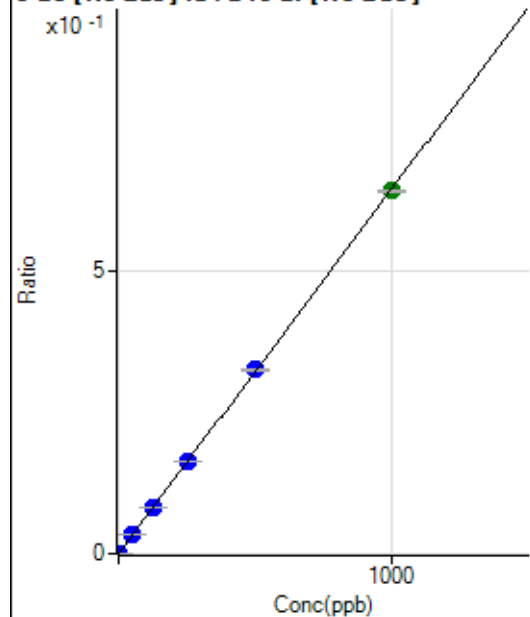


Calibration for 004CALS.d

Batch Folder: D:\ICP-MS Data\P7013020-MS.b\
 Analysis File: P7013020-MS.batch.bin
 DA Date-Time: 2020-01-31 00:53:14
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-01-30 13:33:41
2	004CALS.d	S02	2020-01-30 13:37:22
3	005CALS.d	S03	2020-01-30 13:42:22
4	006CALS.d	S04	2020-01-30 13:46:41
5	007CALS.d	S05	2020-01-30 13:50:34
6	008CALS.d	S06	2020-01-30 13:54:25
7	009CALS.d	S07	2020-01-30 13:58:18
8	010CALS.d	S08	2020-01-30 14:02:12

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	127.78	0.0000	P	15.0
2	☐	1.000	1.038	5780.86	0.0007	P	4.8
3	☐	50.000	52.202	277658.74	0.0337	P	0.9
4	☐	125.000	128.702	658272.82	0.0832	P	0.6
5	☐	250.000	253.203	1301182.16	0.1636	P	0.5
6	☐	500.000	505.581	2512770.86	0.3266	P	1.1
7	☐	1000.000	995.836	4832792.24	0.6433	A	0.3
8	☐			777.82	0.0001	P	16.8

$$y = 6.4600\text{E-}004 * x + 1.5250\text{E-}005$$

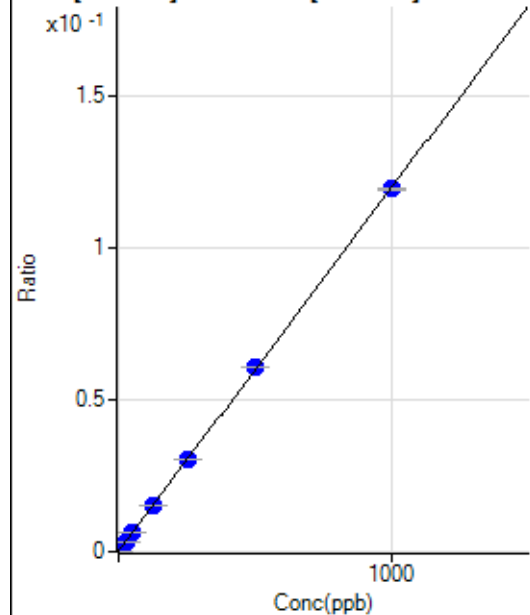
$$R = 1.0000$$

$$DL = 0.01062$$

$$BEC = 0.02361$$

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	1102.87	0.0001	P	1.8
2	☐	25.000	24.806	26098.37	0.0031	P	1.9
3	☐	50.000	50.727	50976.09	0.0062	P	1.1
4	☐	125.000	125.950	120195.83	0.0152	P	1.1
5	☐	250.000	251.065	239709.29	0.0301	P	0.6
6	☐	500.000	505.540	465828.88	0.0605	P	0.3
7	☐	1000.000	996.814	895918.69	0.1193	P	0.6
8	☐			18498.16	0.0027	P	8.4

$$y = 1.1951\text{E-}004 * x + 1.3170\text{E-}004$$

$$R = 1.0000$$

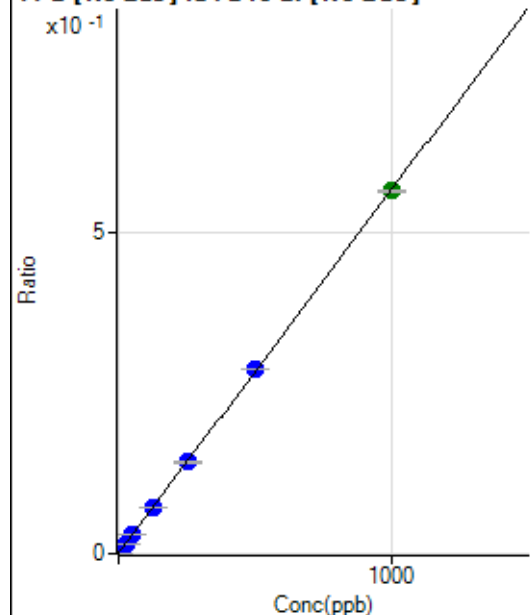
$$DL = 0.06093$$

$$BEC = 1.102$$

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	5145.53	0.0006	P	6.5
2	☐	25.000	24.798	123735.22	0.0147	P	2.4
3	☐	50.000	49.949	238217.28	0.0289	P	1.0
4	☐	125.000	125.198	566985.88	0.0716	P	0.8
5	☐	250.000	251.551	1139757.11	0.1433	P	1.2
6	☐	500.000	506.083	2213084.81	0.2877	P	0.7
7	☐	1000.000	996.554	4250761.68	0.5658	A	0.4
8	☐			85073.59	0.0125	P	7.3

$$y = 5.6719\text{E-}004 * x + 6.1461\text{E-}004$$

$$R = 1.0000$$

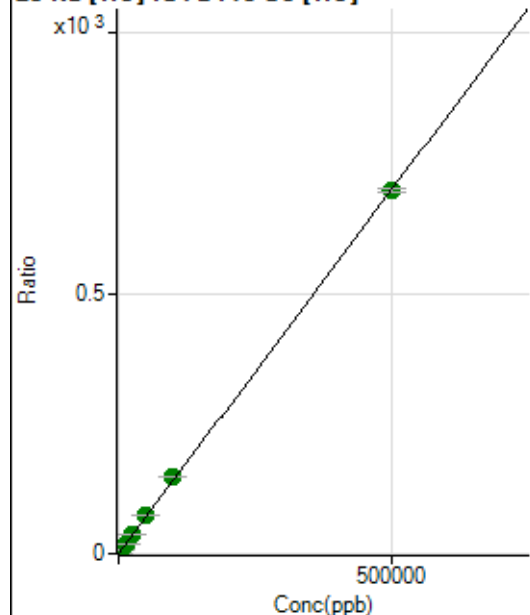
$$DL = 0.2117$$

$$BEC = 1.084$$

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	29663.59	0.0393	P	1.1
2	☐	500.000	451.336	497530.20	0.6695	P	6.3
3	☐	5000.000	5280.678	5337750.42	7.4124	A	2.2
4	☐	12500.000	13236.624	12821556.62	18.5209	A	1.0
5	☐	25000.000	26463.902	25300117.93	36.9895	A	0.6
6	☐	50000.000	52395.147	51080289.68	73.1960	A	1.8
7	☐	100000.00	104903.45	101864181.44	146.5106	A	0.3
8	☐	500000.00	498685.42	481010244.08	696.3284	A	1.2

$$y = 0.0014 * x + 0.0393$$

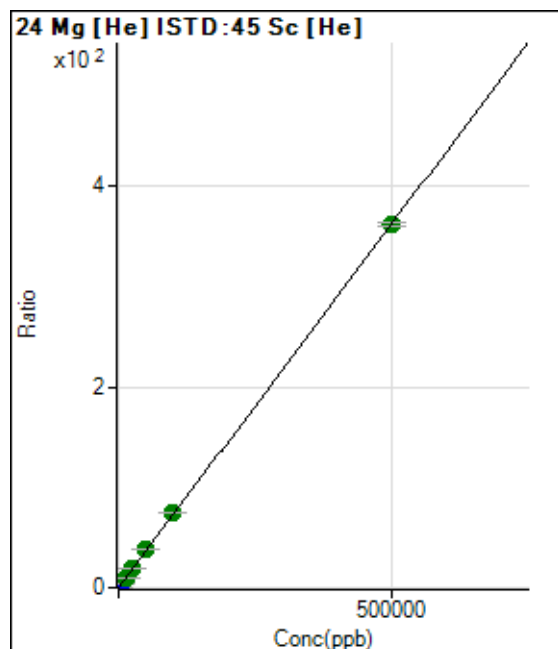
$$R = 0.9999$$

$$DL = 0.9037$$

$$BEC = 28.15$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	850.06	0.0011	P	16.6
2	☐	500.000	411.059	222042.53	0.2988	P	8.9
3	☐	5000.000	5275.314	2751855.62	3.8217	P	4.1
4	☐	12500.000	13263.921	6650741.77	9.6072	A	1.2
5	☐	25000.000	26493.564	13124857.85	19.1885	A	0.9
6	☐	50000.000	52111.567	26338322.64	37.7419	A	1.7
7	☐	100000.00	103492.44	52113319.57	74.9534	A	0.2
8	☐	500000.00	498993.91	249647430.58	361.3872	A	1.0

$$y = 7.2423\text{E-}004 * x + 0.0011$$

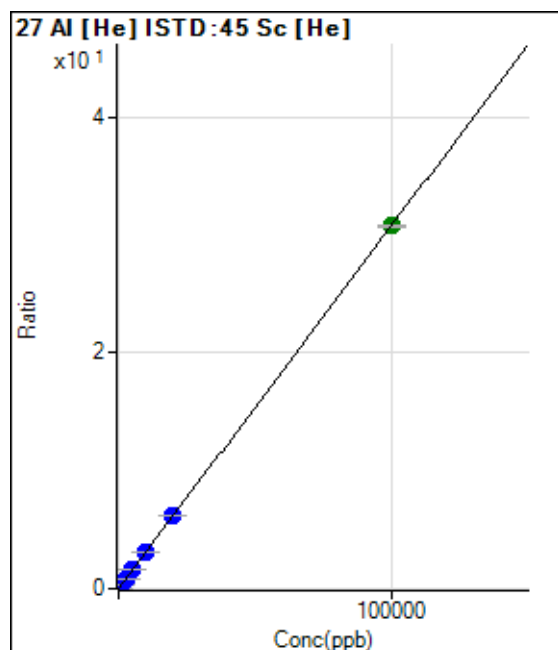
$$R = 1.0000$$

$$DL = 0.7757$$

$$BEC = 1.554$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	572.26	0.0008	P	18.2
2	☐	20.000	12.759	3481.11	0.0047	P	2.9
3	☐	1000.000	1012.619	224882.36	0.3123	P	3.9
4	☐	2500.000	2576.036	549178.68	0.7933	P	0.9
5	☐	5000.000	5168.178	1088057.28	1.5908	P	0.2
6	☐	10000.000	10154.363	2180667.63	3.1248	P	1.5
7	☐	20000.000	20147.561	4310245.54	6.1993	P	0.1
8	☐	100000.00	99944.617	21243189.71	30.7497	A	0.7

$$y = 3.0766\text{E-}004 * x + 7.5782\text{E-}004$$

$$R = 1.0000$$

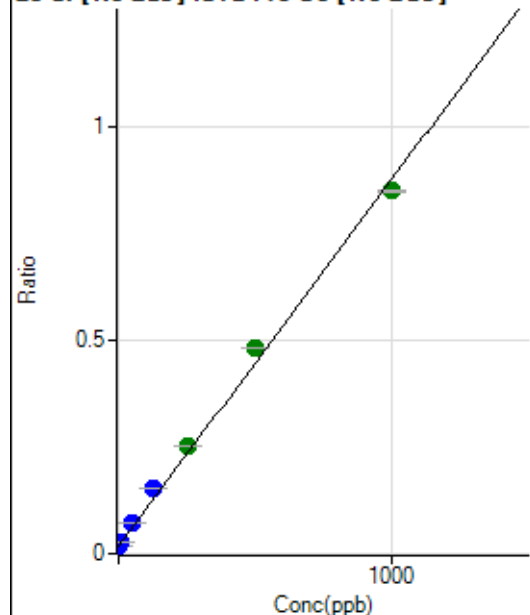
$$DL = 1.344$$

$$BEC = 2.463$$

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	336834.17	0.0174	P	0.4
2	☐	10.000	11.350	523206.10	0.0271	P	1.6
3	☐	50.000	62.707	1324026.88	0.0712	P	0.5
4	☐	125.000	157.138	2737749.67	0.1522	P	0.7
5	☐	250.000	273.487	4599591.68	0.2521	A	1.2
6	☐	500.000	540.403	8784669.38	0.4811	A	0.6
7	☐	1000.000	969.261	15441026.91	0.8491	A	0.5
8	☐			965808.72	0.0579	P	0.9

$$y = 8.5809\text{E-}004 * x + 0.0174$$

$$R = 0.9981$$

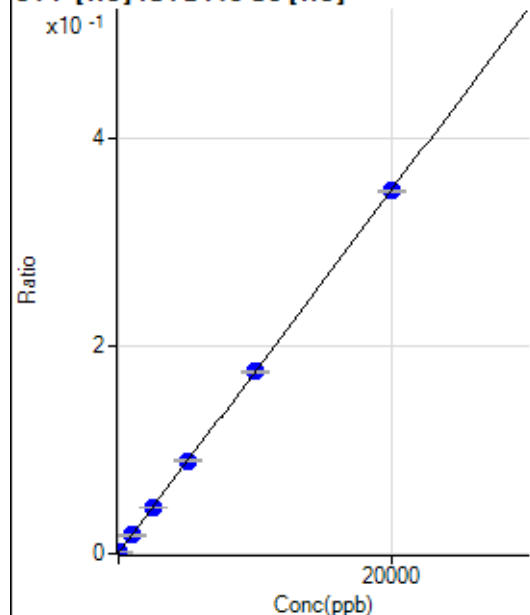
$$DL = 0.2626$$

$$BEC = 20.28$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-21.891	202.79	0.0003	P	33.3
2	☐	0.000	21.891	769.50	0.0010	P	4.8
3	☐	1000.000	984.278	12869.93	0.0179	P	3.5
4	☐	2500.000	2507.467	30821.77	0.0445	P	1.3
5	☐	5000.000	5103.178	61510.66	0.0899	P	1.2
6	☐	10000.000	10026.219	122872.11	0.1761	P	1.0
7	☐	20000.000	19960.949	243271.84	0.3499	P	0.4
8	☐			308.35	0.0004	P	4.8

$$y = 1.7496\text{E-}005 * x + 6.5190\text{E-}004$$

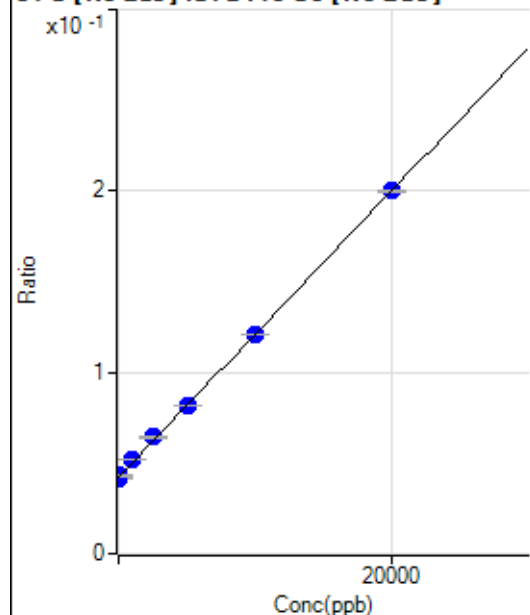
$$R = 1.0000$$

$$DL = 11.96$$

$$BEC = 37.26$$

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	-117.115	798177.16	0.0412	P	0.5
2	☐	0.000	117.115	830680.99	0.0431	P	0.9
3	☐	1000.000	1268.926	970378.10	0.0522	P	0.2
4	☐	2500.000	2819.863	1158857.49	0.0644	P	1.1
5	☐	5000.000	4959.147	1484307.61	0.0813	P	0.3
6	☐	10000.000	9943.833	2204159.47	0.1207	P	0.2
7	☐	20000.000	19984.868	3637597.78	0.2000	P	0.3
8	☐			667856.51	0.0400	P	0.9

$$y = 7.8993\text{E-}006 * x + 0.0422$$

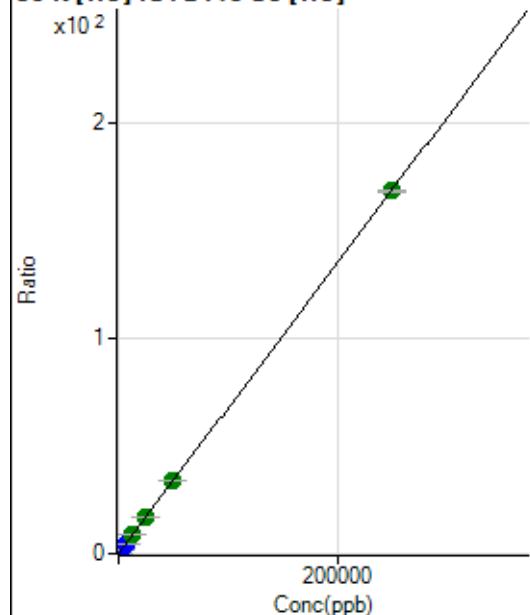
R = 0.9998

DL = 115.5

BEC = 5338

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	35551.96	0.0471	P	1.0
2	☐	500.000	456.555	263275.83	0.3542	P	4.6
3	☐	2500.000	2576.725	1282180.20	1.7805	P	0.9
4	☐	6250.000	6418.304	3021641.89	4.3647	P	0.3
5	☐	12500.000	12756.101	5901341.50	8.6281	A	0.3
6	☐	25000.000	25068.111	11800882.99	16.9104	A	0.4
7	☐	50000.000	50369.720	23591461.81	33.9308	A	0.2
8	☐	250000.00	249901.55	116175297.04	168.1556	A	0.4

$$y = 6.7270\text{E-}004 * x + 0.0471$$

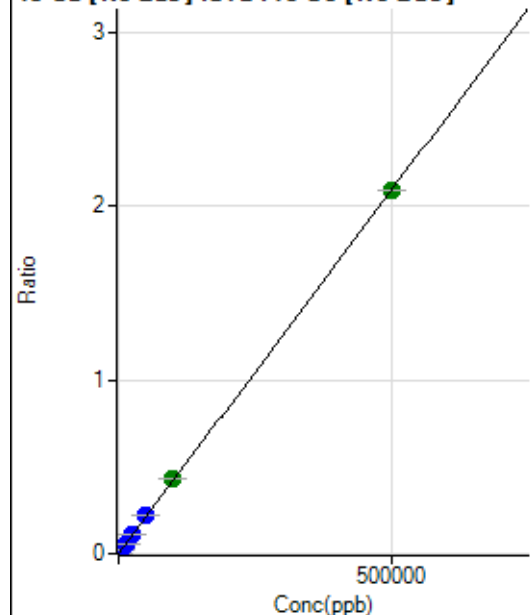
R = 1.0000

DL = 2.021

BEC = 70.02

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	436.14	0.0000	P	18.8
2	☐	500.000	527.533	42921.69	0.0022	P	0.4
3	☐	5000.000	5296.014	411793.21	0.0221	P	0.2
4	☐	12500.000	13104.419	984881.13	0.0548	P	1.3
5	☐	25000.000	26256.010	2001989.95	0.1097	P	0.6
6	☐	50000.000	52298.820	3989913.50	0.2185	P	0.3
7	☐	100000.00	103240.28	7843955.64	0.4313	A	0.1
8	☐	500000.00	499041.16	34783275.08	2.0849	A	0.1

$$y = 4.1778\text{E-}006 * x + 2.2523\text{E-}005$$

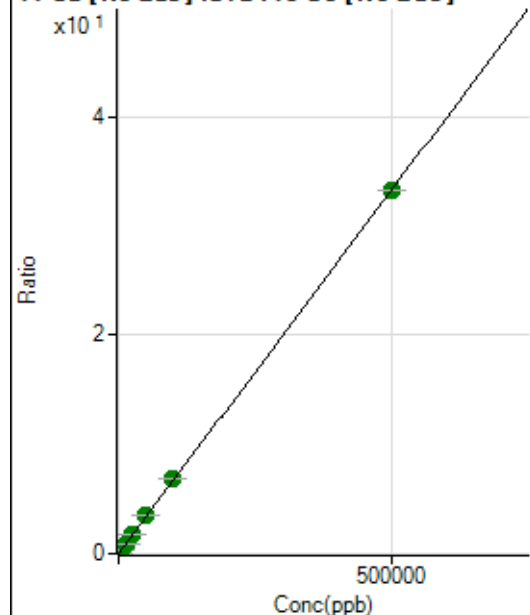
$$R = 1.0000$$

$$DL = 3.037$$

$$BEC = 5.391$$

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	21277.42	0.0011	P	3.2
2	☐	500.000	529.232	700141.55	0.0363	P	0.4
3	☐	5000.000	5225.326	6485839.29	0.3488	A	0.3
4	☐	12500.000	12977.857	15550879.52	0.8648	A	0.5
5	☐	25000.000	25998.191	31591926.40	1.7313	A	0.1
6	☐	50000.000	51892.466	63076186.83	3.4545	A	0.3
7	☐	100000.00	103232.09	124952459.74	6.8712	A	0.0
8	☐	500000.00	499100.19	554147962.38	33.2162	A	0.1

$$y = 6.6550\text{E-}005 * x + 0.0011$$

$$R = 1.0000$$

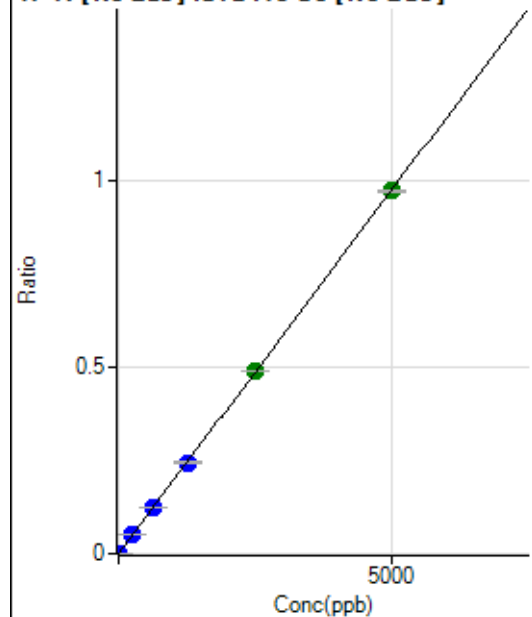
$$DL = 1.575$$

$$BEC = 16.52$$

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	258.35	0.0000	P	17.0
2	☐	5.000	5.095	19441.26	0.0010	P	2.4
3	☐	250.000	253.318	920175.73	0.0495	P	0.5
4	☐	625.000	631.573	2218499.11	0.1234	P	0.3
5	☐	1250.000	1254.540	4471162.30	0.2450	P	1.2
6	☐	2500.000	2513.291	8963149.24	0.4909	A	0.4
7	☐	5000.000	4991.232	17727826.27	0.9749	A	0.5
8	☐			4381.40	0.0003	P	4.0

$$y = 1.9531E-004 * x + 1.3348E-005$$

$$R = 1.0000$$

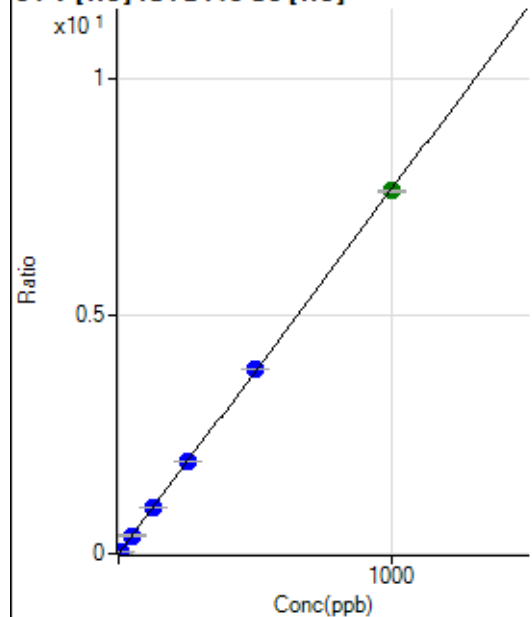
$$DL = 0.03489$$

$$BEC = 0.06834$$

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	40.00	0.0001	P	44.2
2	☐	5.000	3.954	22564.21	0.0304	P	9.1
3	☐	50.000	49.988	275978.80	0.3833	P	3.4
4	☐	125.000	126.880	673382.03	0.9727	P	0.7
5	☐	250.000	253.838	1330945.85	1.9459	P	0.4
6	☐	500.000	506.515	2709708.74	3.8829	P	0.6
7	☐	1000.000	995.554	5306177.25	7.6318	A	0.3
8	☐			1891.27	0.0027	P	0.7

$$y = 0.0077 * x + 5.3040E-005$$

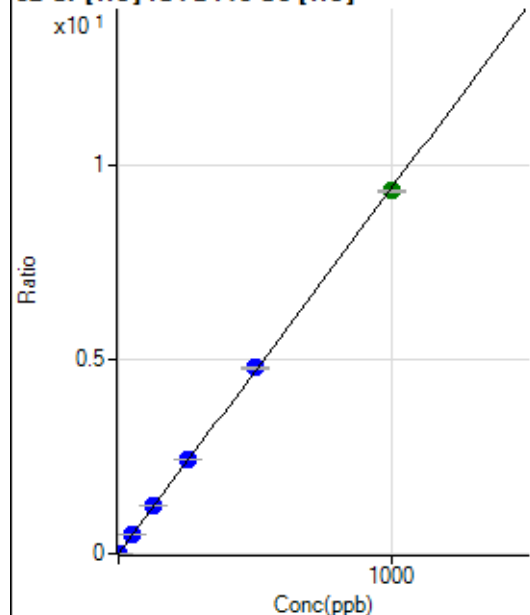
$$R = 1.0000$$

$$DL = 0.009184$$

$$BEC = 0.006919$$

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	2144.64	0.0028	P	2.2
2	☐	2.000	1.545	12889.14	0.0173	P	8.2
3	☐	50.000	50.800	345512.75	0.4798	P	3.9
4	☐	125.000	129.951	846683.65	1.2230	P	0.4
5	☐	250.000	259.075	1665751.16	2.4354	P	0.1
6	☐	500.000	508.438	3333476.86	4.7768	P	0.6
7	☐	1000.000	992.854	6483517.61	9.3252	A	0.5
8	☐			111200.98	0.1610	P	0.9

$$y = 0.0094 * x + 0.0028$$

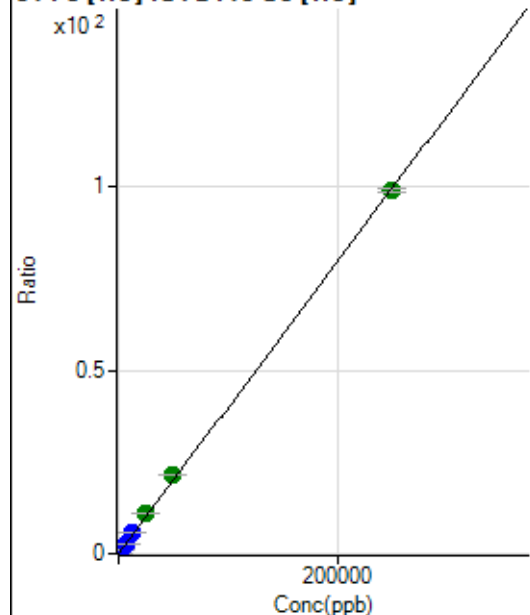
$$R = 0.9999$$

$$DL = 0.02017$$

$$BEC = 0.3026$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1027.79	0.0014	P	7.4
2	☐	50.000	43.196	13757.49	0.0185	P	9.3
3	☐	2500.000	2812.657	805277.39	1.1184	P	5.3
4	☐	6250.000	7197.010	1979598.98	2.8595	P	0.7
5	☐	12500.000	14349.711	3898641.97	5.7001	P	0.5
6	☐	25000.000	27430.694	7602996.11	10.8950	A	0.4
7	☐	50000.000	53874.936	14876755.71	21.3969	A	0.9
8	☐	250000.00	248862.65	68275762.53	98.8332	A	1.0

$$y = 3.9713E-004 * x + 0.0014$$

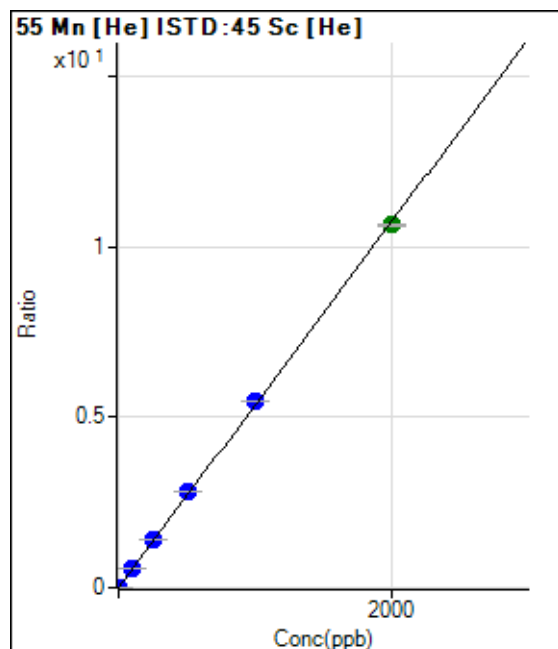
$$R = 0.9998$$

$$DL = 0.7626$$

$$BEC = 3.429$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	118.89	0.0002	P	6.9
2	☐	1.000	0.824	3399.34	0.0046	P	6.2
3	☐	100.000	102.088	394364.67	0.5477	P	3.7
4	☐	250.000	260.634	967782.84	1.3980	P	0.9
5	☐	500.000	521.584	1913382.42	2.7975	P	0.0
6	☐	1000.000	1019.115	3814254.32	5.4658	P	0.5
7	☐	2000.000	1983.613	7396589.26	10.6385	A	0.8
8	☐			35715.72	0.0517	P	0.9

$$y = 0.0054 * x + 1.5750E-004$$

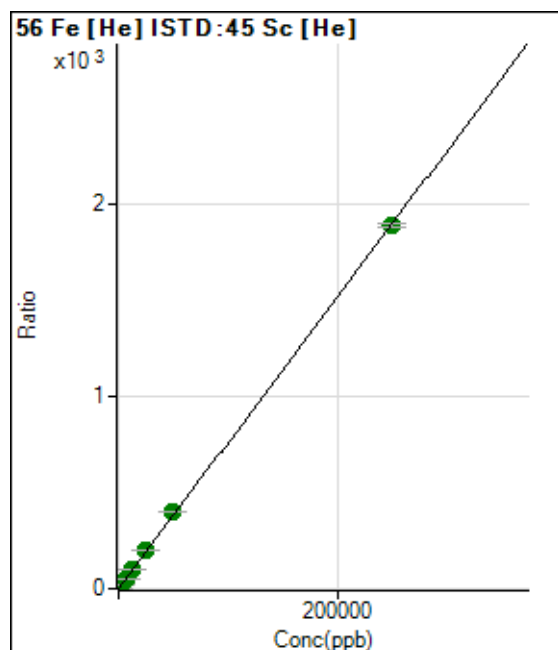
$$R = 0.9999$$

$$DL = 0.006093$$

$$BEC = 0.02937$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10524.44	0.0139	P	1.0
2	☐	50.000	41.408	243075.87	0.3272	P	9.7
3	☐	2500.000	2669.942	14552552.29	20.2098	A	4.1
4	☐	6250.000	6843.350	35844892.47	51.7780	A	0.7
5	☐	12500.000	13719.418	70988462.69	103.7896	A	0.2
6	☐	25000.000	26980.162	142426919.85	204.0958	A	0.3
7	☐	50000.000	52871.589	278057078.44	399.9423	A	1.2
8	☐	250000.00	249150.16	1301873540.2	1,884.621	A	1.2

$$y = 0.0076 * x + 0.0139$$

$$R = 0.9999$$

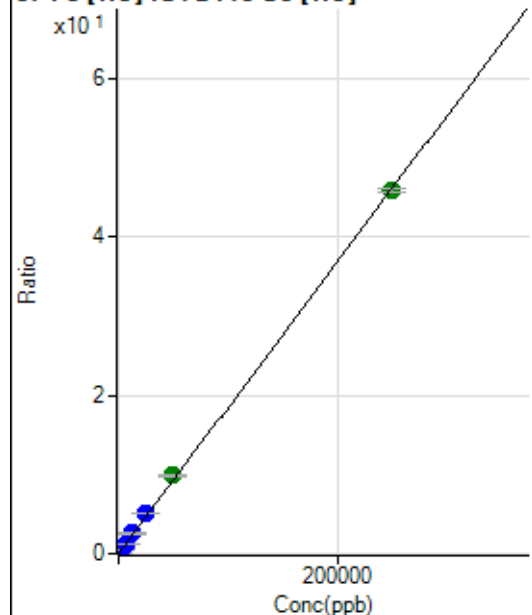
$$DL = 0.05546$$

$$BEC = 1.843$$

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	364.83	0.0005	P	7.2
2	☐	50.000	43.147	6260.77	0.0084	P	10.9
3	☐	2500.000	2709.419	359567.43	0.4994	P	4.1
4	☐	6250.000	6904.775	880454.13	1.2718	P	1.2
5	☐	12500.000	13868.472	1746824.46	2.5540	P	0.4
6	☐	25000.000	27668.695	3555532.40	5.0950	P	1.0
7	☐	50000.000	53558.001	6856455.71	9.8618	A	1.0
8	☐	250000.00	248934.64	31662940.06	45.8355	A	1.1

$$y = 1.8412\text{E-}004 * x + 4.8326\text{E-}004$$

$$R = 0.9999$$

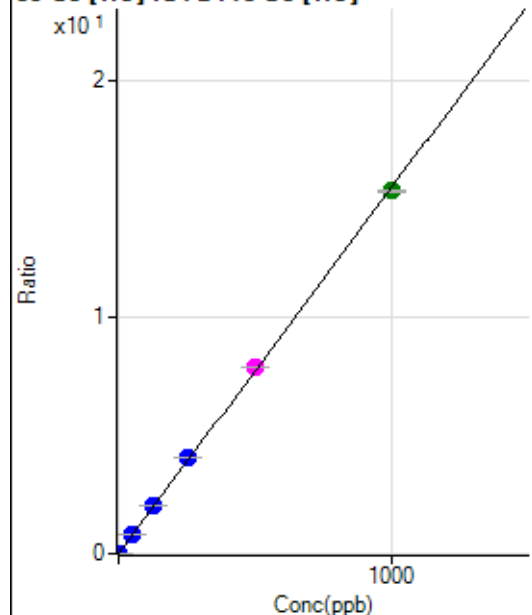
$$DL = 0.5662$$

$$BEC = 2.625$$

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	190.00	0.0003	P	7.9
2	☐	1.000	0.798	9376.47	0.0126	P	9.9
3	☐	50.000	51.898	579055.48	0.8041	P	3.5
4	☐	125.000	130.942	1404383.96	2.0285	P	0.7
5	☐	250.000	260.910	2764422.42	4.0418	P	0.2
6	☐	500.000	510.719	5520862.35	7.9113	M	0.1
7	☐	1000.000	991.076	10673702.48	15.3520	A	0.6
8	☐			19257.26	0.0279	P	1.5

$$y = 0.0155 * x + 2.5171\text{E-}004$$

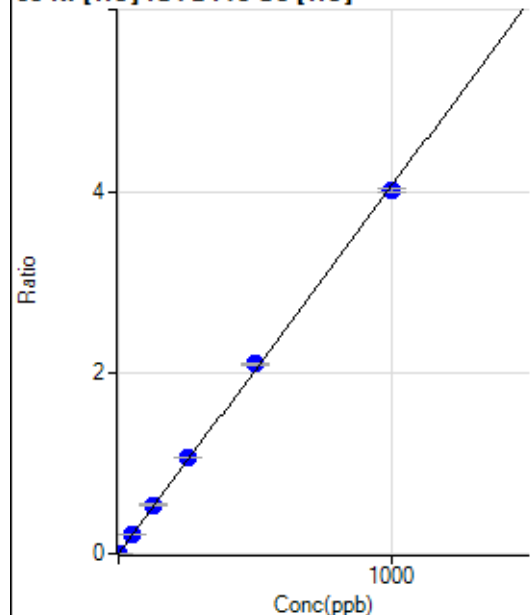
$$R = 0.9998$$

$$DL = 0.003854$$

$$BEC = 0.01625$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	126.67	0.0002	P	9.1
2	☐	1.000	0.917	2889.22	0.0039	P	7.3
3	☐	50.000	52.734	154218.34	0.2142	P	4.1
4	☐	125.000	132.875	373425.37	0.5394	P	0.9
5	☐	250.000	263.043	730241.59	1.0677	P	0.3
6	☐	500.000	517.151	1464704.65	2.0989	P	0.9
7	☐	1000.000	987.043	2785031.87	4.0058	P	1.0
8	☐			31685.42	0.0459	P	2.4

$$y = 0.0041 * x + 1.6781E-004$$

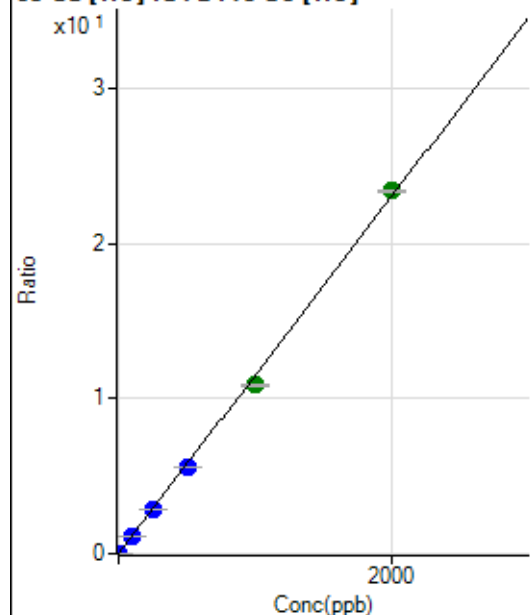
$$R = 0.9997$$

$$DL = 0.01129$$

$$BEC = 0.04135$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1395.64	0.0018	P	8.8
2	☐	2.000	1.579	14876.69	0.0200	P	8.8
3	☐	100.000	97.942	813088.84	1.1292	P	3.6
4	☐	250.000	246.998	1969385.40	2.8448	P	0.9
5	☐	500.000	486.344	3829980.36	5.5997	P	0.1
6	☐	1000.000	943.852	7582542.32	10.8656	A	1.5
7	☐	2000.000	2031.967	16262115.18	23.3897	A	0.6
8	☐			34786.94	0.0504	P	2.4

$$y = 0.0115 * x + 0.0018$$

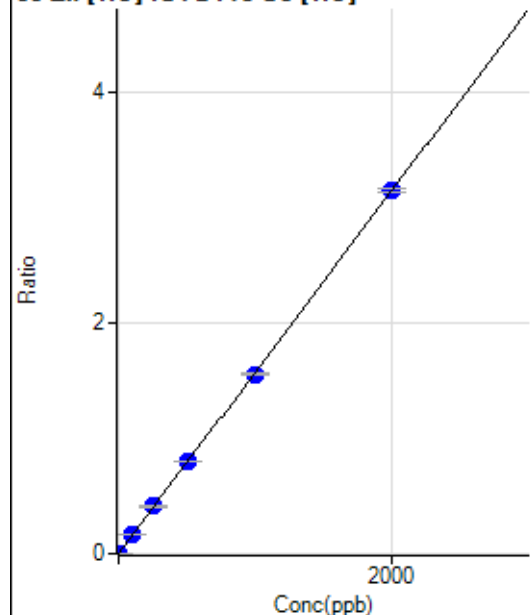
$$R = 0.9994$$

$$DL = 0.04264$$

$$BEC = 0.1606$$

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	376.68	0.0005	P	6.9
2	☐	2.000	2.341	3100.38	0.0042	P	4.0
3	☐	100.000	104.214	118032.79	0.1639	P	3.7
4	☐	250.000	259.566	282121.99	0.4075	P	0.8
5	☐	500.000	512.072	549547.46	0.8035	P	0.4
6	☐	1000.000	989.575	1083250.71	1.5523	P	1.3
7	☐	2000.000	2000.788	2181645.28	3.1380	P	1.2
8	☐			24509.63	0.0355	P	2.8

$$y = 0.0016 * x + 4.9894E-004$$

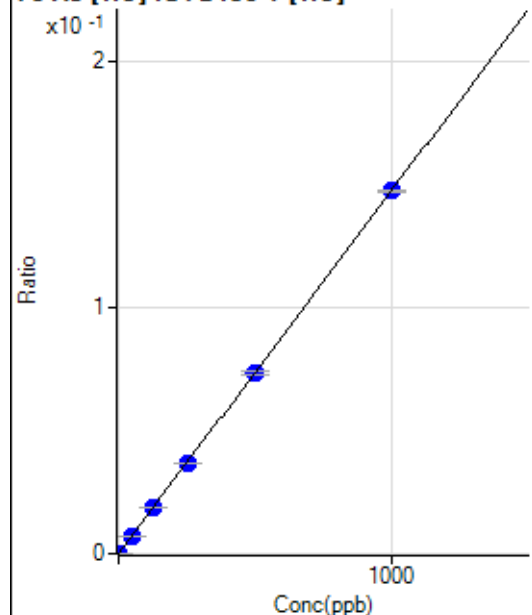
$$R = 1.0000$$

$$DL = 0.0654$$

$$BEC = 0.3182$$

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	12.96	0.0000	P	13.8
2	☐	1.000	0.763	548.78	0.0001	P	2.8
3	☐	50.000	49.357	33623.42	0.0073	P	1.9
4	☐	125.000	126.238	82881.33	0.0186	P	0.9
5	☐	250.000	250.216	163376.32	0.0370	P	0.9
6	☐	500.000	500.176	331007.13	0.0739	P	1.9
7	☐	1000.000	999.736	650947.84	0.1477	P	0.4
8	☐			341.98	0.0001	P	7.4

$$y = 1.4769E-004 * x + 2.7192E-006$$

$$R = 1.0000$$

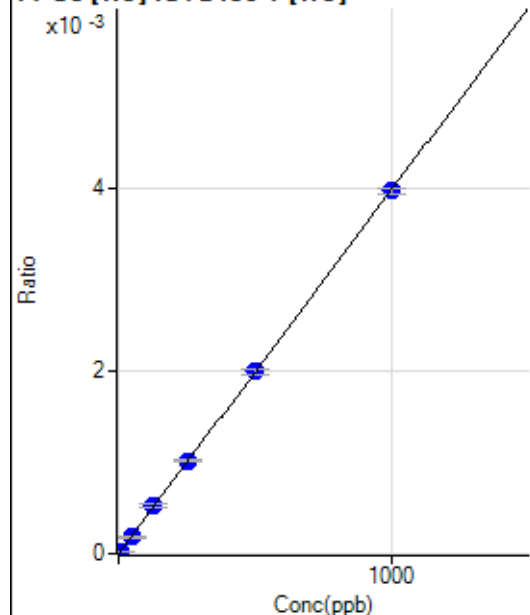
$$DL = 0.007629$$

$$BEC = 0.01841$$

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	4.749	90.00	0.0000	P	19.9
3	☐	50.000	46.716	858.93	0.0002	P	8.5
4	☐	125.000	131.216	2325.78	0.0005	P	5.8
5	☐	250.000	256.052	4514.11	0.0010	P	3.4
6	☐	500.000	501.266	8957.35	0.0020	P	3.1
7	☐	1000.000	997.243	17534.12	0.0040	P	1.7
8	☐			16.67	0.0000	P	50.9

$$y = 3.9882\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9999$$

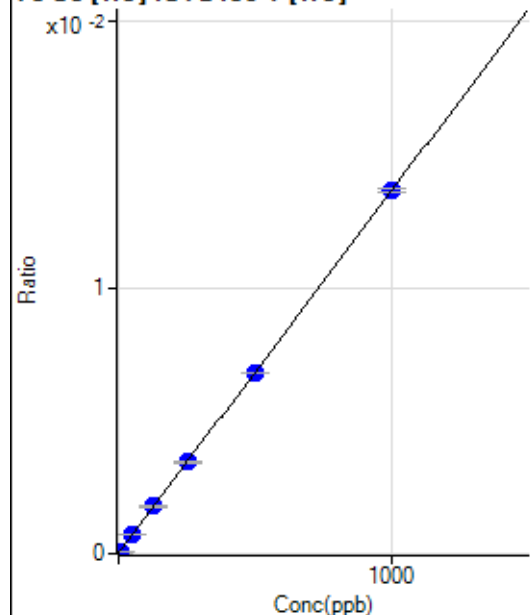
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	103.71	0.0000	P	3.3
2	☐	5.000	4.375	386.43	0.0001	P	9.6
3	☐	50.000	50.782	3286.82	0.0007	P	1.2
4	☐	125.000	129.046	7902.83	0.0018	P	1.9
5	☐	250.000	252.907	15309.38	0.0035	P	2.0
6	☐	500.000	497.737	30447.35	0.0068	P	0.8
7	☐	1000.000	999.863	60081.10	0.0136	P	0.9
8	☐			122.22	0.0000	P	10.5

$$y = 1.3608\text{E-}005 * x + 2.1767\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.1589$$

$$BEC = 1.6$$

Weight: <None>

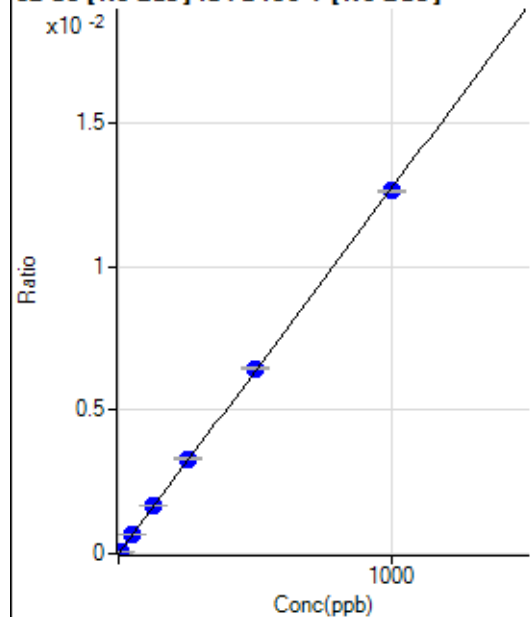
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			58910.48		P	2.3
2	☐			58970.52		P	1.0
3	☐			57861.76		P	1.4
4	☐			55446.65		P	1.6
5	☐			56219.85		P	1.2
6	☐			55530.32		P	2.6
7	☐			55881.67		P	0.9
8	☐			55470.10		P	3.8

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			53.39		P	60.3
2	☐			53.39		P	47.2
3	☐			66.74		P	34.6
4	☐			83.42		P	59.2
5	☐			46.71		P	12.4
6	☐			56.73		P	20.4
7	☐			53.39		P	78.1
8	☐			70.07		P	49.5

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	86.30	0.0000	P	88.6
2	☐	5.000	5.578	2928.34	0.0001	P	2.4
3	☐	50.000	53.160	26219.96	0.0007	P	0.7
4	☐	125.000	131.324	62926.03	0.0017	P	1.1
5	☐	250.000	260.376	126432.12	0.0033	P	0.7
6	☐	500.000	506.125	247422.83	0.0064	P	0.8
7	☐	1000.000	993.392	475763.79	0.0127	P	0.5
8	☐			363.02	0.0000	P	11.6

$$y = 1.2738\text{E-}005 * x + 2.1911\text{E-}006$$

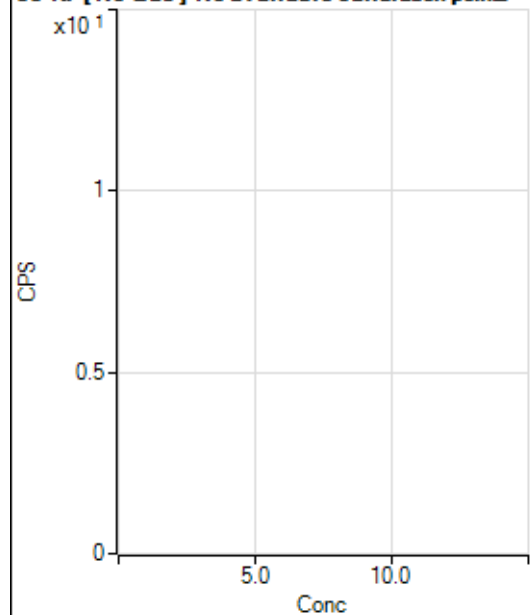
$$R = 0.9999$$

$$DL = 0.4573$$

$$BEC = 0.172$$

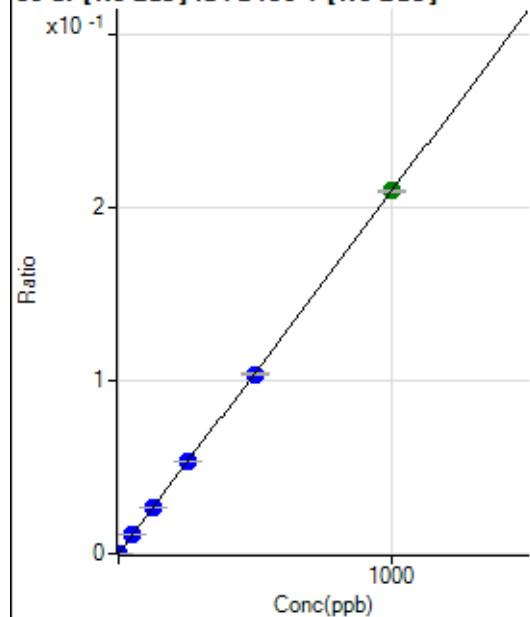
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			621.13		P	11.5
2	☐			628.91		P	4.9
3	☐			652.25		P	4.3
4	☐			614.47		P	5.0
5	☐			598.91		P	6.5
6	☐			583.36		P	8.3
7	☐			651.14		P	4.1
8	☐			707.81		P	4.3

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1027.86	0.0000	P	12.7
2	☐	1.000	1.015	9539.68	0.0002	P	2.3
3	☐	50.000	50.760	411130.67	0.0107	P	1.0
4	☐	125.000	125.825	990591.03	0.0264	P	0.7
5	☐	250.000	253.678	2024120.79	0.0531	P	0.6
6	☐	500.000	495.013	3976737.76	0.1037	P	1.3
7	☐	1000.000	1001.433	7882085.25	0.2097	A	0.6
8	☐			15639.59	0.0005	P	2.4

$$y = 2.0935\text{E-}004 * x + 2.6071\text{E-}005$$

$$R = 1.0000$$

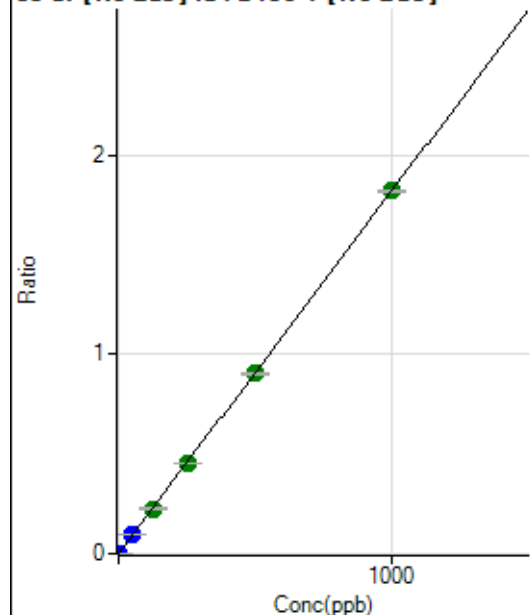
$$DL = 0.04728$$

$$BEC = 0.1245$$

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	372.24	0.0000	P	13.9
2	☐	1.000	1.011	73854.70	0.0018	P	0.6
3	☐	50.000	50.704	3557384.76	0.0922	P	0.6
4	☐	125.000	124.476	8500084.30	0.2263	A	0.8
5	☐	250.000	250.563	17349735.11	0.4554	A	0.5
6	☐	500.000	497.499	34691987.58	0.9043	A	0.7
7	☐	1000.000	1001.140	68405812.64	1.8197	A	0.4
8	☐			129816.17	0.0037	P	0.7

$$y = 0.0018 * x + 9.4414\text{E-}006$$

$$R = 1.0000$$

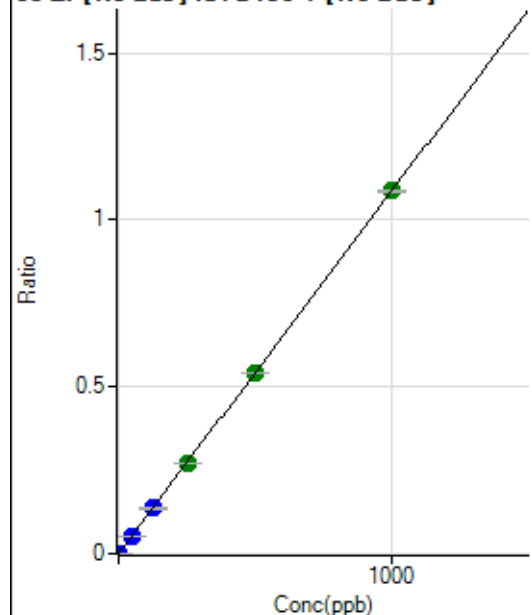
$$DL = 0.002165$$

$$BEC = 0.005194$$

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	1880.77	0.0000	P	8.6
2	☐	1.000	0.764	35043.70	0.0009	P	4.4
3	☐	50.000	49.330	2068460.83	0.0536	P	0.6
4	☐	125.000	125.169	5105922.12	0.1359	P	1.1
5	☐	250.000	250.581	10363530.18	0.2720	A	0.6
6	☐	500.000	497.141	20704764.00	0.5397	A	0.0
7	☐	1000.000	1001.296	40858728.34	1.0869	A	0.7
8	☐			12581.06	0.0004	P	6.6

$$y = 0.0011 * x + 4.7725E-005$$

$$R = 1.0000$$

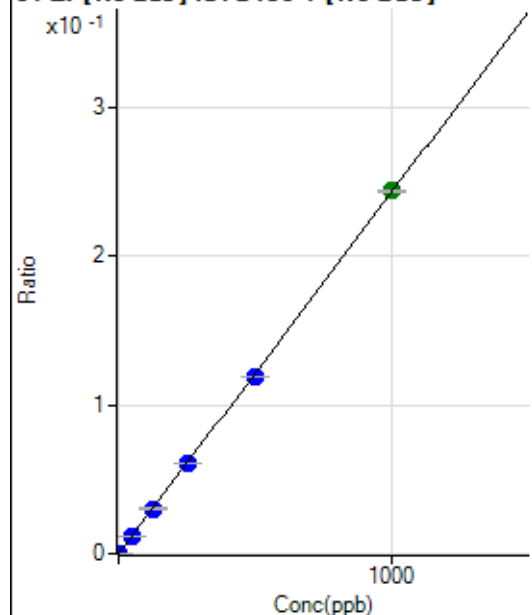
$$DL = 0.01135$$

$$BEC = 0.04397$$

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	325.02	0.0000	P	16.1
2	☐	1.000	0.781	7913.61	0.0002	P	4.2
3	☐	50.000	49.304	462382.10	0.0120	P	1.2
4	☐	125.000	125.048	1141115.80	0.0304	P	1.1
5	☐	250.000	249.731	2310560.86	0.0607	P	0.8
6	☐	500.000	491.255	4577113.08	0.1193	P	0.5
7	☐	1000.000	1004.469	9169873.73	0.2439	A	0.3
8	☐			2917.11	0.0001	P	10.1

$$y = 2.4284E-004 * x + 8.2464E-006$$

$$R = 0.9999$$

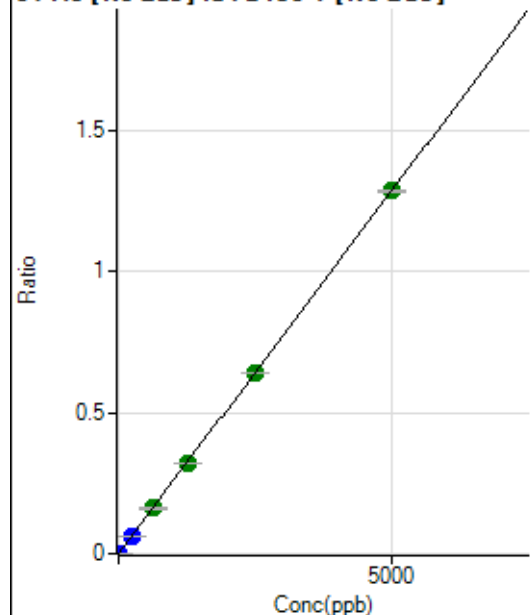
$$DL = 0.01638$$

$$BEC = 0.03396$$

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	872.28	0.0000	P	3.9
2	☐	5.000	4.893	51117.26	0.0013	P	0.8
3	☐	250.000	249.959	2477641.59	0.0642	P	0.4
4	☐	625.000	624.469	6023825.22	0.1603	A	0.9
5	☐	1250.000	1253.634	12262142.55	0.3219	A	0.4
6	☐	2500.000	2494.192	24567933.88	0.6404	A	0.2
7	☐	5000.000	5002.064	48276020.52	1.2842	A	0.8
8	☐			27232.28	0.0008	P	1.0

$$y = 2.5674\text{E-}004 * x + 2.2132\text{E-}005$$

$$R = 1.0000$$

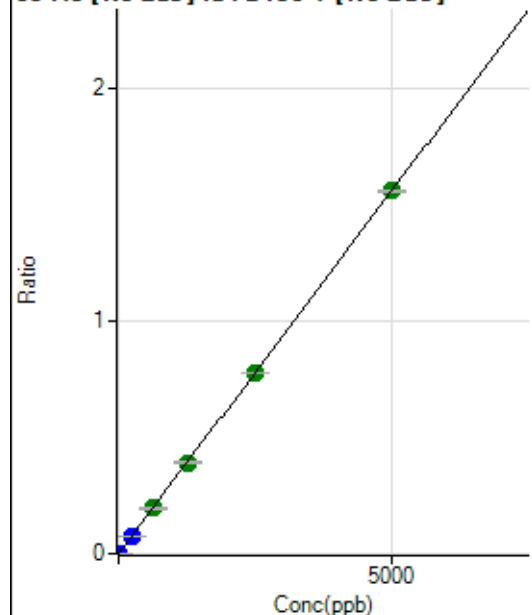
$$DL = 0.01001$$

$$BEC = 0.08621$$

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	275.01	0.0000	P	10.9
2	☐	5.000	5.164	64756.05	0.0016	P	1.3
3	☐	250.000	250.081	3013727.35	0.0781	P	1.0
4	☐	625.000	623.162	7309622.13	0.1946	A	1.1
5	☐	1250.000	1257.165	14953154.50	0.3925	A	0.9
6	☐	2500.000	2490.636	29834211.08	0.7776	A	0.3
7	☐	5000.000	5003.116	58721822.84	1.5621	A	0.2
8	☐			41229.78	0.0012	P	4.6

$$y = 3.1222\text{E-}004 * x + 6.9771\text{E-}006$$

$$R = 1.0000$$

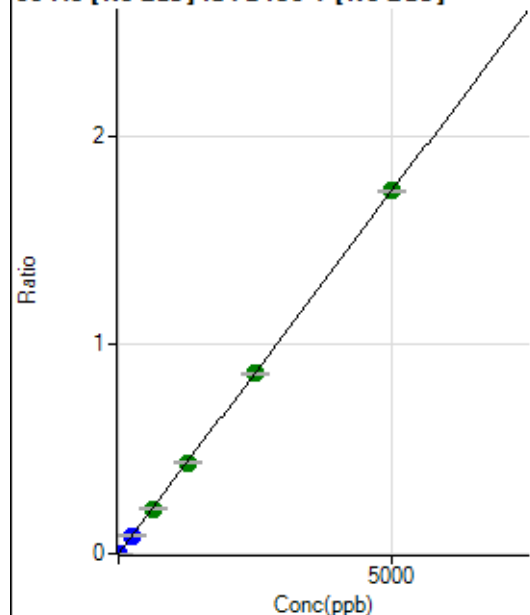
$$DL = 0.007299$$

$$BEC = 0.02235$$

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	530.59	0.0000	P	4.7
2	☐	5.000	5.161	72065.60	0.0018	P	1.4
3	☐	250.000	250.808	3355403.68	0.0869	P	1.1
4	☐	625.000	621.166	8088545.84	0.2153	A	0.8
5	☐	1250.000	1255.302	16574495.86	0.4351	A	1.3
6	☐	2500.000	2486.127	33058145.88	0.8617	A	0.5
7	☐	5000.000	5006.050	65223832.71	1.7351	A	0.2
8	☐			65975.24	0.0019	P	1.4

$$y = 3.4659\text{E-}004 * x + 1.3461\text{E-}005$$

$$R = 1.0000$$

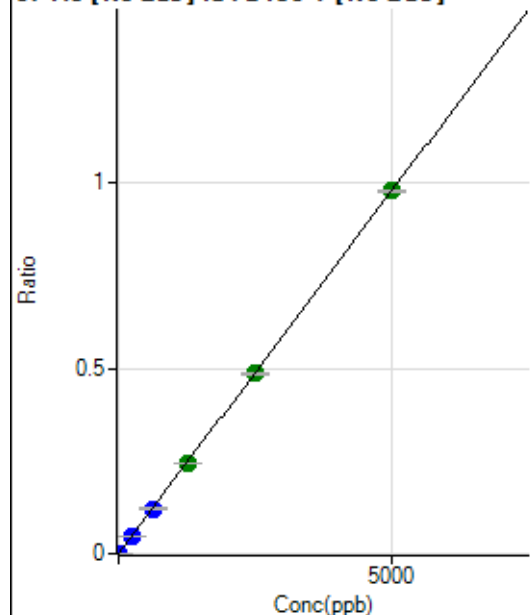
$$DL = 0.005524$$

$$BEC = 0.03884$$

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	269.46	0.0000	P	8.9
2	☐	5.000	5.238	41196.57	0.0010	P	1.6
3	☐	250.000	249.951	1884845.53	0.0488	P	1.3
4	☐	625.000	621.267	4560103.14	0.1214	P	0.7
5	☐	1250.000	1254.035	9333835.62	0.2450	A	0.8
6	☐	2500.000	2491.648	18675711.01	0.4868	A	1.0
7	☐	5000.000	5003.636	36747675.82	0.9776	A	0.4
8	☐			24201.79	0.0007	P	2.3

$$y = 1.9537\text{E-}004 * x + 6.8364\text{E-}006$$

$$R = 1.0000$$

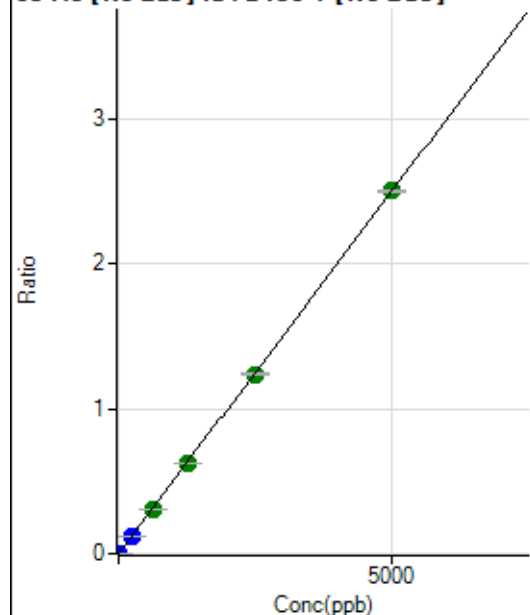
$$DL = 0.009344$$

$$BEC = 0.03499$$

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	566.70	0.0000	P	13.3
2	☐	5.000	5.216	104898.54	0.0026	P	0.7
3	☐	250.000	249.956	4825954.71	0.1250	P	0.4
4	☐	625.000	620.380	11658387.94	0.3103	A	0.8
5	☐	1250.000	1247.428	23770721.88	0.6240	A	0.3
6	☐	2500.000	2482.031	47629728.84	1.2415	A	1.0
7	☐	5000.000	5010.207	94207551.41	2.5061	A	0.5
8	☐			58506.99	0.0017	P	0.6

$$y = 5.0019\text{E-}004 * x + 1.4375\text{E-}005$$

$$R = 1.0000$$

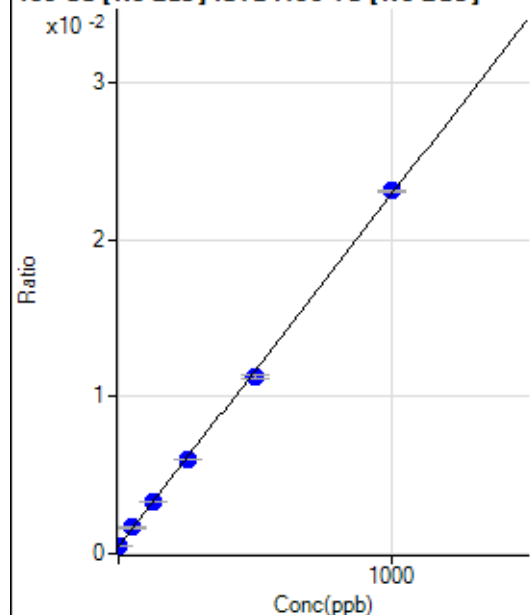
$$DL = 0.01148$$

$$BEC = 0.02874$$

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	16852.29	0.0005	P	1.7
2	☐	1.000	1.495	17931.51	0.0005	P	1.9
3	☐	50.000	52.770	57043.68	0.0017	P	0.8
4	☐	125.000	126.610	111560.00	0.0033	P	0.6
5	☐	250.000	246.488	207962.34	0.0060	P	1.0
6	☐	500.000	481.197	388445.31	0.0113	P	2.0
7	☐	1000.000	1009.940	788320.30	0.0231	P	0.8
8	☐			15356.22	0.0005	P	1.6

$$y = 2.2440\text{E-}005 * x + 4.7396\text{E-}004$$

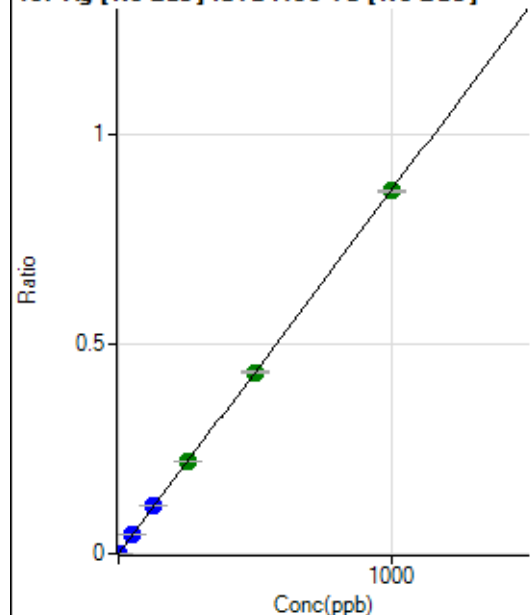
$$R = 0.9997$$

$$DL = 1.089$$

$$BEC = 21.12$$

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	427.80	0.0000	P	13.4
2	☐	1.000	0.990	30725.93	0.0009	P	1.4
3	☐	50.000	53.383	1591540.12	0.0463	P	0.3
4	☐	125.000	131.158	3824231.94	0.1136	P	0.2
5	☐	250.000	255.065	7653065.01	0.2210	A	0.6
6	☐	500.000	499.439	14912158.49	0.4327	A	1.1
7	☐	1000.000	998.076	29460586.42	0.8647	A	0.7
8	☐			6952.02	0.0002	P	2.8

$$y = 8.6635\text{E-}004 * x + 1.2020\text{E-}005$$

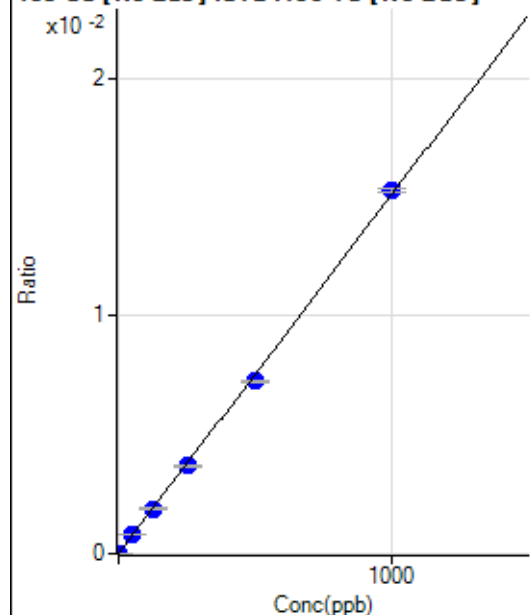
$$R = 1.0000$$

$$DL = 0.005583$$

$$BEC = 0.01387$$

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	40.28	0.0000	P	57.8
2	☐	1.000	1.004	576.41	0.0000	P	9.6
3	☐	50.000	51.382	26749.10	0.0008	P	0.3
4	☐	125.000	125.683	63942.37	0.0019	P	0.5
5	☐	250.000	244.641	128041.41	0.0037	P	1.3
6	☐	500.000	480.812	250400.09	0.0073	P	1.2
7	☐	1000.000	1010.779	520367.39	0.0153	P	1.0
8	☐			193.06	0.0000	P	25.5

$$y = 1.5109\text{E-}005 * x + 1.1358\text{E-}006$$

$$R = 0.9997$$

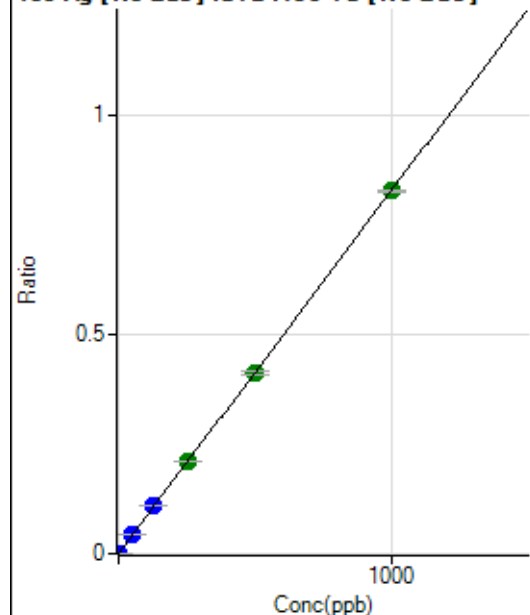
$$DL = 0.1304$$

$$BEC = 0.07517$$

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	208.34	0.0000	P	5.3
2	☐	1.000	0.993	29278.31	0.0008	P	1.8
3	☐	50.000	53.658	1530027.61	0.0445	P	1.2
4	☐	125.000	130.482	3639385.89	0.1081	P	0.2
5	☐	250.000	254.200	7295863.01	0.2107	A	1.6
6	☐	500.000	498.243	14231149.10	0.4129	A	1.4
7	☐	1000.000	998.961	28208718.34	0.8279	A	0.5
8	☐			6287.78	0.0002	P	1.7

$$y = 8.2879\text{E-}004 * x + 5.8615\text{E-}006$$

$$R = 1.0000$$

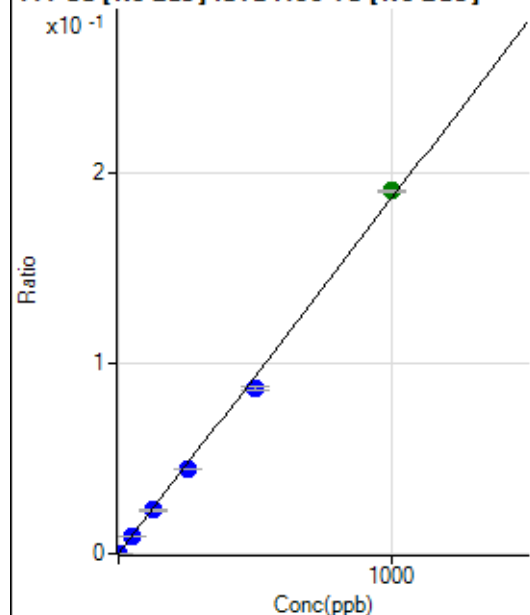
$$DL = 0.001132$$

$$BEC = 0.007072$$

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	3429.76	0.0001	P	1.0
2	☐	1.000	0.996	9956.80	0.0003	P	3.0
3	☐	50.000	49.474	320165.58	0.0093	P	1.7
4	☐	125.000	121.704	765757.50	0.0228	P	1.2
5	☐	250.000	238.619	1541780.81	0.0445	P	1.4
6	☐	500.000	463.592	2977635.55	0.0864	P	2.3
7	☐	1000.000	1021.488	6483145.05	0.1903	A	0.4
8	☐			4229.24	0.0001	P	1.5

$$y = 1.8618\text{E-}004 * x + 9.6453\text{E-}005$$

$$R = 0.9990$$

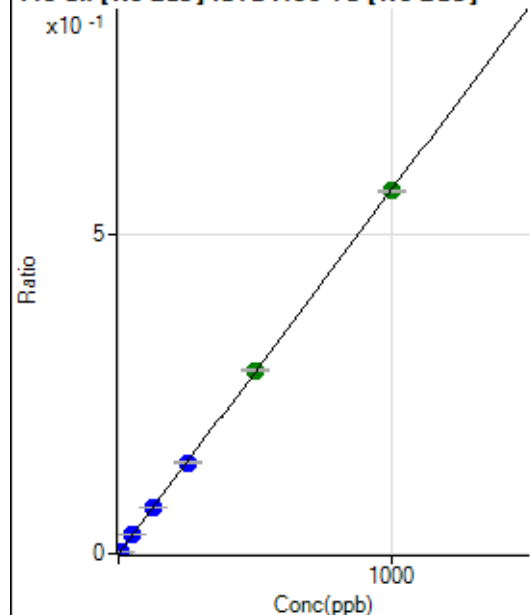
$$DL = 0.01545$$

$$BEC = 0.5181$$

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	2122.48	0.0001	P	5.6
2	☐	5.000	5.172	106073.31	0.0030	P	0.9
3	☐	50.000	51.190	1003860.12	0.0292	P	1.2
4	☐	125.000	127.923	2451028.03	0.0728	P	0.6
5	☐	250.000	250.928	4945407.27	0.1428	P	1.7
6	☐	500.000	503.612	9875811.85	0.2866	A	1.1
7	☐	1000.000	997.536	19337016.06	0.5676	A	0.8
8	☐			13629.38	0.0005	P	6.0

$$y = 5.6890\text{E-}004 * x + 5.9701\text{E-}005$$

$$R = 1.0000$$

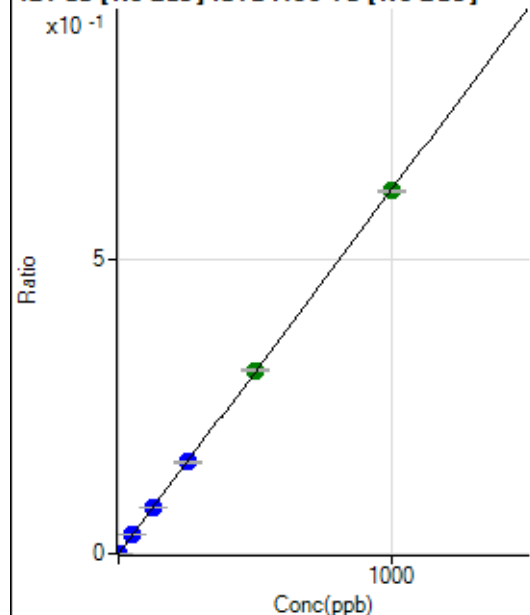
$$DL = 0.0176$$

$$BEC = 0.1049$$

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	686.16	0.0000	P	18.0
2	☐	2.000	1.985	44168.00	0.0013	P	0.4
3	☐	50.000	50.868	1085612.18	0.0316	P	1.3
4	☐	125.000	128.305	2677642.01	0.0796	P	0.4
5	☐	250.000	252.003	5411311.23	0.1563	P	1.7
6	☐	500.000	503.254	10753920.73	0.3120	A	1.0
7	☐	1000.000	997.416	21070402.03	0.6184	A	0.6
8	☐			25899.94	0.0009	P	9.4

$$y = 6.2001\text{E-}004 * x + 1.9283\text{E-}005$$

$$R = 1.0000$$

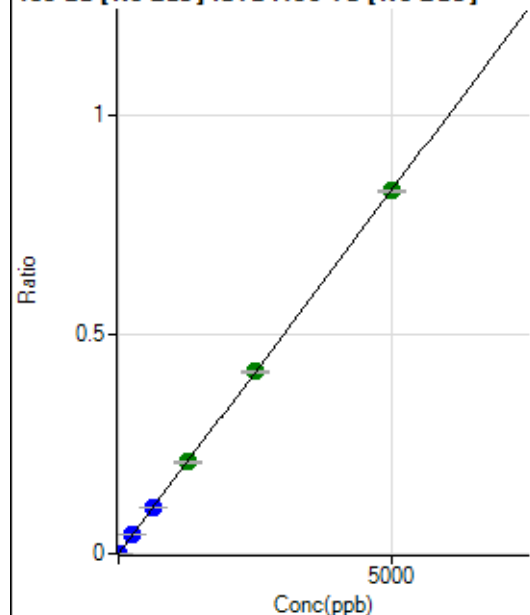
$$DL = 0.01676$$

$$BEC = 0.0311$$

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	94.45	0.0000	P	21.1
2	☐	10.000	10.219	60011.05	0.0017	P	0.2
3	☐	250.000	252.949	1444251.47	0.0420	P	0.4
4	☐	625.000	635.079	3546676.69	0.1054	P	0.5
5	☐	1250.000	1262.368	7254972.73	0.2095	A	1.0
6	☐	2500.000	2503.962	14320379.49	0.4155	A	1.2
7	☐	5000.000	4993.519	28233893.69	0.8287	A	0.4
8	☐			47278.63	0.0016	P	0.8

$$y = 1.6595E-004 * x + 2.6588E-006$$

$$R = 1.0000$$

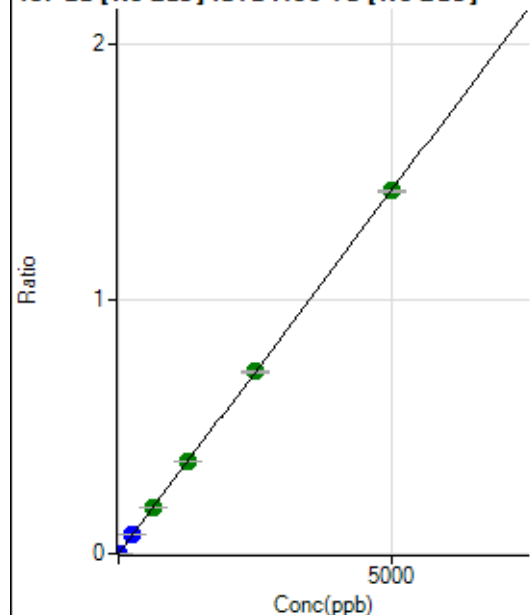
$$DL = 0.01017$$

$$BEC = 0.01602$$

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	172.23	0.0000	P	23.9
2	☐	10.000	10.306	104203.11	0.0029	P	1.7
3	☐	250.000	254.044	2497273.28	0.0726	P	0.7
4	☐	625.000	635.815	6113457.69	0.1817	A	1.1
5	☐	1250.000	1262.464	12492738.56	0.3607	A	0.1
6	☐	2500.000	2505.130	24668609.06	0.7158	A	0.5
7	☐	5000.000	4992.764	48603656.64	1.4265	A	0.6
8	☐			81687.65	0.0027	P	0.6

$$y = 2.8572E-004 * x + 4.8515E-006$$

$$R = 1.0000$$

$$DL = 0.01218$$

$$BEC = 0.01698$$

Weight: <None>

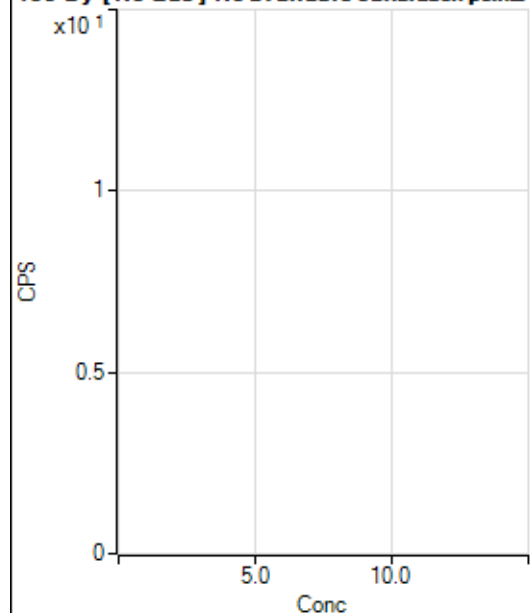
Min Conc: 0

150 Nd [No Gas] No available calibration points

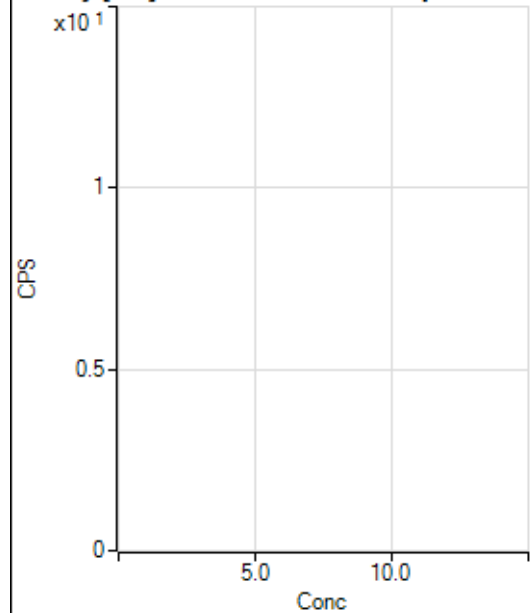
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	34.6
2	☐			13.33		P	NaN
3	☐			168.90		P	12.1
4	☐			402.24		P	9.1
5	☐			773.38		P	9.3
6	☐			1497.91		P	1.3
7	☐			2791.50		P	3.1
8	☐			286.68		P	10.1

150 Nd [He] No available calibration points

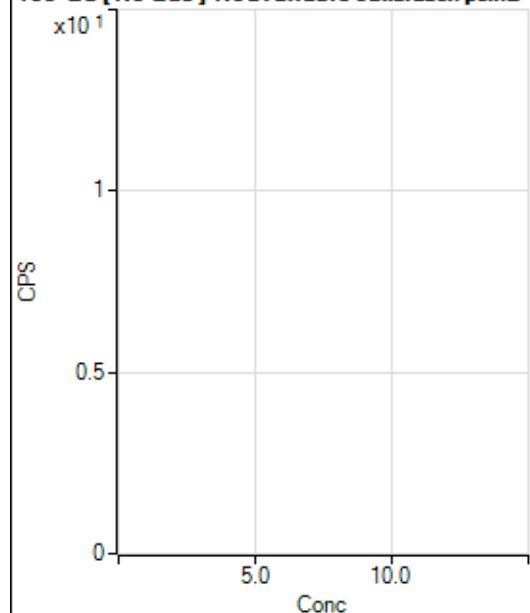
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	78.1
2	☐			5.55		P	124.
3	☐			24.45		P	55.1
4	☐			30.00		P	40.1
5	☐			62.22		P	21.7
6	☐			131.12		P	12.8
7	☐			207.78		P	9.3
8	☐			91.11		P	20.8

156 Dy [No Gas] No available calibration points

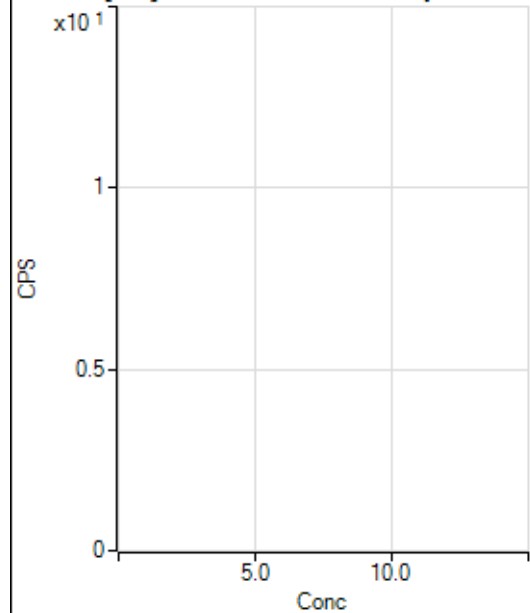
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	45.8
2	☐			33.33		P	25.0
3	☐			91.67		P	32.8
4	☐			152.78		P	6.3
5	☐			219.46		P	28.5
6	☐			402.81		P	26.3
7	☐			811.17		P	6.6
8	☐			1427.92		P	8.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			34.44		P	14.8
2	☐			38.89		P	9.9
3	☐			51.11		P	19.9
4	☐			92.22		P	14.6
5	☐			176.67		P	23.6
6	☐			296.67		P	11.4
7	☐			605.58		P	3.5
8	☐			750.03		P	12.8

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

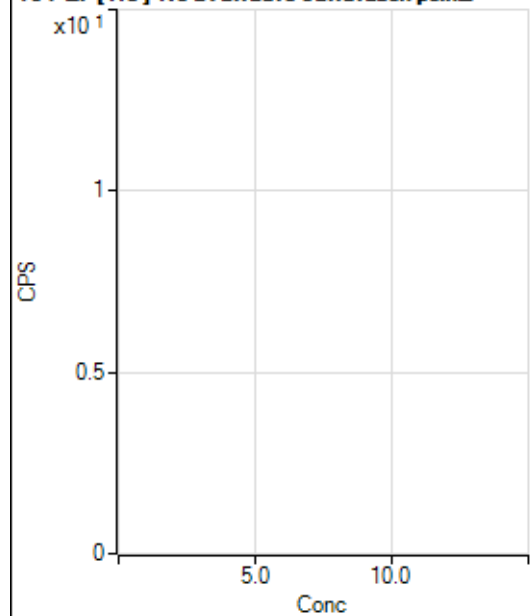
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			261.13		P	16.1
2	☐			225.01		P	6.4
3	☐			222.23		P	34.8
4	☐			247.24		P	13.6
5	☐			291.68		P	8.6
6	☐			408.36		P	10.6
7	☐			525.04		P	5.7
8	☐			1566.82		P	2.8

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			544.47		P	6.1
2	☐			556.68		P	3.7
3	☐			504.46		P	13.9
4	☐			540.02		P	3.9
5	☐			530.02		P	6.5
6	☐			570.02		P	6.7
7	☐			630.02		P	3.7
8	☐			1274.53		P	7.5

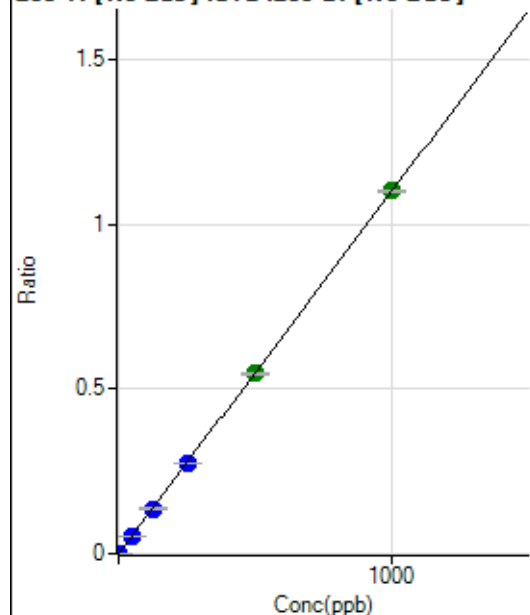
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			141.67		P	31.1
2	☐			222.24		P	20.7
3	☐			211.12		P	37.5
4	☐			216.68		P	6.7
5	☐			188.90		P	19.9
6	☐			183.34		P	7.9
7	☐			213.90		P	23.8
8	☐			319.47		P	15.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			95.56		P	25.7
2	☐			91.11		P	12.9
3	☐			108.89		P	3.5
4	☐			112.22		P	3.4
5	☐			104.45		P	25.8
6	☐			117.78		P	12.8
7	☐			110.01		P	13.9
8	☐			173.34		P	3.8

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1113.98	0.0001	P	3.3
2	☐	1.000	0.980	23992.00	0.0011	P	1.3
3	☐	50.000	49.881	1121052.74	0.0549	P	0.3
4	☐	125.000	124.596	2747777.45	0.1372	P	1.2
5	☐	250.000	248.700	5531090.49	0.2737	P	0.7
6	☐	500.000	496.651	10878834.96	0.5466	A	0.5
7	☐	1000.000	1002.056	20992733.45	1.1028	A	0.4
8	☐			5637.57	0.0004	P	3.4

$$y = 0.0011 * x + 5.2401E-005$$

$$R = 1.0000$$

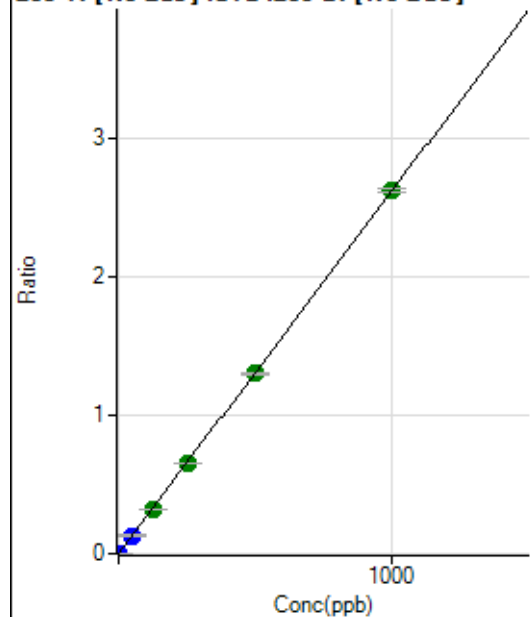
$$DL = 0.004644$$

$$BEC = 0.04762$$

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	2203.06	0.0001	P	2.3
2	☐	1.000	0.984	56727.65	0.0027	P	1.6
3	☐	50.000	50.203	2677871.78	0.1312	P	1.0
4	☐	125.000	123.846	6482715.03	0.3236	A	1.1
5	☐	250.000	249.676	13180516.53	0.6523	A	0.5
6	☐	500.000	497.090	25845656.83	1.2985	A	0.5
7	☐	1000.000	1001.670	49809295.21	2.6165	A	1.1
8	☐			12956.81	0.0009	P	2.4

$$y = 0.0026 * x + 1.0363E-004$$

$$R = 1.0000$$

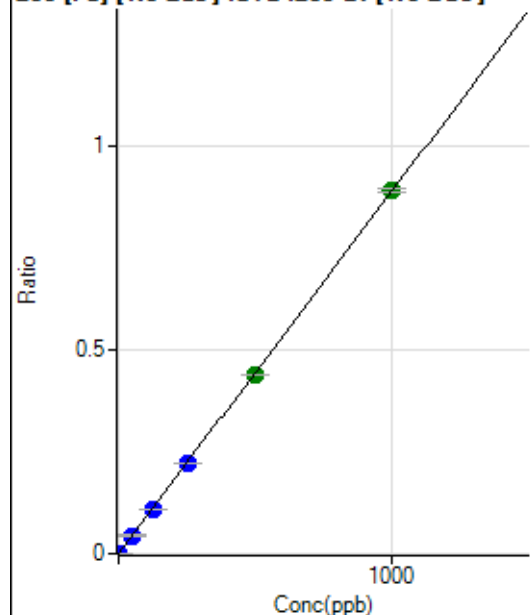
$$DL = 0.002707$$

$$BEC = 0.03967$$

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	1407.53	0.0001	P	1.7
2	☐	1.000	0.973	19757.69	0.0009	P	1.8
3	☐	50.000	50.246	912669.21	0.0447	P	1.1
4	☐	125.000	124.246	2213819.26	0.1105	P	0.8
5	☐	250.000	249.441	4481721.60	0.2218	P	0.4
6	☐	500.000	495.487	8767446.67	0.4405	A	0.3
7	☐	1000.000	1002.478	16964212.88	0.8912	A	1.0
8	☐			65994.98	0.0044	P	1.0

$$y = 8.8889E-004 * x + 6.6221E-005$$

$$R = 1.0000$$

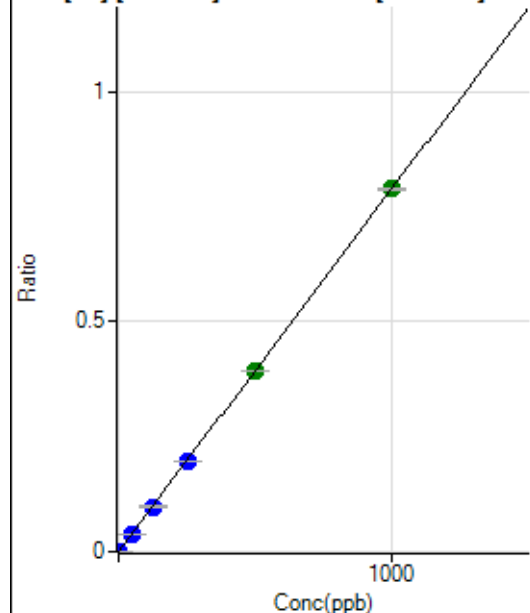
$$DL = 0.003899$$

$$BEC = 0.0745$$

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	1229.73	0.0001	P	5.6
2	☐	1.000	0.974	17519.41	0.0008	P	0.7
3	☐	50.000	50.060	806142.64	0.0395	P	0.7
4	☐	125.000	124.562	1967750.62	0.0982	P	0.7
5	☐	250.000	249.719	3977894.36	0.1969	P	1.0
6	☐	500.000	498.022	7812957.41	0.3925	A	0.1
7	☐	1000.000	1001.111	15020063.88	0.7890	A	0.8
8	☐			60215.80	0.0040	P	0.4

$$y = 7.8808E-004 * x + 5.7841E-005$$

$$R = 1.0000$$

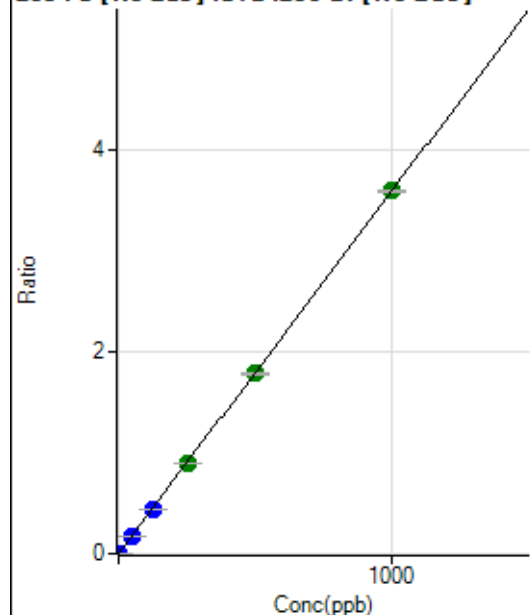
$$DL = 0.01222$$

$$BEC = 0.07339$$

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	5033.84	0.0002	P	4.0
2	☐	1.000	0.970	78801.65	0.0037	P	1.1
3	☐	50.000	50.016	3662311.74	0.1795	P	0.4
4	☐	125.000	124.178	8920596.21	0.4453	P	0.6
5	☐	250.000	249.222	18053978.33	0.8934	A	0.5
6	☐	500.000	497.357	35482389.45	1.7827	A	0.5
7	☐	1000.000	1001.618	68340651.64	3.5900	A	0.5
8	☐			268535.09	0.0178	P	0.4

$$y = 0.0036 * x + 2.3684E-004$$

$$R = 1.0000$$

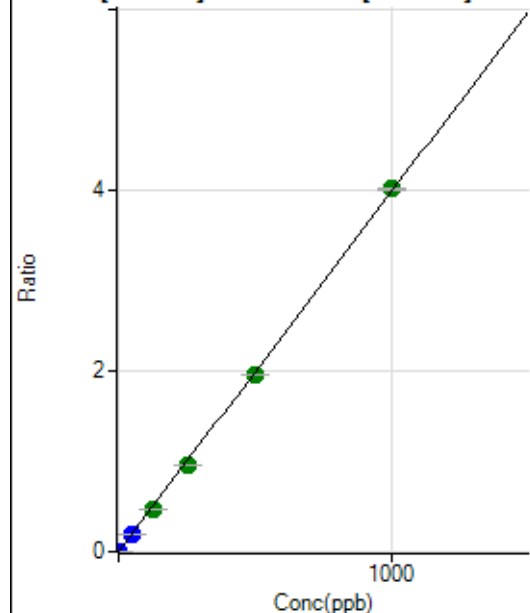
$$DL = 0.007964$$

$$BEC = 0.06608$$

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	2878.17	0.0001	P	3.0
2	☐	1.000	0.688	61050.10	0.0029	P	3.3
3	☐	50.000	46.406	3776690.65	0.1851	P	0.7
4	☐	125.000	117.884	9415184.12	0.4700	A	1.0
5	☐	250.000	241.166	19424857.15	0.9613	A	1.0
6	☐	500.000	490.425	38907461.06	1.9548	A	0.1
7	☐	1000.000	1008.066	76488714.67	4.0179	A	0.2
8	☐			15696.83	0.0010	P	5.2

$$y = 0.0040 * x + 1.3541E-004$$

$$R = 0.9999$$

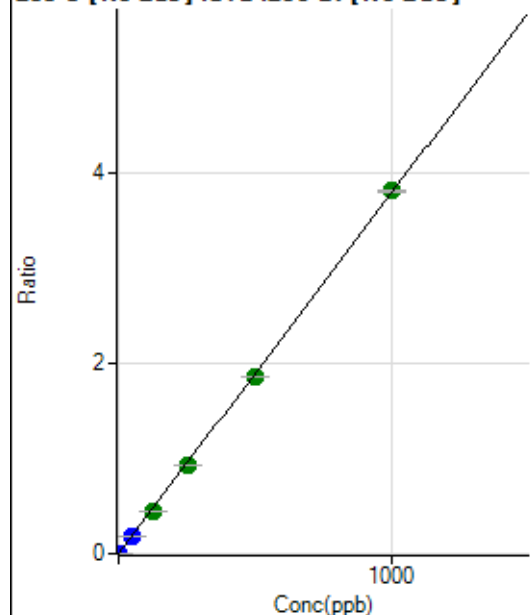
$$DL = 0.003056$$

$$BEC = 0.03397$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2150.27	0.0001	P	7.6
2	☐	1.000	0.901	74625.48	0.0035	P	1.0
3	☐	50.000	48.229	3734586.41	0.1830	P	1.7
4	☐	125.000	119.142	9054741.43	0.4520	A	1.3
5	☐	250.000	244.729	18758741.05	0.9283	A	0.5
6	☐	500.000	491.785	37127829.99	1.8654	A	0.2
7	☐	1000.000	1006.246	72655530.79	3.8167	A	0.8
8	☐			11575.16	0.0008	P	1.5

$$y = 0.0038 * x + 1.0115E-004$$

$$R = 0.9999$$

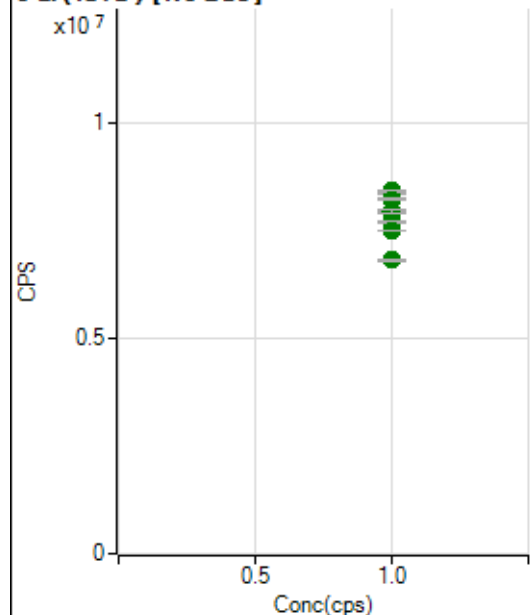
$$DL = 0.006115$$

$$BEC = 0.02667$$

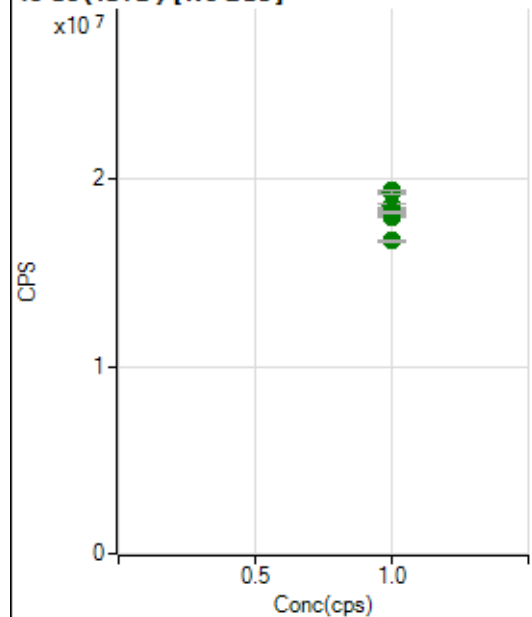
Weight: <None>

Min Conc: 0

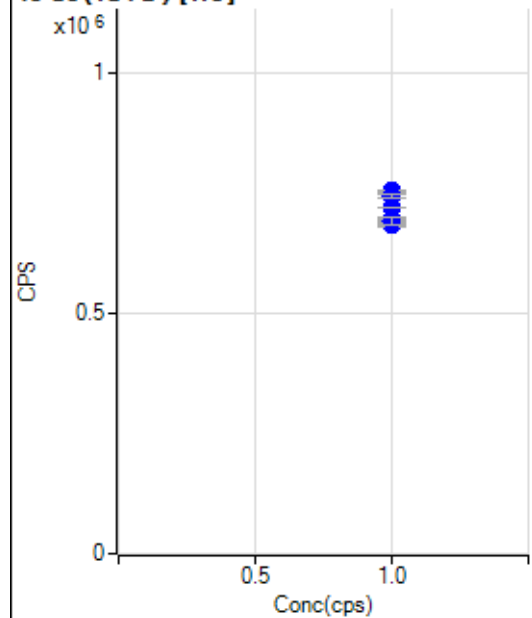
6 Li (ISTD) [No Gas]



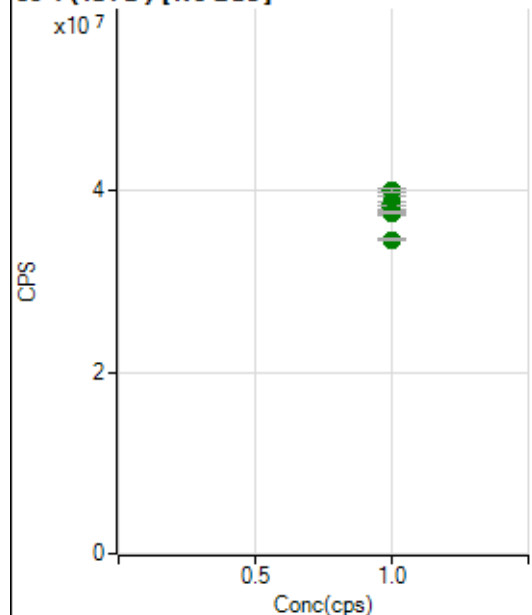
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8373637.31		A	0.7
2	☐	1.000		8428693.21		A	0.2
3	☐	1.000		8230160.78		A	0.7
4	☐	1.000		7916170.58		A	0.4
5	☐	1.000		7954389.26		A	0.9
6	☐	1.000		7693544.82		A	0.5
7	☐	1.000		7512244.47		A	0.3
8	☐	1.000		6813200.04		A	1.0

45 Sc (ISTD) [No Gas]

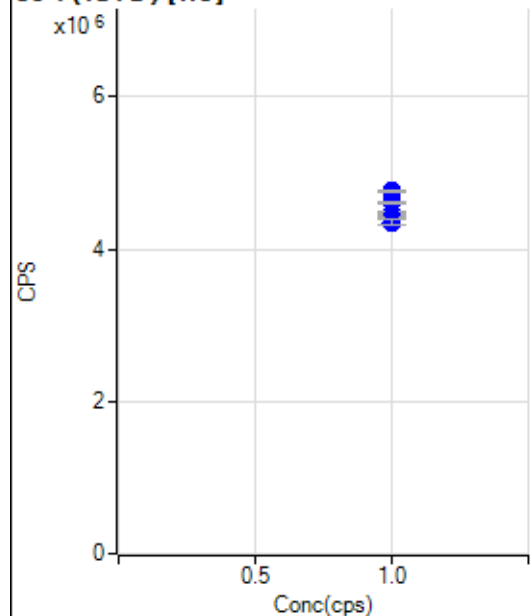
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19353276.47		A	0.5
2	☐	1.000		19277612.93		A	1.0
3	☐	1.000		18592713.44		A	1.0
4	☐	1.000		17982952.83		A	0.6
5	☐	1.000		18247704.75		A	0.9
6	☐	1.000		18258912.91		A	0.2
7	☐	1.000		18185001.80		A	0.3
8	☐	1.000		16683166.69		A	1.0

45 Sc (ISTD) [He]

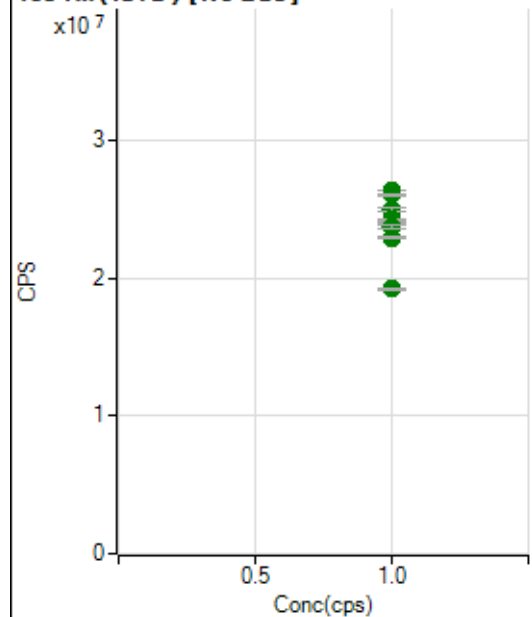
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		754808.38		P	0.4
2	☐	1.000		743443.94		P	1.1
3	☐	1.000		720160.58		P	0.5
4	☐	1.000		692303.82		P	0.8
5	☐	1.000		683966.08		P	0.7
6	☐	1.000		697845.59		P	0.3
7	☐	1.000		695278.07		P	0.6
8	☐	1.000		690912.01		P	2.3

89 Y (ISTD) [No Gas]

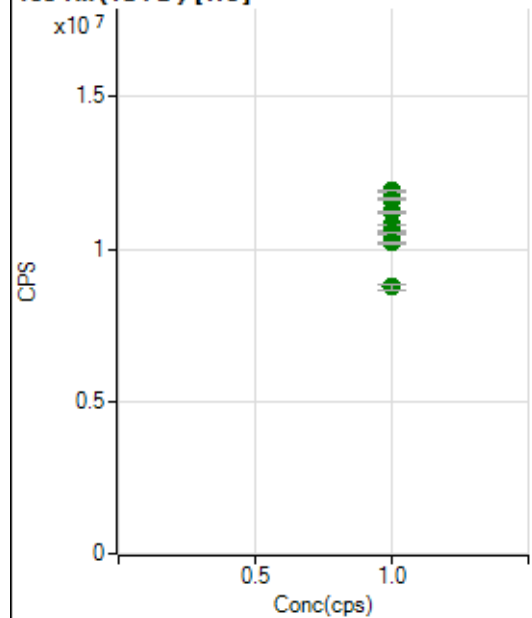
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		39415159.41		A	0.3
2	☐	1.000		39987588.85		A	1.0
3	☐	1.000		38596422.76		A	1.5
4	☐	1.000		37569753.33		A	0.9
5	☐	1.000		38095842.49		A	0.9
6	☐	1.000		38365178.32		A	0.4
7	☐	1.000		37591650.27		A	0.3
8	☐	1.000		34648331.71		A	0.5

89 Y (ISTD) [He]

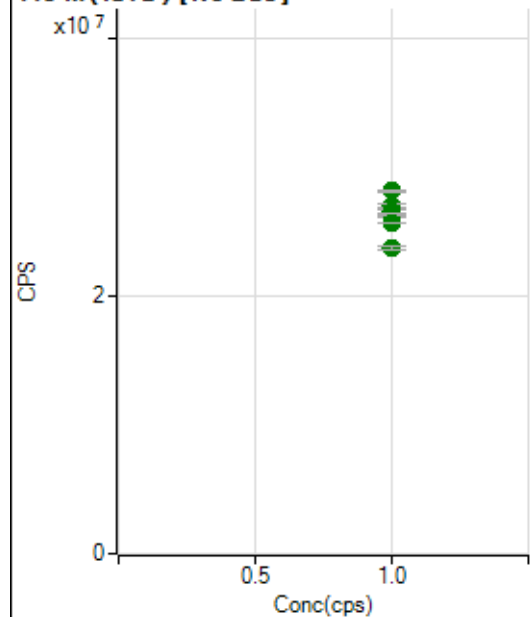
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4764055.27		P	0.5
2	☐	1.000		4753567.36		P	0.3
3	☐	1.000		4611139.10		P	0.4
4	☐	1.000		4445024.48		P	0.7
5	☐	1.000		4420871.32		P	0.8
6	☐	1.000		4480985.56		P	0.4
7	☐	1.000		4408677.09		P	0.1
8	☐	1.000		4355004.38		P	2.1

103 Rh (ISTD) [No Gas]

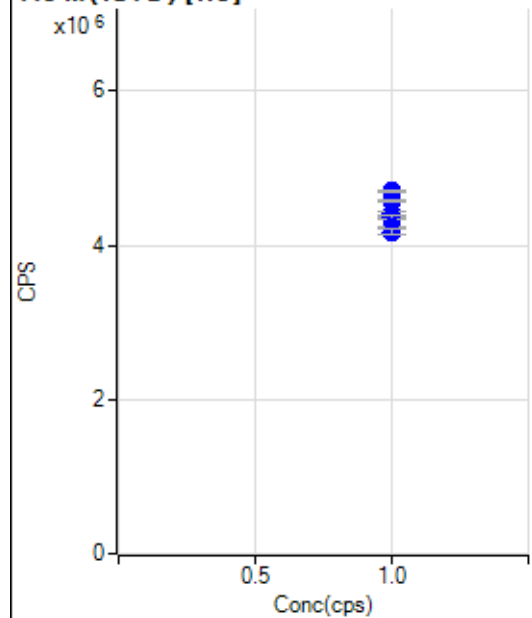
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		26325129.93		A	0.2
2	☐	1.000		26074518.81		A	0.6
3	☐	1.000		24924341.88		A	1.1
4	☐	1.000		23984797.24		A	0.1
5	☐	1.000		24257184.39		A	0.6
6	☐	1.000		23713399.14		A	0.8
7	☐	1.000		22937167.01		A	0.4
8	☐	1.000		19199153.03		A	0.5

103 Rh (ISTD) [He]

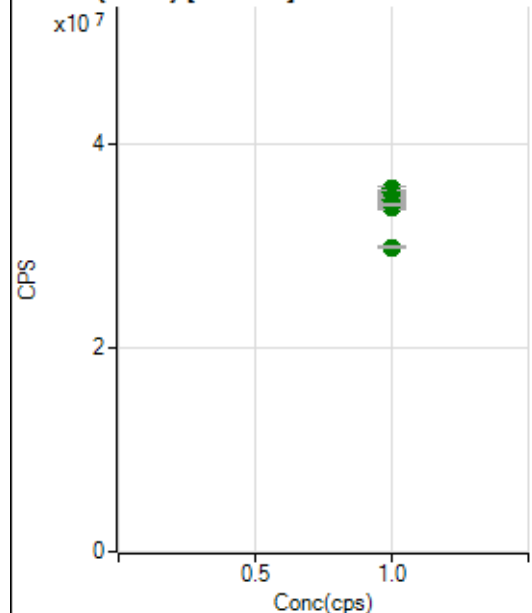
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11913075.93		A	0.3
2	☐	1.000		11647080.11		A	0.5
3	☐	1.000		11209422.75		A	0.7
4	☐	1.000		10797650.11		A	0.5
5	☐	1.000		10573630.26		A	1.0
6	☐	1.000		10522771.51		A	0.7
7	☐	1.000		10200264.01		A	0.4
8	☐	1.000		8752263.97		A	2.0

115 In (ISTD) [No Gas]

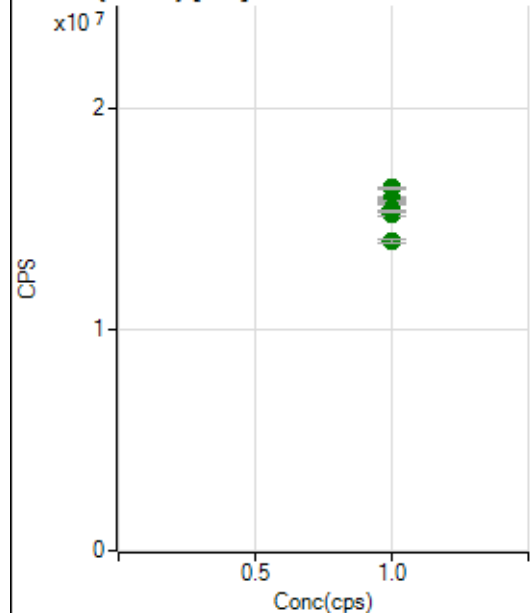
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		28130924.64		A	0.5
2	☐	1.000		28121765.03		A	0.3
3	☐	1.000		26927879.74		A	1.1
4	☐	1.000		26177379.65		A	0.3
5	☐	1.000		26569004.37		A	0.8
6	☐	1.000		26348370.05		A	0.3
7	☐	1.000		25652261.34		A	0.3
8	☐	1.000		23699325.13		A	1.1

115 In (ISTD) [He]

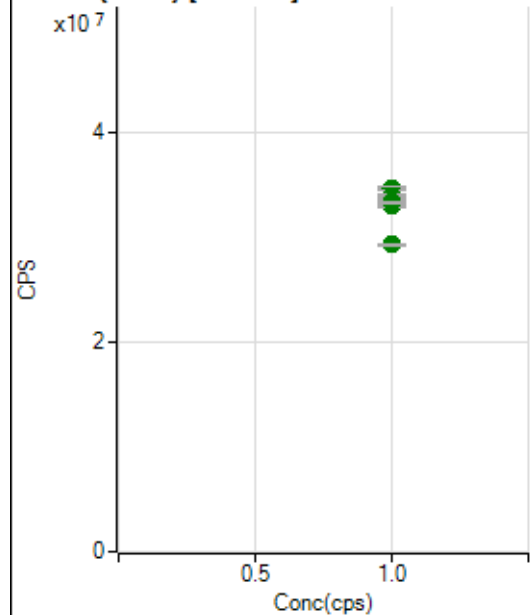
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4699487.99		P	0.6
2	☐	1.000		4705933.77		P	0.6
3	☐	1.000		4572598.84		P	0.8
4	☐	1.000		4415052.64		P	0.9
5	☐	1.000		4342253.29		P	0.7
6	☐	1.000		4366825.24		P	0.7
7	☐	1.000		4230418.40		P	0.7
8	☐	1.000		4174023.64		P	1.6

159 Tb (ISTD) [No Gas]

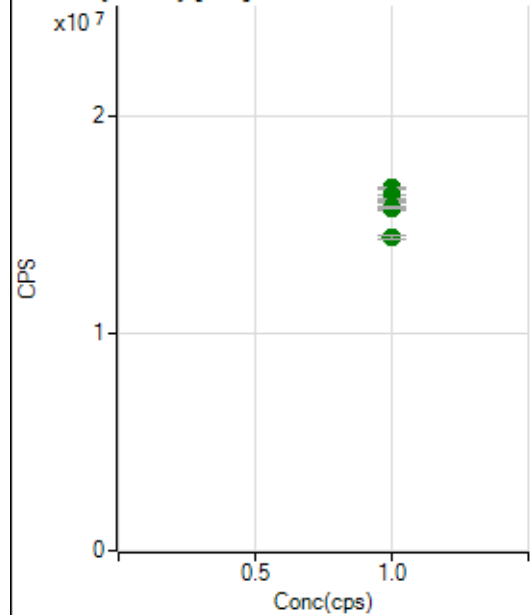
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		35561991.69		A	1.5
2	☐	1.000		35331990.03		A	1.1
3	☐	1.000		34405035.32		A	1.8
4	☐	1.000		33651909.78		A	0.4
5	☐	1.000		34633024.76		A	1.3
6	☐	1.000		34465276.99		A	1.1
7	☐	1.000		34071326.99		A	0.5
8	☐	1.000		29815480.95		A	0.7

159 Tb (ISTD) [He]

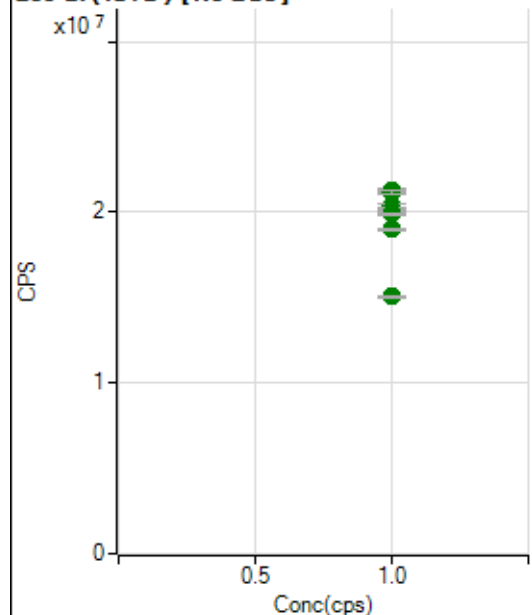
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16375045.31		A	0.6
2	☐	1.000		15894116.29		A	0.7
3	☐	1.000		15760928.79		A	0.9
4	☐	1.000		15342506.99		A	0.5
5	☐	1.000		15217594.77		A	1.1
6	☐	1.000		15489708.52		A	1.2
7	☐	1.000		15326994.91		A	0.3
8	☐	1.000		13959753.40		A	0.8

165 Ho (ISTD) [No Gas]

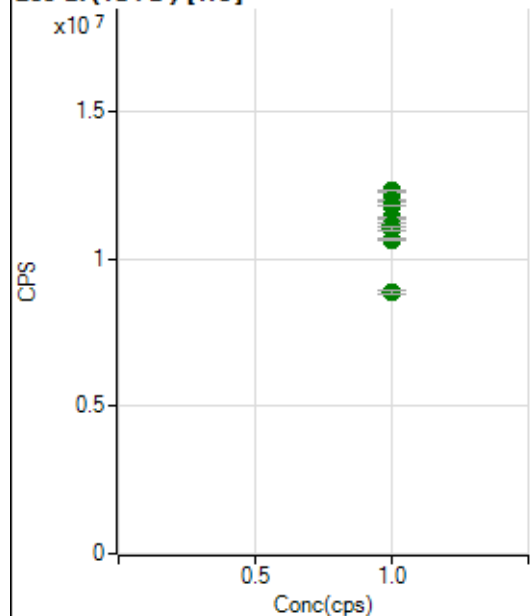
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		34680578.90		A	0.8
2	☐	1.000		34696880.98		A	0.9
3	☐	1.000		33698925.06		A	0.8
4	☐	1.000		33028666.02		A	0.3
5	☐	1.000		34019962.56		A	1.5
6	☐	1.000		34090562.57		A	0.7
7	☐	1.000		33412260.47		A	0.6
8	☐	1.000		29346942.67		A	0.9

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16720141.00		A	0.3
2	☐	1.000		16387510.03		A	0.3
3	☐	1.000		16180195.04		A	0.5
4	☐	1.000		15818675.46		A	0.4
5	☐	1.000		15745638.93		A	1.2
6	☐	1.000		15886853.37		A	1.6
7	☐	1.000		15794366.99		A	0.7
8	☐	1.000		14423662.01		A	1.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		21257290.79		A	0.9
2	☐	1.000		21221169.27		A	1.1
3	☐	1.000		20404069.56		A	0.7
4	☐	1.000		20034085.95		A	0.7
5	☐	1.000		20207138.45		A	0.9
6	☐	1.000		19903614.29		A	0.5
7	☐	1.000		19036888.19		A	0.6
8	☐	1.000		15061879.08		A	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12329293.70		A	0.6
2	☐	1.000		11996728.02		A	0.9
3	☐	1.000		11813055.66		A	0.2
4	☐	1.000		11409494.14		A	0.5
5	☐	1.000		11193023.17		A	1.3
6	☐	1.000		11052610.11		A	1.4
7	☐	1.000		10678872.76		A	0.6
8	☐	1.000		8880767.71		A	0.9

US EPA Tune Check Sample Report

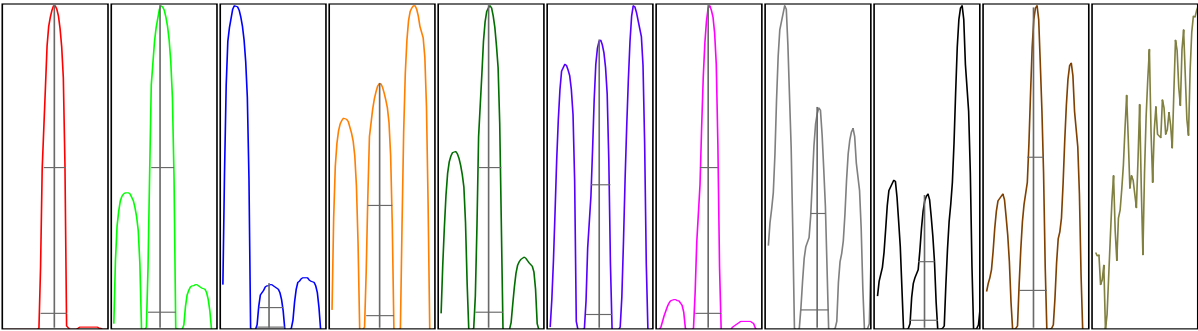
Batch Folder D:\ICP-MS Data\P7013020-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	26108	0.25	5.00	
24	425216	0.47	5.00	
25	58246	0.34	5.00	
26	68619	0.47	5.00	
59	237143	0.55	5.00	
113	27765	0.47	5.00	
115	334185	0.89	5.00	
206	69159	0.60	5.00	
207	65045	0.79	5.00	
208	149589	0.35	5.00	
220	81	2.80		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	26145	26186	26124	26060	26027
24	428442	425213	422988	424319	425118
25	58530	58333	58151	58220	57996
26	69140	68663	68278	68452	68559
59	238543	238517	236436	236501	235718
113	27822	27952	27758	27628	27665
115	338702	333971	334520	333322	330409
206	68717	69272	68967	69809	69031
207	64453	64745	64973	65795	65258
208	148690	149923	149591	149818	149924
220	78	83	81	83	80

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	42011	9.00	8.9 - 9.1		0.783	0.900	
24	646044	23.90	23.9 - 24.1		0.832	0.900	
25	88801	24.90	24.9 - 25.1		0.816	0.900	
26	103369	25.95	25.9 - 26.1		0.834	0.900	
59	387625	58.95	58.9 - 59.1		0.817	0.900	
113	52051	113.00	112.9 - 113.1		0.765	0.900	
115	633304	115.00	114.9 - 115.1		0.766	0.900	
206	140993	206.00	205.9 - 206.1		0.789	0.900	
207	126069	206.95	206.9 - 207.1		0.776	0.900	
208	302546	207.95	207.9 - 208.1		0.777	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.2	V	Deflect	13.6	V
Extract 2	-145.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	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	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	55470	1.18	
89	88610	1.20	
205	58375	1.04	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	55582	55949	55470	55985	54366
89	89007	89128	88376	89647	86893
205	58937	58677	57788	58816	57655

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	7.8	V	Deflect	2.2	V
Extract 2	-160.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	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			