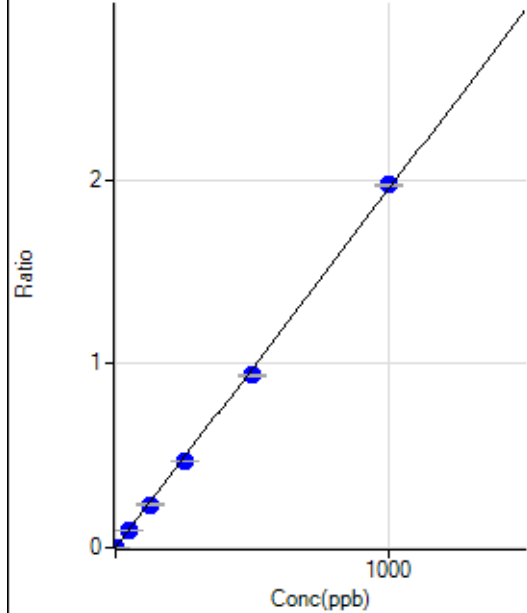


Batch Folder: D:\ICP-MS Data\P7100217-MS .b\
Analysis File: P7100217-MS .batch.bin
DA Date-Time: 2017-10-03 18:01:32
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB P7100217-MS.D	S00	2017-10-02 17:02:25
2			
3	005CALS P7100217-MS.D	S02	2017-10-02 17:10:16
4	006CALS P7100217-MS.D	S03	2017-10-02 17:14:02
5	007CALS P7100217-MS.D	S04	2017-10-02 17:18:06
6	008CALS P7100217-MS.D	S05	2017-10-02 17:21:46
7	009CALS P7100217-MS.D	S06	2017-10-02 17:25:22
8	010CALS P7100217-MS.D	S07	2017-10-02 17:28:54
9	011CALS P7100217-MS.D	S08	2017-10-02 17:32:23

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	92.60	0.0001	P	33.9
2	☐	0.100					
3	☐	1.000	0.931	1970.56	0.0019	P	6.9
4	☐	50.000	48.871	101237.91	0.0953	P	0.5
5	☐	125.000	120.489	249272.70	0.2349	P	1.6
6	☐	250.000	240.677	505448.55	0.4691	P	0.6
7	☐	500.000	481.087	1018515.68	0.9376	P	0.5
8	☐	1000.000	1012.408	2135247.72	1.9730	P	0.7
9	☐			251.86	0.0002	P	22.3

$$y = 0.0019 * x + 8.7256E-005$$

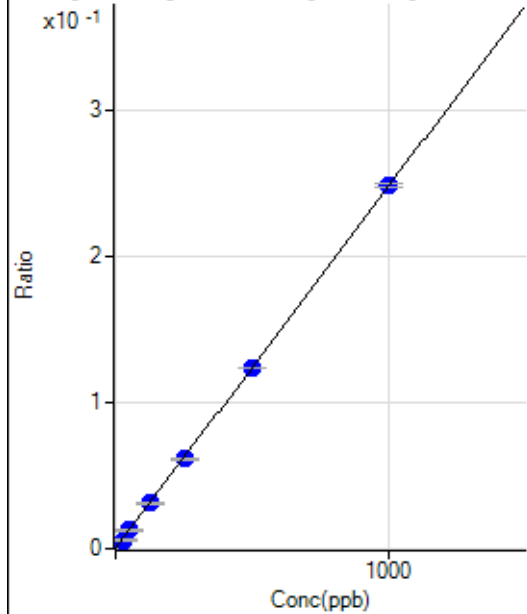
$$R = 0.9997$$

$$DL = 0.04559$$

$$BEC = 0.04478$$

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	222.24	0.0002	P	30.1
2	☐	2.500					
3	☐	25.000	22.945	6098.68	0.0059	P	3.3
4	☐	50.000	49.784	13298.02	0.0125	P	5.9
5	☐	125.000	124.670	32933.96	0.0310	P	2.0
6	☐	250.000	247.119	66066.95	0.0613	P	1.4
7	☐	500.000	498.610	134165.09	0.1235	P	0.7
8	☐	1000.000	1001.519	268254.45	0.2479	P	1.0
9	☐			2964.30	0.0028	P	9.7

$$y = 2.4728E-004 * x + 2.0942E-004$$

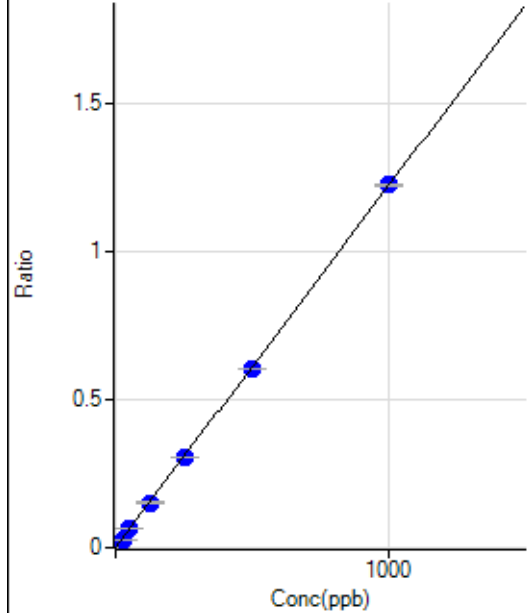
$$R = 1.0000$$

$$DL = 0.7656$$

$$BEC = 0.8469$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	997.30	0.0009	P	13.8
2	☐	2.500					
3	☐	25.000	21.935	28683.62	0.0277	P	1.1
4	☐	50.000	50.262	66047.49	0.0622	P	1.5
5	☐	125.000	124.109	161484.21	0.1522	P	2.1
6	☐	250.000	248.039	326683.60	0.3032	P	1.0
7	☐	500.000	495.519	656961.33	0.6048	P	0.4
8	☐	1000.000	1002.906	1323675.03	1.2231	P	0.4
9	☐			14162.67	0.0133	P	4.2

$$y = 0.0012 * x + 9.4010E-004$$

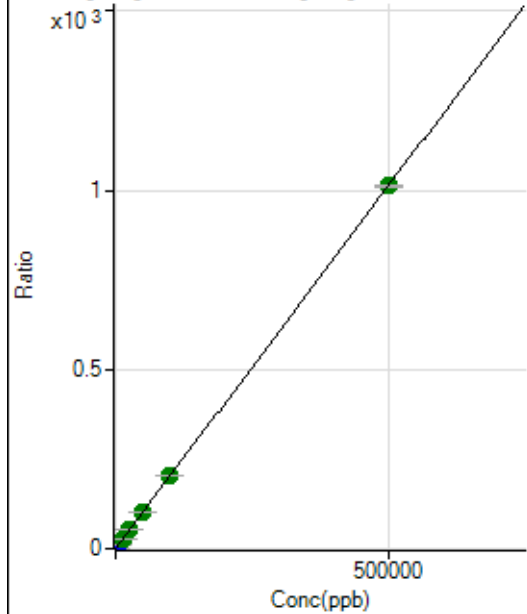
$$R = 1.0000$$

$$DL = 0.3184$$

$$BEC = 0.7715$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35919.00	0.1489	P	1.3
2	☐	50.000					
3	☐	500.000	473.642	262707.97	1.1081	P	0.4
4	☐	5000.000	5305.578	2598462.04	10.8934	P	0.2
5	☐	12500.000	13098.006	6463193.24	26.6741	A	1.1
6	☐	25000.000	25844.563	12912289.00	52.4875	A	1.1
7	☐	50000.000	51205.845	25866369.68	103.8475	A	0.9
8	☐	100000.00	100685.74	53475575.50	204.0508	A	0.7
9	☐	500000.00	499682.05	280633292.38	1,012.070	A	0.4

$$y = 0.0020 * x + 0.1489$$

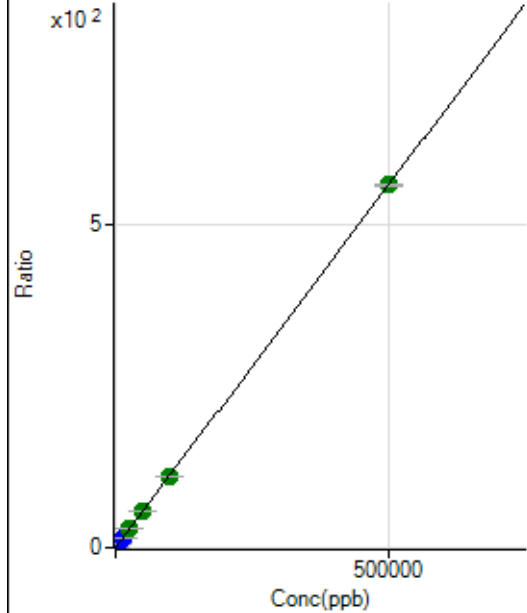
$$R = 1.0000$$

$$DL = 2.973$$

$$BEC = 73.52$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	250.02	0.0010	P	5.9
2	☐	50.000					
3	☐	500.000	467.259	124888.75	0.5268	P	1.0
4	☐	5000.000	5160.084	1385167.78	5.8069	P	1.2
5	☐	12500.000	12892.248	3515032.76	14.5066	P	0.6
6	☐	25000.000	25450.020	7044772.90	28.6359	A	0.8
7	☐	50000.000	49890.670	13982145.80	56.1350	A	1.0
8	☐	100000.00	98802.806	29134330.51	111.1680	A	0.1
9	☐	500000.00	500216.49	156060084.05	562.8143	A	0.5

$$y = 0.0011 * x + 0.0010$$

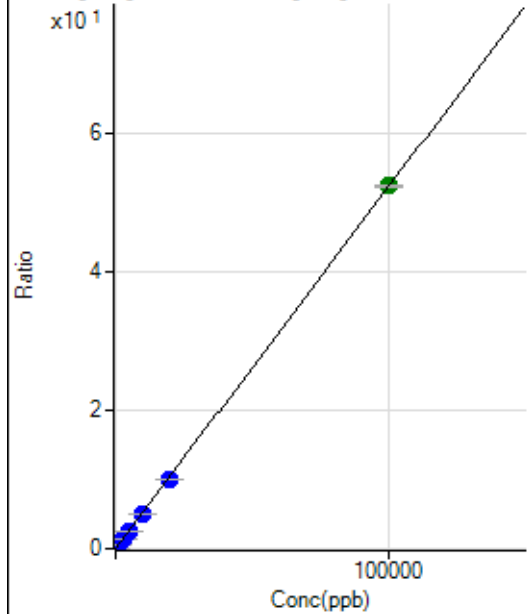
$$R = 1.0000$$

$$DL = 0.1629$$

$$BEC = 0.9212$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	161.12	0.0007	P	10.0
2	☐	2.000					
3	☐	20.000	20.311	2672.59	0.0113	P	6.4
4	☐	1000.000	975.191	121616.50	0.5098	P	1.3
5	☐	2500.000	2452.053	310367.73	1.2809	P	0.6
6	☐	5000.000	4876.933	626567.44	2.5469	P	1.0
7	☐	10000.000	9620.028	1251209.34	5.0233	P	0.9
8	☐	20000.000	18973.923	2596381.11	9.9070	P	0.3
9	☐	100000.00	100250.81	14513629.67	52.3417	A	0.6

$$y = 5.2210E-004 * x + 6.6751E-004$$

$$R = 0.9999$$

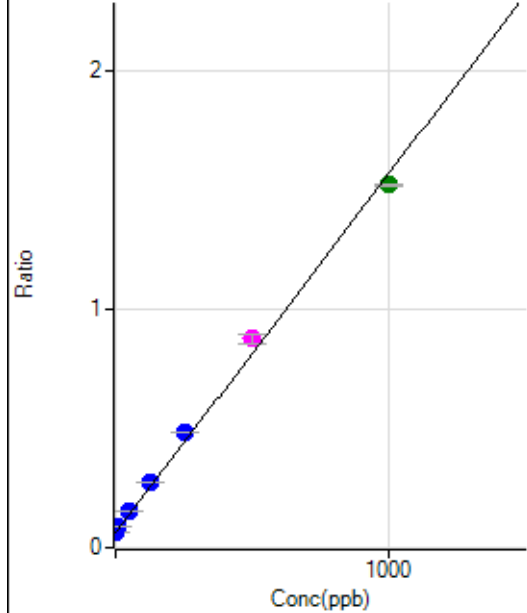
$$DL = 0.382$$

$$BEC = 1.278$$

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	310026.54	0.0616	P	0.7
2	☐	1.000					
3	☐	10.000	16.316	425791.53	0.0861	P	0.4
4	☐	50.000	58.790	749863.10	0.1499	P	0.4
5	☐	125.000	142.653	1378853.83	0.2759	P	0.5
6	☐	250.000	279.370	2481085.69	0.4813	P	0.9
7	☐	500.000	540.448	4558776.75	0.8736	M	5.1
8	☐	1000.000	969.724	7976144.54	1.5185	A	0.6
9	☐			429571.32	0.0805	P	0.3

$$y = 0.0015 * x + 0.0616$$

$$R = 0.9983$$

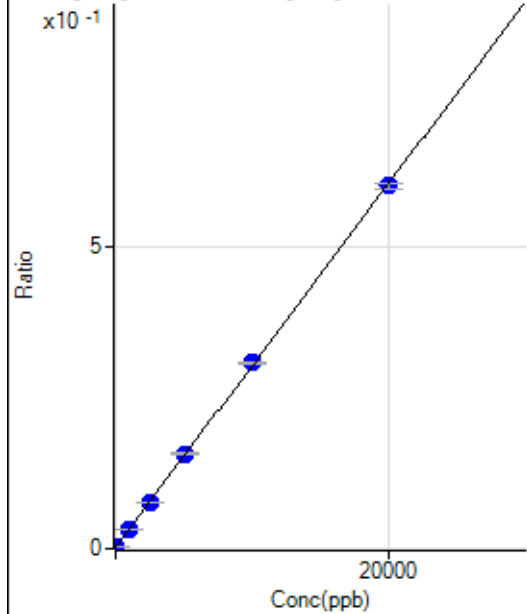
$$DL = 0.8335$$

$$BEC = 41.02$$

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	0.937	502.81	0.0021	P	8.8
2	☐	0.000					
3	☐	0.000	-0.937	480.58	0.0020	P	13.5
4	☐	1000.000	1023.043	7835.69	0.0328	P	0.1
5	☐	2500.000	2468.760	18503.78	0.0764	P	0.9
6	☐	5000.000	5158.819	38709.58	0.1573	P	1.1
7	☐	10000.000	10172.997	76783.94	0.3083	P	1.0
8	☐	20000.000	19876.549	157331.92	0.6003	P	1.4
9	☐			611.15	0.0022	P	13.1

$$y = 3.0100E-005 * x + 0.0021$$

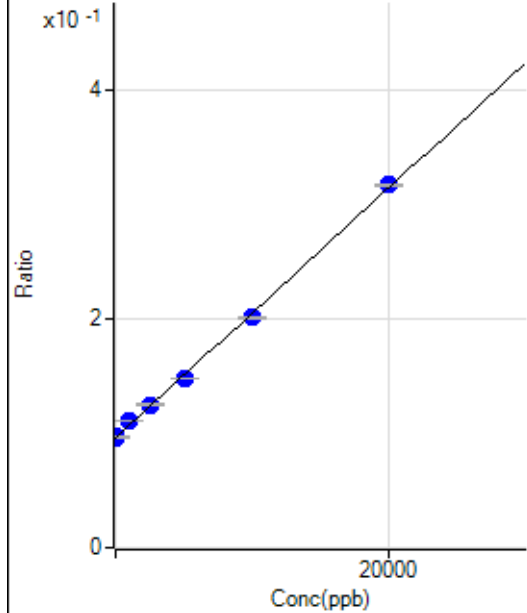
$$R = 0.9999$$

$$DL = 22.87$$

$$BEC = 68.3$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-72.335	479035.41	0.0952	P	0.5
2	☐	0.000					
3	☐	0.000	72.335	478486.37	0.0968	P	0.7
4	☐	1000.000	1317.591	552007.14	0.1104	P	0.3
5	☐	2500.000	2658.852	624685.96	0.1250	P	0.2
6	☐	5000.000	4731.950	760978.84	0.1476	P	0.1
7	☐	10000.000	9596.863	1047504.23	0.2007	P	0.6
8	☐	20000.000	20232.845	1663795.32	0.3167	P	0.4
9	☐			541347.26	0.1015	P	0.9

$$y = 1.0910\text{E-}005 * x + 0.0960$$

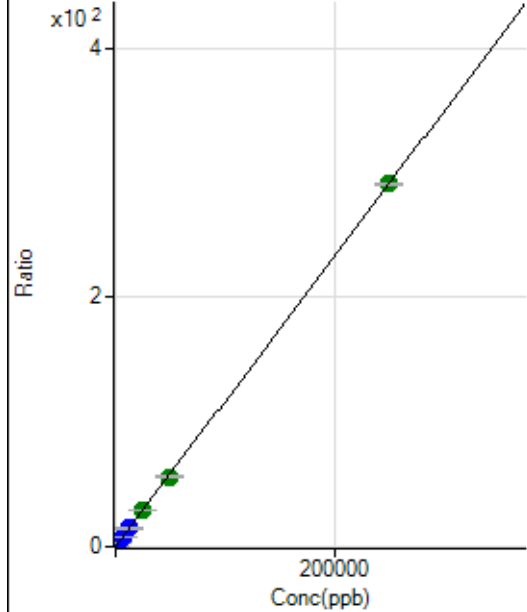
R = 0.9993

DL = 159.3

BEC = 8800

Weight: <None>

Min Conc: 0

39 K [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37512.68	0.1555	P	2.4
2	☐	50.000					
3	☐	500.000	447.144	160059.11	0.6751	P	1.4
4	☐	2500.000	2526.271	737345.22	3.0911	P	0.2
5	☐	6250.000	6236.460	1793681.68	7.4025	P	0.5
6	☐	12500.000	12513.205	3615506.29	14.6963	P	0.6
7	☐	25000.000	24583.873	7154332.28	28.7229	A	0.7
8	☐	50000.000	48236.893	14730886.79	56.2086	A	0.5
9	☐	250000.00	250393.75	80724412.92	291.1222	A	0.7

$$y = 0.0012 * x + 0.1555$$

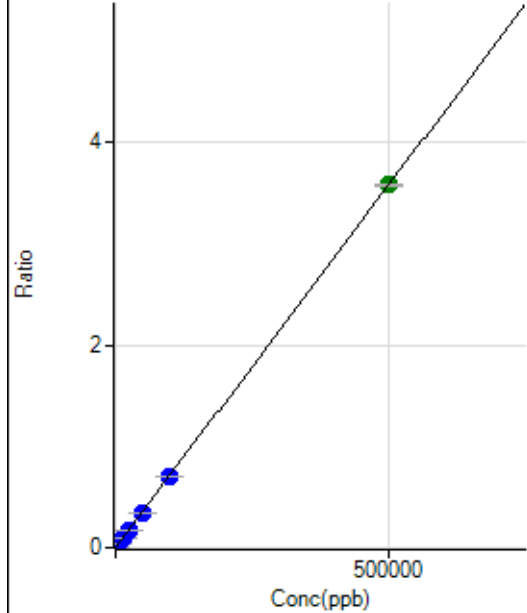
R = 1.0000

DL = 9.453

BEC = 133.8

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	1261.22	0.0003	P	14.3
2	☐	50.000					
3	☐	500.000	438.491	16751.81	0.0034	P	2.5
4	☐	5000.000	5015.418	180755.43	0.0361	P	0.3
5	☐	12500.000	12377.912	443921.65	0.0888	P	1.0
6	☐	25000.000	24594.550	908554.23	0.1763	P	0.7
7	☐	50000.000	48938.603	1829204.12	0.3505	P	0.3
8	☐	100000.00	97775.358	3676916.23	0.7000	P	0.2
9	☐	500000.00	500574.30	19109132.89	3.5826	A	0.5

$$y = 7.1565\text{E-}006 * x + 2.5058\text{E-}004$$

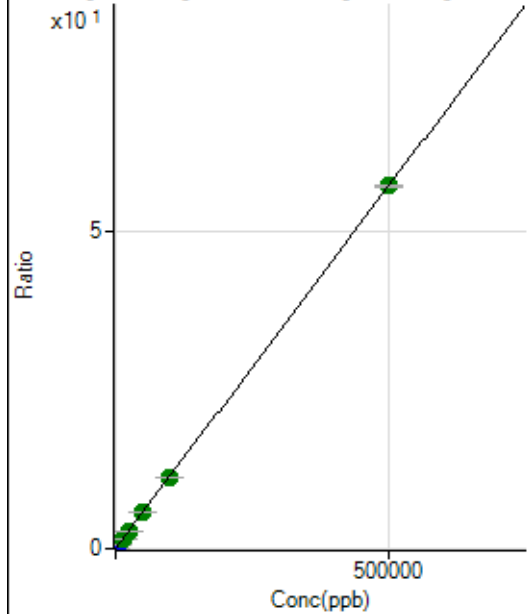
R = 1.0000

DL = 15.07

BEC = 35.01

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	179529.85	0.0357	P	0.5
2	☐	50.000					
3	☐	500.000	454.360	432156.07	0.0874	P	0.6
4	☐	5000.000	5079.234	3070714.78	0.6140	P	0.5
5	☐	12500.000	12472.818	7275327.94	1.4559	A	1.2
6	☐	25000.000	24699.390	14680670.82	2.8481	A	1.0
7	☐	50000.000	48954.260	29278883.29	5.6099	A	0.1
8	☐	100000.00	98619.643	59173701.33	11.2651	A	0.3
9	☐	500000.00	500395.60	304100712.35	57.0135	A	0.4

$$y = 1.1387\text{E-}004 * x + 0.0357$$

R = 1.0000

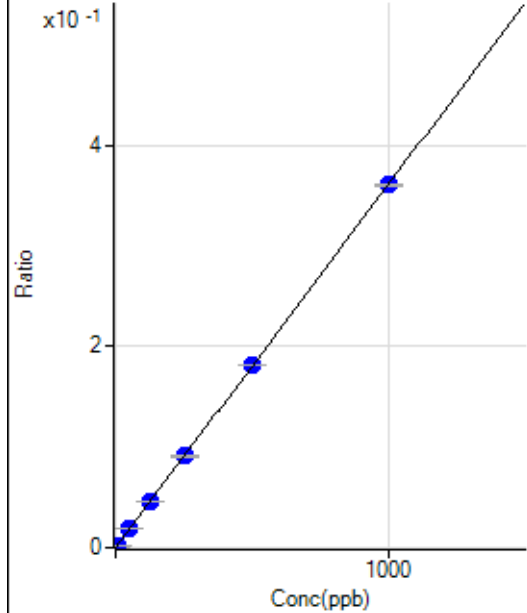
DL = 4.572

BEC = 313.4

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	166.67	0.0000	P	10.2
2	☐	0.500					
3	☐	5.000	4.491	8174.84	0.0017	P	2.2
4	☐	50.000	51.155	92469.75	0.0185	P	0.6
5	☐	125.000	127.065	229259.98	0.0459	P	0.6
6	☐	250.000	251.293	467542.51	0.0907	P	0.1
7	☐	500.000	501.986	945486.61	0.1812	P	0.2
8	☐	1000.000	998.371	1892396.53	0.3603	P	0.5
9	☐			1627.94	0.0003	P	7.1

$$y = 3.6082E-004 * x + 3.3133E-005$$

$$R = 1.0000$$

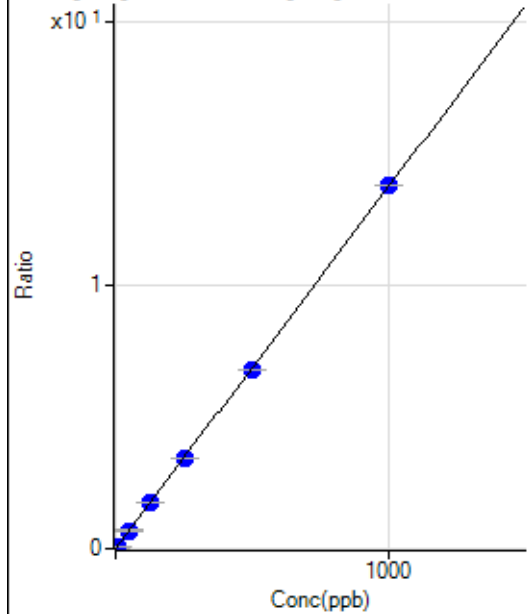
$$DL = 0.028$$

$$BEC = 0.09183$$

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	25.55	0.0001	P	27.1
2	☐	0.500					
3	☐	5.000	4.669	15233.58	0.0643	P	1.0
4	☐	50.000	50.190	164525.37	0.6897	P	1.9
5	☐	125.000	125.643	418315.64	1.7264	P	0.5
6	☐	250.000	250.628	847183.52	3.4436	P	0.6
7	☐	500.000	494.715	1693096.69	6.7973	P	0.5
8	☐	1000.000	1002.397	3609476.34	13.7726	P	0.2
9	☐			775.63	0.0028	P	19.4

$$y = 0.0137 * x + 1.0590E-004$$

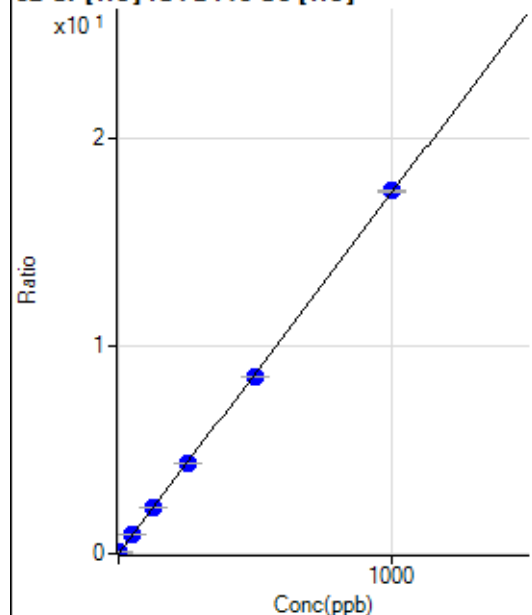
$$R = 1.0000$$

$$DL = 0.006261$$

$$BEC = 0.007708$$

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	2073.52	0.0086	P	3.6
2	☐	0.200					
3	☐	2.000	2.265	11376.78	0.0480	P	1.5
4	☐	50.000	50.454	211305.47	0.8858	P	1.0
5	☐	125.000	126.019	533002.68	2.1997	P	0.3
6	☐	250.000	250.269	1072644.01	4.3600	P	0.5
7	☐	500.000	488.686	2118559.71	8.5054	P	0.4
8	☐	1000.000	1005.439	4583697.57	17.4902	P	0.3
9	☐			47561.21	0.1715	P	0.8

$$y = 0.0174 * x + 0.0086$$

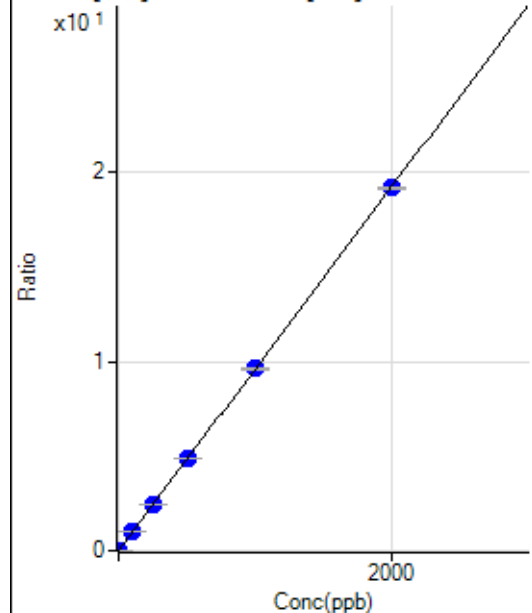
$$R = 0.9999$$

$$DL = 0.05385$$

$$BEC = 0.4944$$

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	85.56	0.0004	P	12.4
2	☐	0.100					
3	☐	1.000	1.029	2429.13	0.0102	P	1.3
4	☐	100.000	102.879	236096.46	0.9897	P	1.3
5	☐	250.000	258.673	602857.78	2.4880	P	0.3
6	☐	500.000	511.418	1210045.62	4.9186	P	0.5
7	☐	1000.000	1001.011	2397893.16	9.6269	P	0.3
8	☐	2000.000	1995.412	5029172.46	19.1898	P	0.3
9	☐			17764.27	0.0641	P	0.6

$$y = 0.0096 * x + 3.5462E-004$$

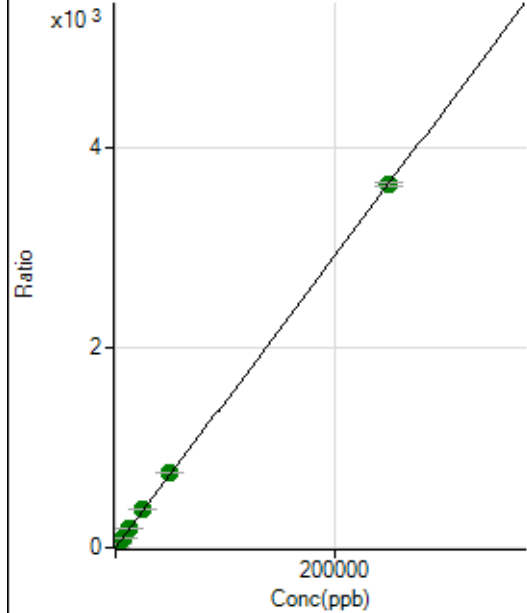
$$R = 1.0000$$

$$DL = 0.01367$$

$$BEC = 0.03687$$

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	7001.86	0.0290	P	1.9
2	☐	5.000					
3	☐	50.000	50.202	179741.06	0.7581	P	1.1
4	☐	2500.000	2708.878	9392047.78	39.3715	A	1.7
5	☐	6250.000	6831.526	24047746.60	99.2468	A	1.0
6	☐	12500.000	13550.821	48423304.33	196.8347	A	0.9
7	☐	25000.000	26515.689	95929388.25	385.1303	A	0.7
8	☐	50000.000	51692.291	196758932.18	750.7832	A	0.4
9	☐	250000.00	249440.80	1004514726.1	3,622.788	A	1.1

$$y = 0.0145 * x + 0.0290$$

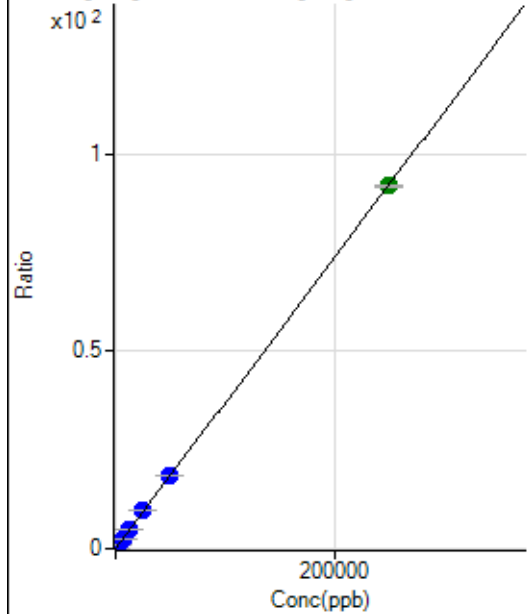
$$R = 1.0000$$

$$DL = 0.1155$$

$$BEC = 1.999$$

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	320.38	0.0013	P	6.5
2	☐	5.000					
3	☐	50.000	47.666	4471.16	0.0189	P	1.4
4	☐	2500.000	2665.240	234142.77	0.9815	P	1.6
5	☐	6250.000	6704.222	597752.74	2.4669	P	0.7
6	☐	12500.000	13300.030	1203669.41	4.8927	P	0.6
7	☐	25000.000	25977.523	2380026.93	9.5551	P	0.1
8	☐	50000.000	50595.286	4876855.32	18.6087	P	0.5
9	☐	250000.00	249730.18	25466922.79	91.8445	A	0.5

$$y = 3.6777E-004 * x + 0.0013$$

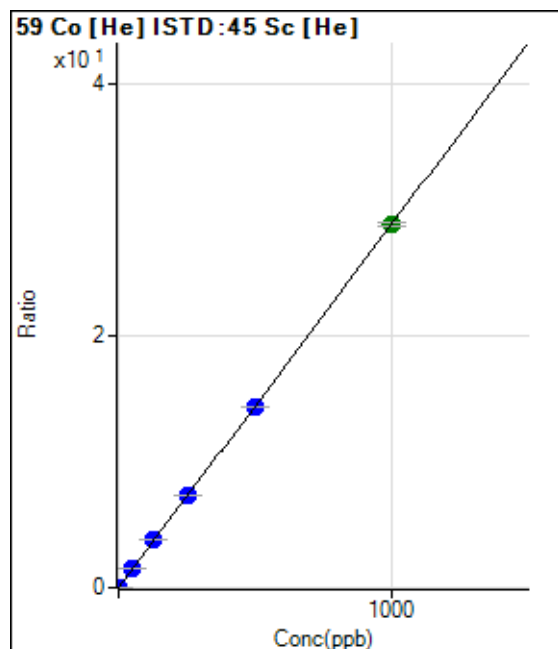
$$R = 1.0000$$

$$DL = 0.7049$$

$$BEC = 3.612$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	210.01	0.0009	P	11.8
2	☐	0.100					
3	☐	1.000	1.014	7146.29	0.0301	P	2.8
4	☐	50.000	52.203	359547.80	1.5072	P	1.5
5	☐	125.000	130.141	910179.15	3.7563	P	0.4
6	☐	250.000	255.801	1816184.40	7.3824	P	0.5
7	☐	500.000	498.708	3584778.73	14.3918	P	0.2
8	☐	1000.000	998.443	7550744.05	28.8124	A	1.1
9	☐			8799.42	0.0317	P	1.5

$$y = 0.0289 * x + 8.6992E-004$$

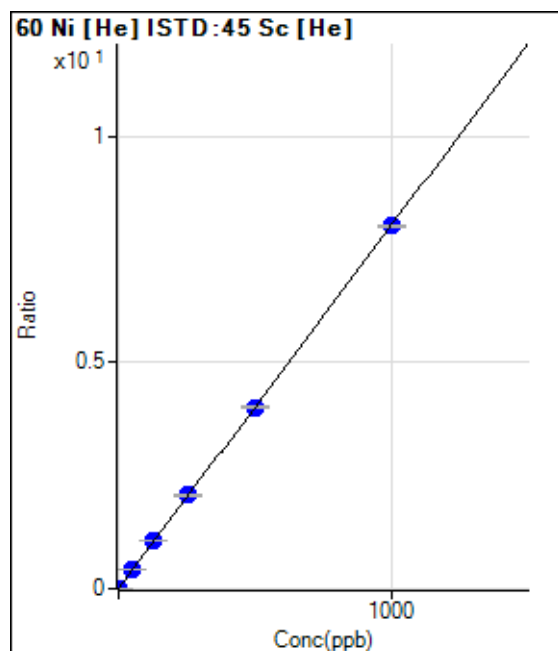
$$R = 1.0000$$

$$DL = 0.01068$$

$$BEC = 0.03015$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1244.52	0.0052	P	3.5
2	☐	0.100					
3	☐	1.000	1.099	3317.12	0.0140	P	24.2
4	☐	50.000	52.654	102191.77	0.4284	P	1.4
5	☐	125.000	130.636	255690.66	1.0552	P	0.3
6	☐	250.000	256.558	508606.38	2.0674	P	0.8
7	☐	500.000	499.416	1001200.83	4.0195	P	0.7
8	☐	1000.000	997.815	2103324.54	8.0258	P	0.4
9	☐			10509.48	0.0379	P	2.5

$$y = 0.0080 * x + 0.0052$$

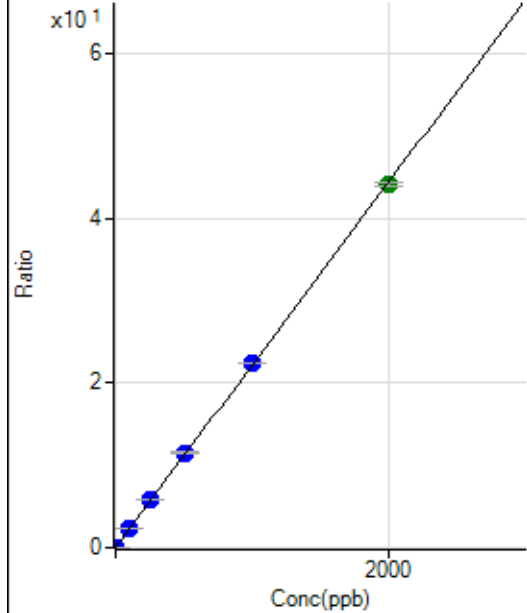
$$R = 1.0000$$

$$DL = 0.06744$$

$$BEC = 0.6418$$

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	4565.23	0.0189	P	4.1
2	☐	0.200					
3	☐	2.000	1.965	14832.31	0.0626	P	17.6
4	☐	100.000	106.852	570422.98	2.3912	P	1.1
5	☐	250.000	265.817	1434590.83	5.9206	P	0.6
6	☐	500.000	520.390	2847025.72	11.5726	P	0.6
7	☐	1000.000	1012.300	5602883.88	22.4940	P	0.6
8	☐	2000.000	1986.433	11562866.22	44.1217	A	1.2
9	☐			17095.75	0.0617	P	3.4

$$y = 0.0222 * x + 0.0189$$

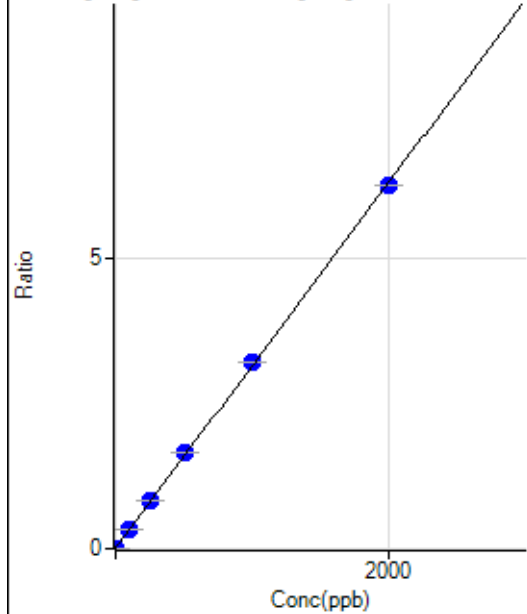
$$R = 0.9999$$

$$DL = 0.1038$$

$$BEC = 0.8525$$

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	1361.20	0.0056	P	6.0
2	☐	0.200					
3	☐	2.000	2.543	3231.54	0.0136	P	26.7
4	☐	100.000	106.367	80995.38	0.3395	P	1.7
5	☐	250.000	264.404	202472.70	0.8356	P	0.6
6	☐	500.000	522.468	404863.01	1.6457	P	0.3
7	☐	1000.000	1017.993	797345.92	3.2011	P	0.6
8	☐	2000.000	1983.267	1633010.91	6.2311	P	0.1
9	☐			4122.87	0.0149	P	5.6

$$y = 0.0031 * x + 0.0056$$

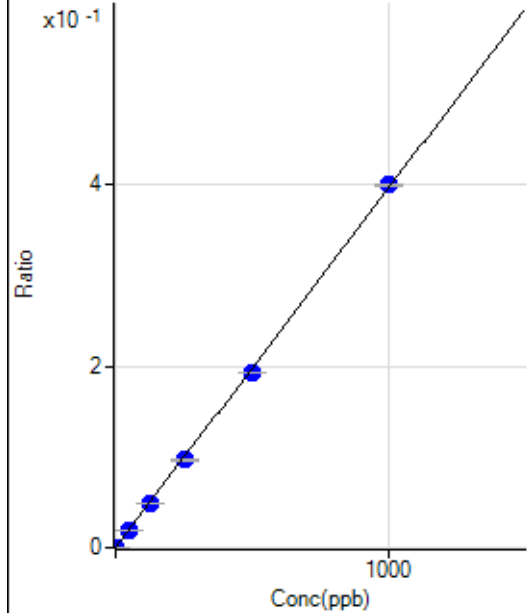
$$R = 0.9999$$

$$DL = 0.3229$$

$$BEC = 1.798$$

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	21.60	0.0000	P	5.1
2	☐	0.100					
3	☐	1.000	0.909	504.95	0.0004	P	2.3
4	☐	50.000	47.943	25690.64	0.0190	P	2.1
5	☐	125.000	121.689	65795.38	0.0482	P	0.4
6	☐	250.000	243.696	134328.66	0.0965	P	0.3
7	☐	500.000	485.884	265942.40	0.1924	P	0.4
8	☐	1000.000	1009.151	567720.92	0.3995	P	0.2
9	☐			333.96	0.0002	P	8.7

$$y = 3.9587\text{E-}004 * x + 1.5816\text{E-}005$$

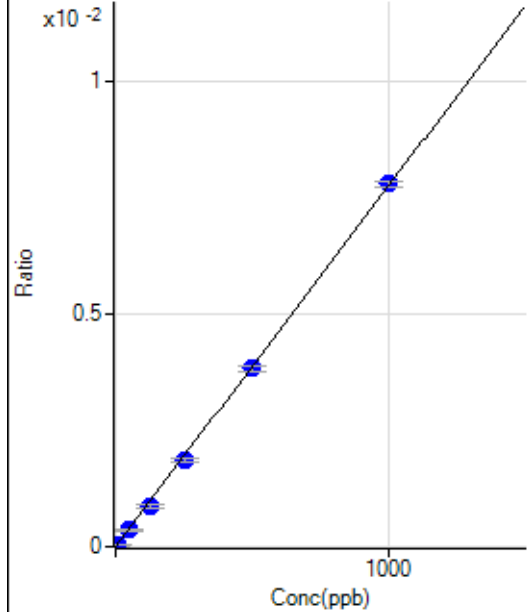
$$R = 0.9998$$

$$DL = 0.006084$$

$$BEC = 0.03995$$

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	2.22	0.0000	P	173.2
2	☐	0.500					
3	☐	5.000	3.842	42.22	0.0000	P	27.6
4	☐	50.000	45.569	480.02	0.0004	P	3.2
5	☐	125.000	113.170	1200.07	0.0009	P	7.2
6	☐	250.000	241.513	2609.17	0.0019	P	4.2
7	☐	500.000	494.811	5305.49	0.0038	P	3.3
8	☐	1000.000	1006.423	11089.95	0.0078	P	1.7
9	☐			8.89	0.0000	P	57.7

$$y = 7.7529\text{E-}006 * x + 1.6331\text{E-}006$$

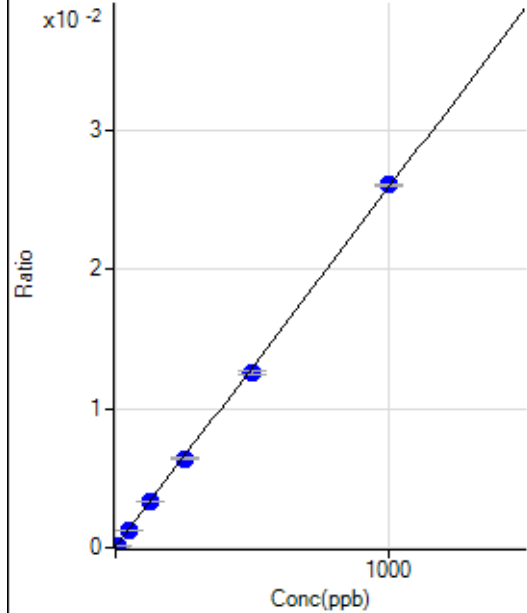
$$R = 0.9999$$

$$DL = 1.095$$

$$BEC = 0.2106$$

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	74.69	0.0001	P	16.4
2	☐	0.500					
3	☐	5.000	4.320	223.46	0.0002	P	6.8
4	☐	50.000	46.897	1712.46	0.0013	P	4.5
5	☐	125.000	125.085	4486.53	0.0033	P	2.0
6	☐	250.000	245.515	8905.89	0.0064	P	1.7
7	☐	500.000	486.745	17457.48	0.0126	P	2.0
8	☐	1000.000	1007.897	37075.00	0.0261	P	0.5
9	☐			100.00	0.0001	P	16.6

$$y = 2.5832E-005 * x + 5.4695E-005$$

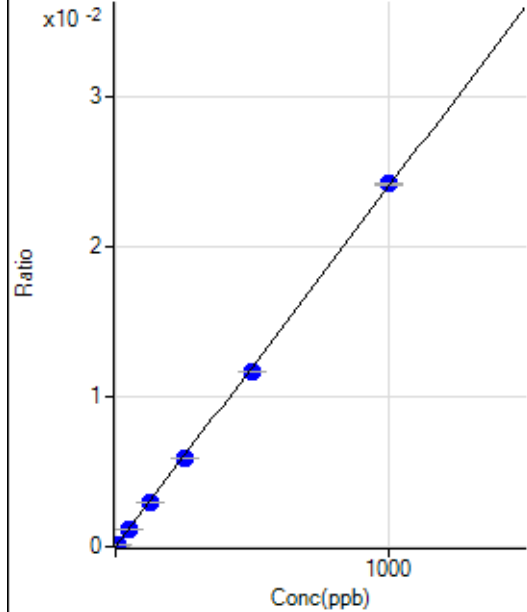
$$R = 0.9999$$

$$DL = 1.043$$

$$BEC = 2.117$$

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	-29.06	0.0000	P	-140.
2	☐	0.500					
3	☐	5.000	4.987	1009.26	0.0001	P	10.0
4	☐	50.000	50.036	10512.73	0.0012	P	0.5
5	☐	125.000	124.715	26079.24	0.0030	P	0.5
6	☐	250.000	244.895	52871.91	0.0059	P	0.4
7	☐	500.000	486.093	106541.72	0.0117	P	0.1
8	☐	1000.000	1008.263	220257.57	0.0242	P	0.2
9	☐			167.41	0.0000	P	3.0

$$y = 2.4020E-005 * x - 3.2905E-006$$

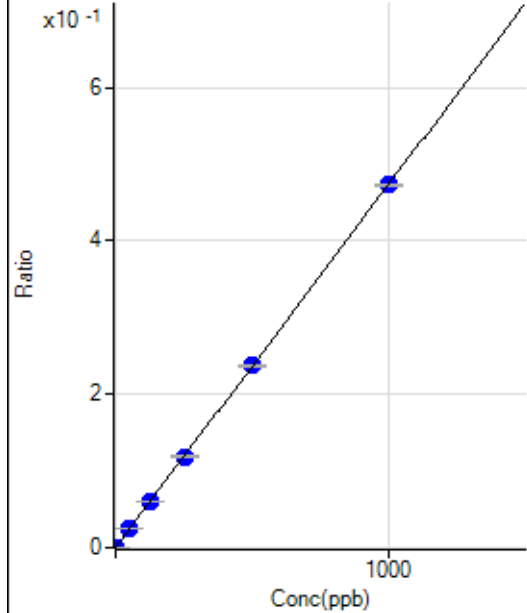
$$R = 0.9998$$

$$DL = 0.5783$$

$$BEC = -0.137$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1300.12	0.0001	P	14.6
2	☐	0.100					
3	☐	1.000	0.862	4803.79	0.0006	P	5.7
4	☐	50.000	50.493	210739.93	0.0240	P	0.8
5	☐	125.000	126.942	524503.34	0.0602	P	0.6
6	☐	250.000	251.274	1070035.86	0.1190	P	0.4
7	☐	500.000	500.443	2161601.83	0.2368	P	0.2
8	☐	1000.000	999.193	4299605.82	0.4727	P	0.4
9	☐			145149.24	0.0162	P	0.6

$$y = 4.7293\text{E-}004 * x + 1.4671\text{E-}004$$

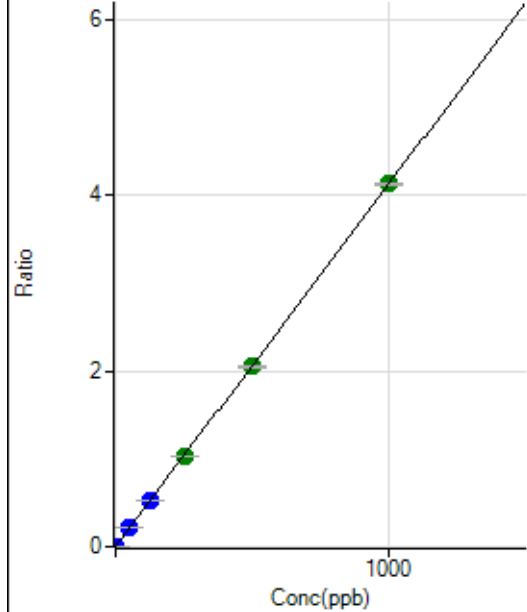
R = 1.0000

DL = 0.1355

BEC = 0.3102

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	1494.59	0.0002	P	21.3
2	☐	0.100					
3	☐	1.000	0.931	34729.24	0.0040	P	1.6
4	☐	50.000	50.581	1829768.73	0.2086	P	0.3
5	☐	125.000	125.996	4526674.63	0.5194	P	0.4
6	☐	250.000	248.495	9210924.60	1.0242	A	0.7
7	☐	500.000	497.370	18709651.98	2.0498	A	0.6
8	☐	1000.000	1001.538	37542805.35	4.1274	A	0.6
9	☐			1255379.90	0.1404	P	0.6

$$y = 0.0041 * x + 1.6853\text{E-}004$$

R = 1.0000

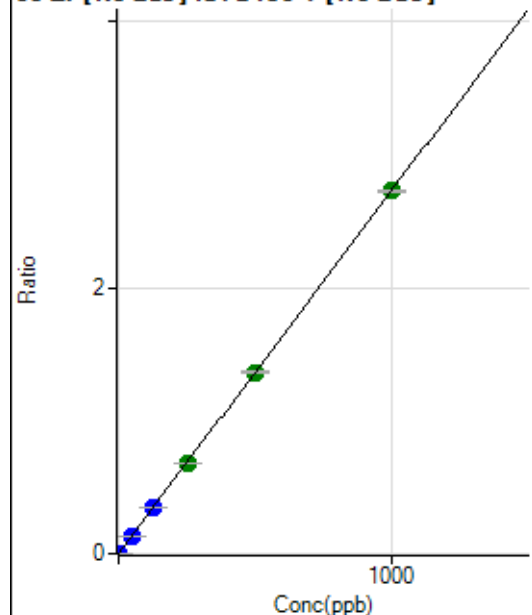
DL = 0.02611

BEC = 0.0409

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	1386.23	0.0002	P	7.6
2	☐	0.100					
3	☐	1.000	0.829	20943.74	0.0024	P	1.0
4	☐	50.000	49.408	1182668.06	0.1348	P	0.2
5	☐	125.000	125.676	2987190.39	0.3427	P	0.2
6	☐	250.000	250.268	6136528.39	0.6823	A	0.6
7	☐	500.000	500.374	12450998.11	1.3641	A	0.2
8	☐	1000.000	999.691	24788069.13	2.7252	A	0.6
9	☐			5384.61	0.0006	P	12.3

$$y = 0.0027 * x + 1.5637E-004$$

$$R = 1.0000$$

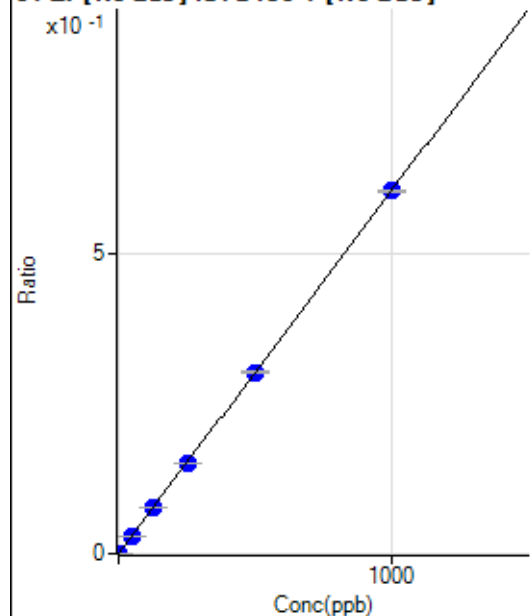
$$DL = 0.01315$$

$$BEC = 0.05737$$

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	294.46	0.0000	P	20.8
2	☐	0.100					
3	☐	1.000	0.835	4673.20	0.0005	P	4.3
4	☐	50.000	49.904	265611.79	0.0303	P	0.5
5	☐	125.000	126.415	668111.54	0.0767	P	0.4
6	☐	250.000	250.243	1364434.47	0.1517	P	0.2
7	☐	500.000	500.015	2766699.63	0.3031	P	0.5
8	☐	1000.000	999.760	5512407.20	0.6060	P	0.4
9	☐			1233.45	0.0001	P	6.5

$$y = 6.0614E-004 * x + 3.3215E-005$$

$$R = 1.0000$$

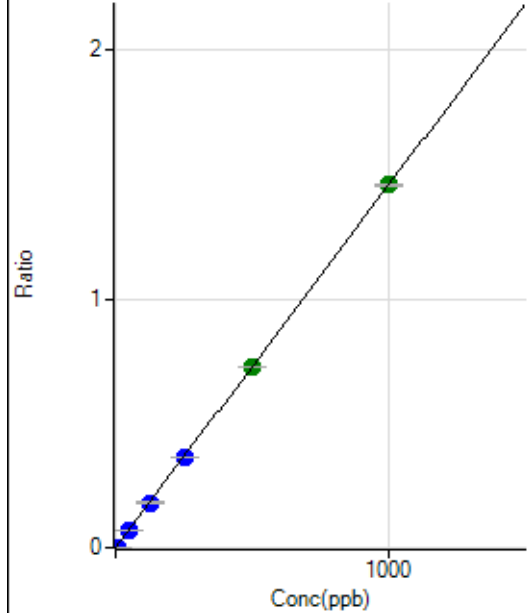
$$DL = 0.03415$$

$$BEC = 0.0548$$

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	480.58	0.0001	P	14.4
2	☐	0.500					
3	☐	5.000	1.933	24891.83	0.0029	P	1.4
4	☐	50.000	49.567	634271.18	0.0723	P	0.7
5	☐	125.000	124.382	1580778.88	0.1814	P	0.5
6	☐	250.000	247.877	3250217.70	0.3614	P	0.4
7	☐	500.000	499.260	6643646.76	0.7279	A	0.1
8	☐	1000.000	1001.015	13273789.53	1.4593	A	0.5
9	☐			9862.15	0.0011	P	8.3

$$y = 0.0015 * x + 5.4196E-005$$

$$R = 1.0000$$

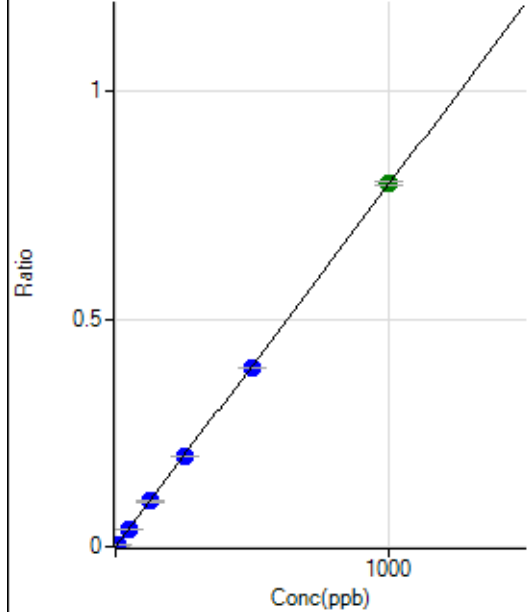
$$DL = 0.01607$$

$$BEC = 0.03718$$

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	127.78	0.0000	P	31.0
2	☐	0.500					
3	☐	5.000	4.441	30723.02	0.0035	P	1.0
4	☐	50.000	49.808	347428.98	0.0396	P	0.7
5	☐	125.000	125.031	866401.58	0.0994	P	0.3
6	☐	250.000	249.390	1783093.16	0.1983	P	0.6
7	☐	500.000	495.289	3593976.12	0.3937	P	0.2
8	☐	1000.000	1002.517	7249122.56	0.7970	A	0.9
9	☐			13832.29	0.0015	P	4.0

$$y = 7.9496E-004 * x + 1.4424E-005$$

$$R = 1.0000$$

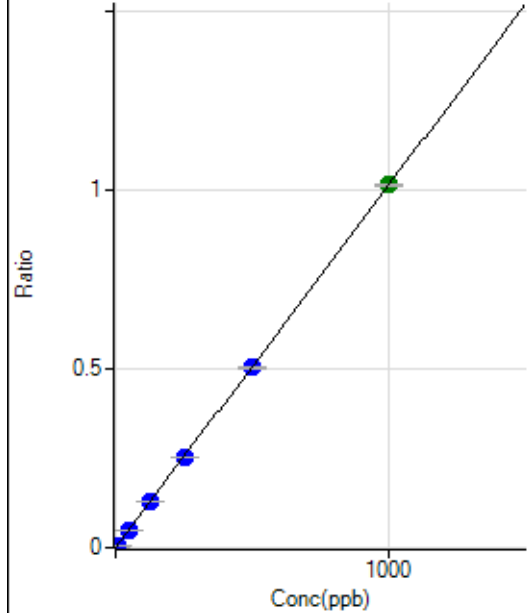
$$DL = 0.01688$$

$$BEC = 0.01814$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.68	0.0000	P	20.0
2	☐	0.500					
3	☐	5.000	3.874	34225.26	0.0039	P	2.3
4	☐	50.000	50.041	444833.81	0.0507	P	0.8
5	☐	125.000	124.813	1102160.19	0.1265	P	0.0
6	☐	250.000	249.957	2277297.32	0.2532	P	0.6
7	☐	500.000	497.036	4595771.85	0.5035	P	0.4
8	☐	1000.000	1001.519	9228183.36	1.0145	A	0.2
9	☐			18963.21	0.0021	P	1.3

$$y = 0.0010 * x + 2.4432E-005$$

$$R = 1.0000$$

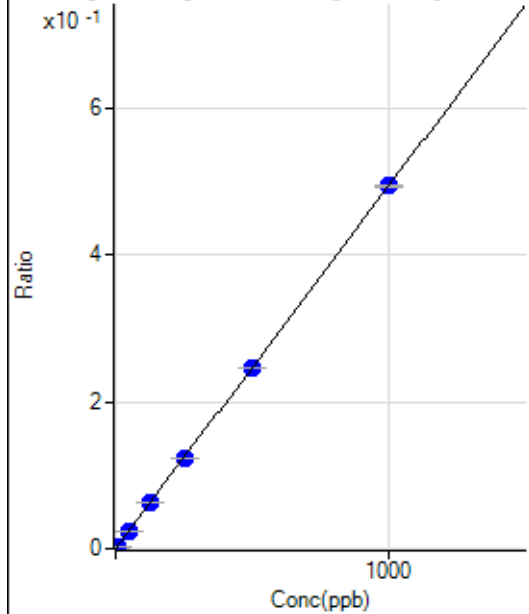
$$DL = 0.01445$$

$$BEC = 0.02412$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0000	P	47.1
2	☐	0.500					
3	☐	5.000	4.595	19733.75	0.0023	P	1.4
4	☐	50.000	50.043	217024.53	0.0247	P	0.7
5	☐	125.000	125.508	540784.44	0.0620	P	0.4
6	☐	250.000	251.244	1117018.23	0.1242	P	0.5
7	☐	500.000	497.376	2244227.72	0.2459	P	0.5
8	☐	1000.000	1000.938	4500740.81	0.4948	P	0.2
9	☐			8288.87	0.0009	P	5.1

$$y = 4.9433E-004 * x + 5.0116E-006$$

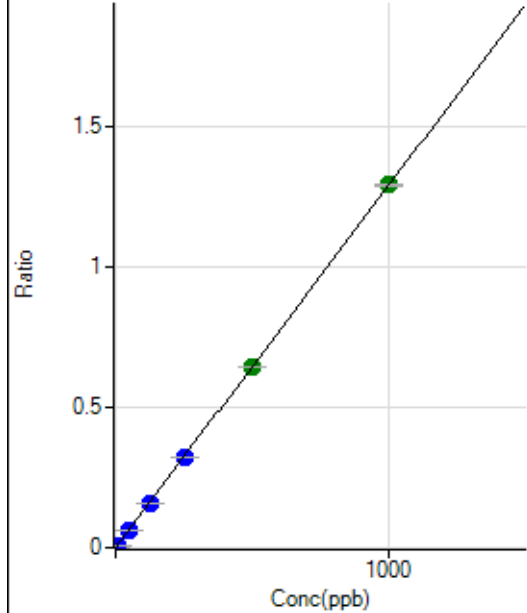
$$R = 1.0000$$

$$DL = 0.01433$$

$$BEC = 0.01014$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.68	0.0000	P	22.7
2	☐	0.500					
3	☐	5.000	4.438	49740.79	0.0057	P	3.6
4	☐	50.000	49.414	558289.89	0.0637	P	0.5
5	☐	125.000	123.749	1388943.04	0.1594	P	0.4
6	☐	250.000	248.119	2873416.21	0.3195	P	0.6
7	☐	500.000	497.259	5844450.43	0.6403	A	0.2
8	☐	1000.000	1002.029	11736243.23	1.2903	A	0.4
9	☐			21266.67	0.0024	P	5.1

$$y = 0.0013 * x + 2.4429E-005$$

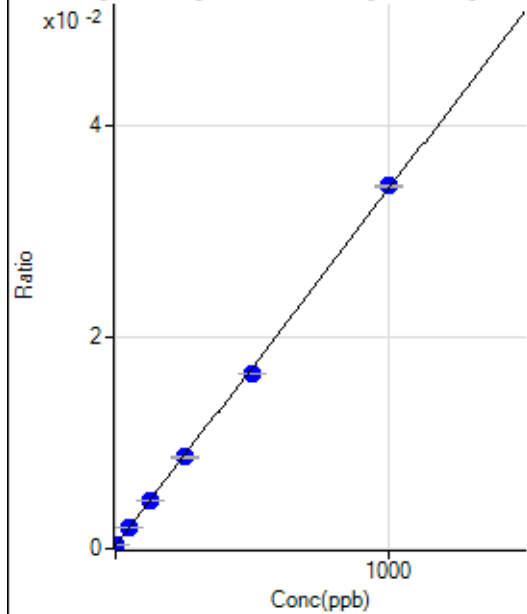
$$R = 1.0000$$

$$DL = 0.01292$$

$$BEC = 0.01897$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3161.63	0.0003	P	5.4
2	☐	0.100					
3	☐	1.000	0.154	3156.05	0.0003	P	2.6
4	☐	50.000	50.565	22279.49	0.0020	P	2.5
5	☐	125.000	125.211	50310.07	0.0045	P	1.7
6	☐	250.000	248.522	99915.05	0.0087	P	0.9
7	☐	500.000	482.424	194193.12	0.0165	P	0.3
8	☐	1000.000	1009.104	399582.62	0.0343	P	0.3
9	☐			3528.38	0.0003	P	2.9

$$y = 3.3696E-005 * x + 2.8095E-004$$

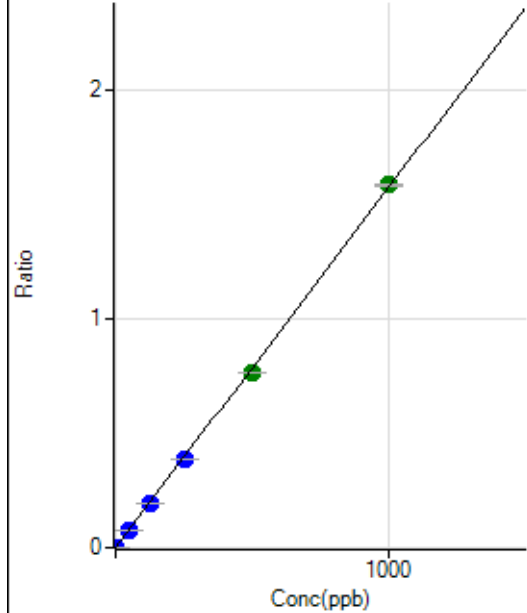
$$R = 0.9998$$

$$DL = 1.349$$

$$BEC = 8.338$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	152.78	0.0000	P	28.4
2	☐	0.100					
3	☐	1.000	0.968	16935.82	0.0015	P	0.4
4	☐	50.000	50.694	894976.14	0.0797	P	0.1
5	☐	125.000	124.837	2194372.75	0.1963	P	0.5
6	☐	250.000	245.893	4463283.26	0.3866	P	0.5
7	☐	500.000	485.921	8972208.10	0.7640	A	0.2
8	☐	1000.000	1008.052	18473018.64	1.5850	A	0.7
9	☐			2211.39	0.0002	P	14.6

$$y = 0.0016 * x + 1.3586E-005$$

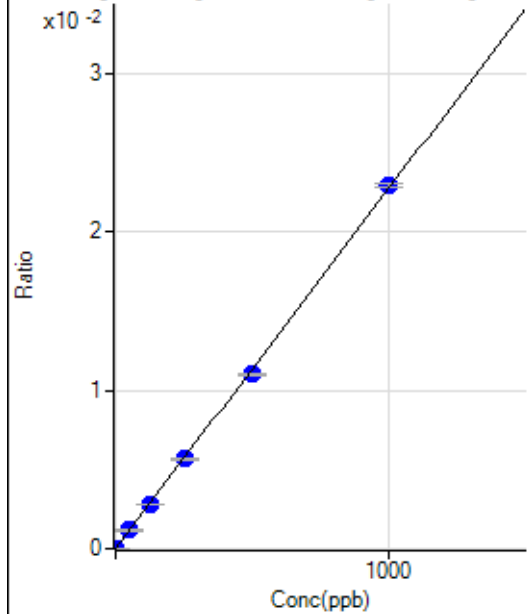
$$R = 0.9998$$

$$DL = 0.007362$$

$$BEC = 0.008641$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13.89	0.0000	P	17.1
2	☐	0.100					
3	☐	1.000	0.999	263.90	0.0000	P	9.5
4	☐	50.000	51.354	13109.04	0.0012	P	3.3
5	☐	125.000	124.700	31678.76	0.0028	P	0.3
6	☐	250.000	248.618	65210.46	0.0056	P	0.8
7	☐	500.000	484.047	129138.61	0.0110	P	0.3
8	☐	1000.000	1008.292	266959.28	0.0229	P	1.0
9	☐			72.22	0.0000	P	23.4

$$y = 2.2716E-005 * x + 1.2340E-006$$

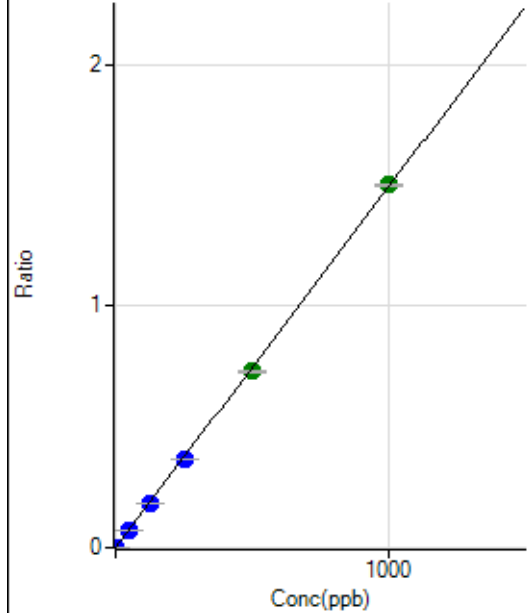
$$R = 0.9998$$

$$DL = 0.0279$$

$$BEC = 0.05432$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	24.1
2	☐	0.100					
3	☐	1.000	0.976	16129.28	0.0015	P	2.7
4	☐	50.000	50.501	845699.95	0.0753	P	0.5
5	☐	125.000	124.775	2080652.20	0.1861	P	0.5
6	☐	250.000	246.476	4244021.71	0.3676	P	0.7
7	☐	500.000	489.033	8565831.01	0.7294	A	0.5
8	☐	1000.000	1006.368	17495129.91	1.5011	A	0.5
9	☐			2108.59	0.0002	P	18.4

$$y = 0.0015 * x + 7.1611E-006$$

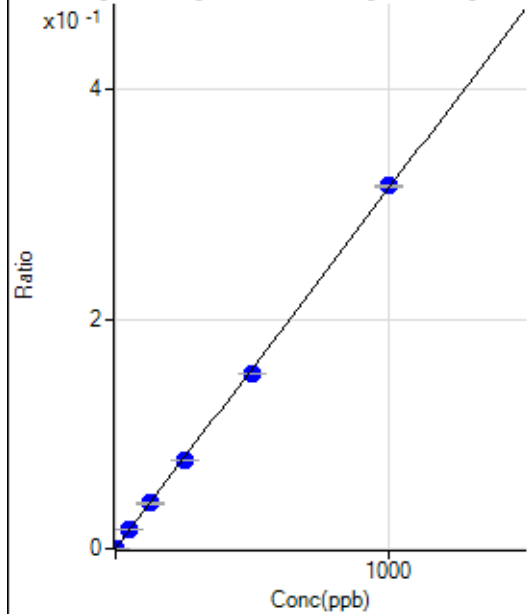
$$R = 0.9999$$

$$DL = 0.003464$$

$$BEC = 0.004801$$

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	2242.31	0.0002	P	5.3
2	☐	0.100					
3	☐	1.000	0.884	5256.91	0.0005	P	3.7
4	☐	50.000	50.376	179628.64	0.0160	P	0.7
5	☐	125.000	125.063	440779.79	0.0394	P	0.5
6	☐	250.000	247.195	897394.97	0.0777	P	0.4
7	☐	500.000	485.590	1790996.02	0.1525	P	0.6
8	☐	1000.000	1007.879	3686993.54	0.3163	P	0.5
9	☐			2887.38	0.0003	P	5.1

$$y = 3.1368E-004 * x + 1.9926E-004$$

$$R = 0.9998$$

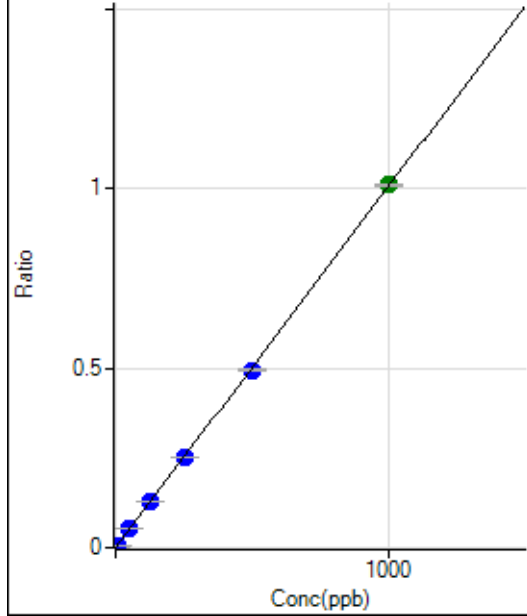
$$DL = 0.1019$$

$$BEC = 0.6352$$

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	1894.66	0.0002	P	6.6
2	☐	0.500					
3	☐	5.000	4.936	56572.93	0.0051	P	0.2
4	☐	50.000	50.571	572486.91	0.0510	P	0.5
5	☐	125.000	125.244	1409041.96	0.1260	P	0.3
6	☐	250.000	248.711	2887608.86	0.2501	P	0.4
7	☐	500.000	491.695	5805311.89	0.4944	P	0.5
8	☐	1000.000	1004.416	11767953.74	1.0097	A	0.2
9	☐			7065.98	0.0006	P	3.4

$$y = 0.0010 * x + 1.6837E-004$$

$$R = 0.9999$$

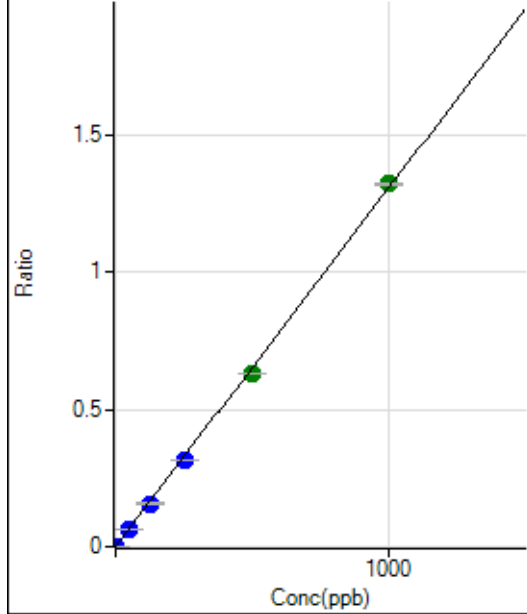
$$DL = 0.03326$$

$$BEC = 0.1675$$

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	686.17	0.0001	P	11.6
2	☐	0.200					
3	☐	2.000	1.761	26063.98	0.0024	P	2.1
4	☐	50.000	48.001	705199.57	0.0628	P	0.7
5	☐	125.000	120.540	1762487.93	0.1577	P	0.5
6	☐	250.000	239.521	3615746.57	0.3132	P	0.5
7	☐	500.000	482.492	7408501.99	0.6309	A	0.5
8	☐	1000.000	1012.032	15422079.16	1.3232	A	0.5
9	☐			28390.66	0.0026	P	3.7

$$y = 0.0013 * x + 6.0956E-005$$

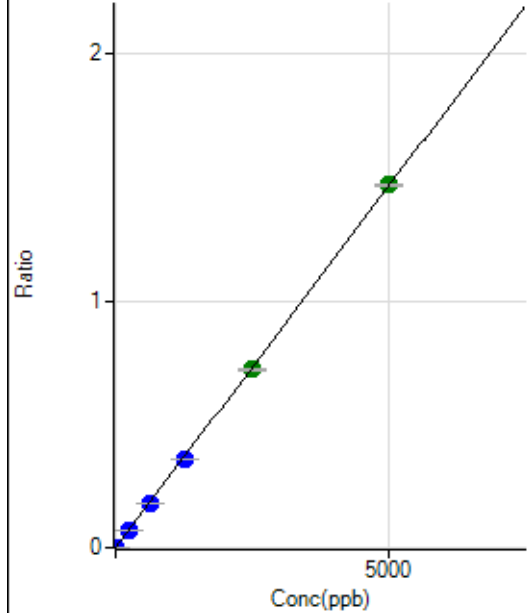
$$R = 0.9997$$

$$DL = 0.01617$$

$$BEC = 0.04662$$

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	261.13	0.0000	P	11.6
2	☐	1.000					
3	☐	10.000	8.835	28786.28	0.0026	P	1.3
4	☐	250.000	248.299	816394.27	0.0727	P	0.9
5	☐	625.000	616.391	2017709.03	0.1805	P	0.1
6	☐	1250.000	1229.510	4155966.94	0.3600	P	0.4
7	☐	2500.000	2467.057	8482888.82	0.7224	A	0.6
8	☐	5000.000	5022.758	17140480.42	1.4707	A	0.4
9	☐			4714.91	0.0004	P	7.8

$$y = 2.9279\text{E-}004 * x + 2.3211\text{E-}005$$

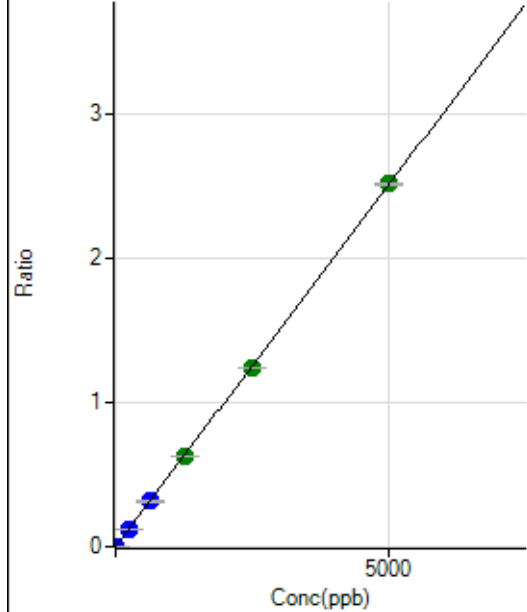
$$R = 1.0000$$

$$DL = 0.02754$$

$$BEC = 0.07927$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	563.93	0.0001	P	27.1
2	☐	1.000					
3	☐	10.000	9.007	50289.12	0.0046	P	1.6
4	☐	250.000	251.700	1415248.00	0.1261	P	0.3
5	☐	625.000	625.071	3498955.42	0.3130	P	0.2
6	☐	1250.000	1241.708	7177110.67	0.6217	A	0.5
7	☐	2500.000	2469.403	14519145.12	1.2364	A	0.7
8	☐	5000.000	5017.280	29277719.40	2.5120	A	0.3
9	☐			7938.70	0.0007	P	7.9

$$y = 5.0067\text{E-}004 * x + 5.0093\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.0814$$

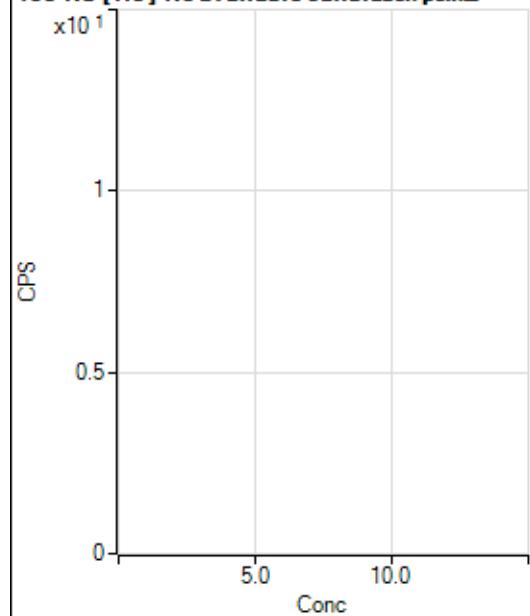
$$BEC = 0.1001$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

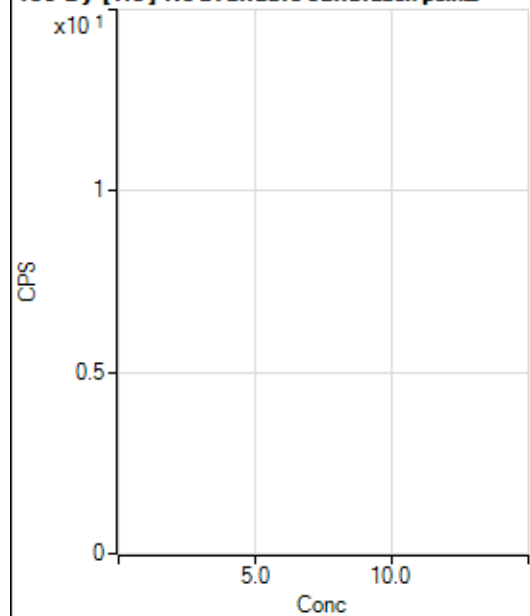
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			11.11		P	91.7
4	☐			60.00		P	0.0
5	☐			111.12		P	27.1
6	☐			293.35		P	13.8
7	☐			464.47		P	14.4
8	☐			853.39		P	4.9
9	☐			160.01		P	27.3

150 Nd [He] No available calibration points

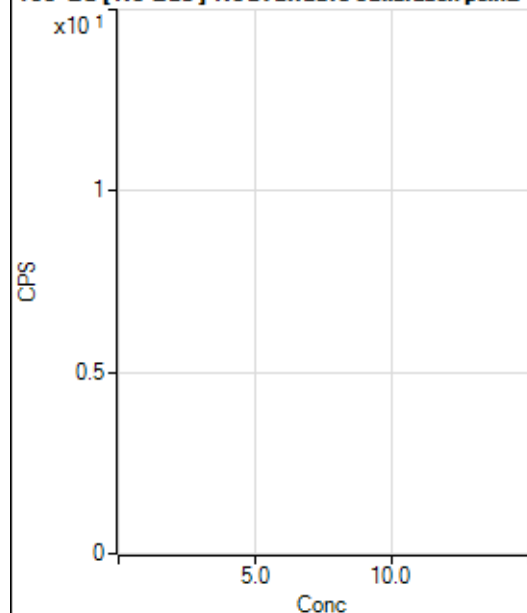
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			1.11		P	173.2
4	☐			4.44		P	114.6
5	☐			21.11		P	32.9
6	☐			33.33		P	43.6
7	☐			70.00		P	25.2
8	☐			85.56		P	17.6
9	☐			67.78		P	22.2

156 Dy [No Gas] No available calibration points

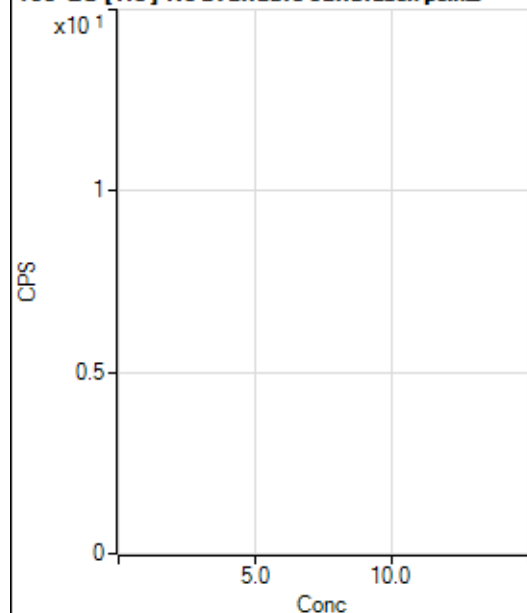
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	50.0
2	☐						
3	☐			8.33		P	100.0
4	☐			13.89		P	69.3
5	☐			44.45		P	28.7
6	☐			80.56		P	6.0
7	☐			150.01		P	5.6
8	☐			266.68		P	36.0
9	☐			119.45		P	24.5

156 Dy [He] No available calibration points

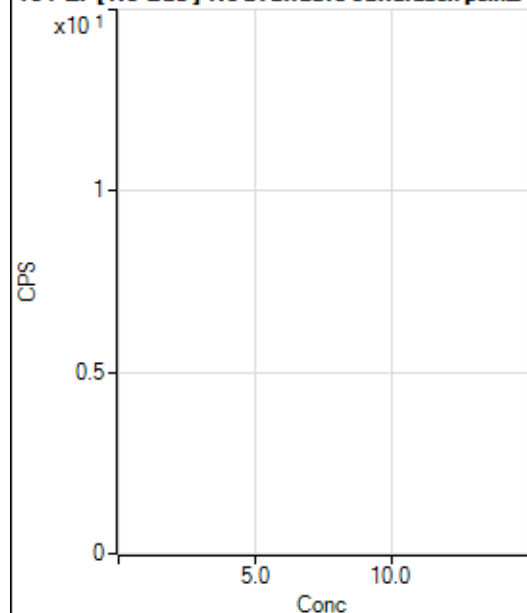
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			5.56		P	34.7
4	☐			14.44		P	81.1
5	☐			20.00		P	28.9
6	☐			43.34		P	26.6
7	☐			97.78		P	16.8
8	☐			141.11		P	13.0
9	☐			52.22		P	31.5

160 Gd [No Gas] Noavailable calibration poin_

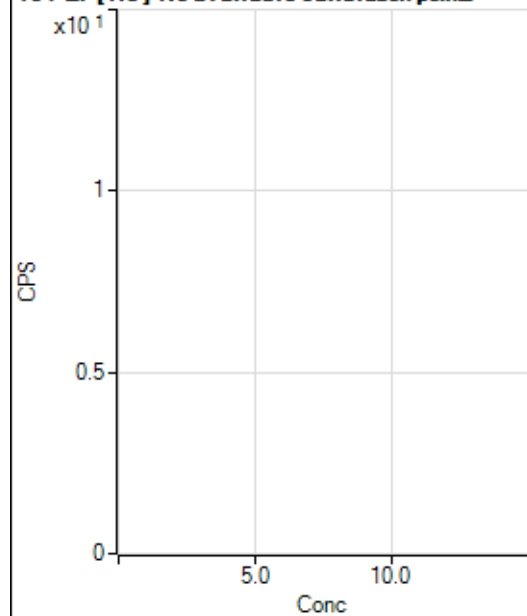
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			116.67		P	24.7
2	☐						
3	☐			133.34		P	16.5
4	☐			102.78		P	16.9
5	☐			138.90		P	9.2
6	☐			86.11		P	36.6
7	☐			227.79		P	16.5
8	☐			269.46		P	6.4
9	☐			222.23		P	28.6

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			127.78		P	13.1
2	☐						
3	☐			107.78		P	20.6
4	☐			143.34		P	7.0
5	☐			138.89		P	12.3
6	☐			137.78		P	18.2
7	☐			175.56		P	17.6
8	☐			188.89		P	12.0
9	☐			192.23		P	17.1

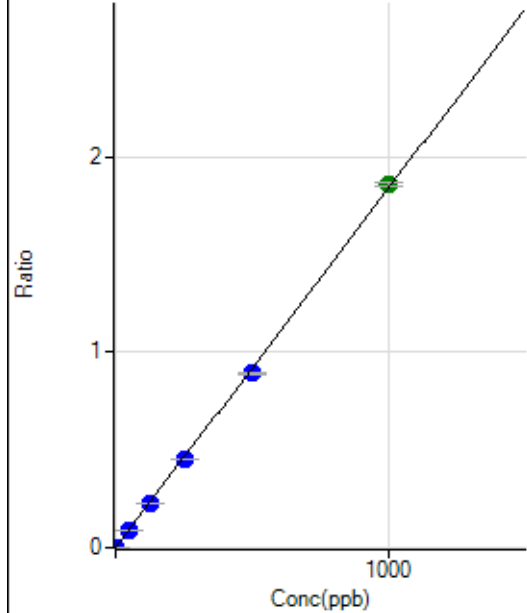
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.44		P	21.7
2	☐						
3	☐			66.67		P	33.1
4	☐			38.89		P	24.7
5	☐			52.78		P	39.7
6	☐			36.11		P	48.0
7	☐			55.56		P	22.9
8	☐			88.89		P	5.4
9	☐			105.56		P	22.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			18.89		P	62.0
2	☐						
3	☐			28.89		P	24.0
4	☐			22.22		P	45.8
5	☐			17.78		P	21.7
6	☐			25.55		P	15.1
7	☐			38.89		P	4.9
8	☐			35.56		P	56.5
9	☐			46.67		P	7.1

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	216.68	0.0000	P	12.6
2	☐	0.100					
3	☐	1.000	0.924	12461.91	0.0017	P	3.3
4	☐	50.000	47.642	646361.84	0.0876	P	0.9
5	☐	125.000	121.003	1617336.46	0.2225	P	0.1
6	☐	250.000	244.075	3315611.36	0.4487	P	0.4
7	☐	500.000	485.118	6658526.71	0.8919	P	0.5
8	☐	1000.000	1009.540	13741846.49	1.8559	A	1.2
9	☐			5454.17	0.0009	P	16.5

$$y = 0.0018 * x + 2.9360E-005$$

$$R = 0.9998$$

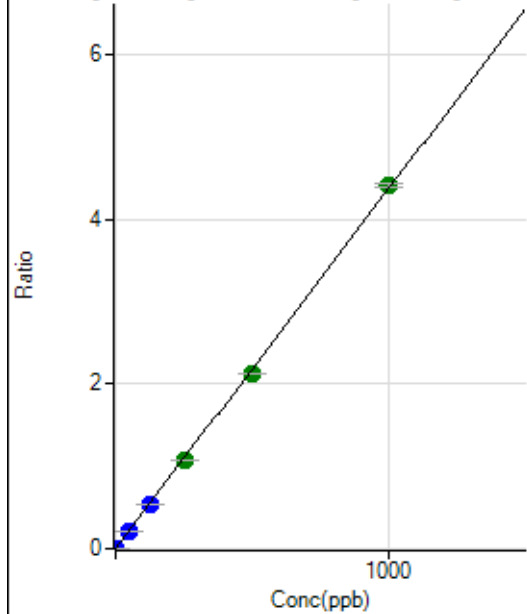
$$DL = 0.006014$$

$$BEC = 0.01597$$

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	483.36	0.0001	P	5.9
2	☐	0.100					
3	☐	1.000	0.921	29483.62	0.0041	P	0.8
4	☐	50.000	48.195	1552511.98	0.2104	P	0.9
5	☐	125.000	122.351	3883029.99	0.5341	P	0.0
6	☐	250.000	244.508	7886572.14	1.0674	A	0.4
7	☐	500.000	486.548	15856980.22	2.1239	A	0.1
8	☐	1000.000	1008.520	32596639.96	4.4023	A	1.0
9	☐			13107.11	0.0021	P	10.4

$$y = 0.0044 * x + 6.5555E-005$$

$$R = 0.9999$$

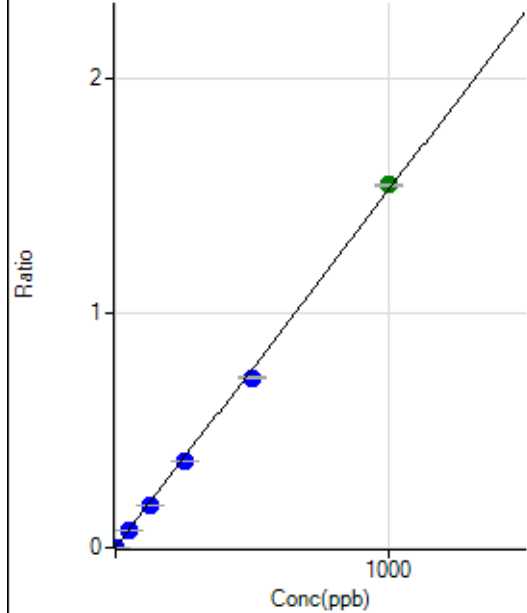
$$DL = 0.002671$$

$$BEC = 0.01502$$

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	2976.34	0.0004	P	4.4
2	☐	0.100					
3	☐	1.000	0.895	12726.80	0.0018	P	3.0
4	☐	50.000	47.275	533209.49	0.0723	P	1.0
5	☐	125.000	119.935	1328409.72	0.1827	P	0.3
6	☐	250.000	240.190	2701056.40	0.3656	P	0.4
7	☐	500.000	475.933	5404935.83	0.7240	P	0.7
8	☐	1000.000	1015.255	11431609.63	1.5439	A	0.7
9	☐			13820.52	0.0022	P	2.8

$$y = 0.0015 * x + 4.0345E-004$$

$$R = 0.9995$$

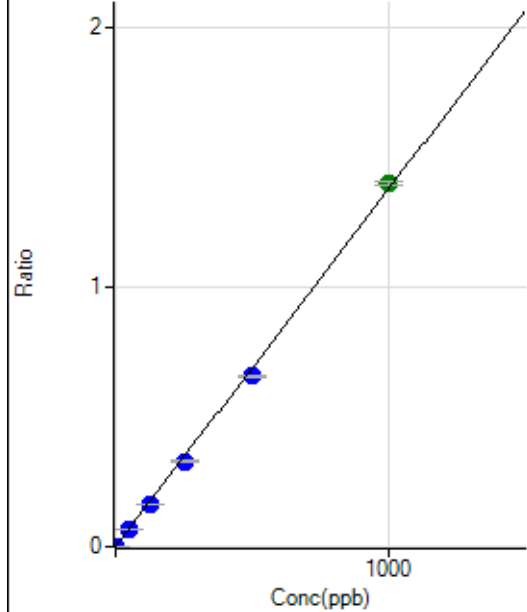
$$DL = 0.03465$$

$$BEC = 0.2654$$

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	2629.97	0.0004	P	4.6
2	☐	0.100					
3	☐	1.000	0.900	11496.07	0.0016	P	1.2
4	☐	50.000	47.548	484944.64	0.0657	P	0.6
5	☐	125.000	119.888	1200860.62	0.1652	P	0.6
6	☐	250.000	239.172	2432435.24	0.3292	P	0.9
7	☐	500.000	476.812	4897276.21	0.6560	P	0.4
8	☐	1000.000	1015.063	10336752.20	1.3960	A	1.1
9	☐			11862.99	0.0019	P	3.1

$$y = 0.0014 * x + 3.5650E-004$$

$$R = 0.9995$$

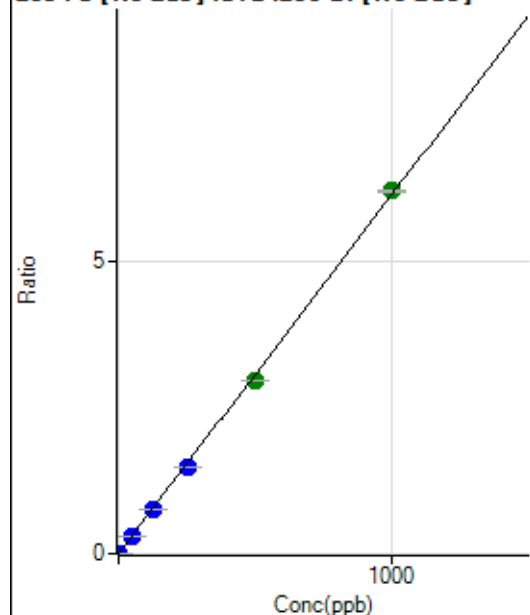
$$DL = 0.03604$$

$$BEC = 0.2593$$

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	11863.55	0.0016	P	6.2
2	☐	0.100					
3	☐	1.000	0.892	51063.42	0.0071	P	2.3
4	☐	50.000	47.985	2183194.00	0.2959	P	0.6
5	☐	125.000	120.819	5398664.99	0.7426	P	0.3
6	☐	250.000	242.651	11008538.42	1.4899	P	0.5
7	☐	500.000	481.178	22046208.60	2.9529	A	0.1
8	☐	1000.000	1011.872	45967109.82	6.2079	A	0.4
9	☐			55022.05	0.0086	P	1.7

$$y = 0.0061 * x + 0.0016$$

$$R = 0.9997$$

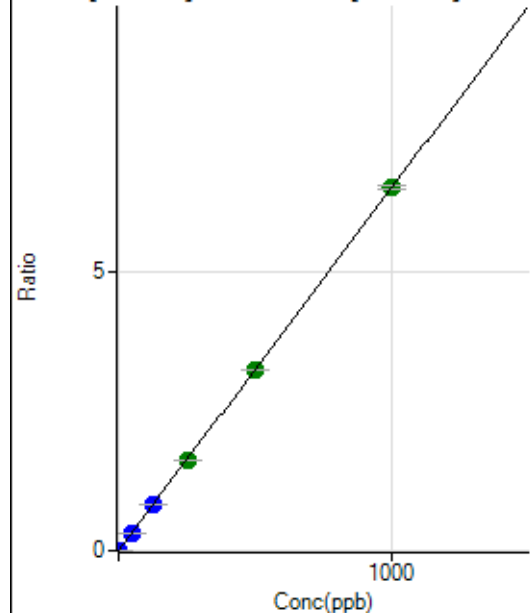
$$DL = 0.0485$$

$$BEC = 0.2622$$

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	586.16	0.0001	P	7.3
2	☐	0.100					
3	☐	1.000	0.863	41208.00	0.0057	P	0.3
4	☐	50.000	49.106	2364017.59	0.3204	P	0.1
5	☐	125.000	126.155	5983257.25	0.8231	P	0.5
6	☐	250.000	250.682	12083971.63	1.6354	A	0.5
7	☐	500.000	499.020	24305470.51	3.2555	A	0.6
8	☐	1000.000	1000.220	48313958.72	6.5251	A	1.2
9	☐			4695.54	0.0007	P	20.5

$$y = 0.0065 * x + 7.9483E-005$$

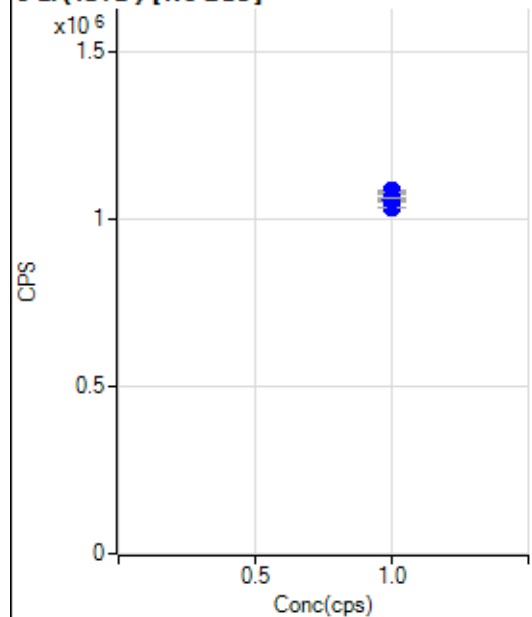
$$R = 1.0000$$

$$DL = 0.002652$$

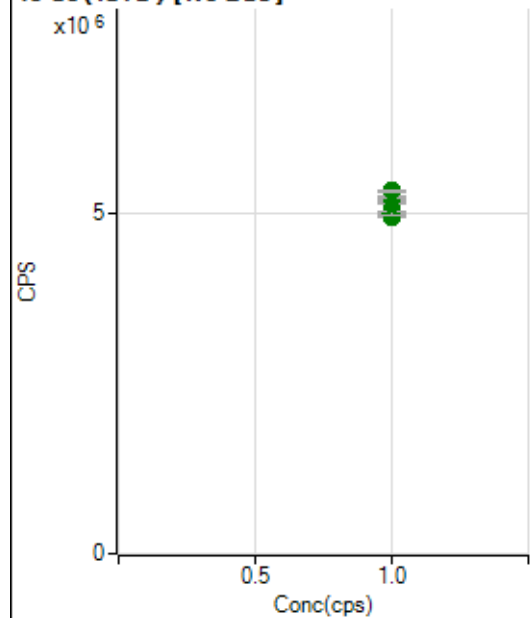
$$BEC = 0.01218$$

Weight: <None>

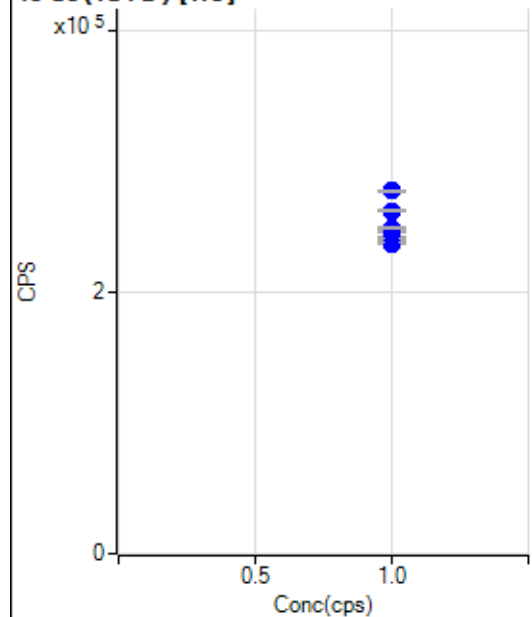
Min Conc: 0

6 Li (ISTD) [No Gas]

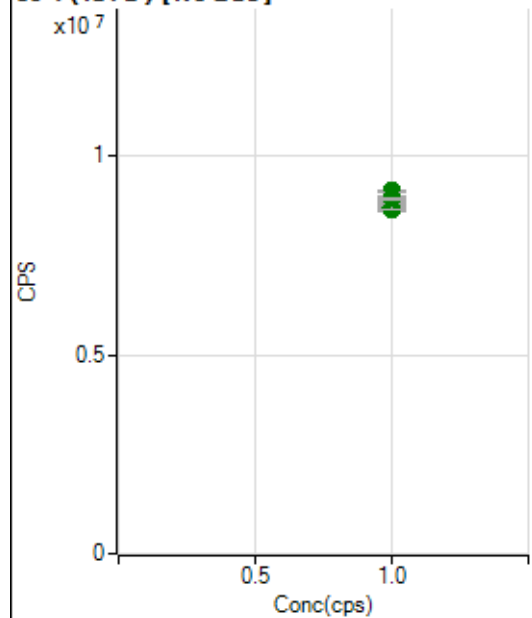
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1060771.82		P	0.2
2	☐	1.000					
3	☐	1.000		1036662.56		P	0.4
4	☐	1.000		1062027.68		P	0.3
5	☐	1.000		1061191.23		P	1.1
6	☐	1.000		1077470.39		P	0.2
7	☐	1.000		1086303.89		P	0.0
8	☐	1.000		1082256.31		P	0.5
9	☐	1.000		1063182.40		P	0.1

45 Sc (ISTD) [No Gas]

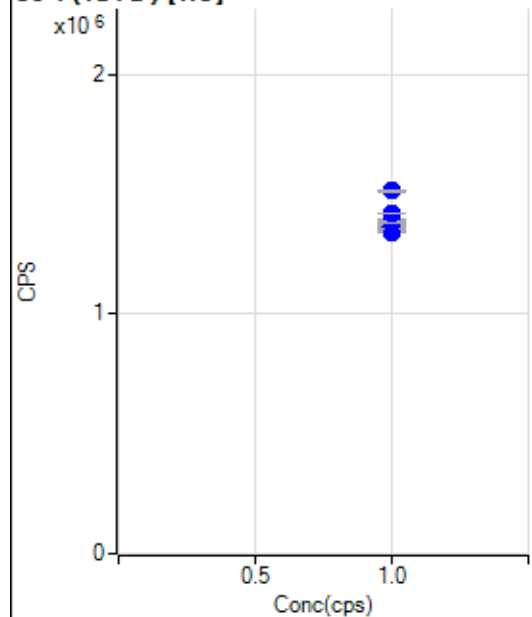
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5030930.67		A	0.5
2	☐	1.000					
3	☐	1.000		4943368.25		A	0.4
4	☐	1.000		5000974.50		A	0.6
5	☐	1.000		4996922.59		A	1.0
6	☐	1.000		5154618.82		A	0.3
7	☐	1.000		5219151.68		A	0.3
8	☐	1.000		5252879.94		A	0.7
9	☐	1.000		5333833.97		A	0.7

45 Sc (ISTD) [He]

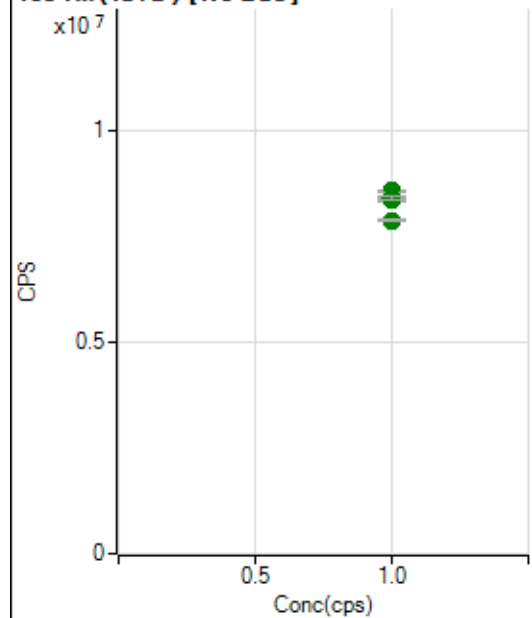
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		241237.59		P	0.9
2	☐	1.000					
3	☐	1.000		237086.71		P	0.3
4	☐	1.000		238536.29		P	0.8
5	☐	1.000		242310.83		P	0.5
6	☐	1.000		246021.43		P	0.8
7	☐	1.000		249084.47		P	0.3
8	☐	1.000		262074.67		P	0.5
9	☐	1.000		277282.17		P	0.6

89 Y (ISTD) [No Gas]

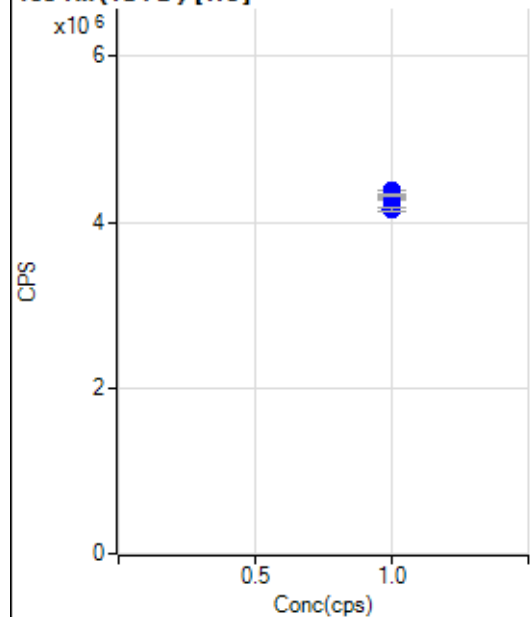
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8864265.70		A	0.4
2	☐	1.000					
3	☐	1.000		8668328.13		A	0.8
4	☐	1.000		8771234.59		A	0.2
5	☐	1.000		8715832.86		A	1.8
6	☐	1.000		8993485.84		A	0.7
7	☐	1.000		9127625.21		A	0.2
8	☐	1.000		9096050.28		A	0.4
9	☐	1.000		8942867.30		A	0.7

89 Y (ISTD) [He]

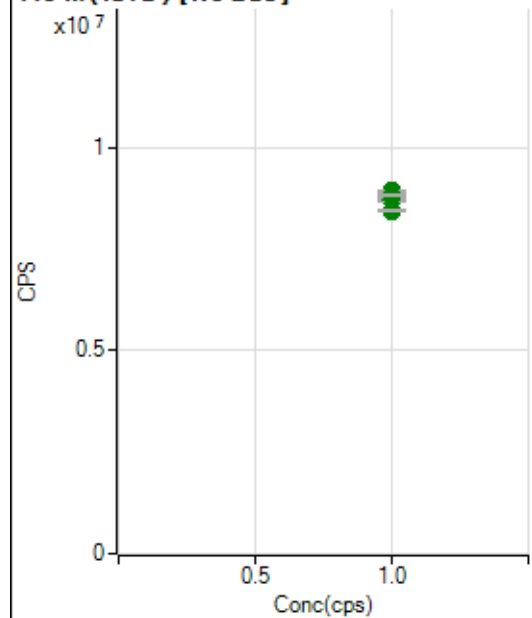
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1365962.56		P	0.3
2	☐	1.000					
3	☐	1.000		1343701.27		P	0.3
4	☐	1.000		1352460.74		P	0.1
5	☐	1.000		1365374.08		P	0.9
6	☐	1.000		1392155.59		P	0.6
7	☐	1.000		1382494.11		P	0.4
8	☐	1.000		1421043.75		P	0.4
9	☐	1.000		1513594.96		P	0.8

103 Rh (ISTD) [No Gas]

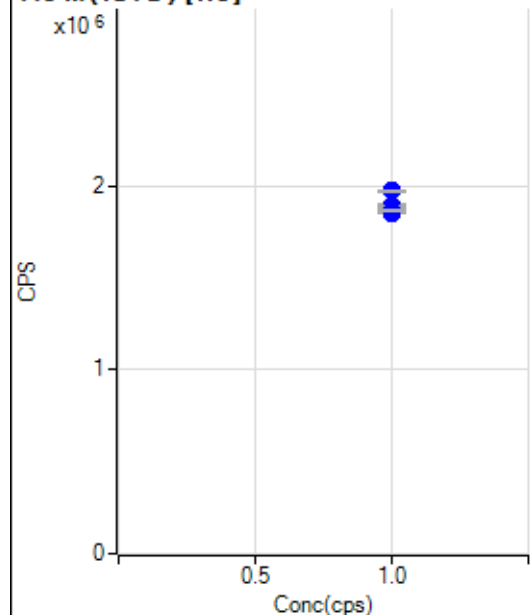
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8558930.66		A	0.4
2	☐	1.000					
3	☐	1.000		8435506.18		A	0.4
4	☐	1.000		8551202.01		A	0.4
5	☐	1.000		8353555.05		A	1.6
6	☐	1.000		8565408.35		A	0.1
7	☐	1.000		8520242.55		A	0.1
8	☐	1.000		8402263.04		A	0.8
9	☐	1.000		7871574.22		A	0.6

103 Rh (ISTD) [He]

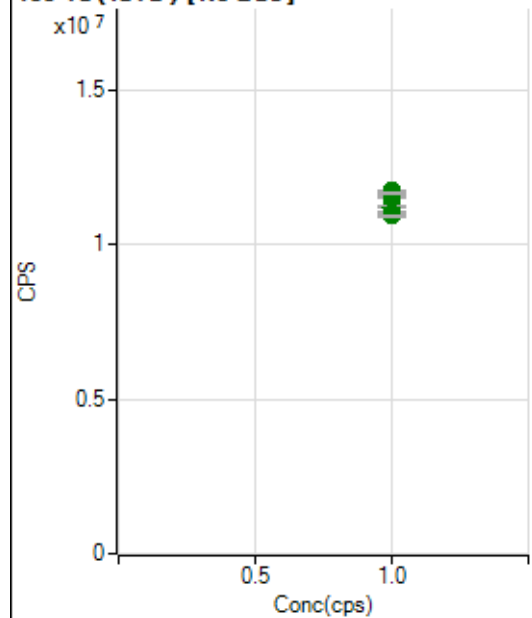
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4377329.55		P	0.1
2	☐	1.000					
3	☐	1.000		4300968.90		P	0.1
4	☐	1.000		4340031.36		P	0.4
5	☐	1.000		4312658.68		P	0.6
6	☐	1.000		4315219.52		P	0.5
7	☐	1.000		4273528.13		P	0.7
8	☐	1.000		4321668.51		P	0.4
9	☐	1.000		4159466.36		P	0.9

115 In (ISTD) [No Gas]

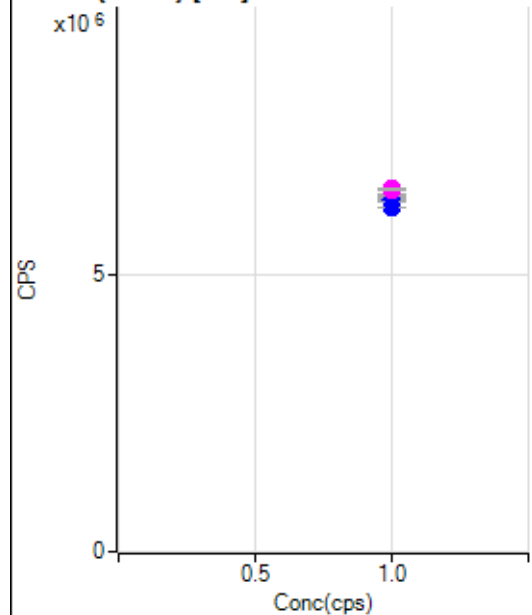
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8911698.72		A	0.5
2	☐	1.000					
3	☐	1.000		8721973.75		A	0.4
4	☐	1.000		8872836.70		A	0.4
5	☐	1.000		8713832.09		A	1.1
6	☐	1.000		8905456.79		A	0.4
7	☐	1.000		8923486.55		A	0.7
8	☐	1.000		8811687.14		A	0.5
9	☐	1.000		8428811.78		A	0.5

115 In (ISTD) [He]

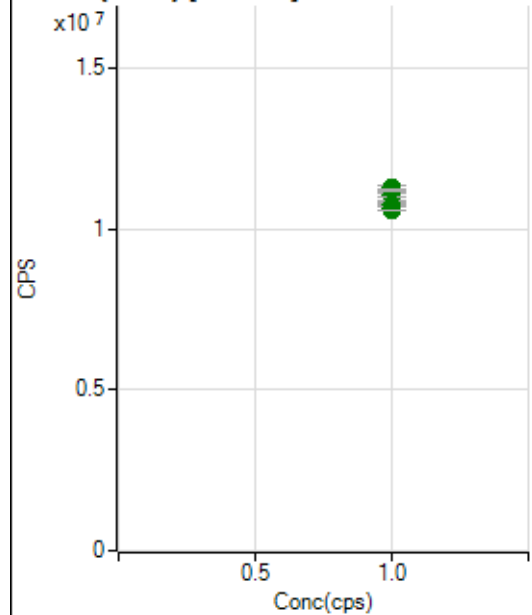
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1895515.82		P	0.8
2	☐	1.000					
3	☐	1.000		1853570.22		P	0.4
4	☐	1.000		1876794.95		P	0.3
5	☐	1.000		1875778.21		P	0.8
6	☐	1.000		1888962.37		P	0.7
7	☐	1.000		1855078.33		P	0.2
8	☐	1.000		1866601.77		P	0.6
9	☐	1.000		1973252.10		P	0.7

159 Tb (ISTD) [No Gas]

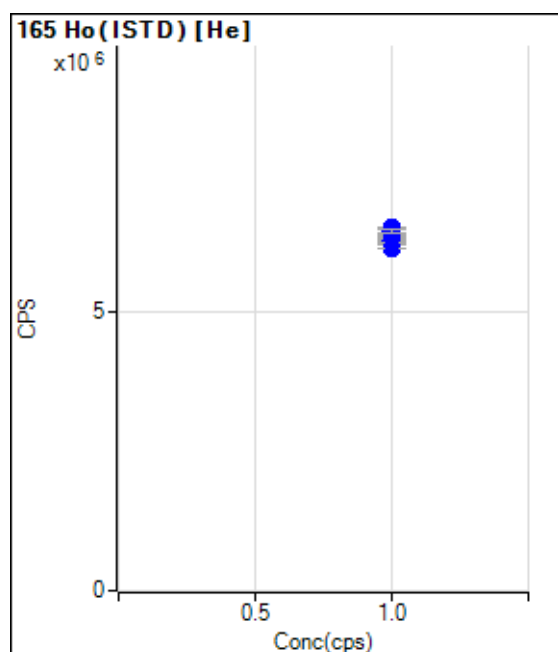
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11253365.81		A	0.4
2	☐	1.000					
3	☐	1.000		11029364.70		A	0.5
4	☐	1.000		11226140.67		A	0.6
5	☐	1.000		11178654.97		A	1.7
6	☐	1.000		11543865.94		A	0.3
7	☐	1.000		11743114.97		A	0.5
8	☐	1.000		11655125.80		A	0.6
9	☐	1.000		10948175.25		A	0.6

159 Tb (ISTD) [He]

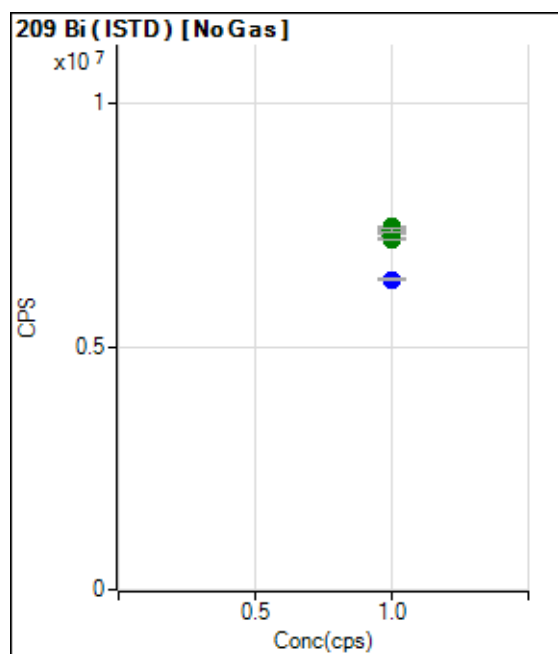
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6315001.64		P	0.2
2	☐	1.000					
3	☐	1.000		6201297.06		P	0.1
4	☐	1.000		6307678.72		P	0.3
5	☐	1.000		6331574.63		P	0.7
6	☐	1.000		6416021.15		P	0.6
7	☐	1.000		6426028.31		P	0.7
8	☐	1.000		6528677.12		M	0.1
9	☐	1.000		6517166.78		M	0.7

165 Ho (ISTD) [No Gas]

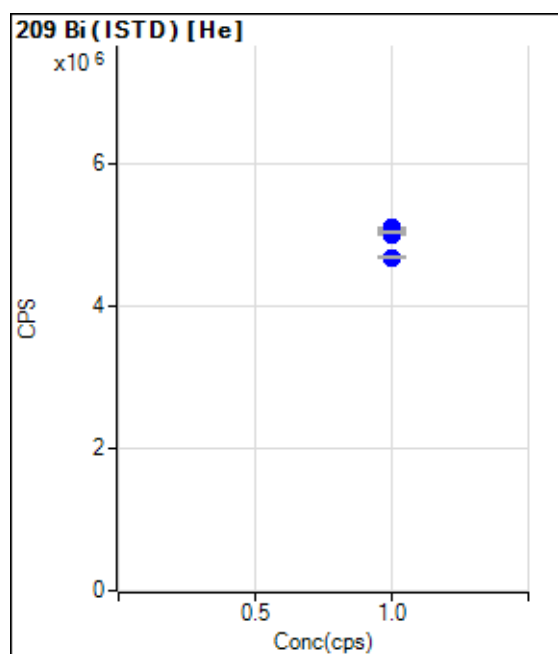
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10768645.73		A	0.1
2	☐	1.000					
3	☐	1.000		10659591.99		A	1.1
4	☐	1.000		10798379.84		A	0.3
5	☐	1.000		10774325.85		A	1.7
6	☐	1.000		11044429.06		A	0.9
7	☐	1.000		11271879.33		A	1.4
8	☐	1.000		11219203.38		A	0.4
9	☐	1.000		10567158.05		A	0.3



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6220311.71		P	0.2
2	☐	1.000					
3	☐	1.000		6120689.42		P	0.2
4	☐	1.000		6247967.34		P	0.3
5	☐	1.000		6271742.75		P	0.8
6	☐	1.000		6351321.64		P	0.5
7	☐	1.000		6389100.67		P	0.4
8	☐	1.000		6497820.81		P	0.7
9	☐	1.000		6445329.97		P	0.7



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7375647.11		A	0.8
2	☐	1.000					
3	☐	1.000		7214318.23		A	0.7
4	☐	1.000		7377665.45		A	0.4
5	☐	1.000		7269686.90		A	1.4
6	☐	1.000		7388911.49		A	0.4
7	☐	1.000		7466005.38		A	0.5
8	☐	1.000		7404833.92		A	1.0
9	☐	1.000		6388790.60		P	0.6



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5090524.61		P	0.3
2	☐	1.000					
3	☐	1.000		4998549.72		P	0.7
4	☐	1.000		5070717.39		P	0.4
5	☐	1.000		5041268.81		P	0.6
6	☐	1.000		5045475.69		P	0.8
7	☐	1.000		5021070.76		P	0.1
8	☐	1.000		5027808.85		P	0.7
9	☐	1.000		4678947.43		P	0.5

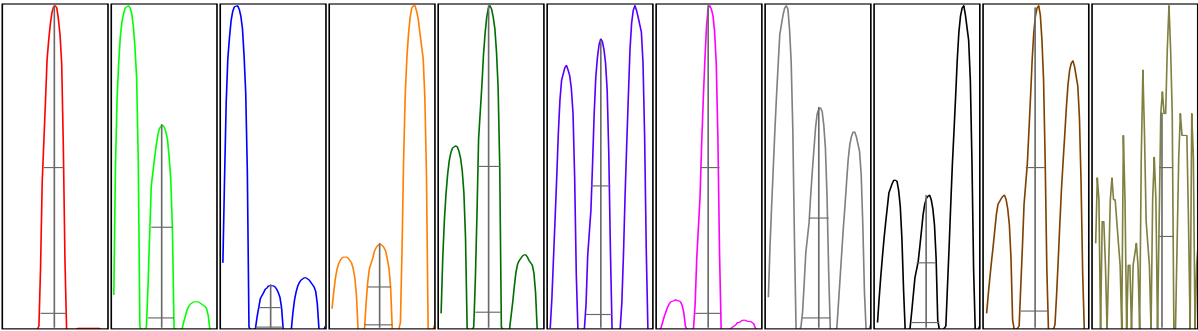
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7100217-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]					
Mass	Count	RSD%	RSD%	RSD%	
	(Mean)	(Actual)	(Required)	(Flag)	
9	6558	0.47	5.00		
24	46829	0.36	5.00		
25	6427	0.41	5.00		
26	7706	0.38	5.00		
59	92576	0.51	5.00		
113	11165	0.44	5.00		
115	134343	0.48	5.00		
206	33898	0.66	5.00		
207	30472	0.41	5.00		
208	72892	0.46	5.00		
220	0	35.36			

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
9	6539	6592	6557	6518	6584
24	46595	46955	46924	46708	46964
25	6386	6424	6435	6431	6459
26	7676	7705	7754	7690	7705
59	91797	93021	92543	92711	92806
113	11097	11233	11162	11182	11154
115	133487	134989	134974	134130	134133
206	33545	34138	33837	33960	34008
207	30267	30552	30473	30476	30590
208	72369	73093	72985	72790	73224
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak	Axis	Axis	Axis	Width-X%	Width-X%	Width-
	Height	(Actual)	(Required)	(Flag)	(Actual)	(Required)	X%
9	11389	9.00	8.9 - 9.1		0.777	0.900	
24	76707	23.95	23.9 - 24.1		0.784	0.900	
25	10460	24.95	24.9 - 25.1		0.787	0.900	
26	12297	25.95	25.9 - 26.1		0.788	0.900	
59	157416	58.95	58.9 - 59.1		0.779	0.900	
113	21119	113.05	112.9 - 113.1		0.764	0.900	
115	260323	115.00	114.9 - 115.1		0.759	0.900	
206	62754	206.05	205.9 - 206.1		0.808	0.900	
207	55940	207.00	206.9 - 207.1		0.793	0.900	
208	135013	208.00	207.9 - 208.1		0.818	0.900	
220	1	220.50	-		0.407		

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	10.6	V	Deflect	14.4	V
Extract 2	-215.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-105	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	180	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	24699	0.66	
89	11388	0.37	
205	35377	0.30	

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
59	24477	24603	24874	24836	24703
89	11326	11379	11441	11387	11405
205	35302	35324	35536	35439	35284

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	10.9	V	Deflect	2.6	V
Extract 2	-240.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-115	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			