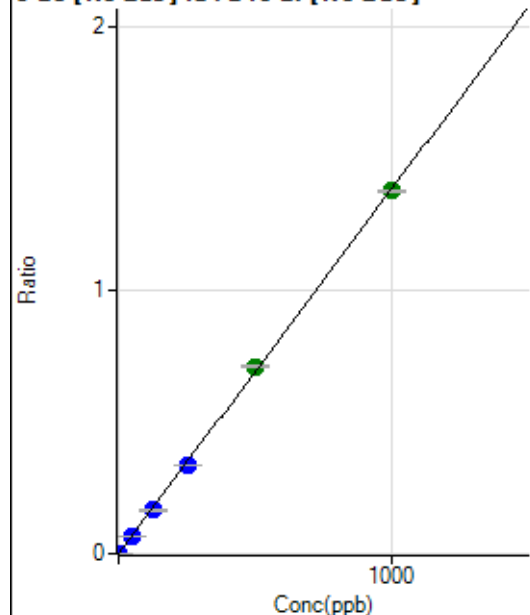


Batch Folder: D:\P8020819 MS.b\
Analysis File: P8020819 MS.batch.bin
DA Date-Time: 2019-02-08 17:07:36
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-02-08 15:11:19
2			
3	005CAL.S.d	S02	2019-02-08 15:19:15
4	006CAL.S.d	S03	2019-02-08 15:23:05
5	007CAL.S.d	S04	2019-02-08 15:26:53
6	008CAL.S.d	S05	2019-02-08 15:30:30
7	009CAL.S.d	S06	2019-02-08 15:34:04
8	010CAL.S.d	S07	2019-02-08 15:37:30
9	011CAL.S.d	S08	2019-02-08 15:40:51

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.89	0.0000	P	15.9
2	☐	0.100					
3	☐	1.000	0.904	2705.85	0.0013	P	1.3
4	☐	50.000	49.018	141714.41	0.0679	P	0.7
5	☐	125.000	119.840	345658.45	0.1659	P	2.1
6	☐	250.000	242.167	687443.05	0.3353	P	0.4
7	☐	500.000	514.308	1446416.40	0.7120	A	0.9
8	☐	1000.000	995.498	2800793.88	1.3782	A	0.4
9	☐			334.46	0.0002	P	21.1

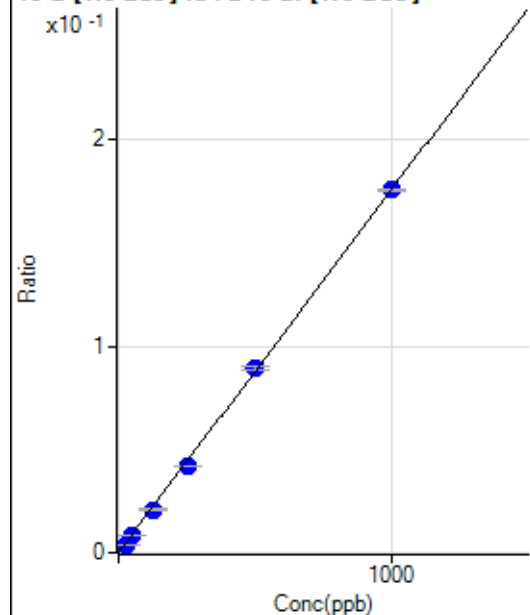
$$y = 0.0014 * x + 2.8839E-005$$

$$R = 0.9998$$

$$DL = 0.009942$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.57	0.0001	P	9.4
2	☐	2.500					
3	☐	25.000	22.704	8614.08	0.0041	P	4.3
4	☐	50.000	48.626	18023.09	0.0086	P	1.7
5	☐	125.000	118.375	43517.21	0.0209	P	1.9
6	☐	250.000	239.227	86373.74	0.0421	P	1.0
7	☐	500.000	508.185	181570.98	0.0894	P	2.9
8	☐	1000.000	999.555	357140.42	0.1757	P	0.7
9	☐			9044.96	0.0047	P	7.9

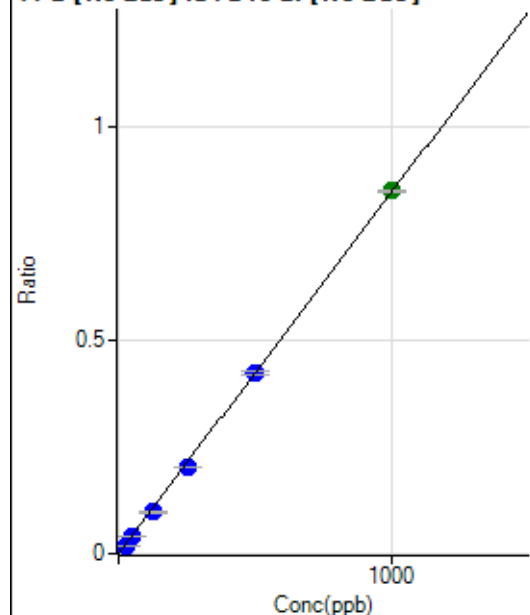
$$y = 1.7572E-004 * x + 8.8457E-005$$

$$R = 0.9999$$

$$DL = 0.1424$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	955.63	0.0005	P	7.7
2	☐	2.500					
3	☐	25.000	21.932	40120.89	0.0190	P	0.8
4	☐	50.000	47.643	84973.55	0.0407	P	1.5
5	☐	125.000	115.516	204187.78	0.0980	P	3.6
6	☐	250.000	237.465	412179.35	0.2010	P	0.6
7	☐	500.000	500.876	860268.91	0.4235	P	1.8
8	☐	1000.000	1004.076	1724394.11	0.8485	A	0.9
9	☐			41438.79	0.0217	P	7.3

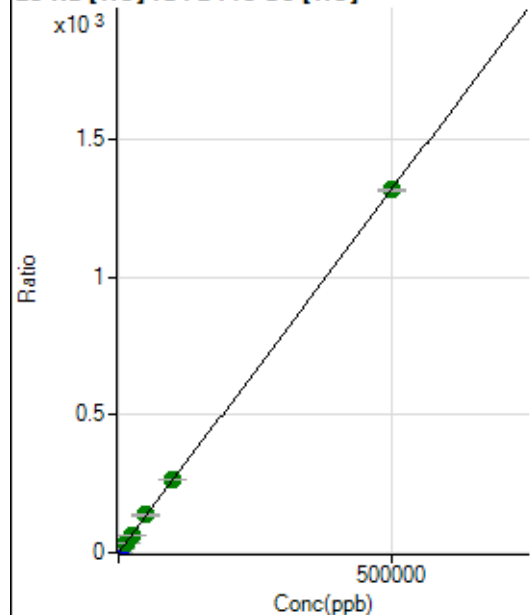
$$y = 8.4458\text{E-}004 * x + 4.6830\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.1279$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	14277.12	0.2467	P	3.8
2	☐	50.000					
3	☐	500.000	475.503	88843.34	1.5000	P	1.7
4	☐	5000.000	5060.099	803483.47	13.5835	P	6.7
5	☐	12500.000	12740.601	1974329.86	33.8268	A	0.9
6	☐	25000.000	24597.462	3865629.21	65.0776	A	1.7
7	☐	50000.000	51602.108	7989064.07	136.2531	A	1.2
8	☐	100000.00	100508.46	15813845.32	265.1544	A	1.7
9	☐	500000.00	499751.63	79067619.82	1,317.429	A	0.9

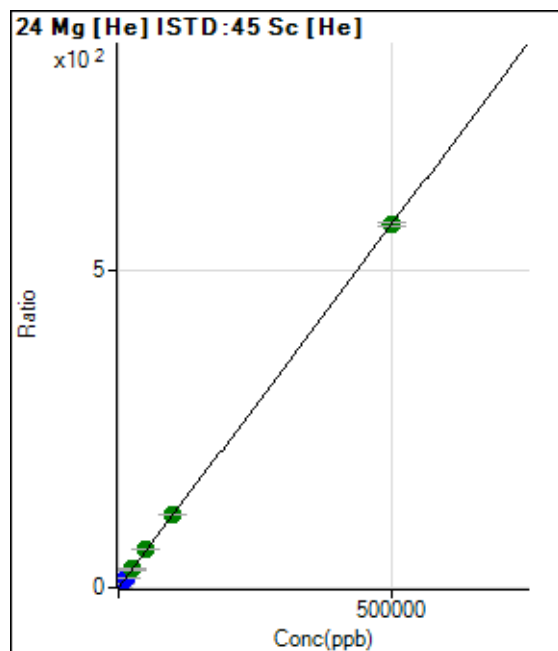
$$y = 0.0026 * x + 0.2467$$

$$R = 1.0000$$

$$DL = 10.71$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	316.69	0.0055	P	23.1
2	☐	50.000					
3	☐	500.000	499.333	34161.47	0.5767	P	2.3
4	☐	5000.000	5135.199	347719.63	5.8802	P	7.4
5	☐	12500.000	12807.090	855488.90	14.6569	P	0.4
6	☐	25000.000	25177.575	1711223.37	28.8088	A	1.9
7	☐	50000.000	52150.333	3498598.82	59.6658	A	0.9
8	☐	100000.00	100992.61	6891057.27	115.5417	A	1.7
9	☐	500000.00	499568.53	34299971.25	571.5151	A	1.0

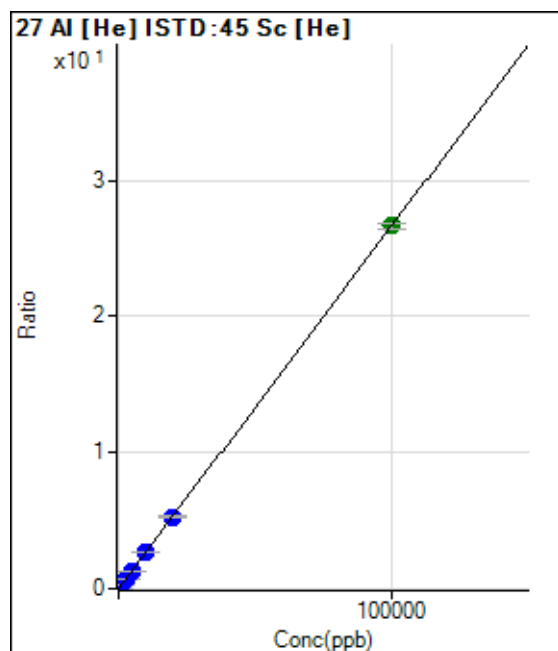
$$y = 0.0011 * x + 0.0055$$

$$R = 1.0000$$

$$DL = 3.305$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42.51	0.0007	P	52.6
2	☐	2.000					
3	☐	20.000	17.338	316.75	0.0054	P	13.4
4	☐	1000.000	975.806	15415.64	0.2607	P	7.6
5	☐	2500.000	2479.558	38603.48	0.6614	P	0.2
6	☐	5000.000	4787.806	75817.33	1.2764	P	1.8
7	☐	10000.000	10086.699	157614.05	2.6882	P	1.5
8	☐	20000.000	19691.930	312946.26	5.2474	P	2.1
9	☐	100000.00	100064.30	1600087.95	26.6615	A	1.6

$$y = 2.6644E-004 * x + 7.3058E-004$$

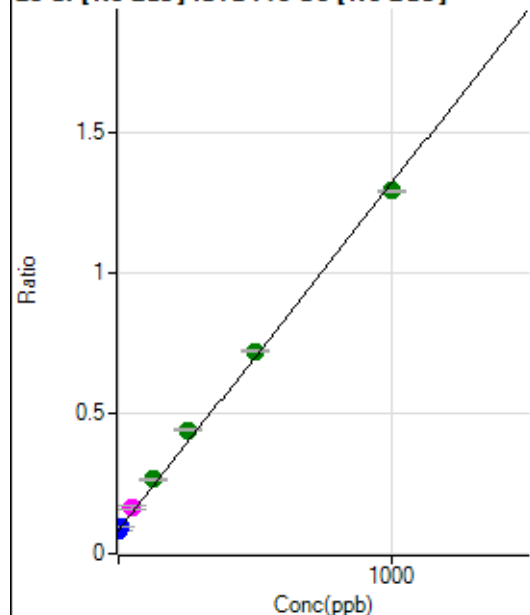
$$R = 1.0000$$

$$DL = 4.329$$

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	484674.46	0.0828	P	0.7
2	☐	1.000					
3	☐	10.000	11.988	576810.93	0.0977	P	1.0
4	☐	50.000	65.824	944984.98	0.1641	M	6.8
5	☐	125.000	148.014	1526803.81	0.2656	A	2.0
6	☐	250.000	289.676	2550645.39	0.4406	A	0.4
7	☐	500.000	516.411	4173873.83	0.7206	A	0.7
8	☐	1000.000	978.188	7654599.04	1.2909	A	0.8
9	☐			628028.62	0.1113	P	1.5

$$y = 0.0012 * x + 0.0828$$

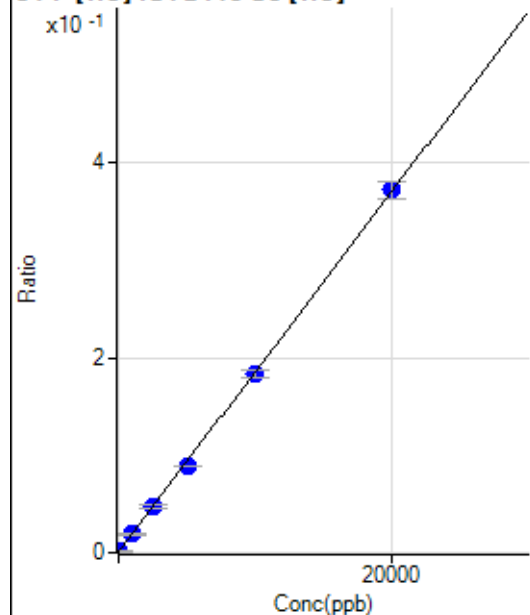
$$R = 0.9988$$

$$DL = 1.368$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-18.854	19.45	0.0003	P	24.4
2	☐	0.000					
3	☐	0.000	18.854	61.11	0.0010	P	28.5
4	☐	1000.000	995.272	1130.65	0.0191	P	13.7
5	☐	2500.000	2537.844	2775.40	0.0476	P	5.8
6	☐	5000.000	4749.197	5251.17	0.0884	P	1.1
7	☐	10000.000	9886.369	10743.42	0.1833	P	4.5
8	☐	20000.000	20115.022	22190.36	0.3722	P	4.6
9	☐			25.00	0.0004	P	57.2

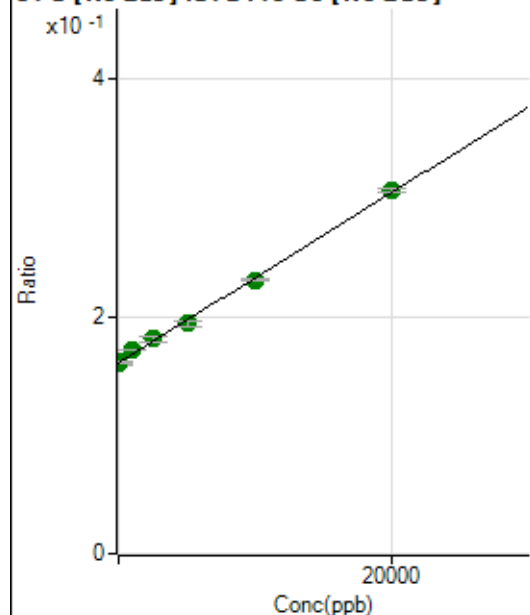
$$y = 1.8469E-005 * x + 6.8398E-004$$

$$R = 0.9999$$

$$DL = 30.54$$

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	-114.534	936308.93	0.1601	A	1.5
2	☐	0.000					
3	☐	0.000	114.534	955084.33	0.1617	A	1.1
4	☐	1000.000	1526.161	989367.63	0.1718	A	0.5
5	☐	2500.000	2763.257	1038637.72	0.1807	A	2.0
6	☐	5000.000	4566.524	1120997.27	0.1936	A	2.0
7	☐	10000.000	9735.466	1336442.13	0.2307	A	0.2
8	☐	20000.000	20181.421	1812550.04	0.3057	A	1.2
9	☐			758681.32	0.1345	P	1.0

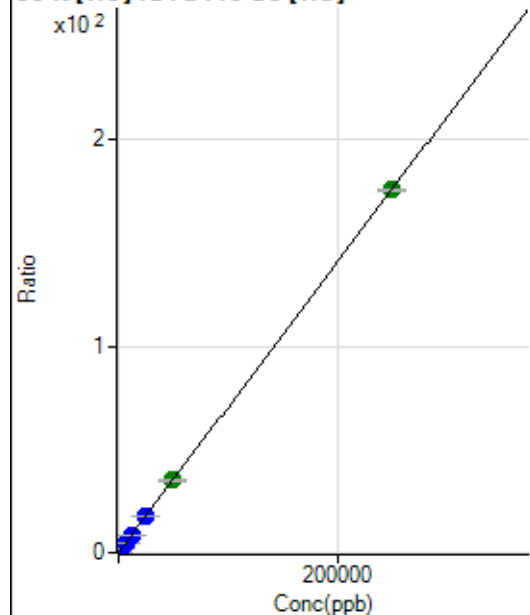
$$y = 7.1741\text{E-}006 * x + 0.1609$$

$$R = 0.9990$$

$$DL = 851.3$$

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	6118.27	0.1057	P	4.1
2	☐	50.000					
3	☐	500.000	446.865	24850.54	0.4195	P	1.2
4	☐	2500.000	2401.929	106005.50	1.7927	P	7.4
5	☐	6250.000	6064.906	254800.12	4.3654	P	1.8
6	☐	12500.000	11692.806	494104.68	8.3182	P	1.7
7	☐	25000.000	24852.456	1029575.96	17.5610	P	2.0
8	☐	50000.000	49787.881	2091617.99	35.0745	A	2.7
9	☐	250000.00	250103.25	10548949.02	175.7674	A	0.5

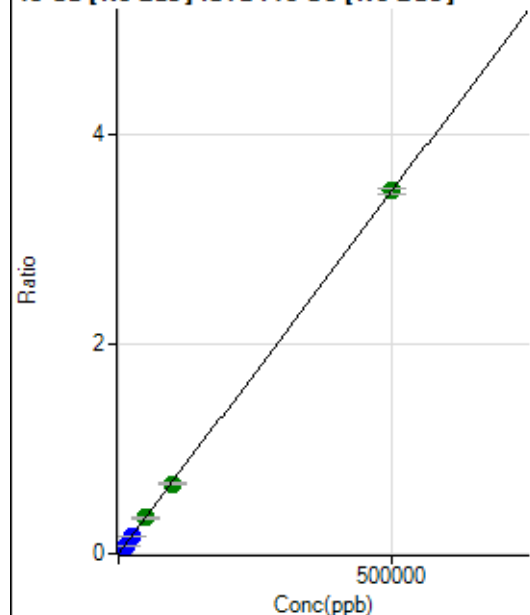
$$y = 7.0236\text{E-}004 * x + 0.1057$$

$$R = 1.0000$$

$$DL = 18.29$$

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	1090.06	0.0002	P	6.8
2	☐	50.000					
3	☐	500.000	437.779	18964.06	0.0032	P	1.3
4	☐	5000.000	4735.980	189458.18	0.0329	P	0.3
5	☐	12500.000	11624.363	462696.99	0.0805	P	1.2
6	☐	25000.000	23140.534	926557.70	0.1600	P	1.1
7	☐	50000.000	49148.406	1967738.32	0.3397	A	1.2
8	☐	100000.00	96842.168	3968361.22	0.6692	A	0.7
9	☐	500000.00	500834.29	19523058.46	3.4601	A	1.6

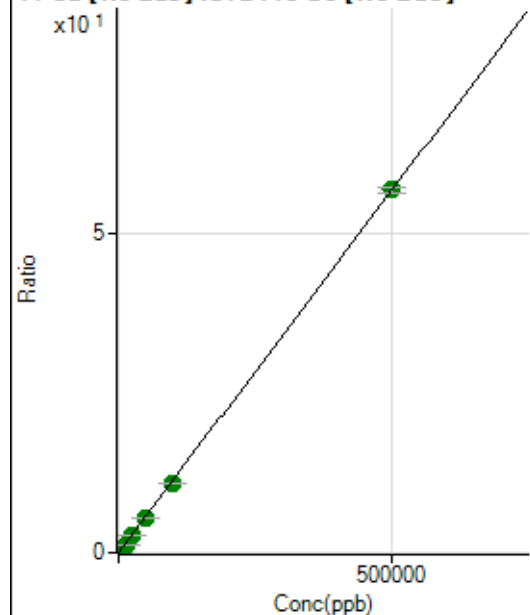
$$y = 6.9083\text{E-}006 * x + 1.8634\text{E-}004$$

$$R = 1.0000$$

$$DL = 5.483$$

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	54093.11	0.0092	P	1.1
2	☐	50.000					
3	☐	500.000	431.645	343313.86	0.0581	P	0.6
4	☐	5000.000	4749.969	3150129.78	0.5471	A	0.6
5	☐	12500.000	11537.491	7563052.60	1.3157	A	1.1
6	☐	25000.000	22982.675	15119307.69	2.6116	A	1.1
7	☐	50000.000	48091.386	31595771.75	5.4548	A	0.6
8	☐	100000.00	94786.862	63700731.27	10.7423	A	0.6
9	☐	500000.00	501360.98	320372553.0	56.7799	A	1.5

$$y = 1.1323\text{E-}004 * x + 0.0092$$

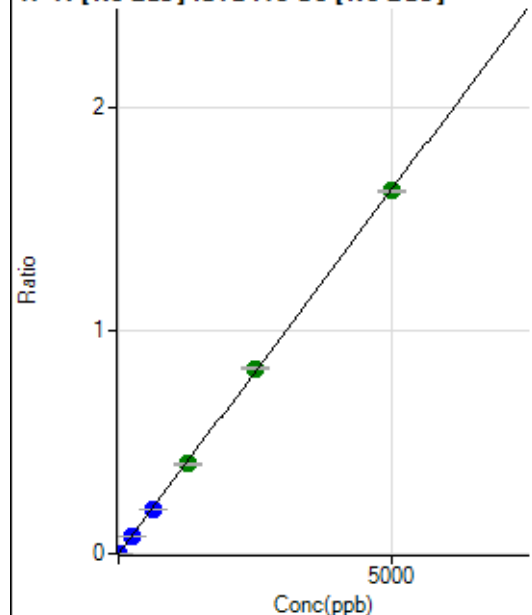
$$R = 0.9999$$

$$DL = 2.592$$

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	305.57	0.0001	P	9.3
2	☐	0.500					
3	☐	5.000	4.733	9417.43	0.0016	P	3.0
4	☐	250.000	248.044	465687.80	0.0809	P	0.3
5	☐	625.000	609.831	1142628.89	0.1988	P	1.0
6	☐	1250.000	1233.345	2326959.47	0.4019	A	1.1
7	☐	2500.000	2544.752	4803314.39	0.8293	A	0.9
8	☐	5000.000	4983.782	9630209.85	1.6240	A	0.8
9	☐			1730.75	0.0003	P	9.2

$$y = 3.2585E-004 * x + 5.2226E-005$$

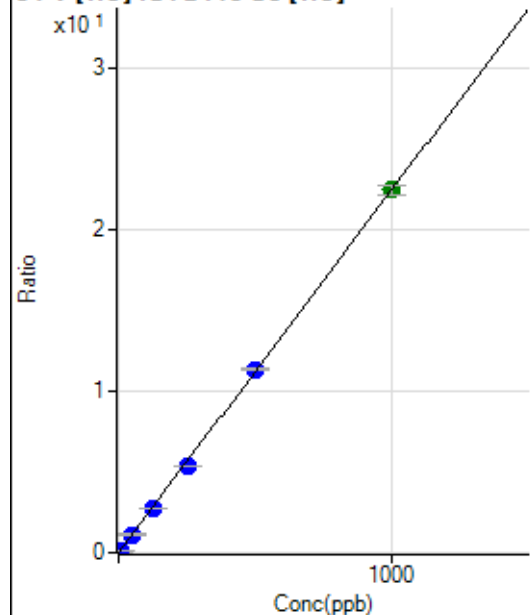
$$R = 0.9999$$

$$DL = 0.04472$$

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	13.33	0.0002	P	51.3
2	☐	0.500					
3	☐	5.000	4.813	6408.26	0.1082	P	2.0
4	☐	50.000	48.624	64505.79	1.0908	P	7.5
5	☐	125.000	122.247	160044.63	2.7421	P	1.4
6	☐	250.000	238.448	317701.58	5.3484	P	1.6
7	☐	500.000	505.329	664556.42	11.3343	P	1.5
8	☐	1000.000	1000.637	1338391.35	22.4436	A	2.7
9	☐			155.56	0.0026	P	12.3

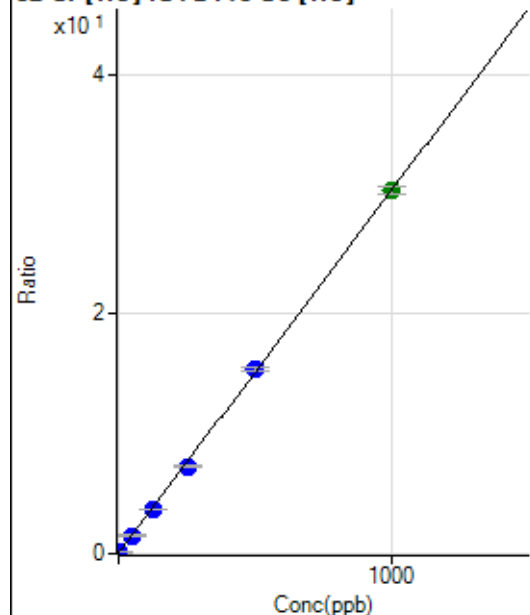
$$y = 0.0224 * x + 2.3121E-004$$

$$R = 0.9999$$

$$DL = 0.01586$$

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	1502.33	0.0260	P	7.1
2	☐	0.200					
3	☐	2.000	1.887	4919.83	0.0831	P	2.4
4	☐	50.000	49.416	90013.73	1.5213	P	5.9
5	☐	125.000	122.966	218698.12	3.7469	P	0.8
6	☐	250.000	238.829	430846.22	7.2529	P	1.3
7	☐	500.000	508.621	903900.05	15.4169	P	1.9
8	☐	1000.000	998.766	1804081.78	30.2487	A	2.1
9	☐			13256.48	0.2209	P	2.1

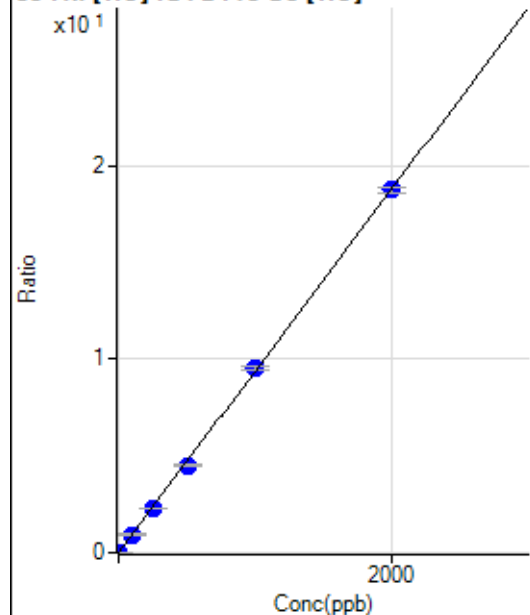
$$y = 0.0303 * x + 0.0260$$

$$R = 0.9999$$

$$DL = 0.1816$$

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	50.00	0.0009	P	29.6
2	☐	0.100					
3	☐	1.000	0.970	590.02	0.0100	P	1.8
4	☐	100.000	98.713	54840.60	0.9271	P	6.6
5	☐	250.000	246.020	134788.04	2.3092	P	0.3
6	☐	500.000	480.833	268049.40	4.5125	P	1.5
7	☐	1000.000	1016.913	559501.36	9.5425	P	1.4
8	☐	2000.000	1996.897	1117514.48	18.7376	P	1.8
9	☐			4061.77	0.0677	P	1.3

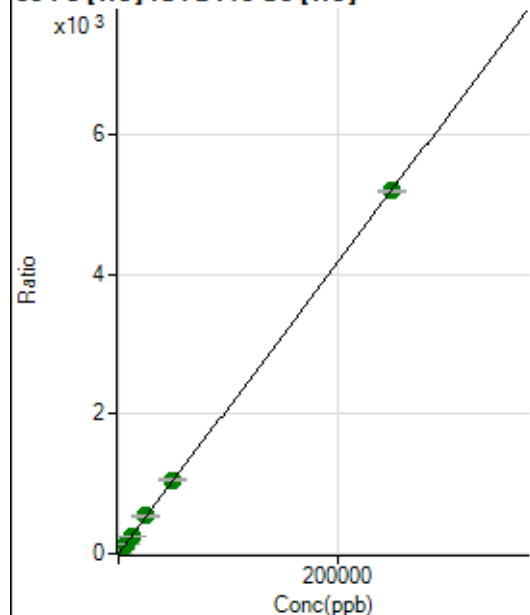
$$y = 0.0094 * x + 8.6475E-004$$

$$R = 0.9999$$

$$DL = 0.08193$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2024.28	0.0350	P	2.1
2	☐	5.000					
3	☐	50.000	52.020	66080.67	1.1156	P	0.5
4	☐	2500.000	2563.667	3151002.27	53.2900	A	7.5
5	☐	6250.000	6275.611	7610765.62	130.3982	A	1.0
6	☐	12500.000	12166.562	15014289.46	252.7708	A	2.1
7	☐	25000.000	25906.123	31553879.41	538.1825	A	1.8
8	☐	50000.000	50553.388	62632174.09	1,050.179	A	1.9
9	☐	250000.00	249814.10	311452658.8	5,189.419	A	0.6

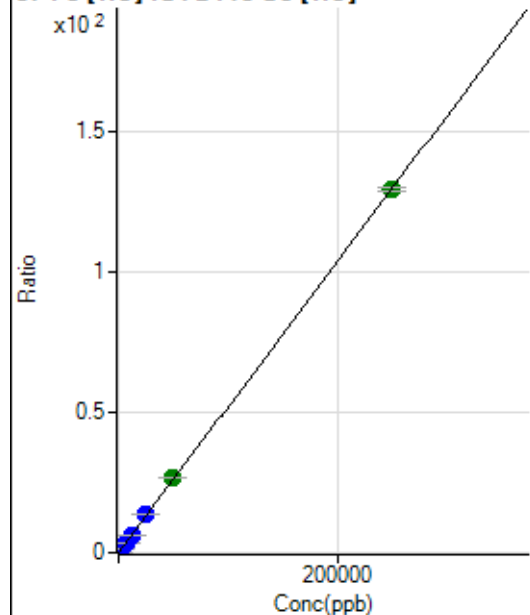
$$y = 0.0208 * x + 0.0350$$

$$R = 1.0000$$

$$DL = 0.1081$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0011	P	15.1
2	☐	5.000					
3	☐	50.000	54.091	1727.94	0.0292	P	5.3
4	☐	2500.000	2506.555	76860.97	1.2996	P	7.1
5	☐	6250.000	6230.280	188444.39	3.2286	P	0.5
6	☐	12500.000	12255.530	377170.44	6.3498	P	2.0
7	☐	25000.000	25977.231	789090.55	13.4581	P	1.4
8	☐	50000.000	51629.022	1595218.64	26.7464	A	1.4
9	☐	250000.00	249589.12	7759741.37	129.2951	A	1.0

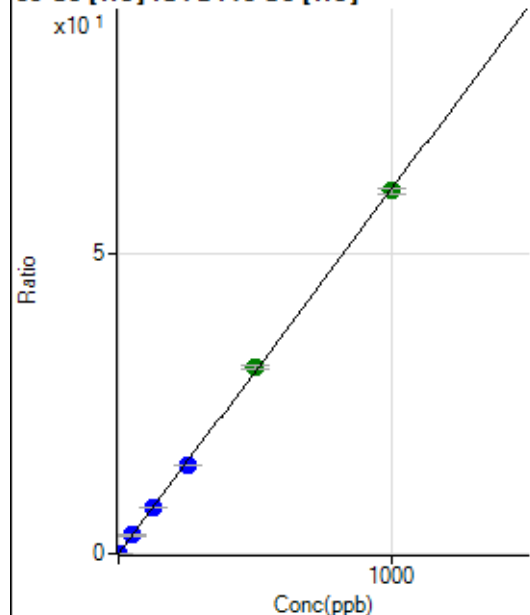
$$y = 5.1803E-004 * x + 0.0011$$

$$R = 1.0000$$

$$DL = 1.009$$

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	170.01	0.0029	P	4.1
2	☐	0.100					
3	☐	1.000	0.963	3632.76	0.0613	P	2.4
4	☐	50.000	50.248	180401.71	3.0506	P	7.2
5	☐	125.000	125.481	444369.25	7.6136	P	1.0
6	☐	250.000	243.408	877149.84	14.7660	P	1.2
7	☐	500.000	512.827	1824021.08	31.1067	A	2.0
8	☐	1000.000	995.162	3600075.22	60.3610	A	1.3
9	☐			41430.50	0.6903	P	1.3

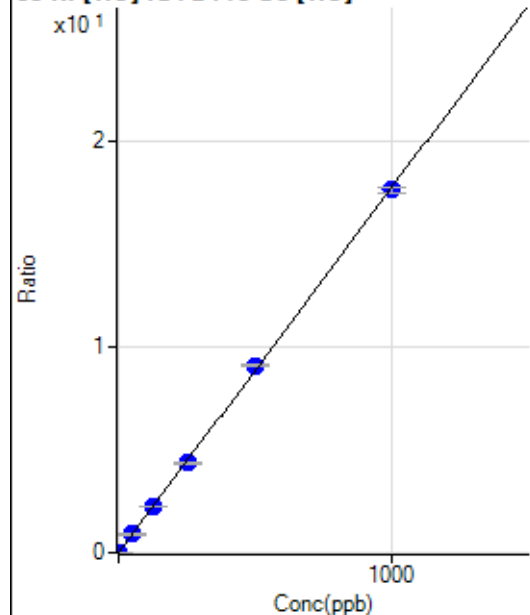
$$y = 0.0607 * x + 0.0029$$

$$R = 0.9999$$

$$DL = 0.005937$$

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	61.11	0.0011	P	16.4
2	☐	0.100					
3	☐	1.000	1.107	1225.63	0.0207	P	3.3
4	☐	50.000	51.216	53802.46	0.9100	P	7.9
5	☐	125.000	126.867	131480.17	2.2527	P	1.3
6	☐	250.000	245.531	258916.97	4.3588	P	1.6
7	☐	500.000	512.835	533725.03	9.1030	P	1.6
8	☐	1000.000	994.405	1052660.09	17.6500	P	1.6
9	☐			13070.80	0.2178	P	2.0

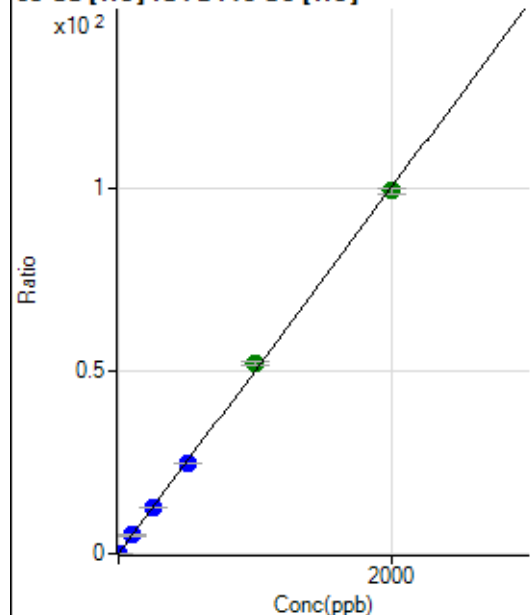
$$y = 0.0177 * x + 0.0011$$

$$R = 0.9999$$

$$DL = 0.02932$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	904.49	0.0156	P	4.3
2	☐	0.200					
3	☐	2.000	1.940	6691.72	0.1130	P	2.3
4	☐	100.000	101.894	303354.70	5.1282	P	6.5
5	☐	250.000	254.864	747303.74	12.8035	P	0.6
6	☐	500.000	493.969	1473199.08	24.8007	P	1.5
7	☐	1000.000	1041.241	3063978.12	52.2602	A	1.9
8	☐	2000.000	1980.184	5926575.19	99.3719	A	1.7
9	☐			7668.90	0.1278	P	2.8

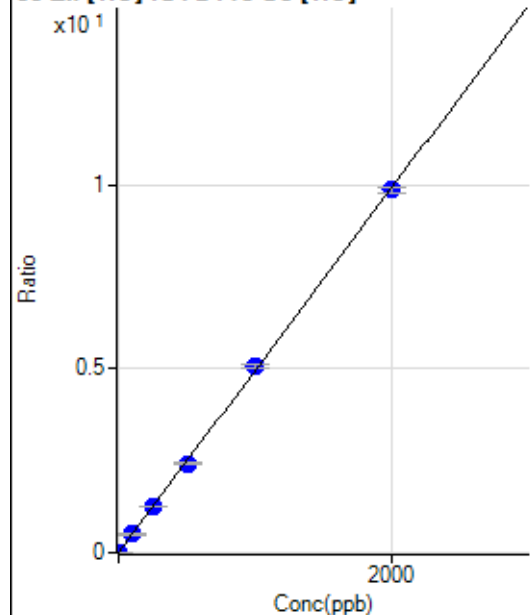
$$y = 0.0502 * x + 0.0156$$

$$R = 0.9997$$

$$DL = 0.03992$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	298.90	0.0052	P	12.4
2	☐	0.200					
3	☐	2.000	1.453	732.26	0.0124	P	7.0
4	☐	100.000	100.844	29856.70	0.5047	P	6.2
5	☐	250.000	254.509	73879.87	1.2658	P	0.4
6	☐	500.000	488.044	143894.52	2.4225	P	1.9
7	☐	1000.000	1024.552	297837.56	5.0798	P	1.7
8	☐	2000.000	1990.108	588201.66	9.8623	P	1.7
9	☐			2781.44	0.0463	P	0.4

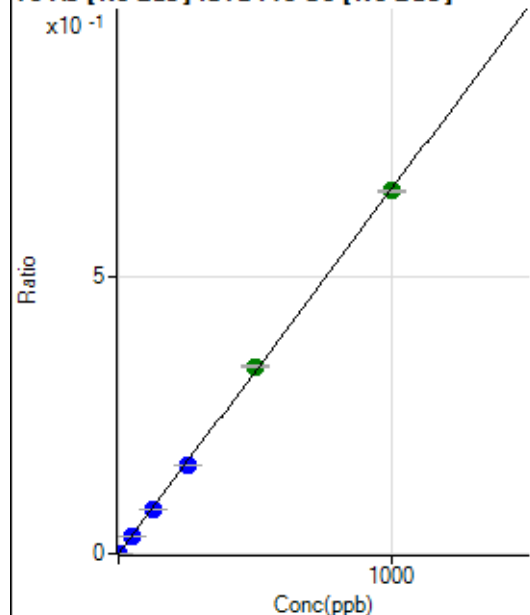
$$y = 0.0050 * x + 0.0052$$

$$R = 0.9999$$

$$DL = 0.3874$$

Weight: <None>

Min Conc: 0

75 As [No Gas] ISTD:45 Sc [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	158.34	0.0000	P	43.6
2	☐	0.100					
3	☐	1.000	0.921	3739.57	0.0006	P	3.1
4	☐	50.000	49.572	188015.78	0.0327	P	1.1
5	☐	125.000	121.975	461644.71	0.0803	P	1.1
6	☐	250.000	242.424	923842.84	0.1596	P	0.8
7	☐	500.000	514.132	1960149.87	0.3384	A	0.8
8	☐	1000.000	995.228	3884353.30	0.6550	A	0.7
9	☐			5404.07	0.0010	P	8.5

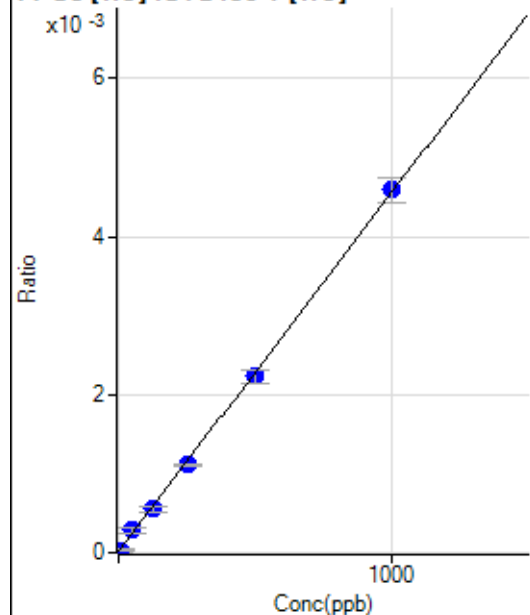
$$y = 6.5816E-004 * x + 2.7122E-005$$

$$R = 0.9998$$

$$DL = 0.05394$$

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	5.56	0.0000	P	92.2
2	☐	0.500					
3	☐	5.000	3.738	12.22	0.0000	P	83.5
4	☐	50.000	59.204	106.67	0.0003	P	24.2
5	☐	125.000	118.560	206.67	0.0006	P	13.0
6	☐	250.000	241.462	417.79	0.0011	P	1.9
7	☐	500.000	488.427	831.15	0.0022	P	7.4
8	☐	1000.000	1008.272	1705.69	0.0046	P	6.7
9	☐			2.22	0.0000	P	86.6

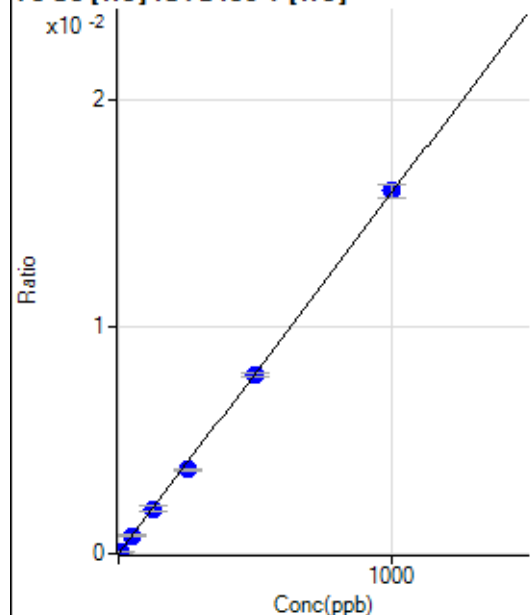
$$y = 4.5361E-006 * x + 1.5075E-005$$

$$R = 0.9998$$

$$DL = 9.196$$

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	4.32	0.0000	P	64.3
2	☐	0.500					
3	☐	5.000	5.064	35.19	0.0001	P	32.3
4	☐	50.000	49.822	301.86	0.0008	P	8.3
5	☐	125.000	124.565	745.09	0.0020	P	9.7
6	☐	250.000	232.781	1397.61	0.0037	P	3.1
7	☐	500.000	496.871	2947.88	0.0079	P	2.2
8	☐	1000.000	1005.932	5947.02	0.0160	P	3.5
9	☐			6.18	0.0000	P	17.2

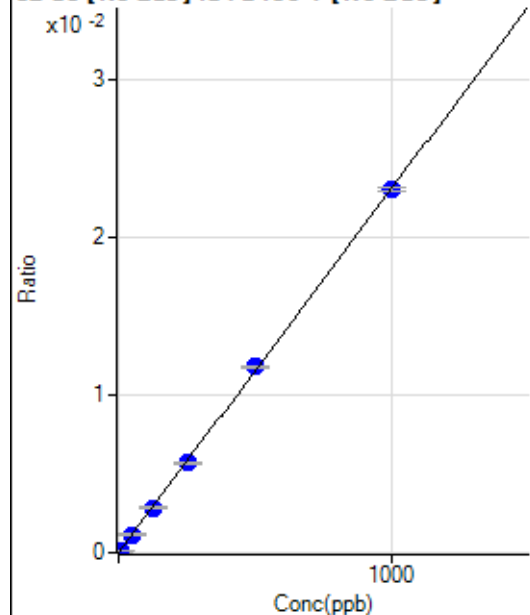
$$y = 1.5902E-005 * x + 1.1568E-005$$

$$R = 0.9998$$

$$DL = 1.404$$

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	57.82	0.0000	P	119.
2	☐	0.500					
3	☐	5.000	4.864	1107.81	0.0001	P	12.2
4	☐	50.000	49.741	10567.09	0.0012	P	0.8
5	☐	125.000	123.117	25885.10	0.0028	P	1.5
6	☐	250.000	245.432	52221.10	0.0057	P	1.7
7	☐	500.000	509.684	108905.42	0.0118	P	0.5
8	☐	1000.000	996.549	217441.77	0.0230	P	1.2
9	☐			217.29	0.0000	P	7.8

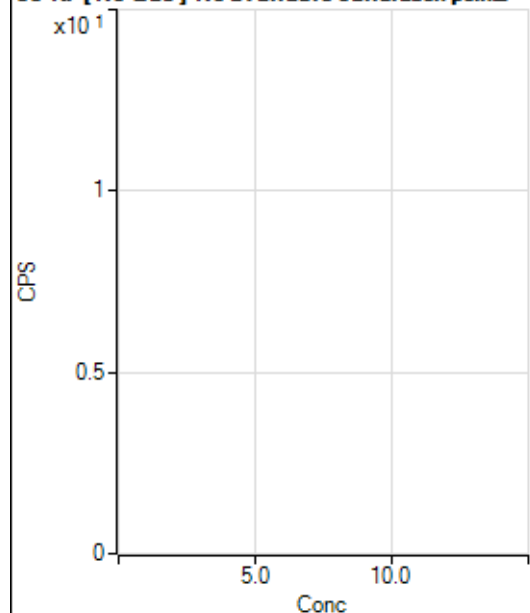
$$y = 2.3074E-005 * x + 6.3384E-006$$

$$R = 0.9999$$

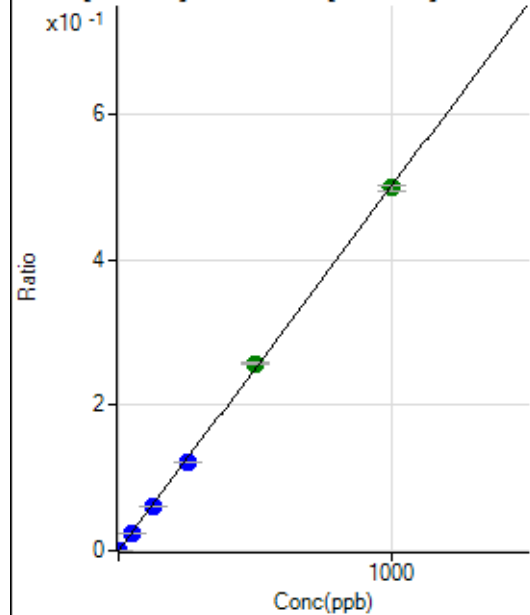
$$DL = 0.9815$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			905.60		P	0.9
2	☐						
3	☐			954.50		P	2.7
4	☐			967.83		P	10.5
5	☐			978.94		P	8.4
6	☐			1014.50		P	7.1
7	☐			976.72		P	13.9
8	☐			961.16		P	4.9
9	☐			933.38		P	2.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1527.95	0.0002	P	13.0
2	☐	0.100					
3	☐	1.000	0.776	5190.11	0.0006	P	2.9
4	☐	50.000	49.224	227212.26	0.0248	P	0.3
5	☐	125.000	121.971	556793.46	0.0612	P	1.6
6	☐	250.000	242.567	1120360.43	0.1216	P	0.7
7	☐	500.000	513.786	2382662.03	0.2574	A	0.5
8	☐	1000.000	995.383	4713207.31	0.4986	A	1.8
9	☐			18557.72	0.0021	P	0.9

$$y = 5.0073E-004 * x + 1.6722E-004$$

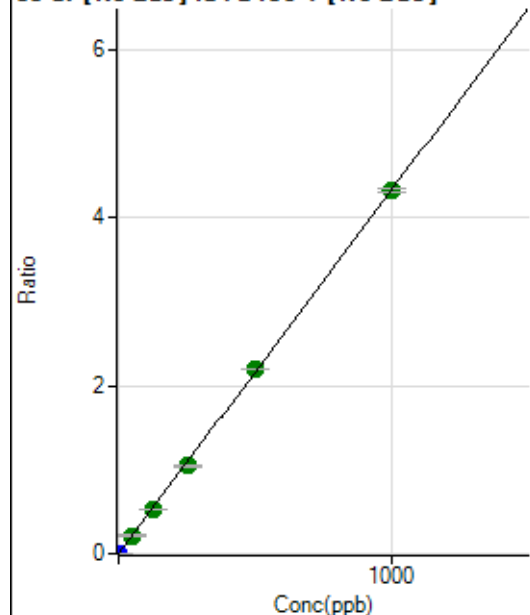
$$R = 0.9998$$

$$DL = 0.1305$$

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	291.68	0.0000	P	14.6
2	☐	0.100					
3	☐	1.000	0.797	32467.21	0.0035	P	1.0
4	☐	50.000	50.064	1981103.47	0.2164	A	0.8
5	☐	125.000	122.157	4799657.96	0.5279	A	1.5
6	☐	250.000	240.979	9592457.42	1.0414	A	0.7
7	☐	500.000	508.990	20357200.11	2.1995	A	0.2
8	☐	1000.000	998.112	40775523.13	4.3132	A	1.1
9	☐			145406.36	0.0165	P	0.7

$$y = 0.0043 * x + 3.1896E-005$$

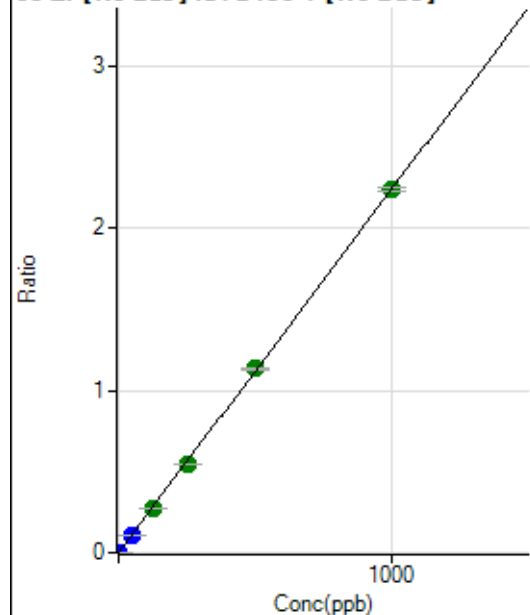
$$R = 0.9999$$

$$DL = 0.003222$$

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	713.95	0.0001	P	20.1
2	☐	0.100					
3	☐	1.000	0.916	19854.05	0.0021	P	2.5
4	☐	50.000	49.254	1009111.94	0.1102	P	0.6
5	☐	125.000	122.433	2489421.93	0.2738	A	2.1
6	☐	250.000	243.030	5006559.53	0.5435	A	0.7
7	☐	500.000	506.281	10478534.87	1.1321	A	1.2
8	☐	1000.000	998.960	21118074.78	2.2338	A	0.9
9	☐			5023.37	0.0006	P	9.4

$$y = 0.0022 * x + 7.8111E-005$$

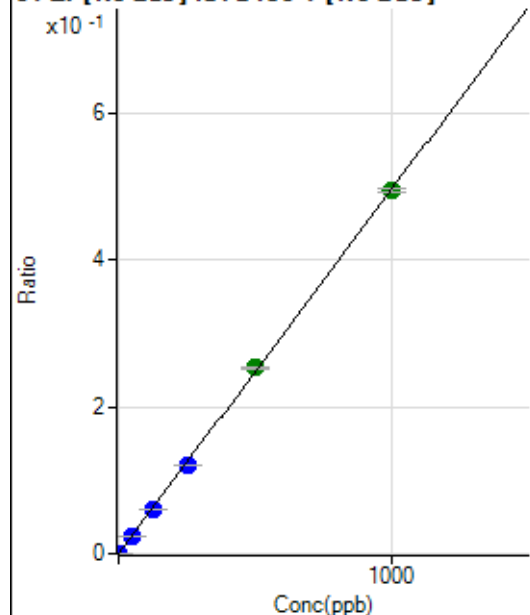
$$R = 0.9999$$

$$DL = 0.02104$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	172.23	0.0000	P	18.6
2	☐	0.100					
3	☐	1.000	0.900	4342.56	0.0005	P	0.9
4	☐	50.000	49.223	223527.70	0.0244	P	0.4
5	☐	125.000	120.778	544313.57	0.0599	P	2.0
6	☐	250.000	243.607	1112246.87	0.1207	P	0.5
7	☐	500.000	511.748	2347433.11	0.2536	A	1.0
8	☐	1000.000	996.291	4667939.47	0.4938	A	1.1
9	☐			1111.21	0.0001	P	6.0

$$y = 4.9558\text{E-}004 * x + 1.8847\text{E-}005$$

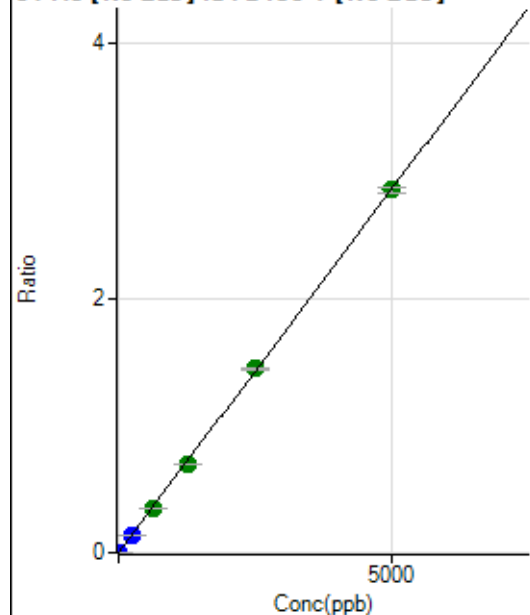
$$R = 0.9999$$

$$DL = 0.02126$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	411.14	0.0000	P	12.4
2	☐	0.500					
3	☐	5.000	4.595	24882.14	0.0027	P	2.9
4	☐	250.000	246.377	1286602.88	0.1405	P	0.4
5	☐	625.000	610.406	3164330.17	0.3481	A	2.1
6	☐	1250.000	1212.276	6367194.76	0.6912	A	0.6
7	☐	2500.000	2533.295	13368506.72	1.4444	A	1.0
8	☐	5000.000	4994.789	26922538.10	2.8479	A	1.3
9	☐			9651.09	0.0011	P	3.4

$$y = 5.7016\text{E-}004 * x + 4.4944\text{E-}005$$

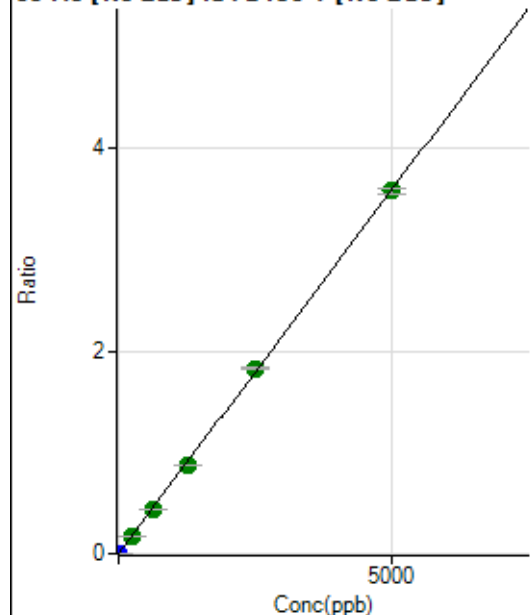
$$R = 0.9999$$

$$DL = 0.0293$$

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	186.12	0.0000	P	29.8
2	☐	0.500					
3	☐	5.000	4.475	30151.08	0.0032	P	0.4
4	☐	250.000	249.580	1638672.68	0.1790	A	0.6
5	☐	625.000	607.053	3957337.15	0.4353	A	2.1
6	☐	1250.000	1209.251	7986854.00	0.8671	A	0.9
7	☐	2500.000	2543.119	16876474.33	1.8235	A	0.9
8	☐	5000.000	4990.893	33828548.32	3.5786	A	1.8
9	☐			13262.53	0.0015	P	7.3

$$y = 7.1701\text{E-}004 * x + 2.0390\text{E-}005$$

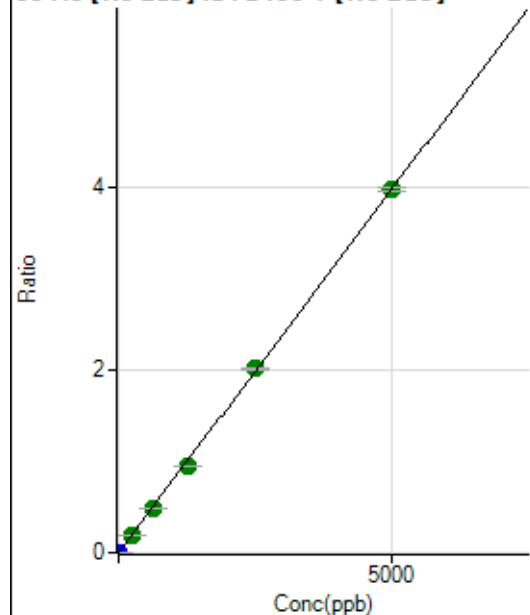
$$R = 0.9999$$

$$DL = 0.02542$$

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	227.79	0.0000	P	34.6
2	☐	0.500					
3	☐	5.000	4.476	33411.55	0.0036	P	2.5
4	☐	250.000	246.475	1791355.75	0.1956	A	0.7
5	☐	625.000	603.572	4355706.61	0.4791	A	1.3
6	☐	1250.000	1197.792	8757016.17	0.9507	A	1.1
7	☐	2500.000	2535.846	18627749.37	2.0127	A	1.0
8	☐	5000.000	4997.984	37501923.75	3.9669	A	1.0
9	☐			17687.25	0.0020	P	7.3

$$y = 7.9369\text{E-}004 * x + 2.4963\text{E-}005$$

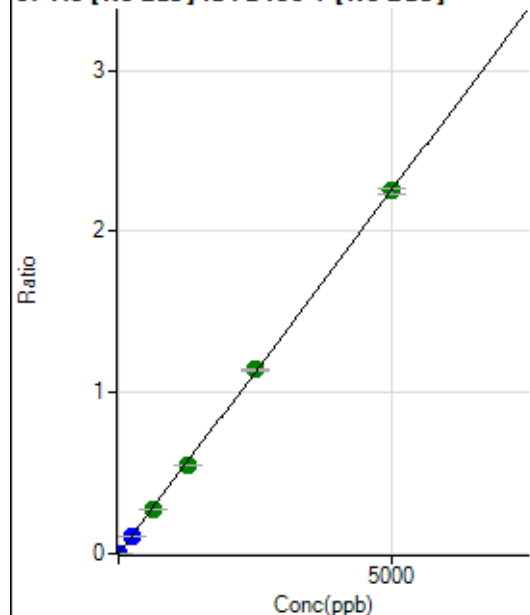
$$R = 0.9999$$

$$DL = 0.03262$$

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	113.90	0.0000	P	40.8
2	☐	0.500					
3	☐	5.000	4.523	19158.70	0.0021	P	2.8
4	☐	250.000	242.797	1002507.83	0.1095	P	0.8
5	☐	625.000	610.237	2501864.38	0.2752	A	1.3
6	☐	1250.000	1212.787	5037277.76	0.5469	A	1.3
7	☐	2500.000	2533.164	10571693.46	1.1422	A	0.8
8	☐	5000.000	4994.927	21292117.32	2.2523	A	1.3
9	☐			8258.46	0.0009	P	4.4

$$y = 4.5091E-004 * x + 1.2474E-005$$

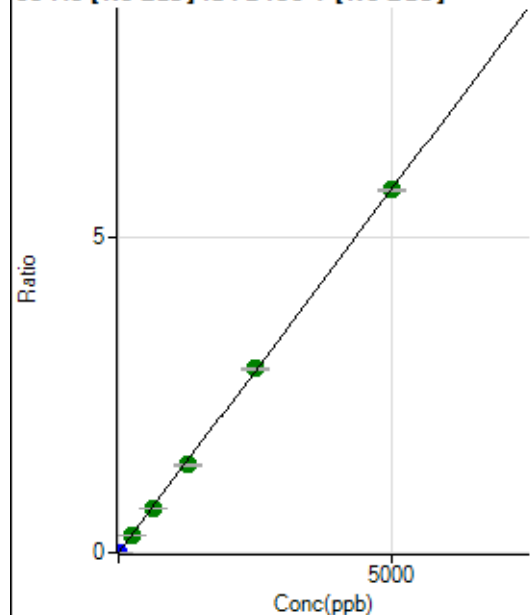
$$R = 0.9999$$

$$DL = 0.03388$$

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	216.68	0.0000	P	25.9
2	☐	0.500					
3	☐	5.000	4.460	48303.77	0.0052	P	0.8
4	☐	250.000	247.865	2620063.69	0.2862	A	1.0
5	☐	625.000	605.656	6356436.03	0.6992	A	2.1
6	☐	1250.000	1209.197	12858127.28	1.3959	A	1.2
7	☐	2500.000	2537.207	27108232.90	2.9290	A	1.2
8	☐	5000.000	4994.123	54505359.55	5.7653	A	0.7
9	☐			20644.38	0.0023	P	6.1

$$y = 0.0012 * x + 2.3735E-005$$

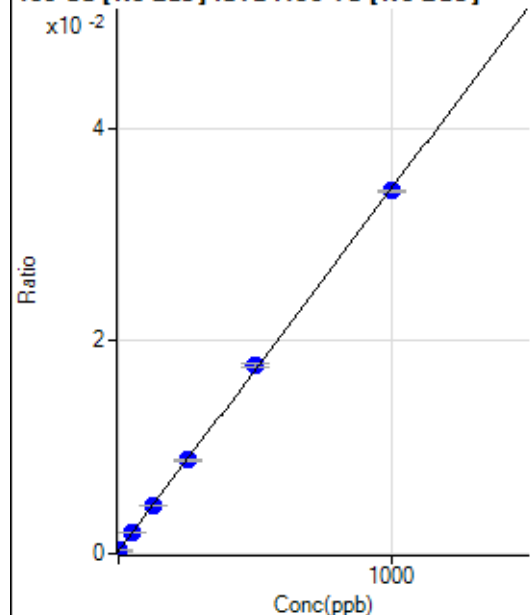
$$R = 0.9999$$

$$DL = 0.01598$$

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	2555.92	0.0003	P	2.6
2	☐	0.100					
3	☐	1.000	2.038	3289.45	0.0003	P	10.3
4	☐	50.000	50.666	19873.81	0.0020	P	1.3
5	☐	125.000	124.923	45650.57	0.0045	P	1.3
6	☐	250.000	251.310	90486.75	0.0088	P	1.5
7	☐	500.000	512.420	181885.48	0.0177	P	1.3
8	☐	1000.000	993.438	361135.17	0.0341	P	0.6
9	☐			2928.25	0.0003	P	2.6

$$y = 3.4077\text{E-}005 * x + 2.5612\text{E-}004$$

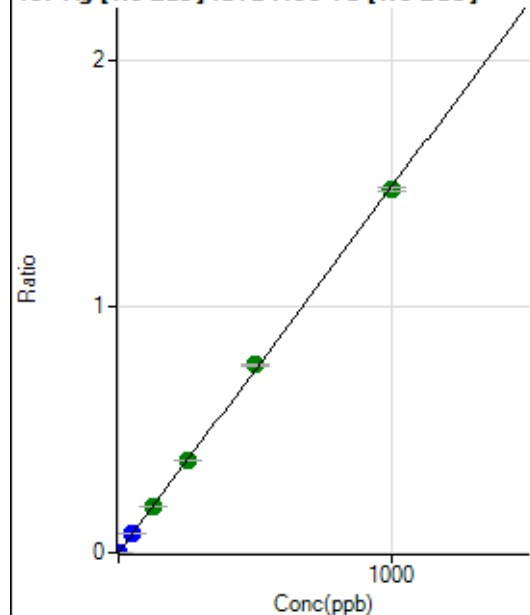
$$R = 0.9999$$

$$DL = 0.5865$$

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	338.91	0.0000	P	12.4
2	☐	0.100					
3	☐	1.000	1.091	16699.97	0.0017	P	2.0
4	☐	50.000	51.668	769234.09	0.0767	P	1.0
5	☐	125.000	127.369	1913486.72	0.1891	A	0.9
6	☐	250.000	252.124	3840640.23	0.3744	A	1.3
7	☐	500.000	514.366	7839817.27	0.7637	A	1.2
8	☐	1000.000	991.907	15591801.74	1.4727	A	1.0
9	☐			2141.95	0.0002	P	5.7

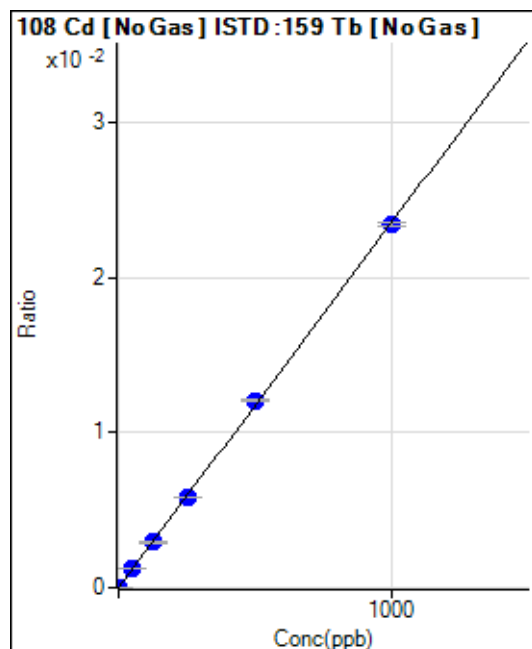
$$y = 0.0015 * x + 3.3965\text{E-}005$$

$$R = 0.9998$$

$$DL = 0.008519$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9.72	0.0000	P	64.9
2	☐	0.100					
3	☐	1.000	1.033	255.56	0.0000	P	6.2
4	☐	50.000	51.314	12130.70	0.0012	P	0.9
5	☐	125.000	124.063	29585.61	0.0029	P	1.0
6	☐	250.000	248.682	60136.47	0.0059	P	0.9
7	☐	500.000	512.888	124094.12	0.0121	P	0.6
8	☐	1000.000	993.937	248003.75	0.0234	P	1.1
9	☐			41.67	0.0000	P	26.1

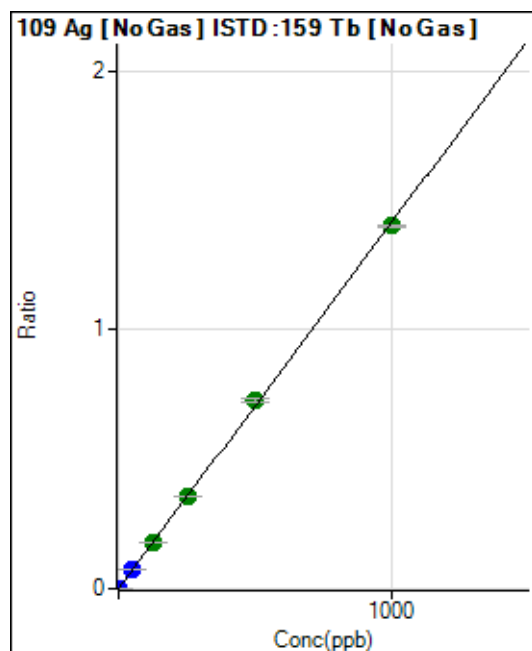
$$y = 2.3567E-005 * x + 9.7099E-007$$

$$R = 0.9999$$

$$DL = 0.08017$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	261.13	0.0000	P	32.1
2	☐	0.100					
3	☐	1.000	1.101	15979.66	0.0016	P	1.3
4	☐	50.000	51.200	725449.55	0.0724	P	0.2
5	☐	125.000	127.956	1829434.72	0.1808	A	0.7
6	☐	250.000	251.748	3649917.92	0.3558	A	1.2
7	☐	500.000	516.074	7486517.36	0.7293	A	1.6
8	☐	1000.000	991.096	14828126.72	1.4005	A	0.7
9	☐			2130.84	0.0002	P	9.0

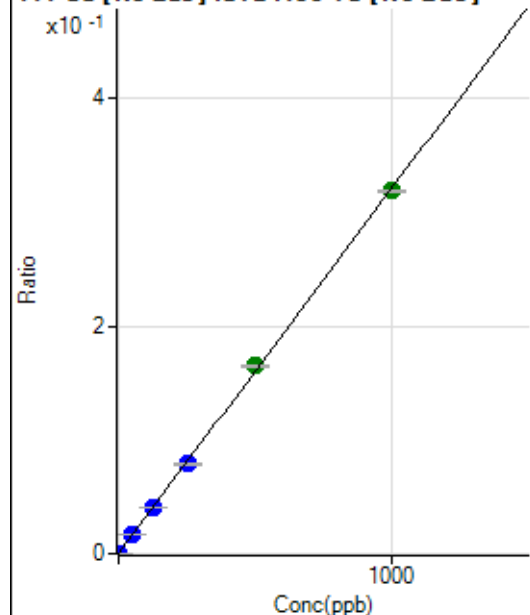
$$y = 0.0014 * x + 2.6152E-005$$

$$R = 0.9998$$

$$DL = 0.01781$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1794.83	0.0002	P	2.8
2	☐	0.100					
3	☐	1.000	1.023	5129.68	0.0005	P	5.9
4	☐	50.000	51.138	166181.10	0.0166	P	0.8
5	☐	125.000	124.304	405059.04	0.0400	P	1.2
6	☐	250.000	245.272	808844.10	0.0788	P	0.7
7	☐	500.000	514.310	1695047.70	0.1651	A	1.2
8	☐	1000.000	994.057	3377156.52	0.3190	A	0.6
9	☐			2152.56	0.0002	P	4.9

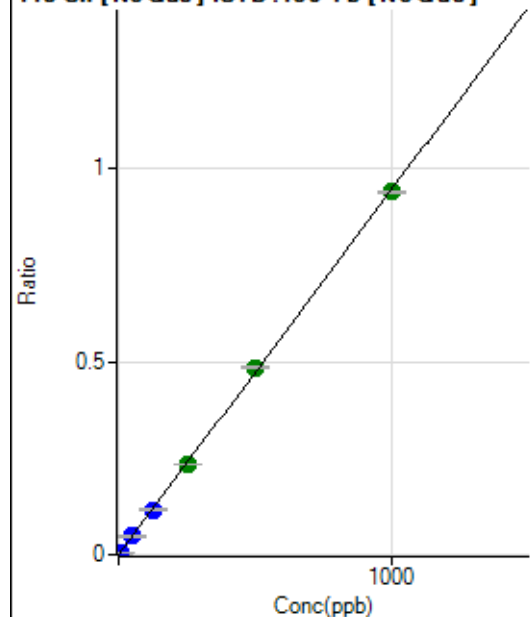
$$y = 3.2070\text{E-}004 * x + 1.7985\text{E-}004$$

$$R = 0.9998$$

$$DL = 0.04667$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1069.53	0.0001	P	6.8
2	☐	0.500					
3	☐	5.000	4.876	47616.16	0.0047	P	2.6
4	☐	50.000	50.098	475638.58	0.0475	P	1.5
5	☐	125.000	123.284	1179580.12	0.1166	P	1.7
6	☐	250.000	247.601	2401891.88	0.2341	A	0.6
7	☐	500.000	513.102	4979322.98	0.4850	A	0.8
8	☐	1000.000	994.259	9950132.34	0.9398	A	0.4
9	☐			5067.89	0.0005	P	9.9

$$y = 9.4512\text{E-}004 * x + 1.0719\text{E-}004$$

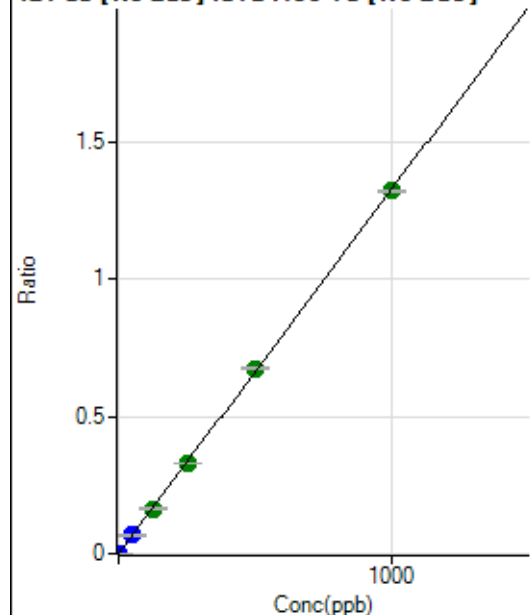
$$R = 0.9999$$

$$DL = 0.02312$$

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	236.13	0.0000	P	8.4
2	☐	0.200					
3	☐	2.000	1.795	24259.13	0.0024	P	4.0
4	☐	50.000	50.376	669366.44	0.0668	P	1.3
5	☐	125.000	123.936	1661218.83	0.1643	A	2.4
6	☐	250.000	246.887	3356936.58	0.3272	A	0.3
7	☐	500.000	509.256	6928386.44	0.6749	A	0.8
8	☐	1000.000	996.265	13978712.99	1.3203	A	0.6
9	☐			17342.59	0.0019	P	2.3

$$y = 0.0013 * x + 2.3652E-005$$

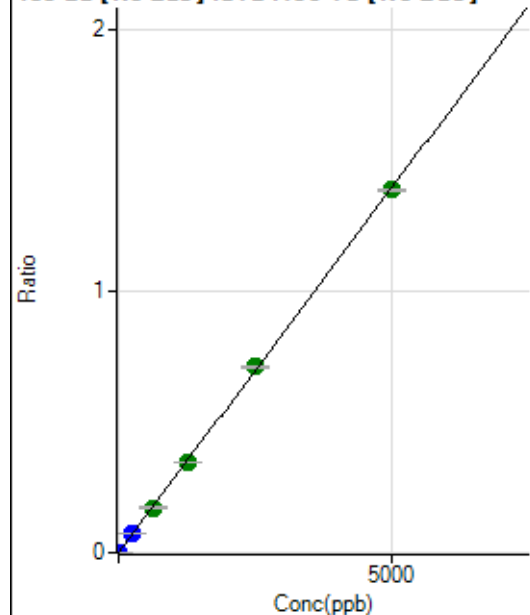
$$R = 0.9999$$

$$DL = 0.004524$$

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	66.67	0.0000	P	32.8
2	☐	1.000					
3	☐	10.000	9.674	27293.05	0.0027	P	0.9
4	☐	250.000	252.367	704973.15	0.0703	P	0.6
5	☐	625.000	615.294	1734323.00	0.1715	A	1.8
6	☐	1250.000	1239.754	3544449.51	0.3455	A	0.9
7	☐	2500.000	2554.270	7307161.71	0.7118	A	0.9
8	☐	5000.000	4976.522	14682738.70	1.3868	A	0.6
9	☐			1469.60	0.0002	P	16.8

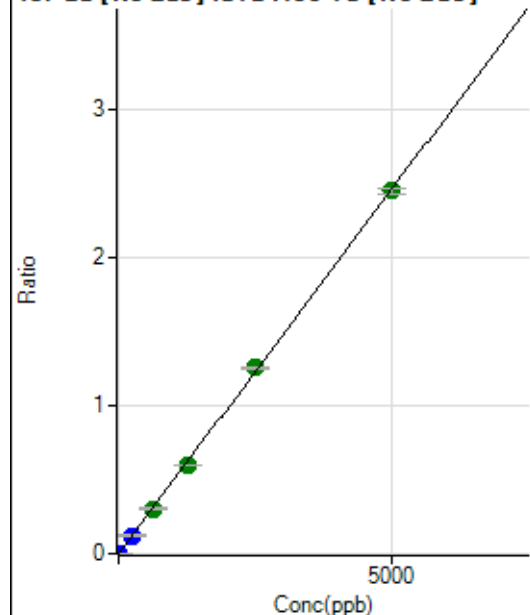
$$y = 2.7867E-004 * x + 6.6753E-006$$

$$R = 0.9999$$

$$DL = 0.02357$$

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	113.89	0.0000	P	48.9
2	☐	1.000					
3	☐	10.000	9.580	47675.87	0.0047	P	1.0
4	☐	250.000	250.856	1236002.04	0.1233	P	0.6
5	☐	625.000	619.545	3079897.75	0.3045	A	2.1
6	☐	1250.000	1224.509	6175028.83	0.6019	A	0.3
7	☐	2500.000	2549.023	12861887.09	1.2529	A	1.2
8	☐	5000.000	4982.501	25927942.59	2.4490	A	1.3
9	☐			2347.54	0.0003	P	20.4

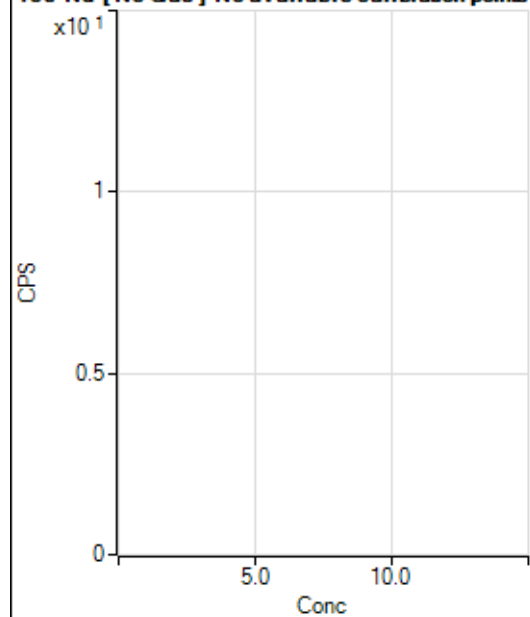
$$y = 4.9153E-004 * x + 1.1420E-005$$

$$R = 0.9999$$

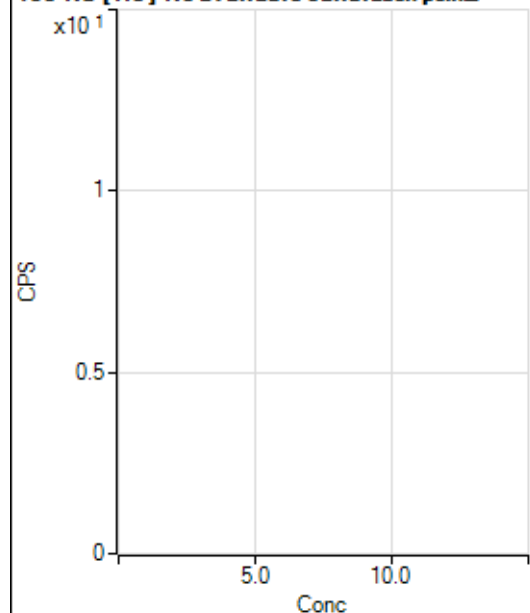
$$DL = 0.0341$$

Weight: <None>

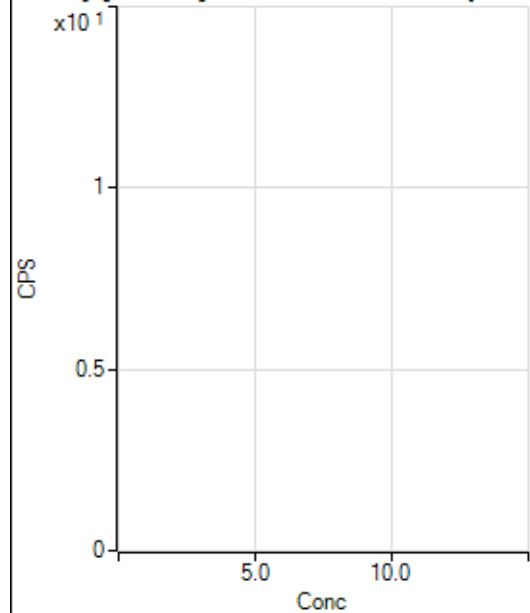
Min Conc: 0

150 Nd [No Gas] No available calibration points

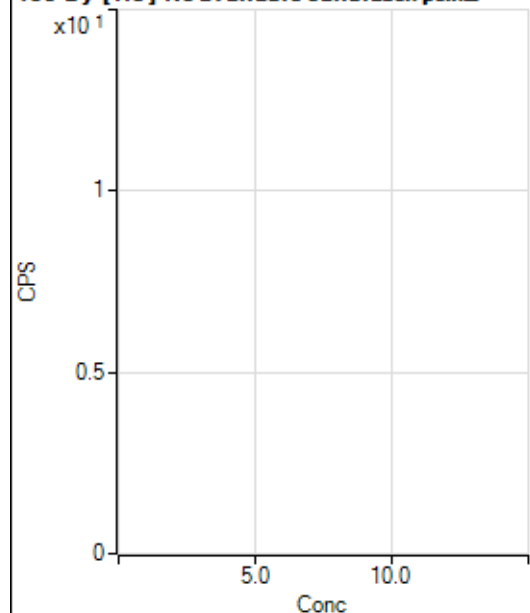
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	50.0
2	☐						
3	☐			13.34		P	86.6
4	☐			51.11		P	15.1
5	☐			115.56		P	13.3
6	☐			191.12		P	16.5
7	☐			402.24		P	12.9
8	☐			753.38		P	7.1
9	☐			242.24		P	11.5

150 Nd [He] No available calibration points

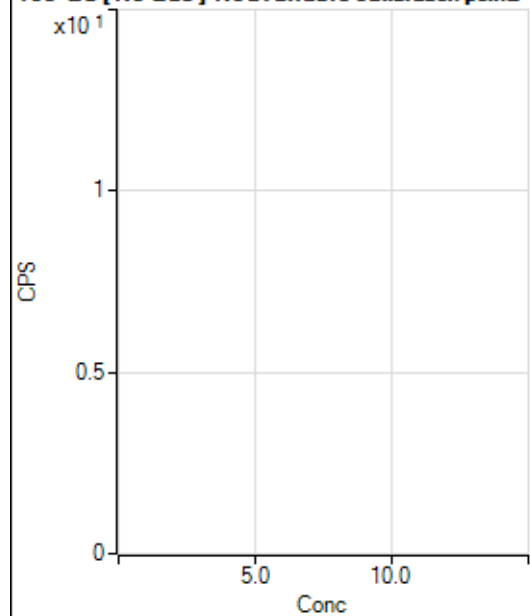
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			1.11		P	173.
4	☐			3.33		P	100.
5	☐			1.11		P	173.
6	☐			6.67		P	86.6
7	☐			10.00		P	88.2
8	☐			20.00		P	44.1
9	☐			41.11		P	23.4

156 Dy [No Gas] No available calibration points

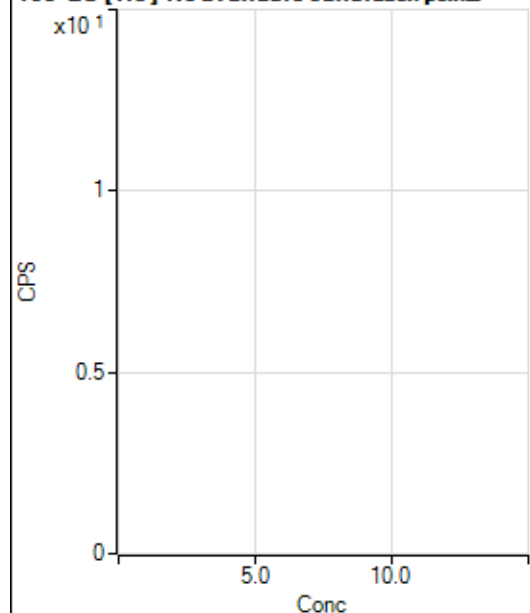
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	57.7
2	☐						
3	☐			13.89		P	34.7
4	☐			44.45		P	10.8
5	☐			52.78		P	55.5
6	☐			63.89		P	32.8
7	☐			136.12		P	41.7
8	☐			175.01		P	23.8
9	☐			136.12		P	14.1

156 Dy [He] No available calibration points

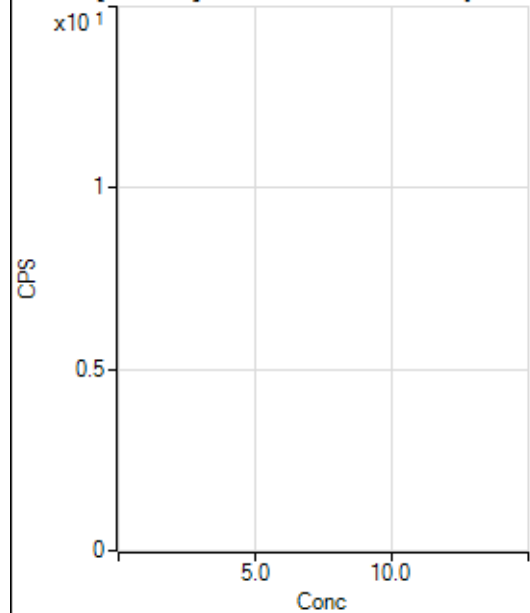
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			3.33		P	100.
4	☐			1.11		P	173.
5	☐			4.45		P	86.6
6	☐			6.67		P	132.
7	☐			5.56		P	91.6
8	☐			16.66		P	34.6
9	☐			32.22		P	33.3

160 Gd [No Gas] Noavailable calibration poin_

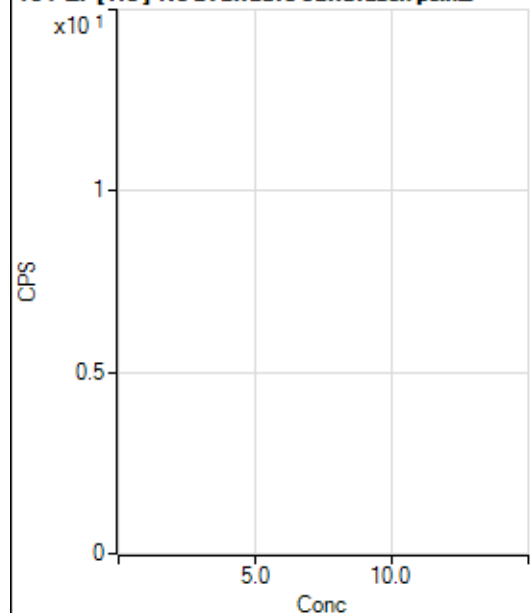
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			86.11		P	31.1
2	☐						
3	☐			133.34		P	32.5
4	☐			122.23		P	23.9
5	☐			113.90		P	44.7
6	☐			127.79		P	3.8
7	☐			108.34		P	33.5
8	☐			111.12		P	4.3
9	☐			155.57		P	6.2

160 Gd [He] No available calibration points

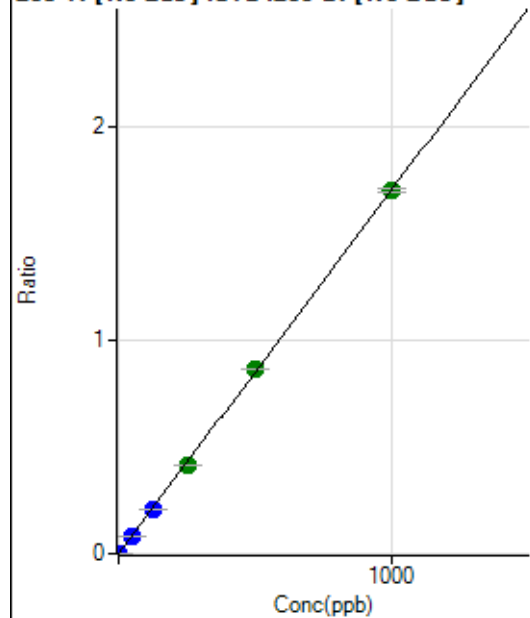
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	22.9
2	☐						
3	☐			13.33		P	25.0
4	☐			21.11		P	48.2
5	☐			14.44		P	58.1
6	☐			12.22		P	41.7
7	☐			23.33		P	42.9
8	☐			22.22		P	45.8
9	☐			37.78		P	5.1

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			61.11		P	20.8
2	☐						
3	☐			30.56		P	41.7
4	☐			47.22		P	36.7
5	☐			38.89		P	44.6
6	☐			44.45		P	10.8
7	☐			44.45		P	10.8
8	☐			44.45		P	28.7
9	☐			52.78		P	48.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	114.
2	☐						
3	☐			6.67		P	50.0
4	☐			12.22		P	68.7
5	☐			10.00		P	88.2
6	☐			12.22		P	56.8
7	☐			4.44		P	43.4
8	☐			4.45		P	86.6
9	☐			13.33		P	NaN

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	144.45	0.0000	P	26.7
2	☐	0.100					
3	☐	1.000	0.860	8817.29	0.0015	P	4.5
4	☐	50.000	48.530	484508.35	0.0827	P	0.2
5	☐	125.000	120.146	1198324.45	0.2048	P	0.8
6	☐	250.000	243.765	2490890.66	0.4154	A	1.1
7	☐	500.000	508.482	5103588.22	0.8665	A	0.5
8	☐	1000.000	997.998	10188320.28	1.7007	A	1.0
9	☐			722.28	0.0001	P	23.8

$$y = 0.0017 * x + 2.4576E-005$$

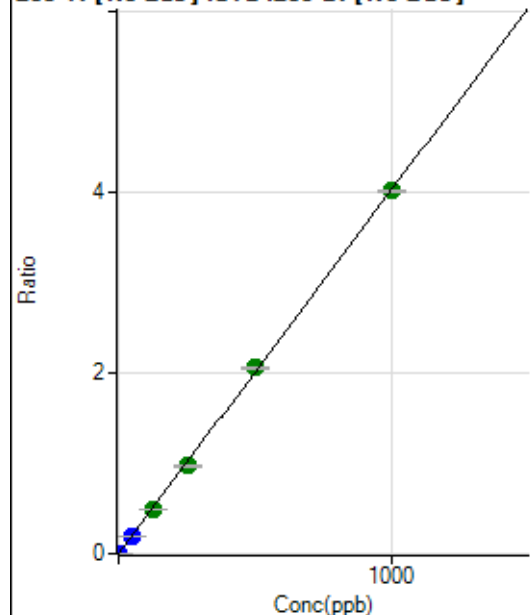
$$R = 0.9999$$

$$DL = 0.01154$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	300.02	0.0001	P	28.9
2	☐	0.100					
3	☐	1.000	0.884	21352.20	0.0036	P	1.2
4	☐	50.000	49.160	1157741.93	0.1977	P	0.3
5	☐	125.000	122.577	2884088.22	0.4928	A	0.6
6	☐	250.000	241.306	5816673.52	0.9701	A	0.7
7	☐	500.000	510.482	12086900.88	2.0521	A	0.3
8	☐	1000.000	997.278	24016634.22	4.0090	A	0.8
9	☐			1616.86	0.0003	P	25.1

$$y = 0.0040 * x + 5.0965E-005$$

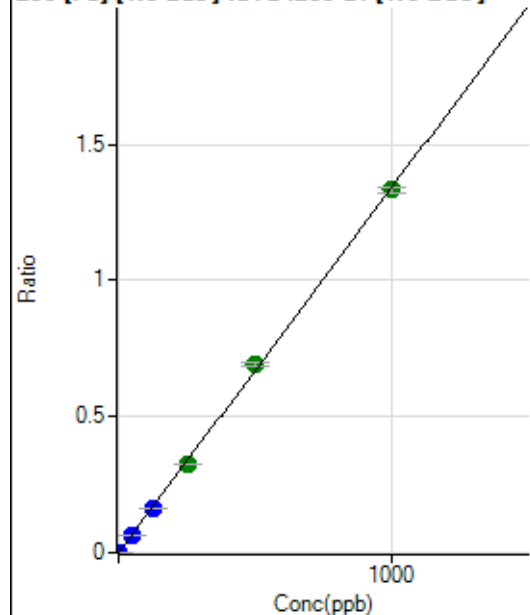
$$R = 0.9999$$

$$DL = 0.011$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	342.61	0.0001	P	10.7
2	☐	0.100					
3	☐	1.000	0.899	7478.34	0.0013	P	1.9
4	☐	50.000	48.673	382203.64	0.0653	P	0.5
5	☐	125.000	120.504	944958.20	0.1615	P	0.8
6	☐	250.000	241.295	1938438.60	0.3233	A	0.5
7	☐	500.000	516.140	4072204.72	0.6914	A	1.3
8	☐	1000.000	994.735	7982707.53	1.3325	A	1.3
9	☐			11051.45	0.0022	P	4.9

$$y = 0.0013 * x + 5.8210E-005$$

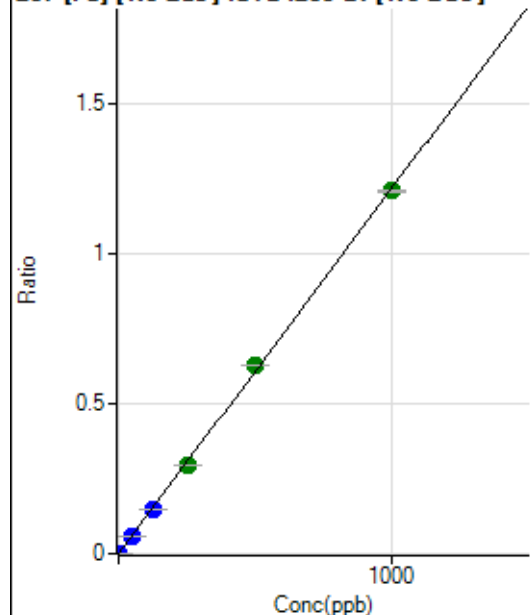
$$R = 0.9998$$

$$DL = 0.01391$$

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	283.35	0.0000	P	17.1
2	☐	0.100					
3	☐	1.000	0.859	6485.19	0.0011	P	3.4
4	☐	50.000	48.414	345788.32	0.0590	P	0.9
5	☐	125.000	119.647	853449.99	0.1458	P	0.7
6	☐	250.000	242.194	1769830.73	0.2952	A	0.1
7	☐	500.000	516.889	3709840.24	0.6299	A	0.3
8	☐	1000.000	994.256	7258002.02	1.2115	A	0.5
9	☐			9207.30	0.0018	P	2.3

$$y = 0.0012 * x + 4.8127E-005$$

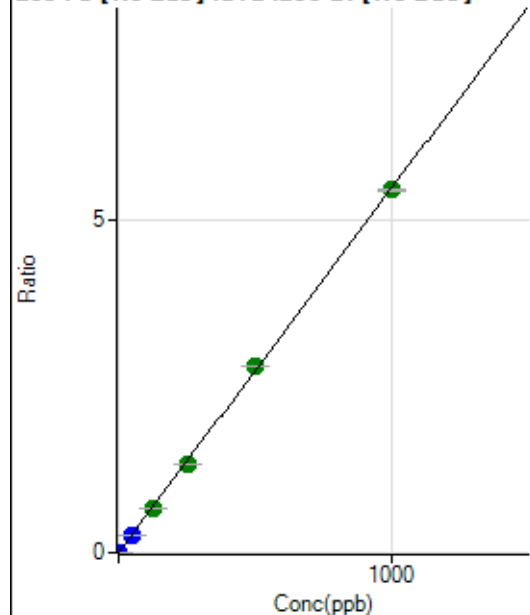
$$R = 0.9997$$

$$DL = 0.02021$$

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	1409.34	0.0002	P	6.4
2	☐	0.100					
3	☐	1.000	0.884	30007.39	0.0051	P	2.3
4	☐	50.000	48.625	1557865.77	0.2660	P	0.7
5	☐	125.000	120.527	3856184.77	0.6590	A	0.7
6	☐	250.000	242.409	7945459.87	1.3251	A	0.2
7	☐	500.000	513.407	16527880.63	2.8061	A	0.4
8	☐	1000.000	995.822	32605672.89	5.4427	A	0.8
9	☐			42890.64	0.0086	P	1.7

$$y = 0.0055 * x + 2.3942E-004$$

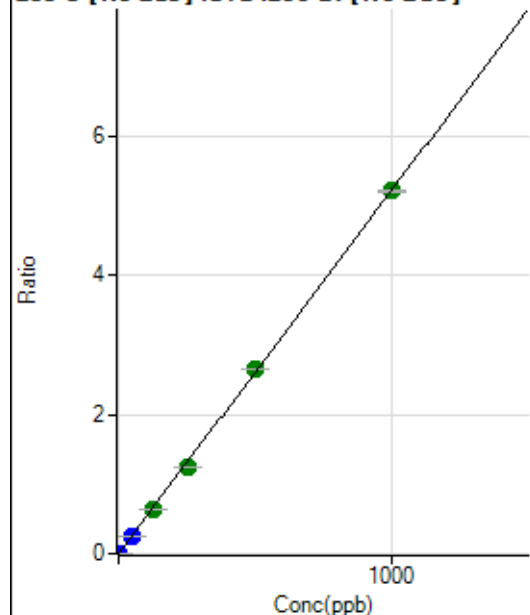
$$R = 0.9998$$

$$DL = 0.008352$$

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	66.67	0.0000	P	11.9
2	☐	0.100					
3	☐	1.000	0.863	26743.72	0.0045	P	2.3
4	☐	50.000	47.983	1466828.60	0.2504	P	1.0
5	☐	125.000	120.561	3682333.03	0.6292	A	0.7
6	☐	250.000	238.120	7452213.71	1.2428	A	0.5
7	☐	500.000	508.663	15636342.88	2.6548	A	0.4
8	☐	1000.000	999.294	31244468.06	5.2155	A	0.8
9	☐			813.97	0.0002	P	39.4

$$y = 0.0052 * x + 1.1324E-005$$

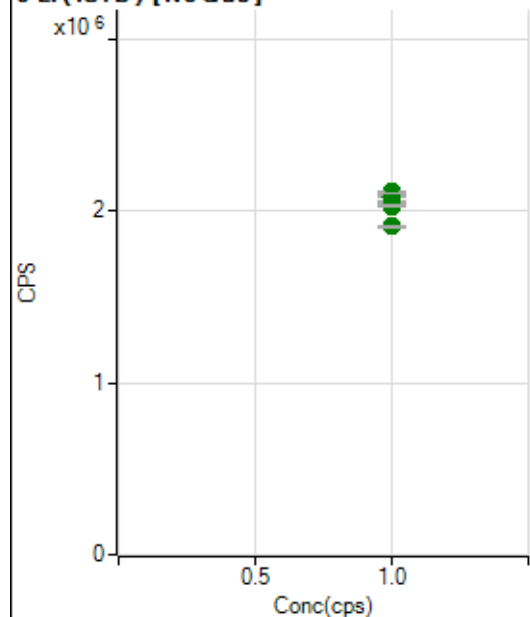
$$R = 0.9999$$

$$DL = 0.0007762$$

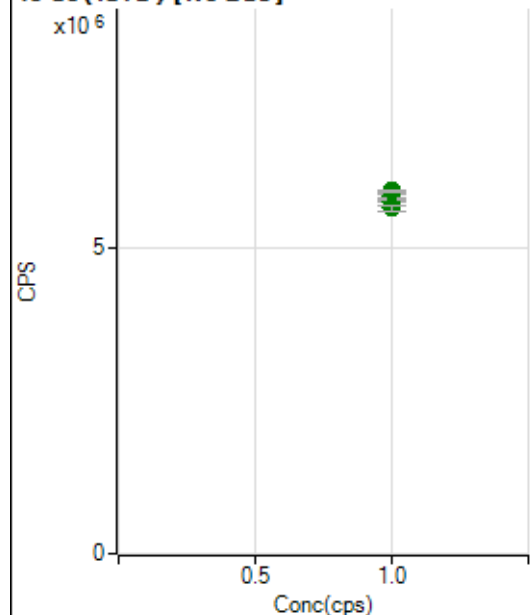
Weight: <None>

Min Conc: 0

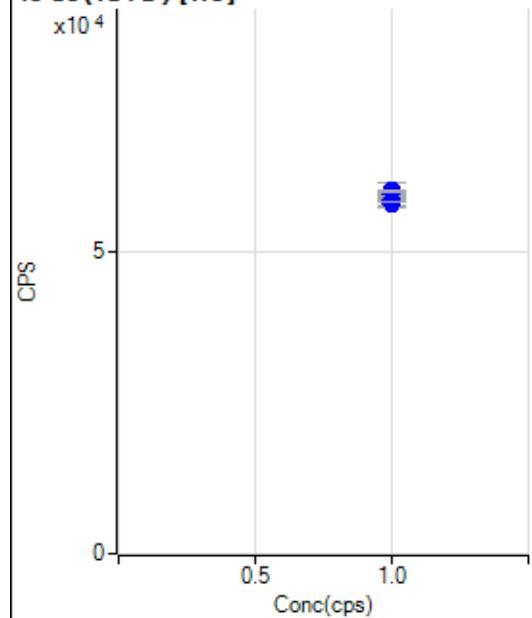
6 Li (ISTD) [No Gas]



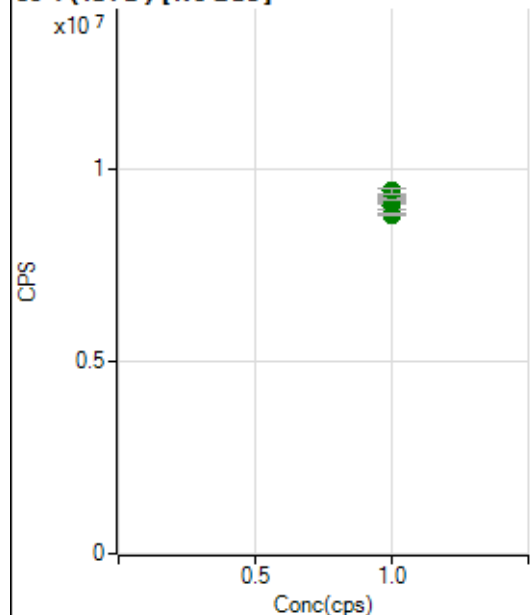
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2041066.07		A	0.5
2	☐	1.000					
3	☐	1.000		2112634.13		A	0.6
4	☐	1.000		2087566.81		A	0.9
5	☐	1.000		2083835.05		A	2.4
6	☐	1.000		2050378.42		A	0.1
7	☐	1.000		2031472.35		A	0.5
8	☐	1.000		2032275.59		A	0.6
9	☐	1.000		1911088.83		A	0.7

45 Sc (ISTD) [No Gas]

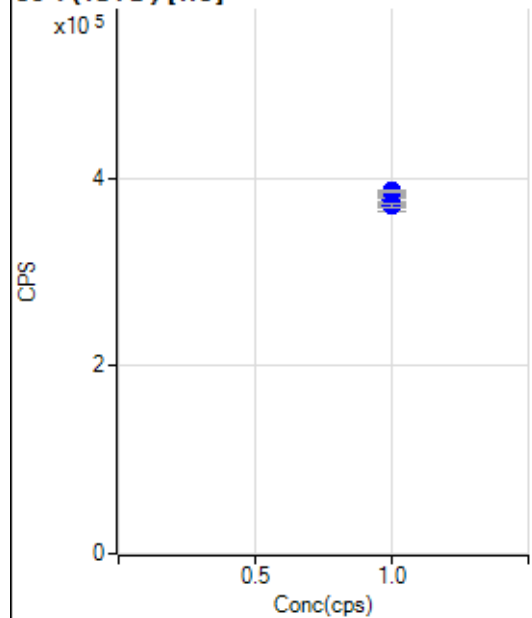
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5850216.54		A	0.7
2	☐	1.000					
3	☐	1.000		5906921.14		A	1.0
4	☐	1.000		5757923.35		A	0.3
5	☐	1.000		5749355.73		A	2.2
6	☐	1.000		5789316.80		A	0.4
7	☐	1.000		5792426.52		A	0.5
8	☐	1.000		5930015.59		A	0.4
9	☐	1.000		5643085.28		A	1.3

45 Sc (ISTD) [He]

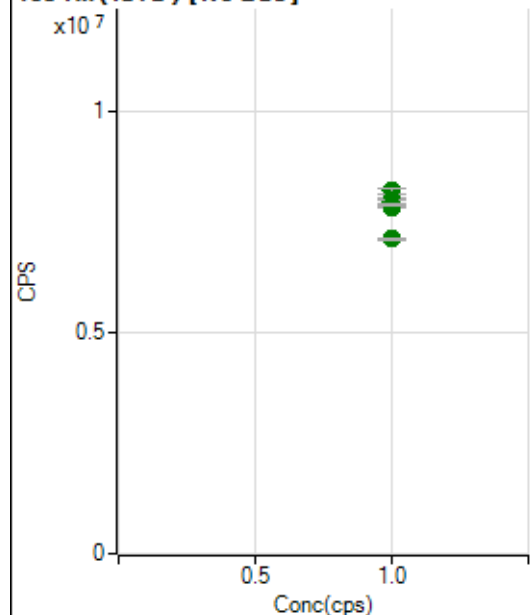
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		57891.10		P	1.6
2	☐	1.000					
3	☐	1.000		59234.21		P	0.7
4	☐	1.000		59321.99		P	6.5
5	☐	1.000		58368.45		P	0.7
6	☐	1.000		59410.94		P	1.6
7	☐	1.000		58641.83		P	1.7
8	☐	1.000		59651.66		P	1.7
9	☐	1.000		60017.54		P	0.5

89 Y (ISTD) [No Gas]

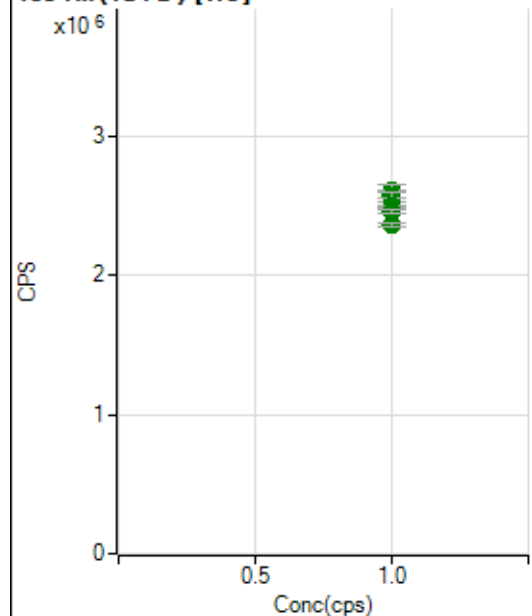
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9141841.81		A	0.8
2	☐	1.000					
3	☐	1.000		9337726.81		A	0.7
4	☐	1.000		9156252.36		A	0.7
5	☐	1.000		9093546.67		A	2.2
6	☐	1.000		9211624.79		A	0.7
7	☐	1.000		9255256.88		A	0.4
8	☐	1.000		9454666.11		A	1.3
9	☐	1.000		8833806.19		A	0.5

89 Y (ISTD) [He]

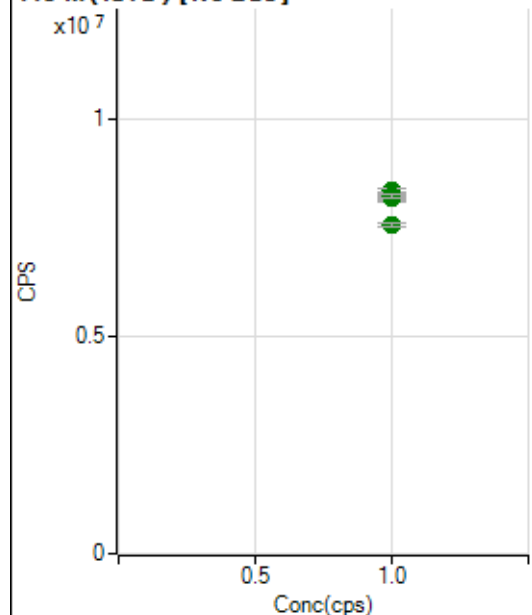
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		372252.89		P	1.8
2	☐	1.000					
3	☐	1.000		382300.41		P	0.4
4	☐	1.000		376551.93		P	6.0
5	☐	1.000		373893.30		P	0.3
6	☐	1.000		376316.54		P	1.2
7	☐	1.000		372519.50		P	0.6
8	☐	1.000		371603.60		P	1.3
9	☐	1.000		386730.92		P	0.5

103 Rh (ISTD) [No Gas]

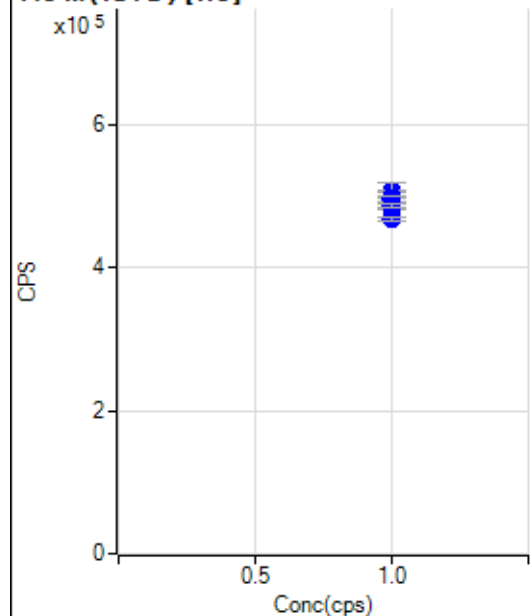
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8024261.90		A	0.5
2	☐	1.000					
3	☐	1.000		8211832.82		A	1.3
4	☐	1.000		8026362.16		A	1.0
5	☐	1.000		7976561.20		A	1.7
6	☐	1.000		8002779.52		A	0.3
7	☐	1.000		7848115.19		A	0.7
8	☐	1.000		7896278.56		A	0.5
9	☐	1.000		7116580.72		A	0.7

103 Rh (ISTD) [He]

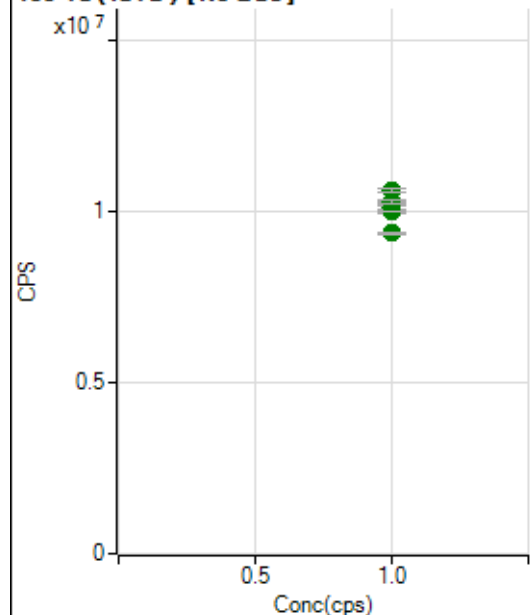
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2591088.00		A	2.2
2	☐	1.000					
3	☐	1.000		2610373.73		A	0.4
4	☐	1.000		2579507.88		A	5.8
5	☐	1.000		2531139.91		A	0.4
6	☐	1.000		2575838.64		A	1.6
7	☐	1.000		2502336.44		A	0.7
8	☐	1.000		2465937.05		A	1.4
9	☐	1.000		2369187.26		A	1.3

115 In (ISTD) [No Gas]

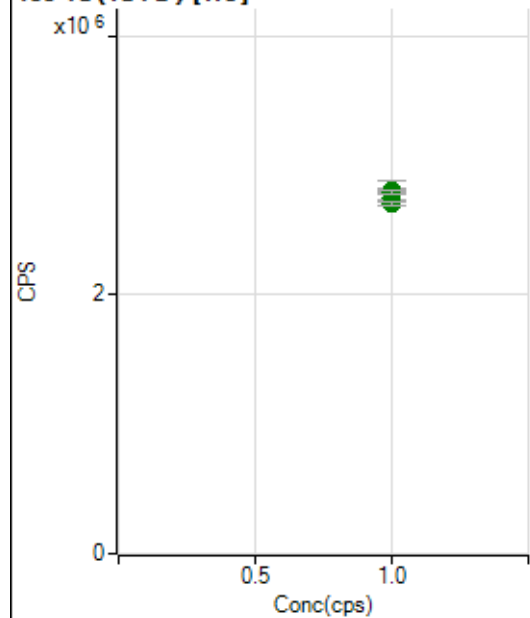
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8272053.51		A	0.8
2	☐	1.000					
3	☐	1.000		8366525.30		A	1.1
4	☐	1.000		8208890.32		A	0.2
5	☐	1.000		8210614.36		A	2.2
6	☐	1.000		8253020.13		A	0.3
7	☐	1.000		8194724.01		A	0.4
8	☐	1.000		8251997.04		A	0.9
9	☐	1.000		7571444.94		A	1.2

115 In (ISTD) [He]

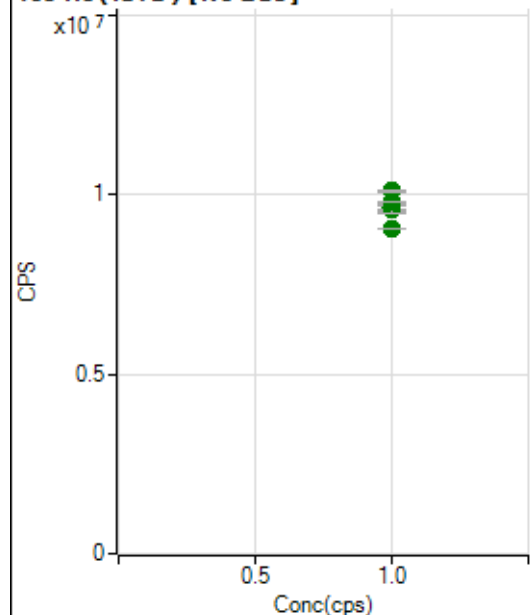
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		495535.86		P	1.8
2	☐	1.000					
3	☐	1.000		507644.33		P	0.3
4	☐	1.000		501719.79		P	6.5
5	☐	1.000		497349.14		P	0.2
6	☐	1.000		496693.33		P	1.7
7	☐	1.000		481819.31		P	0.2
8	☐	1.000		467178.47		P	1.2
9	☐	1.000		486770.86		P	0.7

159 Tb (ISTD) [No Gas]

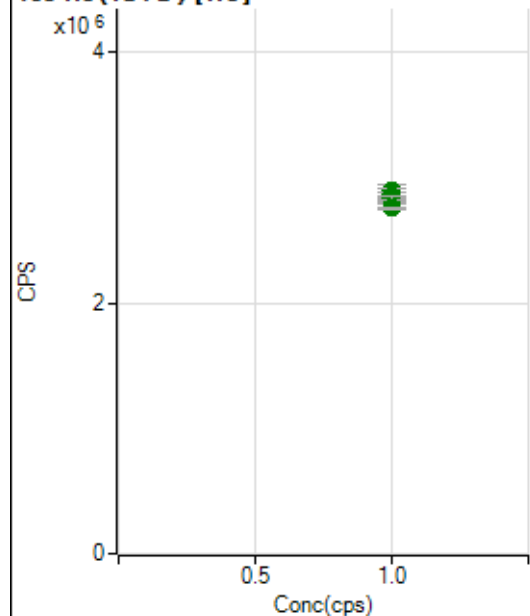
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9980804.85		A	0.8
2	☐	1.000					
3	☐	1.000		10099515.06		A	1.6
4	☐	1.000		10023300.68		A	0.6
5	☐	1.000		10117409.57		A	2.8
6	☐	1.000		10259386.65		A	0.3
7	☐	1.000		10265998.04		A	0.7
8	☐	1.000		10587797.90		A	0.9
9	☐	1.000		9351875.35		A	0.3

159 Tb (ISTD) [He]

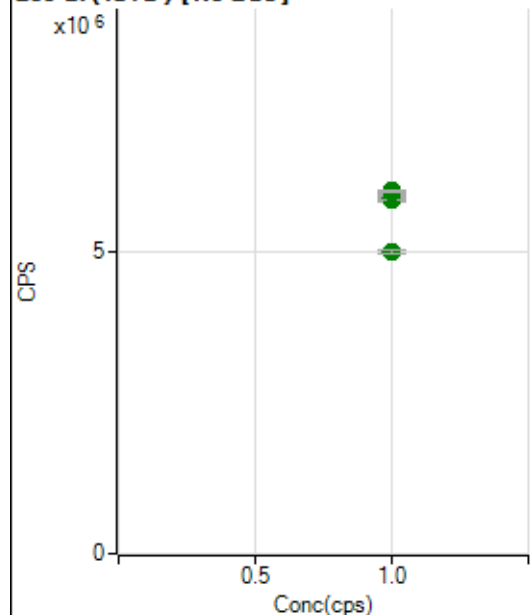
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2752160.10		A	1.5
2	☐	1.000					
3	☐	1.000		2798116.76		A	0.6
4	☐	1.000		2800390.32		A	6.1
5	☐	1.000		2795505.27		A	1.1
6	☐	1.000		2803535.45		A	1.4
7	☐	1.000		2803542.53		A	0.6
8	☐	1.000		2789520.86		A	1.2
9	☐	1.000		2700502.25		A	0.9

165 Ho (ISTD) [No Gas]

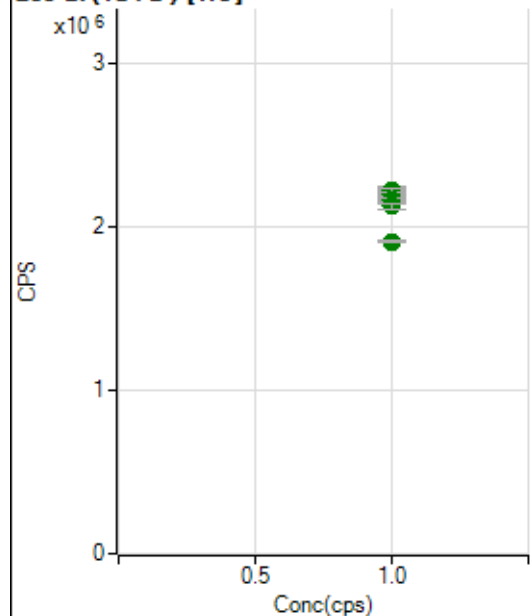
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9575046.91		A	0.4
2	☐	1.000					
3	☐	1.000		9709045.88		A	0.6
4	☐	1.000		9639614.62		A	0.7
5	☐	1.000		9629219.83		A	3.0
6	☐	1.000		9790867.84		A	0.3
7	☐	1.000		9790693.45		A	0.2
8	☐	1.000		10102675.14		A	0.7
9	☐	1.000		9052600.37		A	0.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2822435.03		A	1.5
2	☐	1.000					
3	☐	1.000		2822524.47		A	0.2
4	☐	1.000		2864445.58		A	5.4
5	☐	1.000		2817257.04		A	0.6
6	☐	1.000		2896694.82		A	1.1
7	☐	1.000		2855078.15		A	0.3
8	☐	1.000		2841516.52		A	0.9
9	☐	1.000		2761571.24		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5885184.63		A	0.8
2	☐	1.000					
3	☐	1.000		5921601.93		A	1.2
4	☐	1.000		5856996.86		A	0.3
5	☐	1.000		5852358.73		A	1.6
6	☐	1.000		5996271.02		A	0.4
7	☐	1.000		5889970.05		A	0.9
8	☐	1.000		5990860.33		A	0.5
9	☐	1.000		4986408.33		A	1.0

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2206140.12		A	1.8
2	☐	1.000					
3	☐	1.000		2191593.91		A	0.6
4	☐	1.000		2192563.20		A	5.3
5	☐	1.000		2165784.85		A	0.2
6	☐	1.000		2217678.54		A	1.0
7	☐	1.000		2162428.09		A	1.3
8	☐	1.000		2125298.04		A	1.6
9	☐	1.000		1908629.26		A	0.6

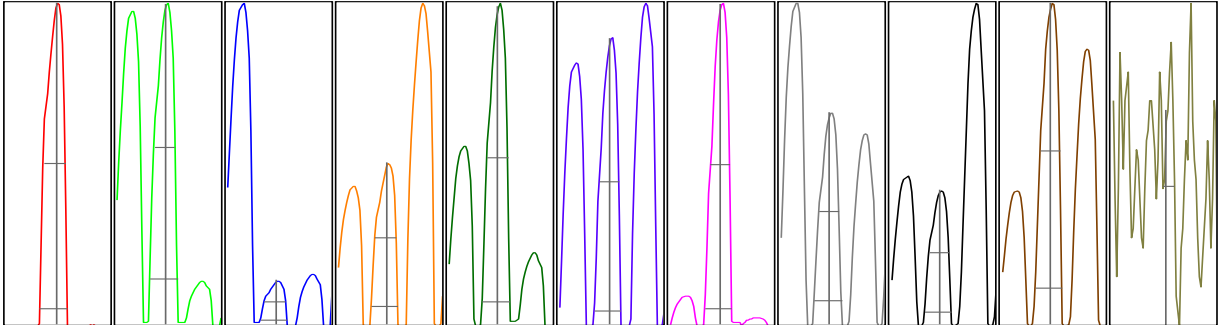
US EPA Tune Check Sample Report

Batch Folder D:\P8020819 MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	10324	1.53	5.00	
24	106328	1.66	5.00	
25	14614	1.65	5.00	
26	17417	1.47	5.00	
59	90027	1.91	5.00	
113	11096	1.49	5.00	
115	135459	1.30	5.00	
206	27098	1.35	5.00	
207	25189	1.75	5.00	
208	57924	1.98	5.00	
220	2	17.43		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10180	10175	10298	10532	10436
24	104573	104634	106259	107712	108463
25	14419	14409	14503	14944	14794
26	17157	17156	17433	17688	17650
59	87973	88918	89693	92092	91461
113	10972	10920	11051	11281	11257
115	134849	133489	134416	137738	136803
206	26856	26698	26963	27470	27502
207	24785	24695	25232	25647	25586
208	57036	56732	57629	59394	58828
220	2	2	1	2	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	17847	9.00	8.9 - 9.1		0.783	0.900	
24	181218	23.95	23.9 - 24.1		0.788	0.900	
25	24903	24.95	24.9 - 25.1		0.759	0.900	
26	29030	25.95	25.9 - 26.1		0.754	0.900	
59	158214	58.95	58.9 - 59.1		0.795	0.900	
113	20667	113.00	112.9 - 113.1		0.762	0.900	
115	251159	115.00	114.9 - 115.1		0.768	0.900	
206	48894	205.95	205.9 - 206.1		0.775	0.900	
207	44351	206.95	206.9 - 207.1		0.758	0.900	
208	105677	207.95	207.9 - 208.1		0.758	0.900	
220	2	220.10	-				

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	9.7	V	Deflect	14.4	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-95	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	190	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	12342	1.61	
89	5413	1.65	
205	16314	0.73	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	12459	12454	12408	11989	12402
89	5395	5476	5465	5264	5466
205	16393	16325	16213	16177	16460

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	9.7	V	Deflect	2.8	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-95	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			