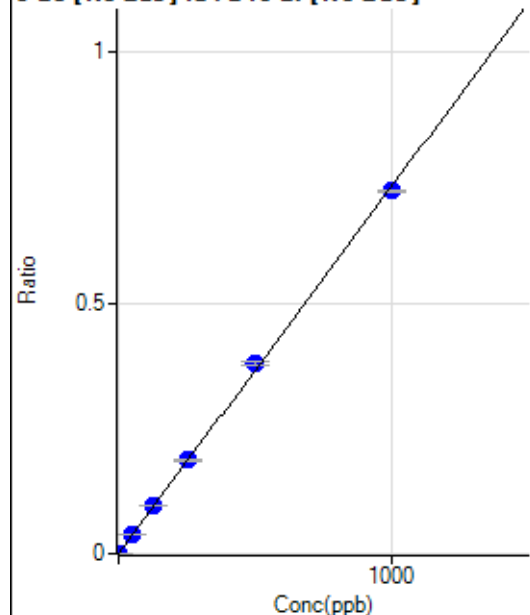


Batch Folder: D:\ICP-MS Data\P7073119 MS.b\
Analysis File: P7073119 MS.batch.bin
DA Date-Time: 2019-08-01 00:36:11
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-07-31 11:35:34
2	003CAL.S.d	S01	2019-07-31 11:39:10
3	004CAL.S.d	S02	2019-07-31 11:44:05
4	005CAL.S.d	S03	2019-07-31 11:48:01
5	006CAL.S.d	S04	2019-07-31 11:52:12
6	007CAL.S.d	S05	2019-07-31 11:56:02
7	008CAL.S.d	S06	2019-07-31 11:59:51
8	009CAL.S.d	S07	2019-07-31 12:03:38
9	010CAL.S.d	S08	2019-07-31 12:07:23

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.11	0.0000	P	25.3
2	☐	0.100	0.101	333.34	0.0001	P	17.6
3	☐	1.000	1.027	2579.15	0.0008	P	6.6
4	☐	50.000	51.788	126208.31	0.0380	P	2.0
5	☐	125.000	132.663	304778.19	0.0972	P	1.0
6	☐	250.000	254.228	563486.36	0.1863	P	1.7
7	☐	500.000	519.139	1067043.61	0.3804	P	1.3
8	☐	1000.000	988.326	1999494.28	0.7241	P	0.8
9	☐			440.01	0.0002	P	9.8

$$y = 7.3267\text{E-}004 * x + 2.7451\text{E-}005$$

$$R = 0.9997$$

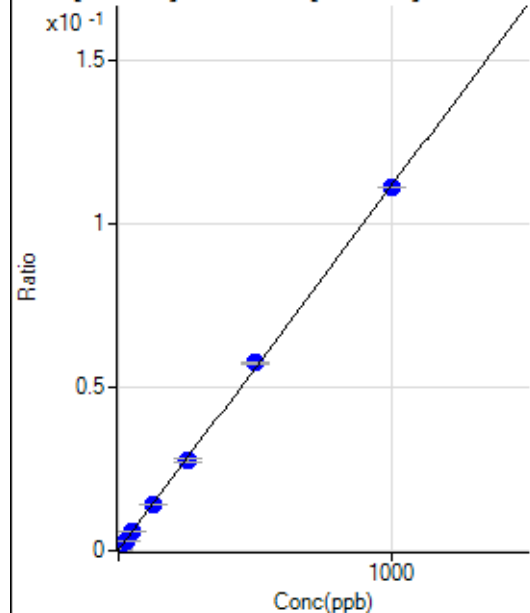
$$DL = 0.02842$$

$$BEC = 0.03747$$

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	711.15	0.0002	P	6.1
2	☐	2.500	2.450	1600.15	0.0005	P	4.3
3	☐	25.000	24.976	9917.55	0.0030	P	5.0
4	☐	50.000	50.416	19382.57	0.0058	P	2.8
5	☐	125.000	125.456	44491.41	0.0142	P	1.0
6	☐	250.000	246.839	83812.90	0.0277	P	4.1
7	☐	500.000	512.997	160949.61	0.0574	P	1.3
8	☐	1000.000	994.215	306485.54	0.1110	P	0.1
9	☐			16103.62	0.0061	P	4.7

$$y = 1.1142\text{E-}004 * x + 2.1418\text{E-}004$$

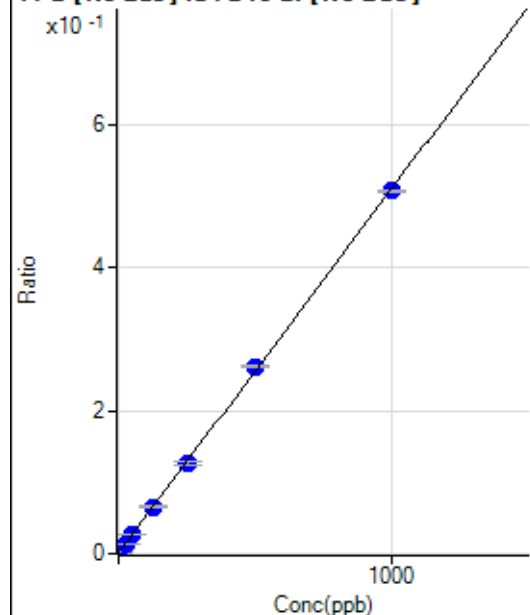
$$R = 0.9999$$

$$DL = 0.3507$$

$$BEC = 1.922$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3667.25	0.0011	P	4.6
2	☐	2.500	2.500	7810.63	0.0024	P	2.2
3	☐	25.000	23.849	43850.80	0.0133	P	0.1
4	☐	50.000	50.151	88595.16	0.0266	P	0.3
5	☐	125.000	126.173	204920.50	0.0654	P	1.8
6	☐	250.000	246.765	383470.20	0.1268	P	2.7
7	☐	500.000	511.782	734341.34	0.2618	P	1.5
8	☐	1000.000	994.792	1402184.86	0.5078	P	0.9
9	☐			73418.22	0.0279	P	6.1

$$y = 5.0935E-004 * x + 0.0011$$

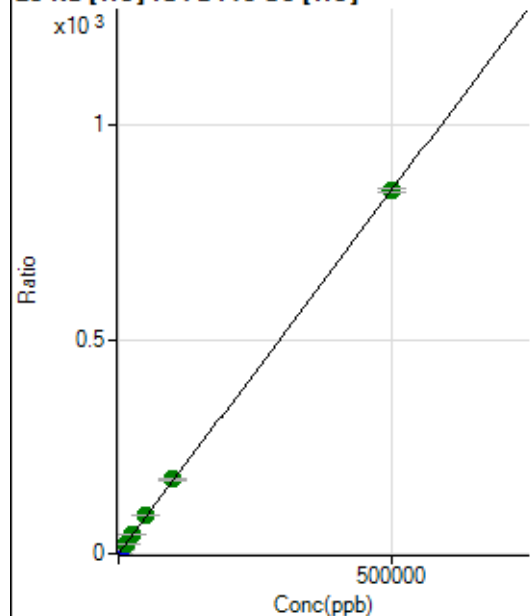
$$R = 0.9999$$

$$DL = 0.2969$$

$$BEC = 2.168$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	10670.92	0.0397	P	0.7
2	☐	50.000	49.858	33204.48	0.1243	P	1.9
3	☐	500.000	491.783	234595.56	0.8741	P	1.8
4	☐	5000.000	5077.244	2233354.95	8.6544	P	1.9
5	☐	12500.000	13126.766	5348512.45	22.3123	A	1.2
6	☐	25000.000	25773.670	10325199.28	43.7707	A	0.7
7	☐	50000.000	52194.666	19891370.76	88.6001	A	0.7
8	☐	100000.00	102302.61	38306034.19	173.6198	A	1.7
9	☐	500000.00	499264.89	185285465.2	847.1585	A	1.2

$$y = 0.0017 * x + 0.0397$$

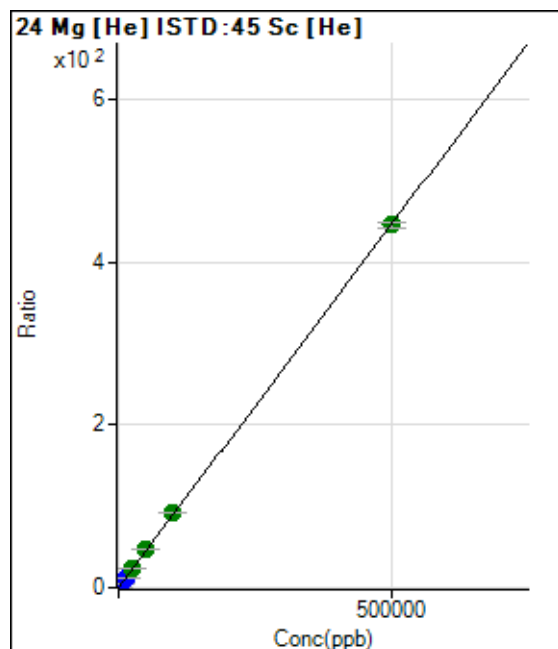
$$R = 1.0000$$

$$DL = 0.5217$$

$$BEC = 23.39$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	225.01	0.0008	P	29.1
2	☐	50.000	49.600	12063.74	0.0452	P	5.7
3	☐	500.000	515.863	123964.58	0.4619	P	0.8
4	☐	5000.000	5130.264	1183435.68	4.5857	P	1.4
5	☐	12500.000	13233.226	2834946.63	11.8273	P	1.6
6	☐	25000.000	25956.591	5472191.18	23.1980	A	0.6
7	☐	50000.000	52480.197	10529950.84	46.9020	A	0.6
8	☐	100000.00	102525.56	20216115.90	91.6271	A	1.2
9	☐	500000.00	499179.38	97569786.21	446.1134	A	1.6

$$y = 8.9369\text{E-}004 * x + 8.3742\text{E-}004$$

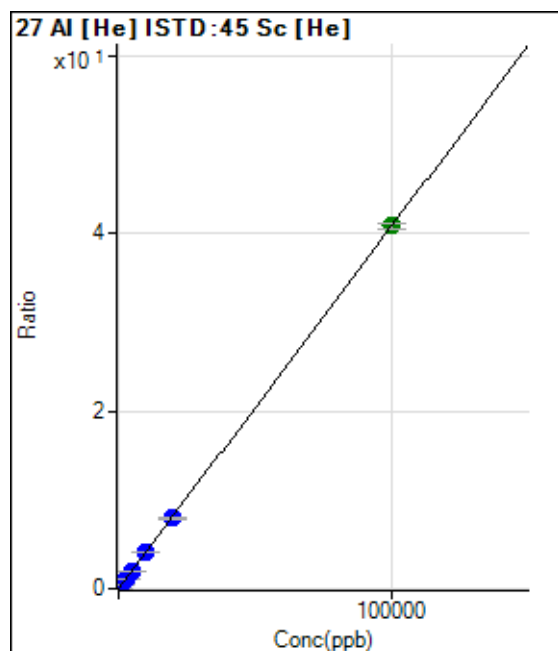
$$R = 1.0000$$

$$DL = 0.8179$$

$$BEC = 0.937$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144.45	0.0005	P	4.3
2	☐	2.000	1.635	322.24	0.0012	P	12.7
3	☐	20.000	19.735	2308.60	0.0086	P	7.0
4	☐	1000.000	989.936	104477.63	0.4049	P	3.2
5	☐	2500.000	2534.525	248311.94	1.0358	P	0.9
6	☐	5000.000	4939.398	476055.06	2.0181	P	1.5
7	☐	10000.000	10008.066	917944.24	4.0886	P	0.2
8	☐	20000.000	19373.465	1746103.60	7.9141	P	1.2
9	☐	100000.00	100126.76	8945324.59	40.8996	A	1.6

$$y = 4.0847\text{E-}004 * x + 5.3747\text{E-}004$$

$$R = 1.0000$$

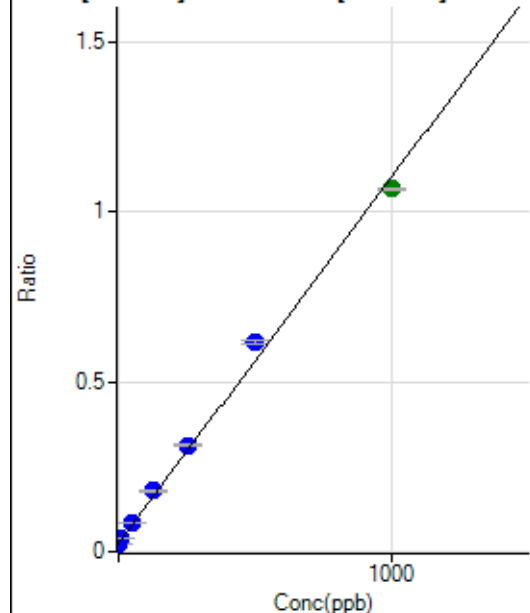
$$DL = 0.1694$$

$$BEC = 1.316$$

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	164528.95	0.0248	P	0.4
2	☒	1.000					
3	☐	10.000	11.524	242885.10	0.0372	P	1.9
4	☐	50.000	56.344	553357.42	0.0854	P	3.3
5	☐	125.000	142.775	1075323.99	0.1785	P	0.9
6	☐	250.000	268.004	1831121.50	0.3133	P	2.0
7	☐	500.000	549.048	3341380.59	0.6159	P	2.0
8	☐	1000.000	968.421	5817863.67	1.0673	A	0.2
9	☐			230798.88	0.0436	P	1.2

$$y = 0.0011 * x + 0.0248$$

$$R = 0.9979$$

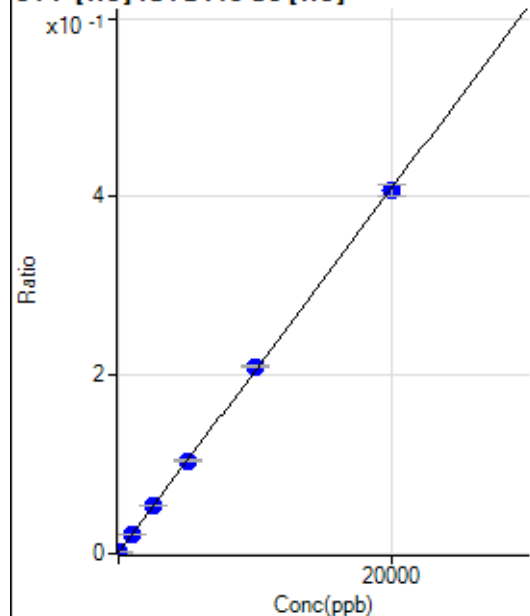
$$DL = 0.2949$$

$$BEC = 22.99$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-34.466	111.12	0.0004	P	3.7
2	☒	0.000					
3	☐	0.000	34.466	488.92	0.0018	P	5.5
4	☐	1000.000	1001.562	5568.00	0.0216	P	1.9
5	☐	2500.000	2605.572	13022.90	0.0543	P	2.3
6	☐	5000.000	5033.220	24509.99	0.1039	P	2.1
7	☐	10000.000	10229.267	47153.29	0.2100	P	1.3
8	☐	20000.000	19863.787	89728.20	0.4068	P	3.3
9	☐			108.34	0.0005	P	48.8

$$y = 2.0421E-005 * x + 0.0011$$

$$R = 0.9999$$

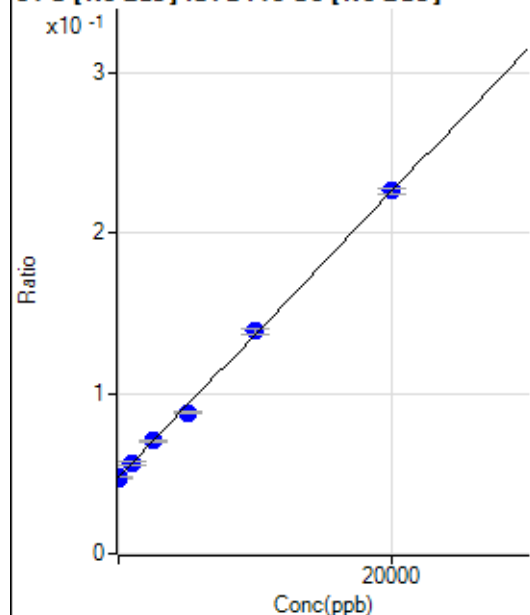
$$DL = 8.527$$

$$BEC = 54.7$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-71.019	312755.43	0.0471	P	0.4
2	☒	0.000					
3	☐	0.000	71.019	315817.13	0.0483	P	0.8
4	☐	1000.000	972.197	365144.33	0.0564	P	4.0
5	☐	2500.000	2543.294	424078.48	0.0704	P	1.1
6	☐	5000.000	4480.524	512429.18	0.0877	P	1.5
7	☐	10000.000	10201.171	752583.75	0.1387	P	2.0
8	☐	20000.000	20025.262	1233776.59	0.2264	P	1.4
9	☐			217675.06	0.0411	P	1.5

$$y = 8.9226\text{E-}006 * x + 0.0477$$

$$R = 0.9995$$

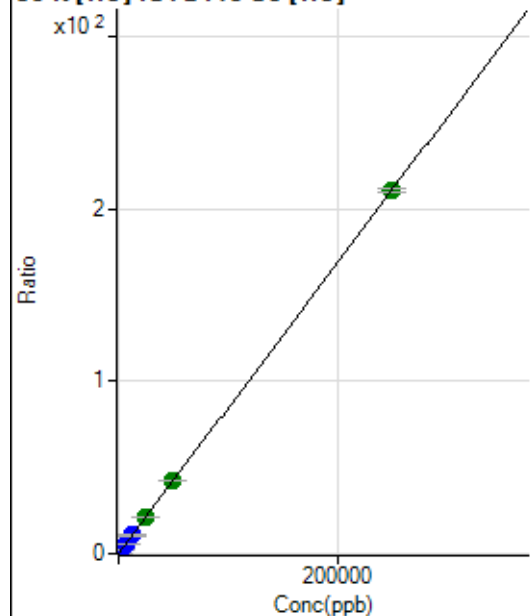
$$DL = 100.4$$

$$BEC = 5345$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	17138.30	0.0637	P	0.7
2	☐	50.000	52.345	28806.64	0.1078	P	3.6
3	☐	500.000	497.026	129463.43	0.4824	P	1.1
4	☐	2500.000	2540.347	568597.51	2.2033	P	1.9
5	☐	6250.000	6469.173	1321451.83	5.5124	P	1.0
6	☐	12500.000	12533.123	2505084.86	10.6197	P	0.6
7	☐	25000.000	25659.327	4866397.59	21.6752	A	0.2
8	☐	50000.000	50235.995	9349016.79	42.3748	A	1.6
9	☐	250000.00	249879.33	46045298.60	210.5234	A	1.1

$$y = 8.4224\text{E-}004 * x + 0.0637$$

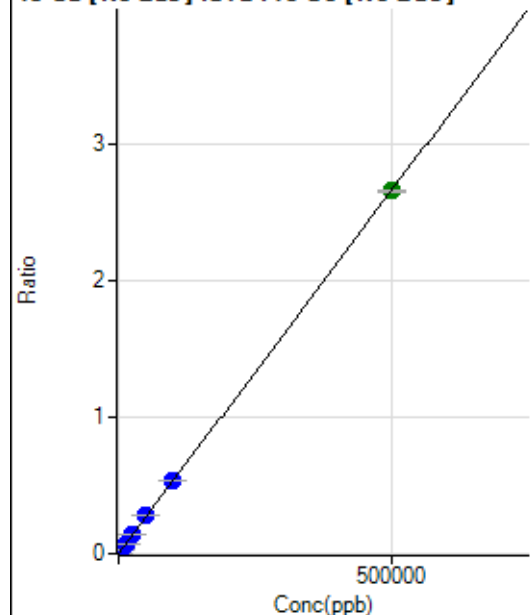
$$R = 1.0000$$

$$DL = 1.666$$

$$BEC = 75.69$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	550.03	0.0001	P	14.7
2	☐	50.000	53.294	2389.18	0.0004	P	4.9
3	☐	500.000	488.848	17549.91	0.0027	P	0.8
4	☐	5000.000	5108.949	176752.44	0.0273	P	3.3
5	☐	12500.000	13097.722	420669.12	0.0698	P	0.9
6	☐	25000.000	25362.220	789738.48	0.1351	P	1.7
7	☐	50000.000	52233.513	1509242.22	0.2782	P	2.2
8	☐	100000.00	100792.96	2925348.55	0.5367	P	0.8
9	☐	500000.00	499583.92	14086392.50	2.6599	A	0.7

$$y = 5.3240\text{E-}006 * x + 8.2717\text{E-}005$$

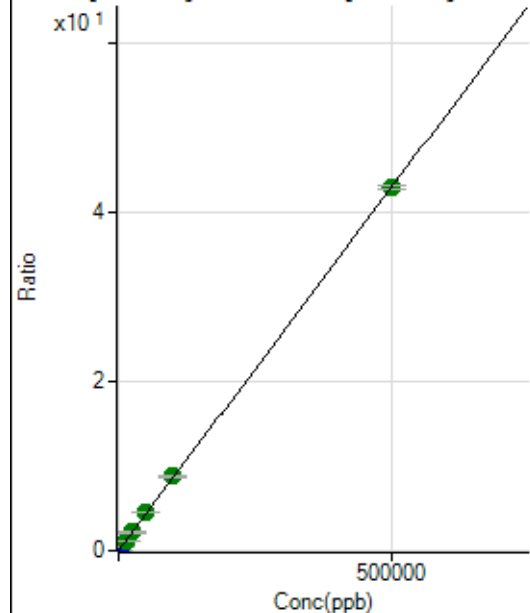
$$R = 1.0000$$

$$DL = 6.835$$

$$BEC = 15.54$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11657.96	0.0018	P	1.5
2	☐	50.000	54.331	41827.03	0.0064	P	1.5
3	☐	500.000	495.410	289239.83	0.0443	P	0.2
4	☐	5000.000	5076.272	2832705.23	0.4372	P	3.3
5	☐	12500.000	13120.576	6792872.50	1.1274	A	0.7
6	☐	25000.000	25271.092	12682134.40	2.1697	A	1.8
7	☐	50000.000	52874.665	24621314.96	4.5378	A	1.9
8	☐	100000.00	102006.58	47709133.71	8.7528	A	0.4
9	☐	500000.00	499281.38	226844682.8	42.8348	A	1.0

$$y = 8.5789\text{E-}005 * x + 0.0018$$

$$R = 1.0000$$

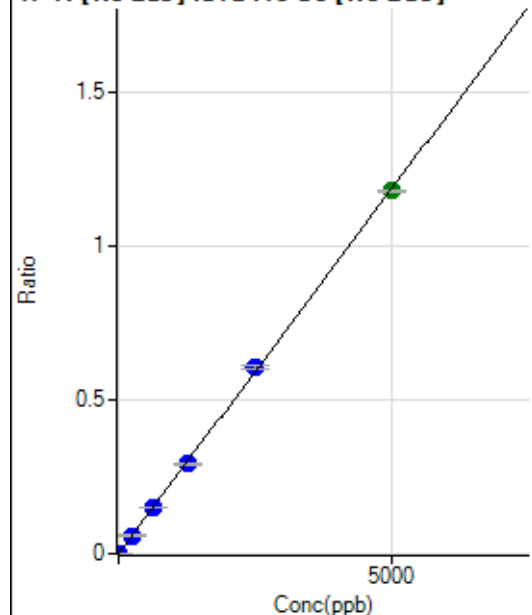
$$DL = 0.928$$

$$BEC = 20.45$$

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	100.00	0.0000	P	14.6
2	☐	0.500	0.565	969.52	0.0001	P	7.6
3	☐	5.000	5.069	7938.58	0.0012	P	1.2
4	☐	250.000	247.860	380143.76	0.0587	P	3.2
5	☐	625.000	641.664	915136.84	0.1519	P	0.7
6	☐	1250.000	1229.345	1700594.92	0.2910	P	2.3
7	☐	2500.000	2553.096	3278440.16	0.6043	P	2.1
8	☐	5000.000	4976.639	6419990.77	1.1778	A	0.7
9	☐			2097.47	0.0004	P	1.5

$$y = 2.3667\text{E-}004 * x + 1.5048\text{E-}005$$

$$R = 0.9999$$

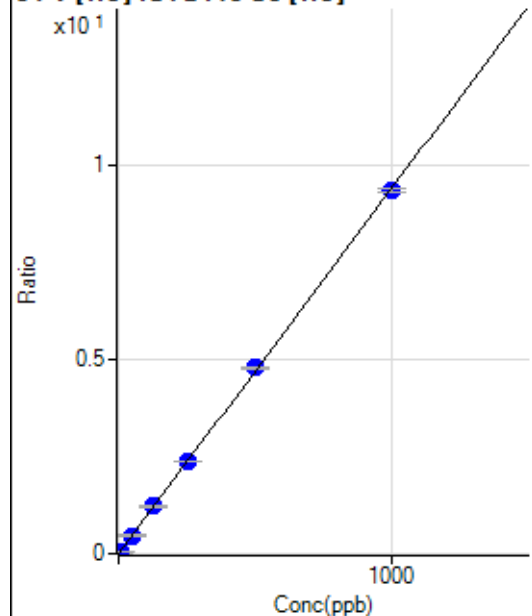
$$DL = 0.02785$$

$$BEC = 0.06358$$

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	11.11	0.0000	P	76.3
2	☐	0.500	0.520	1321.19	0.0049	P	5.4
3	☐	5.000	5.076	12843.51	0.0479	P	0.5
4	☐	50.000	50.019	121595.83	0.4712	P	2.1
5	☐	125.000	129.670	292814.36	1.2215	P	1.0
6	☐	250.000	252.916	561984.95	2.3824	P	0.5
7	☐	500.000	509.629	1077747.12	4.8005	P	0.8
8	☐	1000.000	993.871	2065544.28	9.3619	P	1.2
9	☐			313.34	0.0014	P	10.5

$$y = 0.0094 * x + 4.1491\text{E-}005$$

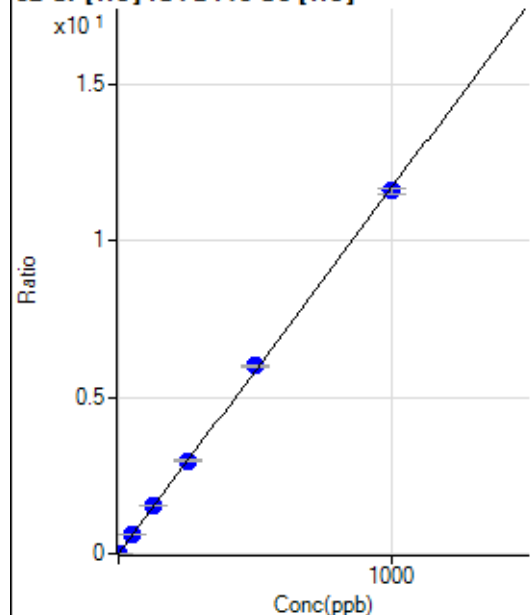
$$R = 0.9999$$

$$DL = 0.01009$$

$$BEC = 0.004405$$

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	476.68	0.0018	P	8.9
2	☐	0.200	0.210	1130.06	0.0042	P	3.5
3	☐	2.000	2.025	6820.57	0.0254	P	0.4
4	☐	50.000	50.953	153943.82	0.5965	P	1.2
5	☐	125.000	131.316	367811.34	1.5345	P	1.7
6	☐	250.000	254.661	701586.93	2.9742	P	0.6
7	☐	500.000	512.557	1343500.47	5.9844	P	1.1
8	☐	1000.000	991.719	2554319.10	11.5772	P	1.4
9	☐			37640.36	0.1721	P	0.1

$$y = 0.0117 * x + 0.0018$$

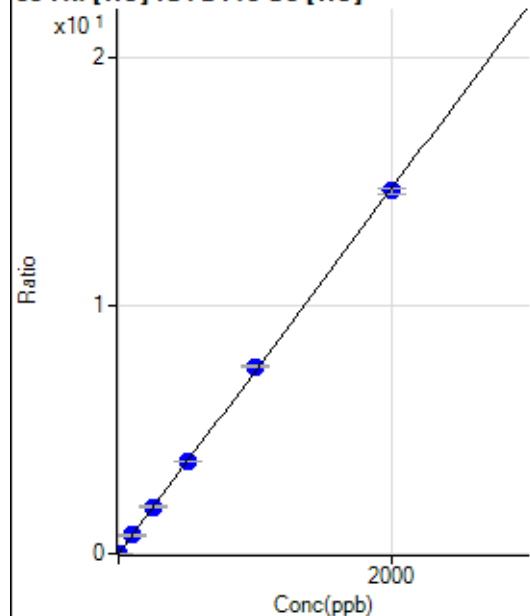
$$R = 0.9999$$

$$DL = 0.04073$$

$$BEC = 0.152$$

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	82.23	0.0003	P	28.0
2	☐	0.100	0.102	282.23	0.0011	P	16.0
3	☐	1.000	1.019	2092.40	0.0078	P	2.2
4	☐	100.000	100.324	190317.79	0.7375	P	2.4
5	☐	250.000	257.410	453490.99	1.8918	P	1.3
6	☐	500.000	502.921	871840.02	3.6959	P	0.6
7	☐	1000.000	1022.104	1686248.24	7.5111	P	1.0
8	☐	2000.000	1987.275	3221902.21	14.6035	P	1.8
9	☐			11669.22	0.0534	P	3.6

$$y = 0.0073 * x + 3.0533E-004$$

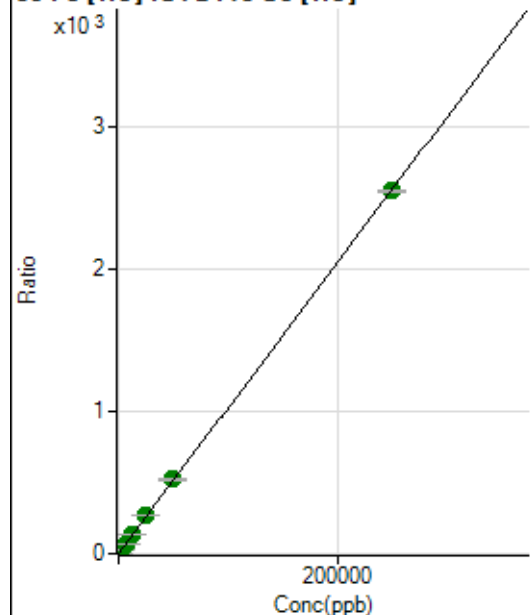
$$R = 0.9999$$

$$DL = 0.03485$$

$$BEC = 0.04155$$

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	3493.12	0.0130	P	4.0
2	☐	5.000	5.075	17332.92	0.0649	P	3.7
3	☐	50.000	52.165	146649.24	0.5464	P	1.5
4	☐	2500.000	2563.451	6767658.20	26.2253	A	2.0
5	☐	6250.000	6617.735	16222788.67	67.6819	A	1.8
6	☐	12500.000	12905.557	31132403.70	131.9773	A	0.6
7	☐	25000.000	26160.310	60059487.46	267.5123	A	0.5
8	☐	50000.000	51025.923	115118017.3	521.7728	A	1.4
9	☐	250000.00	249648.67	558335664.3	2,552.767	A	0.8

$$y = 0.0102 * x + 0.0130$$

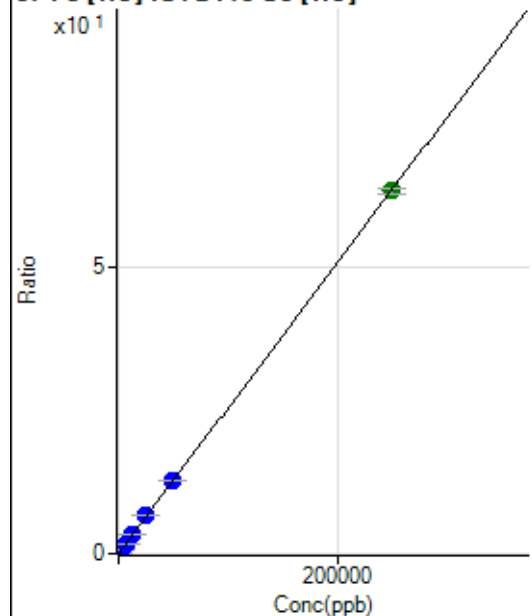
$$R = 1.0000$$

$$DL = 0.1519$$

$$BEC = 1.271$$

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	211.12	0.0008	P	11.1
2	☐	5.000	4.561	518.54	0.0019	P	6.0
3	☐	50.000	54.100	3891.37	0.0145	P	2.7
4	☐	2500.000	2550.049	167037.63	0.6473	P	1.6
5	☐	6250.000	6599.328	401206.39	1.6738	P	1.9
6	☐	12500.000	12885.572	770775.95	3.2675	P	0.2
7	☐	25000.000	26051.696	1482916.41	6.6053	P	1.0
8	☐	50000.000	50462.526	2822676.97	12.7939	P	1.5
9	☐	250000.00	249773.81	13849333.18	63.3227	A	1.3

$$y = 2.5352E-004 * x + 7.8513E-004$$

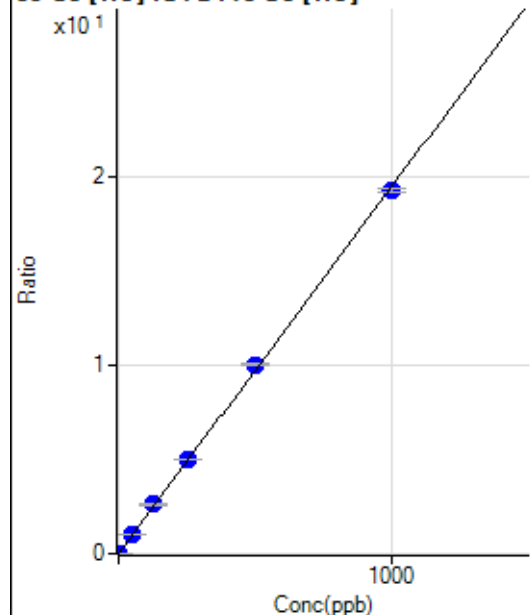
$$R = 1.0000$$

$$DL = 1.032$$

$$BEC = 3.097$$

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	82.23	0.0003	P	22.1
2	☐	0.100	0.084	517.79	0.0019	P	5.1
3	☐	1.000	1.005	5322.17	0.0198	P	2.2
4	☐	50.000	52.258	262098.51	1.0156	P	1.7
5	☐	125.000	133.710	622739.31	2.5982	P	2.0
6	☐	250.000	257.144	1178612.12	4.9964	P	0.2
7	☐	500.000	515.924	2250458.99	10.0243	P	1.1
8	☐	1000.000	989.050	4239928.65	19.2168	P	1.0
9	☐			49300.46	0.2254	P	0.1

$$y = 0.0194 * x + 3.0579E-004$$

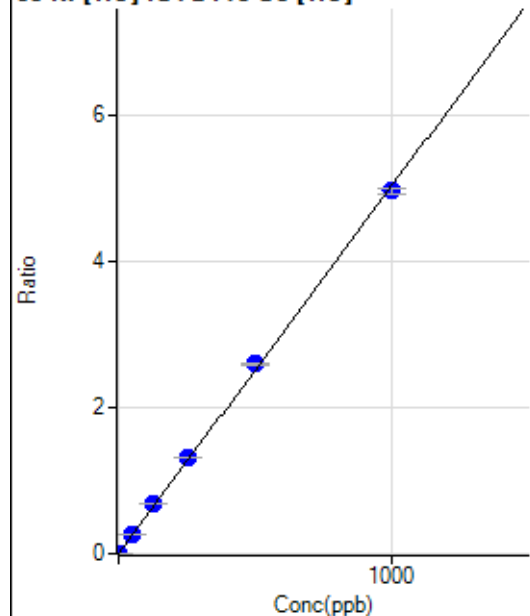
$$R = 0.9998$$

$$DL = 0.01043$$

$$BEC = 0.01574$$

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	47.78	0.0002	P	40.2
2	☐	0.100	0.112	197.78	0.0007	P	5.5
3	☐	1.000	1.113	1551.22	0.0058	P	9.2
4	☐	50.000	53.185	69171.01	0.2680	P	1.8
5	☐	125.000	134.881	162861.00	0.6795	P	2.1
6	☐	250.000	261.276	310448.55	1.3161	P	0.8
7	☐	500.000	516.752	584323.14	2.6028	P	1.0
8	☐	1000.000	987.411	1097236.51	4.9732	P	1.3
9	☐			18628.70	0.0852	P	1.5

$$y = 0.0050 * x + 1.7797E-004$$

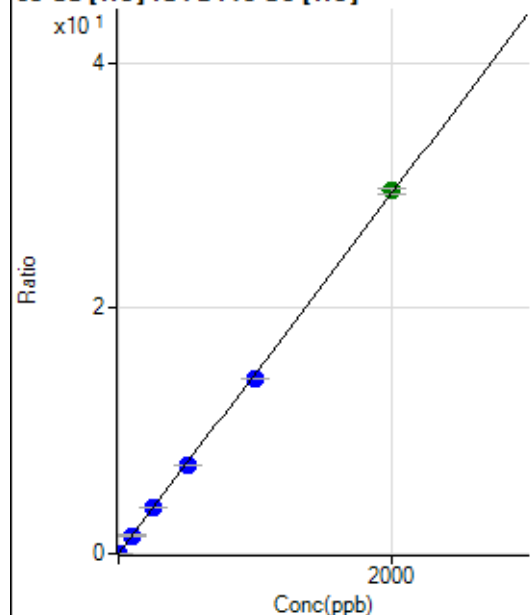
$$R = 0.9997$$

$$DL = 0.04261$$

$$BEC = 0.03534$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	830.04	0.0031	P	3.2
2	☐	0.200	0.186	1551.22	0.0058	P	10.3
3	☐	2.000	1.914	8356.98	0.0311	P	0.8
4	☐	100.000	100.626	381413.48	1.4779	P	1.4
5	☐	250.000	255.400	898008.68	3.7464	P	1.6
6	☐	500.000	490.306	1695911.64	7.1894	P	0.6
7	☐	1000.000	972.690	3201337.90	14.2596	P	0.9
8	☐	2000.000	2015.372	6517898.37	29.5420	A	1.4
9	☐			7668.80	0.0351	P	1.5

$$y = 0.0147 * x + 0.0031$$

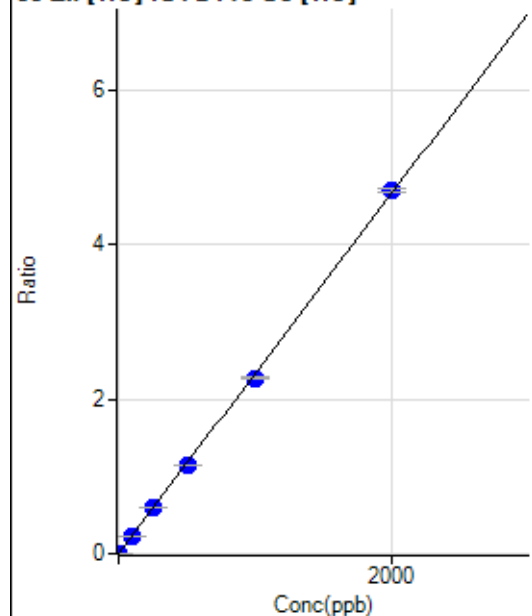
$$R = 0.9998$$

$$DL = 0.02015$$

$$BEC = 0.2106$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	422.24	0.0016	P	12.5
2	☒	0.200					
3	☐	2.000	2.243	1823.47	0.0068	P	4.5
4	☐	100.000	98.091	59376.99	0.2301	P	2.8
5	☐	250.000	253.475	141937.83	0.5921	P	1.3
6	☐	500.000	493.361	271516.52	1.1510	P	0.3
7	☐	1000.000	974.378	510004.28	2.2717	P	1.0
8	☐	2000.000	2014.131	1035697.78	4.6942	P	1.0
9	☐			9354.25	0.0428	P	2.5

$$y = 0.0023 * x + 0.0016$$

$$R = 0.9999$$

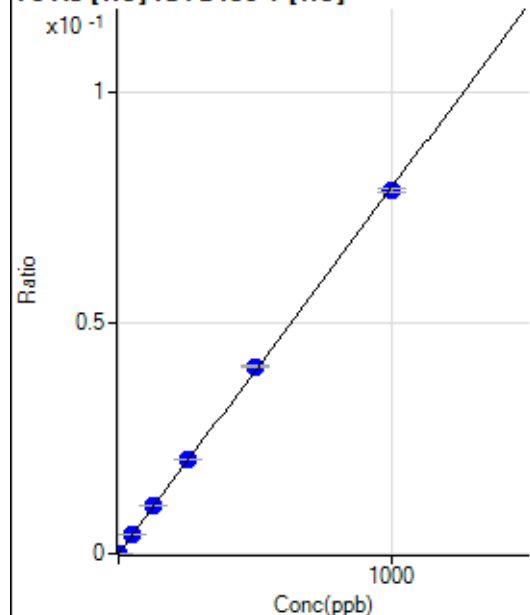
$$DL = 0.2534$$

$$BEC = 0.6738$$

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	9.88	0.0000	P	29.0
2	☐	0.100	0.095	42.59	0.0000	P	29.0
3	☐	1.000	1.153	411.74	0.0001	P	3.0
4	☐	50.000	52.255	17644.72	0.0042	P	2.2
5	☐	125.000	131.508	41903.37	0.0104	P	2.4
6	☐	250.000	255.371	79986.09	0.0203	P	0.3
7	☐	500.000	512.310	154398.51	0.0407	P	0.7
8	☐	1000.000	991.576	294152.84	0.0788	P	1.0
9	☐			407.42	0.0001	P	5.6

$$y = 7.9434\text{E-}005 * x + 2.2369\text{E-}006$$

$$R = 0.9999$$

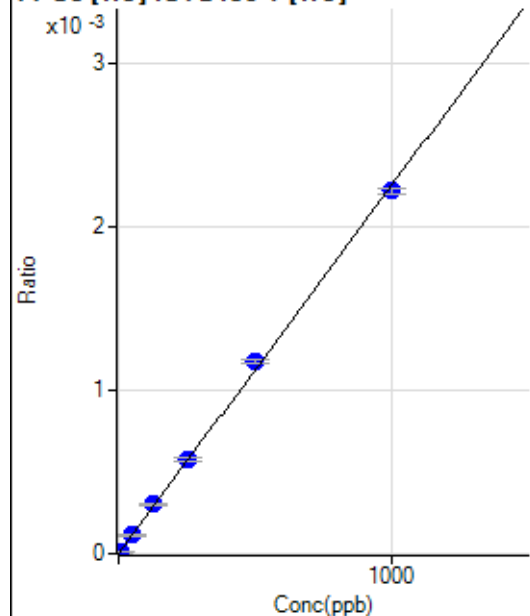
$$DL = 0.02448$$

$$BEC = 0.02816$$

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					
3	☐	5.000	6.293	63.33	0.0000	P	39.6
4	☐	50.000	51.180	491.13	0.0001	P	6.8
5	☐	125.000	134.607	1216.74	0.0003	P	5.6
6	☐	250.000	254.837	2263.55	0.0006	P	3.0
7	☐	500.000	523.434	4472.99	0.0012	P	1.8
8	☐	1000.000	985.807	8292.47	0.0022	P	1.9
9	☐			1.11	0.0000	P	173.

$$y = 2.2520\text{E-}006 * x + 2.5239\text{E-}007$$

$$R = 0.9995$$

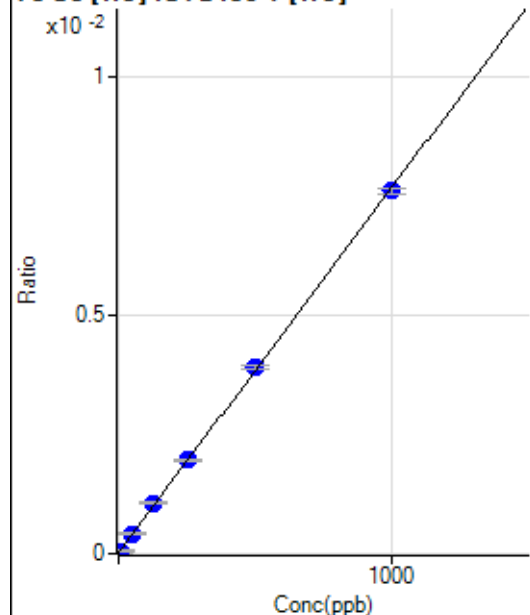
$$DL = 0.5824$$

$$BEC = 0.1121$$

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	79.01	0.0000	P	25.4
2	☐	0.500	0.592	97.53	0.0000	P	23.4
3	☐	5.000	5.273	255.56	0.0001	P	10.1
4	☐	50.000	51.927	1763.71	0.0004	P	4.1
5	☐	125.000	134.957	4211.76	0.0011	P	3.6
6	☐	250.000	254.937	7760.77	0.0020	P	1.5
7	☐	500.000	510.869	14896.61	0.0039	P	1.8
8	☐	1000.000	991.989	28410.58	0.0076	P	1.3
9	☐			52.47	0.0000	P	5.7

$$y = 7.6513\text{E-}006 * x + 1.7873\text{E-}005$$

$$R = 0.9999$$

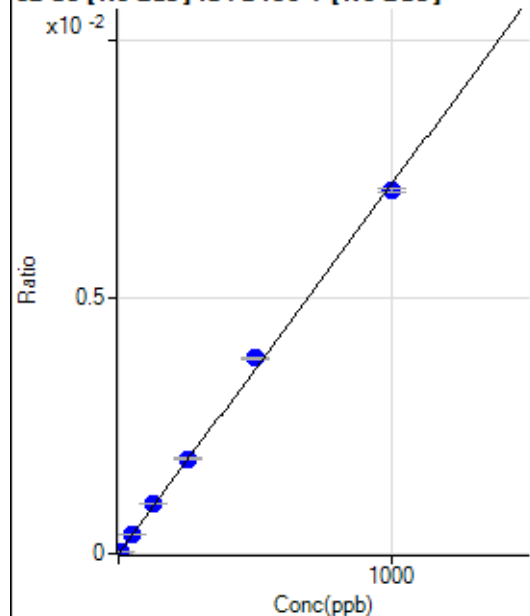
$$DL = 1.782$$

$$BEC = 2.336$$

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	26.38	0.0000	P	94.7
2	☐	0.500	0.370	109.50	0.0000	P	26.2
3	☐	5.000	5.462	1260.25	0.0000	P	4.0
4	☐	50.000	52.925	11971.95	0.0004	P	1.9
5	☐	125.000	133.962	28775.87	0.0010	P	0.9
6	☐	250.000	256.693	54494.19	0.0018	P	2.1
7	☐	500.000	528.731	105569.35	0.0038	P	1.9
8	☐	1000.000	982.692	199680.74	0.0071	P	1.1
9	☐			113.09	0.0000	P	46.5

$$y = 7.1945\text{E-}006 * x + 8.1755\text{E-}007$$

$$R = 0.9994$$

$$DL = 0.3227$$

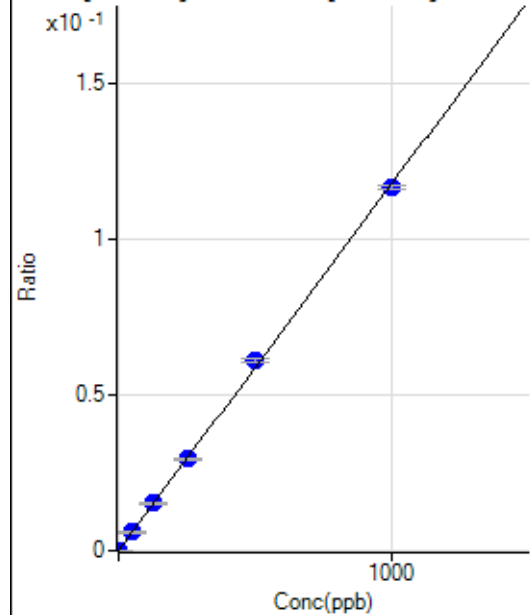
$$BEC = 0.1136$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			341.12		P	4.5
2	☐			341.12		P	8.8
3	☐			315.56		P	7.4
4	☐			330.01		P	9.1
5	☐			316.68		P	4.2
6	☐			287.79		P	17.4
7	☐			301.12		P	18.0
8	☐			274.45		P	18.4
9	☐			340.01		P	13.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	636.15	0.0000	P	8.7
2	☐	0.100	0.080	922.30	0.0000	P	9.6
3	☐	1.000	0.935	4072.99	0.0001	P	3.3
4	☐	50.000	50.333	186041.18	0.0059	P	3.7
5	☐	125.000	129.610	454675.93	0.0152	P	2.5
6	☐	250.000	249.074	863333.62	0.0293	P	2.7
7	☐	500.000	520.047	1695316.14	0.0611	P	2.1
8	☐	1000.000	989.615	3282992.67	0.1163	P	1.1
9	☐			13651.48	0.0005	P	1.0

$$y = 1.1745E-004 * x + 1.9849E-005$$

$$R = 0.9997$$

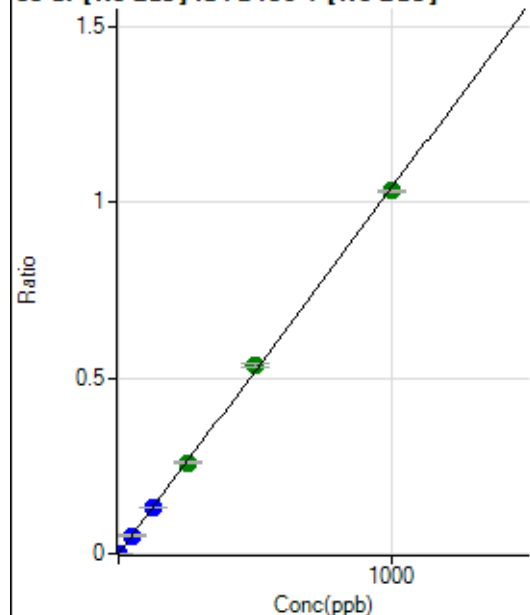
$$DL = 0.04412$$

$$BEC = 0.169$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1002.86	0.0000	P	8.3
2	☐	0.100	0.104	4406.44	0.0001	P	4.6
3	☐	1.000	0.965	32557.47	0.0010	P	0.4
4	☐	50.000	49.511	1618855.58	0.0516	P	2.7
5	☐	125.000	126.376	3928253.52	0.1317	P	1.2
6	☐	250.000	247.767	7613173.70	0.2581	A	2.6
7	☐	500.000	516.590	14933063.53	0.5382	A	1.7
8	☐	1000.000	992.116	29188815.93	1.0336	A	0.8
9	☐			114642.05	0.0043	P	1.1

$$y = 0.0010 * x + 3.1291E-005$$

$$R = 0.9998$$

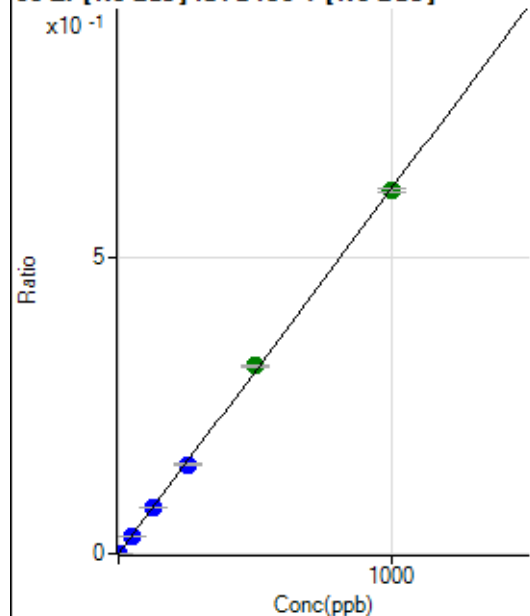
$$DL = 0.007473$$

$$BEC = 0.03004$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1066.76	0.0000	P	10.0
2	☐	0.100	0.071	2422.54	0.0001	P	5.6
3	☐	1.000	0.890	18298.54	0.0006	P	4.2
4	☐	50.000	48.732	944703.28	0.0301	P	2.8
5	☐	125.000	126.086	2322995.67	0.0779	P	1.2
6	☐	250.000	243.120	4427832.56	0.1501	P	2.0
7	☐	500.000	515.071	8824256.19	0.3180	A	1.4
8	☐	1000.000	994.112	17332566.19	0.6137	A	1.0
9	☐			5642.99	0.0002	P	10.9

$$y = 6.1735E-004 * x + 3.3282E-005$$

$$R = 0.9998$$

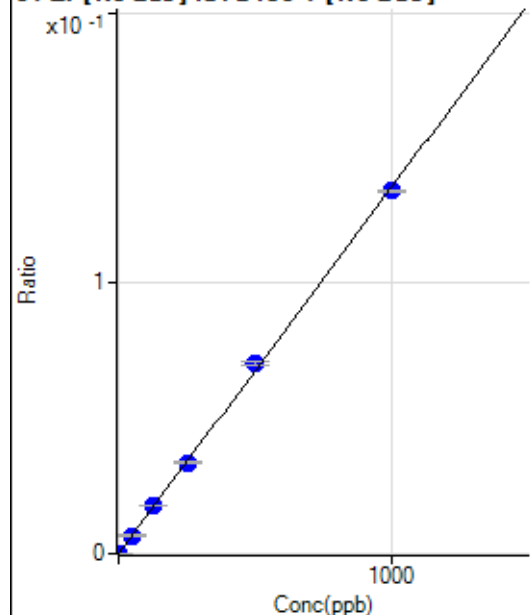
$$DL = 0.01613$$

$$BEC = 0.05391$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	247.24	0.0000	P	10.3
2	☒	0.100					
3	☐	1.000	0.944	4256.38	0.0001	P	7.4
4	☐	50.000	49.742	211523.42	0.0067	P	2.7
5	☐	125.000	129.427	523023.20	0.0175	P	1.1
6	☐	250.000	248.741	993573.27	0.0337	P	2.5
7	☐	500.000	518.506	1948351.32	0.0702	P	1.6
8	☐	1000.000	990.521	3787982.46	0.1341	P	0.8
9	☐			1186.22	0.0000	P	11.6

$$y = 1.3541\text{E-}004 * x + 7.7076\text{E-}006$$

$$R = 0.9997$$

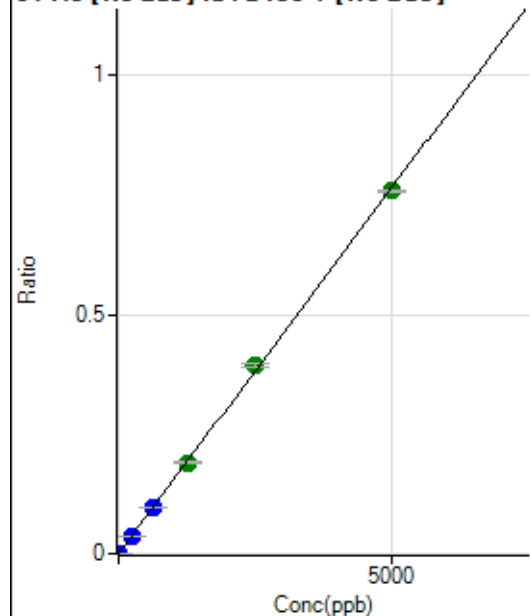
$$DL = 0.01753$$

$$BEC = 0.05692$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	322.24	0.0000	P	22.4
2	☐	0.500	0.454	2500.35	0.0001	P	7.8
3	☐	5.000	4.755	23152.96	0.0007	P	4.4
4	☐	250.000	246.590	1182843.58	0.0377	P	2.4
5	☐	625.000	637.096	2905734.35	0.0974	P	1.1
6	☐	1250.000	1236.347	5574938.49	0.1890	A	2.1
7	☐	2500.000	2580.930	10948100.07	0.3946	A	1.8
8	☐	5000.000	4961.607	21421306.38	0.7585	A	0.8
9	☐			10626.63	0.0004	P	7.6

$$y = 1.5288\text{E-}004 * x + 1.0055\text{E-}005$$

$$R = 0.9998$$

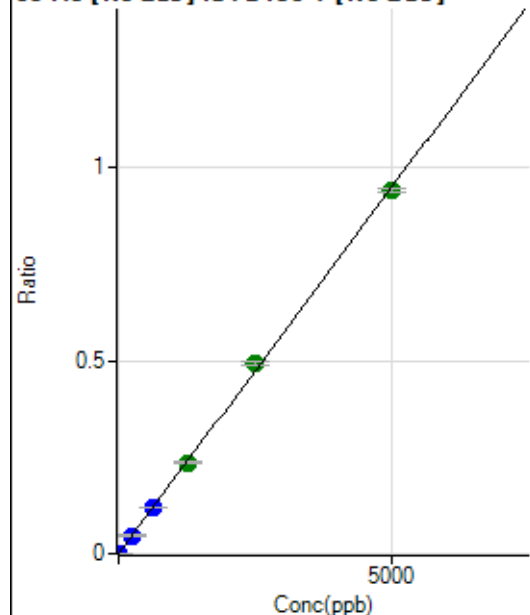
$$DL = 0.04424$$

$$BEC = 0.06577$$

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	100.01	0.0000	P	13.7
2	☐	0.500	0.480	2961.54	0.0001	P	6.7
3	☐	5.000	4.775	28523.96	0.0009	P	2.0
4	☐	250.000	247.218	1469501.32	0.0468	P	2.7
5	☐	625.000	637.895	3605751.21	0.1209	P	1.5
6	☐	1250.000	1237.582	6916573.59	0.2345	A	2.3
7	☐	2500.000	2592.284	13629596.31	0.4912	A	1.7
8	☐	5000.000	4955.490	26517795.38	0.9390	A	1.1
9	☐			15294.84	0.0006	P	4.8

$$y = 1.8949E-004 * x + 3.1168E-006$$

$$R = 0.9998$$

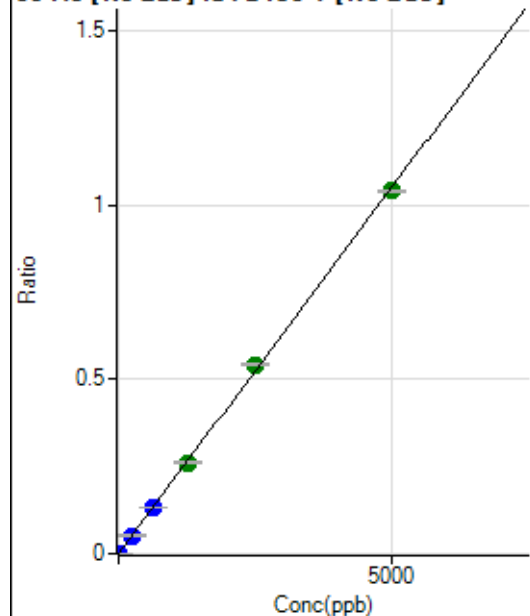
$$DL = 0.006767$$

$$BEC = 0.01645$$

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	191.68	0.0000	P	18.6
2	☐	0.500	0.468	3283.86	0.0001	P	5.6
3	☐	5.000	4.740	31474.60	0.0010	P	1.6
4	☐	250.000	247.075	1628412.04	0.0519	P	2.3
5	☐	625.000	638.305	4000229.56	0.1341	P	1.5
6	☐	1250.000	1245.018	7713909.29	0.2616	A	2.6
7	☐	2500.000	2584.410	15065321.52	0.5429	A	1.6
8	☐	5000.000	4957.524	29412556.91	1.0415	A	0.6
9	☐			23932.09	0.0009	P	2.9

$$y = 2.1008E-004 * x + 5.9752E-006$$

$$R = 0.9998$$

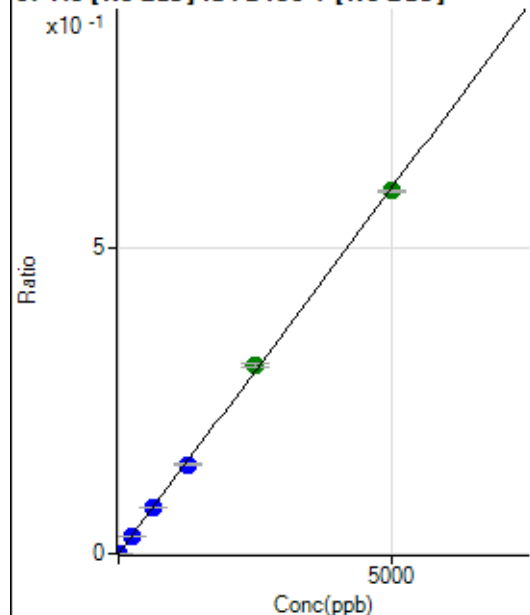
$$DL = 0.01584$$

$$BEC = 0.02844$$

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	58.34	0.0000	P	43.4
2	☐	0.500	0.450	1750.19	0.0001	P	5.6
3	☐	5.000	4.758	17936.95	0.0006	P	2.0
4	☐	250.000	245.779	922069.57	0.0294	P	3.2
5	☐	625.000	636.405	2270639.20	0.0761	P	1.0
6	☐	1250.000	1223.097	4314343.37	0.1463	P	2.6
7	☐	2500.000	2582.304	8569821.98	0.3088	A	1.5
8	☐	5000.000	4964.359	16768741.00	0.5937	A	0.2
9	☐			9464.66	0.0004	P	3.3

$$y = 1.1960\text{E-}004 * x + 1.8240\text{E-}006$$

$$R = 0.9998$$

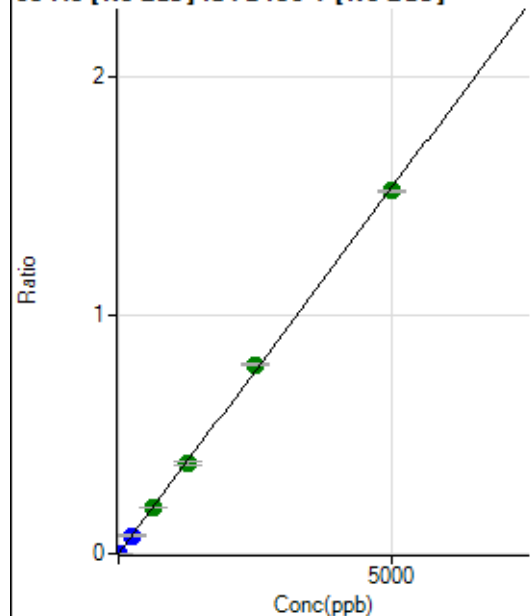
$$DL = 0.01986$$

$$BEC = 0.01525$$

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	202.79	0.0000	P	15.0
2	☐	0.500	0.478	4809.37	0.0002	P	5.1
3	☐	5.000	4.745	45874.90	0.0015	P	1.2
4	☐	250.000	247.025	2374292.78	0.0757	P	2.9
5	☐	625.000	639.352	5843908.25	0.1959	A	1.1
6	☐	1250.000	1235.434	11164091.57	0.3785	A	2.4
7	☐	2500.000	2585.527	21981262.12	0.7922	A	1.7
8	☐	5000.000	4959.233	42913013.46	1.5195	A	0.5
9	☐			23962.69	0.0009	P	5.4

$$y = 3.0639\text{E-}004 * x + 6.3204\text{E-}006$$

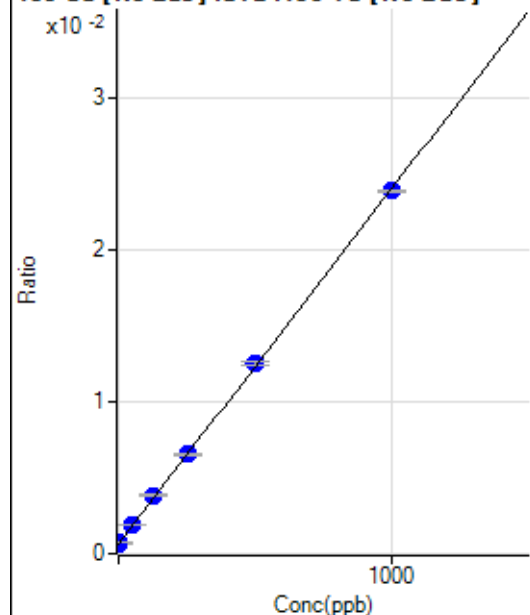
$$R = 0.9998$$

$$DL = 0.009273$$

$$BEC = 0.02063$$

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	9233.97	0.0007	P	2.2
2	☒	0.100					
3	☐	1.000	3.533	10187.41	0.0007	P	1.7
4	☐	50.000	54.089	27082.36	0.0019	P	1.2
5	☐	125.000	136.527	53223.16	0.0038	P	2.6
6	☐	250.000	251.311	92696.81	0.0065	P	1.9
7	☐	500.000	506.791	170022.83	0.0125	P	2.2
8	☐	1000.000	994.629	334248.40	0.0239	P	0.2
9	☐			8530.70	0.0007	P	6.1

$$y = 2.3374\text{E-}005 * x + 6.5013\text{E-}004$$

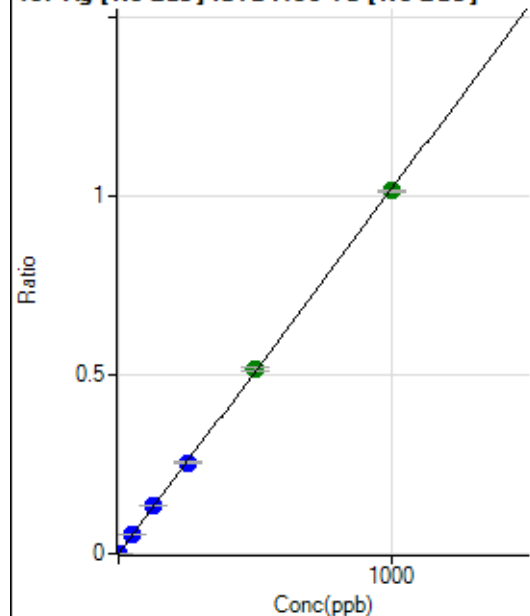
$$R = 0.9999$$

$$DL = 1.803$$

$$BEC = 27.81$$

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	177.79	0.0000	P	21.0
2	☐	0.100	0.121	1889.10	0.0001	P	13.5
3	☐	1.000	1.153	16538.07	0.0012	P	2.0
4	☐	50.000	54.155	781752.81	0.0553	P	2.5
5	☐	125.000	133.217	1883814.87	0.1359	P	1.4
6	☐	250.000	248.391	3601012.54	0.2535	P	2.3
7	☐	500.000	507.503	7045929.67	0.5179	A	2.4
8	☐	1000.000	995.416	14205907.09	1.0157	A	0.5
9	☐			1686.30	0.0001	P	13.6

$$y = 0.0010 * x + 1.2511\text{E-}005$$

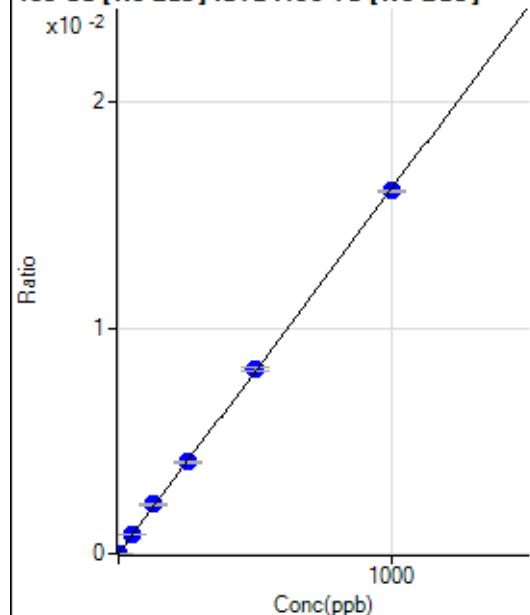
$$R = 0.9999$$

$$DL = 0.007712$$

$$BEC = 0.01226$$

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	27.78	0.0000	P	57.0
2	☐	0.100	0.120	54.17	0.0000	P	15.2
3	☐	1.000	1.034	259.73	0.0000	P	9.0
4	☐	50.000	53.984	12377.85	0.0009	P	3.0
5	☐	125.000	134.659	30206.06	0.0022	P	1.3
6	☐	250.000	250.480	57572.28	0.0041	P	3.5
7	☐	500.000	507.714	111753.12	0.0082	P	1.9
8	☐	1000.000	994.617	225006.74	0.0161	P	0.4
9	☐			75.00	0.0000	P	25.1

$$y = 1.6173\text{E-}005 * x + 1.9576\text{E-}006$$

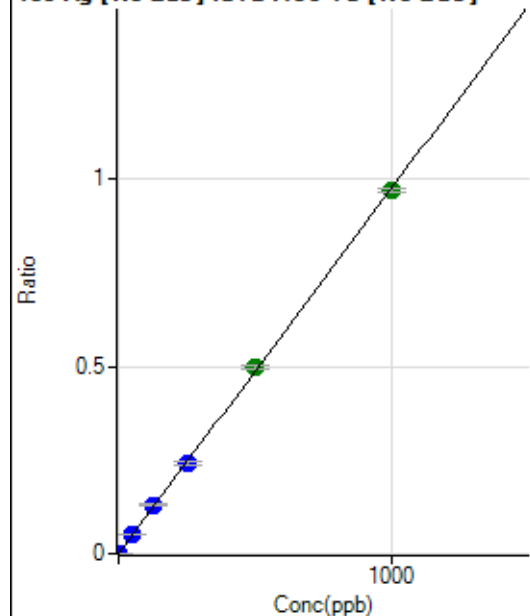
$$R = 0.9999$$

$$DL = 0.2068$$

$$BEC = 0.121$$

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	105.56	0.0000	P	30.0
2	☐	0.100	0.111	1611.27	0.0001	P	7.7
3	☐	1.000	1.141	15561.94	0.0011	P	1.0
4	☐	50.000	54.021	744497.79	0.0526	P	3.1
5	☐	125.000	133.544	1802983.42	0.1301	P	2.2
6	☐	250.000	247.850	3430839.83	0.2415	P	2.4
7	☐	500.000	511.641	6782639.56	0.4985	A	2.5
8	☐	1000.000	993.448	13537372.01	0.9679	A	0.9
9	☐			1586.27	0.0001	P	23.3

$$y = 9.7432\text{E-}004 * x + 7.4318\text{E-}006$$

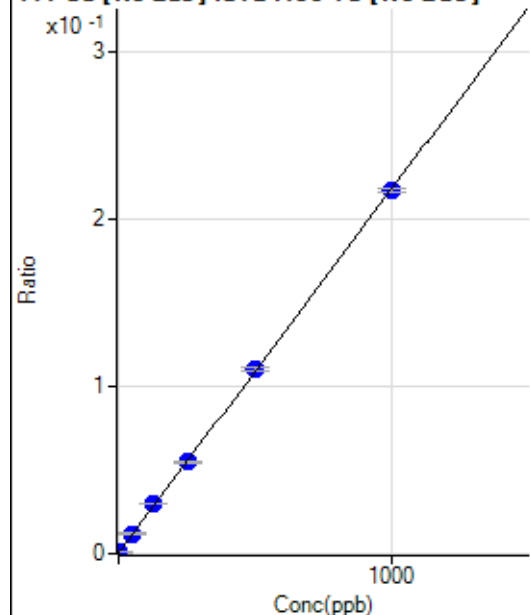
$$R = 0.9999$$

$$DL = 0.006861$$

$$BEC = 0.007628$$

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	6474.89	0.0005	P	2.1
2	☒	0.100					
3	☐	1.000	1.227	10051.17	0.0007	P	0.7
4	☐	50.000	53.143	170040.70	0.0120	P	3.0
5	☐	125.000	134.289	411329.12	0.0297	P	1.9
6	☐	250.000	250.482	781051.68	0.0550	P	2.2
7	☐	500.000	506.550	1506343.44	0.1107	P	2.2
8	☐	1000.000	995.286	3036109.07	0.2171	P	1.2
9	☐			6406.51	0.0005	P	4.9

$$y = 2.1766E-004 * x + 4.5587E-004$$

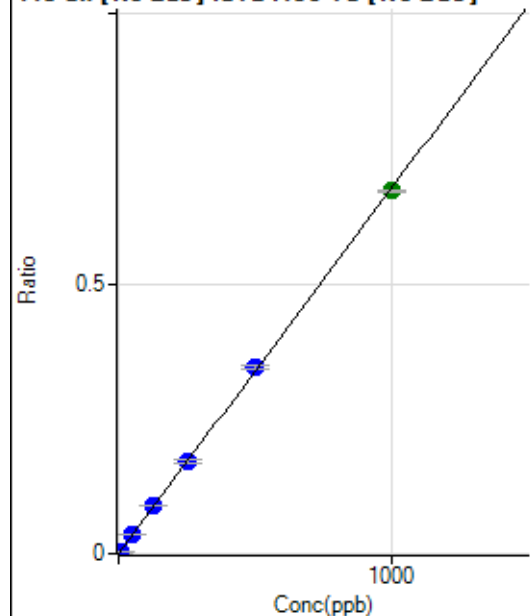
$$R = 0.9999$$

$$DL = 0.1298$$

$$BEC = 2.094$$

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	1683.52	0.0001	P	9.4
2	☐	0.500	0.524	6576.81	0.0005	P	3.8
3	☐	5.000	5.324	51712.72	0.0037	P	0.2
4	☐	50.000	52.475	503632.81	0.0356	P	2.9
5	☐	125.000	132.712	1245344.35	0.0899	P	2.0
6	☐	250.000	251.856	2421546.97	0.1705	P	2.6
7	☐	500.000	510.801	4701978.14	0.3456	P	2.4
8	☐	1000.000	993.046	9394808.98	0.6717	A	0.9
9	☐			5195.64	0.0004	P	3.8

$$y = 6.7633E-004 * x + 1.1855E-004$$

$$R = 0.9999$$

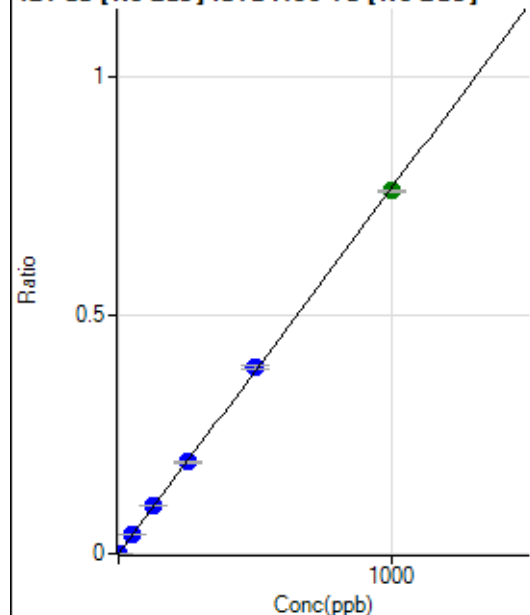
$$DL = 0.0493$$

$$BEC = 0.1753$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	263.90	0.0000	P	2.8
2	☐	0.200	0.197	2355.87	0.0002	P	10.5
3	☐	2.000	1.986	21442.11	0.0015	P	0.2
4	☐	50.000	51.355	557375.28	0.0394	P	2.0
5	☐	125.000	131.816	1401033.19	0.1011	P	2.1
6	☐	250.000	251.098	2736098.15	0.1926	P	2.5
7	☐	500.000	511.699	5340000.60	0.3925	P	1.8
8	☐	1000.000	992.956	10650849.37	0.7616	A	0.7
9	☐			15945.66	0.0012	P	2.5

$$y = 7.6693\text{E-}004 * x + 1.8581\text{E-}005$$

$$R = 0.9999$$

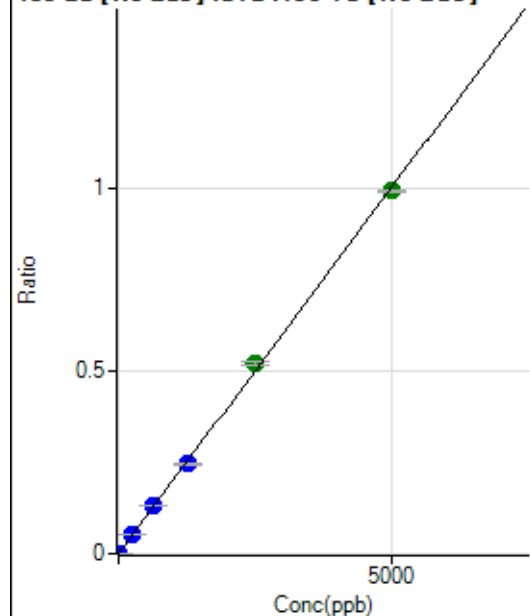
$$DL = 0.002013$$

$$BEC = 0.02423$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	15.9
2	☐	1.000	1.093	3103.26	0.0002	P	3.4
3	☐	10.000	10.413	29034.05	0.0021	P	1.2
4	☐	250.000	255.188	722217.06	0.0511	P	2.7
5	☐	625.000	650.818	1804415.17	0.1302	P	1.5
6	☐	1250.000	1232.449	3503412.67	0.2466	P	2.1
7	☐	2500.000	2591.572	7055166.22	0.5185	A	2.1
8	☐	5000.000	4955.114	13865619.75	0.9914	A	0.7
9	☐			2391.99	0.0002	P	18.7

$$y = 2.0008\text{E-}004 * x + 4.5017\text{E-}006$$

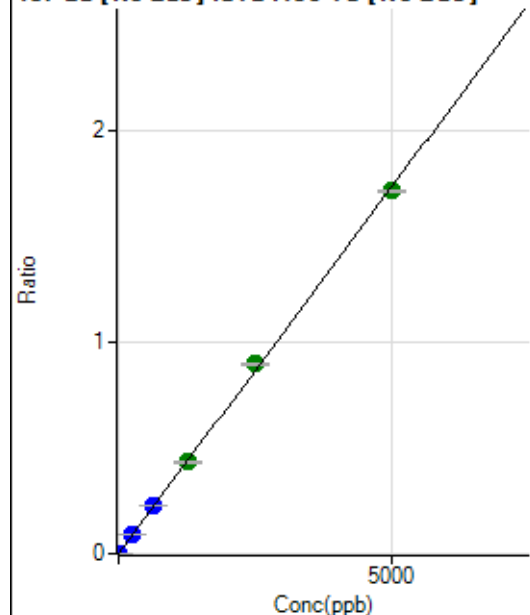
$$R = 0.9998$$

$$DL = 0.01074$$

$$BEC = 0.0225$$

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	61.11	0.0000	P	55.4
2	☐	1.000	1.030	5017.77	0.0004	P	2.5
3	☐	10.000	10.352	49885.24	0.0036	P	1.2
4	☐	250.000	256.352	1255040.35	0.0887	P	2.9
5	☐	625.000	656.387	3148480.04	0.2272	P	1.1
6	☐	1250.000	1252.679	6160298.96	0.4336	A	2.3
7	☐	2500.000	2588.607	12192242.89	0.8960	A	1.5
8	☐	5000.000	4950.785	23967335.43	1.7137	A	0.4
9	☐			4228.63	0.0003	P	17.5

$$y = 3.4614\text{E-}004 * x + 4.3140\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.02071$$

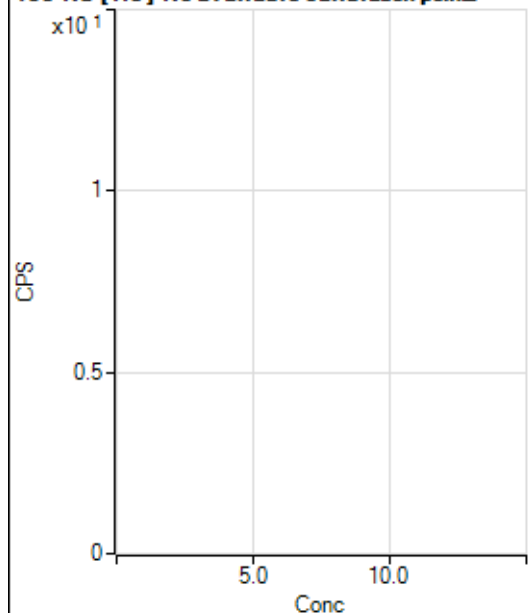
$$BEC = 0.01246$$

Weight: <None>

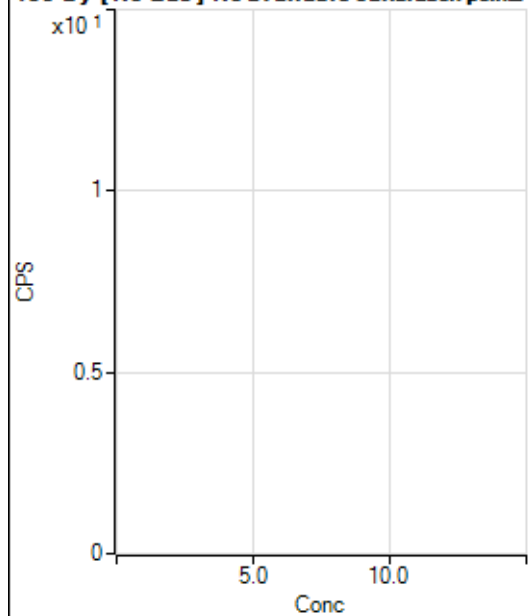
Min Conc: 0

150 Nd [No Gas] No available calibration points

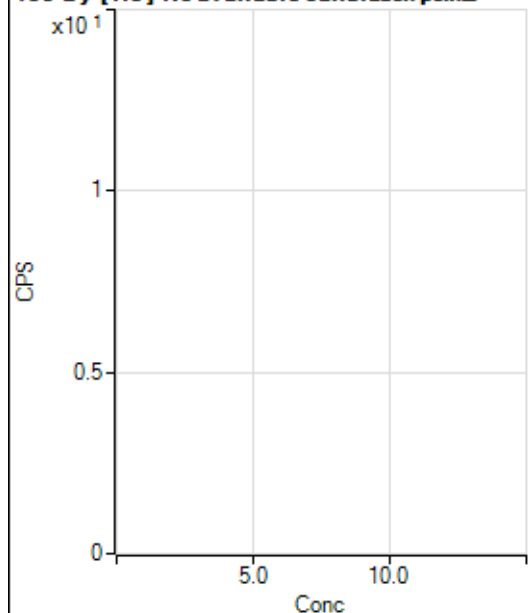
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			2.22		P	173.
3	☐			8.89		P	43.3
4	☐			51.11		P	32.8
5	☐			137.78		P	32.2
6	☐			264.46		P	12.9
7	☐			442.25		P	18.2
8	☐			884.51		P	12.1
9	☐			193.34		P	15.8

150 Nd [He] No available calibration points

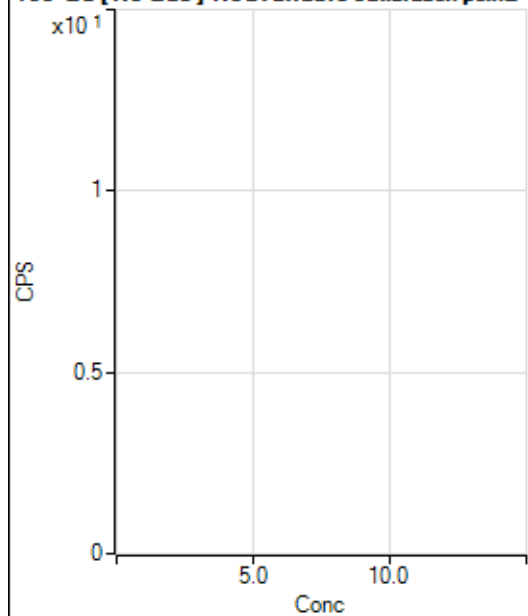
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.
2	☐			3.33		P	100.
3	☐			3.33		P	173.
4	☐			4.44		P	114.
5	☐			14.44		P	13.4
6	☐			41.11		P	20.4
7	☐			51.11		P	26.4
8	☐			84.45		P	20.3
9	☐			74.45		P	18.1

156 Dy [No Gas] No available calibration points

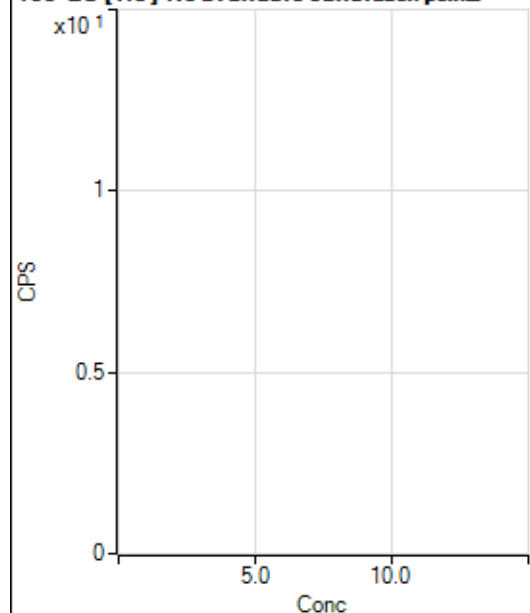
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	43.3
2	☐			11.11		P	43.3
3	☐			22.22		P	43.3
4	☐			25.00		P	88.2
5	☐			27.78		P	17.3
6	☐			50.00		P	33.3
7	☐			86.11		P	31.1
8	☐			127.78		P	10.0
9	☐			91.67		P	50.6

156 Dy [He] No available calibration points

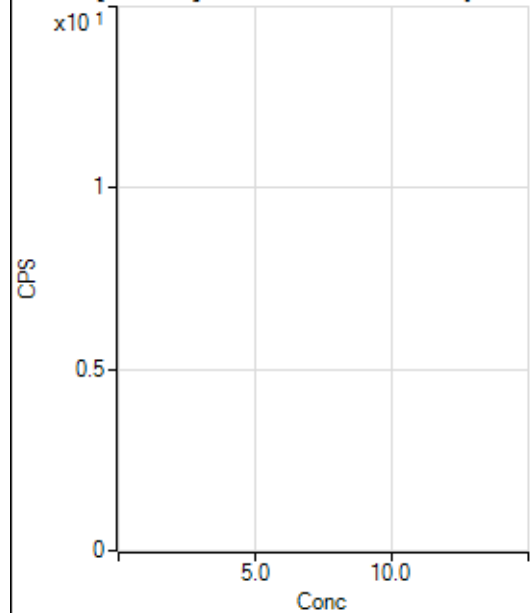
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	75.5
2	☐			16.67		P	87.2
3	☐			13.33		P	66.2
4	☐			25.56		P	19.9
5	☐			41.11		P	40.0
6	☐			67.78		P	32.8
7	☐			158.89		P	18.9
8	☐			246.67		P	6.8
9	☐			47.78		P	10.7

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			72.23		P	6.7
2	☐			58.34		P	0.0
3	☐			72.22		P	52.0
4	☐			61.12		P	7.9
5	☐			80.56		P	23.9
6	☐			94.45		P	10.2
7	☐			75.00		P	22.2
8	☐			102.78		P	32.8
9	☐			111.11		P	17.3

160 Gd [He] No available calibration points

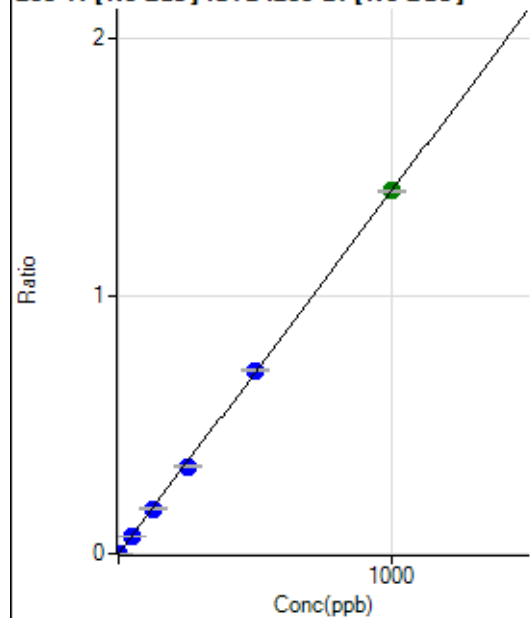
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			224.45		P	7.0
2	☐			226.67		P	8.2
3	☐			230.00		P	20.1
4	☐			207.78		P	19.3
5	☐			171.12		P	28.9
6	☐			234.45		P	18.9
7	☐			225.56		P	9.0
8	☐			231.12		P	24.6
9	☐			241.12		P	10.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			77.78		P	44.6
2	☐			61.11		P	28.4
3	☐			47.23		P	20.4
4	☐			61.11		P	43.8
5	☐			58.33		P	37.8
6	☐			55.56		P	43.3
7	☐			88.89		P	42.3
8	☐			66.67		P	43.3
9	☐			80.56		P	15.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			35.56		P	51.6
2	☐			42.22		P	9.1
3	☐			34.44		P	80.6
4	☐			32.22		P	48.9
5	☐			48.89		P	14.2
6	☐			36.67		P	9.1
7	☐			43.34		P	48.0
8	☐			52.22		P	32.8
9	☐			35.55		P	30.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	375.02	0.0000	P	11.5
2	☐	0.100	0.098	1547.38	0.0002	P	10.8
3	☐	1.000	0.911	11419.26	0.0013	P	2.8
4	☐	50.000	48.303	592751.61	0.0680	P	3.5
5	☐	125.000	124.479	1508219.61	0.1751	P	1.8
6	☐	250.000	240.365	3019916.82	0.3381	P	1.9
7	☐	500.000	504.553	6002448.92	0.7096	P	1.3
8	☐	1000.000	1000.282	12017361.29	1.4067	A	0.3
9	☐			3100.50	0.0004	P	17.6

$$y = 0.0014 * x + 4.2124E-005$$

$$R = 0.9999$$

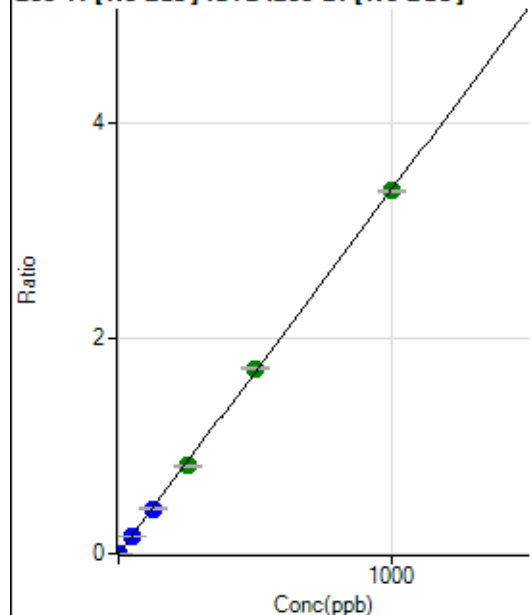
$$DL = 0.01038$$

$$BEC = 0.02995$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	619.49	0.0001	P	13.0
2	☐	0.100	0.090	3225.55	0.0004	P	2.6
3	☐	1.000	0.926	27601.91	0.0032	P	2.3
4	☐	50.000	47.779	1409124.90	0.1616	P	4.2
5	☐	125.000	123.469	3596082.94	0.4175	P	2.1
6	☐	250.000	241.623	7297641.66	0.8170	A	1.9
7	☐	500.000	509.969	14585383.14	1.7242	A	0.9
8	☐	1000.000	997.412	28806499.25	3.3722	A	0.7
9	☐			6496.36	0.0009	P	15.6

$$y = 0.0034 * x + 6.9649E-005$$

$$R = 0.9999$$

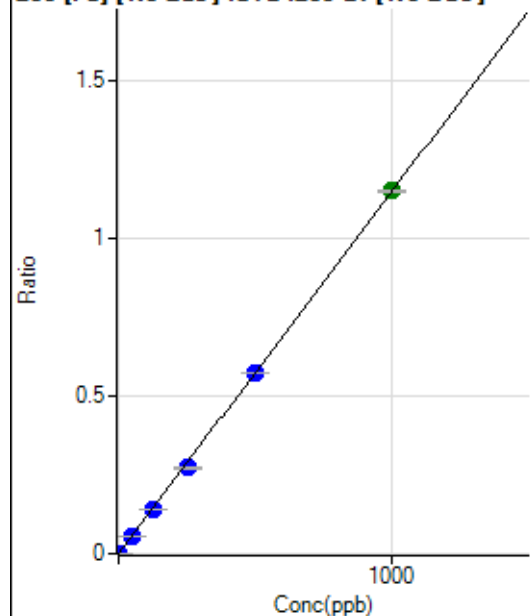
$$DL = 0.008046$$

$$BEC = 0.0206$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	772.27	0.0001	P	12.2
2	☐	0.100	0.094	1679.79	0.0002	P	2.5
3	☐	1.000	0.928	9931.78	0.0012	P	0.9
4	☐	50.000	47.734	478053.04	0.0548	P	3.3
5	☐	125.000	123.255	1218007.88	0.1414	P	1.7
6	☐	250.000	238.644	2444917.36	0.2737	P	1.8
7	☐	500.000	499.668	4846926.90	0.5730	P	1.0
8	☐	1000.000	1003.336	9827492.93	1.1504	A	0.9
9	☐			7305.95	0.0010	P	5.5

$$y = 0.0011 * x + 8.6773E-005$$

$$R = 0.9999$$

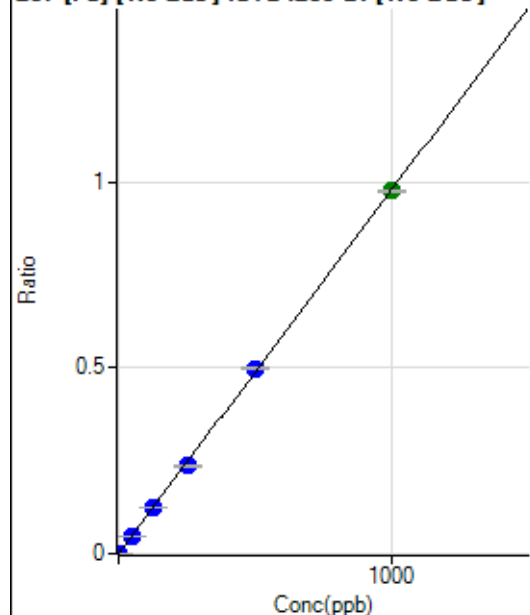
$$DL = 0.02779$$

$$BEC = 0.07568$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	646.33	0.0001	P	7.7
2	☐	0.100	0.095	1427.90	0.0002	P	8.4
3	☐	1.000	0.951	8660.46	0.0010	P	3.5
4	☐	50.000	48.418	414090.03	0.0475	P	2.8
5	☐	125.000	125.176	1056360.78	0.1226	P	1.2
6	☐	250.000	241.465	2112445.52	0.2365	P	2.0
7	☐	500.000	508.705	4213670.70	0.4981	P	1.4
8	☐	1000.000	997.838	8346369.11	0.9770	A	0.5
9	☐			6396.18	0.0009	P	7.8

$$y = 9.7908\text{E-}004 * x + 7.2632\text{E-}005$$

$$R = 0.9999$$

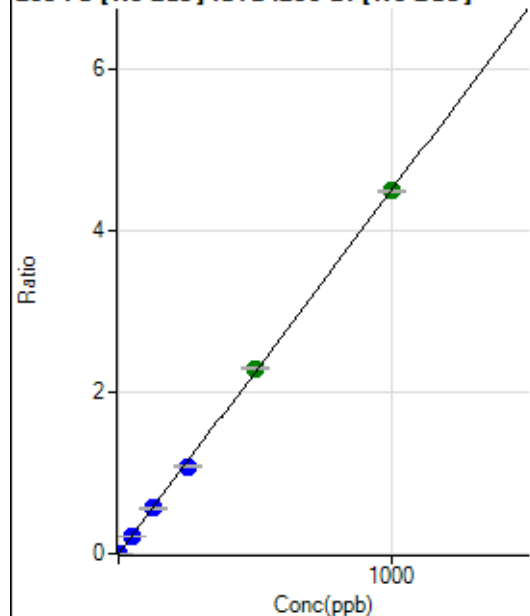
$$DL = 0.01724$$

$$BEC = 0.07418$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2792.80	0.0003	P	3.4
2	☐	0.100	0.095	6373.01	0.0007	P	0.6
3	☐	1.000	0.927	38746.92	0.0045	P	1.3
4	☐	50.000	48.049	1891059.69	0.2168	P	2.9
5	☐	125.000	124.323	4828366.75	0.5605	P	1.2
6	☐	250.000	240.157	9669171.56	1.0825	P	2.1
7	☐	500.000	509.356	19417053.38	2.2955	A	1.5
8	☐	1000.000	997.965	38416986.33	4.4972	A	0.6
9	☐			28729.58	0.0040	P	6.3

$$y = 0.0045 * x + 3.1380\text{E-}004$$

$$R = 0.9999$$

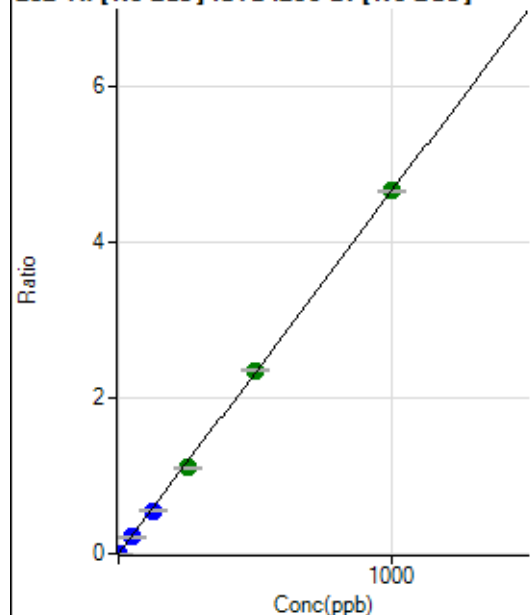
$$DL = 0.007052$$

$$BEC = 0.06964$$

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	1455.68	0.0002	P	4.4
2	☐	0.100	0.073	4337.88	0.0005	P	4.3
3	☐	1.000	0.810	33952.36	0.0039	P	0.2
4	☐	50.000	45.079	1833109.42	0.2102	P	2.5
5	☐	125.000	119.181	4783891.25	0.5554	P	1.6
6	☐	250.000	236.309	9834584.77	1.1010	A	2.4
7	☐	500.000	506.378	19956018.38	2.3591	A	1.6
8	☐	1000.000	1001.207	39845764.55	4.6643	A	0.5
9	☐			8484.53	0.0012	P	10.9

$$y = 0.0047 * x + 1.6357E-004$$

$$R = 0.9999$$

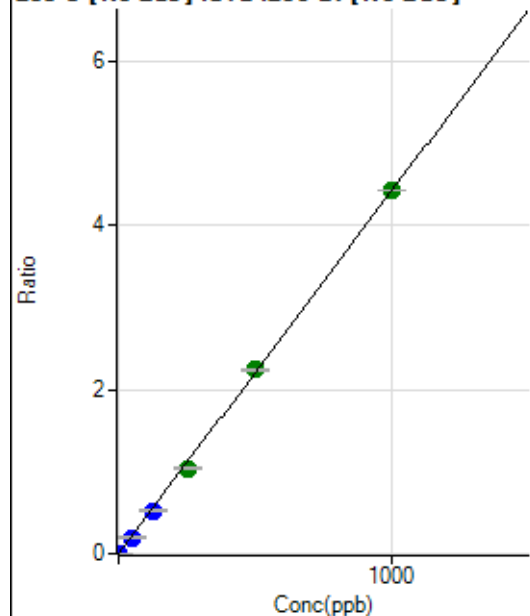
$$DL = 0.004663$$

$$BEC = 0.03511$$

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	1689.09	0.0002	P	5.7
2	☐	0.100	0.086	4912.25	0.0006	P	5.2
3	☐	1.000	0.851	34018.35	0.0039	P	1.1
4	☐	50.000	45.021	1734214.33	0.1988	P	2.3
5	☐	125.000	118.763	4515131.96	0.5242	P	1.2
6	☐	250.000	235.920	9298459.58	1.0410	A	2.8
7	☐	500.000	507.668	18947907.72	2.2399	A	1.3
8	☐	1000.000	1000.715	37717959.52	4.4152	A	0.0
9	☐			6060.04	0.0008	P	14.3

$$y = 0.0044 * x + 1.8969E-004$$

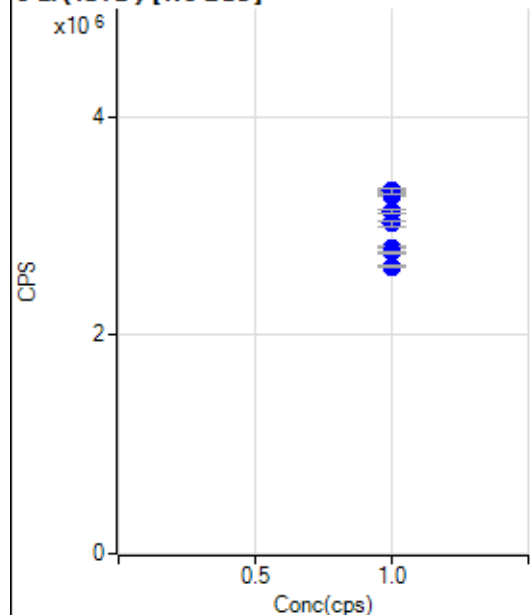
$$R = 0.9998$$

$$DL = 0.00729$$

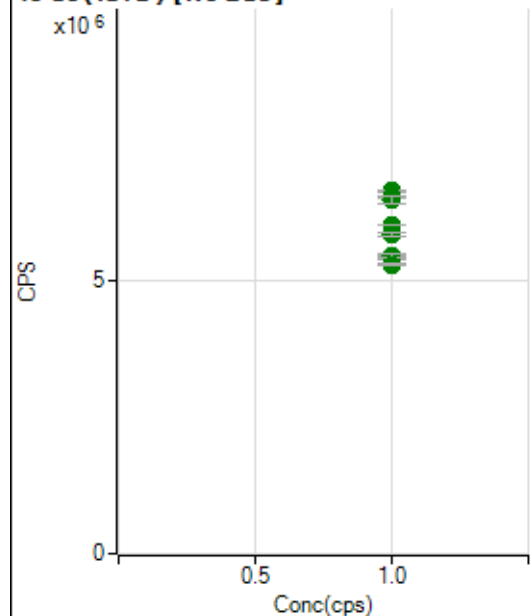
$$BEC = 0.043$$

Weight: <None>

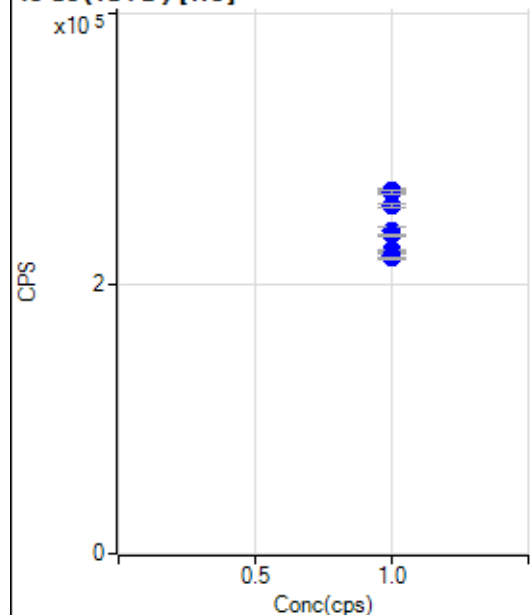
Min Conc: 0

6 Li (ISTD) [No Gas]

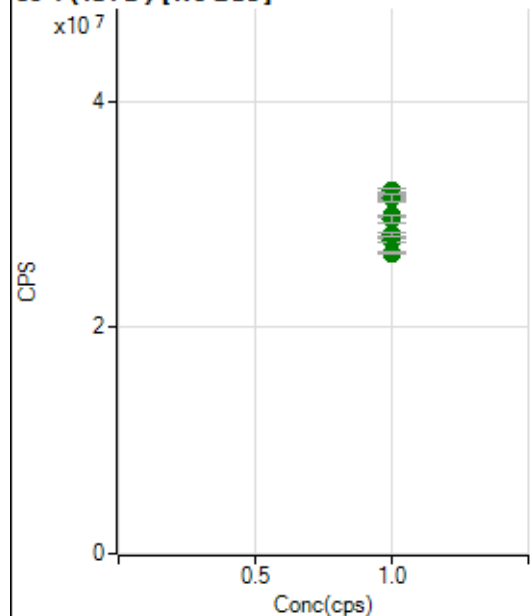
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3320766.77		P	0.6
2	☐	1.000		3284598.89		P	0.3
3	☐	1.000		3308953.03		P	0.4
4	☐	1.000		3324517.15		P	1.7
5	☐	1.000		3134908.90		P	0.8
6	☐	1.000		3025429.28		P	2.0
7	☐	1.000		2805332.42		P	0.7
8	☐	1.000		2761280.14		P	1.0
9	☐	1.000		2626750.82		P	0.6

45 Sc (ISTD) [No Gas]

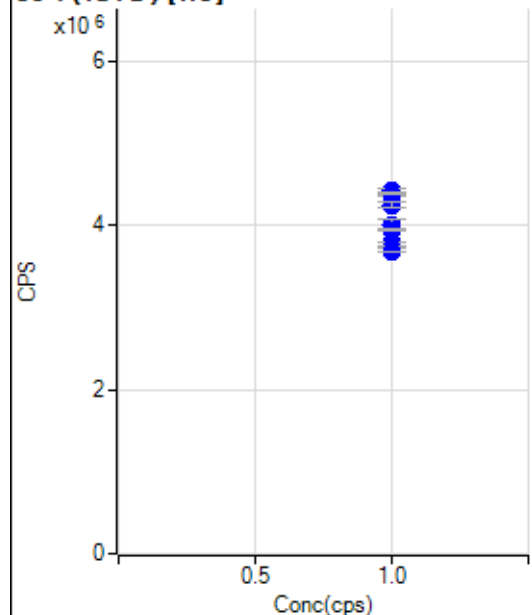
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6646683.39		A	0.7
2	☐	1.000		6520355.44		A	0.4
3	☐	1.000		6535691.08		A	0.9
4	☐	1.000		6482115.47		A	2.6
5	☐	1.000		6025529.26		A	0.2
6	☐	1.000		5846193.14		A	1.7
7	☐	1.000		5426637.92		A	1.4
8	☐	1.000		5450842.00		A	1.2
9	☐	1.000		5296061.14		A	0.8

45 Sc (ISTD) [He]

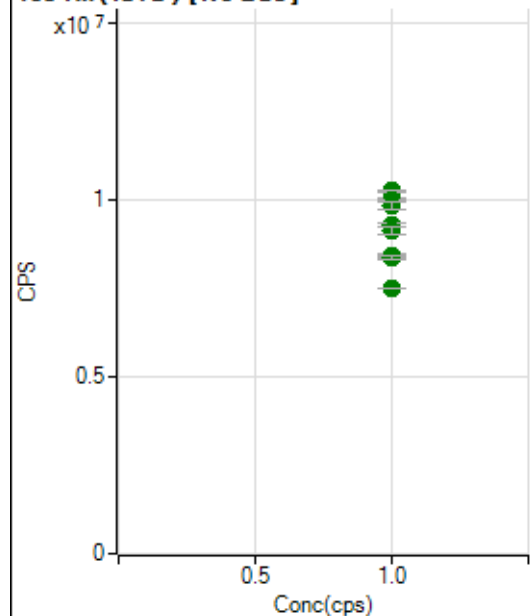
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		268832.93		P	1.0
2	☐	1.000		267191.84		P	1.0
3	☐	1.000		268413.55		P	1.2
4	☐	1.000		258098.89		P	1.2
5	☐	1.000		239756.27		P	2.3
6	☐	1.000		235892.75		P	0.3
7	☐	1.000		224517.60		P	1.1
8	☐	1.000		220652.00		P	1.2
9	☐	1.000		218725.17		P	0.8

89 Y (ISTD) [No Gas]

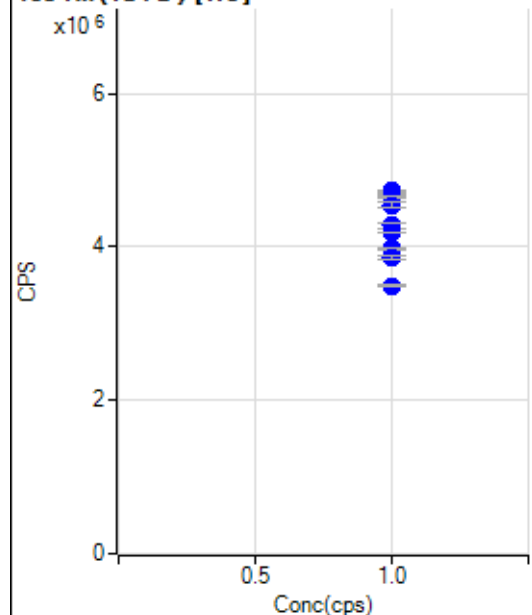
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		32063945.91		A	1.2
2	☐	1.000		31475900.64		A	0.8
3	☐	1.000		31418107.03		A	0.4
4	☐	1.000		31380175.92		A	2.3
5	☐	1.000		29832895.67		A	0.9
6	☐	1.000		29503906.78		A	2.4
7	☐	1.000		27750945.70		A	1.3
8	☐	1.000		28242645.97		A	1.2
9	☐	1.000		26530863.77		A	0.6

89 Y (ISTD) [He]

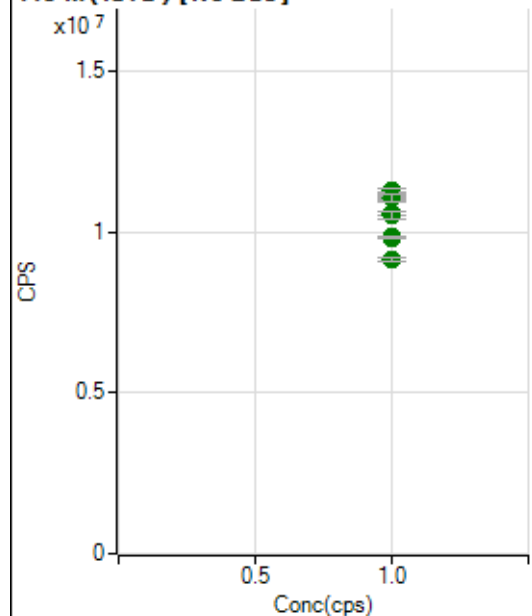
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4417578.82		P	0.9
2	☐	1.000		4356654.45		P	0.6
3	☐	1.000		4388793.86		P	0.3
4	☐	1.000		4249583.41		P	1.5
5	☐	1.000		4012109.11		P	2.9
6	☐	1.000		3942665.43		P	0.3
7	☐	1.000		3793801.57		P	0.2
8	☐	1.000		3734618.80		P	0.8
9	☐	1.000		3673887.31		P	0.3

103 Rh (ISTD) [No Gas]

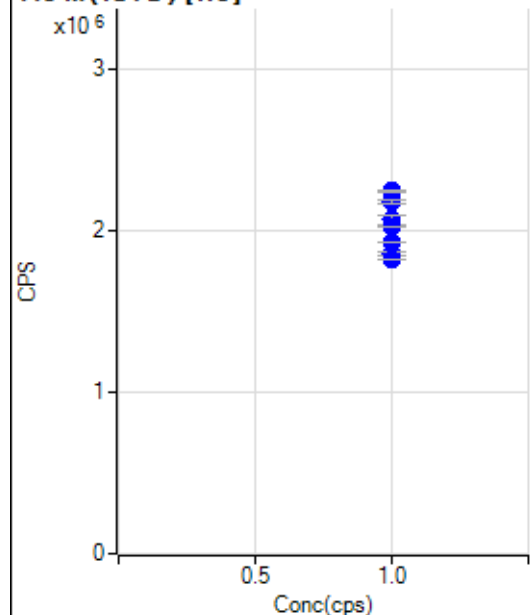
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10242130.87		A	0.4
2	☐	1.000		10004846.23		A	0.4
3	☐	1.000		9981646.67		A	0.5
4	☐	1.000		9832949.70		A	1.9
5	☐	1.000		9305748.04		A	1.1
6	☐	1.000		9136651.76		A	2.1
7	☐	1.000		8437648.54		A	1.3
8	☐	1.000		8367195.07		A	1.3
9	☐	1.000		7495976.47		A	0.2

103 Rh (ISTD) [He]

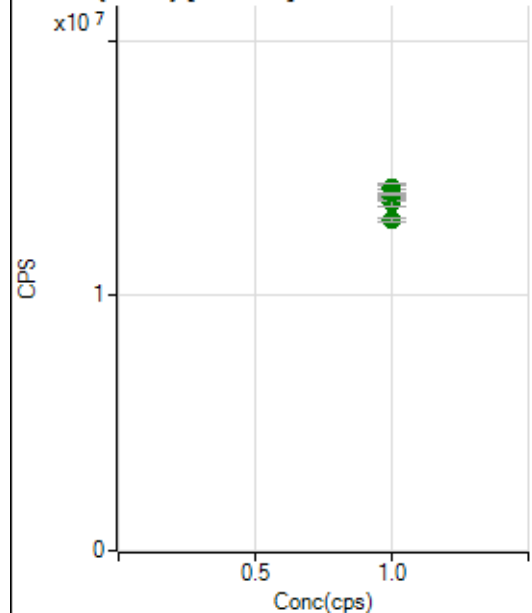
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4728375.42		P	0.7
2	☐	1.000		4687678.40		P	0.5
3	☐	1.000		4658094.23		P	0.5
4	☐	1.000		4541807.01		P	1.5
5	☐	1.000		4275850.53		P	2.0
6	☐	1.000		4188115.74		P	0.2
7	☐	1.000		3978396.02		P	0.4
8	☐	1.000		3848486.19		P	1.2
9	☐	1.000		3488756.76		P	0.4

115 In (ISTD) [No Gas]

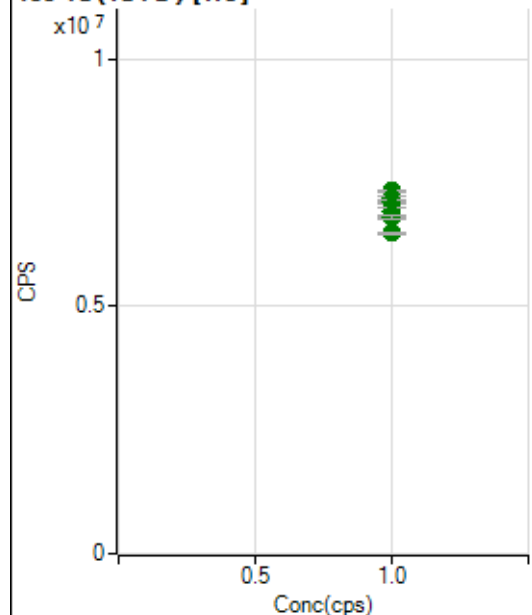
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11288591.20		A	0.9
2	☐	1.000		11071217.61		A	0.6
3	☐	1.000		11092603.55		A	0.6
4	☐	1.000		11074524.23		A	1.9
5	☐	1.000		10602579.39		A	1.0
6	☐	1.000		10542011.69		A	2.6
7	☐	1.000		9859306.48		A	0.8
8	☐	1.000		9841939.54		A	1.0
9	☐	1.000		9142617.52		A	1.0

115 In (ISTD) [He]

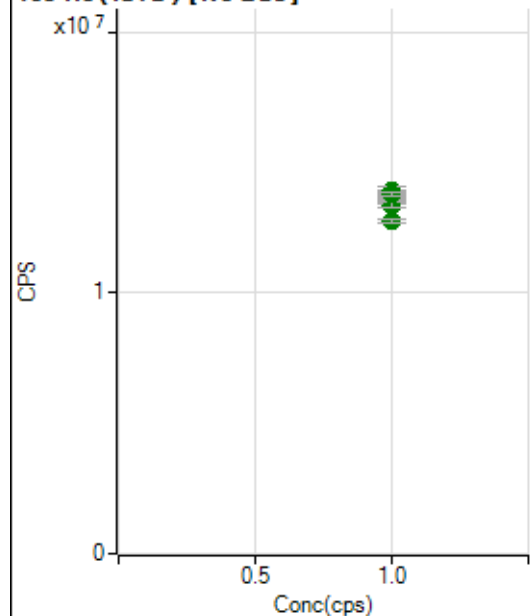
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2245258.85		P	0.8
2	☐	1.000		2238828.21		P	0.5
3	☐	1.000		2239896.33		P	0.6
4	☐	1.000		2181001.67		P	1.1
5	☐	1.000		2066512.81		P	2.6
6	☐	1.000		2020771.94		P	0.2
7	☐	1.000		1928831.68		P	0.3
8	☐	1.000		1861160.56		P	1.2
9	☐	1.000		1818121.89		P	0.2

159 Tb (ISTD) [No Gas]

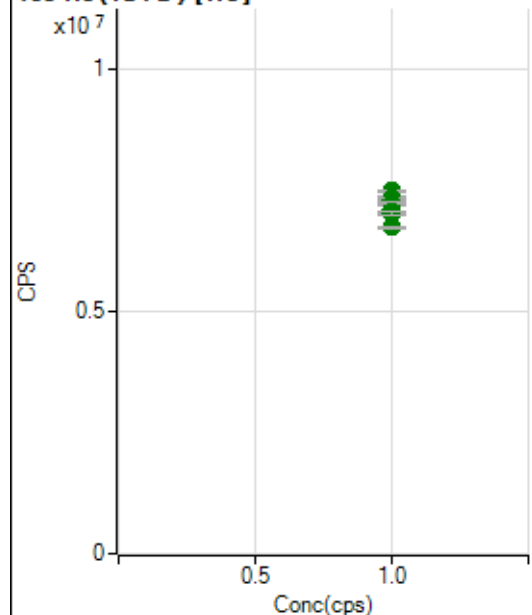
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14205173.82		A	1.0
2	☐	1.000		13911385.63		A	0.6
3	☐	1.000		13905048.96		A	0.8
4	☐	1.000		14148889.51		A	2.1
5	☐	1.000		13858800.91		A	1.4
6	☐	1.000		14212642.98		A	2.6
7	☐	1.000		13609092.44		A	1.6
8	☐	1.000		13986233.12		A	0.8
9	☐	1.000		12966178.14		A	1.0

159 Tb (ISTD) [He]

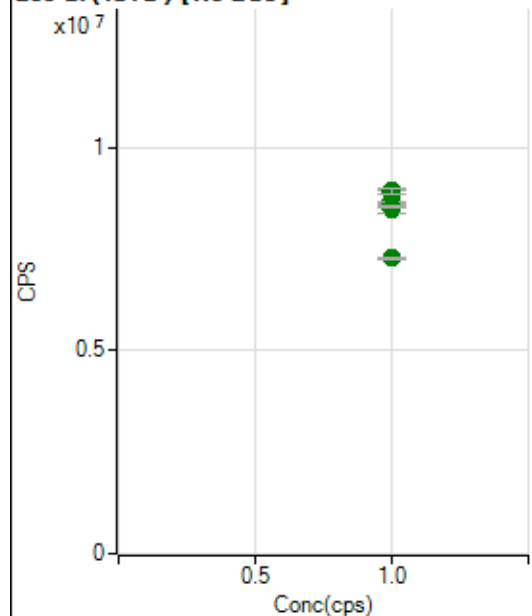
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7336671.00		A	0.6
2	☐	1.000		7123086.77		A	0.6
3	☐	1.000		7192600.10		A	1.3
4	☐	1.000		7121259.54		A	1.3
5	☐	1.000		6927202.40		A	2.3
6	☐	1.000		6988114.90		A	0.2
7	☐	1.000		6824986.08		A	0.2
8	☐	1.000		6815195.17		A	0.9
9	☐	1.000		6491806.99		A	0.6

165 Ho (ISTD) [No Gas]

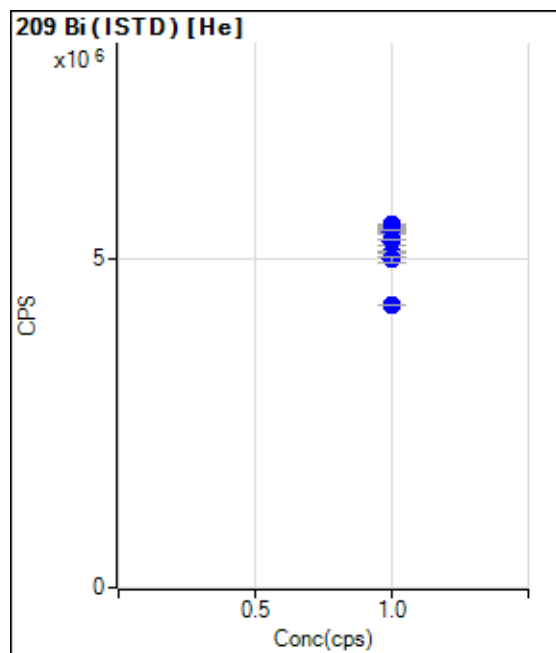
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13869076.35		A	1.5
2	☐	1.000		13514820.10		A	0.3
3	☐	1.000		13593454.64		A	0.6
4	☐	1.000		13754456.04		A	1.8
5	☐	1.000		13484572.18		A	1.2
6	☐	1.000		13912562.98		A	2.1
7	☐	1.000		13361226.43		A	1.7
8	☐	1.000		13764315.59		A	1.1
9	☐	1.000		12746360.62		A	1.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7478920.52		A	0.5
2	☐	1.000		7287910.79		A	0.2
3	☐	1.000		7338716.83		A	0.7
4	☐	1.000		7288638.50		A	1.5
5	☐	1.000		7112147.39		A	2.3
6	☐	1.000		7221137.46		A	0.6
7	☐	1.000		7038989.55		A	0.4
8	☐	1.000		7004460.66		A	1.3
9	☐	1.000		6728734.20		A	0.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8901318.62		A	0.9
2	☐	1.000		8614974.80		A	0.8
3	☐	1.000		8626951.47		A	0.5
4	☐	1.000		8726334.73		A	2.8
5	☐	1.000		8615162.93		A	1.5
6	☐	1.000		8934887.09		A	1.9
7	☐	1.000		8459946.12		A	1.4
8	☐	1.000		8542780.78		A	0.9
9	☐	1.000		7269733.22		A	0.8



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5520027.56		P	0.3
2	☐	1.000		5461819.12		P	0.2
3	☐	1.000		5449000.82		P	1.2
4	☐	1.000		5414534.99		P	1.3
5	☐	1.000		5252523.25		P	2.0
6	☐	1.000		5293939.05		P	0.3
7	☐	1.000		5102902.88		P	0.2
8	☐	1.000		4992884.40		P	1.8
9	☐	1.000		4301276.98		P	0.6

US EPA Tune Check Sample Report

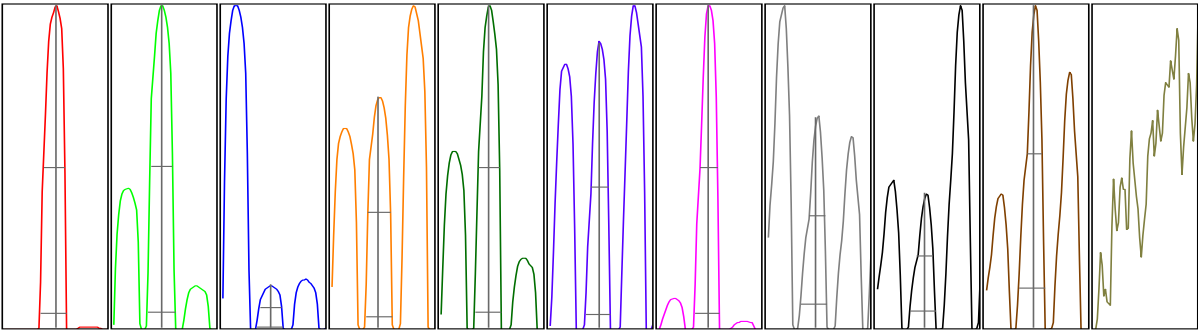
Batch Folder D:\ICP-MS Data\P7073119 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	10491	0.56	5.00	
24	152865	0.52	5.00	
25	20497	0.78	5.00	
26	23381	0.70	5.00	
59	88420	0.47	5.00	
113	12117	0.57	5.00	
115	147108	0.66	5.00	
206	34002	0.32	5.00	
207	32022	0.12	5.00	
208	73291	0.24	5.00	
220	74	3.54		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10538	10559	10488	10416	10454
24	153692	153486	153097	152036	152014
25	20614	20674	20526	20380	20293
26	23536	23570	23328	23214	23258
59	88871	88716	88241	88452	87819
113	12195	12172	12128	12044	12048
115	147905	148358	146803	146213	146260
206	33957	34042	33856	34156	33997
207	31979	31998	32010	32053	32072
208	73334	73413	73241	73017	73448
220	76	73	76	70	75

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	17328	9.05	8.9 - 9.1		0.778	0.900	
24	247059	23.95	23.9 - 24.1		0.822	0.900	
25	33002	24.95	24.9 - 25.1		0.785	0.900	
26	38130	25.90	25.9 - 26.1		0.784	0.900	
59	151203	58.95	58.9 - 59.1		0.780	0.900	
113	23779	113.00	112.9 - 113.1		0.728	0.900	
115	284561	115.00	114.9 - 115.1		0.727	0.900	
206	68049	205.95	205.9 - 206.1		0.754	0.900	
207	62439	206.95	206.9 - 207.1		0.735	0.900	
208	149533	207.95	207.9 - 208.1		0.750	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	7.5	V	Deflect	13.6	V
Extract 2	-105.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	21518	0.15	
89	41424	0.09	
205	31662	0.48	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	21514	21470	21546	21512	21546
89	41458	41372	41414	41412	41467
205	31526	31795	31706	31479	31803

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	7.9	V	Deflect	2.0	V
Extract 2	-95.0	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			