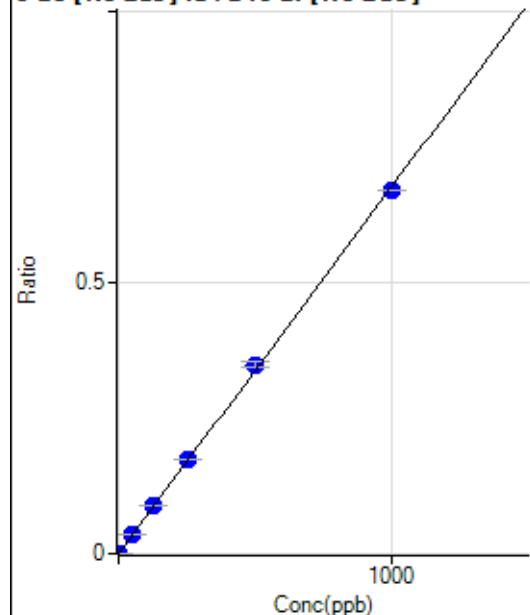


Batch Folder: D:\Agilent\ICPMH\1\DATA\P8040920MS.b\
Analysis File: P8040920MS.batch.bin
DA Date-Time: 2020-04-10 13:01:28
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-04-09 14:52:37
2	004CALS.d	S01	2020-04-09 14:55:41
3	006CALS.d	S02	2020-04-09 15:01:47
4	007CALS.d	S03	2020-04-09 15:04:49
5	008CALS.d	S04	2020-04-09 15:07:53
6	009CALS.d	S05	2020-04-09 15:10:51
7	010CALS.d	S06	2020-04-09 15:13:52
8	011CALS.d	S07	2020-04-09 15:16:50
9	012CALS.d	S08	2020-04-09 15:19:51

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14.00	0.0000	P	62.2
2	☒	0.100					
3	☐	1.000	1.087	565.23	0.0008	P	3.9
4	☐	50.000	51.874	27411.23	0.0351	P	0.5
5	☐	125.000	130.330	66958.71	0.0883	P	1.3
6	☐	250.000	256.393	140658.45	0.1736	P	0.6
7	☐	500.000	516.226	253889.72	0.3496	P	3.3
8	☐	1000.000	989.529	505152.72	0.6701	P	0.1
9	☐			115.98	0.0002	P	13.2

$$y = 6.7719\text{E-}004 * x + 1.8966\text{E-}005$$

$$R = 0.9998$$

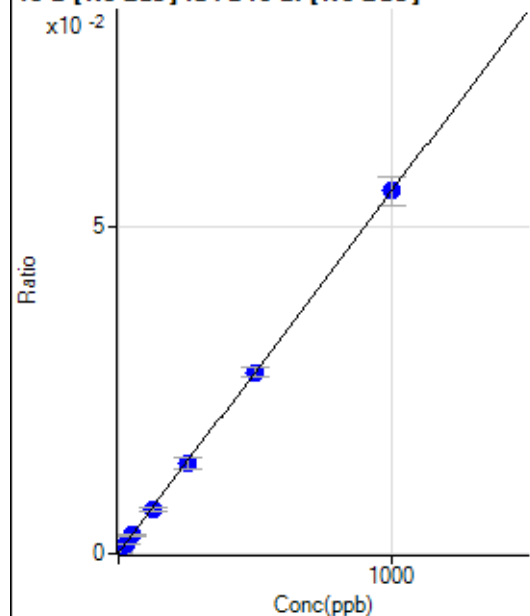
$$DL = 0.05227$$

$$BEC = 0.02801$$

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	95.98	0.0001	P	16.9
2	☐	2.500	1.986	171.97	0.0002	P	3.7
3	☐	25.000	24.061	1091.16	0.0015	P	13.8
4	☐	50.000	49.908	2252.40	0.0029	P	12.0
5	☐	125.000	119.930	5116.56	0.0068	P	10.6
6	☐	250.000	248.457	11236.13	0.0138	P	11.3
7	☐	500.000	499.236	20148.48	0.0277	P	5.5
8	☐	1000.000	1001.431	41767.48	0.0554	P	7.8
9	☐			6001.39	0.0081	P	11.3

$$y = 5.5199\text{E-}005 * x + 1.3005\text{E-}004$$

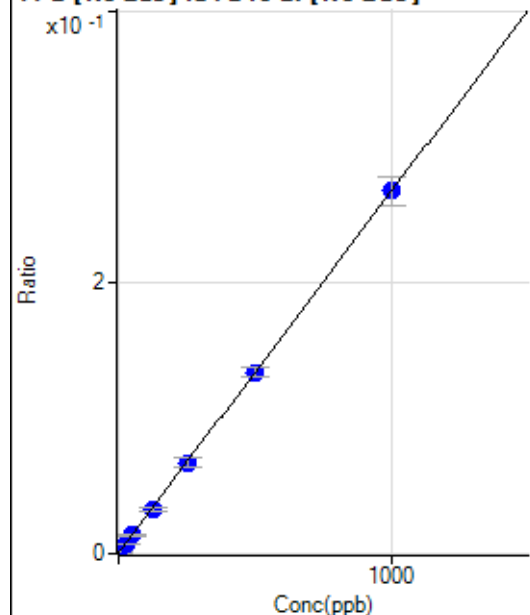
$$R = 1.0000$$

$$DL = 1.195$$

$$BEC = 2.356$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	404.60	0.0005	P	16.3
2	☐	2.500	2.212	818.53	0.0011	P	5.9
3	☐	25.000	25.247	5459.28	0.0073	P	6.9
4	☐	50.000	49.843	10827.90	0.0139	P	12.8
5	☐	125.000	119.670	24660.44	0.0325	P	9.7
6	☐	250.000	248.657	54374.27	0.0670	P	11.0
7	☐	500.000	500.269	97680.80	0.1342	P	5.2
8	☐	1000.000	1000.870	202040.72	0.2680	P	7.8
9	☐			28492.71	0.0386	P	13.4

$$y = 2.6724\text{E-}004 * x + 5.4837\text{E-}004$$

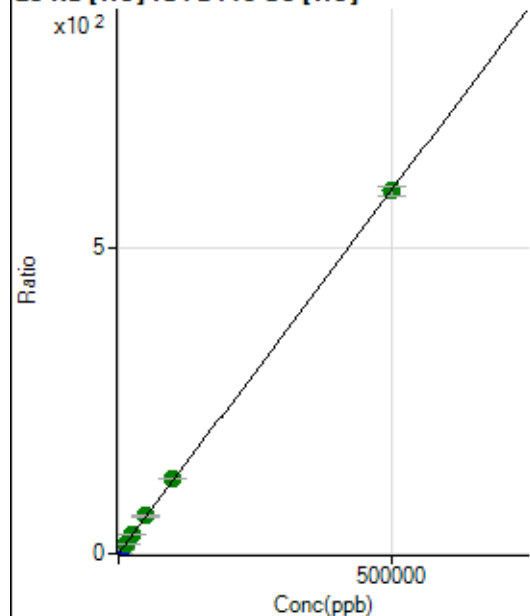
$$R = 1.0000$$

$$DL = 1.005$$

$$BEC = 2.052$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	23232.87	0.3189	P	3.1
2	☐	50.000	36.841	27523.71	0.3626	P	0.8
3	☐	500.000	511.968	70442.40	0.9268	P	1.7
4	☐	5000.000	5224.043	493236.54	6.5221	P	2.2
5	☐	12500.000	13089.000	1206440.96	15.8612	A	2.5
6	☐	25000.000	26440.863	2564924.23	31.7156	A	1.4
7	☐	50000.000	51416.529	4480791.07	61.3725	A	1.4
8	☐	100000.00	102042.29	9230695.61	121.4871	A	0.5
9	☐	500000.00	499360.86	42869346.79	593.2759	A	2.8

$$y = 0.0012 * x + 0.3189$$

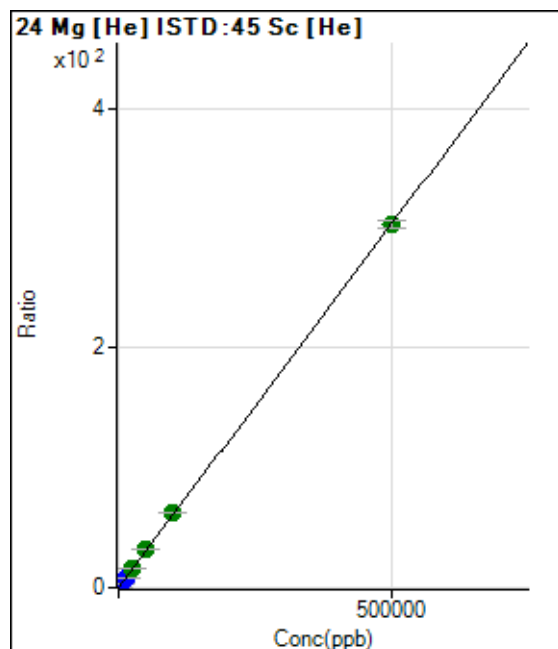
$$R = 1.0000$$

$$DL = 25.26$$

$$BEC = 268.5$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	202.79	0.0028	P	24.3
2	☐	50.000	51.403	2580.85	0.0340	P	6.7
3	☐	500.000	539.405	25113.94	0.3304	P	0.9
4	☐	5000.000	5356.963	246241.57	3.2560	P	1.3
5	☐	12500.000	13411.973	619763.35	8.1478	P	0.2
6	☐	25000.000	26765.220	1314779.17	16.2571	A	1.2
7	☐	50000.000	52667.904	2335373.34	31.9876	A	0.7
8	☐	100000.00	103699.00	4785056.40	62.9785	A	0.8
9	☐	500000.00	498878.73	21892854.31	302.9684	A	2.2

$$y = 6.0729\text{E-}004 * x + 0.0028$$

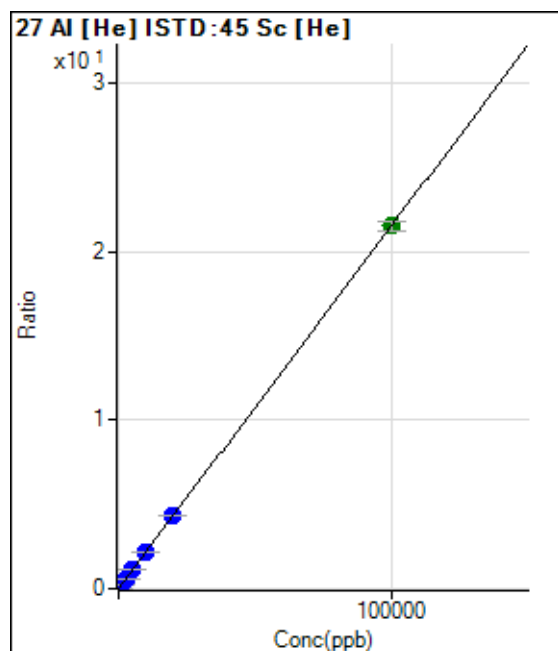
$$R = 1.0000$$

$$DL = 3.364$$

$$BEC = 4.607$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	376.67	0.0052	P	15.8
2	☒	2.000					
3	☐	20.000	19.354	711.14	0.0094	P	3.9
4	☐	1000.000	1016.778	16957.75	0.2242	P	1.1
5	☐	2500.000	2557.520	42303.51	0.5562	P	0.8
6	☐	5000.000	5062.018	88615.64	1.0957	P	1.7
7	☐	10000.000	10030.805	158143.56	2.1661	P	0.6
8	☐	20000.000	20030.666	328256.01	4.3204	P	0.4
9	☐	100000.00	99986.080	1556888.05	21.5454	A	2.4

$$y = 2.1543\text{E-}004 * x + 0.0052$$

$$R = 1.0000$$

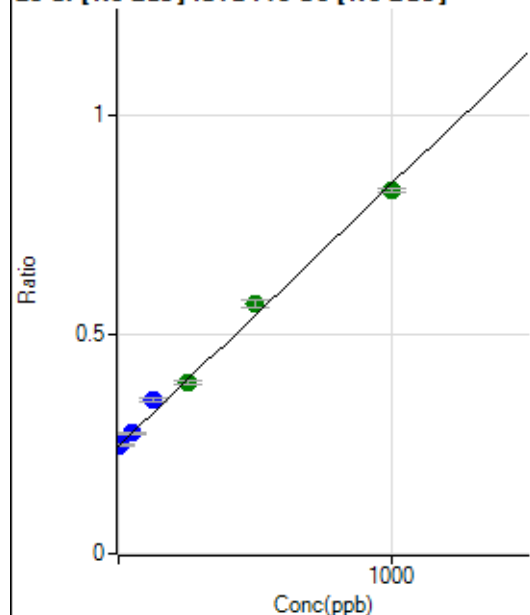
$$DL = 11.44$$

$$BEC = 24.06$$

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	559338.91	0.2454	P	0.9
2	☐	1.000	15.529	565932.77	0.2547	P	6.7
3	☐	10.000	5.271	582511.67	0.2486	P	0.7
4	☐	50.000	49.214	673050.12	0.2749	P	1.2
5	☐	125.000	173.988	815342.80	0.3495	P	2.3
6	☐	250.000	242.972	971250.65	0.3908	A	2.6
7	☐	500.000	545.408	1271364.93	0.5717	A	3.2
8	☐	1000.000	973.001	1893961.20	0.8275	A	1.1
9	☐			725305.98	0.3185	P	2.2

$$y = 5.9821\text{E-}004 * x + 0.2454$$

$$R = 0.9973$$

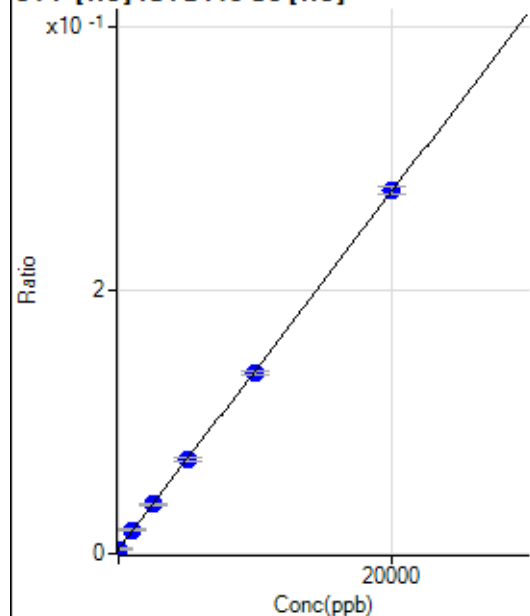
$$DL = 10.54$$

$$BEC = 410.2$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-17.359	227.78	0.0031	P	11.2
2	☐	0.000	14.097	269.46	0.0036	P	3.2
3	☐	0.000	3.262	258.34	0.0034	P	31.5
4	☐	1000.000	1061.602	1341.77	0.0177	P	5.7
5	☐	2500.000	2501.542	2833.69	0.0373	P	1.1
6	☐	5000.000	5053.428	5809.62	0.0718	P	3.2
7	☐	10000.000	9867.745	10006.50	0.1371	P	1.5
8	☐	20000.000	20049.498	20904.51	0.2750	P	2.1
9	☐			230.56	0.0032	P	12.3

$$y = 1.3550\text{E-}005 * x + 0.0034$$

$$R = 1.0000$$

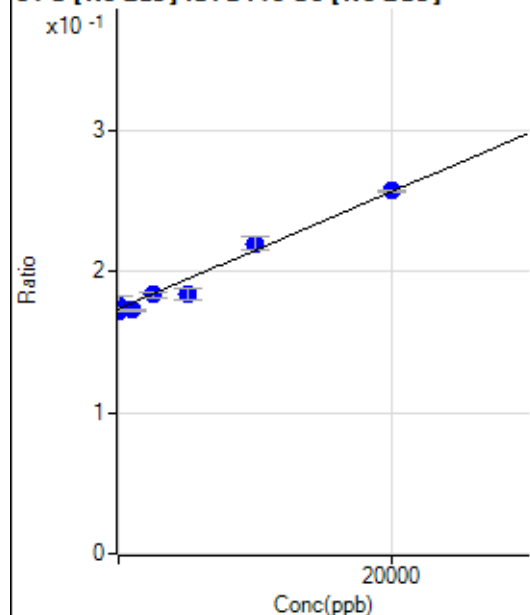
$$DL = 113.4$$

$$BEC = 248$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	-357.221	393059.41	0.1725	P	1.0
2	☐	0.000	648.453	392385.33	0.1766	P	7.1
3	☐	0.000	-291.233	404763.42	0.1727	P	1.7
4	☐	1000.000	-251.307	423398.78	0.1729	P	1.1
5	☐	2500.000	2335.928	428418.98	0.1836	P	1.8
6	☐	5000.000	2547.413	458413.01	0.1845	P	4.2
7	☐	10000.000	11148.584	489623.80	0.2202	P	3.9
8	☐	20000.000	20121.929	589275.49	0.2575	P	0.7
9	☐			378870.60	0.1664	P	0.4

$$y = 4.1506\text{E-}006 * x + 0.1739$$

$$R = 0.9891$$

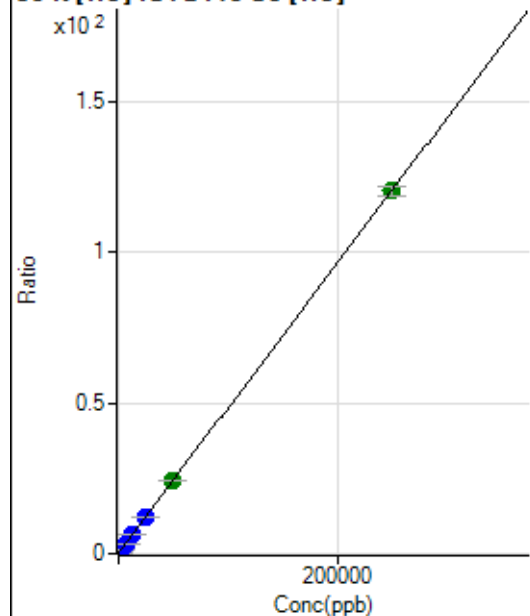
$$DL = 4159$$

$$BEC = 4.191\text{E}+04$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	16050.96	0.2201	P	1.4
2	☒	50.000					
3	☐	500.000	527.155	35967.59	0.4732	P	1.9
4	☐	2500.000	2512.923	107866.13	1.4264	P	2.5
5	☐	6250.000	6333.403	247987.30	3.2603	P	1.1
6	☐	12500.000	12578.344	506106.00	6.2580	P	1.2
7	☐	25000.000	24905.235	888871.76	12.1752	P	0.6
8	☐	50000.000	49630.865	1826749.15	24.0440	A	0.4
9	☐	250000.00	250077.11	8690290.73	120.2626	A	2.4

$$y = 4.8002\text{E-}004 * x + 0.2201$$

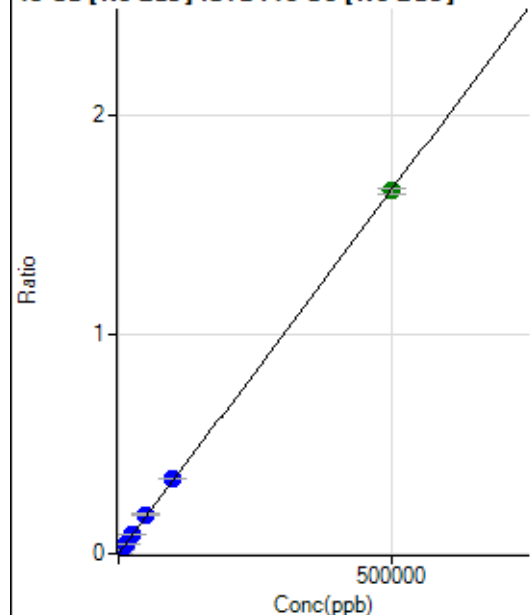
$$R = 1.0000$$

$$DL = 19.19$$

$$BEC = 458.6$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	233.34	0.0001	P	0.7
2	☐	50.000	55.835	636.14	0.0003	P	15.4
3	☐	500.000	506.395	4170.18	0.0018	P	4.8
4	☐	5000.000	5231.961	42697.34	0.0174	P	2.5
5	☐	12500.000	13099.780	101492.86	0.0435	P	0.9
6	☐	25000.000	26018.011	214605.62	0.0863	P	1.4
7	☐	50000.000	53239.917	392332.84	0.1765	P	4.4
8	☐	100000.00	103460.92	784699.84	0.3428	P	0.6
9	☐	500000.00	498915.60	3764187.54	1.6529	A	1.8

$$y = 3.3127E-006 * x + 1.0238E-004$$

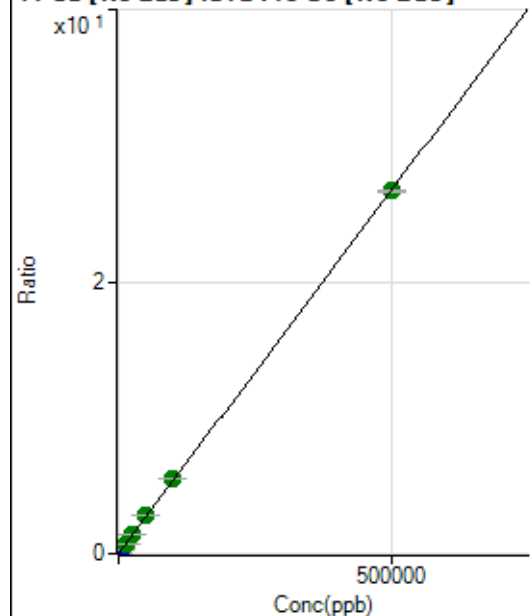
$$R = 1.0000$$

$$DL = 0.6499$$

$$BEC = 30.9$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	17344.25	0.0076	P	3.7
2	☐	50.000	60.734	24140.17	0.0109	P	4.8
3	☐	500.000	515.359	82408.53	0.0352	P	1.7
4	☐	5000.000	5205.940	700356.14	0.2860	P	0.5
5	☐	12500.000	13240.962	1669446.98	0.7156	A	1.6
6	☐	25000.000	25982.711	3474021.78	1.3968	A	0.8
7	☐	50000.000	52771.875	6289198.92	2.8291	A	4.6
8	☐	100000.00	102948.32	12615742.99	5.5119	A	0.6
9	☐	500000.00	499063.41	60783001.36	26.6906	A	0.8

$$y = 5.3466E-005 * x + 0.0076$$

$$R = 1.0000$$

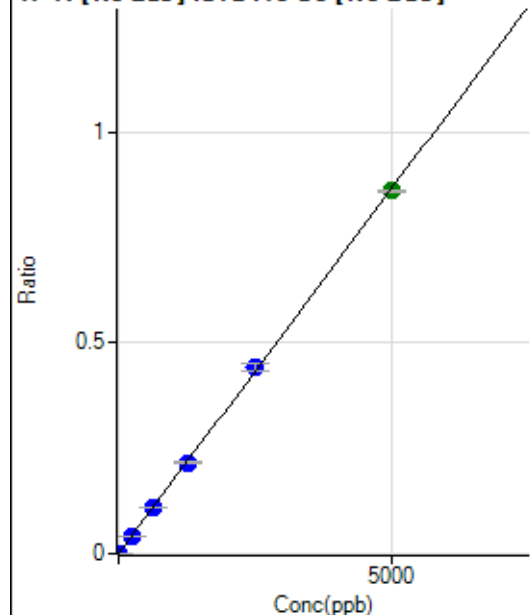
$$DL = 15.61$$

$$BEC = 142.3$$

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	544.47	0.0002	P	6.6
2	☐	0.500	0.619	769.48	0.0003	P	8.4
3	☐	5.000	4.957	2572.52	0.0011	P	5.5
4	☐	250.000	247.353	105489.84	0.0431	P	1.2
5	☐	625.000	632.137	255984.57	0.1097	P	1.8
6	☐	1250.000	1246.279	537381.73	0.2161	P	0.9
7	☐	2500.000	2558.689	985687.47	0.4434	P	4.5
8	☐	5000.000	4970.826	1971065.52	0.8612	A	0.6
9	☐			797.27	0.0004	P	13.4

$$y = 1.7319\text{E-}004 * x + 2.3890\text{E-}004$$

$$R = 0.9999$$

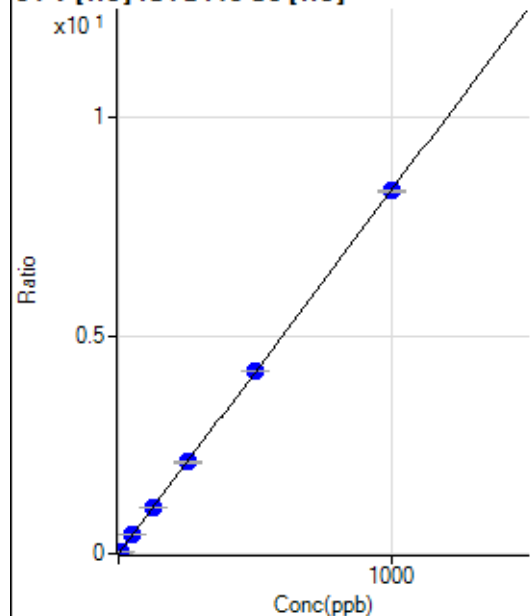
$$DL = 0.2733$$

$$BEC = 1.379$$

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	6.67	0.0001	P	48.0
2	☐	0.500	0.542	350.01	0.0046	P	10.1
3	☐	5.000	5.284	3351.53	0.0441	P	4.4
4	☐	50.000	51.038	32161.73	0.4253	P	1.4
5	☐	125.000	126.371	80083.38	1.0529	P	1.1
6	☐	250.000	253.057	170504.91	2.1083	P	1.4
7	☐	500.000	501.501	305025.72	4.1780	P	0.1
8	☐	1000.000	998.261	631888.69	8.3165	P	0.5
9	☐			267.78	0.0037	P	20.5

$$y = 0.0083 * x + 9.0514\text{E-}005$$

$$R = 1.0000$$

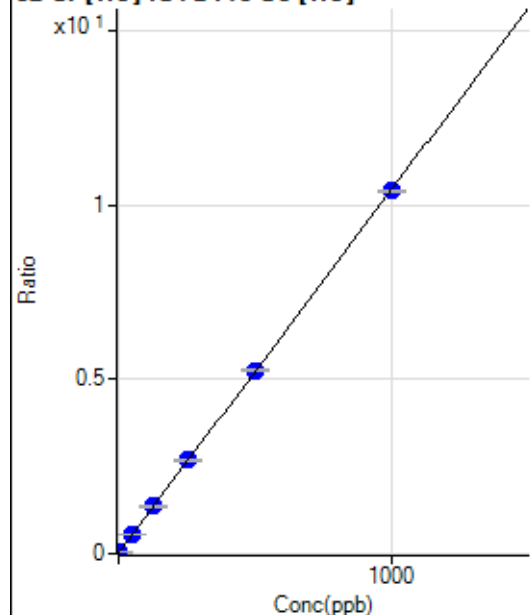
$$DL = 0.01564$$

$$BEC = 0.01086$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1135.61	0.0156	P	5.3
2	☐	0.200	0.210	1350.07	0.0178	P	0.6
3	☐	2.000	2.184	2915.88	0.0384	P	5.9
4	☐	50.000	50.413	40952.85	0.5415	P	0.8
5	☐	125.000	128.288	102983.97	1.3539	P	0.8
6	☐	250.000	255.264	216627.47	2.6786	P	1.3
7	☐	500.000	503.214	384398.33	5.2653	P	0.7
8	☐	1000.000	996.645	791018.18	10.4129	P	0.6
9	☐			23001.96	0.3183	P	3.3

$$y = 0.0104 * x + 0.0156$$

$$R = 1.0000$$

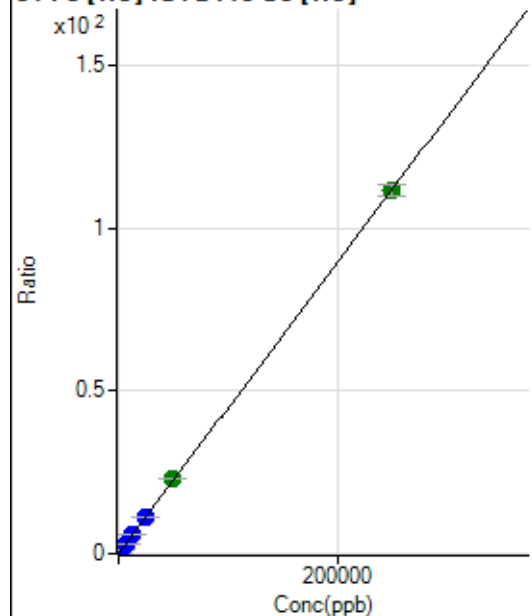
$$DL = 0.2395$$

$$BEC = 1.494$$

Weight: <None>

Min Conc: 0

54 Fe [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	338.90	0.0046	P	14.0
2	☐	5.000	6.639	577.80	0.0076	P	7.5
3	☐	50.000	58.081	2322.46	0.0306	P	5.5
4	☐	2500.000	2565.840	86968.47	1.1500	P	1.5
5	☐	6250.000	6419.081	218301.72	2.8700	P	1.1
6	☐	12500.000	12955.358	468088.89	5.7878	P	2.0
7	☐	25000.000	25474.435	830545.15	11.3761	P	0.3
8	☐	50000.000	51332.624	1740762.16	22.9189	A	1.2
9	☐	250000.00	249658.37	8053019.57	111.4490	A	3.3

$$y = 4.4639E-004 * x + 0.0046$$

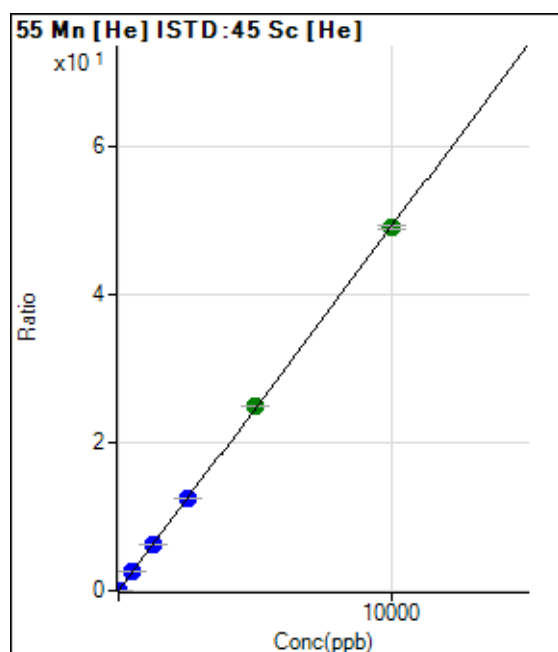
$$R = 1.0000$$

$$DL = 4.372$$

$$BEC = 10.41$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.34	0.0010	P	36.3
2	☐	0.100	0.100	113.34	0.0015	P	14.1
3	☐	1.000	1.074	477.79	0.0063	P	3.9
4	☐	500.000	507.703	188803.64	2.4965	P	0.4
5	☐	1250.000	1266.905	473742.19	6.2282	P	0.5
6	☐	2500.000	2547.193	1012619.24	12.5212	P	1.0
7	☐	5000.000	5050.436	1812435.75	24.8254	A	0.2
8	☐	10000.000	9960.485	3718706.78	48.9597	A	1.1
9	☐			4521.87	0.0626	P	1.2

$$y = 0.0049 * x + 0.0010$$

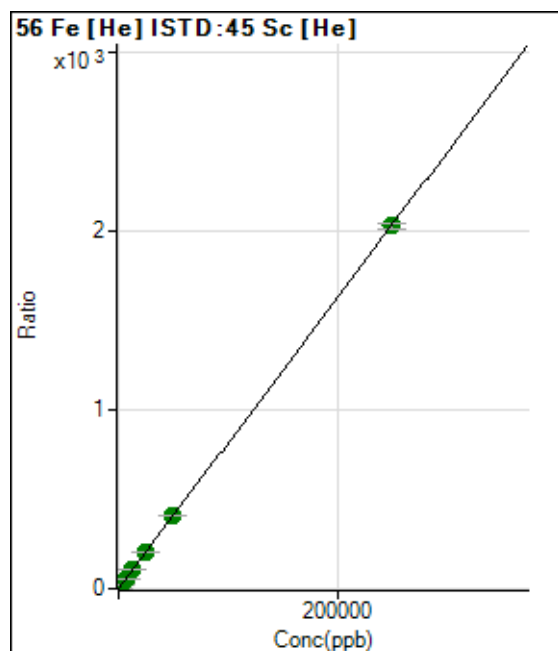
$$R = 1.0000$$

$$DL = 0.2226$$

$$BEC = 0.2046$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2448.40	0.0336	P	2.3
2	☐	5.000	5.561	5971.73	0.0787	P	3.4
3	☐	50.000	54.769	36314.98	0.4778	P	2.4
4	☐	2500.000	2629.746	1615782.01	21.3651	A	0.4
5	☐	6250.000	6488.877	4006238.02	52.6689	A	0.4
6	☐	12500.000	13038.080	8555777.28	105.7936	A	0.7
7	☐	25000.000	25397.398	15043241.07	206.0478	A	0.7
8	☐	50000.000	50421.084	31074384.26	409.0306	A	0.5
9	☐	250000.00	249841.86	146453855.1	2,026.657	A	1.8

$$y = 0.0081 * x + 0.0336$$

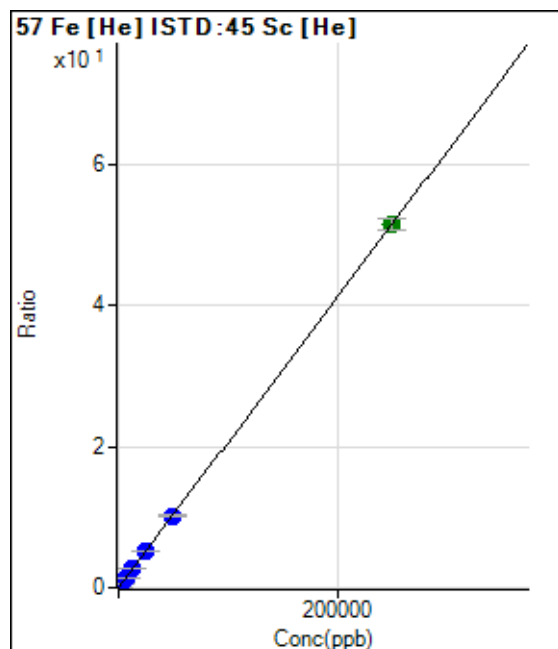
$$R = 1.0000$$

$$DL = 0.2819$$

$$BEC = 4.14$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0011	P	4.1
2	☐	5.000	5.960	174.08	0.0023	P	8.8
3	☐	50.000	58.765	998.20	0.0131	P	5.8
4	☐	2500.000	2528.047	39352.56	0.5203	P	0.6
5	☐	6250.000	6342.197	99173.81	1.3038	P	0.3
6	☐	12500.000	12671.275	210574.67	2.6038	P	0.2
7	☐	25000.000	24908.241	373602.71	5.1174	P	0.4
8	☐	50000.000	49619.169	774404.45	10.1931	P	0.5
9	☐	250000.00	250074.19	3711616.14	51.3677	A	3.3

$$y = 2.0541\text{E-}004 * x + 0.0011$$

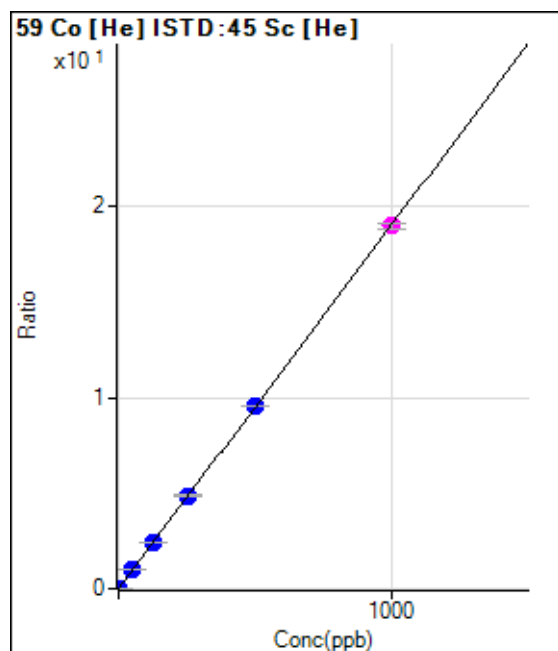
$$R = 1.0000$$

$$DL = 0.641$$

$$BEC = 5.198$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	28.89	0.0004	P	28.3
2	☐	0.100	0.104	181.12	0.0024	P	2.9
3	☐	1.000	1.015	1498.99	0.0197	P	5.3
4	☐	50.000	51.691	74468.78	0.9847	P	1.7
5	☐	125.000	127.822	185176.67	2.4344	P	0.2
6	☐	250.000	255.845	394042.65	4.8723	P	1.2
7	☐	500.000	500.934	696446.33	9.5394	P	0.5
8	☐	1000.000	997.635	1443878.07	18.9978	M	1.9
9	☐			2561.37	0.0354	P	3.8

$$y = 0.0190 * x + 3.9772\text{E-}004$$

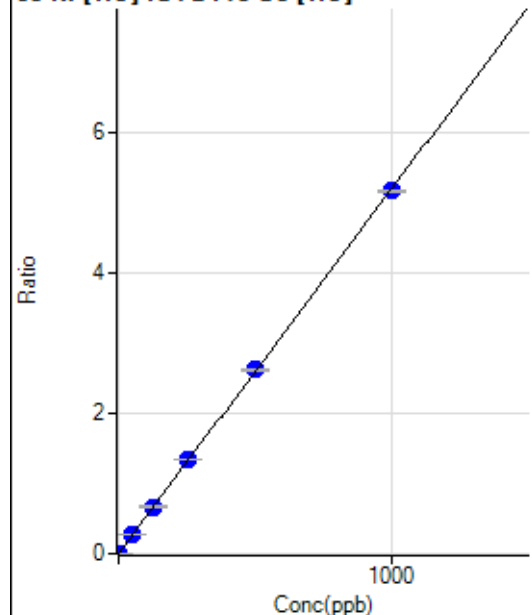
$$R = 1.0000$$

$$DL = 0.01772$$

$$BEC = 0.02089$$

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	90.00	0.0012	P	31.1
2	☐	0.100	0.117	140.00	0.0018	P	13.8
3	☐	1.000	1.162	554.46	0.0073	P	13.4
4	☐	50.000	52.183	20627.27	0.2728	P	1.4
5	☐	125.000	128.983	51142.63	0.6724	P	0.2
6	☐	250.000	257.641	108514.42	1.3418	P	1.3
7	☐	500.000	504.479	191721.16	2.6261	P	0.9
8	☐	1000.000	995.243	393526.85	5.1796	P	0.2
9	☐			7129.63	0.0987	P	3.6

$$y = 0.0052 * x + 0.0012$$

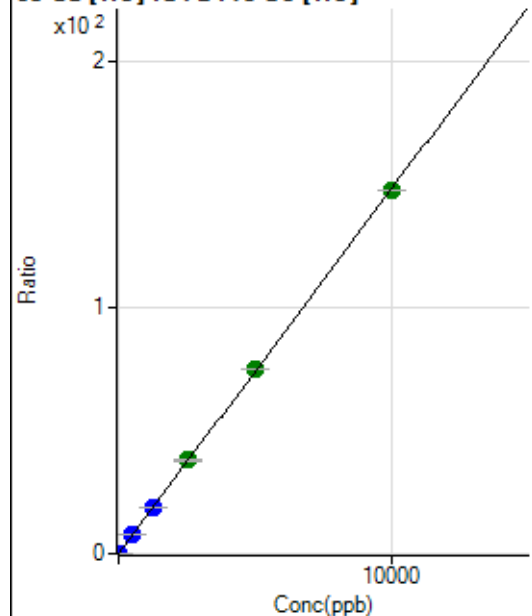
$$R = 1.0000$$

$$DL = 0.2225$$

$$BEC = 0.2381$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	256.67	0.0035	P	8.4
2	☐	0.200	0.207	500.01	0.0066	P	18.1
3	☐	2.000	2.052	2579.15	0.0339	P	0.5
4	☐	500.000	514.925	577219.20	7.6324	P	0.3
5	☐	1250.000	1286.850	1450498.03	19.0689	P	0.4
6	☐	2500.000	2565.834	3074714.78	38.0178	A	2.0
7	☐	5000.000	5062.467	5475968.67	75.0068	A	0.6
8	☐	10000.000	9946.955	11196479.55	147.3732	A	0.1
9	☐			8239.13	0.1140	P	2.9

$$y = 0.0148 * x + 0.0035$$

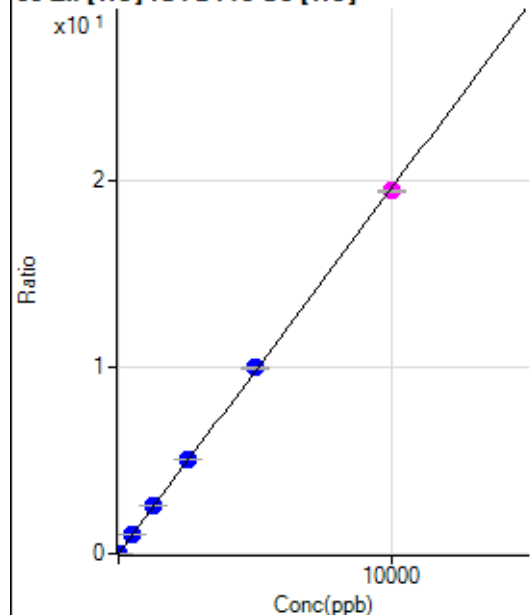
$$R = 0.9999$$

$$DL = 0.05999$$

$$BEC = 0.2375$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	95.56	0.0013	P	21.9
2	☒	0.200					
3	☐	2.000	2.104	413.34	0.0054	P	7.2
4	☐	500.000	516.512	76500.41	1.0116	P	0.8
5	☐	1250.000	1298.188	193239.24	2.5404	P	0.1
6	☐	2500.000	2581.028	408376.36	5.0496	P	1.2
7	☐	5000.000	5084.326	726119.42	9.9458	P	0.4
8	☐	10000.000	9930.731	1475915.36	19.4249	M	0.4
9	☐			8736.10	0.1209	P	0.8

$$y = 0.0020 * x + 0.0013$$

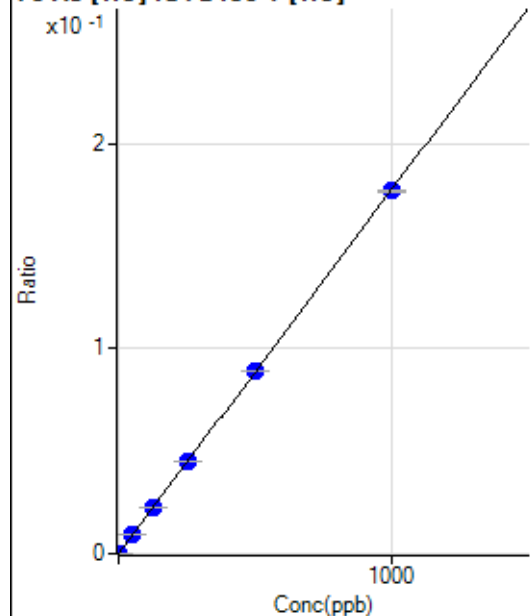
$$R = 0.9999$$

$$DL = 0.4426$$

$$BEC = 0.6722$$

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	4.67	0.0000	P	51.8
2	☒	0.100					
3	☐	1.000	1.062	117.68	0.0002	P	5.4
4	☐	50.000	51.072	5345.89	0.0091	P	0.4
5	☐	125.000	127.067	13468.43	0.0225	P	0.4
6	☐	250.000	254.959	28819.78	0.0452	P	0.4
7	☐	500.000	502.411	51293.49	0.0891	P	0.6
8	☐	1000.000	997.243	105577.76	0.1769	P	0.5
9	☐			63.68	0.0001	P	12.9

$$y = 1.7736E-004 * x + 8.0232E-006$$

$$R = 1.0000$$

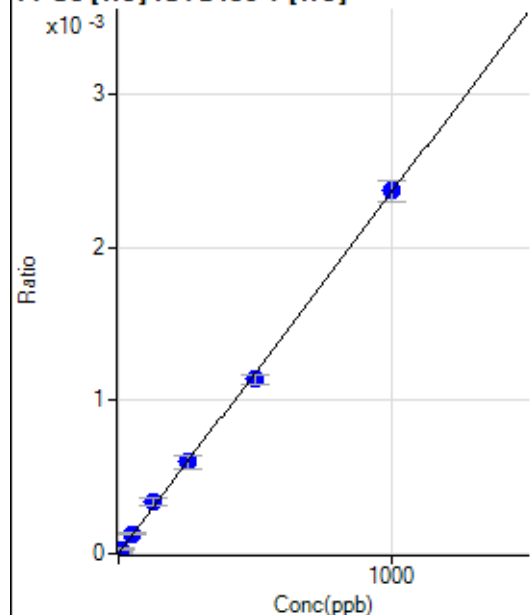
$$DL = 0.07033$$

$$BEC = 0.04524$$

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	1.11	0.0000	P	173.2
2	☐	0.500	1.611	3.33	0.0000	P	100.2
3	☐	5.000	11.772	17.78	0.0000	P	57.6
4	☐	50.000	53.661	75.55	0.0001	P	9.5
5	☐	125.000	143.926	203.34	0.0003	P	16.2
6	☐	250.000	253.076	381.12	0.0006	P	14.4
7	☐	500.000	483.892	656.69	0.0011	P	5.6
8	☐	1000.000	1004.702	1411.20	0.0024	P	5.6
9	☐			0.00	0.0000	P	

$$y = 2.3531\text{E-}006 * x + 1.8866\text{E-}006$$

$$R = 0.9996$$

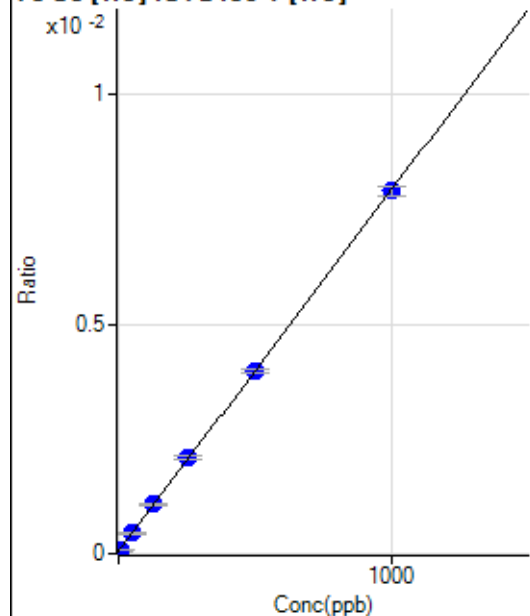
$$DL = 4.166$$

$$BEC = 0.8018$$

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	34.00	0.0001	P	22.5
2	☐	0.500	-0.577	32.67	0.0001	P	27.8
3	☐	5.000	4.316	56.01	0.0001	P	14.6
4	☐	50.000	49.682	265.36	0.0004	P	9.1
5	☐	125.000	128.329	638.08	0.0011	P	1.7
6	☐	250.000	258.696	1333.87	0.0021	P	3.3
7	☐	500.000	499.805	2295.75	0.0040	P	2.1
8	☐	1000.000	997.527	4718.61	0.0079	P	2.8
9	☐			35.00	0.0001	P	9.8

$$y = 7.8606\text{E-}006 * x + 5.9429\text{E-}005$$

$$R = 1.0000$$

$$DL = 5.099$$

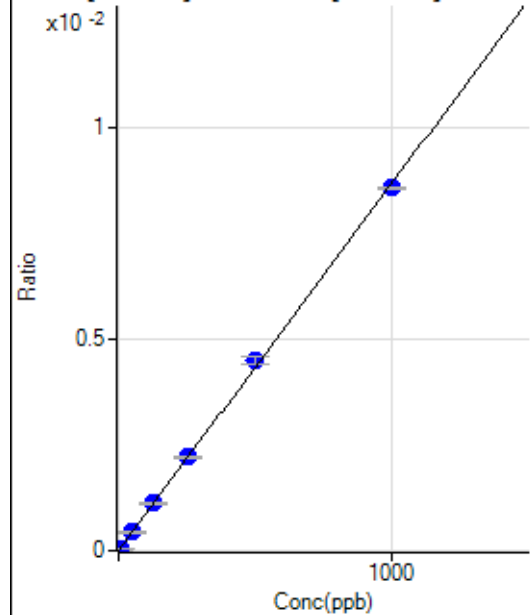
$$BEC = 7.56$$

Weight: <None>

Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1718.55		P	13.0
2	☐			1701.87		P	8.2
3	☐			1888.74		P	2.2
4	☐			1808.67		P	10.3
5	☐			1678.51		P	9.4
6	☐			1721.87		P	1.2
7	☐			1771.95		P	6.7
8	☐			1755.26		P	4.6
9	☐			1938.81		P	7.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	8.55	0.0000	P	652.8
2	☒	0.500					
3	☐	5.000	5.436	267.46	0.0000	P	37.0
4	☐	50.000	50.002	2486.53	0.0004	P	1.7
5	☐	125.000	129.094	6227.28	0.0011	P	1.6
6	☐	250.000	254.237	13124.56	0.0022	P	0.3
7	☐	500.000	519.466	23785.53	0.0045	P	4.6
8	☐	1000.000	988.693	47705.81	0.0086	P	0.6
9	☐			-1.74	0.0000	P	-500.

$$y = 8.6762E-006 * x + 1.6080E-006$$

$$R = 0.9997$$

$$DL = 3.629$$

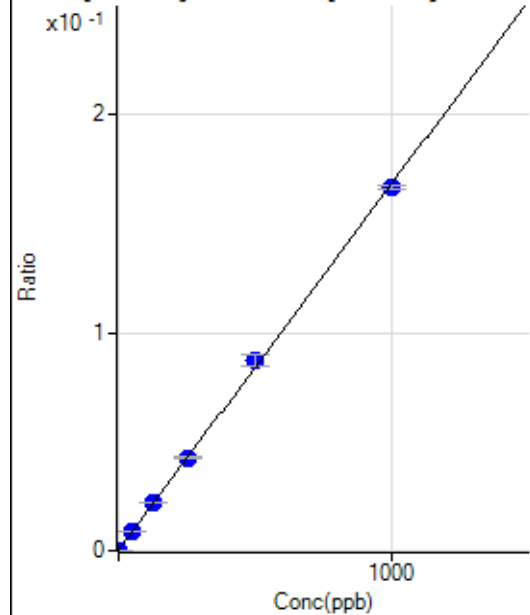
$$BEC = 0.1853$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			684.47		P	7.5
2	☐			776.70		P	1.3
3	☐			703.36		P	13.5
4	☐			753.36		P	5.9
5	☐			763.37		P	1.5
6	☐			741.14		P	10.0
7	☐			701.14		P	15.0
8	☐			711.14		P	3.6
9	☐			717.81		P	5.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1144.52	0.0002	P	12.8
2	☐	0.100	0.139	1247.31	0.0002	P	4.6
3	☐	1.000	1.001	2083.55	0.0004	P	1.8
4	☐	50.000	51.120	50201.86	0.0088	P	2.3
5	☐	125.000	129.179	121598.33	0.0219	P	0.3
6	☐	250.000	252.667	253463.97	0.0426	P	1.0
7	☐	500.000	518.297	460039.25	0.0872	P	5.8
8	☐	1000.000	989.607	925073.94	0.1664	P	0.9
9	☐			2953.17	0.0005	P	9.1

$$y = 1.6791\text{E-}004 * x + 2.1200\text{E-}004$$

$$R = 0.9998$$

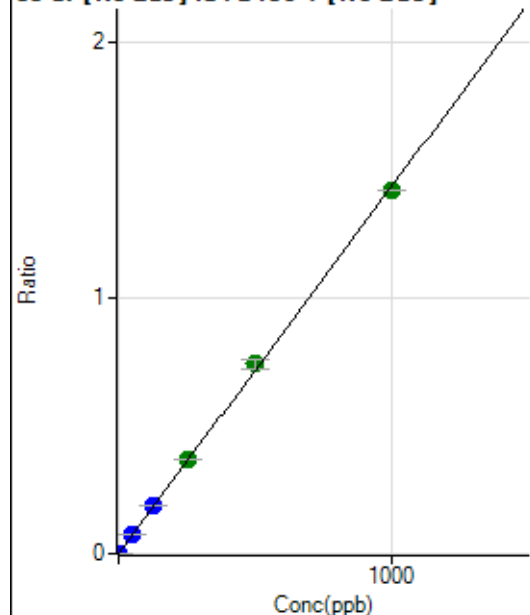
$$DL = 0.4838$$

$$BEC = 1.263$$

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	66.67	0.0000	P	81.6
2	☐	0.100	0.112	919.50	0.0002	P	7.0
3	☐	1.000	0.982	7794.05	0.0014	P	1.3
4	☐	50.000	52.161	427189.93	0.0748	P	1.2
5	☐	125.000	131.496	1047377.06	0.1887	P	1.4
6	☐	250.000	256.411	2187087.94	0.3679	A	1.5
7	☐	500.000	517.637	3916803.04	0.7427	A	5.5
8	☐	1000.000	988.658	7887102.69	1.4184	A	0.1
9	☐			17311.11	0.0032	P	1.3

$$y = 0.0014 * x + 1.2337E-005$$

$$R = 0.9997$$

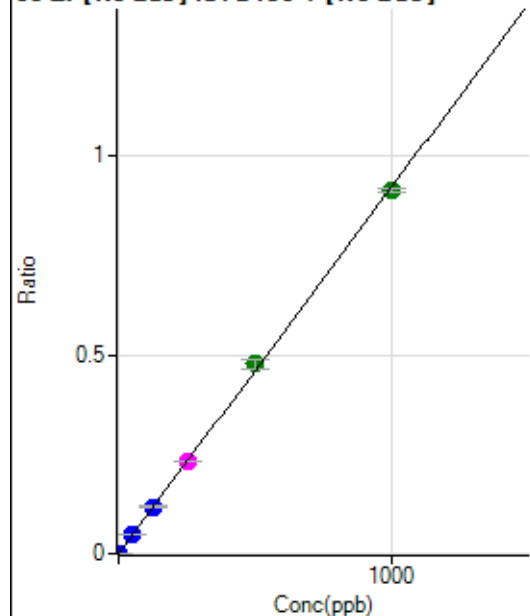
$$DL = 0.02106$$

$$BEC = 0.008599$$

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	227.78	0.0000	P	42.7
2	☐	0.100	0.082	627.81	0.0001	P	8.7
3	☐	1.000	0.962	5092.75	0.0009	P	2.2
4	☐	50.000	51.295	269938.93	0.0473	P	1.5
5	☐	125.000	128.475	657306.62	0.1184	P	1.2
6	☐	250.000	251.879	1379770.07	0.2321	M	1.2
7	☐	500.000	517.670	2515473.84	0.4770	A	5.5
8	☐	1000.000	990.196	5072378.02	0.9123	A	1.1
9	☐			1338.99	0.0002	P	10.1

$$y = 9.2127E-004 * x + 4.2254E-005$$

$$R = 0.9998$$

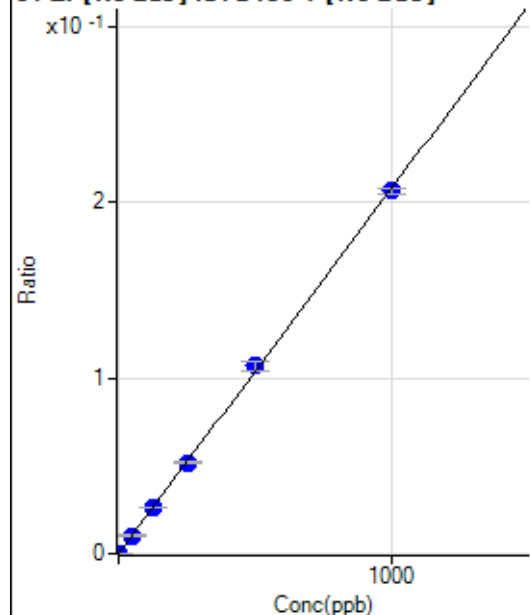
$$DL = 0.05882$$

$$BEC = 0.04586$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	38.89	0.0000	P	12.7
2	☐	0.100	0.139	191.67	0.0000	P	5.5
3	☐	1.000	1.067	1255.65	0.0002	P	9.9
4	☐	50.000	49.748	59042.15	0.0103	P	1.5
5	☐	125.000	126.093	145512.82	0.0262	P	0.4
6	☐	250.000	248.917	307575.14	0.0517	P	1.1
7	☐	500.000	513.669	562983.37	0.1067	P	5.7
8	☐	1000.000	993.312	1147691.44	0.2064	P	1.5
9	☐			366.68	0.0001	P	22.5

$$y = 2.0780\text{E-}004 * x + 7.2078\text{E-}006$$

$$R = 0.9999$$

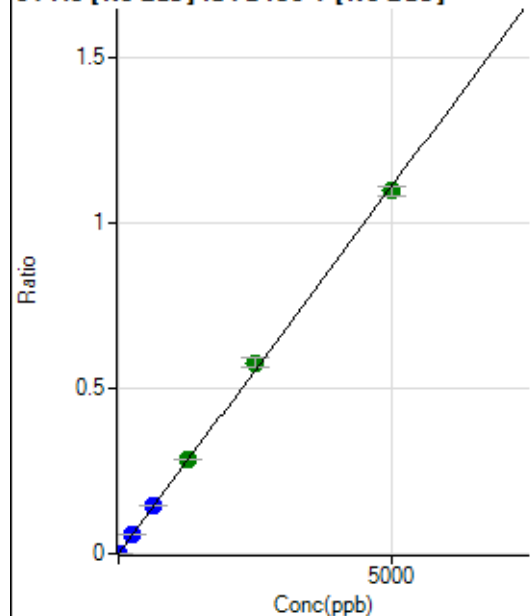
$$DL = 0.01321$$

$$BEC = 0.03469$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	102.78	0.0000	P	33.8
2	☐	0.500	0.609	816.71	0.0002	P	16.2
3	☐	5.000	4.877	6043.16	0.0011	P	3.3
4	☐	250.000	255.211	323737.73	0.0567	P	0.8
5	☐	625.000	646.068	796739.88	0.1435	P	1.1
6	☐	1250.000	1274.003	1682706.84	0.2830	A	0.3
7	☐	2500.000	2602.408	3049175.57	0.5780	A	4.8
8	☐	5000.000	4939.901	6099803.69	1.0972	A	2.5
9	☐			4570.31	0.0008	P	3.0

$$y = 2.2210\text{E-}004 * x + 1.9046\text{E-}005$$

$$R = 0.9997$$

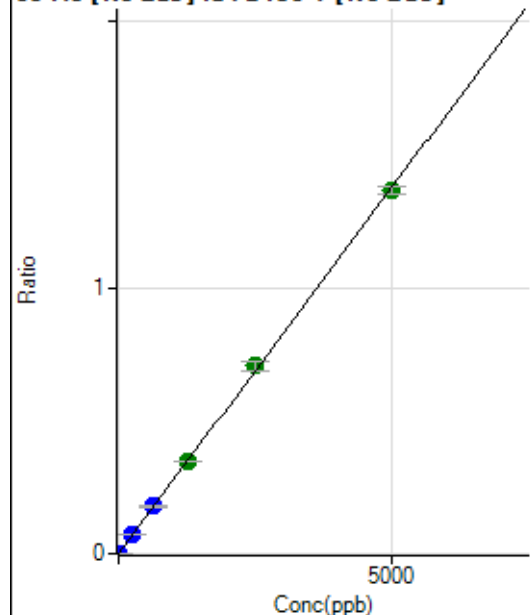
$$DL = 0.08688$$

$$BEC = 0.08575$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	58.4
2	☐	0.500	0.576	877.83	0.0002	P	11.2
3	☐	5.000	5.271	7977.50	0.0015	P	3.3
4	☐	250.000	254.872	399802.53	0.0700	P	0.4
5	☐	625.000	644.126	982525.61	0.1770	P	1.2
6	☐	1250.000	1262.584	2062932.38	0.3469	A	0.7
7	☐	2500.000	2570.081	3724207.51	0.7062	A	5.5
8	☐	5000.000	4959.179	7575480.73	1.3626	A	2.2
9	☐			6793.50	0.0013	P	3.9

$$y = 2.7476E-004 * x + 6.7015E-006$$

$$R = 0.9999$$

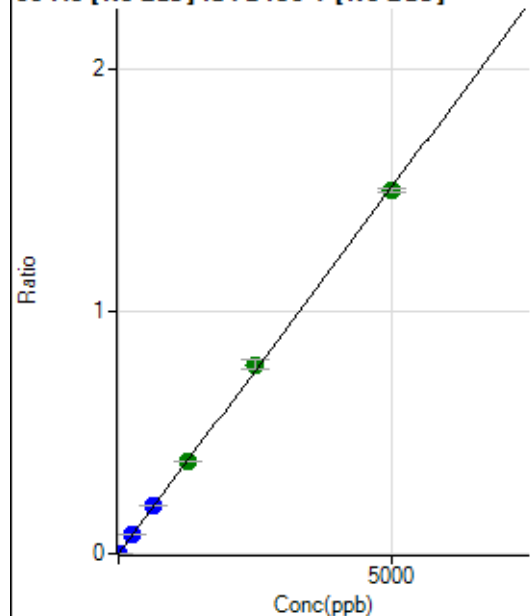
$$DL = 0.04276$$

$$BEC = 0.02439$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0000	P	27.2
2	☐	0.500	0.528	938.94	0.0002	P	8.6
3	☐	5.000	5.574	9347.83	0.0017	P	3.1
4	☐	250.000	258.294	446463.70	0.0782	P	1.0
5	☐	625.000	647.108	1087765.76	0.1959	P	1.0
6	☐	1250.000	1260.257	2268849.79	0.3816	A	0.4
7	☐	2500.000	2583.012	4125552.17	0.7821	A	4.9
8	☐	5000.000	4952.751	8337715.03	1.4996	A	1.0
9	☐			7944.15	0.0015	P	6.3

$$y = 3.0277E-004 * x + 1.7505E-005$$

$$R = 0.9998$$

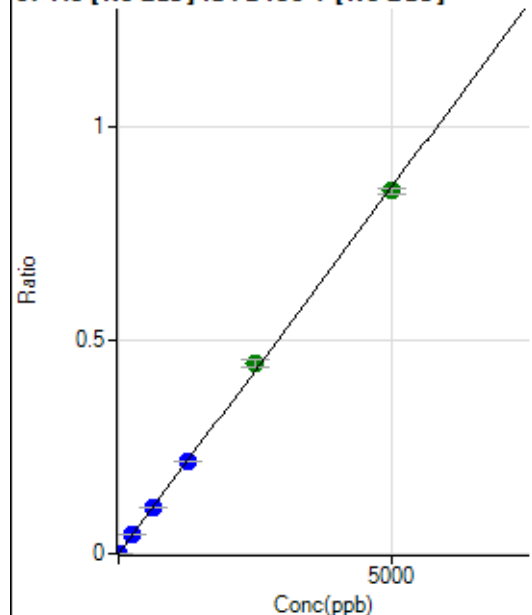
$$DL = 0.04711$$

$$BEC = 0.05782$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0000	P	43.8
2	☐	0.500	0.511	475.02	0.0001	P	12.2
3	☐	5.000	5.451	5137.19	0.0009	P	1.5
4	☐	250.000	255.628	250225.53	0.0438	P	1.6
5	☐	625.000	638.738	608187.61	0.1095	P	1.0
6	☐	1250.000	1253.889	1278578.76	0.2151	P	1.0
7	☐	2500.000	2594.072	2347259.04	0.4449	A	4.4
8	☐	5000.000	4949.993	4720109.04	0.8490	A	1.5
9	☐			4448.03	0.0008	P	6.0

$$y = 1.7151\text{E-}004 * x + 2.0608\text{E-}006$$

$$R = 0.9998$$

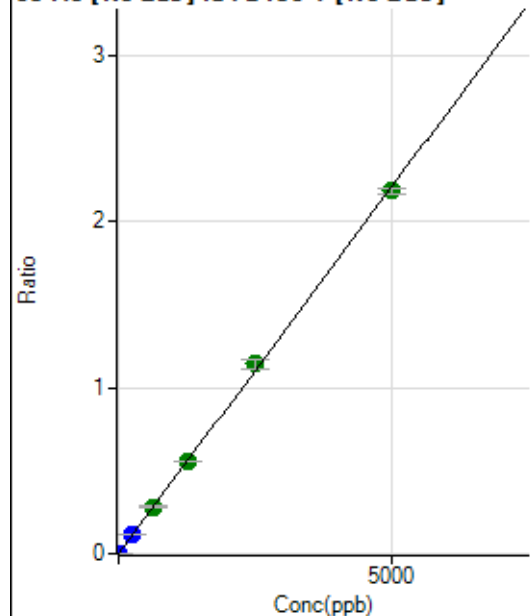
$$DL = 0.01578$$

$$BEC = 0.01202$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.44	0.0000	P	65.8
2	☐	0.500	0.589	1394.55	0.0003	P	8.4
3	☐	5.000	5.380	13028.66	0.0024	P	5.1
4	☐	250.000	253.460	638041.23	0.1118	P	1.4
5	☐	625.000	640.568	1568502.09	0.2825	A	0.8
6	☐	1250.000	1260.199	3303939.90	0.5558	A	1.2
7	☐	2500.000	2592.497	6030877.17	1.1434	A	5.2
8	☐	5000.000	4949.083	12135902.36	2.1827	A	1.5
9	☐			11135.30	0.0021	P	0.7

$$y = 4.4104\text{E-}004 * x + 3.6073\text{E-}006$$

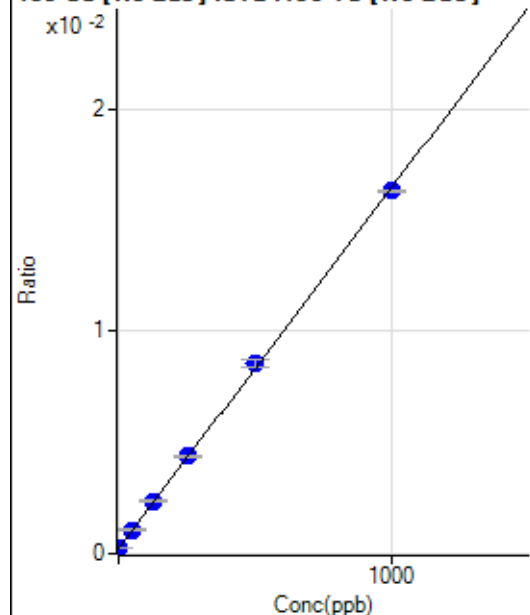
$$R = 0.9998$$

$$DL = 0.01615$$

$$BEC = 0.008179$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1122.31	0.0002	P	8.3
2	☐	0.100	-0.483	1052.84	0.0002	P	11.0
3	☐	1.000	1.403	1241.75	0.0003	P	6.9
4	☐	50.000	51.209	5278.96	0.0011	P	2.4
5	☐	125.000	131.056	11146.49	0.0024	P	4.7
6	☐	250.000	255.954	22463.24	0.0044	P	2.3
7	☐	500.000	513.090	38629.83	0.0086	P	4.0
8	☐	1000.000	991.149	76972.79	0.0163	P	0.6
9	☐			1208.42	0.0003	P	6.3

$$y = 1.6229\text{E-}005 * x + 2.4280\text{E-}004$$

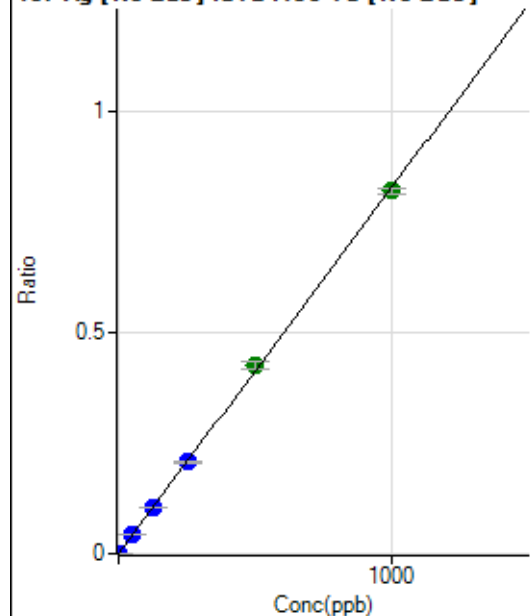
$$R = 0.9998$$

$$DL = 3.726$$

$$BEC = 14.96$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.56	0.0000	P	55.7
2	☐	0.100	0.123	486.14	0.0001	P	2.9
3	☐	1.000	1.191	4639.77	0.0010	P	0.9
4	☐	50.000	50.570	205565.68	0.0418	P	0.9
5	☐	125.000	128.194	498882.58	0.1060	P	0.4
6	☐	250.000	250.137	1057358.84	0.2069	P	0.6
7	☐	500.000	515.765	1923128.89	0.4266	A	3.9
8	☐	1000.000	991.655	3866780.68	0.8203	A	1.7
9	☐			1116.74	0.0002	P	15.5

$$y = 8.2719\text{E-}004 * x + 6.5885\text{E-}006$$

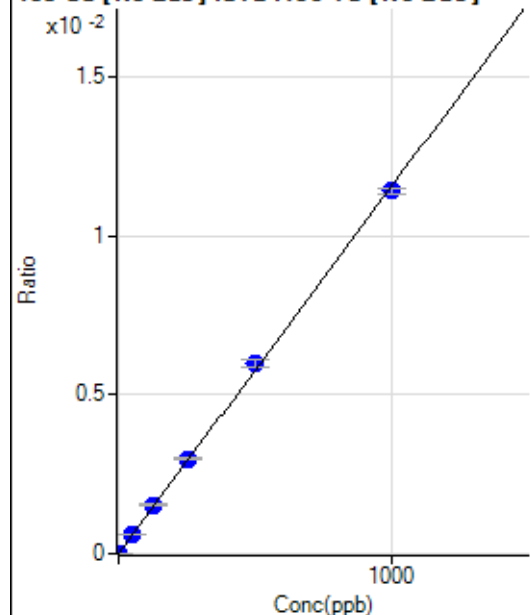
$$R = 0.9998$$

$$DL = 0.01331$$

$$BEC = 0.007965$$

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	13.89	0.0000	P	35.4
2	☐	0.100	-0.069	9.72	0.0000	P	70.7
3	☐	1.000	0.947	65.28	0.0000	P	14.0
4	☐	50.000	50.574	2883.67	0.0006	P	3.1
5	☐	125.000	131.976	7179.73	0.0015	P	3.2
6	☐	250.000	257.798	15218.23	0.0030	P	2.4
7	☐	500.000	517.828	26952.81	0.0060	P	4.2
8	☐	1000.000	988.236	53783.38	0.0114	P	1.3
9	☐			34.72	0.0000	P	25.3

$$y = 1.1542\text{E-}005 * x + 3.0130\text{E-}006$$

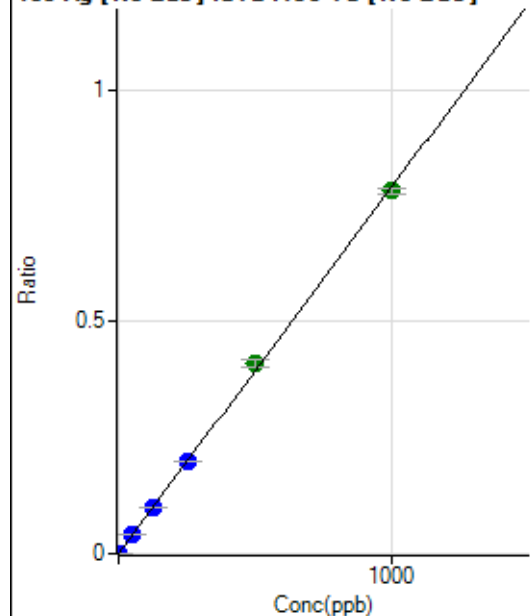
$$R = 0.9997$$

$$DL = 0.2771$$

$$BEC = 0.261$$

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	19.45	0.0000	P	25.3
2	☐	0.100	0.112	416.68	0.0001	P	15.6
3	☐	1.000	1.158	4298.00	0.0009	P	2.6
4	☐	50.000	50.102	194526.82	0.0396	P	0.4
5	☐	125.000	128.193	476458.15	0.1013	P	0.3
6	☐	250.000	251.591	1015680.67	0.1988	P	0.2
7	☐	500.000	517.702	1843661.02	0.4090	A	3.9
8	☐	1000.000	990.347	3688237.71	0.7824	A	1.4
9	☐			1027.84	0.0002	P	6.5

$$y = 7.9003\text{E-}004 * x + 4.2120\text{E-}006$$

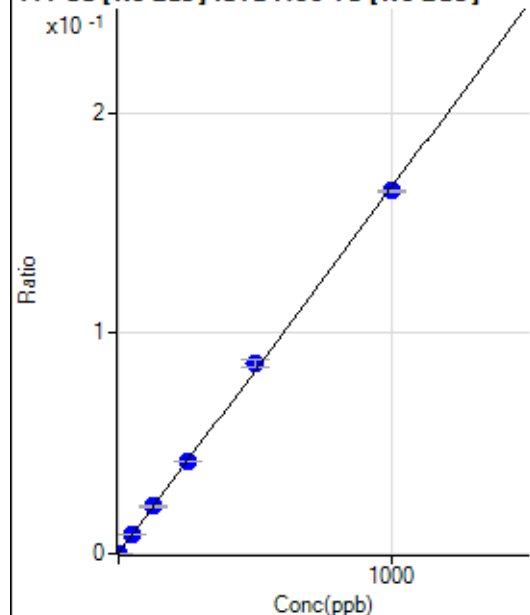
$$R = 0.9998$$

$$DL = 0.004044$$

$$BEC = 0.005331$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	453.09	0.0001	P	8.5
2	☐	0.100	0.119	528.50	0.0001	P	9.8
3	☐	1.000	1.116	1324.93	0.0003	P	2.4
4	☐	50.000	50.233	41455.17	0.0084	P	1.9
5	☐	125.000	128.658	100946.97	0.0215	P	1.0
6	☐	250.000	251.350	213721.31	0.0418	P	0.7
7	☐	500.000	517.557	387743.90	0.0860	P	4.2
8	☐	1000.000	990.415	775624.49	0.1645	P	0.6
9	☐			825.74	0.0002	P	2.6

$$y = 1.6603\text{E-}004 * x + 9.8022\text{E-}005$$

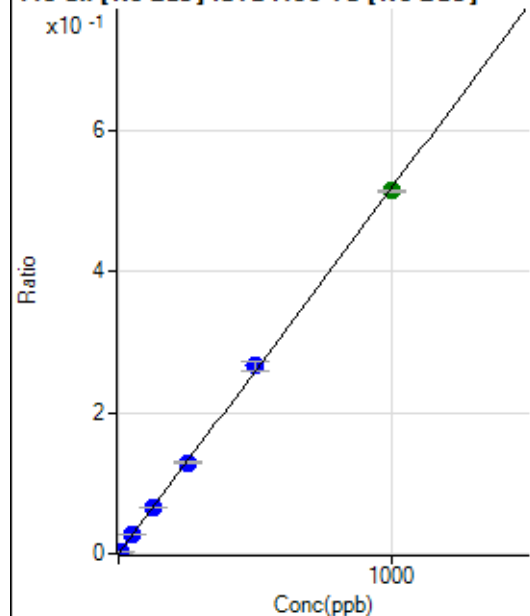
$$R = 0.9998$$

$$DL = 0.1513$$

$$BEC = 0.5904$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	211.12	0.0000	P	32.0
2	☐	0.500	0.527	1427.90	0.0003	P	4.3
3	☐	5.000	5.083	12506.03	0.0027	P	2.2
4	☐	50.000	50.719	129097.74	0.0263	P	0.9
5	☐	125.000	128.003	311617.45	0.0662	P	0.5
6	☐	250.000	249.900	660624.09	0.1293	P	0.5
7	☐	500.000	513.340	1196652.64	0.2655	P	4.4
8	☐	1000.000	992.943	2420795.35	0.5135	A	0.8
9	☐			2305.81	0.0005	P	9.1

$$y = 5.1713\text{E-}004 * x + 4.5589\text{E-}005$$

$$R = 0.9999$$

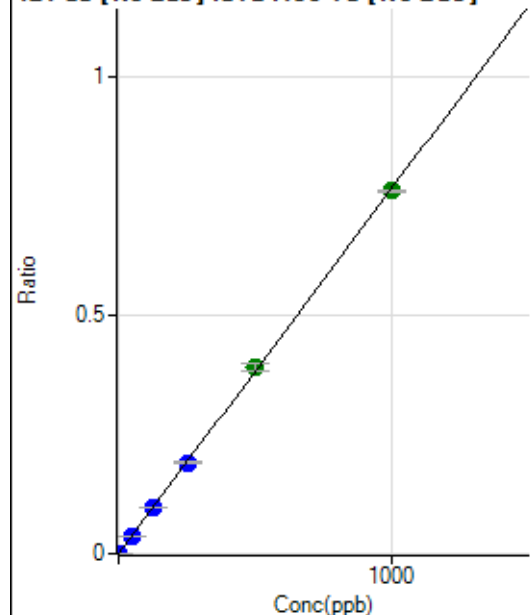
$$DL = 0.08458$$

$$BEC = 0.08816$$

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	16.67	0.0000	P	1.0
2	☐	0.200	0.189	666.70	0.0001	P	10.0
3	☐	2.000	2.047	7335.54	0.0016	P	2.3
4	☐	50.000	49.779	187039.77	0.0381	P	0.6
5	☐	125.000	127.621	459051.91	0.0976	P	0.6
6	☐	250.000	249.413	974407.28	0.1907	P	0.8
7	☐	500.000	511.313	1761824.34	0.3909	A	4.7
8	☐	1000.000	994.174	3583410.71	0.7601	A	0.6
9	☐			2733.70	0.0006	P	0.5

$$y = 7.6459\text{E-}004 * x + 3.6077\text{E-}006$$

$$R = 0.9999$$

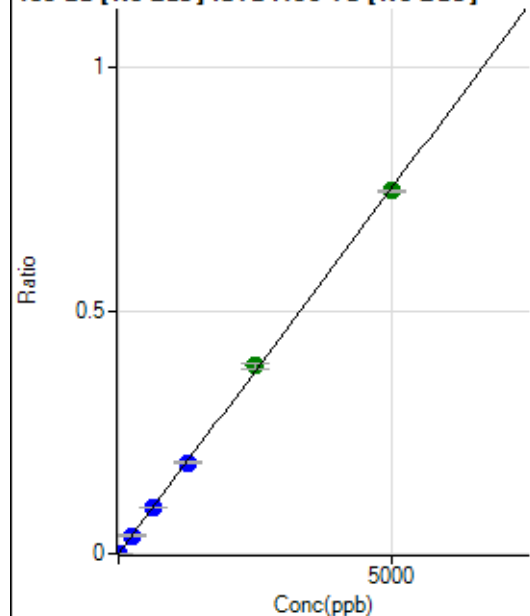
$$DL = 0.0001422$$

$$BEC = 0.004718$$

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	30.56	0.0000	P	32.1
2	☐	1.000	1.093	763.94	0.0002	P	18.2
3	☐	10.000	10.345	7302.15	0.0016	P	2.2
4	☐	250.000	248.111	183168.57	0.0373	P	1.7
5	☐	625.000	633.826	448032.85	0.0952	P	0.8
6	☐	1250.000	1246.302	956764.08	0.1873	P	1.0
7	☐	2500.000	2568.002	1739439.66	0.3858	A	3.5
8	☐	5000.000	4965.914	3517326.60	0.7461	A	0.5
9	☐			6860.24	0.0015	P	5.7

$$y = 1.5025\text{E-}004 * x + 6.6201\text{E-}006$$

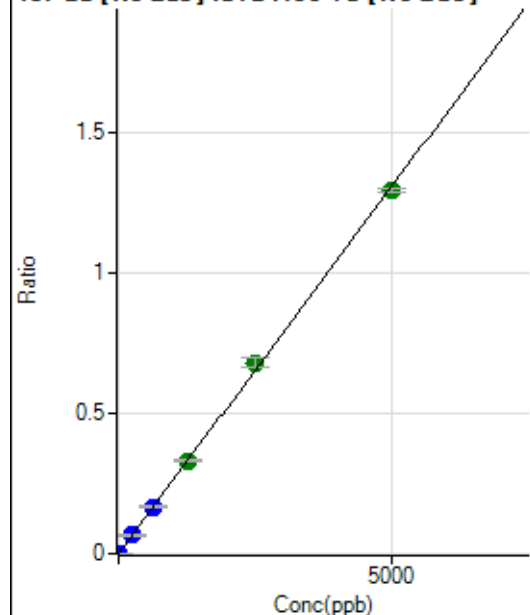
$$R = 0.9999$$

$$DL = 0.0424$$

$$BEC = 0.04406$$

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	27.78	0.0000	P	95.5
2	☐	1.000	1.071	1283.43	0.0003	P	6.0
3	☐	10.000	10.322	12656.26	0.0027	P	4.0
4	☐	250.000	250.032	321269.12	0.0654	P	1.1
5	☐	625.000	640.766	788282.35	0.1676	P	0.6
6	☐	1250.000	1262.923	1687049.37	0.3303	A	1.6
7	☐	2500.000	2602.994	3067829.13	0.6807	A	4.4
8	☐	5000.000	4943.299	6093582.43	1.2927	A	1.1
9	☐			11913.87	0.0026	P	1.9

$$y = 2.6150E-004 * x + 5.9731E-006$$

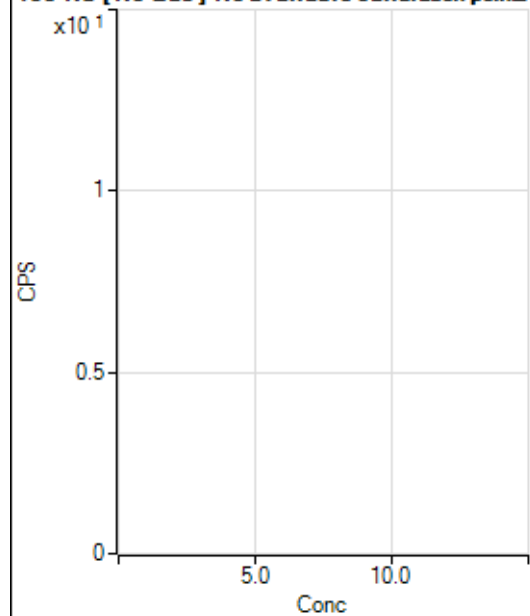
$$R = 0.9997$$

$$DL = 0.06546$$

$$BEC = 0.02284$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	0.0
2	☐			4.44		P	173.2
3	☐			6.67		P	173.2
4	☐			4.44		P	173.2
5	☐			22.22		P	17.3
6	☐			44.44		P	17.3
7	☐			51.11		P	19.9
8	☐			97.78		P	7.9
9	☐			51.11		P	41.9

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			1.11		P	173.2
3	☐			1.11		P	173.2
4	☐			0.00		P	
5	☐			1.11		P	173.2
6	☐			2.22		P	86.6
7	☐			7.78		P	65.5
8	☐			6.67		P	50.0
9	☐			13.33		P	25.0

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐			13.89		P	69.3
3	☐			16.67		P	100.0
4	☐			11.11		P	114.6
5	☐			5.55		P	86.6
6	☐			19.44		P	65.5
7	☐			38.89		P	61.9
8	☐			97.22		P	21.6
9	☐			183.34		P	29.8

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	34.7
2	☐			2.22		P	86.6
3	☐			4.44		P	114.6
4	☐			3.33		P	0.0
5	☐			1.11		P	173.2
6	☐			13.33		P	75.0
7	☐			16.67		P	40.0
8	☐			15.56		P	32.7
9	☐			91.11		P	30.7

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	21.6
2	☐			33.33		P	25.0
3	☐			27.78		P	45.8
4	☐			36.11		P	74.2
5	☐			47.22		P	50.9
6	☐			47.22		P	27.0
7	☐			55.56		P	17.3
8	☐			86.11		P	20.1
9	☐			236.12		P	12.4

160 Gd [He] No available calibration points

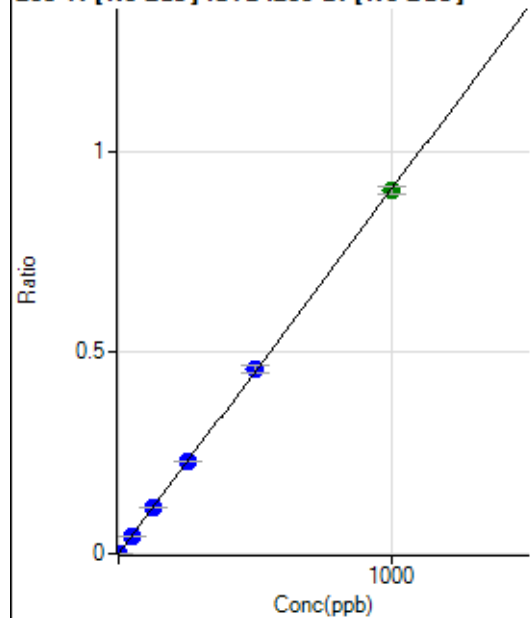
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	20.0
2	☐			12.22		P	15.7
3	☐			11.11		P	45.8
4	☐			10.00		P	88.2
5	☐			15.56		P	12.4
6	☐			12.22		P	41.7
7	☐			15.55		P	44.6
8	☐			31.11		P	22.3
9	☐			118.89		P	9.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	32.7
2	☐			19.44		P	65.5
3	☐			25.00		P	88.2
4	☐			22.22		P	21.6
5	☐			27.78		P	45.8
6	☐			22.22		P	43.3
7	☐			36.11		P	48.0
8	☐			36.11		P	26.7
9	☐			52.78		P	74.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			14.44		P	53.3
2	☐			6.66		P	86.6
3	☐			15.55		P	68.9
4	☐			3.33		P	100.1
5	☐			6.67		P	100.0
6	☐			10.00		P	33.3
7	☐			14.45		P	26.7
8	☐			11.11		P	17.3
9	☐			16.67		P	60.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	25.00	0.0000	P	66.5
2	☐	0.100	0.082	225.01	0.0001	P	20.5
3	☐	1.000	1.039	2680.92	0.0009	P	5.1
4	☐	50.000	49.100	130195.70	0.0444	P	2.0
5	☐	125.000	128.557	326565.02	0.1163	P	0.7
6	☐	250.000	251.317	692096.84	0.2274	P	0.2
7	☐	500.000	507.219	1238648.35	0.4590	P	3.5
8	☐	1000.000	995.661	2538506.02	0.9009	A	2.1
9	☐			1947.42	0.0007	P	13.5

$$y = 9.0486E-004 * x + 8.9594E-006$$

$$R = 1.0000$$

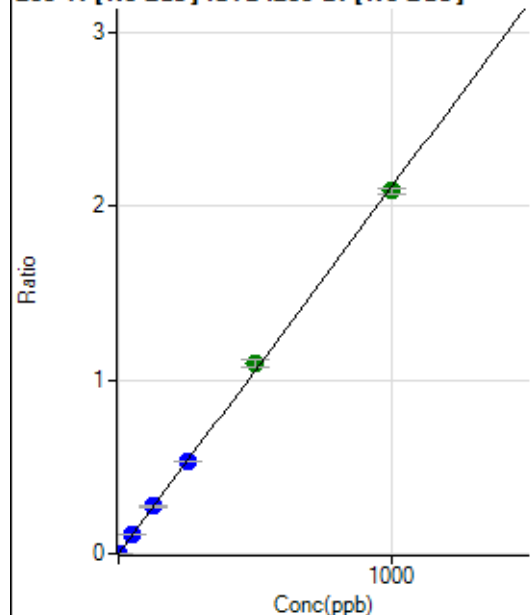
$$DL = 0.01975$$

$$BEC = 0.009901$$

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	47.22	0.0000	P	26.6
2	☐	0.100	0.096	588.92	0.0002	P	15.1
3	☐	1.000	1.010	6059.91	0.0021	P	5.3
4	☐	50.000	50.596	312592.75	0.1067	P	1.7
5	☐	125.000	129.386	765657.19	0.2728	P	1.8
6	☐	250.000	253.177	1624582.05	0.5338	P	0.8
7	☐	500.000	518.452	2949674.81	1.0931	A	3.7
8	☐	1000.000	989.402	5877344.32	2.0860	A	1.5
9	☐			4256.37	0.0016	P	15.7

$$y = 0.0021 * x + 1.6911E-005$$

$$R = 0.9997$$

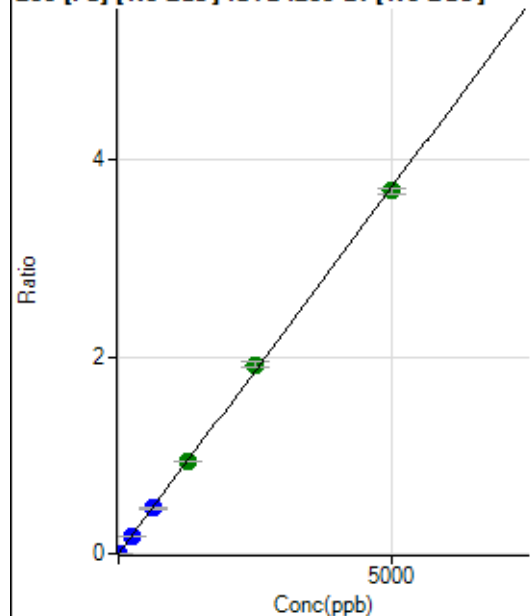
$$DL = 0.006397$$

$$BEC = 0.008021$$

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	311.12	0.0001	P	4.9
2	☐	0.100	0.109	520.39	0.0002	P	7.6
3	☐	1.000	0.945	2302.09	0.0008	P	3.5
4	☐	250.000	243.249	530701.76	0.1811	P	1.3
5	☐	625.000	621.177	1297560.73	0.4623	P	1.8
6	☐	1250.000	1264.984	2864768.84	0.9414	A	1.2
7	☐	2500.000	2583.312	5187727.08	1.9223	A	3.5
8	☐	5000.000	4955.414	10388927.78	3.6873	A	1.7
9	☐			11447.81	0.0044	P	1.2

$$y = 7.4408E-004 * x + 1.1149E-004$$

$$R = 0.9998$$

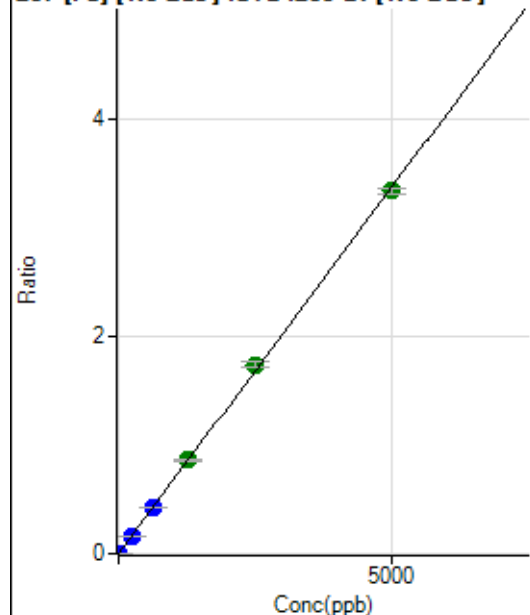
$$DL = 0.02222$$

$$BEC = 0.1498$$

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	287.05	0.0001	P	22.9
2	☐	0.100	0.107	472.24	0.0002	P	6.1
3	☐	1.000	0.937	2070.57	0.0007	P	2.2
4	☐	250.000	242.121	477526.06	0.1630	P	1.2
5	☐	625.000	619.765	1170423.72	0.4170	P	0.8
6	☐	1250.000	1277.014	2614466.84	0.8590	A	0.7
7	☐	2500.000	2578.313	4680944.90	1.7343	A	3.2
8	☐	5000.000	4955.138	9391161.90	3.3330	A	1.3
9	☐			9811.29	0.0037	P	4.0

$$y = 6.7261\text{E-}004 * x + 1.0282\text{E-}004$$

$$R = 0.9998$$

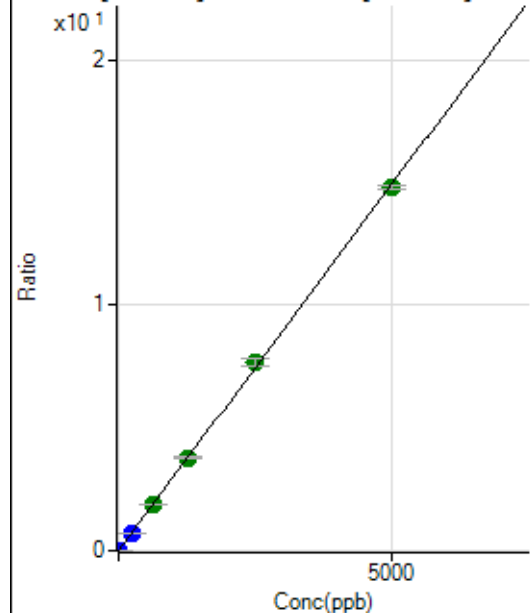
$$DL = 0.105$$

$$BEC = 0.1529$$

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	1253.75	0.0004	P	7.5
2	☐	0.100	0.102	2033.43	0.0008	P	3.1
3	☐	1.000	0.974	9466.36	0.0034	P	1.9
4	☐	250.000	245.851	2148647.71	0.7332	P	1.2
5	☐	625.000	637.045	5330658.45	1.8992	A	1.3
6	☐	1250.000	1272.657	11545651.50	3.7936	A	0.8
7	☐	2500.000	2575.461	20718720.72	7.6767	A	3.3
8	☐	5000.000	4955.307	41617017.72	14.7699	A	1.2
9	☐			45801.19	0.0175	P	2.5

$$y = 0.0030 * x + 4.4923\text{E-}004$$

$$R = 0.9998$$

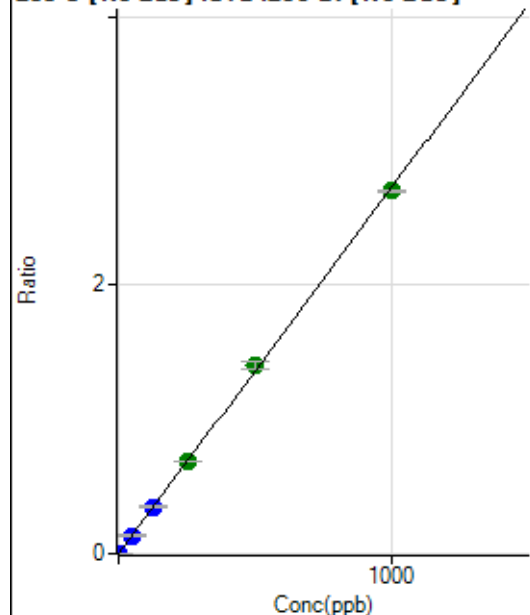
$$DL = 0.03401$$

$$BEC = 0.1507$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	11.11	0.0000	P	173.2
2	☐	0.100	0.102	763.94	0.0003	P	15.8
3	☐	1.000	0.958	7388.51	0.0026	P	3.5
4	☐	50.000	49.888	398810.38	0.1361	P	1.9
5	☐	125.000	127.871	979123.59	0.3488	P	1.4
6	☐	250.000	250.595	2080673.79	0.6836	A	0.8
7	☐	500.000	516.421	3801620.53	1.4088	A	3.9
8	☐	1000.000	991.287	7620089.15	2.7043	A	0.8
9	☐			936.18	0.0004	P	16.2

$$y = 0.0027 * x + 3.9714E-006$$

$$R = 0.9998$$

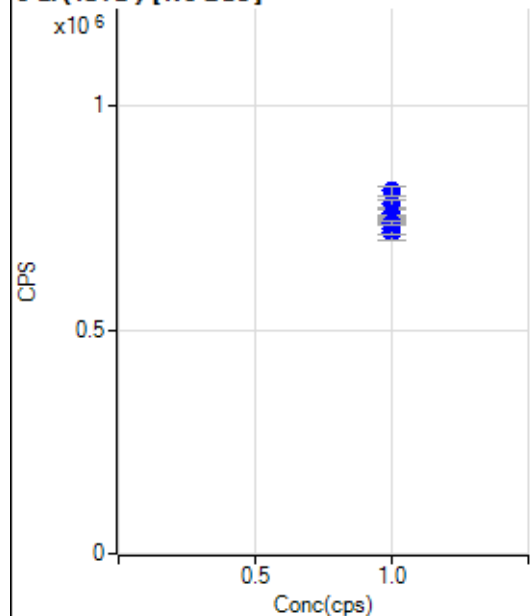
$$DL = 0.007565$$

$$BEC = 0.001456$$

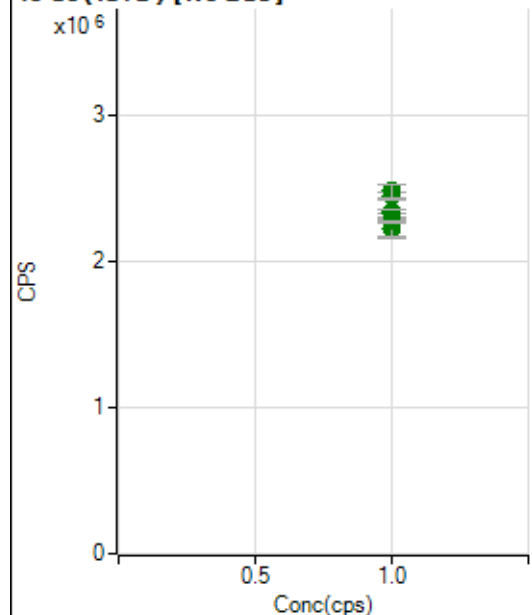
Weight: <None>

Min Conc: 0

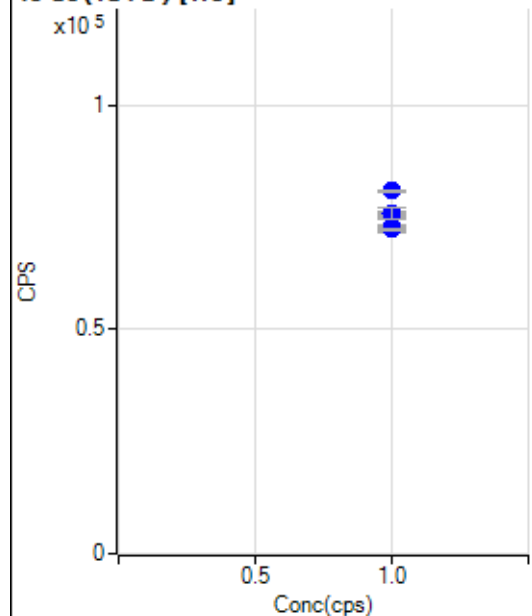
6 Li (ISTD) [No Gas]



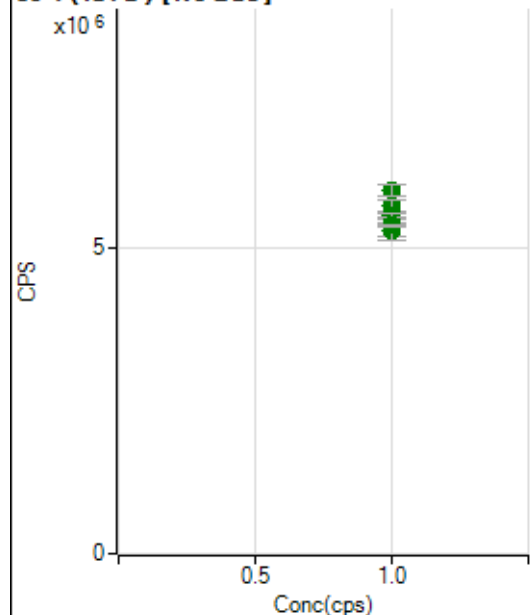
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		737941.88		P	0.2
2	☐	1.000		718150.25		P	4.6
3	☐	1.000		748301.47		P	0.5
4	☐	1.000		779836.38		P	2.3
5	☐	1.000		758649.11		P	2.2
6	☐	1.000		809968.38		P	2.7
7	☐	1.000		726824.20		P	3.7
8	☐	1.000		753826.56		P	0.3
9	☐	1.000		738278.49		P	0.7

45 Sc (ISTD) [No Gas]

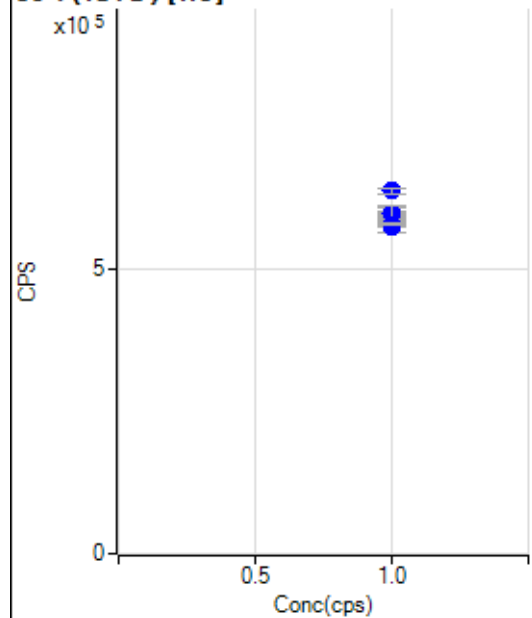
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2279289.88		A	0.7
2	☐	1.000		2228213.35		A	6.3
3	☐	1.000		2343564.41		A	0.9
4	☐	1.000		2449153.21		A	1.9
5	☐	1.000		2333515.47		A	1.9
6	☐	1.000		2487172.72		A	4.0
7	☐	1.000		2225896.16		A	4.2
8	☐	1.000		2288854.69		A	0.2
9	☐	1.000		2277306.42		A	0.3

45 Sc (ISTD) [He]

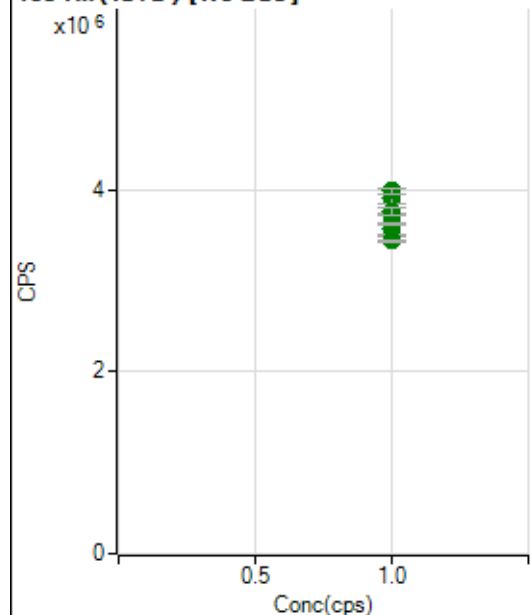
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		72922.13		P	4.0
2	☐	1.000		75910.29		P	1.5
3	☐	1.000		76026.40		P	2.5
4	☐	1.000		75627.63		P	0.4
5	☐	1.000		76065.37		P	0.6
6	☐	1.000		80871.38		P	0.4
7	☐	1.000		73007.40		P	0.4
8	☐	1.000		75972.93		P	3.7
9	☐	1.000		72270.49		P	0.9

89 Y (ISTD) [No Gas]

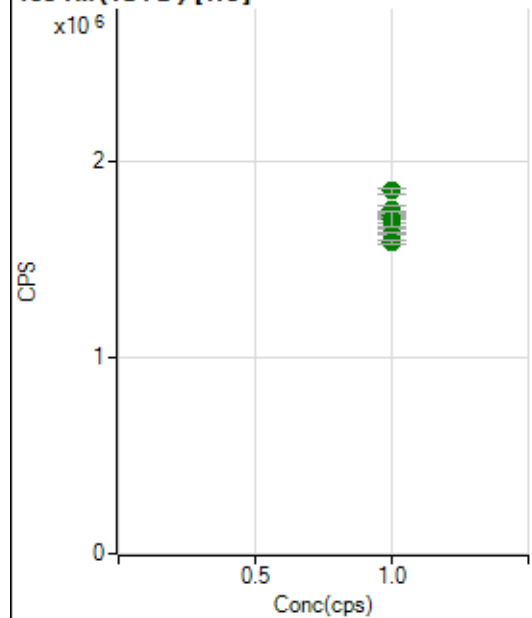
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5397130.68		A	0.4
2	☐	1.000		5308293.05		A	4.3
3	☐	1.000		5482708.25		A	0.2
4	☐	1.000		5708909.50		A	3.3
5	☐	1.000		5551847.62		A	1.0
6	☐	1.000		5946014.70		A	3.2
7	☐	1.000		5284134.30		A	5.3
8	☐	1.000		5560527.00		A	1.1
9	☐	1.000		5380796.65		A	0.4

89 Y (ISTD) [He]

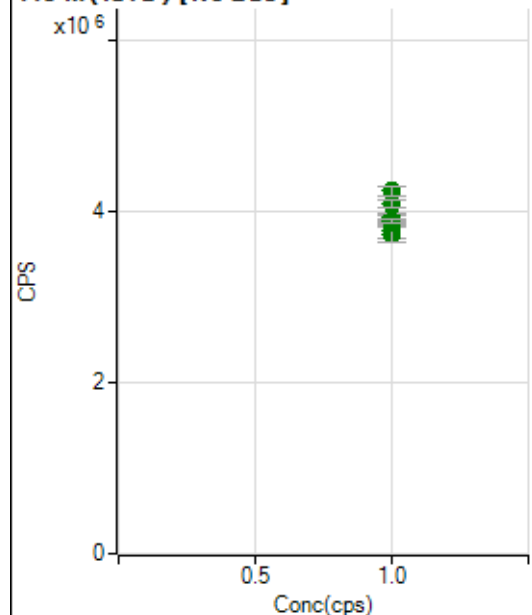
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		574884.63		P	3.6
2	☐	1.000		594147.37		P	1.9
3	☐	1.000		599368.86		P	2.9
4	☐	1.000		589649.51		P	0.6
5	☐	1.000		597392.37		P	0.6
6	☐	1.000		637184.42		P	1.4
7	☐	1.000		575595.96		P	1.0
8	☐	1.000		596953.57		P	4.3
9	☐	1.000		578433.66		P	0.8

103 Rh (ISTD) [No Gas]

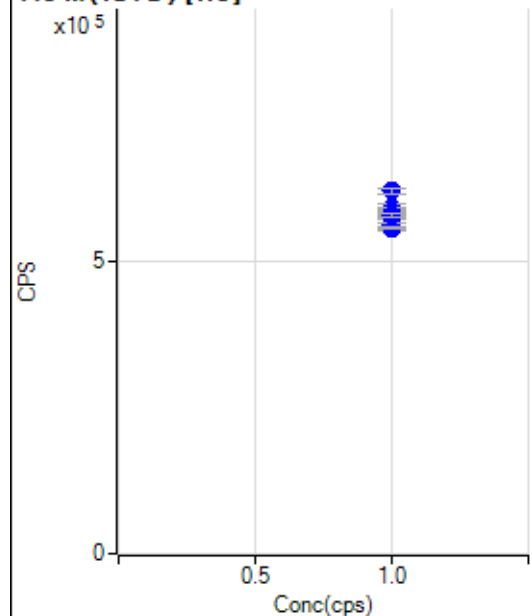
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3726064.49		A	0.6
2	☐	1.000		3616830.38		A	5.9
3	☐	1.000		3741622.05		A	0.3
4	☐	1.000		3901619.44		A	2.7
5	☐	1.000		3767397.39		A	2.3
6	☐	1.000		3983766.10		A	1.8
7	☐	1.000		3562564.19		A	4.4
8	☐	1.000		3620259.02		A	0.2
9	☐	1.000		3432181.68		A	0.6

103 Rh (ISTD) [He]

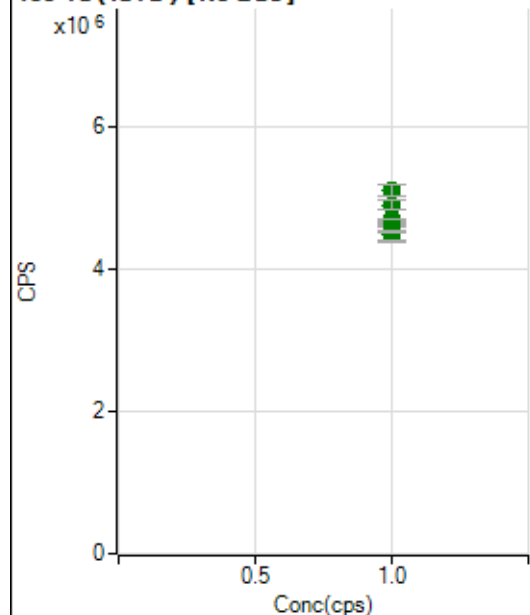
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1673590.58		A	2.1
2	☐	1.000		1726394.10		A	2.4
3	☐	1.000		1754602.01		A	2.7
4	☐	1.000		1713678.38		A	1.1
5	☐	1.000		1728829.49		A	1.6
6	☐	1.000		1852951.03		A	1.2
7	☐	1.000		1633159.59		A	0.6
8	☐	1.000		1706396.83		A	4.5
9	☐	1.000		1592402.46		A	1.1

115 In (ISTD) [No Gas]

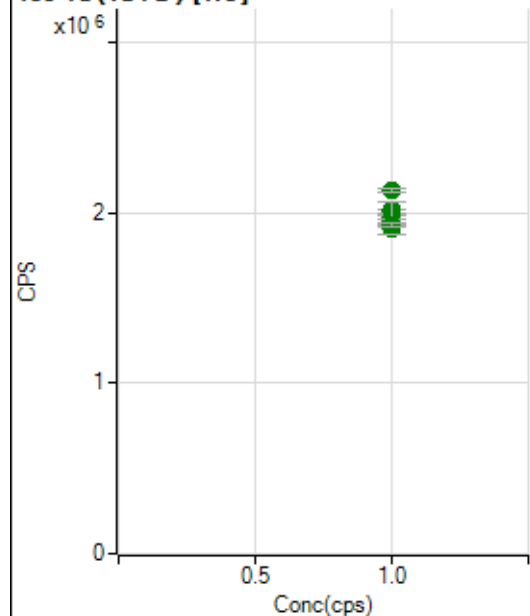
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3899855.64		A	0.2
2	☐	1.000		3767272.37		A	4.4
3	☐	1.000		3935206.33		A	0.7
4	☐	1.000		4095413.12		A	1.9
5	☐	1.000		3942872.66		A	1.3
6	☐	1.000		4240114.20		A	2.6
7	☐	1.000		3729521.01		A	4.3
8	☐	1.000		3875758.28		A	0.7
9	☐	1.000		3893650.19		A	1.2

115 In (ISTD) [He]

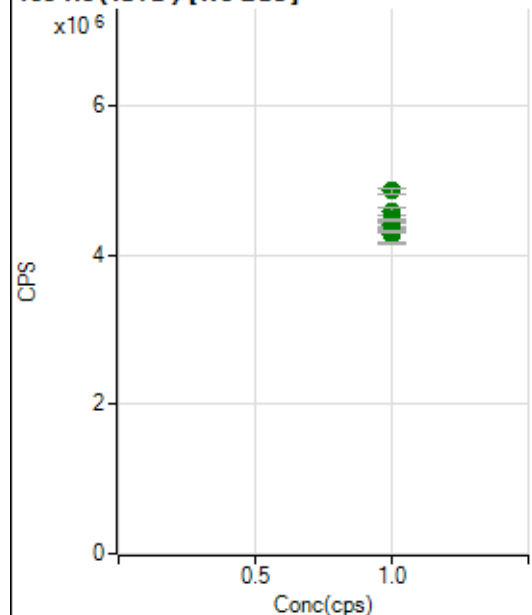
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		560533.69		P	3.8
2	☐	1.000		583031.89		P	1.8
3	☐	1.000		588734.50		P	3.0
4	☐	1.000		574554.65		P	0.8
5	☐	1.000		583723.05		P	0.3
6	☐	1.000		618706.87		P	1.7
7	☐	1.000		555551.30		P	0.5
8	☐	1.000		576734.90		P	4.3
9	☐	1.000		576131.10		P	1.1

159 Tb (ISTD) [No Gas]

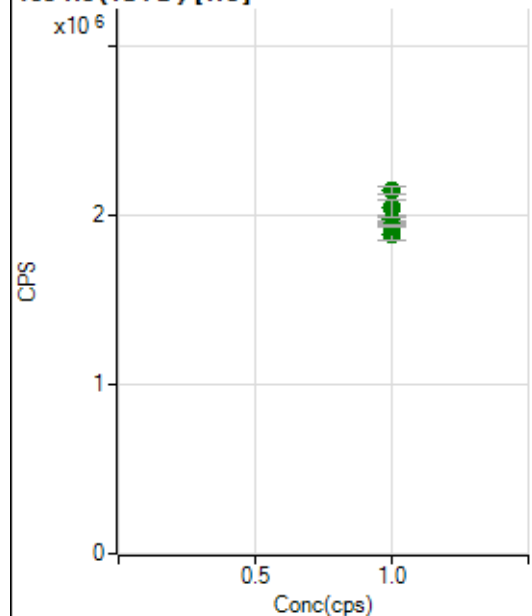
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4621015.28		A	1.0
2	☐	1.000		4498242.26		A	5.5
3	☐	1.000		4677276.22		A	0.9
4	☐	1.000		4914157.46		A	2.8
5	☐	1.000		4704344.79		A	0.5
6	☐	1.000		5110008.57		A	3.2
7	☐	1.000		4512508.82		A	4.2
8	☐	1.000		4714138.61		A	0.5
9	☐	1.000		4542549.20		A	0.8

159 Tb (ISTD) [He]

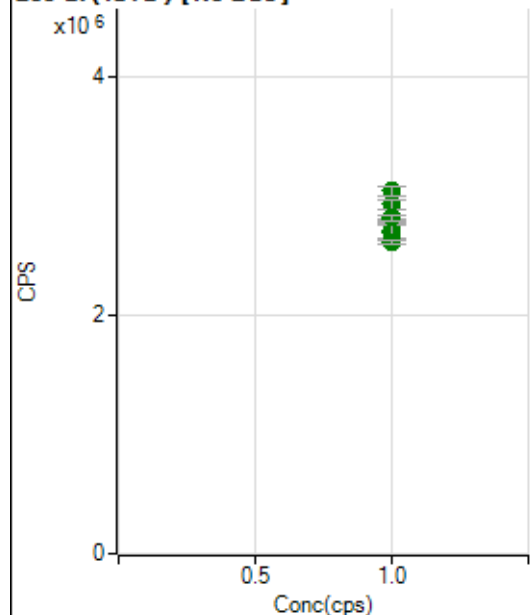
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1902950.87		A	3.4
2	☐	1.000		1970517.28		A	1.2
3	☐	1.000		1988084.16		A	0.5
4	☐	1.000		1948618.77		A	1.2
5	☐	1.000		2007073.60		A	0.9
6	☐	1.000		2128969.81		A	1.0
7	☐	1.000		1940281.91		A	1.9
8	☐	1.000		2017621.15		A	4.9
9	☐	1.000		1927150.80		A	1.1

165 Ho (ISTD) [No Gas]

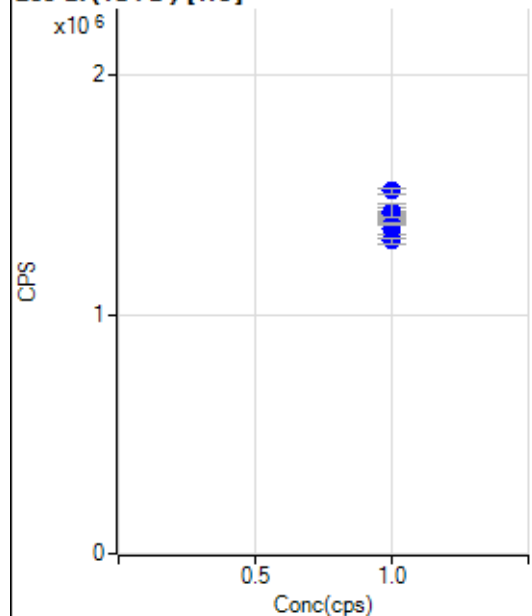
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4419046.84		A	1.1
2	☐	1.000		4266539.55		A	5.2
3	☐	1.000		4440752.40		A	0.9
4	☐	1.000		4592960.52		A	2.2
5	☐	1.000		4472718.80		A	1.1
6	☐	1.000		4863670.77		A	1.7
7	☐	1.000		4270732.95		A	4.0
8	☐	1.000		4475343.55		A	0.6
9	☐	1.000		4317525.88		A	0.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1890666.60		A	3.8
2	☐	1.000		1973565.79		A	2.6
3	☐	1.000		1973622.56		A	3.0
4	☐	1.000		1955899.69		A	0.8
5	☐	1.000		1963547.52		A	0.5
6	☐	1.000		2143927.55		A	2.0
7	☐	1.000		1935269.81		A	0.1
8	☐	1.000		2041083.20		A	5.0
9	☐	1.000		1935887.00		A	0.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2790199.40		A	0.5
2	☐	1.000		2705949.86		A	4.9
3	☐	1.000		2824065.34		A	0.9
4	☐	1.000		2930848.26		A	2.9
5	☐	1.000		2807295.37		A	2.0
6	☐	1.000		3043201.48		A	2.3
7	☐	1.000		2701195.85		A	4.0
8	☐	1.000		2818036.97		A	1.8
9	☐	1.000		2619282.91		A	1.1

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1363425.79		P	3.9
2	☐	1.000		1415574.68		P	1.4
3	☐	1.000		1425989.11		P	2.7
4	☐	1.000		1406160.50		P	0.8
5	☐	1.000		1421508.59		P	1.2
6	☐	1.000		1517878.68		P	1.4
7	☐	1.000		1379202.78		P	0.6
8	☐	1.000		1433702.36		P	4.1
9	☐	1.000		1308276.78		P	1.7

US EPA Tune Check Report

Operator Name Jaswal
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\P8040920MS.b
Acq. Date-Time 2020-04-09 14:15:41
Report Comment ---
Instrument Name G8403A SG19224459

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		3786	37864.91			1.155	5.000
24		49481	494810.17			1.252	5.000
25		6834	68336.52			1.102	5.000
26		8005	80052.17			0.906	5.000
59		30866	308660.97			1.058	5.000
113		5461	54613.11			1.426	5.000
115		16922	169220.98			1.954	5.000
206		6926	69261.83			1.219	5.000
207		5790	57902.13			1.158	5.000
208		14272	142721.65			1.224	5.000
220		0	4.10			45.138	

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
113	
115	
206	
207	
208	
220	

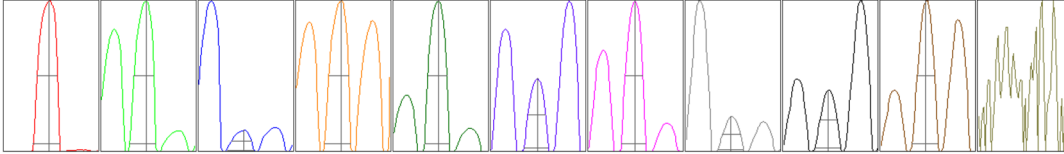
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	3803	3716	3832	3777	3804
24	49610	48497	50015	49315	49969
25	6875	6728	6829	6807	6929
26	8101	7905	8019	7974	8028
59	31139	30330	30956	30807	31097
113	5526	5338	5489	5435	5519
115	17458	16794	16877	16558	16923
206	6962	6791	6954	6909	7015
207	5785	5712	5827	5745	5882
208	14262	14076	14219	14248	14555

US EPA Tune Check Report

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
220	0	0	1	0	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	6124.73	8.95	8.90 - 9.10	
24	84041.38	23.95	23.90 - 24.10	
25	11308.67	24.95	24.90 - 25.10	
26	13166.35	25.95	25.90 - 26.10	
59	53219.93	58.95	58.90 - 59.10	
113	10294.33	113.00	112.90 - 113.10	
115	31745.32	115.00	114.90 - 115.10	
206	12881.29	205.95	205.90 - 206.10	
207	10828.78	206.95	206.90 - 207.10	
208	26752.39	207.95	207.90 - 208.10	
220			-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.65	0.828	0.900	
24	0.64	0.823	0.900	
25	0.64	0.863	0.900	
26	0.65	0.825	0.900	
59	0.61	0.785	0.900	
113	0.55	0.774	0.900	
115	0.55	0.776	0.900	
206	0.56	0.812	0.900	
207	0.54	0.819	0.900	
208	0.54	0.823	0.900	
220				

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode HMI Nebulizer Gas 0.51 L/min Dilution Gas 0.46 L/min

US EPA Tune Check Report

RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	10.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	11.5 V	Deflect	14.0 V
Extract 2	-245.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-110 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	4.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	122	Axis Gain	0.9992	QP Bias	-4.0 V
Mass Offset	123	Axis Offset	-0.03		

Hardware Settings

Torch

Torch H	0.4 mm	Torch V	0.0 mm
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EM

Discriminator	3.9 mV	Analog HV	2167 V	Pulse HV	1179 V
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[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		7322	73216.27			0.368	
89		17004	170037.32			0.308	
205		16118	161183.20			0.822	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	7289	7298	7330	7340	7351
89	16926	16999	17006	17073	17015
205	16005	16193	16314	16018	16061

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	HMI	Nebulizer Gas	0.51 L/min	Dilution Gas	0.46 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	10.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	11.5 V	Deflect	3.8 V
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US EPA Tune Check Report

Extract 2	-245.0 V	Cell Entrance	-50 V	Plate Bias	-60 V
Omega Bias	-110 V	Cell Exit	-70 V		
Cell Parameters					
Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	4.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		
QP Parameters					
Mass Gain	122	Axis Gain	0.9992	QP Bias	-13.0 V
Mass Offset	123	Axis Offset	-0.03		
Hardware Settings					
Torch					
Torch H	0.4 mm	Torch V	0.0 mm		
EM					
Discriminator	3.9 mV	Analog HV	2167 V	Pulse HV	1179 V