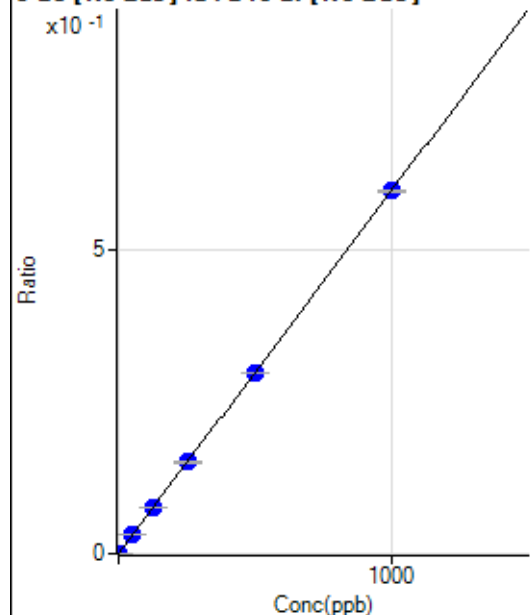


Batch Folder: D:\ICP-MS Data\P711042019 MS.b\
Analysis File: P711042019 MS.batch.bin
DA Date-Time: 2019-11-04 12:34:41
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-11-04 11:02:38
2	004CALS.d	S01	2019-11-04 11:06:11
3	005CALS.d	S02	2019-11-04 11:10:50
4	006CALS.d	S03	2019-11-04 11:14:44
5	007CALS.d	S04	2019-11-04 11:18:51
6	008CALS.d	S05	2019-11-04 11:22:39
7	009CALS.d	S06	2019-11-04 11:26:26
8	010CALS.d	S07	2019-11-04 11:30:11
9	011CALS.d	S08	2019-11-04 11:33:56

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.30	0.0000	P	27.7
2	☐	0.100	0.113	381.49	0.0001	P	10.4
3	☐	1.000	1.049	3217.10	0.0006	P	4.7
4	☐	50.000	51.553	154923.04	0.0307	P	1.0
5	☐	125.000	127.811	385317.65	0.0761	P	0.6
6	☐	250.000	251.764	739412.39	0.1499	P	0.9
7	☐	500.000	499.111	1440182.56	0.2972	P	0.5
8	☐	1000.000	999.575	2776620.63	0.5952	P	0.7
9	☐			442.61	0.0001	P	13.7

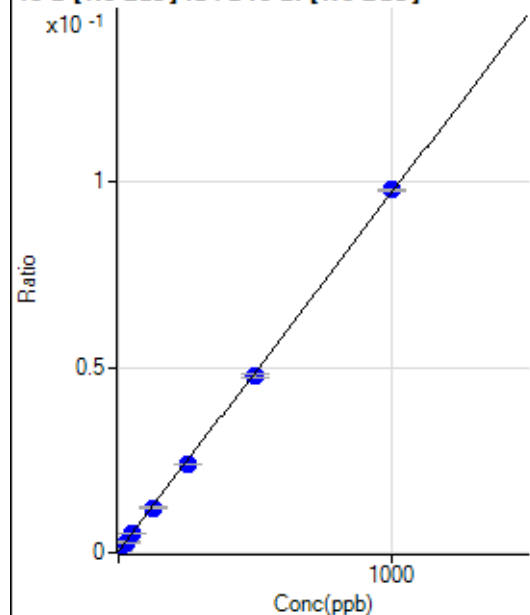
$$y = 5.9542\text{E-}004 * x + 9.0014\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.01254$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2211.36	0.0004	P	10.5
2	☐	2.500	5.167	4648.12	0.0009	P	2.2
3	☐	25.000	25.066	14477.00	0.0029	P	3.5
4	☐	50.000	49.684	26384.93	0.0052	P	2.4
5	☐	125.000	120.703	61199.77	0.0121	P	2.5
6	☐	250.000	241.007	116947.33	0.0237	P	0.8
7	☐	500.000	488.019	230495.35	0.0476	P	1.9
8	☐	1000.000	1008.784	456594.12	0.0979	P	0.4
9	☐			20186.37	0.0044	P	6.5

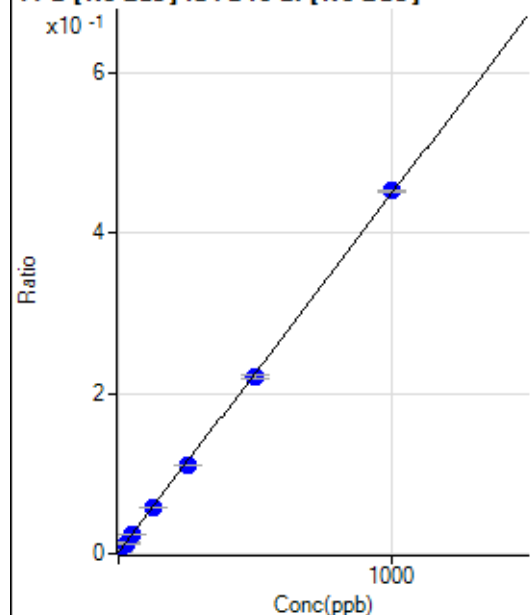
$$y = 9.6592\text{E-}005 * x + 4.3012\text{E-}004$$

$$R = 0.9998$$

$$DL = 1.4$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10395.65	0.0020	P	5.6
2	☐	2.500	4.623	20450.62	0.0041	P	1.4
3	☐	25.000	24.539	65963.93	0.0130	P	3.2
4	☐	50.000	50.099	123219.68	0.0244	P	1.8
5	☐	125.000	122.669	287900.09	0.0569	P	0.4
6	☐	250.000	242.089	543844.76	0.1103	P	0.4
7	☐	500.000	487.719	1066329.77	0.2201	P	2.4
8	☐	1000.000	1008.411	2112922.77	0.4529	P	0.7
9	☐			93369.12	0.0203	P	7.1

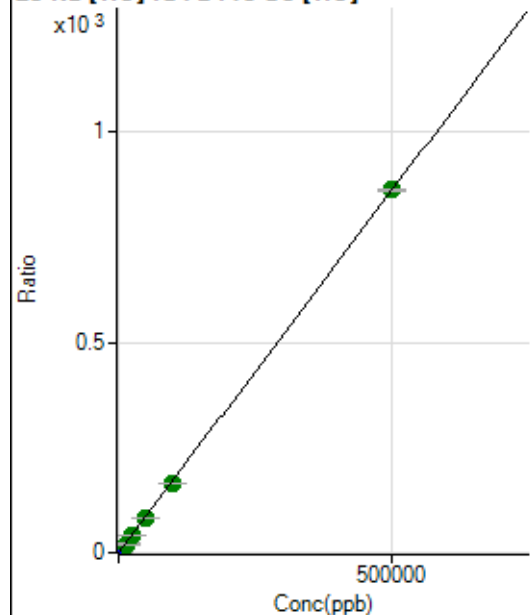
$$y = 4.4710\text{E-}004 * x + 0.0020$$

$$R = 0.9998$$

$$DL = 0.7548$$

Weight: <None>

Min Conc: 0

23 Na [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7849.54	0.0246	P	2.3
2	☐	50.000	47.424	33037.31	0.1063	P	1.7
3	☐	500.000	500.572	268376.64	0.8867	P	2.0
4	☐	5000.000	4844.457	2604732.76	8.3672	P	2.0
5	☐	12500.000	11918.289	6337361.99	20.5489	A	0.5
6	☐	25000.000	23592.173	12614792.82	40.6523	A	0.6
7	☐	50000.000	47491.998	25072059.59	81.8097	A	0.3
8	☐	100000.00	95393.540	50463334.81	164.3000	A	0.1
9	☐	500000.00	501258.58	279363159.0	863.2324	A	0.5

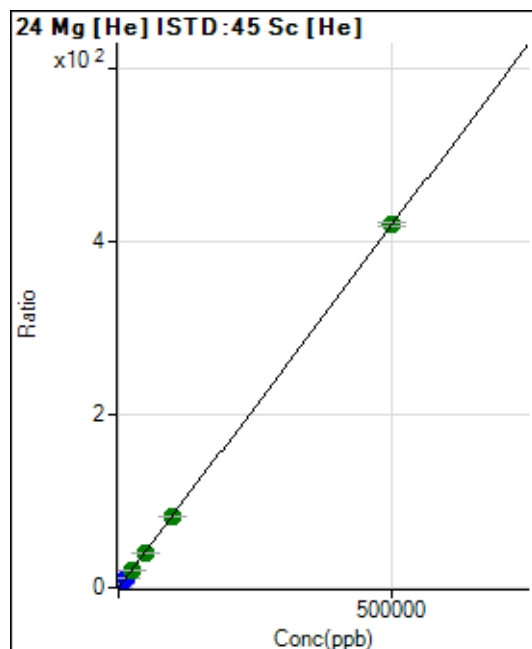
$$y = 0.0017 * x + 0.0246$$

$$R = 0.9999$$

$$DL = 1.004$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.12	0.0006	P	22.7
2	☐	50.000	50.901	13442.65	0.0432	P	6.1
3	☐	500.000	533.506	135522.86	0.4477	P	0.2
4	☐	5000.000	4967.895	1296232.80	4.1638	P	1.6
5	☐	12500.000	12385.350	3201122.84	10.3797	P	0.9
6	☐	25000.000	24178.779	6287628.40	20.2628	A	0.8
7	☐	50000.000	48704.201	12508660.96	40.8155	A	0.4
8	☐	100000.00	97036.296	24975859.59	81.3186	A	0.3
9	☐	500000.00	500766.53	135810433.5	419.6514	A	0.9

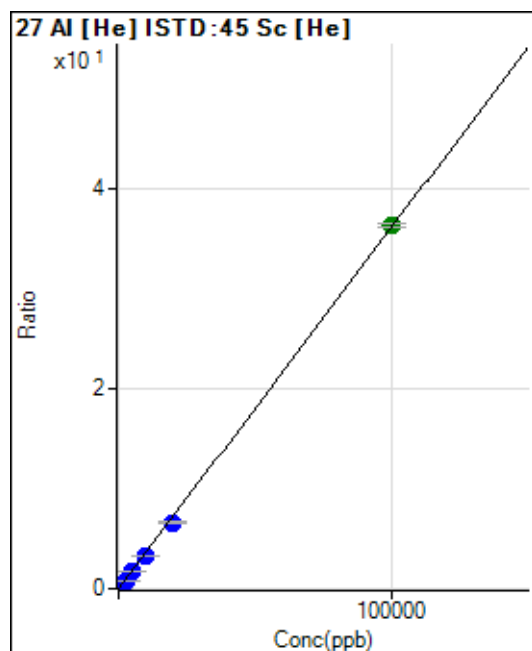
$$y = 8.3802\text{E-}004 * x + 5.8425\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.4741$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0001	P	17.3
2	☐	2.000	1.934	244.46	0.0008	P	8.9
3	☐	20.000	17.991	1994.66	0.0066	P	4.8
4	☐	1000.000	932.983	105034.23	0.3374	P	0.9
5	☐	2500.000	2318.376	258501.97	0.8382	P	0.7
6	☐	5000.000	4548.736	510297.89	1.6445	P	0.6
7	☐	10000.000	9219.961	1021468.46	3.3331	P	0.7
8	☐	20000.000	18337.771	2036082.88	6.6293	P	0.4
9	☐	100000.00	100438.22	11750424.22	36.3089	A	1.2

$$y = 3.6150\text{E-}004 * x + 8.7173\text{E-}005$$

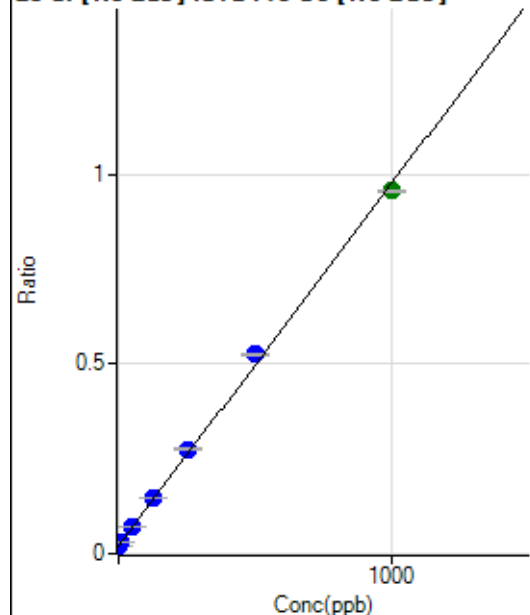
$$R = 0.9998$$

$$DL = 0.1248$$

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	176436.36	0.0208	P	0.7
2	☐	1.000	1.890	183034.10	0.0226	P	0.4
3	☐	10.000	10.029	248630.15	0.0303	P	3.3
4	☐	50.000	53.011	579360.13	0.0713	P	0.5
5	☐	125.000	132.497	1200320.02	0.1471	P	0.6
6	☐	250.000	267.043	2204494.62	0.2754	P	0.9
7	☐	500.000	529.001	4203320.93	0.5253	P	1.4
8	☐	1000.000	980.150	7565209.63	0.9555	A	0.4
9	☐			356816.28	0.0449	P	2.3

$$y = 9.5366\text{E-}004 * x + 0.0208$$

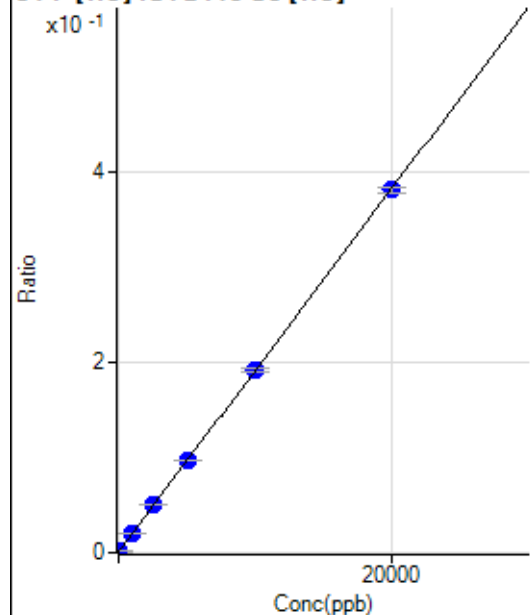
$$R = 0.9992$$

$$DL = 0.4487$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-19.048	108.34	0.0003	P	7.7
2	☐	0.000	-15.360	127.78	0.0004	P	32.6
3	☐	0.000	34.407	411.13	0.0014	P	18.2
4	☐	1000.000	995.933	6134.85	0.0197	P	3.8
5	☐	2500.000	2591.785	15461.40	0.0501	P	1.7
6	☐	5000.000	5029.040	29980.95	0.0966	P	1.0
7	☐	10000.000	10062.146	59026.11	0.1926	P	1.8
8	☐	20000.000	19950.397	117076.93	0.3812	P	1.3
9	☐			222.23	0.0007	P	22.4

$$y = 1.9072\text{E-}005 * x + 7.0333\text{E-}004$$

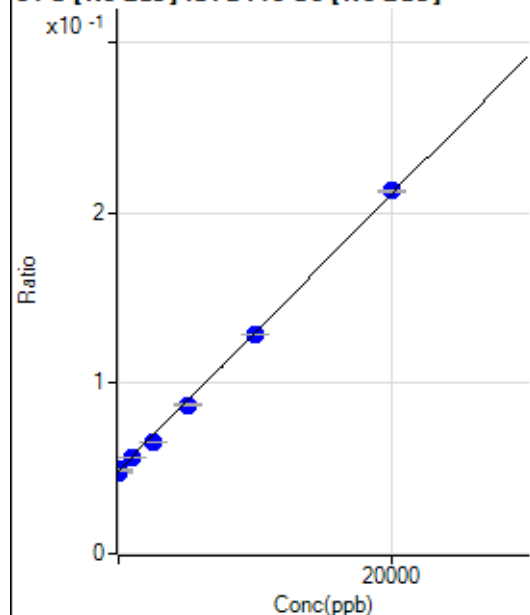
$$R = 1.0000$$

$$DL = 21.33$$

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	-211.458	400372.71	0.0471	P	0.5
2	☐	0.000	138.946	405216.44	0.0500	P	0.4
3	☐	0.000	72.512	405234.66	0.0494	P	2.8
4	☐	1000.000	891.932	455580.18	0.0561	P	0.5
5	☐	2500.000	2084.481	536514.59	0.0658	P	0.5
6	☐	5000.000	4729.027	698067.12	0.0872	P	0.5
7	☐	10000.000	9815.519	1028244.59	0.1285	P	0.5
8	☐	20000.000	20217.327	1685381.40	0.2129	P	0.5
9	☐			393207.83	0.0495	P	1.8

$$y = 8.1131E-006 * x + 0.0489$$

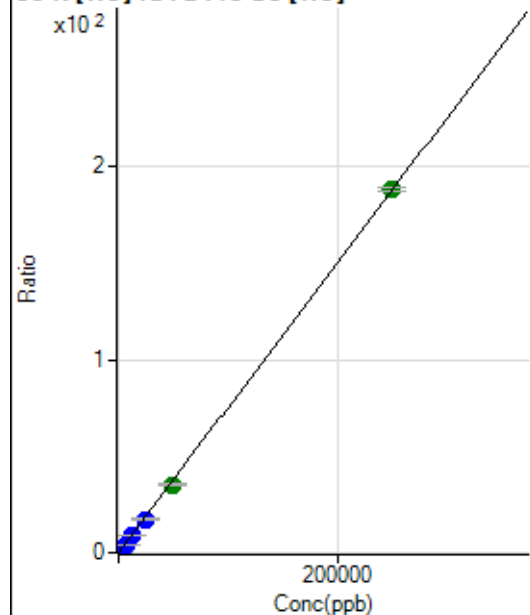
$$R = 0.9996$$

$$DL = 222.1$$

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	17566.56	0.0551	P	2.2
2	☐	50.000	50.671	28934.69	0.0931	P	1.5
3	☐	500.000	493.086	128546.68	0.4247	P	0.8
4	☐	2500.000	2352.415	565979.27	1.8181	P	1.8
5	☐	6250.000	5874.559	1374746.21	4.4576	P	0.2
6	☐	12500.000	11500.528	2691497.52	8.6737	P	0.7
7	☐	25000.000	23172.922	5338896.35	17.4211	P	0.5
8	☐	50000.000	47073.334	10851825.50	35.3323	A	0.5
9	☐	250000.00	250828.89	60850961.77	188.0284	A	1.1

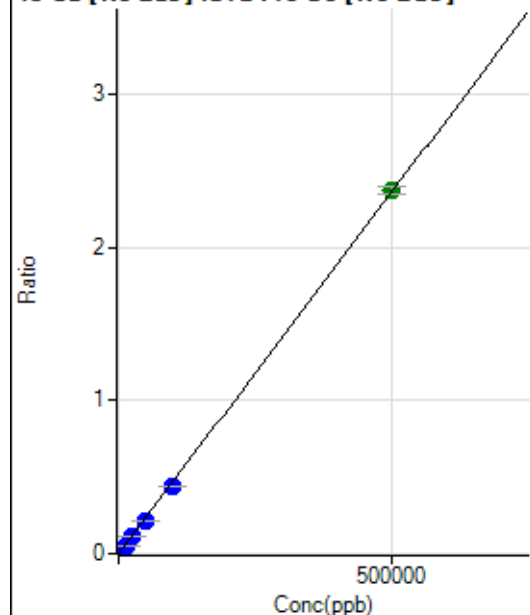
$$y = 7.4941E-004 * x + 0.0551$$

$$R = 0.9999$$

$$DL = 4.833$$

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	122.23	0.0000	P	15.4
2	☐	50.000	46.394	1894.65	0.0002	P	1.6
3	☐	500.000	468.658	18284.24	0.0022	P	1.5
4	☐	5000.000	4738.069	182033.14	0.0224	P	1.0
5	☐	12500.000	11652.467	449472.06	0.0551	P	1.1
6	☐	25000.000	23011.285	870694.44	0.1088	P	0.5
7	☐	50000.000	45831.409	1733885.22	0.2167	P	0.4
8	☐	100000.00	92741.735	3470853.55	0.4384	P	0.5
9	☐	500000.00	501991.78	18864412.06	2.3729	A	2.1

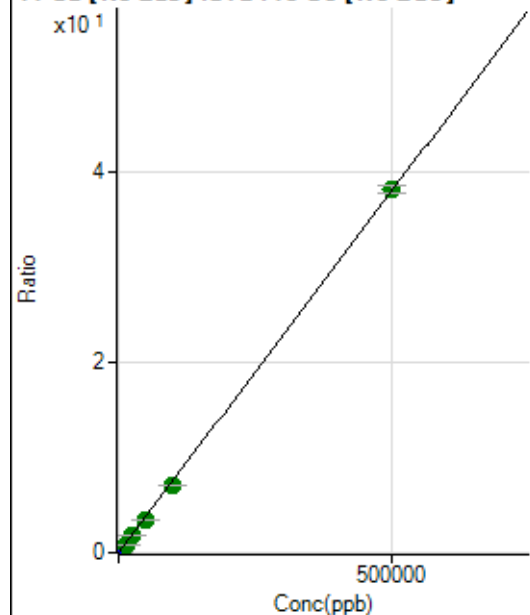
$$y = 4.7269\text{E-}006 * x + 1.4384\text{E-}005$$

$$R = 0.9999$$

$$DL = 1.406$$

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	9111.85	0.0011	P	7.4
2	☐	50.000	48.863	38821.55	0.0048	P	2.3
3	☐	500.000	466.254	299439.43	0.0365	P	1.6
4	☐	5000.000	4683.510	2901246.03	0.3572	P	0.4
5	☐	12500.000	11576.955	7190022.90	0.8813	A	0.5
6	☐	25000.000	23015.899	14015088.33	1.7511	A	0.5
7	☐	50000.000	46055.327	28033500.28	3.5028	A	0.6
8	☐	100000.00	93225.230	56127861.67	7.0893	A	0.4
9	☐	500000.00	501874.90	303380501.2	38.1604	A	2.1

$$y = 7.6034\text{E-}005 * x + 0.0011$$

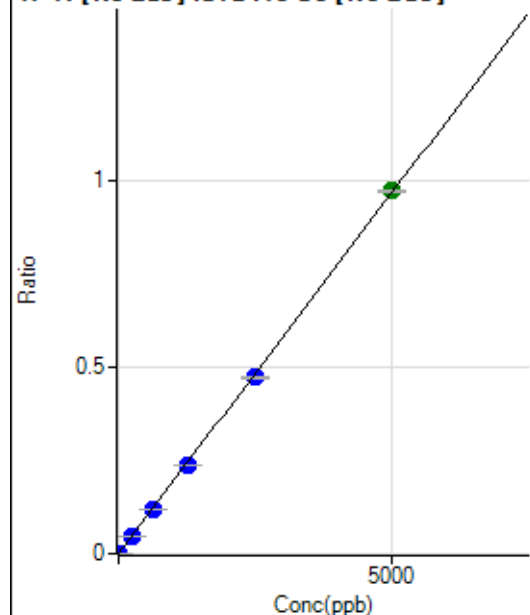
$$R = 0.9999$$

$$DL = 3.123$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.12	0.0000	P	23.9
2	☐	0.500	0.545	936.18	0.0001	P	8.7
3	☐	5.000	5.058	8088.65	0.0010	P	2.7
4	☐	250.000	247.591	388398.69	0.0478	P	1.3
5	☐	625.000	615.188	969170.88	0.1188	P	0.8
6	☐	1250.000	1226.578	1895710.85	0.2368	P	0.2
7	☐	2500.000	2446.635	3780727.73	0.4724	P	0.8
8	☐	5000.000	5033.885	7695480.73	0.9720	A	0.6
9	☐			4156.31	0.0005	P	3.4

$$y = 1.9309\text{E-}004 * x + 1.0131\text{E-}005$$

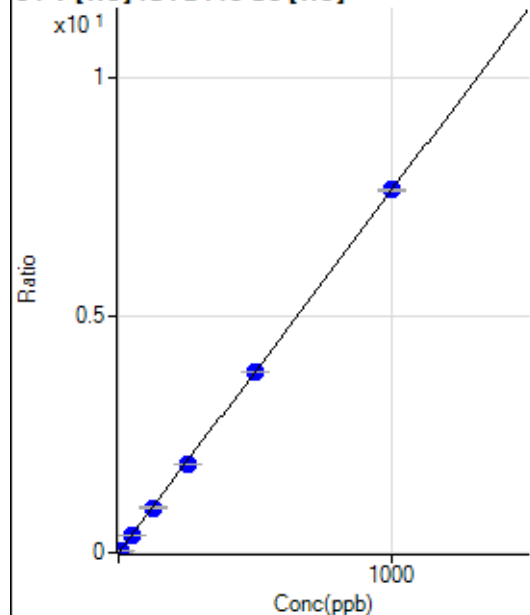
$$R = 0.9999$$

$$DL = 0.03763$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.44	0.0000	P	43.3
2	☐	0.500	0.503	1198.96	0.0039	P	8.9
3	☐	5.000	5.423	12539.94	0.0414	P	1.6
4	☐	50.000	49.802	118390.40	0.3803	P	2.3
5	☐	125.000	124.589	293414.35	0.9514	P	1.1
6	☐	250.000	245.214	581045.88	1.8725	P	0.8
7	☐	500.000	499.550	1169060.07	3.8147	P	0.4
8	☐	1000.000	1001.481	2348780.19	7.6475	P	0.8
9	☐			723.36	0.0022	P	10.0

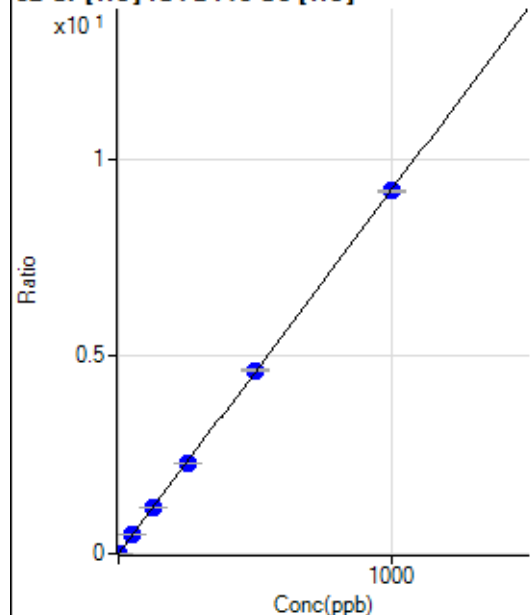
$$y = 0.0076 * x + 1.3941\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.002369$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	598.91	0.0019	P	8.9
2	☐	0.200	0.210	1185.62	0.0038	P	8.4
3	☐	2.000	2.104	6434.84	0.0213	P	2.0
4	☐	50.000	51.219	147442.18	0.4736	P	2.2
5	☐	125.000	126.980	361276.63	1.1714	P	0.9
6	☐	250.000	248.857	711831.11	2.2940	P	0.8
7	☐	500.000	504.362	1424232.41	4.6474	P	0.5
8	☐	1000.000	997.796	2823251.90	9.1922	P	0.3
9	☐			116352.89	0.3595	P	1.3

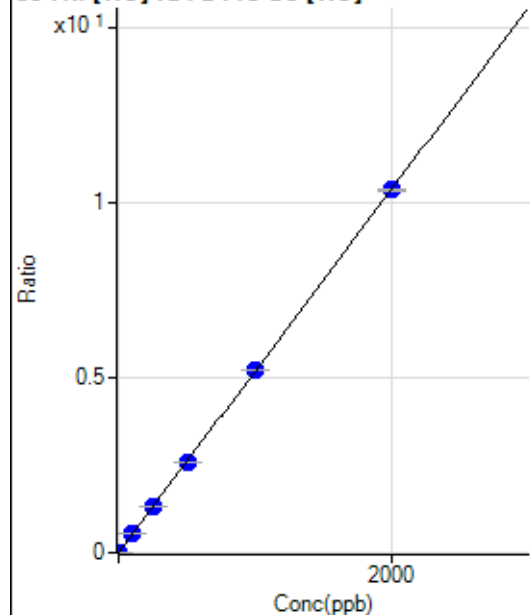
$$y = 0.0092 * x + 0.0019$$

$$R = 1.0000$$

$$DL = 0.05457$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	367.79	0.0012	P	5.9
2	☐	0.100	0.074	477.79	0.0015	P	14.8
3	☐	1.000	1.147	2149.08	0.0071	P	1.7
4	☐	100.000	102.848	166354.30	0.5344	P	1.4
5	☐	250.000	256.280	410119.01	1.3298	P	0.3
6	☐	500.000	500.551	805622.87	2.5962	P	0.3
7	☐	1000.000	1003.267	1594365.88	5.2025	P	0.2
8	☐	2000.000	1997.301	3180745.82	10.3559	P	0.3
9	☐			13550.85	0.0419	P	2.4

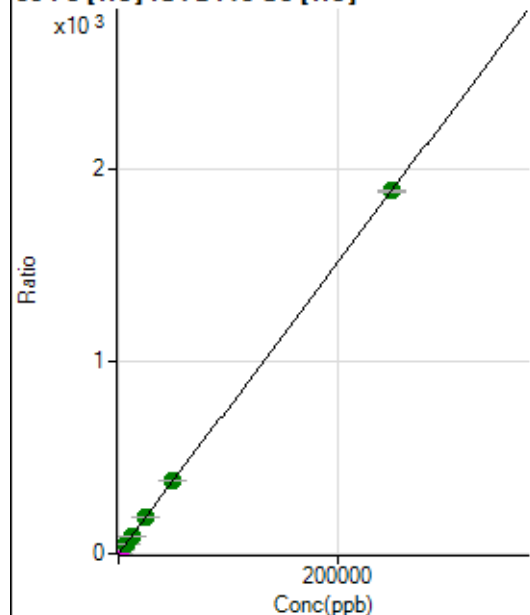
$$y = 0.0052 * x + 0.0012$$

$$R = 1.0000$$

$$DL = 0.03929$$

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	3709.83	0.0116	P	5.4
2	☐	5.000	5.362	16175.97	0.0520	P	1.5
3	☐	50.000	56.116	131522.98	0.4345	P	1.7
4	☐	2500.000	2542.853	5968709.04	19.1736	M	2.3
5	☐	6250.000	6381.218	14833594.77	48.0981	A	0.7
6	☐	12500.000	12506.780	29248582.14	94.2580	A	0.7
7	☐	25000.000	24981.612	57695982.77	188.2635	A	0.3
8	☐	50000.000	49873.616	115434933.1	375.8402	A	0.1
9	☐	250000.00	250023.06	609738532.1	1,884.090	A	0.6

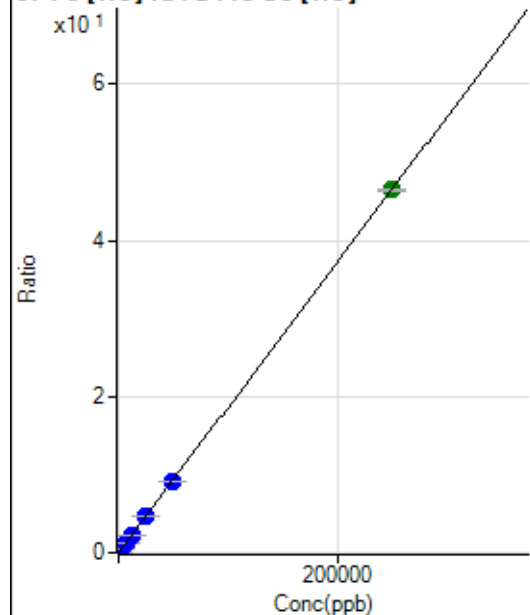
$$y = 0.0075 * x + 0.0116$$

$$R = 1.0000$$

$$DL = 0.2488$$

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	203.71	0.0006	P	12.3
2	☐	5.000	5.256	501.87	0.0016	P	15.3
3	☐	50.000	58.421	3478.28	0.0115	P	3.9
4	☐	2500.000	2573.561	149030.72	0.4787	P	1.5
5	☐	6250.000	6365.977	364902.70	1.1832	P	1.0
6	☐	12500.000	12440.281	717297.40	2.3116	P	0.6
7	☐	25000.000	24983.031	1422478.49	4.6416	P	0.2
8	☐	50000.000	49423.635	2820039.65	9.1818	P	0.4
9	☐	250000.00	250116.31	15036654.85	46.4632	A	0.6

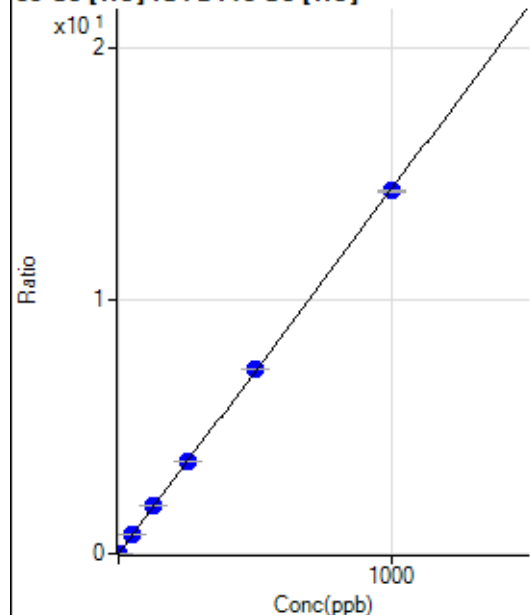
$$y = 1.8576E-004 * x + 6.3938E-004$$

$$R = 1.0000$$

$$DL = 1.274$$

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	87.78	0.0003	P	9.7
2	☐	0.100	0.103	545.57	0.0018	P	8.9
3	☐	1.000	1.125	4986.48	0.0165	P	4.0
4	☐	50.000	52.505	235565.86	0.7567	P	1.4
5	☐	125.000	130.019	577749.32	1.8734	P	0.5
6	☐	250.000	253.582	1133661.50	3.6534	P	0.8
7	☐	500.000	506.384	2235701.32	7.2953	P	1.0
8	☐	1000.000	995.160	4403222.78	14.3367	P	0.8
9	☐			9575.49	0.0296	P	3.9

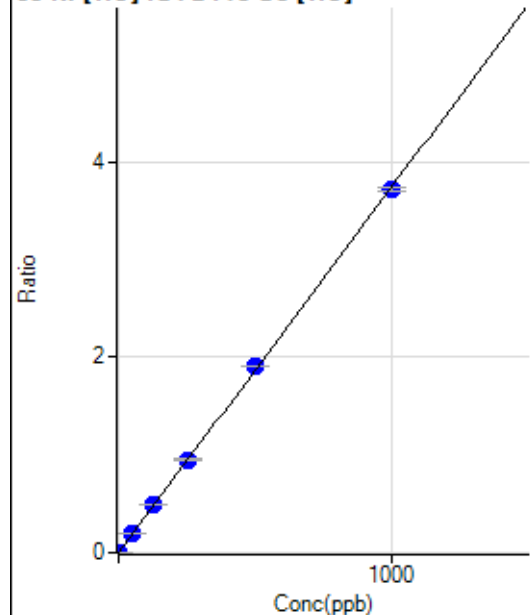
$$y = 0.0144 * x + 2.7553E-004$$

$$R = 1.0000$$

$$DL = 0.00559$$

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	28.89	0.0001	P	40.5
2	☐	0.100	0.101	145.56	0.0005	P	4.8
3	☐	1.000	1.183	1367.87	0.0045	P	7.1
4	☐	50.000	52.967	61748.39	0.1984	P	2.2
5	☐	125.000	132.066	152487.97	0.4944	P	0.7
6	☐	250.000	255.114	296349.66	0.9550	P	0.8
7	☐	500.000	509.401	584385.22	1.9069	P	0.5
8	☐	1000.000	992.989	1141603.95	3.7170	P	0.9
9	☐			32169.82	0.0994	P	1.4

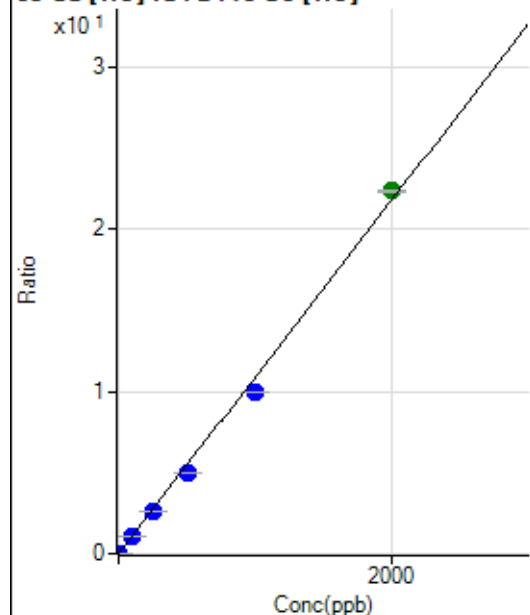
$$y = 0.0037 * x + 9.0667E-005$$

$$R = 0.9999$$

$$DL = 0.0294$$

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	1381.20	0.0043	P	2.7
2	☐	0.200	0.172	1930.16	0.0062	P	3.6
3	☐	2.000	1.987	7856.66	0.0260	P	1.7
4	☐	100.000	96.997	329974.14	1.0599	P	1.2
5	☐	250.000	238.696	802444.03	2.6020	P	1.4
6	☐	500.000	458.509	1549633.50	4.9941	P	1.3
7	☐	1000.000	915.692	3055201.38	9.9694	P	0.8
8	☐	2000.000	2054.090	6866968.79	22.3580	A	0.4
9	☐			12865.81	0.0398	P	0.6

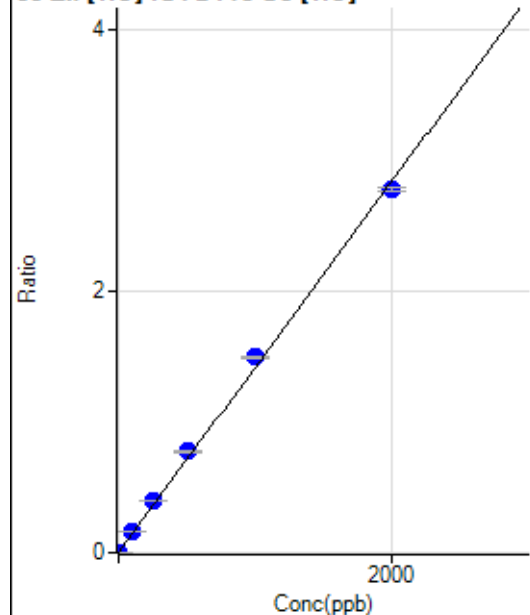
$$y = 0.0109 * x + 0.0043$$

$$R = 0.9985$$

$$DL = 0.03185$$

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	283.34	0.0009	P	6.9
2	☐	0.200	0.242	382.23	0.0012	P	12.4
3	☐	2.000	2.568	1368.98	0.0045	P	3.2
4	☐	100.000	117.287	51954.60	0.1669	P	0.5
5	☐	250.000	282.664	123643.70	0.4009	P	0.1
6	☐	500.000	544.226	239264.68	0.7711	P	0.9
7	☐	1000.000	1053.772	457290.88	1.4922	P	0.8
8	☐	2000.000	1957.109	850926.34	2.7706	P	0.9
9	☐			13147.21	0.0406	P	0.2

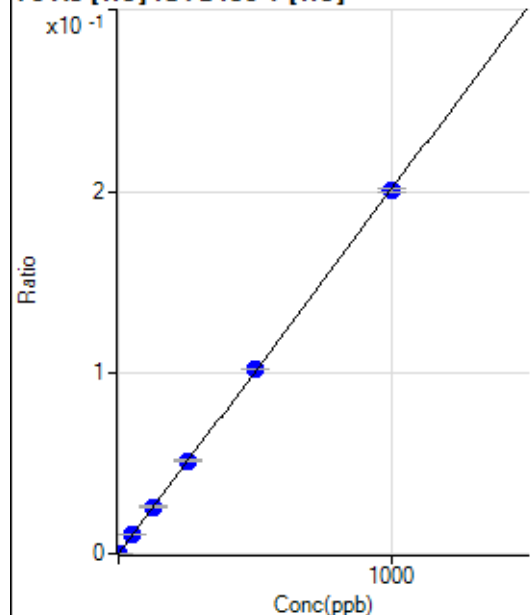
$$y = 0.0014 * x + 8.8922E-004$$

$$R = 0.9991$$

$$DL = 0.1306$$

Weight: <None>

Min Conc: 0

75 As [He] ISTD:89 Y [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7.41	0.0000	P	25.5
2	☐	0.100	0.079	30.25	0.0000	P	18.5
3	☐	1.000	1.057	308.65	0.0002	P	7.2
4	☐	50.000	52.862	15478.70	0.0106	P	2.0
5	☐	125.000	129.120	37245.78	0.0260	P	1.2
6	☐	250.000	254.528	73946.05	0.0512	P	1.0
7	☐	500.000	506.145	145250.57	0.1019	P	0.6
8	☐	1000.000	995.137	281581.78	0.2003	P	1.0
9	☐			118.52	0.0001	P	12.0

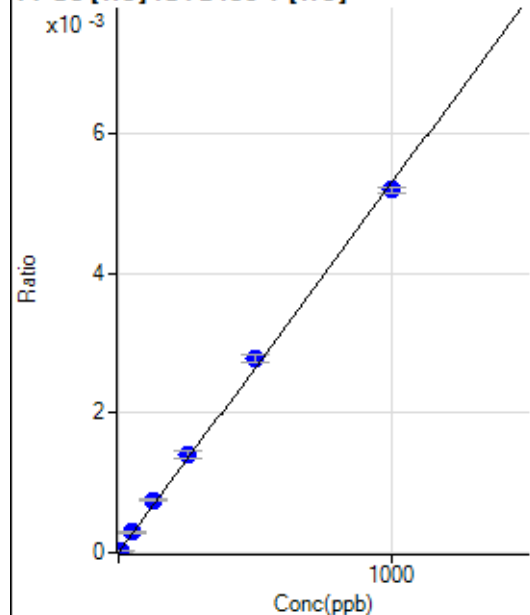
$$y = 2.0125\text{E-}004 * x + 4.9767\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.01889$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.22	0.0000	P	86.6
2	☐	0.500	0.299	4.44	0.0000	P	114.
3	☐	5.000	5.635	44.45	0.0000	P	23.3
4	☐	50.000	56.375	435.57	0.0003	P	10.0
5	☐	125.000	142.369	1081.17	0.0008	P	1.8
6	☐	250.000	265.694	2030.17	0.0014	P	8.0
7	☐	500.000	523.791	3951.71	0.0028	P	4.2
8	☐	1000.000	981.688	7301.94	0.0052	P	1.6
9	☐			4.44	0.0000	P	43.4

$$y = 5.2886\text{E-}006 * x + 1.4856\text{E-}006$$

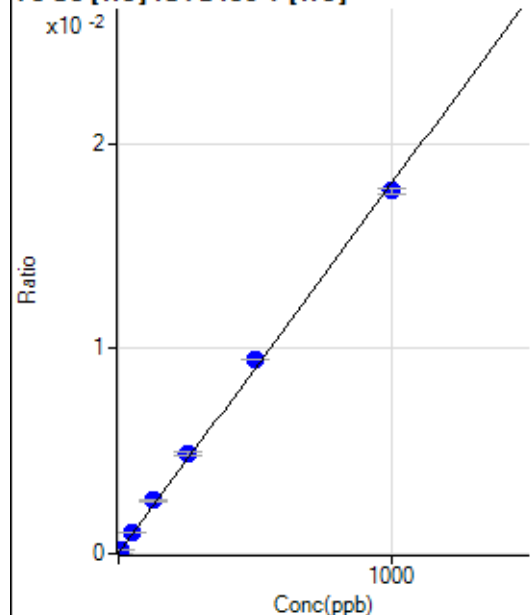
$$R = 0.9994$$

$$DL = 0.7298$$

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	52.47	0.0000	P	14.8
2	☐	0.500	0.133	54.32	0.0000	P	25.8
3	☐	5.000	6.331	211.73	0.0001	P	4.5
4	☐	50.000	56.264	1524.79	0.0010	P	5.4
5	☐	125.000	143.612	3757.31	0.0026	P	3.7
6	☐	250.000	270.598	7085.73	0.0049	P	3.3
7	☐	500.000	523.974	13507.58	0.0095	P	0.5
8	☐	1000.000	980.217	24872.01	0.0177	P	1.4
9	☐			77.78	0.0001	P	15.8

$$y = 1.8012\text{E-}005 * x + 3.5226\text{E-}005$$

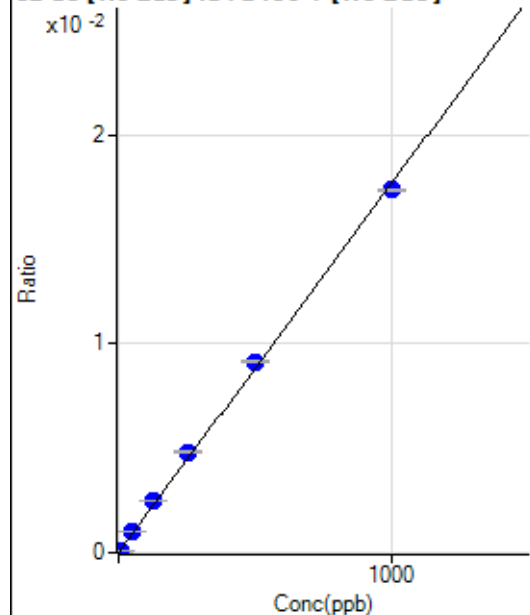
$$R = 0.9992$$

$$DL = 0.8671$$

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	53.73	0.0000	P	137.
2	☐	0.500	0.610	180.62	0.0000	P	57.4
3	☐	5.000	5.908	1344.08	0.0001	P	3.1
4	☐	50.000	57.365	12421.10	0.0010	P	1.6
5	☐	125.000	140.389	30518.22	0.0025	P	0.5
6	☐	250.000	272.402	58423.18	0.0048	P	0.8
7	☐	500.000	517.793	110279.91	0.0091	P	0.6
8	☐	1000.000	983.207	203569.89	0.0174	P	0.3
9	☐			309.15	0.0000	P	15.0

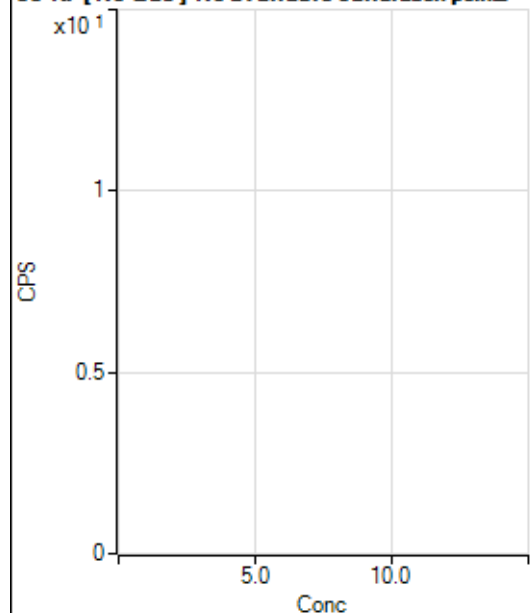
$$y = 1.7661\text{E-}005 * x + 4.1462\text{E-}006$$

$$R = 0.9994$$

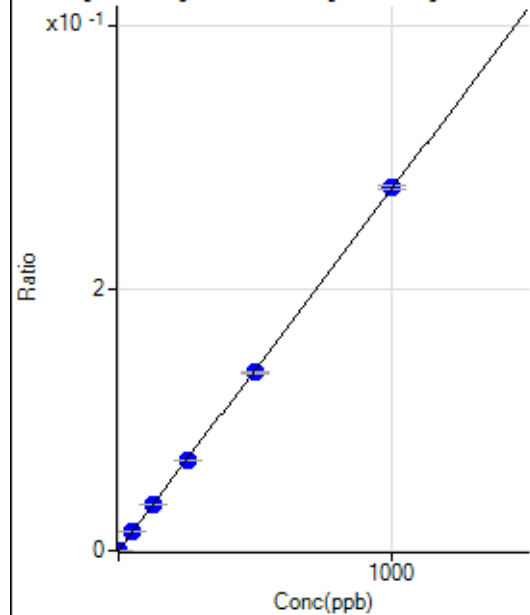
$$DL = 0.9671$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1335.64		P	2.7
2	☐			1236.74		P	2.1
3	☐			1321.20		P	3.4
4	☐			1291.19		P	3.3
5	☐			1226.74		P	2.3
6	☐			1222.30		P	1.8
7	☐			1225.63		P	2.7
8	☐			1331.20		P	1.9
9	☐			1248.97		P	2.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2103.02	0.0002	P	4.3
2	☐	0.100	0.122	2380.87	0.0002	P	8.9
3	☐	1.000	0.956	5278.97	0.0004	P	7.3
4	☐	50.000	50.416	171598.12	0.0141	P	1.2
5	☐	125.000	125.547	427057.03	0.0348	P	0.8
6	☐	250.000	248.399	832401.52	0.0686	P	0.5
7	☐	500.000	493.232	1640036.31	0.1361	P	0.8
8	☐	1000.000	1003.695	3243215.78	0.2767	P	1.0
9	☐			15595.23	0.0014	P	4.2

$$y = 2.7553\text{E-}004 * x + 1.6309\text{E-}004$$

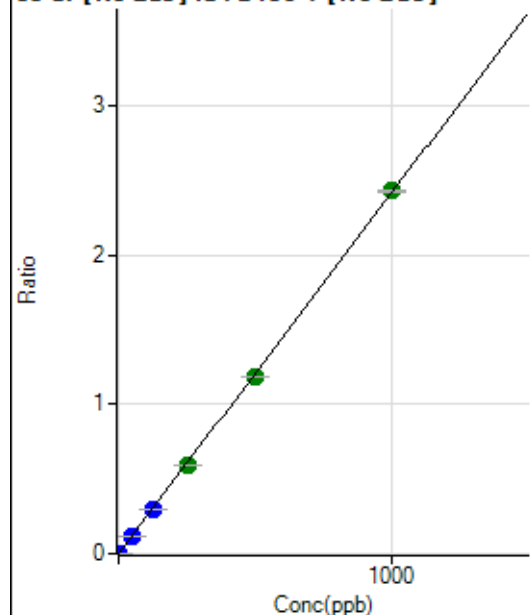
$$R = 1.0000$$

$$DL = 0.07681$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	75.00	0.0000	P	33.5
2	☐	0.100	0.107	3194.93	0.0003	P	2.2
3	☐	1.000	1.006	30174.23	0.0024	P	4.3
4	☐	50.000	49.786	1469688.52	0.1204	P	0.2
5	☐	125.000	122.379	3635479.51	0.2959	P	1.2
6	☐	250.000	244.807	7180830.20	0.5918	A	1.1
7	☐	500.000	491.721	14329655.01	1.1888	A	0.1
8	☐	1000.000	1005.776	28498685.36	2.4315	A	0.4
9	☐			121562.51	0.0106	P	2.0

$$y = 0.0024 * x + 5.8175E-006$$

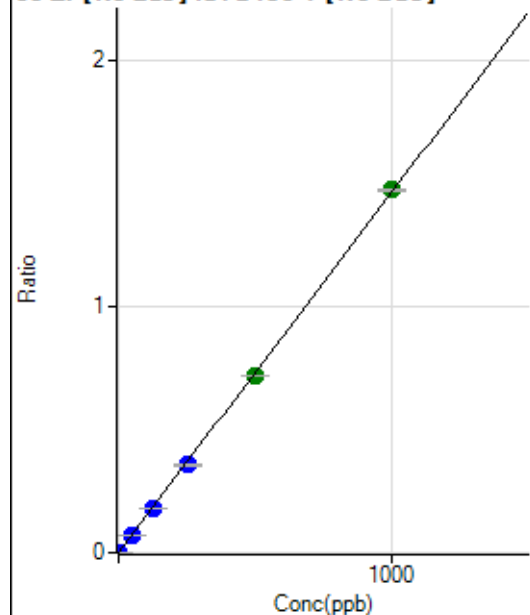
$$R = 0.9999$$

$$DL = 0.002417$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	705.61	0.0001	P	11.1
2	☐	0.100	0.081	2103.03	0.0002	P	6.8
3	☐	1.000	0.819	15495.04	0.0013	P	4.5
4	☐	50.000	48.767	870625.28	0.0713	P	0.9
5	☐	125.000	120.850	2170346.73	0.1766	P	0.3
6	☐	250.000	242.980	4307867.59	0.3551	P	1.2
7	☐	500.000	489.803	8626740.47	0.7157	A	0.2
8	☐	1000.000	1007.434	17252095.00	1.4720	A	0.3
9	☐			5090.01	0.0004	P	5.5

$$y = 0.0015 * x + 5.4745E-005$$

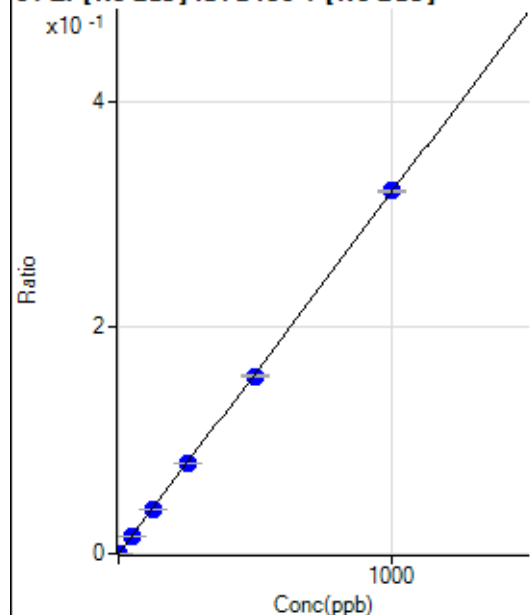
$$R = 0.9999$$

$$DL = 0.0125$$

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	180.57	0.0000	P	4.8
2	☐	0.100	0.065	419.47	0.0000	P	11.1
3	☐	1.000	0.821	3417.23	0.0003	P	2.6
4	☐	50.000	49.239	191964.09	0.0157	P	1.2
5	☐	125.000	123.493	484269.16	0.0394	P	1.0
6	☐	250.000	248.729	962932.70	0.0794	P	0.9
7	☐	500.000	492.135	1892639.95	0.1570	P	0.2
8	☐	1000.000	1004.477	3755940.45	0.3205	P	0.2
9	☐			1233.44	0.0001	P	7.3

$$y = 3.1902\text{E-}004 * x + 1.4002\text{E-}005$$

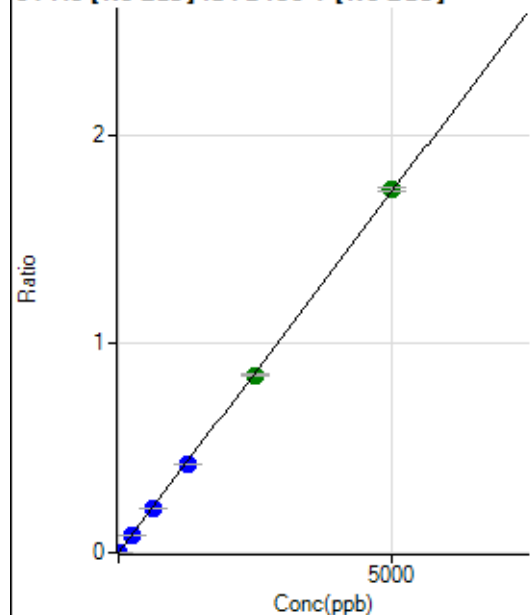
$$R = 1.0000$$

$$DL = 0.006258$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	272.24	0.0000	P	13.2
2	☐	0.500	0.485	2280.83	0.0002	P	4.6
3	☐	5.000	4.773	20662.82	0.0017	P	2.9
4	☐	250.000	246.488	1039155.11	0.0851	P	0.2
5	☐	625.000	612.793	2599531.39	0.2116	P	0.6
6	☐	1250.000	1222.237	5119575.42	0.4219	P	0.2
7	☐	2500.000	2460.631	10238762.99	0.8494	A	1.2
8	☐	5000.000	5028.327	20343863.13	1.7358	A	1.1
9	☐			19274.72	0.0017	P	4.9

$$y = 3.4519\text{E-}004 * x + 2.1124\text{E-}005$$

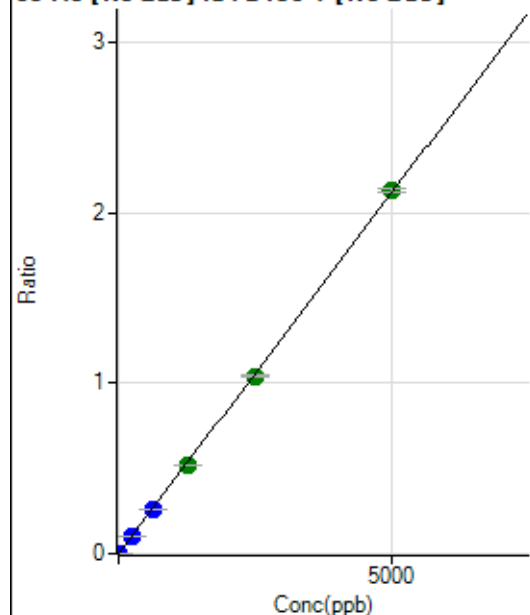
$$R = 0.9999$$

$$DL = 0.02431$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	55.56	0.0000	P	46.0
2	☐	0.500	0.516	2694.82	0.0002	P	5.3
3	☐	5.000	5.006	26272.26	0.0021	P	2.8
4	☐	250.000	245.819	1269390.37	0.1040	P	0.4
5	☐	625.000	613.472	3188019.63	0.2594	P	0.8
6	☐	1250.000	1226.156	6291896.28	0.5186	A	0.7
7	☐	2500.000	2459.036	12535720.68	1.0400	A	0.7
8	☐	5000.000	5028.093	24923073.65	2.1264	A	1.1
9	☐			28518.30	0.0025	P	0.9

$$y = 4.2291\text{E-}004 * x + 4.3100\text{E-}006$$

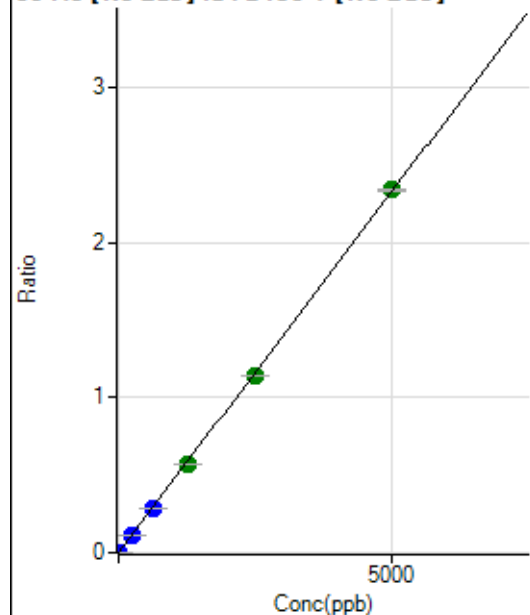
$$R = 0.9999$$

$$DL = 0.01408$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	133.34	0.0000	P	21.4
2	☐	0.500	0.544	3186.60	0.0003	P	9.7
3	☐	5.000	5.004	28941.31	0.0023	P	3.2
4	☐	250.000	247.793	1406913.85	0.1152	P	0.2
5	☐	625.000	614.113	3508911.01	0.2856	P	0.4
6	☐	1250.000	1225.848	6916046.94	0.5700	A	0.6
7	☐	2500.000	2449.853	13731132.95	1.1391	A	0.4
8	☐	5000.000	5032.583	27426287.07	2.3400	A	0.8
9	☐			44774.06	0.0039	P	1.8

$$y = 4.6497\text{E-}004 * x + 1.0337\text{E-}005$$

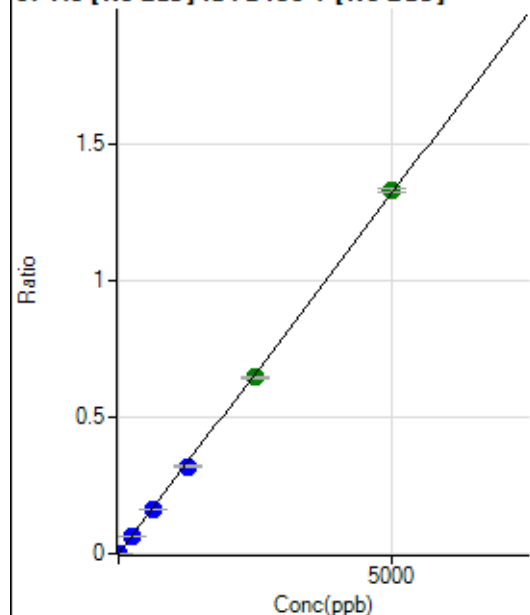
$$R = 0.9999$$

$$DL = 0.01428$$

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	38.89	0.0000	P	44.0
2	☐	0.500	0.496	1619.62	0.0001	P	2.3
3	☐	5.000	4.953	16184.81	0.0013	P	6.4
4	☐	250.000	248.005	797766.17	0.0653	P	0.8
5	☐	625.000	609.929	1974492.54	0.1607	P	0.2
6	☐	1250.000	1209.696	3866680.03	0.3187	P	1.0
7	☐	2500.000	2447.372	7771926.21	0.6447	A	0.7
8	☐	5000.000	5038.374	15557193.23	1.3273	A	0.9
9	☐			17416.90	0.0015	P	2.0

$$y = 2.6344\text{E-}004 * x + 3.0113\text{E-}006$$

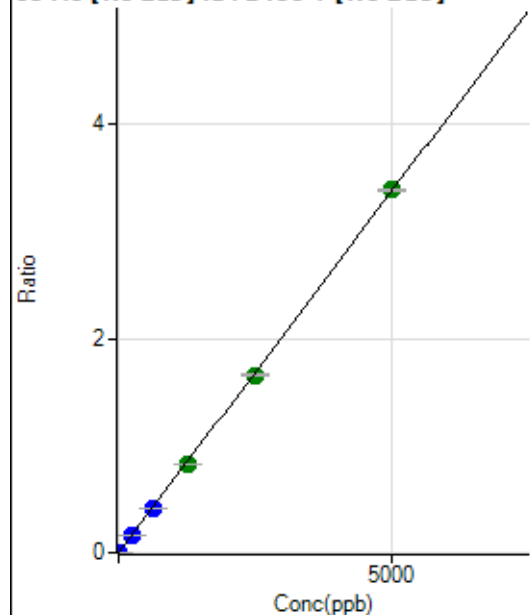
$$R = 0.9999$$

$$DL = 0.01509$$

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	66.67	0.0000	P	12.5
2	☐	0.500	0.515	4264.74	0.0004	P	1.5
3	☐	5.000	4.978	41625.63	0.0034	P	3.7
4	☐	250.000	250.517	2062564.37	0.1689	P	0.8
5	☐	625.000	612.353	5073767.09	0.4129	P	0.4
6	☐	1250.000	1232.438	10083139.37	0.8310	A	0.6
7	☐	2500.000	2462.952	20018848.01	1.6607	A	0.4
8	☐	5000.000	5024.470	39708685.96	3.3879	A	0.4
9	☐			45902.18	0.0040	P	3.7

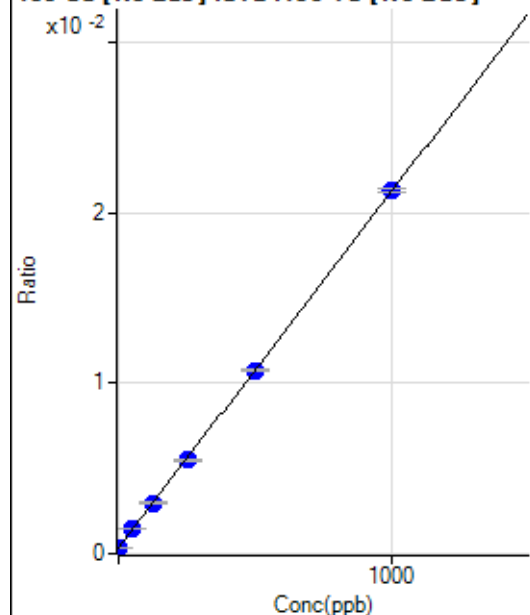
$$y = 6.7429\text{E-}004 * x + 5.1708\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.002881$$

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	5240.09	0.0003	P	5.2
2	☐	0.100	0.018	4906.64	0.0003	P	5.0
3	☐	1.000	1.576	5442.94	0.0004	P	2.1
4	☐	50.000	52.767	20738.07	0.0014	P	2.9
5	☐	125.000	125.541	43005.43	0.0030	P	1.8
6	☐	250.000	245.886	78713.67	0.0055	P	0.5
7	☐	500.000	497.513	151972.54	0.0107	P	1.4
8	☐	1000.000	1002.065	292290.76	0.0213	P	0.9
9	☐			4423.09	0.0003	P	2.0

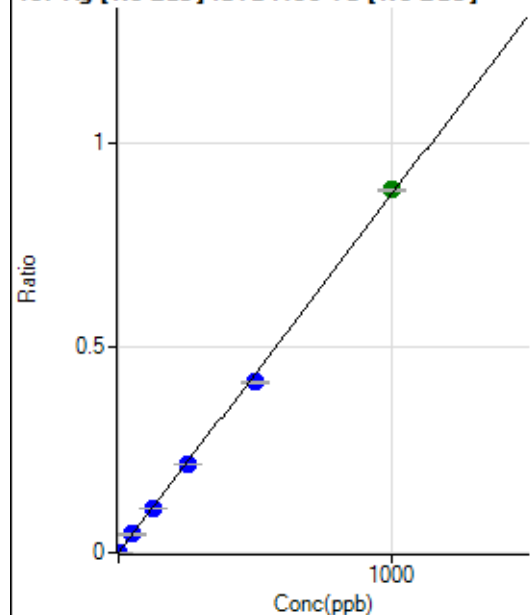
$$y = 2.0910\text{E-}005 * x + 3.4399\text{E-}004$$

$$R = 1.0000$$

$$DL = 2.563$$

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	133.34	0.0000	P	39.2
2	☐	0.100	0.091	1258.44	0.0001	P	2.3
3	☐	1.000	0.960	12205.73	0.0008	P	5.2
4	☐	50.000	51.311	641452.33	0.0448	P	1.5
5	☐	125.000	125.344	1583938.49	0.1094	P	0.3
6	☐	250.000	245.105	3068244.30	0.2138	P	0.4
7	☐	500.000	475.937	5871534.98	0.4152	P	0.8
8	☐	1000.000	1013.147	12130434.30	0.8838	A	0.3
9	☐			2011.34	0.0002	P	8.7

$$y = 8.7236\text{E-}004 * x + 8.7643\text{E-}006$$

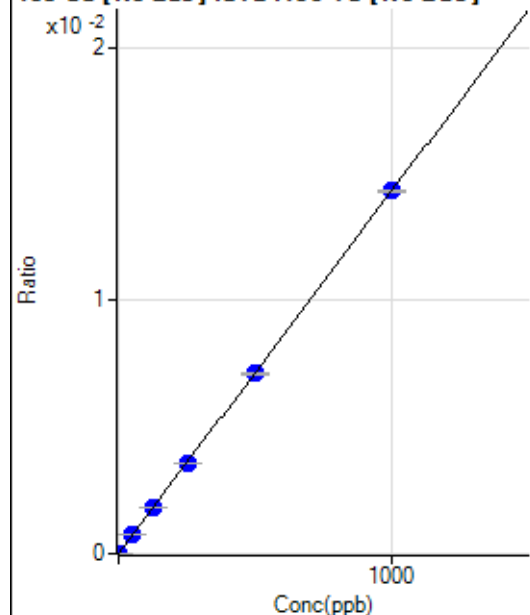
$$R = 0.9996$$

$$DL = 0.01183$$

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	18.05	0.0000	P	47.9
2	☐	0.100	0.094	36.11	0.0000	P	17.8
3	☐	1.000	1.029	229.17	0.0000	P	17.6
4	☐	50.000	52.236	10726.48	0.0007	P	3.4
5	☐	125.000	126.801	26296.88	0.0018	P	0.5
6	☐	250.000	249.104	51161.72	0.0036	P	0.9
7	☐	500.000	497.726	100730.13	0.0071	P	1.0
8	☐	1000.000	1001.024	196602.96	0.0143	P	0.7
9	☐			94.45	0.0000	P	9.1

$$y = 1.4309\text{E-}005 * x + 1.1853\text{E-}006$$

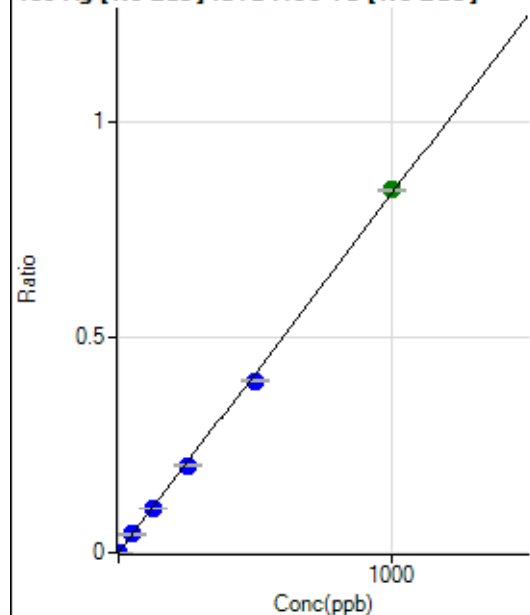
$$R = 1.0000$$

$$DL = 0.1191$$

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	63.89	0.0000	P	7.7
2	☐	0.100	0.103	1275.11	0.0001	P	3.2
3	☐	1.000	0.962	11605.20	0.0008	P	2.2
4	☐	50.000	51.201	610048.10	0.0426	P	1.0
5	☐	125.000	125.451	1510962.35	0.1043	P	0.2
6	☐	250.000	243.782	2908610.72	0.2027	P	1.1
7	☐	500.000	479.210	5634796.57	0.3985	P	1.1
8	☐	1000.000	1011.833	11547303.99	0.8413	A	0.5
9	☐			1955.78	0.0001	P	3.6

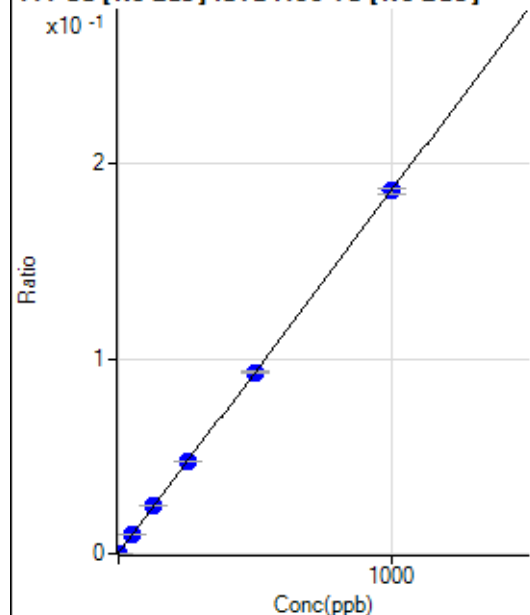
$$y = 8.3149\text{E-}004 * x + 4.1955\text{E-}006$$

$$R = 0.9997$$

$$DL = 0.001171$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3683.21	0.0002	P	5.5
2	☐	0.100	0.110	3735.77	0.0003	P	3.3
3	☐	1.000	1.102	6451.34	0.0004	P	2.5
4	☐	50.000	53.182	145278.27	0.0101	P	1.6
5	☐	125.000	128.935	351074.02	0.0242	P	0.3
6	☐	250.000	253.233	679727.35	0.0474	P	0.9
7	☐	500.000	499.381	1317686.91	0.0932	P	1.2
8	☐	1000.000	998.850	2554725.63	0.1861	P	1.3
9	☐			3698.13	0.0003	P	2.0

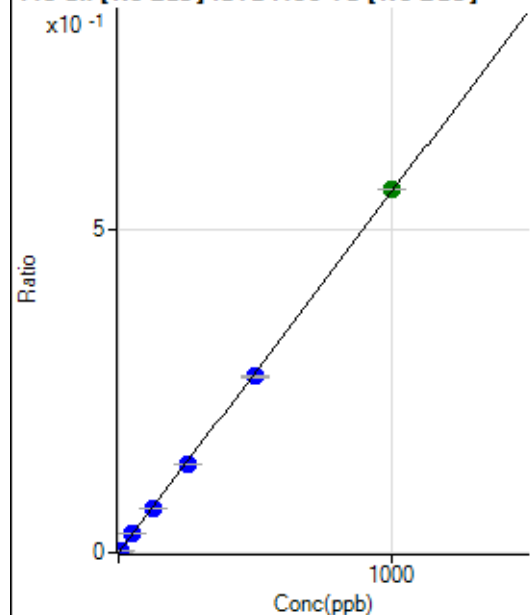
$$y = 1.8611\text{E-}004 * x + 2.4179\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.2151$$

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	763.95	0.0001	P	14.6
2	☐	0.500	0.518	4826.04	0.0003	P	3.9
3	☐	5.000	5.125	41972.05	0.0029	P	3.0
4	☐	50.000	50.851	406932.72	0.0284	P	0.5
5	☐	125.000	124.375	1005100.89	0.0694	P	0.9
6	☐	250.000	245.762	1966787.59	0.1371	P	0.4
7	☐	500.000	490.148	3864983.98	0.2733	P	1.2
8	☐	1000.000	1006.020	7698463.19	0.5609	A	0.2
9	☐			4425.89	0.0003	P	4.9

$$y = 5.5752\text{E-}004 * x + 5.0195\text{E-}005$$

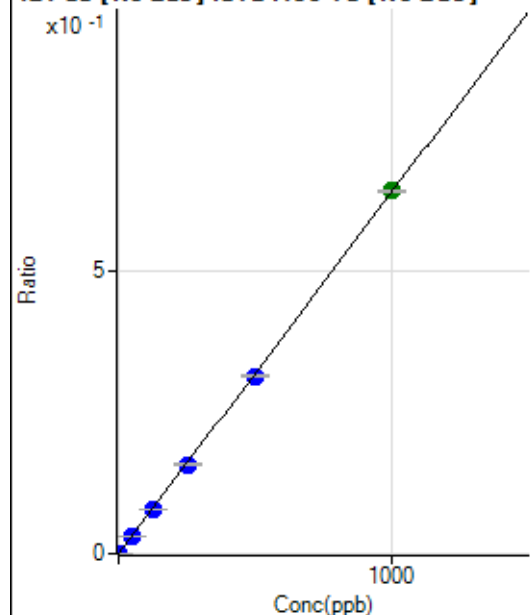
$$R = 0.9999$$

$$DL = 0.03949$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.45	0.0000	P	60.4
2	☐	0.200	0.200	1883.54	0.0001	P	5.1
3	☐	2.000	1.975	18282.08	0.0013	P	1.3
4	☐	50.000	50.335	460642.02	0.0321	P	0.8
5	☐	125.000	124.264	1149532.26	0.0794	P	1.0
6	☐	250.000	246.813	2261760.47	0.1576	P	1.3
7	☐	500.000	492.456	4447728.57	0.3145	P	0.5
8	☐	1000.000	1004.644	8805791.60	0.6416	A	0.3
9	☐			9192.31	0.0007	P	7.3

$$y = 6.3863\text{E-}004 * x + 4.5653\text{E-}006$$

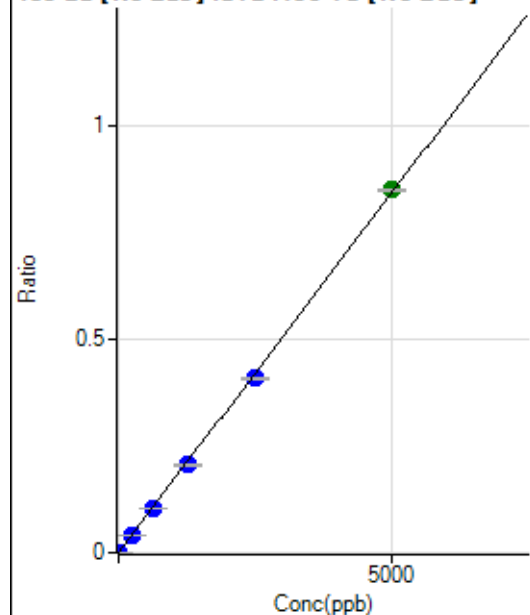
$$R = 1.0000$$

$$DL = 0.01295$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	141.67	0.0000	P	19.7
2	☐	1.000	1.048	2650.36	0.0002	P	3.3
3	☐	10.000	10.291	25190.32	0.0017	P	2.1
4	☐	250.000	251.211	607017.03	0.0424	P	0.6
5	☐	625.000	615.828	1504117.33	0.1038	P	0.7
6	☐	1250.000	1219.173	2949731.99	0.2056	P	0.9
7	☐	2500.000	2428.309	5790133.90	0.4094	P	0.8
8	☐	5000.000	5044.638	11673918.75	0.8506	A	0.3
9	☐			2380.85	0.0002	P	9.1

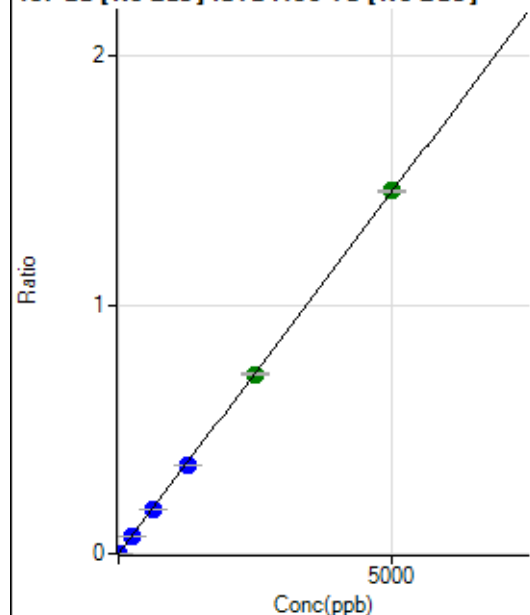
$$y = 1.6861\text{E-}004 * x + 9.2926\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.03265$$

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	161.12	0.0000	P	36.4
2	☐	1.000	1.013	4348.07	0.0003	P	3.4
3	☐	10.000	10.095	42529.93	0.0029	P	3.3
4	☐	250.000	251.112	1046334.80	0.0730	P	0.7
5	☐	625.000	616.077	2594881.14	0.1791	P	0.3
6	☐	1250.000	1215.633	5072186.27	0.3535	P	0.8
7	☐	2500.000	2481.609	10204635.73	0.7216	A	0.6
8	☐	5000.000	5018.847	20029013.81	1.4594	A	0.4
9	☐			3895.15	0.0003	P	7.1

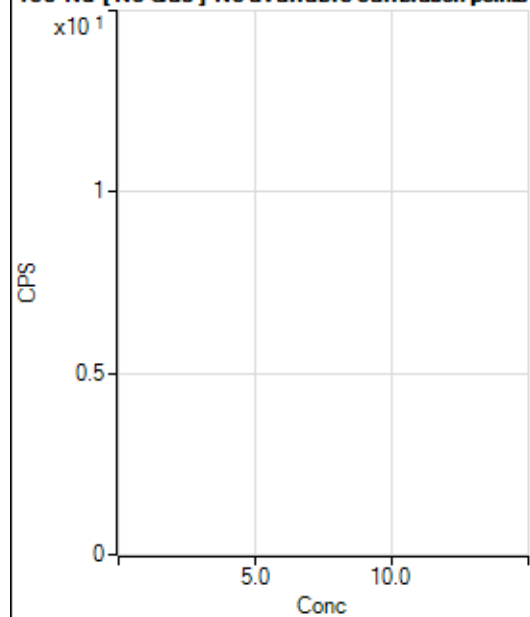
$$y = 2.9077\text{E-}004 * x + 1.0586\text{E-}005$$

$$R = 1.0000$$

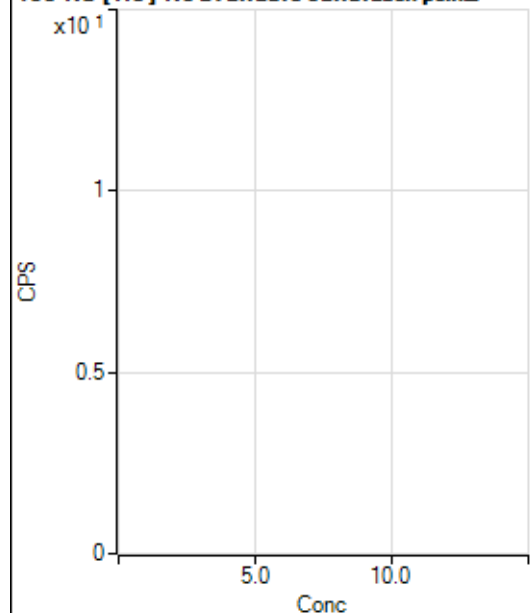
$$DL = 0.03979$$

Weight: <None>

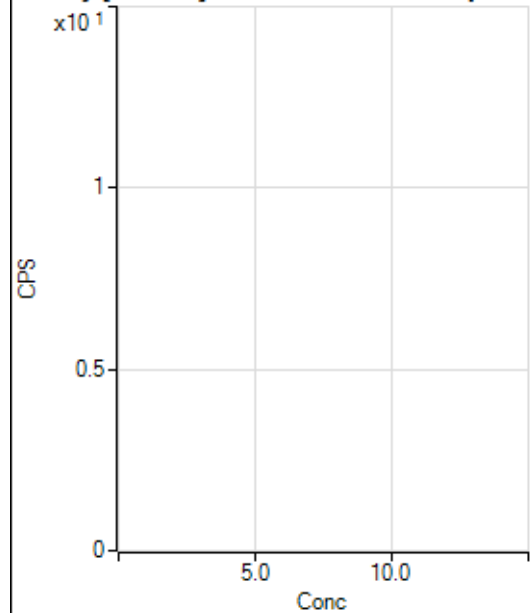
Min Conc: 0

150 Nd [No Gas] No available calibration points

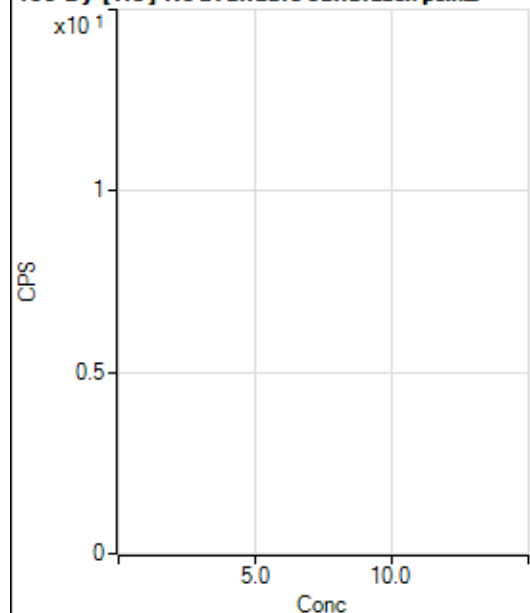
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.34		P	86.6
2	☐			4.45		P	86.6
3	☐			8.89		P	86.6
4	☐			46.67		P	24.7
5	☐			126.67		P	13.9
6	☐			246.68		P	9.7
7	☐			484.47		P	13.4
8	☐			826.72		P	8.4
9	☐			142.23		P	14.3

150 Nd [He] No available calibration points

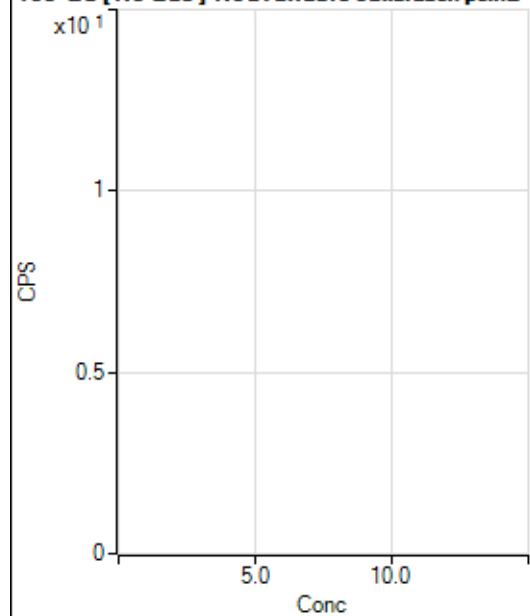
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	43.4
2	☐			4.44		P	114.
3	☐			4.44		P	43.4
4	☐			20.00		P	33.4
5	☐			20.00		P	33.4
6	☐			32.22		P	6.0
7	☐			42.22		P	39.7
8	☐			44.44		P	11.5
9	☐			36.67		P	NaN

156 Dy [No Gas] No available calibration points

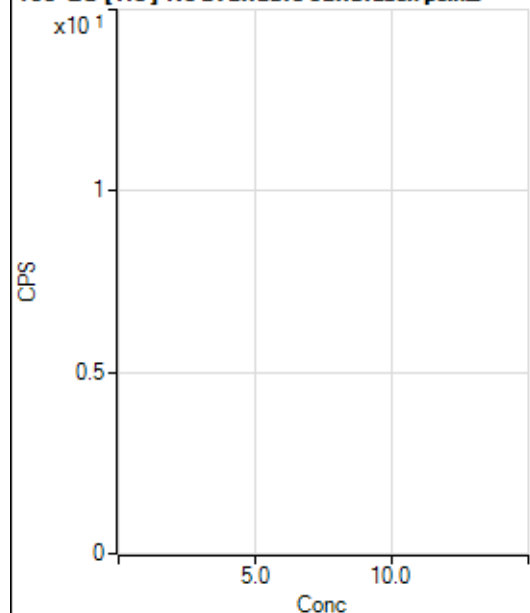
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			66.67		P	43.3
2	☐			77.78		P	22.3
3	☐			69.45		P	27.7
4	☐			50.00		P	16.7
5	☐			133.34		P	32.5
6	☐			102.78		P	33.8
7	☐			147.23		P	8.6
8	☐			236.12		P	20.4
9	☐			50.00		P	60.1

156 Dy [He] No available calibration points

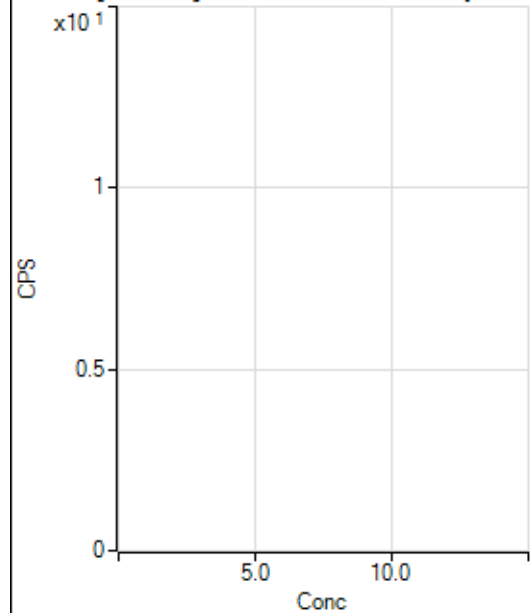
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	36.7
2	☐			25.56		P	39.8
3	☐			21.11		P	65.7
4	☐			25.55		P	15.1
5	☐			40.00		P	16.7
6	☐			72.23		P	32.7
7	☐			111.11		P	28.5
8	☐			183.33		P	3.1
9	☐			34.45		P	31.1

160 Gd [No Gas] Noavailable calibration poin_

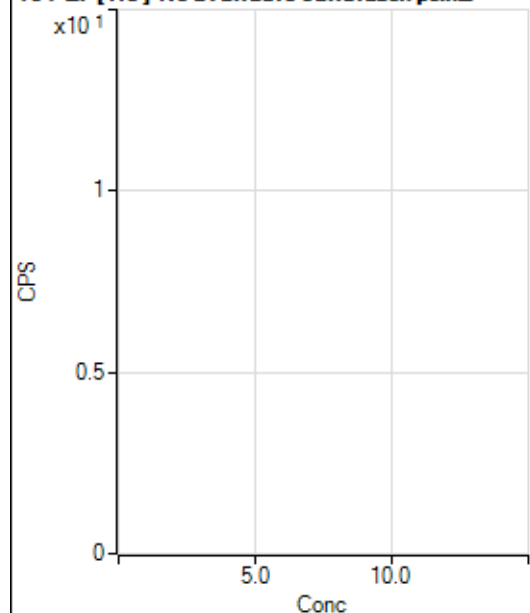
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			105.56		P	22.8
2	☐			111.12		P	26.3
3	☐			108.34		P	15.4
4	☐			111.12		P	28.4
5	☐			94.45		P	33.4
6	☐			94.45		P	62.0
7	☐			113.90		P	16.9
8	☐			97.23		P	54.4
9	☐			77.78		P	37.6

160 Gd [He] No available calibration points

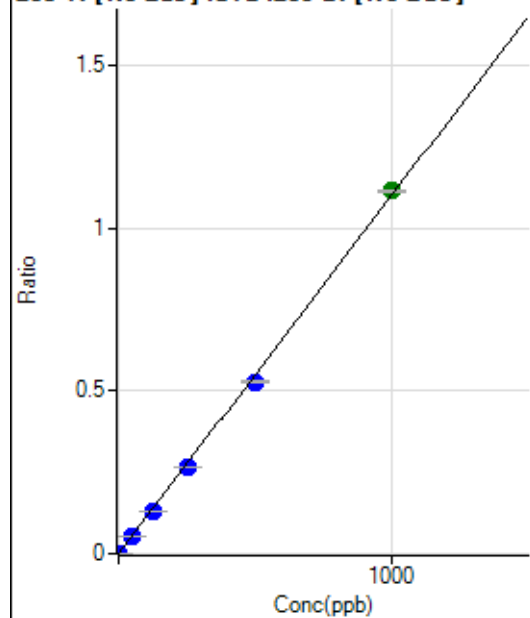
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			185.56		P	16.3
2	☐			182.23		P	7.6
3	☐			154.45		P	5.0
4	☐			154.45		P	5.4
5	☐			178.89		P	12.1
6	☐			172.23		P	6.8
7	☐			195.56		P	5.2
8	☐			180.00		P	12.1
9	☐			196.67		P	12.8

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			80.56		P	26.0
2	☐			83.34		P	26.5
3	☐			72.23		P	66.6
4	☐			75.00		P	48.4
5	☐			69.45		P	36.7
6	☐			88.89		P	48.1
7	☐			83.34		P	10.0
8	☐			122.23		P	28.4
9	☐			105.56		P	19.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			48.89		P	21.9
2	☐			52.22		P	32.8
3	☐			58.89		P	8.6
4	☐			47.78		P	42.6
5	☐			56.67		P	25.6
6	☐			42.22		P	9.1
7	☐			53.33		P	10.8
8	☐			67.78		P	15.0
9	☐			56.67		P	20.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	483.36	0.0001	P	14.5
2	☐	0.100	0.102	1433.48	0.0002	P	2.9
3	☐	1.000	0.959	9868.00	0.0011	P	1.3
4	☐	50.000	48.108	466998.76	0.0530	P	0.9
5	☐	125.000	120.360	1161220.44	0.1326	P	0.3
6	☐	250.000	240.897	2269251.74	0.2654	P	1.2
7	☐	500.000	480.167	4370927.18	0.5289	P	1.0
8	☐	1000.000	1012.867	8647945.77	1.1156	A	0.6
9	☐			2808.76	0.0004	P	7.5

$$y = 0.0011 * x + 5.1741E-005$$

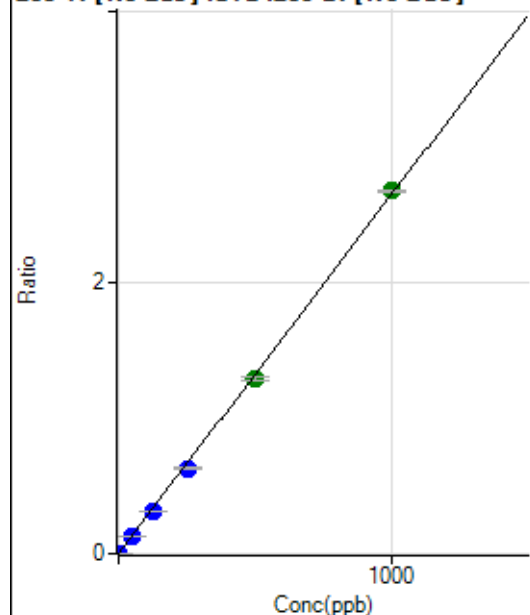
$$R = 0.9997$$

$$DL = 0.02049$$

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	711.16	0.0001	P	12.8
2	☐	0.100	0.101	3014.38	0.0003	P	7.3
3	☐	1.000	0.951	23079.26	0.0026	P	2.9
4	☐	50.000	47.984	1118030.34	0.1270	P	0.9
5	☐	125.000	118.620	2747619.53	0.3138	P	1.0
6	☐	250.000	236.787	5355564.48	0.6263	P	1.3
7	☐	500.000	487.845	10662633.92	1.2902	A	1.5
8	☐	1000.000	1010.279	20711968.87	2.6718	A	0.9
9	☐			5965.53	0.0009	P	6.5

$$y = 0.0026 * x + 7.6167E-005$$

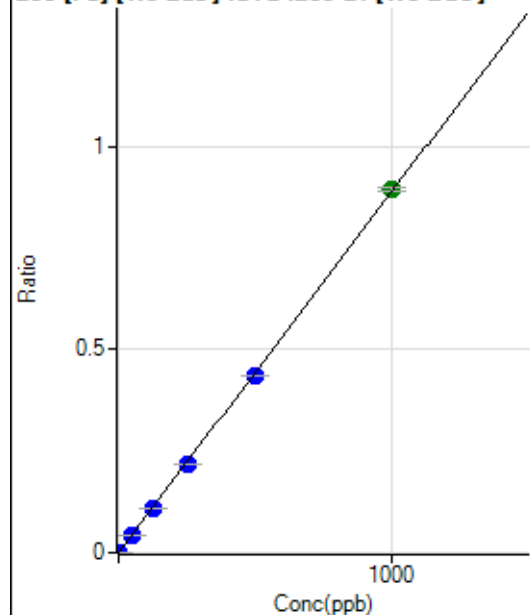
$$R = 0.9998$$

$$DL = 0.01102$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1463.08	0.0002	P	5.0
2	☐	0.100	0.110	2229.88	0.0003	P	5.5
3	☐	1.000	0.975	9094.10	0.0010	P	7.1
4	☐	50.000	49.042	384611.92	0.0437	P	0.9
5	☐	125.000	121.172	943020.07	0.1077	P	0.7
6	☐	250.000	244.475	1856695.14	0.2171	P	1.2
7	☐	500.000	490.735	3600528.82	0.4357	P	1.0
8	☐	1000.000	1006.540	6925840.72	0.8934	A	1.1
9	☐			20017.28	0.0030	P	0.9

$$y = 8.8746E-004 * x + 1.5668E-004$$

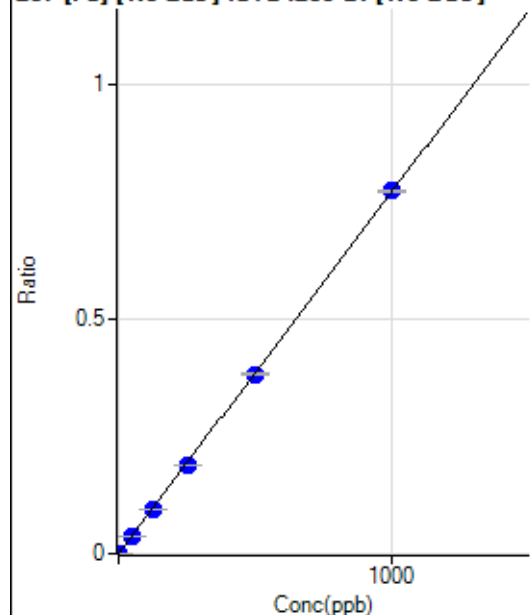
$$R = 0.9999$$

$$DL = 0.02631$$

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	1337.15	0.0001	P	2.9
2	☐	0.100	0.099	1926.12	0.0002	P	6.4
3	☐	1.000	1.010	8217.59	0.0009	P	1.1
4	☐	50.000	49.492	337599.30	0.0383	P	0.5
5	☐	125.000	122.588	829745.82	0.0948	P	1.0
6	☐	250.000	246.160	1625902.55	0.1901	P	0.7
7	☐	500.000	495.431	3161310.20	0.3825	P	0.8
8	☐	1000.000	1003.571	6005424.27	0.7747	P	0.6
9	☐			17990.38	0.0027	P	1.5

$$y = 7.7179\text{E-}004 * x + 1.4318\text{E-}004$$

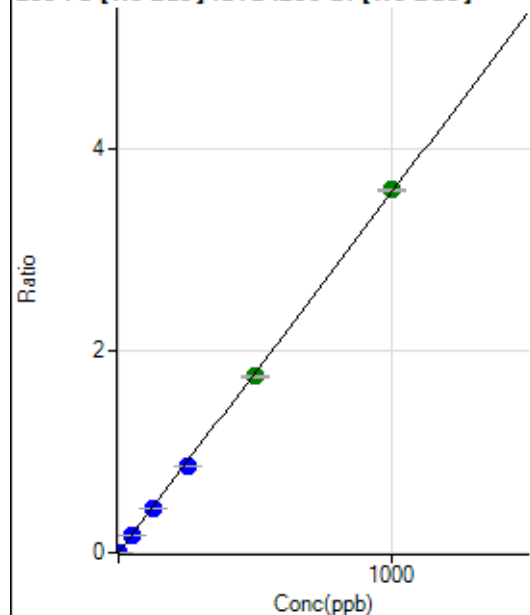
$$R = 1.0000$$

$$DL = 0.01621$$

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	5533.93	0.0006	P	0.5
2	☐	0.100	0.106	8510.53	0.0010	P	1.2
3	☐	1.000	0.957	35741.59	0.0040	P	3.0
4	☐	50.000	48.812	1541443.98	0.1751	P	0.4
5	☐	125.000	120.516	3777107.32	0.4313	P	0.5
6	☐	250.000	241.704	7392890.84	0.8645	P	0.8
7	☐	500.000	490.252	14486410.37	1.7528	A	0.9
8	☐	1000.000	1007.568	27921770.07	3.6018	A	0.6
9	☐			80156.45	0.0121	P	0.5

$$y = 0.0036 * x + 5.9250\text{E-}004$$

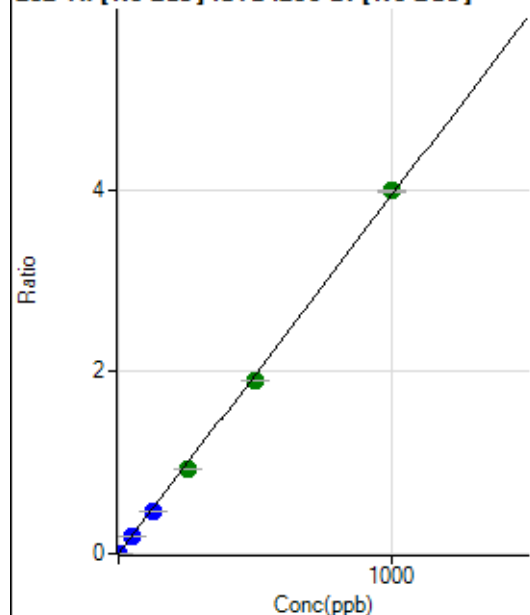
$$R = 0.9999$$

$$DL = 0.002673$$

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	1574.21	0.0002	P	11.7
2	☐	0.100	0.078	4171.16	0.0005	P	3.0
3	☐	1.000	0.781	28884.23	0.0032	P	2.4
4	☐	50.000	46.328	1606330.62	0.1824	P	0.4
5	☐	125.000	116.405	4011450.23	0.4581	P	1.2
6	☐	250.000	237.231	7982489.94	0.9334	A	1.2
7	☐	500.000	483.591	15724970.72	1.9026	A	0.6
8	☐	1000.000	1012.655	30884963.88	3.9840	A	0.4
9	☐			7463.47	0.0011	P	1.5

$$y = 0.0039 * x + 1.6847E-004$$

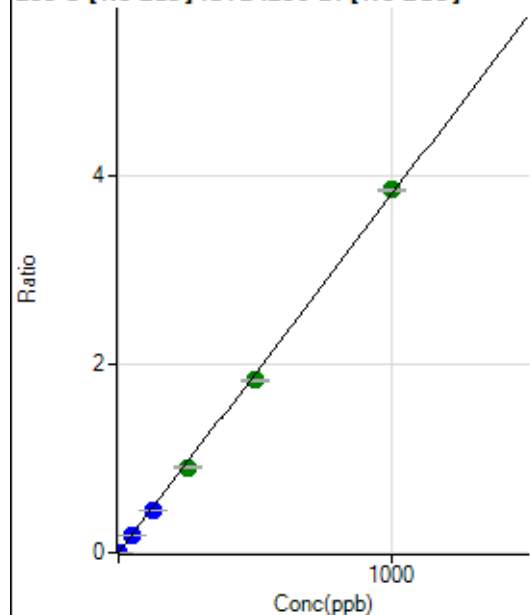
$$R = 0.9997$$

$$DL = 0.01506$$

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	1933.57	0.0002	P	7.1
2	☐	0.100	0.096	5003.96	0.0006	P	0.3
3	☐	1.000	0.918	32998.21	0.0037	P	2.1
4	☐	50.000	47.161	1583645.82	0.1799	P	0.5
5	☐	125.000	117.175	3910207.69	0.4465	P	0.8
6	☐	250.000	238.573	7773079.34	0.9090	A	1.3
7	☐	500.000	481.985	15174375.51	1.8362	A	1.5
8	☐	1000.000	1012.984	29914578.45	3.8588	A	0.9
9	☐			4739.99	0.0007	P	1.6

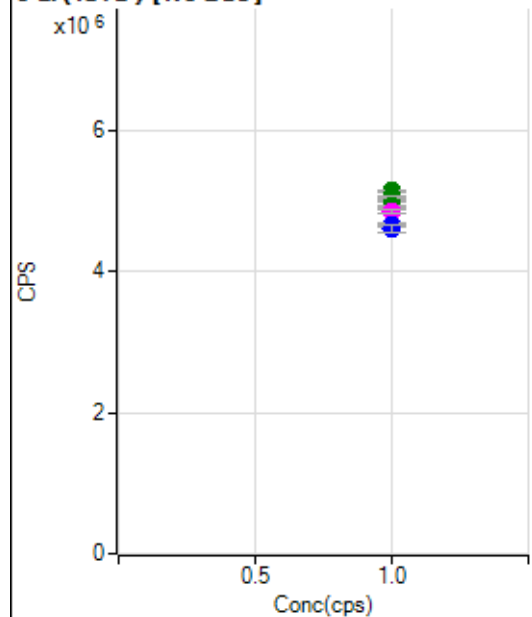
$$y = 0.0038 * x + 2.0698E-004$$

$$R = 0.9997$$

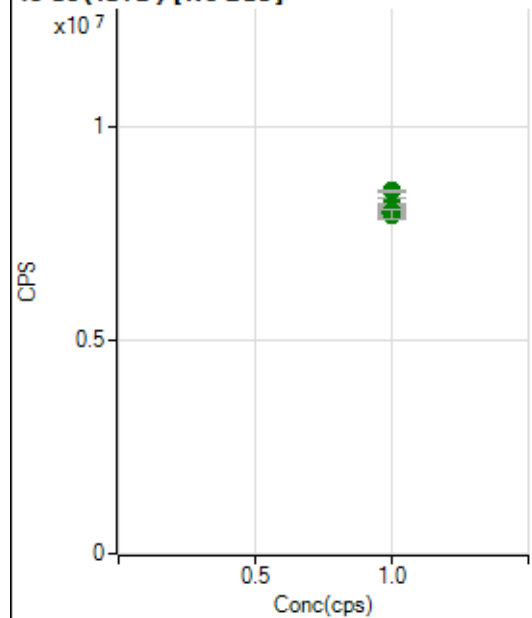
$$DL = 0.01158$$

Weight: <None>

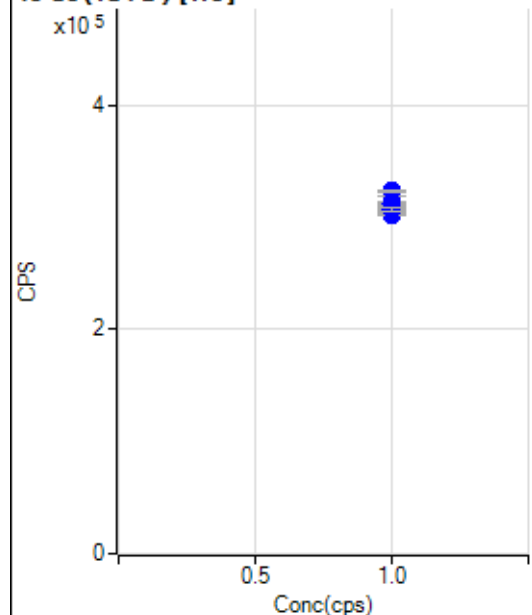
Min Conc: 0

6 Li (ISTD) [No Gas]

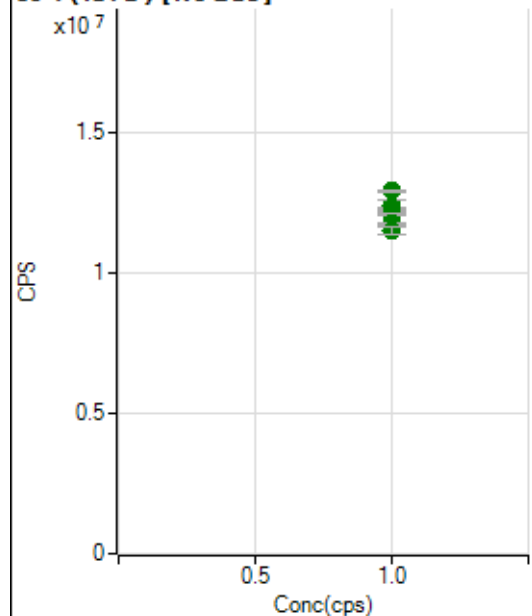
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5142840.06		A	0.5
2	☐	1.000		5001668.78		A	0.7
3	☐	1.000		5079859.06		A	2.8
4	☐	1.000		5045695.62		A	0.3
5	☐	1.000		5062736.07		A	0.4
6	☐	1.000		4932396.21		A	0.5
7	☐	1.000		4846234.44		M	1.3
8	☐	1.000		4665376.18		P	0.8
9	☐	1.000		4604146.70		P	2.1

45 Sc (ISTD) [No Gas]

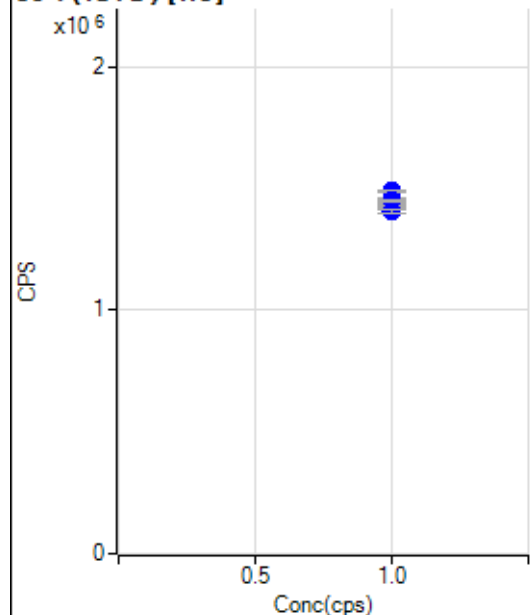
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8494246.02		A	0.5
2	☐	1.000		8107970.32		A	0.3
3	☐	1.000		8200817.63		A	2.7
4	☐	1.000		8122832.21		A	0.5
5	☐	1.000		8158479.61		A	0.5
6	☐	1.000		8003893.41		A	0.7
7	☐	1.000		8003073.44		A	0.9
8	☐	1.000		7917395.32		A	0.7
9	☐	1.000		7953424.57		A	3.0

45 Sc (ISTD) [He]

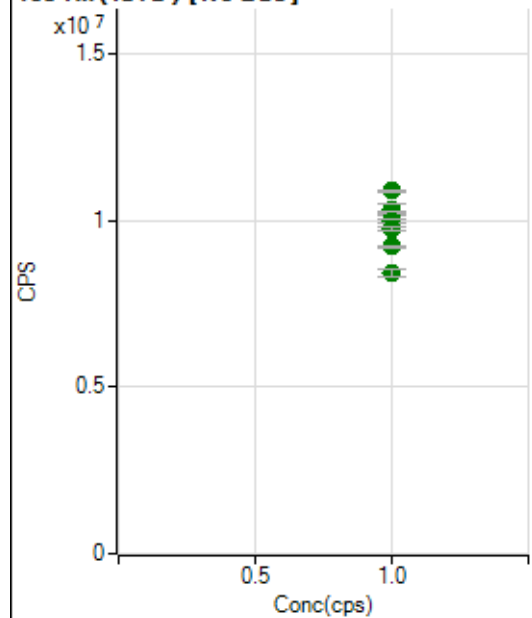
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		318619.04		P	0.2
2	☐	1.000		310754.99		P	1.0
3	☐	1.000		302724.09		P	1.0
4	☐	1.000		311352.79		P	1.2
5	☐	1.000		308405.59		P	0.2
6	☐	1.000		310312.26		P	0.7
7	☐	1.000		306465.56		P	0.5
8	☐	1.000		307139.83		P	0.7
9	☐	1.000		323624.27		P	0.2

89 Y (ISTD) [No Gas]

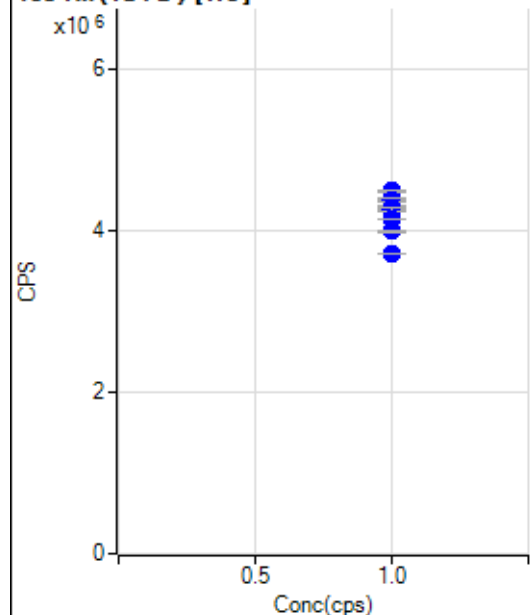
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12893589.95		A	0.6
2	☐	1.000		12103303.01		A	0.4
3	☐	1.000		12389910.79		A	3.0
4	☐	1.000		12209943.29		A	0.2
5	☐	1.000		12288085.37		A	0.6
6	☐	1.000		12133888.29		A	1.1
7	☐	1.000		12054031.21		A	0.6
8	☐	1.000		11720499.97		A	0.4
9	☐	1.000		11479346.08		A	2.3

89 Y(ISTD) [He]

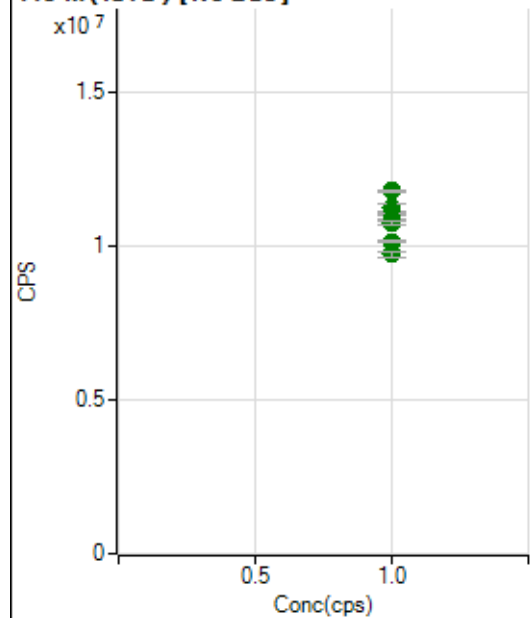
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1490218.22		P	0.5
2	☐	1.000		1443419.81		P	0.5
3	☐	1.000		1418943.78		P	1.0
4	☐	1.000		1454451.75		P	0.8
5	☐	1.000		1433085.85		P	0.2
6	☐	1.000		1443481.91		P	0.5
7	☐	1.000		1425903.31		P	0.3
8	☐	1.000		1406048.78		P	0.9
9	☐	1.000		1449488.38		P	0.4

103 Rh(ISTD) [No Gas]

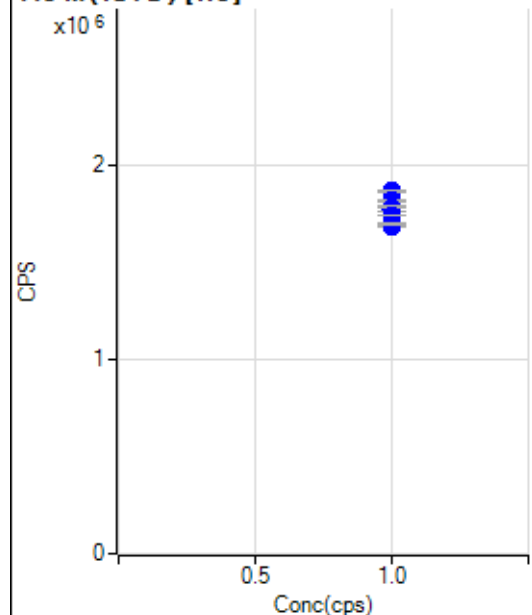
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10904771.77		A	0.8
2	☐	1.000		10174710.73		A	0.5
3	☐	1.000		10362125.32		A	3.1
4	☐	1.000		10218170.71		A	0.4
5	☐	1.000		10245261.25		A	0.3
6	☐	1.000		10002235.82		A	1.0
7	☐	1.000		9766984.77		A	0.6
8	☐	1.000		9236970.26		A	0.6
9	☐	1.000		8433745.93		A	2.4

103 Rh (ISTD) [He]

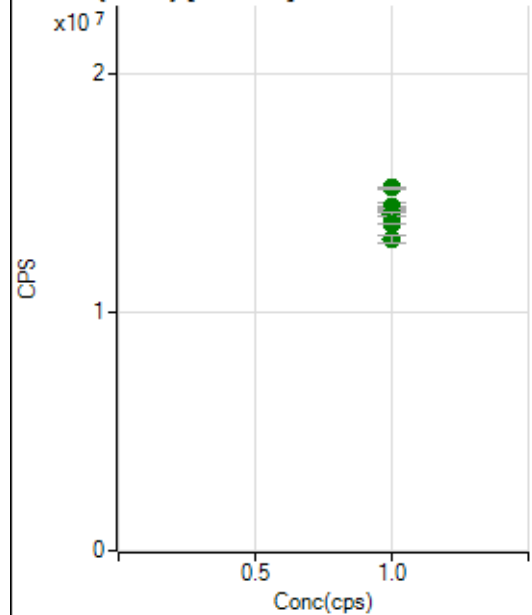
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4490820.73		P	0.3
2	☐	1.000		4387383.06		P	0.4
3	☐	1.000		4280901.88		P	0.8
4	☐	1.000		4376966.43		P	0.8
5	☐	1.000		4291051.67		P	0.5
6	☐	1.000		4265143.13		P	0.8
7	☐	1.000		4146604.35		P	0.1
8	☐	1.000		3988074.49		P	0.7
9	☐	1.000		3702485.39		P	0.0

115 In (ISTD) [No Gas]

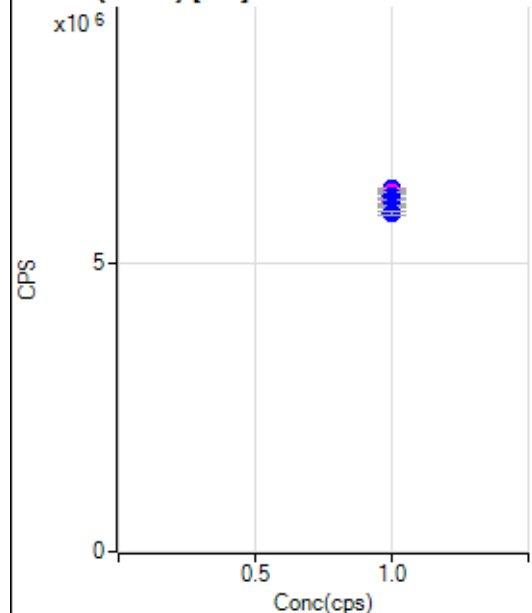
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11805927.74		A	0.5
2	☐	1.000		11044919.36		A	0.1
3	☐	1.000		11270878.20		A	2.6
4	☐	1.000		11137409.68		A	0.3
5	☐	1.000		11083091.13		A	0.3
6	☐	1.000		10896232.39		A	0.3
7	☐	1.000		10765867.19		A	0.9
8	☐	1.000		10149671.68		A	0.8
9	☐	1.000		9733653.81		A	2.1

115 In (ISTD) [He]

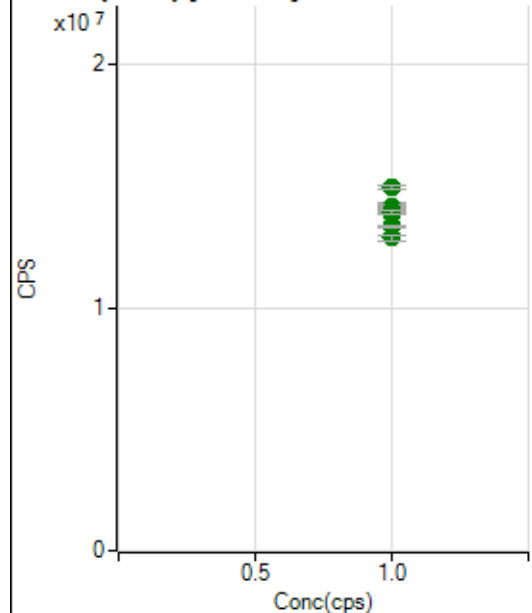
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1870892.73		P	0.2
2	☐	1.000		1822586.98		P	0.6
3	☐	1.000		1774792.57		P	1.5
4	☐	1.000		1821656.56		P	0.9
5	☐	1.000		1787715.97		P	0.7
6	☐	1.000		1787597.26		P	0.5
7	☐	1.000		1743640.86		P	0.2
8	☐	1.000		1690239.63		P	1.1
9	☐	1.000		1699402.84		P	0.7

159 Tb (ISTD) [No Gas]

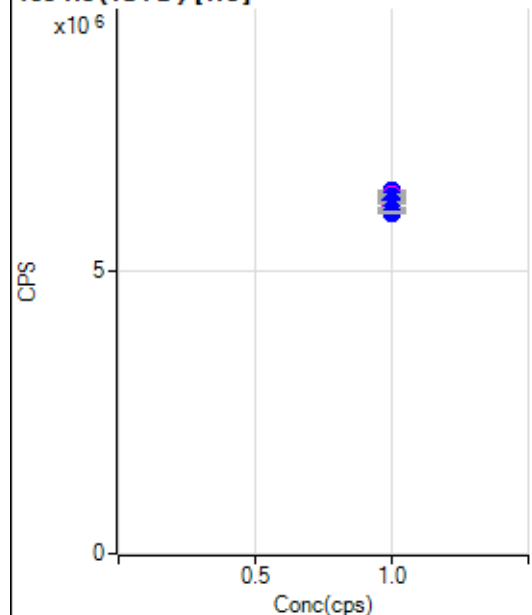
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15231085.75		A	0.8
2	☐	1.000		14248095.48		A	0.3
3	☐	1.000		14443710.48		A	2.6
4	☐	1.000		14328425.90		A	0.6
5	☐	1.000		14484528.26		A	0.0
6	☐	1.000		14349206.87		A	0.3
7	☐	1.000		14142594.37		A	1.4
8	☐	1.000		13724737.85		A	0.5
9	☐	1.000		13055992.31		A	2.3

159 Tb (ISTD) [He]

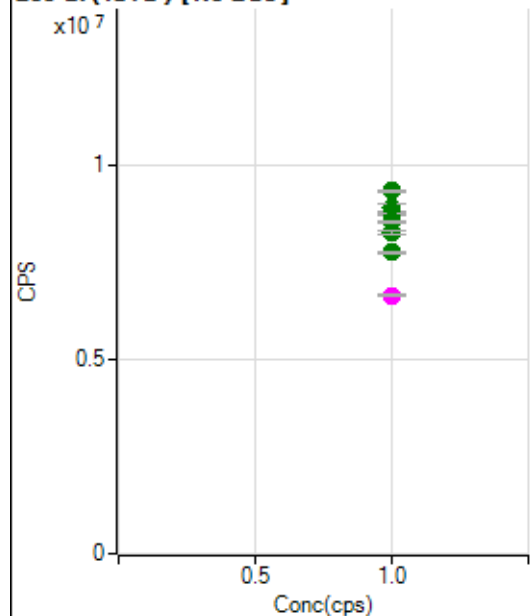
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6292068.66		P	0.2
2	☐	1.000		6129517.83		P	0.5
3	☐	1.000		6059756.02		M	1.2
4	☐	1.000		6243621.44		M	1.6
5	☐	1.000		6110872.34		P	0.8
6	☐	1.000		6178378.03		P	1.4
7	☐	1.000		6090348.04		P	0.1
8	☐	1.000		5980926.30		P	0.7
9	☐	1.000		5865953.25		P	0.8

165 Ho (ISTD) [No Gas]

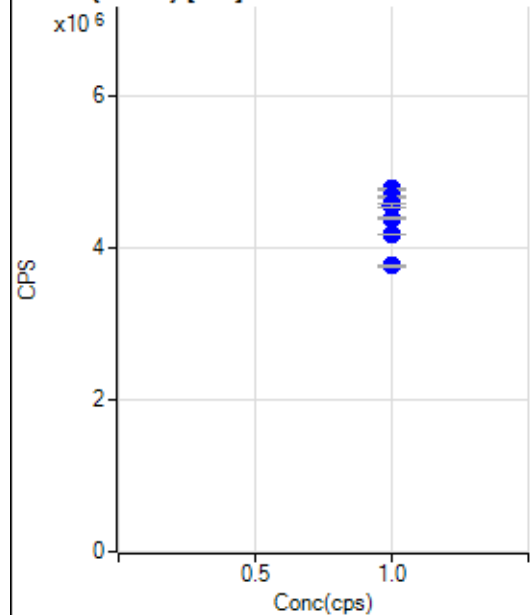
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14934676.03		A	1.0
2	☐	1.000		13864554.65		A	0.6
3	☐	1.000		14132268.89		A	2.4
4	☐	1.000		13998171.15		A	0.5
5	☐	1.000		14202366.81		A	0.4
6	☐	1.000		14024522.36		A	1.2
7	☐	1.000		13912964.72		A	1.2
8	☐	1.000		13354103.17		A	0.2
9	☐	1.000		12880207.15		A	2.0

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6427383.17		P	0.7
2	☐	1.000		6264953.38		P	0.0
3	☐	1.000		6157820.26		M	1.5
4	☐	1.000		6363119.07		M	1.6
5	☐	1.000		6274402.48		P	0.8
6	☐	1.000		6339472.82		P	0.5
7	☐	1.000		6229463.52		P	0.4
8	☐	1.000		6109248.52		P	0.6
9	☐	1.000		6045183.59		P	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9339941.32		A	0.6
2	☐	1.000		8764568.62		A	0.8
3	☐	1.000		8909263.20		A	2.6
4	☐	1.000		8805488.83		A	0.5
5	☐	1.000		8756674.87		A	0.2
6	☐	1.000		8552005.77		A	0.7
7	☐	1.000		8265086.27		A	1.2
8	☐	1.000		7752193.57		A	0.4
9	☐	1.000		6651884.06		M	1.0

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4781444.13		P	0.6
2	☐	1.000		4666321.14		P	0.2
3	☐	1.000		4554045.25		P	1.1
4	☐	1.000		4679673.50		P	0.4
5	☐	1.000		4579396.67		P	0.2
6	☐	1.000		4559517.12		P	1.0
7	☐	1.000		4391976.77		P	0.6
8	☐	1.000		4180531.53		P	0.2
9	☐	1.000		3765137.24		P	0.4

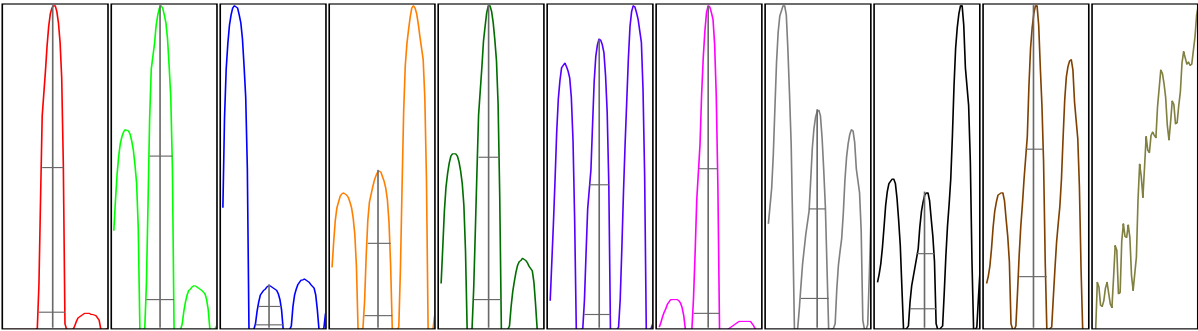
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P711042019 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	12477	1.35	5.00	
24	115792	0.88	5.00	
25	15548	0.73	5.00	
26	18406	0.78	5.00	
59	82501	0.96	5.00	
113	10280	1.12	5.00	
115	122185	0.73	5.00	
206	26985	1.13	5.00	
207	25716	0.95	5.00	
208	58429	0.87	5.00	
220	74	4.52		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	12223	12522	12402	12650	12587
24	114379	116457	115071	116323	116732
25	15390	15616	15486	15680	15568
26	18198	18508	18313	18515	18497
59	81536	83120	81861	83387	82602
113	10180	10342	10134	10347	10395
115	120812	123119	121827	122690	122477
206	26632	27144	26687	27155	27307
207	25497	25712	25461	25875	26035
208	57682	58644	58170	58659	58992
220	72	75	79	71	70

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	20699	8.95	8.9 - 9.1		0.779	0.900	
24	182155	23.90	23.9 - 24.1		0.808	0.900	
25	24400	24.90	24.9 - 25.1		0.795	0.900	
26	28288	25.90	25.9 - 26.1		0.816	0.900	
59	137202	58.95	58.9 - 59.1		0.802	0.900	
113	18569	113.00	112.9 - 113.1		0.770	0.900	
115	223388	115.00	114.9 - 115.1		0.768	0.900	
206	50166	206.00	205.9 - 206.1		0.802	0.900	
207	45753	206.95	206.9 - 207.1		0.751	0.900	
208	108043	207.95	207.9 - 208.1		0.791	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	13.4	V
Extract 2	-125.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	19758	1.29	
89	15826	1.10	
205	22244	0.45	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	20139	19738	19850	19534	19527
89	16038	15720	15989	15652	15733
205	22390	22151	22221	22297	22160

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	6.5	V	Deflect	2.2	V
Extract 2	-120.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	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			