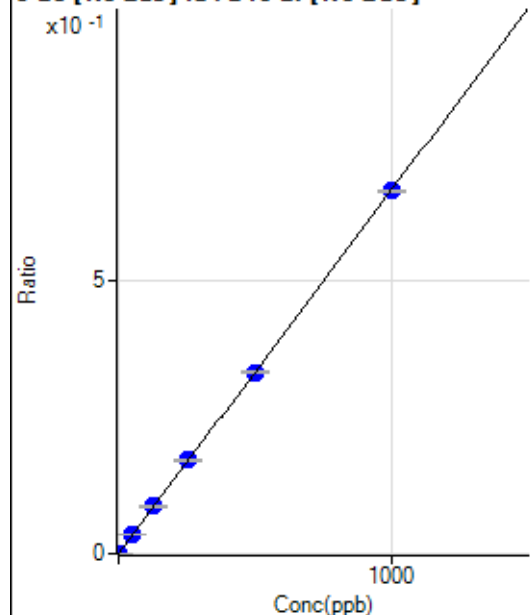


Batch Folder: D:\ICP-MS Data\P7092019MS.b\
Analysis File: P7092019MS.batch.bin
DA Date-Time: 2019-09-23 00:02:21
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-09-20 15:26:04
2	003CALS.d	S01	2019-09-20 15:29:40
3	004CALS.d	S02	2019-09-20 15:34:14
4	005CALS.d	S03	2019-09-20 15:38:10
5	006CALS.d	S04	2019-09-20 15:42:13
6	007CALS.d	S05	2019-09-20 15:46:03
7	008CALS.d	S06	2019-09-20 15:49:51
8	009CALS.d	S07	2019-09-20 15:53:37
9	010CALS.d	S08	2019-09-20 15:57:24

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	132.22	0.0000	P	12.0
2	☐	0.100	0.100	356.68	0.0001	P	8.4
3	☐	1.000	0.952	2358.00	0.0007	P	2.9
4	☐	50.000	52.487	118850.13	0.0350	P	0.9
5	☐	125.000	129.604	280343.89	0.0864	P	0.2
6	☐	250.000	256.836	539634.03	0.1712	P	0.5
7	☐	500.000	499.630	1031710.59	0.3330	P	0.4
8	☐	1000.000	997.776	1974977.78	0.6650	P	0.2
9	☐			285.56	0.0001	P	23.5

$$y = 6.6649\text{E-}004 * x + 3.7987\text{E-}005$$

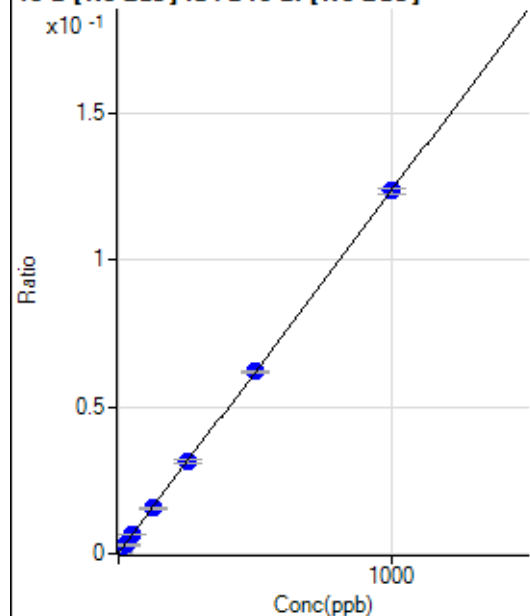
$$R = 1.0000$$

$$DL = 0.02057$$

$$BEC = 0.057$$

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	941.74	0.0003	P	6.2
2	☐	2.500	2.288	1883.52	0.0006	P	2.6
3	☐	25.000	21.768	10356.68	0.0030	P	2.5
4	☐	50.000	50.311	21955.69	0.0065	P	2.7
5	☐	125.000	122.835	49980.99	0.0154	P	1.1
6	☐	250.000	253.232	99202.65	0.0315	P	3.8
7	☐	500.000	499.693	191604.71	0.0618	P	0.9
8	☐	1000.000	999.682	366626.01	0.1235	P	1.3
9	☐			18651.05	0.0068	P	9.9

$$y = 1.2323\text{E-}004 * x + 2.7069\text{E-}004$$

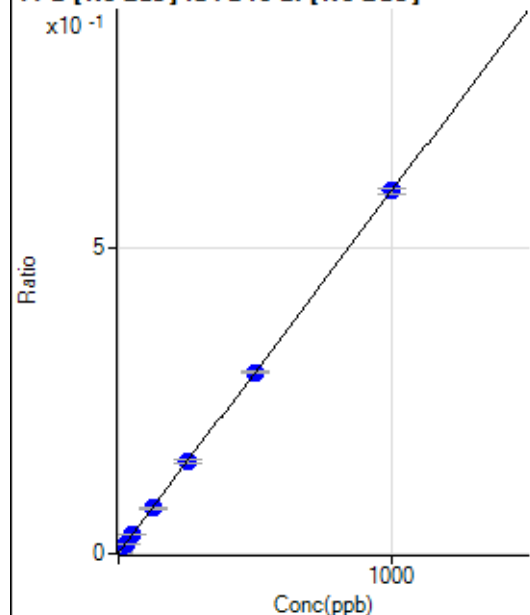
$$R = 1.0000$$

$$DL = 0.4095$$

$$BEC = 2.197$$

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	3953.45	0.0011	P	4.0
2	☐	2.500	2.333	8588.86	0.0025	P	2.1
3	☐	25.000	22.641	51101.65	0.0146	P	1.4
4	☐	50.000	49.638	103821.85	0.0306	P	0.9
5	☐	125.000	123.449	241327.29	0.0744	P	1.8
6	☐	250.000	253.220	477196.90	0.1514	P	2.8
7	☐	500.000	497.922	918931.56	0.2966	P	1.0
8	☐	1000.000	1000.505	1766509.63	0.5949	P	1.5
9	☐			88496.58	0.0321	P	9.0

$$y = 5.9342\text{E-}004 * x + 0.0011$$

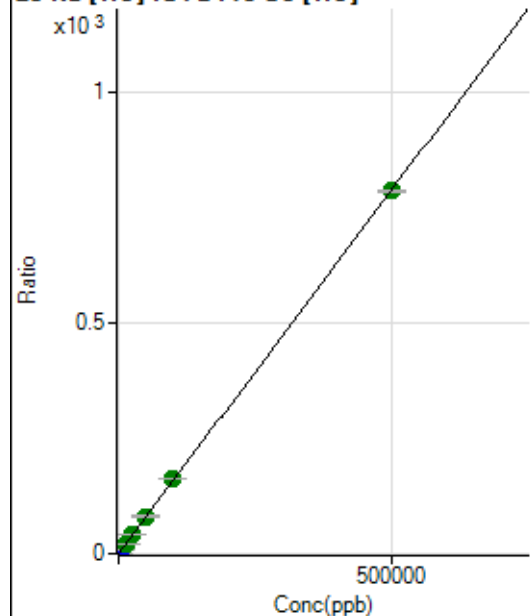
$$R = 1.0000$$

$$DL = 0.2321$$

$$BEC = 1.915$$

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	21727.66	0.0578	P	0.9
2	☐	50.000	48.144	50262.63	0.1335	P	0.5
3	☐	500.000	497.660	317784.14	0.8404	P	0.9
4	☐	5000.000	5321.420	3004762.11	8.4259	P	0.6
5	☐	12500.000	13297.274	7170555.28	20.9681	A	0.6
6	☐	25000.000	26411.090	14223904.83	41.5899	A	0.5
7	☐	50000.000	51521.126	27662724.92	81.0760	A	0.8
8	☐	100000.00	103661.90	54189169.27	163.0686	A	0.5
9	☐	500000.00	499021.80	259089469.6	784.7813	A	0.8

$$y = 0.0016 * x + 0.0578$$

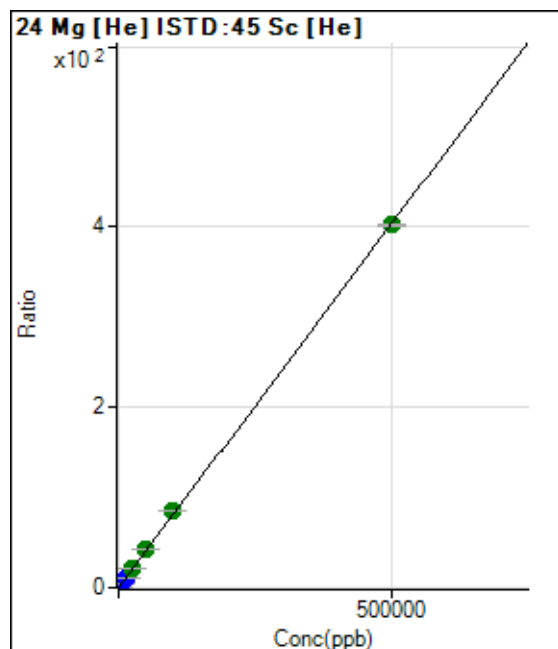
$$R = 1.0000$$

$$DL = 0.9952$$

$$BEC = 36.77$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	502.80	0.0013	P	13.4
2	☐	50.000	52.854	16551.39	0.0440	P	1.2
3	☐	500.000	528.344	161654.92	0.4275	P	2.2
4	☐	5000.000	5474.547	1575201.44	4.4173	P	0.6
5	☐	12500.000	13565.252	3742352.12	10.9435	P	0.8
6	☐	25000.000	26992.149	7446825.95	21.7741	A	0.6
7	☐	50000.000	52672.983	14496742.51	42.4890	A	1.0
8	☐	100000.00	104846.24	28104775.28	84.5736	A	0.4
9	☐	500000.00	498632.44	132791725.1	402.2140	A	0.8

$$y = 8.0663\text{E-}004 * x + 0.0013$$

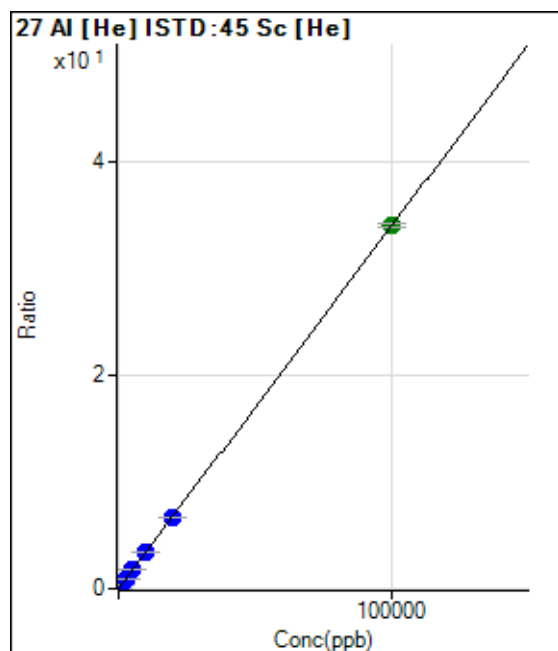
$$R = 0.9999$$

$$DL = 0.6661$$

$$BEC = 1.659$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	49.7
2	☐	2.000	1.757	241.68	0.0006	P	18.0
3	☐	20.000	19.217	2489.21	0.0066	P	6.3
4	☐	1000.000	1039.764	126153.95	0.3538	P	0.5
5	☐	2500.000	2572.374	299273.20	0.8751	P	0.6
6	☐	5000.000	5090.398	592265.84	1.7318	P	0.2
7	☐	10000.000	9931.160	1152721.14	3.3785	P	0.8
8	☐	20000.000	19849.452	2244010.27	6.7526	P	0.2
9	☐	100000.00	100030.26	11234280.46	34.0294	A	1.0

$$y = 3.4019\text{E-}004 * x + 4.4308\text{E-}005$$

$$R = 1.0000$$

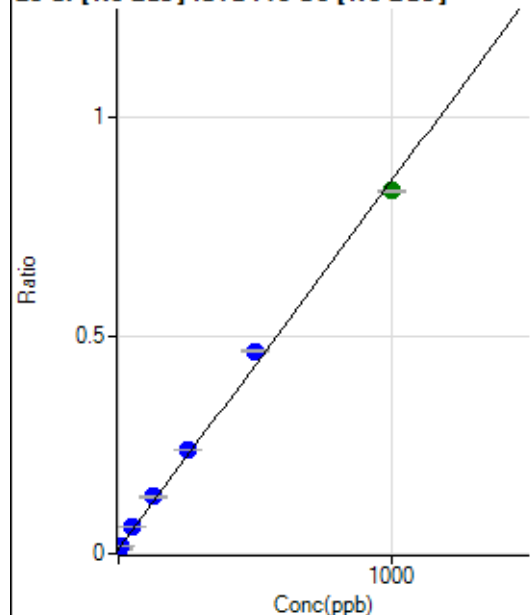
$$DL = 0.1944$$

$$BEC = 0.1302$$

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	91900.89	0.0107	P	0.7
2	☐	1.000	1.710	100519.96	0.0121	P	4.9
3	☐	10.000	9.366	159896.35	0.0186	P	0.8
4	☐	50.000	61.065	517876.00	0.0622	P	1.8
5	☐	125.000	142.411	1041248.44	0.1307	P	1.7
6	☐	250.000	271.112	1878887.65	0.2392	P	0.6
7	☐	500.000	537.428	3612772.22	0.4638	P	0.6
8	☐	1000.000	973.284	6386459.69	0.8313	A	0.8
9	☐			244744.98	0.0337	P	0.4

$$y = 8.4312\text{E-}004 * x + 0.0107$$

$$R = 0.9986$$

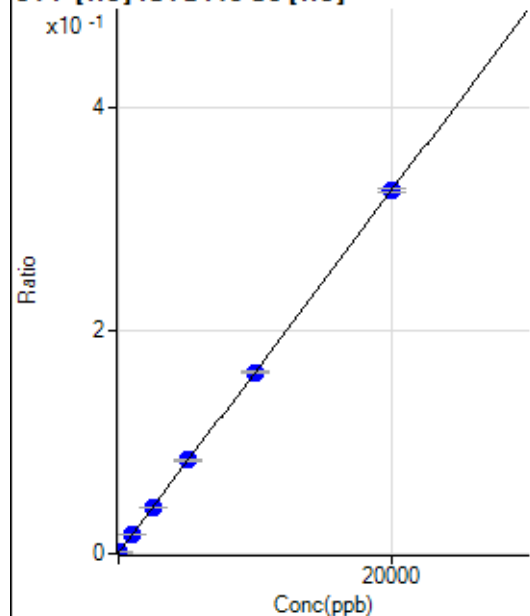
$$DL = 0.2509$$

$$BEC = 12.65$$

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	-22.330	86.11	0.0002	P	11.0
2	☐	0.000	-17.338	116.67	0.0003	P	12.7
3	☐	0.000	39.668	466.70	0.0012	P	6.6
4	☐	1000.000	1034.865	6193.20	0.0174	P	1.7
5	☐	2500.000	2509.942	14118.39	0.0413	P	2.4
6	☐	5000.000	5115.536	28567.09	0.0835	P	1.1
7	☐	10000.000	9964.984	55322.93	0.1622	P	1.5
8	☐	20000.000	19985.638	107871.35	0.3246	P	1.1
9	☐			180.56	0.0005	P	5.7

$$y = 1.6213\text{E-}005 * x + 5.9115\text{E-}004$$

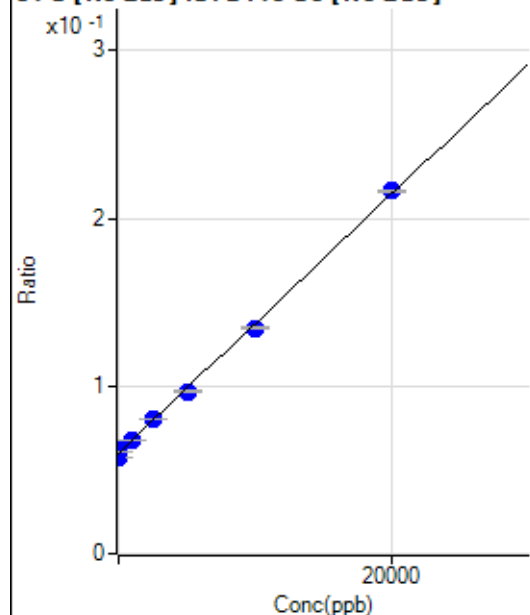
$$R = 1.0000$$

$$DL = 9.037$$

$$BEC = 36.46$$

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	-353.664	494016.09	0.0573	P	0.6
2	☐	0.000	219.599	512883.82	0.0618	P	4.4
3	☐	0.000	134.065	526337.89	0.0611	P	0.0
4	☐	1000.000	1020.123	566237.66	0.0679	P	0.7
5	☐	2500.000	2638.078	640786.06	0.0804	P	0.6
6	☐	5000.000	4729.740	758722.50	0.0966	P	0.6
7	☐	10000.000	9658.872	1049260.81	0.1347	P	0.6
8	☐	20000.000	20219.863	1661814.72	0.2163	P	0.8
9	☐			448403.61	0.0618	P	0.4

$$y = 7.7269\text{E-}006 * x + 0.0601$$

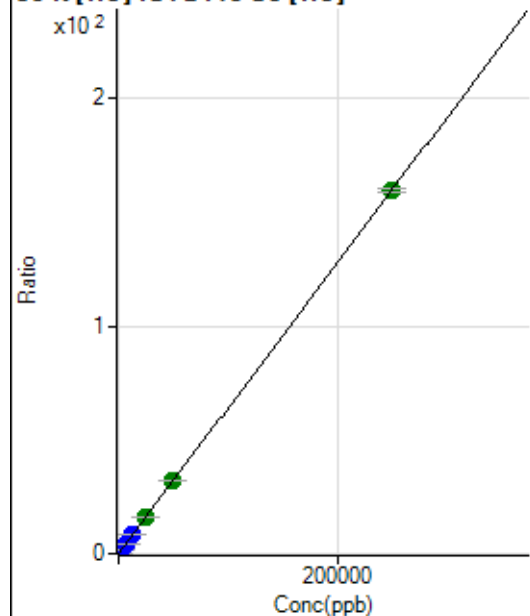
$$R = 0.9994$$

$$DL = 406.5$$

$$BEC = 7773$$

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	17441.59	0.0464	P	0.9
2	☐	50.000	48.366	29082.26	0.0773	P	1.4
3	☐	500.000	492.608	136363.28	0.3606	P	0.3
4	☐	2500.000	2597.110	607269.63	1.7029	P	0.9
5	☐	6250.000	6392.055	1410123.61	4.1235	P	0.4
6	☐	12500.000	12851.097	2819234.35	8.2433	P	0.2
7	☐	25000.000	25203.079	5500729.51	16.1218	A	0.5
8	☐	50000.000	50240.179	10664164.74	32.0913	A	0.7
9	☐	250000.00	249909.59	52639568.19	159.4473	A	0.9

$$y = 6.3783\text{E-}004 * x + 0.0464$$

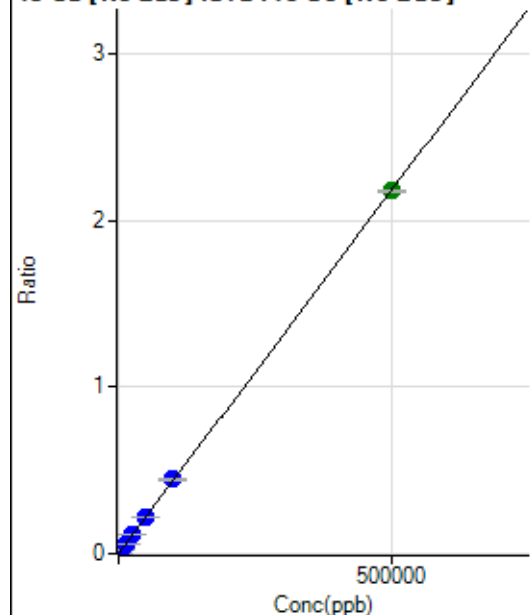
$$R = 1.0000$$

$$DL = 1.977$$

$$BEC = 72.77$$

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	186.12	0.0000	P	34.7
2	☐	50.000	54.163	2141.91	0.0003	P	8.5
3	☐	500.000	482.869	18339.77	0.0021	P	1.7
4	☐	5000.000	5220.093	190027.61	0.0228	P	0.6
5	☐	12500.000	13063.327	454265.73	0.0570	P	0.2
6	☐	25000.000	26043.528	892770.83	0.1137	P	0.4
7	☐	50000.000	51287.129	1743716.94	0.2238	P	0.5
8	☐	100000.00	101929.20	3417822.00	0.4449	P	1.0
9	☐	500000.00	499417.00	15820607.65	2.1796	A	0.3

$$y = 4.3642\text{E-}006 * x + 2.1598\text{E-}005$$

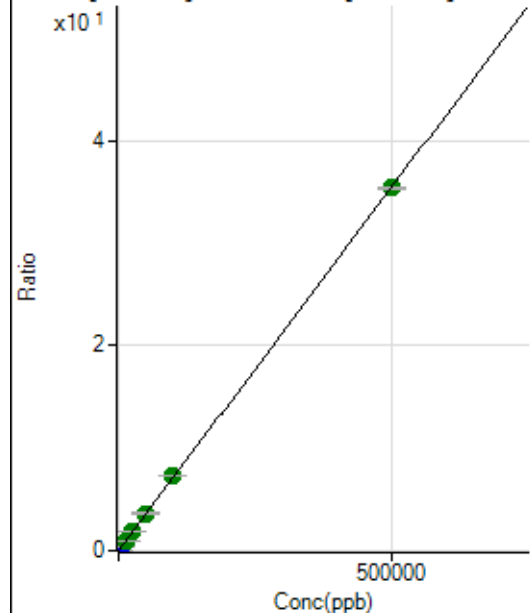
$$R = 1.0000$$

$$DL = 5.154$$

$$BEC = 4.949$$

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	15479.11	0.0018	P	1.7
2	☐	50.000	54.284	46912.06	0.0056	P	3.8
3	☐	500.000	488.332	313769.13	0.0364	P	0.2
4	☐	5000.000	5253.545	3119405.73	0.3743	P	0.7
5	☐	12500.000	13075.687	7399360.49	0.9290	A	0.3
6	☐	25000.000	26154.193	14578638.87	1.8564	A	0.4
7	☐	50000.000	51571.922	28500237.44	3.6587	A	0.4
8	☐	100000.00	102891.09	56067325.56	7.2977	A	0.3
9	☐	500000.00	499189.96	256940122.4	35.3989	A	0.3

$$y = 7.0909\text{E-}005 * x + 0.0018$$

$$R = 1.0000$$

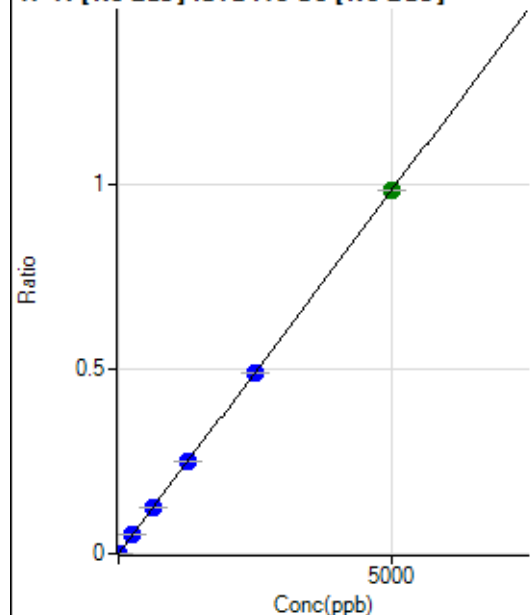
$$DL = 1.319$$

$$BEC = 25.33$$

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	116.67	0.0000	P	24.9
2	☐	0.500	0.573	1047.31	0.0001	P	12.5
3	☐	5.000	4.938	8491.67	0.0010	P	1.3
4	☐	250.000	255.775	419797.83	0.0504	P	0.5
5	☐	625.000	633.304	993315.66	0.1247	P	0.1
6	☐	1250.000	1269.775	1963567.23	0.2500	P	0.2
7	☐	2500.000	2491.233	3821140.93	0.4905	P	0.1
8	☐	5000.000	4998.113	7560913.37	0.9841	A	0.1
9	☐			2005.78	0.0003	P	7.4

$$y = 1.9690E-004 * x + 1.3545E-005$$

$$R = 1.0000$$

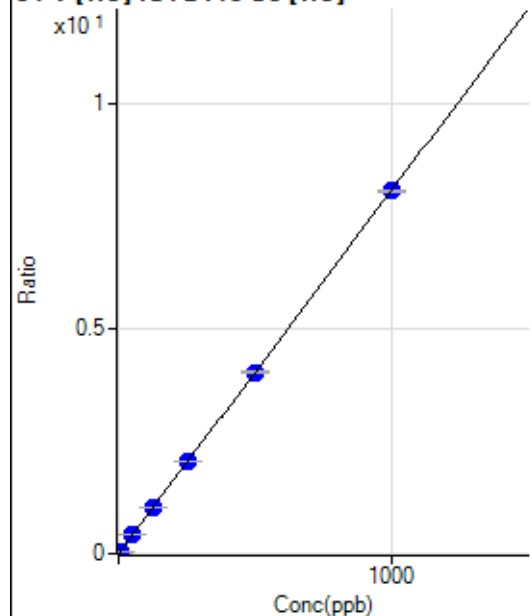
$$DL = 0.05146$$

$$BEC = 0.06879$$

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	17.78	0.0000	P	46.9
2	☐	0.500	0.533	1634.57	0.0043	P	3.6
3	☐	5.000	5.045	15393.77	0.0407	P	1.9
4	☐	50.000	51.507	148048.44	0.4152	P	1.3
5	☐	125.000	127.025	350133.12	1.0239	P	0.2
6	☐	250.000	254.481	701494.50	2.0511	P	0.4
7	☐	500.000	499.723	1374258.63	4.0278	P	0.6
8	☐	1000.000	998.690	2674908.33	8.0494	P	0.2
9	☐			443.35	0.0013	P	15.3

$$y = 0.0081 * x + 4.7269E-005$$

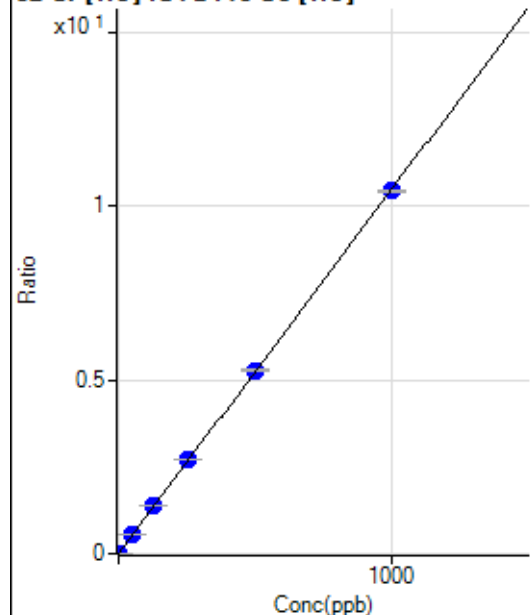
$$R = 1.0000$$

$$DL = 0.008251$$

$$BEC = 0.005865$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	541.13	0.0014	P	3.2
2	☐	0.200	0.200	1330.08	0.0035	P	1.9
3	☐	2.000	2.009	8500.34	0.0225	P	2.8
4	☐	50.000	52.607	196943.25	0.5523	P	1.4
5	☐	125.000	129.595	464542.48	1.3584	P	0.1
6	☐	250.000	257.252	921724.94	2.6951	P	0.6
7	☐	500.000	501.989	1793850.56	5.2577	P	1.0
8	☐	1000.000	996.488	3467788.14	10.4355	P	0.7
9	☐			101642.80	0.3079	P	0.6

$$y = 0.0105 * x + 0.0014$$

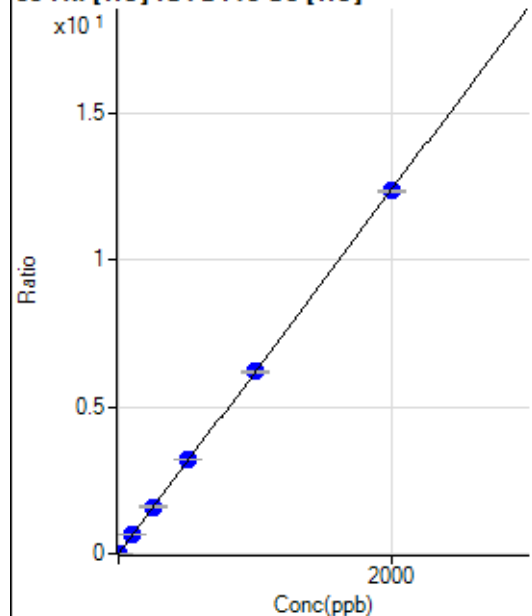
$$R = 1.0000$$

$$DL = 0.01305$$

$$BEC = 0.1375$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	67.78	0.0002	P	14.9
2	☐	0.100	0.095	288.89	0.0008	P	2.6
3	☐	1.000	1.004	2422.47	0.0064	P	3.5
4	☐	100.000	104.761	231791.80	0.6500	P	1.2
5	☐	250.000	258.574	548557.08	1.6041	P	0.6
6	☐	500.000	513.828	1090116.59	3.1874	P	0.2
7	☐	1000.000	1002.500	2121764.69	6.2187	P	1.1
8	☐	2000.000	1993.983	4110258.06	12.3688	P	0.6
9	☐			13549.75	0.0410	P	0.5

$$y = 0.0062 * x + 1.8034E-004$$

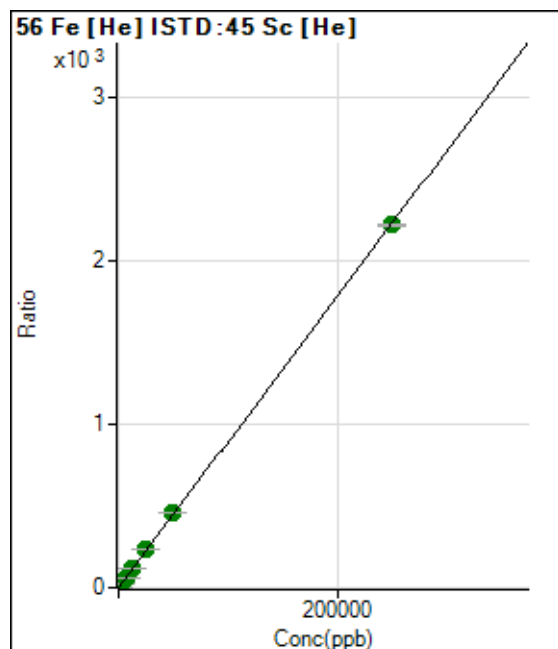
$$R = 1.0000$$

$$DL = 0.01302$$

$$BEC = 0.02907$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2142.81	0.0057	P	4.6
2	☐	5.000	5.553	20770.70	0.0552	P	2.2
3	☐	50.000	54.233	184889.81	0.4890	P	0.9
4	☐	2500.000	2731.087	8679900.71	24.3414	A	1.2
5	☐	6250.000	6822.167	20790397.92	60.7955	A	0.5
6	☐	12500.000	13506.251	41161739.81	120.3550	A	0.4
7	☐	25000.000	26201.680	79660963.82	233.4793	A	1.0
8	☐	50000.000	52057.575	154149960.8	463.8717	A	0.4
9	☐	250000.00	249401.38	733695075.6	2,222.330	A	0.6

$$y = 0.0089 * x + 0.0057$$

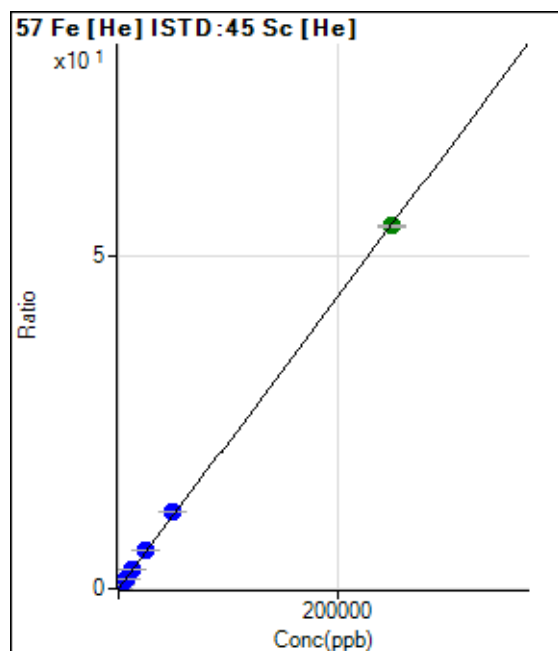
$$R = 1.0000$$

$$DL = 0.08888$$

$$BEC = 0.6399$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0002	P	12.2
2	☐	5.000	4.983	488.91	0.0013	P	18.3
3	☐	50.000	57.253	4824.99	0.0128	P	3.0
4	☐	2500.000	2744.484	214670.71	0.6020	P	0.9
5	☐	6250.000	6821.491	511561.15	1.4959	P	0.5
6	☐	12500.000	13559.054	1016850.72	2.9732	P	0.4
7	☐	25000.000	26248.538	1963713.74	5.7556	P	1.0
8	☐	50000.000	52436.453	3820731.74	11.4977	P	0.9
9	☐	250000.00	249318.16	18048598.90	54.6668	A	0.5

$$y = 2.1926E-004 * x + 2.0695E-004$$

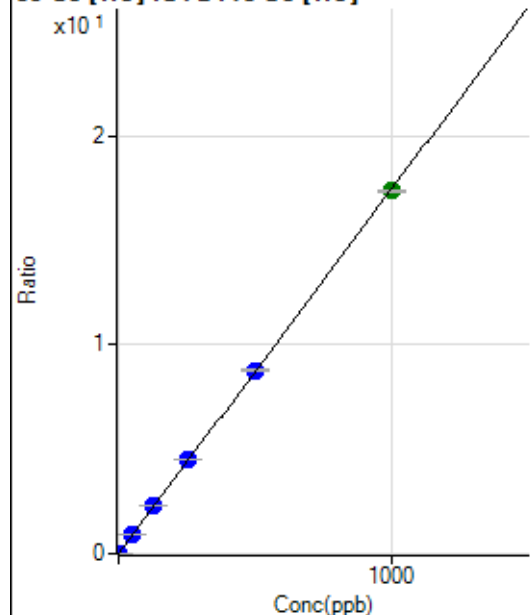
$$R = 0.9999$$

$$DL = 0.345$$

$$BEC = 0.9438$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	164.45	0.0004	P	18.4
2	☐	0.100	0.104	845.59	0.0022	P	11.9
3	☐	1.000	1.010	6828.35	0.0181	P	1.9
4	☐	50.000	53.255	331351.49	0.9292	P	0.7
5	☐	125.000	131.763	785967.95	2.2984	P	0.8
6	☐	250.000	260.396	1553273.69	4.5417	P	0.4
7	☐	500.000	501.767	2985809.99	8.7511	P	0.9
8	☐	1000.000	995.510	5769472.00	17.3619	A	0.9
9	☐			67430.80	0.2042	P	0.8

$$y = 0.0174 * x + 4.3757E-004$$

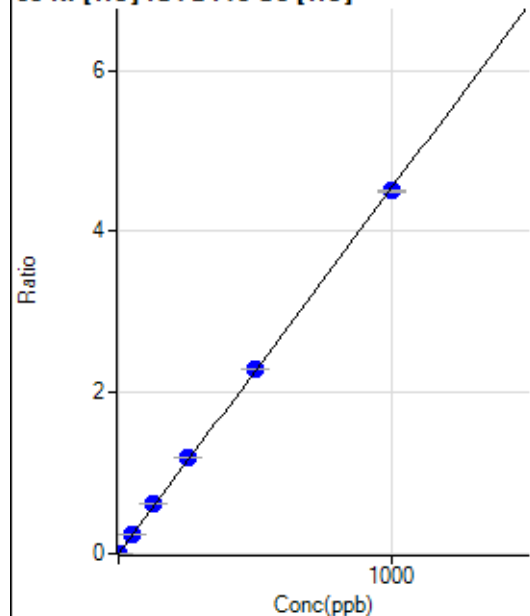
$$R = 0.9999$$

$$DL = 0.01384$$

$$BEC = 0.02509$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.34	0.0004	P	17.0
2	☐	0.100	0.118	345.56	0.0009	P	18.5
3	☐	1.000	1.054	1951.28	0.0052	P	4.8
4	☐	50.000	54.617	88464.96	0.2481	P	1.2
5	☐	125.000	134.803	209197.67	0.6117	P	0.5
6	☐	250.000	263.242	408430.76	1.1942	P	0.5
7	☐	500.000	505.257	781963.96	2.2918	P	0.5
8	☐	1000.000	992.605	1496071.83	4.5020	P	0.6
9	☐			41055.34	0.1243	P	0.6

$$y = 0.0045 * x + 3.8153E-004$$

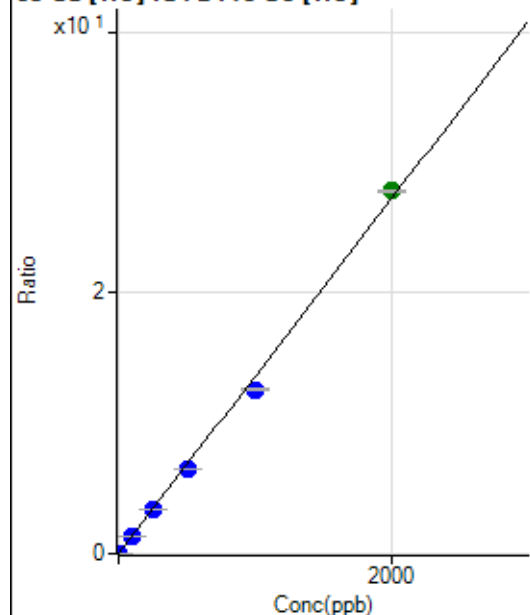
$$R = 0.9999$$

$$DL = 0.04298$$

$$BEC = 0.08413$$

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	950.05	0.0025	P	10.0
2	☐	0.200	0.197	1962.39	0.0052	P	6.2
3	☐	2.000	1.866	10563.95	0.0279	P	1.6
4	☐	100.000	100.133	487121.47	1.3661	P	1.2
5	☐	250.000	245.673	1144930.11	3.3480	P	0.1
6	☐	500.000	480.323	2237829.83	6.5433	P	0.2
7	☐	1000.000	922.800	4288328.83	12.5687	P	0.8
8	☐	2000.000	2044.054	9250561.74	27.8373	A	0.7
9	☐			13461.93	0.0408	P	0.8

$$y = 0.0136 * x + 0.0025$$

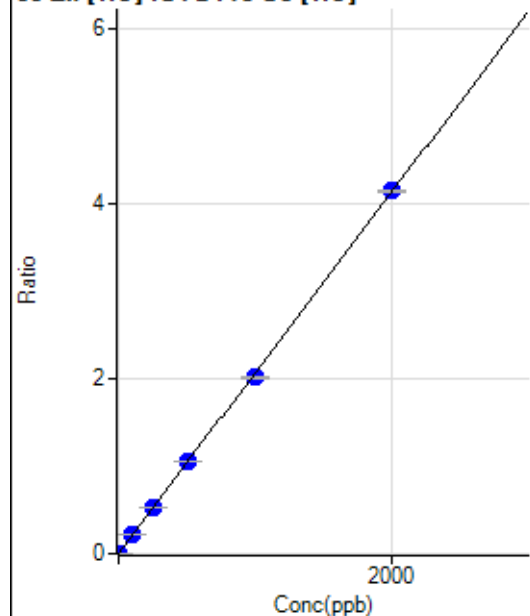
$$R = 0.9989$$

$$DL = 0.05549$$

$$BEC = 0.1856$$

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	800.04	0.0021	P	2.2
2	☐	0.200	0.147	915.60	0.0024	P	3.8
3	☐	2.000	2.002	2369.12	0.0063	P	3.0
4	☐	100.000	105.346	78352.35	0.2197	P	1.9
5	☐	250.000	258.821	183557.90	0.5368	P	0.5
6	☐	500.000	511.383	362000.20	1.0585	P	0.4
7	☐	1000.000	976.091	688648.91	2.0184	P	1.0
8	☐	2000.000	2007.739	1378897.93	4.1494	P	0.8
9	☐			11922.81	0.0361	P	0.9

$$y = 0.0021 * x + 0.0021$$

$$R = 0.9999$$

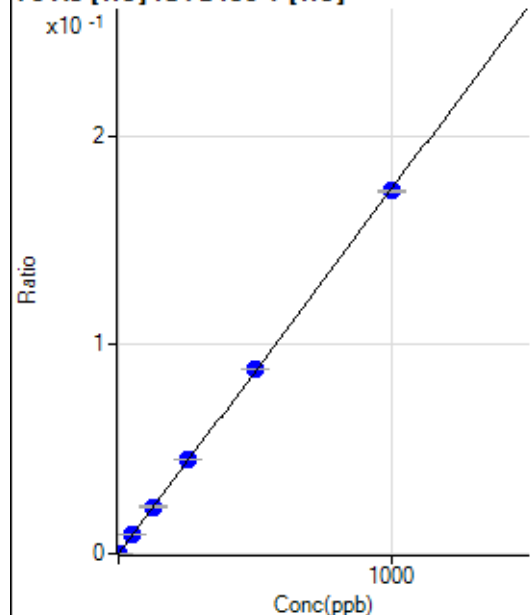
$$DL = 0.06691$$

$$BEC = 1.031$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7.41	0.0000	P	43.4
2	☐	0.100	0.111	51.24	0.0000	P	9.1
3	☐	1.000	1.046	419.77	0.0002	P	6.7
4	☐	50.000	52.879	19853.13	0.0092	P	2.5
5	☐	125.000	128.617	46479.48	0.0225	P	0.9
6	☐	250.000	257.367	93122.13	0.0449	P	0.7
7	☐	500.000	505.370	181318.27	0.0883	P	0.6
8	☐	1000.000	994.877	349770.35	0.1737	P	0.8
9	☐			475.94	0.0002	P	6.5

$$y = 1.7462\text{E-}004 * x + 3.2781\text{E-}006$$

$$R = 0.9999$$

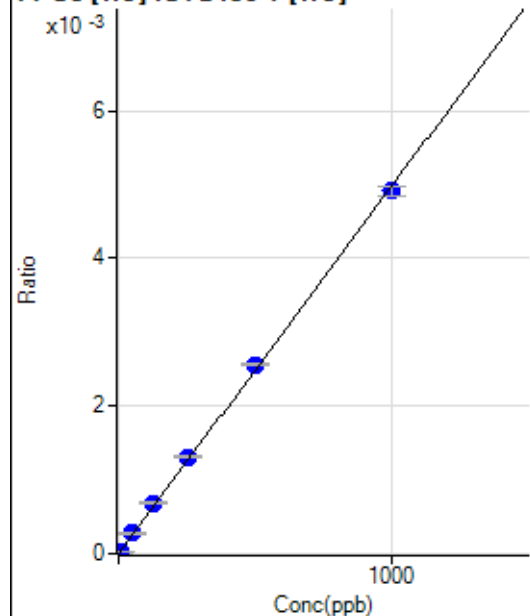
$$DL = 0.02444$$

$$BEC = 0.01877$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.495	5.55	0.0000	P	69.7
3	☐	5.000	5.145	57.78	0.0000	P	27.2
4	☐	50.000	55.633	594.47	0.0003	P	7.5
5	☐	125.000	137.489	1414.54	0.0007	P	3.9
6	☐	250.000	263.524	2714.74	0.0013	P	0.9
7	☐	500.000	513.690	5247.70	0.0026	P	0.9
8	☐	1000.000	987.931	9891.31	0.0049	P	2.8
9	☐			8.89	0.0000	P	56.9

$$y = 4.9722\text{E-}006 * x + 0.0000\text{E+}000$$

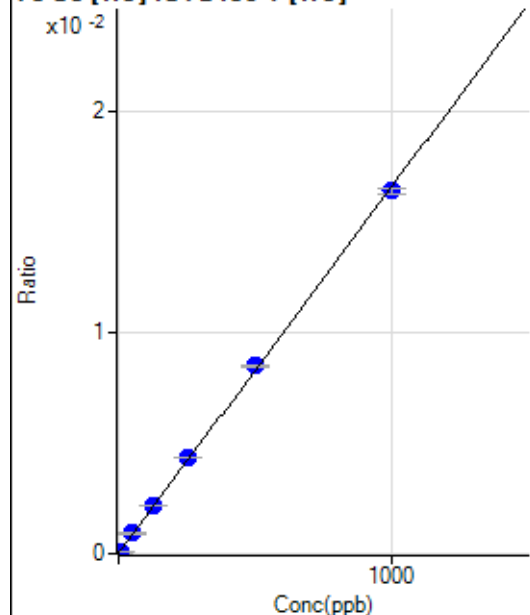
$$R = 0.9997$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32.72	0.0000	P	8.7
2	☐	0.500	0.825	63.58	0.0000	P	8.4
3	☐	5.000	5.737	246.92	0.0001	P	5.8
4	☐	50.000	54.902	1982.25	0.0009	P	2.5
5	☐	125.000	130.005	4477.27	0.0022	P	2.2
6	☐	250.000	263.360	9051.04	0.0044	P	0.6
7	☐	500.000	512.472	17437.71	0.0085	P	0.9
8	☐	1000.000	989.549	32965.83	0.0164	P	1.3
9	☐			51.24	0.0000	P	9.8

$$y = 1.6532\text{E-}005 * x + 1.4468\text{E-}005$$

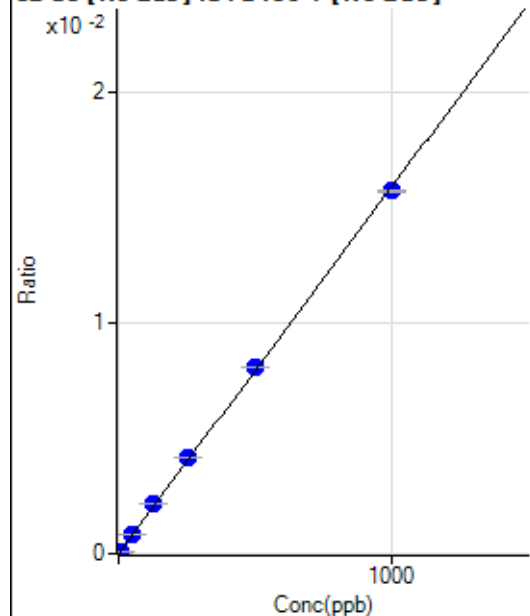
$$R = 0.9998$$

$$DL = 0.2279$$

$$BEC = 0.8751$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-111.99	0.0000	P	-107.
2	☐	0.500					
3	☐	5.000	5.905	1570.74	0.0001	P	7.4
4	☐	50.000	54.578	14939.67	0.0009	P	1.7
5	☐	125.000	135.407	35886.10	0.0021	P	1.0
6	☐	250.000	264.116	69632.40	0.0042	P	0.3
7	☐	500.000	509.525	133713.38	0.0081	P	0.3
8	☐	1000.000	990.174	255423.03	0.0157	P	0.3
9	☐			131.56	0.0000	P	39.9

$$y = 1.5909\text{E-}005 * x - 6.2235\text{E-}006$$

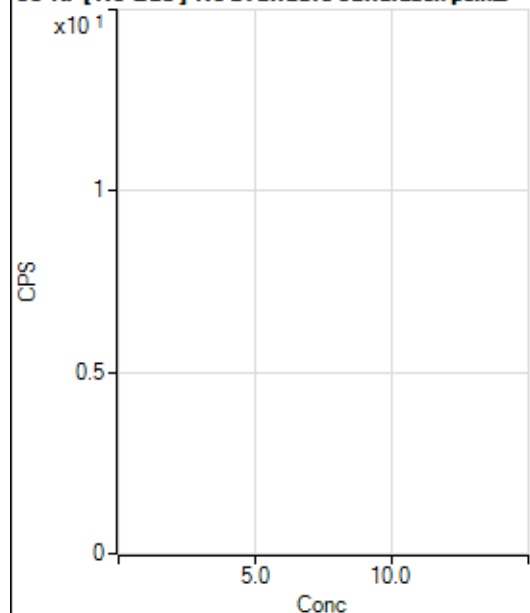
$$R = 0.9998$$

$$DL = 1.266$$

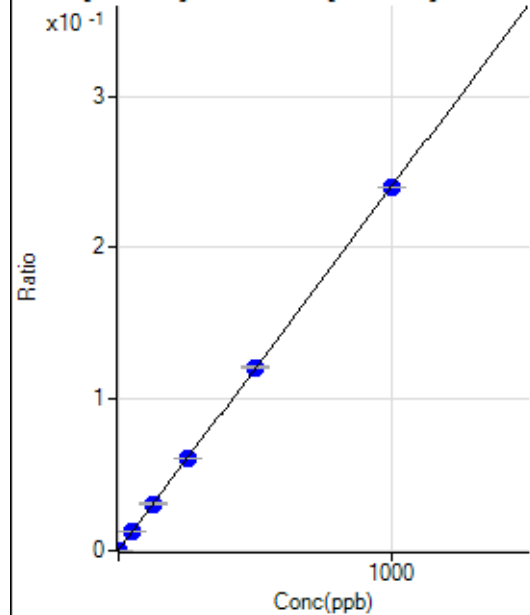
$$BEC = -0.3912$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3011.48		P	4.1
2	☐			3017.03		P	0.2
3	☐			2922.57		P	3.5
4	☐			2883.67		P	3.0
5	☐			2749.19		P	2.1
6	☐			2703.63		P	4.3
7	☐			2676.96		P	2.5
8	☐			2683.63		P	5.6
9	☐			2199.10		P	4.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	4967.75	0.0003	P	5.9
2	☐	0.100	0.146	5390.14	0.0003	P	6.4
3	☐	1.000	0.933	8964.26	0.0005	P	0.2
4	☐	50.000	51.535	219058.48	0.0126	P	0.9
5	☐	125.000	128.135	518235.94	0.0310	P	0.6
6	☐	250.000	254.655	1018565.12	0.0614	P	0.2
7	☐	500.000	503.118	1997188.11	0.1210	P	0.6
8	☐	1000.000	996.808	3883801.30	0.2394	P	0.1
9	☐			18404.13	0.0012	P	2.2

$$y = 2.3992E-004 * x + 2.7674E-004$$

$$R = 1.0000$$

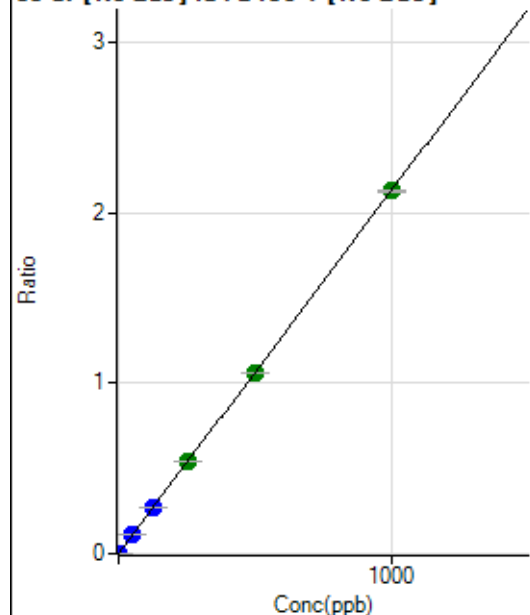
$$DL = 0.2026$$

$$BEC = 1.153$$

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	188.90	0.0000	P	15.0
2	☐	0.100	0.102	3942.36	0.0002	P	12.7
3	☐	1.000	0.962	36867.74	0.0021	P	1.7
4	☐	50.000	50.846	1875933.62	0.1083	P	0.4
5	☐	125.000	127.617	4538949.62	0.2717	P	0.6
6	☐	250.000	253.906	8970498.46	0.5405	A	0.4
7	☐	500.000	499.573	17555924.53	1.0635	A	0.3
8	☐	1000.000	998.868	34491697.30	2.1264	A	0.5
9	☐			130295.03	0.0085	P	0.4

$$y = 0.0021 * x + 1.0516E-005$$

$$R = 1.0000$$

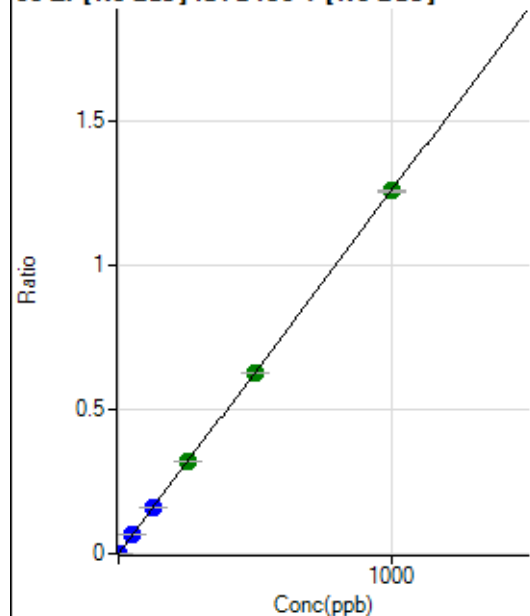
$$DL = 0.002227$$

$$BEC = 0.00494$$

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	1222.33	0.0001	P	12.2
2	☐	0.100	0.080	2914.32	0.0002	P	10.8
3	☐	1.000	0.851	20431.94	0.0011	P	0.6
4	☐	50.000	50.486	1103590.52	0.0637	P	0.7
5	☐	125.000	126.572	2665652.64	0.1596	P	0.1
6	☐	250.000	252.736	5286218.65	0.3185	A	0.5
7	☐	500.000	499.869	10398684.43	0.6299	A	0.1
8	☐	1000.000	999.161	20422666.78	1.2591	A	0.5
9	☐			5670.79	0.0004	P	3.3

$$y = 0.0013 * x + 6.8072E-005$$

$$R = 1.0000$$

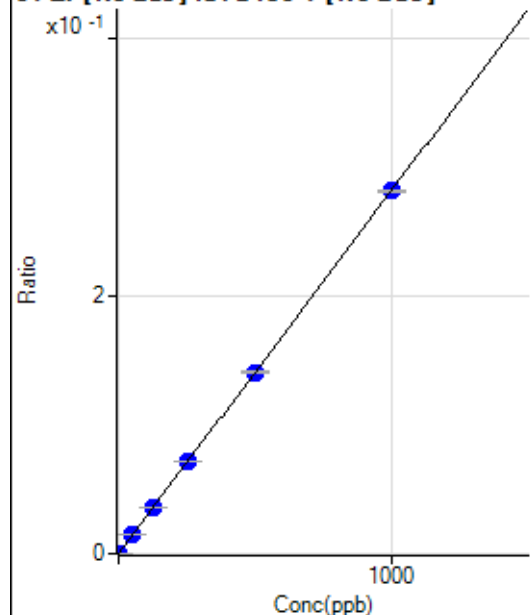
$$DL = 0.01971$$

$$BEC = 0.05402$$

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	305.57	0.0000	P	5.8
2	☐	0.100	0.070	638.93	0.0000	P	4.3
3	☐	1.000	0.839	4542.58	0.0003	P	4.4
4	☐	50.000	50.668	247820.02	0.0143	P	0.4
5	☐	125.000	127.513	600854.62	0.0360	P	0.7
6	☐	250.000	254.014	1188725.55	0.0716	P	0.4
7	☐	500.000	498.764	2321366.28	0.1406	P	0.9
8	☐	1000.000	999.267	4569728.01	0.2817	P	0.7
9	☐			1333.46	0.0001	P	13.1

$$y = 2.8192E-004 * x + 1.7015E-005$$

$$R = 1.0000$$

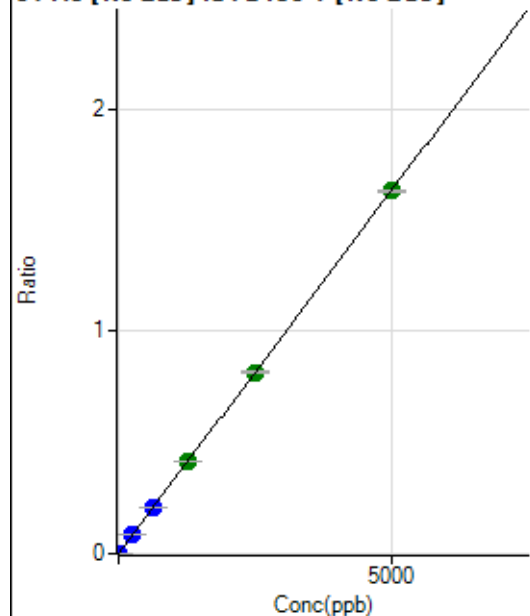
$$DL = 0.01045$$

$$BEC = 0.06035$$

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	486.14	0.0000	P	30.7
2	☐	0.500	0.489	3228.29	0.0002	P	7.7
3	☐	5.000	4.670	27789.05	0.0016	P	2.7
4	☐	250.000	253.623	1435259.59	0.0828	P	0.5
5	☐	625.000	636.794	3473521.43	0.2079	P	0.5
6	☐	1250.000	1263.743	6847161.70	0.4126	A	0.6
7	☐	2500.000	2498.919	13467121.74	0.8158	A	0.4
8	☐	5000.000	4995.450	26453148.86	1.6308	A	0.2
9	☐			18023.20	0.0012	P	1.9

$$y = 3.2646E-004 * x + 2.7099E-005$$

$$R = 1.0000$$

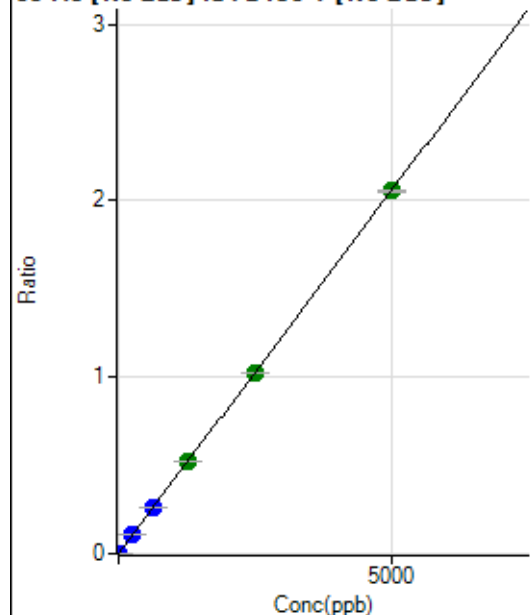
$$DL = 0.07653$$

$$BEC = 0.08301$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.68	0.0000	P	34.3
2	☐	0.500	0.466	3528.38	0.0002	P	4.7
3	☐	5.000	4.723	35004.94	0.0020	P	1.6
4	☐	250.000	254.811	1816158.14	0.1048	P	0.5
5	☐	625.000	637.702	4381614.90	0.2623	P	0.5
6	☐	1250.000	1266.059	8641144.98	0.5207	A	0.3
7	☐	2500.000	2494.939	16937666.35	1.0261	A	0.4
8	☐	5000.000	4996.688	33332152.83	2.0549	A	0.3
9	☐			28456.97	0.0019	P	4.8

$$y = 4.1125\text{E-}004 * x + 1.2067\text{E-}005$$

$$R = 1.0000$$

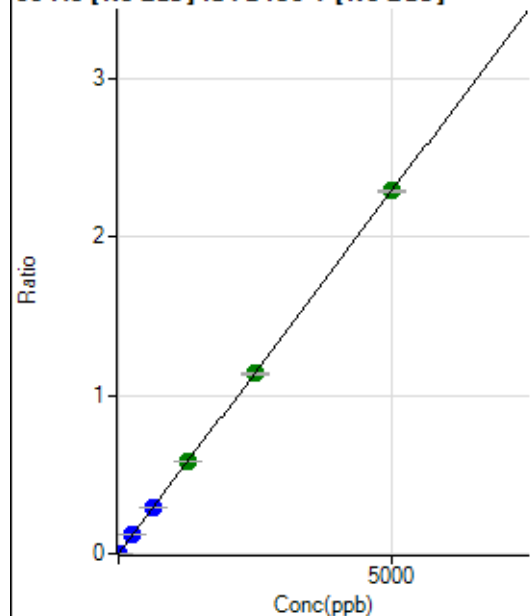
$$DL = 0.03016$$

$$BEC = 0.02934$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	350.02	0.0000	P	10.4
2	☐	0.500	0.464	4014.64	0.0002	P	6.1
3	☐	5.000	4.633	38361.00	0.0021	P	1.3
4	☐	250.000	252.813	2007290.00	0.1158	P	0.2
5	☐	625.000	634.205	4854106.79	0.2905	P	0.2
6	☐	1250.000	1265.750	9623311.50	0.5799	A	0.1
7	☐	2500.000	2483.243	18778657.54	1.1376	A	0.6
8	☐	5000.000	5003.150	37176784.17	2.2920	A	0.4
9	☐			31688.87	0.0021	P	2.8

$$y = 4.5810\text{E-}004 * x + 1.9494\text{E-}005$$

$$R = 1.0000$$

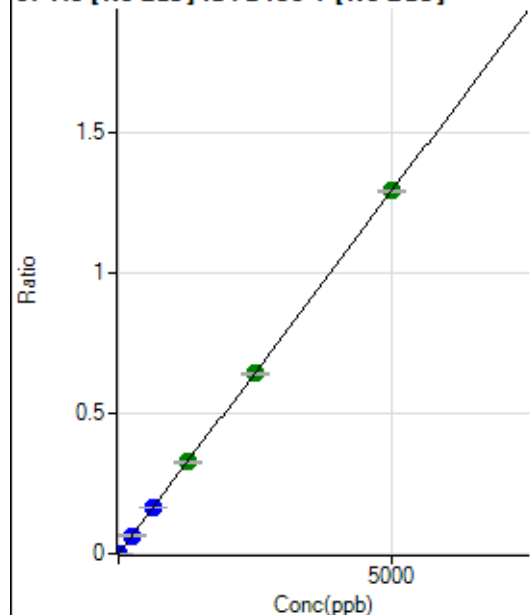
$$DL = 0.01324$$

$$BEC = 0.04255$$

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	211.12	0.0000	P	15.7
2	☐	0.500	0.463	2266.96	0.0001	P	12.8
3	☐	5.000	4.647	21720.05	0.0012	P	0.9
4	☐	250.000	251.784	1127767.97	0.0651	P	0.4
5	☐	625.000	629.808	2719397.65	0.1628	P	0.2
6	☐	1250.000	1261.084	5408733.45	0.3259	A	0.6
7	☐	2500.000	2482.573	10590909.61	0.6416	A	0.4
8	☐	5000.000	5005.253	20981480.50	1.2935	A	0.5
9	☐			17897.97	0.0012	P	4.7

$$y = 2.5843\text{E-}004 * x + 1.1750\text{E-}005$$

$$R = 1.0000$$

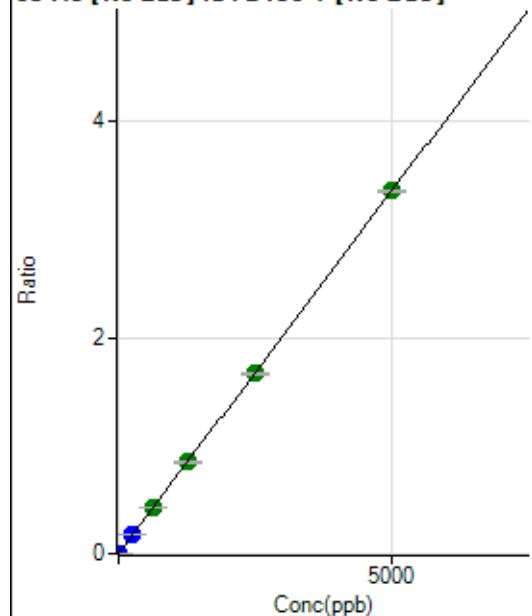
$$DL = 0.02148$$

$$BEC = 0.04547$$

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	380.58	0.0000	P	24.9
2	☐	0.500	0.476	5890.39	0.0003	P	6.5
3	☐	5.000	4.639	56130.92	0.0031	P	2.3
4	☐	250.000	253.156	2944531.92	0.1699	P	0.1
5	☐	625.000	632.093	7087478.54	0.4242	A	0.5
6	☐	1250.000	1261.870	14054647.19	0.8469	A	0.8
7	☐	2500.000	2482.310	27500734.99	1.6660	A	0.4
8	☐	5000.000	5004.833	54482229.00	3.3589	A	0.7
9	☐			45643.77	0.0030	P	1.6

$$y = 6.7112\text{E-}004 * x + 2.1170\text{E-}005$$

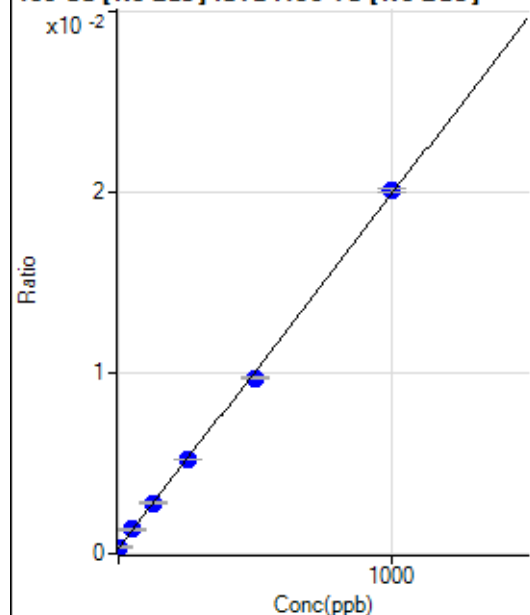
$$R = 1.0000$$

$$DL = 0.02353$$

$$BEC = 0.03154$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7780.27	0.0003	P	2.9
2	☐	0.100	1.288	8083.23	0.0003	P	3.6
3	☐	1.000	3.283	9286.77	0.0004	P	5.0
4	☐	50.000	52.906	33047.88	0.0013	P	1.9
5	☐	125.000	127.429	67963.71	0.0028	P	1.4
6	☐	250.000	249.297	124972.02	0.0052	P	0.9
7	☐	500.000	479.714	234912.09	0.0097	P	1.0
8	☐	1000.000	1009.868	481313.05	0.0201	P	0.9
9	☐			7549.56	0.0003	P	5.4

$$y = 1.9599\text{E-}005 * x + 3.0723\text{E-}004$$

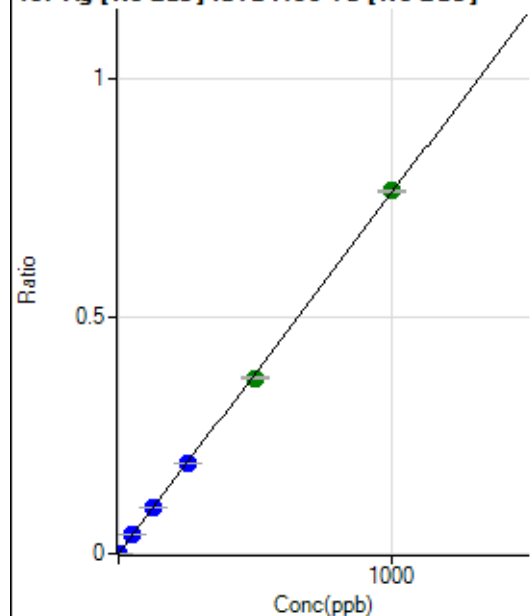
$$R = 0.9997$$

$$DL = 1.351$$

$$BEC = 15.68$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	272.24	0.0000	P	6.0
2	☐	0.100	0.075	1639.07	0.0001	P	4.7
3	☐	1.000	0.756	14622.05	0.0006	P	1.0
4	☐	50.000	52.543	981256.62	0.0399	P	0.4
5	☐	125.000	127.097	2338983.26	0.0965	P	0.4
6	☐	250.000	250.348	4575001.32	0.1901	P	0.3
7	☐	500.000	486.562	8939468.43	0.3695	A	0.7
8	☐	1000.000	1006.243	18298352.15	0.7641	A	0.4
9	☐			1116.76	0.0001	P	11.9

$$y = 7.5939\text{E-}004 * x + 1.0750\text{E-}005$$

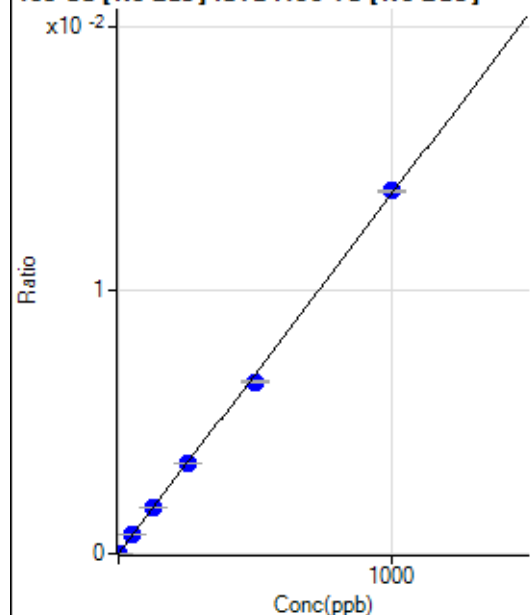
$$R = 0.9999$$

$$DL = 0.00255$$

$$BEC = 0.01416$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.45	0.0000	P	24.2
2	☐	0.100	0.082	45.83	0.0000	P	4.6
3	☐	1.000	1.152	412.51	0.0000	P	2.7
4	☐	50.000	52.436	17626.52	0.0007	P	2.4
5	☐	125.000	128.276	42479.07	0.0018	P	1.2
6	☐	250.000	252.589	83046.00	0.0035	P	0.7
7	☐	500.000	478.350	158103.62	0.0065	P	1.0
8	☐	1000.000	1009.647	330279.71	0.0138	P	0.5
9	☐			77.78	0.0000	P	41.4

$$y = 1.3660\text{E-}005 * x + 7.6738\text{E-}007$$

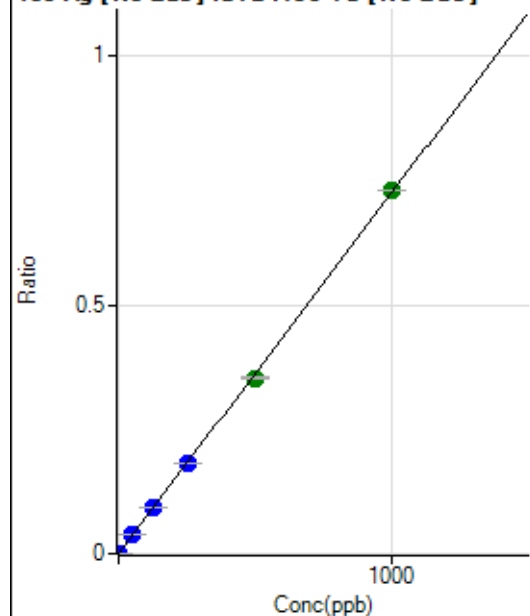
$$R = 0.9997$$

$$DL = 0.04077$$

$$BEC = 0.05618$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	141.67	0.0000	P	15.5
2	☐	0.100	0.079	1525.15	0.0001	P	5.0
3	☐	1.000	0.771	14118.70	0.0006	P	1.4
4	☐	50.000	53.039	946393.17	0.0385	P	0.7
5	☐	125.000	128.644	2262148.64	0.0934	P	0.5
6	☐	250.000	251.973	4399921.41	0.1828	P	0.6
7	☐	500.000	486.520	8541240.47	0.3530	A	0.7
8	☐	1000.000	1005.640	17474685.11	0.7297	A	0.2
9	☐			863.95	0.0000	P	10.5

$$y = 7.2564\text{E-}004 * x + 5.5950\text{E-}006$$

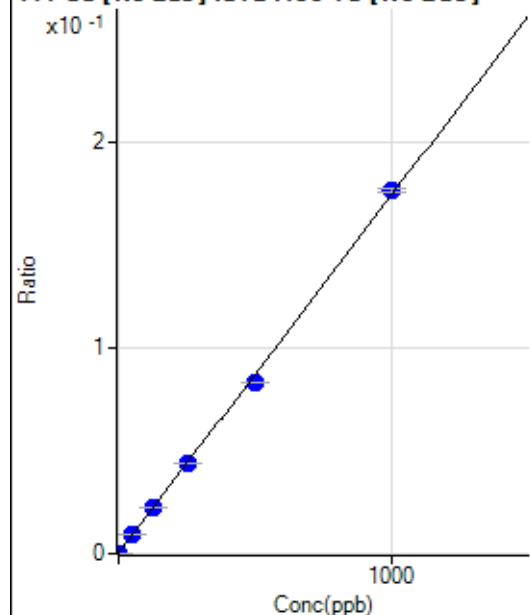
$$R = 0.9999$$

$$DL = 0.003589$$

$$BEC = 0.00771$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5506.19	0.0002	P	2.6
2	☐	0.100					
3	☐	1.000	1.174	10540.53	0.0004	P	4.8
4	☐	50.000	51.762	226865.93	0.0092	P	0.6
5	☐	125.000	126.675	539572.04	0.0223	P	0.7
6	☐	250.000	249.340	1049647.94	0.0436	P	0.3
7	☐	500.000	476.195	2010644.40	0.0831	P	0.8
8	☐	1000.000	1011.770	4222482.37	0.1763	P	1.0
9	☐			5724.72	0.0003	P	5.0

$$y = 1.7407\text{E-}004 * x + 2.1743\text{E-}004$$

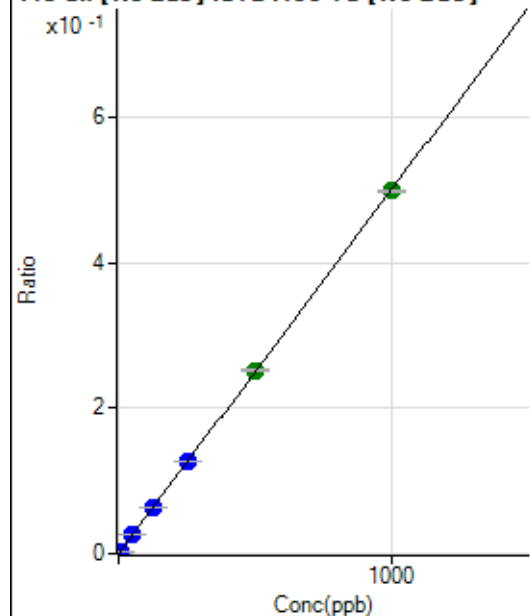
$$R = 0.9996$$

$$DL = 0.09659$$

$$BEC = 1.249$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1063.98	0.0000	P	4.9
2	☐	0.500	0.524	7396.72	0.0003	P	5.2
3	☐	5.000	4.987	63507.71	0.0025	P	1.5
4	☐	50.000	52.631	649334.56	0.0264	P	0.7
5	☐	125.000	127.560	1549740.09	0.0640	P	0.7
6	☐	250.000	255.456	3081017.50	0.1280	P	0.1
7	☐	500.000	503.040	6098712.90	0.2521	A	0.8
8	☐	1000.000	996.664	11959334.82	0.4994	A	0.3
9	☐			6622.27	0.0003	P	24.5

$$y = 5.0104\text{E-}004 * x + 4.2009\text{E-}005$$

$$R = 1.0000$$

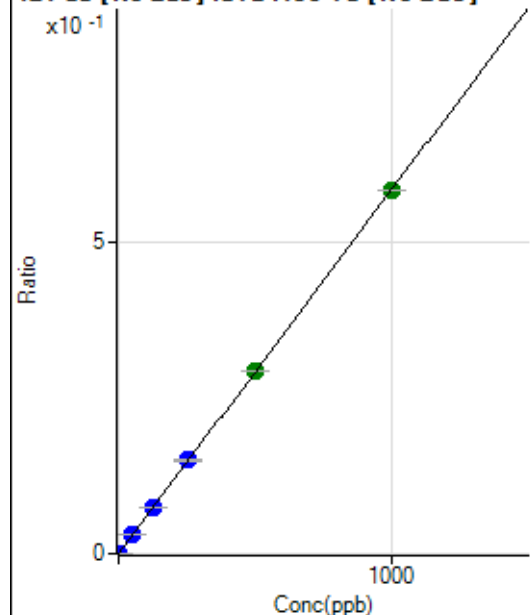
$$DL = 0.01232$$

$$BEC = 0.08384$$

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	538.93	0.0000	P	16.9
2	☐	0.200	0.180	3075.47	0.0001	P	6.4
3	☐	2.000	1.933	28763.77	0.0012	P	1.6
4	☐	50.000	51.902	745799.94	0.0303	P	0.8
5	☐	125.000	128.417	1818018.96	0.0750	P	0.3
6	☐	250.000	256.613	3607225.43	0.1499	P	0.3
7	☐	500.000	501.276	7083930.63	0.2928	A	0.7
8	☐	1000.000	997.187	13947912.81	0.5825	A	0.1
9	☐			19361.33	0.0009	P	3.4

$$y = 5.8408\text{E-}004 * x + 2.1292\text{E-}005$$

$$R = 1.0000$$

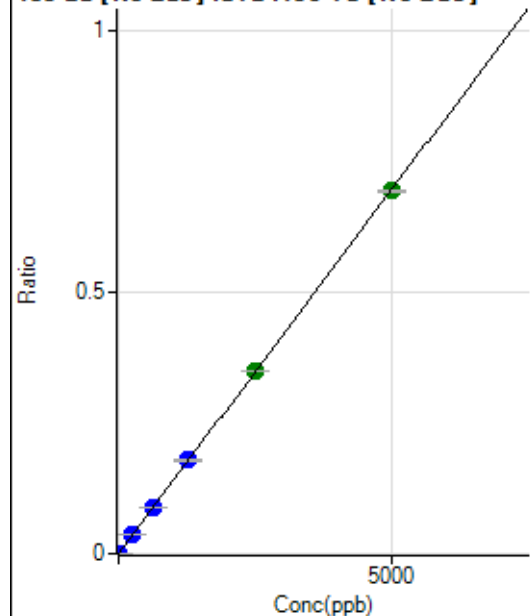
$$DL = 0.01851$$

$$BEC = 0.03645$$

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	86.11	0.0000	P	11.3
2	☐	1.000	1.008	3478.39	0.0001	P	8.0
3	☐	10.000	10.284	35797.20	0.0014	P	2.5
4	☐	250.000	261.248	892265.59	0.0363	P	1.1
5	☐	625.000	643.522	2166251.33	0.0894	P	0.2
6	☐	1250.000	1282.302	4286486.73	0.1781	P	0.6
7	☐	2500.000	2507.634	8427705.05	0.3484	A	0.6
8	☐	5000.000	4985.230	16583468.25	0.6925	A	0.2
9	☐			1616.85	0.0001	P	7.4

$$y = 1.3891\text{E-}004 * x + 3.4012\text{E-}006$$

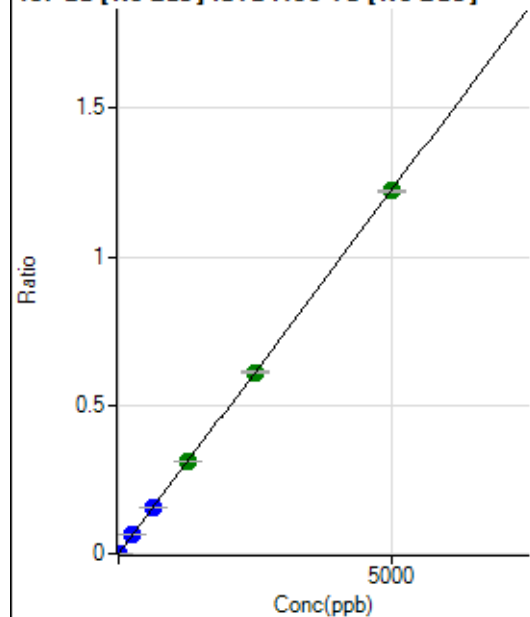
$$R = 1.0000$$

$$DL = 0.008327$$

$$BEC = 0.02448$$

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	127.78	0.0000	P	20.2
2	☐	1.000	1.027	6221.11	0.0003	P	10.1
3	☐	10.000	10.149	62251.60	0.0025	P	2.2
4	☐	250.000	258.958	1559190.94	0.0634	P	0.3
5	☐	625.000	639.989	3797779.21	0.1567	P	0.4
6	☐	1250.000	1277.794	7529810.15	0.3129	A	0.8
7	☐	2500.000	2498.783	14804349.64	0.6119	A	0.7
8	☐	5000.000	4991.338	29269865.24	1.2223	A	0.5
9	☐			2747.60	0.0001	P	5.9

$$y = 2.4489\text{E-}004 * x + 5.0486\text{E-}006$$

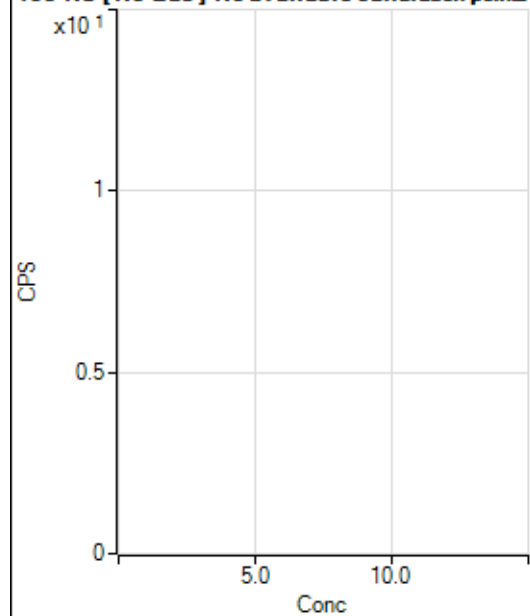
$$R = 1.0000$$

$$DL = 0.01247$$

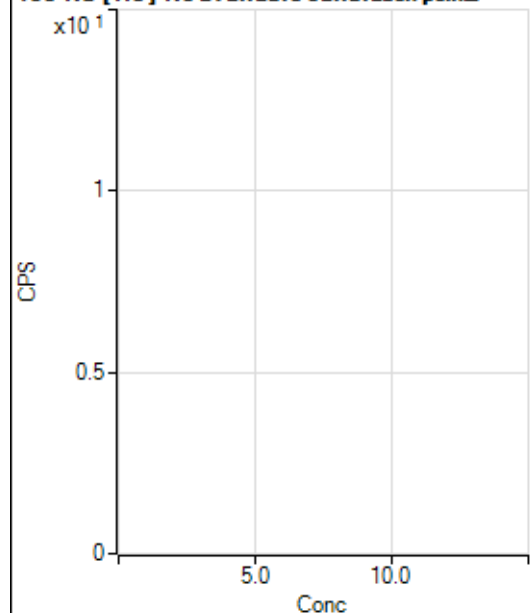
$$BEC = 0.02062$$

Weight: <None>

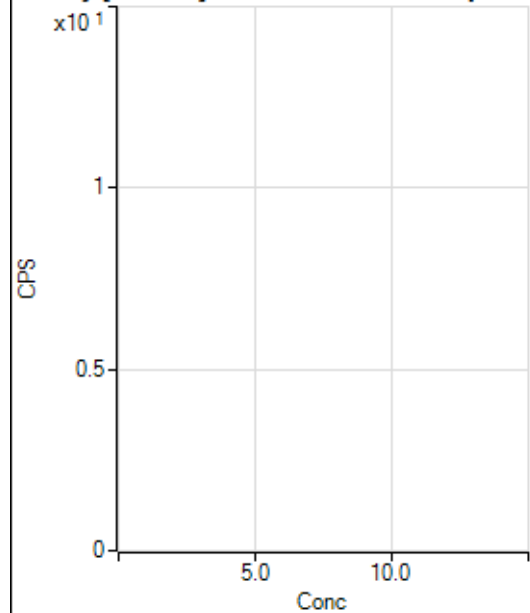
Min Conc: 0

150 Nd [No Gas] No available calibration points

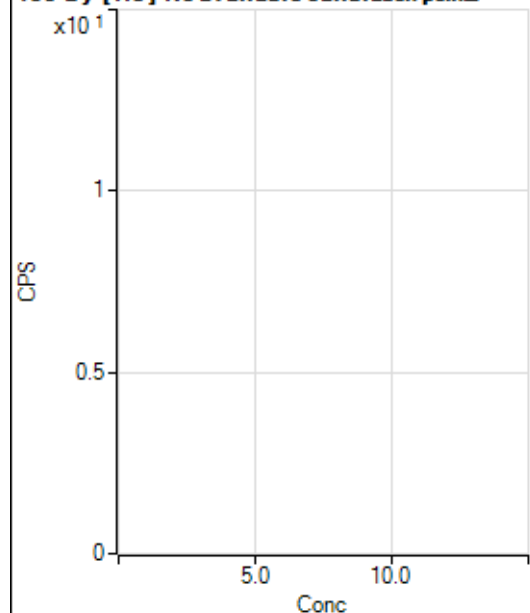
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	114.5
2	☐			8.89		P	43.3
3	☐			11.11		P	34.6
4	☐			97.78		P	15.7
5	☐			193.34		P	6.0
6	☐			391.13		P	13.9
7	☐			686.71		P	3.5
8	☐			1431.23		P	4.7
9	☐			144.45		P	41.4

150 Nd [He] No available calibration points

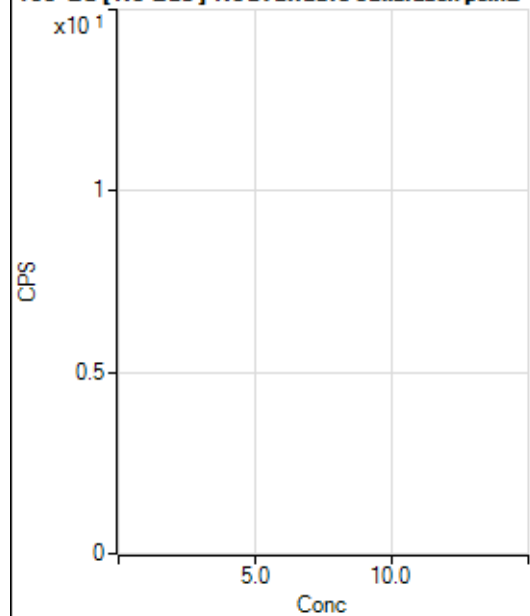
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			17.78		P	28.6
2	☐			18.89		P	20.4
3	☐			10.00		P	0.0
4	☐			23.33		P	37.8
5	☐			32.22		P	29.8
6	☐			35.56		P	28.6
7	☐			60.00		P	33.8
8	☐			107.78		P	23.4
9	☐			67.78		P	19.9

156 Dy [No Gas] No available calibration points

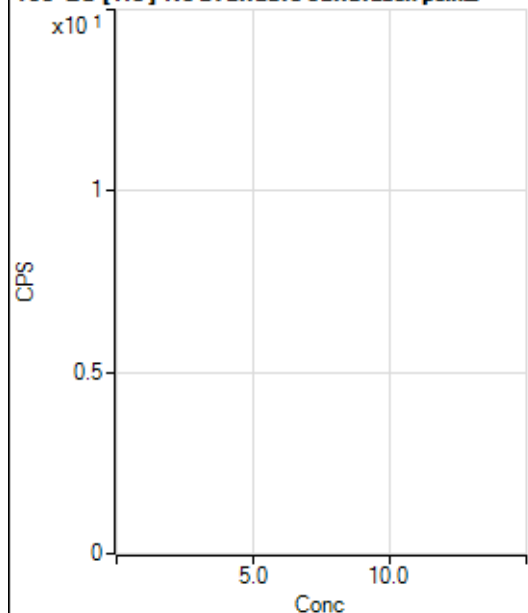
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	35.3
2	☐			33.33		P	50.0
3	☐			19.44		P	65.5
4	☐			44.44		P	96.2
5	☐			77.78		P	6.2
6	☐			108.34		P	61.5
7	☐			194.45		P	17.8
8	☐			269.46		P	1.8
9	☐			75.00		P	33.3

156 Dy [He] No available calibration points

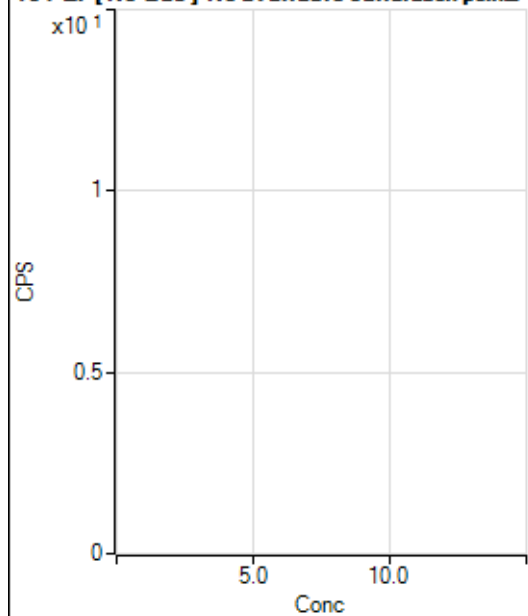
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			32.22		P	46.6
2	☐			36.67		P	50.6
3	☐			25.56		P	66.9
4	☐			45.55		P	29.6
5	☐			63.33		P	34.5
6	☐			88.89		P	7.8
7	☐			155.56		P	14.3
8	☐			234.45		P	5.4
9	☐			71.12		P	18.9

160 Gd [No Gas] Noavailable calibration poin_

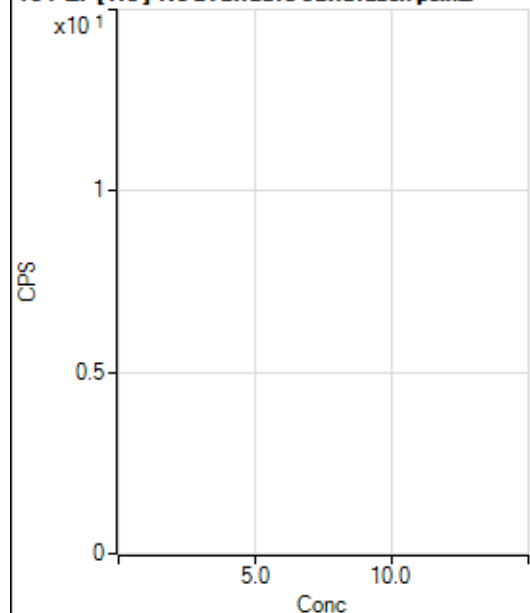
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			127.78		P	32.2
2	☐			138.90		P	51.0
3	☐			147.23		P	11.8
4	☐			161.12		P	15.8
5	☐			158.34		P	5.3
6	☐			183.34		P	22.7
7	☐			144.45		P	8.8
8	☐			205.57		P	8.4
9	☐			130.56		P	22.4

160 Gd [He] No available calibration points

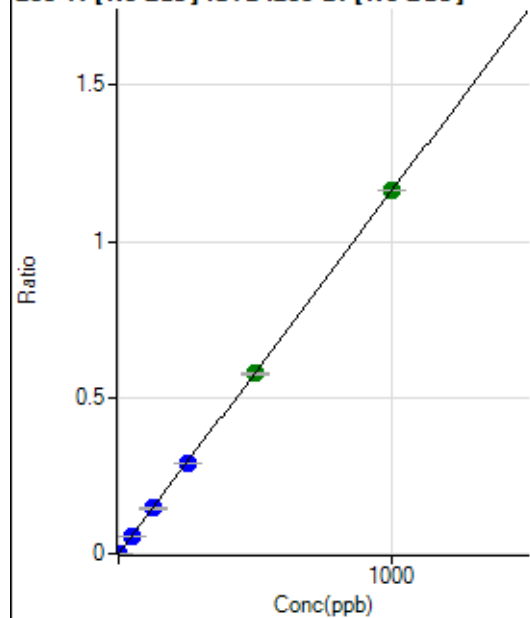
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			254.45		P	7.4
2	☐			287.78		P	4.4
3	☐			270.01		P	4.5
4	☐			232.23		P	13.6
5	☐			240.01		P	8.4
6	☐			257.78		P	7.8
7	☐			257.79		P	14.2
8	☐			278.90		P	6.6
9	☐			237.78		P	2.1

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			83.34		P	52.9
2	☐			108.34		P	7.7
3	☐			91.67		P	32.8
4	☐			75.00		P	69.4
5	☐			130.56		P	9.8
6	☐			111.12		P	15.6
7	☐			113.90		P	34.6
8	☐			152.78		P	11.4
9	☐			158.34		P	13.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			101.12		P	6.9
2	☐			107.78		P	4.7
3	☐			65.56		P	21.2
4	☐			76.67		P	27.2
5	☐			82.22		P	22.3
6	☐			75.56		P	34.3
7	☐			78.89		P	20.0
8	☐			83.34		P	12.0
9	☐			107.78		P	3.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	986.20	0.0001	P	5.3
2	☐	0.100	0.096	2783.75	0.0002	P	12.0
3	☐	1.000	0.908	19008.78	0.0011	P	2.5
4	☐	50.000	50.167	967516.60	0.0583	P	0.4
5	☐	125.000	124.820	2358067.80	0.1449	P	0.4
6	☐	250.000	249.683	4692074.80	0.2898	P	0.5
7	☐	500.000	498.333	9237408.37	0.5784	A	1.0
8	☐	1000.000	1000.927	18097340.51	1.1616	A	0.1
9	☐			4453.74	0.0003	P	6.6

$$y = 0.0012 * x + 5.6591E-005$$

$$R = 1.0000$$

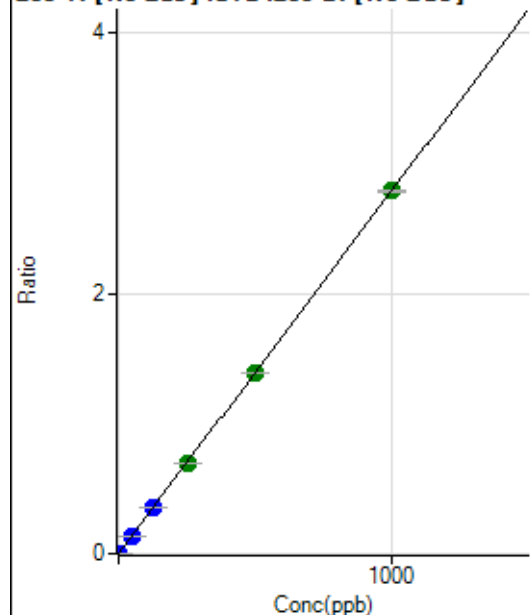
$$DL = 0.007682$$

$$BEC = 0.04876$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1794.64	0.0001	P	6.0
2	☐	0.100	0.095	6110.01	0.0004	P	6.0
3	☐	1.000	0.918	45515.16	0.0027	P	1.4
4	☐	50.000	50.023	2314314.03	0.1394	P	0.4
5	☐	125.000	124.897	5660925.21	0.3479	P	0.3
6	☐	250.000	250.436	11291537.23	0.6975	A	0.2
7	☐	500.000	498.952	22191852.23	1.3895	A	0.6
8	☐	1000.000	1000.427	43400647.50	2.7859	A	0.5
9	☐			9909.67	0.0007	P	4.3

$$y = 0.0028 * x + 1.0300E-004$$

$$R = 1.0000$$

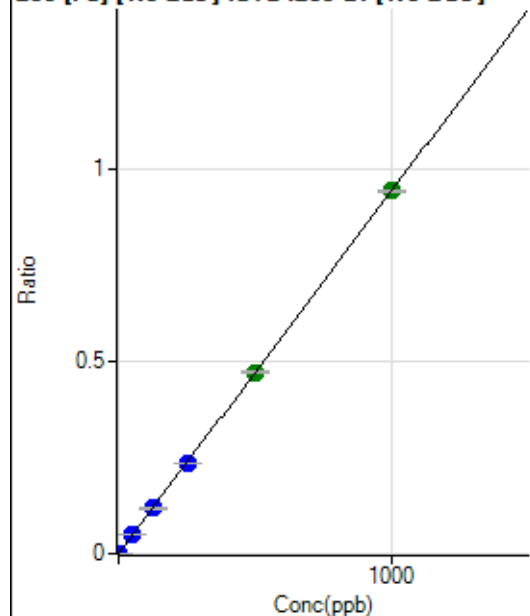
$$DL = 0.006692$$

$$BEC = 0.03699$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2528.11	0.0001	P	7.5
2	☐	0.100	0.096	3902.56	0.0002	P	5.3
3	☐	1.000	0.917	17265.27	0.0010	P	0.3
4	☐	50.000	50.283	788878.45	0.0475	P	0.1
5	☐	125.000	124.692	1913873.87	0.1176	P	0.6
6	☐	250.000	249.486	3807460.94	0.2352	P	0.5
7	☐	500.000	499.715	7521255.26	0.4709	A	0.6
8	☐	1000.000	1000.295	14683216.65	0.9425	A	0.2
9	☐			12033.56	0.0009	P	1.6

$$y = 9.4208E-004 * x + 1.4513E-004$$

$$R = 1.0000$$

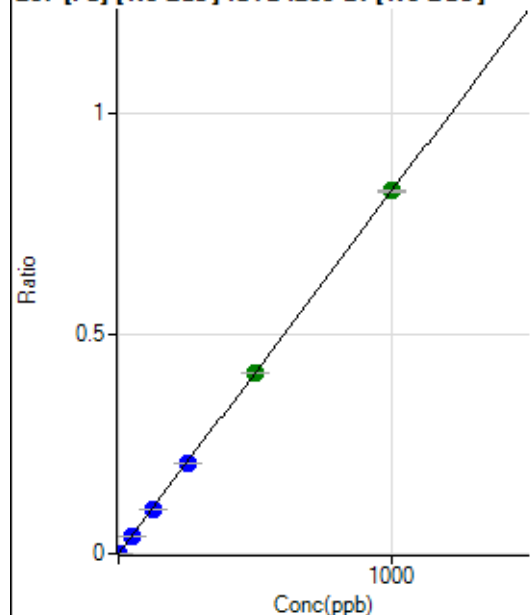
$$DL = 0.03486$$

$$BEC = 0.1541$$

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	2296.56	0.0001	P	0.4
2	☐	0.100	0.099	3533.91	0.0002	P	2.9
3	☐	1.000	0.929	15353.76	0.0009	P	1.3
4	☐	50.000	49.628	681343.20	0.0410	P	0.4
5	☐	125.000	124.210	1668135.02	0.1025	P	0.5
6	☐	250.000	248.721	3321168.91	0.2051	P	0.6
7	☐	500.000	498.729	6567817.45	0.4112	A	0.8
8	☐	1000.000	1001.073	12856993.46	0.8253	A	0.3
9	☐			10515.54	0.0008	P	0.9

$$y = 8.2427\text{E-}004 * x + 1.3181\text{E-}004$$

$$R = 1.0000$$

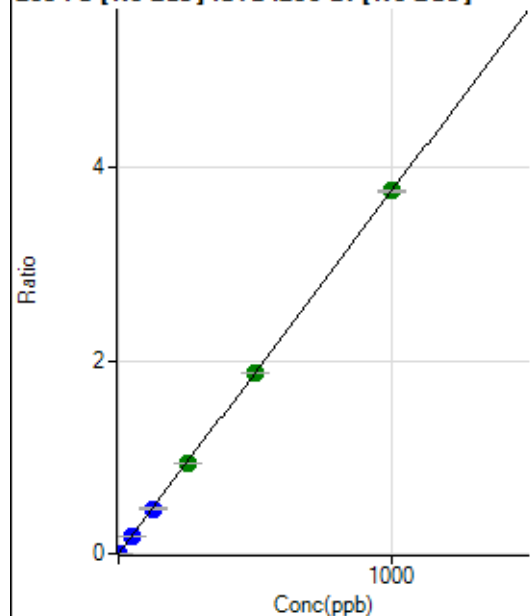
$$DL = 0.002142$$

$$BEC = 0.1599$$

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	9701.64	0.0006	P	1.9
2	☐	0.100	0.096	15201.91	0.0009	P	2.9
3	☐	1.000	0.925	68997.22	0.0040	P	1.2
4	☐	50.000	50.078	3131496.69	0.1886	P	0.3
5	☐	125.000	124.303	7604842.14	0.4673	P	0.5
6	☐	250.000	250.765	15254637.15	0.9423	A	0.4
7	☐	500.000	498.323	29897234.17	1.8719	A	0.6
8	☐	1000.000	1000.730	58554113.35	3.7586	A	0.5
9	☐			46747.58	0.0035	P	0.6

$$y = 0.0038 * x + 5.5682\text{E-}004$$

$$R = 1.0000$$

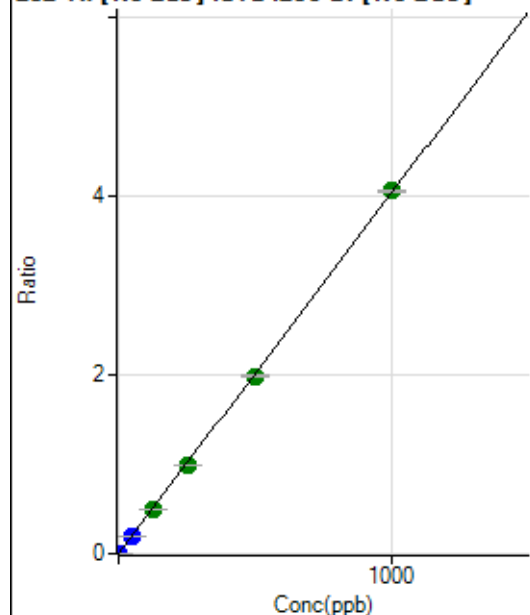
$$DL = 0.008526$$

$$BEC = 0.1483$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2842.99	0.0002	P	4.2
2	☐	0.100	0.075	7721.02	0.0005	P	7.7
3	☐	1.000	0.772	56114.20	0.0033	P	1.8
4	☐	50.000	47.412	3181745.90	0.1916	P	0.1
5	☐	125.000	121.355	7977961.17	0.4903	A	0.3
6	☐	250.000	246.092	16093014.25	0.9940	A	0.5
7	☐	500.000	492.613	31778698.16	1.9897	A	0.4
8	☐	1000.000	1005.256	63252281.04	4.0601	A	0.4
9	☐			11019.78	0.0008	P	3.0

$$y = 0.0040 * x + 1.6318E-004$$

$$R = 0.9999$$

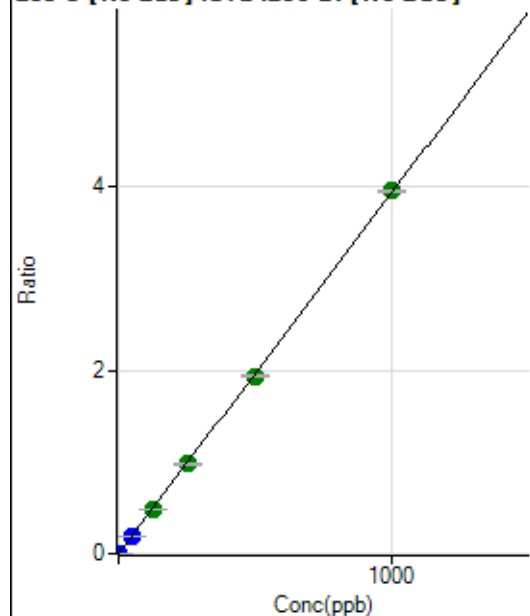
$$DL = 0.005109$$

$$BEC = 0.04041$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4009.16	0.0002	P	7.7
2	☐	0.100	0.090	9665.12	0.0006	P	7.4
3	☐	1.000	0.863	62057.10	0.0036	P	1.3
4	☐	50.000	48.210	3155822.36	0.1901	P	0.7
5	☐	125.000	122.482	7852446.70	0.4826	A	0.7
6	☐	250.000	247.764	15799616.93	0.9759	A	0.4
7	☐	500.000	491.502	30917110.93	1.9358	A	0.6
8	☐	1000.000	1005.212	61673695.83	3.9588	A	0.3
9	☐			5020.63	0.0004	P	6.2

$$y = 0.0039 * x + 2.3014E-004$$

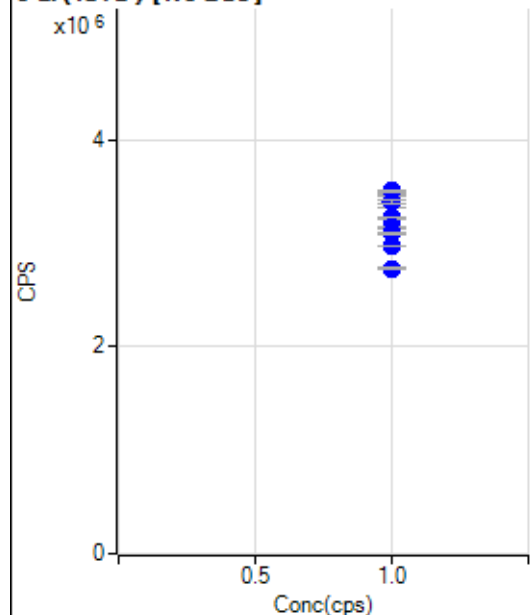
$$R = 0.9999$$

$$DL = 0.01355$$

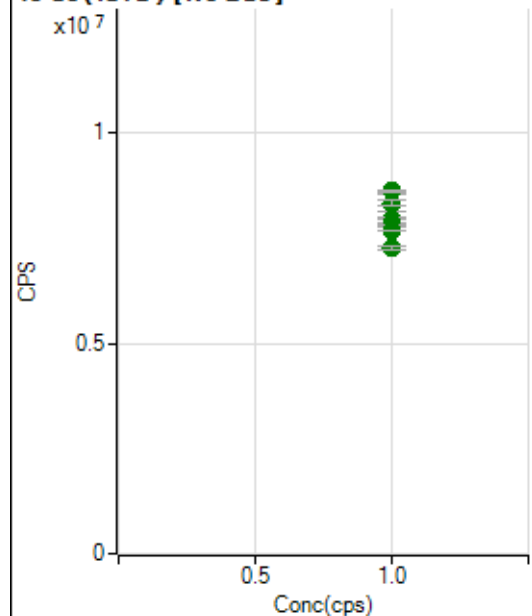
$$BEC = 0.05844$$

Weight: <None>

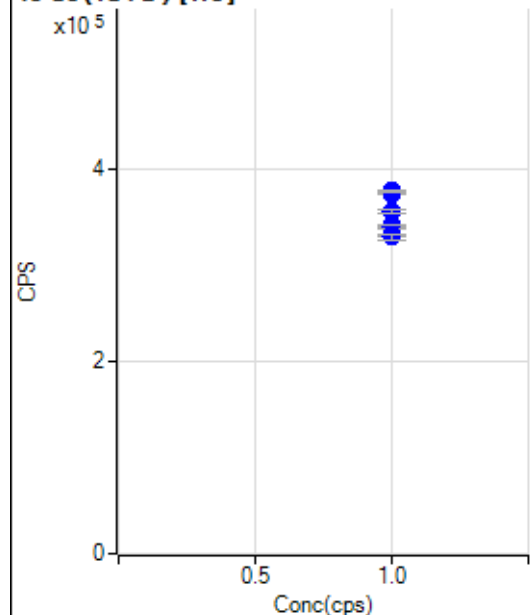
Min Conc: 0

6 Li (ISTD) [No Gas]

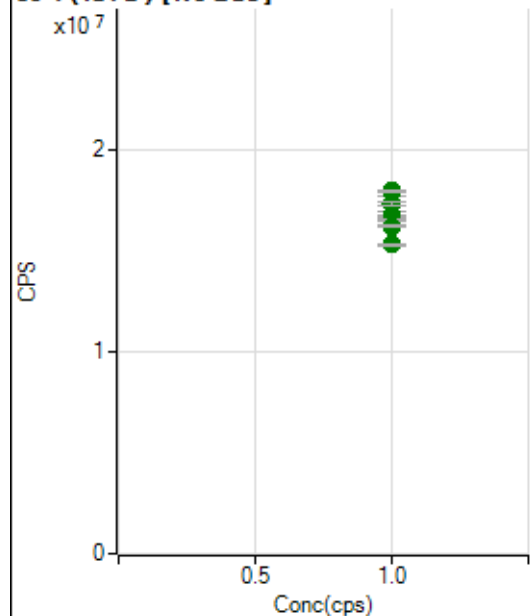
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3479026.17		P	0.7
2	☐	1.000		3408721.70		P	3.4
3	☐	1.000		3506880.75		P	0.4
4	☐	1.000		3393887.93		P	1.1
5	☐	1.000		3244076.54		P	0.4
6	☐	1.000		3151789.69		P	0.4
7	☐	1.000		3097943.93		P	0.7
8	☐	1.000		2969694.92		P	0.3
9	☐	1.000		2757689.86		P	1.0

45 Sc (ISTD) [No Gas]

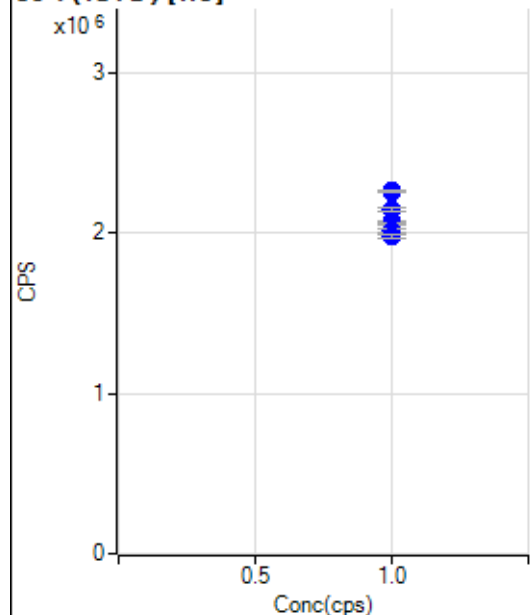
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8617076.67		A	0.3
2	☐	1.000		8316506.09		A	4.9
3	☐	1.000		8614459.66		A	0.2
4	☐	1.000		8333818.16		A	1.2
5	☐	1.000		7965072.83		A	0.6
6	☐	1.000		7853395.32		A	0.3
7	☐	1.000		7789820.14		A	0.6
8	☐	1.000		7682852.00		A	0.1
9	☐	1.000		7258506.59		A	0.9

45 Sc (ISTD) [He]

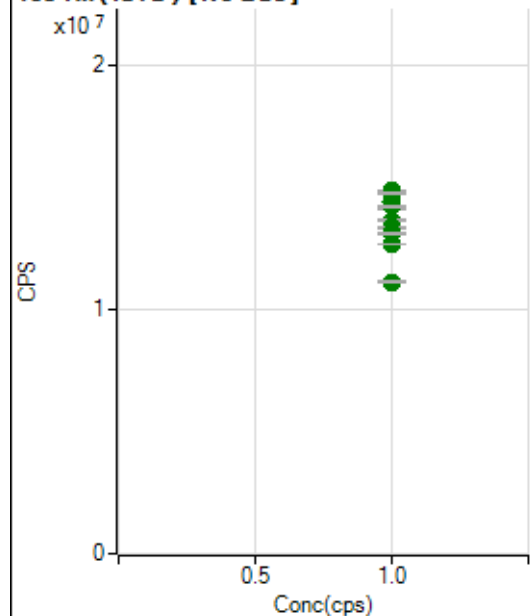
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		375800.00		P	0.3
2	☐	1.000		376425.87		P	0.4
3	☐	1.000		378143.05		P	0.4
4	☐	1.000		356608.55		P	1.3
5	☐	1.000		341977.87		P	0.5
6	☐	1.000		342003.39		P	0.1
7	☐	1.000		341210.64		P	1.1
8	☐	1.000		332315.65		P	0.6
9	☐	1.000		330170.80		P	1.7

89 Y (ISTD) [No Gas]

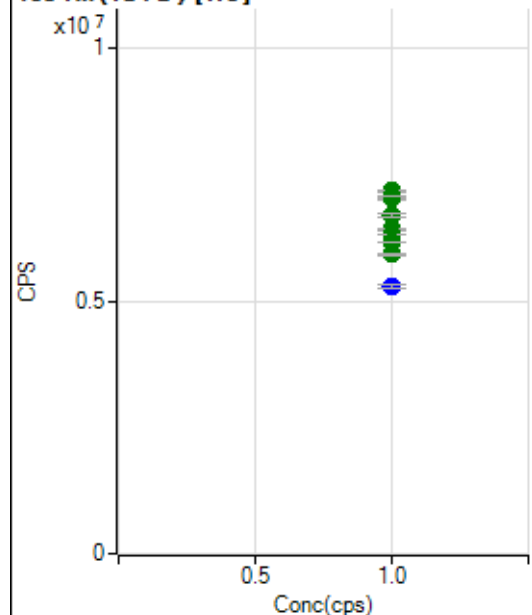
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17955470.84		A	0.8
2	☐	1.000		17322232.10		A	4.8
3	☐	1.000		17910446.40		A	0.7
4	☐	1.000		17328956.55		A	0.8
5	☐	1.000		16706656.28		A	0.2
6	☐	1.000		16595936.84		A	0.6
7	☐	1.000		16507636.70		A	0.5
8	☐	1.000		16220681.01		A	0.5
9	☐	1.000		15276400.74		A	0.6

89 Y(ISTD) [He]

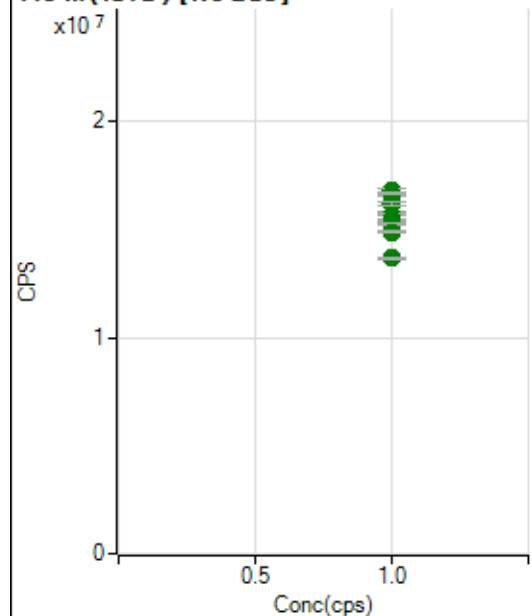
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2261348.30		P	0.4
2	☐	1.000		2261363.55		P	0.7
3	☐	1.000		2258208.42		P	0.6
4	☐	1.000		2149642.83		P	1.0
5	☐	1.000		2069272.94		P	0.3
6	☐	1.000		2071913.42		P	0.3
7	☐	1.000		2054638.74		P	0.7
8	☐	1.000		2013380.84		P	0.7
9	☐	1.000		1978883.84		P	1.2

103 Rh(ISTD) [No Gas]

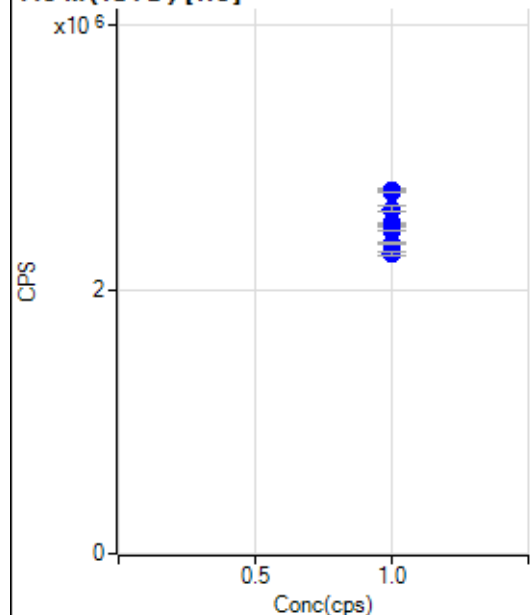
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14884534.71		A	0.7
2	☐	1.000		14424655.53		A	4.3
3	☐	1.000		14804664.22		A	0.3
4	☐	1.000		14249732.44		A	0.9
5	☐	1.000		13687679.82		A	0.7
6	☐	1.000		13386563.23		A	0.8
7	☐	1.000		13137412.70		A	0.4
8	☐	1.000		12712708.01		A	0.2
9	☐	1.000		11159410.23		A	1.0

103 Rh (ISTD) [He]

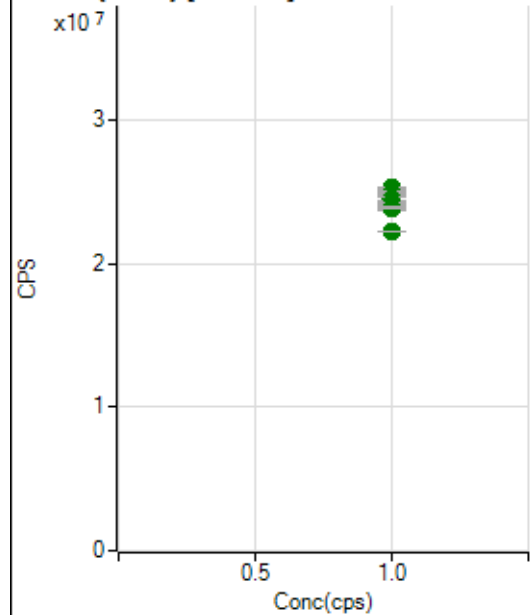
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7181545.66		A	0.5
2	☐	1.000		7023951.91		A	0.2
3	☐	1.000		7074863.23		A	0.4
4	☐	1.000		6700054.07		A	1.1
5	☐	1.000		6417572.27		A	0.5
6	☐	1.000		6321060.32		A	0.2
7	☐	1.000		6178187.13		A	0.2
8	☐	1.000		5926159.70		A	0.3
9	☐	1.000		5306615.65		P	1.3

115 In (ISTD) [No Gas]

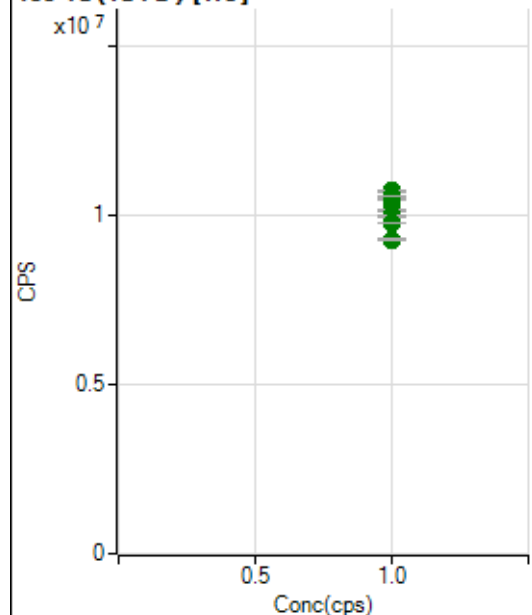
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16799141.36		A	1.2
2	☐	1.000		16206130.36		A	4.7
3	☐	1.000		16689554.65		A	0.3
4	☐	1.000		16216183.91		A	0.8
5	☐	1.000		15683160.55		A	0.4
6	☐	1.000		15455692.26		A	1.0
7	☐	1.000		15283878.67		A	0.2
8	☐	1.000		14886935.30		A	0.5
9	☐	1.000		13679011.58		A	0.8

115 In (ISTD) [He]

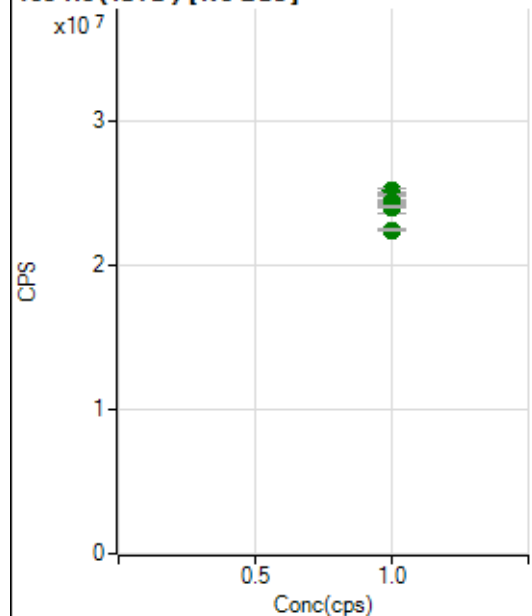
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2749134.04		P	1.1
2	☐	1.000		2748557.34		P	0.2
3	☐	1.000		2741212.23		P	0.3
4	☐	1.000		2613706.04		P	1.3
5	☐	1.000		2501621.71		P	0.7
6	☐	1.000		2474691.79		P	0.1
7	☐	1.000		2448008.37		P	0.5
8	☐	1.000		2351311.50		P	0.7
9	☐	1.000		2276991.62		P	1.4

159 Tb (ISTD) [No Gas]

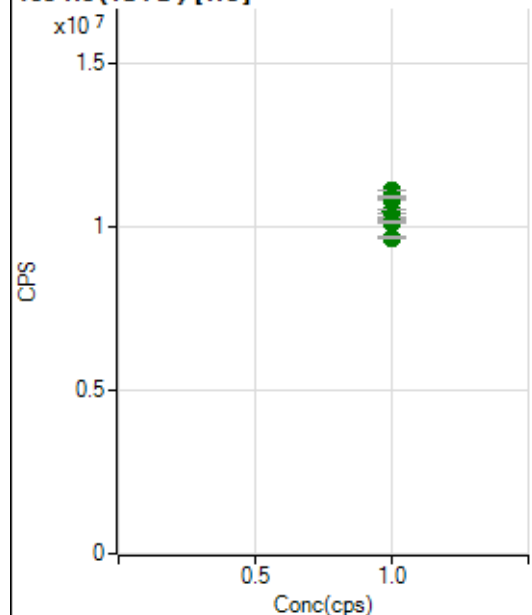
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		25321812.68		A	0.7
2	☐	1.000		24320436.31		A	4.5
3	☐	1.000		24998749.63		A	0.7
4	☐	1.000		24585272.69		A	0.8
5	☐	1.000		24231548.25		A	0.3
6	☐	1.000		24063551.31		A	0.4
7	☐	1.000		24193815.75		A	0.7
8	☐	1.000		23946547.70		A	0.5
9	☐	1.000		22308876.34		A	0.3

159 Tb (ISTD) [He]

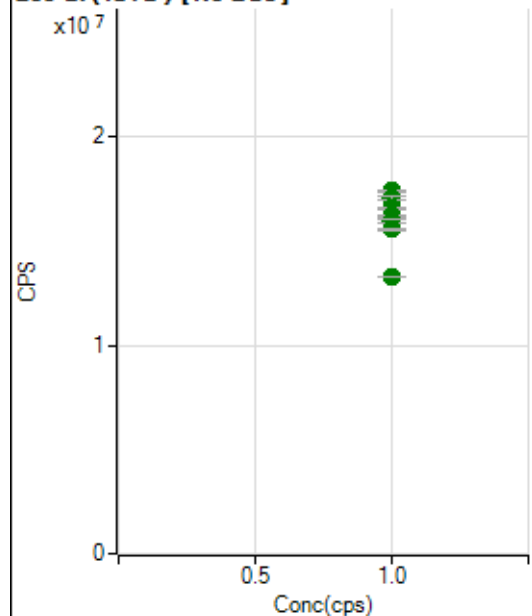
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10728262.48		A	0.8
2	☐	1.000		10480397.06		A	0.9
3	☐	1.000		10582503.59		A	0.3
4	☐	1.000		10159265.34		A	0.6
5	☐	1.000		9980460.20		A	0.4
6	☐	1.000		9964476.73		A	0.3
7	☐	1.000		9969462.07		A	0.6
8	☐	1.000		9772908.47		A	0.0
9	☐	1.000		9292830.83		A	1.1

165 Ho (ISTD) [No Gas]

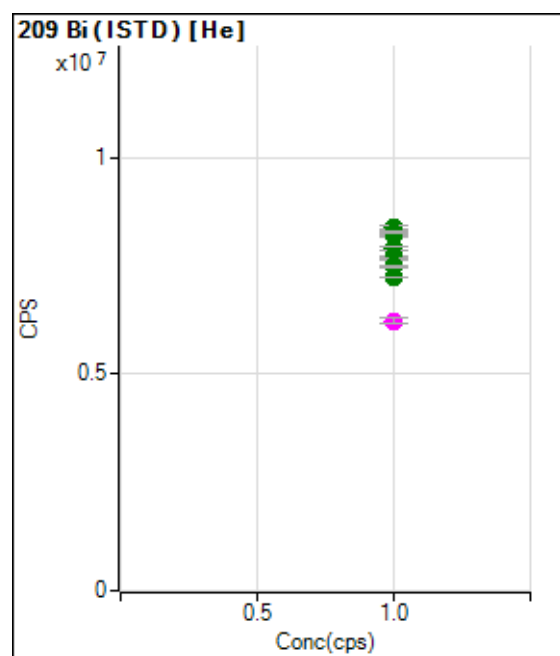
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		25155572.26		A	0.9
2	☐	1.000		24074537.00		A	4.3
3	☐	1.000		24906850.73		A	0.6
4	☐	1.000		24428922.59		A	1.4
5	☐	1.000		24228154.88		A	0.2
6	☐	1.000		24242047.42		A	1.1
7	☐	1.000		24240871.20		A	0.2
8	☐	1.000		24041483.35		A	0.2
9	☐	1.000		22466274.29		A	0.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11076732.06		A	0.1
2	☐	1.000		10789575.81		A	0.3
3	☐	1.000		10874113.87		A	0.7
4	☐	1.000		10476340.88		A	1.1
5	☐	1.000		10277328.46		A	0.3
6	☐	1.000		10267130.13		A	0.4
7	☐	1.000		10274995.68		A	0.4
8	☐	1.000		10126941.38		A	0.6
9	☐	1.000		9656196.80		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17423609.32		A	0.5
2	☐	1.000		16594758.09		A	4.6
3	☐	1.000		17112204.88		A	0.9
4	☐	1.000		16602392.11		A	0.5
5	☐	1.000		16272385.31		A	0.2
6	☐	1.000		16189613.51		A	0.5
7	☐	1.000		15971890.18		A	0.7
8	☐	1.000		15579022.55		A	0.6
9	☐	1.000		13299604.52		A	0.4



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8376712.58		A	1.0
2	☐	1.000		8195755.29		A	0.3
3	☐	1.000		8269522.24		A	0.7
4	☐	1.000		7911383.08		A	1.0
5	☐	1.000		7717987.94		A	0.5
6	☐	1.000		7640612.80		A	0.5
7	☐	1.000		7491996.90		A	0.5
8	☐	1.000		7242025.80		A	0.3
9	☐	1.000		6232864.70		M	1.8

US EPA Tune Check Sample Report

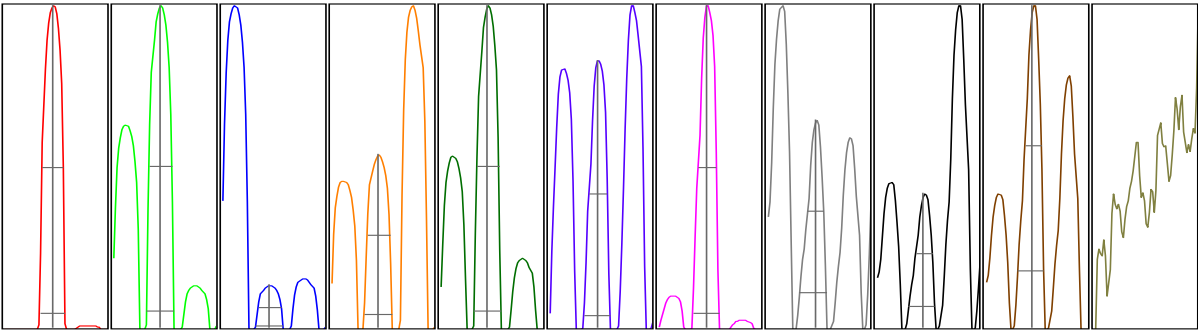
Batch Folder D:\ICP-MS Data\P7092019MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	12334	0.60	5.00	
24	168201	0.71	5.00	
25	23040	0.64	5.00	
26	26832	0.72	5.00	
59	135112	0.75	5.00	
113	21978	1.01	5.00	
115	253895	1.28	5.00	
206	77553	1.26	5.00	
207	76151	1.16	5.00	
208	168913	1.22	5.00	
220	122	2.20		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	12412	12382	12368	12257	12252
24	169096	168907	169187	167139	166677
25	23256	23057	23076	22943	22871
26	27080	26913	26889	26604	26673
59	135838	136010	135689	133961	134064
113	22180	22129	22096	21810	21677
115	258168	254829	255155	251235	250087
206	78777	78184	77615	76389	76800
207	76756	76990	76604	75088	75319
208	170677	170842	169527	167220	166301
220	120	118	123	122	125

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	21184	8.95	8.9 - 9.1		0.738	0.900	
24	269497	23.90	23.9 - 24.1		0.787	0.900	
25	36221	24.90	24.9 - 25.1		0.788	0.900	
26	42506	25.90	25.9 - 26.1		0.810	0.900	
59	228547	58.90	58.9 - 59.1		0.781	0.900	
113	41746	112.95	112.9 - 113.1		0.762	0.900	
115	483256	114.95	114.9 - 115.1		0.767	0.900	
206	149386	205.95	205.9 - 206.1		0.760	0.900	
207	136709	206.90	206.9 - 207.1		0.745	0.900	
208	327795	207.90	207.9 - 208.1		0.743	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.6	V	Deflect	12.0	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	36136	0.50	
89	43693	0.53	
205	61121	0.27	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	36326	35858	36074	36213	36206
89	43903	43398	43490	43837	43835
205	61145	60994	61398	61021	61045

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	6.4	V	Deflect	1.0	V
Extract 2	-130.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	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			