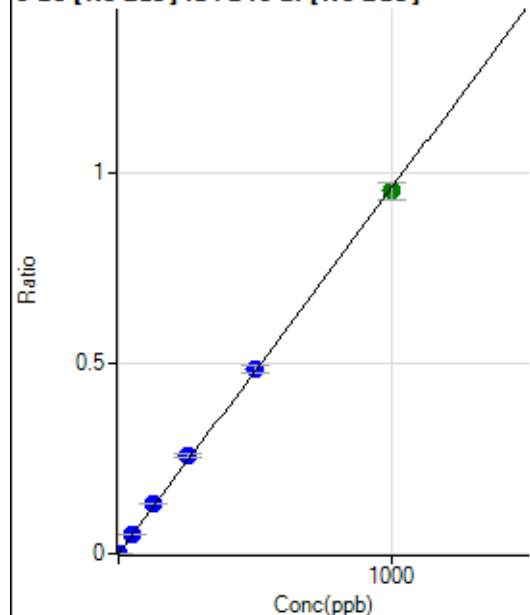


Batch Folder: D:\P8100717-MS.b\
Analysis File: P8100717-MS.batch.bin
DA Date-Time: 2017-10-07 12:09:25
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2017-10-07 11:41:06
2	004CALS.d	S01	2017-10-07 11:44:14
3	005CALS.d	S02	2017-10-07 11:48:03
4	006CALS.d	S03	2017-10-07 11:51:31
5	007CALS.d	S04	2017-10-07 11:54:59
6	008CALS.d	S05	2017-10-07 11:58:22
7	009CALS.d	S06	2017-10-07 12:01:38
8	010CALS.d	S07	2017-10-07 12:04:50
9	011CALS.d	S08	2017-10-07 12:07:58

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.93	0.0000	P	30.9
2	☐	0.100	0.095	122.23	0.0001	P	12.2
3	☐	1.000	1.005	1051.93	0.0010	P	11.8
4	☐	50.000	54.441	56509.24	0.0523	P	0.2
5	☐	125.000	137.345	144771.03	0.1319	P	2.9
6	☐	250.000	266.922	290240.17	0.2562	P	4.4
7	☐	500.000	503.159	565225.30	0.4830	P	4.2
8	☐	1000.000	992.425	1117745.12	0.9526	A	5.1
9	☐			216.67	0.0002	P	14.0

$$y = 9.5988\text{E-}004 * x + 2.5266\text{E-}005$$

$$R = 0.9998$$

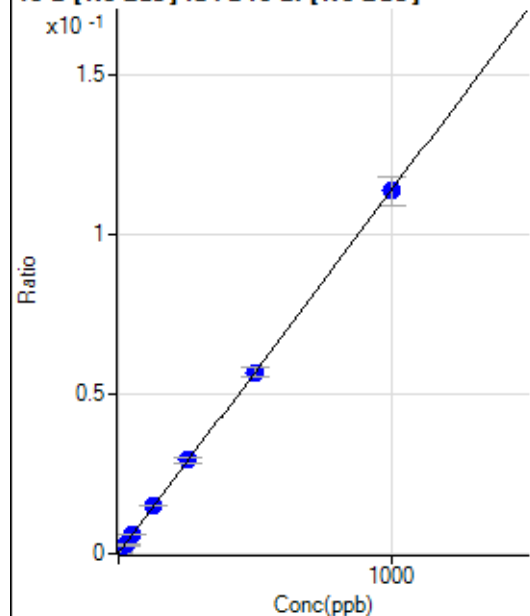
$$DL = 0.02439$$

$$BEC = 0.02632$$

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	100.00	0.0001	P	18.6
2	☐	2.500	2.166	361.13	0.0003	P	13.4
3	☐	25.000	23.362	2931.00	0.0028	P	4.0
4	☐	50.000	54.001	6751.90	0.0062	P	1.2
5	☐	125.000	130.750	16460.06	0.0150	P	1.1
6	☐	250.000	257.125	33259.05	0.0294	P	6.4
7	☐	500.000	498.321	66504.65	0.0568	P	5.3
8	☐	1000.000	998.181	133354.05	0.1138	P	7.9
9	☐			4978.89	0.0042	P	4.9

$$y = 1.1387\text{E-}004 * x + 9.7508\text{E-}005$$

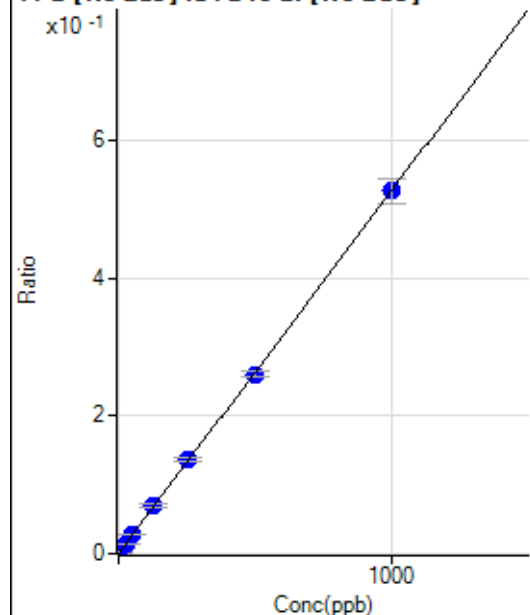
$$R = 1.0000$$

$$DL = 0.4788$$

$$BEC = 0.8563$$

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	372.25	0.0004	P	9.2
2	☐	2.500	2.345	1677.94	0.0016	P	8.2
3	☐	25.000	23.916	13757.11	0.0129	P	2.0
4	☐	50.000	53.298	30697.71	0.0284	P	2.9
5	☐	125.000	131.782	76479.17	0.0697	P	4.9
6	☐	250.000	259.329	154880.87	0.1368	P	5.5
7	☐	500.000	493.688	304366.44	0.2600	P	3.5
8	☐	1000.000	999.839	617040.32	0.5263	P	7.1
9	☐			22398.78	0.0189	P	5.4

$$y = 5.2599\text{E-}004 * x + 3.6523\text{E-}004$$

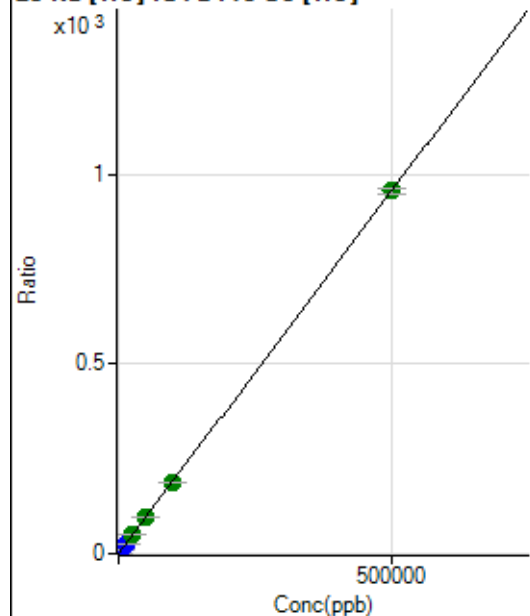
$$R = 0.9999$$

$$DL = 0.1906$$

$$BEC = 0.6944$$

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	12572.67	0.2977	P	4.2
2	☐	50.000	40.066	16018.02	0.3744	P	1.3
3	☐	500.000	457.554	50094.81	1.1729	P	0.7
4	☐	5000.000	5207.334	429458.38	10.2583	P	1.8
5	☐	12500.000	13254.185	1038987.72	25.6503	P	4.2
6	☐	25000.000	26293.267	1985554.69	50.5914	A	1.2
7	☐	50000.000	49867.454	3633580.90	95.6839	A	0.7
8	☐	100000.00	98604.038	6999454.76	188.9070	A	1.0
9	☐	500000.00	500206.89	37718300.15	957.0910	A	1.7

$$y = 0.0019 * x + 0.2977$$

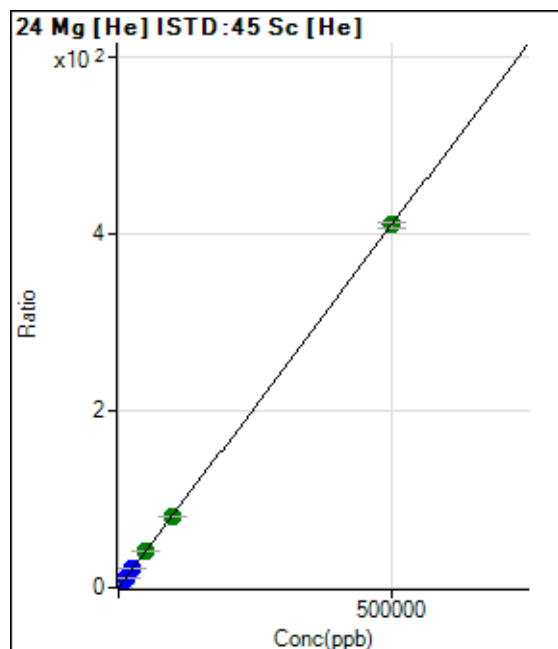
$$R = 1.0000$$

$$DL = 19.76$$

$$BEC = 155.6$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.90	0.0027	P	15.9
2	☐	50.000	43.806	1650.17	0.0386	P	10.2
3	☐	500.000	456.311	16070.85	0.3763	P	3.3
4	☐	5000.000	5152.761	176738.22	4.2219	P	2.3
5	☐	12500.000	13140.172	435958.45	10.7621	P	3.9
6	☐	25000.000	25432.663	817435.85	20.8275	P	0.9
7	☐	50000.000	49658.086	1544235.82	40.6637	A	0.7
8	☐	100000.00	98644.623	2992874.16	80.7749	A	1.1
9	☐	500000.00	500266.14	16144048.28	409.6306	A	1.3

$$y = 8.1882\text{E-}004 * x + 0.0027$$

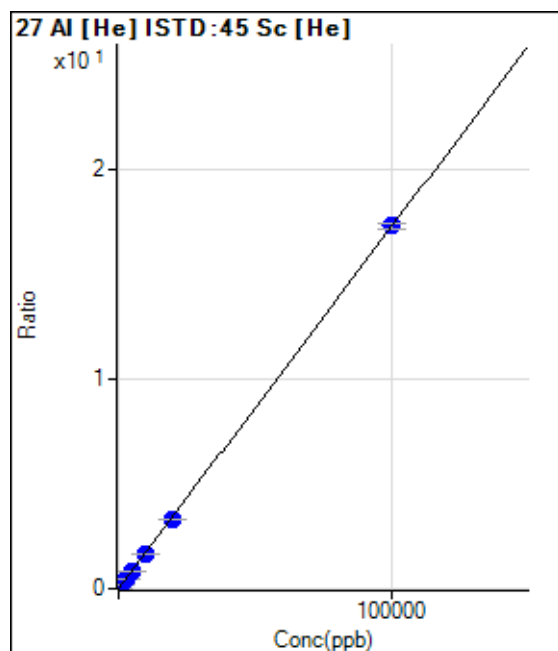
$$R = 1.0000$$

$$DL = 1.571$$

$$BEC = 3.296$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0003	P	43.9
2	☐	2.000	1.856	25.00	0.0006	P	33.4
3	☐	20.000	21.039	166.68	0.0039	P	14.8
4	☐	1000.000	1011.850	7338.36	0.1752	P	3.0
5	☐	2500.000	2544.638	17822.99	0.4403	P	7.0
6	☐	5000.000	4888.495	33187.06	0.8455	P	0.2
7	☐	10000.000	9445.841	62036.52	1.6336	P	0.7
8	☐	20000.000	18996.771	121723.87	3.2850	P	0.5
9	☐	100000.00	100260.40	683239.28	17.3364	P	1.5

$$y = 1.7291\text{E-}004 * x + 2.6348\text{E-}004$$

$$R = 0.9999$$

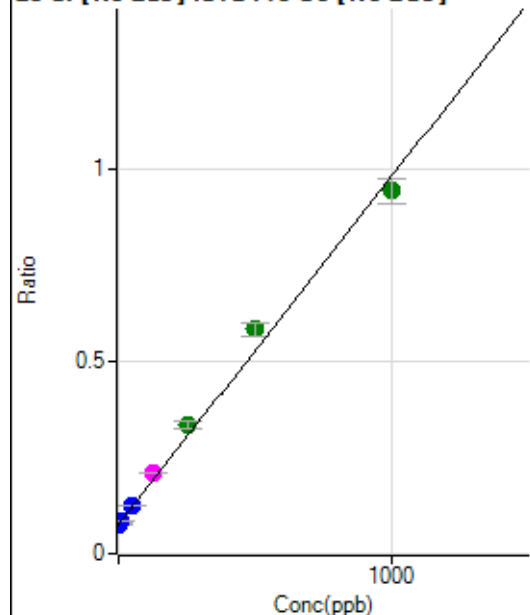
$$DL = 2.009$$

$$BEC = 1.524$$

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	359225.79	0.0767	P	5.7
2	☐	1.000	-1.964	364534.41	0.0749	P	1.1
3	☐	10.000	9.598	418552.11	0.0854	P	1.2
4	☐	50.000	53.719	619590.97	0.1253	P	0.7
5	☐	125.000	147.135	1017316.48	0.2097	M	1.3
6	☐	250.000	285.285	1587567.50	0.3346	A	5.5
7	☐	500.000	559.805	2692943.62	0.5827	A	6.1
8	☐	1000.000	958.331	4428439.42	0.9429	A	6.6
9	☐			367182.33	0.0761	P	0.4

$$y = 9.0391\text{E-}004 * x + 0.0767$$

$$R = 0.9964$$

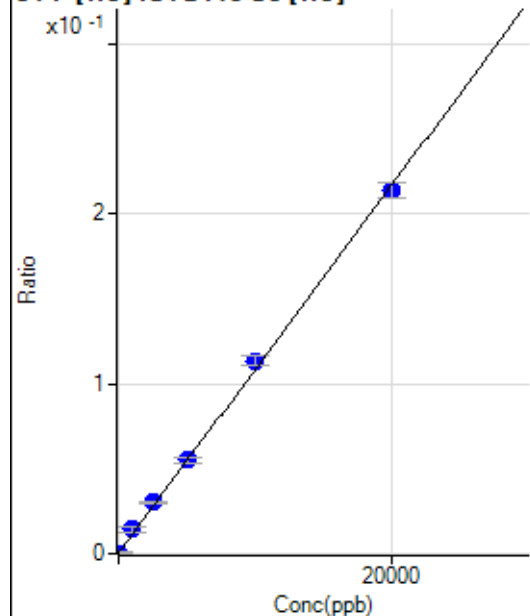
$$DL = 14.59$$

$$BEC = 84.86$$

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	-1.811	11.11	0.0003	P	43.9
2	☐	0.000	-20.151	2.78	0.0001	P	173.2
3	☐	0.000	21.962	22.22	0.0005	P	22.2
4	☐	1000.000	1282.099	594.48	0.0142	P	29.8
5	☐	2500.000	2754.968	1222.33	0.0301	P	3.8
6	☐	5000.000	5062.011	2161.39	0.0551	P	5.9
7	☐	10000.000	10460.940	4311.95	0.1135	P	5.0
8	☐	20000.000	19708.052	7913.71	0.2136	P	4.3
9	☐			2.78	0.0001	P	173.2

$$y = 1.0826\text{E-}005 * x + 2.8309\text{E-}004$$

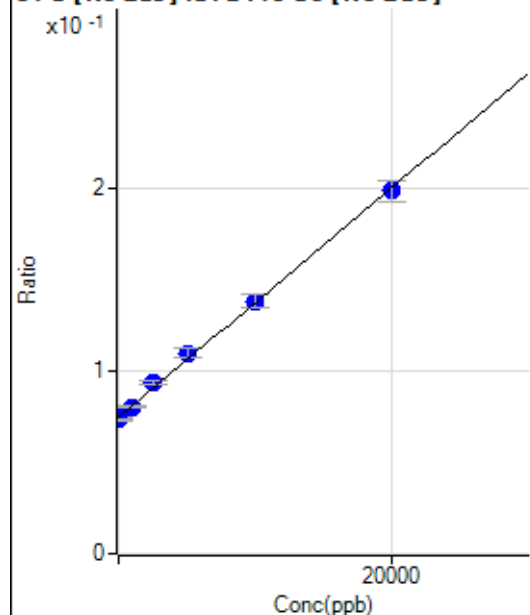
$$R = 0.9995$$

$$DL = 31.77$$

$$BEC = 26.15$$

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	298.972	359605.65	0.0768	P	5.8
2	☐	0.000	-49.199	362919.46	0.0746	P	0.5
3	☐	0.000	-249.773	359513.94	0.0733	P	1.0
4	☐	1000.000	877.579	397821.00	0.0804	P	0.9
5	☐	2500.000	2996.728	454620.42	0.0938	P	2.3
6	☐	5000.000	5607.116	523055.02	0.1102	P	4.3
7	☐	10000.000	10133.879	641008.93	0.1387	P	5.6
8	☐	20000.000	19725.312	935091.50	0.1990	P	5.6
9	☐			354076.73	0.0734	P	1.1

$$y = 6.2931\text{E-}006 * x + 0.0749$$

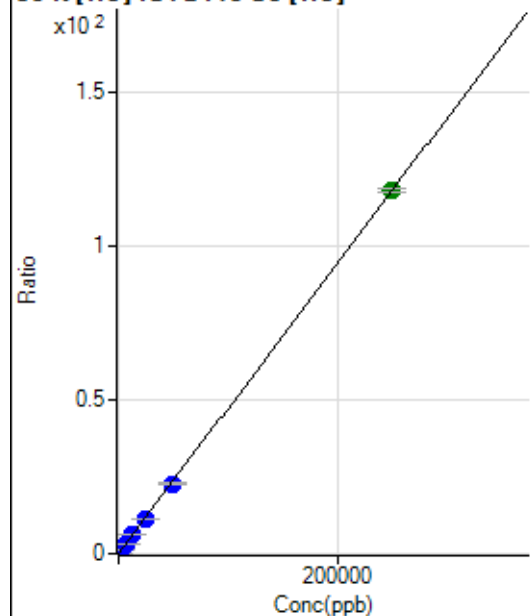
$$R = 0.9989$$

$$DL = 886.1$$

$$BEC = 1.19\text{E+}04$$

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	3097.71	0.0734	P	2.9
2	☐	50.000	47.193	4089.67	0.0956	P	3.9
3	☐	500.000	467.663	12536.58	0.2935	P	2.1
4	☐	2500.000	2636.114	55028.13	1.3145	P	2.1
5	☐	6250.000	6619.848	129199.43	3.1900	P	4.6
6	☐	12500.000	12751.987	238522.88	6.0771	P	0.9
7	☐	25000.000	24167.439	434872.68	11.4516	P	0.7
8	☐	50000.000	48306.453	845486.24	22.8165	P	0.1
9	☐	250000.00	250398.82	4649095.98	117.9635	A	1.2

$$y = 4.7081\text{E-}004 * x + 0.0734$$

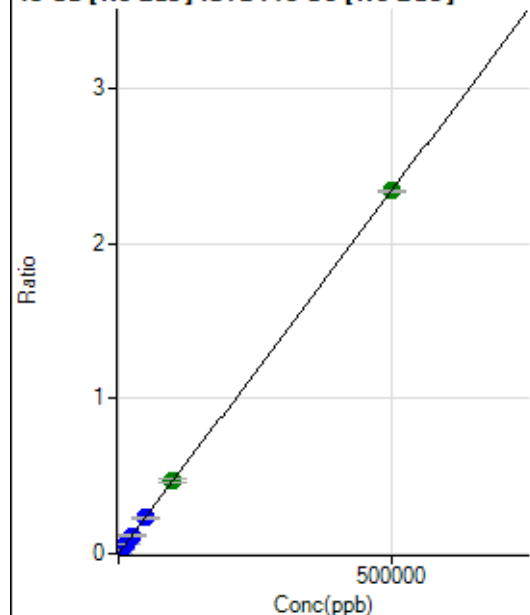
$$R = 1.0000$$

$$DL = 13.48$$

$$BEC = 155.8$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1777.98	0.0004	P	6.2
2	☐	50.000	40.611	2772.62	0.0006	P	6.5
3	☐	500.000	417.513	11444.08	0.0023	P	1.6
4	☐	5000.000	4802.602	113078.68	0.0229	P	0.3
5	☐	12500.000	12342.994	281937.81	0.0582	P	3.2
6	☐	25000.000	24874.350	554564.19	0.1168	P	3.9
7	☐	50000.000	50147.462	1086855.32	0.2351	P	5.4
8	☐	100000.00	99983.210	2199995.32	0.4684	A	6.3
9	☐	500000.00	500000.87	11294799.04	2.3409	A	0.4

$$y = 4.6810E-006 * x + 3.7969E-004$$

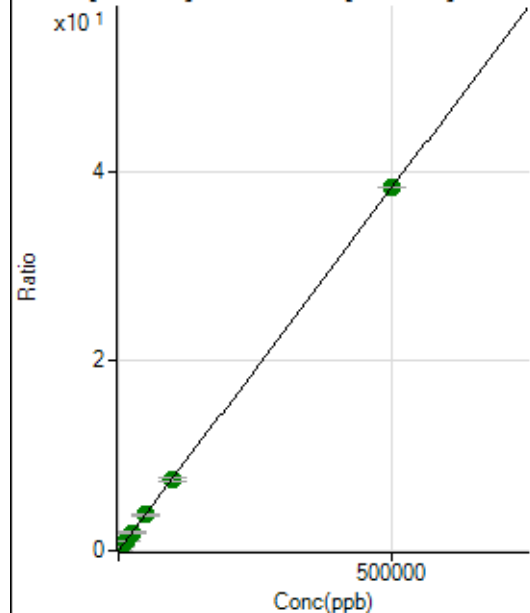
$$R = 1.0000$$

$$DL = 15.17$$

$$BEC = 81.11$$

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	20284.98	0.0043	P	7.4
2	☐	50.000	39.214	35671.40	0.0073	P	2.1
3	☐	500.000	434.978	184292.76	0.0376	P	0.7
4	☐	5000.000	4902.034	1875417.27	0.3791	A	0.5
5	☐	12500.000	12387.335	4612509.74	0.9515	A	3.2
6	☐	25000.000	24841.610	9037414.61	1.9037	A	4.0
7	☐	50000.000	50136.443	17740508.03	3.8377	A	5.3
8	☐	100000.00	98230.760	35306655.31	7.5150	A	5.6
9	☐	500000.00	500351.98	184609372.1	38.2607	A	0.1

$$y = 7.6459E-005 * x + 0.0043$$

$$R = 1.0000$$

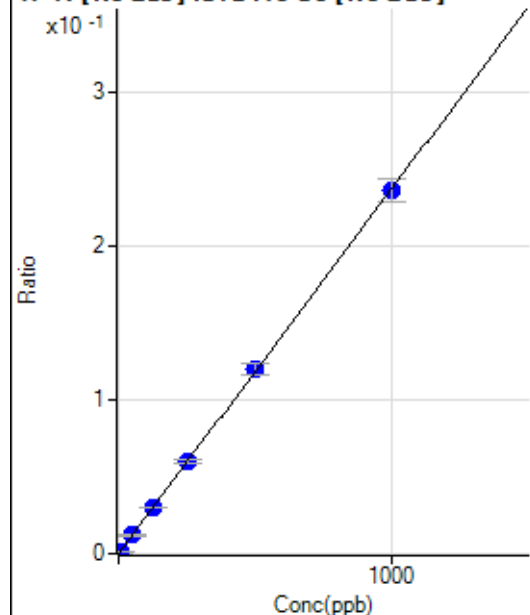
$$DL = 12.51$$

$$BEC = 56.67$$

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	130.56	0.0000	P	24.4
2	☐	0.500	0.432	633.38	0.0001	P	24.6
3	☐	5.000	4.338	5181.76	0.0011	P	1.6
4	☐	50.000	50.146	58997.44	0.0119	P	1.2
5	☐	125.000	126.962	146184.06	0.0302	P	3.2
6	☐	250.000	253.993	286197.02	0.0603	P	4.5
7	☐	500.000	507.500	556683.94	0.1205	P	5.9
8	☐	1000.000	995.002	1108971.86	0.2361	P	6.5
9	☐			725.05	0.0002	P	13.7

$$y = 2.3729\text{E-}004 * x + 2.7607\text{E-}005$$

$$R = 0.9999$$

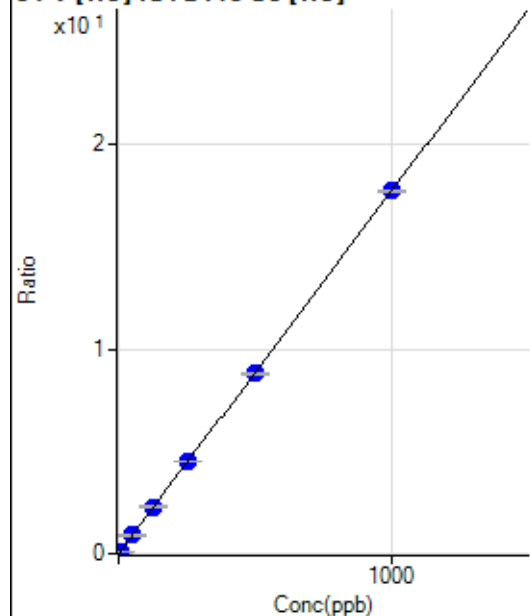
$$DL = 0.08528$$

$$BEC = 0.1163$$

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	8.89	0.0002	P	77.3
2	☐	0.500	0.459	356.68	0.0083	P	3.9
3	☐	5.000	4.579	3473.83	0.0814	P	5.4
4	☐	50.000	50.478	37458.03	0.8947	P	1.7
5	☐	125.000	129.138	92698.48	2.2887	P	4.4
6	☐	250.000	254.189	176798.62	4.5047	P	0.9
7	☐	500.000	495.928	333746.10	8.7885	P	0.4
8	☐	1000.000	1000.450	656931.15	17.7291	P	0.5
9	☐			191.12	0.0049	P	7.9

$$y = 0.0177 * x + 2.0977\text{E-}004$$

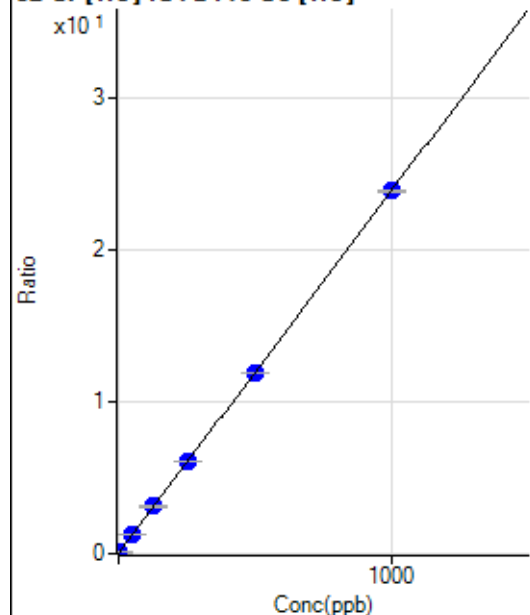
$$R = 1.0000$$

$$DL = 0.02747$$

$$BEC = 0.01184$$

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	807.82	0.0191	P	3.2
2	☐	0.200	0.168	990.05	0.0231	P	3.6
3	☐	2.000	1.988	2847.00	0.0667	P	6.3
4	☐	50.000	51.029	51873.67	1.2391	P	2.0
5	☐	125.000	129.723	126402.19	3.1205	P	4.2
6	☐	250.000	253.206	238349.27	6.0728	P	0.6
7	☐	500.000	497.750	452638.20	11.9193	P	0.4
8	☐	1000.000	999.681	886274.84	23.9194	P	0.9
9	☐			13842.57	0.3512	P	1.7

$$y = 0.0239 * x + 0.0191$$

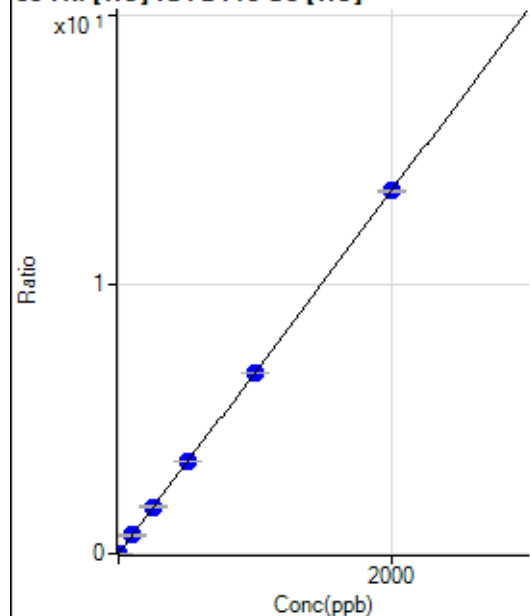
$$R = 1.0000$$

$$DL = 0.07659$$

$$BEC = 0.8$$

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	23.34	0.0006	P	65.5
2	☐	0.100	0.103	53.34	0.0012	P	21.8
3	☐	1.000	1.017	316.68	0.0074	P	1.4
4	☐	100.000	101.621	28731.99	0.6863	P	2.0
5	☐	250.000	258.987	70804.98	1.7483	P	4.7
6	☐	500.000	508.379	134667.87	3.4313	P	1.2
7	☐	1000.000	993.970	254746.56	6.7082	P	0.5
8	☐	2000.000	1999.716	500054.25	13.4954	P	0.6
9	☐			1971.29	0.0500	P	5.9

$$y = 0.0067 * x + 5.5182E-004$$

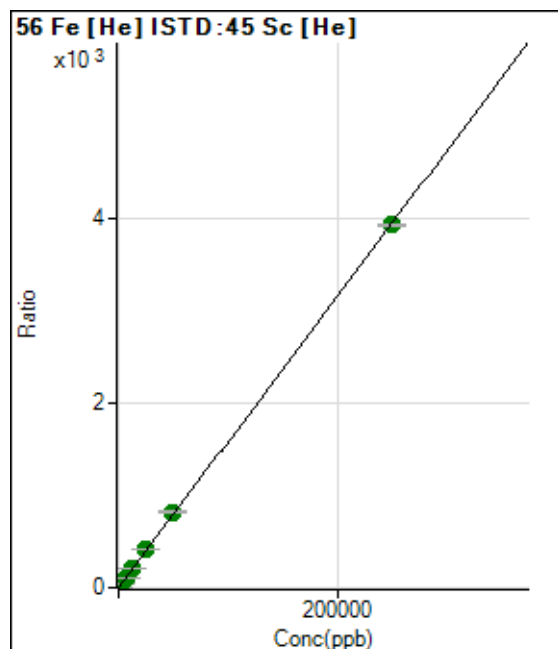
$$R = 1.0000$$

$$DL = 0.1607$$

$$BEC = 0.08177$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1229.72	0.0291	P	5.6
2	☐	5.000	4.913	4560.13	0.1066	P	1.0
3	☐	50.000	48.229	33719.12	0.7894	P	1.0
4	☐	2500.000	2668.913	1762695.54	42.1044	A	1.5
5	☐	6250.000	6786.804	4335796.57	107.0226	A	3.5
6	☐	12500.000	13284.279	8220771.59	209.4549	A	0.5
7	☐	25000.000	26047.050	15594719.10	410.6591	A	0.9
8	☐	50000.000	52179.909	30482126.38	822.6417	A	0.5
9	☐	250000.00	249404.99	154966362.7	3,931.881	A	0.9

$$y = 0.0158 * x + 0.0291$$

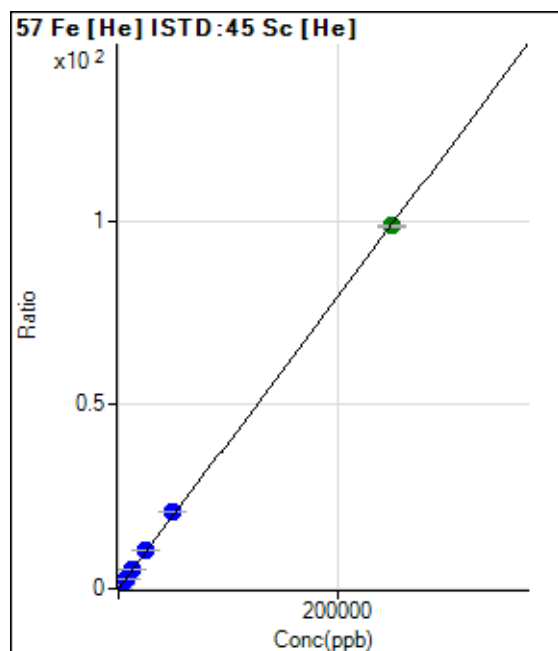
$$R = 1.0000$$

$$DL = 0.3098$$

$$BEC = 1.847$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	29.63	0.0007	P	53.9
2	☐	5.000	5.117	116.67	0.0027	P	9.3
3	☐	50.000	45.436	798.20	0.0187	P	9.7
4	☐	2500.000	2639.734	43787.68	1.0459	P	1.0
5	☐	6250.000	6756.563	108433.48	2.6759	P	2.7
6	☐	12500.000	13268.605	206219.41	5.2542	P	0.6
7	☐	25000.000	26151.760	393246.11	10.3551	P	0.4
8	☐	50000.000	52297.038	767292.34	20.7070	P	0.3
9	☐	250000.00	249372.92	3891582.29	98.7364	A	0.6

$$y = 3.9594E-004 * x + 7.0027E-004$$

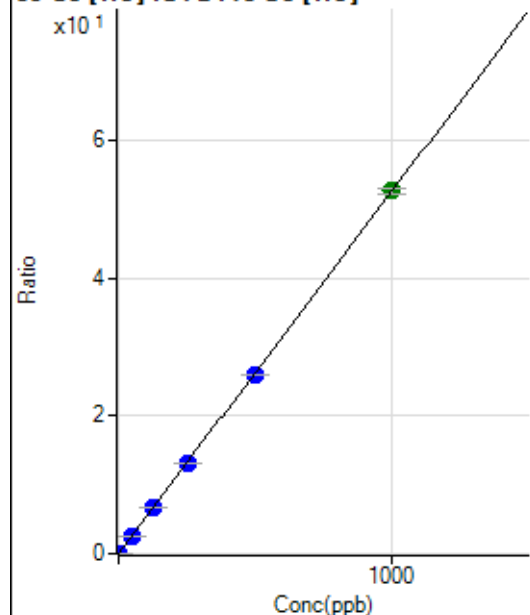
$$R = 0.9999$$

$$DL = 2.858$$

$$BEC = 1.769$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78.89	0.0019	P	24.2
2	☐	0.100	0.086	273.34	0.0064	P	5.6
3	☐	1.000	0.908	2116.87	0.0496	P	3.5
4	☐	50.000	49.738	109446.70	2.6143	P	1.8
5	☐	125.000	127.540	271456.41	6.7008	P	3.7
6	☐	250.000	250.765	517006.21	13.1732	P	1.1
7	☐	500.000	493.471	984355.87	25.9212	P	0.5
8	☐	1000.000	1002.769	1951545.07	52.6717	A	1.3
9	☐			2212.44	0.0561	P	2.7

$$y = 0.0525 * x + 0.0019$$

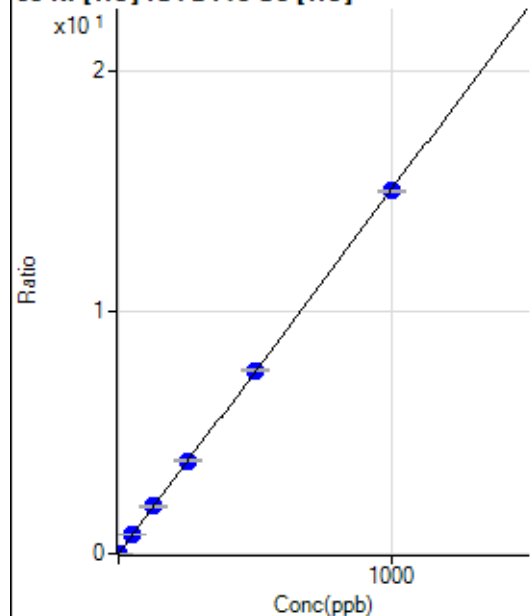
$$R = 1.0000$$

$$DL = 0.02585$$

$$BEC = 0.03555$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.89	0.0014	P	17.8
2	☐	0.100	0.070	104.45	0.0024	P	23.7
3	☐	1.000	0.982	691.14	0.0162	P	7.2
4	☐	50.000	50.745	32063.79	0.7659	P	2.3
5	☐	125.000	130.862	79905.34	1.9730	P	4.7
6	☐	250.000	255.619	151204.68	3.8527	P	1.2
7	☐	500.000	503.085	287885.82	7.5811	P	1.1
8	☐	1000.000	996.283	556242.00	15.0118	P	0.6
9	☐			5609.00	0.1423	P	1.8

$$y = 0.0151 * x + 0.0014$$

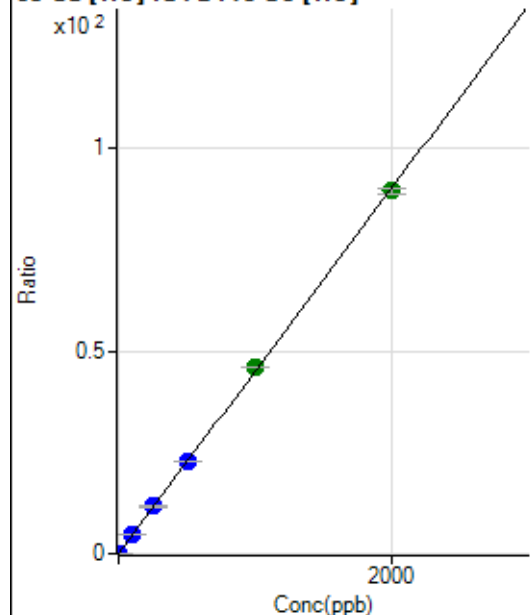
$$R = 1.0000$$

$$DL = 0.04952$$

$$BEC = 0.09251$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	154.45	0.0037	P	6.2
2	☐	0.200	0.179	501.13	0.0117	P	6.3
3	☐	2.000	1.819	3660.55	0.0857	P	4.2
4	☐	100.000	101.025	190920.46	4.5603	P	1.4
5	☐	250.000	258.707	472766.89	11.6724	P	4.5
6	☐	500.000	508.367	900078.73	22.9332	P	0.7
7	☐	1000.000	1020.471	1748029.75	46.0312	A	0.6
8	☐	2000.000	1986.533	3319992.62	89.6048	A	1.3
9	☐			3882.84	0.0986	P	4.3

$$y = 0.0451 * x + 0.0037$$

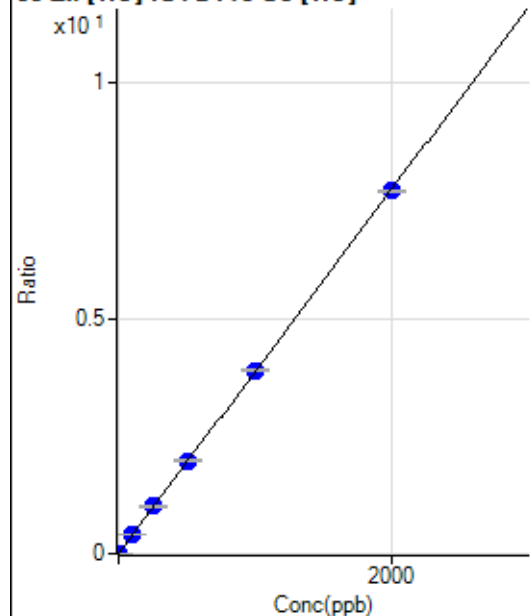
$$R = 0.9999$$

$$DL = 0.01497$$

$$BEC = 0.08105$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0027	P	23.6
2	☐	0.200	0.191	146.67	0.0034	P	17.9
3	☐	2.000	1.940	435.57	0.0102	P	0.8
4	☐	100.000	101.907	16632.37	0.3972	P	0.4
5	☐	250.000	260.799	41001.72	1.0124	P	4.8
6	☐	500.000	510.827	77729.61	1.9805	P	0.7
7	☐	1000.000	1007.757	148271.89	3.9045	P	0.8
8	☐	2000.000	1991.970	285865.48	7.7151	P	0.9
9	☐			714.48	0.0181	P	11.6

$$y = 0.0039 * x + 0.0027$$

$$R = 1.0000$$

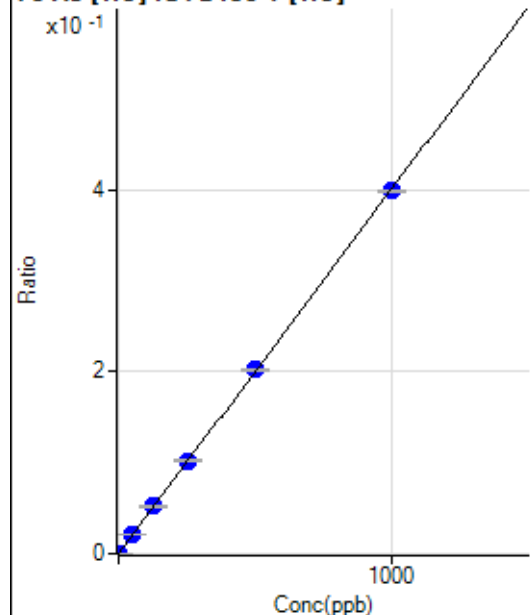
$$DL = 0.4914$$

$$BEC = 0.6939$$

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	1.23	0.0000	P	173.2
2	☐	0.100	0.114	14.81	0.0000	P	55.5
3	☐	1.000	0.904	108.64	0.0004	P	11.0
4	☐	50.000	50.705	5905.01	0.0203	P	0.9
5	☐	125.000	130.316	14727.08	0.0522	P	2.0
6	☐	250.000	255.264	28025.31	0.1022	P	1.5
7	☐	500.000	504.809	53636.80	0.2022	P	0.6
8	☐	1000.000	995.580	104096.60	0.3987	P	0.7
9	☐			35.80	0.0001	P	13.3

$$y = 4.0048\text{E-}004 * x + 4.1589\text{E-}006$$

$$R = 1.0000$$

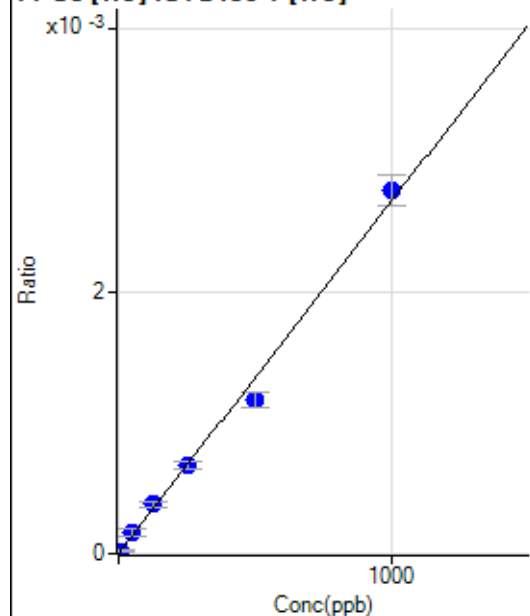
$$DL = 0.05396$$

$$BEC = 0.01038$$

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	0.00	0.0000	P	
2	☐	0.500	0.000	0.00	0.0000	P	
3	☐	5.000	6.952	5.55	0.0000	P	68.9
4	☐	50.000	61.082	47.78	0.0002	P	39.9
5	☐	125.000	140.346	106.67	0.0004	P	10.2
6	☐	250.000	250.178	184.45	0.0007	P	8.5
7	☐	500.000	436.183	311.12	0.0012	P	9.2
8	☐	1000.000	1029.382	722.25	0.0028	P	8.6
9	☐			1.11	0.0000	P	173.2

$$y = 2.6885\text{E-}006 * x + 0.0000\text{E+}000$$

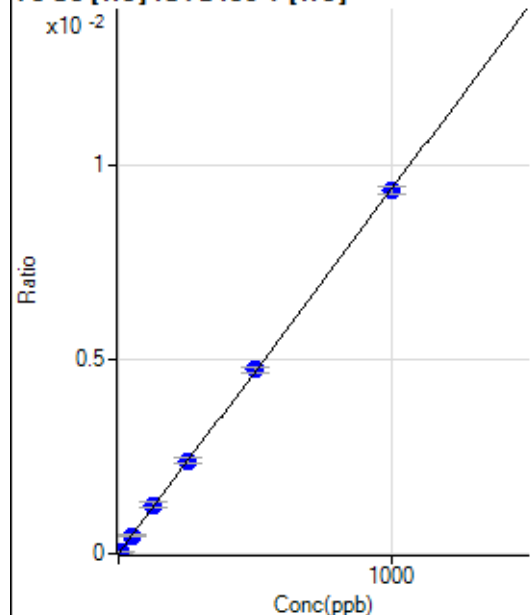
$$R = 0.9970$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.23	0.0000	P	86.6
2	☐	0.500	1.547	5.56	0.0000	P	33.1
3	☐	5.000	6.228	18.52	0.0001	P	10.1
4	☐	50.000	48.372	132.72	0.0005	P	12.4
5	☐	125.000	133.853	354.33	0.0013	P	13.7
6	☐	250.000	253.402	651.26	0.0024	P	6.4
7	☐	500.000	505.375	1255.63	0.0047	P	3.0
8	☐	1000.000	995.430	2432.96	0.0093	P	2.0
9	☐			3.70	0.0000	P	50.1

$$y = 9.3564\text{E-}006 * x + 4.1899\text{E-}006$$

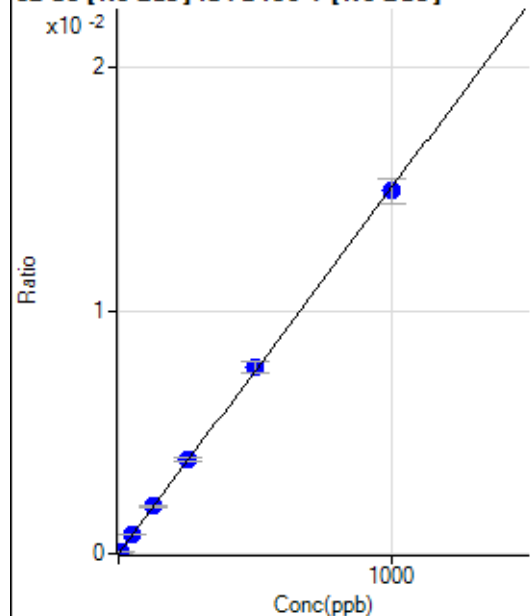
$$R = 0.9999$$

$$DL = 1.163$$

$$BEC = 0.4478$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-25.07	0.0000	P	-118.
2	☐	0.500	0.919	98.27	0.0000	P	18.1
3	☐	5.000	4.681	607.19	0.0001	P	3.5
4	☐	50.000	50.579	6874.41	0.0008	P	2.5
5	☐	125.000	129.320	17261.59	0.0019	P	3.2
6	☐	250.000	257.267	33987.10	0.0039	P	4.6
7	☐	500.000	511.720	66842.49	0.0077	P	6.1
8	☐	1000.000	991.756	133002.32	0.0149	P	6.6
9	☐			44.52	0.0000	P	60.6

$$y = 1.5051\text{E-}005 * x - 2.8832\text{E-}006$$

$$R = 0.9999$$

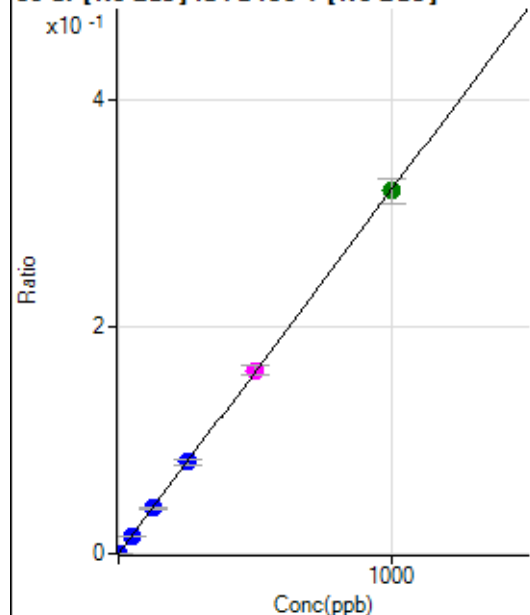
$$DL = 0.6788$$

$$BEC = -0.1916$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	641.71	0.0001	P	6.6
2	☐	0.100	0.103	955.63	0.0001	P	8.1
3	☐	1.000	0.891	3228.30	0.0004	P	2.4
4	☐	50.000	48.632	142014.57	0.0157	P	0.7
5	☐	125.000	125.520	358122.34	0.0403	P	2.8
6	☐	250.000	251.709	709289.07	0.0808	P	5.7
7	☐	500.000	504.568	1405514.91	0.1619	M	5.6
8	☐	1000.000	997.292	2849696.16	0.3198	A	7.2
9	☐			95946.94	0.0108	P	1.1

$$y = 3.2063\text{E-}004 * x + 7.3426\text{E-}005$$

$$R = 1.0000$$

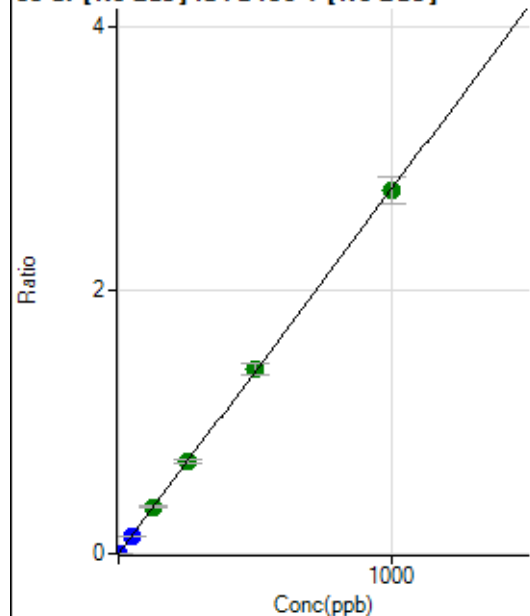
$$DL = 0.04548$$

$$BEC = 0.229$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	308.35	0.0000	P	26.6
2	☐	0.100	0.079	2283.63	0.0003	P	4.2
3	☐	1.000	0.905	22858.96	0.0025	P	1.6
4	☐	50.000	49.231	1236978.67	0.1365	P	0.5
5	☐	125.000	127.269	3132478.43	0.3527	A	3.3
6	☐	250.000	254.172	6186044.19	0.7044	A	5.0
7	☐	500.000	506.663	12192092.98	1.4040	A	5.5
8	☐	1000.000	995.380	24573902.28	2.7583	A	7.4
9	☐			831650.52	0.0940	P	0.2

$$y = 0.0028 * x + 3.5227\text{E-}005$$

$$R = 1.0000$$

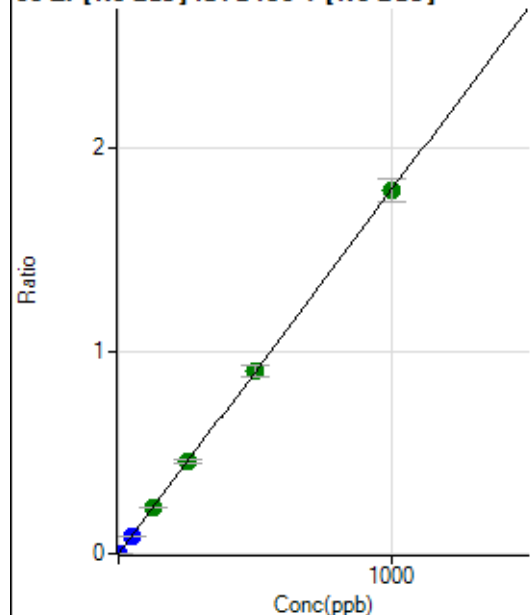
$$DL = 0.01014$$

$$BEC = 0.01271$$

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	486.14	0.0001	P	9.1
2	☐	0.100	0.077	1747.43	0.0002	P	4.7
3	☐	1.000	0.877	14661.19	0.0016	P	2.2
4	☐	50.000	48.074	783471.25	0.0864	P	1.1
5	☐	125.000	126.658	2021777.22	0.2276	A	2.9
6	☐	250.000	255.083	4026368.45	0.4584	A	4.5
7	☐	500.000	502.320	7836308.16	0.9026	A	6.0
8	☐	1000.000	997.459	15973178.66	1.7922	A	6.5
9	☐			2103.05	0.0002	P	5.5

$$y = 0.0018 * x + 5.5671E-005$$

$$R = 1.0000$$

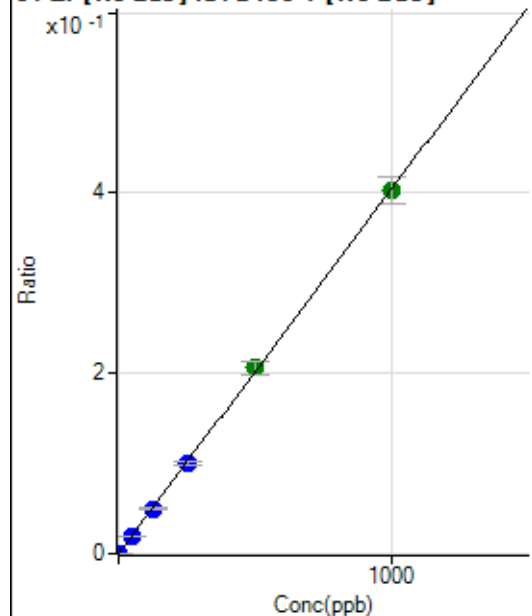
$$DL = 0.008455$$

$$BEC = 0.03098$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0000	P	16.0
2	☐	0.100	0.069	383.36	0.0000	P	6.6
3	☐	1.000	0.856	3242.19	0.0004	P	4.6
4	☐	50.000	47.698	174870.13	0.0193	P	1.2
5	☐	125.000	123.122	442079.45	0.0498	P	2.9
6	☐	250.000	249.981	887508.20	0.1010	P	4.6
7	☐	500.000	510.218	1789910.13	0.2062	A	6.7
8	☐	1000.000	995.246	3583332.11	0.4022	A	7.5
9	☐			455.59	0.0001	P	14.1

$$y = 4.0413E-004 * x + 1.4920E-005$$

$$R = 0.9999$$

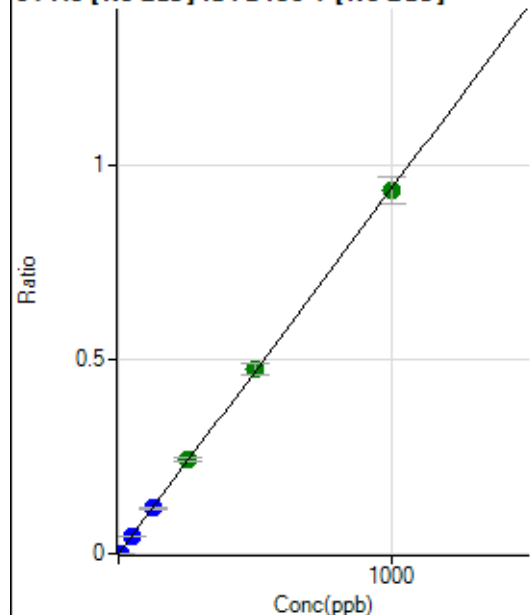
$$DL = 0.01769$$

$$BEC = 0.03692$$

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	188.90	0.0000	P	7.6
2	☐	0.500	0.193	1822.43	0.0002	P	3.4
3	☐	5.000	1.989	17014.01	0.0019	P	1.0
4	☐	50.000	48.469	413661.26	0.0456	P	0.9
5	☐	125.000	125.287	1047215.53	0.1179	P	3.8
6	☐	250.000	257.754	2130470.49	0.2426	A	5.1
7	☐	500.000	508.141	4151623.23	0.4782	A	6.2
8	☐	1000.000	994.047	8334053.66	0.9355	A	7.4
9	☐			6735.35	0.0008	P	3.6

$$y = 9.4105E-004 * x + 2.1622E-005$$

$$R = 0.9999$$

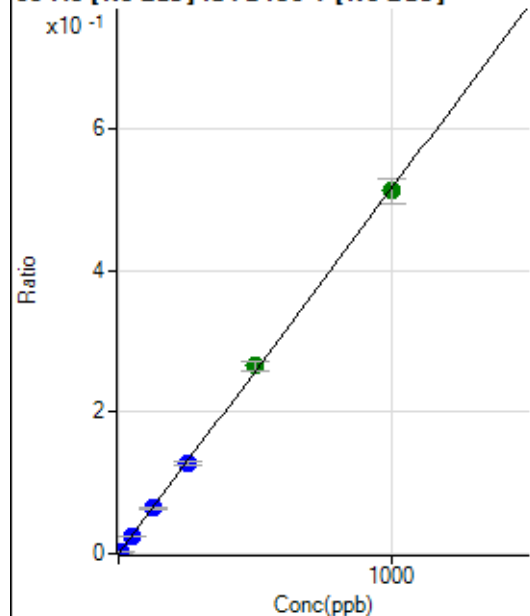
$$DL = 0.005229$$

$$BEC = 0.02298$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.89	0.0000	P	30.2
2	☐	0.500	0.426	2008.58	0.0002	P	4.1
3	☐	5.000	4.464	20716.62	0.0023	P	1.4
4	☐	50.000	47.761	223192.90	0.0246	P	0.7
5	☐	125.000	123.841	566957.20	0.0638	P	3.2
6	☐	250.000	247.474	1120437.92	0.1276	P	4.7
7	☐	500.000	514.305	2301713.53	0.2651	A	5.8
8	☐	1000.000	993.739	4564596.89	0.5122	A	6.7
9	☐			9956.87	0.0011	P	3.4

$$y = 5.1543E-004 * x + 4.4238E-006$$

$$R = 0.9999$$

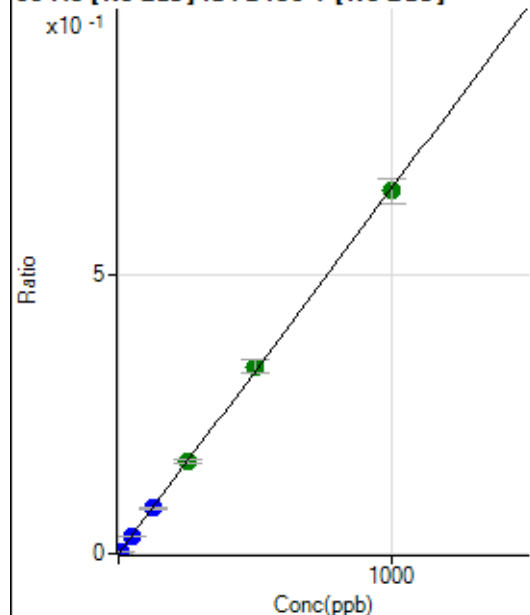
$$DL = 0.007767$$

$$BEC = 0.008583$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.01	0.0000	P	10.9
2	☐	0.500	0.372	2294.74	0.0003	P	3.2
3	☐	5.000	3.697	21901.78	0.0024	P	2.4
4	☐	50.000	47.997	285571.68	0.0315	P	1.3
5	☐	125.000	124.086	723230.91	0.0814	P	3.1
6	☐	250.000	251.919	1452015.24	0.1653	A	4.6
7	☐	500.000	512.227	2917328.45	0.3361	A	6.7
8	☐	1000.000	993.628	5809567.84	0.6520	A	6.9
9	☐			13671.37	0.0015	P	1.4

$$y = 6.5614\text{E-}004 * x + 1.1420\text{E-}005$$

$$R = 0.9999$$

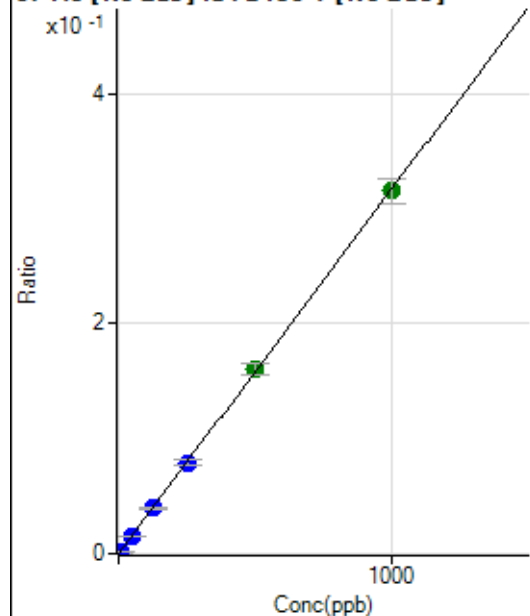
$$DL = 0.005702$$

$$BEC = 0.0174$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.67	0.0000	P	16.6
2	☐	0.500	0.445	1308.46	0.0001	P	15.8
3	☐	5.000	4.533	12959.51	0.0014	P	2.8
4	☐	50.000	48.841	140392.27	0.0155	P	1.9
5	☐	125.000	124.834	351569.74	0.0396	P	2.7
6	☐	250.000	250.518	697516.34	0.0794	P	5.2
7	☐	500.000	508.049	1398146.03	0.1611	A	6.5
8	☐	1000.000	995.927	2813263.54	0.3157	A	7.1
9	☐			6226.72	0.0007	P	2.8

$$y = 3.1702\text{E-}004 * x + 4.7525\text{E-}006$$

$$R = 1.0000$$

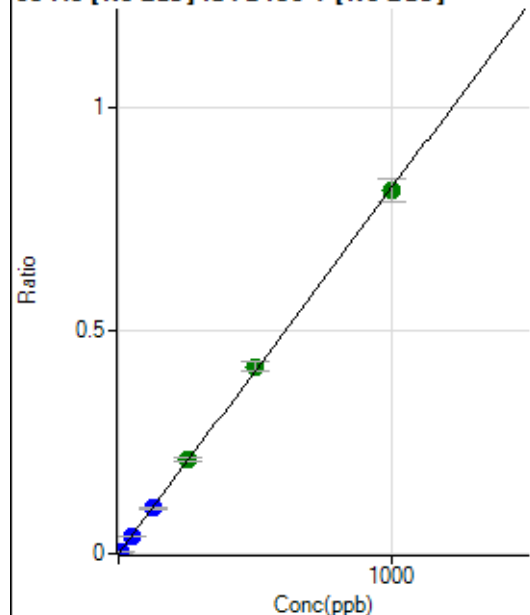
$$DL = 0.007464$$

$$BEC = 0.01499$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	21.1
2	☐	0.500	0.432	3236.64	0.0004	P	3.8
3	☐	5.000	4.476	32974.47	0.0037	P	2.4
4	☐	50.000	48.507	359776.51	0.0397	P	1.4
5	☐	125.000	124.732	906320.40	0.1020	P	3.4
6	☐	250.000	257.430	1849485.94	0.2106	A	5.3
7	☐	500.000	512.087	3637556.59	0.4189	A	5.8
8	☐	1000.000	992.210	7235325.07	0.8117	A	6.2
9	☐			15968.39	0.0018	P	5.6

$$y = 8.1809\text{E-}004 * x + 7.3362\text{E-}006$$

$$R = 0.9999$$

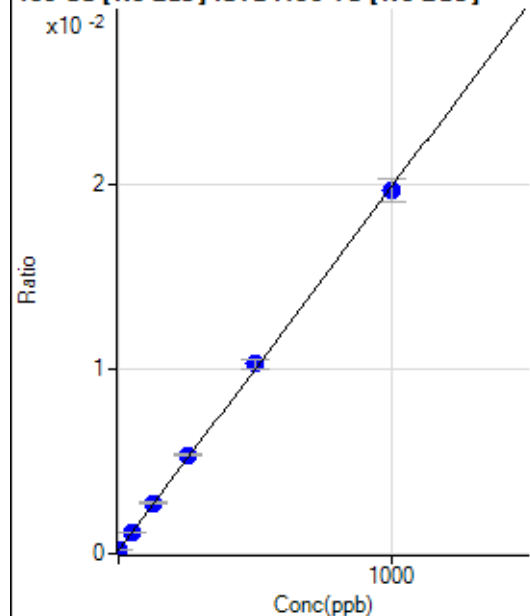
$$DL = 0.005684$$

$$BEC = 0.008968$$

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	1847.44	0.0002	P	2.4
2	☐	0.100	0.365	1983.57	0.0002	P	9.6
3	☐	1.000	1.163	2178.05	0.0002	P	8.4
4	☐	50.000	50.756	13702.05	0.0012	P	2.2
5	☐	125.000	129.574	31710.62	0.0027	P	4.3
6	☐	250.000	263.782	62199.68	0.0054	P	3.0
7	☐	500.000	513.372	120465.08	0.0103	P	5.5
8	☐	1000.000	989.259	238291.28	0.0196	P	6.5
9	☐			1755.76	0.0001	P	6.3

$$y = 1.9699\text{E-}005 * x + 1.6266\text{E-}004$$

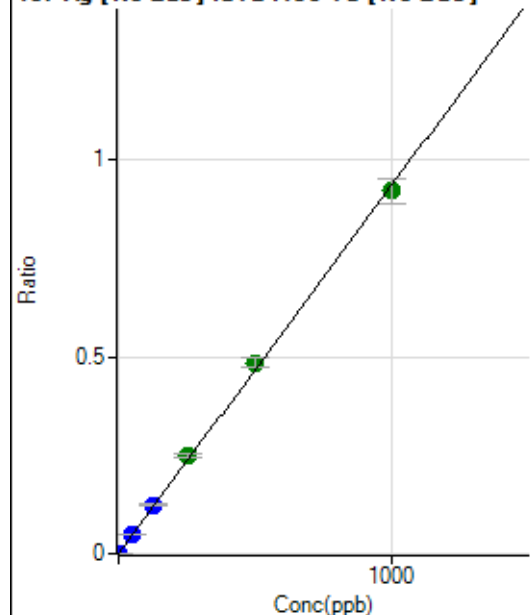
$$R = 0.9998$$

$$DL = 0.6023$$

$$BEC = 8.257$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	33.5
2	☐	0.100	0.079	930.63	0.0001	P	3.6
3	☐	1.000	0.946	10451.68	0.0009	P	1.0
4	☐	50.000	51.960	572989.19	0.0486	P	0.2
5	☐	125.000	131.606	1438030.74	0.1231	P	4.0
6	☐	250.000	267.007	2898629.41	0.2498	A	3.8
7	☐	500.000	518.823	5690414.36	0.4854	A	5.3
8	☐	1000.000	985.413	11178455.46	0.9218	A	6.6
9	☐			1119.54	0.0001	P	10.0

$$y = 9.3547\text{E-}004 * x + 5.6448\text{E-}006$$

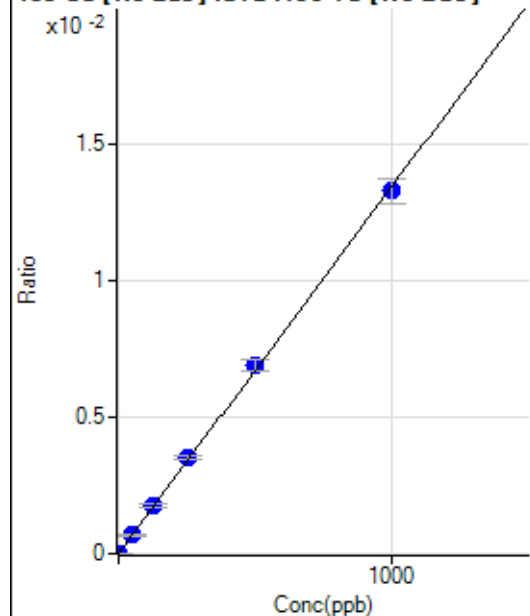
$$R = 0.9996$$

$$DL = 0.006057$$

$$BEC = 0.006034$$

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	11.11	0.0000	P	23.3
2	☐	0.100	0.077	23.61	0.0000	P	27.0
3	☐	1.000	0.833	143.06	0.0000	P	10.1
4	☐	50.000	50.382	7999.75	0.0007	P	4.2
5	☐	125.000	131.352	20646.70	0.0018	P	4.7
6	☐	250.000	261.512	40832.82	0.0035	P	4.0
7	☐	500.000	513.830	81043.25	0.0069	P	5.5
8	☐	1000.000	989.394	161399.13	0.0133	P	6.6
9	☐			18.05	0.0000	P	26.3

$$y = 1.3452\text{E-}005 * x + 9.8076\text{E-}007$$

$$R = 0.9998$$

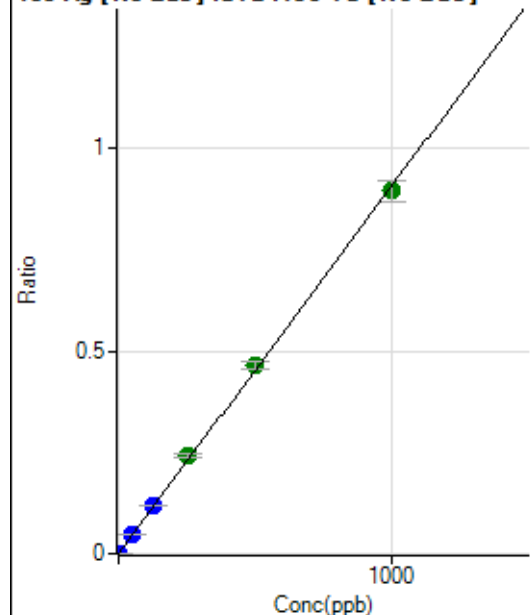
$$DL = 0.05095$$

$$BEC = 0.07291$$

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	50.00	0.0000	P	33.5
2	☐	0.100	0.092	1030.65	0.0001	P	16.3
3	☐	1.000	0.933	9981.92	0.0009	P	2.2
4	☐	50.000	51.183	546862.76	0.0464	P	0.2
5	☐	125.000	130.648	1383483.19	0.1184	P	2.9
6	☐	250.000	266.600	2804036.61	0.2416	A	4.0
7	☐	500.000	514.457	5468970.96	0.4663	A	4.1
8	☐	1000.000	987.856	10861531.40	0.8954	A	5.6
9	☐			1008.42	0.0001	P	7.4

$$y = 9.0638\text{E-}004 * x + 4.4129\text{E-}006$$

$$R = 0.9997$$

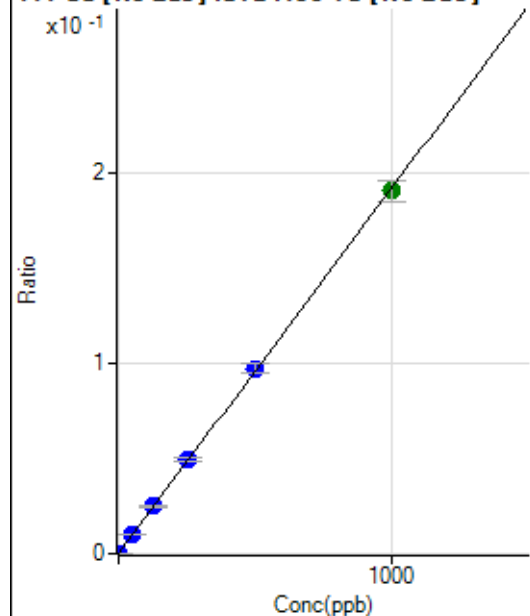
$$DL = 0.004897$$

$$BEC = 0.004869$$

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	1296.54	0.0001	P	2.8
2	☐	0.100	0.114	1588.65	0.0001	P	7.9
3	☐	1.000	0.969	3521.92	0.0003	P	3.7
4	☐	50.000	51.133	116981.45	0.0099	P	1.2
5	☐	125.000	130.470	293765.77	0.0251	P	3.2
6	☐	250.000	259.753	579676.42	0.0500	P	3.8
7	☐	500.000	507.162	1142372.55	0.0974	P	4.8
8	☐	1000.000	993.240	2313255.47	0.1907	A	5.5
9	☐			1351.12	0.0001	P	6.7

$$y = 1.9187\text{E-}004 * x + 1.1417\text{E-}004$$

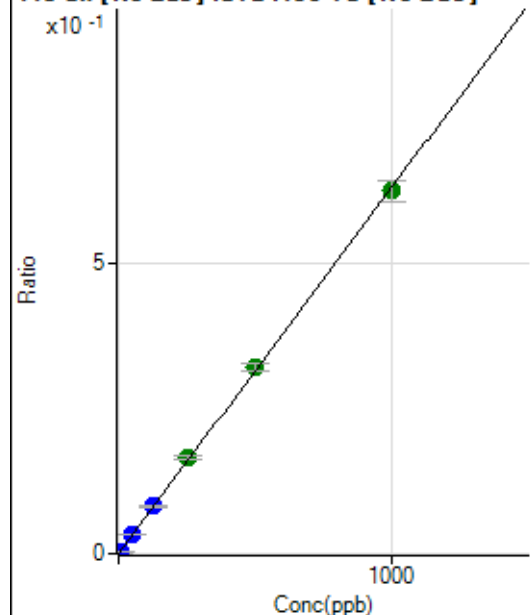
$$R = 0.9999$$

$$DL = 0.04943$$

$$BEC = 0.5951$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	772.29	0.0001	P	4.9
2	☐	0.500	0.423	3909.08	0.0003	P	5.2
3	☐	5.000	4.597	34810.06	0.0030	P	1.5
4	☐	50.000	50.444	375577.49	0.0319	P	0.2
5	☐	125.000	128.833	949378.91	0.0813	P	3.5
6	☐	250.000	261.427	1913164.91	0.1649	A	3.7
7	☐	500.000	510.162	3772297.61	0.3216	A	4.1
8	☐	1000.000	991.563	7582897.48	0.6251	A	5.5
9	☐			8444.66	0.0007	P	3.0

$$y = 6.3032\text{E-}004 * x + 6.7899\text{E-}005$$

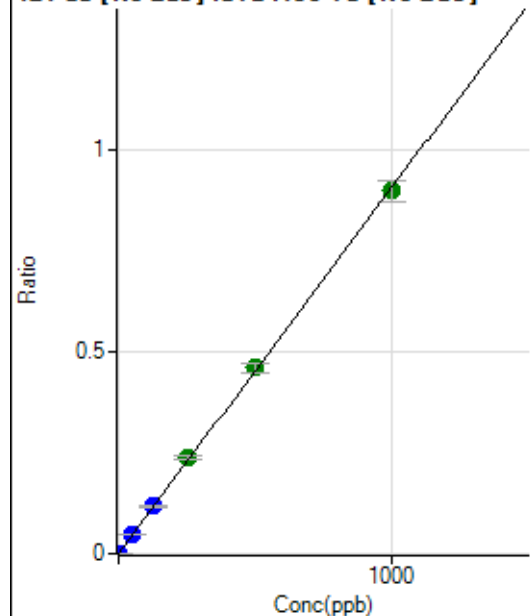
$$R = 0.9998$$

$$DL = 0.01595$$

$$BEC = 0.1077$$

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	27.78	0.0000	P	95.6
2	☐	0.200	0.196	2105.82	0.0002	P	4.6
3	☐	2.000	1.872	19954.55	0.0017	P	1.9
4	☐	50.000	50.392	538555.55	0.0457	P	0.6
5	☐	125.000	128.892	1365041.83	0.1169	P	3.8
6	☐	250.000	261.398	2750424.17	0.2370	A	3.6
7	☐	500.000	509.663	5418043.09	0.4621	A	5.1
8	☐	1000.000	991.813	10906590.87	0.8992	A	6.1
9	☐			12628.74	0.0011	P	2.7

$$y = 9.0666\text{E-}004 * x + 2.4157\text{E-}006$$

$$R = 0.9999$$

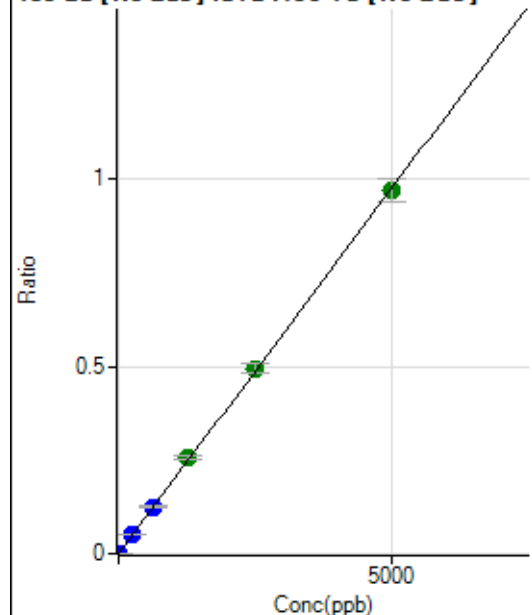
$$DL = 0.007644$$

$$BEC = 0.002664$$

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	33.34	0.0000	P	72.8
2	☐	1.000	0.918	2125.26	0.0002	P	7.3
3	☐	10.000	9.013	20678.05	0.0018	P	1.8
4	☐	250.000	251.333	578062.97	0.0490	P	0.4
5	☐	625.000	644.040	1467941.09	0.1257	P	3.5
6	☐	1250.000	1307.817	2961428.00	0.2552	A	3.6
7	☐	2500.000	2530.076	5788040.36	0.4937	A	5.2
8	☐	5000.000	4968.063	11755812.33	0.9694	A	6.4
9	☐			3117.19	0.0003	P	5.6

$$y = 1.9512\text{E-}004 * x + 2.9251\text{E-}006$$

$$R = 0.9999$$

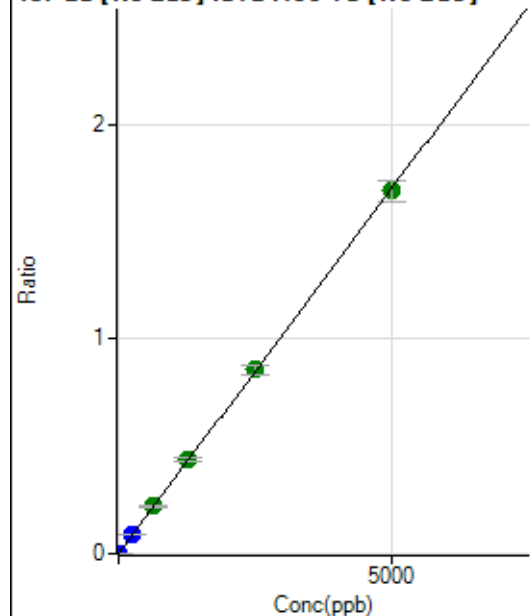
$$DL = 0.03275$$

$$BEC = 0.01499$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.34	0.0000	P	21.9
2	☐	1.000	0.866	3522.87	0.0003	P	1.8
3	☐	10.000	8.976	35888.54	0.0031	P	2.6
4	☐	250.000	254.439	1019177.73	0.0865	P	0.4
5	☐	625.000	650.627	2582575.54	0.2211	A	3.7
6	☐	1250.000	1295.277	5107581.49	0.4402	A	3.9
7	☐	2500.000	2525.744	10062078.17	0.8583	A	5.4
8	☐	5000.000	4972.386	20495204.45	1.6897	A	5.8
9	☐			5226.31	0.0004	P	3.5

$$y = 3.3981\text{E-}004 * x + 7.3775\text{E-}006$$

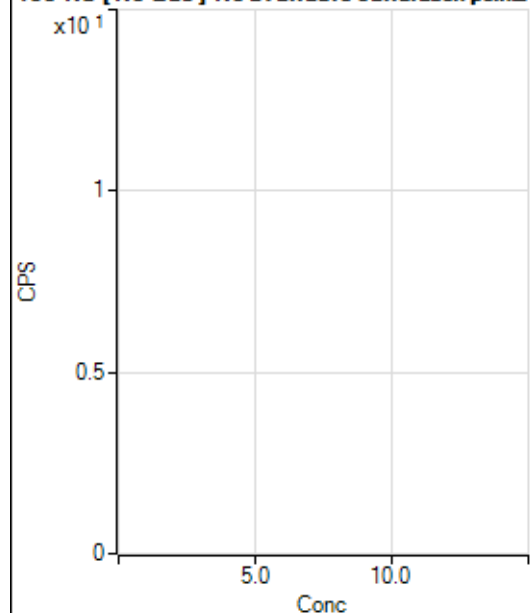
$$R = 0.9999$$

$$DL = 0.01423$$

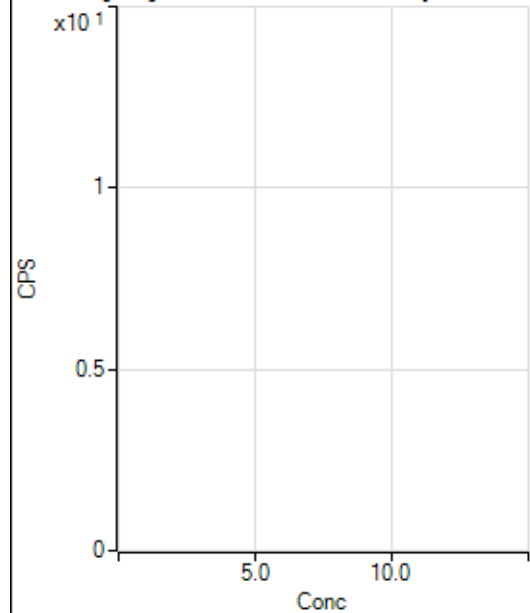
$$BEC = 0.02171$$

Weight: <None>

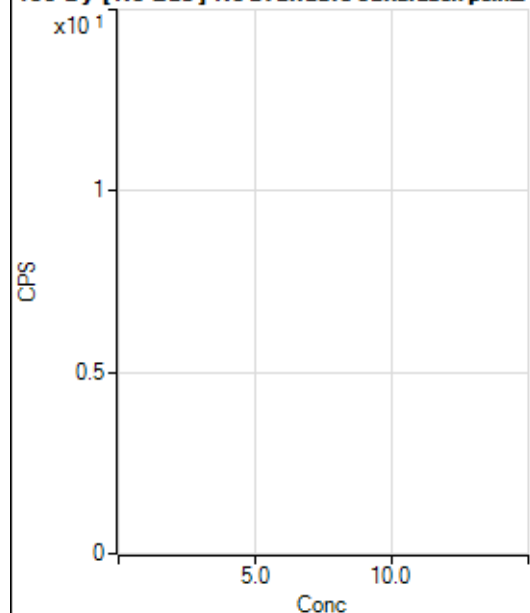
Min Conc: 0

150 Nd [No Gas] No available calibration points

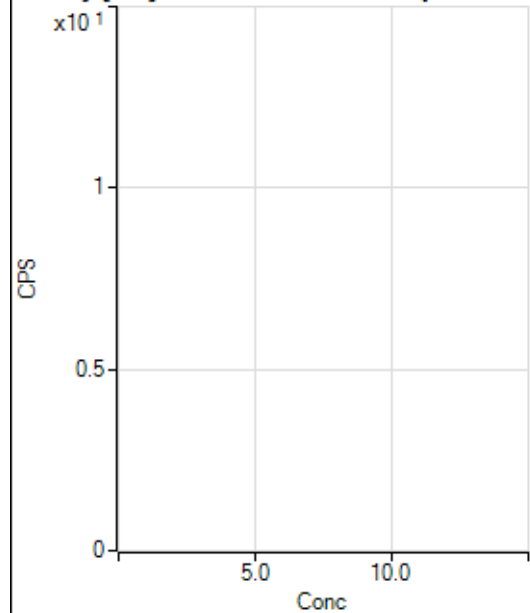
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.0
2	☐			8.89		P	43.3
3	☐			4.45		P	86.6
4	☐			22.22		P	17.3
5	☐			53.33		P	21.7
6	☐			108.89		P	33.7
7	☐			242.23		P	20.7
8	☐			422.25		P	9.5
9	☐			108.89		P	67.4

150 Nd [He] No available calibration points

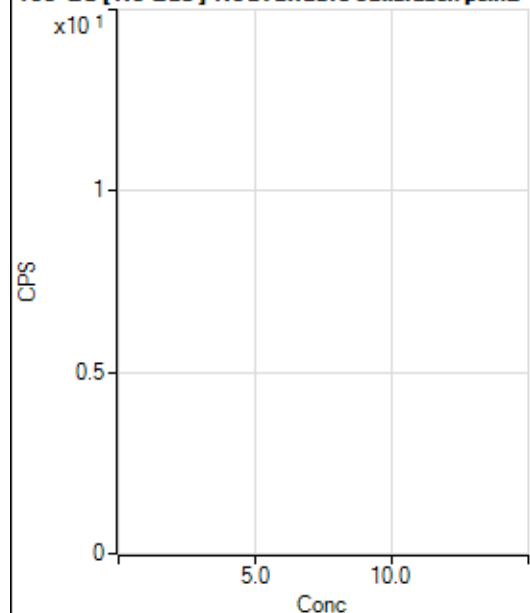
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			2.22		P	86.6
6	☐			2.22		P	173.2
7	☐			4.44		P	43.4
8	☐			8.89		P	57.3
9	☐			13.33		P	66.2

156 Dy [No Gas] No available calibration points

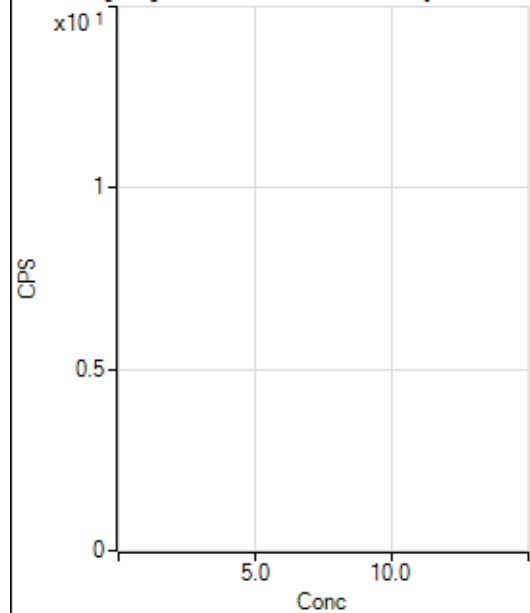
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	57.3
2	☐			11.11		P	114.6
3	☐			13.89		P	91.6
4	☐			27.78		P	17.3
5	☐			25.00		P	57.7
6	☐			33.33		P	25.0
7	☐			111.12		P	17.3
8	☐			172.23		P	7.4
9	☐			80.56		P	23.9

156 Dy [He] No available calibration points

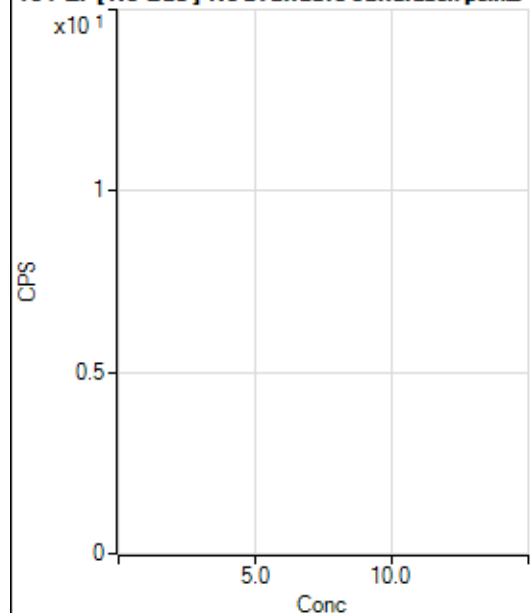
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			1.11		P	173.2
4	☐			3.33		P	100.1
5	☐			4.44		P	114.6
6	☐			4.44		P	114.6
7	☐			14.44		P	70.5
8	☐			13.33		P	25.0
9	☐			24.45		P	28.4

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

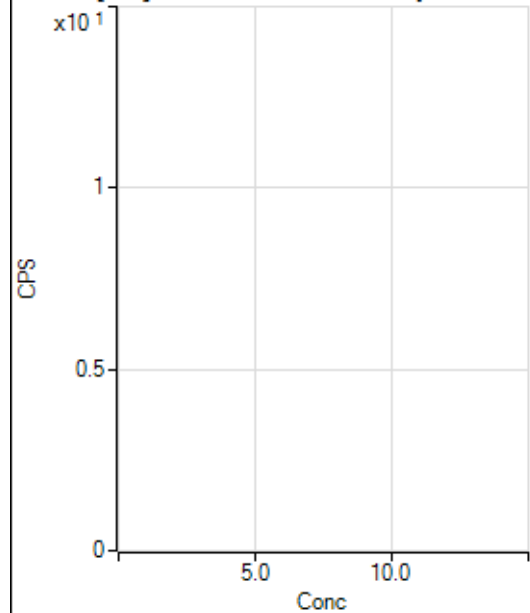
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			80.56		P	41.8
2	☐			77.78		P	27.0
3	☐			55.56		P	8.7
4	☐			77.78		P	59.0
5	☐			61.11		P	31.5
6	☐			91.67		P	31.5
7	☐			113.89		P	22.4
8	☐			177.79		P	18.9
9	☐			133.34		P	32.5

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	108.3
2	☐			12.22		P	15.7
3	☐			6.67		P	50.0
4	☐			13.33		P	50.0
5	☐			6.67		P	50.0
6	☐			8.89		P	78.1
7	☐			8.89		P	43.3
8	☐			25.56		P	7.5
9	☐			24.44		P	7.9

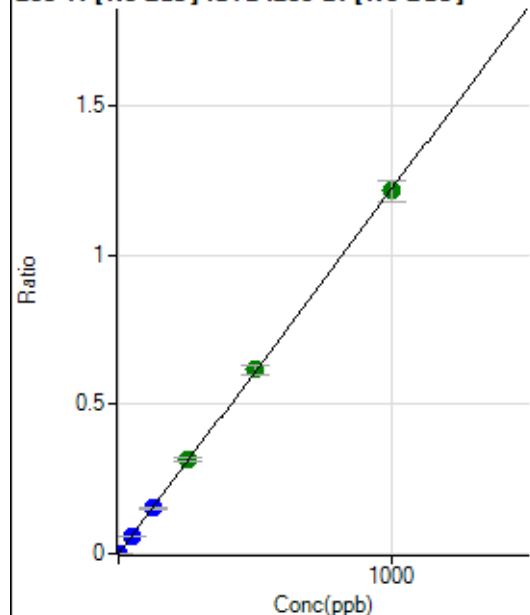
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	25.0
2	☐			38.89		P	86.6
3	☐			66.67		P	12.5
4	☐			44.45		P	39.0
5	☐			27.78		P	34.6
6	☐			50.00		P	16.7
7	☐			30.56		P	41.7
8	☐			55.56		P	45.8
9	☐			69.45		P	27.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.66		P	86.6
2	☐			12.22		P	31.5
3	☐			5.56		P	34.7
4	☐			5.55		P	69.3
5	☐			13.33		P	43.3
6	☐			5.56		P	34.7
7	☐			4.44		P	43.4
8	☐			6.67		P	50.0
9	☐			18.89		P	27.0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	172.23	0.0000	P	34.0
2	☐	0.100	0.080	883.41	0.0001	P	4.7
3	☐	1.000	0.885	8114.09	0.0011	P	4.1
4	☐	50.000	48.539	436231.93	0.0593	P	0.3
5	☐	125.000	124.757	1116565.33	0.1524	P	3.2
6	☐	250.000	257.343	2292635.86	0.3144	A	4.8
7	☐	500.000	504.743	4635720.68	0.6166	A	5.6
8	☐	1000.000	995.896	9324402.46	1.2166	A	5.7
9	☐			3144.98	0.0004	P	8.6

$$y = 0.0012 * x + 2.4328E-005$$

$$R = 0.9999$$

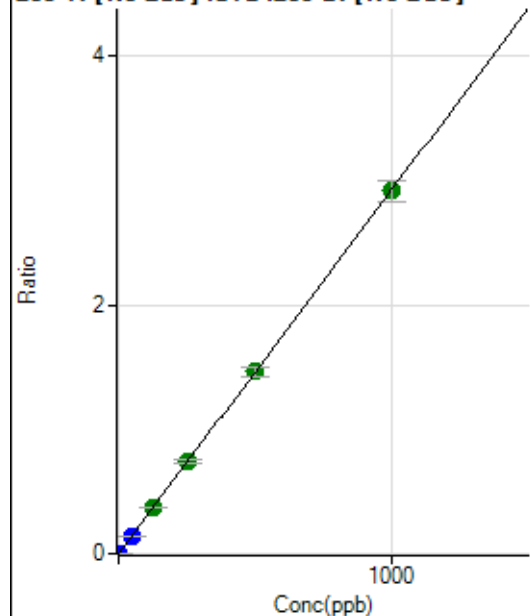
$$DL = 0.02034$$

$$BEC = 0.01992$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	255.57	0.0000	P	20.1
2	☐	0.100	0.092	2214.19	0.0003	P	2.2
3	☐	1.000	0.914	19885.84	0.0027	P	1.8
4	☐	50.000	48.654	1046956.20	0.1424	P	0.2
5	☐	125.000	126.840	2718288.47	0.3711	A	3.2
6	☐	250.000	254.690	5434540.70	0.7451	A	4.0
7	☐	500.000	501.486	11028951.03	1.4670	A	5.7
8	☐	1000.000	997.922	22372284.18	2.9192	A	5.9
9	☐			7319.15	0.0010	P	9.6

$$y = 0.0029 * x + 3.6051E-005$$

$$R = 1.0000$$

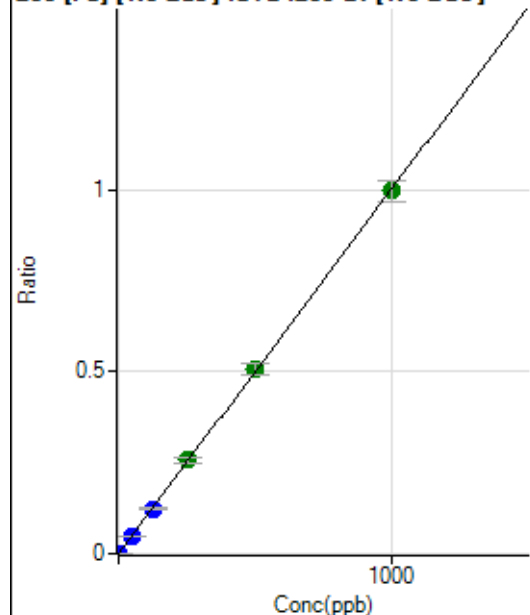
$$DL = 0.007442$$

$$BEC = 0.01232$$

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	559.29	0.0001	P	6.7
2	☐	0.100	0.102	1309.36	0.0002	P	8.0
3	☐	1.000	0.906	7226.35	0.0010	P	0.4
4	☐	50.000	48.258	355494.87	0.0483	P	0.4
5	☐	125.000	123.599	906026.36	0.1237	P	3.3
6	☐	250.000	255.893	1866731.68	0.2560	A	4.8
7	☐	500.000	506.543	3808610.67	0.5067	A	6.0
8	☐	1000.000	995.518	7631187.32	0.9957	A	5.7
9	☐			8125.09	0.0011	P	0.2

$$y = 0.0010 * x + 7.8403E-005$$

$$R = 0.9999$$

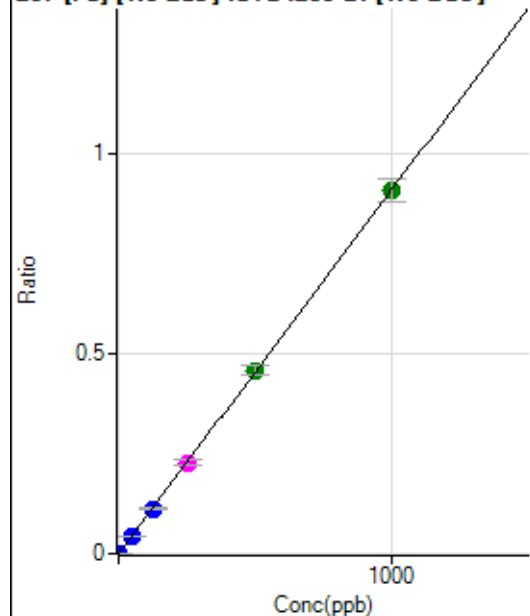
$$DL = 0.0158$$

$$BEC = 0.0784$$

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	514.84	0.0001	P	8.4
2	☐	0.100	0.088	1105.64	0.0002	P	6.7
3	☐	1.000	0.879	6394.39	0.0009	P	2.7
4	☐	50.000	48.168	322702.82	0.0439	P	0.4
5	☐	125.000	123.198	821315.69	0.1121	P	3.3
6	☐	250.000	250.529	1661686.86	0.2279	M	5.6
7	☐	500.000	504.699	3451058.41	0.4591	A	6.0
8	☐	1000.000	997.835	6954530.02	0.9076	A	6.3
9	☐			6965.07	0.0010	P	2.5

$$y = 9.0948E-004 * x + 7.2317E-005$$

$$R = 1.0000$$

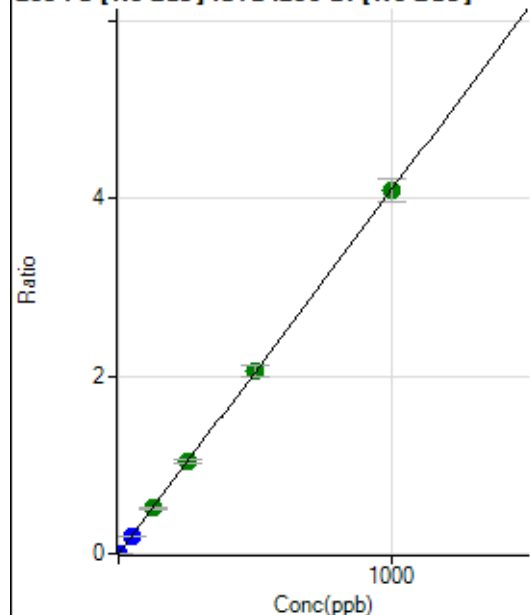
$$DL = 0.02009$$

$$BEC = 0.07951$$

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	2314.97	0.0003	P	3.4
2	☐	0.100	0.090	5032.03	0.0007	P	3.4
3	☐	1.000	0.889	29071.27	0.0040	P	3.5
4	☐	50.000	48.288	1454633.64	0.1978	P	0.3
5	☐	125.000	124.927	3744604.34	0.5112	A	3.4
6	☐	250.000	254.663	7596551.70	1.0417	A	4.9
7	☐	500.000	502.443	15447747.39	2.0550	A	6.0
8	☐	1000.000	997.708	31267216.56	4.0803	A	6.2
9	☐			31944.35	0.0045	P	1.2

$$y = 0.0041 * x + 3.2528E-004$$

$$R = 1.0000$$

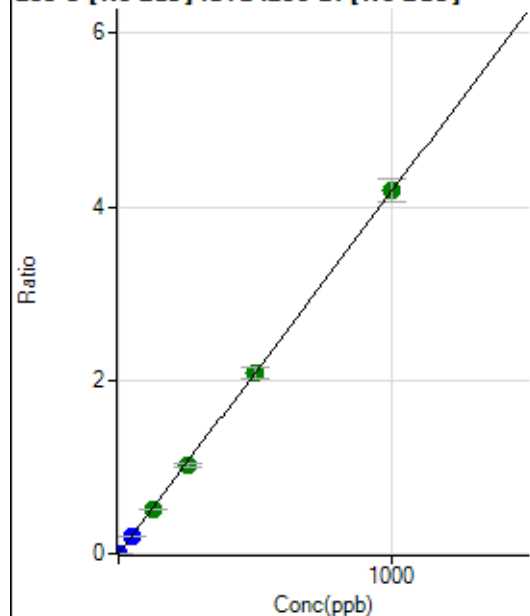
$$DL = 0.008087$$

$$BEC = 0.07954$$

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	55.56	0.0000	P	21.6
2	☐	0.100	0.083	2558.73	0.0004	P	5.1
3	☐	1.000	0.824	25304.42	0.0034	P	3.4
4	☐	50.000	46.156	1417147.70	0.1927	P	0.8
5	☐	125.000	121.602	3719397.39	0.5077	A	2.5
6	☐	250.000	246.339	7499774.82	1.0284	A	4.6
7	☐	500.000	498.956	15659983.86	2.0830	A	5.7
8	☐	1000.000	1002.054	32052933.70	4.1833	A	6.5
9	☐			1805.78	0.0003	P	2.1

$$y = 0.0042 * x + 7.8438E-006$$

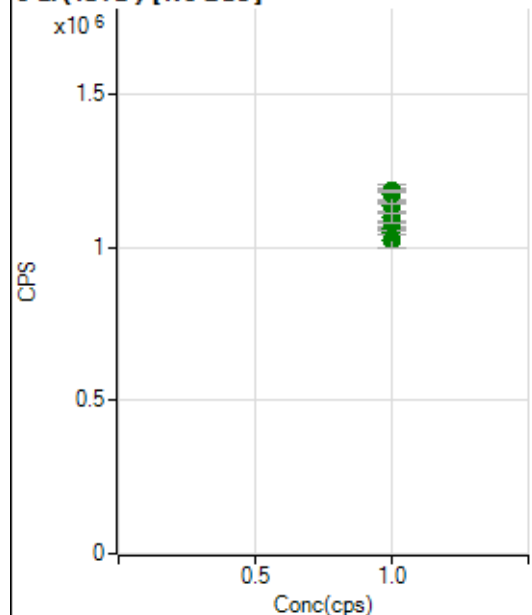
$$R = 1.0000$$

$$DL = 0.001216$$

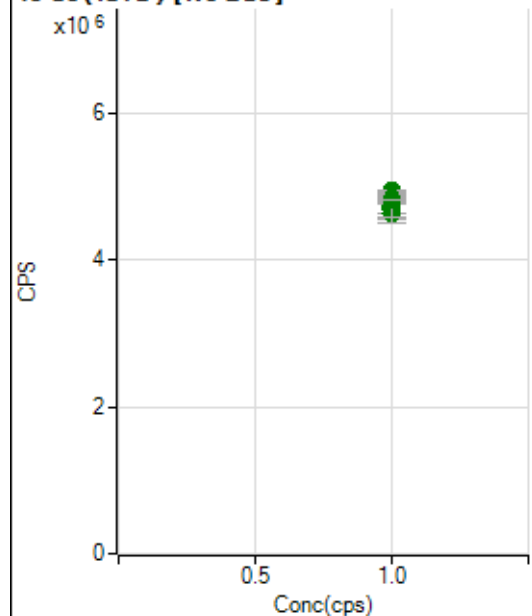
$$BEC = 0.001879$$

Weight: <None>

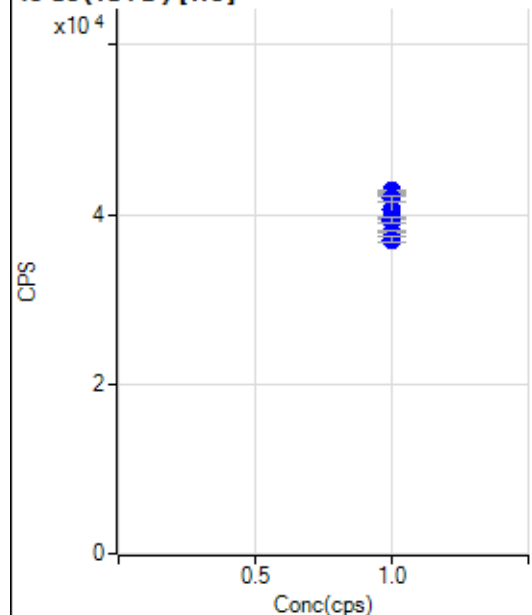
Min Conc: 0

6 Li (ISTD) [No Gas]

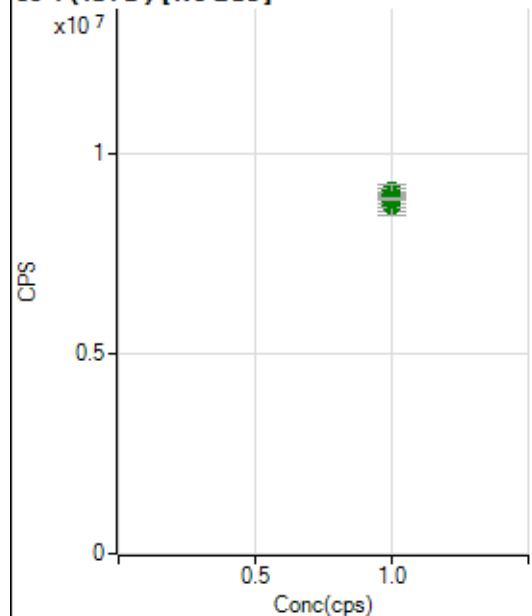
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1020787.00		A	4.0
2	☐	1.000		1049983.20		A	1.4
3	☐	1.000		1062925.56		A	1.1
4	☐	1.000		1080851.53		A	0.4
5	☐	1.000		1098550.55		A	3.1
6	☐	1.000		1133990.66		A	3.9
7	☐	1.000		1171516.41		A	3.9
8	☐	1.000		1175518.25		A	5.5
9	☐	1.000		1184053.42		A	0.7

45 Sc (ISTD) [No Gas]

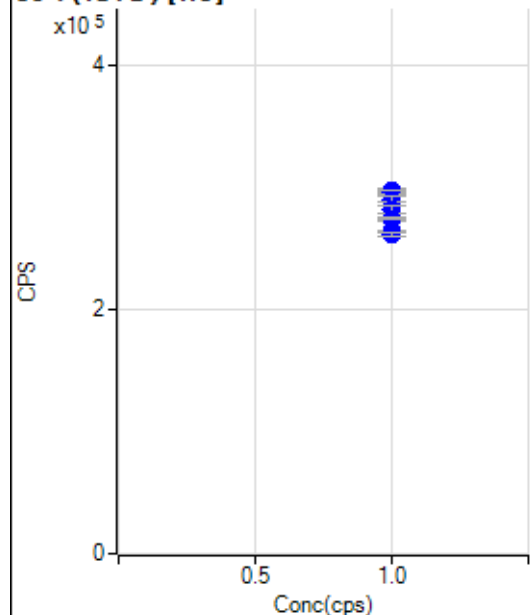
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4692362.43		A	5.1
2	☐	1.000		4865175.93		A	0.5
3	☐	1.000		4902657.70		A	1.0
4	☐	1.000		4946470.47		A	0.7
5	☐	1.000		4850340.30		A	2.4
6	☐	1.000		4752859.39		A	4.5
7	☐	1.000		4631872.85		A	5.6
8	☐	1.000		4707612.91		A	5.4
9	☐	1.000		4825035.61		A	0.2

45 Sc (ISTD) [He]

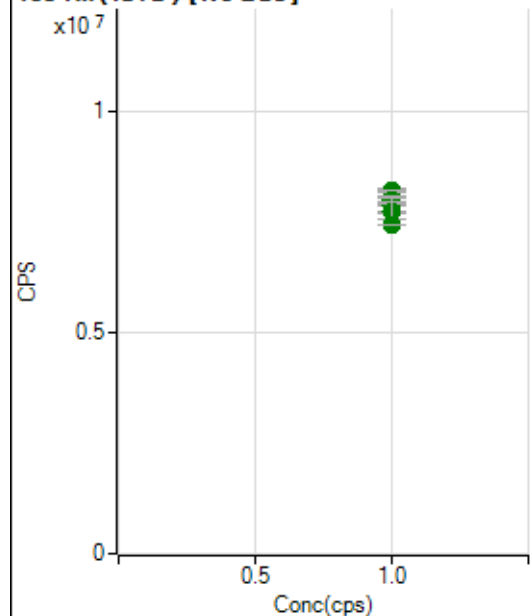
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		42232.41		P	0.8
2	☐	1.000		42787.39		P	0.2
3	☐	1.000		42710.47		P	0.8
4	☐	1.000		41870.25		P	1.3
5	☐	1.000		40554.20		P	4.3
6	☐	1.000		39249.28		P	0.8
7	☐	1.000		37975.71		P	0.5
8	☐	1.000		37055.59		P	1.4
9	☐	1.000		39416.32		P	1.6

89 Y (ISTD) [No Gas]

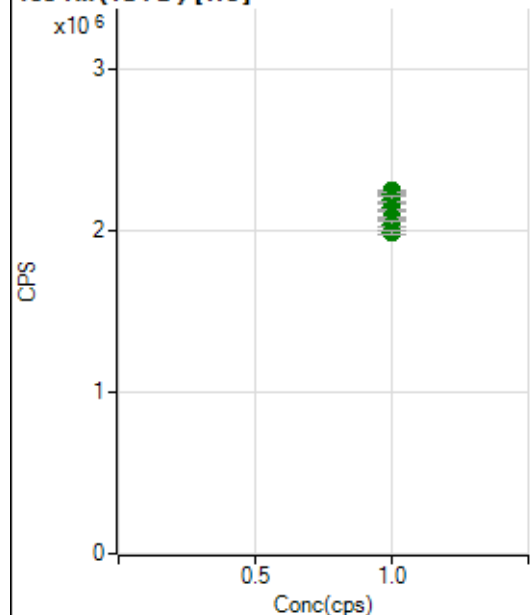
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8733181.74		A	3.9
2	☐	1.000		8970696.26		A	0.7
3	☐	1.000		8987238.48		A	0.9
4	☐	1.000		9065321.60		A	0.9
5	☐	1.000		8886949.24		A	2.8
6	☐	1.000		8797551.60		A	5.1
7	☐	1.000		8702155.56		A	5.7
8	☐	1.000		8936818.48		A	6.3
9	☐	1.000		8847312.37		A	0.5

89 Y (ISTD) [He]

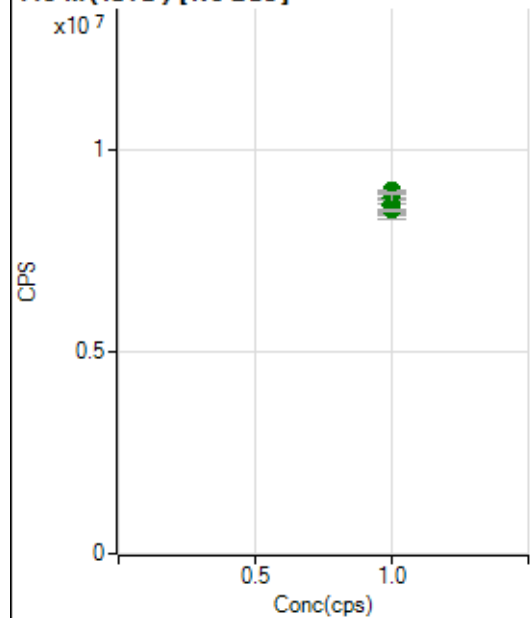
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		295089.74		P	0.5
2	☐	1.000		297430.72		P	1.0
3	☐	1.000		296548.93		P	0.7
4	☐	1.000		290734.74		P	1.6
5	☐	1.000		282256.52		P	2.5
6	☐	1.000		274157.09		P	1.1
7	☐	1.000		265305.81		P	0.2
8	☐	1.000		261094.33		P	1.1
9	☐	1.000		274992.62		P	0.6

103 Rh (ISTD) [No Gas]

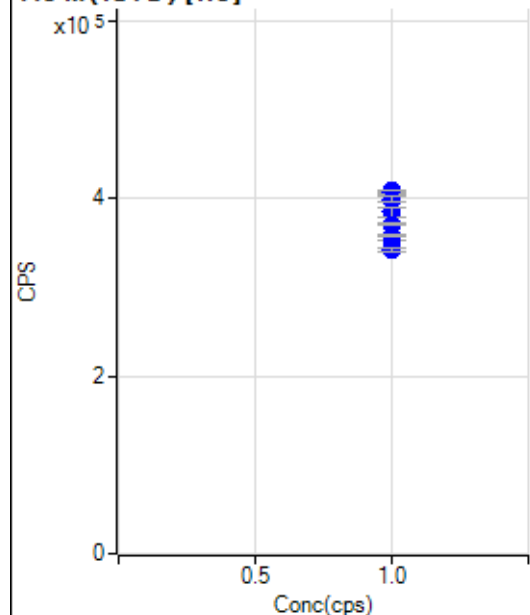
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7933749.91		A	4.1
2	☐	1.000		8220711.99		A	1.1
3	☐	1.000		8200644.11		A	0.5
4	☐	1.000		8204612.60		A	0.4
5	☐	1.000		8000829.61		A	2.8
6	☐	1.000		7895571.53		A	4.4
7	☐	1.000		7758190.89		A	4.6
8	☐	1.000		7767990.63		A	5.2
9	☐	1.000		7457777.16		A	0.2

103 Rh (ISTD) [He]

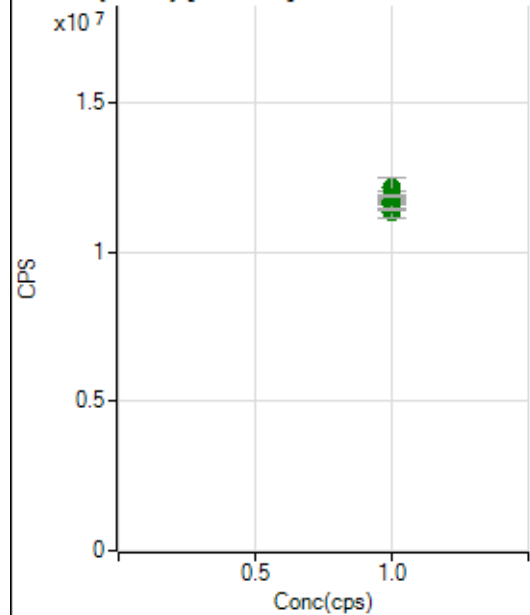
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2217204.01		A	0.2
2	☐	1.000		2244477.47		A	0.4
3	☐	1.000		2228487.40		A	0.9
4	☐	1.000		2186603.89		A	2.4
5	☐	1.000		2145569.81		A	2.6
6	☐	1.000		2127632.78		A	0.7
7	☐	1.000		2076972.71		A	0.9
8	☐	1.000		2038693.86		A	1.5
9	☐	1.000		1986289.31		A	1.2

115 In (ISTD) [No Gas]

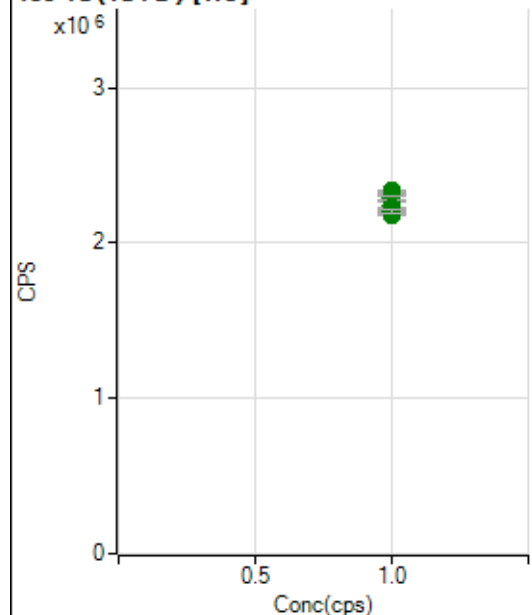
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8604132.91		A	4.9
2	☐	1.000		8907863.21		A	0.8
3	☐	1.000		8929436.53		A	0.2
4	☐	1.000		8967640.16		A	0.3
5	☐	1.000		8806928.70		A	3.0
6	☐	1.000		8672453.65		A	4.9
7	☐	1.000		8505838.56		A	5.2
8	☐	1.000		8625062.74		A	6.3
9	☐	1.000		8502959.49		A	0.4

115 In (ISTD) [He]

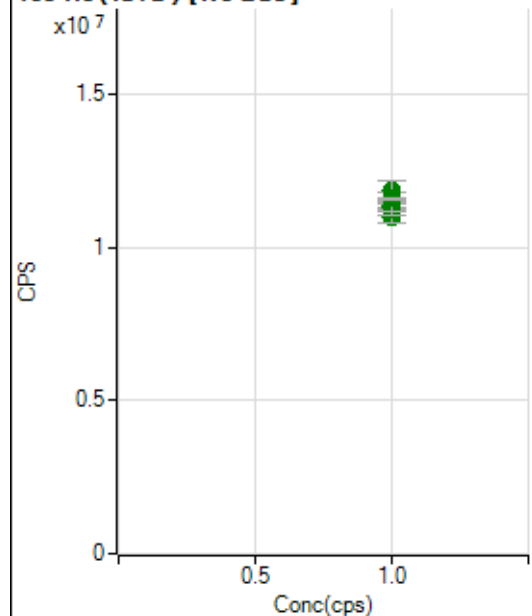
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		404157.03		P	0.6
2	☐	1.000		407975.14		P	0.5
3	☐	1.000		406576.56		P	0.9
4	☐	1.000		398296.83		P	1.8
5	☐	1.000		384102.80		P	2.8
6	☐	1.000		370852.47		P	0.8
7	☐	1.000		352141.31		P	0.4
8	☐	1.000		341370.69		P	1.2
9	☐	1.000		357780.47		P	0.1

159 Tb (ISTD) [No Gas]

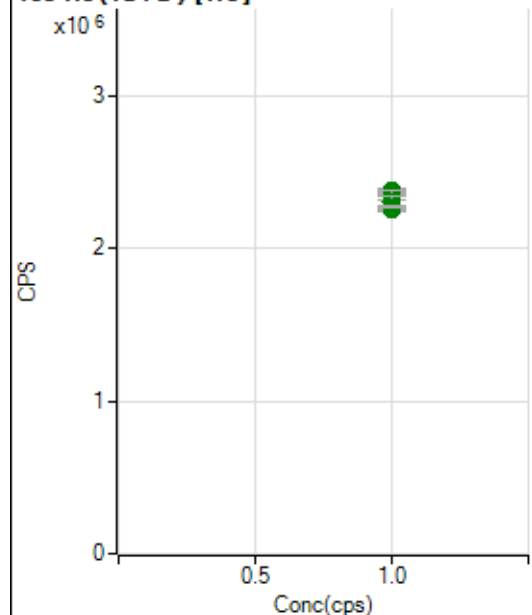
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11364423.72		A	4.2
2	☐	1.000		11677567.88		A	0.2
3	☐	1.000		11738083.02		A	0.1
4	☐	1.000		11786855.94		A	0.2
5	☐	1.000		11690230.66		A	3.3
6	☐	1.000		11615244.97		A	3.7
7	☐	1.000		11743928.44		A	4.8
8	☐	1.000		12156712.73		A	5.7
9	☐	1.000		11884673.43		A	0.5

159 Tb (ISTD) [He]

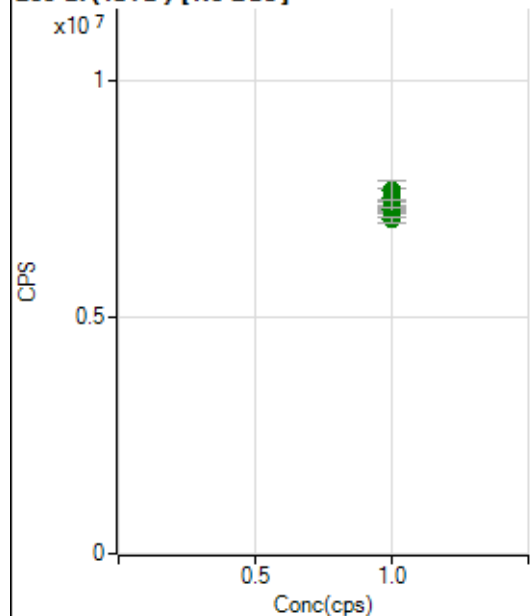
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2310040.71		A	0.8
2	☐	1.000		2336134.58		A	0.7
3	☐	1.000		2312489.95		A	0.4
4	☐	1.000		2287726.55		A	1.6
5	☐	1.000		2240627.31		A	3.5
6	☐	1.000		2228029.38		A	0.6
7	☐	1.000		2196511.01		A	1.1
8	☐	1.000		2183490.05		A	0.8
9	☐	1.000		2203930.52		A	0.7

165 Ho (ISTD) [No Gas]

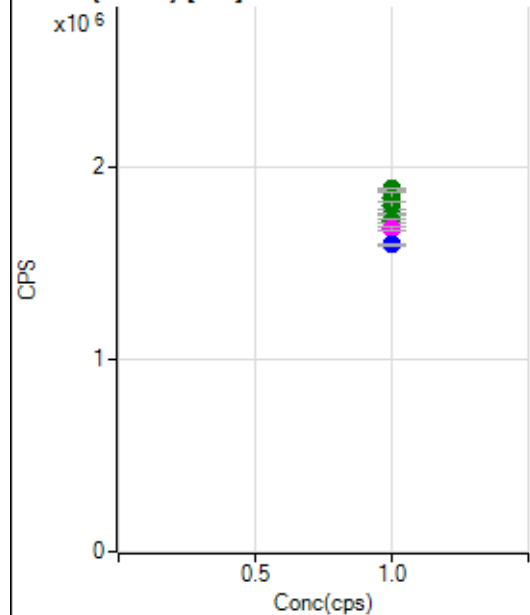
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10988347.90		A	4.1
2	☐	1.000		11240845.56		A	0.6
3	☐	1.000		11275115.18		A	0.5
4	☐	1.000		11439803.64		A	0.8
5	☐	1.000		11378852.51		A	3.0
6	☐	1.000		11261876.56		A	4.0
7	☐	1.000		11463043.75		A	5.4
8	☐	1.000		11834115.37		A	5.5
9	☐	1.000		11597356.86		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2354306.22		A	0.3
2	☐	1.000		2378557.25		A	1.2
3	☐	1.000		2367766.32		A	0.5
4	☐	1.000		2347370.07		A	2.5
5	☐	1.000		2306601.60		A	3.4
6	☐	1.000		2268426.41		A	0.4
7	☐	1.000		2261690.76		A	0.5
8	☐	1.000		2252312.83		A	0.4
9	☐	1.000		2273603.71		A	0.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7122635.94		A	3.9
2	☐	1.000		7261907.32		A	0.5
3	☐	1.000		7338701.07		A	1.1
4	☐	1.000		7354184.75		A	0.3
5	☐	1.000		7330203.15		A	3.0
6	☐	1.000		7303003.50		A	4.6
7	☐	1.000		7532866.14		A	5.2
8	☐	1.000		7680195.93		A	5.4
9	☐	1.000		7068482.40		A	1.4

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1867399.09		A	0.1
2	☐	1.000		1885633.70		A	0.4
3	☐	1.000		1886743.84		A	0.3
4	☐	1.000		1844448.20		A	2.5
5	☐	1.000		1800236.13		A	2.6
6	☐	1.000		1755018.45		A	0.7
7	☐	1.000		1722735.34		A	1.2
8	☐	1.000		1678746.73		M	1.3
9	☐	1.000		1595458.67		P	0.5

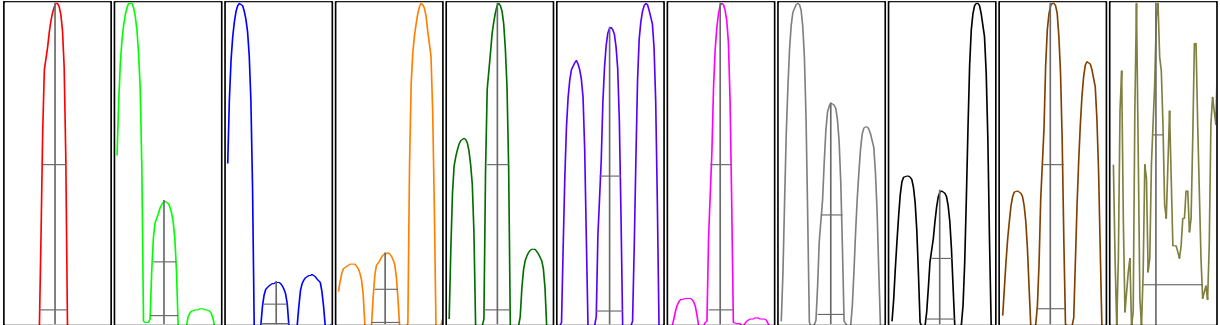
US EPA Tune Check Sample Report

Batch Folder D:\P8100717-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5994	1.24	5.00	
24	34373	0.74	5.00	
25	4735	0.68	5.00	
26	5399	0.72	5.00	
59	81988	0.64	5.00	
113	11499	1.30	5.00	
115	145404	1.64	5.00	
206	34984	0.65	5.00	
207	31715	0.86	5.00	
208	74796	0.96	5.00	
220	1	21.98		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5962	6100	5913	5958	6037
24	34526	34620	33960	34392	34368
25	4747	4784	4712	4728	4703
26	5398	5439	5344	5433	5380
59	82484	82201	81114	82213	81926
113	11648	11442	11498	11279	11625
115	147649	147510	144651	141823	145387
206	35048	34880	34694	34991	35309
207	31624	31661	31549	31546	32194
208	74907	74709	74012	74422	75930
220	1	1	1	2	2

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	9384	8.95	8.9 - 9.1		0.787	0.900	
24	53648	23.90	23.9 - 24.1		0.788	0.900	
25	7223	24.95	24.9 - 25.1		0.790	0.900	
26	8425	25.90	25.9 - 26.1		0.787	0.900	
59	134542	58.95	58.9 - 59.1		0.742	0.900	
113	20181	113.00	112.9 - 113.1		0.740	0.900	
115	255079	115.00	114.9 - 115.1		0.738	0.900	
206	60533	206.00	205.9 - 206.1		0.787	0.900	
207	54258	206.95	206.9 - 207.1		0.818	0.900	
208	129950	207.95	207.9 - 208.1		0.800	0.900	
220	2	219.80	-		1.693		

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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.1	V	Deflect	14.2	V
Extract 2	-235.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-85	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	10763	1.04	
89	2249	0.76	
205	14936	0.80	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	10960	10694	10703	10753	10708
89	2277	2238	2235	2243	2253
205	15142	14935	14847	14879	14877

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.1	V	Deflect	1.4	V
Extract 2	-235.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-85	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	5.0	mL/min	OctP RF	200	V			