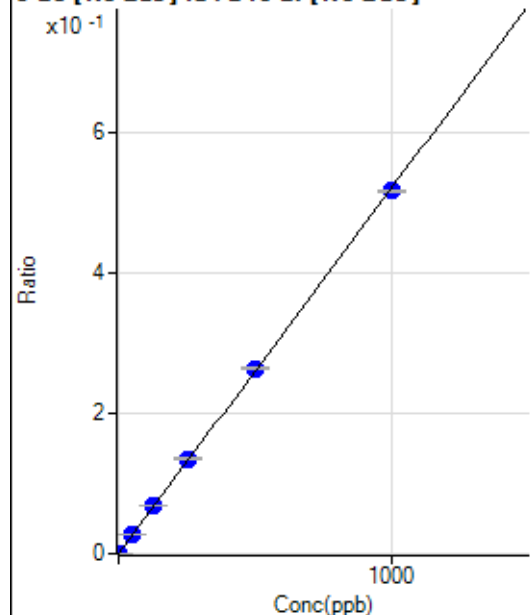


Batch Folder: D:\ICP-MS Data\P7081519-MS.b\
Analysis File: P7081519-MS.batch.bin
DA Date-Time: 2019-08-15 15:31:28
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-08-15 12:39:46
2	003CAL.S.d	S02	2019-08-15 12:43:22
3	004CAL.S.d	S03	2019-08-15 12:47:31
4	005CAL.S.d	S04	2019-08-15 12:51:28
5	006CAL.S.d	S05	2019-08-15 12:55:21
6	007CAL.S.d	S06	2019-08-15 12:59:10
7	008CAL.S.d	S07	2019-08-15 13:02:59
8	009CAL.S.d	S08	2019-08-15 13:06:45

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	62.22	0.0000	P	10.6
2	☐	1.000	1.079	1574.55	0.0006	P	7.7
3	☐	50.000	53.235	74300.52	0.0278	P	0.5
4	☐	125.000	132.525	183665.74	0.0692	P	0.7
5	☐	250.000	259.709	349048.56	0.1355	P	0.8
6	☐	500.000	507.383	673037.07	0.2647	P	0.7
7	☐	1000.000	992.779	1282422.33	0.5179	P	0.3
8	☐			368.90	0.0002	P	27.3

$$y = 5.2165\text{E-}004 * x + 2.4009\text{E-}005$$

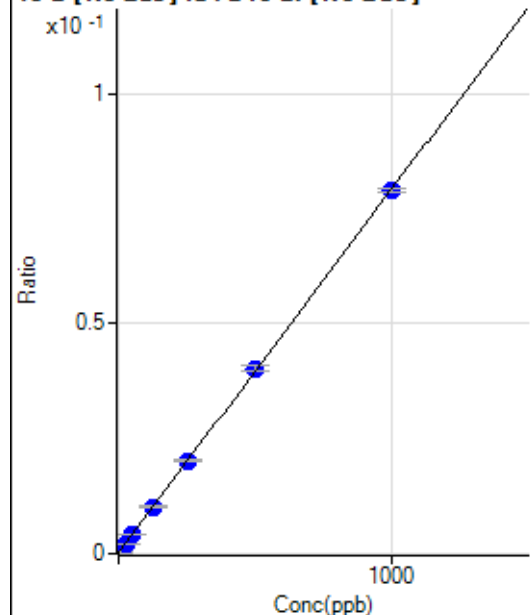
$$R = 0.9999$$

$$DL = 0.01465$$

$$BEC = 0.04603$$

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	508.36	0.0002	P	13.6
2	☐	25.000	24.320	5676.31	0.0021	P	5.8
3	☐	50.000	50.692	11226.84	0.0042	P	3.2
4	☐	125.000	126.855	27125.23	0.0102	P	3.2
5	☐	250.000	253.817	52143.49	0.0202	P	1.0
6	☐	500.000	506.299	102160.72	0.0402	P	3.1
7	☐	1000.000	995.647	195197.63	0.0788	P	1.0
8	☐			9953.70	0.0042	P	12.1

$$y = 7.8979\text{E-}005 * x + 1.9615\text{E-}004$$

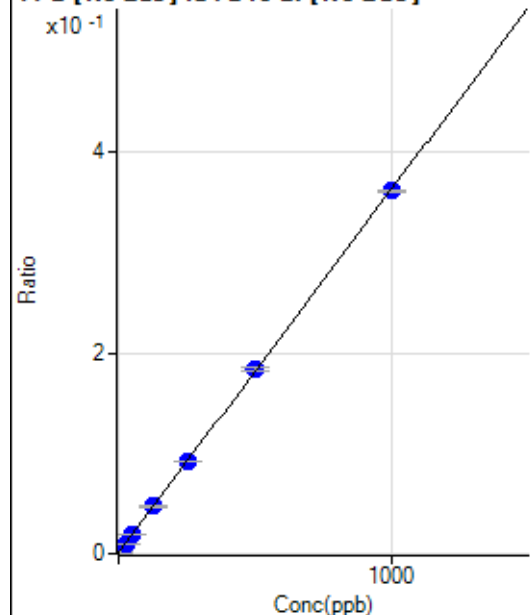
$$R = 1.0000$$

$$DL = 1.013$$

$$BEC = 2.484$$

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	2472.53	0.0010	P	3.5
2	☐	25.000	23.648	25541.84	0.0095	P	2.2
3	☐	50.000	50.752	51725.78	0.0193	P	1.5
4	☐	125.000	127.563	125319.82	0.0472	P	1.2
5	☐	250.000	251.581	237348.05	0.0921	P	0.1
6	☐	500.000	507.414	470020.92	0.1849	P	2.0
7	☐	1000.000	995.574	895858.77	0.3618	P	0.6
8	☐			44238.51	0.0185	P	7.3

$$y = 3.6245\text{E-}004 * x + 9.5440\text{E-}004$$

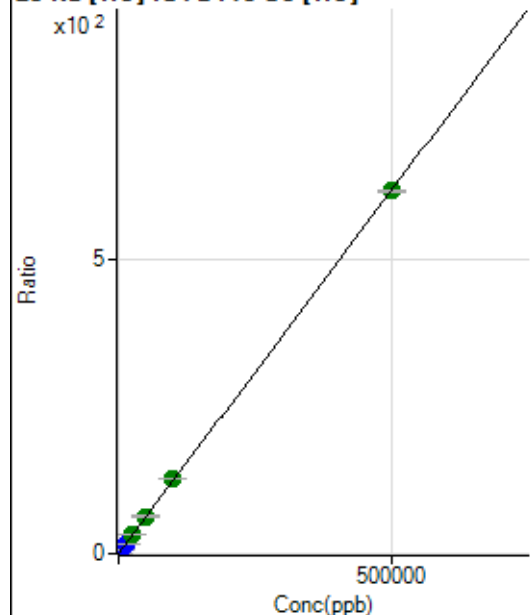
$$R = 1.0000$$

$$DL = 0.2747$$

$$BEC = 2.633$$

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	3903.45	0.0212	P	5.1
2	☐	500.000	484.046	116849.74	0.6178	P	0.8
3	☐	5000.000	5031.054	1126965.78	6.2224	P	0.5
4	☐	12500.000	12786.409	2720851.21	15.7816	P	0.6
5	☐	25000.000	25788.929	5221847.47	31.8084	A	0.7
6	☐	50000.000	51412.806	10345691.12	63.3921	A	0.7
7	☐	100000.00	102840.98	20359899.24	126.7820	A	0.4
8	☐	500000.00	499243.62	100336642.5	615.3843	A	0.3

$$y = 0.0012 * x + 0.0212$$

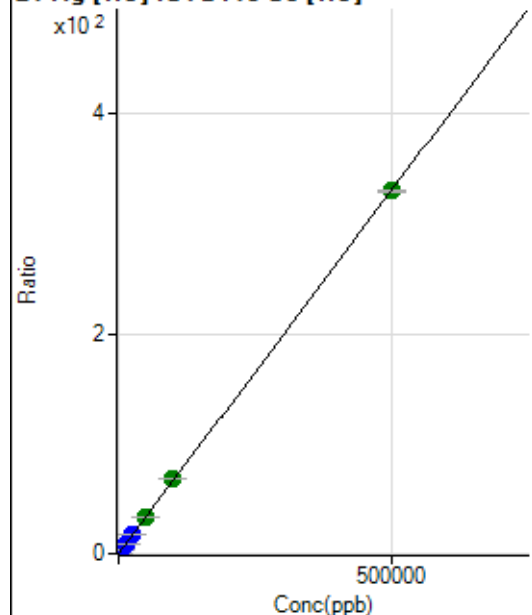
$$R = 1.0000$$

$$DL = 2.647$$

$$BEC = 17.18$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69.45	0.0004	P	49.7
2	☐	500.000	503.204	62891.21	0.3325	P	0.7
3	☐	5000.000	5078.299	607148.61	3.3523	P	0.3
4	☐	12500.000	12777.111	1454046.99	8.4338	P	0.3
5	☐	25000.000	25761.898	2791562.54	17.0044	P	0.5
6	☐	50000.000	51368.473	5533485.45	33.9059	A	0.9
7	☐	100000.00	102320.23	10845774.29	67.5363	A	0.4
8	☐	500000.00	499353.29	53739517.52	329.5961	A	0.4

$$y = 6.6005\text{E-}004 * x + 3.7654\text{E-}004$$

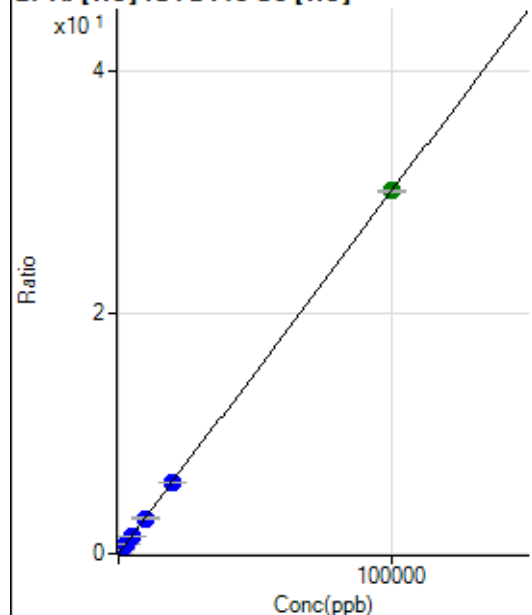
$$R = 1.0000$$

$$DL = 0.8509$$

$$BEC = 0.5705$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.78	0.0002	P	45.9
2	☐	20.000	19.522	1138.98	0.0060	P	1.8
3	☐	1000.000	985.104	53683.17	0.2964	P	1.0
4	☐	2500.000	2513.849	130365.68	0.7562	P	0.4
5	☐	5000.000	4974.740	245618.46	1.4963	P	1.7
6	☐	10000.000	9802.636	481150.97	2.9482	P	0.7
7	☐	20000.000	19534.997	943495.78	5.8751	P	0.7
8	☐	100000.00	100113.80	4909018.38	30.1083	A	0.7

$$y = 3.0074\text{E-}004 * x + 1.5077\text{E-}004$$

$$R = 1.0000$$

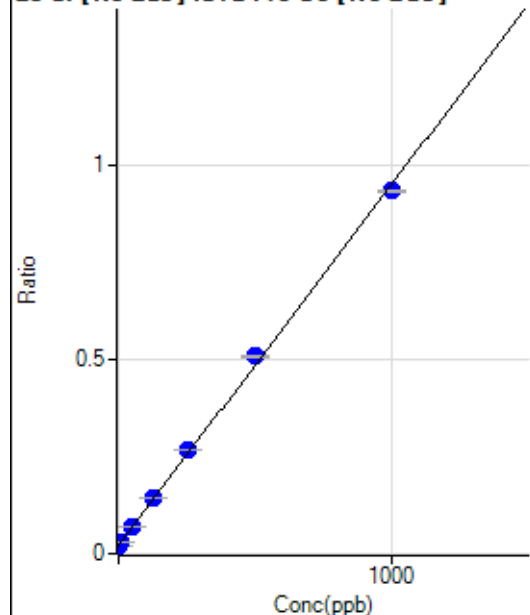
$$DL = 0.6901$$

$$BEC = 0.5013$$

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	98112.65	0.0221	P	1.2
2	☐	10.000	7.473	133047.75	0.0290	P	1.3
3	☐	50.000	51.218	316813.07	0.0697	P	0.8
4	☐	125.000	130.568	634214.49	0.1434	P	0.7
5	☐	250.000	264.055	1129342.05	0.2675	P	0.5
6	☐	500.000	525.102	2117678.63	0.5102	P	1.0
7	☐	1000.000	983.204	3816982.38	0.9361	P	0.8
8	☐			192158.48	0.0480	P	0.8

$$y = 9.2967E-004 * x + 0.0221$$

$$R = 0.9994$$

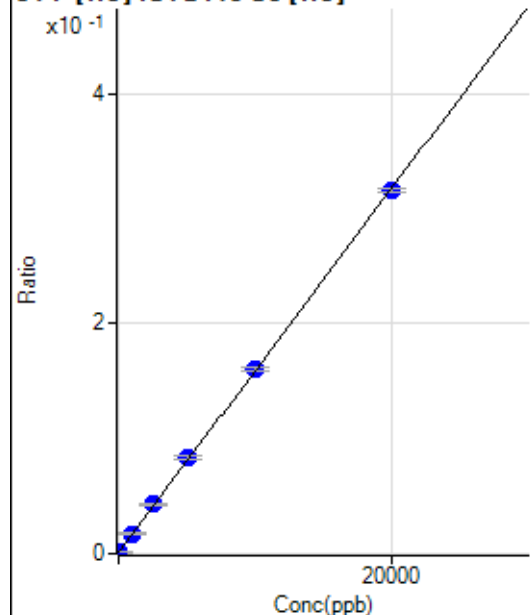
$$DL = 0.871$$

$$BEC = 23.72$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-25.179	80.56	0.0004	P	21.7
2	☐	0.000	25.179	233.34	0.0012	P	7.0
3	☐	1000.000	1051.877	3164.36	0.0175	P	5.6
4	☐	2500.000	2653.557	7379.91	0.0428	P	1.7
5	☐	5000.000	5209.731	13667.90	0.0832	P	3.1
6	☐	10000.000	10104.726	26221.21	0.1607	P	2.4
7	☐	20000.000	19873.416	50614.67	0.3152	P	0.9
8	☐			63.89	0.0004	P	61.7

$$y = 1.5817E-005 * x + 8.3539E-004$$

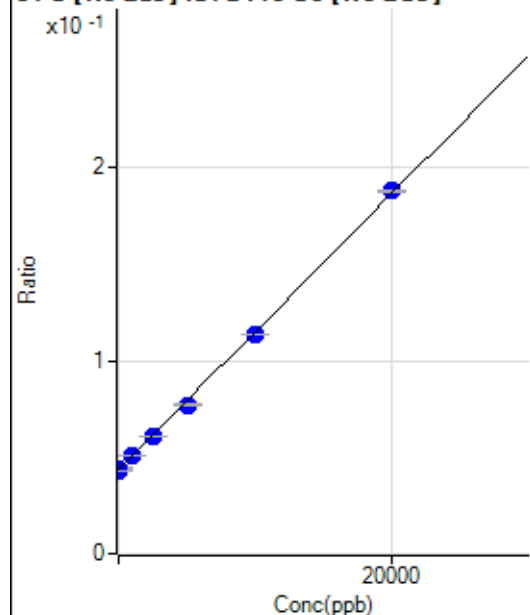
$$R = 0.9999$$

$$DL = 17.2$$

$$BEC = 52.82$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	82.955	195723.31	0.0440	P	1.6
2	☐	0.000	-82.955	196396.40	0.0428	P	0.7
3	☐	1000.000	1056.512	231747.23	0.0510	P	0.4
4	☐	2500.000	2408.641	268113.86	0.0606	P	0.9
5	☐	5000.000	4692.408	324948.02	0.0770	P	1.6
6	☐	10000.000	9793.197	470987.64	0.1135	P	0.7
7	☐	20000.000	20188.894	765993.41	0.1879	P	0.7
8	☐			152880.27	0.0382	P	0.8

$$y = 7.1551\text{E-}006 * x + 0.0434$$

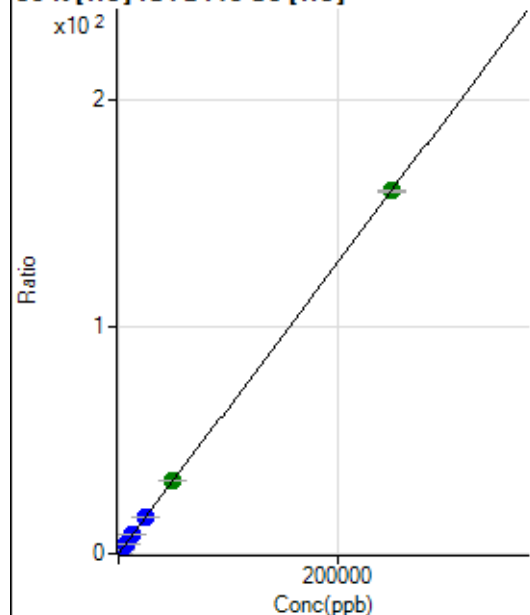
R = 0.9997

DL = 212.8

BEC = 6066

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10303.96	0.0559	P	1.2
2	☐	500.000	497.837	70802.78	0.3743	P	1.4
3	☐	2500.000	2575.185	308439.46	1.7030	P	1.1
4	☐	6250.000	6411.182	716625.38	4.1566	P	0.4
5	☐	12500.000	12800.856	1353301.19	8.2435	P	0.7
6	☐	25000.000	25116.702	2630963.84	16.1210	P	0.6
7	☐	50000.000	50011.700	5145994.99	32.0442	A	0.2
8	☐	250000.00	249966.17	26077392.25	159.9384	A	0.7

$$y = 6.3962\text{E-}004 * x + 0.0559$$

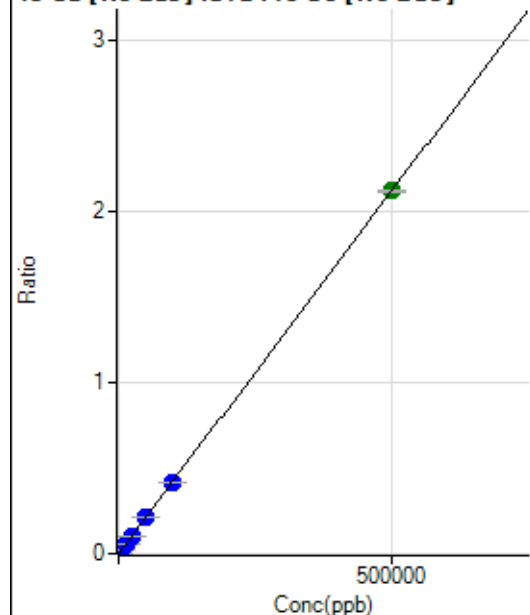
R = 1.0000

DL = 3.161

BEC = 87.4

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD:45 Sc [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	52.78	0.0000	P	32.9
2	☐	500.000	476.356	9294.95	0.0020	P	2.7
3	☐	5000.000	4976.625	95722.63	0.0211	P	0.7
4	☐	12500.000	12300.955	229984.36	0.0520	P	0.3
5	☐	25000.000	24926.406	444866.18	0.1054	P	1.0
6	☐	50000.000	49247.217	864165.96	0.2082	P	0.4
7	☐	100000.00	97736.771	1684830.83	0.4132	P	0.4
8	☐	500000.00	500536.83	8470594.11	2.1161	A	0.2

$$y = 4.2276\text{E-}006 * x + 1.1864\text{E-}005$$

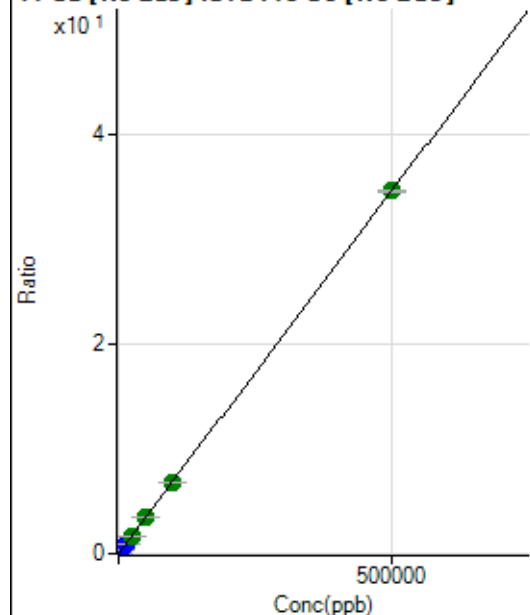
$$R = 1.0000$$

$$DL = 2.768$$

$$BEC = 2.806$$

Weight: <None>

Min Conc: 0

44 Ca [No Gas] ISTD:45 Sc [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6475.20	0.0015	P	6.1
2	☐	500.000	471.288	156046.47	0.0340	P	1.2
3	☐	5000.000	4878.342	1539140.39	0.3385	P	0.3
4	☐	12500.000	12212.917	3737031.90	0.8452	P	0.3
5	☐	25000.000	24751.615	7224399.12	1.7114	A	0.4
6	☐	50000.000	49275.200	14135172.89	3.4057	A	0.8
7	☐	100000.00	97620.406	27505862.07	6.7457	A	0.4
8	☐	500000.00	500569.24	138438722.5	34.5838	A	0.2

$$y = 6.9086\text{E-}005 * x + 0.0015$$

$$R = 1.0000$$

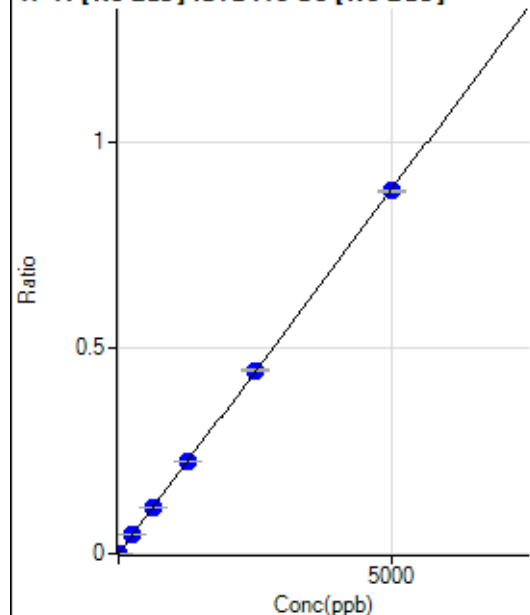
$$DL = 3.851$$

$$BEC = 21.07$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.45	0.0000	P	50.0
2	☐	5.000	5.314	4384.15	0.0010	P	4.8
3	☐	250.000	253.858	204343.97	0.0449	P	0.6
4	☐	625.000	638.675	499793.85	0.1130	P	0.3
5	☐	1250.000	1274.056	951783.04	0.2255	P	0.8
6	☐	2500.000	2521.420	1851983.63	0.4462	P	0.4
7	☐	5000.000	4981.373	3594406.89	0.8815	P	0.4
8	☐			1647.38	0.0004	P	2.8

$$y = 1.7696E-004 * x + 1.5614E-005$$

$$R = 1.0000$$

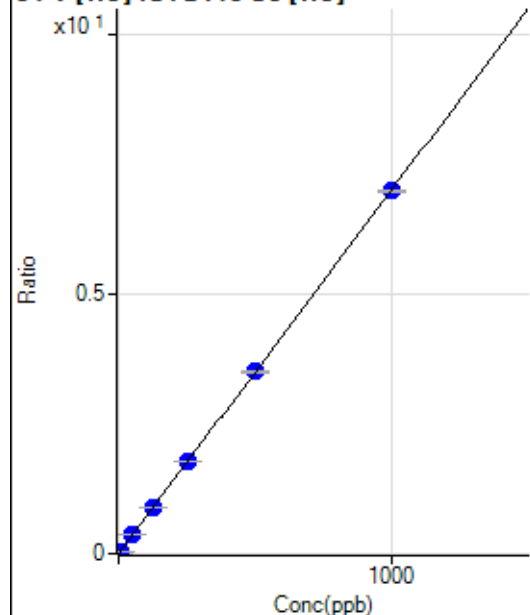
$$DL = 0.1324$$

$$BEC = 0.08824$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	5.238	6935.07	0.0367	P	1.4
3	☐	50.000	50.940	64574.17	0.3565	P	0.9
4	☐	125.000	128.196	154691.49	0.8973	P	1.2
5	☐	250.000	254.877	292869.02	1.7839	P	0.6
6	☐	500.000	500.422	571618.93	3.5025	P	0.5
7	☐	1000.000	998.122	1121865.32	6.9860	P	0.7
8	☐			286.67	0.0018	P	2.7

$$y = 0.0070 * x + 6.0244E-006$$

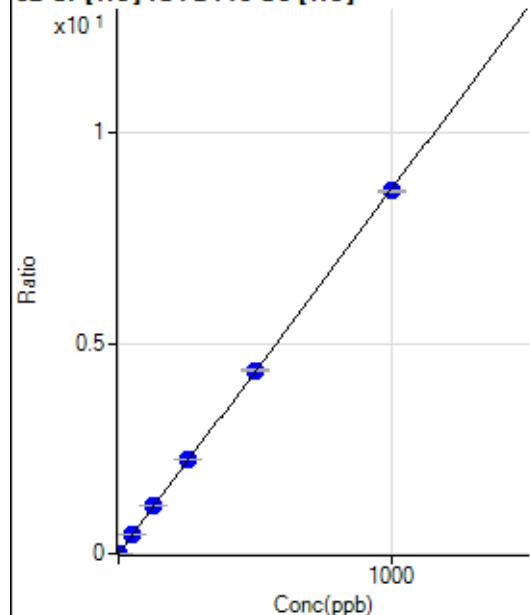
$$R = 1.0000$$

$$DL = 0.004473$$

$$BEC = 0.0008607$$

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	284.45	0.0015	P	8.9
2	☐	2.000	1.941	3470.46	0.0183	P	2.9
3	☐	50.000	51.772	81474.56	0.4499	P	0.5
4	☐	125.000	129.422	193479.76	1.1222	P	0.2
5	☐	250.000	257.605	366455.55	2.2322	P	0.7
6	☐	500.000	503.477	711776.65	4.3613	P	0.5
7	☐	1000.000	995.719	1384877.13	8.6238	P	0.5
8	☐			26626.46	0.1633	P	1.2

$$y = 0.0087 * x + 0.0015$$

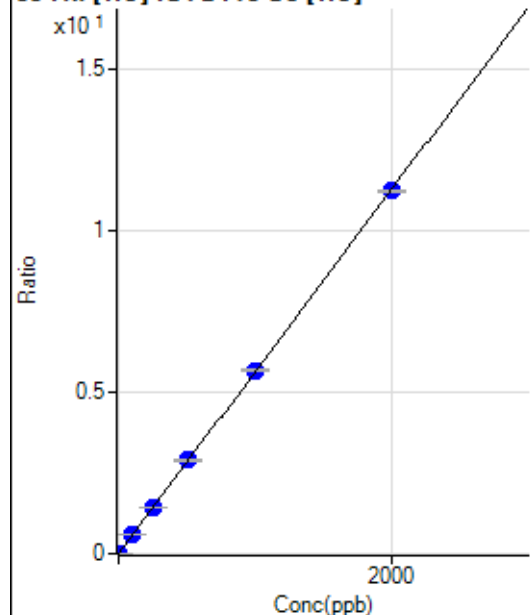
$$R = 1.0000$$

$$DL = 0.04755$$

$$BEC = 0.1782$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.67	0.0002	P	0.2
2	☐	1.000	1.043	1148.95	0.0061	P	5.6
3	☐	100.000	101.615	103736.90	0.5728	P	0.7
4	☐	250.000	257.183	249867.67	1.4493	P	0.3
5	☐	500.000	513.795	475278.78	2.8952	P	1.2
6	☐	1000.000	1005.633	924767.04	5.6665	P	0.8
7	☐	2000.000	1992.756	1803162.16	11.2284	P	0.5
8	☐			7169.63	0.0440	P	0.5

$$y = 0.0056 * x + 1.9894E-004$$

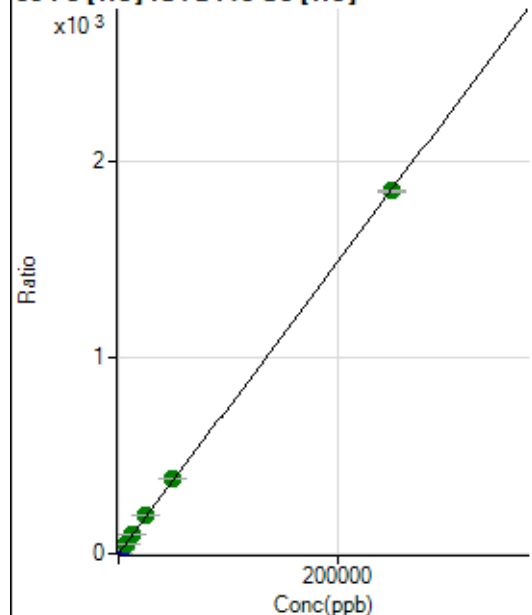
$$R = 1.0000$$

$$DL = 0.0002611$$

$$BEC = 0.03531$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2255.79	0.0122	P	3.3
2	☐	50.000	56.217	81026.65	0.4284	P	0.4
3	☐	2500.000	2662.575	3571939.03	19.7220	P	0.5
4	☐	6250.000	6653.333	8493329.53	49.2637	A	0.1
5	☐	12500.000	13384.959	16267594.35	99.0947	A	1.0
6	☐	25000.000	26168.566	31616297.70	193.7256	A	0.2
7	☐	50000.000	51907.733	61708634.71	384.2602	A	0.4
8	☐	250000.00	249445.63	301075610.4	1,846.538	A	0.2

$$y = 0.0074 * x + 0.0122$$

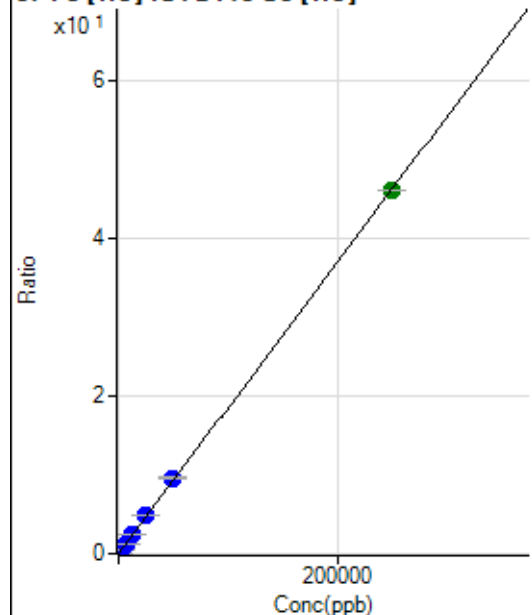
$$R = 1.0000$$

$$DL = 0.1651$$

$$BEC = 1.653$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	122.23	0.0007	P	27.4
2	☐	50.000	58.355	2163.19	0.0114	P	5.3
3	☐	2500.000	2694.056	90207.41	0.4981	P	1.1
4	☐	6250.000	6726.369	214230.27	1.2426	P	0.6
5	☐	12500.000	13462.684	408166.88	2.4863	P	0.8
6	☐	25000.000	26345.441	793959.08	4.8649	P	0.6
7	☐	50000.000	52133.737	1545879.07	9.6263	P	0.4
8	☐	250000.00	249376.72	7507385.07	46.0440	A	0.2

$$y = 1.8463E-004 * x + 6.6330E-004$$

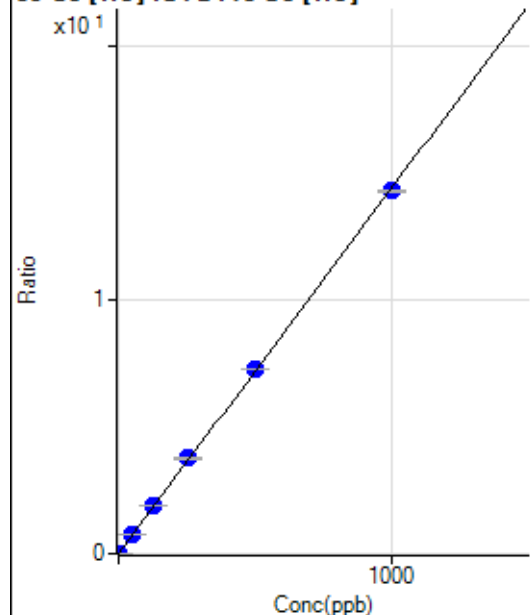
$$R = 1.0000$$

$$DL = 2.952$$

$$BEC = 3.593$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	43.33	0.0002	P	42.7
2	☐	1.000	1.034	2862.55	0.0151	P	3.2
3	☐	50.000	53.171	138818.11	0.7665	P	0.6
4	☐	125.000	131.435	326586.22	1.8943	P	0.1
5	☐	250.000	261.525	618727.05	3.7690	P	0.9
6	☐	500.000	506.286	1190739.85	7.2961	P	0.3
7	☐	1000.000	993.013	2298028.75	14.3102	P	0.7
8	☐			27297.86	0.1674	P	0.5

$$y = 0.0144 * x + 2.3502E-004$$

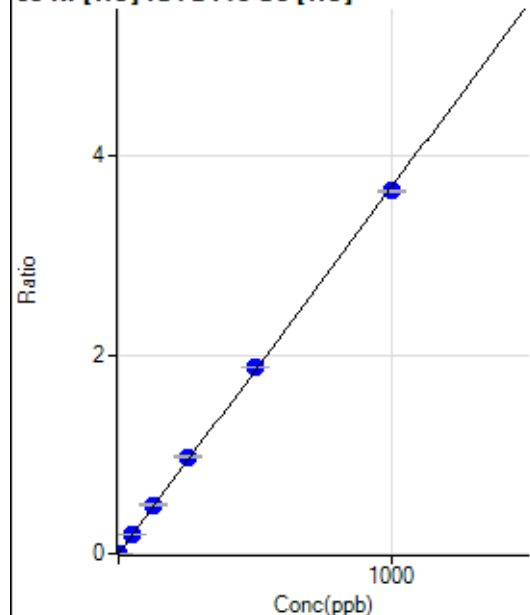
$$R = 0.9999$$

$$DL = 0.02089$$

$$BEC = 0.01631$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33.33	0.0002	P	34.8
2	☐	1.000	1.077	785.59	0.0042	P	10.3
3	☐	50.000	53.862	35989.89	0.1987	P	0.8
4	☐	125.000	133.692	84985.52	0.4929	P	0.8
5	☐	250.000	264.372	159997.20	0.9746	P	1.0
6	☐	500.000	510.032	306831.24	1.8801	P	0.4
7	☐	1000.000	990.111	586076.77	3.6496	P	0.8
8	☐			11913.89	0.0731	P	3.3

$$y = 0.0037 * x + 1.8094E-004$$

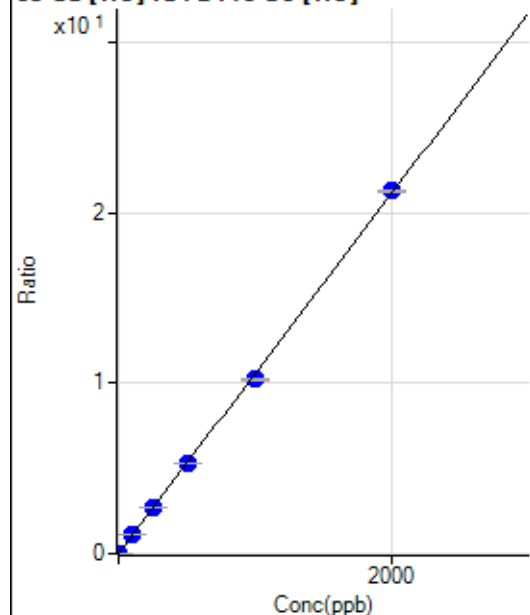
$$R = 0.9998$$

$$DL = 0.05126$$

$$BEC = 0.04909$$

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	514.46	0.0028	P	5.6
2	☐	2.000	1.971	4468.53	0.0236	P	1.2
3	☐	100.000	103.263	198192.68	1.0943	P	0.4
4	☐	250.000	255.464	466017.29	2.7031	P	0.3
5	☐	500.000	504.577	876022.04	5.3362	P	0.7
6	☐	1000.000	967.322	1669126.16	10.2274	P	0.3
7	☐	2000.000	2014.349	3419654.15	21.2945	P	0.5
8	☐			5485.56	0.0336	P	2.3

$$y = 0.0106 * x + 0.0028$$

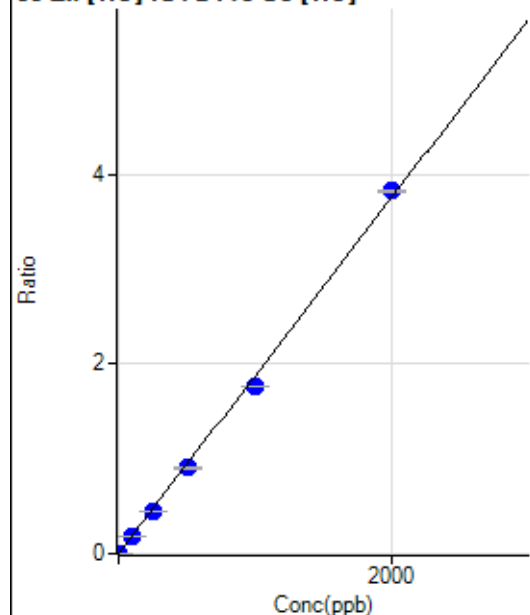
$$R = 0.9998$$

$$DL = 0.04464$$

$$BEC = 0.2641$$

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	185.56	0.0010	P	4.1
2	☐	2.000	1.972	890.05	0.0047	P	7.3
3	☐	100.000	96.754	33047.53	0.1825	P	0.3
4	☐	250.000	240.522	77943.40	0.4521	P	0.6
5	☐	500.000	481.227	148322.84	0.9035	P	1.5
6	☐	1000.000	936.123	286693.15	1.7567	P	0.2
7	☐	2000.000	2037.979	613953.43	3.8232	P	0.8
8	☐			9874.58	0.0606	P	0.7

$$y = 0.0019 * x + 0.0010$$

$$R = 0.9992$$

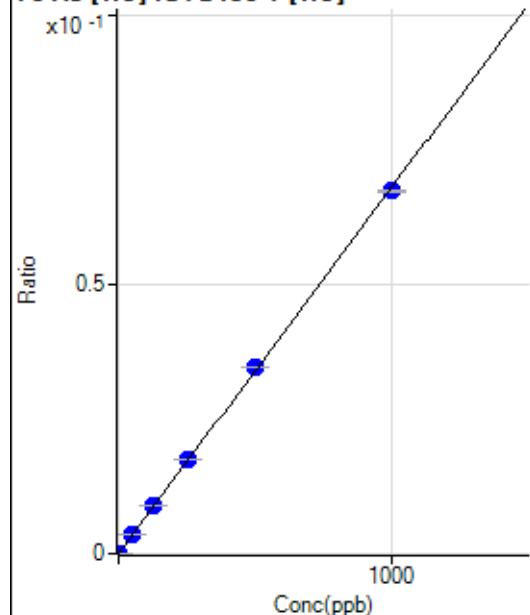
$$DL = 0.0664$$

$$BEC = 0.5368$$

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	11.73	0.0000	P	64.0
2	☐	1.000	1.016	205.56	0.0001	P	9.8
3	☐	50.000	53.462	9782.99	0.0036	P	2.1
4	☐	125.000	132.416	23360.80	0.0090	P	0.6
5	☐	250.000	258.995	44197.13	0.0176	P	0.6
6	☐	500.000	510.559	86332.48	0.0347	P	0.5
7	☐	1000.000	991.372	165335.90	0.0674	P	0.3
8	☐			235.81	0.0001	P	14.0

$$y = 6.8016\text{E-}005 * x + 4.2997\text{E-}006$$

$$R = 0.9999$$

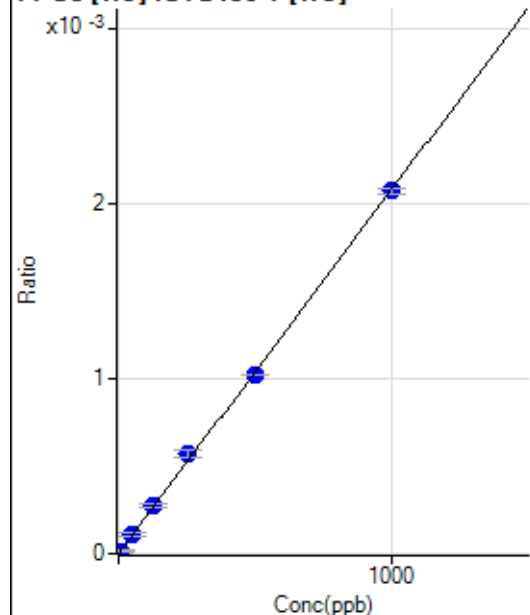
$$DL = 0.1213$$

$$BEC = 0.06322$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	7.266	43.34	0.0000	P	27.9
3	☐	50.000	52.481	294.45	0.0001	P	12.5
4	☐	125.000	130.421	704.47	0.0003	P	6.8
5	☐	250.000	274.323	1432.32	0.0006	P	6.5
6	☐	500.000	492.745	2549.16	0.0010	P	0.3
7	☐	1000.000	996.734	5085.42	0.0021	P	1.8
8	☐			1.11	0.0000	P	173.

$$y = 2.0803\text{E-}006 * x + 4.0472\text{E-}007$$

$$R = 0.9996$$

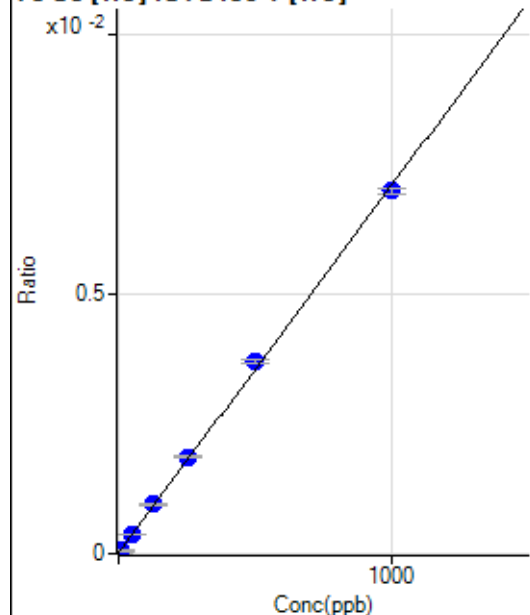
$$DL = 1.011$$

$$BEC = 0.1945$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.42	0.0000	P	37.7
2	☐	5.000	6.193	159.88	0.0001	P	7.3
3	☐	50.000	49.934	983.99	0.0004	P	2.5
4	☐	125.000	133.062	2471.84	0.0010	P	3.1
5	☐	250.000	262.209	4680.42	0.0019	P	2.3
6	☐	500.000	520.837	9180.75	0.0037	P	1.4
7	☐	1000.000	985.519	17105.22	0.0070	P	1.5
8	☐			34.57	0.0000	P	8.1

$$y = 7.0656\text{E-}006 * x + 1.3346\text{E-}005$$

$$R = 0.9996$$

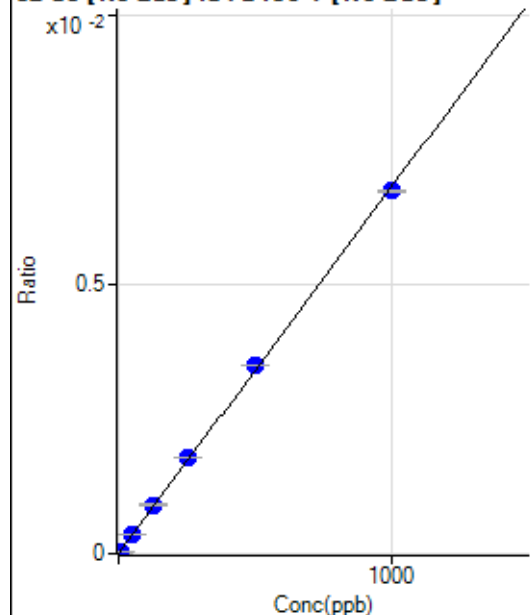
$$DL = 2.136$$

$$BEC = 1.889$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	93.95	0.0000	P	37.6
2	☐	5.000	5.543	803.53	0.0000	P	9.8
3	☐	50.000	53.368	6845.83	0.0004	P	1.8
4	☐	125.000	132.989	16626.49	0.0009	P	1.6
5	☐	250.000	262.519	31666.01	0.0018	P	0.2
6	☐	500.000	512.770	61503.73	0.0035	P	0.5
7	☐	1000.000	989.316	117545.97	0.0067	P	0.4
8	☐			181.32	0.0000	P	21.5

$$y = 6.8005\text{E-}006 * x + 5.0346\text{E-}006$$

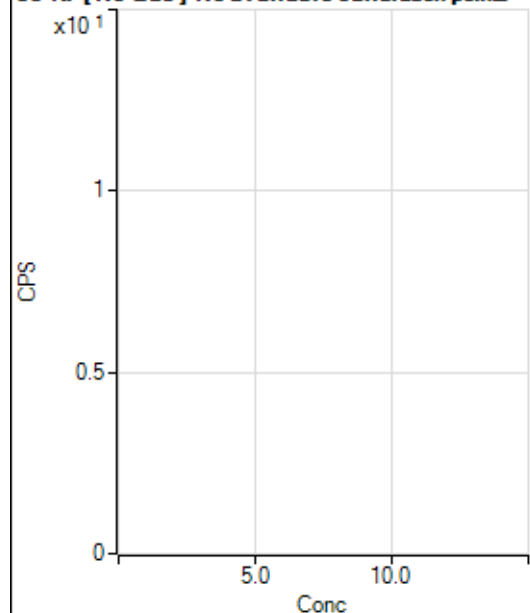
$$R = 0.9998$$

$$DL = 0.8346$$

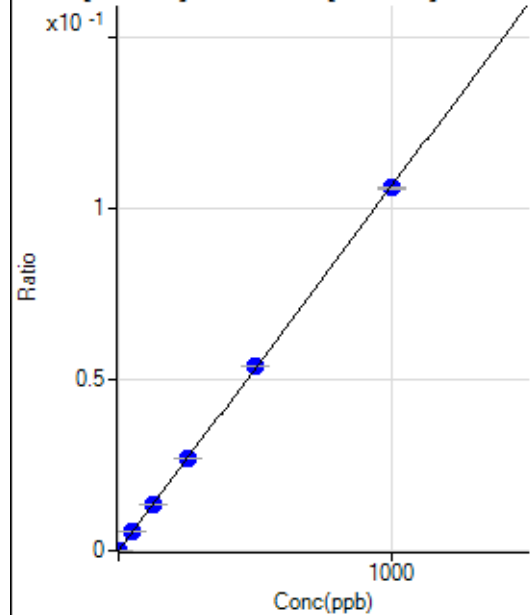
$$BEC = 0.7403$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			156.67		P	16.1
2	☐			183.34		P	9.4
3	☐			148.89		P	20.7
4	☐			191.12		P	23.8
5	☐			154.45		P	2.5
6	☐			142.23		P	15.3
7	☐			163.34		P	7.4
8	☐			146.67		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	269.46	0.0000	P	26.5
2	☐	1.000	1.003	2275.29	0.0001	P	3.0
3	☐	50.000	50.875	100917.70	0.0054	P	0.8
4	☐	125.000	127.286	247729.63	0.0136	P	1.3
5	☐	250.000	254.749	479402.53	0.0271	P	0.7
6	☐	500.000	505.902	947744.65	0.0538	P	0.4
7	☐	1000.000	995.532	1848500.63	0.1059	P	0.4
8	☐			8155.40	0.0005	P	3.5

$$y = 1.0634E-004 * x + 1.4436E-005$$

$$R = 1.0000$$

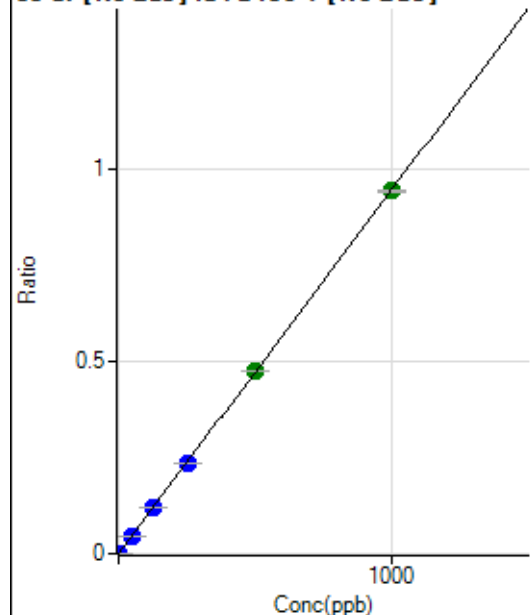
$$DL = 0.108$$

$$BEC = 0.1358$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69.45	0.0000	P	7.5
2	☐	1.000	0.982	17514.15	0.0009	P	1.8
3	☐	50.000	50.067	881048.21	0.0474	P	0.2
4	☐	125.000	124.858	2159168.97	0.1181	P	0.4
5	☐	250.000	249.873	4180074.14	0.2363	P	0.8
6	☐	500.000	504.272	8400009.39	0.4769	A	0.1
7	☐	1000.000	997.910	16477866.34	0.9438	A	0.4
8	☐			70730.36	0.0042	P	1.5

$$y = 9.4580\text{E-}004 * x + 3.7180\text{E-}006$$

$$R = 1.0000$$

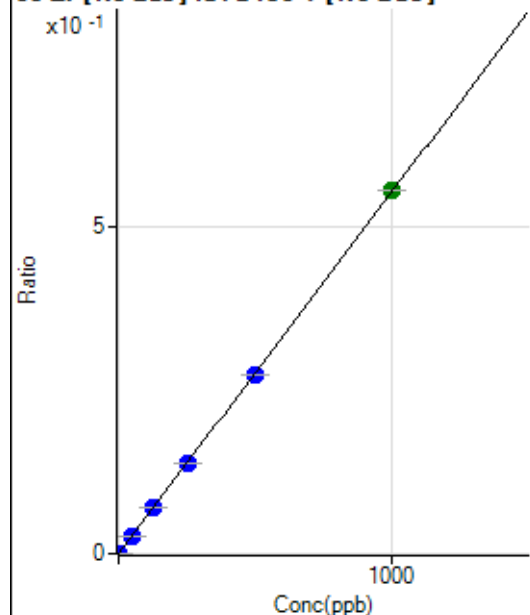
$$DL = 0.0008809$$

$$BEC = 0.003931$$

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	630.60	0.0000	P	9.2
2	☐	1.000	0.847	9450.74	0.0005	P	1.1
3	☐	50.000	49.588	511427.41	0.0275	P	0.7
4	☐	125.000	125.550	1271593.53	0.0695	P	0.4
5	☐	250.000	249.522	2444231.06	0.1382	P	0.4
6	☐	500.000	492.520	4803407.83	0.2727	P	0.0
7	☐	1000.000	1003.811	9703774.52	0.5558	A	0.1
8	☐			4117.42	0.0002	P	10.6

$$y = 5.5368\text{E-}004 * x + 3.3760\text{E-}005$$

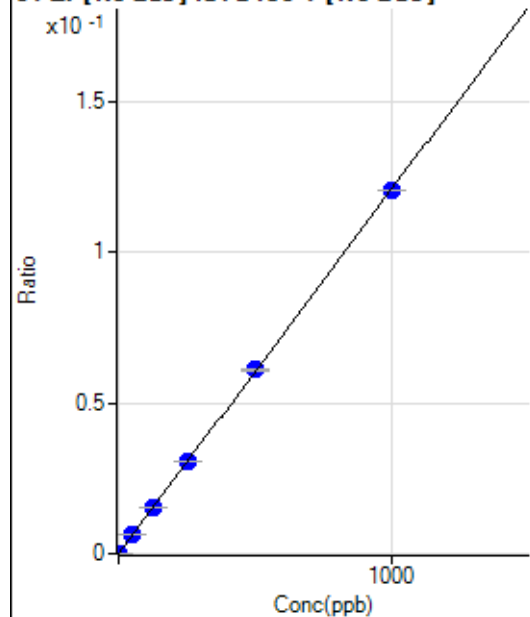
$$R = 1.0000$$

$$DL = 0.01679$$

$$BEC = 0.06097$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	105.56	0.0000	P	12.0
2	☐	1.000	0.860	2055.81	0.0001	P	7.2
3	☐	50.000	50.560	113605.94	0.0061	P	0.5
4	☐	125.000	128.125	282759.33	0.0155	P	0.9
5	☐	250.000	254.458	543176.96	0.0307	P	0.3
6	☐	500.000	505.162	1073646.78	0.0610	P	0.7
7	☐	1000.000	995.886	2098034.18	0.1202	P	0.1
8	☐			922.28	0.0001	P	12.5

$$y = 1.2066\text{E-}004 * x + 5.6499\text{E-}006$$

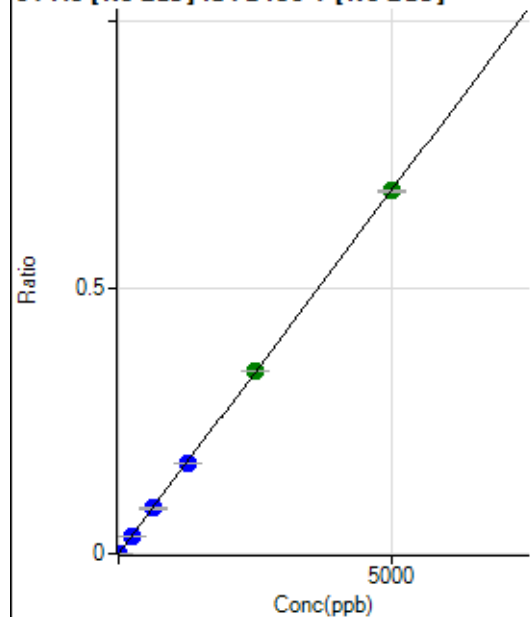
$$R = 1.0000$$

$$DL = 0.0169$$

$$BEC = 0.04682$$

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	294.47	0.0000	P	13.6
2	☐	5.000	4.536	11930.39	0.0006	P	2.7
3	☐	250.000	248.897	632563.17	0.0340	P	0.9
4	☐	625.000	622.930	1555375.21	0.0851	P	1.0
5	☐	1250.000	1247.294	3012655.32	0.1703	P	0.1
6	☐	2500.000	2514.728	6047767.54	0.3434	A	0.3
7	☐	5000.000	4993.627	11904323.70	0.6819	A	0.2
8	☐			9270.07	0.0005	P	7.5

$$y = 1.3654\text{E-}004 * x + 1.5756\text{E-}005$$

$$R = 1.0000$$

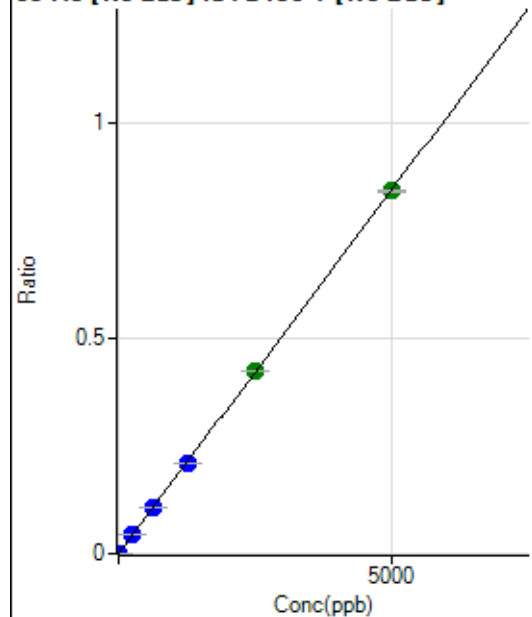
$$DL = 0.04715$$

$$BEC = 0.1154$$

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	91.67	0.0000	P	9.5
2	☐	5.000	4.750	15128.04	0.0008	P	0.2
3	☐	250.000	252.598	791784.65	0.0426	P	0.8
4	☐	625.000	628.317	1935351.28	0.1059	P	0.8
5	☐	1250.000	1253.193	3734301.90	0.2111	P	0.3
6	☐	2500.000	2516.604	7466974.56	0.4240	A	0.1
7	☐	5000.000	4990.355	14677568.73	0.8407	A	0.3
8	☐			13387.43	0.0008	P	4.9

$$y = 1.6847\text{E-}004 * x + 4.9077\text{E-}006$$

$$R = 1.0000$$

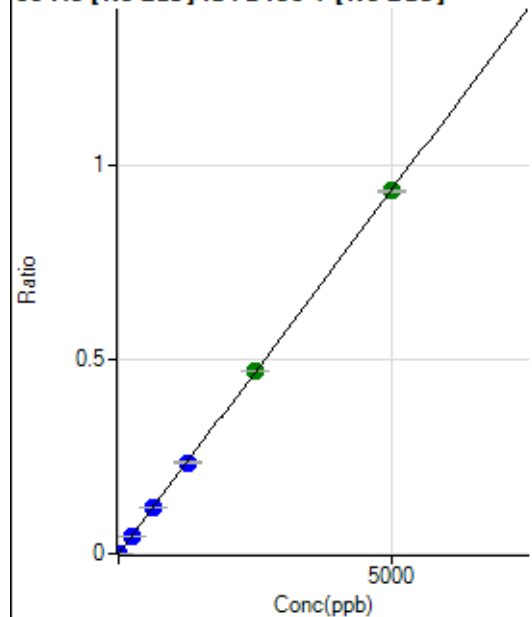
$$DL = 0.008311$$

$$BEC = 0.02913$$

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	163.90	0.0000	P	8.0
2	☐	5.000	4.750	16857.81	0.0009	P	1.2
3	☐	250.000	250.484	871588.42	0.0468	P	0.3
4	☐	625.000	627.227	2144586.64	0.1173	P	0.7
5	☐	1250.000	1255.557	4152881.86	0.2348	P	0.5
6	☐	2500.000	2515.676	8285284.65	0.4704	A	0.3
7	☐	5000.000	4990.471	16292488.04	0.9332	A	0.4
8	☐			19800.57	0.0012	P	1.4

$$y = 1.8700\text{E-}004 * x + 8.7735\text{E-}006$$

$$R = 1.0000$$

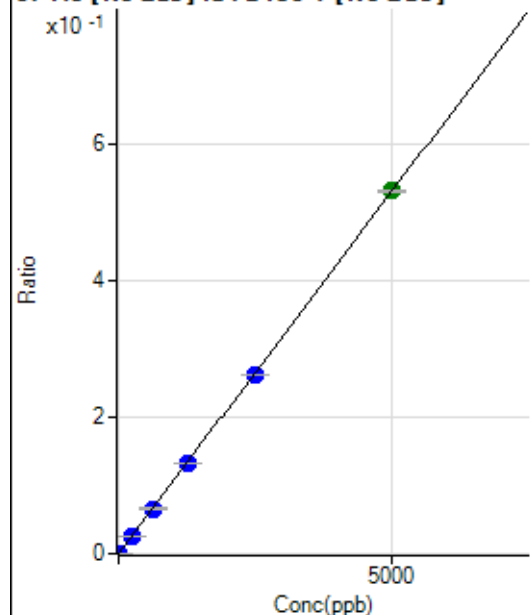
$$DL = 0.01121$$

$$BEC = 0.04692$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0000	P	16.1
2	☐	5.000	4.755	9545.28	0.0005	P	5.1
3	☐	250.000	249.686	492019.81	0.0264	P	0.3
4	☐	625.000	624.199	1208646.62	0.0661	P	0.9
5	☐	1250.000	1250.887	2343151.09	0.1325	P	0.5
6	☐	2500.000	2470.596	4608135.83	0.2616	P	0.1
7	☐	5000.000	5014.596	9271511.58	0.5311	A	0.3
8	☐			8085.97	0.0005	P	0.5

$$y = 1.0590\text{E-}004 * x + 4.1616\text{E-}006$$

$$R = 1.0000$$

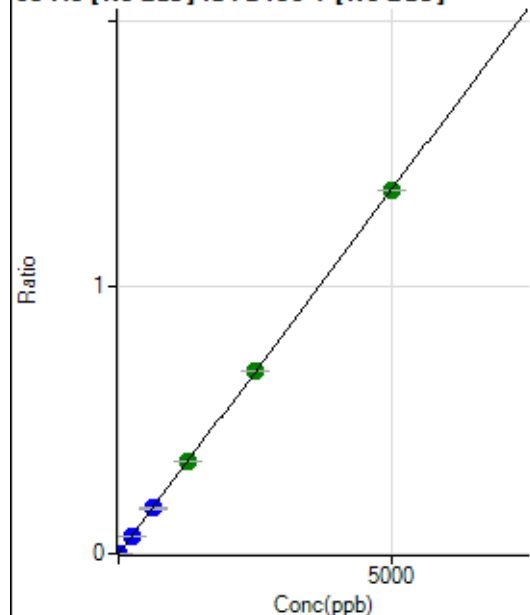
$$DL = 0.01895$$

$$BEC = 0.0393$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	191.68	0.0000	P	22.7
2	☐	5.000	4.730	24438.37	0.0013	P	1.3
3	☐	250.000	248.798	1262789.04	0.0679	P	0.7
4	☐	625.000	623.775	3111011.40	0.1702	P	1.0
5	☐	1250.000	1269.277	6124038.33	0.3462	A	0.1
6	☐	2500.000	2518.950	12101474.75	0.6871	A	0.3
7	☐	5000.000	4985.920	23743863.55	1.3600	A	0.1
8	☐			20576.81	0.0012	P	4.7

$$y = 2.7277\text{E-}004 * x + 1.0262\text{E-}005$$

$$R = 1.0000$$

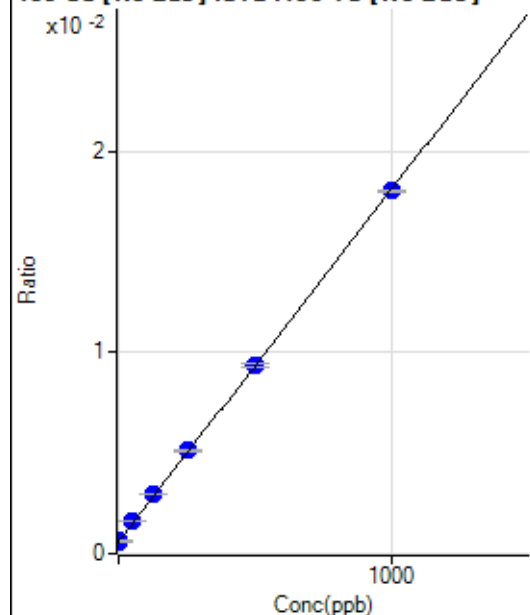
$$DL = 0.02566$$

$$BEC = 0.03762$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5887.59	0.0006	P	4.4
2	☐	1.000	1.486	6193.29	0.0006	P	5.3
3	☐	50.000	57.854	15984.60	0.0016	P	2.7
4	☐	125.000	135.449	29840.63	0.0030	P	0.9
5	☐	250.000	260.326	52060.42	0.0052	P	1.9
6	☐	500.000	499.687	95596.19	0.0093	P	1.7
7	☐	1000.000	995.876	186251.78	0.0180	P	0.4
8	☐			5845.90	0.0006	P	5.1

$$y = 1.7491\text{E-}005 * x + 5.9798\text{E-}004$$

$$R = 0.9999$$

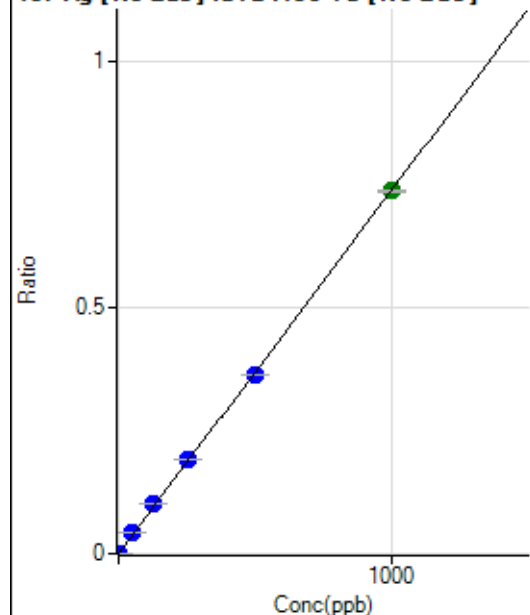
$$DL = 4.471$$

$$BEC = 34.19$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	161.12	0.0000	P	10.9
2	☐	1.000	1.172	8730.86	0.0009	P	3.3
3	☐	50.000	56.307	412381.44	0.0415	P	0.9
4	☐	125.000	136.392	1011539.84	0.1006	P	0.6
5	☐	250.000	260.327	1939985.55	0.1920	P	1.1
6	☐	500.000	493.650	3726322.31	0.3640	P	0.2
7	☐	1000.000	998.854	7613504.77	0.7365	A	0.3
8	☐			1864.10	0.0002	P	7.4

$$y = 7.3732\text{E-}004 * x + 1.6365\text{E-}005$$

$$R = 0.9999$$

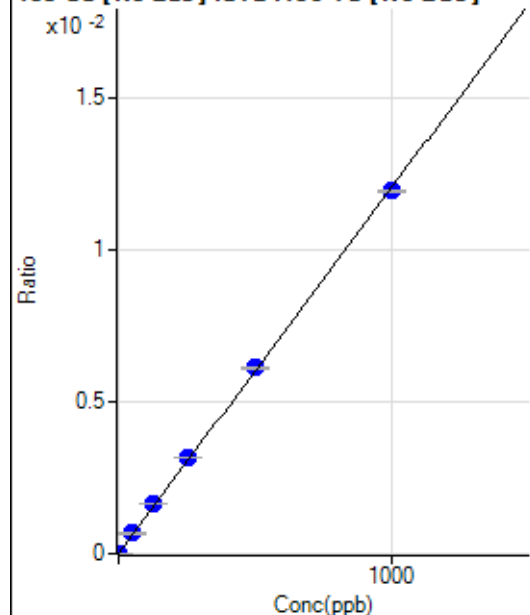
$$DL = 0.007275$$

$$BEC = 0.0222$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0000	P	39.2
2	☐	1.000	0.986	140.28	0.0000	P	19.8
3	☐	50.000	55.229	6616.95	0.0007	P	1.9
4	☐	125.000	136.846	16572.43	0.0016	P	1.2
5	☐	250.000	262.379	31909.76	0.0032	P	1.7
6	☐	500.000	507.221	62465.02	0.0061	P	0.1
7	☐	1000.000	991.552	123283.03	0.0119	P	0.7
8	☐			51.39	0.0000	P	52.0

$$y = 1.2025\text{E-}005 * x + 2.2581\text{E-}006$$

$$R = 0.9998$$

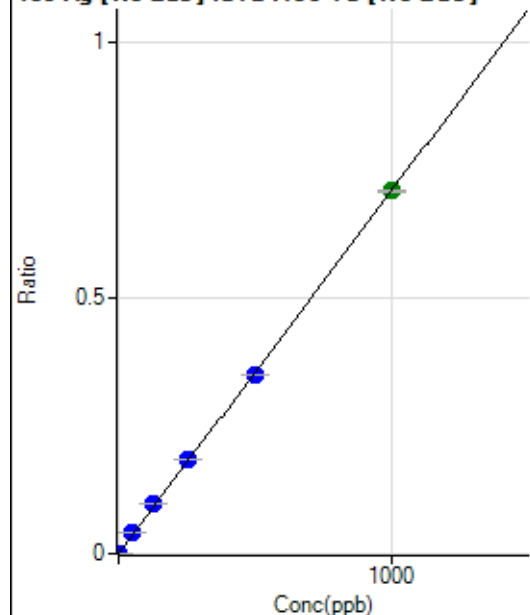
$$DL = 0.2208$$

$$BEC = 0.1878$$

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	50.00	0.0000	P	76.3
2	☐	1.000	1.139	8083.22	0.0008	P	0.3
3	☐	50.000	56.334	397540.57	0.0400	P	1.0
4	☐	125.000	135.731	970115.03	0.0965	P	0.2
5	☐	250.000	258.061	1853427.34	0.1834	P	0.2
6	☐	500.000	493.402	3589579.77	0.3506	P	0.5
7	☐	1000.000	999.625	7343655.98	0.7104	A	0.7
8	☐			1469.58	0.0001	P	20.7

$$y = 7.1065\text{E-}004 * x + 5.0801\text{E-}006$$

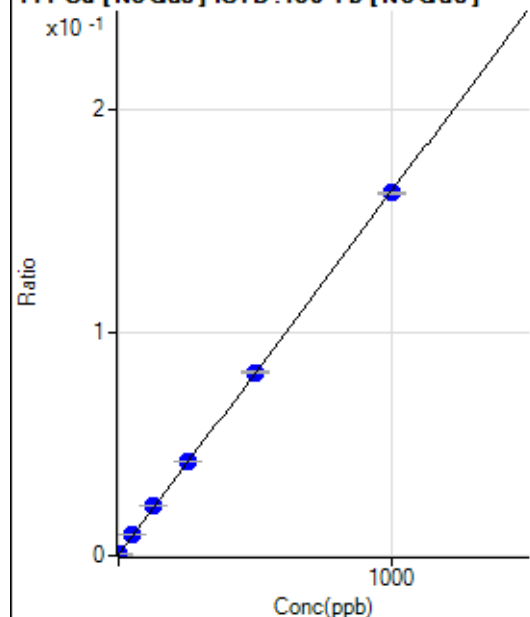
$$R = 0.9999$$

$$DL = 0.01637$$

$$BEC = 0.007149$$

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	4130.76	0.0004	P	4.3
2	☐	1.000	1.114	5963.64	0.0006	P	3.0
3	☐	50.000	54.979	93063.10	0.0094	P	0.6
4	☐	125.000	134.026	223726.34	0.0222	P	0.4
5	☐	250.000	258.261	429283.27	0.0425	P	0.8
6	☐	500.000	501.634	840586.17	0.0821	P	0.8
7	☐	1000.000	995.741	1680646.11	0.1626	P	0.3
8	☐			4438.11	0.0004	P	4.7

$$y = 1.6285\text{E-}004 * x + 4.1954\text{E-}004$$

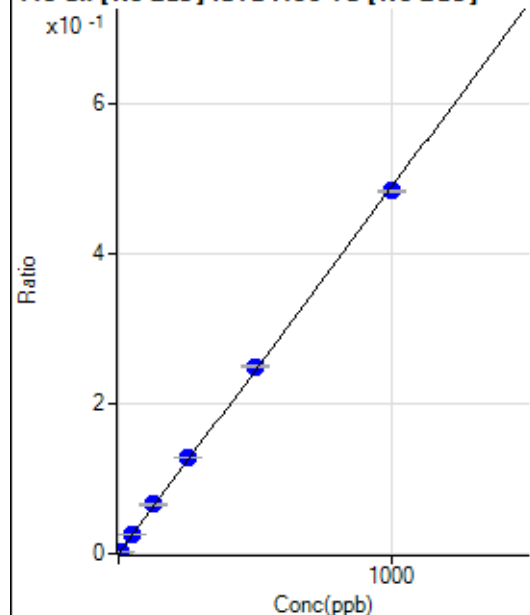
$$R = 0.9999$$

$$DL = 0.3287$$

$$BEC = 2.576$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD:159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	641.71	0.0001	P	11.8
2	☐	5.000	5.412	26918.26	0.0027	P	2.2
3	☐	50.000	54.527	265580.58	0.0267	P	0.5
4	☐	125.000	133.827	659260.32	0.0656	P	0.4
5	☐	250.000	261.357	1293168.83	0.1280	P	0.4
6	☐	500.000	511.361	2562347.43	0.2503	P	0.4
7	☐	1000.000	990.149	5009477.85	0.4846	P	0.3
8	☐			3445.01	0.0003	P	3.9

$$y = 4.8935\text{E-}004 * x + 6.5168\text{E-}005$$

$$R = 0.9998$$

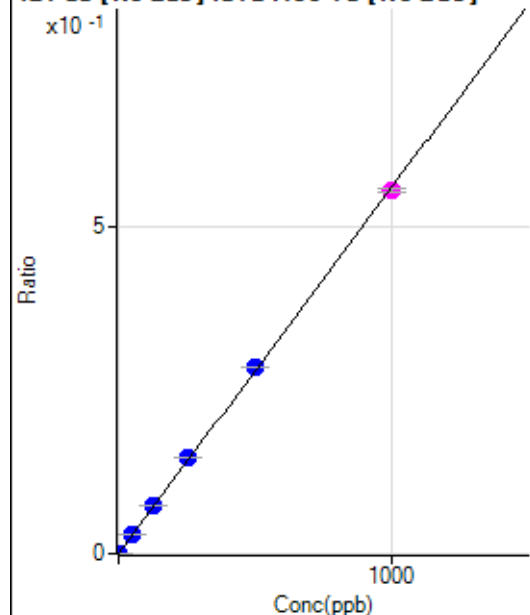
$$DL = 0.04723$$

$$BEC = 0.1332$$

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	213.90	0.0000	P	6.0
2	☐	2.000	2.069	11716.57	0.0012	P	1.7
3	☐	50.000	54.021	300661.33	0.0303	P	0.8
4	☐	125.000	132.983	749360.62	0.0745	P	0.9
5	☐	250.000	261.291	1479362.01	0.1464	P	0.4
6	☐	500.000	509.138	2919800.30	0.2852	P	0.3
7	☐	1000.000	991.409	5740968.44	0.5554	M	1.1
8	☐			9767.73	0.0010	P	0.3

$$y = 5.6015\text{E-}004 * x + 2.1724\text{E-}005$$

$$R = 0.9999$$

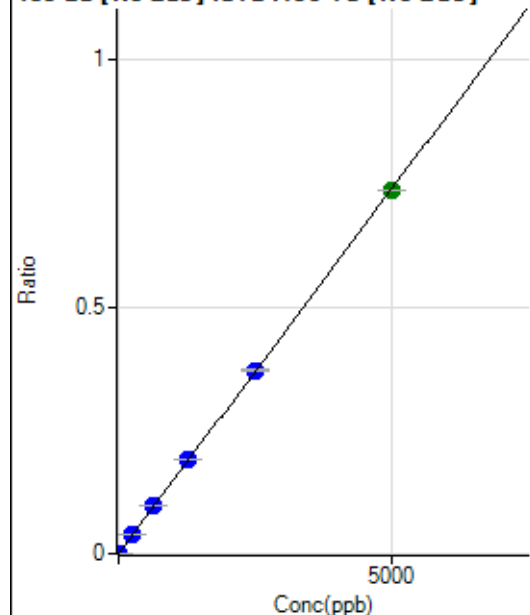
$$DL = 0.007$$

$$BEC = 0.03878$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.45	0.0000	P	24.6
2	☐	10.000	10.450	15336.80	0.0015	P	4.1
3	☐	250.000	264.905	388461.17	0.0391	P	0.5
4	☐	625.000	657.158	976047.67	0.0971	P	0.8
5	☐	1250.000	1286.453	1920031.94	0.1900	P	0.4
6	☐	2500.000	2515.318	3802776.26	0.3715	P	0.7
7	☐	5000.000	4978.462	7600457.20	0.7352	A	0.2
8	☐			2205.84	0.0002	P	16.7

$$y = 1.4768\text{E-}004 * x + 1.9747\text{E-}006$$

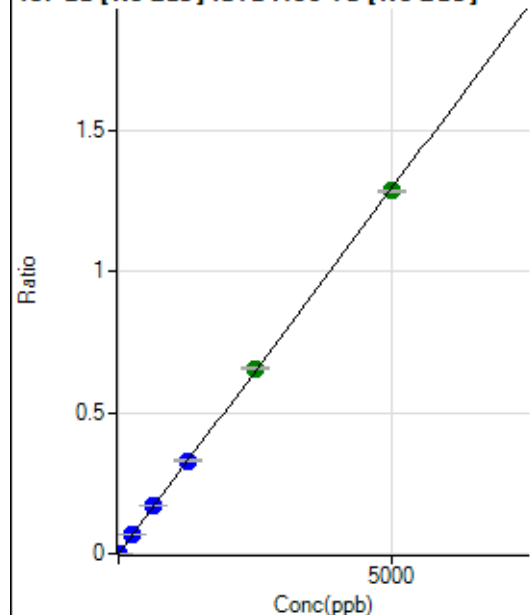
$$R = 1.0000$$

$$DL = 0.009874$$

$$BEC = 0.01337$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11.11	0.0000	P	86.6
2	☐	10.000	10.402	26745.96	0.0027	P	2.1
3	☐	250.000	263.732	678138.88	0.0683	P	0.7
4	☐	625.000	648.160	1688093.86	0.1679	P	0.2
5	☐	1250.000	1276.571	3340990.57	0.3306	P	0.3
6	☐	2500.000	2540.276	6734495.12	0.6578	A	0.6
7	☐	5000.000	4969.637	13304050.56	1.2870	A	0.3
8	☐			3433.93	0.0003	P	15.4

$$y = 2.5897E-004 * x + 1.1296E-006$$

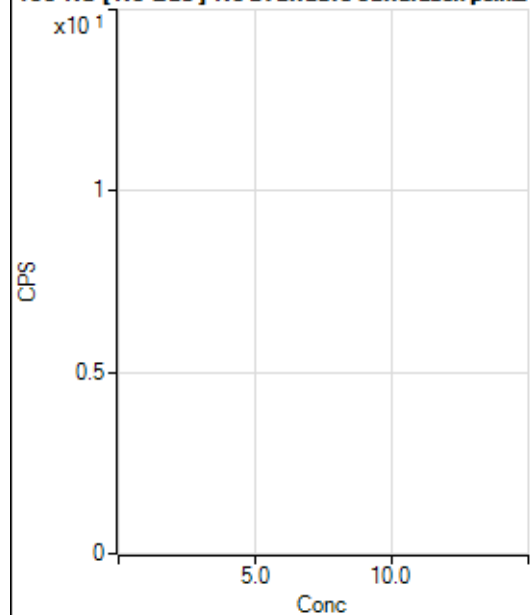
$$R = 0.9999$$

$$DL = 0.01133$$

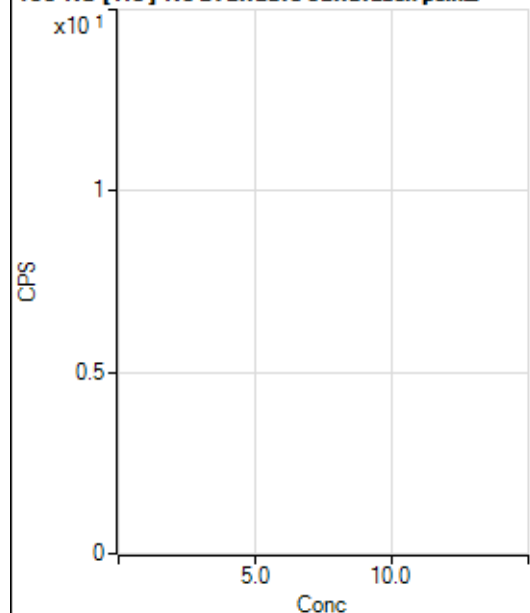
$$BEC = 0.004362$$

Weight: <None>

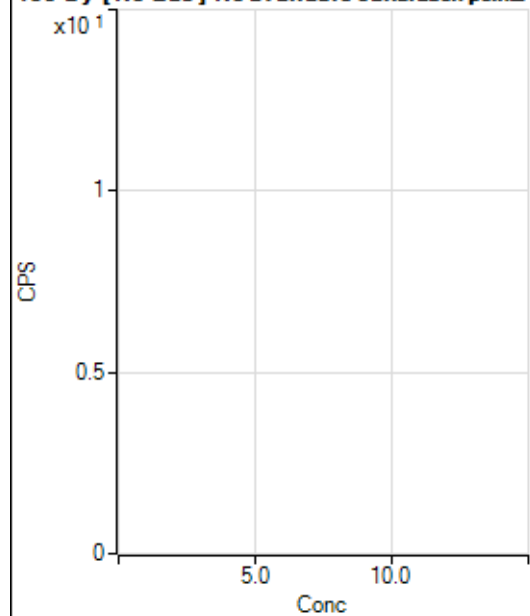
Min Conc: 0

150 Nd [No Gas] No available calibration points

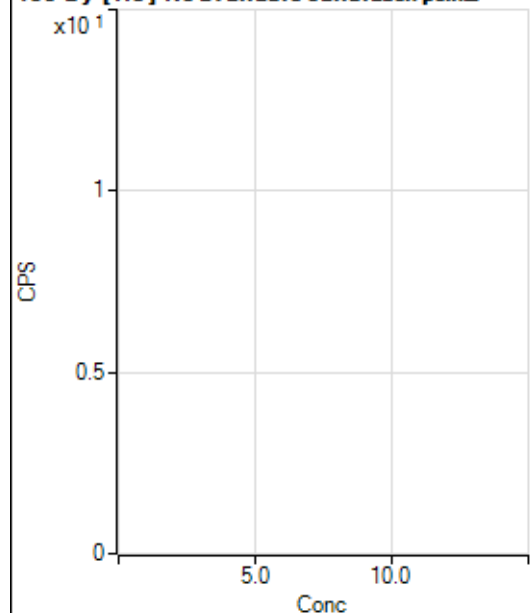
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			4.45		P	86.6
2	☐			8.89		P	43.3
3	☐			46.67		P	42.9
4	☐			93.34		P	21.4
5	☐			135.56		P	27.1
6	☐			395.57		P	4.2
7	☐			571.15		P	3.4
8	☐			111.12		P	24.3

150 Nd [He] No available calibration points

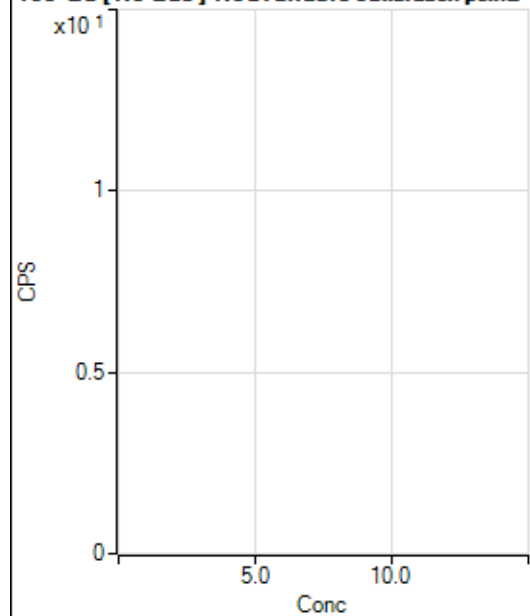
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	124.
2	☐			12.22		P	78.7
3	☐			14.44		P	118.
4	☐			6.67		P	100.
5	☐			23.33		P	37.8
6	☐			51.11		P	29.4
7	☐			60.00		P	24.2
8	☐			60.00		P	20.0

156 Dy [No Gas] No available calibration points

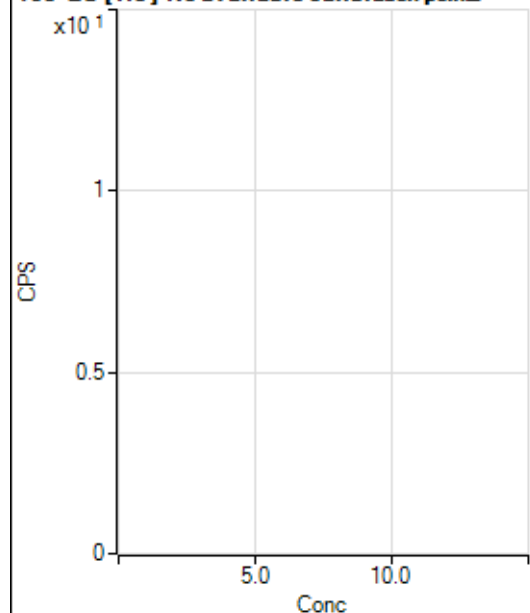
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	99.0
2	☐			19.45		P	24.7
3	☐			25.00		P	33.3
4	☐			52.78		P	18.2
5	☐			36.11		P	13.3
6	☐			69.45		P	18.3
7	☐			113.90		P	15.2
8	☐			88.89		P	32.9

156 Dy [He] No available calibration points

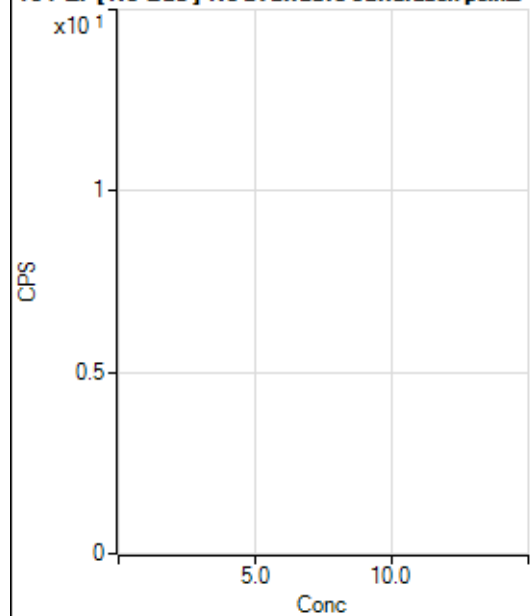
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	66.2
2	☐			14.44		P	53.3
3	☐			27.78		P	34.6
4	☐			37.78		P	45.3
5	☐			64.44		P	7.9
6	☐			103.34		P	27.6
7	☐			141.11		P	9.8
8	☐			38.89		P	38.7

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

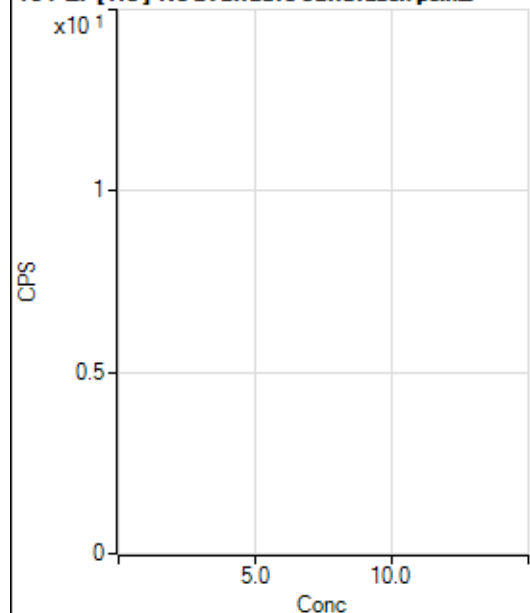
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.45		P	47.2
2	☐			38.89		P	49.5
3	☐			33.33		P	43.3
4	☐			77.78		P	22.3
5	☐			50.00		P	60.1
6	☐			66.67		P	25.0
7	☐			72.22		P	29.0
8	☐			72.23		P	13.3

160 Gd [He] No available calibration points

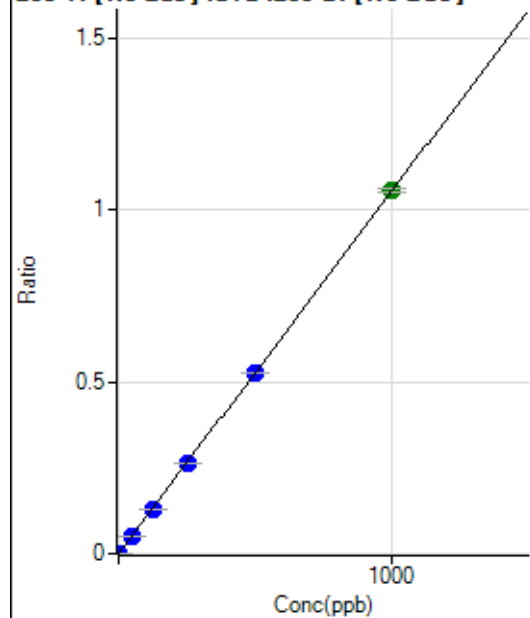
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			192.23		P	5.6
2	☐			204.45		P	27.3
3	☐			158.89		P	11.6
4	☐			181.11		P	2.8
5	☐			171.11		P	11.7
6	☐			197.79		P	6.8
7	☐			196.67		P	15.3
8	☐			171.12		P	19.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			66.67		P	25.0
2	☐			72.22		P	35.2
3	☐			50.00		P	44.1
4	☐			66.67		P	43.3
5	☐			61.11		P	28.4
6	☐			83.34		P	43.6
7	☐			77.78		P	76.0
8	☐			69.45		P	34.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	10.0
2	☐			51.11		P	32.2
3	☐			38.89		P	17.8
4	☐			51.11		P	16.4
5	☐			45.55		P	29.6
6	☐			56.67		P	10.2
7	☐			62.22		P	16.4
8	☐			55.56		P	15.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	486.14	0.0001	P	11.8
2	☐	1.000	0.947	6707.56	0.0011	P	2.5
3	☐	50.000	48.884	320920.21	0.0516	P	0.6
4	☐	125.000	123.611	822793.95	0.1304	P	0.9
5	☐	250.000	247.748	1671527.10	0.2613	P	0.6
6	☐	500.000	497.998	3360206.41	0.5252	P	0.6
7	☐	1000.000	1001.794	6756176.76	1.0565	A	0.9
8	☐			2600.38	0.0005	P	8.8

$$y = 0.0011 * x + 7.9768E-005$$

$$R = 1.0000$$

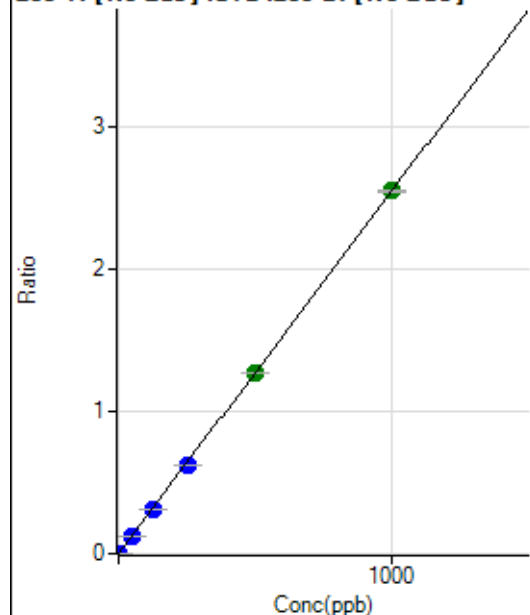
$$DL = 0.02668$$

$$BEC = 0.07564$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	625.05	0.0001	P	14.5
2	☐	1.000	0.928	15317.82	0.0025	P	2.7
3	☐	50.000	48.798	771994.07	0.1242	P	0.7
4	☐	125.000	122.624	1967852.26	0.3119	P	0.6
5	☐	250.000	245.422	3992602.04	0.6242	P	0.6
6	☐	500.000	499.887	8133481.09	1.2714	A	0.5
7	☐	1000.000	1001.558	16288710.61	2.5472	A	0.8
8	☐			5990.56	0.0011	P	12.8

$$y = 0.0025 * x + 1.0256E-004$$

$$R = 1.0000$$

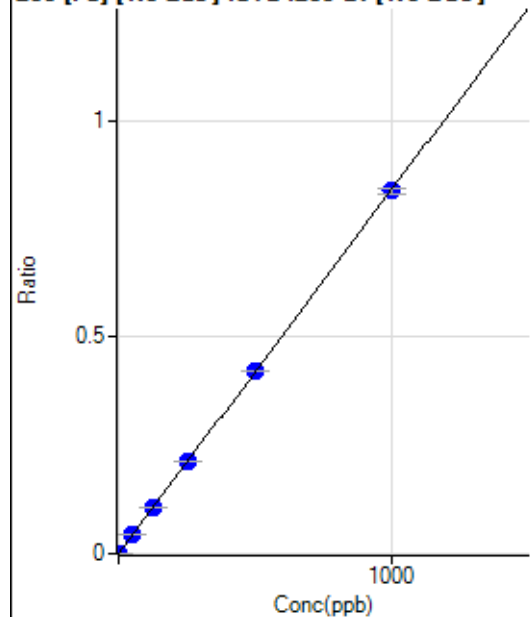
$$DL = 0.01749$$

$$BEC = 0.04033$$

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	661.14	0.0001	P	13.2
2	☐	1.000	0.950	5638.42	0.0009	P	1.8
3	☐	50.000	50.349	263609.34	0.0424	P	0.6
4	☐	125.000	125.491	665761.46	0.1055	P	1.1
5	☐	250.000	252.997	1360172.15	0.2127	P	1.0
6	☐	500.000	503.986	2709555.99	0.4235	P	0.2
7	☐	1000.000	997.179	5357766.15	0.8379	P	1.5
8	☐			5808.85	0.0010	P	0.5

$$y = 8.4017E-004 * x + 1.0849E-004$$

$$R = 1.0000$$

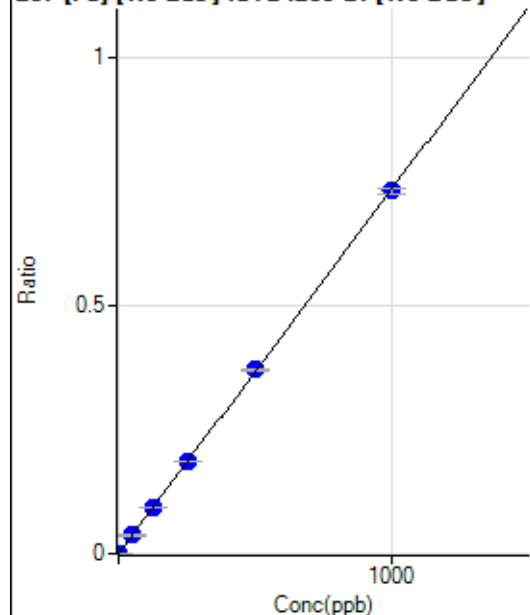
$$DL = 0.05108$$

$$BEC = 0.1291$$

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	653.74	0.0001	P	5.0
2	☐	1.000	0.955	5021.47	0.0008	P	2.9
3	☐	50.000	50.105	229027.89	0.0368	P	1.3
4	☐	125.000	125.999	583478.29	0.0925	P	0.7
5	☐	250.000	253.089	1187623.33	0.1857	P	0.5
6	☐	500.000	505.574	2372249.15	0.3708	P	0.6
7	☐	1000.000	996.311	4672029.91	0.7306	P	1.3
8	☐			4889.94	0.0009	P	8.5

$$y = 7.3324\text{E-}004 * x + 1.0733\text{E-}004$$

$$R = 1.0000$$

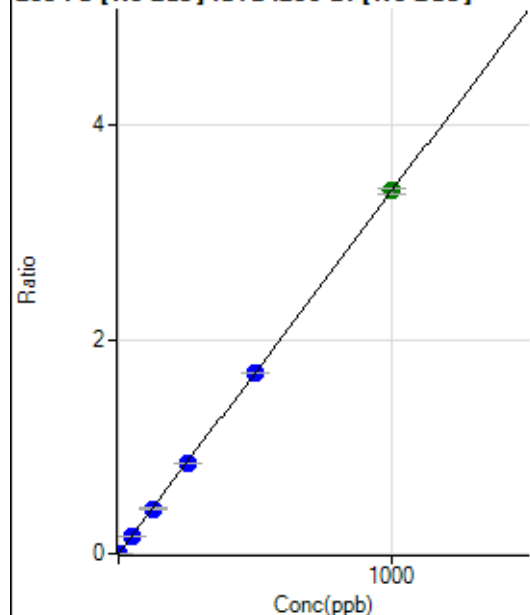
$$DL = 0.02207$$

$$BEC = 0.1464$$

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	2396.45	0.0004	P	5.2
2	☐	1.000	0.928	21963.14	0.0035	P	0.8
3	☐	50.000	49.479	1042551.62	0.1677	P	0.8
4	☐	125.000	124.178	2651659.43	0.4204	P	0.9
5	☐	250.000	249.047	5389582.73	0.8427	P	0.5
6	☐	500.000	497.995	10777011.18	1.6846	P	0.4
7	☐	1000.000	1001.370	21657721.44	3.3870	A	1.3
8	☐			22317.13	0.0040	P	3.3

$$y = 0.0034 * x + 3.9342\text{E-}004$$

$$R = 1.0000$$

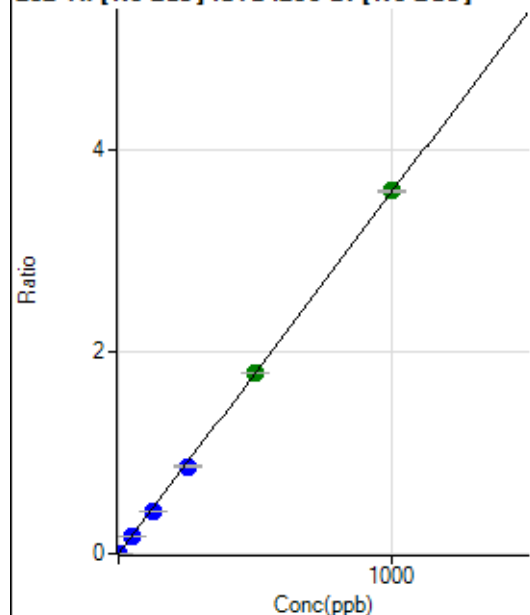
$$DL = 0.01808$$

$$BEC = 0.1163$$

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	2031.70	0.0003	P	3.9
2	☐	1.000	0.790	19652.34	0.0032	P	0.8
3	☐	50.000	46.083	1026479.90	0.1651	P	0.4
4	☐	125.000	117.606	2655261.40	0.4209	P	0.8
5	☐	250.000	240.812	5510004.81	0.8615	P	1.5
6	☐	500.000	498.546	11408339.72	1.7833	A	0.1
7	☐	1000.000	1004.144	22966630.14	3.5914	A	0.7
8	☐			8160.22	0.0015	P	9.4

$$y = 0.0036 * x + 3.3357E-004$$

$$R = 0.9999$$

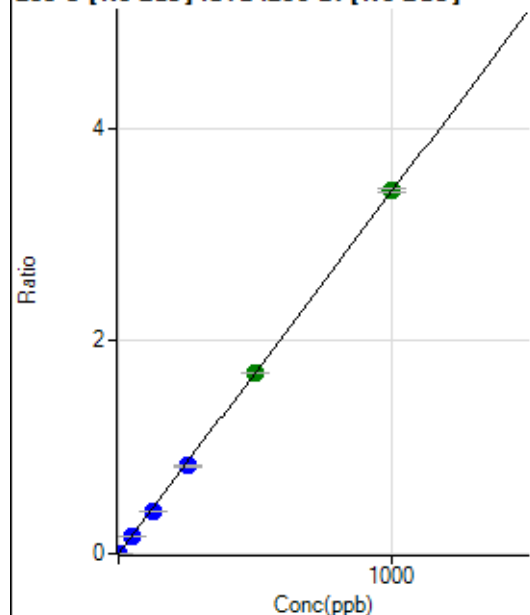
$$DL = 0.01087$$

$$BEC = 0.09327$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2294.76	0.0004	P	6.0
2	☐	1.000	0.859	20508.62	0.0033	P	3.8
3	☐	50.000	46.499	985008.32	0.1585	P	0.8
4	☐	125.000	118.573	2545597.69	0.4035	P	0.5
5	☐	250.000	242.152	5268298.21	0.8237	P	0.9
6	☐	500.000	500.524	10889644.25	1.7022	A	0.2
7	☐	1000.000	1002.679	21802927.22	3.4096	A	1.0
8	☐			6129.52	0.0011	P	8.0

$$y = 0.0034 * x + 3.7662E-004$$

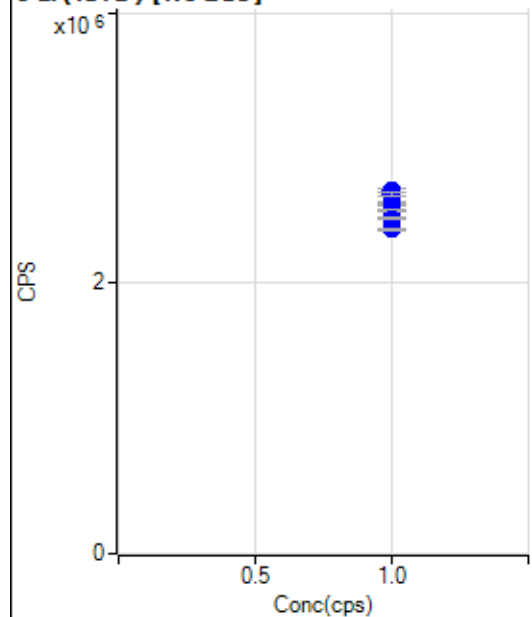
$$R = 1.0000$$

$$DL = 0.02007$$

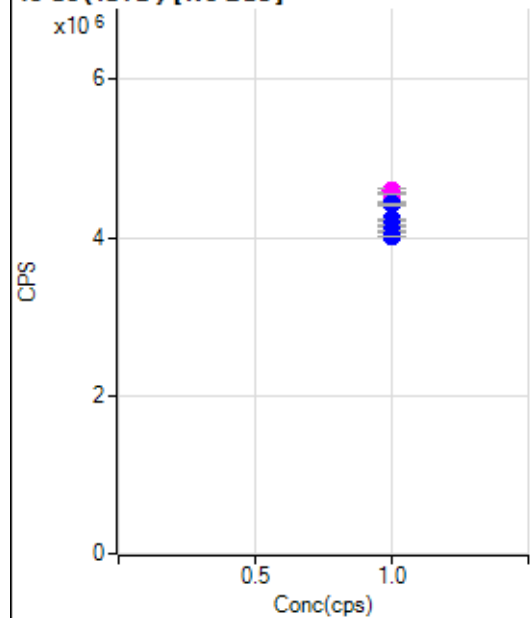
$$BEC = 0.1108$$

Weight: <None>

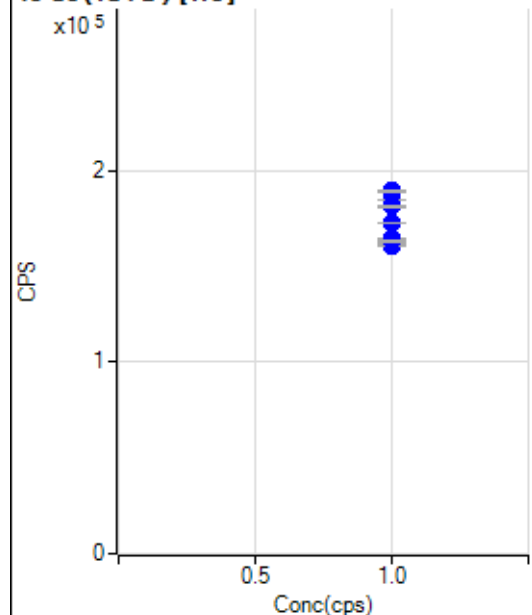
Min Conc: 0

6 Li (ISTD) [No Gas]

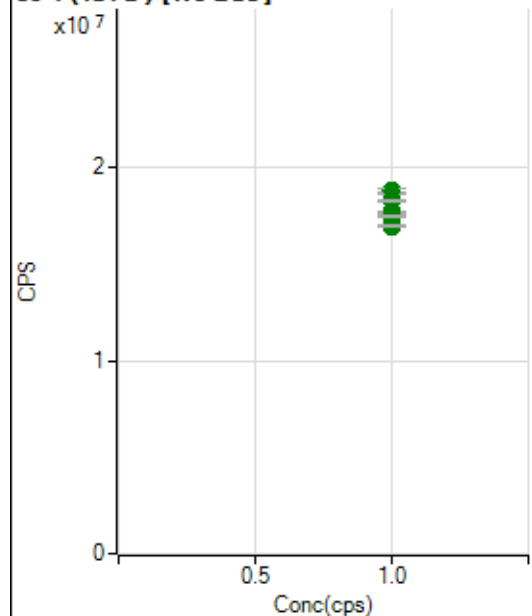
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2590662.48		P	0.7
2	☐	1.000		2681001.80		P	1.0
3	☐	1.000		2673262.47		P	0.2
4	☐	1.000		2655860.93		P	0.8
5	☐	1.000		2575966.85		P	0.0
6	☐	1.000		2542685.68		P	0.6
7	☐	1.000		2476143.24		P	0.3
8	☐	1.000		2397008.57		P	0.2

45 Sc (ISTD) [No Gas]

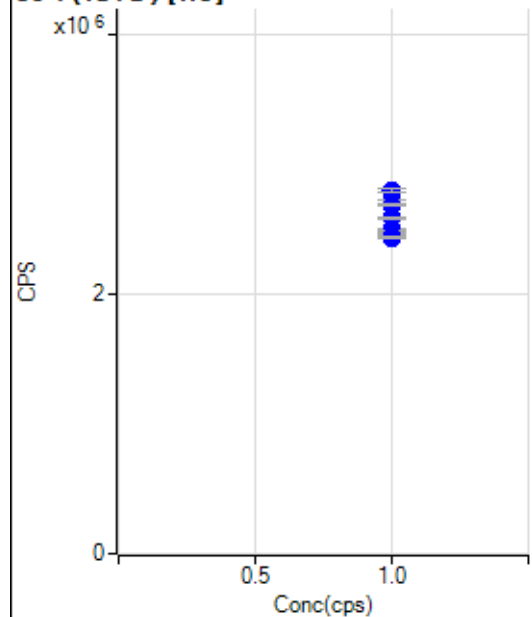
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4448282.74		P	0.2
2	☐	1.000		4587669.03		M	1.1
3	☐	1.000		4547203.01		M	0.0
4	☐	1.000		4421537.16		P	0.7
5	☐	1.000		4221255.74		P	0.5
6	☐	1.000		4150530.17		P	0.3
7	☐	1.000		4077533.16		P	0.3
8	☐	1.000		4002991.11		P	0.0

45 Sc (ISTD) [He]

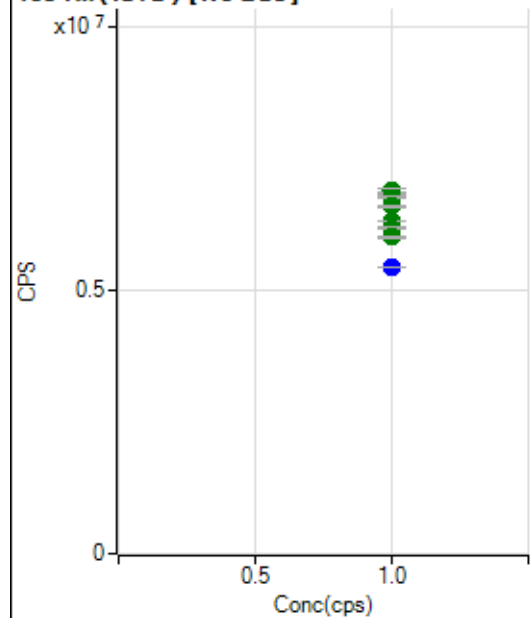
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		184323.09		P	0.2
2	☐	1.000		189141.79		P	0.5
3	☐	1.000		181117.64		P	0.6
4	☐	1.000		172405.23		P	0.4
5	☐	1.000		164172.26		P	0.9
6	☐	1.000		163201.98		P	0.2
7	☐	1.000		160591.44		P	0.6
8	☐	1.000		163048.89		P	0.6

89 Y (ISTD) [No Gas]

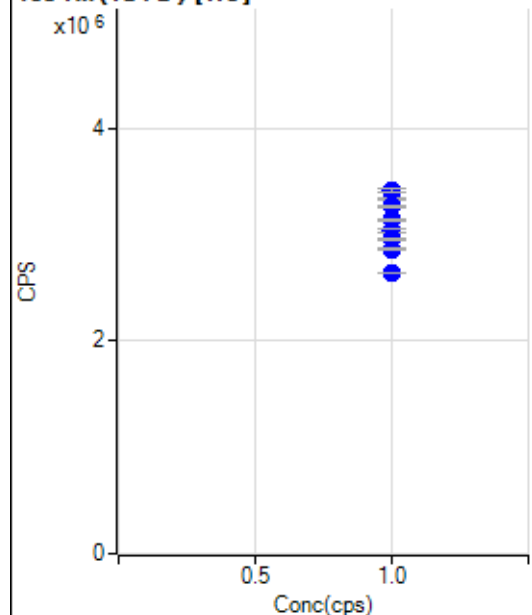
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18683555.69		A	0.5
2	☐	1.000		18790701.25		A	1.5
3	☐	1.000		18604542.64		A	0.3
4	☐	1.000		18283809.03		A	0.8
5	☐	1.000		17687573.35		A	0.4
6	☐	1.000		17612174.46		A	0.1
7	☐	1.000		17458434.74		A	0.5
8	☐	1.000		16973642.66		A	0.3

89 Y(ISTD) [He]

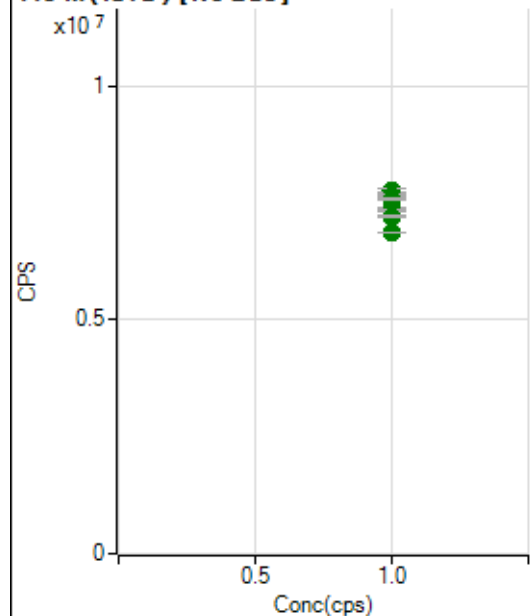
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2730046.04		P	0.4
2	☐	1.000		2798225.69		P	1.1
3	☐	1.000		2687457.15		P	0.7
4	☐	1.000		2592607.90		P	0.4
5	☐	1.000		2508318.76		P	0.4
6	☐	1.000		2485827.55		P	0.4
7	☐	1.000		2451886.56		P	0.6
8	☐	1.000		2436122.95		P	0.4

103 Rh(ISTD) [No Gas]

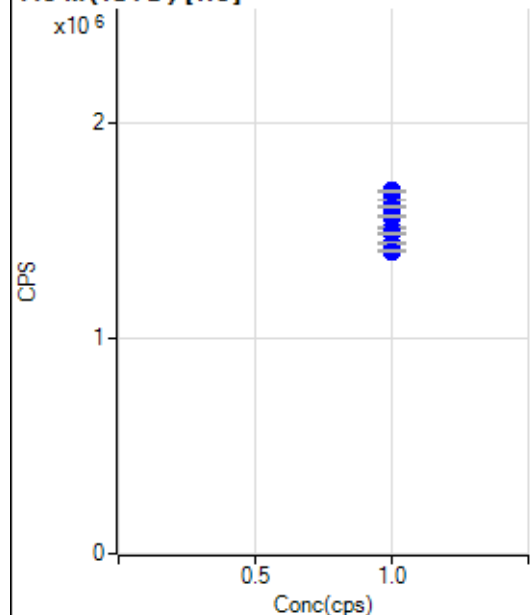
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6835670.73		A	0.2
2	☐	1.000		6876314.91		A	1.5
3	☐	1.000		6744541.82		A	0.5
4	☐	1.000		6581734.22		A	0.7
5	☐	1.000		6306042.59		A	0.3
6	☐	1.000		6174919.63		A	0.2
7	☐	1.000		5999095.75		A	0.2
8	☐	1.000		5440141.14		P	0.2

103 Rh (ISTD) [He]

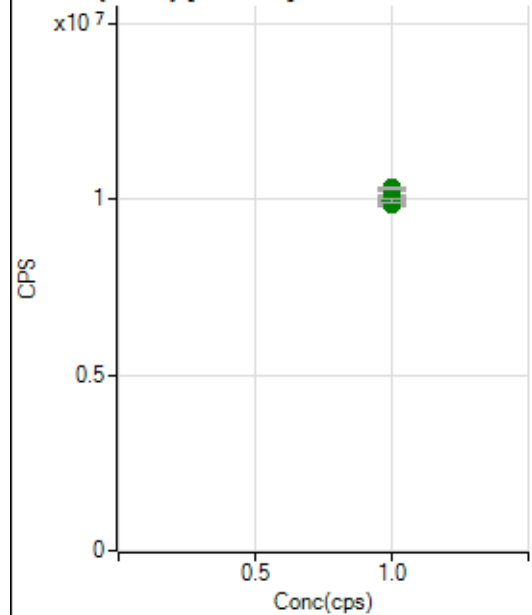
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3330683.87		P	0.5
2	☐	1.000		3412894.05		P	1.1
3	☐	1.000		3267706.48		P	0.9
4	☐	1.000		3139663.67		P	0.4
5	☐	1.000		3040366.73		P	0.8
6	☐	1.000		2960960.51		P	0.3
7	☐	1.000		2862593.12		P	0.5
8	☐	1.000		2638234.46		P	0.1

115 In (ISTD) [No Gas]

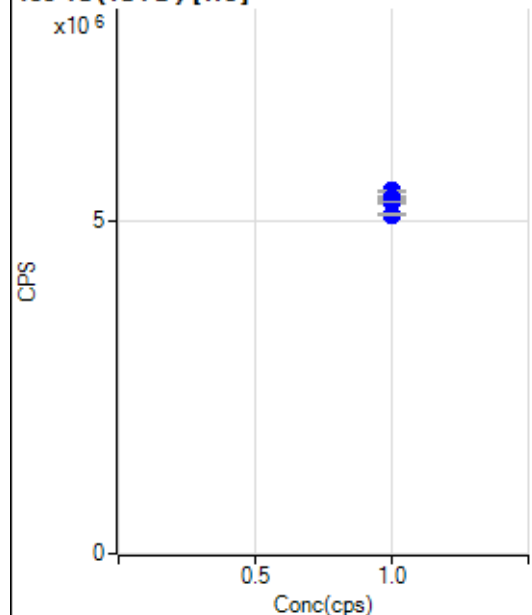
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7704096.61		A	0.4
2	☐	1.000		7763116.19		A	1.5
3	☐	1.000		7672493.69		A	0.1
4	☐	1.000		7587935.03		A	0.4
5	☐	1.000		7381117.70		A	0.1
6	☐	1.000		7341227.99		A	0.2
7	☐	1.000		7217390.42		A	0.6
8	☐	1.000		6872687.84		A	0.4

115 In (ISTD) [He]

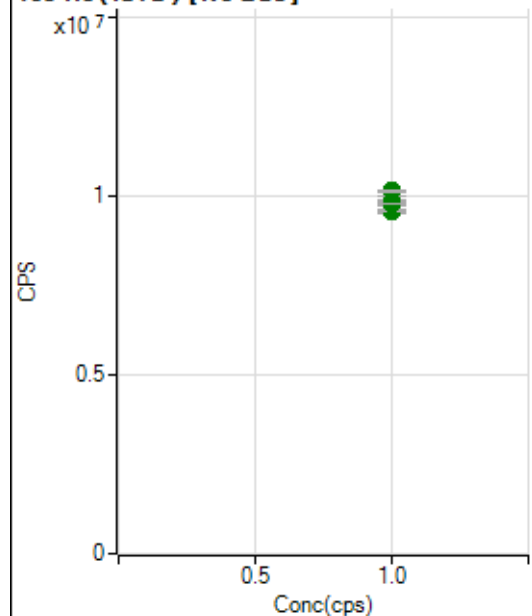
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1642136.92		P	0.4
2	☐	1.000		1684861.06		P	0.8
3	☐	1.000		1609594.77		P	0.5
4	☐	1.000		1564661.43		P	0.6
5	☐	1.000		1512760.61		P	0.5
6	☐	1.000		1488373.47		P	0.8
7	☐	1.000		1441070.45		P	0.4
8	☐	1.000		1406352.05		P	0.9

159 Tb (ISTD) [No Gas]

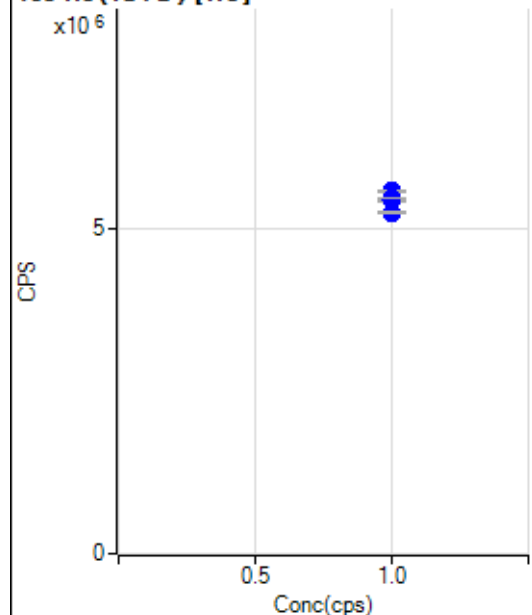
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9846393.74		A	0.2
2	☐	1.000		9922596.45		A	1.6
3	☐	1.000		9929176.45		A	0.5
4	☐	1.000		10057002.84		A	0.1
5	☐	1.000		10106225.68		A	0.4
6	☐	1.000		10237273.39		A	0.2
7	☐	1.000		10337568.66		A	0.4
8	☐	1.000		9962729.71		A	0.8

159 Tb (ISTD) [He]

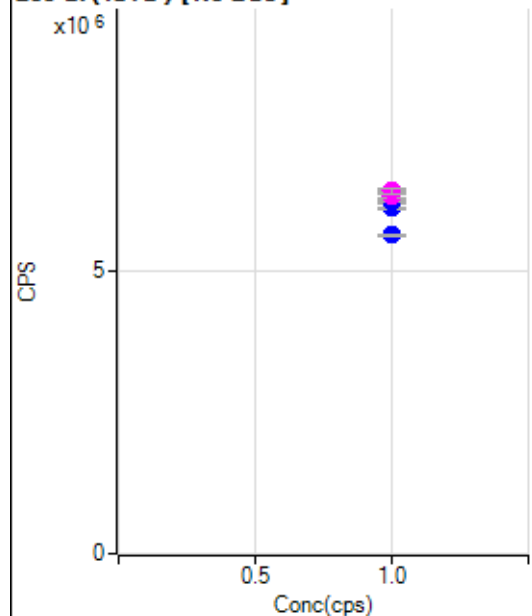
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5355788.19		P	0.5
2	☐	1.000		5454066.17		P	0.8
3	☐	1.000		5336728.26		P	0.6
4	☐	1.000		5288568.46		P	0.5
5	☐	1.000		5290981.59		P	0.9
6	☐	1.000		5308072.49		P	0.5
7	☐	1.000		5292703.74		P	0.3
8	☐	1.000		5094488.99		P	0.7

165 Ho (ISTD) [No Gas]

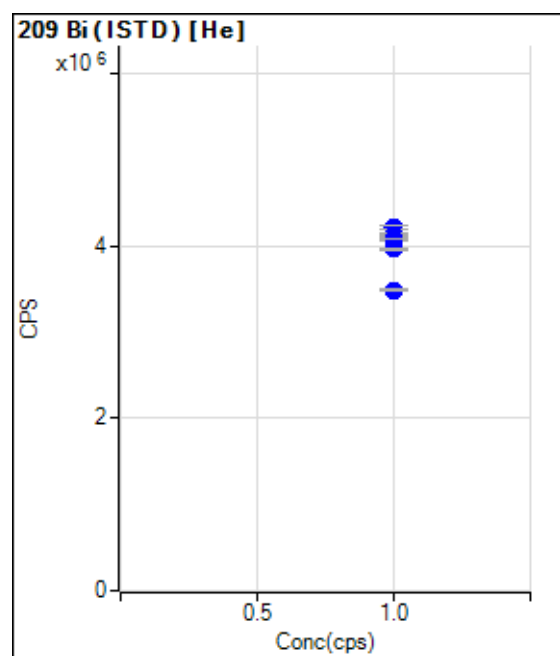
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9556818.88		A	0.5
2	☐	1.000		9623083.20		A	1.9
3	☐	1.000		9610050.13		A	0.6
4	☐	1.000		9773496.66		A	0.5
5	☐	1.000		9874667.15		A	0.4
6	☐	1.000		9995723.23		A	0.2
7	☐	1.000		10148922.71		A	0.5
8	☐	1.000		9794343.53		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5459329.08		P	0.4
2	☐	1.000		5580502.14		P	0.5
3	☐	1.000		5461876.72		P	0.2
4	☐	1.000		5443923.74		P	1.2
5	☐	1.000		5449318.18		P	0.8
6	☐	1.000		5473033.81		P	0.3
7	☐	1.000		5476280.61		P	0.1
8	☐	1.000		5248284.68		P	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6091121.23		P	0.8
2	☐	1.000		6218956.23		P	1.1
3	☐	1.000		6215695.39		P	0.5
4	☐	1.000		6308385.39		M	0.8
5	☐	1.000		6396109.21		M	1.0
6	☐	1.000		6397404.07		P	0.2
7	☐	1.000		6395387.13		M	1.8
8	☐	1.000		5612761.79		P	0.7



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4140212.12		P	0.2
2	☐	1.000		4205335.74		P	1.0
3	☐	1.000		4131006.01		P	0.4
4	☐	1.000		4075028.10		P	0.8
5	☐	1.000		4075084.25		P	0.5
6	☐	1.000		4079975.46		P	0.1
7	☐	1.000		3959599.70		P	0.2
8	☐	1.000		3485816.65		P	0.3

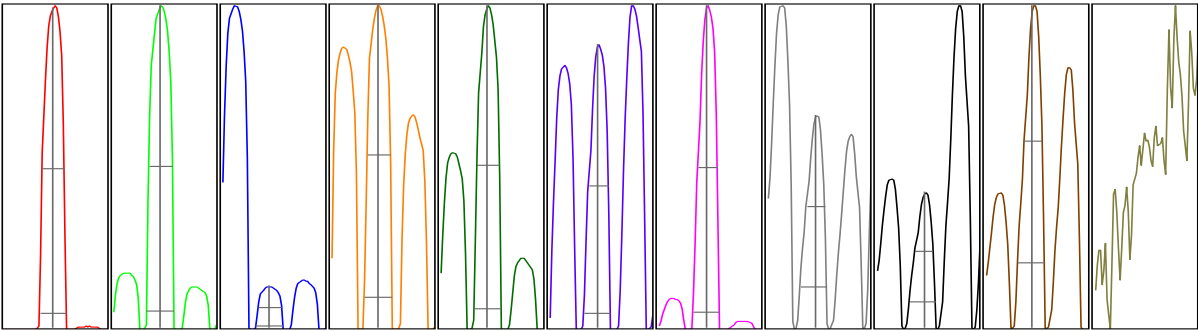
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7081519-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	7830	0.23	5.00	
24	239043	0.14	5.00	
25	31654	0.16	5.00	
26	36114	0.37	5.00	
59	60910	0.29	5.00	
113	9063	0.25	5.00	
115	107027	0.29	5.00	
206	27322	0.44	5.00	
207	26848	0.41	5.00	
208	58485	0.33	5.00	
220	93	3.85		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7810	7817	7843	7826	7853
24	238715	239024	239267	238735	239472
25	31691	31625	31721	31598	31637
26	36097	36138	36303	36109	35923
59	60965	60867	61180	60710	60826
113	9061	9090	9075	9030	9056
115	107282	107279	107183	106600	106790
206	27281	27512	27311	27184	27321
207	26820	26966	26823	26692	26940
208	58288	58549	58634	58267	58685
220	89	90	94	98	93

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	12934	8.95	8.9 - 9.1		0.782	0.900	
24	367352	23.90	23.9 - 24.1		0.789	0.900	
25	48786	24.90	24.9 - 25.1		0.789	0.900	
26	55875	25.90	25.9 - 26.1		0.808	0.900	
59	98843	58.90	58.9 - 59.1		0.786	0.900	
113	16317	112.95	112.9 - 113.1		0.773	0.900	
115	195646	114.95	114.9 - 115.1		0.770	0.900	
206	48726	205.95	205.9 - 206.1		0.765	0.900	
207	44417	206.95	206.9 - 207.1		0.753	0.900	
208	105203	207.90	207.9 - 208.1		0.772	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	6.8	V	Deflect	14.0	V
Extract 2	-75.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-38	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	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	14806	0.45	
89	31079	0.24	
205	27469	0.30	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	14835	14856	14758	14868	14715
89	31044	31023	31142	31173	31014
205	27411	27524	27393	27586	27433

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	1.6	V
Extract 2	-90.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	V	Cell Exit	-60	V			

Cell Parameters

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