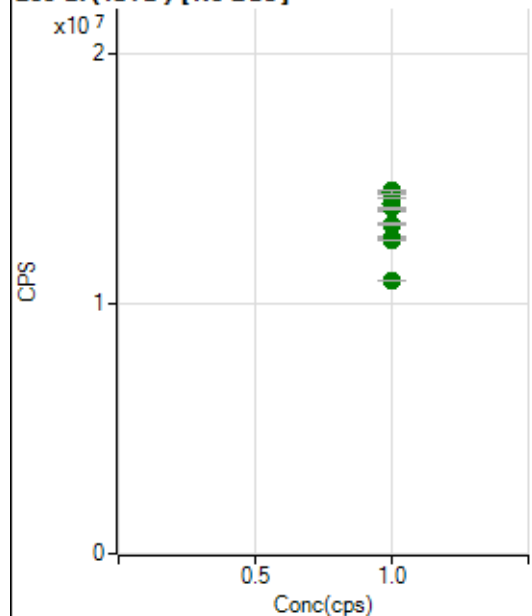
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9818319.02		A	2.8
2	☐	1.000					
3	☐	1.000		9685543.95		A	0.6
4	☐	1.000		9479931.59		A	0.2
5	☐	1.000		9075786.25		A	0.2
6	☐	1.000		8525388.34		A	0.1
7	☐	1.000		8363864.11		A	0.8
8	☐	1.000		8535397.09		A	0.3
9	☐	1.000		8402523.90		A	1.0

165 Ho (ISTD) [No Gas]

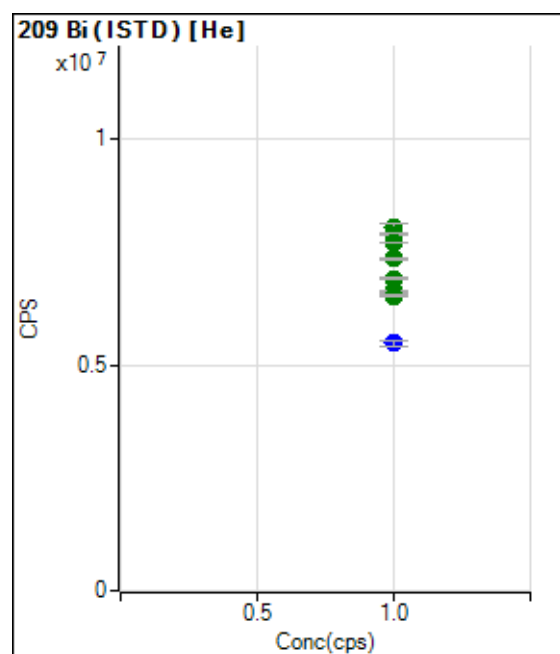
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20165062.78		A	0.3
2	☐	1.000					
3	☐	1.000		20293918.86		A	0.7
4	☐	1.000		19710903.74		A	3.7
5	☐	1.000		19630101.65		A	0.4
6	☐	1.000		18865413.79		A	0.4
7	☐	1.000		18328635.13		A	0.3
8	☐	1.000		18740939.83		A	0.4
9	☐	1.000		18271447.81		A	0.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10072264.43		A	3.2
2	☐	1.000					
3	☐	1.000		10026994.02		A	0.3
4	☐	1.000		9850033.33		A	0.2
5	☐	1.000		9431021.25		A	0.5
6	☐	1.000		8905173.97		A	0.2
7	☐	1.000		8746376.47		A	0.4
8	☐	1.000		8923790.98		A	0.6
9	☐	1.000		8788437.58		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14492215.90		A	0.2
2	☐	1.000					
3	☐	1.000		14431697.70		A	1.1
4	☐	1.000		13955166.88		A	4.2
5	☐	1.000		13806200.77		A	0.4
6	☐	1.000		13171970.64		A	0.5
7	☐	1.000		12627688.42		A	0.6
8	☐	1.000		12528266.76		A	0.5
9	☐	1.000		10923453.59		A	0.2



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8038601.41		A	2.6
2	☐	1.000					
3	☐	1.000		7899164.19		A	0.5
4	☐	1.000		7716357.11		A	0.1
5	☐	1.000		7353046.28		A	0.5
6	☐	1.000		6908942.75		A	0.5
7	☐	1.000		6638909.48		A	0.4
8	☐	1.000		6531633.79		A	0.4
9	☐	1.000		5475925.89		P	1.7

US EPA Tune Check Sample Report

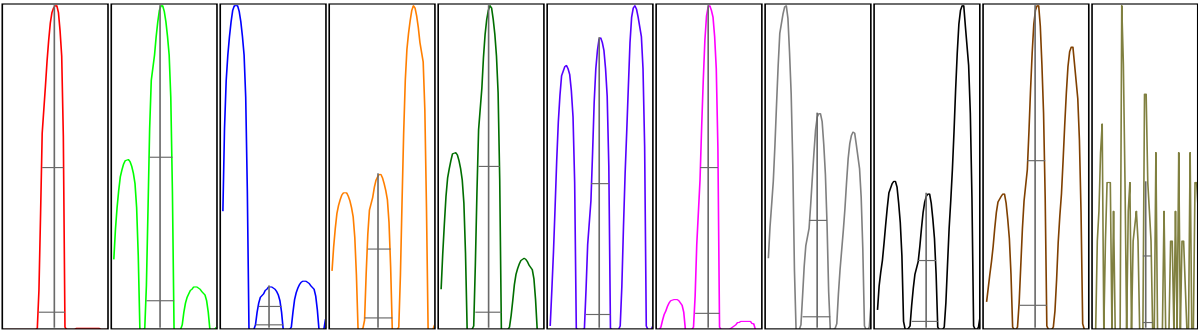
Batch Folder D:\ICP-MS Data\P7121018-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	14235	0.63	5.00	
24	120120	0.41	5.00	
25	15714	0.50	5.00	
26	18175	0.53	5.00	
59	92709	0.40	5.00	
113	12942	0.52	5.00	
115	156329	1.07	5.00	
206	42297	0.70	5.00	
207	38947	0.68	5.00	
208	92089	0.63	5.00	
220	0	31.67		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	14179	14373	14266	14211	14144
24	119796	120951	119722	120057	120071
25	15653	15847	15718	15694	15661
26	18135	18302	18207	18190	18040
59	92392	93324	92640	92475	92715
113	13028	12996	12916	12905	12866
115	159018	156559	156020	155511	154539
206	41796	42295	42377	42442	42576
207	38547	38838	39117	39230	39002
208	91051	92335	92365	92406	92287
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	23665	9.00	8.9 - 9.1		0.776	0.900	
24	192417	23.90	23.9 - 24.1		0.807	0.900	
25	25390	24.90	24.9 - 25.1		0.789	0.900	
26	28823	25.90	25.9 - 26.1		0.787	0.900	
59	157733	58.95	58.9 - 59.1		0.782	0.900	
113	24665	113.00	112.9 - 113.1		0.729	0.900	
115	297264	115.00	114.9 - 115.1		0.723	0.900	
206	79846	206.00	205.9 - 206.1		0.818	0.900	
207	73051	207.00	206.9 - 207.1		0.782	0.900	
208	174447	208.00	207.9 - 208.1		0.795	0.900	
220	0	220.05	-		0.294		

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	5.9	V	Deflect	15.0	V
Extract 2	-100.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	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	190	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	22702	4.00	
89	28926	4.47	
205	35535	3.17	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	23090	23172	23089	23081	21080
89	29557	29604	29499	29348	26621
205	35997	35964	36101	36091	33522

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	6.6	V	Deflect	2.0	V
Extract 2	-115.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-60	V			

Cell Parameters

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