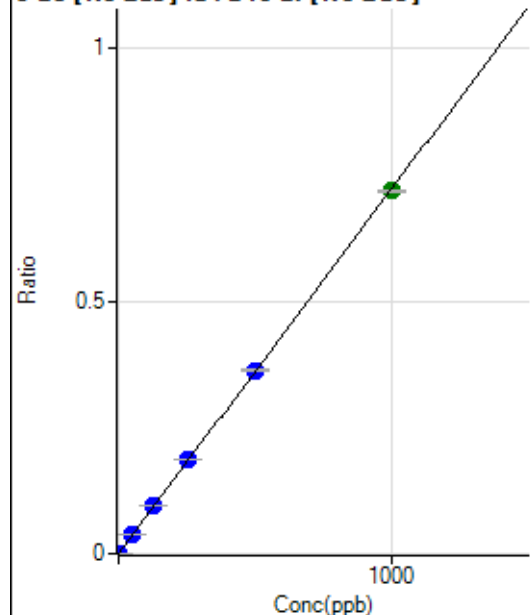


Batch Folder: D:\ICP-MS Data\P7103018 MS.b\
Analysis File: P7103018 MS.batch.bin
DA Date-Time: 2018-10-30 17:34:57
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	005CALB.d	S00	2018-10-30 15:10:11
2			
3	007CAL.S.d	S02	2018-10-30 15:18:25
4	008CAL.S.d	S03	2018-10-30 15:22:19
5	009CAL.S.d	S04	2018-10-30 15:26:26
6	010CAL.S.d	S05	2018-10-30 15:30:14
7	011CAL.S.d	S06	2018-10-30 15:33:59
8	013CAL.S.d	S07	2018-10-30 15:41:29
9	016CAL.S.d	S08	2018-10-30 15:52:45

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.74	0.0000	P	34.0
2	☐	0.100					
3	☐	1.000	1.042	4597.11	0.0008	P	1.7
4	☐	50.000	52.031	229484.40	0.0375	P	0.4
5	☐	125.000	129.981	580065.12	0.0937	P	0.8
6	☐	250.000	259.380	1129722.71	0.1870	P	0.7
7	☐	500.000	503.688	2183246.30	0.3632	P	0.3
8	☐	1000.000	995.087	4270760.92	0.7175	A	0.7
9	☐			840.79	0.0001	P	4.2

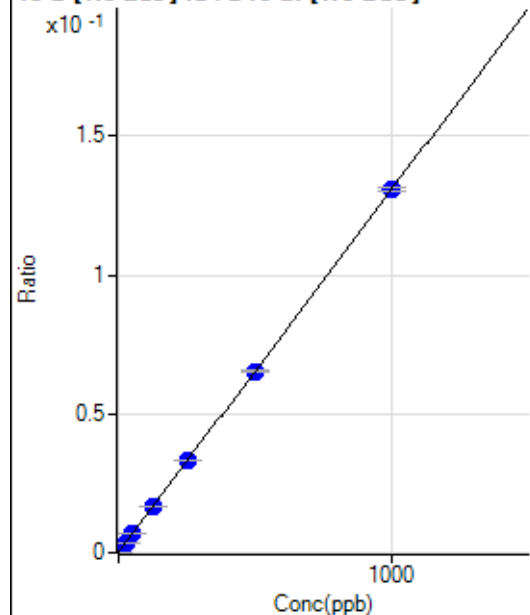
$$y = 7.2101\text{E-}004 * x + 6.7095\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.00948$$

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	1033.41	0.0002	P	16.6
2	☐	2.500					
3	☐	25.000	24.680	20581.31	0.0034	P	3.1
4	☐	50.000	50.252	41176.60	0.0067	P	0.8
5	☐	125.000	125.985	102887.55	0.0166	P	0.8
6	☐	250.000	252.898	200529.31	0.0332	P	0.1
7	☐	500.000	499.129	392862.72	0.0654	P	1.5
8	☐	1000.000	999.583	778067.58	0.1307	P	1.0
9	☐			22142.05	0.0039	P	6.5

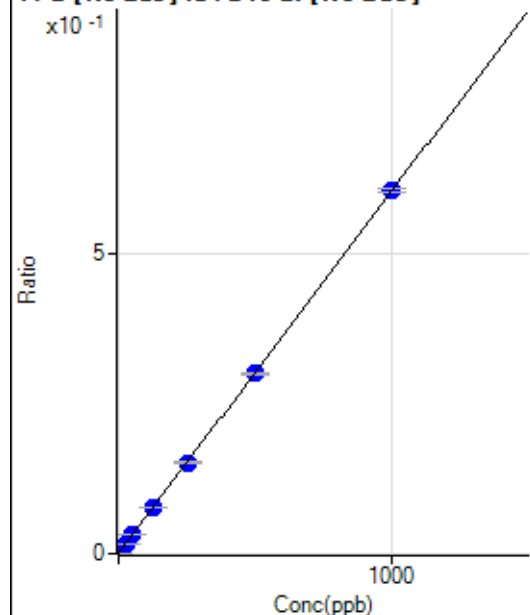
$$y = 1.3059\text{E-}004 * x + 1.7033\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.6508$$

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	4662.01	0.0008	P	0.8
2	☐	2.500					
3	☐	25.000	24.360	93521.42	0.0154	P	0.5
4	☐	50.000	50.335	189840.84	0.0310	P	1.1
5	☐	125.000	125.094	470337.67	0.0760	P	1.2
6	☐	250.000	251.017	916486.66	0.1517	P	1.2
7	☐	500.000	496.363	1799093.31	0.2993	P	1.4
8	☐	1000.000	1001.552	3590035.45	0.6031	P	1.0
9	☐			101608.45	0.0180	P	6.0

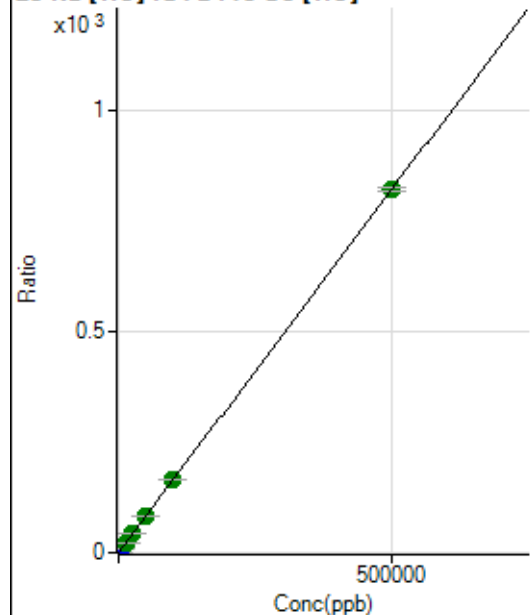
$$y = 6.0138\text{E-}004 * x + 7.6841\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.03054$$

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	20450.75	0.0496	P	0.3
2	☐	50.000					
3	☐	500.000	530.021	377013.19	0.9189	P	1.5
4	☐	5000.000	5166.677	3607555.99	8.5237	P	0.4
5	☐	12500.000	12853.282	8976320.08	21.1309	A	0.4
6	☐	25000.000	25605.840	17616925.05	42.0470	A	0.2
7	☐	50000.000	50554.187	34913152.52	82.9661	A	0.6
8	☐	100000.00	100056.33	70432330.05	164.1572	A	0.9
9	☐	500000.00	499892.49	353375196.7	819.9496	A	0.9

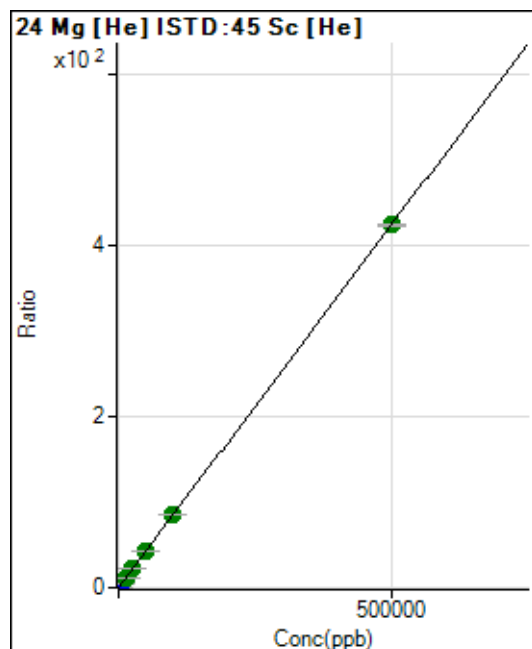
$$y = 0.0016 * x + 0.0496$$

$$R = 1.0000$$

$$DL = 0.2979$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133.34	0.0003	P	18.3
2	☐	50.000					
3	☐	500.000	530.883	184935.60	0.4507	P	0.9
4	☐	5000.000	5273.026	1893523.28	4.4739	P	0.4
5	☐	12500.000	13027.785	4695187.04	11.0529	A	0.8
6	☐	25000.000	26015.990	9247579.81	22.0720	A	0.8
7	☐	50000.000	50794.881	18134398.67	43.0941	A	1.1
8	☐	100000.00	100116.64	36443460.88	84.9381	A	0.9
9	☐	500000.00	499830.42	182765377.7	424.0504	A	0.4

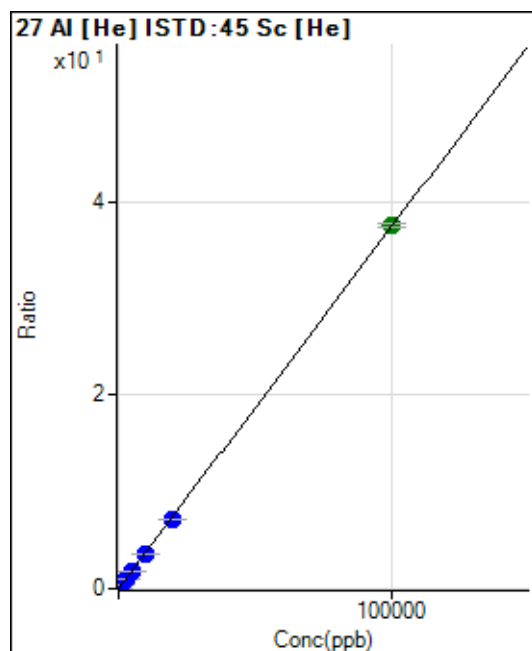
$$y = 8.4839\text{E-}004 * x + 3.2297\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.2089$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.23	0.0002	P	17.6
2	☐	2.000					
3	☐	20.000	20.342	3194.94	0.0078	P	6.6
4	☐	1000.000	1000.257	158398.87	0.3743	P	0.6
5	☐	2500.000	2475.096	393284.42	0.9258	P	0.5
6	☐	5000.000	4937.472	773725.00	1.8467	P	0.6
7	☐	10000.000	9662.090	1520672.44	3.6137	P	0.6
8	☐	20000.000	18968.182	3043683.62	7.0940	P	1.0
9	☐	100000.00	100243.90	16156809.74	37.4899	A	1.1

$$y = 3.7399\text{E-}004 * x + 1.7503\text{E-}004$$

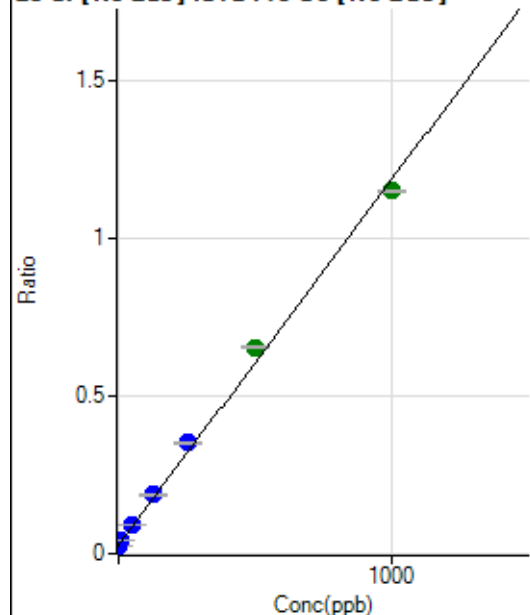
$$R = 0.9999$$

$$DL = 0.2474$$

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	274789.62	0.0272	P	0.8
2	☐	1.000					
3	☐	10.000	14.117	437204.07	0.0436	P	0.7
4	☐	50.000	54.028	910152.79	0.0899	P	1.5
5	☐	125.000	137.588	1926115.91	0.1867	P	1.9
6	☐	250.000	279.867	3549011.36	0.3517	P	1.8
7	☐	500.000	541.323	6562926.36	0.6548	A	1.0
8	☐	1000.000	970.056	11699061.98	1.1519	A	0.2
9	☐			866969.57	0.0852	P	0.6

$$y = 0.0012 * x + 0.0272$$

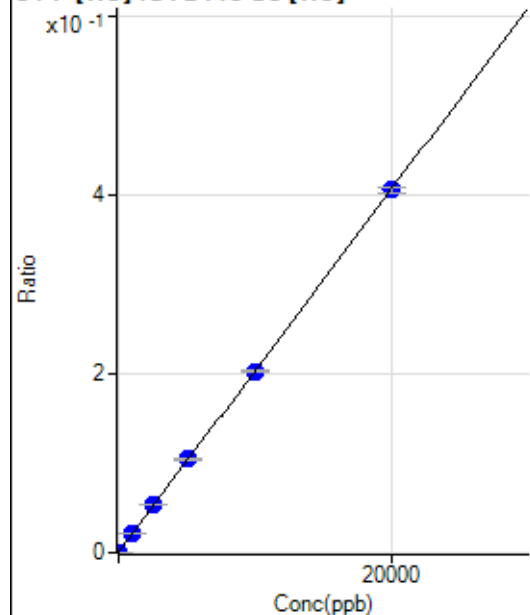
$$R = 0.9982$$

$$DL = 0.5462$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	-6.025	205.57	0.0005	P	40.1
2	☐	0.000					
3	☐	0.000	6.025	305.57	0.0007	P	28.6
4	☐	1000.000	1023.528	9066.99	0.0214	P	4.9
5	☐	2500.000	2631.815	22987.85	0.0541	P	2.4
6	☐	5000.000	5145.113	44079.97	0.1052	P	1.7
7	☐	10000.000	9976.750	85601.23	0.2034	P	1.0
8	☐	20000.000	19957.693	174318.09	0.4063	P	1.5
9	☐			311.12	0.0007	P	17.9

$$y = 2.0327E-005 * x + 6.2106E-004$$

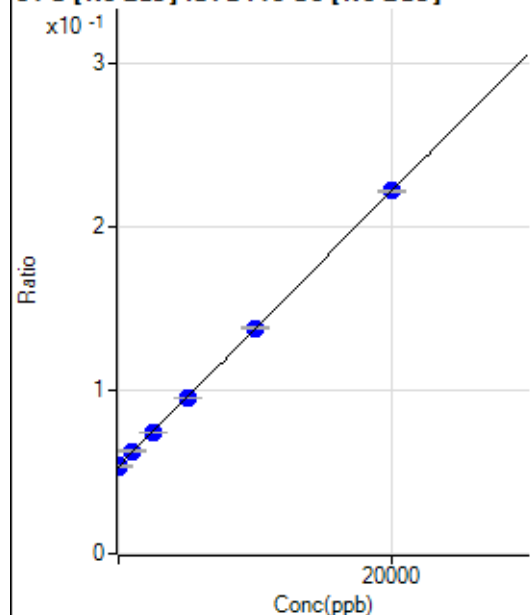
$$R = 1.0000$$

$$DL = 30.43$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-13.450	538655.00	0.0534	P	0.9
2	☐	0.000					
3	☐	0.000	13.450	537562.51	0.0536	P	1.2
4	☐	1000.000	1125.766	637944.29	0.0630	P	0.5
5	☐	2500.000	2460.391	765844.75	0.0743	P	1.3
6	☐	5000.000	4976.933	963602.06	0.0955	P	0.6
7	☐	10000.000	10041.673	1385413.38	0.1382	P	0.7
8	☐	20000.000	19983.593	2256078.37	0.2221	P	0.3
9	☐			487408.34	0.0479	P	1.1

$$y = 8.4393\text{E-}006 * x + 0.0535$$

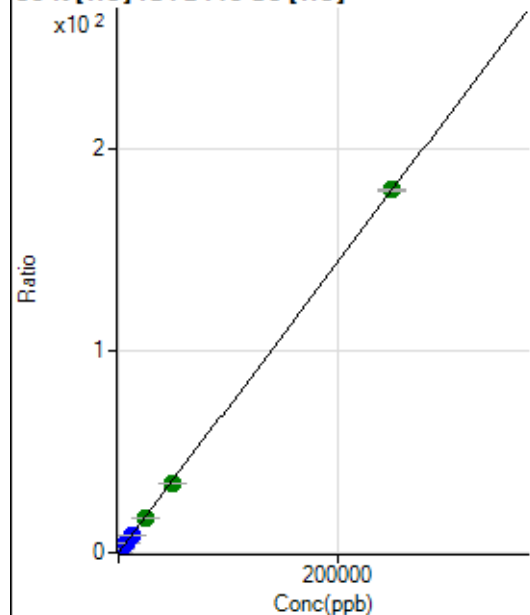
$$R = 1.0000$$

$$DL = 193.1$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22804.41	0.0553	P	3.3
2	☐	50.000					
3	☐	500.000	511.319	173145.53	0.4220	P	1.3
4	☐	2500.000	2498.307	781737.54	1.8470	P	0.4
5	☐	6250.000	6213.021	1916317.01	4.5111	P	0.1
6	☐	12500.000	12225.222	3696645.53	8.8229	P	0.5
7	☐	25000.000	24115.982	7301451.38	17.3507	A	0.6
8	☐	50000.000	47990.918	14791168.04	34.4734	A	0.9
9	☐	250000.00	250504.87	77455699.65	179.7121	A	0.6

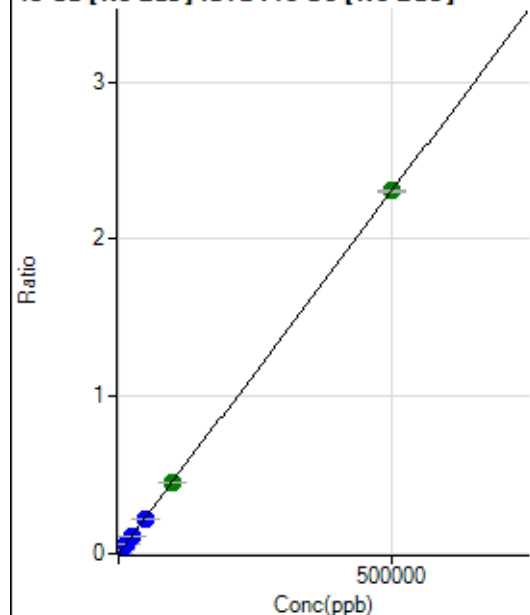
$$y = 7.1718\text{E-}004 * x + 0.0553$$

$$R = 1.0000$$

$$DL = 7.55$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	194.45	0.0000	P	13.3
2	☐	50.000					
3	☐	500.000	493.431	22993.70	0.0023	P	3.4
4	☐	5000.000	4981.745	232641.01	0.0230	P	0.2
5	☐	12500.000	12404.789	589611.53	0.0572	P	1.7
6	☐	25000.000	24733.218	1150041.72	0.1140	P	0.5
7	☐	50000.000	48726.657	2250078.52	0.2245	P	0.7
8	☐	100000.00	97670.907	4570259.26	0.4500	A	0.4
9	☐	500000.00	500609.06	23465018.06	2.3064	A	0.2

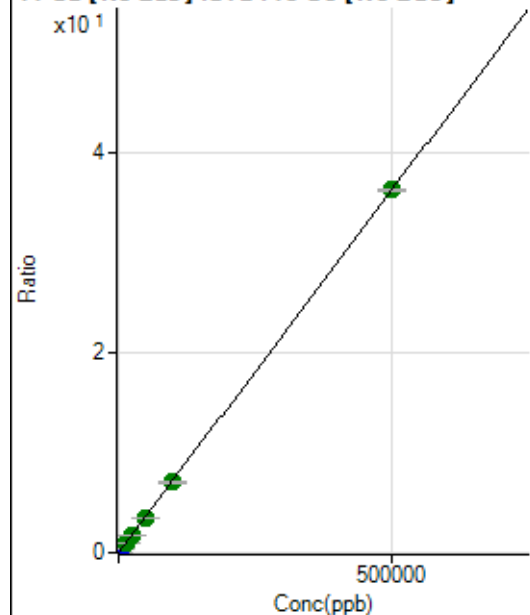
$$y = 4.6071\text{E-}006 * x + 1.9272\text{E-}005$$

$$R = 1.0000$$

$$DL = 1.665$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	8055.49	0.0008	P	2.4
2	☐	50.000					
3	☐	500.000	492.356	365274.39	0.0364	P	0.2
4	☐	5000.000	4984.225	3660502.21	0.3614	P	0.1
5	☐	12500.000	12279.337	9171729.03	0.8893	A	1.3
6	☐	25000.000	24569.881	17947387.73	1.7786	A	0.2
7	☐	50000.000	49008.134	35547062.25	3.5468	A	0.3
8	☐	100000.00	96949.506	71253837.70	7.0156	A	0.4
9	☐	500000.00	500736.47	368614277.6	36.2317	A	0.3

$$y = 7.2355\text{E-}005 * x + 7.9824\text{E-}004$$

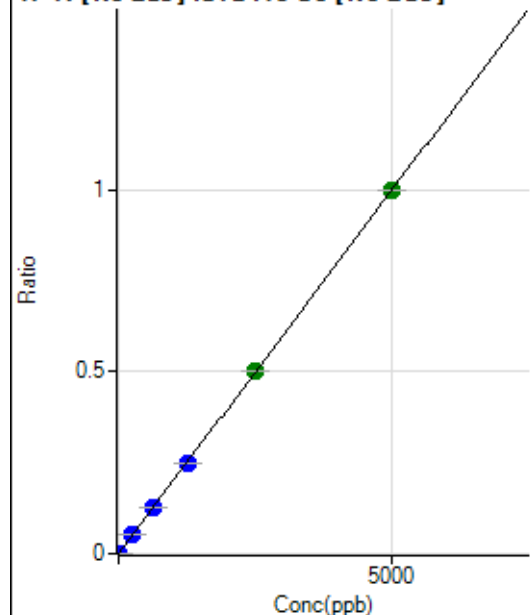
$$R = 1.0000$$

$$DL = 0.7963$$

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	105.56	0.0000	P	16.6
2	☐	0.500					
3	☐	5.000	5.026	10151.09	0.0010	P	3.5
4	☐	250.000	252.781	510390.32	0.0504	P	0.1
5	☐	625.000	627.504	1290073.77	0.1251	P	1.6
6	☐	1250.000	1244.761	2503760.86	0.2481	P	0.2
7	☐	2500.000	2507.946	5010115.52	0.4999	A	0.4
8	☐	5000.000	4996.885	10115654.74	0.9960	A	0.2
9	☐			5014.94	0.0005	P	3.3

$$y = 1.9932E-004 * x + 1.0462E-005$$

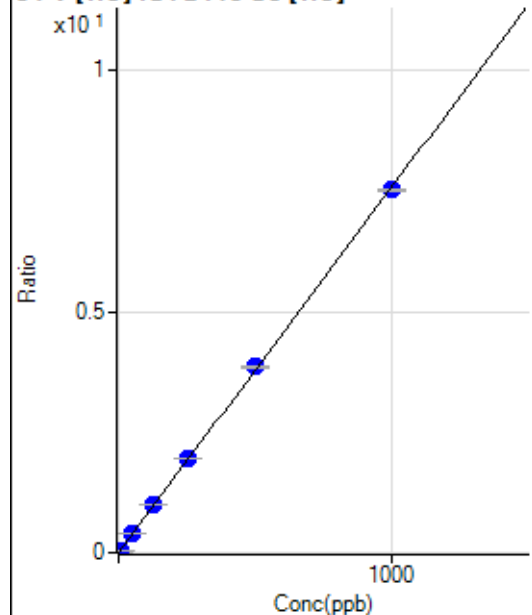
$$R = 1.0000$$

$$DL = 0.02622$$

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	2.22	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	5.224	16232.45	0.0396	P	1.6
4	☐	50.000	52.266	167515.01	0.3958	P	0.8
5	☐	125.000	129.970	418095.80	0.9842	P	0.2
6	☐	250.000	257.605	817321.52	1.9507	P	0.2
7	☐	500.000	508.124	1619198.64	3.8478	P	0.2
8	☐	1000.000	993.301	3227311.55	7.5219	P	0.8
9	☐			1485.66	0.0034	P	6.4

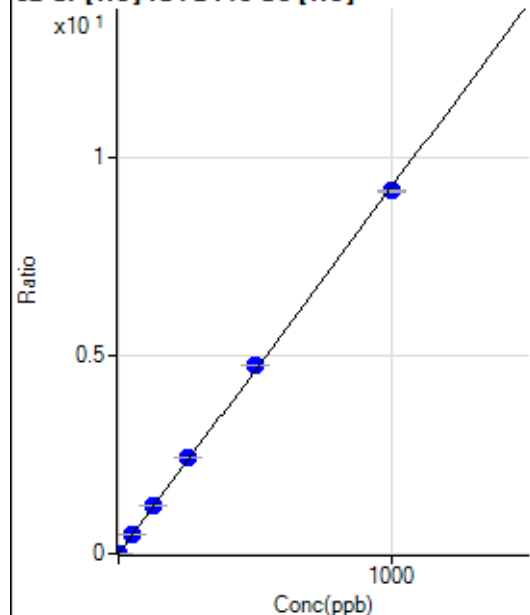
$$y = 0.0076 * x + 5.4067E-006$$

$$R = 0.9999$$

$$DL = 0.00371$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	621.14	0.0015	P	6.0
2	☐	0.200					
3	☐	2.000	2.309	9394.21	0.0229	P	3.4
4	☐	50.000	53.745	211358.90	0.4994	P	0.9
5	☐	125.000	132.327	521385.28	1.2274	P	0.1
6	☐	250.000	262.743	1020432.75	2.4355	P	0.4
7	☐	500.000	512.447	1998321.76	4.7488	P	0.2
8	☐	1000.000	989.487	3933635.81	9.1680	P	0.7
9	☐			186367.70	0.4324	P	0.1

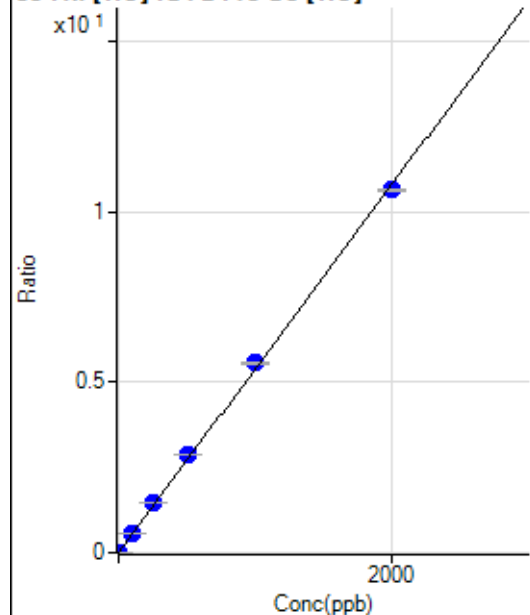
$$y = 0.0093 * x + 0.0015$$

$$R = 0.9998$$

$$DL = 0.02908$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0001	P	33.4
2	☐	0.100					
3	☐	1.000	1.135	2561.38	0.0062	P	3.9
4	☐	100.000	107.956	246538.01	0.5825	P	0.3
5	☐	250.000	268.471	615282.22	1.4484	P	0.4
6	☐	500.000	531.239	1200781.15	2.8660	P	0.4
7	☐	1000.000	1031.995	2342833.16	5.5673	P	0.8
8	☐	2000.000	1973.486	4567892.26	10.6463	P	0.9
9	☐			32768.82	0.0760	P	1.0

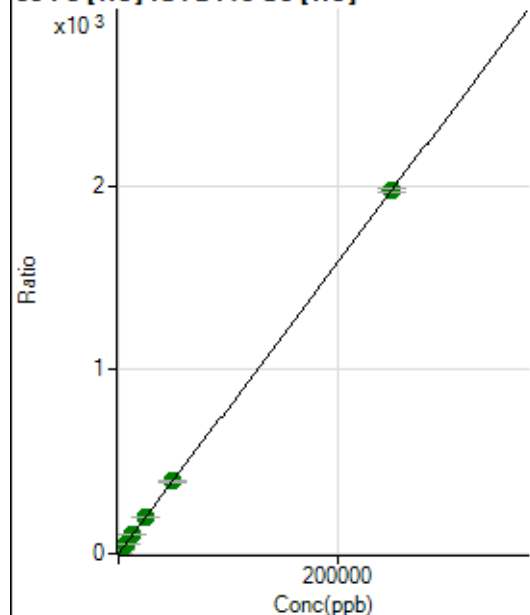
$$y = 0.0054 * x + 1.2116E-004$$

$$R = 0.9997$$

$$DL = 0.02251$$

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	4810.16	0.0117	P	3.6
2	☐	5.000					
3	☐	50.000	54.851	182375.19	0.4445	P	1.1
4	☐	2500.000	2654.435	8869844.47	20.9568	A	0.4
5	☐	6250.000	6628.279	22222155.36	52.3129	A	0.6
6	☐	12500.000	13069.343	43212174.11	103.1369	A	0.2
7	☐	25000.000	25629.624	85107038.94	202.2454	A	0.4
8	☐	50000.000	49747.105	168422198.2	392.5473	A	1.0
9	☐	250000.00	249948.14	849977937.5	1,972.258	A	1.1

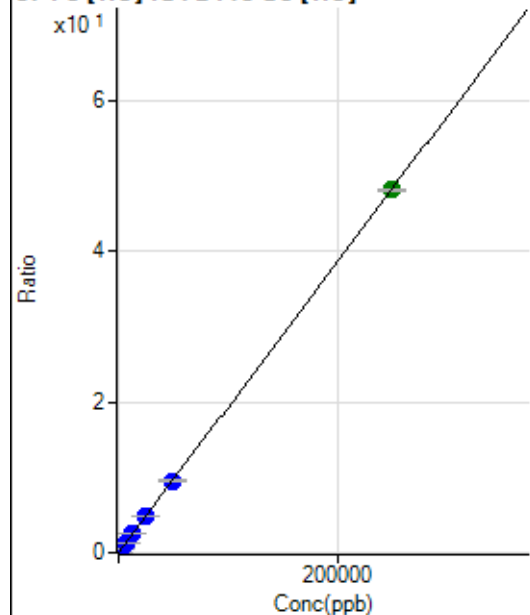
$$y = 0.0079 * x + 0.0117$$

$$R = 1.0000$$

$$DL = 0.1595$$

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	162.97	0.0004	P	11.5
2	☐	5.000					
3	☐	50.000	56.894	4660.11	0.0114	P	4.6
4	☐	2500.000	2692.163	219673.27	0.5190	P	0.7
5	☐	6250.000	6659.917	545163.08	1.2834	P	1.0
6	☐	12500.000	13156.934	1062088.99	2.5350	P	0.4
7	☐	25000.000	25693.915	2083064.89	4.9501	P	0.3
8	☐	50000.000	49611.722	4100752.06	9.5577	P	1.0
9	☐	250000.00	249963.24	20753615.74	48.1536	A	0.5

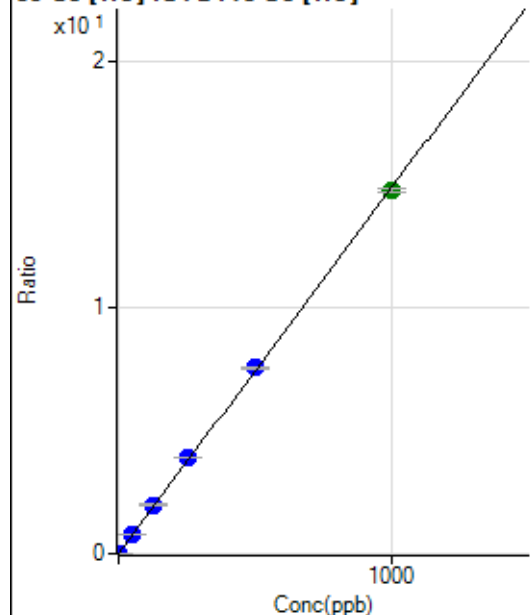
$$y = 1.9264E-004 * x + 3.9481E-004$$

$$R = 1.0000$$

$$DL = 0.7066$$

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	81.11	0.0002	P	12.7
2	☐	0.100					
3	☐	1.000	1.105	6815.02	0.0166	P	1.6
4	☐	50.000	54.117	340310.08	0.8041	P	0.6
5	☐	125.000	133.983	845527.58	1.9904	P	0.5
6	☐	250.000	262.157	1631650.89	3.8944	P	0.4
7	☐	500.000	508.050	3175827.62	7.5469	P	0.5
8	☐	1000.000	991.607	6319710.46	14.7298	A	1.2
9	☐			80344.00	0.1864	P	1.1

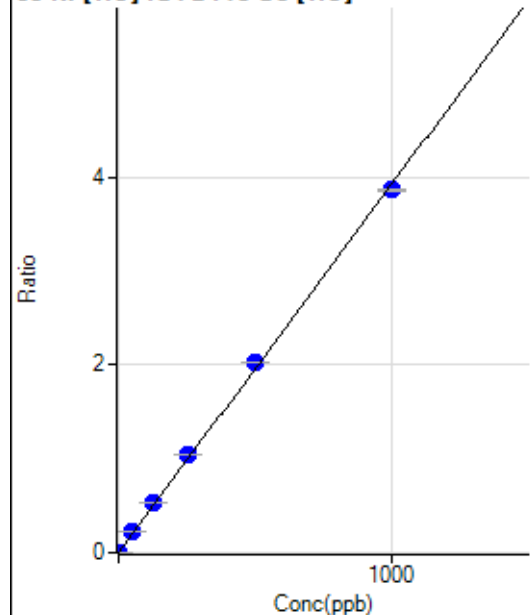
$$y = 0.0149 * x + 1.9649E-004$$

$$R = 0.9999$$

$$DL = 0.005026$$

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	100.00	0.0002	P	34.1
2	☐	0.100					
3	☐	1.000	1.237	2087.96	0.0051	P	11.6
4	☐	50.000	55.364	91991.80	0.2174	P	1.3
5	☐	125.000	135.678	226123.90	0.5323	P	0.1
6	☐	250.000	266.935	438689.40	1.0470	P	0.6
7	☐	500.000	517.484	854067.73	2.0296	P	0.4
8	☐	1000.000	985.421	1658138.90	3.8646	P	0.8
9	☐			60868.05	0.1412	P	0.7

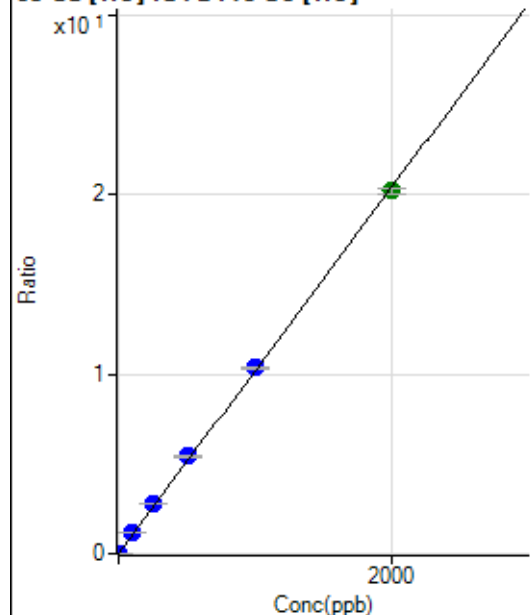
$$y = 0.0039 * x + 2.4242E-004$$

$$R = 0.9996$$

$$DL = 0.06315$$

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	466.68	0.0011	P	7.6
2	☐	0.200					
3	☐	2.000	2.301	10080.29	0.0246	P	1.8
4	☐	100.000	111.608	481667.01	1.1381	P	0.5
5	☐	250.000	272.518	1179747.96	2.7772	P	0.3
6	☐	500.000	531.086	2267147.08	5.4112	P	0.4
7	☐	1000.000	1014.416	4348971.84	10.3347	P	0.4
8	☐	2000.000	1981.625	8661109.52	20.1874	A	1.3
9	☐			20112.87	0.0467	P	1.6

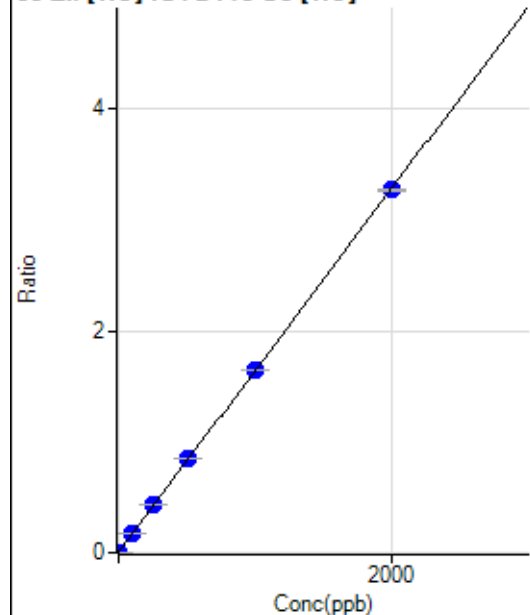
$$y = 0.0102 * x + 0.0011$$

$$R = 0.9998$$

$$DL = 0.02519$$

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	1294.52	0.0031	P	5.6
2	☐	0.200					
3	☐	2.000	2.568	3013.70	0.0073	P	3.8
4	☐	100.000	107.278	75712.98	0.1789	P	0.2
5	☐	250.000	263.815	184926.72	0.4353	P	1.2
6	☐	500.000	517.654	356628.54	0.8512	P	0.9
7	☐	1000.000	1000.219	690872.97	1.6418	P	0.1
8	☐	2000.000	1993.386	1402561.02	3.2688	P	0.5
9	☐			10059.16	0.0233	P	0.6

$$y = 0.0016 * x + 0.0031$$

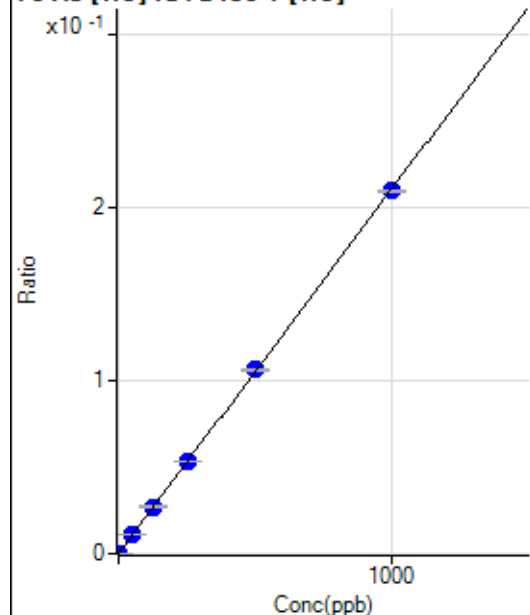
$$R = 0.9999$$

$$DL = 0.3242$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.56	0.0000	P	33.6
2	☐	0.100					
3	☐	1.000	1.135	466.68	0.0002	P	5.3
4	☐	50.000	52.543	22071.73	0.0111	P	0.9
5	☐	125.000	129.034	54250.66	0.0271	P	1.2
6	☐	250.000	255.511	106409.59	0.0537	P	0.3
7	☐	500.000	504.339	210716.53	0.1061	P	0.1
8	☐	1000.000	995.821	418404.10	0.2094	P	0.4
9	☐			638.91	0.0003	P	5.2

$$y = 2.1030\text{E-}004 * x + 2.8704\text{E-}006$$

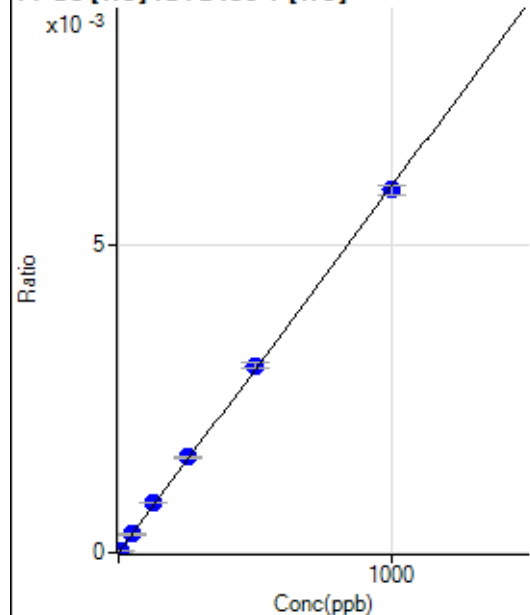
$$R = 1.0000$$

$$DL = 0.01374$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	5.808	67.78	0.0000	P	6.6
4	☐	50.000	51.595	613.36	0.0003	P	8.1
5	☐	125.000	134.689	1601.22	0.0008	P	0.3
6	☐	250.000	260.943	3071.49	0.0016	P	2.4
7	☐	500.000	511.318	6036.90	0.0030	P	2.8
8	☐	1000.000	990.310	11759.36	0.0059	P	2.3
9	☐			8.89	0.0000	P	56.7

$$y = 5.9424\text{E-}006 * x + 5.7387\text{E-}007$$

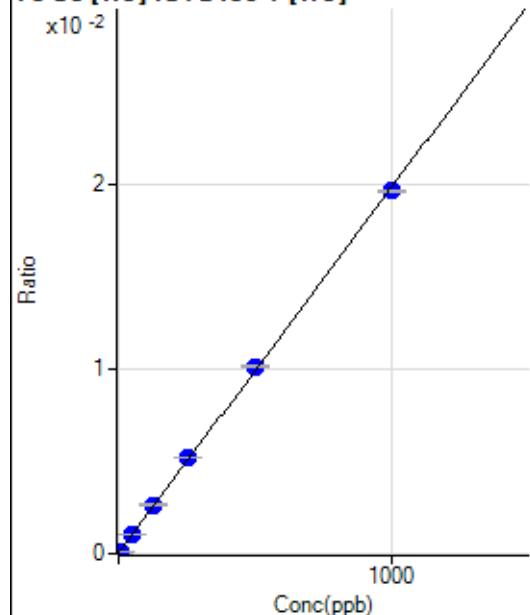
$$R = 0.9998$$

$$DL = 0.5018$$

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	56.79	0.0000	P	19.5
2	☐	0.500					
3	☐	5.000	5.548	269.14	0.0001	P	11.3
4	☐	50.000	53.188	2164.38	0.0011	P	1.6
5	☐	125.000	131.740	5280.64	0.0026	P	1.4
6	☐	250.000	261.544	10325.96	0.0052	P	0.4
7	☐	500.000	510.803	20177.04	0.0102	P	0.5
8	☐	1000.000	990.708	39301.21	0.0197	P	0.5
9	☐			82.10	0.0000	P	15.0

$$y = 1.9826E-005 * x + 2.9343E-005$$

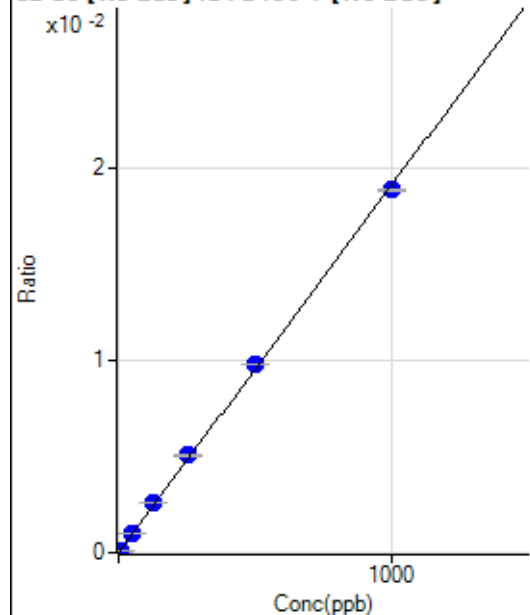
$$R = 0.9998$$

$$DL = 0.8639$$

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	51.40	0.0000	P	18.9
2	☐	0.500					
3	☐	5.000	5.310	1514.25	0.0001	P	4.0
4	☐	50.000	53.735	14981.61	0.0010	P	2.1
5	☐	125.000	134.179	37866.73	0.0026	P	1.2
6	☐	250.000	264.565	73056.08	0.0051	P	1.5
7	☐	500.000	514.368	142137.74	0.0098	P	0.2
8	☐	1000.000	987.839	274823.70	0.0189	P	0.3
9	☐			232.81	0.0000	P	17.9

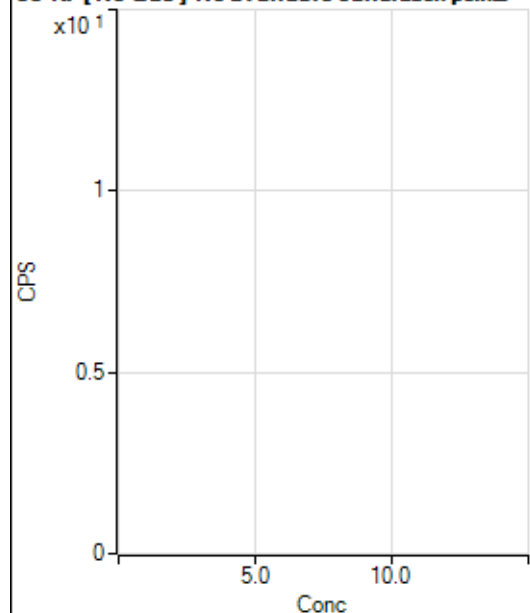
$$y = 1.9109E-005 * x + 3.5575E-006$$

$$R = 0.9997$$

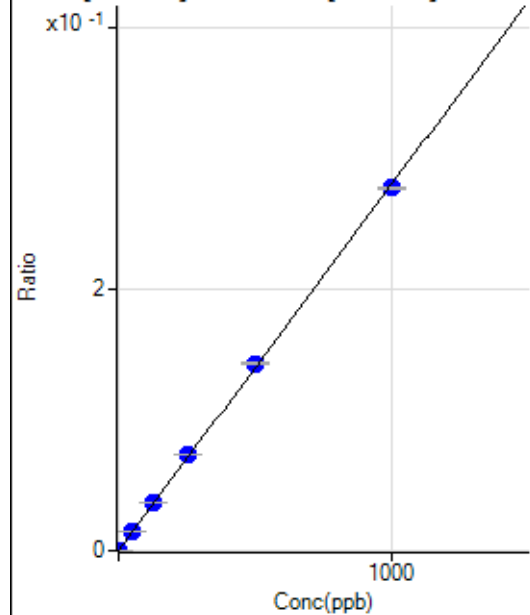
$$DL = 0.1053$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			414.46		P	7.0
2	☐						
3	☐			412.23		P	6.8
4	☐			445.57		P	4.1
5	☐			475.57		P	11.7
6	☐			454.46		P	19.9
7	☐			426.68		P	11.3
8	☐			475.57		P	13.7
9	☐			510.02		P	4.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	638.93	0.0000	P	8.4
2	☐	0.100					
3	☐	1.000	1.088	5037.18	0.0003	P	3.5
4	☐	50.000	52.455	214478.09	0.0148	P	0.4
5	☐	125.000	131.271	543401.89	0.0368	P	1.3
6	☐	250.000	262.079	1061640.14	0.0735	P	1.4
7	☐	500.000	510.802	2070776.70	0.1433	P	0.6
8	☐	1000.000	990.672	4043489.68	0.2778	P	0.5
9	☐			20145.39	0.0014	P	1.7

$$y = 2.8036E-004 * x + 4.4227E-005$$

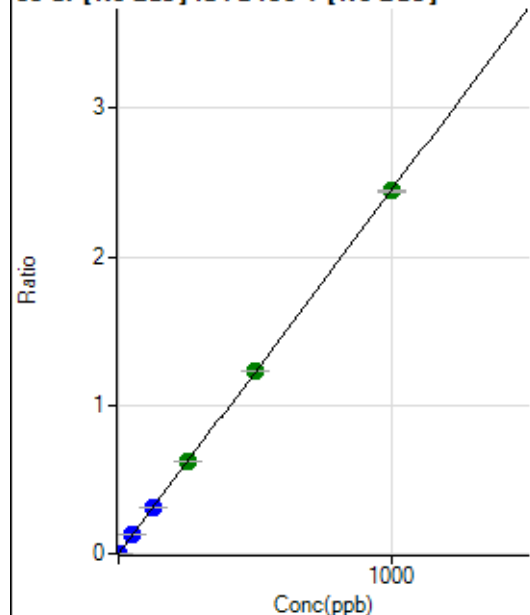
$$R = 0.9998$$

$$DL = 0.03996$$

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	236.12	0.0000	P	28.5
2	☐	0.100					
3	☐	1.000	1.051	37305.02	0.0026	P	3.2
4	☐	50.000	51.461	1831285.18	0.1259	P	0.4
5	☐	125.000	125.915	4544295.37	0.3081	P	1.3
6	☐	250.000	252.629	8927587.70	0.6182	A	0.7
7	☐	500.000	502.082	17760570.88	1.2286	A	0.3
8	☐	1000.000	998.114	35551243.51	2.4425	A	0.5
9	☐			169425.01	0.0117	P	0.8

$$y = 0.0024 * x + 1.6343E-005$$

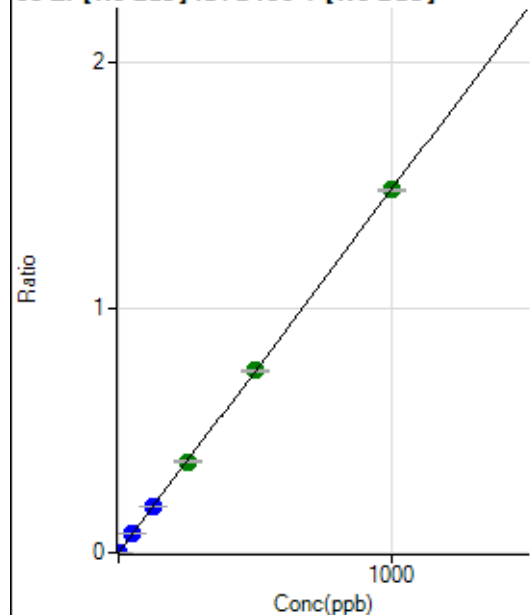
$$R = 1.0000$$

$$DL = 0.00571$$

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	1130.65	0.0001	P	9.2
2	☐	0.100					
3	☐	1.000	1.043	23411.60	0.0016	P	1.6
4	☐	50.000	50.441	1087985.45	0.0748	P	0.5
5	☐	125.000	125.724	2748804.44	0.1864	P	1.0
6	☐	250.000	251.352	5379951.55	0.3725	A	0.4
7	☐	500.000	501.401	10741449.89	0.7431	A	0.5
8	☐	1000.000	998.849	21545555.17	1.4802	A	0.4
9	☐			11480.04	0.0008	P	2.6

$$y = 0.0015 * x + 7.8263E-005$$

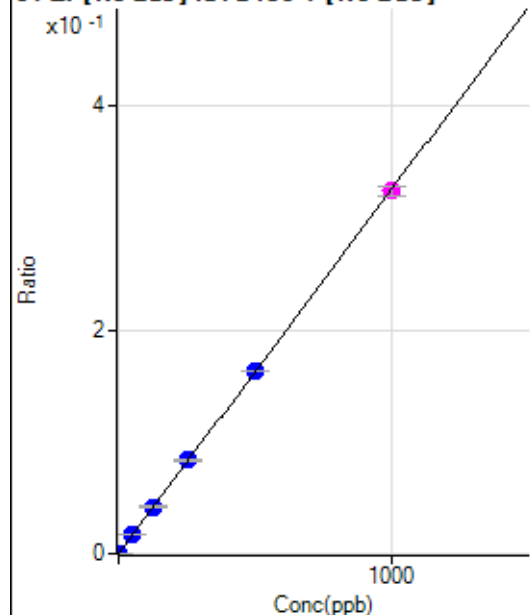
$$R = 1.0000$$

$$DL = 0.01465$$

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	205.57	0.0000	P	6.1
2	☐	0.100					
3	☐	1.000	1.082	5284.51	0.0004	P	5.6
4	☐	50.000	51.766	245358.87	0.0169	P	0.8
5	☐	125.000	129.142	620516.33	0.0421	P	1.1
6	☐	250.000	256.935	1208642.39	0.0837	P	0.9
7	☐	500.000	503.027	2368505.54	0.1638	P	0.3
8	☐	1000.000	996.147	4722564.95	0.3245	M	2.8
9	☐			2561.45	0.0002	P	4.1

$$y = 3.2570\text{E-}004 * x + 1.4229\text{E-}005$$

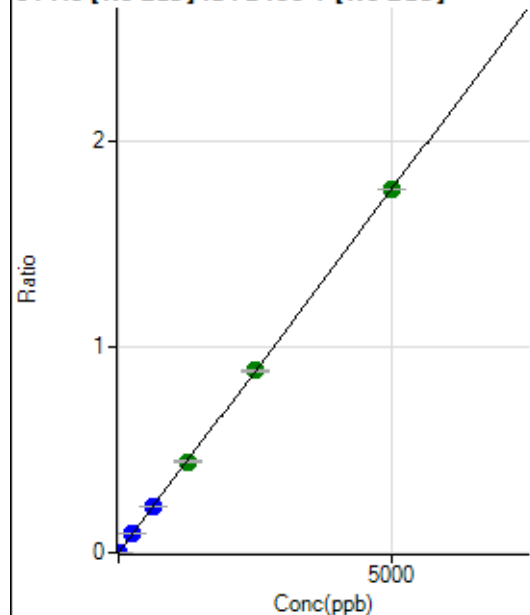
$$R = 1.0000$$

$$DL = 0.00796$$

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	452.80	0.0000	P	6.0
2	☐	0.500					
3	☐	5.000	5.191	26825.88	0.0019	P	4.0
4	☐	250.000	252.572	1294966.88	0.0891	P	0.4
5	☐	625.000	627.439	3262300.57	0.2212	P	0.5
6	☐	1250.000	1256.120	6394400.75	0.4428	A	0.6
7	☐	2500.000	2506.287	12770574.16	0.8835	A	0.8
8	☐	5000.000	4994.893	25627658.73	1.7607	A	0.2
9	☐			34467.54	0.0024	P	3.4

$$y = 3.5249\text{E-}004 * x + 3.1344\text{E-}005$$

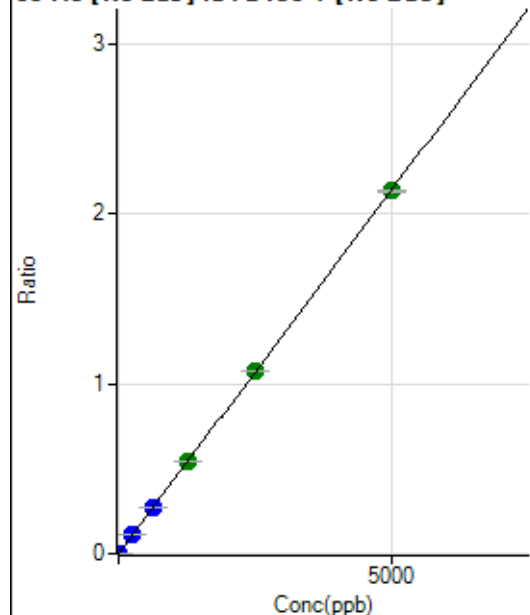
$$R = 1.0000$$

$$DL = 0.01607$$

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	58.34	0.0000	P	62.3
2	☐	0.500					
3	☐	5.000	5.185	32061.92	0.0022	P	0.6
4	☐	250.000	254.531	1584730.82	0.1090	P	0.1
5	☐	625.000	629.798	3977089.28	0.2697	P	0.5
6	☐	1250.000	1263.742	7813869.70	0.5411	A	0.7
7	☐	2500.000	2511.338	15543393.23	1.0753	A	0.4
8	☐	5000.000	4990.069	31099157.64	2.1366	A	0.4
9	☐			52589.34	0.0036	P	0.8

$$y = 4.2817\text{E-}004 * x + 4.0402\text{E-}006$$

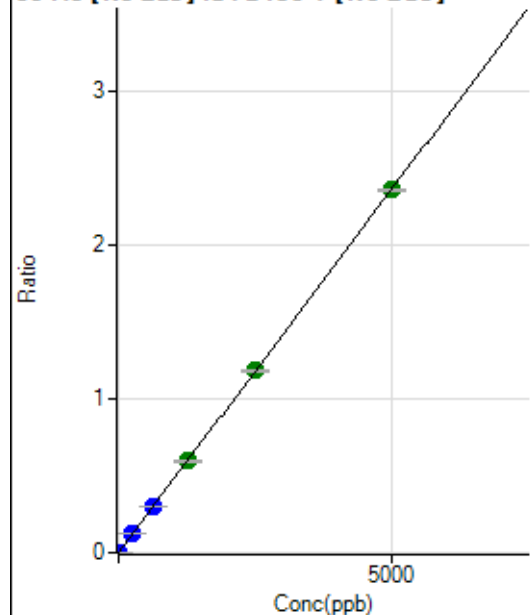
$$R = 1.0000$$

$$DL = 0.01764$$

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	175.01	0.0000	P	4.6
2	☐	0.500					
3	☐	5.000	5.145	35213.80	0.0024	P	1.9
4	☐	250.000	252.688	1736049.78	0.1194	P	0.6
5	☐	625.000	625.628	4359490.20	0.2956	P	0.6
6	☐	1250.000	1260.438	8599648.89	0.5955	A	0.7
7	☐	2500.000	2503.227	17095757.15	1.1827	A	0.4
8	☐	5000.000	4995.564	34353901.81	2.3602	A	0.3
9	☐			66882.40	0.0046	P	1.3

$$y = 4.7245\text{E-}004 * x + 1.2113\text{E-}005$$

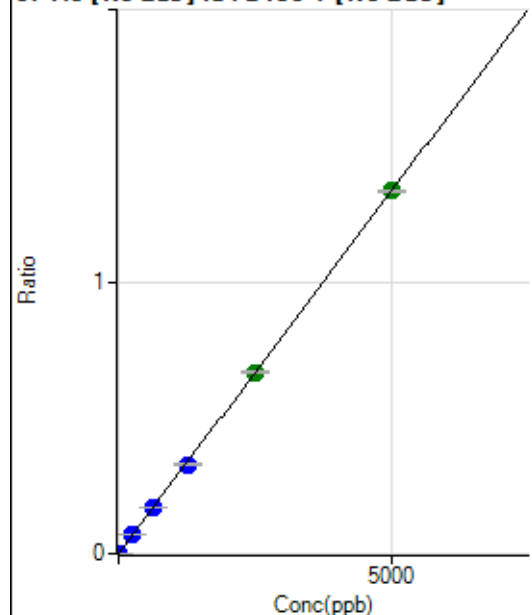
$$R = 1.0000$$

$$DL = 0.003561$$

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	27.78	0.0000	P	17.4
2	☐	0.500					
3	☐	5.000	5.188	19984.11	0.0014	P	1.6
4	☐	250.000	252.983	981659.84	0.0675	P	0.7
5	☐	625.000	630.633	2481979.92	0.1683	P	0.9
6	☐	1250.000	1232.094	4747868.47	0.3288	P	1.4
7	☐	2500.000	2504.853	9662454.21	0.6684	A	0.5
8	☐	5000.000	5001.197	19425901.13	1.3346	A	0.4
9	☐			31198.97	0.0022	P	1.9

$$y = 2.6686\text{E-}004 * x + 1.9227\text{E-}006$$

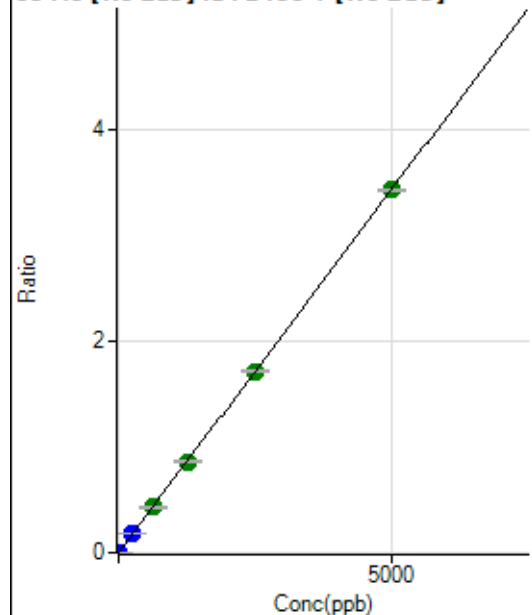
$$R = 1.0000$$

$$DL = 0.003752$$

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	130.56	0.0000	P	13.4
2	☐	0.500					
3	☐	5.000	5.117	50652.17	0.0035	P	2.3
4	☐	250.000	253.461	2524437.04	0.1736	P	0.4
5	☐	625.000	624.877	6312242.89	0.4280	A	0.9
6	☐	1250.000	1255.618	12419531.79	0.8600	A	0.7
7	☐	2500.000	2502.253	24774903.16	1.7139	A	0.1
8	☐	5000.000	4997.311	49821144.17	3.4228	A	0.4
9	☐			81809.77	0.0057	P	1.9

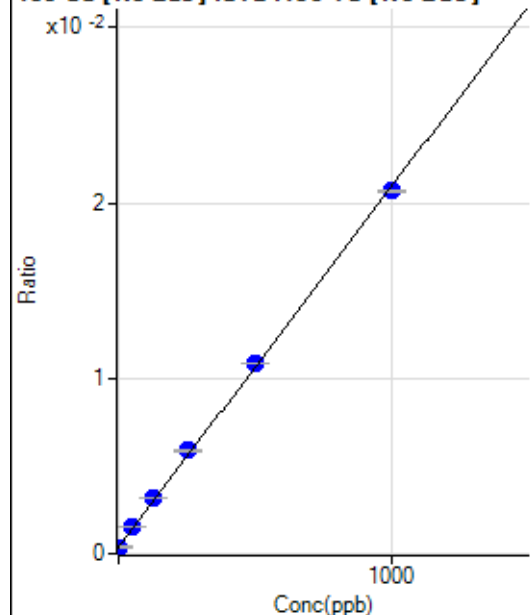
$$y = 6.8494\text{E-}004 * x + 9.0379\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.005287$$

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	6568.49	0.0004	P	7.1
2	☐	0.100					
3	☐	1.000	0.879	6846.35	0.0004	P	2.4
4	☐	50.000	55.926	27463.58	0.0015	P	1.4
5	☐	125.000	136.955	58889.76	0.0032	P	1.5
6	☐	250.000	269.212	107861.22	0.0059	P	1.3
7	☐	500.000	510.966	199471.15	0.0109	P	0.7
8	☐	1000.000	987.923	383947.01	0.0207	P	0.8
9	☐			6574.01	0.0004	P	2.9

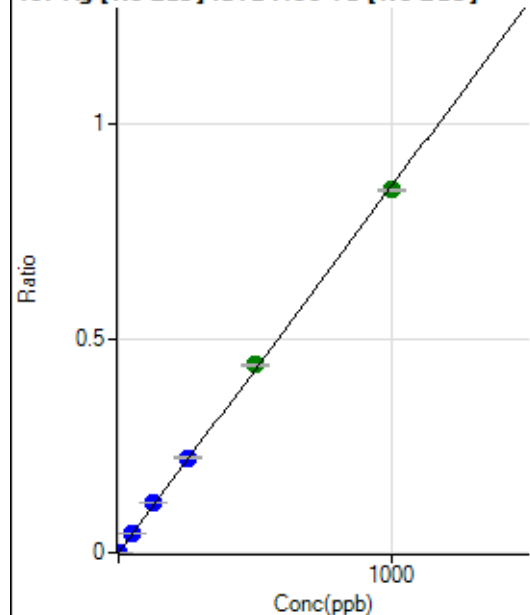
$$y = 2.0574\text{E-}005 * x + 3.6129\text{E-}004$$

$$R = 0.9997$$

$$DL = 3.764$$

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	280.57	0.0000	P	17.0
2	☐	0.100					
3	☐	1.000	1.049	16485.31	0.0009	P	0.7
4	☐	50.000	54.966	855345.52	0.0471	P	0.4
5	☐	125.000	134.634	2136126.11	0.1153	P	1.1
6	☐	250.000	259.188	4057990.02	0.2220	P	0.7
7	☐	500.000	512.269	8047442.02	0.4387	A	0.6
8	☐	1000.000	990.116	15736408.51	0.8479	A	0.8
9	☐			4145.24	0.0002	P	6.8

$$y = 8.5638\text{E-}004 * x + 1.5433\text{E-}005$$

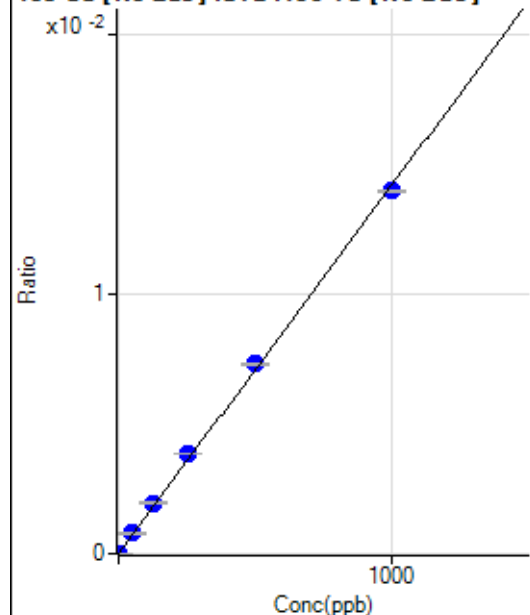
$$R = 0.9998$$

$$DL = 0.009175$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	23.61	0.0000	P	26.9
2	☐	0.100					
3	☐	1.000	1.119	309.73	0.0000	P	11.4
4	☐	50.000	55.035	14190.65	0.0008	P	2.4
5	☐	125.000	137.604	36147.71	0.0020	P	1.2
6	☐	250.000	270.269	70040.07	0.0038	P	0.3
7	☐	500.000	514.866	133859.30	0.0073	P	0.5
8	☐	1000.000	985.673	259257.00	0.0140	P	0.3
9	☐			76.39	0.0000	P	28.1

$$y = 1.4171\text{E-}005 * x + 1.2985\text{E-}006$$

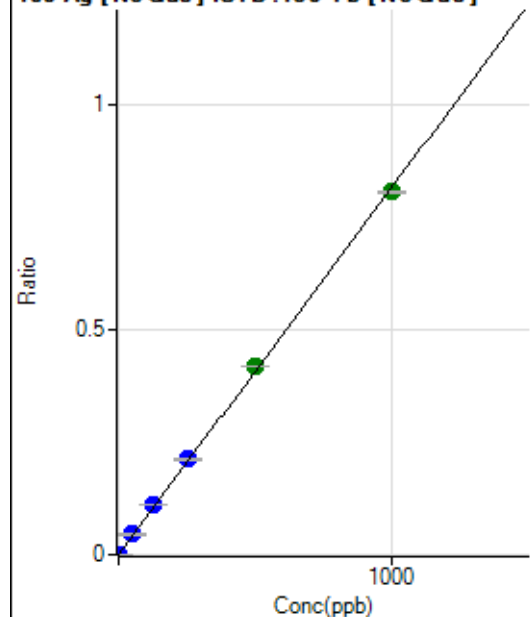
$$R = 0.9996$$

$$DL = 0.07381$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	213.90	0.0000	P	18.2
2	☐	0.100					
3	☐	1.000	1.076	16026.32	0.0009	P	2.4
4	☐	50.000	55.099	815391.54	0.0449	P	0.6
5	☐	125.000	135.455	2043899.29	0.1103	P	1.2
6	☐	250.000	260.771	3882859.25	0.2124	P	1.1
7	☐	500.000	513.245	7668141.14	0.4180	A	0.4
8	☐	1000.000	989.123	14951716.48	0.8056	A	0.4
9	☐			3872.92	0.0002	P	8.5

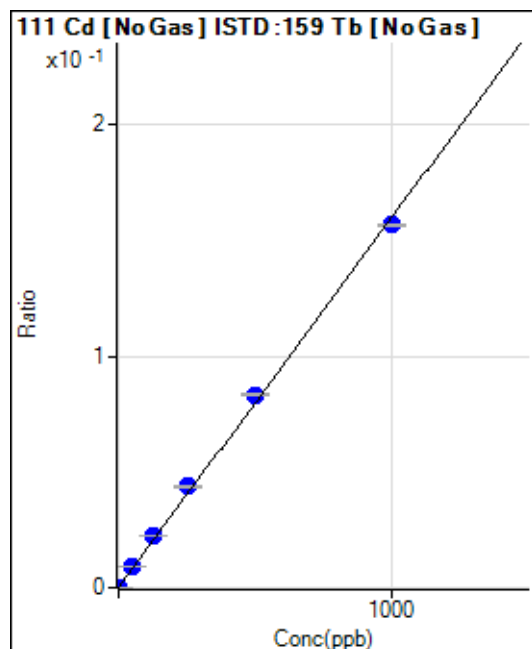
$$y = 8.1446\text{E-}004 * x + 1.1762\text{E-}005$$

$$R = 0.9998$$

$$DL = 0.0079$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1281.06	0.0001	P	7.0
2	☐	0.100					
3	☐	1.000	1.099	4437.12	0.0002	P	4.8
4	☐	50.000	56.256	164320.07	0.0090	P	1.0
5	☐	125.000	139.209	412737.95	0.0223	P	1.6
6	☐	250.000	273.355	798593.13	0.0437	P	0.8
7	☐	500.000	521.692	1528140.21	0.0833	P	0.6
8	☐	1000.000	981.226	2906894.32	0.1566	P	0.7
9	☐			1879.42	0.0001	P	2.9

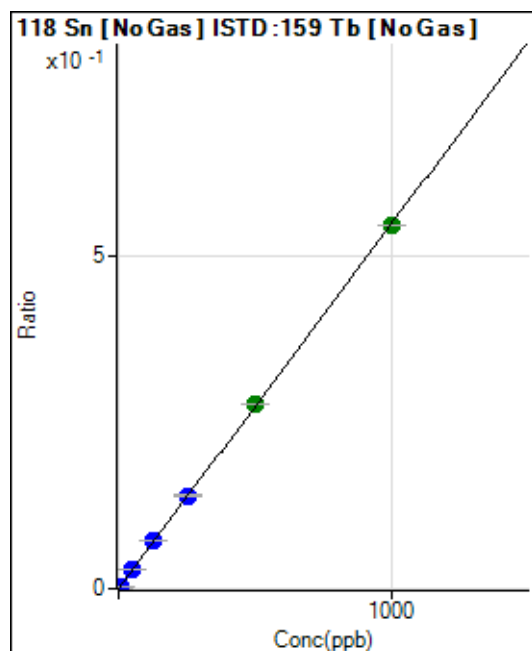
$$y = 1.5955\text{E-}004 * x + 7.0463\text{E-}005$$

$$R = 0.9993$$

$$DL = 0.09308$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	638.95	0.0000	P	15.6
2	☐	0.500					
3	☐	5.000	5.240	52521.26	0.0029	P	2.1
4	☐	50.000	52.445	523325.89	0.0288	P	1.0
5	☐	125.000	130.325	1325272.53	0.0715	P	1.0
6	☐	250.000	255.177	2560100.60	0.1400	P	1.5
7	☐	500.000	506.931	5102655.49	0.2782	A	0.4
8	☐	1000.000	994.451	10127035.90	0.5457	A	0.1
9	☐			14396.84	0.0008	P	0.6

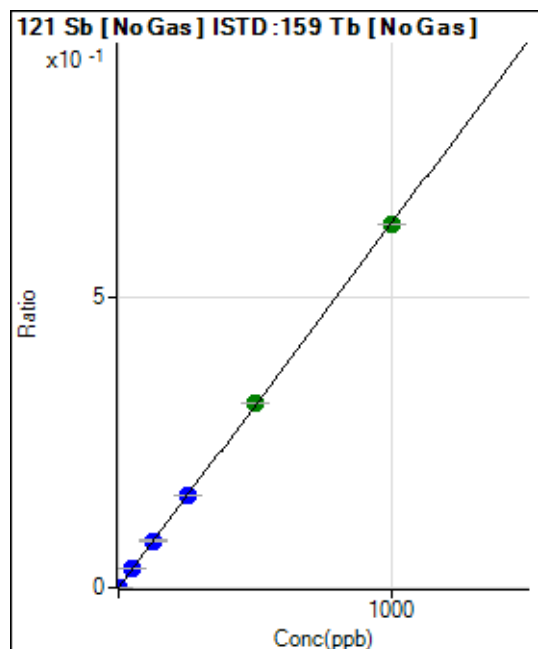
$$y = 5.4867\text{E-}004 * x + 3.5139\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.03$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.22	0.0000	P	40.7
2	☐	0.200					
3	☐	2.000	2.011	22855.43	0.0013	P	2.4
4	☐	50.000	52.231	595709.28	0.0328	P	0.5
5	☐	125.000	128.954	1499783.62	0.0810	P	1.2
6	☐	250.000	252.794	2901334.72	0.1587	P	1.1
7	☐	500.000	506.792	5836247.87	0.3182	A	0.6
8	☐	1000.000	995.300	11596687.06	0.6249	A	0.1
9	☐			18440.52	0.0010	P	2.4

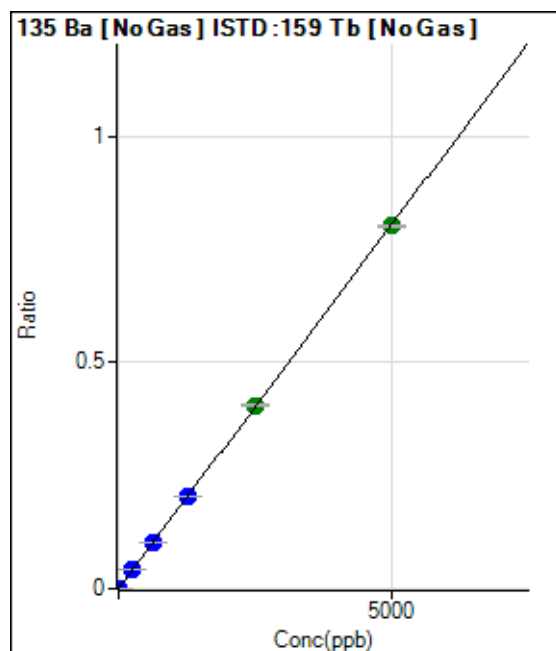
$$y = 6.2780\text{E-}004 * x + 3.9742\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.00772$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0000	P	10.9
2	☐	1.000					
3	☐	10.000	10.160	29548.91	0.0016	P	0.2
4	☐	250.000	260.768	762219.99	0.0420	P	0.1
5	☐	625.000	641.559	1912386.33	0.1032	P	0.7
6	☐	1250.000	1264.154	3718557.77	0.2034	P	0.8
7	☐	2500.000	2518.344	7433070.48	0.4052	A	0.5
8	☐	5000.000	4984.681	14885648.42	0.8021	A	0.5
9	☐			4456.46	0.0002	P	3.9

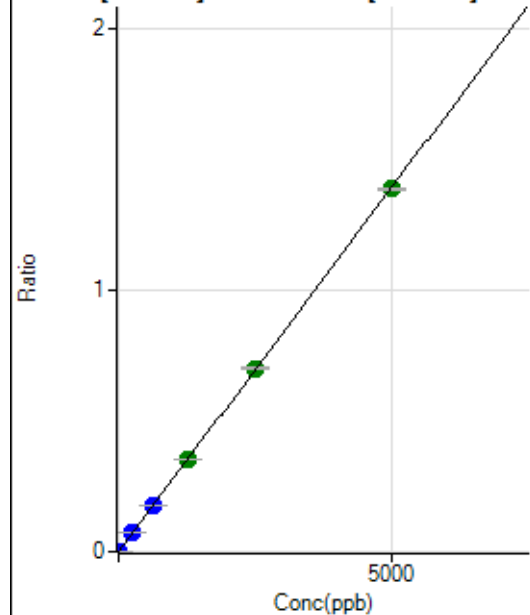
$$y = 1.6090\text{E-}004 * x + 2.4448\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.00499$$

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	36.11	0.0000	P	26.8
2	☐	1.000					
3	☐	10.000	10.302	51733.56	0.0029	P	2.2
4	☐	250.000	259.975	1313152.69	0.0723	P	0.9
5	☐	625.000	638.619	3289582.17	0.1776	P	1.0
6	☐	1250.000	1267.187	6441491.85	0.3524	A	0.4
7	☐	2500.000	2519.931	12853231.88	0.7007	A	0.5
8	☐	5000.000	4983.536	25717814.29	1.3857	A	0.4
9	☐			7680.21	0.0004	P	0.5

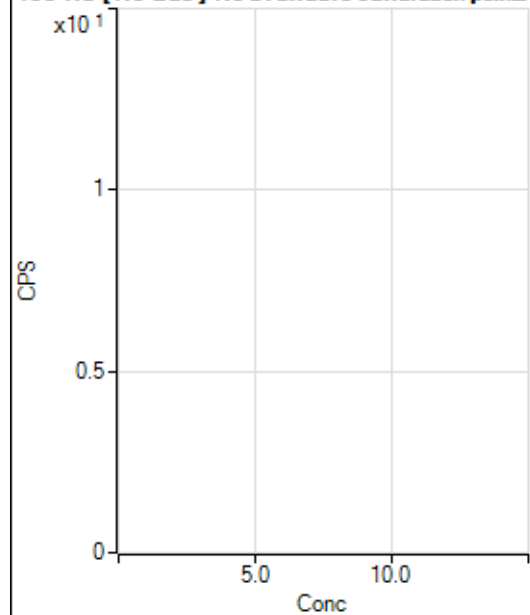
$$y = 2.7806E-004 * x + 1.9869E-006$$

$$R = 1.0000$$

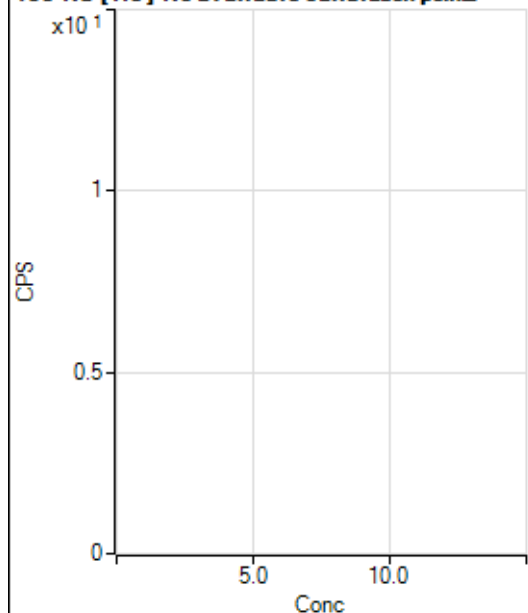
$$DL = 0.005741$$

Weight: <None>

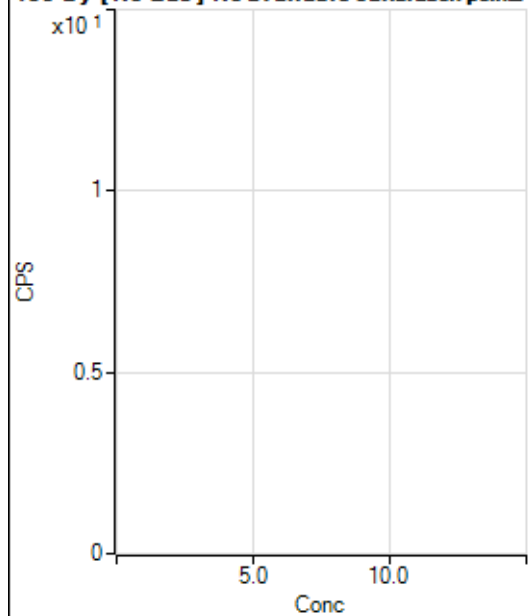
Min Conc: 0

150 Nd [No Gas] No available calibration points

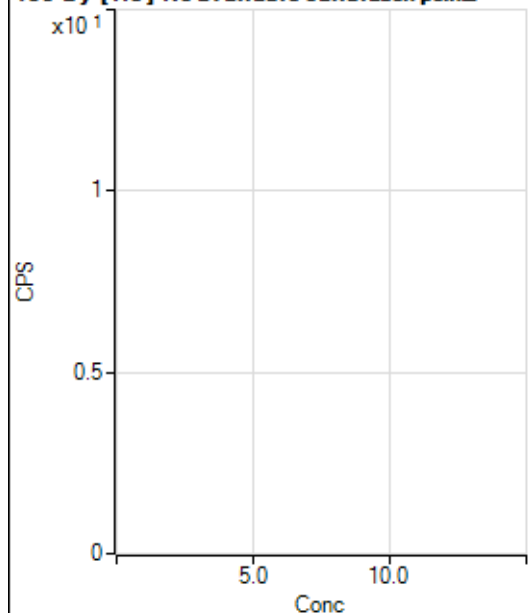
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			6.67		P	100.
4	☐			42.22		P	9.1
5	☐			188.90		P	19.4
6	☐			288.90		P	18.7
7	☐			646.71		P	3.1
8	☐			1113.41		P	8.6
9	☐			253.34		P	22.5

150 Nd [He] No available calibration points

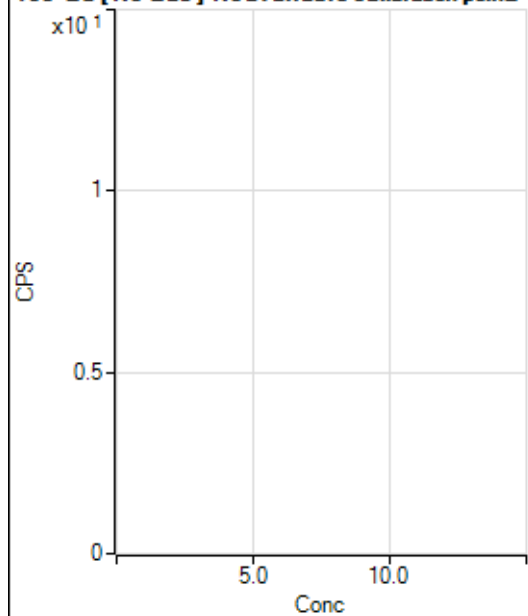
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			2.22		P	86.6
4	☐			5.56		P	91.6
5	☐			24.44		P	41.7
6	☐			25.55		P	15.1
7	☐			40.00		P	25.0
8	☐			84.44		P	13.9
9	☐			96.67		P	24.1

156 Dy [No Gas] No available calibration points

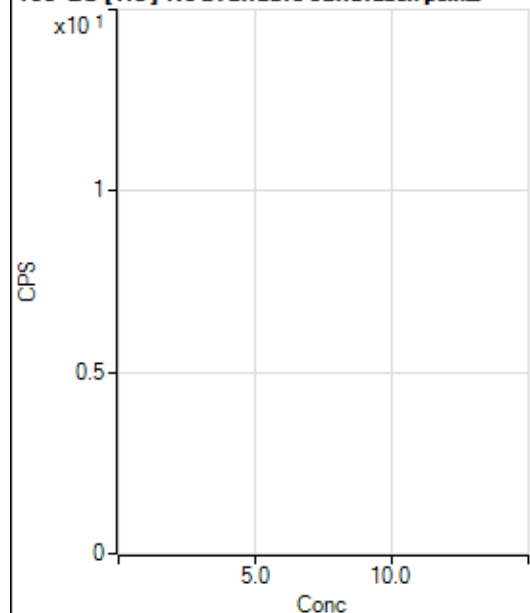
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	21.6
2	☐						
3	☐			25.00		P	33.3
4	☐			13.89		P	34.7
5	☐			47.22		P	44.4
6	☐			55.56		P	22.9
7	☐			113.89		P	41.6
8	☐			238.90		P	8.1
9	☐			136.12		P	33.7

156 Dy [He] No available calibration points

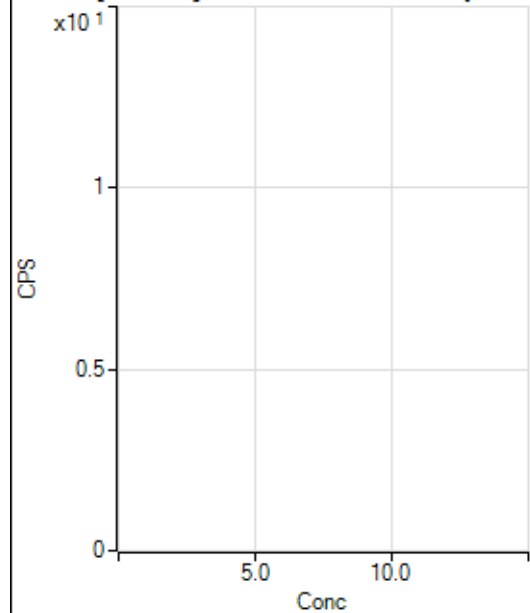
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	34.7
2	☐						
3	☐			2.22		P	86.6
4	☐			13.33		P	25.0
5	☐			46.67		P	37.1
6	☐			54.44		P	15.4
7	☐			107.78		P	12.5
8	☐			167.78		P	11.6
9	☐			48.89		P	10.4

160 Gd [No Gas] Noavailable calibration poin_

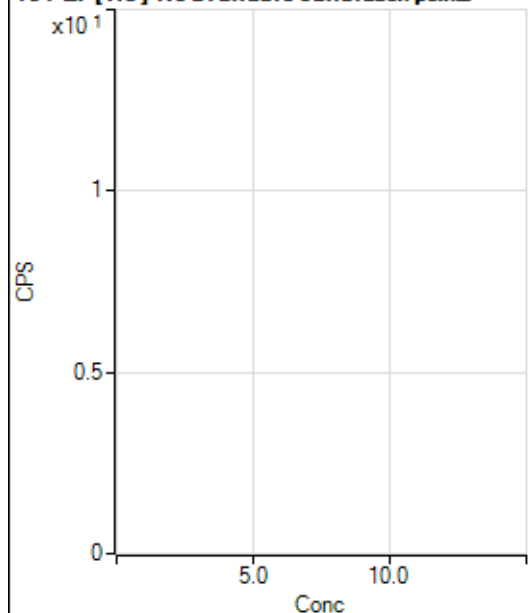
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			100.01		P	22.0
2	☐						
3	☐			91.67		P	27.3
4	☐			111.12		P	11.5
5	☐			138.90		P	27.1
6	☐			100.00		P	25.0
7	☐			150.01		P	20.0
8	☐			138.90		P	22.7
9	☐			194.45		P	22.0

160 Gd [He] No available calibration points

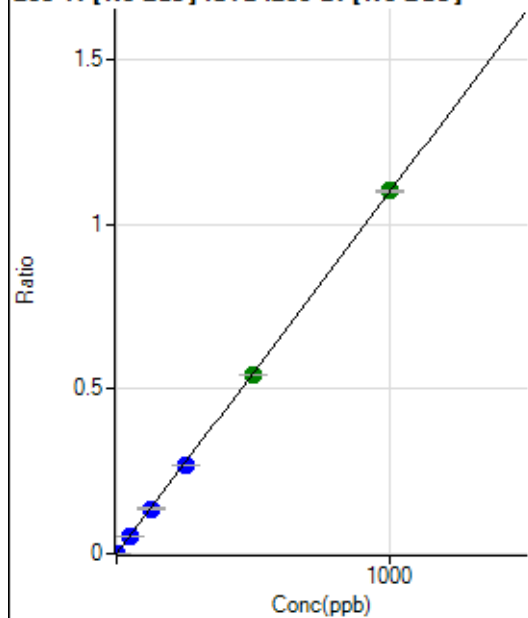
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			202.23		P	13.7
2	☐						
3	☐			200.00		P	24.7
4	☐			225.56		P	17.1
5	☐			245.56		P	15.0
6	☐			242.23		P	3.2
7	☐			264.45		P	18.3
8	☐			224.45		P	3.7
9	☐			255.56		P	5.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			63.89		P	39.8
2	☐						
3	☐			61.11		P	41.7
4	☐			52.78		P	50.8
5	☐			52.78		P	32.9
6	☐			86.11		P	36.6
7	☐			58.34		P	28.6
8	☐			66.67		P	12.5
9	☐			83.33		P	17.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			32.22		P	36.3
2	☐						
3	☐			25.56		P	30.1
4	☐			23.33		P	14.3
5	☐			28.89		P	24.0
6	☐			27.78		P	18.3
7	☐			27.78		P	38.6
8	☐			31.11		P	22.3
9	☐			31.11		P	16.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	119.45	0.0000	P	14.4
2	☐	0.100					
3	☐	1.000	0.999	13368.40	0.0011	P	0.7
4	☐	50.000	49.154	652406.40	0.0540	P	0.2
5	☐	125.000	124.157	1659428.51	0.1363	P	1.7
6	☐	250.000	243.938	3187077.18	0.2677	P	0.9
7	☐	500.000	496.259	6408397.28	0.5447	A	0.2
8	☐	1000.000	1003.534	12713547.51	1.1014	A	0.3
9	☐			4817.78	0.0005	P	9.7

$$y = 0.0011 * x + 9.8055E-006$$

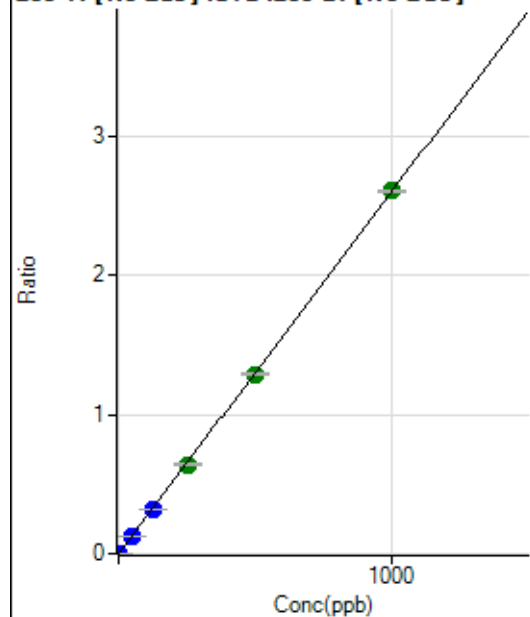
$$R = 1.0000$$

$$DL = 0.00385$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	230.57	0.0000	P	4.3
2	☐	0.100					
3	☐	1.000	1.014	32011.58	0.0027	P	0.8
4	☐	50.000	49.541	1554990.89	0.1286	P	0.6
5	☐	125.000	123.561	3905527.00	0.3207	P	1.5
6	☐	250.000	246.909	7628830.29	0.6409	A	0.4
7	☐	500.000	495.373	15127765.61	1.2858	A	0.8
8	☐	1000.000	1003.289	30058293.03	2.6041	A	0.5
9	☐			12097.70	0.0012	P	3.3

$$y = 0.0026 * x + 1.8931E-005$$

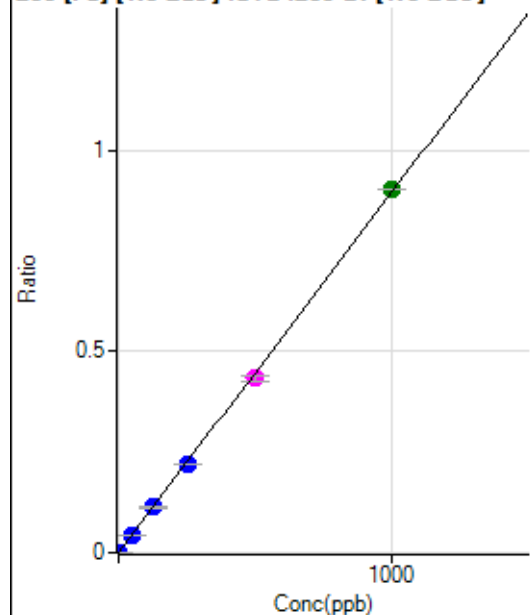
$$R = 1.0000$$

$$DL = 0.0009435$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	268.53	0.0000	P	8.4
2	☐	0.100					
3	☐	1.000	1.003	11116.04	0.0009	P	1.9
4	☐	50.000	49.716	538452.28	0.0445	P	1.4
5	☐	125.000	125.737	1371184.42	0.1126	P	1.2
6	☐	250.000	246.881	2631534.55	0.2211	P	0.8
7	☐	500.000	485.657	5115860.36	0.4349	M	3.4
8	☐	1000.000	1007.874	10416794.10	0.9024	A	0.1
9	☐			13433.03	0.0013	P	1.1

$$y = 8.9537E-004 * x + 2.2046E-005$$

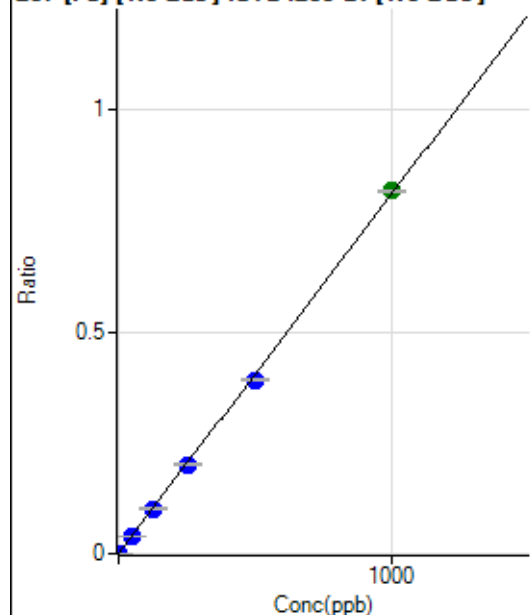
$$R = 0.9998$$

$$DL = 0.006168$$

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	214.82	0.0000	P	15.8
2	☐	0.100					
3	☐	1.000	0.999	9987.32	0.0008	P	2.0
4	☐	50.000	49.695	487003.91	0.0403	P	1.7
5	☐	125.000	125.366	1237118.68	0.1016	P	1.0
6	☐	250.000	248.652	2398282.61	0.2015	P	0.8
7	☐	500.000	482.309	4597969.60	0.3908	P	1.0
8	☐	1000.000	1009.152	9437776.83	0.8176	A	0.5
9	☐			11303.25	0.0011	P	1.0

$$y = 8.1022\text{E-}004 * x + 1.7641\text{E-}005$$

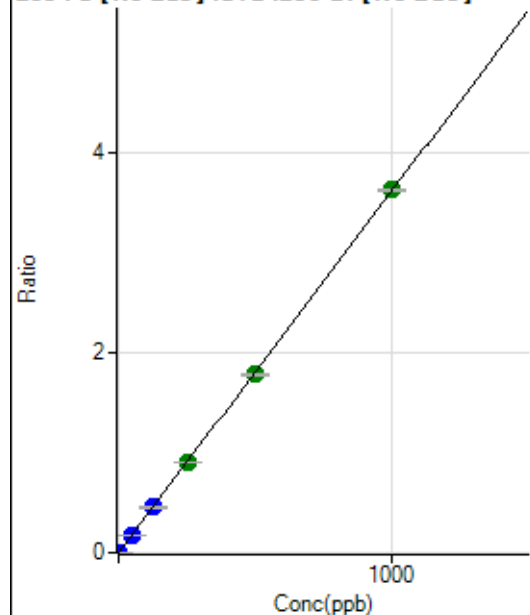
$$R = 0.9998$$

$$DL = 0.01031$$

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	1046.34	0.0001	P	8.8
2	☐	0.100					
3	☐	1.000	1.013	45288.79	0.0037	P	0.8
4	☐	50.000	49.883	2181662.01	0.1804	P	1.1
5	☐	125.000	125.330	5519324.43	0.4532	P	0.9
6	☐	250.000	248.653	10702800.15	0.8991	A	0.5
7	☐	500.000	492.631	20957100.12	1.7813	A	0.8
8	☐	1000.000	1003.986	41902317.95	3.6302	A	0.2
9	☐			52337.60	0.0051	P	1.1

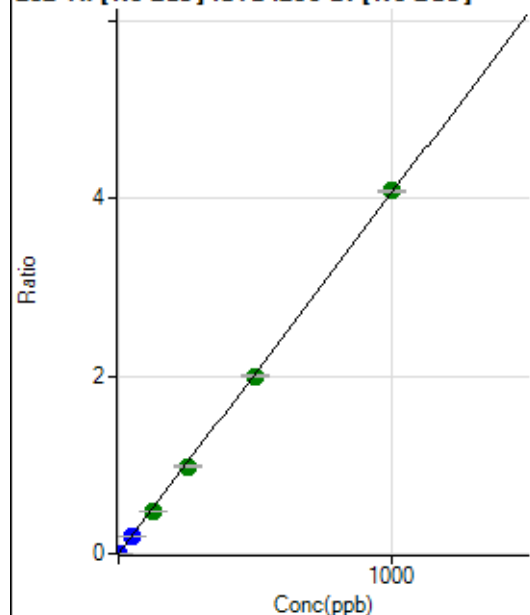
$$y = 0.0036 * x + 8.5917\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.006291$$

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	262.98	0.0000	P	20.7
2	☐	0.100					
3	☐	1.000	0.965	47534.83	0.0039	P	0.8
4	☐	50.000	47.547	2330762.93	0.1928	P	1.0
5	☐	125.000	118.512	5850724.20	0.4805	A	1.2
6	☐	250.000	242.375	11696073.87	0.9826	A	0.9
7	☐	500.000	492.272	23479463.95	1.9957	A	0.8
8	☐	1000.000	1006.704	47109092.26	4.0812	A	0.4
9	☐			8760.56	0.0009	P	7.6

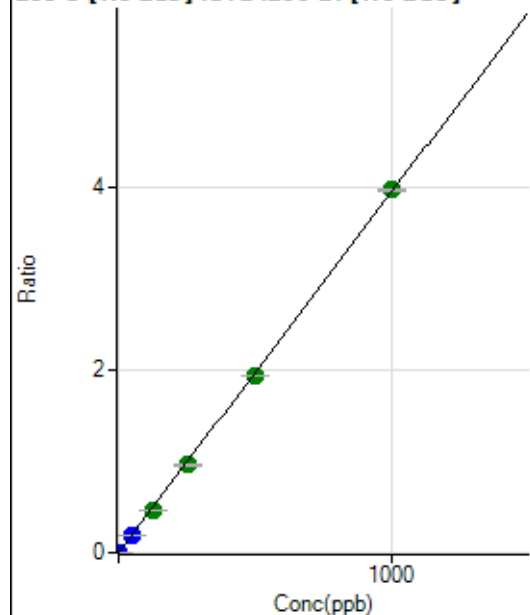
$$y = 0.0041 * x + 2.1596E-005$$

$$R = 0.9999$$

$$DL = 0.003306$$

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	72.22	0.0000	P	35.0
2	☐	0.100					
3	☐	1.000	0.957	45798.22	0.0038	P	0.5
4	☐	50.000	48.064	2297988.01	0.1901	P	1.0
5	☐	125.000	118.857	5723445.23	0.4700	A	1.2
6	☐	250.000	243.323	11453247.83	0.9622	A	0.8
7	☐	500.000	491.830	22882138.71	1.9449	A	0.5
8	☐	1000.000	1006.619	45946032.28	3.9806	A	0.7
9	☐			8736.65	0.0009	P	1.7

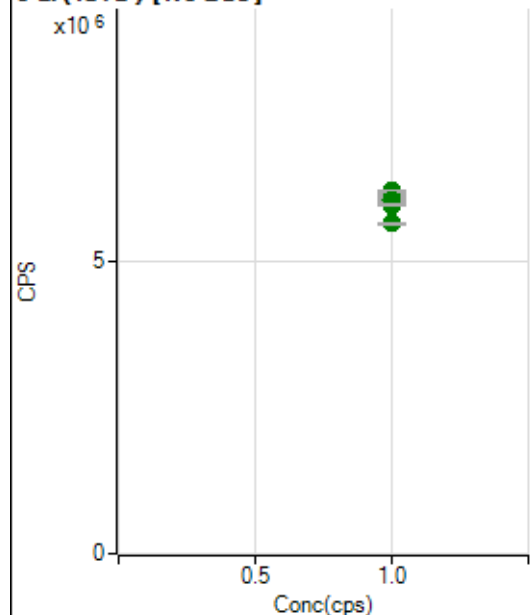
$$y = 0.0040 * x + 5.9264E-006$$

$$R = 0.9999$$

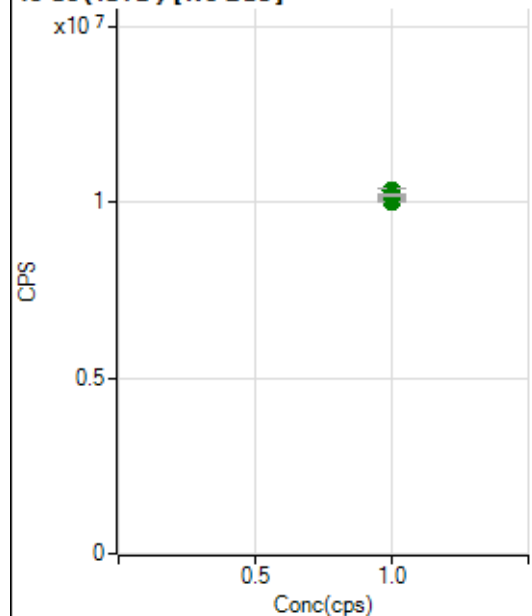
$$DL = 0.001573$$

Weight: <None>

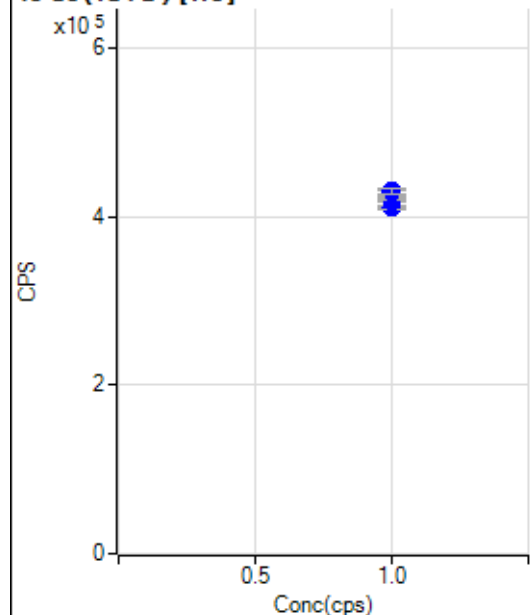
Min Conc: 0

6 Li (ISTD) [No Gas]

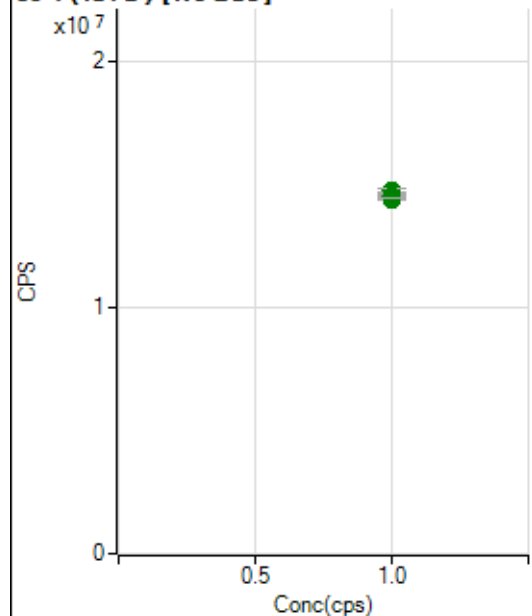
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6067067.83		A	0.4
2	☐	1.000					
3	☐	1.000		6065851.50		A	0.6
4	☐	1.000		6116055.81		A	0.3
5	☐	1.000		6189320.60		A	0.9
6	☐	1.000		6040801.16		A	0.7
7	☐	1.000		6011667.27		A	0.2
8	☐	1.000		5952671.37		A	0.7
9	☐	1.000		5634560.26		A	0.3

45 Sc (ISTD) [No Gas]

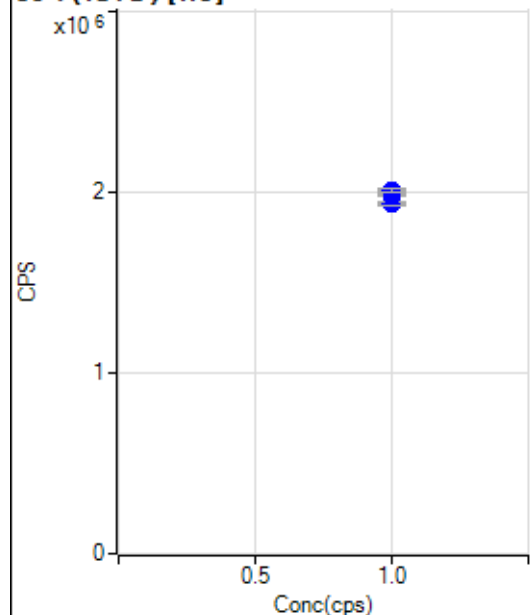
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10091772.79		A	0.2
2	☐	1.000					
3	☐	1.000		10028664.46		A	0.5
4	☐	1.000		10127757.43		A	0.4
5	☐	1.000		10314912.38		A	1.3
6	☐	1.000		10090967.50		A	0.0
7	☐	1.000		10022320.54		A	0.3
8	☐	1.000		10156355.44		A	0.7
9	☐	1.000		10173896.84		A	0.6

45 Sc (ISTD) [He]

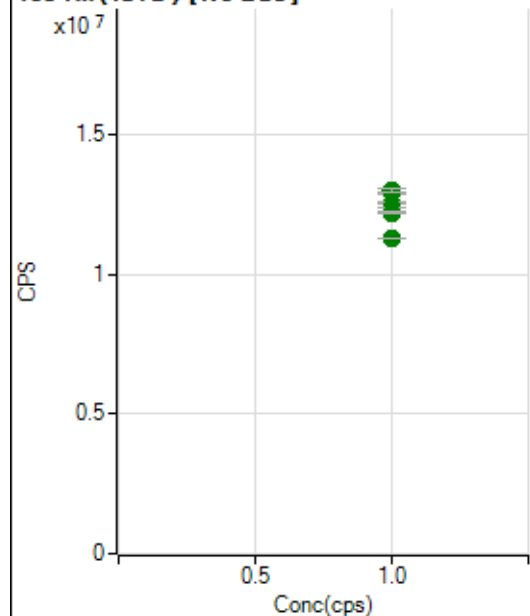
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		412640.87		P	0.5
2	☐	1.000					
3	☐	1.000		410333.79		P	1.0
4	☐	1.000		423243.68		P	0.5
5	☐	1.000		424799.16		P	0.4
6	☐	1.000		418979.63		P	0.4
7	☐	1.000		420809.93		P	0.3
8	☐	1.000		429088.72		P	1.4
9	☐	1.000		431009.70		P	1.4

89 Y (ISTD) [No Gas]

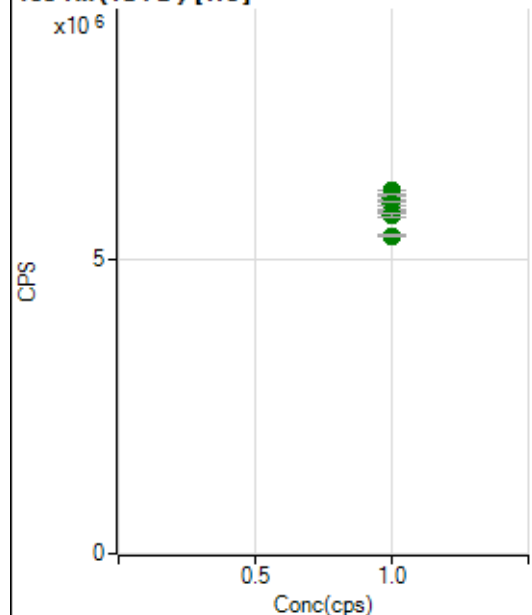
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14447057.28		A	0.1
2	☐	1.000					
3	☐	1.000		14416057.56		A	0.7
4	☐	1.000		14540682.28		A	0.6
5	☐	1.000		14748818.67		A	1.0
6	☐	1.000		14441358.26		A	0.9
7	☐	1.000		14455353.26		A	0.3
8	☐	1.000		14555786.59		A	0.8
9	☐	1.000		14459964.37		A	0.2

89 Y(ISTD) [He]

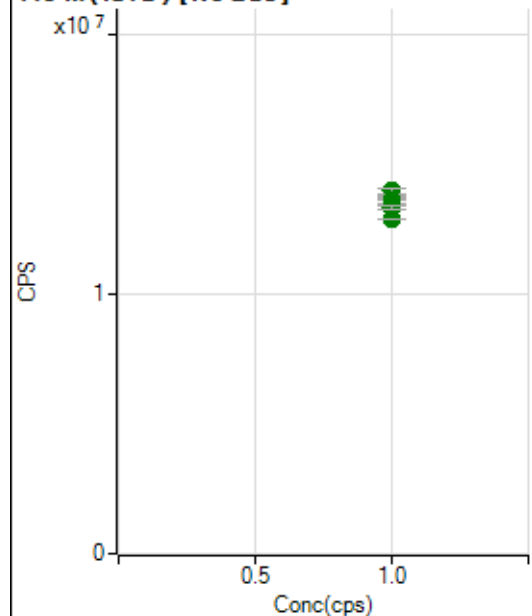
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1936362.96		P	0.4
2	☐	1.000					
3	☐	1.000		1932655.25		P	1.2
4	☐	1.000		1996945.68		P	0.2
5	☐	1.000		1999138.86		P	1.0
6	☐	1.000		1980156.41		P	0.3
7	☐	1.000		1986621.45		P	0.5
8	☐	1.000		1997875.53		P	1.1
9	☐	1.000		2007614.05		P	1.0

103 Rh(ISTD) [No Gas]

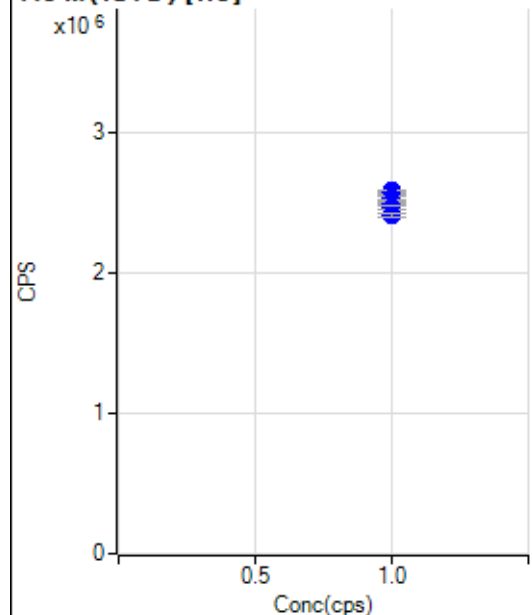
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12903663.31		A	0.3
2	☐	1.000					
3	☐	1.000		12908608.97		A	0.4
4	☐	1.000		12910175.03		A	0.5
5	☐	1.000		12983894.82		A	1.0
6	☐	1.000		12550782.75		A	0.4
7	☐	1.000		12375524.41		A	0.3
8	☐	1.000		12201834.65		A	0.6
9	☐	1.000		11271284.63		A	0.3

103 Rh (ISTD) [He]

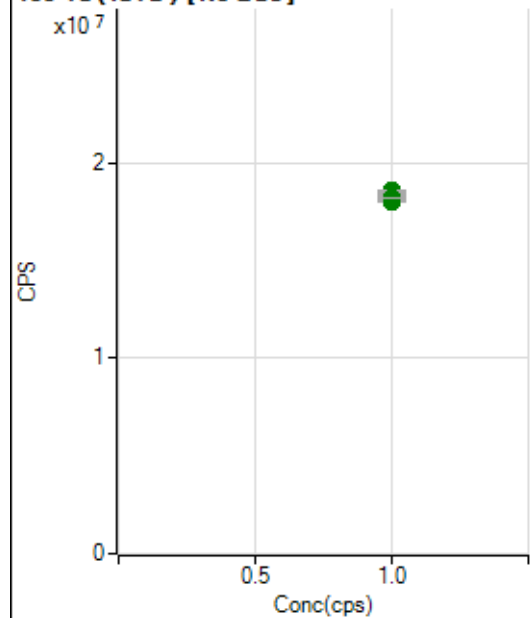
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6158374.70		A	0.1
2	☐	1.000					
3	☐	1.000		6047155.88		A	1.2
4	☐	1.000		6093470.12		A	0.5
5	☐	1.000		6085270.19		A	0.4
6	☐	1.000		5939356.16		A	0.7
7	☐	1.000		5823348.59		A	0.5
8	☐	1.000		5757533.94		A	1.1
9	☐	1.000		5399024.64		A	0.7

115 In (ISTD) [No Gas]

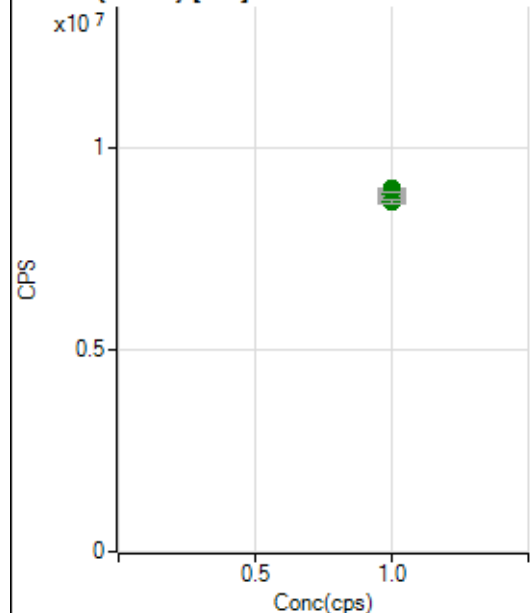
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13774156.27		A	0.5
2	☐	1.000					
3	☐	1.000		13716882.27		A	0.2
4	☐	1.000		13780917.41		A	0.7
5	☐	1.000		13954114.55		A	1.4
6	☐	1.000		13607233.73		A	0.2
7	☐	1.000		13469454.51		A	0.3
8	☐	1.000		13317947.80		A	0.8
9	☐	1.000		12874727.26		A	0.3

115 In (ISTD) [He]

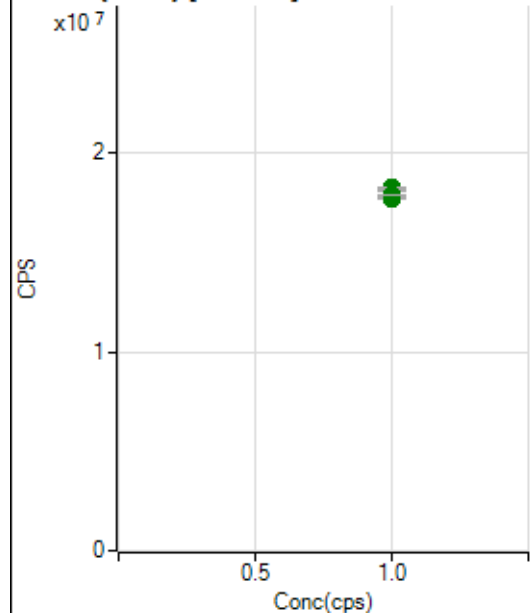
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2484554.31		P	0.6
2	☐	1.000					
3	☐	1.000		2492353.42		P	1.0
4	☐	1.000		2581600.12		P	0.3
5	☐	1.000		2573005.53		P	0.8
6	☐	1.000		2531026.03		P	0.7
7	☐	1.000		2508299.12		P	0.4
8	☐	1.000		2468674.41		P	1.2
9	☐	1.000		2412974.33		P	1.0

159 Tb (ISTD) [No Gas]

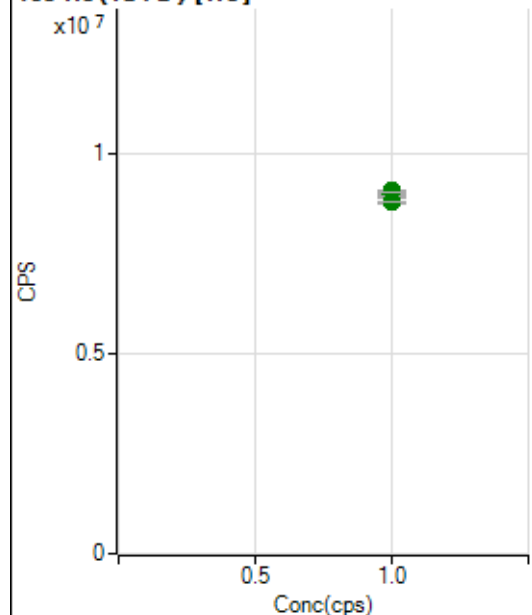
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18181493.90		A	0.2
2	☐	1.000					
3	☐	1.000		18047437.09		A	0.2
4	☐	1.000		18164969.45		A	0.2
5	☐	1.000		18526100.69		A	1.1
6	☐	1.000		18281329.17		A	0.4
7	☐	1.000		18343753.89		A	0.6
8	☐	1.000		18559110.97		A	0.6
9	☐	1.000		18205664.59		A	0.1

159 Tb (ISTD) [He]

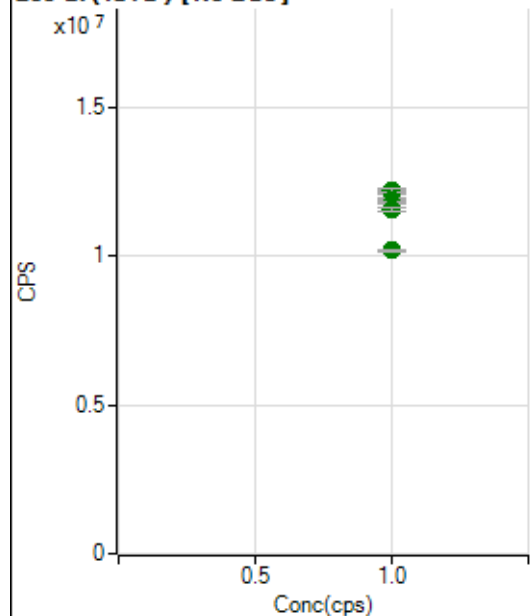
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8984749.73		A	0.4
2	☐	1.000					
3	☐	1.000		8730021.05		A	1.2
4	☐	1.000		8841667.30		A	0.3
5	☐	1.000		8946576.46		A	0.3
6	☐	1.000		8835357.16		A	0.9
7	☐	1.000		8854571.95		A	0.3
8	☐	1.000		8849002.86		A	1.1
9	☐	1.000		8666465.29		A	0.6

165 Ho (ISTD) [No Gas]

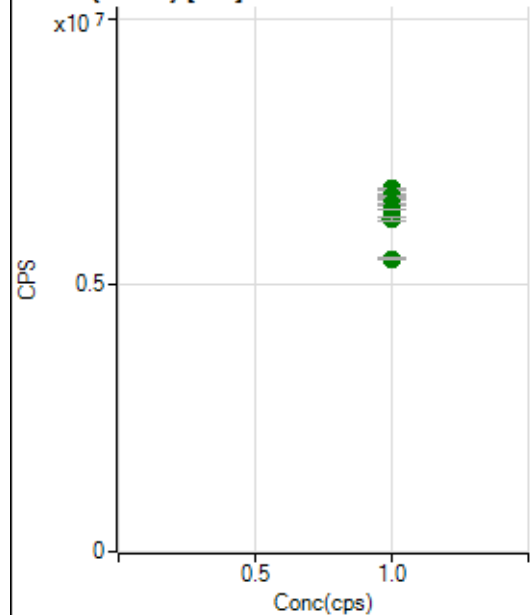
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17780801.09		A	0.4
2	☐	1.000					
3	☐	1.000		17681068.80		A	0.3
4	☐	1.000		17743183.03		A	0.4
5	☐	1.000		18155923.84		A	0.8
6	☐	1.000		17884884.95		A	0.2
7	☐	1.000		18084769.15		A	0.5
8	☐	1.000		18234798.32		A	0.7
9	☐	1.000		17874245.71		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9085898.27		A	0.2
2	☐	1.000					
3	☐	1.000		8828711.12		A	1.3
4	☐	1.000		8970878.48		A	0.3
5	☐	1.000		9084119.66		A	0.6
6	☐	1.000		8975750.84		A	0.6
7	☐	1.000		8988025.35		A	0.2
8	☐	1.000		9004044.66		A	1.3
9	☐	1.000		8823317.92		A	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12180003.98		A	0.2
2	☐	1.000					
3	☐	1.000		12079525.10		A	0.4
4	☐	1.000		12090960.24		A	0.8
5	☐	1.000		12178193.71		A	1.1
6	☐	1.000		11903359.96		A	0.6
7	☐	1.000		11765416.35		A	0.5
8	☐	1.000		11542856.49		A	0.9
9	☐	1.000		10170508.74		A	0.3

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6803222.40		A	0.4
2	☐	1.000					
3	☐	1.000		6646326.22		A	1.4
4	☐	1.000		6672291.71		A	0.1
5	☐	1.000		6666321.78		A	0.6
6	☐	1.000		6515760.59		A	0.3
7	☐	1.000		6415197.89		A	0.1
8	☐	1.000		6221256.50		A	1.2
9	☐	1.000		5493739.37		A	0.9

US EPA Tune Check Sample Report

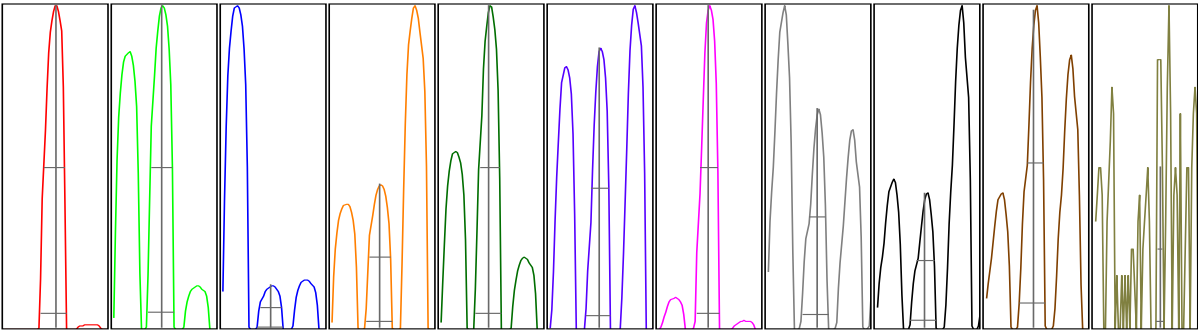
Batch Folder D:\ICP-MS Data\P7103018 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	22327	0.42	5.00	
24	159975	0.28	5.00	
25	21364	0.22	5.00	
26	24501	0.32	5.00	
59	128107	0.27	5.00	
113	15440	0.20	5.00	
115	180465	0.28	5.00	
206	45387	0.17	5.00	
207	41782	0.46	5.00	
208	96957	0.10	5.00	
220	0	57.05		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	22235	22327	22308	22483	22282
24	159933	159306	159853	160470	160312
25	21376	21343	21327	21443	21332
26	24415	24486	24466	24623	24516
59	127933	127600	128177	128455	128372
113	15426	15405	15473	15472	15424
115	180301	180892	180966	180454	179712
206	45296	45342	45366	45480	45452
207	41680	41876	41491	41900	41960
208	96806	97081	96931	96976	96988
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	38078	9.05	8.9 - 9.1		0.778	0.900	
24	267957	23.95	23.9 - 24.1		0.781	0.900	
25	35850	24.95	24.9 - 25.1		0.752	0.900	
26	41223	25.95	25.9 - 26.1		0.778	0.900	
59	226644	58.95	58.9 - 59.1		0.775	0.900	
113	30859	113.00	112.9 - 113.1		0.711	0.900	
115	360467	115.00	114.9 - 115.1		0.689	0.900	
206	92023	206.00	205.9 - 206.1		0.773	0.900	
207	82881	206.95	206.9 - 207.1		0.735	0.900	
208	194712	207.95	207.9 - 208.1		0.740	0.900	
220	0	220.45	-		0.196		

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	6.5	V	Deflect	13.8	V
Extract 2	-125.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	30662	0.72	
89	15852	0.68	
205	36896	0.66	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	30291	30682	30838	30826	30674
89	15676	15901	15886	15958	15837
205	36541	36776	37129	37089	36946

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	6.6	V	Deflect	2.2	V
Extract 2	-110.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	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			