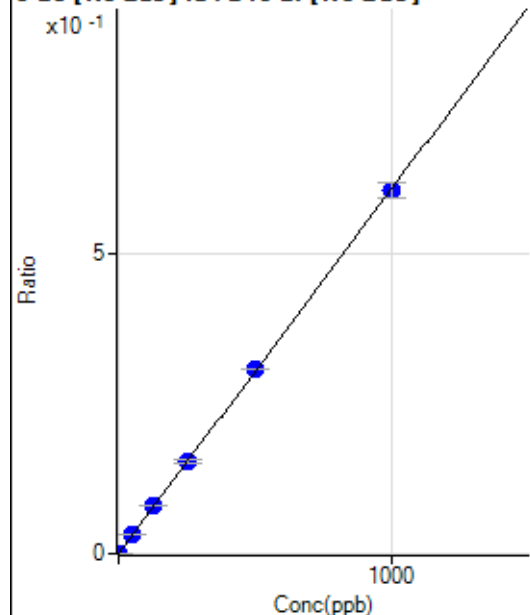


Calibration for 003CALS.d

Batch Folder: D:\ICP-MS Data\P7091919ICPMS.b\
 Analysis File: P7091919ICPMS.batch.bin
 DA Date-Time: 2019-09-20 03:11:27
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-09-19 13:35:37
2	003CALS.d	S01	2019-09-19 13:39:13
3	004CALS.d	S02	2019-09-19 13:43:40
4	005CALS.d	S03	2019-09-19 13:47:36
5	006CALS.d	S04	2019-09-19 13:51:47
6	007CALS.d	S05	2019-09-19 13:55:36
7	008CALS.d	S06	2019-09-19 13:59:24
8	009CALS.d	S07	2019-09-19 14:03:10
9	010CALS.d	S08	2019-09-19 14:06:57

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	65.56	0.0000	P	28.2
2	☐	0.100	0.098	287.79	0.0001	P	12.2
3	☐	1.000	1.017	2461.35	0.0006	P	4.4
4	☐	50.000	51.643	118111.29	0.0313	P	1.4
5	☐	125.000	130.190	289897.28	0.0789	P	0.2
6	☐	250.000	252.844	561288.36	0.1532	P	2.7
7	☐	500.000	507.446	1082982.53	0.3075	P	0.3
8	☐	1000.000	994.835	2035399.64	0.6028	P	4.2
9	☐			24136.04	0.0076	P	1.4

$$y = 6.0595\text{E-}004 * x + 1.6902\text{E-}005$$

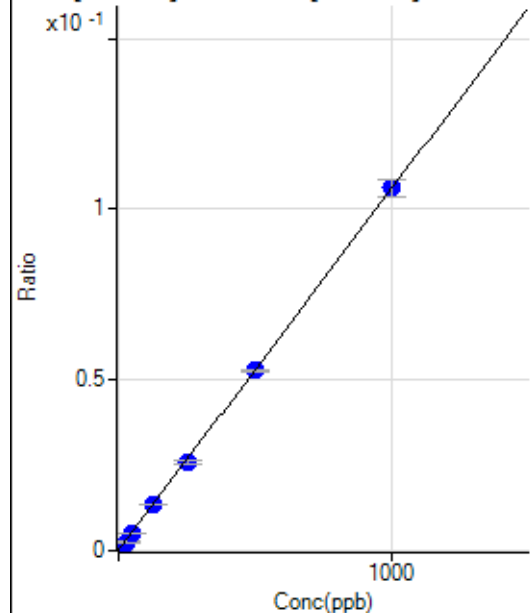
$$R = 0.9999$$

$$DL = 0.02364$$

$$BEC = 0.02789$$

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	422.24	0.0001	P	19.0
2	☐	2.500	2.460	1394.56	0.0004	P	15.2
3	☐	25.000	22.779	9803.58	0.0025	P	1.2
4	☐	50.000	49.011	19991.71	0.0053	P	0.9
5	☐	125.000	126.941	49794.18	0.0136	P	2.8
6	☐	250.000	245.274	95537.63	0.0261	P	4.0
7	☐	500.000	497.051	185778.56	0.0527	P	0.3
8	☐	1000.000	1002.518	358825.18	0.1063	P	4.8
9	☐			20670.31	0.0065	P	3.2

$$y = 1.0591\text{E-}004 * x + 1.0887\text{E-}004$$

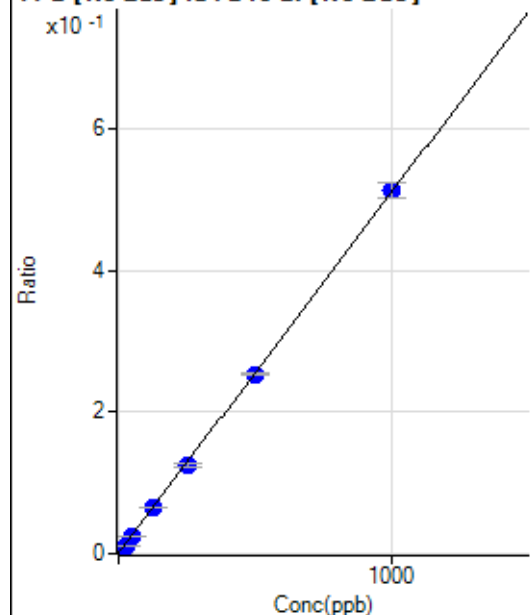
$$R = 1.0000$$

$$DL = 0.5847$$

$$BEC = 1.028$$

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	2436.41	0.0006	P	6.1
2	☐	2.500	2.339	6876.83	0.0018	P	5.9
3	☐	25.000	22.379	46759.33	0.0120	P	2.6
4	☐	50.000	48.967	96449.57	0.0256	P	0.3
5	☐	125.000	125.180	236532.17	0.0644	P	1.2
6	☐	250.000	244.347	458156.18	0.1251	P	2.7
7	☐	500.000	495.120	890286.41	0.2528	P	0.8
8	☐	1000.000	1003.948	1728428.34	0.5119	P	4.3
9	☐			98530.10	0.0312	P	6.9

$$y = 5.0930\text{E-}004 * x + 6.2786\text{E-}004$$

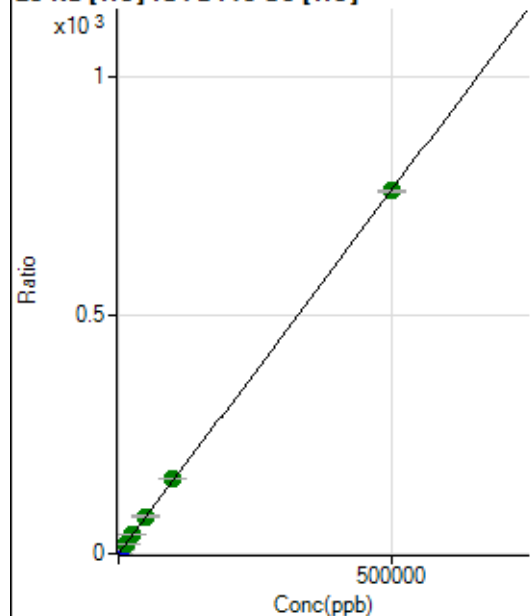
$$R = 1.0000$$

$$DL = 0.2261$$

$$BEC = 1.233$$

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	18069.89	0.0504	P	1.8
2	☐	50.000	48.858	44985.01	0.1249	P	0.8
3	☐	500.000	499.989	289895.82	0.8129	P	0.4
4	☐	5000.000	5145.679	2755730.27	7.8974	P	0.8
5	☐	12500.000	13191.649	6803369.16	20.1673	A	0.4
6	☐	25000.000	25824.468	13318190.57	39.4319	A	0.3
7	☐	50000.000	51472.965	25865461.52	78.5450	A	0.5
8	☐	100000.00	102910.25	50135114.66	156.9852	A	0.1
9	☐	500000.00	499210.68	249452811.1	761.3304	A	0.4

$$y = 0.0015 * x + 0.0504$$

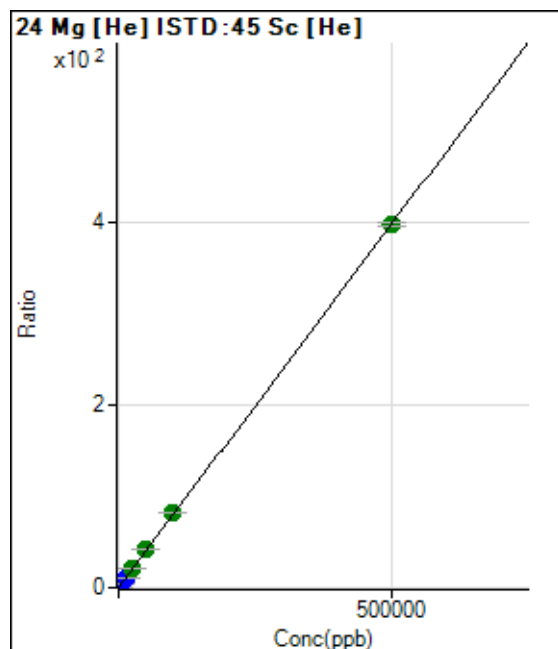
$$R = 1.0000$$

$$DL = 1.749$$

$$BEC = 33.07$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	416.69	0.0012	P	12.8
2	☐	50.000	51.607	15230.48	0.0423	P	0.8
3	☐	500.000	528.545	150667.45	0.4225	P	1.2
4	☐	5000.000	5268.961	1466019.87	4.2014	P	1.1
5	☐	12500.000	13363.345	3594092.31	10.6540	P	0.4
6	☐	25000.000	26329.227	7089387.74	20.9899	A	0.2
7	☐	50000.000	52004.357	13652153.78	41.4573	A	0.6
8	☐	100000.00	103633.57	26383764.83	82.6144	A	0.5
9	☐	500000.00	498982.08	130325522.3	397.7730	A	1.0

$$y = 7.9717\text{E-}004 * x + 0.0012$$

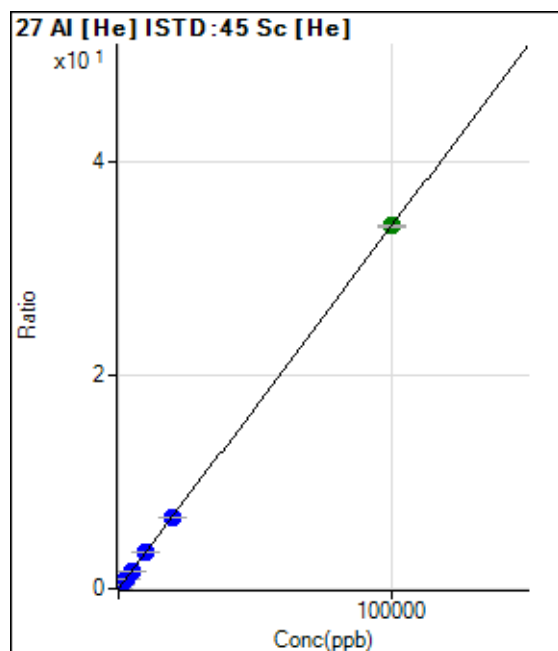
$$R = 1.0000$$

$$DL = 0.5595$$

$$BEC = 1.458$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.67	0.0001	P	52.7
2	☐	2.000	1.453	219.46	0.0006	P	7.8
3	☐	20.000	19.228	2369.73	0.0066	P	5.0
4	☐	1000.000	1002.241	118807.50	0.3405	P	2.0
5	☐	2500.000	2561.873	293553.30	0.8702	P	0.7
6	☐	5000.000	4998.489	573386.65	1.6977	P	1.1
7	☐	10000.000	9898.602	1107058.82	3.3618	P	0.9
8	☐	20000.000	19721.801	2139060.03	6.6979	P	0.9
9	☐	100000.00	100064.28	11134999.38	33.9834	A	0.4

$$y = 3.3961\text{E-}004 * x + 1.1613\text{E-}004$$

$$R = 1.0000$$

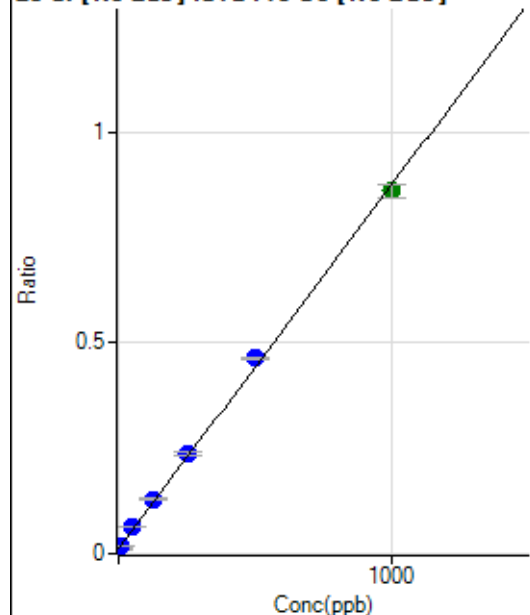
$$DL = 0.5407$$

$$BEC = 0.342$$

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD : 45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	95985.01	0.0115	P	1.1
2	☐	1.000	1.567	104254.60	0.0128	P	5.2
3	☐	10.000	8.968	161654.73	0.0192	P	1.2
4	☐	50.000	58.696	506948.63	0.0621	P	1.0
5	☐	125.000	136.574	1043147.05	0.1293	P	1.1
6	☐	250.000	260.556	1914992.51	0.2363	P	3.1
7	☐	500.000	523.267	3598493.96	0.4630	P	1.0
8	☐	1000.000	983.856	6459139.68	0.8605	A	3.9
9	☐			398012.11	0.0554	P	0.8

$$y = 8.6300E-004 * x + 0.0115$$

$$R = 0.9995$$

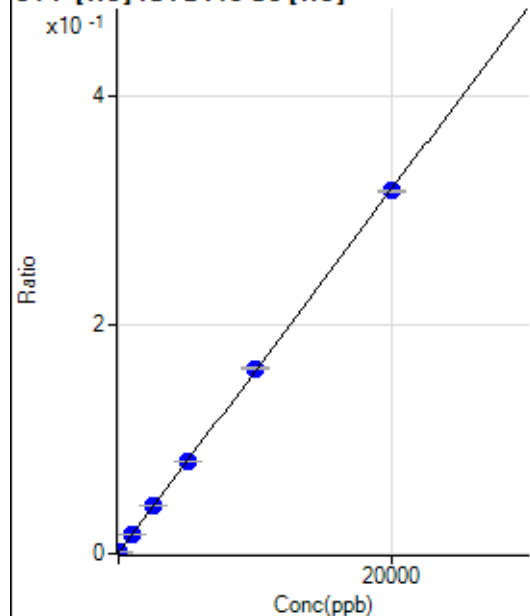
$$DL = 0.4185$$

$$BEC = 13.27$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-19.252	161.12	0.0004	P	33.0
2	☐	0.000	-13.602	194.45	0.0005	P	20.5
3	☐	0.000	32.854	455.58	0.0013	P	7.4
4	☐	1000.000	989.369	5745.78	0.0165	P	2.2
5	☐	2500.000	2616.458	14271.28	0.0423	P	0.5
6	☐	5000.000	5022.380	27192.30	0.0805	P	1.5
7	☐	10000.000	10129.523	53221.16	0.1616	P	1.2
8	☐	20000.000	19915.618	101242.45	0.3170	P	0.3
9	☐			1522.38	0.0046	P	2.0

$$y = 1.5880E-005 * x + 7.5562E-004$$

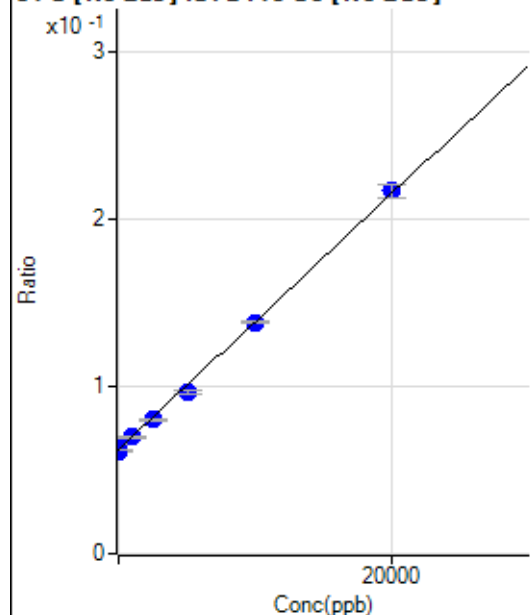
$$R = 1.0000$$

$$DL = 22.23$$

$$BEC = 47.58$$

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	-139.390	513619.51	0.0613	P	0.9
2	☐	0.000	193.170	519698.27	0.0638	P	5.0
3	☐	0.000	-53.780	521724.23	0.0619	P	0.7
4	☐	1000.000	952.784	568453.72	0.0696	P	0.7
5	☐	2500.000	2311.507	645686.91	0.0800	P	1.1
6	☐	5000.000	4485.909	783598.55	0.0967	P	2.4
7	☐	10000.000	9917.626	1074474.19	0.1383	P	0.4
8	☐	20000.000	20195.632	1628309.23	0.2169	P	3.4
9	☐			465075.29	0.0647	P	1.7

$$y = 7.6532\text{E-}006 * x + 0.0624$$

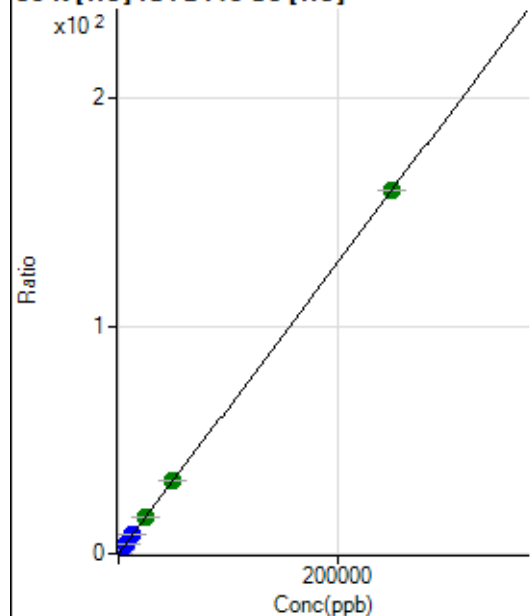
$$R = 0.9995$$

$$DL = 547$$

$$BEC = 8147$$

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	15525.45	0.0433	P	1.7
2	☐	50.000	47.618	26535.74	0.0737	P	0.9
3	☐	500.000	493.585	127701.20	0.3581	P	0.8
4	☐	2500.000	2515.278	574842.57	1.6473	P	0.4
5	☐	6250.000	6391.440	1389586.59	4.1192	P	0.7
6	☐	12500.000	12595.924	2727645.96	8.0758	P	0.1
7	☐	25000.000	25160.317	5298071.86	16.0882	A	0.4
8	☐	50000.000	50138.448	10225031.74	32.0170	A	0.3
9	☐	250000.00	249947.80	52240709.85	159.4369	A	0.1

$$y = 6.3771\text{E-}004 * x + 0.0433$$

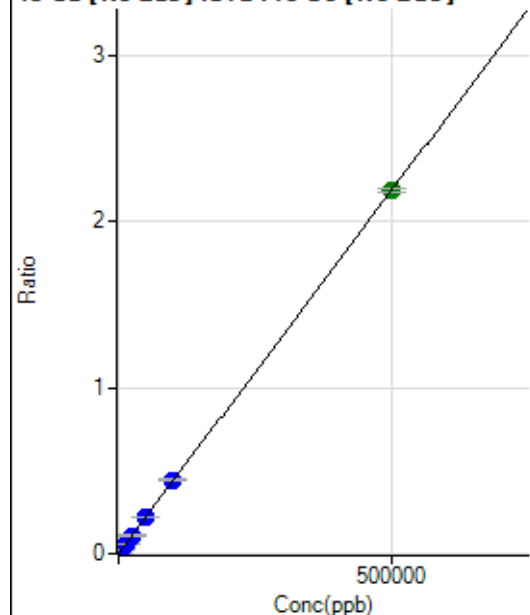
$$R = 1.0000$$

$$DL = 3.411$$

$$BEC = 67.95$$

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	177.79	0.0000	P	19.8
2	☐	50.000	49.196	1919.65	0.0002	P	10.5
3	☐	500.000	488.169	18136.79	0.0022	P	0.9
4	☐	5000.000	5112.067	182408.65	0.0223	P	0.6
5	☐	12500.000	12759.480	449720.95	0.0557	P	0.3
6	☐	25000.000	24965.049	883804.02	0.1091	P	2.8
7	☐	50000.000	50641.077	1719088.15	0.2212	P	0.4
8	☐	100000.00	101772.63	3336789.57	0.4445	P	3.4
9	☐	500000.00	499575.51	15679079.34	2.1819	A	1.2

$$y = 4.3675E-006 * x + 2.1219E-005$$

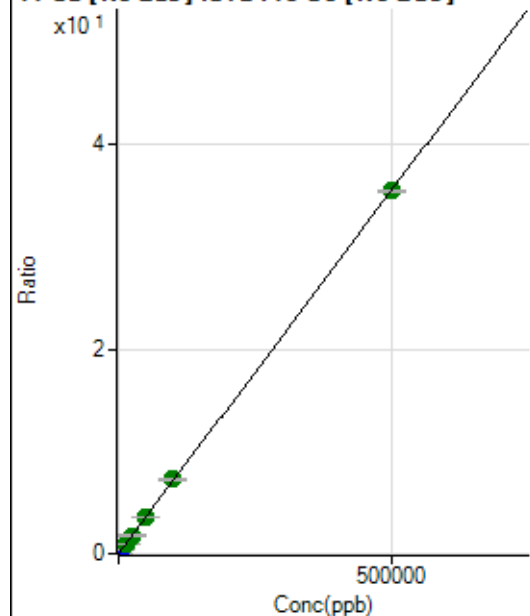
$$R = 1.0000$$

$$DL = 2.881$$

$$BEC = 4.858$$

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	12594.81	0.0015	P	1.7
2	☐	50.000	51.470	42024.75	0.0052	P	4.1
3	☐	500.000	482.225	301277.76	0.0358	P	0.6
4	☐	5000.000	5131.858	2988620.75	0.3662	P	0.9
5	☐	12500.000	12819.816	7360713.88	0.9125	A	0.4
6	☐	25000.000	25097.092	14464845.98	1.7849	A	2.7
7	☐	50000.000	50845.704	28090680.14	3.6145	A	0.6
8	☐	100000.00	102241.39	54547561.64	7.2666	A	3.4
9	☐	500000.00	499453.00	255043425.1	35.4919	A	0.4

$$y = 7.1059E-005 * x + 0.0015$$

$$R = 1.0000$$

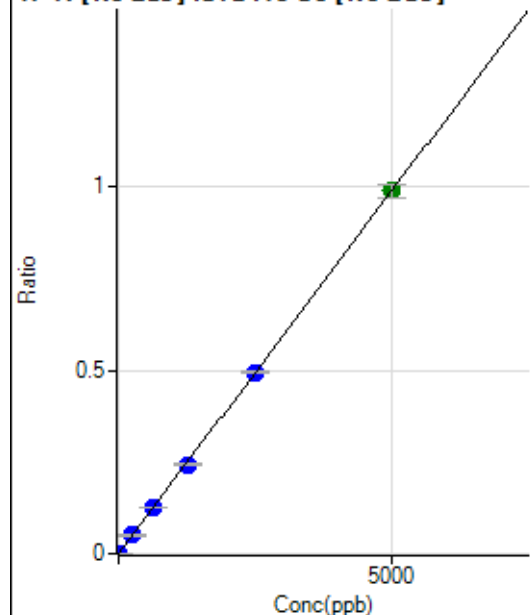
$$DL = 1.102$$

$$BEC = 21.15$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.12	0.0000	P	28.3
2	☐	0.500	0.503	919.51	0.0001	P	6.9
3	☐	5.000	5.054	8513.94	0.0010	P	3.9
4	☐	250.000	252.236	406473.85	0.0498	P	0.5
5	☐	625.000	629.346	1002176.60	0.1242	P	0.6
6	☐	1250.000	1228.314	1964897.18	0.2425	P	2.7
7	☐	2500.000	2499.434	3834101.39	0.4934	P	1.0
8	☐	5000.000	5005.049	7415743.83	0.9879	A	3.5
9	☐			90214.38	0.0126	P	0.4

$$y = 1.9738\text{E-}004 * x + 1.3253\text{E-}005$$

$$R = 1.0000$$

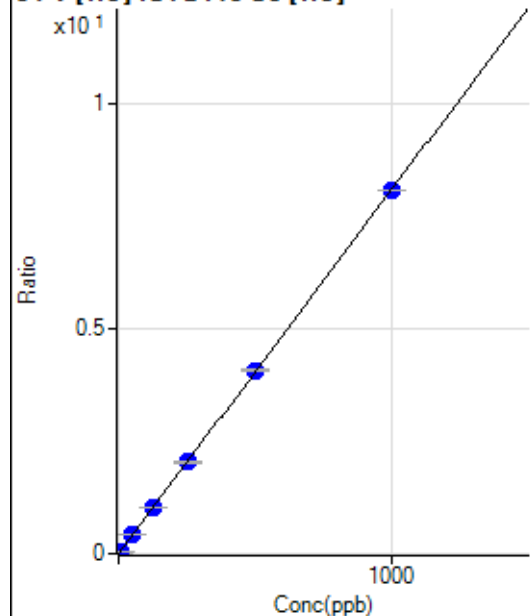
$$DL = 0.0569$$

$$BEC = 0.06714$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	33.7
2	☐	0.500	0.533	1561.22	0.0043	P	3.6
3	☐	5.000	5.211	15040.07	0.0422	P	2.2
4	☐	50.000	50.686	143076.88	0.4100	P	0.5
5	☐	125.000	128.950	351884.18	1.0431	P	0.4
6	☐	250.000	251.421	686905.55	2.0338	P	0.5
7	☐	500.000	504.164	1342964.58	4.0782	P	0.7
8	☐	1000.000	997.034	2575644.58	8.0650	P	0.1
9	☐			32773.22	0.1000	P	1.7

$$y = 0.0081 * x + 2.7931\text{E-}005$$

$$R = 1.0000$$

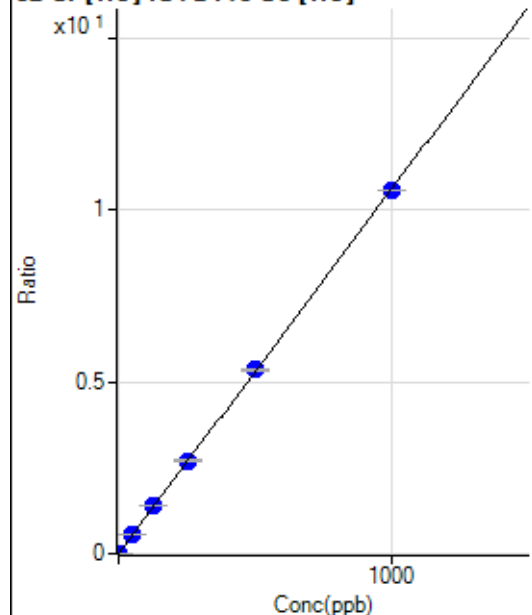
$$DL = 0.003487$$

$$BEC = 0.003453$$

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	582.24	0.0016	P	3.9
2	☐	0.200	0.221	1426.76	0.0040	P	3.3
3	☐	2.000	2.056	8341.36	0.0234	P	0.1
4	☐	50.000	51.437	190593.02	0.5462	P	1.9
5	☐	125.000	131.140	468940.47	1.3901	P	0.7
6	☐	250.000	255.217	913222.51	2.7038	P	0.7
7	☐	500.000	504.545	1759723.62	5.3437	P	0.3
8	☐	1000.000	995.584	3366932.80	10.5427	P	0.1
9	☐			143080.72	0.4367	P	1.0

$$y = 0.0106 * x + 0.0016$$

$$R = 1.0000$$

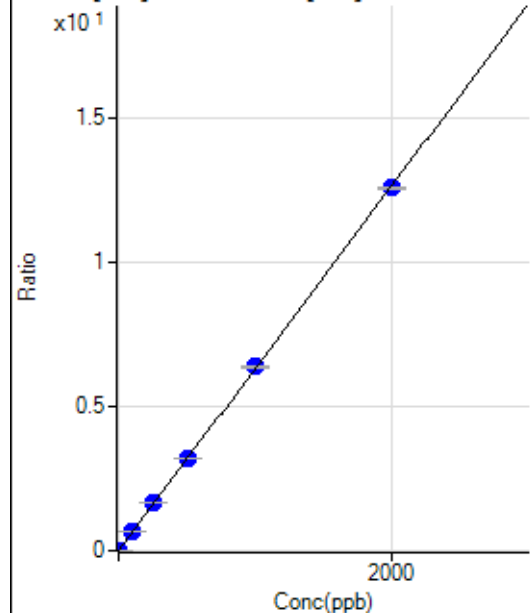
$$DL = 0.01814$$

$$BEC = 0.1535$$

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	54.44	0.0002	P	15.1
2	☐	0.100	0.104	291.12	0.0008	P	15.4
3	☐	1.000	1.056	2432.47	0.0068	P	3.4
4	☐	100.000	102.402	225688.91	0.6468	P	1.2
5	☐	250.000	259.206	552228.67	1.6370	P	0.5
6	☐	500.000	510.576	1089019.95	3.2243	P	0.4
7	☐	1000.000	1010.382	2101163.98	6.3805	P	0.6
8	☐	2000.000	1990.894	4015072.13	12.5722	P	0.3
9	☐			62780.04	0.1916	P	1.1

$$y = 0.0063 * x + 1.5190E-004$$

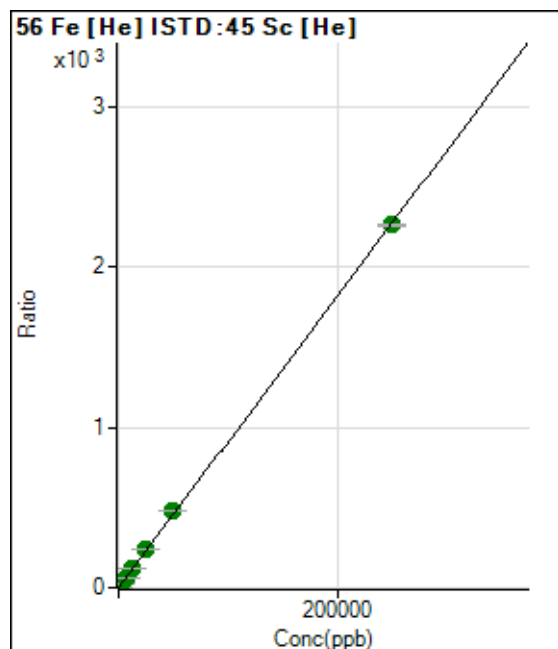
$$R = 1.0000$$

$$DL = 0.0109$$

$$BEC = 0.02405$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2165.04	0.0060	P	2.9
2	☐	5.000	5.378	19769.32	0.0549	P	1.4
3	☐	50.000	55.168	180918.77	0.5073	P	0.9
4	☐	2500.000	2689.680	8530300.77	24.4458	A	0.4
5	☐	6250.000	6835.254	20954390.51	62.1146	A	0.3
6	☐	12500.000	13397.530	41118777.31	121.7428	A	0.3
7	☐	25000.000	26498.242	79291392.51	240.7826	A	0.7
8	☐	50000.000	52296.577	151761101.5	475.1994	A	0.2
9	☐	250000.00	249329.45	742292720.2	2,265.540	A	0.9

$$y = 0.0091 * x + 0.0060$$

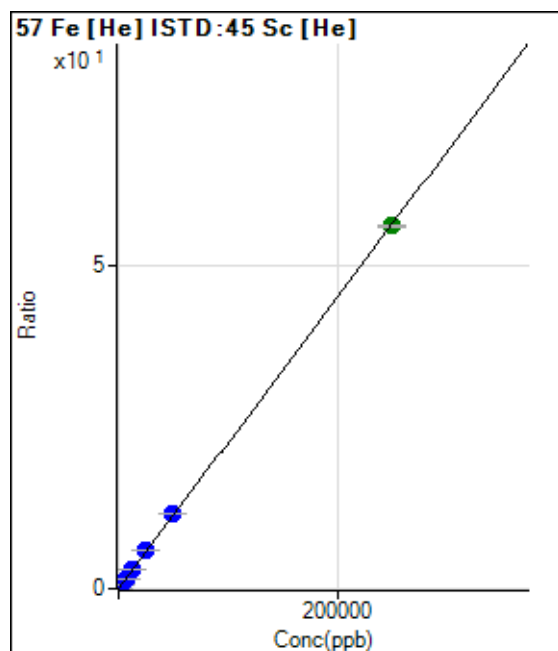
$$R = 0.9999$$

$$DL = 0.05865$$

$$BEC = 0.665$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	90.74	0.0003	P	4.0
2	☐	5.000	5.608	546.32	0.0015	P	11.6
3	☐	50.000	55.728	4569.35	0.0128	P	6.1
4	☐	2500.000	2683.787	211139.48	0.6051	P	0.7
5	☐	6250.000	6812.971	518057.66	1.5357	P	0.5
6	☐	12500.000	13374.637	1018126.30	3.0144	P	0.3
7	☐	25000.000	26364.596	1956734.58	5.9419	P	0.2
8	☐	50000.000	52011.173	3743462.18	11.7217	P	0.5
9	☐	250000.00	249401.66	18416051.34	56.2066	A	0.6

$$y = 2.2536E-004 * x + 2.5328E-004$$

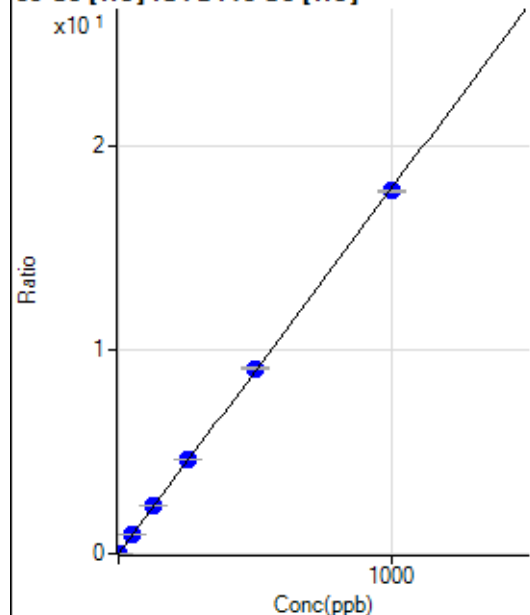
$$R = 1.0000$$

$$DL = 0.1334$$

$$BEC = 1.124$$

Weight: <None>

Min Conc: 0

59 Co [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0003	P	5.2
2	☐	0.100	0.101	758.92	0.0021	P	4.5
3	☐	1.000	0.992	6449.30	0.0181	P	3.5
4	☐	50.000	52.453	328257.12	0.9408	P	1.7
5	☐	125.000	132.045	798778.48	2.3678	P	0.6
6	☐	250.000	257.536	1559651.40	4.6178	P	0.7
7	☐	500.000	507.940	2999086.41	9.1074	P	1.0
8	☐	1000.000	993.143	5686827.42	17.8069	P	0.3
9	☐			135858.25	0.4146	P	0.5

$$y = 0.0179 * x + 2.9769E-004$$

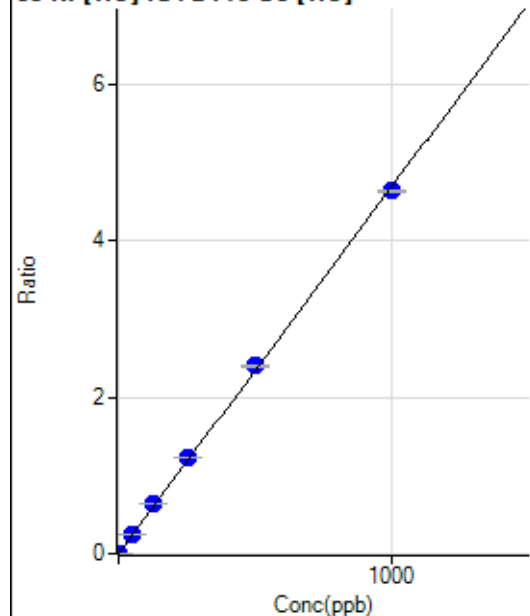
$$R = 0.9999$$

$$DL = 0.002587$$

$$BEC = 0.0166$$

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	132.23	0.0004	P	16.1
2	☐	0.100	0.088	281.12	0.0008	P	17.9
3	☐	1.000	1.121	2003.50	0.0056	P	2.7
4	☐	50.000	53.765	87965.35	0.2521	P	0.7
5	☐	125.000	134.587	212692.01	0.6305	P	0.6
6	☐	250.000	261.454	413566.37	1.2245	P	0.2
7	☐	500.000	512.147	789739.42	2.3982	P	0.6
8	☐	1000.000	989.676	1479889.19	4.6339	P	0.5
9	☐			59056.33	0.1802	P	0.9

$$y = 0.0047 * x + 3.6888E-004$$

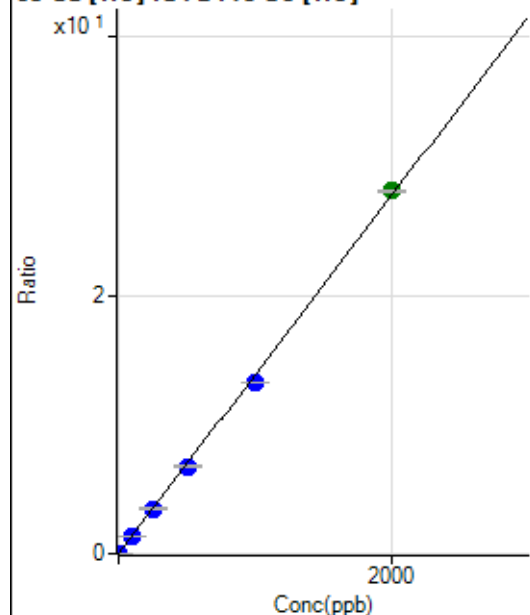
$$R = 0.9998$$

$$DL = 0.03796$$

$$BEC = 0.07879$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	852.26	0.0024	P	1.0
2	☐	0.200	0.196	1835.70	0.0051	P	2.6
3	☐	2.000	1.948	10469.45	0.0294	P	2.7
4	☐	100.000	100.158	484906.67	1.3896	P	0.6
5	☐	250.000	251.530	1176063.97	3.4863	P	0.6
6	☐	500.000	488.298	2285106.23	6.7657	P	0.4
7	☐	1000.000	953.293	4348903.93	13.2062	P	0.4
8	☐	2000.000	2026.080	8962885.70	28.0650	A	0.6
9	☐			114231.52	0.3487	P	1.0

$$y = 0.0139 * x + 0.0024$$

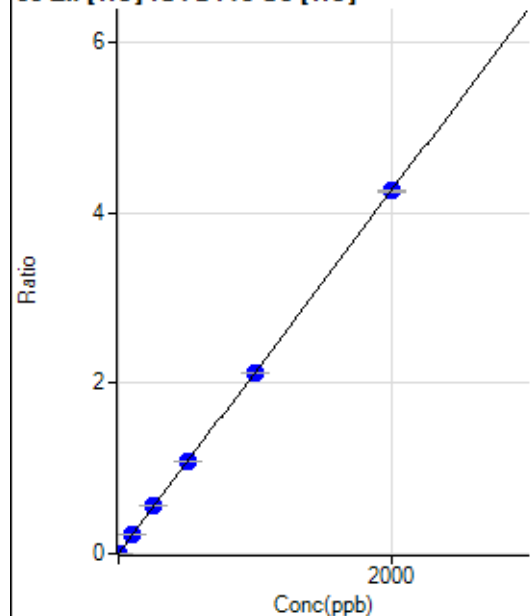
$$R = 0.9996$$

$$DL = 0.005193$$

$$BEC = 0.1717$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1004.50	0.0028	P	5.7
2	☐	0.200					
3	☐	2.000	2.484	2882.55	0.0081	P	5.8
4	☐	100.000	104.394	78432.47	0.2248	P	1.3
5	☐	250.000	262.484	189227.22	0.5609	P	0.2
6	☐	500.000	510.476	367551.16	1.0882	P	0.8
7	☐	1000.000	993.778	696786.95	2.1159	P	0.7
8	☐	2000.000	1998.712	1358148.37	4.2527	P	0.3
9	☐			27238.90	0.0831	P	0.1

$$y = 0.0021 * x + 0.0028$$

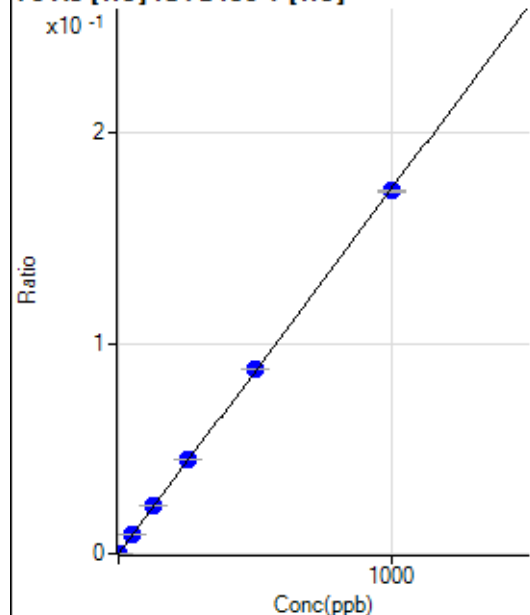
$$R = 1.0000$$

$$DL = 0.2273$$

$$BEC = 1.318$$

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	11.73	0.0000	P	23.4
2	☐	0.100	0.086	45.06	0.0000	P	24.5
3	☐	1.000	1.006	398.77	0.0002	P	6.4
4	☐	50.000	51.459	19290.66	0.0089	P	0.8
5	☐	125.000	130.679	47671.01	0.0227	P	0.6
6	☐	250.000	256.565	93067.41	0.0445	P	0.3
7	☐	500.000	506.253	179656.97	0.0879	P	0.9
8	☐	1000.000	994.450	340104.62	0.1726	P	0.5
9	☐			4341.43	0.0022	P	2.2

$$y = 1.7353\text{E-}004 * x + 5.2761\text{E-}006$$

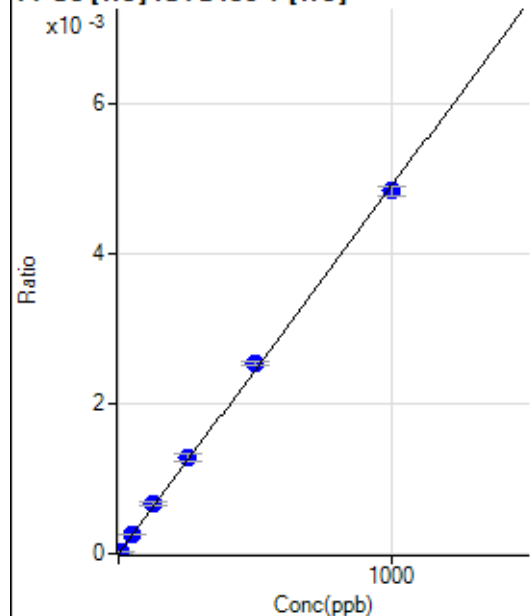
$$R = 0.9999$$

$$DL = 0.02138$$

$$BEC = 0.0304$$

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	☐	0.500	0.813	8.89	0.0000	P	57.1
3	☐	5.000	4.912	53.33	0.0000	P	17.9
4	☐	50.000	50.279	531.13	0.0002	P	2.2
5	☐	125.000	135.045	1388.98	0.0007	P	8.3
6	☐	250.000	260.800	2666.96	0.0013	P	8.6
7	☐	500.000	517.713	5179.90	0.0025	P	1.5
8	☐	1000.000	987.174	9519.93	0.0048	P	2.7
9	☐			105.56	0.0001	P	19.2

$$y = 4.8929\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9997$$

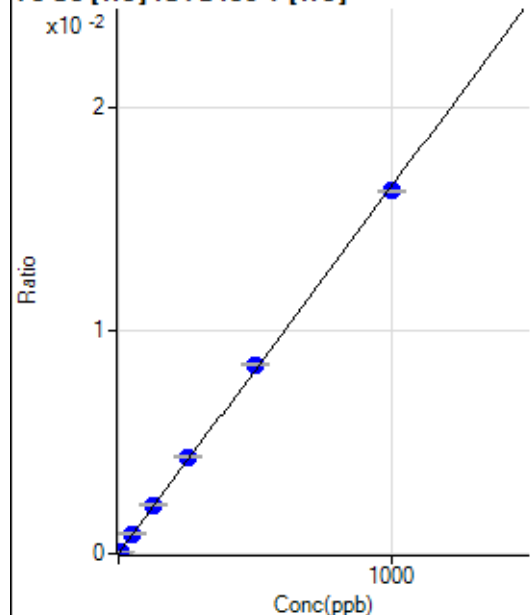
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.93	0.0000	P	6.6
2	☐	0.500	0.701	51.85	0.0000	P	21.9
3	☐	5.000	5.859	239.51	0.0001	P	3.8
4	☐	50.000	54.033	1943.98	0.0009	P	3.9
5	☐	125.000	132.768	4614.35	0.0022	P	1.7
6	☐	250.000	263.184	9072.66	0.0043	P	0.7
7	☐	500.000	515.096	17350.00	0.0085	P	1.1
8	☐	1000.000	987.979	32049.59	0.0163	P	0.8
9	☐			414.21	0.0002	P	2.3

$$y = 1.6449\text{E-}005 * x + 1.1673\text{E-}005$$

$$R = 0.9997$$

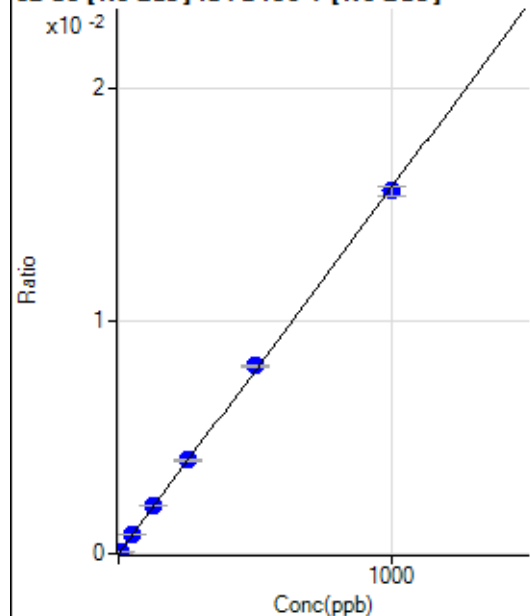
$$DL = 0.141$$

$$BEC = 0.7097$$

Weight: <None>

Min Conc: 0

82 Se [No Gas] ISTD:89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-29.95	0.0000	P	-537.
2	☐	0.500					
3	☐	5.000	5.442	1480.98	0.0001	P	13.8
4	☐	50.000	53.637	14399.83	0.0008	P	0.6
5	☐	125.000	132.684	35370.62	0.0021	P	1.1
6	☐	250.000	255.862	69217.93	0.0040	P	2.8
7	☐	500.000	513.168	133793.02	0.0081	P	0.8
8	☐	1000.000	990.806	249026.53	0.0156	P	2.8
9	☐			2530.37	0.0002	P	2.9

$$y = 1.5709\text{E-}005 * x - 1.7059\text{E-}006$$

$$R = 0.9998$$

$$DL = 1.751$$

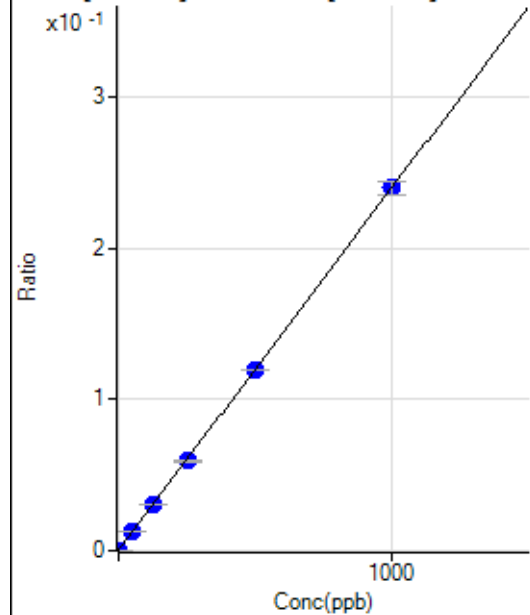
$$BEC = -0.1086$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2879.22		P	3.8
2	☐			2998.15		P	5.1
3	☐			3003.69		P	4.5
4	☐			2879.23		P	4.5
5	☐			2951.46		P	1.9
6	☐			2755.86		P	1.8
7	☐			2752.53		P	2.7
8	☐			2702.52		P	2.3
9	☐			2682.53		P	1.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	4809.38	0.0003	P	1.7
2	☐	0.100	0.195	5434.60	0.0003	P	6.1
3	☐	1.000	0.972	8936.55	0.0005	P	1.9
4	☐	50.000	50.914	213196.78	0.0124	P	0.4
5	☐	125.000	126.633	519011.74	0.0306	P	0.8
6	☐	250.000	246.102	1018889.33	0.0591	P	1.6
7	☐	500.000	499.427	1987386.05	0.1197	P	0.3
8	☐	1000.000	1001.011	3834697.26	0.2397	P	3.4
9	☐			63666.95	0.0042	P	1.0

$$y = 2.3916E-004 * x + 2.7322E-004$$

$$R = 1.0000$$

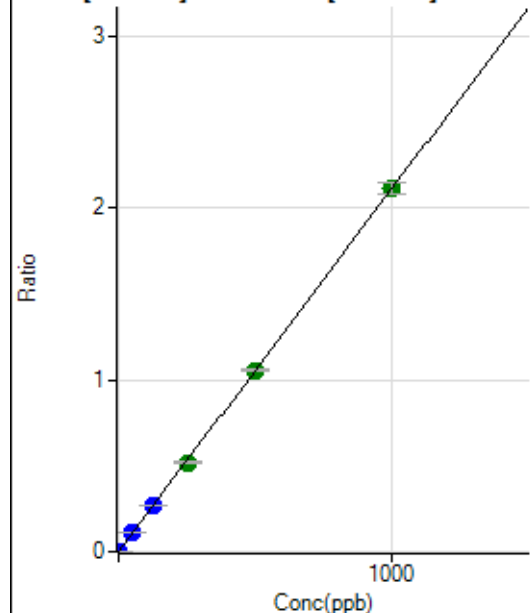
$$DL = 0.05874$$

$$BEC = 1.142$$

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	233.35	0.0000	P	20.1
2	☐	0.100	0.099	3775.65	0.0002	P	7.6
3	☐	1.000	0.973	36525.04	0.0021	P	1.8
4	☐	50.000	50.670	1831204.84	0.1069	P	0.3
5	☐	125.000	125.923	4513154.01	0.2657	P	0.8
6	☐	250.000	245.944	8942145.17	0.5190	A	2.1
7	☐	500.000	500.432	17530143.62	1.0560	A	0.4
8	☐	1000.000	1000.649	33785451.10	2.1115	A	3.1
9	☐			523758.84	0.0345	P	0.3

$$y = 0.0021 * x + 1.3260E-005$$

$$R = 1.0000$$

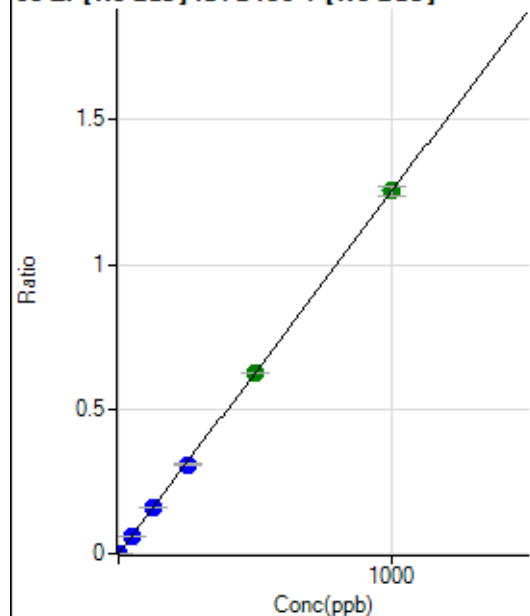
$$DL = 0.00378$$

$$BEC = 0.006284$$

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	1314.01	0.0001	P	12.4
2	☐	0.100	0.079	2955.99	0.0002	P	6.5
3	☐	1.000	0.871	20579.28	0.0012	P	4.5
4	☐	50.000	49.748	1067927.58	0.0624	P	1.3
5	☐	125.000	125.305	2666067.77	0.1570	P	0.4
6	☐	250.000	244.908	5284679.03	0.3067	P	2.2
7	☐	500.000	498.983	10372679.31	0.6248	A	0.5
8	☐	1000.000	1001.756	20070936.73	1.2543	A	2.9
9	☐			240090.24	0.0158	P	0.6

$$y = 0.0013 * x + 7.4653E-005$$

$$R = 1.0000$$

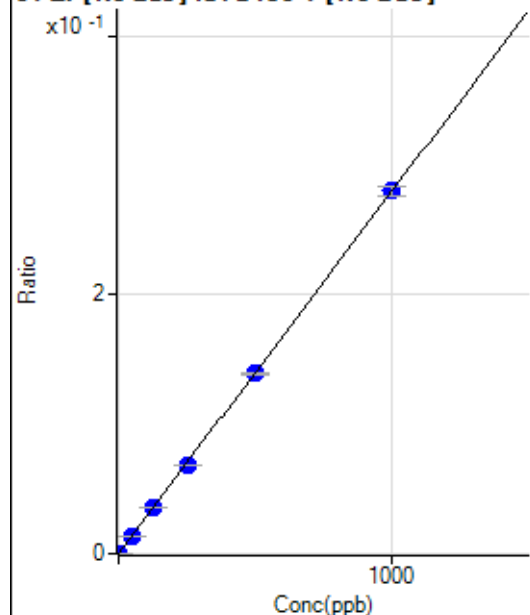
$$DL = 0.02214$$

$$BEC = 0.05962$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	297.24	0.0000	P	33.0
2	☐	0.100	0.073	630.60	0.0000	P	18.7
3	☐	1.000	0.878	4634.31	0.0003	P	5.7
4	☐	50.000	50.098	240023.63	0.0140	P	0.5
5	☐	125.000	125.428	595616.68	0.0351	P	0.4
6	☐	250.000	244.494	1177531.66	0.0683	P	1.8
7	☐	500.000	497.618	2308643.24	0.1391	P	0.9
8	☐	1000.000	1002.509	4483127.71	0.2802	P	2.6
9	☐			53932.93	0.0036	P	2.7

$$y = 2.7944\text{E-}004 * x + 1.6892\text{E-}005$$

$$R = 1.0000$$

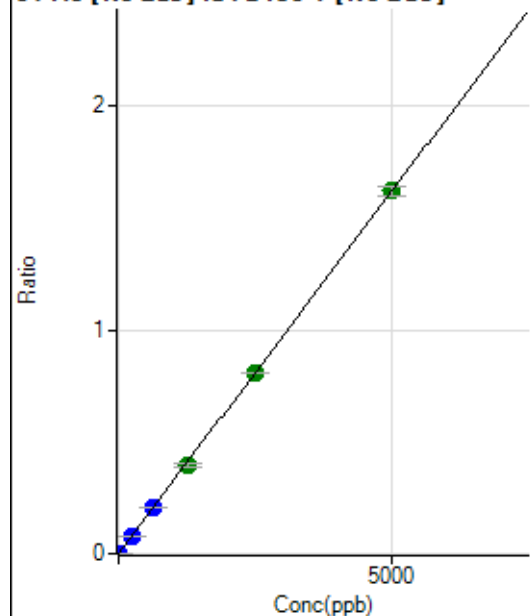
$$DL = 0.05987$$

$$BEC = 0.06045$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	516.70	0.0000	P	14.5
2	☐	0.500	0.451	2978.22	0.0002	P	3.8
3	☐	5.000	4.650	27087.65	0.0015	P	1.6
4	☐	250.000	250.429	1387433.52	0.0810	P	0.6
5	☐	625.000	630.904	3466086.54	0.2041	P	0.2
6	☐	1250.000	1221.416	6806566.12	0.3950	A	2.3
7	☐	2500.000	2493.576	13387968.35	0.8065	A	0.6
8	☐	5000.000	5009.599	25925757.35	1.6202	A	2.7
9	☐			321368.02	0.0212	P	1.0

$$y = 3.2341\text{E-}004 * x + 2.9359\text{E-}005$$

$$R = 1.0000$$

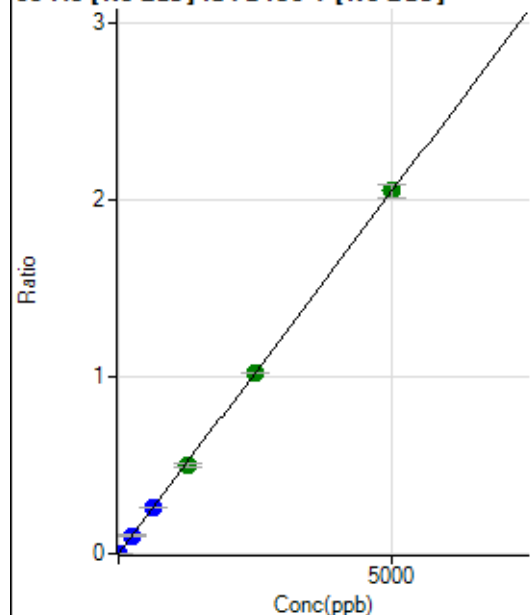
$$DL = 0.0395$$

$$BEC = 0.09078$$

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	100.00	0.0000	P	36.1
2	☐	0.500	0.490	3495.02	0.0002	P	7.1
3	☐	5.000	4.810	34826.80	0.0020	P	1.7
4	☐	250.000	252.141	1764512.63	0.1030	P	0.7
5	☐	625.000	632.805	4392307.61	0.2586	P	0.8
6	☐	1250.000	1223.180	8612020.07	0.4998	A	2.5
7	☐	2500.000	2486.708	16869482.32	1.0162	A	0.2
8	☐	5000.000	5012.268	32770175.73	2.0482	A	3.5
9	☐			412499.63	0.0272	P	1.2

$$y = 4.0864\text{E-}004 * x + 5.6781\text{E-}006$$

$$R = 1.0000$$

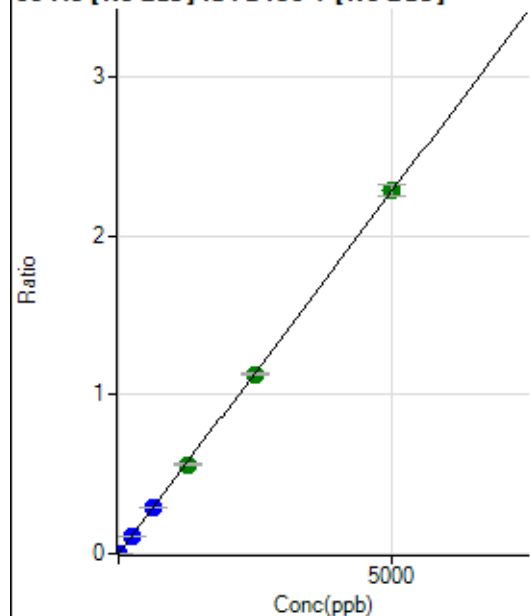
$$DL = 0.01503$$

$$BEC = 0.0139$$

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	188.90	0.0000	P	24.0
2	☐	0.500	0.494	4009.08	0.0002	P	6.4
3	☐	5.000	4.672	37839.94	0.0021	P	1.0
4	☐	250.000	250.216	1954415.91	0.1141	P	0.5
5	☐	625.000	629.951	4880096.81	0.2873	P	0.5
6	☐	1250.000	1227.211	9643179.73	0.5597	A	2.8
7	☐	2500.000	2484.028	18807610.32	1.1329	A	0.3
8	☐	5000.000	5013.054	36583033.80	2.2864	A	3.2
9	☐			456558.89	0.0301	P	1.2

$$y = 4.5608\text{E-}004 * x + 1.0727\text{E-}005$$

$$R = 1.0000$$

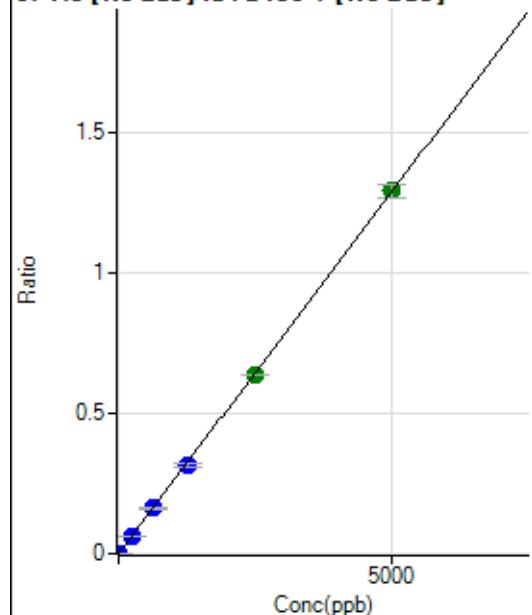
$$DL = 0.01696$$

$$BEC = 0.02352$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	15.6
2	☐	0.500	0.504	2280.85	0.0001	P	10.9
3	☐	5.000	4.634	21152.56	0.0012	P	0.7
4	☐	250.000	249.217	1098290.33	0.0641	P	0.9
5	☐	625.000	625.898	2735648.43	0.1611	P	0.6
6	☐	1250.000	1221.301	5414677.25	0.3143	P	2.8
7	☐	2500.000	2479.149	10590751.71	0.6380	A	0.5
8	☐	5000.000	5017.528	20658506.19	1.2912	A	3.4
9	☐			257078.42	0.0169	P	1.2

$$y = 2.5733\text{E-}004 * x + 4.5758\text{E-}006$$

$$R = 1.0000$$

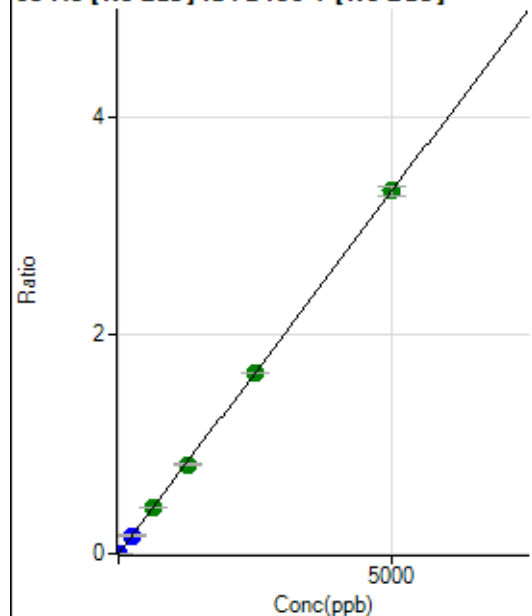
$$DL = 0.008332$$

$$BEC = 0.01778$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144.45	0.0000	P	23.5
2	☐	0.500	0.494	5720.84	0.0003	P	2.0
3	☐	5.000	4.716	55447.69	0.0031	P	1.2
4	☐	250.000	251.636	2860387.22	0.1670	P	0.5
5	☐	625.000	630.904	7112564.83	0.4188	A	1.0
6	☐	1250.000	1231.615	14085169.07	0.8175	A	2.4
7	☐	2500.000	2490.689	27445021.80	1.6532	A	0.5
8	☐	5000.000	5008.432	53195789.38	3.3244	A	2.8
9	☐			662791.63	0.0437	P	1.3

$$y = 6.6376\text{E-}004 * x + 8.2093\text{E-}006$$

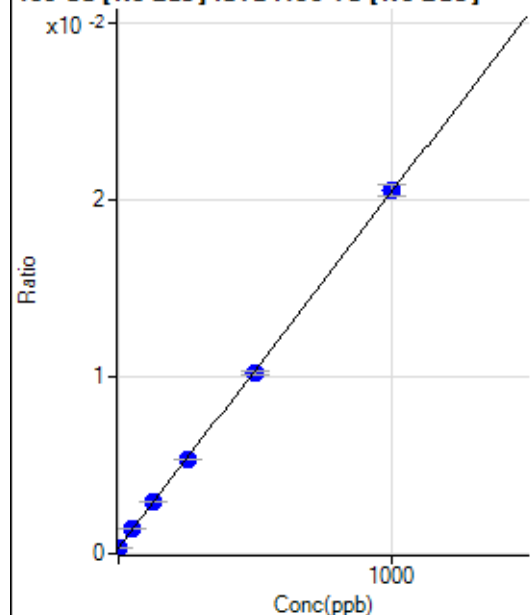
$$R = 1.0000$$

$$DL = 0.008719$$

$$BEC = 0.01237$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8013.74	0.0003	P	4.1
2	☐	0.100	0.936	8172.15	0.0004	P	4.0
3	☐	1.000	1.432	8711.40	0.0004	P	5.3
4	☐	50.000	51.919	32204.25	0.0014	P	2.3
5	☐	125.000	128.549	68398.84	0.0029	P	1.1
6	☐	250.000	248.468	127539.64	0.0053	P	1.1
7	☐	500.000	492.654	237359.77	0.0102	P	1.8
8	☐	1000.000	1003.516	467459.36	0.0205	P	3.3
9	☐			12650.69	0.0006	P	5.7

$$y = 2.0104\text{E-}005 * x + 3.3500\text{E-}004$$

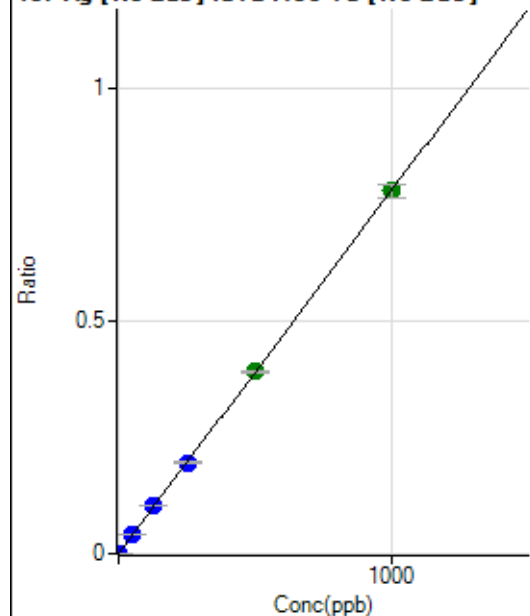
$$R = 1.0000$$

$$DL = 2.03$$

$$BEC = 16.66$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	244.46	0.0000	P	7.0
2	☐	0.100	0.086	1783.53	0.0001	P	12.3
3	☐	1.000	0.847	16043.08	0.0007	P	0.9
4	☐	50.000	53.126	967317.57	0.0414	P	0.3
5	☐	125.000	130.296	2379282.71	0.1016	P	0.7
6	☐	250.000	249.399	4650122.15	0.1944	P	2.1
7	☐	500.000	500.667	9045203.76	0.3902	A	0.8
8	☐	1000.000	998.999	17744265.50	0.7786	A	3.4
9	☐			191523.58	0.0090	P	2.0

$$y = 7.7932\text{E-}004 * x + 1.0219\text{E-}005$$

$$R = 1.0000$$

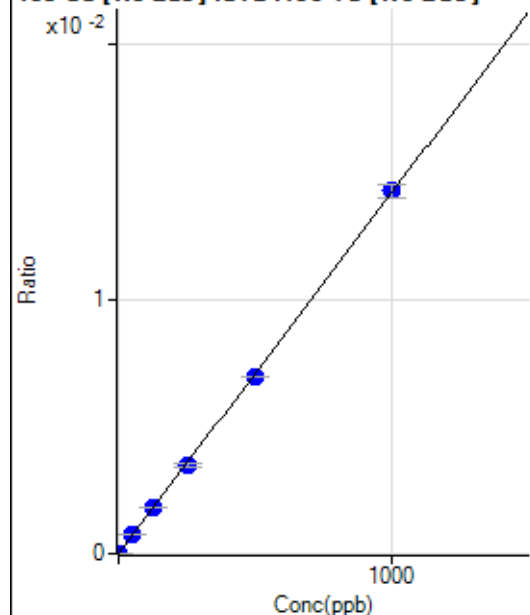
$$DL = 0.002773$$

$$BEC = 0.01311$$

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	30.56	0.0000	P	47.7
2	☐	0.100	0.081	55.55	0.0000	P	41.1
3	☐	1.000	0.937	348.62	0.0000	P	12.4
4	☐	50.000	51.803	17187.07	0.0007	P	1.1
5	☐	125.000	127.461	42374.70	0.0018	P	0.5
6	☐	250.000	245.160	83188.21	0.0035	P	2.8
7	☐	500.000	491.048	161437.48	0.0070	P	0.6
8	☐	1000.000	1005.288	324911.28	0.0143	P	3.5
9	☐			3720.02	0.0002	P	6.0

$$y = 1.4180\text{E-}005 * x + 1.2769\text{E-}006$$

$$R = 0.9999$$

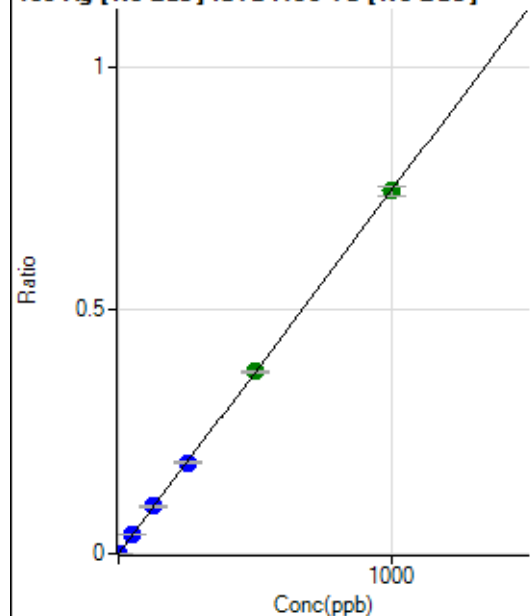
$$DL = 0.1289$$

$$BEC = 0.09006$$

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	113.89	0.0000	P	40.2
2	☐	0.100	0.071	1327.90	0.0001	P	8.4
3	☐	1.000	0.878	15809.40	0.0007	P	2.7
4	☐	50.000	53.220	928097.47	0.0397	P	0.5
5	☐	125.000	129.928	2272557.34	0.0970	P	0.6
6	☐	250.000	250.703	4477157.74	0.1872	P	2.6
7	☐	500.000	500.446	8660211.56	0.3736	A	0.6
8	☐	1000.000	998.825	16995920.34	0.7456	A	3.0
9	☐			184319.82	0.0086	P	0.6

$$y = 7.4650\text{E-}004 * x + 4.7601\text{E-}006$$

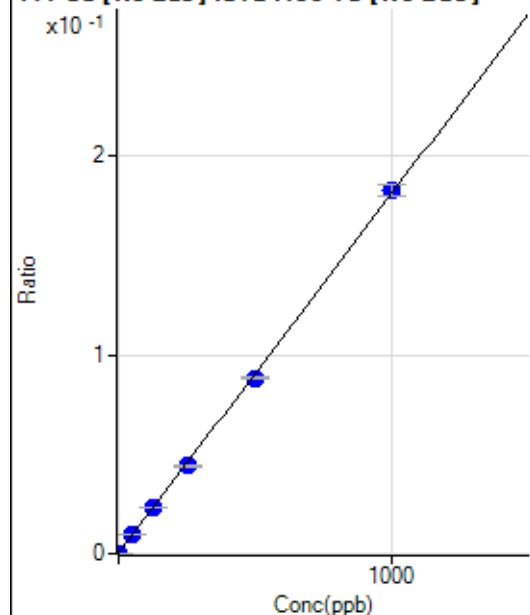
$$R = 1.0000$$

$$DL = 0.007686$$

$$BEC = 0.006377$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5641.01	0.0002	P	4.4
2	☐	0.100					
3	☐	1.000	1.027	10090.79	0.0004	P	2.9
4	☐	50.000	51.520	223065.97	0.0095	P	0.5
5	☐	125.000	127.214	544360.01	0.0232	P	0.3
6	☐	250.000	243.092	1056959.17	0.0442	P	2.6
7	☐	500.000	486.543	2044496.37	0.0882	P	0.8
8	☐	1000.000	1008.103	4159400.37	0.1825	P	3.1
9	☐			49806.07	0.0023	P	1.7

$$y = 1.8079E-004 * x + 2.3582E-004$$

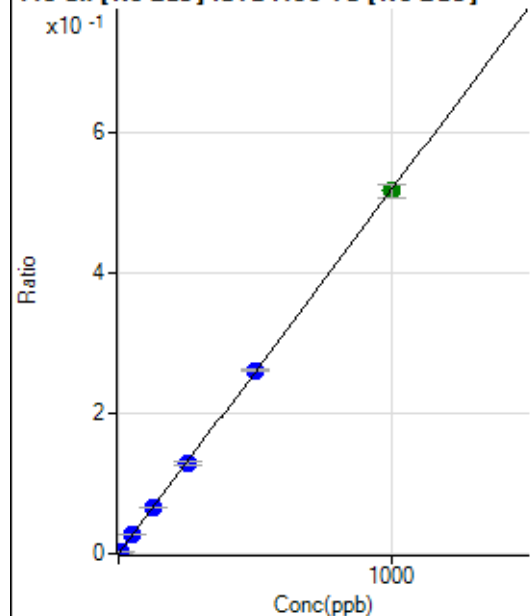
$$R = 0.9998$$

$$DL = 0.1721$$

$$BEC = 1.304$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1302.90	0.0001	P	1.5
2	☐	0.500	0.548	7810.85	0.0003	P	5.3
3	☐	5.000	5.125	64925.43	0.0027	P	1.3
4	☐	50.000	51.544	625665.74	0.0268	P	0.6
5	☐	125.000	128.106	1557895.30	0.0665	P	0.5
6	☐	250.000	249.342	3094484.68	0.1294	P	3.3
7	☐	500.000	504.726	6069234.60	0.2618	P	0.2
8	☐	1000.000	997.335	11789766.93	0.5173	A	3.5
9	☐			136588.73	0.0064	P	1.2

$$y = 5.1862E-004 * x + 5.4467E-005$$

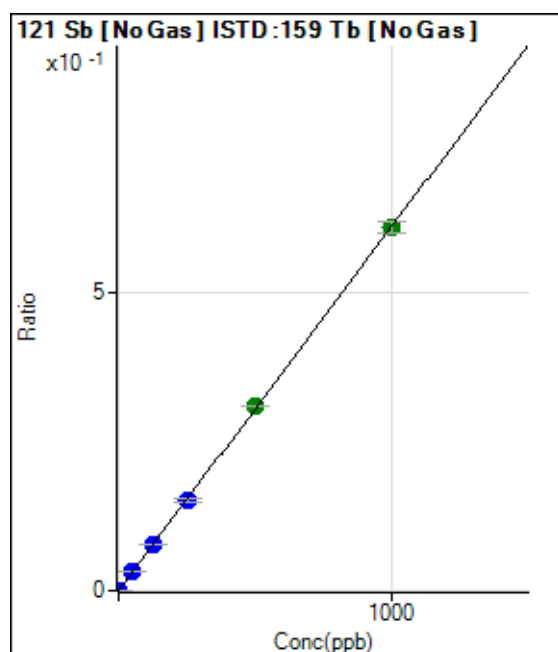
$$R = 1.0000$$

$$DL = 0.004716$$

$$BEC = 0.105$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	200.01	0.0000	P	25.3
2	☐	0.200	0.187	2828.21	0.0001	P	8.2
3	☐	2.000	1.884	27680.90	0.0012	P	1.9
4	☐	50.000	51.090	727527.95	0.0311	P	0.4
5	☐	125.000	127.869	1826148.22	0.0779	P	0.3
6	☐	250.000	248.369	3621384.19	0.1514	P	2.8
7	☐	500.000	505.597	7143566.22	0.3082	A	0.2
8	☐	1000.000	997.197	13853214.89	0.6078	A	3.1
9	☐			169584.78	0.0079	P	1.8

$$y = 6.0949\text{E-}004 * x + 8.3611\text{E-}006$$

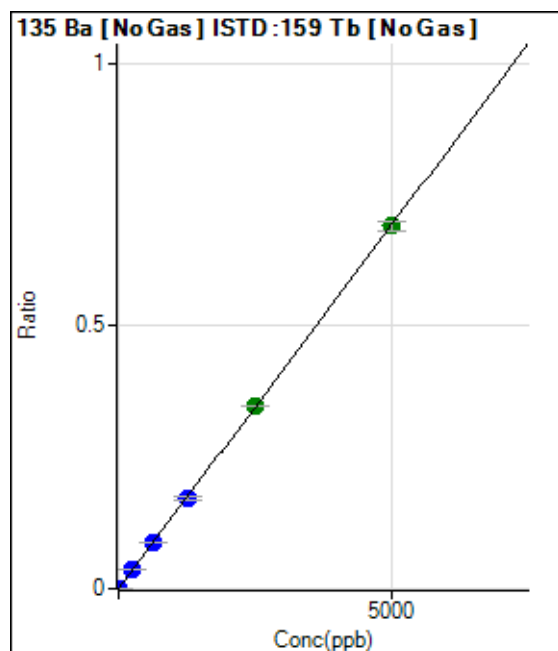
$$R = 1.0000$$

$$DL = 0.01043$$

$$BEC = 0.01372$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.67	0.0000	P	32.6
2	☐	1.000	1.024	3361.68	0.0001	P	5.3
3	☐	10.000	10.039	33360.55	0.0014	P	0.2
4	☐	250.000	258.333	835390.55	0.0358	P	0.4
5	☐	625.000	641.651	2081133.68	0.0888	P	0.6
6	☐	1250.000	1246.708	4128163.16	0.1726	P	3.3
7	☐	2500.000	2517.731	8079356.34	0.3485	A	0.2
8	☐	5000.000	4989.459	15744230.73	0.6907	A	2.6
9	☐			184012.82	0.0086	P	1.3

$$y = 1.3843\text{E-}004 * x + 3.8307\text{E-}006$$

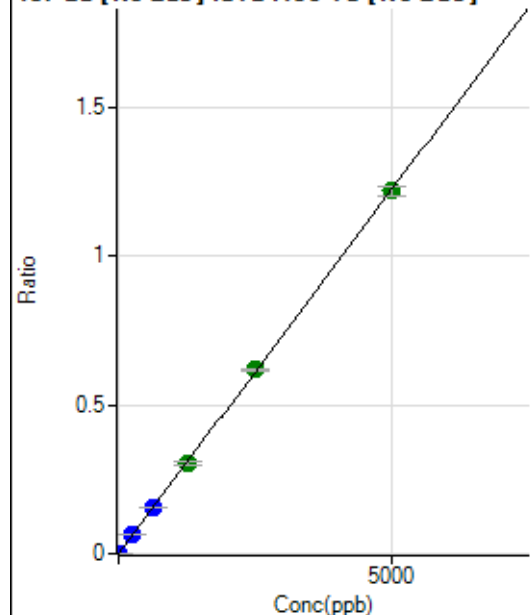
$$R = 1.0000$$

$$DL = 0.02707$$

$$BEC = 0.02767$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	150.01	0.0000	P	11.3
2	☐	1.000	1.059	6123.83	0.0003	P	4.4
3	☐	10.000	10.082	59171.13	0.0025	P	1.0
4	☐	250.000	257.542	1471330.50	0.0630	P	0.6
5	☐	625.000	639.947	3666974.26	0.1565	P	0.5
6	☐	1250.000	1240.506	7257357.02	0.3034	A	2.8
7	☐	2500.000	2524.983	14314731.92	0.6175	A	0.4
8	☐	5000.000	4987.636	27804173.89	1.2198	A	2.8
9	☐			320530.71	0.0150	P	1.8

$$y = 2.4456E-004 * x + 6.2721E-006$$

$$R = 1.0000$$

$$DL = 0.008708$$

$$BEC = 0.02565$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			6.67		P	0.0
2	☐			4.45		P	86.6
3	☐			22.22		P	69.3
4	☐			75.56		P	5.1
5	☐			204.45		P	21.2
6	☐			404.46		P	18.2
7	☐			733.39		P	6.6
8	☐			1355.68		P	10.2
9	☐			146.67		P	12.0

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	49.5
2	☐			11.11		P	34.6
3	☐			13.33		P	66.1
4	☐			11.11		P	34.6
5	☐			22.22		P	43.3
6	☐			32.22		P	58.8
7	☐			54.44		P	17.7
8	☐			92.22		P	9.1
9	☐			55.55		P	35.2

156 Dy [No Gas] No available calibration points

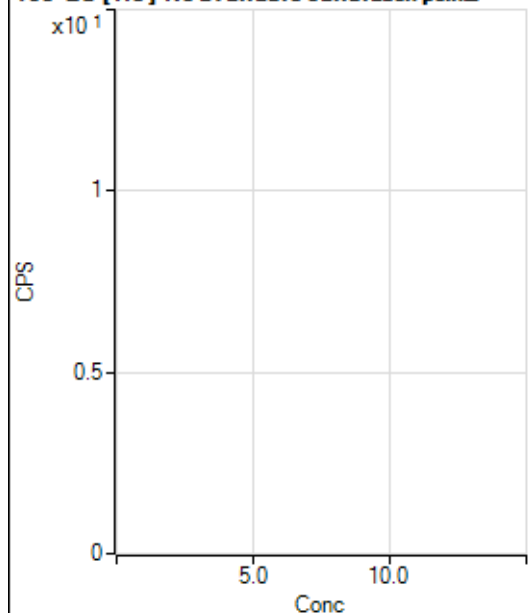
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	34.6
2	☐			16.67		P	50.0
3	☐			25.00		P	33.3
4	☐			19.44		P	65.5
5	☐			52.78		P	65.7
6	☐			116.67		P	32.7
7	☐			163.90		P	30.6
8	☐			294.47		P	14.2
9	☐			88.89		P	19.5

156 Dy [He] No available calibration points

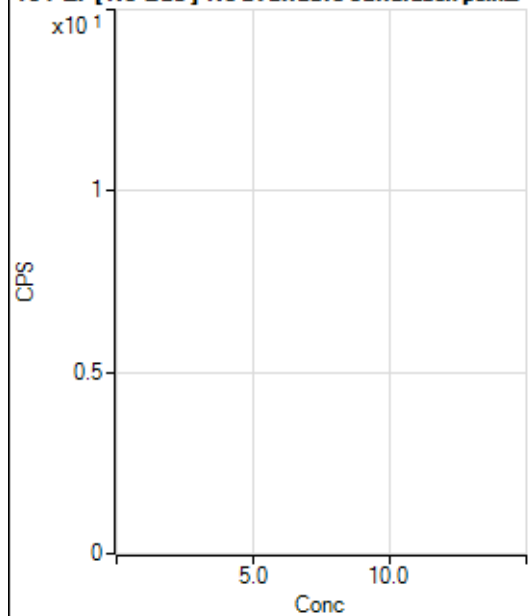
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			24.44		P	47.9
2	☐			16.67		P	NaN
3	☐			24.44		P	47.9
4	☐			22.22		P	17.3
5	☐			51.11		P	16.4
6	☐			77.78		P	38.4
7	☐			156.67		P	12.9
8	☐			260.01		P	16.1
9	☐			56.67		P	31.1

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			158.34		P	45.6
2	☐			130.56		P	7.4
3	☐			105.56		P	9.1
4	☐			138.89		P	30.2
5	☐			147.23		P	17.3
6	☐			133.34		P	12.5
7	☐			186.12		P	18.1
8	☐			163.90		P	39.5
9	☐			172.23		P	21.8

160 Gd [He] No available calibration points

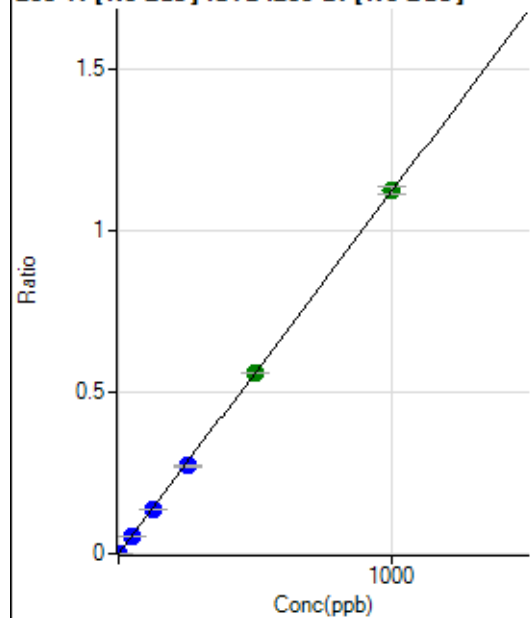
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			263.34		P	4.6
2	☐			274.45		P	9.7
3	☐			252.23		P	11.5
4	☐			254.45		P	11.1
5	☐			244.45		P	2.8
6	☐			275.56		P	16.4
7	☐			278.90		P	2.8
8	☐			242.23		P	12.3
9	☐			230.01		P	3.8

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			69.45		P	66.1
2	☐			80.56		P	23.9
3	☐			100.01		P	38.2
4	☐			83.34		P	36.1
5	☐			80.56		P	6.0
6	☐			102.78		P	18.7
7	☐			102.78		P	30.7
8	☐			108.34		P	38.5
9	☐			113.89		P	18.4

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			65.55		P	20.5
2	☐			65.56		P	19.2
3	☐			61.11		P	12.6
4	☐			63.33		P	5.3
5	☐			58.89		P	21.4
6	☐			53.33		P	22.5
7	☐			74.45		P	17.0
8	☐			66.67		P	10.0
9	☐			82.22		P	33.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	619.49	0.0000	P	15.8
2	☐	0.100	0.110	2567.05	0.0002	P	2.5
3	☐	1.000	0.935	17887.66	0.0011	P	1.5
4	☐	50.000	49.450	886344.98	0.0554	P	0.6
5	☐	125.000	123.418	2215660.81	0.1383	P	0.8
6	☐	250.000	243.402	4421386.08	0.2727	P	2.2
7	☐	500.000	498.917	8694123.81	0.5590	A	0.8
8	☐	1000.000	1002.416	16744695.17	1.1230	A	2.3
9	☐			192493.06	0.0149	P	1.0

$$y = 0.0011 * x + 3.7630E-005$$

$$R = 1.0000$$

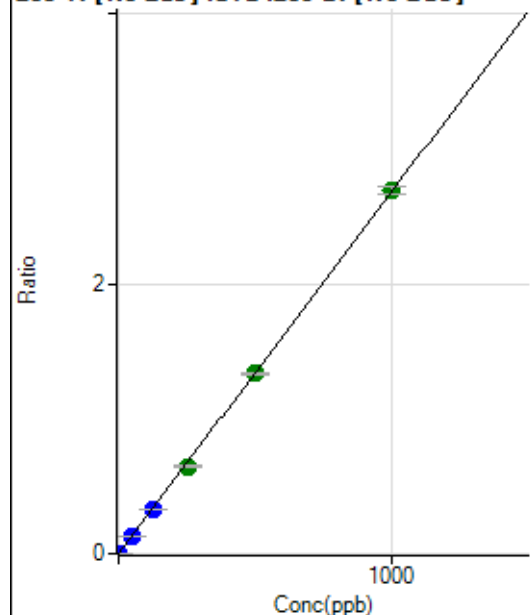
$$DL = 0.01589$$

$$BEC = 0.03359$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1088.98	0.0001	P	1.3
2	☐	0.100	0.088	4814.99	0.0003	P	10.1
3	☐	1.000	0.907	41192.56	0.0025	P	0.7
4	☐	50.000	49.121	2106518.02	0.1318	P	1.0
5	☐	125.000	124.033	5328392.78	0.3326	P	0.2
6	☐	250.000	241.122	10480967.68	0.6465	A	2.6
7	☐	500.000	498.047	20768487.27	1.3353	A	0.4
8	☐	1000.000	1003.361	40110037.01	2.6900	A	2.2
9	☐			456210.98	0.0354	P	0.6

$$y = 0.0027 * x + 6.6128E-005$$

$$R = 1.0000$$

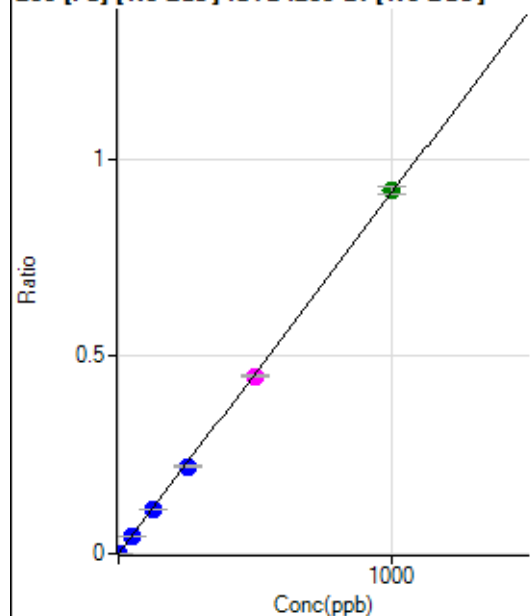
$$DL = 0.0009884$$

$$BEC = 0.02467$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1805.74	0.0001	P	6.6
2	☐	0.100	0.110	3352.38	0.0002	P	2.2
3	☐	1.000	0.927	15770.88	0.0010	P	3.0
4	☐	50.000	49.157	719648.19	0.0450	P	0.9
5	☐	125.000	123.488	1808809.78	0.1129	P	0.7
6	☐	250.000	241.207	3573691.63	0.2204	P	2.3
7	☐	500.000	492.763	7002336.67	0.4502	M	0.7
8	☐	1000.000	1006.048	13703756.32	0.9191	A	2.1
9	☐			160683.74	0.0125	P	1.7

$$y = 9.1342E-004 * x + 1.0970E-004$$

$$R = 0.9999$$

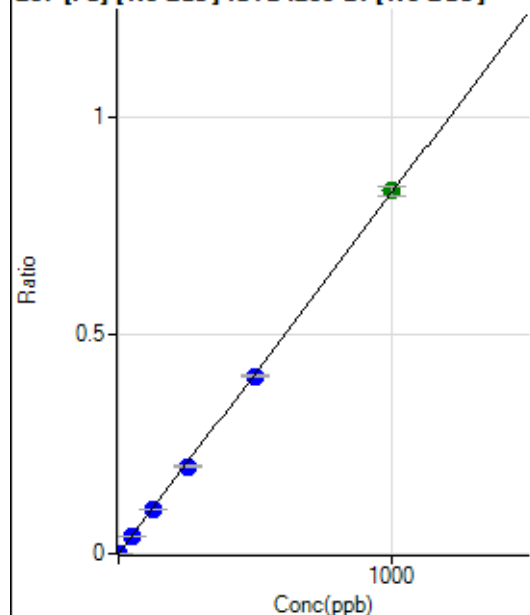
$$DL = 0.02361$$

$$BEC = 0.1201$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1805.73	0.0001	P	1.7
2	☐	0.100	0.097	3017.11	0.0002	P	4.9
3	☐	1.000	0.910	14195.03	0.0009	P	2.8
4	☐	50.000	48.988	648535.82	0.0406	P	0.7
5	☐	125.000	122.534	1622800.95	0.1013	P	0.6
6	☐	250.000	241.652	3236972.67	0.1997	P	2.1
7	☐	500.000	492.715	6330035.32	0.4070	P	1.0
8	☐	1000.000	1006.088	12387507.34	0.8309	A	2.8
9	☐			146171.38	0.0113	P	0.4

$$y = 8.2578E-004 * x + 1.0965E-004$$

$$R = 0.9999$$

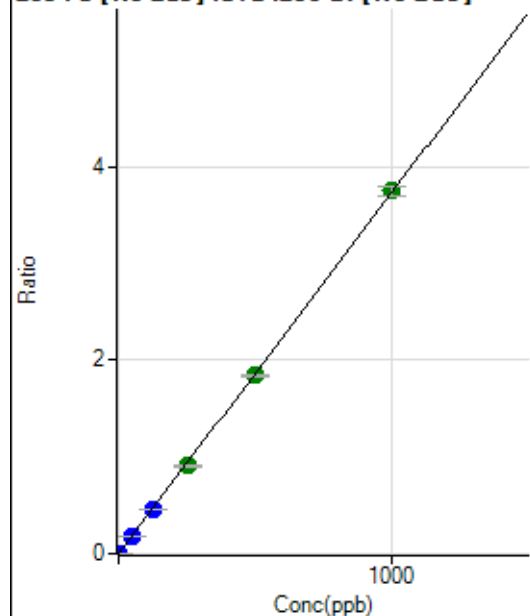
$$DL = 0.006962$$

$$BEC = 0.1328$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7321.35	0.0004	P	2.3
2	☐	0.100	0.100	13039.87	0.0008	P	1.9
3	☐	1.000	0.914	63592.48	0.0039	P	0.9
4	☐	50.000	49.240	2944284.79	0.1842	P	0.6
5	☐	125.000	123.519	7389918.71	0.4613	P	0.4
6	☐	250.000	242.506	14675591.04	0.9052	A	2.1
7	☐	500.000	493.304	28632285.07	1.8409	A	0.6
8	☐	1000.000	1005.445	55929584.93	3.7516	A	2.8
9	☐			657198.50	0.0510	P	0.5

$$y = 0.0037 * x + 4.4462E-004$$

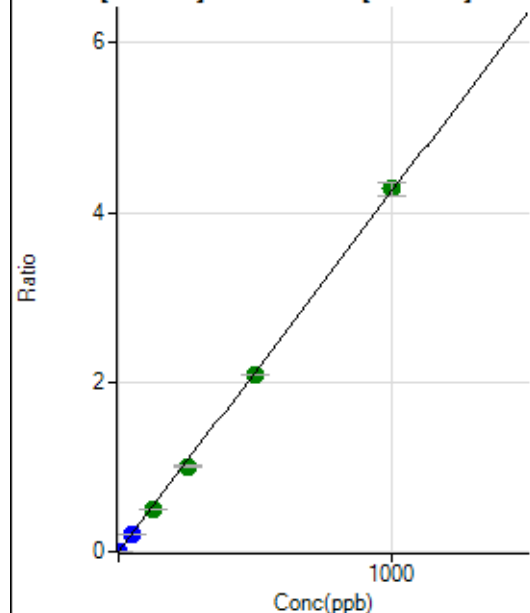
$$R = 0.9999$$

$$DL = 0.008351$$

$$BEC = 0.1192$$

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	2681.84	0.0002	P	6.0
2	☐	0.100	0.076	7748.80	0.0005	P	5.7
3	☐	1.000	0.791	58006.58	0.0035	P	3.1
4	☐	50.000	47.069	3193868.01	0.1998	P	0.5
5	☐	125.000	119.090	8092882.82	0.5052	A	0.8
6	☐	250.000	236.734	16276678.49	1.0040	A	2.9
7	☐	500.000	491.719	32434072.95	2.0853	A	0.6
8	☐	1000.000	1008.343	63739557.90	4.2760	A	3.5
9	☐			739007.85	0.0573	P	0.2

$$y = 0.0042 * x + 1.6283E-004$$

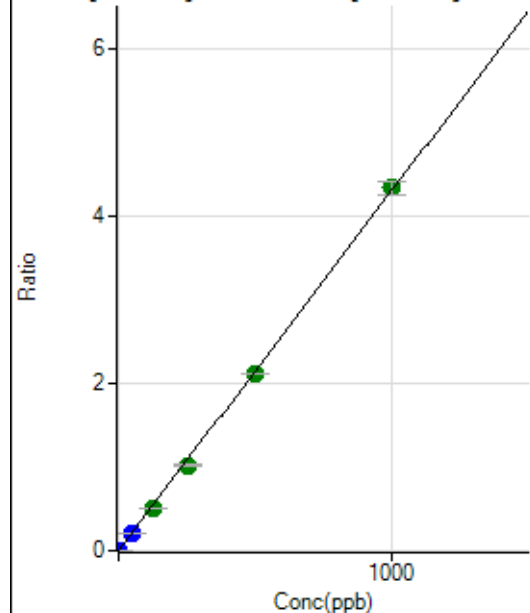
$$R = 0.9999$$

$$DL = 0.006914$$

$$BEC = 0.0384$$

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	2964.37	0.0002	P	0.4
2	☐	0.100	0.094	9303.75	0.0006	P	1.3
3	☐	1.000	0.870	64644.94	0.0039	P	0.2
4	☐	50.000	47.541	3269714.89	0.2045	P	0.8
5	☐	125.000	119.364	8221788.29	0.5132	A	0.3
6	☐	250.000	236.244	16463563.74	1.0155	A	2.5
7	☐	500.000	491.354	32849189.62	2.1120	A	0.7
8	☐	1000.000	1008.589	64611309.78	4.3350	A	4.0
9	☐			740116.84	0.0574	P	0.3

$$y = 0.0043 * x + 1.8001E-004$$

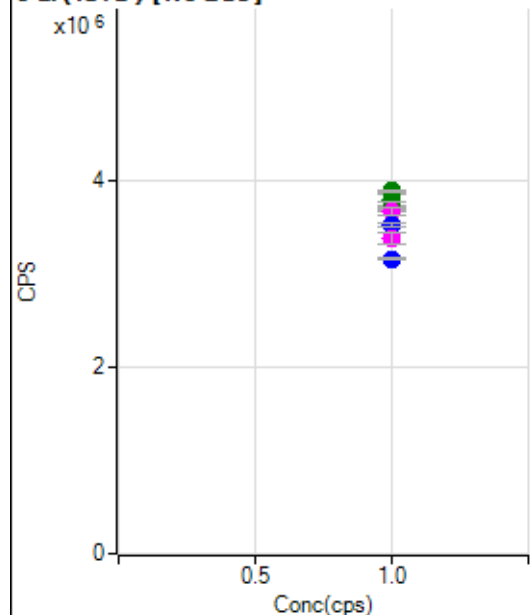
$$R = 0.9998$$

$$DL = 0.0005055$$

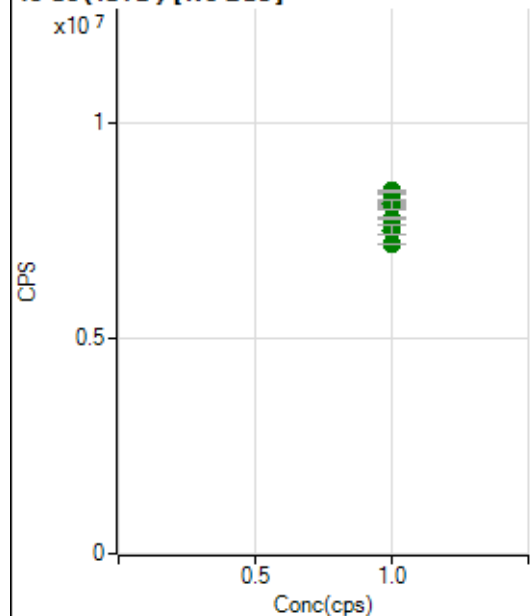
$$BEC = 0.04188$$

Weight: <None>

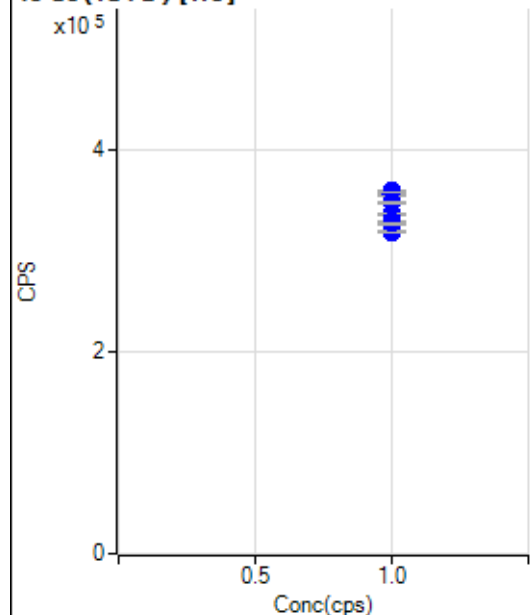
Min Conc: 0

6 Li (ISTD) [No Gas]

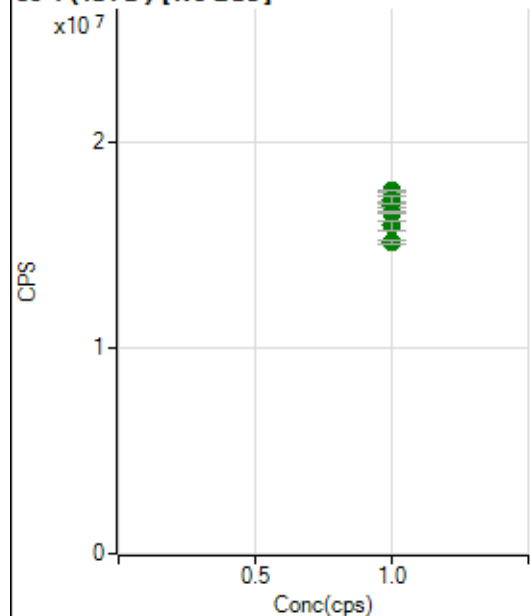
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3880116.15		A	0.4
2	☐	1.000		3784812.71		A	3.1
3	☐	1.000		3888217.57		A	0.5
4	☐	1.000		3772465.33		A	0.4
5	☐	1.000		3673977.14		P	0.7
6	☐	1.000		3664484.32		M	2.2
7	☐	1.000		3521881.49		P	0.8
8	☐	1.000		3379977.93		M	3.9
9	☐	1.000		3159919.01		P	0.2

45 Sc (ISTD) [No Gas]

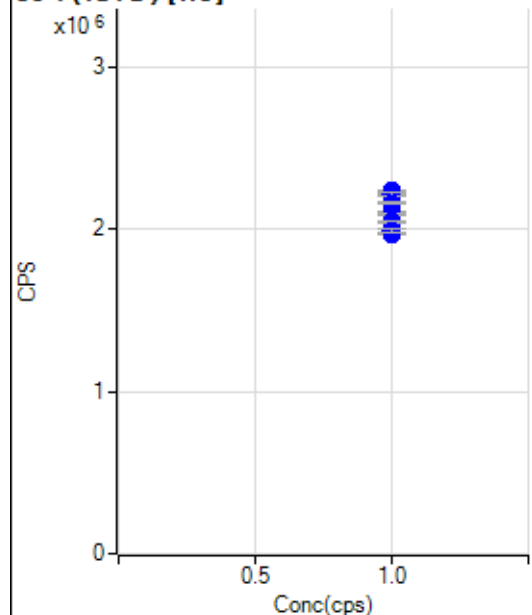
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8380897.32		A	0.7
2	☐	1.000		8153867.81		A	4.5
3	☐	1.000		8422871.11		A	0.3
4	☐	1.000		8162238.64		A	0.6
5	☐	1.000		8067006.34		A	0.8
6	☐	1.000		8107683.86		A	2.4
7	☐	1.000		7771781.08		A	0.6
8	☐	1.000		7511397.74		A	2.8
9	☐	1.000		7186005.20		A	0.3

45 Sc (ISTD) [He]

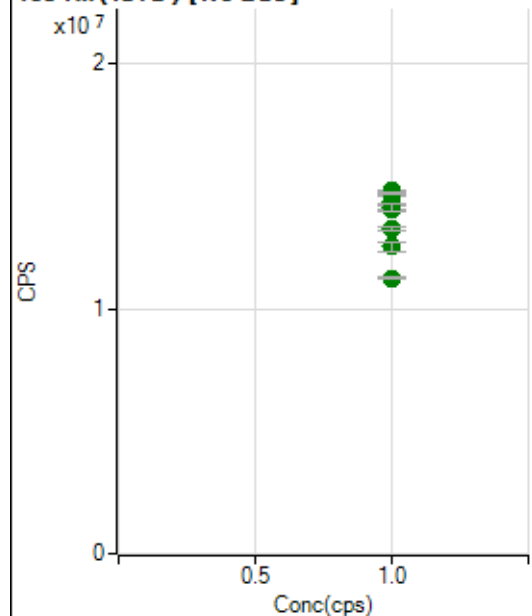
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		358309.58		P	0.4
2	☐	1.000		360055.32		P	0.6
3	☐	1.000		356625.31		P	0.7
4	☐	1.000		348952.80		P	0.7
5	☐	1.000		337348.58		P	0.5
6	☐	1.000		337752.95		P	0.3
7	☐	1.000		329314.22		P	0.6
8	☐	1.000		319362.87		P	0.3
9	☐	1.000		327655.89		P	0.9

89 Y (ISTD) [No Gas]

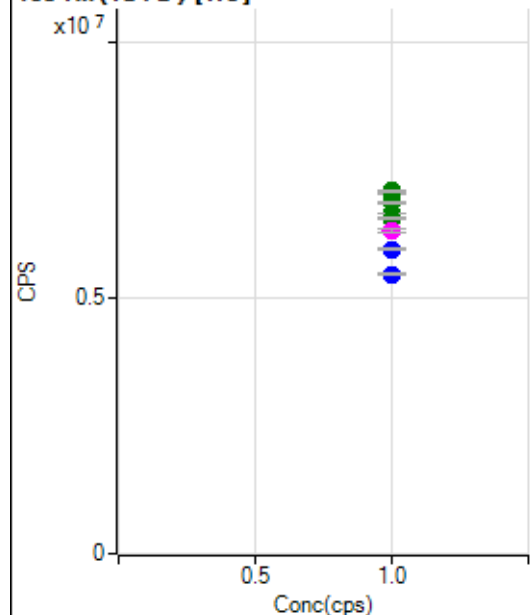
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17602174.32		A	0.2
2	☐	1.000		17016182.94		A	4.2
3	☐	1.000		17669168.62		A	0.4
4	☐	1.000		17124676.83		A	0.3
5	☐	1.000		16985080.44		A	1.0
6	☐	1.000		17234727.80		A	1.9
7	☐	1.000		16601185.17		A	0.8
8	☐	1.000		16010113.23		A	2.9
9	☐	1.000		15170971.86		A	0.8

89 Y(ISTD) [He]

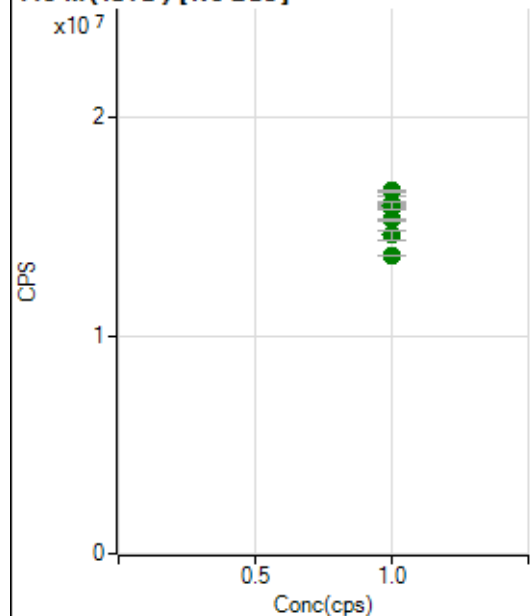
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2220531.22		P	0.7
2	☐	1.000		2234058.89		P	0.5
3	☐	1.000		2216769.80		P	1.1
4	☐	1.000		2158963.61		P	0.2
5	☐	1.000		2101703.27		P	0.3
6	☐	1.000		2090098.20		P	0.2
7	☐	1.000		2044896.39		P	0.3
8	☐	1.000		1970807.10		P	0.7
9	☐	1.000		1990436.15		P	0.8

103 Rh(ISTD) [No Gas]

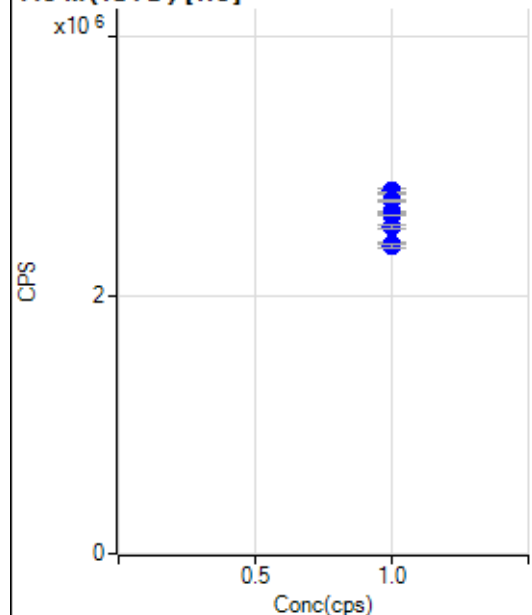
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14823895.64		A	0.6
2	☐	1.000		14345436.95		A	4.0
3	☐	1.000		14741525.51		A	0.6
4	☐	1.000		14250034.87		A	0.8
5	☐	1.000		14048969.24		A	0.5
6	☐	1.000		14122316.64		A	2.4
7	☐	1.000		13282425.03		A	1.1
8	☐	1.000		12533604.53		A	3.0
9	☐	1.000		11251554.59		A	0.6

103 Rh (ISTD) [He]

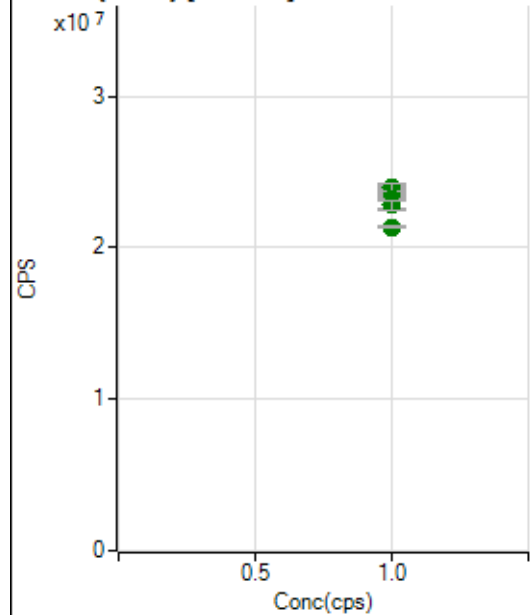
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7040112.19		A	0.1
2	☐	1.000		7085245.03		A	0.2
3	☐	1.000		7101111.63		A	0.4
4	☐	1.000		6874558.65		A	0.3
5	☐	1.000		6666103.72		A	0.4
6	☐	1.000		6563495.25		A	0.7
7	☐	1.000		6311348.17		M	1.0
8	☐	1.000		5956172.89		P	0.5
9	☐	1.000		5475517.56		P	0.2

115 In (ISTD) [No Gas]

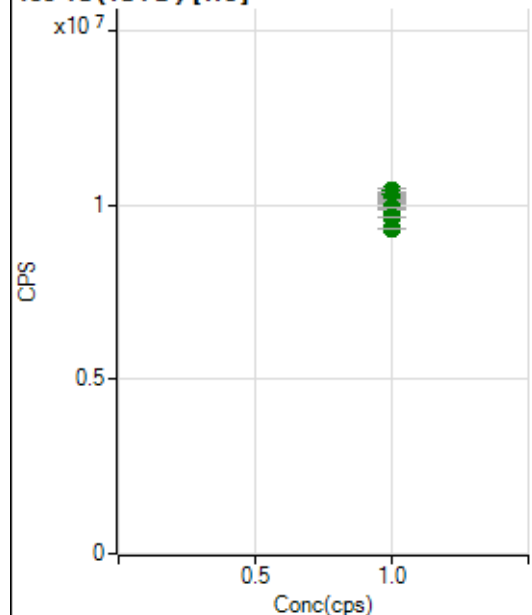
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16567643.93		A	0.2
2	☐	1.000		16082550.86		A	3.9
3	☐	1.000		16643036.59		A	0.6
4	☐	1.000		16028968.38		A	0.4
5	☐	1.000		15903175.21		A	0.3
6	☐	1.000		15956128.11		A	2.4
7	☐	1.000		15340293.01		A	0.6
8	☐	1.000		14611065.76		A	3.2
9	☐	1.000		13661524.11		A	0.3

115 In (ISTD) [He]

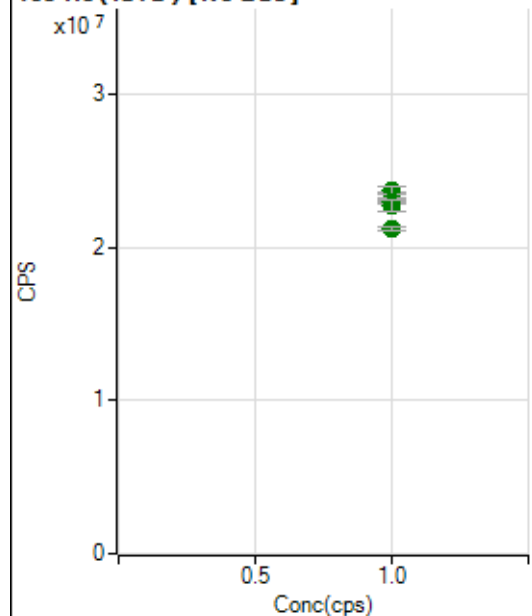
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2796934.34		P	0.6
2	☐	1.000		2809058.60		P	1.0
3	☐	1.000		2793429.95		P	0.8
4	☐	1.000		2732661.86		P	0.6
5	☐	1.000		2644060.78		P	0.3
6	☐	1.000		2620135.45		P	0.2
7	☐	1.000		2534282.92		P	1.1
8	☐	1.000		2403331.69		P	0.4
9	☐	1.000		2383743.62		P	0.9

159 Tb (ISTD) [No Gas]

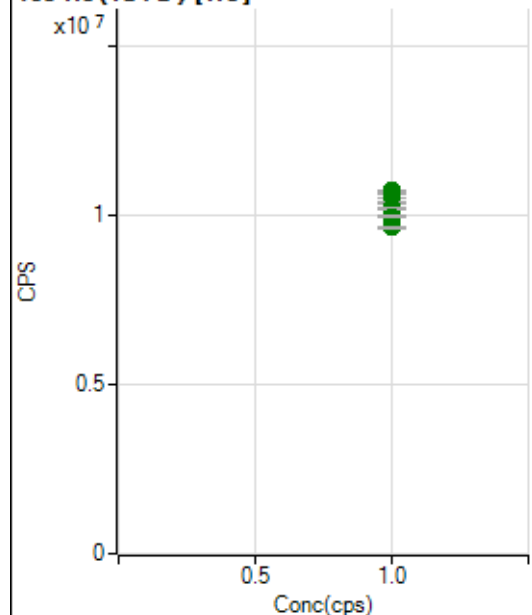
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23920681.87		A	0.2
2	☐	1.000		23112753.82		A	4.1
3	☐	1.000		23938981.86		A	1.1
4	☐	1.000		23358272.15		A	0.5
5	☐	1.000		23429312.43		A	0.3
6	☐	1.000		23931280.48		A	2.2
7	☐	1.000		23181203.26		A	0.3
8	☐	1.000		22807033.27		A	3.0
9	☐	1.000		21367704.68		A	1.1

159 Tb (ISTD) [He]

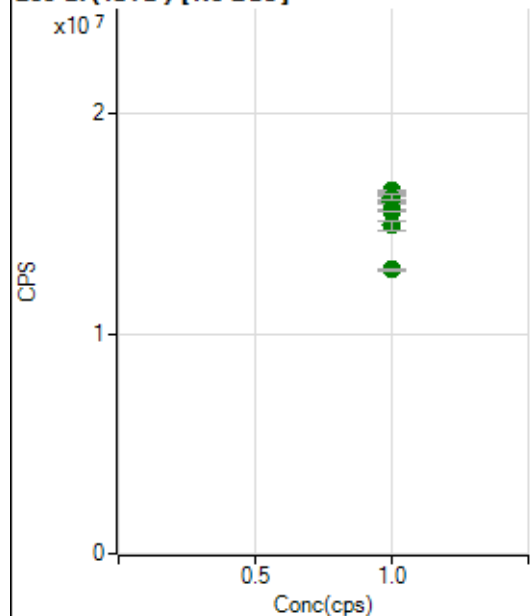
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10418812.76		A	1.0
2	☐	1.000		10343615.19		A	0.5
3	☐	1.000		10348558.04		A	1.0
4	☐	1.000		10212382.07		A	0.5
5	☐	1.000		10066248.74		A	0.3
6	☐	1.000		10134501.72		A	0.4
7	☐	1.000		9937714.09		A	0.6
8	☐	1.000		9668680.97		A	0.3
9	☐	1.000		9332395.00		A	0.1

165 Ho (ISTD) [No Gas]

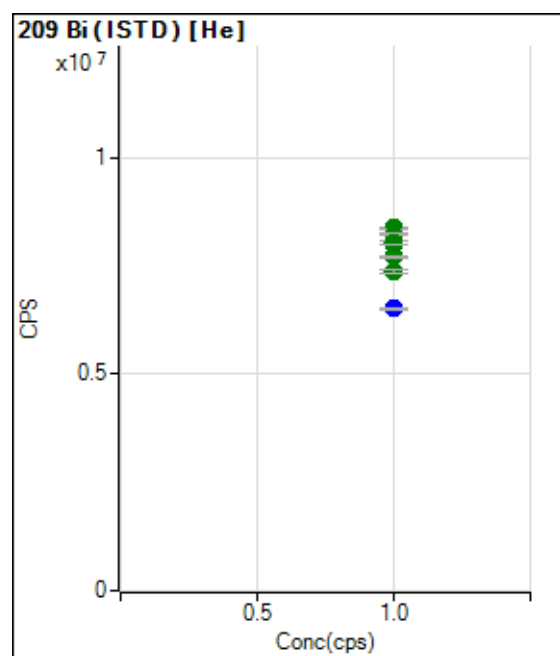
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23552842.54		A	0.7
2	☐	1.000		22770518.04		A	4.0
3	☐	1.000		23523324.48		A	0.2
4	☐	1.000		23048232.80		A	0.3
5	☐	1.000		23183110.24		A	0.5
6	☐	1.000		23716500.19		A	2.2
7	☐	1.000		23050532.81		A	1.8
8	☐	1.000		22736372.90		A	3.6
9	☐	1.000		21214472.18		A	1.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10740034.77		A	0.6
2	☐	1.000		10655102.76		A	0.0
3	☐	1.000		10659790.12		A	0.2
4	☐	1.000		10519965.05		A	0.3
5	☐	1.000		10357099.22		A	0.2
6	☐	1.000		10423294.57		A	0.1
7	☐	1.000		10223165.20		A	0.3
8	☐	1.000		9975685.76		A	0.5
9	☐	1.000		9654676.73		A	1.0

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16467885.72		A	1.0
2	☐	1.000		15939967.68		A	3.8
3	☐	1.000		16494083.09		A	0.8
4	☐	1.000		15988518.24		A	0.3
5	☐	1.000		16021089.90		A	1.0
6	☐	1.000		16216267.95		A	1.8
7	☐	1.000		15553497.41		A	0.4
8	☐	1.000		14917588.25		A	3.3
9	☐	1.000		12899254.53		A	1.0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8356024.53		A	0.4
2	☐	1.000		8368216.75		A	0.2
3	☐	1.000		8340165.09		A	0.3
4	☐	1.000		8214189.39		A	0.3
5	☐	1.000		8029131.13		A	0.8
6	☐	1.000		7982304.67		A	0.3
7	☐	1.000		7701351.90		A	0.3
8	☐	1.000		7352455.65		A	1.0
9	☐	1.000		6509406.29		P	0.5

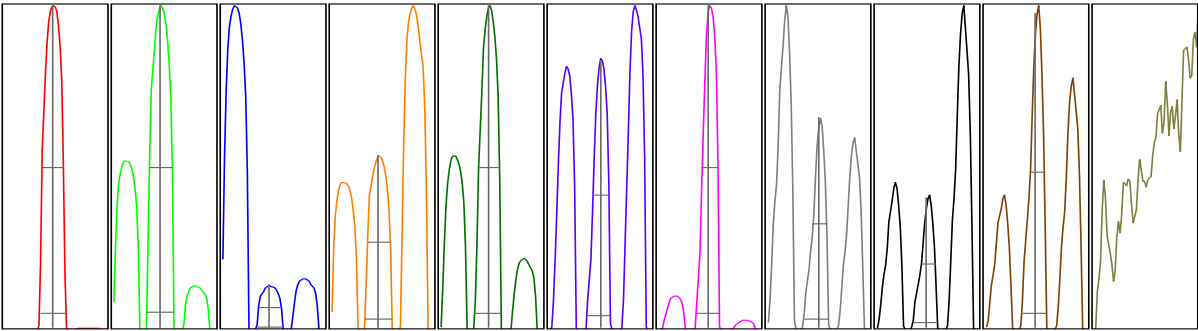
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7091919ICPMS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	12586	2.39	5.00	
24	160193	2.40	5.00	
25	21443	2.63	5.00	
26	25220	2.18	5.00	
59	127724	2.33	5.00	
113	18905	2.20	5.00	
115	217470	2.50	5.00	
206	58841	2.01	5.00	
207	53709	2.36	5.00	
208	130231	2.07	5.00	
220	133	2.48		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	12784	12912	12124	12550	12559
24	162430	164485	154242	159894	159915
25	21821	22029	20559	21453	21355
26	25633	25812	24417	25212	25024
59	130174	130822	123375	127376	126871
113	19231	19340	18296	18913	18746
115	221687	223090	209651	218122	214800
206	59344	60265	57028	58934	58633
207	54521	54874	51620	53949	53582
208	131645	133052	125861	130453	130145
220	131	128	134	135	137

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	21617	8.95	8.9 - 9.1		0.774	0.900	
24	259664	23.90	23.9 - 24.1		0.785	0.900	
25	34705	24.90	24.9 - 25.1		0.774	0.900	
26	40830	25.90	25.9 - 26.1		0.786	0.900	
59	224990	58.95	58.9 - 59.1		0.766	0.900	
113	39479	113.05	112.9 - 113.1		0.676	0.900	
115	461457	115.00	114.9 - 115.1		0.667	0.900	
206	137105	206.05	205.9 - 206.1		0.716	0.900	
207	122143	207.00	206.9 - 207.1		0.714	0.900	
208	293789	208.00	207.9 - 208.1		0.718	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	6.9	V	Deflect	12.0	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	150	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	33323	0.23	
89	39336	0.47	
205	49804	0.42	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	33276	33407	33253	33406	33272
89	39609	39215	39432	39157	39266
205	49925	49804	49595	49608	50087

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	1.0	V
Extract 2	-145.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-75	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			