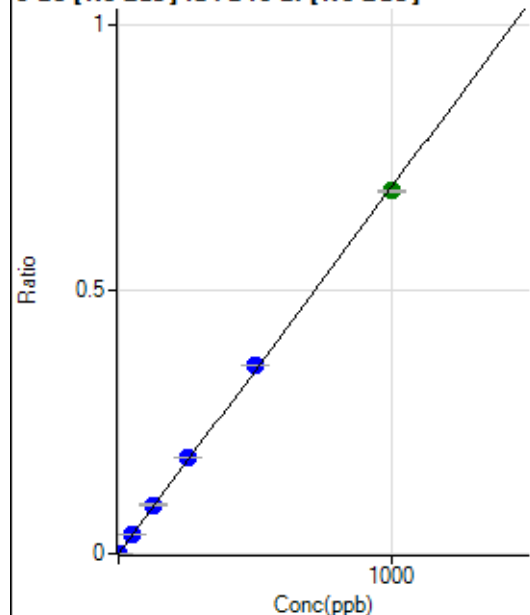


Batch Folder: D:\ICP-MS Data\P7041919-IMS.b\
Analysis File: P7041919-IMS.batch.bin
DA Date-Time: 2019-04-20 13:57:48
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-04-19 14:37:21
2	004CALS.d	S01	2019-04-19 14:40:56
3	005CALS.d	S02	2019-04-19 14:45:35
4	006CALS.d	S03	2019-04-19 14:49:31
5	007CALS.d	S04	2019-04-19 14:53:43
6	008CALS.d	S05	2019-04-19 14:57:31
7	009CALS.d	S06	2019-04-19 15:01:16
8	010CALS.d	S07	2019-04-19 15:05:01
9	011CALS.d	S08	2019-04-19 15:08:48

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	177.78	0.0000	P	19.6
2	☐	0.100	0.109	792.26	0.0001	P	9.7
3	☐	1.000	1.046	6146.90	0.0007	P	2.0
4	☐	50.000	53.892	303820.12	0.0374	P	1.4
5	☐	125.000	132.157	716864.90	0.0917	P	3.5
6	☐	250.000	261.359	1337956.66	0.1814	P	0.3
7	☐	500.000	512.402	2541474.65	0.3555	P	0.2
8	☐	1000.000	989.870	4877421.14	0.6868	A	0.2
9	☐			754.47	0.0001	P	10.6

$$y = 6.9380E-004 * x + 2.1450E-005$$

$$R = 0.9998$$

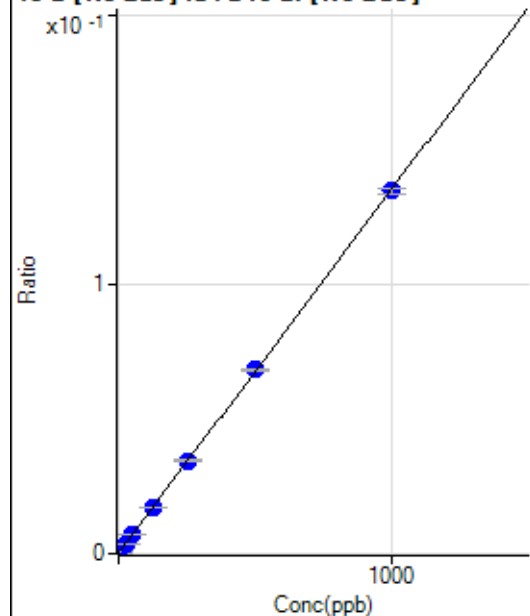
$$DL = 0.01819$$

$$BEC = 0.03092$$

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	1425.12	0.0002	P	2.8
2	☐	2.500	2.462	4120.16	0.0005	P	10.9
3	☐	25.000	24.507	28628.08	0.0035	P	3.3
4	☐	50.000	51.508	57833.80	0.0071	P	1.5
5	☐	125.000	126.161	134434.95	0.0172	P	2.2
6	☐	250.000	254.751	254848.23	0.0345	P	1.8
7	☐	500.000	504.245	487571.42	0.0682	P	1.6
8	☐	1000.000	996.482	955991.48	0.1346	P	1.3
9	☐			41828.64	0.0065	P	9.2

$$y = 1.3492E-004 * x + 1.7205E-004$$

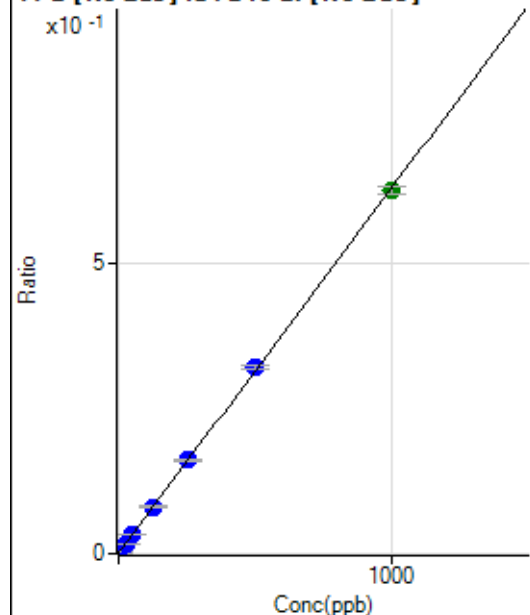
$$R = 1.0000$$

$$DL = 0.1066$$

$$BEC = 1.275$$

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	6568.36	0.0008	P	2.7
2	☐	2.500	2.454	19090.50	0.0023	P	3.1
3	☐	25.000	24.936	135591.16	0.0165	P	1.7
4	☐	50.000	52.175	272899.07	0.0336	P	0.9
5	☐	125.000	126.729	629289.19	0.0805	P	2.1
6	☐	250.000	255.655	1191943.95	0.1616	P	2.0
7	☐	500.000	510.787	2301908.58	0.3220	P	1.9
8	☐	1000.000	992.870	4439535.90	0.6252	A	2.1
9	☐			192094.32	0.0298	P	9.2

$$y = 6.2887\text{E-}004 * x + 7.9307\text{E-}004$$

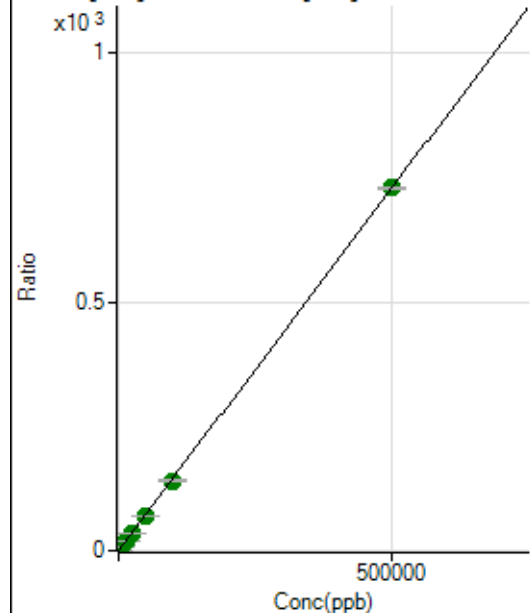
$$R = 0.9999$$

$$DL = 0.1015$$

$$BEC = 1.261$$

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	9870.33	0.0129	P	2.6
2	☐	50.000	48.324	64653.79	0.0834	P	0.3
3	☐	500.000	481.958	551855.02	0.7152	P	1.2
4	☐	5000.000	4919.234	5246013.01	7.1802	A	0.5
5	☐	12500.000	12475.477	12140819.63	18.1895	A	1.3
6	☐	25000.000	24524.850	23573790.46	35.7452	A	0.4
7	☐	50000.000	48669.244	45852222.55	70.9231	A	0.6
8	☐	100000.00	96606.605	91468970.80	140.7669	A	1.0
9	☐	500000.00	500836.95	471116710.53	729.7225	A	0.6

$$y = 0.0015 * x + 0.0129$$

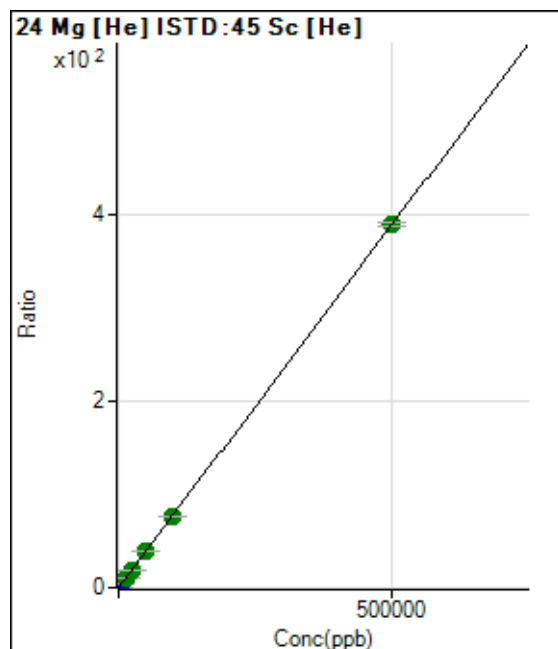
$$R = 1.0000$$

$$DL = 0.7047$$

$$BEC = 8.886$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	275.01	0.0004	P	5.2
2	☐	50.000	49.035	29905.69	0.0386	P	3.0
3	☐	500.000	495.045	297821.15	0.3859	P	0.5
4	☐	5000.000	5070.585	2885714.06	3.9497	P	0.6
5	☐	12500.000	12716.080	6610726.84	9.9045	A	1.4
6	☐	25000.000	24991.475	12837262.01	19.4655	A	0.2
7	☐	50000.000	49351.816	24851049.17	38.4390	A	0.9
8	☐	100000.00	97744.075	49469343.12	76.1303	A	0.8
9	☐	500000.00	500510.32	251677216.74	389.8328	A	0.9

$$y = 7.7887\text{E-}004 * x + 3.6069\text{E-}004$$

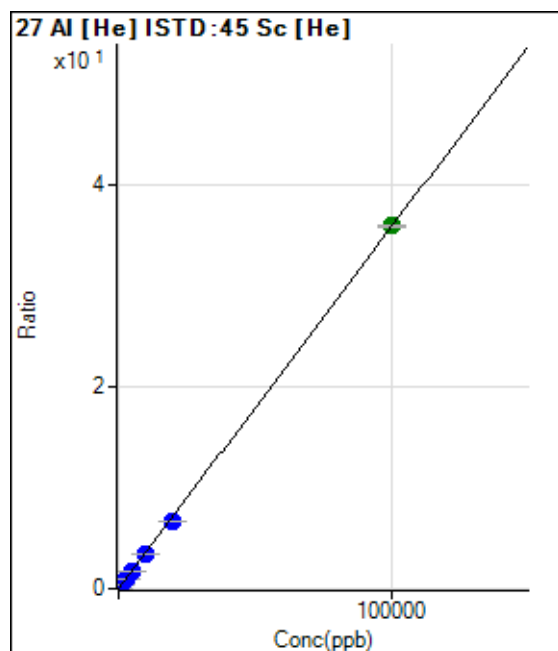
$$R = 1.0000$$

$$DL = 0.07172$$

$$BEC = 0.4631$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0001	P	22.5
2	☐	2.000	2.043	647.27	0.0008	P	15.1
3	☐	20.000	18.671	5242.79	0.0068	P	2.0
4	☐	1000.000	969.315	253869.46	0.3475	P	0.0
5	☐	2500.000	2442.239	584246.88	0.8753	P	1.0
6	☐	5000.000	4778.167	1129275.38	1.7124	P	0.7
7	☐	10000.000	9534.119	2208893.08	3.4167	P	1.2
8	☐	20000.000	18735.803	4362802.96	6.7142	P	1.1
9	☐	100000.00	100312.27	23208081.94	35.9476	A	0.3

$$y = 3.5836\text{E-}004 * x + 1.0206\text{E-}004$$

$$R = 0.9999$$

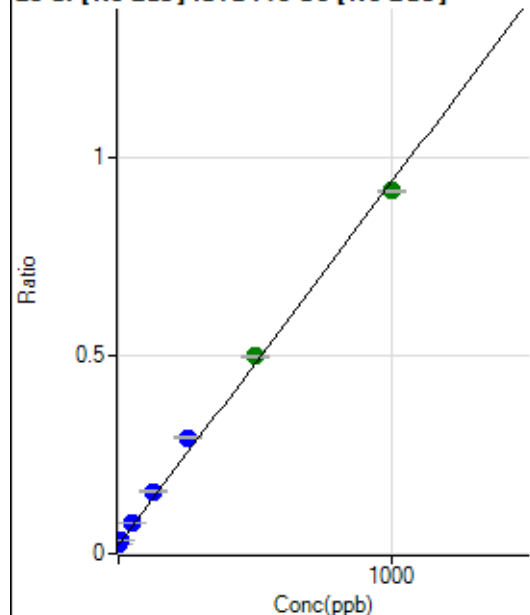
$$DL = 0.1925$$

$$BEC = 0.2848$$

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	360085.72	0.0230	P	0.5
2	☐	1.000	1.324	379377.07	0.0242	P	0.7
3	☐	10.000	9.962	506252.14	0.0321	P	0.5
4	☐	50.000	60.531	1205873.78	0.0783	P	0.9
5	☐	125.000	147.175	2321614.35	0.1575	P	3.8
6	☐	250.000	294.265	4035177.91	0.2919	P	1.9
7	☐	500.000	519.357	6726155.71	0.4976	A	1.5
8	☐	1000.000	975.957	12539244.46	0.9148	A	0.6
9	☐			1511340.30	0.1195	P	1.7

$$y = 9.1381\text{E-}004 * x + 0.0230$$

$$R = 0.9985$$

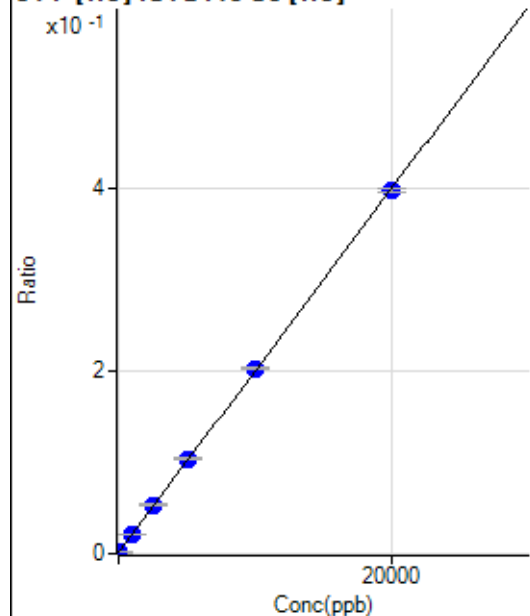
$$DL = 0.405$$

$$BEC = 25.15$$

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	-20.507	500.03	0.0007	P	3.5
2	☐	0.000	-12.462	633.37	0.0008	P	14.8
3	☐	0.000	32.969	1327.90	0.0017	P	11.3
4	☐	1000.000	1020.103	15639.40	0.0214	P	4.8
5	☐	2500.000	2630.953	35713.31	0.0535	P	3.1
6	☐	5000.000	5153.148	68463.12	0.1038	P	2.0
7	☐	10000.000	10123.941	131177.95	0.2029	P	1.7
8	☐	20000.000	19882.368	258272.80	0.3975	P	1.0
9	☐			619.49	0.0010	P	3.0

$$y = 1.9938\text{E-}005 * x + 0.0011$$

$$R = 0.9999$$

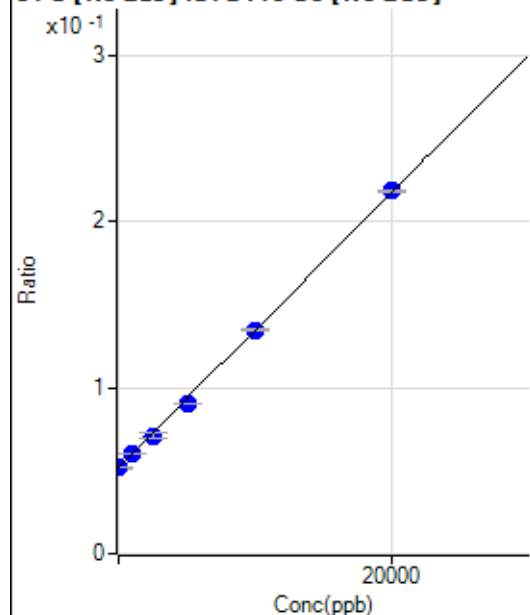
$$DL = 17.02$$

$$BEC = 53.4$$

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	-44.898	809547.89	0.0517	P	0.8
2	☐	0.000	14.906	818043.02	0.0522	P	0.2
3	☐	0.000	29.992	825040.85	0.0523	P	0.9
4	☐	1000.000	998.254	928937.76	0.0603	P	0.8
5	☐	2500.000	2258.963	1042986.07	0.0708	P	4.9
6	☐	5000.000	4661.937	1253699.31	0.0907	P	0.6
7	☐	10000.000	10012.766	1825325.69	0.1350	P	0.7
8	☐	20000.000	20108.350	2997763.87	0.2187	P	0.3
9	☐			593862.49	0.0469	P	0.6

$$y = 8.2883\text{E-}006 * x + 0.0520$$

$$R = 0.9998$$

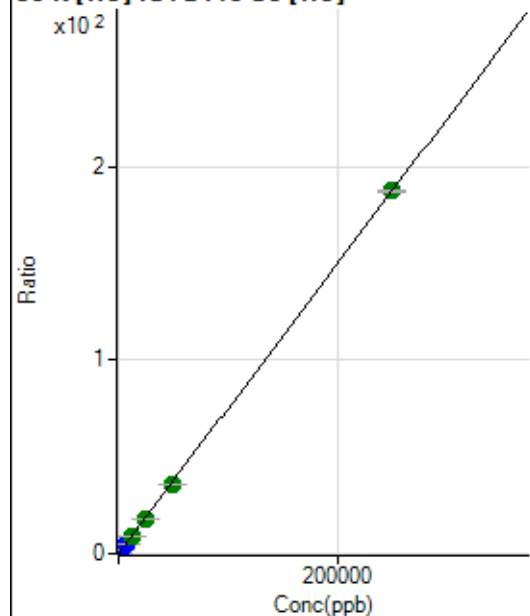
$$DL = 119.4$$

$$BEC = 6279$$

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	34427.01	0.0452	P	1.9
2	☐	50.000	46.432	61960.92	0.0799	P	2.5
3	☐	500.000	473.995	308472.68	0.3997	P	0.3
4	☐	2500.000	2445.297	1369485.46	1.8744	P	0.4
5	☐	6250.000	6166.654	3108952.78	4.6582	P	1.8
6	☐	12500.000	11987.759	5943865.71	9.0128	A	0.1
7	☐	25000.000	23957.896	11616119.27	17.9673	A	0.3
8	☐	50000.000	47432.880	23086253.64	35.5282	A	0.8
9	☐	250000.00	250645.93	121080301.32	187.5454	A	0.6

$$y = 7.4807\text{E-}004 * x + 0.0452$$

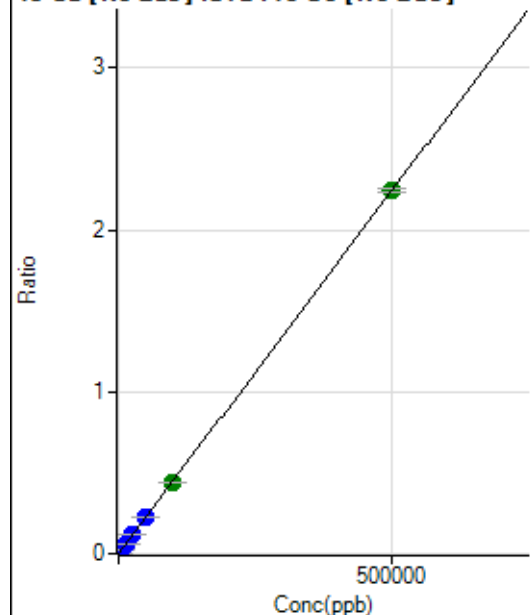
$$R = 0.9999$$

$$DL = 3.375$$

$$BEC = 60.36$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	447.25	0.0000	P	10.8
2	☐	50.000	48.538	3856.24	0.0002	P	4.5
3	☐	500.000	471.630	33772.84	0.0021	P	2.2
4	☐	5000.000	5095.879	351878.72	0.0228	P	0.6
5	☐	12500.000	12631.182	834168.46	0.0566	P	4.4
6	☐	25000.000	25559.643	1582672.78	0.1145	P	1.4
7	☐	50000.000	50702.907	3069398.01	0.2271	P	1.2
8	☐	100000.00	98155.835	6024890.24	0.4395	A	0.5
9	☐	500000.00	500266.35	28336893.69	2.2401	A	1.1

$$y = 4.4778\text{E-}006 * x + 2.8548\text{E-}005$$

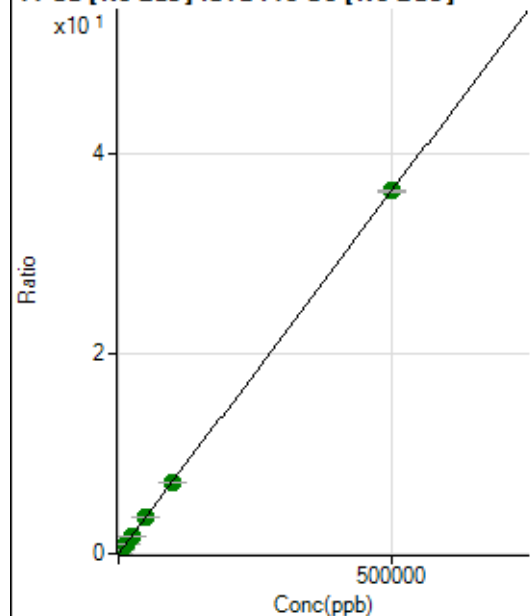
$$R = 1.0000$$

$$DL = 2.064$$

$$BEC = 6.375$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	18418.34	0.0012	P	1.0
2	☐	50.000	49.125	74240.43	0.0047	P	0.9
3	☐	500.000	479.194	566226.60	0.0359	P	0.1
4	☐	5000.000	4967.403	5559933.29	0.3610	A	1.3
5	☐	12500.000	12290.545	13138557.67	0.8914	A	5.0
6	☐	25000.000	24934.709	24987587.88	1.8073	A	0.4
7	☐	50000.000	49533.175	48516788.93	3.5891	A	0.4
8	☐	100000.00	98300.883	97614959.13	7.1216	A	0.5
9	☐	500000.00	500395.35	458517349.14	36.2472	A	0.7

$$y = 7.2435\text{E-}005 * x + 0.0012$$

$$R = 1.0000$$

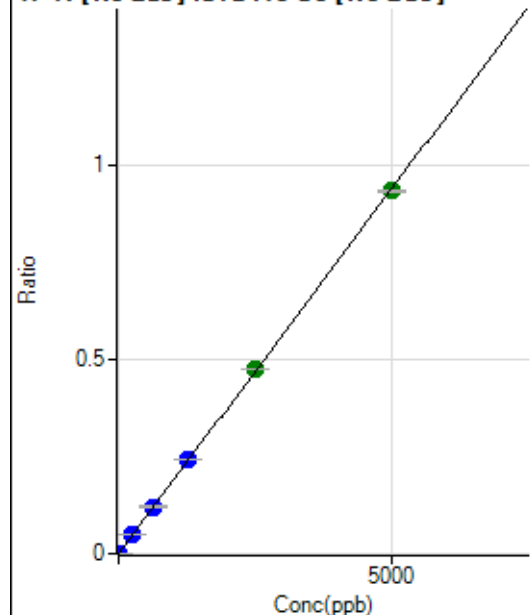
$$DL = 0.5019$$

$$BEC = 16.23$$

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	266.68	0.0000	P	9.6
2	☐	0.500	0.537	1847.41	0.0001	P	1.5
3	☐	5.000	5.312	16006.56	0.0010	P	2.4
4	☐	250.000	255.783	740026.41	0.0480	P	0.7
5	☐	625.000	636.763	1762821.63	0.1196	P	4.4
6	☐	1250.000	1291.704	3353671.43	0.2426	P	0.8
7	☐	2500.000	2523.508	6405919.72	0.4739	A	0.3
8	☐	5000.000	4976.060	12808056.54	0.9344	A	0.2
9	☐			5140.02	0.0004	P	2.9

$$y = 1.8778\text{E-}004 * x + 1.7023\text{E-}005$$

$$R = 0.9999$$

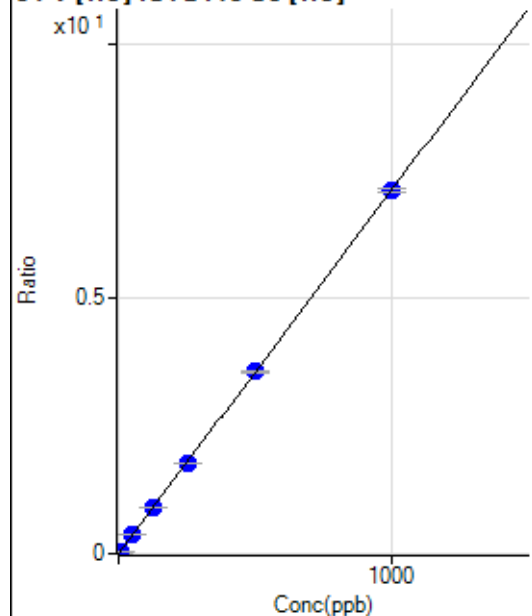
$$DL = 0.02616$$

$$BEC = 0.09065$$

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	11.11	0.0000	P	45.7
2	☐	0.500	0.510	2831.43	0.0037	P	4.6
3	☐	5.000	5.079	27942.19	0.0362	P	0.8
4	☐	50.000	50.481	262835.34	0.3597	P	0.4
5	☐	125.000	127.683	607254.76	0.9099	P	1.8
6	☐	250.000	250.632	1177827.09	1.7860	P	0.4
7	☐	500.000	502.093	2313093.09	3.5779	P	0.9
8	☐	1000.000	998.436	4623113.47	7.1148	P	1.0
9	☐			1194.51	0.0019	P	6.0

$$y = 0.0071 * x + 1.4564\text{E-}005$$

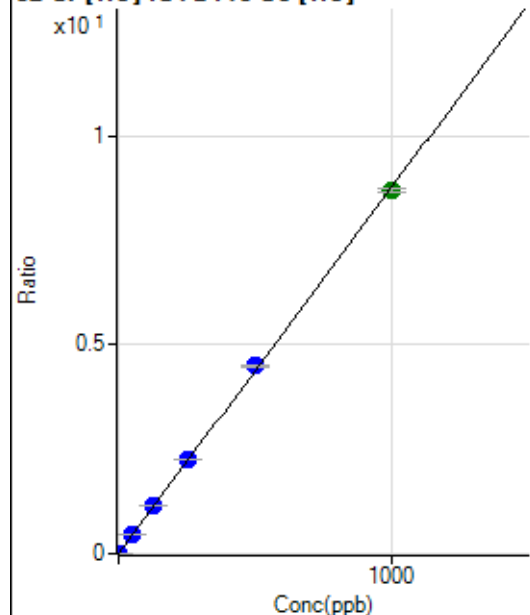
$$R = 1.0000$$

$$DL = 0.002799$$

$$BEC = 0.002044$$

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	1640.12	0.0022	P	6.5
2	☐	0.200	0.200	3030.36	0.0039	P	5.4
3	☐	2.000	2.000	15193.59	0.0197	P	1.0
4	☐	50.000	52.130	335517.09	0.4592	P	0.2
5	☐	125.000	131.793	772689.72	1.1577	P	1.4
6	☐	250.000	258.697	1497247.81	2.2703	P	0.2
7	☐	500.000	512.389	2905711.34	4.4946	P	1.3
8	☐	1000.000	990.676	5645430.89	8.6881	A	1.0
9	☐			19901.39	0.0308	P	0.9

$$y = 0.0088 * x + 0.0022$$

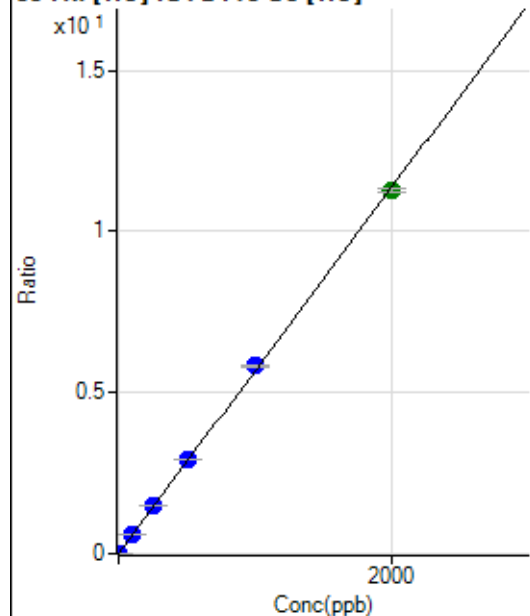
$$R = 0.9998$$

$$DL = 0.04786$$

$$BEC = 0.2454$$

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	70.00	0.0001	P	5.1
2	☐	0.100	0.102	522.24	0.0007	P	7.3
3	☐	1.000	1.012	4507.44	0.0058	P	4.9
4	☐	100.000	103.190	428382.18	0.5863	P	0.2
5	☐	250.000	262.638	995860.61	1.4921	P	1.9
6	☐	500.000	513.100	1922375.16	2.9150	P	0.4
7	☐	1000.000	1027.001	3771974.63	5.8344	P	0.8
8	☐	2000.000	1981.485	7314598.50	11.2568	A	1.0
9	☐			20376.55	0.0316	P	1.7

$$y = 0.0057 * x + 9.1821E-005$$

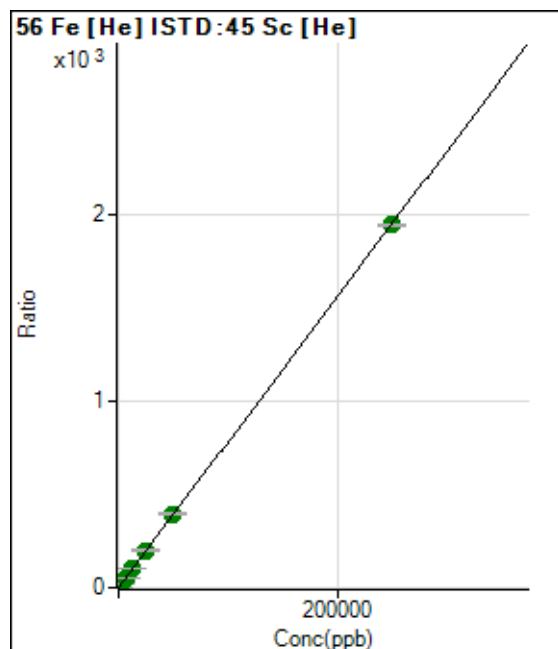
$$R = 0.9998$$

$$DL = 0.002489$$

$$BEC = 0.01616$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9392.16	0.0123	P	2.3
2	☐	5.000	5.244	41167.42	0.0531	P	1.2
3	☐	50.000	52.914	326856.44	0.4236	P	0.5
4	☐	2500.000	2617.580	14872860.29	20.3561	A	0.5
5	☐	6250.000	6644.042	34472407.72	51.6497	A	1.6
6	☐	12500.000	13003.697	66658407.05	101.0768	A	0.6
7	☐	25000.000	25727.385	129277445.48	199.9651	A	0.9
8	☐	50000.000	50826.387	256682794.62	395.0340	A	1.5
9	☐	250000.00	249725.77	1253048961.3	1,940.876	A	0.3

$$y = 0.0078 * x + 0.0123$$

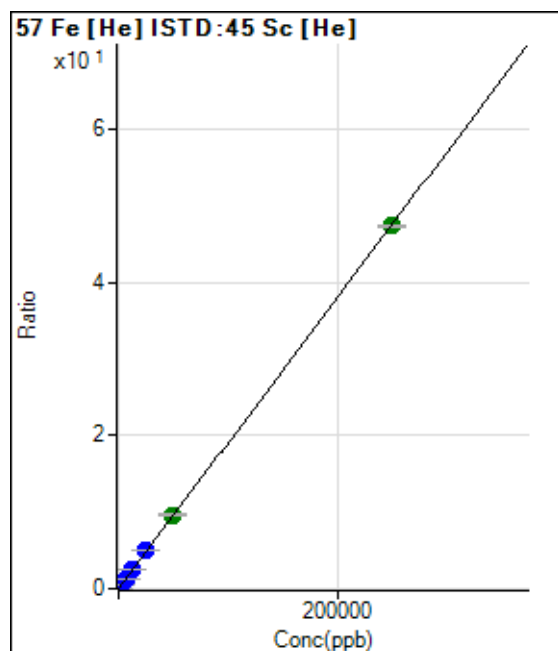
$$R = 1.0000$$

$$DL = 0.1078$$

$$BEC = 1.585$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	300.01	0.0004	P	9.0
2	☐	5.000	5.816	1161.19	0.0015	P	9.2
3	☐	50.000	57.354	8699.11	0.0113	P	1.9
4	☐	2500.000	2669.165	370240.49	0.5067	P	0.7
5	☐	6250.000	6782.288	859034.91	1.2870	P	1.3
6	☐	12500.000	13323.719	1667137.19	2.5280	P	0.5
7	☐	25000.000	26351.841	3232139.83	4.9995	P	0.9
8	☐	50000.000	50912.542	6276137.52	9.6587	A	1.2
9	☐	250000.00	249626.12	30573392.35	47.3556	A	0.3

$$y = 1.8970E-004 * x + 3.9360E-004$$

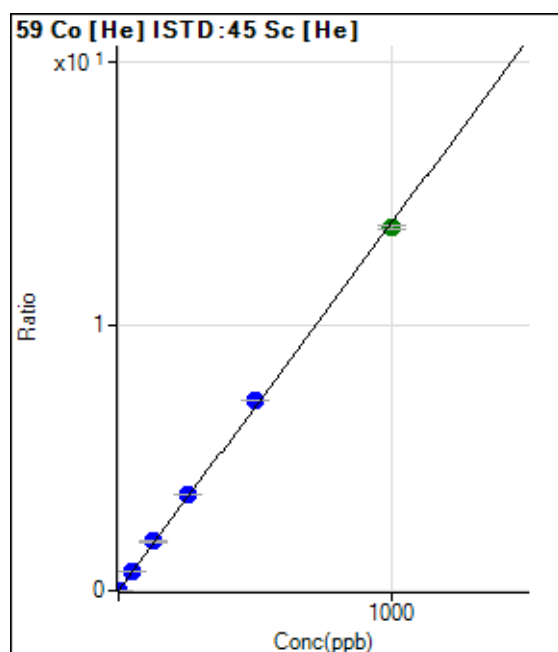
$$R = 1.0000$$

$$DL = 0.5582$$

$$BEC = 2.075$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	327.79	0.0004	P	12.4
2	☐	0.100	0.094	1344.53	0.0017	P	1.5
3	☐	1.000	1.017	11231.10	0.0146	P	1.1
4	☐	50.000	53.216	540359.15	0.7396	P	0.6
5	☐	125.000	133.489	1237780.76	1.8546	P	1.7
6	☐	250.000	263.424	2413258.51	3.6593	P	0.4
7	☐	500.000	517.715	4649234.31	7.1914	P	0.9
8	☐	1000.000	986.565	8904485.98	13.7036	A	1.0
9	☐			103176.27	0.1598	P	0.8

$$y = 0.0139 * x + 4.3002E-004$$

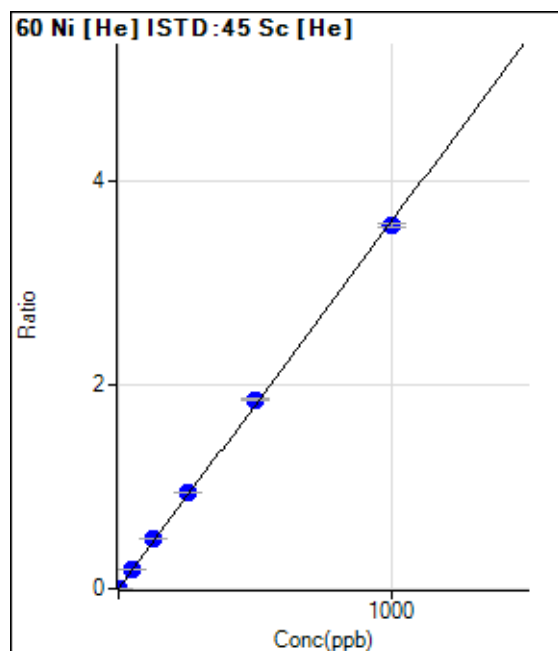
$$R = 0.9997$$

$$DL = 0.01151$$

$$BEC = 0.03096$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	224.45	0.0003	P	10.3
2	☐	0.100	0.081	453.35	0.0006	P	10.2
3	☐	1.000	1.055	3162.61	0.0041	P	1.3
4	☐	50.000	53.506	141144.69	0.1932	P	0.7
5	☐	125.000	135.332	325799.17	0.4882	P	2.1
6	☐	250.000	262.753	624874.14	0.9475	P	0.5
7	☐	500.000	514.789	1200005.24	1.8561	P	0.5
8	☐	1000.000	987.950	2314480.68	3.5619	P	1.0
9	☐			22583.16	0.0350	P	1.4

$$y = 0.0036 * x + 2.9434E-004$$

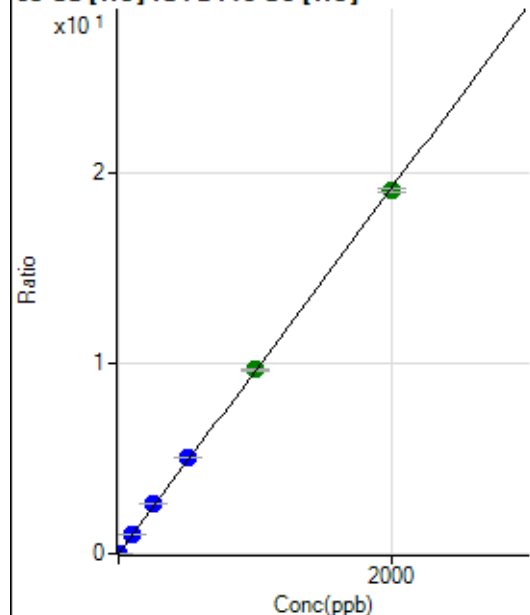
$$R = 0.9997$$

$$DL = 0.02516$$

$$BEC = 0.08165$$

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	2820.32	0.0037	P	5.3
2	☐	0.200	0.205	4394.07	0.0057	P	1.6
3	☐	2.000	2.024	17839.93	0.0231	P	0.5
4	☐	100.000	107.380	755227.88	1.0337	P	0.4
5	☐	250.000	271.945	1743383.01	2.6121	P	1.7
6	☐	500.000	528.262	3343951.13	5.0706	P	0.7
7	☐	1000.000	1008.131	6253909.00	9.6734	A	0.7
8	☐	2000.000	1985.757	12378773.29	19.0505	A	1.1
9	☐			13199.45	0.0204	P	1.2

$$y = 0.0096 * x + 0.0037$$

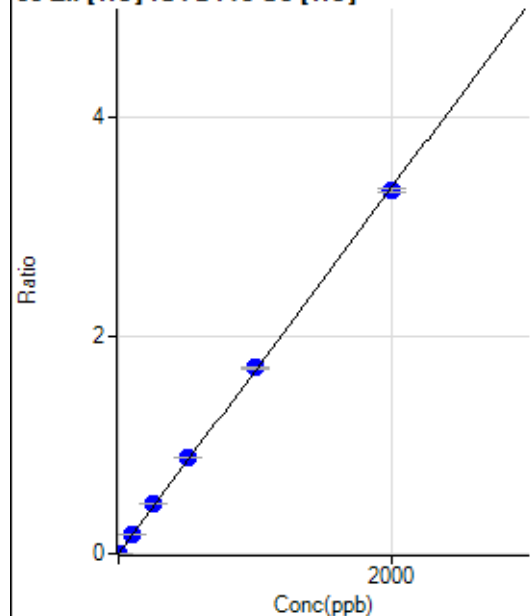
$$R = 0.9998$$

$$DL = 0.06127$$

$$BEC = 0.3857$$

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	1074.50	0.0014	P	3.2
2	☐	0.200	-0.250	767.81	0.0010	P	7.8
3	☐	2.000	1.647	3221.52	0.0042	P	2.6
4	☐	100.000	106.414	131493.34	0.1800	P	0.4
5	☐	250.000	270.905	304357.58	0.4560	P	1.2
6	☐	500.000	527.423	584587.87	0.8864	P	0.4
7	☐	1000.000	1014.883	1101895.92	1.7044	P	1.0
8	☐	2000.000	1982.769	2162849.55	3.3285	P	1.0
9	☐			16566.24	0.0257	P	0.7

$$y = 0.0017 * x + 0.0014$$

$$R = 0.9998$$

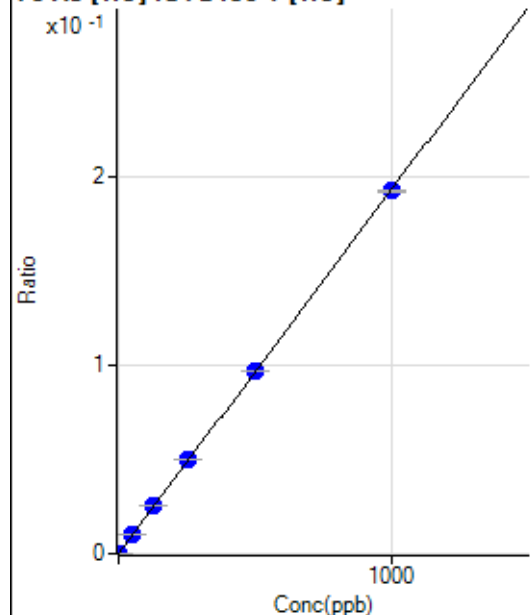
$$DL = 0.07979$$

$$BEC = 0.8399$$

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	25.31	0.0000	P	28.0
2	☐	0.100	0.085	88.89	0.0000	P	12.8
3	☐	1.000	1.041	790.77	0.0002	P	0.5
4	☐	50.000	52.763	37539.08	0.0102	P	0.2
5	☐	125.000	131.348	86868.39	0.0253	P	1.7
6	☐	250.000	259.026	170014.74	0.0500	P	0.1
7	☐	500.000	500.565	324693.48	0.0966	P	0.2
8	☐	1000.000	996.529	642049.69	0.1923	P	0.5
9	☐			851.27	0.0003	P	1.9

$$y = 1.9292\text{E-}004 * x + 6.7165\text{E-}006$$

$$R = 0.9999$$

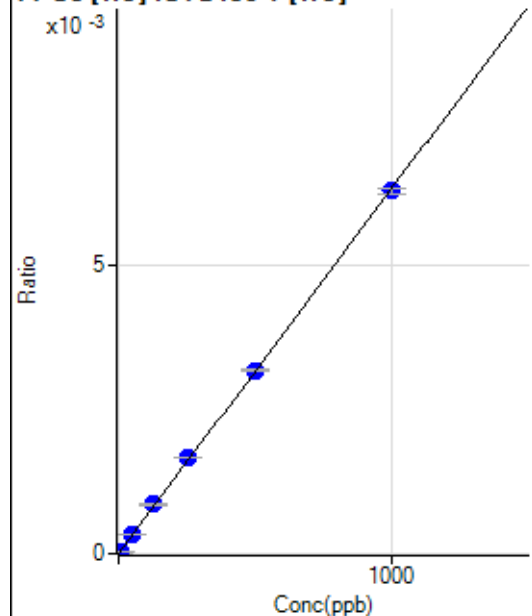
$$DL = 0.02925$$

$$BEC = 0.03482$$

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	2.22	0.0000	P	86.6
2	☐	0.500	0.595	16.66	0.0000	P	34.7
3	☐	5.000	5.257	128.89	0.0000	P	20.3
4	☐	50.000	52.889	1234.52	0.0003	P	3.8
5	☐	125.000	135.548	2938.12	0.0009	P	3.5
6	☐	250.000	262.024	5636.74	0.0017	P	0.6
7	☐	500.000	502.387	10679.62	0.0032	P	0.7
8	☐	1000.000	994.336	20993.17	0.0063	P	1.9
9	☐			10.00	0.0000	P	33.1

$$y = 6.3215\text{E-}006 * x + 5.8789\text{E-}007$$

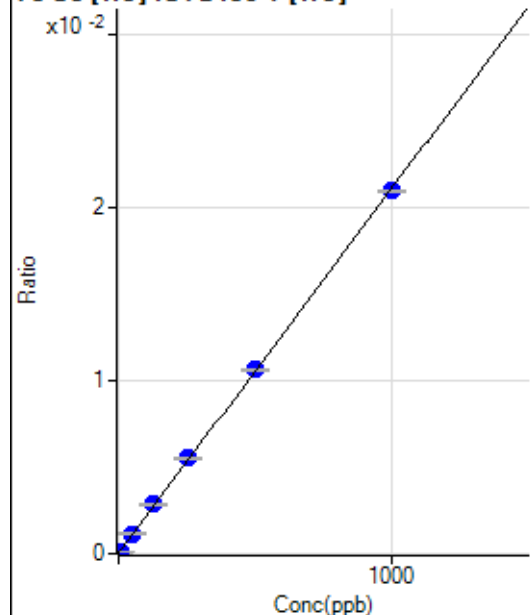
$$R = 0.9999$$

$$DL = 0.2416$$

$$BEC = 0.093$$

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	98.77	0.0000	P	6.7
2	☐	0.500	0.409	133.33	0.0000	P	3.8
3	☐	5.000	5.315	525.32	0.0001	P	4.8
4	☐	50.000	53.925	4274.74	0.0012	P	3.1
5	☐	125.000	134.990	9816.34	0.0029	P	2.5
6	☐	250.000	261.663	18803.63	0.0055	P	2.1
7	☐	500.000	502.820	35631.97	0.0106	P	0.9
8	☐	1000.000	994.228	69897.36	0.0209	P	0.8
9	☐			78.40	0.0000	P	8.5

$$y = 2.1025\text{E-}005 * x + 2.6200\text{E-}005$$

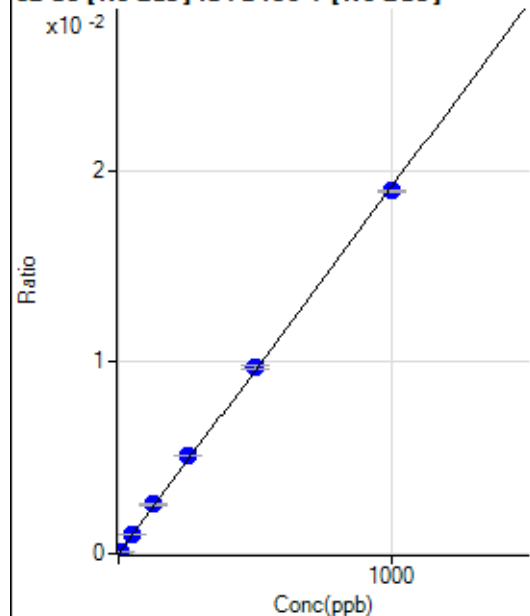
$$R = 0.9999$$

$$DL = 0.2505$$

$$BEC = 1.246$$

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	55.75	0.0000	P	69.2
2	☐	0.500	0.461	266.39	0.0000	P	21.0
3	☐	5.000	5.629	2631.12	0.0001	P	1.9
4	☐	50.000	54.284	24477.97	0.0010	P	1.0
5	☐	125.000	134.262	58561.20	0.0026	P	3.7
6	☐	250.000	268.632	111533.30	0.0051	P	0.4
7	☐	500.000	509.127	209878.99	0.0098	P	1.3
8	☐	1000.000	989.403	410363.19	0.0189	P	0.7
9	☐			212.72	0.0000	P	46.7

$$y = 1.9148\text{E-}005 * x + 2.3260\text{E-}006$$

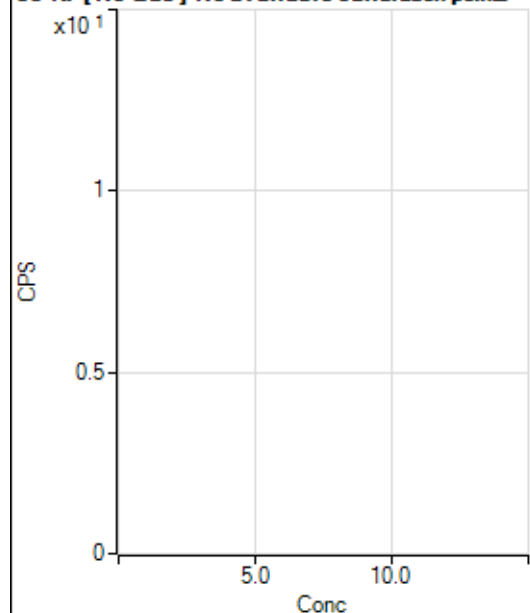
$$R = 0.9997$$

$$DL = 0.2521$$

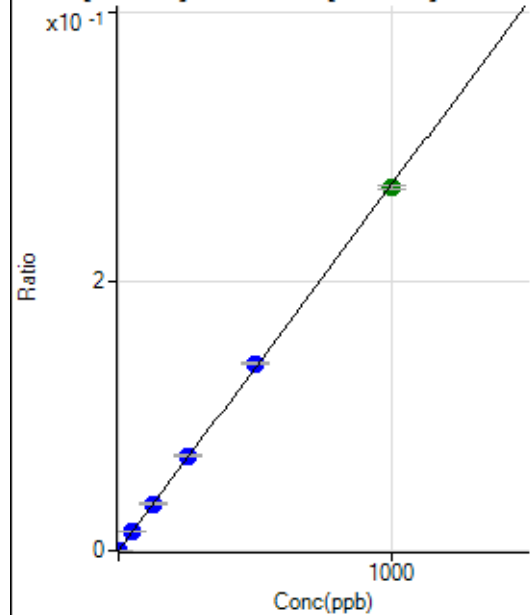
$$BEC = 0.1215$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			683.36		P	3.9
2	☐			723.37		P	6.5
3	☐			732.25		P	7.4
4	☐			686.69		P	5.1
5	☐			650.02		P	10.4
6	☐			595.58		P	7.6
7	☐			613.36		P	5.7
8	☐			618.91		P	5.0
9	☐			681.14		P	12.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1155.66	0.0000	P	13.3
2	☐	0.100	0.109	1855.76	0.0001	P	4.6
3	☐	1.000	0.959	7385.56	0.0003	P	1.5
4	☐	50.000	51.843	332586.19	0.0142	P	1.1
5	☐	125.000	127.636	791544.43	0.0348	P	3.4
6	☐	250.000	258.906	1527899.30	0.0705	P	0.9
7	☐	500.000	511.864	2998825.67	0.1393	P	1.1
8	☐	1000.000	991.420	5843615.28	0.2698	A	0.9
9	☐			24257.38	0.0012	P	2.2

$$y = 2.7210E-004 * x + 4.8132E-005$$

$$R = 0.9999$$

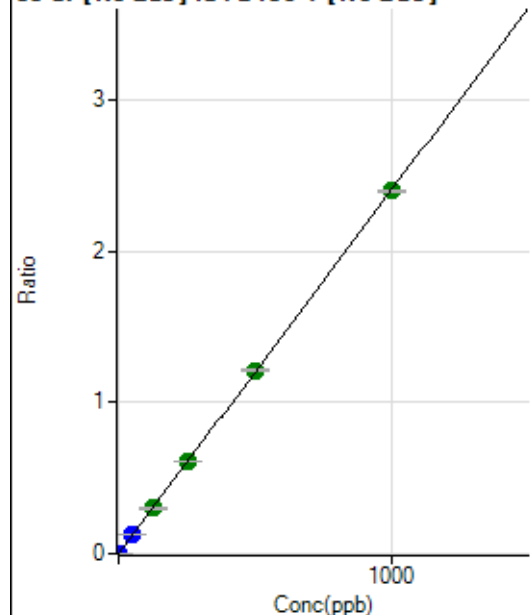
$$DL = 0.07062$$

$$BEC = 0.1769$$

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	302.79	0.0000	P	17.8
2	☐	0.100	0.095	5756.94	0.0002	P	2.4
3	☐	1.000	0.979	56654.56	0.0024	P	1.2
4	☐	50.000	51.239	2899996.51	0.1234	P	0.3
5	☐	125.000	124.948	6848361.96	0.3009	A	4.1
6	☐	250.000	253.421	13228794.13	0.6104	A	0.8
7	☐	500.000	502.616	26055436.70	1.2105	A	1.1
8	☐	1000.000	997.781	52047340.40	2.4031	A	0.3
9	☐			206545.71	0.0105	P	1.2

$$y = 0.0024 * x + 1.2620E-005$$

$$R = 1.0000$$

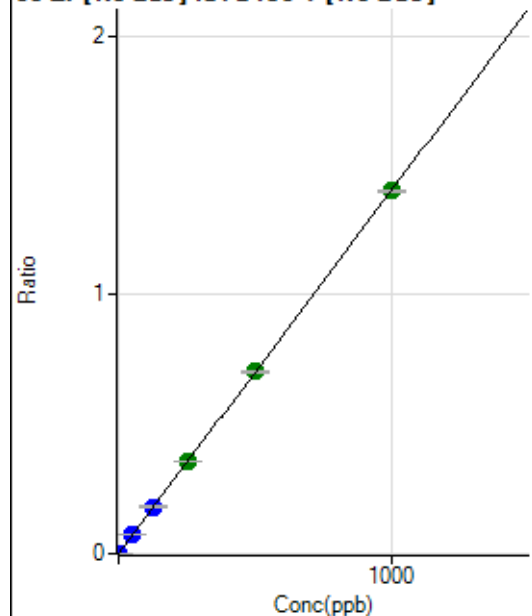
$$DL = 0.002792$$

$$BEC = 0.00524$$

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	1791.85	0.0001	P	4.7
2	☐	0.100	0.085	4612.09	0.0002	P	3.4
3	☐	1.000	0.932	32997.23	0.0014	P	1.2
4	☐	50.000	50.920	1679301.89	0.0715	P	0.5
5	☐	125.000	127.198	4059915.06	0.1784	P	4.2
6	☐	250.000	252.633	7678590.62	0.3543	A	0.4
7	☐	500.000	500.694	15111921.52	0.7021	A	0.3
8	☐	1000.000	998.674	30327485.75	1.4003	A	0.6
9	☐			9837.04	0.0005	P	8.0

$$y = 0.0014 * x + 7.4656E-005$$

$$R = 1.0000$$

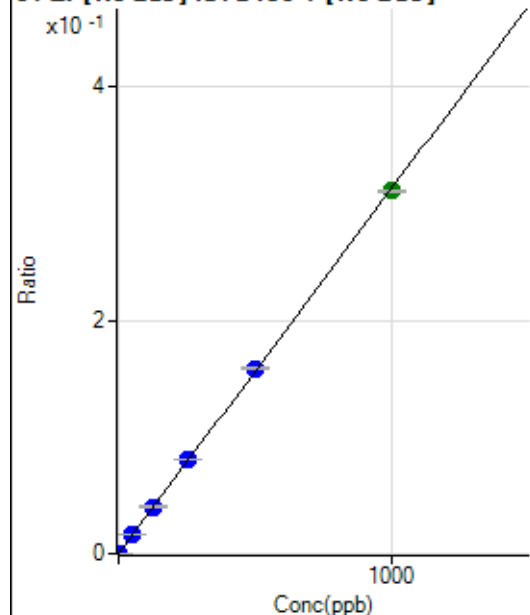
$$DL = 0.007563$$

$$BEC = 0.05325$$

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	383.35	0.0000	P	10.3
2	☐	0.100	0.080	980.63	0.0000	P	6.9
3	☐	1.000	0.934	7366.14	0.0003	P	5.0
4	☐	50.000	51.194	376617.08	0.0160	P	0.8
5	☐	125.000	126.846	903232.84	0.0397	P	4.0
6	☐	250.000	257.775	1747777.99	0.0806	P	0.0
7	☐	500.000	507.653	3417956.07	0.1588	P	0.7
8	☐	1000.000	993.940	6733447.72	0.3109	A	0.3
9	☐			2178.04	0.0001	P	4.7

$$y = 3.1278\text{E-}004 * x + 1.5975\text{E-}005$$

$$R = 0.9999$$

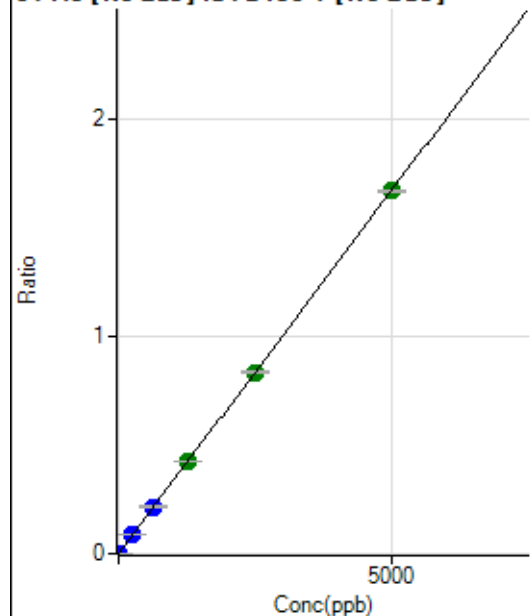
$$DL = 0.01573$$

$$BEC = 0.05107$$

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	547.26	0.0000	P	3.2
2	☐	0.500	0.500	4531.47	0.0002	P	2.8
3	☐	5.000	5.019	40670.00	0.0017	P	2.8
4	☐	250.000	255.105	2006217.69	0.0854	P	0.7
5	☐	625.000	642.003	4889057.96	0.2148	P	4.0
6	☐	1250.000	1267.351	9191467.65	0.4241	A	0.4
7	☐	2500.000	2493.298	17957286.69	0.8343	A	1.1
8	☐	5000.000	4996.633	36210875.11	1.6719	A	0.5
9	☐			15698.16	0.0008	P	6.4

$$y = 3.3461\text{E-}004 * x + 2.2801\text{E-}005$$

$$R = 1.0000$$

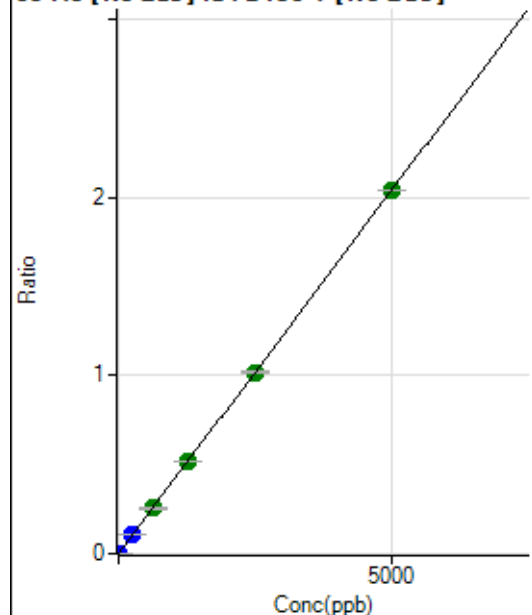
$$DL = 0.006632$$

$$BEC = 0.06814$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0000	P	9.7
2	☐	0.500	0.525	5242.85	0.0002	P	8.5
3	☐	5.000	5.138	50244.92	0.0021	P	1.3
4	☐	250.000	255.905	2454551.75	0.1045	P	0.1
5	☐	625.000	625.372	5809083.20	0.2553	A	4.1
6	☐	1250.000	1275.018	11280033.24	0.5205	A	0.2
7	☐	2500.000	2497.272	21940703.79	1.0194	A	0.9
8	☐	5000.000	4994.767	44157168.35	2.0388	A	0.1
9	☐			22504.75	0.0011	P	8.7

$$y = 4.0819\text{E-}004 * x + 5.4392\text{E-}006$$

$$R = 1.0000$$

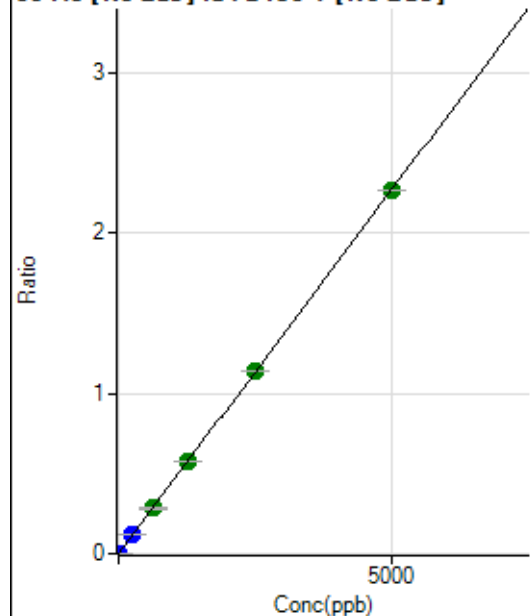
$$DL = 0.003859$$

$$BEC = 0.01333$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	327.80	0.0000	P	18.9
2	☐	0.500	0.514	5882.04	0.0002	P	6.8
3	☐	5.000	5.084	55380.57	0.0023	P	0.9
4	☐	250.000	255.092	2716643.35	0.1156	P	0.7
5	☐	625.000	625.615	6451996.54	0.2835	A	4.2
6	☐	1250.000	1269.433	12468859.22	0.5753	A	0.4
7	☐	2500.000	2514.154	24524253.67	1.1394	A	0.8
8	☐	5000.000	4987.733	48956012.21	2.2604	A	0.1
9	☐			34866.03	0.0018	P	7.0

$$y = 4.5319\text{E-}004 * x + 1.3651\text{E-}005$$

$$R = 1.0000$$

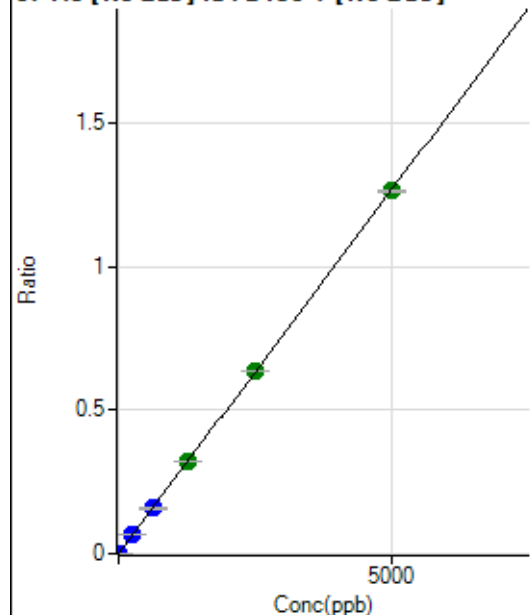
$$DL = 0.01707$$

$$BEC = 0.03012$$

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	83.34	0.0000	P	30.1
2	☐	0.500	0.512	3178.26	0.0001	P	8.3
3	☐	5.000	5.156	31329.75	0.0013	P	1.8
4	☐	250.000	254.139	1514735.19	0.0645	P	0.7
5	☐	625.000	633.939	3659284.72	0.1608	P	4.0
6	☐	1250.000	1264.879	6953712.48	0.3208	A	0.8
7	☐	2500.000	2513.420	13722220.97	0.6375	A	0.6
8	☐	5000.000	4988.246	27403278.04	1.2653	A	0.3
9	☐			13284.50	0.0007	P	5.9

$$y = 2.5365E-004 * x + 3.4733E-006$$

$$R = 1.0000$$

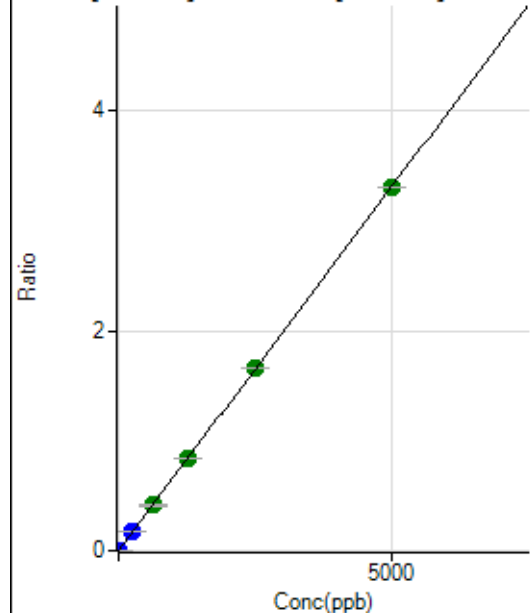
$$DL = 0.01236$$

$$BEC = 0.01369$$

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	216.68	0.0000	P	30.9
2	☐	0.500	0.530	8564.05	0.0004	P	3.2
3	☐	5.000	5.117	81010.85	0.0034	P	1.0
4	☐	250.000	254.836	3956807.03	0.1684	P	0.1
5	☐	625.000	623.208	9370082.07	0.4118	A	4.6
6	☐	1250.000	1272.245	18220261.52	0.8407	A	0.1
7	☐	2500.000	2511.784	35723888.65	1.6597	A	0.8
8	☐	5000.000	4988.529	71391702.99	3.2963	A	0.1
9	☐			34153.30	0.0017	P	8.8

$$y = 6.6077E-004 * x + 9.0332E-006$$

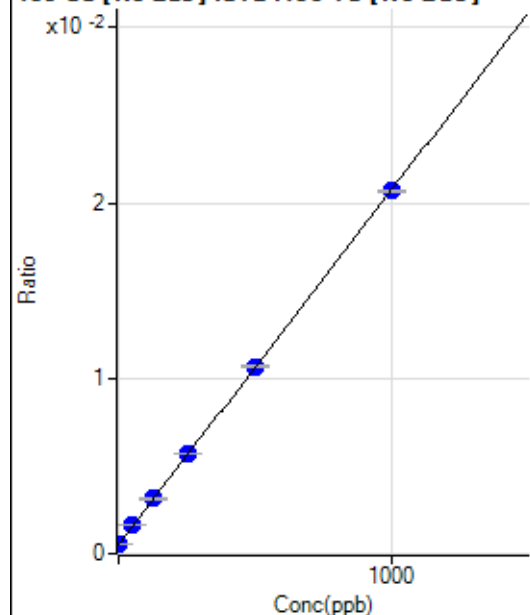
$$R = 1.0000$$

$$DL = 0.01267$$

$$BEC = 0.01367$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16309.97	0.0005	P	4.0
2	☐	0.100	0.572	16771.75	0.0005	P	1.4
3	☐	1.000	1.696	17525.30	0.0006	P	1.7
4	☐	50.000	53.569	50616.41	0.0016	P	1.7
5	☐	125.000	130.237	98695.68	0.0032	P	4.3
6	☐	250.000	255.892	174051.96	0.0057	P	1.2
7	☐	500.000	500.771	323030.28	0.0106	P	1.2
8	☐	1000.000	997.308	635913.35	0.0207	P	0.7
9	☐			14038.06	0.0005	P	1.9

$$y = 2.0211\text{E-}005 * x + 5.2198\text{E-}004$$

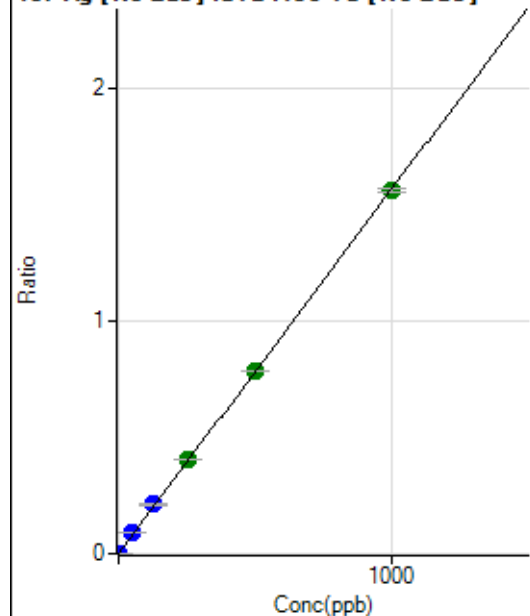
$$R = 1.0000$$

$$DL = 3.075$$

$$BEC = 25.83$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	600.03	0.0000	P	9.6
2	☐	0.100	0.127	6851.16	0.0002	P	3.8
3	☐	1.000	1.225	60948.42	0.0019	P	1.5
4	☐	50.000	56.220	2773160.65	0.0879	P	0.3
5	☐	125.000	135.682	6638443.53	0.2121	P	4.1
6	☐	250.000	257.554	12309826.49	0.4027	A	0.3
7	☐	500.000	501.120	23778945.76	0.7835	A	0.3
8	☐	1000.000	995.905	47880654.72	1.5570	A	1.2
9	☐			4383.89	0.0002	P	8.7

$$y = 0.0016 * x + 1.9206\text{E-}005$$

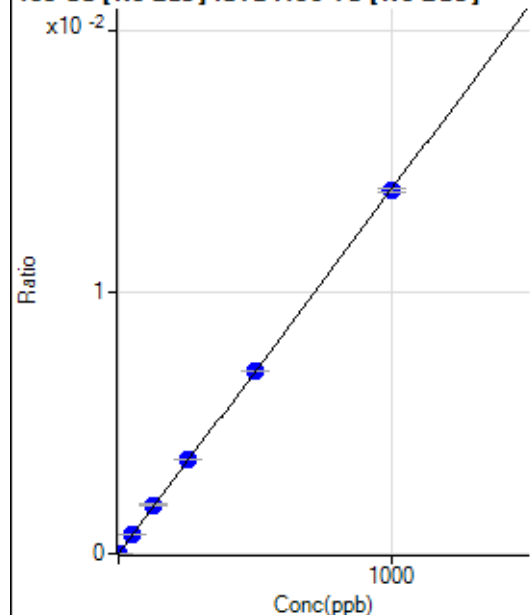
$$R = 0.9999$$

$$DL = 0.003528$$

$$BEC = 0.01228$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	40.28	0.0000	P	12.5
2	☐	0.100	0.085	77.78	0.0000	P	6.1
3	☐	1.000	1.082	516.69	0.0000	P	18.2
4	☐	50.000	54.908	24211.26	0.0008	P	0.7
5	☐	125.000	132.887	58064.62	0.0019	P	4.6
6	☐	250.000	258.496	110314.14	0.0036	P	0.6
7	☐	500.000	501.806	212581.34	0.0070	P	0.6
8	☐	1000.000	995.742	427353.68	0.0139	P	1.2
9	☐			90.28	0.0000	P	9.3

$$y = 1.3955E-005 * x + 1.2894E-006$$

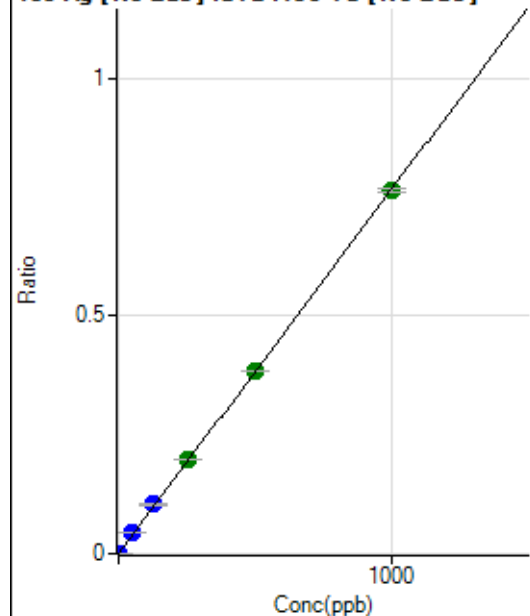
$$R = 0.9999$$

$$DL = 0.03471$$

$$BEC = 0.09239$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	258.35	0.0000	P	26.7
2	☐	0.100	0.126	3303.32	0.0001	P	6.1
3	☐	1.000	1.219	29684.98	0.0009	P	0.4
4	☐	50.000	56.214	1358979.57	0.0431	P	0.4
5	☐	125.000	135.866	3257644.62	0.1041	P	4.5
6	☐	250.000	256.695	6013069.01	0.1967	A	0.3
7	☐	500.000	501.356	11659635.59	0.3842	A	0.6
8	☐	1000.000	995.979	23468347.57	0.7632	A	1.2
9	☐			2178.05	0.0001	P	9.0

$$y = 7.6625E-004 * x + 8.2710E-006$$

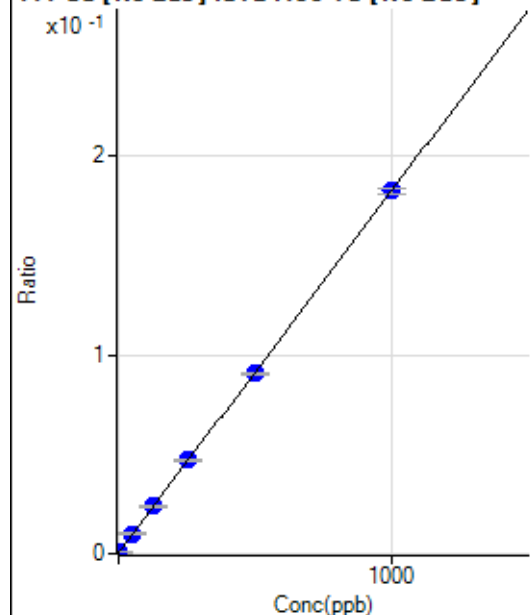
$$R = 0.9999$$

$$DL = 0.008649$$

$$BEC = 0.01079$$

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	11402.68	0.0004	P	4.0
2	☐	0.100	0.134	12237.19	0.0004	P	1.4
3	☐	1.000	1.088	17739.31	0.0006	P	1.4
4	☐	50.000	53.673	319696.46	0.0101	P	0.3
5	☐	125.000	129.982	751784.45	0.0240	P	4.2
6	☐	250.000	256.759	1439867.68	0.0471	P	1.2
7	☐	500.000	494.973	2745671.18	0.0905	P	0.2
8	☐	1000.000	1000.017	5608831.43	0.1824	P	1.6
9	☐			10262.08	0.0004	P	2.8

$$y = 1.8203\text{E-}004 * x + 3.6493\text{E-}004$$

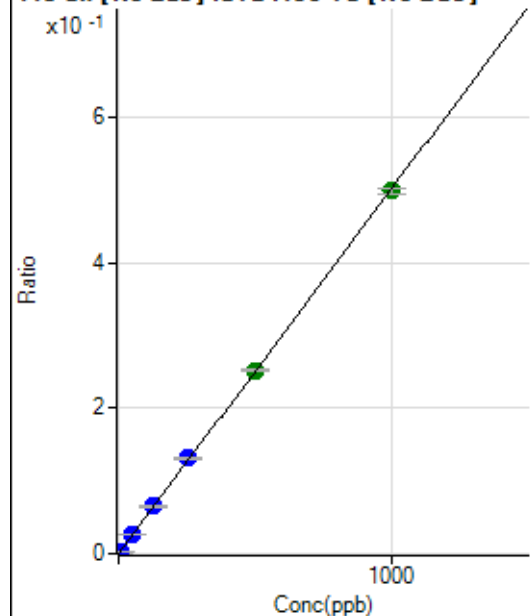
$$R = 0.9999$$

$$DL = 0.2423$$

$$BEC = 2.005$$

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	1189.00	0.0000	P	12.4
2	☐	0.500	0.549	9845.53	0.0003	P	5.1
3	☐	5.000	5.416	86658.40	0.0028	P	0.3
4	☐	50.000	53.435	845323.19	0.0268	P	0.5
5	☐	125.000	131.129	2056074.74	0.0657	P	4.2
6	☐	250.000	261.589	4005864.41	0.1310	P	1.0
7	☐	500.000	503.127	7648485.15	0.2520	A	0.8
8	☐	1000.000	994.599	15318153.82	0.4981	A	1.4
9	☐			9022.75	0.0003	P	9.6

$$y = 5.0081\text{E-}004 * x + 3.8054\text{E-}005$$

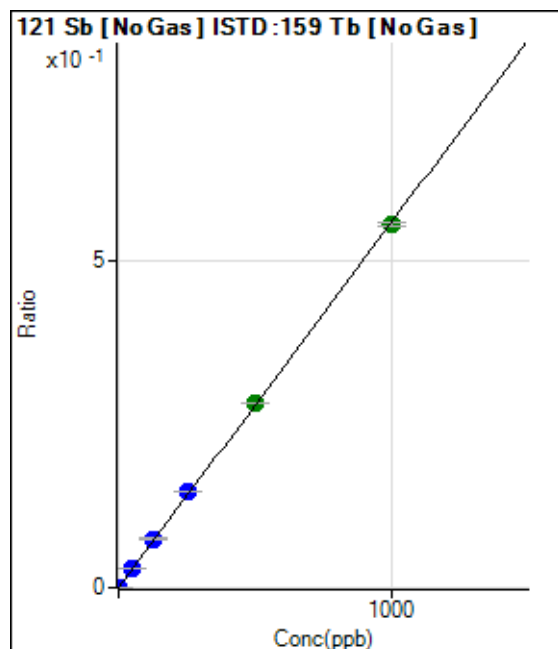
$$R = 0.9999$$

$$DL = 0.02832$$

$$BEC = 0.07599$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	136.12	0.0000	P	40.6
2	☐	0.200	0.206	3767.34	0.0001	P	3.1
3	☐	2.000	2.029	35905.35	0.0011	P	2.1
4	☐	50.000	53.640	946789.87	0.0300	P	0.2
5	☐	125.000	131.910	2309784.62	0.0738	P	3.7
6	☐	250.000	262.995	4497994.24	0.1471	P	1.7
7	☐	500.000	504.979	8574936.21	0.2825	A	0.3
8	☐	1000.000	993.216	17088291.18	0.5557	A	0.9
9	☐			19133.19	0.0007	P	2.1

$$y = 5.5949\text{E-}004 * x + 4.3541\text{E-}006$$

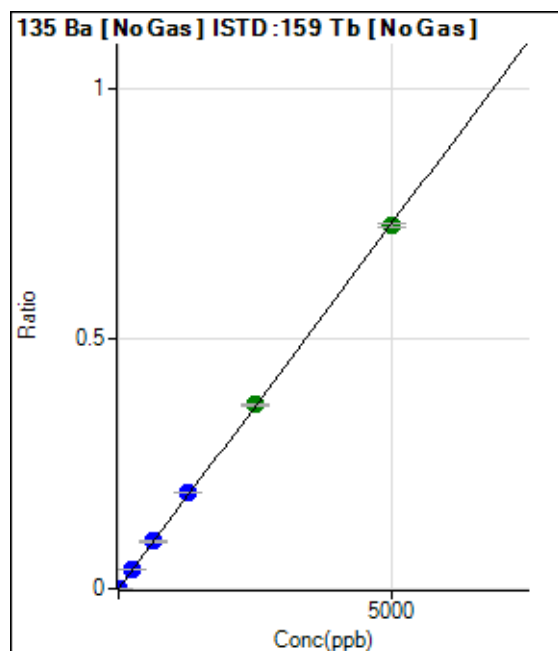
$$R = 0.9999$$

$$DL = 0.009487$$

$$BEC = 0.007782$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	75.00	0.0000	P	10.6
2	☐	1.000	1.122	5231.76	0.0002	P	3.6
3	☐	10.000	10.500	48449.45	0.0015	P	1.3
4	☐	250.000	264.112	1218240.93	0.0386	P	1.0
5	☐	625.000	652.495	2985411.79	0.0954	P	4.3
6	☐	1250.000	1315.756	5881207.55	0.1924	P	1.2
7	☐	2500.000	2516.980	11170119.35	0.3680	A	0.3
8	☐	5000.000	4970.928	22351830.71	0.7269	A	1.1
9	☐			3567.28	0.0001	P	9.0

$$y = 1.4622\text{E-}004 * x + 2.3991\text{E-}006$$

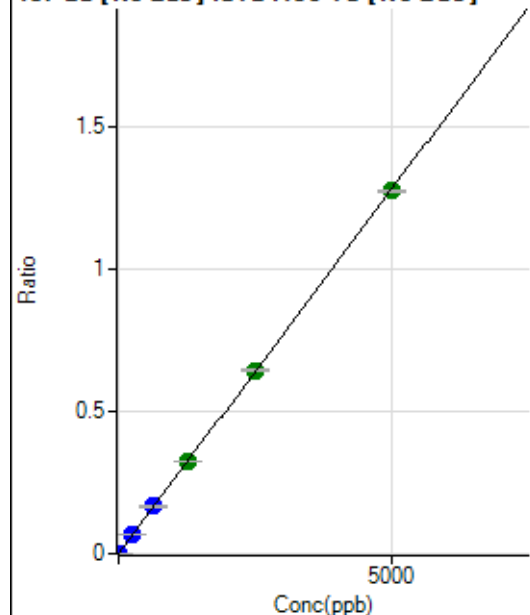
$$R = 0.9999$$

$$DL = 0.005193$$

$$BEC = 0.01641$$

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	72.23	0.0000	P	17.2
2	☐	1.000	1.100	8917.16	0.0003	P	4.0
3	☐	10.000	10.590	85418.29	0.0027	P	0.7
4	☐	250.000	265.066	2138741.87	0.0678	P	0.5
5	☐	625.000	654.024	5234516.52	0.1673	P	4.4
6	☐	1250.000	1273.112	9954752.48	0.3256	A	0.5
7	☐	2500.000	2520.272	19565777.69	0.6447	A	0.2
8	☐	5000.000	4979.703	39170791.15	1.2737	A	0.6
9	☐			6301.68	0.0002	P	3.9

$$y = 2.5579\text{E-}004 * x + 2.3100\text{E-}006$$

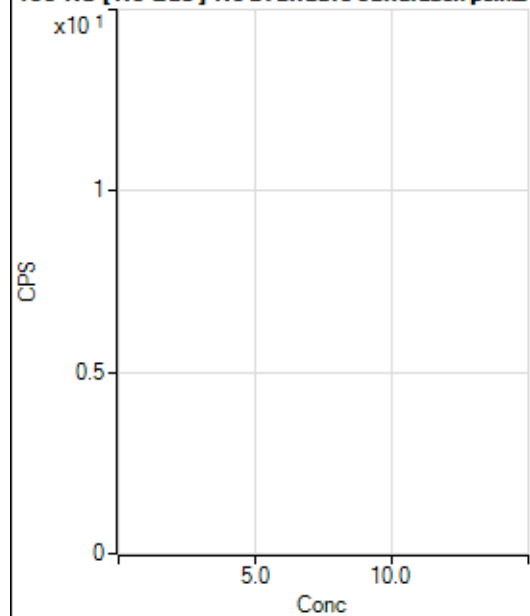
$$R = 1.0000$$

$$DL = 0.004671$$

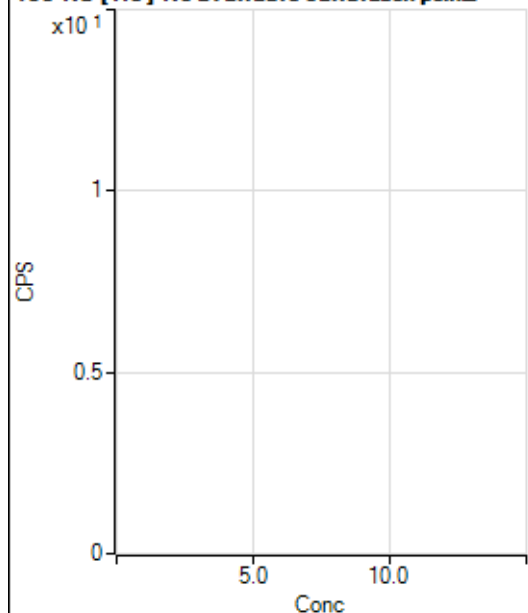
$$BEC = 0.009031$$

Weight: <None>

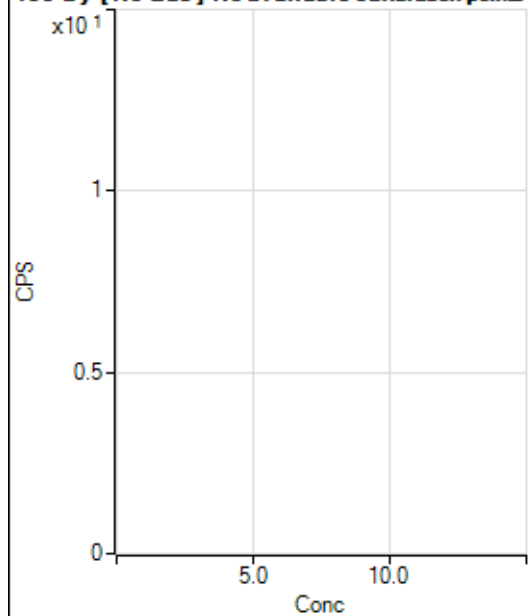
Min Conc: 0

150 Nd [No Gas] No available calibration points

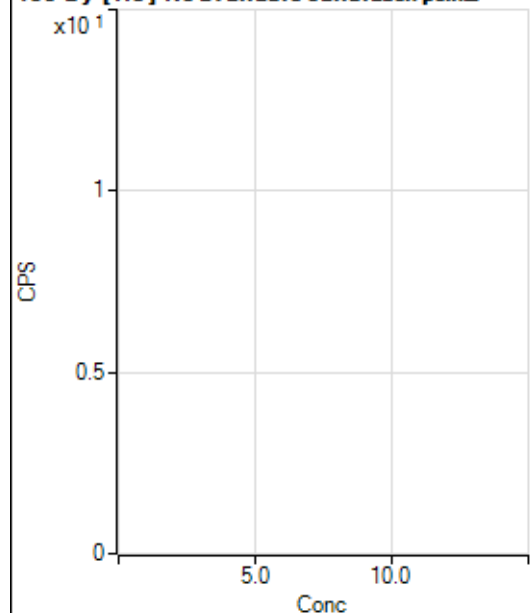
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2.22		P	173.
2	☐			6.67		P	173.
3	☐			13.33		P	50.0
4	☐			186.67		P	16.4
5	☐			395.57		P	13.5
6	☐			700.05		P	7.6
7	☐			1153.43		P	2.6
8	☐			2575.89		P	2.3
9	☐			491.14		P	10.2

150 Nd [He] No available calibration points

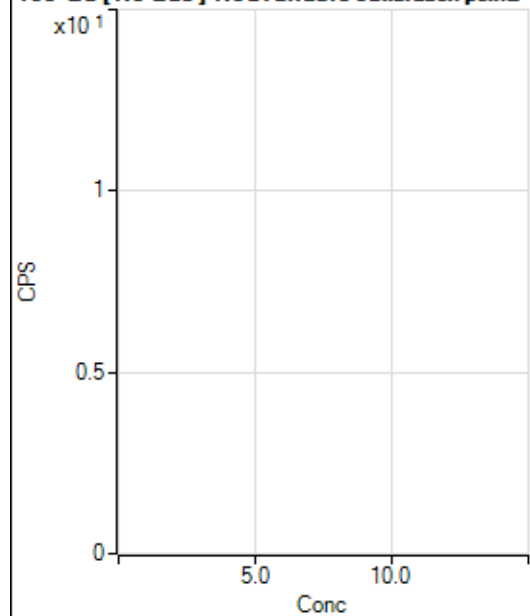
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			2.22		P	173.
3	☐			0.00		P	
4	☐			21.11		P	24.1
5	☐			31.11		P	16.4
6	☐			56.67		P	15.6
7	☐			141.11		P	19.2
8	☐			218.90		P	24.2
9	☐			173.34		P	10.7

156 Dy [No Gas] No available calibration points

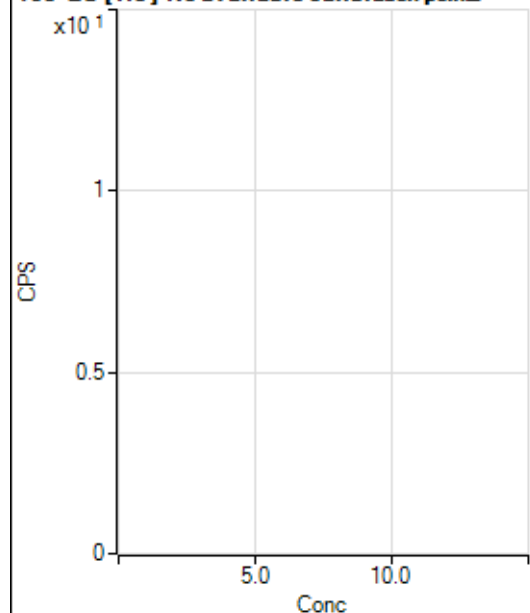
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	63.0
2	☐			27.78		P	62.5
3	☐			38.89		P	44.6
4	☐			47.22		P	71.3
5	☐			91.67		P	18.2
6	☐			169.45		P	19.9
7	☐			250.01		P	29.6
8	☐			497.25		P	2.6
9	☐			316.69		P	11.5

156 Dy [He] No available calibration points

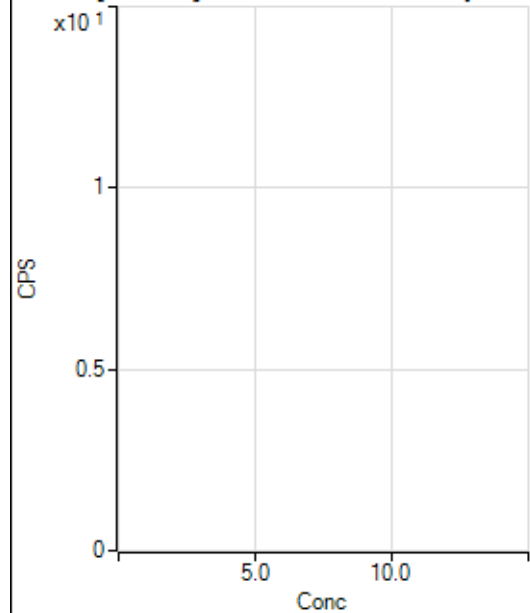
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	34.7
2	☐			10.00		P	0.0
3	☐			5.55		P	69.3
4	☐			37.78		P	36.7
5	☐			73.33		P	4.5
6	☐			145.56		P	5.8
7	☐			293.34		P	11.4
8	☐			550.02		P	6.6
9	☐			132.22		P	8.1

160 Gd [No Gas] Noavailable calibration poin_

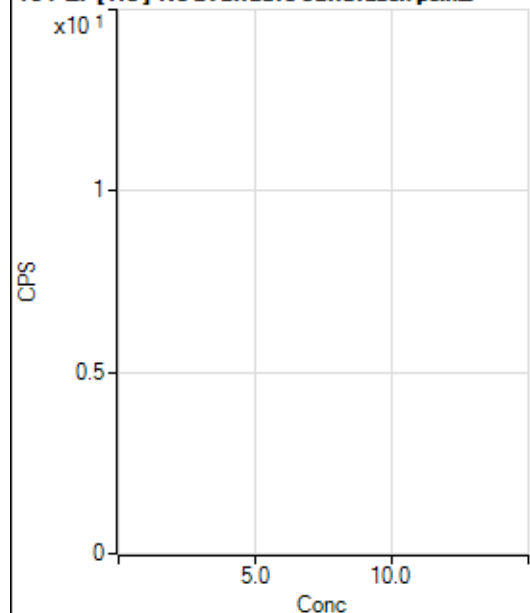
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			205.57		P	24.4
2	☐			244.46		P	15.7
3	☐			230.57		P	9.1
4	☐			233.34		P	18.6
5	☐			252.79		P	13.7
6	☐			230.57		P	19.9
7	☐			277.79		P	4.6
8	☐			283.35		P	13.5
9	☐			416.69		P	26.2

160 Gd [He] No available calibration points

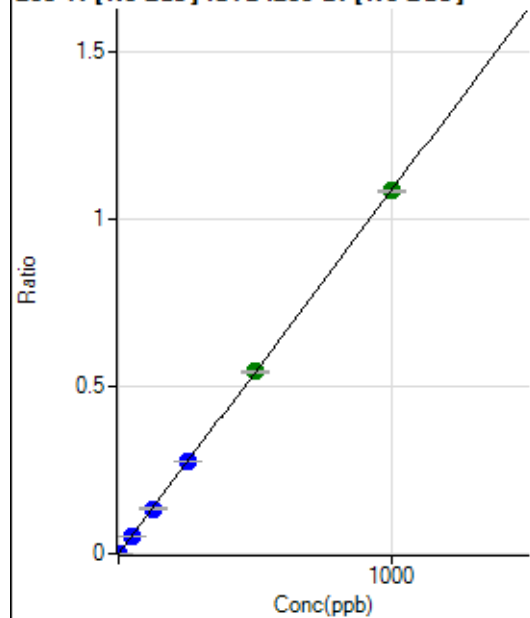
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			603.36		P	15.0
2	☐			678.92		P	7.4
3	☐			633.36		P	12.0
4	☐			655.58		P	2.1
5	☐			605.58		P	4.7
6	☐			617.80		P	3.3
7	☐			575.58		P	7.4
8	☐			616.69		P	12.0
9	☐			666.70		P	7.3

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			91.67		P	27.3
2	☐			152.78		P	12.6
3	☐			97.23		P	9.9
4	☐			97.22		P	4.9
5	☐			77.78		P	22.3
6	☐			111.12		P	34.6
7	☐			130.56		P	25.8
8	☐			100.01		P	16.7
9	☐			211.13		P	25.4

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			50.00		P	6.7
2	☐			57.78		P	18.5
3	☐			43.33		P	40.0
4	☐			47.78		P	17.6
5	☐			37.78		P	5.1
6	☐			42.22		P	50.8
7	☐			60.00		P	36.4
8	☐			51.11		P	22.9
9	☐			110.00		P	21.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	316.68	0.0000	P	18.9
2	☐	0.100	0.093	2330.88	0.0001	P	6.2
3	☐	1.000	0.910	20015.88	0.0010	P	1.5
4	☐	50.000	49.501	1058799.80	0.0537	P	1.3
5	☐	125.000	123.806	2645681.09	0.1344	P	3.9
6	☐	250.000	255.239	5301775.73	0.2770	P	0.7
7	☐	500.000	500.949	10124487.64	0.5437	A	0.5
8	☐	1000.000	998.390	20112329.79	1.0836	A	0.3
9	☐			1991.90	0.0001	P	11.6

$$y = 0.0011 * x + 1.6028E-005$$

$$R = 1.0000$$

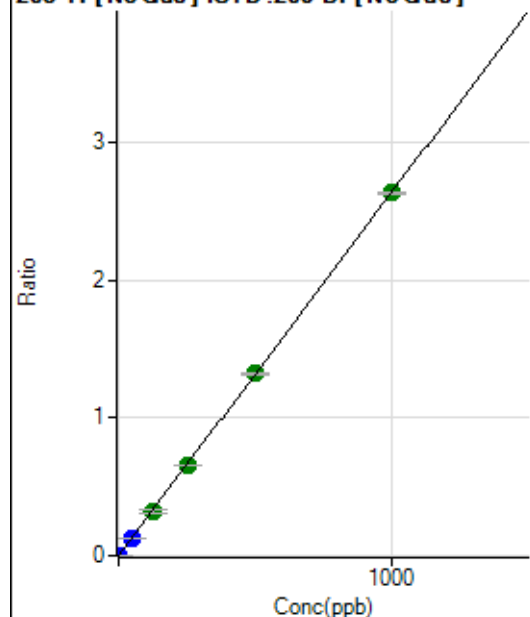
$$DL = 0.008362$$

$$BEC = 0.01477$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	783.40	0.0000	P	3.4
2	☐	0.100	0.094	5720.99	0.0003	P	5.1
3	☐	1.000	0.925	49373.93	0.0025	P	1.9
4	☐	50.000	49.672	2578273.54	0.1309	P	1.6
5	☐	125.000	122.002	6324723.10	0.3214	A	5.1
6	☐	250.000	249.049	12553565.73	0.6560	A	0.7
7	☐	500.000	502.608	24650046.04	1.3238	A	1.2
8	☐	1000.000	999.325	48853641.72	2.6321	A	0.5
9	☐			4909.48	0.0003	P	11.8

$$y = 0.0026 * x + 3.9656E-005$$

$$R = 1.0000$$

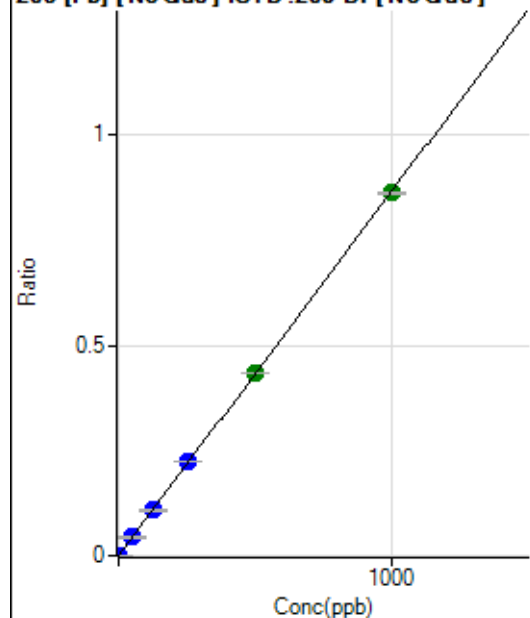
$$DL = 0.001527$$

$$BEC = 0.01506$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	985.25	0.0000	P	3.9
2	☐	0.100	0.086	2459.56	0.0001	P	4.4
3	☐	1.000	0.956	17495.37	0.0009	P	0.0
4	☐	50.000	50.396	860611.00	0.0437	P	1.2
5	☐	125.000	124.902	2129985.91	0.1082	P	3.8
6	☐	250.000	258.415	4282514.04	0.2238	P	0.2
7	☐	500.000	502.823	8107177.55	0.4354	A	0.6
8	☐	1000.000	996.477	16013843.99	0.8628	A	0.5
9	☐			17254.27	0.0011	P	5.5

$$y = 8.6579E-004 * x + 4.9871E-005$$

$$R = 1.0000$$

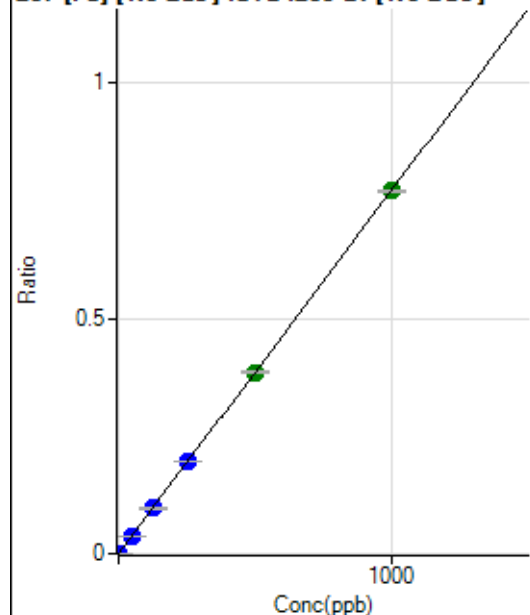
$$DL = 0.006698$$

$$BEC = 0.0576$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	835.24	0.0000	P	5.8
2	☐	0.100	0.088	2192.84	0.0001	P	4.2
3	☐	1.000	0.908	14799.47	0.0007	P	0.8
4	☐	50.000	49.884	758900.88	0.0385	P	1.1
5	☐	125.000	124.352	1889348.41	0.0960	P	3.6
6	☐	250.000	255.619	3774058.85	0.1972	P	0.4
7	☐	500.000	499.927	7181303.69	0.3857	A	0.5
8	☐	1000.000	998.719	14299059.12	0.7704	A	0.4
9	☐			14658.58	0.0010	P	6.0

$$y = 7.7135E-004 * x + 4.2275E-005$$

$$R = 1.0000$$

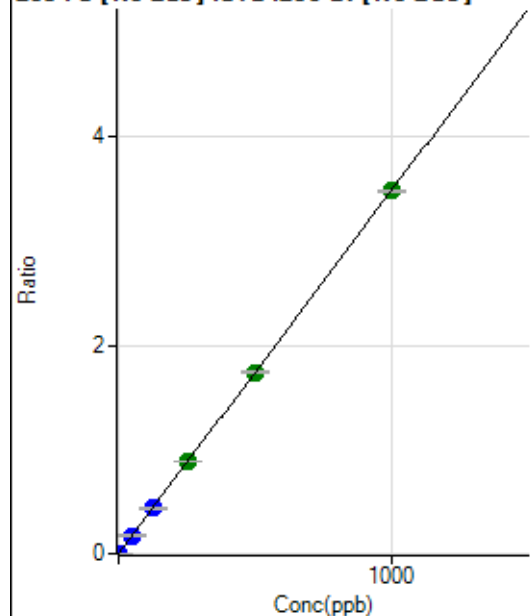
$$DL = 0.009556$$

$$BEC = 0.05481$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3822.55	0.0002	P	4.5
2	☐	0.100	0.086	9803.56	0.0005	P	4.2
3	☐	1.000	0.932	68537.85	0.0034	P	1.1
4	☐	50.000	50.191	3446922.40	0.1750	P	1.2
5	☐	125.000	125.122	8581491.72	0.4359	P	3.7
6	☐	250.000	252.984	16861091.26	0.8811	A	0.4
7	☐	500.000	500.354	32444774.57	1.7424	A	0.7
8	☐	1000.000	999.052	64569593.23	3.4789	A	0.2
9	☐			67233.01	0.0044	P	5.6

$$y = 0.0035 * x + 1.9349E-004$$

$$R = 1.0000$$

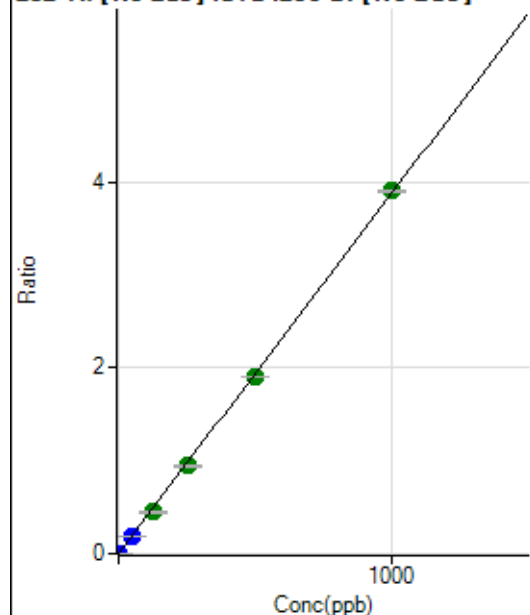
$$DL = 0.007425$$

$$BEC = 0.05557$$

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	538.92	0.0000	P	15.0
2	☐	0.100	0.079	6635.23	0.0003	P	2.9
3	☐	1.000	0.815	63566.97	0.0032	P	1.3
4	☐	50.000	46.759	3575475.40	0.1815	P	0.5
5	☐	125.000	116.271	8882707.03	0.4512	A	4.2
6	☐	250.000	243.115	18054136.75	0.9435	A	1.6
7	☐	500.000	491.723	35531910.75	1.9082	A	0.8
8	☐	1000.000	1007.113	72538342.82	3.9083	A	0.6
9	☐			26594.76	0.0018	P	10.0

$$y = 0.0039 * x + 2.7275E-005$$

$$R = 0.9999$$

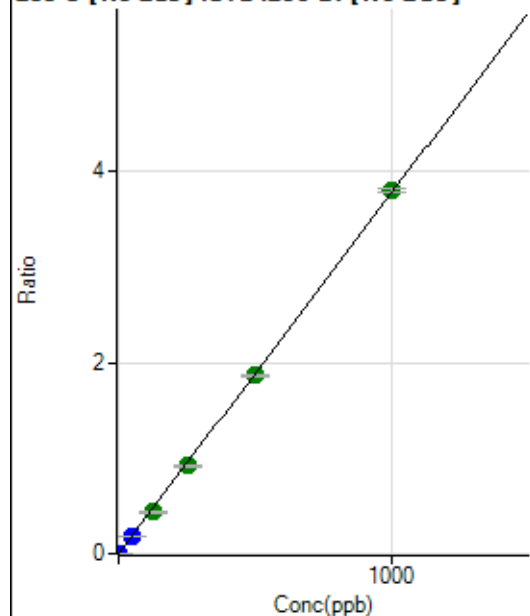
$$DL = 0.003164$$

$$BEC = 0.007028$$

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	166.68	0.0000	P	10.1
2	☐	0.100	0.089	6793.76	0.0003	P	5.0
3	☐	1.000	0.838	63151.73	0.0032	P	1.2
4	☐	50.000	46.884	3484147.43	0.1768	P	0.4
5	☐	125.000	116.417	8644483.09	0.4391	A	4.0
6	☐	250.000	242.700	17517482.51	0.9154	A	1.1
7	☐	500.000	493.404	34653467.79	1.8610	A	0.3
8	☐	1000.000	1006.352	70448903.66	3.7957	A	0.9
9	☐			5368.10	0.0004	P	20.3

$$y = 0.0038 * x + 8.4375E-006$$

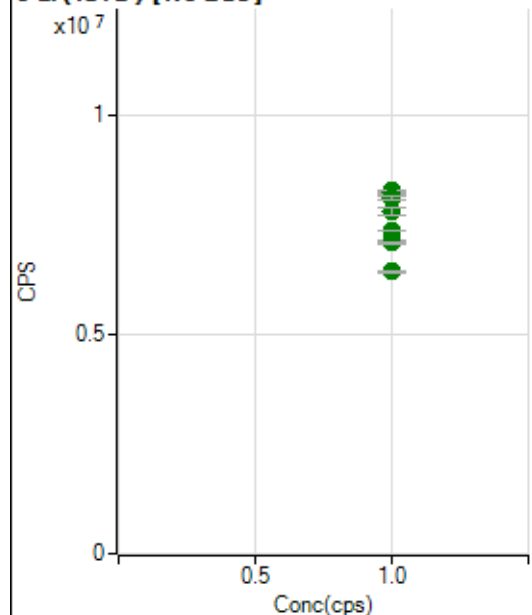
$$R = 0.9999$$

$$DL = 0.0006771$$

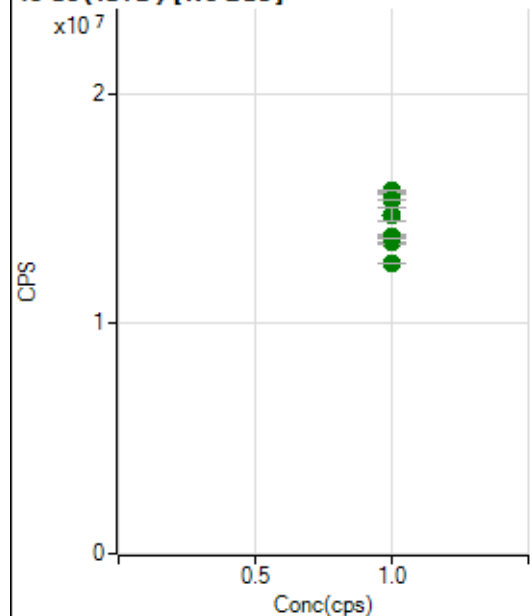
$$BEC = 0.002237$$

Weight: <None>

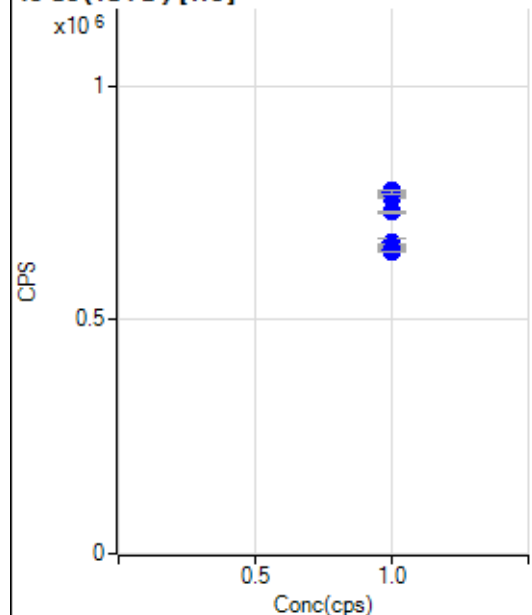
Min Conc: 0

6 Li (ISTD) [No Gas]

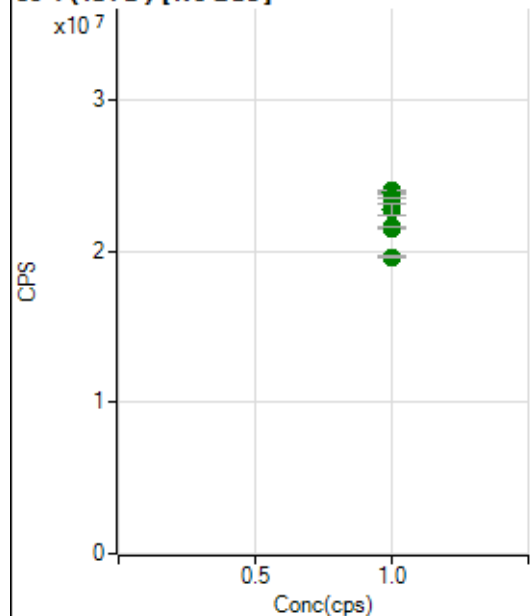
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8282518.29		A	0.5
2	☐	1.000		8171425.09		A	0.6
3	☐	1.000		8231655.13		A	1.4
4	☐	1.000		8121354.92		A	0.7
5	☐	1.000		7821158.28		A	2.6
6	☐	1.000		7377760.92		A	0.4
7	☐	1.000		7148529.75		A	0.1
8	☐	1.000		7101709.18		A	0.5
9	☐	1.000		6439216.67		A	0.6

45 Sc (ISTD) [No Gas]

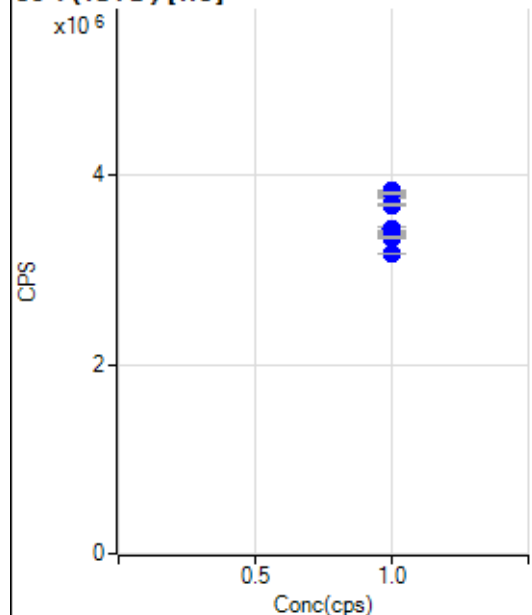
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		15668754.17		A	0.3
2	☐	1.000		15682559.73		A	0.5
3	☐	1.000		15778590.63		A	0.2
4	☐	1.000		15401766.14		A	0.2
5	☐	1.000		14756041.13		A	3.5
6	☐	1.000		13825889.20		A	0.7
7	☐	1.000		13517971.83		A	0.4
8	☐	1.000		13706909.51		A	0.3
9	☐	1.000		12649741.43		A	0.1

45 Sc (ISTD) [He]

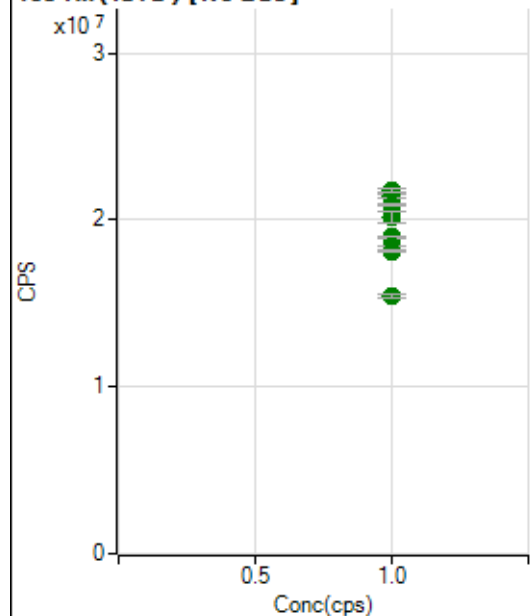
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		762449.83		P	0.5
2	☐	1.000		775655.74		P	0.4
3	☐	1.000		771713.17		P	1.1
4	☐	1.000		730639.99		P	0.7
5	☐	1.000		667569.27		P	2.0
6	☐	1.000		659489.47		P	0.6
7	☐	1.000		646521.73		P	0.6
8	☐	1.000		649827.74		P	0.9
9	☐	1.000		645611.28		P	0.2

89 Y (ISTD) [No Gas]

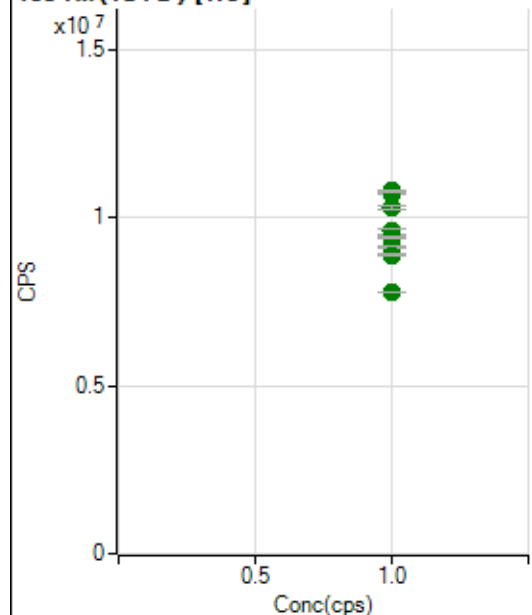
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		24002456.87		A	0.4
2	☐	1.000		23854237.15		A	0.5
3	☐	1.000		23897282.98		A	1.2
4	☐	1.000		23496826.87		A	0.2
5	☐	1.000		22777526.60		A	3.5
6	☐	1.000		21673398.57		A	0.2
7	☐	1.000		21524351.34		A	0.4
8	☐	1.000		21658149.95		A	0.3
9	☐	1.000		19632841.37		A	0.6

89 Y (ISTD) [He]

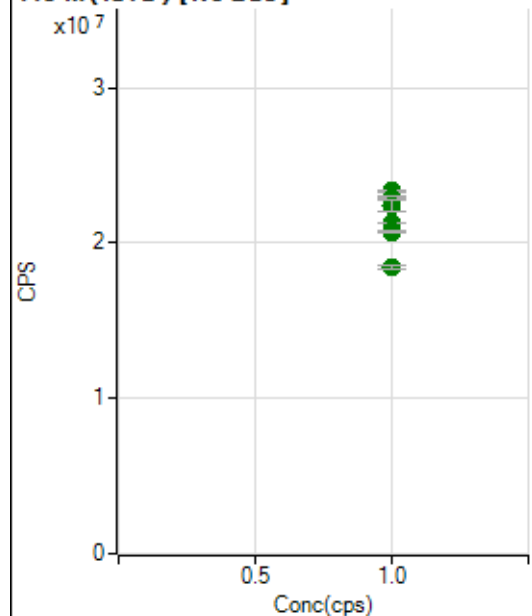
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3769973.90		P	0.5
2	☐	1.000		3831433.45		P	0.2
3	☐	1.000		3808422.79		P	0.5
4	☐	1.000		3685513.73		P	0.5
5	☐	1.000		3428040.19		P	1.9
6	☐	1.000		3401839.85		P	0.3
7	☐	1.000		3362114.98		P	0.2
8	☐	1.000		3339630.33		P	0.3
9	☐	1.000		3162075.58		P	0.2

103 Rh (ISTD) [No Gas]

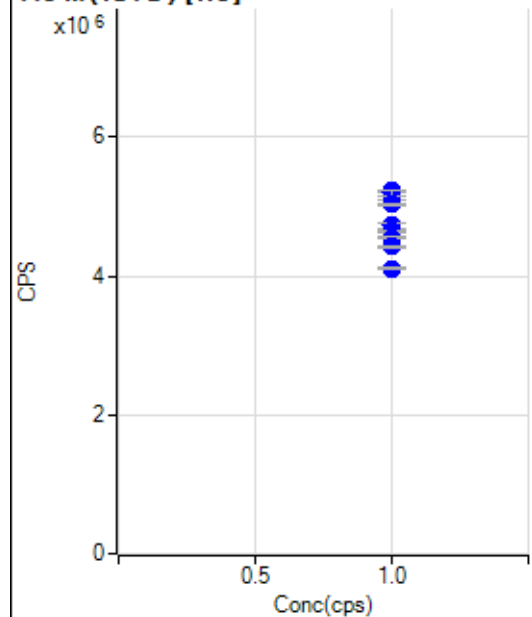
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		21582349.61		A	0.3
2	☐	1.000		21464723.22		A	1.0
3	☐	1.000		21747826.70		A	0.9
4	☐	1.000		20913989.70		A	0.5
5	☐	1.000		20171292.12		A	3.8
6	☐	1.000		18996382.89		A	0.5
7	☐	1.000		18441010.48		A	0.1
8	☐	1.000		18133032.52		A	0.7
9	☐	1.000		15476320.66		A	1.2

103 Rh (ISTD) [He]

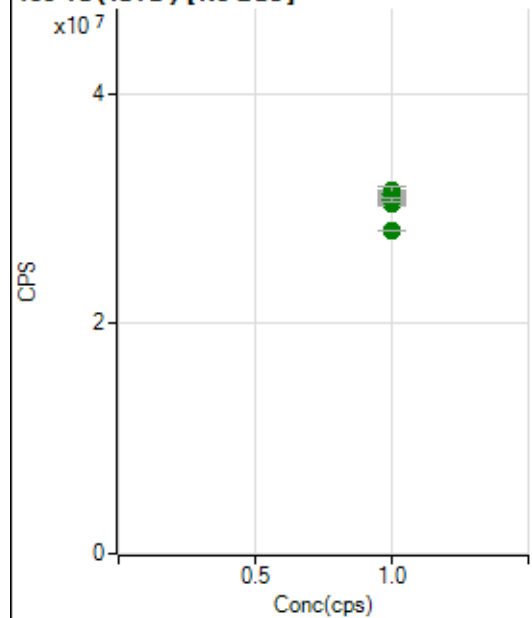
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10803524.28		A	0.4
2	☐	1.000		10728017.62		A	0.8
3	☐	1.000		10779385.95		A	0.7
4	☐	1.000		10306100.54		A	0.8
5	☐	1.000		9596275.55		A	2.0
6	☐	1.000		9399163.75		A	0.6
7	☐	1.000		9121539.66		A	0.7
8	☐	1.000		8902060.28		A	0.1
9	☐	1.000		7782326.55		A	0.3

115 In (ISTD) [No Gas]

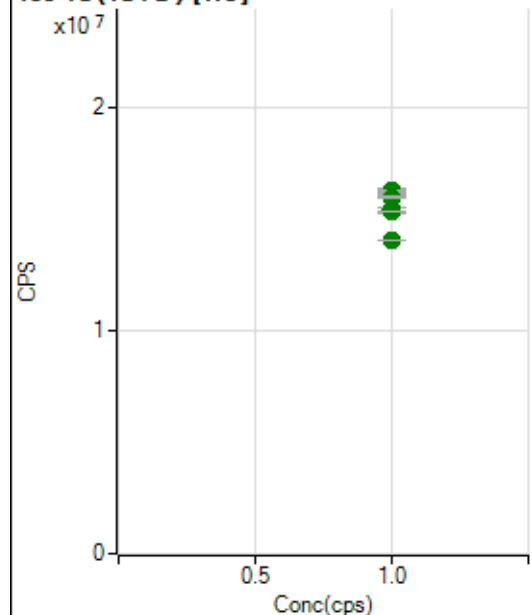
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		23324192.00		A	0.5
2	☐	1.000		23256941.29		A	0.1
3	☐	1.000		23355617.44		A	0.6
4	☐	1.000		22946205.89		A	0.7
5	☐	1.000		22386913.40		A	3.6
6	☐	1.000		21288290.85		A	0.3
7	☐	1.000		20771170.49		A	0.5
8	☐	1.000		20723077.18		A	0.5
9	☐	1.000		18435090.31		A	1.0

115 In (ISTD) [He]

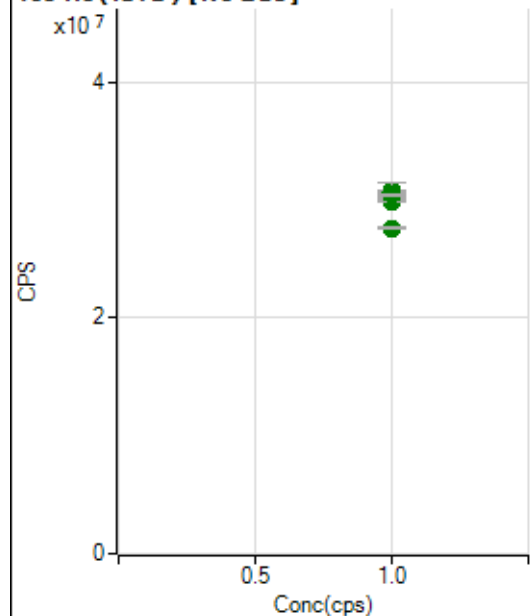
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5101218.28		P	0.1
2	☐	1.000		5225220.30		P	0.3
3	☐	1.000		5194137.48		P	1.3
4	☐	1.000		5028884.77		P	0.5
5	☐	1.000		4725423.09		P	1.5
6	☐	1.000		4648858.53		P	0.7
7	☐	1.000		4552143.64		P	0.2
8	☐	1.000		4419629.53		P	0.8
9	☐	1.000		4109387.08		P	0.5

159 Tb (ISTD) [No Gas]

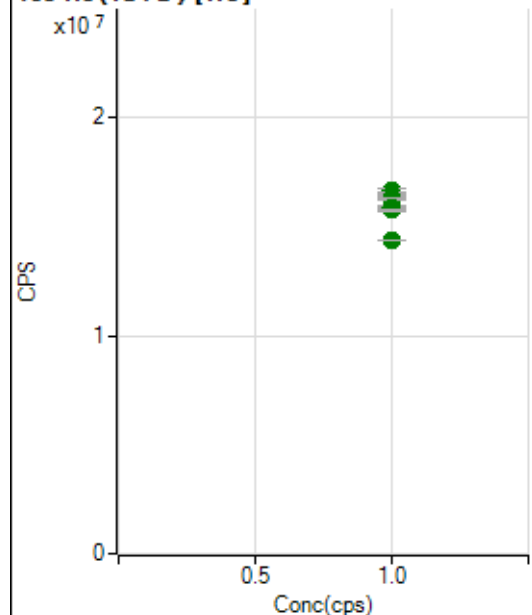
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		31251020.92		A	0.6
2	☐	1.000		31435709.53		A	0.3
3	☐	1.000		31507392.86		A	0.7
4	☐	1.000		31543448.70		A	0.1
5	☐	1.000		31324968.42		A	3.9
6	☐	1.000		30569393.16		A	0.4
7	☐	1.000		30350483.44		A	0.5
8	☐	1.000		30752838.99		A	0.9
9	☐	1.000		28087185.97		A	0.4

159 Tb (ISTD) [He]

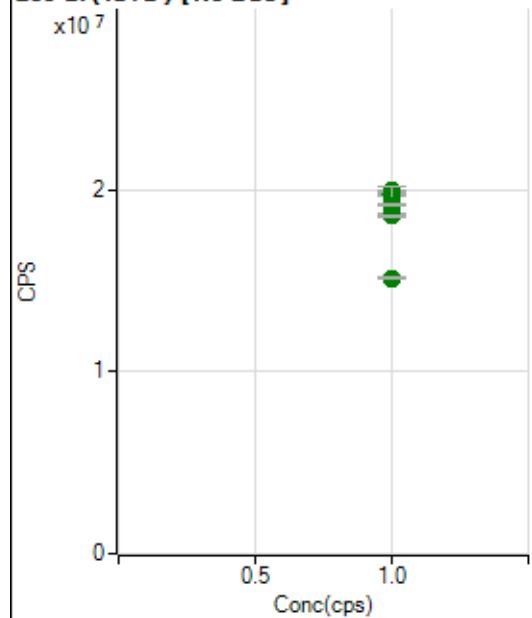
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16245540.45		A	1.0
2	☐	1.000		16100302.95		A	0.4
3	☐	1.000		16242899.06		A	0.5
4	☐	1.000		15972136.01		A	0.3
5	☐	1.000		15395678.24		A	1.7
6	☐	1.000		15442030.88		A	1.1
7	☐	1.000		15315247.97		A	0.1
8	☐	1.000		15319578.11		A	0.1
9	☐	1.000		14007361.87		A	0.2

165 Ho (ISTD) [No Gas]

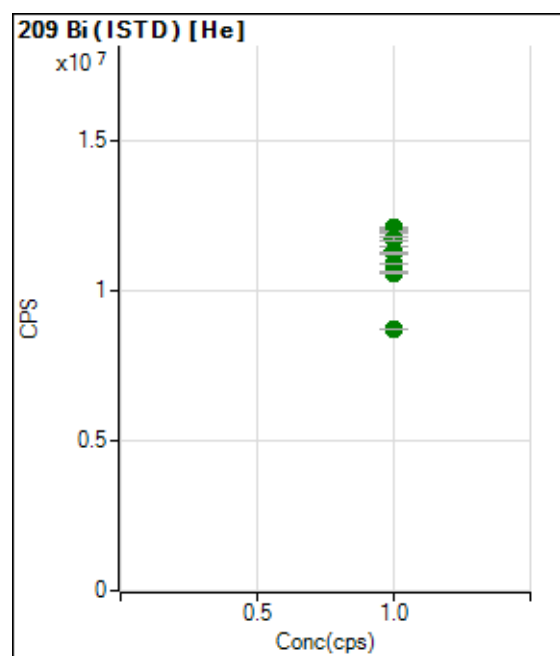
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		30589795.82		A	0.3
2	☐	1.000		30524952.42		A	0.3
3	☐	1.000		30800996.87		A	0.5
4	☐	1.000		30654962.84		A	0.2
5	☐	1.000		30754817.01		A	4.4
6	☐	1.000		30165150.33		A	0.1
7	☐	1.000		29856097.89		A	0.1
8	☐	1.000		30457318.73		A	0.4
9	☐	1.000		27617853.04		A	0.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16650301.70		A	0.9
2	☐	1.000		16439770.73		A	0.3
3	☐	1.000		16546911.56		A	0.3
4	☐	1.000		16290465.87		A	0.6
5	☐	1.000		15799028.24		A	1.5
6	☐	1.000		15871586.15		A	0.8
7	☐	1.000		15755824.49		A	0.4
8	☐	1.000		15759397.27		A	0.3
9	☐	1.000		14407743.67		A	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19755570.82		A	0.2
2	☐	1.000		19844711.09		A	0.4
3	☐	1.000		19932996.51		A	0.4
4	☐	1.000		19701959.57		A	0.4
5	☐	1.000		19709884.57		A	4.5
6	☐	1.000		19137074.02		A	0.6
7	☐	1.000		18621024.72		A	0.7
8	☐	1.000		18560399.72		A	0.2
9	☐	1.000		15147535.05		A	1.0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12089471.49		A	0.4
2	☐	1.000		11967659.82		A	0.1
3	☐	1.000		11978710.73		A	0.5
4	☐	1.000		11713098.72		A	0.9
5	☐	1.000		11346003.31		A	2.4
6	☐	1.000		11254268.79		A	0.6
7	☐	1.000		10900087.89		A	0.4
8	☐	1.000		10598454.84		A	0.2
9	☐	1.000		8724731.54		A	0.3

US EPA Tune Check Sample Report

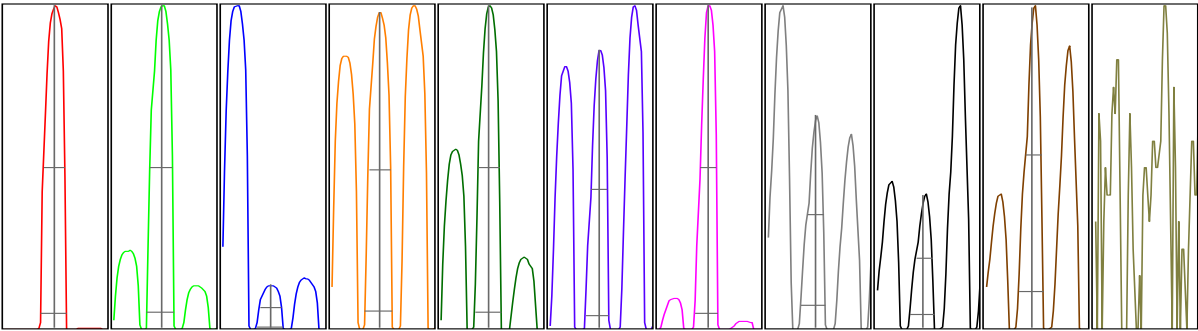
Batch Folder D:\ICP-MS Data\P7041919-IMS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	24332	0.20	5.00	
24	423363	0.48	5.00	
25	56802	0.49	5.00	
26	65992	0.24	5.00	
59	160486	0.31	5.00	
113	20578	0.64	5.00	
115	243058	0.54	5.00	
206	61280	0.46	5.00	
207	57622	0.28	5.00	
208	132941	0.67	5.00	
220	0	41.11		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	24409	24335	24289	24298	24331
24	424932	425589	420516	422464	423312
25	57195	56621	56538	56676	56979
26	66158	66051	65748	65944	66059
59	160523	160332	159740	161068	160769
113	20666	20764	20469	20515	20476
115	243285	245077	242899	241478	242552
206	61061	61636	60967	61237	61500
207	57471	57445	57790	57780	57622
208	132244	131861	133000	133622	133977
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	40266	9.00	8.9 - 9.1		0.741	0.900	
24	680782	23.95	23.9 - 24.1		0.786	0.900	
25	92707	24.95	24.9 - 25.1		0.781	0.900	
26	107216	25.95	25.9 - 26.1		0.785	0.900	
59	277755	58.95	58.9 - 59.1		0.776	0.900	
113	41635	113.00	112.9 - 113.1		0.682	0.900	
115	500568	115.00	114.9 - 115.1		0.671	0.900	
206	128201	205.95	205.9 - 206.1		0.701	0.900	
207	115204	206.90	206.9 - 207.1		0.702	0.900	
208	278620	207.90	207.9 - 208.1		0.708	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	8.5	V	Deflect	14.0	V
Extract 2	-115.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	190	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	41729	0.34	
89	149197	0.46	
205	55178	0.76	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	41600	41593	41763	41748	41940
89	148326	149284	148718	149996	149662
205	54628	54841	55430	55382	55607

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	9.0	V	Deflect	1.8	V
Extract 2	-135.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-60	V			

Cell Parameters

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