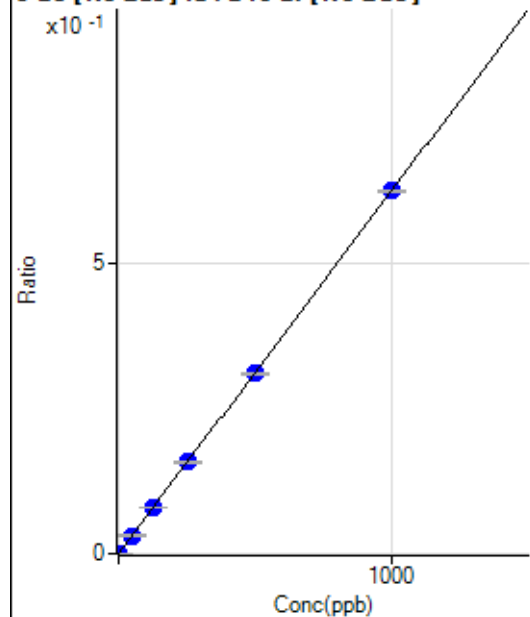


Calibration for 010CALS.d

Batch Folder: D:\ICP-MS Data\1\DATA\P7040220MS.b\
 Analysis File: P7040220MS.batch.bin
 DA Date-Time: 2020-04-02 16:27:59
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-04-02 12:53:52
2	005CALS.d	S02	2020-04-02 13:02:08
3	006CALS.d	S03	2020-04-02 13:06:03
4	007CALS.d	S04	2020-04-02 13:10:26
5	008CALS.d	S05	2020-04-02 13:14:10
6	009CALS.d	S06	2020-04-02 13:17:45
7	010CALS.d	S07	2020-04-02 13:21:16
8	011CALS.d	S08	2020-04-02 13:24:47

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	151.86	0.0000	P	7.2
2	☐	1.000	1.014	3867.25	0.0007	P	3.8
3	☐	50.000	50.281	188066.69	0.0314	P	0.2
4	☐	125.000	128.161	458104.75	0.0801	P	1.4
5	☐	250.000	253.751	873780.88	0.1586	P	1.9
6	☐	500.000	496.906	1670588.77	0.3106	P	1.1
7	☐	1000.000	1000.200	3187728.95	0.6251	P	0.5
8	☐			831.53	0.0002	P	11.2

$$y = 6.2494\text{E-}004 * x + 2.4794\text{E-}005$$

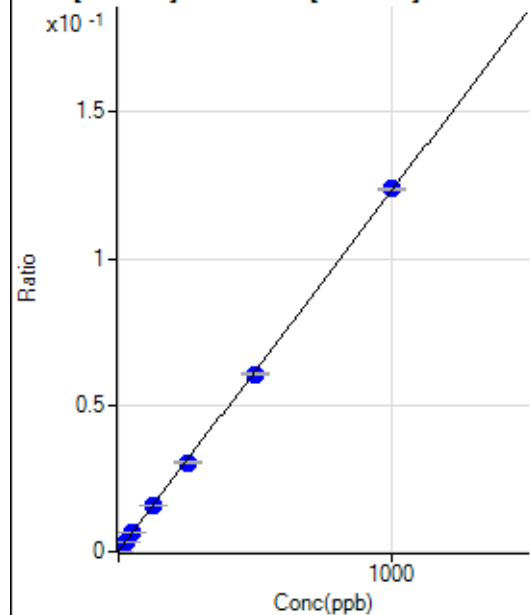
$$R = 1.0000$$

$$DL = 0.008618$$

$$BEC = 0.03967$$

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	1241.77	0.0002	P	15.6
2	☐	25.000	24.991	19218.46	0.0033	P	4.9
3	☐	50.000	49.268	37411.17	0.0063	P	0.7
4	☐	125.000	126.359	89928.63	0.0157	P	0.6
5	☐	250.000	246.476	167942.22	0.0305	P	2.7
6	☐	500.000	490.537	325287.91	0.0605	P	1.1
7	☐	1000.000	1005.480	631007.38	0.1237	P	0.3
8	☐			15308.41	0.0033	P	3.1

$$y = 1.2286\text{E-}004 * x + 2.0264\text{E-}004$$

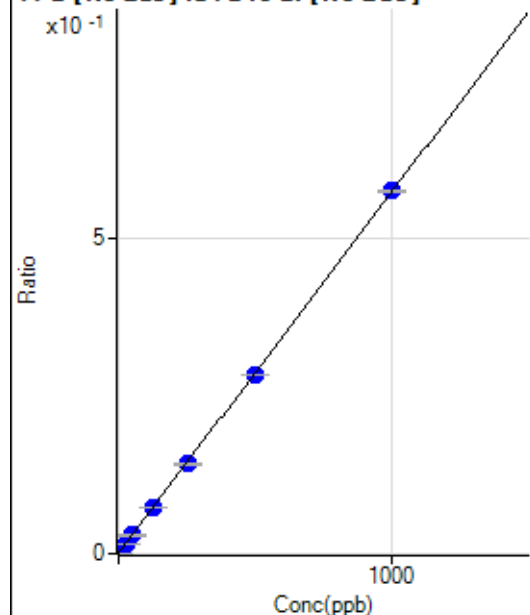
$$R = 0.9999$$

$$DL = 0.7699$$

$$BEC = 1.649$$

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	6023.63	0.0010	P	4.3
2	☐	25.000	24.849	89481.95	0.0152	P	3.7
3	☐	50.000	49.379	175211.08	0.0293	P	2.6
4	☐	125.000	125.133	415950.40	0.0727	P	1.2
5	☐	250.000	247.266	786630.70	0.1428	P	2.3
6	☐	500.000	492.763	1525467.79	0.2836	P	0.2
7	☐	1000.000	1004.320	2942197.59	0.5769	P	0.4
8	☐			70412.52	0.0152	P	6.1

$$y = 5.7348\text{E-}004 * x + 9.8365\text{E-}004$$

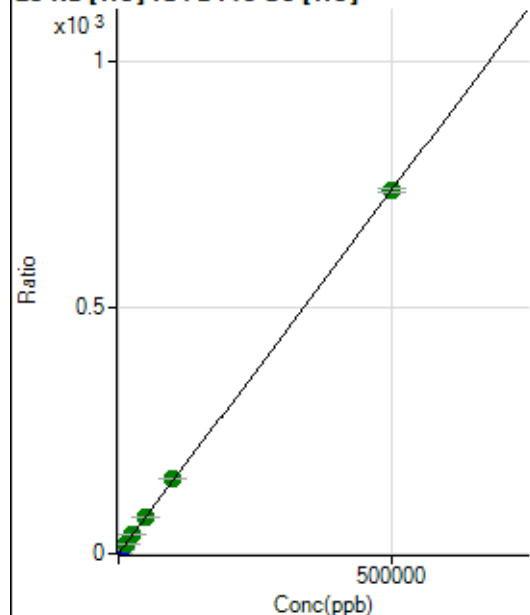
$$R = 1.0000$$

$$DL = 0.2207$$

$$BEC = 1.715$$

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	13464.84	0.0322	P	0.8
2	☐	500.000	510.907	326205.33	0.7854	P	2.5
3	☐	5000.000	5284.727	3095976.72	7.8230	P	5.5
4	☐	12500.000	13019.068	7483325.25	19.2251	A	0.7
5	☐	25000.000	25388.215	14152848.75	37.4600	A	0.6
6	☐	50000.000	50443.436	27470672.14	74.3969	A	0.2
7	☐	100000.00	102681.29	54637113.03	151.4070	A	0.8
8	☐	500000.00	499384.15	259491644.6	736.2346	A	1.2

$$y = 0.0015 * x + 0.0322$$

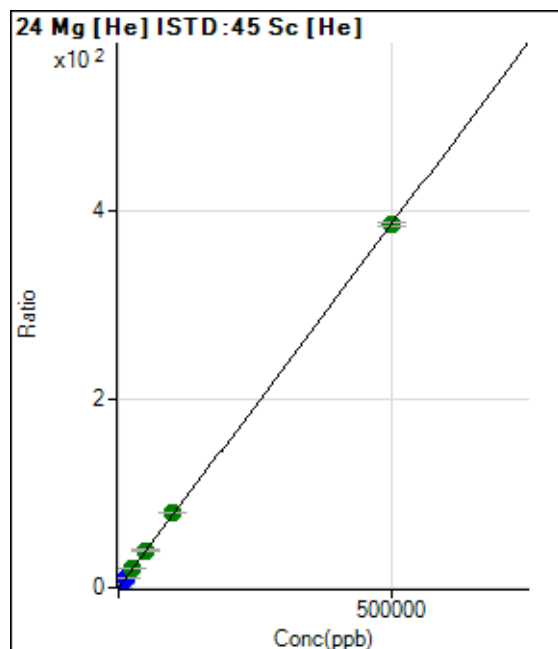
$$R = 1.0000$$

$$DL = 0.538$$

$$BEC = 21.82$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	350.02	0.0008	P	11.7
2	☐	500.000	522.605	167535.46	0.4034	P	2.8
3	☐	5000.000	5465.152	1666105.27	4.2102	P	5.7
4	☐	12500.000	13299.041	3987358.94	10.2440	P	0.4
5	☐	25000.000	25999.961	7566431.77	20.0264	A	0.9
6	☐	50000.000	51566.976	14665513.70	39.7185	A	0.6
7	☐	100000.00	103652.78	28809739.19	79.8358	A	0.3
8	☐	500000.00	499038.09	135473332.2	384.3678	A	0.9

$$y = 7.7022\text{E-}004 * x + 8.3589\text{E-}004$$

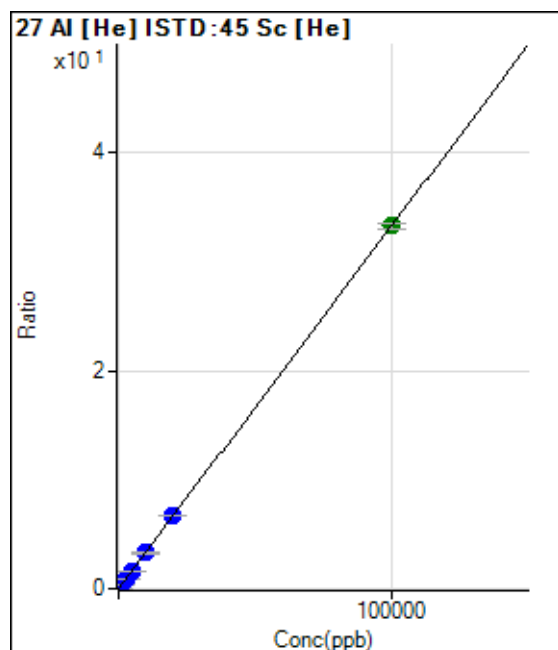
$$R = 1.0000$$

$$DL = 0.3812$$

$$BEC = 1.085$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.00	0.0001	P	33.5
2	☐	20.000	20.554	2861.51	0.0069	P	10.9
3	☐	1000.000	1038.326	136707.42	0.3454	P	5.4
4	☐	2500.000	2523.726	326745.14	0.8394	P	0.5
5	☐	5000.000	4961.022	623436.66	1.6501	P	0.9
6	☐	10000.000	9824.666	1206577.35	3.2677	P	0.9
7	☐	20000.000	19945.795	2393952.55	6.6339	P	0.2
8	☐	100000.00	100029.34	11725052.52	33.2692	A	1.5

$$y = 3.3259\text{E-}004 * x + 5.9752\text{E-}005$$

$$R = 1.0000$$

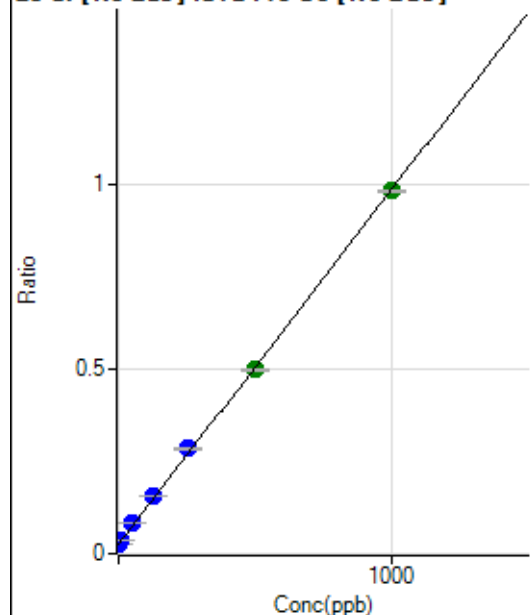
$$DL = 0.1805$$

$$BEC = 0.1797$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	289260.59	0.0255	P	0.3
2	☐	10.000	11.922	402415.47	0.0370	P	5.1
3	☐	50.000	59.134	925841.52	0.0823	P	0.8
4	☐	125.000	138.094	1709761.74	0.1582	P	0.2
5	☐	250.000	270.709	2969908.88	0.2856	P	1.4
6	☐	500.000	492.077	5142919.86	0.4982	A	1.0
7	☐	1000.000	996.672	9697115.15	0.9830	A	0.8
8	☐			487797.69	0.0525	P	0.8

$$y = 9.6067\text{E-}004 * x + 0.0255$$

$$R = 0.9997$$

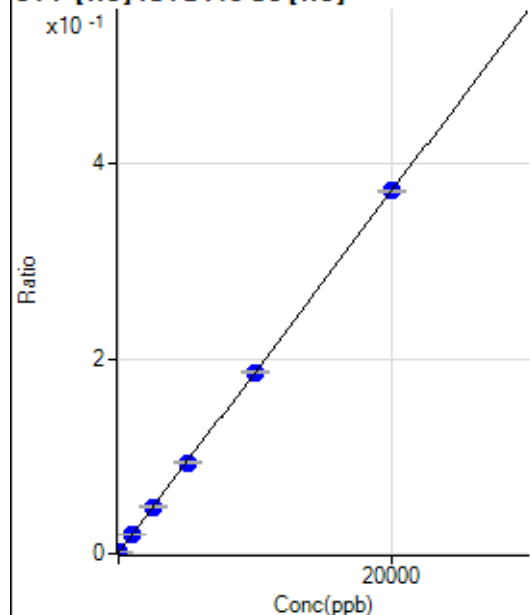
$$DL = 0.2086$$

$$BEC = 26.55$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-19.255	180.56	0.0004	P	17.0
2	☐	0.000	19.255	475.03	0.0011	P	11.9
3	☐	1000.000	1012.630	7735.65	0.0196	P	8.0
4	☐	2500.000	2561.238	18787.64	0.0483	P	3.4
5	☐	5000.000	4964.588	35075.68	0.0928	P	2.0
6	☐	10000.000	9979.630	68606.15	0.1858	P	1.5
7	☐	20000.000	20010.752	134167.05	0.3718	P	0.4
8	☐			236.12	0.0007	P	9.5

$$y = 1.8540\text{E-}005 * x + 7.8803\text{E-}004$$

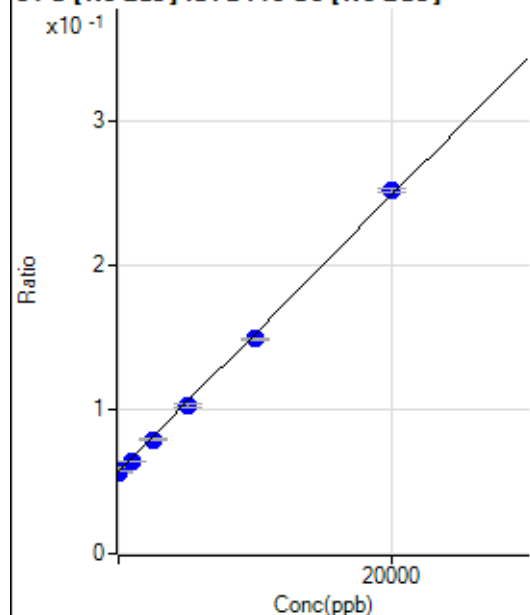
$$R = 1.0000$$

$$DL = 16.91$$

$$BEC = 42.5$$

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	-164.063	630154.64	0.0556	P	0.1
2	☐	0.000	164.063	639046.84	0.0587	P	5.8
3	☐	1000.000	777.862	726435.94	0.0646	P	0.2
4	☐	2500.000	2281.868	853908.03	0.0790	P	1.2
5	☐	5000.000	4751.948	1067652.05	0.1027	P	1.5
6	☐	10000.000	9604.126	1539602.41	0.1492	P	1.0
7	☐	20000.000	20298.323	2482233.02	0.2516	P	1.0
8	☐			519964.41	0.0560	P	1.2

$$y = 9.5817\text{E-}006 * x + 0.0571$$

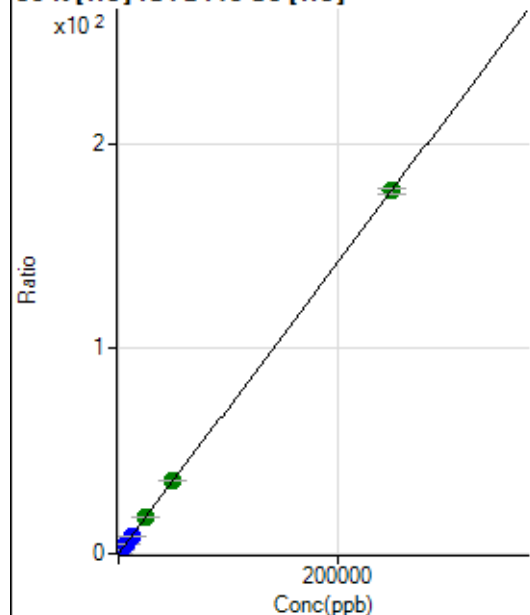
R = 0.9995

DL = 538

BEC = 5962

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	24259.61	0.0579	P	2.1
2	☐	500.000	493.137	169008.60	0.4069	P	2.1
3	☐	2500.000	2555.449	738316.93	1.8660	P	6.2
4	☐	6250.000	6267.742	1748693.33	4.4925	P	0.5
5	☐	12500.000	12411.376	3339672.28	8.8393	P	0.5
6	☐	25000.000	24705.337	6475264.38	17.5375	A	1.4
7	☐	50000.000	50195.394	12837218.78	35.5723	A	1.0
8	☐	250000.00	249993.83	62359571.53	176.9341	A	1.4

$$y = 7.0752\text{E-}004 * x + 0.0579$$

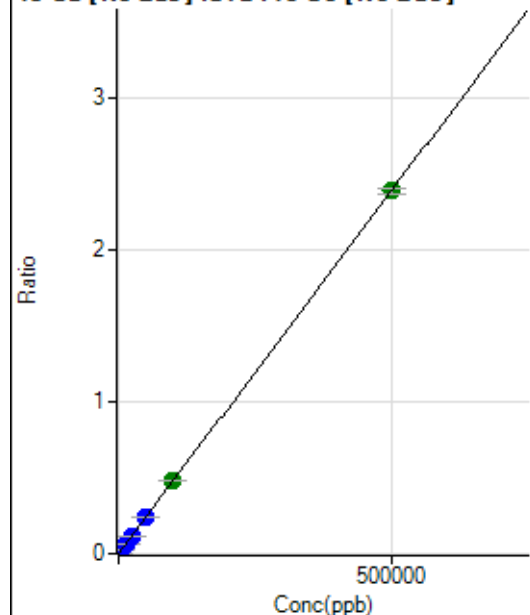
R = 1.0000

DL = 5.234

BEC = 81.9

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	361.13	0.0000	P	9.3
2	☐	500.000	502.817	26494.07	0.0024	P	6.5
3	☐	5000.000	4949.901	266366.56	0.0237	P	0.6
4	☐	12500.000	12549.019	648456.06	0.0600	P	0.4
5	☐	25000.000	24950.207	1240017.35	0.1192	P	1.6
6	☐	50000.000	49438.955	2438474.08	0.2362	P	0.9
7	☐	100000.00	100718.29	4747302.49	0.4812	A	0.5
8	☐	500000.00	499914.20	22182030.88	2.3884	A	1.4

$$y = 4.7775E-006 * x + 3.1838E-005$$

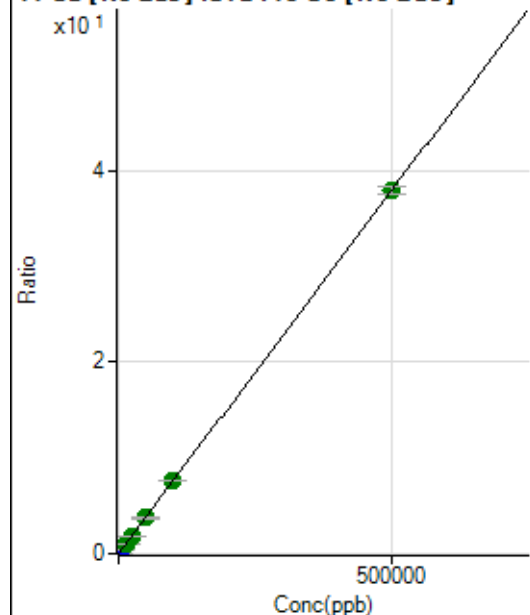
$$R = 1.0000$$

$$DL = 1.868$$

$$BEC = 6.664$$

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	7082.53	0.0006	P	1.5
2	☐	500.000	504.722	423450.03	0.0389	P	5.7
3	☐	5000.000	4897.271	4183803.74	0.3719	P	0.8
4	☐	12500.000	12400.511	10170797.19	0.9409	A	0.1
5	☐	25000.000	24621.170	19422429.43	1.8675	A	0.9
6	☐	50000.000	49158.193	38481547.39	3.7279	A	0.9
7	☐	100000.00	100879.30	75464831.55	7.6495	A	0.7
8	☐	500000.00	499930.77	352045268.9	37.9064	A	2.1

$$y = 7.5822E-005 * x + 6.2441E-004$$

$$R = 1.0000$$

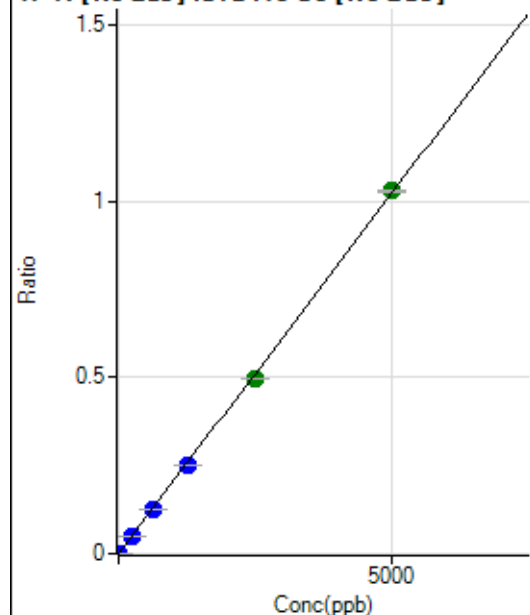
$$DL = 0.3716$$

$$BEC = 8.235$$

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD:45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	236.13	0.0000	P	8.9
2	☐	5.000	5.208	11813.55	0.0011	P	3.2
3	☐	250.000	238.894	548858.98	0.0488	P	0.6
4	☐	625.000	616.059	1359873.14	0.1258	P	1.0
5	☐	1250.000	1228.469	2608568.33	0.2508	P	1.9
6	☐	2500.000	2436.803	5136008.27	0.4975	A	0.5
7	☐	5000.000	5038.654	10148622.36	1.0287	A	0.5
8	☐			4625.90	0.0005	P	8.5

$$y = 2.0416E-004 * x + 2.0817E-005$$

$$R = 0.9999$$

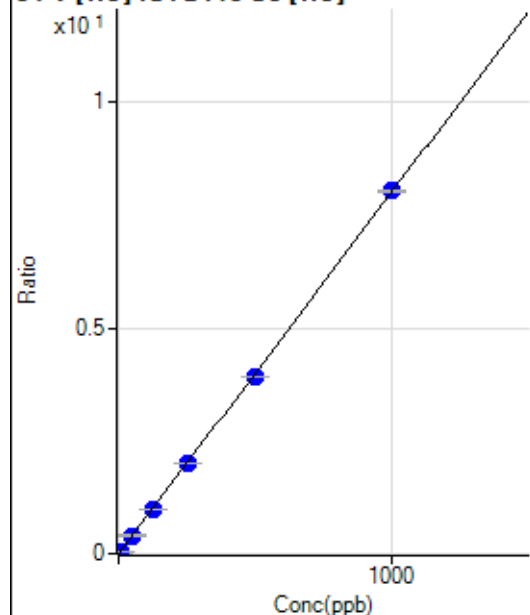
$$DL = 0.02709$$

$$BEC = 0.102$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	5.000	5.134	17074.49	0.0411	P	2.7
3	☐	50.000	50.412	159658.76	0.4035	P	6.2
4	☐	125.000	124.391	387559.75	0.9957	P	0.6
5	☐	250.000	249.085	753290.58	1.9937	P	0.8
6	☐	500.000	491.199	1451721.23	3.9317	P	0.5
7	☐	1000.000	1004.684	2901995.96	8.0417	P	0.8
8	☐			1334.53	0.0038	P	1.1

$$y = 0.0080 * x + 1.5883E-005$$

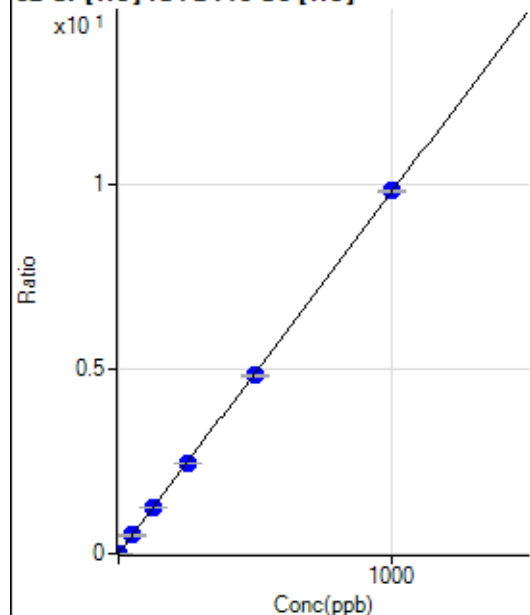
$$R = 0.9999$$

$$DL = 0.005156$$

$$BEC = 0.001984$$

Weight: <None>

Min Conc: 0

52 Cr [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	558.91	0.0013	P	4.1
2	☐	2.000	2.005	8694.94	0.0209	P	3.3
3	☐	50.000	50.950	197663.98	0.4995	P	5.7
4	☐	125.000	125.981	479979.34	1.2331	P	1.0
5	☐	250.000	251.091	928054.88	2.4564	P	0.1
6	☐	500.000	492.273	1777676.08	4.8145	P	0.7
7	☐	1000.000	1003.421	3540835.95	9.8122	P	0.5
8	☐			89821.33	0.2549	P	2.1

$$y = 0.0098 * x + 0.0013$$

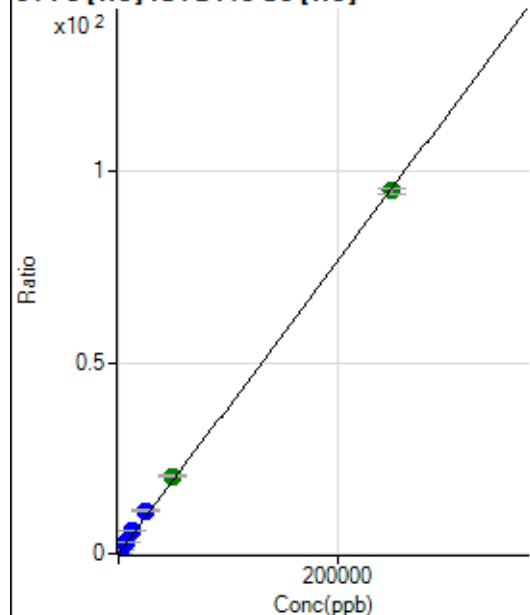
$$R = 1.0000$$

$$DL = 0.01662$$

$$BEC = 0.1365$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	644.03	0.0015	P	21.3
2	☐	50.000	65.316	11012.28	0.0265	P	4.6
3	☐	2500.000	3101.156	469384.13	1.1865	P	6.6
4	☐	6250.000	7650.060	1138376.47	2.9247	P	0.8
5	☐	12500.000	15207.796	2196062.03	5.8125	P	0.2
6	☐	25000.000	29588.175	4175069.92	11.3073	P	0.7
7	☐	50000.000	53259.698	7344205.20	20.3523	A	1.1
8	☐	250000.00	248712.83	33493704.61	95.0358	A	1.4

$$y = 3.8210E-004 * x + 0.0015$$

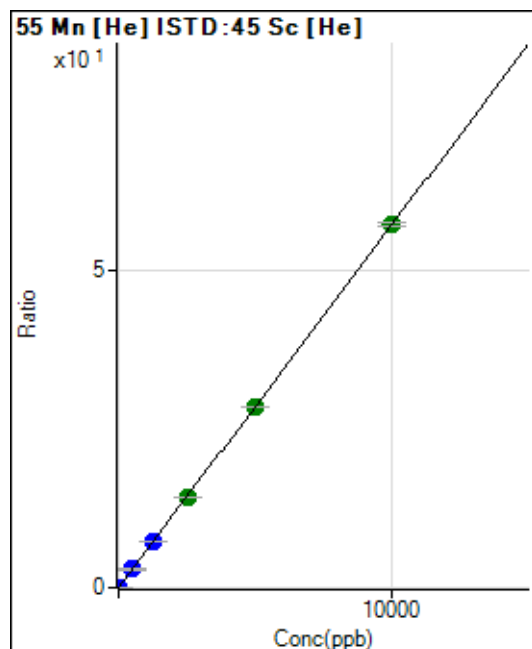
$$R = 0.9998$$

$$DL = 2.573$$

$$BEC = 4.027$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0002	P	31.5
2	☐	1.000	1.037	2550.27	0.0061	P	2.8
3	☐	500.000	513.729	1161539.59	2.9351	P	5.6
4	☐	1250.000	1268.679	2821230.34	7.2481	P	0.9
5	☐	2500.000	2502.236	5401006.52	14.2953	A	0.4
6	☐	5000.000	4966.716	10477159.50	28.3747	A	0.1
7	☐	10000.000	10013.062	20643241.78	57.2042	A	1.2
8	☐			21788.52	0.0618	P	1.8

$$y = 0.0057 * x + 2.1233E-004$$

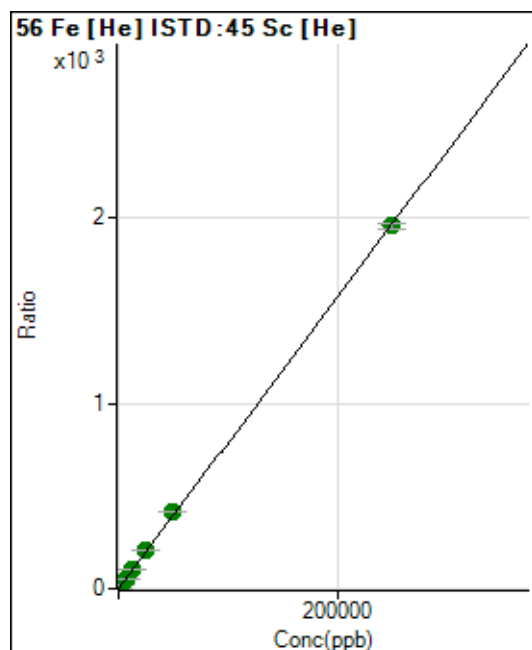
$$R = 1.0000$$

$$DL = 0.0351$$

$$BEC = 0.03717$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6786.94	0.0162	P	3.6
2	☐	50.000	54.929	186050.10	0.4480	P	3.1
3	☐	2500.000	2686.216	8363060.66	21.1305	A	5.4
4	☐	6250.000	6689.250	20471702.08	52.5952	A	1.1
5	☐	12500.000	13096.490	38899034.20	102.9576	A	1.5
6	☐	25000.000	25922.626	75242078.53	203.7739	A	0.9
7	☐	50000.000	52712.604	149528244.0	414.3492	A	0.8
8	☐	250000.00	249322.54	690640341.3	1,959.748	A	1.8

$$y = 0.0079 * x + 0.0162$$

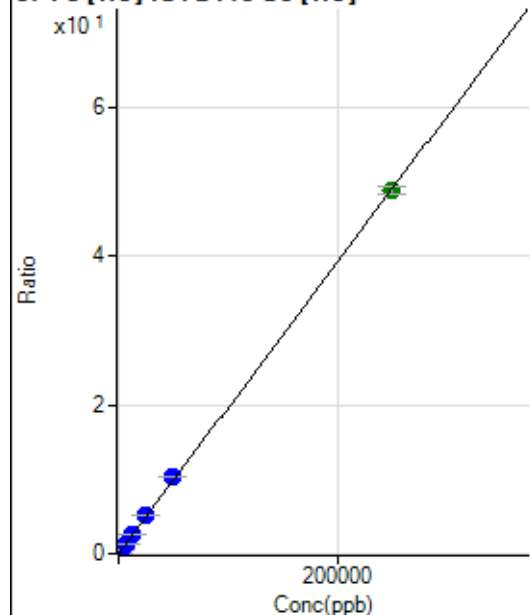
$$R = 0.9999$$

$$DL = 0.2205$$

$$BEC = 2.062$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	250.01	0.0006	P	12.2
2	☐	50.000	55.180	4732.37	0.0114	P	2.0
3	☐	2500.000	2731.848	211686.67	0.5349	P	5.4
4	☐	6250.000	6728.047	512404.53	1.3164	P	0.7
5	☐	12500.000	13311.471	983828.84	2.6040	P	0.4
6	☐	25000.000	26258.195	1896452.98	5.1360	P	0.3
7	☐	50000.000	52782.027	3725438.77	10.3234	P	0.5
8	☐	250000.00	249262.93	17179691.01	48.7502	A	2.0

$$y = 1.9558\text{E-}004 * x + 5.9705\text{E-}004$$

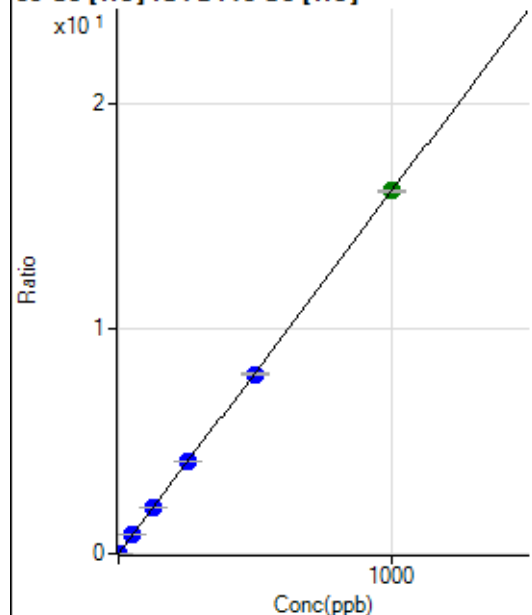
$$R = 0.9999$$

$$DL = 1.113$$

$$BEC = 3.053$$

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	126.67	0.0003	P	10.0
2	☐	1.000	1.000	6807.23	0.0164	P	7.1
3	☐	50.000	52.552	335107.36	0.8468	P	5.5
4	☐	125.000	128.471	805538.69	2.0696	P	0.9
5	☐	250.000	253.262	1541286.19	4.0795	P	0.6
6	☐	500.000	495.050	2944309.09	7.9740	P	0.6
7	☐	1000.000	1001.098	5818917.55	16.1248	A	0.2
8	☐			11500.22	0.0326	P	2.5

$$y = 0.0161 * x + 3.0266\text{E-}004$$

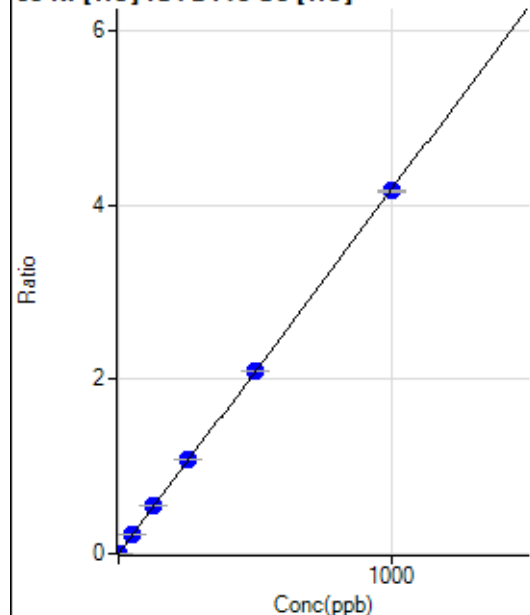
$$R = 1.0000$$

$$DL = 0.005636$$

$$BEC = 0.01879$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	186.67	0.0004	P	21.4
2	☐	1.000	1.179	2232.43	0.0054	P	5.0
3	☐	50.000	53.621	88910.84	0.2247	P	6.0
4	☐	125.000	131.605	214403.98	0.5508	P	1.0
5	☐	250.000	257.679	407317.91	1.0781	P	0.3
6	☐	500.000	501.493	774579.87	2.0977	P	0.6
7	☐	1000.000	996.327	1503790.90	4.1672	P	0.5
8	☐			24840.13	0.0705	P	2.4

$$y = 0.0042 * x + 4.4569E-004$$

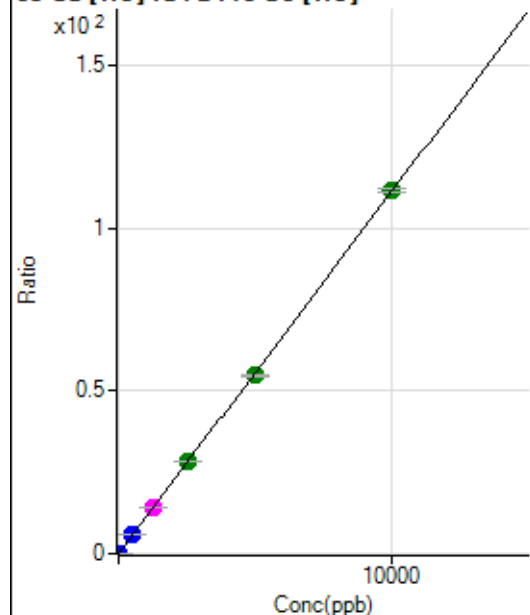
$$R = 1.0000$$

$$DL = 0.06849$$

$$BEC = 0.1066$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	862.27	0.0021	P	4.3
2	☐	2.000	2.094	10529.47	0.0254	P	3.1
3	☐	500.000	532.222	2344538.15	5.9232	P	5.0
4	☐	1250.000	1284.720	5563972.07	14.2950	M	1.6
5	☐	2500.000	2532.033	10643725.74	28.1719	A	0.3
6	☐	5000.000	4922.349	20221507.34	54.7650	A	0.8
7	☐	10000.000	10024.866	40246916.34	111.5324	A	1.0
8	☐			15485.02	0.0439	P	2.7

$$y = 0.0111 * x + 0.0021$$

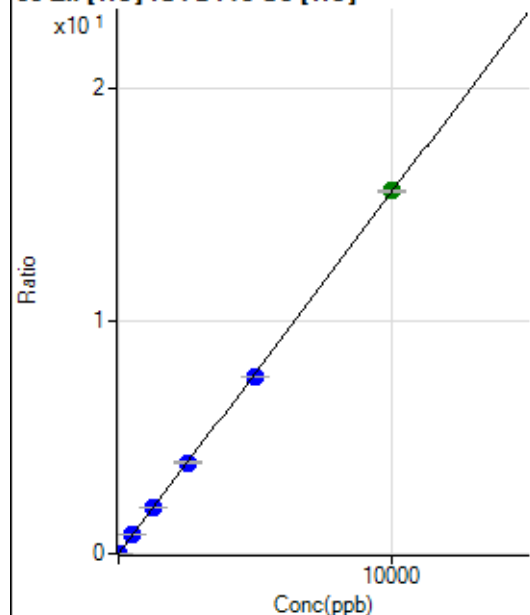
$$R = 0.9999$$

$$DL = 0.02409$$

$$BEC = 0.1851$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1088.95	0.0026	P	2.4
2	☐	2.000	2.347	2594.72	0.0063	P	5.8
3	☐	500.000	527.814	325751.94	0.8232	P	5.9
4	☐	1250.000	1293.357	783699.34	2.0134	P	1.0
5	☐	2500.000	2526.542	1485069.42	3.9307	P	0.1
6	☐	5000.000	4888.961	2807528.19	7.6036	P	0.6
7	☐	10000.000	10042.074	5634895.33	15.6153	A	0.7
8	☐			25060.58	0.0711	P	1.8

$$y = 0.0016 * x + 0.0026$$

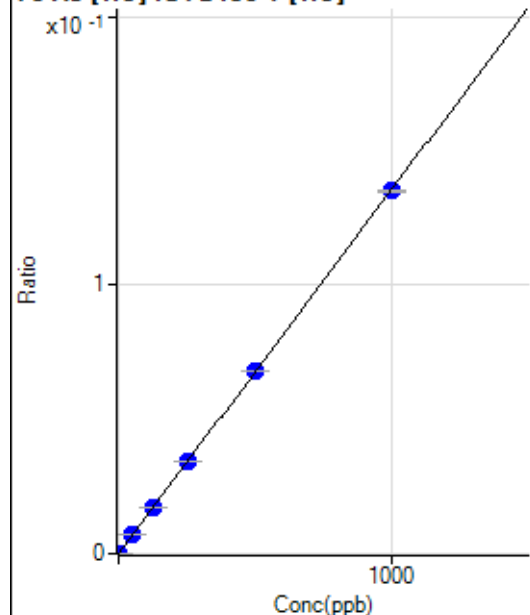
$$R = 0.9999$$

$$DL = 0.1223$$

$$BEC = 1.673$$

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	12.35	0.0000	P	42.7
2	☐	1.000	0.975	388.90	0.0001	P	8.0
3	☐	50.000	52.917	19595.41	0.0072	P	6.6
4	☐	125.000	128.361	47700.09	0.0174	P	0.6
5	☐	250.000	253.810	90950.63	0.0344	P	0.7
6	☐	500.000	503.206	176144.91	0.0682	P	0.2
7	☐	1000.000	996.878	344138.96	0.1352	P	0.4
8	☐			191.98	0.0001	P	6.1

$$y = 1.3562E-004 * x + 4.2819E-006$$

$$R = 1.0000$$

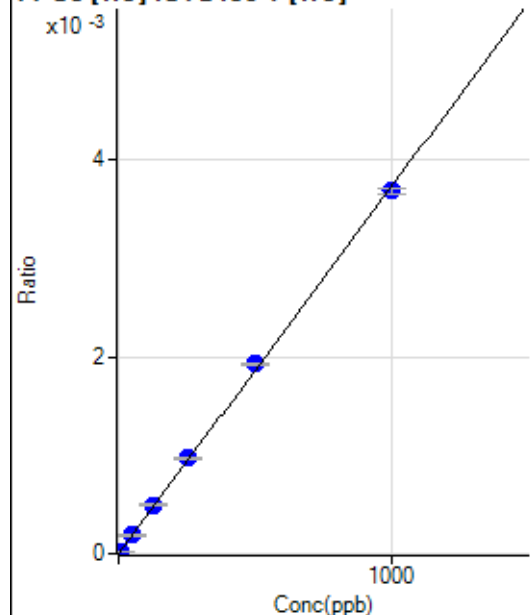
$$DL = 0.04049$$

$$BEC = 0.03157$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	5.863	62.22	0.0000	P	4.2
3	☐	50.000	51.268	523.35	0.0002	P	7.6
4	☐	125.000	131.666	1343.42	0.0005	P	4.1
5	☐	250.000	259.897	2556.94	0.0010	P	2.9
6	☐	500.000	516.200	4962.04	0.0019	P	1.4
7	☐	1000.000	988.525	9370.92	0.0037	P	1.5
8	☐			6.67	0.0000	P	49.2

$$y = 3.7243\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9997$$

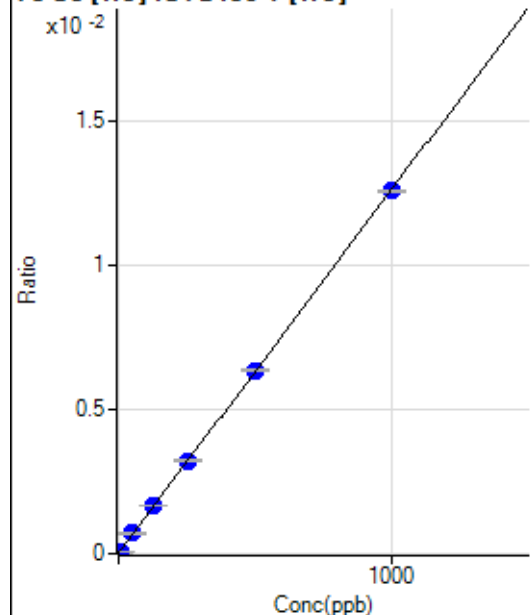
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0000	P	46.0
2	☐	5.000	5.813	258.03	0.0001	P	3.4
3	☐	50.000	54.322	1912.49	0.0007	P	6.4
4	☐	125.000	128.880	4489.00	0.0016	P	0.2
5	☐	250.000	254.605	8507.50	0.0032	P	0.5
6	☐	500.000	503.207	16382.17	0.0063	P	1.2
7	☐	1000.000	996.540	31953.12	0.0126	P	0.6
8	☐			56.79	0.0000	P	19.8

$$y = 1.2579\text{E-}005 * x + 1.7389\text{E-}005$$

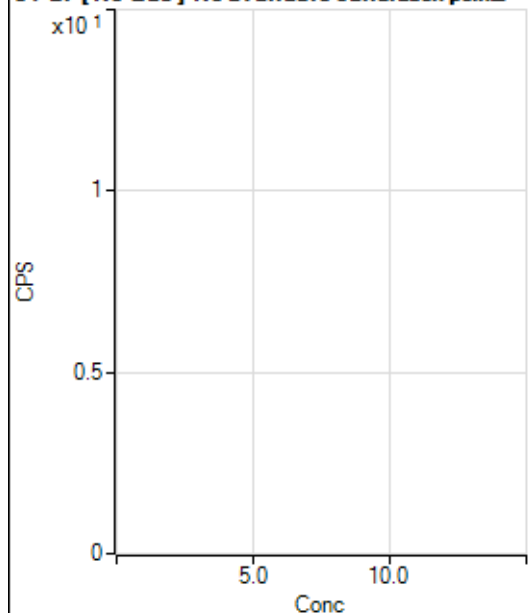
$$R = 1.0000$$

$$DL = 1.907$$

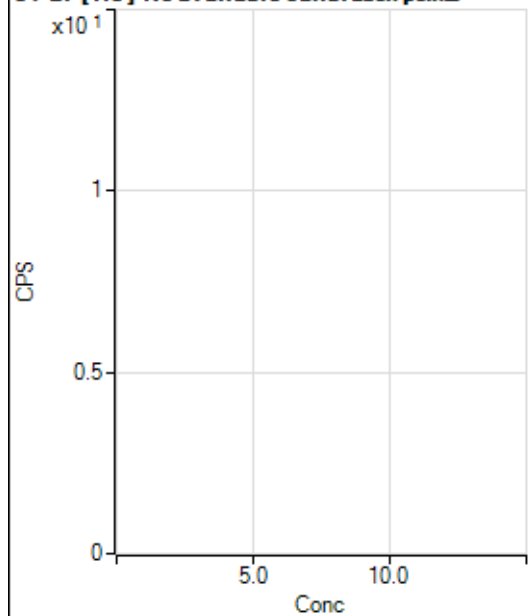
$$BEC = 1.382$$

Weight: <None>

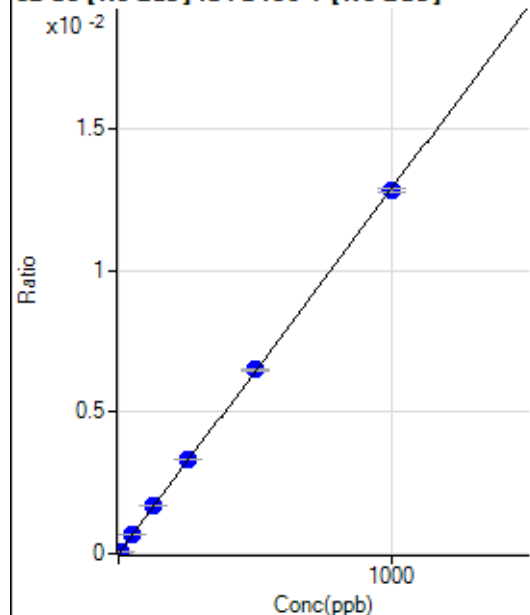
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			67838.56		P	0.3
2	☐			67778.60		P	1.5
3	☐			65847.44		P	1.7
4	☐			63753.06		P	0.6
5	☐			60512.18		P	1.2
6	☐			60344.62		P	0.9
7	☐			57948.60		P	0.8
8	☐			55949.13		P	1.6

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			50.05		P	80.0
2	☐			76.75		P	39.9
3	☐			43.38		P	48.0
4	☐			53.39		P	43.3
5	☐			36.70		P	41.7
6	☐			23.36		P	65.5
7	☐			63.40		P	45.6
8	☐			56.72		P	44.4

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.89	0.0000	P	115.
2	☐	5.000	5.607	1680.61	0.0001	P	2.7
3	☐	50.000	51.353	15685.65	0.0007	P	0.8
4	☐	125.000	132.061	39031.82	0.0017	P	0.9
5	☐	250.000	258.595	74311.64	0.0033	P	1.7
6	☐	500.000	504.780	144957.38	0.0065	P	0.7
7	☐	1000.000	994.508	278497.34	0.0128	P	1.0
8	☐			286.55	0.0000	P	28.5

$$y = 1.2863E-005 * x + 4.8312E-007$$

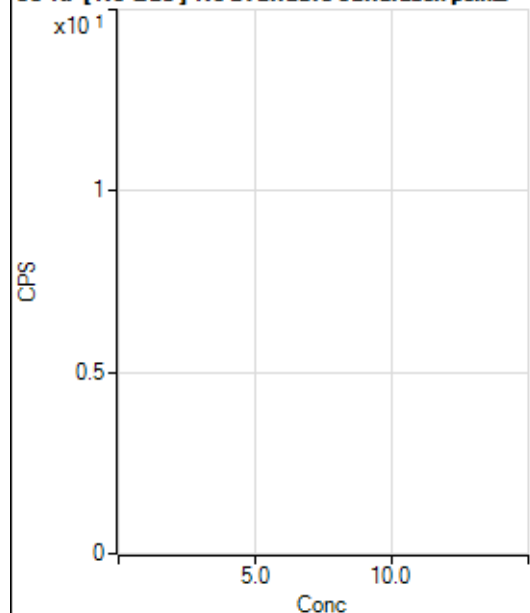
$$R = 0.9999$$

$$DL = 0.1305$$

$$BEC = 0.03756$$

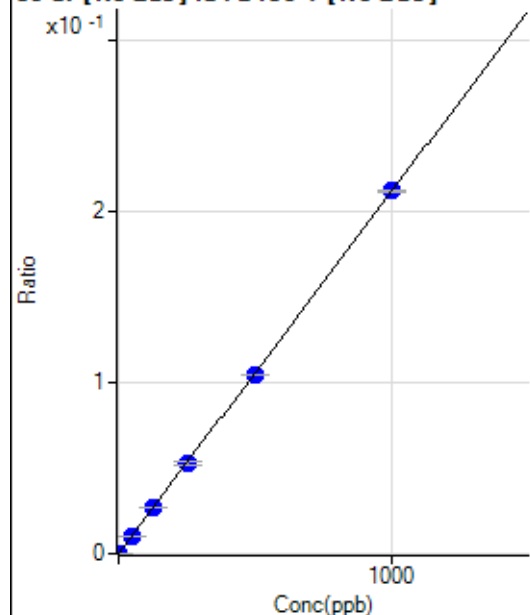
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			458.90		P	0.4
2	☐			472.24		P	4.3
3	☐			423.34		P	4.9
4	☐			466.68		P	5.4
5	☐			447.79		P	9.6
6	☐			492.24		P	2.7
7	☐			466.68		P	4.3
8	☐			501.13		P	12.6

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	727.83	0.0000	P	1.7
2	☐	1.000	0.987	5520.75	0.0002	P	1.8
3	☐	50.000	48.727	245050.49	0.0103	P	0.4
4	☐	125.000	126.327	613834.07	0.0267	P	2.6
5	☐	250.000	250.730	1184015.27	0.0530	P	3.1
6	☐	500.000	495.743	2339505.46	0.1048	P	0.3
7	☐	1000.000	1001.844	4609988.56	0.2118	P	0.4
8	☐			10532.04	0.0005	P	1.9

$$y = 2.1134\text{E-}004 * x + 2.9651\text{E-}005$$

$$R = 1.0000$$

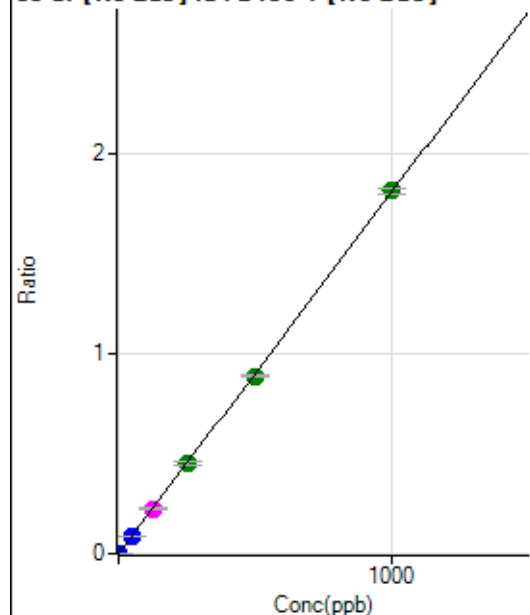
$$DL = 0.00732$$

$$BEC = 0.1403$$

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	180.57	0.0000	P	28.0
2	☐	1.000	0.994	41795.31	0.0018	P	5.8
3	☐	50.000	49.017	2105419.25	0.0887	P	0.9
4	☐	125.000	124.864	5191462.88	0.2260	M	1.7
5	☐	250.000	248.026	10024689.37	0.4490	A	4.1
6	☐	500.000	492.173	19888019.37	0.8909	A	0.4
7	☐	1000.000	1004.473	39580202.27	1.8182	A	1.8
8	☐			84873.93	0.0043	P	1.7

$$y = 0.0018 * x + 7.3570\text{E-}006$$

$$R = 1.0000$$

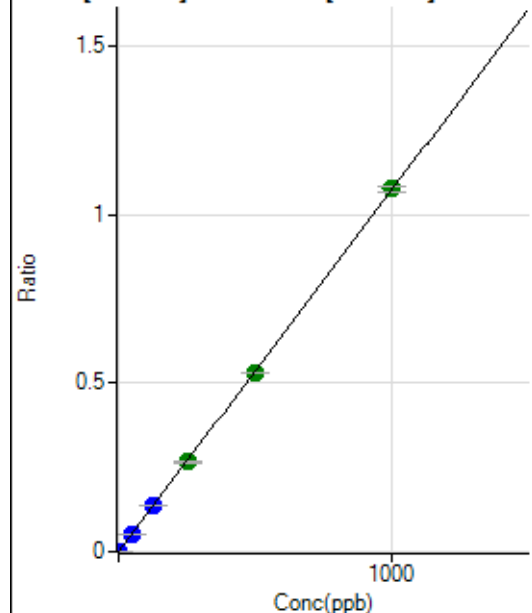
$$DL = 0.00341$$

$$BEC = 0.004064$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1544.59	0.0001	P	12.1
2	☐	1.000	0.830	22042.69	0.0010	P	5.5
3	☐	50.000	47.853	1218166.66	0.0513	P	0.9
4	☐	125.000	126.026	3103387.31	0.1351	P	0.9
5	☐	250.000	248.119	5939612.59	0.2659	A	2.5
6	☐	500.000	493.316	11801832.64	0.5287	A	0.4
7	☐	1000.000	1003.792	23416344.62	1.0757	A	1.8
8	☐			10735.99	0.0005	P	13.5

$$y = 0.0011 * x + 6.2908E-005$$

$$R = 1.0000$$

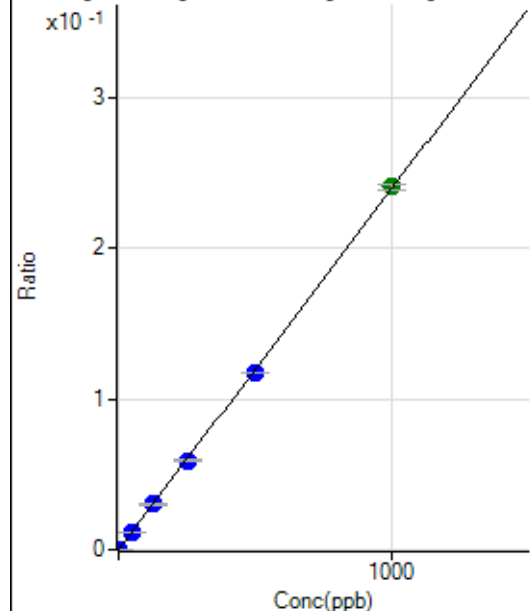
$$DL = 0.02139$$

$$BEC = 0.05871$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	311.13	0.0000	P	17.8
2	☐	1.000	0.803	4726.02	0.0002	P	14.0
3	☐	50.000	47.750	271172.49	0.0114	P	0.4
4	☐	125.000	125.865	691458.65	0.0301	P	1.4
5	☐	250.000	246.897	1318618.55	0.0590	P	2.3
6	☐	500.000	489.389	2612111.47	0.1170	P	0.3
7	☐	1000.000	1006.086	5236279.76	0.2405	A	1.7
8	☐			2258.61	0.0001	P	8.7

$$y = 2.3907E-004 * x + 1.2674E-005$$

$$R = 0.9999$$

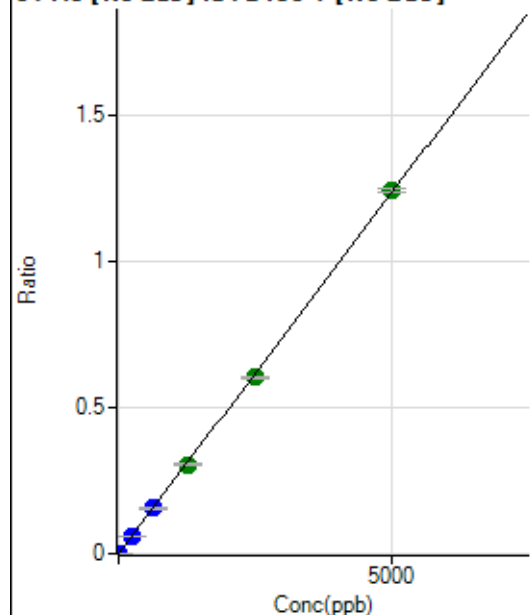
$$DL = 0.02835$$

$$BEC = 0.05301$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	625.04	0.0000	P	15.0
2	☐	5.000	4.781	27944.88	0.0012	P	3.6
3	☐	250.000	241.216	1415572.49	0.0597	P	0.8
4	☐	625.000	627.468	3563614.27	0.1552	P	1.6
5	☐	1250.000	1232.267	6804380.19	0.3047	A	2.6
6	☐	2500.000	2448.418	13512572.87	0.6053	A	1.3
7	☐	5000.000	5030.355	27073297.13	1.2437	A	1.1
8	☐			25142.51	0.0013	P	1.1

$$y = 2.4722\text{E-}004 * x + 2.5465\text{E-}005$$

$$R = 0.9999$$

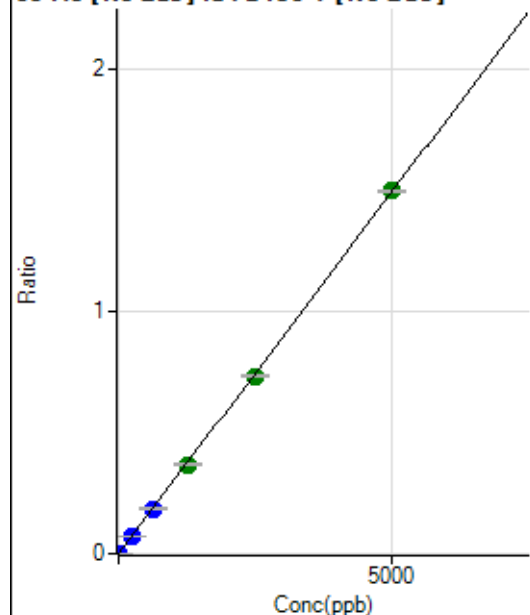
$$DL = 0.04632$$

$$BEC = 0.103$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	225.01	0.0000	P	13.0
2	☐	5.000	5.267	36581.32	0.0016	P	3.6
3	☐	250.000	242.094	1713994.74	0.0722	P	0.8
4	☐	625.000	625.317	4285320.06	0.1866	P	1.6
5	☐	1250.000	1232.149	8212904.00	0.3676	A	1.4
6	☐	2500.000	2461.023	16391006.27	0.7343	A	0.4
7	☐	5000.000	5024.307	32634557.33	1.4990	A	0.5
8	☐			36436.44	0.0018	P	2.5

$$y = 2.9835\text{E-}004 * x + 9.1637\text{E-}006$$

$$R = 0.9999$$

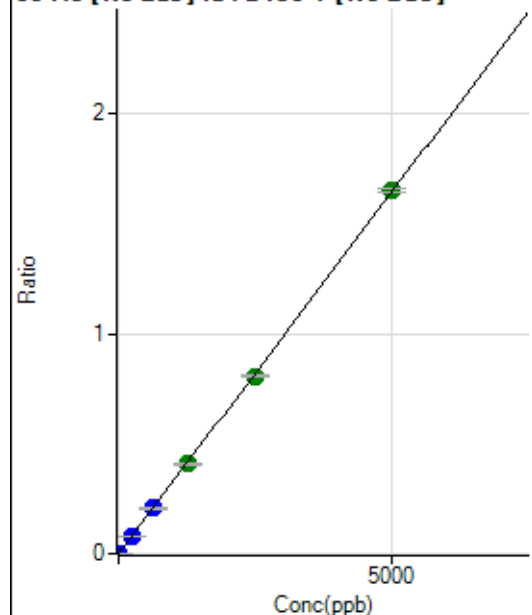
$$DL = 0.01201$$

$$BEC = 0.03071$$

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	425.02	0.0000	P	17.2
2	☐	5.000	5.252	40302.60	0.0017	P	3.4
3	☐	250.000	243.078	1893695.66	0.0798	P	0.6
4	☐	625.000	628.202	4736622.81	0.2062	P	2.3
5	☐	1250.000	1238.249	9077968.69	0.4065	A	3.0
6	☐	2500.000	2461.027	18034138.95	0.8079	A	0.8
7	☐	5000.000	5022.370	35890084.14	1.6487	A	1.1
8	☐			58638.73	0.0030	P	2.7

$$y = 3.2826\text{E-}004 * x + 1.7318\text{E-}005$$

$$R = 1.0000$$

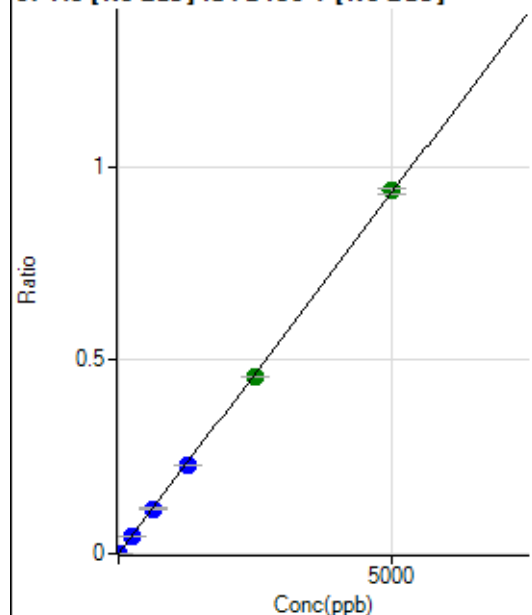
$$DL = 0.02718$$

$$BEC = 0.05276$$

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	141.68	0.0000	P	31.4
2	☐	5.000	5.296	22955.49	0.0010	P	3.0
3	☐	250.000	240.974	1064561.29	0.0449	P	0.5
4	☐	625.000	623.502	2666007.59	0.1161	P	2.3
5	☐	1250.000	1226.205	5099085.57	0.2283	P	1.6
6	☐	2500.000	2452.863	10193579.83	0.4566	A	1.0
7	☐	5000.000	5030.155	20384852.19	0.9364	A	1.6
8	☐			22479.60	0.0011	P	3.6

$$y = 1.8616\text{E-}004 * x + 5.7752\text{E-}006$$

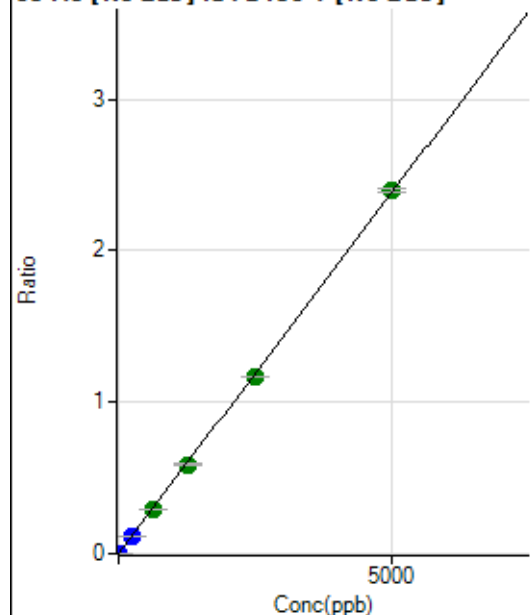
$$R = 0.9999$$

$$DL = 0.02925$$

$$BEC = 0.03102$$

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	394.47	0.0000	P	7.0
2	☐	5.000	5.219	57901.98	0.0025	P	4.5
3	☐	250.000	241.252	2727827.30	0.1150	P	0.7
4	☐	625.000	619.042	6774747.81	0.2950	A	2.0
5	☐	1250.000	1236.125	13156506.72	0.5890	A	1.5
6	☐	2500.000	2456.590	26129297.46	1.1705	A	0.4
7	☐	5000.000	5026.356	52136895.26	2.3949	A	1.1
8	☐			56401.49	0.0029	P	2.3

$$y = 4.7647\text{E-}004 * x + 1.6071\text{E-}005$$

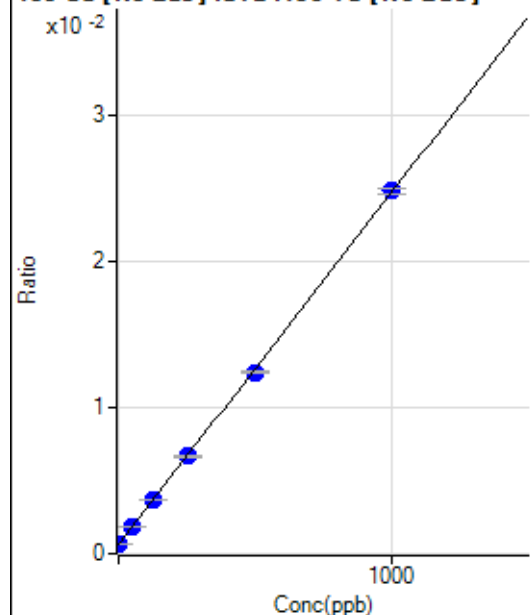
$$R = 0.9999$$

$$DL = 0.007117$$

$$BEC = 0.03373$$

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	12628.42	0.0006	P	6.4
2	☐	1.000	1.838	12834.09	0.0007	P	5.5
3	☐	50.000	50.774	36241.83	0.0019	P	1.4
4	☐	125.000	127.564	70761.31	0.0037	P	1.0
5	☐	250.000	250.732	126058.45	0.0067	P	2.4
6	☐	500.000	489.840	235883.57	0.0124	P	0.6
7	☐	1000.000	1004.537	457545.78	0.0248	P	1.4
8	☐			11316.16	0.0007	P	3.5

$$y = 2.4094\text{E-}005 * x + 6.3154\text{E-}004$$

$$R = 0.9999$$

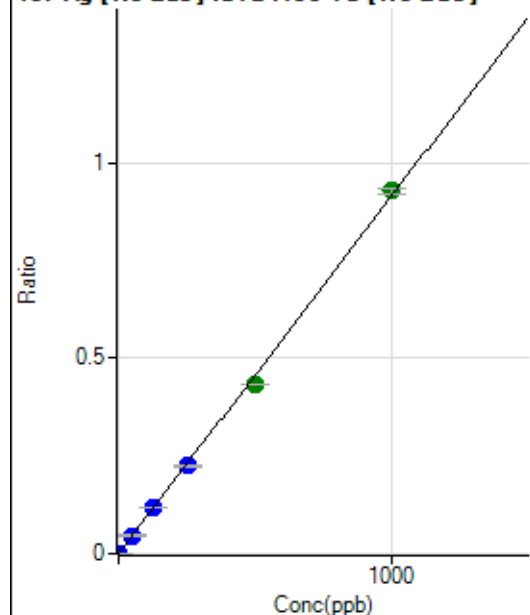
$$DL = 5.066$$

$$BEC = 26.21$$

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	244.46	0.0000	P	6.0
2	☐	1.000	0.921	16204.38	0.0009	P	6.9
3	☐	50.000	50.993	910503.86	0.0466	P	1.4
4	☐	125.000	128.403	2240953.42	0.1173	P	0.8
5	☐	250.000	245.630	4240097.53	0.2244	P	2.1
6	☐	500.000	471.674	8176236.99	0.4310	A	0.1
7	☐	1000.000	1014.781	17081475.56	0.9272	A	1.9
8	☐			5153.94	0.0003	P	6.7

$$y = 9.1369\text{E-}004 * x + 1.2212\text{E-}005$$

$$R = 0.9994$$

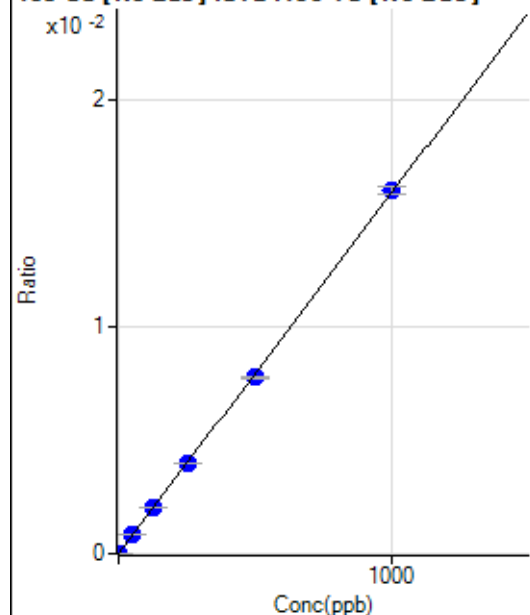
$$DL = 0.002389$$

$$BEC = 0.01337$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	9.2
2	☐	1.000	1.049	337.51	0.0000	P	12.4
3	☐	50.000	51.176	15946.75	0.0008	P	0.4
4	☐	125.000	128.389	39073.54	0.0020	P	1.2
5	☐	250.000	250.582	75419.03	0.0040	P	1.9
6	☐	500.000	488.103	147501.94	0.0078	P	0.8
7	☐	1000.000	1005.320	294993.78	0.0160	P	2.1
8	☐			119.45	0.0000	P	18.0

$$y = 1.5927\text{E-}005 * x + 1.1094\text{E-}006$$

$$R = 0.9999$$

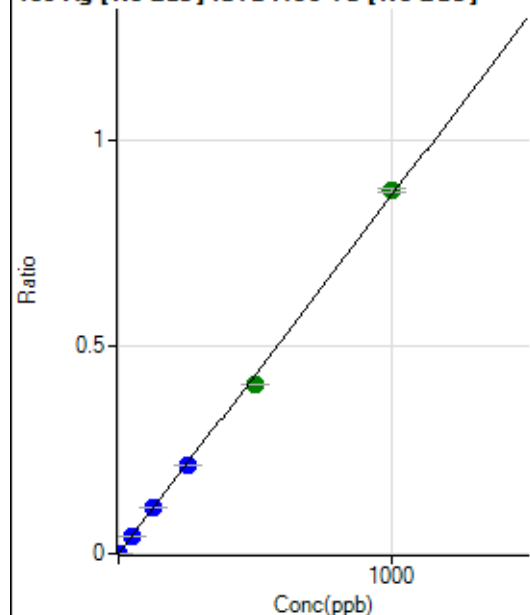
$$DL = 0.01926$$

$$BEC = 0.06966$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	100.00	0.0000	P	30.1
2	☐	1.000	0.930	15364.49	0.0008	P	4.5
3	☐	50.000	50.915	860656.54	0.0440	P	0.4
4	☐	125.000	128.936	2130243.97	0.1115	P	1.0
5	☐	250.000	247.350	4042556.30	0.2140	P	1.7
6	☐	500.000	473.263	7766777.95	0.4094	A	0.6
7	☐	1000.000	1013.494	16152603.83	0.8767	A	1.0
8	☐			4359.20	0.0003	P	1.7

$$y = 8.6504\text{E-}004 * x + 5.0134\text{E-}006$$

$$R = 0.9994$$

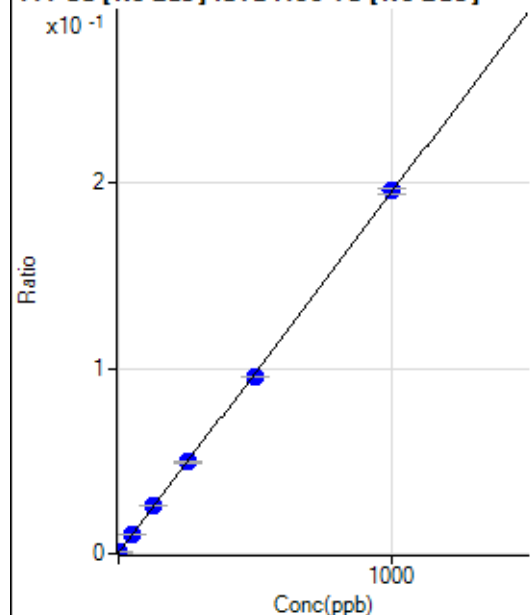
$$DL = 0.005226$$

$$BEC = 0.005796$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8853.51	0.0004	P	6.5
2	☐	1.000	1.138	12605.16	0.0007	P	5.2
3	☐	50.000	50.761	201318.87	0.0103	P	1.3
4	☐	125.000	129.712	489725.67	0.0256	P	1.1
5	☐	250.000	251.769	932452.11	0.0494	P	1.8
6	☐	500.000	488.973	1810564.46	0.0954	P	0.6
7	☐	1000.000	1004.444	3603152.10	0.1956	P	1.6
8	☐			8937.78	0.0005	P	4.2

$$y = 1.9427\text{E-}004 * x + 4.4276\text{E-}004$$

$$R = 0.9999$$

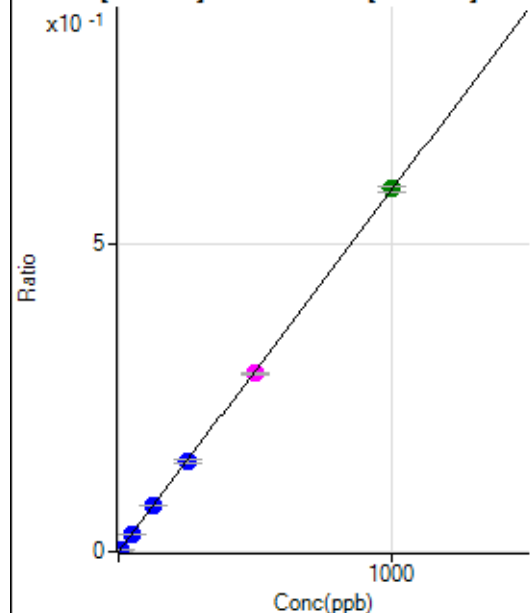
$$DL = 0.4431$$

$$BEC = 2.279$$

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	1066.76	0.0001	P	11.0
2	☐	5.000	5.264	59719.25	0.0031	P	5.5
3	☐	50.000	49.524	569457.68	0.0291	P	1.4
4	☐	125.000	127.557	1432223.34	0.0750	P	0.8
5	☐	250.000	249.908	2774523.52	0.1469	P	2.4
6	☐	500.000	492.486	5490005.38	0.2894	M	0.8
7	☐	1000.000	1003.483	10861846.68	0.5896	A	1.6
8	☐			13048.23	0.0008	P	1.3

$$y = 5.8748\text{E-}004 * x + 5.3271\text{E-}005$$

$$R = 1.0000$$

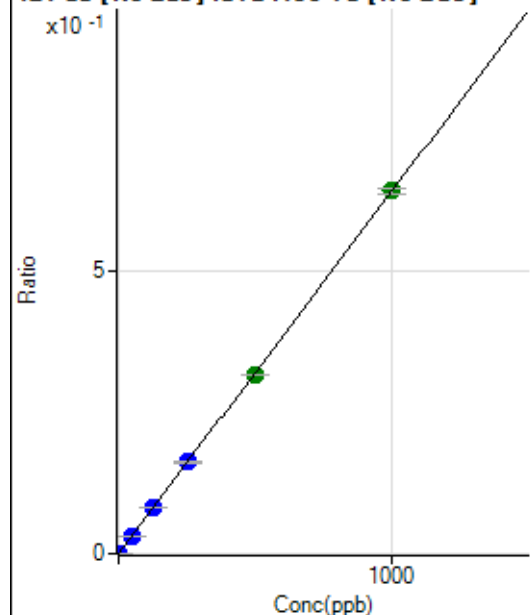
$$DL = 0.02989$$

$$BEC = 0.09068$$

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	255.57	0.0000	P	9.8
2	☐	2.000	2.035	24911.89	0.0013	P	7.8
3	☐	50.000	49.556	618904.72	0.0317	P	1.0
4	☐	125.000	128.204	1564756.32	0.0819	P	1.0
5	☐	250.000	252.519	3048595.71	0.1614	P	1.8
6	☐	500.000	493.386	5981236.98	0.3153	A	0.5
7	☐	1000.000	1002.299	11799198.44	0.6405	A	1.6
8	☐			15829.13	0.0010	P	8.4

$$y = 6.3897\text{E-}004 * x + 1.2767\text{E-}005$$

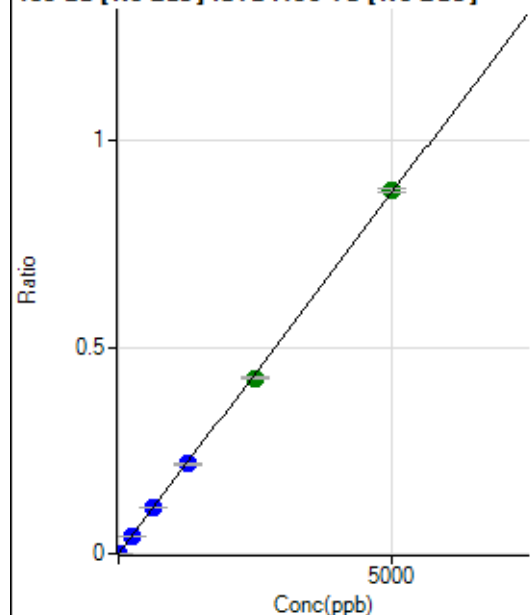
$$R = 1.0000$$

$$DL = 0.005889$$

$$BEC = 0.01998$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	51.0
2	☐	10.000	10.496	34828.08	0.0018	P	7.6
3	☐	250.000	250.525	855380.29	0.0438	P	1.3
4	☐	625.000	638.947	2132611.48	0.1117	P	0.4
5	☐	1250.000	1243.453	4105478.00	0.2173	P	1.5
6	☐	2500.000	2433.687	8068666.33	0.4253	A	0.8
7	☐	5000.000	5033.023	16204944.81	0.8795	A	1.0
8	☐			29930.45	0.0018	P	1.3

$$y = 1.7475\text{E-}004 * x + 1.6742\text{E-}006$$

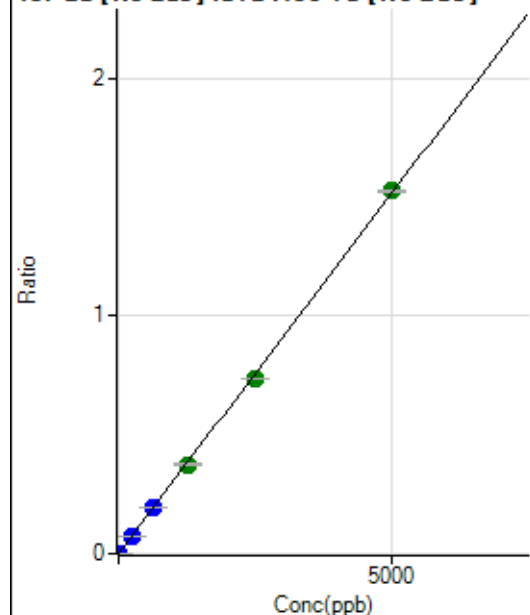
$$R = 0.9999$$

$$DL = 0.01467$$

$$BEC = 0.00958$$

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	77.78	0.0000	P	13.8
2	☐	10.000	10.649	61336.62	0.0032	P	7.9
3	☐	250.000	249.120	1476410.45	0.0756	P	1.1
4	☐	625.000	635.610	3682172.17	0.1928	P	0.7
5	☐	1250.000	1241.022	7111840.96	0.3764	A	1.6
6	☐	2500.000	2429.525	13980395.97	0.7369	A	0.4
7	☐	5000.000	5036.199	28144565.21	1.5276	A	0.7
8	☐			53412.25	0.0033	P	0.2

$$y = 3.0332\text{E-}004 * x + 3.8929\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.005307$$

$$BEC = 0.01283$$

Weight: <None>

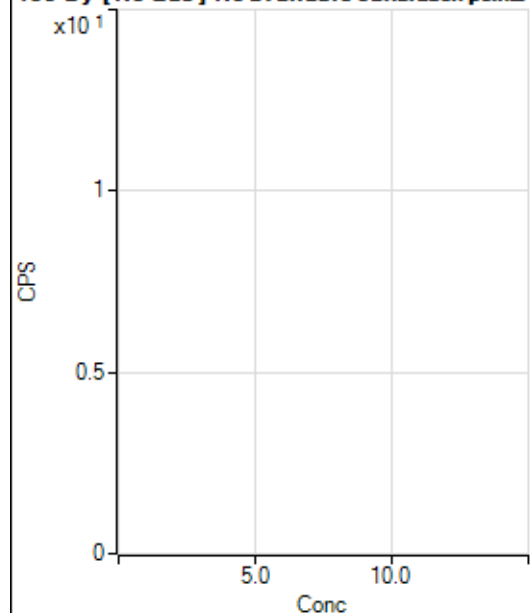
Min Conc: 0

150 Nd [No Gas] No available calibration points

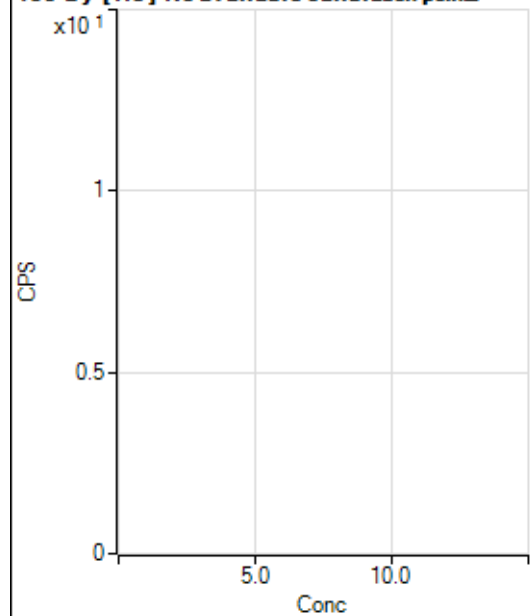
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	0.0
2	☐			4.44		P	173.
3	☐			146.67		P	16.4
4	☐			340.02		P	17.4
5	☐			680.04		P	7.4
6	☐			1208.99		P	6.4
7	☐			2562.55		P	4.2
8	☐			144.45		P	46.7

150 Nd [He] No available calibration points

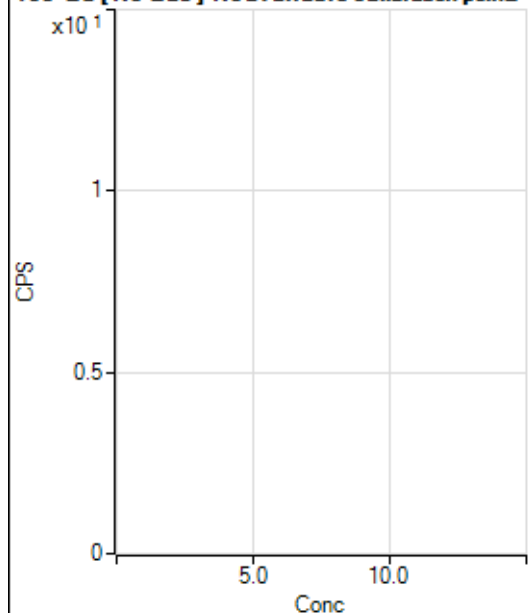
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			5.56		P	91.6
3	☐			8.89		P	78.1
4	☐			22.22		P	48.2
5	☐			27.78		P	38.6
6	☐			96.67		P	13.8
7	☐			148.89		P	4.7
8	☐			48.89		P	20.8

156 Dy [No Gas] No available calibration points

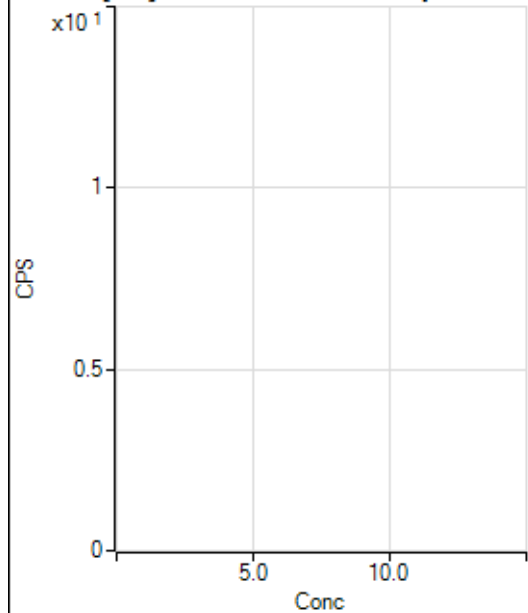
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	53.3
2	☐			47.22		P	27.0
3	☐			105.56		P	29.9
4	☐			97.23		P	27.6
5	☐			138.90		P	36.2
6	☐			266.68		P	12.5
7	☐			563.93		P	22.4
8	☐			888.96		P	17.3

156 Dy [He] No available calibration points

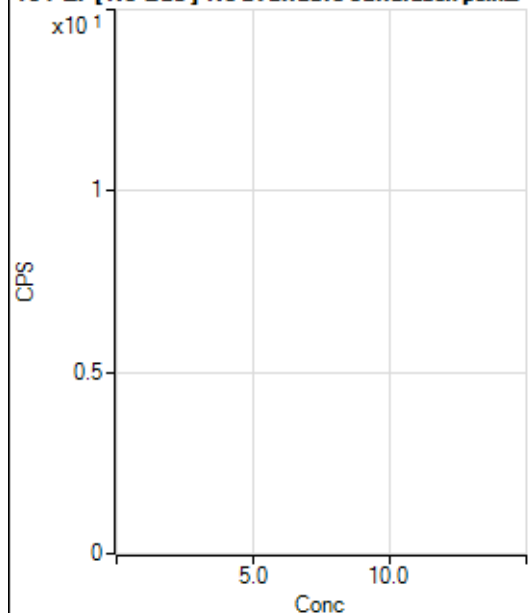
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.34		P	43.3
2	☐			20.00		P	33.4
3	☐			30.00		P	11.1
4	☐			73.34		P	19.8
5	☐			104.45		P	4.9
6	☐			204.45		P	13.3
7	☐			376.68		P	8.5
8	☐			445.57		P	6.8

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

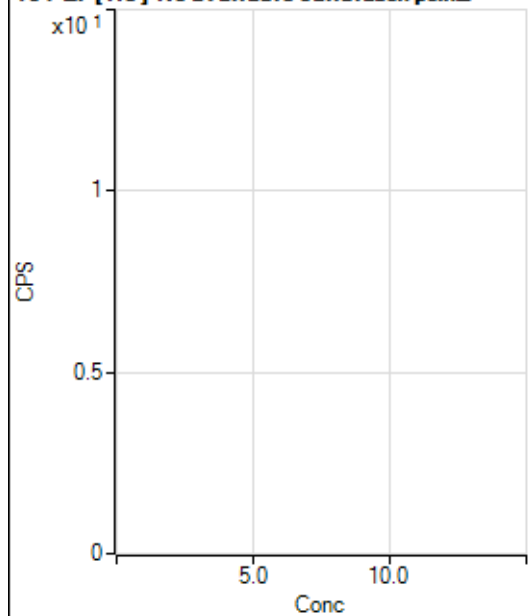
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			116.67		P	42.9
2	☐			125.01		P	24.0
3	☐			155.56		P	18.8
4	☐			158.34		P	32.0
5	☐			150.01		P	11.1
6	☐			236.12		P	28.5
7	☐			402.80		P	15.5
8	☐			947.30		P	12.8

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			315.57		P	6.8
2	☐			274.45		P	15.0
3	☐			267.78		P	8.3
4	☐			268.89		P	11.5
5	☐			306.68		P	1.1
6	☐			366.68		P	12.6
7	☐			368.90		P	10.9
8	☐			680.03		P	7.9

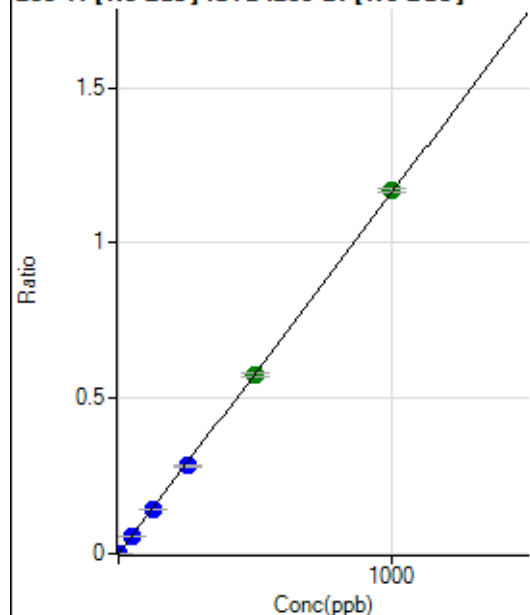
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			133.34		P	16.5
2	☐			88.90		P	59.5
3	☐			86.12		P	5.6
4	☐			119.45		P	28.2
5	☐			86.11		P	14.8
6	☐			155.57		P	29.5
7	☐			133.34		P	25.0
8	☐			233.35		P	12.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			40.00		P	33.3
2	☐			36.66		P	15.7
3	☐			55.56		P	18.3
4	☐			55.56		P	22.7
5	☐			44.44		P	49.9
6	☐			62.22		P	29.5
7	☐			52.22		P	32.8
8	☐			66.67		P	40.9

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	300.02	0.0000	P	10.6
2	☐	1.000	0.947	12428.53	0.0011	P	2.5
3	☐	50.000	46.962	612191.72	0.0546	P	1.3
4	☐	125.000	121.319	1550560.98	0.1409	P	1.7
5	☐	250.000	244.949	3051105.13	0.2845	P	2.1
6	☐	500.000	493.372	5983195.93	0.5731	A	2.2
7	☐	1000.000	1005.189	11644571.18	1.1675	A	1.1
8	☐			4198.11	0.0005	P	6.9

$$y = 0.0012 * x + 2.6173E-005$$

$$R = 1.0000$$

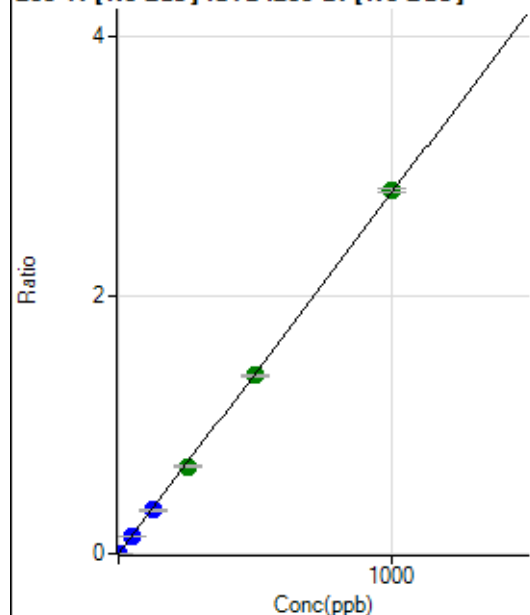
$$DL = 0.00717$$

$$BEC = 0.02253$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	769.50	0.0001	P	11.1
2	☐	1.000	0.949	29965.41	0.0027	P	5.9
3	☐	50.000	46.919	1471219.24	0.1311	P	1.1
4	☐	125.000	120.125	3692982.72	0.3357	P	1.7
5	☐	250.000	242.041	7251441.48	0.6763	A	2.8
6	☐	500.000	493.570	14398250.50	1.3790	A	1.4
7	☐	1000.000	1005.968	28031103.05	2.8105	A	0.9
8	☐			9734.51	0.0012	P	1.6

$$y = 0.0028 * x + 6.7115E-005$$

$$R = 0.9999$$

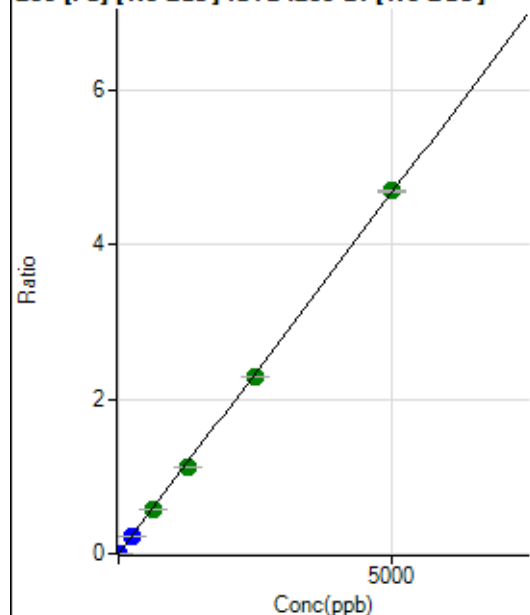
$$DL = 0.008015$$

$$BEC = 0.02402$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	994.51	0.0001	P	1.4
2	☐	1.000	0.950	10715.70	0.0010	P	5.8
3	☐	250.000	236.936	2478546.50	0.2209	P	0.7
4	☐	625.000	605.779	6213486.31	0.5647	A	1.3
5	☐	1250.000	1209.223	12089161.04	1.1272	A	0.4
6	☐	2500.000	2458.789	23933290.12	2.2920	A	0.5
7	☐	5000.000	5033.855	46799482.99	4.6922	A	0.7
8	☐			46316.26	0.0058	P	1.5

$$y = 9.3211\text{E-}004 * x + 8.6784\text{E-}005$$

$$R = 0.9999$$

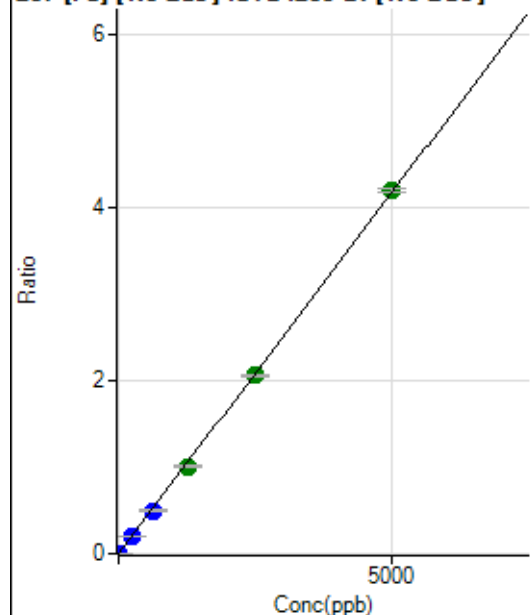
$$DL = 0.004012$$

$$BEC = 0.0931$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	883.39	0.0001	P	7.2
2	☐	1.000	0.938	9474.03	0.0009	P	5.4
3	☐	250.000	232.906	2180336.96	0.1944	P	0.9
4	☐	625.000	595.682	5467161.12	0.4970	P	2.0
5	☐	1250.000	1210.419	10828402.10	1.0097	A	1.1
6	☐	2500.000	2466.900	21487791.22	2.0578	A	0.3
7	☐	5000.000	5030.965	41854691.21	4.1965	A	1.1
8	☐			40371.17	0.0051	P	1.5

$$y = 8.3413\text{E-}004 * x + 7.7118\text{E-}005$$

$$R = 0.9999$$

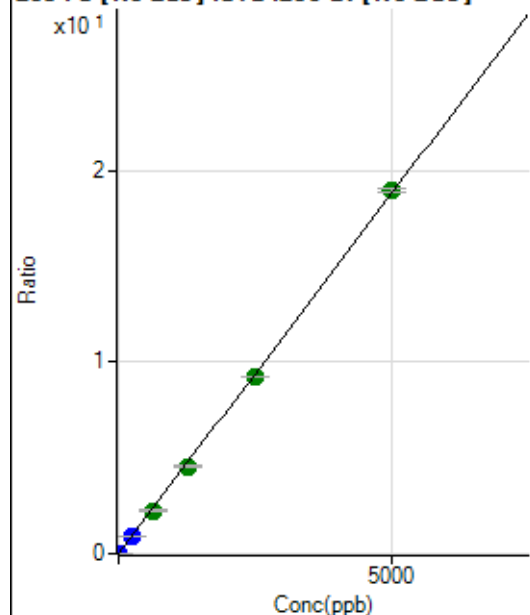
$$DL = 0.02006$$

$$BEC = 0.09245$$

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	3996.66	0.0003	P	3.4
2	☐	1.000	0.938	42696.46	0.0039	P	5.2
3	☐	250.000	233.044	9828567.66	0.8761	P	0.3
4	☐	625.000	599.403	24784216.81	2.2528	A	1.9
5	☐	1250.000	1207.052	48646090.56	4.5363	A	1.4
6	☐	2500.000	2450.748	96169713.02	9.2099	A	0.2
7	☐	5000.000	5039.410	188874764.4	18.9377	A	1.1
8	☐			183078.35	0.0229	P	2.0

$$y = 0.0038 * x + 3.4882E-004$$

$$R = 0.9999$$

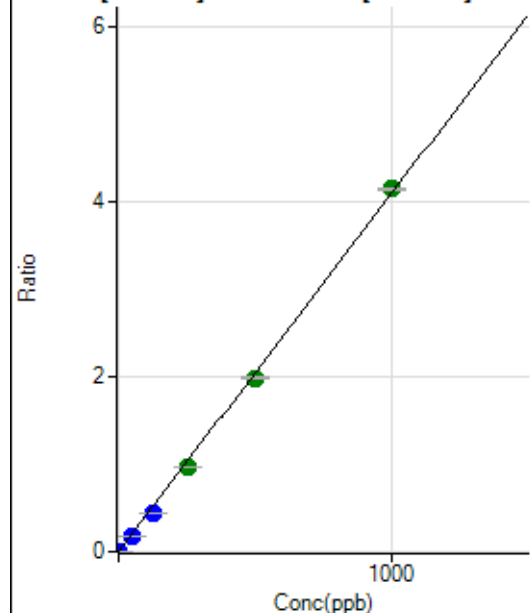
$$DL = 0.009418$$

$$BEC = 0.09283$$

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	3795.13	0.0003	P	7.4
2	☐	1.000	0.692	34885.27	0.0032	P	6.7
3	☐	50.000	40.497	1865808.54	0.1663	P	0.8
4	☐	125.000	108.050	4875841.34	0.4432	P	2.0
5	☐	250.000	237.444	10440725.93	0.9736	A	1.0
6	☐	500.000	485.387	20778204.17	1.9898	A	0.5
7	☐	1000.000	1013.040	41416926.85	4.1526	A	0.7
8	☐			20242.34	0.0025	P	2.1

$$y = 0.0041 * x + 3.3109E-004$$

$$R = 0.9997$$

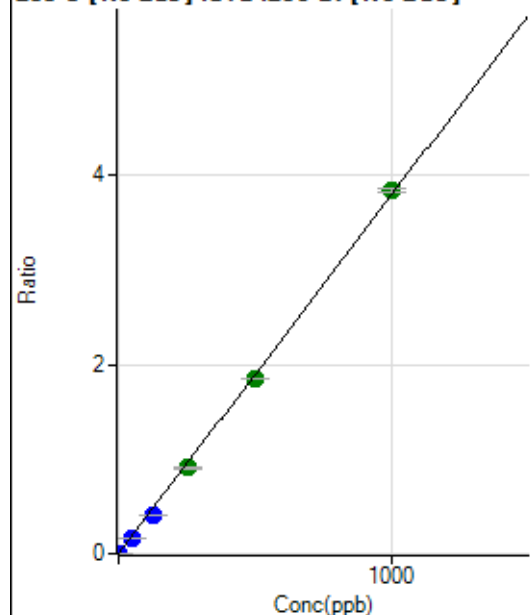
$$DL = 0.01791$$

$$BEC = 0.08078$$

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	52.78	0.0000	P	40.0
2	☐	1.000	0.817	34176.01	0.0031	P	6.1
3	☐	50.000	41.817	1778499.89	0.1585	P	1.2
4	☐	125.000	108.621	4530574.12	0.4118	P	1.8
5	☐	250.000	240.220	9766941.89	0.9107	A	1.5
6	☐	500.000	487.087	19281951.30	1.8466	A	0.5
7	☐	1000.000	1011.358	38240023.07	3.8342	A	1.1
8	☐			7699.92	0.0010	P	0.6

$$y = 0.0038 * x + 4.6109E-006$$

$$R = 0.9997$$

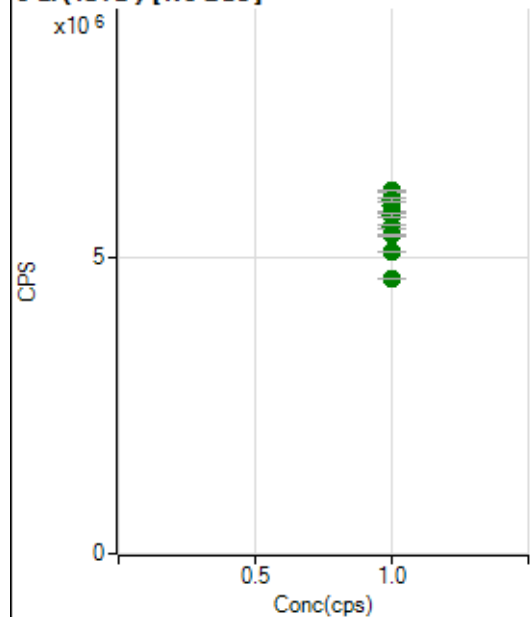
$$DL = 0.00146$$

$$BEC = 0.001216$$

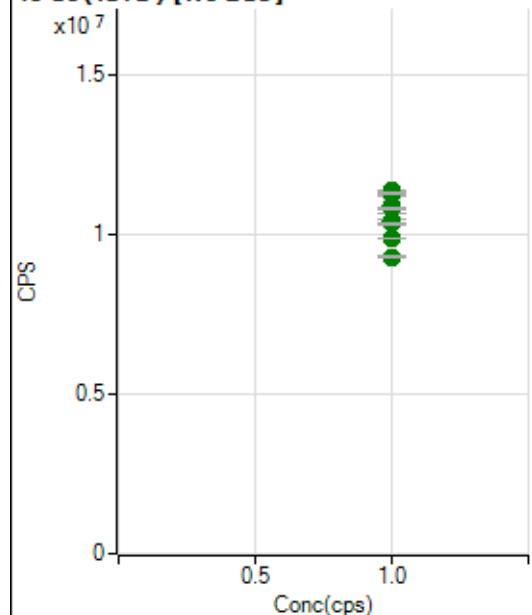
Weight: <None>

Min Conc: 0

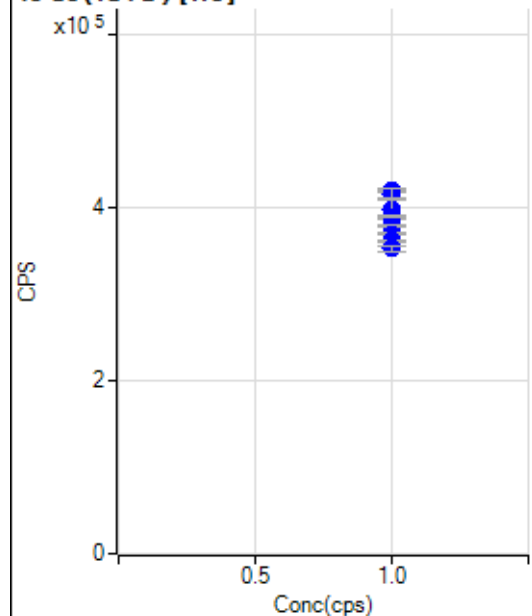
6 Li (ISTD) [No Gas]



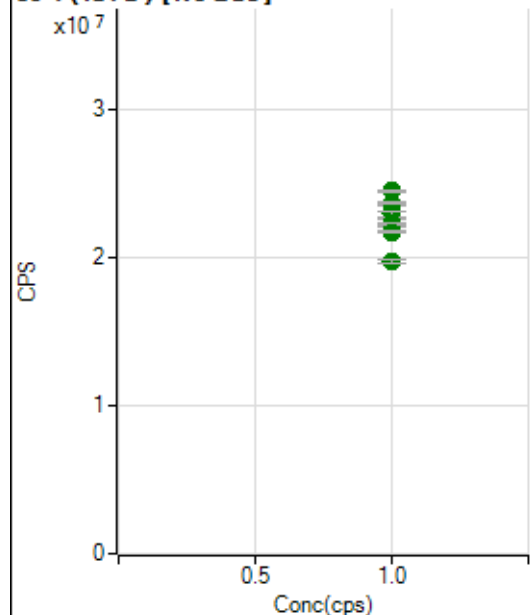
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6123704.84		A	0.7
2	☐	1.000		5879029.22		A	3.7
3	☐	1.000		5980353.24		A	0.9
4	☐	1.000		5718235.54		A	0.8
5	☐	1.000		5509968.81		A	1.2
6	☐	1.000		5379375.09		A	0.4
7	☐	1.000		5099620.86		A	0.3
8	☐	1.000		4640490.32		A	0.4

45 Sc (ISTD) [No Gas]

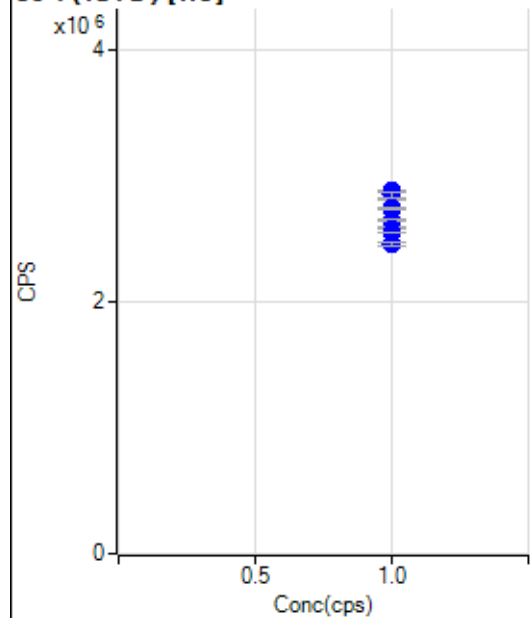
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11343056.50		A	0.4
2	☐	1.000		10908184.84		A	5.1
3	☐	1.000		11248645.67		A	0.5
4	☐	1.000		10810195.25		A	0.7
5	☐	1.000		10401171.86		A	1.0
6	☐	1.000		10322968.11		A	0.7
7	☐	1.000		9865318.32		A	0.4
8	☐	1.000		9288025.49		A	0.7

45 Sc (ISTD) [He]

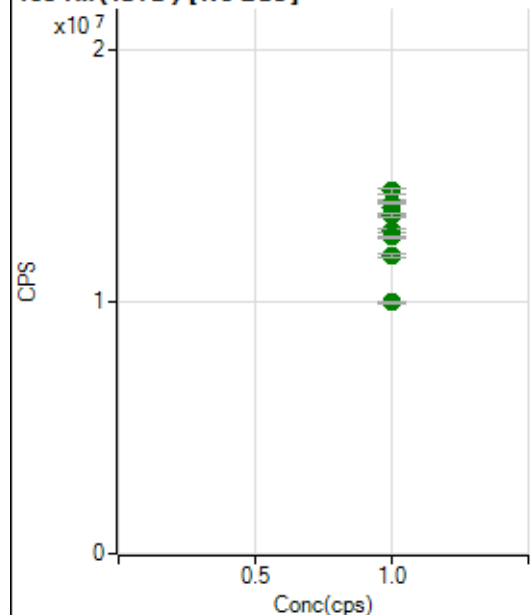
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		418668.40		P	0.5
2	☐	1.000		415551.77		P	2.7
3	☐	1.000		396542.28		P	5.4
4	☐	1.000		389247.07		P	0.7
5	☐	1.000		377816.34		P	0.5
6	☐	1.000		369244.74		P	0.6
7	☐	1.000		360865.74		P	0.5
8	☐	1.000		352489.00		P	1.9

89 Y (ISTD) [No Gas]

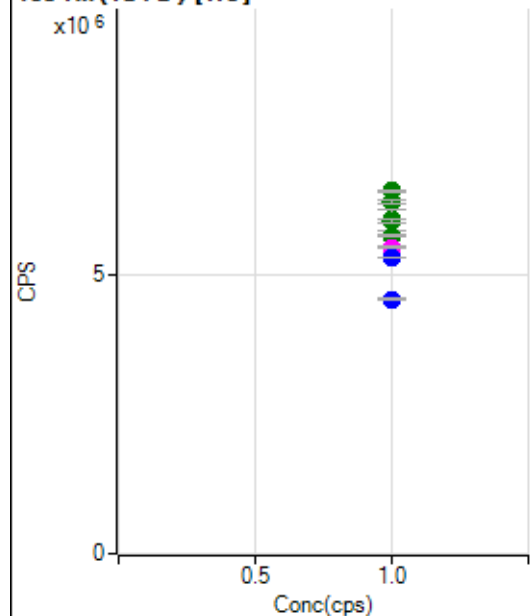
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		24547500.47		A	0.4
2	☐	1.000		23162067.43		A	3.8
3	☐	1.000		23727709.37		A	0.5
4	☐	1.000		22972429.66		A	1.6
5	☐	1.000		22342249.11		A	2.3
6	☐	1.000		22323589.39		A	0.6
7	☐	1.000		21770388.84		A	0.8
8	☐	1.000		19752924.84		A	1.7

89 Y (ISTD) [He]

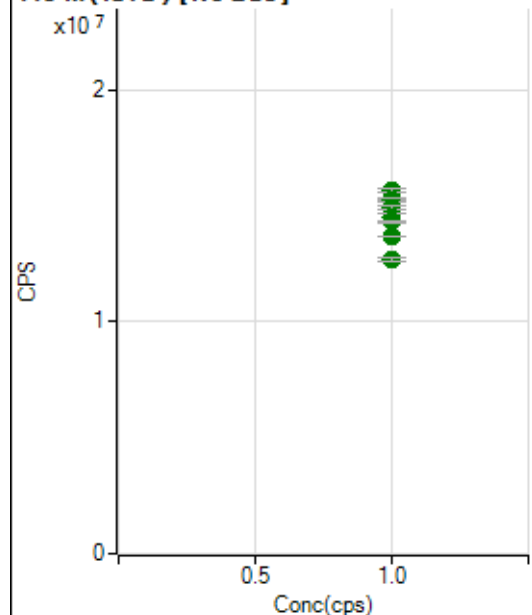
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2879387.32		P	0.5
2	☐	1.000		2850204.16		P	1.4
3	☐	1.000		2735338.26		P	5.4
4	☐	1.000		2739520.90		P	0.5
5	☐	1.000		2641930.62		P	0.6
6	☐	1.000		2580993.77		P	0.5
7	☐	1.000		2545441.89		P	0.3
8	☐	1.000		2462065.26		P	1.5

103 Rh (ISTD) [No Gas]

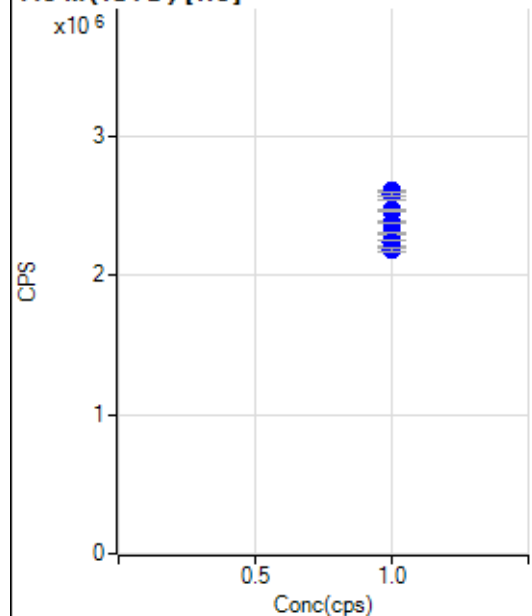
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14375868.81		A	1.5
2	☐	1.000		13695543.96		A	4.4
3	☐	1.000		13901470.76		A	0.6
4	☐	1.000		13409337.30		A	0.9
5	☐	1.000		12817556.89		A	1.2
6	☐	1.000		12566365.65		A	0.5
7	☐	1.000		11800034.41		A	1.7
8	☐	1.000		9964917.49		A	0.9

103 Rh (ISTD) [He]

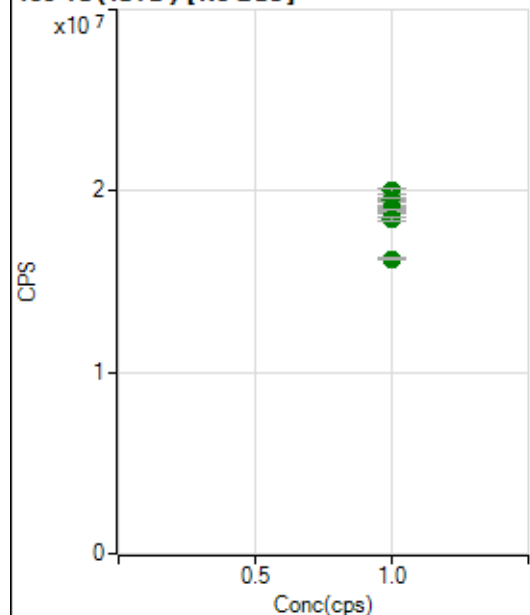
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6516339.90		A	0.5
2	☐	1.000		6318758.65		A	1.1
3	☐	1.000		5993962.62		A	6.3
4	☐	1.000		5972932.83		A	1.0
5	☐	1.000		5713889.29		A	0.5
6	☐	1.000		5505725.26		M	0.2
7	☐	1.000		5323653.64		P	0.4
8	☐	1.000		4573989.97		P	1.4

115 In (ISTD) [No Gas]

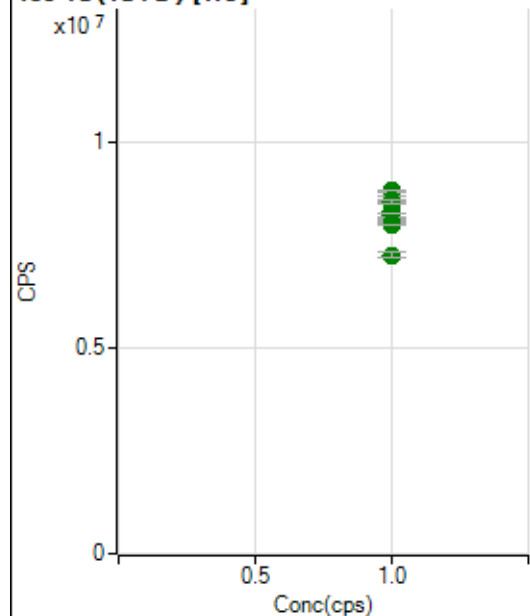
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15651104.05		A	1.0
2	☐	1.000		14971244.88		A	3.9
3	☐	1.000		15267753.49		A	1.2
4	☐	1.000		14922794.87		A	0.8
5	☐	1.000		14510988.48		A	2.1
6	☐	1.000		14315856.00		A	0.6
7	☐	1.000		13688911.72		A	0.4
8	☐	1.000		12727054.37		A	1.4

115 In (ISTD) [He]

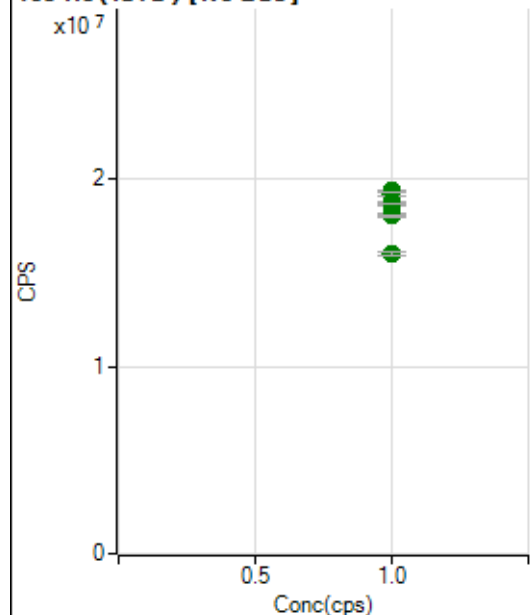
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2602554.00		P	0.0
2	☐	1.000		2580206.63		P	1.5
3	☐	1.000		2461163.87		P	6.0
4	☐	1.000		2462327.42		P	0.4
5	☐	1.000		2370425.38		P	0.3
6	☐	1.000		2301678.90		P	0.6
7	☐	1.000		2228092.19		P	1.3
8	☐	1.000		2179416.50		P	0.7

159 Tb (ISTD) [No Gas]

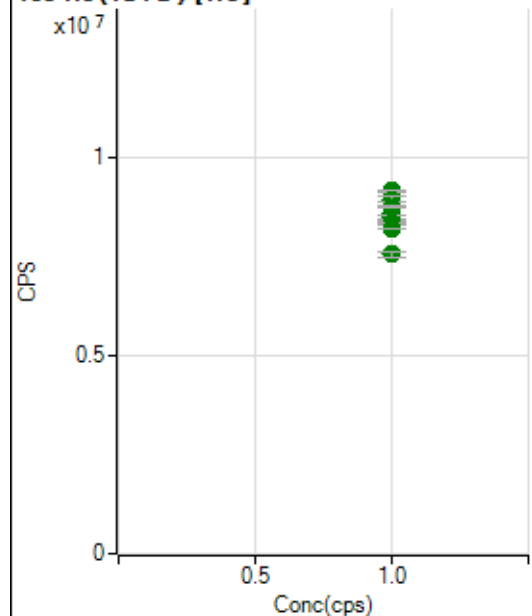
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20009530.12		A	1.6
2	☐	1.000		19019232.22		A	5.3
3	☐	1.000		19539079.85		A	1.1
4	☐	1.000		19099557.63		A	0.9
5	☐	1.000		18896660.97		A	1.9
6	☐	1.000		18971489.30		A	0.5
7	☐	1.000		18425290.98		A	1.2
8	☐	1.000		16278305.87		A	0.5

159 Tb (ISTD) [He]

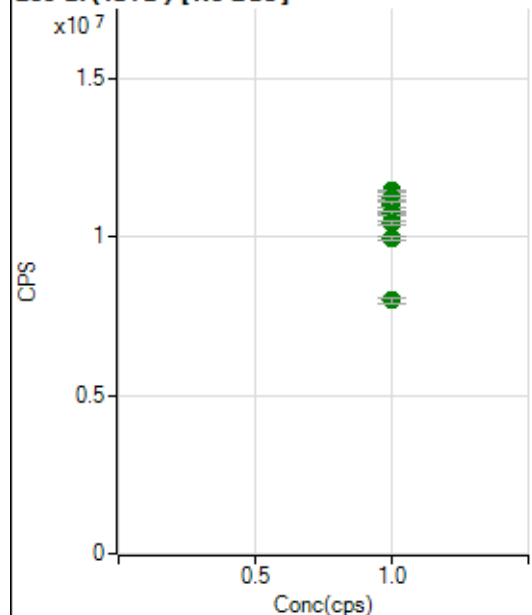
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8821790.49		A	0.7
2	☐	1.000		8601048.20		A	1.8
3	☐	1.000		8331960.08		A	5.0
4	☐	1.000		8549881.61		A	0.9
5	☐	1.000		8208224.32		A	1.1
6	☐	1.000		8060965.99		A	0.2
7	☐	1.000		8004498.63		A	0.3
8	☐	1.000		7262143.64		A	1.6

165 Ho (ISTD) [No Gas]

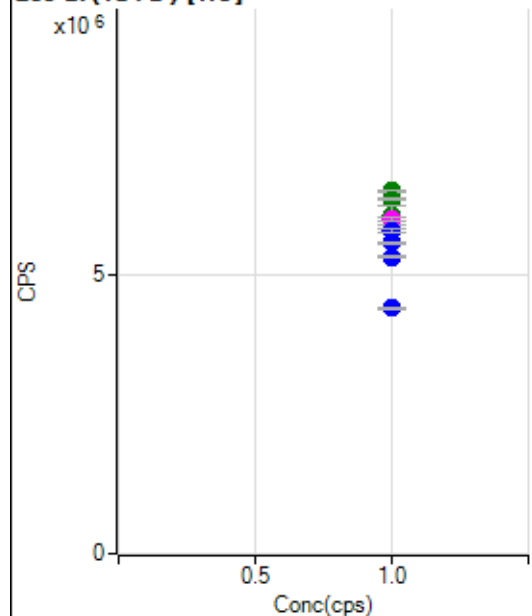
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19363925.55		A	0.9
2	☐	1.000		18584769.58		A	5.0
3	☐	1.000		19164239.44		A	0.8
4	☐	1.000		18738574.30		A	0.2
5	☐	1.000		18690246.53		A	1.4
6	☐	1.000		18674078.89		A	0.2
7	☐	1.000		18039224.04		A	0.6
8	☐	1.000		15981268.93		A	1.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9170305.42		A	0.5
2	☐	1.000		8967311.88		A	1.1
3	☐	1.000		8594010.01		A	4.7
4	☐	1.000		8750465.21		A	0.5
5	☐	1.000		8509811.61		A	0.7
6	☐	1.000		8341229.81		A	0.2
7	☐	1.000		8214990.36		A	0.4
8	☐	1.000		7565843.15		A	1.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11459189.00		A	0.8
2	☐	1.000		11045151.64		A	5.0
3	☐	1.000		11218791.91		A	0.9
4	☐	1.000		11003859.00		A	1.7
5	☐	1.000		10724951.30		A	1.2
6	☐	1.000		10442132.06		A	1.1
7	☐	1.000		9974154.37		A	0.9
8	☐	1.000		7991212.59		A	1.9

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6517359.00		A	0.2
2	☐	1.000		6357210.95		A	0.5
3	☐	1.000		6083547.41		A	5.6
4	☐	1.000		6024520.68		M	1.2
5	☐	1.000		5800204.71		P	0.9
6	☐	1.000		5583658.67		P	0.6
7	☐	1.000		5322283.81		P	0.7
8	☐	1.000		4405589.48		P	1.0

US EPA Tune Check Sample Report

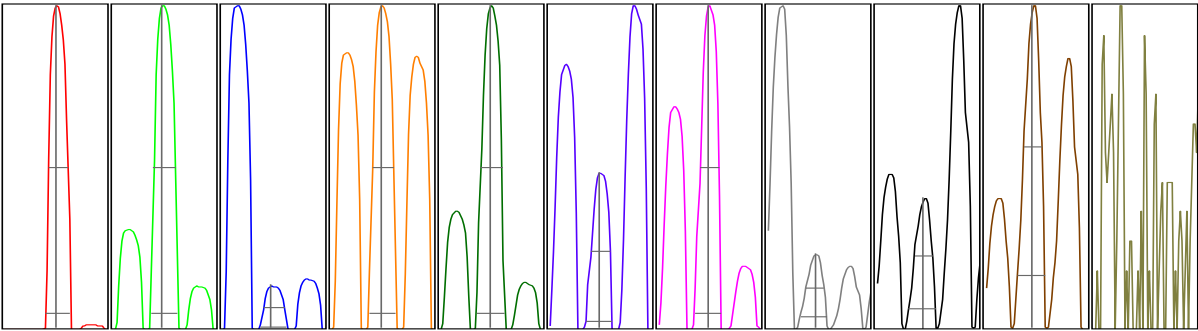
Batch Folder D:\ICP-MS Data\1\DATA\P7040220MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	17961	1.35	5.00	
24	222867	1.39	5.00	
25	29429	1.46	5.00	
26	34470	1.33	5.00	
59	114981	1.38	5.00	
113	20956	1.52	5.00	
115	62115	1.75	5.00	
206	27130	1.20	5.00	
207	24686	1.20	5.00	
208	56876	1.71	5.00	
220	0	58.63		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	17709	17968	18307	17758	18061
24	220920	223935	227737	219980	221765
25	29140	29644	30029	28935	29398
26	34091	34631	35162	34032	34436
59	114181	114979	117534	113264	114948
113	20559	20920	21447	20895	20960
115	61588	62382	63687	60731	62187
206	26816	27124	27656	26916	27137
207	24302	24733	25082	24506	24808
208	55540	56835	58097	56454	57453
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	32453	9.05	8.9 - 9.1		0.730	0.900	
24	364364	23.95	23.9 - 24.1		0.781	0.900	
25	48469	24.95	24.9 - 25.1		0.772	0.900	
26	56608	26.00	25.9 - 26.1		0.782	0.900	
59	193195	59.00	58.9 - 59.1		0.817	0.900	
113	36985	113.00	112.9 - 113.1		0.747	0.900	
115	111301	115.00	114.9 - 115.1		0.778	0.900	
206	49313	205.95	205.9 - 206.1		0.769	0.900	
207	41746	206.90	206.9 - 207.1		0.769	0.900	
208	103055	207.90	207.9 - 208.1		0.783	0.900	
220	0	219.90	-		0.250		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.7	V	Deflect	11.8	V
Extract 2	-120.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	26410	0.82	
89	76129	0.87	
205	65133	0.79	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	26169	26718	26443	26246	26477
89	75377	77099	76102	75708	76361
205	65388	65925	64858	64701	64791

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	7.7	V	Deflect	1.0	V
Extract 2	-125.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	V	Cell Exit	-60	V			

Cell Parameters

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