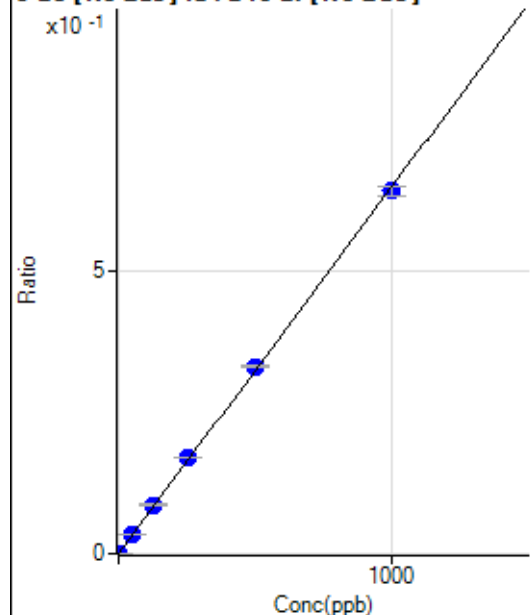


Batch Folder: D:\ICP-MS Data\P7053119 MS.b\
Analysis File: P7053119 MS.batch.bin
DA Date-Time: 2019-06-01 00:10:42
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-05-31 10:58:54
2			
3	005CALS.d	S02	2019-05-31 11:07:14
4	006CALS.d	S03	2019-05-31 11:11:11
5	007CALS.d	S04	2019-05-31 11:15:07
6	008CALS.d	S05	2019-05-31 11:19:00
7	009CALS.d	S06	2019-05-31 11:22:50
8	010CALS.d	S07	2019-05-31 11:26:38
9	011CALS.d	S08	2019-05-31 11:30:24

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.00	0.0000	P	42.7
2	☐	0.100					
3	☐	1.000	1.102	1655.68	0.0007	P	12.2
4	☐	50.000	52.945	85147.91	0.0344	P	1.6
5	☐	125.000	133.465	206655.18	0.0868	P	0.6
6	☐	250.000	262.436	379021.31	0.1707	P	0.8
7	☐	500.000	511.332	693474.11	0.3325	P	0.5
8	☐	1000.000	990.020	1307603.07	0.6438	P	2.3
9	☐			318.90	0.0002	P	5.1

$$y = 6.5028\text{E-}004 * x + 1.1894\text{E-}005$$

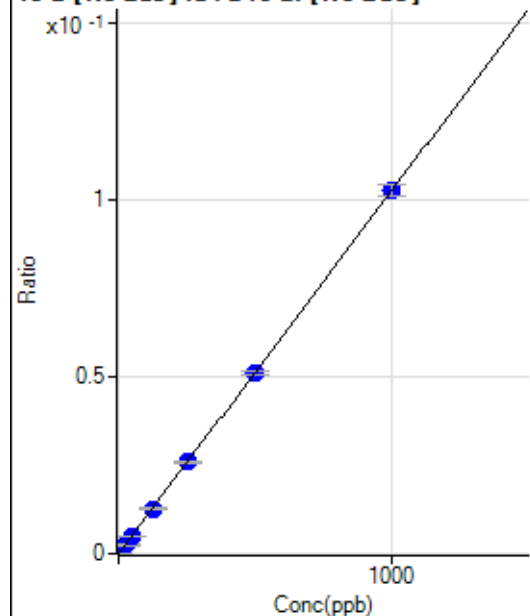
$$R = 0.9998$$

$$DL = 0.02345$$

$$BEC = 0.01829$$

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	100.00	0.0000	P	43.1
2	☐	2.500					
3	☐	25.000	23.585	5554.02	0.0025	P	17.3
4	☐	50.000	48.425	12341.59	0.0050	P	4.7
5	☐	125.000	124.098	30314.61	0.0127	P	4.5
6	☐	250.000	253.510	57671.78	0.0260	P	2.1
7	☐	500.000	498.275	106380.26	0.0510	P	3.0
8	☐	1000.000	1000.212	207864.34	0.1024	P	3.0
9	☐			10517.95	0.0051	P	9.4

$$y = 1.0229\text{E-}004 * x + 3.9696\text{E-}005$$

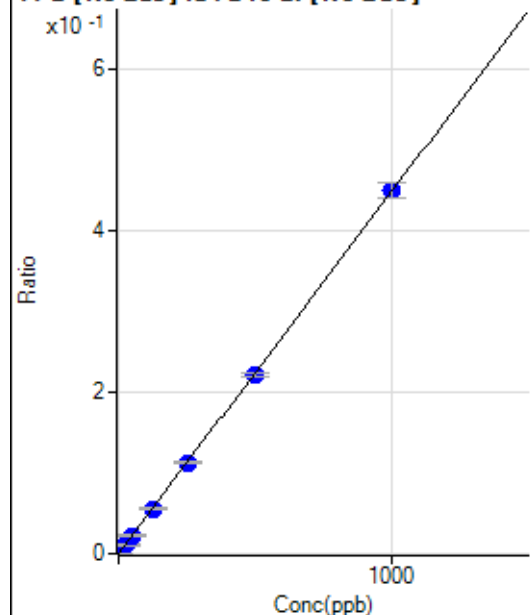
$$R = 1.0000$$

$$DL = 0.5016$$

$$BEC = 0.3881$$

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	241.68	0.0001	P	31.6
2	☐	2.500					
3	☐	25.000	24.472	25199.58	0.0111	P	11.4
4	☐	50.000	49.690	55397.08	0.0224	P	4.1
5	☐	125.000	123.913	132692.27	0.0557	P	1.2
6	☐	250.000	250.126	249619.26	0.1124	P	2.2
7	☐	500.000	496.015	464712.26	0.2228	P	2.3
8	☐	1000.000	1002.126	913948.97	0.4501	P	4.1
9	☐			46617.78	0.0227	P	10.7

$$y = 4.4904\text{E-}004 * x + 9.6423\text{E-}005$$

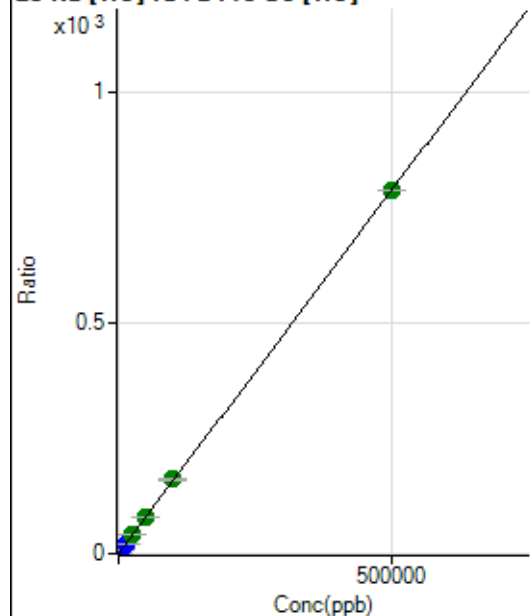
$$R = 1.0000$$

$$DL = 0.2033$$

$$BEC = 0.2147$$

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	2328.06	0.0120	P	6.9
2	☐	50.000					
3	☐	500.000	483.328	150430.44	0.7723	P	0.7
4	☐	5000.000	5292.359	1580844.15	8.3372	P	1.1
5	☐	12500.000	12797.979	3806639.19	20.1441	P	2.5
6	☐	25000.000	26049.392	6907547.90	40.9896	A	0.2
7	☐	50000.000	50193.297	13247344.83	78.9697	A	2.2
8	☐	100000.00	102323.77	26474838.78	160.9748	A	2.7
9	☐	500000.00	499453.09	133157441.8	785.6883	A	0.1

$$y = 0.0016 * x + 0.0120$$

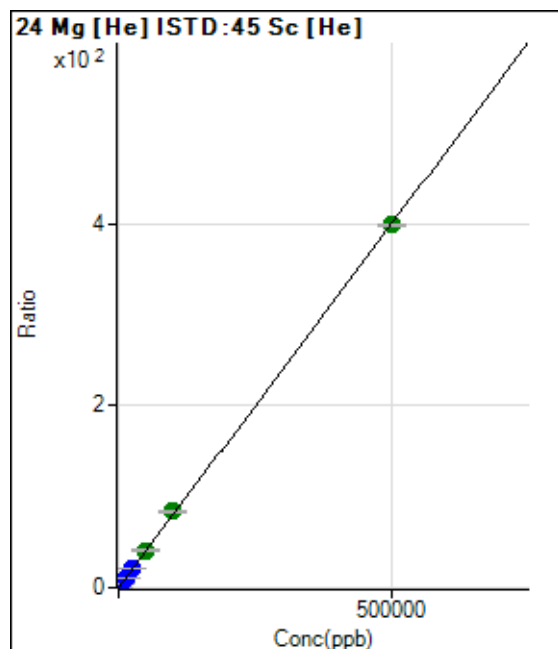
$$R = 1.0000$$

$$DL = 1.584$$

$$BEC = 7.614$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144.45	0.0007	P	54.5
2	☐	50.000					
3	☐	500.000	519.251	80927.09	0.4155	P	1.0
4	☐	5000.000	5501.486	833275.03	4.3947	P	1.4
5	☐	12500.000	13207.085	1993389.37	10.5490	P	2.7
6	☐	25000.000	26999.547	3634108.80	21.5648	P	0.4
7	☐	50000.000	51523.233	6903483.31	41.1515	A	2.0
8	☐	100000.00	104439.23	13717927.56	83.4146	A	3.1
9	☐	500000.00	498837.14	67522654.29	398.4138	A	0.3

$$y = 7.9868\text{E-}004 * x + 7.4227\text{E-}004$$

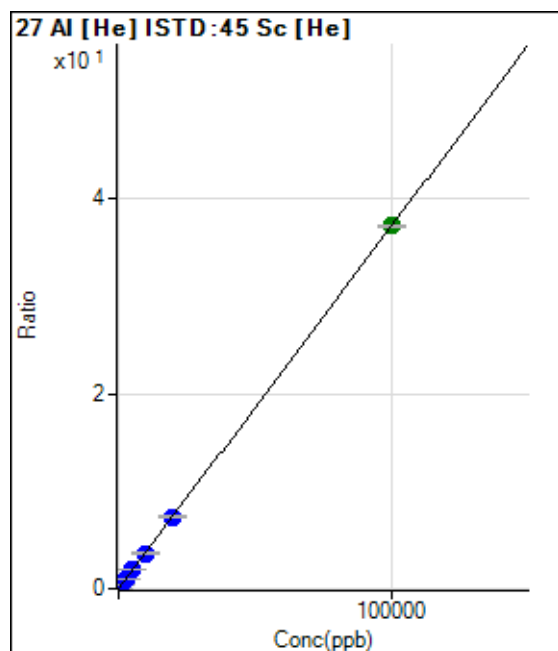
$$R = 1.0000$$

$$DL = 1.521$$

$$BEC = 0.9294$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.55	0.0002	P	15.5
2	☐	2.000					
3	☐	20.000	17.467	1297.33	0.0067	P	8.4
4	☐	1000.000	1049.091	74106.41	0.3908	P	1.8
5	☐	2500.000	2529.729	178086.77	0.9423	P	1.9
6	☐	5000.000	5130.213	321991.50	1.9107	P	0.2
7	☐	10000.000	9780.744	611047.05	3.6426	P	2.2
8	☐	20000.000	19829.932	1214436.17	7.3850	P	3.4
9	☐	100000.00	100048.19	6314594.89	37.2590	A	0.3

$$y = 3.7241\text{E-}004 * x + 1.5715\text{E-}004$$

$$R = 1.0000$$

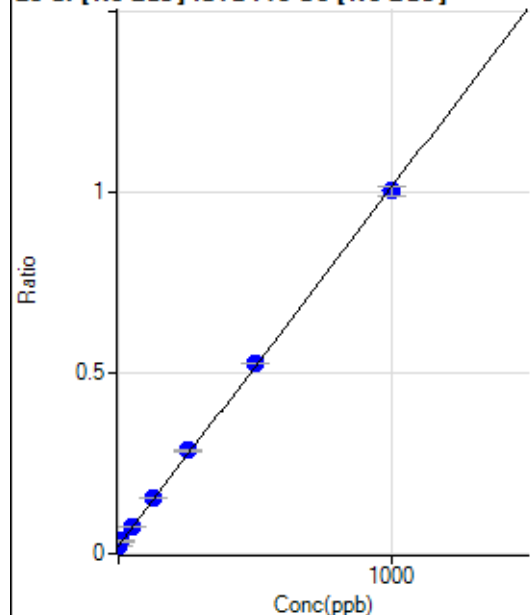
$$DL = 0.196$$

$$BEC = 0.422$$

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	94801.72	0.0222	P	1.9
2	☐	1.000					
3	☐	10.000	13.189	137000.23	0.0353	P	11.7
4	☐	50.000	52.857	321881.95	0.0747	P	2.0
5	☐	125.000	134.966	640619.02	0.1561	P	0.2
6	☐	250.000	264.924	1082765.64	0.2851	P	0.3
7	☐	500.000	509.618	1895233.55	0.5279	P	0.5
8	☐	1000.000	990.040	3522173.69	1.0047	P	2.9
9	☐			177291.20	0.0496	P	0.8

$$y = 9.9239\text{E-}004 * x + 0.0222$$

$$R = 0.9998$$

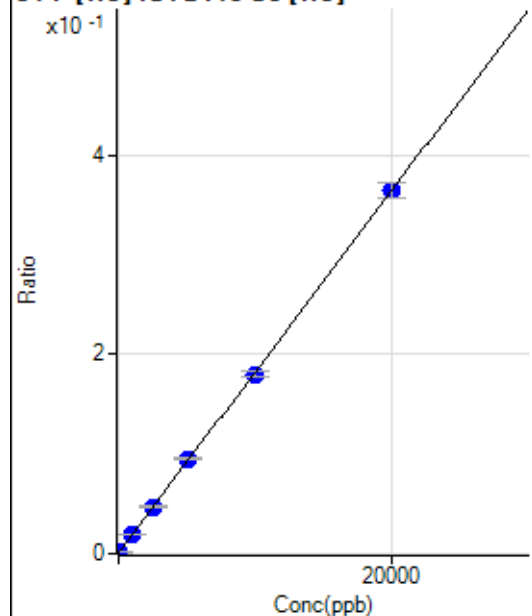
$$DL = 1.294$$

$$BEC = 22.37$$

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	-21.535	61.11	0.0003	P	57.1
2	☐	0.000					
3	☐	0.000	21.535	213.90	0.0011	P	17.9
4	☐	1000.000	1014.356	3631.14	0.0192	P	2.7
5	☐	2500.000	2546.438	8889.12	0.0470	P	2.4
6	☐	5000.000	5201.496	16059.22	0.0953	P	1.1
7	☐	10000.000	9886.658	30276.14	0.1805	P	2.6
8	☐	20000.000	19999.775	59920.74	0.3644	P	4.1
9	☐			100.01	0.0006	P	14.5

$$y = 1.8185\text{E-}005 * x + 7.0643\text{E-}004$$

$$R = 0.9999$$

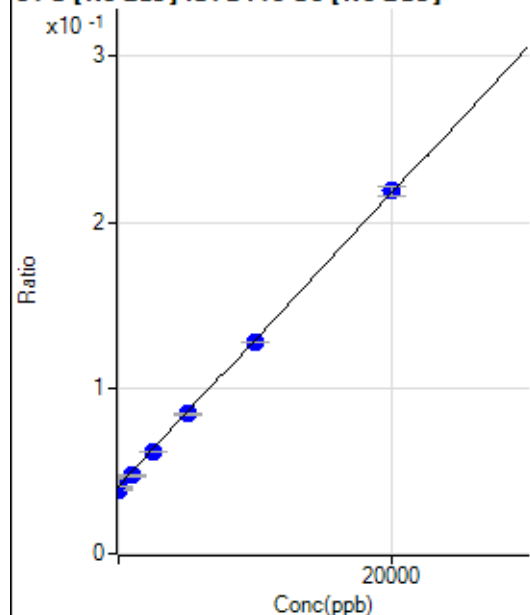
$$DL = 31.04$$

$$BEC = 38.85$$

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	-253.735	164836.29	0.0386	P	1.5
2	☐	0.000					
3	☐	0.000	253.735	167284.70	0.0431	P	11.6
4	☐	1000.000	714.799	203366.50	0.0472	P	0.8
5	☐	2500.000	2352.135	252900.00	0.0616	P	0.5
6	☐	5000.000	4924.696	320494.85	0.0844	P	0.7
7	☐	10000.000	9824.654	458493.58	0.1277	P	0.1
8	☐	20000.000	20139.242	767539.86	0.2189	P	2.7
9	☐			134704.43	0.0377	P	0.4

$$y = 8.8430E-006 * x + 0.0408$$

$$R = 0.9997$$

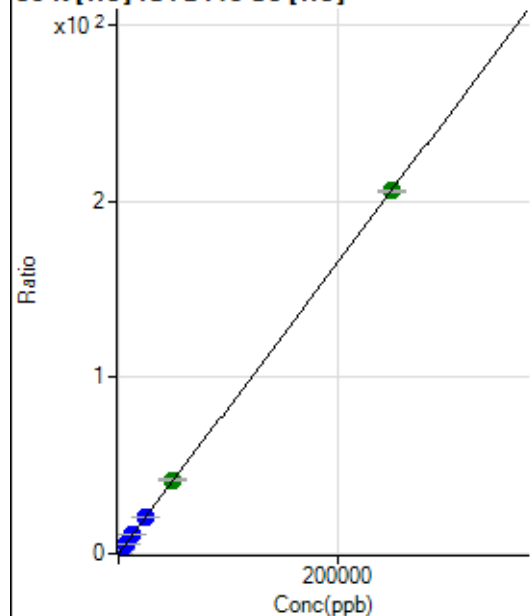
$$DL = 948$$

$$BEC = 4618$$

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	8447.15	0.0435	P	5.1
2	☐	50.000					
3	☐	500.000	485.945	86449.14	0.4438	P	1.7
4	☐	2500.000	2687.237	428004.60	2.2573	P	1.2
5	☐	6250.000	6400.550	1004530.24	5.3164	P	3.0
6	☐	12500.000	13027.852	1815987.00	10.7761	P	0.1
7	☐	25000.000	24931.132	3452952.46	20.5823	P	1.8
8	☐	50000.000	50434.046	6839977.50	41.5922	A	3.1
9	☐	250000.00	249888.07	34896715.02	205.9070	A	0.6

$$y = 8.2382E-004 * x + 0.0435$$

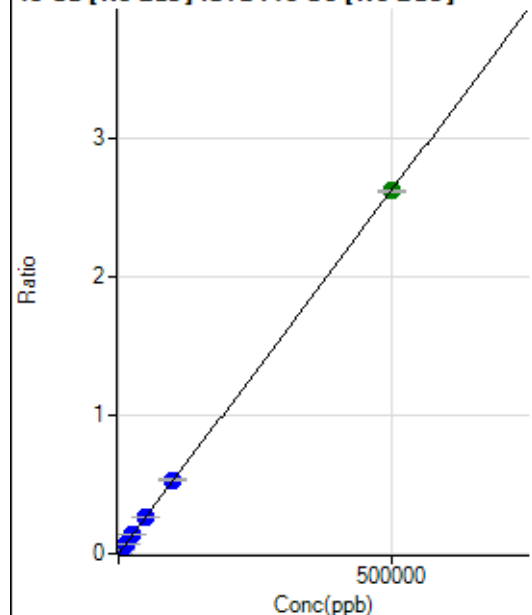
$$R = 1.0000$$

$$DL = 8.089$$

$$BEC = 52.76$$

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	108.34	0.0000	P	17.0
2	☐	50.000					
3	☐	500.000	524.806	10771.00	0.0028	P	13.5
4	☐	5000.000	5021.608	113653.94	0.0264	P	1.7
5	☐	12500.000	12869.421	276996.66	0.0675	P	0.8
6	☐	25000.000	25620.497	510349.71	0.1344	P	0.5
7	☐	50000.000	50768.694	955815.26	0.2663	P	0.2
8	☐	100000.00	101901.86	1873410.96	0.5344	P	3.0
9	☐	500000.00	499502.25	9358050.47	2.6194	A	0.7

$$y = 5.2439\text{E-}006 * x + 2.5411\text{E-}005$$

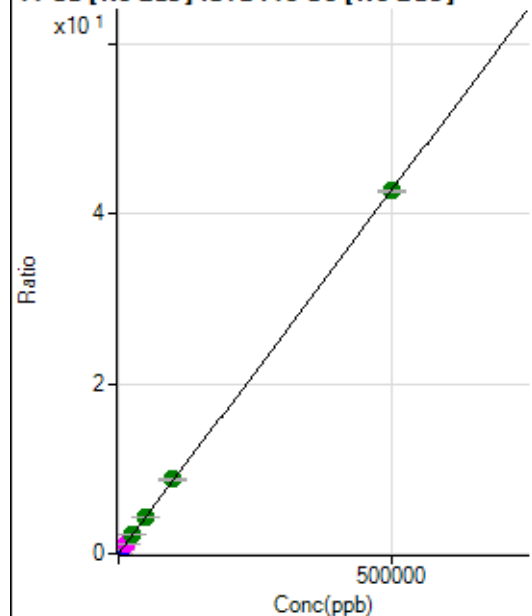
$$R = 1.0000$$

$$DL = 2.477$$

$$BEC = 4.846$$

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	4715.00	0.0011	P	2.3
2	☐	50.000					
3	☐	500.000	523.458	178040.31	0.0459	P	11.8
4	☐	5000.000	5018.607	1854956.16	0.4302	P	1.8
5	☐	12500.000	12746.176	4475992.03	1.0909	M	0.6
6	☐	25000.000	25525.465	8292799.23	2.1836	A	0.3
7	☐	50000.000	50663.546	15554682.29	4.3329	A	0.2
8	☐	100000.00	102294.59	30665568.74	8.7475	A	3.0
9	☐	500000.00	499442.09	152568838.1	42.7044	A	0.5

$$y = 8.5502\text{E-}005 * x + 0.0011$$

$$R = 1.0000$$

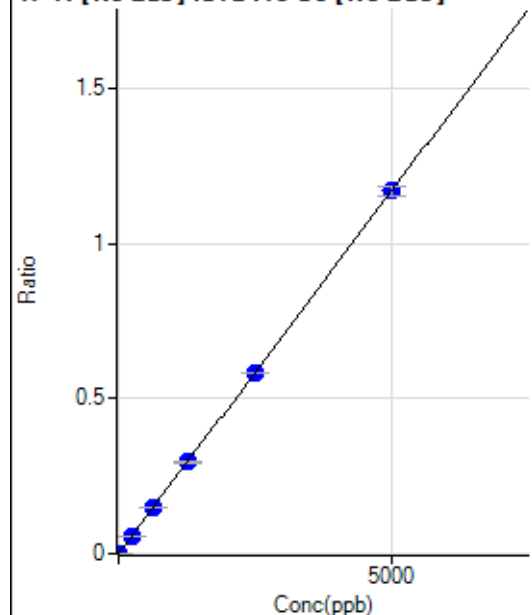
$$DL = 0.8787$$

$$BEC = 12.91$$

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	66.67	0.0000	P	13.1
2	☐	0.500					
3	☐	5.000	5.353	4909.35	0.0013	P	15.0
4	☐	250.000	249.310	251383.77	0.0583	P	1.3
5	☐	625.000	634.574	608726.44	0.1484	P	0.8
6	☐	1250.000	1260.776	1119462.86	0.2948	P	0.6
7	☐	2500.000	2490.740	2090349.09	0.5823	P	0.4
8	☐	5000.000	5000.773	4098582.26	1.1691	P	2.7
9	☐			1377.90	0.0004	P	1.0

$$y = 2.3378E-004 * x + 1.5619E-005$$

$$R = 1.0000$$

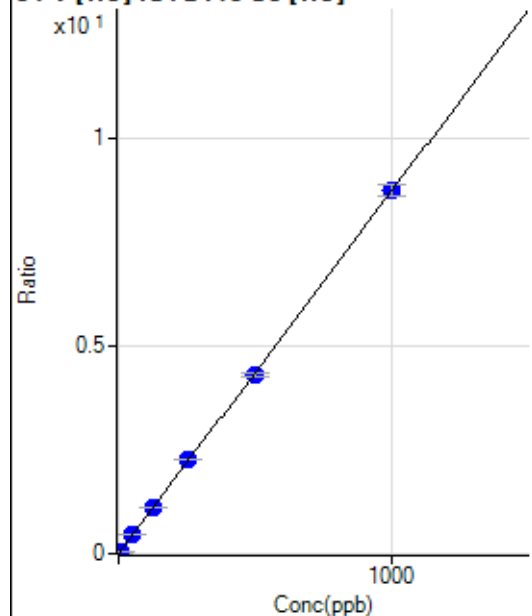
$$DL = 0.02631$$

$$BEC = 0.06681$$

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	3.33	0.0000	P	0.3
2	☐	0.500					
3	☐	5.000	5.099	8652.65	0.0444	P	1.6
4	☐	50.000	52.909	87379.93	0.4608	P	1.2
5	☐	125.000	127.608	209998.86	1.1114	P	3.1
6	☐	250.000	259.036	380193.97	2.2561	P	0.2
7	☐	500.000	492.641	719766.92	4.2906	P	2.2
8	☐	1000.000	1000.949	1433680.99	8.7177	P	3.0
9	☐			285.56	0.0017	P	3.5

$$y = 0.0087 * x + 1.7133E-005$$

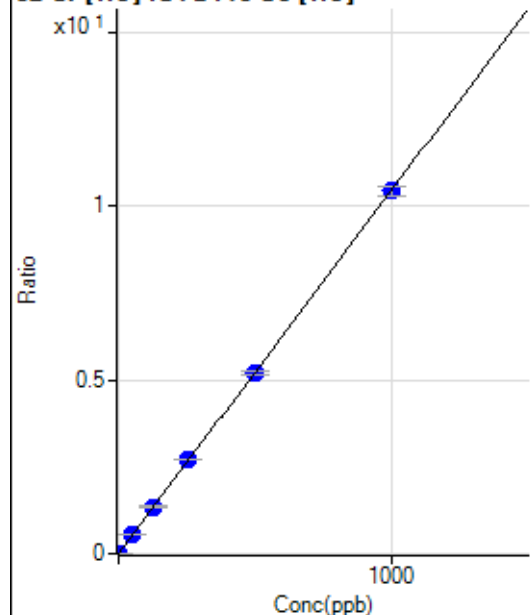
$$R = 0.9999$$

$$DL = 2.029E-05$$

$$BEC = 0.001967$$

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	435.57	0.0022	P	4.8
2	☐	0.200					
3	☐	2.000	1.994	4494.08	0.0231	P	1.0
4	☐	50.000	54.103	107609.89	0.5675	P	1.2
5	☐	125.000	129.086	255278.57	1.3510	P	2.8
6	☐	250.000	260.948	459844.20	2.7287	P	0.4
7	☐	500.000	495.999	869702.47	5.1846	P	2.4
8	☐	1000.000	998.548	1716224.05	10.4355	P	2.9
9	☐			12900.25	0.0761	P	3.3

$$y = 0.0104 * x + 0.0022$$

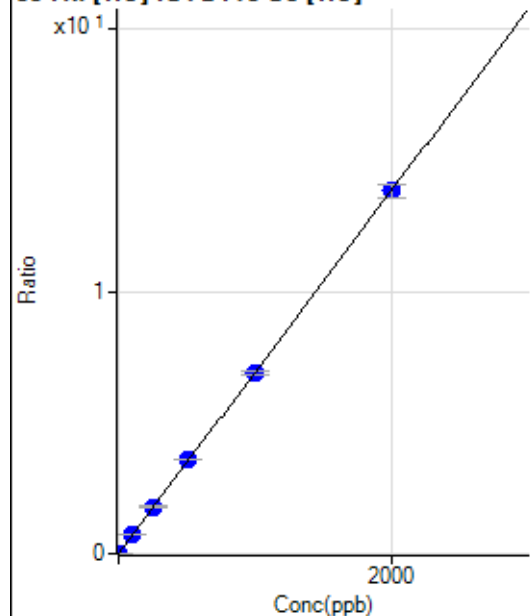
$$R = 0.9999$$

$$DL = 0.03058$$

$$BEC = 0.2145$$

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	31.11	0.0002	P	16.6
2	☐	0.100					
3	☐	1.000	0.998	1376.75	0.0071	P	7.9
4	☐	100.000	106.721	140175.66	0.7392	P	0.4
5	☐	250.000	255.539	334399.53	1.7698	P	3.1
6	☐	500.000	519.998	606872.48	3.6012	P	0.6
7	☐	1000.000	991.266	1151560.31	6.8648	P	2.3
8	☐	2000.000	1998.339	2275775.63	13.8389	P	3.4
9	☐			9111.82	0.0538	P	2.7

$$y = 0.0069 * x + 1.6012E-004$$

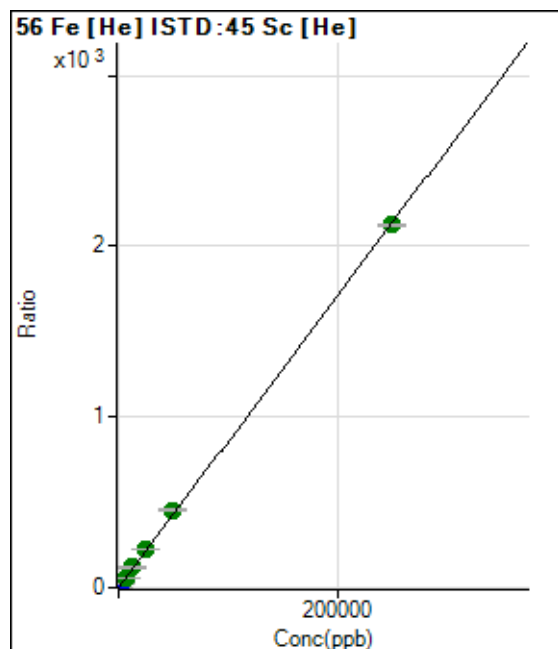
$$R = 0.9999$$

$$DL = 0.01152$$

$$BEC = 0.02312$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1955.73	0.0101	P	5.1
2	☐	5.000					
3	☐	50.000	56.334	95589.04	0.4907	P	0.4
4	☐	2500.000	2873.945	4651481.18	24.5321	P	1.4
5	☐	6250.000	6805.584	10973922.12	58.0790	A	3.1
6	☐	12500.000	13870.593	19946213.41	118.3615	A	0.3
7	☐	25000.000	26412.230	37806205.94	225.3736	A	2.3
8	☐	50000.000	53229.041	74696375.74	454.1892	A	2.9
9	☐	250000.00	249126.80	360259308.0	2,125.695	A	0.3

$$y = 0.0085 * x + 0.0101$$

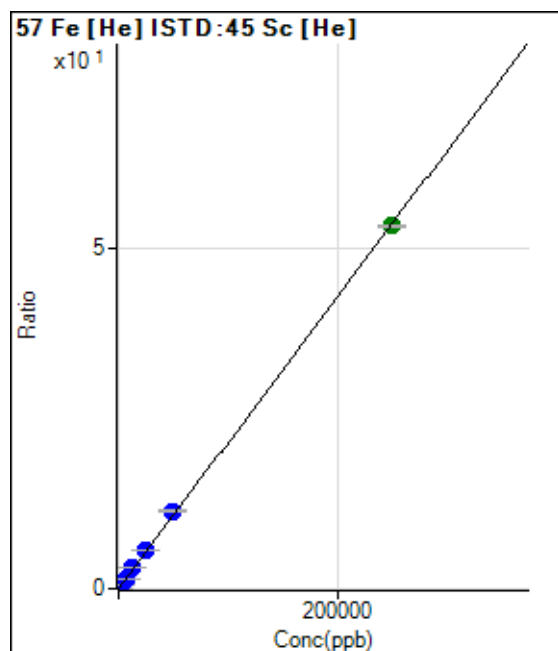
$$R = 0.9999$$

$$DL = 0.1822$$

$$BEC = 1.179$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0003	P	28.6
2	☐	5.000					
3	☐	50.000	56.172	2411.37	0.0124	P	5.7
4	☐	2500.000	2866.865	116555.06	0.6147	P	1.7
5	☐	6250.000	6854.750	277632.60	1.4694	P	3.1
6	☐	12500.000	13920.055	502773.24	2.9835	P	0.7
7	☐	25000.000	26490.882	952328.59	5.6775	P	2.7
8	☐	50000.000	53201.080	1875034.04	11.4016	P	3.1
9	☐	250000.00	249120.90	9048129.37	53.3884	A	0.8

$$y = 2.1431E-004 * x + 3.4283E-004$$

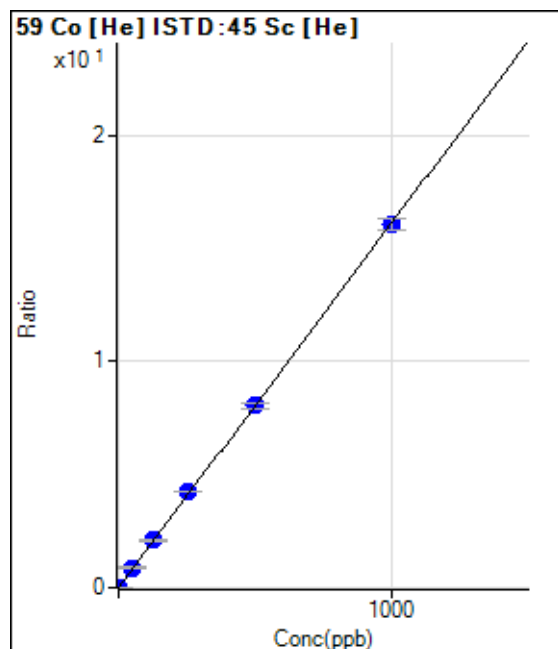
$$R = 0.9999$$

$$DL = 1.374$$

$$BEC = 1.6$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78.89	0.0004	P	21.6
2	☐	0.100					
3	☐	1.000	1.004	3232.63	0.0166	P	4.8
4	☐	50.000	55.169	168741.65	0.8899	P	1.1
5	☐	125.000	130.758	398398.81	2.1087	P	3.5
6	☐	250.000	264.543	718866.29	4.2658	P	0.5
7	☐	500.000	499.566	1351204.65	8.0552	P	2.5
8	☐	1000.000	995.603	2639969.73	16.0531	P	3.2
9	☐			30665.49	0.1809	P	1.5

$$y = 0.0161 * x + 4.0582E-004$$

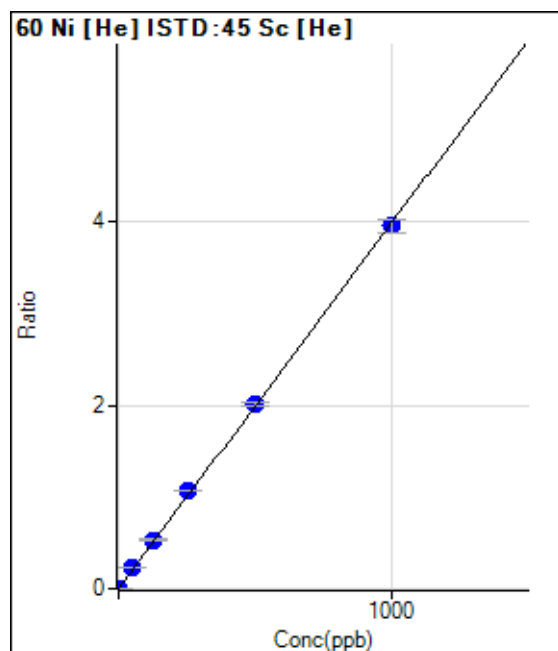
$$R = 0.9999$$

$$DL = 0.01628$$

$$BEC = 0.02517$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0002	P	27.8
2	☐	0.100					
3	☐	1.000	1.041	852.26	0.0044	P	10.0
4	☐	50.000	56.213	42559.61	0.2245	P	1.3
5	☐	125.000	132.962	100262.98	0.5306	P	2.9
6	☐	250.000	266.820	179402.27	1.0646	P	0.6
7	☐	500.000	503.940	337241.42	2.0105	P	2.5
8	☐	1000.000	992.519	651105.03	3.9594	P	3.4
9	☐			8034.54	0.0474	P	2.0

$$y = 0.0040 * x + 2.2298E-004$$

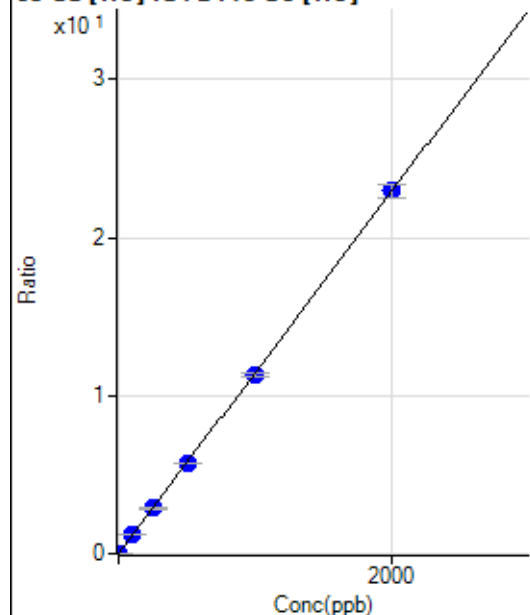
$$R = 0.9998$$

$$DL = 0.04669$$

$$BEC = 0.0559$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	258.90	0.0013	P	6.0
2	☐	0.200					
3	☐	2.000	1.892	4480.75	0.0230	P	2.9
4	☐	100.000	105.293	228871.83	1.2071	P	1.4
5	☐	250.000	249.667	540439.48	2.8603	P	3.2
6	☐	500.000	501.446	967904.40	5.7436	P	0.1
7	☐	1000.000	991.351	1904585.23	11.3536	P	2.3
8	☐	2000.000	2003.740	3773523.03	22.9468	P	3.4
9	☐			4334.04	0.0256	P	2.5

$$y = 0.0115 * x + 0.0013$$

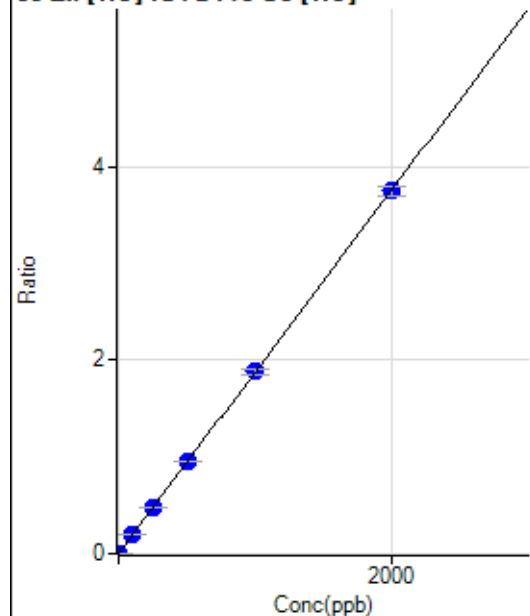
$$R = 1.0000$$

$$DL = 0.02096$$

$$BEC = 0.1163$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	307.78	0.0016	P	12.7
2	☐	0.200					
3	☐	2.000	1.966	1026.72	0.0053	P	3.2
4	☐	100.000	105.356	37773.33	0.1992	P	1.6
5	☐	250.000	252.128	89666.29	0.4746	P	3.2
6	☐	500.000	508.369	160975.44	0.9552	P	0.2
7	☐	1000.000	1001.111	315260.51	1.8796	P	3.0
8	☐	2000.000	1996.818	616294.88	3.7474	P	2.9
9	☐			4900.89	0.0289	P	3.5

$$y = 0.0019 * x + 0.0016$$

$$R = 1.0000$$

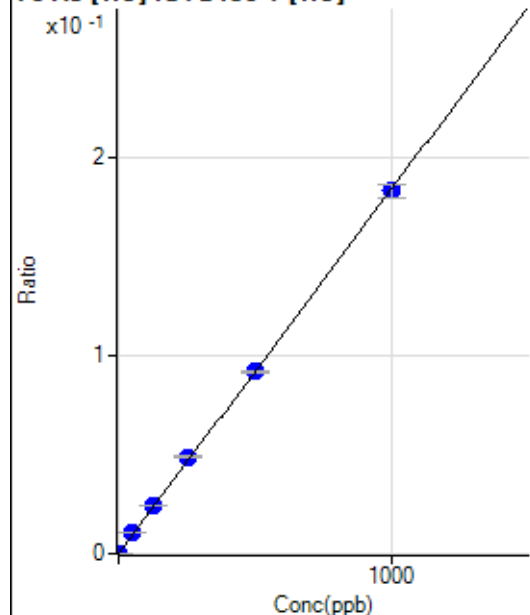
$$DL = 0.3215$$

$$BEC = 0.8442$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.09	0.0000	P	125.
2	☐	0.100					
3	☐	1.000	1.002	219.76	0.0002	P	14.7
4	☐	50.000	56.103	11794.98	0.0103	P	0.5
5	☐	125.000	131.803	28062.88	0.0243	P	3.6
6	☐	250.000	266.075	50865.61	0.0490	P	0.3
7	☐	500.000	499.483	95783.43	0.0919	P	1.0
8	☐	1000.000	995.084	186832.90	0.1831	P	3.5
9	☐			258.03	0.0003	P	8.3

$$y = 1.8401\text{E-}004 * x + 2.6433\text{E-}006$$

$$R = 0.9999$$

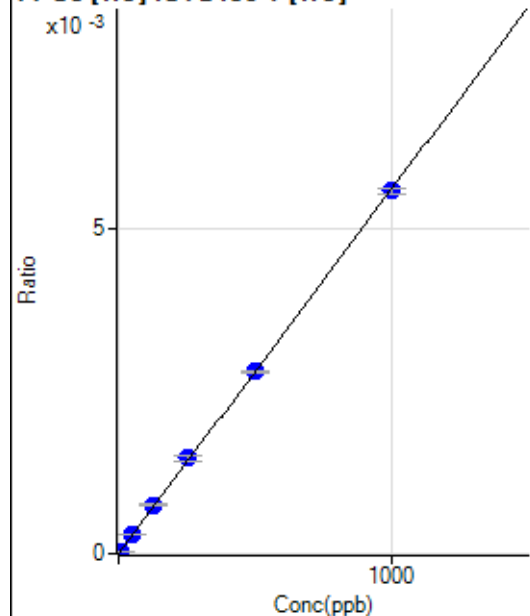
$$DL = 0.0539$$

$$BEC = 0.01436$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	4.901	32.22	0.0000	P	33.4
4	☐	50.000	53.162	340.01	0.0003	P	1.1
5	☐	125.000	133.436	865.60	0.0007	P	4.7
6	☐	250.000	261.733	1522.33	0.0015	P	4.5
7	☐	500.000	500.831	2922.56	0.0028	P	1.2
8	☐	1000.000	995.439	5690.10	0.0056	P	1.5
9	☐			1.11	0.0000	P	173.

$$y = 5.5996\text{E-}006 * x + 0.0000\text{E+}000$$

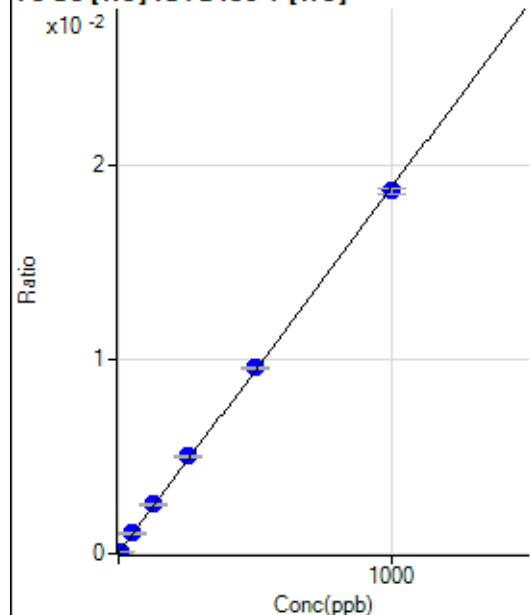
$$R = 0.9999$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.95	0.0000	P	20.3
2	☐	0.500					
3	☐	5.000	5.523	156.17	0.0001	P	3.6
4	☐	50.000	55.101	1216.11	0.0011	P	7.0
5	☐	125.000	133.634	2941.07	0.0025	P	3.7
6	☐	250.000	266.655	5238.64	0.0050	P	1.9
7	☐	500.000	506.675	9957.79	0.0096	P	1.8
8	☐	1000.000	991.162	19050.84	0.0187	P	1.7
9	☐			34.57	0.0000	P	8.0

$$y = 1.8803\text{E-}005 * x + 2.9099\text{E-}005$$

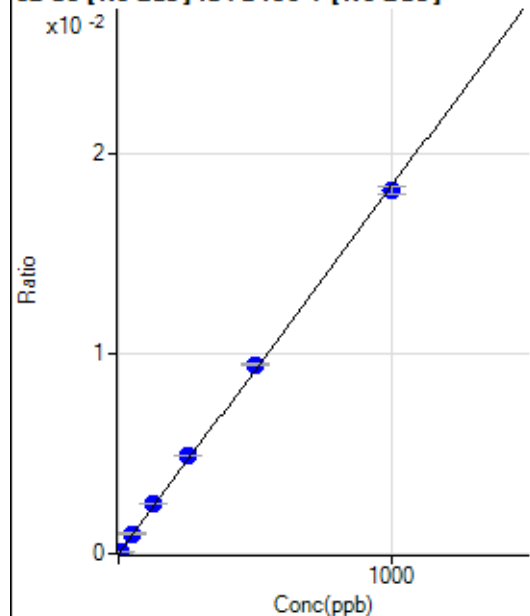
$$R = 0.9998$$

$$DL = 0.9405$$

$$BEC = 1.548$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24.52	0.0000	P	44.3
2	☐	0.500					
3	☐	5.000	5.744	693.94	0.0001	P	9.9
4	☐	50.000	54.174	7074.10	0.0010	P	4.2
5	☐	125.000	135.632	17074.62	0.0025	P	0.0
6	☐	250.000	265.879	31675.02	0.0049	P	0.2
7	☐	500.000	514.541	58796.89	0.0094	P	0.8
8	☐	1000.000	987.218	111692.31	0.0181	P	2.2
9	☐			57.20	0.0000	P	22.7

$$y = 1.8355\text{E-}005 * x + 3.4762\text{E-}006$$

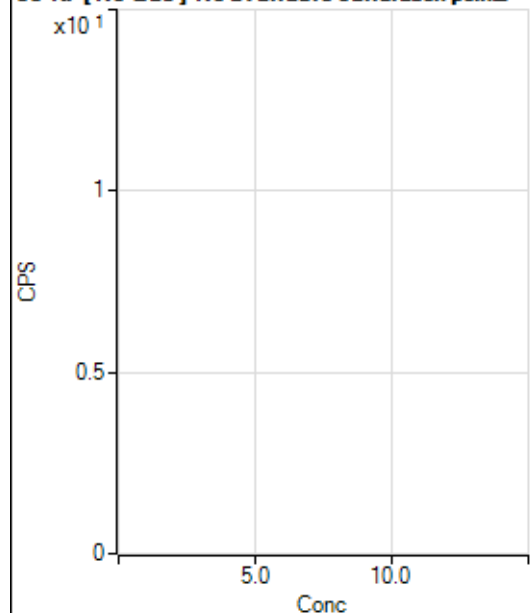
$$R = 0.9997$$

$$DL = 0.2518$$

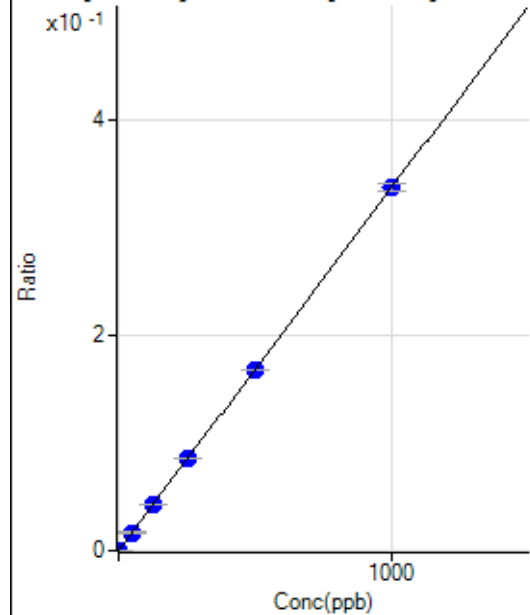
$$BEC = 0.1894$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			180.01		P	4.9
2	☐						
3	☐			160.00		P	7.5
4	☐			168.89		P	8.0
5	☐			142.22		P	11.1
6	☐			161.11		P	30.1
7	☐			147.78		P	14.7
8	☐			111.12		P	22.9
9	☐			188.89		P	15.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	308.35	0.0000	P	12.6
2	☐	0.100					
3	☐	1.000	0.986	2400.30	0.0004	P	9.7
4	☐	50.000	50.002	120031.72	0.0169	P	1.0
5	☐	125.000	127.375	294869.76	0.0431	P	0.6
6	☐	250.000	253.167	554713.26	0.0855	P	0.5
7	☐	500.000	498.559	1047933.90	0.1684	P	0.4
8	☐	1000.000	999.632	2080378.41	0.3376	P	2.3
9	☐			8716.88	0.0014	P	3.5

$$y = 3.3765E-004 * x + 4.3810E-005$$

$$R = 1.0000$$

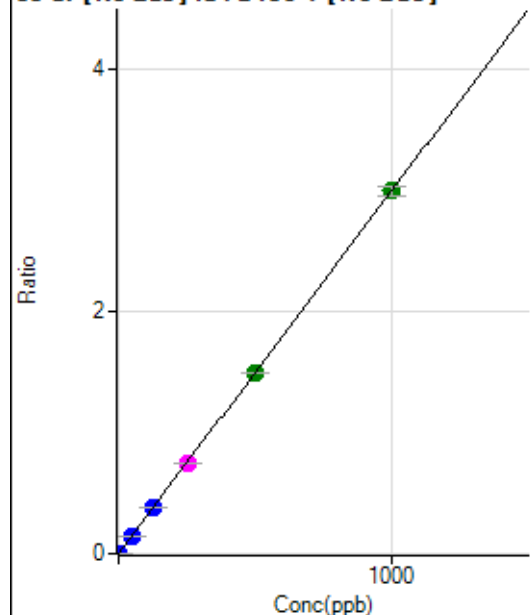
$$DL = 0.04899$$

$$BEC = 0.1297$$

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	86.12	0.0000	P	22.7
2	☐	0.100					
3	☐	1.000	0.998	19027.16	0.0030	P	13.5
4	☐	50.000	49.506	1050201.82	0.1481	P	1.8
5	☐	125.000	125.829	2578267.92	0.3764	P	0.0
6	☐	250.000	250.296	4856558.57	0.7488	M	0.5
7	☐	500.000	499.057	9291410.36	1.4930	A	0.7
8	☐	1000.000	1000.319	18441547.29	2.9925	A	2.5
9	☐			73720.15	0.0123	P	0.9

$$y = 0.0030 * x + 1.2223E-005$$

$$R = 1.0000$$

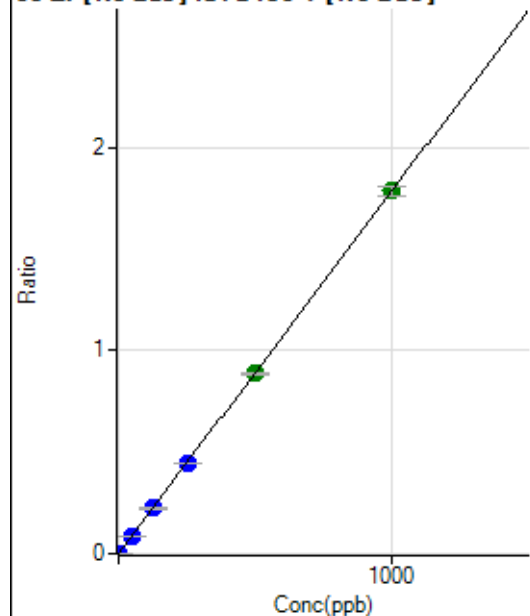
$$DL = 0.002784$$

$$BEC = 0.004086$$

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	552.82	0.0001	P	17.2
2	☐	0.100					
3	☐	1.000	0.987	11696.85	0.0018	P	9.4
4	☐	50.000	49.108	620931.57	0.0876	P	1.8
5	☐	125.000	125.027	1526181.35	0.2228	P	1.0
6	☐	250.000	249.430	2882816.82	0.4445	P	0.5
7	☐	500.000	496.957	5510789.36	0.8855	A	0.5
8	☐	1000.000	1001.705	10998330.28	1.7848	A	2.8
9	☐			3136.59	0.0005	P	8.0

$$y = 0.0018 * x + 7.8537E-005$$

$$R = 1.0000$$

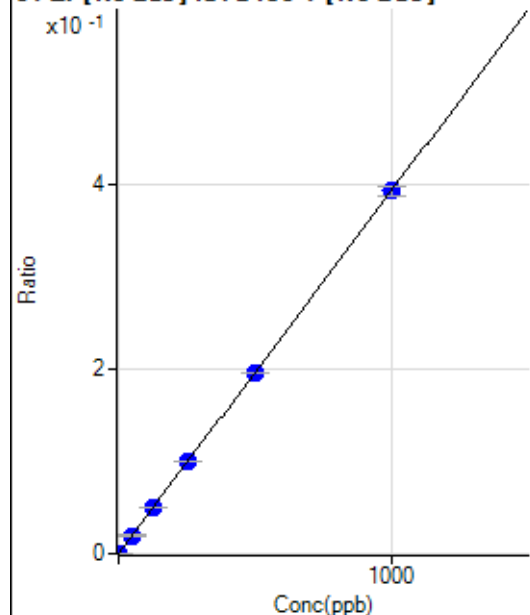
$$DL = 0.02269$$

$$BEC = 0.04408$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	97.23	0.0000	P	30.6
2	☐	0.100					
3	☐	1.000	0.979	2536.45	0.0004	P	12.6
4	☐	50.000	50.263	140454.91	0.0198	P	1.5
5	☐	125.000	127.328	343521.51	0.0502	P	0.8
6	☐	250.000	253.826	648407.52	0.1000	P	0.2
7	☐	500.000	498.300	1221320.48	0.1962	P	0.7
8	☐	1000.000	999.589	2425919.24	0.3937	P	2.5
9	☐			791.72	0.0001	P	3.0

$$y = 3.9380E-004 * x + 1.3785E-005$$

$$R = 1.0000$$

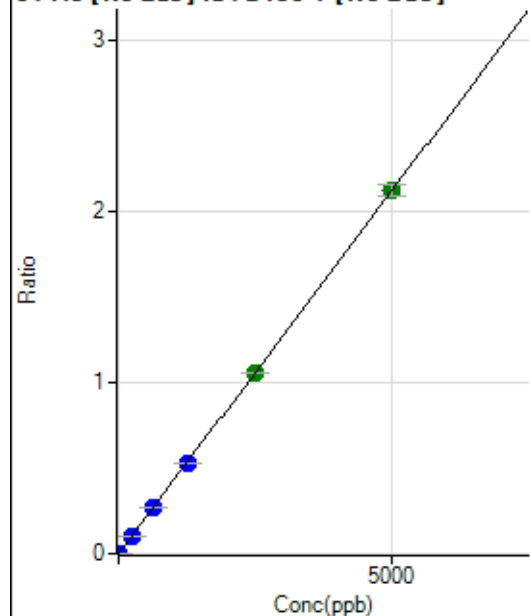
$$DL = 0.03214$$

$$BEC = 0.03501$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	200.01	0.0000	P	23.5
2	☐	0.500					
3	☐	5.000	5.178	14124.20	0.0022	P	10.3
4	☐	250.000	245.710	737573.62	0.1040	P	1.8
5	☐	625.000	624.787	1811301.99	0.2645	P	0.3
6	☐	1250.000	1244.575	3416604.20	0.5268	P	0.4
7	☐	2500.000	2490.872	6561068.63	1.0542	A	0.5
8	☐	5000.000	5006.161	13056142.31	2.1188	A	3.1
9	☐			6318.33	0.0011	P	3.6

$$y = 4.2323E-004 * x + 2.8390E-005$$

$$R = 1.0000$$

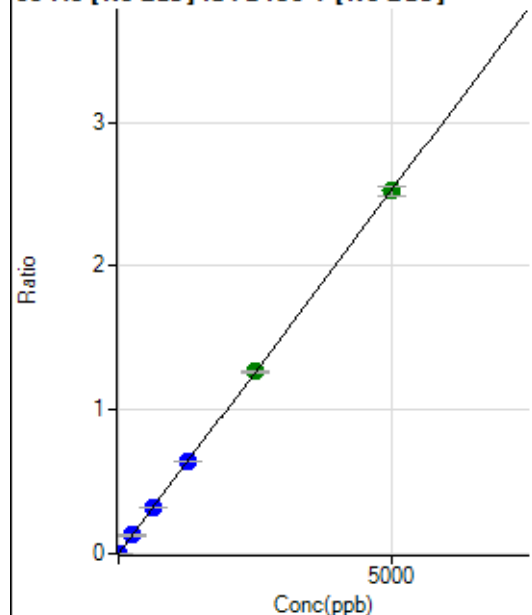
$$DL = 0.04726$$

$$BEC = 0.06708$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	61.11	0.0000	P	44.8
2	☐	0.500					
3	☐	5.000	5.475	17647.67	0.0028	P	10.4
4	☐	250.000	252.232	903408.04	0.1274	P	1.4
5	☐	625.000	636.275	2201098.72	0.3214	P	1.0
6	☐	1250.000	1265.176	4144504.91	0.6390	P	0.7
7	☐	2500.000	2501.880	7864221.96	1.2636	A	0.7
8	☐	5000.000	4993.744	15542710.59	2.5222	A	2.8
9	☐			9901.08	0.0016	P	3.3

$$y = 5.0508\text{E-}004 * x + 8.7209\text{E-}006$$

$$R = 1.0000$$

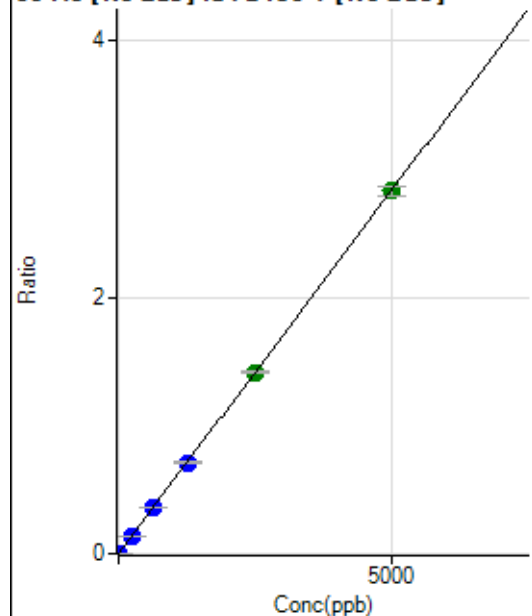
$$DL = 0.02318$$

$$BEC = 0.01727$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	66.67	0.0000	P	43.3
2	☐	0.500					
3	☐	5.000	5.373	19372.24	0.0031	P	13.7
4	☐	250.000	249.010	999799.45	0.1410	P	1.7
5	☐	625.000	633.498	2456799.75	0.3587	P	0.5
6	☐	1250.000	1257.798	4619107.14	0.7122	P	0.6
7	☐	2500.000	2502.056	8816732.66	1.4167	A	0.9
8	☐	5000.000	4996.009	17431628.86	2.8288	A	2.9
9	☐			12717.31	0.0021	P	3.2

$$y = 5.6622\text{E-}004 * x + 9.4408\text{E-}006$$

$$R = 1.0000$$

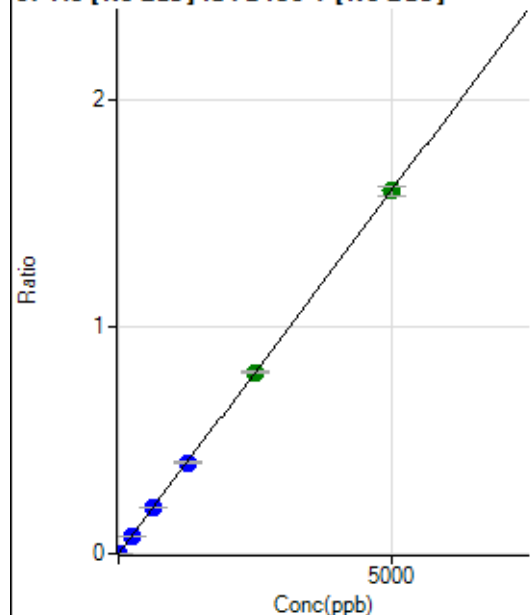
$$DL = 0.02166$$

$$BEC = 0.01667$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	46.9
2	☐	0.500					
3	☐	5.000	5.569	11307.74	0.0018	P	14.8
4	☐	250.000	248.467	562824.78	0.0794	P	1.6
5	☐	625.000	629.191	1376621.23	0.2010	P	0.8
6	☐	1250.000	1256.670	2603682.78	0.4014	P	0.4
7	☐	2500.000	2500.102	4970365.65	0.7986	A	0.6
8	☐	5000.000	4997.834	9838105.77	1.5965	A	2.9
9	☐			6034.86	0.0010	P	5.3

$$y = 3.1944\text{E-}004 * x + 3.9689\text{E-}006$$

$$R = 1.0000$$

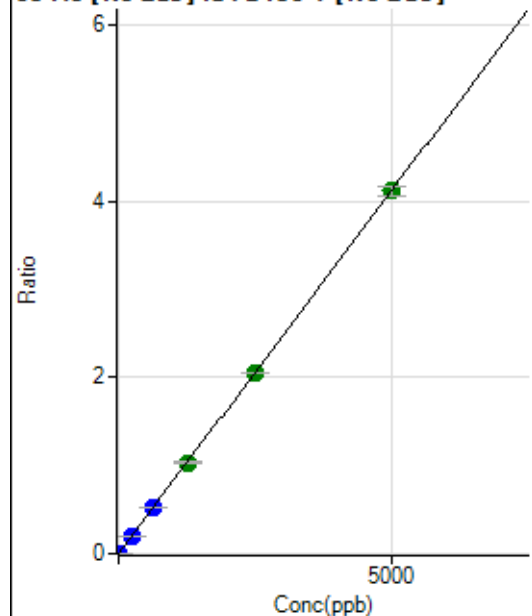
$$DL = 0.01749$$

$$BEC = 0.01242$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.67	0.0000	P	67.5
2	☐	0.500					
3	☐	5.000	5.299	27805.63	0.0044	P	11.5
4	☐	250.000	248.380	1451827.86	0.2047	P	1.3
5	☐	625.000	631.652	3566132.80	0.5207	P	0.4
6	☐	1250.000	1255.329	6711141.90	1.0348	A	0.7
7	☐	2500.000	2498.124	12815316.26	2.0592	A	0.4
8	☐	5000.000	4998.855	25391886.85	4.1205	A	2.8
9	☐			14783.25	0.0025	P	5.5

$$y = 8.2429\text{E-}004 * x + 5.8836\text{E-}006$$

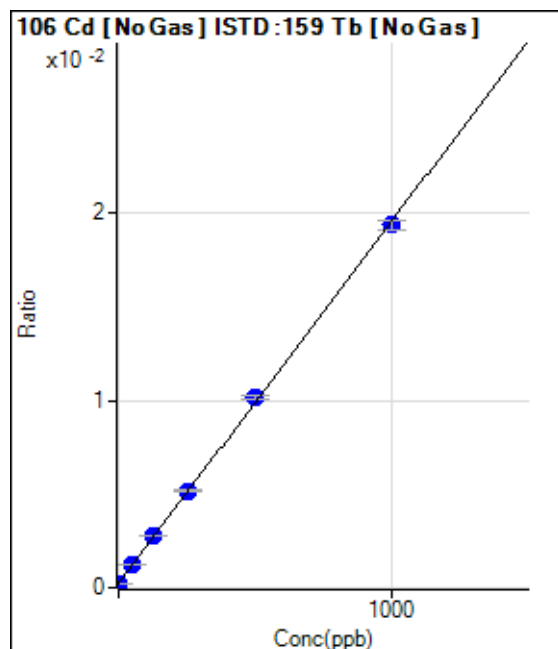
$$R = 1.0000$$

$$DL = 0.01445$$

$$BEC = 0.007138$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2372.53	0.0002	P	3.8
2	☐	0.100					
3	☐	1.000	0.965	2361.41	0.0003	P	1.6
4	☐	50.000	52.712	13064.80	0.0013	P	2.7
5	☐	125.000	132.080	28443.16	0.0028	P	0.7
6	☐	250.000	254.573	51271.17	0.0052	P	1.4
7	☐	500.000	513.863	100510.72	0.0102	P	1.9
8	☐	1000.000	990.905	191366.10	0.0194	P	2.6
9	☐			1897.43	0.0002	P	3.0

$$y = 1.9342\text{E-}005 * x + 2.3382\text{E-}004$$

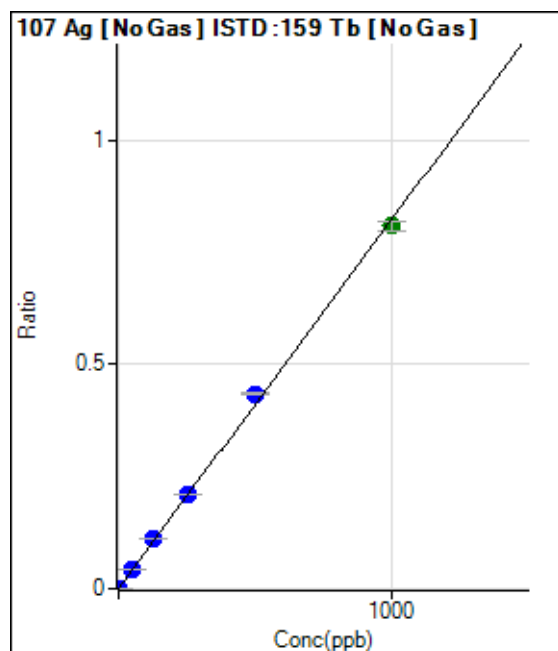
$$R = 0.9998$$

$$DL = 1.392$$

$$BEC = 12.09$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.45	0.0000	P	40.3
2	☐	0.100					
3	☐	1.000	1.032	7924.74	0.0009	P	13.5
4	☐	50.000	53.330	456989.80	0.0438	P	0.9
5	☐	125.000	133.679	1121002.58	0.1099	P	0.6
6	☐	250.000	253.762	2073718.60	0.2086	P	0.5
7	☐	500.000	528.773	4294801.18	0.4347	P	0.9
8	☐	1000.000	983.422	7974356.43	0.8084	A	2.7
9	☐			747.27	0.0001	P	21.0

$$y = 8.2207\text{E-}004 * x + 6.8072\text{E-}006$$

$$R = 0.9994$$

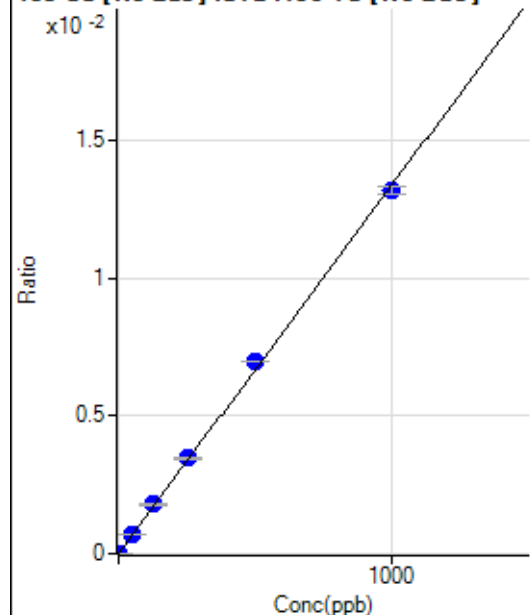
$$DL = 0.01$$

$$BEC = 0.008281$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.56	0.0000	P	115.
2	☐	0.100					
3	☐	1.000	1.079	138.89	0.0000	P	10.2
4	☐	50.000	52.020	7242.25	0.0007	P	1.9
5	☐	125.000	133.966	18245.34	0.0018	P	1.9
6	☐	250.000	258.824	34348.82	0.0035	P	1.7
7	☐	500.000	521.690	68809.04	0.0070	P	0.2
8	☐	1000.000	985.727	129802.70	0.0132	P	2.1
9	☐			36.11	0.0000	P	37.2

$$y = 1.3348\text{E-}005 * x + 5.5099\text{E-}007$$

$$R = 0.9996$$

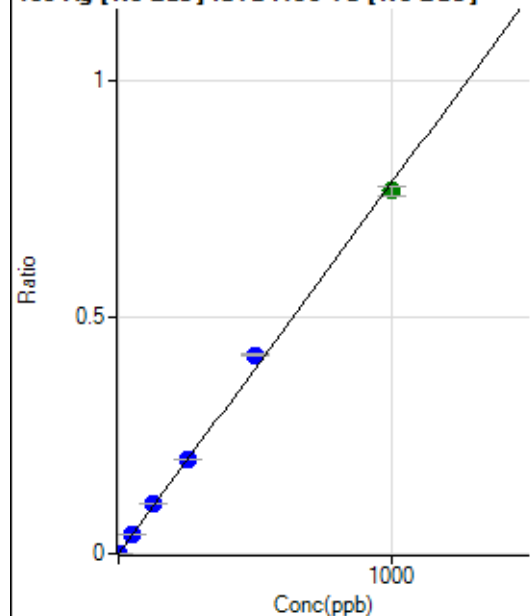
$$DL = 0.1435$$

$$BEC = 0.04128$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	44.8
2	☐	0.100					
3	☐	1.000	1.019	7430.01	0.0008	P	10.9
4	☐	50.000	53.733	438586.97	0.0421	P	1.1
5	☐	125.000	133.858	1069297.94	0.1048	P	0.1
6	☐	250.000	255.370	1987976.78	0.2000	P	0.3
7	☐	500.000	536.991	4154976.09	0.4205	P	0.6
8	☐	1000.000	978.868	7561613.02	0.7666	A	2.6
9	☐			750.05	0.0001	P	4.1

$$y = 7.8313\text{E-}004 * x + 2.1984\text{E-}006$$

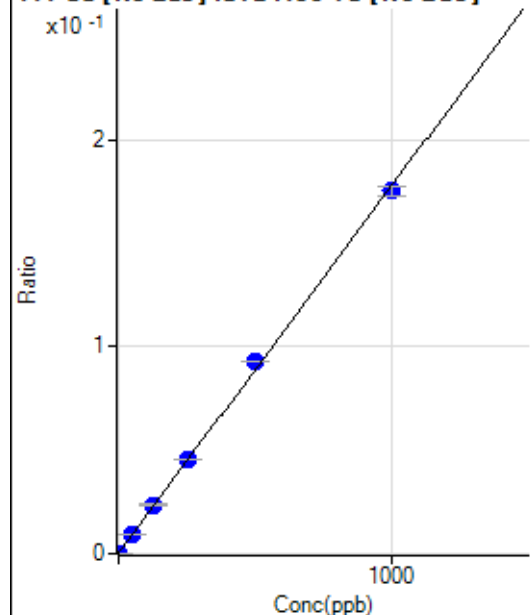
$$R = 0.9989$$

$$DL = 0.003773$$

$$BEC = 0.002807$$

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	1666.60	0.0002	P	4.1
2	☐	0.100					
3	☐	1.000	1.102	3347.59	0.0004	P	7.1
4	☐	50.000	53.221	100099.07	0.0096	P	1.7
5	☐	125.000	132.020	240540.75	0.0236	P	0.8
6	☐	250.000	256.055	453112.12	0.0456	P	0.2
7	☐	500.000	521.672	915886.43	0.0927	P	0.5
8	☐	1000.000	986.611	1727913.32	0.1752	P	2.4
9	☐			1573.77	0.0002	P	2.6

$$y = 1.7738\text{E-}004 * x + 1.6424\text{E-}004$$

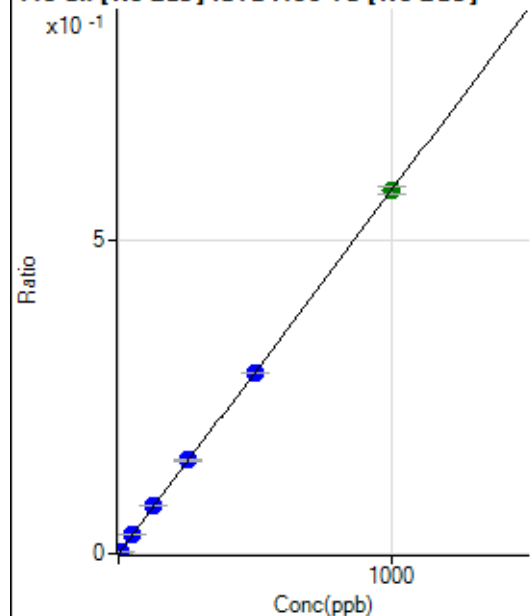
$$R = 0.9996$$

$$DL = 0.1129$$

$$BEC = 0.9259$$

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	438.91	0.0000	P	2.0
2	☐	0.500					
3	☐	5.000	5.705	31007.35	0.0033	P	11.8
4	☐	50.000	52.402	316380.24	0.0304	P	1.2
5	☐	125.000	132.177	780357.99	0.0765	P	0.9
6	☐	250.000	257.991	1483943.05	0.1493	P	1.3
7	☐	500.000	496.662	2839028.32	0.2873	P	0.5
8	☐	1000.000	998.650	5699038.41	0.5777	A	2.2
9	☐			3997.98	0.0004	P	3.9

$$y = 5.7847\text{E-}004 * x + 4.3249\text{E-}005$$

$$R = 0.9999$$

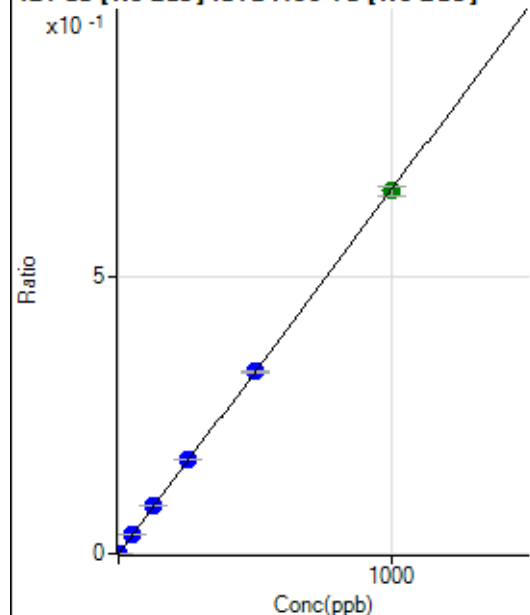
$$DL = 0.004396$$

$$BEC = 0.07477$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	66.1
2	☐	0.200					
3	☐	2.000	2.058	12547.74	0.0014	P	12.6
4	☐	50.000	52.115	356366.26	0.0342	P	1.6
5	☐	125.000	131.894	882665.60	0.0865	P	0.2
6	☐	250.000	258.844	1688076.99	0.1698	P	0.5
7	☐	500.000	500.202	3242340.22	0.3282	P	0.8
8	☐	1000.000	996.721	6450326.62	0.6539	A	2.5
9	☐			8391.78	0.0009	P	5.7

$$y = 6.5606\text{E-}004 * x + 3.2693\text{E-}006$$

$$R = 0.9999$$

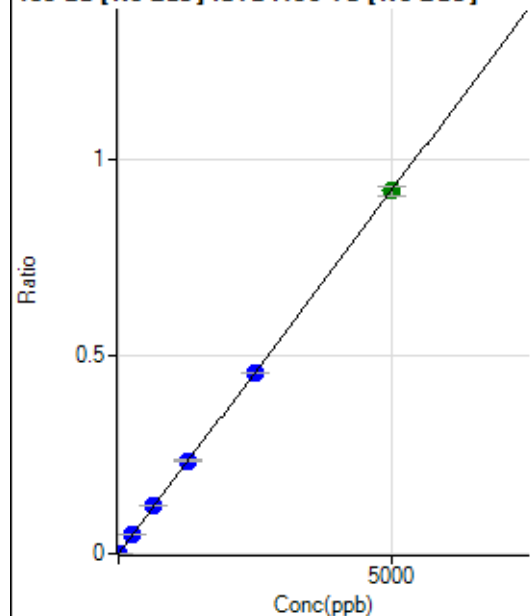
$$DL = 0.009882$$

$$BEC = 0.004983$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	58.4
2	☐	1.000					
3	☐	10.000	10.580	18073.46	0.0019	P	11.3
4	☐	250.000	258.435	495377.11	0.0475	P	1.0
5	☐	625.000	651.941	1223004.43	0.1199	P	0.3
6	☐	1250.000	1283.205	2345862.01	0.2360	P	0.6
7	☐	2500.000	2483.750	4513215.51	0.4568	P	0.2
8	☐	5000.000	4996.033	9063519.39	0.9188	A	2.4
9	☐			1414.02	0.0002	P	4.6

$$y = 1.8391\text{E-}004 * x + 2.2057\text{E-}006$$

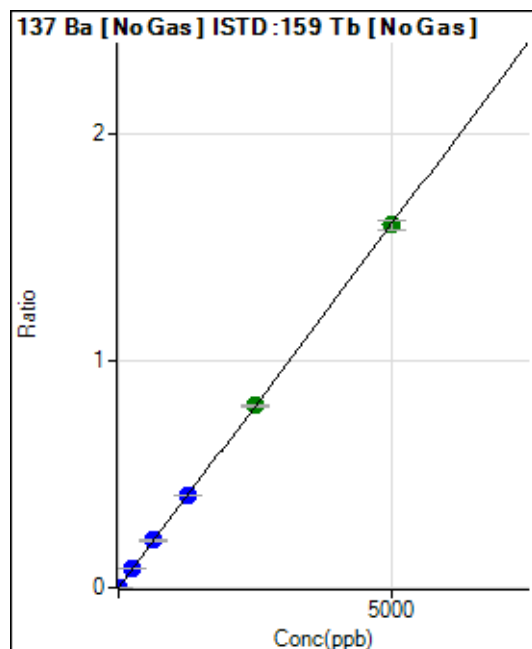
$$R = 1.0000$$

$$DL = 0.02101$$

$$BEC = 0.01199$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	50.2
2	☐	1.000					
3	☐	10.000	10.995	32792.41	0.0035	P	10.9
4	☐	250.000	257.993	862946.49	0.0828	P	1.0
5	☐	625.000	648.513	2122885.44	0.2081	P	0.7
6	☐	1250.000	1277.648	4075718.76	0.4100	P	0.6
7	☐	2500.000	2500.065	7927174.74	0.8023	A	0.2
8	☐	5000.000	4989.715	15795420.15	1.6013	A	2.4
9	☐			2592.03	0.0003	P	8.0

$$y = 3.2092\text{E-}004 * x + 4.9193\text{E-}006$$

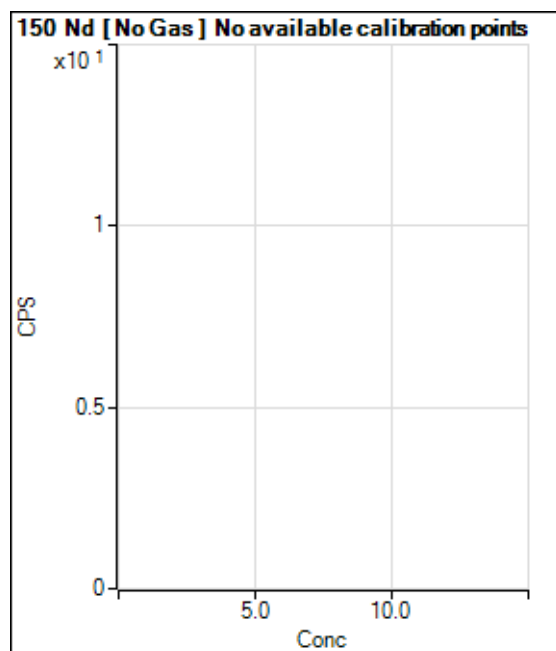
$$R = 1.0000$$

$$DL = 0.02307$$

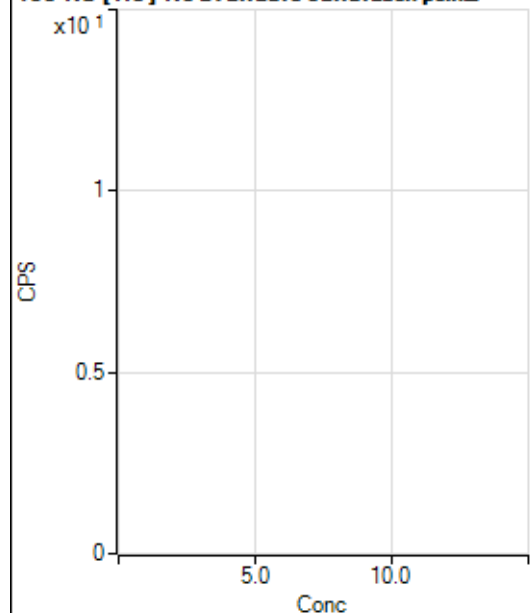
$$BEC = 0.01533$$

Weight: <None>

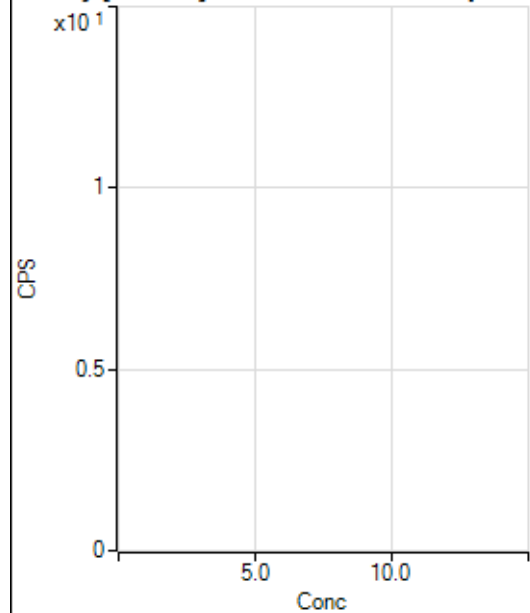
Min Conc: 0



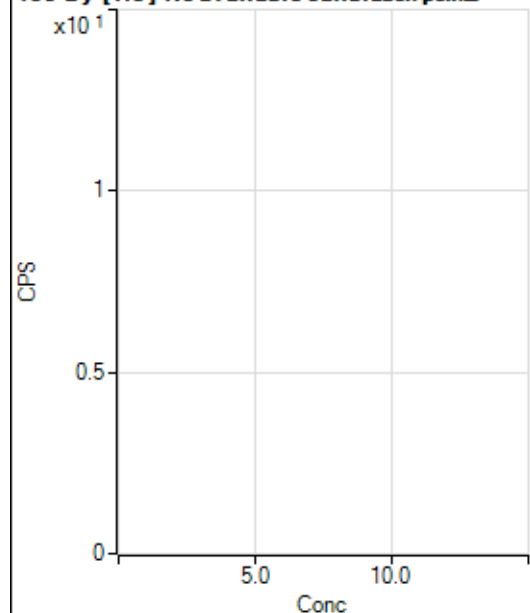
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			6.67		P	100.
4	☐			31.11		P	101.
5	☐			82.22		P	28.5
6	☐			204.45		P	14.7
7	☐			306.68		P	3.8
8	☐			633.37		P	16.5
9	☐			117.78		P	22.9

150 Nd [He] No available calibration points

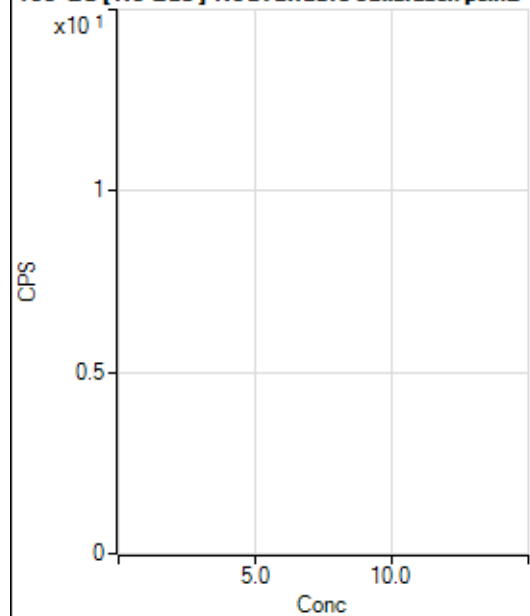
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			2.22		P	86.6
4	☐			5.55		P	124.
5	☐			12.22		P	41.7
6	☐			18.89		P	20.4
7	☐			34.44		P	24.3
8	☐			81.11		P	27.4
9	☐			72.22		P	19.2

156 Dy [No Gas] No available calibration points

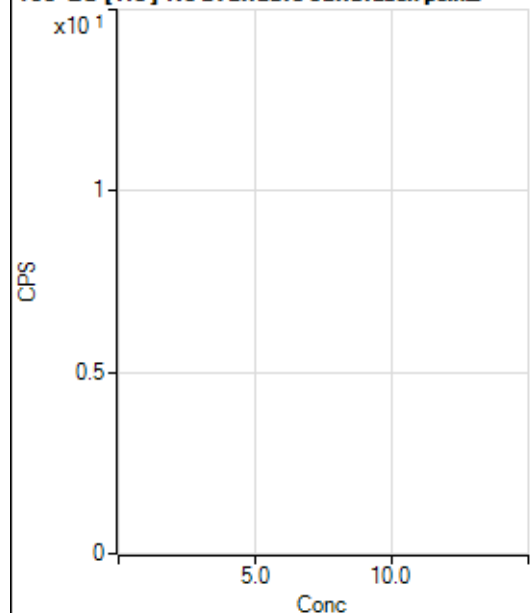
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			2.78		P	173.
4	☐			25.00		P	88.2
5	☐			25.00		P	33.3
6	☐			25.00		P	57.7
7	☐			86.11		P	39.1
8	☐			91.67		P	54.5
9	☐			80.56		P	15.8

156 Dy [He] No available calibration points

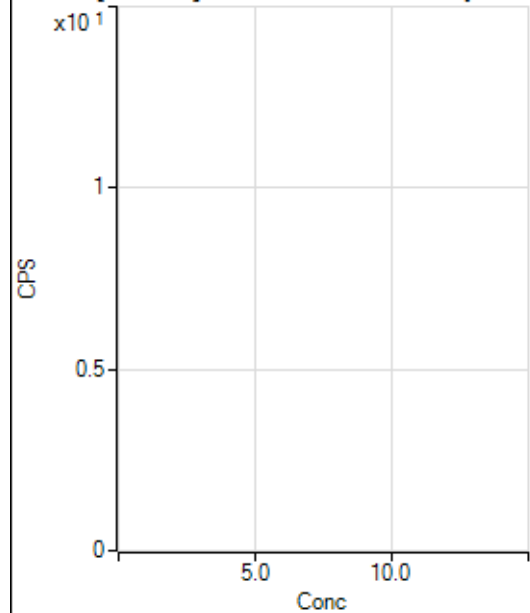
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	0.0
2	☐						
3	☐			3.33		P	173.
4	☐			11.11		P	45.8
5	☐			33.33		P	10.0
6	☐			54.44		P	58.2
7	☐			90.01		P	6.4
8	☐			185.56		P	13.5
9	☐			33.33		P	17.3

160 Gd [No Gas] Noavailable calibration poin_

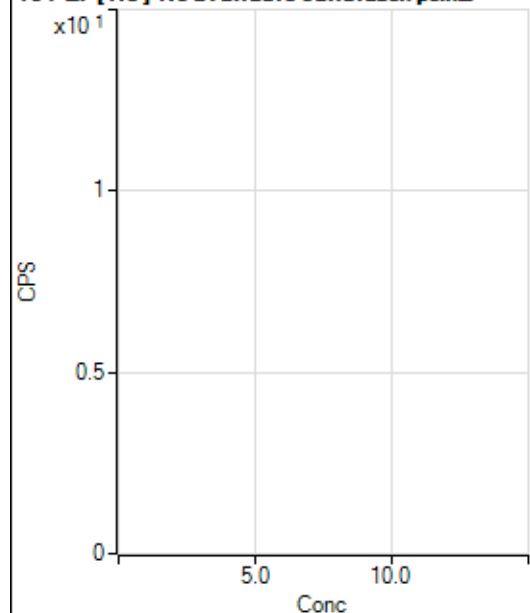
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			55.56		P	52.7
2	☐						
3	☐			36.11		P	13.3
4	☐			36.11		P	35.3
5	☐			36.11		P	35.3
6	☐			47.22		P	62.0
7	☐			16.67		P	50.0
8	☐			47.23		P	56.7
9	☐			102.78		P	40.0

160 Gd [He] No available calibration points

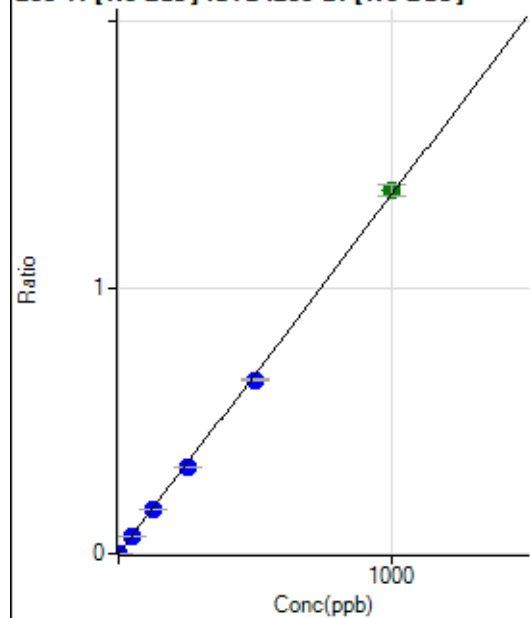
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			137.78		P	11.2
2	☐						
3	☐			163.34		P	15.9
4	☐			166.67		P	19.7
5	☐			143.33		P	17.6
6	☐			153.34		P	8.7
7	☐			146.67		P	10.4
8	☐			147.78		P	6.9
9	☐			172.22		P	4.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	65.5
2	☐						
3	☐			27.78		P	96.4
4	☐			58.34		P	65.5
5	☐			47.22		P	10.2
6	☐			41.67		P	34.6
7	☐			25.00		P	33.3
8	☐			41.67		P	20.0
9	☐			55.56		P	8.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			18.89		P	44.4
2	☐						
3	☐			13.33		P	50.0
4	☐			10.00		P	88.2
5	☐			17.78		P	21.7
6	☐			22.22		P	22.9
7	☐			34.45		P	45.7
8	☐			36.67		P	NaN
9	☐			18.89		P	66.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	88.89	0.0000	P	23.0
2	☐	0.100					
3	☐	1.000	0.969	8405.85	0.0013	P	7.0
4	☐	50.000	47.541	455897.01	0.0642	P	1.7
5	☐	125.000	121.705	1138628.93	0.1642	P	0.2
6	☐	250.000	241.903	2219006.02	0.3264	P	1.1
7	☐	500.000	483.944	4369118.15	0.6530	P	0.6
8	☐	1000.000	1010.587	8951175.03	1.3636	A	3.0
9	☐			2186.41	0.0004	P	11.0

$$y = 0.0013 * x + 1.2767E-005$$

$$R = 0.9998$$

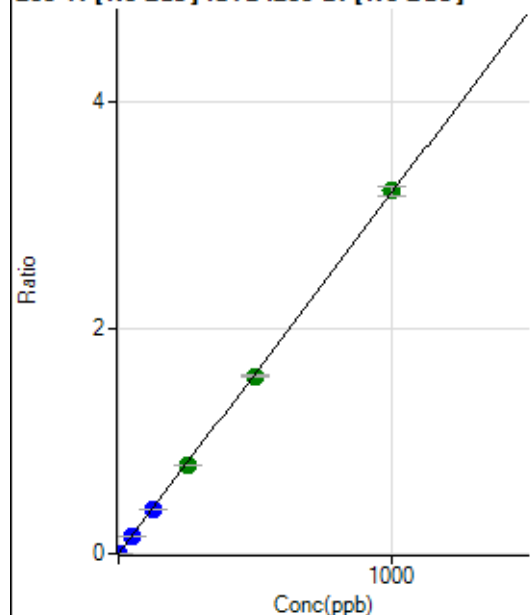
$$DL = 0.006541$$

$$BEC = 0.009462$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.90	0.0000	P	19.8
2	☐	0.100					
3	☐	1.000	0.966	19782.19	0.0031	P	11.9
4	☐	50.000	47.971	1089537.31	0.1533	P	2.1
5	☐	125.000	122.503	2714634.02	0.3916	P	0.4
6	☐	250.000	245.128	5326238.23	0.7835	A	0.2
7	☐	500.000	492.551	10532761.35	1.5742	A	0.7
8	☐	1000.000	1005.356	21093037.27	3.2132	A	2.7
9	☐			5498.60	0.0010	P	9.0

$$y = 0.0032 * x + 3.0776E-005$$

$$R = 0.9999$$

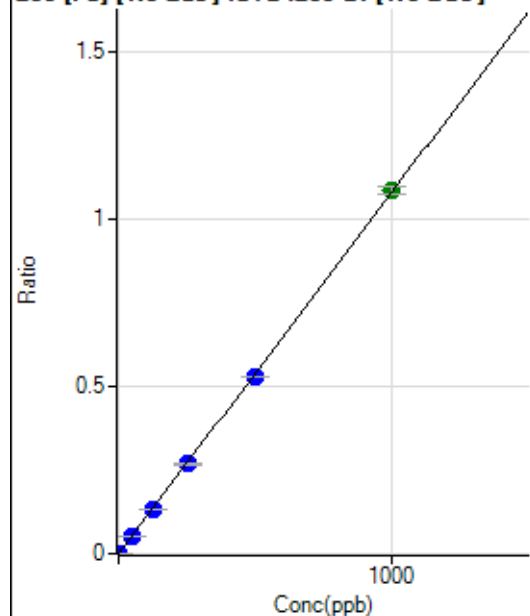
$$DL = 0.005728$$

$$BEC = 0.009629$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	192.60	0.0000	P	13.8
2	☐	0.100					
3	☐	1.000	1.011	7092.85	0.0011	P	14.7
4	☐	50.000	48.730	374054.18	0.0526	P	1.8
5	☐	125.000	123.631	925688.67	0.1335	P	0.5
6	☐	250.000	248.296	1822752.81	0.2681	P	0.9
7	☐	500.000	491.180	3548661.19	0.5304	P	0.3
8	☐	1000.000	1005.071	7124634.65	1.0853	A	2.3
9	☐			7213.28	0.0013	P	2.7

$$y = 0.0011 * x + 2.7668E-005$$

$$R = 0.9999$$

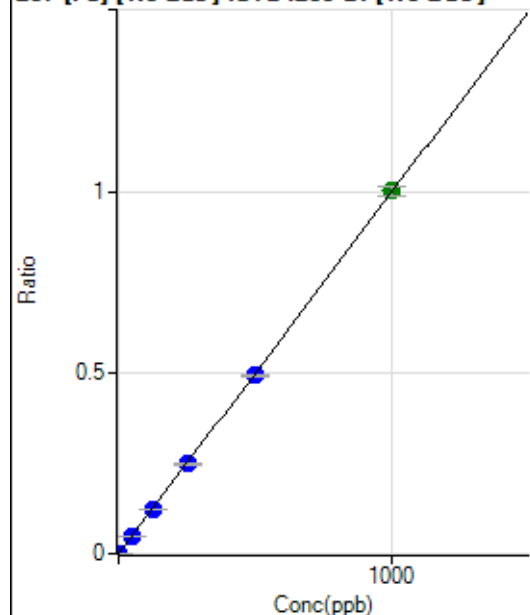
$$DL = 0.01062$$

$$BEC = 0.02562$$

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	135.19	0.0000	P	36.6
2	☐	0.100					
3	☐	1.000	0.976	6299.81	0.0010	P	11.2
4	☐	50.000	48.324	342316.51	0.0482	P	1.5
5	☐	125.000	123.339	852282.81	0.1229	P	0.2
6	☐	250.000	247.995	1680235.09	0.2472	P	0.7
7	☐	500.000	492.605	3284670.93	0.4909	P	0.5
8	☐	1000.000	1004.490	6571407.73	1.0010	A	2.6
9	☐			6440.64	0.0011	P	2.4

$$y = 9.9654E-004 * x + 1.9415E-005$$

$$R = 1.0000$$

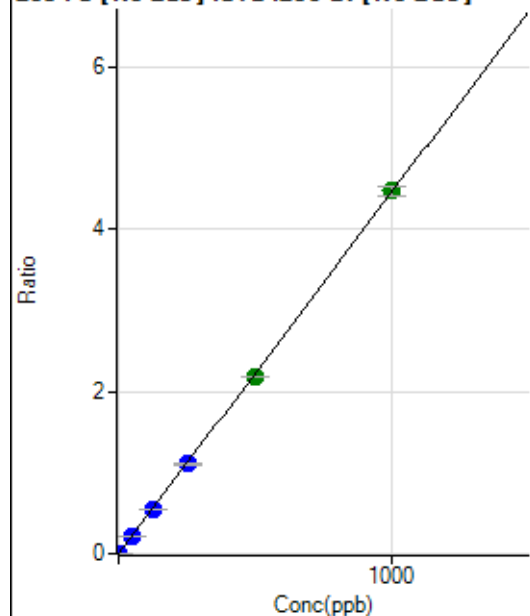
$$DL = 0.02139$$

$$BEC = 0.01948$$

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	700.03	0.0001	P	6.9
2	☐	0.100					
3	☐	1.000	0.985	28455.25	0.0045	P	11.4
4	☐	50.000	48.498	1533863.26	0.2159	P	1.1
5	☐	125.000	123.381	3806283.26	0.5490	P	0.4
6	☐	250.000	247.774	7494455.26	1.1024	P	0.8
7	☐	500.000	492.030	14646829.35	2.1891	A	0.2
8	☐	1000.000	1004.819	29346982.31	4.4704	A	2.6
9	☐			29239.38	0.0051	P	1.2

$$y = 0.0044 * x + 1.0059E-004$$

$$R = 1.0000$$

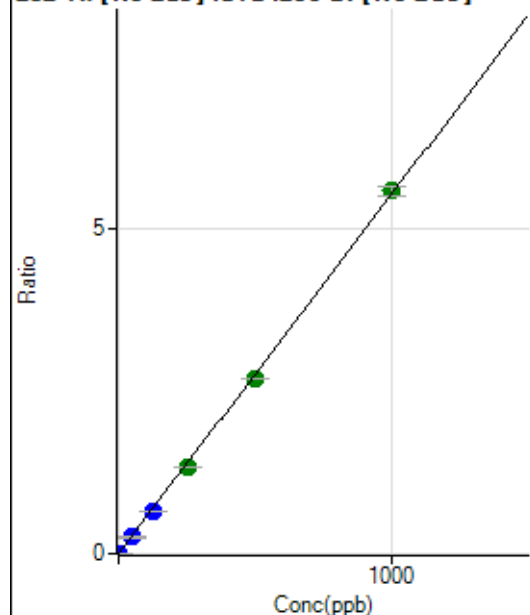
$$DL = 0.00467$$

$$BEC = 0.02261$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	90.75	0.0000	P	30.7
2	☐	0.100					
3	☐	1.000	0.893	31436.45	0.0050	P	11.5
4	☐	50.000	45.573	1792475.61	0.2523	P	1.4
5	☐	125.000	117.959	4526727.76	0.6529	P	0.4
6	☐	250.000	239.869	9025976.13	1.3277	A	0.7
7	☐	500.000	487.371	18049546.01	2.6977	A	0.2
8	☐	1000.000	1009.949	36695522.58	5.5902	A	3.0
9	☐			6351.71	0.0011	P	7.0

$$y = 0.0055 * x + 1.3026E-005$$

$$R = 0.9998$$

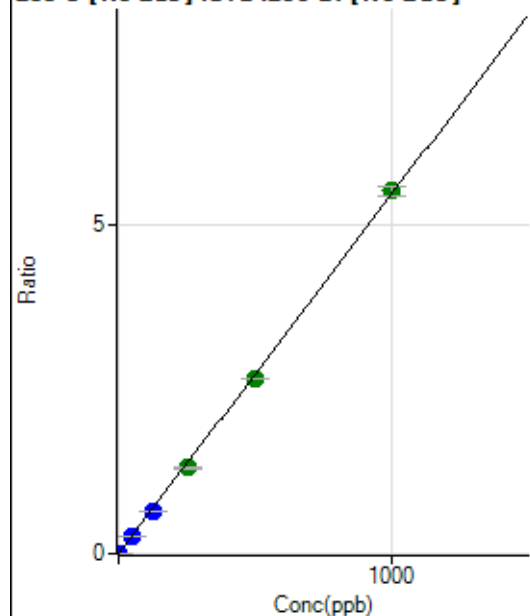
$$DL = 0.002166$$

$$BEC = 0.002353$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.12	0.0000	P	3.9
2	☐	0.100					
3	☐	1.000	0.912	31809.03	0.0050	P	11.3
4	☐	50.000	45.918	1785825.71	0.2513	P	1.5
5	☐	125.000	118.397	4492562.03	0.6480	P	0.9
6	☐	250.000	238.834	8886196.47	1.3072	A	0.8
7	☐	500.000	488.001	17870217.93	2.6708	A	0.2
8	☐	1000.000	1009.821	36282004.28	5.5268	A	2.5
9	☐			3114.42	0.0005	P	13.5

$$y = 0.0055 * x + 1.9568E-005$$

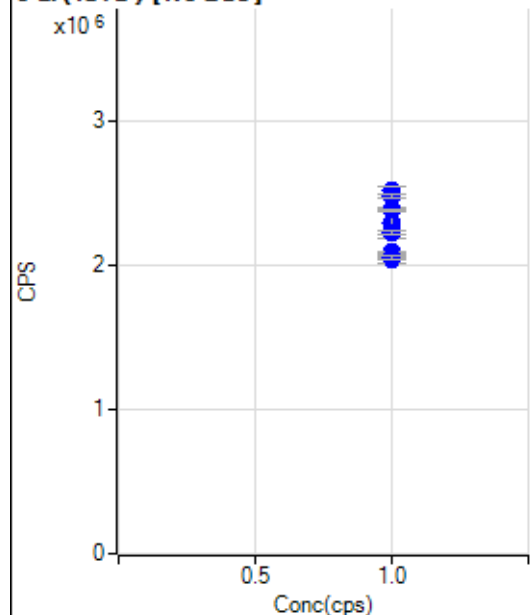
$$R = 0.9998$$

$$DL = 0.0004181$$

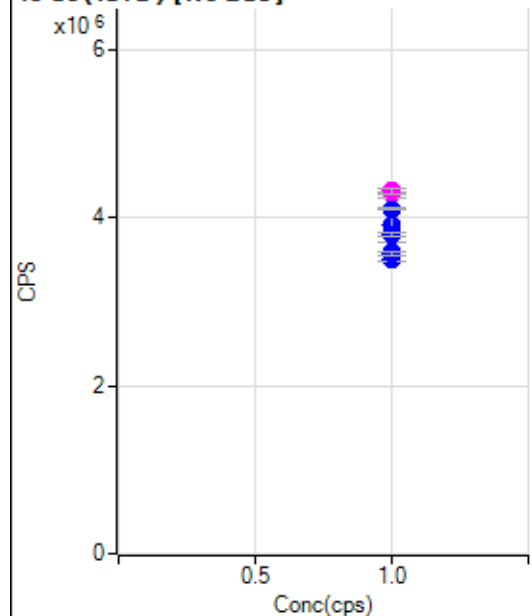
$$BEC = 0.003575$$

Weight: <None>

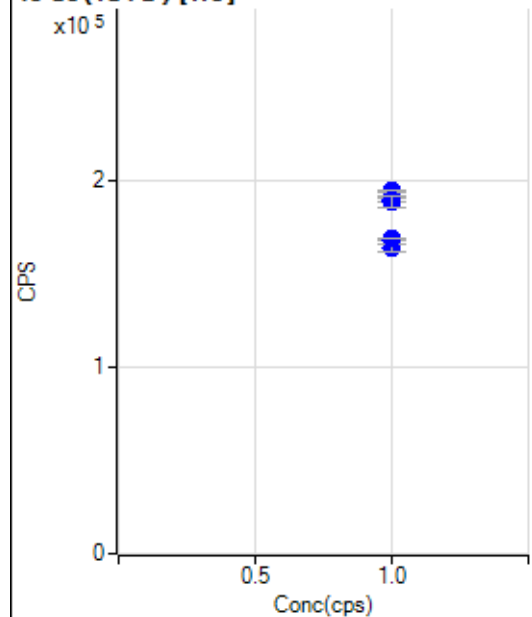
Min Conc: 0

6 Li (ISTD) [No Gas]

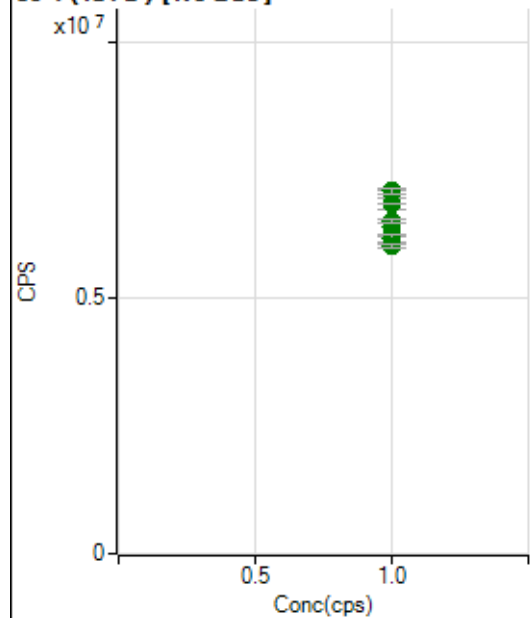
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2510195.71		P	2.0
2	☐	1.000					
3	☐	1.000		2288344.89		P	8.9
4	☐	1.000		2472585.88		P	1.1
5	☐	1.000		2380737.90		P	0.5
6	☐	1.000		2220899.81		P	1.0
7	☐	1.000		2085541.82		P	0.4
8	☐	1.000		2031742.85		P	2.1
9	☐	1.000		2052033.56		P	1.2

45 Sc (ISTD) [No Gas]

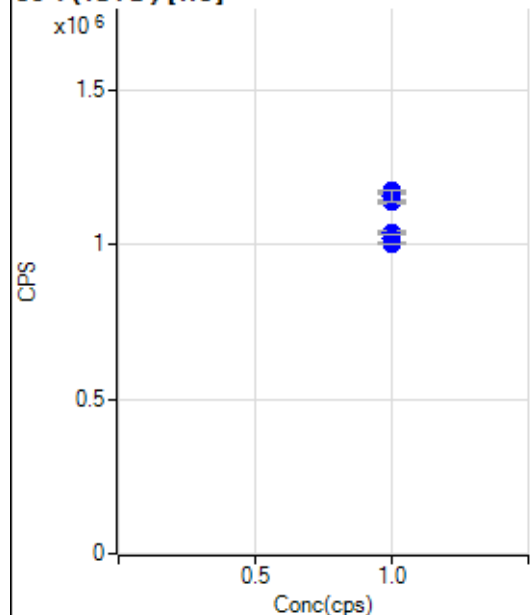
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4271622.75		M	1.7
2	☐	1.000					
3	☐	1.000		3913969.32		P	10.3
4	☐	1.000		4312534.60		M	1.4
5	☐	1.000		4102936.85		P	0.1
6	☐	1.000		3797829.55		P	0.8
7	☐	1.000		3589871.87		P	0.1
8	☐	1.000		3507296.95		P	2.4
9	☐	1.000		3572803.81		P	1.2

45 Sc (ISTD) [He]

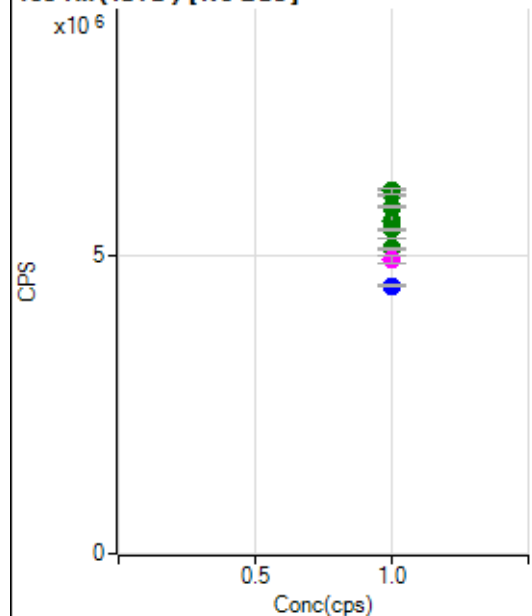
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		194363.63		P	0.3
2	☐	1.000					
3	☐	1.000		194787.24		P	0.5
4	☐	1.000		189626.24		P	1.0
5	☐	1.000		189077.88		P	3.4
6	☐	1.000		168520.10		P	0.2
7	☐	1.000		167809.50		P	2.4
8	☐	1.000		164538.50		P	2.5
9	☐	1.000		169478.82		P	0.2

89 Y (ISTD) [No Gas]

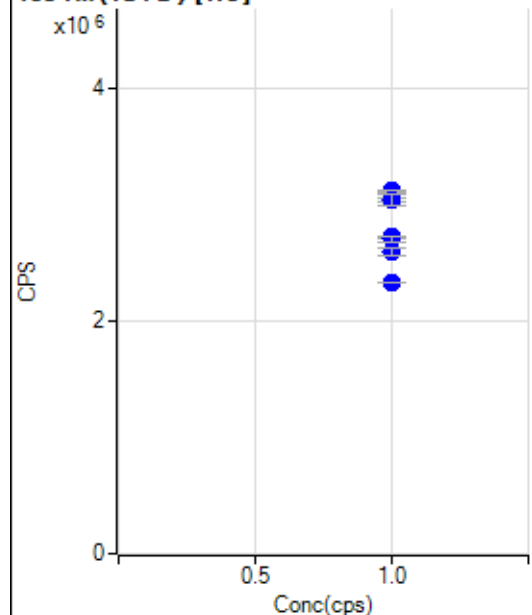
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7028850.59		A	1.7
2	☐	1.000					
3	☐	1.000		6408532.06		A	10.5
4	☐	1.000		7091840.17		A	1.5
5	☐	1.000		6849130.94		A	0.3
6	☐	1.000		6486029.76		A	1.2
7	☐	1.000		6223542.41		A	0.4
8	☐	1.000		6164802.41		A	2.2
9	☐	1.000		6015928.17		A	0.8

89 Y(ISTD) [He]

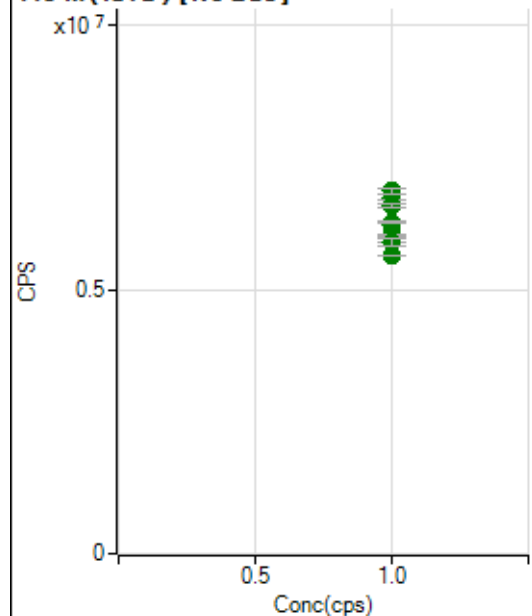
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1166107.33		P	0.5
2	☐	1.000					
3	☐	1.000		1174797.10		P	0.5
4	☐	1.000		1142268.30		P	1.1
5	☐	1.000		1157889.80		P	3.3
6	☐	1.000		1038871.76		P	0.6
7	☐	1.000		1042204.25		P	1.2
8	☐	1.000		1020891.63		P	2.4
9	☐	1.000		1002332.52		P	0.2

103 Rh(ISTD) [No Gas]

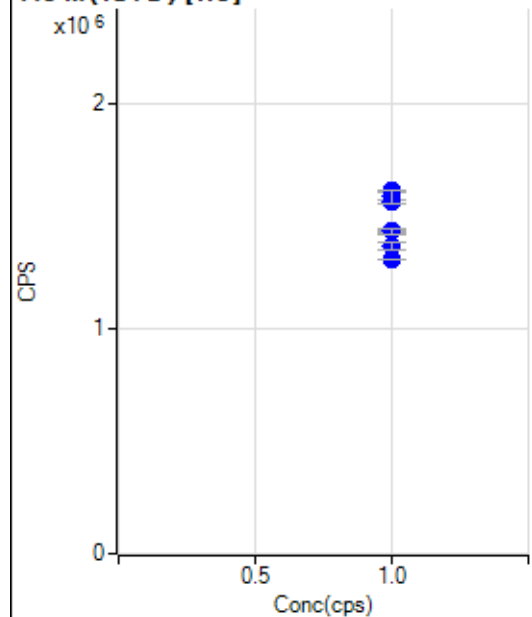
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6039633.51		A	1.7
2	☐	1.000					
3	☐	1.000		5560586.06		A	9.8
4	☐	1.000		6080233.78		A	1.7
5	☐	1.000		5816520.23		A	0.2
6	☐	1.000		5435190.10		A	1.0
7	☐	1.000		5108905.80		A	0.3
8	☐	1.000		4919378.50		M	2.7
9	☐	1.000		4491073.19		P	0.4

103 Rh (ISTD) [He]

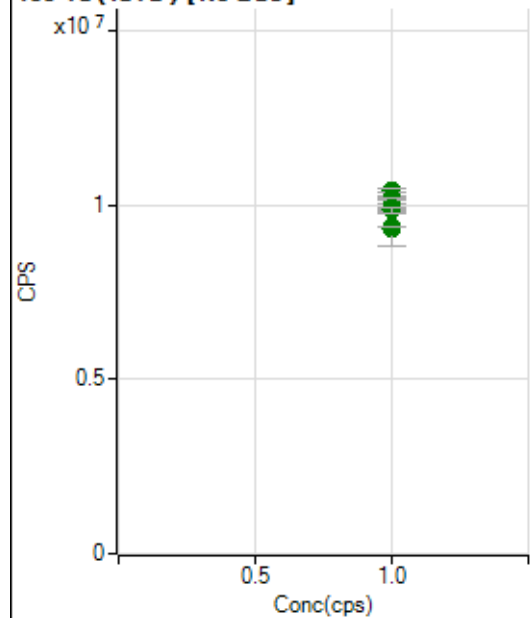
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3113810.37		P	0.3
2	☐	1.000					
3	☐	1.000		3122439.78		P	0.3
4	☐	1.000		3041124.92		P	1.2
5	☐	1.000		3044310.69		P	3.1
6	☐	1.000		2727170.34		P	0.4
7	☐	1.000		2706064.68		P	1.4
8	☐	1.000		2596067.71		P	2.5
9	☐	1.000		2335461.16		P	0.5

115 In (ISTD) [No Gas]

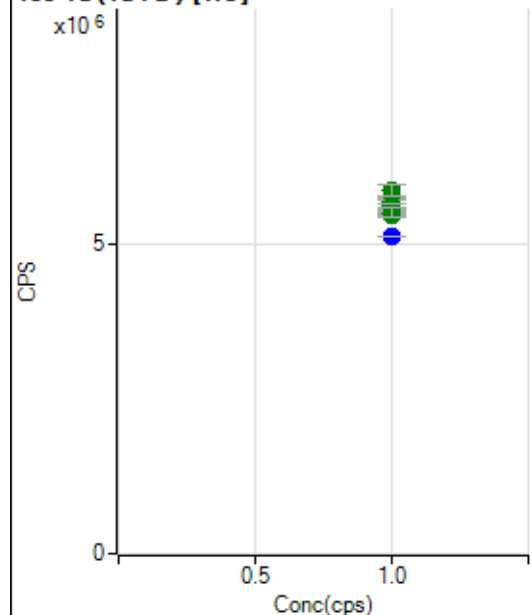
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6744834.56		A	1.5
2	☐	1.000					
3	☐	1.000		6210812.19		A	10.5
4	☐	1.000		6866624.01		A	1.3
5	☐	1.000		6585786.27		A	0.9
6	☐	1.000		6276634.39		A	1.0
7	☐	1.000		6033115.52		A	0.4
8	☐	1.000		5903350.03		A	2.2
9	☐	1.000		5627552.87		A	0.1

115 In (ISTD) [He]

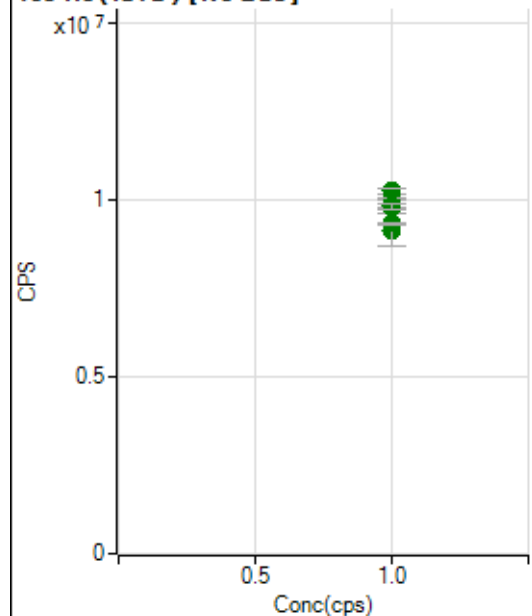
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1609510.76		P	0.3
2	☐	1.000					
3	☐	1.000		1615446.77		P	0.5
4	☐	1.000		1569298.25		P	1.0
5	☐	1.000		1589842.98		P	3.5
6	☐	1.000		1435415.63		P	0.4
7	☐	1.000		1436498.88		P	1.8
8	☐	1.000		1371026.44		P	2.4
9	☐	1.000		1311263.71		P	0.4

159 Tb (ISTD) [No Gas]

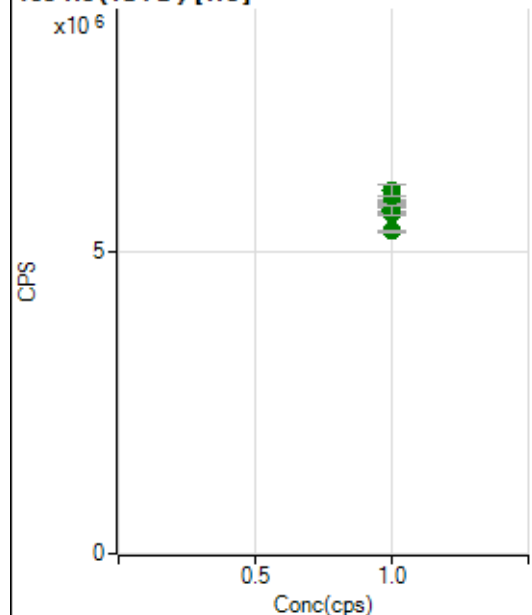
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10150586.73		A	2.0
2	☐	1.000					
3	☐	1.000		9350402.57		A	10.4
4	☐	1.000		10422851.10		A	1.0
5	☐	1.000		10200224.22		A	0.3
6	☐	1.000		9940336.03		A	0.2
7	☐	1.000		9880367.22		A	0.5
8	☐	1.000		9867330.27		A	2.0
9	☐	1.000		9400877.01		A	0.3

159 Tb (ISTD) [He]

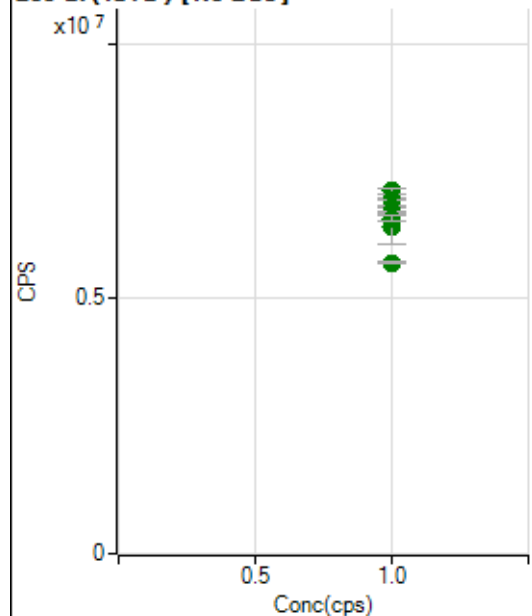
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5553528.74		A	0.2
2	☐	1.000					
3	☐	1.000		5756439.01		A	0.4
4	☐	1.000		5685487.00		A	1.1
5	☐	1.000		5866282.76		A	3.2
6	☐	1.000		5483129.36		A	0.3
7	☐	1.000		5613891.31		A	1.2
8	☐	1.000		5517191.65		A	3.0
9	☐	1.000		5126552.77		P	0.2

165 Ho (ISTD) [No Gas]

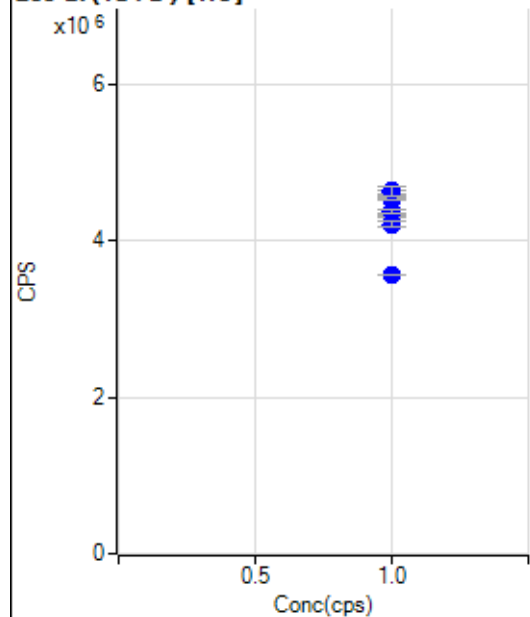
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9885546.40		A	1.9
2	☐	1.000					
3	☐	1.000		9141329.72		A	10.4
4	☐	1.000		10235515.68		A	1.7
5	☐	1.000		10034509.34		A	0.5
6	☐	1.000		9754133.98		A	0.5
7	☐	1.000		9745832.34		A	0.3
8	☐	1.000		9798363.33		A	1.5
9	☐	1.000		9313603.33		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5707732.07		A	0.7
2	☐	1.000					
3	☐	1.000		5870922.48		A	0.4
4	☐	1.000		5799675.68		A	0.7
5	☐	1.000		6016295.19		A	3.3
6	☐	1.000		5634398.39		A	0.4
7	☐	1.000		5779201.30		A	1.2
8	☐	1.000		5687955.82		A	2.6
9	☐	1.000		5343371.03		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6956874.06		A	0.7
2	☐	1.000					
3	☐	1.000		6394941.71		A	10.0
4	☐	1.000		7106510.80		A	1.4
5	☐	1.000		6933042.05		A	0.3
6	☐	1.000		6798362.96		A	0.7
7	☐	1.000		6690819.76		A	0.5
8	☐	1.000		6567034.21		A	2.1
9	☐	1.000		5698456.17		A	0.4

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4616137.05		P	0.6
2	☐	1.000					
3	☐	1.000		4592034.27		P	0.3
4	☐	1.000		4526672.40		P	0.9
5	☐	1.000		4632496.32		P	2.7
6	☐	1.000		4303705.04		P	0.4
7	☐	1.000		4375337.58		P	1.2
8	☐	1.000		4209291.81		P	2.0
9	☐	1.000		3556752.27		P	0.2

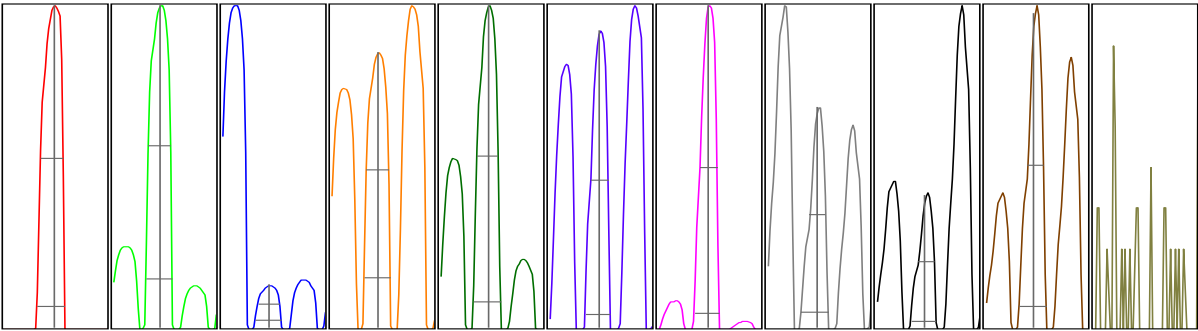
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7053119 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	8870	1.43	5.00	
24	138091	1.51	5.00	
25	18844	1.61	5.00	
26	21821	1.55	5.00	
59	60168	1.36	5.00	
113	8504	1.36	5.00	
115	103060	0.89	5.00	
206	29681	1.83	5.00	
207	27035	2.14	5.00	
208	63960	1.85	5.00	
220	0	37.27		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	8728	8759	8913	8913	9037
24	135835	136742	137552	139264	141061
25	18517	18679	18720	19032	19274
26	21435	21605	21770	21991	22303
59	59246	59627	60042	60611	61313
113	8428	8405	8445	8561	8681
115	102568	102541	102796	102697	104700
206	29035	29349	29720	29828	30473
207	26551	26625	26758	27325	27914
208	62735	63577	63632	63931	65925
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	14080	9.00	8.9 - 9.1		0.812	0.900	
24	222209	23.90	23.9 - 24.1		0.758	0.900	
25	29704	24.90	24.9 - 25.1		0.753	0.900	
26	34115	25.90	25.9 - 26.1		0.754	0.900	
59	102366	58.95	58.9 - 59.1		0.797	0.900	
113	16469	113.00	112.9 - 113.1		0.731	0.900	
115	204494	115.00	114.9 - 115.1		0.730	0.900	
206	59989	206.00	205.9 - 206.1		0.785	0.900	
207	53877	206.95	206.9 - 207.1		0.738	0.900	
208	127921	207.95	207.9 - 208.1		0.783	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.0	V	Deflect	14.2	V
Extract 2	-100.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	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	15437	0.30	
89	31994	0.33	
205	28514	0.41	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	15376	15407	15480	15481	15441
89	31881	32051	31975	32146	31920
205	28307	28543	28567	28592	28563

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	8.7	V	Deflect	1.8	V
Extract 2	-115.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	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	190	V			