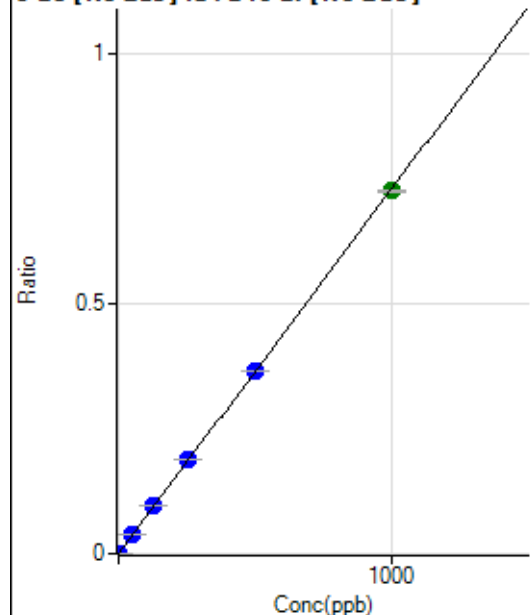


Batch Folder: D:\ICP-MS Data\P7102618MS.b\
Analysis File: P7102618MS.batch.bin
DA Date-Time: 2018-10-26 18:06:19
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-10-26 11:34:03
2			
3	005CALS.d	S02	2018-10-26 11:42:39
4	006CALS.d	S03	2018-10-26 11:46:33
5	007CALS.d	S04	2018-10-26 11:50:34
6	008CALS.d	S05	2018-10-26 11:54:21
7	009CALS.d	S06	2018-10-26 11:58:05
8	010CALS.d	S07	2018-10-26 12:01:49
9	011CALS.d	S08	2018-10-26 12:05:35

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35.19	0.0000	P	78.1
2	☐	0.100					
3	☐	1.000	1.108	5043.57	0.0008	P	2.6
4	☐	50.000	53.018	239490.74	0.0386	P	1.2
5	☐	125.000	132.176	588599.07	0.0962	P	0.7
6	☐	250.000	260.631	1124682.07	0.1898	P	0.1
7	☐	500.000	502.262	2104263.08	0.3657	P	0.2
8	☐	1000.000	995.163	4095583.66	0.7246	A	0.6
9	☐			677.81	0.0001	P	10.8

$$y = 7.2808\text{E-}004 * x + 5.8073\text{E-}006$$

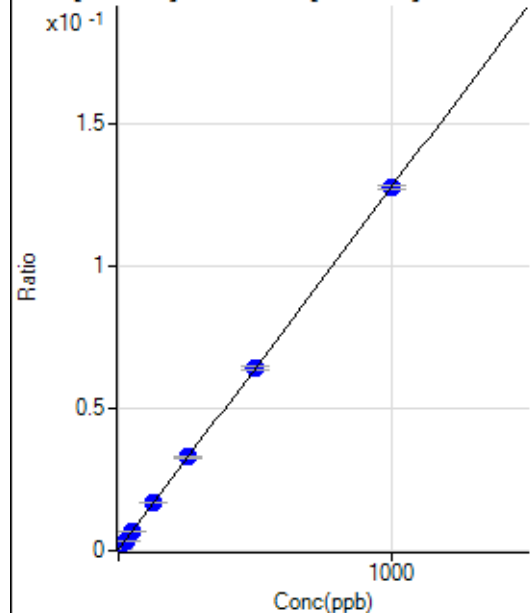
$$R = 0.9999$$

$$DL = 0.01868$$

$$BEC = 0.007976$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2366.95	0.0004	P	3.1
2	☐	2.500					
3	☐	25.000	25.436	22548.07	0.0036	P	2.5
4	☐	50.000	51.656	43268.55	0.0070	P	1.5
5	☐	125.000	128.940	102905.41	0.0168	P	0.3
6	☐	250.000	254.684	194707.90	0.0329	P	1.8
7	☐	500.000	500.408	369276.72	0.0642	P	2.1
8	☐	1000.000	998.039	721267.19	0.1276	P	1.0
9	☐			13089.44	0.0024	P	9.2

$$y = 1.2746\text{E-}004 * x + 3.9051\text{E-}004$$

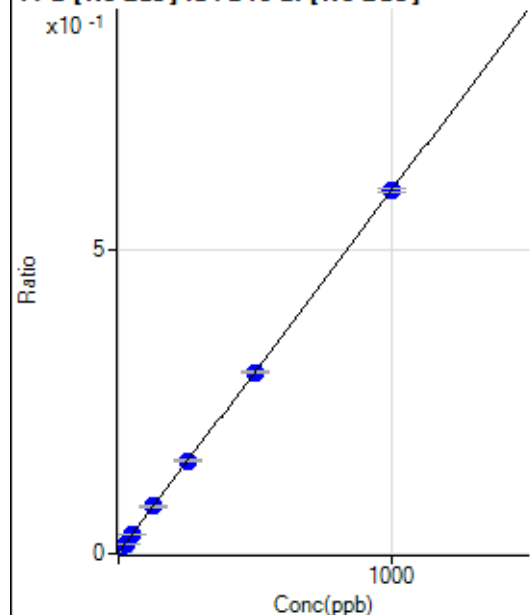
$$R = 1.0000$$

$$DL = 0.2859$$

$$BEC = 3.064$$

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	11032.29	0.0018	P	4.2
2	☐	2.500					
3	☐	25.000	25.363	104948.70	0.0169	P	0.2
4	☐	50.000	51.388	200935.94	0.0324	P	1.5
5	☐	125.000	127.754	475941.17	0.0778	P	1.1
6	☐	250.000	253.844	905777.08	0.1528	P	0.7
7	☐	500.000	498.366	1716469.92	0.2983	P	1.0
8	☐	1000.000	999.433	3370972.73	0.5964	P	1.1
9	☐			59526.40	0.0109	P	8.5

$$y = 5.9490\text{E-}004 * x + 0.0018$$

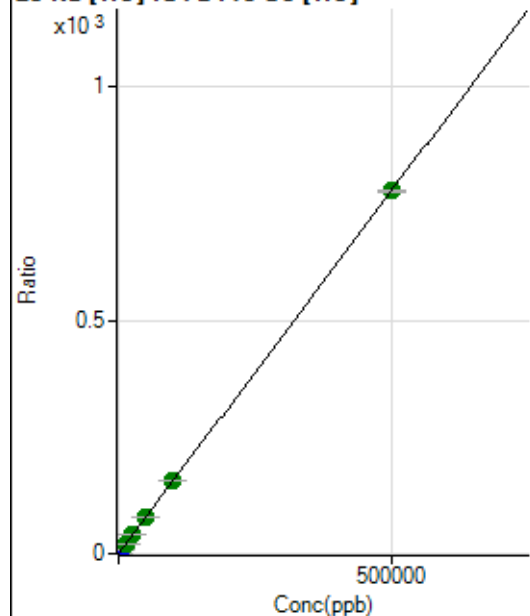
$$R = 1.0000$$

$$DL = 0.3839$$

$$BEC = 3.06$$

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	9072.52	0.0174	P	3.9
2	☐	50.000					
3	☐	500.000	504.765	425433.70	0.8028	P	0.7
4	☐	5000.000	5058.066	4063067.37	7.8880	P	0.7
5	☐	12500.000	12609.188	9915642.67	19.6379	A	0.5
6	☐	25000.000	25618.915	19172927.51	39.8817	A	0.1
7	☐	50000.000	50801.668	37172462.29	79.0673	A	1.0
8	☐	100000.00	100226.82	73604055.81	155.9753	A	0.9
9	☐	500000.00	499840.20	395537703.28	777.7934	A	0.8

$$y = 0.0016 * x + 0.0174$$

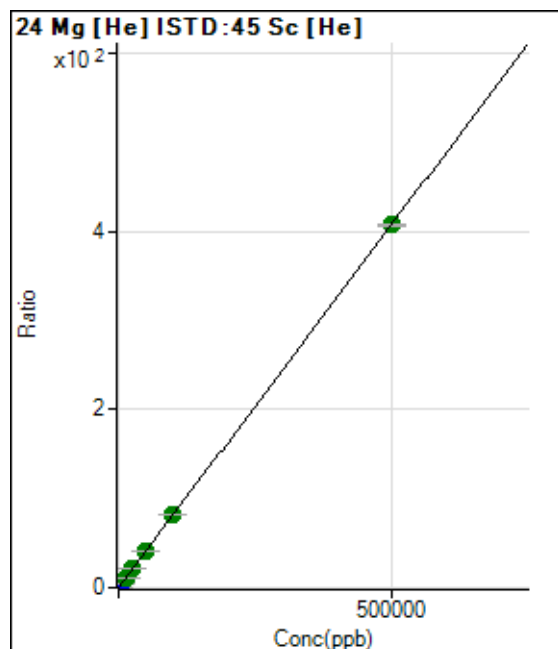
$$R = 1.0000$$

$$DL = 1.305$$

$$BEC = 11.16$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	169.45	0.0003	P	15.6
2	☐	50.000					
3	☐	500.000	508.178	219852.39	0.4149	P	0.4
4	☐	5000.000	5125.011	2153623.20	4.1810	P	0.8
5	☐	12500.000	12768.694	5259428.81	10.4163	A	0.9
6	☐	25000.000	25831.296	10130207.17	21.0721	A	0.2
7	☐	50000.000	51246.187	19653422.84	41.8041	A	1.4
8	☐	100000.00	100375.79	38639357.11	81.8813	A	1.1
9	☐	500000.00	499750.68	207314564.36	407.6691	A	0.4

$$y = 8.1574\text{E-}004 * x + 3.2445\text{E-}004$$

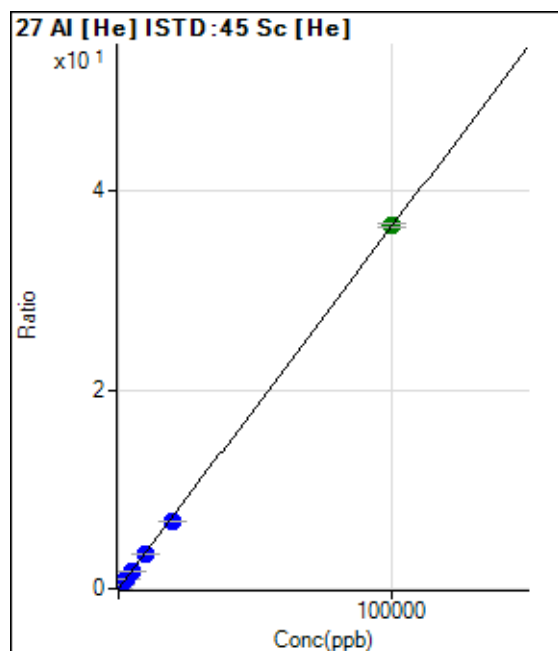
$$R = 1.0000$$

$$DL = 0.1863$$

$$BEC = 0.3977$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.00	0.0001	P	50.6
2	☐	2.000					
3	☐	20.000	19.873	3906.24	0.0074	P	4.7
4	☐	1000.000	978.480	183397.36	0.3560	P	0.5
5	☐	2500.000	2423.314	445118.26	0.8816	P	0.8
6	☐	5000.000	4870.214	851663.72	1.7716	P	0.4
7	☐	10000.000	9614.023	1644064.50	3.4970	P	1.0
8	☐	20000.000	18770.744	3221855.63	6.8275	P	1.0
9	☐	100000.00	100293.07	18550578.89	36.4790	A	1.0

$$y = 3.6372\text{E-}004 * x + 1.4336\text{E-}004$$

$$R = 0.9999$$

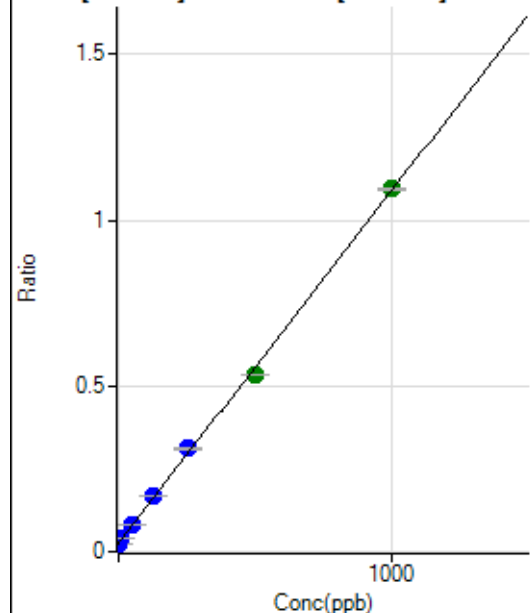
$$DL = 0.598$$

$$BEC = 0.3941$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	297561.51	0.0257	P	0.5
2	☐	1.000					
3	☐	10.000	13.711	479526.03	0.0403	P	0.6
4	☐	50.000	53.161	970240.78	0.0822	P	1.4
5	☐	125.000	133.456	1939144.47	0.1675	P	0.7
6	☐	250.000	268.864	3429544.26	0.3114	P	1.3
7	☐	500.000	477.341	5621406.81	0.5329	A	0.7
8	☐	1000.000	1005.361	11529138.88	1.0939	A	0.8
9	☐			725218.14	0.0670	P	0.5

$$y = 0.0011 * x + 0.0257$$

$$R = 0.9994$$

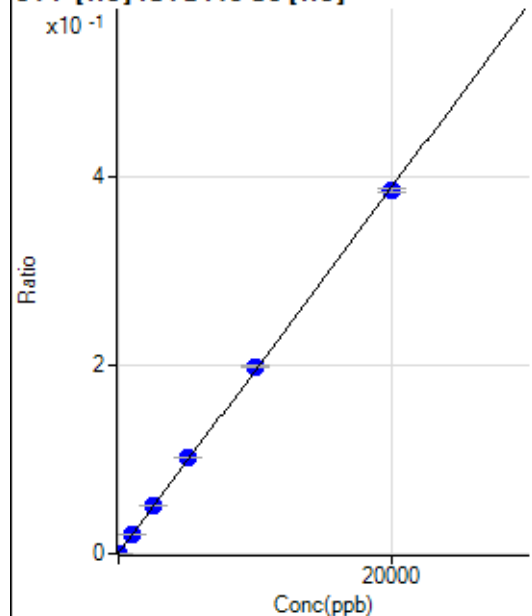
$$DL = 0.3783$$

$$BEC = 24.22$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-2.982	161.12	0.0003	P	16.3
2	☐	0.000					
3	☐	0.000	2.982	225.01	0.0004	P	13.6
4	☐	1000.000	1042.729	10634.74	0.0206	P	3.6
5	☐	2500.000	2637.575	26082.02	0.0517	P	1.5
6	☐	5000.000	5241.671	49176.27	0.1023	P	1.7
7	☐	10000.000	10210.974	93522.70	0.1989	P	0.9
8	☐	20000.000	19814.762	181996.85	0.3857	P	1.2
9	☐			250.01	0.0005	P	24.5

$$y = 1.9446E-005 * x + 3.6669E-004$$

$$R = 0.9998$$

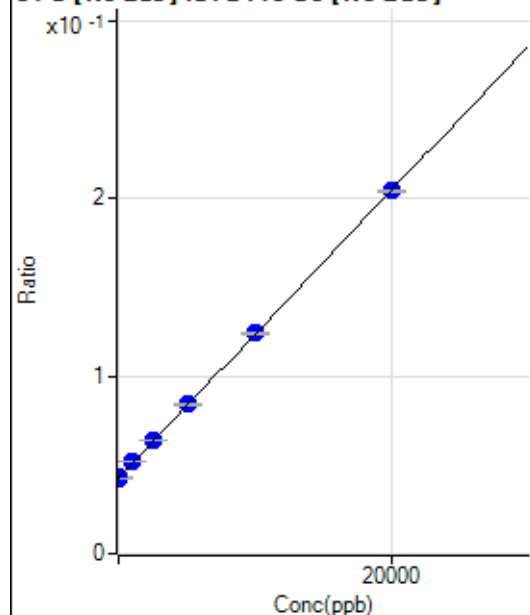
$$DL = 8.324$$

$$BEC = 18.86$$

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	57.781	498726.96	0.0431	P	0.1
2	☐	0.000					
3	☐	0.000	-57.781	502067.78	0.0422	P	1.2
4	☐	1000.000	1107.911	609339.07	0.0516	P	0.2
5	☐	2500.000	2617.790	739159.62	0.0639	P	0.6
6	☐	5000.000	5091.125	923850.00	0.0839	P	0.3
7	☐	10000.000	10034.491	1306933.35	0.1239	P	1.3
8	☐	20000.000	19939.854	2150954.11	0.2041	P	0.5
9	☐			454682.86	0.0420	P	1.0

$$y = 8.0956E-006 * x + 0.0427$$

R = 1.0000

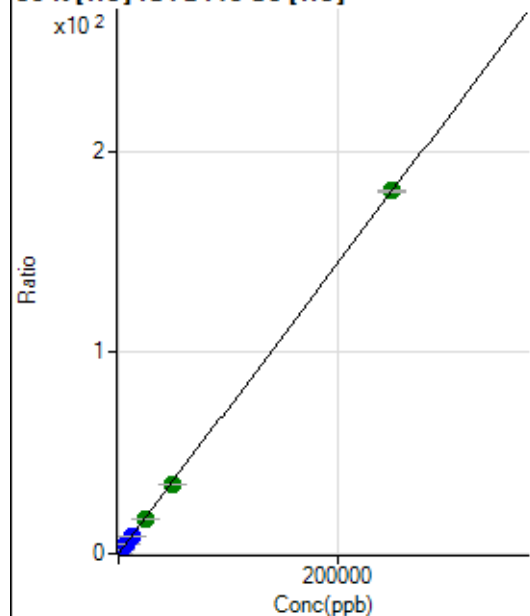
DL = 100.8

BEC = 5270

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	26410.57	0.0506	P	1.1
2	☐	50.000					
3	☐	500.000	497.085	216263.92	0.4081	P	0.9
4	☐	2500.000	2506.735	954749.55	1.8535	P	0.3
5	☐	6250.000	6084.518	2235140.78	4.4267	P	0.5
6	☐	12500.000	12145.158	4223639.07	8.7856	P	0.1
7	☐	25000.000	24181.003	8200171.28	17.4421	A	1.1
8	☐	50000.000	47570.107	16169255.92	34.2640	A	0.6
9	☐	250000.00	250589.69	91676970.80	180.2802	A	0.7

$$y = 7.1922E-004 * x + 0.0506$$

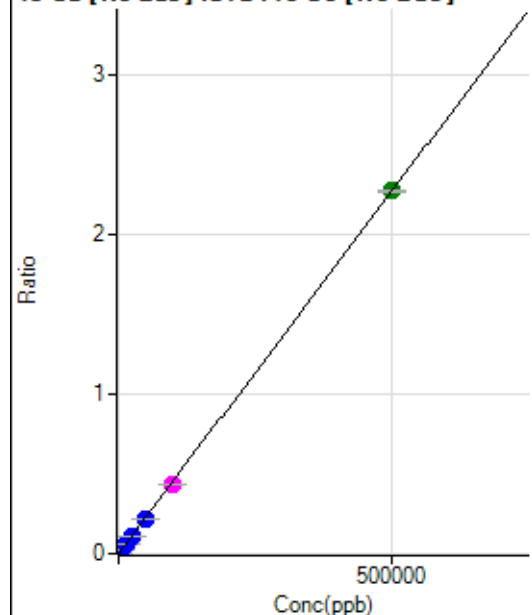
R = 0.9999

DL = 2.253

BEC = 70.32

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	166.67	0.0000	P	15.6
2	☐	50.000					
3	☐	500.000	478.473	26021.00	0.0022	P	2.1
4	☐	5000.000	4887.079	261999.40	0.0222	P	0.8
5	☐	12500.000	12243.395	643554.07	0.0556	P	0.7
6	☐	25000.000	24668.269	1233596.91	0.1120	P	0.5
7	☐	50000.000	48499.665	2322690.61	0.2202	P	1.1
8	☐	100000.00	96078.523	4597266.60	0.4362	M	1.7
9	☐	500000.00	500958.48	24602133.19	2.2743	A	0.7

$$y = 4.5399\text{E-}006 * x + 1.4424\text{E-}005$$

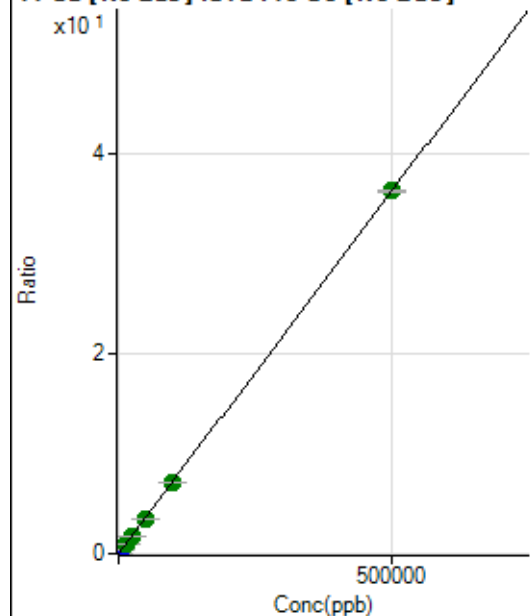
$$R = 1.0000$$

$$DL = 1.49$$

$$BEC = 3.177$$

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	10701.79	0.0009	P	3.1
2	☐	50.000					
3	☐	500.000	477.478	421967.10	0.0355	P	0.5
4	☐	5000.000	4893.138	4187876.57	0.3549	P	0.2
5	☐	12500.000	12168.412	10199335.64	0.8811	A	0.7
6	☐	25000.000	24354.981	19413729.95	1.7627	A	0.2
7	☐	50000.000	48459.919	36985773.40	3.5064	A	1.1
8	☐	100000.00	97054.339	74001157.90	7.0215	A	0.4
9	☐	500000.00	500784.77	391884136.54	36.2260	A	0.4

$$y = 7.2337\text{E-}005 * x + 9.2570\text{E-}004$$

$$R = 1.0000$$

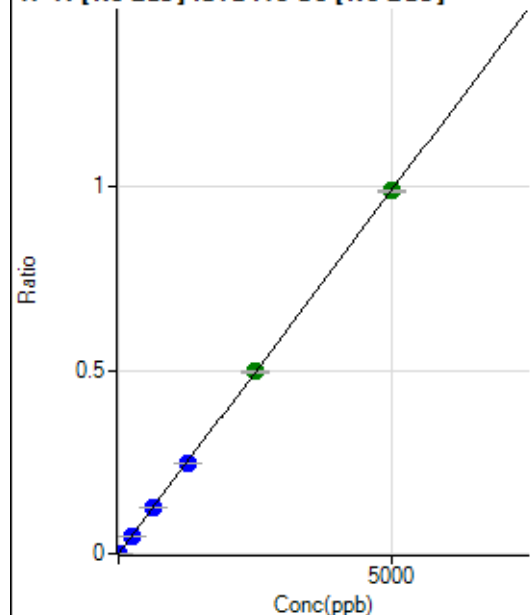
$$DL = 1.193$$

$$BEC = 12.8$$

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	163.90	0.0000	P	16.7
2	☐	0.500					
3	☐	5.000	5.071	12110.98	0.0010	P	4.1
4	☐	250.000	250.615	585594.48	0.0496	P	0.5
5	☐	625.000	623.779	1429418.31	0.1235	P	0.4
6	☐	1250.000	1248.726	2722557.40	0.2472	P	0.3
7	☐	2500.000	2513.321	5248019.74	0.4975	A	1.0
8	☐	5000.000	4993.780	10418301.19	0.9885	A	0.3
9	☐			4489.78	0.0004	P	9.0

$$y = 1.9795E-004 * x + 1.4182E-005$$

$$R = 1.0000$$

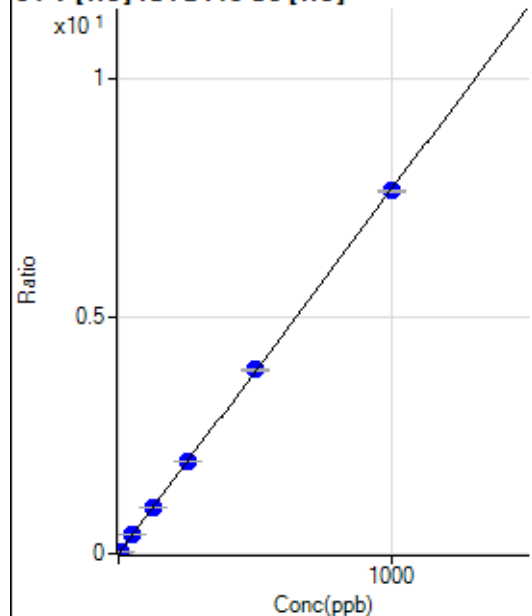
$$DL = 0.03588$$

$$BEC = 0.07164$$

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	13.33	0.0000	P	65.8
2	☐	0.500					
3	☐	5.000	5.108	20795.97	0.0392	P	1.5
4	☐	50.000	51.392	203270.06	0.3946	P	0.6
5	☐	125.000	127.953	496071.12	0.9825	P	0.7
6	☐	250.000	255.296	942365.97	1.9602	P	0.4
7	☐	500.000	504.923	1822702.86	3.8769	P	0.7
8	☐	1000.000	995.775	3608023.07	7.6458	P	0.9
9	☐			1703.46	0.0033	P	1.2

$$y = 0.0077 * x + 2.5487E-005$$

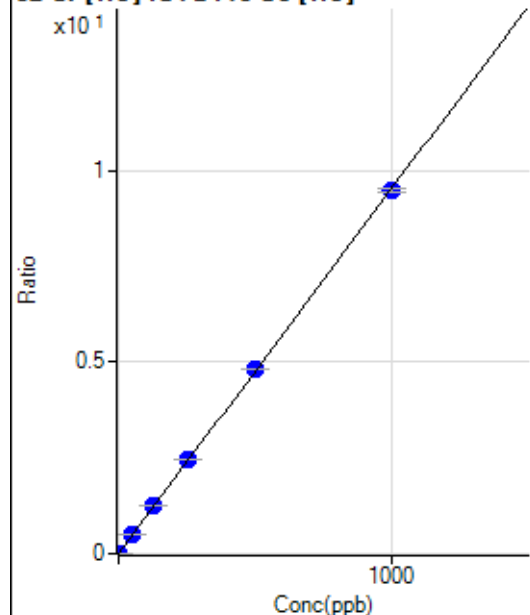
$$R = 1.0000$$

$$DL = 0.00655$$

$$BEC = 0.003319$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	764.48	0.0015	P	4.1
2	☐	0.200					
3	☐	2.000	2.222	11975.02	0.0226	P	2.3
4	☐	50.000	52.244	256714.83	0.4984	P	0.3
5	☐	125.000	129.613	623204.58	1.2343	P	0.5
6	☐	250.000	257.692	1178985.84	2.4525	P	0.6
7	☐	500.000	506.467	2265443.84	4.8186	P	0.7
8	☐	1000.000	994.154	4462798.06	9.4572	P	1.0
9	☐			218669.73	0.4300	P	0.5

$$y = 0.0095 * x + 0.0015$$

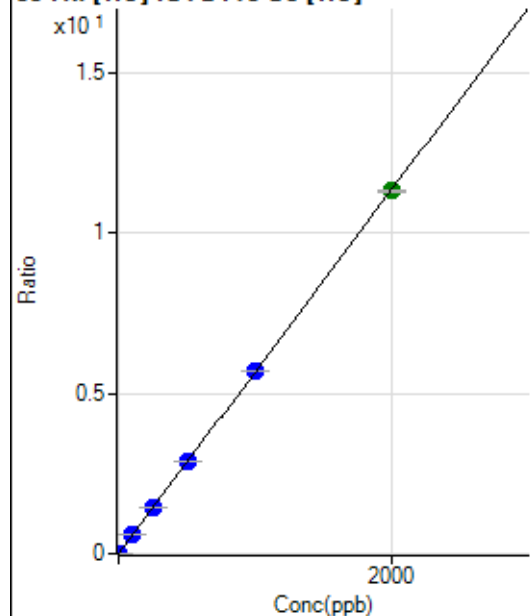
$$R = 0.9999$$

$$DL = 0.0188$$

$$BEC = 0.1539$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.89	0.0001	P	28.6
2	☐	0.100					
3	☐	1.000	1.096	3350.44	0.0063	P	1.1
4	☐	100.000	103.371	301699.67	0.5857	P	0.7
5	☐	250.000	256.581	733970.03	1.4536	P	0.5
6	☐	500.000	509.583	1387828.31	2.8869	P	0.5
7	☐	1000.000	1003.622	2673022.18	5.6856	P	0.8
8	☐	2000.000	1994.802	5332791.03	11.3006	A	0.4
9	☐			38619.62	0.0759	P	0.1

$$y = 0.0057 * x + 1.1264E-004$$

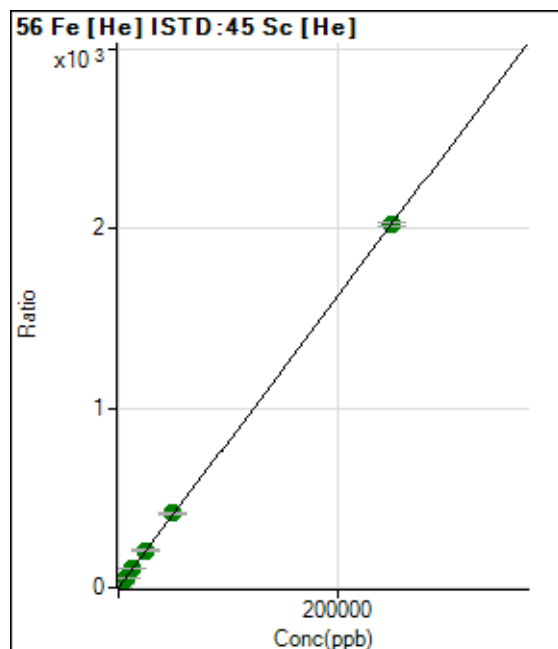
$$R = 1.0000$$

$$DL = 0.01705$$

$$BEC = 0.01988$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5893.91	0.0113	P	1.5
2	☐	5.000					
3	☐	50.000	53.163	233729.13	0.4410	P	0.7
4	☐	2500.000	2625.419	10938087.05	21.2345	A	0.1
5	☐	6250.000	6556.473	26766988.10	53.0121	A	0.8
6	☐	12500.000	13033.773	50656077.06	105.3729	A	0.8
7	☐	25000.000	25785.550	98003013.30	208.4550	A	0.9
8	☐	50000.000	51121.648	195018959.91	413.2655	A	0.8
9	☐	250000.00	249661.51	1026314334.0	2,018.210	A	0.9

$$y = 0.0081 * x + 0.0113$$

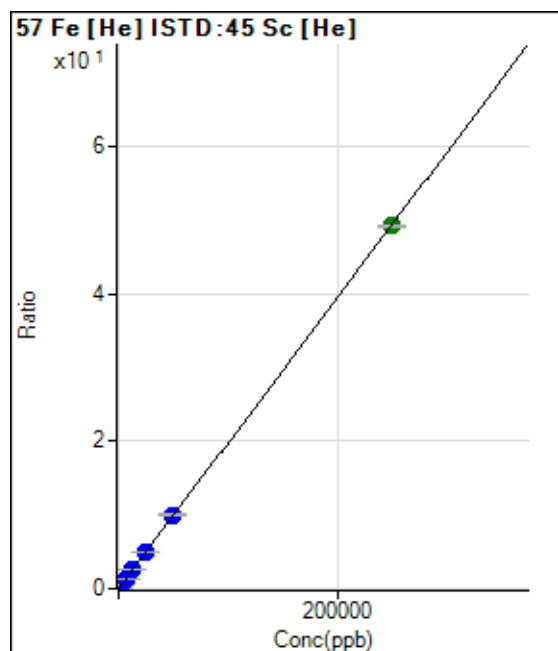
$$R = 1.0000$$

$$DL = 0.06471$$

$$BEC = 1.396$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	205.57	0.0004	P	19.0
2	☐	5.000					
3	☐	50.000	55.387	5988.42	0.0113	P	3.9
4	☐	2500.000	2656.632	269646.62	0.5235	P	0.2
5	☐	6250.000	6562.216	652592.59	1.2925	P	0.9
6	☐	12500.000	13085.562	1238810.49	2.5769	P	0.5
7	☐	25000.000	25720.669	2381167.70	5.0647	P	0.5
8	☐	50000.000	50873.368	4726973.02	10.0171	P	1.2
9	☐	250000.00	249714.60	25003437.83	49.1681	A	0.5

$$y = 1.9690E-004 * x + 3.9383E-004$$

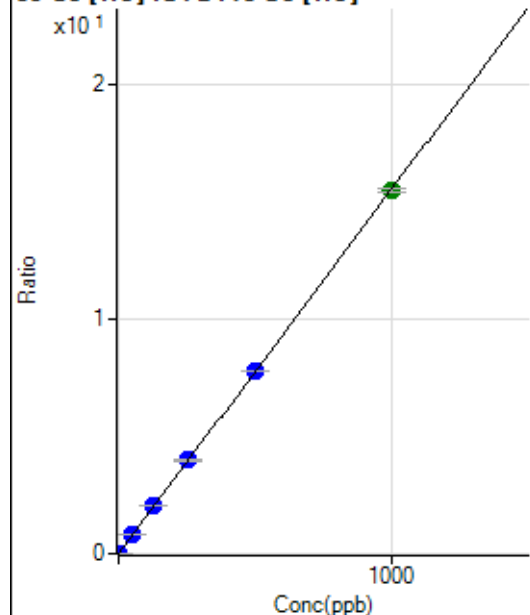
$$R = 1.0000$$

$$DL = 1.141$$

$$BEC = 2$$

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	75.56	0.0001	P	24.7
2	☐	0.100					
3	☐	1.000	1.093	9084.05	0.0171	P	2.9
4	☐	50.000	53.045	424844.90	0.8248	P	0.5
5	☐	125.000	129.995	1020444.34	2.0210	P	0.8
6	☐	250.000	256.960	1920417.57	3.9947	P	1.0
7	☐	500.000	503.144	3677407.79	7.8218	P	0.2
8	☐	1000.000	995.912	7305882.74	15.4822	A	1.2
9	☐			85872.58	0.1689	P	1.4

$$y = 0.0155 * x + 1.4458E-004$$

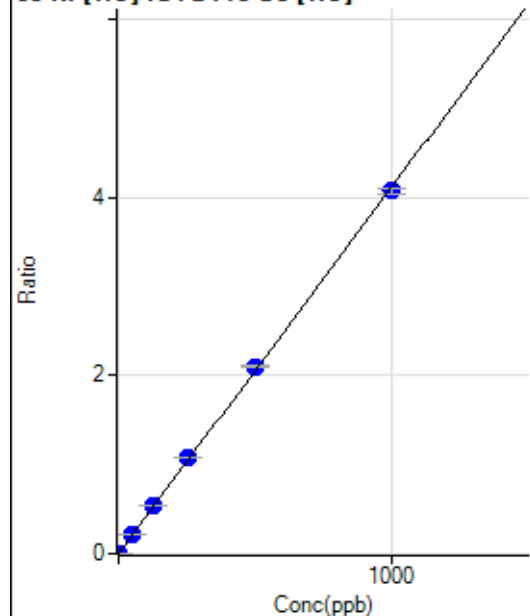
$$R = 1.0000$$

$$DL = 0.006879$$

$$BEC = 0.009301$$

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	113.34	0.0002	P	25.9
2	☐	0.100					
3	☐	1.000	1.186	2698.07	0.0051	P	2.0
4	☐	50.000	54.345	115172.07	0.2236	P	0.8
5	☐	125.000	133.174	276493.19	0.5476	P	0.7
6	☐	250.000	261.755	517309.36	1.0761	P	0.9
7	☐	500.000	511.167	987891.05	2.1012	P	0.4
8	☐	1000.000	990.238	1920745.61	4.0703	P	1.5
9	☐			73258.58	0.1441	P	0.3

$$y = 0.0041 * x + 2.1696E-004$$

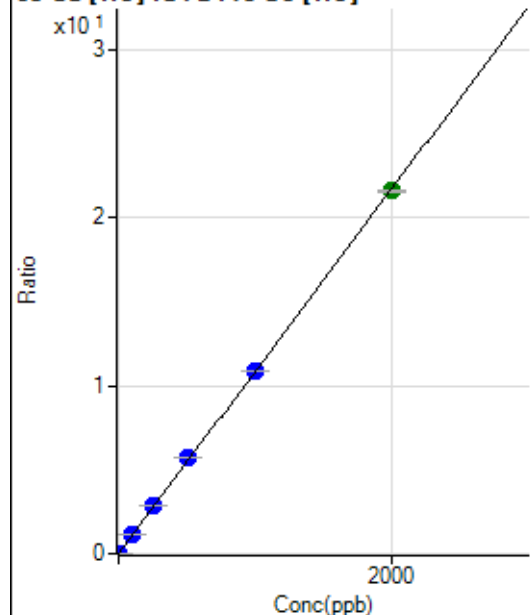
$$R = 0.9998$$

$$DL = 0.04096$$

$$BEC = 0.05279$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	747.81	0.0014	P	6.7
2	☐	0.200					
3	☐	2.000	2.224	13555.33	0.0256	P	2.2
4	☐	100.000	109.348	612339.68	1.1888	P	0.8
5	☐	250.000	266.636	1462606.28	2.8967	P	0.7
6	☐	500.000	523.167	2731701.70	5.6822	P	0.0
7	☐	1000.000	1002.332	5117589.96	10.8852	P	0.7
8	☐	2000.000	1990.495	10200254.08	21.6151	A	0.6
9	☐			25912.05	0.0510	P	0.7

$$y = 0.0109 * x + 0.0014$$

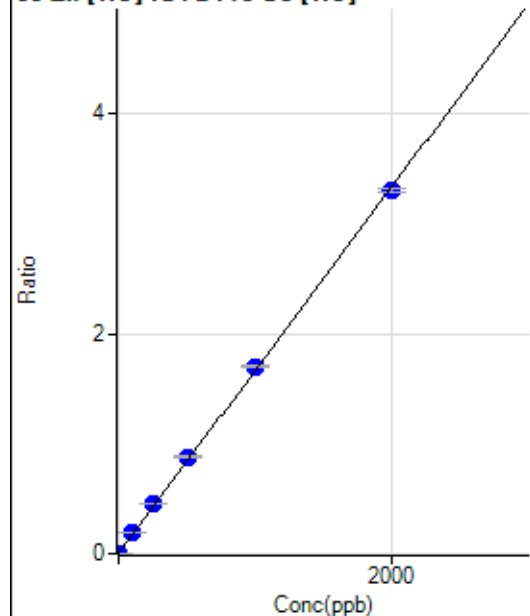
$$R = 0.9999$$

$$DL = 0.0264$$

$$BEC = 0.1319$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1586.78	0.0030	P	0.9
2	☐	0.200					
3	☐	2.000	2.508	3820.55	0.0072	P	1.8
4	☐	100.000	111.251	96881.90	0.1881	P	0.7
5	☐	250.000	266.349	225221.75	0.4461	P	0.2
6	☐	500.000	528.553	424094.42	0.8822	P	0.3
7	☐	1000.000	1019.964	799021.45	1.6995	P	0.6
8	☐	2000.000	1980.273	1555745.50	3.2968	P	0.9
9	☐			13306.22	0.0262	P	1.5

$$y = 0.0017 * x + 0.0030$$

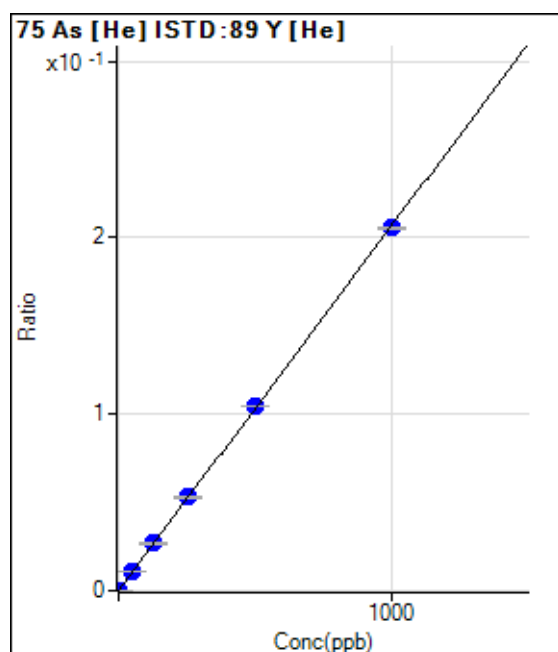
$$R = 0.9998$$

$$DL = 0.04809$$

$$BEC = 1.827$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14.20	0.0000	P	33.4
2	☐	0.100					
3	☐	1.000	1.110	612.98	0.0002	P	5.4
4	☐	50.000	52.066	27602.76	0.0108	P	0.7
5	☐	125.000	129.320	66892.90	0.0267	P	0.7
6	☐	250.000	256.225	126081.00	0.0530	P	0.8
7	☐	500.000	506.554	243264.65	0.1047	P	0.7
8	☐	1000.000	994.523	474944.18	0.2056	P	0.7
9	☐			662.37	0.0003	P	4.6

$$y = 2.0673\text{E-}004 * x + 5.5345\text{E-}006$$

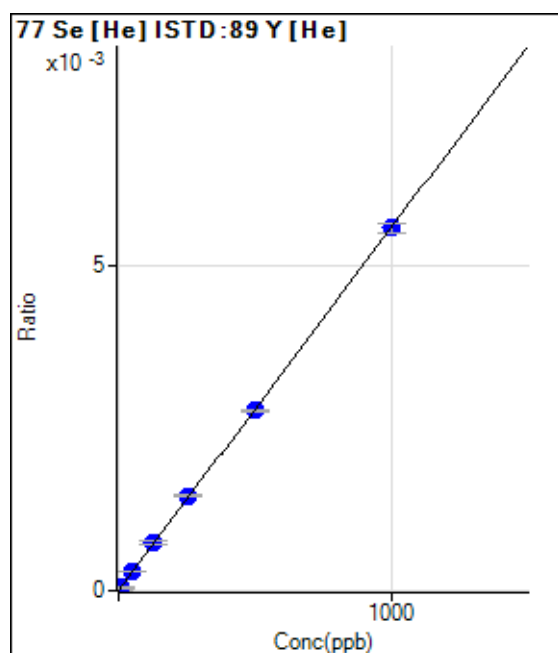
$$R = 0.9999$$

$$DL = 0.02683$$

$$BEC = 0.02677$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.89	0.0000	P	94.0
2	☐	0.500					
3	☐	5.000	7.754	122.23	0.0000	P	25.7
4	☐	50.000	52.519	762.26	0.0003	P	7.0
5	☐	125.000	132.889	1869.04	0.0007	P	6.4
6	☐	250.000	260.840	3482.70	0.0015	P	3.2
7	☐	500.000	495.588	6450.43	0.0028	P	0.5
8	☐	1000.000	998.370	12913.73	0.0056	P	2.6
9	☐			8.89	0.0000	P	79.4

$$y = 5.5962\text{E-}006 * x + 3.4563\text{E-}006$$

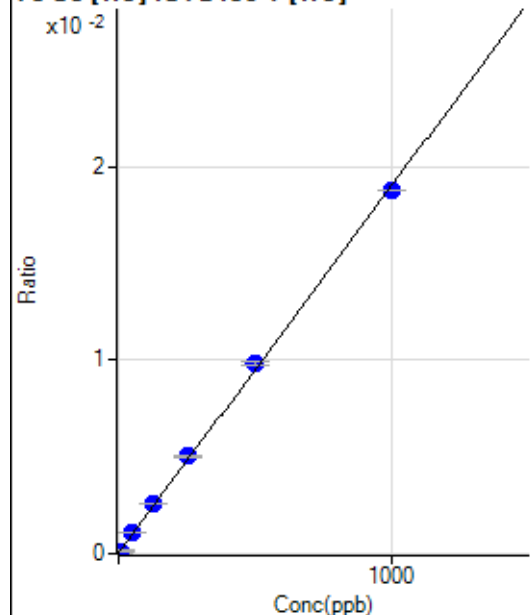
$$R = 0.9999$$

$$DL = 1.742$$

$$BEC = 0.6176$$

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	88.89	0.0000	P	12.7
2	☐	0.500					
3	☐	5.000	5.551	364.82	0.0001	P	14.9
4	☐	50.000	55.080	2764.49	0.0011	P	2.4
5	☐	125.000	134.543	6465.69	0.0026	P	1.1
6	☐	250.000	263.057	11948.82	0.0050	P	0.3
7	☐	500.000	517.254	22853.24	0.0098	P	1.2
8	☐	1000.000	986.659	43276.67	0.0187	P	0.1
9	☐			109.26	0.0000	P	23.3

$$y = 1.8953\text{E-}005 * x + 3.4602\text{E-}005$$

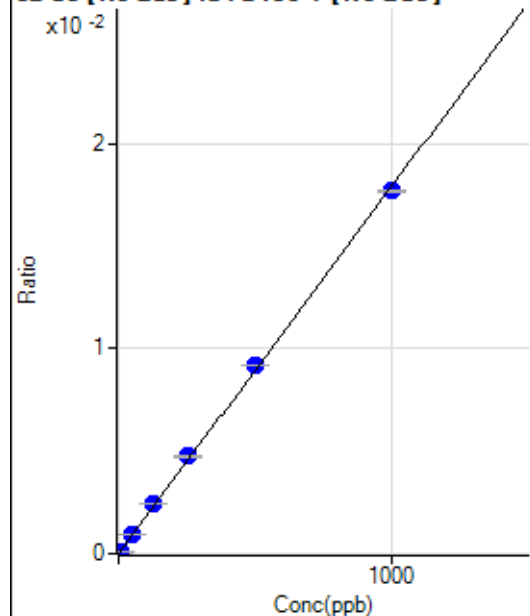
$$R = 0.9997$$

$$DL = 0.694$$

$$BEC = 1.826$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.41	0.0000	P	117.
2	☐	0.500					
3	☐	5.000	5.362	1772.08	0.0001	P	6.2
4	☐	50.000	54.500	17694.74	0.0010	P	0.6
5	☐	125.000	134.530	42874.73	0.0024	P	0.3
6	☐	250.000	265.084	81383.56	0.0047	P	0.7
7	☐	500.000	512.627	151108.04	0.0092	P	0.3
8	☐	1000.000	988.498	290137.52	0.0177	P	0.8
9	☐			285.69	0.0000	P	20.7

$$y = 1.7912\text{E-}005 * x + 9.2797\text{E-}007$$

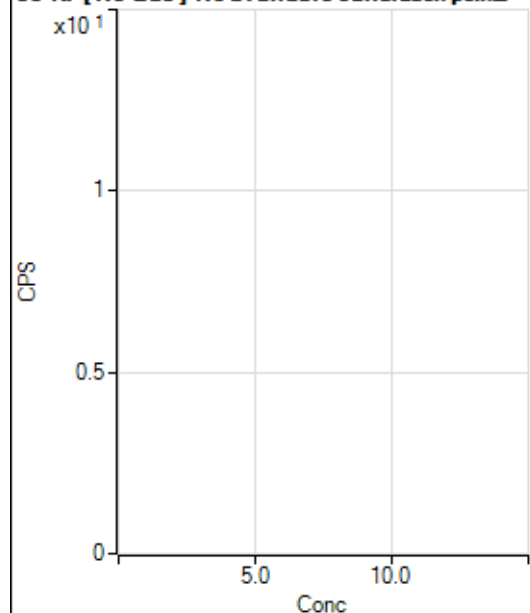
$$R = 0.9997$$

$$DL = 0.1828$$

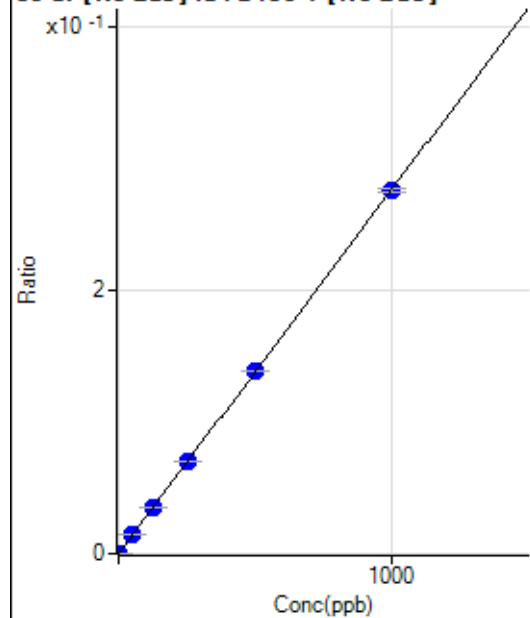
$$BEC = 0.05181$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			592.24		P	1.2
2	☐						
3	☐			610.02		P	7.1
4	☐			593.35		P	3.0
5	☐			563.35		P	13.6
6	☐			578.91		P	9.3
7	☐			546.69		P	4.4
8	☐			524.46		P	0.4
9	☐			604.47		P	6.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	919.51	0.0001	P	7.9
2	☐	0.100					
3	☐	1.000	1.031	6157.19	0.0003	P	5.4
4	☐	50.000	51.132	256997.13	0.0142	P	0.0
5	☐	125.000	127.958	630269.19	0.0354	P	0.7
6	☐	250.000	255.669	1212477.85	0.0708	P	0.4
7	☐	500.000	502.009	2285184.06	0.1389	P	0.2
8	☐	1000.000	997.152	4519066.94	0.2758	P	1.1
9	☐			22579.72	0.0014	P	0.8

$$y = 2.7653\text{E-}004 * x + 5.1976\text{E-}005$$

$$R = 1.0000$$

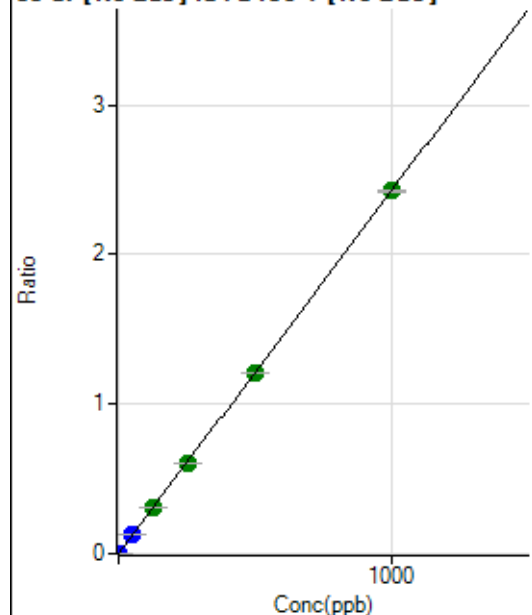
$$DL = 0.04447$$

$$BEC = 0.188$$

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	202.79	0.0000	P	27.0
2	☐	0.100					
3	☐	1.000	1.028	45787.90	0.0025	P	1.0
4	☐	50.000	50.509	2219370.73	0.1226	P	0.2
5	☐	125.000	124.946	5391834.41	0.3031	A	0.4
6	☐	250.000	250.833	10429039.99	0.6086	A	0.4
7	☐	500.000	499.987	19961113.64	1.2130	A	0.3
8	☐	1000.000	999.780	39746174.50	2.4256	A	0.6
9	☐			192989.49	0.0117	P	0.9

$$y = 0.0024 * x + 1.1468E-005$$

$$R = 1.0000$$

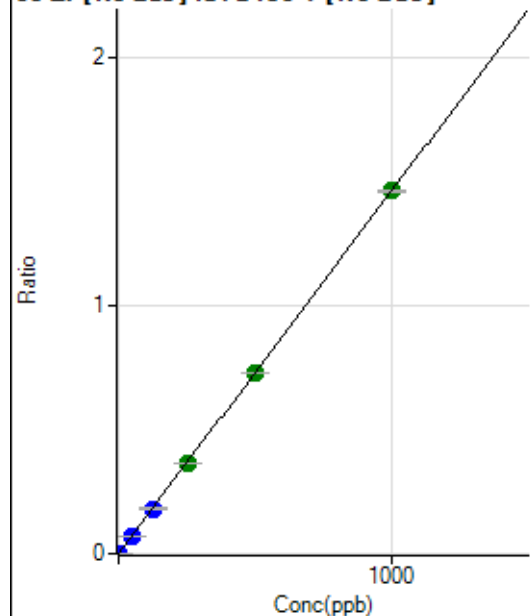
$$DL = 0.003834$$

$$BEC = 0.004727$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1341.78	0.0001	P	5.2
2	☐	0.100					
3	☐	1.000	1.014	28451.36	0.0016	P	0.7
4	☐	50.000	49.759	1317982.72	0.0728	P	0.6
5	☐	125.000	124.377	3233615.20	0.1818	P	0.4
6	☐	250.000	250.209	6266582.00	0.3657	A	0.5
7	☐	500.000	499.141	12002186.90	0.7294	A	0.5
8	☐	1000.000	1000.467	23954760.43	1.4619	A	0.4
9	☐			13723.78	0.0008	P	2.2

$$y = 0.0015 * x + 7.5832E-005$$

$$R = 1.0000$$

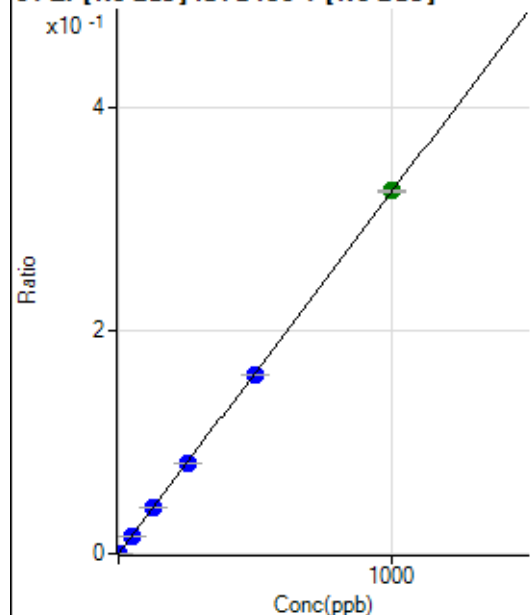
$$DL = 0.008046$$

$$BEC = 0.0519$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	363.91	0.0000	P	17.0
2	☐	0.100					
3	☐	1.000	1.042	6554.54	0.0004	P	3.1
4	☐	50.000	50.131	295072.70	0.0163	P	0.7
5	☐	125.000	125.906	727306.28	0.0409	P	0.5
6	☐	250.000	249.658	1389248.81	0.0811	P	0.2
7	☐	500.000	493.280	2635340.97	0.1602	P	0.5
8	☐	1000.000	1003.325	5337347.21	0.3257	A	0.5
9	☐			3083.79	0.0002	P	1.0

$$y = 3.2462\text{E-}004 * x + 2.0563\text{E-}005$$

$$R = 1.0000$$

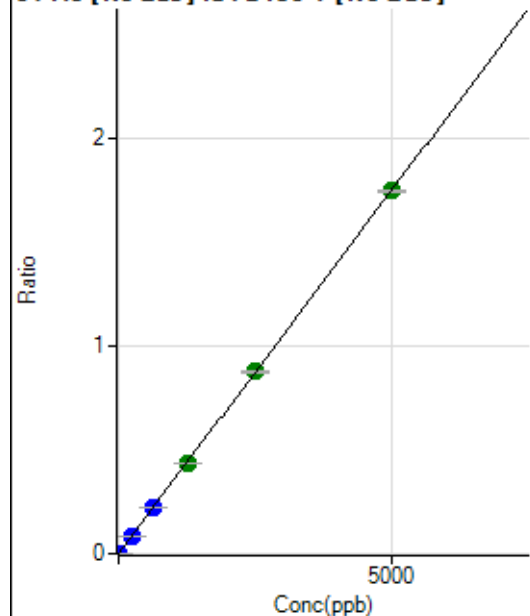
$$DL = 0.03228$$

$$BEC = 0.06334$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	516.70	0.0000	P	9.0
2	☐	0.500					
3	☐	5.000	5.075	32991.81	0.0018	P	0.5
4	☐	250.000	250.949	1591170.42	0.0879	P	0.4
5	☐	625.000	625.774	3896218.40	0.2191	P	0.2
6	☐	1250.000	1246.262	7475914.49	0.4362	A	0.2
7	☐	2500.000	2511.314	14464231.92	0.8790	A	1.0
8	☐	5000.000	4995.133	28649412.79	1.7484	A	0.5
9	☐			36965.36	0.0022	P	1.6

$$y = 3.5001\text{E-}004 * x + 2.9204\text{E-}005$$

$$R = 1.0000$$

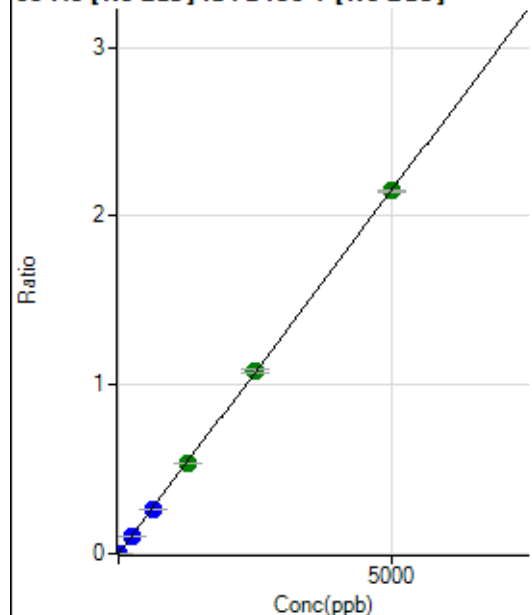
$$DL = 0.02251$$

$$BEC = 0.08344$$

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	50.00	0.0000	P	16.3
2	☐	0.500					
3	☐	5.000	5.068	39884.43	0.0022	P	1.4
4	☐	250.000	250.210	1948925.80	0.1076	P	0.7
5	☐	625.000	621.185	4752129.36	0.2672	P	0.1
6	☐	1250.000	1246.207	9185691.53	0.5360	A	0.3
7	☐	2500.000	2513.859	17791365.15	1.0812	A	1.3
8	☐	5000.000	4994.485	35200471.62	2.1482	A	0.6
9	☐			55572.73	0.0034	P	1.1

$$y = 4.3011\text{E-}004 * x + 2.8252\text{E-}006$$

$$R = 1.0000$$

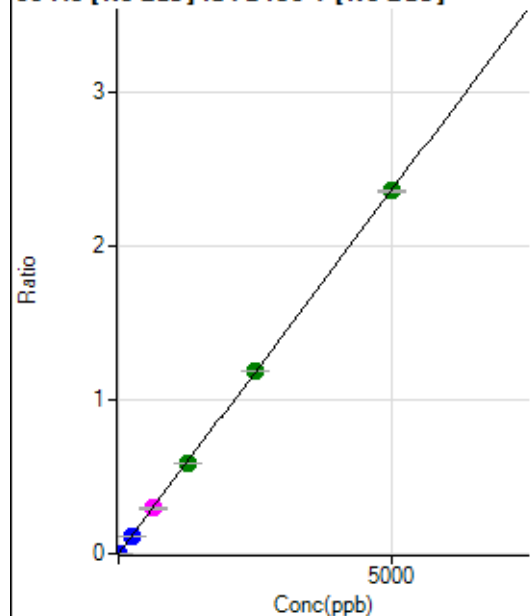
$$DL = 0.003218$$

$$BEC = 0.006569$$

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	138.89	0.0000	P	29.5
2	☐	0.500					
3	☐	5.000	5.001	43235.88	0.0024	P	1.0
4	☐	250.000	250.899	2142586.14	0.1183	P	0.0
5	☐	625.000	622.091	5217321.64	0.2933	M	0.4
6	☐	1250.000	1251.740	10115031.47	0.5902	A	0.4
7	☐	2500.000	2516.861	19528509.81	1.1868	A	0.6
8	☐	5000.000	4991.453	38566695.65	2.3536	A	0.4
9	☐			71127.65	0.0043	P	0.2

$$y = 4.7153\text{E-}004 * x + 7.8473\text{E-}006$$

$$R = 1.0000$$

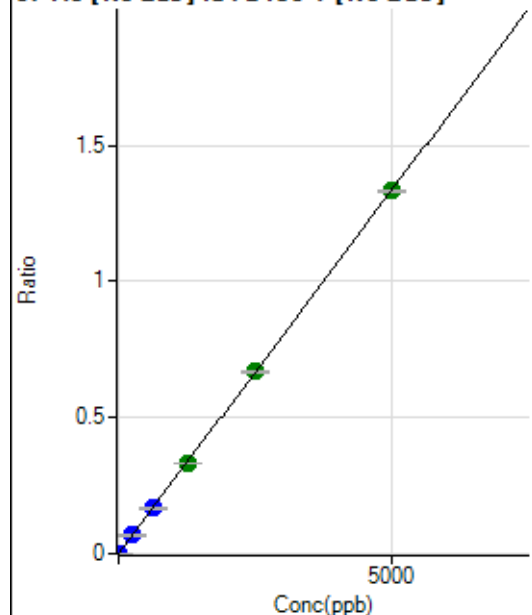
$$DL = 0.01471$$

$$BEC = 0.01664$$

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	30.56	0.0000	P	87.6
2	☐	0.500					
3	☐	5.000	5.053	24658.29	0.0013	P	2.5
4	☐	250.000	251.784	1216183.25	0.0672	P	0.4
5	☐	625.000	623.675	2958696.42	0.1664	P	0.5
6	☐	1250.000	1255.686	5739659.24	0.3349	A	0.2
7	☐	2500.000	2505.555	10996674.38	0.6683	A	0.9
8	☐	5000.000	4995.877	21834914.20	1.3325	A	0.3
9	☐			34851.91	0.0021	P	2.9

$$y = 2.6672\text{E-}004 * x + 1.7244\text{E-}006$$

$$R = 1.0000$$

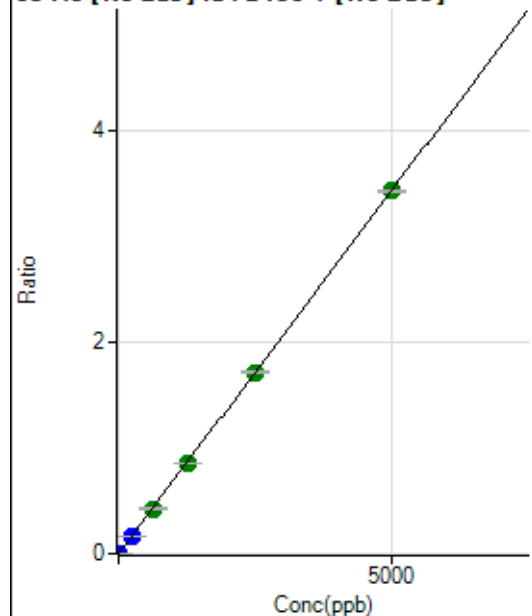
$$DL = 0.01699$$

$$BEC = 0.006465$$

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	44.44	0.0000	P	21.9
2	☐	0.500					
3	☐	5.000	5.059	63558.76	0.0035	P	1.3
4	☐	250.000	251.409	3128114.80	0.1727	P	0.2
5	☐	625.000	622.362	7605550.52	0.4276	A	0.4
6	☐	1250.000	1255.833	14786802.07	0.8628	A	0.2
7	☐	2500.000	2499.172	28254753.41	1.7171	A	0.6
8	☐	5000.000	4999.215	56282560.29	3.4348	A	0.3
9	☐			88393.68	0.0054	P	1.3

$$y = 6.8706\text{E-}004 * x + 2.5132\text{E-}006$$

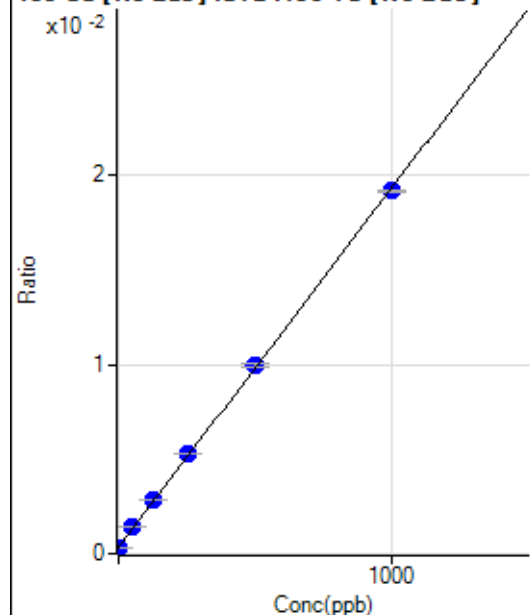
$$R = 1.0000$$

$$DL = 0.002408$$

$$BEC = 0.003658$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7702.39	0.0003	P	1.5
2	☐	0.100					
3	☐	1.000	0.530	8052.62	0.0003	P	2.4
4	☐	50.000	56.234	32713.69	0.0014	P	1.6
5	☐	125.000	134.040	66816.83	0.0029	P	1.1
6	☐	250.000	260.910	119884.57	0.0053	P	0.9
7	☐	500.000	506.127	220409.65	0.0099	P	1.9
8	☐	1000.000	992.768	423034.11	0.0192	P	0.4
9	☐			6829.75	0.0003	P	2.8

$$y = 1.8959\text{E-}005 * x + 3.3409\text{E-}004$$

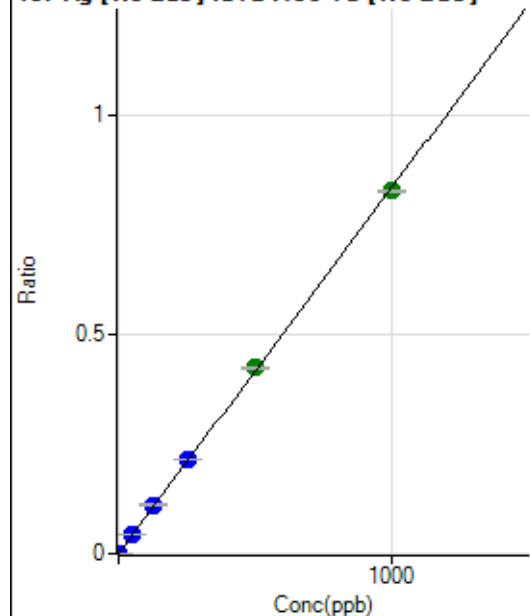
$$R = 0.9999$$

$$DL = 0.8131$$

$$BEC = 17.62$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	163.90	0.0000	P	10.2
2	☐	0.100					
3	☐	1.000	1.093	21528.17	0.0009	P	0.7
4	☐	50.000	54.984	1072990.79	0.0459	P	0.7
5	☐	125.000	133.923	2598971.67	0.1119	P	0.4
6	☐	250.000	256.626	4865802.32	0.2143	P	0.5
7	☐	500.000	509.697	9449352.12	0.4257	A	0.9
8	☐	1000.000	992.130	18298185.65	0.8286	A	0.5
9	☐			2505.89	0.0001	P	7.9

$$y = 8.3516\text{E-}004 * x + 7.1076\text{E-}006$$

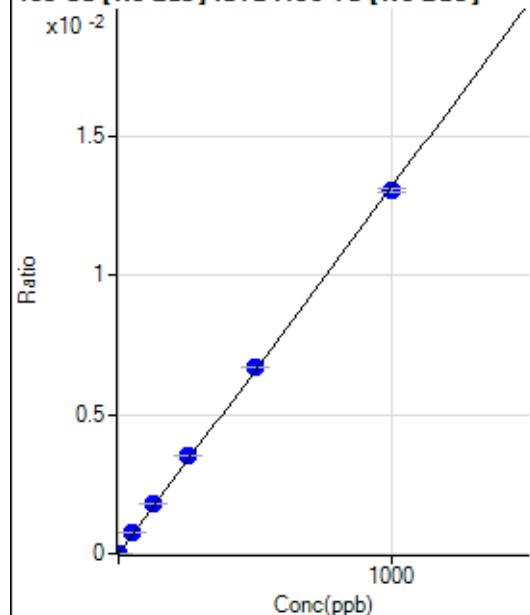
$$R = 0.9999$$

$$DL = 0.00261$$

$$BEC = 0.00851$$

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	29.17	0.0000	P	14.7
2	☐	0.100					
3	☐	1.000	1.043	351.40	0.0000	P	15.8
4	☐	50.000	56.489	17430.43	0.0007	P	2.9
5	☐	125.000	137.242	42077.96	0.0018	P	1.2
6	☐	250.000	266.721	79871.78	0.0035	P	1.2
7	☐	500.000	508.908	148992.39	0.0067	P	0.6
8	☐	1000.000	989.511	288175.01	0.0130	P	0.9
9	☐			129.17	0.0000	P	13.4

$$y = 1.3186\text{E-}005 * x + 1.2657\text{E-}006$$

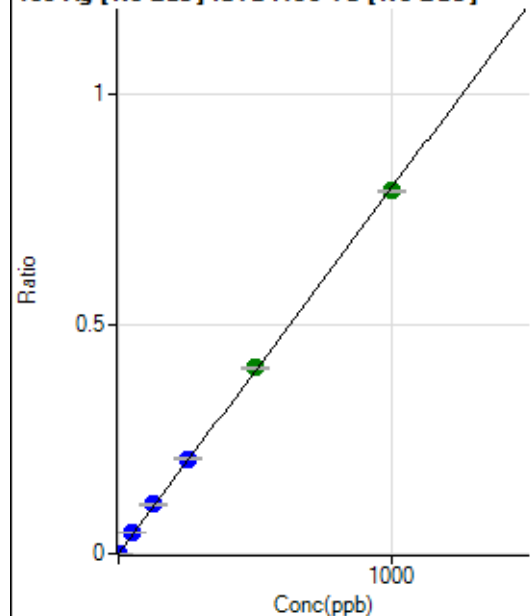
$$R = 0.9998$$

$$DL = 0.04233$$

$$BEC = 0.09599$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	102.78	0.0000	P	30.7
2	☐	0.100					
3	☐	1.000	1.103	20651.99	0.0009	P	1.8
4	☐	50.000	55.381	1029898.58	0.0441	P	0.5
5	☐	125.000	134.340	2484425.03	0.1069	P	0.7
6	☐	250.000	259.658	4691795.37	0.2067	P	0.6
7	☐	500.000	507.720	8970187.44	0.4041	A	0.9
8	☐	1000.000	992.289	17440880.77	0.7898	A	0.5
9	☐			2272.53	0.0001	P	4.3

$$y = 7.9590\text{E-}004 * x + 4.4592\text{E-}006$$

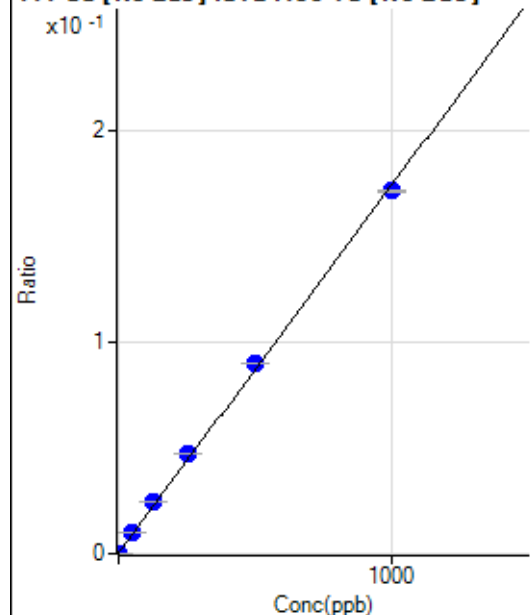
$$R = 0.9999$$

$$DL = 0.005166$$

$$BEC = 0.005603$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5394.86	0.0002	P	1.5
2	☐	0.100					
3	☐	1.000	1.021	9629.10	0.0004	P	2.0
4	☐	50.000	56.203	233826.70	0.0100	P	0.5
5	☐	125.000	137.765	562129.90	0.0242	P	0.6
6	☐	250.000	269.690	1070108.64	0.0471	P	0.6
7	☐	500.000	515.900	1996890.30	0.0900	P	0.4
8	☐	1000.000	985.222	3789073.59	0.1716	P	0.5
9	☐			5614.07	0.0003	P	1.7

$$y = 1.7391\text{E-}004 * x + 2.3400\text{E-}004$$

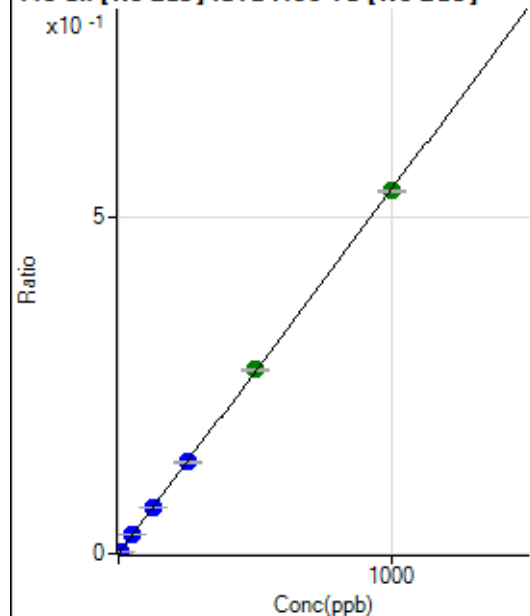
$$R = 0.9996$$

$$DL = 0.06028$$

$$BEC = 1.346$$

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	730.69	0.0000	P	29.1
2	☐	0.500					
3	☐	5.000	5.225	66776.13	0.0029	P	0.6
4	☐	50.000	51.783	654157.94	0.0280	P	0.8
5	☐	125.000	128.589	1614508.65	0.0695	P	0.1
6	☐	250.000	251.343	3082602.20	0.1358	P	0.7
7	☐	500.000	505.611	6062662.33	0.2731	A	0.7
8	☐	1000.000	996.320	11884322.57	0.5382	A	0.2
9	☐			15064.13	0.0007	P	4.3

$$y = 5.4011\text{E-}004 * x + 3.1701\text{E-}005$$

$$R = 1.0000$$

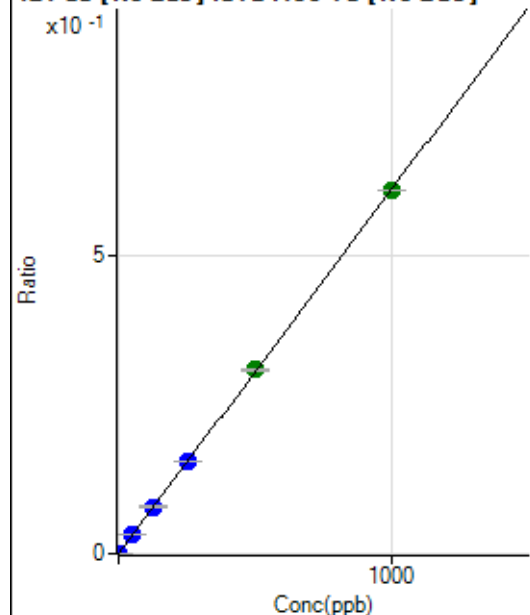
$$DL = 0.05128$$

$$BEC = 0.05869$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119.45	0.0000	P	18.0
2	☐	0.200					
3	☐	2.000	2.053	29481.87	0.0013	P	2.4
4	☐	50.000	52.389	748121.65	0.0320	P	0.8
5	☐	125.000	129.370	1837202.88	0.0791	P	0.2
6	☐	250.000	252.857	3508286.32	0.1545	P	0.7
7	☐	500.000	504.399	6842766.56	0.3083	A	0.9
8	☐	1000.000	996.420	13447858.29	0.6090	A	0.2
9	☐			20624.17	0.0009	P	1.6

$$y = 6.1113\text{E-}004 * x + 5.1840\text{E-}006$$

$$R = 1.0000$$

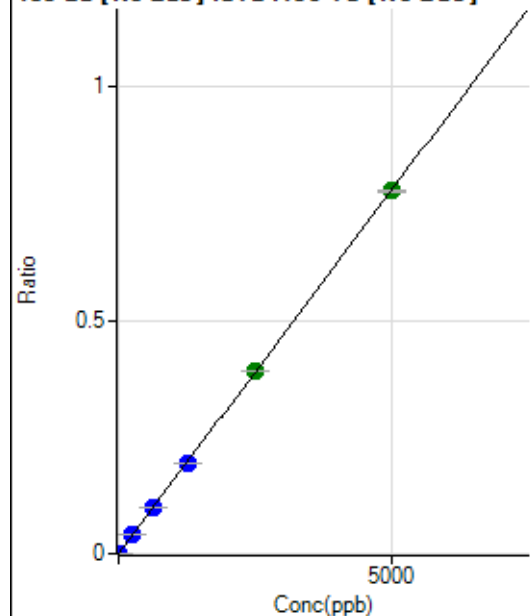
$$DL = 0.004579$$

$$BEC = 0.008483$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.89	0.0000	P	81.6
2	☐	1.000					
3	☐	10.000	10.333	37710.40	0.0016	P	1.0
4	☐	250.000	259.045	943094.76	0.0404	P	0.5
5	☐	625.000	640.756	2320005.24	0.0998	P	0.2
6	☐	1250.000	1252.983	4432580.13	0.1952	P	0.3
7	☐	2500.000	2510.446	8683609.83	0.3912	A	0.8
8	☐	5000.000	4991.609	17177066.18	0.7778	A	0.6
9	☐			4134.15	0.0002	P	5.1

$$y = 1.5582\text{E-}004 * x + 1.6908\text{E-}006$$

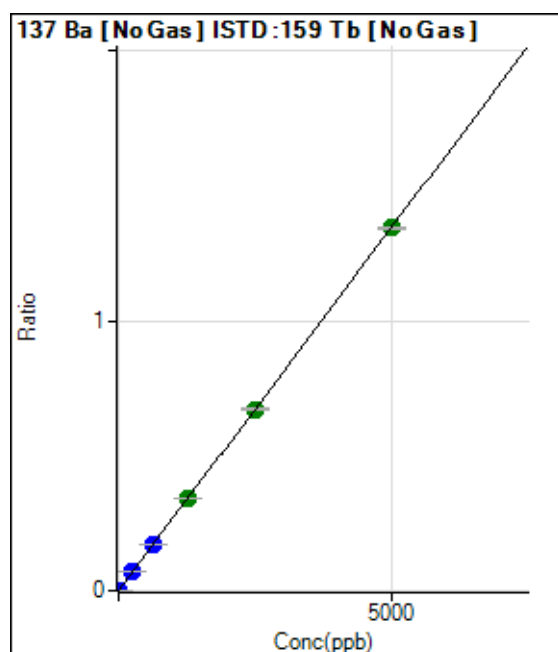
$$R = 1.0000$$

$$DL = 0.02655$$

$$BEC = 0.01085$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	38.89	0.0000	P	12.5
2	☐	1.000					
3	☐	10.000	10.255	64623.26	0.0028	P	1.8
4	☐	250.000	259.787	1633815.11	0.0699	P	0.6
5	☐	625.000	638.503	3993638.33	0.1719	P	0.2
6	☐	1250.000	1266.630	7740544.36	0.3410	A	0.3
7	☐	2500.000	2499.922	14937980.02	0.6729	A	0.6
8	☐	5000.000	4993.704	29685342.68	1.3442	A	0.5
9	☐			7191.06	0.0003	P	6.0

$$y = 2.6918\text{E-}004 * x + 1.6871\text{E-}006$$

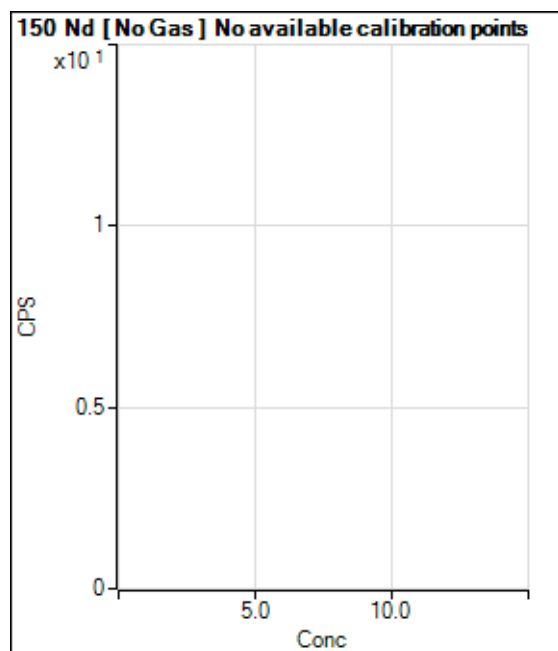
$$R = 1.0000$$

$$DL = 0.002353$$

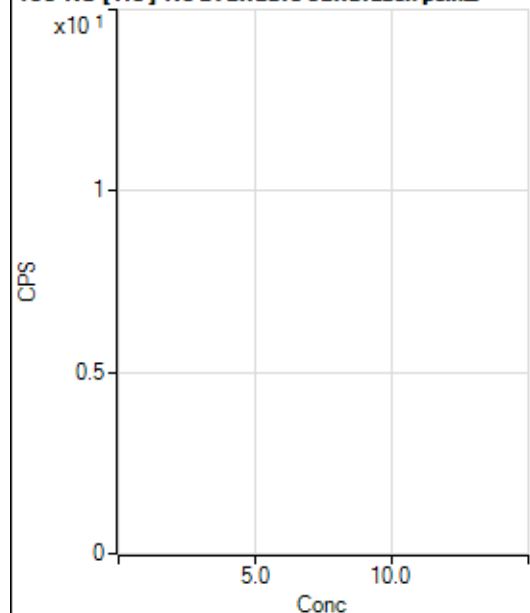
$$BEC = 0.006268$$

Weight: <None>

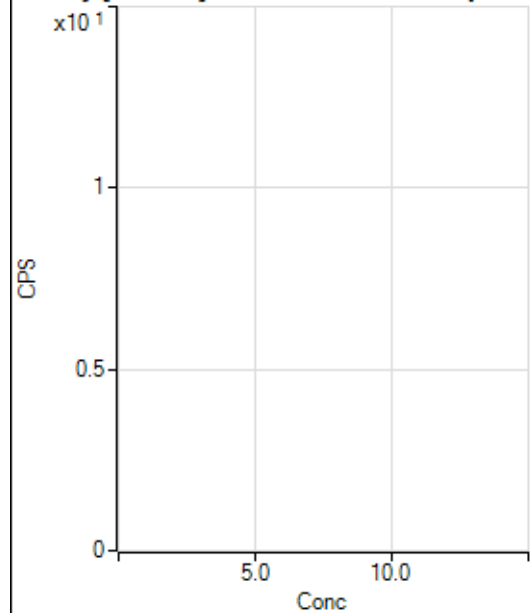
Min Conc: 0



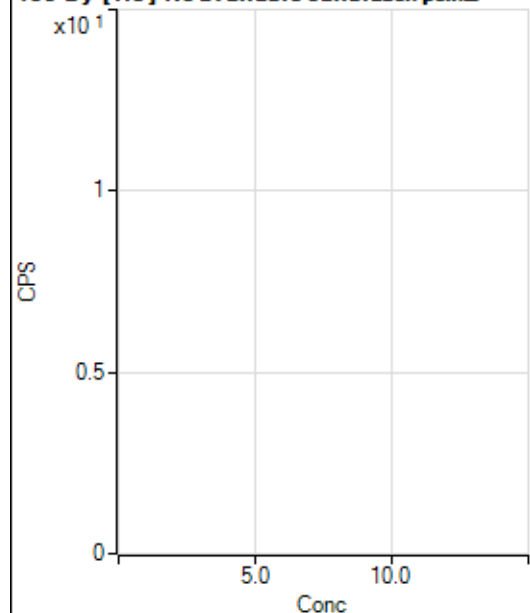
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			11.11		P	124.
2	☐						
3	☐			15.56		P	65.5
4	☐			73.34		P	18.2
5	☐			171.12		P	9.8
6	☐			275.57		P	13.8
7	☐			575.59		P	7.9
8	☐			1097.86		P	10.7
9	☐			313.35		P	17.0

150 Nd [He] No available calibration points

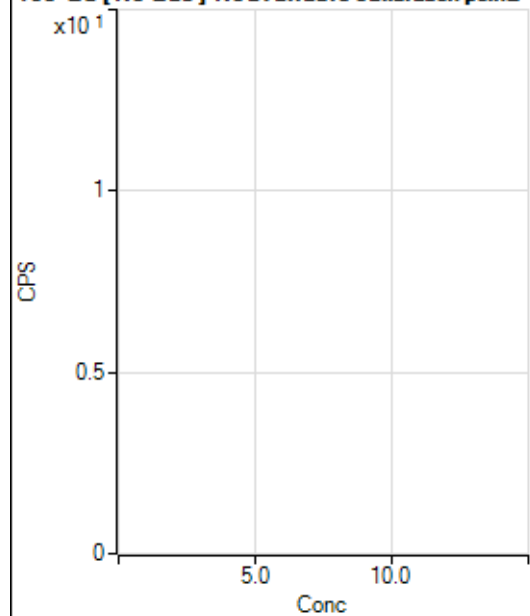
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	173.
2	☐						
3	☐			21.11		P	89.8
4	☐			16.67		P	52.9
5	☐			23.33		P	14.3
6	☐			35.56		P	14.3
7	☐			58.89		P	8.6
8	☐			82.22		P	33.0
9	☐			117.78		P	4.3

156 Dy [No Gas] No available calibration points

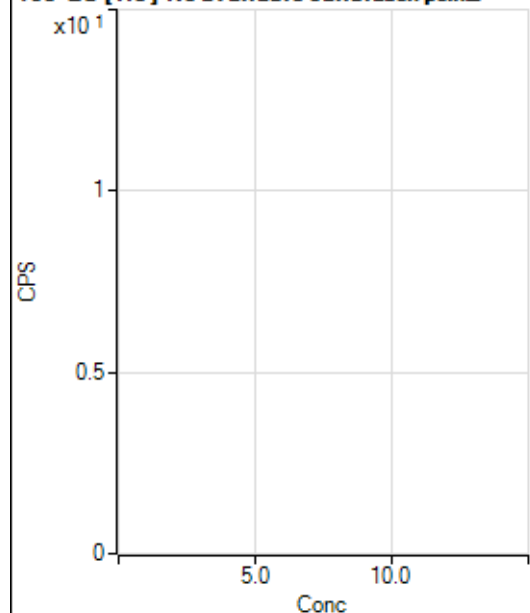
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	65.5
2	☐						
3	☐			19.44		P	65.5
4	☐			13.89		P	91.6
5	☐			55.56		P	17.3
6	☐			77.78		P	24.7
7	☐			133.34		P	12.5
8	☐			208.34		P	18.3
9	☐			180.56		P	16.2

156 Dy [He] No available calibration points

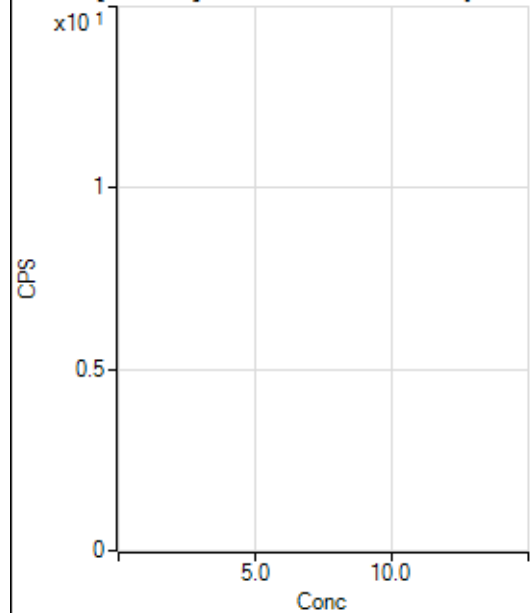
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	124.
2	☐						
3	☐			28.89		P	26.6
4	☐			41.11		P	23.4
5	☐			30.00		P	19.2
6	☐			48.89		P	21.9
7	☐			93.34		P	32.7
8	☐			191.12		P	15.8
9	☐			82.22		P	6.2

160 Gd [No Gas] Noavailable calibration poin_

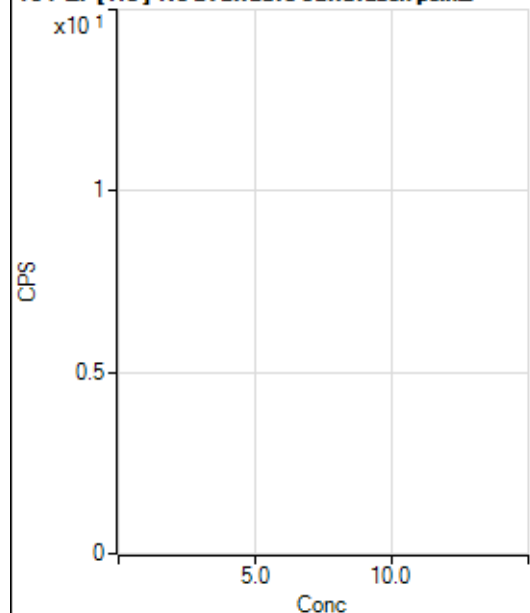
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			175.01		P	26.5
2	☐						
3	☐			163.90		P	7.8
4	☐			169.45		P	19.9
5	☐			163.90		P	46.1
6	☐			130.56		P	36.3
7	☐			155.56		P	13.5
8	☐			161.12		P	28.5
9	☐			222.24		P	8.7

160 Gd [He] No available calibration points

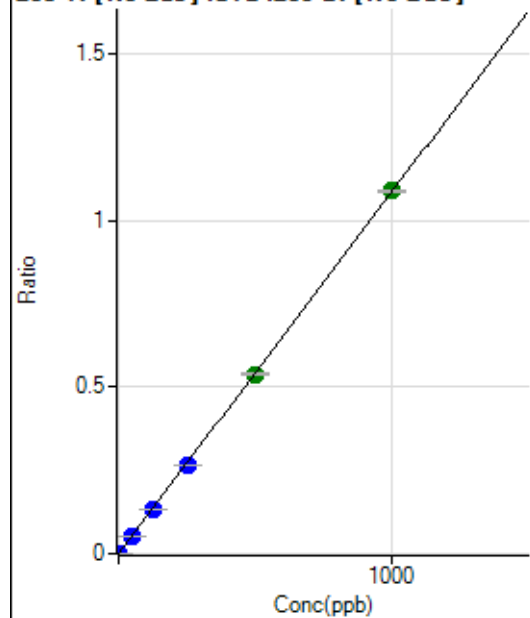
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			245.56		P	17.2
2	☐						
3	☐			213.34		P	10.9
4	☐			251.12		P	12.5
5	☐			254.45		P	10.2
6	☐			254.45		P	11.9
7	☐			231.12		P	7.4
8	☐			282.23		P	0.7
9	☐			242.23		P	1.6

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			77.78		P	32.7
2	☐						
3	☐			94.45		P	13.5
4	☐			69.45		P	36.7
5	☐			63.89		P	19.9
6	☐			47.22		P	66.8
7	☐			91.67		P	0.0
8	☐			72.23		P	26.7
9	☐			155.56		P	32.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			38.89		P	17.8
2	☐						
3	☐			63.34		P	45.9
4	☐			45.55		P	8.5
5	☐			50.00		P	33.3
6	☐			43.33		P	7.7
7	☐			31.11		P	22.3
8	☐			52.22		P	39.0
9	☐			47.78		P	24.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	194.45	0.0000	P	15.5
2	☐	0.100					
3	☐	1.000	0.986	16811.28	0.0011	P	2.5
4	☐	50.000	49.067	821176.37	0.0533	P	0.8
5	☐	125.000	122.483	2026731.27	0.1329	P	0.4
6	☐	250.000	242.954	3935286.29	0.2637	P	0.5
7	☐	500.000	496.930	7754757.12	0.5393	A	0.6
8	☐	1000.000	1003.658	15383665.97	1.0891	A	0.4
9	☐			5971.05	0.0005	P	1.6

$$y = 0.0011 * x + 1.2337E-005$$

$$R = 1.0000$$

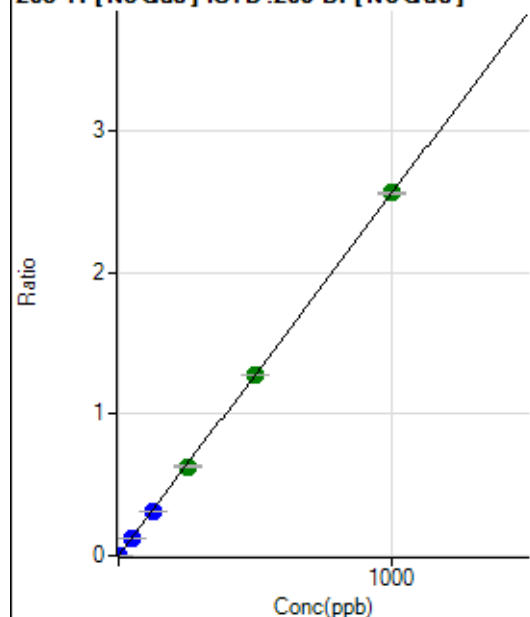
$$DL = 0.00527$$

$$BEC = 0.01137$$

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	447.25	0.0000	P	19.2
2	☐	0.100					
3	☐	1.000	1.002	40281.34	0.0026	P	0.2
4	☐	50.000	49.466	1951937.59	0.1266	P	0.3
5	☐	125.000	122.985	4798318.77	0.3147	P	0.4
6	☐	250.000	246.675	9420847.69	0.6312	A	0.7
7	☐	500.000	498.422	18339118.29	1.2753	A	0.4
8	☐	1000.000	1001.899	36208688.31	2.5635	A	0.3
9	☐			14500.19	0.0012	P	6.0

$$y = 0.0026 * x + 2.8386E-005$$

$$R = 1.0000$$

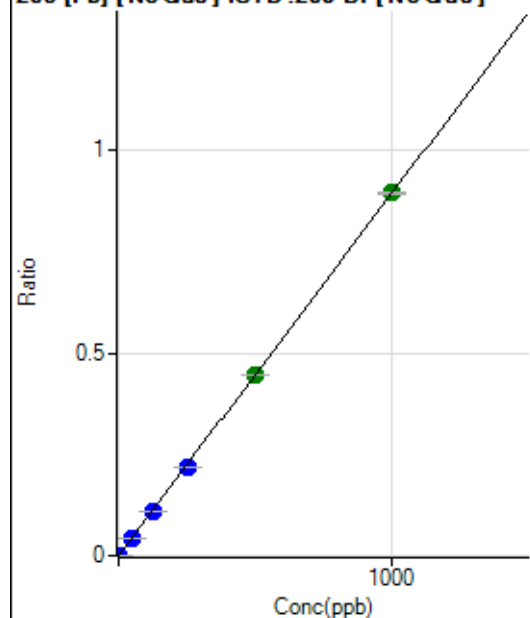
$$DL = 0.006406$$

$$BEC = 0.01109$$

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	287.05	0.0000	P	23.5
2	☐	0.100					
3	☐	1.000	1.030	14574.96	0.0009	P	2.5
4	☐	50.000	48.967	674687.62	0.0438	P	0.3
5	☐	125.000	123.194	1678104.22	0.1101	P	0.1
6	☐	250.000	242.881	3238397.56	0.2170	P	0.1
7	☐	500.000	498.796	6407189.73	0.4456	A	0.6
8	☐	1000.000	1002.659	12650377.71	0.8956	A	0.5
9	☐			15340.67	0.0012	P	1.0

$$y = 8.9321E-004 * x + 1.8191E-005$$

$$R = 1.0000$$

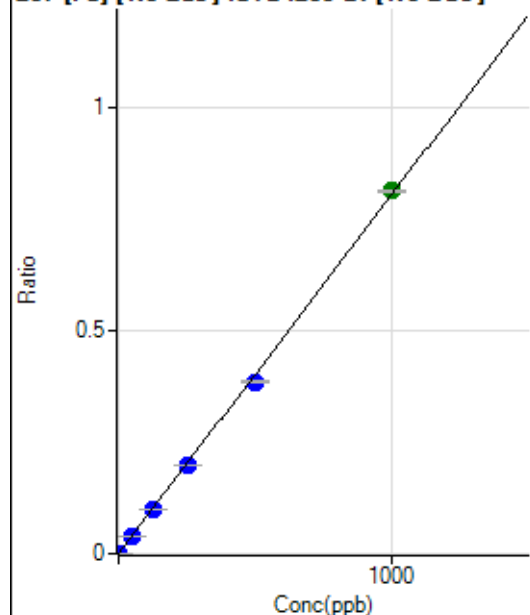
$$DL = 0.01436$$

$$BEC = 0.02037$$

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	231.49	0.0000	P	20.6
2	☐	0.100					
3	☐	1.000	1.014	12867.64	0.0008	P	2.3
4	☐	50.000	49.716	615477.49	0.0399	P	0.4
5	☐	125.000	124.501	1523768.07	0.0999	P	0.6
6	☐	250.000	246.824	2957025.76	0.1981	P	0.3
7	☐	500.000	479.305	5532219.69	0.3847	P	0.7
8	☐	1000.000	1011.218	11464065.07	0.8116	A	0.9
9	☐			13696.26	0.0011	P	1.1

$$y = 8.0259\text{E-}004 * x + 1.4693\text{E-}005$$

$$R = 0.9997$$

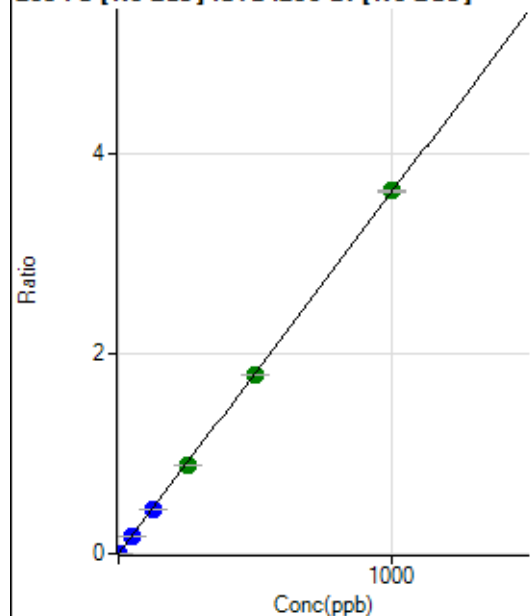
$$DL = 0.0113$$

$$BEC = 0.01831$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1085.23	0.0001	P	5.3
2	☐	0.100					
3	☐	1.000	1.016	58050.42	0.0037	P	2.0
4	☐	50.000	49.413	2750283.89	0.1784	P	0.1
5	☐	125.000	123.546	6798320.73	0.4459	P	0.3
6	☐	250.000	246.840	13295354.61	0.8908	A	0.2
7	☐	500.000	494.276	25648517.13	1.7836	A	0.7
8	☐	1000.000	1003.863	51165513.76	3.6223	A	0.7
9	☐			61031.63	0.0049	P	0.2

$$y = 0.0036 * x + 6.8816\text{E-}005$$

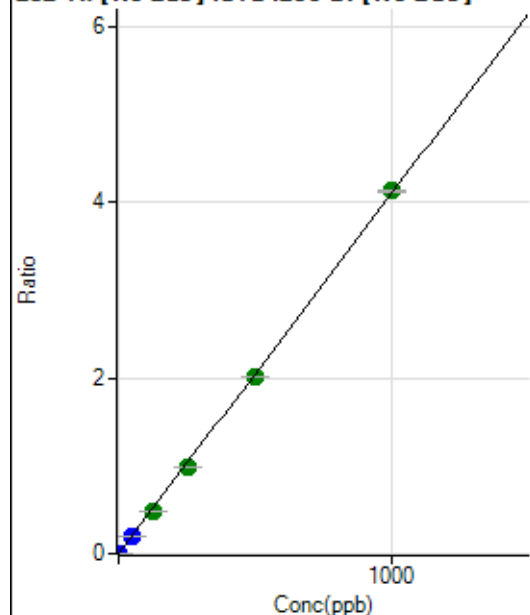
$$R = 1.0000$$

$$DL = 0.003013$$

$$BEC = 0.01907$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	187.04	0.0000	P	10.1
2	☐	0.100					
3	☐	1.000	0.950	60712.78	0.0039	P	0.9
4	☐	50.000	46.827	2962088.72	0.1921	P	0.6
5	☐	125.000	117.632	7357899.53	0.4826	A	0.3
6	☐	250.000	239.586	14669942.11	0.9828	A	0.2
7	☐	500.000	491.489	28993498.56	2.0162	A	0.7
8	☐	1000.000	1007.939	58403328.62	4.1348	A	0.3
9	☐			12663.85	0.0010	P	9.0

$$y = 0.0041 * x + 1.1867E-005$$

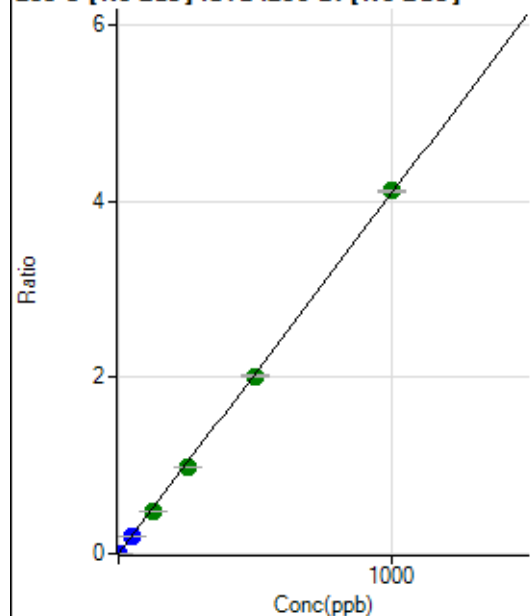
$$R = 0.9999$$

$$DL = 0.0008729$$

$$BEC = 0.002893$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0000	P	28.6
2	☐	0.100					
3	☐	1.000	0.961	61196.70	0.0039	P	0.6
4	☐	50.000	47.286	2985619.66	0.1936	P	0.6
5	☐	125.000	118.558	7402373.86	0.4855	A	0.3
6	☐	250.000	240.907	14724004.49	0.9865	A	0.2
7	☐	500.000	492.691	29011909.67	2.0175	A	0.6
8	☐	1000.000	1006.869	58235608.24	4.1229	A	0.5
9	☐			10435.14	0.0008	P	3.1

$$y = 0.0041 * x + 3.8773E-006$$

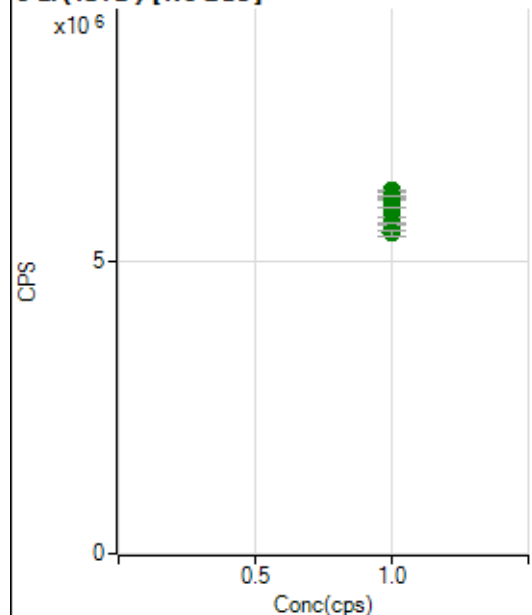
$$R = 0.9999$$

$$DL = 0.000812$$

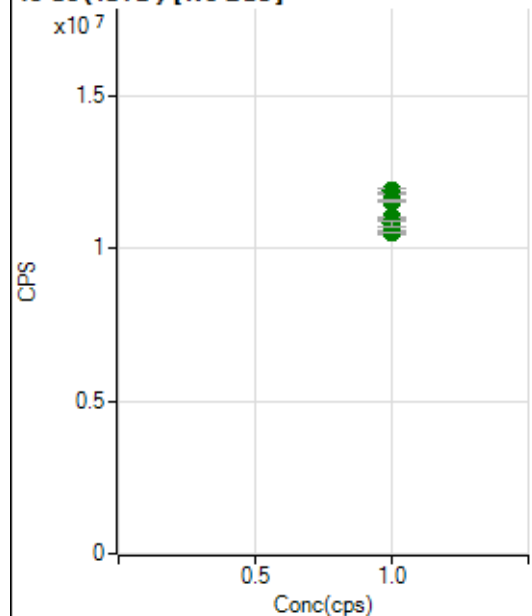
$$BEC = 0.0009469$$

Weight: <None>

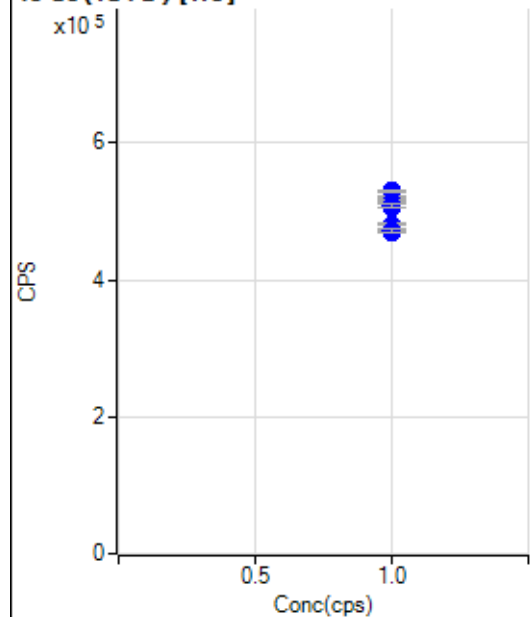
Min Conc: 0

6 Li (ISTD) [No Gas]

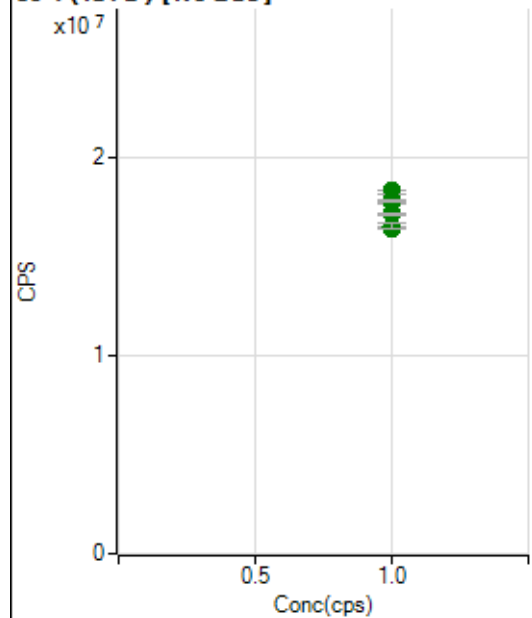
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6061831.37		A	0.6
2	☐	1.000					
3	☐	1.000		6206874.35		A	0.2
4	☐	1.000		6203430.95		A	0.4
5	☐	1.000		6115973.80		A	0.4
6	☐	1.000		5926689.84		A	0.2
7	☐	1.000		5754197.20		A	0.1
8	☐	1.000		5652601.03		A	0.5
9	☐	1.000		5483309.43		A	1.4

45 Sc (ISTD) [No Gas]

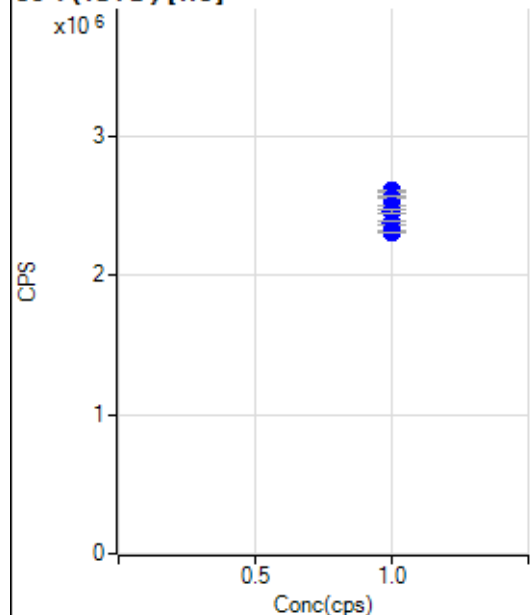
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11562475.86		A	0.8
2	☐	1.000					
3	☐	1.000		11898383.08		A	1.1
4	☐	1.000		11800886.03		A	0.3
5	☐	1.000		11575137.59		A	0.7
6	☐	1.000		11013723.86		A	0.6
7	☐	1.000		10549039.04		A	1.1
8	☐	1.000		10539203.88		A	0.1
9	☐	1.000		10818334.53		A	2.3

45 Sc (ISTD) [He]

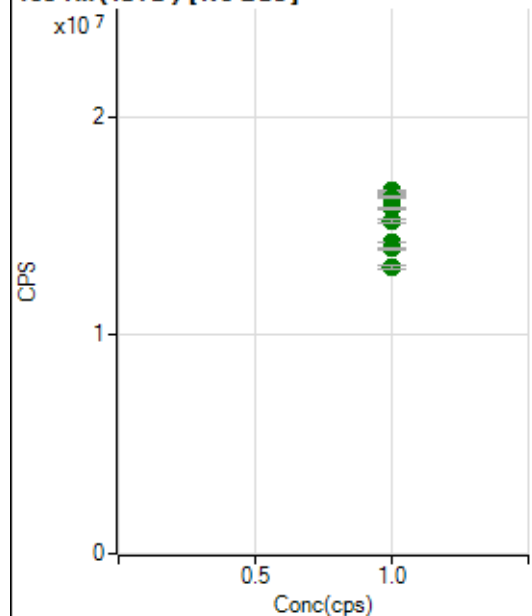
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		522196.52		P	0.6
2	☐	1.000					
3	☐	1.000		529938.85		P	0.4
4	☐	1.000		515108.47		P	0.5
5	☐	1.000		504925.14		P	0.1
6	☐	1.000		480745.50		P	0.5
7	☐	1.000		470150.70		P	0.4
8	☐	1.000		471913.82		P	0.7
9	☐	1.000		508540.79		P	1.1

89 Y (ISTD) [No Gas]

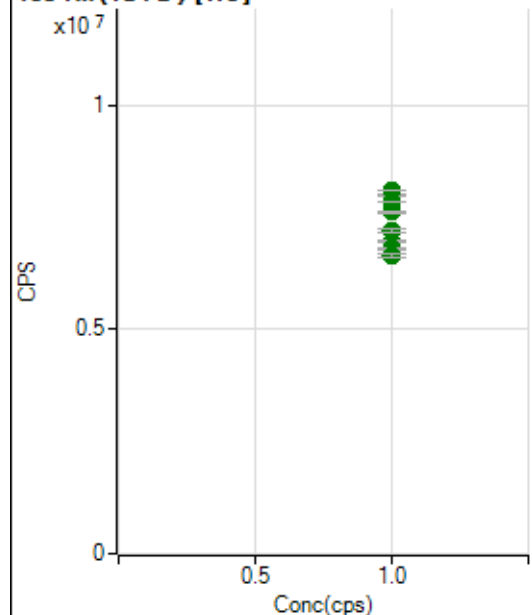
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17692710.57		A	0.4
2	☐	1.000					
3	☐	1.000		18274097.64		A	0.2
4	☐	1.000		18109359.45		A	0.3
5	☐	1.000		17786207.09		A	0.7
6	☐	1.000		17137324.60		A	0.6
7	☐	1.000		16455528.92		A	0.7
8	☐	1.000		16386390.03		A	0.7
9	☐	1.000		16497050.03		A	1.4

89 Y(ISTD) [He]

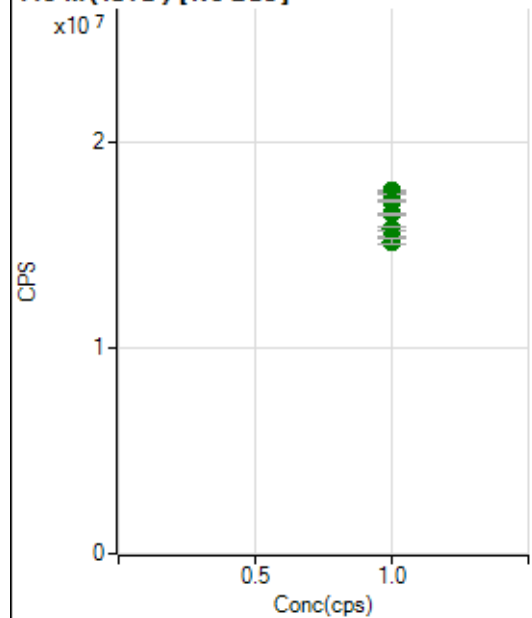
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2568858.89		P	0.7
2	☐	1.000					
3	☐	1.000		2608728.95		P	0.4
4	☐	1.000		2563127.97		P	0.2
5	☐	1.000		2501617.73		P	0.2
6	☐	1.000		2380106.63		P	0.8
7	☐	1.000		2322925.57		P	0.4
8	☐	1.000		2309998.39		P	0.5
9	☐	1.000		2458882.15		P	1.4

103 Rh(ISTD) [No Gas]

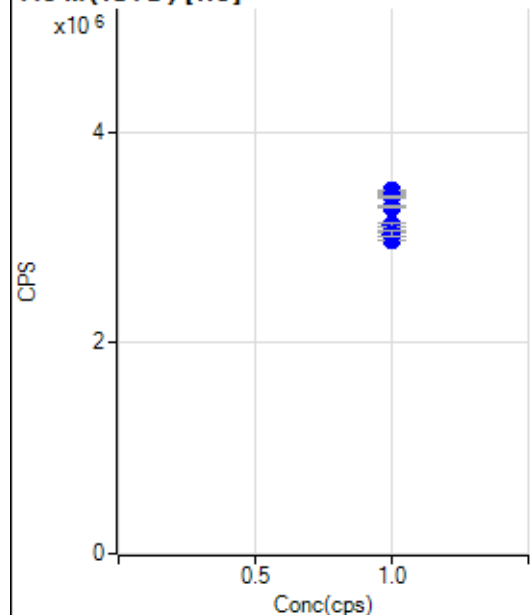
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16395514.08		A	0.4
2	☐	1.000					
3	☐	1.000		16609787.18		A	0.4
4	☐	1.000		16313784.91		A	0.8
5	☐	1.000		15823714.41		A	0.8
6	☐	1.000		15196640.62		A	1.2
7	☐	1.000		14282505.36		A	0.1
8	☐	1.000		13955548.40		A	0.4
9	☐	1.000		13080956.89		A	1.3

103 Rh (ISTD) [He]

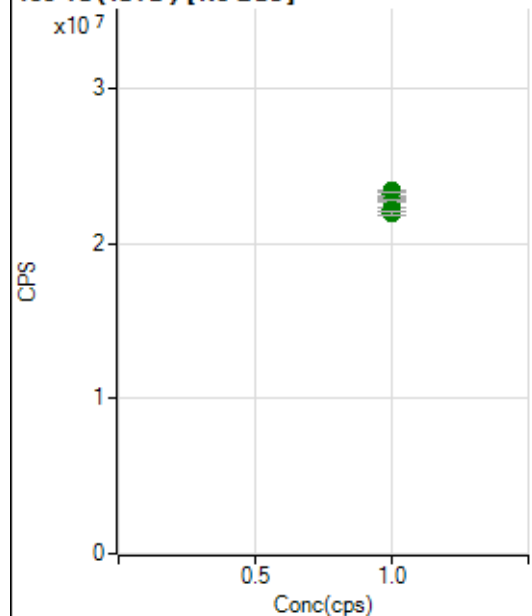
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		7990885.92		A	0.4
2	☐	1.000					
3	☐	1.000		8088972.79		A	0.1
4	☐	1.000		7841175.23		A	0.4
5	☐	1.000		7623348.43		A	0.5
6	☐	1.000		7201983.64		A	0.7
7	☐	1.000		6952337.67		A	0.5
8	☐	1.000		6805249.27		A	0.5
9	☐	1.000		6657542.33		A	1.5

115 In (ISTD) [No Gas]

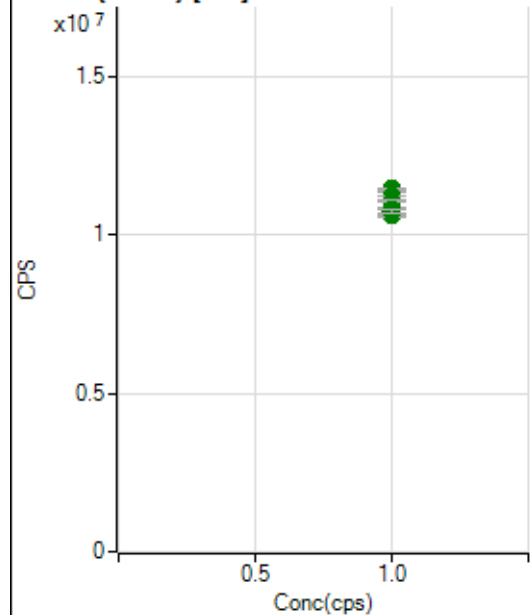
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17596666.14		A	0.5
2	☐	1.000					
3	☐	1.000		17608355.32		A	0.6
4	☐	1.000		17435702.68		A	0.1
5	☐	1.000		17090881.17		A	0.5
6	☐	1.000		16496317.95		A	0.5
7	☐	1.000		15773319.66		A	1.2
8	☐	1.000		15379050.16		A	0.2
9	☐	1.000		15159365.23		A	1.4

115 In (ISTD) [He]

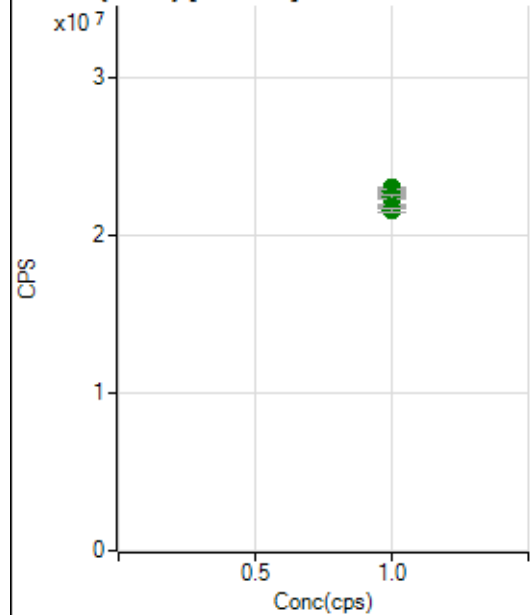
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3386199.97		P	0.9
2	☐	1.000					
3	☐	1.000		3440755.08		P	0.5
4	☐	1.000		3383976.32		P	0.4
5	☐	1.000		3285768.24		P	0.4
6	☐	1.000		3119464.14		P	1.0
7	☐	1.000		3024278.33		P	0.8
8	☐	1.000		2973230.57		P	0.4
9	☐	1.000		3033480.75		P	1.6

159 Tb (ISTD) [No Gas]

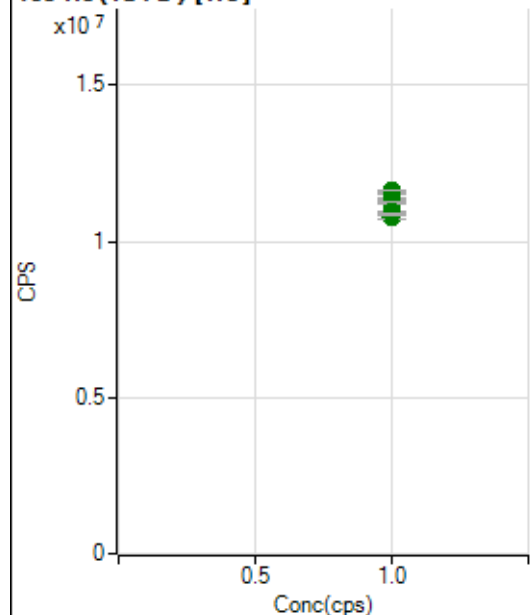
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		23053718.54		A	0.4
2	☐	1.000					
3	☐	1.000		23397596.32		A	0.4
4	☐	1.000		23363468.54		A	0.6
5	☐	1.000		23235977.43		A	1.0
6	☐	1.000		22702817.72		A	0.6
7	☐	1.000		22199012.17		A	0.9
8	☐	1.000		22083624.12		A	0.3
9	☐	1.000		21899677.59		A	1.1

159 Tb (ISTD) [He]

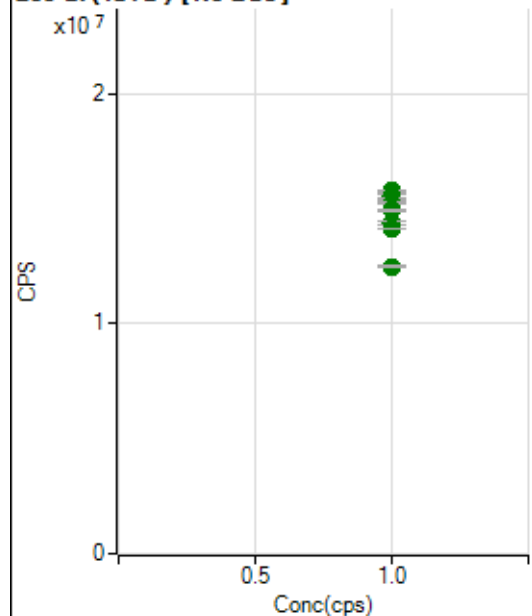
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11402588.72		A	0.6
2	☐	1.000					
3	☐	1.000		11449145.52		A	0.3
4	☐	1.000		11202628.86		A	0.1
5	☐	1.000		11065039.42		A	0.4
6	☐	1.000		10816076.02		A	0.4
7	☐	1.000		10616952.34		A	0.4
8	☐	1.000		10602289.56		A	0.7
9	☐	1.000		10728634.56		A	1.0

165 Ho (ISTD) [No Gas]

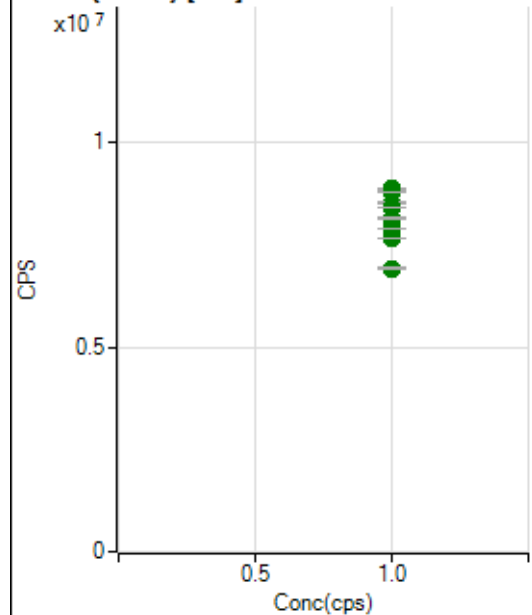
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		22508169.60		A	0.5
2	☐	1.000					
3	☐	1.000		23047079.16		A	0.7
4	☐	1.000		22934474.47		A	0.6
5	☐	1.000		22844967.01		A	0.7
6	☐	1.000		22453542.34		A	0.9
7	☐	1.000		21878302.40		A	0.6
8	☐	1.000		21916256.05		A	0.4
9	☐	1.000		21620782.95		A	1.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11537468.16		A	0.1
2	☐	1.000					
3	☐	1.000		11612838.72		A	0.0
4	☐	1.000		11351310.52		A	0.2
5	☐	1.000		11237153.86		A	0.2
6	☐	1.000		10950603.31		A	0.3
7	☐	1.000		10843015.88		A	0.5
8	☐	1.000		10778157.41		A	0.7
9	☐	1.000		10864248.94		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		15767142.54		A	0.6
2	☐	1.000					
3	☐	1.000		15536802.55		A	0.6
4	☐	1.000		15419257.41		A	0.1
5	☐	1.000		15247567.69		A	0.6
6	☐	1.000		14926073.11		A	0.3
7	☐	1.000		14380943.81		A	1.0
8	☐	1.000		14124952.01		A	0.4
9	☐	1.000		12493522.45		A	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8876881.46		A	0.4
2	☐	1.000					
3	☐	1.000		8801149.59		A	0.4
4	☐	1.000		8538388.62		A	0.1
5	☐	1.000		8427075.43		A	0.2
6	☐	1.000		8141198.56		A	0.6
7	☐	1.000		7916410.99		A	0.2
8	☐	1.000		7664971.42		A	0.4
9	☐	1.000		6937065.66		A	1.2

US EPA Tune Check Sample Report

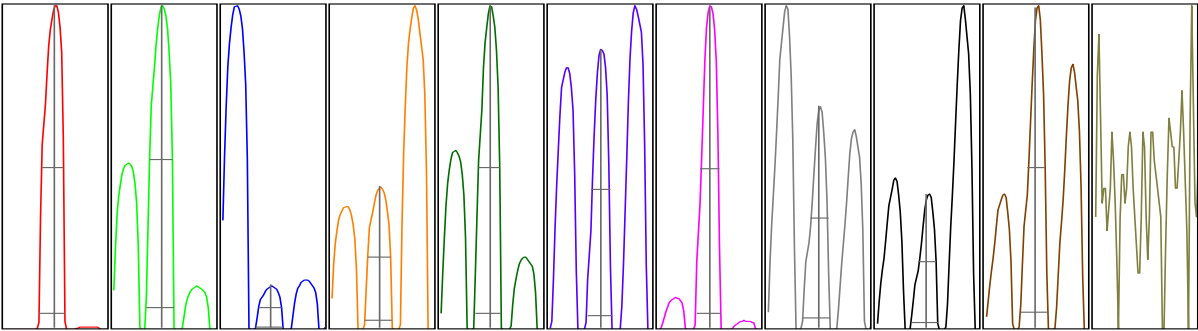
Batch Folder D:\ICP-MS Data\P7102618MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	23954	0.71	5.00	
24	186701	0.43	5.00	
25	24671	0.86	5.00	
26	28552	0.52	5.00	
59	163680	0.53	5.00	
113	19691	0.73	5.00	
115	233828	0.64	5.00	
206	60183	0.76	5.00	
207	54854	0.63	5.00	
208	129139	0.57	5.00	
220	0	55.00		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	23700	24118	24102	23946	23905
24	185977	187947	187060	186325	186196
25	24681	24911	24802	24605	24356
26	28511	28716	28651	28552	28330
59	163469	164485	164452	163615	162378
113	19581	19786	19871	19695	19522
115	233972	235755	234585	233030	231800
206	59804	60227	60873	60287	59722
207	54563	54965	55285	55013	54443
208	128271	129708	129941	129289	128485
220	0	1	1	1	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	40552	9.00	8.9 - 9.1		0.743	0.900	
24	300806	23.95	23.9 - 24.1		0.812	0.900	
25	40160	24.95	24.9 - 25.1		0.786	0.900	
26	46167	25.95	25.9 - 26.1		0.787	0.900	
59	283014	59.00	58.9 - 59.1		0.781	0.900	
113	38712	113.05	112.9 - 113.1		0.731	0.900	
115	455858	115.05	114.9 - 115.1		0.731	0.900	
206	121133	206.05	205.9 - 206.1		0.784	0.900	
207	107288	207.00	206.9 - 207.1		0.774	0.900	
208	257187	208.00	207.9 - 208.1		0.802	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.9	V	Deflect	14.2	V
Extract 2	-135.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-70	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	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	40528	0.56	
89	20596	0.30	
205	49083	0.31	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	40778	40700	40505	40457	40199
89	20663	20630	20617	20568	20503
205	49270	49167	49128	48915	48936

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	7.1	V	Deflect	2.0	V
Extract 2	-120.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	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			