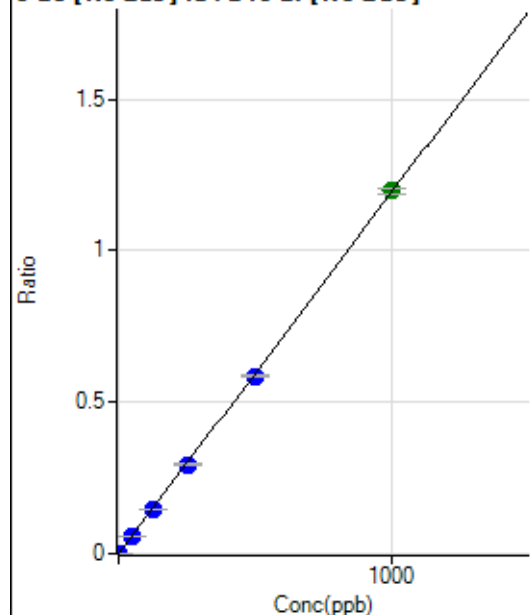


Batch Folder: D:\P8083117 MS.b\
Analysis File: P8083117 MS.batch.bin
DA Date-Time: 2017-08-31 23:57:12
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2017-08-31 11:53:52
2			
3	005CALS.d	S02	2017-08-31 12:04:07
4	006CALS.d	S03	2017-08-31 12:07:38
5	007CALS.d	S04	2017-08-31 12:11:05
6	008CALS.d	S05	2017-08-31 12:14:29
7	009CALS.d	S06	2017-08-31 12:17:47
8	010CALS.d	S07	2017-08-31 12:21:00
9	011CALS.d	S08	2017-08-31 12:24:10

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	114.82	0.0001	P	14.9
2	☐	0.100					
3	☐	1.000	0.927	1194.53	0.0012	P	7.7
4	☐	50.000	49.456	58762.64	0.0591	P	1.0
5	☐	125.000	124.207	147331.12	0.1481	P	1.4
6	☐	250.000	246.170	287191.09	0.2934	P	1.6
7	☐	500.000	492.299	557925.56	0.5867	P	1.1
8	☐	1000.000	1004.934	1123261.47	1.1976	A	1.7
9	☐			424.09	0.0005	P	18.2

$$y = 0.0012 * x + 1.2149E-004$$

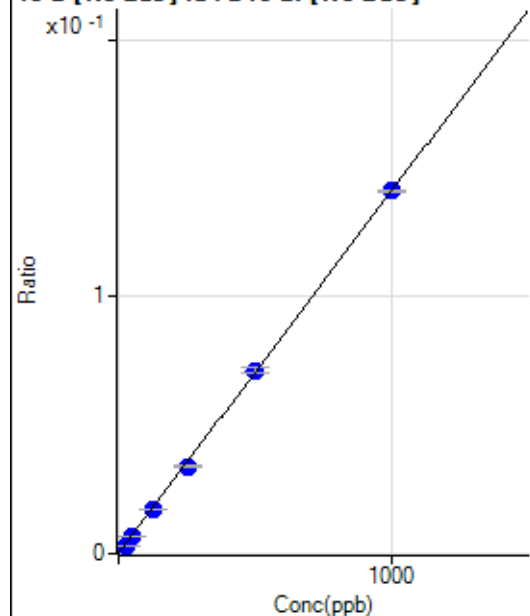
$$R = 0.9999$$

$$DL = 0.04564$$

$$BEC = 0.102$$

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	150.01	0.0002	P	32.8
2	☐	2.500					
3	☐	25.000	20.827	3011.57	0.0031	P	5.4
4	☐	50.000	46.961	6740.74	0.0068	P	3.0
5	☐	125.000	122.198	17280.41	0.0174	P	1.1
6	☐	250.000	239.957	33236.70	0.0340	P	2.5
7	☐	500.000	505.572	67883.73	0.0714	P	2.3
8	☐	1000.000	1000.331	132341.96	0.1411	P	0.5
9	☐			4739.87	0.0053	P	3.2

$$y = 1.4088E-004 * x + 1.5836E-004$$

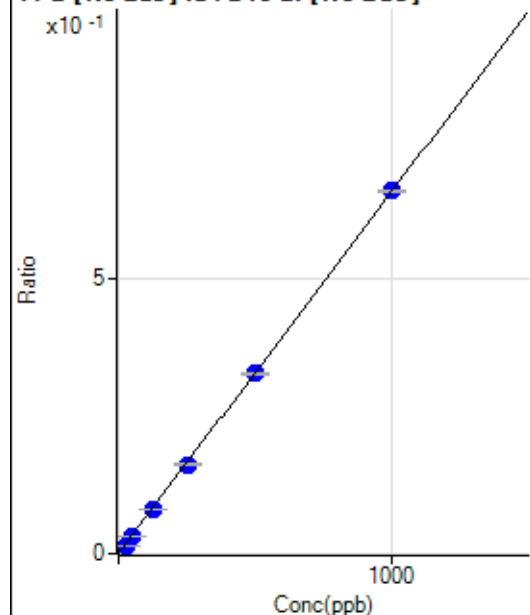
$$R = 0.9999$$

$$DL = 1.107$$

$$BEC = 1.124$$

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	722.27	0.0008	P	9.2
2	☐	2.500					
3	☐	25.000	20.579	13862.79	0.0142	P	4.4
4	☐	50.000	47.559	31752.90	0.0319	P	4.3
5	☐	125.000	120.430	79221.17	0.0796	P	1.3
6	☐	250.000	244.835	157696.32	0.1611	P	1.3
7	☐	500.000	497.744	310762.25	0.3268	P	0.5
8	☐	1000.000	1003.223	617085.44	0.6579	P	0.8
9	☐			21792.21	0.0243	P	5.0

$$y = 6.5499\text{E-}004 * x + 7.6338\text{E-}004$$

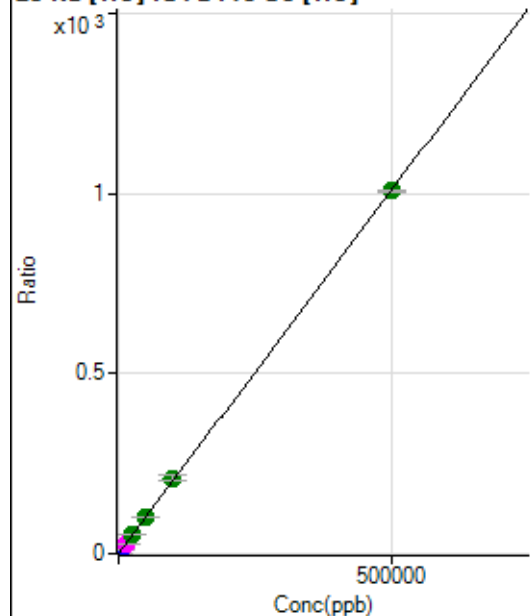
$$R = 1.0000$$

$$DL = 0.3206$$

$$BEC = 1.165$$

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	3575.61	0.0911	P	6.5
2	☐	50.000					
3	☐	500.000	456.129	40283.10	1.0119	P	2.6
4	☐	5000.000	5041.897	417168.75	10.2695	P	1.2
5	☐	12500.000	13033.740	1044788.16	26.4031	M	1.7
6	☐	25000.000	25203.308	2063565.41	50.9705	A	0.9
7	☐	50000.000	50101.009	3917366.06	101.2329	A	1.0
8	☐	100000.00	104343.96	7689119.35	210.7363	A	8.4
9	☐	500000.00	499097.22	37246786.94	1,007.647	A	0.2

$$y = 0.0020 * x + 0.0911$$

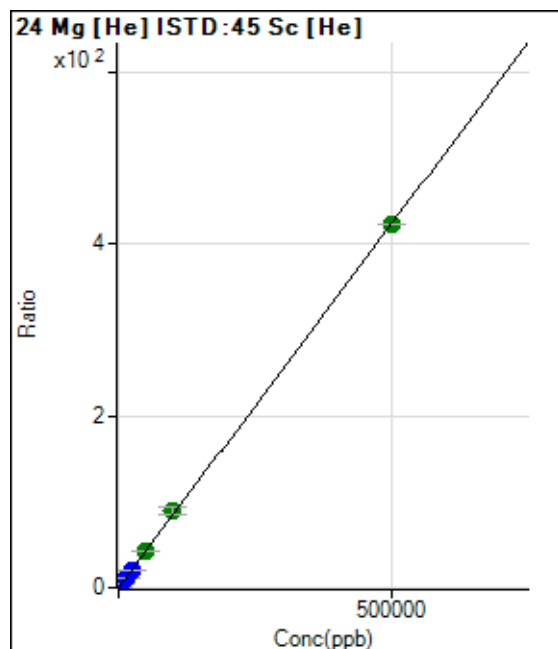
$$R = 1.0000$$

$$DL = 8.744$$

$$BEC = 45.13$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125.01	0.0032	P	30.7
2	☐	50.000					
3	☐	500.000	438.377	14888.91	0.3740	P	1.7
4	☐	5000.000	5051.108	173695.55	4.2758	P	1.2
5	☐	12500.000	12853.886	430341.20	10.8760	P	1.6
6	☐	25000.000	24769.572	848405.50	20.9552	P	0.5
7	☐	50000.000	51178.910	1675345.17	43.2943	A	0.7
8	☐	100000.00	105736.82	3264090.96	89.4437	A	8.0
9	☐	500000.00	498736.96	15594250.70	421.8740	A	0.1

$$y = 8.4588\text{E-}004 * x + 0.0032$$

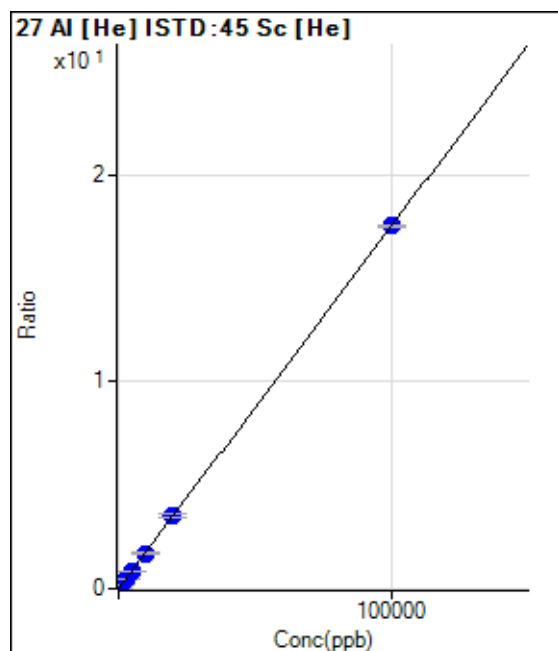
$$R = 0.9999$$

$$DL = 3.469$$

$$BEC = 3.767$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0004	P	49.7
2	☐	2.000					
3	☐	20.000	21.471	166.68	0.0042	P	38.1
4	☐	1000.000	1019.837	7282.69	0.1793	P	1.8
5	☐	2500.000	2509.053	17425.27	0.4404	P	2.8
6	☐	5000.000	4764.686	33846.78	0.8360	P	0.3
7	☐	10000.000	9757.681	66230.36	1.7116	P	1.4
8	☐	20000.000	20148.041	128990.76	3.5338	P	7.6
9	☐	100000.00	100005.96	648296.58	17.5386	P	0.5

$$y = 1.7537\text{E-}004 * x + 4.2429\text{E-}004$$

$$R = 1.0000$$

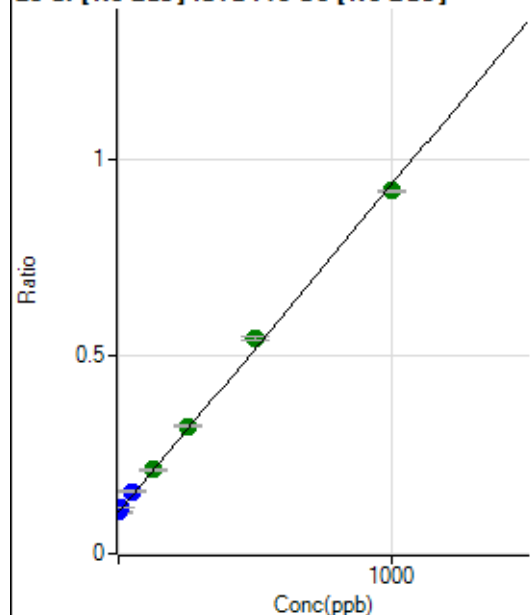
$$DL = 3.606$$

$$BEC = 2.419$$

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	418515.59	0.1047	P	1.3
2	☐	1.000					
3	☐	10.000	14.179	473507.74	0.1164	P	1.5
4	☐	50.000	64.082	656160.25	0.1578	P	1.2
5	☐	125.000	130.589	892378.24	0.2130	A	2.0
6	☐	250.000	262.330	1336018.63	0.3222	A	1.1
7	☐	500.000	528.998	2196343.08	0.5433	A	1.6
8	☐	1000.000	980.974	3624084.06	0.9181	A	0.8
9	☐			436320.05	0.1128	P	2.2

$$y = 8.2924\text{E-}004 * x + 0.1047$$

$$R = 0.9993$$

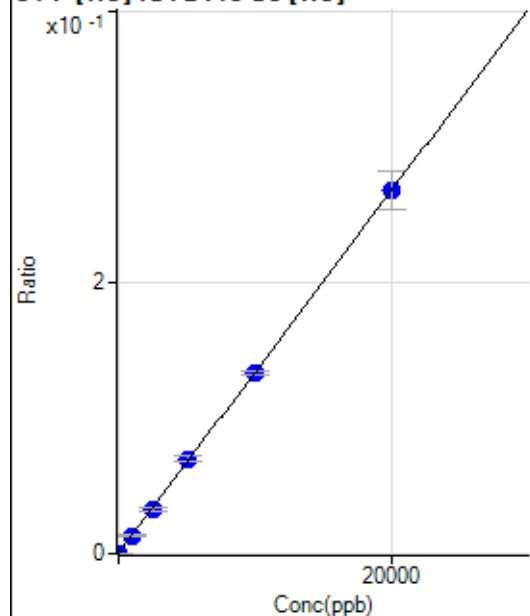
$$DL = 5.054$$

$$BEC = 126.2$$

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	0.092	8.33	0.0002	P	0.5
2	☐	0.000					
3	☐	0.000	-0.092	8.33	0.0002	P	100.2
4	☐	1000.000	990.210	547.26	0.0135	P	7.6
5	☐	2500.000	2430.889	1297.34	0.0328	P	9.8
6	☐	5000.000	5223.642	2842.08	0.0702	P	7.5
7	☐	10000.000	9942.309	5162.28	0.1334	P	1.4
8	☐	20000.000	19982.063	9764.89	0.2679	P	10.7
9	☐			5.55	0.0002	P	86.6

$$y = 1.3396\text{E-}005 * x + 2.1103\text{E-}004$$

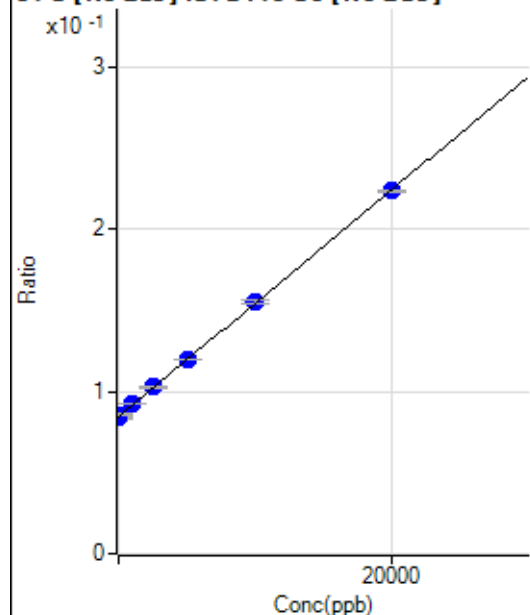
$$R = 0.9999$$

$$DL = 23.65$$

$$BEC = 15.75$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-127.493	335054.91	0.0838	P	0.8
2	☐	0.000					
3	☐	0.000	127.493	348013.30	0.0856	P	1.5
4	☐	1000.000	1155.111	385707.35	0.0928	P	0.3
5	☐	2500.000	2607.910	431247.02	0.1029	P	1.6
6	☐	5000.000	5068.780	498051.96	0.1201	P	0.2
7	☐	10000.000	10108.675	627906.88	0.1553	P	0.9
8	☐	20000.000	19907.223	883390.42	0.2238	P	0.6
9	☐			349043.85	0.0902	P	0.7

$$y = 6.9878\text{E-}006 * x + 0.0847$$

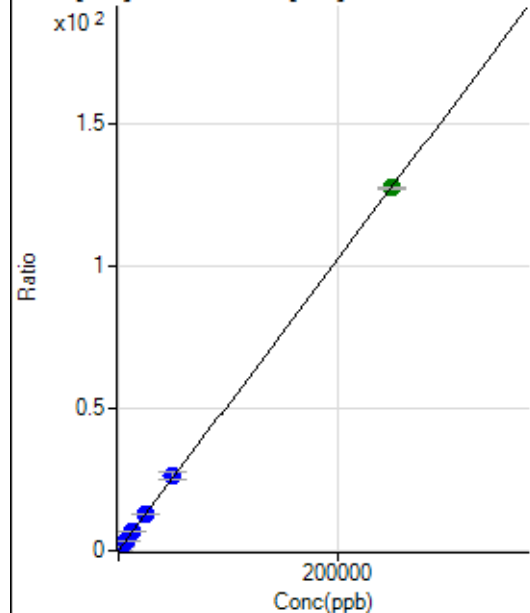
$$R = 0.9999$$

$$DL = 415.1$$

$$BEC = 1.212\text{E}+04$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3322.76	0.0847	P	2.7
2	☐	50.000					
3	☐	500.000	475.742	13039.80	0.3275	P	1.5
4	☐	2500.000	2596.816	57295.10	1.4104	P	1.1
5	☐	6250.000	6640.715	137490.49	3.4750	P	2.2
6	☐	12500.000	12712.792	266195.46	6.5750	P	1.0
7	☐	25000.000	25067.852	498515.67	12.8827	P	0.8
8	☐	50000.000	51463.426	961878.59	26.3586	P	8.1
9	☐	250000.00	249679.20	4714945.81	127.5551	A	0.2

$$y = 5.1054\text{E-}004 * x + 0.0847$$

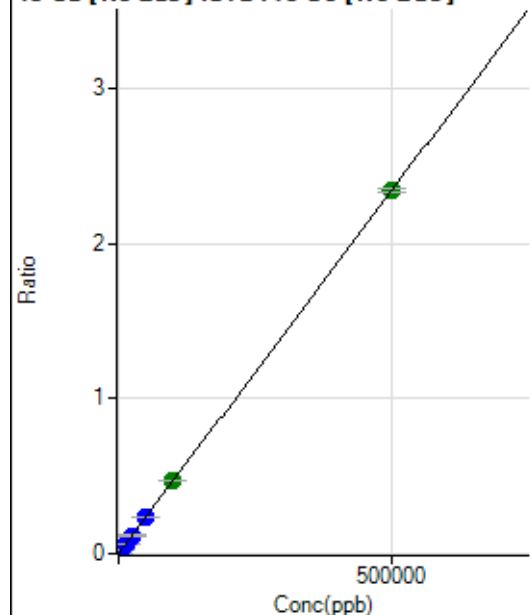
$$R = 1.0000$$

$$DL = 13.38$$

$$BEC = 165.8$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1916.89	0.0005	P	6.5
2	☐	50.000					
3	☐	500.000	441.827	10359.89	0.0025	P	2.9
4	☐	5000.000	5011.723	99519.25	0.0239	P	0.6
5	☐	12500.000	12584.083	248809.10	0.0594	P	0.7
6	☐	25000.000	24994.359	487016.12	0.1174	P	0.7
7	☐	50000.000	49376.770	936095.34	0.2316	P	0.3
8	☐	100000.00	100380.13	1856179.49	0.4702	A	1.3
9	☐	500000.00	499984.41	9054914.26	2.3403	A	1.0

$$y = 4.6799\text{E-}006 * x + 4.7942\text{E-}004$$

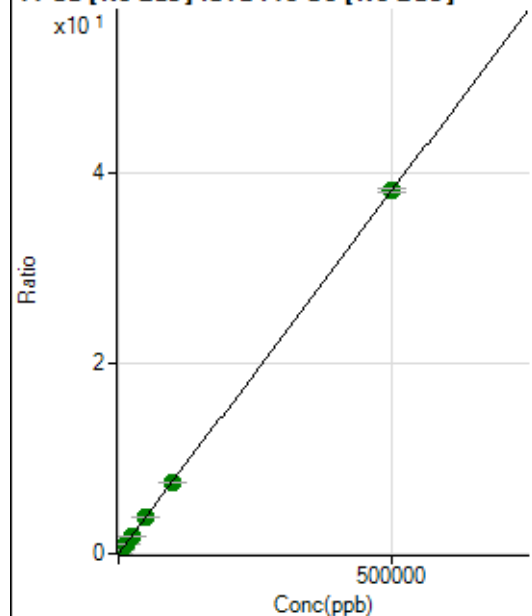
$$R = 1.0000$$

$$DL = 20.02$$

$$BEC = 102.4$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34679.93	0.0087	P	1.3
2	☐	50.000					
3	☐	500.000	443.715	172435.92	0.0424	P	0.5
4	☐	5000.000	5097.662	1647278.14	0.3962	A	1.0
5	☐	12500.000	12559.181	4036950.40	0.9634	A	1.3
6	☐	25000.000	24937.494	7896248.70	1.9043	A	1.1
7	☐	50000.000	49257.680	15172236.28	3.7530	A	0.3
8	☐	100000.00	98200.492	29499496.15	7.4734	A	0.2
9	☐	500000.00	500434.85	147214094.9	38.0493	A	1.1

$$y = 7.6015\text{E-}005 * x + 0.0087$$

$$R = 1.0000$$

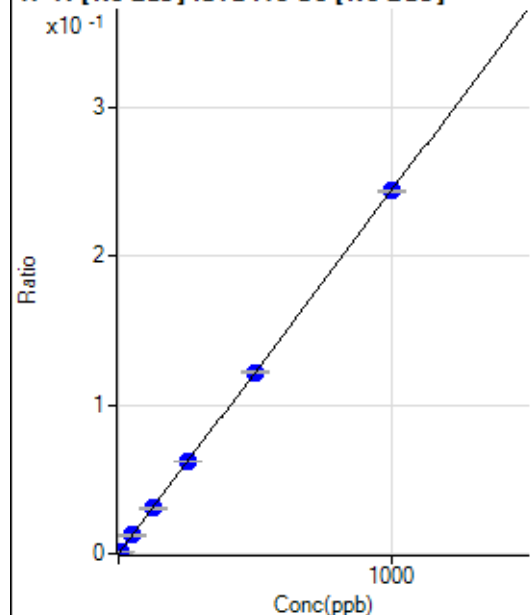
$$DL = 4.478$$

$$BEC = 114.1$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	125.01	0.0000	P	22.9
2	☐	0.500					
3	☐	5.000	4.505	4600.97	0.0011	P	4.4
4	☐	50.000	50.586	51495.70	0.0124	P	2.2
5	☐	125.000	125.686	128731.48	0.0307	P	2.4
6	☐	250.000	253.002	256311.43	0.0618	P	0.5
7	☐	500.000	500.081	493764.12	0.1221	P	1.6
8	☐	1000.000	999.096	963141.81	0.2440	P	0.5
9	☐			725.05	0.0002	P	17.1

$$y = 2.4419\text{E-}004 * x + 3.1255\text{E-}005$$

$$R = 1.0000$$

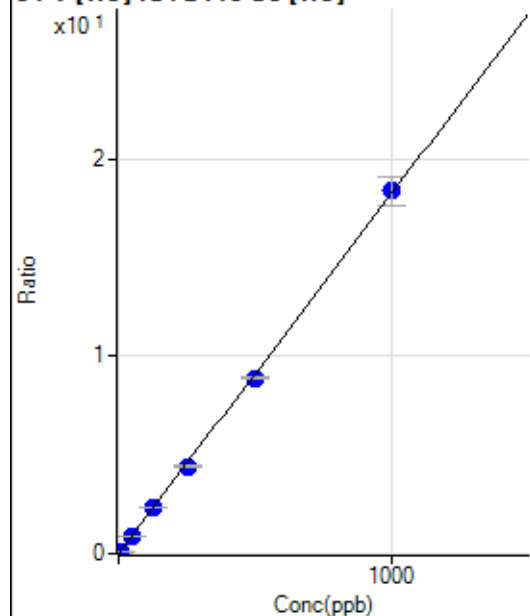
$$DL = 0.08779$$

$$BEC = 0.128$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	10.00	0.0003	P	57.8
2	☐	0.500					
3	☐	5.000	4.473	3261.56	0.0819	P	4.4
4	☐	50.000	49.019	36367.21	0.8953	P	1.7
5	☐	125.000	127.643	92225.59	2.3308	P	1.7
6	☐	250.000	242.715	179431.89	4.4319	P	0.4
7	☐	500.000	487.351	344348.56	8.8986	P	0.6
8	☐	1000.000	1007.867	671562.78	18.4025	P	8.0
9	☐			182.23	0.0049	P	5.9

$$y = 0.0183 * x + 2.5494\text{E-}004$$

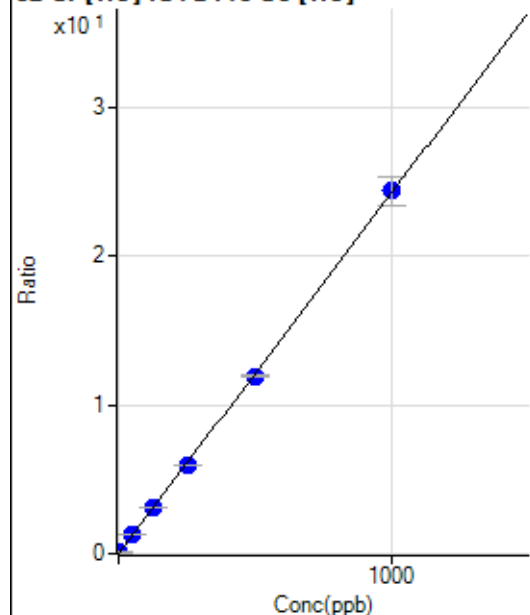
$$R = 0.9998$$

$$DL = 0.0242$$

$$BEC = 0.01396$$

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	762.26	0.0194	P	4.8
2	☐	0.200					
3	☐	2.000	1.902	2608.07	0.0655	P	3.4
4	☐	50.000	50.296	50293.53	1.2381	P	0.9
5	☐	125.000	127.924	123418.37	3.1190	P	1.1
6	☐	250.000	244.566	240697.59	5.9451	P	0.5
7	☐	500.000	490.833	460938.38	11.9120	P	1.1
8	☐	1000.000	1005.562	889763.68	24.3836	P	8.2
9	☐			3782.81	0.1023	P	4.1

$$y = 0.0242 * x + 0.0194$$

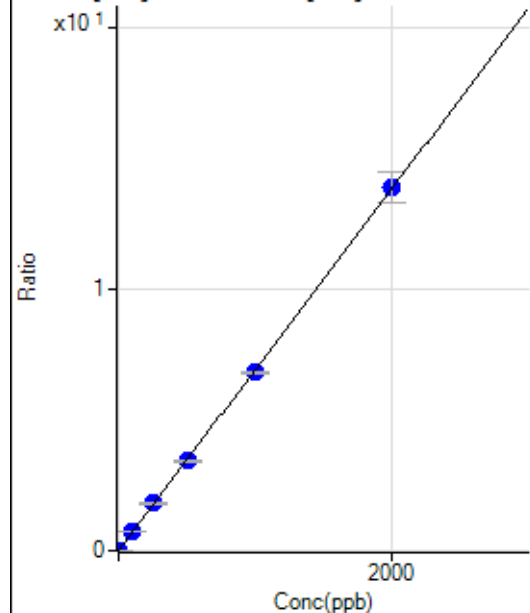
$$R = 0.9999$$

$$DL = 0.1146$$

$$BEC = 0.8016$$

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	87.78	0.0022	P	5.3
2	☐	0.100					
3	☐	1.000	0.822	315.56	0.0079	P	11.9
4	☐	100.000	101.792	28703.04	0.7065	P	1.1
5	☐	250.000	260.989	71539.83	1.8080	P	1.4
6	☐	500.000	495.079	138771.00	3.4276	P	0.3
7	☐	1000.000	985.052	263816.43	6.8177	P	0.9
8	☐	2000.000	2007.241	506806.22	13.8901	P	8.4
9	☐			1311.19	0.0355	P	4.1

$$y = 0.0069 * x + 0.0022$$

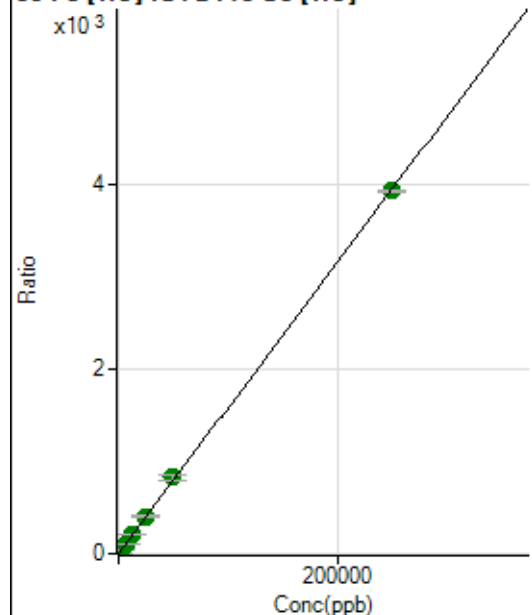
$$R = 0.9999$$

$$DL = 0.05169$$

$$BEC = 0.3232$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2061.33	0.0525	P	5.5
2	☐	5.000					
3	☐	50.000	47.046	31562.18	0.7928	P	0.7
4	☐	2500.000	2686.502	1719307.84	42.3245	A	1.1
5	☐	6250.000	6779.110	4222859.56	106.7214	A	1.3
6	☐	12500.000	12798.103	8154993.41	201.4299	A	0.8
7	☐	25000.000	25718.315	15660501.74	404.7287	A	1.6
8	☐	50000.000	52534.882	30166890.95	826.6859	A	8.1
9	☐	250000.00	249391.19	145053879.1	3,924.208	A	0.4

$$y = 0.0157 * x + 0.0525$$

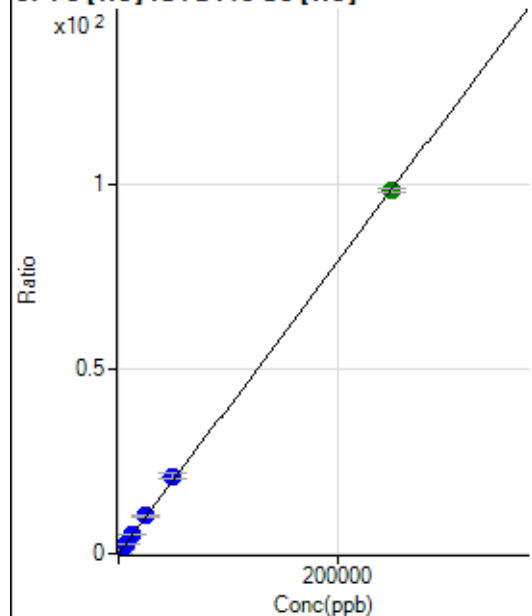
$$R = 0.9999$$

$$DL = 0.5514$$

$$BEC = 3.338$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	48.15	0.0012	P	40.9
2	☐	5.000					
3	☐	50.000	45.623	766.71	0.0193	P	5.6
4	☐	2500.000	2637.321	42387.23	1.0434	P	0.9
5	☐	6250.000	6696.928	104764.92	2.6477	P	1.4
6	☐	12500.000	12991.937	207903.47	5.1353	P	0.8
7	☐	25000.000	25877.966	395750.09	10.2274	P	1.2
8	☐	50000.000	53074.361	765515.84	20.9746	P	7.8
9	☐	250000.00	249260.18	3640948.78	98.5014	A	0.9

$$y = 3.9517E-004 * x + 0.0012$$

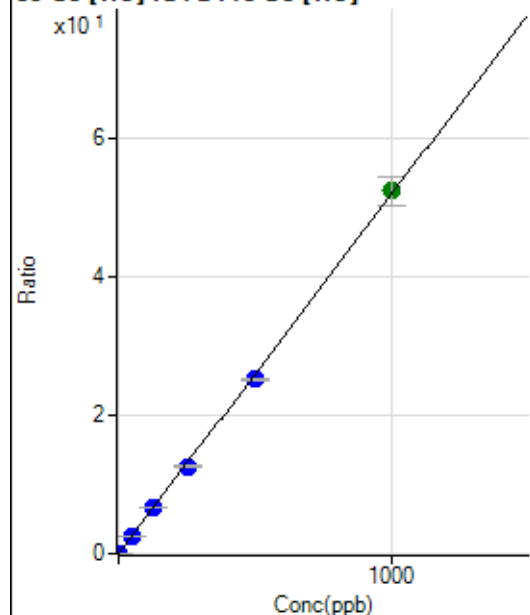
$$R = 0.9999$$

$$DL = 3.815$$

$$BEC = 3.109$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71.11	0.0018	P	18.1
2	☐	0.100					
3	☐	1.000	0.919	1969.07	0.0495	P	5.5
4	☐	50.000	49.671	104720.66	2.5779	P	0.7
5	☐	125.000	127.141	260980.94	6.5957	P	1.5
6	☐	250.000	242.784	509850.49	12.5933	P	0.5
7	☐	500.000	485.303	974038.09	25.1710	P	0.7
8	☐	1000.000	1008.901	1909682.09	52.3262	A	7.9
9	☐			2313.57	0.0626	P	3.4

$$y = 0.0519 * x + 0.0018$$

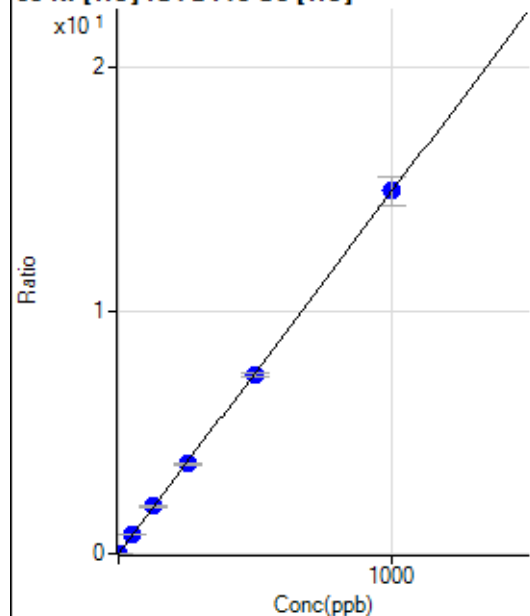
$$R = 0.9998$$

$$DL = 0.01903$$

$$BEC = 0.03496$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0036	P	8.2
2	☐	0.100					
3	☐	1.000	1.024	748.92	0.0188	P	8.1
4	☐	50.000	51.075	31016.93	0.7635	P	0.9
5	☐	125.000	130.546	76991.27	1.9460	P	2.5
6	☐	250.000	247.233	149076.33	3.6822	P	0.8
7	☐	500.000	494.359	284756.59	7.3592	P	1.5
8	☐	1000.000	1002.765	544631.11	14.9239	P	8.0
9	☐			1406.77	0.0381	P	11.7

$$y = 0.0149 * x + 0.0036$$

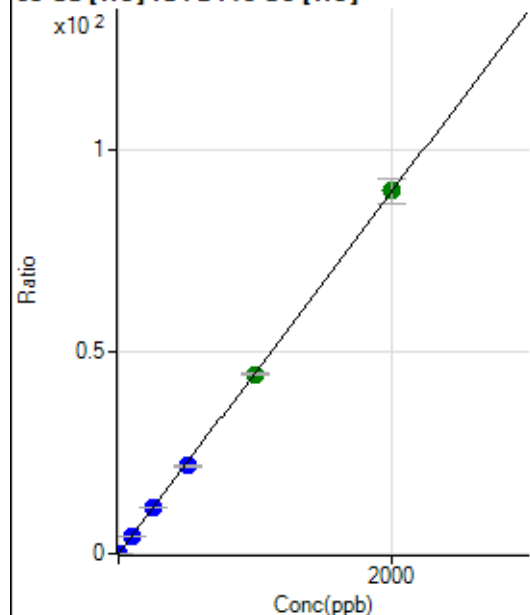
$$R = 1.0000$$

$$DL = 0.05912$$

$$BEC = 0.2397$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	248.90	0.0063	P	6.6
2	☐	0.200					
3	☐	2.000	2.035	3878.39	0.0974	P	0.9
4	☐	100.000	100.228	182485.89	4.4922	P	1.0
5	☐	250.000	254.739	451362.92	11.4076	P	1.9
6	☐	500.000	484.224	877676.60	21.6786	P	0.3
7	☐	1000.000	993.376	1720588.45	44.4665	A	1.4
8	☐	2000.000	2006.652	3279228.91	89.8173	A	7.1
9	☐			4873.16	0.1318	P	3.0

$$y = 0.0448 * x + 0.0063$$

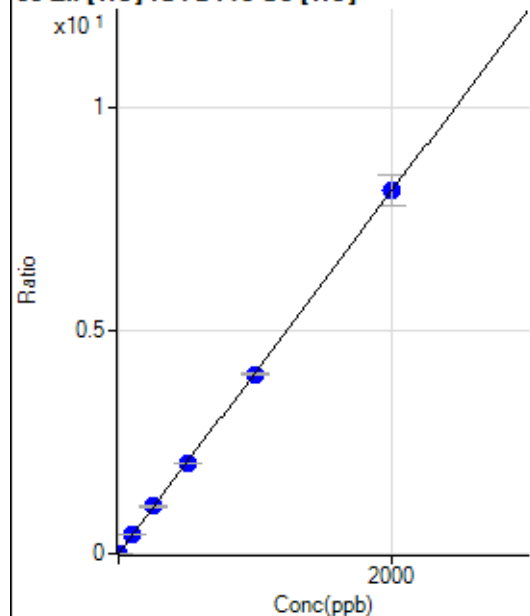
$$R = 0.9999$$

$$DL = 0.02819$$

$$BEC = 0.1417$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	32.22	0.0008	P	33.5
2	☐	0.200					
3	☐	2.000	1.756	316.68	0.0080	P	5.7
4	☐	100.000	104.327	17250.91	0.4246	P	0.4
5	☐	250.000	262.347	42200.87	1.0666	P	2.2
6	☐	500.000	502.007	82599.39	2.0402	P	0.7
7	☐	1000.000	991.725	155933.36	4.0297	P	1.0
8	☐	2000.000	2001.876	296742.11	8.1334	P	8.5
9	☐			974.49	0.0264	P	1.9

$$y = 0.0041 * x + 8.2178E-004$$

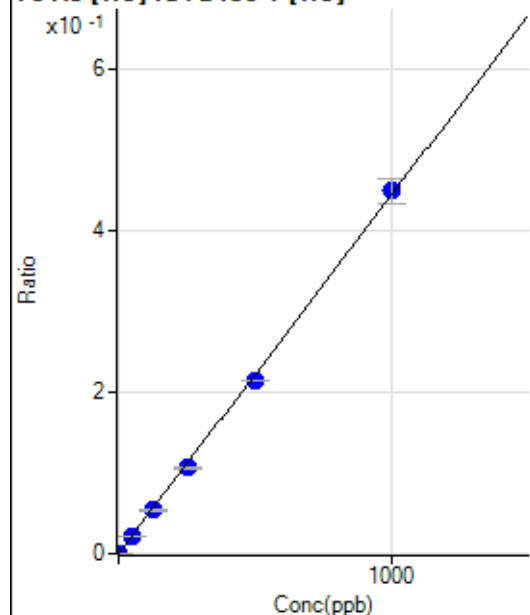
$$R = 1.0000$$

$$DL = 0.2035$$

$$BEC = 0.2023$$

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	6.79	0.0000	P	41.2
2	☐	0.100					
3	☐	1.000	0.869	116.67	0.0004	P	7.4
4	☐	50.000	48.289	6210.71	0.0215	P	0.3
5	☐	125.000	121.868	15406.18	0.0542	P	3.8
6	☐	250.000	239.518	30361.12	0.1065	P	1.1
7	☐	500.000	483.655	58076.22	0.2151	P	0.5
8	☐	1000.000	1011.270	111692.39	0.4497	P	6.8
9	☐			41.36	0.0002	P	13.0

$$y = 4.4462E-004 * x + 2.4186E-005$$

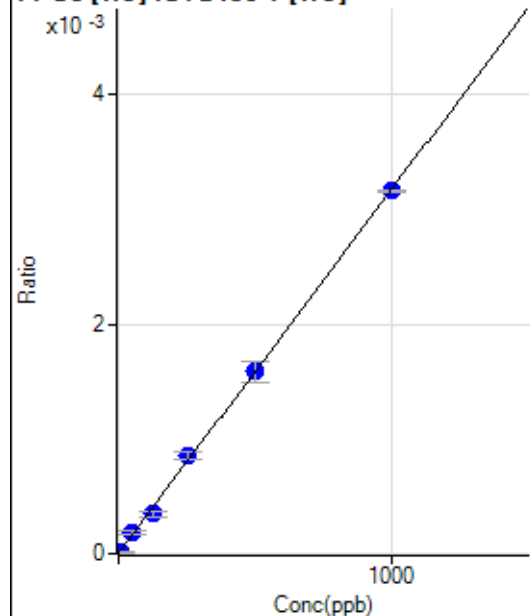
$$R = 0.9997$$

$$DL = 0.06723$$

$$BEC = 0.0544$$

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	1.11	0.0000	P	173.2
2	☐	0.500					
3	☐	5.000	2.480	3.33	0.0000	P	99.9
4	☐	50.000	57.059	53.33	0.0002	P	16.5
5	☐	125.000	108.283	98.89	0.0003	P	14.1
6	☐	250.000	270.857	245.56	0.0009	P	7.6
7	☐	500.000	500.282	428.90	0.0016	P	11.7
8	☐	1000.000	996.394	786.70	0.0032	P	0.5
9	☐			0.00	0.0000	P	

$$y = 3.1661E-006 * x + 3.9232E-006$$

$$R = 0.9995$$

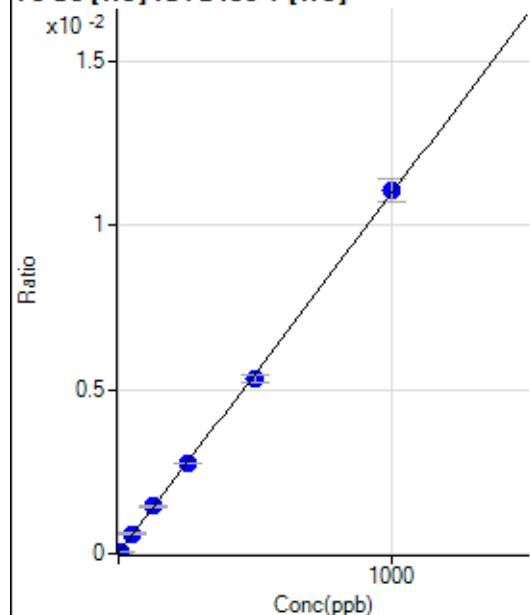
$$DL = 6.439$$

$$BEC = 1.239$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3.71	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	4.339	17.28	0.0001	P	24.9
4	☐	50.000	54.532	176.55	0.0006	P	2.9
5	☐	125.000	130.738	411.12	0.0014	P	6.3
6	☐	250.000	250.290	785.83	0.0028	P	0.5
7	☐	500.000	483.639	1435.27	0.0053	P	4.9
8	☐	1000.000	1007.167	2746.60	0.0111	P	6.4
9	☐			6.17	0.0000	P	69.4

$$y = 1.0962\text{E-}005 * x + 1.3283\text{E-}005$$

$$R = 0.9998$$

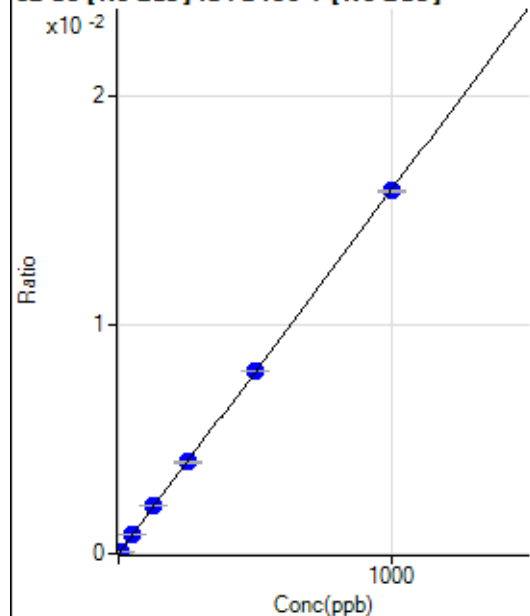
$$DL = 3.148$$

$$BEC = 1.212$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	-28.36	0.0000	P	-117.
2	☐	0.500					
3	☐	5.000	4.912	573.36	0.0001	P	6.2
4	☐	50.000	52.447	6561.35	0.0008	P	1.5
5	☐	125.000	130.198	16426.16	0.0021	P	0.9
6	☐	250.000	252.461	32089.60	0.0040	P	1.2
7	☐	500.000	502.226	62473.31	0.0080	P	0.6
8	☐	1000.000	997.500	121017.71	0.0159	P	0.6
9	☐			118.15	0.0000	P	83.3

$$y = 1.5929\text{E-}005 * x - 3.7479\text{E-}006$$

$$R = 1.0000$$

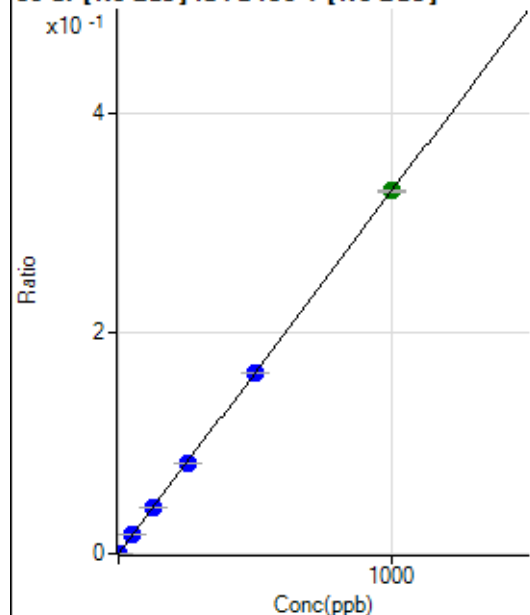
$$DL = 0.8273$$

$$BEC = -0.2353$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	944.52	0.0001	P	7.8
2	☐	0.100					
3	☐	1.000	0.851	3108.82	0.0004	P	1.8
4	☐	50.000	51.124	133573.05	0.0169	P	0.1
5	☐	125.000	126.533	331064.38	0.0417	P	0.4
6	☐	250.000	249.525	656210.16	0.0822	P	0.3
7	☐	500.000	497.646	1279194.33	0.1637	P	0.5
8	☐	1000.000	1001.048	2508069.39	0.3292	A	0.5
9	☐			84592.07	0.0113	P	1.2

$$y = 3.2875\text{E-}004 * x + 1.2431\text{E-}004$$

$$R = 1.0000$$

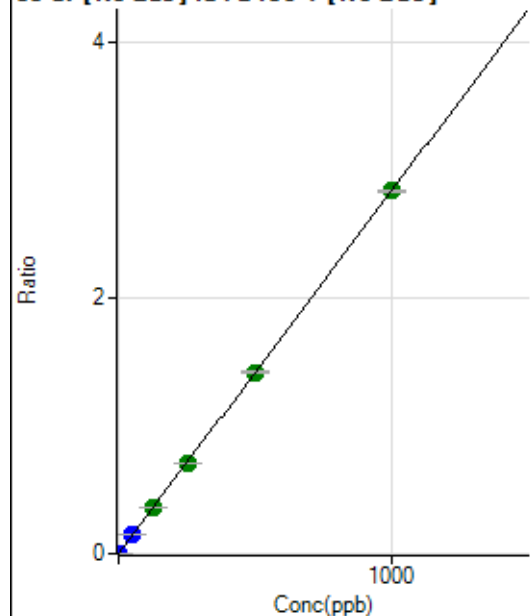
$$DL = 0.08889$$

$$BEC = 0.3781$$

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	316.69	0.0000	P	15.4
2	☐	0.100					
3	☐	1.000	0.912	20224.19	0.0026	P	1.9
4	☐	50.000	51.150	1144910.33	0.1451	P	0.3
5	☐	125.000	128.408	2890449.13	0.3643	A	0.4
6	☐	250.000	249.763	5658887.54	0.7085	A	0.2
7	☐	500.000	498.768	11053441.74	1.4148	A	1.2
8	☐	1000.000	1000.192	21613396.84	2.8370	A	0.6
9	☐			728433.66	0.0975	P	0.1

$$y = 0.0028 * x + 4.1644\text{E-}005$$

$$R = 1.0000$$

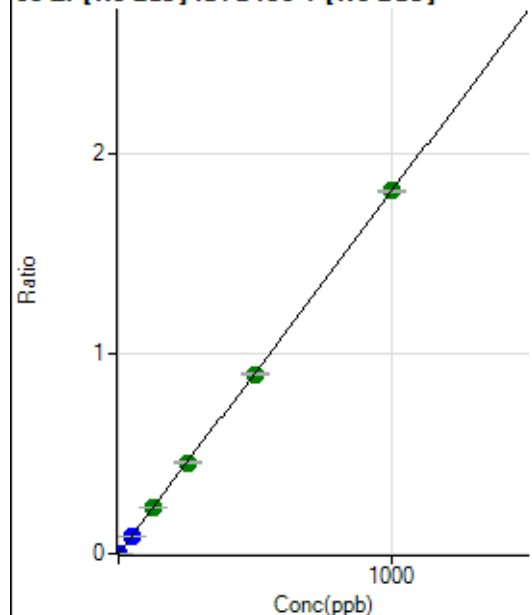
$$DL = 0.006804$$

$$BEC = 0.01468$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	427.80	0.0001	P	4.8
2	☐	0.100					
3	☐	1.000	0.847	12222.66	0.0016	P	2.5
4	☐	50.000	49.751	710471.59	0.0901	P	0.2
5	☐	125.000	127.503	1830673.22	0.2307	A	0.9
6	☐	250.000	251.568	3635424.47	0.4551	A	0.5
7	☐	500.000	495.887	7009365.35	0.8971	A	0.3
8	☐	1000.000	1001.364	13801110.72	1.8115	A	0.5
9	☐			2728.17	0.0004	P	1.6

$$y = 0.0018 * x + 5.6291E-005$$

$$R = 1.0000$$

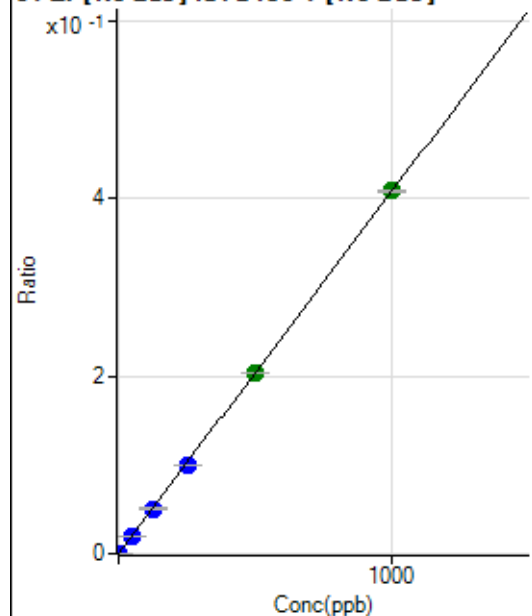
$$DL = 0.004459$$

$$BEC = 0.03112$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0000	P	30.7
2	☐	0.100					
3	☐	1.000	0.888	2867.09	0.0004	P	4.5
4	☐	50.000	49.201	158338.26	0.0201	P	0.9
5	☐	125.000	124.601	403169.01	0.0508	P	0.4
6	☐	250.000	244.615	796661.96	0.0997	P	0.5
7	☐	500.000	498.228	1587159.04	0.2031	A	0.4
8	☐	1000.000	1002.322	3113248.31	0.4087	A	0.5
9	☐			558.37	0.0001	P	7.8

$$y = 4.0770E-004 * x + 1.0616E-005$$

$$R = 1.0000$$

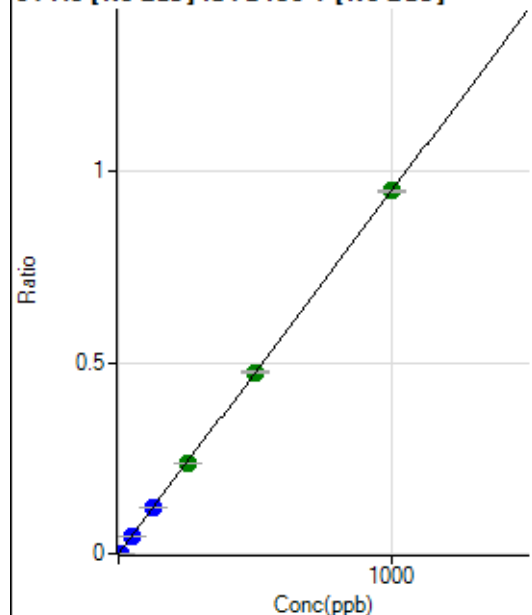
$$DL = 0.02394$$

$$BEC = 0.02604$$

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	169.45	0.0000	P	9.9
2	☐	0.500					
3	☐	5.000	1.960	14491.64	0.0019	P	1.5
4	☐	50.000	49.546	371259.76	0.0471	P	0.8
5	☐	125.000	124.814	940437.29	0.1185	P	0.3
6	☐	250.000	249.701	1893643.42	0.2371	A	1.0
7	☐	500.000	499.712	3706794.57	0.4744	A	0.9
8	☐	1000.000	1000.280	7234870.91	0.9497	A	0.3
9	☐			3450.59	0.0005	P	3.6

$$y = 9.4938\text{E-}004 * x + 2.2293\text{E-}005$$

$$R = 1.0000$$

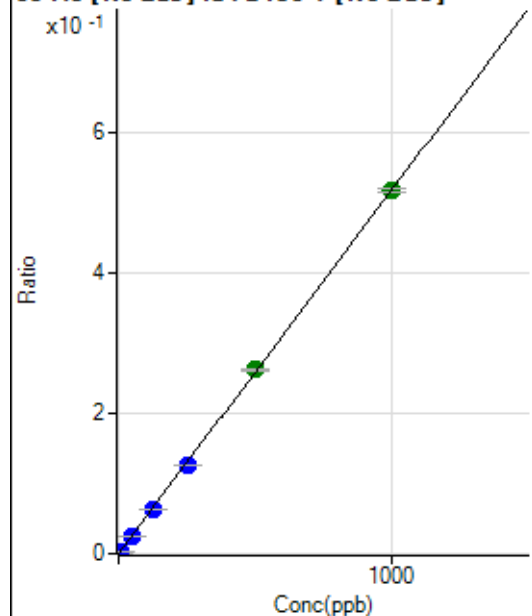
$$DL = 0.00698$$

$$BEC = 0.02348$$

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	41.67	0.0000	P	53.0
2	☐	0.500					
3	☐	5.000	4.394	17531.40	0.0023	P	0.8
4	☐	50.000	49.402	201674.37	0.0256	P	0.1
5	☐	125.000	123.675	507745.84	0.0640	P	0.1
6	☐	250.000	243.517	1006304.14	0.1260	P	0.4
7	☐	500.000	506.322	2046612.39	0.2620	A	0.9
8	☐	1000.000	998.658	3935901.43	0.5167	A	1.0
9	☐			3900.75	0.0005	P	8.1

$$y = 5.1735\text{E-}004 * x + 5.4828\text{E-}006$$

$$R = 0.9999$$

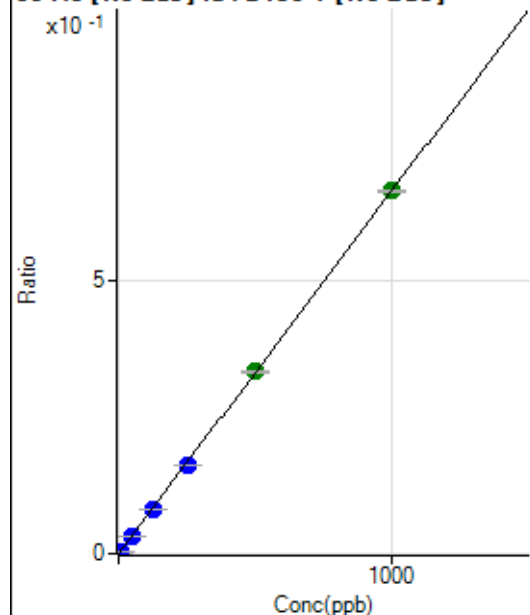
$$DL = 0.01686$$

$$BEC = 0.0106$$

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	119.45	0.0000	P	24.9
2	☐	0.500					
3	☐	5.000	3.717	19133.80	0.0025	P	1.5
4	☐	50.000	48.832	256326.67	0.0325	P	0.6
5	☐	125.000	122.833	648306.48	0.0817	P	0.3
6	☐	250.000	242.822	1289942.53	0.1615	P	0.3
7	☐	500.000	501.795	2607406.22	0.3337	A	0.9
8	☐	1000.000	1001.233	5072693.08	0.6659	A	0.7
9	☐			6860.35	0.0009	P	1.4

$$y = 6.6503\text{E-}004 * x + 1.5732\text{E-}005$$

$$R = 1.0000$$

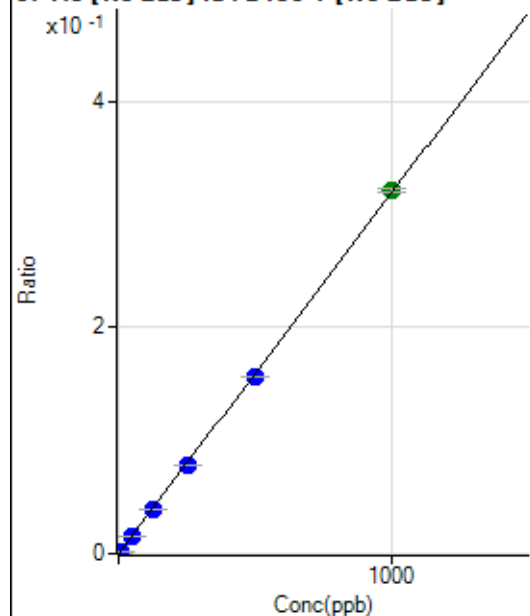
$$DL = 0.01768$$

$$BEC = 0.02366$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0000	P	32.8
2	☐	0.500					
3	☐	5.000	4.131	10232.08	0.0013	P	1.0
4	☐	50.000	49.318	124176.23	0.0157	P	0.9
5	☐	125.000	123.328	312171.00	0.0393	P	1.0
6	☐	250.000	243.807	621117.34	0.0778	P	0.7
7	☐	500.000	491.076	1223667.15	0.1566	P	0.8
8	☐	1000.000	1006.258	2444758.02	0.3209	A	1.0
9	☐			2694.83	0.0004	P	5.5

$$y = 3.1891\text{E-}004 * x + 1.2407\text{E-}005$$

$$R = 0.9999$$

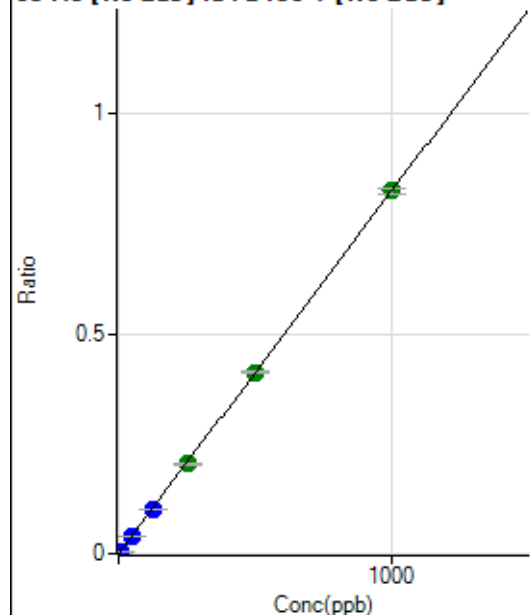
$$DL = 0.03827$$

$$BEC = 0.03891$$

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	94.45	0.0000	P	46.1
2	☐	0.500					
3	☐	5.000	4.327	27534.52	0.0036	P	0.6
4	☐	50.000	49.674	323115.00	0.0410	P	0.4
5	☐	125.000	123.686	809058.37	0.1020	P	0.7
6	☐	250.000	247.143	1627198.11	0.2037	A	0.4
7	☐	500.000	500.150	3221023.51	0.4123	A	0.8
8	☐	1000.000	1000.823	6284389.03	0.8250	A	1.4
9	☐			6060.00	0.0008	P	8.1

$$y = 8.2427\text{E-}004 * x + 1.2461\text{E-}005$$

$$R = 1.0000$$

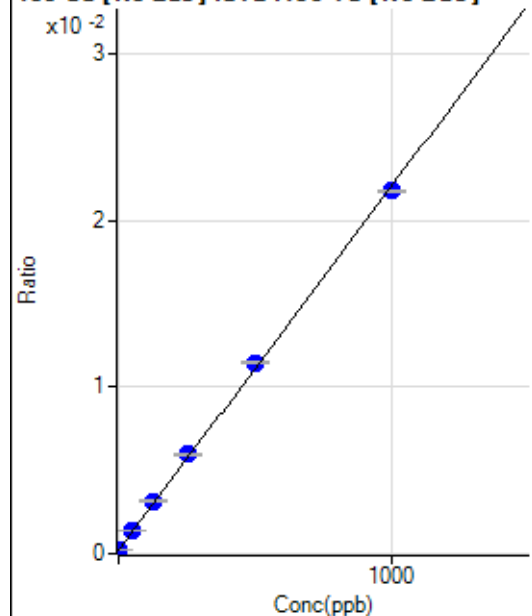
$$DL = 0.0209$$

$$BEC = 0.01512$$

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	1758.52	0.0002	P	4.6
2	☐	0.100					
3	☐	1.000	1.248	1980.80	0.0002	P	6.1
4	☐	50.000	53.911	12256.08	0.0014	P	1.1
5	☐	125.000	135.560	28728.71	0.0032	P	1.7
6	☐	250.000	263.341	54667.45	0.0060	P	1.0
7	☐	500.000	515.264	106085.43	0.0115	P	0.5
8	☐	1000.000	987.517	204046.82	0.0218	P	0.7
9	☐			1722.42	0.0002	P	2.4

$$y = 2.1860\text{E-}005 * x + 2.0439\text{E-}004$$

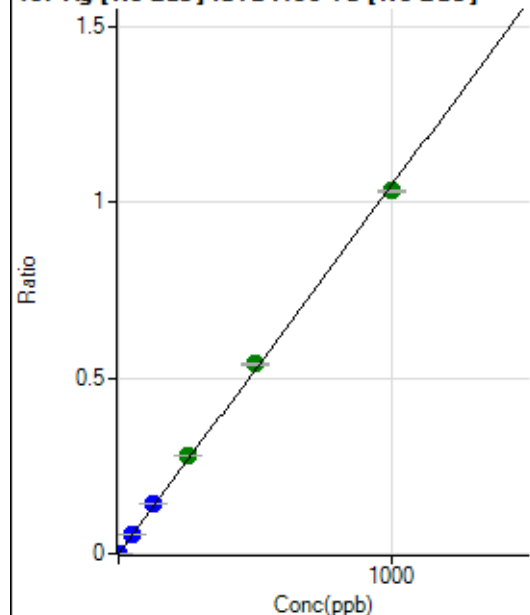
$$R = 0.9997$$

$$DL = 1.292$$

$$BEC = 9.35$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.34	0.0000	P	34.0
2	☐	0.100					
3	☐	1.000	1.288	11616.62	0.0014	P	3.7
4	☐	50.000	54.126	502105.19	0.0567	P	0.8
5	☐	125.000	133.772	1269803.15	0.1400	P	0.3
6	☐	250.000	268.462	2576749.51	0.2810	A	0.5
7	☐	500.000	516.444	4999833.01	0.5405	A	1.1
8	☐	1000.000	985.859	9661172.52	1.0318	A	0.2
9	☐			944.52	0.0001	P	10.0

$$y = 0.0010 * x + 9.6664E-006$$

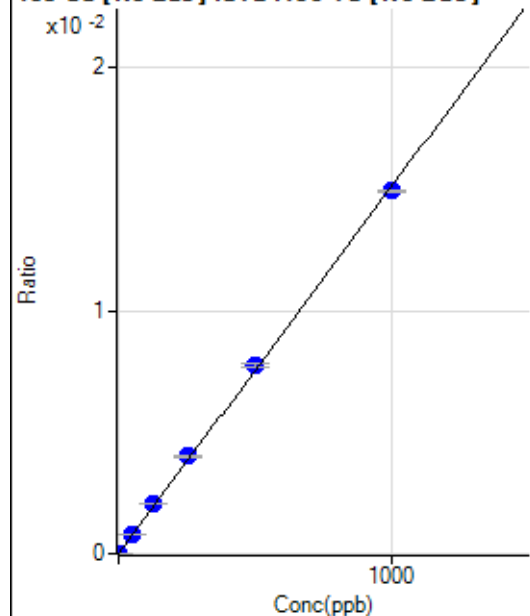
$$R = 0.9996$$

$$DL = 0.009422$$

$$BEC = 0.009236$$

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	13.89	0.0000	P	44.9
2	☐	0.100					
3	☐	1.000	0.861	125.00	0.0000	P	9.6
4	☐	50.000	53.366	7161.77	0.0008	P	3.3
5	☐	125.000	136.242	18688.24	0.0021	P	0.8
6	☐	250.000	265.634	36829.76	0.0040	P	1.5
7	☐	500.000	512.183	71615.57	0.0077	P	1.7
8	☐	1000.000	988.427	139885.44	0.0149	P	0.3
9	☐			33.33	0.0000	P	24.8

$$y = 1.5112E-005 * x + 1.6092E-006$$

$$R = 0.9997$$

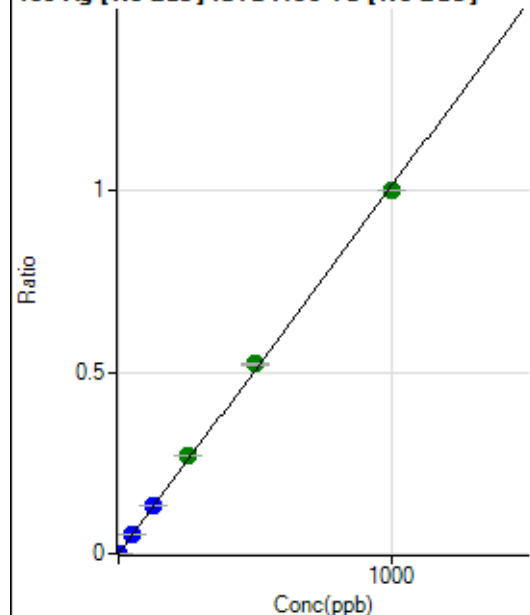
$$DL = 0.1434$$

$$BEC = 0.1065$$

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	66.67	0.0000	P	50.2
2	☐	0.100					
3	☐	1.000	1.261	10991.06	0.0013	P	2.5
4	☐	50.000	53.978	484473.44	0.0547	P	1.0
5	☐	125.000	132.285	1214940.34	0.1340	P	1.1
6	☐	250.000	265.166	2462554.92	0.2685	A	0.2
7	☐	500.000	515.848	4832082.01	0.5224	A	0.8
8	☐	1000.000	987.175	9360266.96	0.9996	A	0.1
9	☐			838.96	0.0001	P	10.0

$$y = 0.0010 * x + 7.7618E-006$$

$$R = 0.9997$$

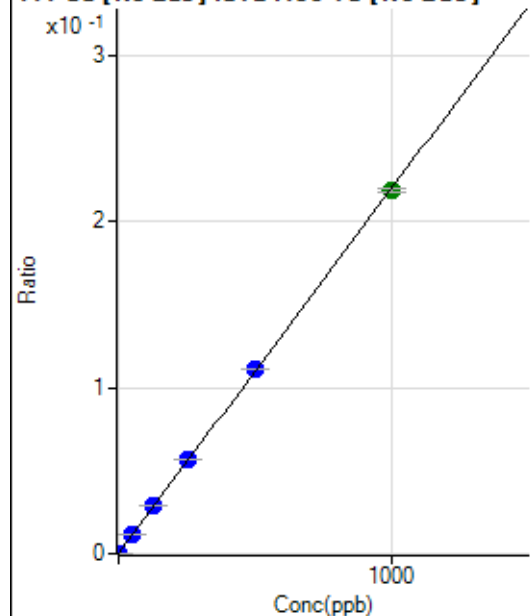
$$DL = 0.01154$$

$$BEC = 0.007665$$

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	1232.36	0.0001	P	3.9
2	☐	0.100					
3	☐	1.000	0.972	3053.38	0.0004	P	1.7
4	☐	50.000	53.977	106496.10	0.0120	P	0.1
5	☐	125.000	131.936	264509.73	0.0292	P	0.5
6	☐	250.000	258.280	522340.03	0.0570	P	0.3
7	☐	500.000	506.645	1032254.91	0.1116	P	0.3
8	☐	1000.000	993.542	2047791.27	0.2187	A	1.0
9	☐			1500.42	0.0002	P	4.1

$$y = 2.1997E-004 * x + 1.4324E-004$$

$$R = 0.9999$$

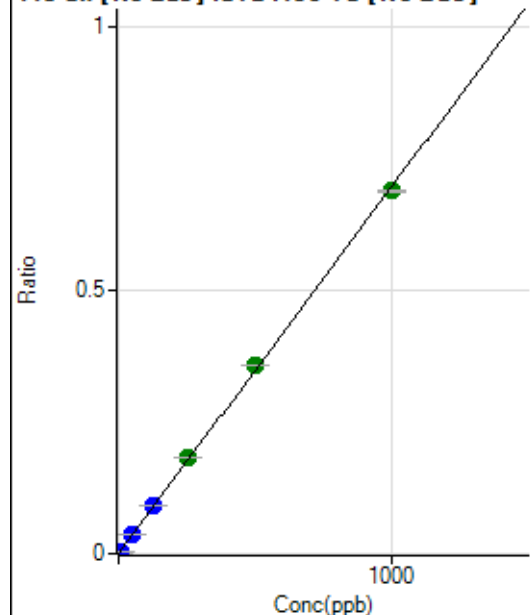
$$DL = 0.07634$$

$$BEC = 0.6512$$

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	3077.85	0.0004	P	134.3
2	☐	0.500					
3	☐	5.000	4.257	28409.06	0.0033	P	0.6
4	☐	50.000	52.509	326855.34	0.0369	P	1.7
5	☐	125.000	130.398	825833.68	0.0911	P	0.5
6	☐	250.000	261.995	1674490.77	0.1826	A	0.3
7	☐	500.000	513.336	3306159.38	0.3574	A	0.7
8	☐	1000.000	989.537	6448024.02	0.6886	A	0.2
9	☐			5418.01	0.0006	P	4.4

$$y = 6.9553\text{E-}004 * x + 3.6062\text{E-}004$$

$$R = 0.9998$$

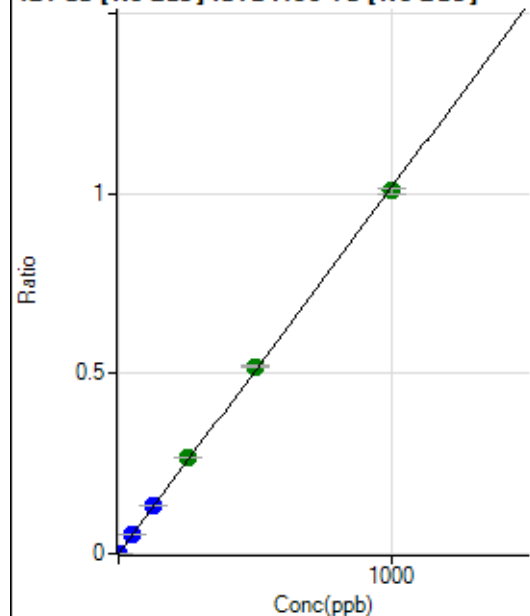
$$DL = 2.089$$

$$BEC = 0.5185$$

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	50.00	0.0000	P	1.0
2	☐	0.200					
3	☐	2.000	1.922	16744.62	0.0020	P	1.1
4	☐	50.000	52.913	476382.84	0.0538	P	1.1
5	☐	125.000	130.709	1204206.77	0.1328	P	0.3
6	☐	250.000	262.056	2441252.18	0.2662	A	0.9
7	☐	500.000	510.914	4800851.80	0.5190	A	0.7
8	☐	1000.000	990.670	9422482.59	1.0063	A	1.3
9	☐			20433.15	0.0022	P	1.7

$$y = 0.0010 * x + 5.8116\text{E-}006$$

$$R = 0.9998$$

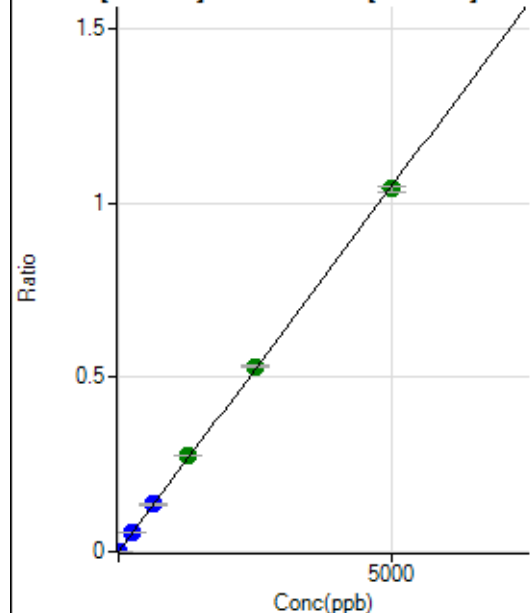
$$DL = 0.0001748$$

$$BEC = 0.005721$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	83.34	0.0000	P	72.1
2	☐	1.000					
3	☐	10.000	9.130	16458.23	0.0019	P	1.0
4	☐	250.000	262.409	487796.27	0.0550	P	1.0
5	☐	625.000	646.522	1229781.28	0.1356	P	0.5
6	☐	1250.000	1306.993	2513827.94	0.2741	A	0.6
7	☐	2500.000	2532.993	4914056.92	0.5312	A	0.8
8	☐	5000.000	4965.947	9751638.32	1.0414	A	1.2
9	☐			3225.54	0.0003	P	7.6

$$y = 2.0972\text{E-}004 * x + 9.6723\text{E-}006$$

$$R = 0.9999$$

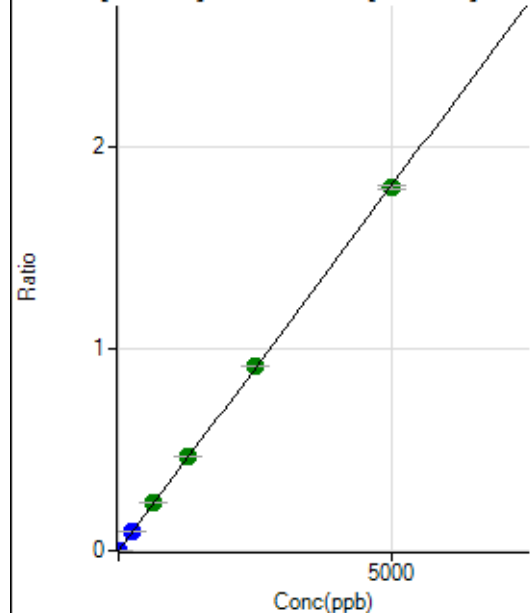
$$DL = 0.09981$$

$$BEC = 0.04612$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	97.23	0.0000	P	9.9
2	☐	1.000					
3	☐	10.000	9.239	28707.31	0.0034	P	1.3
4	☐	250.000	264.202	847962.89	0.0957	P	0.5
5	☐	625.000	656.043	2154578.74	0.2376	A	0.3
6	☐	1250.000	1288.372	4278498.32	0.4665	A	0.3
7	☐	2500.000	2534.784	8490685.69	0.9178	A	0.2
8	☐	5000.000	4968.426	16846071.90	1.7991	A	1.2
9	☐			5529.20	0.0006	P	3.0

$$y = 3.6210\text{E-}004 * x + 1.1301\text{E-}005$$

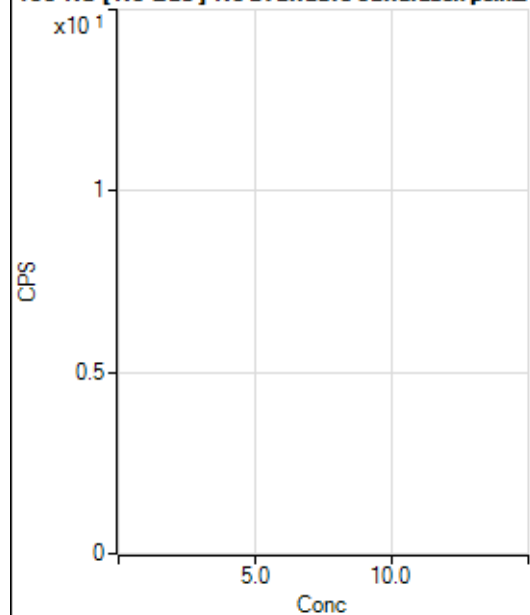
$$R = 0.9999$$

$$DL = 0.00929$$

$$BEC = 0.03121$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	114.5
2	☐						
3	☐			4.45		P	86.6
4	☐			20.00		P	57.8
5	☐			93.33		P	12.4
6	☐			122.23		P	16.7
7	☐			235.57		P	4.3
8	☐			404.47		P	22.0
9	☐			117.78		P	31.2

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			4.44		P	43.4
5	☐			2.22		P	86.6
6	☐			6.66		P	86.6
7	☐			4.45		P	86.6
8	☐			14.44		P	53.3
9	☐			12.22		P	41.7

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	128.9
2	☐						
3	☐			27.78		P	34.6
4	☐			55.56		P	67.6
5	☐			58.34		P	57.1
6	☐			83.34		P	30.0
7	☐			155.57		P	17.2
8	☐			255.57		P	13.2
9	☐			127.78		P	13.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	173.2
2	☐						
3	☐			5.56		P	91.6
4	☐			2.22		P	173.2
5	☐			5.56		P	34.7
6	☐			10.00		P	66.7
7	☐			20.00		P	33.4
8	☐			33.33		P	26.5
9	☐			16.67		P	34.6

160 Gd [No Gas] Noavailable calibration poin...

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			88.89		P	28.6
2	☐						
3	☐			63.89		P	52.7
4	☐			55.56		P	22.9
5	☐			116.67		P	31.1
6	☐			111.12		P	22.9
7	☐			130.56		P	19.5
8	☐			194.46		P	28.5
9	☐			150.01		P	29.4

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.56		P	53.9
2	☐						
3	☐			15.56		P	65.5
4	☐			10.00		P	33.3
5	☐			13.33		P	25.0
6	☐			14.45		P	48.0
7	☐			32.22		P	23.9
8	☐			55.56		P	15.1
9	☐			26.67		P	54.5

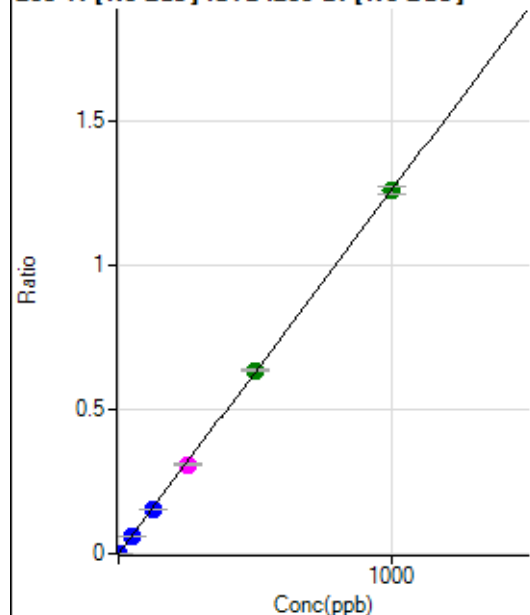
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	NaN
2	☐						
3	☐			36.11		P	35.3
4	☐			22.22		P	43.3
5	☐			52.78		P	36.5
6	☐			33.33		P	25.0
7	☐			55.56		P	31.2
8	☐			86.11		P	14.8
9	☐			55.56		P	48.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	50.0
2	☐						
3	☐			14.44		P	53.3
4	☐			1.11		P	173.2
5	☐			11.11		P	105.4
6	☐			10.00		P	66.7
7	☐			16.67		P	20.0
8	☐			13.33		P	66.2
9	☐			8.89		P	43.3

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	80.56	0.0000	P	33.8
2	☐	0.100					
3	☐	1.000	0.918	5707.09	0.0012	P	5.0
4	☐	50.000	49.489	313284.33	0.0624	P	0.4
5	☐	125.000	123.146	796285.40	0.1554	P	1.5
6	☐	250.000	245.803	1626569.92	0.3101	M	2.0
7	☐	500.000	505.412	3368583.63	0.6376	A	1.6
8	☐	1000.000	998.601	6775195.03	1.2597	A	2.2
9	☐			1922.46	0.0004	P	9.2

$$y = 0.0013 * x + 1.6510E-005$$

$$R = 1.0000$$

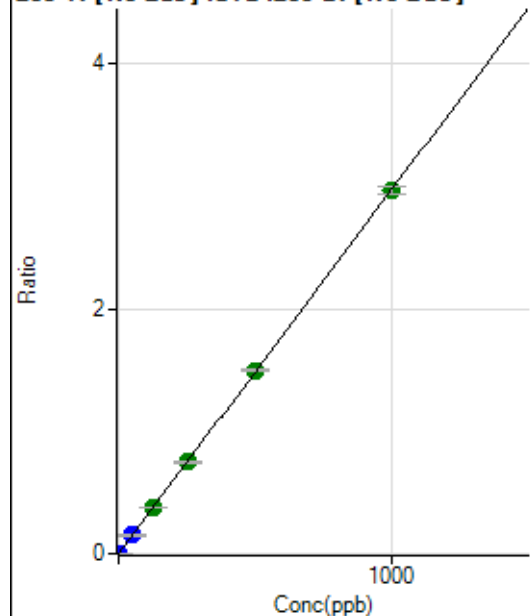
$$DL = 0.01328$$

$$BEC = 0.01309$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	197.24	0.0000	P	24.6
2	☐	0.100					
3	☐	1.000	0.929	13605.21	0.0028	P	2.1
4	☐	50.000	50.238	748898.84	0.1493	P	1.6
5	☐	125.000	127.764	1945674.09	0.3796	A	0.2
6	☐	250.000	251.221	3915131.12	0.7463	A	1.2
7	☐	500.000	503.890	7909475.61	1.4969	A	1.0
8	☐	1000.000	997.392	15935955.39	2.9630	A	2.0
9	☐			4726.11	0.0009	P	9.1

$$y = 0.0030 * x + 4.0334E-005$$

$$R = 1.0000$$

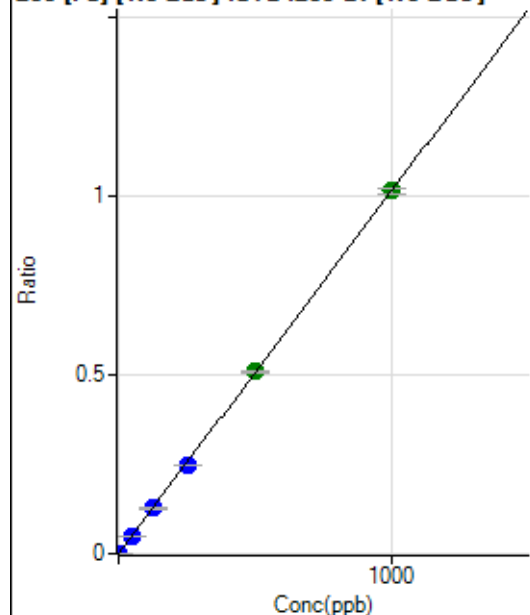
$$DL = 0.01$$

$$BEC = 0.01358$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	598.18	0.0001	P	6.7
2	☐	0.100					
3	☐	1.000	1.063	5836.73	0.0012	P	1.5
4	☐	50.000	49.620	253239.78	0.0505	P	1.0
5	☐	125.000	124.764	649626.38	0.1267	P	0.6
6	☐	250.000	244.862	1304210.53	0.2486	P	1.2
7	☐	500.000	502.361	2694559.44	0.5099	A	0.6
8	☐	1000.000	1000.152	5459936.00	1.0151	A	1.6
9	☐			11042.19	0.0021	P	1.4

$$y = 0.0010 * x + 1.2234E-004$$

$$R = 1.0000$$

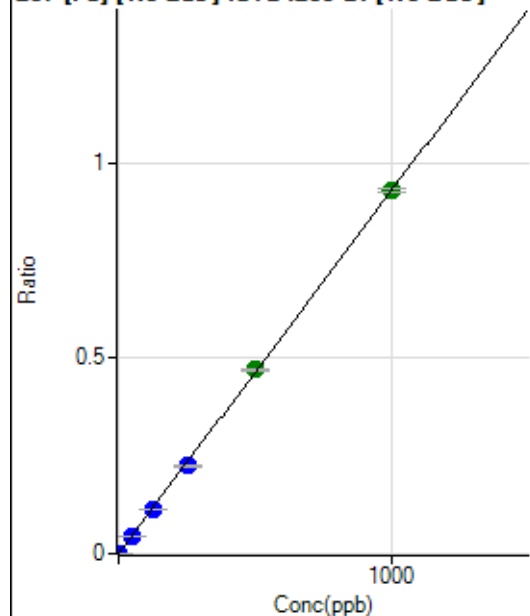
$$DL = 0.02426$$

$$BEC = 0.1206$$

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	524.10	0.0001	P	6.5
2	☐	0.100					
3	☐	1.000	1.041	5214.22	0.0011	P	6.8
4	☐	50.000	49.039	228801.05	0.0456	P	0.7
5	☐	125.000	122.623	583693.73	0.1139	P	1.1
6	☐	250.000	241.595	1176450.53	0.2243	P	1.1
7	☐	500.000	505.953	2480849.42	0.4695	A	1.3
8	☐	1000.000	999.470	4988505.09	0.9274	A	1.2
9	☐			9151.72	0.0018	P	1.9

$$y = 9.2781E-004 * x + 1.0726E-004$$

$$R = 0.9999$$

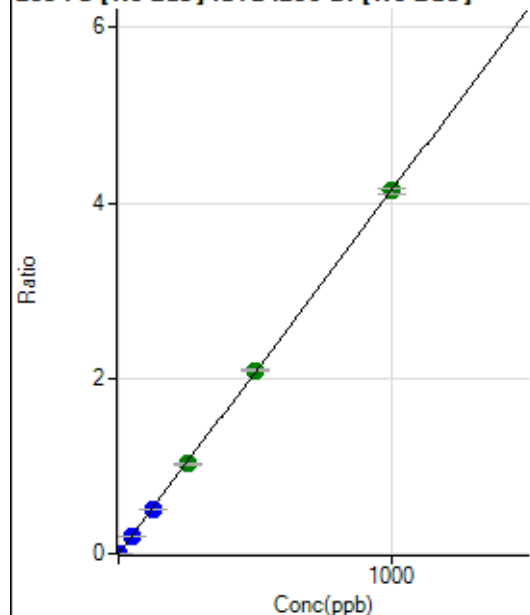
$$DL = 0.02239$$

$$BEC = 0.1156$$

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	2420.54	0.0005	P	1.6
2	☐	0.100					
3	☐	1.000	1.049	23518.49	0.0048	P	2.1
4	☐	50.000	49.310	1026675.20	0.2046	P	0.8
5	☐	125.000	123.543	2624276.62	0.5120	P	0.8
6	☐	250.000	246.524	5356761.70	1.0211	A	1.2
7	☐	500.000	503.822	11023988.33	2.0864	A	1.2
8	☐	1000.000	999.174	22253351.19	4.1372	A	1.3
9	☐			42760.73	0.0082	P	1.1

$$y = 0.0041 * x + 4.9519E-004$$

$$R = 1.0000$$

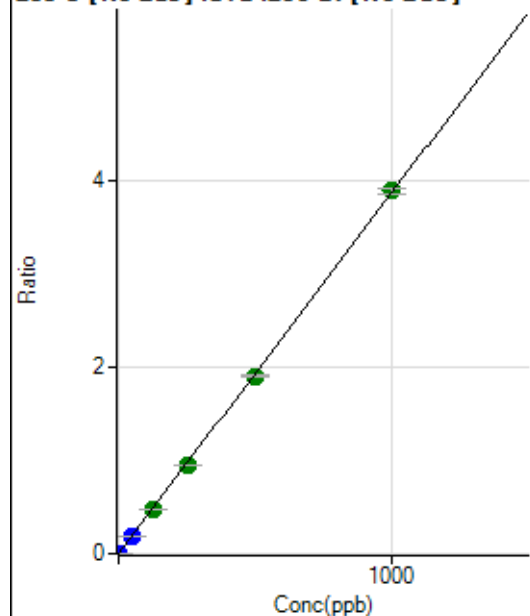
$$DL = 0.005761$$

$$BEC = 0.1196$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	52.78	0.0000	P	8.3
2	☐	0.100					
3	☐	1.000	0.840	15849.61	0.0033	P	1.5
4	☐	50.000	47.806	927747.70	0.1849	P	0.7
5	☐	125.000	124.165	2461752.44	0.4803	A	0.9
6	☐	250.000	246.497	5001717.60	0.9535	A	1.1
7	☐	500.000	491.185	10038838.51	1.8999	A	1.0
8	☐	1000.000	1005.497	20919070.08	3.8893	A	1.5
9	☐			1391.82	0.0003	P	3.3

$$y = 0.0039 * x + 1.0794E-005$$

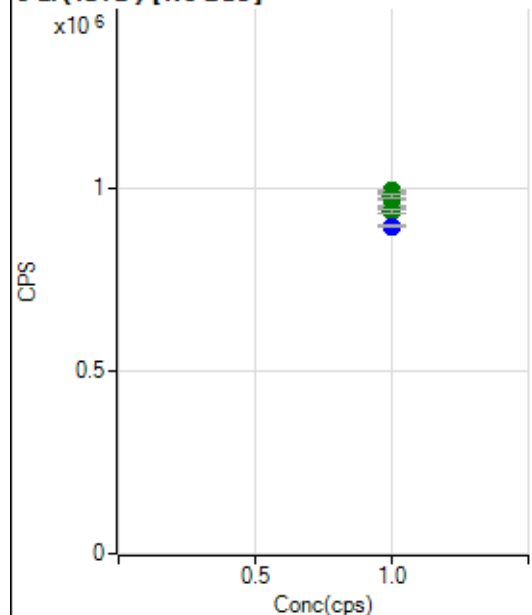
$$R = 0.9999$$

$$DL = 0.0006962$$

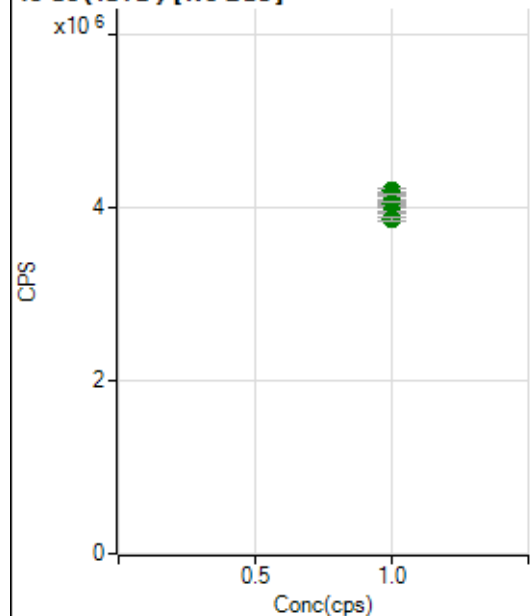
$$BEC = 0.002791$$

Weight: <None>

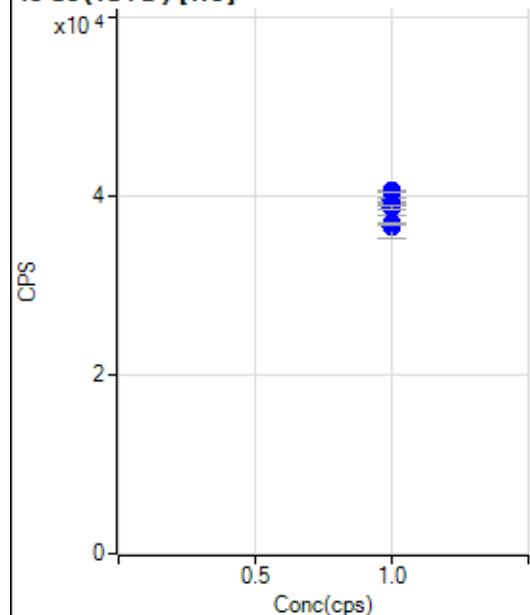
Min Conc: 0

6 Li (ISTD) [No Gas]

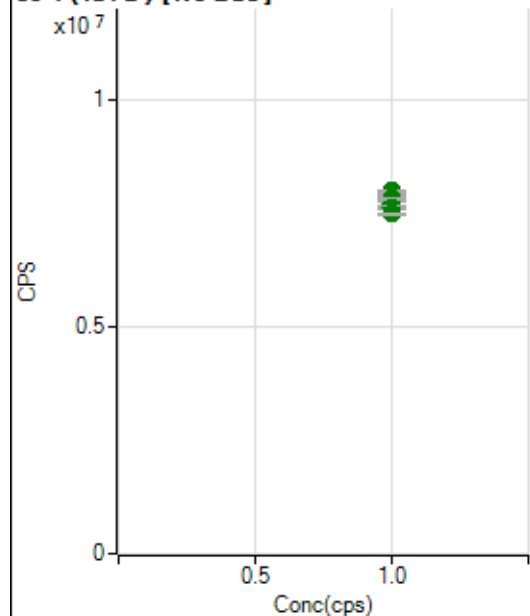
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		945914.90		A	0.9
2	☐	1.000					
3	☐	1.000		973583.97		A	0.9
4	☐	1.000		995116.26		A	0.8
5	☐	1.000		994729.35		A	1.0
6	☐	1.000		978781.20		A	1.0
7	☐	1.000		950966.69		A	0.8
8	☐	1.000		938031.78		A	0.9
9	☐	1.000		898454.59		P	0.2

45 Sc (ISTD) [No Gas]

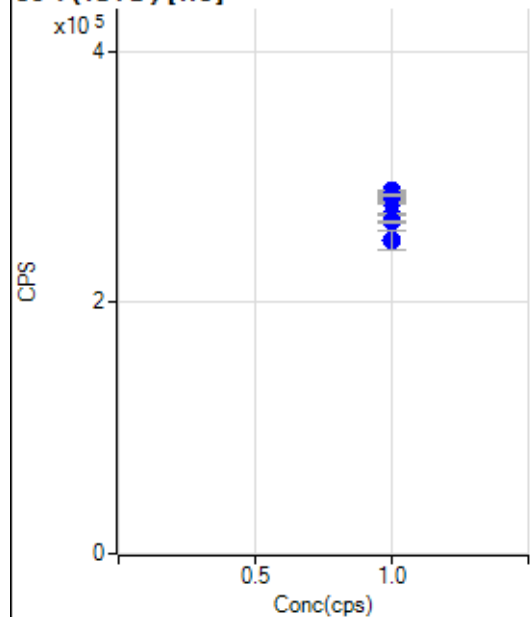
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3998372.36		A	0.4
2	☐	1.000					
3	☐	1.000		4066763.89		A	0.7
4	☐	1.000		4158073.75		A	0.4
5	☐	1.000		4191014.85		A	1.5
6	☐	1.000		4146657.17		A	0.5
7	☐	1.000		4042693.19		A	0.9
8	☐	1.000		3947280.90		A	0.4
9	☐	1.000		3869268.14		A	0.8

45 Sc (ISTD) [He]

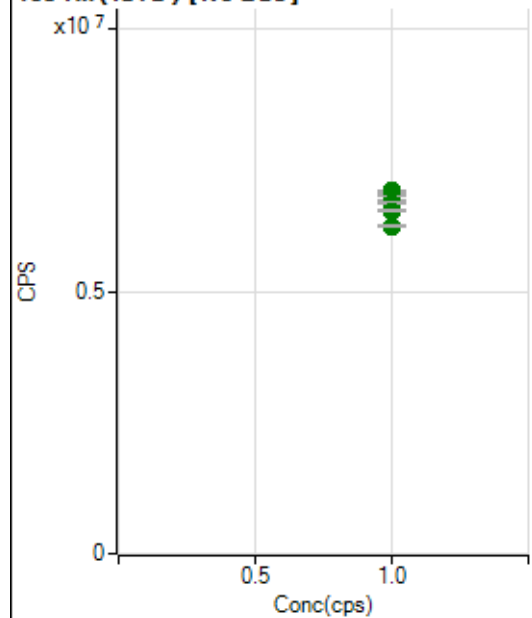
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		39246.09		P	0.5
2	☐	1.000					
3	☐	1.000		39810.91		P	0.4
4	☐	1.000		40624.24		P	0.7
5	☐	1.000		39574.80		P	1.7
6	☐	1.000		40486.17		P	0.3
7	☐	1.000		38698.88		P	1.3
8	☐	1.000		36633.80		P	7.2
9	☐	1.000		36964.16		P	0.3

89 Y (ISTD) [No Gas]

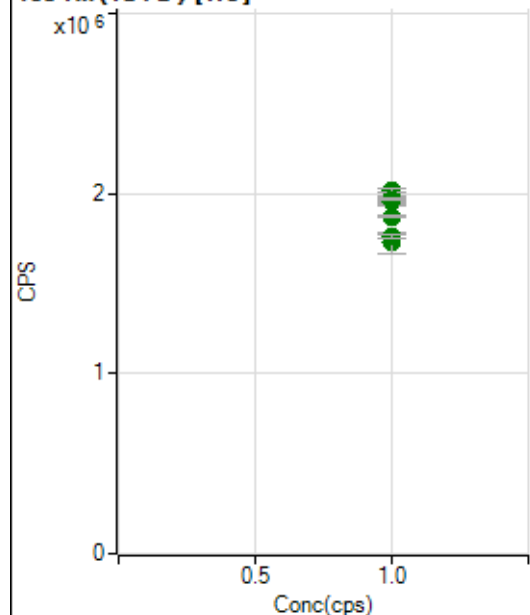
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7599764.40		A	0.9
2	☐	1.000					
3	☐	1.000		7693299.89		A	1.3
4	☐	1.000		7889123.42		A	0.4
5	☐	1.000		7934915.78		A	0.5
6	☐	1.000		7987329.12		A	0.5
7	☐	1.000		7813175.23		A	0.7
8	☐	1.000		7618481.76		A	1.1
9	☐	1.000		7474209.33		A	0.4

89 Y(ISTD) [He]

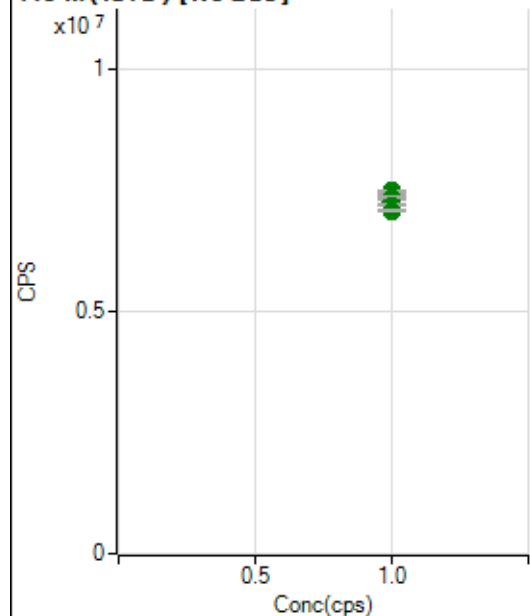
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		280349.96		P	0.8
2	☐	1.000					
3	☐	1.000		284066.47		P	0.8
4	☐	1.000		288946.81		P	0.5
5	☐	1.000		284440.57		P	3.3
6	☐	1.000		285038.08		P	0.5
7	☐	1.000		270042.72		P	0.3
8	☐	1.000		249110.58		P	6.3
9	☐	1.000		264264.50		P	0.1

103 Rh(ISTD) [No Gas]

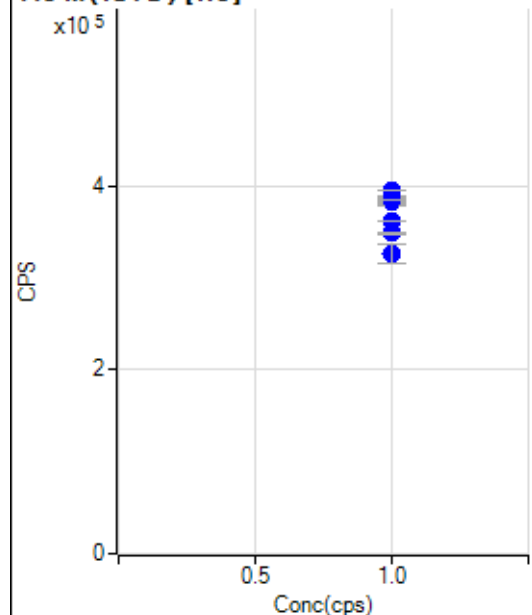
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6689670.89		A	0.5
2	☐	1.000					
3	☐	1.000		6727350.06		A	1.1
4	☐	1.000		6923094.77		A	0.2
5	☐	1.000		6875966.39		A	0.7
6	☐	1.000		6831935.22		A	0.3
7	☐	1.000		6681394.72		A	0.5
8	☐	1.000		6547473.76		A	0.6
9	☐	1.000		6253887.73		A	0.8

103 Rh (ISTD) [He]

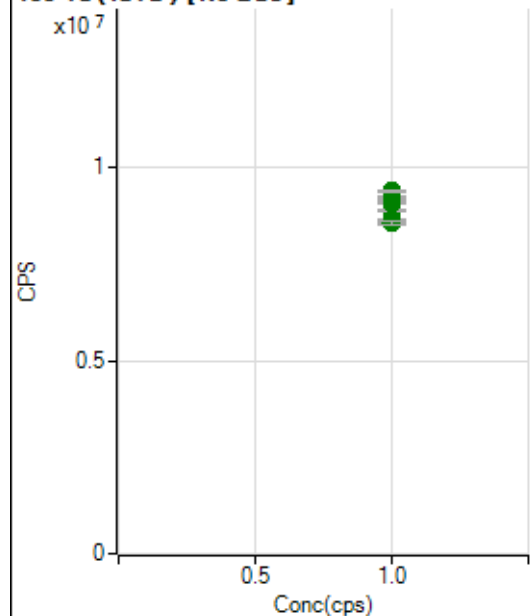
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1963088.49		A	1.4
2	☐	1.000					
3	☐	1.000		1974649.05		A	1.7
4	☐	1.000		2017787.71		A	0.9
5	☐	1.000		1961533.13		A	2.3
6	☐	1.000		1972424.71		A	0.2
7	☐	1.000		1875146.20		A	0.5
8	☐	1.000		1727680.24		A	7.1
9	☐	1.000		1765298.37		A	0.9

115 In (ISTD) [No Gas]

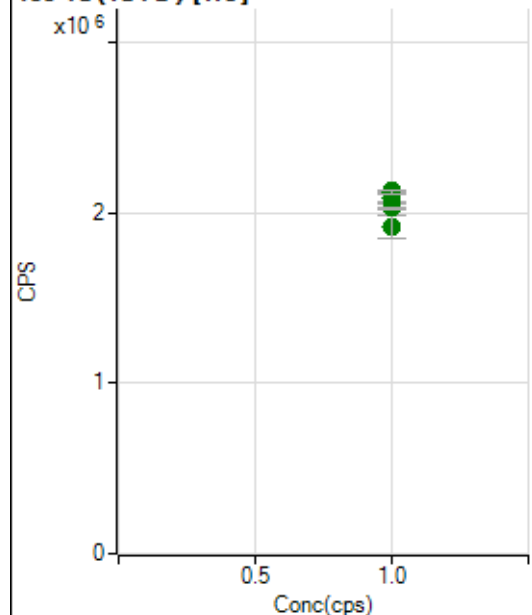
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7217112.19		A	0.5
2	☐	1.000					
3	☐	1.000		7257116.97		A	1.2
4	☐	1.000		7414023.96		A	0.8
5	☐	1.000		7454901.19		A	0.5
6	☐	1.000		7493134.01		A	0.2
7	☐	1.000		7354902.41		A	0.4
8	☐	1.000		7194504.16		A	0.5
9	☐	1.000		7085361.59		A	0.2

115 In (ISTD) [He]

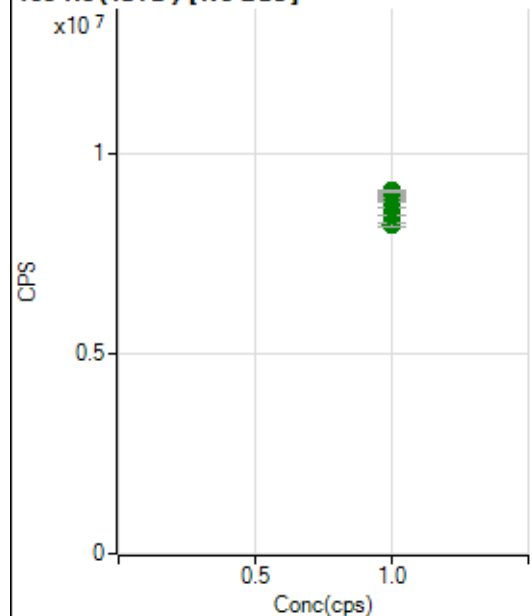
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		382669.92		P	0.5
2	☐	1.000					
3	☐	1.000		387238.33		P	0.3
4	☐	1.000		395014.90		P	0.1
5	☐	1.000		384315.79		P	2.8
6	☐	1.000		384836.98		P	0.3
7	☐	1.000		362437.15		P	0.4
8	☐	1.000		327500.60		P	6.5
9	☐	1.000		349478.04		P	0.6

159 Tb (ISTD) [No Gas]

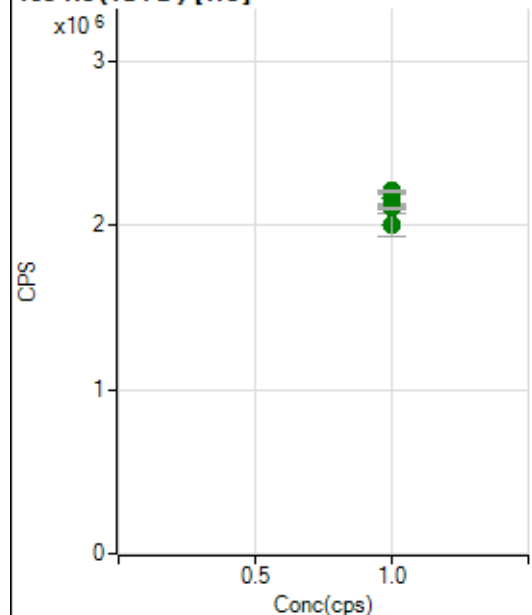
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8604070.84		A	1.0
2	☐	1.000					
3	☐	1.000		8552688.90		A	1.0
4	☐	1.000		8862722.23		A	0.5
5	☐	1.000		9069526.95		A	0.3
6	☐	1.000		9170999.52		A	0.2
7	☐	1.000		9250627.29		A	0.2
8	☐	1.000		9363842.15		A	0.4
9	☐	1.000		9389038.75		A	0.3

159 Tb (ISTD) [He]

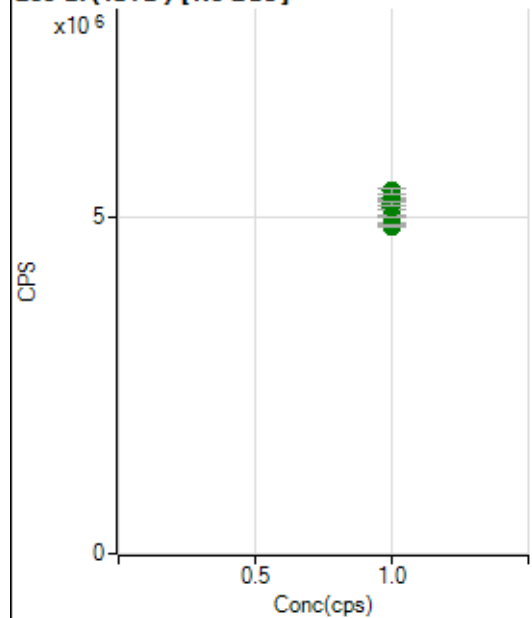
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2054101.32		A	0.6
2	☐	1.000					
3	☐	1.000		2059624.76		A	0.3
4	☐	1.000		2128021.15		A	0.4
5	☐	1.000		2082722.99		A	3.0
6	☐	1.000		2119519.31		A	0.6
7	☐	1.000		2056337.94		A	0.1
8	☐	1.000		1916782.54		A	6.6
9	☐	1.000		2026560.56		A	0.6

165 Ho (ISTD) [No Gas]

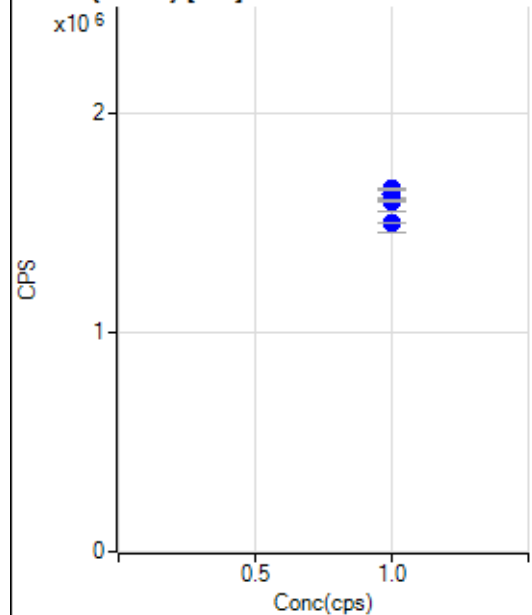
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8206434.47		A	1.1
2	☐	1.000					
3	☐	1.000		8203548.97		A	1.2
4	☐	1.000		8436867.64		A	0.2
5	☐	1.000		8656759.04		A	0.1
6	☐	1.000		8799710.70		A	0.3
7	☐	1.000		8926968.34		A	0.6
8	☐	1.000		9007184.40		A	0.4
9	☐	1.000		9057162.27		A	0.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2121049.13		A	0.6
2	☐	1.000					
3	☐	1.000		2116907.19		A	0.6
4	☐	1.000		2188958.70		A	0.5
5	☐	1.000		2162268.28		A	2.8
6	☐	1.000		2207061.63		A	0.6
7	☐	1.000		2106923.15		A	0.8
8	☐	1.000		2002718.41		A	6.8
9	☐	1.000		2100806.71		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4887746.73		A	0.8
2	☐	1.000					
3	☐	1.000		4859795.55		A	0.9
4	☐	1.000		5016985.79		A	0.6
5	☐	1.000		5125857.74		A	0.8
6	☐	1.000		5246258.22		A	1.0
7	☐	1.000		5284322.70		A	1.5
8	☐	1.000		5379636.73		A	1.8
9	☐	1.000		5190827.49		A	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1604857.89		P	0.8
2	☐	1.000					
3	☐	1.000		1595488.47		P	0.4
4	☐	1.000		1654715.93		P	0.2
5	☐	1.000		1633417.49		P	2.9
6	☐	1.000		1652944.45		P	0.4
7	☐	1.000		1602504.75		P	0.5
8	☐	1.000		1501654.07		P	6.4
9	☐	1.000		1500850.85		P	0.4

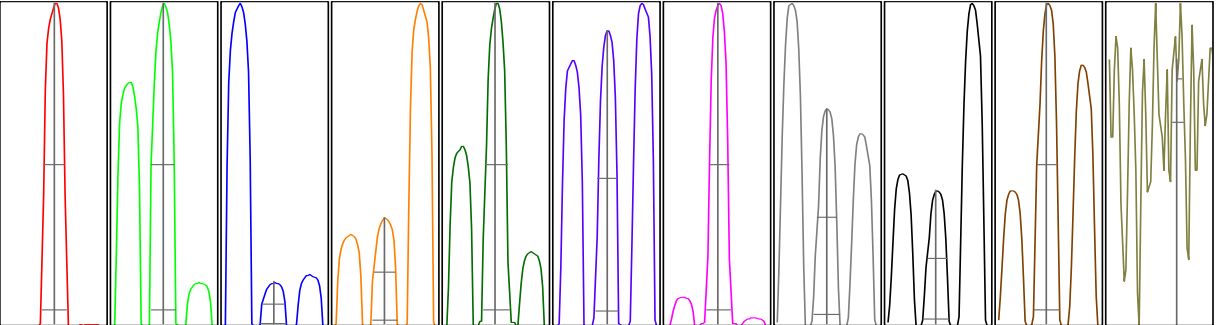
US EPA Tune Check Sample Report

Batch Folder D:\P8083117 MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7406	1.93	5.00	
24	60637	2.09	5.00	
25	8165	1.65	5.00	
26	9443	1.16	5.00	
59	87804	1.07	5.00	
113	12338	1.31	5.00	
115	154181	1.22	5.00	
206	29682	0.91	5.00	
207	26625	1.01	5.00	
208	63960	1.50	5.00	
220	2	19.31		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7211	7585	7428	7479	7327
24	59495	60659	60501	62731	59798
25	8038	8132	8171	8390	8093
26	9381	9411	9461	9623	9341
59	87459	86546	88130	89116	87771
113	12503	12140	12446	12190	12410
115	154516	151508	155384	153215	156281
206	29333	29643	29715	29632	30085
207	26242	26638	26628	26615	26999
208	62519	64688	63723	63906	64964
220	2	2	1	1	2

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% X% (Flag)
9	12347	9.05	8.9 - 9.1		0.739	0.900	
24	98322	24.00	23.9 - 24.1		0.741	0.900	
25	13134	25.00	24.9 - 25.1		0.744	0.900	
26	15521	26.00	25.9 - 26.1		0.741	0.900	
59	148877	59.00	58.9 - 59.1		0.783	0.900	
113	22724	113.05	112.9 - 113.1		0.692	0.900	
115	284034	115.05	114.9 - 115.1		0.730	0.900	
206	54328	206.00	205.9 - 206.1		0.772	0.900	
207	48342	206.95	206.9 - 207.1		0.744	0.900	
208	115990	207.95	207.9 - 208.1		0.740	0.900	
220	2	220.50	-		0.341		

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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.3	V	Deflect	14.2	V
Extract 2	-245.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-105	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	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	12483	0.44	
89	3168	0.64	
205	17547	1.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	12576	12485	12440	12453	12462
89	3187	3185	3173	3141	3152
205	17810	17645	17422	17453	17407

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.3	V	Deflect	2.0	V
Extract 2	-245.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-105	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	5.0	mL/min	OctP RF	200	V			