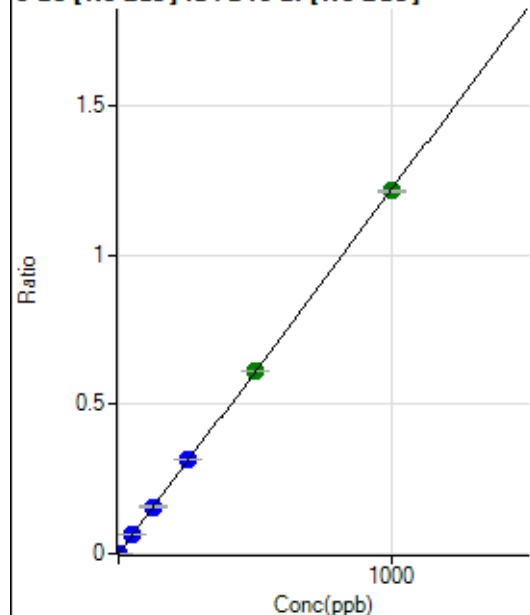


Batch Folder: D:\ICP-MS Data\P7012519MS.b\
Analysis File: P7012519MS.batch.bin
DA Date-Time: 2019-01-27 23:36:18
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-01-25 16:26:57
2	004CAL.S.d	S01	2019-01-25 16:30:33
3	005CAL.S.d	S02	2019-01-25 16:35:38
4	006CAL.S.d	S03	2019-01-25 16:39:34
5	007CAL.S.d	S04	2019-01-25 16:43:44
6	008CAL.S.d	S05	2019-01-25 16:47:29
7	009CAL.S.d	S06	2019-01-25 16:51:16
8	010CAL.S.d	S07	2019-01-25 16:55:04
9	011CAL.S.d	S08	2019-01-25 16:58:59

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	217.78	0.0000	P	9.1
2	☐	0.100	0.092	1156.73	0.0001	P	2.1
3	☐	1.000	0.952	9957.84	0.0012	P	0.7
4	☐	50.000	51.017	516941.60	0.0623	P	0.2
5	☐	125.000	129.072	1275415.75	0.1576	P	0.9
6	☐	250.000	258.297	2507040.75	0.3153	P	0.4
7	☐	500.000	501.824	4776603.72	0.6126	A	0.3
8	☐	1000.000	996.454	9177598.41	1.2164	A	0.2
9	☐			1172.28	0.0002	P	2.5

$$y = 0.0012 * x + 2.5771E-005$$

$$R = 1.0000$$

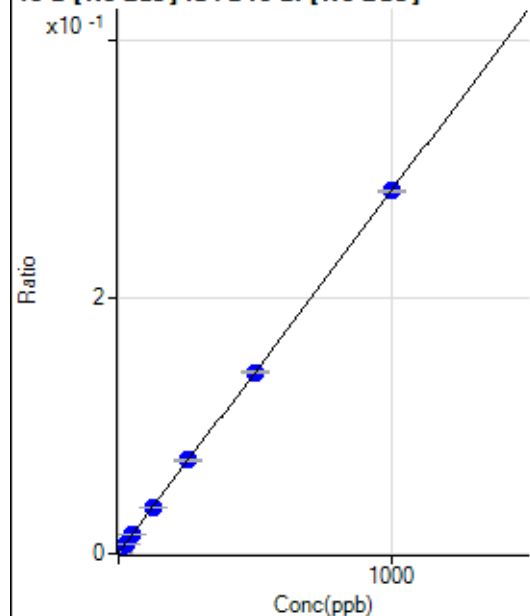
$$DL = 0.005766$$

$$BEC = 0.02111$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5403.94	0.0006	P	3.5
2	☐	2.500	2.425	11104.47	0.0013	P	3.0
3	☐	25.000	23.016	59883.84	0.0071	P	0.4
4	☐	50.000	49.823	122100.64	0.0147	P	2.1
5	☐	125.000	125.984	293258.29	0.0362	P	1.3
6	☐	250.000	255.680	579418.57	0.0729	P	1.2
7	☐	500.000	497.451	1100838.28	0.1412	P	1.2
8	☐	1000.000	999.790	2136104.87	0.2831	P	0.5
9	☐			40953.98	0.0063	P	6.3

$$y = 2.8253E-004 * x + 6.3923E-004$$

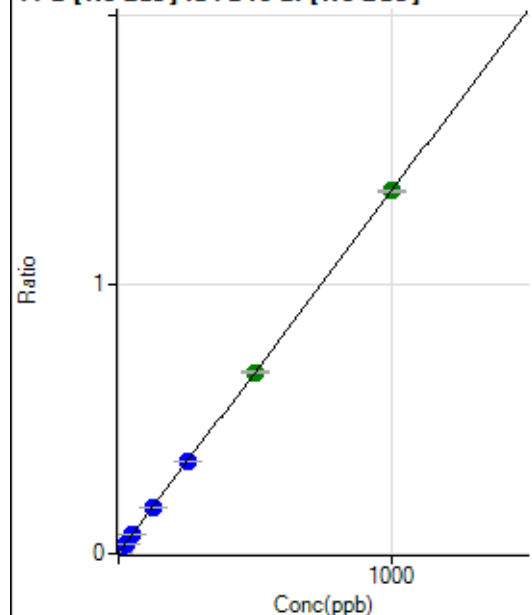
$$R = 1.0000$$

$$DL = 0.24$$

$$BEC = 2.263$$

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	25825.64	0.0031	P	1.7
2	☐	2.500	2.247	50970.80	0.0061	P	0.5
3	☐	25.000	22.464	279083.15	0.0333	P	1.2
4	☐	50.000	48.894	571262.36	0.0688	P	1.8
5	☐	125.000	123.821	1373275.48	0.1697	P	1.9
6	☐	250.000	253.260	2733925.10	0.3439	P	1.0
7	☐	500.000	499.096	5260490.92	0.6747	A	1.6
8	☐	1000.000	999.903	10175349.97	1.3486	A	0.6
9	☐			191524.71	0.0293	P	7.4

$$y = 0.0013 * x + 0.0031$$

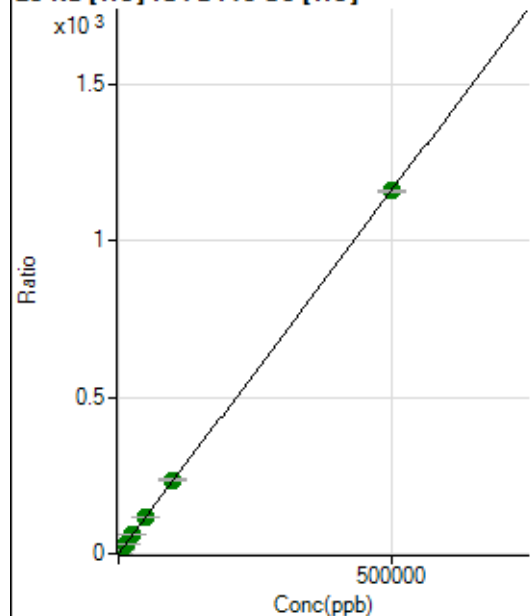
$$R = 1.0000$$

$$DL = 0.1152$$

$$BEC = 2.27$$

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	52208.17	0.0565	P	0.9
2	☐	50.000	39.275	139009.46	0.1475	P	5.3
3	☐	500.000	475.111	1074992.05	1.1571	P	0.5
4	☐	5000.000	5179.972	10526085.56	12.0564	A	0.2
5	☐	12500.000	13167.710	26250513.44	30.5607	A	0.2
6	☐	25000.000	26137.813	52520915.41	60.6071	A	0.7
7	☐	50000.000	50143.239	102560548.82	116.2178	A	1.9
8	☐	100000.00	101269.07	205033958.75	234.6554	A	2.2
9	☐	500000.00	499656.50	946673110.05	1,157.556	A	0.5

$$y = 0.0023 * x + 0.0565$$

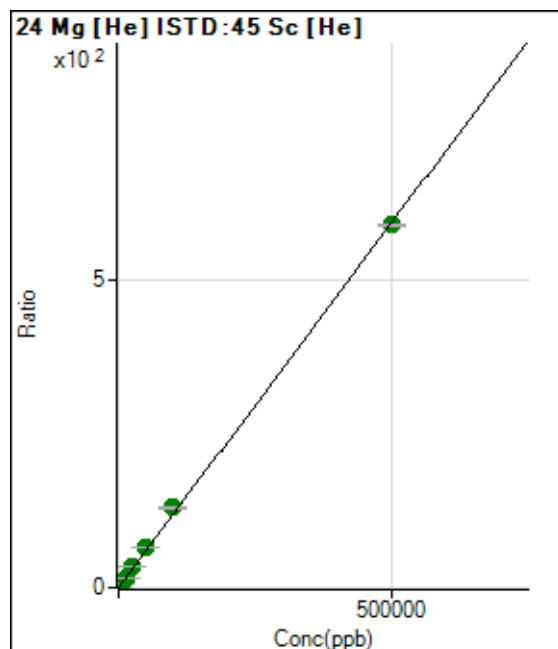
$$R = 1.0000$$

$$DL = 0.6646$$

$$BEC = 24.39$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	227.79	0.0002	P	11.9
2	☐	50.000	39.573	44436.42	0.0471	P	8.2
3	☐	500.000	519.089	571782.60	0.6155	P	0.3
4	☐	5000.000	5702.846	5901181.77	6.7592	A	0.5
5	☐	12500.000	14410.722	14670802.93	17.0796	A	0.1
6	☐	25000.000	28564.601	29337718.71	33.8546	A	0.3
7	☐	50000.000	54703.873	57218280.45	64.8344	A	1.4
8	☐	100000.00	109601.57	113506321.98	129.8983	A	1.7
9	☐	500000.00	497376.25	482111216.33	589.4829	A	0.3

$$y = 0.0012 * x + 2.4663E-004$$

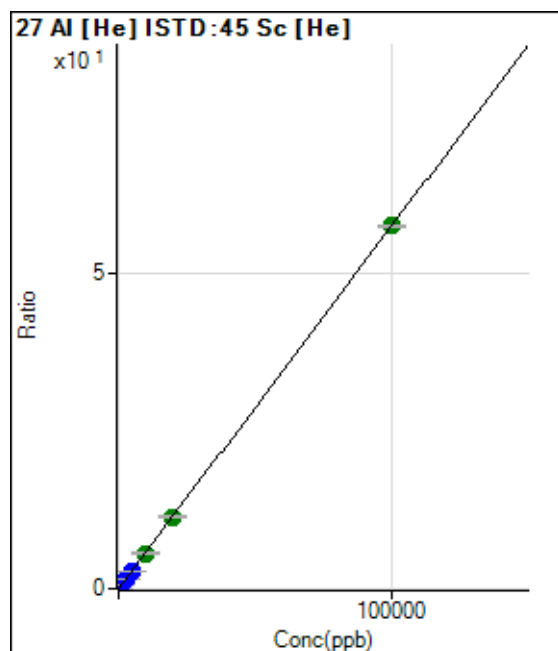
$$R = 0.9998$$

$$DL = 0.0744$$

$$BEC = 0.2081$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	113.89	0.0001	P	14.5
2	☐	2.000	1.936	1166.76	0.0012	P	4.6
3	☐	20.000	18.702	10117.72	0.0109	P	3.6
4	☐	1000.000	996.460	500946.99	0.5738	P	0.5
5	☐	2500.000	2521.617	1247046.59	1.4518	P	0.5
6	☐	5000.000	5006.566	2497758.69	2.8824	P	1.0
7	☐	10000.000	9771.622	4964644.47	5.6256	A	1.5
8	☐	20000.000	19715.298	9917672.79	11.3501	A	2.0
9	☐	100000.00	100078.94	47118374.66	57.6151	A	0.6

$$y = 5.7570E-004 * x + 1.2315E-004$$

$$R = 1.0000$$

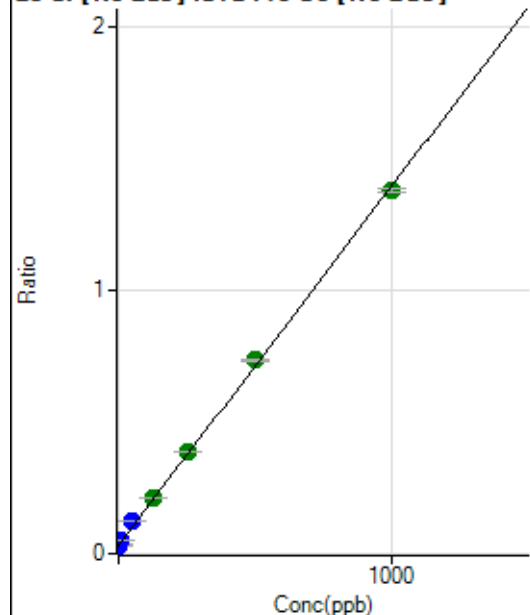
$$DL = 0.09289$$

$$BEC = 0.2139$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	641380.93	0.0319	P	0.7
2	☐	1.000	2.028	698269.96	0.0347	P	0.5
3	☐	10.000	11.695	953654.74	0.0479	P	0.8
4	☐	50.000	69.015	2377406.85	0.1260	P	0.3
5	☐	125.000	132.570	3915167.01	0.2127	A	1.8
6	☐	250.000	259.871	7139458.41	0.3863	A	0.7
7	☐	500.000	516.495	13668487.63	0.7362	A	1.3
8	☐	1000.000	987.370	25328615.49	1.3782	A	1.0
9	☐			2373189.92	0.1411	P	2.0

$$y = 0.0014 * x + 0.0319$$

$$R = 0.9996$$

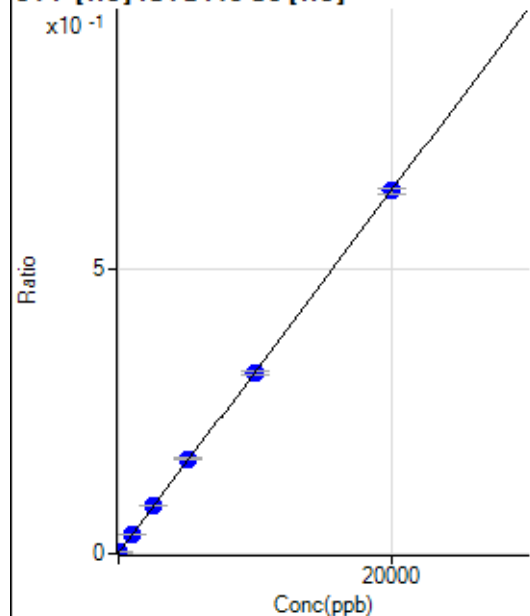
$$DL = 0.47$$

$$BEC = 23.4$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-17.890	544.48	0.0006	P	13.3
2	☐	0.000	-16.584	594.48	0.0006	P	2.3
3	☐	0.000	34.473	2094.70	0.0023	P	5.1
4	☐	1000.000	1003.933	28901.19	0.0331	P	2.1
5	☐	2500.000	2604.266	72177.70	0.0840	P	1.4
6	☐	5000.000	5209.162	144651.44	0.1669	P	1.3
7	☐	10000.000	9926.977	279803.78	0.3170	P	1.3
8	☐	20000.000	19970.991	556318.30	0.6367	P	1.9
9	☐			805.61	0.0010	P	11.4

$$y = 3.1821E-005 * x + 0.0012$$

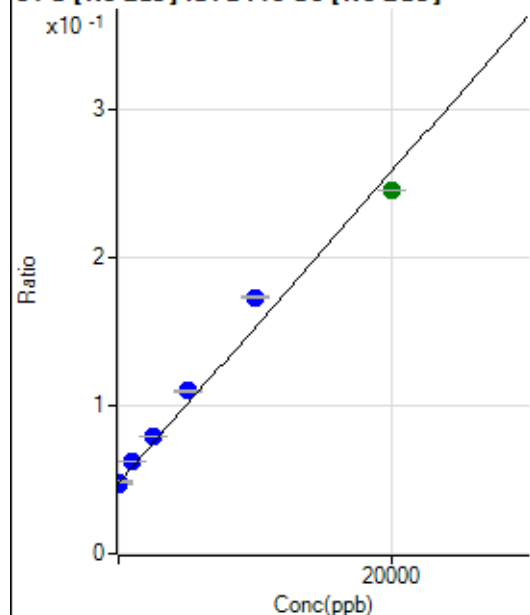
$$R = 0.9999$$

$$DL = 6.499$$

$$BEC = 36.4$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-59.813	949063.27	0.0472	P	0.3
2	☐	0.000	-15.288	960262.05	0.0477	P	0.4
3	☐	0.000	75.101	969149.41	0.0486	P	0.3
4	☐	1000.000	1329.874	1166066.89	0.0618	P	0.6
5	☐	2500.000	2998.896	1460597.49	0.0793	P	0.4
6	☐	5000.000	5882.377	2026046.81	0.1096	P	0.7
7	☐	10000.000	11909.541	3210206.63	0.1729	P	1.2
8	☐	20000.000	18745.780	4496899.58	0.2447	A	0.1
9	☐			778657.43	0.0463	P	0.6

$$y = 1.0501\text{E-}005 * x + 0.0478$$

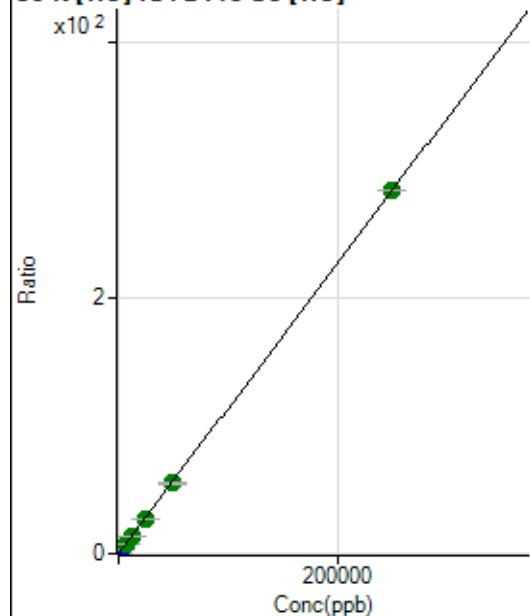
$$R = 0.9919$$

$$DL = 43.88$$

$$BEC = 4556$$

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	46323.16	0.0501	P	1.3
2	☐	50.000	40.129	90109.89	0.0956	P	5.1
3	☐	500.000	460.152	530957.52	0.5715	P	0.2
4	☐	2500.000	2449.682	2467153.70	2.8258	P	0.2
5	☐	6250.000	6192.826	6070403.82	7.0671	A	0.2
6	☐	12500.000	12370.878	12190328.75	14.0674	A	0.8
7	☐	25000.000	24053.582	24096924.50	27.3049	A	1.5
8	☐	50000.000	48508.988	48073607.33	55.0150	A	1.5
9	☐	250000.00	250401.31	232082866.30	283.7762	A	0.2

$$y = 0.0011 * x + 0.0501$$

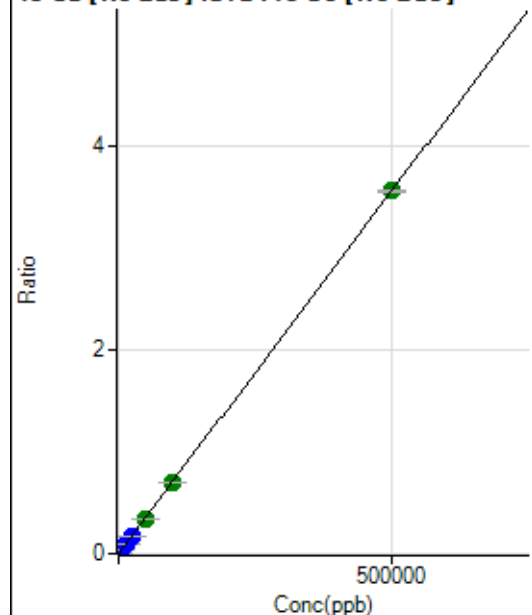
$$R = 1.0000$$

$$DL = 1.678$$

$$BEC = 44.24$$

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	311.13	0.0000	P	4.3
2	☐	50.000	47.153	7054.75	0.0004	P	2.9
3	☐	500.000	454.093	64564.28	0.0032	P	0.4
4	☐	5000.000	4968.927	665931.65	0.0353	P	1.2
5	☐	12500.000	12515.720	1636417.17	0.0889	P	0.4
6	☐	25000.000	24936.297	3273106.54	0.1771	P	0.9
7	☐	50000.000	48478.210	6391513.77	0.3443	A	1.1
8	☐	100000.00	98419.812	12843512.35	0.6989	A	0.8
9	☐	500000.00	500471.36	59762913.14	3.5538	A	0.4

$$y = 7.1008\text{E-}006 * x + 1.5479\text{E-}005$$

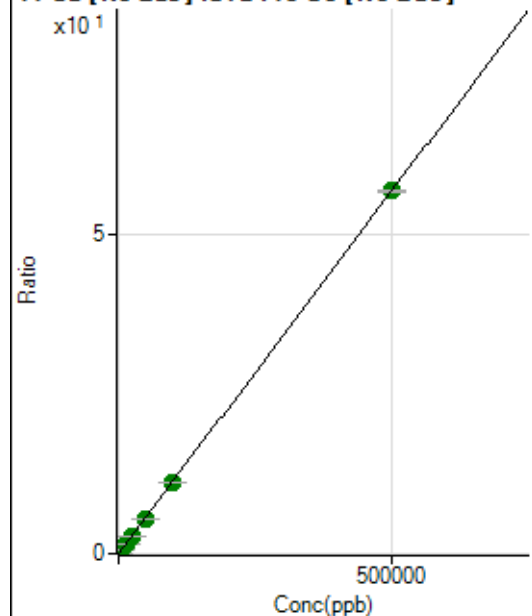
$$R = 1.0000$$

$$DL = 0.28$$

$$BEC = 2.18$$

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	29217.16	0.0015	P	3.0
2	☐	50.000	47.924	138535.91	0.0069	P	0.3
3	☐	500.000	455.156	1055850.25	0.0530	P	0.3
4	☐	5000.000	4877.190	10444408.74	0.5536	A	0.7
5	☐	12500.000	12468.849	26015538.43	1.4131	A	0.3
6	☐	25000.000	24783.470	51888897.34	2.8073	A	0.4
7	☐	50000.000	48502.561	101982139.09	5.4926	A	0.6
8	☐	100000.00	98048.564	204030433.73	11.1020	A	0.8
9	☐	500000.00	500552.90	953022521.30	56.6712	A	0.3

$$y = 1.1321\text{E-}004 * x + 0.0015$$

$$R = 1.0000$$

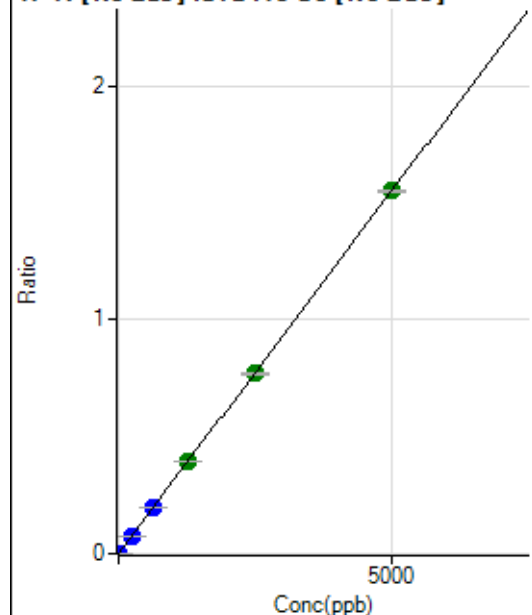
$$DL = 1.161$$

$$BEC = 12.84$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	202.79	0.0000	P	31.5
2	☐	0.500	0.498	3314.39	0.0002	P	4.9
3	☐	5.000	4.688	29174.17	0.0015	P	2.8
4	☐	250.000	248.521	1454234.56	0.0771	P	0.7
5	☐	625.000	629.346	3593385.76	0.1952	P	0.6
6	☐	1250.000	1261.247	7230026.03	0.3912	A	0.2
7	☐	2500.000	2485.830	14313737.12	0.7709	A	0.9
8	☐	5000.000	5003.804	28518700.99	1.5518	A	0.5
9	☐			8961.44	0.0005	P	4.5

$$y = 3.1013\text{E-}004 * x + 1.0092\text{E-}005$$

$$R = 1.0000$$

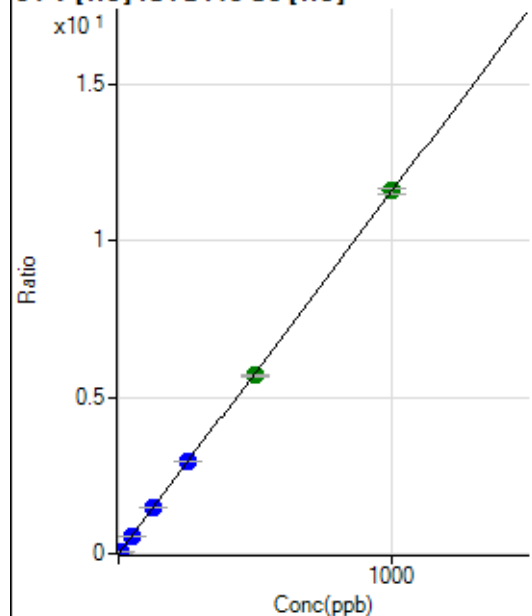
$$DL = 0.03075$$

$$BEC = 0.03254$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	20.00	0.0000	P	66.0
2	☐	0.500	0.381	4170.66	0.0044	P	8.2
3	☐	5.000	4.968	53428.72	0.0575	P	0.6
4	☐	50.000	49.677	501912.42	0.5749	P	0.8
5	☐	125.000	127.096	1263362.07	1.4708	P	0.1
6	☐	250.000	254.602	2553217.77	2.9463	P	0.5
7	☐	500.000	491.841	5023016.17	5.6917	A	1.4
8	☐	1000.000	1002.683	10139318.11	11.6033	A	1.5
9	☐			2013.50	0.0025	P	12.2

$$y = 0.0116 * x + 2.1585\text{E-}005$$

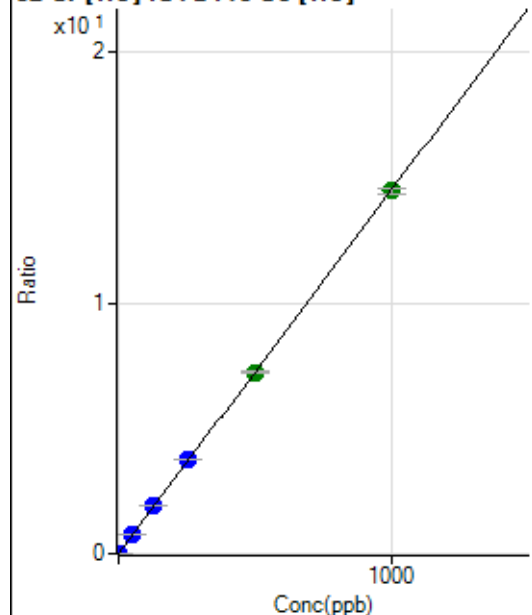
$$R = 0.9999$$

$$DL = 0.003695$$

$$BEC = 0.001865$$

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	3513.82	0.0038	P	5.3
2	☐	0.200	0.158	5737.87	0.0061	P	7.9
3	☐	2.000	1.899	29123.43	0.0313	P	0.3
4	☐	50.000	51.338	653493.01	0.7485	P	0.4
5	☐	125.000	130.361	1627595.41	1.8948	P	0.4
6	☐	250.000	258.692	3255243.67	3.7564	P	0.3
7	☐	500.000	498.891	6390149.14	7.2408	A	1.2
8	☐	1000.000	997.644	12649351.89	14.4757	A	1.5
9	☐			98924.68	0.1210	P	2.2

$$y = 0.0145 * x + 0.0038$$

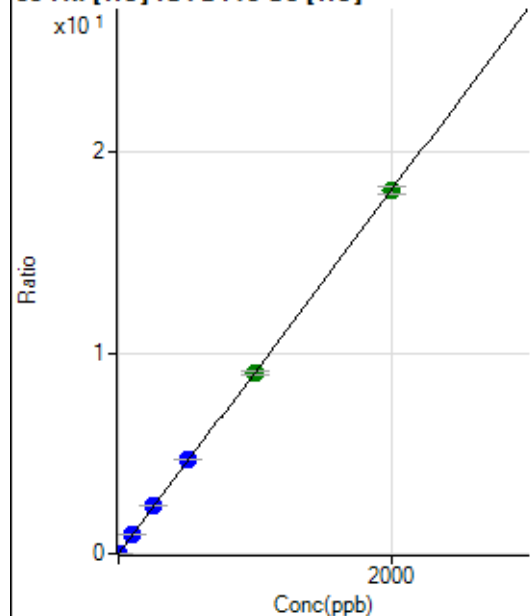
$$R = 0.9999$$

$$DL = 0.04177$$

$$BEC = 0.2621$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	10.3
2	☐	0.100	0.101	933.38	0.0010	P	9.0
3	☐	1.000	0.999	8472.58	0.0091	P	0.6
4	☐	100.000	102.360	808869.92	0.9265	P	0.2
5	☐	250.000	261.500	2032934.80	2.3667	P	0.3
6	☐	500.000	519.169	4071848.90	4.6987	P	0.2
7	☐	1000.000	995.266	7949249.25	9.0075	A	1.5
8	☐	2000.000	1996.019	15784350.60	18.0647	A	2.2
9	☐			73432.37	0.0898	P	0.8

$$y = 0.0091 * x + 7.5781E-005$$

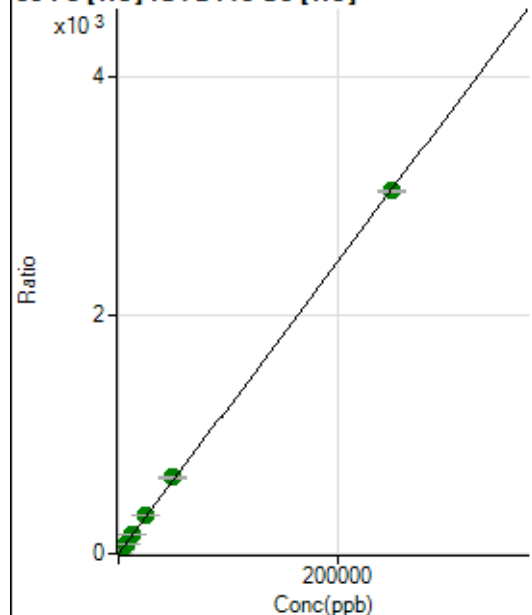
$$R = 0.9999$$

$$DL = 0.002577$$

$$BEC = 0.008373$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17069.56	0.0185	P	2.0
2	☐	5.000	4.959	74386.82	0.0789	P	5.3
3	☐	50.000	54.987	639884.48	0.6888	P	0.3
4	☐	2500.000	2699.120	28741569.16	32.9206	A	0.5
5	☐	6250.000	6901.226	72276555.32	84.1440	A	0.4
6	☐	12500.000	13626.488	143955297.66	166.1246	A	1.0
7	☐	25000.000	26216.047	282045008.16	319.5906	A	1.3
8	☐	50000.000	52317.940	557267501.35	637.7711	A	2.1
9	☐	250000.00	249340.21	2485689300.0	3,039.461	A	0.7

$$y = 0.0122 * x + 0.0185$$

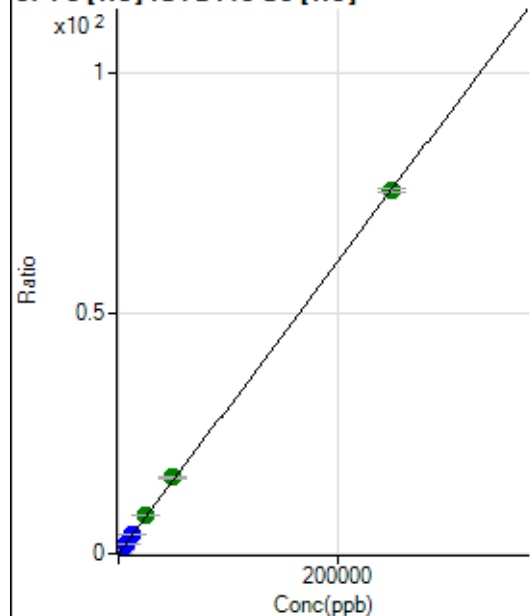
$$R = 0.9999$$

$$DL = 0.09275$$

$$BEC = 1.515$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	350.01	0.0004	P	12.5
2	☐	5.000	5.182	1837.20	0.0019	P	8.0
3	☐	50.000	56.325	16211.18	0.0174	P	1.8
4	☐	2500.000	2709.035	717092.86	0.8214	P	0.9
5	☐	6250.000	6890.779	1794094.54	2.0887	P	0.4
6	☐	12500.000	13691.581	3596017.99	4.1497	P	0.5
7	☐	25000.000	26271.981	7026819.83	7.9622	A	1.3
8	☐	50000.000	52587.103	13925767.67	15.9372	A	1.9
9	☐	250000.00	249277.69	61780259.71	75.5454	A	1.0

$$y = 3.0306E-004 * x + 3.7890E-004$$

$$R = 0.9999$$

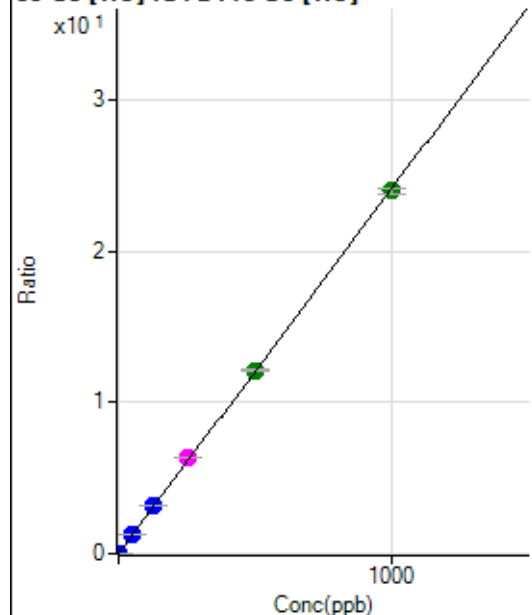
$$DL = 0.4683$$

$$BEC = 1.25$$

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	143.34	0.0002	P	19.3
2	☐	0.100	0.084	2057.95	0.0022	P	7.1
3	☐	1.000	0.985	22237.06	0.0239	P	2.2
4	☐	50.000	52.615	1108691.89	1.2699	P	1.3
5	☐	125.000	133.449	2766444.19	3.2207	P	0.2
6	☐	250.000	262.531	5490573.25	6.3358	M	0.3
7	☐	500.000	502.023	10692178.94	12.1155	A	1.3
8	☐	1000.000	994.669	20975248.43	24.0045	A	1.8
9	☐			219501.58	0.2684	P	0.9

$$y = 0.0241 * x + 1.5525E-004$$

$$R = 0.9999$$

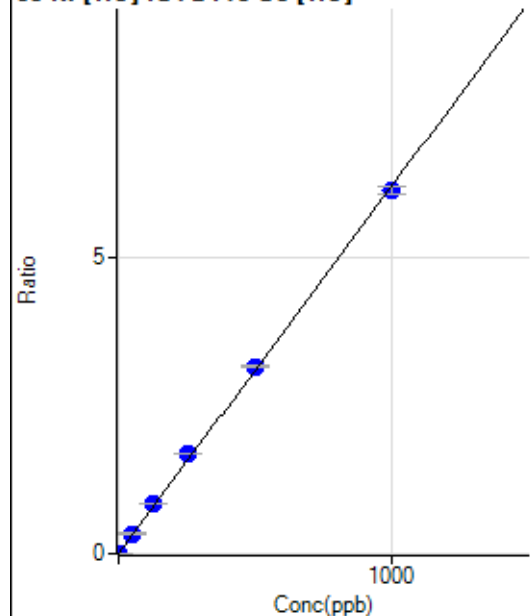
$$DL = 0.003727$$

$$BEC = 0.006433$$

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	195.56	0.0002	P	19.0
2	☐	0.100	0.174	1215.63	0.0013	P	4.5
3	☐	1.000	1.124	6686.08	0.0072	P	1.7
4	☐	50.000	54.655	296651.27	0.3398	P	1.2
5	☐	125.000	138.462	739134.92	0.8605	P	0.4
6	☐	250.000	272.227	1465912.45	1.6916	P	0.2
7	☐	500.000	508.531	2788652.18	3.1598	P	0.9
8	☐	1000.000	988.262	5365397.04	6.1404	P	2.1
9	☐			62352.07	0.0762	P	1.1

$$y = 0.0062 * x + 2.1139E-004$$

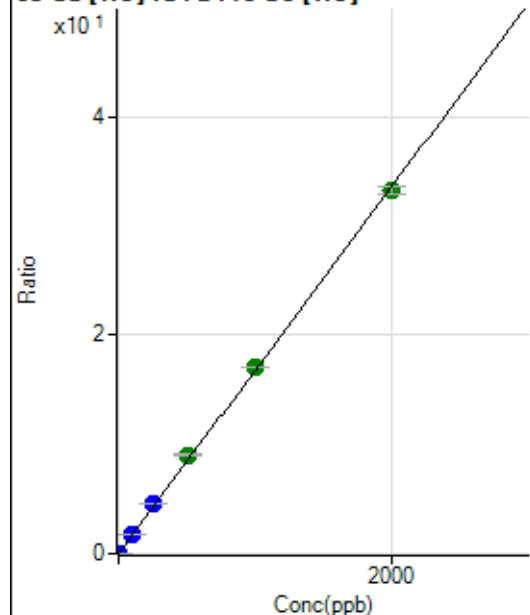
$$R = 0.9996$$

$$DL = 0.01935$$

$$BEC = 0.03402$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3720.54	0.0040	P	5.3
2	☐	0.200	0.174	6545.99	0.0069	P	3.0
3	☐	2.000	2.034	35487.61	0.0382	P	0.6
4	☐	100.000	108.815	1599770.93	1.8324	P	0.4
5	☐	250.000	275.745	3983132.58	4.6372	P	0.5
6	☐	500.000	539.054	7852182.17	9.0613	A	0.8
7	☐	1000.000	1016.629	15079000.33	17.0856	A	0.7
8	☐	2000.000	1978.263	29047401.23	33.2432	A	2.0
9	☐			33898.32	0.0415	P	2.0

$$y = 0.0168 * x + 0.0040$$

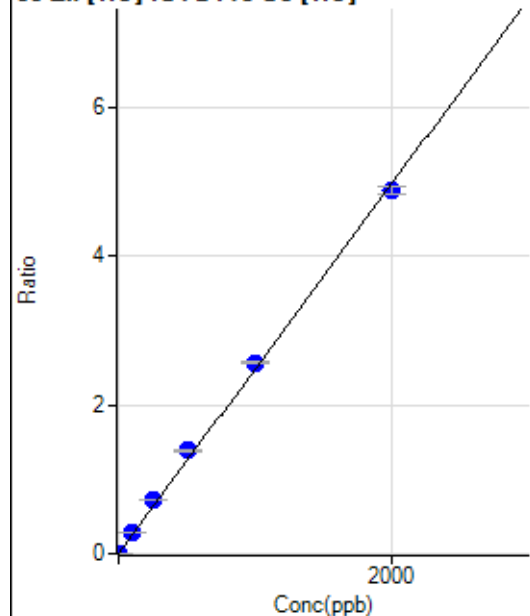
$$R = 0.9997$$

$$DL = 0.03782$$

$$BEC = 0.2396$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	837.82	0.0009	P	5.1
2	☐	0.200	1.863	5222.14	0.0055	P	16.0
3	☐	2.000	2.190	5899.06	0.0063	P	4.0
4	☐	100.000	113.338	246622.81	0.2825	P	1.2
5	☐	250.000	286.956	613149.22	0.7138	P	0.5
6	☐	500.000	556.987	1199959.16	1.3847	P	0.3
7	☐	1000.000	1034.754	2269502.48	2.5717	P	1.6
8	☐	2000.000	1963.090	4262295.04	4.8780	P	2.1
9	☐			31084.37	0.0380	P	0.6

$$y = 0.0025 * x + 9.0678E-004$$

$$R = 0.9992$$

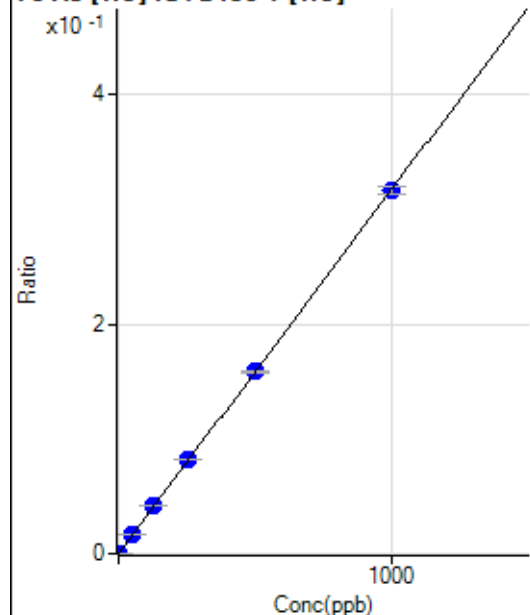
$$DL = 0.05625$$

$$BEC = 0.365$$

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	20.37	0.0000	P	9.4
2	☐	0.100	0.069	119.14	0.0000	P	20.4
3	☐	1.000	0.916	1313.65	0.0003	P	3.0
4	☐	50.000	51.185	68100.94	0.0162	P	0.7
5	☐	125.000	130.932	171238.27	0.0415	P	0.2
6	☐	250.000	260.492	340943.91	0.0826	P	0.4
7	☐	500.000	499.743	662490.89	0.1585	P	1.0
8	☐	1000.000	996.705	1294298.75	0.3161	P	2.0
9	☐			1587.75	0.0004	P	0.4

$$y = 3.1713\text{E-}004 * x + 4.6522\text{E-}006$$

$$R = 0.9999$$

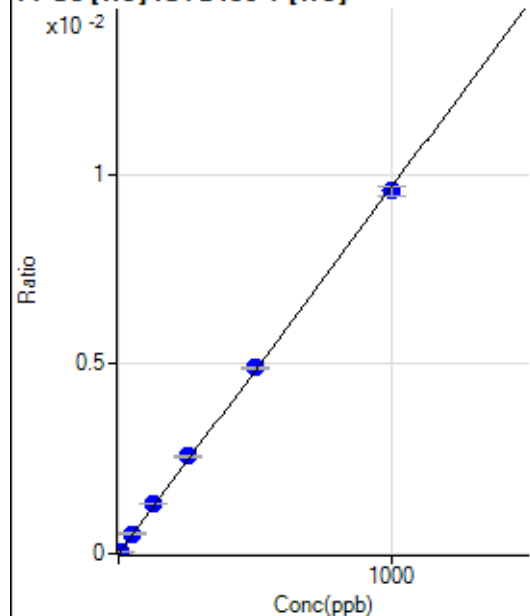
$$DL = 0.004159$$

$$BEC = 0.01467$$

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	☐	0.500	0.610	27.78	0.0000	P	25.3
3	☐	5.000	5.268	227.79	0.0001	P	8.2
4	☐	50.000	54.021	2191.31	0.0005	P	5.0
5	☐	125.000	137.097	5466.66	0.0013	P	1.0
6	☐	250.000	265.883	10609.62	0.0026	P	1.3
7	☐	500.000	508.666	20559.22	0.0049	P	1.1
8	☐	1000.000	989.982	39191.90	0.0096	P	2.6
9	☐			16.67	0.0000	P	53.0

$$y = 9.6684\text{E-}006 * x + 2.5359\text{E-}007$$

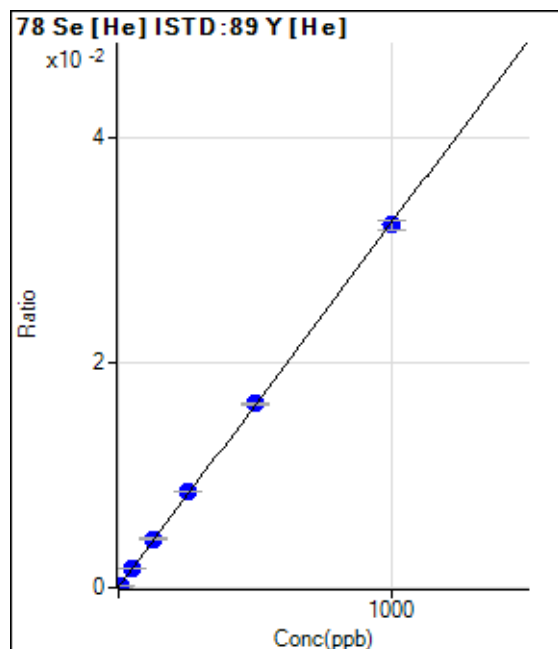
$$R = 0.9998$$

$$DL = 0.1363$$

$$BEC = 0.02623$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	185.81	0.0000	P	9.6
2	☐	0.500	0.467	259.88	0.0001	P	9.7
3	☐	5.000	5.119	927.20	0.0002	P	2.5
4	☐	50.000	52.463	7315.49	0.0017	P	2.2
5	☐	125.000	132.683	17922.87	0.0043	P	2.0
6	☐	250.000	263.357	35431.47	0.0086	P	0.8
7	☐	500.000	502.695	68339.35	0.0163	P	1.8
8	☐	1000.000	994.230	132234.40	0.0323	P	2.3
9	☐			213.58	0.0001	P	9.1

$$y = 3.2440\text{E-}005 * x + 4.2407\text{E-}005$$

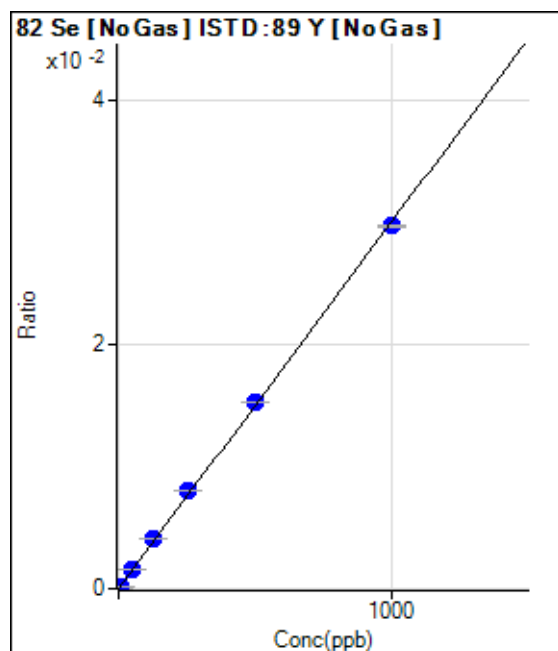
$$R = 0.9999$$

$$DL = 0.3763$$

$$BEC = 1.307$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-32.57	0.0000	P	-49.
2	☐	0.500	0.621	525.56	0.0000	P	27.6
3	☐	5.000	5.381	4773.61	0.0002	P	0.7
4	☐	50.000	54.531	46587.50	0.0016	P	0.1
5	☐	125.000	136.338	113799.30	0.0041	P	0.5
6	☐	250.000	266.919	224803.82	0.0080	P	0.6
7	☐	500.000	509.312	429808.27	0.0153	P	0.3
8	☐	1000.000	989.468	823550.44	0.0297	P	0.2
9	☐			452.63	0.0000	P	7.9

$$y = 2.9994\text{E-}005 * x - 1.0814\text{E-}006$$

$$R = 0.9997$$

$$DL = 0.05305$$

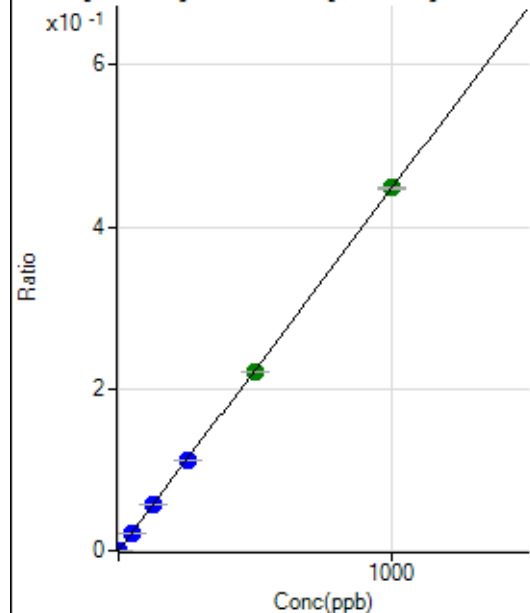
$$BEC = -0.03605$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1325.64		P	0.6
2	☐			1322.30		P	5.2
3	☐			1303.41		P	2.0
4	☐			1218.96		P	5.3
5	☐			1172.29		P	3.3
6	☐			1191.18		P	8.5
7	☐			1256.75		P	2.9
8	☐			1190.07		P	5.4
9	☐			1362.31		P	3.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2053.01	0.0001	P	11.6
2	☐	0.100	0.097	3344.99	0.0001	P	10.1
3	☐	1.000	0.894	13940.60	0.0005	P	4.3
4	☐	50.000	49.885	637710.26	0.0224	P	0.3
5	☐	125.000	126.178	1572407.88	0.0565	P	0.8
6	☐	250.000	251.157	3155755.93	0.1124	P	0.5
7	☐	500.000	495.185	6232123.58	0.2215	A	0.1
8	☐	1000.000	1001.977	12434862.87	0.4481	A	0.2
9	☐			47897.62	0.0019	P	0.4

$$y = 4.4714\text{E-}004 * x + 6.8230\text{E-}005$$

$$R = 1.0000$$

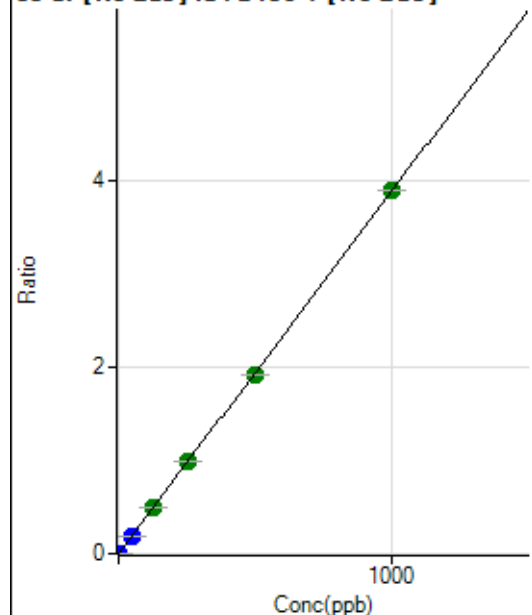
$$DL = 0.05301$$

$$BEC = 0.1526$$

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	325.02	0.0000	P	13.5
2	☐	0.100	0.093	11174.27	0.0004	P	3.8
3	☐	1.000	0.897	104274.73	0.0035	P	0.9
4	☐	50.000	50.267	5573292.53	0.1955	P	0.4
5	☐	125.000	125.646	13604894.23	0.4887	A	0.9
6	☐	250.000	252.705	27605317.98	0.9830	A	0.2
7	☐	500.000	495.035	54181226.91	1.9256	A	0.3
8	☐	1000.000	1001.712	108128566.30	3.8964	A	0.1
9	☐			407845.67	0.0163	P	0.4

$$y = 0.0039 * x + 1.0801E-005$$

$$R = 1.0000$$

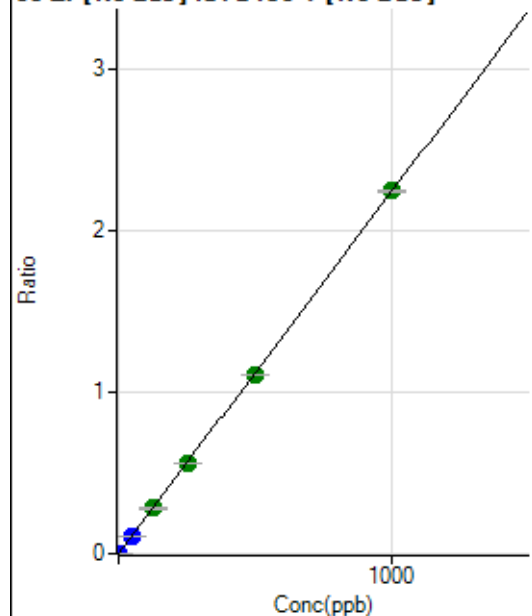
$$DL = 0.001122$$

$$BEC = 0.002777$$

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	1730.73	0.0001	P	6.6
2	☐	0.100	0.097	8249.95	0.0003	P	4.4
3	☐	1.000	0.912	62439.27	0.0021	P	1.6
4	☐	50.000	49.473	3155300.94	0.1107	P	0.2
5	☐	125.000	125.115	7790498.44	0.2799	A	0.8
6	☐	250.000	250.594	15740902.61	0.5605	A	0.5
7	☐	500.000	494.277	31106092.71	1.1055	A	0.1
8	☐	1000.000	1002.725	62233490.28	2.2426	A	0.5
9	☐			17708.82	0.0007	P	0.8

$$y = 0.0022 * x + 5.7521E-005$$

$$R = 1.0000$$

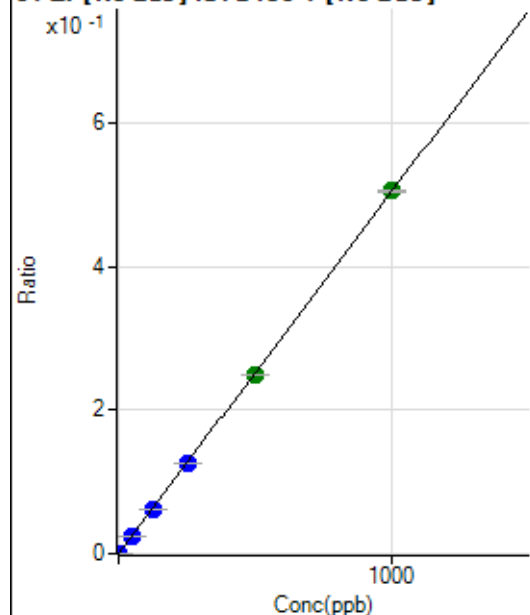
$$DL = 0.005114$$

$$BEC = 0.02572$$

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	361.13	0.0000	P	13.9
2	☐	0.100	0.088	1697.40	0.0001	P	9.3
3	☐	1.000	0.917	14135.29	0.0005	P	1.5
4	☐	50.000	48.736	701450.47	0.0246	P	0.1
5	☐	125.000	124.274	1746322.22	0.0627	P	0.3
6	☐	250.000	248.702	3525531.20	0.1255	P	0.9
7	☐	500.000	494.593	7024428.98	0.2496	A	0.4
8	☐	1000.000	1003.182	14051402.57	0.5063	A	0.5
9	☐			4111.86	0.0002	P	4.7

$$y = 5.0473\text{E-}004 * x + 1.2000\text{E-}005$$

$$R = 1.0000$$

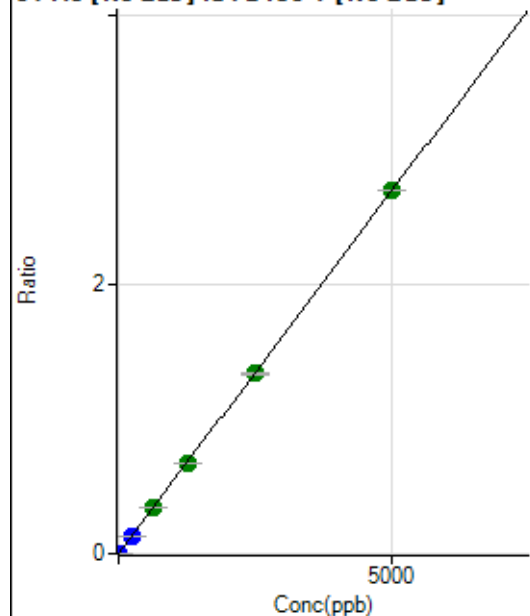
$$DL = 0.009915$$

$$BEC = 0.02377$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	711.16	0.0000	P	14.3
2	☐	0.500	0.485	8530.64	0.0003	P	3.7
3	☐	5.000	4.711	76206.82	0.0026	P	1.7
4	☐	250.000	248.311	3810542.88	0.1337	P	0.2
5	☐	625.000	629.465	9432918.96	0.3389	A	0.4
6	☐	1250.000	1258.052	19019532.89	0.6773	A	0.3
7	☐	2500.000	2484.478	37632744.59	1.3375	A	0.7
8	☐	5000.000	5005.275	74772161.39	2.6944	A	0.1
9	☐			36522.68	0.0015	P	2.2

$$y = 5.3831\text{E-}004 * x + 2.3636\text{E-}005$$

$$R = 1.0000$$

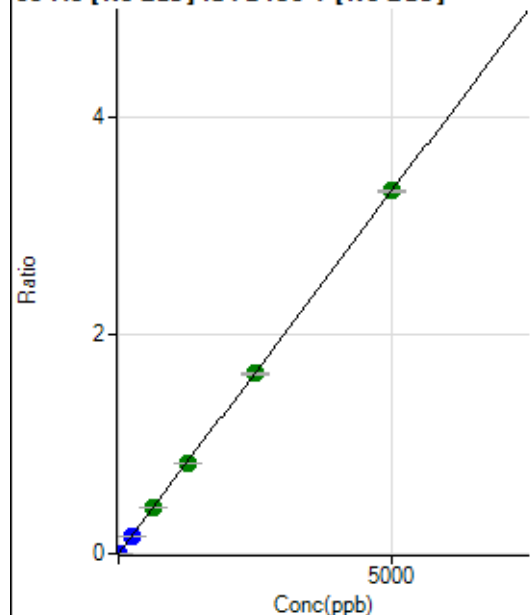
$$DL = 0.01889$$

$$BEC = 0.04391$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	225.01	0.0000	P	6.5
2	☐	0.500	0.480	9759.34	0.0003	P	1.0
3	☐	5.000	4.756	94134.75	0.0032	P	0.6
4	☐	250.000	247.450	4677427.36	0.1641	P	0.2
5	☐	625.000	632.000	11666845.74	0.4191	A	0.4
6	☐	1250.000	1254.387	23361732.82	0.8319	A	0.5
7	☐	2500.000	2483.991	46351094.79	1.6473	A	0.4
8	☐	5000.000	5006.161	92129385.39	3.3199	A	0.2
9	☐			64348.31	0.0026	P	1.6

$$y = 6.6316E-004 * x + 7.4786E-006$$

$$R = 1.0000$$

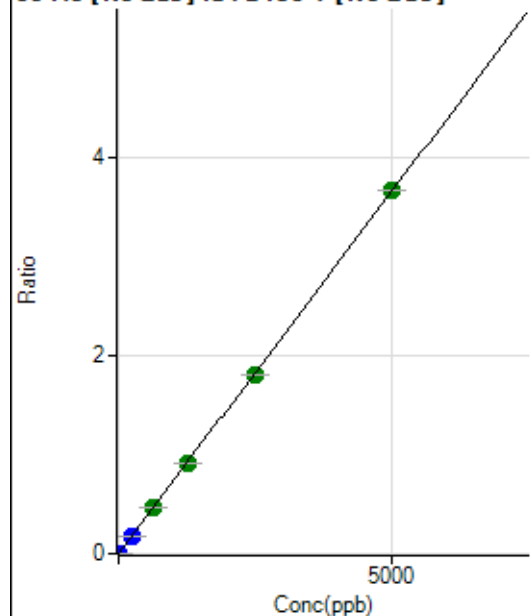
$$DL = 0.002214$$

$$BEC = 0.01128$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	466.70	0.0000	P	13.8
2	☐	0.500	0.491	11213.16	0.0004	P	1.8
3	☐	5.000	4.759	103938.01	0.0035	P	1.7
4	☐	250.000	247.669	5155356.75	0.1809	P	0.5
5	☐	625.000	630.720	12821258.70	0.4606	A	0.1
6	☐	1250.000	1254.978	25737498.14	0.9165	A	0.4
7	☐	2500.000	2471.110	50775641.76	1.8046	A	0.5
8	☐	5000.000	5012.602	101580502.97	3.6605	A	0.2
9	☐			86380.94	0.0035	P	2.5

$$y = 7.3025E-004 * x + 1.5514E-005$$

$$R = 1.0000$$

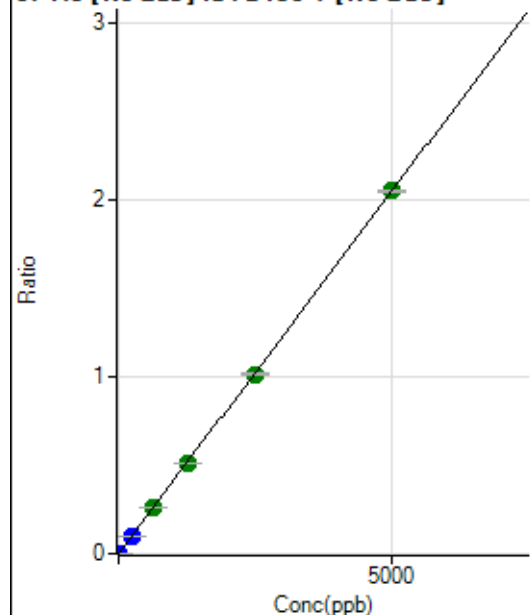
$$DL = 0.008775$$

$$BEC = 0.02124$$

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	197.24	0.0000	P	16.9
2	☐	0.500	0.489	6196.02	0.0002	P	2.5
3	☐	5.000	4.775	58431.52	0.0020	P	2.2
4	☐	250.000	248.139	2896834.98	0.1016	P	0.2
5	☐	625.000	628.760	7168371.43	0.2575	A	0.3
6	☐	1250.000	1253.247	14414869.94	0.5133	A	0.5
7	☐	2500.000	2479.055	28568945.43	1.0153	A	0.4
8	☐	5000.000	5009.284	56934613.78	2.0516	A	0.6
9	☐			31226.74	0.0013	P	4.8

$$y = 4.0956\text{E-}004 * x + 6.5534\text{E-}006$$

$$R = 1.0000$$

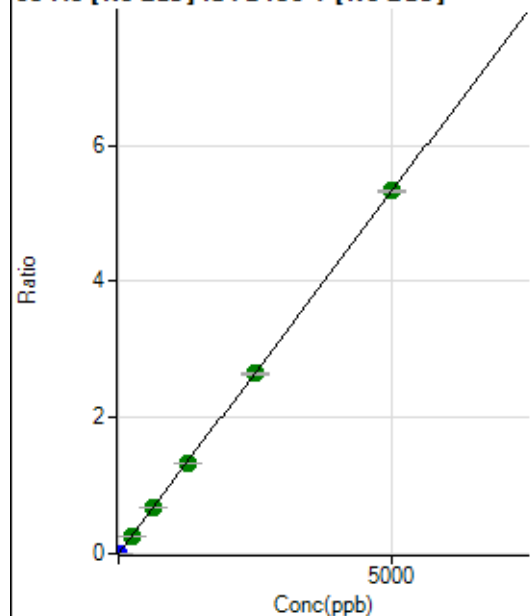
$$DL = 0.008098$$

$$BEC = 0.016$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	375.03	0.0000	P	20.6
2	☐	0.500	0.474	15484.01	0.0005	P	1.8
3	☐	5.000	4.747	150697.82	0.0051	P	0.5
4	☐	250.000	244.265	7404403.38	0.2598	A	0.8
5	☐	625.000	627.519	18576721.07	0.6674	A	0.5
6	☐	1250.000	1247.510	37258615.76	1.3267	A	0.4
7	☐	2500.000	2482.566	74288170.41	2.6402	A	0.5
8	☐	5000.000	5009.312	147838203.30	5.3273	A	0.5
9	☐			73135.45	0.0029	P	3.9

$$y = 0.0011 * x + 1.2468\text{E-}005$$

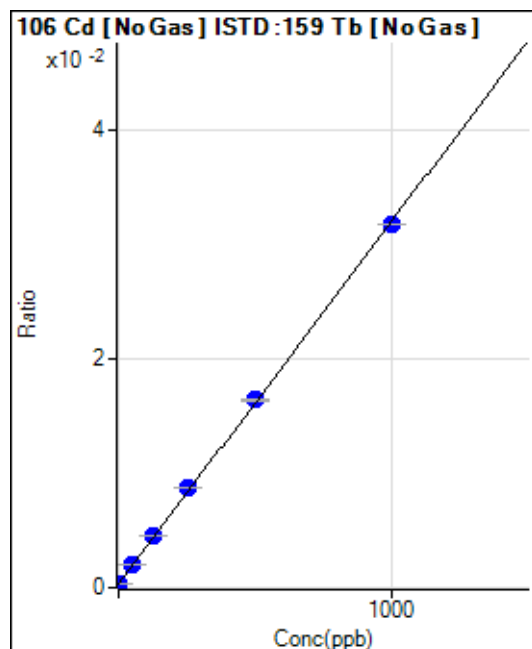
$$R = 1.0000$$

$$DL = 0.007244$$

$$BEC = 0.01172$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12227.90	0.0003	P	2.9
2	☐	0.100	0.323	12492.15	0.0003	P	2.3
3	☐	1.000	1.401	13698.79	0.0004	P	1.6
4	☐	50.000	53.667	74619.54	0.0020	P	0.2
5	☐	125.000	134.861	167519.44	0.0046	P	0.5
6	☐	250.000	265.647	320717.87	0.0087	P	0.6
7	☐	500.000	507.469	605063.98	0.0164	P	0.5
8	☐	1000.000	990.938	1145898.80	0.0317	P	0.1
9	☐			10871.29	0.0003	P	0.5

$$y = 3.1658\text{E-}005 * x + 3.1924\text{E-}004$$

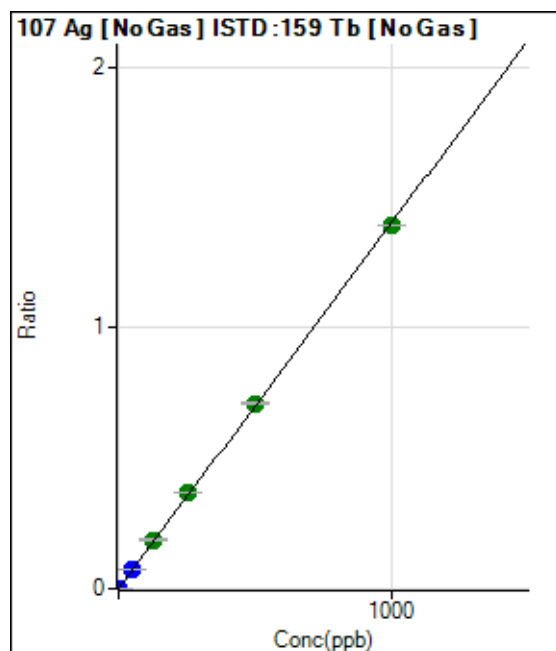
$$R = 0.9998$$

$$DL = 0.8702$$

$$BEC = 10.08$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	397.25	0.0000	P	13.4
2	☐	0.100	0.115	6496.23	0.0002	P	3.1
3	☐	1.000	1.089	57936.62	0.0015	P	1.5
4	☐	50.000	54.205	2811029.38	0.0760	P	0.1
5	☐	125.000	133.978	6859897.98	0.1879	A	0.6
6	☐	250.000	264.394	13624009.51	0.3708	A	0.5
7	☐	500.000	506.418	26227624.37	0.7102	A	0.6
8	☐	1000.000	991.860	50299057.72	1.3910	A	0.1
9	☐			5651.40	0.0002	P	9.5

$$y = 0.0014 * x + 1.0378\text{E-}005$$

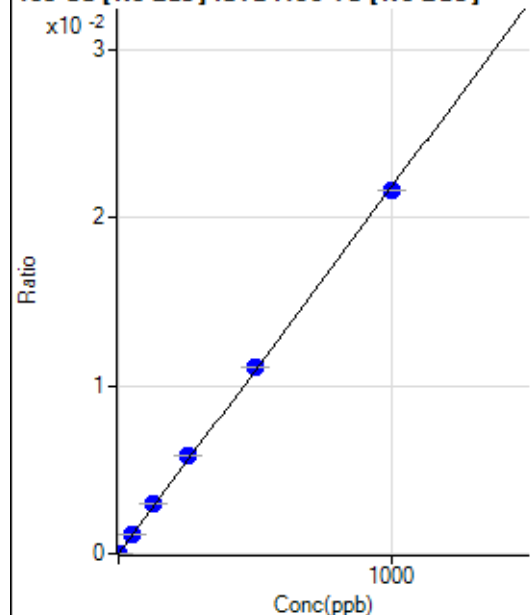
$$R = 0.9998$$

$$DL = 0.002966$$

$$BEC = 0.0074$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	40.28	0.0000	P	6.5
2	☐	0.100	0.079	105.56	0.0000	P	17.8
3	☐	1.000	1.066	915.33	0.0000	P	4.9
4	☐	50.000	54.012	43567.03	0.0012	P	0.9
5	☐	125.000	135.678	108003.42	0.0030	P	1.3
6	☐	250.000	266.035	213098.64	0.0058	P	0.6
7	☐	500.000	509.586	410224.98	0.0111	P	0.7
8	☐	1000.000	989.663	780080.92	0.0216	P	0.2
9	☐			163.90	0.0000	P	9.9

$$y = 2.1798\text{E-}005 * x + 1.0519\text{E-}006$$

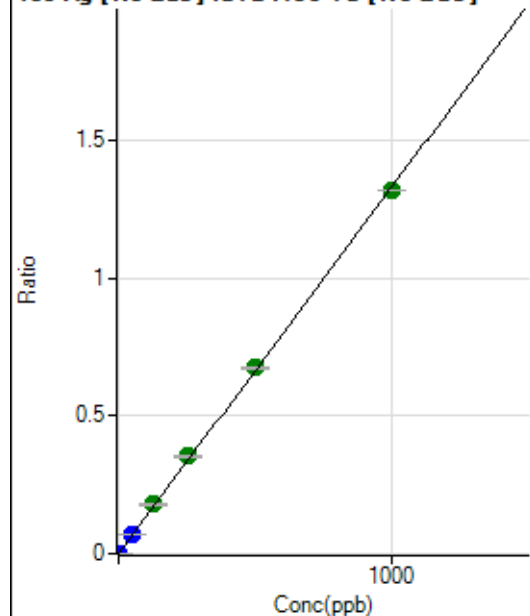
$$R = 0.9998$$

$$DL = 0.009475$$

$$BEC = 0.04826$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	238.90	0.0000	P	24.6
2	☐	0.100	0.114	5979.27	0.0002	P	2.2
3	☐	1.000	1.089	54807.03	0.0015	P	1.0
4	☐	50.000	54.670	2689662.13	0.0727	P	0.5
5	☐	125.000	134.260	6521780.83	0.1786	A	0.8
6	☐	250.000	265.565	12982679.54	0.3534	A	0.9
7	☐	500.000	508.074	24964258.72	0.6760	A	0.9
8	☐	1000.000	990.681	47664106.97	1.3182	A	0.1
9	☐			5092.79	0.0002	P	8.5

$$y = 0.0013 * x + 6.2317\text{E-}006$$

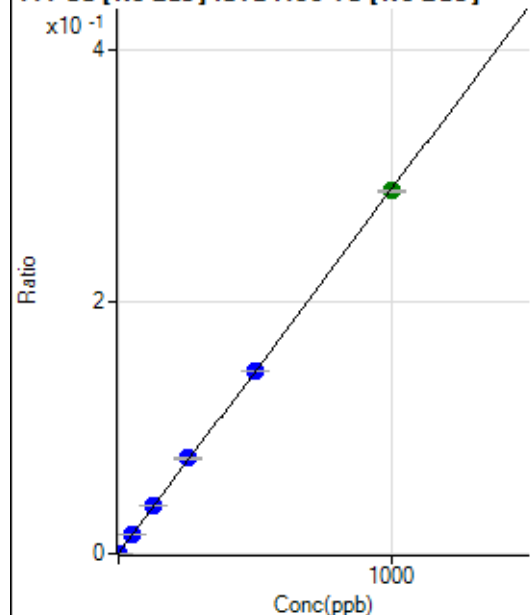
$$R = 0.9998$$

$$DL = 0.00346$$

$$BEC = 0.004684$$

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	8560.50	0.0002	P	2.8
2	☐	0.100	0.118	9767.91	0.0003	P	2.2
3	☐	1.000	1.024	19562.33	0.0005	P	1.7
4	☐	50.000	53.773	582154.50	0.0157	P	1.0
5	☐	125.000	133.452	1414549.72	0.0387	P	0.2
6	☐	250.000	260.929	2775629.84	0.0755	P	0.8
7	☐	500.000	500.896	5347765.72	0.1448	P	0.5
8	☐	1000.000	995.575	10399723.95	0.2876	A	0.3
9	☐			8893.88	0.0003	P	1.6

$$y = 2.8866\text{E-}004 * x + 2.2349\text{E-}004$$

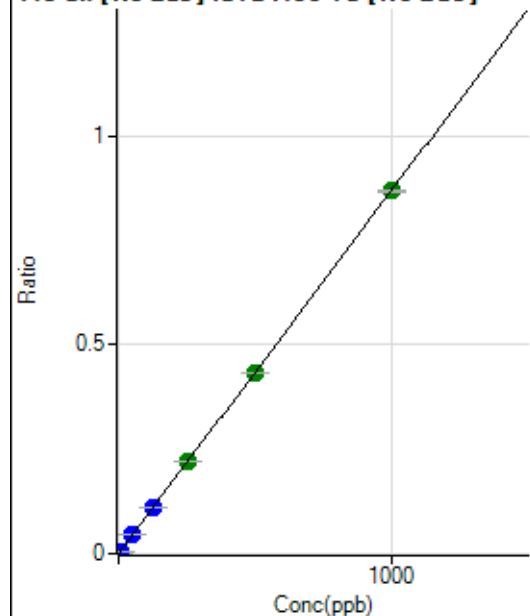
$$R = 0.9999$$

$$DL = 0.06439$$

$$BEC = 0.7742$$

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	2136.37	0.0001	P	4.6
2	☐	0.500	0.528	19530.94	0.0005	P	2.6
3	☐	5.000	4.828	160399.79	0.0043	P	0.7
4	☐	50.000	51.286	1651995.53	0.0447	P	0.9
5	☐	125.000	128.497	4084025.13	0.1119	P	0.4
6	☐	250.000	255.561	8172323.71	0.2224	A	1.0
7	☐	500.000	498.092	16006954.87	0.4335	A	0.7
8	☐	1000.000	999.063	31435692.37	0.8694	A	0.6
9	☐			27093.54	0.0009	P	1.0

$$y = 8.7014\text{E-}004 * x + 5.5789\text{E-}005$$

$$R = 1.0000$$

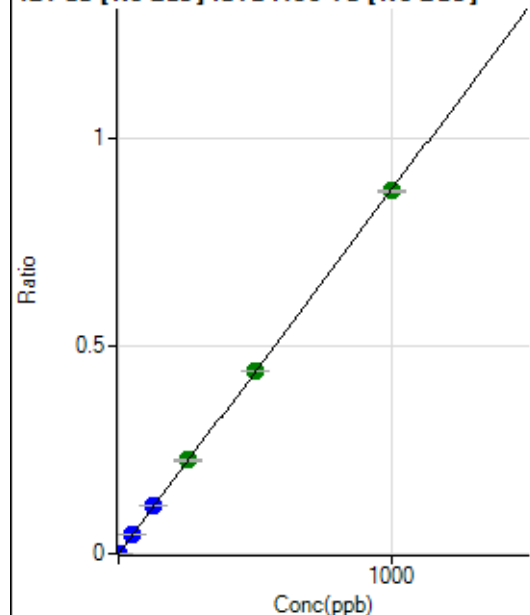
$$DL = 0.008924$$

$$BEC = 0.06411$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	250.02	0.0000	P	27.9
2	☐	0.200	0.198	6838.07	0.0002	P	1.8
3	☐	2.000	1.908	63344.16	0.0017	P	2.5
4	☐	50.000	51.762	1679958.39	0.0454	P	0.8
5	☐	125.000	130.226	4173169.80	0.1143	P	0.5
6	☐	250.000	256.860	8283548.45	0.2255	A	1.0
7	☐	500.000	501.104	16242392.90	0.4398	A	0.2
8	☐	1000.000	996.992	31641977.10	0.8751	A	0.5
9	☐			31260.95	0.0010	P	0.7

$$y = 8.7772\text{E-}004 * x + 6.5357\text{E-}006$$

$$R = 1.0000$$

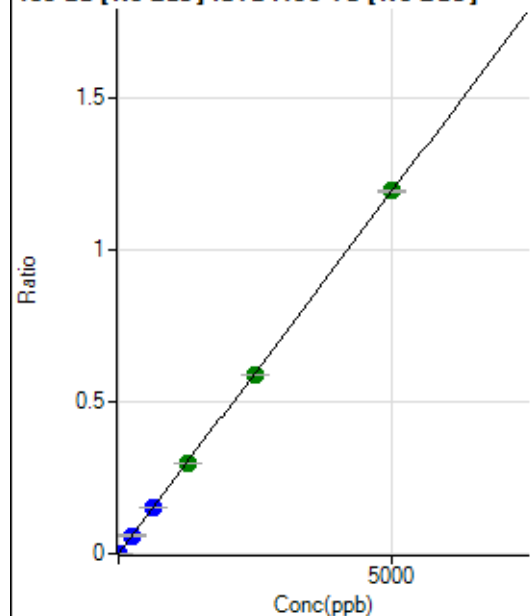
$$DL = 0.00623$$

$$BEC = 0.007446$$

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	36.11	0.0000	P	81.5
2	☐	1.000	1.004	9122.84	0.0002	P	2.3
3	☐	10.000	9.643	86725.71	0.0023	P	0.9
4	☐	250.000	252.344	2226176.76	0.0602	P	0.4
5	☐	625.000	635.318	5534323.13	0.1516	P	1.1
6	☐	1250.000	1253.184	10986072.64	0.2990	A	0.9
7	☐	2500.000	2472.276	21783907.43	0.5899	A	0.3
8	☐	5000.000	5011.660	43238997.84	1.1958	A	0.5
9	☐			6815.86	0.0002	P	2.0

$$y = 2.3860\text{E-}004 * x + 9.4639\text{E-}007$$

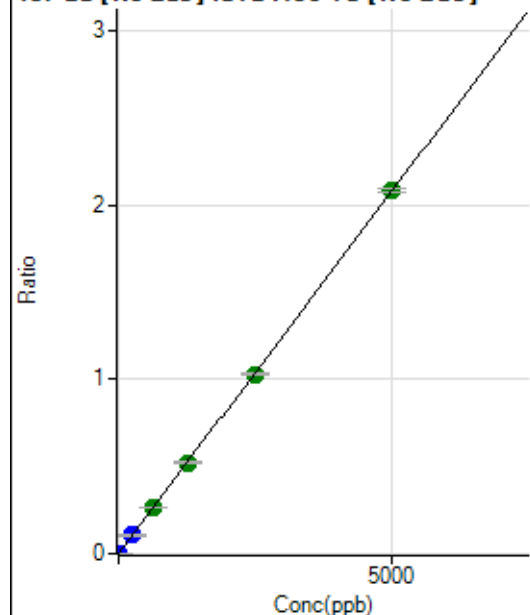
$$R = 1.0000$$

$$DL = 0.009702$$

$$BEC = 0.003966$$

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	122.23	0.0000	P	19.1
2	☐	1.000	0.976	15517.71	0.0004	P	0.6
3	☐	10.000	9.594	150510.39	0.0040	P	0.7
4	☐	250.000	252.423	3882893.18	0.1050	P	0.8
5	☐	625.000	627.943	9537749.26	0.2613	A	1.1
6	☐	1250.000	1253.829	19165407.37	0.5217	A	1.3
7	☐	2500.000	2476.818	38052987.66	1.0305	A	0.8
8	☐	5000.000	5010.146	75370072.52	2.0844	A	1.0
9	☐			11649.83	0.0004	P	3.7

$$y = 4.1604\text{E-}004 * x + 3.1889\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.004383$$

$$BEC = 0.007665$$

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	43.3
2	☐			11.11		P	124.
3	☐			8.89		P	43.3
4	☐			184.45		P	12.7
5	☐			564.48		P	7.6
6	☐			1057.86		P	9.6
7	☐			2095.79		P	5.6
8	☐			3547.26		P	2.6
9	☐			613.37		P	22.8

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐			3.33		P	0.0
3	☐			3.33		P	100.
4	☐			22.22		P	45.8
5	☐			78.89		P	10.6
6	☐			105.56		P	6.6
7	☐			235.56		P	7.3
8	☐			367.79		P	10.2
9	☐			254.45		P	10.6

156 Dy [No Gas] No available calibration points

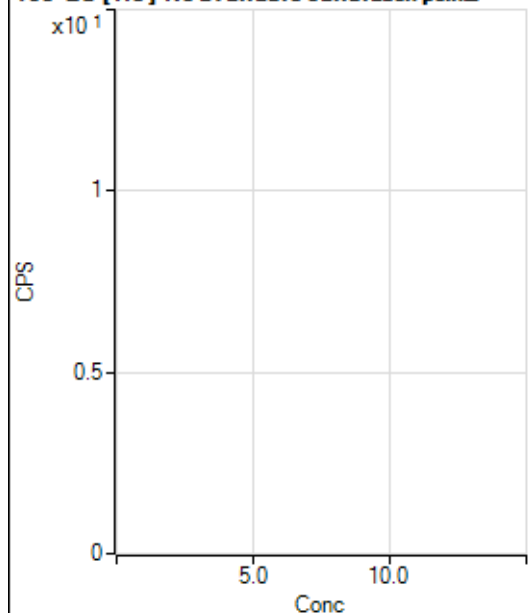
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	33.3
2	☐			30.56		P	56.8
3	☐			8.33		P	173.
4	☐			83.34		P	26.5
5	☐			97.23		P	26.2
6	☐			294.46		P	11.8
7	☐			519.51		P	19.9
8	☐			805.61		P	3.6
9	☐			338.91		P	8.6

156 Dy [He] No available calibration points

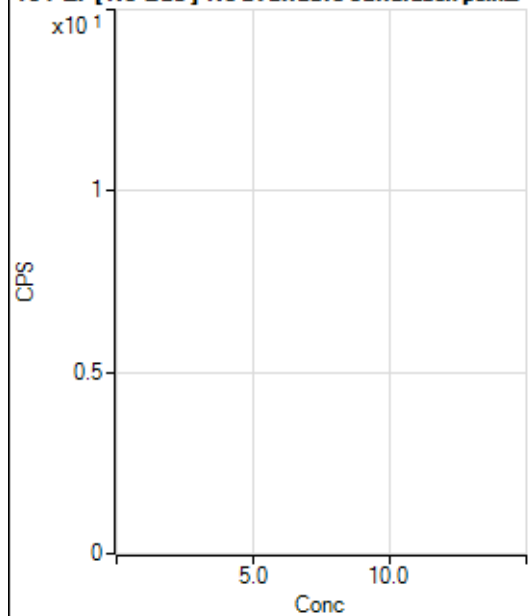
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	33.3
2	☐			6.67		P	50.0
3	☐			7.78		P	65.5
4	☐			31.11		P	48.3
5	☐			92.23		P	33.6
6	☐			183.34		P	11.4
7	☐			338.90		P	7.4
8	☐			680.03		P	12.2
9	☐			150.00		P	5.9

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			216.68		P	10.2
2	☐			252.79		P	24.7
3	☐			227.79		P	13.8
4	☐			180.57		P	17.5
5	☐			258.35		P	3.2
6	☐			283.35		P	10.6
7	☐			386.13		P	8.2
8	☐			461.14		P	15.4
9	☐			472.25		P	2.7

160 Gd [He] No available calibration points

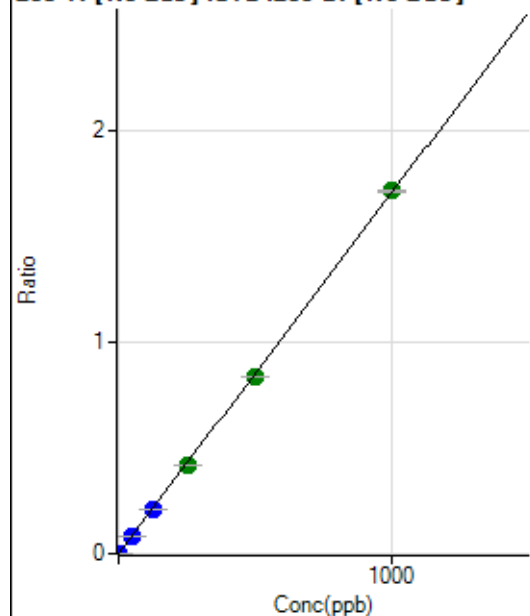
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			483.35		P	16.3
2	☐			473.35		P	1.2
3	☐			493.35		P	11.4
4	☐			486.68		P	7.2
5	☐			506.69		P	4.1
6	☐			462.24		P	9.3
7	☐			491.13		P	3.9
8	☐			521.13		P	8.8
9	☐			545.58		P	6.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			91.67		P	24.1
2	☐			161.12		P	24.4
3	☐			122.23		P	14.2
4	☐			158.34		P	22.9
5	☐			161.12		P	31.6
6	☐			158.34		P	13.9
7	☐			205.57		P	36.8
8	☐			211.12		P	9.9
9	☐			163.90		P	32.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			55.56		P	36.2
2	☐			45.56		P	30.5
3	☐			46.67		P	12.4
4	☐			56.67		P	38.6
5	☐			62.22		P	15.5
6	☐			46.67		P	7.1
7	☐			101.11		P	34.3
8	☐			102.23		P	8.2
9	☐			93.34		P	10.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1219.56	0.0000	P	4.3
2	☐	0.100	0.081	4709.37	0.0002	P	3.5
3	☐	1.000	0.855	37687.72	0.0015	P	2.6
4	☐	50.000	48.649	2031832.08	0.0828	P	0.3
5	☐	125.000	123.220	5061839.65	0.2096	P	0.5
6	☐	250.000	246.669	9983401.61	0.4196	A	0.6
7	☐	500.000	489.425	19314039.15	0.8325	A	0.3
8	☐	1000.000	1006.410	37644523.76	1.7118	A	0.5
9	☐			7772.09	0.0005	P	6.2

$$y = 0.0017 * x + 4.8413E-005$$

$$R = 0.9999$$

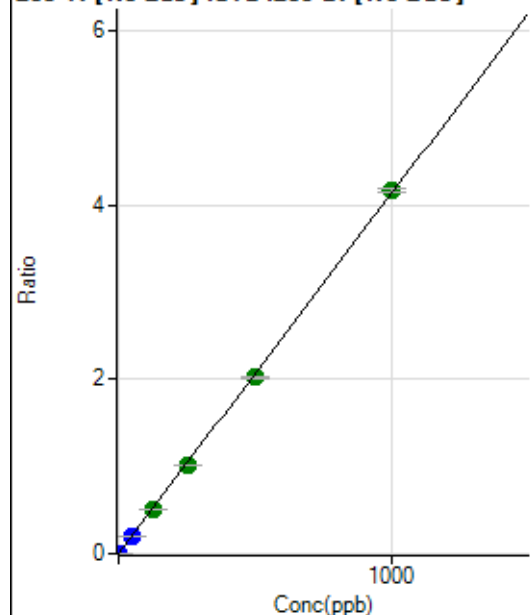
$$DL = 0.003704$$

$$BEC = 0.02846$$

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	2667.07	0.0001	P	6.2
2	☐	0.100	0.087	11730.73	0.0005	P	2.6
3	☐	1.000	0.865	92445.55	0.0037	P	1.0
4	☐	50.000	48.745	4951434.62	0.2018	P	0.8
5	☐	125.000	122.325	12222521.02	0.5062	A	0.3
6	☐	250.000	246.370	24253485.78	1.0194	A	0.9
7	☐	500.000	488.845	46922274.31	2.0225	A	0.4
8	☐	1000.000	1006.882	91602390.94	4.1657	A	1.0
9	☐			19350.94	0.0012	P	5.2

$$y = 0.0041 * x + 1.0585E-004$$

$$R = 0.9999$$

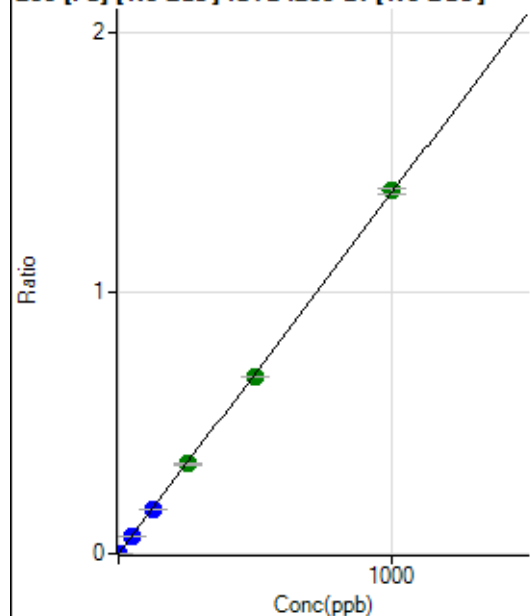
$$DL = 0.004721$$

$$BEC = 0.02559$$

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	1927.97	0.0001	P	5.7
2	☐	0.100	0.099	5367.91	0.0002	P	4.8
3	☐	1.000	0.881	32514.52	0.0013	P	0.6
4	☐	50.000	48.765	1658332.44	0.0676	P	0.9
5	☐	125.000	123.592	4132738.46	0.1712	P	0.9
6	☐	250.000	247.837	8164340.11	0.3431	A	0.5
7	☐	500.000	490.604	15757062.04	0.6792	A	0.5
8	☐	1000.000	1005.477	30606346.29	1.3919	A	1.5
9	☐			27334.12	0.0017	P	3.3

$$y = 0.0014 * x + 7.6517E-005$$

$$R = 0.9999$$

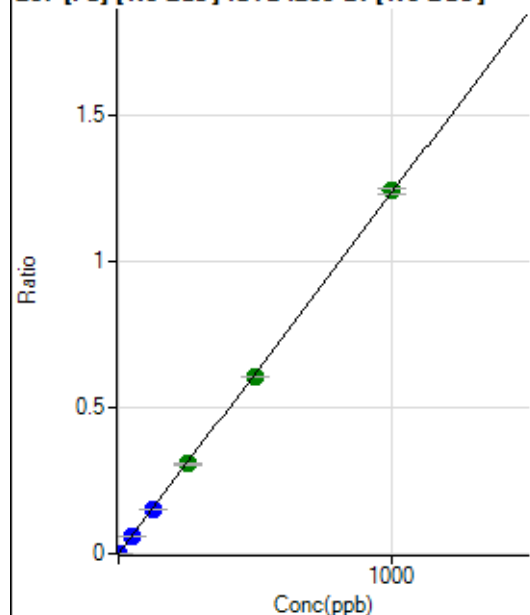
$$DL = 0.0094$$

$$BEC = 0.05528$$

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	1605.70	0.0001	P	5.4
2	☐	0.100	0.095	4573.17	0.0002	P	5.5
3	☐	1.000	0.854	28113.69	0.0011	P	0.7
4	☐	50.000	48.506	1474143.62	0.0601	P	0.6
5	☐	125.000	124.052	3707162.24	0.1535	P	1.3
6	☐	250.000	248.003	7301398.31	0.3069	A	0.6
7	☐	500.000	490.706	14085579.60	0.6071	A	0.1
8	☐	1000.000	1005.339	27349670.52	1.2438	A	1.5
9	☐			22410.14	0.0014	P	1.8

$$y = 0.0012 * x + 6.3737E-005$$

$$R = 0.9999$$

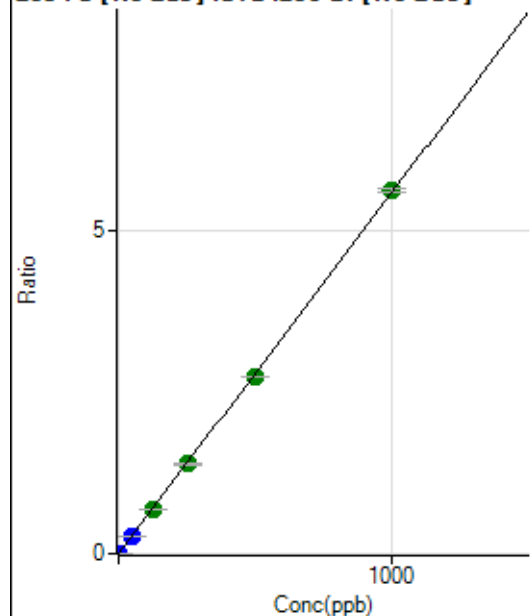
$$DL = 0.008333$$

$$BEC = 0.05152$$

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	7541.81	0.0003	P	4.1
2	☐	0.100	0.096	21046.05	0.0008	P	1.6
3	☐	1.000	0.866	128944.68	0.0051	P	0.6
4	☐	50.000	48.631	6678076.09	0.2721	P	0.3
5	☐	125.000	123.023	16611188.97	0.6879	A	1.0
6	☐	250.000	247.723	32951917.98	1.3850	A	0.6
7	☐	500.000	491.295	63717275.73	2.7464	A	0.4
8	☐	1000.000	1005.237	123562832.16	5.6191	A	1.1
9	☐			104864.46	0.0064	P	2.5

$$y = 0.0056 * x + 2.9935E-004$$

$$R = 0.9999$$

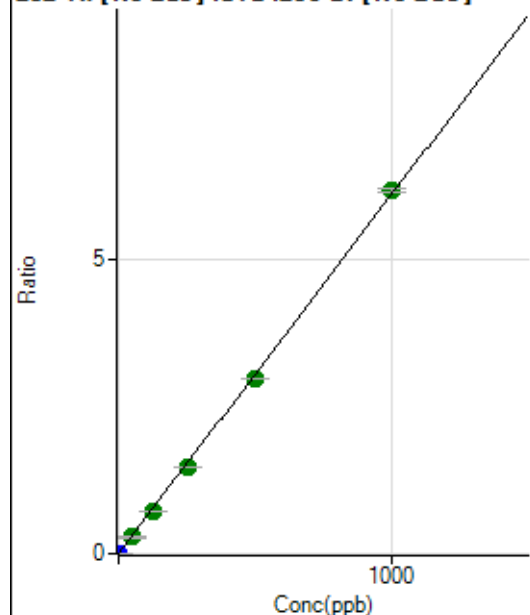
$$DL = 0.006628$$

$$BEC = 0.05356$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	761.16	0.0000	P	14.2
2	☐	0.100	0.078	12741.74	0.0005	P	0.2
3	☐	1.000	0.792	121635.46	0.0048	P	0.5
4	☐	50.000	45.624	6811310.11	0.2776	A	1.0
5	☐	125.000	117.868	17314086.96	0.7170	A	0.2
6	☐	250.000	242.962	35165513.52	1.4780	A	0.4
7	☐	500.000	485.164	68471493.66	2.9513	A	0.1
8	☐	1000.000	1010.288	135139678.95	6.1456	A	1.2
9	☐			21904.21	0.0013	P	11.0

$$y = 0.0061 * x + 3.0203E-005$$

$$R = 0.9998$$

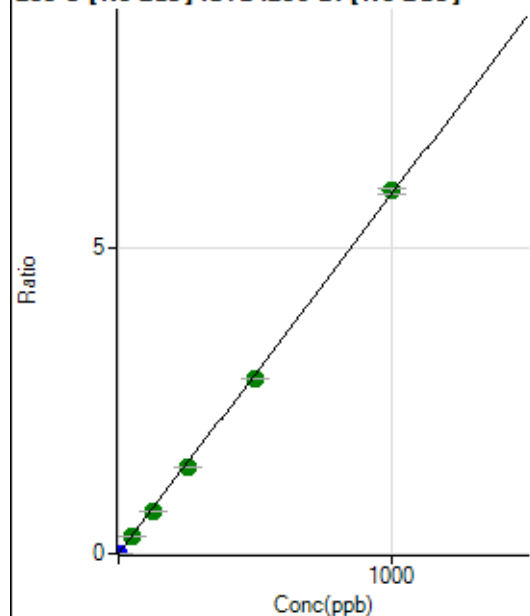
$$DL = 0.002122$$

$$BEC = 0.004965$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	308.35	0.0000	P	12.2
2	☐	0.100	0.080	12128.42	0.0005	P	1.8
3	☐	1.000	0.782	115466.50	0.0046	P	0.6
4	☐	50.000	46.061	6631643.68	0.2702	A	0.6
5	☐	125.000	118.486	16785219.13	0.6951	A	0.3
6	☐	250.000	242.639	33869161.17	1.4235	A	0.5
7	☐	500.000	486.072	66158286.89	2.8516	A	0.5
8	☐	1000.000	1009.815	130268730.69	5.9243	A	1.6
9	☐			10874.55	0.0007	P	6.6

$$y = 0.0059 * x + 1.2244E-005$$

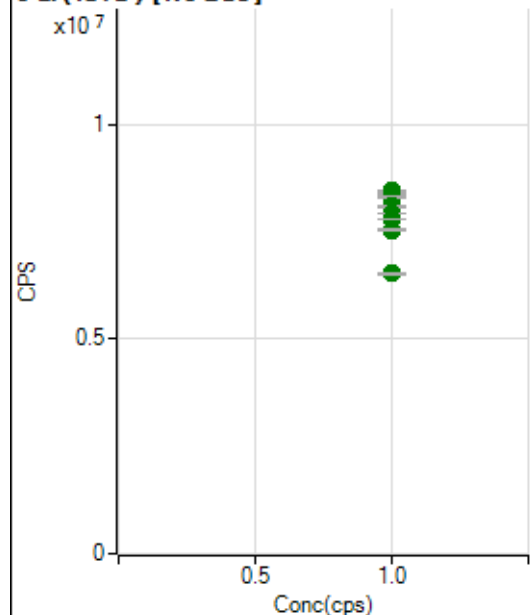
$$R = 0.9998$$

$$DL = 0.000762$$

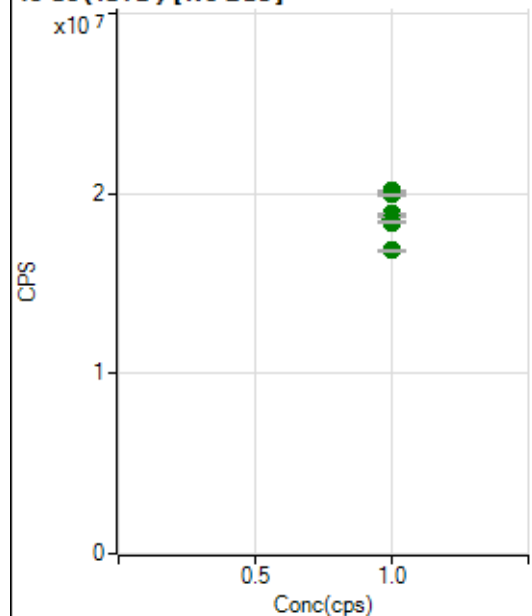
$$BEC = 0.002087$$

Weight: <None>

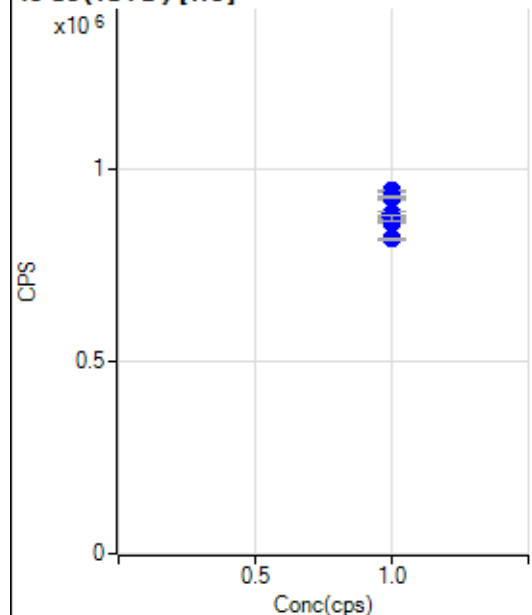
Min Conc: 0

6 Li (ISTD) [No Gas]

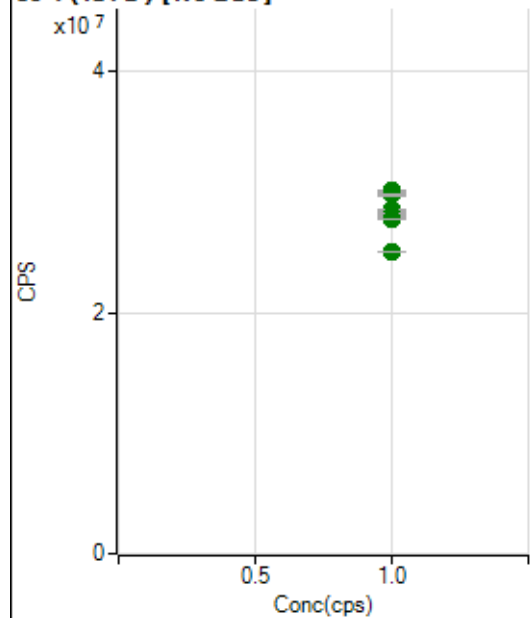
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8452972.09		A	0.4
2	☐	1.000		8384290.72		A	0.1
3	☐	1.000		8384888.25		A	0.1
4	☐	1.000		8297486.40		A	0.4
5	☐	1.000		8093751.94		A	0.3
6	☐	1.000		7950756.17		A	0.0
7	☐	1.000		7797394.29		A	0.3
8	☐	1.000		7545132.72		A	0.3
9	☐	1.000		6524922.07		A	0.9

45 Sc (ISTD) [No Gas]

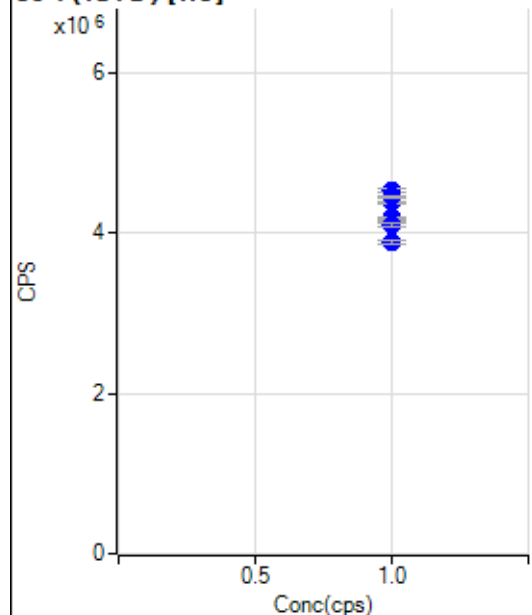
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		20100465.21		A	0.2
2	☐	1.000		20138197.15		A	0.2
3	☐	1.000		19927908.78		A	0.3
4	☐	1.000		18865984.97		A	0.5
5	☐	1.000		18410219.51		A	0.5
6	☐	1.000		18483679.06		A	0.3
7	☐	1.000		18567532.19		A	0.8
8	☐	1.000		18377886.52		A	0.6
9	☐	1.000		16816688.05		A	0.2

45 Sc (ISTD) [He]

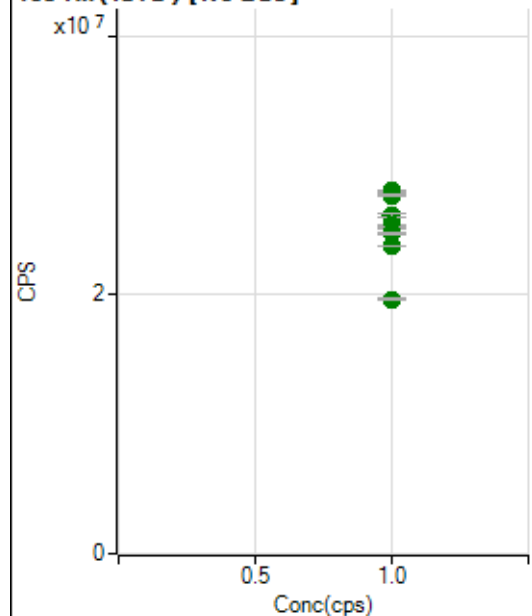
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		924188.42		P	0.8
2	☐	1.000		942852.85		P	0.8
3	☐	1.000		929034.43		P	0.6
4	☐	1.000		873069.94		P	0.4
5	☐	1.000		858964.94		P	0.1
6	☐	1.000		866597.71		P	0.9
7	☐	1.000		882597.72		P	1.0
8	☐	1.000		873968.19		P	1.6
9	☐	1.000		817843.44		P	1.0

89 Y (ISTD) [No Gas]

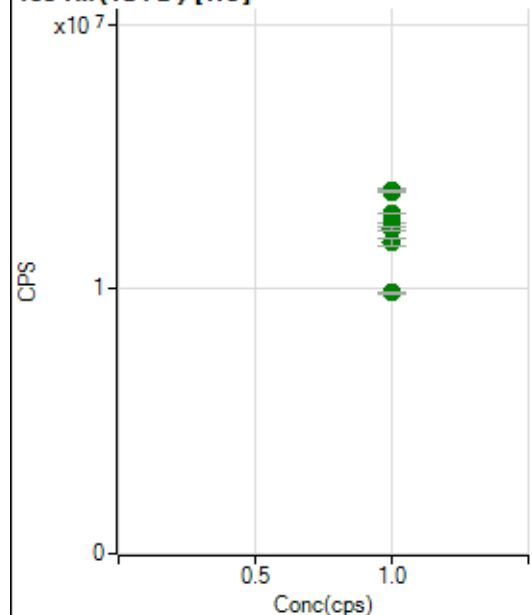
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		30089630.11		A	0.3
2	☐	1.000		29983922.61		A	0.3
3	☐	1.000		29777236.50		A	0.8
4	☐	1.000		28502323.74		A	0.3
5	☐	1.000		27835975.69		A	0.3
6	☐	1.000		28083407.64		A	0.1
7	☐	1.000		28137700.69		A	0.3
8	☐	1.000		27750648.47		A	0.5
9	☐	1.000		24974929.35		A	0.1

89 Y (ISTD) [He]

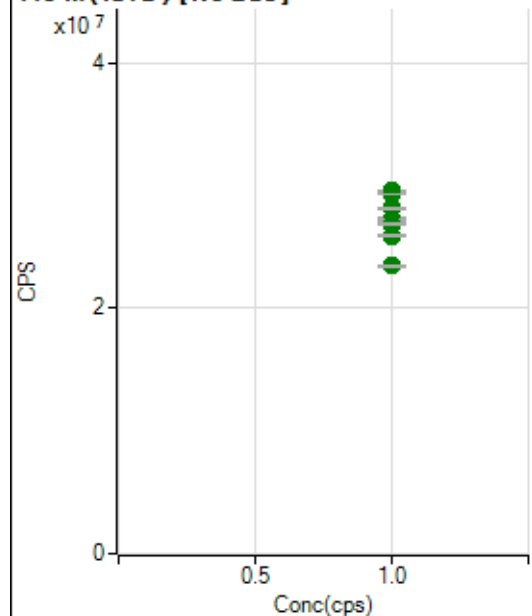
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4379738.61		P	0.7
2	☐	1.000		4519493.16		P	1.1
3	☐	1.000		4448496.88		P	0.8
4	☐	1.000		4194060.14		P	0.4
5	☐	1.000		4123486.15		P	0.3
6	☐	1.000		4126920.87		P	0.5
7	☐	1.000		4180245.15		P	0.8
8	☐	1.000		4095557.47		P	1.6
9	☐	1.000		3879441.09		P	0.7

103 Rh (ISTD) [No Gas]

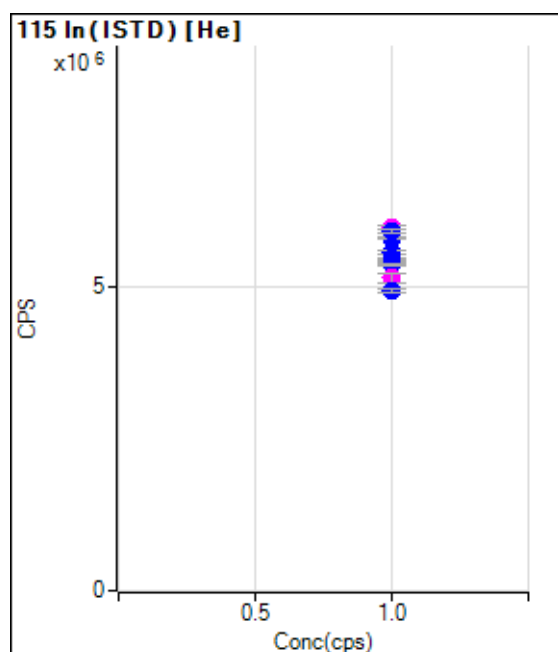
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		28003016.25		A	0.1
2	☐	1.000		27932922.85		A	0.1
3	☐	1.000		27671677.70		A	0.5
4	☐	1.000		26125435.48		A	0.6
5	☐	1.000		25349311.85		A	0.5
6	☐	1.000		25147414.97		A	0.4
7	☐	1.000		24769525.73		A	0.6
8	☐	1.000		23716306.95		A	0.2
9	☐	1.000		19658549.74		A	0.2

103 Rh (ISTD) [He]

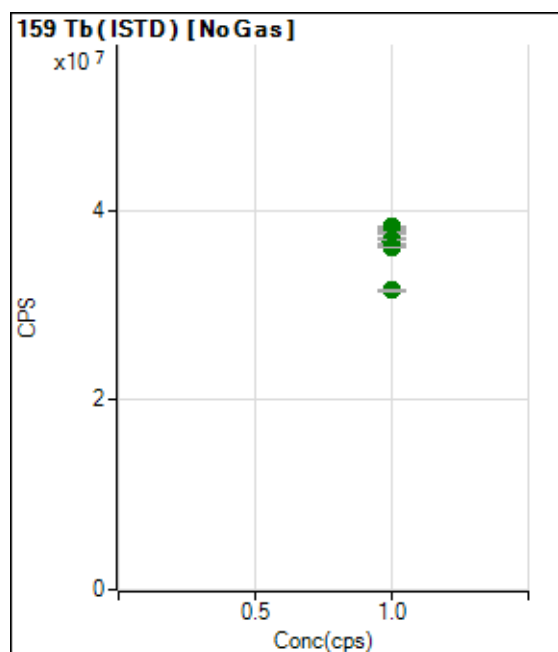
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		13690388.27		A	0.8
2	☐	1.000		13713040.07		A	1.2
3	☐	1.000		13698517.43		A	0.9
4	☐	1.000		12881964.25		A	0.2
5	☐	1.000		12506657.45		A	0.4
6	☐	1.000		12349501.48		A	0.3
7	☐	1.000		12304576.34		A	1.3
8	☐	1.000		11742347.19		A	2.4
9	☐	1.000		9863040.20		A	0.7

115 In (ISTD) [No Gas]

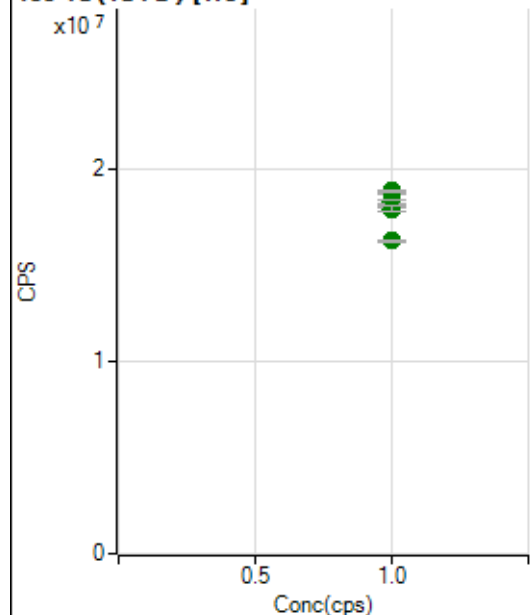
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		29548346.37		A	0.4
2	☐	1.000		29528701.90		A	0.3
3	☐	1.000		29280489.03		A	0.0
4	☐	1.000		28159358.40		A	0.4
5	☐	1.000		27315513.57		A	0.6
6	☐	1.000		27151319.47		A	0.6
7	☐	1.000		26839685.07		A	0.3
8	☐	1.000		25913711.89		A	0.1
9	☐	1.000		23418227.92		A	0.5



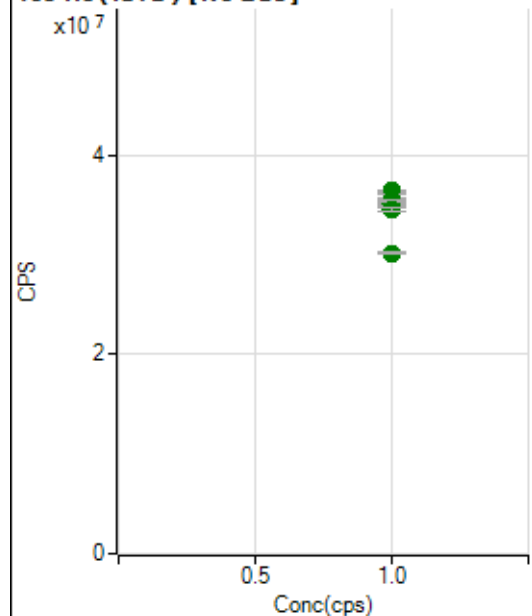
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5813558.83		P	0.7
2	☐	1.000		5984590.58		M	1.2
3	☐	1.000		5929163.83		P	0.9
4	☐	1.000		5582183.79		P	1.0
5	☐	1.000		5474700.58		P	0.4
6	☐	1.000		5436955.00		P	0.5
7	☐	1.000		5387582.73		P	0.7
8	☐	1.000		5157795.63		M	2.9
9	☐	1.000		4952480.73		P	1.1



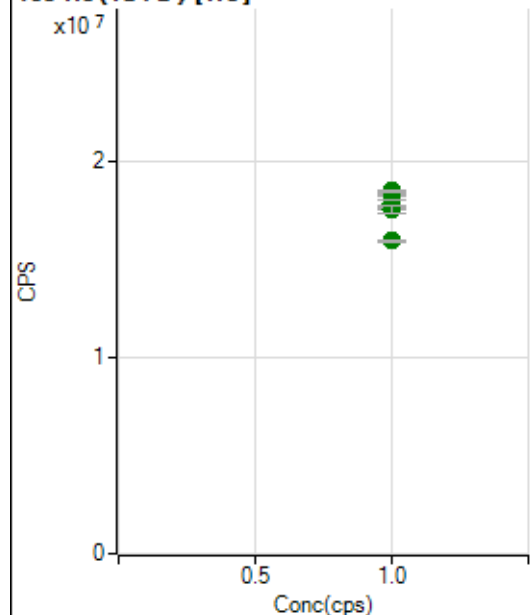
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		38302395.54		A	0.7
2	☐	1.000		37917899.99		A	0.1
3	☐	1.000		37678644.71		A	0.6
4	☐	1.000		36972929.45		A	0.4
5	☐	1.000		36507651.12		A	0.6
6	☐	1.000		36742340.29		A	0.8
7	☐	1.000		36928371.67		A	0.3
8	☐	1.000		36159352.24		A	0.4
9	☐	1.000		31665522.58		A	0.6

159 Tb (ISTD) [He]

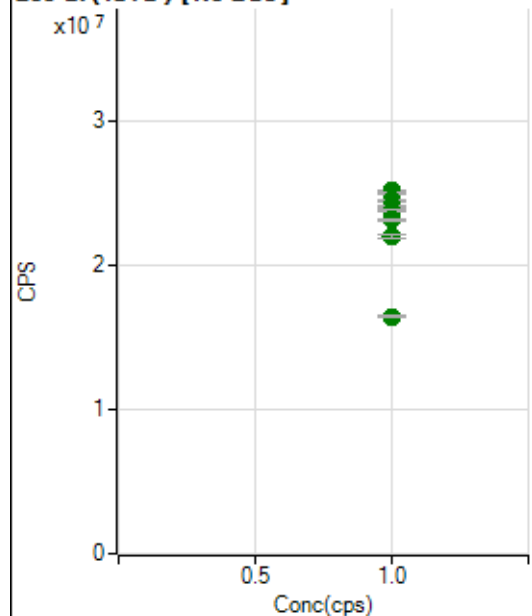
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		18685951.66		A	0.2
2	☐	1.000		18797142.08		A	0.5
3	☐	1.000		18832667.22		A	0.9
4	☐	1.000		18111813.62		A	0.7
5	☐	1.000		18007725.01		A	0.5
6	☐	1.000		18031416.26		A	0.3
7	☐	1.000		18249684.31		A	1.1
8	☐	1.000		17895068.07		A	1.6
9	☐	1.000		16256640.59		A	0.5

165 Ho (ISTD) [No Gas]

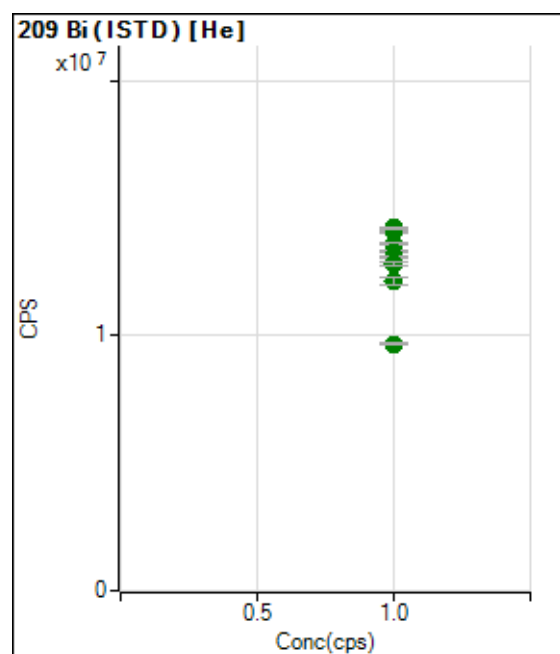
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		36371970.61		A	0.4
2	☐	1.000		36303206.37		A	0.3
3	☐	1.000		36010665.74		A	0.2
4	☐	1.000		35189835.16		A	0.6
5	☐	1.000		35076517.10		A	0.7
6	☐	1.000		35456623.36		A	0.8
7	☐	1.000		35361008.77		A	0.2
8	☐	1.000		34500279.59		A	0.8
9	☐	1.000		30127198.94		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		18393015.28		A	1.0
2	☐	1.000		18365021.11		A	0.7
3	☐	1.000		18517151.81		A	0.7
4	☐	1.000		17661412.51		A	0.2
5	☐	1.000		17656233.63		A	0.4
6	☐	1.000		17644894.46		A	0.4
7	☐	1.000		17901399.04		A	1.6
8	☐	1.000		17573696.82		A	1.9
9	☐	1.000		15969090.46		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		25192566.85		A	0.5
2	☐	1.000		25209522.68		A	0.7
3	☐	1.000		25096096.01		A	0.4
4	☐	1.000		24540476.85		A	0.5
5	☐	1.000		24147074.64		A	0.6
6	☐	1.000		23793114.65		A	0.6
7	☐	1.000		23200467.99		A	0.5
8	☐	1.000		21991755.50		A	1.3
9	☐	1.000		16477500.17		A	0.6



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14076953.96		A	0.6
2	☐	1.000		14203869.79		A	0.8
3	☐	1.000		14224022.84		A	0.7
4	☐	1.000		13600973.69		A	0.9
5	☐	1.000		13284857.72		A	0.4
6	☐	1.000		13097261.89		A	0.6
7	☐	1.000		12837946.89		A	1.4
8	☐	1.000		12122009.82		A	2.2
9	☐	1.000		9662727.08		A	0.6

US EPA Tune Check Sample Report

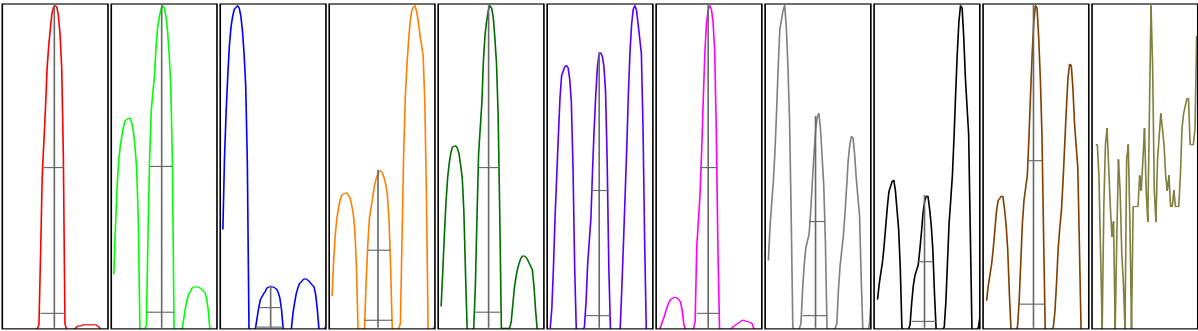
Batch Folder D:\ICP-MS Data\P7012519MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	42052	0.27	5.00	
24	483293	0.15	5.00	
25	63822	0.23	5.00	
26	74067	0.29	5.00	
59	359971	0.34	5.00	
113	39356	0.49	5.00	
115	468662	0.43	5.00	
206	110890	0.42	5.00	
207	100380	0.41	5.00	
208	240254	0.64	5.00	
220	1	40.90		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	42073	41886	42144	42159	41998
24	482717	482761	482950	483625	484410
25	63724	63915	64007	63833	63632
26	74015	74327	74184	74047	73760
59	361131	361188	359962	359095	358480
113	39175	39681	39311	39339	39273
115	471688	469382	466919	468570	466752
206	110419	110581	110781	111593	111075
207	99723	100393	100851	100532	100401
208	237923	239664	241419	240544	241721
220	1	0	0	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	73609	9.00	8.9 - 9.1		0.738	0.900	
24	785126	23.95	23.9 - 24.1		0.787	0.900	
25	104271	24.95	24.9 - 25.1		0.786	0.900	
26	121255	25.90	25.9 - 26.1		0.786	0.900	
59	641037	58.95	58.9 - 59.1		0.774	0.900	
113	82788	113.00	112.9 - 113.1		0.715	0.900	
115	984493	115.00	114.9 - 115.1		0.685	0.900	
206	236940	205.95	205.9 - 206.1		0.731	0.900	
207	214079	206.95	206.9 - 207.1		0.728	0.900	
208	519148	207.95	207.9 - 208.1		0.742	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.1	V	Deflect	14.0	V
Extract 2	-135.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-70	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	91289	0.53	
89	70076	0.53	
205	90457	0.53	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	90585	91861	91088	91493	91420
89	70089	70095	69914	70650	69632
205	90430	90211	90012	91255	90376

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.9	V	Deflect	1.6	V
Extract 2	-140.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-75	V	Cell Exit	-60	V			

Cell Parameters

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