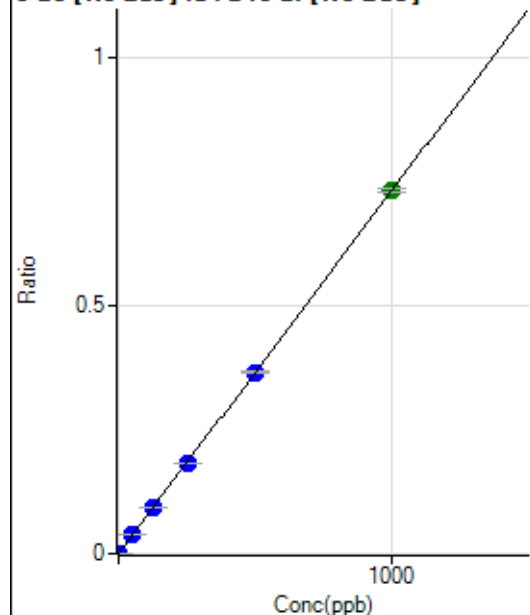


Batch Folder: D:\P8043018- MS .b\
Analysis File: P8043018- MS .batch.bin
DA Date-Time: 2018-05-01 19:13:10
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB P8043018- MS.D	S00	2018-04-30 12:41:16
2	004CALS P8043018- MS.D	S01	2018-04-30 12:44:36
3	005CALS P8043018- MS.D	S02	2018-04-30 12:48:55
4	006CALS P8043018- MS.D	S03	2018-04-30 12:52:36
5	007CALS P8043018- MS.D	S04	2018-04-30 12:56:16
6	008CALS P8043018- MS.D	S05	2018-04-30 12:59:51
7	009CALS P8043018- MS.D	S06	2018-04-30 13:03:19
8	010CALS P8043018- MS.D	S07	2018-04-30 13:06:43
9	011CALS P8043018- MS.D	S08	2018-04-30 13:10:00

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64.82	0.0000	P	23.8
2	☐	0.100	0.094	207.42	0.0001	P	20.7
3	☐	1.000	0.942	1585.32	0.0007	P	5.7
4	☐	50.000	51.366	83472.37	0.0376	P	1.1
5	☐	125.000	126.774	207262.81	0.0927	P	1.8
6	☐	250.000	249.874	408772.78	0.1826	P	0.1
7	☐	500.000	498.887	809694.75	0.3646	P	0.9
8	☐	1000.000	1000.298	1593103.12	0.7309	A	0.9
9	☐			262.98	0.0001	P	29.3

$$y = 7.3068\text{E-}004 * x + 3.0118\text{E-}005$$

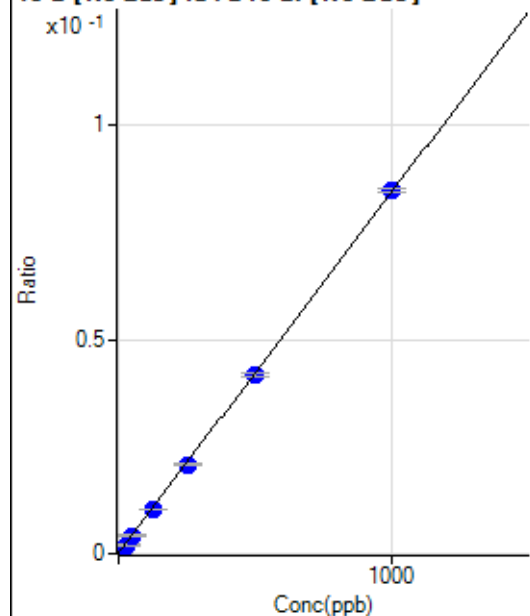
$$R = 1.0000$$

$$DL = 0.02949$$

$$BEC = 0.04122$$

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	194.46	0.0001	P	3.6
2	☐	2.500	2.735	675.05	0.0003	P	16.4
3	☐	25.000	22.736	4428.65	0.0020	P	4.6
4	☐	50.000	49.157	9411.81	0.0042	P	2.1
5	☐	125.000	121.903	23191.67	0.0104	P	0.8
6	☐	250.000	244.695	46384.28	0.0207	P	1.6
7	☐	500.000	495.715	93017.45	0.0419	P	2.4
8	☐	1000.000	1003.954	184681.92	0.0847	P	1.1
9	☐			7160.41	0.0034	P	10.7

$$y = 8.4306\text{E-}005 * x + 9.0490\text{E-}005$$

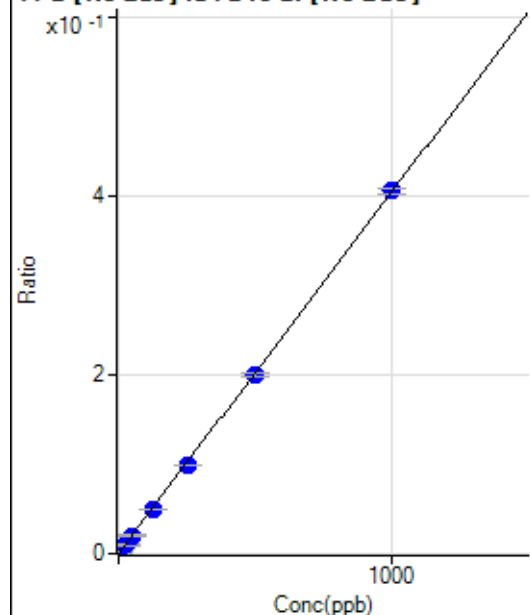
$$R = 1.0000$$

$$DL = 0.1148$$

$$BEC = 1.073$$

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	741.72	0.0003	P	5.4
2	☐	2.500	2.370	2739.26	0.0013	P	5.9
3	☐	25.000	23.442	21597.57	0.0098	P	3.4
4	☐	50.000	49.370	44960.50	0.0202	P	2.7
5	☐	125.000	121.964	110699.68	0.0495	P	2.1
6	☐	250.000	244.852	221573.29	0.0990	P	1.0
7	☐	500.000	494.376	443091.00	0.1995	P	2.0
8	☐	1000.000	1004.549	882808.81	0.4050	P	1.5
9	☐			34821.19	0.0164	P	9.5

$$y = 4.0285E-004 * x + 3.4514E-004$$

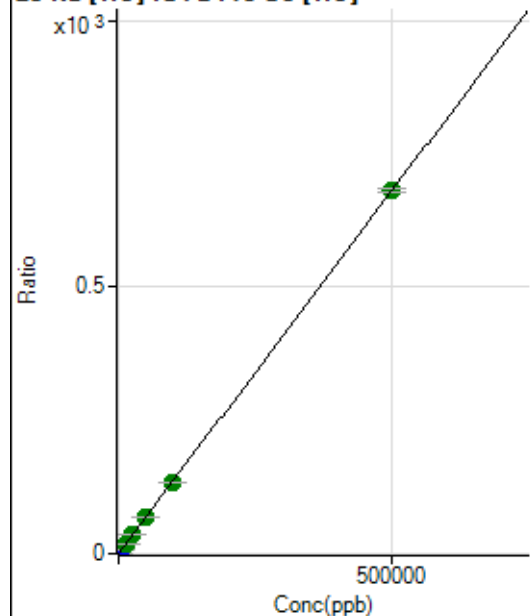
$$R = 1.0000$$

$$DL = 0.1382$$

$$BEC = 0.8568$$

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	9662.02	0.1180	P	1.8
2	☐	50.000	44.676	14975.20	0.1787	P	3.3
3	☐	500.000	490.406	64159.09	0.7844	P	2.1
4	☐	5000.000	5130.588	587081.51	7.0893	P	0.6
5	☐	12500.000	12934.878	1476528.59	17.6936	A	1.7
6	☐	25000.000	26213.076	2897092.25	35.7357	A	4.9
7	☐	50000.000	49435.605	5586623.43	67.2899	A	0.5
8	☐	100000.00	97174.604	11008702.16	132.1565	A	0.6
9	☐	500000.00	500548.69	57266957.53	680.2515	A	0.9

$$y = 0.0014 * x + 0.1180$$

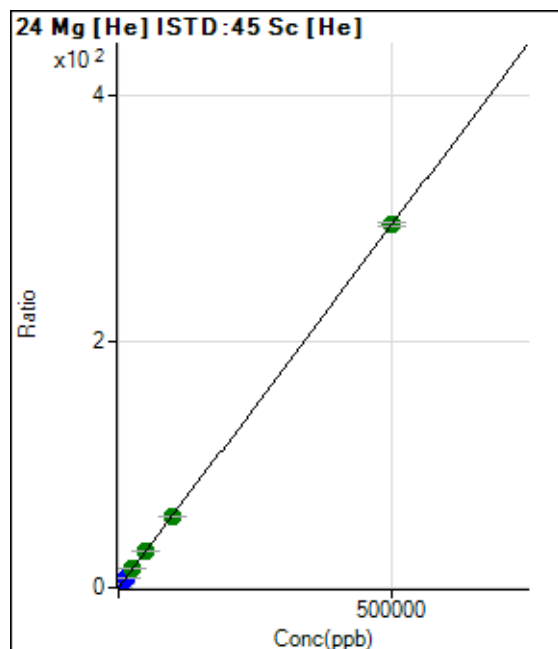
$$R = 1.0000$$

$$DL = 4.621$$

$$BEC = 86.86$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133.34	0.0016	P	24.4
2	☐	50.000	47.894	2500.36	0.0298	P	3.3
3	☐	500.000	496.077	24029.45	0.2939	P	5.5
4	☐	5000.000	5175.232	252603.75	3.0503	P	0.4
5	☐	12500.000	12762.025	627508.16	7.5196	P	1.1
6	☐	25000.000	26768.638	1278015.08	15.7707	A	6.0
7	☐	50000.000	50526.207	2471283.67	29.7661	A	0.4
8	☐	100000.00	98540.313	4835564.26	58.0506	A	0.8
9	☐	500000.00	500142.58	24803070.69	294.6300	A	1.1

$$y = 5.8909\text{E-}004 * x + 0.0016$$

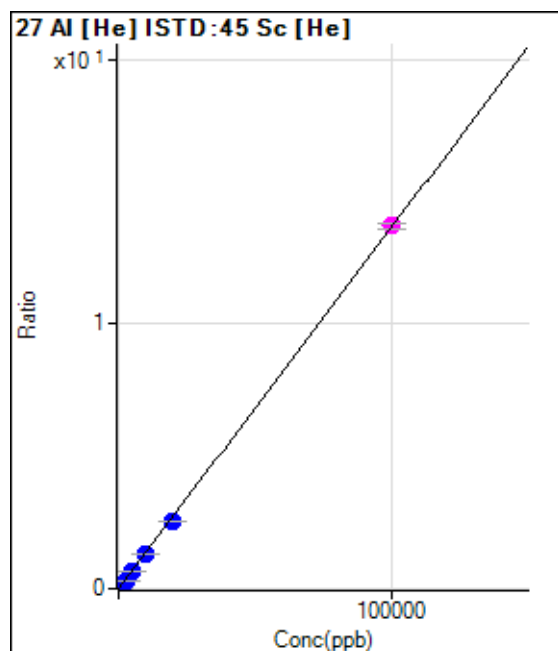
$$R = 1.0000$$

$$DL = 2.021$$

$$BEC = 2.762$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0003	P	32.6
2	☐	2.000	2.372	52.78	0.0006	P	48.1
3	☐	20.000	18.073	227.79	0.0028	P	25.6
4	☐	1000.000	926.618	10512.68	0.1269	P	1.1
5	☐	2500.000	2375.197	27115.62	0.3249	P	0.8
6	☐	5000.000	4879.871	54081.72	0.6672	P	5.4
7	☐	10000.000	9362.564	106259.87	1.2799	P	0.3
8	☐	20000.000	18487.893	210501.49	2.5270	P	0.4
9	☐	100000.00	100376.02	1154866.23	13.7186	M	1.6

$$y = 1.3667\text{E-}004 * x + 3.0486\text{E-}004$$

$$R = 0.9999$$

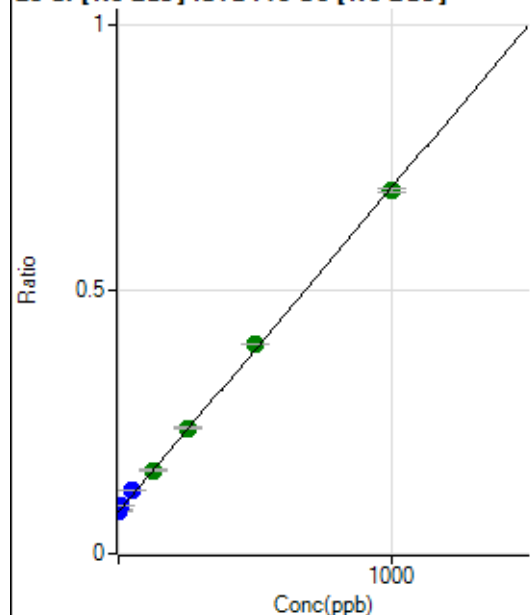
$$DL = 2.18$$

$$BEC = 2.231$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	548756.43	0.0795	P	1.1
2	☐	1.000	5.912	559750.90	0.0832	P	3.5
3	☐	10.000	16.357	630548.68	0.0896	P	0.5
4	☐	50.000	66.292	851291.77	0.1202	P	0.1
5	☐	125.000	128.317	1133872.70	0.1582	A	1.1
6	☐	250.000	256.961	1706890.86	0.2372	A	1.2
7	☐	500.000	514.652	2853922.81	0.3952	A	0.2
8	☐	1000.000	989.636	4943321.77	0.6866	A	0.9
9	☐			605397.95	0.0850	P	1.2

$$y = 6.1342\text{E-}004 * x + 0.0795$$

$$R = 0.9998$$

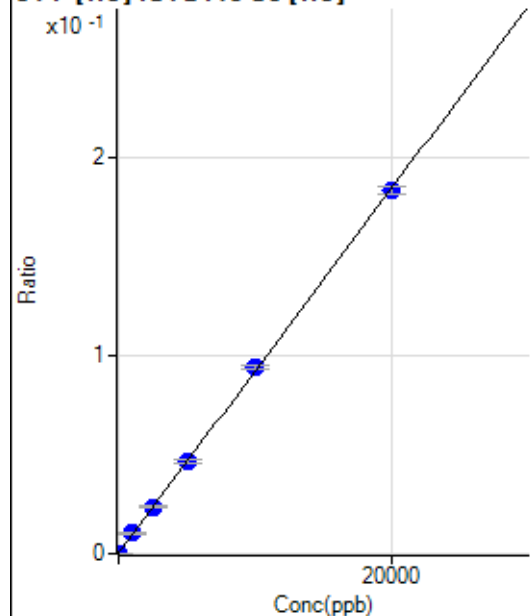
$$DL = 4.097$$

$$BEC = 129.6$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-2.429	13.89	0.0002	P	124.5
2	☐	0.000	-9.907	8.33	0.0001	P	99.8
3	☐	0.000	12.336	25.00	0.0003	P	56.4
4	☐	1000.000	1088.655	844.50	0.0102	P	4.6
5	☐	2500.000	2557.764	1978.01	0.0237	P	2.4
6	☐	5000.000	4997.071	3742.31	0.0461	P	3.9
7	☐	10000.000	10240.983	7833.06	0.0943	P	1.9
8	☐	20000.000	19868.588	15231.02	0.1829	P	2.3
9	☐			30.56	0.0004	P	42.0

$$y = 9.1934\text{E-}006 * x + 1.9085\text{E-}004$$

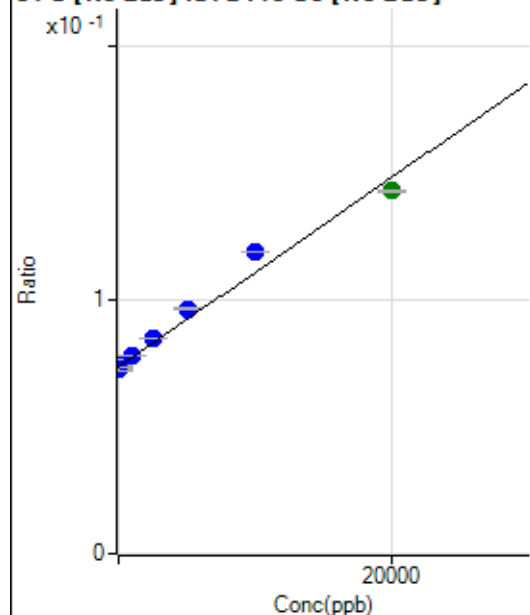
$$R = 0.9999$$

$$DL = 52.3$$

$$BEC = 20.76$$

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	-269.121	500834.29	0.0726	P	0.6
2	☐	0.000	467.309	507043.38	0.0753	P	3.7
3	☐	0.000	-198.189	512829.29	0.0728	P	1.7
4	☐	1000.000	1202.893	552962.92	0.0781	P	0.7
5	☐	2500.000	2980.758	606990.44	0.0847	P	0.1
6	☐	5000.000	6118.540	693970.26	0.0964	P	0.5
7	☐	10000.000	12146.342	858663.17	0.1189	P	0.3
8	☐	20000.000	18576.955	1028919.64	0.1429	A	0.8
9	☐			460695.48	0.0647	P	1.2

$$y = 3.7318\text{E-}006 * x + 0.0736$$

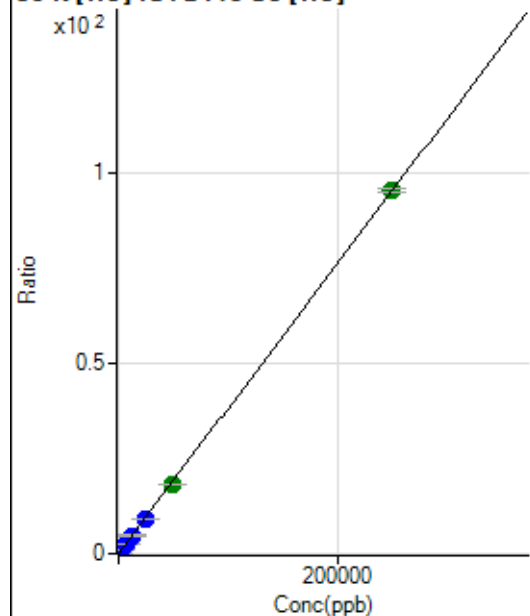
$$R = 0.9889$$

$$DL = 1207$$

$$BEC = 1.972\text{E}+04$$

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	4350.90	0.0532	P	4.8
2	☐	50.000	36.647	5620.83	0.0671	P	6.5
3	☐	500.000	469.349	18955.21	0.2318	P	3.2
4	☐	2500.000	2419.869	80672.87	0.9742	P	0.3
5	☐	6250.000	5995.518	194850.27	2.3351	P	1.8
6	☐	12500.000	12293.632	383539.89	4.7321	P	5.5
7	☐	25000.000	23501.858	747055.78	8.9980	P	0.4
8	☐	50000.000	47969.415	1525249.45	18.3104	A	0.7
9	☐	250000.00	250573.47	8033034.12	95.4220	A	1.1

$$y = 3.8060\text{E-}004 * x + 0.0532$$

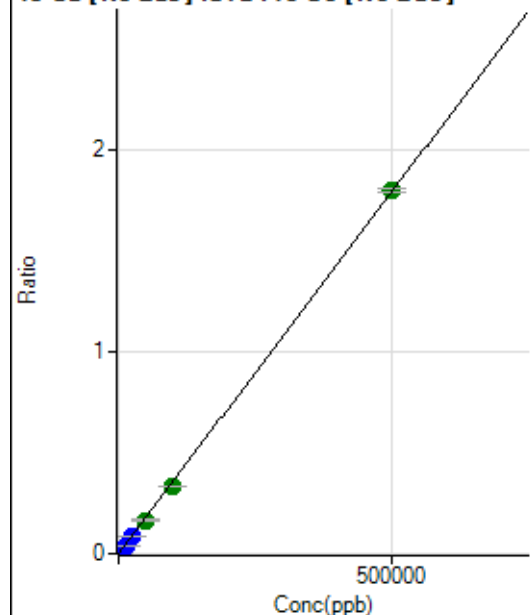
$$R = 1.0000$$

$$DL = 20.1$$

$$BEC = 139.7$$

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	1194.56	0.0002	P	17.1
2	☐	50.000	46.831	2294.73	0.0003	P	5.9
3	☐	500.000	454.828	12706.32	0.0018	P	3.8
4	☐	5000.000	4688.267	120376.65	0.0170	P	0.6
5	☐	12500.000	11620.290	300022.89	0.0419	P	0.2
6	☐	25000.000	23052.111	596594.93	0.0829	P	0.9
7	☐	50000.000	46385.340	1203118.45	0.1666	A	1.0
8	☐	100000.00	93482.793	2416331.82	0.3356	A	1.0
9	☐	500000.00	501787.45	12825067.39	1.8007	A	0.9

$$y = 3.5882\text{E-}006 * x + 1.7297\text{E-}004$$

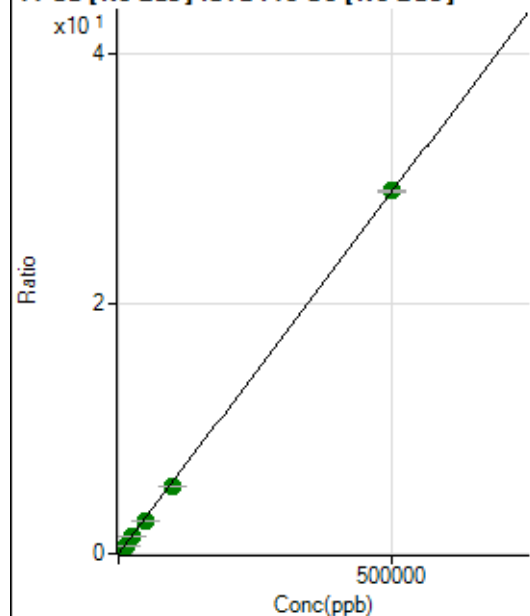
$$R = 0.9999$$

$$DL = 24.73$$

$$BEC = 48.2$$

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	46634.84	0.0068	P	3.3
2	☐	50.000	47.364	63941.41	0.0095	P	3.9
3	☐	500.000	439.716	226720.17	0.0322	P	1.1
4	☐	5000.000	4713.409	1979661.57	0.2795	A	0.6
5	☐	12500.000	11623.448	4868071.68	0.6794	A	0.6
6	☐	25000.000	22995.920	9626368.96	1.3374	A	0.6
7	☐	50000.000	45668.428	19131323.00	2.6494	A	0.2
8	☐	100000.00	92595.574	38626128.29	5.3649	A	0.5
9	☐	500000.00	502039.08	206956799.0	29.0577	A	0.8

$$y = 5.7866\text{E-}005 * x + 0.0068$$

$$R = 0.9999$$

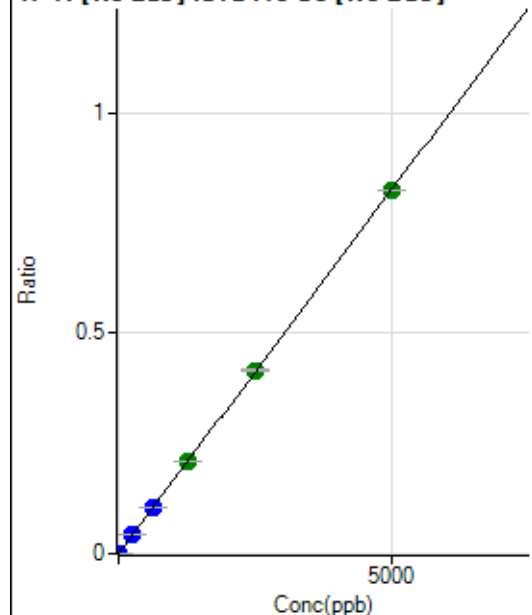
$$DL = 11.69$$

$$BEC = 116.8$$

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD :45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	208.35	0.0000	P	25.6
2	☐	0.500	0.551	813.95	0.0001	P	7.2
3	☐	5.000	4.834	5823.68	0.0008	P	2.3
4	☐	250.000	253.918	296707.92	0.0419	P	1.0
5	☐	625.000	629.909	744371.26	0.1039	P	0.5
6	☐	1250.000	1263.301	1499320.78	0.2083	A	0.4
7	☐	2500.000	2517.626	2997435.26	0.4151	A	0.7
8	☐	5000.000	4987.052	5919841.63	0.8222	A	0.2
9	☐			2239.18	0.0003	P	7.3

$$y = 1.6487\text{E-}004 * x + 3.0155\text{E-}005$$

$$R = 1.0000$$

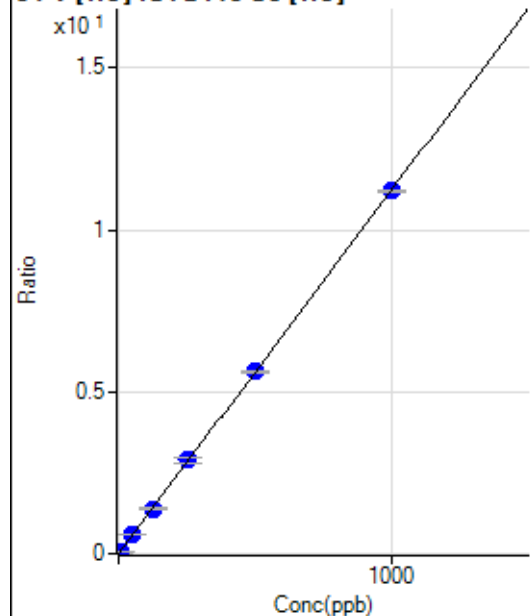
$$DL = 0.1403$$

$$BEC = 0.1829$$

Weight: <None>

Min Conc: 0

51 V [He] ISTD :45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0001	P	62.1
2	☐	0.500	0.456	440.01	0.0053	P	19.8
3	☐	5.000	4.642	4276.28	0.0523	P	2.3
4	☐	50.000	50.990	47425.66	0.5727	P	0.2
5	☐	125.000	124.040	116239.31	1.3929	P	1.3
6	☐	250.000	257.810	234620.20	2.8950	P	5.8
7	☐	500.000	500.123	466244.38	5.6158	P	0.3
8	☐	1000.000	998.058	933531.51	11.2069	P	0.6
9	☐			424.46	0.0050	P	12.1

$$y = 0.0112 * x + 1.3549\text{E-}004$$

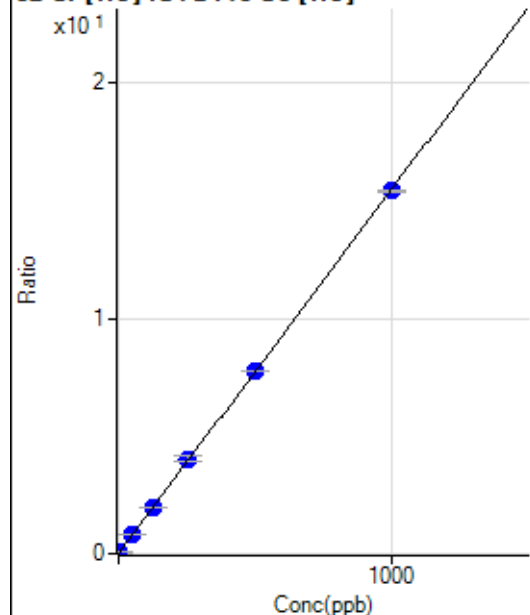
$$R = 1.0000$$

$$DL = 0.02249$$

$$BEC = 0.01207$$

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	860.04	0.0105	P	5.5
2	☐	0.200	0.162	1090.06	0.0130	P	7.8
3	☐	2.000	2.047	3449.37	0.0422	P	1.9
4	☐	50.000	51.273	66523.90	0.8033	P	0.2
5	☐	125.000	126.277	163810.95	1.9630	P	1.4
6	☐	250.000	260.291	327127.84	4.0352	P	4.9
7	☐	500.000	501.622	644819.58	7.7668	P	0.5
8	☐	1000.000	996.393	1284227.19	15.4171	P	0.8
9	☐			55699.26	0.6616	P	1.4

$$y = 0.0155 * x + 0.0105$$

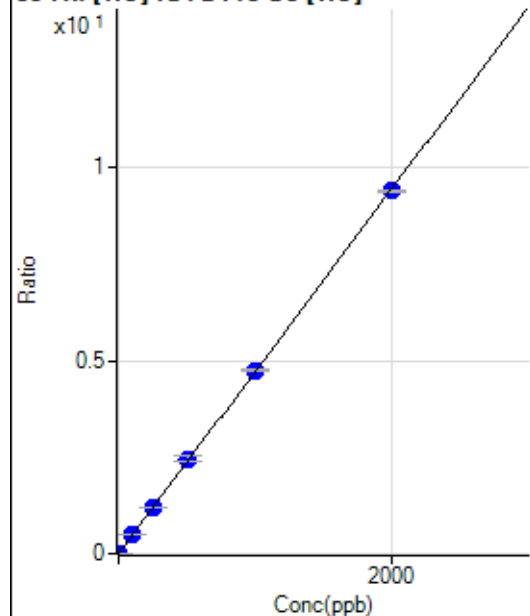
$$R = 0.9999$$

$$DL = 0.1114$$

$$BEC = 0.6796$$

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	36.66	0.0004	P	16.0
2	☐	0.100	0.116	83.33	0.0010	P	13.6
3	☐	1.000	1.162	485.57	0.0059	P	6.9
4	☐	100.000	103.057	40357.05	0.4873	P	1.5
5	☐	250.000	253.377	99931.76	1.1976	P	1.5
6	☐	500.000	520.548	199374.86	2.4598	P	5.5
7	☐	1000.000	1005.612	394491.02	4.7516	P	0.5
8	☐	2000.000	1991.482	783797.53	9.4094	P	0.8
9	☐			3629.42	0.0431	P	4.0

$$y = 0.0047 * x + 4.4793E-004$$

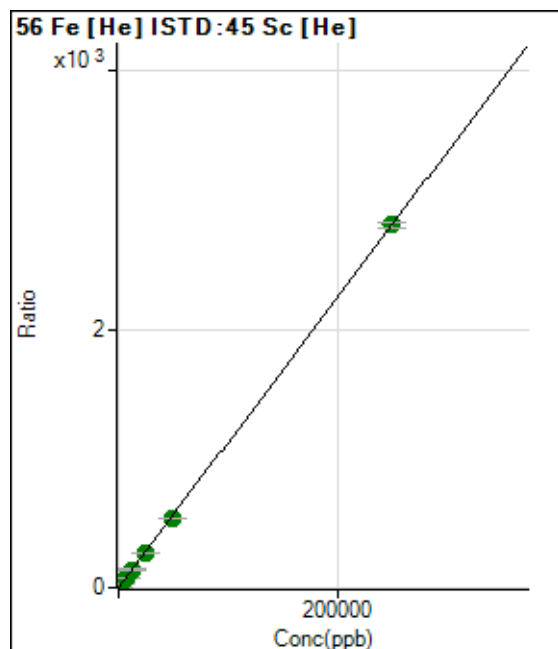
$$R = 0.9999$$

$$DL = 0.04548$$

$$BEC = 0.09481$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2359.53	0.0288	P	3.2
2	☐	5.000	4.539	6679.58	0.0797	P	0.4
3	☐	50.000	48.936	47230.23	0.5775	P	2.9
4	☐	2500.000	2534.744	2355933.01	28.4493	A	0.7
5	☐	6250.000	6161.048	5766961.01	69.1088	A	1.4
6	☐	12500.000	12602.408	11454784.51	141.3318	A	5.6
7	☐	25000.000	24238.461	22565562.54	271.7996	A	0.9
8	☐	50000.000	48098.938	44925839.89	539.3322	A	0.9
9	☐	250000.00	250453.12	236400884.9	2,808.203	A	1.4

$$y = 0.0112 * x + 0.0288$$

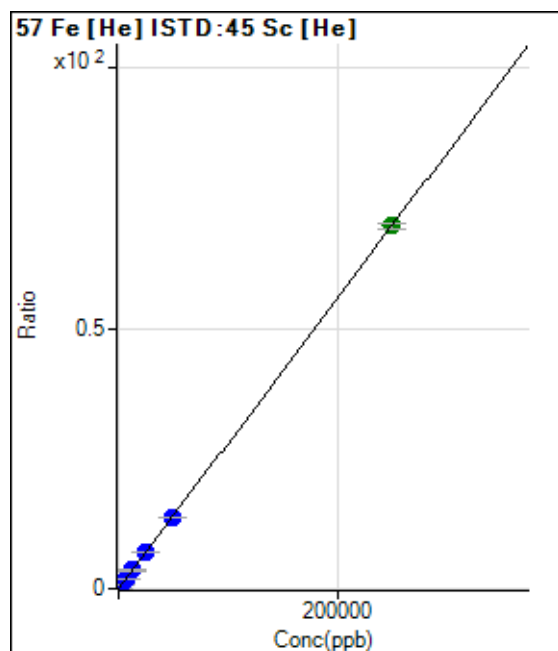
$$R = 1.0000$$

$$DL = 0.247$$

$$BEC = 2.57$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64.82	0.0008	P	13.7
2	☐	5.000	7.162	233.34	0.0028	P	10.3
3	☐	50.000	49.837	1200.09	0.0147	P	2.1
4	☐	2500.000	2524.431	58275.83	0.7037	P	1.1
5	☐	6250.000	6229.015	144806.16	1.7353	P	1.3
6	☐	12500.000	12744.192	287619.61	3.5494	P	6.1
7	☐	25000.000	24674.612	570494.86	6.8715	P	0.4
8	☐	50000.000	48656.781	1128654.35	13.5494	P	0.7
9	☐	250000.00	250289.25	5866992.32	69.6944	A	1.5

$$y = 2.7845E-004 * x + 7.9216E-004$$

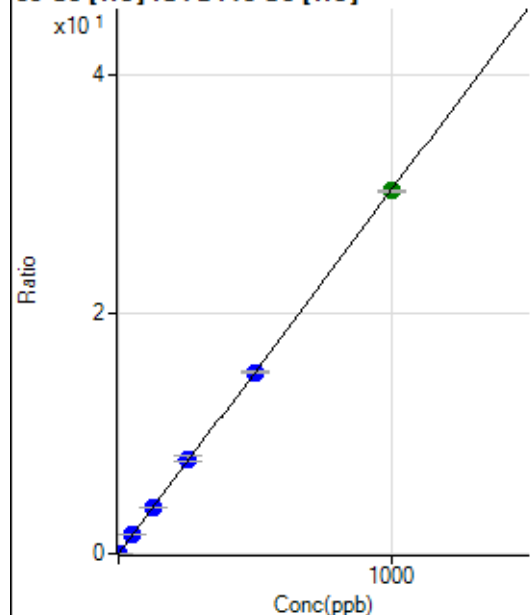
$$R = 1.0000$$

$$DL = 1.168$$

$$BEC = 2.845$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	102.23	0.0012	P	20.1
2	☐	0.100	0.077	300.01	0.0036	P	5.6
3	☐	1.000	0.980	2532.50	0.0310	P	2.8
4	☐	50.000	50.896	127918.30	1.5447	P	1.5
5	☐	125.000	126.549	320349.35	3.8390	P	1.8
6	☐	250.000	260.350	639903.17	7.8968	P	6.1
7	☐	500.000	499.327	1257312.51	15.1441	P	0.5
8	☐	1000.000	997.510	2520020.31	30.2523	A	0.5
9	☐			4255.15	0.0505	P	4.4

$$y = 0.0303 * x + 0.0012$$

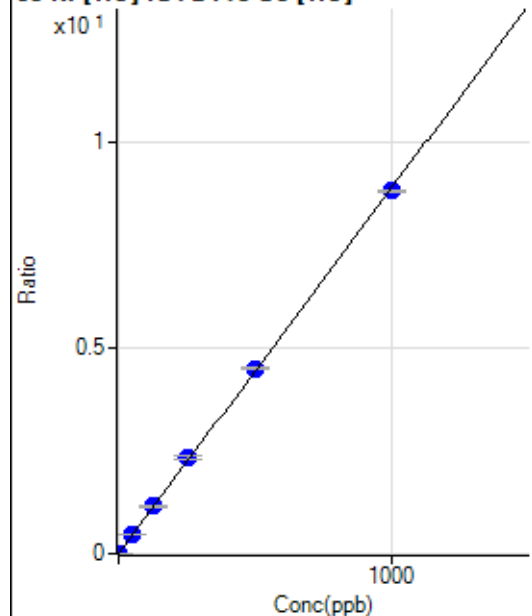
$$R = 0.9999$$

$$DL = 0.02483$$

$$BEC = 0.04113$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	54.45	0.0007	P	6.6
2	☐	0.100	0.090	122.23	0.0015	P	33.4
3	☐	1.000	1.142	881.16	0.0108	P	7.9
4	☐	50.000	52.489	38578.99	0.4659	P	0.5
5	☐	125.000	129.736	96002.27	1.1505	P	2.1
6	☐	250.000	263.952	189686.04	2.3400	P	5.1
7	☐	500.000	506.556	372783.39	4.4902	P	1.0
8	☐	1000.000	992.517	732806.59	8.7972	P	0.5
9	☐			19964.53	0.2372	P	1.4

$$y = 0.0089 * x + 6.6488E-004$$

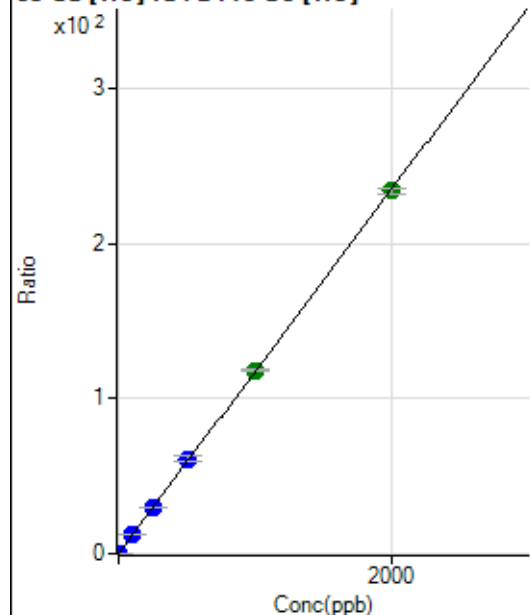
$$R = 0.9999$$

$$DL = 0.0148$$

$$BEC = 0.07502$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	7931.56	0.0969	P	2.0
2	☐	0.200	0.168	9777.32	0.1167	P	5.8
3	☐	2.000	2.041	27529.69	0.3368	P	5.6
4	☐	100.000	102.495	1005856.16	12.1462	P	0.4
5	☐	250.000	254.119	2500967.42	29.9712	P	1.6
6	☐	500.000	520.868	4970672.24	61.3301	P	5.6
7	☐	1000.000	1005.156	9818392.86	118.2630	A	0.9
8	☐	2000.000	1991.565	19510092.00	234.2253	A	1.5
9	☐			35900.18	0.4264	P	0.4

$$y = 0.1176 * x + 0.0969$$

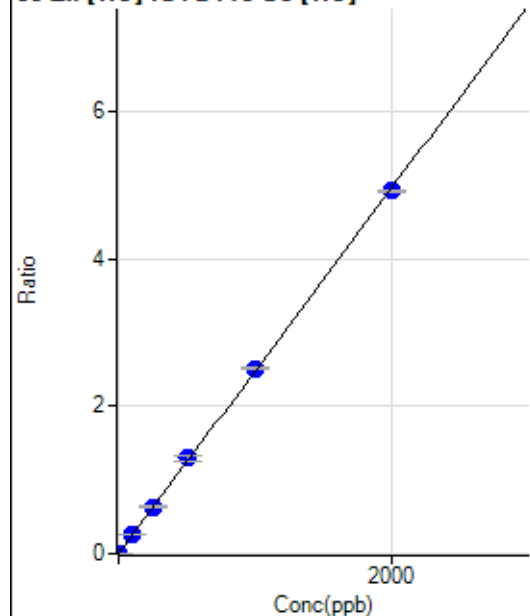
$$R = 0.9999$$

$$DL = 0.04955$$

$$BEC = 0.8241$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	65.56	0.0008	P	15.9
2	☐	0.200	0.073	82.22	0.0010	P	20.1
3	☐	2.000	2.087	488.91	0.0060	P	1.0
4	☐	100.000	105.456	21711.61	0.2622	P	2.3
5	☐	250.000	257.202	53266.35	0.6383	P	1.5
6	☐	500.000	523.577	105232.02	1.2986	P	6.0
7	☐	1000.000	1014.494	208840.49	2.5154	P	0.6
8	☐	2000.000	1985.686	410061.62	4.9227	P	0.4
9	☐			1596.79	0.0190	P	2.6

$$y = 0.0025 * x + 8.0103E-004$$

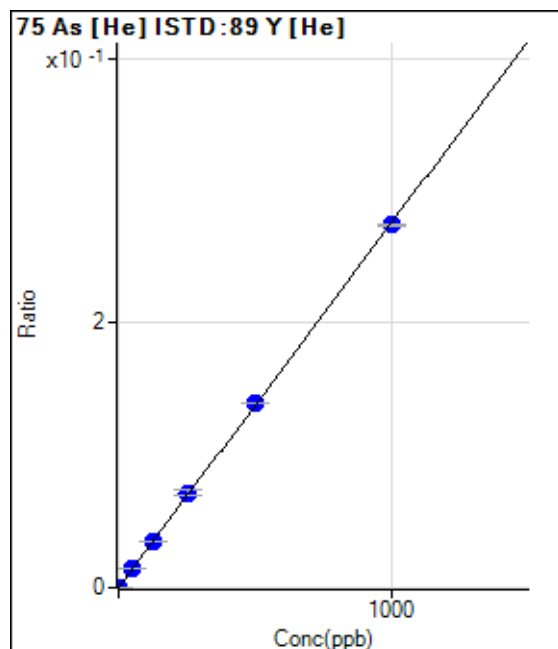
$$R = 0.9999$$

$$DL = 0.1546$$

$$BEC = 0.3232$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	9.26	0.0000	P	52.8
2	☐	0.100	0.083	21.61	0.0000	P	66.2
3	☐	1.000	1.025	156.79	0.0003	P	14.3
4	☐	50.000	50.813	7463.19	0.0140	P	0.8
5	☐	125.000	126.968	18643.54	0.0350	P	0.9
6	☐	250.000	260.064	37282.28	0.0717	P	5.7
7	☐	500.000	505.169	74365.88	0.1393	P	0.6
8	☐	1000.000	994.613	148266.35	0.2742	P	0.4
9	☐			127.16	0.0002	P	4.2

$$y = 2.7570\text{E-}004 * x + 1.7999\text{E-}005$$

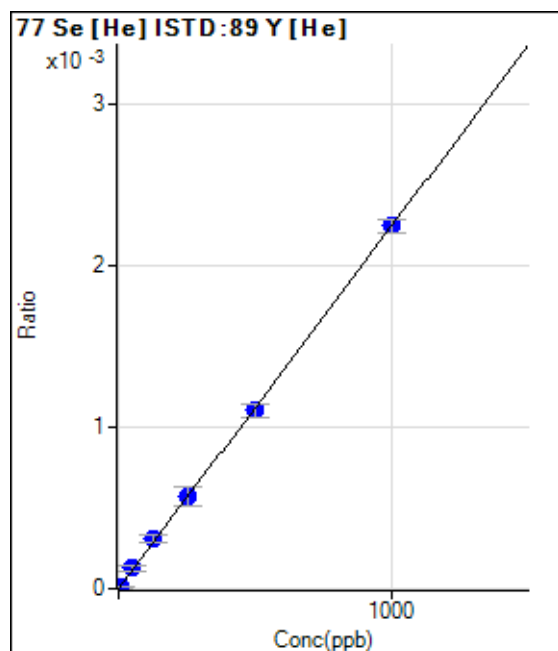
$$R = 0.9999$$

$$DL = 0.1034$$

$$BEC = 0.06528$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.939	1.11	0.0000	P	173.2
3	☐	5.000	2.847	3.33	0.0000	P	3.3
4	☐	50.000	56.773	67.78	0.0001	P	31.6
5	☐	125.000	139.586	166.67	0.0003	P	15.4
6	☐	250.000	254.704	295.56	0.0006	P	19.8
7	☐	500.000	491.122	587.80	0.0011	P	7.9
8	☐	1000.000	1001.112	1213.41	0.0022	P	3.5
9	☐			0.00	0.0000	P	

$$y = 2.2418\text{E-}006 * x + 0.0000\text{E+}000$$

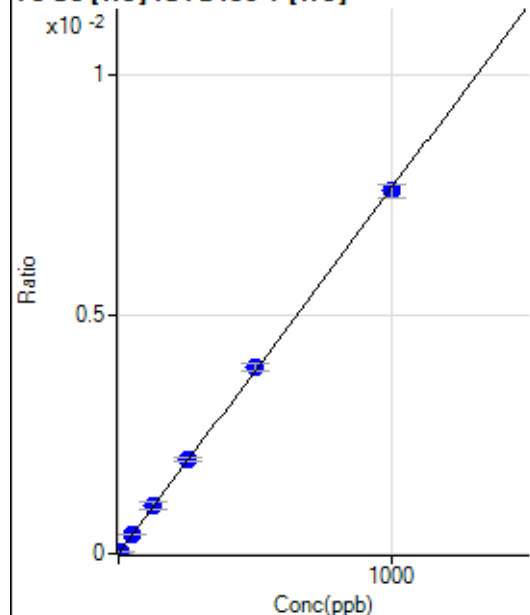
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

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	2.47	0.0000	P	114.4
2	☐	0.500	1.660	9.26	0.0000	P	87.9
3	☐	5.000	5.072	22.84	0.0000	P	31.8
4	☐	50.000	52.506	216.05	0.0004	P	3.5
5	☐	125.000	129.959	531.50	0.0010	P	13.8
6	☐	250.000	256.683	1024.12	0.0020	P	4.2
7	☐	500.000	510.183	2084.13	0.0039	P	4.0
8	☐	1000.000	992.492	4103.73	0.0076	P	3.8
9	☐			6.17	0.0000	P	34.9

$$y = 7.6425\text{E-}006 * x + 4.7980\text{E-}006$$

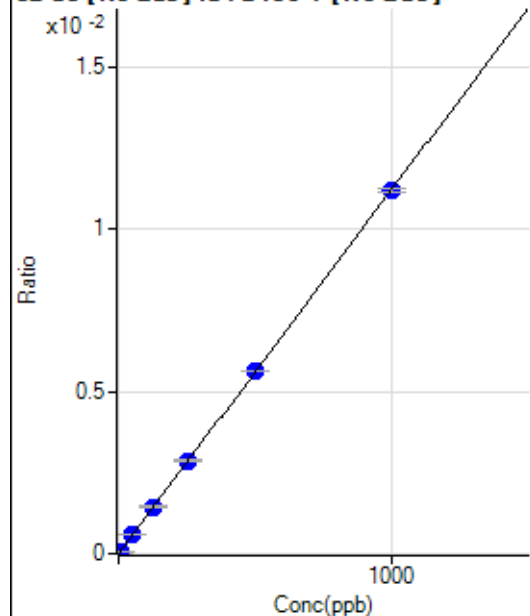
$$R = 0.9999$$

$$DL = 2.155$$

$$BEC = 0.6278$$

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	-26.80	0.0000	P	-206.
2	☐	0.500	0.662	51.73	0.0000	P	48.2
3	☐	5.000	5.033	592.63	0.0001	P	6.2
4	☐	50.000	51.181	6374.98	0.0006	P	2.4
5	☐	125.000	129.127	16342.70	0.0014	P	1.0
6	☐	250.000	256.126	32735.30	0.0029	P	2.2
7	☐	500.000	501.353	65223.17	0.0056	P	0.3
8	☐	1000.000	997.217	131044.35	0.0112	P	1.1
9	☐			167.08	0.0000	P	26.5

$$y = 1.1226\text{E-}005 * x - 2.4855\text{E-}006$$

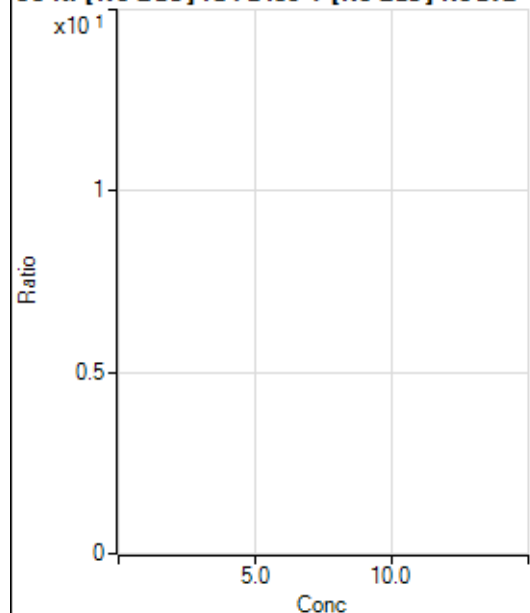
$$R = 1.0000$$

$$DL = 1.37$$

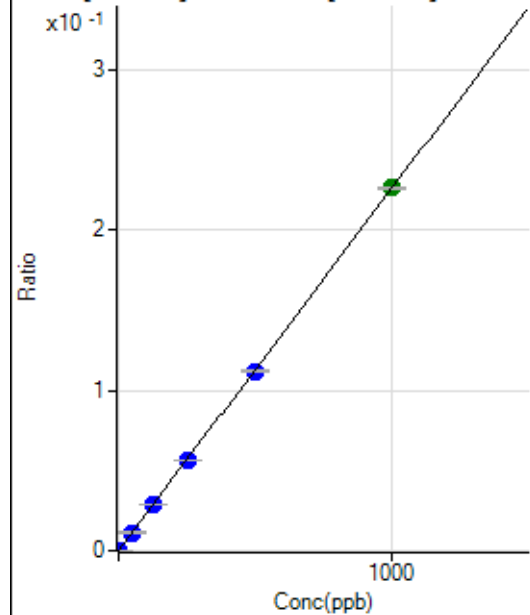
$$BEC = -0.2214$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] ISTD:89 Y [No Gas] No av_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			514.46	0.0000	P	6.7
2	☐			465.57	0.0000	P	4.9
3	☐			477.79	0.0000	P	3.5
4	☐			500.02	0.0000	P	9.4
5	☐			451.12	0.0000	P	10.4
6	☐			418.90	0.0000	P	5.2
7	☐			443.35	0.0000	P	4.2
8	☐			477.80	0.0000	P	7.0
9	☐			511.13	0.0000	P	5.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	713.94	0.0001	P	17.5
2	☐	0.100	0.120	975.08	0.0001	P	4.9
3	☐	1.000	0.967	3122.72	0.0003	P	3.0
4	☐	50.000	50.162	126972.30	0.0114	P	0.9
5	☐	125.000	125.585	321048.20	0.0284	P	0.3
6	☐	250.000	249.425	642695.68	0.0564	P	1.2
7	☐	500.000	495.161	1297225.31	0.1119	P	0.8
8	☐	1000.000	1002.482	2651772.43	0.2265	A	0.4
9	☐			91262.72	0.0080	P	1.4

$$y = 2.2584\text{E-}004 * x + 6.6326\text{E-}005$$

$$R = 1.0000$$

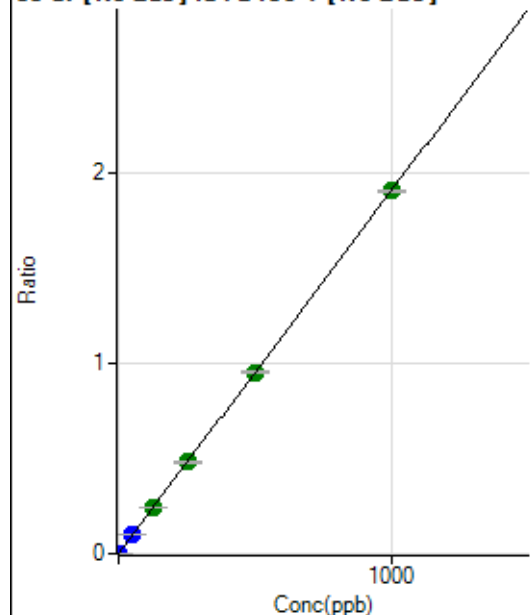
$$DL = 0.1539$$

$$BEC = 0.2937$$

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	130.56	0.0000	P	36.0
2	☐	0.100	0.100	2111.39	0.0002	P	4.7
3	☐	1.000	0.994	20944.67	0.0019	P	1.3
4	☐	50.000	50.537	1074389.39	0.0964	P	0.7
5	☐	125.000	127.475	2746454.25	0.2432	A	0.1
6	☐	250.000	252.021	5478781.11	0.4808	A	1.5
7	☐	500.000	499.640	11050286.71	0.9532	A	0.8
8	☐	1000.000	999.338	22322224.98	1.9064	A	0.3
9	☐			787307.95	0.0687	P	1.5

$$y = 0.0019 * x + 1.2126E-005$$

$$R = 1.0000$$

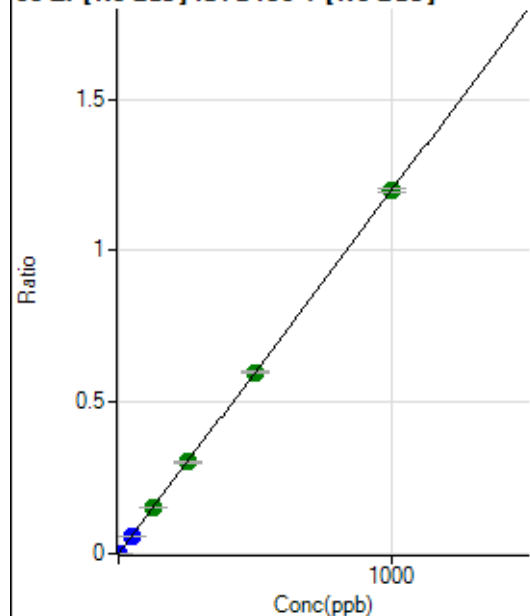
$$DL = 0.006874$$

$$BEC = 0.006356$$

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	763.95	0.0001	P	11.1
2	☐	0.100	0.085	1805.78	0.0002	P	6.1
3	☐	1.000	0.906	12695.27	0.0012	P	2.3
4	☐	50.000	49.692	664415.29	0.0596	P	0.9
5	☐	125.000	126.991	1719504.70	0.1523	A	1.3
6	☐	250.000	253.491	3462752.68	0.3039	A	1.8
7	☐	500.000	499.497	6941102.24	0.5987	A	0.7
8	☐	1000.000	999.145	14021178.26	1.1976	A	0.9
9	☐			5220.70	0.0005	P	7.8

$$y = 0.0012 * x + 7.0979E-005$$

$$R = 1.0000$$

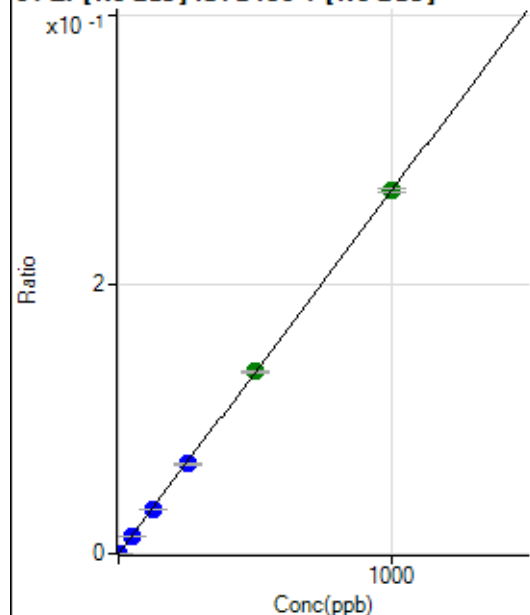
$$DL = 0.01976$$

$$BEC = 0.05922$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	172.23	0.0000	P	16.9
2	☐	0.100	0.088	416.69	0.0000	P	14.1
3	☐	1.000	0.874	2758.73	0.0003	P	5.7
4	☐	50.000	48.271	145039.81	0.0130	P	1.1
5	☐	125.000	123.329	375271.35	0.0332	P	0.3
6	☐	250.000	247.880	760888.36	0.0668	P	1.6
7	☐	500.000	501.758	1566729.43	0.1351	A	1.6
8	☐	1000.000	999.946	3153128.87	0.2693	A	1.0
9	☐			1077.87	0.0001	P	6.4

$$y = 2.6931\text{E-}004 * x + 1.6003\text{E-}005$$

$$R = 1.0000$$

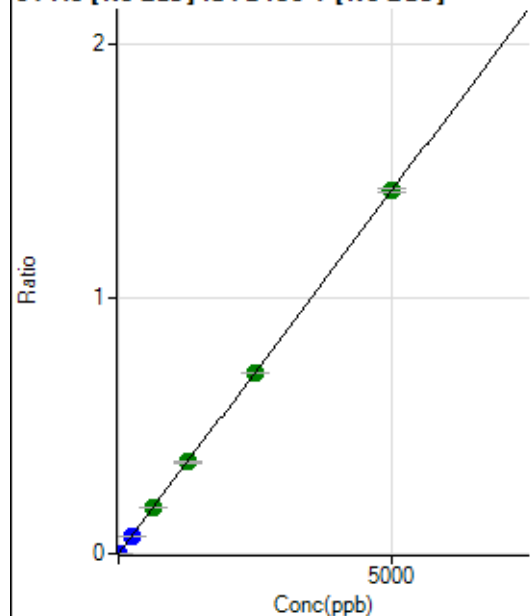
$$DL = 0.03009$$

$$BEC = 0.05942$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	355.58	0.0000	P	13.3
2	☐	0.500	0.509	1858.56	0.0002	P	6.2
3	☐	5.000	4.769	15239.72	0.0014	P	0.4
4	☐	250.000	248.840	788865.80	0.0708	P	0.8
5	☐	625.000	636.143	2043260.88	0.1809	A	1.0
6	☐	1250.000	1259.357	4081042.41	0.3582	A	2.3
7	☐	2500.000	2492.983	8219207.13	0.7090	A	0.7
8	☐	5000.000	4999.835	16647050.55	1.4218	A	1.1
9	☐			24500.96	0.0021	P	6.2

$$y = 2.8437\text{E-}004 * x + 3.3041\text{E-}005$$

$$R = 1.0000$$

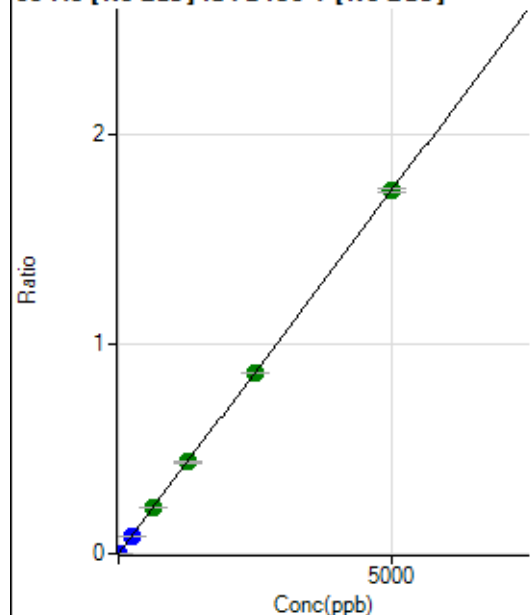
$$DL = 0.04624$$

$$BEC = 0.1162$$

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	191.68	0.0000	P	24.1
2	☐	0.500	0.489	1961.34	0.0002	P	3.1
3	☐	5.000	4.650	17901.46	0.0016	P	1.7
4	☐	250.000	249.683	965818.20	0.0867	P	0.2
5	☐	625.000	638.210	2501551.73	0.2215	A	1.4
6	☐	1250.000	1259.546	4981545.42	0.4372	A	1.7
7	☐	2500.000	2498.565	10053673.05	0.8672	A	0.1
8	☐	5000.000	4996.696	20304163.99	1.7342	A	1.1
9	☐			39146.64	0.0034	P	8.5

$$y = 3.4707\text{E-}004 * x + 1.7807\text{E-}005$$

$$R = 1.0000$$

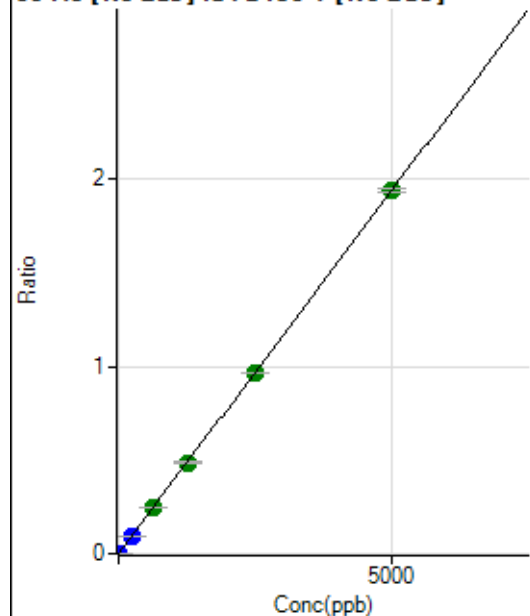
$$DL = 0.03708$$

$$BEC = 0.05131$$

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	319.46	0.0000	P	12.1
2	☐	0.500	0.441	2097.49	0.0002	P	2.5
3	☐	5.000	4.686	20240.95	0.0018	P	1.4
4	☐	250.000	249.873	1079223.54	0.0969	P	0.2
5	☐	625.000	640.435	2802853.55	0.2482	A	0.5
6	☐	1250.000	1256.803	5549239.79	0.4870	A	2.5
7	☐	2500.000	2493.939	11203630.63	0.9664	A	0.6
8	☐	5000.000	4999.407	22680718.22	1.9372	A	1.2
9	☐			43002.76	0.0038	P	6.8

$$y = 3.8748\text{E-}004 * x + 2.9681\text{E-}005$$

$$R = 1.0000$$

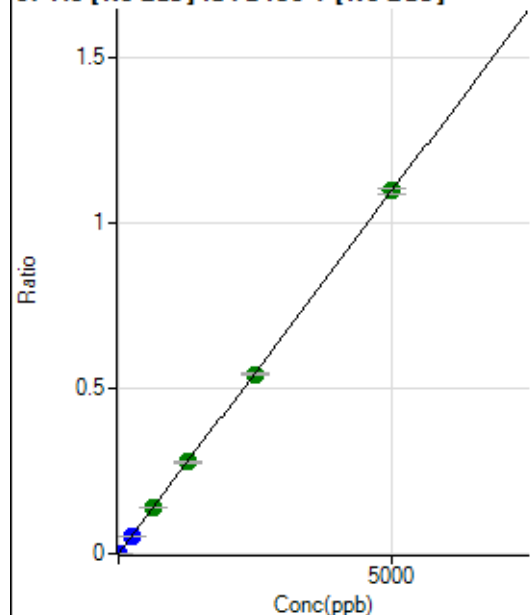
$$DL = 0.02781$$

$$BEC = 0.0766$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	127.79	0.0000	P	13.3
2	☐	0.500	0.482	1227.90	0.0001	P	4.0
3	☐	5.000	4.856	11794.49	0.0011	P	0.9
4	☐	250.000	246.933	602628.64	0.0541	P	0.9
5	☐	625.000	633.471	1566454.37	0.1387	A	1.1
6	☐	1250.000	1262.954	3151109.62	0.2765	A	2.3
7	☐	2500.000	2480.183	6295814.90	0.5431	A	0.6
8	☐	5000.000	5005.765	12831966.95	1.0961	A	1.8
9	☐			23721.67	0.0021	P	4.9

$$y = 2.1896E-004 * x + 1.1872E-005$$

$$R = 1.0000$$

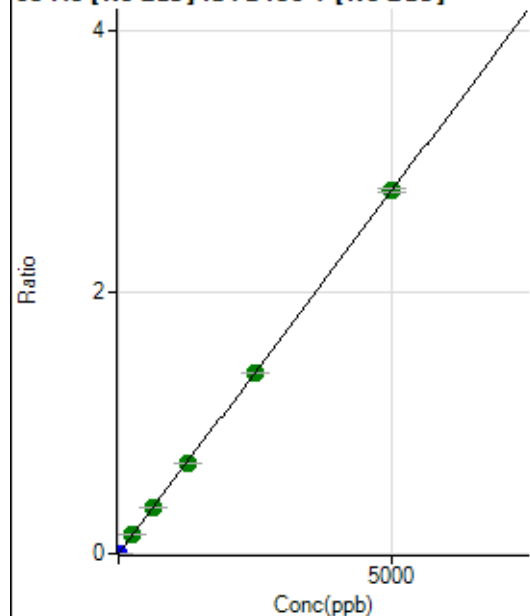
$$DL = 0.02171$$

$$BEC = 0.05422$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	300.02	0.0000	P	29.4
2	☐	0.500	0.510	3253.31	0.0003	P	2.3
3	☐	5.000	4.679	28817.90	0.0026	P	1.4
4	☐	250.000	252.783	1564976.79	0.1404	A	0.4
5	☐	625.000	632.160	3965985.89	0.3512	A	0.3
6	☐	1250.000	1247.348	7895937.68	0.6929	A	1.6
7	☐	2500.000	2498.590	16091283.69	1.3880	A	0.2
8	☐	5000.000	5000.334	32521112.53	2.7777	A	1.2
9	☐			61036.01	0.0053	P	5.8

$$y = 5.5549E-004 * x + 2.7877E-005$$

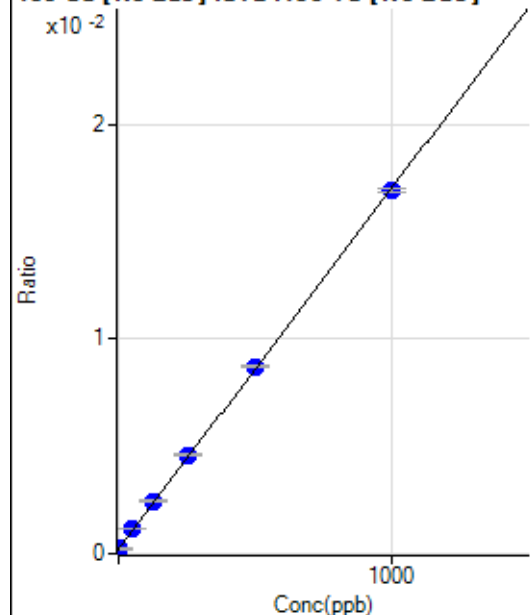
$$R = 1.0000$$

$$DL = 0.0442$$

$$BEC = 0.05018$$

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	2297.53	0.0002	P	7.1
2	☐	0.100	0.079	2283.65	0.0002	P	6.4
3	☐	1.000	0.871	2503.13	0.0002	P	5.5
4	☐	50.000	54.567	12550.83	0.0011	P	1.7
5	☐	125.000	133.200	28350.17	0.0025	P	2.3
6	☐	250.000	260.564	53613.01	0.0046	P	1.8
7	☐	500.000	505.730	105364.92	0.0087	P	0.7
8	☐	1000.000	993.241	208393.40	0.0169	P	1.0
9	☐			2583.73	0.0002	P	10.2

$$y = 1.6793\text{E-}005 * x + 2.1423\text{E-}004$$

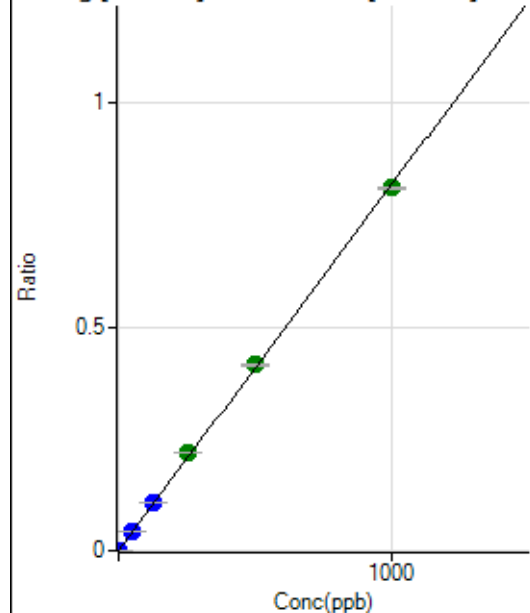
$$R = 0.9999$$

$$DL = 2.715$$

$$BEC = 12.76$$

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	105.56	0.0000	P	28.0
2	☐	0.100	0.109	1044.53	0.0001	P	15.1
3	☐	1.000	1.025	9273.07	0.0008	P	2.3
4	☐	50.000	53.848	488777.33	0.0440	P	0.7
5	☐	125.000	131.794	1246359.10	0.1078	P	1.4
6	☐	250.000	266.412	2544219.57	0.2178	A	0.6
7	☐	500.000	507.188	5017681.27	0.4146	A	0.3
8	☐	1000.000	991.261	9996437.11	0.8104	A	0.4
9	☐			1127.89	0.0001	P	14.0

$$y = 8.1751\text{E-}004 * x + 9.8513\text{E-}006$$

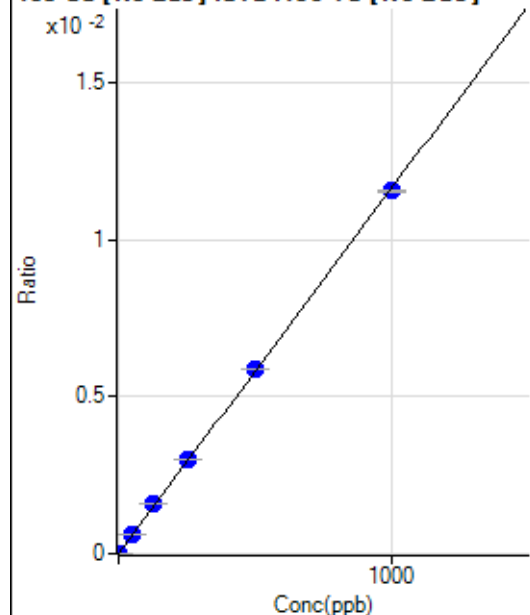
$$R = 0.9998$$

$$DL = 0.01012$$

$$BEC = 0.01205$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	65.9
2	☐	0.100	0.056	23.61	0.0000	P	55.0
3	☐	1.000	0.849	125.01	0.0000	P	20.0
4	☐	50.000	53.585	6928.33	0.0006	P	2.1
5	☐	125.000	135.279	18198.67	0.0016	P	1.5
6	☐	250.000	258.303	35075.04	0.0030	P	0.7
7	☐	500.000	506.511	71235.84	0.0059	P	0.4
8	☐	1000.000	993.205	142369.75	0.0115	P	0.3
9	☐			52.78	0.0000	P	12.1

$$y = 1.1619\text{E-}005 * x + 1.5519\text{E-}006$$

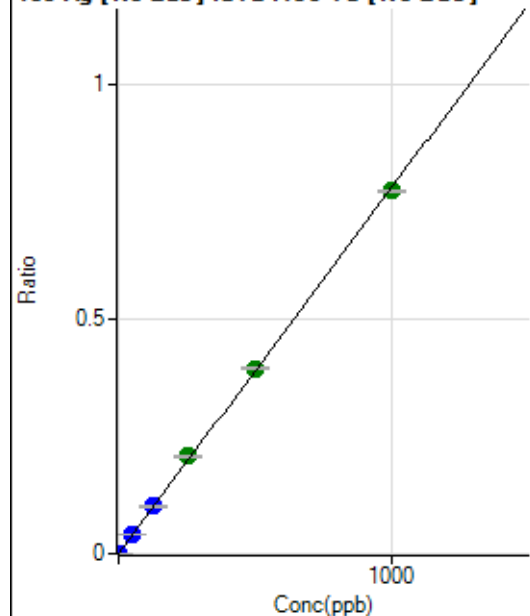
$$R = 0.9999$$

$$DL = 0.2642$$

$$BEC = 0.1336$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	32.0
2	☐	0.100	0.107	963.97	0.0001	P	3.8
3	☐	1.000	1.053	9078.49	0.0008	P	3.9
4	☐	50.000	53.428	463244.39	0.0417	P	0.8
5	☐	125.000	129.941	1173760.17	0.1015	P	2.1
6	☐	250.000	266.302	2429340.46	0.2080	A	0.9
7	☐	500.000	507.098	4792324.63	0.3960	A	0.5
8	☐	1000.000	991.586	9552411.33	0.7744	A	0.2
9	☐			1100.10	0.0001	P	8.2

$$y = 7.8094\text{E-}004 * x + 7.5199\text{E-}006$$

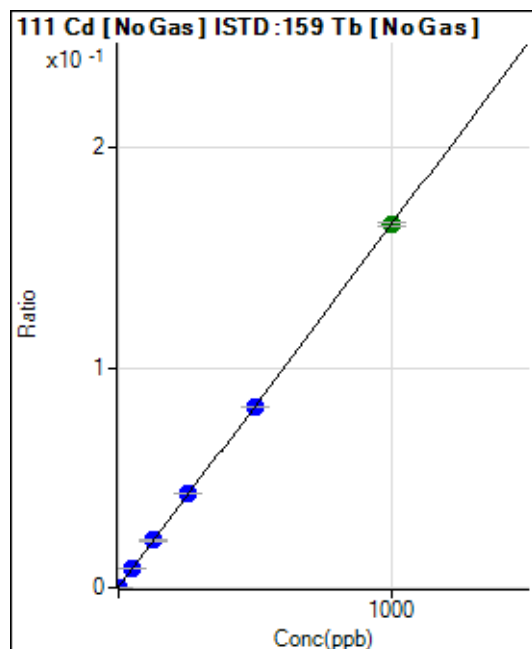
$$R = 0.9998$$

$$DL = 0.009242$$

$$BEC = 0.009629$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1618.83	0.0002	P	6.0
2	☐	0.100	0.083	1744.54	0.0002	P	5.3
3	☐	1.000	0.976	3413.45	0.0003	P	5.1
4	☐	50.000	53.102	99038.30	0.0089	P	1.1
5	☐	125.000	128.998	248214.63	0.0215	P	1.3
6	☐	250.000	257.268	498135.10	0.0426	P	0.8
7	☐	500.000	498.627	998478.11	0.0825	P	0.2
8	☐	1000.000	998.214	2035658.66	0.1650	A	1.1
9	☐			2182.79	0.0002	P	7.2

$$y = 1.6517\text{E-}004 * x + 1.5095\text{E-}004$$

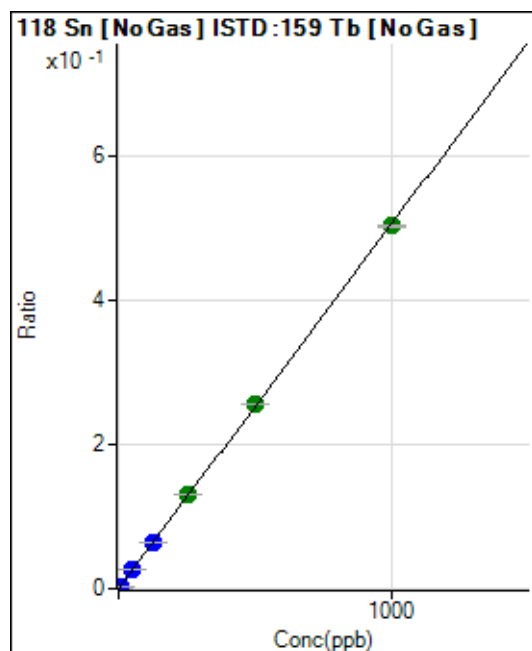
$$R = 1.0000$$

$$DL = 0.1658$$

$$BEC = 0.9139$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	808.40	0.0001	P	13.6
2	☐	0.500	0.474	3345.01	0.0003	P	5.5
3	☐	5.000	4.864	27732.59	0.0025	P	2.3
4	☐	50.000	51.698	291016.72	0.0262	P	1.7
5	☐	125.000	127.880	748850.62	0.0647	P	1.3
6	☐	250.000	257.015	1519096.20	0.1300	A	0.4
7	☐	500.000	505.675	3095341.65	0.2558	A	0.4
8	☐	1000.000	994.964	6207283.17	0.5032	A	0.4
9	☐			13543.60	0.0012	P	3.1

$$y = 5.0567\text{E-}004 * x + 7.5394\text{E-}005$$

$$R = 0.9999$$

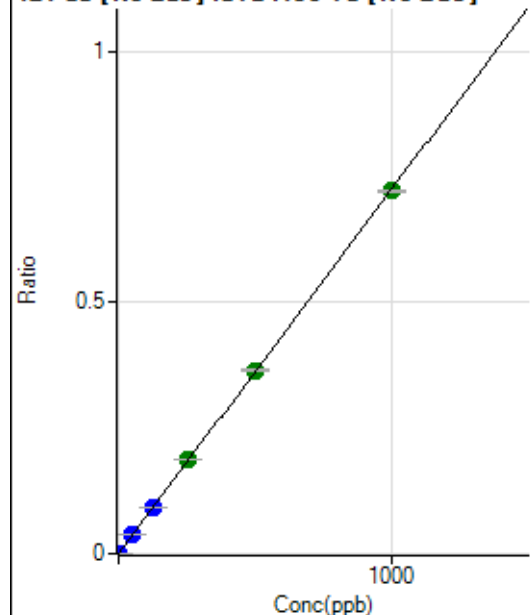
$$DL = 0.06102$$

$$BEC = 0.1491$$

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD : 159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	327.80	0.0000	P	57.5
2	☐	0.200	0.210	1941.90	0.0002	P	4.7
3	☐	2.000	1.938	15701.49	0.0014	P	2.1
4	☐	50.000	50.901	409848.62	0.0369	P	0.5
5	☐	125.000	127.420	1068470.56	0.0924	P	1.8
6	☐	250.000	257.669	2181804.28	0.1868	A	0.4
7	☐	500.000	503.210	4413520.24	0.3647	A	1.0
8	☐	1000.000	996.130	8906029.02	0.7220	A	0.6
9	☐			34409.30	0.0029	P	6.9

$$y = 7.2475\text{E-}004 * x + 3.0604\text{E-}005$$

$$R = 1.0000$$

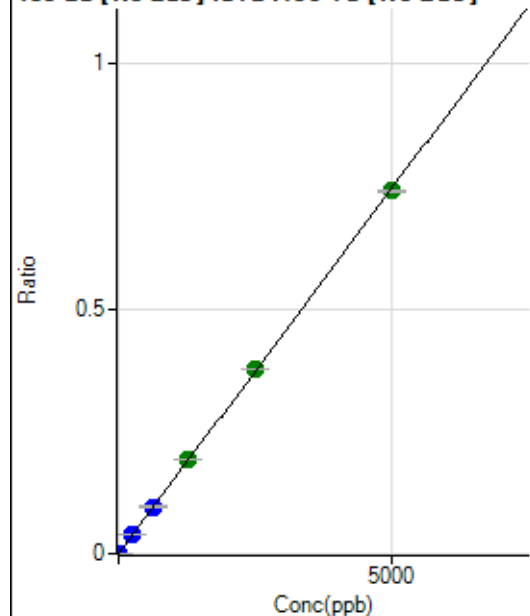
$$DL = 0.0729$$

$$BEC = 0.04223$$

Weight: <None>

Min Conc: 0

135 Ba [No Gas] ISTD : 159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	16.2
2	☐	1.000	1.001	1627.95	0.0002	P	14.0
3	☐	10.000	9.467	15490.21	0.0014	P	2.4
4	☐	250.000	259.035	428656.30	0.0386	P	0.2
5	☐	625.000	641.431	1105923.64	0.0956	P	1.6
6	☐	1250.000	1291.237	2248276.53	0.1925	A	0.1
7	☐	2500.000	2531.252	4565593.72	0.3773	A	0.8
8	☐	5000.000	4971.560	9141125.37	0.7410	A	0.8
9	☐			2964.37	0.0003	P	4.9

$$y = 1.4905\text{E-}004 * x + 4.6614\text{E-}006$$

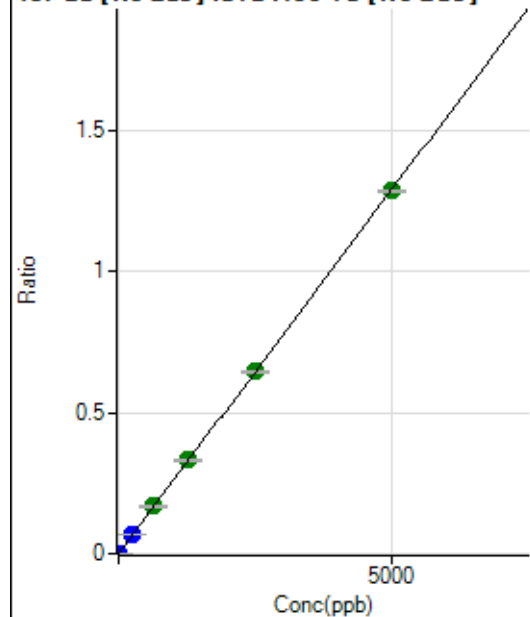
$$R = 0.9999$$

$$DL = 0.01523$$

$$BEC = 0.03127$$

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	58.33	0.0000	P	37.7
2	☐	1.000	1.006	2806.00	0.0003	P	1.8
3	☐	10.000	9.736	27482.25	0.0025	P	0.4
4	☐	250.000	260.542	744683.57	0.0671	P	0.6
5	☐	625.000	649.119	1933345.66	0.1671	A	0.7
6	☐	1250.000	1284.258	3862461.02	0.3307	A	0.9
7	☐	2500.000	2501.592	7793756.08	0.6441	A	1.0
8	☐	5000.000	4987.098	15838767.02	1.2840	A	0.3
9	☐			4965.06	0.0004	P	8.9

$$y = 2.5746E-004 * x + 5.4370E-006$$

$$R = 1.0000$$

$$DL = 0.02386$$

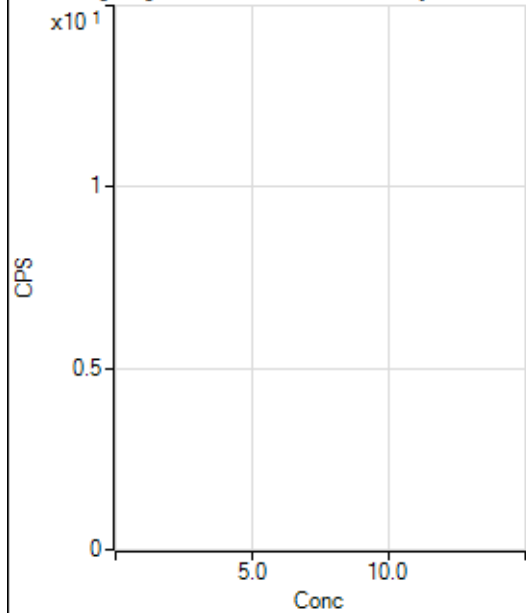
$$BEC = 0.02112$$

Weight: <None>

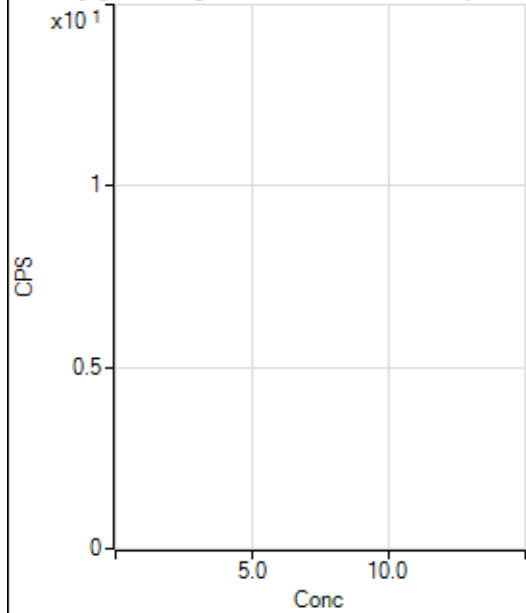
Min Conc: 0

150 Nd [No Gas] No available calibration points

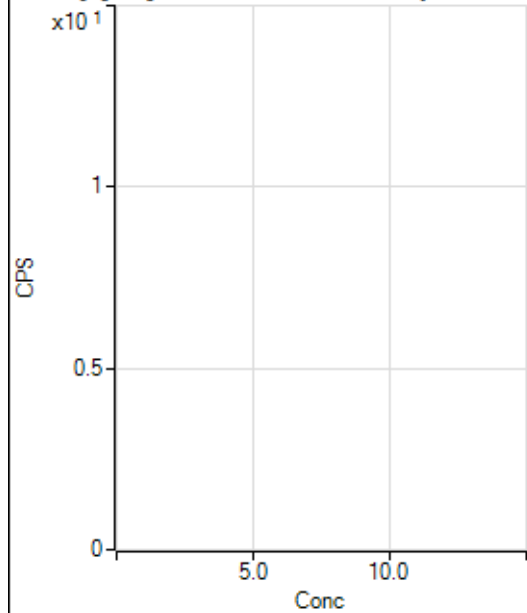
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	69.3
2	☐			2.22		P	173.2
3	☐			17.78		P	21.7
4	☐			28.89		P	13.3
5	☐			51.11		P	74.2
6	☐			68.89		P	14.8
7	☐			180.01		P	29.6
8	☐			333.35		P	9.2
9	☐			82.23		P	26.1

150 Nd [He] No available calibration points

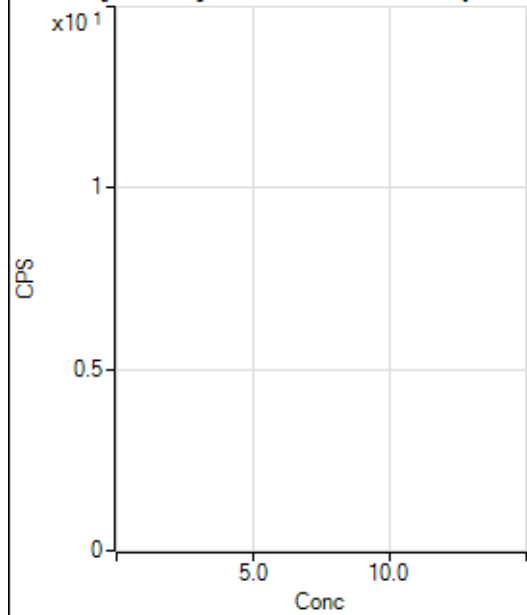
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐			0.00		P	
3	☐			1.11		P	173.2
4	☐			0.00		P	
5	☐			1.11		P	173.2
6	☐			8.89		P	57.3
7	☐			3.33		P	100.1
8	☐			12.22		P	68.7
9	☐			21.11		P	81.0

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	43.3
2	☐			8.33		P	100.0
3	☐			13.89		P	34.7
4	☐			11.11		P	86.6
5	☐			27.78		P	17.3
6	☐			41.67		P	40.0
7	☐			77.78		P	34.4
8	☐			91.67		P	27.3
9	☐			80.56		P	31.6

156 Dy [He] No available calibration points

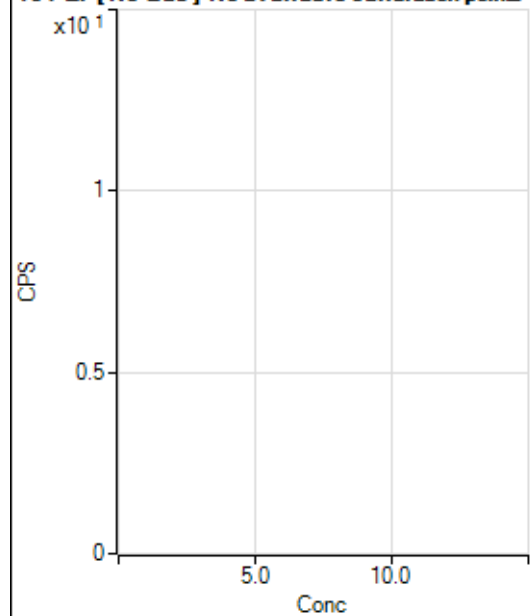
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐			1.11		P	173.2
3	☐			2.22		P	173.2
4	☐			2.22		P	86.6
5	☐			6.66		P	86.6
6	☐			7.78		P	24.7
7	☐			8.89		P	43.3
8	☐			14.44		P	13.4
9	☐			23.33		P	NaN

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			86.12		P	14.8
2	☐			116.68		P	12.4
3	☐			100.00		P	46.4
4	☐			116.67		P	12.4
5	☐			100.00		P	25.0
6	☐			94.45		P	35.7
7	☐			133.34		P	55.6
8	☐			102.78		P	12.4
9	☐			147.23		P	37.7

160 Gd [He] No available calibration points

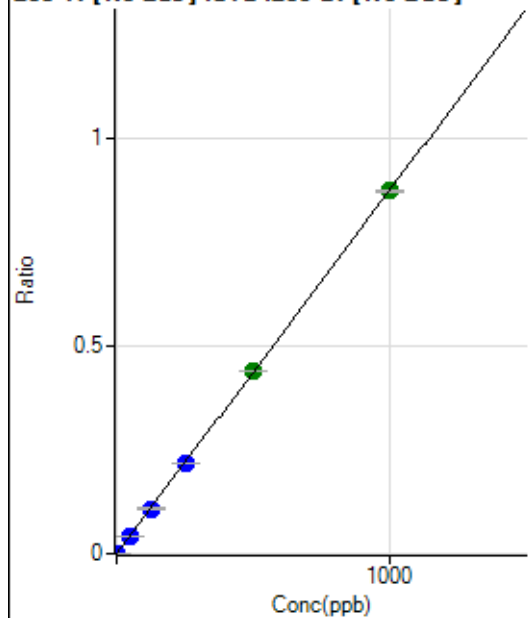
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	62.5
2	☐			15.56		P	12.4
3	☐			17.78		P	28.6
4	☐			13.34		P	43.3
5	☐			14.44		P	96.1
6	☐			12.22		P	78.7
7	☐			20.00		P	28.9
8	☐			34.44		P	43.6
9	☐			27.78		P	25.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			50.00		P	33.3
2	☐			36.11		P	58.1
3	☐			50.00		P	33.3
4	☐			44.45		P	78.1
5	☐			22.22		P	21.6
6	☐			36.11		P	35.3
7	☐			69.45		P	18.3
8	☐			47.22		P	88.8
9	☐			38.89		P	49.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			14.45		P	48.0
2	☐			12.22		P	15.7
3	☐			7.78		P	137.8
4	☐			11.11		P	34.6
5	☐			20.00		P	0.0
6	☐			13.33		P	50.0
7	☐			11.11		P	45.8
8	☐			14.44		P	35.3
9	☐			21.11		P	39.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111.12	0.0000	P	11.2
2	☐	0.100	0.083	533.37	0.0001	P	9.2
3	☐	1.000	0.961	5248.54	0.0009	P	2.4
4	☐	50.000	49.472	268245.10	0.0432	P	0.8
5	☐	125.000	124.254	700436.27	0.1085	P	0.7
6	☐	250.000	248.177	1409027.15	0.2167	P	1.0
7	☐	500.000	502.901	2938558.29	0.4391	A	0.1
8	☐	1000.000	999.125	5916361.85	0.8723	A	0.4
9	☐			2864.36	0.0005	P	4.5

$$y = 8.7304\text{E-}004 * x + 1.8558\text{E-}005$$

$$R = 1.0000$$

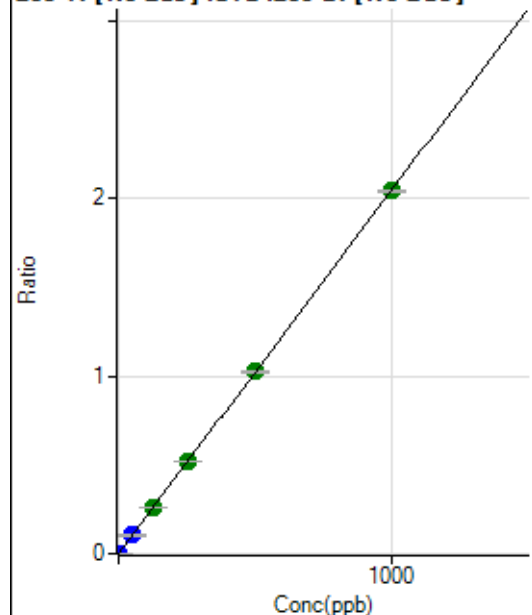
$$DL = 0.007126$$

$$BEC = 0.02126$$

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	261.13	0.0000	P	16.4
2	☐	0.100	0.096	1408.48	0.0002	P	5.1
3	☐	1.000	0.981	12553.98	0.0021	P	1.1
4	☐	50.000	50.330	639430.57	0.1030	P	1.7
5	☐	125.000	125.554	1658282.86	0.2569	A	1.5
6	☐	250.000	253.208	3368541.87	0.5180	A	0.3
7	☐	500.000	501.321	6863753.62	1.0256	A	1.2
8	☐	1000.000	998.452	13853497.53	2.0426	A	0.7
9	☐			6966.13	0.0011	P	8.4

$$y = 0.0020 * x + 4.3627E-005$$

$$R = 1.0000$$

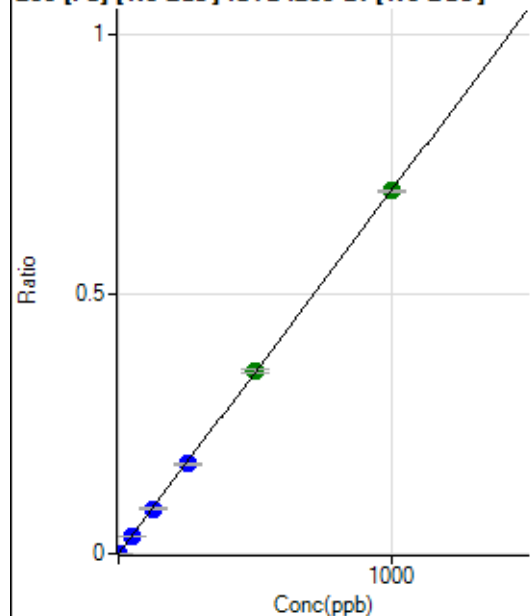
$$DL = 0.01051$$

$$BEC = 0.02133$$

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	248.16	0.0000	P	26.7
2	☐	0.100	0.089	609.30	0.0001	P	9.2
3	☐	1.000	0.967	4399.04	0.0007	P	3.4
4	☐	50.000	49.664	216139.13	0.0348	P	1.6
5	☐	125.000	124.122	561339.12	0.0870	P	0.9
6	☐	250.000	246.697	1123493.53	0.1728	P	1.1
7	☐	500.000	503.801	2361097.10	0.3528	A	1.6
8	☐	1000.000	999.052	4744886.39	0.6996	A	0.6
9	☐			9277.78	0.0015	P	2.4

$$y = 7.0019E-004 * x + 4.1502E-005$$

$$R = 1.0000$$

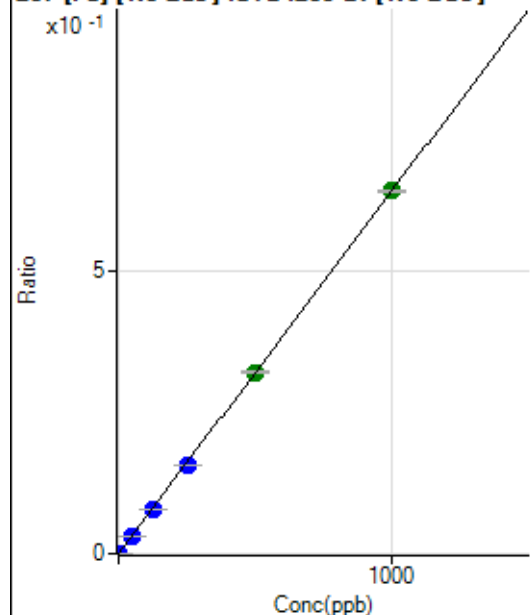
$$DL = 0.04752$$

$$BEC = 0.05927$$

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	220.38	0.0000	P	21.1
2	☐	0.100	0.076	503.73	0.0001	P	12.8
3	☐	1.000	0.953	3974.82	0.0006	P	4.3
4	☐	50.000	48.969	195654.59	0.0315	P	0.9
5	☐	125.000	122.076	506886.75	0.0785	P	1.1
6	☐	250.000	244.729	1023316.36	0.1574	P	1.0
7	☐	500.000	500.535	2153849.50	0.3218	A	0.7
8	☐	1000.000	1001.468	4367109.15	0.6439	A	0.6
9	☐			7595.13	0.0012	P	4.6

$$y = 6.4289E-004 * x + 3.6782E-005$$

$$R = 1.0000$$

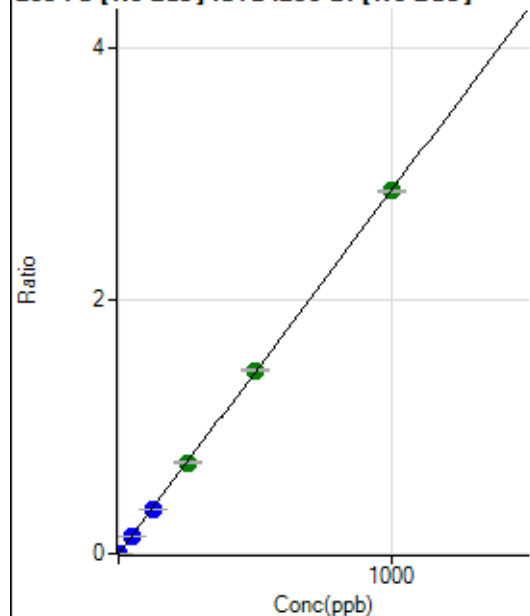
$$DL = 0.03623$$

$$BEC = 0.05721$$

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	920.41	0.0002	P	4.7
2	☐	0.100	0.089	2398.32	0.0004	P	10.8
3	☐	1.000	0.949	17603.41	0.0029	P	0.7
4	☐	50.000	49.161	876506.26	0.1412	P	1.2
5	☐	125.000	123.516	2288685.52	0.3545	P	0.8
6	☐	250.000	250.648	4677061.48	0.7193	A	0.9
7	☐	500.000	503.407	9666899.73	1.4444	A	1.2
8	☐	1000.000	998.362	19428282.81	2.8645	A	0.3
9	☐			35950.70	0.0059	P	1.0

$$y = 0.0029 * x + 1.5379E-004$$

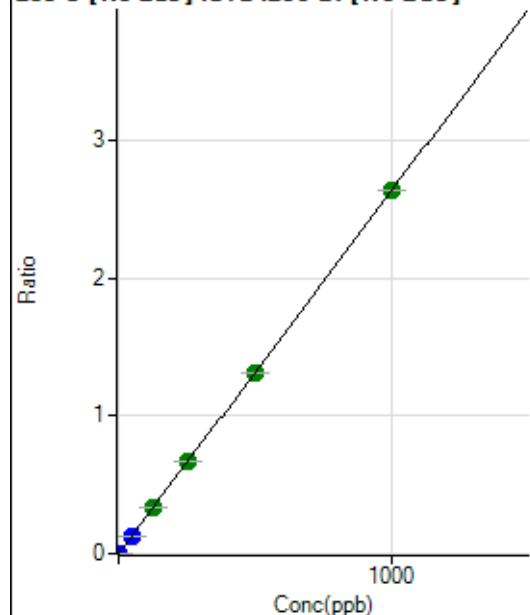
$$R = 1.0000$$

$$DL = 0.007571$$

$$BEC = 0.0536$$

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	77.78	0.0000	P	16.9
2	☐	0.100	0.092	1502.95	0.0003	P	2.8
3	☐	1.000	0.935	15140.44	0.0025	P	0.4
4	☐	50.000	48.762	796308.67	0.1283	P	0.9
5	☐	125.000	126.839	2154220.77	0.3337	A	0.5
6	☐	250.000	252.543	4319920.58	0.6643	A	0.5
7	☐	500.000	498.722	8780114.00	1.3119	A	0.4
8	☐	1000.000	999.835	17838765.33	2.6301	A	0.2
9	☐			2283.66	0.0004	P	12.1

$$y = 0.0026 * x + 1.3001E-005$$

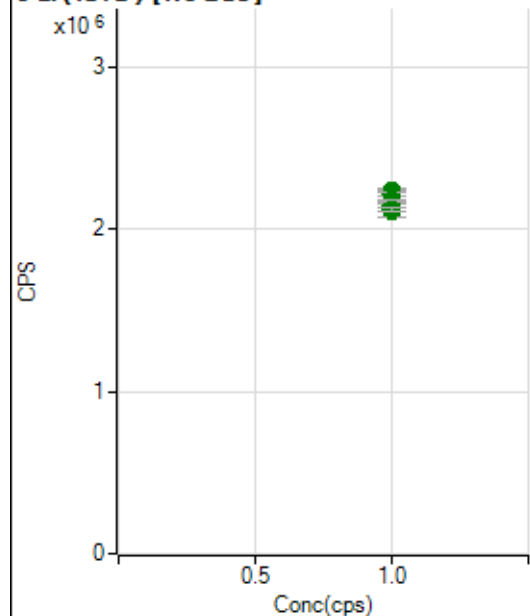
$$R = 1.0000$$

$$DL = 0.002512$$

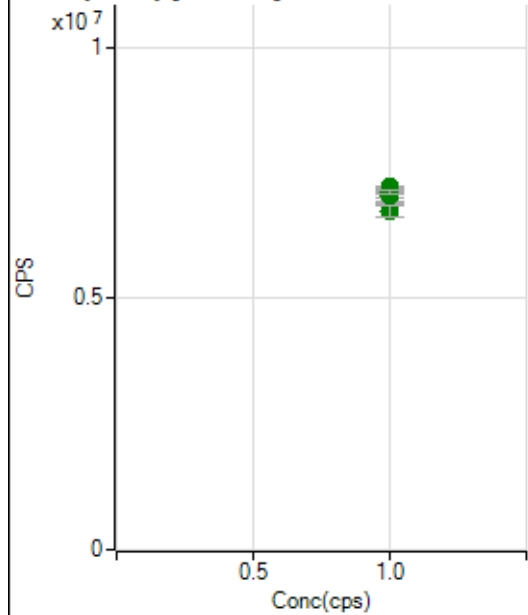
$$BEC = 0.004942$$

Weight: <None>

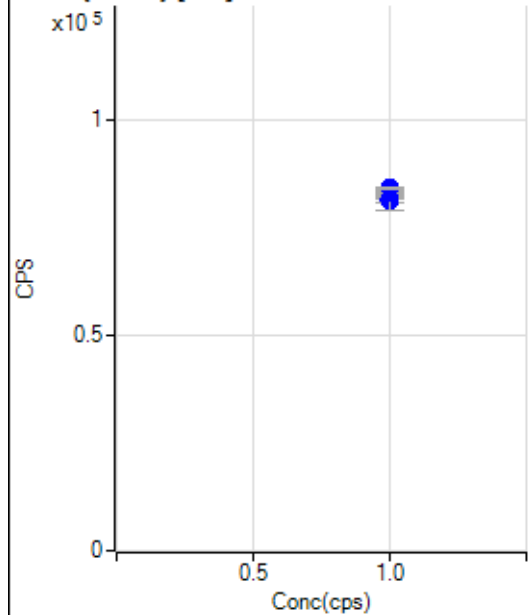
Min Conc: 0

6 Li (ISTD) [No Gas]

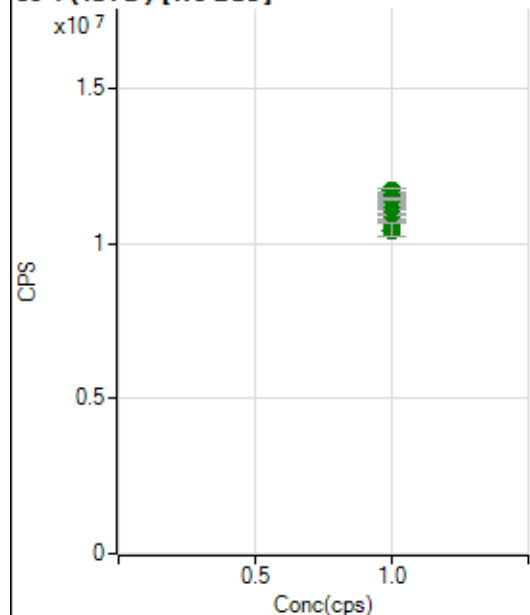
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2149483.86		A	1.1
2	☐	1.000		2108867.50		A	2.9
3	☐	1.000		2206257.90		A	0.3
4	☐	1.000		2222375.35		A	0.9
5	☐	1.000		2237054.01		A	1.1
6	☐	1.000		2238532.87		A	0.4
7	☐	1.000		2221166.53		A	1.2
8	☐	1.000		2179621.90		A	0.5
9	☐	1.000		2122556.85		A	1.6

45 Sc (ISTD) [No Gas]

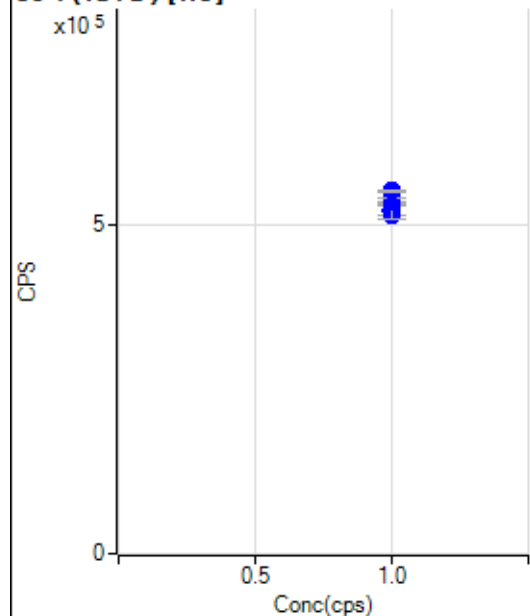
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6900601.54		A	0.7
2	☐	1.000		6736784.66		A	3.4
3	☐	1.000		7040614.22		A	0.8
4	☐	1.000		7082792.87		A	0.6
5	☐	1.000		7165705.45		A	0.3
6	☐	1.000		7197687.92		A	0.5
7	☐	1.000		7221004.50		A	0.2
8	☐	1.000		7199785.23		A	0.1
9	☐	1.000		7122649.81		A	1.0

45 Sc (ISTD) [He]

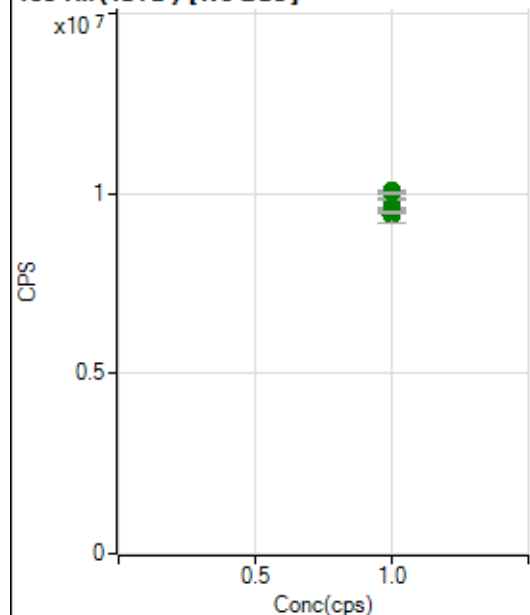
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		81872.22		P	0.8
2	☐	1.000		83792.19		P	0.8
3	☐	1.000		81828.61		P	3.0
4	☐	1.000		82813.26		P	0.5
5	☐	1.000		83457.19		P	1.2
6	☐	1.000		81212.32		P	5.4
7	☐	1.000		83024.39		P	0.5
8	☐	1.000		83301.69		P	0.6
9	☐	1.000		84189.20		P	0.9

89 Y (ISTD) [No Gas]

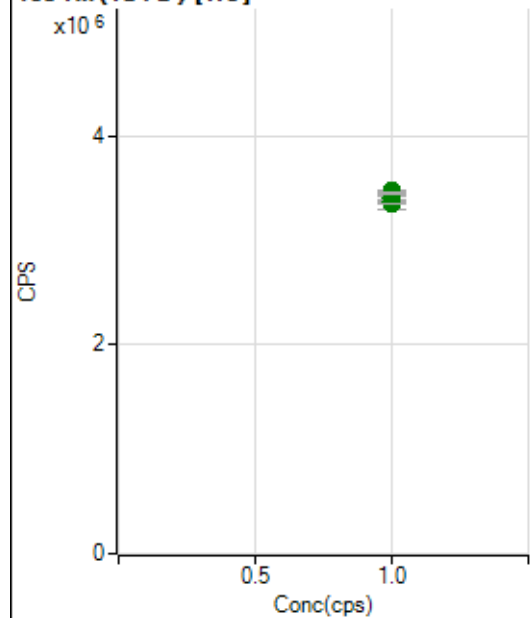
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10761119.42		A	0.3
2	☐	1.000		10456676.58		A	3.7
3	☐	1.000		10969865.81		A	0.6
4	☐	1.000		11143024.56		A	0.6
5	☐	1.000		11293160.53		A	0.8
6	☐	1.000		11396827.19		A	1.4
7	☐	1.000		11593312.88		A	0.3
8	☐	1.000		11708986.21		A	1.2
9	☐	1.000		11462737.05		A	0.7

89 Y (ISTD) [He]

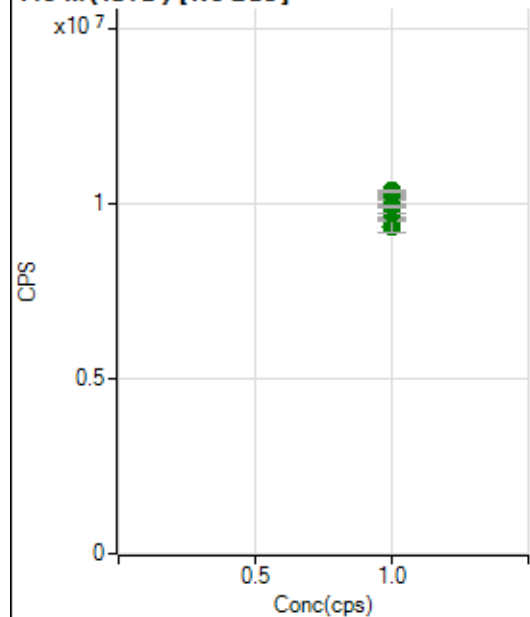
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		513854.10		P	0.3
2	☐	1.000		531890.64		P	0.7
3	☐	1.000		522186.91		P	3.3
4	☐	1.000		532058.83		P	0.5
5	☐	1.000		532325.60		P	0.5
6	☐	1.000		520794.50		P	4.8
7	☐	1.000		533875.60		P	0.1
8	☐	1.000		540652.76		P	0.2
9	☐	1.000		551427.98		P	0.3

103 Rh (ISTD) [No Gas]

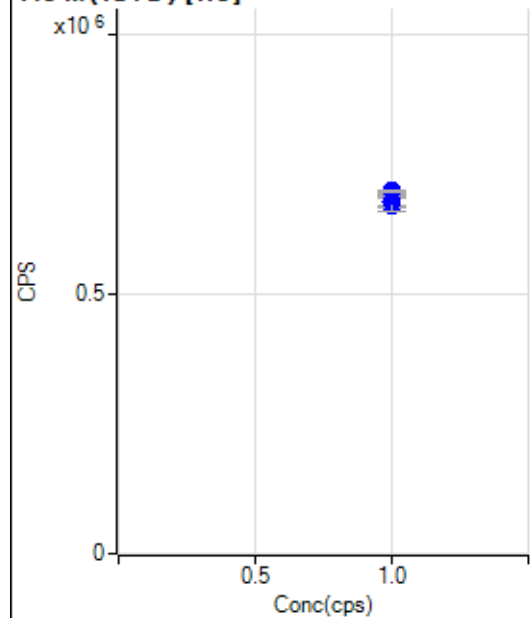
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9554797.09		A	0.9
2	☐	1.000		9386798.91		A	3.7
3	☐	1.000		9823906.56		A	0.3
4	☐	1.000		9866568.80		A	0.6
5	☐	1.000		10028253.17		A	0.7
6	☐	1.000		10084978.09		A	0.7
7	☐	1.000		10073784.51		A	0.7
8	☐	1.000		10024617.15		A	0.7
9	☐	1.000		9496725.99		A	0.5

103 Rh (ISTD) [He]

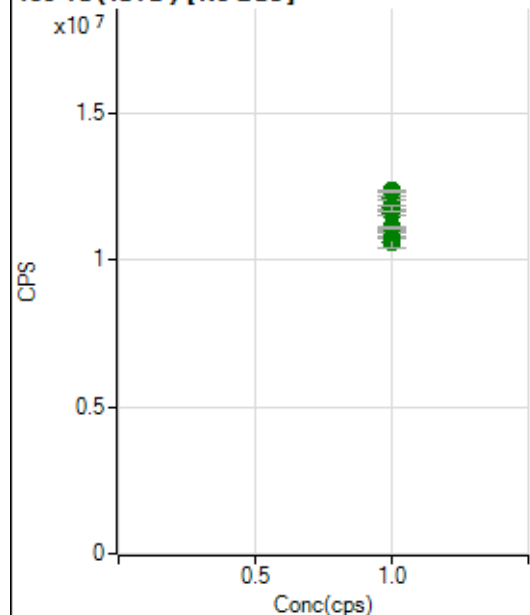
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3384589.32		A	0.6
2	☐	1.000		3439155.26		A	1.4
3	☐	1.000		3399149.01		A	3.4
4	☐	1.000		3471928.11		A	0.7
5	☐	1.000		3467218.21		A	1.0
6	☐	1.000		3370678.98		A	4.7
7	☐	1.000		3441745.36		A	0.7
8	☐	1.000		3446290.33		A	0.7
9	☐	1.000		3348550.75		A	0.1

115 In (ISTD) [No Gas]

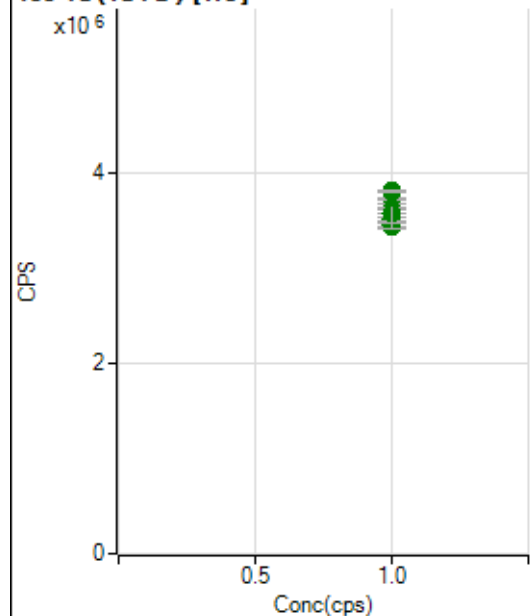
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9581924.94		A	0.6
2	☐	1.000		9327942.10		A	3.1
3	☐	1.000		9702775.21		A	0.2
4	☐	1.000		9910548.76		A	1.0
5	☐	1.000		10127983.86		A	0.6
6	☐	1.000		10248176.89		A	0.6
7	☐	1.000		10274724.90		A	0.5
8	☐	1.000		10352380.76		A	0.2
9	☐	1.000		9908081.46		A	1.0

115 In (ISTD) [He]

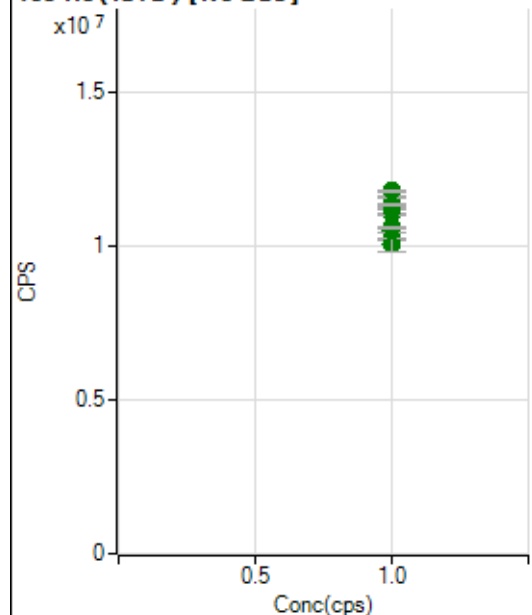
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		670084.74		P	0.4
2	☐	1.000		692196.05		P	0.6
3	☐	1.000		679250.30		P	3.7
4	☐	1.000		690779.30		P	0.0
5	☐	1.000		694216.02		P	0.9
6	☐	1.000		677108.41		P	4.7
7	☐	1.000		689907.84		P	0.8
8	☐	1.000		689226.58		P	0.2
9	☐	1.000		699357.16		P	0.3

159 Tb (ISTD) [No Gas]

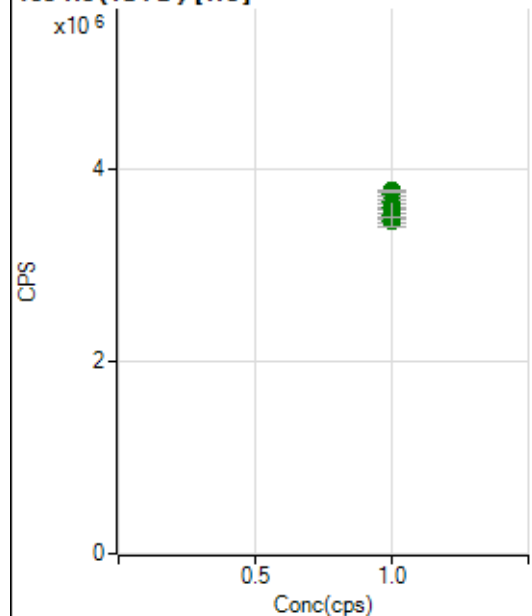
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10722190.26		A	0.4
2	☐	1.000		10609140.88		A	3.4
3	☐	1.000		10940763.59		A	0.9
4	☐	1.000		11100940.25		A	0.7
5	☐	1.000		11568401.77		A	1.5
6	☐	1.000		11681404.55		A	0.7
7	☐	1.000		12101301.48		A	0.6
8	☐	1.000		12335537.32		A	0.4
9	☐	1.000		11740274.13		A	1.5

159 Tb (ISTD) [He]

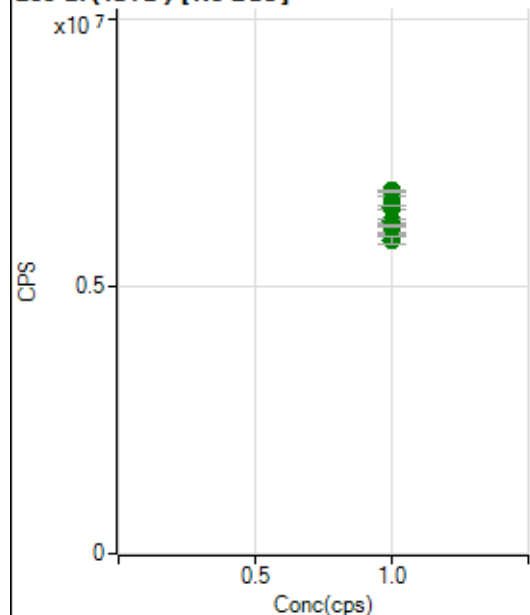
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3434190.12		A	0.2
2	☐	1.000		3526992.55		A	0.9
3	☐	1.000		3460139.22		A	2.5
4	☐	1.000		3583573.63		A	0.5
5	☐	1.000		3632291.92		A	0.9
6	☐	1.000		3582381.65		A	5.3
7	☐	1.000		3737285.15		A	0.4
8	☐	1.000		3818901.58		A	0.5
9	☐	1.000		3807083.76		A	0.5

165 Ho (ISTD) [No Gas]

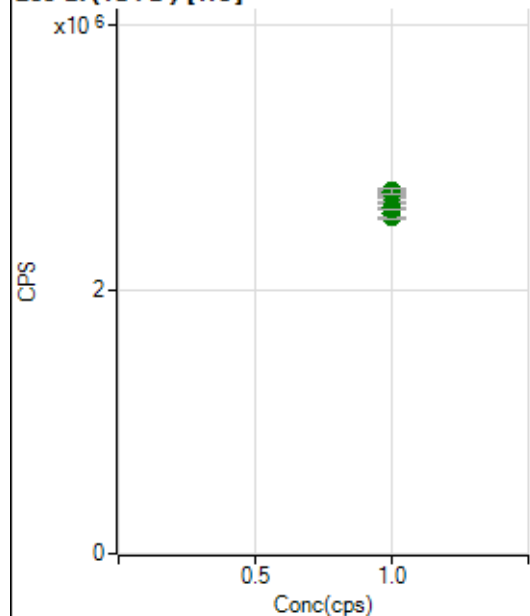
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10198395.71		A	0.1
2	☐	1.000		10037534.34		A	3.8
3	☐	1.000		10526623.50		A	1.1
4	☐	1.000		10626386.35		A	0.6
5	☐	1.000		11037248.51		A	0.4
6	☐	1.000		11220389.66		A	0.2
7	☐	1.000		11589919.71		A	0.5
8	☐	1.000		11798011.46		A	0.7
9	☐	1.000		11342460.76		A	0.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3454988.28		A	0.8
2	☐	1.000		3509560.43		A	1.4
3	☐	1.000		3450848.39		A	3.2
4	☐	1.000		3587569.57		A	0.8
5	☐	1.000		3654579.14		A	0.8
6	☐	1.000		3590456.13		A	4.7
7	☐	1.000		3733331.19		A	1.1
8	☐	1.000		3770679.94		A	0.3
9	☐	1.000		3771152.96		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5986149.77		A	0.7
2	☐	1.000		5873050.33		A	2.5
3	☐	1.000		6120429.70		A	0.5
4	☐	1.000		6207861.71		A	1.2
5	☐	1.000		6455993.51		A	1.0
6	☐	1.000		6502645.74		A	0.2
7	☐	1.000		6692634.83		A	0.2
8	☐	1.000		6782513.16		A	0.4
9	☐	1.000		6129454.63		A	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2547996.58		A	0.6
2	☐	1.000		2615813.40		A	0.8
3	☐	1.000		2572054.46		A	3.2
4	☐	1.000		2659279.47		A	1.0
5	☐	1.000		2713832.95		A	0.5
6	☐	1.000		2627036.77		A	5.5
7	☐	1.000		2748606.04		A	0.4
8	☐	1.000		2746066.90		A	1.2
9	☐	1.000		2609020.14		A	0.1

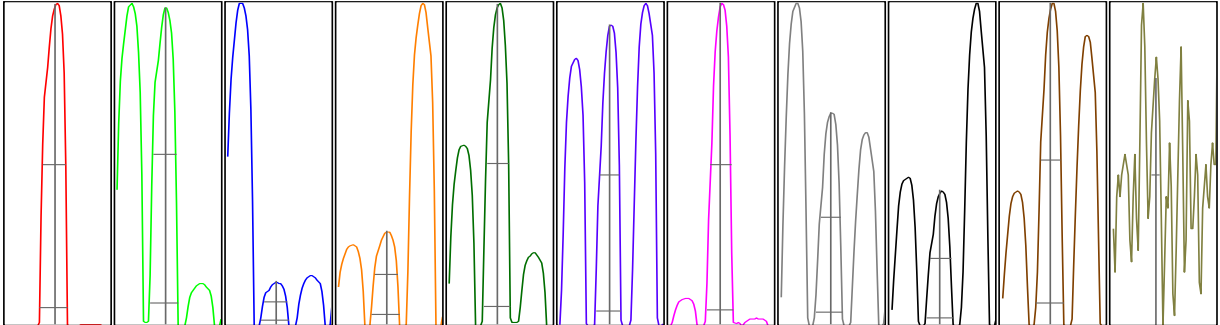
US EPA Tune Check Sample Report

Batch Folder D:\P8043018- MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	10069	1.52	5.00	
24	63690	1.78	5.00	
25	8687	1.45	5.00	
26	10199	1.76	5.00	
59	96950	1.75	5.00	
113	11090	2.24	5.00	
115	140679	3.33	5.00	
206	24028	1.85	5.00	
207	21976	1.89	5.00	
208	52063	1.93	5.00	
220	1	18.10		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10055	10092	10163	9819	10214
24	63389	63915	64236	61941	64969
25	8667	8756	8755	8476	8782
26	10172	10220	10282	9917	10402
59	96163	96249	97830	95080	99426
113	11356	11209	11160	10701	11024
115	145140	144181	141261	133360	139454
206	23919	24030	24130	23409	24651
207	21790	21971	22083	21451	22584
208	51724	52242	51918	50837	53596
220	2	1	2	2	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	16020	8.95	8.9 - 9.1		0.788	0.900	
24	101812	23.95	23.9 - 24.1		0.821	0.900	
25	13631	24.95	24.9 - 25.1		0.797	0.900	
26	15846	25.95	25.9 - 26.1		0.805	0.900	
59	159065	58.95	58.9 - 59.1		0.785	0.900	
113	20066	113.00	112.9 - 113.1		0.734	0.900	
115	252950	115.00	114.9 - 115.1		0.775	0.900	
206	42936	206.00	205.9 - 206.1		0.781	0.900	
207	38893	206.95	206.9 - 207.1		0.780	0.900	
208	93202	207.95	207.9 - 208.1		0.781	0.900	
220	2	219.80	-				

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	9.0	V	Deflect	14.2	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-110	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	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	14809	0.50	
89	4803	1.39	
205	17177	0.74	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	14898	14837	14836	14769	14706
89	4879	4855	4812	4733	4737
205	17351	17221	17201	17084	17026

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	9.0	V	Deflect	2.0	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-110	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			