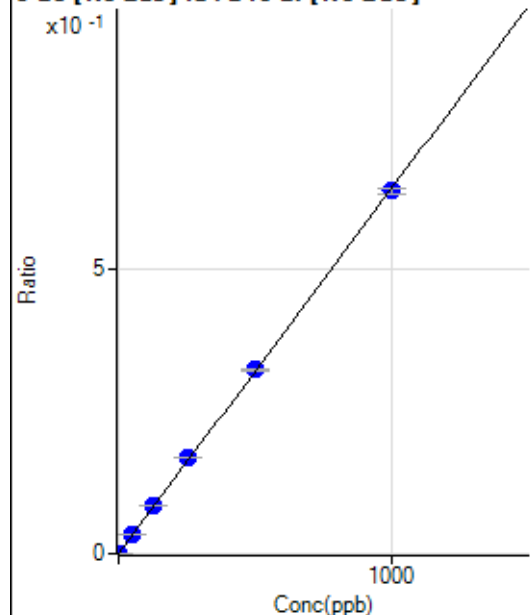


Calibration for 003CALB.d

Batch Folder: D:\ICP-MS Data\P7061019MS.b\
 Analysis File: P7061019MS.batch.bin
 DA Date-Time: 2019-06-13 01:04:30
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-06-10 11:28:20
2	004CALS.d	S01	2019-06-10 11:31:55
3	005CALS.d	S02	2019-06-10 11:36:12
4	006CALS.d	S03	2019-06-10 11:40:09
5	007CALS.d	S04	2019-06-10 11:44:05
6	008CALS.d	S05	2019-06-10 11:47:58
7	009CALS.d	S06	2019-06-10 11:51:49
8	010CALS.d	S07	2019-06-10 11:55:39
9	011CALS.d	S08	2019-06-10 11:59:26

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.34	0.0000	P	34.9
2	☐	0.100	0.095	158.89	0.0001	P	8.0
3	☐	1.000	0.912	1126.73	0.0006	P	3.6
4	☐	50.000	51.486	60367.16	0.0330	P	0.4
5	☐	125.000	132.843	151537.26	0.0852	P	0.4
6	☐	250.000	263.171	280006.59	0.1687	P	0.9
7	☐	500.000	503.508	525986.80	0.3228	P	0.2
8	☐	1000.000	993.899	1020515.88	0.6371	P	1.2
9	☐			384.46	0.0002	P	2.1

$$y = 6.4101\text{E-}004 * x + 2.3228\text{E-}005$$

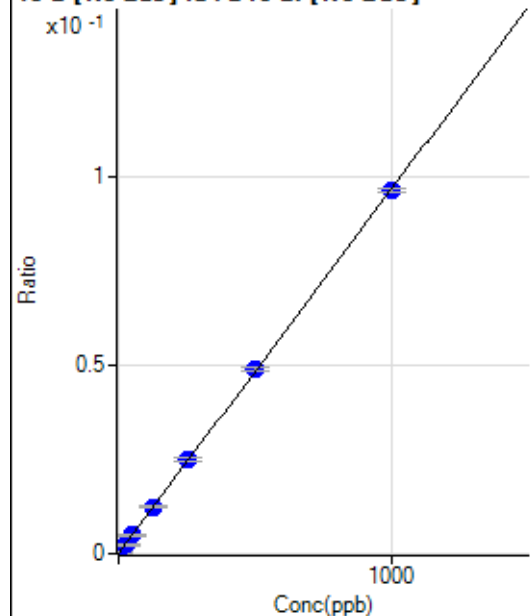
$$R = 0.9999$$

$$DL = 0.03791$$

$$BEC = 0.03624$$

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	113.89	0.0001	P	15.8
2	☐	2.500	2.761	619.48	0.0003	P	9.9
3	☐	25.000	23.210	4281.35	0.0023	P	4.6
4	☐	50.000	49.554	8886.27	0.0049	P	2.3
5	☐	125.000	128.174	22200.41	0.0125	P	1.5
6	☐	250.000	258.802	41708.47	0.0251	P	3.3
7	☐	500.000	504.678	79771.78	0.0490	P	1.8
8	☐	1000.000	995.130	154526.92	0.0965	P	0.9
9	☐			7516.05	0.0047	P	7.9

$$y = 9.6872\text{E-}005 * x + 6.1151\text{E-}005$$

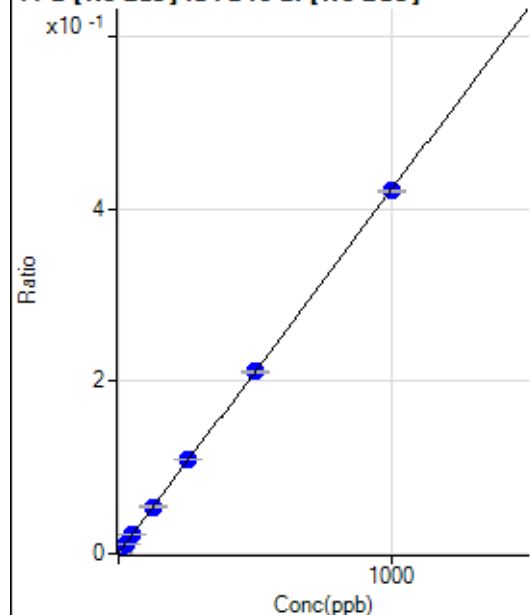
$$R = 0.9999$$

$$DL = 0.2992$$

$$BEC = 0.6313$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	736.16	0.0004	P	3.4
2	☐	2.500	2.424	2672.56	0.0014	P	6.0
3	☐	25.000	23.847	19368.62	0.0104	P	1.0
4	☐	50.000	50.673	39772.88	0.0218	P	1.6
5	☐	125.000	128.368	96979.80	0.0545	P	1.4
6	☐	250.000	260.393	182842.92	0.1102	P	0.2
7	☐	500.000	500.194	344289.25	0.2113	P	1.0
8	☐	1000.000	996.879	673837.45	0.4207	P	0.6
9	☐			34345.77	0.0213	P	8.9

$$y = 4.2159\text{E-}004 * x + 3.9508\text{E-}004$$

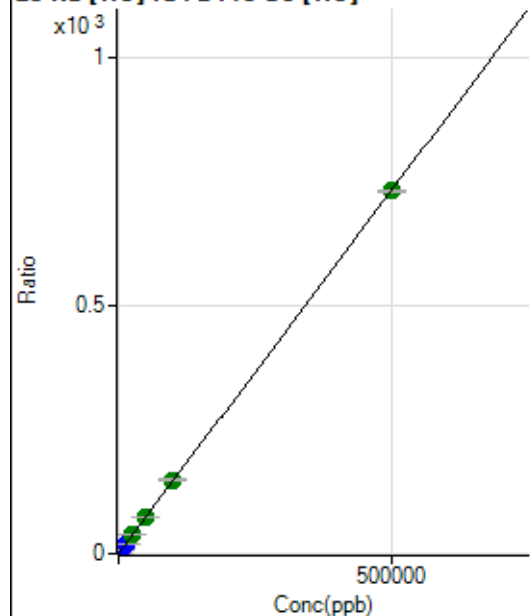
$$R = 0.9999$$

$$DL = 0.09441$$

$$BEC = 0.9371$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1822.41	0.0123	P	4.6
2	☐	50.000	49.134	12564.04	0.0842	P	0.6
3	☐	500.000	482.797	105438.18	0.7192	P	0.7
4	☐	5000.000	5175.183	1085546.66	7.5898	P	0.8
5	☐	12500.000	13228.309	2663385.41	19.3812	P	0.8
6	☐	25000.000	26427.724	4999851.20	38.7078	A	0.7
7	☐	50000.000	51387.946	9521515.92	75.2546	A	0.3
8	☐	100000.00	101867.60	19322709.29	149.1670	A	1.3
9	☐	500000.00	499396.35	101516834.9	731.2294	A	0.3

$$y = 0.0015 * x + 0.0123$$

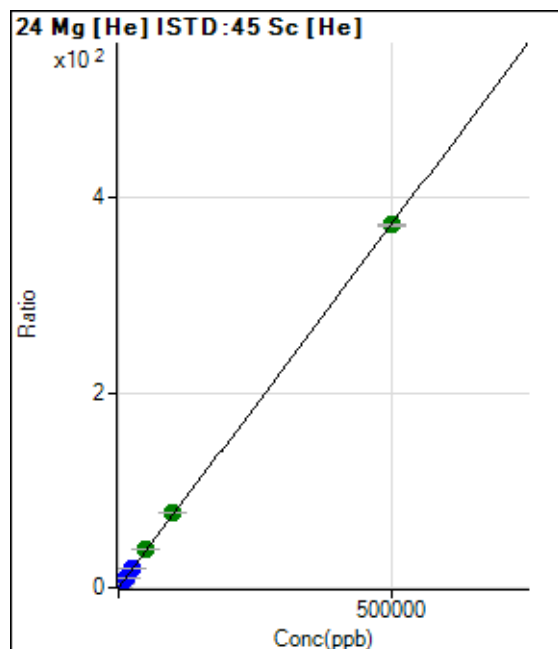
$$R = 1.0000$$

$$DL = 1.153$$

$$BEC = 8.382$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	291.68	0.0020	P	20.7
2	☐	50.000	51.910	6068.12	0.0407	P	8.5
3	☐	500.000	519.742	57143.08	0.3898	P	1.0
4	☐	5000.000	5282.601	564060.32	3.9437	P	1.1
5	☐	12500.000	13553.576	1390082.34	10.1154	P	0.7
6	☐	25000.000	26804.183	2583741.07	20.0027	P	0.7
7	☐	50000.000	51926.504	4902561.57	38.7485	A	0.5
8	☐	100000.00	103029.59	9958949.79	76.8805	A	1.2
9	☐	500000.00	499082.03	51701425.81	372.4067	A	0.7

$$y = 7.4618\text{E-}004 * x + 0.0020$$

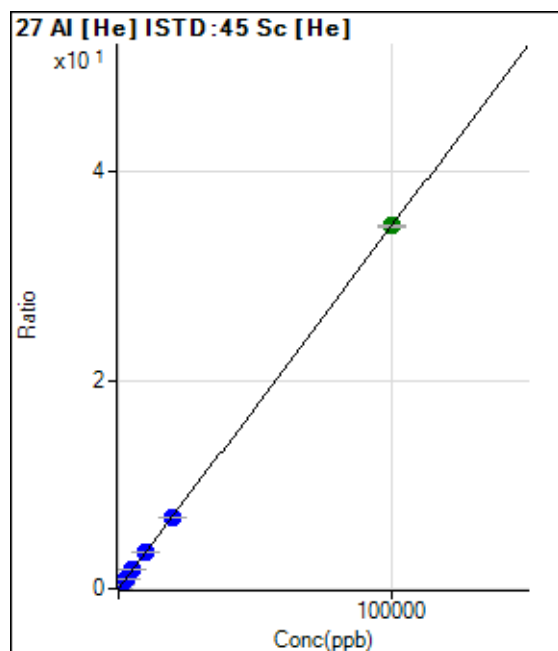
$$R = 1.0000$$

$$DL = 1.629$$

$$BEC = 2.629$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.23	0.0005	P	22.6
2	☐	2.000	1.170	133.34	0.0009	P	27.7
3	☐	20.000	20.460	1113.97	0.0076	P	11.0
4	☐	1000.000	1022.597	50932.29	0.3561	P	0.8
5	☐	2500.000	2563.332	122565.41	0.8919	P	1.1
6	☐	5000.000	5176.395	232586.52	1.8006	P	0.6
7	☐	10000.000	9967.965	438650.74	3.4669	P	0.4
8	☐	20000.000	19634.610	884565.72	6.8286	P	1.6
9	☐	100000.00	100065.65	4831158.79	34.7992	A	0.5

$$y = 3.4776\text{E-}004 * x + 4.8543\text{E-}004$$

$$R = 1.0000$$

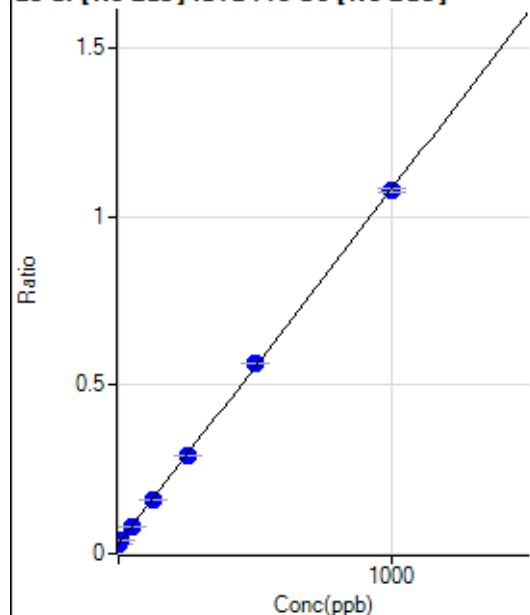
$$DL = 0.9457$$

$$BEC = 1.396$$

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	95330.73	0.0294	P	2.4
2	☐	1.000	0.427	97505.77	0.0298	P	0.7
3	☐	10.000	8.651	123326.95	0.0385	P	0.9
4	☐	50.000	49.118	256753.53	0.0810	P	1.5
5	☐	125.000	122.645	488208.54	0.1582	P	0.1
6	☐	250.000	248.168	820158.78	0.2901	P	0.7
7	☐	500.000	510.804	1573094.74	0.5660	P	0.1
8	☐	1000.000	995.409	2980171.46	1.0751	P	1.1
9	☐			513498.93	0.1795	P	1.9

$$y = 0.0011 * x + 0.0294$$

$$R = 0.9999$$

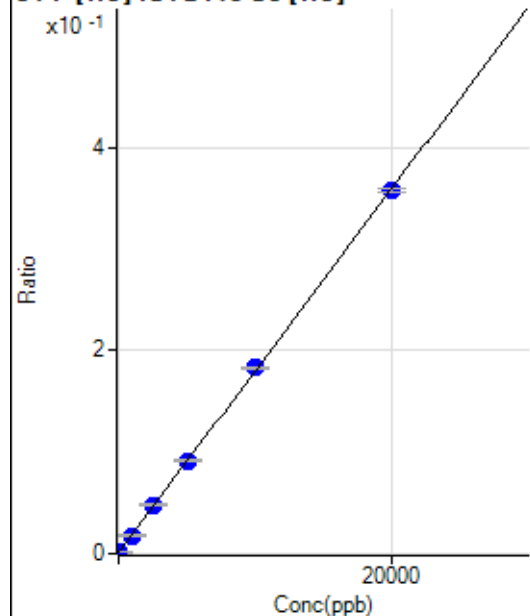
$$DL = 2.03$$

$$BEC = 27.97$$

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	-25.060	83.34	0.0006	P	19.5
2	☐	0.000	-13.767	113.89	0.0008	P	4.3
3	☐	0.000	38.827	250.01	0.0017	P	21.1
4	☐	1000.000	938.925	2550.33	0.0178	P	5.9
5	☐	2500.000	2598.020	6537.84	0.0476	P	3.3
6	☐	5000.000	5054.407	11830.13	0.0916	P	1.1
7	☐	10000.000	10162.374	23171.50	0.1831	P	1.5
8	☐	20000.000	19896.012	46317.42	0.3576	P	1.2
9	☐			72.23	0.0005	P	26.1

$$y = 1.7920E-005 * x + 0.0010$$

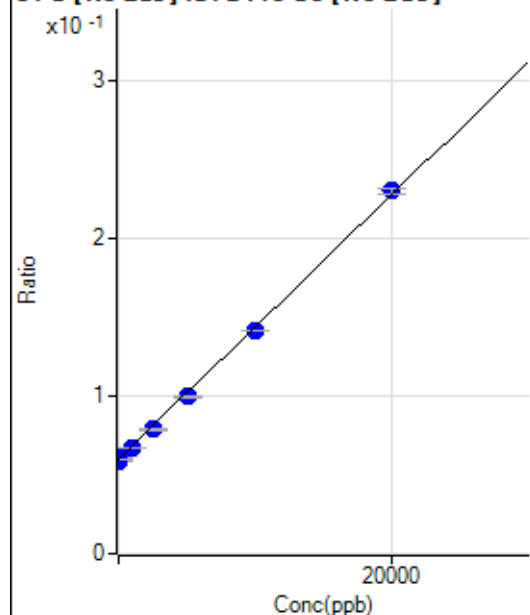
$$R = 0.9999$$

$$DL = 27.98$$

$$BEC = 56.37$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	209.529	201190.20	0.0620	P	1.8
2	☐	0.000	-165.546	192381.46	0.0589	P	0.7
3	☐	0.000	-43.983	191948.46	0.0599	P	0.7
4	☐	1000.000	820.295	212834.36	0.0671	P	0.9
5	☐	2500.000	2215.513	243226.21	0.0788	P	1.4
6	☐	5000.000	4732.064	282544.07	0.0999	P	1.1
7	☐	10000.000	9676.506	393013.28	0.1414	P	0.5
8	☐	20000.000	20273.277	638327.44	0.2303	P	1.6
9	☐			163108.59	0.0570	P	1.5

$$y = 8.3873\text{E-}006 * x + 0.0603$$

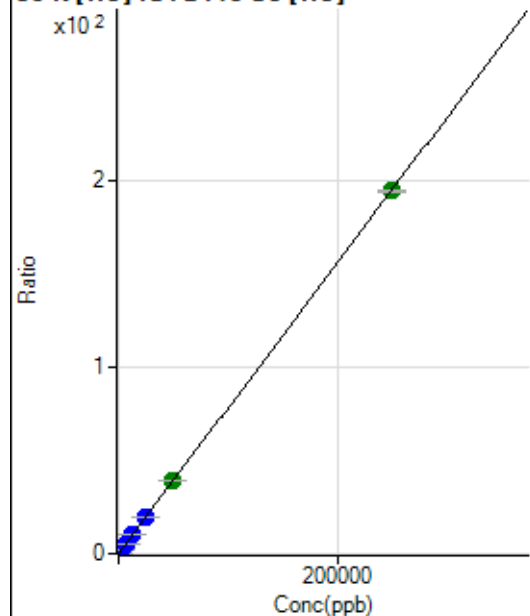
R = 0.9995

DL = 230.7

BEC = 7183

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	9950.96	0.0670	P	3.0
2	☐	50.000	46.056	15350.08	0.1029	P	0.5
3	☐	500.000	477.738	64348.66	0.4389	P	1.3
4	☐	2500.000	2582.143	297092.19	2.0771	P	0.2
5	☐	6250.000	6619.365	717332.82	5.2199	P	0.4
6	☐	12500.000	13039.818	1319831.91	10.2179	P	0.8
7	☐	25000.000	25365.106	2506756.83	19.8125	P	0.3
8	☐	50000.000	50421.748	5093180.06	39.3178	A	1.2
9	☐	250000.00	249842.13	27010224.91	194.5562	A	0.5

$$y = 7.7845\text{E-}004 * x + 0.0670$$

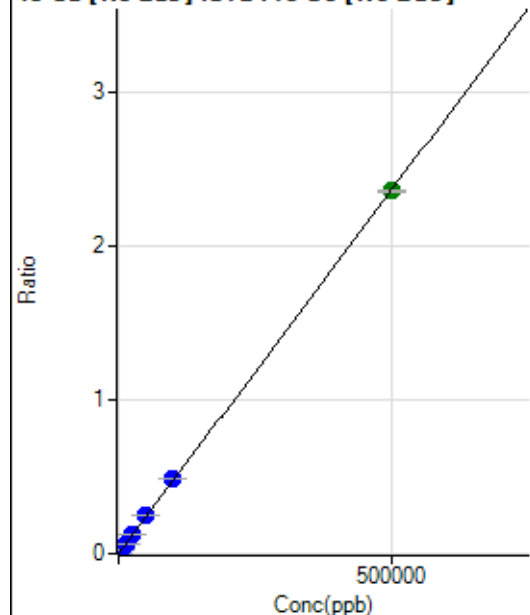
R = 1.0000

DL = 7.777

BEC = 86.11

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0000	P	10.4
2	☐	50.000	49.928	902.84	0.0003	P	5.4
3	☐	500.000	481.154	7418.84	0.0023	P	2.1
4	☐	5000.000	5245.028	78729.15	0.0248	P	1.1
5	☐	12500.000	13390.168	195404.70	0.0633	P	0.4
6	☐	25000.000	26999.720	360916.48	0.1277	P	1.3
7	☐	50000.000	52169.702	685454.83	0.2466	P	0.7
8	☐	100000.00	103683.10	1358612.73	0.4901	P	0.8
9	☐	500000.00	498921.73	6743588.47	2.3583	A	0.5

$$y = 4.7267\text{E-}006 * x + 4.0255\text{E-}005$$

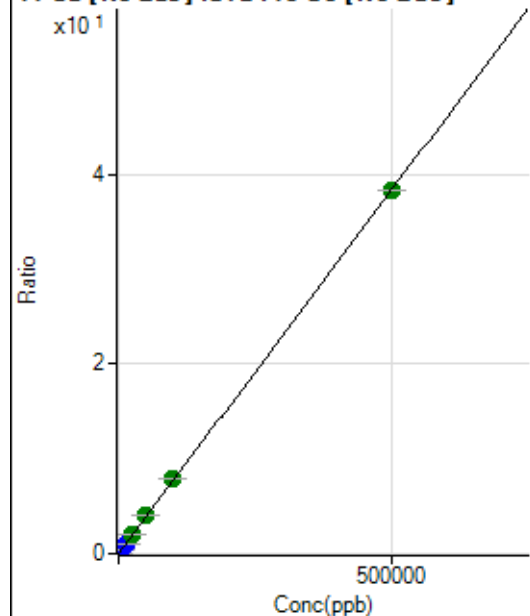
$$R = 1.0000$$

$$DL = 2.652$$

$$BEC = 8.517$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4103.55	0.0013	P	7.6
2	☐	50.000	51.948	17169.07	0.0053	P	1.5
3	☐	500.000	493.312	125448.08	0.0391	P	1.8
4	☐	5000.000	5201.920	1270195.46	0.4006	P	0.1
5	☐	12500.000	13335.732	3162856.84	1.0251	P	0.3
6	☐	25000.000	26949.969	5852994.27	2.0702	A	0.7
7	☐	50000.000	51952.069	11088105.37	3.9897	A	0.7
8	☐	100000.00	103688.81	22069669.59	7.9616	A	0.8
9	☐	500000.00	498946.62	109540762.1	38.3060	A	0.1

$$y = 7.6771\text{E-}005 * x + 0.0013$$

$$R = 1.0000$$

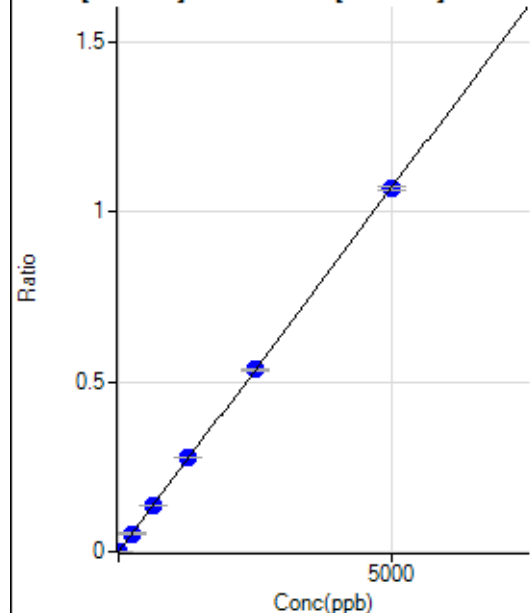
$$DL = 3.745$$

$$BEC = 16.48$$

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	72.23	0.0000	P	62.9
2	☐	0.500	0.524	438.91	0.0001	P	9.2
3	☐	5.000	4.861	3406.09	0.0011	P	1.8
4	☐	250.000	250.245	169870.05	0.0536	P	1.0
5	☐	625.000	639.744	422518.11	0.1369	P	0.4
6	☐	1250.000	1296.620	784626.94	0.2775	P	0.7
7	☐	2500.000	2500.706	1487520.64	0.5352	P	0.4
8	☐	5000.000	4986.137	2958110.33	1.0672	P	1.1
9	☐			1783.52	0.0006	P	3.4

$$y = 2.1402E-004 * x + 2.2210E-005$$

$$R = 1.0000$$

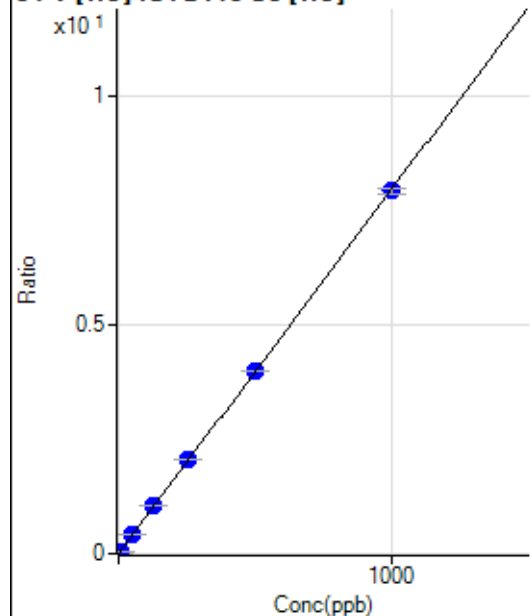
$$DL = 0.1958$$

$$BEC = 0.1038$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	1.7
2	☐	0.500	0.513	614.47	0.0041	P	6.5
3	☐	5.000	5.090	5935.72	0.0405	P	2.1
4	☐	50.000	50.523	57423.46	0.4015	P	0.3
5	☐	125.000	129.964	141911.84	1.0327	P	0.9
6	☐	250.000	258.101	264898.76	2.0508	P	0.9
7	☐	500.000	502.228	504902.63	3.9905	P	0.7
8	☐	1000.000	996.214	1025351.81	7.9155	P	1.4
9	☐			224.45	0.0016	P	16.2

$$y = 0.0079 * x + 4.4931E-005$$

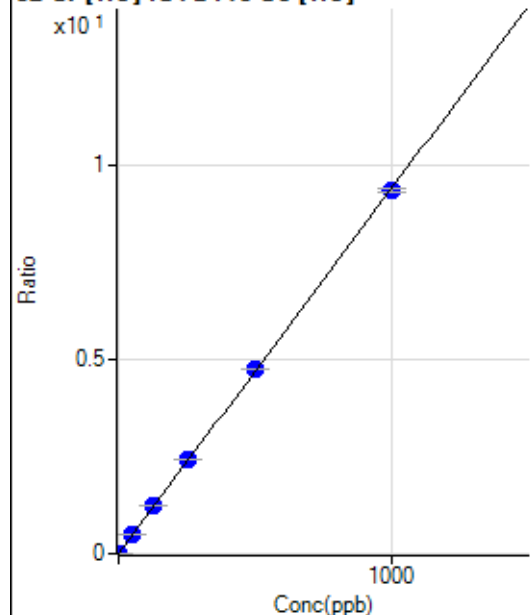
$$R = 1.0000$$

$$DL = 0.000288$$

$$BEC = 0.005655$$

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	373.34	0.0025	P	6.5
2	☐	0.200	0.198	652.25	0.0044	P	5.2
3	☐	2.000	1.988	3110.38	0.0212	P	2.8
4	☐	50.000	51.281	69366.58	0.4850	P	1.4
5	☐	125.000	131.889	170875.58	1.2434	P	0.9
6	☐	250.000	260.066	316392.55	2.4494	P	0.3
7	☐	500.000	505.893	602545.14	4.7623	P	0.4
8	☐	1000.000	993.612	1211327.47	9.3512	P	1.2
9	☐			9925.69	0.0715	P	0.9

$$y = 0.0094 * x + 0.0025$$

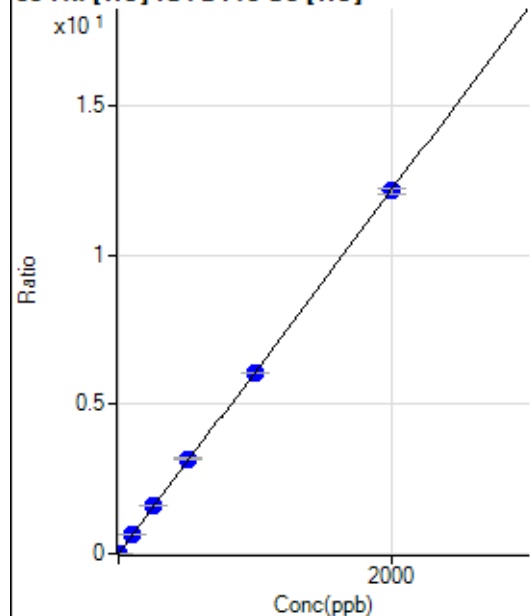
$$R = 0.9999$$

$$DL = 0.05231$$

$$BEC = 0.2671$$

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	20.00	0.0001	P	32.4
2	☐	0.100	0.111	121.11	0.0008	P	14.8
3	☐	1.000	0.999	911.16	0.0062	P	6.5
4	☐	100.000	101.508	88359.81	0.6177	P	0.1
5	☐	250.000	264.351	221048.12	1.6085	P	0.8
6	☐	500.000	522.697	410815.03	3.1804	P	0.6
7	☐	1000.000	993.182	764608.49	6.0430	P	0.6
8	☐	2000.000	1995.865	1573071.38	12.1437	P	1.7
9	☐			6541.56	0.0471	P	0.7

$$y = 0.0061 * x + 1.3436E-004$$

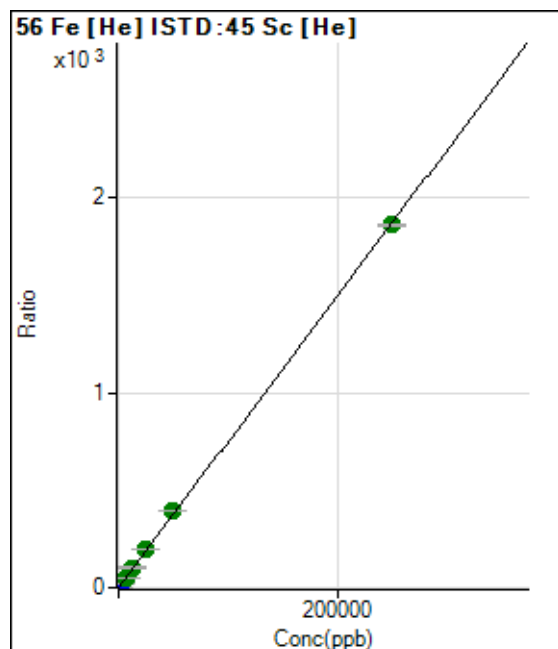
$$R = 0.9999$$

$$DL = 0.0215$$

$$BEC = 0.02208$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2257.64	0.0152	P	2.8
2	☐	5.000	5.696	8617.56	0.0578	P	2.1
3	☐	50.000	56.085	63665.76	0.4343	P	0.4
4	☐	2500.000	2775.389	2968177.90	20.7525	P	0.8
5	☐	6250.000	6972.668	7161549.41	52.1140	A	0.9
6	☐	12500.000	13830.261	13350083.75	103.3531	A	0.6
7	☐	25000.000	26911.057	25443132.05	201.0910	A	0.4
8	☐	50000.000	52845.048	51150301.61	394.8664	A	1.3
9	☐	250000.00	249152.55	258451935.4	1,861.649	A	0.3

$$y = 0.0075 * x + 0.0152$$

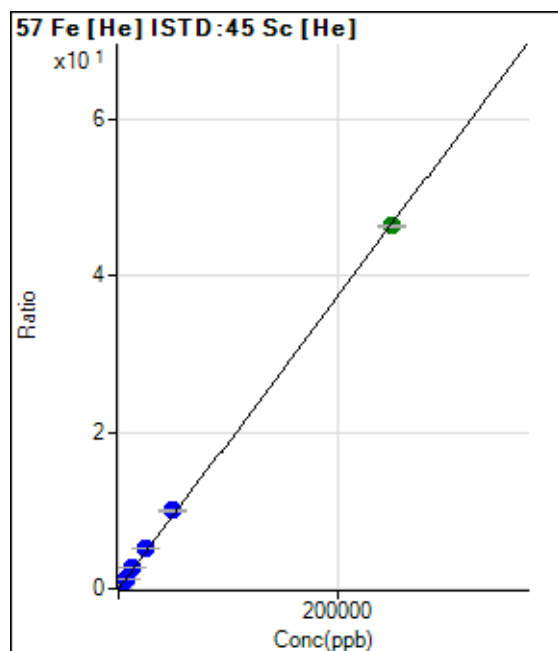
$$R = 0.9999$$

$$DL = 0.1708$$

$$BEC = 2.035$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	98.15	0.0007	P	16.4
2	☐	5.000	5.115	240.75	0.0016	P	11.9
3	☐	50.000	55.413	1609.39	0.0110	P	5.7
4	☐	2500.000	2817.617	75113.80	0.5252	P	1.6
5	☐	6250.000	7103.673	181818.56	1.3231	P	0.8
6	☐	12500.000	14115.790	339520.23	2.6284	P	0.6
7	☐	25000.000	27257.222	642113.38	5.0748	P	0.7
8	☐	50000.000	53462.946	1289325.12	9.9533	P	1.6
9	☐	250000.00	248976.38	6434794.30	46.3499	A	0.5

$$y = 1.8616E-004 * x + 6.6044E-004$$

$$R = 0.9999$$

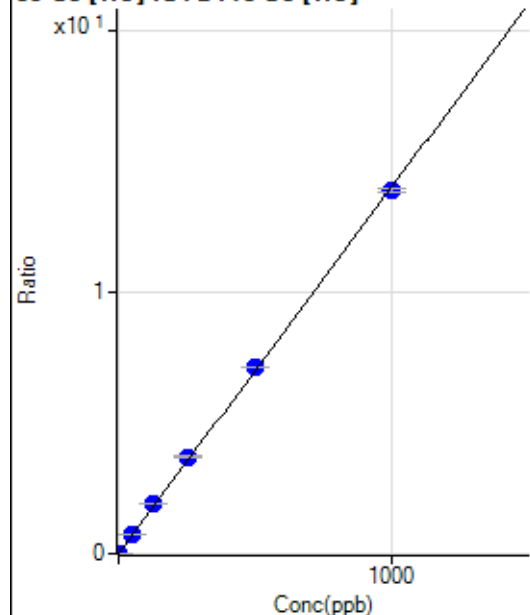
$$DL = 1.749$$

$$BEC = 3.548$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0002	P	50.3
2	☐	0.100	0.103	243.34	0.0016	P	15.6
3	☐	1.000	0.933	1944.60	0.0133	P	2.3
4	☐	50.000	53.057	106387.85	0.7438	P	1.0
5	☐	125.000	134.728	259527.29	1.8886	P	0.8
6	☐	250.000	264.554	478994.19	3.7082	P	0.5
7	☐	500.000	509.122	902887.76	7.1361	P	0.5
8	☐	1000.000	990.432	1798279.71	13.8822	P	1.1
9	☐			22119.09	0.1593	P	0.8

$$y = 0.0140 * x + 1.8811E-004$$

$$R = 0.9998$$

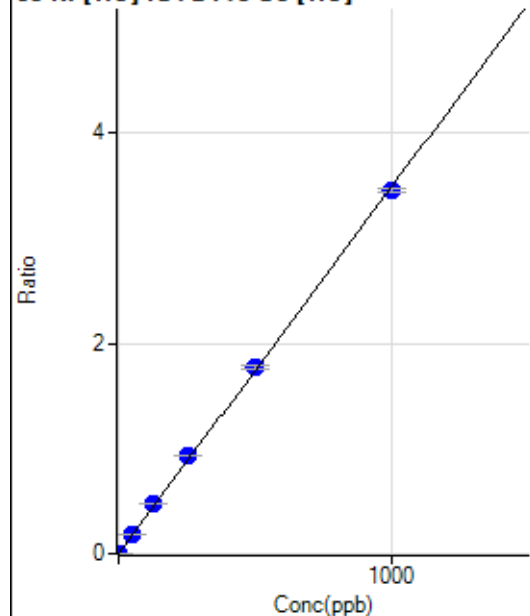
$$DL = 0.02027$$

$$BEC = 0.01342$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	68.89	0.0005	P	28.2
2	☐	0.100	0.123	133.34	0.0009	P	8.1
3	☐	1.000	0.966	561.13	0.0038	P	8.0
4	☐	50.000	53.066	26504.15	0.1853	P	0.5
5	☐	125.000	135.977	65147.34	0.4741	P	1.3
6	☐	250.000	267.139	120243.09	0.9309	P	0.7
7	☐	500.000	509.485	224579.75	1.7750	P	1.4
8	☐	1000.000	989.447	446475.19	3.4467	P	1.2
9	☐			5969.07	0.0430	P	4.2

$$y = 0.0035 * x + 4.6539E-004$$

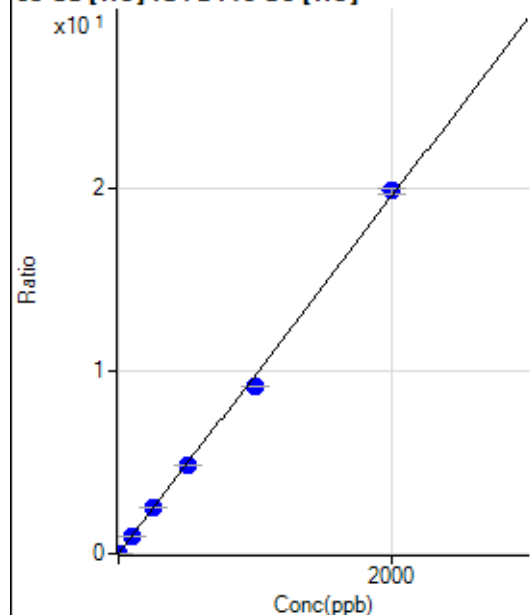
$$R = 0.9997$$

$$DL = 0.1132$$

$$BEC = 0.1336$$

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	311.12	0.0021	P	10.5
2	☐	0.200	0.196	598.91	0.0040	P	5.7
3	☐	2.000	1.870	2989.24	0.0204	P	3.4
4	☐	100.000	98.703	138425.65	0.9678	P	1.3
5	☐	250.000	255.123	343326.91	2.4983	P	0.6
6	☐	500.000	494.522	625274.22	4.8407	P	0.7
7	☐	1000.000	937.687	1161094.53	9.1768	P	0.7
8	☐	2000.000	2031.951	2575669.37	19.8836	P	1.3
9	☐			3239.31	0.0233	P	2.9

$$y = 0.0098 * x + 0.0021$$

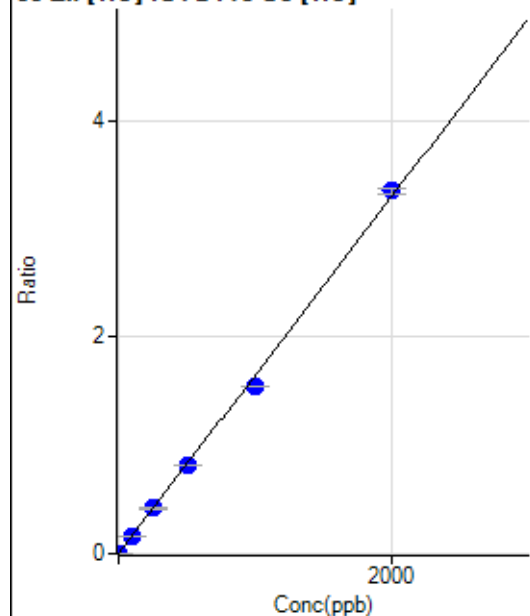
$$R = 0.9993$$

$$DL = 0.06748$$

$$BEC = 0.2142$$

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	203.37	0.0014	P	7.9
2	☐	0.200	1.714	625.81	0.0042	P	6.7
3	☐	2.000	1.839	644.77	0.0044	P	9.0
4	☐	100.000	97.727	23215.93	0.1623	P	1.9
5	☐	250.000	253.029	57458.66	0.4181	P	0.7
6	☐	500.000	493.242	105112.12	0.8138	P	0.9
7	☐	1000.000	935.619	195157.17	1.5424	P	0.7
8	☐	2000.000	2033.615	434055.93	3.3508	P	1.6
9	☐			3528.15	0.0254	P	3.4

$$y = 0.0016 * x + 0.0014$$

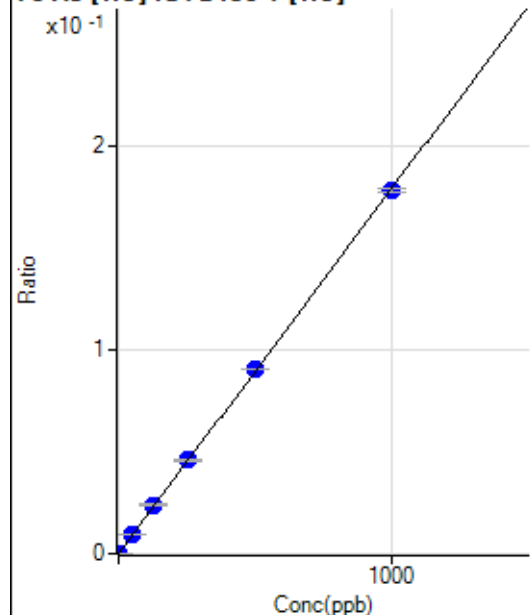
$$R = 0.9993$$

$$DL = 0.1971$$

$$BEC = 0.8316$$

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	2.47	0.0000	P	44.3
2	☐	0.100	0.134	22.84	0.0000	P	16.2
3	☐	1.000	0.939	141.36	0.0002	P	8.2
4	☐	50.000	52.730	7630.44	0.0095	P	0.8
5	☐	125.000	133.719	18675.00	0.0240	P	1.4
6	☐	250.000	256.943	34319.42	0.0460	P	1.4
7	☐	500.000	505.387	65809.64	0.0906	P	0.7
8	☐	1000.000	994.345	132159.25	0.1782	P	1.2
9	☐			211.73	0.0003	P	2.7

$$y = 1.7920\text{E-}004 * x + 2.9607\text{E-}006$$

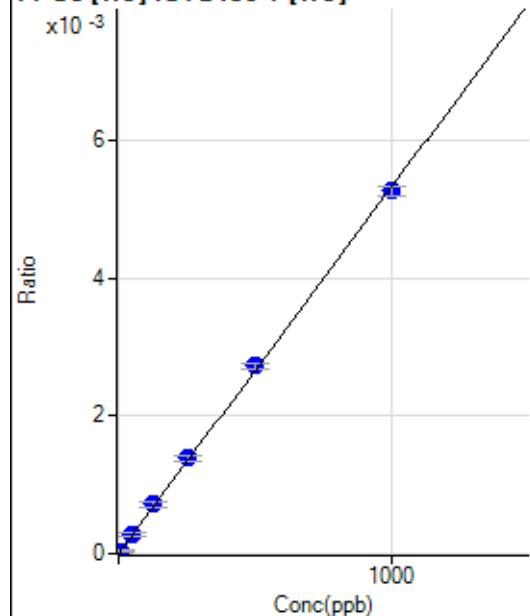
$$R = 0.9999$$

$$DL = 0.02195$$

$$BEC = 0.01652$$

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	0.246	1.11	0.0000	P	173.
3	☐	5.000	7.848	34.44	0.0000	P	36.3
4	☐	50.000	51.308	220.00	0.0003	P	16.4
5	☐	125.000	135.304	560.02	0.0007	P	12.0
6	☐	250.000	260.274	1031.16	0.0014	P	5.8
7	☐	500.000	512.589	1979.06	0.0027	P	3.2
8	☐	1000.000	989.770	3901.70	0.0053	P	2.5
9	☐			3.33	0.0000	P	1.2

$$y = 5.3142\text{E-}006 * x + 0.0000\text{E+}000$$

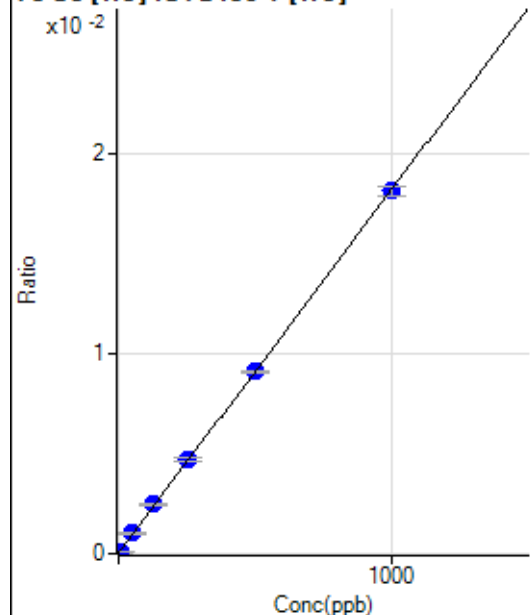
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.84	0.0000	P	34.6
2	☐	0.500	0.669	33.34	0.0000	P	15.0
3	☐	5.000	5.708	108.03	0.0001	P	16.6
4	☐	50.000	54.325	817.93	0.0010	P	9.0
5	☐	125.000	134.877	1929.15	0.0025	P	3.0
6	☐	250.000	257.331	3501.07	0.0047	P	2.4
7	☐	500.000	499.666	6608.96	0.0091	P	1.3
8	☐	1000.000	996.879	13437.16	0.0181	P	2.3
9	☐			33.95	0.0000	P	37.4

$$y = 1.8149\text{E-}005 * x + 2.7388\text{E-}005$$

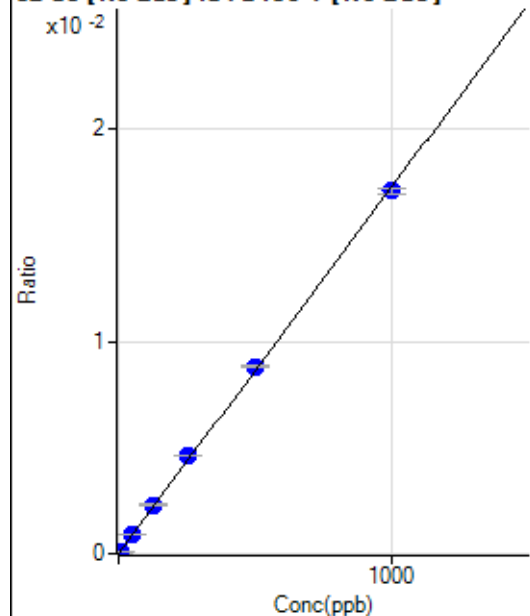
$$R = 0.9999$$

$$DL = 1.566$$

$$BEC = 1.509$$

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	23.38	0.0000	P	50.7
2	☐	0.500	0.484	67.12	0.0000	P	64.0
3	☐	5.000	5.275	488.37	0.0001	P	9.9
4	☐	50.000	52.370	4587.29	0.0009	P	2.4
5	☐	125.000	133.573	11447.81	0.0023	P	0.2
6	☐	250.000	265.799	21315.18	0.0046	P	0.7
7	☐	500.000	509.449	40520.20	0.0088	P	0.9
8	☐	1000.000	990.134	78984.89	0.0171	P	1.7
9	☐			83.46	0.0000	P	21.5

$$y = 1.7265\text{E-}005 * x + 4.6377\text{E-}006$$

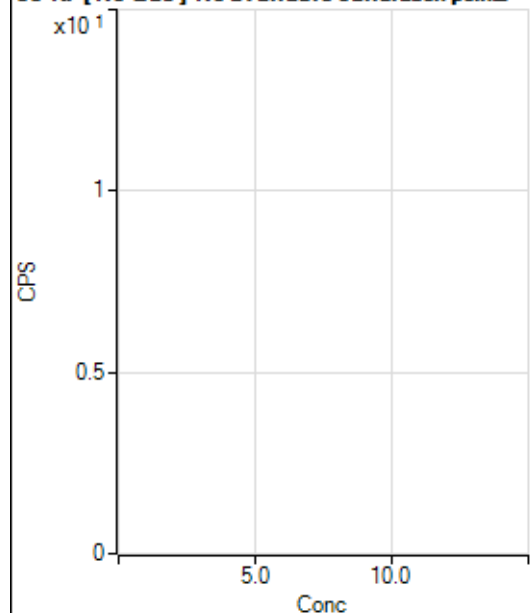
$$R = 0.9998$$

$$DL = 0.4083$$

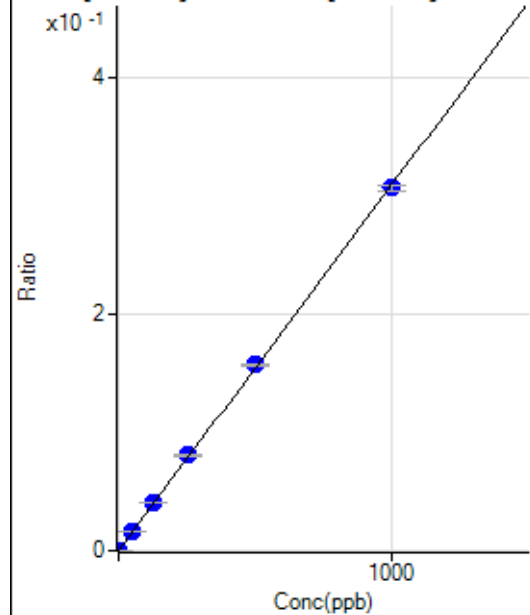
$$BEC = 0.2686$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			151.11		P	16.3
2	☐			152.22		P	30.2
3	☐			143.33		P	24.5
4	☐			126.67		P	10.5
5	☐			162.23		P	17.5
6	☐			134.45		P	7.6
7	☐			130.01		P	11.7
8	☐			134.45		P	10.0
9	☐			140.00		P	11.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	266.68	0.0001	P	8.2
2	☐	0.100	0.086	411.13	0.0001	P	12.3
3	☐	1.000	0.950	1766.85	0.0003	P	10.4
4	☐	50.000	50.643	79098.43	0.0157	P	0.4
5	☐	125.000	130.620	199814.94	0.0403	P	1.6
6	☐	250.000	260.504	373029.20	0.0804	P	0.7
7	☐	500.000	507.977	721559.90	0.1567	P	0.8
8	☐	1000.000	992.651	1414381.46	0.3062	P	1.4
9	☐			5948.73	0.0013	P	1.5

$$y = 3.0840E-004 * x + 5.3016E-005$$

$$R = 0.9999$$

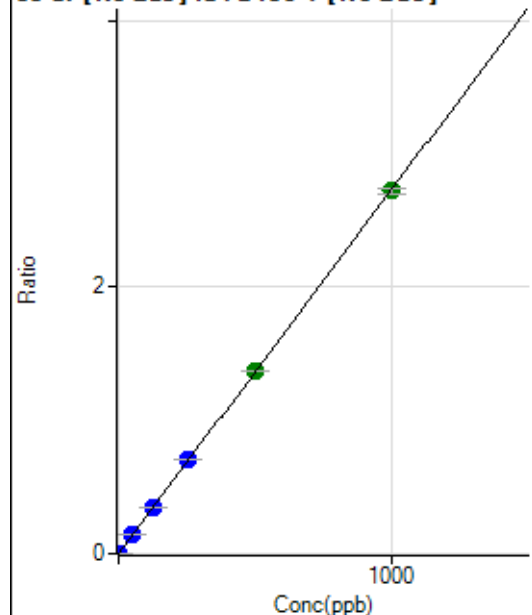
$$DL = 0.04235$$

$$BEC = 0.1719$$

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	261.13	0.0001	P	17.8
2	☐	0.100	0.090	1544.60	0.0003	P	6.3
3	☐	1.000	0.948	13476.27	0.0026	P	1.7
4	☐	50.000	50.305	693567.48	0.1374	P	0.4
5	☐	125.000	127.903	1730416.86	0.3493	P	0.7
6	☐	250.000	257.264	3259832.35	0.7025	P	0.2
7	☐	500.000	501.905	6310607.56	1.3705	A	0.4
8	☐	1000.000	996.854	12574094.99	2.7220	A	1.5
9	☐			50907.95	0.0112	P	2.0

$$y = 0.0027 * x + 5.1930E-005$$

$$R = 1.0000$$

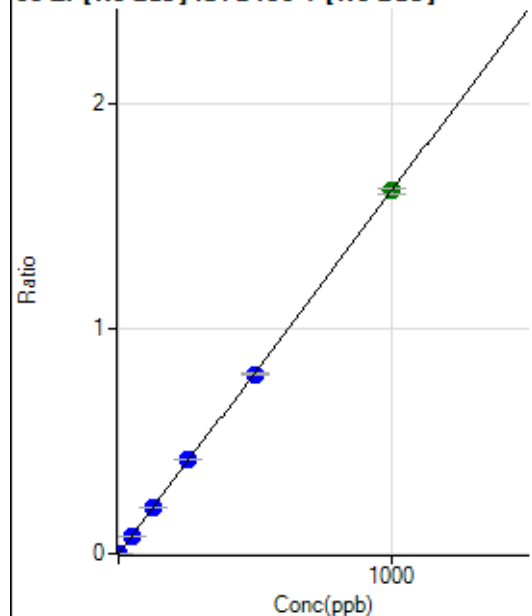
$$DL = 0.01015$$

$$BEC = 0.01902$$

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	469.47	0.0001	P	3.2
2	☐	0.100	0.082	1169.54	0.0002	P	6.6
3	☐	1.000	0.871	7643.99	0.0015	P	1.1
4	☐	50.000	49.393	402316.47	0.0797	P	0.6
5	☐	125.000	127.498	1018509.79	0.2056	P	0.6
6	☐	250.000	258.008	1930096.90	0.4160	P	0.6
7	☐	500.000	494.906	3673313.02	0.7978	P	0.9
8	☐	1000.000	1000.263	7447952.51	1.6123	A	1.4
9	☐			2853.18	0.0006	P	13.1

$$y = 0.0016 * x + 9.3321E-005$$

$$R = 0.9999$$

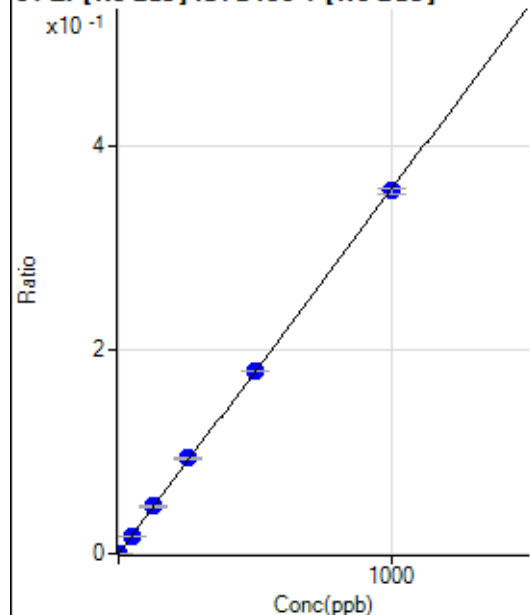
$$DL = 0.005553$$

$$BEC = 0.0579$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	52.8
2	☐	0.100	0.075	222.23	0.0000	P	9.8
3	☐	1.000	0.898	1722.40	0.0003	P	2.3
4	☐	50.000	49.845	90150.02	0.0179	P	0.1
5	☐	125.000	129.483	229721.43	0.0464	P	0.6
6	☐	250.000	261.169	433922.87	0.0935	P	0.5
7	☐	500.000	502.635	828612.05	0.1800	P	0.4
8	☐	1000.000	995.338	1646026.98	0.3563	P	1.9
9	☐			580.59	0.0001	P	14.1

$$y = 3.5800\text{E-}004 * x + 1.6007\text{E-}005$$

$$R = 0.9999$$

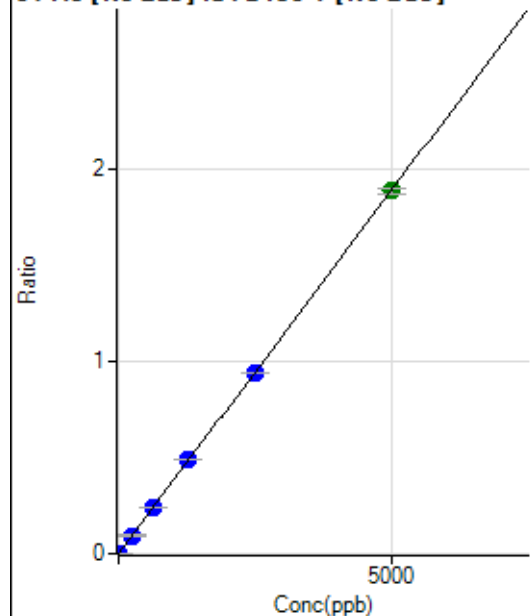
$$DL = 0.07088$$

$$BEC = 0.04471$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	175.01	0.0000	P	20.6
2	☐	0.500	0.470	1097.31	0.0002	P	6.3
3	☐	5.000	4.752	9336.73	0.0018	P	4.5
4	☐	250.000	250.444	477563.83	0.0946	P	0.8
5	☐	625.000	643.486	1204093.68	0.2430	P	0.2
6	☐	1250.000	1292.028	2264243.17	0.4880	P	0.4
7	☐	2500.000	2490.117	4330100.53	0.9404	P	0.8
8	☐	5000.000	4992.101	8708711.83	1.8853	A	1.7
9	☐			5845.89	0.0013	P	6.8

$$y = 3.7765\text{E-}004 * x + 3.4786\text{E-}005$$

$$R = 1.0000$$

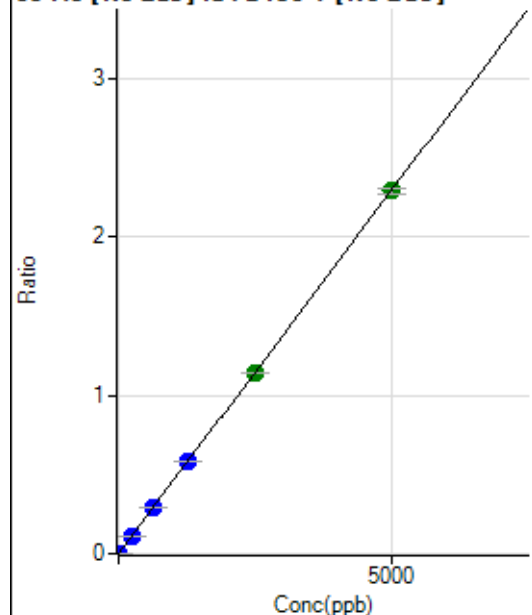
$$DL = 0.05704$$

$$BEC = 0.09211$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.56	0.0000	P	8.1
2	☐	0.500	0.539	1336.23	0.0003	P	5.6
3	☐	5.000	4.931	11610.77	0.0023	P	4.1
4	☐	250.000	250.292	580022.41	0.1149	P	0.1
5	☐	625.000	638.702	1452664.95	0.2932	P	0.2
6	☐	1250.000	1278.291	2723064.86	0.5868	P	0.5
7	☐	2500.000	2493.859	5271640.61	1.1449	A	0.1
8	☐	5000.000	4994.270	10590943.38	2.2928	A	1.6
9	☐			8719.71	0.0019	P	8.4

$$y = 4.5908\text{E-}004 * x + 1.1042\text{E-}005$$

$$R = 1.0000$$

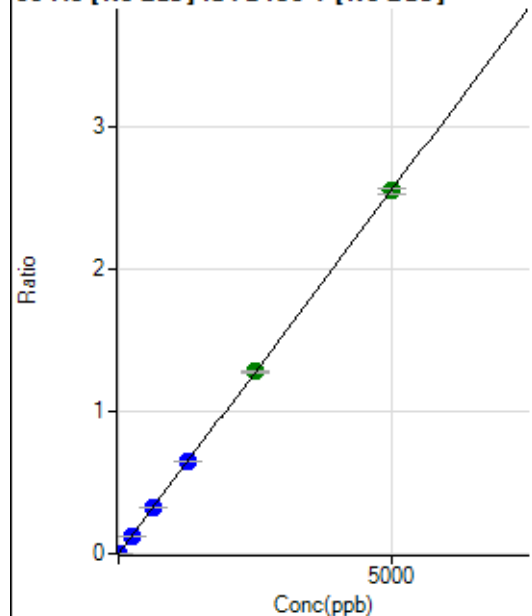
$$DL = 0.005825$$

$$BEC = 0.02405$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	97.23	0.0000	P	12.9
2	☐	0.500	0.508	1441.80	0.0003	P	10.2
3	☐	5.000	4.759	12514.35	0.0025	P	3.9
4	☐	250.000	248.968	642314.36	0.1273	P	0.5
5	☐	625.000	639.704	1619709.27	0.3269	P	0.3
6	☐	1250.000	1279.310	3033784.75	0.6538	P	0.4
7	☐	2500.000	2500.153	5883265.11	1.2777	A	0.2
8	☐	5000.000	4990.810	11781993.93	2.5506	A	1.5
9	☐			12322.42	0.0027	P	4.4

$$y = 5.1105\text{E-}004 * x + 1.9327\text{E-}005$$

$$R = 1.0000$$

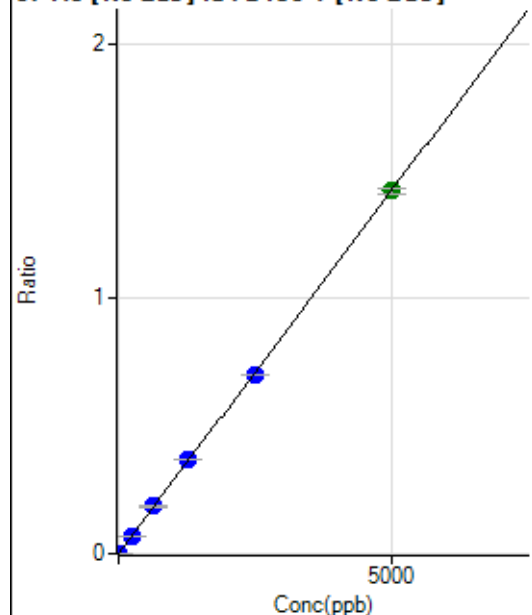
$$DL = 0.01464$$

$$BEC = 0.03782$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	78.0
2	☐	0.500	0.515	780.61	0.0002	P	21.1
3	☐	5.000	5.096	7421.73	0.0015	P	6.8
4	☐	250.000	250.904	360347.92	0.0714	P	0.5
5	☐	625.000	650.105	916372.33	0.1850	P	0.5
6	☐	1250.000	1299.006	1714998.02	0.3696	P	0.3
7	☐	2500.000	2473.847	3240933.86	0.7039	P	0.2
8	☐	5000.000	4997.642	6568293.98	1.4219	A	1.7
9	☐			5123.36	0.0011	P	6.6

$$y = 2.8452\text{E-}004 * x + 4.4207\text{E-}006$$

$$R = 0.9999$$

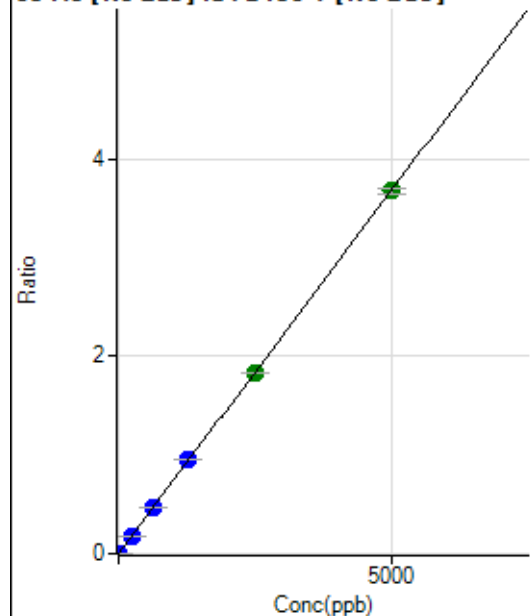
$$DL = 0.03634$$

$$BEC = 0.01554$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	13.9
2	☐	0.500	0.496	1980.77	0.0004	P	2.4
3	☐	5.000	4.883	18454.24	0.0036	P	1.5
4	☐	250.000	250.161	930421.27	0.1843	P	0.6
5	☐	625.000	644.287	2351874.25	0.4747	P	0.3
6	☐	1250.000	1287.711	4402641.20	0.9488	P	0.6
7	☐	2500.000	2491.368	8452393.76	1.8357	A	0.1
8	☐	5000.000	4992.469	16992222.25	3.6785	A	1.6
9	☐			13303.98	0.0029	P	3.5

$$y = 7.3681\text{E-}004 * x + 1.7664\text{E-}005$$

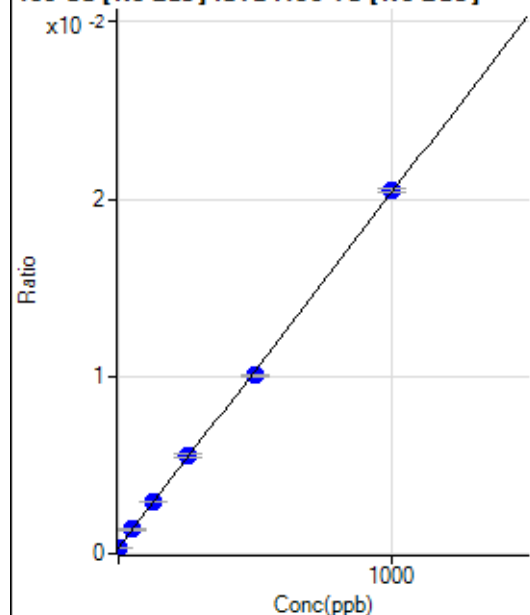
$$R = 1.0000$$

$$DL = 0.009993$$

$$BEC = 0.02397$$

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	2280.83	0.0003	P	0.4
2	☐	0.100	0.049	2361.41	0.0003	P	4.6
3	☐	1.000	0.654	2414.21	0.0004	P	8.1
4	☐	50.000	51.918	9384.04	0.0014	P	6.3
5	☐	125.000	129.936	19945.26	0.0029	P	1.6
6	☐	250.000	257.973	35918.73	0.0055	P	3.3
7	☐	500.000	484.120	66285.94	0.0100	P	1.0
8	☐	1000.000	1005.234	136338.88	0.0205	P	0.9
9	☐			2025.23	0.0003	P	2.7

$$y = 2.0015\text{E-}005 * x + 3.4283\text{E-}004$$

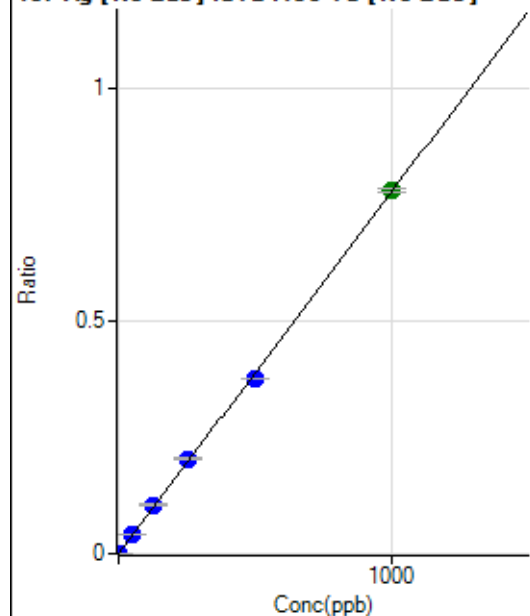
$$R = 0.9998$$

$$DL = 0.217$$

$$BEC = 17.13$$

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	44.44	0.0000	P	22.0
2	☐	0.100	0.107	619.49	0.0001	P	6.7
3	☐	1.000	0.999	5317.89	0.0008	P	3.4
4	☐	50.000	54.038	285495.30	0.0420	P	1.2
5	☐	125.000	135.489	714278.71	0.1054	P	0.6
6	☐	250.000	262.480	1332314.00	0.2042	P	0.9
7	☐	500.000	484.174	2489049.45	0.3767	P	0.7
8	☐	1000.000	1003.280	5200779.63	0.7806	A	1.0
9	☐			797.28	0.0001	P	4.9

$$y = 7.7803\text{E-}004 * x + 6.6849\text{E-}006$$

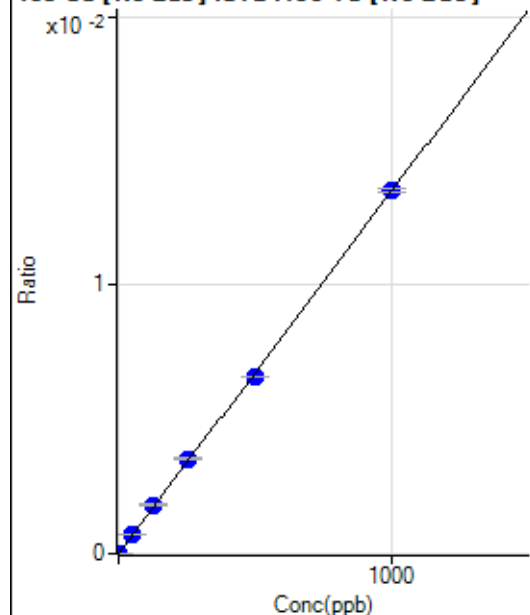
$$R = 0.9997$$

$$DL = 0.005682$$

$$BEC = 0.008592$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.17	0.0000	P	99.9
2	☐	0.100	0.178	20.83	0.0000	P	19.9
3	☐	1.000	0.969	93.06	0.0000	P	6.7
4	☐	50.000	53.074	4871.76	0.0007	P	3.8
5	☐	125.000	134.777	12340.32	0.0018	P	1.6
6	☐	250.000	262.194	23109.48	0.0035	P	3.3
7	☐	500.000	489.252	43674.25	0.0066	P	0.5
8	☐	1000.000	1000.950	90092.20	0.0135	P	1.1
9	☐			33.33	0.0000	P	54.4

$$y = 1.3509\text{E-}005 * x + 6.2332\text{E-}007$$

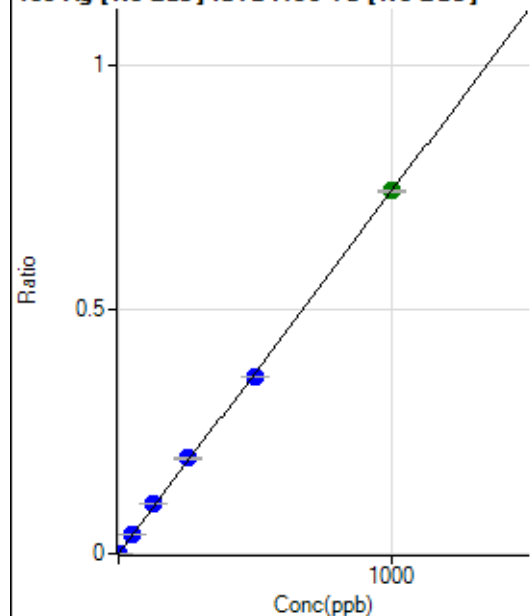
$$R = 0.9998$$

$$DL = 0.1383$$

$$BEC = 0.04614$$

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	44.45	0.0000	P	57.8
2	☐	0.100	0.106	586.15	0.0001	P	14.3
3	☐	1.000	1.005	5101.13	0.0008	P	3.3
4	☐	50.000	53.865	271305.09	0.0400	P	1.0
5	☐	125.000	135.774	682391.62	0.1007	P	0.3
6	☐	250.000	263.479	1274943.12	0.1954	P	1.1
7	☐	500.000	488.260	2392850.60	0.3622	P	0.8
8	☐	1000.000	1000.960	4946486.61	0.7424	A	0.7
9	☐			727.83	0.0001	P	26.7

$$y = 7.4171\text{E-}004 * x + 6.6956\text{E-}006$$

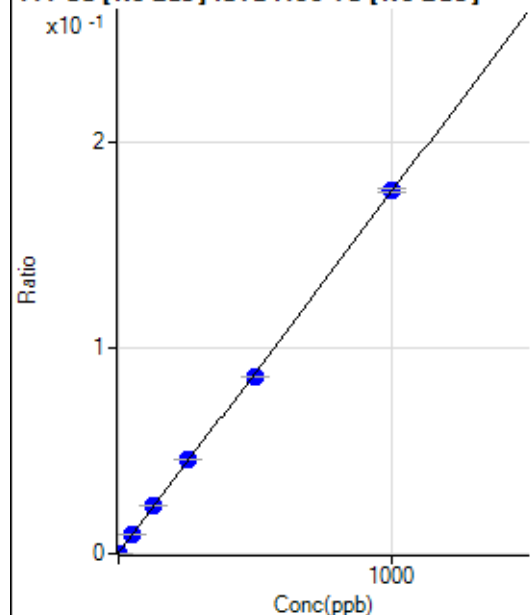
$$R = 0.9998$$

$$DL = 0.01565$$

$$BEC = 0.009027$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1597.83	0.0002	P	0.5
2	☐	0.100	0.088	1755.08	0.0003	P	2.6
3	☐	1.000	0.996	2812.39	0.0004	P	8.5
4	☐	50.000	52.348	63910.78	0.0094	P	1.9
5	☐	125.000	131.280	157489.46	0.0232	P	0.2
6	☐	250.000	260.517	299372.46	0.0459	P	0.7
7	☐	500.000	487.493	565992.25	0.0857	P	0.6
8	☐	1000.000	1002.722	1172209.38	0.1759	P	1.1
9	☐			1684.62	0.0003	P	2.5

$$y = 1.7523\text{E-}004 * x + 2.4018\text{E-}004$$

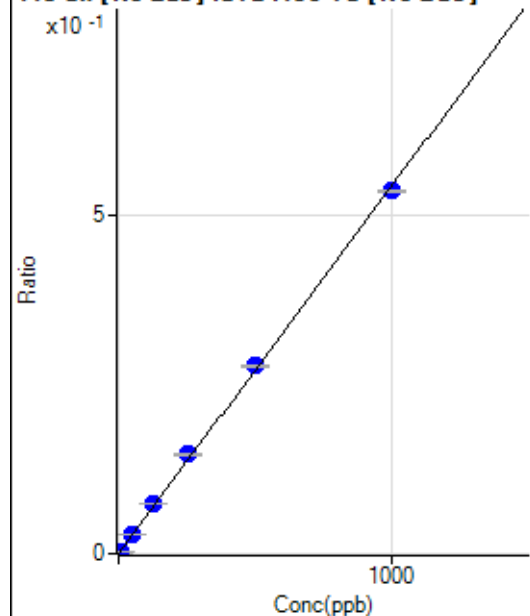
$$R = 0.9998$$

$$DL = 0.02086$$

$$BEC = 1.371$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	197.23	0.0000	P	28.2
2	☐	0.500	0.579	2358.63	0.0003	P	2.6
3	☐	5.000	5.315	19756.28	0.0029	P	1.9
4	☐	50.000	53.709	197946.43	0.0292	P	0.3
5	☐	125.000	135.756	498972.23	0.0736	P	0.7
6	☐	250.000	270.398	956757.24	0.1467	P	1.2
7	☐	500.000	511.457	1832684.37	0.2774	P	1.0
8	☐	1000.000	987.640	3568443.44	0.5356	P	0.8
9	☐			2850.43	0.0004	P	9.9

$$y = 5.4227\text{E-}004 * x + 2.9682\text{E-}005$$

$$R = 0.9996$$

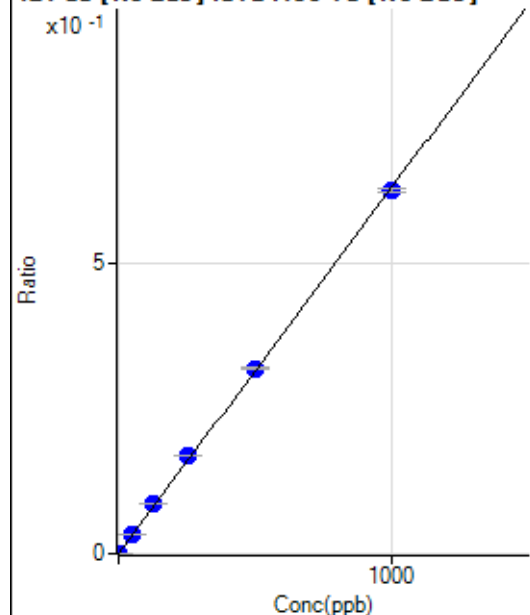
$$DL = 0.04626$$

$$BEC = 0.05474$$

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	27.78	0.0000	P	62.4
2	☐	0.200	0.191	855.62	0.0001	P	9.5
3	☐	2.000	2.000	8583.51	0.0013	P	4.8
4	☐	50.000	52.389	224332.02	0.0330	P	0.3
5	☐	125.000	134.712	575614.65	0.0850	P	0.2
6	☐	250.000	267.263	1099525.38	0.1685	P	0.9
7	☐	500.000	505.748	2107183.84	0.3189	P	1.4
8	☐	1000.000	991.477	4165553.00	0.6252	P	1.2
9	☐			6134.94	0.0010	P	1.7

$$y = 6.3060\text{E-}004 * x + 4.1801\text{E-}006$$

$$R = 0.9998$$

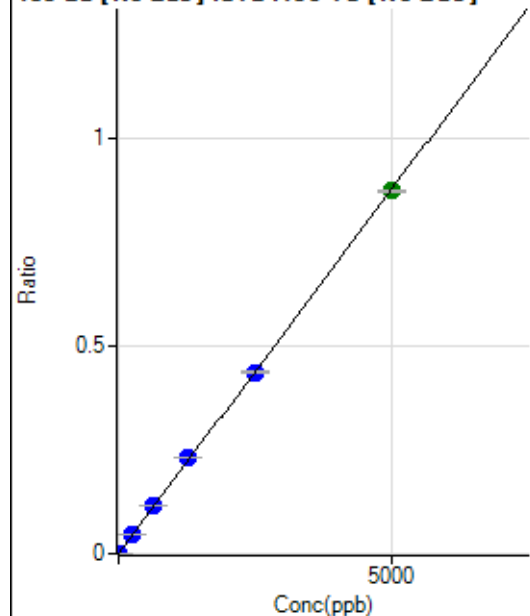
$$DL = 0.01241$$

$$BEC = 0.006629$$

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	94.3
2	☐	1.000	0.998	1225.11	0.0002	P	5.6
3	☐	10.000	10.244	12208.60	0.0018	P	3.5
4	☐	250.000	261.063	310837.30	0.0458	P	0.6
5	☐	625.000	665.540	790738.85	0.1167	P	0.9
6	☐	1250.000	1324.897	1515653.42	0.2323	P	1.2
7	☐	2500.000	2489.613	2884527.19	0.4366	P	0.8
8	☐	5000.000	4980.848	5819240.28	0.8734	A	0.8
9	☐			1380.69	0.0002	P	6.0

$$y = 1.7535\text{E-}004 * x + 3.3247\text{E-}006$$

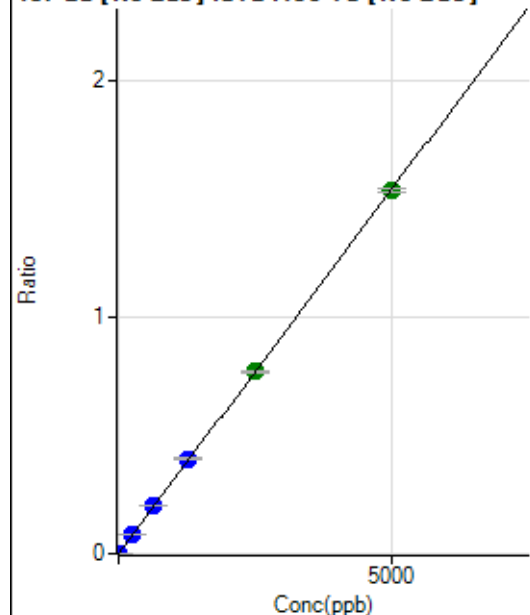
$$R = 0.9999$$

$$DL = 0.05366$$

$$BEC = 0.01896$$

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	41.67	0.0000	P	72.9
2	☐	1.000	0.965	2080.81	0.0003	P	10.4
3	☐	10.000	10.061	21036.10	0.0031	P	2.5
4	☐	250.000	258.166	539152.19	0.0794	P	0.6
5	☐	625.000	656.216	1367525.91	0.2018	P	0.5
6	☐	1250.000	1304.419	2617333.07	0.4012	P	1.1
7	☐	2500.000	2499.996	5080526.37	0.7689	A	0.6
8	☐	5000.000	4982.087	10209150.14	1.5323	A	1.0
9	☐			2236.39	0.0003	P	4.0

$$y = 3.0757E-004 * x + 6.2859E-006$$

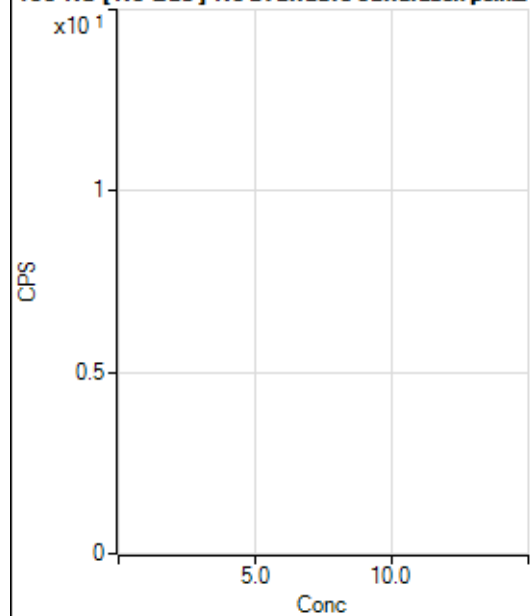
$$R = 0.9999$$

$$DL = 0.04469$$

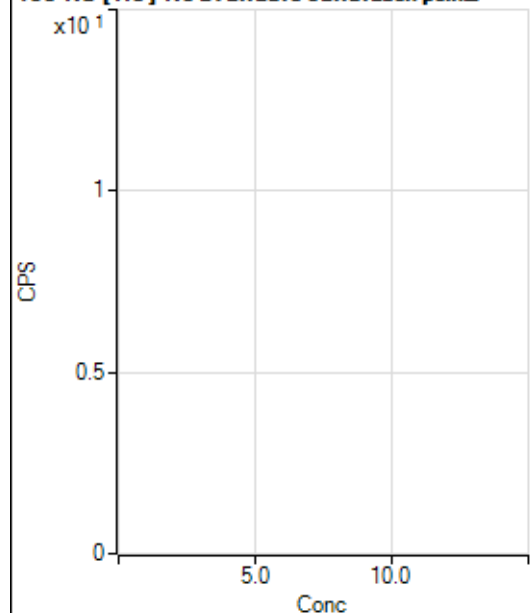
$$BEC = 0.02044$$

Weight: <None>

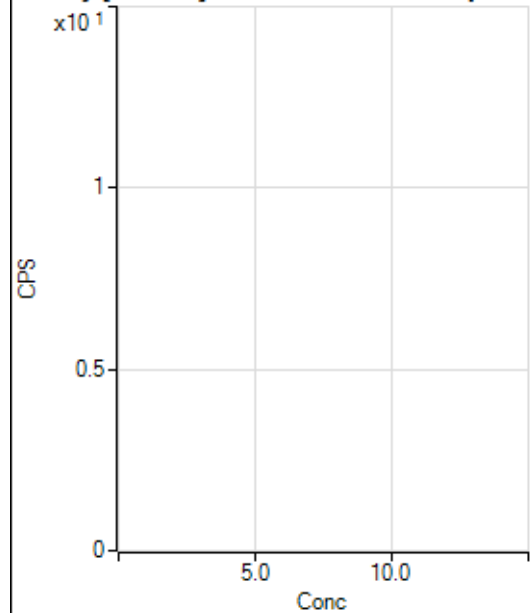
Min Conc: 0

150 Nd [No Gas] No available calibration points

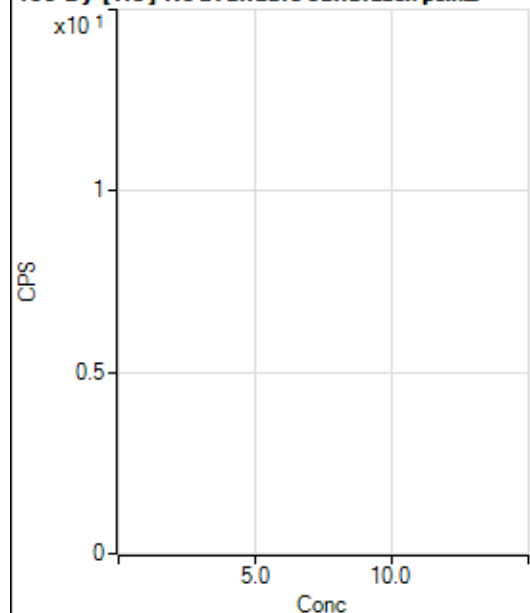
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			4.44		P	173.
4	☐			26.67		P	66.2
5	☐			88.89		P	4.3
6	☐			142.23		P	38.2
7	☐			262.23		P	2.9
8	☐			593.37		P	3.9
9	☐			100.00		P	33.3

150 Nd [He] No available calibration points

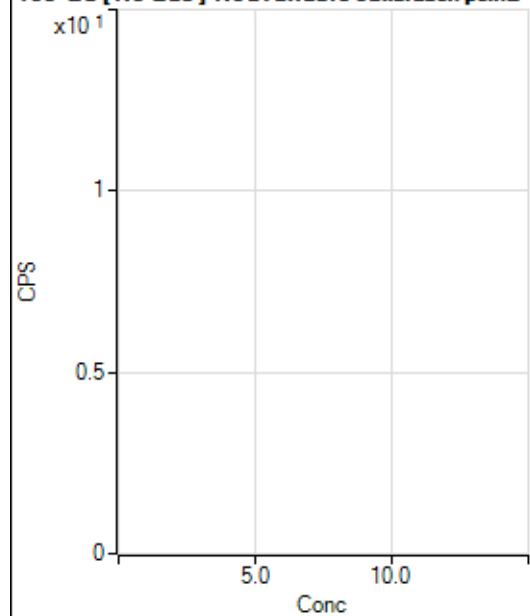
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			1.11		P	173.
3	☐			0.00		P	
4	☐			3.33		P	100.
5	☐			7.78		P	99.0
6	☐			13.33		P	66.2
7	☐			37.78		P	13.5
8	☐			75.56		P	21.8
9	☐			56.67		P	11.8

156 Dy [No Gas] No available calibration points

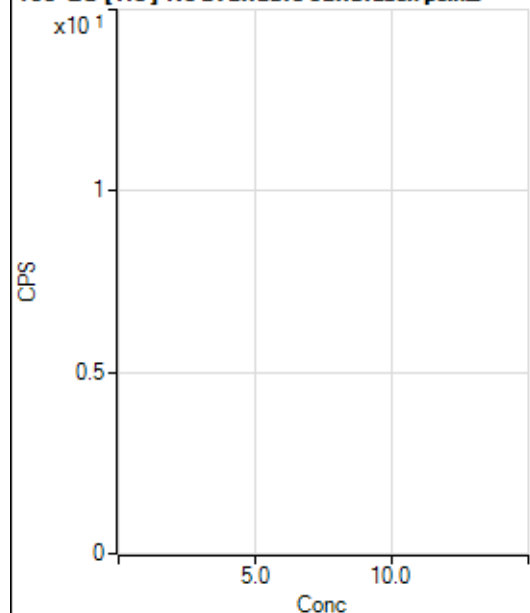
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐			0.00		P	
3	☐			11.11		P	43.3
4	☐			19.45		P	24.7
5	☐			22.22		P	108.
6	☐			25.00		P	66.7
7	☐			38.89		P	44.6
8	☐			102.78		P	46.8
9	☐			58.34		P	51.5

156 Dy [He] No available calibration points

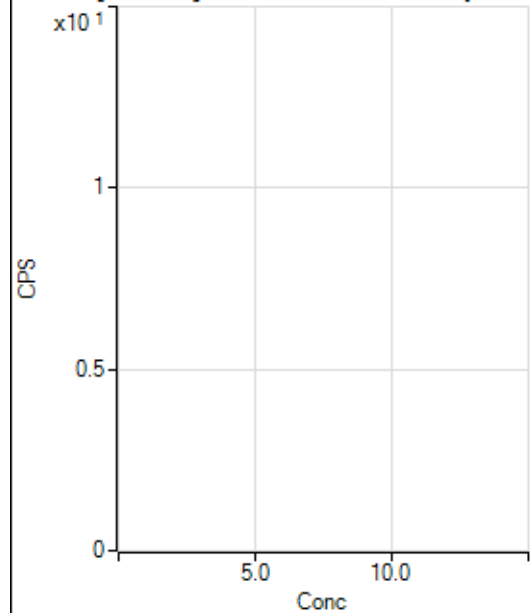
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.
2	☐			0.00		P	
3	☐			1.11		P	173.
4	☐			7.78		P	65.5
5	☐			27.78		P	18.3
6	☐			38.89		P	21.6
7	☐			65.56		P	24.0
8	☐			130.00		P	10.3
9	☐			27.78		P	38.6

160 Gd [No Gas] Noavailable calibration poin_

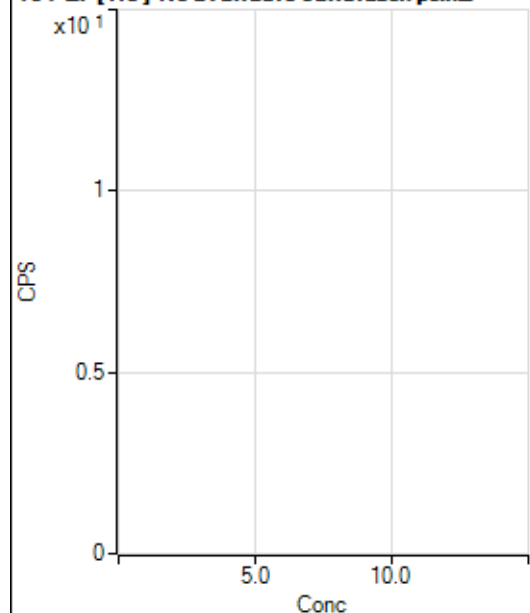
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			47.22		P	44.4
2	☐			44.45		P	65.8
3	☐			38.89		P	65.5
4	☐			36.11		P	13.3
5	☐			36.11		P	35.3
6	☐			36.11		P	35.3
7	☐			52.78		P	63.8
8	☐			55.56		P	37.8
9	☐			80.56		P	15.8

160 Gd [He] No available calibration points

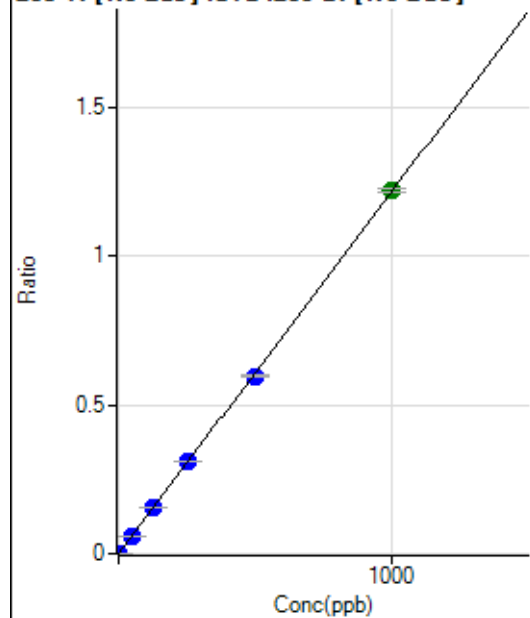
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			97.78		P	20.0
2	☐			91.11		P	12.9
3	☐			131.11		P	7.3
4	☐			103.34		P	28.7
5	☐			100.00		P	26.0
6	☐			122.23		P	12.3
7	☐			113.34		P	10.6
8	☐			121.12		P	5.7
9	☐			120.00		P	7.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	173.
2	☐			13.89		P	124.
3	☐			11.11		P	86.6
4	☐			16.67		P	50.0
5	☐			22.22		P	78.1
6	☐			30.56		P	56.8
7	☐			22.22		P	57.3
8	☐			38.89		P	44.6
9	☐			33.33		P	25.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.55		P	44.6
2	☐			11.11		P	45.8
3	☐			17.78		P	28.6
4	☐			17.78		P	28.6
5	☐			14.44		P	53.3
6	☐			15.56		P	32.7
7	☐			17.78		P	21.7
8	☐			15.56		P	32.7
9	☐			21.11		P	36.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	91.67	0.0000	P	16.5
2	☐	0.100	0.080	536.15	0.0001	P	20.5
3	☐	1.000	0.882	4920.57	0.0011	P	2.8
4	☐	50.000	48.928	266193.43	0.0594	P	0.3
5	☐	125.000	126.090	680925.25	0.1532	P	1.1
6	☐	250.000	253.929	1332033.57	0.3084	P	0.8
7	☐	500.000	491.249	2565937.41	0.5967	P	0.3
8	☐	1000.000	1003.311	5145162.83	1.2186	A	1.0
9	☐			1775.20	0.0005	P	4.9

$$y = 0.0012 * x + 2.0114E-005$$

$$R = 0.9999$$

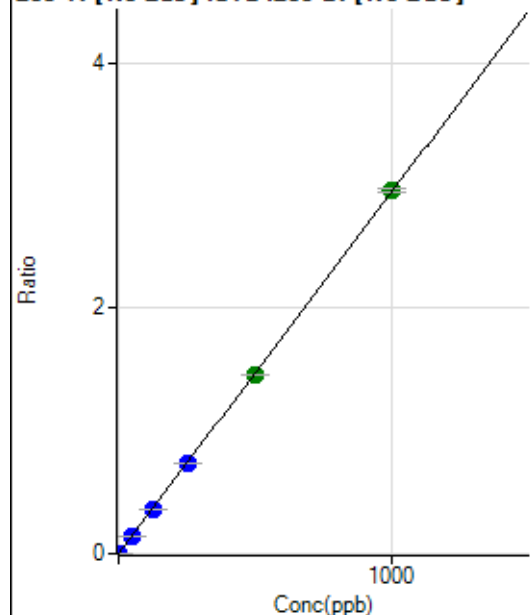
$$DL = 0.008211$$

$$BEC = 0.01656$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	205.57	0.0000	P	29.1
2	☐	0.100	0.090	1408.47	0.0003	P	4.8
3	☐	1.000	0.884	11928.02	0.0026	P	1.3
4	☐	50.000	48.371	637846.58	0.1424	P	0.1
5	☐	125.000	124.320	1627259.00	0.3660	P	0.7
6	☐	250.000	249.231	3168811.14	0.7338	P	0.3
7	☐	500.000	493.450	6247118.02	1.4527	A	0.5
8	☐	1000.000	1003.634	12474736.39	2.9547	A	0.9
9	☐			4362.02	0.0012	P	7.2

$$y = 0.0029 * x + 4.5048E-005$$

$$R = 1.0000$$

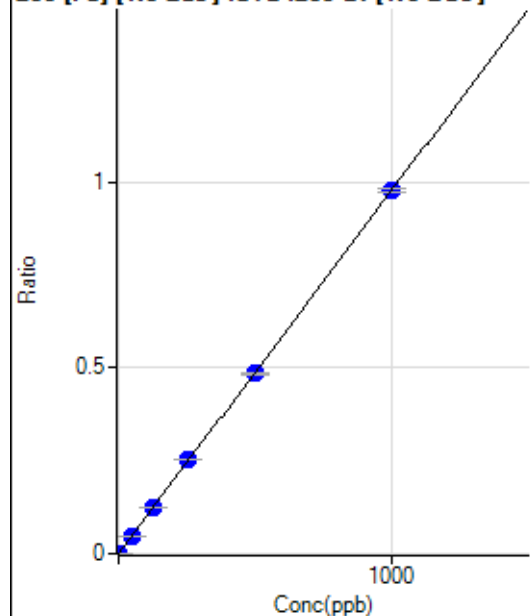
$$DL = 0.01335$$

$$BEC = 0.0153$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	164.82	0.0000	P	37.6
2	☐	0.100	0.116	679.67	0.0001	P	11.5
3	☐	1.000	0.974	4452.74	0.0010	P	1.8
4	☐	50.000	49.887	218374.48	0.0488	P	0.9
5	☐	125.000	128.583	558578.76	0.1256	P	0.3
6	☐	250.000	258.872	1092239.93	0.2529	P	0.2
7	☐	500.000	495.834	2083025.08	0.4844	P	0.5
8	☐	1000.000	999.423	4122012.62	0.9763	P	1.2
9	☐			4750.99	0.0013	P	5.7

$$y = 9.7687E-004 * x + 3.6097E-005$$

$$R = 0.9999$$

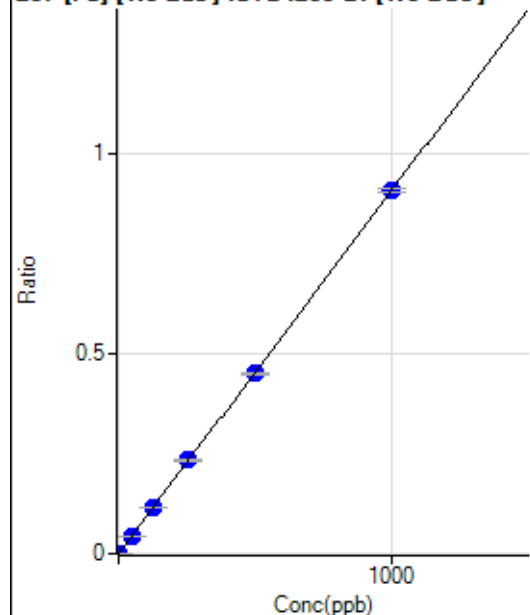
$$DL = 0.04166$$

$$BEC = 0.03695$$

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	177.78	0.0000	P	23.8
2	☐	0.100	0.106	614.85	0.0001	P	14.8
3	☐	1.000	0.866	3715.45	0.0008	P	1.8
4	☐	50.000	49.324	200498.71	0.0448	P	0.8
5	☐	125.000	127.199	513074.06	0.1154	P	1.2
6	☐	250.000	257.494	1008768.31	0.2336	P	0.8
7	☐	500.000	496.279	1935833.49	0.4502	P	0.6
8	☐	1000.000	999.746	3828626.97	0.9068	P	0.9
9	☐			4052.57	0.0011	P	4.8

$$y = 9.0702\text{E-}004 * x + 3.8995\text{E-}005$$

$$R = 1.0000$$

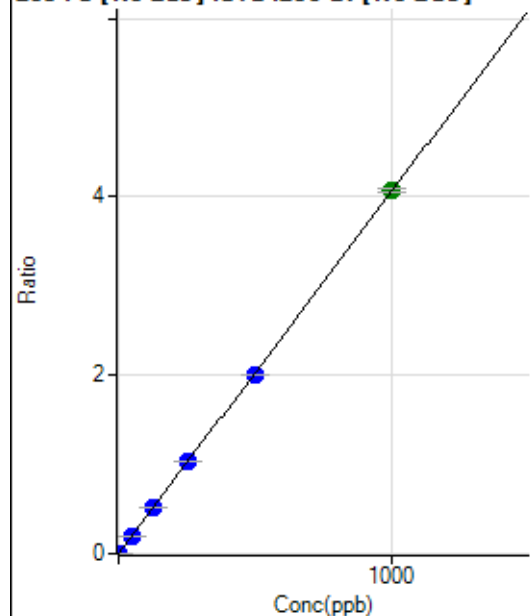
$$DL = 0.03066$$

$$BEC = 0.04299$$

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	742.62	0.0002	P	8.5
2	☐	0.100	0.106	2703.89	0.0006	P	4.6
3	☐	1.000	0.911	17393.87	0.0039	P	1.1
4	☐	50.000	49.207	895224.60	0.1999	P	0.6
5	☐	125.000	126.709	2287592.95	0.5146	P	0.4
6	☐	250.000	256.011	4489038.94	1.0395	P	0.8
7	☐	500.000	492.935	8605989.00	2.0013	P	0.7
8	☐	1000.000	1001.856	17172163.98	4.0674	A	1.1
9	☐			18520.32	0.0050	P	0.7

$$y = 0.0041 * x + 1.6278\text{E-}004$$

$$R = 0.9999$$

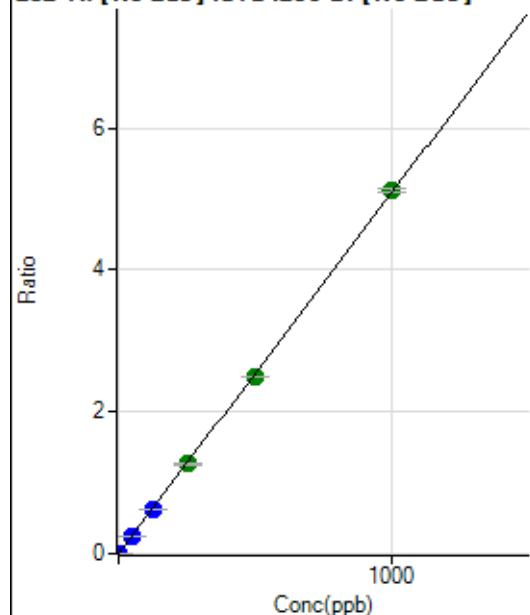
$$DL = 0.0102$$

$$BEC = 0.0401$$

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	77.78	0.0000	P	18.8
2	☐	0.100	0.083	1998.36	0.0004	P	2.7
3	☐	1.000	0.820	18860.28	0.0042	P	0.8
4	☐	50.000	46.308	1053266.29	0.2352	P	1.0
5	☐	125.000	121.409	2741536.63	0.6167	P	0.4
6	☐	250.000	248.679	5454804.00	1.2631	A	0.6
7	☐	500.000	489.112	10683133.11	2.4843	A	0.4
8	☐	1000.000	1006.408	21581900.95	5.1118	A	1.0
9	☐			5349.41	0.0014	P	11.3

$$y = 0.0051 * x + 1.7051E-005$$

$$R = 0.9999$$

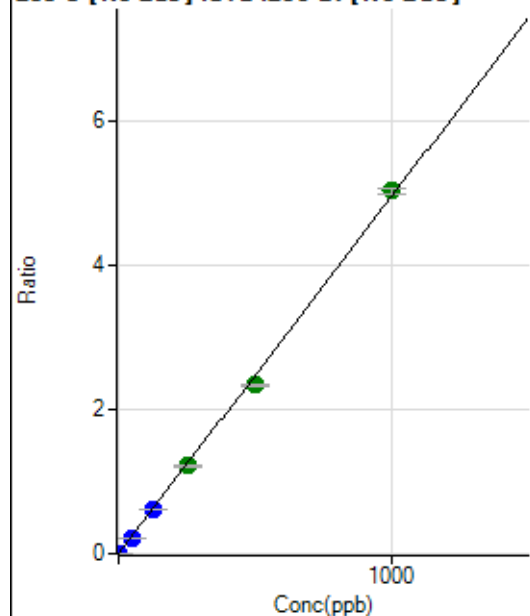
$$DL = 0.001895$$

$$BEC = 0.003357$$

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	97.22	0.0000	P	21.4
2	☐	0.100	0.089	2111.38	0.0005	P	1.8
3	☐	1.000	0.846	18992.34	0.0042	P	1.0
4	☐	50.000	44.572	989530.33	0.2210	P	0.9
5	☐	125.000	122.057	2690190.99	0.6051	P	0.7
6	☐	250.000	245.422	5254560.41	1.2167	A	0.7
7	☐	500.000	471.513	10052250.57	2.3376	A	0.4
8	☐	1000.000	1016.028	21265870.96	5.0371	A	1.3
9	☐			3397.83	0.0009	P	4.9

$$y = 0.0050 * x + 2.1312E-005$$

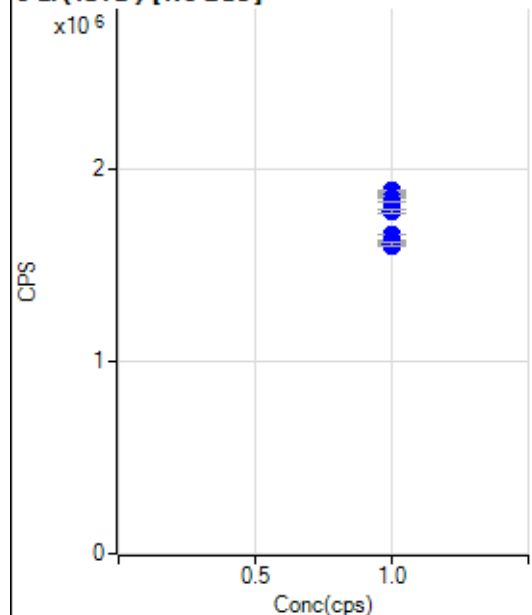
$$R = 0.9994$$

$$DL = 0.002759$$

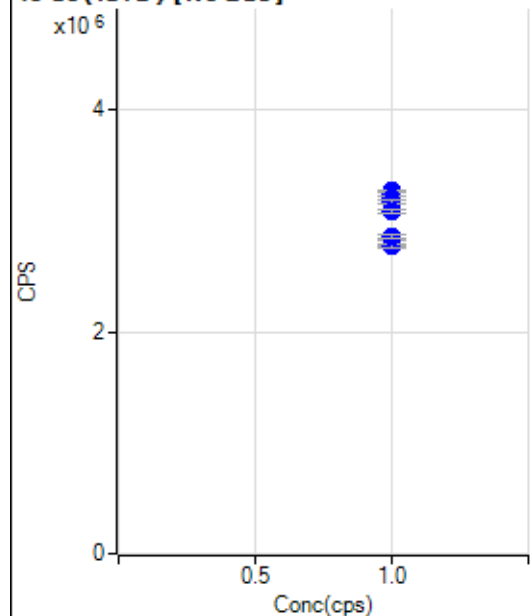
$$BEC = 0.004299$$

Weight: <None>

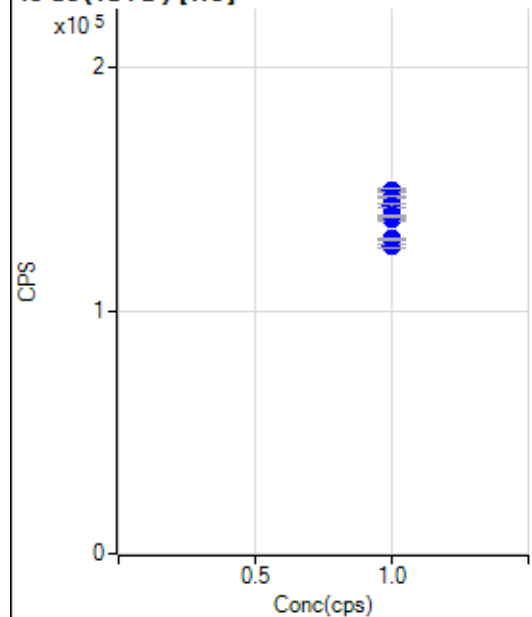
Min Conc: 0

6 Li (ISTD) [No Gas]

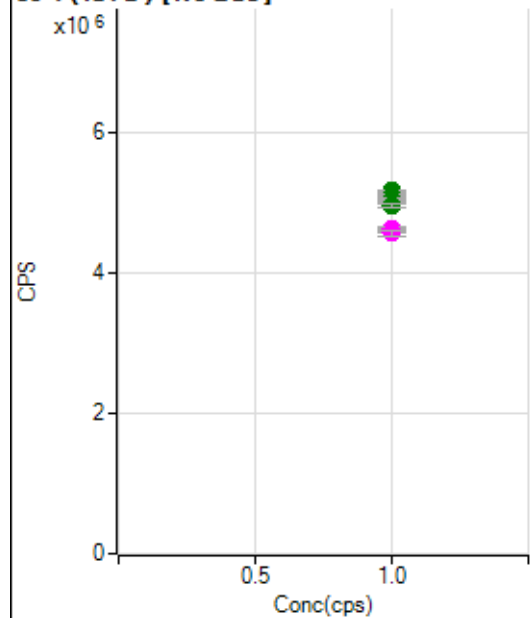
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1863542.99		P	0.5
2	☐	1.000		1885697.82		P	0.5
3	☐	1.000		1853766.85		P	0.4
4	☐	1.000		1827886.60		P	0.4
5	☐	1.000		1779115.50		P	0.8
6	☐	1.000		1659603.98		P	0.2
7	☐	1.000		1629581.70		P	0.4
8	☐	1.000		1601876.36		P	0.9
9	☐	1.000		1611094.72		P	1.5

45 Sc (ISTD) [No Gas]

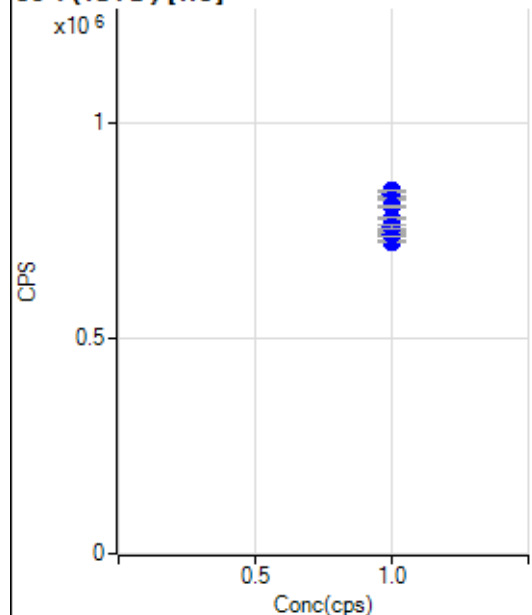
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3244723.75		P	0.9
2	☐	1.000		3268328.52		P	0.3
3	☐	1.000		3205566.26		P	0.6
4	☐	1.000		3170565.26		P	0.7
5	☐	1.000		3085466.71		P	0.8
6	☐	1.000		2827183.29		P	0.3
7	☐	1.000		2779286.85		P	0.8
8	☐	1.000		2772170.48		P	1.1
9	☐	1.000		2859652.19		P	1.5

45 Sc (ISTD) [He]

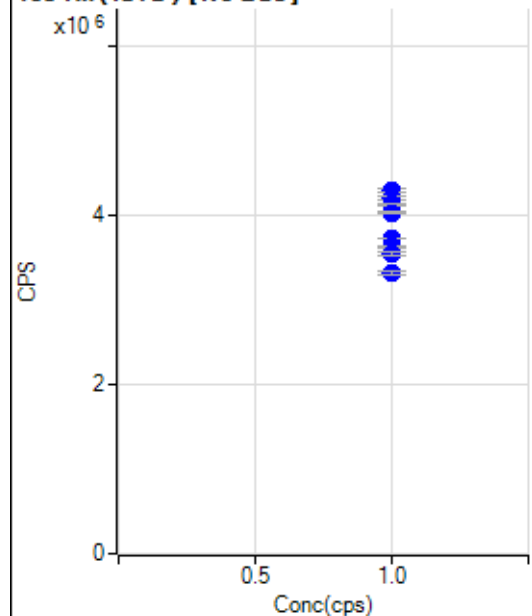
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		148476.80		P	1.7
2	☐	1.000		149191.10		P	1.0
3	☐	1.000		146607.68		P	0.5
4	☐	1.000		143034.56		P	1.0
5	☐	1.000		137425.94		P	0.6
6	☐	1.000		129171.30		P	0.4
7	☐	1.000		126527.24		P	1.3
8	☐	1.000		129541.17		P	0.6
9	☐	1.000		138828.33		P	0.9

89 Y (ISTD) [No Gas]

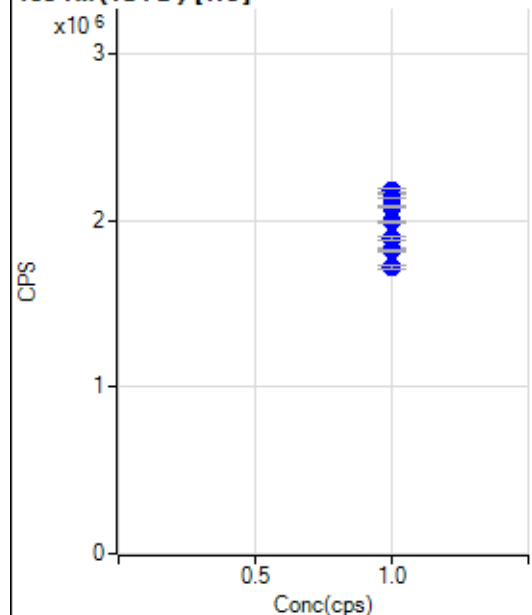
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5030195.79		A	0.7
2	☐	1.000		5168624.89		A	0.4
3	☐	1.000		5104423.29		A	0.6
4	☐	1.000		5047395.66		A	0.5
5	☐	1.000		4954165.34		A	1.1
6	☐	1.000		4640115.56		A	0.3
7	☐	1.000		4604484.65		M	0.5
8	☐	1.000		4619973.58		M	1.4
9	☐	1.000		4566586.53		M	1.6

89 Y(ISTD) [He]

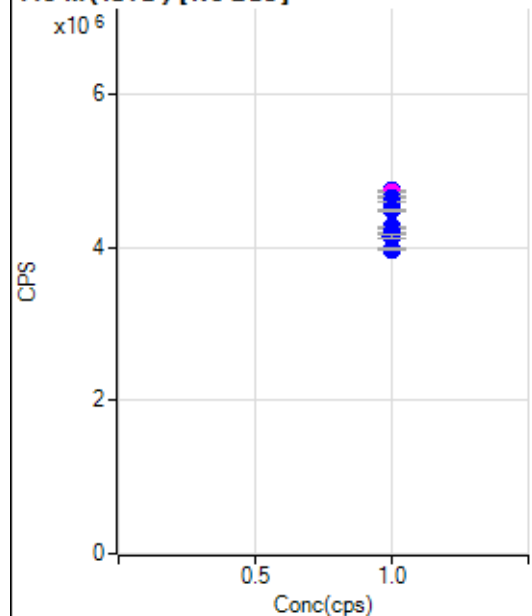
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		835284.71		P	1.1
2	☐	1.000		843726.78		P	0.7
3	☐	1.000		825036.46		P	0.5
4	☐	1.000		807261.96		P	0.4
5	☐	1.000		779292.68		P	0.7
6	☐	1.000		745397.82		P	1.3
7	☐	1.000		726650.83		P	1.2
8	☐	1.000		741676.74		P	1.1
9	☐	1.000		758533.58		P	1.2

103 Rh(ISTD) [No Gas]

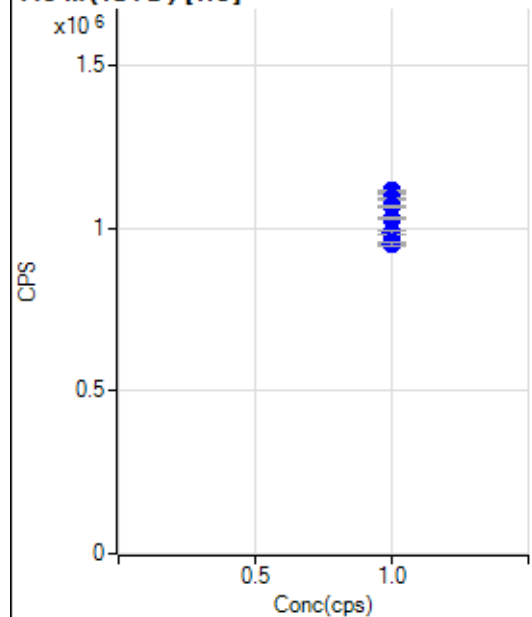
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4280364.94		P	1.1
2	☐	1.000		4269514.72		P	0.1
3	☐	1.000		4199779.69		P	0.7
4	☐	1.000		4120122.92		P	0.3
5	☐	1.000		4021701.18		P	0.4
6	☐	1.000		3715107.42		P	0.1
7	☐	1.000		3620582.42		P	0.5
8	☐	1.000		3531553.07		P	1.1
9	☐	1.000		3316709.06		P	1.0

103 Rh (ISTD) [He]

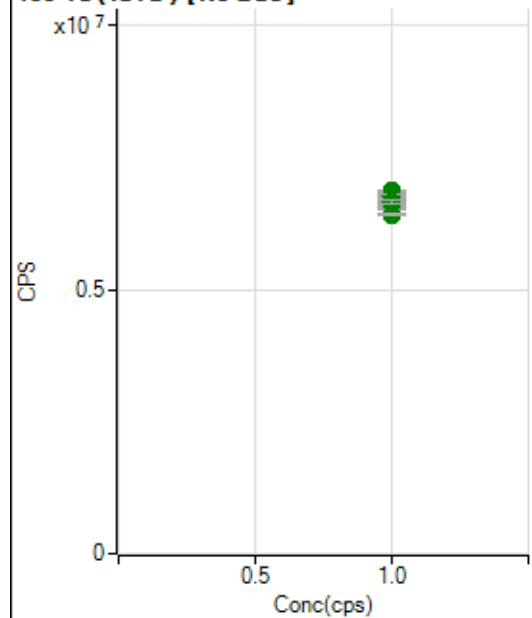
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2161696.51		P	0.8
2	☐	1.000		2176416.32		P	1.0
3	☐	1.000		2134009.65		P	0.4
4	☐	1.000		2079814.45		P	0.3
5	☐	1.000		1994712.70		P	0.5
6	☐	1.000		1894602.49		P	1.4
7	☐	1.000		1822055.62		P	1.0
8	☐	1.000		1820940.70		P	0.6
9	☐	1.000		1718142.61		P	1.4

115 In (ISTD) [No Gas]

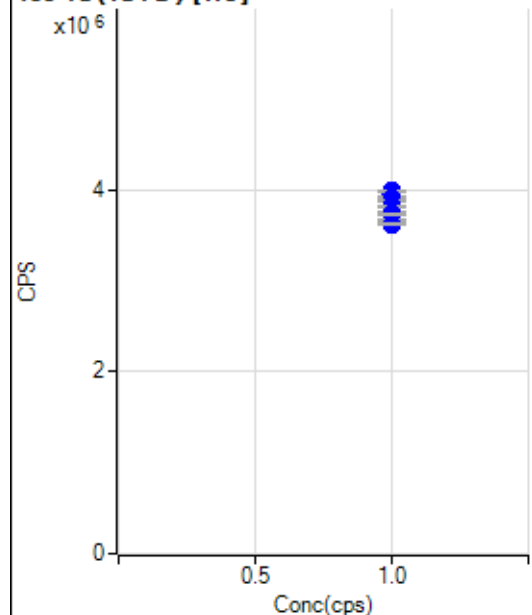
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4733720.69		P	0.5
2	☐	1.000		4725088.28		M	0.1
3	☐	1.000		4653742.00		P	0.8
4	☐	1.000		4592190.93		P	0.2
5	☐	1.000		4485671.30		P	0.5
6	☐	1.000		4257026.20		P	0.4
7	☐	1.000		4188165.37		P	0.7
8	☐	1.000		4128135.46		P	1.3
9	☐	1.000		3975861.36		P	1.1

115 In (ISTD) [He]

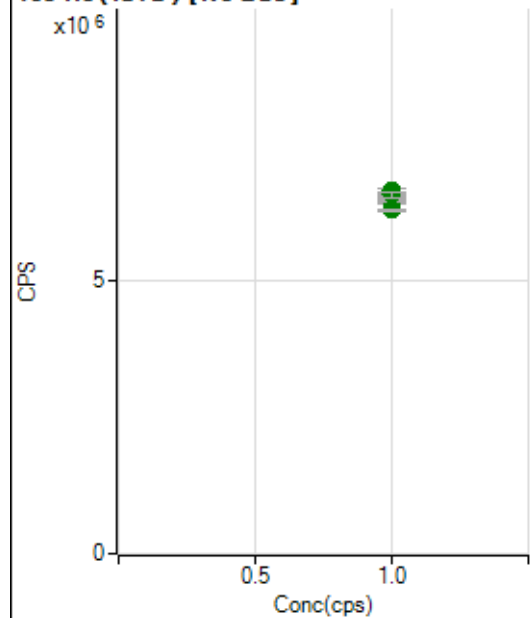
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1109579.75		P	1.2
2	☐	1.000		1114437.50		P	0.5
3	☐	1.000		1090678.54		P	0.6
4	☐	1.000		1067862.92		P	0.6
5	☐	1.000		1030670.85		P	0.9
6	☐	1.000		987230.09		P	1.1
7	☐	1.000		954329.44		P	0.9
8	☐	1.000		950077.10		P	0.9
9	☐	1.000		951862.30		P	0.8

159 Tb (ISTD) [No Gas]

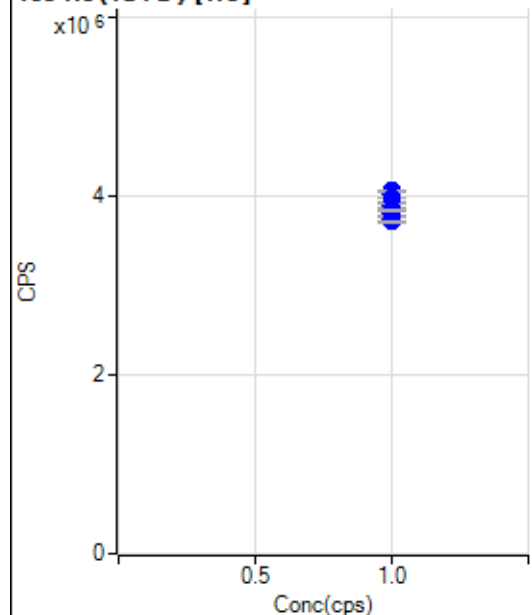
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6652870.73		A	0.8
2	☐	1.000		6867548.23		A	0.3
3	☐	1.000		6784420.46		A	0.5
4	☐	1.000		6789545.94		A	0.4
5	☐	1.000		6775588.23		A	1.0
6	☐	1.000		6523891.08		A	0.4
7	☐	1.000		6607565.66		A	0.9
8	☐	1.000		6662917.26		A	1.1
9	☐	1.000		6419946.92		A	0.6

159 Tb (ISTD) [He]

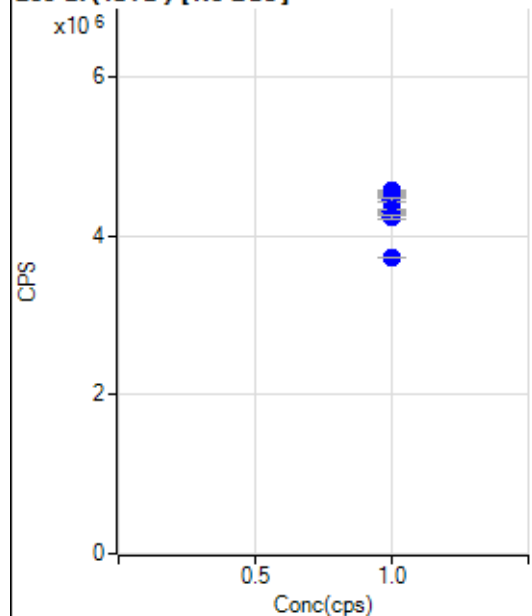
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3944438.41		P	1.3
2	☐	1.000		3984092.75		P	0.4
3	☐	1.000		3910161.88		P	0.1
4	☐	1.000		3875081.13		P	0.0
5	☐	1.000		3812139.11		P	0.9
6	☐	1.000		3740210.64		P	1.4
7	☐	1.000		3665272.69		P	0.9
8	☐	1.000		3733191.82		P	0.4
9	☐	1.000		3617871.89		P	0.6

165 Ho (ISTD) [No Gas]

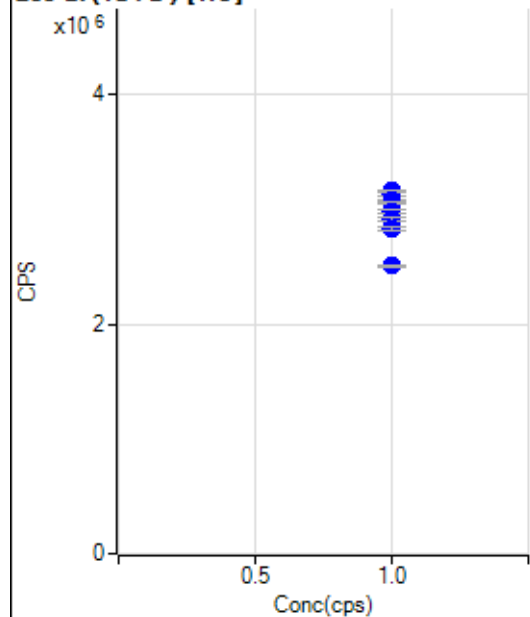
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6391842.63		A	0.6
2	☐	1.000		6621748.84		A	1.1
3	☐	1.000		6587043.07		A	0.4
4	☐	1.000		6599123.84		A	0.1
5	☐	1.000		6561446.02		A	1.0
6	☐	1.000		6420072.32		A	0.2
7	☐	1.000		6454647.11		A	0.5
8	☐	1.000		6554513.34		A	1.5
9	☐	1.000		6276007.17		A	0.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4007977.89		P	1.5
2	☐	1.000		4050618.93		P	0.8
3	☐	1.000		3973664.35		P	0.4
4	☐	1.000		3930171.78		P	0.2
5	☐	1.000		3884712.23		P	1.1
6	☐	1.000		3804711.71		P	1.0
7	☐	1.000		3743338.07		P	1.3
8	☐	1.000		3836374.18		P	0.8
9	☐	1.000		3706920.50		P	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4561381.87		P	0.8
2	☐	1.000		4545173.40		P	0.5
3	☐	1.000		4507080.94		P	0.8
4	☐	1.000		4477756.01		P	0.4
5	☐	1.000		4445774.97		P	0.8
6	☐	1.000		4318547.50		P	0.2
7	☐	1.000		4300328.93		P	0.8
8	☐	1.000		4222267.96		P	1.1
9	☐	1.000		3726156.02		P	0.2

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3125333.49		P	1.2
2	☐	1.000		3159311.76		P	0.8
3	☐	1.000		3084862.28		P	0.3
4	☐	1.000		3051851.52		P	0.5
5	☐	1.000		2981331.66		P	1.2
6	☐	1.000		2911548.84		P	1.3
7	☐	1.000		2828754.44		P	1.1
8	☐	1.000		2828413.02		P	1.1
9	☐	1.000		2504282.91		P	0.7

US EPA Tune Check Sample Report

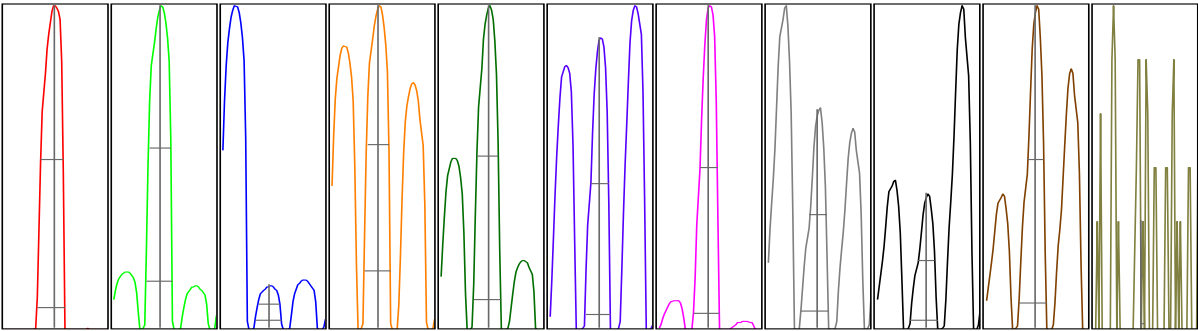
Batch Folder D:\ICP-MS Data\P7061019MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7424	1.66	5.00	
24	176772	1.33	5.00	
25	24127	1.31	5.00	
26	27363	1.32	5.00	
59	47574	1.46	5.00	
113	6581	1.18	5.00	
115	78785	1.35	5.00	
206	21528	0.72	5.00	
207	19736	0.49	5.00	
208	46863	0.77	5.00	
220	0	50.00		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7617	7402	7447	7282	7374
24	180394	176051	177601	174307	175504
25	24622	24049	24148	23749	24068
26	27933	27287	27440	26983	27172
59	48649	47366	47819	46857	47176
113	6685	6539	6644	6511	6528
115	80408	78025	79223	77779	78490
206	21725	21386	21652	21384	21494
207	19835	19648	19811	19619	19766
208	47343	46622	47061	46422	46869
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	11949	9.00	8.9 - 9.1		0.810	0.900	
24	285733	23.90	23.9 - 24.1		0.760	0.900	
25	38221	24.90	24.9 - 25.1		0.759	0.900	
26	43679	25.90	25.9 - 26.1		0.755	0.900	
59	80747	58.95	58.9 - 59.1		0.799	0.900	
113	12419	113.00	112.9 - 113.1		0.734	0.900	
115	153020	115.00	114.9 - 115.1		0.746	0.900	
206	42189	206.00	205.9 - 206.1		0.789	0.900	
207	38697	207.00	206.9 - 207.1		0.776	0.900	
208	92419	208.00	207.9 - 208.1		0.789	0.900	
220	0	219.90	-		0.095		

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	7.8	V	Deflect	14.4	V
Extract 2	-90.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	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 (Mean)	RSD% (Actual)	RSD% (Required)
59	11859	0.37	
89	24838	0.29	
205	21325	0.27	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	11937	11836	11842	11843	11837
89	24900	24929	24788	24801	24774
205	21280	21404	21273	21304	21364

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	8.3	V	Deflect	1.8	V
Extract 2	-95.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	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			