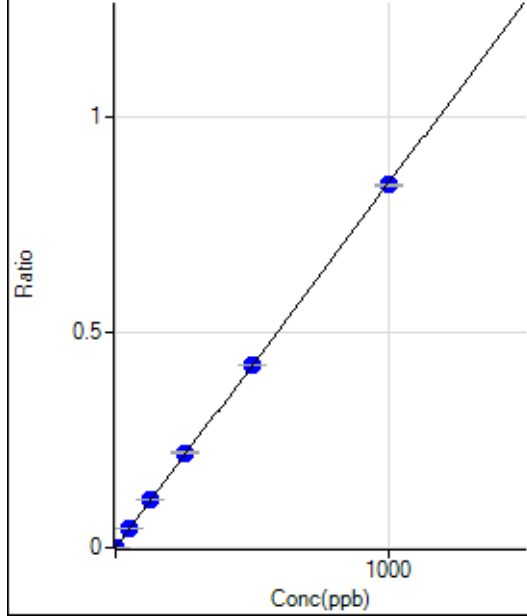


Batch Folder: D:\ICP-MS Data\P7111619MS.b\
Analysis File: P7111619MS.batch.bin
DA Date-Time: 2019-11-16 20:46:35
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-11-16 12:47:23
2	003CALS.d	S02	2019-11-16 12:50:56
3	004CALS.d	S03	2019-11-16 12:55:06
4	005CALS.d	S04	2019-11-16 12:59:00
5	006CALS.d	S05	2019-11-16 13:02:51
6	007CALS.d	S06	2019-11-16 13:06:38
7	008CALS.d	S07	2019-11-16 13:10:22
8	009CALS.d	S08	2019-11-16 13:14:07

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24.08	0.0000	P	26.5
2	☐	1.000	0.986	2407.66	0.0008	P	6.3
3	☐	50.000	52.311	125653.04	0.0442	P	1.3
4	☐	125.000	131.427	299066.62	0.1111	P	1.3
5	☐	250.000	260.789	565731.30	0.2205	P	0.5
6	☐	500.000	501.026	1098852.87	0.4237	P	0.2
7	☐	1000.000	995.871	2082284.45	0.8421	P	0.5
8	☐			527.80	0.0002	P	7.3

$$y = 8.4558\text{E-}004 * x + 8.5085\text{E-}006$$

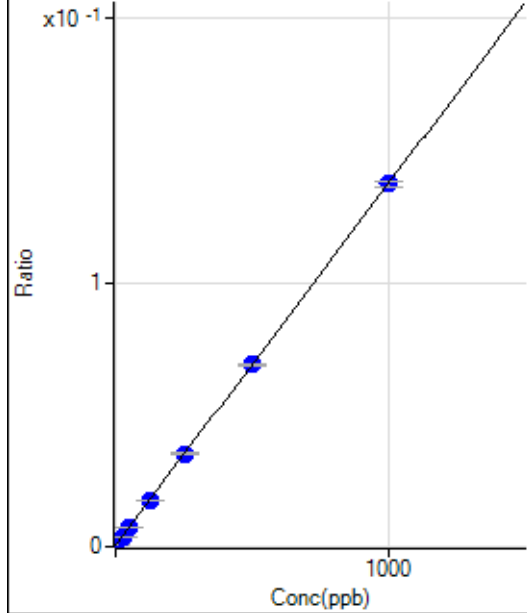
$$R = 0.9999$$

$$DL = 0.007993$$

$$BEC = 0.01006$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1530.70	0.0005	P	3.5
2	☐	25.000	24.948	11310.29	0.0040	P	2.3
3	☐	50.000	50.704	21243.45	0.0075	P	0.8
4	☐	125.000	124.915	47455.93	0.0176	P	0.1
5	☐	250.000	253.798	90490.04	0.0353	P	0.3
6	☐	500.000	499.887	178846.66	0.0690	P	1.3
7	☐	1000.000	999.084	339423.89	0.1373	P	1.5
8	☐			5109.39	0.0021	P	4.7

$$y = 1.3686\text{E-}004 * x + 5.4112\text{E-}004$$

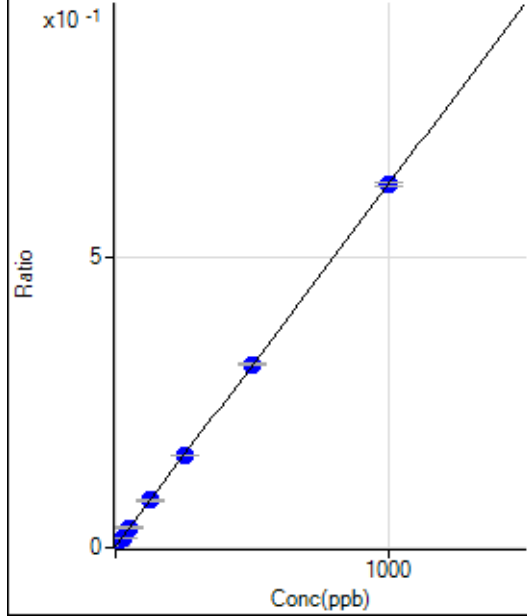
$$R = 1.0000$$

$$DL = 0.4148$$

$$BEC = 3.954$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6471.06	0.0023	P	4.9
2	☐	25.000	24.401	50006.12	0.0175	P	0.5
3	☐	50.000	51.758	98065.14	0.0345	P	1.8
4	☐	125.000	126.751	218613.49	0.0812	P	0.7
5	☐	250.000	251.594	407921.99	0.1590	P	0.9
6	☐	500.000	501.929	816944.54	0.3150	P	1.0
7	☐	1000.000	998.345	1543517.54	0.6242	P	1.0
8	☐			23783.29	0.0099	P	3.9

$$y = 6.2295E-004 * x + 0.0023$$

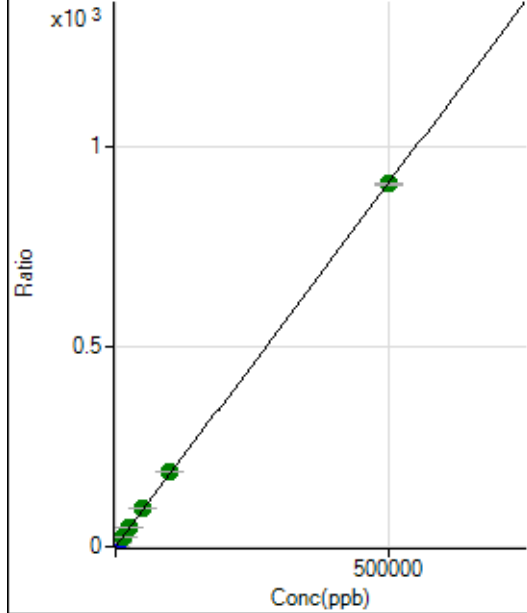
$$R = 1.0000$$

$$DL = 0.5365$$

$$BEC = 3.672$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6882.42	0.0284	P	5.9
2	☐	500.000	515.607	234728.43	0.9640	P	1.0
3	☐	5000.000	5412.795	2349638.77	9.8501	P	1.3
4	☐	12500.000	13376.146	5559975.39	24.2999	A	0.8
5	☐	25000.000	26668.459	10464031.83	48.4193	A	1.1
6	☐	50000.000	51819.167	20300737.95	94.0562	A	0.4
7	☐	100000.00	103613.16	40604251.60	188.0383	A	1.0
8	☐	500000.00	498985.98	200839046.1	905.4567	A	0.4

$$y = 0.0018 * x + 0.0284$$

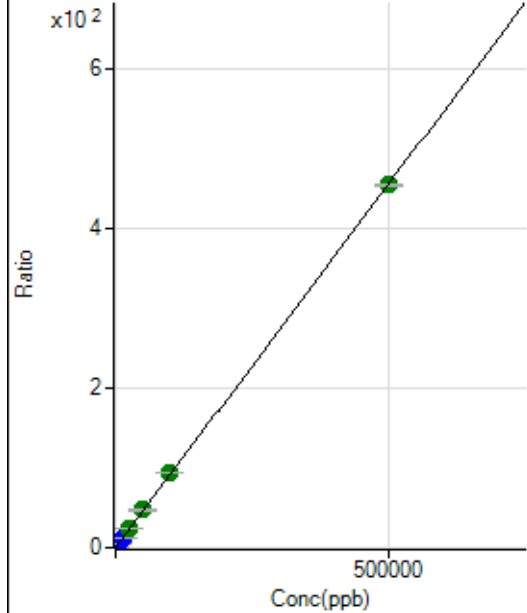
$$R = 1.0000$$

$$DL = 2.769$$

$$BEC = 15.65$$

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	169.45	0.0007	P	16.7
2	☐	500.000	537.489	119643.64	0.4914	P	1.8
3	☐	5000.000	5423.731	1181219.55	4.9519	P	1.6
4	☐	12500.000	13568.411	2834264.78	12.3870	P	0.3
5	☐	25000.000	27164.426	5359391.87	24.7986	A	1.1
6	☐	50000.000	51683.995	10183570.89	47.1820	A	0.5
7	☐	100000.00	103479.24	20398337.44	94.4650	A	0.9
8	☐	500000.00	498996.54	101040414.7	455.5253	A	0.6

$$y = 9.1288\text{E-}004 * x + 6.9898\text{E-}004$$

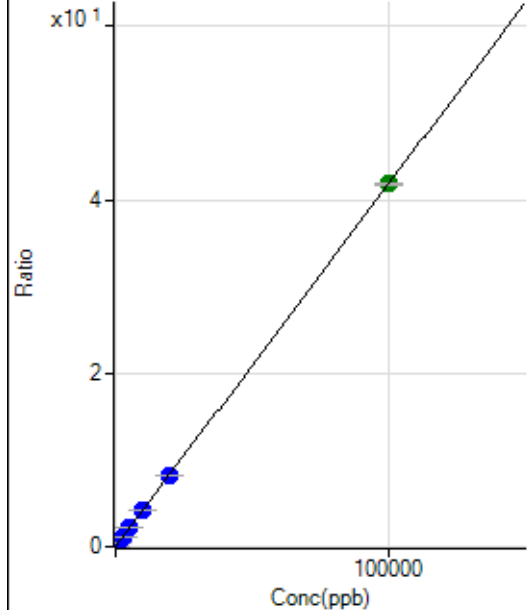
$$R = 1.0000$$

$$DL = 0.3845$$

$$BEC = 0.7657$$

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11.11	0.0000	P	114.
2	☐	20.000	19.994	2047.46	0.0084	P	5.0
3	☐	1000.000	1069.094	106684.46	0.4472	P	2.1
4	☐	2500.000	2586.322	247544.18	1.0819	P	0.7
5	☐	5000.000	5143.646	465004.42	2.1516	P	0.9
6	☐	10000.000	10136.027	915102.35	4.2398	P	0.8
7	☐	20000.000	19742.013	1783173.13	8.2579	P	0.4
8	☐	100000.00	100027.96	9280428.76	41.8406	A	0.5

$$y = 4.1829\text{E-}004 * x + 4.5862\text{E-}005$$

$$R = 1.0000$$

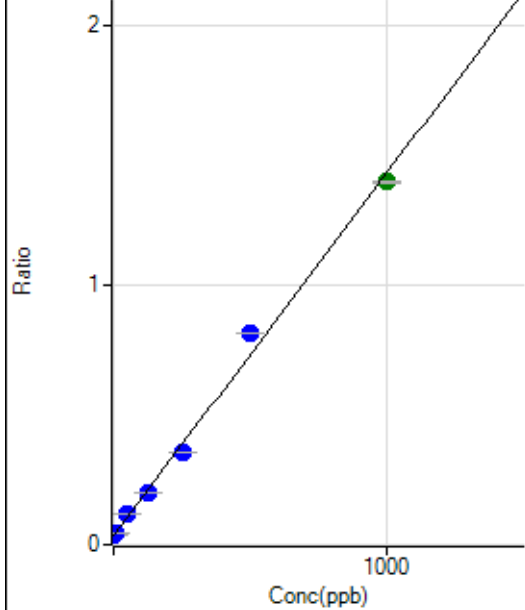
$$DL = 0.3753$$

$$BEC = 0.1096$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	192348.41	0.0352	P	0.5
2	☐	10.000	8.041	249525.73	0.0464	P	0.7
3	☐	50.000	59.579	633611.80	0.1184	P	0.7
4	☐	125.000	116.023	998497.00	0.1972	P	0.3
5	☐	250.000	227.926	1701866.56	0.3534	P	0.7
6	☐	500.000	559.449	3992603.00	0.8163	P	0.4
7	☐	1000.000	976.457	6663754.18	1.3985	A	0.3
8	☐			359978.02	0.0759	P	1.1

$$y = 0.0014 * x + 0.0352$$

$$R = 0.9970$$

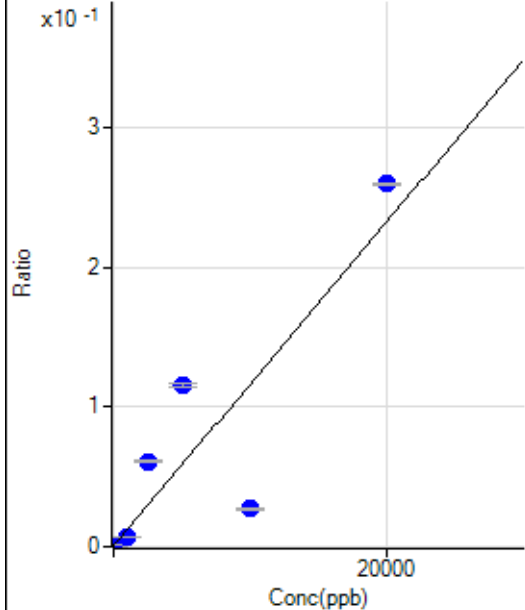
$$DL = 0.4141$$

$$BEC = 25.21$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-51.553	102.78	0.0004	P	17.4
2	☐	0.000	51.553	394.47	0.0016	P	10.2
3	☐	1000.000	476.623	1561.26	0.0065	P	6.1
4	☐	2500.000	5175.970	13962.59	0.0610	P	2.5
5	☐	5000.000	9906.899	25038.45	0.1159	P	3.0
6	☐	10000.000	2246.861	5843.04	0.0271	P	2.4
7	☐	20000.000	22341.517	56148.03	0.2600	P	0.5
8	☐			152.79	0.0007	P	15.9

$$y = 1.1593E-005 * x + 0.0010$$

$$R = 0.8708$$

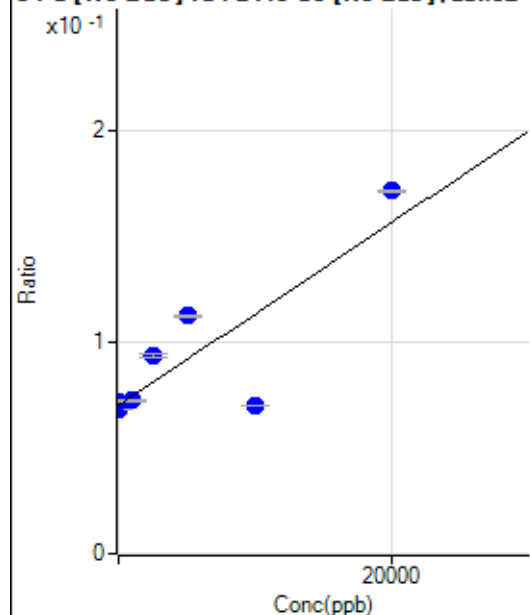
$$DL = 30.95$$

$$BEC = 88.17$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-450.316	372180.60	0.0681	P	0.2
2	☐	0.000	450.316	386954.89	0.0720	P	0.3
3	☐	1000.000	530.942	387160.87	0.0723	P	0.9
4	☐	2500.000	5469.830	474300.95	0.0937	P	2.0
5	☐	5000.000	9764.955	540369.83	0.1122	P	1.0
6	☐	10000.000	26.408	343125.75	0.0702	P	0.1
7	☐	20000.000	23447.781	816233.53	0.1713	P	0.3
8	☐			285196.33	0.0601	P	0.6

$$y = 4.3187\text{E-}006 * x + 0.0700$$

$$R = 0.8279$$

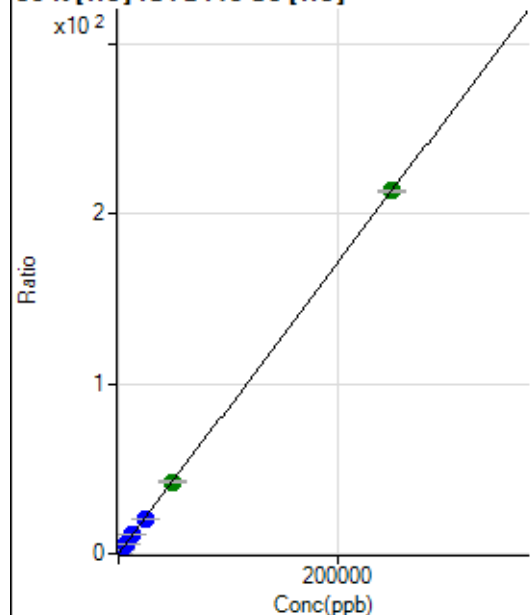
$$DL = 120.7$$

$$BEC = 1.622\text{E}+04$$

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	17352.53	0.0716	P	3.2
2	☐	500.000	502.719	121899.98	0.5006	P	0.2
3	☐	2500.000	2603.499	547011.78	2.2932	P	1.9
4	☐	6250.000	6523.201	1290017.80	5.6380	P	0.6
5	☐	12500.000	12838.570	2383120.17	11.0269	P	0.9
6	☐	25000.000	24238.927	4479691.11	20.7550	P	0.6
7	☐	50000.000	49569.728	9149151.51	42.3701	A	0.6
8	☐	250000.00	250137.36	47359894.81	213.5168	A	0.3

$$y = 8.5331\text{E-}004 * x + 0.0716$$

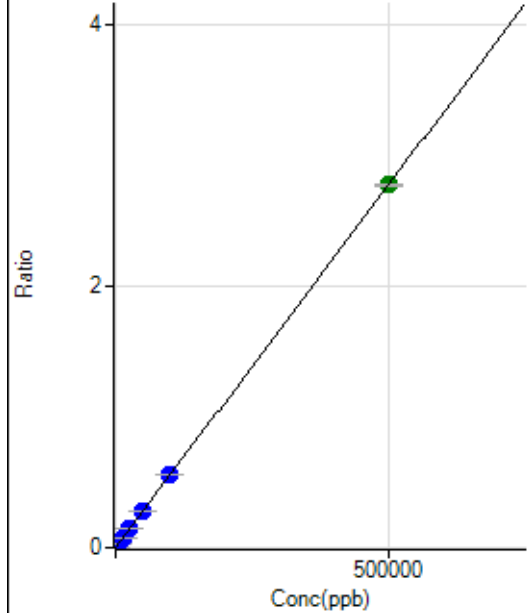
$$R = 1.0000$$

$$DL = 8.077$$

$$BEC = 83.95$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	23.7
2	☐	500.000	484.171	14504.87	0.0027	P	1.9
3	☐	5000.000	5124.044	152012.99	0.0284	P	0.2
4	☐	12500.000	12985.091	364310.87	0.0719	P	0.3
5	☐	25000.000	25844.014	689445.50	0.1432	P	0.3
6	☐	50000.000	49896.851	1351966.01	0.2764	P	0.2
7	☐	100000.00	99727.885	2632255.42	0.5524	P	0.3
8	☐	500000.00	500009.18	13138734.50	2.7697	A	0.4

$$y = 5.5392\text{E-}006 * x + 1.6266\text{E-}005$$

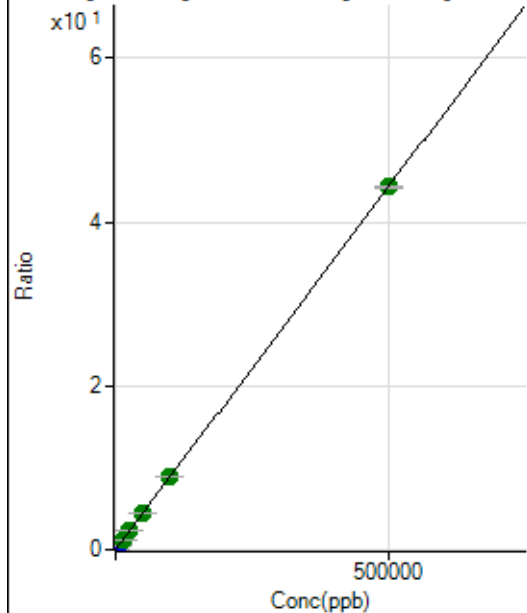
$$R = 1.0000$$

$$DL = 2.09$$

$$BEC = 2.937$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12995.06	0.0024	P	2.1
2	☐	500.000	490.517	246327.52	0.0458	P	1.4
3	☐	5000.000	5055.197	2409341.59	0.4501	P	0.3
4	☐	12500.000	12851.973	5776319.14	1.1407	A	0.4
5	☐	25000.000	25581.696	10922681.93	2.2682	A	0.4
6	☐	50000.000	49874.601	21618306.04	4.4198	A	0.1
7	☐	100000.00	100674.56	42499125.26	8.9192	A	0.6
8	☐	500000.00	499839.20	210028953.3	44.2736	A	0.4

$$y = 8.8571\text{E-}005 * x + 0.0024$$

$$R = 1.0000$$

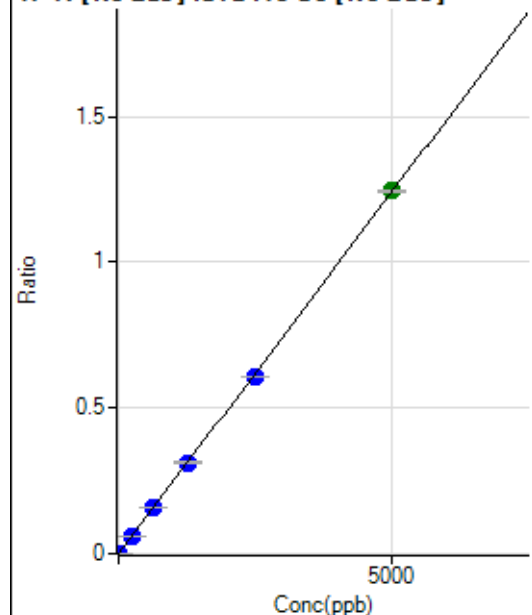
$$DL = 1.654$$

$$BEC = 26.84$$

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	94.45	0.0000	P	13.8
2	☐	5.000	5.153	6954.69	0.0013	P	2.6
3	☐	250.000	249.580	330964.80	0.0618	P	0.3
4	☐	625.000	635.144	796687.39	0.1573	P	0.9
5	☐	1250.000	1264.528	1508231.91	0.3132	P	0.6
6	☐	2500.000	2442.230	2958667.67	0.6049	P	0.2
7	☐	5000.000	5024.006	5929224.01	1.2443	A	0.4
8	☐			2186.36	0.0005	P	7.1

$$y = 2.4767E-004 * x + 1.7285E-005$$

$$R = 0.9999$$

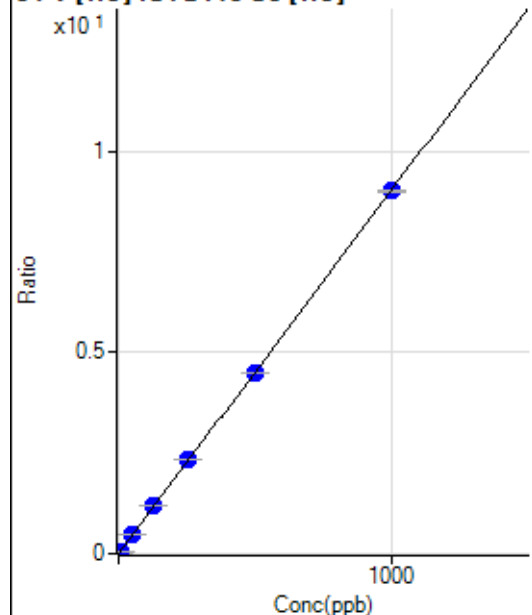
$$DL = 0.0289$$

$$BEC = 0.06979$$

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	4.45	0.0000	P	86.6
2	☐	5.000	5.217	11489.06	0.0472	P	2.2
3	☐	50.000	51.514	111106.49	0.4658	P	1.4
4	☐	125.000	131.221	271465.37	1.1864	P	0.5
5	☐	250.000	258.824	505757.30	2.3401	P	0.6
6	☐	500.000	497.702	971238.29	4.4999	P	0.7
7	☐	1000.000	998.089	1948612.49	9.0241	P	0.5
8	☐			896.71	0.0040	P	10.5

$$y = 0.0090 * x + 1.8385E-005$$

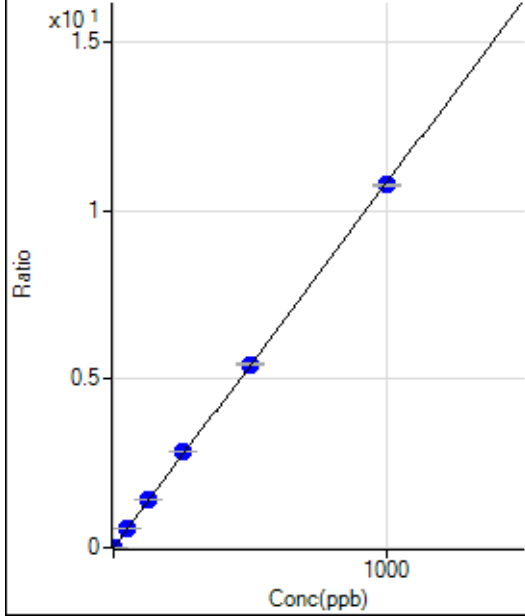
$$R = 0.9999$$

$$DL = 0.005283$$

$$BEC = 0.002033$$

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	894.49	0.0037	P	7.5
2	☐	2.000	2.024	6229.18	0.0256	P	2.0
3	☐	50.000	52.364	135973.16	0.5700	P	1.3
4	☐	125.000	132.434	328554.74	1.4360	P	0.9
5	☐	250.000	262.230	613734.43	2.8397	P	0.6
6	☐	500.000	501.790	1172097.55	5.4306	P	0.8
7	☐	1000.000	995.000	2324464.43	10.7646	P	0.5
8	☐			70973.08	0.3200	P	0.2

$$y = 0.0108 * x + 0.0037$$

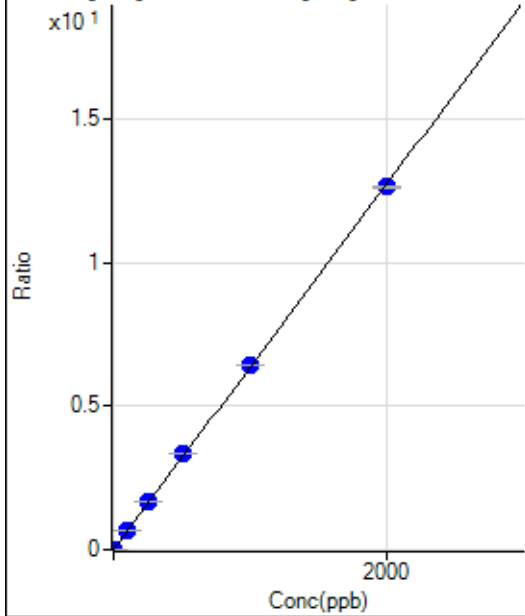
$$R = 0.9999$$

$$DL = 0.07652$$

$$BEC = 0.3414$$

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	27.78	0.0001	P	24.2
2	☐	1.000	1.081	1703.46	0.0070	P	7.9
3	☐	100.000	104.512	158699.46	0.6653	P	1.6
4	☐	250.000	265.012	385968.68	1.6868	P	0.4
5	☐	500.000	526.811	724670.14	3.3531	P	0.7
6	☐	1000.000	1008.697	1385719.61	6.4202	P	0.3
7	☐	2000.000	1986.847	2730692.53	12.6459	P	0.3
8	☐			10953.10	0.0494	P	1.7

$$y = 0.0064 * x + 1.1449E-004$$

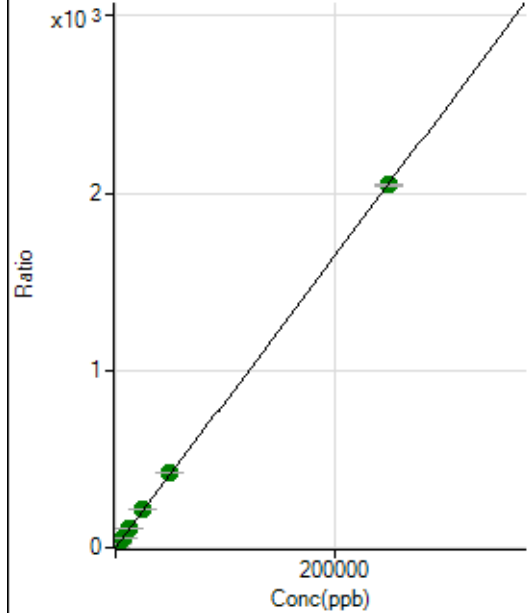
$$R = 0.9999$$

$$DL = 0.01308$$

$$BEC = 0.01799$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3276.38	0.0135	P	2.5
2	☐	50.000	57.578	118233.32	0.4855	P	1.1
3	☐	2500.000	2680.386	5244570.83	21.9872	A	1.8
4	☐	6250.000	6828.972	12812514.06	55.9971	A	0.6
5	☐	12500.000	13601.278	24100659.80	111.5161	A	0.7
6	☐	25000.000	25917.151	45862025.56	212.4809	A	0.2
7	☐	50000.000	51675.012	91479707.60	423.6424	A	0.9
8	☐	250000.00	249501.93	453686050.8	2,045.416	A	0.4

$$y = 0.0082 * x + 0.0135$$

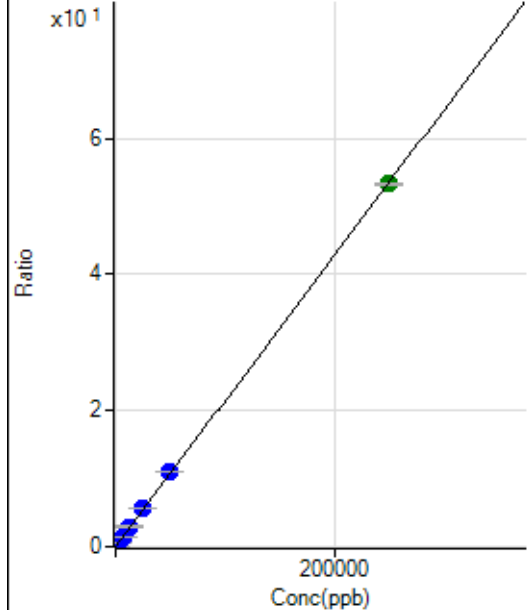
$$R = 1.0000$$

$$DL = 0.1259$$

$$BEC = 1.65$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	220.38	0.0009	P	5.0
2	☐	50.000	57.388	3205.99	0.0132	P	5.2
3	☐	2500.000	2717.272	138624.64	0.5812	P	2.5
4	☐	6250.000	6929.422	338798.63	1.4807	P	0.6
5	☐	12500.000	13799.072	637048.31	2.9478	P	1.2
6	☐	25000.000	26165.955	1206246.58	5.5888	P	0.8
7	☐	50000.000	51428.019	2371753.55	10.9836	P	0.5
8	☐	250000.00	249513.68	11819315.66	53.2859	A	0.2

$$y = 2.1356E-004 * x + 9.0939E-004$$

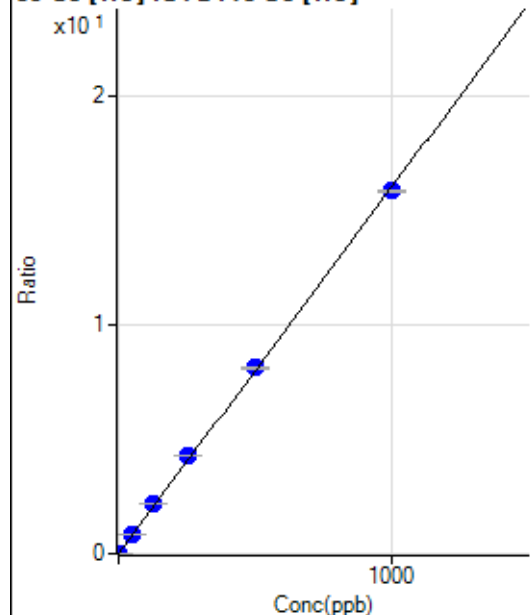
$$R = 1.0000$$

$$DL = 0.6398$$

$$BEC = 4.258$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	45.56	0.0002	P	26.4
2	☐	1.000	0.989	3909.47	0.0161	P	2.3
3	☐	50.000	53.708	205500.03	0.8615	P	2.0
4	☐	125.000	135.753	498185.03	2.1773	P	0.8
5	☐	250.000	268.416	930354.58	4.3049	P	1.3
6	☐	500.000	506.762	1754168.93	8.1273	P	0.6
7	☐	1000.000	990.486	3430136.03	15.8850	P	0.5
8	☐			7458.68	0.0336	P	3.7

$$y = 0.0160 * x + 1.8824E-004$$

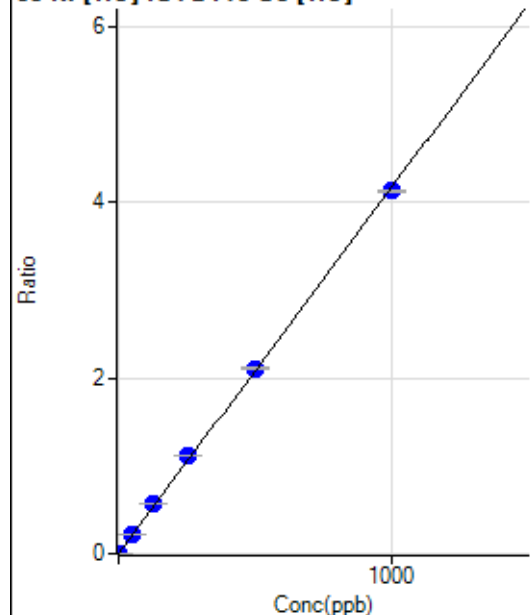
$$R = 0.9998$$

$$DL = 0.009281$$

$$BEC = 0.01174$$

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	44.44	0.0002	P	38.0
2	☐	1.000	1.063	1122.29	0.0046	P	6.3
3	☐	50.000	53.853	53539.70	0.2245	P	1.9
4	☐	125.000	135.001	128679.57	0.5624	P	0.9
5	☐	250.000	266.993	240345.81	1.1121	P	0.6
6	☐	500.000	506.585	455376.48	2.1099	P	1.0
7	☐	1000.000	991.017	891230.20	4.1273	P	0.6
8	☐			19440.86	0.0876	P	1.4

$$y = 0.0042 * x + 1.8329E-004$$

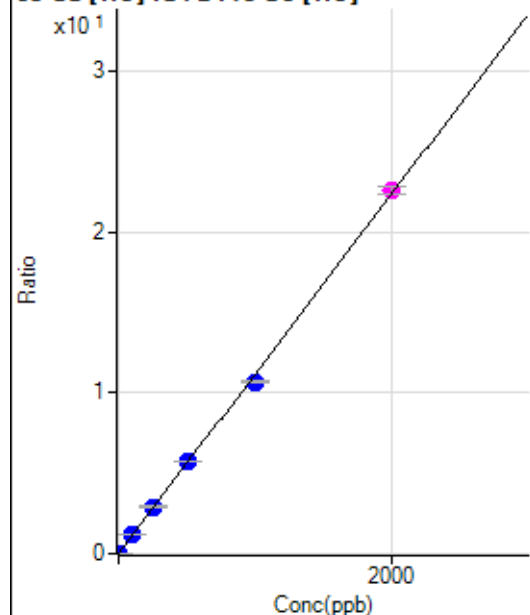
$$R = 0.9998$$

$$DL = 0.05015$$

$$BEC = 0.04401$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	430.02	0.0018	P	17.6
2	☐	2.000	1.996	5862.37	0.0241	P	4.1
3	☐	100.000	103.067	275086.20	1.1533	P	2.3
4	☐	250.000	261.373	668570.66	2.9220	P	0.7
5	☐	500.000	511.688	1235906.36	5.7186	P	0.8
6	☐	1000.000	955.411	2304299.27	10.6761	P	0.4
7	☐	2000.000	2017.798	4868520.76	22.5456	M	1.9
8	☐			8319.14	0.0375	P	1.9

$$y = 0.0112 * x + 0.0018$$

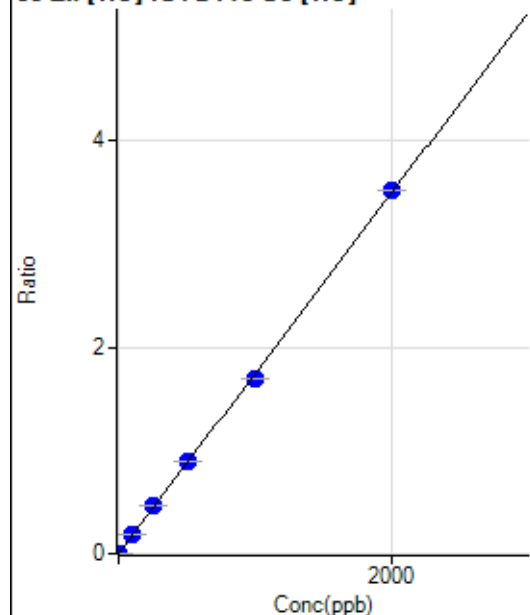
$$R = 0.9996$$

$$DL = 0.0841$$

$$BEC = 0.1589$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	324.45	0.0013	P	15.2
2	☐	2.000	1.973	1165.62	0.0048	P	5.0
3	☐	100.000	105.289	44195.82	0.1853	P	1.4
4	☐	250.000	261.619	104882.11	0.4584	P	0.5
5	☐	500.000	509.899	192810.59	0.8921	P	0.4
6	☐	1000.000	968.527	365484.53	1.6934	P	0.7
7	☐	2000.000	2011.545	759118.42	3.5155	P	0.1
8	☐			10523.94	0.0474	P	0.2

$$y = 0.0017 * x + 0.0013$$

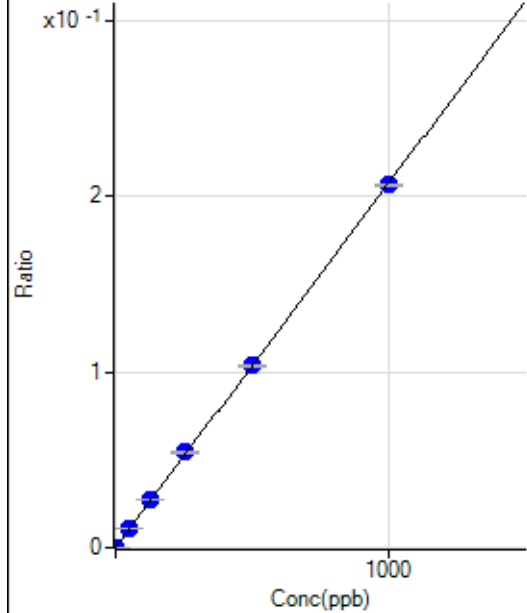
$$R = 0.9998$$

$$DL = 0.3489$$

$$BEC = 0.7668$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.70	0.0000	P	0.1
2	☐	1.000	1.014	260.50	0.0002	P	7.2
3	☐	50.000	53.006	13399.46	0.0110	P	2.0
4	☐	125.000	132.097	32501.66	0.0274	P	0.9
5	☐	250.000	262.294	61406.62	0.0544	P	0.8
6	☐	500.000	499.554	116228.10	0.1035	P	0.6
7	☐	1000.000	996.112	232006.85	0.2065	P	0.7
8	☐			138.27	0.0001	P	2.6

$$y = 2.0728\text{E-}004 * x + 3.0423\text{E-}006$$

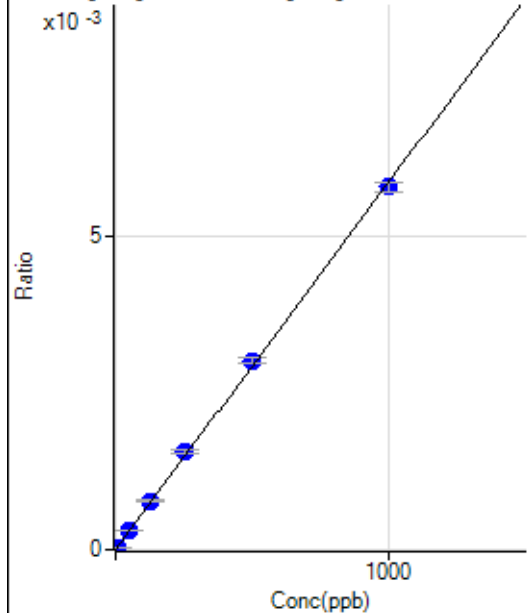
$$R = 0.9999$$

$$DL = 6.192\text{E-}05$$

$$BEC = 0.01468$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	5.747	41.11	0.0000	P	12.2
3	☐	50.000	52.173	372.23	0.0003	P	3.9
4	☐	125.000	132.917	923.38	0.0008	P	4.1
5	☐	250.000	265.304	1753.47	0.0016	P	4.4
6	☐	500.000	514.024	3377.12	0.0030	P	3.0
7	☐	1000.000	988.060	6498.21	0.0058	P	2.5
8	☐			8.89	0.0000	P	78.1

$$y = 5.8532\text{E-}006 * x + 0.0000\text{E+}000$$

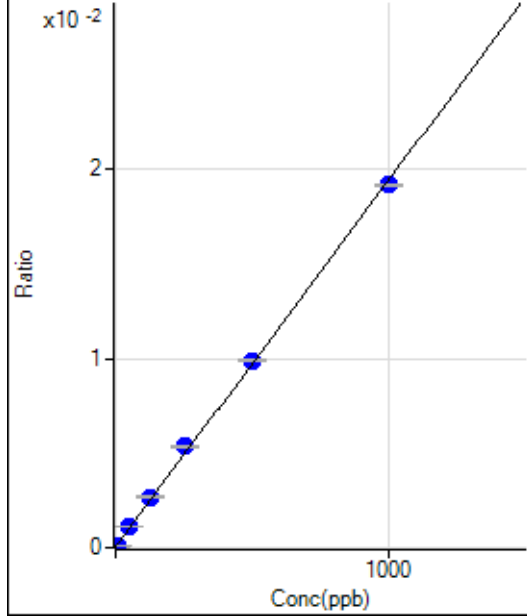
$$R = 0.9997$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	45.68	0.0000	P	27.0
2	☐	5.000	5.415	174.08	0.0001	P	13.0
3	☐	50.000	56.342	1376.00	0.0011	P	5.2
4	☐	125.000	135.054	3149.75	0.0027	P	3.0
5	☐	250.000	273.934	6035.25	0.0053	P	2.5
6	☐	500.000	509.010	11110.49	0.0099	P	1.2
7	☐	1000.000	987.936	21546.91	0.0192	P	0.7
8	☐			62.35	0.0001	P	22.6

$$y = 1.9372\text{E-}005 * x + 3.7557\text{E-}005$$

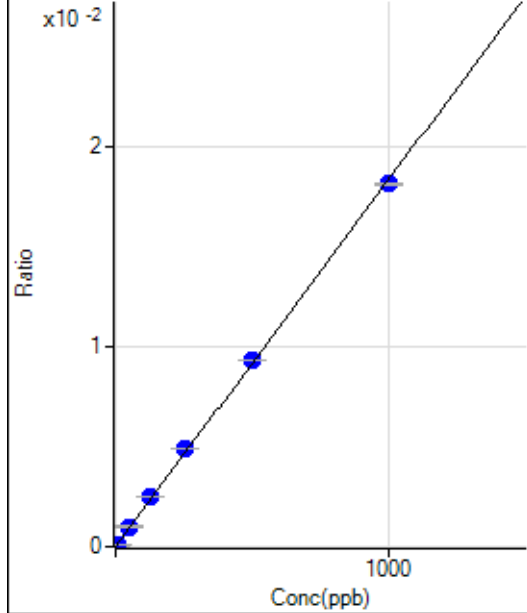
$$R = 0.9996$$

$$DL = 1.569$$

$$BEC = 1.939$$

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	38.80	0.0000	P	66.7
2	☐	5.000	5.448	917.39	0.0001	P	12.9
3	☐	50.000	54.254	8704.43	0.0010	P	2.2
4	☐	125.000	135.862	21037.21	0.0025	P	1.2
5	☐	250.000	267.890	40241.08	0.0049	P	0.7
6	☐	500.000	510.079	78373.08	0.0094	P	0.1
7	☐	1000.000	988.915	148858.34	0.0181	P	0.7
8	☐			125.43	0.0000	P	23.0

$$y = 1.8335\text{E-}005 * x + 4.4515\text{E-}006$$

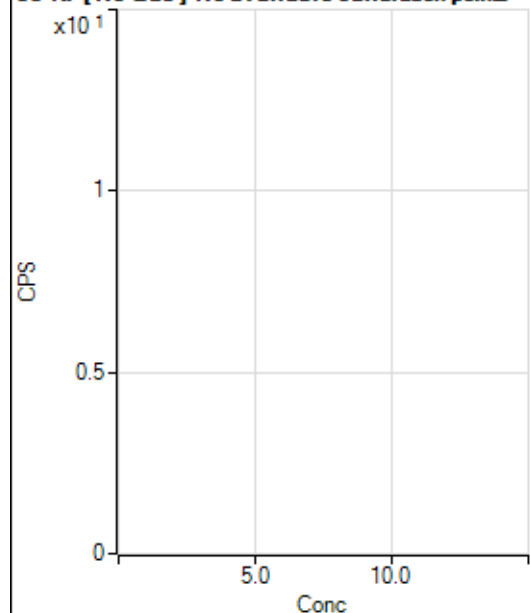
$$R = 0.9997$$

$$DL = 0.4855$$

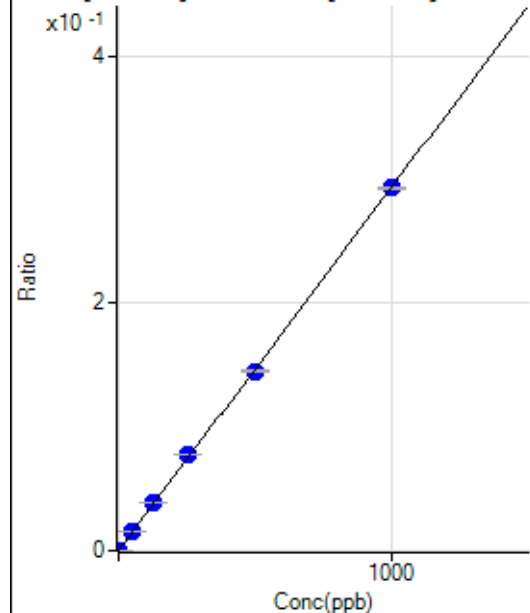
$$BEC = 0.2428$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			545.57		P	1.3
2	☐			552.24		P	9.4
3	☐			513.35		P	5.7
4	☐			556.69		P	12.2
5	☐			490.02		P	2.5
6	☐			551.13		P	4.2
7	☐			526.69		P	10.4
8	☐			606.69		P	5.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	858.39	0.0001	P	3.9
2	☐	1.000	1.108	3728.42	0.0004	P	2.8
3	☐	50.000	50.602	130230.88	0.0149	P	1.2
4	☐	125.000	133.832	331967.51	0.0394	P	0.6
5	☐	250.000	263.892	634775.98	0.0775	P	0.4
6	☐	500.000	493.957	1215123.59	0.1451	P	0.7
7	☐	1000.000	998.414	2405957.83	0.2931	P	0.6
8	☐			10876.79	0.0014	P	4.1

$$y = 2.9349\text{E-}004 * x + 9.8627\text{E-}005$$

$$R = 0.9998$$

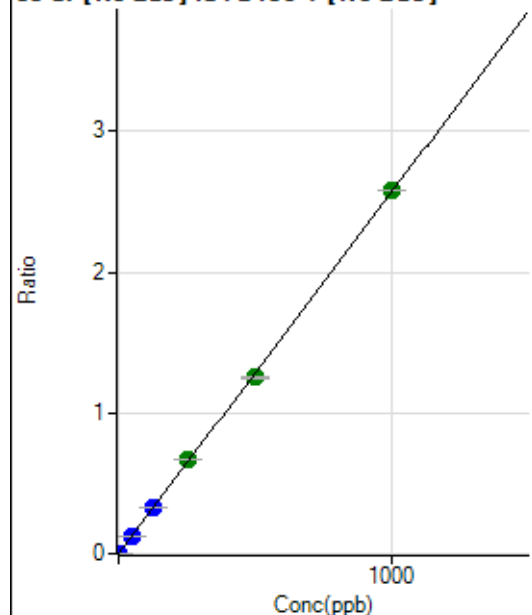
$$DL = 0.03945$$

$$BEC = 0.336$$

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	47.22	0.0000	P	50.9
2	☐	1.000	0.981	22193.00	0.0025	P	1.7
3	☐	50.000	49.775	1113069.98	0.1278	P	0.1
4	☐	125.000	129.498	2802594.92	0.3324	P	0.7
5	☐	250.000	258.469	5431161.02	0.6635	A	0.2
6	☐	500.000	487.462	10481395.98	1.2514	A	0.7
7	☐	1000.000	1003.601	21146192.31	2.5763	A	0.2
8	☐			89672.03	0.0112	P	1.6

$$y = 0.0026 * x + 5.4235E-006$$

$$R = 0.9998$$

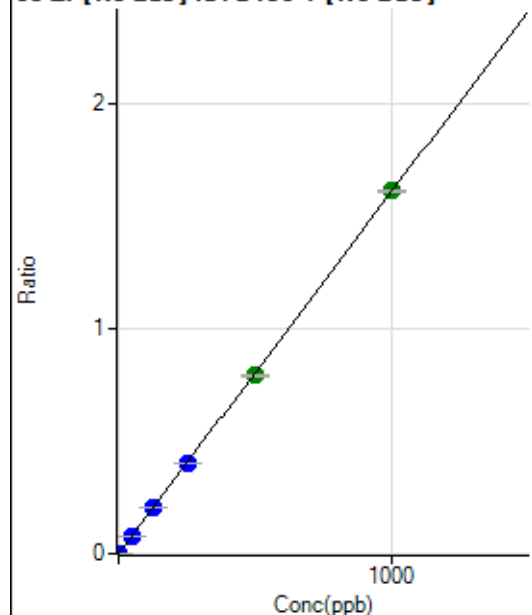
$$DL = 0.003224$$

$$BEC = 0.002113$$

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	480.58	0.0001	P	15.6
2	☐	1.000	0.846	12472.56	0.0014	P	2.8
3	☐	50.000	49.518	694929.32	0.0798	P	0.5
4	☐	125.000	127.709	1733848.76	0.2057	P	0.5
5	☐	250.000	252.136	3323194.32	0.4060	P	0.2
6	☐	500.000	492.375	6640238.60	0.7928	A	0.8
7	☐	1000.000	1002.964	13254206.98	1.6148	A	0.4
8	☐			5076.12	0.0006	P	2.3

$$y = 0.0016 * x + 5.5186E-005$$

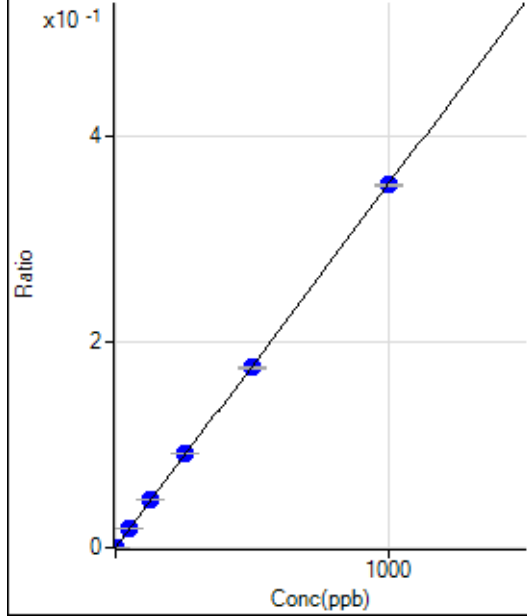
$$R = 1.0000$$

$$DL = 0.01605$$

$$BEC = 0.03428$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	100.01	0.0000	P	36.5
2	☐	1.000	0.852	2755.94	0.0003	P	4.9
3	☐	50.000	50.653	156371.47	0.0180	P	0.7
4	☐	125.000	132.254	395000.61	0.0469	P	0.8
5	☐	250.000	261.046	756911.52	0.0925	P	0.3
6	☐	500.000	496.831	1474013.37	0.1760	P	0.9
7	☐	1000.000	997.884	2901075.63	0.3534	P	0.6
8	☐			1100.09	0.0001	P	7.7

$$y = 3.5418\text{E-}004 * x + 1.1499\text{E-}005$$

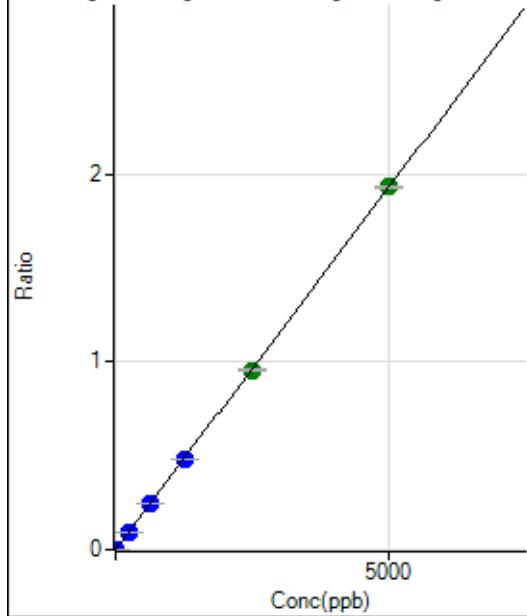
$$R = 0.9999$$

$$DL = 0.03559$$

$$BEC = 0.03247$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	211.12	0.0000	P	5.6
2	☐	5.000	4.770	16407.27	0.0019	P	0.5
3	☐	250.000	249.806	839829.18	0.0964	P	0.6
4	☐	625.000	632.901	2058960.05	0.2442	P	0.5
5	☐	1250.000	1250.223	3948796.49	0.4824	P	0.5
6	☐	2500.000	2475.447	8000502.70	0.9552	A	0.8
7	☐	5000.000	5011.243	15870763.38	1.9336	A	0.6
8	☐			14752.64	0.0018	P	3.8

$$y = 3.8585\text{E-}004 * x + 2.4250\text{E-}005$$

$$R = 1.0000$$

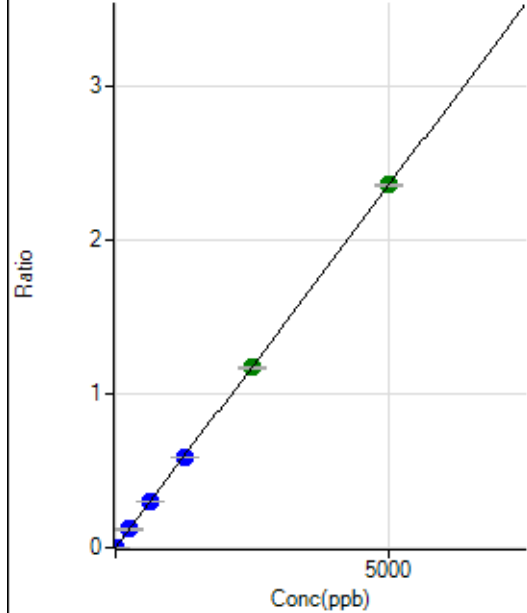
$$DL = 0.0105$$

$$BEC = 0.06285$$

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	80.56	0.0000	P	39.7
2	☐	5.000	4.884	20295.70	0.0023	P	1.0
3	☐	250.000	252.743	1035741.17	0.1189	P	0.6
4	☐	625.000	630.546	2500679.33	0.2966	P	0.3
5	☐	1250.000	1241.855	4781885.78	0.5842	P	0.1
6	☐	2500.000	2486.474	9797437.20	1.1697	A	0.7
7	☐	5000.000	5007.969	19336320.05	2.3558	A	0.5
8	☐			22034.37	0.0027	P	3.7

$$y = 4.7041\text{E-}004 * x + 9.2657\text{E-}006$$

$$R = 1.0000$$

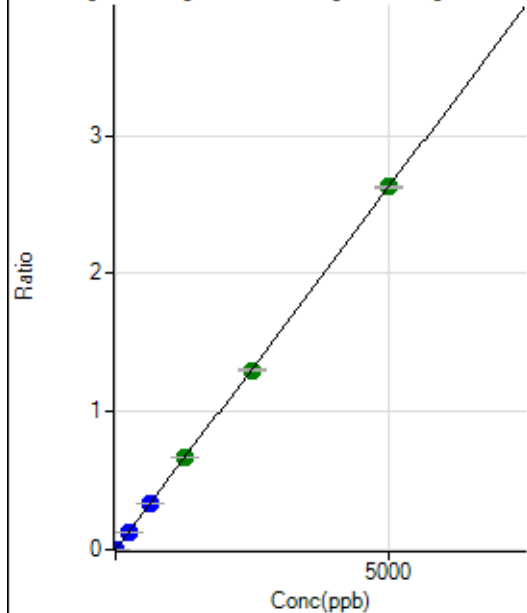
$$DL = 0.02343$$

$$BEC = 0.0197$$

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	141.67	0.0000	P	17.2
2	☐	5.000	4.832	22462.95	0.0026	P	1.6
3	☐	250.000	250.218	1144400.57	0.1314	P	0.1
4	☐	625.000	626.156	2771427.32	0.3287	P	0.1
5	☐	1250.000	1267.770	5448079.81	0.6656	A	0.1
6	☐	2500.000	2478.066	10897075.94	1.3010	A	0.5
7	☐	5000.000	5006.369	21572901.35	2.6283	A	0.2
8	☐			30280.43	0.0038	P	2.6

$$y = 5.2499\text{E-}004 * x + 1.6267\text{E-}005$$

$$R = 1.0000$$

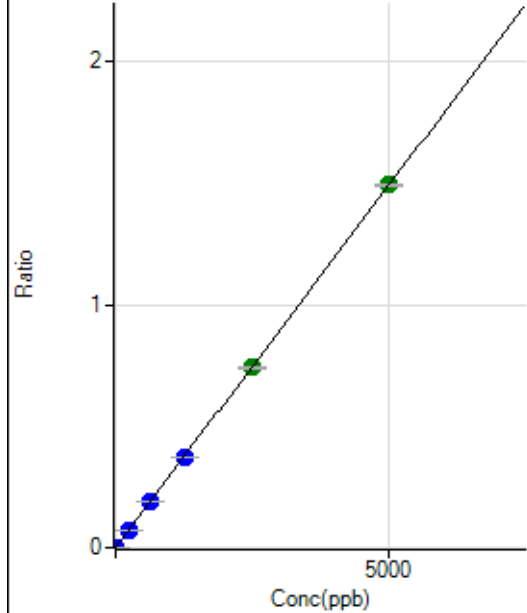
$$DL = 0.01597$$

$$BEC = 0.03099$$

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	77.78	0.0000	P	34.9
2	☐	5.000	4.828	12722.83	0.0014	P	0.5
3	☐	250.000	248.662	644857.36	0.0740	P	0.4
4	☐	625.000	627.630	1575110.84	0.1868	P	0.8
5	☐	1250.000	1238.104	3016844.93	0.3686	P	0.4
6	☐	2500.000	2483.468	6192132.73	0.7393	A	0.9
7	☐	5000.000	5010.978	12243389.86	1.4916	A	0.4
8	☐			13554.14	0.0017	P	2.2

$$y = 2.9767E-004 * x + 8.9450E-006$$

$$R = 1.0000$$

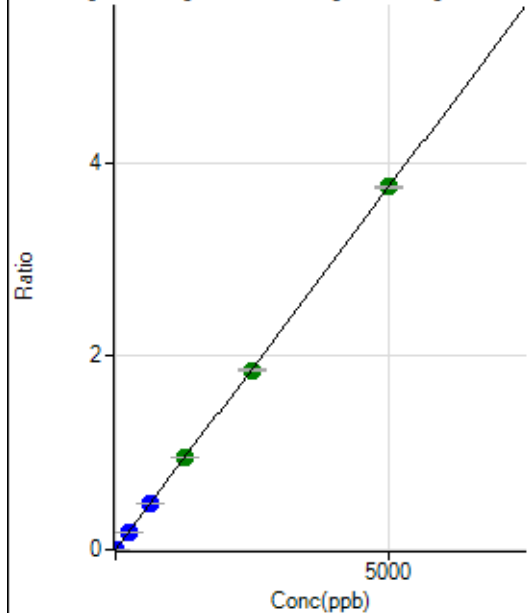
$$DL = 0.03149$$

$$BEC = 0.03005$$

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	150.01	0.0000	P	19.6
2	☐	5.000	4.925	32632.71	0.0037	P	1.6
3	☐	250.000	250.804	1638164.13	0.1881	P	1.0
4	☐	625.000	625.143	3951434.68	0.4687	P	0.3
5	☐	1250.000	1265.881	7768793.40	0.9491	A	0.3
6	☐	2500.000	2478.524	15564706.43	1.8583	A	1.0
7	☐	5000.000	5006.710	30810607.64	3.7538	A	0.8
8	☐			34865.97	0.0044	P	1.0

$$y = 7.4974E-004 * x + 1.7223E-005$$

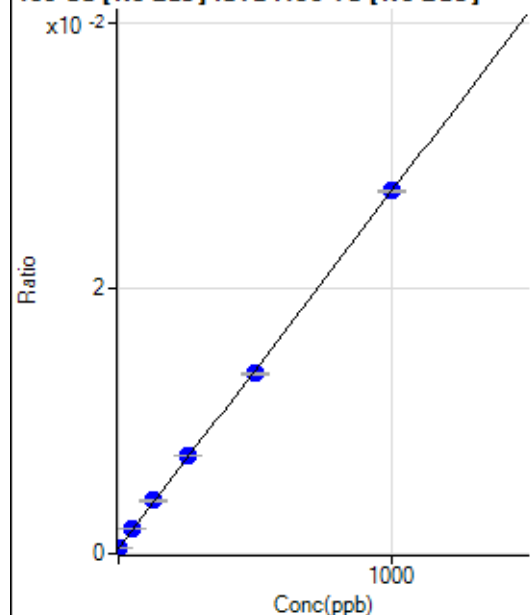
$$R = 1.0000$$

$$DL = 0.01349$$

$$BEC = 0.02297$$

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	3200.49	0.0004	P	12.2
2	☐	1.000	1.544	3564.48	0.0004	P	6.1
3	☐	50.000	54.347	15105.88	0.0019	P	3.5
4	☐	125.000	133.780	31937.04	0.0040	P	2.6
5	☐	250.000	260.720	58700.39	0.0074	P	1.2
6	☐	500.000	489.711	111069.70	0.0136	P	1.4
7	☐	1000.000	1001.149	220815.10	0.0273	P	0.7
8	☐			3175.49	0.0004	P	5.3

$$y = 2.6887\text{E-}005 * x + 3.9857\text{E-}004$$

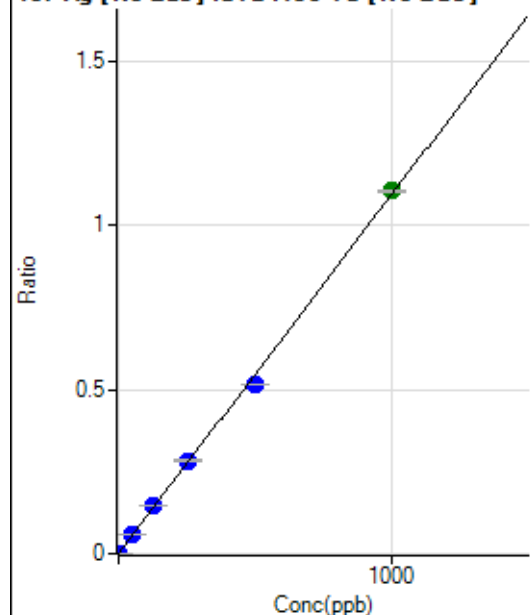
$$R = 0.9998$$

$$DL = 5.435$$

$$BEC = 14.82$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	83.34	0.0000	P	17.0
2	☐	1.000	1.085	9689.78	0.0012	P	1.5
3	☐	50.000	54.018	479355.89	0.0590	P	0.2
4	☐	125.000	135.268	1181316.55	0.1478	P	1.1
5	☐	250.000	259.480	2245985.42	0.2835	P	1.1
6	☐	500.000	471.135	4213968.11	0.5147	P	0.4
7	☐	1000.000	1010.578	8923872.59	1.1040	A	0.4
8	☐			2111.36	0.0003	P	0.7

$$y = 0.0011 * x + 1.0378\text{E-}005$$

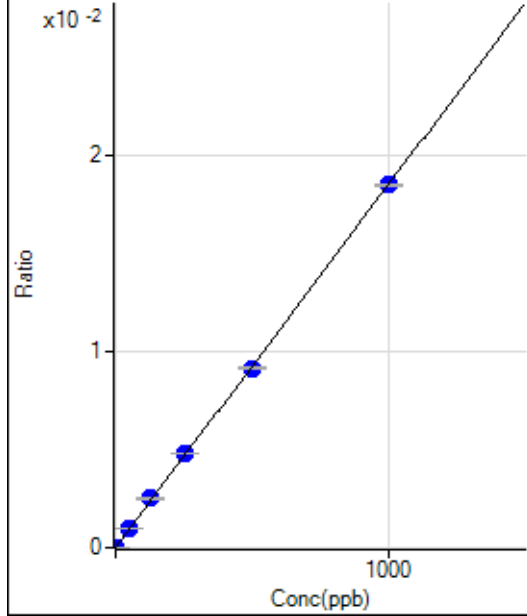
$$R = 0.9993$$

$$DL = 0.004856$$

$$BEC = 0.0095$$

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	8.33	0.0000	P	49.8
2	☐	1.000	1.168	183.34	0.0000	P	12.6
3	☐	50.000	53.744	8081.62	0.0010	P	1.3
4	☐	125.000	136.318	20161.87	0.0025	P	2.2
5	☐	250.000	260.913	38246.38	0.0048	P	0.5
6	☐	500.000	493.379	74723.90	0.0091	P	0.8
7	☐	1000.000	998.980	149366.49	0.0185	P	0.5
8	☐			69.45	0.0000	P	16.7

$$y = 1.8496E-005 * x + 1.0376E-006$$

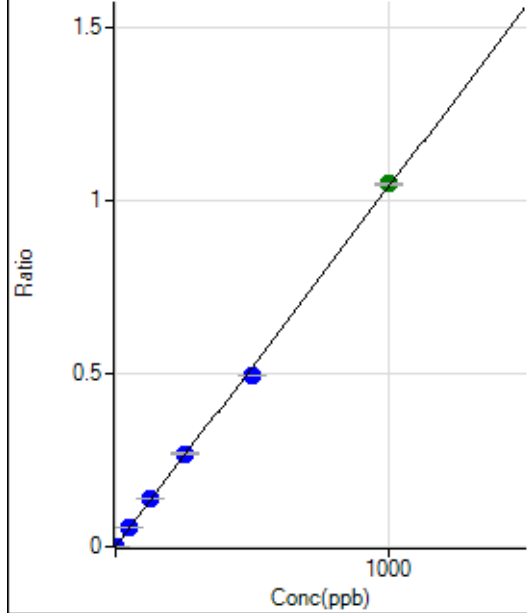
$$R = 0.9999$$

$$DL = 0.08378$$

$$BEC = 0.0561$$

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	61.11	0.0000	P	43.5
2	☐	1.000	1.101	9325.68	0.0012	P	2.2
3	☐	50.000	54.137	456771.16	0.0562	P	0.2
4	☐	125.000	135.236	1122972.07	0.1405	P	1.1
5	☐	250.000	258.882	2130710.96	0.2689	P	0.5
6	☐	500.000	475.356	4042667.02	0.4938	P	0.4
7	☐	1000.000	1008.615	8468748.37	1.0477	A	0.6
8	☐			2011.35	0.0003	P	3.9

$$y = 0.0010 * x + 7.6062E-006$$

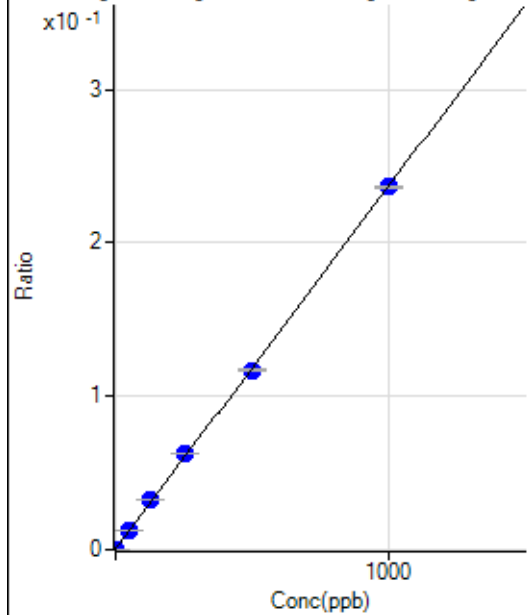
$$R = 0.9995$$

$$DL = 0.009563$$

$$BEC = 0.007323$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2242.85	0.0003	P	12.4
2	☐	1.000	1.058	4289.20	0.0005	P	3.5
3	☐	50.000	53.430	104898.27	0.0129	P	1.3
4	☐	125.000	134.993	257439.97	0.0322	P	0.8
5	☐	250.000	263.572	496098.69	0.0626	P	0.9
6	☐	500.000	493.697	958251.45	0.1170	P	1.1
7	☐	1000.000	998.338	1910771.81	0.2364	P	0.3
8	☐			2818.71	0.0004	P	3.4

$$y = 2.3650\text{E-}004 * x + 2.7931\text{E-}004$$

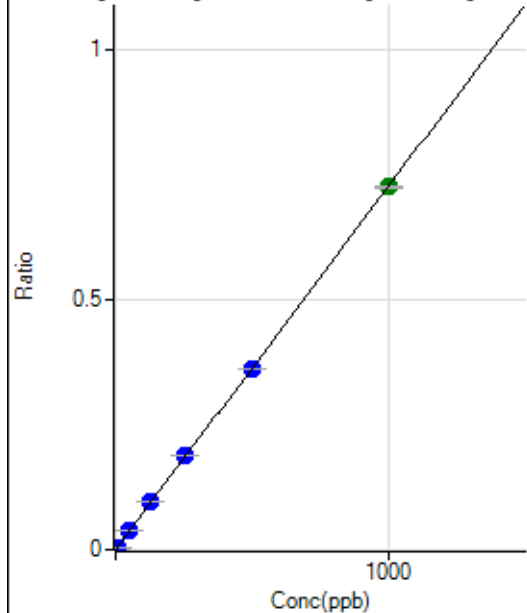
$$R = 0.9998$$

$$DL = 0.4402$$

$$BEC = 1.181$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	583.37	0.0001	P	3.8
2	☐	5.000	5.182	31052.01	0.0038	P	1.2
3	☐	50.000	53.011	313017.90	0.0385	P	1.0
4	☐	125.000	131.038	760713.46	0.0952	P	1.1
5	☐	250.000	257.005	1478309.67	0.1866	P	0.3
6	☐	500.000	497.837	2958434.40	0.3613	P	0.5
7	☐	1000.000	998.424	5857167.32	0.7246	A	0.6
8	☐			5087.25	0.0007	P	3.8

$$y = 7.2566\text{E-}004 * x + 7.2668\text{E-}005$$

$$R = 1.0000$$

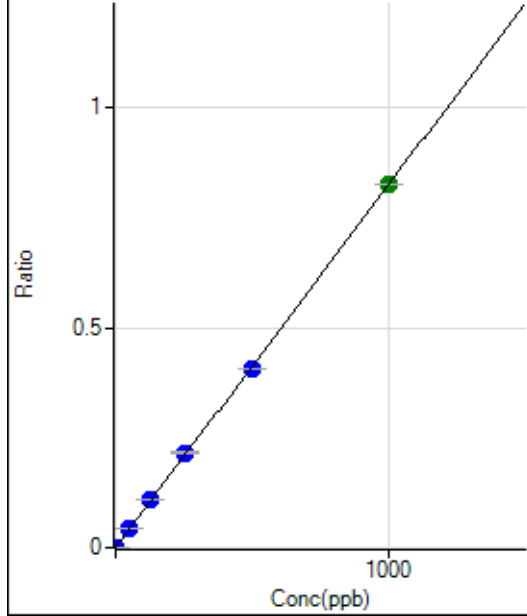
$$DL = 0.01127$$

$$BEC = 0.1001$$

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	102.78	0.0000	P	12.6
2	☐	2.000	1.961	13198.43	0.0016	P	1.8
3	☐	50.000	52.175	349353.55	0.0430	P	0.5
4	☐	125.000	133.013	876436.90	0.1096	P	1.0
5	☐	250.000	262.048	1711338.77	0.2160	P	0.8
6	☐	500.000	491.882	3319307.45	0.4054	P	0.3
7	☐	1000.000	999.937	6661869.55	0.8241	A	0.2
8	☐			7074.27	0.0009	P	8.3

$$y = 8.2418\text{E-}004 * x + 1.2805\text{E-}005$$

$$R = 0.9999$$

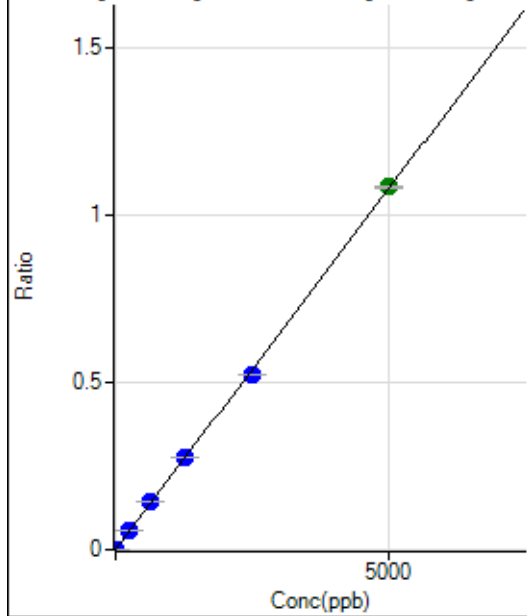
$$DL = 0.005889$$

$$BEC = 0.01554$$

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	27.78	0.0000	P	17.6
2	☐	10.000	10.308	18048.52	0.0022	P	2.5
3	☐	250.000	258.930	453846.79	0.0559	P	1.2
4	☐	625.000	658.307	1135687.16	0.1421	P	0.9
5	☐	1250.000	1282.668	2193225.37	0.2768	P	0.8
6	☐	2500.000	2419.267	4274570.62	0.5221	P	0.5
7	☐	5000.000	5027.589	8770251.50	1.0850	A	0.8
8	☐			2519.79	0.0003	P	8.0

$$y = 2.1580\text{E-}004 * x + 3.4612\text{E-}006$$

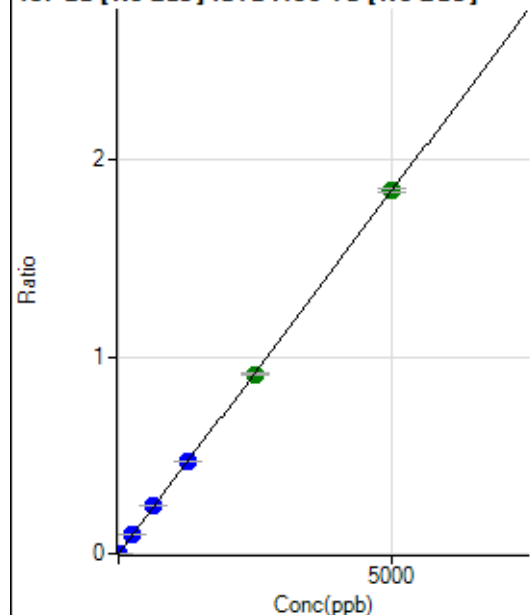
$$R = 0.9998$$

$$DL = 0.008482$$

$$BEC = 0.01604$$

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	22.22	0.0000	P	86.6
2	☐	10.000	10.223	30495.69	0.0038	P	1.5
3	☐	250.000	258.709	773211.09	0.0952	P	0.6
4	☐	625.000	656.523	1931278.69	0.2416	P	0.5
5	☐	1250.000	1266.187	3691705.64	0.4659	P	0.9
6	☐	2500.000	2478.491	7467313.62	0.9120	A	0.6
7	☐	5000.000	5002.332	14879437.66	1.8408	A	1.1
8	☐			4381.44	0.0006	P	7.7

$$y = 3.6798E-004 * x + 2.7682E-006$$

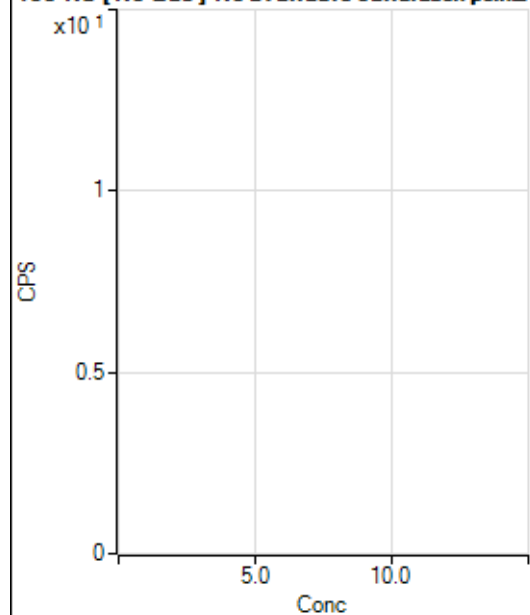
$$R = 1.0000$$

$$DL = 0.01955$$

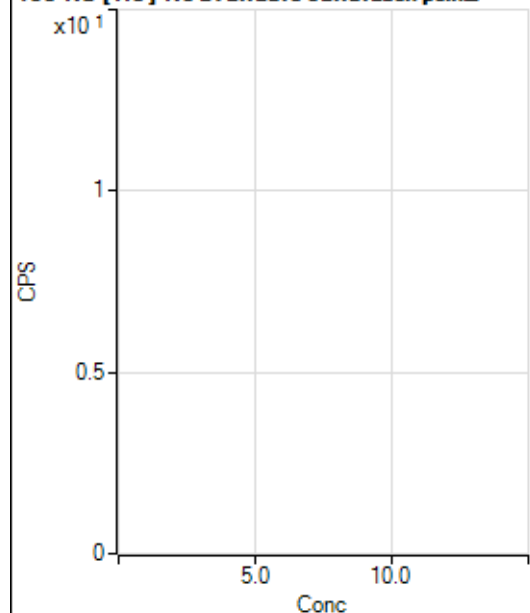
$$BEC = 0.007523$$

Weight: <None>

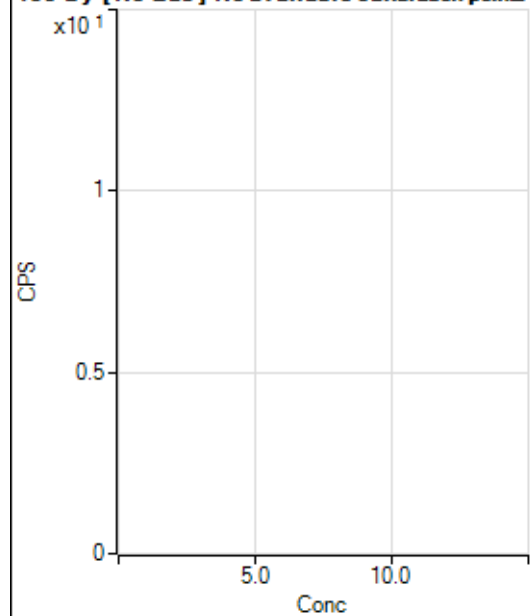
Min Conc: 0

150 Nd [No Gas] No available calibration points

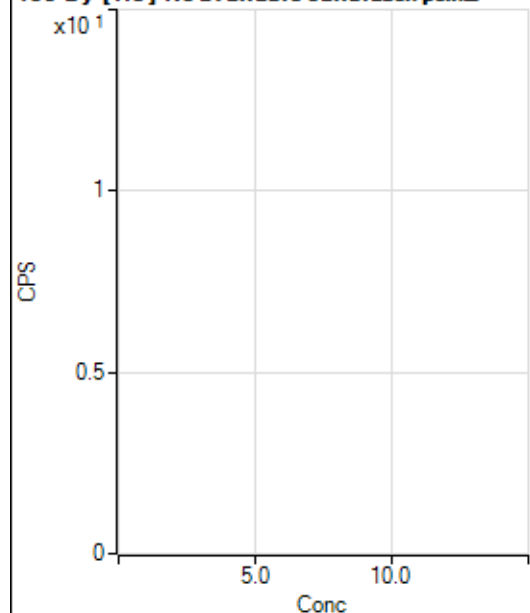
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			8.89		P	114.
2	☐			11.11		P	34.6
3	☐			53.33		P	33.1
4	☐			113.34		P	25.6
5	☐			144.45		P	9.6
6	☐			324.46		P	26.0
7	☐			684.49		P	9.6
8	☐			80.00		P	14.4

150 Nd [He] No available calibration points

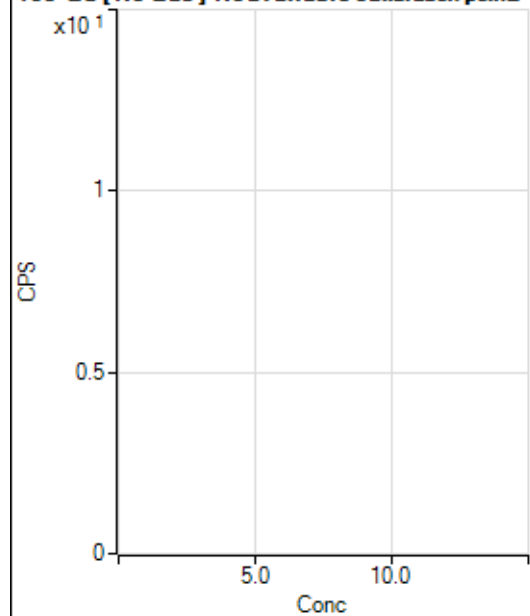
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	0.0
2	☐			8.89		P	21.6
3	☐			14.44		P	35.3
4	☐			20.00		P	60.1
5	☐			23.33		P	86.9
6	☐			43.33		P	15.4
7	☐			51.11		P	32.2
8	☐			34.44		P	22.3

156 Dy [No Gas] No available calibration points

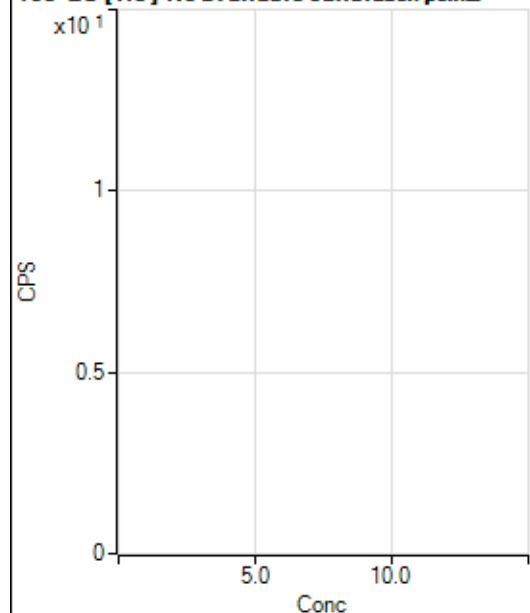
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	34.7
2	☐			25.00		P	115.
3	☐			22.22		P	43.3
4	☐			47.22		P	36.7
5	☐			52.78		P	32.9
6	☐			83.34		P	17.3
7	☐			122.23		P	20.8
8	☐			38.89		P	53.9

156 Dy [He] No available calibration points

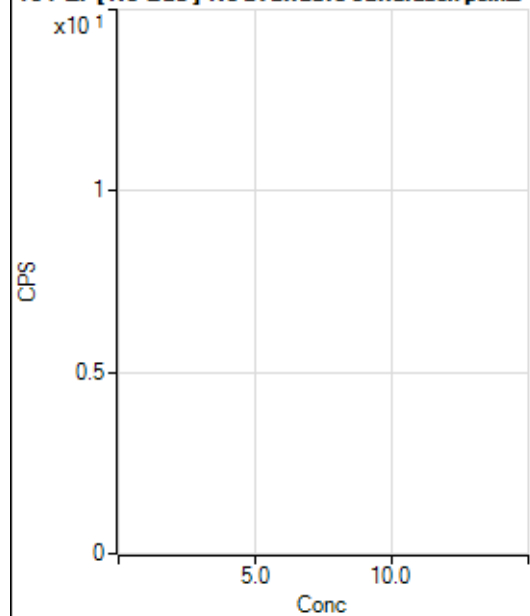
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.67		P	25.0
2	☐			18.89		P	40.7
3	☐			40.00		P	36.3
4	☐			44.45		P	30.3
5	☐			74.45		P	23.0
6	☐			120.00		P	19.4
7	☐			186.67		P	15.9
8	☐			33.33		P	26.4

160 Gd [No Gas] Noavailable calibration poin...

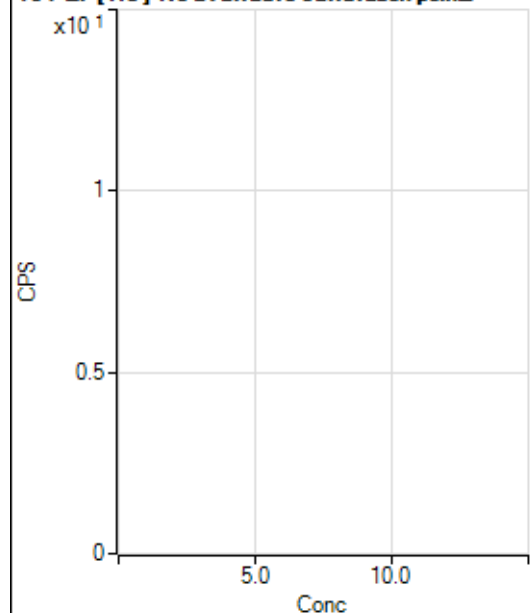
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	52.9
2	☐			72.22		P	53.3
3	☐			94.45		P	25.5
4	☐			52.78		P	24.1
5	☐			100.01		P	41.7
6	☐			77.78		P	27.0
7	☐			80.56		P	36.3
8	☐			102.78		P	24.8

160 Gd [He] No available calibration points

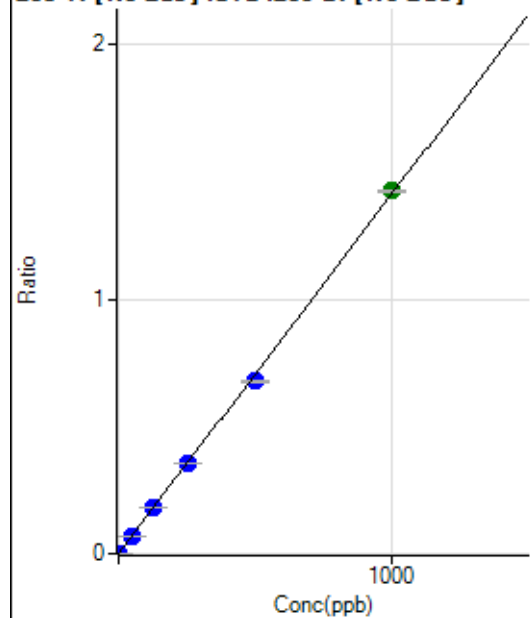
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			183.34		P	21.8
2	☐			185.56		P	5.8
3	☐			196.67		P	4.5
4	☐			144.45		P	15.7
5	☐			188.90		P	14.3
6	☐			174.45		P	7.7
7	☐			187.78		P	12.6
8	☐			168.89		P	3.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			61.11		P	56.8
2	☐			61.11		P	47.9
3	☐			86.12		P	34.0
4	☐			75.00		P	0.0
5	☐			69.45		P	25.0
6	☐			80.56		P	58.8
7	☐			72.22		P	52.0
8	☐			97.23		P	27.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			53.33		P	27.2
2	☐			55.55		P	12.5
3	☐			54.44		P	9.4
4	☐			52.22		P	22.4
5	☐			71.11		P	7.2
6	☐			64.45		P	10.8
7	☐			58.89		P	6.5
8	☐			67.78		P	10.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	441.69	0.0001	P	6.9
2	☐	1.000	0.946	6504.69	0.0014	P	1.0
3	☐	50.000	49.514	316667.44	0.0700	P	0.7
4	☐	125.000	126.380	805435.03	0.1784	P	0.4
5	☐	250.000	249.969	1579122.31	0.3528	P	0.5
6	☐	500.000	479.474	3062567.34	0.6767	P	1.3
7	☐	1000.000	1010.122	6232080.69	1.4256	A	0.5
8	☐			2116.93	0.0006	P	8.8

$$y = 0.0014 * x + 9.7605E-005$$

$$R = 0.9997$$

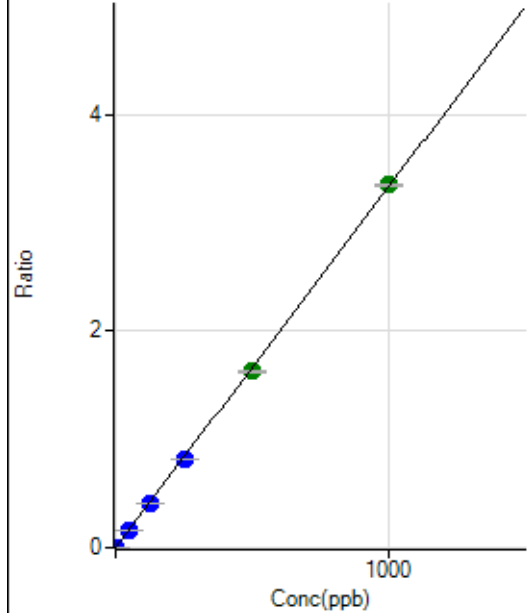
$$DL = 0.01425$$

$$BEC = 0.06917$$

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	522.26	0.0001	P	18.6
2	☐	1.000	0.968	15167.73	0.0033	P	4.1
3	☐	50.000	49.367	744450.32	0.1645	P	1.5
4	☐	125.000	124.743	1875410.28	0.4155	P	0.2
5	☐	250.000	244.689	3647014.88	0.8149	P	0.4
6	☐	500.000	489.840	7382638.36	1.6312	A	0.9
7	☐	1000.000	1006.472	14652095.64	3.3516	A	0.3
8	☐			4806.62	0.0013	P	5.9

$$y = 0.0033 * x + 1.1542E-004$$

$$R = 0.9999$$

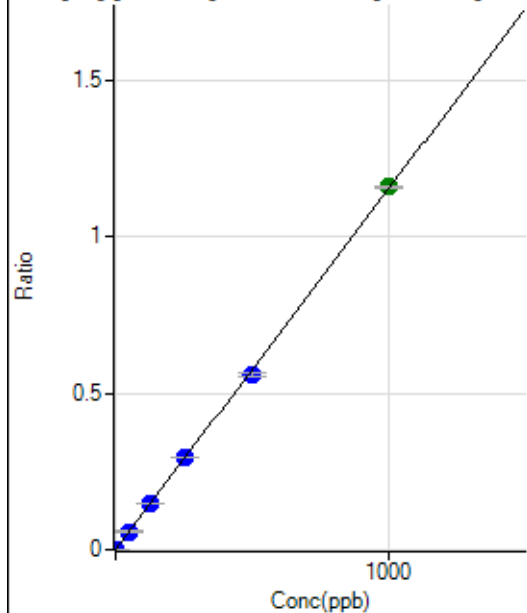
$$DL = 0.01931$$

$$BEC = 0.03466$$

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	755.60	0.0002	P	2.9
2	☐	1.000	0.999	5982.98	0.0013	P	1.6
3	☐	50.000	50.105	261820.10	0.0579	P	1.7
4	☐	125.000	127.331	662473.86	0.1468	P	0.5
5	☐	250.000	254.002	1309615.73	0.2926	P	0.5
6	☐	500.000	485.800	2532058.25	0.5595	P	1.4
7	☐	1000.000	1005.803	5063398.09	1.1582	A	0.3
8	☐			16666.41	0.0044	P	0.4

$$y = 0.0012 * x + 1.6697E-004$$

$$R = 0.9998$$

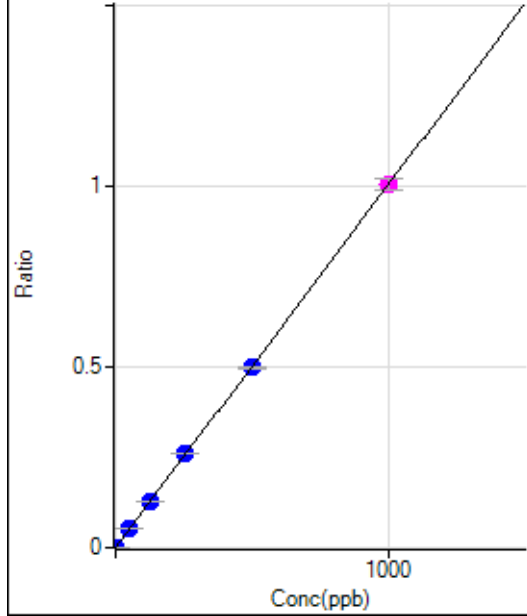
$$DL = 0.01247$$

$$BEC = 0.145$$

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	711.15	0.0002	P	1.7
2	☐	1.000	0.992	5232.66	0.0012	P	1.4
3	☐	50.000	51.039	232506.53	0.0514	P	1.4
4	☐	125.000	129.209	585993.91	0.1298	P	0.4
5	☐	250.000	258.155	1160194.07	0.2592	P	0.4
6	☐	500.000	496.883	2257433.77	0.4988	P	1.2
7	☐	1000.000	998.942	4383119.08	1.0026	M	3.1
8	☐			15057.06	0.0040	P	1.0

$$y = 0.0010 * x + 1.5715E-004$$

$$R = 1.0000$$

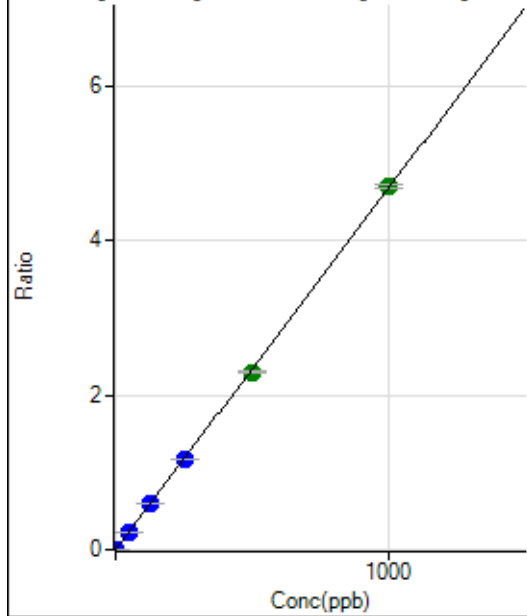
$$DL = 0.007818$$

$$BEC = 0.1566$$

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	2733.52	0.0006	P	4.8
2	☐	1.000	0.973	23421.58	0.0052	P	0.2
3	☐	50.000	49.832	1057744.35	0.2337	P	0.9
4	☐	125.000	126.495	2673732.11	0.5924	P	0.3
5	☐	250.000	251.102	5260017.64	1.1753	P	0.5
6	☐	500.000	491.788	10414479.64	2.3012	A	1.3
7	☐	1000.000	1003.652	20528277.60	4.6958	A	1.0
8	☐			67542.93	0.0179	P	0.8

$$y = 0.0047 * x + 6.0409E-004$$

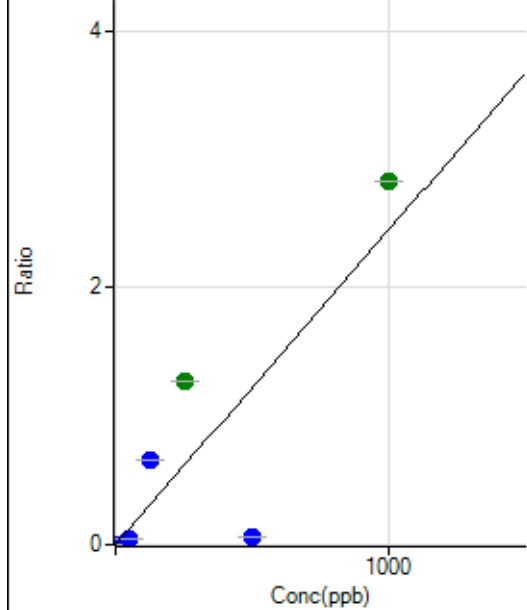
$$R = 0.9999$$

$$DL = 0.01877$$

$$BEC = 0.1291$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1644.60	0.0004	P	3.4
2	☐	1.000	1.832	22013.50	0.0048	P	4.0
3	☐	50.000	17.547	196053.65	0.0433	P	0.5
4	☐	125.000	268.080	2963741.88	0.6566	P	0.3
5	☐	250.000	519.451	5692565.41	1.2720	A	0.5
6	☐	500.000	26.432	294500.80	0.0651	P	0.3
7	☐	1000.000	1153.158	12342312.20	2.8232	A	0.0
8	☐			5065.93	0.0013	P	4.5

$$y = 0.0024 * x + 3.6343E-004$$

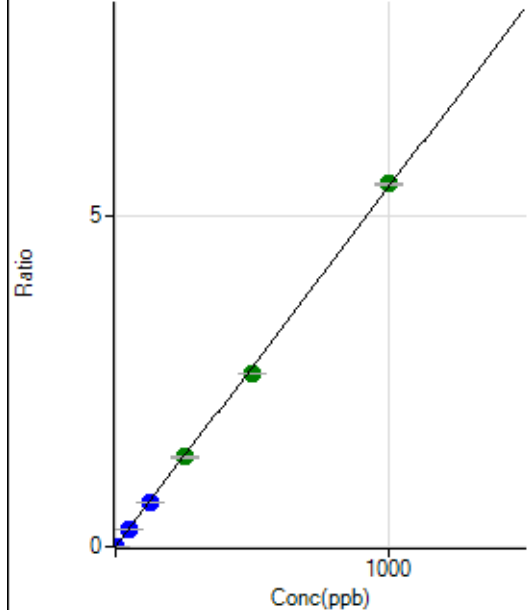
$$R = 0.8321$$

$$DL = 0.01507$$

$$BEC = 0.1485$$

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	2364.21	0.0005	P	4.1
2	☐	1.000	0.931	25297.70	0.0056	P	2.5
3	☐	50.000	46.586	1145288.72	0.2531	P	0.3
4	☐	125.000	121.274	2969621.64	0.6579	P	0.2
5	☐	250.000	249.724	6060530.69	1.3542	A	1.0
6	☐	500.000	482.377	11837263.98	2.6154	A	0.4
7	☐	1000.000	1009.517	23925977.10	5.4729	A	0.4
8	☐			7246.76	0.0019	P	1.8

$$y = 0.0054 * x + 5.2238E-004$$

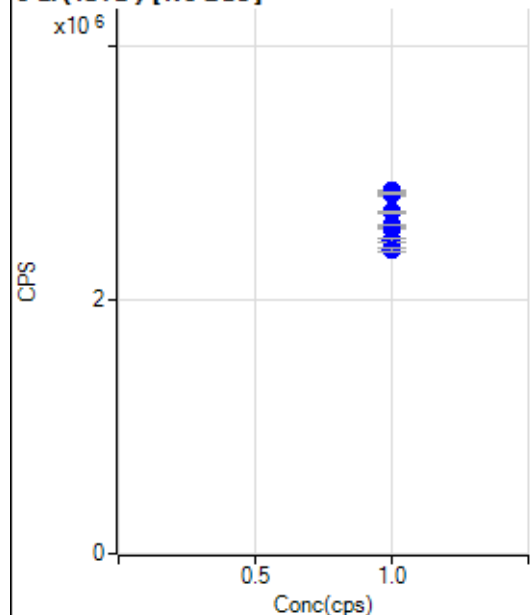
$$R = 0.9998$$

$$DL = 0.01174$$

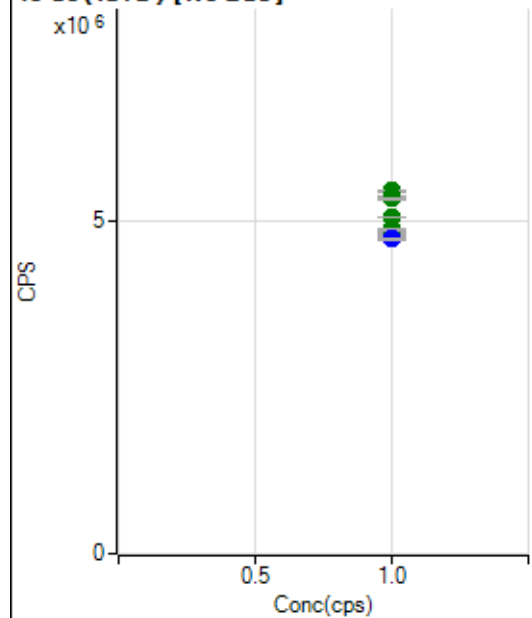
$$BEC = 0.09637$$

Weight: <None>

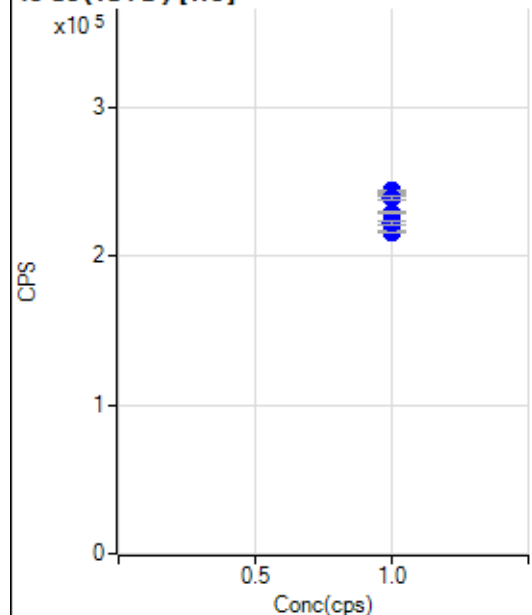
Min Conc: 0

6 Li (ISTD) [No Gas]

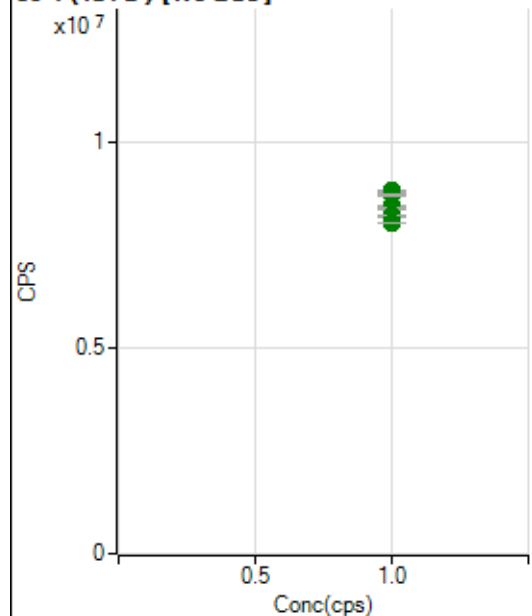
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2828701.31		P	0.2
2	☐	1.000		2859457.87		P	0.1
3	☐	1.000		2840047.74		P	0.7
4	☐	1.000		2690799.27		P	0.6
5	☐	1.000		2565322.25		P	0.6
6	☐	1.000		2593698.30		P	0.4
7	☐	1.000		2472823.12		P	1.0
8	☐	1.000		2396544.46		P	1.1

45 Sc (ISTD) [No Gas]

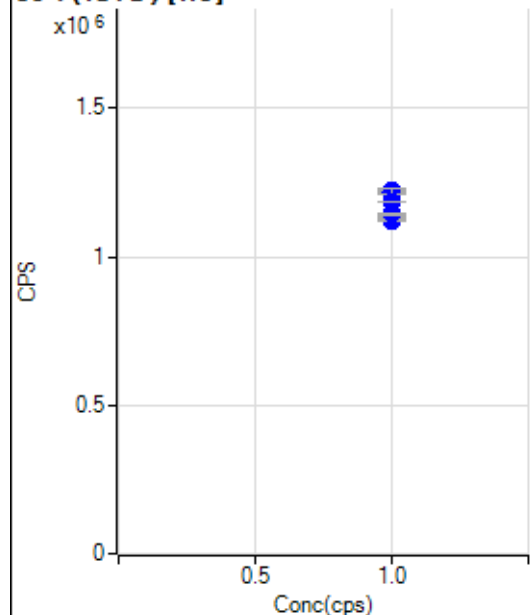
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5465854.50		A	0.3
2	☐	1.000		5375774.64		A	0.4
3	☐	1.000		5352687.49		A	0.5
4	☐	1.000		5063899.29		A	0.3
5	☐	1.000		4815567.73		M	0.5
6	☐	1.000		4891238.61		A	0.5
7	☐	1.000		4764957.23		P	0.7
8	☐	1.000		4743870.55		P	0.6

45 Sc (ISTD) [He]

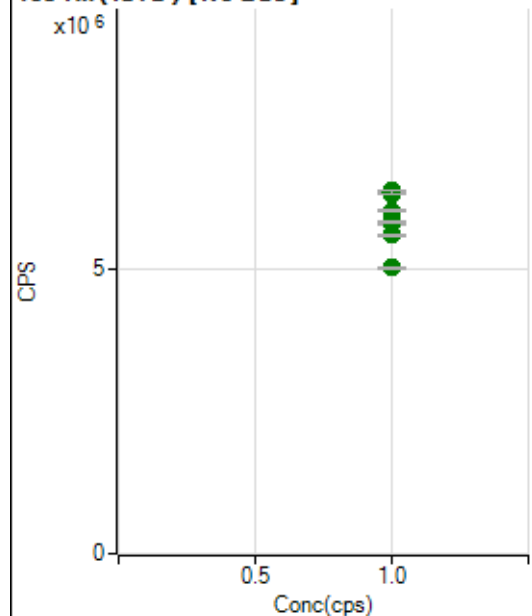
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		242270.32		P	0.9
2	☐	1.000		243501.10		P	0.3
3	☐	1.000		238565.59		P	1.3
4	☐	1.000		228809.78		P	0.4
5	☐	1.000		216127.64		P	1.0
6	☐	1.000		215839.14		P	0.5
7	☐	1.000		215934.40		P	0.3
8	☐	1.000		221812.21		P	1.0

89 Y (ISTD) [No Gas]

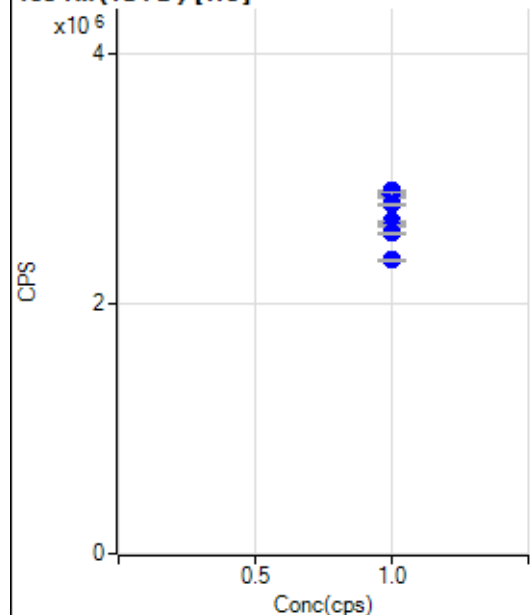
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8704353.76		A	0.5
2	☐	1.000		8797818.00		A	0.8
3	☐	1.000		8710738.07		A	0.6
4	☐	1.000		8430459.25		A	0.3
5	☐	1.000		8185477.10		A	0.2
6	☐	1.000		8376352.24		A	0.8
7	☐	1.000		8207928.70		A	0.2
8	☐	1.000		8014033.35		A	0.4

89 Y(ISTD) [He]

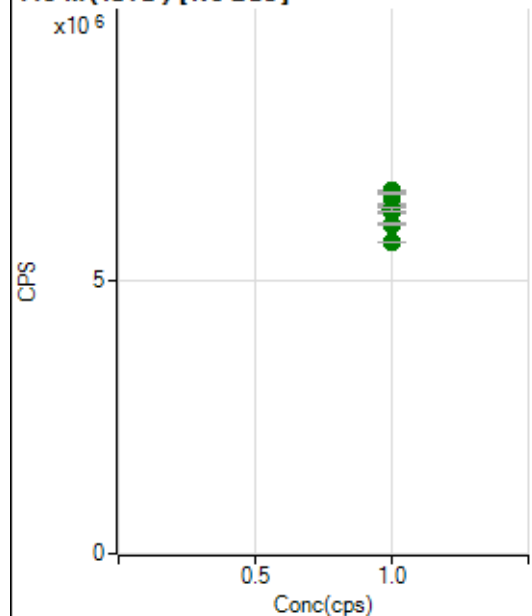
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1216201.13		P	0.1
2	☐	1.000		1222091.65		P	0.2
3	☐	1.000		1219446.68		P	1.7
4	☐	1.000		1186889.98		P	0.1
5	☐	1.000		1129426.02		P	0.7
6	☐	1.000		1122451.72		P	0.3
7	☐	1.000		1123645.92		P	0.3
8	☐	1.000		1145250.76		P	0.8

103 Rh(ISTD) [No Gas]

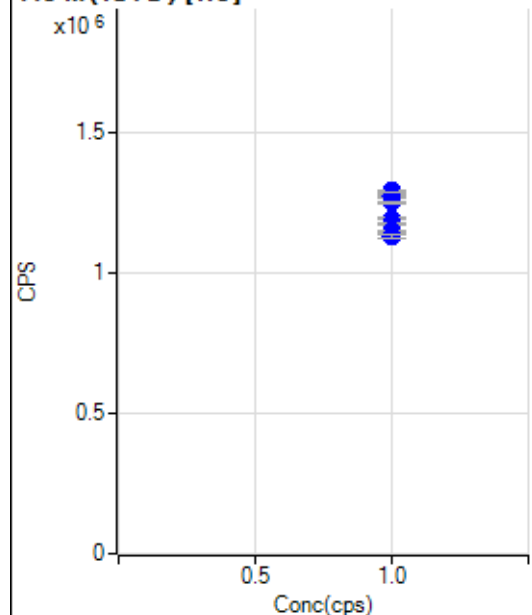
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6352757.00		A	1.0
2	☐	1.000		6392768.37		A	0.4
3	☐	1.000		6360573.92		A	1.1
4	☐	1.000		6040113.37		A	0.3
5	☐	1.000		5821311.72		A	0.5
6	☐	1.000		5849501.35		A	0.7
7	☐	1.000		5621941.83		A	0.6
8	☐	1.000		5035875.55		A	0.4

103 Rh (ISTD) [He]

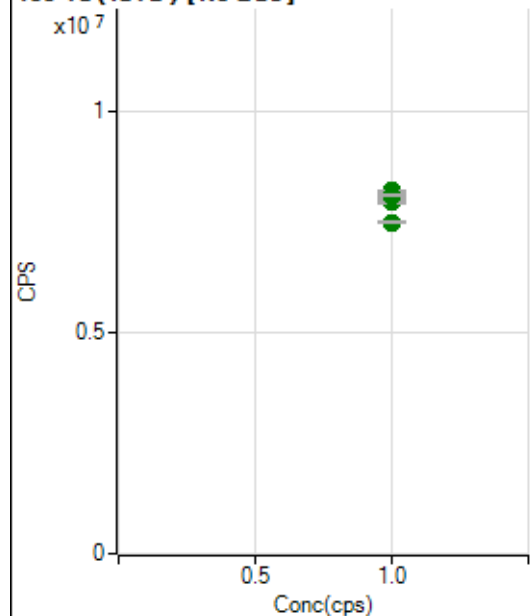
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2874608.29		P	0.5
2	☐	1.000		2903731.52		P	0.1
3	☐	1.000		2871494.19		P	1.5
4	☐	1.000		2796489.78		P	0.7
5	☐	1.000		2656732.49		P	0.5
6	☐	1.000		2621682.79		P	0.3
7	☐	1.000		2568069.65		P	0.6
8	☐	1.000		2349111.70		P	0.5

115 In (ISTD) [No Gas]

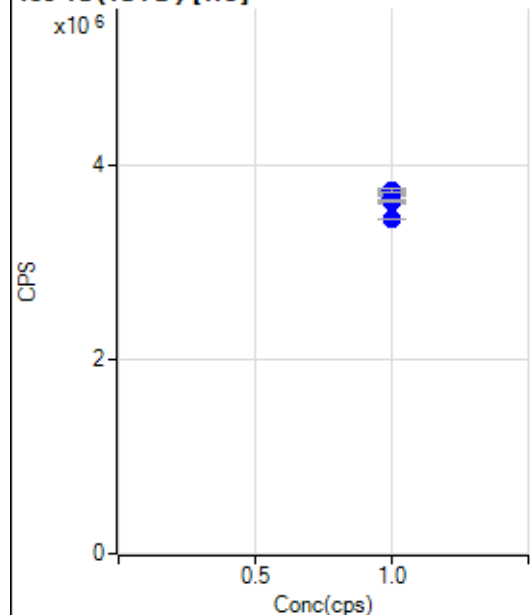
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6602262.50		A	0.9
2	☐	1.000		6646900.46		A	0.6
3	☐	1.000		6609156.73		A	0.6
4	☐	1.000		6406829.12		A	0.5
5	☐	1.000		6256213.14		A	0.4
6	☐	1.000		6311894.73		A	1.2
7	☐	1.000		6034347.33		A	0.3
8	☐	1.000		5711163.97		A	0.4

115 In (ISTD) [He]

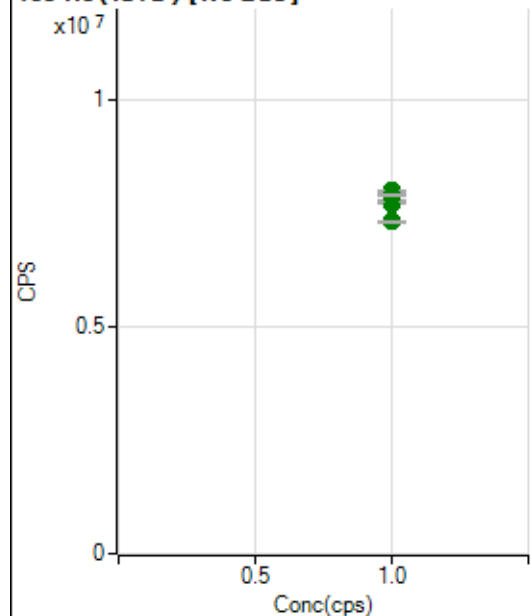
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1276268.76		P	0.5
2	☐	1.000		1289547.22		P	0.6
3	☐	1.000		1274154.19		P	1.7
4	☐	1.000		1249348.62		P	0.4
5	☐	1.000		1190931.48		P	0.8
6	☐	1.000		1172788.62		P	0.2
7	☐	1.000		1146357.09		P	0.6
8	☐	1.000		1128833.49		P	0.9

159 Tb (ISTD) [No Gas]

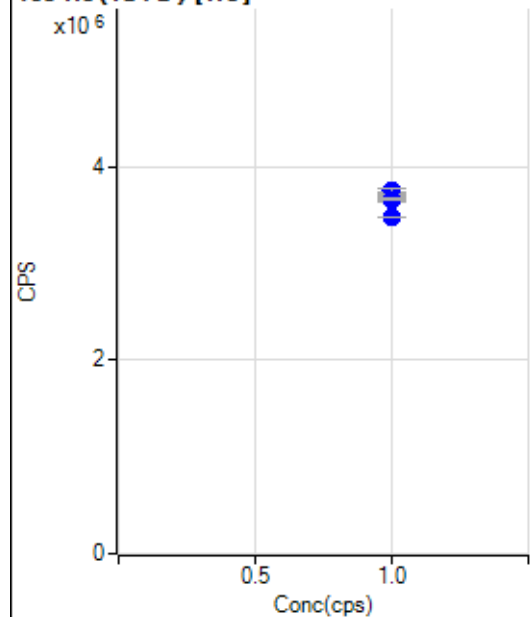
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8027819.88		A	0.3
2	☐	1.000		8101127.10		A	0.6
3	☐	1.000		8121866.27		A	0.4
4	☐	1.000		7994200.09		A	0.8
5	☐	1.000		7923562.80		A	0.7
6	☐	1.000		8187420.71		A	0.4
7	☐	1.000		8083412.59		A	0.3
8	☐	1.000		7471948.71		A	0.6

159 Tb (ISTD) [He]

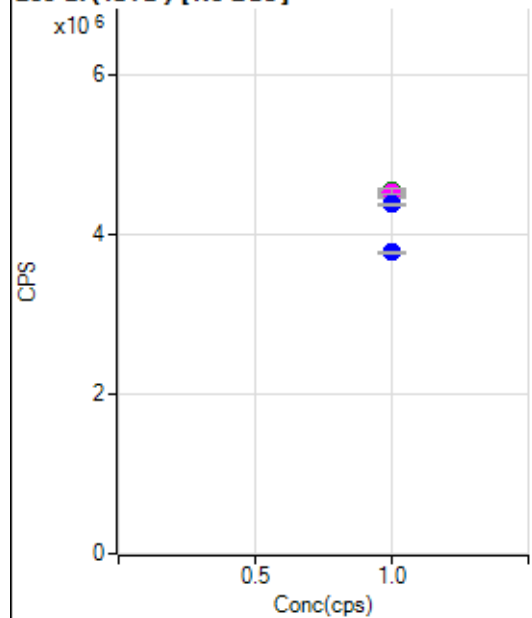
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3664391.40		P	1.1
2	☐	1.000		3704057.41		P	0.7
3	☐	1.000		3715159.70		P	1.1
4	☐	1.000		3729153.07		P	1.0
5	☐	1.000		3612501.51		P	1.4
6	☐	1.000		3622306.93		P	0.2
7	☐	1.000		3624913.31		P	0.7
8	☐	1.000		3441947.28		P	0.2

165 Ho (ISTD) [No Gas]

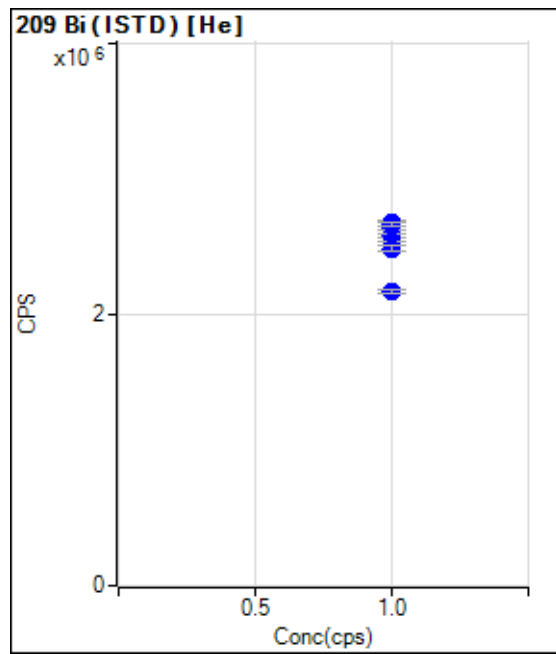
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7704433.94		A	0.6
2	☐	1.000		7876066.93		A	0.4
3	☐	1.000		7875599.65		A	0.1
4	☐	1.000		7770973.18		A	0.6
5	☐	1.000		7736460.07		A	0.2
6	☐	1.000		7983258.77		A	0.7
7	☐	1.000		7878521.96		A	0.5
8	☐	1.000		7302719.61		A	0.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3682883.59		P	0.7
2	☐	1.000		3696191.23		P	1.3
3	☐	1.000		3714056.71		P	1.3
4	☐	1.000		3747680.22		P	1.4
5	☐	1.000		3651688.70		P	1.2
6	☐	1.000		3649602.00		P	0.5
7	☐	1.000		3662843.31		P	1.0
8	☐	1.000		3476354.32		P	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4525435.24		A	0.3
2	☐	1.000		4541350.63		A	0.3
3	☐	1.000		4525870.45		A	1.0
4	☐	1.000		4513670.70		M	0.6
5	☐	1.000		4475466.53		P	0.6
6	☐	1.000		4526217.57		M	1.6
7	☐	1.000		4371674.83		P	0.6
8	☐	1.000		3767760.32		P	0.7



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2629492.91		P	1.1
2	☐	1.000		2662939.16		P	1.4
3	☐	1.000		2672893.36		P	1.4
4	☐	1.000		2667715.34		P	1.0
5	☐	1.000		2582656.73		P	1.2
6	☐	1.000		2534822.38		P	0.4
7	☐	1.000		2484634.17		P	1.3
8	☐	1.000		2167234.24		P	1.0

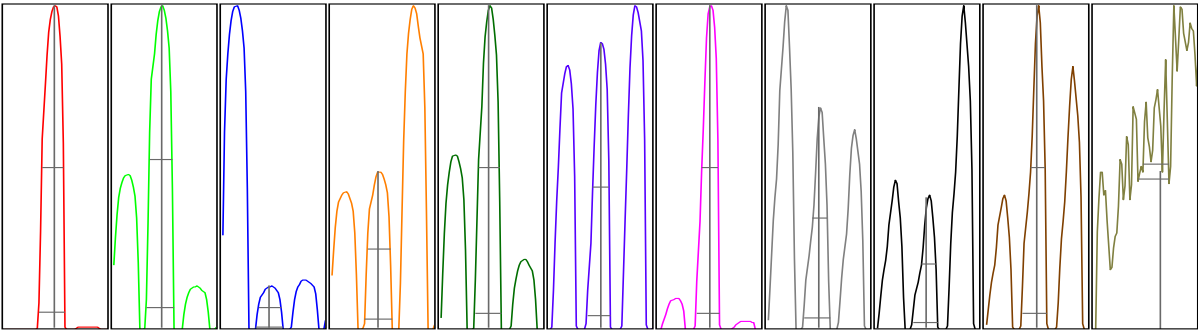
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7111619MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]					
Mass	Count	RSD%	RSD%	RSD%	
	(Mean)	(Actual)	(Required)	(Flag)	
9	11394	1.69	5.00		
24	105166	1.59	5.00		
25	13930	1.69	5.00		
26	16270	1.89	5.00		
59	71975	1.59	5.00		
113	7730	1.63	5.00		
115	91123	1.61	5.00		
206	18630	1.84	5.00		
207	16820	1.80	5.00		
208	40461	2.09	5.00		
220	86	3.89			

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
9	11404	11476	11394	11610	11087
24	105463	105822	105374	106814	102358
25	13996	14063	13916	14140	13535
26	16311	16407	16345	16544	15744
59	72103	72342	72057	73254	70121
113	7767	7792	7758	7824	7510
115	91274	92387	91076	92172	88705
206	18931	18626	18594	18914	18083
207	17028	16850	16790	17102	16330
208	40923	40767	40439	41158	39019
220	84	84	88	91	84

Integration Time [sec] = 0.1



Mass	Peak	Axis	Axis	Axis	Width-X%	Width-X%	Width-
	Height	(Actual)	(Required)	(Flag)	(Actual)	(Required)	X% (Flag)
9	19156	9.00	8.9 - 9.1		0.765	0.900	
24	168360	23.95	23.9 - 24.1		0.806	0.900	
25	22276	24.90	24.9 - 25.1		0.787	0.900	
26	25694	25.90	25.9 - 26.1		0.787	0.900	
59	127358	58.95	58.9 - 59.1		0.777	0.900	
113	15764	113.05	112.9 - 113.1		0.683	0.900	
115	185887	115.05	114.9 - 115.1		0.682	0.900	
206	41292	206.05	205.9 - 206.1		0.768	0.900	
207	36142	207.00	206.9 - 207.1		0.739	0.900	
208	89643	208.05	207.9 - 208.1		0.730	0.900	
220	84	220.45	-		0.878		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.4	V	Deflect	13.8	V
Extract 2	-140.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination	5.0	V
He Flow	0.0	mL/min	OctP RF	160	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	18112	2.48	
89	15091	2.19	
205	15683	3.07	

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
59	18531	18472	18292	17713	17554
89	15424	15232	15314	14821	14662
205	16107	15998	15853	15547	14908

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.0	V	Deflect	2.0	V
Extract 2	-150.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-80	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination	5.0	V
He Flow	4.1	mL/min	OctP RF	200	V			