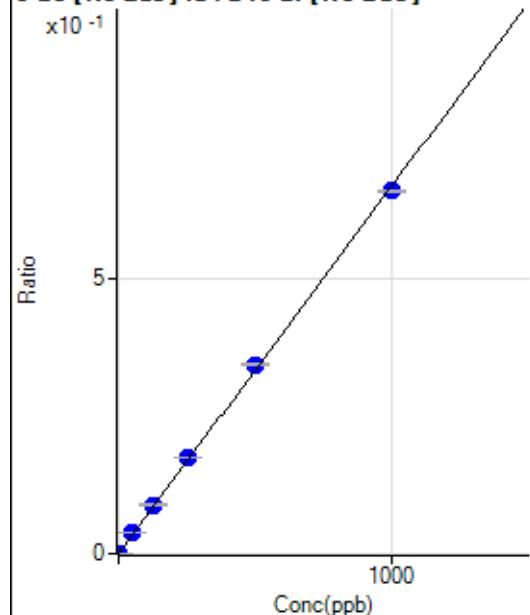


Batch Folder: D:\ICP-MS Data\P7010219 MS.b\
Analysis File: P7010219 MS.batch.bin
DA Date-Time: 2019-01-02 17:59:40
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-01-02 13:56:44
2	004CALS.d	S01	2019-01-02 14:00:17
3	005CALS.d	S02	2019-01-02 14:04:58
4	006CALS.d	S03	2019-01-02 14:08:52
5	007CALS.d	S04	2019-01-02 14:12:46
6	008CALS.d	S05	2019-01-02 14:16:35
7	009CALS.d	S06	2019-01-02 14:20:23
8	010CALS.d	S07	2019-01-02 14:24:08
9	011CALS.d	S08	2019-01-02 14:27:52

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	53.71	0.0000	P	44.7
2	☐	0.100	0.096	290.75	0.0001	P	2.3
3	☐	1.000	0.965	2444.71	0.0007	P	4.7
4	☐	50.000	55.581	136478.05	0.0370	P	0.5
5	☐	125.000	133.514	324857.58	0.0889	P	0.9
6	☐	250.000	262.980	615795.38	0.1752	P	0.6
7	☐	500.000	514.660	1186466.33	0.3428	P	0.9
8	☐	1000.000	988.082	2256430.40	0.6581	P	0.8
9	☐			272.23	0.0001	P	9.6

$$y = 6.6599\text{E-}004 * x + 1.4909\text{E-}005$$

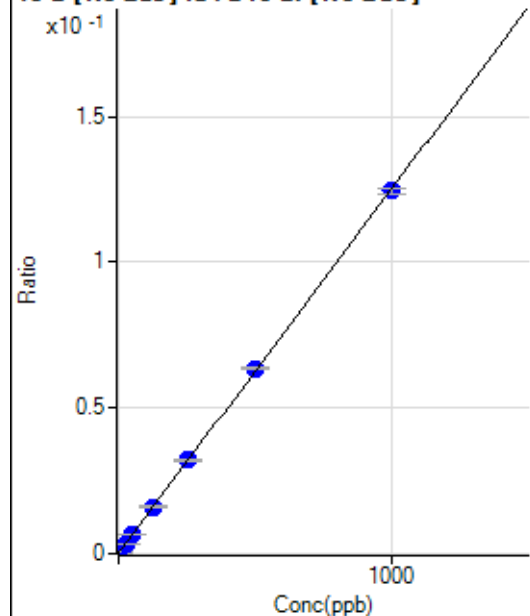
$$R = 0.9997$$

$$DL = 0.03$$

$$BEC = 0.02239$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	686.15	0.0002	P	7.2
2	☐	2.500	2.412	1811.29	0.0005	P	0.9
3	☐	25.000	23.373	11571.58	0.0031	P	2.0
4	☐	50.000	52.211	24748.84	0.0067	P	1.9
5	☐	125.000	127.669	58971.23	0.0161	P	1.5
6	☐	250.000	256.325	113269.28	0.0322	P	1.6
7	☐	500.000	506.053	219518.03	0.0634	P	1.0
8	☐	1000.000	994.989	426920.78	0.1245	P	1.6
9	☐			10982.16	0.0035	P	4.6

$$y = 1.2495\text{E-}004 * x + 1.9183\text{E-}004$$

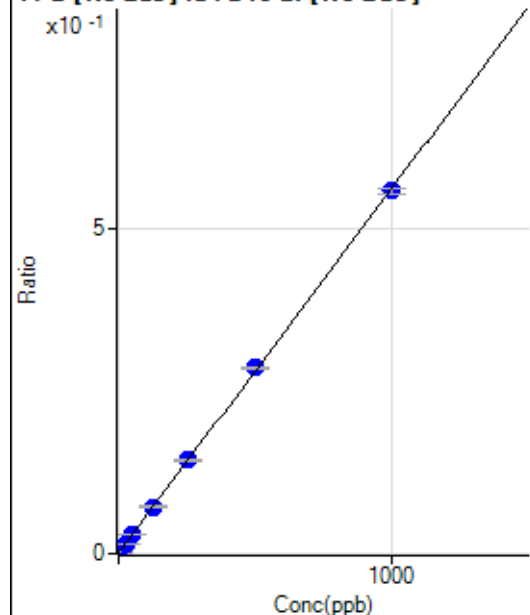
$$R = 0.9999$$

$$DL = 0.3312$$

$$BEC = 1.535$$

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	3319.96	0.0009	P	13.8
2	☐	2.500	2.276	8116.35	0.0022	P	1.5
3	☐	25.000	23.939	53387.14	0.0144	P	3.5
4	☐	50.000	52.028	110994.58	0.0301	P	1.6
5	☐	125.000	127.079	263791.95	0.0722	P	1.0
6	☐	250.000	254.882	505923.59	0.1439	P	1.5
7	☐	500.000	508.247	990017.57	0.2860	P	1.2
8	☐	1000.000	994.322	1915647.72	0.5587	P	1.4
9	☐			48927.89	0.0156	P	9.9

$$y = 5.6093\text{E-}004 * x + 9.3321\text{E-}004$$

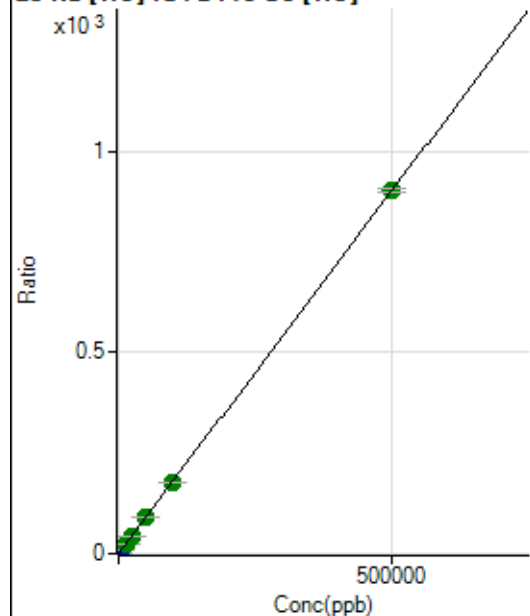
$$R = 0.9999$$

$$DL = 0.6887$$

$$BEC = 1.664$$

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	9411.64	0.0405	P	2.0
2	☐	50.000	46.673	28828.53	0.1245	P	1.7
3	☐	500.000	450.195	203353.77	0.8507	P	2.1
4	☐	5000.000	5032.180	2074597.68	9.0961	P	0.3
5	☐	12500.000	12303.011	4872575.15	22.1803	A	0.3
6	☐	25000.000	25016.097	9450261.93	45.0581	A	0.7
7	☐	50000.000	49717.991	18150422.11	89.5103	A	1.5
8	☐	100000.00	98009.623	35892622.68	176.4134	A	0.6
9	☐	500000.00	500430.12	183672458.2	900.5877	A	1.0

$$y = 0.0018 * x + 0.0405$$

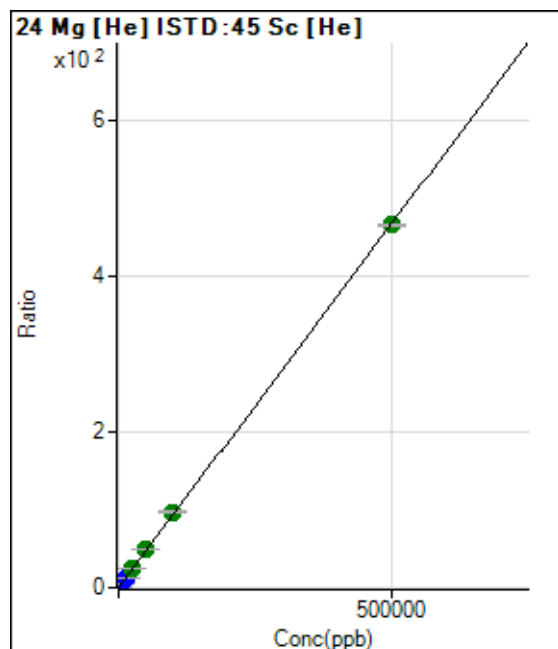
$$R = 1.0000$$

$$DL = 1.345$$

$$BEC = 22.51$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	177.79	0.0008	P	13.6
2	☐	50.000	48.183	10609.67	0.0458	P	3.3
3	☐	500.000	482.325	108020.36	0.4518	P	0.3
4	☐	5000.000	5425.983	1157417.37	5.0747	P	0.8
5	☐	12500.000	13395.003	2751880.34	12.5268	P	0.4
6	☐	25000.000	26815.886	5259613.40	25.0770	A	0.1
7	☐	50000.000	53043.076	10058532.60	49.6027	A	1.0
8	☐	100000.00	104341.26	19851960.17	97.5730	A	0.7
9	☐	500000.00	498710.02	95113184.77	466.3573	A	0.6

$$y = 9.3513\text{E-}004 * x + 7.6453\text{E-}004$$

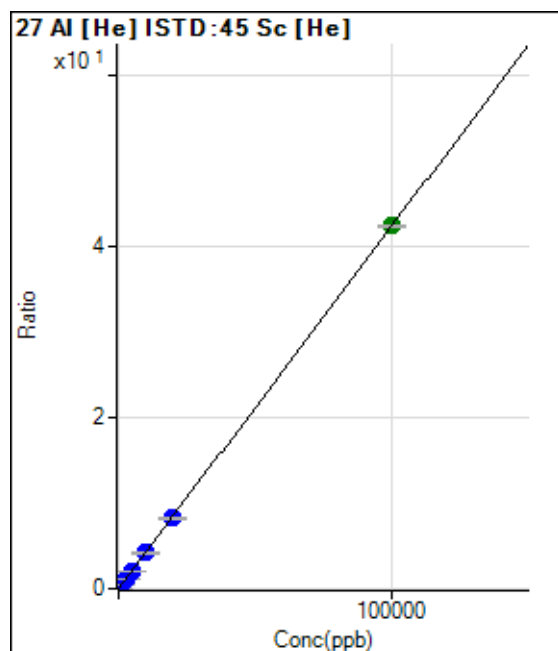
$$R = 0.9999$$

$$DL = 0.3328$$

$$BEC = 0.8176$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.00	0.0001	P	0.9
2	☐	2.000	1.533	175.01	0.0008	P	17.4
3	☐	20.000	17.300	1775.18	0.0074	P	1.3
4	☐	1000.000	1010.240	97483.17	0.4274	P	1.1
5	☐	2500.000	2489.611	231358.74	1.0532	P	1.3
6	☐	5000.000	4982.279	442023.73	2.1075	P	0.1
7	☐	10000.000	9846.387	844555.06	4.1649	P	1.2
8	☐	20000.000	19384.633	1668266.77	8.1994	P	0.1
9	☐	100000.00	100139.47	8638659.48	42.3568	A	0.7

$$y = 4.2298\text{E-}004 * x + 1.0759\text{E-}004$$

$$R = 1.0000$$

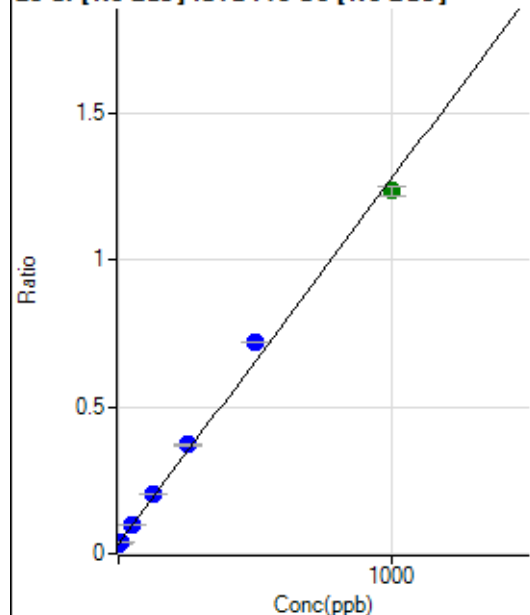
$$DL = 0.006528$$

$$BEC = 0.2544$$

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	174233.91	0.0337	P	12.3
2	☐	1.000	-0.127	178028.38	0.0336	P	1.1
3	☐	10.000	7.005	228406.92	0.0424	P	0.1
4	☐	50.000	53.003	523487.28	0.0997	P	0.4
5	☐	125.000	135.874	1041440.19	0.2028	P	1.0
6	☐	250.000	271.842	1802700.99	0.3720	P	1.1
7	☐	500.000	552.465	3420033.54	0.7213	P	0.7
8	☐	1000.000	966.829	5827317.58	1.2369	A	2.4
9	☐			777669.87	0.1694	P	1.8

$$y = 0.0012 * x + 0.0337$$

$$R = 0.9976$$

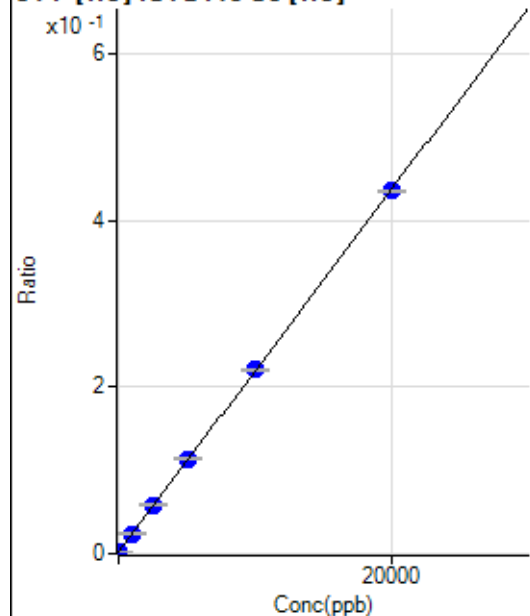
$$DL = 10.02$$

$$BEC = 27.09$$

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	-11.343	388.91	0.0017	P	6.2
2	☐	0.000	-21.540	336.13	0.0015	P	9.7
3	☐	0.000	32.883	630.60	0.0026	P	12.5
4	☐	1000.000	1018.278	5490.14	0.0241	P	3.8
5	☐	2500.000	2595.556	12825.41	0.0584	P	3.5
6	☐	5000.000	5141.695	23861.43	0.1138	P	1.6
7	☐	10000.000	10054.557	44743.26	0.2206	P	1.7
8	☐	20000.000	19924.439	88573.94	0.4353	P	0.5
9	☐			358.35	0.0018	P	4.8

$$y = 2.1753E-005 * x + 0.0019$$

$$R = 1.0000$$

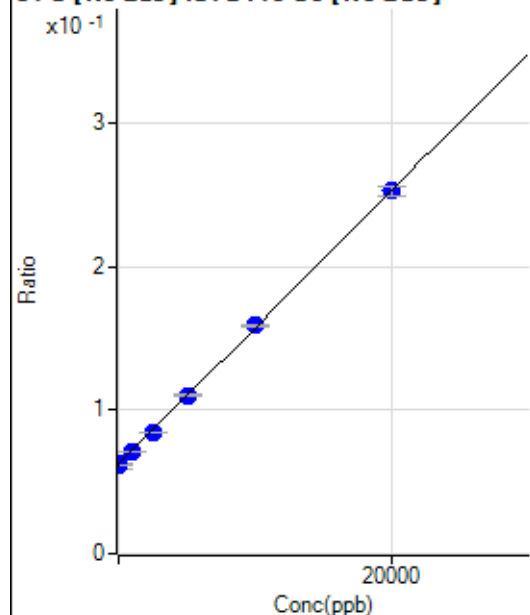
$$DL = 26.43$$

$$BEC = 88.26$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	78.109	325934.14	0.0631	P	13.4
2	☐	0.000	-24.616	329718.75	0.0621	P	0.8
3	☐	0.000	-53.493	333023.35	0.0619	P	1.4
4	☐	1000.000	947.622	375215.94	0.0714	P	0.4
5	☐	2500.000	2355.117	435986.69	0.0849	P	0.6
6	☐	5000.000	5024.949	535077.88	0.1104	P	1.1
7	☐	10000.000	10123.524	754786.12	0.1592	P	0.3
8	☐	20000.000	19952.730	1192581.60	0.2531	P	2.4
9	☐			279360.62	0.0609	P	0.1

$$y = 9.5608\text{E-}006 * x + 0.0624$$

$$R = 0.9999$$

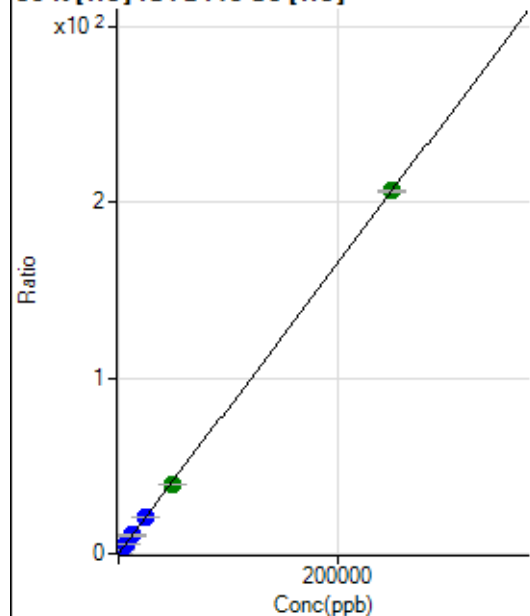
$$DL = 1027$$

$$BEC = 6525$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	15403.00	0.0663	P	4.3
2	☐	50.000	46.939	24306.75	0.1050	P	2.2
3	☐	500.000	463.575	107154.30	0.4483	P	2.9
4	☐	2500.000	2531.241	490802.28	2.1519	P	0.4
5	☐	6250.000	6213.807	1139310.84	5.1862	P	0.4
6	☐	12500.000	12560.866	2184602.72	10.4160	P	0.5
7	☐	25000.000	24744.739	4148128.61	20.4551	P	0.7
8	☐	50000.000	48191.910	8092442.54	39.7747	A	0.7
9	☐	250000.00	250384.76	42090089.14	206.3742	A	0.3

$$y = 8.2396\text{E-}004 * x + 0.0663$$

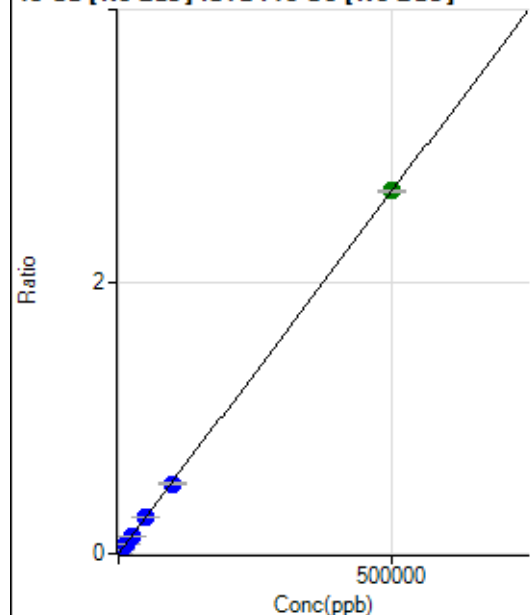
$$R = 1.0000$$

$$DL = 10.3$$

$$BEC = 80.46$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	58.34	0.0000	P	32.9
2	☐	50.000	47.421	1400.13	0.0003	P	7.4
3	☐	500.000	451.407	13003.43	0.0024	P	3.4
4	☐	5000.000	4923.839	137775.61	0.0262	P	0.4
5	☐	12500.000	12313.806	336814.47	0.0656	P	0.7
6	☐	25000.000	24773.522	639342.77	0.1319	P	1.1
7	☐	50000.000	49516.899	1250505.89	0.2637	P	0.6
8	☐	100000.00	96141.713	2412022.06	0.5120	P	2.7
9	☐	500000.00	500836.75	12245120.93	2.6673	A	0.8

$$y = 5.3256\text{E-}006 * x + 1.1425\text{E-}005$$

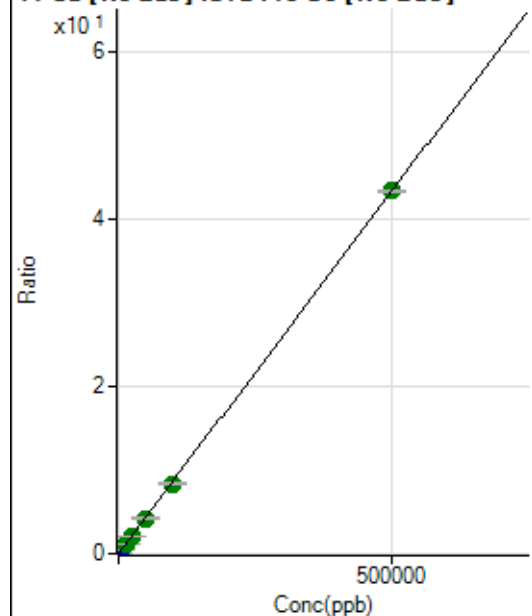
$$R = 1.0000$$

$$DL = 2.12$$

$$BEC = 2.145$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3703.48	0.0007	P	14.6
2	☐	50.000	47.181	25478.57	0.0048	P	0.7
3	☐	500.000	448.951	213070.12	0.0396	P	0.2
4	☐	5000.000	4902.115	2232584.06	0.4251	P	0.3
5	☐	12500.000	12166.886	5412800.51	1.0540	A	0.2
6	☐	25000.000	24658.033	10347393.46	2.1354	A	0.8
7	☐	50000.000	49090.931	20155730.14	4.2507	A	0.7
8	☐	100000.00	96078.479	39187966.50	8.3185	A	2.5
9	☐	500000.00	500901.66	199085011.3	43.3652	A	0.5

$$y = 8.6573\text{E-}005 * x + 7.1802\text{E-}004$$

$$R = 1.0000$$

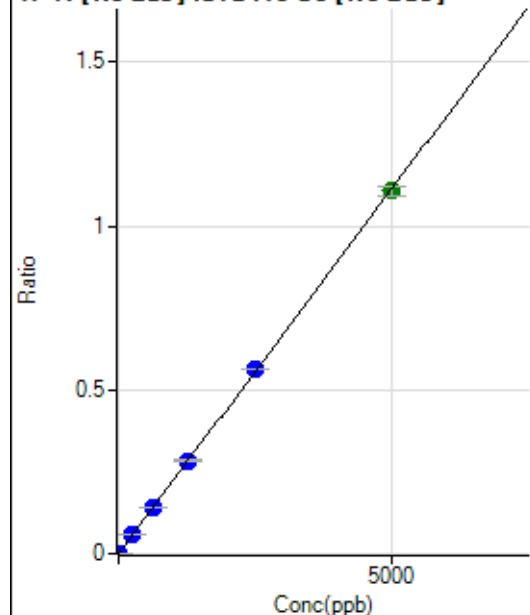
$$DL = 3.625$$

$$BEC = 8.294$$

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	58.34	0.0000	P	29.9
2	☐	0.500	0.525	677.82	0.0001	P	9.9
3	☐	5.000	4.746	5743.00	0.0011	P	3.3
4	☐	250.000	255.577	298626.84	0.0569	P	0.8
5	☐	625.000	631.317	721197.77	0.1404	P	0.3
6	☐	1250.000	1273.036	1372161.99	0.2832	P	1.4
7	☐	2500.000	2531.215	2669921.09	0.5631	P	0.8
8	☐	5000.000	4977.565	5215669.39	1.1072	A	2.8
9	☐			1919.64	0.0004	P	3.6

$$y = 2.2244\text{E-}004 * x + 1.1044\text{E-}005$$

$$R = 1.0000$$

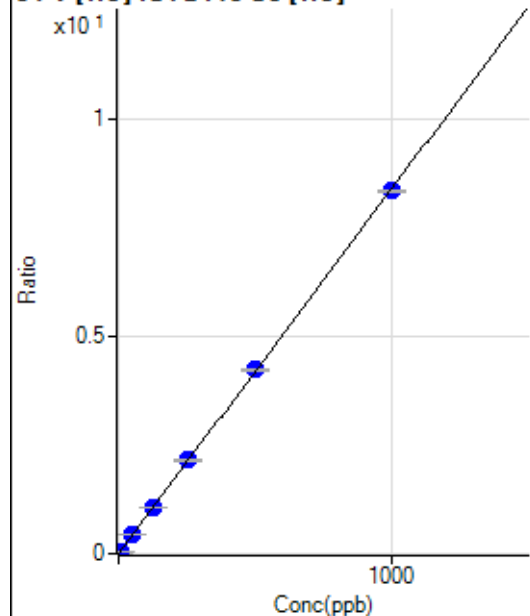
$$DL = 0.04455$$

$$BEC = 0.04965$$

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	0.00	0.0000	P	
2	☐	0.500	0.512	995.61	0.0043	P	1.1
3	☐	5.000	4.952	9944.59	0.0416	P	1.3
4	☐	50.000	52.257	100105.59	0.4389	P	0.2
5	☐	125.000	127.794	235795.03	1.0734	P	0.4
6	☐	250.000	256.110	451167.51	2.1511	P	0.3
7	☐	500.000	505.889	861630.60	4.2491	P	1.1
8	☐	1000.000	995.066	1700480.46	8.3578	P	0.2
9	☐			307.79	0.0015	P	10.8

$$y = 0.0084 * x + 0.0000\text{E}+000$$

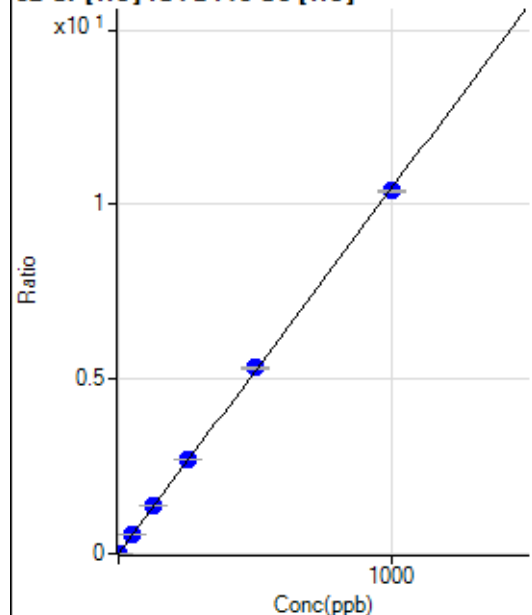
$$R = 1.0000$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	626.69	0.0027	P	6.6
2	☐	0.200	0.182	1064.50	0.0046	P	7.5
3	☐	2.000	1.896	5386.62	0.0225	P	0.3
4	☐	50.000	52.541	125931.31	0.5522	P	0.7
5	☐	125.000	129.085	297150.49	1.3527	P	0.4
6	☐	250.000	258.752	568105.97	2.7087	P	0.5
7	☐	500.000	508.087	1078060.32	5.3162	P	0.6
8	☐	1000.000	993.131	2113709.73	10.3887	P	0.2
9	☐			32156.38	0.1577	P	0.4

$$y = 0.0105 * x + 0.0027$$

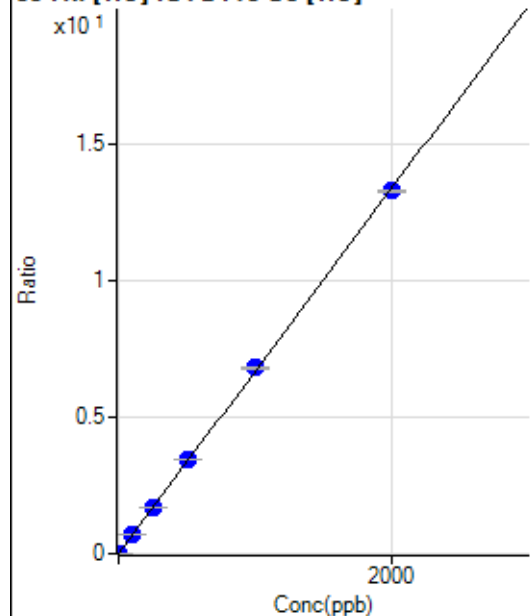
$$R = 0.9999$$

$$DL = 0.05108$$

$$BEC = 0.2578$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	41.11	0.0002	P	5.3
2	☐	0.100	0.095	188.89	0.0008	P	9.4
3	☐	1.000	0.959	1577.89	0.0066	P	2.6
4	☐	100.000	103.915	158818.87	0.6964	P	0.8
5	☐	250.000	256.564	377635.38	1.7190	P	0.3
6	☐	500.000	513.736	721913.48	3.4420	P	0.3
7	☐	1000.000	1016.805	1381420.84	6.8123	P	1.0
8	☐	2000.000	1987.147	2708704.41	13.3131	P	0.2
9	☐			15351.53	0.0753	P	1.5

$$y = 0.0067 * x + 1.7695E-004$$

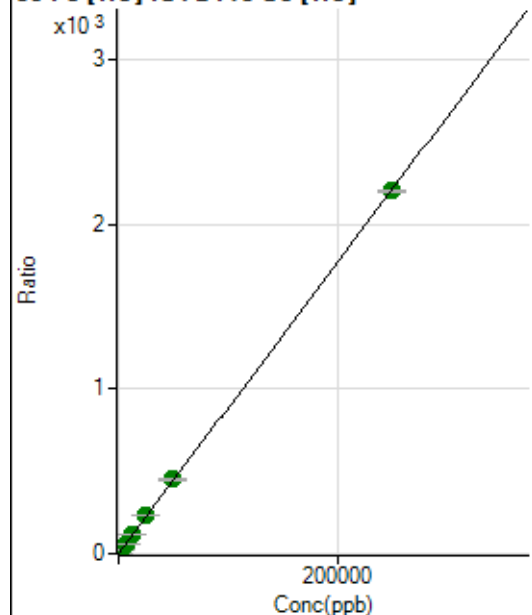
$$R = 0.9999$$

$$DL = 0.004233$$

$$BEC = 0.02641$$

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	3833.95	0.0165	P	3.0
2	☐	5.000	5.424	14902.32	0.0644	P	2.1
3	☐	50.000	52.996	115720.83	0.4841	P	2.5
4	☐	2500.000	2686.180	5409432.70	23.7178	A	0.3
5	☐	6250.000	6580.995	12759719.85	58.0835	A	0.3
6	☐	12500.000	13230.266	24487918.14	116.7529	A	0.6
7	☐	25000.000	26052.212	46616822.34	229.8865	A	1.0
8	☐	50000.000	51055.000	91657085.38	450.4970	A	0.6
9	☐	250000.00	249637.12	449227821.1	2,202.673	A	0.6

$$y = 0.0088 * x + 0.0165$$

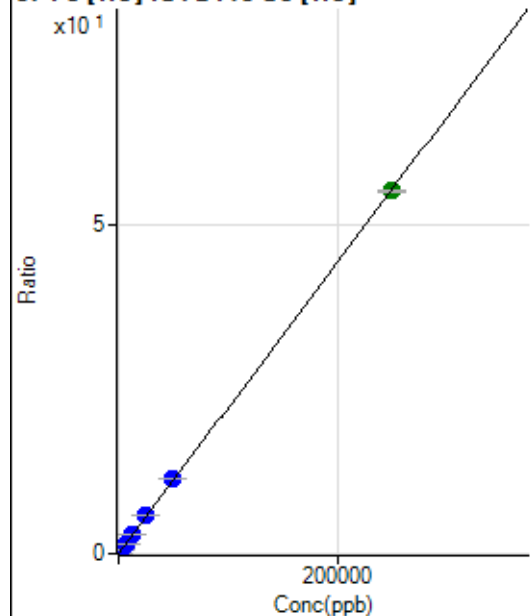
$$R = 1.0000$$

$$DL = 0.1672$$

$$BEC = 1.87$$

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	122.23	0.0005	P	34.6
2	☐	5.000	5.300	392.61	0.0017	P	15.2
3	☐	50.000	54.680	3013.36	0.0126	P	1.3
4	☐	2500.000	2711.200	136715.82	0.5994	P	0.9
5	☐	6250.000	6722.151	326324.53	1.4855	P	0.0
6	☐	12500.000	13425.416	622117.58	2.9662	P	0.6
7	☐	25000.000	26512.389	1187793.60	5.8572	P	0.3
8	☐	50000.000	51378.167	2309298.23	11.3501	P	0.2
9	☐	250000.00	249512.94	11241149.90	55.1184	A	0.9

$$y = 2.2090E-004 * x + 5.2500E-004$$

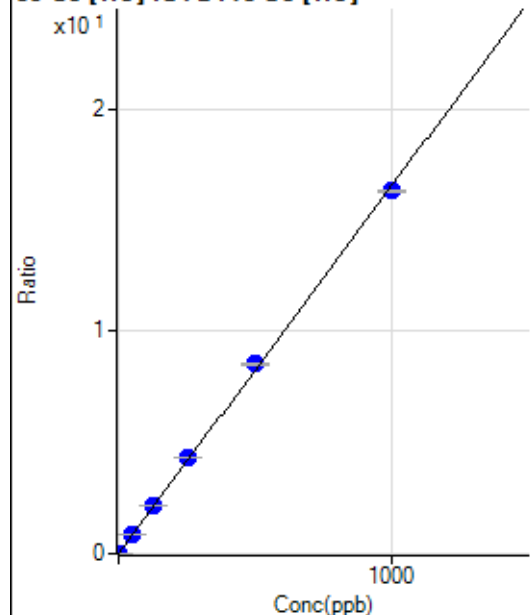
$$R = 1.0000$$

$$DL = 2.466$$

$$BEC = 2.377$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	43.33	0.0002	P	27.3
2	☐	0.100	0.109	458.90	0.0020	P	11.2
3	☐	1.000	0.985	3939.48	0.0165	P	6.3
4	☐	50.000	54.519	205752.30	0.9021	P	0.5
5	☐	125.000	132.877	482960.91	2.1985	P	0.6
6	☐	250.000	263.760	915242.18	4.3637	P	0.2
7	☐	500.000	516.708	1733499.63	8.5484	P	0.8
8	☐	1000.000	986.996	3322270.19	16.3287	P	0.4
9	☐			40140.57	0.1968	P	0.7

$$y = 0.0165 * x + 1.8634E-004$$

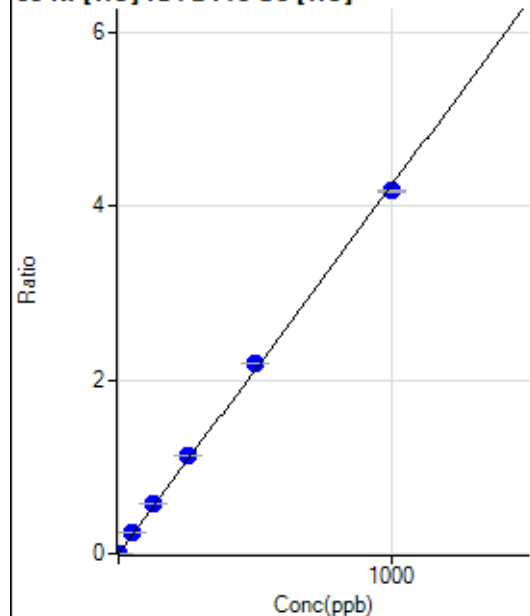
$$R = 0.9997$$

$$DL = 0.009225$$

$$BEC = 0.01126$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	31.11	0.0001	P	27.0
2	☐	0.100	0.146	174.45	0.0008	P	3.1
3	☐	1.000	1.034	1076.72	0.0045	P	12.1
4	☐	50.000	55.553	53625.60	0.2351	P	0.8
5	☐	125.000	135.389	125839.76	0.5728	P	0.3
6	☐	250.000	266.811	236745.82	1.1288	P	0.9
7	☐	500.000	516.766	443314.67	2.1861	P	0.5
8	☐	1000.000	985.838	848486.85	4.1703	P	0.4
9	☐			15848.73	0.0777	P	1.0

$$y = 0.0042 * x + 1.3385E-004$$

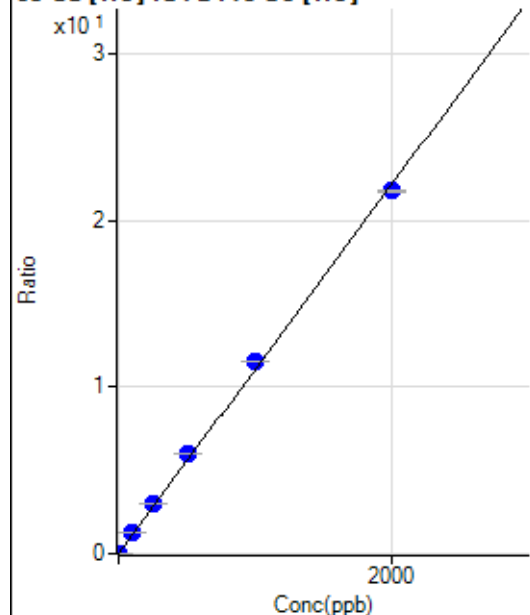
$$R = 0.9996$$

$$DL = 0.02559$$

$$BEC = 0.03164$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	157.78	0.0007	P	22.5
2	☐	0.200	0.210	696.70	0.0030	P	6.9
3	☐	2.000	2.001	5462.21	0.0228	P	1.4
4	☐	100.000	112.045	283225.48	1.2418	P	0.5
5	☐	250.000	272.318	662813.03	3.0172	P	0.1
6	☐	500.000	538.401	1251011.09	5.9646	P	0.3
7	☐	1000.000	1040.113	2336589.48	11.5222	P	0.5
8	☐	2000.000	1966.951	4433291.77	21.7889	P	0.2
9	☐			6172.53	0.0303	P	1.8

$$y = 0.0111 * x + 6.7946E-004$$

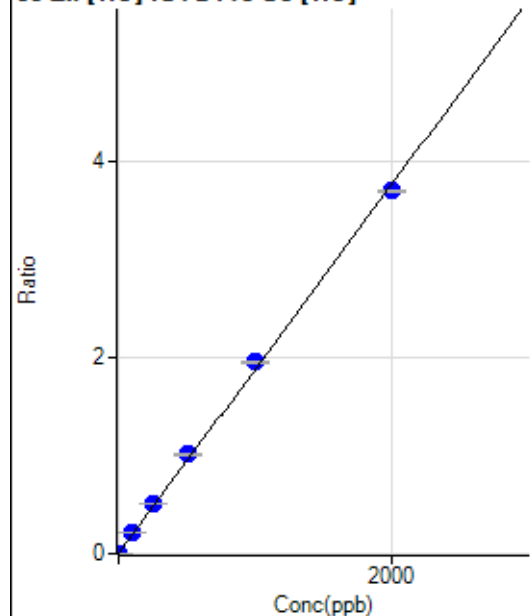
$$R = 0.9995$$

$$DL = 0.04149$$

$$BEC = 0.06134$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	265.56	0.0011	P	20.7
2	☐	0.200	0.300	395.57	0.0017	P	9.3
3	☐	2.000	1.817	1091.17	0.0046	P	1.2
4	☐	100.000	111.187	47999.81	0.2105	P	0.3
5	☐	250.000	270.728	112212.44	0.5108	P	0.4
6	☐	500.000	536.598	212107.51	1.0113	P	0.7
7	☐	1000.000	1040.989	397644.54	1.9609	P	0.7
8	☐	2000.000	1967.206	753727.69	3.7045	P	0.3
9	☐			6100.26	0.0299	P	2.2

$$y = 0.0019 * x + 0.0011$$

$$R = 0.9995$$

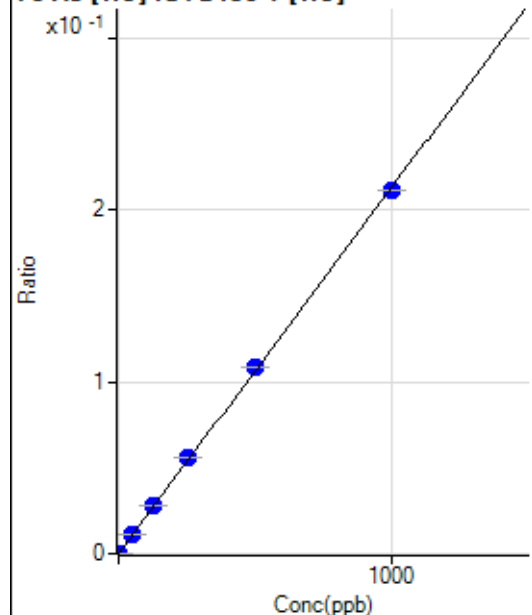
$$DL = 0.3779$$

$$BEC = 0.6075$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-0.84	0.0000	P	-197.
2	☐	0.100	0.128	32.96	0.0000	P	36.5
3	☐	1.000	0.956	257.12	0.0002	P	6.3
4	☐	50.000	53.814	13894.71	0.0115	P	0.3
5	☐	125.000	129.592	32480.31	0.0276	P	1.1
6	☐	250.000	261.833	62843.97	0.0557	P	0.7
7	☐	500.000	510.096	118933.69	0.1086	P	0.4
8	☐	1000.000	991.229	231212.32	0.2110	P	0.1
9	☐			332.62	0.0003	P	3.4

$$y = 2.1285\text{E-}004 * x - 6.7456\text{E-}007$$

$$R = 0.9998$$

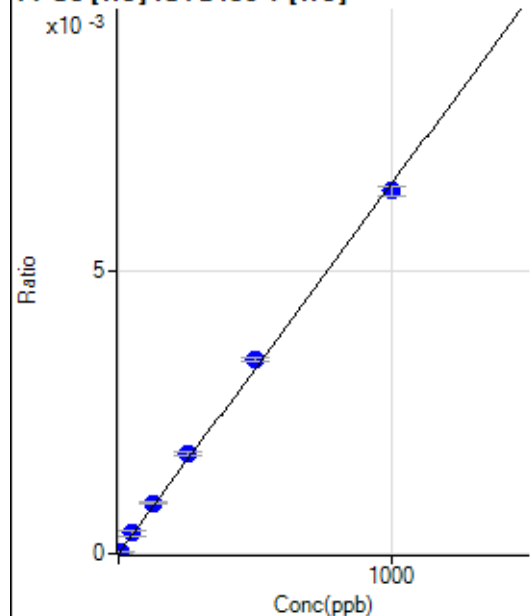
$$DL = 0.01878$$

$$BEC = -0.003169$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2.22	0.0000	P	173.2
2	☐	0.500	0.002	2.22	0.0000	P	86.6
3	☐	5.000	6.019	52.22	0.0000	P	16.0
4	☐	50.000	54.669	435.57	0.0004	P	22.9
5	☐	125.000	136.751	1055.61	0.0009	P	6.1
6	☐	250.000	270.197	1995.73	0.0018	P	3.2
7	☐	500.000	523.971	3757.22	0.0034	P	2.5
8	☐	1000.000	981.258	7037.36	0.0064	P	2.4
9	☐			2.22	0.0000	P	86.6

$$y = 6.5434\text{E-}006 * x + 1.7817\text{E-}006$$

$$R = 0.9993$$

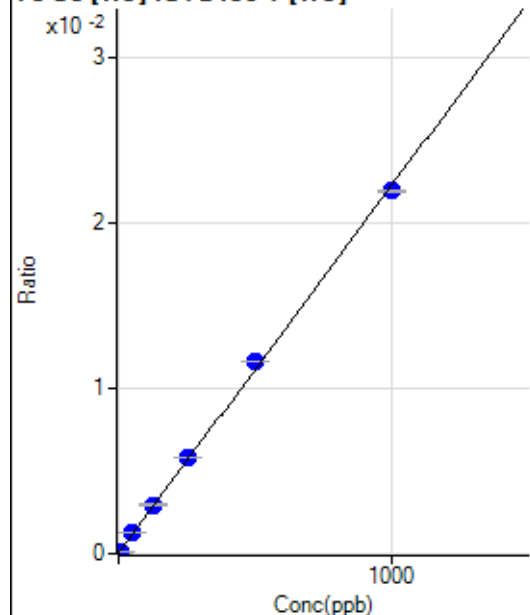
$$DL = 1.415$$

$$BEC = 0.2723$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	46.91	0.0000	P	23.5
2	☐	0.500	0.629	63.58	0.0001	P	12.0
3	☐	5.000	4.783	182.10	0.0001	P	8.4
4	☐	50.000	54.618	1516.15	0.0012	P	4.3
5	☐	125.000	129.822	3436.24	0.0029	P	3.5
6	☐	250.000	261.364	6582.40	0.0058	P	0.7
7	☐	500.000	520.700	12698.84	0.0116	P	0.5
8	☐	1000.000	985.976	24019.31	0.0219	P	0.5
9	☐			59.88	0.0001	P	9.2

$$y = 2.2191\text{E-}005 * x + 3.7475\text{E-}005$$

$$R = 0.9996$$

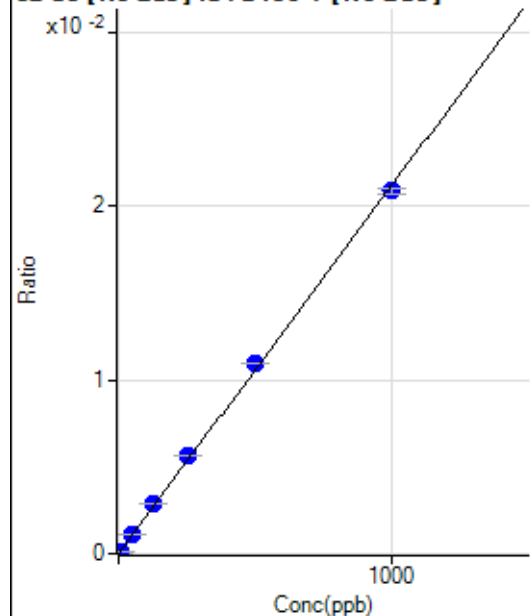
$$DL = 1.192$$

$$BEC = 1.689$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-3.83	0.0000	P	9908.
2	☐	0.500	0.865	150.20	0.0000	P	26.8
3	☐	5.000	5.456	951.99	0.0001	P	6.0
4	☐	50.000	53.962	9242.27	0.0011	P	0.2
5	☐	125.000	134.106	22461.83	0.0028	P	0.8
6	☐	250.000	267.049	42588.56	0.0057	P	1.1
7	☐	500.000	516.548	81577.35	0.0109	P	0.6
8	☐	1000.000	986.125	155387.29	0.0209	P	1.8
9	☐			173.91	0.0000	P	14.7

$$y = 2.1178\text{E-}005 * x + 8.0350\text{E-}008$$

$$R = 0.9996$$

$$DL = 1.128$$

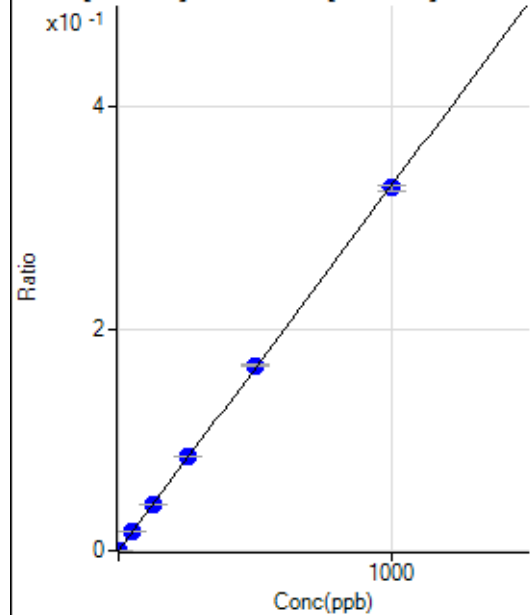
$$BEC = 0.003794$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			365.57		P	6.6
2	☐			300.01		P	3.3
3	☐			326.67		P	9.7
4	☐			311.12		P	16.0
5	☐			332.23		P	12.9
6	☐			284.45		P	3.6
7	☐			283.34		P	5.1
8	☐			284.45		P	3.4
9	☐			313.34		P	4.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	516.70	0.0001	P	7.9
2	☐	0.100	0.130	875.07	0.0001	P	12.3
3	☐	1.000	1.004	3250.51	0.0004	P	4.0
4	☐	50.000	51.673	138102.00	0.0171	P	0.6
5	☐	125.000	127.822	333352.35	0.0421	P	0.3
6	☐	250.000	257.446	638794.31	0.0848	P	0.2
7	☐	500.000	507.945	1247600.25	0.1673	P	0.8
8	☐	1000.000	993.730	2434857.52	0.3272	P	1.7
9	☐			11296.56	0.0016	P	1.2

$$y = 3.2924\text{E-}004 * x + 6.4313\text{E-}005$$

$$R = 0.9999$$

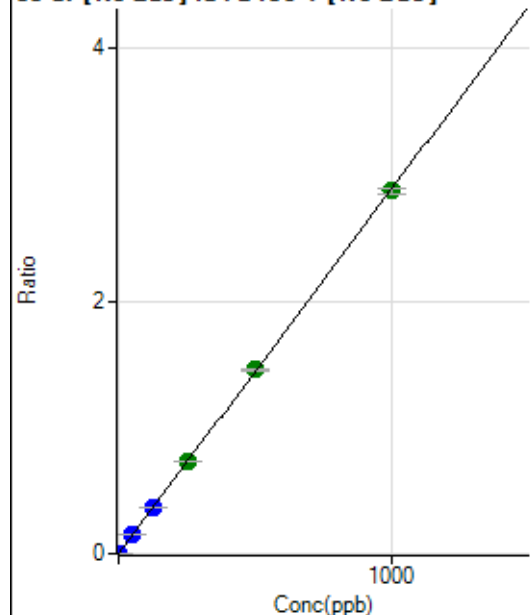
$$DL = 0.04628$$

$$BEC = 0.1953$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	97.23	0.0000	P	55.1
2	☐	0.100	0.092	2275.28	0.0003	P	2.6
3	☐	1.000	0.933	22268.10	0.0027	P	0.9
4	☐	50.000	51.283	1197263.09	0.1481	P	0.5
5	☐	125.000	127.042	2900556.08	0.3667	P	0.1
6	☐	250.000	255.429	5552699.61	0.7374	A	0.2
7	☐	500.000	505.958	10891603.28	1.4606	A	1.0
8	☐	1000.000	995.344	21378335.72	2.8733	A	1.8
9	☐			95427.38	0.0133	P	1.4

$$y = 0.0029 * x + 1.2547E-005$$

$$R = 1.0000$$

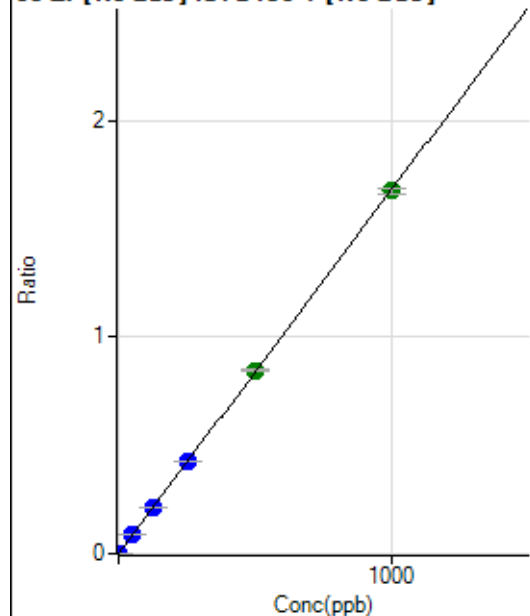
$$DL = 0.007183$$

$$BEC = 0.004346$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	497.25	0.0001	P	11.5
2	☐	0.100	0.088	1711.28	0.0002	P	6.7
3	☐	1.000	0.924	13292.77	0.0016	P	0.9
4	☐	50.000	50.562	687378.63	0.0850	P	0.7
5	☐	125.000	125.947	1673852.29	0.2116	P	0.1
6	☐	250.000	252.568	3195585.03	0.4244	P	0.6
7	☐	500.000	504.592	6321697.89	0.8477	A	0.3
8	☐	1000.000	996.916	12461242.73	1.6748	A	1.7
9	☐			5406.80	0.0008	P	1.2

$$y = 0.0017 * x + 6.1921E-005$$

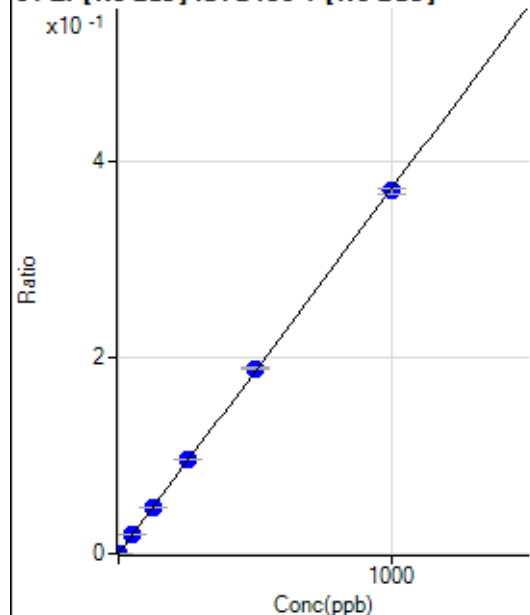
$$R = 1.0000$$

$$DL = 0.01276$$

$$BEC = 0.03686$$

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	113.89	0.0000	P	15.8
2	☐	0.100	0.099	413.91	0.0001	P	25.1
3	☐	1.000	0.911	2900.42	0.0004	P	5.5
4	☐	50.000	50.792	152661.29	0.0189	P	0.5
5	☐	125.000	128.167	376580.42	0.0476	P	0.5
6	☐	250.000	256.973	718800.80	0.0955	P	0.9
7	☐	500.000	507.376	1405329.65	0.1885	P	0.9
8	☐	1000.000	994.133	2747242.40	0.3692	P	1.9
9	☐			1197.32	0.0002	P	2.3

$$y = 3.7140\text{E-}004 * x + 1.3972\text{E-}005$$

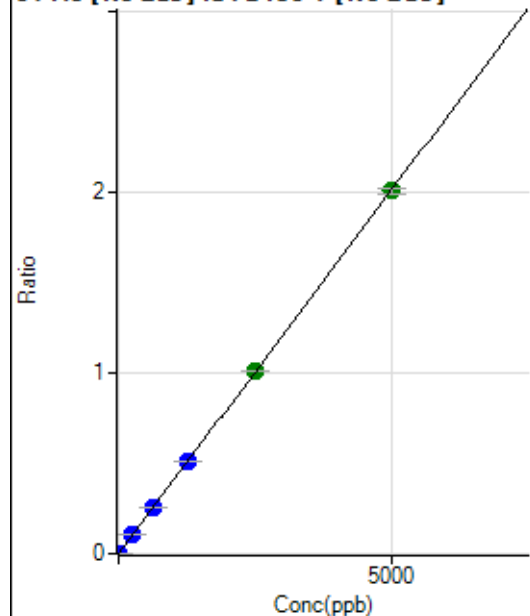
$$R = 0.9999$$

$$DL = 0.01785$$

$$BEC = 0.03762$$

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	208.34	0.0000	P	18.9
2	☐	0.500	0.456	1714.07	0.0002	P	5.6
3	☐	5.000	4.782	16076.25	0.0020	P	1.0
4	☐	250.000	253.179	825064.15	0.1020	P	0.8
5	☐	625.000	631.115	2011208.72	0.2543	P	0.4
6	☐	1250.000	1264.991	3838168.32	0.5097	P	0.4
7	☐	2500.000	2513.130	7550623.87	1.0125	A	0.6
8	☐	5000.000	4988.764	14954755.02	2.0099	A	1.8
9	☐			10584.85	0.0015	P	0.6

$$y = 4.0289\text{E-}004 * x + 2.6162\text{E-}005$$

$$R = 1.0000$$

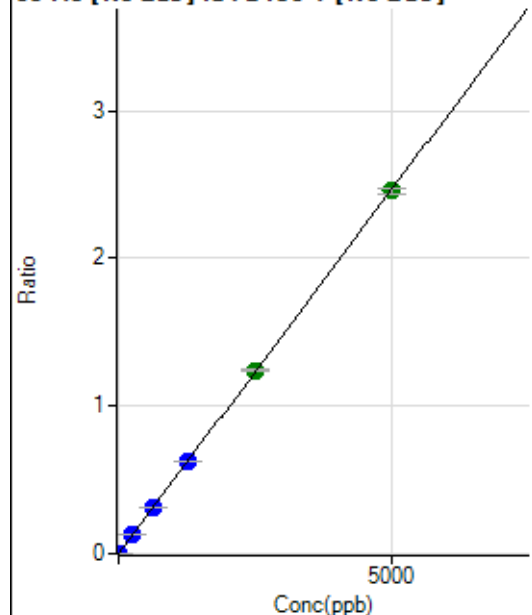
$$DL = 0.03674$$

$$BEC = 0.06494$$

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	33.34	0.0000	P	48.5
2	☐	0.500	0.535	2186.38	0.0003	P	7.6
3	☐	5.000	5.098	20712.95	0.0025	P	2.4
4	☐	250.000	253.309	1009299.91	0.1248	P	1.3
5	☐	625.000	632.460	2464592.90	0.3116	P	0.2
6	☐	1250.000	1270.109	4712537.04	0.6258	P	0.3
7	☐	2500.000	2517.591	9250106.46	1.2404	A	0.9
8	☐	5000.000	4985.079	18274901.45	2.4562	A	1.9
9	☐			14863.82	0.0021	P	2.1

$$y = 4.9271E-004 * x + 4.2353E-006$$

$$R = 1.0000$$

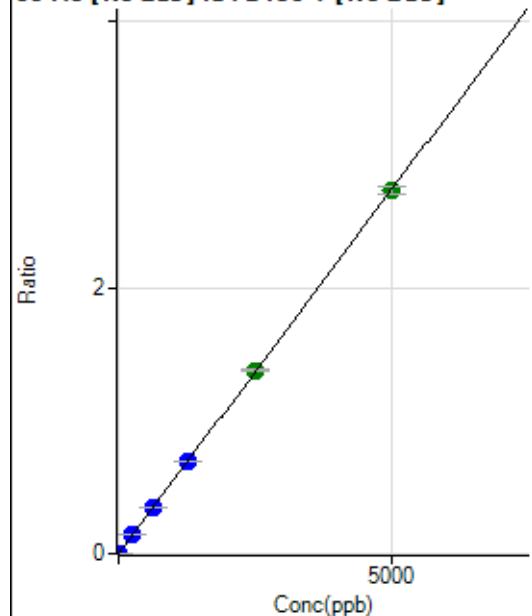
$$DL = 0.01251$$

$$BEC = 0.008596$$

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	147.23	0.0000	P	3.9
2	☐	0.500	0.481	2297.50	0.0003	P	2.4
3	☐	5.000	4.854	21995.48	0.0027	P	1.9
4	☐	250.000	252.930	1118437.60	0.1383	P	1.0
5	☐	625.000	631.286	2729828.14	0.3452	P	0.0
6	☐	1250.000	1269.338	5226193.95	0.6940	P	0.5
7	☐	2500.000	2520.096	10274651.45	1.3778	A	0.6
8	☐	5000.000	4984.186	20274779.96	2.7250	A	2.0
9	☐			23372.55	0.0033	P	2.9

$$y = 5.4673E-004 * x + 1.8298E-005$$

$$R = 1.0000$$

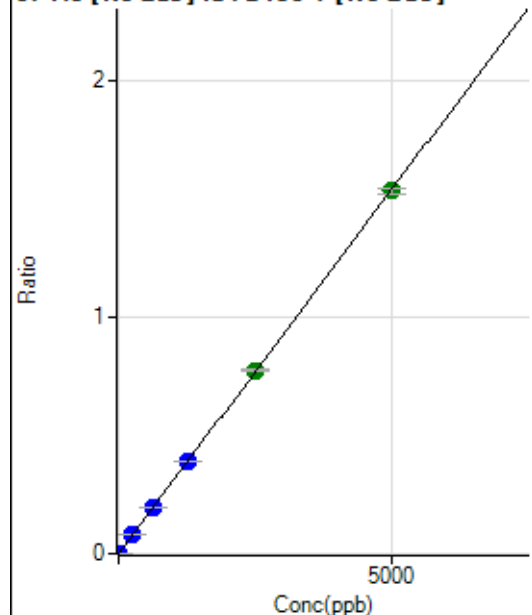
$$DL = 0.003915$$

$$BEC = 0.03347$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.56	0.0000	P	51.0
2	☐	0.500	0.481	1241.77	0.0002	P	10.5
3	☐	5.000	4.914	12489.28	0.0015	P	2.8
4	☐	250.000	252.700	629420.24	0.0778	P	0.6
5	☐	625.000	631.326	1537860.23	0.1944	P	0.4
6	☐	1250.000	1260.902	2924475.65	0.3884	P	0.3
7	☐	2500.000	2521.989	5792400.31	0.7768	A	0.4
8	☐	5000.000	4985.355	11424632.89	1.5355	A	1.6
9	☐			8972.60	0.0012	P	5.5

$$y = 3.0799\text{E-}004 * x + 3.9154\text{E-}006$$

$$R = 1.0000$$

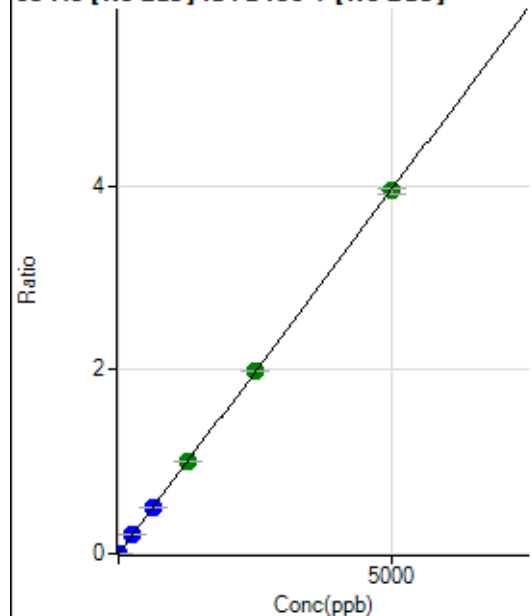
$$DL = 0.01946$$

$$BEC = 0.01271$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111.12	0.0000	P	35.1
2	☐	0.500	0.490	3275.52	0.0004	P	4.7
3	☐	5.000	4.885	31953.29	0.0039	P	0.1
4	☐	250.000	253.839	1625581.25	0.2010	P	0.1
5	☐	625.000	634.045	3970952.17	0.5021	P	0.3
6	☐	1250.000	1266.901	7554561.89	1.0032	A	0.8
7	☐	2500.000	2519.423	14877309.19	1.9950	A	0.1
8	☐	5000.000	4984.741	29368462.11	3.9472	A	1.9
9	☐			22170.85	0.0031	P	3.8

$$y = 7.9185\text{E-}004 * x + 1.3448\text{E-}005$$

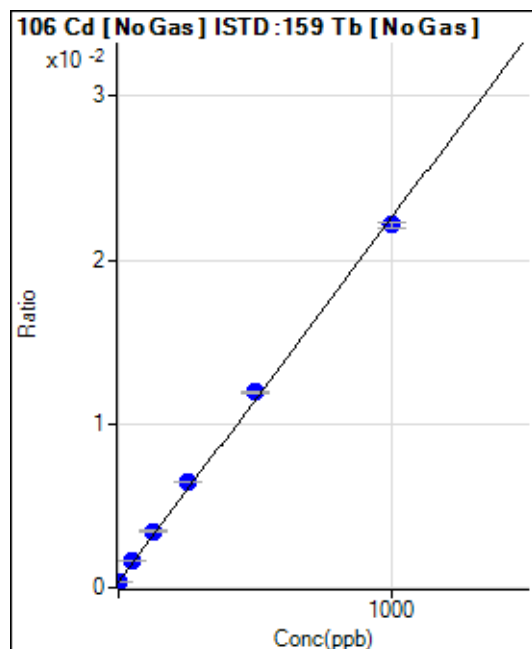
$$R = 1.0000$$

$$DL = 0.01787$$

$$BEC = 0.01698$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3795.10	0.0004	P	3.1
2	☐	0.100	0.124	3834.00	0.0004	P	1.6
3	☐	1.000	1.238	4131.37	0.0004	P	2.4
4	☐	50.000	56.827	17272.27	0.0016	P	2.8
5	☐	125.000	139.774	36757.25	0.0035	P	1.4
6	☐	250.000	274.561	67014.50	0.0065	P	1.7
7	☐	500.000	522.165	124818.66	0.0120	P	1.0
8	☐	1000.000	980.589	235347.64	0.0222	P	1.8
9	☐			3497.80	0.0003	P	5.6

$$y = 2.2229\text{E-}005 * x + 3.5480\text{E-}004$$

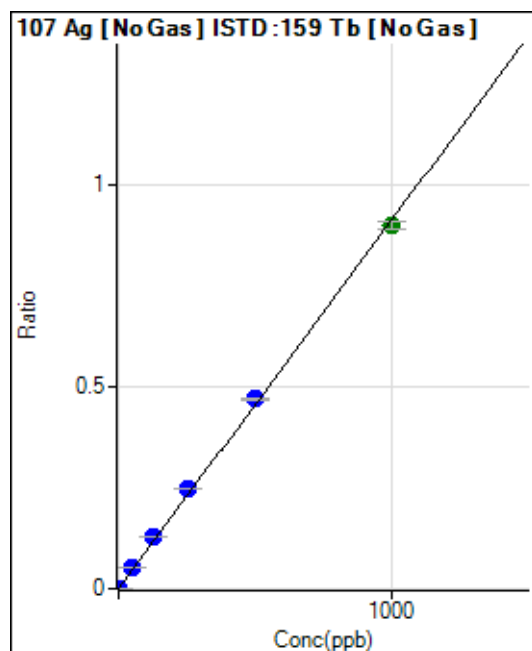
$$R = 0.9992$$

$$DL = 1.474$$

$$BEC = 15.96$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0000	P	16.3
2	☐	0.100	0.120	1255.67	0.0001	P	10.5
3	☐	1.000	1.201	11947.23	0.0011	P	4.7
4	☐	50.000	58.344	569211.38	0.0533	P	0.2
5	☐	125.000	140.162	1359988.58	0.1281	P	0.6
6	☐	250.000	270.985	2569578.09	0.2476	P	0.2
7	☐	500.000	515.100	4911470.73	0.4707	P	0.4
8	☐	1000.000	984.891	9560588.06	0.9000	A	2.2
9	☐			608.38	0.0001	P	8.4

$$y = 9.1376\text{E-}004 * x + 7.6311\text{E-}006$$

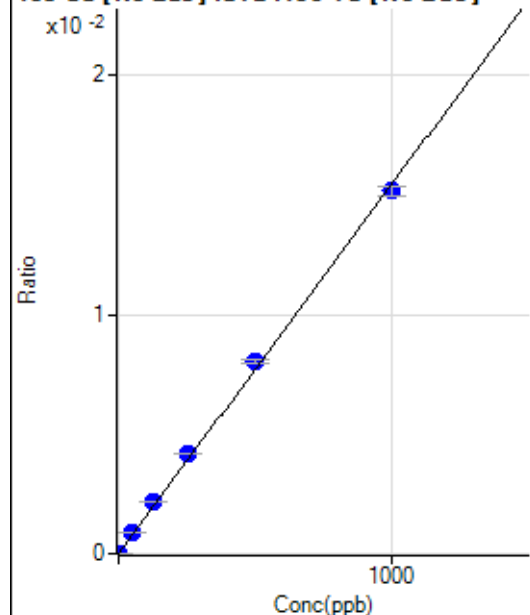
$$R = 0.9995$$

$$DL = 0.004089$$

$$BEC = 0.008351$$

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	5.56	0.0000	P	121.6
2	☐	0.100	0.131	27.78	0.0000	P	22.6
3	☐	1.000	1.012	175.00	0.0000	P	12.7
4	☐	50.000	57.001	9389.40	0.0009	P	2.7
5	☐	125.000	139.356	22822.78	0.0021	P	1.0
6	☐	250.000	269.975	43206.24	0.0042	P	0.8
7	☐	500.000	519.449	83587.58	0.0080	P	2.1
8	☐	1000.000	983.137	161047.13	0.0152	P	2.7
9	☐			30.55	0.0000	P	28.5

$$y = 1.5420\text{E-}005 * x + 5.7219\text{E-}007$$

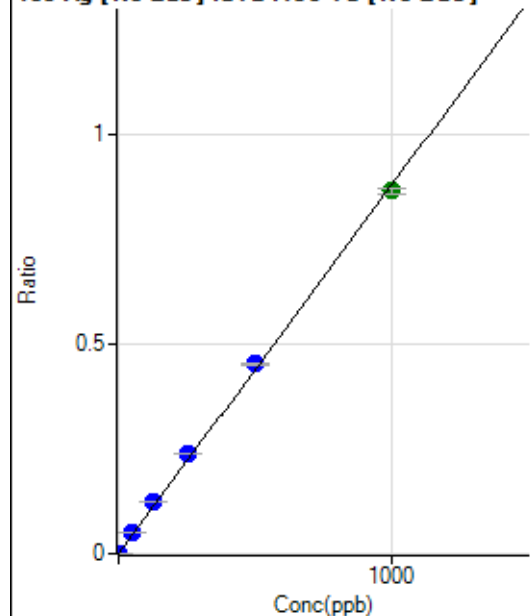
$$R = 0.9994$$

$$DL = 0.1353$$

$$BEC = 0.03711$$

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	75.00	0.0000	P	42.3
2	☐	0.100	0.121	1219.55	0.0001	P	7.2
3	☐	1.000	1.172	11218.78	0.0010	P	2.0
4	☐	50.000	57.842	543163.91	0.0509	P	0.5
5	☐	125.000	140.448	1311693.91	0.1235	P	0.9
6	☐	250.000	271.097	2474301.05	0.2384	P	0.6
7	☐	500.000	515.199	4728275.32	0.4531	P	0.6
8	☐	1000.000	984.803	9201763.92	0.8662	A	1.9
9	☐			513.92	0.0001	P	16.9

$$y = 8.7952\text{E-}004 * x + 7.2482\text{E-}006$$

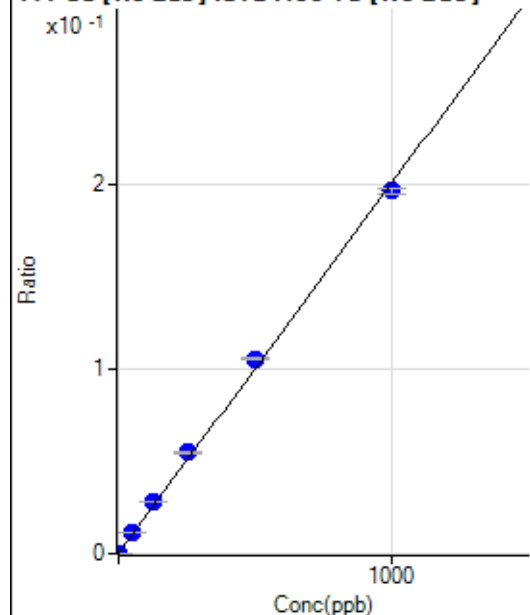
$$R = 0.9995$$

$$DL = 0.01046$$

$$BEC = 0.008241$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2663.79	0.0002	P	3.1
2	☐	0.100	0.102	2889.37	0.0003	P	2.1
3	☐	1.000	1.076	5018.30	0.0005	P	2.1
4	☐	50.000	57.283	125017.26	0.0117	P	0.9
5	☐	125.000	139.562	299140.18	0.0282	P	0.3
6	☐	250.000	271.780	566881.39	0.0546	P	0.4
7	☐	500.000	525.230	1099196.12	0.1053	P	0.6
8	☐	1000.000	979.755	2085263.01	0.1963	P	1.9
9	☐			2640.97	0.0003	P	4.2

$$y = 2.0009\text{E-}004 * x + 2.4905\text{E-}004$$

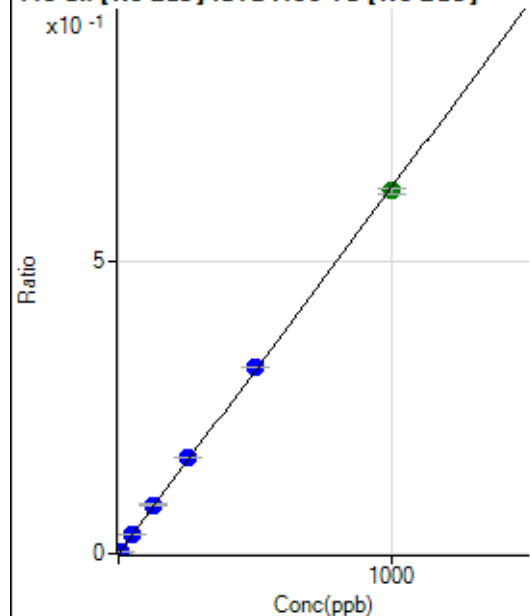
$$R = 0.9992$$

$$DL = 0.1155$$

$$BEC = 1.245$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1097.32	0.0001	P	9.6
2	☐	0.500	0.539	4726.00	0.0004	P	1.6
3	☐	5.000	5.095	35584.89	0.0033	P	1.1
4	☐	50.000	54.212	363390.89	0.0340	P	0.4
5	☐	125.000	133.683	889663.92	0.0838	P	1.2
6	☐	250.000	262.199	1704340.19	0.1642	P	0.1
7	☐	500.000	509.812	3331271.60	0.3193	P	0.6
8	☐	1000.000	990.748	6590495.94	0.6203	A	1.4
9	☐			6171.09	0.0006	P	3.6

$$y = 6.2601\text{E-}004 * x + 1.0330\text{E-}004$$

$$R = 0.9998$$

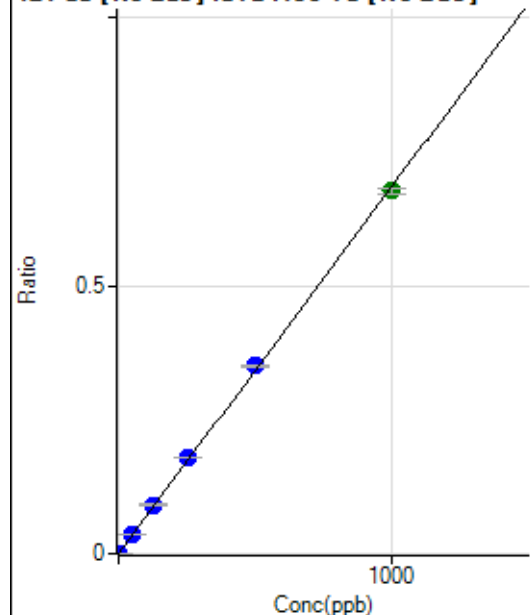
$$DL = 0.04767$$

$$BEC = 0.165$$

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	63.89	0.0000	P	17.5
2	☐	0.200	0.184	1414.03	0.0001	P	7.5
3	☐	2.000	1.994	14802.75	0.0014	P	1.6
4	☐	50.000	54.100	395013.99	0.0370	P	0.3
5	☐	125.000	133.629	970369.27	0.0914	P	0.7
6	☐	250.000	262.365	1861912.76	0.1794	P	0.6
7	☐	500.000	512.038	3653902.77	0.3502	P	0.6
8	☐	1000.000	989.606	7189781.93	0.6768	A	1.8
9	☐			7724.66	0.0008	P	2.3

$$y = 6.8386E-004 * x + 6.0567E-006$$

$$R = 0.9998$$

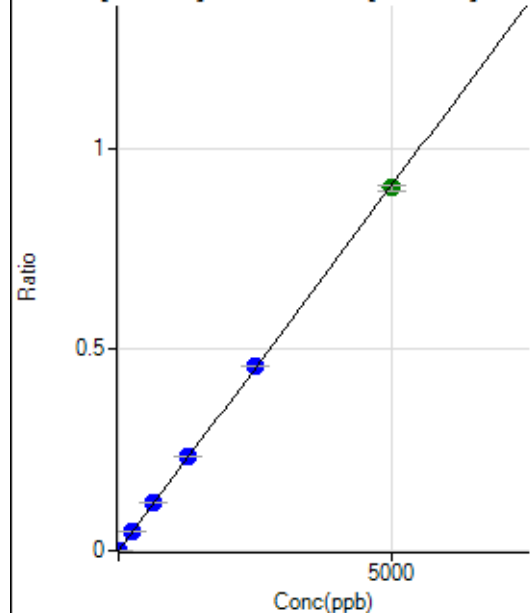
$$DL = 0.004659$$

$$BEC = 0.008857$$

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	25.00	0.0000	P	50.3
2	☐	1.000	1.016	2000.24	0.0002	P	5.0
3	☐	10.000	10.192	20004.02	0.0019	P	3.4
4	☐	250.000	264.296	511906.42	0.0480	P	0.7
5	☐	625.000	650.279	1252690.21	0.1180	P	0.2
6	☐	1250.000	1291.484	2431436.23	0.2343	P	0.6
7	☐	2500.000	2533.851	4796896.68	0.4597	P	0.5
8	☐	5000.000	4968.829	9577256.20	0.9015	A	1.7
9	☐			1269.56	0.0001	P	10.1

$$y = 1.8143E-004 * x + 2.2990E-006$$

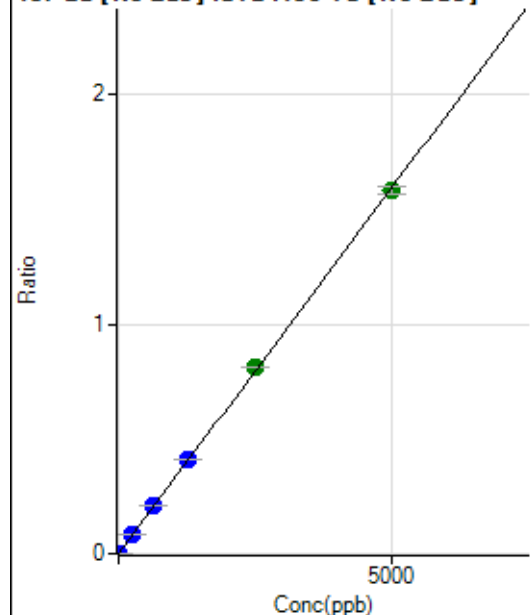
$$R = 0.9999$$

$$DL = 0.01912$$

$$BEC = 0.01267$$

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	38.89	0.0000	P	75.6
2	☐	1.000	0.911	3147.71	0.0003	P	4.1
3	☐	10.000	10.088	34755.51	0.0032	P	1.8
4	☐	250.000	265.039	900940.91	0.0844	P	0.5
5	☐	625.000	652.450	2205845.90	0.2078	P	0.7
6	☐	1250.000	1288.920	4258828.00	0.4104	P	0.2
7	☐	2500.000	2544.056	8452767.12	0.8101	A	0.1
8	☐	5000.000	4964.059	16791771.73	1.5806	A	2.1
9	☐			2305.84	0.0002	P	12.6

$$y = 3.1841\text{E-}004 * x + 3.5998\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.02563$$

$$BEC = 0.01131$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			8.89		P	114.5
2	☐			2.22		P	173.2
3	☐			4.45		P	86.6
4	☐			42.22		P	24.1
5	☐			124.45		P	46.2
6	☐			280.01		P	14.9
7	☐			511.14		P	14.3
8	☐			1024.52		P	9.2
9	☐			137.79		P	36.3

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐			0.00		P	
3	☐			2.22		P	86.6
4	☐			11.11		P	34.6
5	☐			12.22		P	41.7
6	☐			26.67		P	12.5
7	☐			52.22		P	3.7
8	☐			83.33		P	12.0
9	☐			52.22		P	26.6

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	65.5
2	☐			5.55		P	86.6
3	☐			8.33		P	100.0
4	☐			27.78		P	17.3
5	☐			50.00		P	44.1
6	☐			83.34		P	17.3
7	☐			97.23		P	27.6
8	☐			216.68		P	36.7
9	☐			94.45		P	10.2

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	91.6
2	☐			1.11		P	173.2
3	☐			4.44		P	114.6
4	☐			13.33		P	25.0
5	☐			23.33		P	14.3
6	☐			47.78		P	28.2
7	☐			98.89		P	19.8
8	☐			193.34		P	9.6
9	☐			43.33		P	23.1

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			47.23		P	20.4
2	☐			38.89		P	12.4
3	☐			36.11		P	70.5
4	☐			61.11		P	15.7
5	☐			36.11		P	26.7
6	☐			47.22		P	10.2
7	☐			52.78		P	48.2
8	☐			55.56		P	22.9
9	☐			102.78		P	28.5

160 Gd [He] No available calibration points

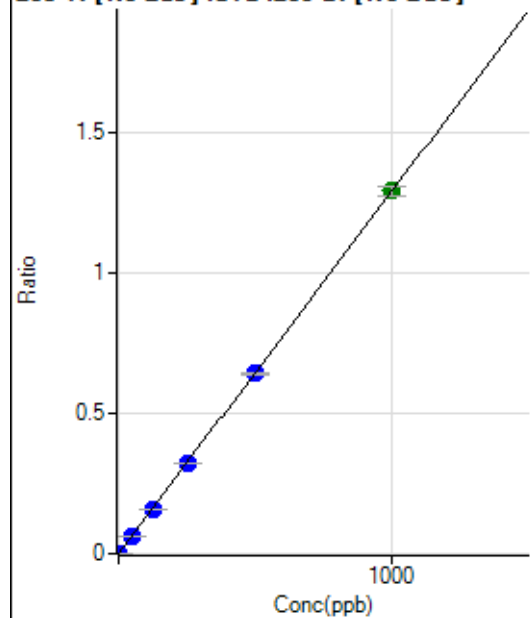
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			183.34		P	14.4
2	☐			177.78		P	10.3
3	☐			157.78		P	11.6
4	☐			187.78		P	9.8
5	☐			145.56		P	16.6
6	☐			176.67		P	31.2
7	☐			175.56		P	12.6
8	☐			161.12		P	32.3
9	☐			181.12		P	10.8

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.55		P	68.6
2	☐			16.67		P	100.0
3	☐			22.22		P	114.6
4	☐			25.00		P	57.7
5	☐			41.67		P	20.0
6	☐			30.56		P	31.5
7	☐			47.22		P	44.4
8	☐			61.11		P	20.8
9	☐			50.00		P	0.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			17.78		P	28.6
2	☐			17.78		P	75.8
3	☐			14.44		P	13.4
4	☐			30.00		P	48.4
5	☐			21.11		P	24.1
6	☐			15.56		P	32.7
7	☐			35.55		P	10.8
8	☐			22.22		P	67.6
9	☐			22.22		P	8.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	175.01	0.0000	P	33.4
2	☐	0.100	0.090	1036.20	0.0001	P	7.3
3	☐	1.000	0.868	8583.67	0.0011	P	2.6
4	☐	50.000	49.062	468005.64	0.0632	P	0.7
5	☐	125.000	122.707	1162697.25	0.1581	P	0.5
6	☐	250.000	248.276	2295361.66	0.3199	P	0.6
7	☐	500.000	497.205	4554319.03	0.6407	P	0.7
8	☐	1000.000	1002.162	9161091.70	1.2913	A	2.4
9	☐			1608.51	0.0003	P	8.0

$$y = 0.0013 * x + 2.3414E-005$$

$$R = 1.0000$$

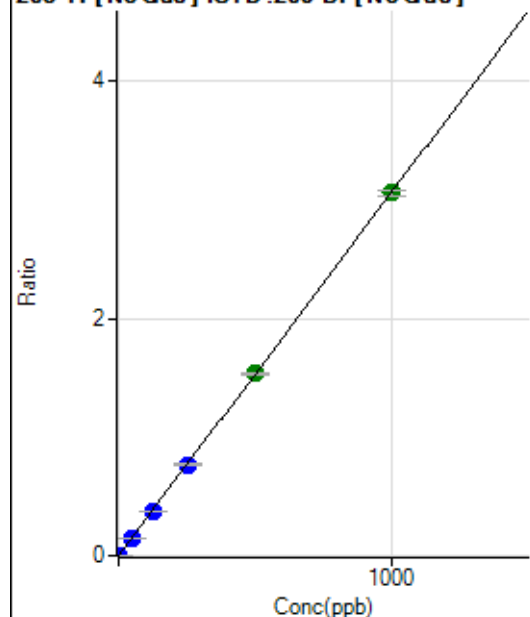
$$DL = 0.0182$$

$$BEC = 0.01817$$

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	438.91	0.0001	P	12.0
2	☐	0.100	0.086	2408.66	0.0003	P	3.0
3	☐	1.000	0.899	21142.53	0.0028	P	3.1
4	☐	50.000	49.470	1121698.29	0.1516	P	1.1
5	☐	125.000	123.832	2789050.06	0.3793	P	0.3
6	☐	250.000	250.520	5505374.04	0.7673	P	0.9
7	☐	500.000	502.346	10937573.94	1.5386	A	0.8
8	☐	1000.000	998.870	21706109.86	3.0593	A	1.8
9	☐			3711.80	0.0006	P	11.8

$$y = 0.0031 * x + 5.8244E-005$$

$$R = 1.0000$$

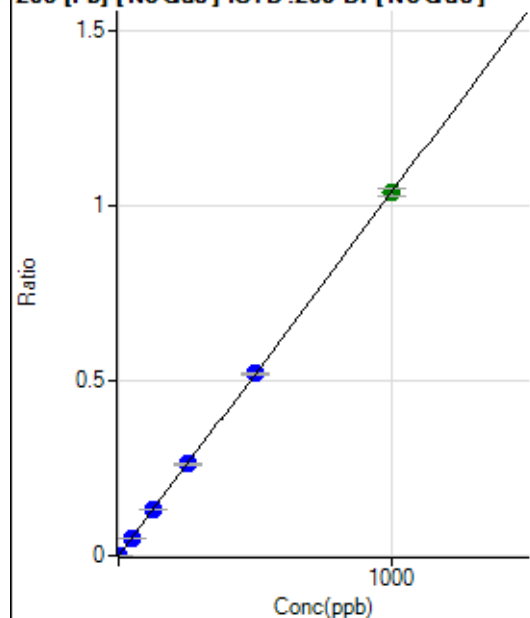
$$DL = 0.006859$$

$$BEC = 0.01902$$

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	535.21	0.0001	P	6.1
2	☐	0.100	0.082	1170.46	0.0002	P	9.2
3	☐	1.000	0.921	7724.68	0.0010	P	0.2
4	☐	50.000	49.901	384000.95	0.0519	P	0.8
5	☐	125.000	124.849	953731.48	0.1297	P	0.5
6	☐	250.000	251.452	1873881.32	0.2612	P	0.8
7	☐	500.000	502.470	3709513.19	0.5218	P	1.1
8	☐	1000.000	998.426	7355882.28	1.0368	A	2.2
9	☐			7676.52	0.0013	P	3.4

$$y = 0.0010 * x + 7.1589E-005$$

$$R = 1.0000$$

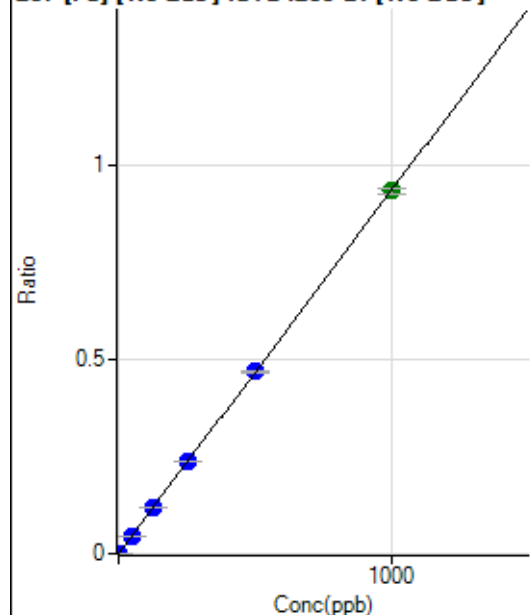
$$DL = 0.01268$$

$$BEC = 0.06894$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	438.91	0.0001	P	16.9
2	☐	0.100	0.092	1079.71	0.0001	P	7.5
3	☐	1.000	0.875	6588.83	0.0009	P	3.2
4	☐	50.000	49.727	344227.08	0.0465	P	0.4
5	☐	125.000	124.922	858497.85	0.1168	P	0.3
6	☐	250.000	252.436	1692396.34	0.2359	P	0.2
7	☐	500.000	501.063	3327849.58	0.4681	P	1.4
8	☐	1000.000	998.883	6620960.56	0.9332	A	1.9
9	☐			6624.05	0.0011	P	2.6

$$y = 9.3418\text{E-}004 * x + 5.9123\text{E-}005$$

$$R = 1.0000$$

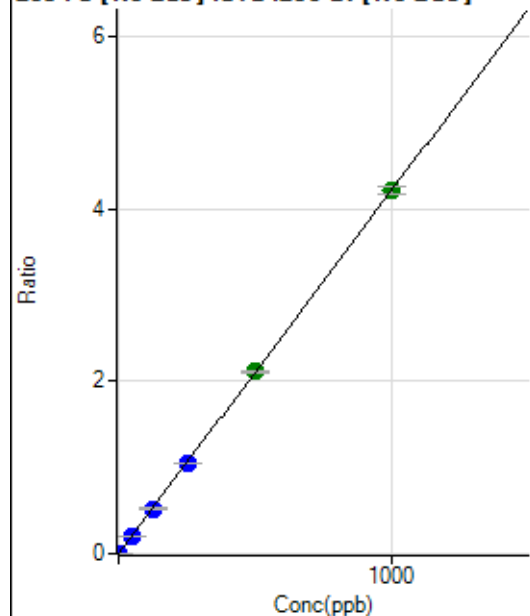
$$DL = 0.03214$$

$$BEC = 0.06329$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2044.57	0.0003	P	7.0
2	☐	0.100	0.092	4930.14	0.0007	P	2.9
3	☐	1.000	0.901	30592.41	0.0041	P	0.8
4	☐	50.000	49.675	1549939.71	0.2094	P	0.2
5	☐	125.000	124.224	3847880.37	0.5233	P	0.4
6	☐	250.000	251.134	7588787.01	1.0577	P	0.2
7	☐	500.000	501.013	14998097.32	2.1098	A	1.2
8	☐	1000.000	999.323	29855050.84	4.2080	A	2.0
9	☐			30236.42	0.0050	P	1.3

$$y = 0.0042 * x + 2.7396\text{E-}004$$

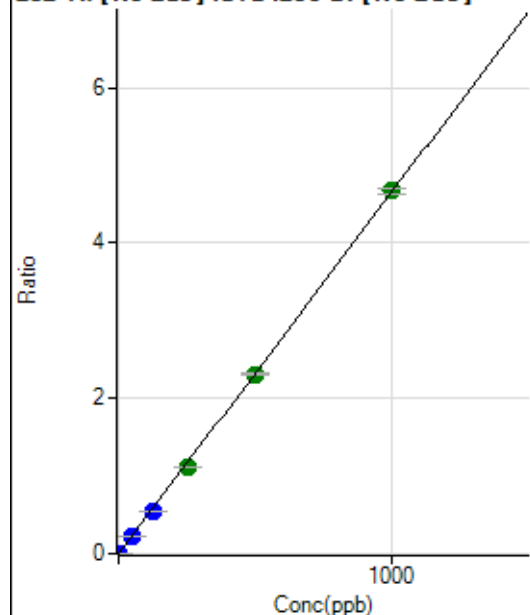
$$R = 1.0000$$

$$DL = 0.01374$$

$$BEC = 0.06506$$

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	87.04	0.0000	P	49.2
2	☐	0.100	0.084	3013.40	0.0004	P	5.7
3	☐	1.000	0.845	29621.19	0.0039	P	0.8
4	☐	50.000	46.453	1598855.54	0.2160	P	0.5
5	☐	125.000	117.821	4028871.04	0.5479	P	0.4
6	☐	250.000	241.487	8057795.96	1.1231	A	0.6
7	☐	500.000	497.164	16436648.28	2.3121	A	0.7
8	☐	1000.000	1004.621	33149038.70	4.6721	A	1.7
9	☐			8703.14	0.0014	P	10.2

$$y = 0.0047 * x + 1.2054E-005$$

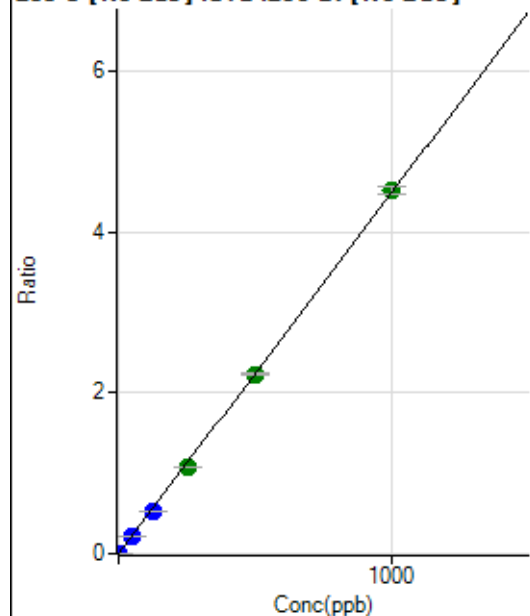
$$R = 0.9999$$

$$DL = 0.003827$$

$$BEC = 0.002592$$

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	66.67	0.0000	P	37.7
2	☐	0.100	0.088	3006.05	0.0004	P	9.2
3	☐	1.000	0.842	28496.19	0.0038	P	1.1
4	☐	50.000	46.518	1545850.98	0.2089	P	0.4
5	☐	125.000	117.904	3892658.64	0.5294	P	0.2
6	☐	250.000	241.224	7771372.31	1.0831	A	0.3
7	☐	500.000	496.256	15840300.35	2.2283	A	0.9
8	☐	1000.000	1005.127	32019990.65	4.5132	A	2.1
9	☐			1811.32	0.0003	P	2.8

$$y = 0.0045 * x + 8.9921E-006$$

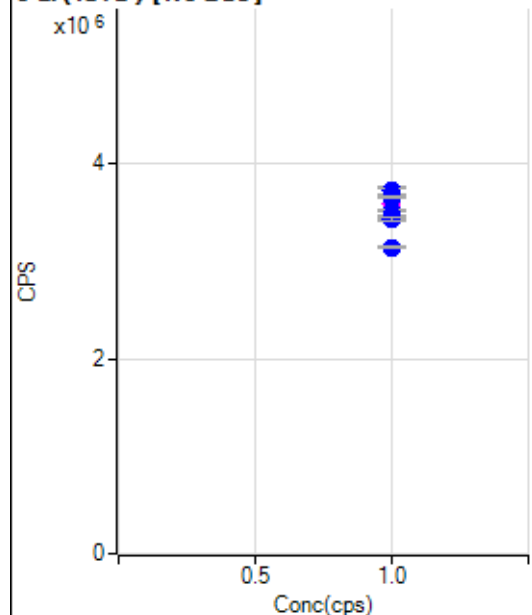
$$R = 0.9999$$

$$DL = 0.002265$$

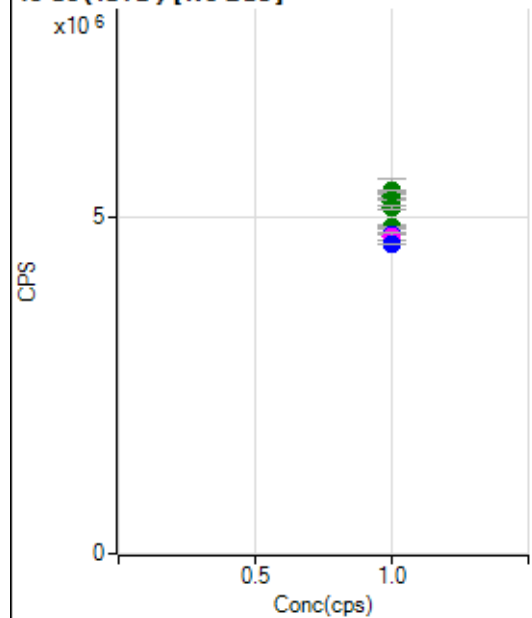
$$BEC = 0.002003$$

Weight: <None>

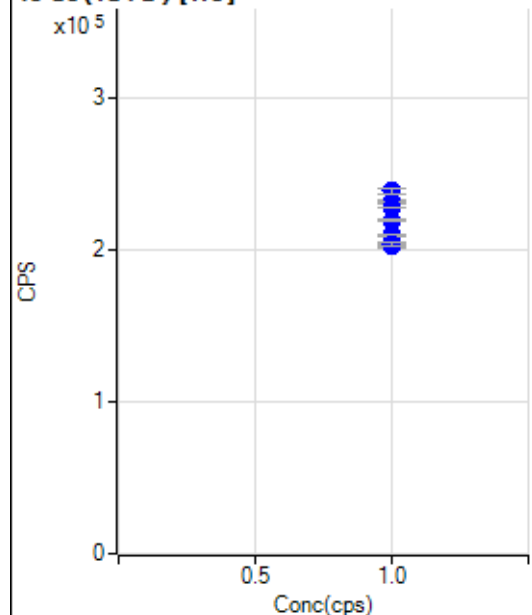
Min Conc: 0

6 Li (ISTD) [No Gas]

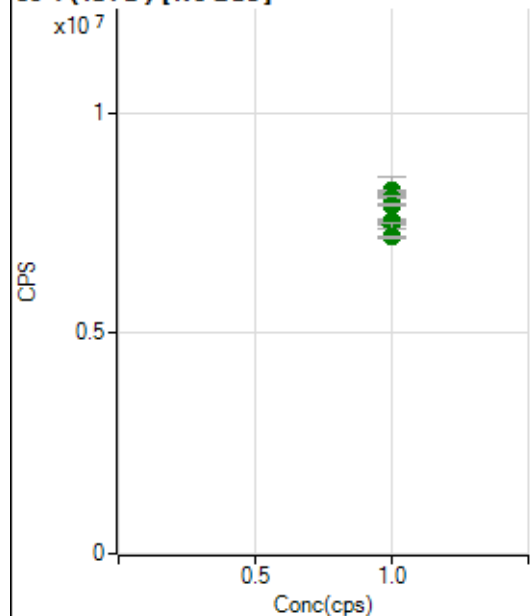
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3588125.19		M	9.3
2	☐	1.000		3672383.04		P	0.2
3	☐	1.000		3718053.62		P	1.2
4	☐	1.000		3685468.07		P	0.3
5	☐	1.000		3652820.92		P	0.6
6	☐	1.000		3515711.99		P	0.3
7	☐	1.000		3461337.24		P	0.2
8	☐	1.000		3429072.79		P	1.0
9	☐	1.000		3143173.04		P	0.7

45 Sc (ISTD) [No Gas]

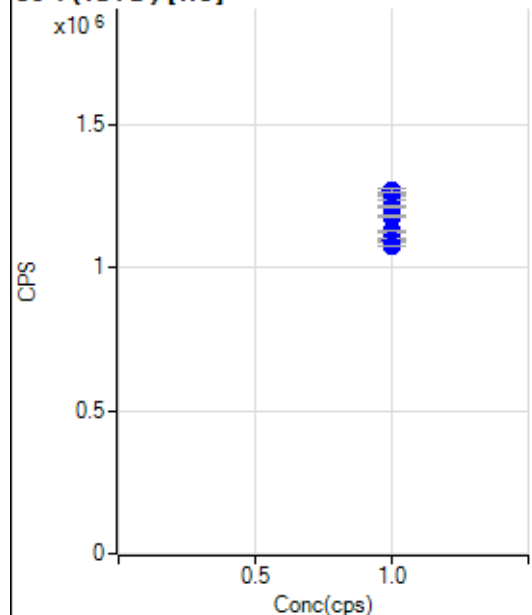
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5221562.40		A	12.6
2	☐	1.000		5305254.59		A	0.6
3	☐	1.000		5382634.06		A	0.7
4	☐	1.000		5251819.13		A	0.1
5	☐	1.000		5135332.84		A	0.9
6	☐	1.000		4845735.61		A	0.7
7	☐	1.000		4741879.27		P	0.4
8	☐	1.000		4712971.46		M	2.7
9	☐	1.000		4590876.23		P	0.4

45 Sc (ISTD) [He]

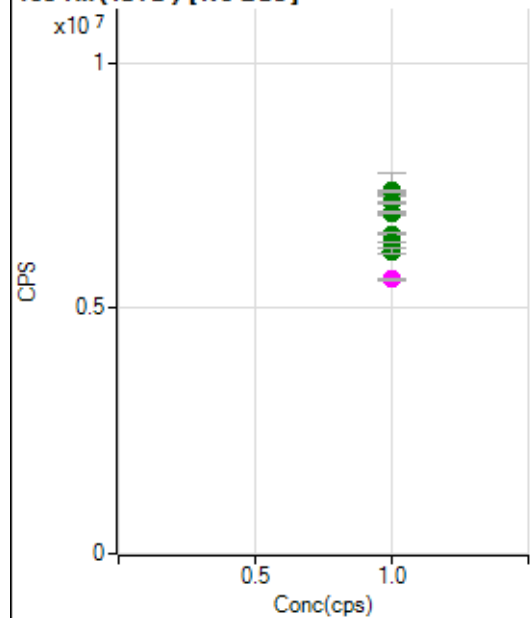
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		232381.01		P	0.9
2	☐	1.000		231556.66		P	0.3
3	☐	1.000		239094.87		P	1.3
4	☐	1.000		228073.47		P	0.3
5	☐	1.000		219678.74		P	0.3
6	☐	1.000		209738.24		P	0.6
7	☐	1.000		202797.24		P	1.1
8	☐	1.000		203463.43		P	0.7
9	☐	1.000		203953.40		P	0.8

89 Y (ISTD) [No Gas]

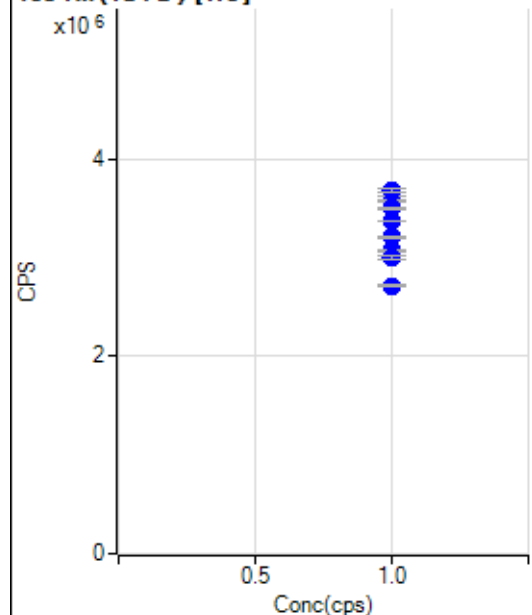
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8067297.73		A	11.5
2	☐	1.000		8165427.03		A	0.2
3	☐	1.000		8232055.78		A	0.8
4	☐	1.000		8086778.35		A	0.4
5	☐	1.000		7908894.60		A	0.5
6	☐	1.000		7530567.53		A	0.5
7	☐	1.000		7457202.46		A	0.1
8	☐	1.000		7441957.81		A	1.7
9	☐	1.000		7188732.60		A	0.5

89 Y(ISTD) [He]

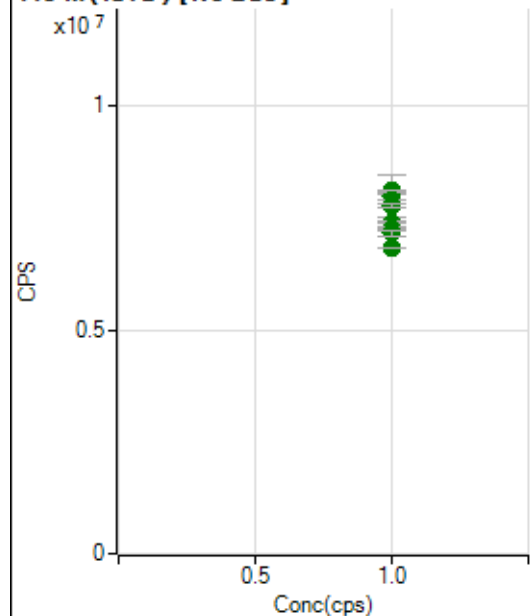
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1252642.46		P	0.5
2	☐	1.000		1235978.09		P	0.3
3	☐	1.000		1268494.61		P	0.9
4	☐	1.000		1213109.53		P	0.8
5	☐	1.000		1177567.46		P	0.5
6	☐	1.000		1127623.78		P	0.4
7	☐	1.000		1095416.41		P	0.7
8	☐	1.000		1095871.16		P	1.2
9	☐	1.000		1075419.93		P	0.4

103 Rh(ISTD) [No Gas]

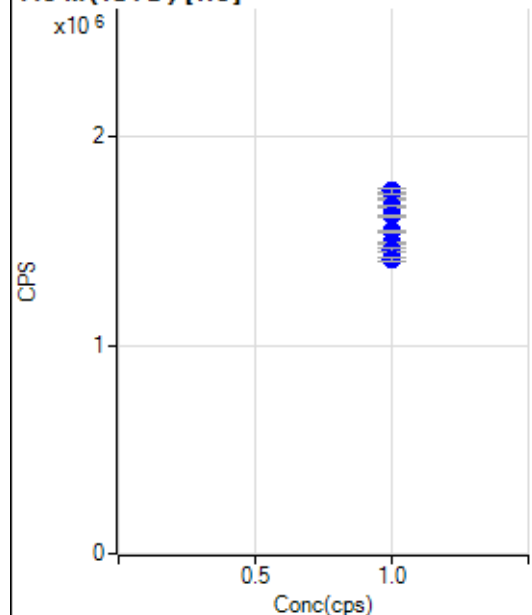
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		7310576.81		A	11.7
2	☐	1.000		7313999.90		A	0.5
3	☐	1.000		7389361.19		A	0.6
4	☐	1.000		7156858.23		A	0.3
5	☐	1.000		6950176.37		A	0.7
6	☐	1.000		6509551.06		A	0.4
7	☐	1.000		6348966.55		A	0.3
8	☐	1.000		6164059.60		A	2.0
9	☐	1.000		5581835.80		M	0.2

103 Rh (ISTD) [He]

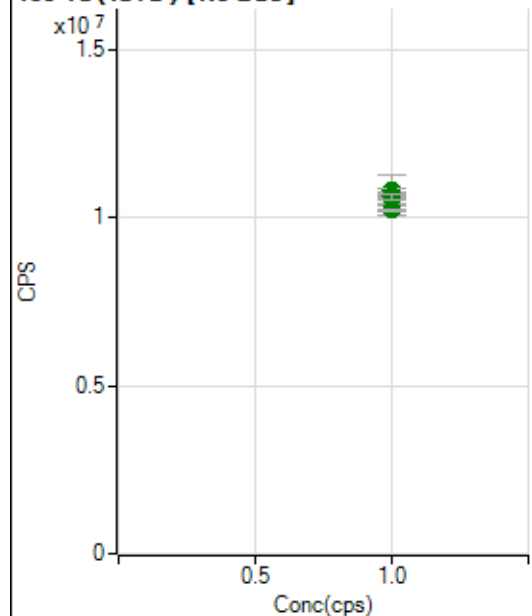
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3631371.54		P	0.2
2	☐	1.000		3577549.98		P	0.9
3	☐	1.000		3678780.71		P	0.9
4	☐	1.000		3501352.90		P	0.1
5	☐	1.000		3375550.58		P	0.3
6	☐	1.000		3208647.00		P	0.6
7	☐	1.000		3072347.59		P	0.7
8	☐	1.000		3004331.83		P	1.4
9	☐	1.000		2719532.81		P	0.4

115 In (ISTD) [No Gas]

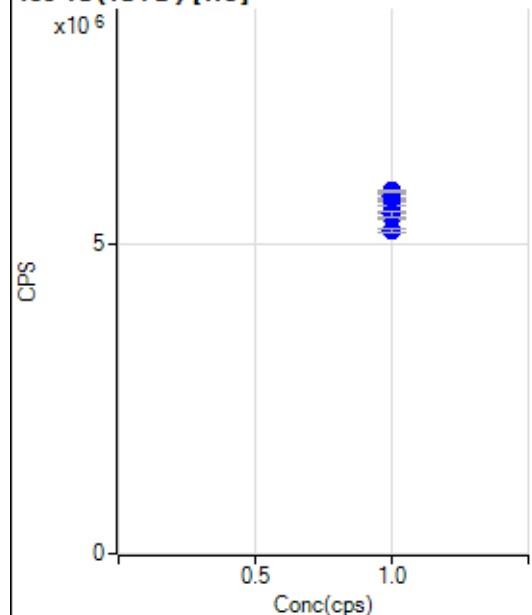
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		7990932.57		A	11.9
2	☐	1.000		8050558.57		A	0.4
3	☐	1.000		8113052.77		A	0.6
4	☐	1.000		7911289.73		A	0.4
5	☐	1.000		7786284.23		A	0.7
6	☐	1.000		7412145.38		A	0.3
7	☐	1.000		7268628.39		A	0.6
8	☐	1.000		7162778.37		A	1.8
9	☐	1.000		6841724.11		A	0.3

115 In (ISTD) [He]

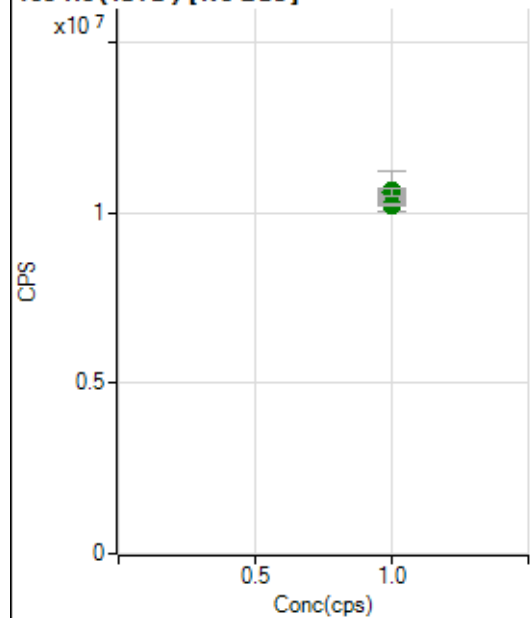
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1728035.91		P	0.4
2	☐	1.000		1700949.10		P	0.5
3	☐	1.000		1741515.14		P	1.2
4	☐	1.000		1666894.76		P	0.3
5	☐	1.000		1620651.42		P	0.1
6	☐	1.000		1546515.43		P	0.5
7	☐	1.000		1490825.59		P	0.7
8	☐	1.000		1460749.74		P	1.5
9	☐	1.000		1412341.14		P	1.0

159 Tb (ISTD) [No Gas]

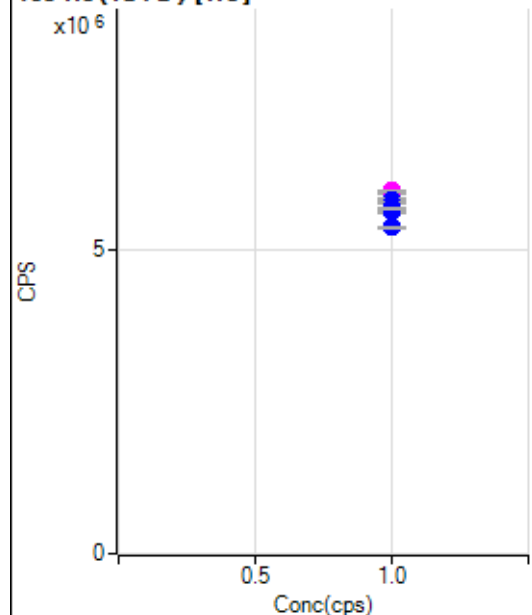
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		10684882.55		A	11.4
2	☐	1.000		10723170.81		A	0.4
3	☐	1.000		10806929.28		A	0.9
4	☐	1.000		10675270.81		A	0.4
5	☐	1.000		10617833.73		A	0.6
6	☐	1.000		10376937.62		A	0.1
7	☐	1.000		10434677.28		A	0.2
8	☐	1.000		10626219.15		A	1.9
9	☐	1.000		10235942.90		A	0.3

159 Tb (ISTD) [He]

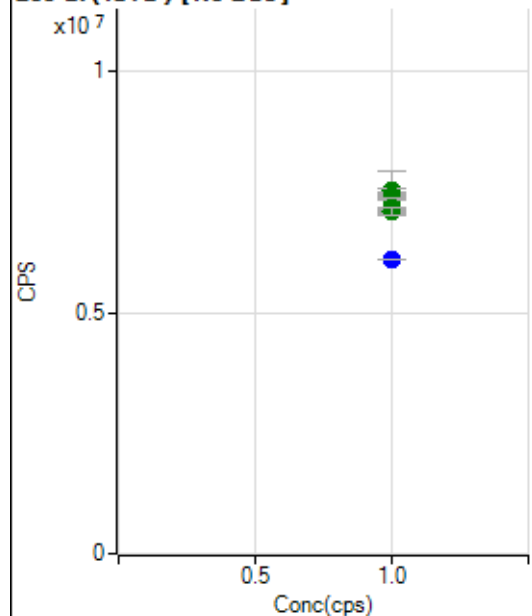
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5796198.80		P	0.9
2	☐	1.000		5719434.56		P	0.5
3	☐	1.000		5875859.98		P	0.8
4	☐	1.000		5698052.56		P	0.4
5	☐	1.000		5630934.01		P	0.1
6	☐	1.000		5523752.97		P	0.5
7	☐	1.000		5443503.39		P	0.6
8	☐	1.000		5502916.59		P	1.7
9	☐	1.000		5229833.71		P	0.9

165 Ho (ISTD) [No Gas]

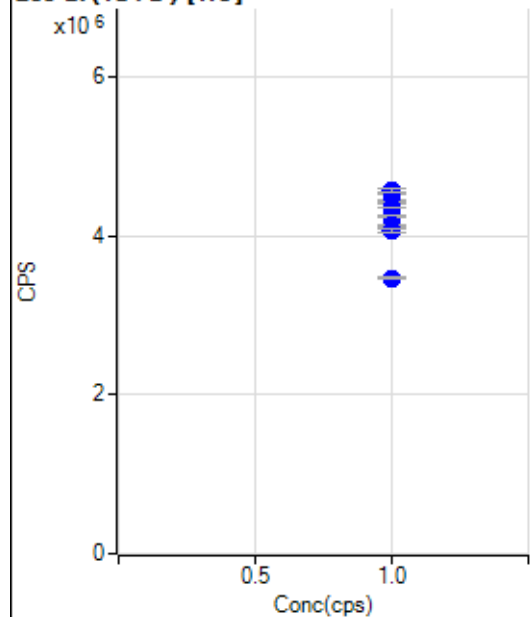
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10642026.02		A	11.3
2	☐	1.000		10581222.11		A	0.4
3	☐	1.000		10654365.78		A	0.6
4	☐	1.000		10555092.25		A	0.4
5	☐	1.000		10554347.20		A	0.6
6	☐	1.000		10358054.75		A	0.4
7	☐	1.000		10418832.09		A	0.5
8	☐	1.000		10621139.74		A	1.8
9	☐	1.000		10249432.35		A	0.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		5922997.41		M	0.6
2	☐	1.000		5806743.80		P	0.7
3	☐	1.000		5966812.48		M	0.8
4	☐	1.000		5827323.31		P	0.6
5	☐	1.000		5766554.57		P	0.3
6	☐	1.000		5682729.15		P	0.4
7	☐	1.000		5618461.30		P	0.8
8	☐	1.000		5676390.89		P	0.9
9	☐	1.000		5370005.75		P	0.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		7503150.72		A	11.5
2	☐	1.000		7465161.49		A	0.9
3	☐	1.000		7517170.72		A	1.1
4	☐	1.000		7400625.03		A	0.2
5	☐	1.000		7352773.08		A	0.5
6	☐	1.000		7174881.63		A	0.3
7	☐	1.000		7108974.48		A	0.5
8	☐	1.000		7096783.51		A	2.0
9	☐	1.000		6096906.65		P	0.2

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		4533258.09		P	0.3
2	☐	1.000		4440134.38		P	0.6
3	☐	1.000		4562611.63		P	1.1
4	☐	1.000		4423132.50		P	0.5
5	☐	1.000		4353313.16		P	0.4
6	☐	1.000		4244134.45		P	0.3
7	☐	1.000		4123728.34		P	0.7
8	☐	1.000		4072215.74		P	1.1
9	☐	1.000		3470222.48		P	0.5

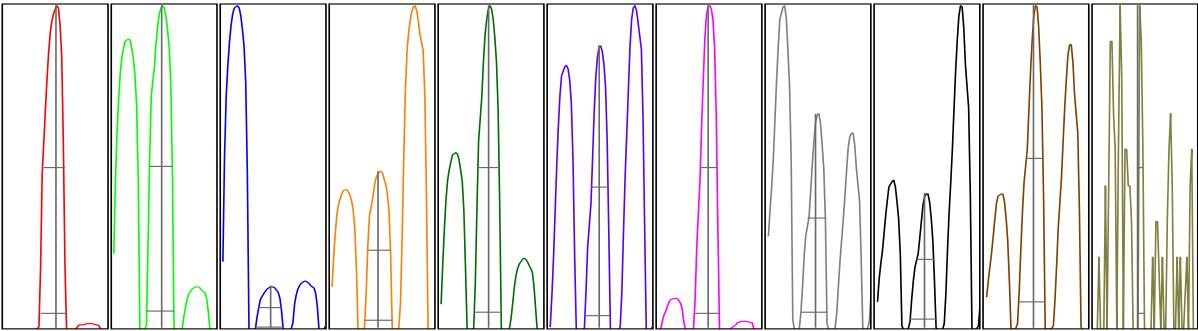
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7010219 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	9342	2.29	5.00	
24	78246	2.15	5.00	
25	10252	2.18	5.00	
26	11666	2.09	5.00	
59	53447	2.32	5.00	
113	7335	2.64	5.00	
115	87494	2.66	5.00	
206	23775	2.15	5.00	
207	21740	2.03	5.00	
208	51729	2.29	5.00	
220	0	64.36		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	9195	9252	9324	9714	9224
24	78480	78038	78139	80656	75917
25	10305	10207	10188	10587	9973
26	11711	11613	11613	12034	11359
59	52661	52953	53660	55507	52455
113	7256	7275	7288	7673	7183
115	86407	87713	87743	90976	84631
206	23476	23650	23795	24634	23322
207	21479	21488	21690	22515	21527
208	50846	51384	51894	53695	50826
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	16384	9.05	8.9 - 9.1		0.775	0.900	
24	127117	23.95	23.9 - 24.1		0.785	0.900	
25	16751	24.95	24.9 - 25.1		0.786	0.900	
26	18890	25.90	25.9 - 26.1		0.784	0.900	
59	94092	58.95	58.9 - 59.1		0.776	0.900	
113	14728	113.00	112.9 - 113.1		0.725	0.900	
115	176144	115.00	114.9 - 115.1		0.715	0.900	
206	47026	205.95	205.9 - 206.1		0.744	0.900	
207	43013	206.95	206.9 - 207.1		0.734	0.900	
208	102944	207.95	207.9 - 208.1		0.753	0.900	
220	0	219.80	-		0.193		

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	6.4	V	Deflect	15.2	V
Extract 2	-80.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-42	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	170	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	13525	2.02	
89	18955	2.09	
205	21494	1.86	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	13455	14010	13385	13408	13367
89	18676	19651	18792	18883	18776
205	21174	22187	21451	21355	21303

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	7.1	V	Deflect	1.2	V
Extract 2	-80.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-45	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			