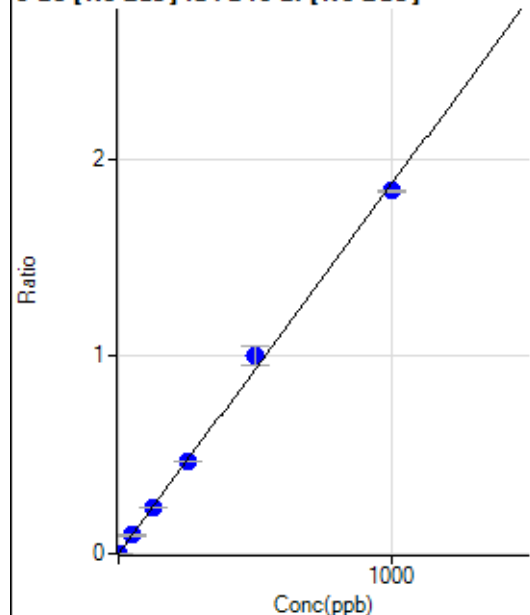


Batch Folder: D:\P8040819-MS.b\
Analysis File: P8040819-MS.batch.bin
DA Date-Time: 2019-04-08 22:09:22
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-04-08 10:42:59
2			
3	005CALS.d	S02	2019-04-08 10:50:38
4	006CALS.d	S03	2019-04-08 10:54:33
5	007CALS.d	S04	2019-04-08 10:58:27
6	008CALS.d	S05	2019-04-08 11:02:18
7	009CALS.d	S06	2019-04-08 11:06:05
8	010CALS.d	S07	2019-04-08 11:09:46
9	011CALS.d	S08	2019-04-08 11:13:21

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	48.8
2	☐	0.100					
3	☐	1.000	1.143	333.34	0.0022	P	10.8
4	☐	50.000	49.478	14241.69	0.0926	P	1.1
5	☐	125.000	125.766	37080.11	0.2353	P	0.4
6	☐	250.000	249.808	74705.94	0.4672	P	1.5
7	☐	500.000	535.299	145911.91	1.0012	P	9.4
8	☐	1000.000	982.328	280708.64	1.8372	P	0.4
9	☐			64.44	0.0004	P	7.9

$$y = 0.0019 * x + 4.3994E-005$$

$$R = 0.9991$$

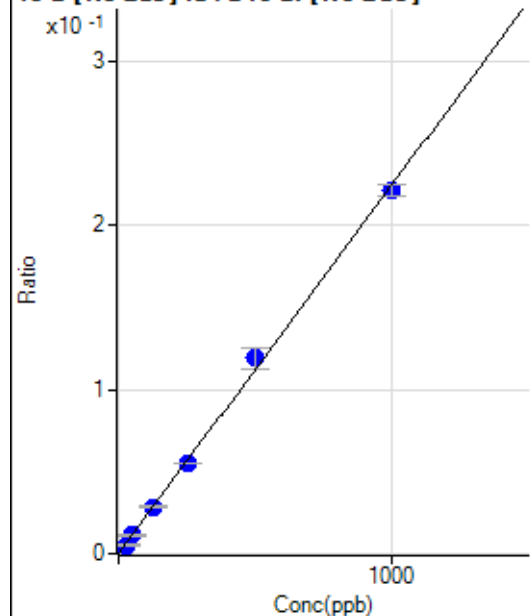
$$DL = 0.03446$$

$$BEC = 0.02352$$

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	19.45	0.0001	P	89.4
2	☐	2.500					
3	☐	25.000	22.449	788.95	0.0052	P	9.8
4	☐	50.000	49.735	1736.31	0.0113	P	8.2
5	☐	125.000	126.819	4506.47	0.0286	P	6.6
6	☐	250.000	245.278	8822.50	0.0552	P	0.8
7	☐	500.000	531.323	17383.46	0.1194	P	10.9
8	☐	1000.000	985.369	33807.60	0.2213	P	3.3
9	☐			558.37	0.0038	P	10.9

$$y = 2.2443E-004 * x + 1.2729E-004$$

$$R = 0.9992$$

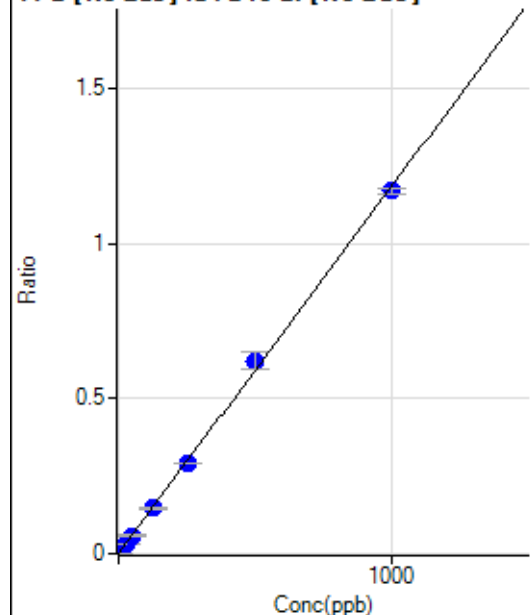
$$DL = 1.522$$

$$BEC = 0.5672$$

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	91.67	0.0006	P	11.4
2	☐	2.500					
3	☐	25.000	23.845	4406.43	0.0289	P	5.9
4	☐	50.000	49.235	9069.90	0.0590	P	1.4
5	☐	125.000	123.054	23077.77	0.1464	P	2.7
6	☐	250.000	245.814	46671.83	0.2919	P	1.3
7	☐	500.000	526.180	90938.44	0.6241	P	9.8
8	☐	1000.000	988.267	179008.52	1.1717	P	1.3
9	☐			3047.67	0.0208	P	12.4

$$y = 0.0012 * x + 6.1000E-004$$

$$R = 0.9995$$

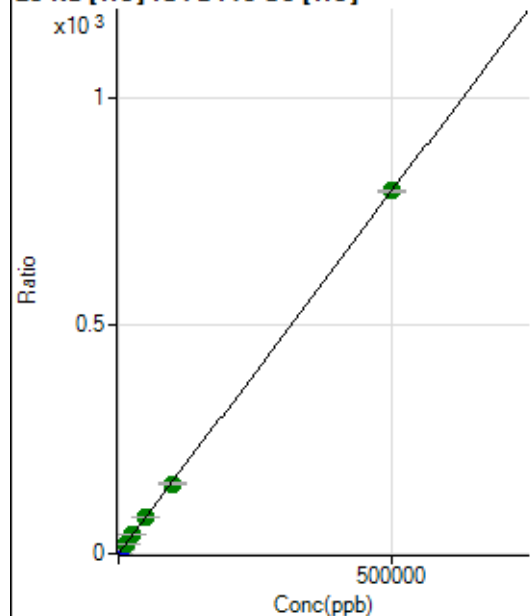
$$DL = 0.1767$$

$$BEC = 0.5148$$

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	8363.95	0.1394	P	3.3
2	☐	50.000					
3	☐	500.000	487.541	55774.56	0.9133	P	2.2
4	☐	5000.000	5234.778	505953.33	8.4480	P	0.6
5	☐	12500.000	13171.640	1244191.46	21.0454	A	1.3
6	☐	25000.000	26396.122	2448257.52	42.0352	A	1.7
7	☐	50000.000	49548.870	4772385.44	78.7830	A	0.6
8	☐	100000.00	96692.615	9410861.67	153.6092	A	1.1
9	☐	500000.00	500617.65	48656027.47	794.7160	A	0.7

$$y = 0.0016 * x + 0.1394$$

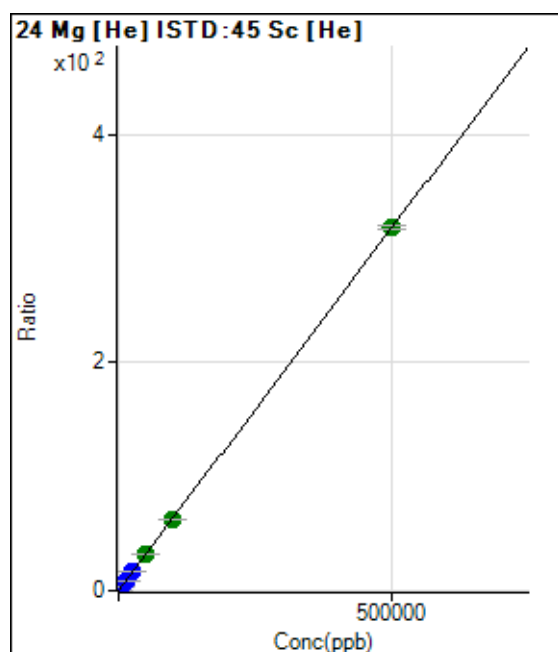
$$R = 1.0000$$

$$DL = 8.783$$

$$BEC = 87.86$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0006	P	86.6
2	☐	50.000					
3	☐	500.000	501.051	19503.06	0.3194	P	2.5
4	☐	5000.000	5207.396	198451.73	3.3139	P	1.8
5	☐	12500.000	12897.822	485174.73	8.2073	P	1.7
6	☐	25000.000	26228.142	972045.68	16.6892	P	0.7
7	☐	50000.000	50590.200	1949963.85	32.1904	A	1.5
8	☐	100000.00	97548.915	3802533.77	62.0696	A	1.5
9	☐	500000.00	500357.76	19492068.84	318.3712	A	0.9

$$y = 6.3629\text{E-}004 * x + 5.5596\text{E-}004$$

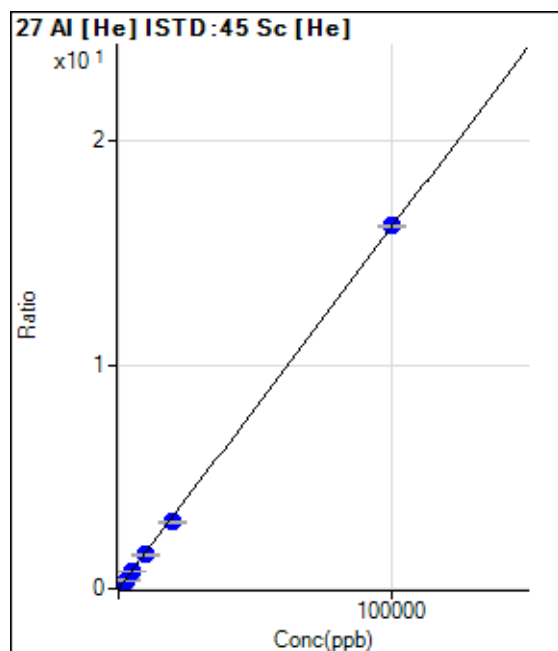
$$R = 1.0000$$

$$DL = 2.27$$

$$BEC = 0.8738$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.37	0.0021	P	7.5
2	☐	2.000					
3	☐	20.000	17.121	294.25	0.0048	P	13.9
4	☐	1000.000	963.007	9433.92	0.1575	P	1.8
5	☐	2500.000	2370.187	22740.84	0.3847	P	1.7
6	☐	5000.000	4875.363	45959.49	0.7891	P	1.0
7	☐	10000.000	9307.386	91140.48	1.5046	P	0.3
8	☐	20000.000	18358.014	181696.88	2.9656	P	0.5
9	☐	100000.00	100407.50	992500.86	16.2109	P	0.7

$$y = 1.6143\text{E-}004 * x + 0.0021$$

$$R = 0.9998$$

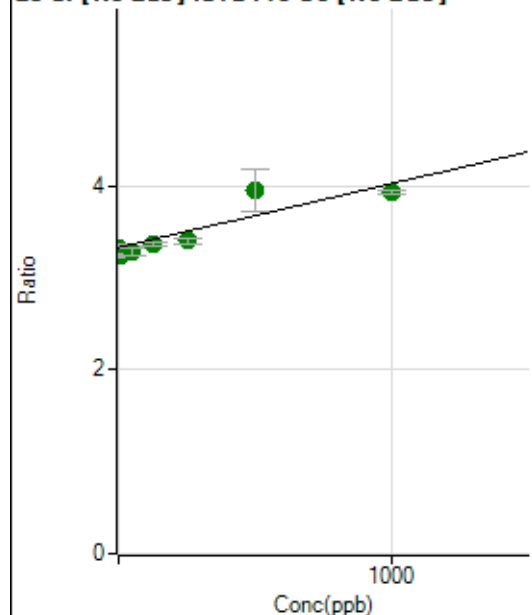
$$DL = 2.874$$

$$BEC = 12.73$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5051933.66	3.3353	A	1.9
2	☐	1.000					
3	☐	10.000	-128.643	4989935.05	3.2460	A	1.6
4	☐	50.000	-80.302	5069866.69	3.2795	A	2.5
5	☐	125.000	45.061	5153178.11	3.3665	A	1.6
6	☐	250.000	98.791	5342502.64	3.4038	A	1.8
7	☐	500.000	884.950	5644398.52	3.9495	A	11.8
8	☐	1000.000	863.221	6201306.61	3.9344	A	0.9
9	☐			5414672.22	3.5438	A	1.5

$$y = 6.9408\text{E-}004 * x + 3.3353$$

$$R = 0.9014$$

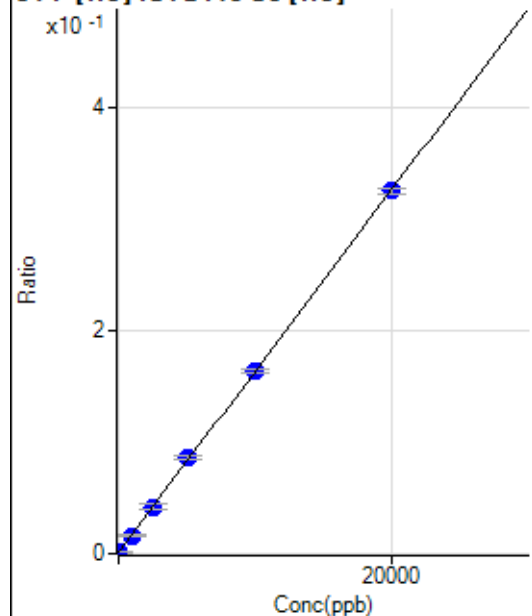
$$DL = 270.7$$

$$BEC = 4805$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-41.634	30.56	0.0005	P	56.6
2	☐	0.000					
3	☐	0.000	41.634	113.90	0.0019	P	35.9
4	☐	1000.000	916.081	963.97	0.0161	P	7.3
5	☐	2500.000	2526.218	2497.56	0.0423	P	10.8
6	☐	5000.000	5187.686	4984.45	0.0856	P	4.0
7	☐	10000.000	10010.010	9937.22	0.1640	P	2.2
8	☐	20000.000	19948.992	19956.49	0.3258	P	1.5
9	☐			41.67	0.0007	P	35.3

$$y = 1.6270\text{E-}005 * x + 0.0012$$

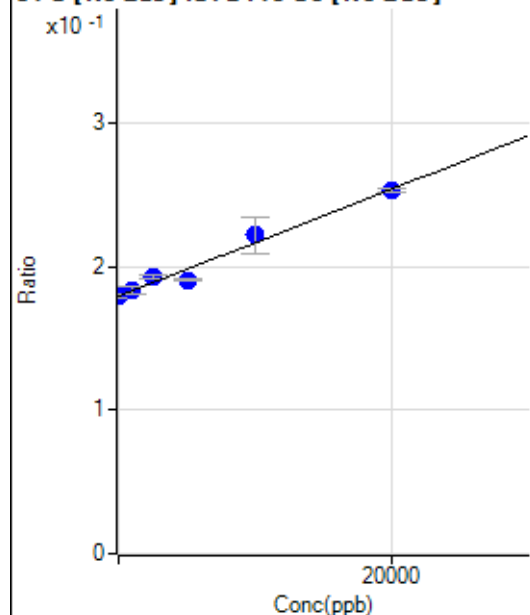
$$R = 0.9999$$

$$DL = 88.18$$

$$BEC = 72.91$$

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	123.927	272643.42	0.1800	P	1.1
2	☐	0.000					
3	☐	0.000	-123.927	275283.29	0.1791	P	1.5
4	☐	1000.000	1091.744	283804.34	0.1836	P	2.7
5	☐	2500.000	3607.761	295394.00	0.1930	P	0.9
6	☐	5000.000	3024.818	299493.71	0.1908	P	1.2
7	☐	10000.000	11397.012	317359.69	0.2220	P	11.5
8	☐	20000.000	19652.232	398396.18	0.2528	P	1.0
9	☐			239705.74	0.1569	P	1.8

$$y = 3.7268\text{E-}006 * x + 0.1795$$

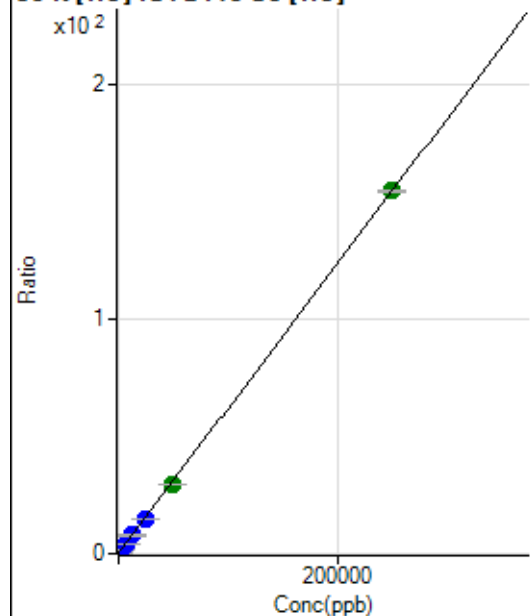
$$R = 0.9888$$

$$DL = 1873$$

$$BEC = 4.817\text{E}+04$$

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	11913.79	0.1986	P	1.2
2	☐	50.000					
3	☐	500.000	455.591	29256.43	0.4790	P	1.4
4	☐	2500.000	2443.994	101995.72	1.7031	P	1.1
5	☐	6250.000	6045.576	231761.26	3.9203	P	1.5
6	☐	12500.000	12333.587	453789.80	7.7913	P	1.2
7	☐	25000.000	23832.234	900774.15	14.8701	P	0.8
8	☐	50000.000	47576.833	1806619.24	29.4877	A	0.9
9	☐	250000.00	250615.49	9457994.57	154.4818	A	0.8

$$y = 6.1562\text{E-}004 * x + 0.1986$$

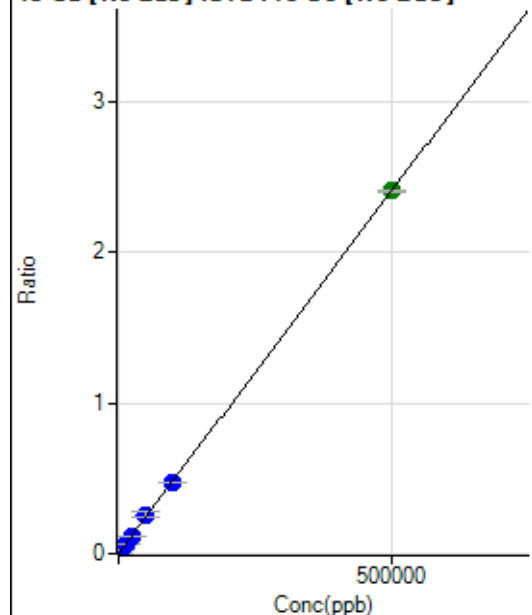
$$R = 0.9999$$

$$DL = 11.66$$

$$BEC = 322.6$$

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	2107.98	0.0014	P	8.5
2	☐	50.000					
3	☐	500.000	459.871	5538.96	0.0036	P	2.4
4	☐	5000.000	4881.161	38412.55	0.0248	P	1.7
5	☐	12500.000	12413.527	93430.86	0.0610	P	1.1
6	☐	25000.000	24440.779	186491.11	0.1188	P	2.0
7	☐	50000.000	53843.056	371729.93	0.2601	P	11.7
8	☐	100000.00	97153.867	737930.34	0.4682	P	0.8
9	☐	500000.00	500216.27	3674584.67	2.4047	A	0.5

$$y = 4.8046E-006 * x + 0.0014$$

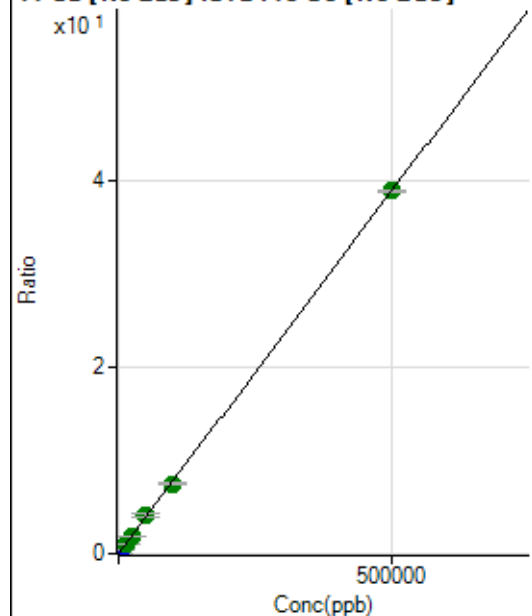
$$R = 0.9999$$

$$DL = 73.63$$

$$BEC = 289.9$$

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	31387.43	0.0207	P	1.8
2	☐	50.000					
3	☐	500.000	464.761	87490.99	0.0569	P	0.6
4	☐	5000.000	4965.348	629709.25	0.4073	P	2.0
5	☐	12500.000	12678.740	1542888.71	1.0079	A	0.5
6	☐	25000.000	24608.017	3039650.65	1.9366	A	1.7
7	☐	50000.000	53423.475	5975160.26	4.1801	A	11.5
8	☐	100000.00	96223.167	11840750.80	7.5124	A	1.1
9	☐	500000.00	500428.53	59567951.33	38.9828	A	0.5

$$y = 7.7858E-005 * x + 0.0207$$

$$R = 0.9999$$

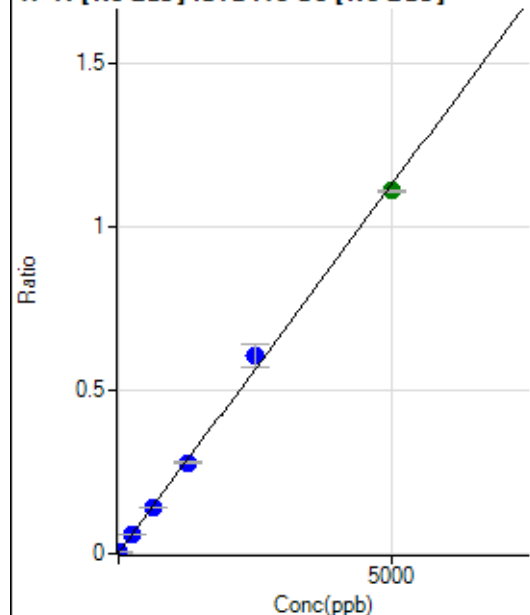
$$DL = 14.16$$

$$BEC = 266.1$$

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	2975.45	0.0020	P	5.0
2	☐	0.500					
3	☐	5.000	4.850	4703.79	0.0031	P	3.1
4	☐	250.000	245.593	88691.69	0.0574	P	2.1
5	☐	625.000	618.796	216706.58	0.1416	P	0.8
6	☐	1250.000	1223.582	436316.21	0.2780	P	1.9
7	☐	2500.000	2676.770	865768.70	0.6058	P	11.8
8	☐	5000.000	4919.216	1752219.83	1.1117	A	0.5
9	☐			3200.52	0.0021	P	5.9

$$y = 2.2559E-004 * x + 0.0020$$

$$R = 0.9991$$

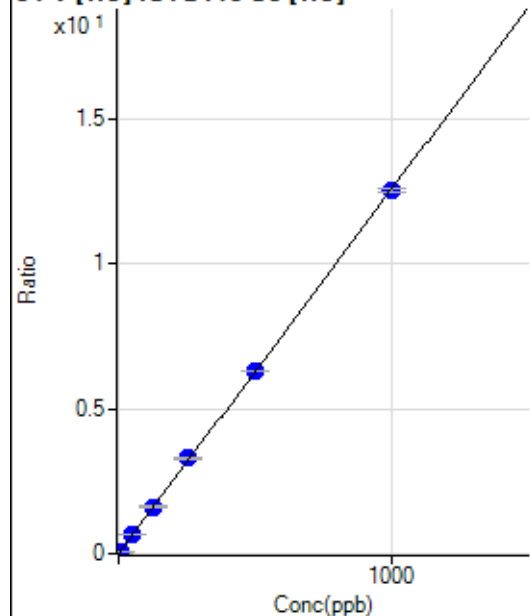
$$DL = 1.315$$

$$BEC = 8.707$$

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	20.00	0.0003	P	59.2
2	☐	0.500					
3	☐	5.000	5.064	3900.61	0.0639	P	3.4
4	☐	50.000	50.701	38120.92	0.6366	P	1.0
5	☐	125.000	127.118	94277.88	1.5955	P	4.3
6	☐	250.000	261.652	191254.64	3.2837	P	1.1
7	☐	500.000	501.810	381470.26	6.2974	P	0.9
8	☐	1000.000	995.882	765653.04	12.4973	P	1.0
9	☐			165.56	0.0027	P	0.6

$$y = 0.0125 * x + 3.3218E-004$$

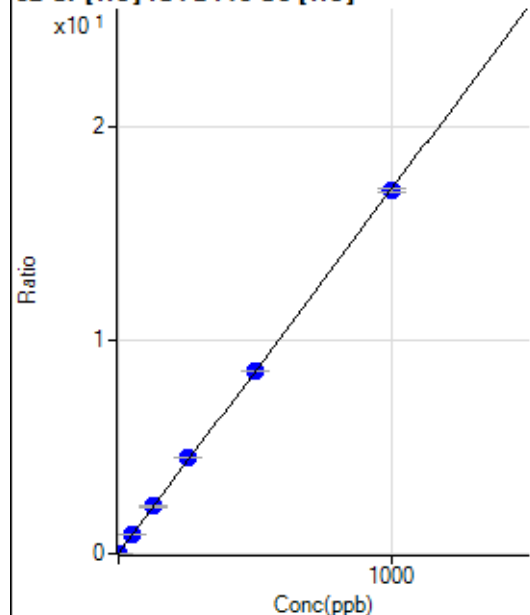
$$R = 0.9999$$

$$DL = 0.04705$$

$$BEC = 0.02647$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	650.03	0.0108	P	6.4
2	☐	0.200					
3	☐	2.000	1.951	2700.31	0.0442	P	0.3
4	☐	50.000	51.249	53147.19	0.8875	P	1.8
5	☐	125.000	130.136	132192.72	2.2370	P	4.0
6	☐	250.000	263.835	263498.81	4.5240	P	0.9
7	☐	500.000	501.261	520076.82	8.5855	P	0.8
8	☐	1000.000	995.207	1043652.56	17.0350	P	1.1
9	☐			7949.07	0.1298	P	1.8

$$y = 0.0171 * x + 0.0108$$

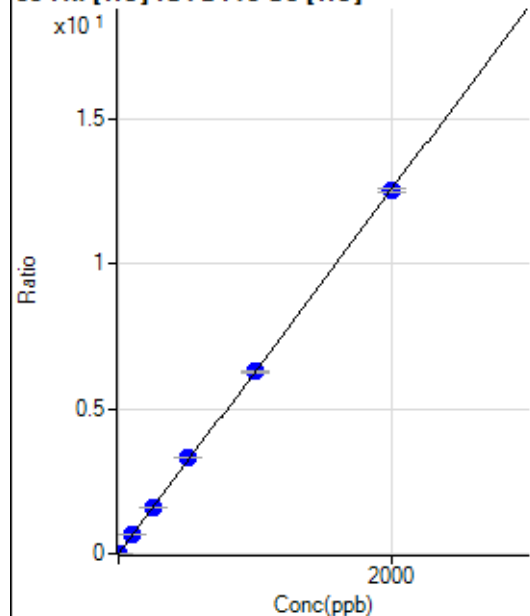
$$R = 0.9999$$

$$DL = 0.1213$$

$$BEC = 0.6337$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12.22	0.0002	P	30.6
2	☐	0.100					
3	☐	1.000	1.090	431.13	0.0071	P	6.9
4	☐	100.000	103.438	38973.24	0.6508	P	0.8
5	☐	250.000	254.888	94780.68	1.6033	P	1.7
6	☐	500.000	525.329	192455.31	3.3042	P	0.4
7	☐	1000.000	1001.614	381615.90	6.2998	P	1.0
8	☐	2000.000	1992.078	767604.85	12.5292	P	1.0
9	☐			3017.05	0.0493	P	4.1

$$y = 0.0063 * x + 2.0343E-004$$

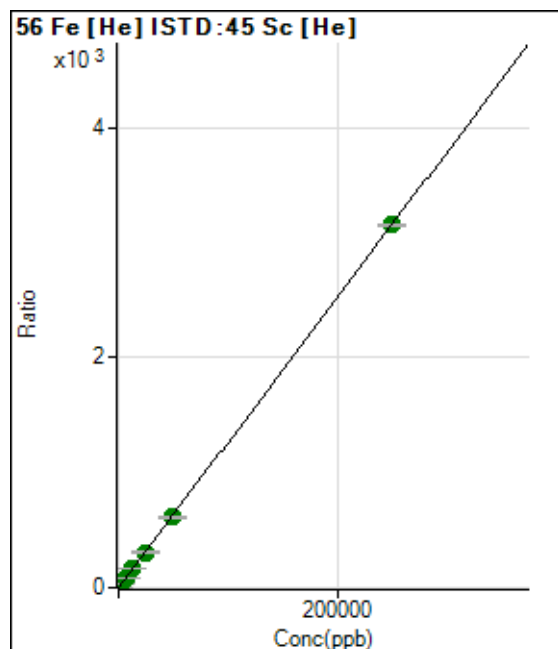
$$R = 0.9999$$

$$DL = 0.02971$$

$$BEC = 0.03234$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	683.37	0.0114	P	15.4
2	☐	5.000					
3	☐	50.000	51.549	40368.21	0.6610	P	1.3
4	☐	2500.000	2597.640	1961035.11	32.7459	A	0.9
5	☐	6250.000	6323.094	4711587.66	79.6928	A	1.1
6	☐	12500.000	12974.733	9523784.70	163.5143	A	0.8
7	☐	25000.000	24536.284	18730816.62	309.2089	A	1.3
8	☐	50000.000	48610.986	37529935.56	612.5896	A	1.3
9	☐	250000.00	250297.63	193114672.8	3,154.172	A	0.4

$$y = 0.0126 * x + 0.0114$$

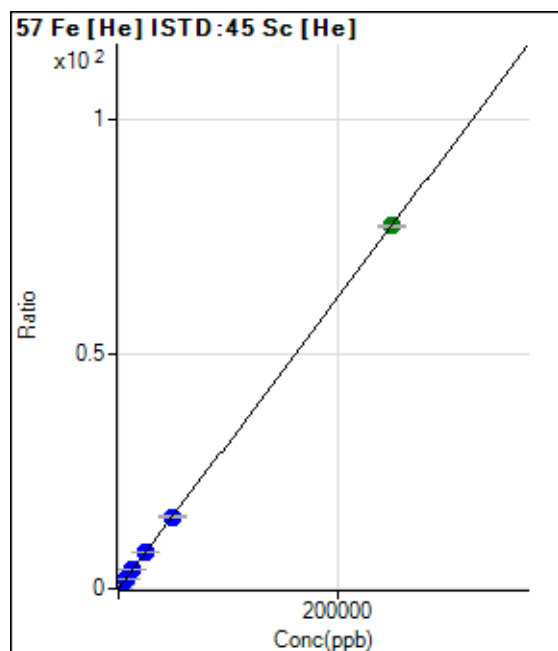
$$R = 1.0000$$

$$DL = 0.4173$$

$$BEC = 0.9049$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	51.85	0.0009	P	53.7
2	☐	5.000					
3	☐	50.000	48.991	979.70	0.0160	P	4.1
4	☐	2500.000	2577.524	47884.55	0.7996	P	0.9
5	☐	6250.000	6384.546	117025.33	1.9793	P	0.9
6	☐	12500.000	13203.291	238345.52	4.0922	P	0.7
7	☐	25000.000	25021.252	469724.44	7.7542	P	0.5
8	☐	50000.000	49615.650	941973.31	15.3754	P	1.1
9	☐	250000.00	250035.44	4743693.28	77.4798	A	0.6

$$y = 3.0987E-004 * x + 8.6240E-004$$

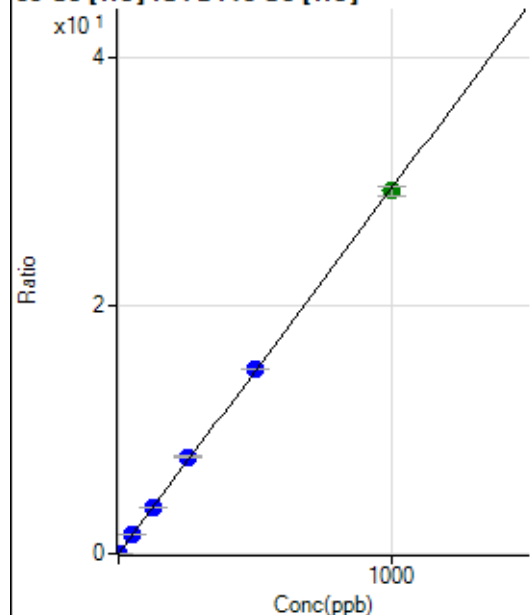
$$R = 1.0000$$

$$DL = 4.483$$

$$BEC = 2.783$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0006	P	25.0
2	☐	0.100					
3	☐	1.000	1.022	1873.49	0.0307	P	2.3
4	☐	50.000	52.164	91987.81	1.5360	P	0.7
5	☐	125.000	128.404	223517.35	3.7800	P	0.4
6	☐	250.000	265.548	455276.14	7.8167	P	0.8
7	☐	500.000	504.513	899581.72	14.8503	P	0.2
8	☐	1000.000	993.323	1791050.39	29.2378	A	2.4
9	☐			21494.51	0.3511	P	1.4

$$y = 0.0294 * x + 6.1202E-004$$

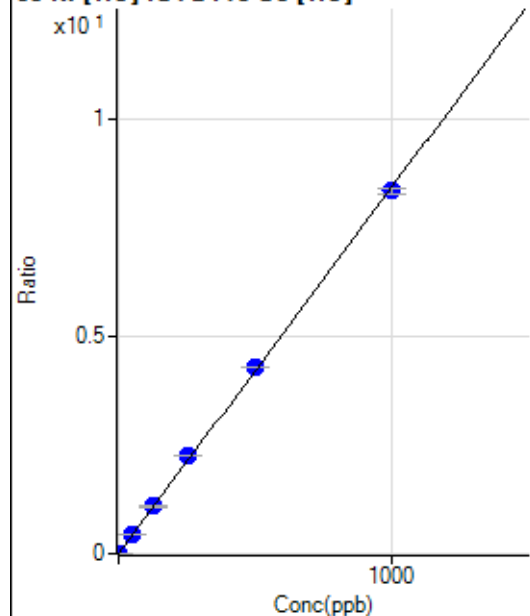
$$R = 0.9998$$

$$DL = 0.01557$$

$$BEC = 0.02079$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32.22	0.0005	P	6.8
2	☐	0.100					
3	☐	1.000	1.055	574.47	0.0094	P	7.3
4	☐	50.000	52.988	26719.20	0.4462	P	0.8
5	☐	125.000	129.245	64317.22	1.0875	P	1.4
6	☐	250.000	267.345	130985.95	2.2489	P	0.6
7	☐	500.000	507.734	258694.67	4.2705	P	0.1
8	☐	1000.000	991.116	510676.71	8.3357	P	1.3
9	☐			6389.35	0.1044	P	5.4

$$y = 0.0084 * x + 5.3729E-004$$

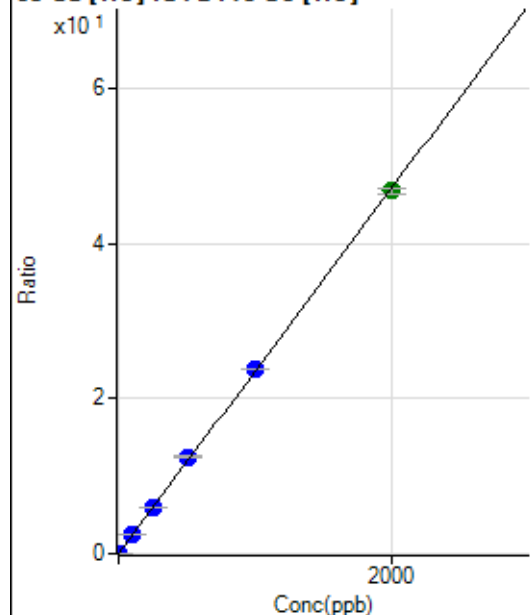
$$R = 0.9998$$

$$DL = 0.01295$$

$$BEC = 0.06389$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	347.79	0.0058	P	21.6
2	☐	0.200					
3	☐	2.000	1.964	3181.53	0.0521	P	4.3
4	☐	100.000	103.847	146917.09	2.4530	P	0.8
5	☐	250.000	255.872	356935.30	6.0356	P	1.4
6	☐	500.000	530.747	728832.92	12.5132	P	0.7
7	☐	1000.000	1009.995	1442145.60	23.8071	P	0.4
8	☐	2000.000	1986.389	2868131.55	46.8165	A	1.4
9	☐			5903.57	0.0964	P	0.6

$$y = 0.0236 * x + 0.0058$$

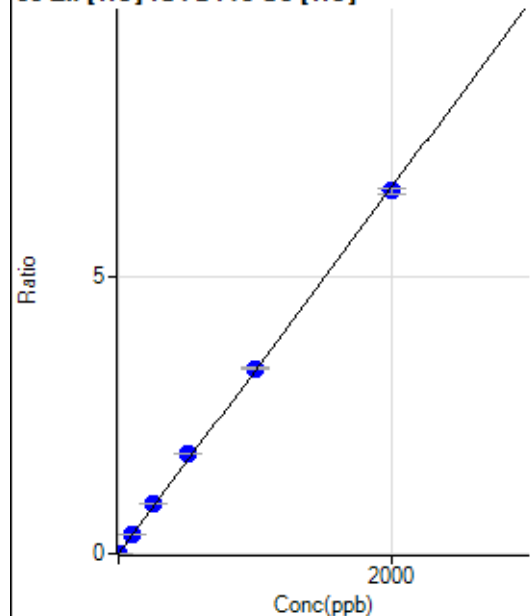
$$R = 0.9998$$

$$DL = 0.1595$$

$$BEC = 0.2463$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	102.23	0.0017	P	12.2
2	☐	0.200					
3	☐	2.000	1.870	482.24	0.0079	P	2.7
4	☐	100.000	105.342	20989.45	0.3505	P	3.3
5	☐	250.000	271.696	53278.92	0.9014	P	2.6
6	☐	500.000	542.853	104800.95	1.7993	P	0.3
7	☐	1000.000	1011.042	202910.32	3.3497	P	0.4
8	☐	2000.000	1980.787	401935.83	6.5609	P	1.5
9	☐			3816.15	0.0623	P	1.5

$$y = 0.0033 * x + 0.0017$$

$$R = 0.9997$$

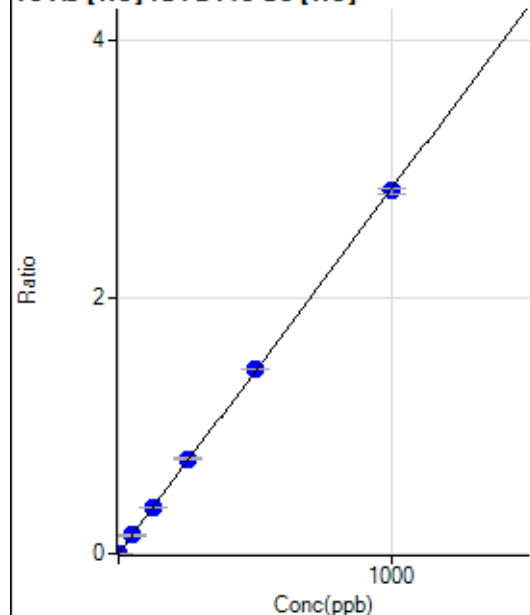
$$DL = 0.1879$$

$$BEC = 0.5145$$

Weight: <None>

Min Conc: 0

75 As [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	5.55	0.0001	P	119.5
2	☐	0.100					
3	☐	1.000	0.906	162.96	0.0027	P	8.5
4	☐	50.000	50.380	8583.60	0.1433	P	1.3
5	☐	125.000	126.274	21226.28	0.3591	P	2.7
6	☐	250.000	260.088	43075.51	0.7396	P	1.2
7	☐	500.000	505.264	87029.00	1.4367	P	0.5
8	☐	1000.000	994.668	173265.10	2.8282	P	1.3
9	☐			266.67	0.0044	P	12.6

$$y = 0.0028 * x + 9.2124E-005$$

$$R = 0.9999$$

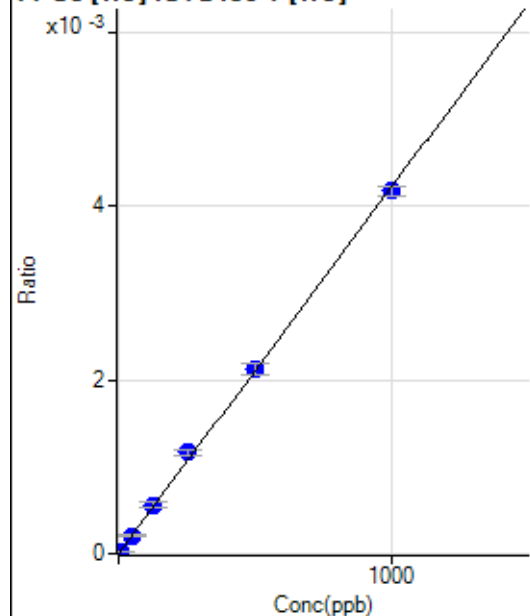
$$DL = 0.1162$$

$$BEC = 0.0324$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	5.693	10.00	0.0000	P	33.2
4	☐	50.000	49.826	86.67	0.0002	P	11.7
5	☐	125.000	133.252	236.67	0.0006	P	14.2
6	☐	250.000	275.459	486.68	0.0012	P	6.8
7	☐	500.000	505.570	900.05	0.0021	P	6.5
8	☐	1000.000	989.824	1772.37	0.0042	P	2.9
9	☐			2.22	0.0000	P	86.6

$$y = 4.2194E-006 * x + 0.0000E+000$$

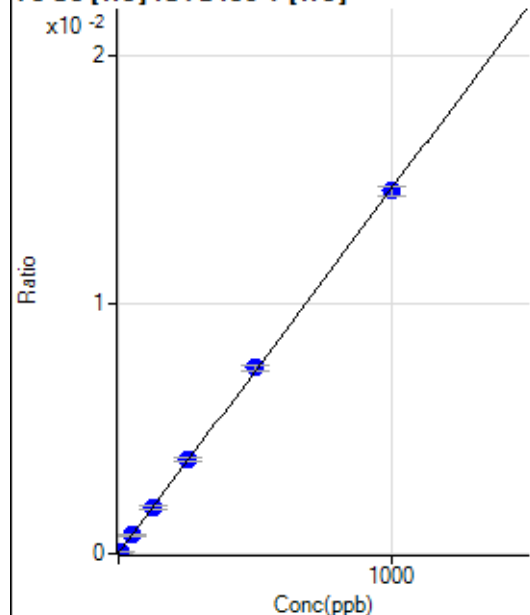
$$R = 0.9996$$

$$DL = 0$$

$$BEC = 0$$

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	6.17	0.0000	P	70.1
2	☐	0.500					
3	☐	5.000	5.048	37.04	0.0001	P	23.0
4	☐	50.000	49.886	307.41	0.0007	P	7.1
5	☐	125.000	125.223	775.96	0.0018	P	9.3
6	☐	250.000	257.026	1580.97	0.0038	P	2.5
7	☐	500.000	508.182	3142.36	0.0075	P	2.3
8	☐	1000.000	994.130	6177.36	0.0146	P	2.7
9	☐			8.64	0.0000	P	32.7

$$y = 1.4630\text{E-}005 * x + 1.5160\text{E-}005$$

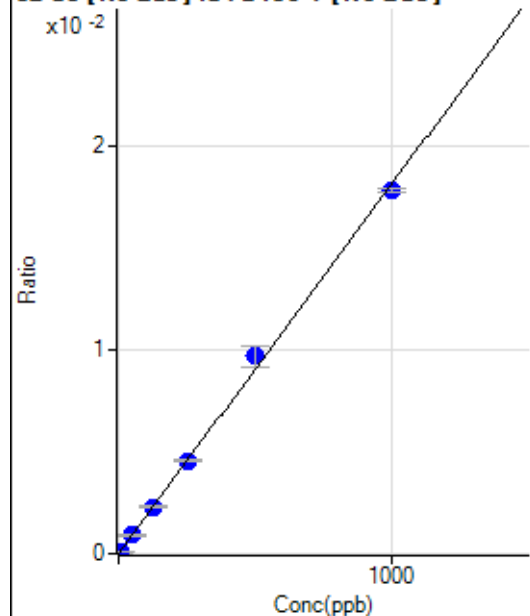
$$R = 0.9999$$

$$DL = 2.178$$

$$BEC = 1.036$$

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	-9.35	0.0000	P	-765.
2	☐	0.500					
3	☐	5.000	4.909	243.83	0.0001	P	21.5
4	☐	50.000	49.960	2608.98	0.0009	P	5.6
5	☐	125.000	127.056	6632.49	0.0023	P	1.3
6	☐	250.000	251.256	13493.42	0.0045	P	2.3
7	☐	500.000	533.895	26476.77	0.0096	P	11.2
8	☐	1000.000	982.484	53211.10	0.0178	P	1.2
9	☐			-5.69	0.0000	P	-729.

$$y = 1.8080\text{E-}005 * x - 3.3493\text{E-}006$$

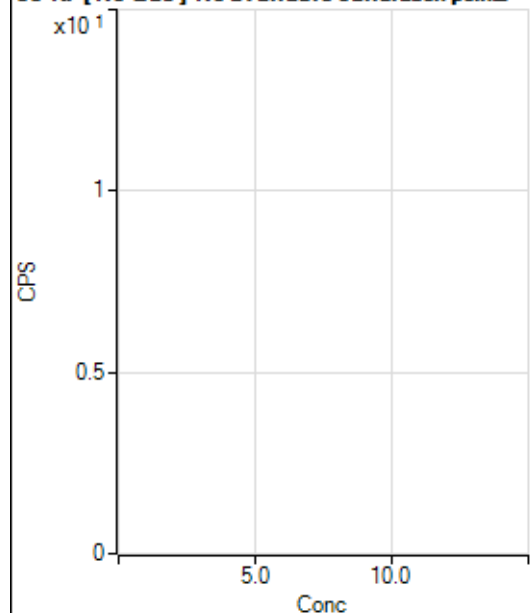
$$R = 0.9991$$

$$DL = 4.252$$

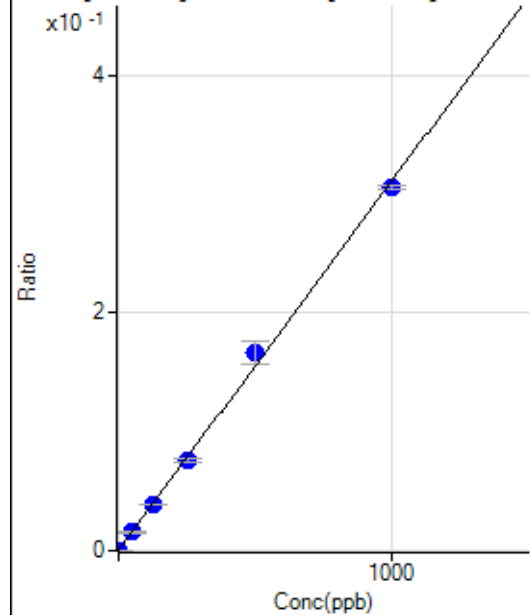
$$BEC = -0.1853$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			390.01		P	9.9
2	☐						
3	☐			405.57		P	3.7
4	☐			411.13		P	9.5
5	☐			416.68		P	6.3
6	☐			403.35		P	12.2
7	☐			428.90		P	4.5
8	☐			406.68		P	6.4
9	☐			426.68		P	10.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	619.49	0.0002	P	7.0
2	☐	0.100					
3	☐	1.000	0.911	1444.60	0.0005	P	6.3
4	☐	50.000	49.264	44936.22	0.0155	P	2.1
5	☐	125.000	124.987	112730.13	0.0390	P	1.1
6	☐	250.000	244.881	226385.22	0.0762	P	3.6
7	☐	500.000	537.257	457821.04	0.1668	P	11.4
8	☐	1000.000	982.690	913838.67	0.3050	P	1.1
9	☐			4359.23	0.0015	P	6.2

$$y = 3.1014\text{E-}004 * x + 2.2249\text{E-}004$$

$$R = 0.9989$$

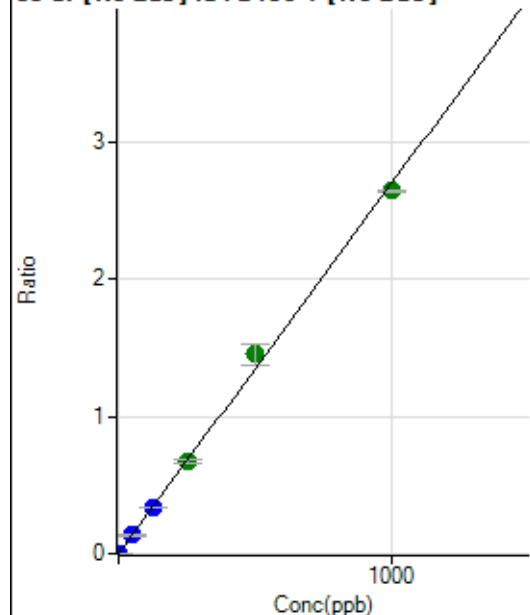
$$DL = 0.1499$$

$$BEC = 0.7174$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.56	0.0000	P	40.3
2	☐	0.100					
3	☐	1.000	0.936	7241.16	0.0025	P	3.5
4	☐	50.000	49.423	386088.12	0.1332	P	2.0
5	☐	125.000	124.691	971561.04	0.3360	P	1.0
6	☐	250.000	250.150	2003722.53	0.6741	A	3.0
7	☐	500.000	539.982	3994513.45	1.4550	A	10.6
8	☐	1000.000	980.039	7912599.83	2.6408	A	0.6
9	☐			32968.86	0.0115	P	2.9

$$y = 0.0027 * x + 1.0919E-005$$

$$R = 0.9988$$

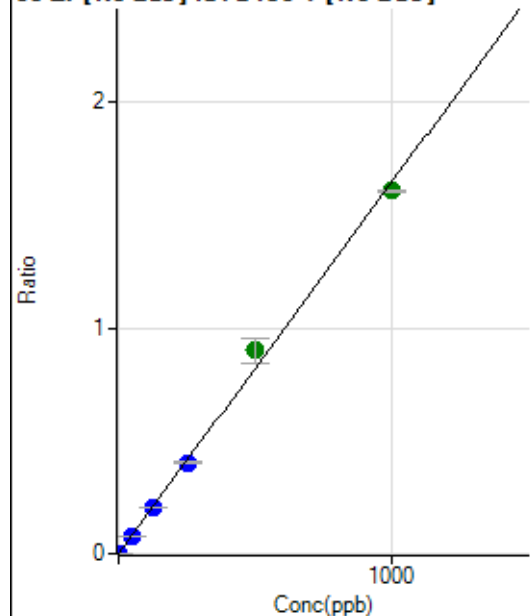
$$DL = 0.004894$$

$$BEC = 0.004052$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.12	0.0001	P	28.1
2	☐	0.100					
3	☐	1.000	0.900	4420.38	0.0015	P	6.6
4	☐	50.000	48.790	232531.70	0.0802	P	1.1
5	☐	125.000	122.788	583396.13	0.2018	P	0.5
6	☐	250.000	245.300	1197931.31	0.4030	P	2.5
7	☐	500.000	547.543	2467145.91	0.8995	A	11.8
8	☐	1000.000	977.741	4812609.79	1.6061	A	0.3
9	☐			1350.14	0.0005	P	3.1

$$y = 0.0016 * x + 6.6610E-005$$

$$R = 0.9983$$

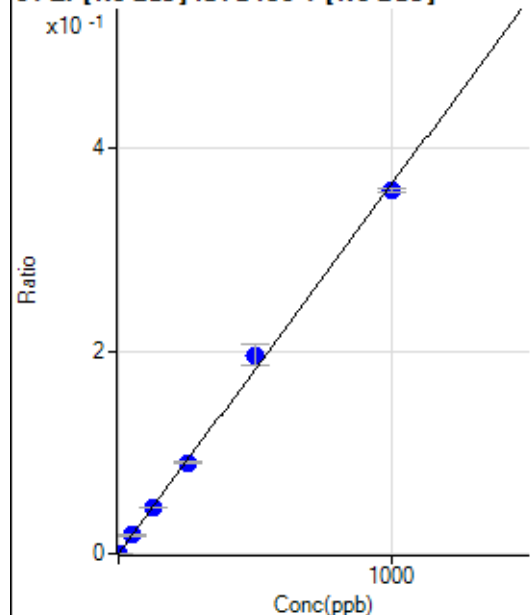
$$DL = 0.03419$$

$$BEC = 0.04055$$

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	91.67	0.0000	P	29.3
2	☐	0.100					
3	☐	1.000	0.992	1127.88	0.0004	P	4.0
4	☐	50.000	49.519	52424.32	0.0181	P	2.2
5	☐	125.000	123.310	130068.37	0.0450	P	0.8
6	☐	250.000	246.366	267032.95	0.0898	P	3.1
7	☐	500.000	537.150	537501.22	0.1958	P	10.8
8	☐	1000.000	982.569	1073268.72	0.3582	P	1.1
9	☐			330.57	0.0001	P	24.7

$$y = 3.6453\text{E-}004 * x + 3.2829\text{E-}005$$

$$R = 0.9990$$

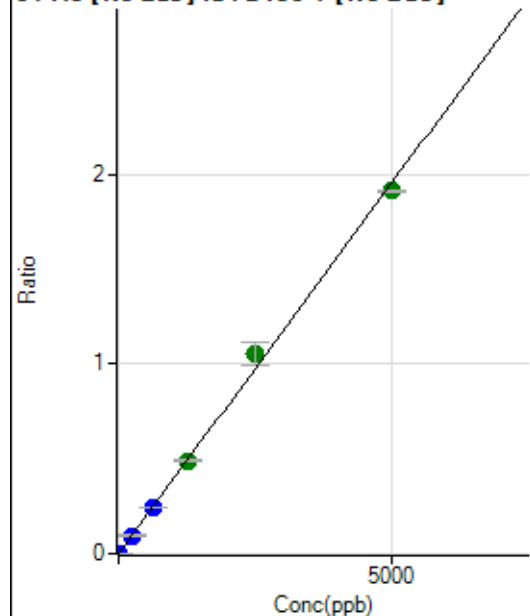
$$DL = 0.07922$$

$$BEC = 0.09006$$

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	52.78	0.0000	P	49.9
2	☐	0.500					
3	☐	5.000	4.743	5351.31	0.0019	P	4.9
4	☐	250.000	245.973	278403.04	0.0960	P	0.9
5	☐	625.000	624.190	704587.25	0.2437	P	0.5
6	☐	1250.000	1251.204	1451892.18	0.4884	A	2.4
7	☐	2500.000	2703.131	2895841.43	1.0552	A	11.1
8	☐	5000.000	4898.437	5729341.32	1.9121	A	0.5
9	☐			2805.99	0.0010	P	3.9

$$y = 3.9035\text{E-}004 * x + 1.8909\text{E-}005$$

$$R = 0.9988$$

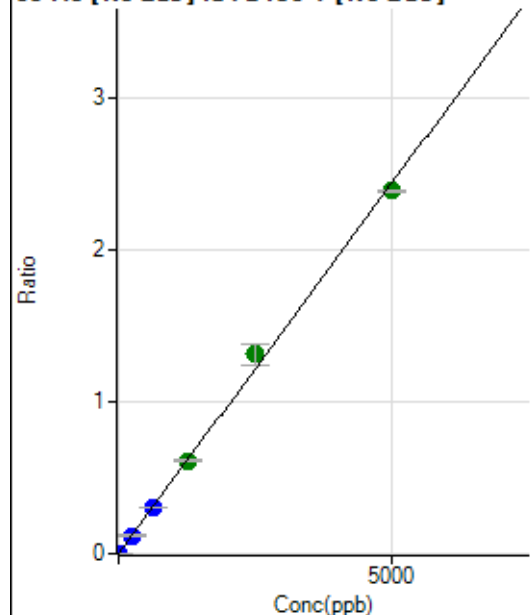
$$DL = 0.07254$$

$$BEC = 0.04844$$

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	30.56	0.0000	P	29.3
2	☐	0.500					
3	☐	5.000	4.932	6890.94	0.0024	P	3.7
4	☐	250.000	245.780	346512.31	0.1195	P	1.2
5	☐	625.000	623.095	876180.23	0.3030	P	0.6
6	☐	1250.000	1255.280	1814449.07	0.6104	A	2.9
7	☐	2500.000	2693.278	3595391.62	1.3097	A	10.6
8	☐	5000.000	4902.490	7143330.20	2.3840	A	0.6
9	☐			4273.08	0.0015	P	1.3

$$y = 4.8629\text{E-}004 * x + 1.0943\text{E-}005$$

$$R = 0.9989$$

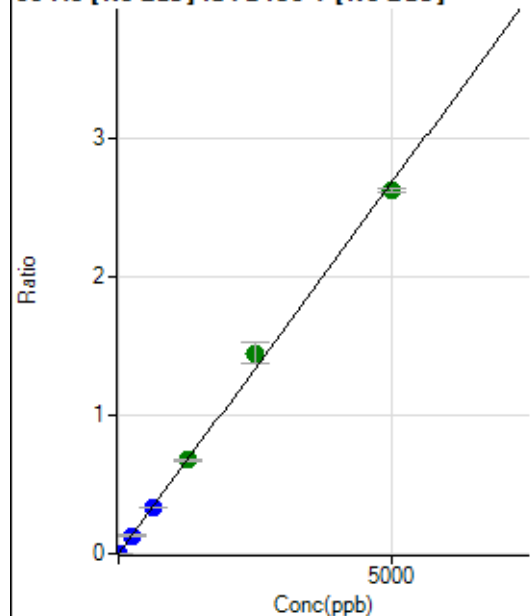
$$DL = 0.0198$$

$$BEC = 0.0225$$

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	58.34	0.0000	P	26.1
2	☐	0.500					
3	☐	5.000	5.058	7799.84	0.0027	P	3.3
4	☐	250.000	245.949	381576.63	0.1316	P	1.1
5	☐	625.000	626.931	970060.15	0.3355	P	0.6
6	☐	1250.000	1260.508	2005119.49	0.6745	A	2.0
7	☐	2500.000	2707.903	3979014.06	1.4490	A	10.1
8	☐	5000.000	4893.383	7845271.53	2.6184	A	1.1
9	☐			4953.94	0.0017	P	5.5

$$y = 5.3509\text{E-}004 * x + 2.0871\text{E-}005$$

$$R = 0.9987$$

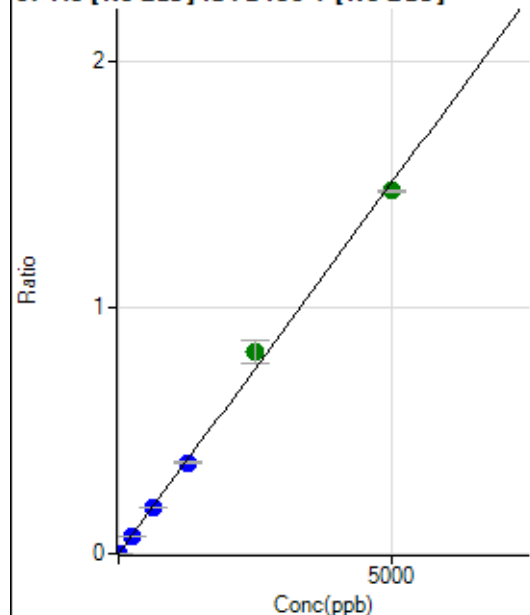
$$DL = 0.03057$$

$$BEC = 0.039$$

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	2.78	0.0000	P	173.2
2	☐	0.500					
3	☐	5.000	5.006	4317.56	0.0015	P	7.2
4	☐	250.000	243.832	212935.26	0.0735	P	1.8
5	☐	625.000	617.502	537895.71	0.1860	P	0.8
6	☐	1250.000	1222.948	1095129.74	0.3684	P	2.5
7	☐	2500.000	2725.532	2253624.47	0.8211	A	10.8
8	☐	5000.000	4895.243	4418579.13	1.4747	A	0.9
9	☐			2475.34	0.0009	P	3.2

$$y = 3.0125\text{E-}004 * x + 9.7570\text{E-}007$$

$$R = 0.9985$$

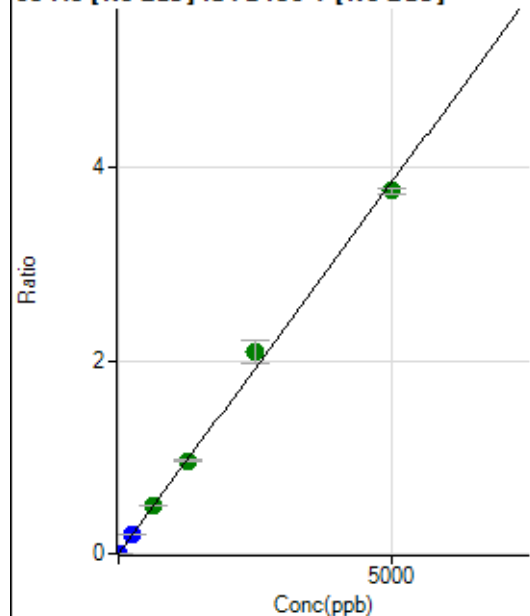
$$DL = 0.01683$$

$$BEC = 0.003239$$

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	25.00	0.0000	P	31.9
2	☐	0.500					
3	☐	5.000	4.991	11016.05	0.0039	P	2.3
4	☐	250.000	247.854	553103.68	0.1908	P	1.0
5	☐	625.000	638.926	1422108.52	0.4918	A	0.8
6	☐	1250.000	1253.901	2868949.09	0.9652	A	2.9
7	☐	2500.000	2715.360	5735914.63	2.0901	A	11.0
8	☐	5000.000	4889.711	11277099.90	3.7638	A	1.4
9	☐			6104.44	0.0021	P	0.5

$$y = 7.6975\text{E-}004 * x + 8.9513\text{E-}006$$

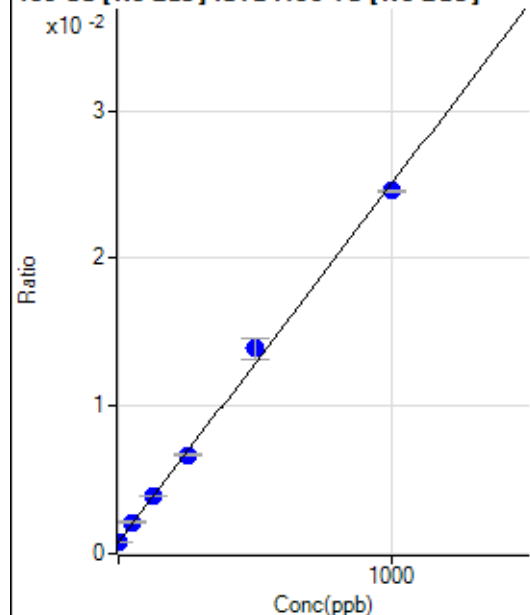
$$R = 0.9986$$

$$DL = 0.01114$$

$$BEC = 0.01163$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2405.89	0.0008	P	4.1
2	☐	0.100					
3	☐	1.000	-0.616	2453.12	0.0008	P	7.4
4	☐	50.000	54.670	6765.91	0.0021	P	4.2
5	☐	125.000	128.106	12751.01	0.0039	P	0.6
6	☐	250.000	244.204	22758.83	0.0067	P	3.1
7	☐	500.000	540.132	42919.48	0.0139	P	9.7
8	☐	1000.000	980.763	83405.85	0.0246	P	0.8
9	☐			2675.40	0.0008	P	2.5

$$y = 2.4242\text{E-}005 * x + 7.8332\text{E-}004$$

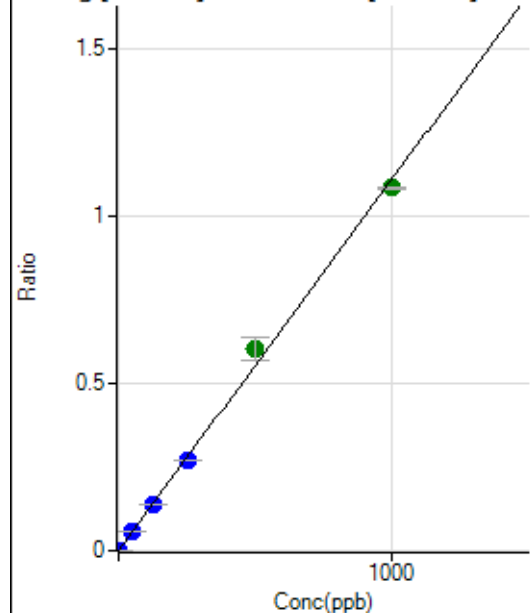
$$R = 0.9988$$

$$DL = 3.974$$

$$BEC = 32.31$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.34	0.0000	P	20.0
2	☐	0.100					
3	☐	1.000	1.074	3878.50	0.0012	P	4.2
4	☐	50.000	50.074	177992.45	0.0555	P	3.1
5	☐	125.000	124.154	450690.28	0.1375	P	1.5
6	☐	250.000	243.395	914954.01	0.2695	P	1.6
7	☐	500.000	546.423	1868493.05	0.6049	A	11.5
8	☐	1000.000	978.542	3678948.56	1.0833	A	0.2
9	☐			738.94	0.0002	P	11.1

$$y = 0.0011 * x + 2.7236\text{E-}005$$

$$R = 0.9984$$

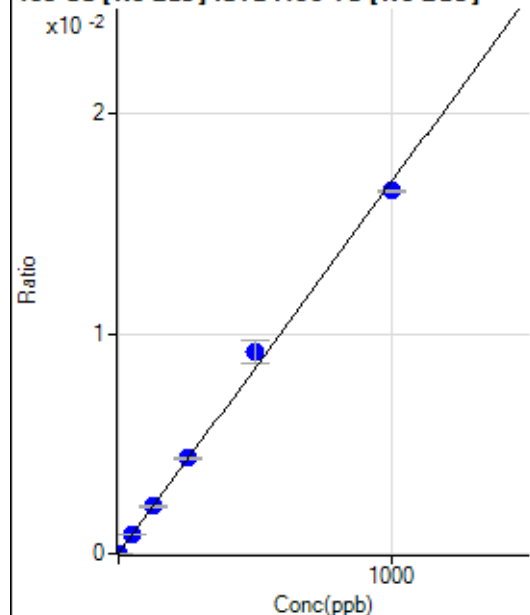
$$DL = 0.01473$$

$$BEC = 0.0246$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.17	0.0000	P	98.9
2	☐	0.100					
3	☐	1.000	1.023	59.72	0.0000	P	30.2
4	☐	50.000	52.153	2836.47	0.0009	P	2.5
5	☐	125.000	128.361	7120.09	0.0022	P	3.3
6	☐	250.000	256.192	14715.20	0.0043	P	2.0
7	☐	500.000	543.594	28392.62	0.0092	P	11.7
8	☐	1000.000	976.127	56060.78	0.0165	P	0.4
9	☐			18.06	0.0000	P	11.5

$$y = 1.6910E-005 * x + 1.3659E-006$$

$$R = 0.9985$$

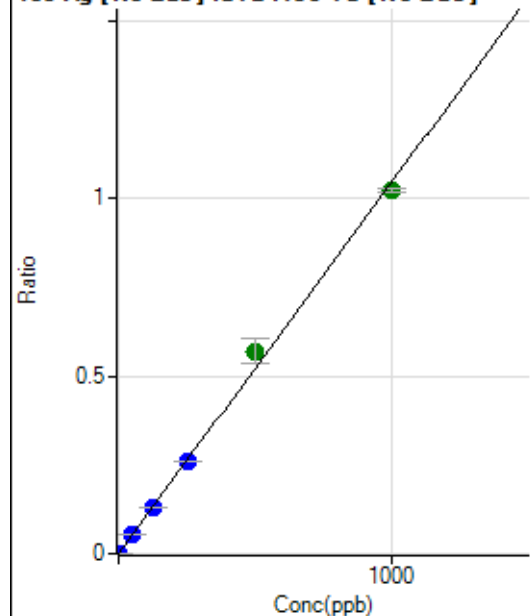
$$DL = 0.2396$$

$$BEC = 0.08078$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	58.33	0.0000	P	36.4
2	☐	0.100					
3	☐	1.000	1.138	3853.52	0.0012	P	2.7
4	☐	50.000	50.965	170857.95	0.0532	P	2.9
5	☐	125.000	125.737	430507.95	0.1313	P	1.2
6	☐	250.000	248.623	881537.55	0.2596	P	1.3
7	☐	500.000	545.143	1757648.02	0.5692	A	12.0
8	☐	1000.000	977.632	3466774.12	1.0208	A	0.9
9	☐			636.16	0.0002	P	11.4

$$y = 0.0010 * x + 1.8905E-005$$

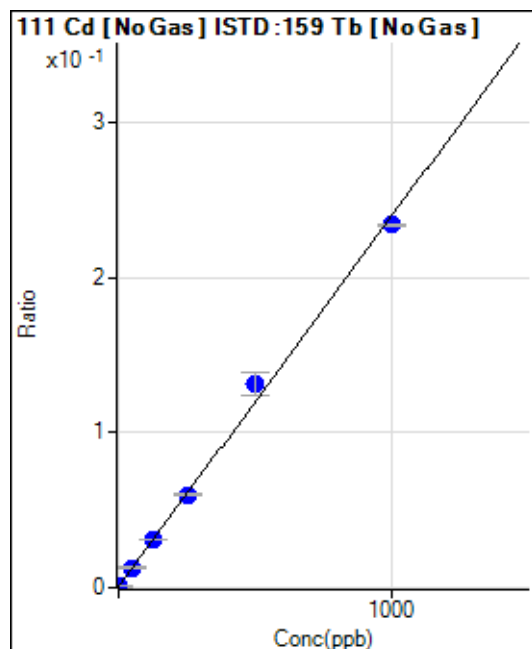
$$R = 0.9985$$

$$DL = 0.01976$$

$$BEC = 0.01811$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1686.76	0.0005	P	4.4
2	☐	0.100					
3	☐	1.000	0.796	2360.14	0.0007	P	8.1
4	☐	50.000	51.342	41115.34	0.0128	P	3.6
5	☐	125.000	126.091	100532.65	0.0307	P	1.1
6	☐	250.000	248.010	202989.28	0.0598	P	1.4
7	☐	500.000	546.309	404737.74	0.1310	P	11.4
8	☐	1000.000	977.140	794406.59	0.2339	P	0.4
9	☐			1925.42	0.0006	P	2.2

$$y = 2.3883\text{E-}004 * x + 5.4917\text{E-}004$$

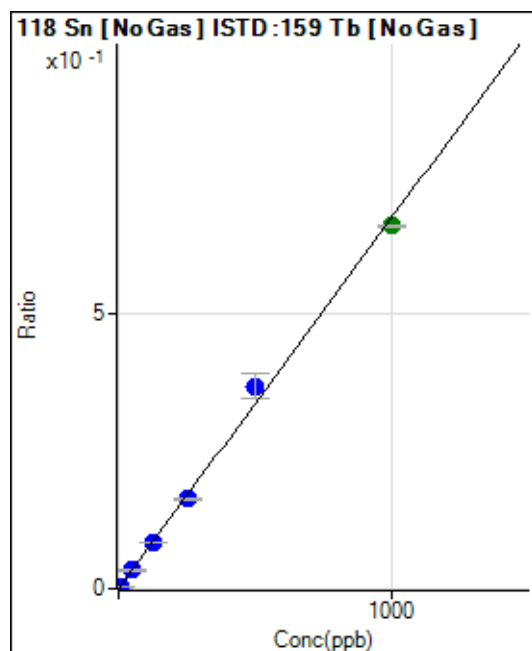
$$R = 0.9984$$

$$DL = 0.3016$$

$$BEC = 2.299$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	147.23	0.0000	P	11.0
2	☐	0.500					
3	☐	5.000	4.997	10927.13	0.0034	P	1.4
4	☐	50.000	49.899	108351.92	0.0338	P	2.8
5	☐	125.000	123.346	273361.53	0.0834	P	1.5
6	☐	250.000	243.280	558207.10	0.1644	P	2.1
7	☐	500.000	545.664	1138082.75	0.3687	P	12.4
8	☐	1000.000	979.060	2246491.98	0.6615	A	0.3
9	☐			1480.71	0.0005	P	6.3

$$y = 6.7558\text{E-}004 * x + 4.7944\text{E-}005$$

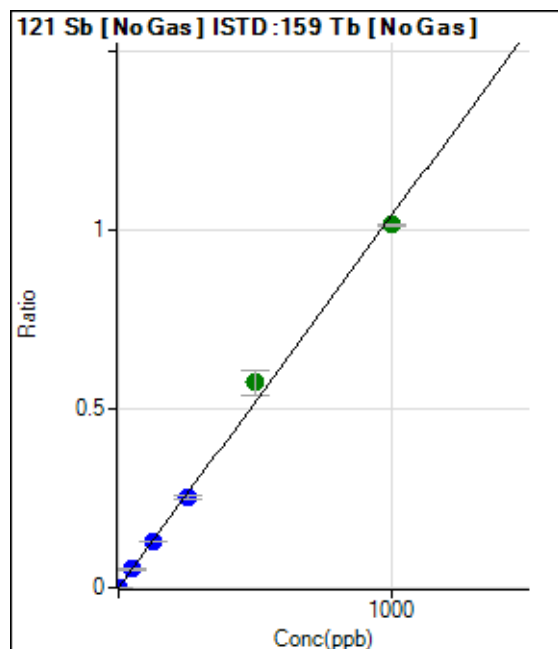
$$R = 0.9984$$

$$DL = 0.02345$$

$$BEC = 0.07097$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	19.6
2	☐	0.200					
3	☐	2.000	1.797	5990.49	0.0019	P	3.1
4	☐	50.000	49.155	164250.49	0.0512	P	2.5
5	☐	125.000	122.595	418369.72	0.1276	P	1.3
6	☐	250.000	242.791	857981.32	0.2527	P	2.9
7	☐	500.000	552.281	1774699.13	0.5748	A	12.2
8	☐	1000.000	976.005	3449970.78	1.0158	A	0.5
9	☐			3789.60	0.0012	P	3.5

$$y = 0.0010 * x + 7.2175E-006$$

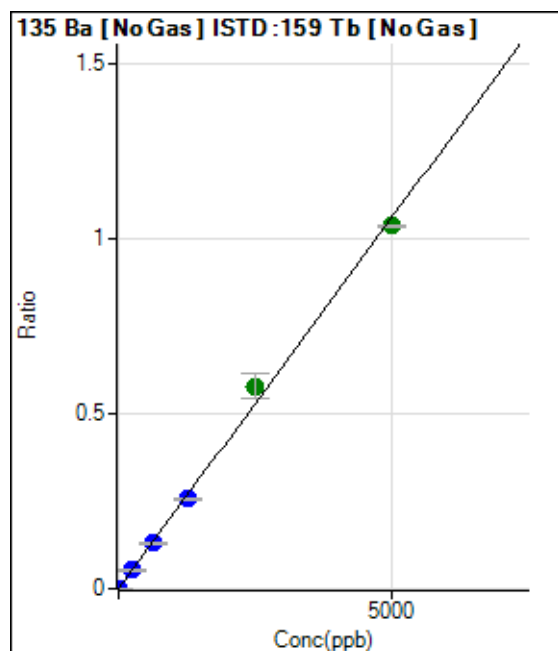
$$R = 0.9979$$

$$DL = 0.004081$$

$$BEC = 0.006935$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	19.6
2	☐	1.000					
3	☐	10.000	10.061	6829.84	0.0021	P	3.8
4	☐	250.000	247.371	168387.38	0.0525	P	2.3
5	☐	625.000	612.021	425519.24	0.1298	P	0.8
6	☐	1250.000	1209.734	870955.53	0.2565	P	2.3
7	☐	2500.000	2732.671	1788657.70	0.5794	A	12.4
8	☐	5000.000	4895.485	3525357.15	1.0380	A	0.3
9	☐			552.82	0.0002	P	19.6

$$y = 2.1204E-004 * x + 7.2175E-006$$

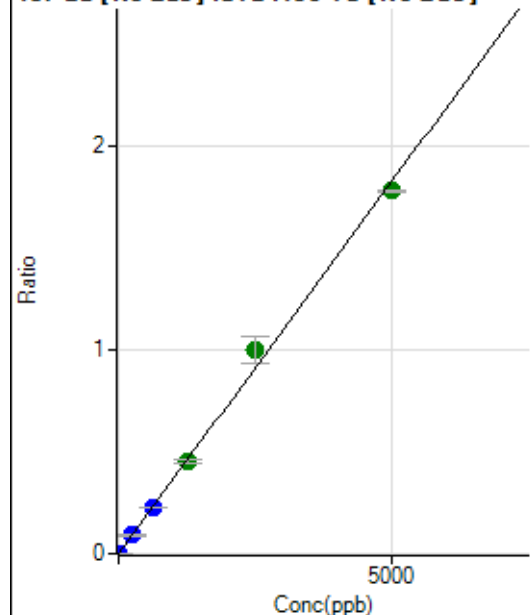
$$R = 0.9983$$

$$DL = 0.02003$$

$$BEC = 0.03404$$

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	33.33	0.0000	P	27.5
2	☐	1.000					
3	☐	10.000	9.679	11283.05	0.0035	P	1.7
4	☐	250.000	246.789	288506.89	0.0899	P	2.5
5	☐	625.000	615.791	735357.29	0.2243	P	0.6
6	☐	1250.000	1244.968	1539381.53	0.4534	A	2.7
7	☐	2500.000	2746.413	3085867.34	1.0002	A	13.1
8	☐	5000.000	4879.364	6034840.02	1.7770	A	0.3
9	☐			872.29	0.0003	P	11.5

$$y = 3.6418\text{E-}004 * x + 1.0910\text{E-}005$$

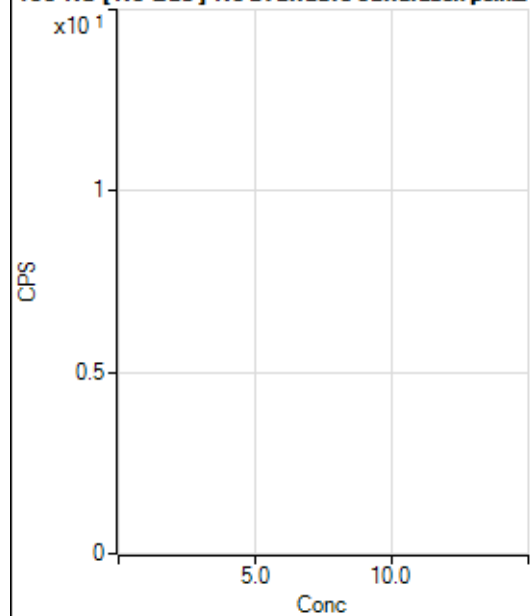
$$R = 0.9982$$

$$DL = 0.02472$$

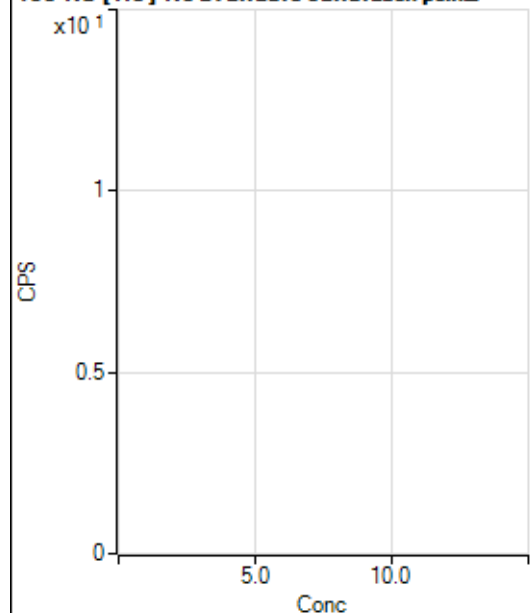
$$BEC = 0.02996$$

Weight: <None>

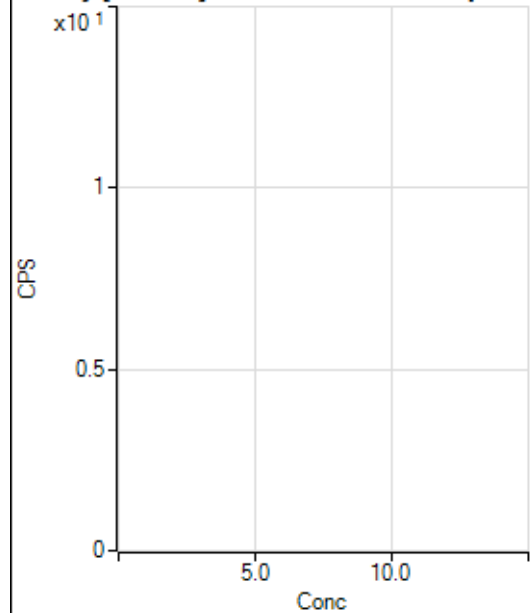
Min Conc: 0

150 Nd [No Gas] No available calibration points

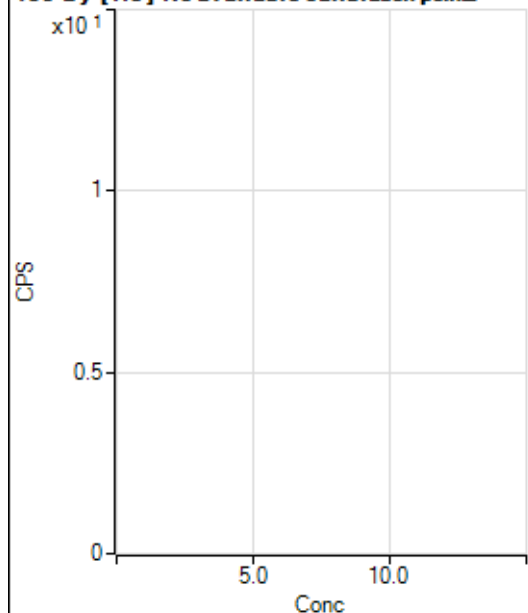
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			4.44		P	173.2
4	☐			4.44		P	173.2
5	☐			20.00		P	33.4
6	☐			48.89		P	41.7
7	☐			86.67		P	23.1
8	☐			128.89		P	15.8
9	☐			62.22		P	32.7

150 Nd [He] No available calibration points

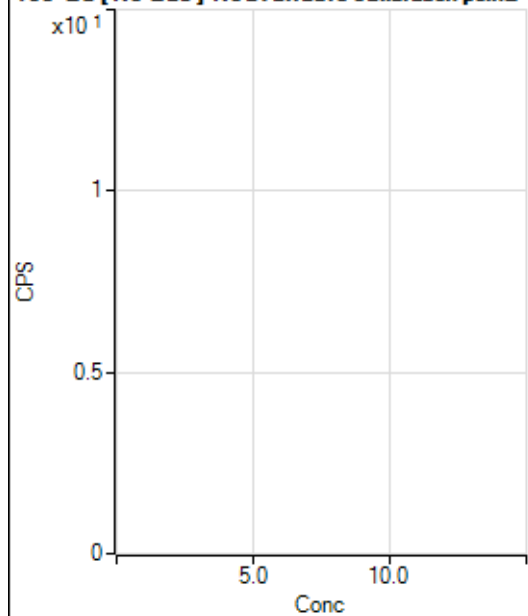
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			2.22		P	86.6
4	☐			0.00		P	
5	☐			3.33		P	100.1
6	☐			5.55		P	69.3
7	☐			7.78		P	24.7
8	☐			5.56		P	91.6
9	☐			32.22		P	47.8

156 Dy [No Gas] No available calibration points

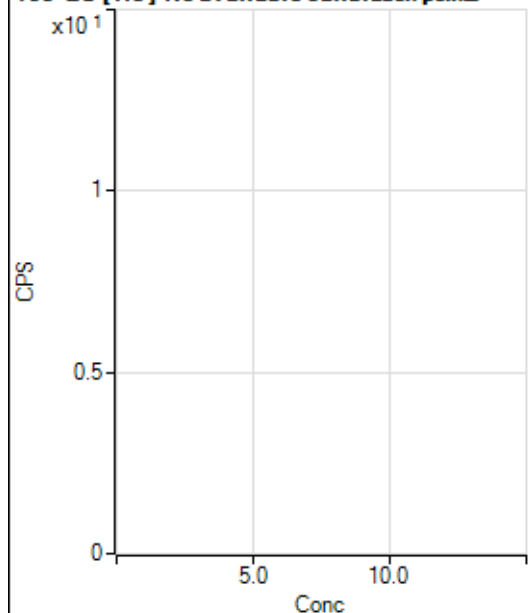
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.0
2	☐						
3	☐			0.00		P	
4	☐			16.67		P	86.6
5	☐			13.89		P	91.6
6	☐			27.78		P	75.5
7	☐			55.56		P	34.6
8	☐			75.00		P	29.4
9	☐			36.11		P	96.1

156 Dy [He] No available calibration points

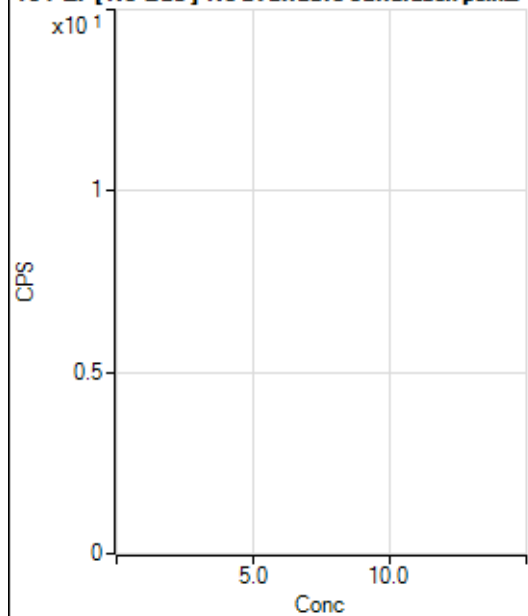
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	43.4
2	☐						
3	☐			3.33		P	173.2
4	☐			1.11		P	173.2
5	☐			2.22		P	86.6
6	☐			4.44		P	114.6
7	☐			6.67		P	50.0
8	☐			11.11		P	34.6
9	☐			15.56		P	53.9

160 Gd [No Gas] Noavailable calibration poin_

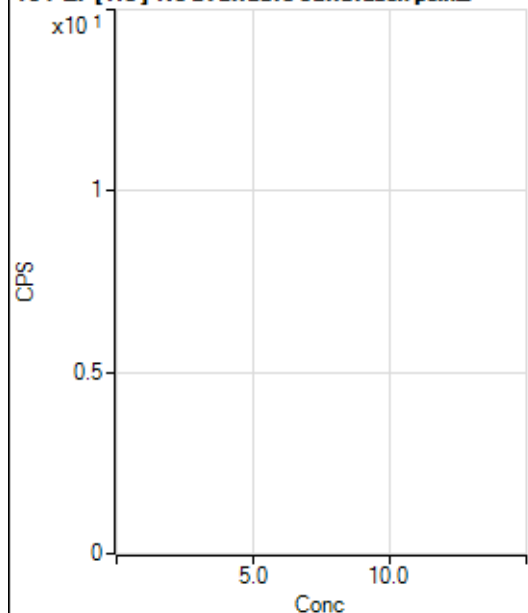
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	34.6
2	☐						
3	☐			11.11		P	43.3
4	☐			16.67		P	50.0
5	☐			27.78		P	75.5
6	☐			19.44		P	89.2
7	☐			27.78		P	45.8
8	☐			22.22		P	57.3
9	☐			66.67		P	43.3

160 Gd [He] No available calibration points

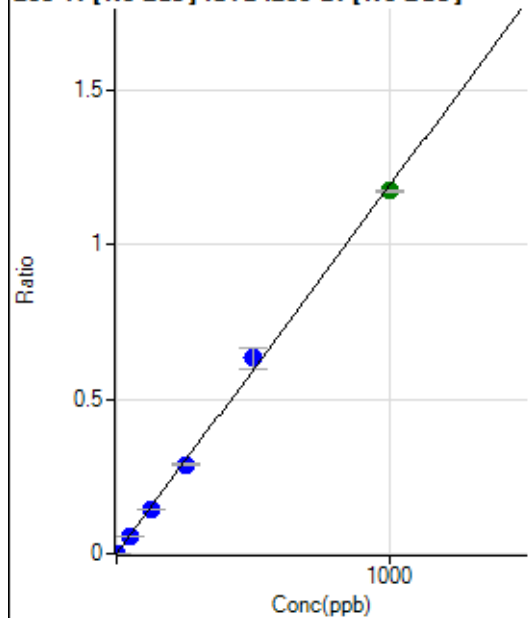
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	66.2
2	☐						
3	☐			7.78		P	49.5
4	☐			12.22		P	87.7
5	☐			16.67		P	20.0
6	☐			20.00		P	28.9
7	☐			10.00		P	57.7
8	☐			26.67		P	33.1
9	☐			26.67		P	21.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.0
2	☐						
3	☐			19.44		P	49.5
4	☐			11.11		P	173.2
5	☐			11.11		P	43.3
6	☐			8.33		P	100.0
7	☐			16.67		P	86.6
8	☐			19.45		P	24.7
9	☐			8.33		P	100.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	21.6
2	☐						
3	☐			6.67		P	50.0
4	☐			7.78		P	24.7
5	☐			5.56		P	91.6
6	☐			3.33		P	100.1
7	☐			8.89		P	78.1
8	☐			3.33		P	100.1
9	☐			10.00		P	33.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	172.23	0.0001	P	25.9
2	☐	0.100					
3	☐	1.000	0.938	2064.16	0.0012	P	6.9
4	☐	50.000	48.000	99236.14	0.0572	P	1.9
5	☐	125.000	120.706	255171.10	0.1437	P	0.7
6	☐	250.000	242.496	522983.86	0.2885	P	2.0
7	☐	500.000	532.408	1040189.22	0.6334	P	10.7
8	☐	1000.000	986.309	2076409.55	1.1733	A	0.5
9	☐			261.13	0.0002	P	8.9

$$y = 0.0012 * x + 1.0353E-004$$

$$R = 0.9992$$

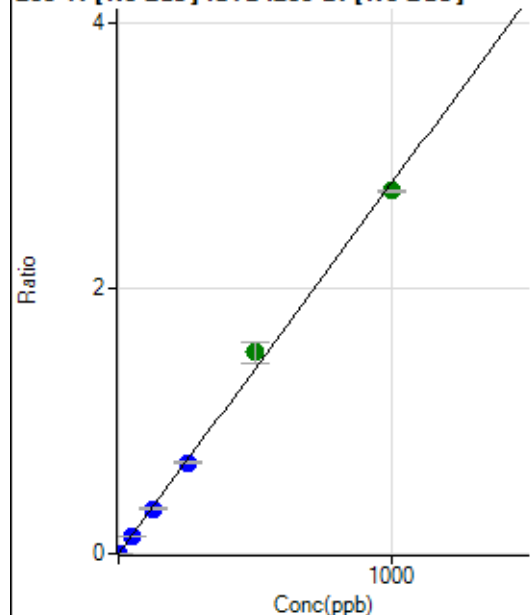
$$DL = 0.06751$$

$$BEC = 0.08704$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	388.91	0.0002	P	9.7
2	☐	0.100					
3	☐	1.000	0.898	4634.40	0.0027	P	8.5
4	☐	50.000	48.443	234866.43	0.1354	P	1.5
5	☐	125.000	121.852	604099.21	0.3401	P	0.8
6	☐	250.000	246.124	1244918.02	0.6868	P	0.5
7	☐	500.000	543.109	2488235.30	1.5152	A	10.9
8	☐	1000.000	979.886	4837898.81	2.7336	A	0.5
9	☐			705.61	0.0005	P	10.4

$$y = 0.0028 * x + 2.3525E-004$$

$$R = 0.9986$$

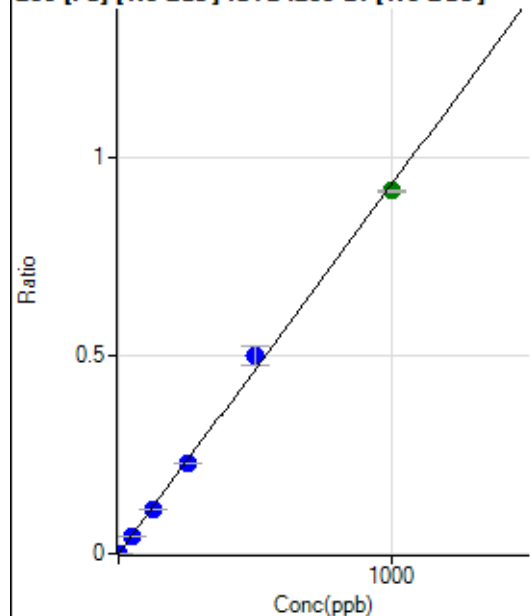
$$DL = 0.0246$$

$$BEC = 0.08434$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	200.01	0.0001	P	5.9
2	☐	0.100					
3	☐	1.000	1.004	1790.93	0.0011	P	1.9
4	☐	50.000	48.392	78548.12	0.0453	P	1.2
5	☐	125.000	121.457	201471.14	0.1134	P	0.8
6	☐	250.000	244.150	413105.61	0.2279	P	1.4
7	☐	500.000	536.825	822894.21	0.5010	P	10.5
8	☐	1000.000	983.573	1624325.96	0.9178	A	0.3
9	☐			3044.90	0.0020	P	1.0

$$y = 9.3301E-004 * x + 1.2103E-004$$

$$R = 0.9990$$

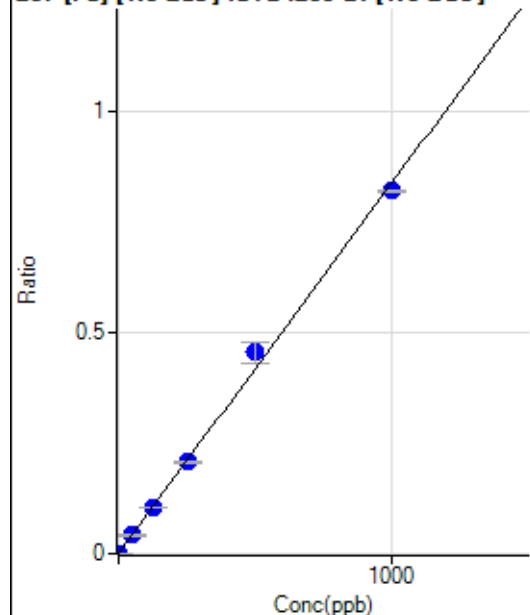
$$DL = 0.02307$$

$$BEC = 0.1297$$

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	200.01	0.0001	P	15.8
2	☐	0.100					
3	☐	1.000	0.972	1579.78	0.0009	P	3.2
4	☐	50.000	49.234	71655.47	0.0413	P	1.8
5	☐	125.000	122.515	182201.05	0.1026	P	0.9
6	☐	250.000	246.866	374489.11	0.2066	P	0.6
7	☐	500.000	542.686	745626.71	0.4540	P	10.8
8	☐	1000.000	979.789	1450551.45	0.8196	P	0.3
9	☐			2555.90	0.0016	P	2.4

$$y = 8.3640\text{E-}004 * x + 1.2071\text{E-}004$$

$$R = 0.9986$$

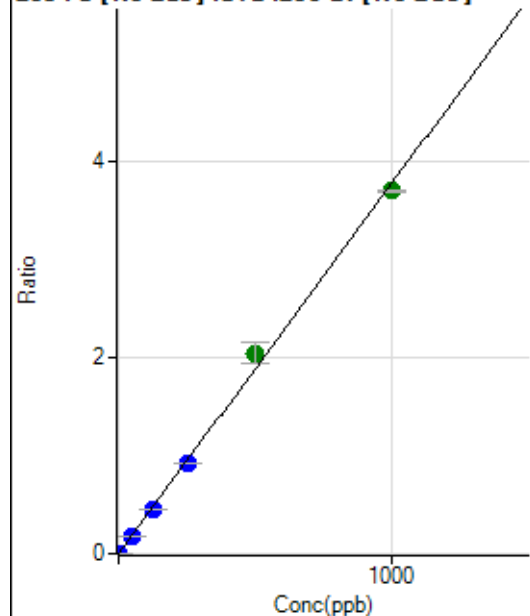
$$DL = 0.06855$$

$$BEC = 0.1443$$

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	885.23	0.0005	P	1.0
2	☐	0.100					
3	☐	1.000	0.959	7030.62	0.0042	P	2.2
4	☐	50.000	48.509	318704.34	0.1837	P	1.0
5	☐	125.000	121.705	817021.76	0.4600	P	0.4
6	☐	250.000	244.690	1675512.19	0.9244	P	0.9
7	☐	500.000	541.801	3360448.35	2.0461	A	10.7
8	☐	1000.000	980.913	6555367.65	3.7040	A	0.3
9	☐			11943.35	0.0077	P	1.9

$$y = 0.0038 * x + 5.3491\text{E-}004$$

$$R = 0.9987$$

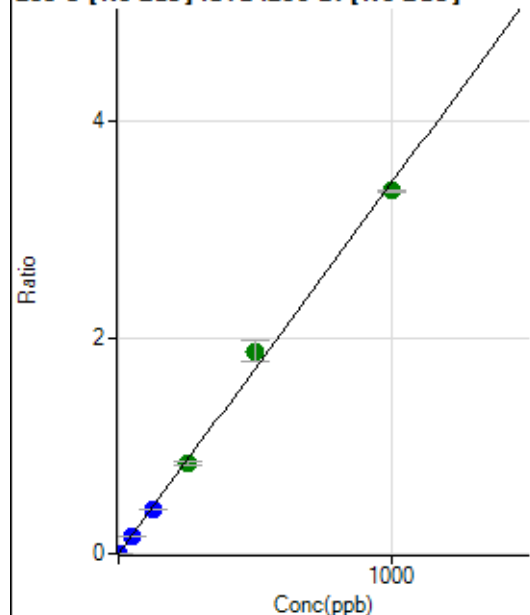
$$DL = 0.004252$$

$$BEC = 0.1417$$

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	22.23	0.0000	P	42.2
2	☐	0.100					
3	☐	1.000	0.907	5284.73	0.0031	P	2.0
4	☐	50.000	47.007	279684.98	0.1612	P	1.1
5	☐	125.000	120.083	731305.02	0.4118	P	0.3
6	☐	250.000	243.557	1513620.39	0.8352	A	2.8
7	☐	500.000	547.057	3080589.20	1.8758	A	10.8
8	☐	1000.000	978.847	5940175.39	3.3564	A	0.2
9	☐			347.24	0.0002	P	23.9

$$y = 0.0034 * x + 1.3402E-005$$

$$R = 0.9983$$

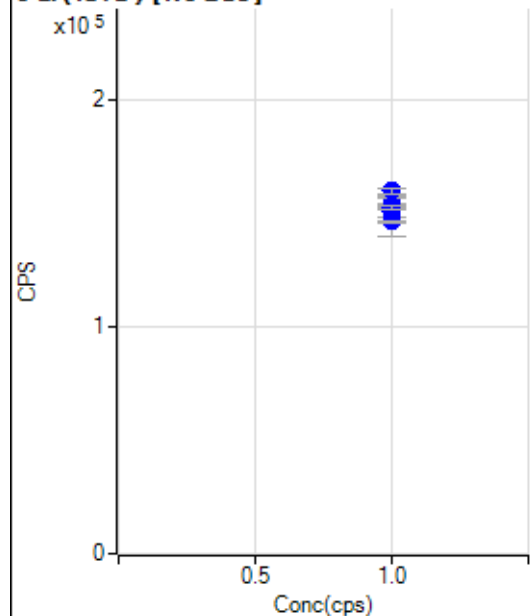
$$DL = 0.004946$$

$$BEC = 0.003908$$

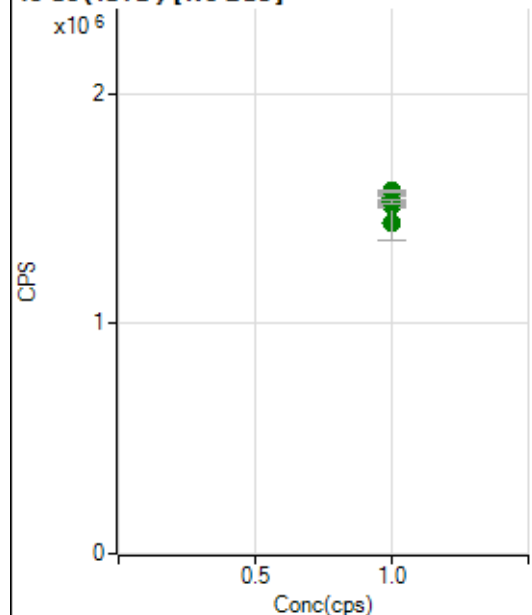
Weight: <None>

Min Conc: 0

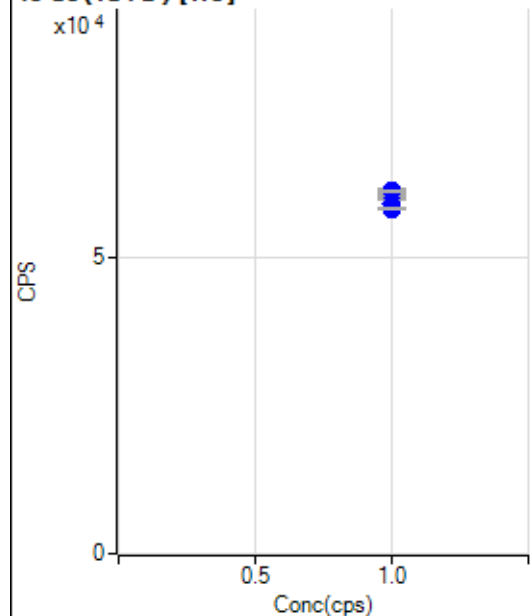
6 Li (ISTD) [No Gas]



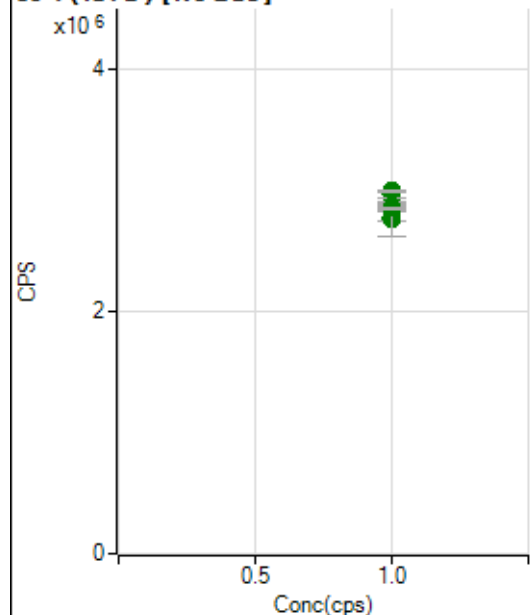
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		150553.05		P	2.8
2	☐	1.000					
3	☐	1.000		152685.03		P	0.9
4	☐	1.000		153841.67		P	0.8
5	☐	1.000		157617.51		P	0.5
6	☐	1.000		159909.11		P	1.4
7	☐	1.000		146531.73		P	8.6
8	☐	1.000		152789.04		P	0.9
9	☐	1.000		146299.45		P	0.6

45 Sc (ISTD) [No Gas]

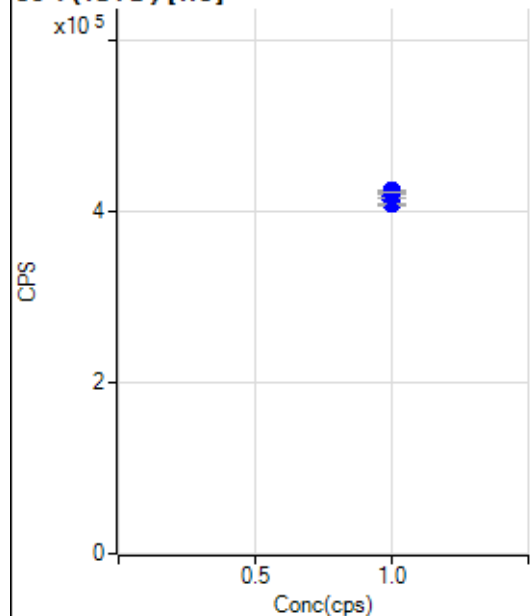
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1514990.19		A	1.7
2	☐	1.000					
3	☐	1.000		1537540.44		A	1.6
4	☐	1.000		1546484.11		A	2.3
5	☐	1.000		1530881.24		A	1.1
6	☐	1.000		1569833.05		A	1.6
7	☐	1.000		1440950.87		A	10.4
8	☐	1.000		1576187.14		A	0.3
9	☐	1.000		1528101.54		A	1.0

45 Sc (ISTD) [He]

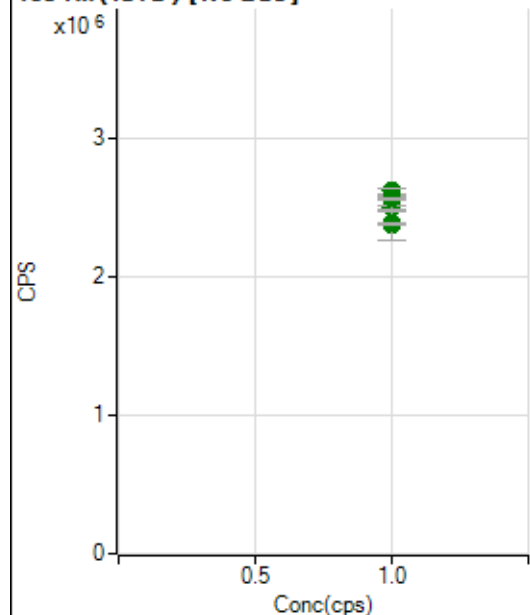
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		59990.82		P	1.0
2	☐	1.000					
3	☐	1.000		61071.00		P	0.3
4	☐	1.000		59889.32		P	0.8
5	☐	1.000		59132.44		P	2.5
6	☐	1.000		58245.78		P	0.6
7	☐	1.000		60576.54		P	0.1
8	☐	1.000		61271.19		P	1.4
9	☐	1.000		61226.06		P	0.6

89 Y (ISTD) [No Gas]

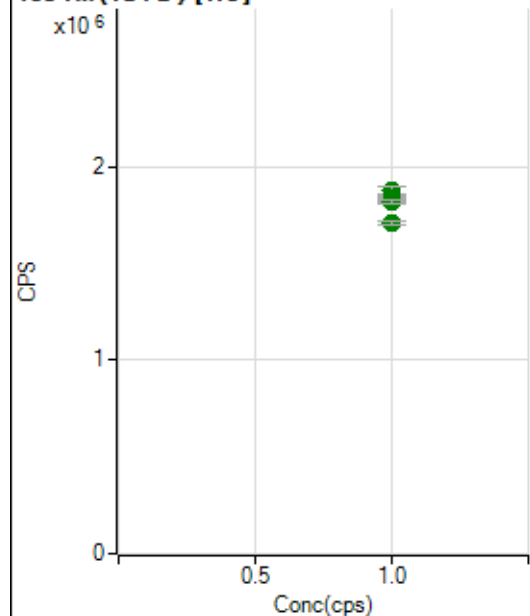
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2782195.44		A	2.8
2	☐	1.000					
3	☐	1.000		2860261.97		A	1.2
4	☐	1.000		2899110.41		A	0.8
5	☐	1.000		2891529.23		A	0.0
6	☐	1.000		2973574.96		A	2.1
7	☐	1.000		2764619.39		A	10.0
8	☐	1.000		2996362.77		A	0.8
9	☐	1.000		2855470.31		A	0.7

89 Y (ISTD) [He]

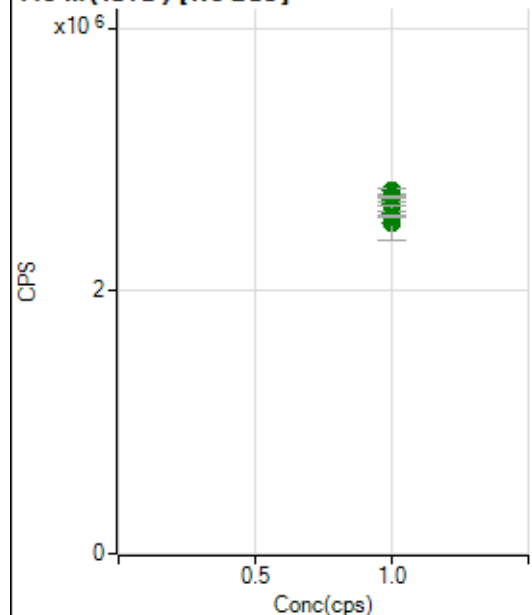
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		408286.76		P	0.8
2	☐	1.000					
3	☐	1.000		416184.69		P	0.2
4	☐	1.000		412756.02		P	1.6
5	☐	1.000		420574.93		P	2.0
6	☐	1.000		418675.49		P	0.9
7	☐	1.000		421793.63		P	0.8
8	☐	1.000		424319.78		P	0.7
9	☐	1.000		423151.59		P	0.2

103 Rh (ISTD) [No Gas]

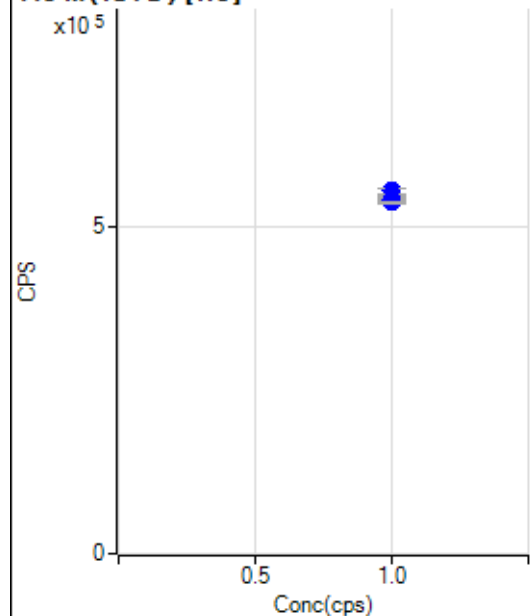
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2499745.13		A	1.7
2	☐	1.000					
3	☐	1.000		2568294.63		A	1.0
4	☐	1.000		2574696.09		A	1.2
5	☐	1.000		2584117.29		A	0.6
6	☐	1.000		2624635.48		A	1.6
7	☐	1.000		2377166.03		A	9.7
8	☐	1.000		2566683.52		A	0.3
9	☐	1.000		2389445.78		A	0.6

103 Rh (ISTD) [He]

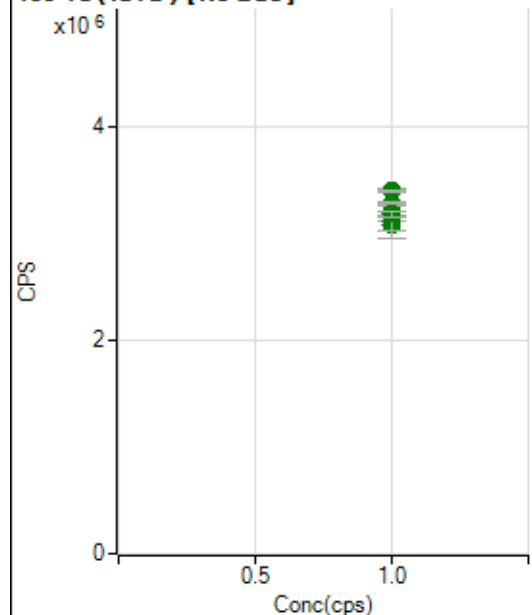
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1835144.14		A	0.3
2	☐	1.000					
3	☐	1.000		1848638.55		A	0.8
4	☐	1.000		1822604.61		A	0.5
5	☐	1.000		1876110.68		A	2.8
6	☐	1.000		1839450.82		A	0.3
7	☐	1.000		1833229.90		A	0.8
8	☐	1.000		1820363.20		A	1.0
9	☐	1.000		1712051.57		A	1.0

115 In (ISTD) [No Gas]

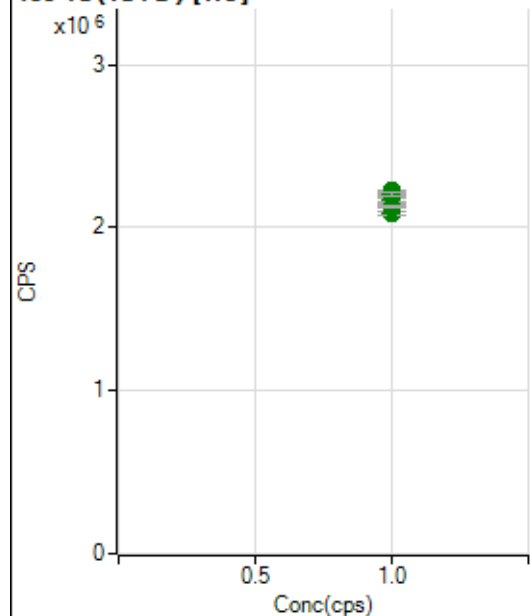
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2587934.73		A	1.7
2	☐	1.000					
3	☐	1.000		2665702.12		A	1.1
4	☐	1.000		2667030.23		A	0.9
5	☐	1.000		2688886.75		A	1.3
6	☐	1.000		2759981.92		A	1.4
7	☐	1.000		2516091.23		A	10.1
8	☐	1.000		2715486.17		A	0.2
9	☐	1.000		2564079.12		A	0.7

115 In (ISTD) [He]

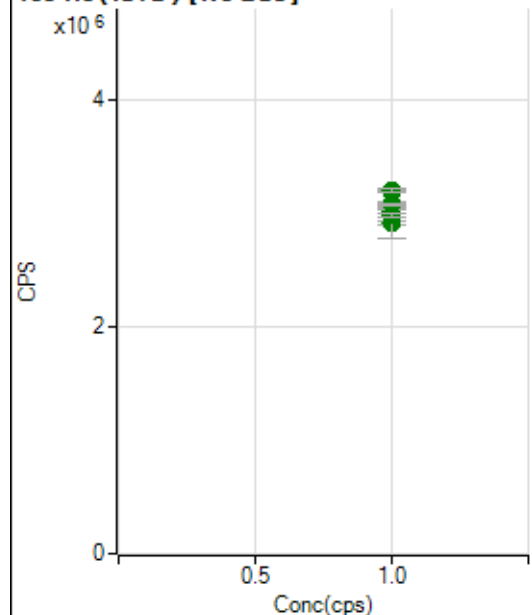
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		539446.26		P	0.3
2	☐	1.000					
3	☐	1.000		549237.95		P	0.1
4	☐	1.000		547610.15		P	1.3
5	☐	1.000		555098.21		P	1.5
6	☐	1.000		547652.67		P	0.2
7	☐	1.000		549705.34		P	0.4
8	☐	1.000		541555.32		P	0.7
9	☐	1.000		537016.54		P	0.5

159 Tb (ISTD) [No Gas]

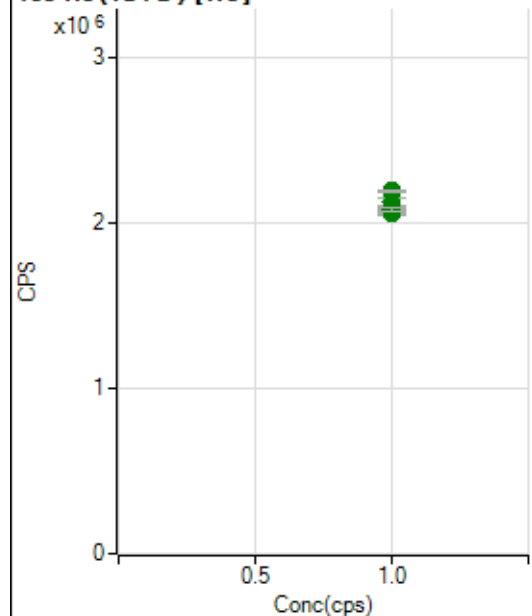
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3069656.73		A	2.6
2	☐	1.000					
3	☐	1.000		3191684.33		A	1.3
4	☐	1.000		3211272.14		A	2.9
5	☐	1.000		3278825.05		A	0.8
6	☐	1.000		3395814.36		A	1.0
7	☐	1.000		3114370.27		A	10.7
8	☐	1.000		3396158.94		A	0.3
9	☐	1.000		3179521.66		A	2.0

159 Tb (ISTD) [He]

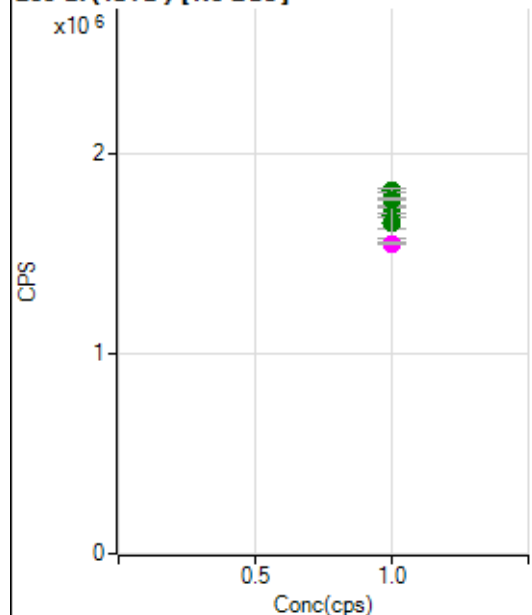
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2086780.28		A	0.8
2	☐	1.000					
3	☐	1.000		2149217.24		A	0.8
4	☐	1.000		2131606.60		A	1.1
5	☐	1.000		2167503.42		A	1.1
6	☐	1.000		2217377.63		A	1.0
7	☐	1.000		2224423.72		A	0.7
8	☐	1.000		2205769.65		A	1.0
9	☐	1.000		2127434.45		A	0.7

165 Ho (ISTD) [No Gas]

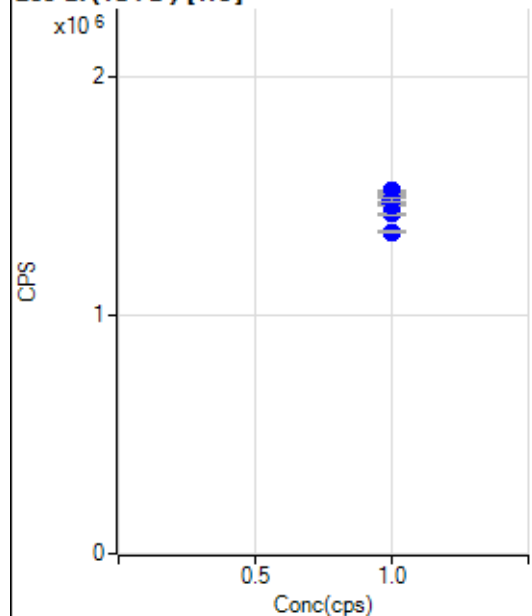
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2918362.93		A	1.4
2	☐	1.000					
3	☐	1.000		3027961.77		A	1.8
4	☐	1.000		3067317.93		A	2.1
5	☐	1.000		3088967.82		A	0.5
6	☐	1.000		3197591.09		A	0.5
7	☐	1.000		2928584.59		A	9.6
8	☐	1.000		3203054.22		A	1.0
9	☐	1.000		2989957.38		A	1.0

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2061567.83		A	1.4
2	☐	1.000					
3	☐	1.000		2070790.77		A	0.8
4	☐	1.000		2070734.12		A	0.9
5	☐	1.000		2129408.32		A	2.1
6	☐	1.000		2187170.76		A	0.1
7	☐	1.000		2194777.45		A	0.2
8	☐	1.000		2191179.92		A	0.5
9	☐	1.000		2086077.44		A	1.0

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1654744.06		M	3.5
2	☐	1.000					
3	☐	1.000		1692435.62		A	1.2
4	☐	1.000		1735167.68		A	0.9
5	☐	1.000		1776005.48		A	0.3
6	☐	1.000		1812700.01		A	1.0
7	☐	1.000		1653904.16		A	9.8
8	☐	1.000		1769789.42		A	0.4
9	☐	1.000		1549550.24		M	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1421285.27		P	0.7
2	☐	1.000					
3	☐	1.000		1457839.42		P	0.5
4	☐	1.000		1466299.60		P	1.1
5	☐	1.000		1501336.26		P	1.1
6	☐	1.000		1519252.56		P	0.7
7	☐	1.000		1503257.06		P	0.3
8	☐	1.000		1479836.18		P	0.8
9	☐	1.000		1346226.33		P	0.7

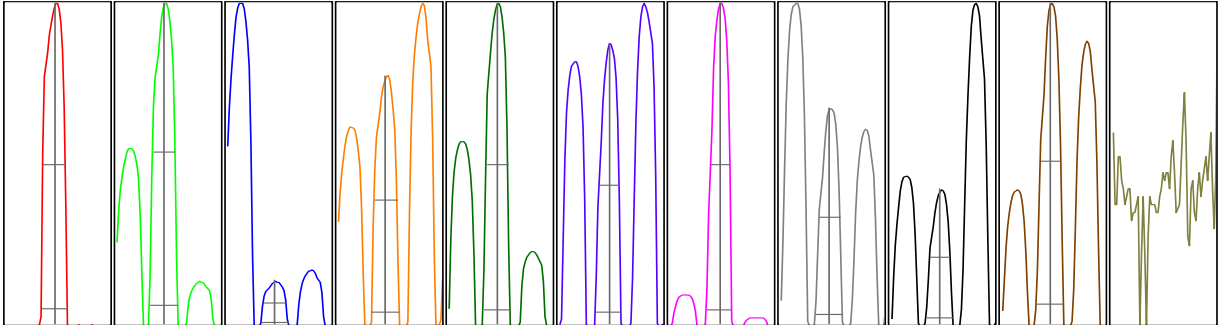
US EPA Tune Check Sample Report

Batch Folder D:\P8040819-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	1359	0.93	5.00	
24	30197	1.13	5.00	
25	4154	1.34	5.00	
26	5166	1.17	5.00	
59	21938	1.23	5.00	
113	3236	1.66	5.00	
115	37949	0.97	5.00	
206	6673	0.90	5.00	
207	6032	1.16	5.00	
208	14442	1.05	5.00	
220	1	31.37		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	1363	1341	1358	1358	1377
24	30130	30012	30041	30002	30799
25	4100	4129	4156	4137	4247
26	5120	5144	5174	5125	5267
59	21724	21736	21858	21994	22379
113	3262	3182	3214	3204	3316
115	37748	37674	37873	37862	38590
206	6681	6620	6632	6661	6772
207	6021	6023	6031	5946	6141
208	14477	14263	14428	14370	14673
220	1	1	1	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	2257	8.95	8.9 - 9.1		0.741	0.900	
24	49678	23.90	23.9 - 24.1		0.815	0.900	
25	6791	24.90	24.9 - 25.1		0.775	0.900	
26	8517	25.90	25.9 - 26.1		0.784	0.900	
59	37733	58.95	58.9 - 59.1		0.775	0.900	
113	5881	113.00	112.9 - 113.1		0.731	0.900	
115	69562	115.00	114.9 - 115.1		0.725	0.900	
206	12070	205.95	205.9 - 206.1		0.772	0.900	
207	10929	206.95	206.9 - 207.1		0.771	0.900	
208	25981	207.95	207.9 - 208.1		0.782	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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	12.7	V	Deflect	15.2	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-120	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 (Mean)	RSD% (Actual)	RSD% (Required)
59	8048	4.24	
89	13963	3.98	
205	9452	3.53	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	7597	8001	8558	8042	8042
89	13237	13785	14781	13952	14062
205	9060	9318	9973	9421	9489

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	12.7	V	Deflect	2.4	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-120	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	5.0	mL/min	OctP RF	200	V			