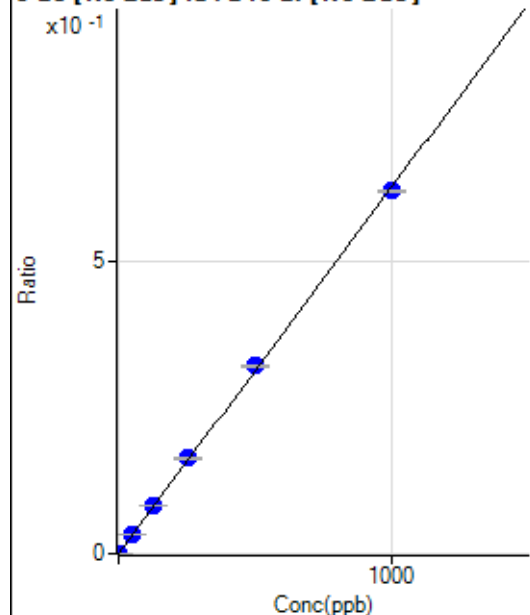


Batch Folder: D:\ICP-MS Data\P7062719 MS.b\
Analysis File: P7062719 MS.batch.bin
DA Date-Time: 2019-06-28 02:24:15
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-06-27 10:42:00
2	004CALS.d	S01	2019-06-27 10:45:36
3	005CALS.d	S02	2019-06-27 10:49:36
4	006CALS.d	S03	2019-06-27 10:53:32
5	007CALS.d	S04	2019-06-27 10:57:29
6	008CALS.d	S05	2019-06-27 11:01:25
7	009CALS.d	S06	2019-06-27 11:05:19
8	010CALS.d	S07	2019-06-27 11:09:10
9	011CALS.d	S08	2019-06-27 11:13:01

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	14.4
2	☒	0.100		87.78	0.0001	P	22.6
3	☐	1.000	0.976	776.70	0.0006	P	14.9
4	☐	50.000	53.070	40888.44	0.0333	P	0.7
5	☐	125.000	130.907	99434.58	0.0821	P	0.6
6	☐	250.000	260.764	189671.01	0.1634	P	0.8
7	☐	500.000	512.310	372056.23	0.3211	P	0.6
8	☐	1000.000	990.262	737417.98	0.6206	P	0.9
9	☐			214.45	0.0002	P	7.5

$$y = 6.2671\text{E-}004 * x + 1.8925\text{E-}005$$

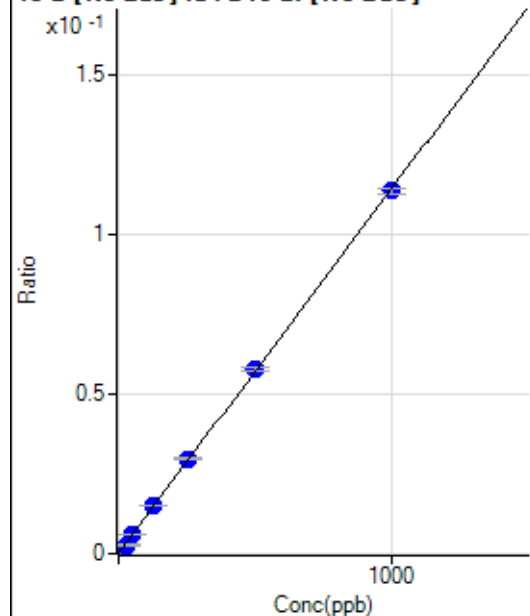
$$R = 0.9998$$

$$DL = 0.01305$$

$$BEC = 0.0302$$

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	191.67	0.0002	P	38.9
2	☒	2.500		469.47	0.0004	P	10.2
3	☐	25.000	21.854	3269.93	0.0027	P	9.5
4	☐	50.000	53.093	7649.48	0.0062	P	0.8
5	☐	125.000	130.375	18247.64	0.0151	P	2.4
6	☐	250.000	258.801	34518.03	0.0297	P	1.4
7	☐	500.000	505.172	67107.55	0.0579	P	1.3
8	☐	1000.000	994.466	135280.63	0.1139	P	1.5
9	☐			6407.17	0.0058	P	9.3

$$y = 1.1433\text{E-}004 * x + 1.5557\text{E-}004$$

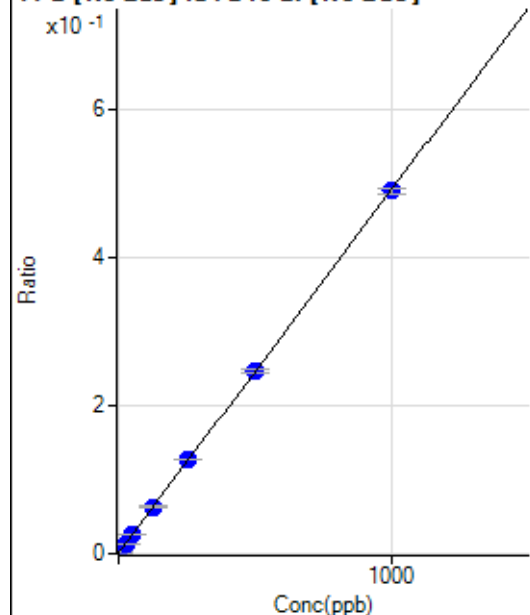
$$R = 0.9999$$

$$DL = 1.59$$

$$BEC = 1.361$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1008.41	0.0008	P	4.7
2	☒	2.500		2250.26	0.0018	P	10.0
3	☐	25.000	23.328	15113.65	0.0123	P	1.7
4	☐	50.000	51.530	32084.95	0.0261	P	1.8
5	☐	125.000	127.594	76876.52	0.0634	P	0.8
6	☐	250.000	258.303	148080.10	0.1276	P	0.8
7	☐	500.000	501.524	286208.05	0.2470	P	1.7
8	☐	1000.000	996.803	582330.82	0.4901	P	1.6
9	☐			28321.83	0.0258	P	9.0

$$y = 4.9084\text{E-}004 * x + 8.1774\text{E-}004$$

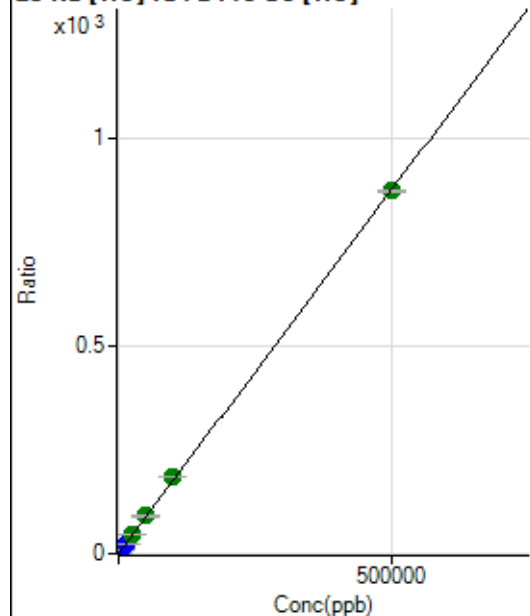
$$R = 1.0000$$

$$DL = 0.2333$$

$$BEC = 1.666$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1619.59	0.0200	P	5.8
2	☒	50.000		8586.16	0.1088	P	7.0
3	☐	500.000	495.684	72561.85	0.8884	P	1.2
4	☐	5000.000	5377.751	756761.42	9.4416	P	0.5
5	☐	12500.000	13280.090	1844026.21	23.2862	P	1.0
6	☐	25000.000	26158.146	3508598.65	45.8480	A	1.2
7	☐	50000.000	51618.142	7106471.17	90.4529	A	1.0
8	☐	100000.00	105191.75	14313210.74	184.3117	A	0.4
9	☐	500000.00	498718.65	64917566.03	873.7550	A	0.6

$$y = 0.0018 * x + 0.0200$$

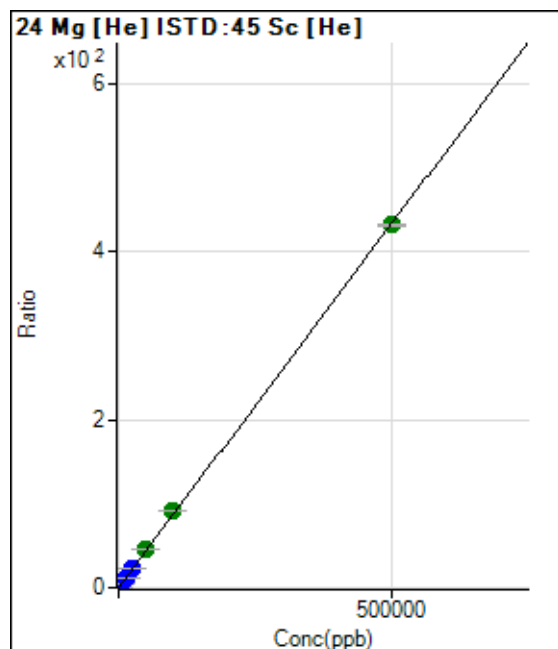
$$R = 0.9999$$

$$DL = 1.994$$

$$BEC = 11.41$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	88.89	0.0011	P	43.8
2	☒	50.000		4078.48	0.0516	P	4.2
3	☐	500.000	537.238	38118.56	0.4667	P	2.0
4	☐	5000.000	5558.452	386228.83	4.8188	P	0.9
5	☐	12500.000	13728.624	942378.92	11.9002	P	0.9
6	☐	25000.000	26603.067	1764614.86	23.0589	P	1.4
7	☐	50000.000	52423.985	3570001.60	45.4389	A	0.6
8	☐	100000.00	105407.03	7094937.23	91.3612	A	0.3
9	☐	500000.00	498559.70	32105320.86	432.1210	A	0.5

$$y = 8.6674\text{E-}004 * x + 0.0011$$

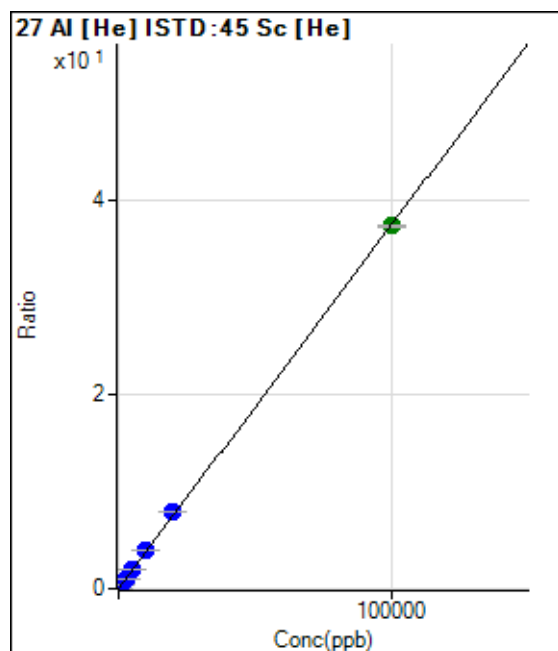
$$R = 0.9999$$

$$DL = 1.659$$

$$BEC = 1.264$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.55	0.0001	P	86.6
2	☒	2.000		75.00	0.0009	P	11.2
3	☐	20.000	21.382	661.15	0.0081	P	16.0
4	☐	1000.000	1113.321	33452.13	0.4174	P	1.3
5	☐	2500.000	2712.268	80510.95	1.0167	P	1.2
6	☐	5000.000	5412.357	155252.64	2.0288	P	1.3
7	☐	10000.000	10503.498	309321.75	3.9371	P	1.0
8	☐	20000.000	20997.895	611191.01	7.8706	P	0.9
9	☐	100000.00	99723.013	2777140.58	37.3789	A	0.5

$$y = 3.7483\text{E-}004 * x + 6.8624\text{E-}005$$

$$R = 0.9999$$

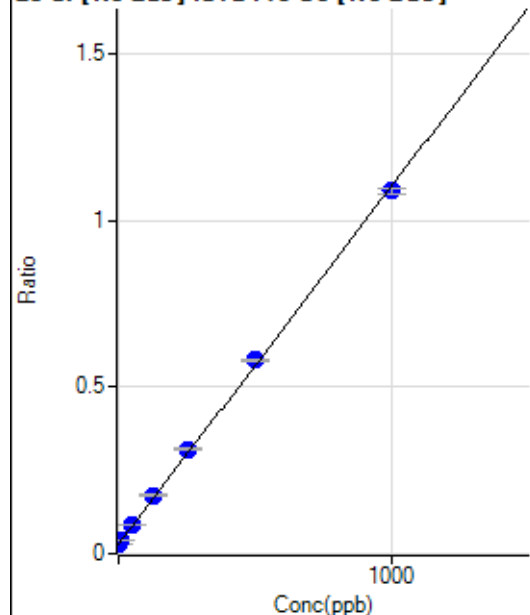
$$DL = 0.4757$$

$$BEC = 0.1831$$

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	48872.43	0.0283	P	0.7
2	☒	1.000		50583.57	0.0294	P	2.2
3	☐	10.000	9.113	65387.89	0.0381	P	0.5
4	☐	50.000	54.639	148785.60	0.0870	P	0.8
5	☐	125.000	137.004	296728.48	0.1755	P	1.5
6	☐	250.000	266.286	504807.06	0.3144	P	0.5
7	☐	500.000	513.663	934402.78	0.5801	P	0.8
8	☐	1000.000	987.374	1781600.11	1.0890	P	1.3
9	☐			81823.42	0.0544	P	0.6

$$y = 0.0011 * x + 0.0283$$

$$R = 0.9997$$

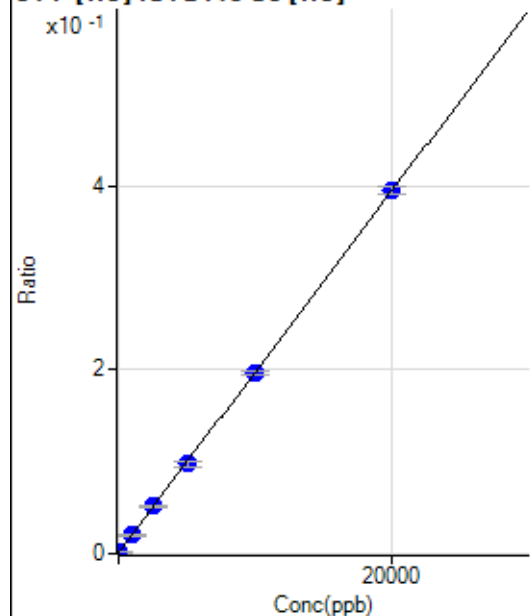
$$DL = 0.5443$$

$$BEC = 26.34$$

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	-17.169	47.23	0.0006	P	21.1
2	☒	0.000		52.78	0.0007	P	24.3
3	☐	0.000	17.169	102.78	0.0013	P	17.2
4	☐	1000.000	966.396	1597.37	0.0199	P	4.3
5	☐	2500.000	2585.144	4100.72	0.0518	P	3.2
6	☐	5000.000	4928.152	7488.28	0.0979	P	6.7
7	☐	10000.000	9962.170	15472.43	0.1969	P	2.0
8	☐	20000.000	20027.914	30665.73	0.3949	P	2.0
9	☐			61.12	0.0008	P	7.6

$$y = 1.9673E-005 * x + 9.2117E-004$$

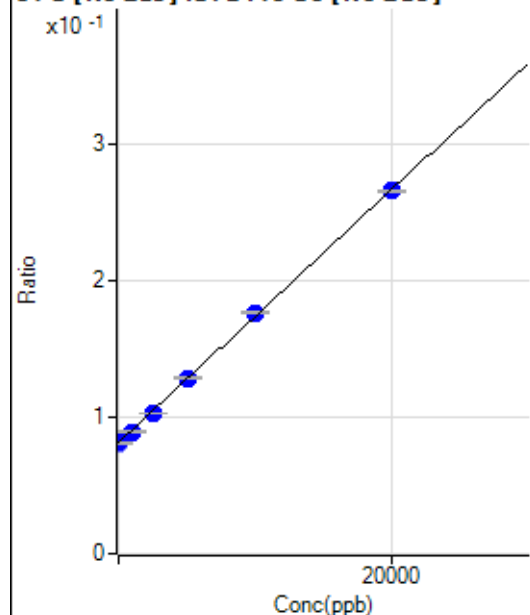
$$R = 1.0000$$

$$DL = 25.87$$

$$BEC = 46.82$$

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	37.103	141549.30	0.0819	P	0.7
2	☒	0.000		139223.64	0.0810	P	0.7
3	☐	0.000	-37.103	139513.99	0.0813	P	0.8
4	☐	1000.000	818.056	152531.53	0.0892	P	1.6
5	☐	2500.000	2249.574	173265.58	0.1025	P	0.3
6	☐	5000.000	5068.134	206493.80	0.1286	P	0.7
7	☐	10000.000	10278.671	284927.90	0.1769	P	0.4
8	☐	20000.000	19884.032	435109.08	0.2660	P	0.9
9	☐			111030.36	0.0738	P	1.4

$$y = 9.2720\text{E-}006 * x + 0.0816$$

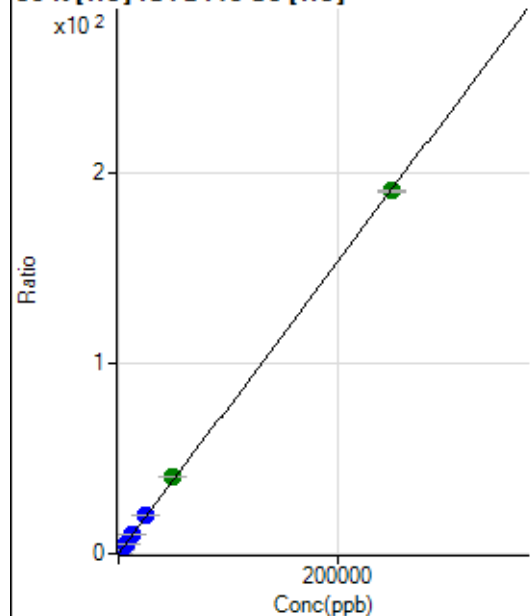
$$R = 0.9997$$

$$DL = 200.8$$

$$BEC = 8800$$

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	4325.79	0.0534	P	2.7
2	☒	50.000		7674.49	0.0972	P	5.6
3	☐	500.000	519.935	36791.10	0.4505	P	1.5
4	☐	2500.000	2763.865	173463.45	2.1642	P	0.7
5	☐	6250.000	6887.497	420756.99	5.3134	P	1.3
6	☐	12500.000	13545.681	795743.27	10.3983	P	1.5
7	☐	25000.000	26430.977	1590080.37	20.2388	P	0.9
8	☐	50000.000	52861.662	3139181.82	40.4240	A	0.6
9	☐	250000.00	249213.67	14144522.36	190.3785	A	0.5

$$y = 7.6370\text{E-}004 * x + 0.0534$$

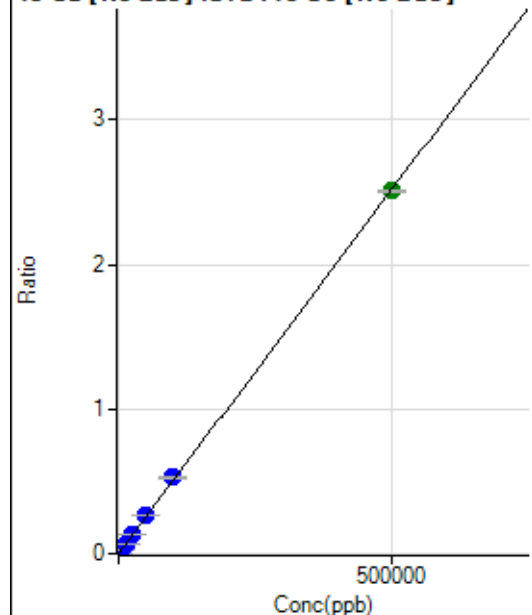
$$R = 0.9999$$

$$DL = 5.705$$

$$BEC = 69.9$$

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	36.11	0.0000	P	48.1
2	☒	50.000		447.25	0.0003	P	12.0
3	☐	500.000	482.542	4200.75	0.0024	P	4.9
4	☐	5000.000	5405.143	46510.08	0.0272	P	2.3
5	☐	12500.000	13092.510	111341.50	0.0658	P	1.0
6	☐	25000.000	26372.831	212941.59	0.1326	P	1.1
7	☐	50000.000	52356.400	423978.04	0.2632	P	0.7
8	☐	100000.00	104431.12	858904.49	0.5250	P	1.0
9	☐	500000.00	498790.64	3771981.38	2.5075	A	0.5

$$y = 5.0272\text{E-}006 * x + 2.0915\text{E-}005$$

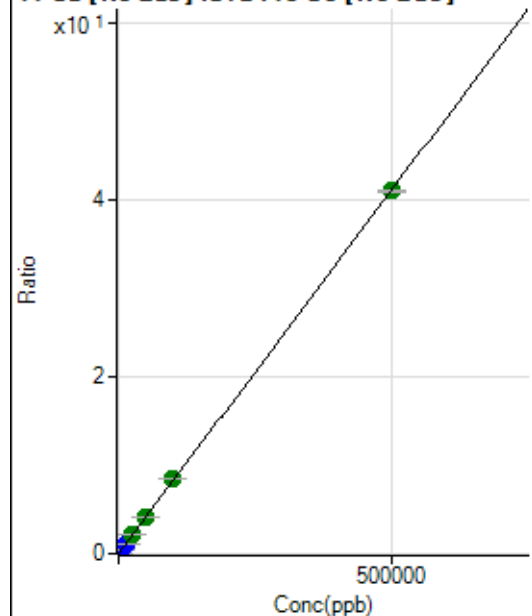
$$R = 1.0000$$

$$DL = 6.007$$

$$BEC = 4.16$$

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	1458.46	0.0008	P	7.2
2	☒	50.000		8544.44	0.0050	P	3.0
3	☐	500.000	486.950	70239.26	0.0409	P	0.7
4	☐	5000.000	5198.880	733049.57	0.4286	P	0.6
5	☐	12500.000	12814.950	1784448.35	1.0552	P	0.2
6	☐	25000.000	25847.287	3416326.90	2.1274	A	0.7
7	☐	50000.000	51371.310	6808835.66	4.2273	A	0.4
8	☐	100000.00	103564.23	13940862.64	8.5214	A	1.0
9	☐	500000.00	499097.80	61769672.91	41.0633	A	0.7

$$y = 8.2273\text{E-}005 * x + 8.4431\text{E-}004$$

$$R = 1.0000$$

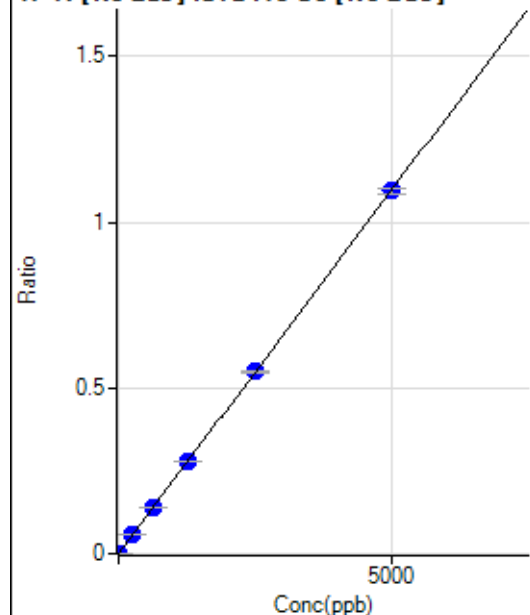
$$DL = 2.218$$

$$BEC = 10.26$$

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	13.89	0.0000	P	91.7
2	☒	0.500		233.35	0.0001	P	9.3
3	☐	5.000	4.891	1855.75	0.0011	P	5.1
4	☐	250.000	255.280	95770.76	0.0560	P	0.8
5	☐	625.000	636.156	235938.40	0.1395	P	0.7
6	☐	1250.000	1267.957	446554.46	0.2781	P	0.8
7	☐	2500.000	2504.978	884818.88	0.5494	P	0.7
8	☐	5000.000	4991.364	1790735.28	1.0946	P	1.3
9	☐			633.37	0.0004	P	4.8

$$y = 2.1930\text{E-}004 * x + 8.0357\text{E-}006$$

$$R = 1.0000$$

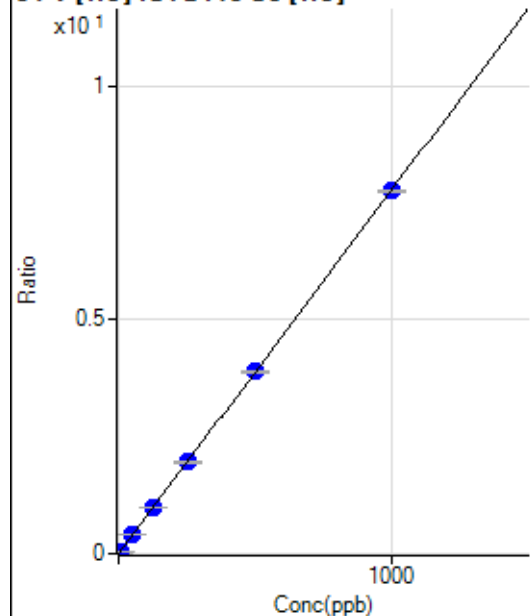
$$DL = 0.1008$$

$$BEC = 0.03664$$

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	0.00	0.0000	P	
2	☒	0.500		340.01	0.0043	P	10.0
3	☐	5.000	5.083	3227.07	0.0395	P	1.3
4	☐	50.000	51.956	32366.74	0.4038	P	0.9
5	☐	125.000	128.867	79319.41	1.0016	P	1.1
6	☐	250.000	253.153	150575.27	1.9676	P	1.6
7	☐	500.000	501.104	306015.96	3.8948	P	0.5
8	☐	1000.000	998.078	602417.20	7.7576	P	0.8
9	☐			97.78	0.0013	P	11.3

$$y = 0.0078 * x + 0.0000\text{E}+000$$

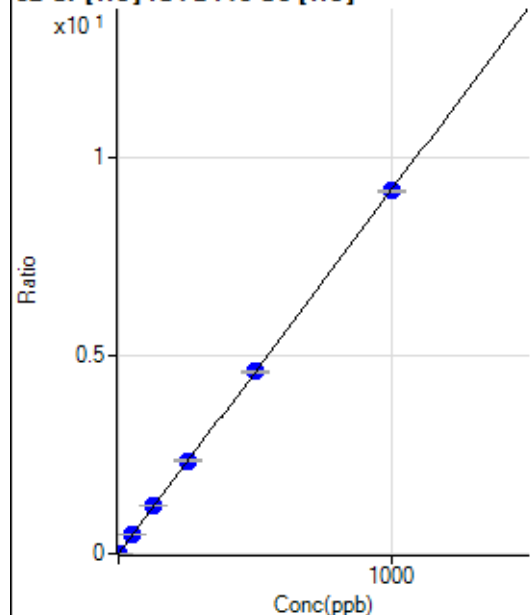
$$R = 1.0000$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	198.89	0.0025	P	6.4
2	☒	0.200		332.23	0.0042	P	3.8
3	☐	2.000	2.014	1707.90	0.0209	P	5.0
4	☐	50.000	52.257	38587.19	0.4814	P	0.2
5	☐	125.000	130.129	94643.44	1.1952	P	1.1
6	☐	250.000	255.249	179217.41	2.3419	P	1.5
7	☐	500.000	500.529	360630.63	4.5901	P	1.0
8	☐	1000.000	997.669	710290.89	9.1466	P	0.7
9	☐			2682.50	0.0361	P	0.7

$$y = 0.0092 * x + 0.0025$$

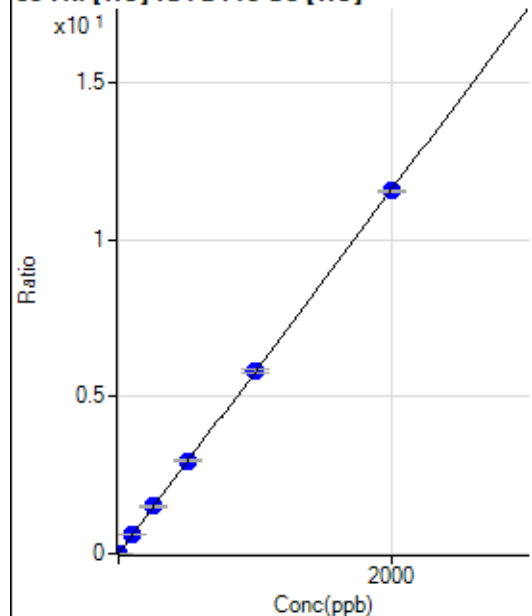
$$R = 1.0000$$

$$DL = 0.05118$$

$$BEC = 0.2677$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0001	P	16.8
2	☒	0.100		53.33	0.0007	P	11.8
3	☐	1.000	1.011	488.90	0.0060	P	2.8
4	☐	100.000	104.162	48340.30	0.6031	P	0.8
5	☐	250.000	259.178	118816.94	1.5005	P	1.5
6	☐	500.000	511.585	226632.68	2.9616	P	1.7
7	☐	1000.000	1002.342	455869.79	5.8025	P	1.7
8	☐	2000.000	1994.578	896651.52	11.5463	P	0.7
9	☐			2730.29	0.0368	P	6.0

$$y = 0.0058 * x + 1.3704E-004$$

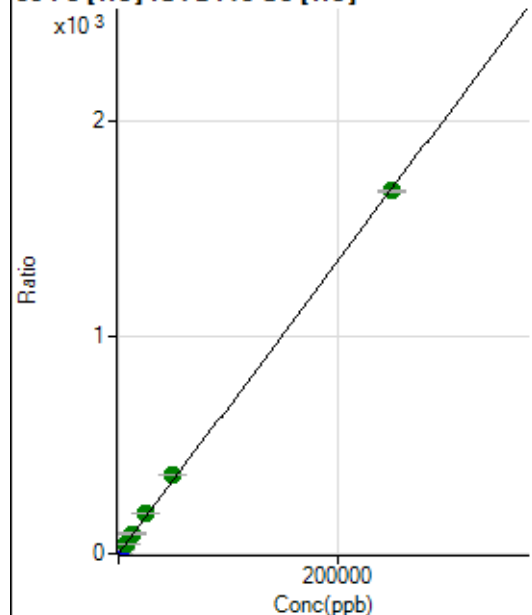
$$R = 1.0000$$

$$DL = 0.01193$$

$$BEC = 0.02367$$

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	705.60	0.0087	P	7.7
2	☒	5.000		4033.99	0.0512	P	9.9
3	☐	50.000	58.803	33078.41	0.4049	P	0.8
4	☐	2500.000	2904.776	1569529.78	19.5820	P	0.5
5	☐	6250.000	6989.201	3730112.49	47.1041	A	1.2
6	☐	12500.000	13805.113	7119242.63	93.0318	A	1.3
7	☐	25000.000	27256.210	14430075.44	183.6694	A	0.9
8	☐	50000.000	54189.809	28357142.30	365.1562	A	0.6
9	☐	250000.00	248848.63	124583068.5	1,676.826	A	0.6

$$y = 0.0067 * x + 0.0087$$

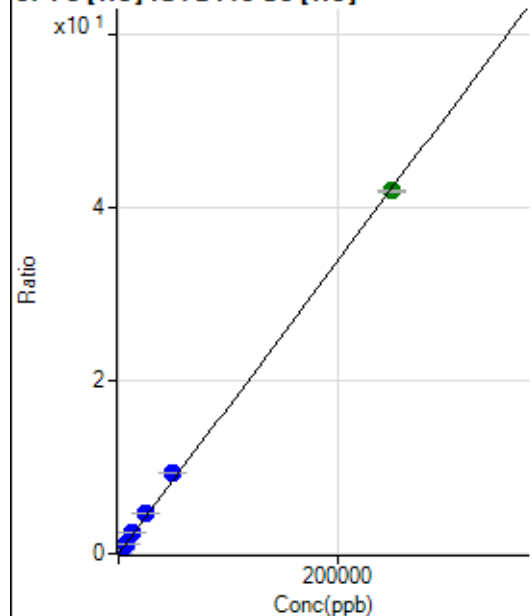
$$R = 0.9998$$

$$DL = 0.2995$$

$$BEC = 1.292$$

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	20.37	0.0003	P	83.9
2	☒	5.000		114.82	0.0015	P	19.2
3	☐	50.000	62.678	883.38	0.0108	P	6.2
4	☐	2500.000	2969.936	40118.23	0.5005	P	0.3
5	☐	6250.000	7206.030	96144.33	1.2141	P	0.9
6	☐	12500.000	14317.877	184582.53	2.4120	P	1.1
7	☐	25000.000	27842.741	368490.35	4.6902	P	0.8
8	☐	50000.000	55276.713	723062.67	9.3113	P	1.0
9	☐	250000.00	248540.88	3110509.73	41.8656	A	0.8

$$y = 1.6844E-004 * x + 2.5229E-004$$

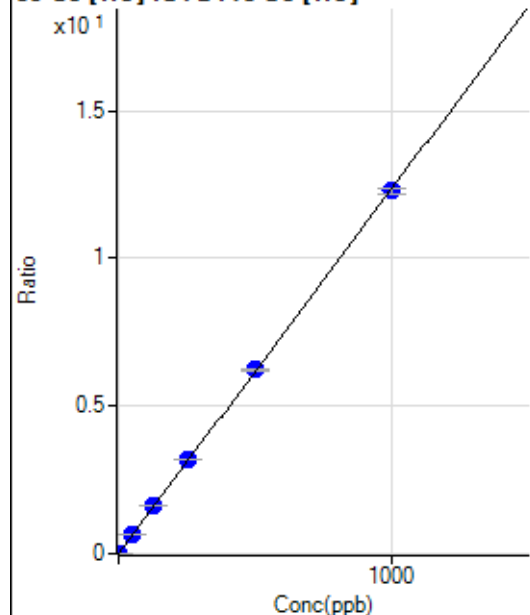
$$R = 0.9997$$

$$DL = 3.771$$

$$BEC = 1.498$$

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	10.00	0.0001	P	33.9
2	☒	0.100		123.34	0.0016	P	24.0
3	☐	1.000	0.970	988.94	0.0121	P	5.1
4	☐	50.000	53.551	52993.23	0.6612	P	0.4
5	☐	125.000	131.364	128423.54	1.6217	P	0.6
6	☐	250.000	257.704	243440.01	3.1812	P	1.5
7	☐	500.000	504.084	488876.87	6.2224	P	0.7
8	☐	1000.000	995.059	953798.11	12.2830	P	1.4
9	☐			9863.46	0.1328	P	2.2

$$y = 0.0123 * x + 1.2356E-004$$

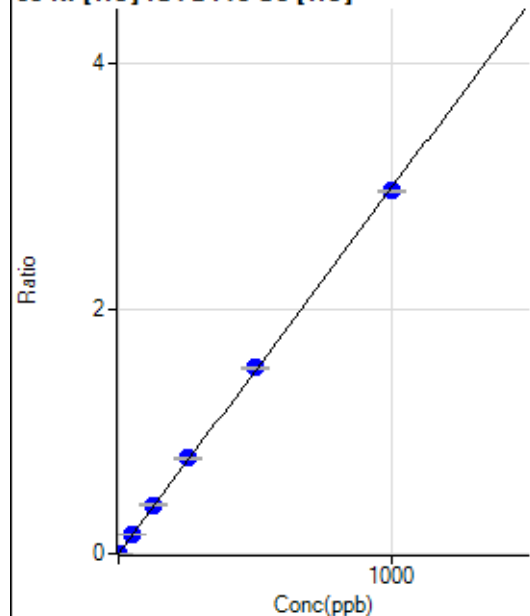
$$R = 0.9999$$

$$DL = 0.01018$$

$$BEC = 0.01001$$

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	15.56	0.0002	P	80.9
2	☒	0.100		44.44	0.0006	P	38.0
3	☐	1.000	1.158	297.79	0.0036	P	3.1
4	☐	50.000	54.000	12929.19	0.1613	P	1.7
5	☐	125.000	133.775	31624.19	0.3993	P	0.8
6	☐	250.000	260.821	59567.14	0.7784	P	1.5
7	☐	500.000	508.295	119171.16	1.5168	P	0.6
8	☐	1000.000	991.850	229828.79	2.9596	P	0.8
9	☐			2290.21	0.0308	P	3.1

$$y = 0.0030 * x + 1.9185E-004$$

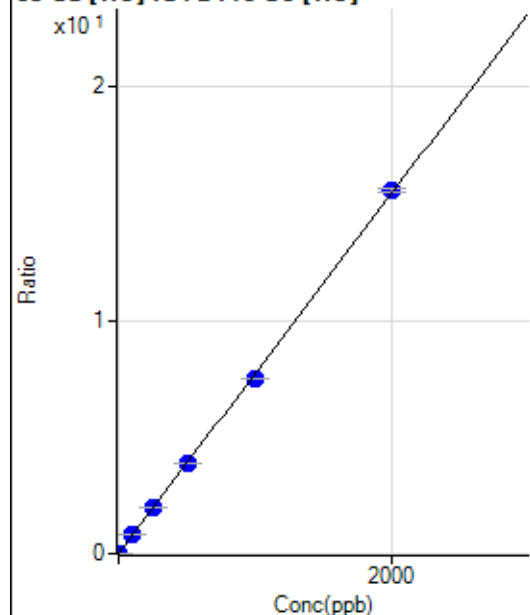
$$R = 0.9999$$

$$DL = 0.156$$

$$BEC = 0.0643$$

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	116.67	0.0014	P	22.8
2	☒	0.200		234.45	0.0030	P	2.2
3	☐	2.000	2.025	1394.53	0.0171	P	0.8
4	☐	100.000	104.643	64862.90	0.8092	P	0.7
5	☐	250.000	256.397	156848.24	1.9807	P	1.3
6	☐	500.000	498.998	294899.91	3.8535	P	0.9
7	☐	1000.000	970.662	588816.58	7.4945	P	0.9
8	☐	2000.000	2013.888	1207351.54	15.5477	P	1.0
9	☐			1600.12	0.0215	P	0.7

$$y = 0.0077 * x + 0.0014$$

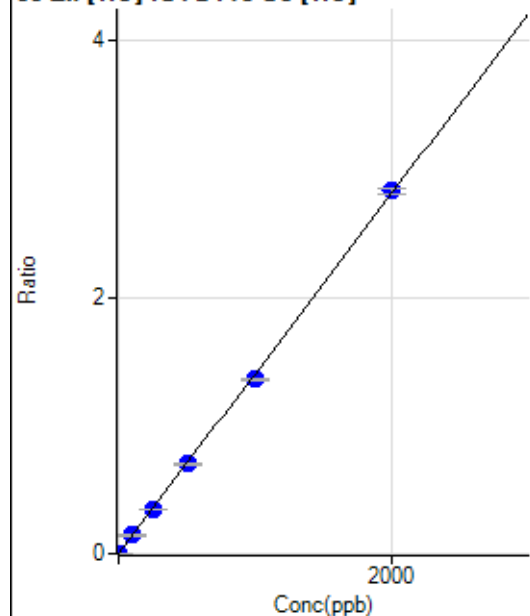
$$R = 0.9998$$

$$DL = 0.1274$$

$$BEC = 0.1867$$

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	46.67	0.0006	P	7.3
2	☒	0.200		61.11	0.0008	P	19.2
3	☐	2.000	1.627	233.34	0.0029	P	3.9
4	☐	100.000	101.984	11509.14	0.1436	P	2.3
5	☐	250.000	249.021	27698.71	0.3498	P	1.2
6	☐	500.000	497.101	53388.38	0.6977	P	1.3
7	☐	1000.000	969.525	106860.33	1.3601	P	1.1
8	☐	2000.000	2015.986	219573.02	2.8276	P	1.5
9	☐			1714.57	0.0231	P	7.9

$$y = 0.0014 * x + 5.7597E-004$$

$$R = 0.9998$$

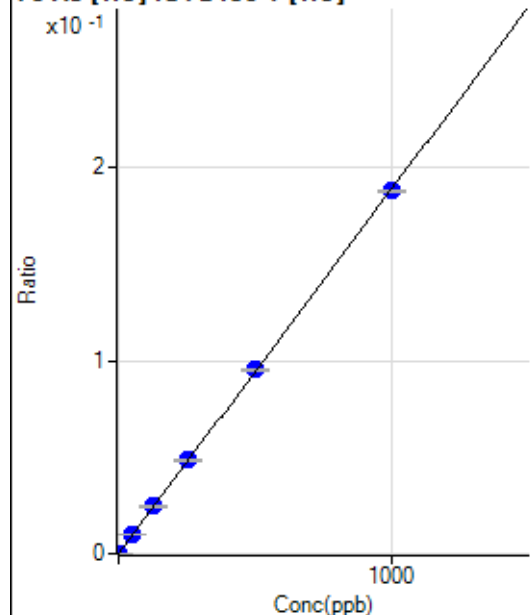
$$DL = 0.08988$$

$$BEC = 0.4107$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.23	0.0000	P	86.6
2	☒	0.100		9.26	0.0000	P	41.3
3	☐	1.000	0.838	60.49	0.0002	P	10.3
4	☐	50.000	50.919	3545.52	0.0096	P	3.1
5	☐	125.000	129.607	8891.05	0.0245	P	0.9
6	☐	250.000	256.018	16965.51	0.0483	P	0.5
7	☐	500.000	504.470	34224.74	0.0952	P	0.5
8	☐	1000.000	995.639	67013.27	0.1879	P	0.7
9	☐			83.95	0.0002	P	9.7

$$y = 1.8875E-004 * x + 3.3121E-006$$

$$R = 1.0000$$

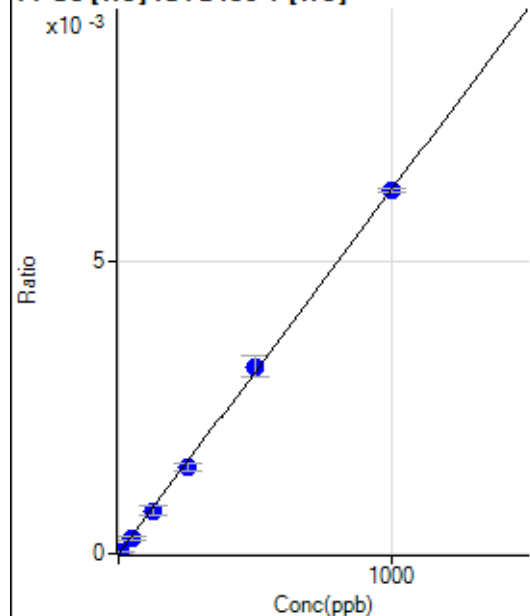
$$DL = 0.0456$$

$$BEC = 0.01755$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☒	0.500		1.11	0.0000	P	173.2
3	☐	5.000	5.255	12.22	0.0000	P	42.3
4	☐	50.000	41.250	94.45	0.0003	P	27.3
5	☐	125.000	118.494	267.78	0.0007	P	21.1
6	☐	250.000	237.743	518.91	0.0015	P	7.3
7	☐	500.000	514.095	1148.95	0.0032	P	11.1
8	☐	1000.000	997.266	2210.21	0.0062	P	1.0
9	☐			2.22	0.0000	P	86.6

$$y = 6.2152E-006 * x + 0.0000E+000$$

$$R = 0.9997$$

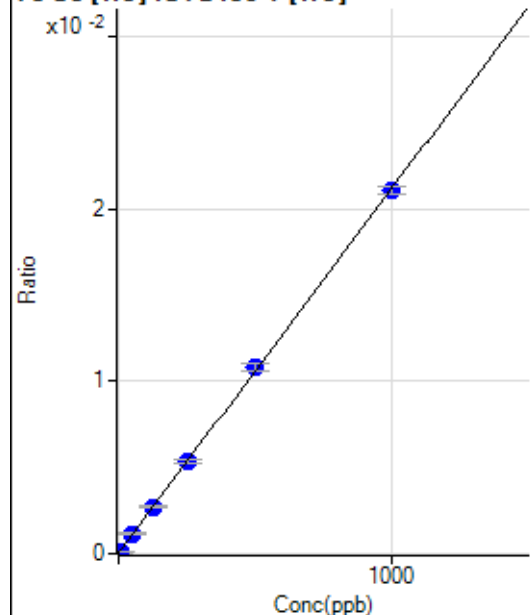
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14.20	0.0000	P	30.7
2	☒	0.500		14.81	0.0000	P	25.9
3	☐	5.000	4.669	51.24	0.0001	P	9.8
4	☐	50.000	52.474	422.85	0.0011	P	7.1
5	☐	125.000	125.411	976.59	0.0027	P	3.5
6	☐	250.000	250.386	1869.89	0.0053	P	3.3
7	☐	500.000	510.538	3890.06	0.0108	P	3.4
8	☐	1000.000	994.461	7505.09	0.0210	P	2.0
9	☐			10.49	0.0000	P	43.0

$$y = 2.1125\text{E-}005 * x + 3.8077\text{E-}005$$

$$R = 0.9999$$

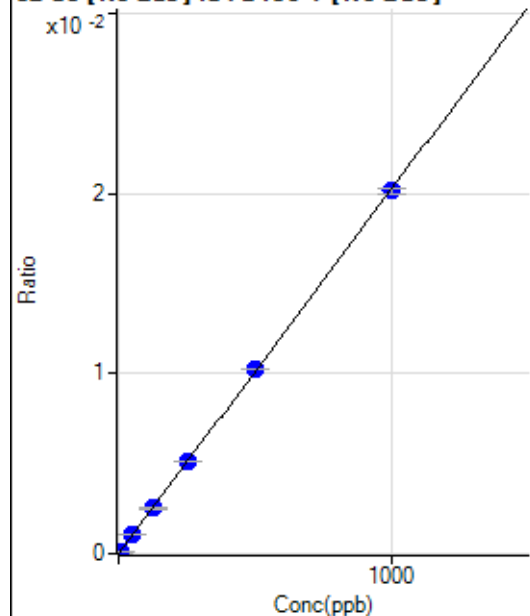
$$DL = 1.661$$

$$BEC = 1.802$$

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	-10.45	0.0000	P	-366.
2	☒	0.500		55.06	0.0000	P	30.3
3	☐	5.000	5.506	249.51	0.0001	P	16.4
4	☐	50.000	50.958	2392.94	0.0010	P	0.8
5	☐	125.000	124.301	5805.17	0.0025	P	1.9
6	☐	250.000	255.406	11544.18	0.0052	P	0.2
7	☐	500.000	507.076	22864.47	0.0103	P	0.6
8	☐	1000.000	995.148	45853.96	0.0201	P	1.4
9	☐			14.20	0.0000	P	51.2

$$y = 2.0233\text{E-}005 * x - 4.4430\text{E-}006$$

$$R = 0.9999$$

$$DL = 2.412$$

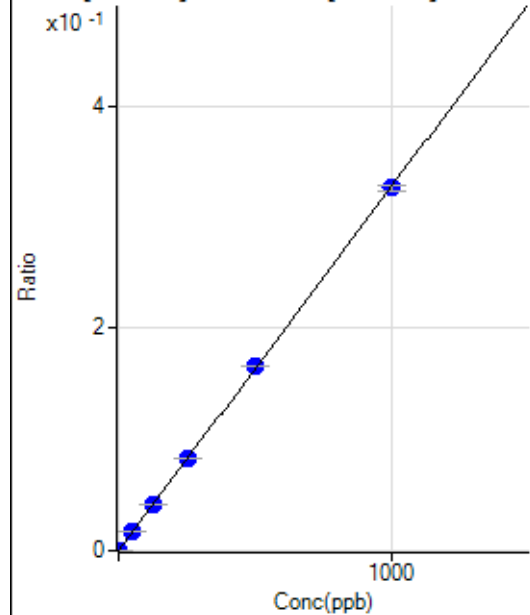
$$BEC = -0.2196$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			68.89		P	43.4
2	☐			40.00		P	36.3
3	☐			67.78		P	36.3
4	☐			56.67		P	31.1
5	☐			57.78		P	21.8
6	☐			44.45		P	30.3
7	☐			57.78		P	39.3
8	☐			71.11		P	14.3
9	☐			61.11		P	6.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	97.23	0.0000	P	26.1
2	☒	0.100		166.67	0.0001	P	32.8
3	☐	1.000	0.873	763.94	0.0003	P	4.2
4	☐	50.000	51.043	39045.56	0.0168	P	0.5
5	☐	125.000	125.890	95379.90	0.0413	P	0.6
6	☐	250.000	252.188	184675.37	0.0826	P	1.1
7	☐	500.000	506.284	369598.67	0.1658	P	0.4
8	☐	1000.000	996.148	742881.20	0.3261	P	1.4
9	☐			2755.95	0.0013	P	6.3

$$y = 3.2735E-004 * x + 4.1378E-005$$

$$R = 1.0000$$

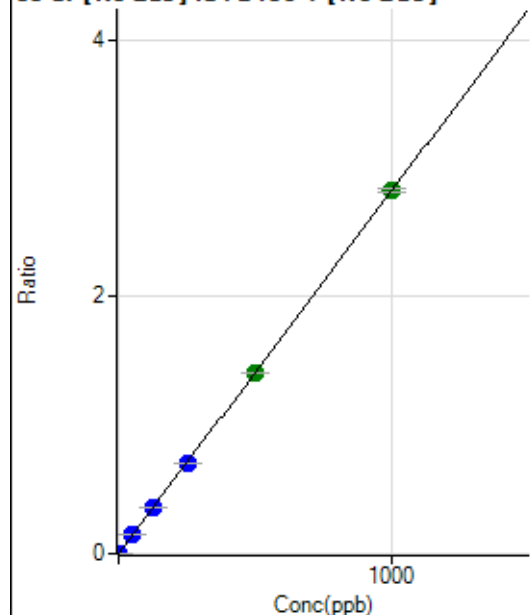
$$DL = 0.09884$$

$$BEC = 0.1264$$

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	30.56	0.0000	P	41.6
2	☒	0.100		691.71	0.0003	P	21.8
3	☐	1.000	0.958	6337.80	0.0027	P	5.0
4	☐	50.000	51.249	336998.49	0.1446	P	0.6
5	☐	125.000	126.523	825222.79	0.3569	P	0.9
6	☐	250.000	249.466	1573383.05	0.7037	P	0.2
7	☐	500.000	499.260	3139837.18	1.4083	A	0.0
8	☐	1000.000	1000.251	6427172.36	2.8215	A	0.9
9	☐			23417.12	0.0113	P	1.9

$$y = 0.0028 * x + 1.3009E-005$$

$$R = 1.0000$$

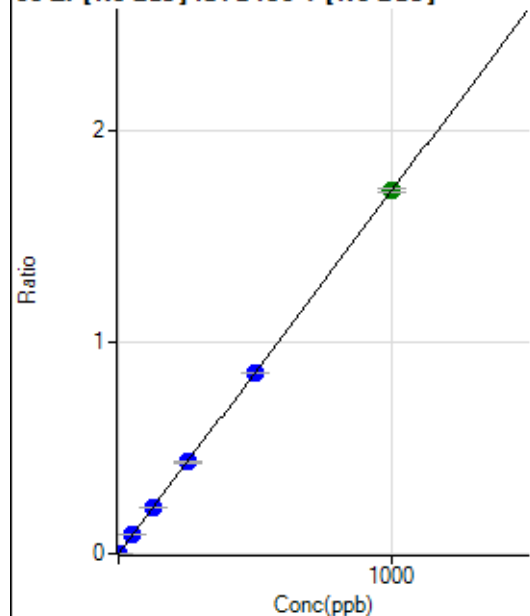
$$DL = 0.005762$$

$$BEC = 0.004612$$

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	166.67	0.0001	P	25.9
2	☒	0.100		591.70	0.0003	P	17.5
3	☐	1.000	0.878	3681.18	0.0016	P	2.0
4	☐	50.000	50.819	203388.16	0.0873	P	0.5
5	☐	125.000	126.439	501709.87	0.2170	P	0.7
6	☐	250.000	252.227	967673.57	0.4328	P	0.5
7	☐	500.000	498.150	1905509.07	0.8547	P	0.4
8	☐	1000.000	1000.148	3908588.02	1.7159	A	1.2
9	☐			1250.10	0.0006	P	3.6

$$y = 0.0017 * x + 7.0939E-005$$

$$R = 1.0000$$

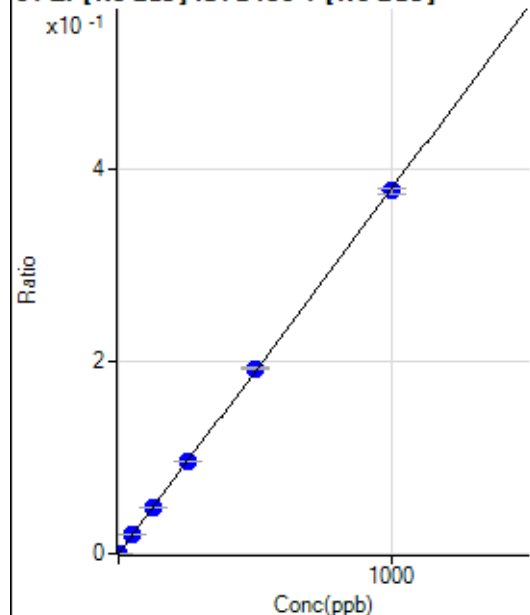
$$DL = 0.03211$$

$$BEC = 0.04135$$

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	33.33	0.0000	P	25.0
2	☒	0.100		119.45	0.0001	P	39.7
3	☐	1.000	0.850	783.39	0.0003	P	19.0
4	☐	50.000	50.475	44559.01	0.0191	P	0.4
5	☐	125.000	127.743	111811.89	0.0484	P	0.9
6	☐	250.000	252.698	213864.20	0.0956	P	1.1
7	☐	500.000	508.520	429091.05	0.1925	P	0.4
8	☐	1000.000	994.699	857513.93	0.3764	P	1.4
9	☐			302.79	0.0001	P	28.9

$$y = 3.7844\text{E-}004 * x + 1.4190\text{E-}005$$

$$R = 0.9999$$

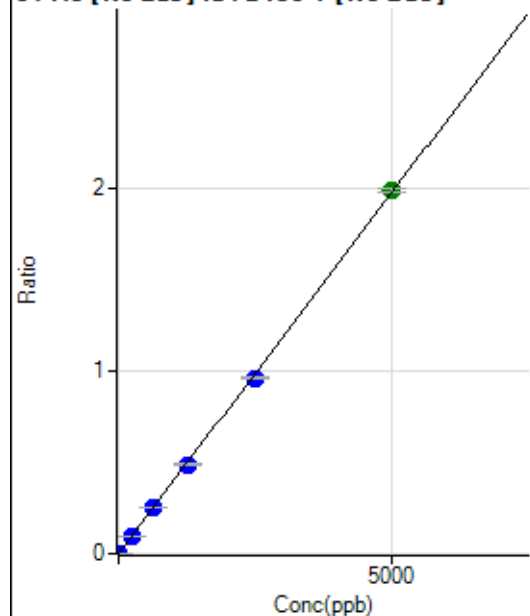
$$DL = 0.0281$$

$$BEC = 0.03749$$

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	66.67	0.0000	P	37.5
2	☐	0.500	0.444	475.03	0.0002	P	9.9
3	☐	5.000	4.942	4612.05	0.0020	P	1.5
4	☐	250.000	250.164	229885.60	0.0986	P	0.5
5	☐	625.000	629.408	573631.99	0.2481	P	0.5
6	☐	1250.000	1238.778	1091693.36	0.4883	P	0.5
7	☐	2500.000	2439.265	2143440.32	0.9614	P	0.2
8	☐	5000.000	5032.614	4518236.17	1.9835	A	1.1
9	☐			1719.62	0.0008	P	13.8

$$y = 3.9412\text{E-}004 * x + 2.8380\text{E-}005$$

$$R = 0.9999$$

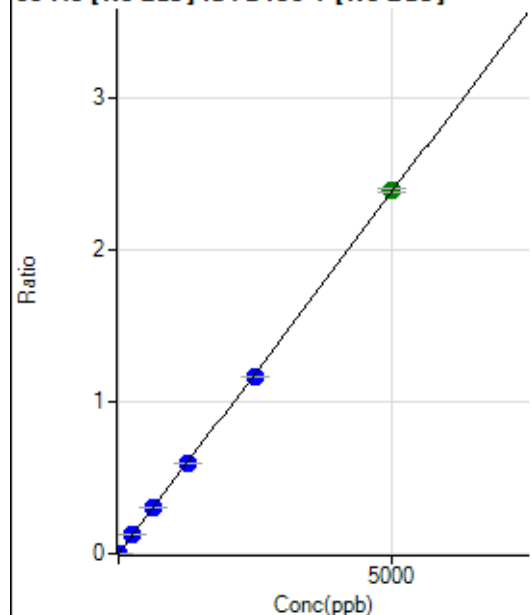
$$DL = 0.08092$$

$$BEC = 0.07201$$

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	11.11	0.0000	P	114.6
2	☐	0.500	0.464	525.04	0.0002	P	23.0
3	☐	5.000	5.042	5601.32	0.0024	P	4.9
4	☐	250.000	255.610	282997.06	0.1214	P	0.1
5	☐	625.000	634.844	697171.90	0.3015	P	0.5
6	☐	1250.000	1251.725	1329282.39	0.5945	P	0.8
7	☐	2500.000	2452.058	2596494.78	1.1646	P	0.1
8	☐	5000.000	5022.029	5433428.55	2.3852	A	1.0
9	☐			2378.08	0.0011	P	18.7

$$y = 4.7495E-004 * x + 4.7246E-006$$

$$R = 0.9999$$

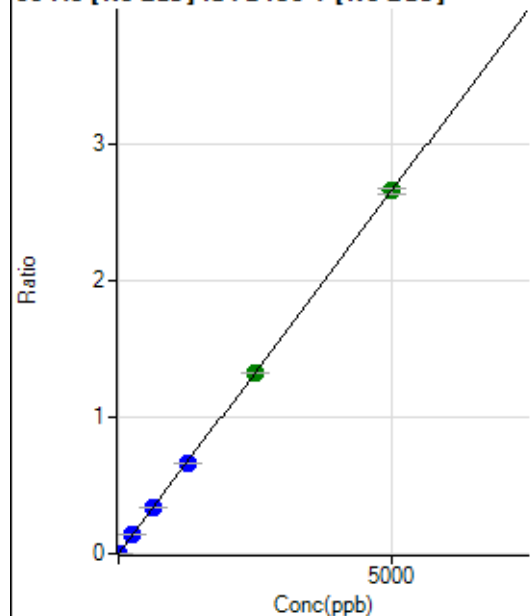
$$DL = 0.03419$$

$$BEC = 0.009948$$

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	11.11	0.0000	P	114.6
2	☐	0.500	0.538	677.82	0.0003	P	15.4
3	☐	5.000	4.890	6073.75	0.0026	P	0.8
4	☐	250.000	254.568	315209.93	0.1352	P	0.9
5	☐	625.000	629.116	772685.27	0.3342	P	0.2
6	☐	1250.000	1241.715	1474738.64	0.6596	P	0.4
7	☐	2500.000	2497.314	2957582.25	1.3266	A	0.2
8	☐	5000.000	5002.671	6053118.54	2.6574	A	1.4
9	☐			2986.54	0.0014	P	12.4

$$y = 5.3119E-004 * x + 4.7245E-006$$

$$R = 1.0000$$

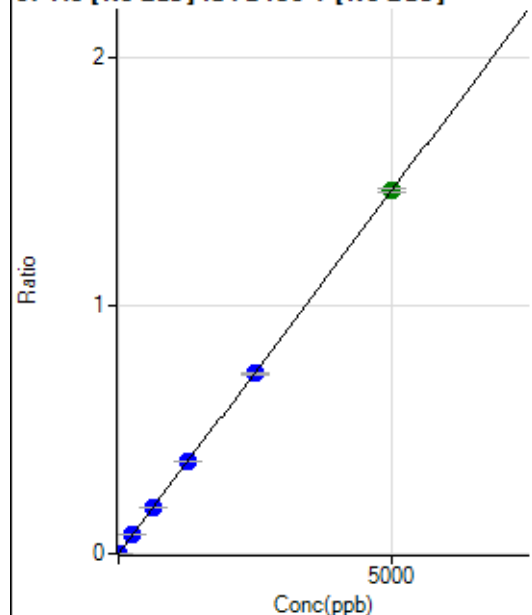
$$DL = 0.03057$$

$$BEC = 0.008894$$

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	22.22	0.0000	P	57.3
2	☐	0.500	0.508	369.47	0.0002	P	19.2
3	☐	5.000	4.979	3428.33	0.0015	P	6.4
4	☐	250.000	259.349	177181.55	0.0760	P	0.9
5	☐	625.000	646.009	437722.22	0.1893	P	0.9
6	☐	1250.000	1274.200	834889.62	0.3734	P	0.5
7	☐	2500.000	2481.980	1621576.87	0.7273	P	0.5
8	☐	5000.000	4999.867	3337505.68	1.4651	A	1.1
9	☐			1247.33	0.0006	P	3.3

$$y = 2.9303E-004 * x + 9.4615E-006$$

$$R = 1.0000$$

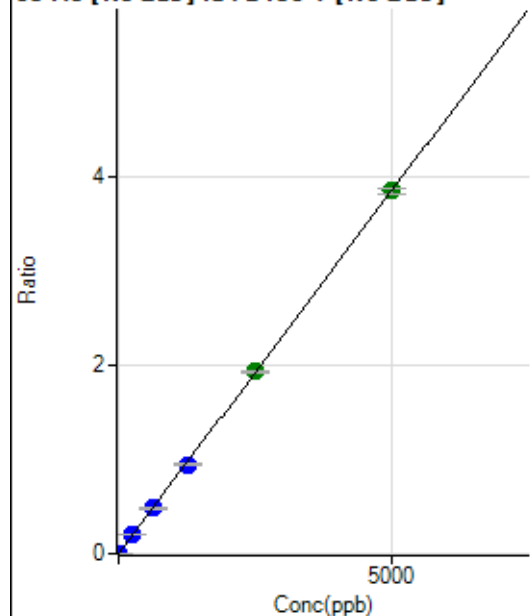
$$DL = 0.05548$$

$$BEC = 0.03229$$

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	27.78	0.0000	P	45.7
2	☐	0.500	0.515	955.63	0.0004	P	11.7
3	☐	5.000	4.964	8961.52	0.0038	P	2.4
4	☐	250.000	253.103	455020.11	0.1952	P	0.5
5	☐	625.000	623.431	1111698.93	0.4808	P	0.4
6	☐	1250.000	1231.427	2123382.71	0.9497	P	0.2
7	☐	2500.000	2505.613	4308198.88	1.9323	A	0.2
8	☐	5000.000	5001.878	8786736.92	3.8575	A	1.7
9	☐			3086.57	0.0015	P	8.5

$$y = 7.7120E-004 * x + 1.1821E-005$$

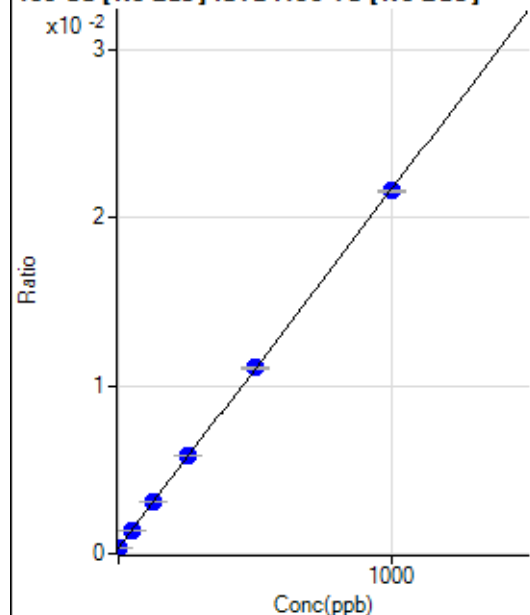
$$R = 1.0000$$

$$DL = 0.02102$$

$$BEC = 0.01533$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1066.76	0.0004	P	2.9
2	☒	0.100		991.74	0.0003	P	6.8
3	☐	1.000	-0.343	1047.30	0.0003	P	5.1
4	☐	50.000	48.229	4211.90	0.0014	P	3.1
5	☐	125.000	127.863	9358.98	0.0031	P	2.7
6	☐	250.000	256.358	17380.67	0.0058	P	0.9
7	☐	500.000	503.978	33735.35	0.0111	P	1.0
8	☐	1000.000	996.153	67944.23	0.0216	P	0.4
9	☐			950.07	0.0003	P	7.2

$$y = 2.1341\text{E-}005 * x + 3.5399\text{E-}004$$

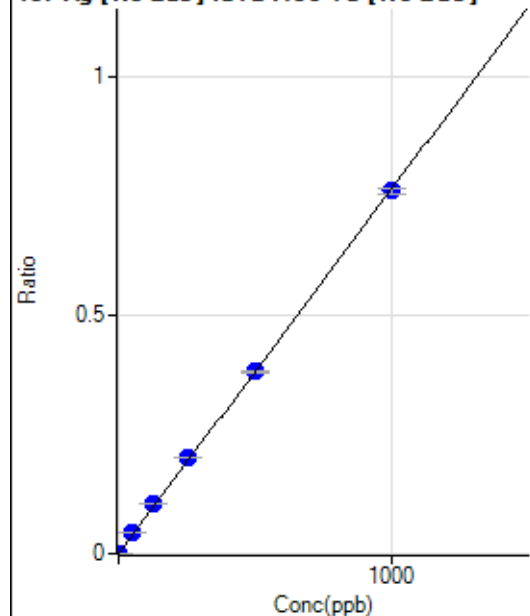
$$R = 1.0000$$

$$DL = 1.457$$

$$BEC = 16.59$$

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	38.89	0.0000	P	13.0
2	☒	0.100		269.46	0.0001	P	16.9
3	☐	1.000	1.045	2455.87	0.0008	P	4.1
4	☐	50.000	56.000	130583.11	0.0429	P	0.4
5	☐	125.000	136.029	316265.80	0.1042	P	0.8
6	☐	250.000	261.680	597926.38	0.2004	P	0.2
7	☐	500.000	499.946	1162487.12	0.3828	P	1.0
8	☐	1000.000	995.428	2396040.57	0.7622	P	1.3
9	☐			241.68	0.0001	P	25.9

$$y = 7.6572\text{E-}004 * x + 1.2911\text{E-}005$$

$$R = 0.9999$$

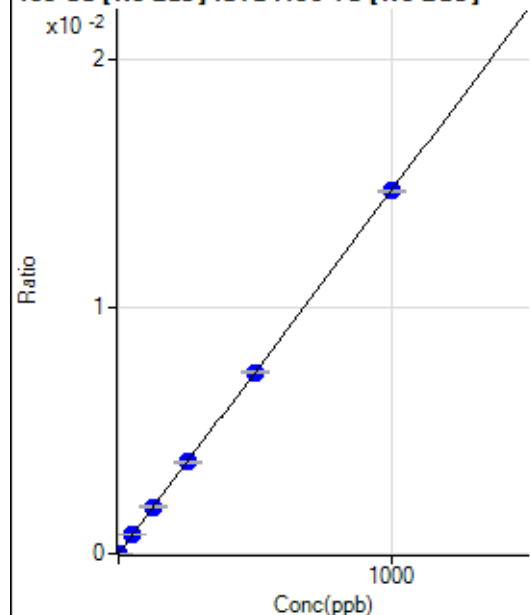
$$DL = 0.006579$$

$$BEC = 0.01686$$

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	5.56	0.0000	P	114.1
2	☒	0.100		5.56	0.0000	P	43.0
3	☐	1.000	1.031	51.39	0.0000	P	20.8
4	☐	50.000	51.835	2329.41	0.0008	P	5.4
5	☐	125.000	128.814	5763.79	0.0019	P	3.4
6	☐	250.000	252.453	11098.95	0.0037	P	1.5
7	☐	500.000	500.163	22370.75	0.0074	P	1.0
8	☐	1000.000	998.736	46237.78	0.0147	P	0.8
9	☐			15.28	0.0000	P	31.1

$$y = 1.4726E-005 * x + 1.8349E-006$$

$$R = 1.0000$$

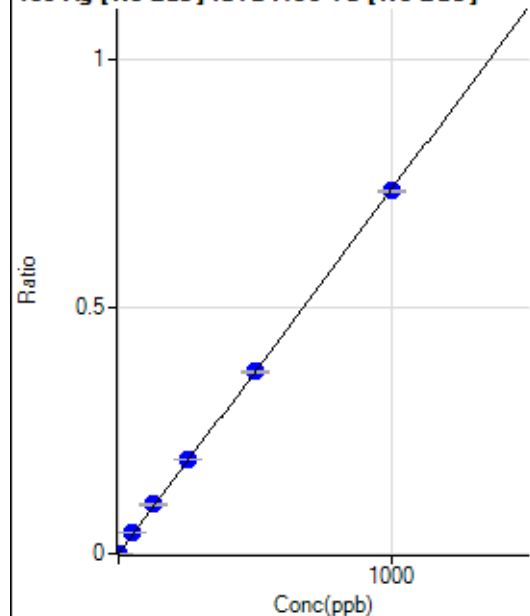
$$DL = 0.4265$$

$$BEC = 0.1246$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11.11	0.0000	P	43.7
2	☒	0.100		252.79	0.0001	P	27.8
3	☐	1.000	1.060	2372.52	0.0008	P	5.9
4	☐	50.000	55.928	125637.90	0.0413	P	0.3
5	☐	125.000	135.286	303040.75	0.0998	P	1.1
6	☐	250.000	260.600	573742.31	0.1923	P	0.1
7	☐	500.000	499.128	1118299.87	0.3683	P	1.0
8	☐	1000.000	996.204	2310601.55	0.7350	P	0.9
9	☐			186.12	0.0001	P	20.7

$$y = 7.3783E-004 * x + 3.6895E-006$$

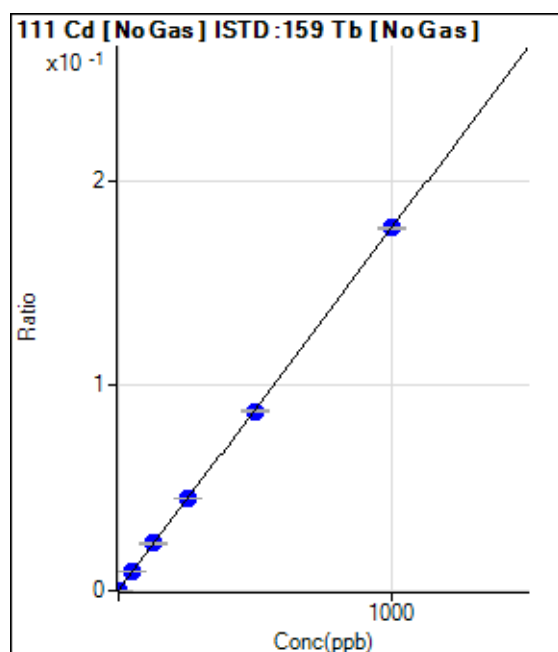
$$R = 0.9999$$

$$DL = 0.006552$$

$$BEC = 0.005001$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	424.20	0.0001	P	4.1
2	☒	0.100		441.42	0.0001	P	7.6
3	☐	1.000	0.894	902.41	0.0003	P	5.6
4	☐	50.000	52.488	28644.39	0.0094	P	0.8
5	☐	125.000	129.687	69951.68	0.0230	P	1.1
6	☐	250.000	254.021	134263.42	0.0450	P	0.4
7	☐	500.000	495.122	265908.27	0.0876	P	0.2
8	☐	1000.000	1000.724	555930.26	0.1768	P	0.8
9	☐			447.11	0.0002	P	9.3

$$y = 1.7658\text{E-}004 * x + 1.4077\text{E-}004$$

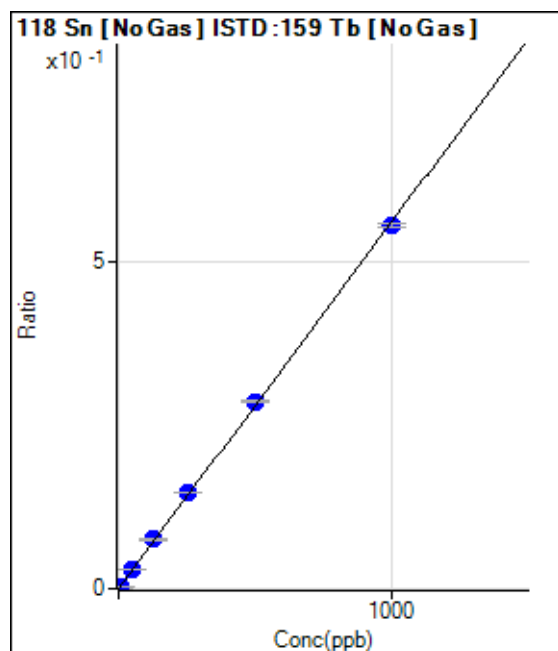
$$R = 1.0000$$

$$DL = 0.09815$$

$$BEC = 0.7972$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138.90	0.0000	P	39.2
2	☒	0.500		1113.98	0.0004	P	10.7
3	☐	5.000	5.137	8858.74	0.0029	P	5.0
4	☐	50.000	54.344	93120.93	0.0306	P	0.6
5	☐	125.000	133.885	228578.41	0.0753	P	0.5
6	☐	250.000	263.068	441293.37	0.1479	P	0.3
7	☐	500.000	510.820	871883.94	0.2871	P	0.3
8	☐	1000.000	989.994	1749174.87	0.5564	P	0.9
9	☐			975.07	0.0003	P	13.7

$$y = 5.6201\text{E-}004 * x + 4.6009\text{E-}005$$

$$R = 0.9998$$

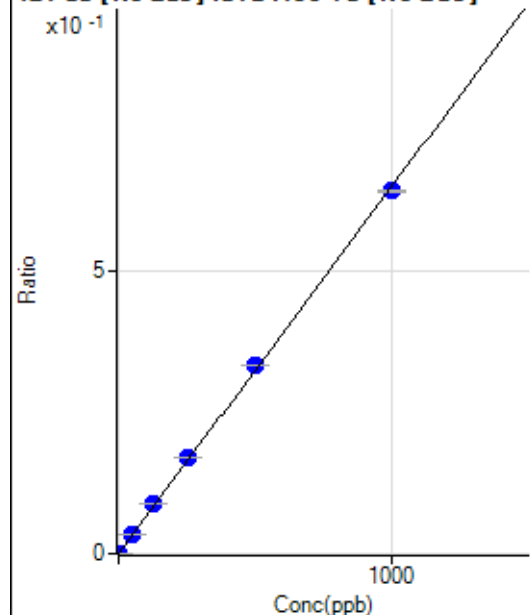
$$DL = 0.09639$$

$$BEC = 0.08186$$

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	2.78	0.0000	P	173.2
2	☒	0.200		386.13	0.0001	P	7.0
3	☐	2.000	1.864	3661.74	0.0012	P	1.2
4	☐	50.000	53.393	105659.78	0.0347	P	0.8
5	☐	125.000	134.078	264585.33	0.0872	P	0.6
6	☐	250.000	262.833	509754.87	0.1708	P	0.4
7	☐	500.000	512.858	1012246.62	0.3334	P	0.4
8	☐	1000.000	989.059	2020998.72	0.6429	P	0.7
9	☐			2544.79	0.0009	P	5.0

$$y = 6.4999\text{E-}004 * x + 9.2449\text{E-}007$$

$$R = 0.9998$$

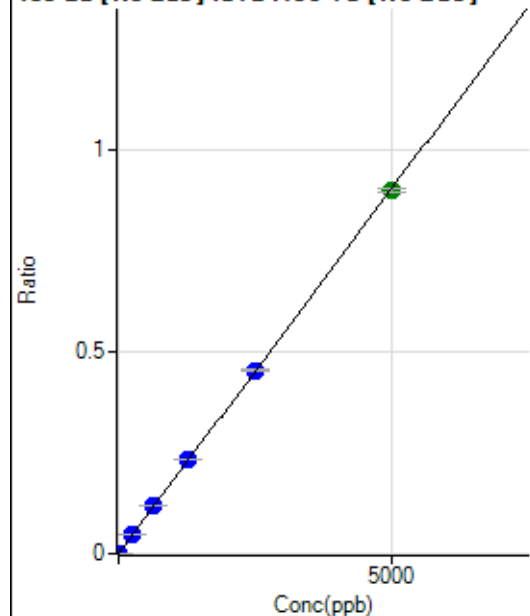
$$DL = 0.007391$$

$$BEC = 0.001422$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.78	0.0000	P	173.2
2	☒	1.000		633.38	0.0002	P	10.4
3	☐	10.000	10.622	5798.68	0.0019	P	6.8
4	☐	250.000	268.080	147410.06	0.0484	P	0.5
5	☐	625.000	662.045	363026.46	0.1196	P	0.3
6	☐	1250.000	1297.283	699140.43	0.2343	P	0.3
7	☐	2500.000	2517.603	1380767.94	0.4547	P	0.6
8	☐	5000.000	4973.842	2824004.51	0.8984	A	0.9
9	☐			436.14	0.0002	P	0.8

$$y = 1.8062\text{E-}004 * x + 9.2449\text{E-}007$$

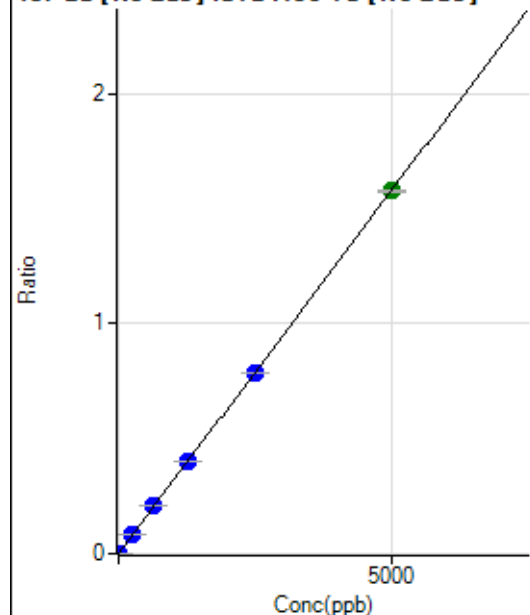
$$R = 0.9999$$

$$DL = 0.0266$$

$$BEC = 0.005119$$

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	5.56	0.0000	P	173.2
2	☒	1.000		1141.76	0.0004	P	5.6
3	☐	10.000	10.423	9940.07	0.0033	P	0.2
4	☐	250.000	265.375	254933.51	0.0837	P	1.2
5	☐	625.000	656.575	628974.03	0.2072	P	0.4
6	☐	1250.000	1278.849	1204066.15	0.4035	P	0.5
7	☐	2500.000	2483.172	2379282.63	0.7835	P	0.2
8	☐	5000.000	4996.485	4956118.60	1.5766	A	0.8
9	☐			802.84	0.0003	P	27.3

$$y = 3.1554\text{E-}004 * x + 1.8518\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.0305$$

$$BEC = 0.005869$$

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
2	☐			2.22		P	173.2
3	☐			0.00		P	
4	☐			15.56		P	98.9
5	☐			20.00		P	0.0
6	☐			48.89		P	55.1
7	☐			155.56		P	10.8
8	☐			228.90		P	11.0
9	☐			33.33		P	20.0

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			4.45		P	86.6
6	☐			6.66		P	86.6
7	☐			21.11		P	18.2
8	☐			26.67		P	54.5
9	☐			23.33		P	51.5

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			2.78		P	173.2
4	☐			5.55		P	86.6
5	☐			8.33		P	100.0
6	☐			8.33		P	100.0
7	☐			30.56		P	56.8
8	☐			41.67		P	40.0
9	☐			30.56		P	31.5

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			1.11		P	173.2
3	☐			1.11		P	173.2
4	☐			6.67		P	100.0
5	☐			11.11		P	45.8
6	☐			22.22		P	82.6
7	☐			42.22		P	43.5
8	☐			58.89		P	14.2
9	☐			13.33		P	25.0

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐			22.22		P	78.1
3	☐			8.33		P	100.0
4	☐			8.33		P	0.0
5	☐			8.33		P	100.0
6	☐			11.11		P	43.3
7	☐			11.11		P	86.6
8	☐			16.67		P	50.0
9	☐			30.56		P	41.7

160 Gd [He] No available calibration points

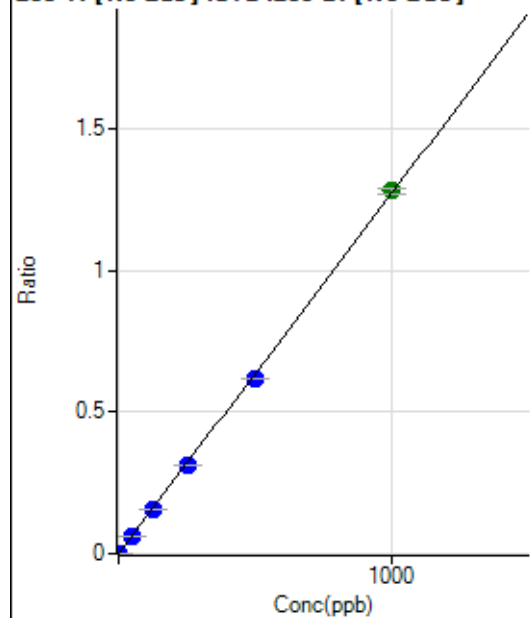
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.11		P	23.4
2	☐			41.11		P	40.0
3	☐			43.34		P	13.3
4	☐			28.89		P	6.7
5	☐			45.55		P	8.5
6	☐			48.89		P	15.7
7	☐			43.33		P	40.7
8	☐			52.22		P	13.3
9	☐			64.45		P	37.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	49.5
2	☐			8.33		P	100.0
3	☐			5.56		P	173.2
4	☐			8.33		P	100.0
5	☐			16.67		P	50.0
6	☐			11.11		P	114.6
7	☐			16.66		P	86.6
8	☐			8.33		P	0.0
9	☐			16.67		P	50.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	69.3
2	☐			2.22		P	86.6
3	☐			10.00		P	33.3
4	☐			6.67		P	86.6
5	☐			1.11		P	173.2
6	☐			5.55		P	69.3
7	☐			8.89		P	57.3
8	☐			8.89		P	43.3
9	☐			6.66		P	86.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	13.89	0.0000	P	69.4
2	☒	0.100		233.35	0.0001	P	15.4
3	☐	1.000	0.954	2514.24	0.0012	P	11.2
4	☐	50.000	49.188	129592.03	0.0625	P	0.7
5	☐	125.000	122.884	322110.64	0.1562	P	0.6
6	☐	250.000	244.508	626814.44	0.3107	P	0.2
7	☐	500.000	488.225	1256323.46	0.6204	P	0.1
8	☐	1000.000	1007.566	2573196.37	1.2804	A	1.5
9	☐			455.58	0.0003	P	27.1

$$y = 0.0013 * x + 6.6729E-006$$

$$R = 0.9999$$

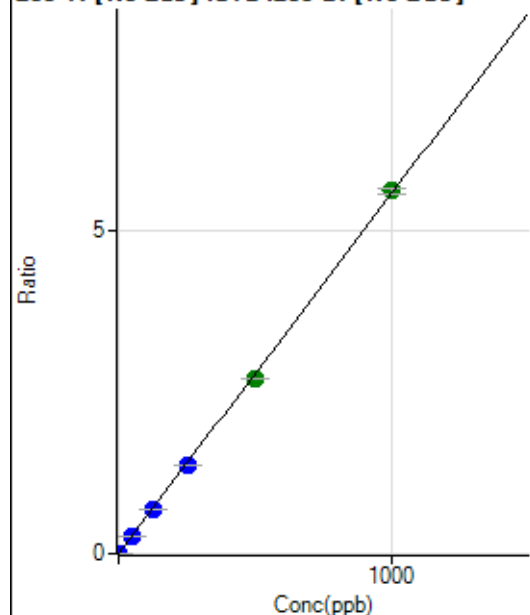
$$DL = 0.01094$$

$$BEC = 0.005251$$

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	52.78	0.0000	P	50.9
2	☒	0.100		1038.95	0.0005	P	11.5
3	☐	1.000	0.946	10955.05	0.0053	P	5.6
4	☐	50.000	49.520	573145.72	0.2765	P	0.4
5	☐	125.000	123.548	1422622.45	0.6897	P	0.5
6	☐	250.000	244.947	2758518.27	1.3674	P	0.2
7	☐	500.000	487.849	5514749.37	2.7234	A	0.2
8	☐	1000.000	1007.544	11303663.36	5.6245	A	1.7
9	☐			1966.81	0.0012	P	17.4

$$y = 0.0056 * x + 2.5367E-005$$

$$R = 0.9999$$

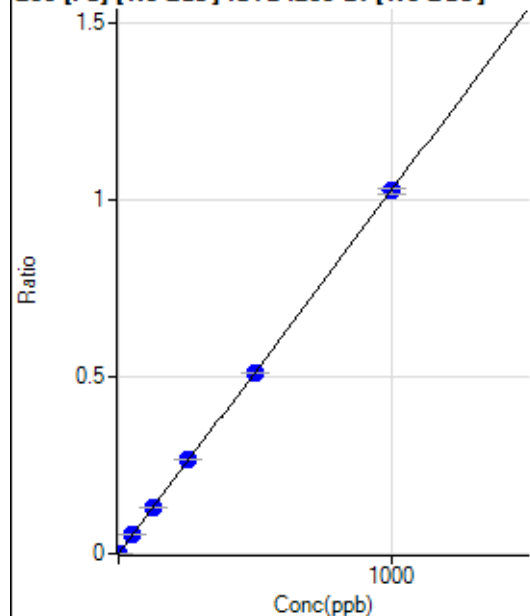
$$DL = 0.006941$$

$$BEC = 0.004544$$

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	51.85	0.0000	P	47.7
2	☒	0.100		244.46	0.0001	P	8.5
3	☐	1.000	0.996	2161.35	0.0010	P	4.8
4	☐	50.000	51.718	110150.51	0.0531	P	0.3
5	☐	125.000	128.980	273240.93	0.1325	P	0.5
6	☐	250.000	257.129	532707.81	0.2641	P	0.2
7	☐	500.000	498.648	1036948.69	0.5121	P	0.1
8	☐	1000.000	998.310	2060328.27	1.0252	P	1.6
9	☐			1676.08	0.0010	P	6.4

$$y = 0.0010 * x + 2.4847E-005$$

$$R = 1.0000$$

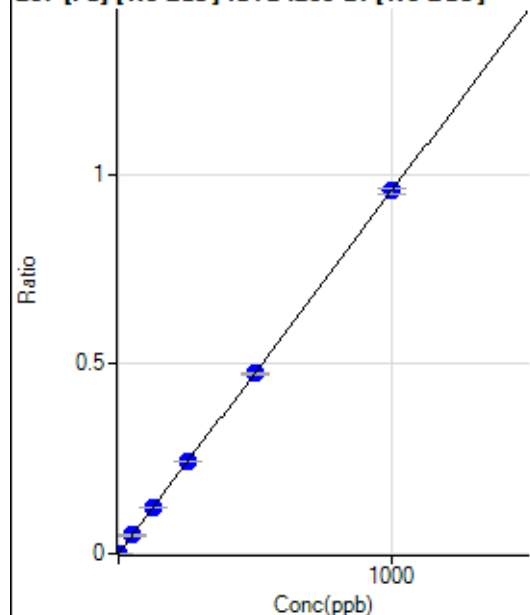
$$DL = 0.0346$$

$$BEC = 0.0242$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74.07	0.0000	P	19.3
2	☒	0.100		253.71	0.0001	P	5.2
3	☐	1.000	0.932	1909.45	0.0009	P	1.9
4	☐	50.000	50.538	100124.38	0.0483	P	0.8
5	☐	125.000	126.223	248683.22	0.1206	P	0.5
6	☐	250.000	252.616	486698.30	0.2413	P	0.2
7	☐	500.000	496.420	959976.51	0.4741	P	0.6
8	☐	1000.000	1000.956	1920972.06	0.9558	P	1.8
9	☐			1376.04	0.0008	P	10.2

$$y = 9.5490\text{E-}004 * x + 3.5586\text{E-}005$$

$$R = 1.0000$$

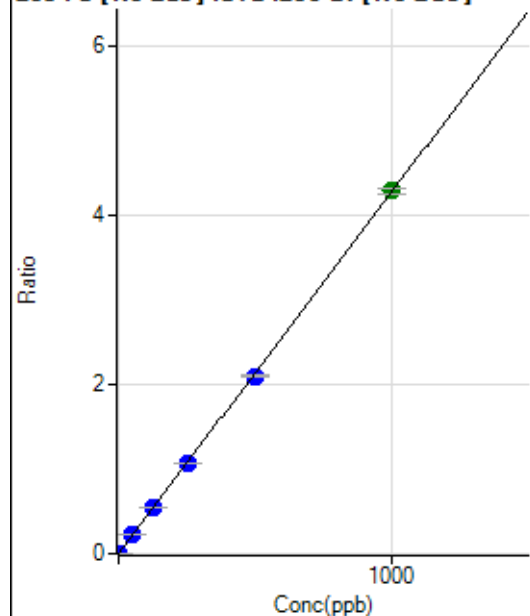
$$DL = 0.02153$$

$$BEC = 0.03727$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	272.23	0.0001	P	1.4
2	☒	0.100		1029.68	0.0005	P	9.3
3	☐	1.000	0.947	8630.97	0.0042	P	4.1
4	☐	50.000	50.650	449442.57	0.2168	P	0.4
5	☐	125.000	126.138	1113199.81	0.5397	P	0.4
6	☐	250.000	251.402	2169699.41	1.0755	P	0.2
7	☐	500.000	491.837	4260567.82	2.1040	P	0.3
8	☐	1000.000	1003.556	8627671.04	4.2929	A	1.5
9	☐			6650.88	0.0039	P	6.7

$$y = 0.0043 * x + 1.3072\text{E-}004$$

$$R = 0.9999$$

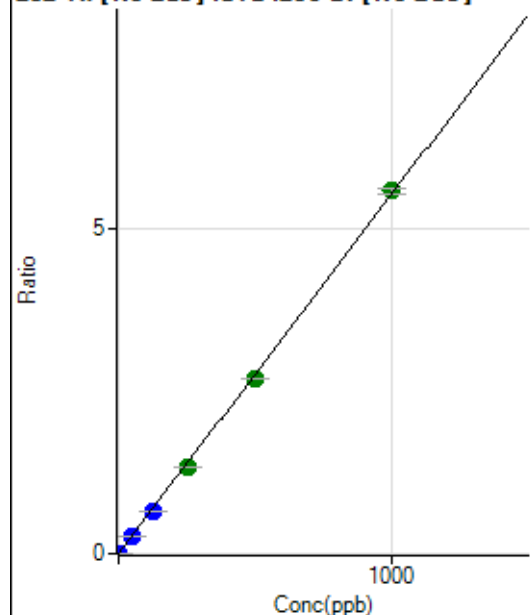
$$DL = 0.001252$$

$$BEC = 0.03056$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.92	0.0000	P	24.9
2	☒	0.100		1042.66	0.0005	P	4.4
3	☐	1.000	0.850	9742.82	0.0047	P	2.5
4	☐	50.000	47.556	546338.09	0.2635	P	0.1
5	☐	125.000	118.957	1359696.21	0.6592	P	0.8
6	☐	250.000	241.252	2696904.63	1.3369	A	0.2
7	☐	500.000	486.282	5456472.11	2.6946	A	0.8
8	☐	1000.000	1009.924	11247282.08	5.5963	A	1.3
9	☐			2541.08	0.0015	P	10.6

$$y = 0.0055 * x + 1.2452E-005$$

$$R = 0.9998$$

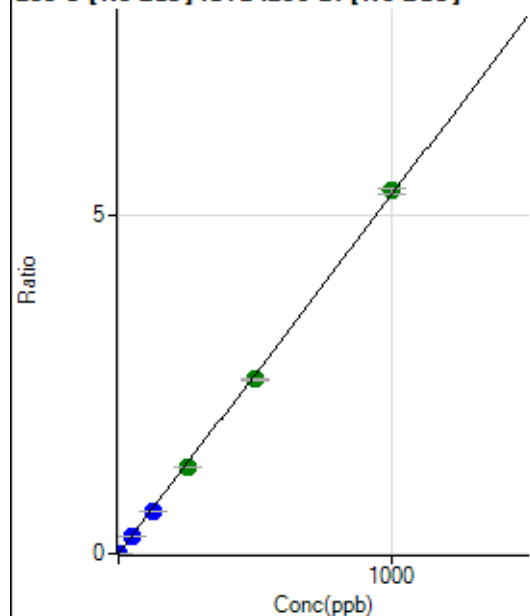
$$DL = 0.001678$$

$$BEC = 0.002247$$

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	41.67	0.0000	P	34.3
2	☒	0.100		1002.87	0.0005	P	15.7
3	☐	1.000	0.875	9590.03	0.0046	P	2.8
4	☐	50.000	46.749	512365.60	0.2471	P	0.2
5	☐	125.000	117.180	1277691.27	0.6195	P	0.6
6	☐	250.000	239.031	2549066.29	1.2636	A	0.3
7	☐	500.000	485.431	5196183.62	2.5661	A	0.8
8	☐	1000.000	1011.167	10742274.46	5.3452	A	1.8
9	☐			1269.57	0.0007	P	20.6

$$y = 0.0053 * x + 1.9986E-005$$

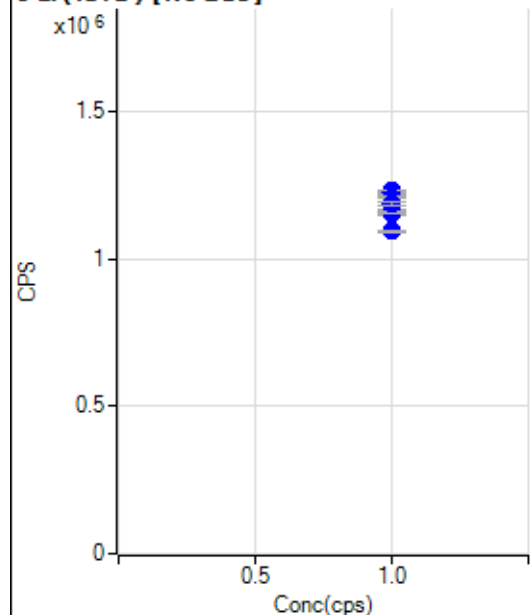
$$R = 0.9998$$

$$DL = 0.003887$$

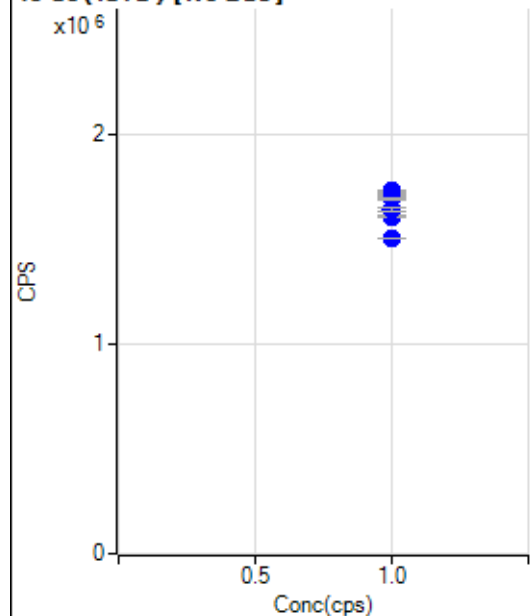
$$BEC = 0.003781$$

Weight: <None>

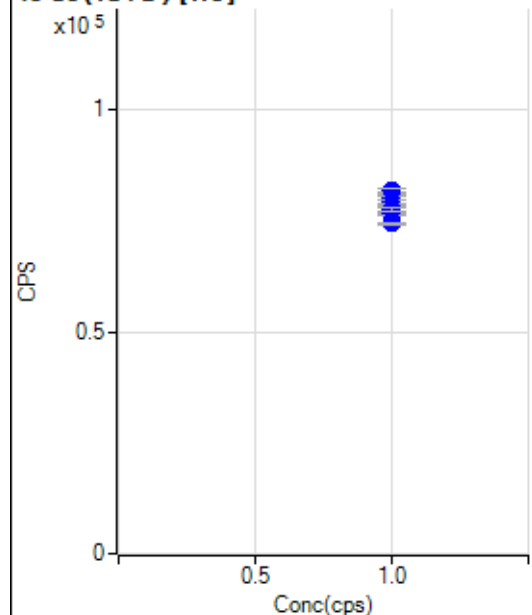
Min Conc: 0

6 Li (ISTD) [No Gas]

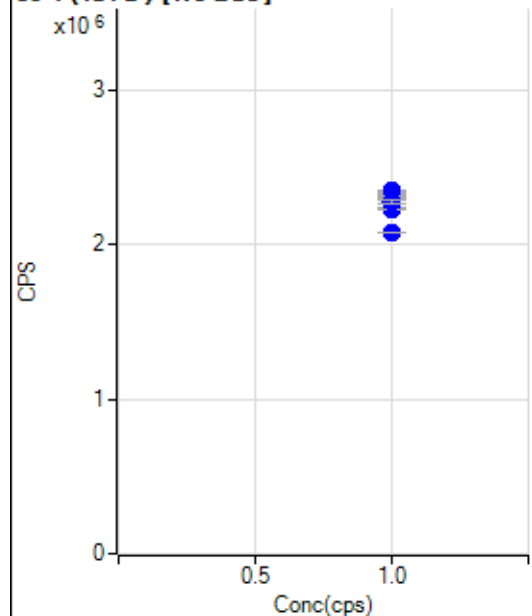
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1233028.51		P	0.4
2	☐	1.000		1233051.35		P	0.4
3	☐	1.000		1231994.32		P	0.2
4	☐	1.000		1228706.02		P	0.8
5	☐	1.000		1211717.97		P	0.8
6	☐	1.000		1160556.14		P	1.3
7	☐	1.000		1158756.06		P	0.6
8	☐	1.000		1188221.16		P	0.8
9	☐	1.000		1097047.95		P	0.5

45 Sc (ISTD) [No Gas]

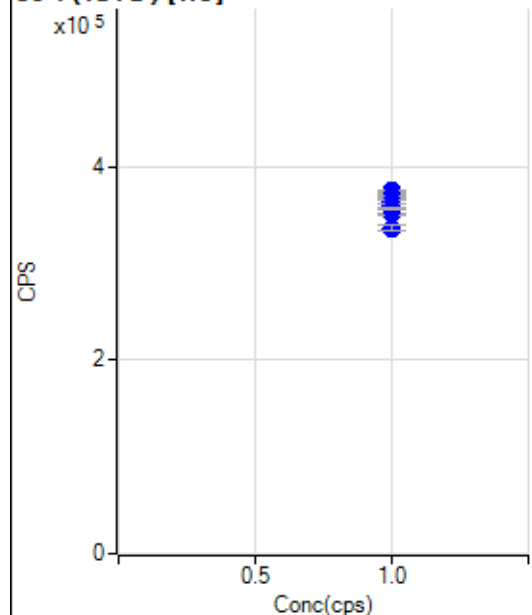
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1727435.78		P	0.1
2	☐	1.000		1718169.53		P	0.1
3	☐	1.000		1717000.84		P	0.4
4	☐	1.000		1710409.18		P	0.4
5	☐	1.000		1691123.74		P	0.8
6	☐	1.000		1605818.47		P	0.8
7	☐	1.000		1610682.28		P	0.5
8	☐	1.000		1636101.07		P	1.3
9	☐	1.000		1504262.36		P	0.1

45 Sc (ISTD) [He]

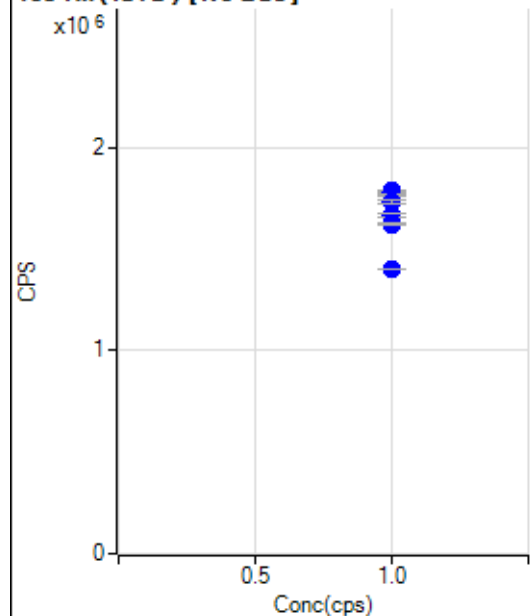
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		81030.96		P	0.7
2	☐	1.000		79148.62		P	6.0
3	☐	1.000		81684.65		P	1.4
4	☐	1.000		80154.21		P	0.9
5	☐	1.000		79195.62		P	1.1
6	☐	1.000		76530.77		P	0.9
7	☐	1.000		78569.02		P	0.8
8	☐	1.000		77660.12		P	1.1
9	☐	1.000		74296.25		P	0.3

89 Y (ISTD) [No Gas]

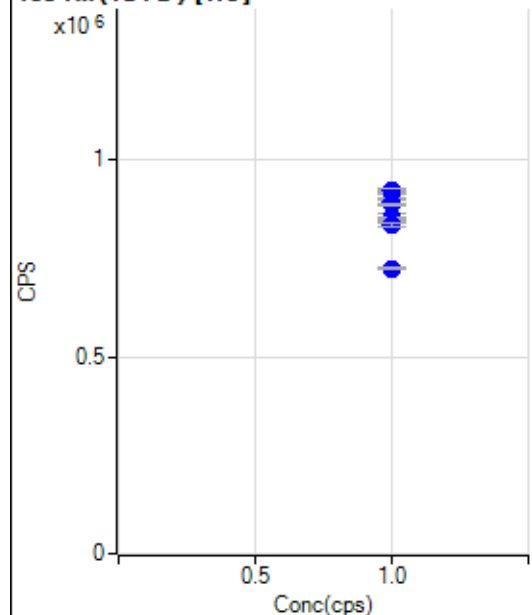
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2349151.86		P	0.2
2	☐	1.000		2334357.62		P	0.1
3	☐	1.000		2333959.45		P	0.5
4	☐	1.000		2331004.17		P	0.6
5	☐	1.000		2312135.49		P	0.6
6	☐	1.000		2235888.25		P	0.8
7	☐	1.000		2229515.89		P	0.3
8	☐	1.000		2278108.23		P	1.3
9	☐	1.000		2079642.59		P	0.5

89 Y (ISTD) [He]

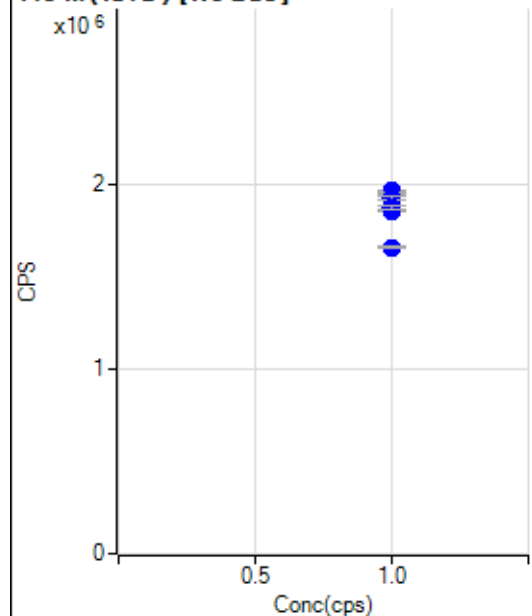
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		373517.21		P	1.2
2	☐	1.000		361943.77		P	6.0
3	☐	1.000		374929.41		P	0.8
4	☐	1.000		368752.63		P	0.9
5	☐	1.000		363397.20		P	0.8
6	☐	1.000		351054.22		P	0.7
7	☐	1.000		359429.95		P	0.8
8	☐	1.000		356596.05		P	0.4
9	☐	1.000		336484.26		P	1.6

103 Rh (ISTD) [No Gas]

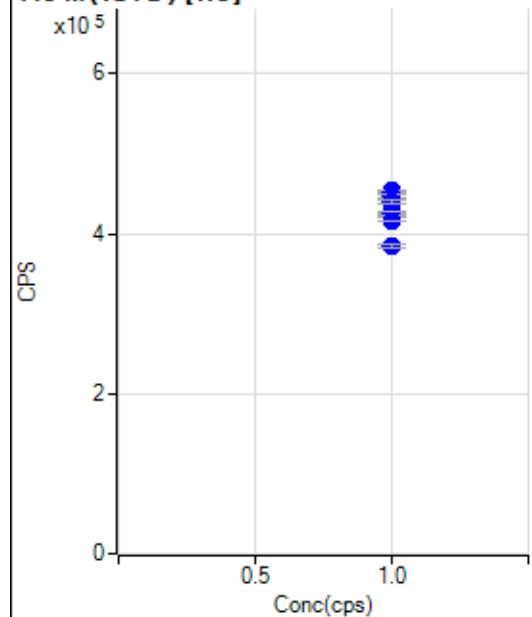
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1782144.33		P	0.6
2	☐	1.000		1785863.60		P	0.4
3	☐	1.000		1780011.78		P	0.8
4	☐	1.000		1766012.69		P	1.0
5	☐	1.000		1730288.04		P	0.9
6	☐	1.000		1664683.08		P	1.0
7	☐	1.000		1619328.16		P	0.3
8	☐	1.000		1625348.02		P	0.6
9	☐	1.000		1401712.05		P	0.3

103 Rh (ISTD) [He]

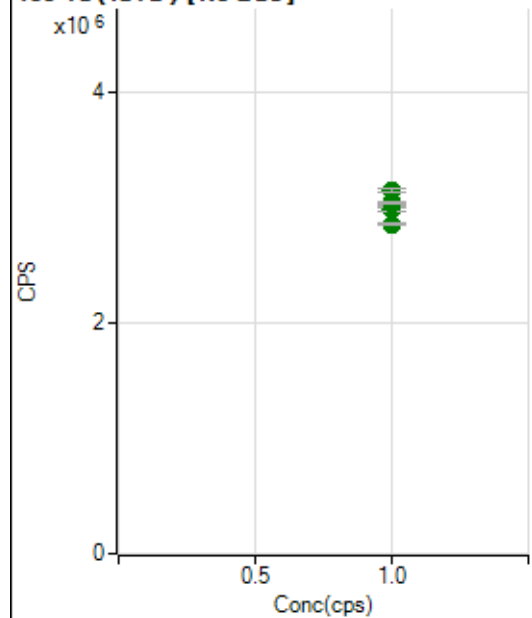
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		917696.94		P	0.7
2	☐	1.000		891351.35		P	6.3
3	☐	1.000		920769.03		P	1.4
4	☐	1.000		902515.37		P	0.6
5	☐	1.000		886310.55		P	0.6
6	☐	1.000		846902.46		P	0.6
7	☐	1.000		853337.95		P	0.7
8	☐	1.000		835154.95		P	0.8
9	☐	1.000		724582.47		P	1.1

115 In (ISTD) [No Gas]

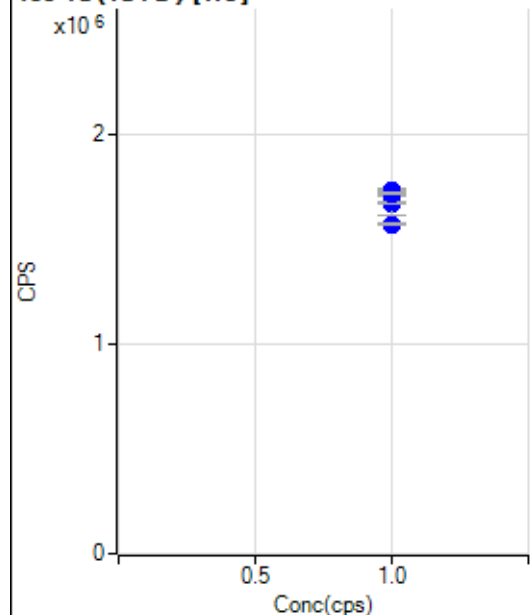
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1962767.61		P	0.3
2	☐	1.000		1949189.08		P	0.2
3	☐	1.000		1952283.98		P	0.3
4	☐	1.000		1948949.88		P	0.5
5	☐	1.000		1925341.29		P	1.4
6	☐	1.000		1856063.85		P	0.5
7	☐	1.000		1857817.53		P	0.1
8	☐	1.000		1871247.33		P	1.2
9	☐	1.000		1657121.09		P	0.8

115 In (ISTD) [He]

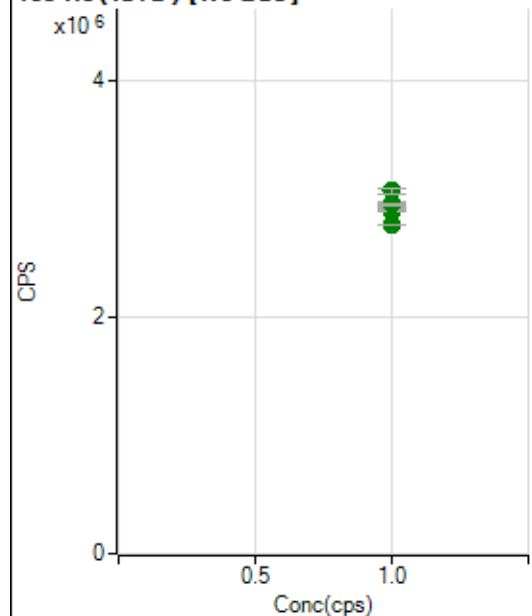
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		453555.77		P	0.7
2	☐	1.000		438528.38		P	6.2
3	☐	1.000		452511.88		P	1.1
4	☐	1.000		446694.17		P	1.3
5	☐	1.000		440134.64		P	0.7
6	☐	1.000		422029.82		P	0.9
7	☐	1.000		425615.43		P	0.7
8	☐	1.000		416499.28		P	0.3
9	☐	1.000		384884.98		P	1.3

159 Tb (ISTD) [No Gas]

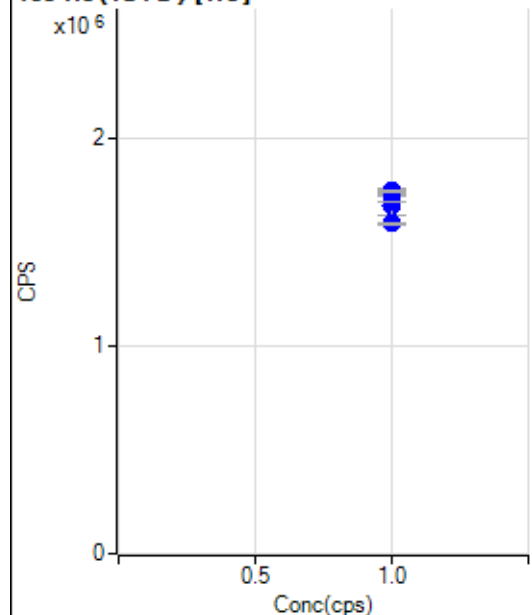
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3013915.65		A	0.7
2	☐	1.000		3006461.62		A	0.2
3	☐	1.000		3020661.21		A	0.5
4	☐	1.000		3044432.63		A	0.8
5	☐	1.000		3035900.96		A	0.4
6	☐	1.000		2983867.91		A	0.8
7	☐	1.000		3036537.32		A	0.3
8	☐	1.000		3143707.45		A	1.0
9	☐	1.000		2853137.67		A	0.4

159 Tb (ISTD) [He]

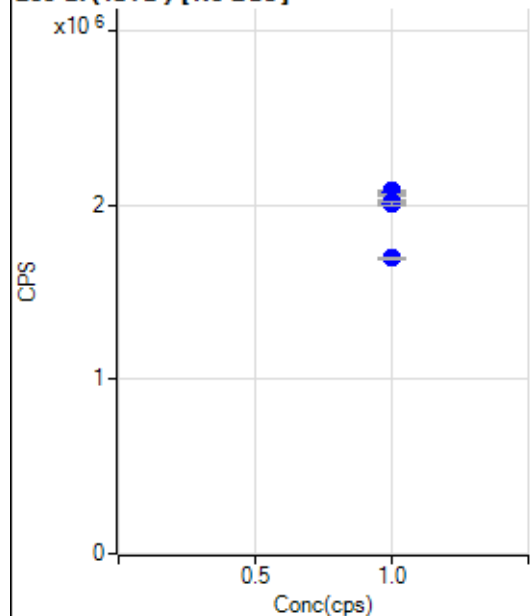
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1731933.50		P	1.0
2	☐	1.000		1666989.92		P	6.0
3	☐	1.000		1726307.63		P	0.9
4	☐	1.000		1722419.73		P	1.2
5	☐	1.000		1720645.74		P	0.6
6	☐	1.000		1676537.61		P	0.5
7	☐	1.000		1715382.93		P	0.8
8	☐	1.000		1723372.32		P	0.7
9	☐	1.000		1571997.13		P	0.8

165 Ho (ISTD) [No Gas]

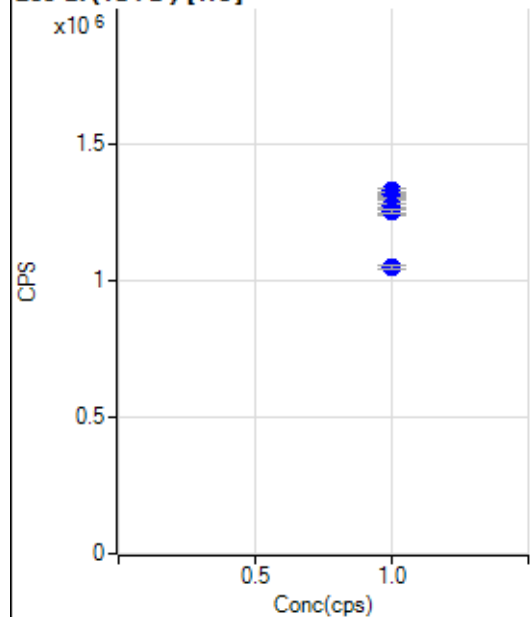
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2919747.66		A	0.8
2	☐	1.000		2899461.98		A	0.9
3	☐	1.000		2928157.92		A	0.6
4	☐	1.000		2955740.85		A	1.0
5	☐	1.000		2958515.46		A	0.8
6	☐	1.000		2904700.87		A	0.8
7	☐	1.000		2953269.38		A	0.4
8	☐	1.000		3064940.71		A	1.3
9	☐	1.000		2783309.18		A	0.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1733754.19		P	0.7
2	☐	1.000		1673824.33		P	6.0
3	☐	1.000		1740710.13		P	1.3
4	☐	1.000		1730977.20		P	0.9
5	☐	1.000		1733172.14		P	0.3
6	☐	1.000		1690586.05		P	0.4
7	☐	1.000		1733511.92		P	0.7
8	☐	1.000		1743123.29		P	0.5
9	☐	1.000		1587152.56		P	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2082364.69		P	0.7
2	☐	1.000		2065283.22		P	0.4
3	☐	1.000		2063545.06		P	0.2
4	☐	1.000		2073125.25		P	0.9
5	☐	1.000		2062648.21		P	0.6
6	☐	1.000		2017331.43		P	0.5
7	☐	1.000		2024979.19		P	0.5
8	☐	1.000		2009986.13		P	1.2
9	☐	1.000		1694543.24		P	0.8

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1325607.83		P	1.1
2	☐	1.000		1275009.11		P	6.0
3	☐	1.000		1325928.34		P	1.0
4	☐	1.000		1312523.27		P	0.9
5	☐	1.000		1299367.80		P	0.6
6	☐	1.000		1259950.09		P	0.2
7	☐	1.000		1269116.18		P	1.1
8	☐	1.000		1250206.66		P	0.7
9	☐	1.000		1047511.88		P	1.0

US EPA Tune Check Sample Report

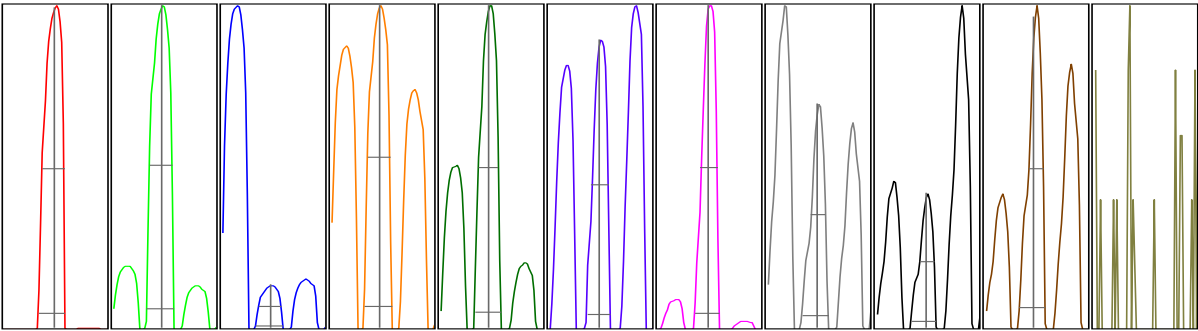
Batch Folder D:\ICP-MS Data\P7062719 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	4350	1.99	5.00	
24	100784	1.78	5.00	
25	13658	1.52	5.00	
26	15420	1.55	5.00	
59	19429	1.69	5.00	
113	2448	1.33	5.00	
115	29293	1.63	5.00	
206	8526	1.84	5.00	
207	7906	1.92	5.00	
208	18666	1.65	5.00	
220	0	55.90		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	4371	4432	4378	4365	4203
24	100929	101639	101803	101895	97653
25	13674	13754	13768	13796	13295
26	15451	15521	15551	15578	15001
59	19383	19613	19601	19675	18876
113	2427	2470	2465	2476	2400
115	29052	29515	29629	29703	28567
206	8417	8621	8636	8651	8304
207	7828	7983	7968	8070	7683
208	18408	18863	18785	18996	18276
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	7217	9.00	8.9 - 9.1		0.776	0.900	
24	163559	23.95	23.9 - 24.1		0.786	0.900	
25	22127	24.95	24.9 - 25.1		0.787	0.900	
26	25275	25.95	25.9 - 26.1		0.810	0.900	
59	35224	58.95	58.9 - 59.1		0.775	0.900	
113	5074	113.00	112.9 - 113.1		0.686	0.900	
115	61590	115.00	114.9 - 115.1		0.712	0.900	
206	18703	206.00	205.9 - 206.1		0.765	0.900	
207	17150	207.00	206.9 - 207.1		0.728	0.900	
208	39393	207.95	207.9 - 208.1		0.739	0.900	
220			-				

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

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	7.2	V	Deflect	13.6	V
Extract 2	-85.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-45	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	4997	0.65	
89	10247	0.42	
205	8239	0.90	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	5023	5009	4982	4947	5024
89	10255	10289	10285	10202	10203
205	8287	8300	8258	8114	8239

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	7.7	V	Deflect	1.4	V
Extract 2	-90.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	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			