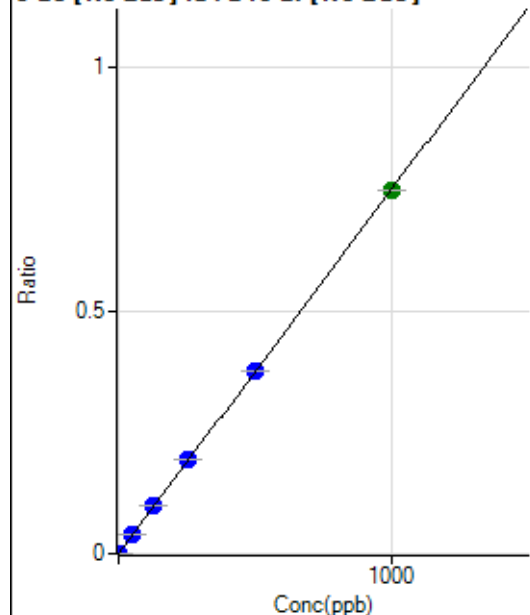


Batch Folder: D:\ICP-MS Data\P7102518MS.b\
Analysis File: P7102518MS.batch.bin
DA Date-Time: 2018-10-25 17:06:48
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2018-10-25 12:38:29
2			
3	005CALS.d	S02	2018-10-25 12:50:14
4	006CALS.d	S03	2018-10-25 12:54:08
5	007CALS.d	S04	2018-10-25 12:58:09
6	008CALS.d	S05	2018-10-25 13:01:56
7	009CALS.d	S06	2018-10-25 13:05:40
8	010CALS.d	S07	2018-10-25 13:09:24
9	011CALS.d	S08	2018-10-25 13:13:09

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.44	0.0000	P	44.6
2	☐	0.100					
3	☐	1.000	1.032	5239.93	0.0008	P	1.4
4	☐	50.000	52.497	264478.81	0.0393	P	0.1
5	☐	125.000	131.709	650893.08	0.0986	P	0.2
6	☐	250.000	257.124	1217539.64	0.1925	P	0.1
7	☐	500.000	502.189	2306970.07	0.3759	P	0.1
8	☐	1000.000	996.161	4548015.09	0.7457	A	0.2
9	☐			757.45	0.0001	P	8.2

$$y = 7.4859\text{E-}004 * x + 6.5585\text{E-}006$$

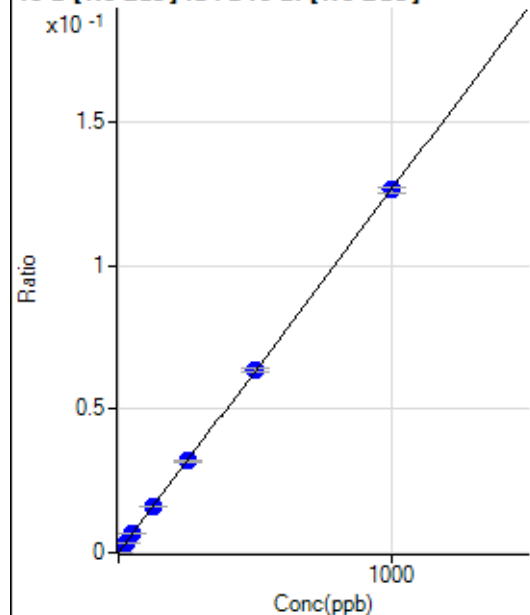
$$R = 1.0000$$

$$DL = 0.01173$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	375.02	0.0001	P	11.8
2	☐	2.500					
3	☐	25.000	24.761	21454.92	0.0032	P	2.6
4	☐	50.000	51.298	44054.24	0.0065	P	2.8
5	☐	125.000	127.930	107228.19	0.0162	P	1.8
6	☐	250.000	251.604	201736.62	0.0319	P	0.9
7	☐	500.000	500.903	389305.36	0.0634	P	1.8
8	☐	1000.000	998.722	771090.73	0.1264	P	1.9
9	☐			13064.44	0.0021	P	6.5

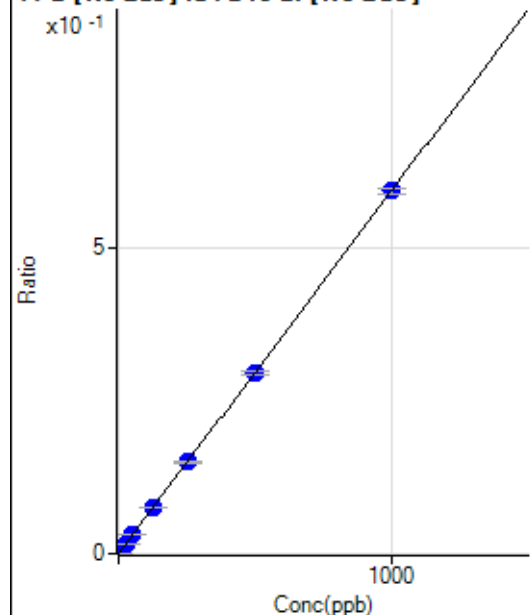
$$y = 1.2654\text{E-}004 * x + 5.5411\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.1554$$

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	1619.60	0.0002	P	5.1
2	☐	2.500					
3	☐	25.000	24.118	97818.45	0.0145	P	2.1
4	☐	50.000	50.746	204044.24	0.0303	P	0.3
5	☐	125.000	126.911	498240.13	0.0755	P	0.8
6	☐	250.000	252.587	948680.96	0.1500	P	0.9
7	☐	500.000	498.281	1814222.72	0.2956	P	1.2
8	☐	1000.000	999.959	3616911.28	0.5931	P	1.4
9	☐			59003.06	0.0097	P	12.0

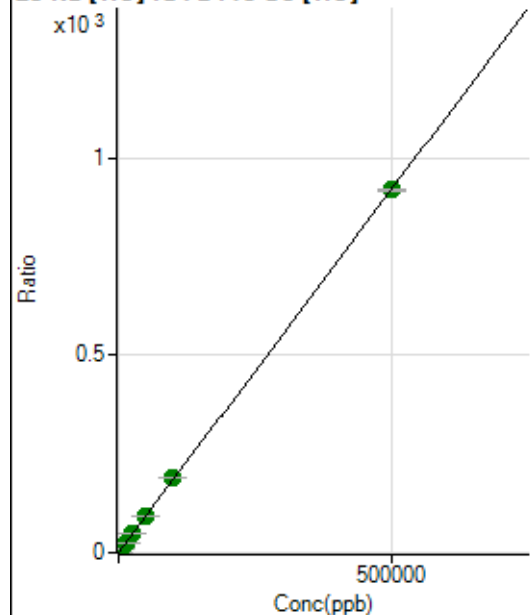
$$y = 5.9284\text{E-}004 * x + 2.3944\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.06146$$

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	9419.94	0.0199	P	5.9
2	☐	50.000					
3	☐	500.000	492.541	438234.25	0.9269	P	0.8
4	☐	5000.000	5104.028	4458651.97	9.4184	A	0.8
5	☐	12500.000	12739.086	10799594.17	23.4775	A	1.0
6	☐	25000.000	25427.374	20540426.15	46.8416	A	1.1
7	☐	50000.000	50889.100	40477983.89	93.7265	A	0.2
8	☐	100000.00	102594.85	81350414.32	188.9369	A	1.1
9	☐	500000.00	499363.74	433490043.02	919.5423	A	0.8

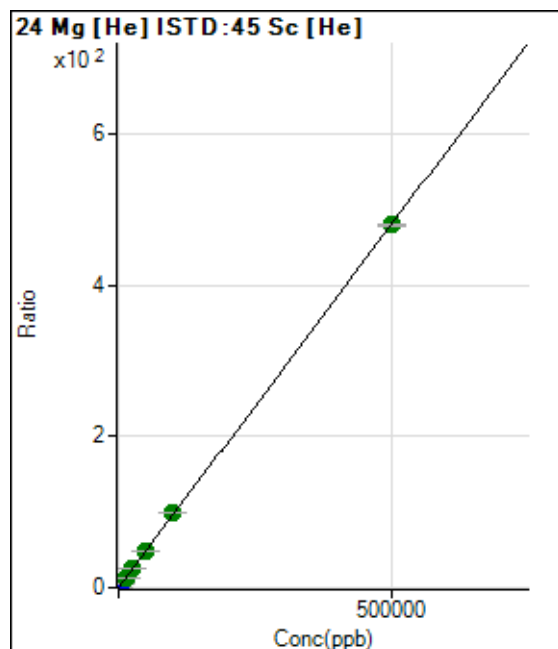
$$y = 0.0018 * x + 0.0199$$

$$R = 1.0000$$

$$DL = 1.904$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	180.56	0.0004	P	11.5
2	☐	50.000					
3	☐	500.000	498.705	227077.90	0.4803	P	0.6
4	☐	5000.000	5179.368	2359506.11	4.9844	P	1.0
5	☐	12500.000	12921.792	5719911.41	12.4347	A	0.8
6	☐	25000.000	25649.631	10823268.47	24.6824	A	1.4
7	☐	50000.000	51432.072	21374248.92	49.4922	A	0.2
8	☐	100000.00	102675.90	42541197.48	98.8028	A	1.1
9	☐	500000.00	499276.79	226491293.95	480.4419	A	0.6

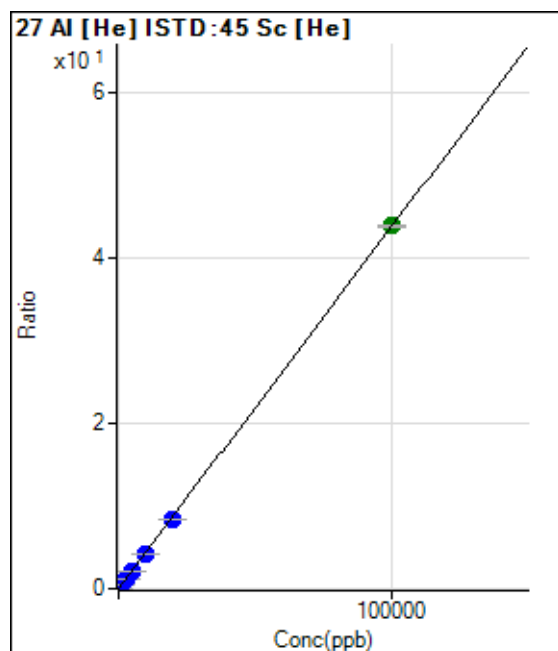
$$y = 9.6227\text{E-}004 * x + 3.8173\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.1369$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	66.67	0.0001	P	12.3
2	☐	2.000					
3	☐	20.000	19.236	4042.38	0.0085	P	2.1
4	☐	1000.000	983.279	203530.75	0.4299	P	0.3
5	☐	2500.000	2428.826	488412.08	1.0618	P	0.8
6	☐	5000.000	4812.864	922556.56	2.1038	P	1.0
7	☐	10000.000	9558.203	1804375.19	4.1780	P	0.4
8	☐	20000.000	19005.262	3576796.39	8.3073	P	1.0
9	☐	100000.00	100254.43	20658534.32	43.8211	A	0.7

$$y = 4.3710\text{E-}004 * x + 1.4094\text{E-}004$$

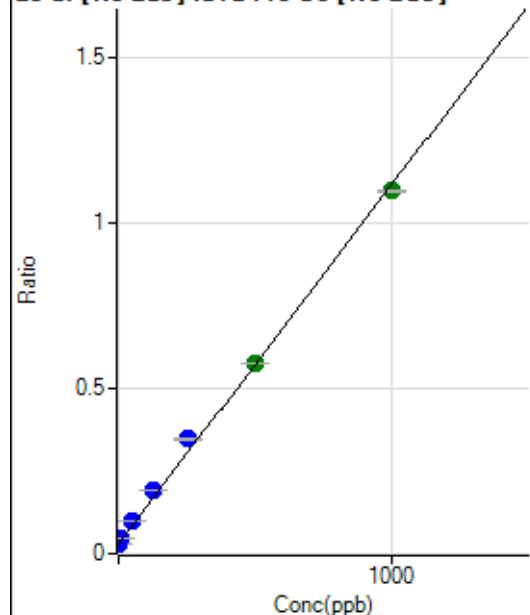
$$R = 0.9999$$

$$DL = 0.1194$$

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	303398.60	0.0299	P	0.5
2	☐	1.000					
3	☐	10.000	16.641	477435.05	0.0480	P	0.3
4	☐	50.000	61.576	959978.01	0.0968	P	0.9
5	☐	125.000	150.926	1892648.13	0.1938	P	0.9
6	☐	250.000	291.847	3235226.74	0.3469	P	1.0
7	☐	500.000	504.466	5223331.85	0.5779	A	0.4
8	☐	1000.000	983.419	10005620.71	1.0982	A	0.5
9	☐			698351.93	0.0746	P	7.3

$$y = 0.0011 * x + 0.0299$$

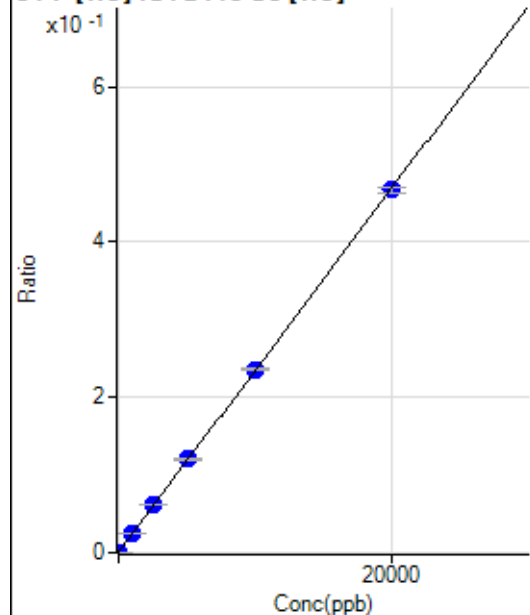
$$R = 0.9989$$

$$DL = 0.3734$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-0.502	200.01	0.0004	P	29.3
2	☐	0.000					
3	☐	0.000	0.502	211.12	0.0004	P	30.2
4	☐	1000.000	1056.390	11916.32	0.0252	P	1.2
5	☐	2500.000	2612.468	28338.80	0.0616	P	1.3
6	☐	5000.000	5140.395	52975.69	0.1208	P	1.5
7	☐	10000.000	10053.210	101849.20	0.2358	P	0.9
8	☐	20000.000	19921.418	201026.10	0.4669	P	1.4
9	☐			400.02	0.0008	P	1.2

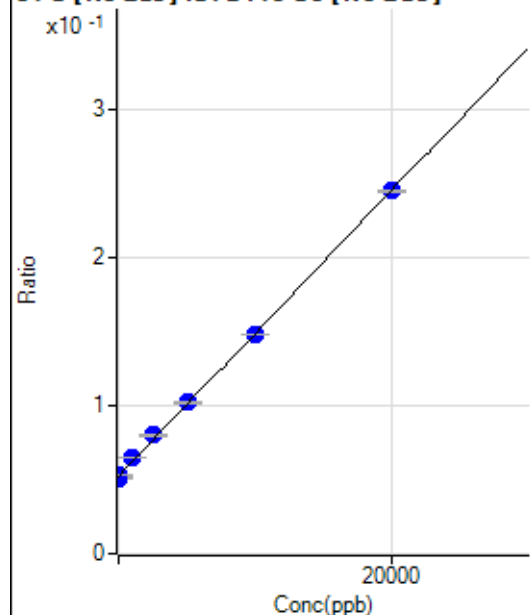
$$y = 2.3415E-005 * x + 4.3473E-004$$

$$R = 1.0000$$

$$DL = 16.58$$

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	-119.473	520676.21	0.0513	P	0.7
2	☐	0.000					
3	☐	0.000	119.473	533473.53	0.0536	P	0.5
4	☐	1000.000	1324.011	646996.58	0.0652	P	0.2
5	☐	2500.000	2857.297	781409.06	0.0800	P	0.5
6	☐	5000.000	5132.177	951172.52	0.1020	P	0.4
7	☐	10000.000	9911.399	1338960.41	0.1481	P	0.7
8	☐	20000.000	19950.393	2232926.98	0.2451	P	0.2
9	☐			472413.70	0.0505	P	0.4

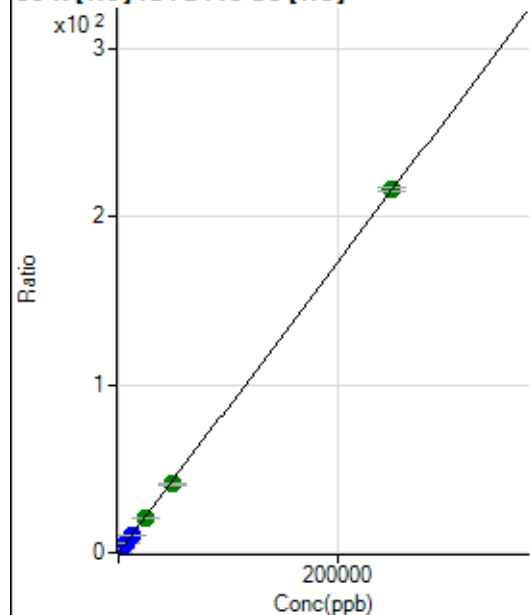
$$y = 9.6559\text{E-}006 * x + 0.0524$$

$$R = 0.9997$$

$$DL = 101.9$$

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	29026.59	0.0614	P	1.2
2	☐	50.000					
3	☐	500.000	477.689	223237.35	0.4721	P	0.2
4	☐	2500.000	2439.241	1022027.71	2.1589	P	0.7
5	☐	6250.000	6085.841	2435539.05	5.2947	P	0.5
6	☐	12500.000	11983.522	4546084.22	10.3662	P	0.6
7	☐	25000.000	23798.181	8864405.75	20.5258	A	0.7
8	☐	50000.000	47270.882	17528390.84	40.7103	A	0.8
9	☐	250000.00	250696.58	101658743.24	215.6393	A	1.0

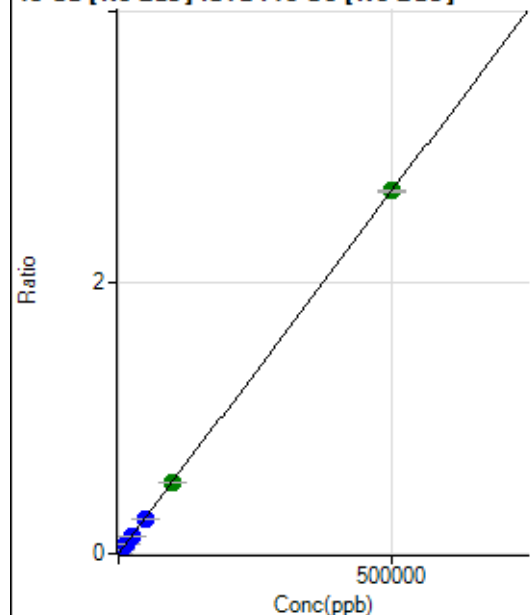
$$y = 8.5992\text{E-}004 * x + 0.0614$$

$$R = 0.9999$$

$$DL = 2.475$$

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	300.01	0.0000	P	17.8
2	☐	50.000					
3	☐	500.000	459.892	24726.97	0.0025	P	1.8
4	☐	5000.000	4916.785	260594.43	0.0263	P	0.8
5	☐	12500.000	12331.713	642892.32	0.0658	P	0.7
6	☐	25000.000	24530.154	1221111.42	0.1309	P	1.0
7	☐	50000.000	48697.847	2349270.61	0.2599	P	0.4
8	☐	100000.00	97773.462	4754376.15	0.5218	A	0.3
9	☐	500000.00	500604.09	25009687.36	2.6716	A	0.7

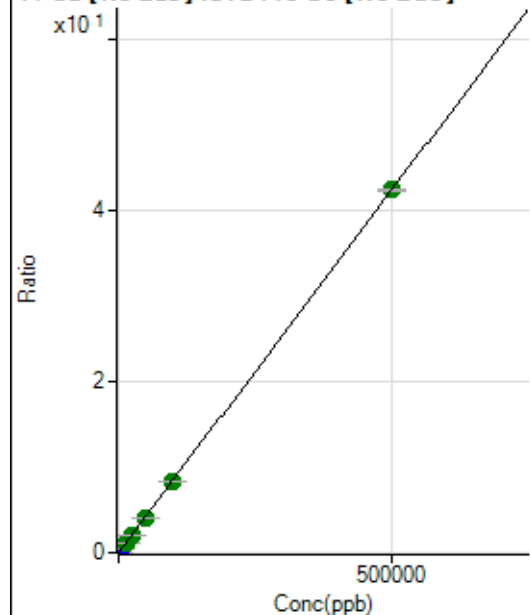
$$y = 5.3367\text{E-}006 * x + 2.9534\text{E-}005$$

$$R = 1.0000$$

$$DL = 2.959$$

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	11977.86	0.0012	P	2.1
2	☐	50.000					
3	☐	500.000	467.747	406021.72	0.0408	P	0.8
4	☐	5000.000	4951.498	4170919.58	0.4204	P	0.5
5	☐	12500.000	12254.463	10143522.27	1.0388	A	0.3
6	☐	25000.000	24516.560	19370825.43	2.0771	A	0.7
7	☐	50000.000	48857.999	37403283.82	4.1381	A	0.4
8	☐	100000.00	97538.607	75259878.76	8.2601	A	0.3
9	☐	500000.00	500637.30	396856689.43	42.3918	A	0.7

$$y = 8.4673\text{E-}005 * x + 0.0012$$

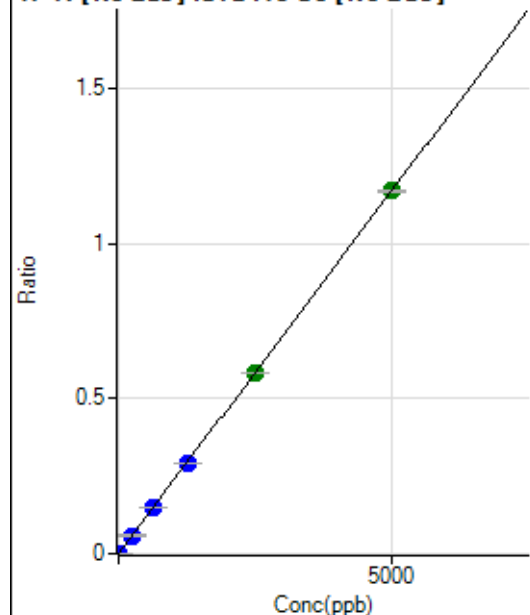
$$R = 1.0000$$

$$DL = 0.8789$$

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	113.89	0.0000	P	22.8
2	☐	0.500					
3	☐	5.000	4.872	11449.31	0.0012	P	1.4
4	☐	250.000	251.068	582244.67	0.0587	P	1.2
5	☐	625.000	631.043	1440340.06	0.1475	P	0.2
6	☐	1250.000	1246.418	2717086.91	0.2913	P	0.2
7	☐	2500.000	2495.691	5272704.46	0.5833	A	0.4
8	☐	5000.000	5002.242	10652778.19	1.1692	A	0.5
9	☐			4998.25	0.0005	P	6.3

$$y = 2.3373\text{E-}004 * x + 1.1224\text{E-}005$$

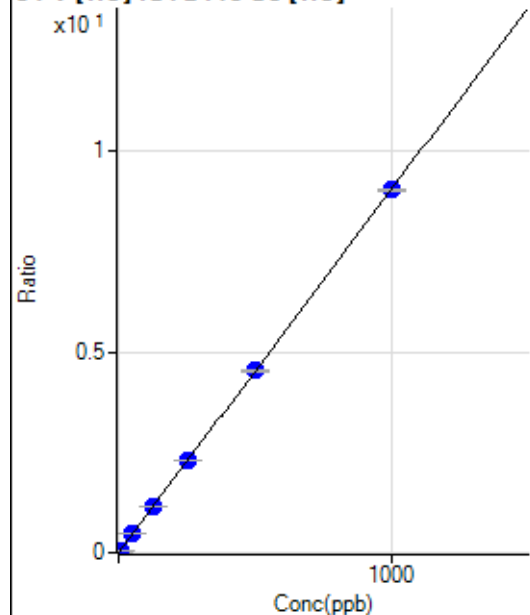
$$R = 1.0000$$

$$DL = 0.03284$$

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	28.89	0.0001	P	37.3
2	☐	0.500					
3	☐	5.000	4.829	20706.96	0.0438	P	1.1
4	☐	50.000	50.812	217873.87	0.4602	P	0.0
5	☐	125.000	126.887	528616.33	1.1492	P	0.6
6	☐	250.000	252.350	1002200.11	2.2854	P	0.6
7	☐	500.000	501.598	1961816.41	4.5426	P	0.8
8	☐	1000.000	998.338	3892841.65	9.0412	P	0.5
9	☐			2001.28	0.0042	P	5.7

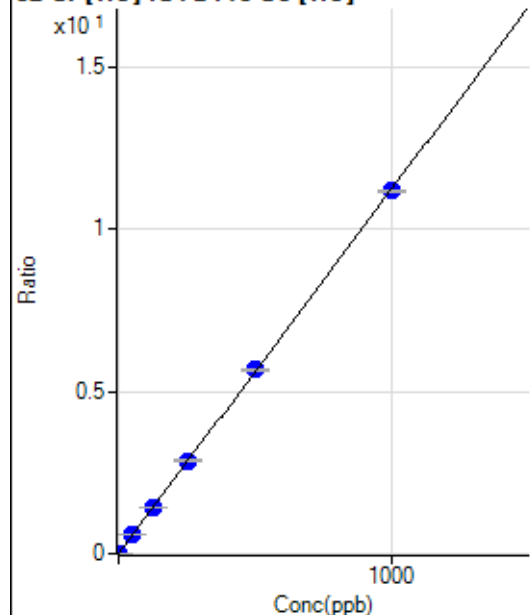
$$y = 0.0091 * x + 6.1118\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.007544$$

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	790.04	0.0017	P	12.0
2	☐	0.200					
3	☐	2.000	2.133	12125.16	0.0256	P	1.0
4	☐	50.000	51.759	276177.39	0.5834	P	1.0
5	☐	125.000	128.624	665768.94	1.4473	P	0.4
6	☐	250.000	255.842	1261723.78	2.8772	P	1.2
7	☐	500.000	504.526	2449692.20	5.6723	P	0.5
8	☐	1000.000	995.735	4819454.06	11.1932	P	0.3
9	☐			229479.35	0.4868	P	0.8

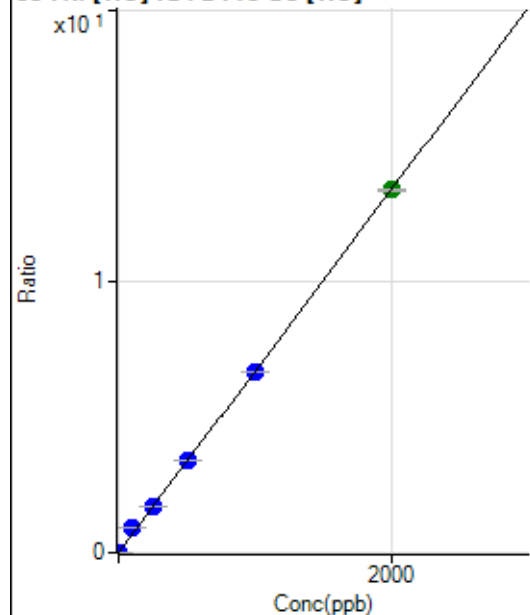
$$y = 0.0112 * x + 0.0017$$

$$R = 1.0000$$

$$DL = 0.05339$$

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	118.89	0.0003	P	18.0
2	☐	0.100					
3	☐	1.000	1.022	3359.33	0.0071	P	5.1
4	☐	100.000	134.044	425852.79	0.8996	P	1.2
5	☐	250.000	256.354	791292.70	1.7202	P	0.3
6	☐	500.000	505.782	1488235.03	3.3937	P	0.4
7	☐	1000.000	996.720	2888169.12	6.6875	P	0.4
8	☐	2000.000	1997.698	5771034.01	13.4034	A	0.8
9	☐			40289.70	0.0855	P	0.6

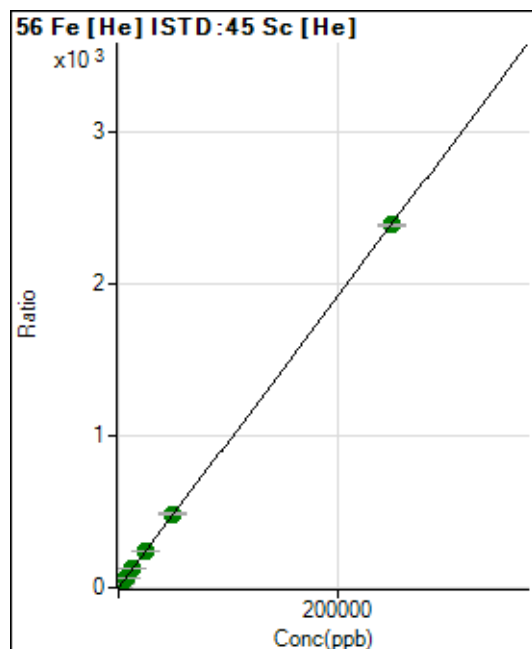
$$y = 0.0067 * x + 2.5144E-004$$

$$R = 0.9999$$

$$DL = 0.02027$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7831.89	0.0166	P	0.1
2	☐	5.000					
3	☐	50.000	50.950	238058.78	0.5035	P	0.8
4	☐	2500.000	2581.075	11685554.89	24.6843	A	0.5
5	☐	6250.000	6457.406	28396179.34	61.7310	A	0.7
6	☐	12500.000	12893.002	54044543.34	123.2370	A	0.1
7	☐	25000.000	25424.172	104945198.64	242.9994	A	0.5
8	☐	50000.000	50927.034	209569993.57	486.7343	A	1.1
9	☐	250000.00	249746.53	1125239639.9	2,386.883	A	0.8

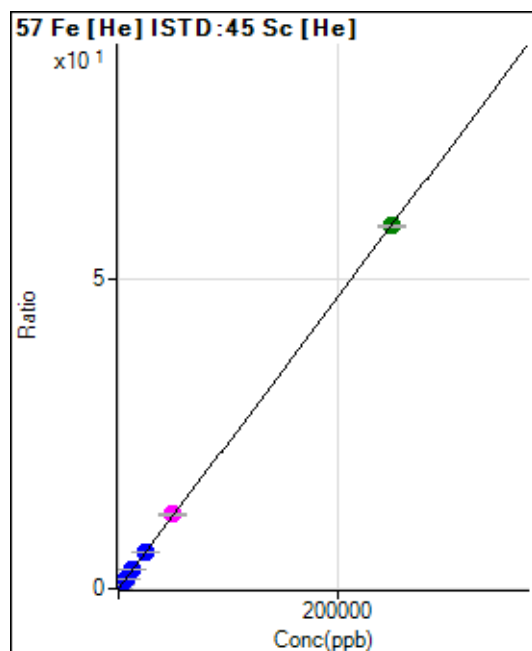
$$y = 0.0096 * x + 0.0166$$

$$R = 1.0000$$

$$DL = 0.007308$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	266.67	0.0006	P	24.2
2	☐	5.000					
3	☐	50.000	51.649	5995.83	0.0127	P	4.2
4	☐	2500.000	2598.377	288822.82	0.6101	P	0.0
5	☐	6250.000	6517.651	703550.04	1.5295	P	0.7
6	☐	12500.000	12930.792	1330455.73	3.0338	P	0.2
7	☐	25000.000	25371.389	2570555.58	5.9521	P	0.4
8	☐	50000.000	51091.175	5160633.04	11.9855	M	1.3
9	☐	250000.00	249715.41	27615232.79	58.5784	A	0.8

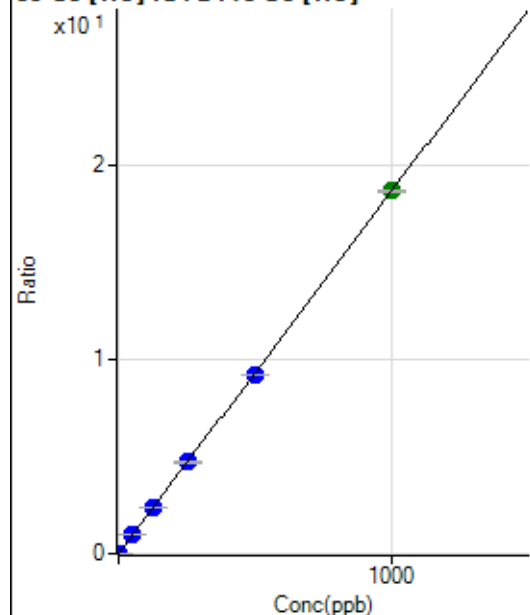
$$y = 2.3458E-004 * x + 5.6398E-004$$

$$R = 1.0000$$

$$DL = 1.747$$

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	88.89	0.0002	P	17.0
2	☐	0.100					
3	☐	1.000	1.036	9211.93	0.0195	P	0.5
4	☐	50.000	51.769	456605.75	0.9645	P	0.7
5	☐	125.000	128.676	1102681.58	2.3972	P	0.2
6	☐	250.000	252.459	2062357.09	4.7030	P	0.8
7	☐	500.000	495.096	3983098.03	9.2228	P	0.4
8	☐	1000.000	1001.289	8031156.34	18.6522	A	0.7
9	☐			56394.70	0.1196	P	0.8

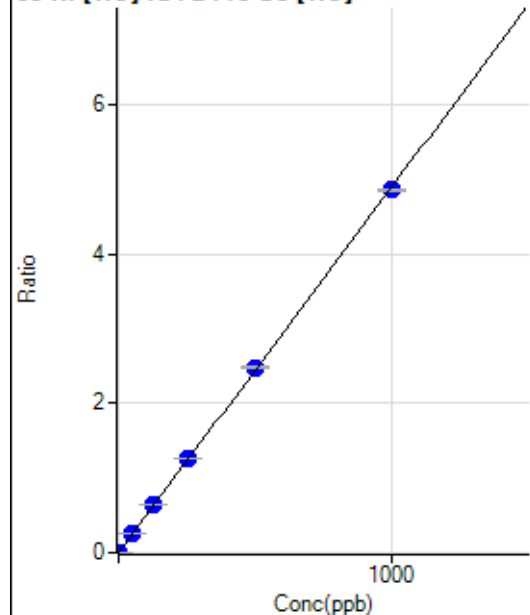
$$y = 0.0186 * x + 1.8797E-004$$

$$R = 1.0000$$

$$DL = 0.005161$$

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	203.34	0.0004	P	10.6
2	☐	0.100					
3	☐	1.000	1.160	2889.23	0.0061	P	3.5
4	☐	50.000	53.062	123189.53	0.2602	P	0.8
5	☐	125.000	132.360	298288.63	0.6485	P	0.4
6	☐	250.000	258.988	556233.35	1.2684	P	0.6
7	☐	500.000	506.880	1071958.11	2.4821	P	0.7
8	☐	1000.000	993.240	2094016.57	4.8633	P	0.3
9	☐			70651.42	0.1499	P	1.1

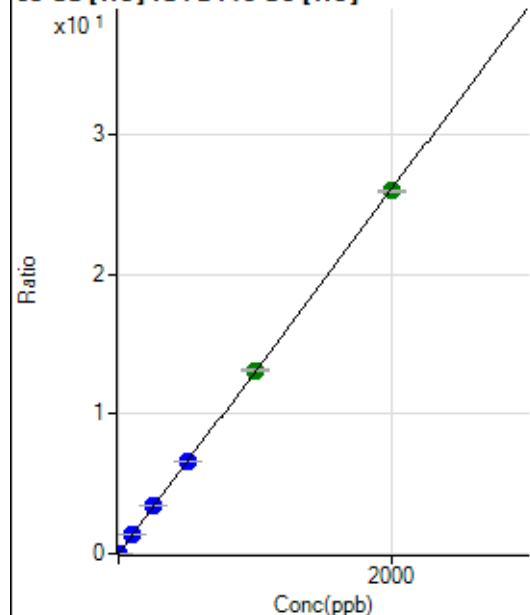
$$y = 0.0049 * x + 4.2988E-004$$

$$R = 0.9999$$

$$DL = 0.02802$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	776.70	0.0016	P	12.0
2	☐	0.200					
3	☐	2.000	2.117	13846.70	0.0293	P	0.6
4	☐	100.000	106.284	657846.34	1.3897	P	1.2
5	☐	250.000	262.001	1574710.39	3.4233	P	0.3
6	☐	500.000	510.872	2926516.83	6.6735	P	0.4
7	☐	1000.000	1007.449	5682828.32	13.1587	A	0.8
8	☐	2000.000	1991.743	11200597.47	26.0133	A	0.6
9	☐			29555.57	0.0627	P	0.7

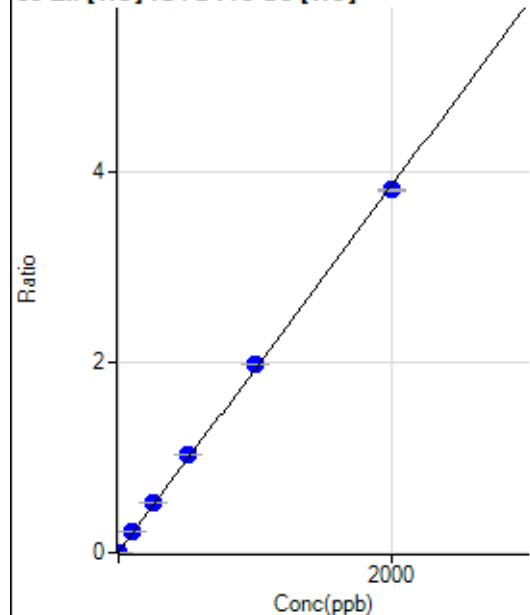
$$y = 0.0131 * x + 0.0016$$

$$R = 1.0000$$

$$DL = 0.04544$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2761.42	0.0058	P	5.7
2	☐	0.200					
3	☐	2.000	2.065	4641.92	0.0098	P	2.1
4	☐	100.000	108.251	101518.59	0.2145	P	1.6
5	☐	250.000	269.841	241903.95	0.5259	P	1.0
6	☐	500.000	528.601	449296.15	1.0246	P	0.6
7	☐	1000.000	1024.891	855557.02	1.9810	P	0.5
8	☐	2000.000	1977.511	1643459.77	3.8169	P	0.2
9	☐			18165.95	0.0385	P	0.7

$$y = 0.0019 * x + 0.0058$$

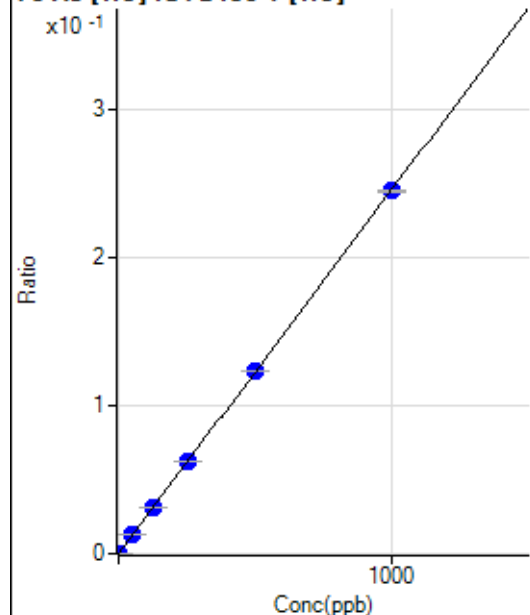
$$R = 0.9997$$

$$DL = 0.517$$

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	17.28	0.0000	P	16.3
2	☐	0.100					
3	☐	1.000	1.033	604.34	0.0003	P	4.3
4	☐	50.000	51.322	29352.43	0.0126	P	0.4
5	☐	125.000	127.994	71149.96	0.0315	P	0.3
6	☐	250.000	254.851	134200.39	0.0627	P	0.8
7	☐	500.000	501.548	261273.37	0.1234	P	0.4
8	☐	1000.000	997.573	518198.99	0.2454	P	0.5
9	☐			527.79	0.0002	P	7.5

$$y = 2.4597\text{E-}004 * x + 7.4450\text{E-}006$$

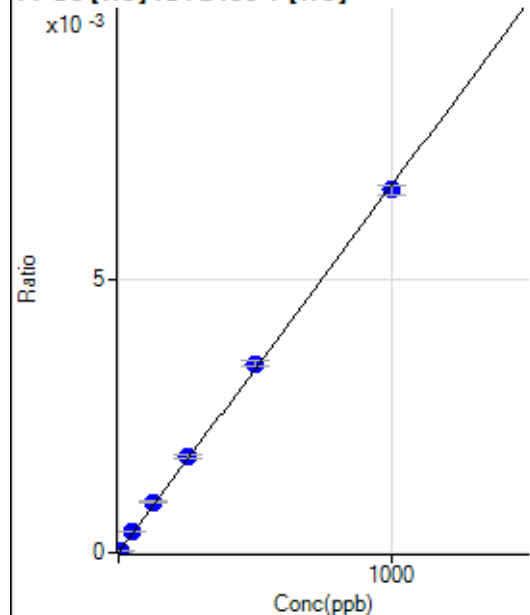
$$R = 1.0000$$

$$DL = 0.01483$$

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	11.11	0.0000	P	75.9
2	☐	0.500					
3	☐	5.000	5.943	103.34	0.0000	P	12.6
4	☐	50.000	55.266	873.37	0.0004	P	2.1
5	☐	125.000	136.563	2082.41	0.0009	P	3.0
6	☐	250.000	261.086	3762.77	0.0018	P	3.0
7	☐	500.000	514.933	7331.96	0.0035	P	2.4
8	☐	1000.000	988.049	14019.16	0.0066	P	3.0
9	☐			56.67	0.0000	P	12.6

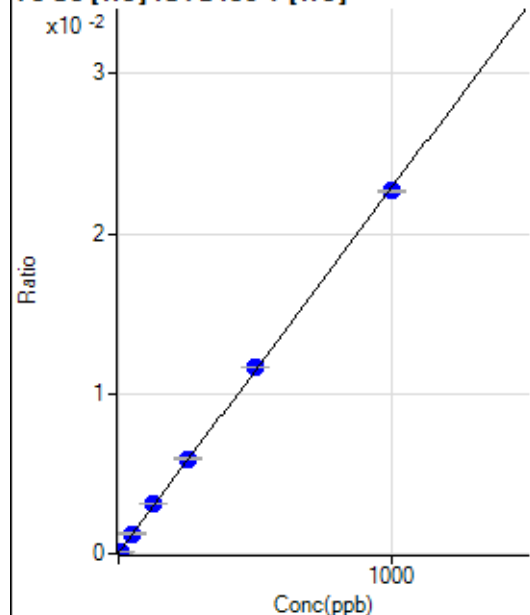
$$y = 6.7140\text{E-}006 * x + 4.8011\text{E-}006$$

$$R = 0.9997$$

$$DL = 1.629$$

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	108.03	0.0000	P	7.4
2	☐	0.500					
3	☐	5.000	4.775	359.27	0.0002	P	2.6
4	☐	50.000	52.708	2901.55	0.0012	P	2.8
5	☐	125.000	132.615	6938.75	0.0031	P	0.4
6	☐	250.000	257.905	12690.80	0.0059	P	2.0
7	☐	500.000	509.729	24718.00	0.0117	P	0.3
8	☐	1000.000	992.073	47880.51	0.0227	P	0.7
9	☐			157.41	0.0001	P	3.4

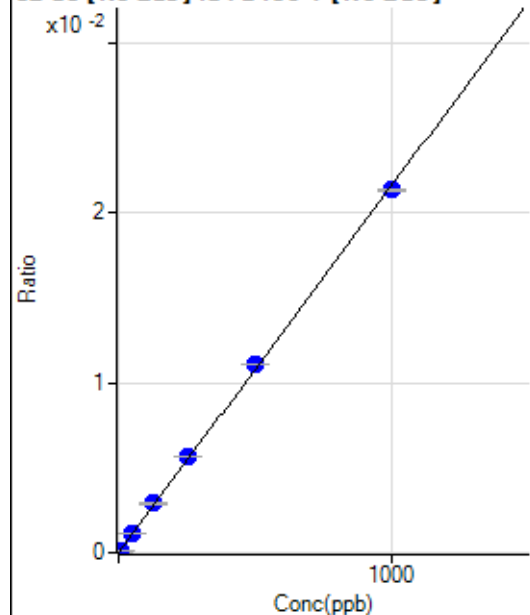
$$y = 2.2806E-005 * x + 4.6545E-005$$

$$R = 0.9999$$

$$DL = 0.4542$$

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	41.68	0.0000	P	82.3
2	☐	0.500					
3	☐	5.000	5.275	1773.64	0.0001	P	2.4
4	☐	50.000	53.646	17566.74	0.0012	P	0.6
5	☐	125.000	133.702	43183.53	0.0029	P	0.9
6	☐	250.000	262.899	81668.41	0.0057	P	0.9
7	☐	500.000	513.659	156047.72	0.0111	P	0.5
8	☐	1000.000	988.674	301797.80	0.0213	P	0.7
9	☐			235.94	0.0000	P	27.4

$$y = 2.1570E-005 * x + 2.6738E-006$$

$$R = 0.9998$$

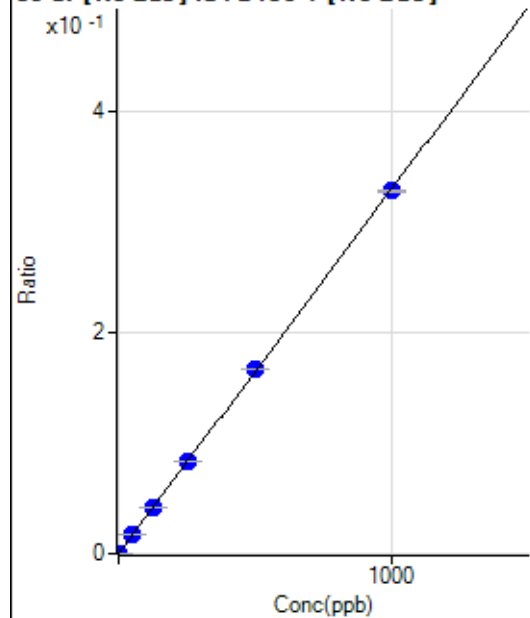
$$DL = 0.3059$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			556.69		P	2.2
2	☐						
3	☐			527.80		P	2.6
4	☐			557.80		P	10.0
5	☐			582.24		P	6.8
6	☐			547.80		P	3.0
7	☐			516.69		P	9.5
8	☐			602.24		P	0.6
9	☐			645.58		P	3.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	880.62	0.0001	P	3.5
2	☐	0.100					
3	☐	1.000	0.970	5720.83	0.0004	P	0.3
4	☐	50.000	51.361	256720.99	0.0169	P	0.3
5	☐	125.000	128.264	631967.77	0.0422	P	0.0
6	☐	250.000	254.608	1206310.97	0.0838	P	0.8
7	☐	500.000	505.717	2342921.91	0.1664	P	0.2
8	☐	1000.000	995.513	4634038.91	0.3275	P	0.4
9	☐			25072.53	0.0018	P	0.8

$$y = 3.2891\text{E-}004 * x + 5.6700\text{E-}005$$

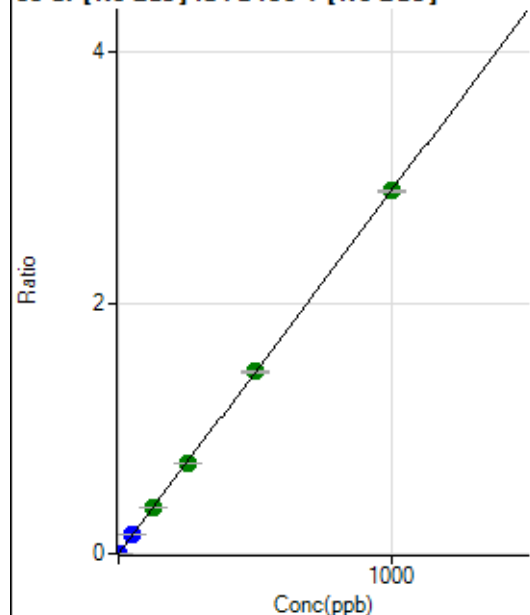
$$R = 1.0000$$

$$DL = 0.0182$$

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	194.45	0.0000	P	28.1
2	☐	0.100					
3	☐	1.000	0.999	44224.74	0.0029	P	0.6
4	☐	50.000	50.646	2220876.67	0.1466	P	0.5
5	☐	125.000	125.690	5443788.19	0.3639	A	0.1
6	☐	250.000	249.267	10388293.72	0.7217	A	0.7
7	☐	500.000	500.966	20421440.56	1.4503	A	0.5
8	☐	1000.000	999.582	40948267.93	2.8939	A	0.4
9	☐			209939.20	0.0148	P	0.4

$$y = 0.0029 * x + 1.2520E-005$$

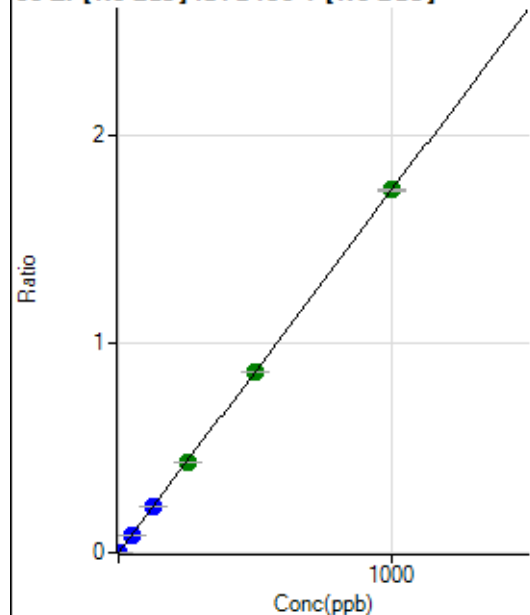
$$R = 1.0000$$

$$DL = 0.003644$$

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	1327.90	0.0001	P	2.8
2	☐	0.100					
3	☐	1.000	0.997	27671.85	0.0018	P	0.5
4	☐	50.000	49.722	1308964.59	0.0864	P	0.6
5	☐	125.000	125.139	3252055.56	0.2174	P	0.5
6	☐	250.000	249.424	6236041.15	0.4332	A	0.4
7	☐	500.000	497.920	12175622.67	0.8647	A	0.2
8	☐	1000.000	1001.181	24601274.86	1.7386	A	0.4
9	☐			14407.78	0.0010	P	2.5

$$y = 0.0017 * x + 8.5484E-005$$

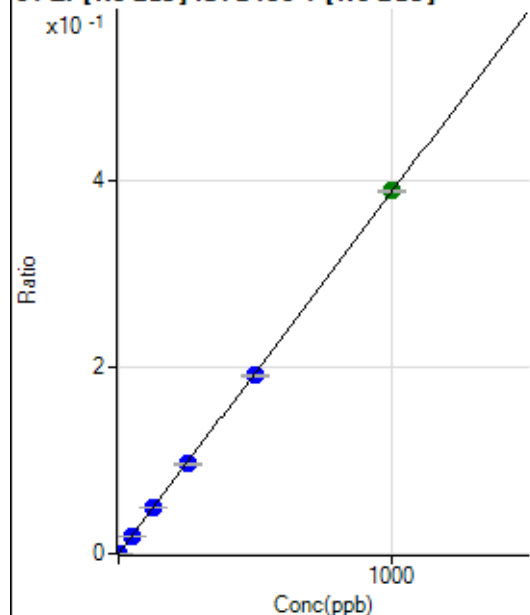
$$R = 1.0000$$

$$DL = 0.004131$$

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	241.68	0.0000	P	13.9
2	☐	0.100					
3	☐	1.000	1.010	6198.82	0.0004	P	0.8
4	☐	50.000	49.901	292996.94	0.0193	P	0.8
5	☐	125.000	125.729	728817.40	0.0487	P	0.2
6	☐	250.000	248.149	1383936.66	0.0961	P	0.8
7	☐	500.000	493.862	2693929.66	0.1913	P	0.8
8	☐	1000.000	1003.446	5500338.53	0.3887	A	0.5
9	☐			3225.51	0.0002	P	2.1

$$y = 3.8736E-004 * x + 1.5559E-005$$

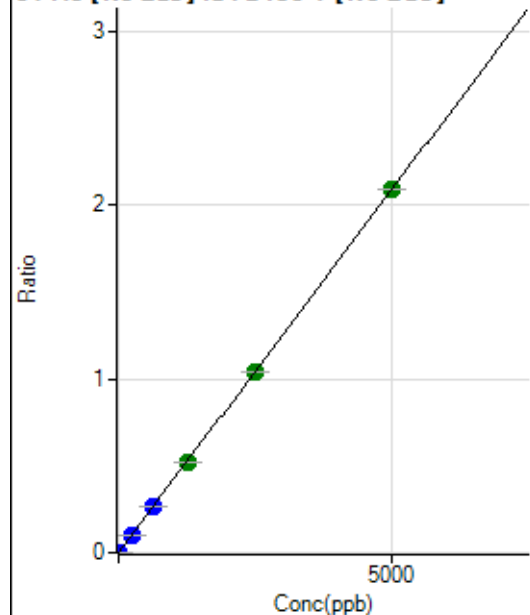
$$R = 1.0000$$

$$DL = 0.01677$$

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	438.91	0.0000	P	17.3
2	☐	0.500					
3	☐	5.000	4.878	31482.92	0.0021	P	1.6
4	☐	250.000	249.972	1582714.91	0.1045	P	0.4
5	☐	625.000	624.610	3905590.71	0.2611	P	0.5
6	☐	1250.000	1251.569	7530060.50	0.5231	A	0.5
7	☐	2500.000	2498.218	14701770.12	1.0441	A	0.3
8	☐	5000.000	5000.549	29572401.01	2.0899	A	0.1
9	☐			37739.62	0.0027	P	1.7

$$y = 4.1793E-004 * x + 2.8280E-005$$

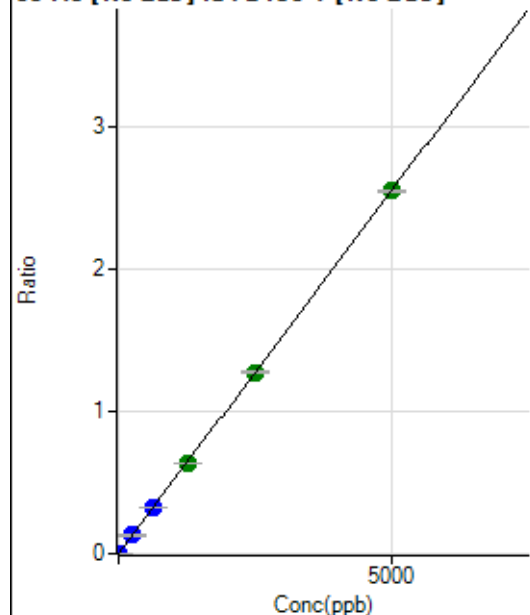
$$R = 1.0000$$

$$DL = 0.03502$$

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	77.78	0.0000	P	45.1
2	☐	0.500					
3	☐	5.000	4.895	38179.80	0.0025	P	1.0
4	☐	250.000	252.560	1954963.11	0.1291	P	0.8
5	☐	625.000	625.571	4782832.09	0.3197	P	0.4
6	☐	1250.000	1251.353	9206242.22	0.6395	A	0.3
7	☐	2500.000	2500.271	17992061.69	1.2778	A	0.4
8	☐	5000.000	4999.327	36153144.21	2.5550	A	0.3
9	☐			55656.46	0.0039	P	2.5

$$y = 5.1106\text{E-}004 * x + 5.0156\text{E-}006$$

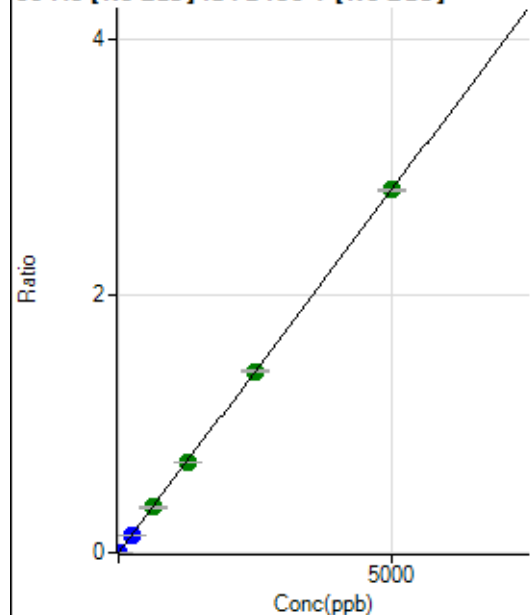
$$R = 1.0000$$

$$DL = 0.01328$$

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	186.12	0.0000	P	29.8
2	☐	0.500					
3	☐	5.000	4.915	42450.18	0.0028	P	0.9
4	☐	250.000	250.463	2142278.65	0.1414	P	0.7
5	☐	625.000	624.073	5272160.75	0.3524	A	0.7
6	☐	1250.000	1249.669	10158547.10	0.7057	A	0.4
7	☐	2500.000	2500.085	19878656.17	1.4118	A	0.4
8	☐	5000.000	5000.133	39953361.66	2.8235	A	0.3
9	☐			71509.85	0.0050	P	2.1

$$y = 5.6469\text{E-}004 * x + 1.1977\text{E-}005$$

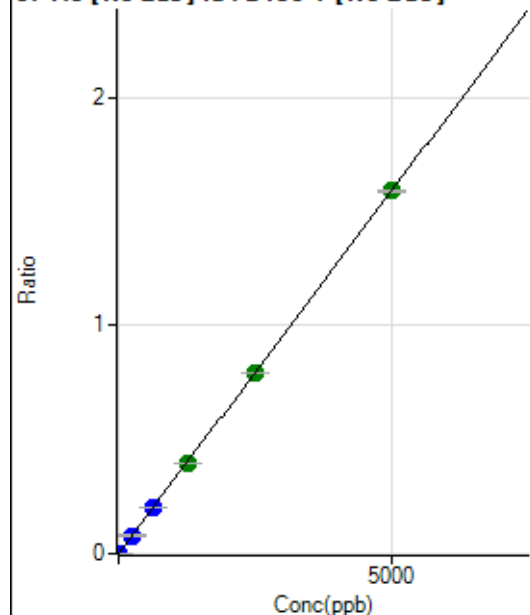
$$R = 1.0000$$

$$DL = 0.01893$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.22	0.0000	P	62.3
2	☐	0.500					
3	☐	5.000	5.000	24246.51	0.0016	P	2.7
4	☐	250.000	250.715	1206651.14	0.0797	P	1.0
5	☐	625.000	625.365	2972823.76	0.1987	P	0.6
6	☐	1250.000	1248.323	5710189.36	0.3967	A	0.6
7	☐	2500.000	2498.493	11178934.80	0.7939	A	0.3
8	☐	5000.000	5001.091	22486839.91	1.5892	A	0.4
9	☐			34640.20	0.0024	P	2.8

$$y = 3.1776\text{E-}004 * x + 3.0490\text{E-}006$$

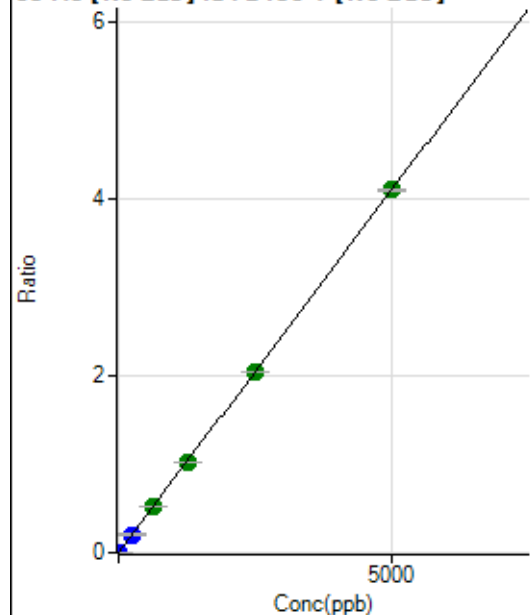
$$R = 1.0000$$

$$DL = 0.01794$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.00	0.0000	P	28.6
2	☐	0.500					
3	☐	5.000	4.891	61257.42	0.0040	P	1.2
4	☐	250.000	251.756	3130561.05	0.2067	P	0.4
5	☐	625.000	625.294	7679958.24	0.5134	A	0.1
6	☐	1250.000	1245.020	14714210.40	1.0222	A	0.5
7	☐	2500.000	2495.767	28851548.21	2.0490	A	0.4
8	☐	5000.000	5003.237	58123829.08	4.1076	A	0.5
9	☐			88051.99	0.0062	P	1.0

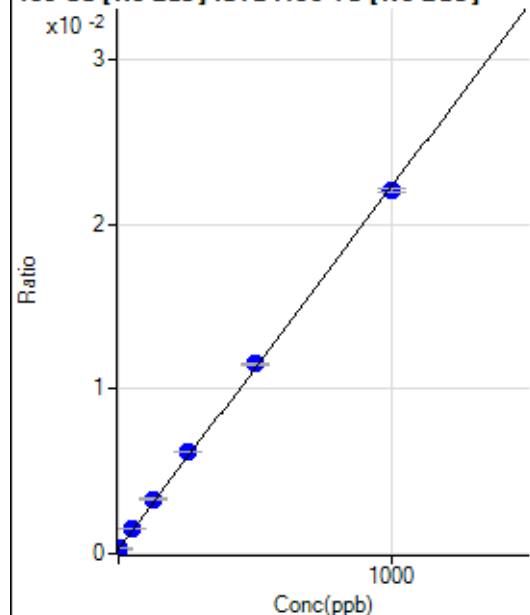
$$y = 8.2100\text{E-}004 * x + 6.4339\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.006727$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5676.36	0.0003	P	7.9
2	☐	0.100					
3	☐	1.000	1.829	6362.79	0.0003	P	3.2
4	☐	50.000	56.608	30703.83	0.0015	P	2.3
5	☐	125.000	138.326	66897.28	0.0033	P	0.8
6	☐	250.000	266.546	121966.73	0.0062	P	0.3
7	☐	500.000	511.045	226869.91	0.0115	P	1.0
8	☐	1000.000	988.344	436023.88	0.0221	P	1.0
9	☐			6034.88	0.0003	P	5.4

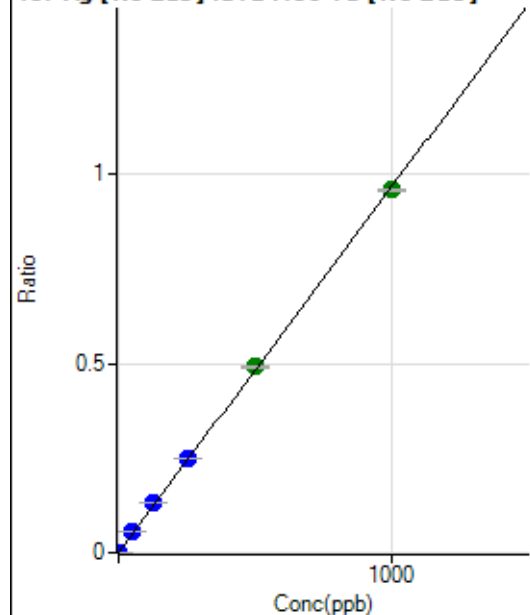
$$y = 2.2042\text{E-}005 * x + 2.7548\text{E-}004$$

$$R = 0.9997$$

$$DL = 2.962$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	105.56	0.0000	P	35.7
2	☐	0.100					
3	☐	1.000	1.081	21175.00	0.0011	P	1.2
4	☐	50.000	55.491	1081741.08	0.0537	P	0.9
5	☐	125.000	136.094	2648443.96	0.1316	P	1.0
6	☐	250.000	258.008	4947860.49	0.2495	P	0.3
7	☐	500.000	507.966	9657622.35	0.4912	A	0.6
8	☐	1000.000	992.354	18968083.06	0.9597	A	0.5
9	☐			2917.11	0.0002	P	12.7

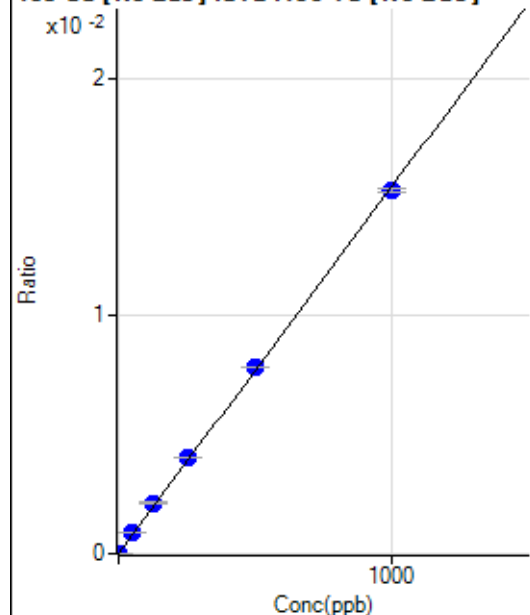
$$y = 9.6708\text{E-}004 * x + 5.1251\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.005672$$

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	33.33	0.0000	P	12.7
2	☐	0.100					
3	☐	1.000	1.026	351.40	0.0000	P	1.5
4	☐	50.000	55.226	17202.36	0.0009	P	0.1
5	☐	125.000	138.011	42871.90	0.0021	P	1.5
6	☐	250.000	264.163	80833.11	0.0041	P	0.5
7	☐	500.000	510.021	154694.76	0.0079	P	0.4
8	☐	1000.000	989.561	301721.24	0.0153	P	0.9
9	☐			187.51	0.0000	P	17.6

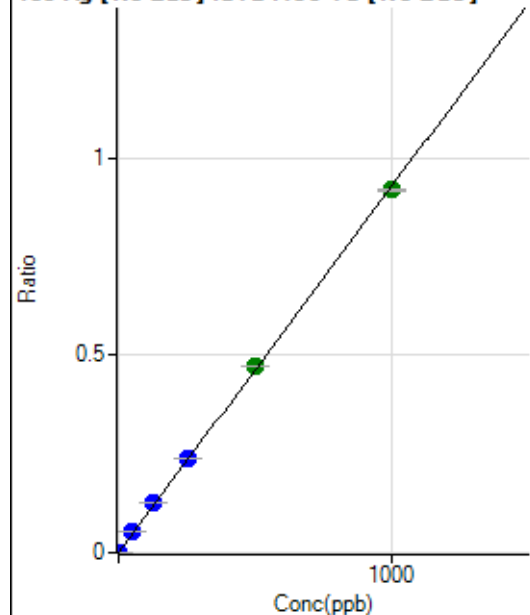
$$y = 1.5425\text{E-}005 * x + 1.6180\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.03983$$

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	72.23	0.0000	P	69.8
2	☐	0.100					
3	☐	1.000	1.098	20576.81	0.0010	P	2.3
4	☐	50.000	55.592	1038785.95	0.0515	P	0.8
5	☐	125.000	135.488	2527534.71	0.1256	P	0.4
6	☐	250.000	258.665	4755158.05	0.2398	P	0.9
7	☐	500.000	510.280	9300033.89	0.4731	A	0.6
8	☐	1000.000	991.103	18160066.38	0.9188	A	0.6
9	☐			2714.28	0.0001	P	9.2

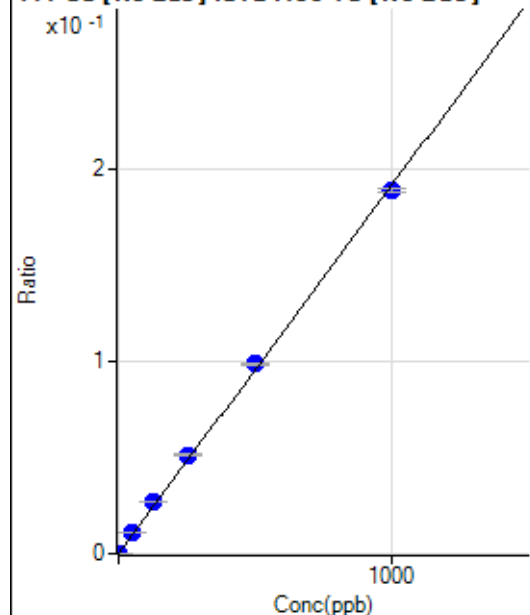
$$y = 9.2705\text{E-}004 * x + 3.5099\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.007924$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1134.16	0.0001	P	7.7
2	☐	0.100					
3	☐	1.000	1.066	5228.68	0.0003	P	1.5
4	☐	50.000	56.321	218757.35	0.0109	P	0.6
5	☐	125.000	138.824	536707.67	0.0267	P	0.4
6	☐	250.000	268.787	1023012.94	0.0516	P	1.0
7	☐	500.000	514.872	1941797.07	0.0988	P	0.9
8	☐	1000.000	985.823	3736897.22	0.1891	P	1.1
9	☐			2096.62	0.0001	P	2.1

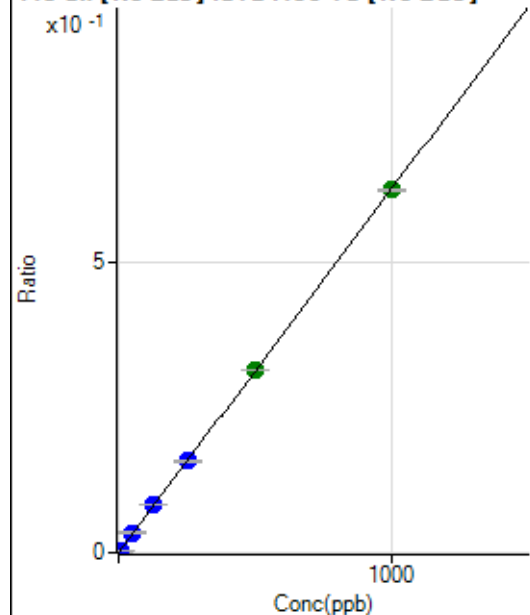
$$y = 1.9173\text{E-}004 * x + 5.5042\text{E-}005$$

$$R = 0.9996$$

$$DL = 0.06608$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	875.07	0.0000	P	11.2
2	☐	0.500					
3	☐	5.000	5.037	64345.15	0.0032	P	1.3
4	☐	50.000	55.287	697857.77	0.0346	P	0.8
5	☐	125.000	129.933	1636251.16	0.0813	P	0.6
6	☐	250.000	251.496	3120254.61	0.1574	P	0.5
7	☐	500.000	502.105	6175173.49	0.3141	A	0.4
8	☐	1000.000	997.692	12335203.83	0.6241	A	0.2
9	☐			15951.34	0.0008	P	2.6

$$y = 6.2550\text{E-}004 * x + 4.2478\text{E-}005$$

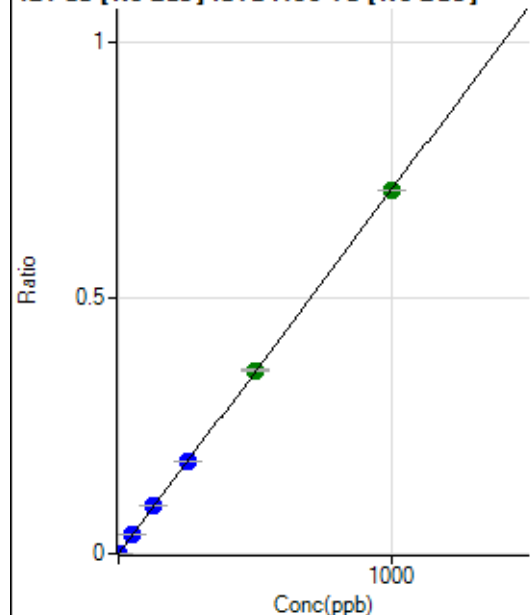
$$R = 1.0000$$

$$DL = 0.02283$$

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	91.67	0.0000	P	17.9
2	☐	0.200					
3	☐	2.000	1.996	28666.34	0.0014	P	0.6
4	☐	50.000	52.592	753086.12	0.0374	P	0.1
5	☐	125.000	130.284	1862366.64	0.0926	P	1.0
6	☐	250.000	252.693	3559609.11	0.1795	P	0.8
7	☐	500.000	503.529	7032031.49	0.3577	A	0.5
8	☐	1000.000	996.772	13995140.07	0.7081	A	0.2
9	☐			20510.15	0.0011	P	1.5

$$y = 7.1037\text{E-}004 * x + 4.4478\text{E-}006$$

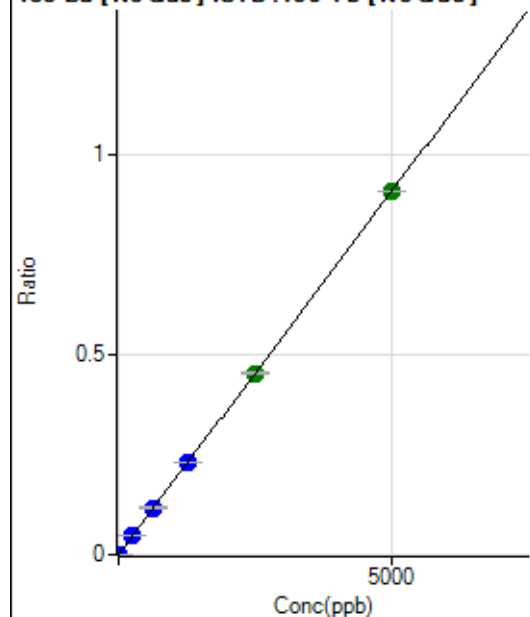
$$R = 1.0000$$

$$DL = 0.003366$$

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	33.3
2	☐	1.000					
3	☐	10.000	9.856	36212.14	0.0018	P	2.5
4	☐	250.000	261.310	958411.26	0.0476	P	0.4
5	☐	625.000	645.726	2364325.73	0.1175	P	1.0
6	☐	1250.000	1261.938	4553376.58	0.2296	P	0.2
7	☐	2500.000	2495.604	8927329.19	0.4541	A	0.8
8	☐	5000.000	4996.058	17967981.65	0.9091	A	0.0
9	☐			5073.37	0.0003	P	3.1

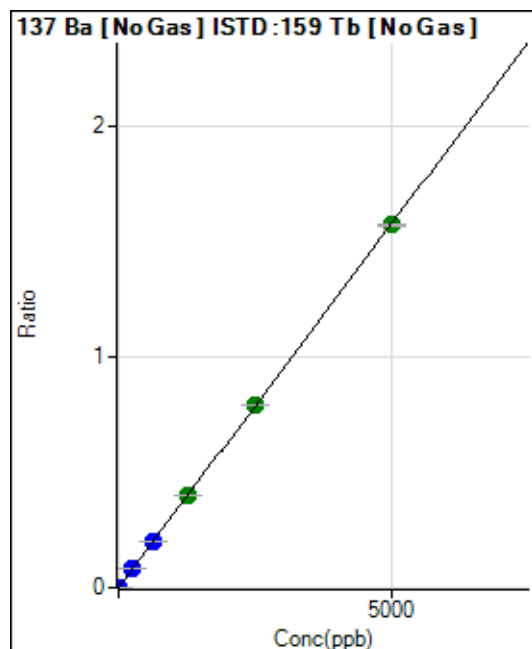
$$y = 1.8196\text{E-}004 * x + 3.2376\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.01776$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	66.67	0.0000	P	21.9
2	☐	1.000					
3	☐	10.000	10.004	63590.57	0.0032	P	1.3
4	☐	250.000	261.513	1660882.21	0.0824	P	0.2
5	☐	625.000	643.688	4081301.22	0.2028	P	0.5
6	☐	1250.000	1267.859	7921802.17	0.3995	A	0.4
7	☐	2500.000	2509.994	15548123.44	0.7909	A	0.6
8	☐	5000.000	4987.626	31061559.72	1.5716	A	0.5
9	☐			8978.26	0.0005	P	0.7

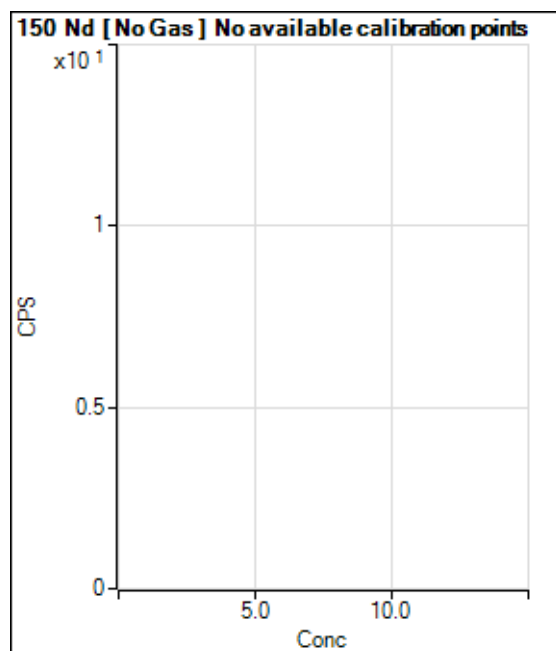
$$y = 3.1509\text{E-}004 * x + 3.2371\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.006753$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			24.45		P	68.6
2	☐						
3	☐			4.45		P	86.6
4	☐			95.56		P	46.5
5	☐			204.45		P	5.0
6	☐			366.68		P	13.1
7	☐			644.48		P	1.6
8	☐			1151.20		P	5.6
9	☐			346.68		P	18.3

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			14.45		P	74.2
2	☐						
3	☐			2.22		P	86.6
4	☐			23.33		P	42.9
5	☐			42.22		P	19.9
6	☐			80.00		P	12.5
7	☐			118.89		P	23.5
8	☐			124.45		P	10.8
9	☐			180.00		P	16.1

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	NaN
2	☐						
3	☐			11.11		P	114.
4	☐			47.23		P	20.4
5	☐			72.23		P	17.6
6	☐			116.67		P	0.0
7	☐			116.67		P	37.8
8	☐			277.79		P	6.2
9	☐			180.56		P	44.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.56		P	49.5
2	☐						
3	☐			5.56		P	91.6
4	☐			38.89		P	27.5
5	☐			75.56		P	31.9
6	☐			92.22		P	4.2
7	☐			164.45		P	17.0
8	☐			223.34		P	11.7
9	☐			115.56		P	15.9

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			166.68		P	13.2
2	☐						
3	☐			119.45		P	26.4
4	☐			144.45		P	41.7
5	☐			175.01		P	16.5
6	☐			138.90		P	12.5
7	☐			147.23		P	23.6
8	☐			147.23		P	28.5
9	☐			263.90		P	12.0

160 Gd [He] No available calibration points

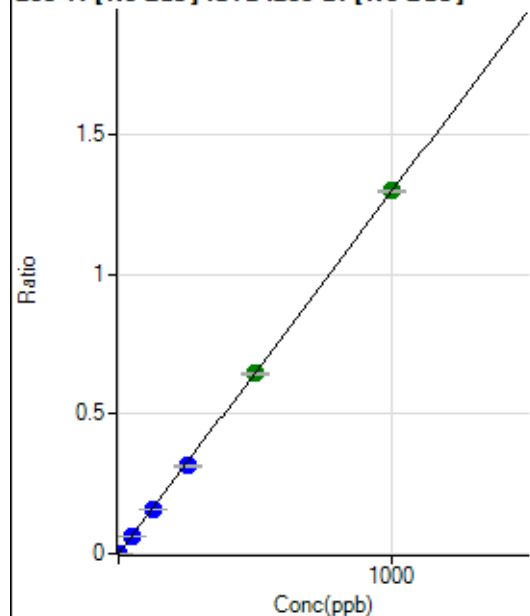
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			261.12		P	26.2
2	☐						
3	☐			240.01		P	6.4
4	☐			254.45		P	9.7
5	☐			253.34		P	3.9
6	☐			252.23		P	7.6
7	☐			305.56		P	11.7
8	☐			283.34		P	18.3
9	☐			317.79		P	4.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			69.45		P	18.3
2	☐						
3	☐			83.34		P	17.3
4	☐			75.00		P	29.4
5	☐			77.78		P	6.2
6	☐			122.23		P	20.8
7	☐			77.78		P	16.4
8	☐			111.12		P	41.3
9	☐			177.79		P	23.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			43.33		P	23.1
2	☐						
3	☐			35.56		P	5.4
4	☐			38.89		P	4.9
5	☐			61.11		P	24.6
6	☐			72.22		P	18.7
7	☐			70.00		P	36.0
8	☐			64.45		P	24.4
9	☐			95.56		P	4.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	230.57	0.0000	P	30.3
2	☐	0.100					
3	☐	1.000	0.926	16602.56	0.0012	P	0.6
4	☐	50.000	48.583	858786.16	0.0630	P	0.1
5	☐	125.000	122.965	2140326.35	0.1594	P	0.4
6	☐	250.000	242.517	4140140.11	0.3144	P	0.9
7	☐	500.000	498.622	8351243.33	0.6465	A	1.0
8	☐	1000.000	1002.885	16472733.01	1.3002	A	0.7
9	☐			6107.25	0.0006	P	0.6

$$y = 0.0013 * x + 1.6421E-005$$

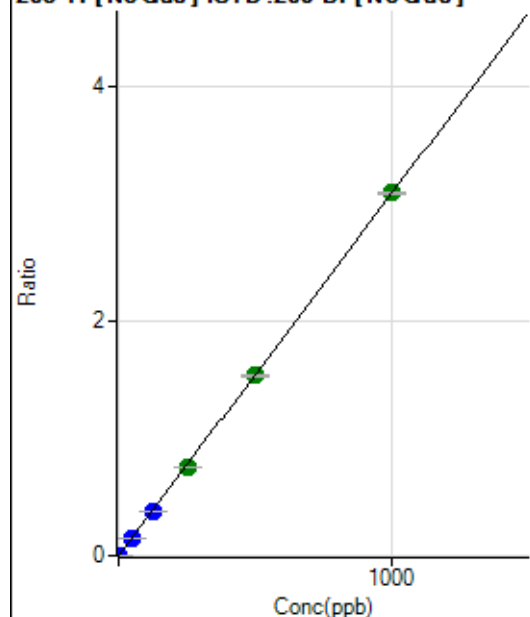
$$R = 1.0000$$

$$DL = 0.01152$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	547.26	0.0000	P	5.7
2	☐	0.100					
3	☐	1.000	0.952	40526.52	0.0030	P	1.5
4	☐	50.000	48.976	2055232.45	0.1508	P	0.3
5	☐	125.000	122.660	5068332.97	0.3776	P	1.4
6	☐	250.000	245.390	9944803.70	0.7553	A	0.5
7	☐	500.000	497.235	19770385.86	1.5304	A	0.8
8	☐	1000.000	1002.879	39104967.54	3.0866	A	0.6
9	☐			14502.99	0.0013	P	5.5

$$y = 0.0031 * x + 3.9006E-005$$

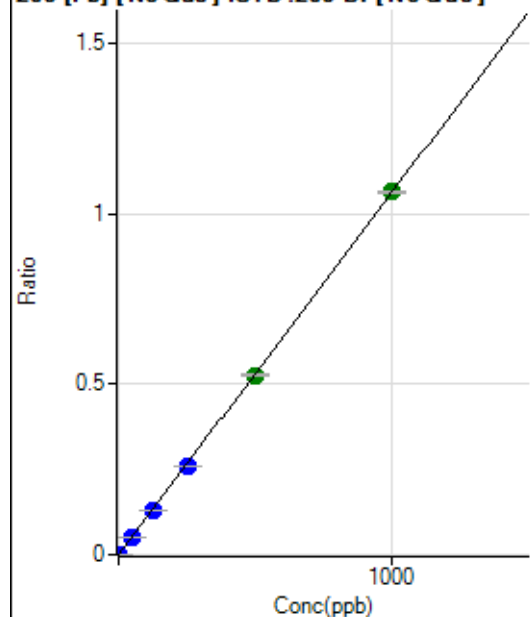
$$R = 1.0000$$

$$DL = 0.002164$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	379.65	0.0000	P	11.3
2	☐	0.100					
3	☐	1.000	0.940	13974.35	0.0010	P	2.0
4	☐	50.000	48.994	708473.81	0.0520	P	0.5
5	☐	125.000	123.457	1757583.69	0.1309	P	1.0
6	☐	250.000	244.417	3412586.30	0.2592	P	0.4
7	☐	500.000	496.852	6805903.62	0.5268	A	0.4
8	☐	1000.000	1003.213	13476460.72	1.0637	A	0.7
9	☐			20199.09	0.0018	P	0.7

$$y = 0.0011 * x + 2.7054E-005$$

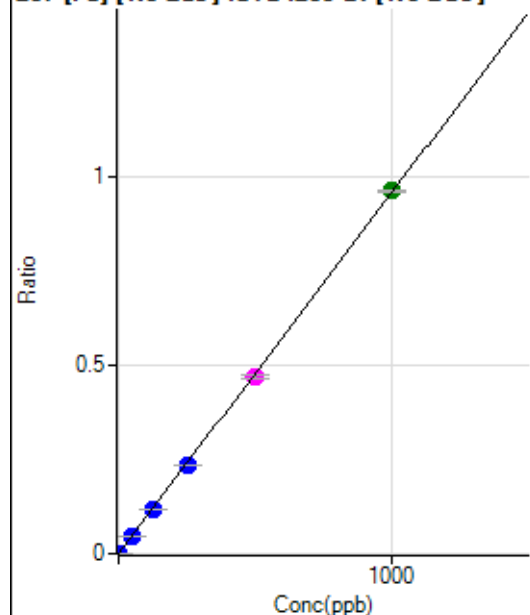
$$R = 1.0000$$

$$DL = 0.008628$$

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	300.01	0.0000	P	15.6
2	☐	0.100					
3	☐	1.000	0.957	12761.98	0.0009	P	2.6
4	☐	50.000	48.968	638050.03	0.0468	P	0.2
5	☐	125.000	124.191	1593193.80	0.1187	P	0.8
6	☐	250.000	245.682	3091006.90	0.2348	P	0.9
7	☐	500.000	491.330	6064693.31	0.4695	M	2.2
8	☐	1000.000	1005.567	12172441.71	0.9608	A	0.6
9	☐			17558.26	0.0016	P	2.3

$$y = 9.5545\text{E-}004 * x + 2.1395\text{E-}005$$

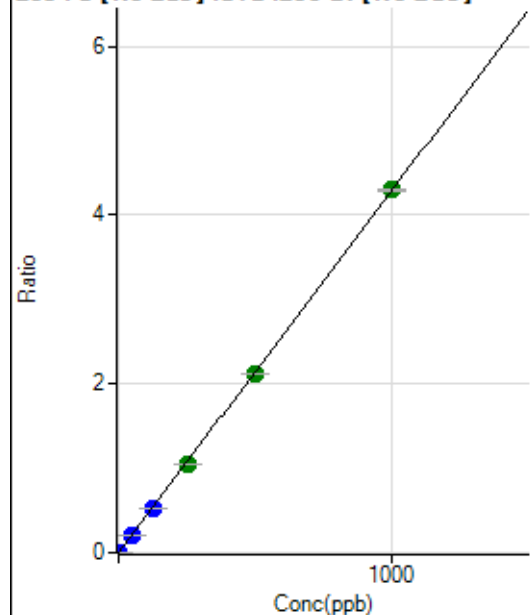
$$R = 0.9999$$

$$DL = 0.01045$$

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	1379.70	0.0001	P	3.7
2	☐	0.100					
3	☐	1.000	0.953	57028.80	0.0042	P	0.5
4	☐	50.000	49.124	2869289.13	0.2105	P	0.1
5	☐	125.000	123.898	7124989.03	0.5307	P	0.5
6	☐	250.000	246.095	13879489.61	1.0541	A	0.2
7	☐	500.000	495.652	27425498.76	2.1230	A	0.6
8	☐	1000.000	1003.332	54443924.83	4.2973	A	0.6
9	☐			80439.22	0.0073	P	0.5

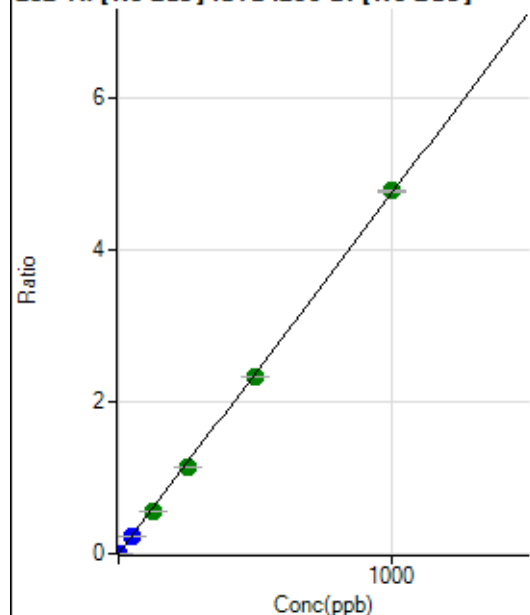
$$y = 0.0043 * x + 9.8358\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.002528$$

Weight: <None>

Min Conc: 0

²³²Th [No Gas] ISTD :²⁰⁹Bi [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	248.16	0.0000	P	5.1
2	☐	0.100					
3	☐	1.000	0.909	58997.75	0.0043	P	0.9
4	☐	50.000	46.923	3029767.69	0.2223	P	0.4
5	☐	125.000	118.727	7549372.51	0.5624	A	0.6
6	☐	250.000	241.122	15037851.96	1.1421	A	0.5
7	☐	500.000	491.633	30082694.19	2.3286	A	0.7
8	☐	1000.000	1007.341	60447344.41	4.7713	A	0.6
9	☐			12419.17	0.0011	P	5.7

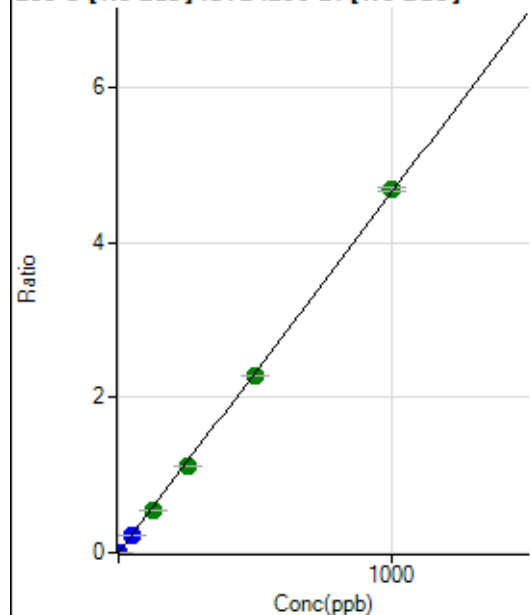
$$y = 0.0047 * x + 1.7693E-005$$

$$R = 0.9999$$

$$DL = 0.0005673$$

Weight: <None>

Min Conc: 0

²³⁸U [No Gas] ISTD :²⁰⁹Bi [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152.78	0.0000	P	32.4
2	☐	0.100					
3	☐	1.000	0.923	58755.62	0.0043	P	0.8
4	☐	50.000	47.163	2991802.17	0.2195	P	0.3
5	☐	125.000	118.324	7391823.00	0.5506	A	0.6
6	☐	250.000	240.505	14736377.41	1.1192	A	0.4
7	☐	500.000	492.125	29584844.76	2.2901	A	0.5
8	☐	1000.000	1007.288	59384654.11	4.6874	A	0.9
9	☐			12033.85	0.0011	P	2.4

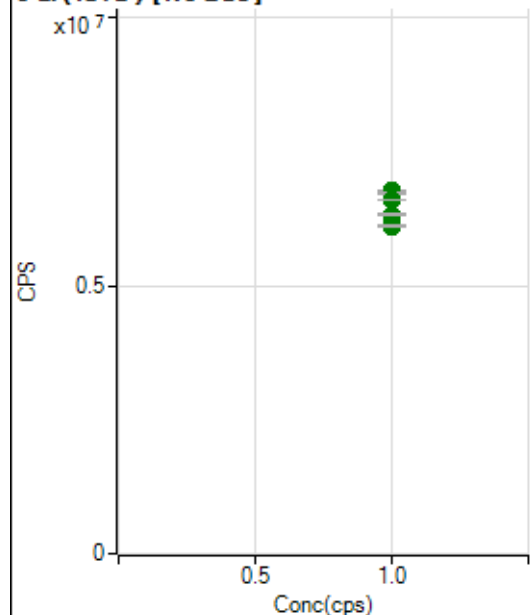
$$y = 0.0047 * x + 1.0901E-005$$

$$R = 0.9999$$

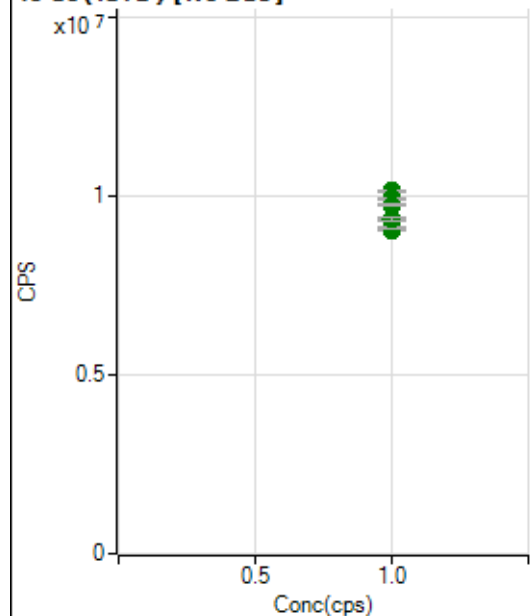
$$DL = 0.002279$$

Weight: <None>

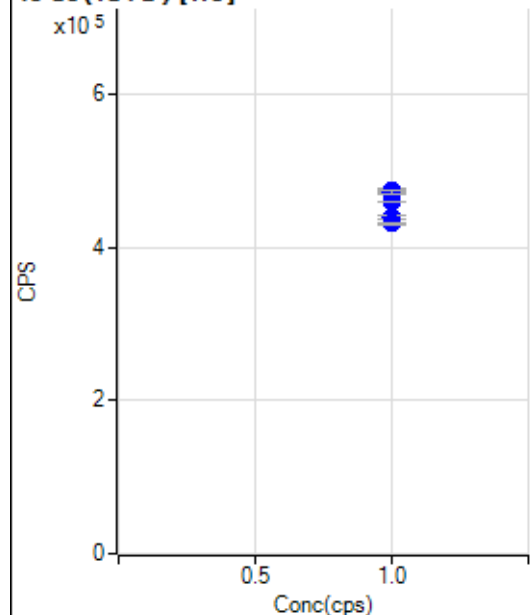
Min Conc: 0

6 Li (ISTD) [No Gas]

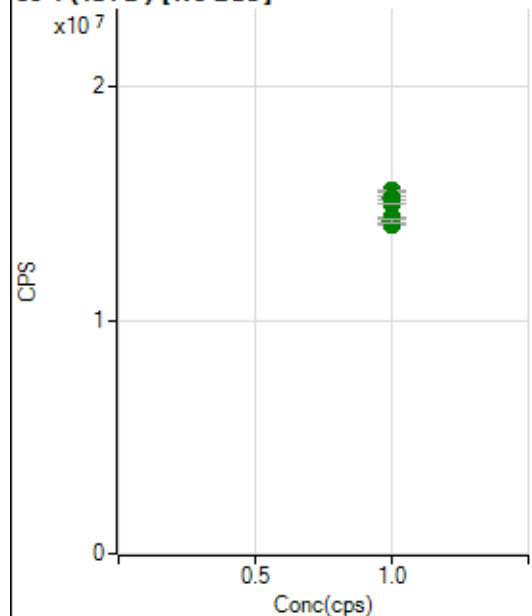
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6765240.25		A	0.6
2	☐	1.000					
3	☐	1.000		6729199.28		A	0.6
4	☐	1.000		6728892.75		A	0.2
5	☐	1.000		6601213.65		A	0.1
6	☐	1.000		6325336.36		A	0.3
7	☐	1.000		6136569.07		A	0.0
8	☐	1.000		6098863.45		A	0.4
9	☐	1.000		6105134.21		A	0.8

45 Sc (ISTD) [No Gas]

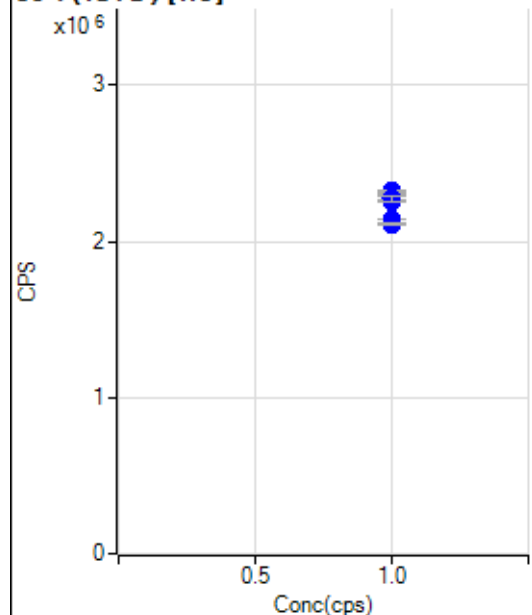
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10153413.86		A	0.4
2	☐	1.000					
3	☐	1.000		9955044.32		A	0.1
4	☐	1.000		9920460.64		A	0.7
5	☐	1.000		9764586.59		A	0.3
6	☐	1.000		9326266.96		A	0.8
7	☐	1.000		9038752.11		A	0.4
8	☐	1.000		9111249.08		A	0.3
9	☐	1.000		9361374.52		A	1.3

45 Sc (ISTD) [He]

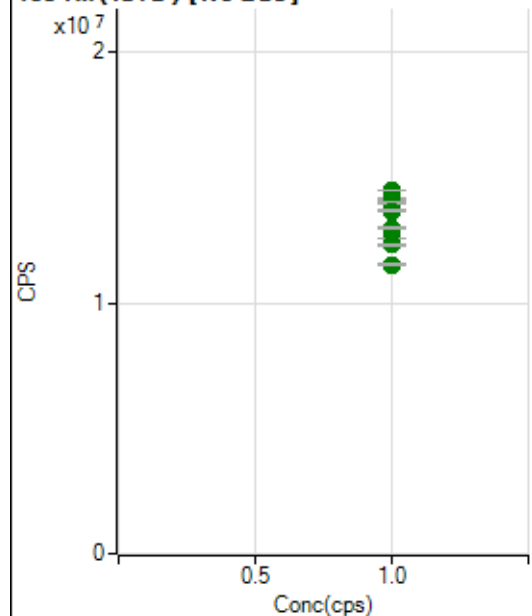
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		472968.37		P	0.2
2	☐	1.000					
3	☐	1.000		472817.86		P	0.4
4	☐	1.000		473411.95		P	1.0
5	☐	1.000		459996.65		P	0.1
6	☐	1.000		438537.97		P	0.9
7	☐	1.000		431872.74		P	0.3
8	☐	1.000		430572.73		P	0.4
9	☐	1.000		471412.02		P	0.9

89 Y (ISTD) [No Gas]

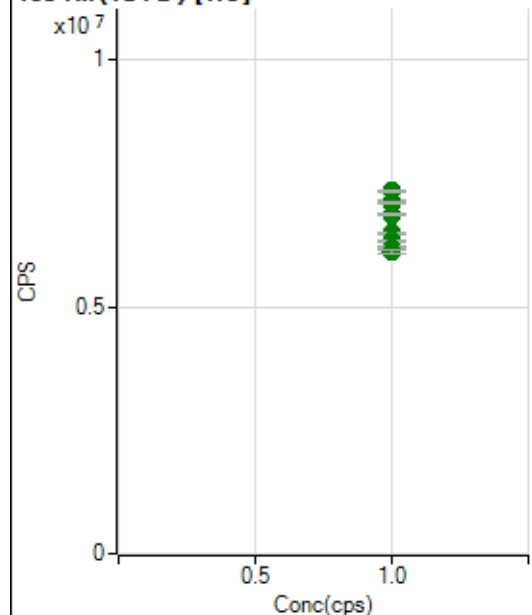
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15533698.52		A	0.8
2	☐	1.000					
3	☐	1.000		15230478.39		A	1.0
4	☐	1.000		15145776.16		A	0.4
5	☐	1.000		14959871.58		A	0.1
6	☐	1.000		14395482.84		A	0.7
7	☐	1.000		14080625.62		A	0.4
8	☐	1.000		14150095.76		A	0.2
9	☐	1.000		14213888.54		A	1.2

89 Y (ISTD) [He]

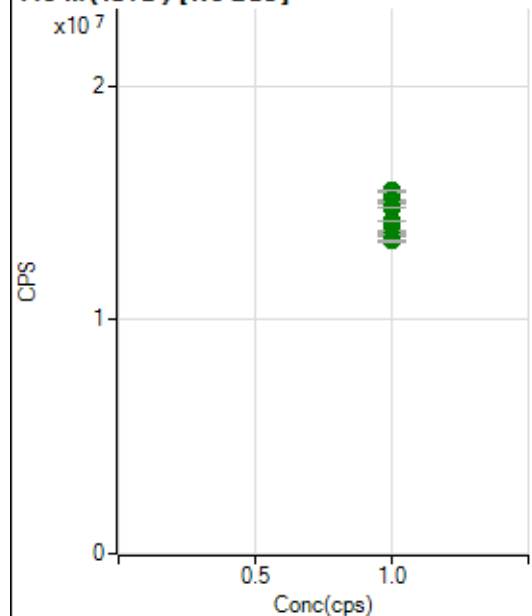
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2321292.36		P	0.6
2	☐	1.000					
3	☐	1.000		2311210.99		P	0.3
4	☐	1.000		2323864.39		P	0.6
5	☐	1.000		2259458.94		P	0.5
6	☐	1.000		2140646.15		P	0.2
7	☐	1.000		2117789.29		P	0.2
8	☐	1.000		2111873.02		P	0.2
9	☐	1.000		2273902.26		P	2.0

103 Rh (ISTD) [No Gas]

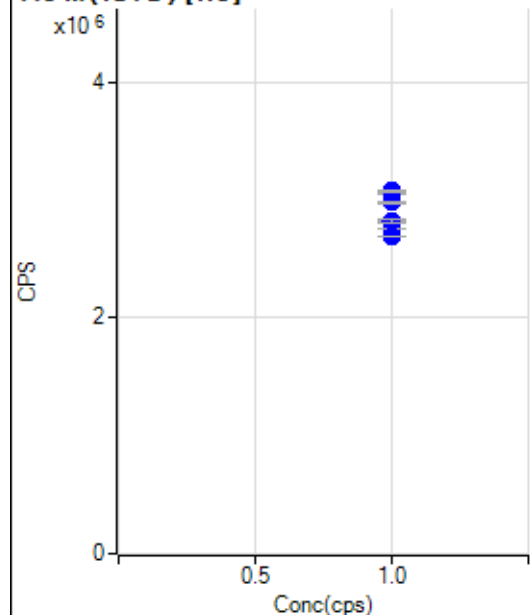
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14460538.17		A	0.1
2	☐	1.000					
3	☐	1.000		14136021.67		A	0.6
4	☐	1.000		13992038.85		A	0.5
5	☐	1.000		13677062.46		A	0.2
6	☐	1.000		12986985.97		A	0.7
7	☐	1.000		12558855.32		A	0.4
8	☐	1.000		12325661.99		A	0.5
9	☐	1.000		11530986.02		A	1.0

103 Rh (ISTD) [He]

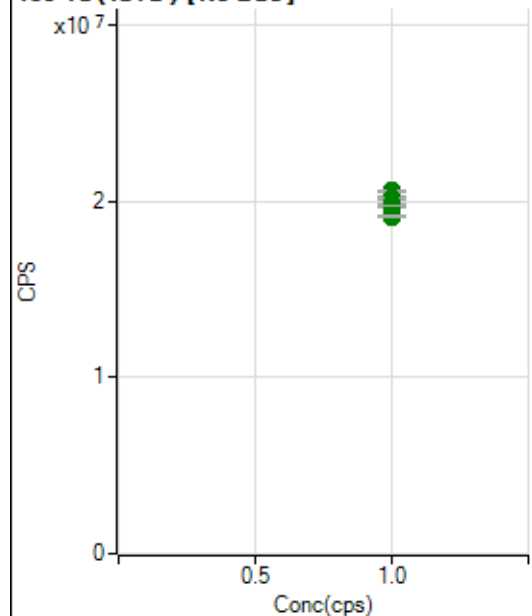
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		7346012.18		A	0.5
2	☐	1.000					
3	☐	1.000		7135320.73		A	0.7
4	☐	1.000		7098630.73		A	0.5
5	☐	1.000		6867498.02		A	0.5
6	☐	1.000		6484491.85		A	0.3
7	☐	1.000		6330278.72		A	0.5
8	☐	1.000		6209067.13		A	0.5
9	☐	1.000		6110480.53		A	1.3

115 In (ISTD) [No Gas]

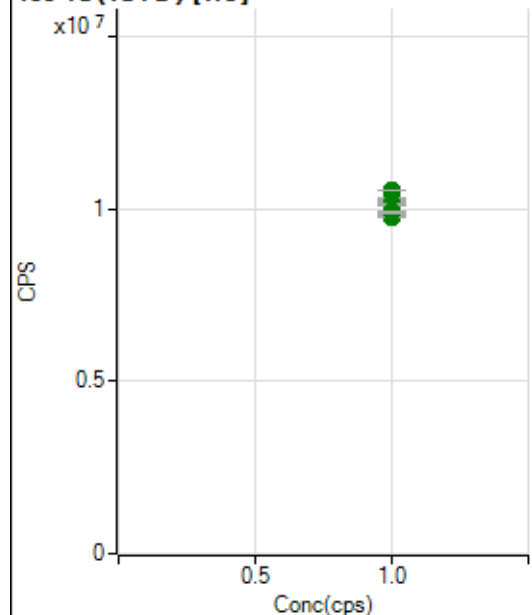
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		15525808.35		A	0.5
2	☐	1.000					
3	☐	1.000		15113986.34		A	0.8
4	☐	1.000		15032757.75		A	0.4
5	☐	1.000		14795515.44		A	0.2
6	☐	1.000		14214432.38		A	0.2
7	☐	1.000		13785093.34		A	0.7
8	☐	1.000		13610104.39		A	0.2
9	☐	1.000		13394664.96		A	0.9

115 In (ISTD) [He]

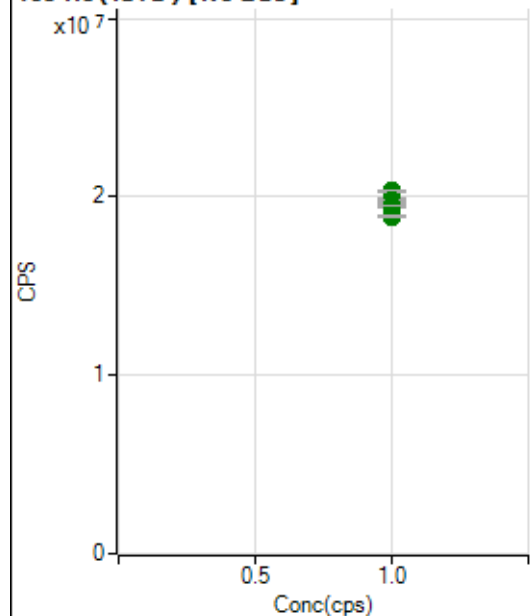
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3067232.83		P	0.4
2	☐	1.000					
3	☐	1.000		3051784.10		P	0.5
4	☐	1.000		3077461.67		P	0.3
5	☐	1.000		2978303.29		P	0.2
6	☐	1.000		2824684.44		P	0.1
7	☐	1.000		2757283.56		P	0.3
8	☐	1.000		2694331.55		P	0.4
9	☐	1.000		2822402.87		P	1.6

159 Tb (ISTD) [No Gas]

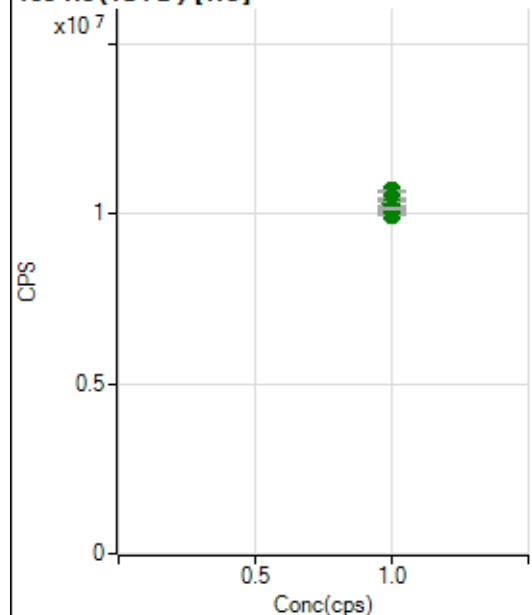
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		20603720.39		A	0.3
2	☐	1.000					
3	☐	1.000		20152407.06		A	1.1
4	☐	1.000		20155312.20		A	0.5
5	☐	1.000		20122613.31		A	0.5
6	☐	1.000		19829576.51		A	0.1
7	☐	1.000		19659326.38		A	0.2
8	☐	1.000		19764898.73		A	0.3
9	☐	1.000		19136798.74		A	0.8

159 Tb (ISTD) [He]

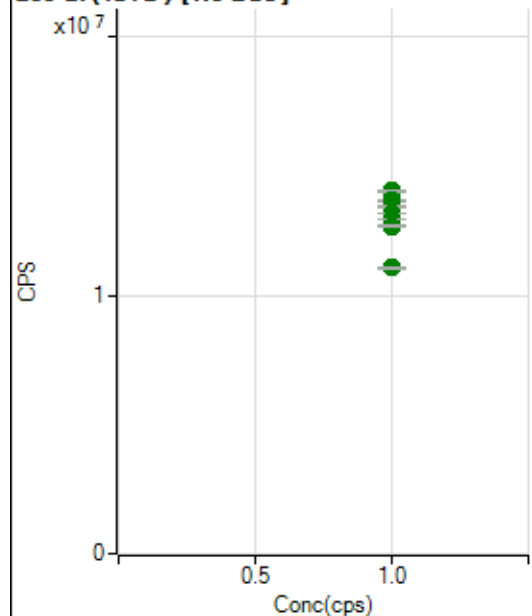
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10532835.05		A	0.2
2	☐	1.000					
3	☐	1.000		10243621.65		A	0.6
4	☐	1.000		10290408.25		A	0.6
5	☐	1.000		10134857.84		A	0.6
6	☐	1.000		9853656.24		A	0.5
7	☐	1.000		9778466.59		A	0.5
8	☐	1.000		9779688.46		A	0.8
9	☐	1.000		9930822.08		A	0.5

165 Ho (ISTD) [No Gas]

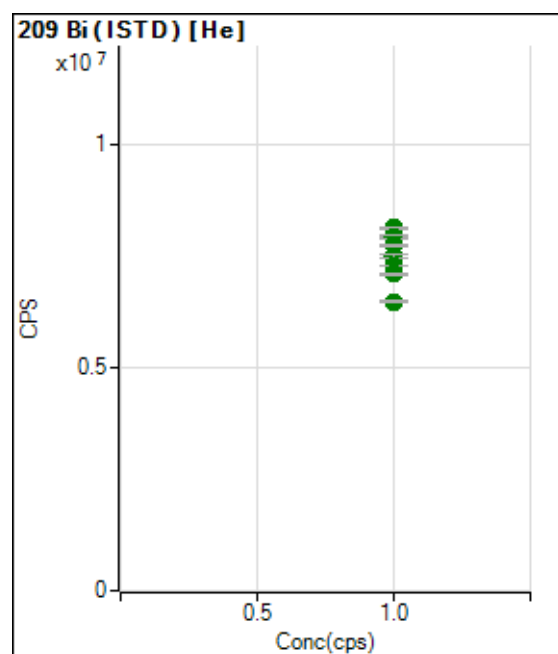
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		20335872.16		A	0.5
2	☐	1.000					
3	☐	1.000		19785996.80		A	1.5
4	☐	1.000		19814854.61		A	0.4
5	☐	1.000		19792677.18		A	0.8
6	☐	1.000		19526354.78		A	0.1
7	☐	1.000		19454209.12		A	0.3
8	☐	1.000		19501708.08		A	0.2
9	☐	1.000		18908021.26		A	0.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10669574.42		A	0.2
2	☐	1.000					
3	☐	1.000		10378112.48		A	0.5
4	☐	1.000		10449857.83		A	0.7
5	☐	1.000		10296138.94		A	0.7
6	☐	1.000		10058603.18		A	0.4
7	☐	1.000		9976761.52		A	0.4
8	☐	1.000		9971329.92		A	0.6
9	☐	1.000		10140675.33		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14027682.99		A	0.5
2	☐	1.000					
3	☐	1.000		13645719.93		A	1.0
4	☐	1.000		13631172.43		A	0.2
5	☐	1.000		13424517.72		A	0.3
6	☐	1.000		13167066.47		A	0.4
7	☐	1.000		12918583.56		A	0.2
8	☐	1.000		12669212.73		A	0.4
9	☐	1.000		11048432.06		A	0.5



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8140355.16		A	0.5
2	☐	1.000					
3	☐	1.000		7945928.63		A	0.4
4	☐	1.000		7938451.41		A	0.6
5	☐	1.000		7755544.88		A	0.8
6	☐	1.000		7514919.82		A	1.0
7	☐	1.000		7297422.81		A	0.4
8	☐	1.000		7106963.16		A	0.8
9	☐	1.000		6484692.47		A	0.5

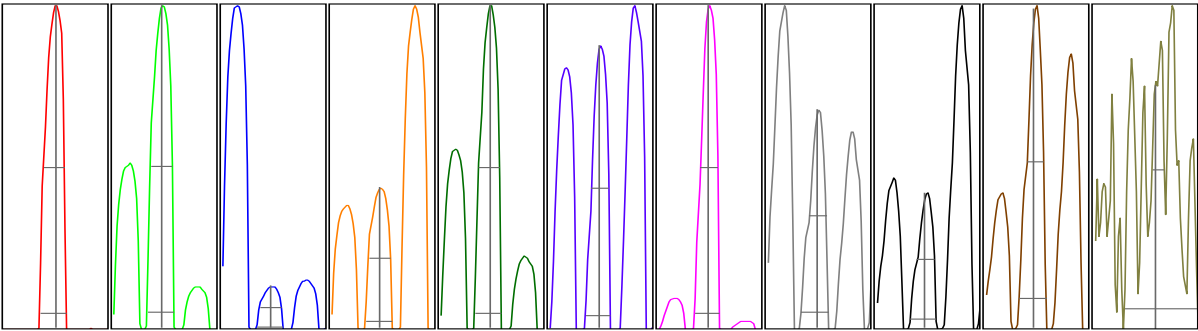
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7102518MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]					
Mass	Count	RSD%	RSD%	RSD%	
	(Mean)	(Actual)	(Required)	(Flag)	
9	24347	0.34	5.00		
24	168562	0.21	5.00		
25	22238	0.27	5.00		
26	25614	0.33	5.00		
59	148342	0.31	5.00		
113	18585	0.29	5.00		
115	220755	0.77	5.00		
206	57331	0.55	5.00		
207	53003	0.45	5.00		
208	122722	0.67	5.00		
220	8	46.53			

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	24306	24247	24453	24405	24324
24	168949	168262	168130	168811	168658
25	22238	22249	22221	22323	22158
26	25627	25523	25599	25747	25575
59	149140	148174	148249	147966	148182
113	18669	18584	18567	18590	18517
115	223743	220544	219785	219714	219988
206	56988	57015	57387	57601	57664
207	52726	52832	52971	53259	53229
208	122499	121657	122563	123934	122956
220	2	13	9	9	8

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	41844	9.05	8.9 - 9.1		0.780	0.900	
24	279592	23.95	23.9 - 24.1		0.784	0.900	
25	37132	24.95	24.9 - 25.1		0.774	0.900	
26	42529	25.95	25.9 - 26.1		0.783	0.900	
59	258867	59.00	58.9 - 59.1		0.779	0.900	
113	36044	113.00	112.9 - 113.1		0.721	0.900	
115	429261	115.00	114.9 - 115.1		0.720	0.900	
206	112303	206.00	205.9 - 206.1		0.786	0.900	
207	100666	206.95	206.9 - 207.1		0.742	0.900	
208	237898	207.95	207.9 - 208.1		0.779	0.900	
220	9	220.35	-		2.106		

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	6.4	V	Deflect	14.8	V
Extract 2	-145.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-80	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	170	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	39518	0.30	
89	20041	0.32	
205	49825	0.84	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	39602	39369	39469	39479	39671
89	20137	20014	20077	19985	19993
205	49441	50336	49431	49735	50180

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	6.8	V	Deflect	2.0	V
Extract 2	-125.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	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			