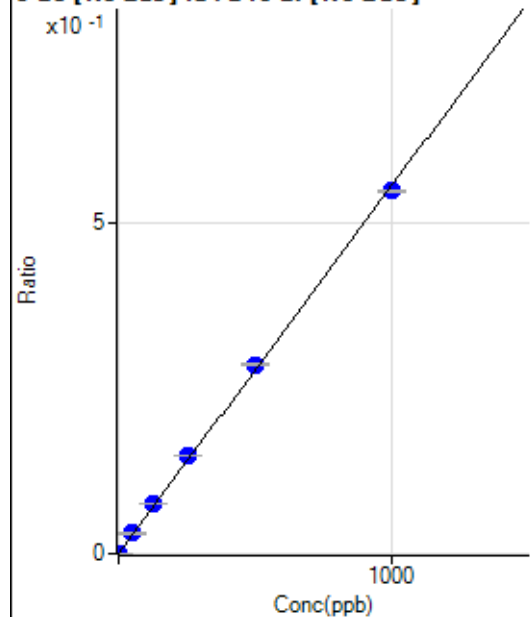


Batch Folder: D:\ICP-MS Data\P7082719 MS .b\
Analysis File: P7082719 MS .batch.bin
DA Date-Time: 2019-08-28 00:39:34
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-08-27 11:31:28
2	003CALS.d	S02	2019-08-27 11:35:04
3	004CALS.d	S03	2019-08-27 11:39:12
4	005CALS.d	S04	2019-08-27 11:43:08
5	006CALS.d	S05	2019-08-27 11:47:01
6	007CALS.d	S06	2019-08-27 11:50:51
7	008CALS.d	S07	2019-08-27 11:54:40
8	009CALS.d	S08	2019-08-27 11:58:27

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	56.67	0.0000	P	21.0
2	☐	1.000	1.085	1580.11	0.0006	P	1.9
3	☐	50.000	54.962	76069.36	0.0305	P	1.3
4	☐	125.000	134.361	180648.26	0.0746	P	1.2
5	☐	250.000	268.402	333789.24	0.1489	P	0.5
6	☐	500.000	514.490	603874.24	0.2855	P	0.7
7	☐	1000.000	986.736	1176687.56	0.5475	P	0.5
8	☐			233.34	0.0001	P	16.2

$$y = 5.5480\text{E-}004 * x + 2.2125\text{E-}005$$

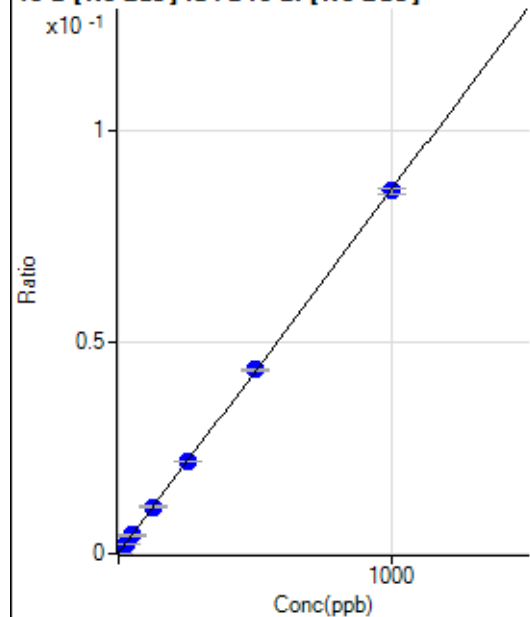
$$R = 0.9996$$

$$DL = 0.02508$$

$$BEC = 0.03988$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	352.80	0.0001	P	6.3
2	☐	25.000	23.268	5415.09	0.0021	P	7.4
3	☐	50.000	49.000	10846.02	0.0044	P	4.7
4	☐	125.000	126.529	26688.28	0.0110	P	3.2
5	☐	250.000	252.542	48968.89	0.0219	P	1.5
6	☐	500.000	505.749	92275.78	0.0436	P	1.1
7	☐	1000.000	996.392	184426.49	0.0858	P	1.7
8	☐			8155.29	0.0039	P	9.3

$$y = 8.5976\text{E-}005 * x + 1.3766\text{E-}004$$

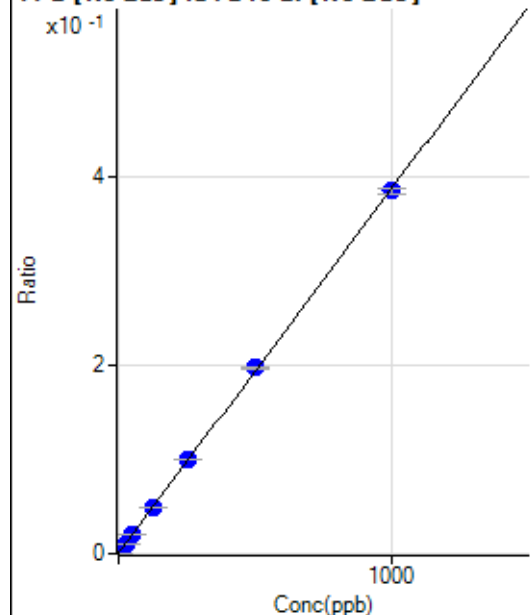
$$R = 1.0000$$

$$DL = 0.3019$$

$$BEC = 1.601$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1639.04	0.0006	P	4.6
2	☐	25.000	23.598	24698.75	0.0098	P	1.7
3	☐	50.000	50.620	50320.86	0.0202	P	1.1
4	☐	125.000	124.570	118077.98	0.0487	P	0.4
5	☐	250.000	255.390	222433.96	0.0993	P	0.6
6	☐	500.000	508.405	416625.71	0.1969	P	1.4
7	☐	1000.000	994.508	826741.55	0.3846	P	1.5
8	☐			37756.78	0.0179	P	7.4

$$y = 3.8612\text{E-}004 * x + 6.3934\text{E-}004$$

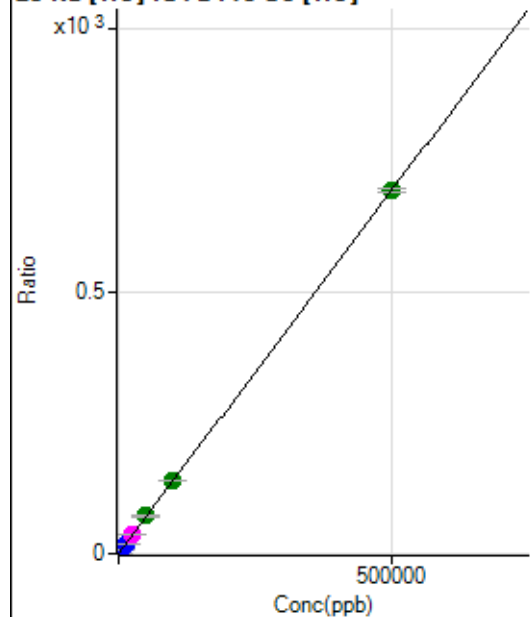
$$R = 0.9999$$

$$DL = 0.226$$

$$BEC = 1.656$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3025.43	0.0204	P	7.1
2	☐	500.000	480.133	102408.82	0.6850	P	1.7
3	☐	5000.000	4972.536	996403.14	6.9038	P	0.1
4	☐	12500.000	12429.448	2286638.11	17.2264	P	0.7
5	☐	25000.000	25935.862	4205996.62	35.9231	M	0.5
6	☐	50000.000	51771.523	8099900.01	71.6872	A	0.7
7	☐	100000.00	100363.18	16637643.25	138.9521	A	0.8
8	☐	500000.00	499705.47	87966438.77	691.7575	A	1.0

$$y = 0.0014 * x + 0.0204$$

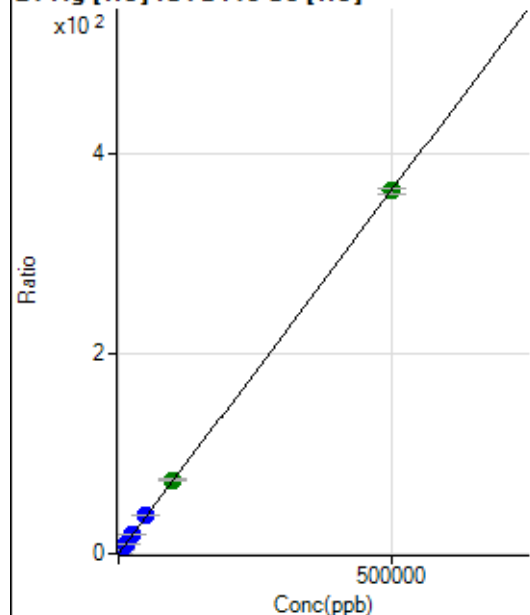
$$R = 1.0000$$

$$DL = 3.151$$

$$BEC = 14.74$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	105.56	0.0007	P	24.7
2	☐	500.000	498.576	54357.65	0.3637	P	3.3
3	☐	5000.000	5033.556	528999.79	3.6653	P	0.3
4	☐	12500.000	12639.029	1221546.78	9.2023	P	0.6
5	☐	25000.000	26212.053	2234440.11	19.0840	P	0.3
6	☐	50000.000	51871.990	4267112.07	37.7653	P	0.4
7	☐	100000.00	101690.24	8864574.67	74.0346	A	1.0
8	☐	500000.00	499410.34	46234930.20	363.5882	A	1.5

$$y = 7.2803\text{E-}004 * x + 7.1090\text{E-}004$$

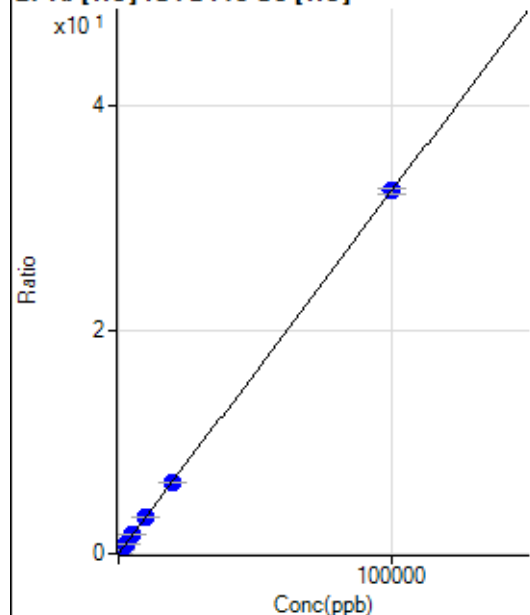
$$R = 1.0000$$

$$DL = 0.7248$$

$$BEC = 0.9765$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.33	0.0001	P	0.9
2	☐	20.000	20.912	1019.52	0.0068	P	16.2
3	☐	1000.000	986.717	46158.14	0.3198	P	0.7
4	☐	2500.000	2449.703	105386.30	0.7939	P	0.2
5	☐	5000.000	5117.483	194171.42	1.6584	P	0.7
6	☐	10000.000	10064.780	368540.11	3.2617	P	0.5
7	☐	20000.000	19501.627	756685.45	6.3198	P	1.4
8	☐	100000.00	100088.71	4124748.05	32.4349	P	1.9

$$y = 3.2406\text{E-}004 * x + 5.6169\text{E-}005$$

$$R = 1.0000$$

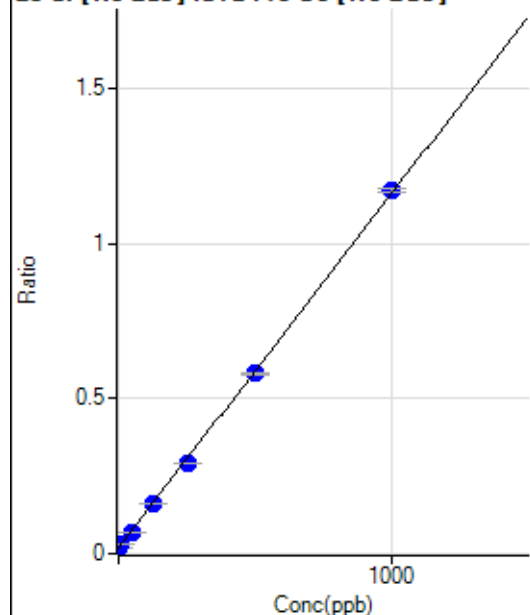
$$DL = 0.004623$$

$$BEC = 0.1733$$

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	78992.35	0.0192	P	2.0
2	☐	10.000	7.942	116728.10	0.0282	P	1.0
3	☐	50.000	43.998	282173.30	0.0694	P	0.8
4	☐	125.000	122.294	620802.19	0.1588	P	0.5
5	☐	250.000	236.406	1025806.85	0.2891	P	0.3
6	☐	500.000	492.381	1929484.35	0.5814	P	0.8
7	☐	1000.000	1007.867	3998734.77	1.1701	P	1.0
8	☐			318407.03	0.0930	P	0.9

$$y = 0.0011 * x + 0.0192$$

$$R = 0.9999$$

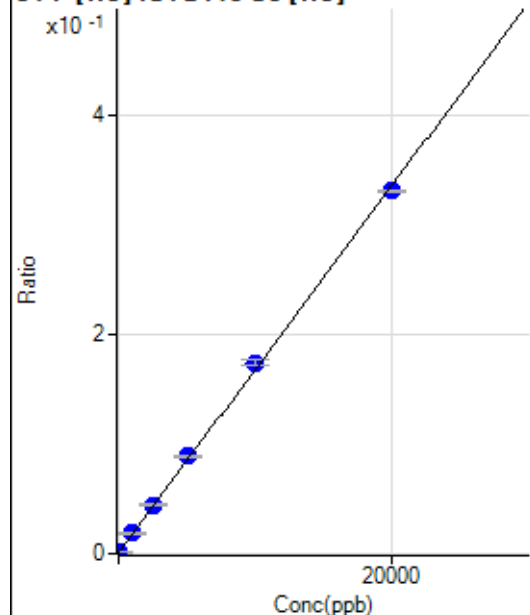
$$DL = 1.015$$

$$BEC = 16.78$$

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	-28.846	47.22	0.0003	P	26.2
2	☐	0.000	28.846	191.68	0.0013	P	18.6
3	☐	1000.000	1057.536	2664.24	0.0185	P	5.5
4	☐	2500.000	2621.434	5918.08	0.0446	P	5.9
5	☐	5000.000	5266.588	10392.91	0.0888	P	1.5
6	☐	10000.000	10353.707	19624.76	0.1737	P	2.7
7	☐	20000.000	19738.443	39567.59	0.3304	P	0.4
8	☐			58.34	0.0005	P	13.2

$$y = 1.6700E-005 * x + 7.9970E-004$$

$$R = 0.9997$$

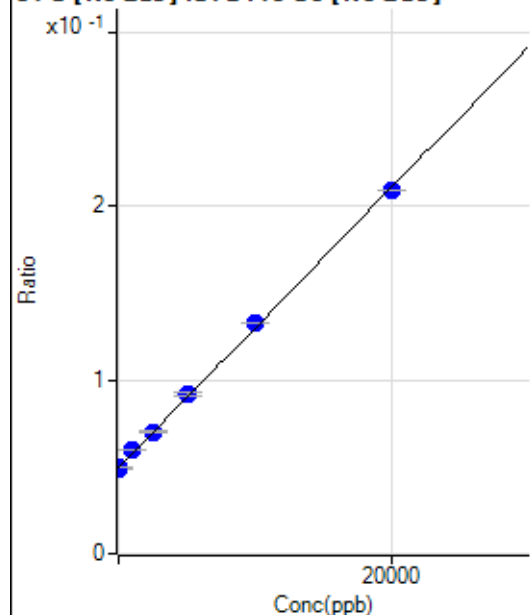
$$DL = 28.87$$

$$BEC = 47.89$$

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	-22.907	202493.10	0.0491	P	0.2
2	☐	0.000	22.907	204610.69	0.0495	P	0.5
3	☐	1000.000	1247.794	241424.18	0.0594	P	0.6
4	☐	2500.000	2557.624	273493.99	0.0700	P	1.3
5	☐	5000.000	5246.385	325304.60	0.0917	P	1.6
6	☐	10000.000	10361.437	441392.63	0.1330	P	0.0
7	☐	20000.000	19738.093	713406.93	0.2088	P	0.0
8	☐			159384.99	0.0465	P	0.9

$$y = 8.0785E-006 * x + 0.0493$$

R = 0.9996

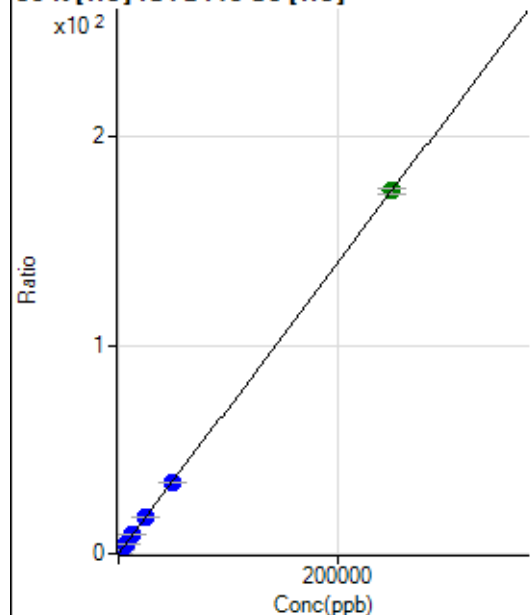
DL = 64.55

BEC = 6102

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	8883.57	0.0599	P	3.6
2	☐	500.000	492.426	60075.16	0.4020	P	4.2
3	☐	2500.000	2538.565	263180.37	1.8235	P	0.1
4	☐	6250.000	6249.682	584291.91	4.4018	P	0.8
5	☐	12500.000	12782.508	1046758.29	8.9404	P	0.6
6	☐	25000.000	25160.237	1981816.19	17.5396	P	0.4
7	☐	50000.000	48721.108	4060150.48	33.9082	P	0.4
8	☐	250000.00	250225.26	22114771.16	173.9006	A	1.3

$$y = 6.9474E-004 * x + 0.0599$$

R = 1.0000

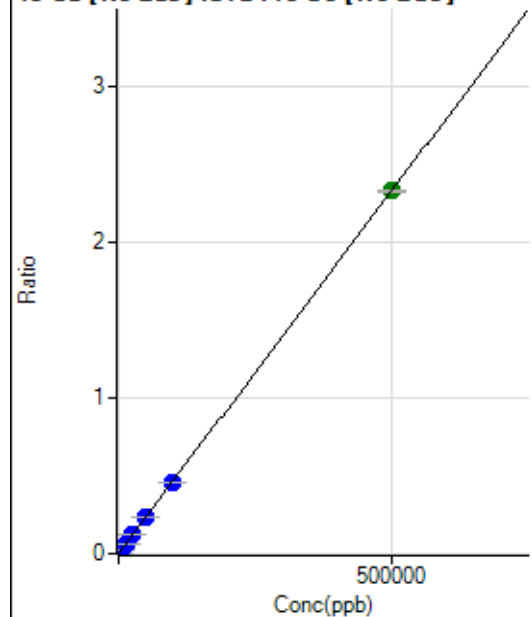
DL = 9.292

BEC = 86.2

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	61.12	0.0000	P	92.7
2	☐	500.000	461.727	8955.86	0.0022	P	1.8
3	☐	5000.000	5049.485	95711.46	0.0235	P	1.1
4	☐	12500.000	12435.804	226540.08	0.0580	P	0.3
5	☐	25000.000	25412.429	420116.34	0.1184	P	0.7
6	☐	50000.000	50697.200	783876.29	0.2362	P	0.4
7	☐	100000.00	98689.984	1571308.73	0.4598	P	0.3
8	☐	500000.00	500172.81	7982006.17	2.3302	A	0.6

$$y = 4.6588\text{E-}006 * x + 1.4814\text{E-}005$$

$$R = 1.0000$$

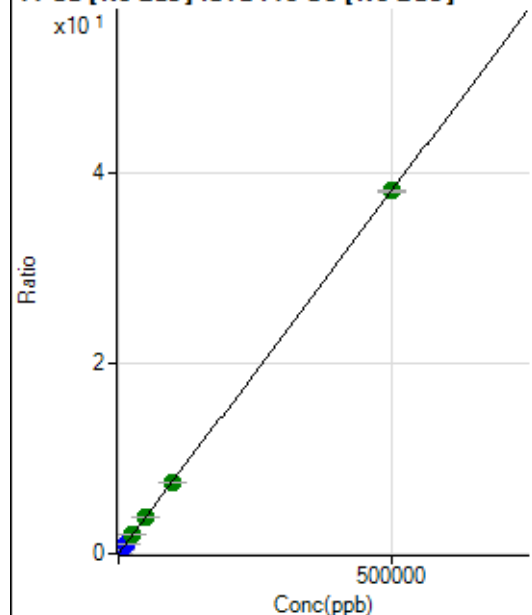
$$DL = 8.84$$

$$BEC = 3.18$$

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	3259.06	0.0008	P	1.2
2	☐	500.000	467.900	150623.76	0.0364	P	0.9
3	☐	5000.000	4964.224	1540483.55	0.3789	P	0.4
4	☐	12500.000	12313.288	3669107.63	0.9386	P	0.2
5	☐	25000.000	25357.305	6855060.57	1.9320	A	0.5
6	☐	50000.000	50408.811	12743610.62	3.8400	A	0.1
7	☐	100000.00	98885.885	25740771.93	7.5321	A	0.1
8	☐	500000.00	500169.13	130488715.4	38.0945	A	0.7

$$y = 7.6162\text{E-}005 * x + 7.9046\text{E-}004$$

$$R = 1.0000$$

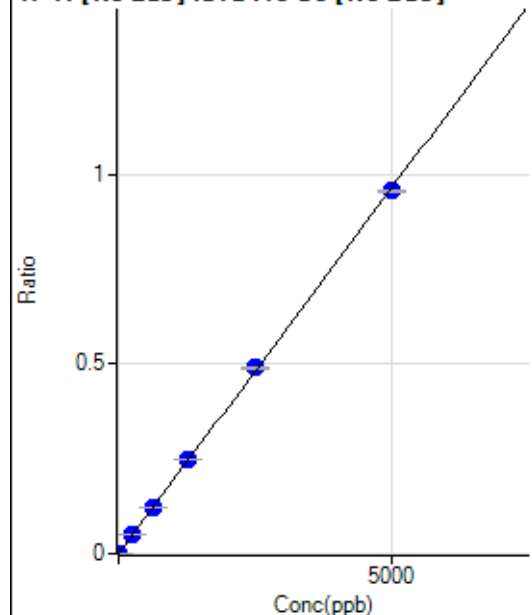
$$DL = 0.3863$$

$$BEC = 10.38$$

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	61.11	0.0000	P	47.8
2	☐	5.000	5.068	4095.18	0.0010	P	0.9
3	☐	250.000	257.873	201905.14	0.0497	P	0.4
4	☐	625.000	635.407	478237.16	0.1223	P	0.4
5	☐	1250.000	1288.993	880490.99	0.2482	P	0.5
6	☐	2500.000	2547.388	1627481.53	0.4904	P	0.6
7	☐	5000.000	4964.863	3266378.00	0.9558	P	0.4
8	☐			1383.47	0.0004	P	10.3

$$y = 1.9251E-004 * x + 1.4818E-005$$

R = 0.9999

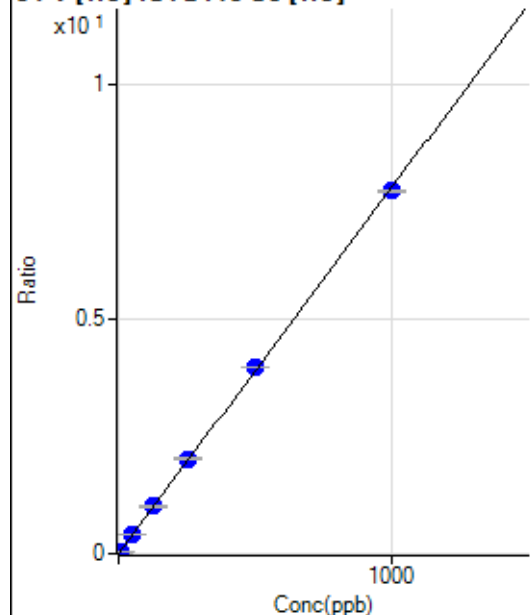
DL = 0.1105

BEC = 0.07697

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	7.78	0.0001	P	89.4
2	☐	5.000	5.294	6174.72	0.0413	P	7.2
3	☐	50.000	51.801	58280.20	0.4038	P	1.2
4	☐	125.000	128.921	133395.78	1.0049	P	0.7
5	☐	250.000	259.678	236994.61	2.0241	P	0.5
6	☐	500.000	510.914	449973.68	3.9824	P	0.5
7	☐	1000.000	991.542	925423.00	7.7287	P	0.6
8	☐			178.89	0.0014	P	15.8

$$y = 0.0078 * x + 5.2285E-005$$

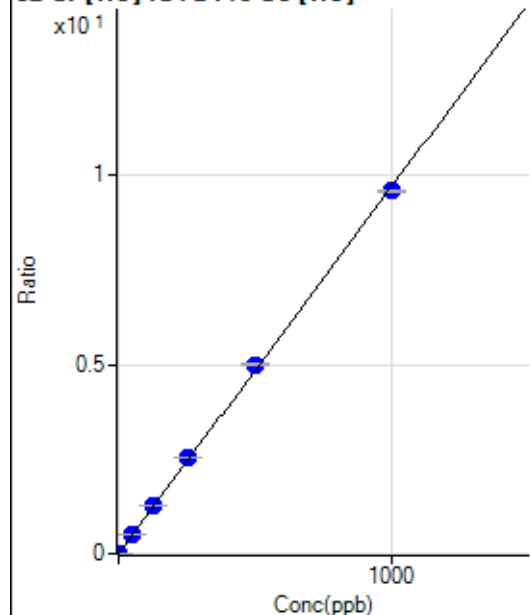
R = 0.9999

DL = 0.018

BEC = 0.006708

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	172.23	0.0012	P	11.0
2	☐	2.000	2.015	3095.93	0.0207	P	3.8
3	☐	50.000	52.190	73271.87	0.5077	P	0.3
4	☐	125.000	129.468	166946.25	1.2577	P	0.6
5	☐	250.000	261.900	297738.75	2.5430	P	0.5
6	☐	500.000	514.685	564511.94	4.9963	P	1.0
7	☐	1000.000	989.015	1149443.47	9.5998	P	0.8
8	☐			31638.52	0.2488	P	0.5

$$y = 0.0097 * x + 0.0012$$

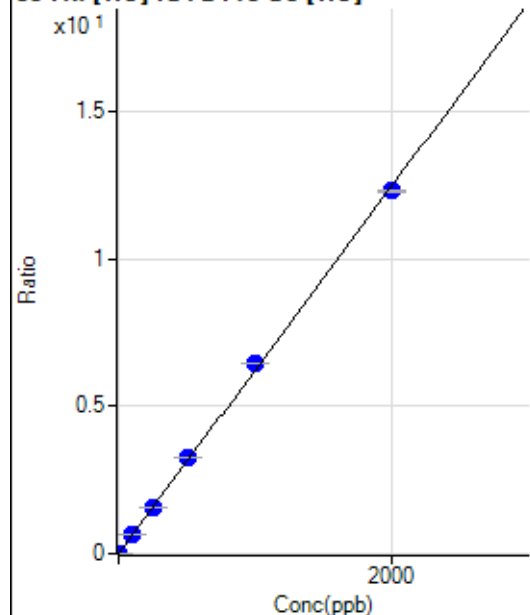
$$R = 0.9998$$

$$DL = 0.03962$$

$$BEC = 0.1197$$

Weight: <None>

Min Conc: 0

55 Mn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0002	P	38.7
2	☐	1.000	1.065	1018.94	0.0068	P	8.7
3	☐	100.000	102.182	91784.96	0.6360	P	1.0
4	☐	250.000	252.486	208558.83	1.5712	P	0.5
5	☐	500.000	524.910	382402.16	3.2662	P	0.9
6	☐	1000.000	1034.453	727269.85	6.4366	P	0.5
7	☐	2000.000	1976.126	1472252.22	12.2957	P	0.8
8	☐			5191.01	0.0408	P	3.6

$$y = 0.0062 * x + 1.8732E-004$$

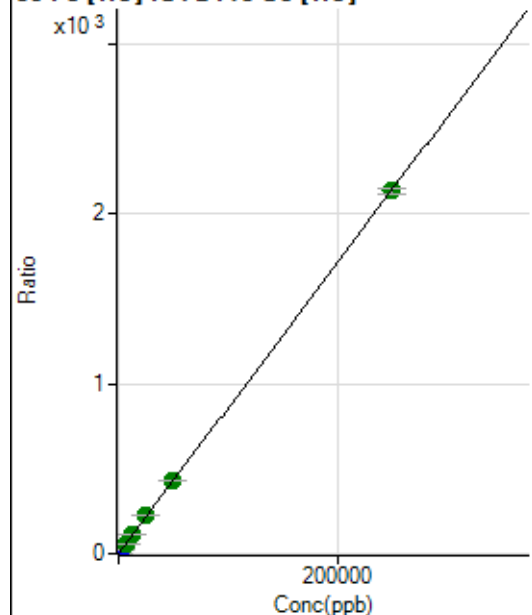
$$R = 0.9997$$

$$DL = 0.03499$$

$$BEC = 0.03011$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1770.53	0.0119	P	7.2
2	☐	50.000	53.034	69460.30	0.4647	P	2.8
3	☐	2500.000	2615.252	3224081.09	22.3392	P	0.5
4	☐	6250.000	6453.071	7314618.80	55.1039	A	0.4
5	☐	12500.000	13322.182	13318080.39	113.7478	A	0.4
6	☐	25000.000	26207.825	25281784.36	223.7567	A	0.8
7	☐	50000.000	50245.262	51363072.91	428.9722	A	0.9
8	☐	250000.00	249782.82	271157622.7	2,132.489	A	1.6

$$y = 0.0085 * x + 0.0119$$

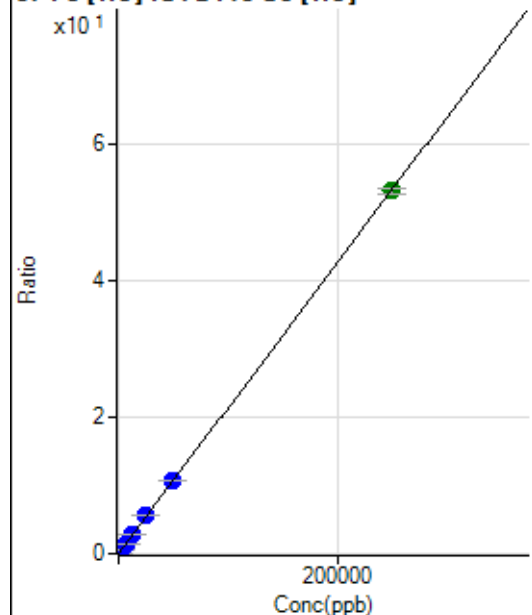
$$R = 1.0000$$

$$DL = 0.3033$$

$$BEC = 1.399$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	98.15	0.0007	P	8.8
2	☐	50.000	56.030	1883.51	0.0126	P	4.2
3	☐	2500.000	2633.968	81104.80	0.5620	P	1.0
4	☐	6250.000	6555.201	185507.63	1.3976	P	1.1
5	☐	12500.000	13371.665	333700.90	2.8501	P	0.5
6	☐	25000.000	26413.513	636053.88	5.6293	P	0.4
7	☐	50000.000	50387.635	1285759.12	10.7381	P	0.6
8	☐	250000.00	249728.56	6766627.46	53.2169	A	1.7

$$y = 2.1310E-004 * x + 6.6186E-004$$

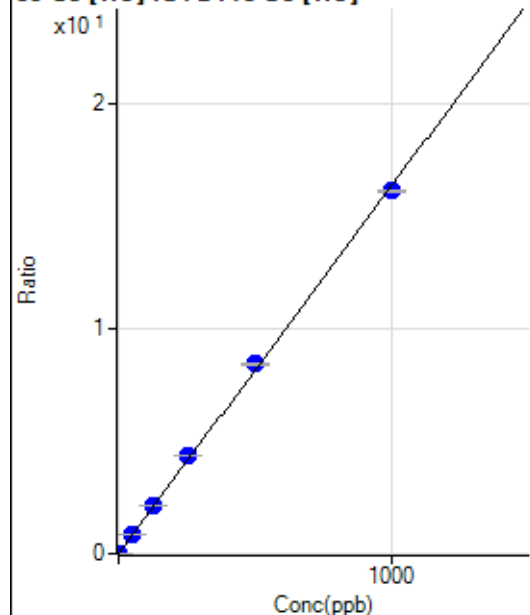
$$R = 1.0000$$

$$DL = 0.8226$$

$$BEC = 3.106$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0003	P	0.9
2	☐	1.000	1.036	2580.27	0.0173	P	6.6
3	☐	50.000	53.304	125834.66	0.8719	P	0.3
4	☐	125.000	131.114	284608.80	2.1441	P	0.7
5	☐	250.000	266.126	509510.66	4.3516	P	0.4
6	☐	500.000	516.703	954597.05	8.4486	P	0.7
7	☐	1000.000	986.688	1931720.96	16.1330	P	0.7
8	☐			25141.70	0.1977	P	2.9

$$y = 0.0164 * x + 3.3715E-004$$

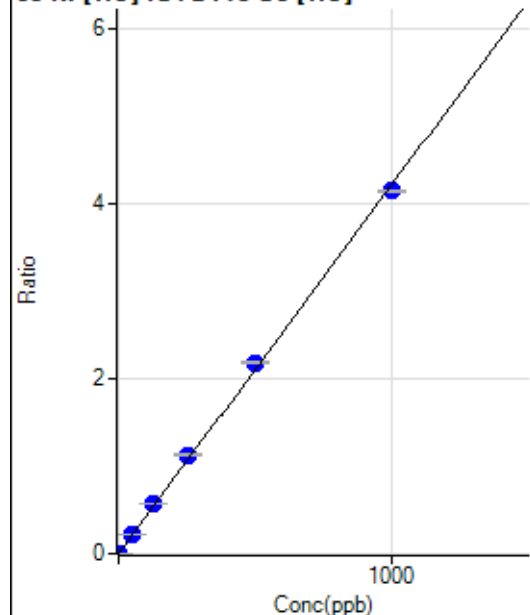
$$R = 0.9996$$

$$DL = 0.00055$$

$$BEC = 0.02062$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	47.78	0.0003	P	33.5
2	☐	1.000	1.161	780.03	0.0052	P	1.8
3	☐	50.000	54.225	33045.12	0.2290	P	1.0
4	☐	125.000	133.607	74824.13	0.5637	P	0.8
5	☐	250.000	268.648	132668.66	1.1331	P	0.3
6	☐	500.000	519.118	247360.49	2.1892	P	0.4
7	☐	1000.000	984.492	497087.50	4.1515	P	0.7
8	☐			13762.18	0.1082	P	0.4

$$y = 0.0042 * x + 3.2270E-004$$

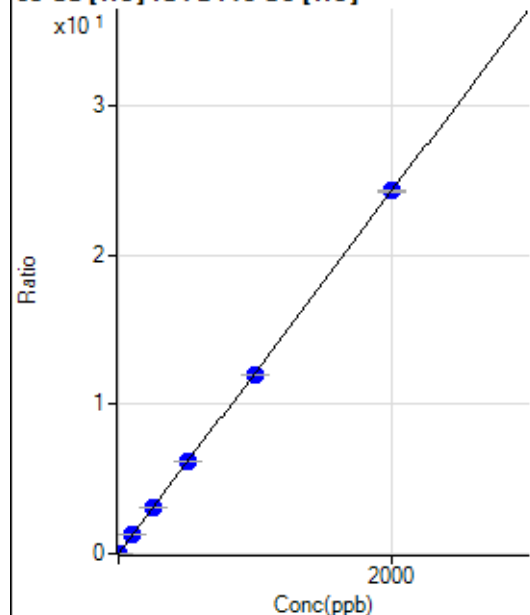
$$R = 0.9995$$

$$DL = 0.07696$$

$$BEC = 0.07653$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	315.57	0.0021	P	0.9
2	☐	2.000	1.971	3891.70	0.0260	P	3.5
3	☐	100.000	103.617	181630.90	1.2585	P	1.1
4	☐	250.000	253.890	408925.32	3.0806	P	0.5
5	☐	500.000	512.262	727491.69	6.2134	P	0.4
6	☐	1000.000	988.115	1353982.32	11.9832	P	0.5
7	☐	2000.000	2002.210	2907158.15	24.2793	P	0.6
8	☐			4397.40	0.0346	P	2.2

$$y = 0.0121 * x + 0.0021$$

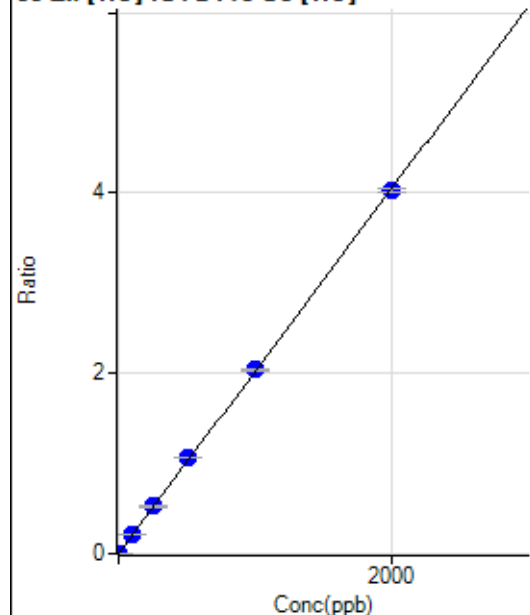
$$R = 1.0000$$

$$DL = 0.004627$$

$$BEC = 0.1755$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	140.00	0.0009	P	14.6
2	☐	2.000	2.097	775.59	0.0052	P	4.2
3	☐	100.000	104.209	30557.68	0.2117	P	1.9
4	☐	250.000	258.948	69652.99	0.5247	P	1.1
5	☐	500.000	523.763	124153.21	1.0604	P	0.6
6	☐	1000.000	1007.739	230427.72	2.0394	P	0.6
7	☐	2000.000	1988.860	481809.43	4.0240	P	0.9
8	☐			3804.99	0.0299	P	0.9

$$y = 0.0020 * x + 9.4425E-004$$

$$R = 0.9999$$

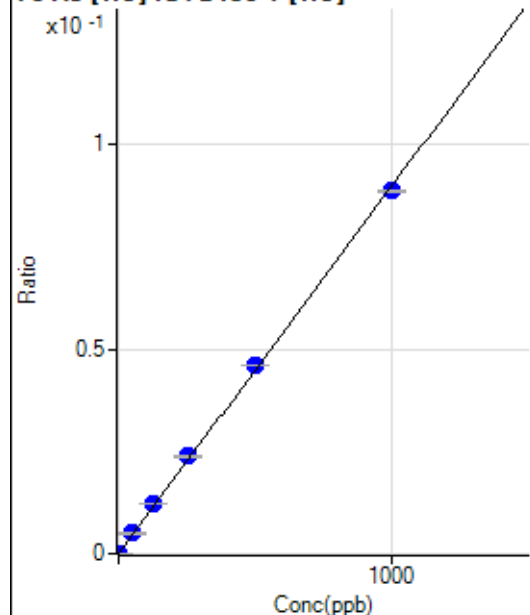
$$DL = 0.2051$$

$$BEC = 0.4668$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.64	0.0000	P	48.2
2	☐	1.000	1.069	186.11	0.0001	P	6.4
3	☐	50.000	55.204	9166.90	0.0050	P	2.4
4	☐	125.000	135.027	20853.97	0.0121	P	1.7
5	☐	250.000	265.450	37129.54	0.0238	P	1.1
6	☐	500.000	513.281	69731.67	0.0461	P	0.7
7	☐	1000.000	987.983	140262.46	0.0888	P	0.7
8	☐			198.03	0.0001	P	13.6

$$y = 8.9833\text{E-}005 * x + 1.9268\text{E-}006$$

$$R = 0.9997$$

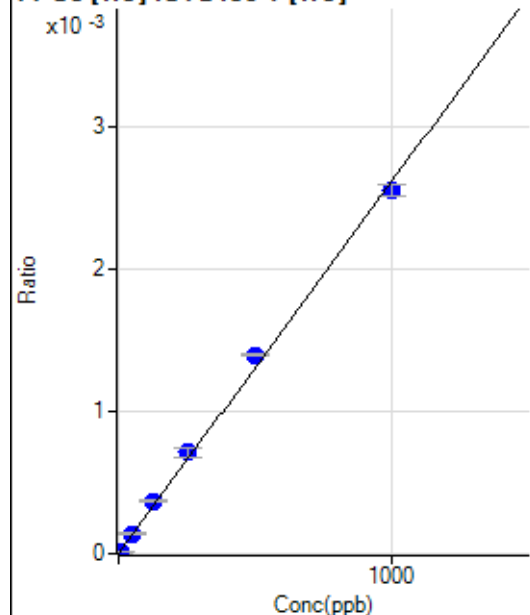
$$DL = 0.03105$$

$$BEC = 0.02145$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	5.372	27.78	0.0000	P	8.3
3	☐	50.000	53.428	258.90	0.0001	P	6.7
4	☐	125.000	141.358	635.58	0.0004	P	2.6
5	☐	250.000	271.946	1106.73	0.0007	P	8.8
6	☐	500.000	533.531	2107.96	0.0014	P	0.9
7	☐	1000.000	975.530	4027.30	0.0025	P	3.1
8	☐			2.22	0.0000	P	173.

$$y = 2.6115\text{E-}006 * x + 5.8720\text{E-}007$$

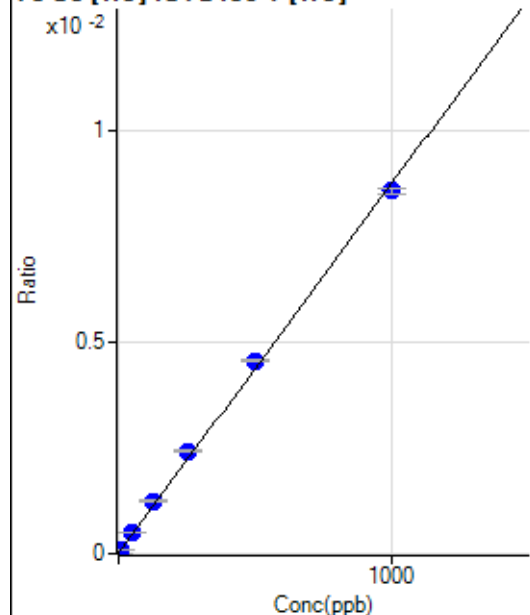
$$R = 0.9988$$

$$DL = 1.168$$

$$BEC = 0.2248$$

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	32.10	0.0000	P	12.1
2	☐	5.000	7.265	153.09	0.0001	P	3.5
3	☐	50.000	56.519	943.25	0.0005	P	3.9
4	☐	125.000	140.752	2141.54	0.0012	P	1.9
5	☐	250.000	275.782	3775.21	0.0024	P	2.3
6	☐	500.000	520.763	6901.69	0.0046	P	1.1
7	☐	1000.000	980.867	13560.73	0.0086	P	1.3
8	☐			38.27	0.0000	P	3.5

$$y = 8.7305\text{E-}006 * x + 1.7003\text{E-}005$$

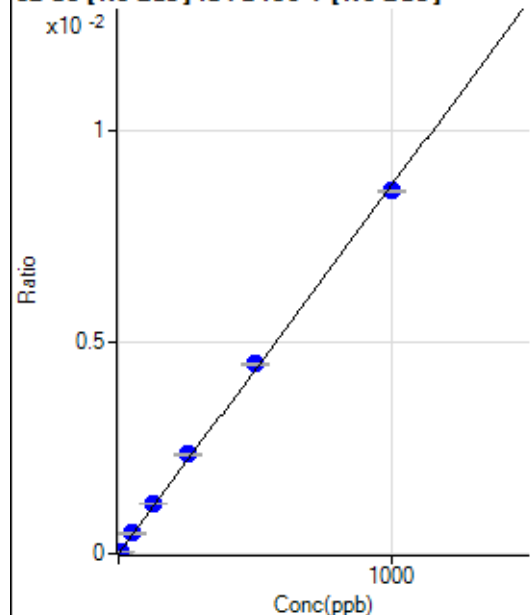
$$R = 0.9993$$

$$DL = 0.7044$$

$$BEC = 1.947$$

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	14.90	0.0000	P	245.
2	☐	5.000	5.688	704.84	0.0001	P	4.5
3	☐	50.000	55.516	6652.79	0.0005	P	3.0
4	☐	125.000	136.368	15851.57	0.0012	P	0.9
5	☐	250.000	269.387	29082.99	0.0023	P	0.6
6	☐	500.000	514.966	53173.83	0.0045	P	0.3
7	☐	1000.000	985.970	104451.83	0.0086	P	0.3
8	☐			120.12	0.0000	P	8.0

$$y = 8.7023\text{E-}006 * x + 1.0669\text{E-}006$$

$$R = 0.9996$$

$$DL = 0.9028$$

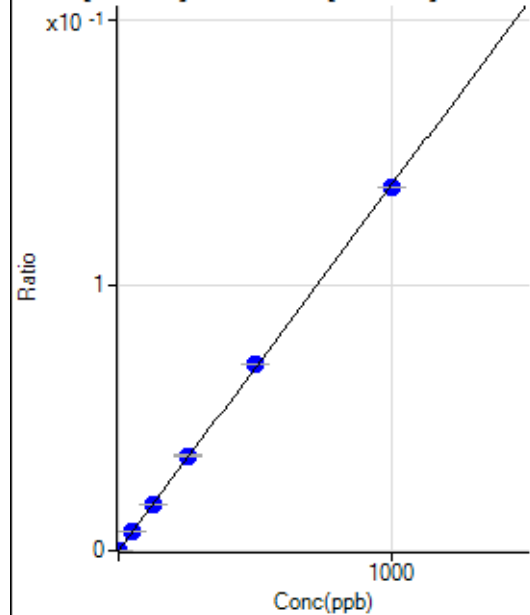
$$BEC = 0.1226$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			160.00		P	17.8
2	☐			165.56		P	12.3
3	☐			167.78		P	18.0
4	☐			165.56		P	18.3
5	☐			163.34		P	14.3
6	☐			127.78		P	12.1
7	☐			144.45		P	17.5
8	☐			147.78		P	8.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	280.57	0.0000	P	19.7
2	☐	1.000	0.947	2100.25	0.0002	P	6.8
3	☐	50.000	51.604	98044.53	0.0071	P	1.1
4	☐	125.000	126.319	232730.43	0.0174	P	0.8
5	☐	250.000	259.085	443244.58	0.0357	P	1.0
6	☐	500.000	510.033	834527.48	0.0704	P	0.7
7	☐	1000.000	992.467	1666036.99	0.1369	P	0.1
8	☐			7421.72	0.0006	P	1.8

$$y = 1.3789E-004 * x + 2.0142E-005$$

$$R = 0.9999$$

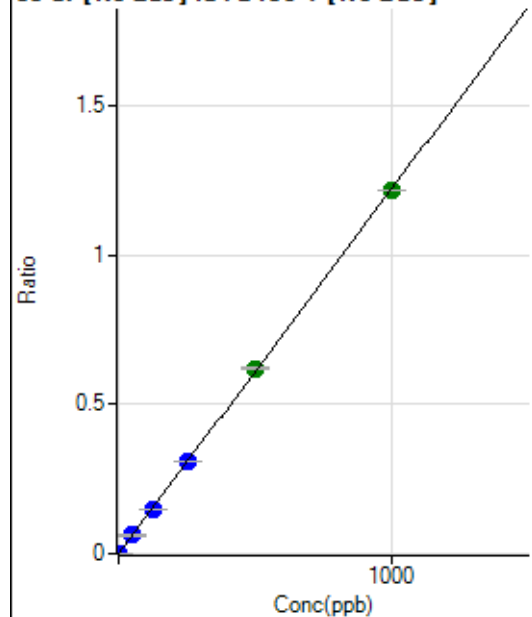
$$DL = 0.08651$$

$$BEC = 0.1461$$

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	38.89	0.0000	P	65.6
2	☐	1.000	0.976	16671.42	0.0012	P	1.5
3	☐	50.000	50.101	841877.46	0.0613	P	0.7
4	☐	125.000	123.651	2018077.72	0.1512	P	0.1
5	☐	250.000	253.639	3846339.54	0.3102	P	0.7
6	☐	500.000	508.472	7376435.32	0.6218	A	0.5
7	☐	1000.000	995.018	14811257.10	1.2168	A	0.1
8	☐			62029.03	0.0051	P	0.6

$$y = 0.0012 * x + 2.7937E-006$$

$$R = 0.9999$$

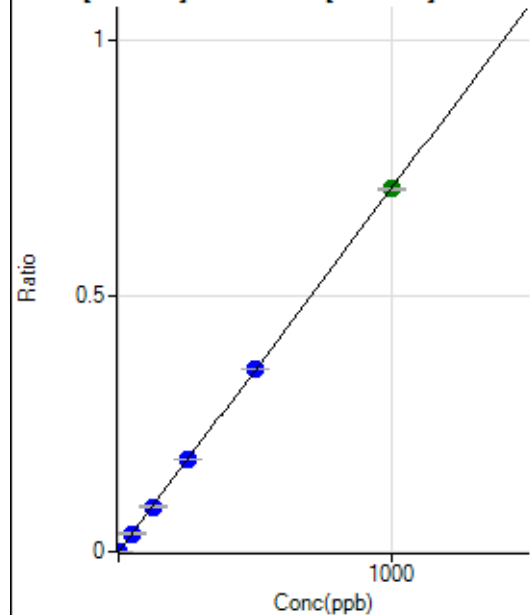
$$DL = 0.004494$$

$$BEC = 0.002284$$

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	566.70	0.0000	P	8.9
2	☐	1.000	0.811	8591.82	0.0006	P	4.5
3	☐	50.000	50.174	489981.12	0.0357	P	0.4
4	☐	125.000	124.092	1176279.82	0.0881	P	0.9
5	☐	250.000	253.995	2236572.25	0.1804	P	0.8
6	☐	500.000	501.292	4222410.47	0.3559	P	0.5
7	☐	1000.000	998.460	8628801.67	0.7089	A	0.3
8	☐			3117.13	0.0003	P	7.3

$$y = 7.0996E-004 * x + 4.0687E-005$$

$$R = 1.0000$$

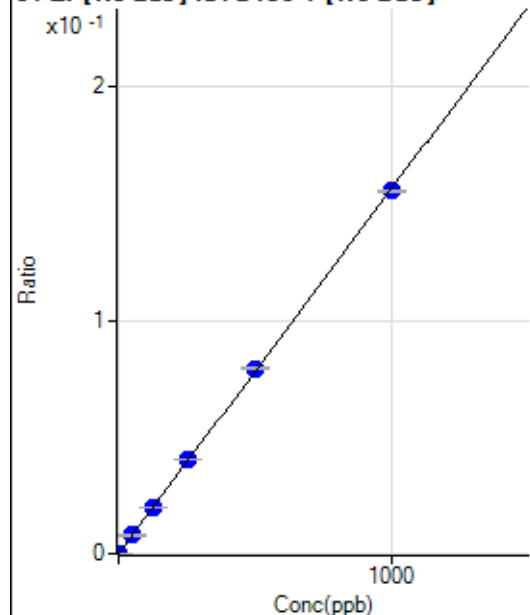
$$DL = 0.01533$$

$$BEC = 0.05731$$

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	136.12	0.0000	P	28.9
2	☐	1.000	0.800	1877.99	0.0001	P	3.7
3	☐	50.000	50.565	108699.04	0.0079	P	2.3
4	☐	125.000	126.193	263315.01	0.0197	P	0.3
5	☐	250.000	257.990	500052.94	0.0403	P	0.9
6	☐	500.000	507.116	940216.32	0.0793	P	0.6
7	☐	1000.000	994.268	1891406.99	0.1554	P	0.4
8	☐			641.71	0.0001	P	9.6

$$y = 1.5628E-004 * x + 9.7703E-006$$

$$R = 0.9999$$

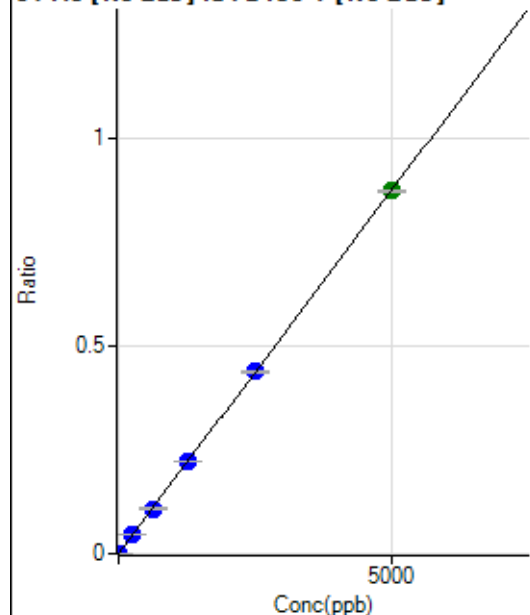
$$DL = 0.05415$$

$$BEC = 0.06252$$

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	236.13	0.0000	P	13.5
2	☐	5.000	4.512	11257.66	0.0008	P	1.1
3	☐	250.000	252.460	608139.50	0.0443	P	0.6
4	☐	625.000	621.746	1454421.16	0.1090	P	0.2
5	☐	1250.000	1269.970	2760118.70	0.2226	P	0.7
6	☐	2500.000	2502.731	5203415.57	0.4386	P	0.2
7	☐	5000.000	4993.926	10653486.35	0.8752	A	0.5
8	☐			7557.92	0.0006	P	3.6

$$y = 1.7526E-004 * x + 1.6954E-005$$

$$R = 1.0000$$

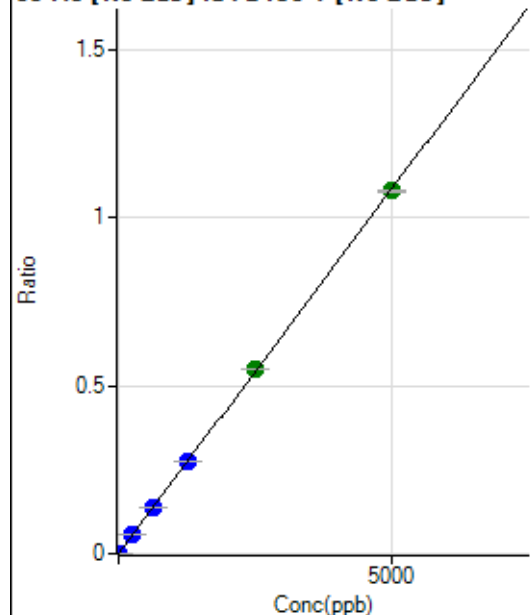
$$DL = 0.03912$$

$$BEC = 0.09674$$

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	25.00	0.0000	P	57.8
2	☐	5.000	4.872	14733.22	0.0011	P	4.1
3	☐	250.000	252.772	752305.63	0.0548	P	0.3
4	☐	625.000	627.045	1812670.14	0.1358	P	0.3
5	☐	1250.000	1271.357	3414820.00	0.2754	P	1.1
6	☐	2500.000	2530.975	6503592.90	0.5482	A	0.2
7	☐	5000.000	4978.779	13127140.57	1.0785	A	0.5
8	☐			11485.62	0.0010	P	7.2

$$y = 2.1661\text{E-}004 * x + 1.7952\text{E-}006$$

$$R = 1.0000$$

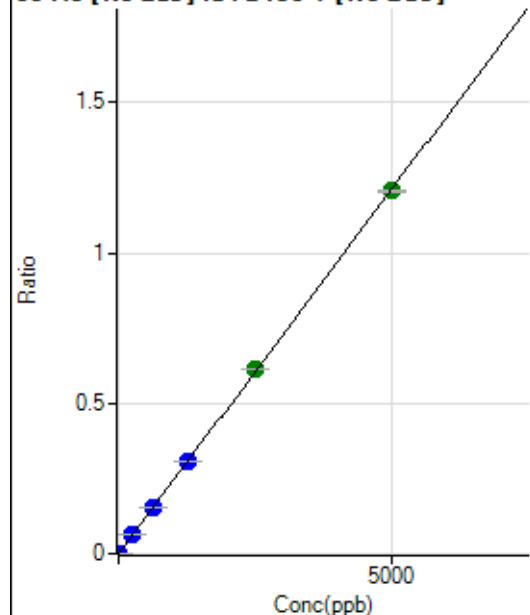
$$DL = 0.01436$$

$$BEC = 0.008288$$

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	58.34	0.0000	P	42.7
2	☐	5.000	4.833	16371.16	0.0012	P	0.2
3	☐	250.000	251.435	836576.81	0.0609	P	0.1
4	☐	625.000	622.332	2011138.59	0.1507	P	0.1
5	☐	1250.000	1269.557	3811992.10	0.3074	P	0.9
6	☐	2500.000	2526.596	7257628.89	0.6118	A	0.2
7	☐	5000.000	4982.075	14684164.22	1.2064	A	0.3
8	☐			16518.48	0.0014	P	2.1

$$y = 2.4214\text{E-}004 * x + 4.1863\text{E-}006$$

$$R = 1.0000$$

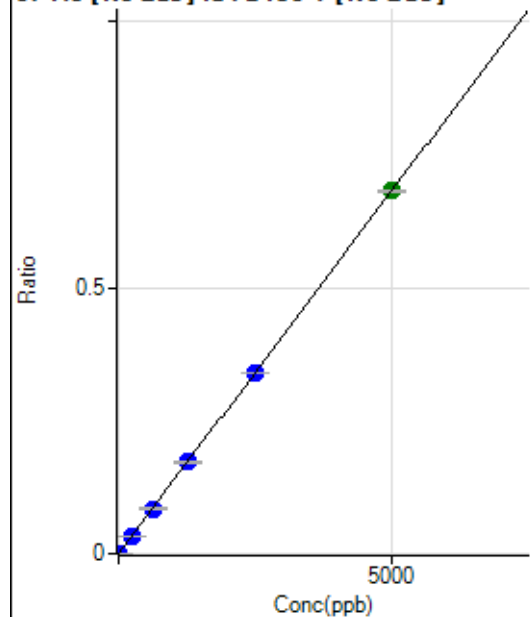
$$DL = 0.02216$$

$$BEC = 0.01729$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.45	0.0000	P	24.8
2	☐	5.000	4.769	9083.81	0.0007	P	2.1
3	☐	250.000	250.516	469397.64	0.0342	P	0.3
4	☐	625.000	622.382	1132676.99	0.0849	P	0.6
5	☐	1250.000	1265.400	2139735.72	0.1726	P	1.4
6	☐	2500.000	2487.167	4023475.61	0.3392	P	0.2
7	☐	5000.000	5002.868	8304053.75	0.6822	A	0.5
8	☐			6868.61	0.0006	P	2.5

$$y = 1.3637\text{E-}004 * x + 1.3962\text{E-}006$$

$$R = 1.0000$$

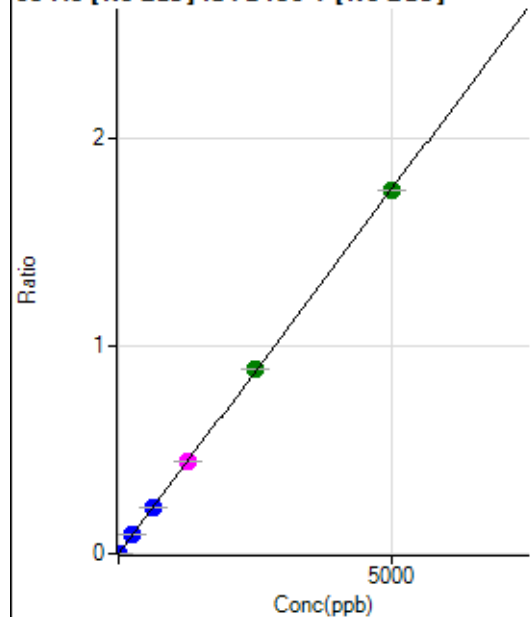
$$DL = 0.007605$$

$$BEC = 0.01024$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.56	0.0000	P	41.5
2	☐	5.000	4.803	23470.00	0.0017	P	0.5
3	☐	250.000	252.104	1212732.00	0.0883	P	0.5
4	☐	625.000	623.303	2912267.66	0.2182	P	0.8
5	☐	1250.000	1271.047	5517952.73	0.4450	M	1.1
6	☐	2500.000	2530.573	10509808.48	0.8860	A	0.2
7	☐	5000.000	4979.559	21220103.25	1.7434	A	0.1
8	☐			17455.77	0.0014	P	1.7

$$y = 3.5010\text{E-}004 * x + 2.1929\text{E-}006$$

$$R = 1.0000$$

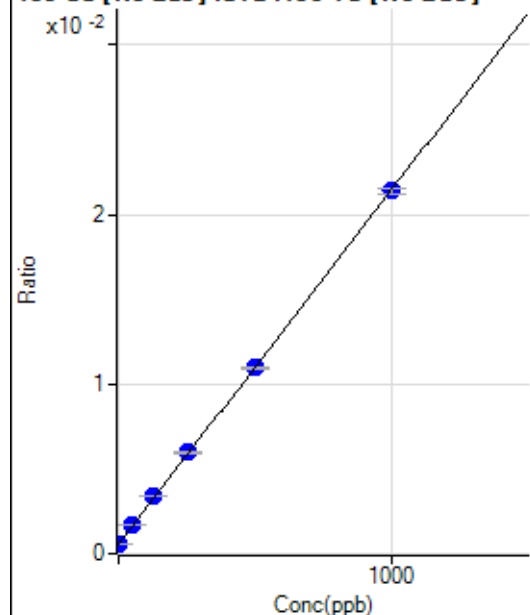
$$DL = 0.007805$$

$$BEC = 0.006263$$

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	4462.03	0.0006	P	2.3
2	☐	1.000	1.991	4775.99	0.0006	P	2.2
3	☐	50.000	56.171	13740.52	0.0017	P	1.6
4	☐	125.000	137.331	27037.75	0.0034	P	1.3
5	☐	250.000	258.716	45869.31	0.0060	P	1.0
6	☐	500.000	497.764	83549.19	0.0110	P	1.1
7	☐	1000.000	997.088	169645.36	0.0214	P	1.3
8	☐			3928.49	0.0005	P	5.1

$$y = 2.0876E-005 * x + 5.6409E-004$$

$$R = 0.9999$$

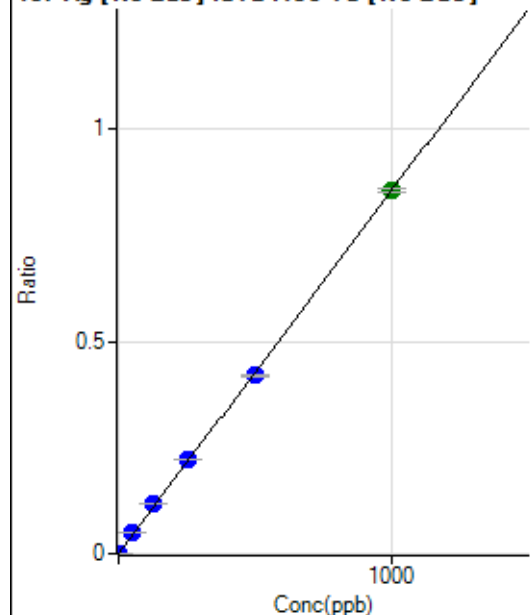
$$DL = 1.836$$

$$BEC = 27.02$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	105.56	0.0000	P	27.6
2	☐	1.000	1.132	7735.78	0.0010	P	5.7
3	☐	50.000	57.052	386031.21	0.0488	P	0.5
4	☐	125.000	136.318	918599.63	0.1166	P	0.5
5	☐	250.000	261.173	1717196.93	0.2233	P	0.8
6	☐	500.000	491.501	3204873.75	0.4202	P	0.7
7	☐	1000.000	999.689	6782287.48	0.8547	A	1.1
8	☐			658.38	0.0001	P	6.7

$$y = 8.5498E-004 * x + 1.3342E-005$$

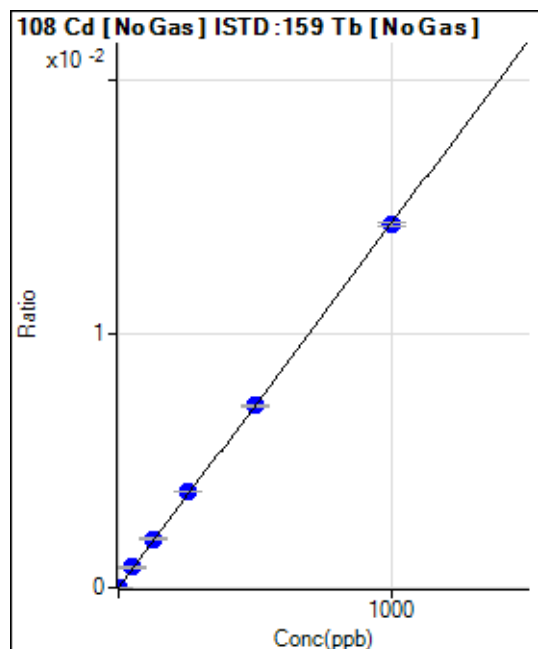
$$R = 0.9998$$

$$DL = 0.01293$$

$$BEC = 0.01561$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.33	0.0000	P	50.1
2	☐	1.000	1.143	137.51	0.0000	P	45.1
3	☐	50.000	55.611	6318.20	0.0008	P	2.3
4	☐	125.000	134.107	15163.96	0.0019	P	1.6
5	☐	250.000	262.970	29007.84	0.0038	P	0.4
6	☐	500.000	500.010	54692.80	0.0072	P	1.0
7	☐	1000.000	995.334	113271.63	0.0143	P	1.2
8	☐			38.89	0.0000	P	17.4

$$y = 1.4341\text{E-}005 * x + 1.0539\text{E-}006$$

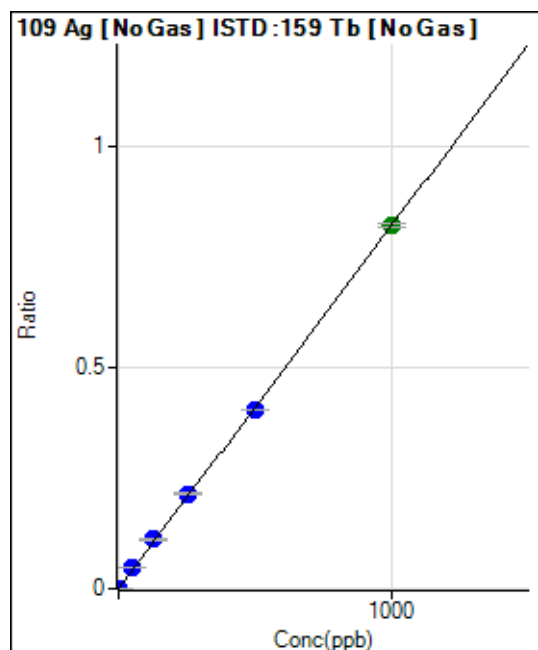
$$R = 0.9999$$

$$DL = 0.1104$$

$$BEC = 0.07349$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.34	0.0000	P	132.
2	☐	1.000	1.130	7352.19	0.0009	P	3.2
3	☐	50.000	56.566	367519.90	0.0465	P	0.5
4	☐	125.000	135.613	877557.15	0.1114	P	0.9
5	☐	250.000	261.943	1653959.15	0.2151	P	0.4
6	☐	500.000	491.972	3080809.92	0.4040	P	0.5
7	☐	1000.000	999.373	6511483.65	0.8206	A	1.1
8	☐			591.71	0.0001	P	31.8

$$y = 8.2111\text{E-}004 * x + 4.2178\text{E-}006$$

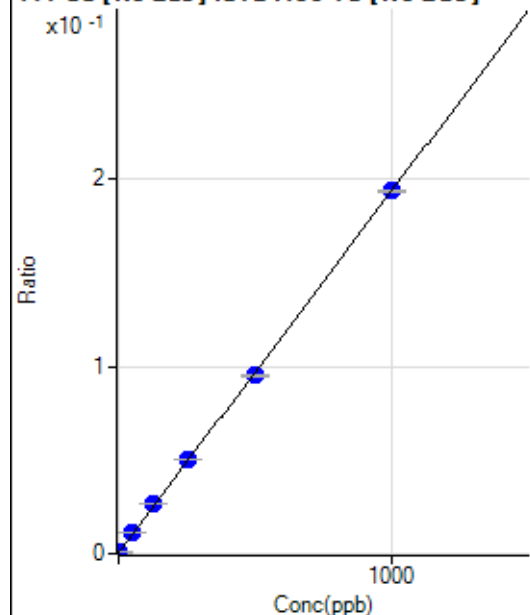
$$R = 0.9998$$

$$DL = 0.02038$$

$$BEC = 0.005137$$

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	3132.87	0.0004	P	2.3
2	☐	1.000	1.206	4960.96	0.0006	P	3.8
3	☐	50.000	55.310	87700.00	0.0111	P	1.6
4	☐	125.000	134.383	207777.97	0.0264	P	0.3
5	☐	250.000	258.657	387414.10	0.0504	P	0.8
6	☐	500.000	490.737	726260.63	0.0952	P	0.6
7	☐	1000.000	1001.029	1538159.98	0.1938	P	0.6
8	☐			3008.84	0.0004	P	4.7

$$y = 1.9325\text{E-}004 * x + 3.9606\text{E-}004$$

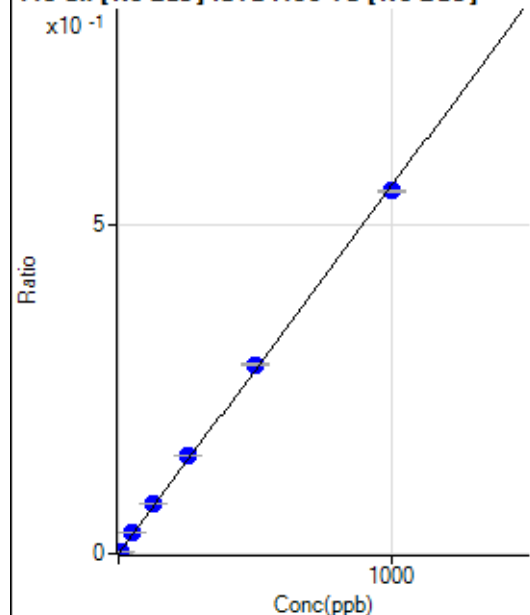
$$R = 0.9999$$

$$DL = 0.1413$$

$$BEC = 2.049$$

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	655.61	0.0001	P	12.0
2	☐	5.000	5.500	24884.12	0.0032	P	0.5
3	☐	50.000	55.989	248190.10	0.0314	P	0.1
4	☐	125.000	135.581	597690.49	0.0758	P	1.2
5	☐	250.000	267.706	1150971.63	0.1497	P	0.3
6	☐	500.000	513.955	2190860.25	0.2873	P	0.9
7	☐	1000.000	986.971	4376938.94	0.5516	P	0.2
8	☐			2667.02	0.0003	P	3.1

$$y = 5.5879\text{E-}004 * x + 8.2874\text{E-}005$$

$$R = 0.9997$$

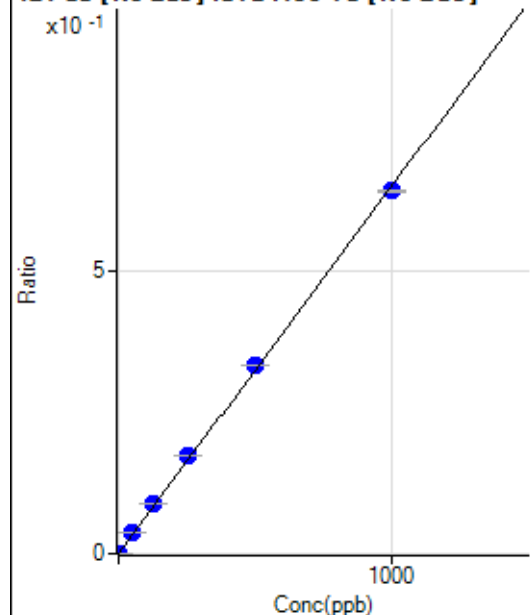
$$DL = 0.05321$$

$$BEC = 0.1483$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	38.89	0.0000	P	49.4
2	☐	2.000	2.102	10818.54	0.0014	P	3.2
3	☐	50.000	55.553	286002.99	0.0361	P	0.9
4	☐	125.000	134.715	690757.50	0.0877	P	0.5
5	☐	250.000	265.918	1330409.48	0.1730	P	0.7
6	☐	500.000	513.044	2545651.38	0.3338	P	0.7
7	☐	1000.000	988.006	5100748.42	0.6428	P	0.5
8	☐			8461.24	0.0011	P	1.4

$$y = 6.5061\text{E-}004 * x + 4.9154\text{E-}006$$

$$R = 0.9997$$

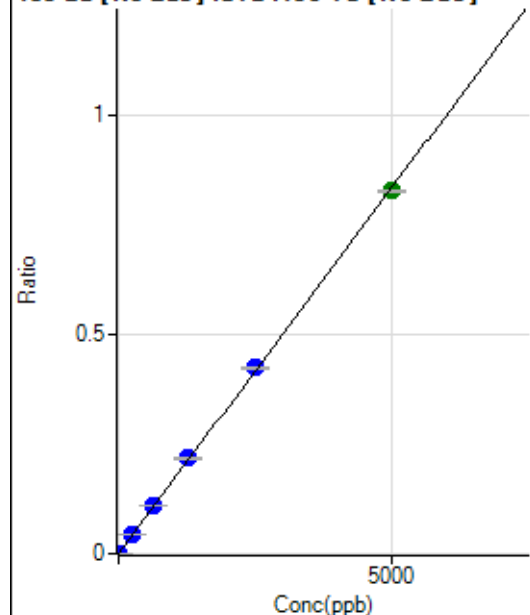
$$DL = 0.01121$$

$$BEC = 0.007555$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	38.89	0.0000	P	12.3
2	☐	10.000	10.446	13743.43	0.0017	P	1.0
3	☐	250.000	268.949	354124.97	0.0448	P	0.6
4	☐	625.000	658.113	863057.44	0.1095	P	0.5
5	☐	1250.000	1303.904	1668495.99	0.2170	P	0.3
6	☐	2500.000	2538.859	3221947.10	0.4225	P	0.5
7	☐	5000.000	4962.007	6551913.25	0.8257	A	0.5
8	☐			1200.10	0.0002	P	16.6

$$y = 1.6640\text{E-}004 * x + 4.9162\text{E-}006$$

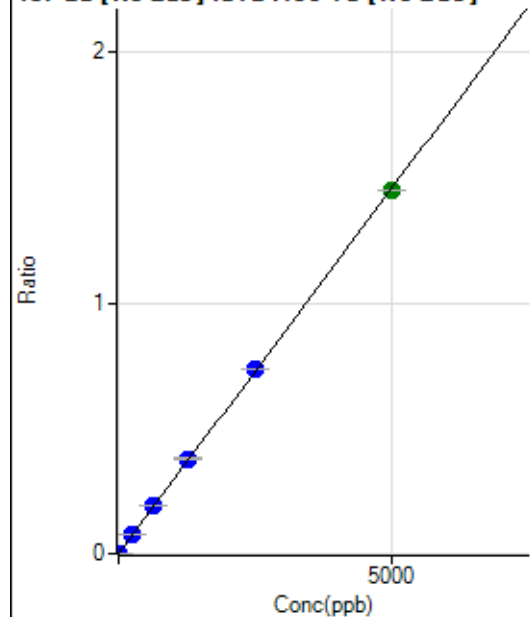
$$R = 0.9999$$

$$DL = 0.01092$$

$$BEC = 0.02954$$

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	11.11	0.0000	P	43.2
2	☐	10.000	10.635	24411.17	0.0031	P	1.3
3	☐	250.000	269.933	621429.99	0.0785	P	1.1
4	☐	625.000	658.616	1510217.50	0.1916	P	0.5
5	☐	1250.000	1303.594	2916712.93	0.3793	P	0.7
6	☐	2500.000	2521.238	5594708.89	0.7336	P	0.2
7	☐	5000.000	4970.783	11476736.62	1.4463	A	0.1
8	☐			2178.06	0.0003	P	10.2

$$y = 2.9096E-004 * x + 1.4039E-006$$

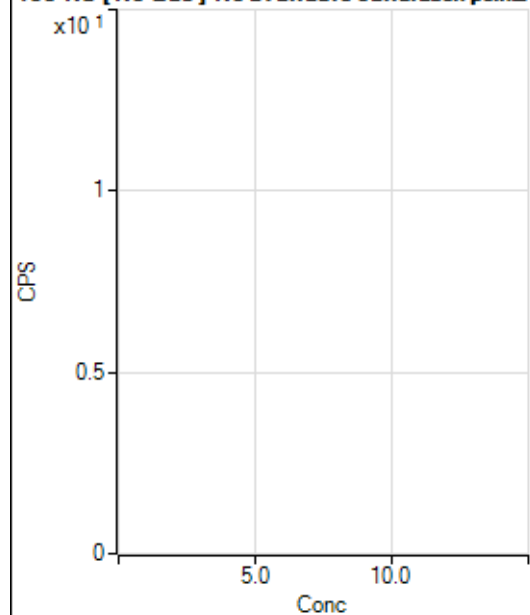
$$R = 0.9999$$

$$DL = 0.00625$$

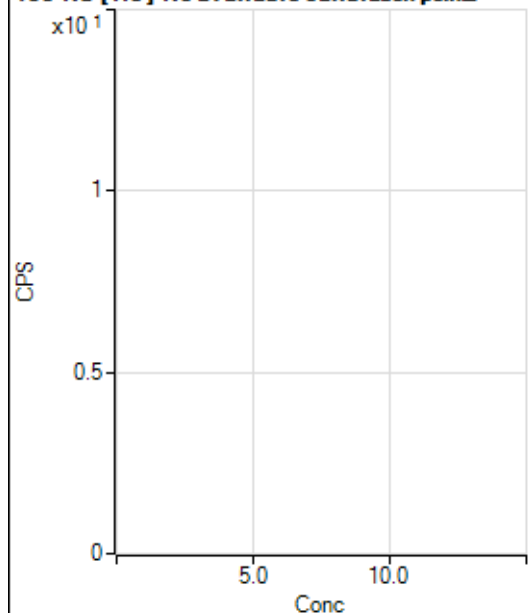
$$BEC = 0.004825$$

Weight: <None>

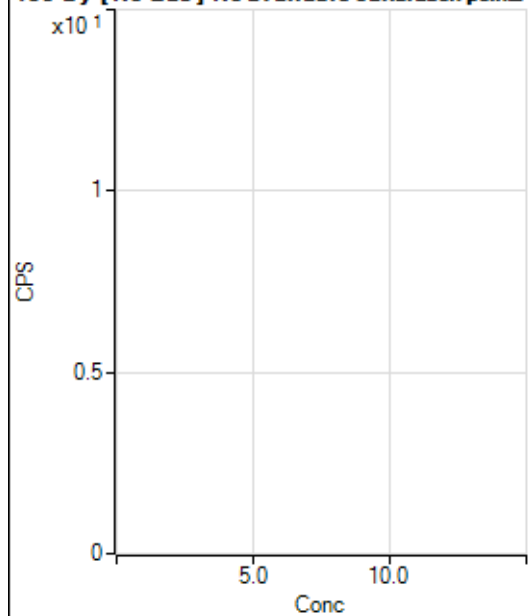
Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			0.00		P	
2	☐			6.67		P	100.
3	☐			33.34		P	72.1
4	☐			82.23		P	12.4
5	☐			142.23		P	13.5
6	☐			277.79		P	16.9
7	☐			491.14		P	5.7
8	☐			51.11		P	32.8

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	45.8
2	☐			11.11		P	75.5
3	☐			13.33		P	25.0
4	☐			11.11		P	86.6
5	☐			21.11		P	50.8
6	☐			26.67		P	43.3
7	☐			56.67		P	21.2
8	☐			25.56		P	7.5

156 Dy [No Gas] No available calibration points

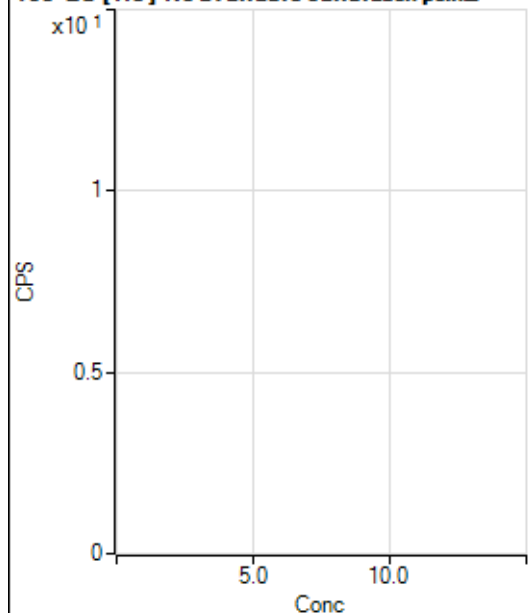
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	86.6
2	☐			13.89		P	91.6
3	☐			25.00		P	57.7
4	☐			22.22		P	21.6
5	☐			27.78		P	17.3
6	☐			69.45		P	42.1
7	☐			111.12		P	38.5
8	☐			33.33		P	0.0

156 Dy [He] No available calibration points

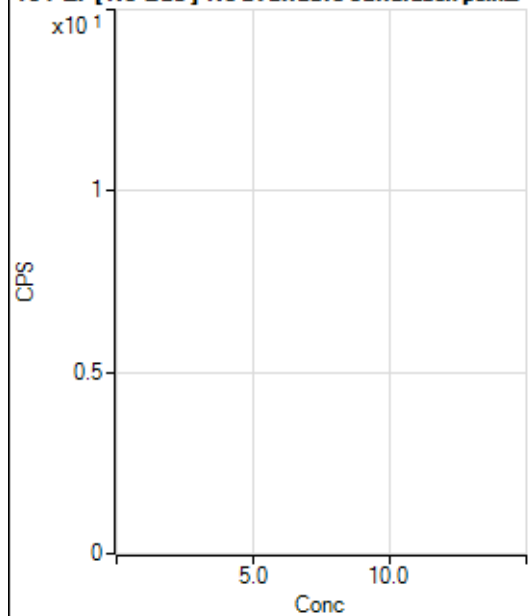
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			12.22		P	15.7
2	☐			16.67		P	40.0
3	☐			15.56		P	12.4
4	☐			22.22		P	8.7
5	☐			43.33		P	23.1
6	☐			76.67		P	11.5
7	☐			150.00		P	15.6
8	☐			25.56		P	32.8

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	91.7
2	☐			47.22		P	53.9
3	☐			19.44		P	99.0
4	☐			44.45		P	57.3
5	☐			25.00		P	120.
6	☐			44.45		P	10.8
7	☐			55.56		P	74.0
8	☐			47.22		P	10.2

160 Gd [He] No available calibration points

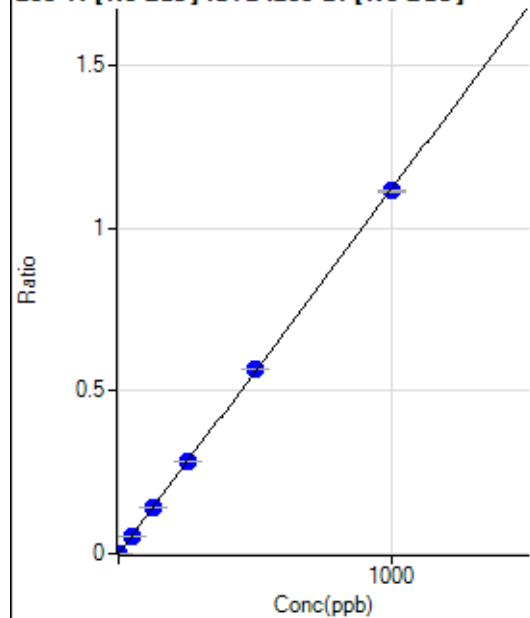
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			144.45		P	14.1
2	☐			157.78		P	18.0
3	☐			138.89		P	13.2
4	☐			144.45		P	16.4
5	☐			118.89		P	7.1
6	☐			132.22		P	2.9
7	☐			151.12		P	10.4
8	☐			117.78		P	25.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			55.56		P	45.8
2	☐			36.11		P	58.1
3	☐			33.33		P	50.0
4	☐			25.00		P	33.3
5	☐			36.11		P	48.0
6	☐			38.89		P	12.4
7	☐			41.67		P	52.9
8	☐			55.56		P	22.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			48.89		P	10.4
2	☐			33.33		P	30.0
3	☐			47.78		P	46.5
4	☐			38.89		P	32.4
5	☐			48.89		P	17.2
6	☐			44.45		P	30.3
7	☐			48.89		P	27.6
8	☐			45.55		P	29.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	327.79	0.0001	P	20.7
2	☐	1.000	0.955	5393.00	0.0011	P	1.8
3	☐	50.000	49.801	265143.95	0.0558	P	0.7
4	☐	125.000	124.444	658966.98	0.1393	P	0.6
5	☐	250.000	254.386	1329580.89	0.2847	P	1.0
6	☐	500.000	506.946	2631224.04	0.5673	P	0.6
7	☐	1000.000	995.510	5228289.22	1.1139	P	0.5
8	☐			1664.06	0.0004	P	3.4

$$y = 0.0011 * x + 6.9657E-005$$

$$R = 1.0000$$

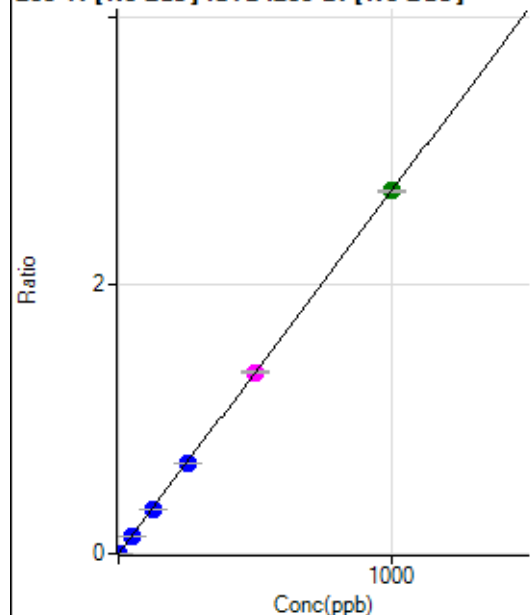
$$DL = 0.03858$$

$$BEC = 0.06226$$

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	419.47	0.0001	P	4.7
2	☐	1.000	0.922	12222.94	0.0026	P	0.5
3	☐	50.000	48.713	625341.12	0.1316	P	0.3
4	☐	125.000	121.963	1557711.10	0.3293	P	0.7
5	☐	250.000	249.118	3140901.63	0.6725	P	1.2
6	☐	500.000	500.772	6270782.91	1.3518	M	0.9
7	☐	1000.000	1000.278	12673610.70	2.7001	A	0.5
8	☐			3659.01	0.0009	P	11.6

$$y = 0.0027 * x + 8.9139E-005$$

$$R = 1.0000$$

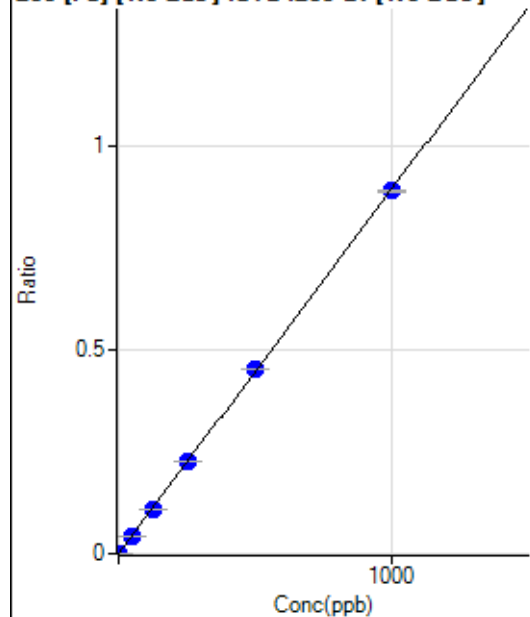
$$DL = 0.004676$$

$$BEC = 0.03302$$

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	570.40	0.0001	P	18.5
2	☐	1.000	0.923	4474.96	0.0009	P	0.5
3	☐	50.000	49.785	211571.40	0.0445	P	0.5
4	☐	125.000	123.592	521944.89	0.1103	P	0.1
5	☐	250.000	253.147	1054884.94	0.2259	P	0.7
6	☐	500.000	506.838	2097047.99	0.4521	P	0.4
7	☐	1000.000	995.981	4169428.77	0.8883	P	0.3
8	☐			2641.09	0.0006	P	1.3

$$y = 8.9175E-004 * x + 1.2119E-004$$

$$R = 1.0000$$

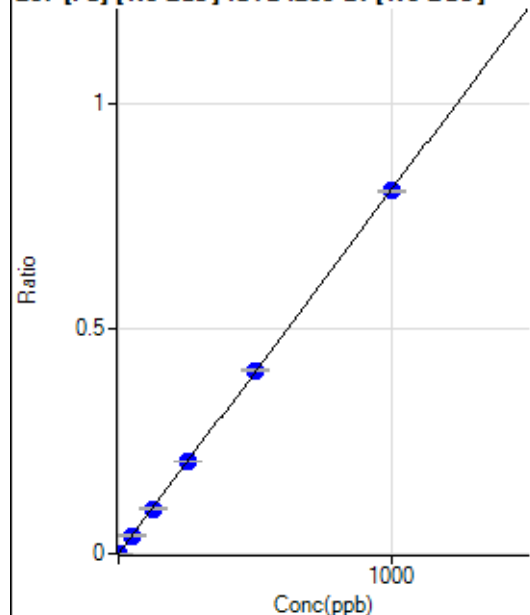
$$DL = 0.07533$$

$$BEC = 0.1359$$

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	500.02	0.0001	P	13.8
2	☐	1.000	0.940	4111.88	0.0009	P	5.3
3	☐	50.000	49.941	192708.39	0.0405	P	0.9
4	☐	125.000	123.849	474927.26	0.1004	P	0.7
5	☐	250.000	254.495	963026.65	0.2062	P	0.9
6	☐	500.000	503.814	1892910.47	0.4081	P	0.5
7	☐	1000.000	997.116	3790497.34	0.8076	P	0.4
8	☐			2463.26	0.0006	P	5.8

$$y = 8.0979E-004 * x + 1.0628E-004$$

$$R = 1.0000$$

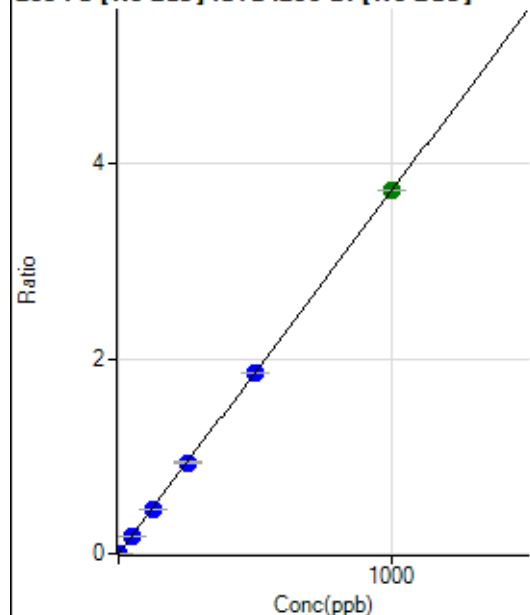
$$DL = 0.05437$$

$$BEC = 0.1312$$

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	1831.58	0.0004	P	7.8
2	☐	1.000	0.918	18038.61	0.0038	P	2.1
3	☐	50.000	49.281	873524.47	0.1838	P	0.4
4	☐	125.000	122.287	2154765.84	0.4555	P	0.4
5	☐	250.000	251.281	4369621.22	0.9356	P	0.7
6	☐	500.000	499.855	8630890.60	1.8607	P	0.4
7	☐	1000.000	1000.127	17472783.73	3.7226	A	0.2
8	☐			10420.40	0.0025	P	2.2

$$y = 0.0037 * x + 3.8923E-004$$

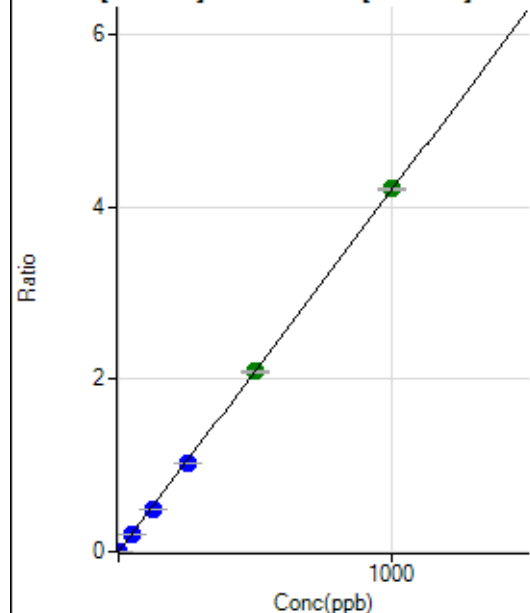
$$R = 1.0000$$

$$DL = 0.02446$$

$$BEC = 0.1046$$

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	1311.22	0.0003	P	1.9
2	☐	1.000	0.747	16177.08	0.0034	P	3.2
3	☐	50.000	45.755	914061.10	0.1923	P	0.0
4	☐	125.000	116.265	2309721.95	0.4883	P	0.7
5	☐	250.000	243.983	4784159.08	1.0243	P	0.4
6	☐	500.000	497.815	9693147.67	2.0897	A	0.7
7	☐	1000.000	1003.901	19778933.08	4.2139	A	0.4
8	☐			6249.83	0.0015	P	10.1

$$y = 0.0042 * x + 2.7867E-004$$

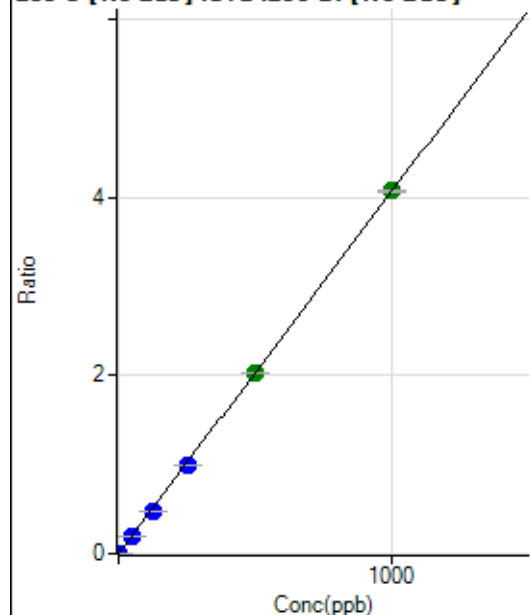
$$R = 1.0000$$

$$DL = 0.003844$$

$$BEC = 0.06639$$

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	1791.87	0.0004	P	4.5
2	☐	1.000	0.860	18358.09	0.0039	P	6.7
3	☐	50.000	46.176	892962.61	0.1879	P	0.4
4	☐	125.000	116.658	2242647.49	0.4741	P	1.0
5	☐	250.000	244.009	4629425.71	0.9912	P	0.6
6	☐	500.000	500.991	9438106.90	2.0347	A	0.3
7	☐	1000.000	1002.237	19104102.34	4.0701	A	0.3
8	☐			3700.70	0.0009	P	11.2

$$y = 0.0041 * x + 3.8079E-004$$

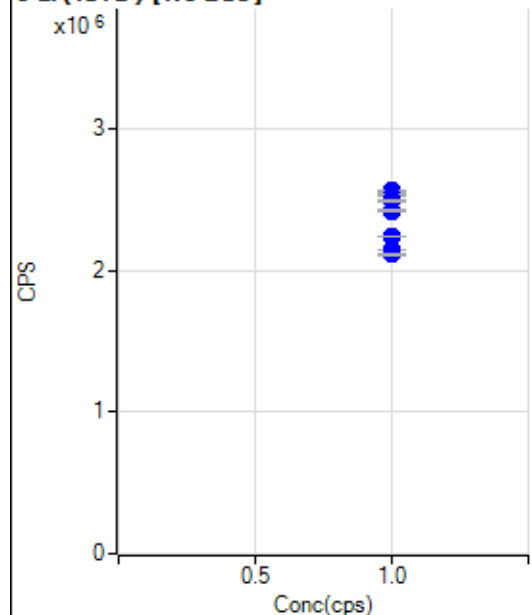
$$R = 1.0000$$

$$DL = 0.01261$$

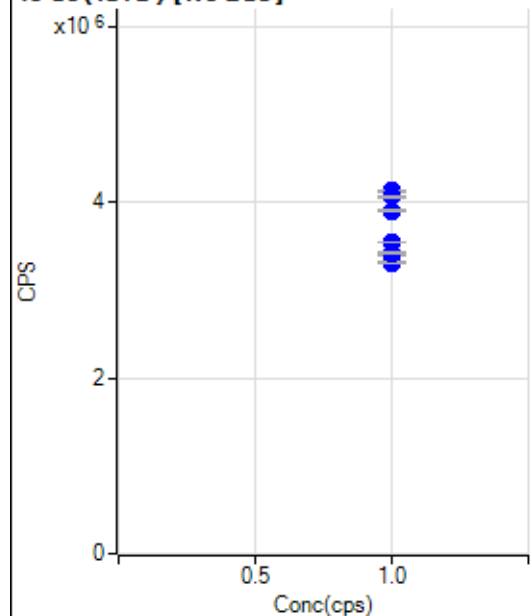
$$BEC = 0.09378$$

Weight: <None>

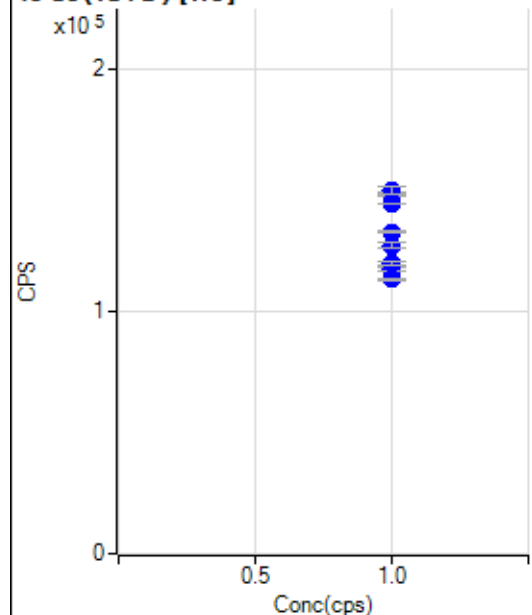
Min Conc: 0

6 Li (ISTD) [No Gas]

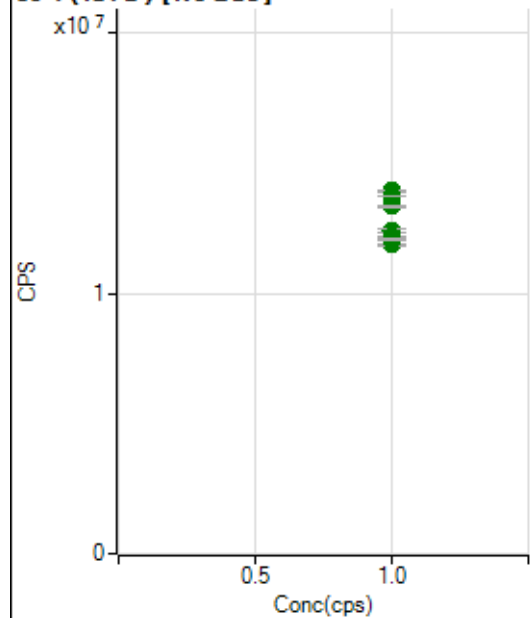
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2563141.98		P	0.7
2	☐	1.000		2532867.82		P	0.3
3	☐	1.000		2492966.21		P	0.5
4	☐	1.000		2422673.95		P	0.3
5	☐	1.000		2241175.94		P	0.5
6	☐	1.000		2115429.50		P	0.1
7	☐	1.000		2149354.29		P	0.2
8	☐	1.000		2114476.07		P	0.3

45 Sc (ISTD) [No Gas]

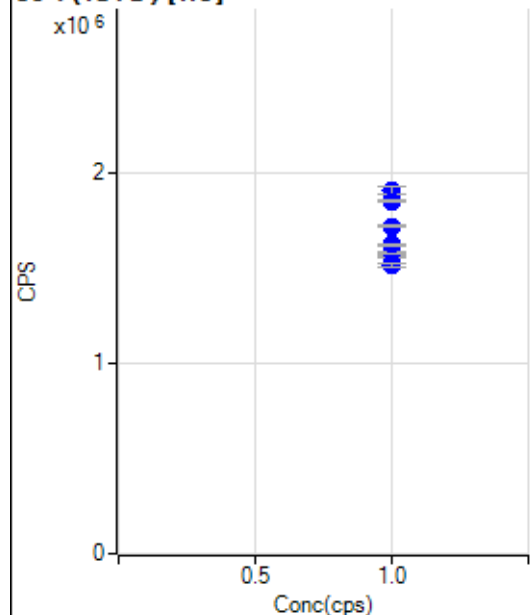
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4122934.21		P	0.2
2	☐	1.000		4134944.19		P	0.4
3	☐	1.000		4065934.21		P	0.8
4	☐	1.000		3909155.86		P	0.3
5	☐	1.000		3548051.94		P	0.5
6	☐	1.000		3318649.86		P	0.5
7	☐	1.000		3417467.70		P	0.6
8	☐	1.000		3425452.29		P	0.4

45 Sc (ISTD) [He]

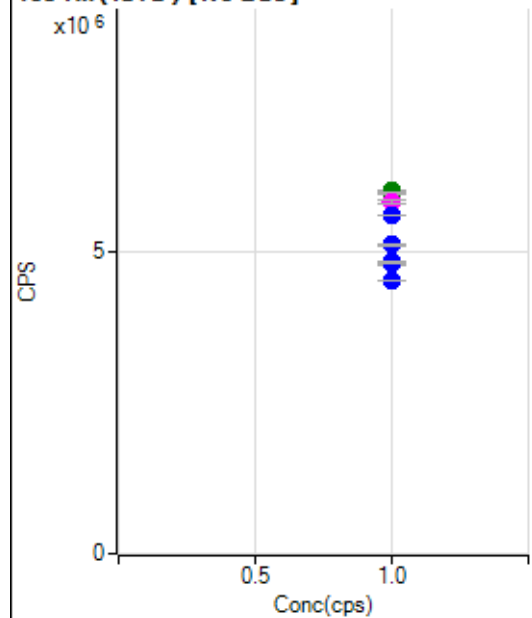
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		148310.84		P	0.9
2	☐	1.000		149524.80		P	2.0
3	☐	1.000		144325.88		P	0.4
4	☐	1.000		132744.91		P	0.7
5	☐	1.000		117088.08		P	1.3
6	☐	1.000		112993.19		P	1.0
7	☐	1.000		119743.42		P	1.2
8	☐	1.000		127165.22		P	1.5

89 Y (ISTD) [No Gas]

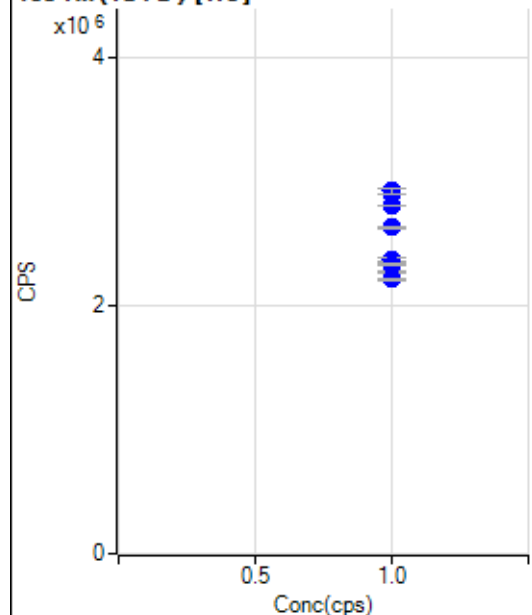
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13929210.07		A	0.2
2	☐	1.000		13938249.65		A	0.6
3	☐	1.000		13739631.74		A	0.4
4	☐	1.000		13345471.05		A	0.2
5	☐	1.000		12400555.23		A	0.9
6	☐	1.000		11862667.05		A	0.3
7	☐	1.000		12172005.51		A	0.5
8	☐	1.000		12057884.82		A	0.6

89 Y(ISTD) [He]

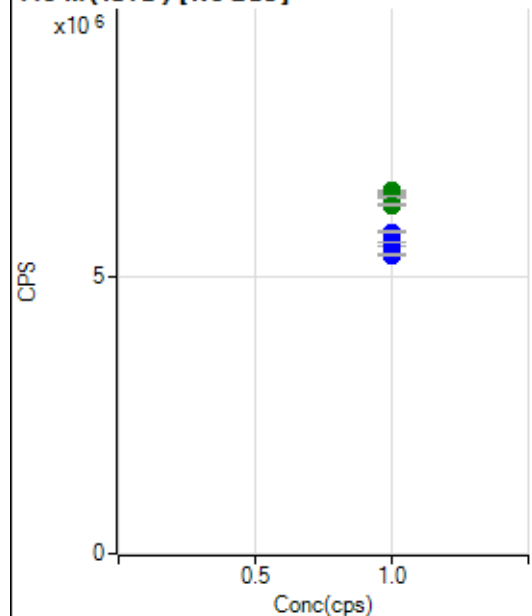
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1888049.43		P	0.2
2	☐	1.000		1902445.22		P	2.3
3	☐	1.000		1847892.56		P	0.5
4	☐	1.000		1719000.46		P	0.3
5	☐	1.000		1556846.50		P	0.7
6	☐	1.000		1512301.16		P	0.8
7	☐	1.000		1580393.69		P	0.9
8	☐	1.000		1619156.97		P	0.8

103 Rh(ISTD) [No Gas]

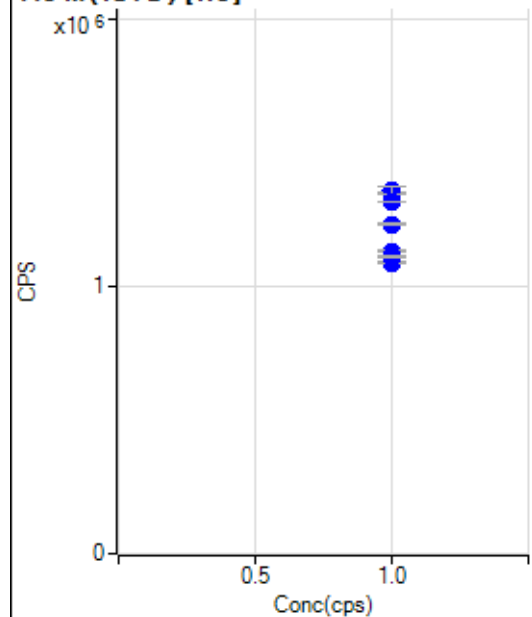
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5994001.83		A	0.4
2	☐	1.000		5958449.78		A	0.6
3	☐	1.000		5803415.15		M	1.2
4	☐	1.000		5581175.60		P	0.1
5	☐	1.000		5101390.78		P	0.7
6	☐	1.000		4790532.53		P	0.5
7	☐	1.000		4814350.54		P	0.1
8	☐	1.000		4510981.70		P	0.4

103 Rh (ISTD) [He]

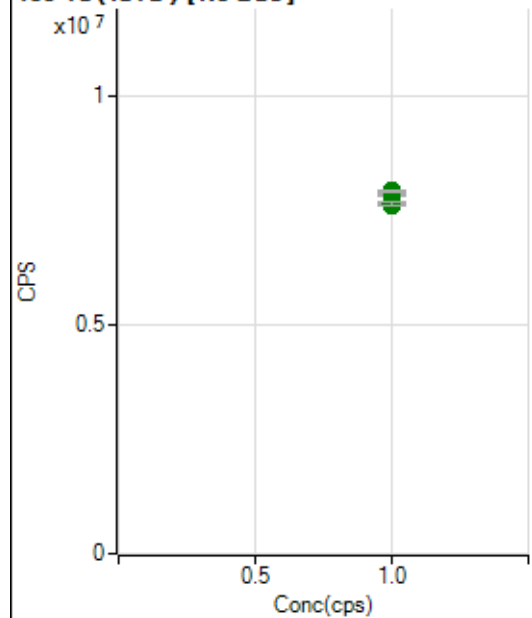
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2897113.46		P	0.2
2	☐	1.000		2926918.08		P	1.6
3	☐	1.000		2805735.34		P	0.3
4	☐	1.000		2630272.15		P	0.5
5	☐	1.000		2375416.75		P	0.9
6	☐	1.000		2276438.45		P	0.4
7	☐	1.000		2334381.01		P	0.7
8	☐	1.000		2213366.69		P	0.7

115 In (ISTD) [No Gas]

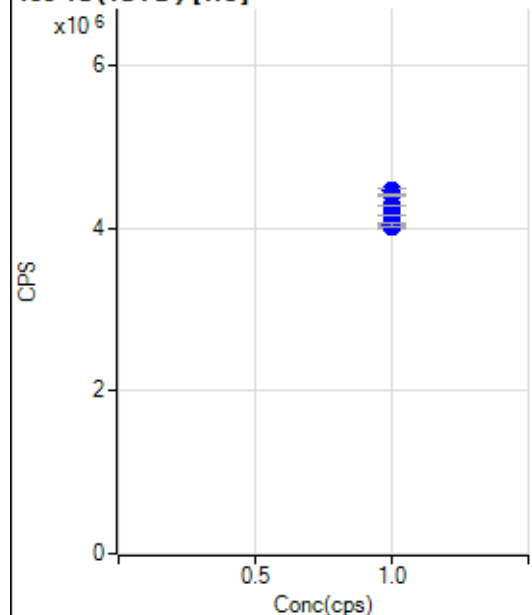
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6561398.93		A	0.2
2	☐	1.000		6522466.83		A	0.4
3	☐	1.000		6459468.60		A	0.6
4	☐	1.000		6305393.91		A	0.3
5	☐	1.000		5814433.27		P	0.8
6	☐	1.000		5561660.87		P	0.2
7	☐	1.000		5633229.20		P	0.2
8	☐	1.000		5401183.86		P	0.7

115 In (ISTD) [He]

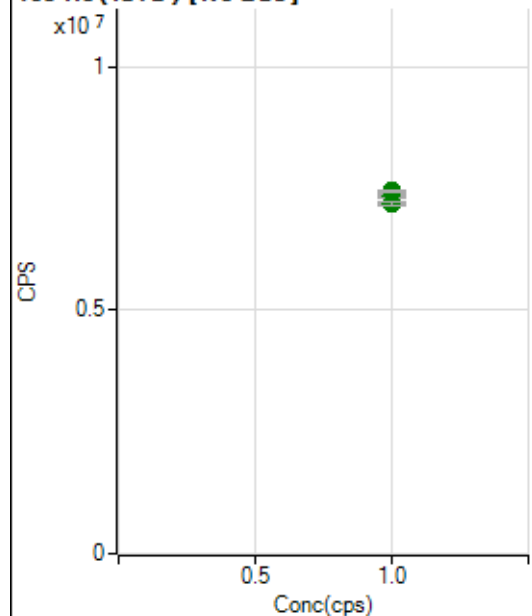
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1353360.56		P	0.3
2	☐	1.000		1359376.22		P	2.2
3	☐	1.000		1319373.77		P	0.4
4	☐	1.000		1234402.47		P	0.4
5	☐	1.000		1132639.03		P	0.9
6	☐	1.000		1089910.15		P	0.8
7	☐	1.000		1113911.83		P	0.8
8	☐	1.000		1110880.71		P	0.9

159 Tb (ISTD) [No Gas]

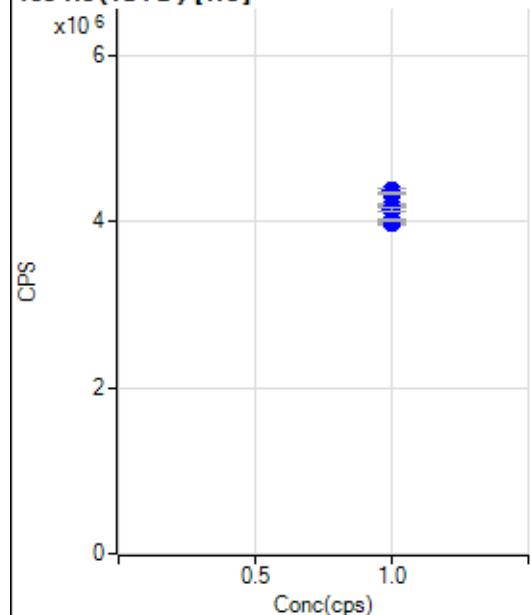
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7910145.30		A	0.1
2	☐	1.000		7884702.10		A	1.1
3	☐	1.000		7911944.05		A	0.2
4	☐	1.000		7880850.23		A	0.7
5	☐	1.000		7689791.69		A	0.5
6	☐	1.000		7626495.72		A	0.4
7	☐	1.000		7935111.06		A	0.2
8	☐	1.000		7639257.80		A	1.2

159 Tb (ISTD) [He]

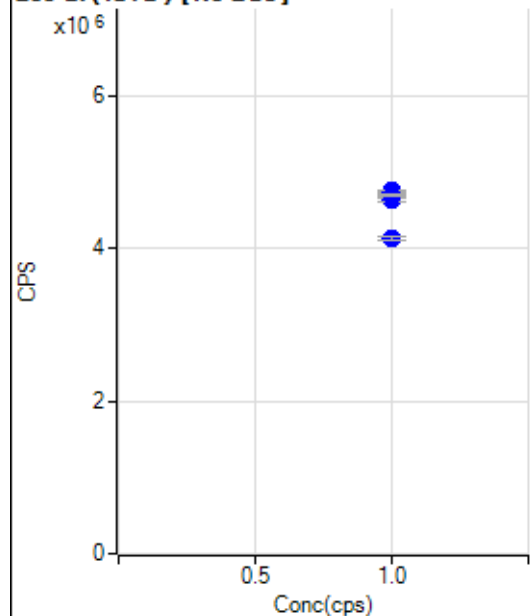
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4415078.61		P	0.5
2	☐	1.000		4457101.57		P	1.9
3	☐	1.000		4412245.87		P	0.5
4	☐	1.000		4270940.91		P	0.0
5	☐	1.000		4042143.79		P	1.2
6	☐	1.000		4012878.93		P	0.8
7	☐	1.000		4162397.02		P	0.3
8	☐	1.000		4040667.72		P	0.8

165 Ho (ISTD) [No Gas]

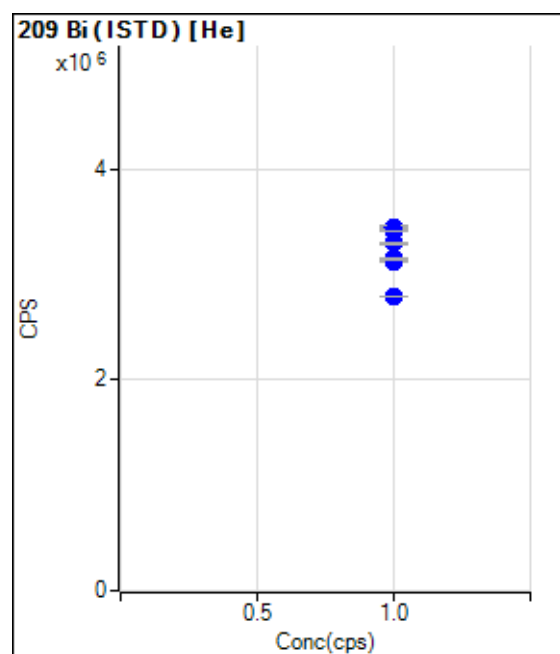
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7361437.49		A	0.7
2	☐	1.000		7333184.97		A	0.8
3	☐	1.000		7371096.95		A	1.1
4	☐	1.000		7348486.45		A	0.8
5	☐	1.000		7186467.43		A	0.2
6	☐	1.000		7182651.42		A	0.4
7	☐	1.000		7450676.56		A	0.4
8	☐	1.000		7179334.32		A	1.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4345081.12		P	0.5
2	☐	1.000		4371026.98		P	1.9
3	☐	1.000		4341270.70		P	0.2
4	☐	1.000		4203162.47		P	0.2
5	☐	1.000		4018589.90		P	1.1
6	☐	1.000		3982863.45		P	0.7
7	☐	1.000		4144058.76		P	0.8
8	☐	1.000		4012548.93		P	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4705344.65		P	0.3
2	☐	1.000		4739784.76		P	0.5
3	☐	1.000		4752680.42		P	0.6
4	☐	1.000		4730574.37		P	0.9
5	☐	1.000		4670560.62		P	0.8
6	☐	1.000		4638611.74		P	0.9
7	☐	1.000		4693752.85		P	0.4
8	☐	1.000		4137237.92		P	1.0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3440465.68		P	0.2
2	☐	1.000		3443529.32		P	1.6
3	☐	1.000		3411098.70		P	0.1
4	☐	1.000		3296685.82		P	0.2
5	☐	1.000		3153159.81		P	0.8
6	☐	1.000		3119343.25		P	0.4
7	☐	1.000		3154363.36		P	0.5
8	☐	1.000		2793566.17		P	0.4

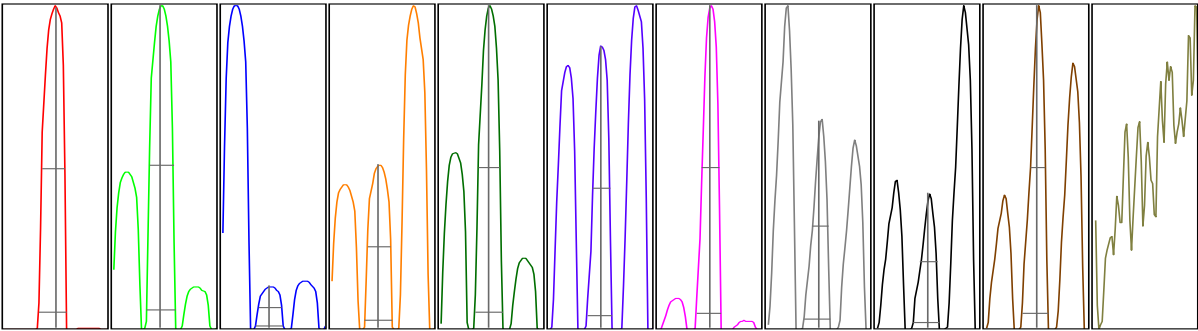
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7082719 MS .b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]					
Mass	Count	RSD%	RSD%	RSD%	
	(Mean)	(Actual)	(Required)	(Flag)	
9	7124	0.45	5.00		
24	69098	0.60	5.00		
25	9031	0.63	5.00		
26	10211	0.53	5.00		
59	47137	0.18	5.00		
113	6363	0.41	5.00		
115	75829	0.35	5.00		
206	15122	0.49	5.00		
207	13866	0.54	5.00		
208	33020	0.69	5.00		
220	74	2.11			

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7155	7112	7075	7146	7130
24	68733	68655	69076	69609	69417
25	9032	8969	8979	9083	9091
26	10137	10216	10208	10207	10289
59	47090	47126	47040	47175	47256
113	6324	6384	6367	6354	6387
115	75723	76242	75672	75934	75573
206	14992	15156	15138	15176	15146
207	13749	13841	13942	13895	13904
208	32729	32868	33103	33075	33324
220	73	73	76	72	75

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	11047	9.05	8.9 - 9.1		0.814	0.900	
24	105894	23.90	23.9 - 24.1		0.832	0.900	
25	13976	24.90	24.9 - 25.1		0.797	0.900	
26	15877	25.90	25.9 - 26.1		0.789	0.900	
59	79688	58.95	58.9 - 59.1		0.815	0.900	
113	12687	113.05	112.9 - 113.1		0.722	0.900	
115	150641	115.05	114.9 - 115.1		0.720	0.900	
206	32801	206.05	205.9 - 206.1		0.751	0.900	
207	29944	207.05	206.9 - 207.1		0.739	0.900	
208	71814	208.05	207.9 - 208.1		0.759	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	6.9	V	Deflect	14.2	V
Extract 2	-75.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-40	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	10863	0.34	
89	16720	0.60	
205	17164	0.54	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	10878	10906	10855	10869	10805
89	16828	16713	16804	16672	16584
205	17236	17259	17192	17066	17066

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.0	V	Deflect	2.4	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			