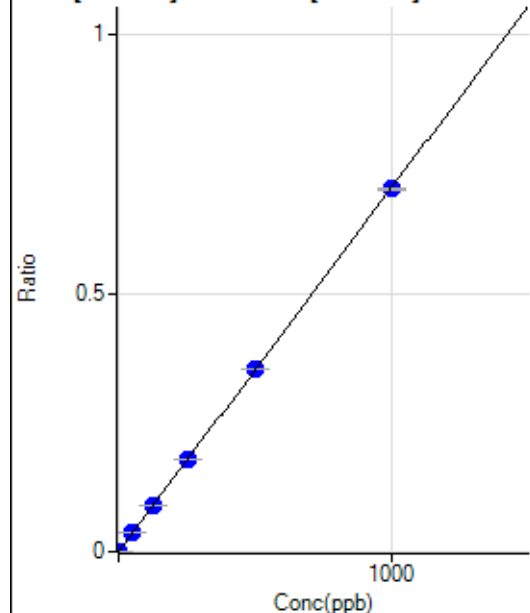


Calibration for 007CALS.d

Batch Folder: D:\ICP-MS Data\P7092819-MS.b\
 Analysis File: P7092819-MS.batch.bin
 DA Date-Time: 2019-09-30 00:45:36
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-09-28 14:07:54
2	004CALS.d	S02	2019-09-28 14:11:30
3	005CALS.d	S03	2019-09-28 14:16:05
4	006CALS.d	S04	2019-09-28 14:20:19
5	007CALS.d	S05	2019-09-28 14:24:09
6	008CALS.d	S06	2019-09-28 14:27:58
7	009CALS.d	S07	2019-09-28 14:31:45
8	010CALS.d	S08	2019-09-28 14:35:31

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	85.56	0.0000	P	32.1
2	☐	1.000	1.007	2251.32	0.0007	P	1.8
3	☐	50.000	51.910	106608.36	0.0365	P	1.3
4	☐	125.000	129.049	251278.12	0.0908	P	0.6
5	☐	250.000	254.154	464389.65	0.1788	P	0.4
6	☐	500.000	502.527	896249.87	0.3535	P	0.6
7	☐	1000.000	997.096	1719156.64	0.7014	P	0.5
8	☐			236.67	0.0001	P	11.3

$$y = 7.0344\text{E-}004 * x + 2.8068\text{E-}005$$

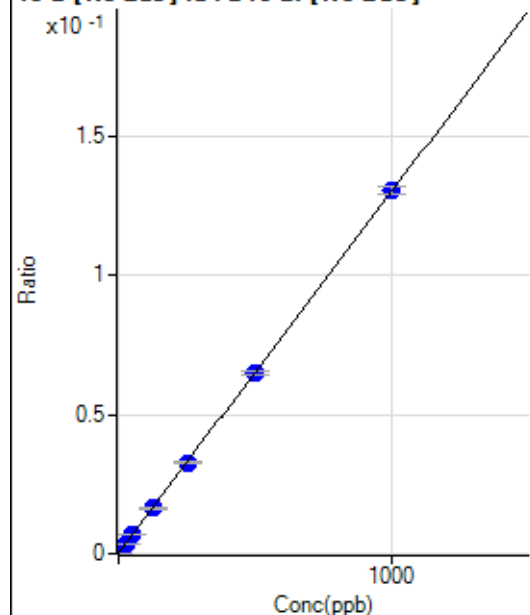
$$R = 1.0000$$

$$DL = 0.03842$$

$$BEC = 0.0399$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	866.73	0.0003	P	7.8
2	☐	25.000	23.392	10151.04	0.0033	P	4.1
3	☐	50.000	51.155	20194.78	0.0069	P	1.5
4	☐	125.000	123.963	45293.99	0.0164	P	2.1
5	☐	250.000	248.422	84472.45	0.0325	P	1.9
6	☐	500.000	496.874	164203.04	0.0648	P	1.6
7	☐	1000.000	1002.069	319435.32	0.1303	P	2.2
8	☐			16298.28	0.0073	P	6.4

$$y = 1.2977\text{E-}004 * x + 2.8424\text{E-}004$$

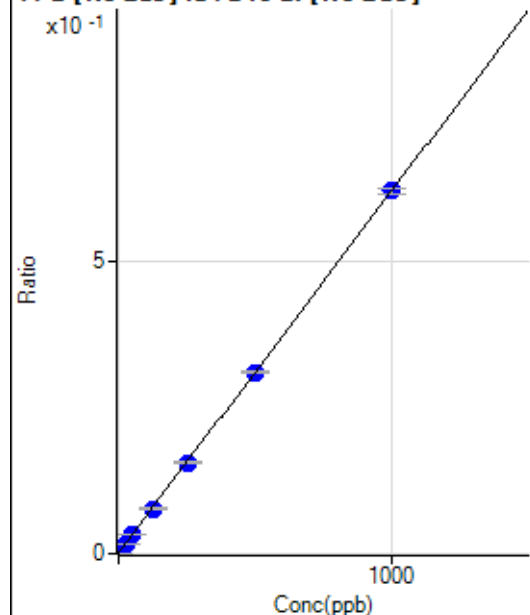
$$R = 1.0000$$

$$DL = 0.5158$$

$$BEC = 2.19$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4442.51	0.0015	P	3.8
2	☐	25.000	23.456	48718.64	0.0159	P	1.3
3	☐	50.000	49.036	92535.87	0.0317	P	1.2
4	☐	125.000	122.559	213338.10	0.0771	P	0.6
5	☐	250.000	250.032	404593.19	0.1558	P	1.1
6	☐	500.000	499.255	784913.28	0.3096	P	0.7
7	☐	1000.000	1000.756	1517469.68	0.6191	P	1.7
8	☐			78014.53	0.0351	P	6.5

$$y = 6.1720\text{E-}004 * x + 0.0015$$

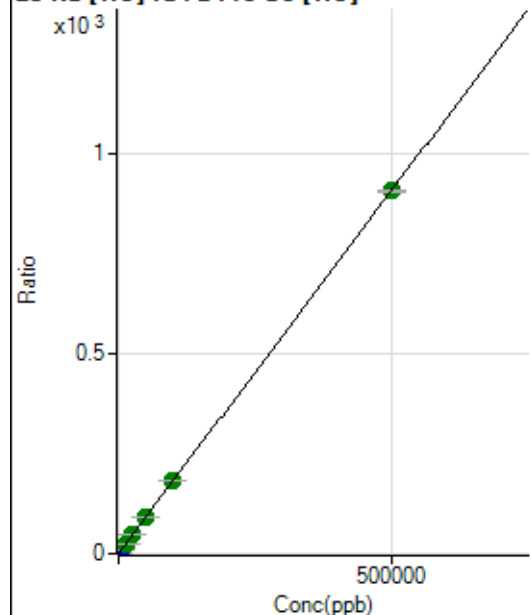
$$R = 1.0000$$

$$DL = 0.2698$$

$$BEC = 2.359$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15461.22	0.0593	P	0.6
2	☐	500.000	496.339	254028.45	0.9604	P	0.4
3	☐	5000.000	5145.506	2314555.17	9.4010	P	0.7
4	☐	12500.000	12738.447	5435185.58	23.1861	A	0.9
5	☐	25000.000	25514.840	10388370.37	46.3818	A	0.6
6	☐	50000.000	51170.127	20541336.40	92.9594	A	0.9
7	☐	100000.00	101201.41	39928457.49	183.7920	A	0.3
8	☐	500000.00	499609.54	186979365.2	907.1082	A	0.6

$$y = 0.0018 * x + 0.0593$$

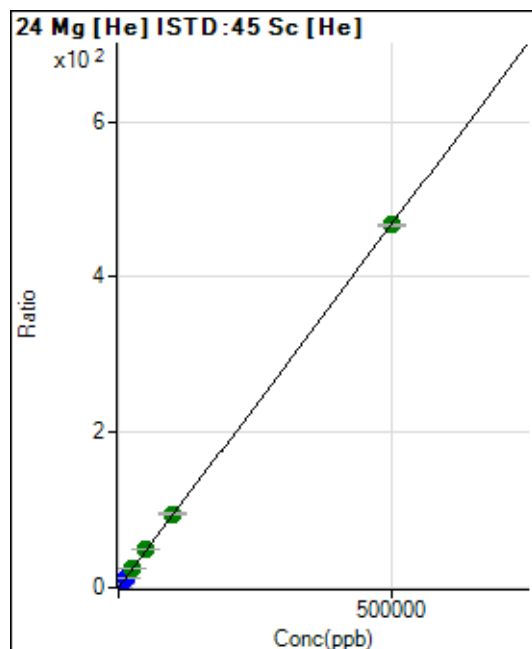
$$R = 1.0000$$

$$DL = 0.579$$

$$BEC = 32.64$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	330.57	0.0013	P	20.0
2	☐	500.000	525.788	130412.61	0.4930	P	2.2
3	☐	5000.000	5227.480	1204030.11	4.8904	P	0.9
4	☐	12500.000	13060.045	2863643.55	12.2161	P	0.9
5	☐	25000.000	25966.857	5439773.60	24.2876	A	0.6
6	☐	50000.000	51913.552	10729349.63	48.5551	A	0.8
7	☐	100000.00	101878.68	20700783.28	95.2866	A	0.4
8	☐	500000.00	499368.26	96272741.74	467.0516	A	0.2

$$y = 9.3528\text{E-}004 * x + 0.0013$$

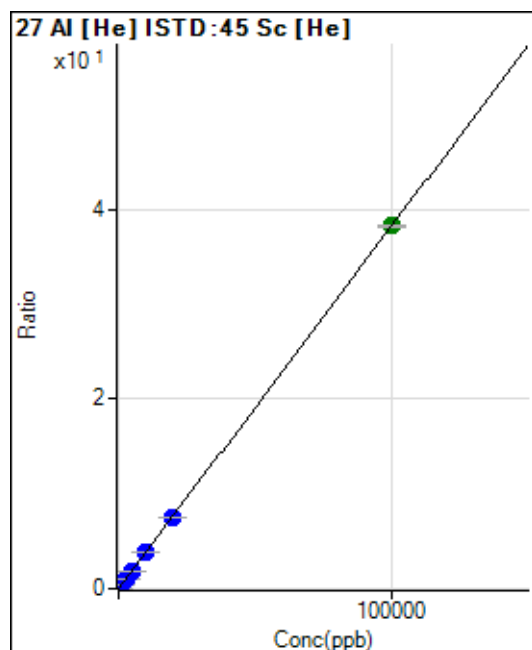
$$R = 1.0000$$

$$DL = 0.8139$$

$$BEC = 1.355$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0001	P	77.8
2	☐	20.000	19.544	1997.44	0.0076	P	6.6
3	☐	1000.000	1009.390	94953.61	0.3857	P	1.4
4	☐	2500.000	2510.702	224854.60	0.9592	P	0.7
5	☐	5000.000	4982.346	426311.85	1.9034	P	0.6
6	☐	10000.000	9964.147	841152.01	3.8065	P	0.9
7	☐	20000.000	19568.940	1624099.69	7.4756	P	0.4
8	☐	100000.00	100090.31	7881614.32	38.2357	A	0.6

$$y = 3.8201\text{E-}004 * x + 8.4983\text{E-}005$$

$$R = 1.0000$$

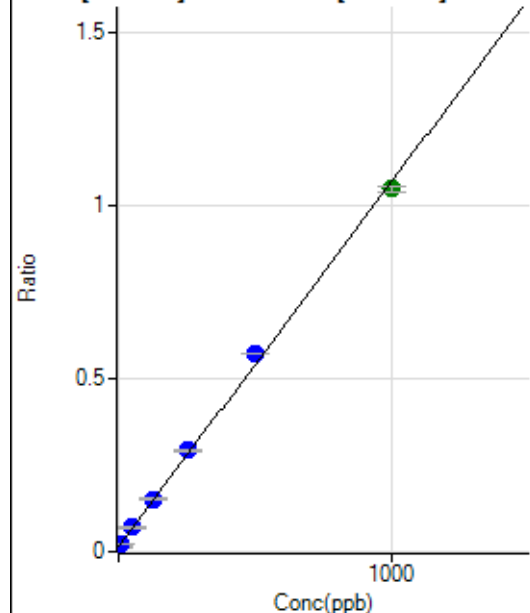
$$DL = 0.5194$$

$$BEC = 0.2225$$

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	96298.24	0.0139	P	0.9
2	☐	10.000	9.144	159128.58	0.0236	P	3.3
3	☐	50.000	52.788	452857.70	0.0695	P	2.2
4	☐	125.000	131.456	950075.23	0.1524	P	0.9
5	☐	250.000	264.067	1716888.54	0.2921	P	0.6
6	☐	500.000	529.396	3312787.49	0.5715	P	0.3
7	☐	1000.000	980.848	5949651.61	1.0470	A	1.7
8	☐			308635.85	0.0583	P	2.1

$$y = 0.0011 * x + 0.0139$$

$$R = 0.9992$$

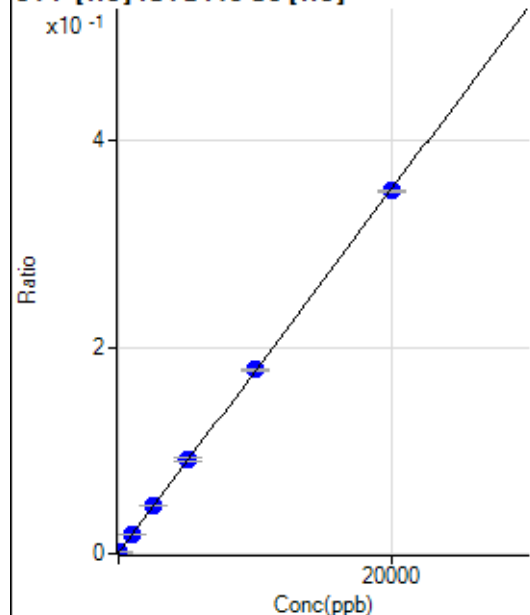
$$DL = 0.3736$$

$$BEC = 13.22$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-19.829	113.89	0.0004	P	25.1
2	☐	0.000	19.829	300.02	0.0011	P	21.7
3	☐	1000.000	995.513	4509.22	0.0183	P	3.1
4	☐	2500.000	2603.522	10929.43	0.0466	P	0.9
5	☐	5000.000	5150.003	20481.44	0.0915	P	3.1
6	☐	10000.000	10095.561	39453.31	0.1785	P	1.0
7	☐	20000.000	19902.003	76295.36	0.3512	P	0.8
8	☐			100.00	0.0005	P	44.2

$$y = 1.7607E-005 * x + 7.8516E-004$$

$$R = 0.9999$$

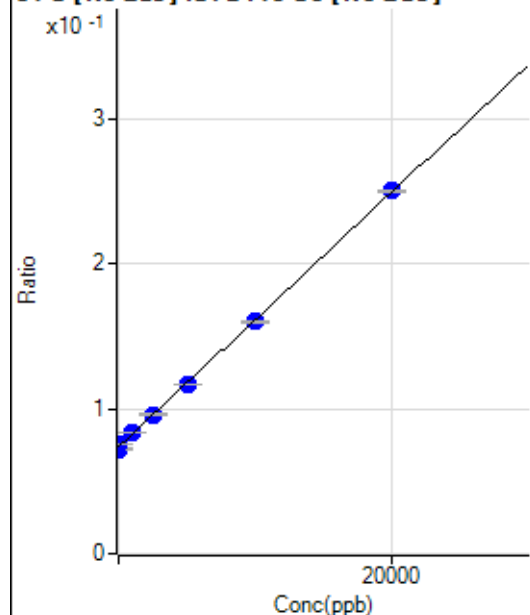
$$DL = 30.32$$

$$BEC = 44.6$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-172.757	499166.73	0.0722	P	1.1
2	☐	0.000	172.757	508167.07	0.0752	P	0.3
3	☐	1000.000	1151.910	545843.91	0.0838	P	0.5
4	☐	2500.000	2495.465	595841.33	0.0956	P	1.4
5	☐	5000.000	4856.702	683511.97	0.1163	P	0.4
6	☐	10000.000	9864.775	928407.34	0.1602	P	0.8
7	☐	20000.000	20096.408	1420066.86	0.2499	P	0.5
8	☐			397729.72	0.0752	P	0.3

$$y = 8.7681\text{E-}006 * x + 0.0737$$

R = 0.9998

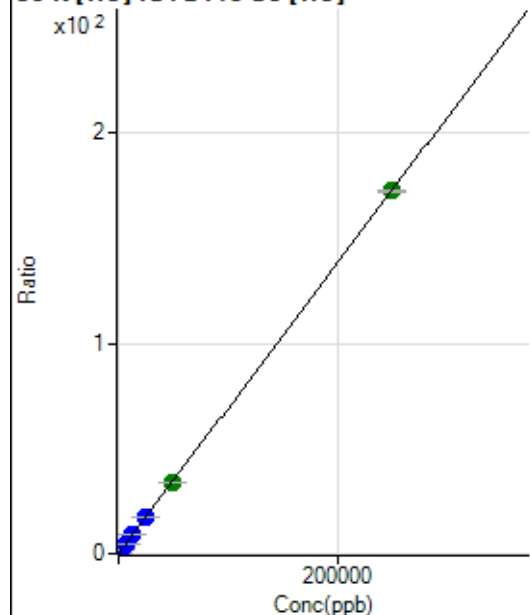
DL = 177.9

BEC = 8404

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13114.66	0.0503	P	5.3
2	☐	500.000	497.362	104114.02	0.3936	P	0.5
3	☐	2500.000	2553.116	446296.26	1.8127	P	1.1
4	☐	6250.000	6343.788	1038359.78	4.4295	P	0.7
5	☐	12500.000	12636.944	1965144.36	8.7739	P	0.4
6	☐	25000.000	25235.409	3860607.42	17.4709	P	0.9
7	☐	50000.000	49511.594	7436298.08	34.2293	A	0.2
8	☐	250000.00	250064.42	35593669.20	172.6758	A	0.5

$$y = 6.9032\text{E-}004 * x + 0.0503$$

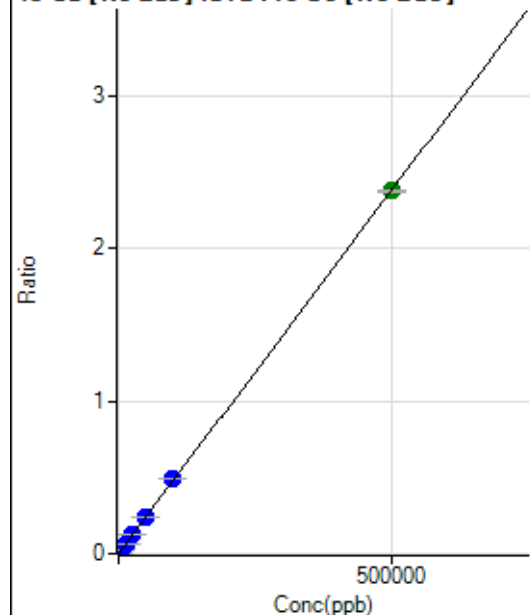
R = 1.0000

DL = 11.61

BEC = 72.81

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.12	0.0000	P	32.1
2	☐	500.000	515.577	16699.03	0.0025	P	3.7
3	☐	5000.000	5252.461	162873.31	0.0250	P	0.6
4	☐	12500.000	12962.274	384521.46	0.0617	P	1.4
5	☐	25000.000	25738.514	719759.59	0.1224	P	0.3
6	☐	50000.000	51309.333	1414589.18	0.2441	P	0.4
7	☐	100000.00	102232.57	2763290.97	0.4863	P	0.4
8	☐	500000.00	499371.52	12567566.95	2.3752	A	0.5

$$y = 4.7563\text{E-}006 * x + 1.9710\text{E-}005$$

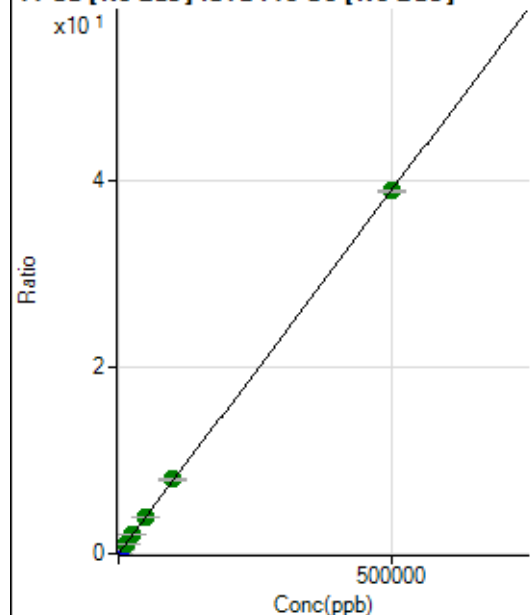
$$R = 1.0000$$

$$DL = 3.994$$

$$BEC = 4.144$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6690.65	0.0010	P	2.6
2	☐	500.000	495.812	267954.05	0.0397	P	0.3
3	☐	5000.000	5148.795	2623482.22	0.4027	P	0.7
4	☐	12500.000	12919.690	6291561.03	1.0091	A	0.8
5	☐	25000.000	25639.769	11766505.91	2.0016	A	0.5
6	☐	50000.000	50989.832	23066803.46	3.9797	A	0.3
7	☐	100000.00	102001.32	45235511.08	7.9602	A	0.5
8	☐	500000.00	499456.78	206218986.5	38.9738	A	0.3

$$y = 7.8030\text{E-}005 * x + 9.6743\text{E-}004$$

$$R = 1.0000$$

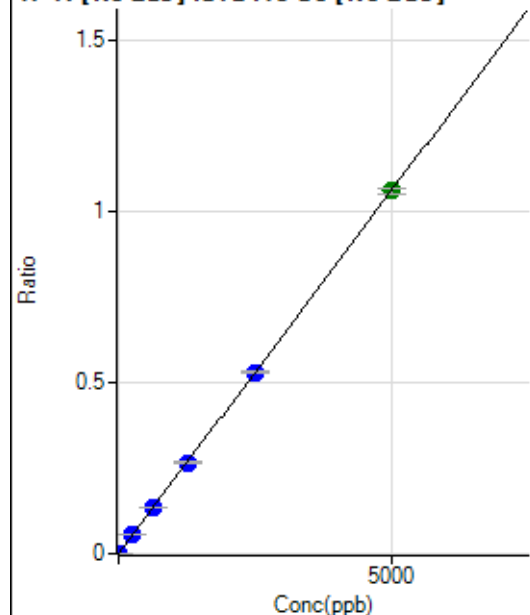
$$DL = 0.9675$$

$$BEC = 12.4$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	66.67	0.0000	P	44.0
2	☐	5.000	5.092	7368.80	0.0011	P	2.5
3	☐	250.000	253.851	350995.58	0.0539	P	0.8
4	☐	625.000	634.203	839225.31	0.1346	P	1.0
5	☐	1250.000	1257.512	1568805.10	0.2669	P	0.7
6	☐	2500.000	2501.190	3076670.23	0.5308	P	0.2
7	☐	5000.000	4996.184	6024943.84	1.0603	A	1.3
8	☐			1550.15	0.0003	P	3.5

$$y = 2.1222\text{E-}004 * x + 9.6578\text{E-}006$$

$$R = 1.0000$$

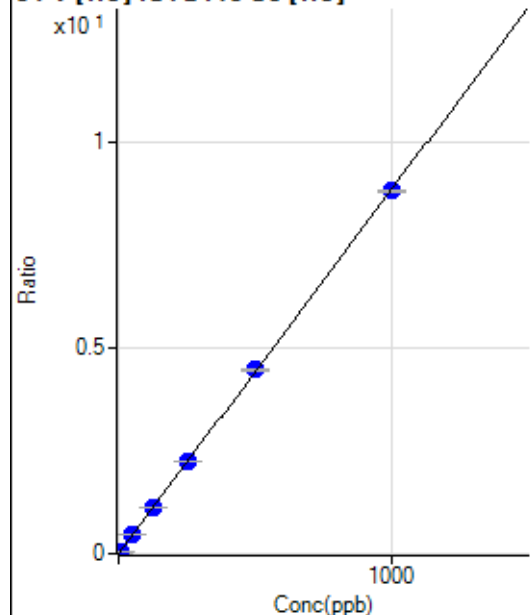
$$DL = 0.06011$$

$$BEC = 0.04551$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.44	0.0000	P	44.2
2	☐	5.000	5.185	12151.83	0.0459	P	1.9
3	☐	50.000	50.974	111158.29	0.4515	P	0.7
4	☐	125.000	126.347	262326.20	1.1191	P	0.8
5	☐	250.000	254.102	504066.18	2.2506	P	0.7
6	☐	500.000	504.474	987337.50	4.4681	P	0.7
7	☐	1000.000	996.520	1917457.28	8.8261	P	0.3
8	☐			484.46	0.0023	P	11.8

$$y = 0.0089 * x + 1.7066\text{E-}005$$

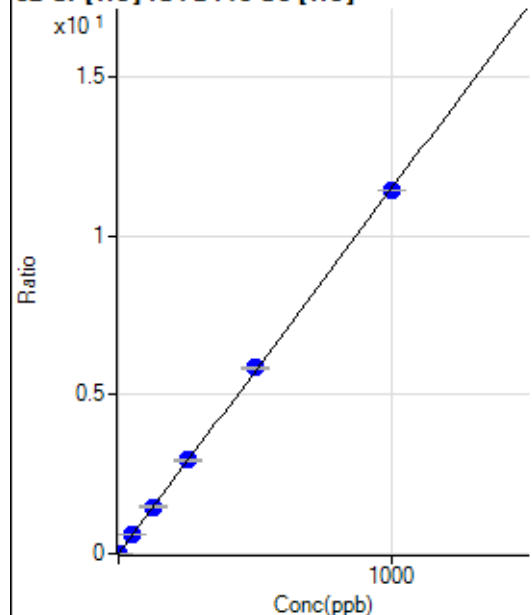
$$R = 1.0000$$

$$DL = 0.002555$$

$$BEC = 0.001927$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	427.79	0.0016	P	9.9
2	☐	2.000	2.027	6588.24	0.0249	P	2.3
3	☐	50.000	51.956	147222.83	0.5980	P	0.8
4	☐	125.000	128.635	346486.89	1.4781	P	0.7
5	☐	250.000	255.999	658457.37	2.9399	P	0.9
6	☐	500.000	508.447	1289967.26	5.8375	P	0.4
7	☐	1000.000	993.725	2478263.47	11.4074	P	0.2
8	☐			76843.41	0.3728	P	0.7

$$y = 0.0115 * x + 0.0016$$

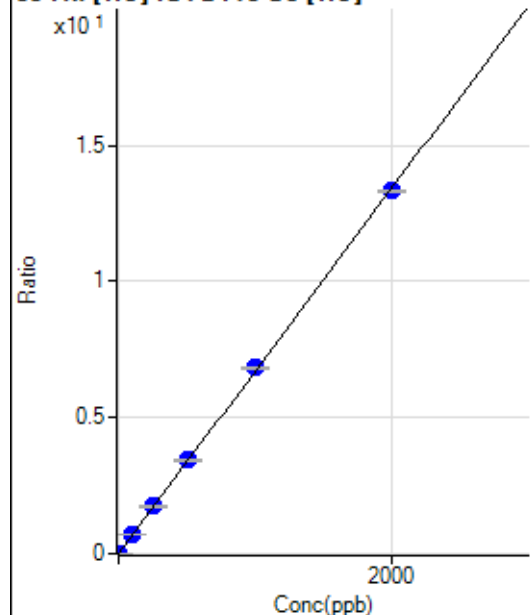
$$R = 0.9999$$

$$DL = 0.04262$$

$$BEC = 0.1429$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.66	0.0001	P	41.3
2	☐	1.000	1.068	1931.27	0.0073	P	3.8
3	☐	100.000	103.728	171188.91	0.6953	P	0.2
4	☐	250.000	258.531	406185.85	1.7328	P	0.9
5	☐	500.000	511.171	767297.33	3.4259	P	0.9
6	☐	1000.000	1017.244	1506510.20	6.8175	P	0.6
7	☐	2000.000	1987.332	2893510.79	13.3188	P	0.4
8	☐			9710.01	0.0471	P	1.5

$$y = 0.0067 * x + 1.4045E-004$$

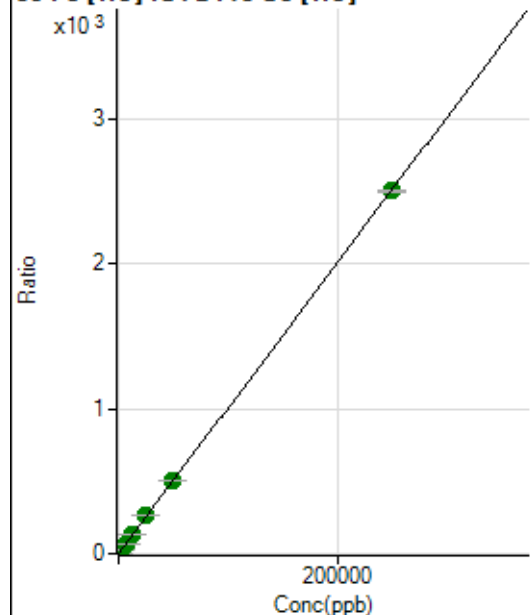
$$R = 0.9999$$

$$DL = 0.02598$$

$$BEC = 0.02096$$

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	1729.78	0.0066	P	4.2
2	☐	50.000	54.037	145221.27	0.5490	P	0.5
3	☐	2500.000	2637.332	6519193.78	26.4786	A	0.5
4	☐	6250.000	6579.610	15482638.89	66.0489	A	1.7
5	☐	12500.000	13086.217	29420737.23	131.3584	A	0.6
6	☐	25000.000	25977.402	57619317.49	260.7526	A	0.8
7	☐	50000.000	50666.410	110486077.4	508.5665	A	0.3
8	☐	250000.00	249730.05	516691215.2	2,506.651	A	0.3

$$y = 0.0100 * x + 0.0066$$

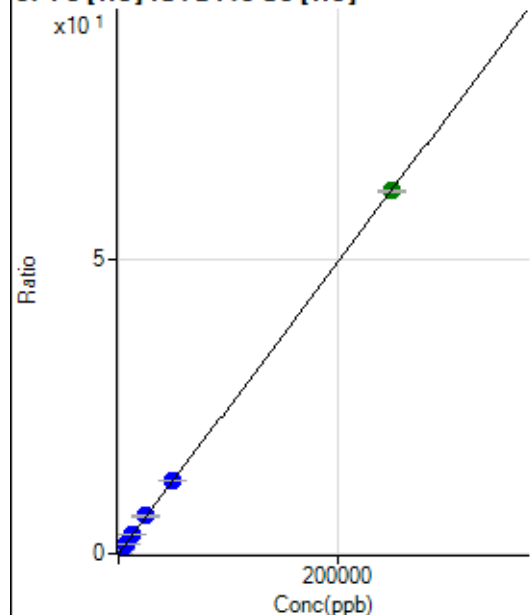
$$R = 1.0000$$

$$DL = 0.08407$$

$$BEC = 0.6605$$

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	70.37	0.0003	P	31.5
2	☐	50.000	56.616	3769.11	0.0143	P	6.0
3	☐	2500.000	2655.397	161505.78	0.6560	P	0.7
4	☐	6250.000	6609.870	382683.26	1.6325	P	1.2
5	☐	12500.000	13058.675	722301.67	3.2249	P	0.8
6	☐	25000.000	25931.932	1415073.99	6.4038	P	0.9
7	☐	50000.000	50441.471	2706057.56	12.4562	P	0.8
8	☐	250000.00	249780.02	12714107.23	61.6804	A	0.6

$$y = 2.4694E-004 * x + 2.6944E-004$$

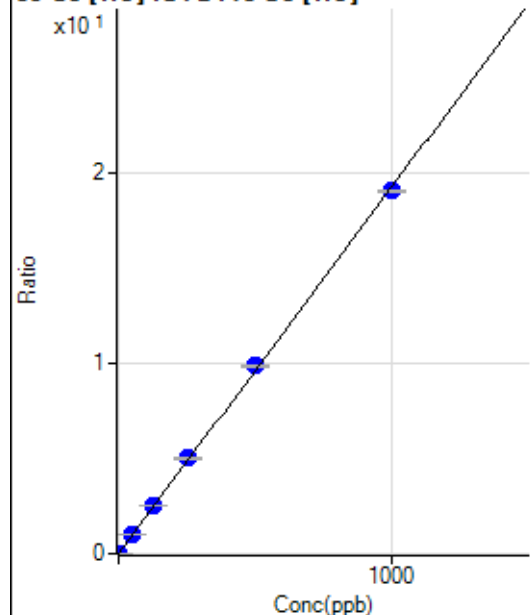
$$R = 1.0000$$

$$DL = 1.03$$

$$BEC = 1.091$$

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	50.00	0.0002	P	12.0
2	☐	1.000	1.012	5215.46	0.0197	P	2.6
3	☐	50.000	53.088	252210.54	1.0244	P	0.3
4	☐	125.000	132.026	597119.21	2.5473	P	1.0
5	☐	250.000	259.850	1122849.72	5.0133	P	0.8
6	☐	500.000	512.495	2184903.04	9.8874	P	0.6
7	☐	1000.000	990.257	4150391.54	19.1045	P	0.6
8	☐			47982.71	0.2328	P	1.6

$$y = 0.0193 * x + 1.9170E-004$$

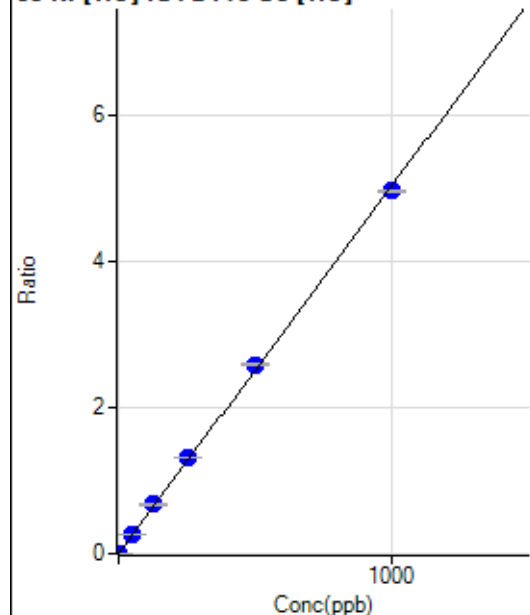
$$R = 0.9998$$

$$DL = 0.003563$$

$$BEC = 0.009936$$

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	182.23	0.0007	P	19.0
2	☐	1.000	1.132	1687.90	0.0064	P	3.1
3	☐	50.000	54.361	67352.81	0.2736	P	0.3
4	☐	125.000	133.961	157787.39	0.6731	P	1.1
5	☐	250.000	262.201	294936.36	1.3168	P	0.9
6	☐	500.000	515.426	571838.29	2.5879	P	1.0
7	☐	1000.000	987.898	1077412.75	4.9594	P	0.5
8	☐			30916.08	0.1500	P	1.0

$$y = 0.0050 * x + 6.9892E-004$$

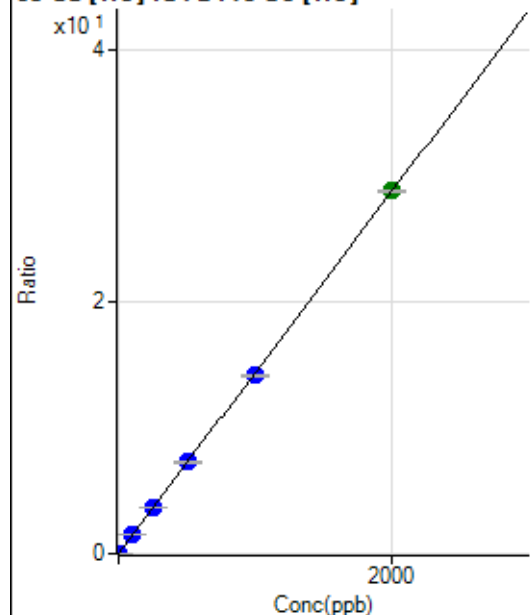
$$R = 0.9997$$

$$DL = 0.07926$$

$$BEC = 0.1392$$

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	900.04	0.0035	P	7.3
2	☐	2.000	1.991	8482.59	0.0321	P	0.6
3	☐	100.000	103.736	367940.72	1.4944	P	0.4
4	☐	250.000	255.694	862303.01	3.6785	P	0.9
5	☐	500.000	504.805	1625802.35	7.2590	P	1.2
6	☐	1000.000	984.450	3127446.48	14.1528	P	0.6
7	☐	2000.000	2005.675	6263474.00	28.8308	A	0.2
8	☐			10259.29	0.0498	P	1.4

$$y = 0.0144 * x + 0.0035$$

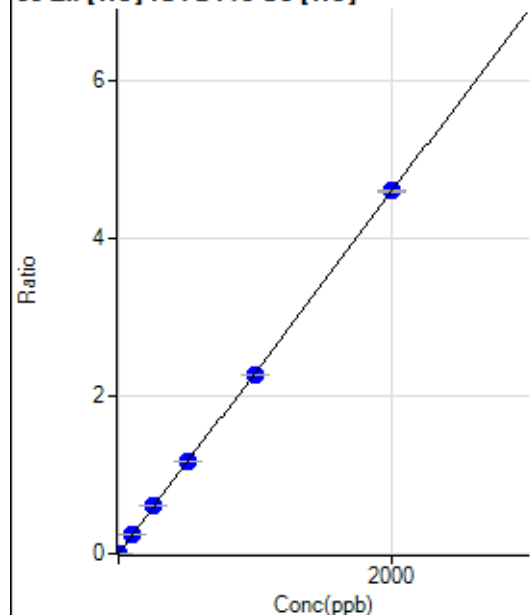
$$R = 0.9999$$

$$DL = 0.05273$$

$$BEC = 0.2401$$

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	420.01	0.0016	P	5.8
2	☐	2.000	2.129	1719.02	0.0065	P	2.0
3	☐	100.000	106.188	60447.93	0.2455	P	0.6
4	☐	250.000	261.421	141139.75	0.6021	P	0.3
5	☐	500.000	509.584	262515.16	1.1721	P	1.2
6	☐	1000.000	984.763	500201.10	2.2636	P	0.4
7	☐	2000.000	2003.485	1000104.58	4.6035	P	0.5
8	☐			10444.98	0.0507	P	2.3

$$y = 0.0023 * x + 0.0016$$

$$R = 0.9999$$

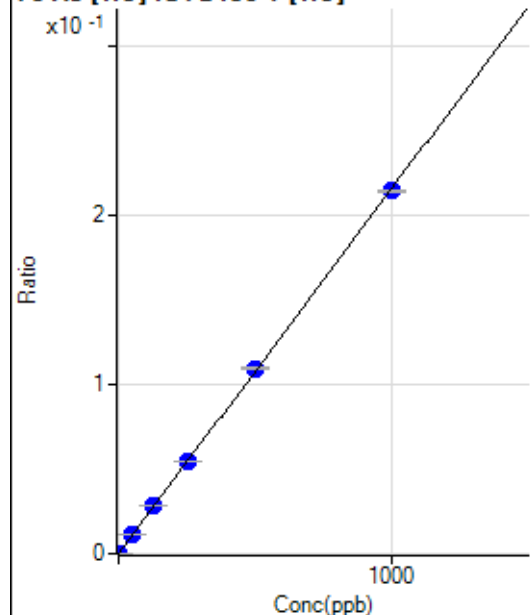
$$DL = 0.1218$$

$$BEC = 0.7007$$

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	1.1
2	☐	1.000	1.033	314.82	0.0002	P	4.5
3	☐	50.000	51.974	14622.86	0.0112	P	0.8
4	☐	125.000	130.487	35141.19	0.0281	P	1.1
5	☐	250.000	253.843	65542.98	0.0547	P	1.0
6	☐	500.000	507.378	128570.94	0.1093	P	0.7
7	☐	1000.000	994.566	245655.99	0.2142	P	0.3
8	☐			320.38	0.0003	P	11.8

$$y = 2.1532\text{E-}004 * x + 4.0442\text{E-}006$$

$$R = 0.9999$$

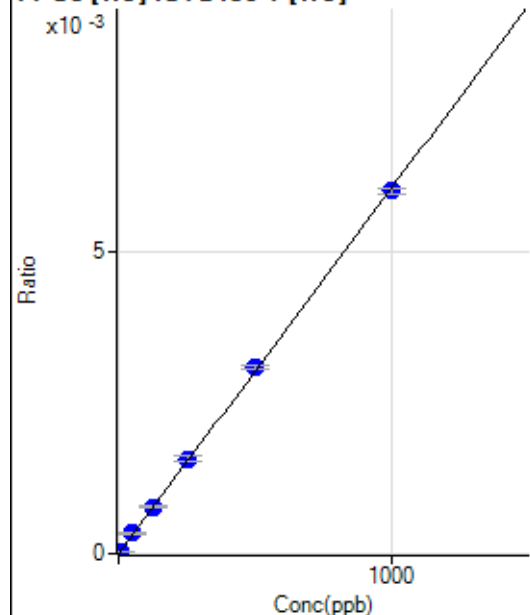
$$DL = 0.0006152$$

$$BEC = 0.01878$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	6.204	52.22	0.0000	P	42.6
3	☐	50.000	55.755	441.13	0.0003	P	5.7
4	☐	125.000	128.203	971.16	0.0008	P	1.3
5	☐	250.000	259.213	1883.49	0.0016	P	5.3
6	☐	500.000	508.017	3621.63	0.0031	P	2.0
7	☐	1000.000	992.994	6899.52	0.0060	P	1.3
8	☐			2.22	0.0000	P	173.2

$$y = 6.0574\text{E-}006 * x + 0.0000\text{E+}000$$

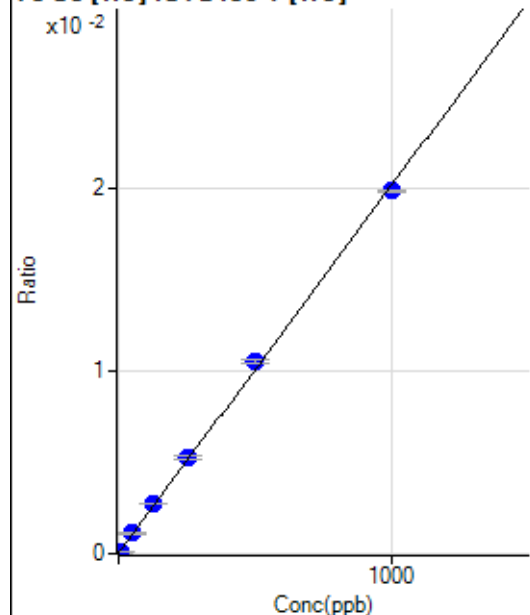
$$R = 0.9999$$

$$DL = 0$$

$$BEC = 0$$

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	30.25	0.0000	P	15.6
2	☐	5.000	5.168	175.31	0.0001	P	6.5
3	☐	50.000	54.742	1469.22	0.0011	P	4.5
4	☐	125.000	134.316	3411.54	0.0027	P	2.1
5	☐	250.000	260.547	6319.33	0.0053	P	3.6
6	☐	500.000	521.654	12394.89	0.0105	P	1.8
7	☐	1000.000	985.134	22792.05	0.0199	P	0.7
8	☐			24.07	0.0000	P	38.5

$$y = 2.0146\text{E-}005 * x + 2.2008\text{E-}005$$

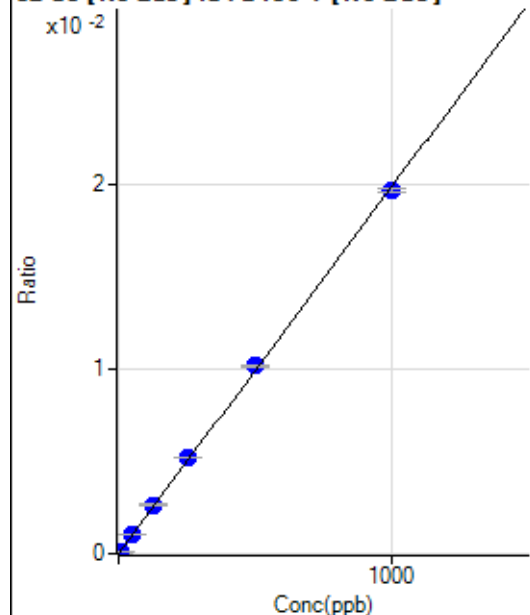
$$R = 0.9996$$

$$DL = 0.5109$$

$$BEC = 1.092$$

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	-24.64	0.0000	P	-359.
2	☐	5.000	5.330	1263.13	0.0001	P	15.7
3	☐	50.000	53.522	12457.96	0.0011	P	0.9
4	☐	125.000	133.606	30009.85	0.0027	P	1.0
5	☐	250.000	262.880	56438.50	0.0052	P	0.6
6	☐	500.000	511.711	108447.50	0.0102	P	1.0
7	☐	1000.000	989.671	206391.30	0.0197	P	1.2
8	☐			39.08	0.0000	P	137.0

$$y = 1.9910\text{E-}005 * x - 1.9845\text{E-}006$$

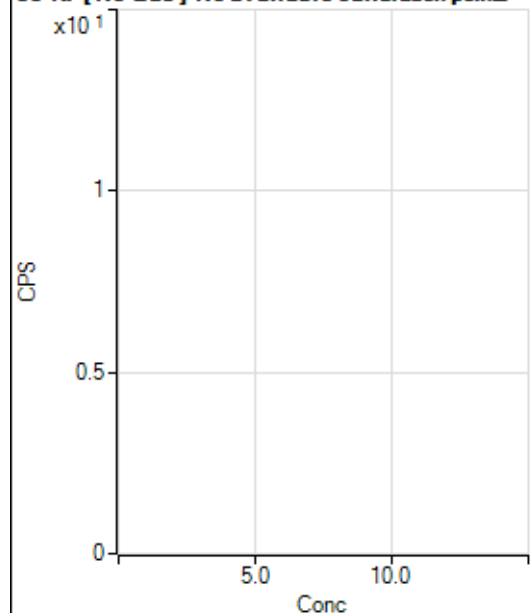
$$R = 0.9998$$

$$DL = 1.074$$

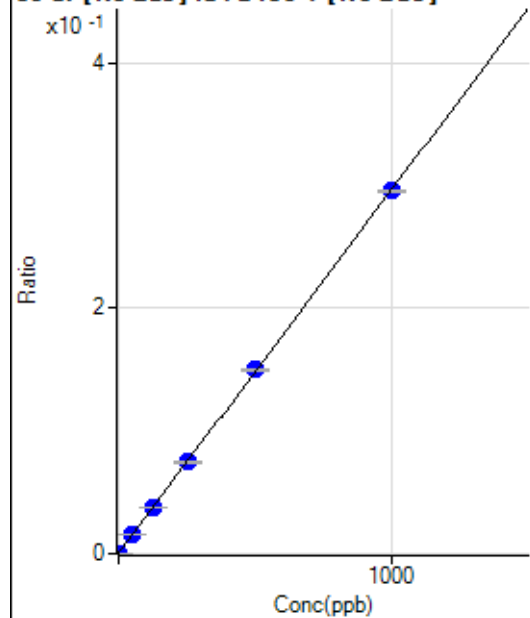
$$BEC = -0.09967$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2326.89		P	3.2
2	☐			2406.90		P	5.4
3	☐			2289.10		P	3.1
4	☐			2133.53		P	4.9
5	☐			2083.52		P	2.9
6	☐			1981.28		P	6.4
7	☐			2039.07		P	7.2
8	☐			1900.16		P	2.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3847.91	0.0003	P	4.3
2	☐	1.000	0.962	7207.71	0.0006	P	5.0
3	☐	50.000	50.134	177669.22	0.0152	P	0.9
4	☐	125.000	126.838	427960.04	0.0379	P	0.7
5	☐	250.000	250.488	804263.10	0.0746	P	0.6
6	☐	500.000	504.902	1596687.31	0.1500	P	0.3
7	☐	1000.000	997.191	3099653.41	0.2959	P	0.7
8	☐			14805.41	0.0015	P	2.4

$$y = 2.9642\text{E-}004 * x + 3.0896\text{E-}004$$

$$R = 1.0000$$

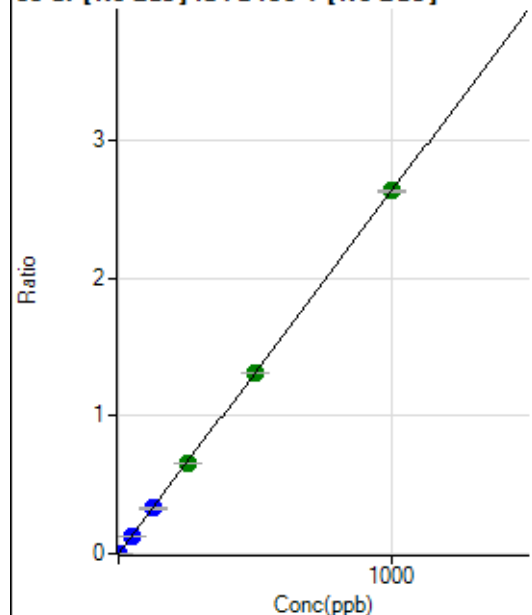
$$DL = 0.1359$$

$$BEC = 1.042$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	152.78	0.0000	P	27.5
2	☐	1.000	0.974	31268.59	0.0026	P	0.8
3	☐	50.000	49.970	1541757.09	0.1316	P	0.5
4	☐	125.000	124.915	3714808.76	0.3290	P	0.8
5	☐	250.000	250.283	7111574.55	0.6593	A	0.5
6	☐	500.000	498.827	13988983.82	1.3139	A	0.5
7	☐	1000.000	1000.528	27608491.94	2.6354	A	0.6
8	☐			103083.04	0.0106	P	1.6

$$y = 0.0026 * x + 1.2257E-005$$

$$R = 1.0000$$

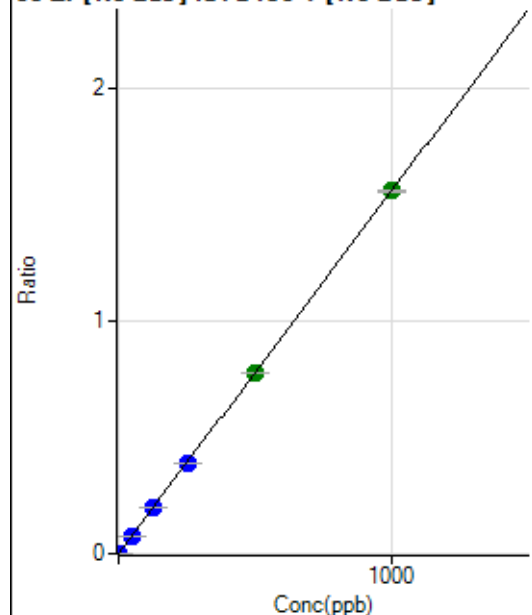
$$DL = 0.003846$$

$$BEC = 0.004653$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	997.31	0.0001	P	4.5
2	☐	1.000	0.872	17461.36	0.0014	P	3.6
3	☐	50.000	49.701	908235.08	0.0775	P	0.2
4	☐	125.000	125.454	2208452.33	0.1956	P	0.6
5	☐	250.000	248.581	4180205.17	0.3875	P	0.5
6	☐	500.000	500.190	8301078.66	0.7797	A	0.3
7	☐	1000.000	1000.218	16331813.56	1.5590	A	0.6
8	☐			4050.74	0.0004	P	2.3

$$y = 0.0016 * x + 8.0084E-005$$

$$R = 1.0000$$

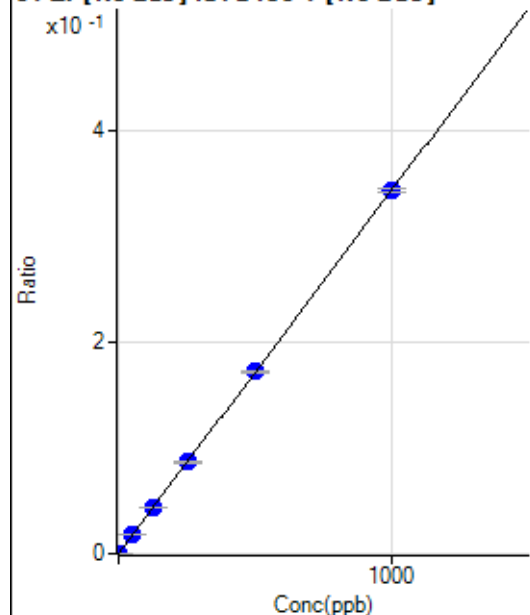
$$DL = 0.006979$$

$$BEC = 0.05138$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	180.57	0.0000	P	5.7
2	☐	1.000	0.860	3761.76	0.0003	P	2.5
3	☐	50.000	50.568	203622.97	0.0174	P	0.5
4	☐	125.000	126.947	492510.26	0.0436	P	0.4
5	☐	250.000	251.806	933214.42	0.0865	P	0.6
6	☐	500.000	500.566	1830855.21	0.1720	P	0.3
7	☐	1000.000	998.994	3594923.22	0.3432	P	1.1
8	☐			833.39	0.0001	P	8.6

$$y = 3.4351\text{E-}004 * x + 1.4500\text{E-}005$$

$$R = 1.0000$$

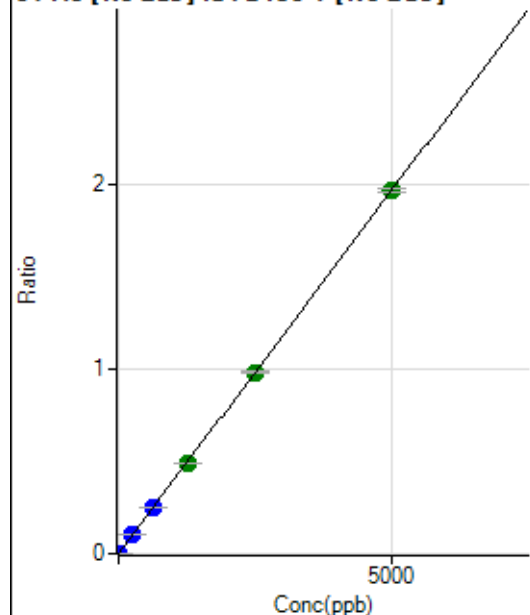
$$DL = 0.00721$$

$$BEC = 0.04221$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	402.80	0.0000	P	7.7
2	☐	5.000	4.679	22777.16	0.0019	P	1.3
3	☐	250.000	253.822	1172433.62	0.1001	P	0.3
4	☐	625.000	635.537	2829229.23	0.2506	P	0.7
5	☐	1250.000	1255.121	5338189.14	0.4949	A	0.3
6	☐	2500.000	2499.776	10492904.40	0.9856	A	0.6
7	☐	5000.000	4997.324	20638912.27	1.9702	A	1.1
8	☐			15108.57	0.0015	P	2.3

$$y = 3.9425\text{E-}004 * x + 3.2340\text{E-}005$$

$$R = 1.0000$$

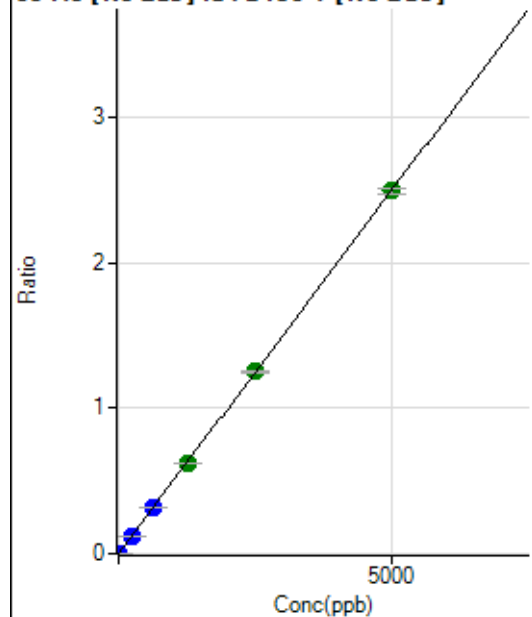
$$DL = 0.01904$$

$$BEC = 0.08203$$

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	91.67	0.0000	P	16.1
2	☐	5.000	4.836	29383.92	0.0024	P	2.4
3	☐	250.000	250.893	1467222.69	0.1253	P	0.2
4	☐	625.000	630.101	3551721.48	0.3146	P	1.2
5	☐	1250.000	1252.042	6743169.94	0.6251	A	0.2
6	☐	2500.000	2503.355	13306618.18	1.2499	A	0.6
7	☐	5000.000	4997.130	26134996.59	2.4949	A	1.4
8	☐			24357.70	0.0025	P	2.0

$$y = 4.9927E-004 * x + 7.3633E-006$$

$$R = 1.0000$$

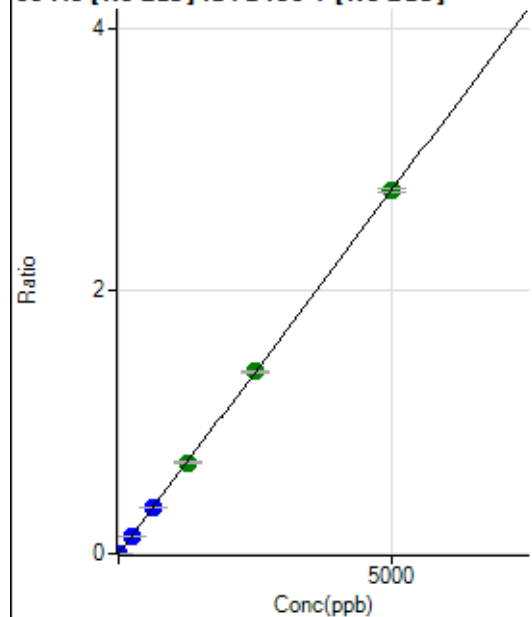
$$DL = 0.007133$$

$$BEC = 0.01475$$

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	158.34	0.0000	P	18.6
2	☐	5.000	4.801	32382.10	0.0027	P	3.0
3	☐	250.000	249.801	1619088.77	0.1382	P	0.4
4	☐	625.000	628.723	3927679.04	0.3479	P	1.4
5	☐	1250.000	1256.144	7497910.76	0.6951	A	0.4
6	☐	2500.000	2510.691	14790571.69	1.3893	A	0.9
7	☐	5000.000	4992.663	28939322.87	2.7626	A	1.2
8	☐			25751.96	0.0026	P	3.8

$$y = 5.5333E-004 * x + 1.2719E-005$$

$$R = 1.0000$$

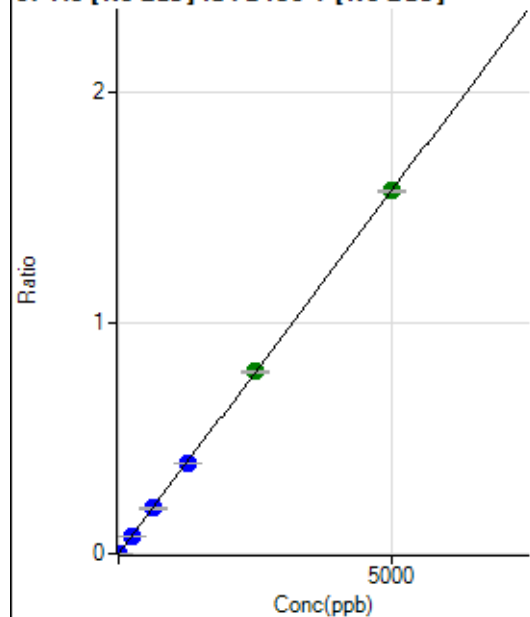
$$DL = 0.01284$$

$$BEC = 0.02299$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.45	0.0000	P	38.1
2	☐	5.000	4.808	18401.44	0.0015	P	0.4
3	☐	250.000	249.038	916737.60	0.0783	P	0.7
4	☐	625.000	625.126	2218052.70	0.1965	P	0.8
5	☐	1250.000	1243.748	4216524.83	0.3909	P	0.6
6	☐	2500.000	2504.251	8379250.62	0.7870	A	0.2
7	☐	5000.000	4999.470	16460080.40	1.5712	A	0.3
8	☐			14435.59	0.0015	P	2.2

$$y = 3.1427\text{E-}004 * x + 5.5703\text{E-}006$$

$$R = 1.0000$$

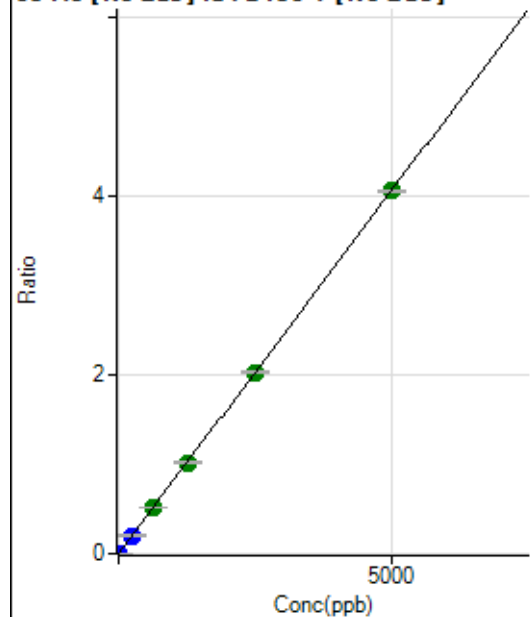
$$DL = 0.02027$$

$$BEC = 0.01772$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0000	P	29.0
2	☐	5.000	4.730	46774.85	0.0039	P	2.1
3	☐	250.000	251.347	2393027.03	0.2043	P	0.4
4	☐	625.000	630.253	5783805.43	0.5123	A	1.0
5	☐	1250.000	1256.965	11021512.23	1.0217	A	0.5
6	☐	2500.000	2500.695	21640644.93	2.0327	A	0.8
7	☐	5000.000	4997.188	42552134.98	4.0619	A	0.3
8	☐			38227.12	0.0039	P	1.6

$$y = 8.1284\text{E-}004 * x + 1.0488\text{E-}005$$

$$R = 1.0000$$

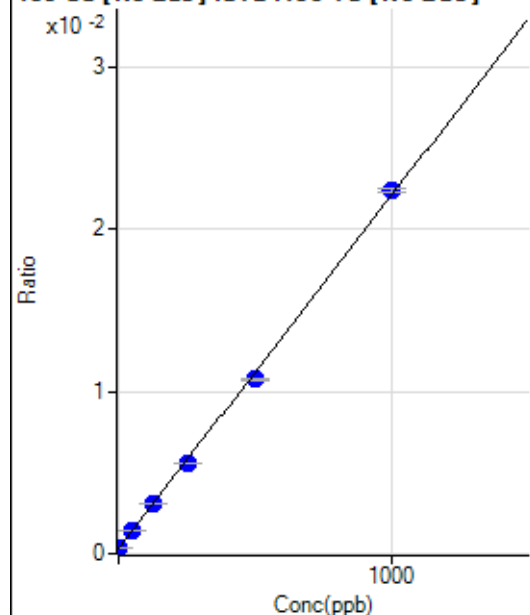
$$DL = 0.01122$$

$$BEC = 0.0129$$

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	6312.78	0.0003	P	1.0
2	☐	1.000	1.112	6515.63	0.0003	P	3.3
3	☐	50.000	51.199	26500.65	0.0014	P	1.2
4	☐	125.000	125.968	55668.79	0.0031	P	1.8
5	☐	250.000	241.583	99388.68	0.0056	P	0.6
6	☐	500.000	478.407	188593.34	0.0107	P	1.5
7	☐	1000.000	1012.720	388354.03	0.0224	P	0.9
8	☐			5306.77	0.0003	P	2.4

$$y = 2.1757\text{E-}005 * x + 3.2125\text{E-}004$$

$$R = 0.9996$$

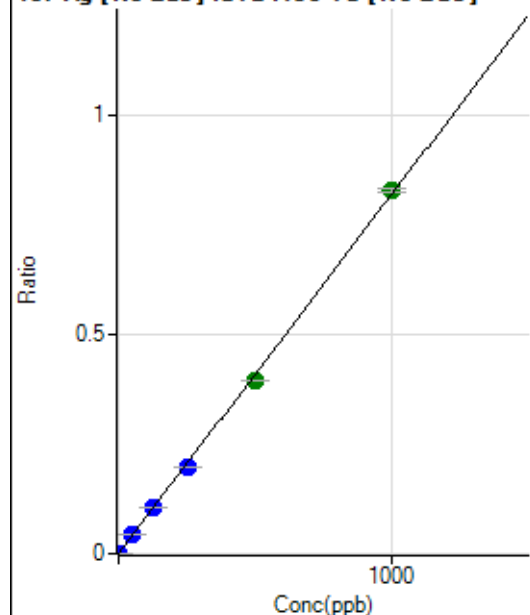
$$DL = 0.4268$$

$$BEC = 14.77$$

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	138.90	0.0000	P	25.1
2	☐	1.000	0.851	13265.09	0.0007	P	1.5
3	☐	50.000	52.430	792094.96	0.0429	P	1.4
4	☐	125.000	127.779	1901077.39	0.1046	P	1.1
5	☐	250.000	242.922	3542054.68	0.1988	P	0.3
6	☐	500.000	481.514	6925443.21	0.3940	A	0.8
7	☐	1000.000	1010.544	14364376.36	0.8269	A	1.1
8	☐			1744.63	0.0001	P	2.6

$$y = 8.1824\text{E-}004 * x + 7.0707\text{E-}006$$

$$R = 0.9997$$

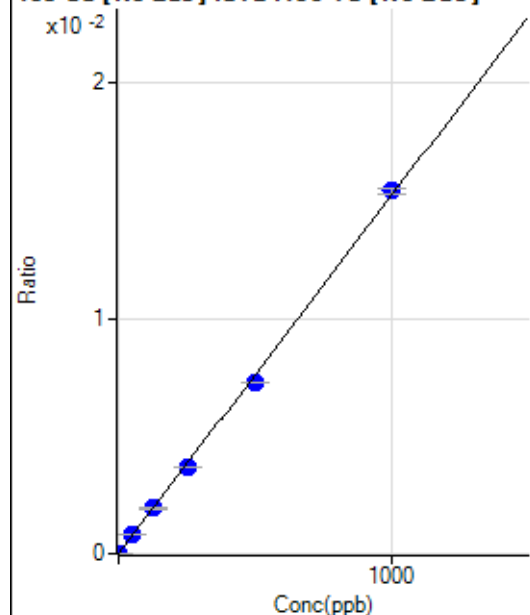
$$DL = 0.006508$$

$$BEC = 0.008641$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	31.2
2	☐	1.000	0.923	291.68	0.0000	P	7.8
3	☐	50.000	51.819	14589.67	0.0008	P	1.8
4	☐	125.000	126.694	35090.77	0.0019	P	2.1
5	☐	250.000	243.165	65990.35	0.0037	P	0.3
6	☐	500.000	477.157	127705.10	0.0073	P	0.7
7	☐	1000.000	1012.827	267880.28	0.0154	P	1.5
8	☐			54.17	0.0000	P	40.9

$$y = 1.5224\text{E-}005 * x + 1.4136\text{E-}006$$

$$R = 0.9996$$

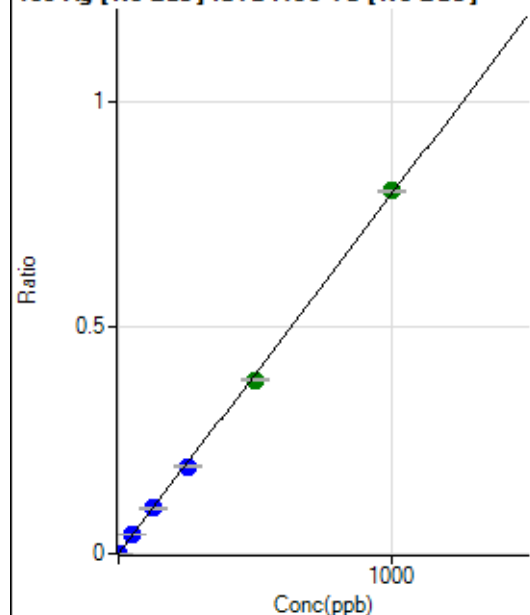
$$DL = 0.08689$$

$$BEC = 0.09285$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.67	0.0000	P	9.4
2	☐	1.000	0.830	12528.23	0.0007	P	4.3
3	☐	50.000	52.010	763496.24	0.0414	P	0.9
4	☐	125.000	126.105	1822965.60	0.1003	P	1.0
5	☐	250.000	243.227	3445990.75	0.1934	P	0.2
6	☐	500.000	483.440	6756152.67	0.3844	A	0.6
7	☐	1000.000	1009.735	13946093.37	0.8028	A	0.8
8	☐			1505.70	0.0001	P	12.6

$$y = 7.9506\text{E-}004 * x + 4.6661\text{E-}006$$

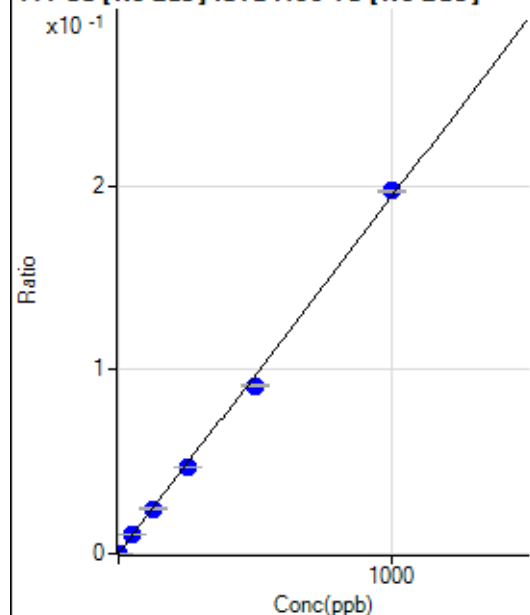
$$R = 0.9998$$

$$DL = 0.001658$$

$$BEC = 0.005869$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4438.40	0.0002	P	0.8
2	☐	1.000	1.040	8062.89	0.0004	P	3.1
3	☐	50.000	50.634	185440.38	0.0100	P	1.1
4	☐	125.000	125.070	445076.10	0.0245	P	1.0
5	☐	250.000	240.165	833930.56	0.0468	P	0.4
6	☐	500.000	470.639	1608236.84	0.0915	P	0.2
7	☐	1000.000	1017.099	3430285.21	0.1975	P	0.6
8	☐			4037.95	0.0002	P	3.0

$$y = 1.9392\text{E-}004 * x + 2.2586\text{E-}004$$

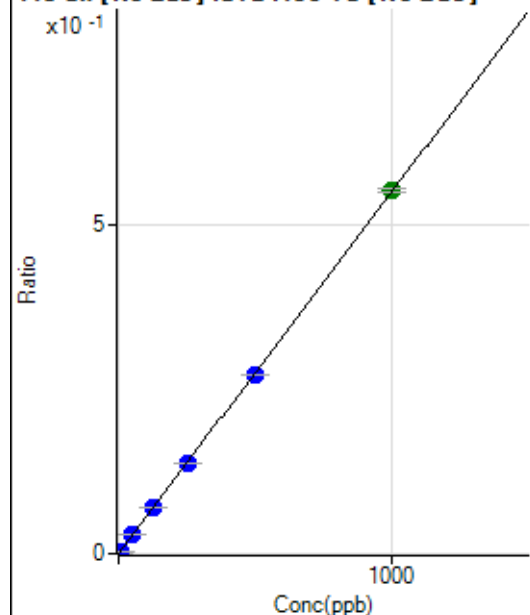
$$R = 0.9993$$

$$DL = 0.02771$$

$$BEC = 1.165$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2374.03	0.0001	P	113.2
2	☐	5.000	5.047	54737.86	0.0029	P	1.1
3	☐	50.000	51.847	529682.59	0.0287	P	0.9
4	☐	125.000	127.708	1281722.58	0.0705	P	0.3
5	☐	250.000	248.599	2443187.82	0.1371	P	0.6
6	☐	500.000	492.711	4774639.86	0.2716	P	0.2
7	☐	1000.000	1003.564	9608914.71	0.5531	A	0.9
8	☐			4120.24	0.0003	P	1.0

$$y = 5.5105\text{E-}004 * x + 1.2059\text{E-}004$$

$$R = 1.0000$$

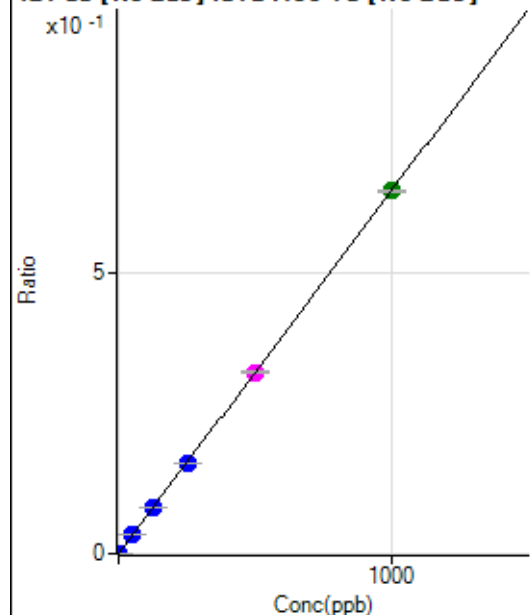
$$DL = 0.743$$

$$BEC = 0.2188$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	122.23	0.0000	P	52.0
2	☐	2.000	1.981	24218.86	0.0013	P	1.3
3	☐	50.000	51.478	613161.80	0.0332	P	1.0
4	☐	125.000	127.516	1495737.76	0.0823	P	0.2
5	☐	250.000	249.472	2867707.81	0.1609	P	0.3
6	☐	500.000	500.076	5670562.76	0.3226	M	0.8
7	☐	1000.000	999.706	11202829.33	0.6449	A	0.6
8	☐			14905.72	0.0009	P	0.7

$$y = 6.4507\text{E-}004 * x + 6.2164\text{E-}006$$

$$R = 1.0000$$

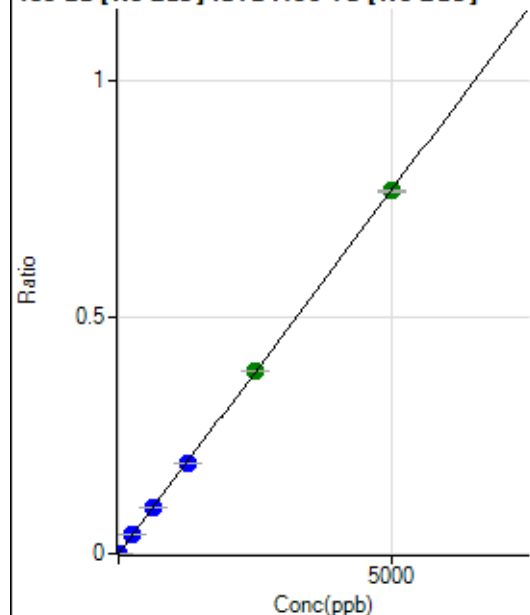
$$DL = 0.01502$$

$$BEC = 0.009637$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	28.6
2	☐	10.000	10.255	29777.22	0.0016	P	1.1
3	☐	250.000	259.209	735565.81	0.0398	P	0.4
4	☐	625.000	639.214	1786284.20	0.0982	P	0.7
5	☐	1250.000	1251.425	3427348.25	0.1923	P	0.4
6	☐	2500.000	2512.414	6787497.29	0.3861	A	0.4
7	☐	5000.000	4991.199	13326350.99	0.7671	A	0.6
8	☐			1464.04	0.0001	P	10.2

$$y = 1.5369\text{E-}004 * x + 2.5431\text{E-}006$$

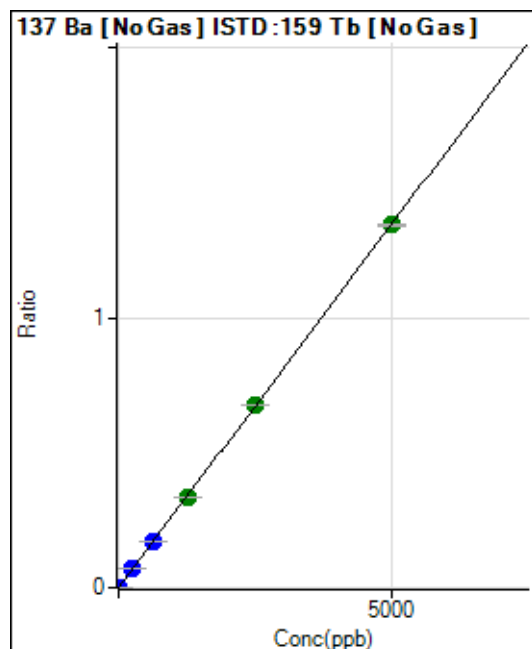
$$R = 1.0000$$

$$DL = 0.01421$$

$$BEC = 0.01655$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	38.89	0.0000	P	81.4
2	☐	10.000	10.338	52578.33	0.0028	P	0.5
3	☐	250.000	259.772	1292208.80	0.0700	P	0.7
4	☐	625.000	641.330	3141829.91	0.1728	P	1.2
5	☐	1250.000	1252.283	6012479.82	0.3374	A	0.2
6	☐	2500.000	2508.520	11880578.22	0.6759	A	0.3
7	☐	5000.000	4992.639	23368611.11	1.3452	A	0.4
8	☐			2558.69	0.0002	P	4.4

$$y = 2.6944E-004 * x + 1.9823E-006$$

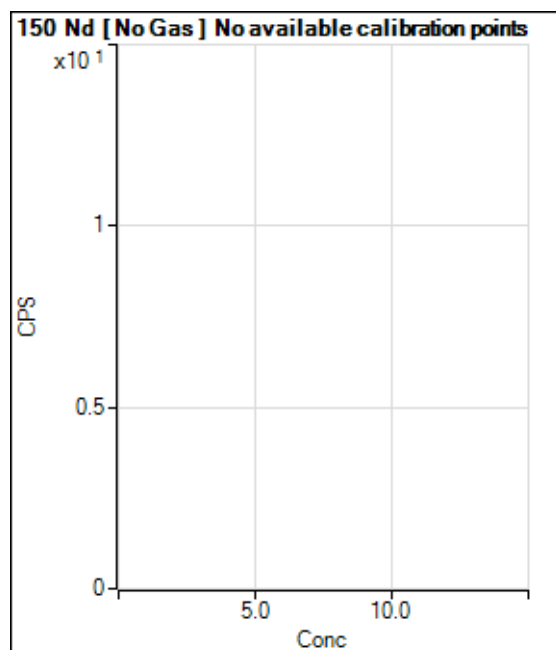
$$R = 1.0000$$

$$DL = 0.01798$$

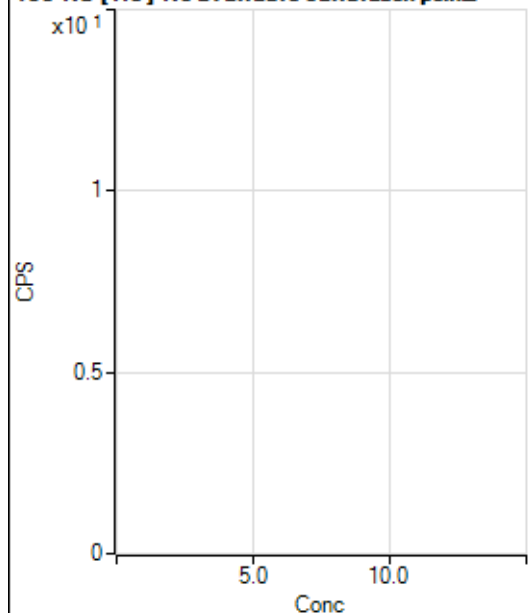
$$BEC = 0.007357$$

Weight: <None>

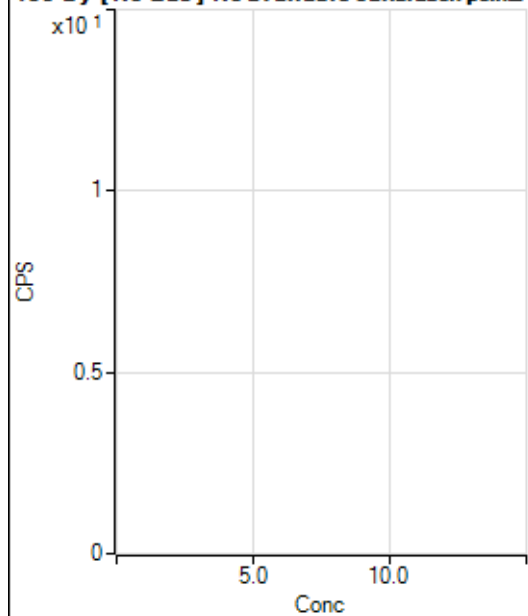
Min Conc: 0



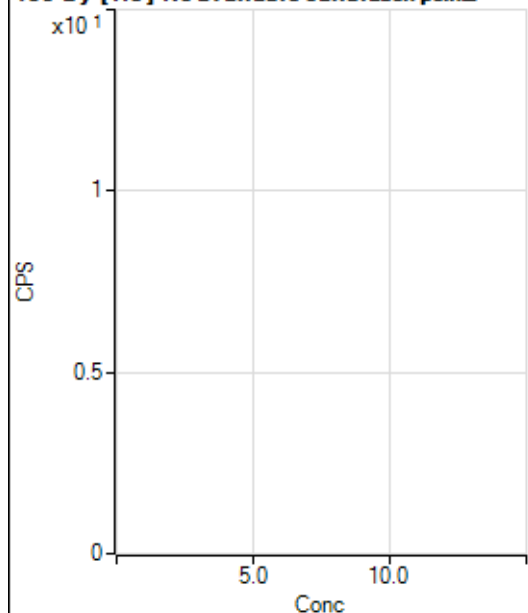
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			8.89		P	86.6
2	☐			4.44		P	173.2
3	☐			73.34		P	24.0
4	☐			191.12		P	26.2
5	☐			335.57		P	17.1
6	☐			684.49		P	11.1
7	☐			1271.22		P	3.0
8	☐			155.56		P	15.1

150 Nd [He] No available calibration points

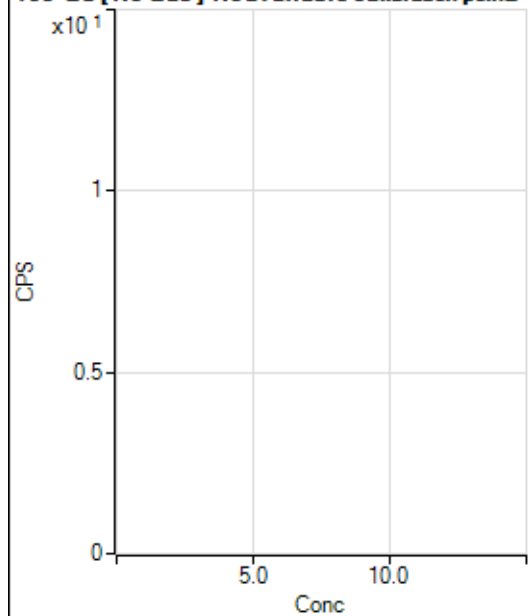
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	24.7
2	☐			6.67		P	132.3
3	☐			16.67		P	60.0
4	☐			32.22		P	15.8
5	☐			33.33		P	26.5
6	☐			51.11		P	52.7
7	☐			66.67		P	13.2
8	☐			70.00		P	41.2

156 Dy [No Gas] No available calibration points

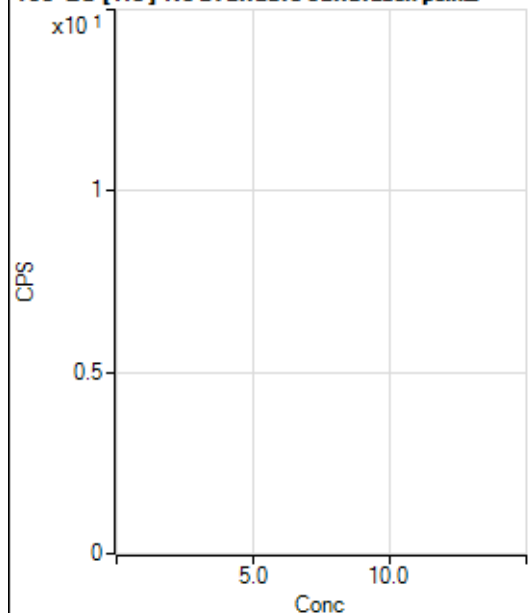
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	34.7
2	☐			33.33		P	25.0
3	☐			36.11		P	26.7
4	☐			41.67		P	60.0
5	☐			94.45		P	33.4
6	☐			161.12		P	42.1
7	☐			250.01		P	11.5
8	☐			72.23		P	24.0

156 Dy [He] No available calibration points

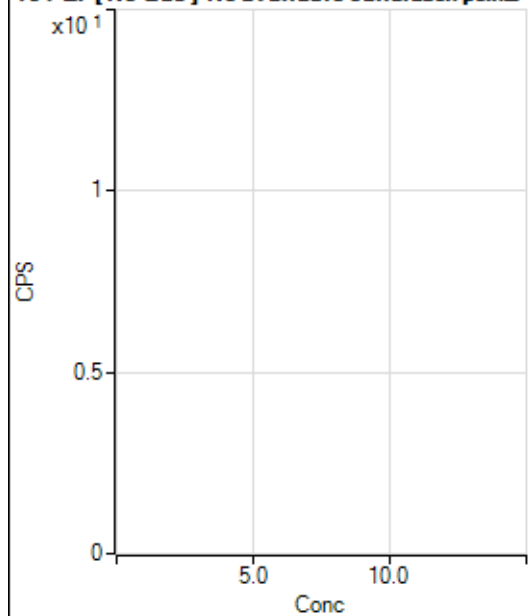
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.67		P	12.5
2	☐			22.22		P	56.8
3	☐			41.11		P	9.4
4	☐			48.89		P	20.8
5	☐			81.11		P	15.6
6	☐			104.45		P	15.1
7	☐			168.89		P	8.0
8	☐			58.89		P	25.5

160 Gd [No Gas] Noavailable calibration poin_

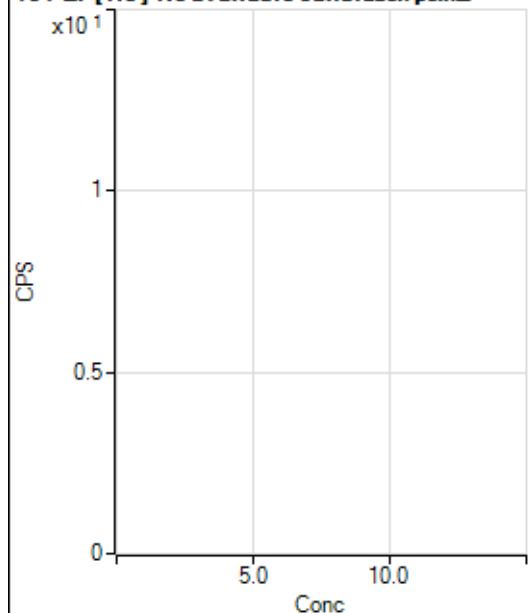
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			94.45		P	41.7
2	☐			122.23		P	3.9
3	☐			94.45		P	18.4
4	☐			91.67		P	18.2
5	☐			113.89		P	22.4
6	☐			113.90		P	34.6
7	☐			161.12		P	13.0
8	☐			111.12		P	28.4

160 Gd [He] No available calibration points

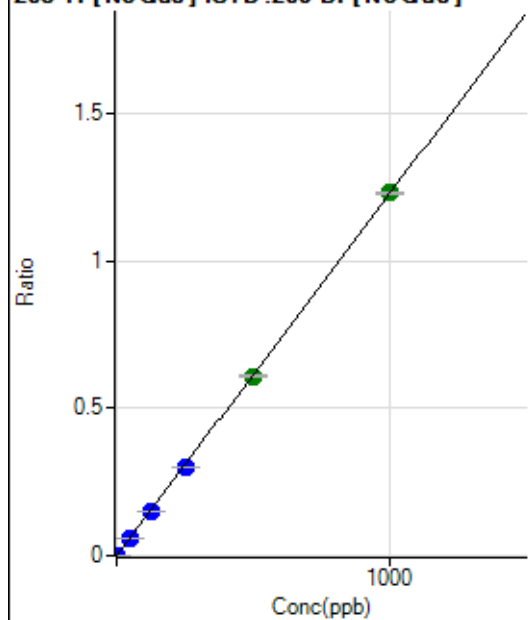
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			214.45		P	2.4
2	☐			177.78		P	2.2
3	☐			182.22		P	18.0
4	☐			195.56		P	8.6
5	☐			185.56		P	11.7
6	☐			207.78		P	16.9
7	☐			204.45		P	9.8
8	☐			185.56		P	9.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			88.89		P	19.5
2	☐			94.45		P	22.2
3	☐			75.00		P	22.2
4	☐			77.78		P	16.4
5	☐			113.90		P	8.5
6	☐			127.79		P	19.9
7	☐			119.45		P	20.1
8	☐			102.78		P	12.4

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			70.00		P	29.7
2	☐			67.78		P	2.8
3	☐			65.56		P	23.5
4	☐			75.56		P	26.6
5	☐			95.56		P	14.5
6	☐			77.78		P	15.0
7	☐			77.78		P	22.0
8	☐			83.34		P	12.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	933.41	0.0001	P	3.4
2	☐	1.000	0.931	16291.21	0.0012	P	2.7
3	☐	50.000	48.872	783933.29	0.0600	P	0.3
4	☐	125.000	122.569	1923978.06	0.1505	P	1.1
5	☐	250.000	245.756	3757048.00	0.3017	P	0.4
6	☐	500.000	496.400	7397717.61	0.6093	A	1.0
7	☐	1000.000	1003.221	14564684.70	1.2313	A	0.8
8	☐			4039.67	0.0004	P	5.1

$$y = 0.0012 * x + 6.6821E-005$$

$$R = 1.0000$$

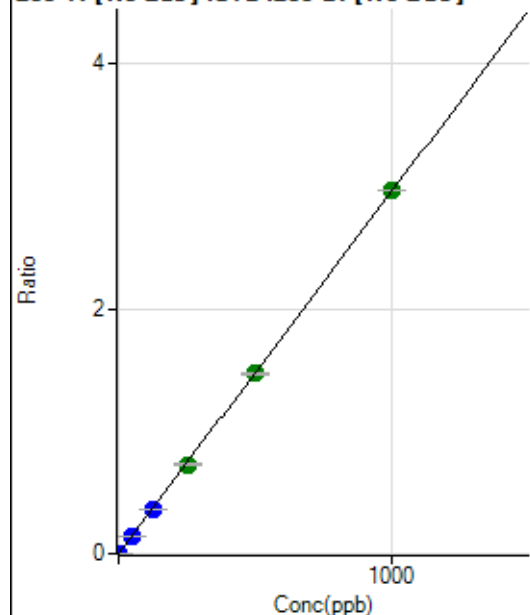
$$DL = 0.005623$$

$$BEC = 0.05445$$

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	1675.18	0.0001	P	6.6
2	☐	1.000	0.943	39136.45	0.0029	P	3.0
3	☐	50.000	48.956	1889371.33	0.1447	P	0.3
4	☐	125.000	123.464	4663561.13	0.3648	P	1.4
5	☐	250.000	246.755	9078275.64	0.7289	A	0.5
6	☐	500.000	497.089	17828768.28	1.4683	A	0.5
7	☐	1000.000	1002.511	35027150.78	2.9611	A	0.1
8	☐			8642.04	0.0008	P	7.5

$$y = 0.0030 * x + 1.1990E-004$$

$$R = 1.0000$$

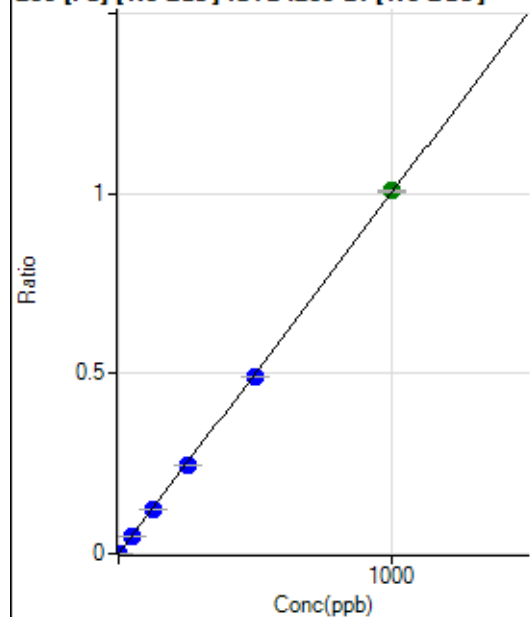
$$DL = 0.008079$$

$$BEC = 0.0406$$

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	1246.39	0.0001	P	2.8
2	☐	1.000	0.963	14204.14	0.0011	P	3.3
3	☐	50.000	49.207	644780.69	0.0494	P	0.8
4	☐	125.000	123.689	1585408.30	0.1240	P	1.0
5	☐	250.000	245.322	3062123.10	0.2459	P	0.3
6	☐	500.000	490.371	5966227.57	0.4914	P	0.8
7	☐	1000.000	1006.188	11925342.98	1.0081	A	0.4
8	☐			9911.35	0.0010	P	1.2

$$y = 0.0010 * x + 8.9213E-005$$

$$R = 0.9999$$

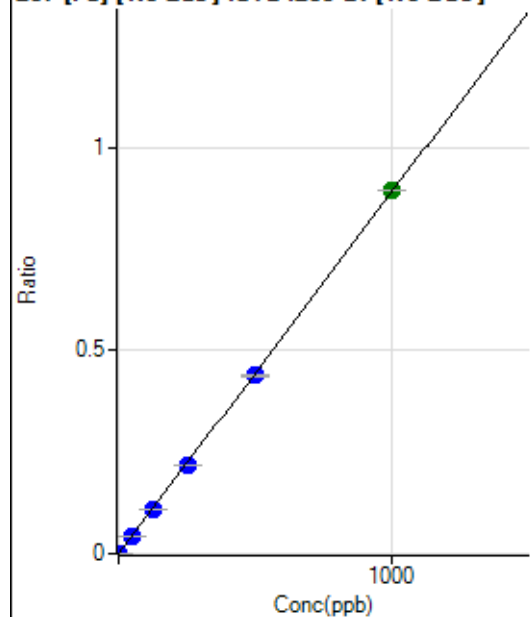
$$DL = 0.007579$$

$$BEC = 0.08905$$

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	1268.62	0.0001	P	11.8
2	☐	1.000	0.940	12480.28	0.0009	P	3.3
3	☐	50.000	49.439	574939.92	0.0440	P	0.8
4	☐	125.000	123.952	1409852.03	0.1103	P	0.9
5	☐	250.000	247.005	2735696.56	0.2197	P	0.2
6	☐	500.000	493.151	5323808.86	0.4385	P	0.7
7	☐	1000.000	1004.333	10561594.80	0.8929	A	0.2
8	☐			8918.03	0.0009	P	2.3

$$y = 8.8891E-004 * x + 9.0859E-005$$

$$R = 1.0000$$

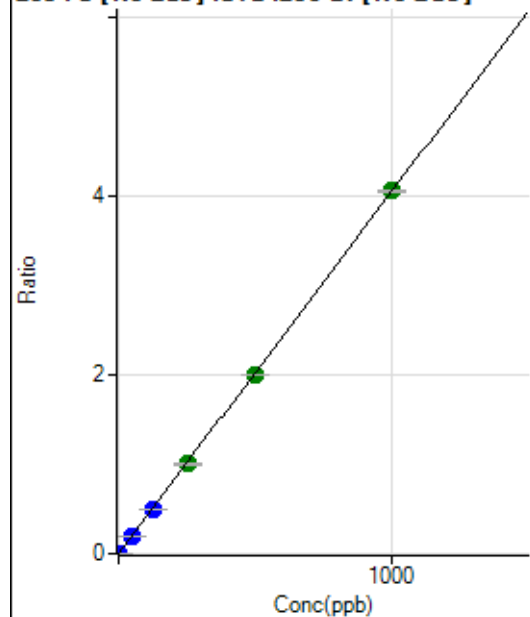
$$DL = 0.03624$$

$$BEC = 0.1022$$

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	4639.32	0.0003	P	5.1
2	☐	1.000	0.948	56076.62	0.0042	P	0.7
3	☐	50.000	49.464	2612532.52	0.2001	P	0.4
4	☐	125.000	123.932	6403618.82	0.5009	P	0.8
5	☐	250.000	247.498	12453313.45	0.9999	A	0.4
6	☐	500.000	495.732	24314962.06	2.0025	A	0.2
7	☐	1000.000	1002.920	47918404.08	4.0509	A	0.2
8	☐			39540.48	0.0038	P	1.0

$$y = 0.0040 * x + 3.3215E-004$$

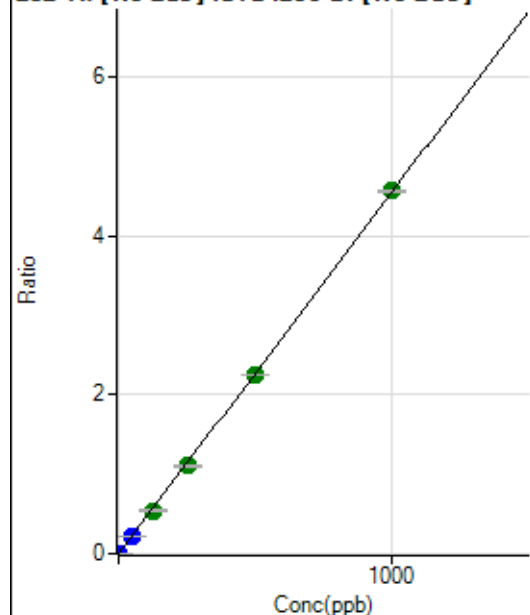
$$R = 1.0000$$

$$DL = 0.01259$$

$$BEC = 0.08224$$

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	2561.44	0.0002	P	5.5
2	☐	1.000	0.783	50443.82	0.0037	P	2.5
3	☐	50.000	46.970	2790086.06	0.2137	P	0.8
4	☐	125.000	119.796	6965218.21	0.5448	A	0.7
5	☐	250.000	242.878	13753435.61	1.1043	A	0.6
6	☐	500.000	495.020	27327295.29	2.2506	A	0.3
7	☐	1000.000	1005.073	54050382.23	4.5693	A	0.2
8	☐			10726.90	0.0010	P	2.2

$$y = 0.0045 * x + 1.8334E-004$$

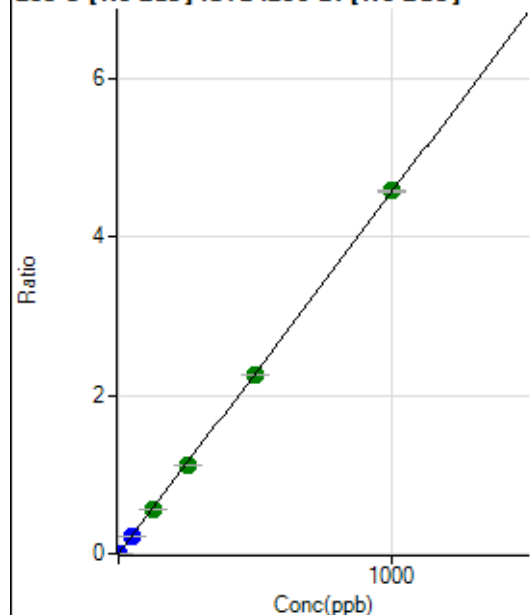
$$R = 1.0000$$

$$DL = 0.00671$$

$$BEC = 0.04033$$

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	3031.06	0.0002	P	3.4
2	☐	1.000	0.903	58443.37	0.0043	P	2.1
3	☐	50.000	47.603	2839219.94	0.2175	P	0.8
4	☐	125.000	120.403	7028289.65	0.5497	A	0.9
5	☐	250.000	243.057	13818335.38	1.1095	A	0.4
6	☐	500.000	496.087	27494522.49	2.2644	A	0.4
7	☐	1000.000	1004.387	54226861.28	4.5842	A	0.3
8	☐			5579.23	0.0005	P	4.7

$$y = 0.0046 * x + 2.1693E-004$$

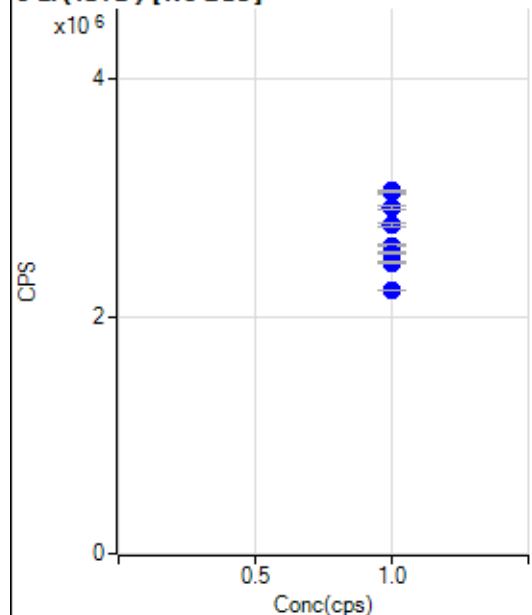
$$R = 1.0000$$

$$DL = 0.004859$$

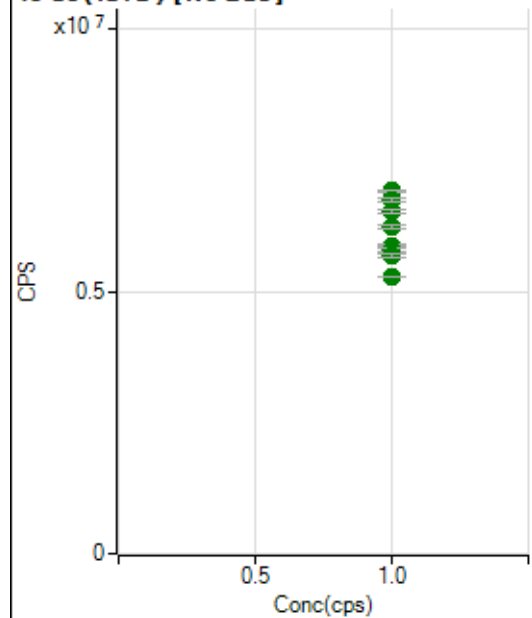
$$BEC = 0.04753$$

Weight: <None>

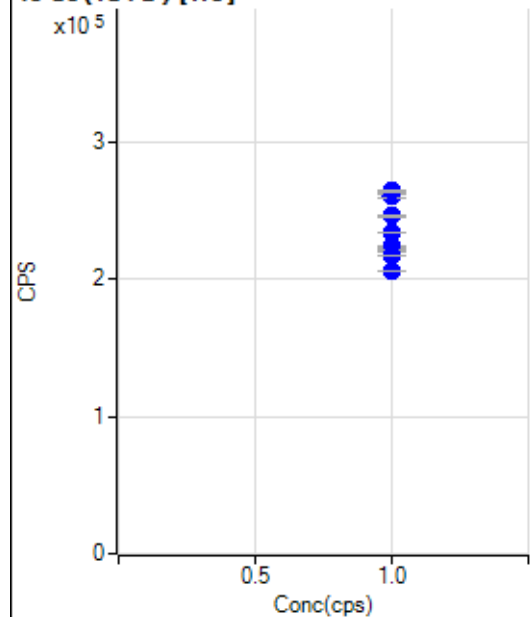
Min Conc: 0

6 Li (ISTD) [No Gas]

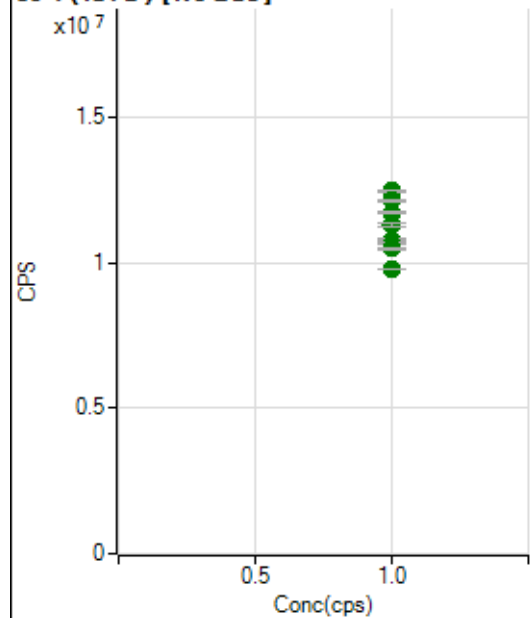
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3050794.37		P	0.9
2	☐	1.000		3057820.87		P	0.4
3	☐	1.000		2917479.05		P	1.3
4	☐	1.000		2767092.04		P	1.1
5	☐	1.000		2597160.03		P	0.6
6	☐	1.000		2535188.87		P	0.7
7	☐	1.000		2450969.32		P	0.5
8	☐	1.000		2220987.10		P	0.4

45 Sc (ISTD) [No Gas]

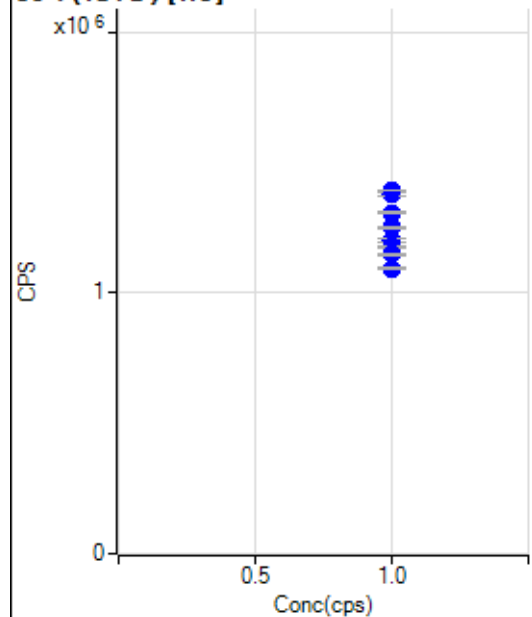
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6916206.49		A	0.7
2	☐	1.000		6757118.55		A	1.0
3	☐	1.000		6514580.27		A	1.0
4	☐	1.000		6235278.22		A	1.5
5	☐	1.000		5878489.58		A	0.4
6	☐	1.000		5796202.99		A	1.2
7	☐	1.000		5682781.85		A	0.9
8	☐	1.000		5291220.52		A	0.2

45 Sc (ISTD) [He]

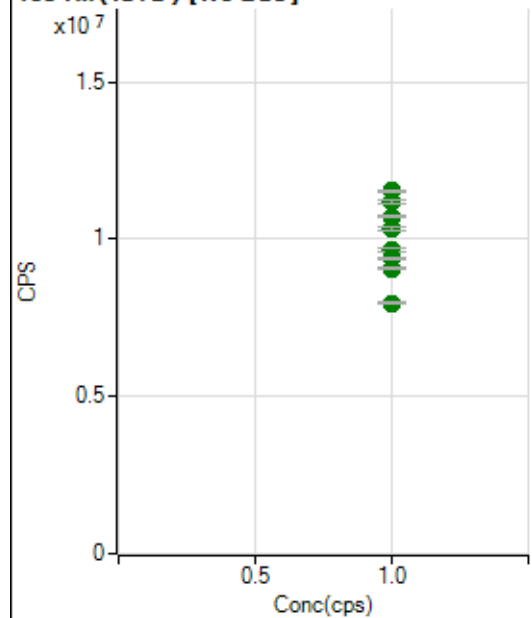
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		260904.89		P	0.7
2	☐	1.000		264511.79		P	0.2
3	☐	1.000		246209.16		P	0.6
4	☐	1.000		234420.36		P	0.3
5	☐	1.000		223981.24		P	0.9
6	☐	1.000		220985.47		P	1.0
7	☐	1.000		217250.35		P	0.5
8	☐	1.000		206129.73		P	0.4

89 Y (ISTD) [No Gas]

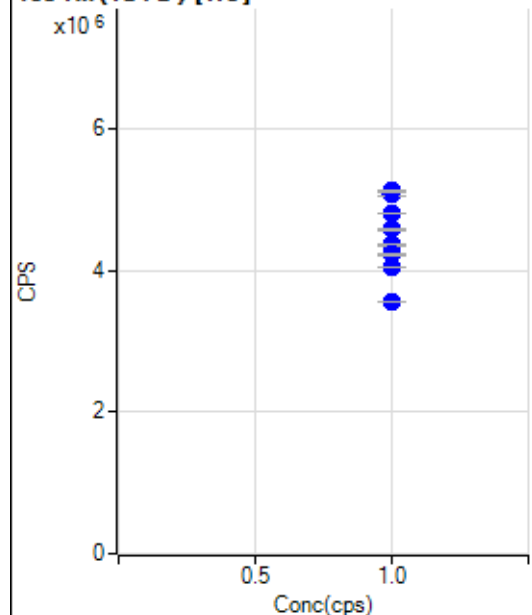
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12454747.87		A	0.4
2	☐	1.000		12133532.60		A	0.4
3	☐	1.000		11712536.63		A	0.5
4	☐	1.000		11290500.52		A	1.2
5	☐	1.000		10787155.95		A	0.2
6	☐	1.000		10646891.51		A	0.9
7	☐	1.000		10476068.25		A	0.9
8	☐	1.000		9763054.51		A	0.2

89 Y(ISTD) [He]

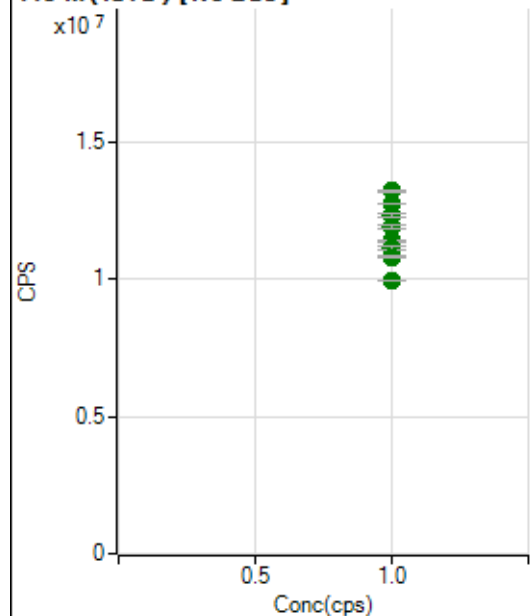
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1374925.85		P	1.1
2	☐	1.000		1389990.14		P	0.1
3	☐	1.000		1306176.54		P	0.4
4	☐	1.000		1250527.03		P	0.4
5	☐	1.000		1199159.41		P	1.1
6	☐	1.000		1176868.19		P	0.8
7	☐	1.000		1147117.61		P	0.6
8	☐	1.000		1093722.46		P	0.3

103 Rh(ISTD) [No Gas]

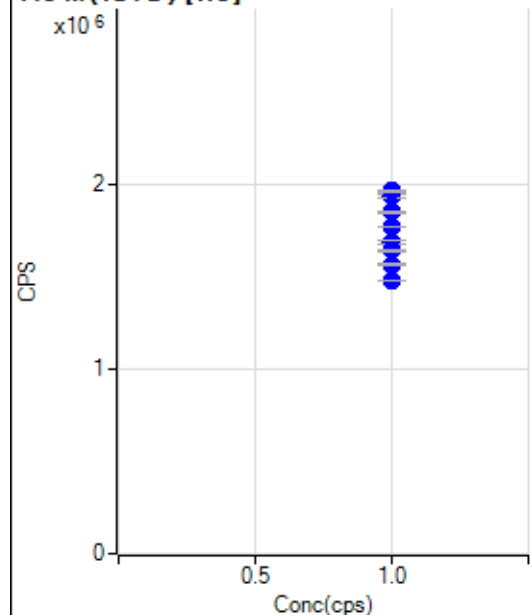
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11534767.70		A	0.8
2	☐	1.000		11184135.58		A	1.0
3	☐	1.000		10726687.65		A	0.3
4	☐	1.000		10323376.79		A	1.1
5	☐	1.000		9669262.80		A	0.8
6	☐	1.000		9385110.71		A	0.7
7	☐	1.000		9057003.59		A	0.8
8	☐	1.000		7971885.16		A	0.2

103 Rh (ISTD) [He]

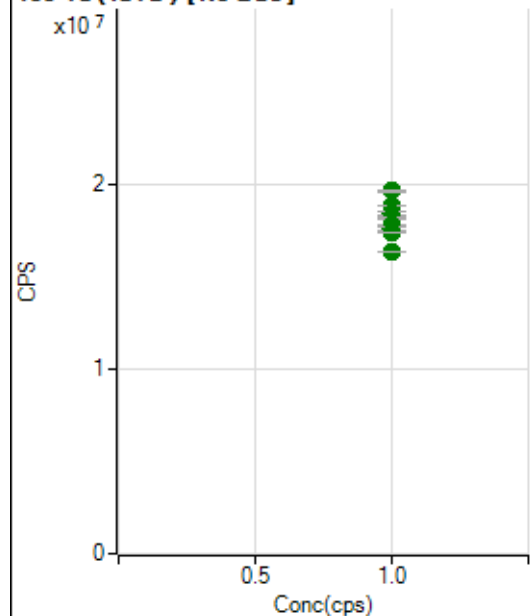
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5082158.36		P	1.0
2	☐	1.000		5123846.35		P	0.7
3	☐	1.000		4810673.71		P	0.3
4	☐	1.000		4583412.26		P	0.4
5	☐	1.000		4359279.00		P	1.0
6	☐	1.000		4230047.47		P	0.8
7	☐	1.000		4041250.43		P	0.3
8	☐	1.000		3555553.84		P	0.5

115 In (ISTD) [No Gas]

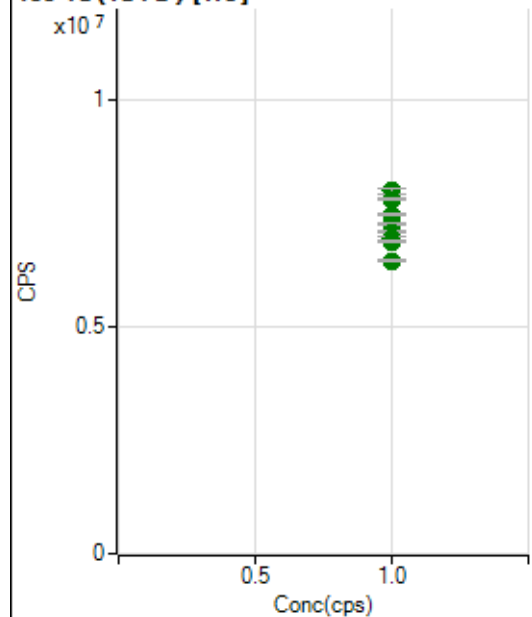
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		13195833.25		A	0.6
2	☐	1.000		12716993.72		A	0.2
3	☐	1.000		12313898.66		A	1.0
4	☐	1.000		11914710.97		A	1.1
5	☐	1.000		11366321.86		A	0.4
6	☐	1.000		11117967.35		A	1.0
7	☐	1.000		10794596.46		A	0.3
8	☐	1.000		9955384.55		A	0.1

115 In (ISTD) [He]

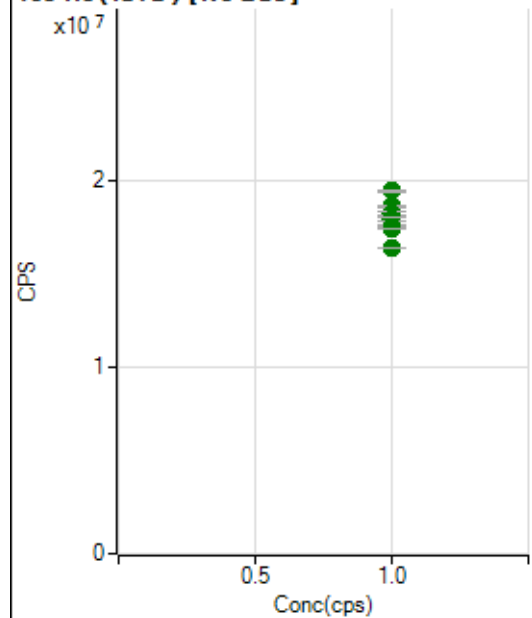
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1933978.06		P	1.3
2	☐	1.000		1960699.25		P	0.6
3	☐	1.000		1845206.01		P	0.2
4	☐	1.000		1764689.91		P	0.3
5	☐	1.000		1682345.87		P	1.1
6	☐	1.000		1637008.95		P	1.1
7	☐	1.000		1563754.35		P	0.7
8	☐	1.000		1476251.56		P	0.6

159 Tb (ISTD) [No Gas]

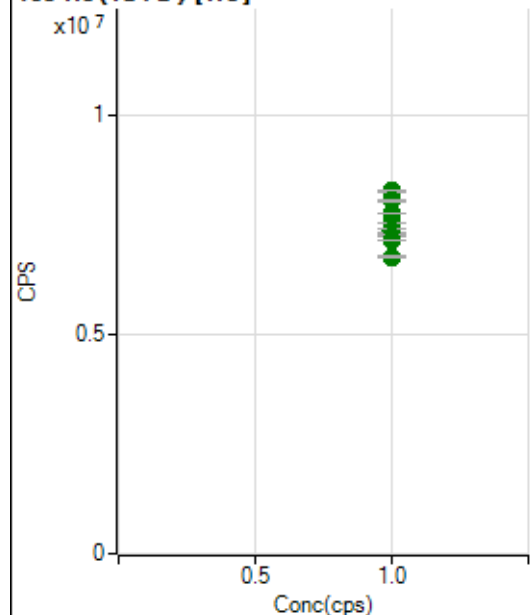
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19650439.15		A	0.3
2	☐	1.000		18862193.61		A	0.4
3	☐	1.000		18462760.28		A	1.2
4	☐	1.000		18182365.98		A	0.8
5	☐	1.000		17819388.48		A	0.4
6	☐	1.000		17577762.79		A	1.0
7	☐	1.000		17371796.27		A	0.1
8	☐	1.000		16363090.31		A	0.3

159 Tb (ISTD) [He]

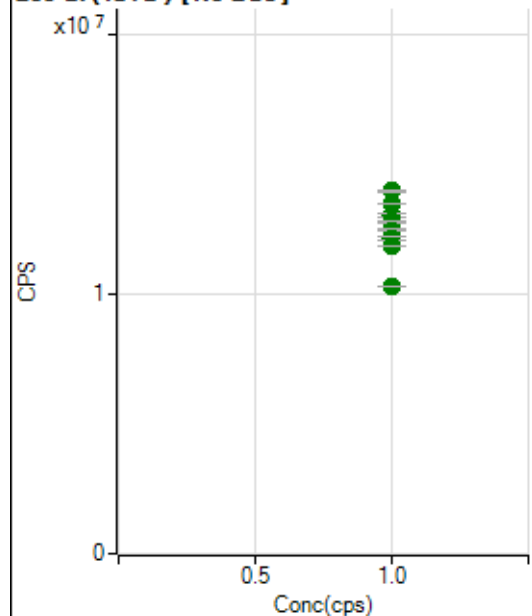
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7987919.67		A	1.4
2	☐	1.000		7802129.75		A	0.5
3	☐	1.000		7467285.37		A	0.6
4	☐	1.000		7260178.92		A	0.2
5	☐	1.000		7083797.46		A	0.6
6	☐	1.000		6956819.41		A	1.1
7	☐	1.000		6878397.26		A	0.5
8	☐	1.000		6451371.99		A	0.6

165 Ho (ISTD) [No Gas]

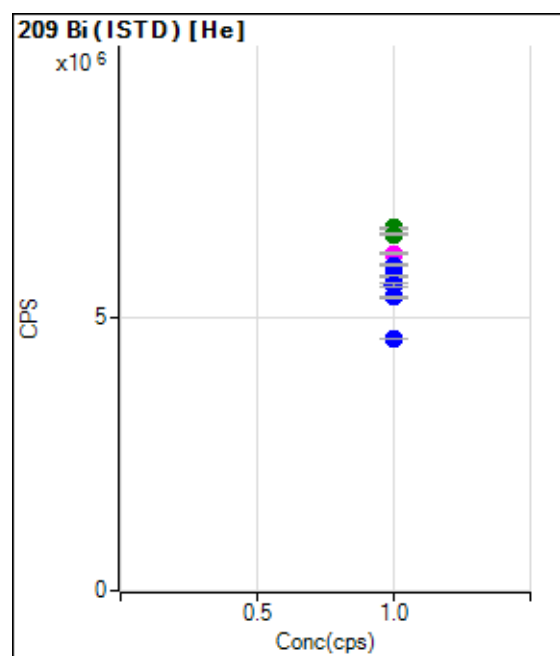
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19492876.83		A	0.6
2	☐	1.000		18651338.09		A	0.2
3	☐	1.000		18285937.91		A	1.0
4	☐	1.000		18021462.03		A	1.1
5	☐	1.000		17608721.92		A	0.9
6	☐	1.000		17540398.65		A	0.5
7	☐	1.000		17464435.29		A	0.5
8	☐	1.000		16420729.19		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8279848.70		A	0.7
2	☐	1.000		8059441.61		A	0.6
3	☐	1.000		7765059.61		A	0.4
4	☐	1.000		7551462.32		A	0.1
5	☐	1.000		7376744.06		A	0.9
6	☐	1.000		7248173.50		A	0.7
7	☐	1.000		7149248.09		A	0.3
8	☐	1.000		6766866.56		A	0.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13971163.13		A	0.8
2	☐	1.000		13476439.66		A	0.4
3	☐	1.000		13056012.58		A	0.9
4	☐	1.000		12785626.34		A	0.9
5	☐	1.000		12454393.56		A	0.5
6	☐	1.000		12142545.37		A	0.8
7	☐	1.000		11829014.54		A	0.2
8	☐	1.000		10296953.18		A	0.3



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6642378.79		A	0.7
2	☐	1.000		6525488.72		A	0.7
3	☐	1.000		6168502.62		M	0.7
4	☐	1.000		5956755.88		P	0.5
5	☐	1.000		5757925.75		P	1.0
6	☐	1.000		5596121.31		P	1.3
7	☐	1.000		5370486.52		P	0.6
8	☐	1.000		4617474.76		P	0.3

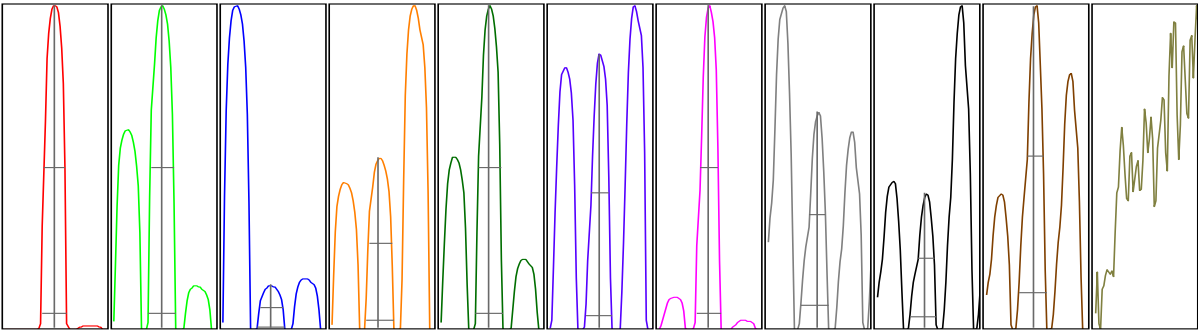
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7092819-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	10493	0.60	5.00	
24	132896	0.74	5.00	
25	17916	0.75	5.00	
26	21126	1.08	5.00	
59	98855	0.91	5.00	
113	15993	1.07	5.00	
115	185786	0.84	5.00	
206	57245	0.56	5.00	
207	53774	0.67	5.00	
208	125590	0.61	5.00	
220	121	2.21		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10589	10496	10448	10505	10426
24	134429	132900	133060	132041	132052
25	18063	17913	18032	17822	17750
26	21424	21207	21190	20977	20829
59	100045	99120	99193	97895	98024
113	16247	15972	16065	15854	15825
115	187800	186817	185780	184465	184070
206	57616	57181	57516	57061	56850
207	54364	53399	53816	53655	53635
208	126203	125484	126538	124755	124969
220	118	120	125	121	122

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	17571	9.00	8.9 - 9.1		0.741	0.900	
24	210212	23.95	23.9 - 24.1		0.790	0.900	
25	28334	24.95	24.9 - 25.1		0.791	0.900	
26	33145	25.90	25.9 - 26.1		0.830	0.900	
59	168277	58.95	58.9 - 59.1		0.783	0.900	
113	30422	113.00	112.9 - 113.1		0.761	0.900	
115	355379	115.00	114.9 - 115.1		0.732	0.900	
206	112076	206.00	205.9 - 206.1		0.786	0.900	
207	102040	206.95	206.9 - 207.1		0.752	0.900	
208	244049	207.95	207.9 - 208.1		0.788	0.900	
220			-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.1	V	Deflect	12.0	V
Extract 2	-110.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	180	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	24669	0.18	
89	30309	0.37	
205	44482	0.35	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	24717	24612	24695	24689	24632
89	30224	30191	30473	30317	30340
205	44728	44296	44465	44493	44430

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	6.4	V	Deflect	1.6	V
Extract 2	-135.0	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	190	V			