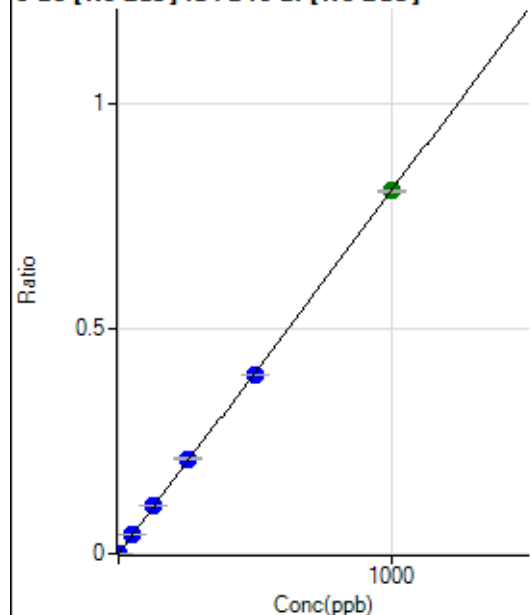


Batch Folder: D:\ICP-MS Data\P7031219-MS.b\
Analysis File: P7031219-MS.batch.bin
DA Date-Time: 2019-03-13 02:05:05
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-03-12 13:57:47
2			
3	005CALS.d	S02	2019-03-12 14:06:11
4	006CALS.d	S03	2019-03-12 14:10:08
5	007CALS.d	S04	2019-03-12 14:14:21
6	008CALS.d	S05	2019-03-12 14:18:10
7	009CALS.d	S06	2019-03-12 14:21:55
8	010CALS.d	S07	2019-03-12 14:25:42
9	011CALS.d	S08	2019-03-12 14:29:32

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.56	0.0000	P	4.1
2	☐	0.100					
3	☐	1.000	0.971	5401.04	0.0008	P	0.2
4	☐	50.000	53.537	294737.91	0.0432	P	0.3
5	☐	125.000	132.137	721390.99	0.1066	P	0.9
6	☐	250.000	261.491	1403695.24	0.2109	P	0.6
7	☐	500.000	492.882	2702742.32	0.3975	P	0.4
8	☐	1000.000	999.617	5445617.21	0.8062	A	0.3
9	☐			704.47	0.0001	P	6.4

$$y = 8.0655E-004 * x + 8.3242E-006$$

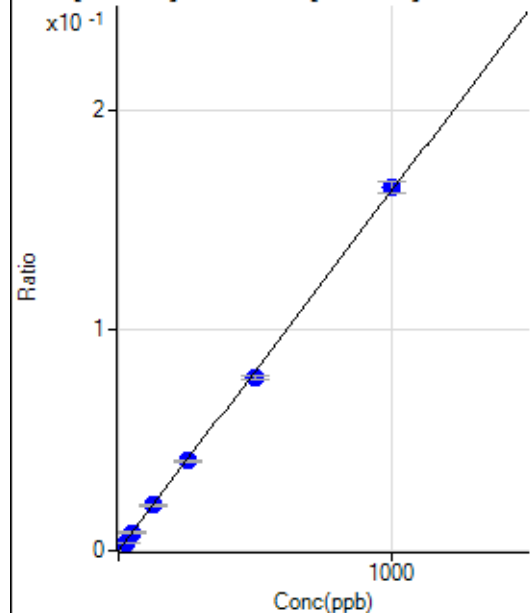
$$R = 0.9999$$

$$DL = 0.001283$$

$$BEC = 0.01032$$

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	313.90	0.0000	P	17.8
2	☐	2.500					
3	☐	25.000	23.043	25995.52	0.0038	P	3.2
4	☐	50.000	50.480	56573.39	0.0083	P	2.8
5	☐	125.000	125.754	139302.77	0.0206	P	1.9
6	☐	250.000	250.450	272487.01	0.0409	P	1.9
7	☐	500.000	482.260	535787.52	0.0788	P	2.5
8	☐	1000.000	1008.688	1112867.46	0.1648	P	3.1
9	☐			52782.50	0.0081	P	8.2

$$y = 1.6330E-004 * x + 4.7057E-005$$

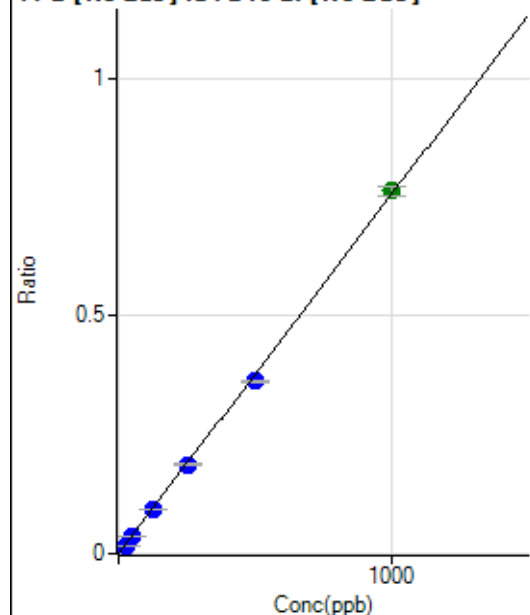
$$R = 0.9998$$

$$DL = 0.154$$

$$BEC = 0.2882$$

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	1544.59	0.0002	P	8.8
2	☐	2.500					
3	☐	25.000	22.596	117949.30	0.0173	P	3.0
4	☐	50.000	50.040	259325.38	0.0380	P	2.0
5	☐	125.000	123.779	633873.14	0.0937	P	2.4
6	☐	250.000	248.700	1250768.27	0.1879	P	1.8
7	☐	500.000	480.586	2467836.71	0.3630	P	1.4
8	☐	1000.000	1010.243	5151675.50	0.7627	A	3.0
9	☐			242990.41	0.0374	P	9.8

$$y = 7.5477\text{E-}004 * x + 2.3148\text{E-}004$$

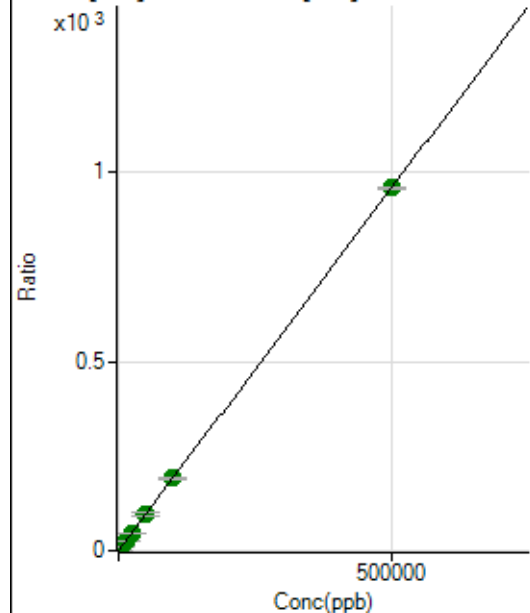
$$R = 0.9997$$

$$DL = 0.08053$$

$$BEC = 0.3067$$

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	18784.63	0.0291	P	2.4
2	☐	50.000					
3	☐	500.000	468.829	578564.67	0.9281	P	1.2
4	☐	5000.000	5046.643	6070301.91	9.7065	A	0.3
5	☐	12500.000	12751.904	15029688.01	24.4822	A	3.1
6	☐	25000.000	24794.460	29513643.72	47.5752	A	0.4
7	☐	50000.000	49872.629	60603227.74	95.6653	A	7.8
8	☐	100000.00	99584.268	125918850.04	190.9928	A	0.8
9	☐	500000.00	500099.42	664481614.85	959.0248	A	0.5

$$y = 0.0019 * x + 0.0291$$

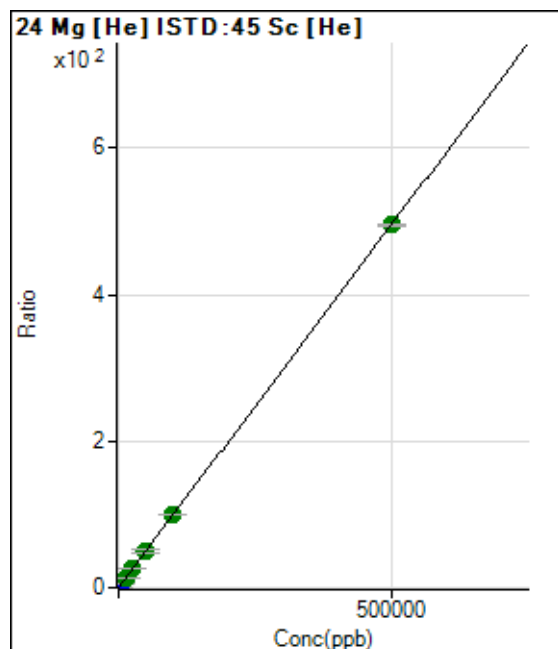
$$R = 1.0000$$

$$DL = 1.1$$

$$BEC = 15.15$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144.45	0.0002	P	26.3
2	☐	50.000					
3	☐	500.000	497.474	307597.18	0.4934	P	0.6
4	☐	5000.000	5241.083	3249672.34	5.1963	P	0.6
5	☐	12500.000	13155.342	8006857.73	13.0426	A	3.1
6	☐	25000.000	25566.304	15723994.62	25.3469	A	0.6
7	☐	50000.000	50876.619	31948552.80	50.4398	A	8.1
8	☐	100000.00	101240.08	66171436.20	100.3706	A	1.3
9	☐	500000.00	499617.21	343220932.67	495.3256	A	0.9

$$y = 9.9141\text{E-}004 * x + 2.2212\text{E-}004$$

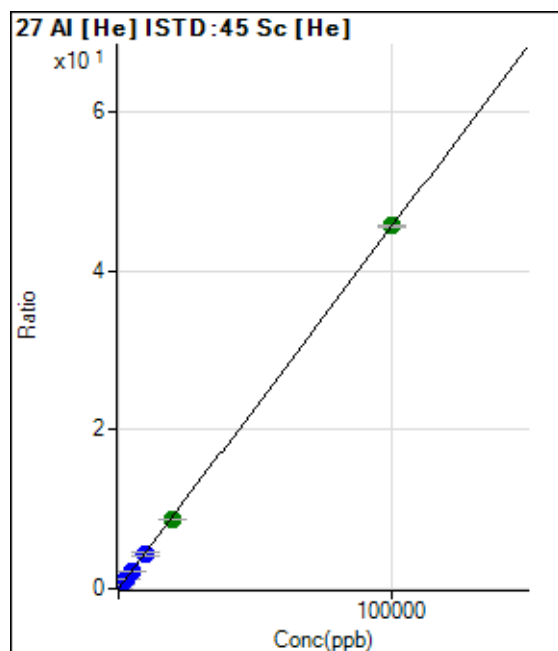
$$R = 1.0000$$

$$DL = 0.1764$$

$$BEC = 0.224$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0001	P	61.1
2	☐	2.000					
3	☐	20.000	17.442	5023.30	0.0081	P	3.5
4	☐	1000.000	979.147	279412.33	0.4468	P	0.9
5	☐	2500.000	2468.185	691464.59	1.1261	P	2.3
6	☐	5000.000	4811.733	1361813.46	2.1952	P	0.8
7	☐	10000.000	9599.640	2772550.30	4.3795	P	9.1
8	☐	20000.000	19152.384	5760605.08	8.7375	A	0.3
9	☐	100000.00	100219.97	31679313.90	45.7211	A	0.5

$$y = 4.5621\text{E-}004 * x + 1.0004\text{E-}004$$

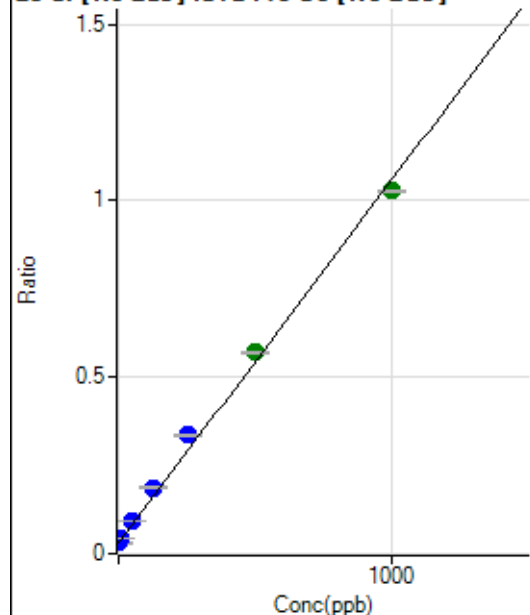
$$R = 1.0000$$

$$DL = 0.4018$$

$$BEC = 0.2193$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	353622.39	0.0301	P	1.7
2	☐	1.000					
3	☐	10.000	10.796	476749.93	0.0412	P	0.8
4	☐	50.000	62.895	1084861.19	0.0947	P	0.9
5	☐	125.000	153.275	2122282.43	0.1876	P	1.0
6	☐	250.000	297.942	3791829.12	0.3362	P	1.7
7	☐	500.000	526.131	6741266.43	0.5706	A	1.2
8	☐	1000.000	970.762	12236797.41	1.0273	A	0.2
9	☐			944031.96	0.0784	P	1.4

$$y = 0.0010 * x + 0.0301$$

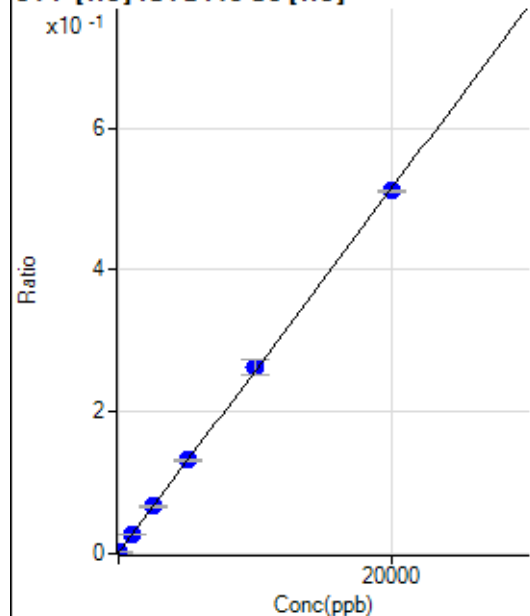
$$R = 0.9980$$

$$DL = 1.494$$

$$BEC = 29.33$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-26.821	322.24	0.0005	P	7.8
2	☐	0.000					
3	☐	0.000	26.821	1169.54	0.0019	P	4.5
4	☐	1000.000	1024.244	17196.61	0.0275	P	2.9
5	☐	2500.000	2558.052	41063.20	0.0669	P	4.2
6	☐	5000.000	5081.001	81707.79	0.1317	P	2.5
7	☐	10000.000	10204.456	166779.84	0.2633	P	8.3
8	☐	20000.000	19869.053	337300.99	0.5116	P	0.3
9	☐			605.60	0.0009	P	11.4

$$y = 2.5689E-005 * x + 0.0012$$

$$R = 0.9999$$

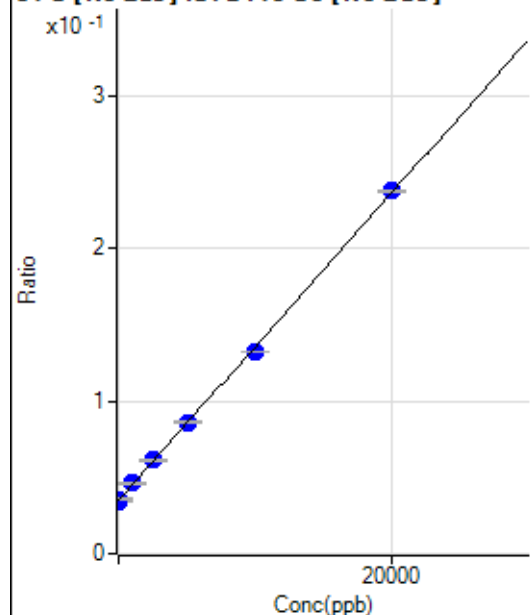
$$DL = 7.189$$

$$BEC = 46.2$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-78.083	402220.28	0.0343	P	1.1
2	☐	0.000					
3	☐	0.000	78.083	414531.90	0.0358	P	0.8
4	☐	1000.000	1112.443	529684.51	0.0463	P	1.7
5	☐	2500.000	2596.096	692409.75	0.0612	P	1.1
6	☐	5000.000	5080.726	972520.85	0.0862	P	0.7
7	☐	10000.000	9654.676	1562862.60	0.1323	P	0.4
8	☐	20000.000	20134.846	2832769.49	0.2378	P	0.7
9	☐			374955.40	0.0311	P	2.1

$$y = 1.0070\text{E-}005 * x + 0.0351$$

$$R = 0.9997$$

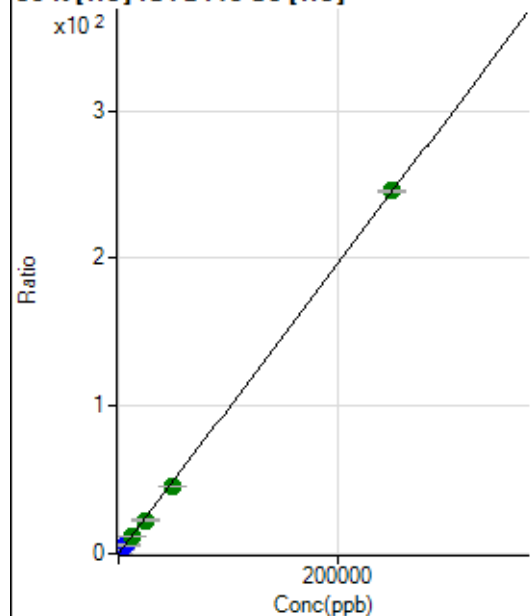
$$DL = 98.99$$

$$BEC = 3481$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	23308.02	0.0361	P	2.7
2	☐	50.000					
3	☐	500.000	432.905	286519.74	0.4596	P	1.3
4	☐	2500.000	2352.836	1462177.46	2.3381	P	1.0
5	☐	6250.000	5965.053	3605579.21	5.8723	P	2.4
6	☐	12500.000	11574.142	7047313.96	11.3603	A	0.9
7	☐	25000.000	23134.942	14357294.07	22.6715	A	8.6
8	☐	50000.000	46355.202	29926294.77	45.3905	A	0.5
9	☐	250000.00	250970.48	170170780.19	245.5883	A	0.8

$$y = 9.7841\text{E-}004 * x + 0.0361$$

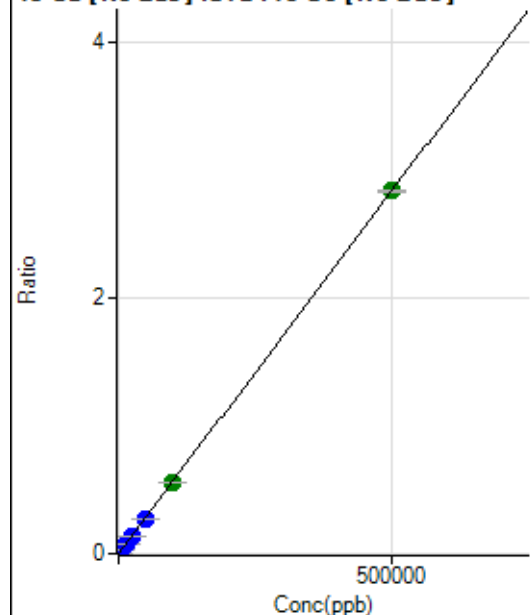
$$R = 0.9999$$

$$DL = 2.95$$

$$BEC = 36.85$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	261.13	0.0000	P	12.0
2	☐	50.000					
3	☐	500.000	446.121	29466.58	0.0025	P	1.8
4	☐	5000.000	5085.131	329902.63	0.0288	P	1.2
5	☐	12500.000	12647.752	810369.09	0.0716	P	0.5
6	☐	25000.000	25046.801	1599594.48	0.1418	P	1.1
7	☐	50000.000	47708.996	3191307.45	0.2701	P	0.5
8	☐	100000.00	97786.641	6594114.95	0.5536	A	0.8
9	☐	500000.00	500664.94	34131341.74	2.8344	A	0.7

$$y = 5.6612\text{E-}006 * x + 2.2224\text{E-}005$$

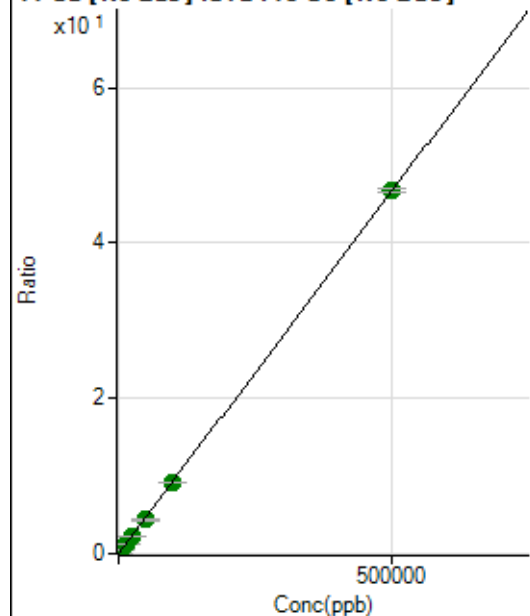
$$R = 1.0000$$

$$DL = 1.41$$

$$BEC = 3.926$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33582.83	0.0029	P	1.9
2	☐	50.000					
3	☐	500.000	446.488	514374.24	0.0445	P	1.0
4	☐	5000.000	4925.980	5290022.82	0.4620	A	0.8
5	☐	12500.000	12262.385	12962887.96	1.1457	A	0.3
6	☐	25000.000	24468.138	25753951.96	2.2833	A	0.8
7	☐	50000.000	46557.303	51297890.73	4.3420	A	0.8
8	☐	100000.00	97564.491	108344284.37	9.0958	A	0.3
9	☐	500000.00	500864.69	562139657.01	46.6831	A	1.0

$$y = 9.3199\text{E-}005 * x + 0.0029$$

$$R = 1.0000$$

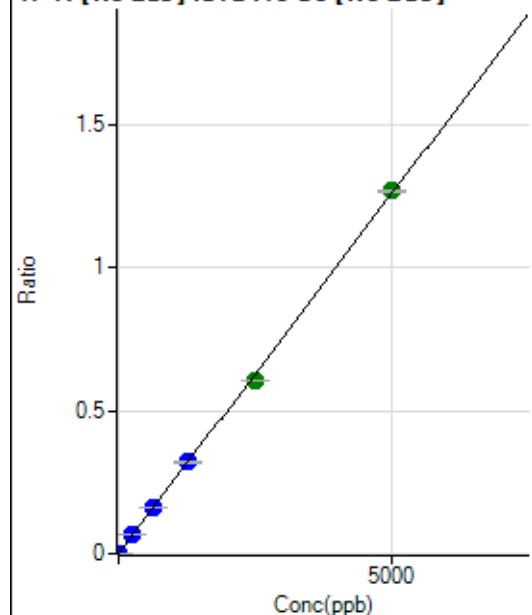
$$DL = 1.781$$

$$BEC = 30.7$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	388.91	0.0000	P	15.0
2	☐	0.500					
3	☐	5.000	4.797	14326.96	0.0012	P	2.6
4	☐	250.000	254.513	732980.97	0.0640	P	0.4
5	☐	625.000	640.662	1822292.16	0.1611	P	1.2
6	☐	1250.000	1272.077	3606826.47	0.3198	P	0.9
7	☐	2500.000	2398.543	7123099.81	0.6029	A	0.4
8	☐	5000.000	5043.026	15098465.96	1.2676	A	0.7
9	☐			5687.44	0.0005	P	5.6

$$y = 2.5135E-004 * x + 3.3097E-005$$

$$R = 0.9997$$

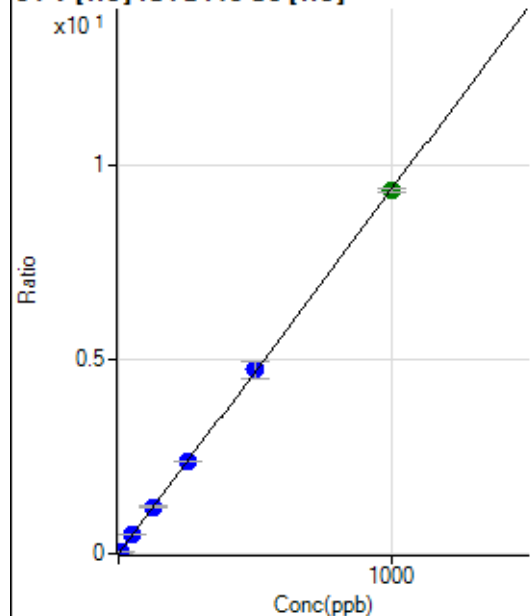
$$DL = 0.05913$$

$$BEC = 0.1317$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7.78	0.0000	P	24.7
2	☐	0.500					
3	☐	5.000	4.874	28566.82	0.0458	P	0.5
4	☐	50.000	50.676	297855.19	0.4763	P	0.5
5	☐	125.000	128.022	738576.10	1.2032	P	3.6
6	☐	250.000	253.908	1480364.58	2.3863	P	0.7
7	☐	500.000	505.148	3005724.02	4.7476	P	9.1
8	☐	1000.000	996.038	6171539.91	9.3611	A	1.1
9	☐			1060.06	0.0015	P	3.3

$$y = 0.0094 * x + 1.2033E-005$$

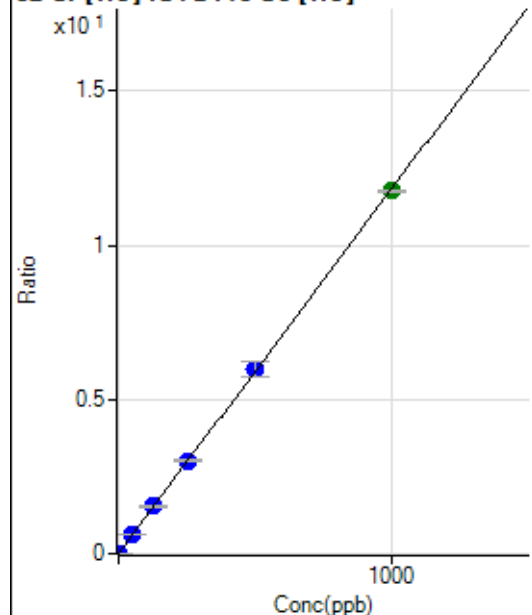
$$R = 1.0000$$

$$DL = 0.0009505$$

$$BEC = 0.00128$$

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	3702.74	0.0057	P	7.8
2	☐	0.200					
3	☐	2.000	1.926	17758.65	0.0285	P	2.6
4	☐	50.000	51.751	385994.55	0.6172	P	0.7
5	☐	125.000	129.034	939496.51	1.5304	P	3.1
6	☐	250.000	254.463	1868708.13	3.0124	P	1.2
7	☐	500.000	506.449	3793322.72	5.9898	P	8.4
8	☐	1000.000	995.068	7755398.42	11.7633	A	0.6
9	☐			56345.33	0.0813	P	0.7

$$y = 0.0118 * x + 0.0057$$

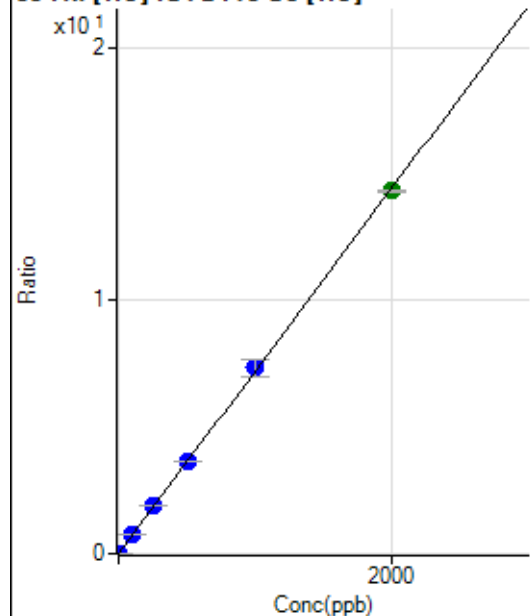
$$R = 1.0000$$

$$DL = 0.113$$

$$BEC = 0.4852$$

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	53.33	0.0001	P	19.5
2	☐	0.100					
3	☐	1.000	0.998	4539.66	0.0073	P	1.9
4	☐	100.000	104.275	470277.21	0.7520	P	0.6
5	☐	250.000	262.802	1163399.29	1.8951	P	3.2
6	☐	500.000	509.158	2277669.27	3.6716	P	0.5
7	☐	1000.000	1017.679	4646338.26	7.3384	P	8.9
8	☐	2000.000	1987.057	9446557.01	14.3285	A	0.7
9	☐			39275.97	0.0567	P	1.0

$$y = 0.0072 * x + 8.2133E-005$$

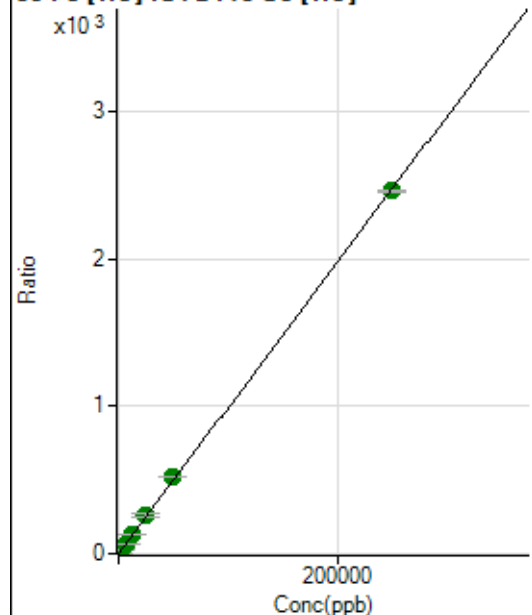
$$R = 0.9999$$

$$DL = 0.006653$$

$$BEC = 0.01139$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6931.46	0.0107	P	1.7
2	☐	5.000					
3	☐	50.000	53.820	337737.81	0.5418	P	0.5
4	☐	2500.000	2742.559	16930464.73	27.0723	A	0.4
5	☐	6250.000	6938.181	42035322.70	68.4718	A	3.1
6	☐	12500.000	13477.463	82504584.25	132.9968	A	0.6
7	☐	25000.000	26649.835	166484572.24	262.9724	A	9.1
8	☐	50000.000	52496.808	341515159.49	518.0120	A	1.0
9	☐	250000.00	249267.15	1704144052.9	2,459.602	A	0.7

$$y = 0.0099 * x + 0.0107$$

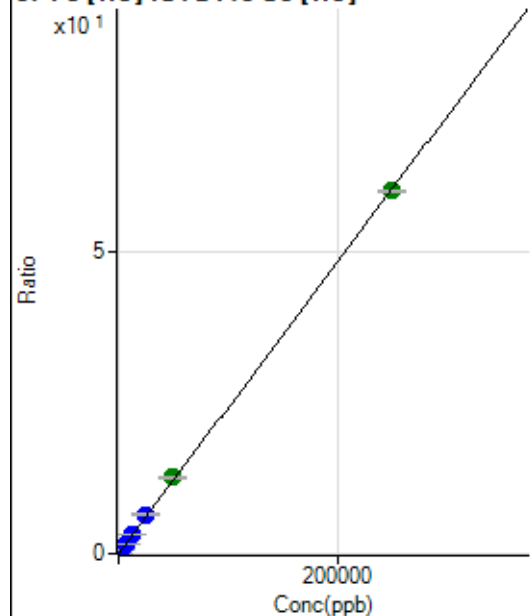
$$R = 0.9999$$

$$DL = 0.05628$$

$$BEC = 1.086$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	187.04	0.0003	P	6.8
2	☐	5.000					
3	☐	50.000	54.399	8350.77	0.0134	P	1.2
4	☐	2500.000	2768.164	417261.70	0.6672	P	0.7
5	☐	6250.000	7009.308	1036905.07	1.6890	P	3.1
6	☐	12500.000	13533.245	2022863.69	3.2608	P	0.8
7	☐	25000.000	27048.278	4126213.46	6.5170	P	8.9
8	☐	50000.000	52221.436	8295311.12	12.5819	A	0.4
9	☐	250000.00	249277.55	41613875.93	60.0583	A	0.5

$$y = 2.4093E-004 * x + 2.8880E-004$$

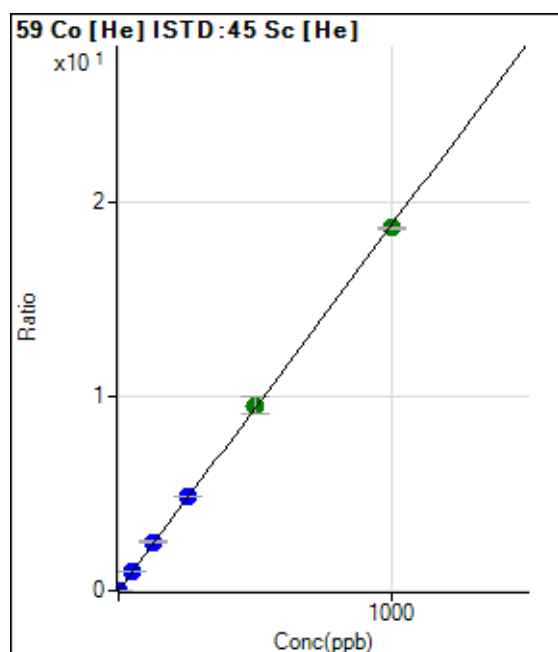
$$R = 0.9999$$

$$DL = 0.2463$$

$$BEC = 1.199$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	185.56	0.0003	P	4.6
2	☐	0.100					
3	☐	1.000	0.949	11293.37	0.0181	P	1.6
4	☐	50.000	53.637	630457.87	1.0081	P	0.6
5	☐	125.000	133.630	1541456.16	2.5112	P	3.7
6	☐	250.000	259.622	3026466.27	4.8785	P	0.2
7	☐	500.000	507.176	6034059.91	9.5300	A	9.0
8	☐	1000.000	992.746	12298386.76	18.6537	A	0.6
9	☐			141539.36	0.2043	P	1.1

$$y = 0.0188 * x + 2.8661E-004$$

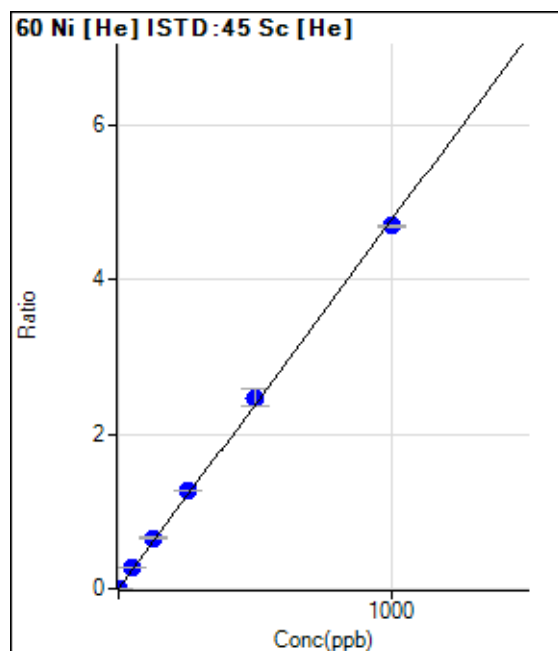
$$R = 0.9999$$

$$DL = 0.002123$$

$$BEC = 0.01525$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	82.22	0.0001	P	31.5
2	☐	0.100					
3	☐	1.000	1.029	3142.61	0.0050	P	1.4
4	☐	50.000	55.741	166480.09	0.2662	P	0.8
5	☐	125.000	138.215	405046.89	0.6599	P	3.9
6	☐	250.000	265.876	787394.24	1.2693	P	1.0
7	☐	500.000	518.933	1568456.92	2.4773	P	8.9
8	☐	1000.000	984.626	3098836.31	4.7002	P	0.3
9	☐			36773.99	0.0531	P	0.8

$$y = 0.0048 * x + 1.2794E-004$$

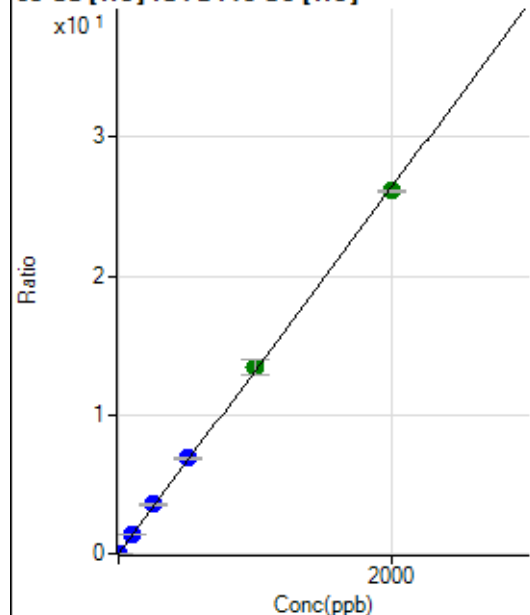
$$R = 0.9995$$

$$DL = 0.02532$$

$$BEC = 0.0268$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1080.06	0.0017	P	8.2
2	☐	0.200					
3	☐	2.000	2.020	17652.01	0.0283	P	2.1
4	☐	100.000	109.295	902756.38	1.4435	P	0.4
5	☐	250.000	271.555	2199988.55	3.5841	P	3.8
6	☐	500.000	521.009	4264918.65	6.8750	P	0.7
7	☐	1000.000	1021.472	8536646.19	13.4773	A	8.0
8	☐	2000.000	1980.853	17229840.85	26.1338	A	0.3
9	☐			20101.84	0.0290	P	1.3

$$y = 0.0132 * x + 0.0017$$

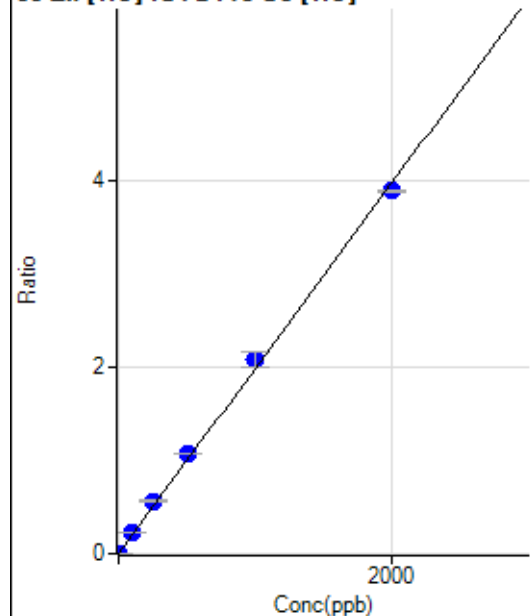
$$R = 0.9998$$

$$DL = 0.0311$$

$$BEC = 0.1264$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	303.34	0.0005	P	2.9
2	☐	0.200					
3	☐	2.000	2.175	2981.46	0.0048	P	2.6
4	☐	100.000	115.943	144071.36	0.2304	P	0.2
5	☐	250.000	284.372	346450.19	0.5644	P	3.2
6	☐	500.000	544.366	669931.11	1.0799	P	0.2
7	☐	1000.000	1048.060	1316264.65	2.0787	P	8.7
8	☐	2000.000	1959.785	2562411.72	3.8866	P	0.2
9	☐			14745.41	0.0213	P	1.1

$$y = 0.0020 * x + 4.6899E-004$$

$$R = 0.9992$$

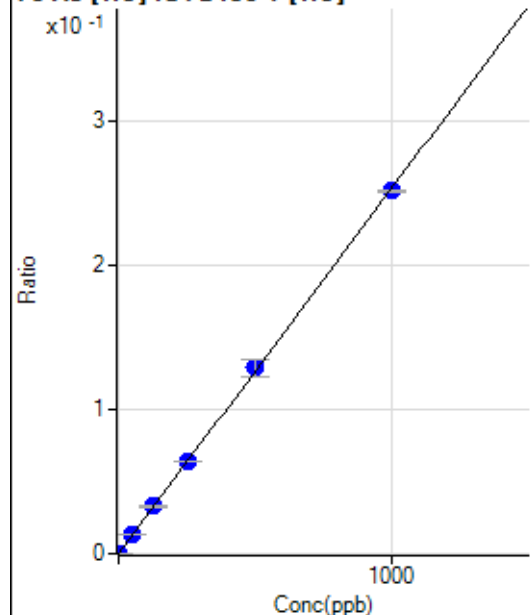
$$DL = 0.02082$$

$$BEC = 0.2365$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11.73	0.0000	P	49.0
2	☐	0.100					
3	☐	1.000	0.959	774.10	0.0002	P	5.7
4	☐	50.000	52.103	41361.17	0.0132	P	1.3
5	☐	125.000	130.585	101895.97	0.0330	P	3.6
6	☐	250.000	252.640	200091.88	0.0638	P	0.7
7	☐	500.000	509.363	408110.18	0.1287	P	9.0
8	☐	1000.000	993.855	807272.72	0.2511	P	0.9
9	☐			1020.42	0.0003	P	6.8

$$y = 2.5261\text{E-}004 * x + 3.6602\text{E-}006$$

$$R = 0.9999$$

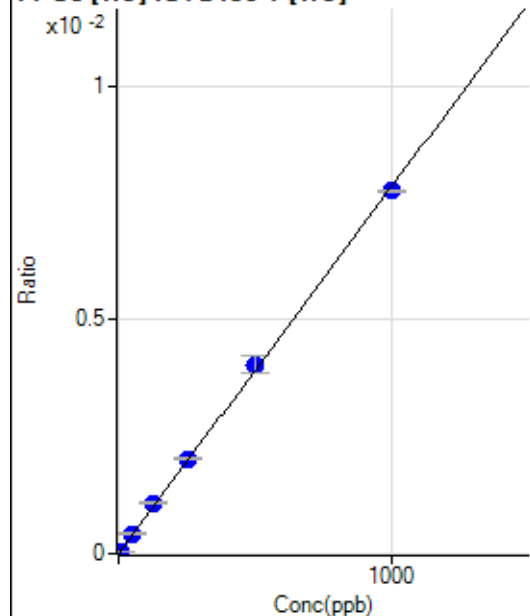
$$DL = 0.0213$$

$$BEC = 0.01449$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	5.083	125.56	0.0000	P	25.3
4	☐	50.000	54.480	1342.31	0.0004	P	4.6
5	☐	125.000	138.750	3358.23	0.0011	P	6.7
6	☐	250.000	258.420	6352.61	0.0020	P	1.6
7	☐	500.000	513.926	12779.16	0.0040	P	9.3
8	☐	1000.000	988.989	24937.26	0.0078	P	0.3
9	☐			10.00	0.0000	P	33.1

$$y = 7.8412\text{E-}006 * x + 0.0000\text{E+}000$$

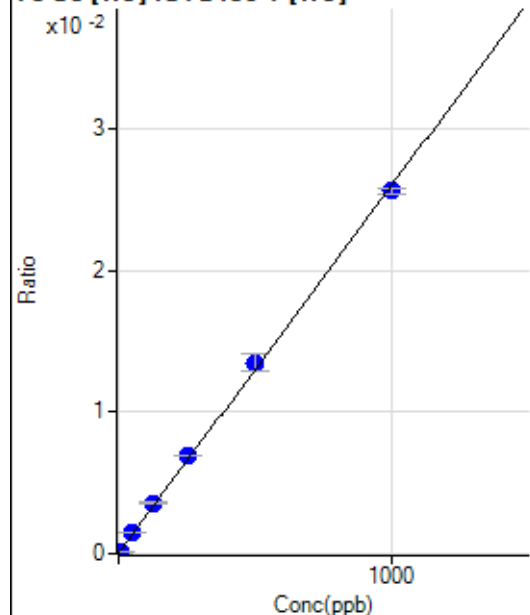
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

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	125.31	0.0000	P	12.7
2	☐	0.500					
3	☐	5.000	5.151	543.23	0.0002	P	8.6
4	☐	50.000	55.398	4637.20	0.0015	P	3.6
5	☐	125.000	135.609	10982.01	0.0036	P	4.7
6	☐	250.000	264.510	21632.27	0.0069	P	0.2
7	☐	500.000	518.031	42743.68	0.0135	P	8.8
8	☐	1000.000	985.760	82336.26	0.0256	P	1.4
9	☐			177.78	0.0001	P	11.3

$$y = 2.5938E-005 * x + 3.8923E-005$$

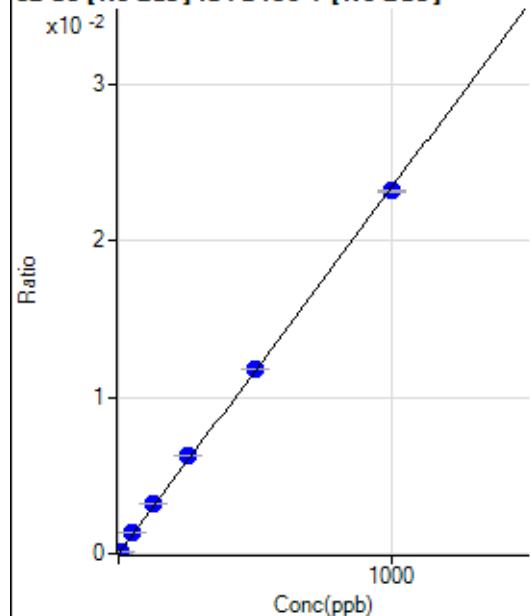
$$R = 0.9996$$

$$DL = 0.5712$$

$$BEC = 1.501$$

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	17.11	0.0000	P	240.
2	☐	0.500					
3	☐	5.000	5.337	2327.47	0.0001	P	4.5
4	☐	50.000	56.200	24229.22	0.0013	P	1.2
5	☐	125.000	136.485	58936.31	0.0032	P	1.5
6	☐	250.000	267.359	114632.11	0.0063	P	1.0
7	☐	500.000	504.826	222618.86	0.0118	P	0.5
8	☐	1000.000	991.500	435207.08	0.0232	P	0.2
9	☐			154.15	0.0000	P	38.2

$$y = 2.3416E-005 * x + 8.9953E-007$$

$$R = 0.9998$$

$$DL = 0.2768$$

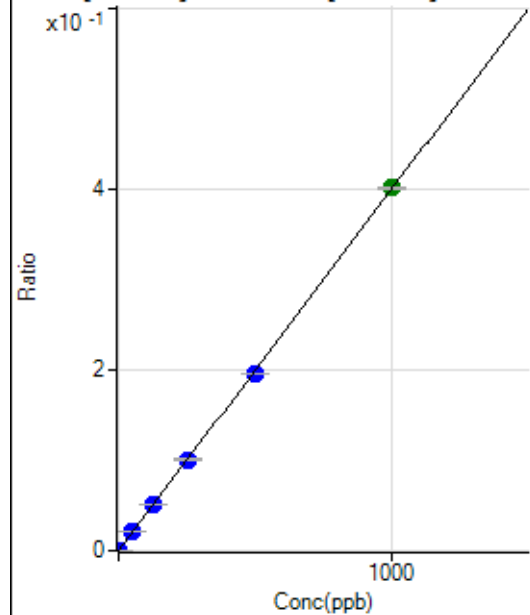
$$BEC = 0.03842$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			1191.18		P	5.5
2	☐						
3	☐			1251.19		P	3.8
4	☐			1225.63		P	6.0
5	☐			1103.39		P	4.2
6	☐			1168.95		P	4.3
7	☐			1157.85		P	3.1
8	☐			1191.18		P	3.5
9	☐			1380.09		P	3.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1847.41	0.0001	P	12.4
2	☐	0.100					
3	☐	1.000	0.824	7902.55	0.0004	P	0.8
4	☐	50.000	51.939	383802.02	0.0209	P	0.8
5	☐	125.000	127.220	939352.51	0.0510	P	2.2
6	☐	250.000	252.471	1849645.88	0.1010	P	0.4
7	☐	500.000	489.264	3685075.17	0.1957	P	0.7
8	☐	1000.000	1004.376	7527763.27	0.4016	A	0.7
9	☐			28637.98	0.0016	P	2.1

$$y = 3.9975E-004 * x + 9.7969E-005$$

$$R = 0.9999$$

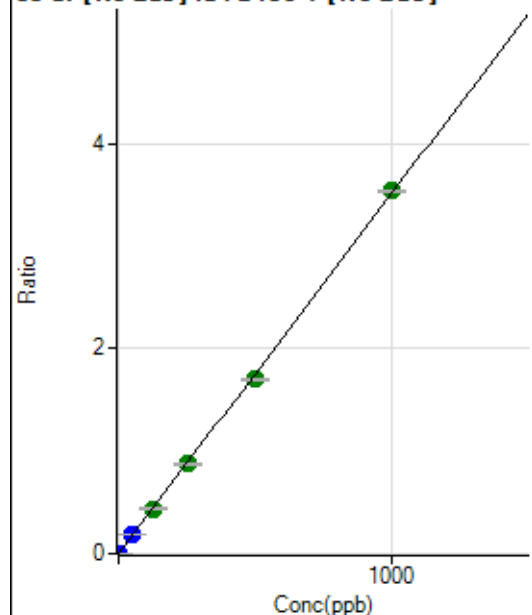
$$DL = 0.09119$$

$$BEC = 0.2451$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	202.79	0.0000	P	19.2
2	☐	0.100					
3	☐	1.000	0.812	52862.66	0.0029	P	0.7
4	☐	50.000	51.363	3315062.18	0.1802	P	0.7
5	☐	125.000	125.113	8091327.53	0.4389	A	0.8
6	☐	250.000	249.521	16025529.70	0.8752	A	0.9
7	☐	500.000	484.037	31971665.99	1.6979	A	1.2
8	☐	1000.000	1008.019	66277588.29	3.5358	A	0.7
9	☐			243130.95	0.0135	P	1.2

$$y = 0.0035 * x + 1.0771E-005$$

$$R = 0.9998$$

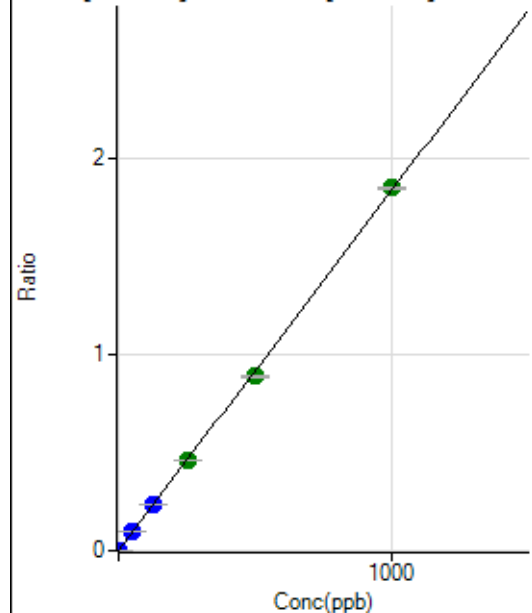
$$DL = 0.001767$$

$$BEC = 0.003071$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1119.53	0.0001	P	6.1
2	☐	0.100					
3	☐	1.000	0.910	31939.36	0.0017	P	0.7
4	☐	50.000	51.138	1725023.95	0.0938	P	0.7
5	☐	125.000	126.951	4289512.33	0.2327	P	1.2
6	☐	250.000	249.645	8375599.58	0.4575	A	0.6
7	☐	500.000	484.251	16708990.48	0.8873	A	0.8
8	☐	1000.000	1007.662	34609275.43	1.8464	A	0.2
9	☐			10037.30	0.0006	P	3.8

$$y = 0.0018 * x + 5.9393E-005$$

$$R = 0.9998$$

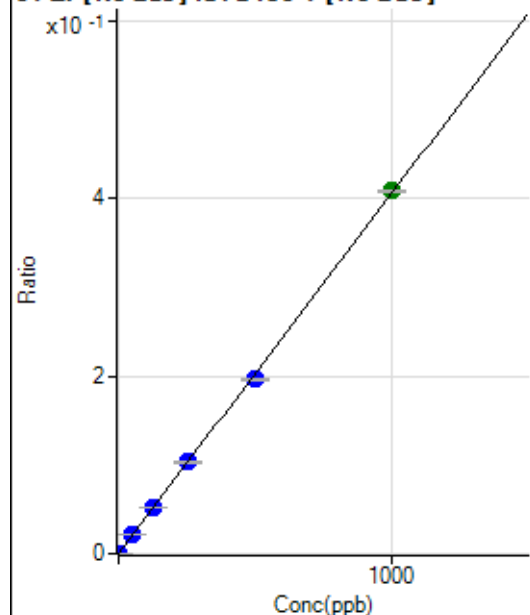
$$DL = 0.005949$$

$$BEC = 0.03242$$

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	266.68	0.0000	P	7.4
2	☐	0.100					
3	☐	1.000	0.894	6965.88	0.0004	P	1.9
4	☐	50.000	50.875	379933.43	0.0206	P	0.8
5	☐	125.000	127.183	951392.29	0.0516	P	0.6
6	☐	250.000	253.847	1885387.61	0.1030	P	1.4
7	☐	500.000	483.389	3692468.92	0.1961	P	0.5
8	☐	1000.000	1007.027	7657043.14	0.4085	A	0.6
9	☐			2155.82	0.0001	P	3.1

$$y = 4.0562E-004 * x + 1.4147E-005$$

$$R = 0.9998$$

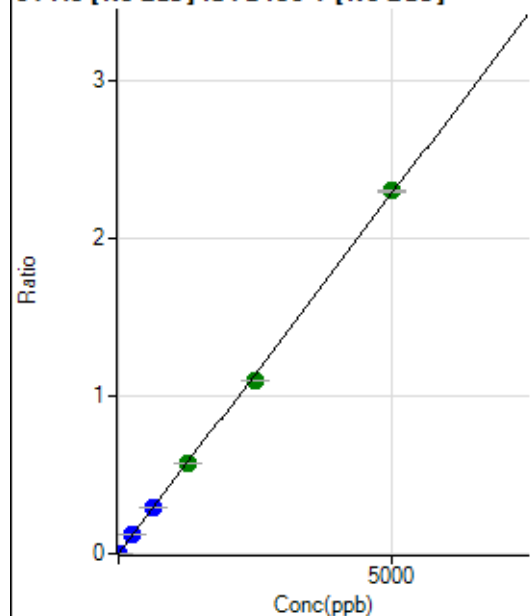
$$DL = 0.007732$$

$$BEC = 0.03488$$

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	416.69	0.0000	P	10.5
2	☐	0.500					
3	☐	5.000	4.613	39279.97	0.0021	P	1.9
4	☐	250.000	257.954	2162801.03	0.1176	P	0.5
5	☐	625.000	640.527	5381060.01	0.2919	P	0.5
6	☐	1250.000	1264.255	10546634.27	0.5760	A	0.2
7	☐	2500.000	2402.991	20616705.32	1.0949	A	0.9
8	☐	5000.000	5042.602	43066328.05	2.2975	A	0.8
9	☐			19038.49	0.0011	P	4.0

$$y = 4.5562E-004 * x + 2.2117E-005$$

$$R = 0.9997$$

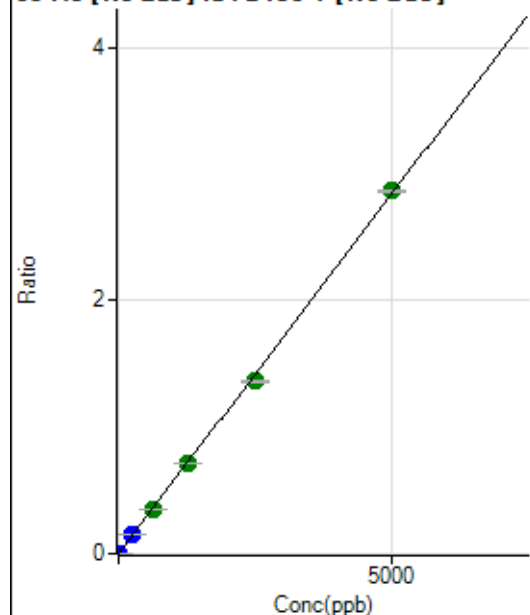
$$DL = 0.01525$$

$$BEC = 0.04854$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	55.56	0.0000	P	22.4
2	☐	0.500					
3	☐	5.000	4.668	49074.47	0.0027	P	3.7
4	☐	250.000	257.768	2693105.79	0.1464	P	0.2
5	☐	625.000	623.811	6530843.25	0.3542	A	0.6
6	☐	1250.000	1250.781	13003124.34	0.7102	A	0.9
7	☐	2500.000	2406.687	25732889.29	1.3666	A	1.2
8	☐	5000.000	5046.222	53711578.98	2.8654	A	0.2
9	☐			26881.77	0.0015	P	4.1

$$y = 5.6783\text{E-}004 * x + 2.9460\text{E-}006$$

$$R = 0.9997$$

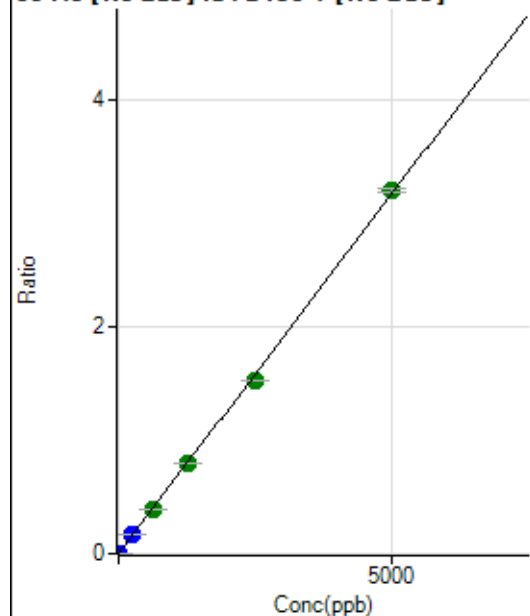
$$DL = 0.003489$$

$$BEC = 0.005188$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	175.01	0.0000	P	25.0
2	☐	0.500					
3	☐	5.000	4.581	53852.73	0.0029	P	0.9
4	☐	250.000	255.766	2982039.39	0.1621	P	0.5
5	☐	625.000	625.804	7311469.35	0.3966	A	0.4
6	☐	1250.000	1252.545	14530935.74	0.7937	A	0.8
7	☐	2500.000	2406.719	28717328.42	1.5250	A	0.5
8	☐	5000.000	5045.616	59928239.53	3.1972	A	1.1
9	☐			43029.96	0.0024	P	2.2

$$y = 6.3365\text{E-}004 * x + 9.2865\text{E-}006$$

$$R = 0.9997$$

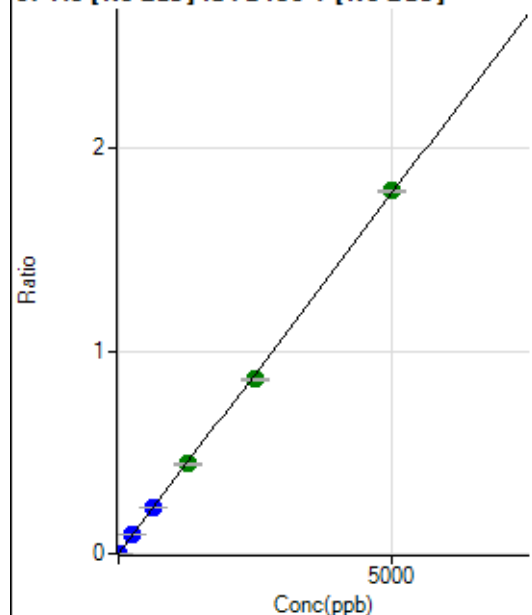
$$DL = 0.011$$

$$BEC = 0.01466$$

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	36.11	0.0000	P	54.2
2	☐	0.500					
3	☐	5.000	4.627	30450.25	0.0016	P	3.1
4	☐	250.000	256.639	1678357.64	0.0912	P	0.5
5	☐	625.000	635.962	4167418.50	0.2260	P	1.4
6	☐	1250.000	1247.358	8116888.46	0.4434	A	1.1
7	☐	2500.000	2419.105	16190512.51	0.8598	A	1.1
8	☐	5000.000	5039.406	33575346.58	1.7912	A	0.9
9	☐			16087.49	0.0009	P	6.2

$$y = 3.5543\text{E-}004 * x + 1.9225\text{E-}006$$

$$R = 0.9998$$

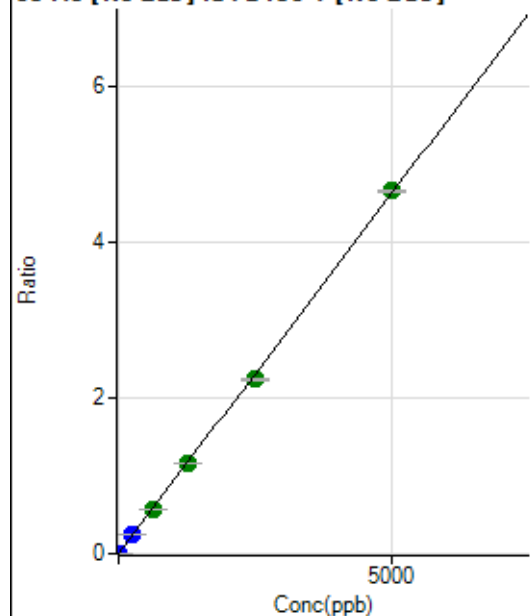
$$DL = 0.008803$$

$$BEC = 0.005409$$

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	102.78	0.0000	P	18.7
2	☐	0.500					
3	☐	5.000	4.558	78053.54	0.0042	P	1.0
4	☐	250.000	256.130	4358050.44	0.2369	P	0.4
5	☐	625.000	624.216	10642727.41	0.5773	A	0.8
6	☐	1250.000	1252.829	21210939.54	1.1586	A	1.1
7	☐	2500.000	2418.886	42122208.23	2.2369	A	0.4
8	☐	5000.000	5039.642	87359372.78	4.6604	A	0.4
9	☐			40742.92	0.0023	P	5.9

$$y = 9.2476\text{E-}004 * x + 5.4551\text{E-}006$$

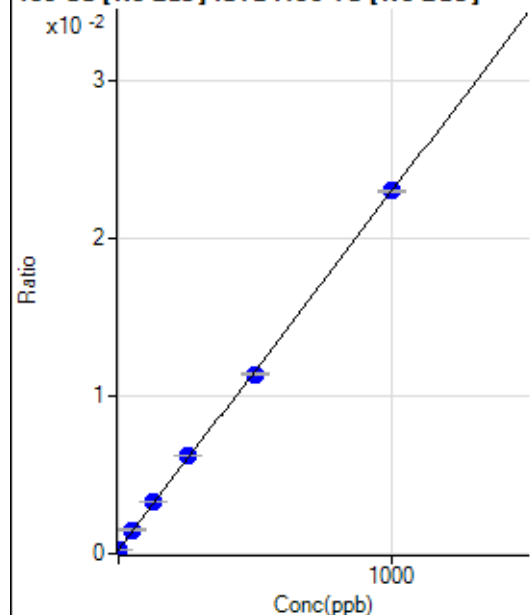
$$R = 0.9998$$

$$DL = 0.003312$$

$$BEC = 0.005899$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7018.71	0.0003	P	0.2
2	☐	0.100					
3	☐	1.000	0.846	7535.67	0.0003	P	3.0
4	☐	50.000	55.393	41002.31	0.0015	P	2.4
5	☐	125.000	132.116	88088.27	0.0033	P	1.1
6	☐	250.000	260.483	166941.46	0.0062	P	0.2
7	☐	500.000	489.545	315416.76	0.0114	P	1.5
8	☐	1000.000	1001.448	622245.53	0.0230	P	0.5
9	☐			6935.33	0.0003	P	4.7

$$y = 2.2679\text{E-}005 * x + 2.5939\text{E-}004$$

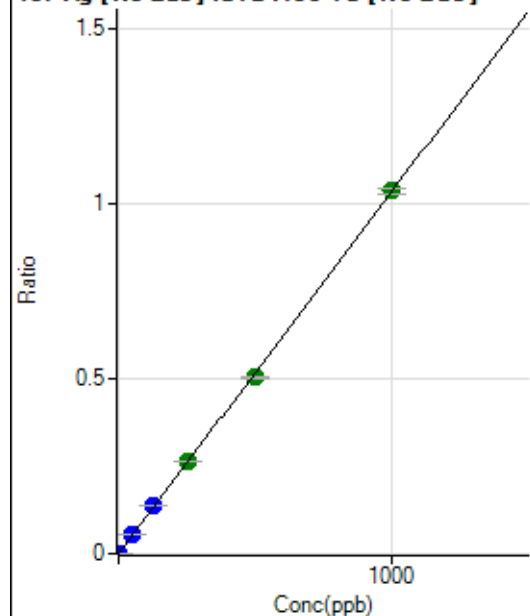
$$R = 0.9998$$

$$DL = 0.05404$$

$$BEC = 11.44$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	211.12	0.0000	P	26.7
2	☐	0.100					
3	☐	1.000	1.050	29520.66	0.0011	P	0.2
4	☐	50.000	54.735	1527577.49	0.0565	P	1.2
5	☐	125.000	133.025	3712788.41	0.1372	P	0.4
6	☐	250.000	256.319	7157554.07	0.2644	A	0.5
7	☐	500.000	487.760	13967600.83	0.5031	A	1.2
8	☐	1000.000	1003.301	28033670.07	1.0349	A	1.5
9	☐			2403.08	0.0001	P	5.8

$$y = 0.0010 * x + 7.8252\text{E-}006$$

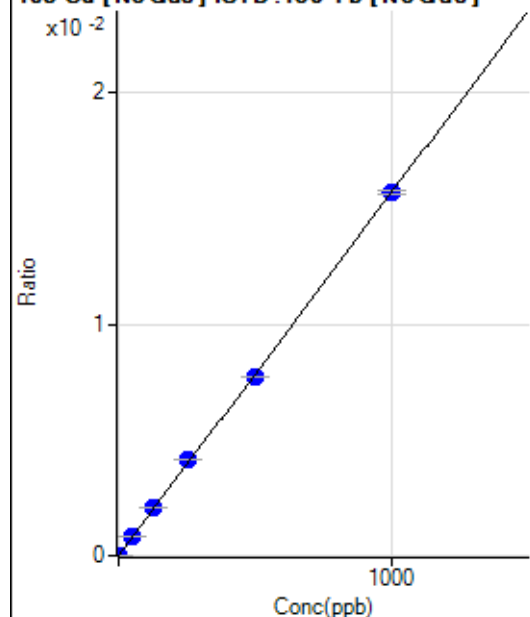
$$R = 0.9998$$

$$DL = 0.006075$$

$$BEC = 0.007586$$

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	9.72	0.0000	P	88.8
2	☐	0.100					
3	☐	1.000	0.953	413.90	0.0000	P	7.0
4	☐	50.000	54.781	23259.66	0.0009	P	1.6
5	☐	125.000	133.522	56684.15	0.0021	P	1.6
6	☐	250.000	263.787	112037.76	0.0041	P	0.5
7	☐	500.000	492.472	214503.19	0.0077	P	0.1
8	☐	1000.000	999.013	424549.06	0.0157	P	1.2
9	☐			88.89	0.0000	P	16.1

$$y = 1.5688\text{E-}005 * x + 3.5672\text{E-}007$$

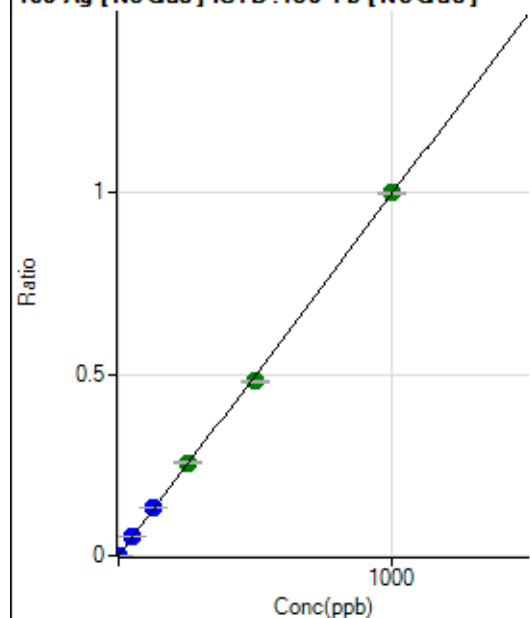
$$R = 0.9998$$

$$DL = 0.06057$$

$$BEC = 0.02274$$

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	97.23	0.0000	P	31.2
2	☐	0.100					
3	☐	1.000	1.069	28844.29	0.0011	P	0.5
4	☐	50.000	54.857	1476018.74	0.0546	P	1.0
5	☐	125.000	135.269	3639978.08	0.1345	P	0.5
6	☐	250.000	258.120	6949234.19	0.2567	A	0.8
7	☐	500.000	483.166	13340460.63	0.4805	A	1.0
8	☐	1000.000	1004.860	27071046.79	0.9994	A	0.6
9	☐			2086.37	0.0001	P	7.1

$$y = 9.9454\text{E-}004 * x + 3.6037\text{E-}006$$

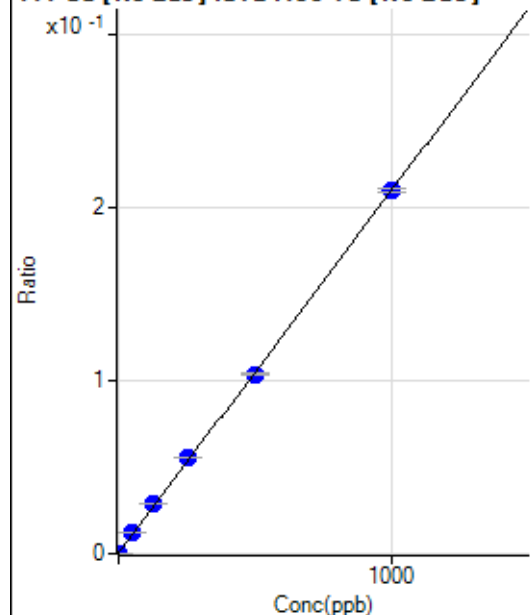
$$R = 0.9997$$

$$DL = 0.003387$$

$$BEC = 0.003623$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4924.34	0.0002	P	0.1
2	☐	0.100					
3	☐	1.000	0.961	10378.06	0.0004	P	2.4
4	☐	50.000	55.087	317514.68	0.0117	P	0.6
5	☐	125.000	135.816	775717.80	0.0287	P	0.5
6	☐	250.000	263.394	1500511.43	0.0554	P	0.8
7	☐	500.000	492.381	2872207.99	0.1035	P	1.1
8	☐	1000.000	998.855	5680312.30	0.2097	P	0.9
9	☐			5428.65	0.0002	P	4.8

$$y = 2.0976E-004 * x + 1.8200E-004$$

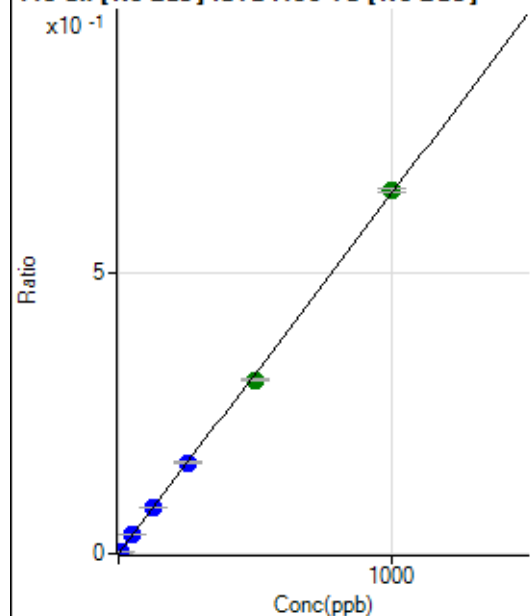
$$R = 0.9998$$

$$DL = 0.003634$$

$$BEC = 0.8676$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	827.84	0.0000	P	16.8
2	☐	0.500					
3	☐	5.000	4.839	84859.12	0.0031	P	0.2
4	☐	50.000	51.775	900052.23	0.0333	P	0.7
5	☐	125.000	128.982	2241312.59	0.0828	P	0.4
6	☐	250.000	253.393	4404565.21	0.1627	P	0.9
7	☐	500.000	481.724	8586731.62	0.3093	A	1.0
8	☐	1000.000	1007.704	17524963.76	0.6470	A	1.0
9	☐			10993.66	0.0004	P	1.8

$$y = 6.4201E-004 * x + 3.0637E-005$$

$$R = 0.9997$$

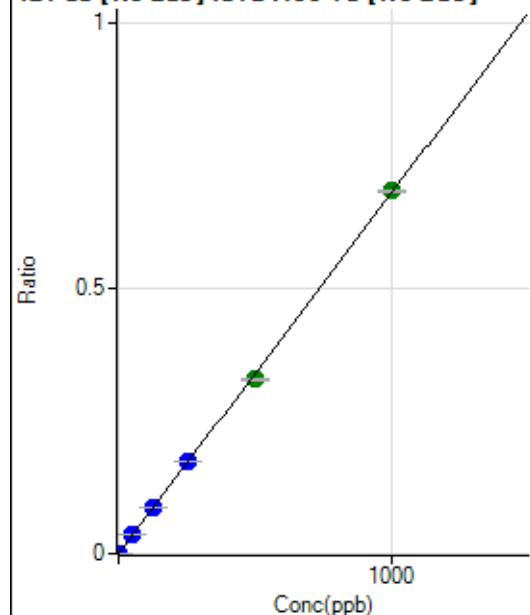
$$DL = 0.02406$$

$$BEC = 0.04772$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	62.8
2	☐	0.200					
3	☐	2.000	1.850	34033.78	0.0013	P	1.3
4	☐	50.000	52.835	971250.65	0.0359	P	0.7
5	☐	125.000	130.066	2391270.43	0.0884	P	0.7
6	☐	250.000	256.428	4716744.77	0.1742	P	1.0
7	☐	500.000	484.049	9131014.01	0.3289	A	0.8
8	☐	1000.000	1005.594	18509149.89	0.6833	A	0.2
9	☐			19394.70	0.0008	P	3.0

$$y = 6.7950E-004 * x + 1.0258E-006$$

$$R = 0.9998$$

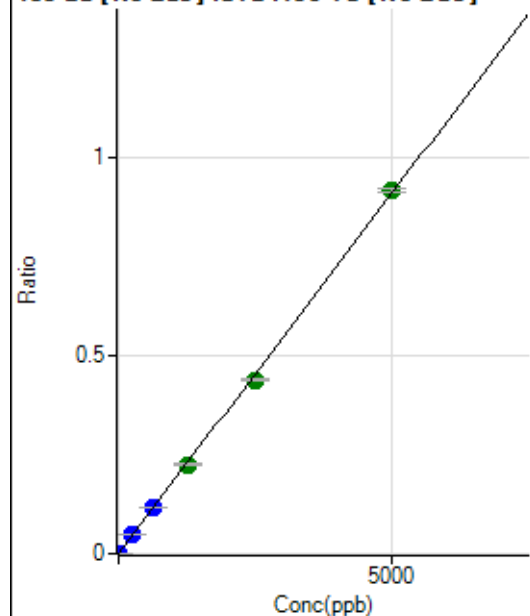
$$DL = 0.002843$$

$$BEC = 0.00151$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.44	0.0000	P	21.2
2	☐	1.000					
3	☐	10.000	9.509	46663.10	0.0017	P	0.4
4	☐	250.000	258.048	1265372.88	0.0468	P	0.3
5	☐	625.000	640.080	3139073.83	0.1160	P	0.3
6	☐	1250.000	1242.337	6095813.33	0.2252	A	0.3
7	☐	2500.000	2416.440	12159466.85	0.4380	A	0.9
8	☐	5000.000	5041.409	24752571.38	0.9138	A	0.9
9	☐			3825.70	0.0002	P	0.8

$$y = 1.8126E-004 * x + 1.6414E-006$$

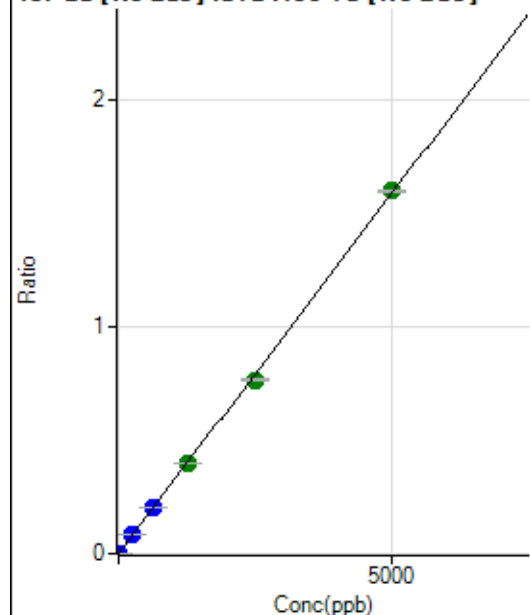
$$R = 0.9998$$

$$DL = 0.005765$$

$$BEC = 0.009056$$

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	44.45	0.0000	P	38.2
2	☐	1.000					
3	☐	10.000	9.593	82411.73	0.0030	P	0.3
4	☐	250.000	258.860	2223064.20	0.0822	P	0.2
5	☐	625.000	641.915	5513459.85	0.2038	P	0.2
6	☐	1250.000	1248.416	10728355.71	0.3963	A	0.4
7	☐	2500.000	2411.940	21255560.20	0.7657	A	0.7
8	☐	5000.000	5041.869	43354225.27	1.6005	A	0.7
9	☐			6826.96	0.0003	P	5.3

$$y = 3.1745E-004 * x + 1.6390E-006$$

$$R = 0.9998$$

$$DL = 0.005916$$

$$BEC = 0.005163$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			2.22		P	173.
4	☐			88.89		P	33.8
5	☐			208.90		P	24.0
6	☐			342.24		P	9.0
7	☐			728.94		P	11.7
8	☐			1346.78		P	10.2
9	☐			435.58		P	10.4

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			3.33		P	100.
4	☐			13.33		P	43.3
5	☐			22.22		P	31.2
6	☐			51.11		P	26.4
7	☐			67.78		P	7.5
8	☐			155.56		P	7.5
9	☐			171.11		P	23.6

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	65.5
2	☐						
3	☐			8.33		P	100.
4	☐			30.56		P	56.8
5	☐			52.78		P	50.8
6	☐			77.78		P	27.0
7	☐			158.34		P	15.8
8	☐			322.24		P	28.6
9	☐			180.56		P	7.1

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	43.3
2	☐						
3	☐			11.11		P	96.4
4	☐			31.11		P	16.4
5	☐			68.89		P	14.0
6	☐			124.45		P	10.1
7	☐			223.34		P	3.9
8	☐			444.46		P	6.4
9	☐			104.45		P	21.7

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			161.12		P	16.6
2	☐						
3	☐			127.78		P	10.0
4	☐			147.23		P	3.3
5	☐			116.67		P	18.9
6	☐			172.23		P	17.0
7	☐			155.56		P	26.4
8	☐			216.68		P	20.4
9	☐			247.23		P	15.2

160 Gd [He] No available calibration points

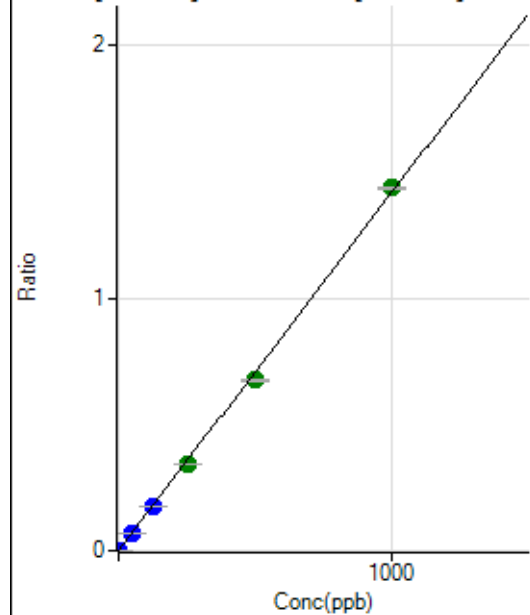
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			367.79		P	6.4
2	☐						
3	☐			332.23		P	6.1
4	☐			362.23		P	6.3
5	☐			367.79		P	6.0
6	☐			362.23		P	6.9
7	☐			357.79		P	10.6
8	☐			406.68		P	10.1
9	☐			445.57		P	9.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			80.56		P	26.0
2	☐						
3	☐			111.12		P	4.3
4	☐			80.56		P	41.8
5	☐			105.56		P	29.9
6	☐			86.12		P	29.6
7	☐			88.89		P	30.1
8	☐			113.89		P	18.4
9	☐			136.12		P	3.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			51.11		P	32.2
2	☐						
3	☐			51.11		P	10.0
4	☐			40.00		P	74.1
5	☐			41.11		P	30.7
6	☐			53.33		P	18.8
7	☐			41.11		P	24.8
8	☐			65.55		P	29.8
9	☐			58.89		P	11.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	405.58	0.0000	P	3.9
2	☐	0.100					
3	☐	1.000	0.877	24131.27	0.0013	P	0.8
4	☐	50.000	48.933	1318110.33	0.0693	P	1.1
5	☐	125.000	123.106	3285197.97	0.1744	P	1.9
6	☐	250.000	243.469	6396056.26	0.3449	A	0.3
7	☐	500.000	475.850	12384830.83	0.6740	A	0.9
8	☐	1000.000	1013.998	24356060.09	1.4362	A	0.6
9	☐			3139.41	0.0002	P	9.8

$$y = 0.0014 * x + 2.0909E-005$$

$$R = 0.9995$$

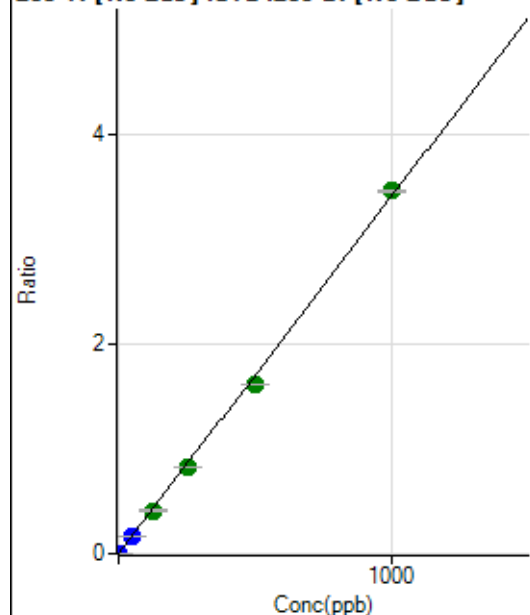
$$DL = 0.00174$$

$$BEC = 0.01476$$

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	1047.32	0.0001	P	5.6
2	☐	0.100					
3	☐	1.000	0.873	57866.06	0.0030	P	2.2
4	☐	50.000	49.365	3200341.85	0.1683	P	0.7
5	☐	125.000	120.610	7746696.61	0.4112	A	1.1
6	☐	250.000	242.456	15329682.98	0.8265	A	0.2
7	☐	500.000	473.772	29677434.00	1.6150	A	0.5
8	☐	1000.000	1015.581	58711061.03	3.4619	A	0.9
9	☐			7552.44	0.0006	P	8.1

$$y = 0.0034 * x + 5.3995E-005$$

$$R = 0.9995$$

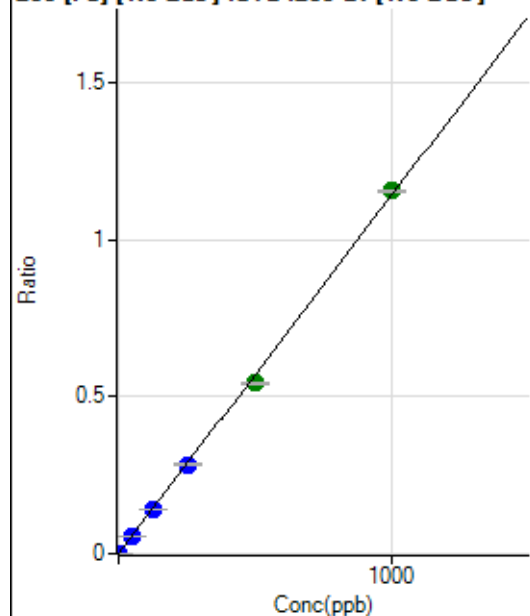
$$DL = 0.002638$$

$$BEC = 0.01584$$

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	1426.04	0.0001	P	5.1
2	☐	0.100					
3	☐	1.000	0.875	20466.31	0.0011	P	1.1
4	☐	50.000	49.685	1078372.58	0.0567	P	0.9
5	☐	125.000	124.063	2665987.21	0.1415	P	2.5
6	☐	250.000	247.678	5238459.26	0.2824	P	1.9
7	☐	500.000	476.377	9981141.66	0.5432	A	0.9
8	☐	1000.000	1012.525	19577790.25	1.1544	A	0.5
9	☐			16531.00	0.0012	P	0.7

$$y = 0.0011 * x + 7.3511E-005$$

$$R = 0.9996$$

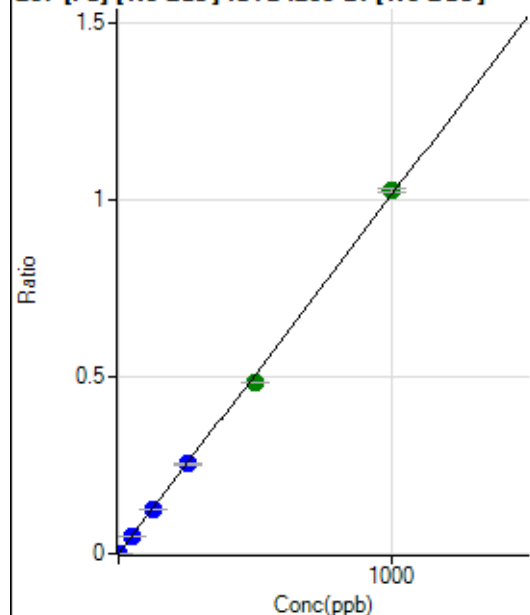
$$DL = 0.009782$$

$$BEC = 0.06448$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1146.38	0.0001	P	6.6
2	☐	0.100					
3	☐	1.000	0.870	17971.79	0.0009	P	0.8
4	☐	50.000	50.151	967924.75	0.0509	P	0.3
5	☐	125.000	124.179	2373159.08	0.1260	P	2.0
6	☐	250.000	250.011	4702592.64	0.2536	P	1.5
7	☐	500.000	476.405	8877434.00	0.4831	A	0.3
8	☐	1000.000	1011.890	17400474.00	1.0260	A	1.0
9	☐			13575.85	0.0010	P	1.7

$$y = 0.0010 * x + 5.9072E-005$$

$$R = 0.9996$$

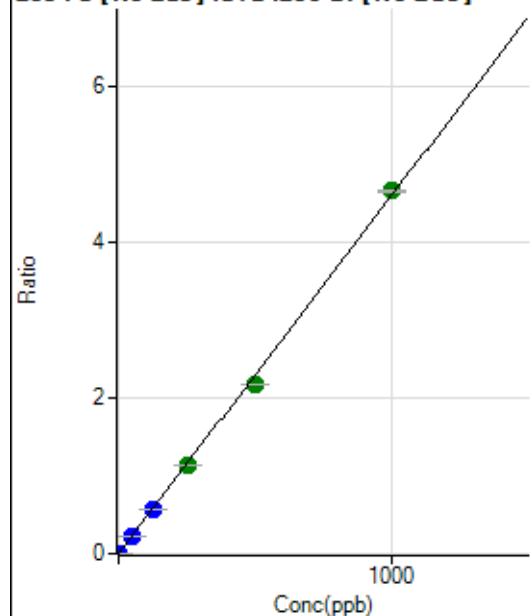
$$DL = 0.01162$$

$$BEC = 0.05826$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5545.07	0.0003	P	2.7
2	☐	0.100					
3	☐	1.000	0.869	81712.96	0.0043	P	0.4
4	☐	50.000	49.889	4362720.50	0.2295	P	0.1
5	☐	125.000	124.332	10765197.81	0.5714	P	2.2
6	☐	250.000	246.435	21001424.14	1.1323	A	0.7
7	☐	500.000	474.991	40101575.90	2.1822	A	0.0
8	☐	1000.000	1013.485	78959383.25	4.6559	A	0.3
9	☐			63588.61	0.0048	P	0.3

$$y = 0.0046 * x + 2.8588E-004$$

$$R = 0.9995$$

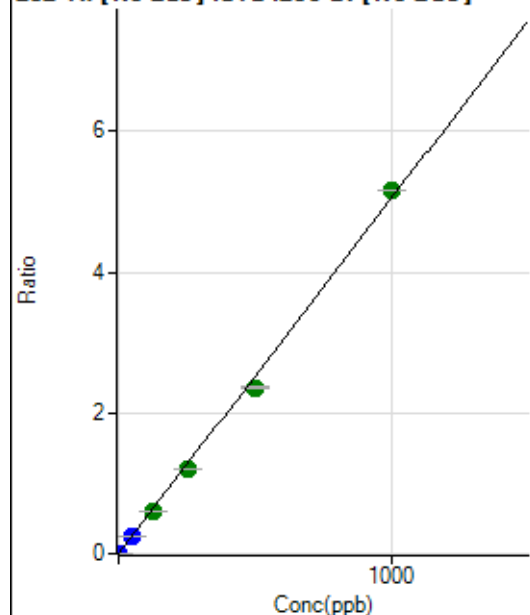
$$DL = 0.00513$$

$$BEC = 0.06223$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	122.23	0.0000	P	5.4
2	☐	0.100					
3	☐	1.000	0.811	78398.65	0.0041	P	0.2
4	☐	50.000	47.224	4537115.15	0.2386	P	1.2
5	☐	125.000	117.480	11184165.88	0.5936	A	1.9
6	☐	250.000	238.761	22377161.15	1.2065	A	1.1
7	☐	500.000	466.804	43346188.47	2.3588	A	0.9
8	☐	1000.000	1020.487	87452438.99	5.1567	A	0.1
9	☐			19943.65	0.0015	P	6.3

$$y = 0.0051 * x + 6.3034E-006$$

$$R = 0.9991$$

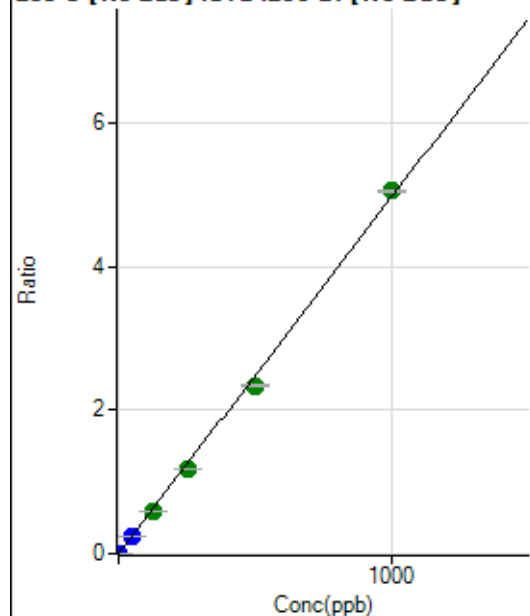
$$DL = 0.0002019$$

$$BEC = 0.001247$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	161.12	0.0000	P	17.1
2	☐	0.100					
3	☐	1.000	0.818	77698.80	0.0041	P	1.0
4	☐	50.000	47.893	4521959.87	0.2378	P	1.0
5	☐	125.000	119.168	11149319.00	0.5918	A	1.3
6	☐	250.000	239.337	22044090.08	1.1885	A	0.3
7	☐	500.000	471.862	43058213.81	2.3432	A	0.9
8	☐	1000.000	1017.569	85697779.69	5.0532	A	0.6
9	☐			6715.98	0.0005	P	5.2

$$y = 0.0050 * x + 8.2961E-006$$

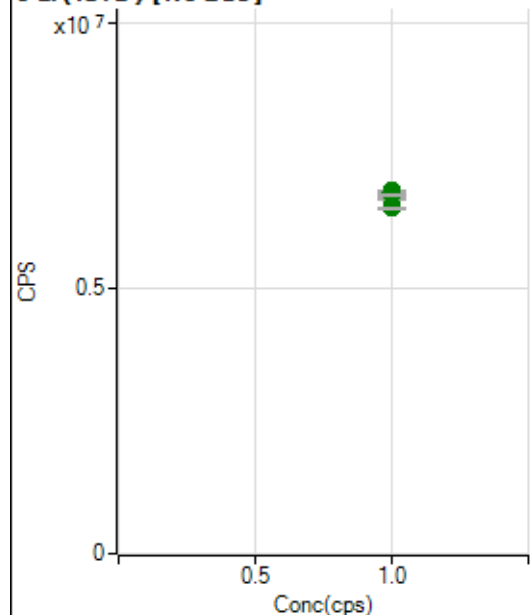
$$R = 0.9994$$

$$DL = 0.0008567$$

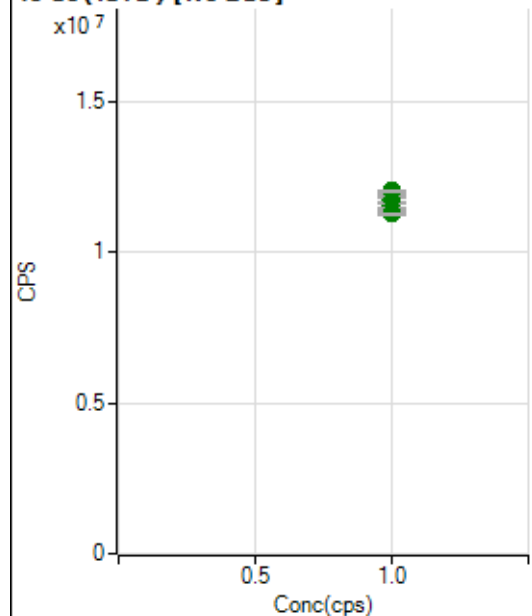
$$BEC = 0.001671$$

Weight: <None>

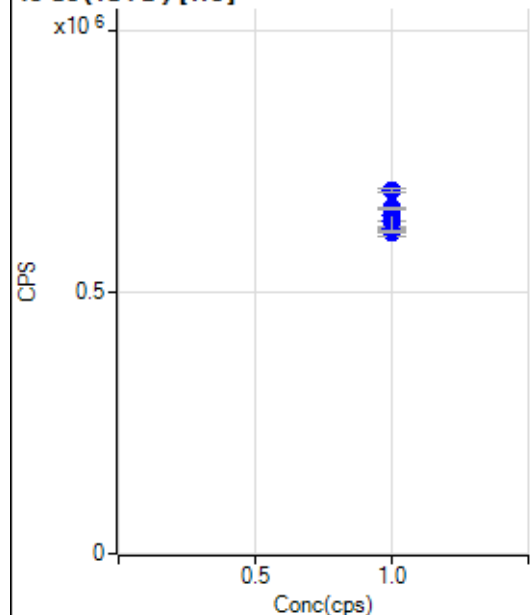
Min Conc: 0

6 Li (ISTD) [No Gas]

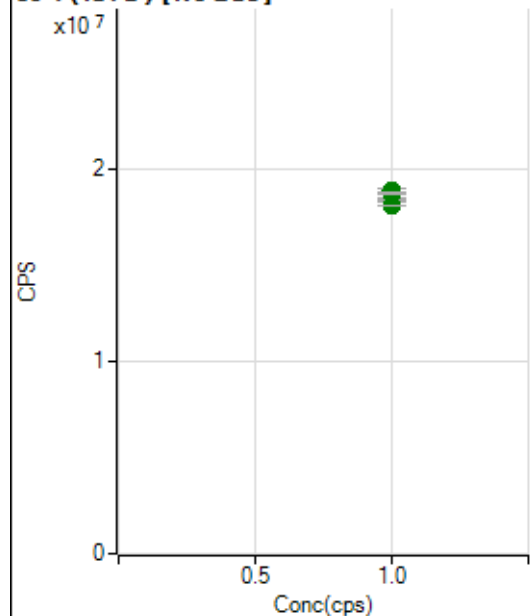
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6675419.18		A	0.7
2	☐	1.000					
3	☐	1.000		6823258.99		A	0.3
4	☐	1.000		6824583.78		A	0.5
5	☐	1.000		6768482.19		A	0.3
6	☐	1.000		6655414.24		A	0.4
7	☐	1.000		6798760.63		A	0.7
8	☐	1.000		6754281.62		A	0.3
9	☐	1.000		6505692.64		A	0.7

45 Sc (ISTD) [No Gas]

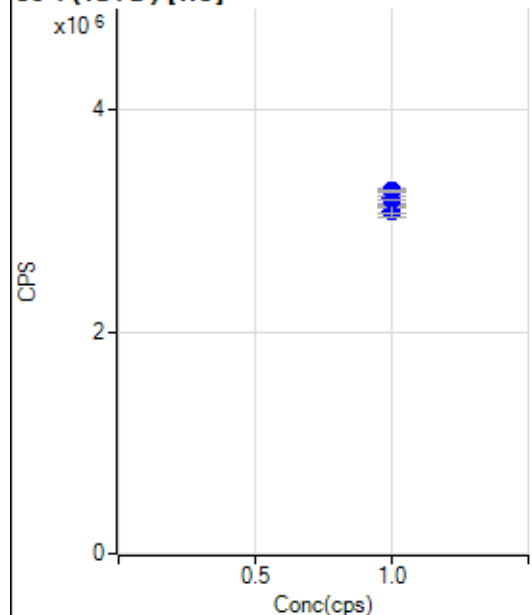
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11738220.57		A	1.3
2	☐	1.000					
3	☐	1.000		11566082.46		A	0.8
4	☐	1.000		11451782.90		A	0.9
5	☐	1.000		11314403.64		A	0.5
6	☐	1.000		11279713.97		A	0.5
7	☐	1.000		11814619.97		A	0.4
8	☐	1.000		11911350.53		A	0.6
9	☐	1.000		12042032.47		A	0.7

45 Sc (ISTD) [He]

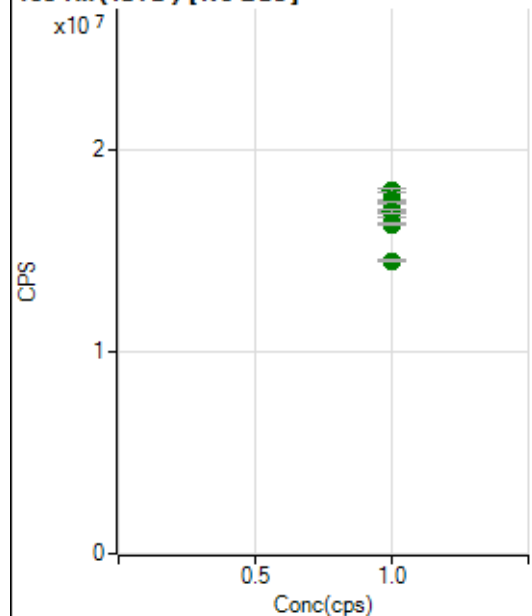
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		646855.68		P	3.1
2	☐	1.000					
3	☐	1.000		623402.32		P	0.3
4	☐	1.000		625380.23		P	0.2
5	☐	1.000		614273.07		P	2.9
6	☐	1.000		620370.31		P	0.7
7	☐	1.000		635874.65		P	7.3
8	☐	1.000		659300.61		P	0.5
9	☐	1.000		692880.92		P	1.0

89 Y (ISTD) [No Gas]

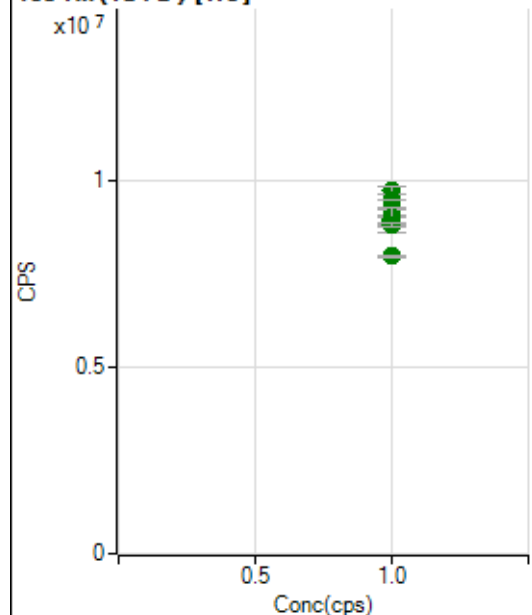
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		18842076.80		A	1.0
2	☐	1.000					
3	☐	1.000		18493101.67		A	0.3
4	☐	1.000		18398907.09		A	0.3
5	☐	1.000		18437645.98		A	0.8
6	☐	1.000		18308941.25		A	0.8
7	☐	1.000		18831285.69		A	1.1
8	☐	1.000		18744647.78		A	0.4
9	☐	1.000		18054557.09		A	0.2

89 Y(ISTD) [He]

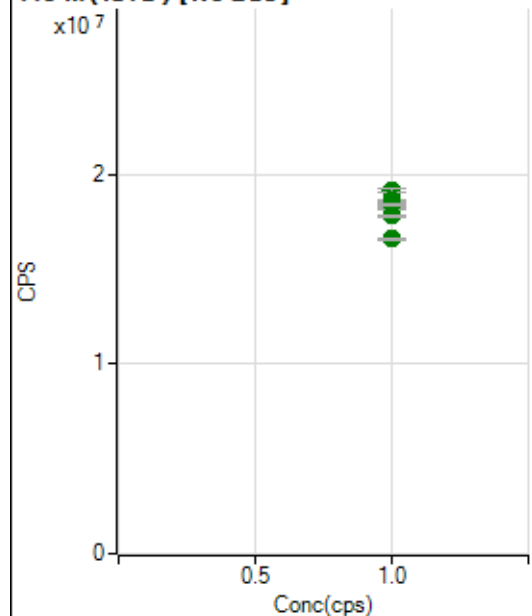
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3221552.84		P	2.0
2	☐	1.000					
3	☐	1.000		3147327.70		P	0.8
4	☐	1.000		3141740.61		P	0.5
5	☐	1.000		3090912.46		P	3.1
6	☐	1.000		3135194.12		P	0.7
7	☐	1.000		3185486.55		P	7.3
8	☐	1.000		3215653.25		P	1.2
9	☐	1.000		3273781.79		P	0.9

103 Rh(ISTD) [No Gas]

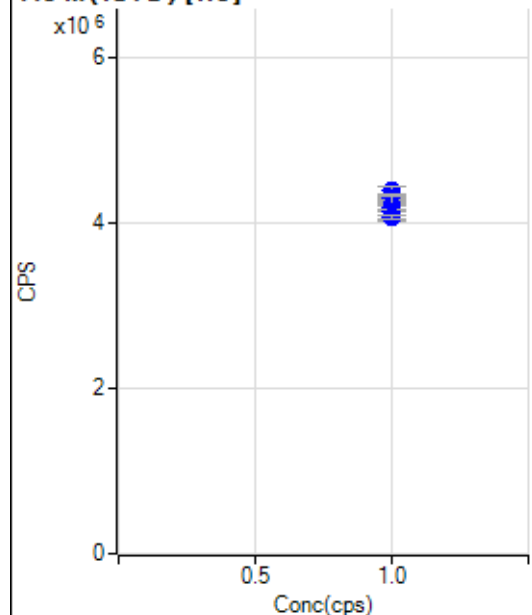
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17988469.15		A	1.0
2	☐	1.000					
3	☐	1.000		17535395.70		A	0.1
4	☐	1.000		17395746.92		A	0.2
5	☐	1.000		16928602.11		A	0.7
6	☐	1.000		16671831.97		A	0.1
7	☐	1.000		16949718.26		A	0.9
8	☐	1.000		16348405.92		A	0.2
9	☐	1.000		14524415.43		A	1.0

103 Rh (ISTD) [He]

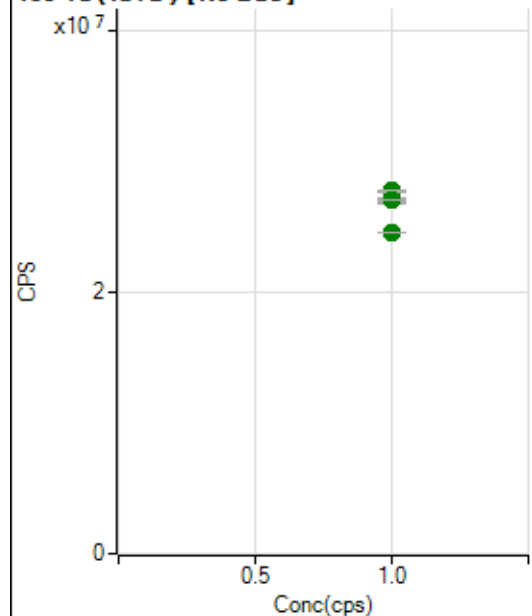
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9731348.46		A	2.2
2	☐	1.000					
3	☐	1.000		9488271.66		A	0.3
4	☐	1.000		9257048.75		A	0.4
5	☐	1.000		8974180.84		A	2.9
6	☐	1.000		9030099.24		A	0.4
7	☐	1.000		8935933.62		A	7.6
8	☐	1.000		8809684.10		A	1.1
9	☐	1.000		7982834.32		A	0.8

115 In (ISTD) [No Gas]

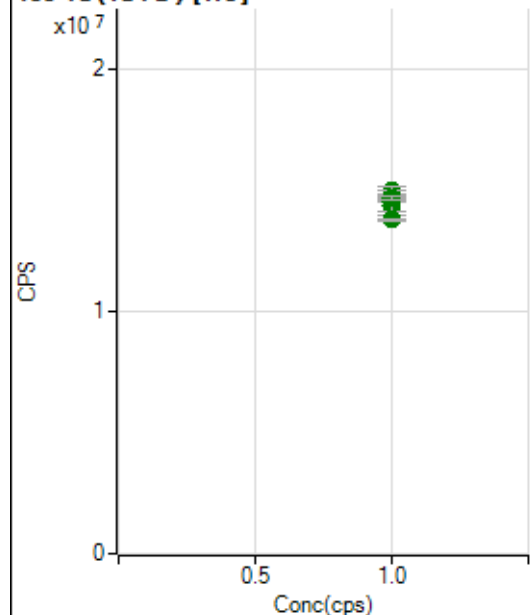
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19146887.12		A	1.0
2	☐	1.000					
3	☐	1.000		18670036.73		A	0.5
4	☐	1.000		18617813.92		A	0.7
5	☐	1.000		18293461.90		A	0.7
6	☐	1.000		18160677.56		A	0.4
7	☐	1.000		18452996.82		A	0.7
8	☐	1.000		17836574.57		A	0.4
9	☐	1.000		16606032.49		A	0.9

115 In (ISTD) [He]

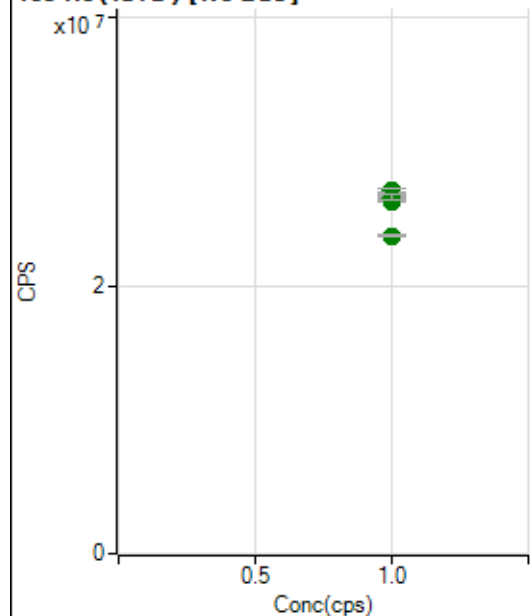
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4381643.58		P	2.2
2	☐	1.000					
3	☐	1.000		4270714.01		P	1.5
4	☐	1.000		4288787.74		P	1.0
5	☐	1.000		4186307.47		P	2.8
6	☐	1.000		4208004.07		P	0.4
7	☐	1.000		4179021.50		P	7.6
8	☐	1.000		4123920.30		P	1.4
9	☐	1.000		4071849.52		P	1.1

159 Tb (ISTD) [No Gas]

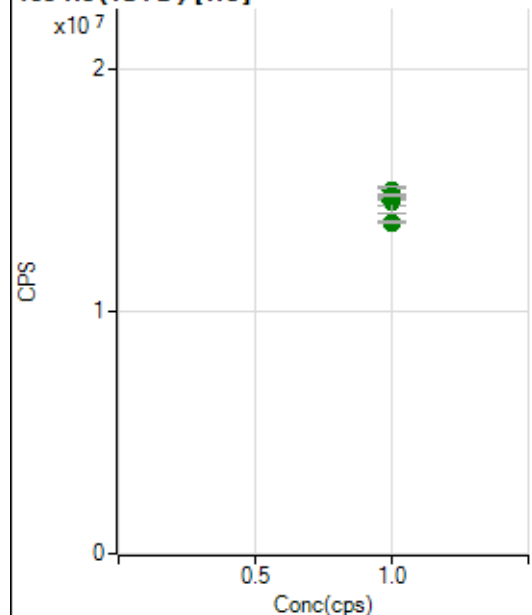
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		27057630.43		A	1.6
2	☐	1.000					
3	☐	1.000		27048698.21		A	0.8
4	☐	1.000		27052564.04		A	0.1
5	☐	1.000		27056490.99		A	0.5
6	☐	1.000		27070653.49		A	0.5
7	☐	1.000		27762031.53		A	0.8
8	☐	1.000		27087605.43		A	0.4
9	☐	1.000		24569635.19		A	0.4

159 Tb (ISTD) [He]

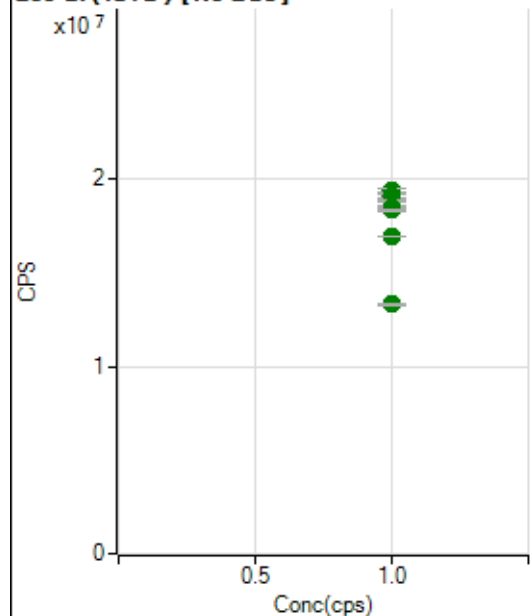
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14956267.83		A	2.1
2	☐	1.000					
3	☐	1.000		14535128.40		A	0.4
4	☐	1.000		14602797.84		A	0.6
5	☐	1.000		14375159.93		A	3.5
6	☐	1.000		14538540.90		A	0.7
7	☐	1.000		14470355.89		A	7.2
8	☐	1.000		14653533.11		A	1.1
9	☐	1.000		13774147.99		A	0.6

165 Ho (ISTD) [No Gas]

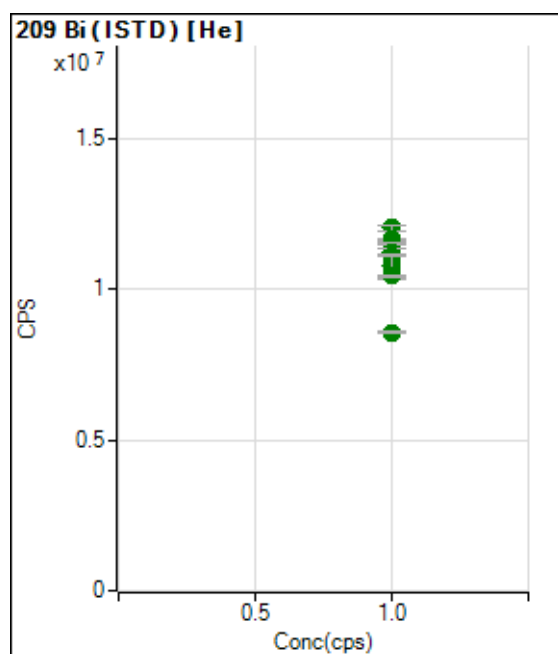
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		26549833.40		A	1.1
2	☐	1.000					
3	☐	1.000		26251482.70		A	0.5
4	☐	1.000		26291514.30		A	0.7
5	☐	1.000		26596825.94		A	0.7
6	☐	1.000		26502966.39		A	0.9
7	☐	1.000		27052535.67		A	1.1
8	☐	1.000		26596567.61		A	1.6
9	☐	1.000		23676746.19		A	0.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14996299.22		A	1.9
2	☐	1.000					
3	☐	1.000		14734443.95		A	0.5
4	☐	1.000		14675107.28		A	1.0
5	☐	1.000		14525678.81		A	2.3
6	☐	1.000		14754173.81		A	0.1
7	☐	1.000		14649919.51		A	7.7
8	☐	1.000		14817474.22		A	0.9
9	☐	1.000		13708289.52		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19396865.82		A	1.1
2	☐	1.000					
3	☐	1.000		19099973.88		A	1.0
4	☐	1.000		19013022.35		A	0.2
5	☐	1.000		18841102.50		A	0.7
6	☐	1.000		18547282.78		A	0.3
7	☐	1.000		18376436.25		A	0.8
8	☐	1.000		16959097.25		A	0.2
9	☐	1.000		13327541.05		A	0.5



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12026576.21		A	1.9
2	☐	1.000					
3	☐	1.000		11643987.05		A	0.6
4	☐	1.000		11524038.72		A	0.6
5	☐	1.000		11210546.08		A	2.7
6	☐	1.000		11094962.06		A	0.4
7	☐	1.000		10755499.42		A	7.6
8	☐	1.000		10438701.37		A	0.9
9	☐	1.000		8569790.57		A	0.6

US EPA Tune Check Sample Report

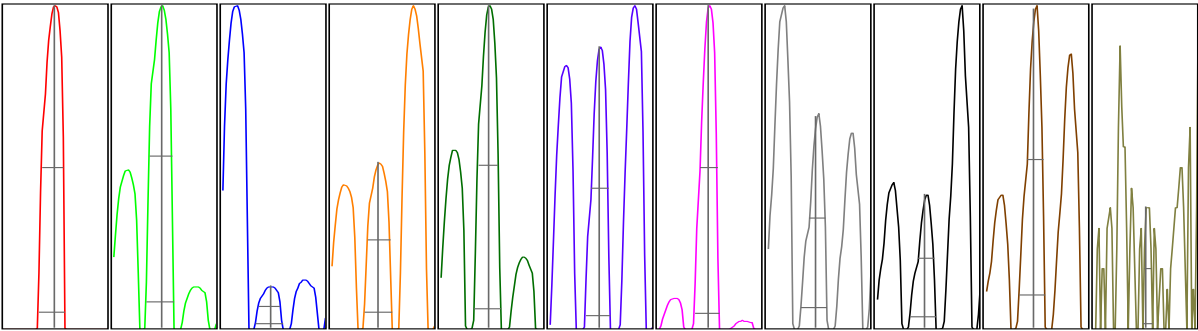
Batch Folder D:\ICP-MS Data\P7031219-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	27436	0.68	5.00	
24	247990	0.45	5.00	
25	32754	0.59	5.00	
26	38219	0.49	5.00	
59	186127	0.32	5.00	
113	24863	0.50	5.00	
115	290762	1.48	5.00	
206	82622	0.56	5.00	
207	77735	0.53	5.00	
208	181661	0.12	5.00	
220	0	46.77		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	27641	27578	27459	27190	27313
24	249197	248403	248673	247099	246580
25	32710	33057	32784	32535	32684
26	38341	38471	38183	38015	38086
59	186668	186378	186549	185815	185224
113	24926	24974	24952	24769	24696
115	292727	292748	292628	292617	283089
206	82934	82695	82763	82901	81817
207	78359	77823	77733	77286	77472
208	181517	182014	181519	181548	181708
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	45280	9.00	8.9 - 9.1		0.782	0.900	
24	401470	23.95	23.9 - 24.1		0.809	0.900	
25	53199	24.95	24.9 - 25.1		0.780	0.900	
26	61358	25.90	25.9 - 26.1		0.801	0.900	
59	331900	58.95	58.9 - 59.1		0.775	0.900	
113	50178	113.00	112.9 - 113.1		0.728	0.900	
115	591260	115.00	114.9 - 115.1		0.726	0.900	
206	166625	205.95	205.9 - 206.1		0.747	0.900	
207	154355	206.95	206.9 - 207.1		0.751	0.900	
208	369021	207.95	207.9 - 208.1		0.743	0.900	
220	0	220.05	-		0.293		

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	9.6	V	Deflect	13.6	V
Extract 2	-165.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-85	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	53403	2.84	
89	47900	2.80	
205	75337	2.56	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	50716	54422	53862	54066	53952
89	45594	49061	48027	48375	48444
205	71931	76575	76260	75709	76212

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	9.2	V	Deflect	2.0	V
Extract 2	-150.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	200	V			