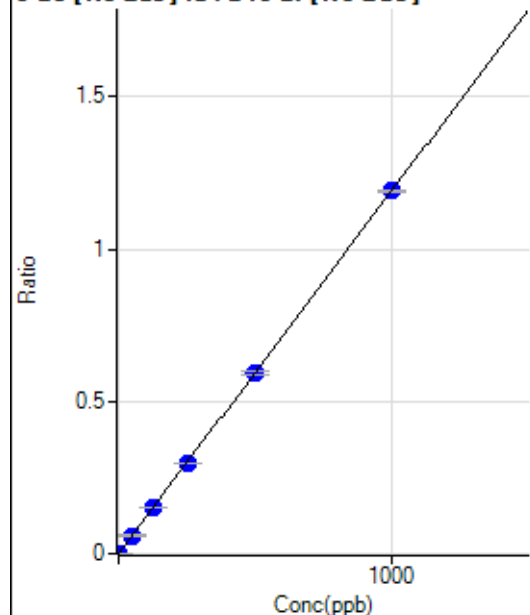


Calibration for 007CALS.d

Batch Folder: D:\ICP-MS Data\P7101417MS.b\
 Analysis File: P7101417MS.batch.bin
 DA Date-Time: 2017-10-16 08:48:43
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2017-10-14 15:42:10
2			
3	005CALS.d	S02	2017-10-14 15:49:35
4	006CALS.d	S03	2017-10-14 15:53:25
5	007CALS.d	S04	2017-10-14 15:57:15
6	008CALS.d	S05	2017-10-14 16:01:04
7	009CALS.d	S06	2017-10-14 16:04:49
8	010CALS.d	S07	2017-10-14 16:08:32
9	011CALS.d	S08	2017-10-14 16:12:11

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.44	0.0001	P	21.4
2	☐	0.100					
3	☐	1.000	0.873	927.83	0.0011	P	0.9
4	☐	50.000	50.175	50501.00	0.0598	P	1.1
5	☐	125.000	125.711	128024.57	0.1497	P	0.5
6	☐	250.000	250.235	252975.80	0.2979	P	1.1
7	☐	500.000	498.498	509319.37	0.5934	P	1.3
8	☐	1000.000	1000.595	987630.86	1.1910	P	0.3
9	☐			312.98	0.0004	P	6.3

$$y = 0.0012 * x + 5.3583E-005$$

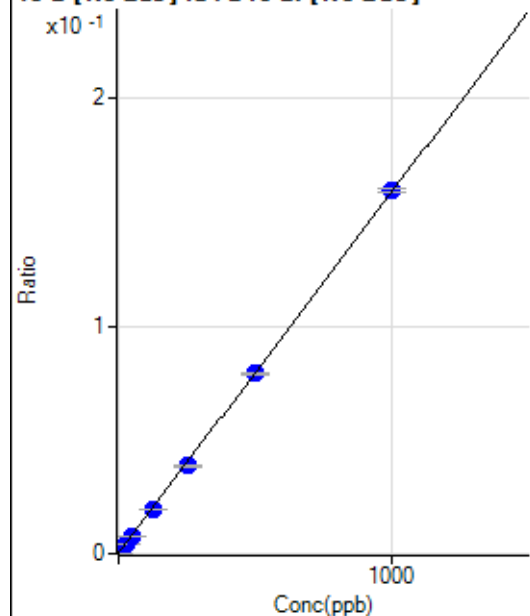
$$R = 1.0000$$

$$DL = 0.02884$$

$$BEC = 0.04502$$

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	119.45	0.0001	P	38.7
2	☐	2.500					
3	☐	25.000	23.399	3269.92	0.0039	P	2.2
4	☐	50.000	47.277	6451.64	0.0076	P	3.1
5	☐	125.000	122.859	16776.57	0.0196	P	1.7
6	☐	250.000	241.481	32622.00	0.0384	P	0.9
7	☐	500.000	497.529	67802.62	0.0790	P	0.9
8	☐	1000.000	1003.809	132027.76	0.1592	P	1.2
9	☐			2850.41	0.0035	P	8.2

$$y = 1.5848E-004 * x + 1.4415E-004$$

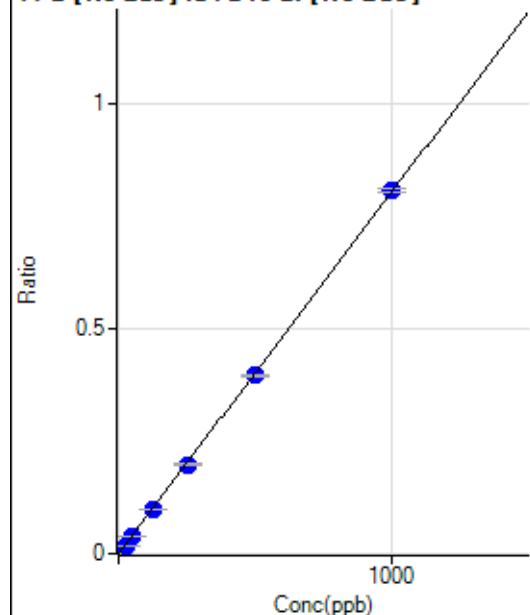
$$R = 1.0000$$

$$DL = 1.056$$

$$BEC = 0.9096$$

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	402.80	0.0005	P	16.8
2	☐	2.500					
3	☐	25.000	21.594	15099.71	0.0178	P	0.6
4	☐	50.000	48.658	33349.06	0.0395	P	1.8
5	☐	125.000	121.765	83863.35	0.0980	P	0.4
6	☐	250.000	246.902	168417.66	0.1983	P	1.2
7	☐	500.000	493.644	339946.21	0.3960	P	0.9
8	☐	1000.000	1004.509	667795.78	0.8053	P	1.0
9	☐			13189.53	0.0161	P	7.8

$$y = 8.0124\text{E-}004 * x + 4.8562\text{E-}004$$

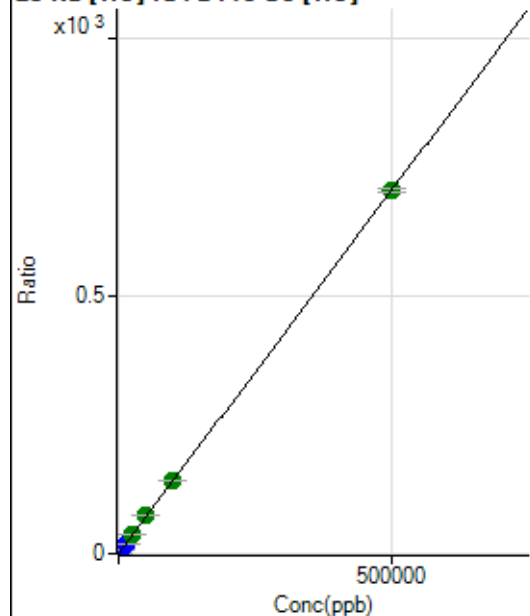
$$R = 1.0000$$

$$DL = 0.3061$$

$$BEC = 0.6061$$

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	23808.55	0.1619	P	1.0
2	☐	50.000					
3	☐	500.000	463.183	120427.83	0.8155	P	1.1
4	☐	5000.000	5182.168	1105435.98	7.4741	P	1.0
5	☐	12500.000	13008.992	2721491.64	18.5180	P	1.7
6	☐	25000.000	25983.873	5393346.08	36.8259	A	0.2
7	☐	50000.000	52408.188	10880311.01	74.1115	A	0.4
8	☐	100000.00	101311.03	21342530.34	143.1149	A	0.4
9	☐	500000.00	499433.27	103233634.2	704.8776	A	0.9

$$y = 0.0014 * x + 0.1619$$

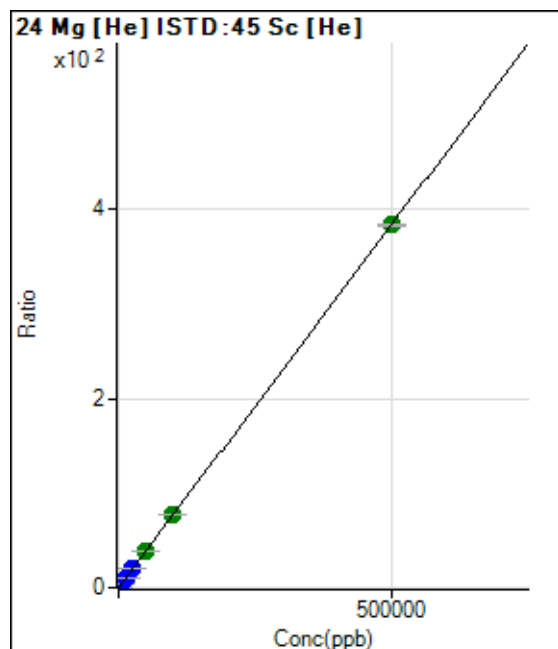
$$R = 1.0000$$

$$DL = 3.282$$

$$BEC = 114.7$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233.35	0.0016	P	7.2
2	☐	50.000					
3	☐	500.000	458.436	52155.35	0.3532	P	0.6
4	☐	5000.000	5083.626	576876.54	3.9003	P	0.1
5	☐	12500.000	12642.036	1425192.75	9.6969	P	1.1
6	☐	25000.000	25388.018	2851765.00	19.4719	P	0.3
7	☐	50000.000	51092.076	5752869.44	39.1847	A	0.2
8	☐	100000.00	99617.287	11393126.73	76.3992	A	0.2
9	☐	500000.00	499943.58	56158560.98	383.4138	A	0.9

$$y = 7.6691\text{E-}004 * x + 0.0016$$

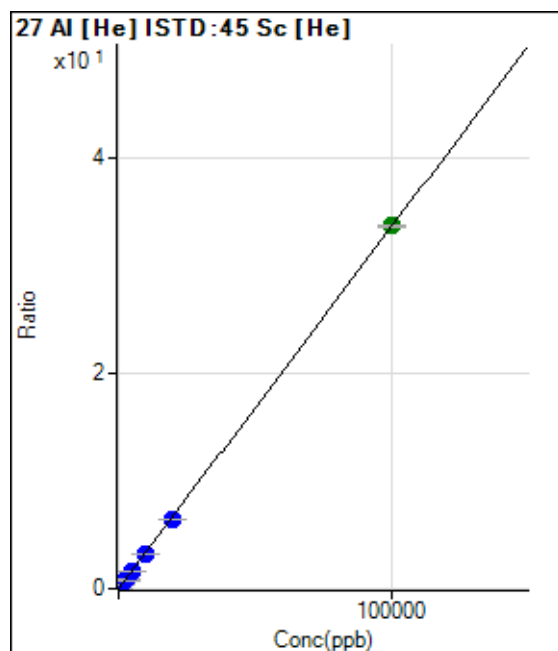
$$R = 1.0000$$

$$DL = 0.444$$

$$BEC = 2.069$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.22	0.0005	P	6.9
2	☐	2.000					
3	☐	20.000	16.709	902.85	0.0061	P	9.2
4	☐	1000.000	966.512	48175.94	0.3257	P	0.6
5	☐	2500.000	2392.957	118427.98	0.8057	P	0.6
6	☐	5000.000	4873.706	240265.90	1.6405	P	1.3
7	☐	10000.000	9654.365	477028.81	3.2492	P	0.5
8	☐	20000.000	19008.045	953941.78	6.3967	P	1.5
9	☐	100000.00	100242.28	4940707.75	33.7320	A	0.7

$$y = 3.3650\text{E-}004 * x + 4.9120\text{E-}004$$

$$R = 0.9999$$

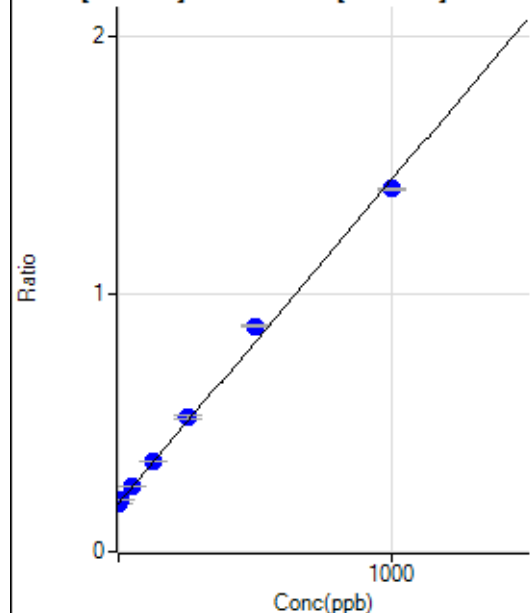
$$DL = 0.3025$$

$$BEC = 1.46$$

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	509505.22	0.1873	P	0.7
2	☐	1.000					
3	☐	10.000	9.102	549231.42	0.1988	P	0.8
4	☐	50.000	51.526	689526.81	0.2520	P	0.8
5	☐	125.000	129.050	964589.00	0.3493	P	1.2
6	☐	250.000	266.068	1428039.99	0.5213	P	2.0
7	☐	500.000	546.525	2424222.84	0.8734	P	0.8
8	☐	1000.000	972.147	3893738.37	1.4076	P	0.7
9	☐			551644.97	0.2063	P	0.7

$$y = 0.0013 * x + 0.1873$$

$$R = 0.9982$$

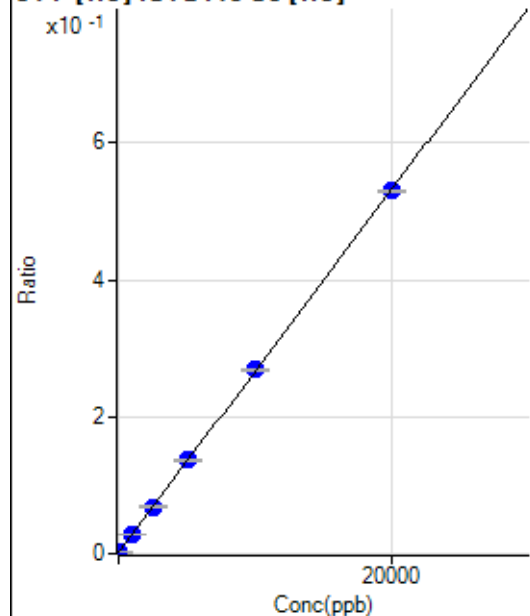
$$DL = 2.961$$

$$BEC = 149.2$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-7.341	219.46	0.0015	P	20.8
2	☐	0.000					
3	☐	0.000	7.341	277.79	0.0019	P	19.1
4	☐	1000.000	984.887	4109.07	0.0278	P	5.3
5	☐	2500.000	2520.641	10067.73	0.0685	P	2.7
6	☐	5000.000	5113.498	20089.24	0.1372	P	2.1
7	☐	10000.000	10070.348	39422.48	0.2685	P	0.8
8	☐	20000.000	19934.627	79020.80	0.5299	P	0.7
9	☐			219.45	0.0015	P	23.8

$$y = 2.6496E-005 * x + 0.0017$$

$$R = 1.0000$$

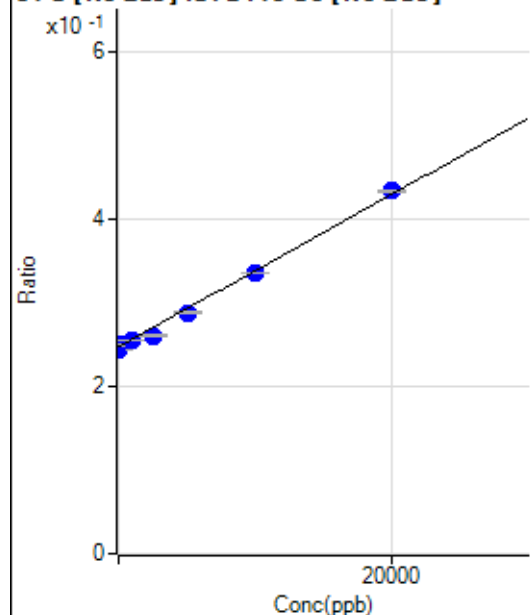
$$DL = 37.93$$

$$BEC = 63.66$$

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	-307.034	665445.28	0.2447	P	0.4
2	☐	0.000					
3	☐	0.000	307.034	691546.39	0.2503	P	1.1
4	☐	1000.000	903.086	699633.97	0.2557	P	0.5
5	☐	2500.000	1459.208	720090.35	0.2608	P	0.8
6	☐	5000.000	4477.898	789822.74	0.2883	P	0.7
7	☐	10000.000	9641.135	930914.27	0.3354	P	0.3
8	☐	20000.000	20444.903	1200193.90	0.4339	P	0.4
9	☐			670829.15	0.2508	P	1.3

$$y = 9.1177\text{E-}006 * x + 0.2475$$

$$R = 0.9981$$

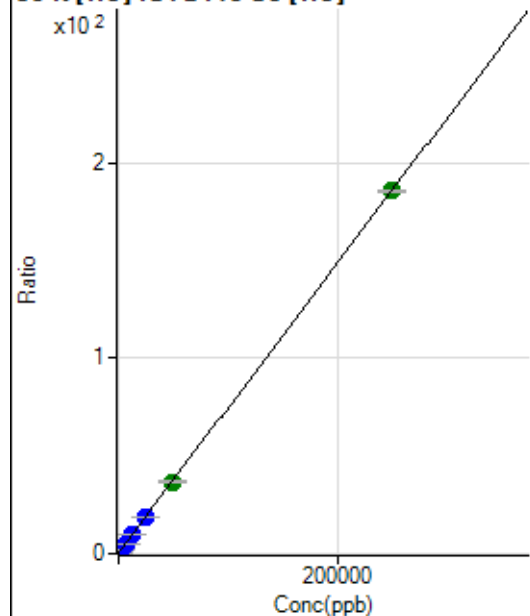
$$DL = 606.3$$

$$BEC = 2.714\text{E}+04$$

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	63503.29	0.4318	P	0.9
2	☐	50.000					
3	☐	500.000	444.945	112451.18	0.7615	P	1.0
4	☐	2500.000	2506.785	338543.16	2.2889	P	0.5
5	☐	6250.000	6183.596	736736.13	5.0127	P	1.1
6	☐	12500.000	12413.960	1410093.75	9.6283	P	1.0
7	☐	25000.000	24726.833	2752720.57	18.7498	P	0.0
8	☐	50000.000	49122.607	5491486.58	36.8226	A	1.5
9	☐	250000.00	250208.80	27212165.71	185.7901	A	0.5

$$y = 7.4081\text{E-}004 * x + 0.4318$$

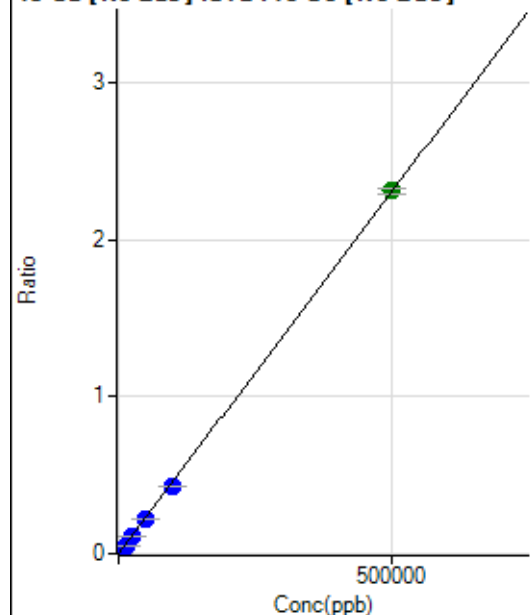
$$R = 1.0000$$

$$DL = 15.69$$

$$BEC = 582.9$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	511.15	0.0002	P	9.6
2	☐	50.000					
3	☐	500.000	425.519	5934.79	0.0021	P	3.6
4	☐	5000.000	4682.281	59526.71	0.0218	P	0.5
5	☐	12500.000	11664.977	148876.73	0.0539	P	1.9
6	☐	25000.000	23604.776	298372.63	0.1089	P	1.0
7	☐	50000.000	46991.693	601328.15	0.2166	P	1.2
8	☐	100000.00	93315.950	1189488.90	0.4300	P	0.9
9	☐	500000.00	501731.52	6180985.21	2.3113	A	1.4

$$y = 4.6062\text{E-}006 * x + 1.8795\text{E-}004$$

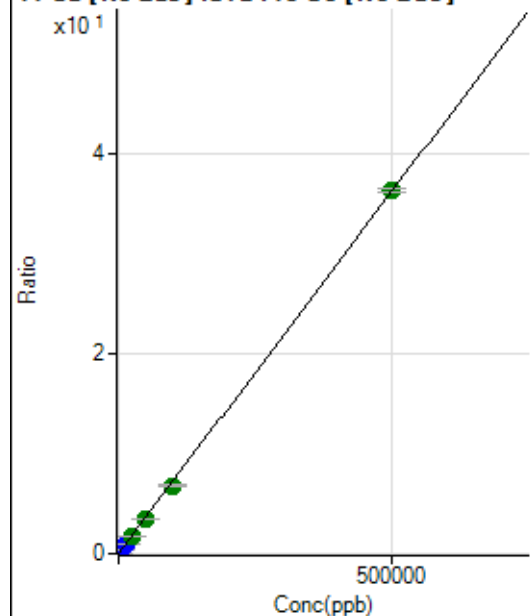
$$R = 0.9999$$

$$DL = 11.72$$

$$BEC = 40.8$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72447.14	0.0266	P	1.4
2	☐	50.000					
3	☐	500.000	427.254	159044.03	0.0576	P	0.6
4	☐	5000.000	4840.122	1031145.32	0.3769	P	1.3
5	☐	12500.000	12119.838	2495311.69	0.9037	P	1.0
6	☐	25000.000	23755.220	4782361.48	1.7457	A	0.6
7	☐	50000.000	47543.236	9623514.28	3.4671	A	0.5
8	☐	100000.00	94056.702	18901367.26	6.8330	A	0.1
9	☐	500000.00	501507.75	97125650.78	36.3177	A	1.2

$$y = 7.2364\text{E-}005 * x + 0.0266$$

$$R = 0.9999$$

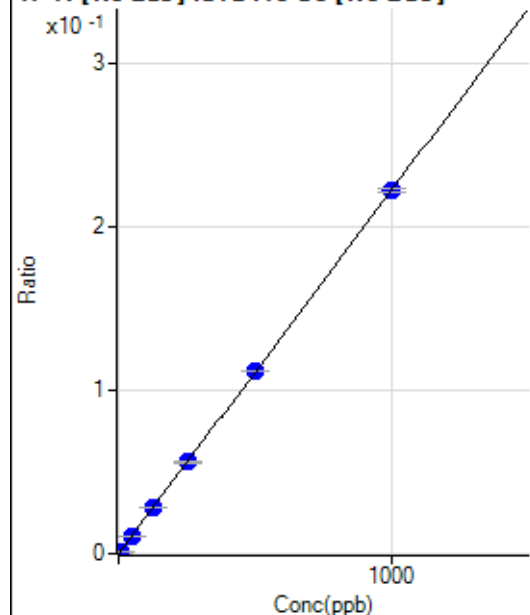
$$DL = 15.04$$

$$BEC = 368.1$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	194.46	0.0001	P	21.7
2	☐	0.500					
3	☐	5.000	4.279	2819.84	0.0010	P	9.1
4	☐	50.000	49.407	30187.46	0.0110	P	1.7
5	☐	125.000	126.071	77431.62	0.0280	P	1.9
6	☐	250.000	251.543	153080.43	0.0559	P	1.5
7	☐	500.000	502.239	309502.28	0.1115	P	0.9
8	☐	1000.000	998.394	612925.93	0.2216	P	1.1
9	☐			597.26	0.0002	P	2.7

$$y = 2.2187\text{E-}004 * x + 7.1511\text{E-}005$$

$$R = 1.0000$$

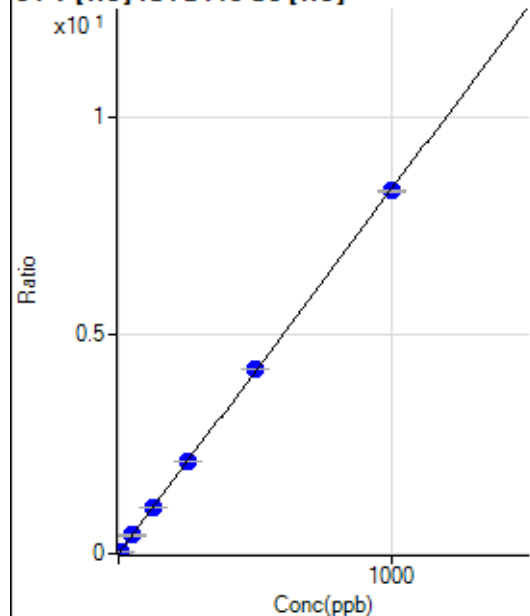
$$DL = 0.2098$$

$$BEC = 0.3223$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	18.89	0.0001	P	20.1
2	☐	0.500					
3	☐	5.000	4.474	5533.35	0.0375	P	2.4
4	☐	50.000	50.198	61979.92	0.4191	P	0.9
5	☐	125.000	126.425	155097.35	1.0552	P	0.5
6	☐	250.000	254.146	310647.45	2.1211	P	0.5
7	☐	500.000	506.379	620444.84	4.2262	P	0.5
8	☐	1000.000	995.589	1239051.93	8.3089	P	0.7
9	☐			200.01	0.0014	P	2.4

$$y = 0.0083 * x + 1.2841\text{E-}004$$

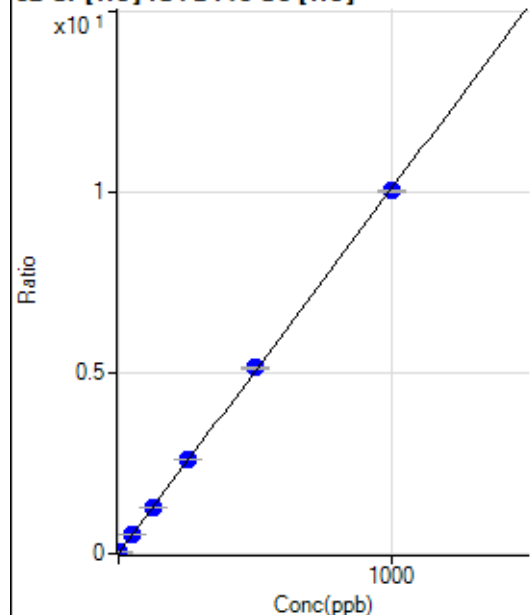
$$R = 1.0000$$

$$DL = 0.009266$$

$$BEC = 0.01539$$

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	1110.06	0.0075	P	6.7
2	☐	0.200					
3	☐	2.000	1.981	4067.29	0.0275	P	4.5
4	☐	50.000	51.259	77619.19	0.5248	P	1.2
5	☐	125.000	127.056	189529.28	1.2896	P	1.4
6	☐	250.000	256.332	379909.93	2.5941	P	0.4
7	☐	500.000	508.453	754312.65	5.1381	P	0.6
8	☐	1000.000	993.871	1496643.15	10.0362	P	0.6
9	☐			22441.75	0.1532	P	0.7

$$y = 0.0101 * x + 0.0075$$

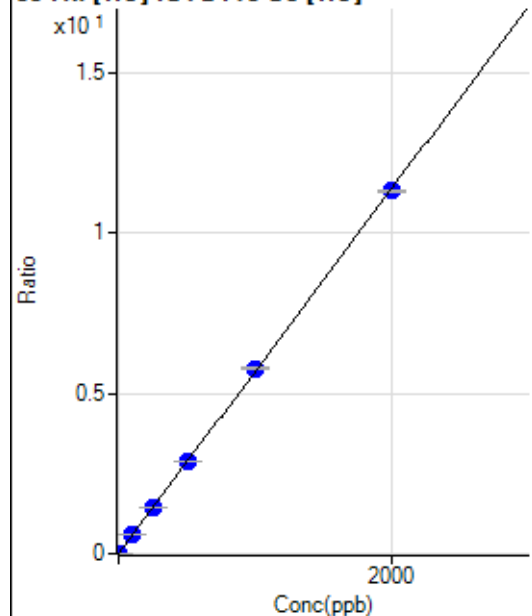
$$R = 0.9999$$

$$DL = 0.1506$$

$$BEC = 0.748$$

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	215.56	0.0015	P	18.2
2	☐	0.100					
3	☐	1.000	1.078	1121.17	0.0076	P	7.2
4	☐	100.000	101.057	85198.63	0.5760	P	0.6
5	☐	250.000	255.511	213728.38	1.4542	P	0.9
6	☐	500.000	509.464	424424.57	2.8980	P	0.6
7	☐	1000.000	1015.232	847604.35	5.7735	P	0.5
8	☐	2000.000	1989.276	1686818.50	11.3114	P	0.7
9	☐			6702.75	0.0458	P	1.3

$$y = 0.0057 * x + 0.0015$$

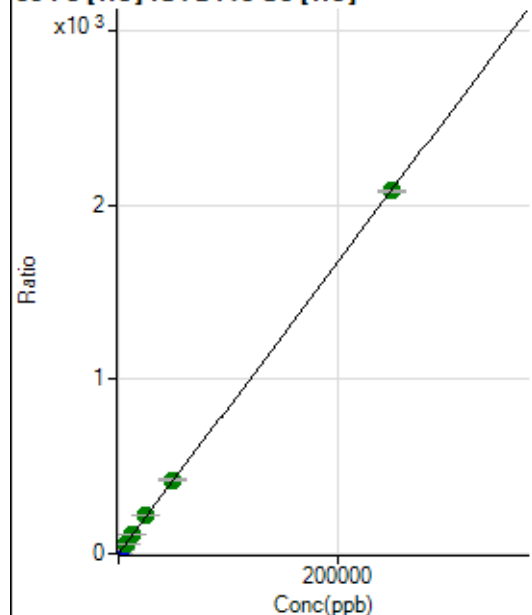
$$R = 0.9999$$

$$DL = 0.1411$$

$$BEC = 0.2579$$

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	6694.31	0.0455	P	1.2
2	☐	5.000					
3	☐	50.000	48.234	66130.39	0.4478	P	0.5
4	☐	2500.000	2637.878	3260655.42	22.0457	P	0.4
5	☐	6250.000	6530.665	8011266.32	54.5119	A	1.8
6	☐	12500.000	13148.976	16067297.00	109.7093	A	0.8
7	☐	25000.000	26163.072	32041206.27	218.2482	A	0.4
8	☐	50000.000	50819.689	63211865.76	423.8868	A	0.5
9	☐	250000.00	249678.91	304984058.6	2,082.392	A	0.9

$$y = 0.0083 * x + 0.0455$$

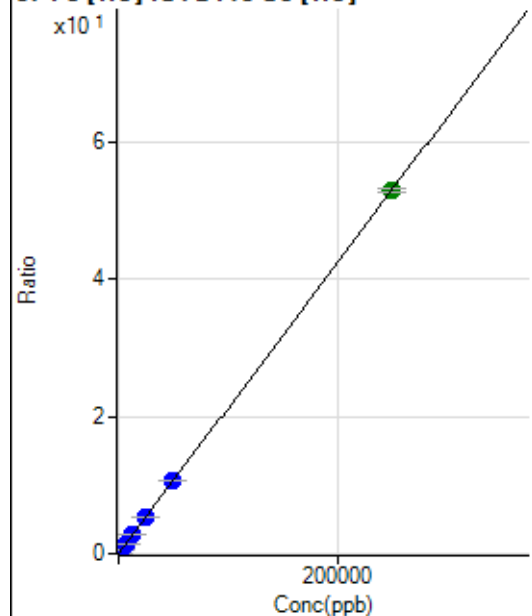
$$R = 1.0000$$

$$DL = 0.2033$$

$$BEC = 5.458$$

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	477.80	0.0032	P	14.8
2	☐	5.000					
3	☐	50.000	48.485	1994.64	0.0135	P	0.9
4	☐	2500.000	2590.456	81537.32	0.5513	P	1.3
5	☐	6250.000	6414.022	199921.39	1.3602	P	0.8
6	☐	12500.000	12928.665	401059.04	2.7384	P	0.6
7	☐	25000.000	25718.216	799245.32	5.4441	P	0.6
8	☐	50000.000	50198.629	1584191.42	10.6232	P	0.8
9	☐	250000.00	249862.01	7741967.99	52.8635	A	1.2

$$y = 2.1156E-004 * x + 0.0032$$

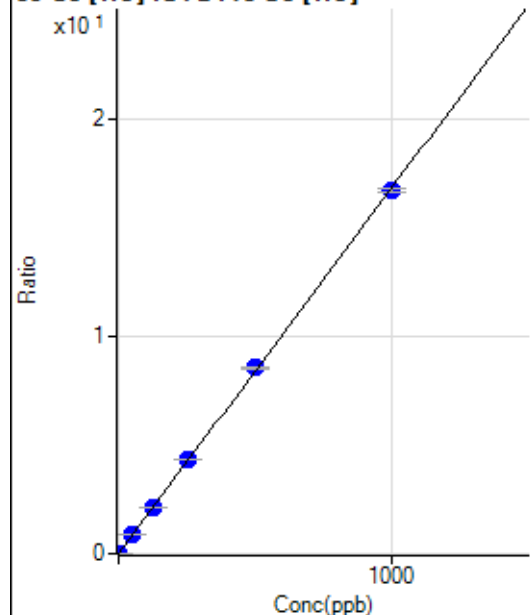
$$R = 1.0000$$

$$DL = 6.825$$

$$BEC = 15.36$$

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	128.89	0.0009	P	9.3
2	☐	0.100					
3	☐	1.000	0.929	2438.02	0.0165	P	0.8
4	☐	50.000	51.442	128137.50	0.8664	P	0.6
5	☐	125.000	127.700	315923.98	2.1494	P	0.4
6	☐	250.000	256.862	633045.16	4.3224	P	0.3
7	☐	500.000	509.850	1259432.56	8.5788	P	1.0
8	☐	1000.000	992.950	2491364.41	16.7068	P	1.0
9	☐			3008.14	0.0205	P	2.5

$$y = 0.0168 * x + 8.7662E-004$$

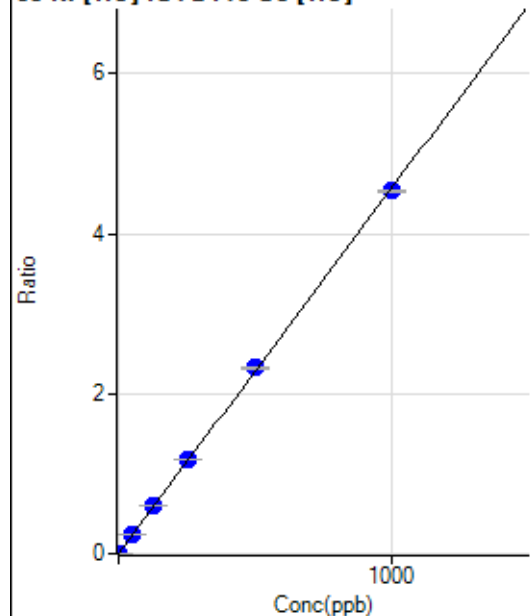
$$R = 0.9999$$

$$DL = 0.01454$$

$$BEC = 0.0521$$

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	111.12	0.0008	P	25.3
2	☐	0.100					
3	☐	1.000	0.998	784.48	0.0053	P	3.2
4	☐	50.000	51.576	34947.42	0.2363	P	0.6
5	☐	125.000	128.942	86661.44	0.5896	P	0.1
6	☐	250.000	256.491	171650.73	1.1720	P	0.6
7	☐	500.000	509.458	341644.48	2.3272	P	1.0
8	☐	1000.000	993.077	676379.53	4.5356	P	0.5
9	☐			6728.31	0.0459	P	2.3

$$y = 0.0046 * x + 7.5581E-004$$

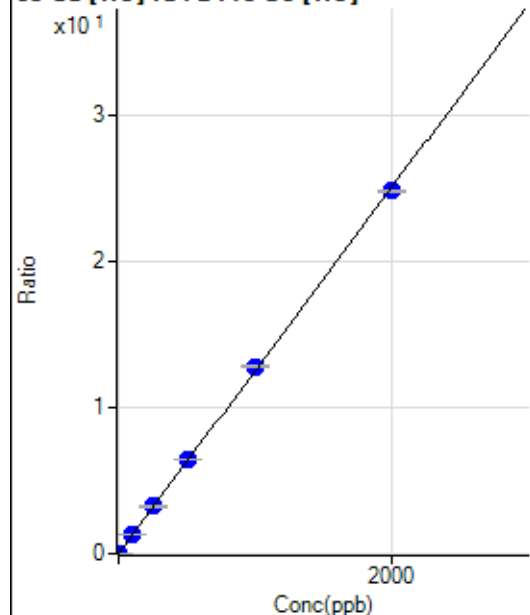
$$R = 0.9999$$

$$DL = 0.1257$$

$$BEC = 0.1655$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	956.71	0.0065	P	5.9
2	☐	0.200					
3	☐	2.000	1.948	4555.23	0.0308	P	5.1
4	☐	100.000	104.121	193360.89	1.3073	P	0.3
5	☐	250.000	257.131	473076.11	3.2189	P	1.7
6	☐	500.000	517.537	947896.42	6.4722	P	0.4
7	☐	1000.000	1024.041	1879145.32	12.8001	P	1.0
8	☐	2000.000	1982.498	3694522.17	24.7744	P	0.5
9	☐			5540.03	0.0378	P	2.5

$$y = 0.0125 * x + 0.0065$$

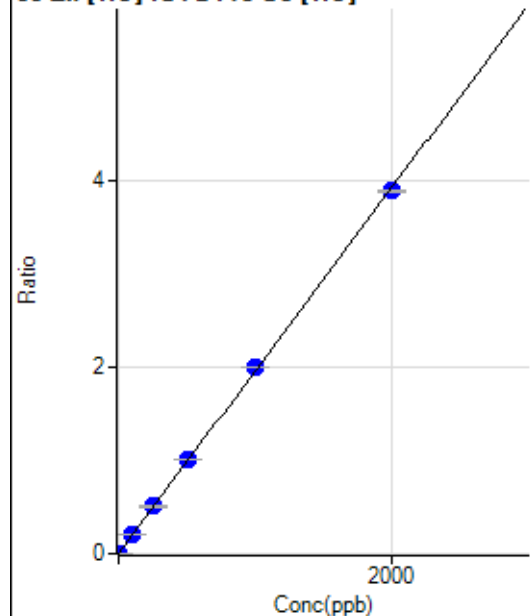
$$R = 0.9998$$

$$DL = 0.09143$$

$$BEC = 0.5208$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	188.89	0.0013	P	13.1
2	☐	0.200					
3	☐	2.000	2.093	795.59	0.0054	P	8.4
4	☐	100.000	102.764	29981.01	0.2027	P	0.8
5	☐	250.000	257.862	74479.11	0.5067	P	0.8
6	☐	500.000	518.812	149116.49	1.0182	P	0.2
7	☐	1000.000	1019.733	293614.86	2.0000	P	0.9
8	☐	2000.000	1984.310	580189.81	3.8906	P	0.4
9	☐			1393.42	0.0095	P	7.5

$$y = 0.0020 * x + 0.0013$$

$$R = 0.9999$$

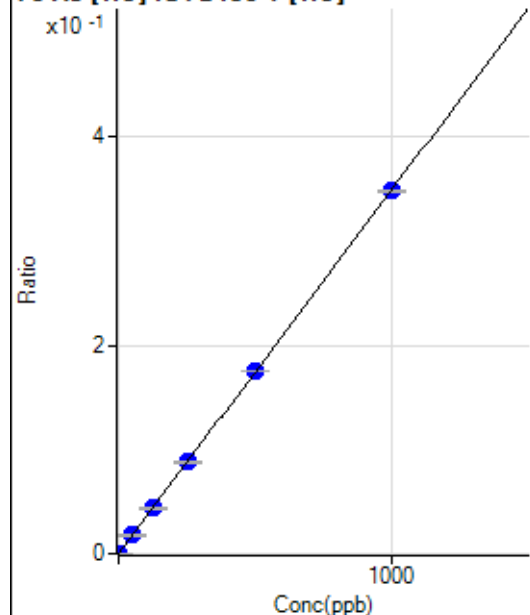
$$DL = 0.2578$$

$$BEC = 0.6554$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12.35	0.0000	P	22.6
2	☐	0.100					
3	☐	1.000	0.876	234.57	0.0003	P	4.5
4	☐	50.000	50.323	12918.17	0.0176	P	1.0
5	☐	125.000	124.587	31871.94	0.0435	P	0.6
6	☐	250.000	252.122	64455.48	0.0879	P	0.8
7	☐	500.000	503.068	129311.43	0.1754	P	0.5
8	☐	1000.000	997.971	257485.66	0.3480	P	0.7
9	☐			123.46	0.0002	P	14.1

$$y = 3.4865E-004 * x + 1.6980E-005$$

$$R = 1.0000$$

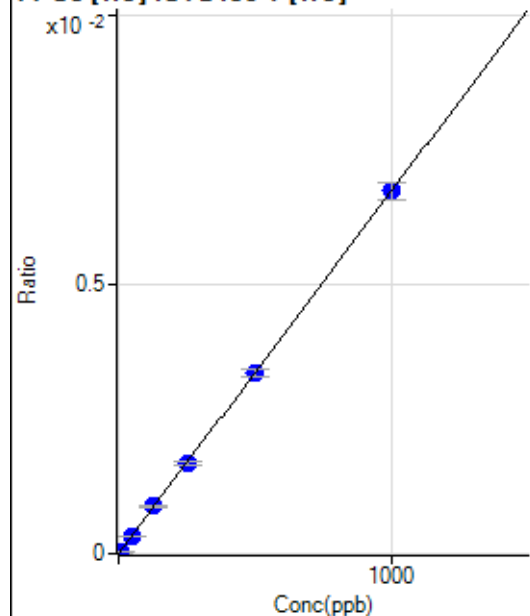
$$DL = 0.03301$$

$$BEC = 0.0487$$

Weight: <None>

Min Conc: 0

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



	R _j 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	4.767	24.45	0.0000	P	28.3
4	☐	50.000	47.156	234.45	0.0003	P	6.8
5	☐	125.000	129.747	641.14	0.0009	P	1.5
6	☐	250.000	249.047	1228.96	0.0017	P	4.3
7	☐	500.000	498.933	2474.70	0.0034	P	4.3
8	☐	1000.000	1000.322	4978.72	0.0067	P	4.6
9	☐			7.78	0.0000	P	49.4

$$y = 6.7255E-006 * x + 1.5299E-006$$

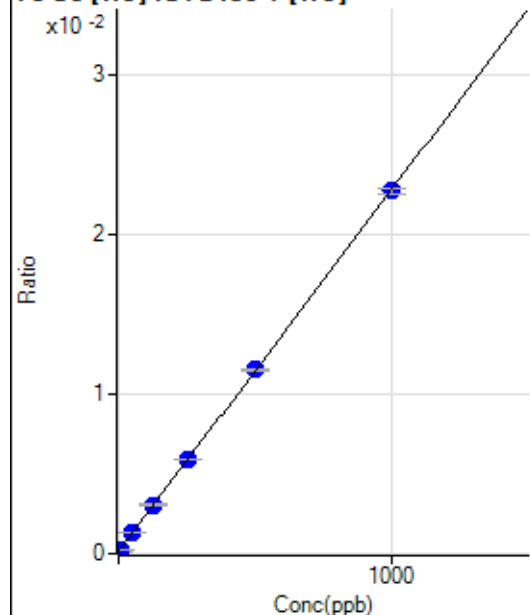
$$R = 1.0000$$

$$DL = 1.182$$

$$BEC = 0.2275$$

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	103.71	0.0001	P	12.1
2	☐	0.500					
3	☐	5.000	4.908	184.57	0.0003	P	6.1
4	☐	50.000	50.968	953.13	0.0013	P	3.0
5	☐	125.000	128.554	2238.47	0.0031	P	3.3
6	☐	250.000	255.373	4340.81	0.0059	P	0.9
7	☐	500.000	502.653	8489.59	0.0115	P	0.9
8	☐	1000.000	996.838	16795.59	0.0227	P	1.4
9	☐			119.14	0.0002	P	9.5

$$y = 2.2627\text{E-}005 * x + 1.4265\text{E-}004$$

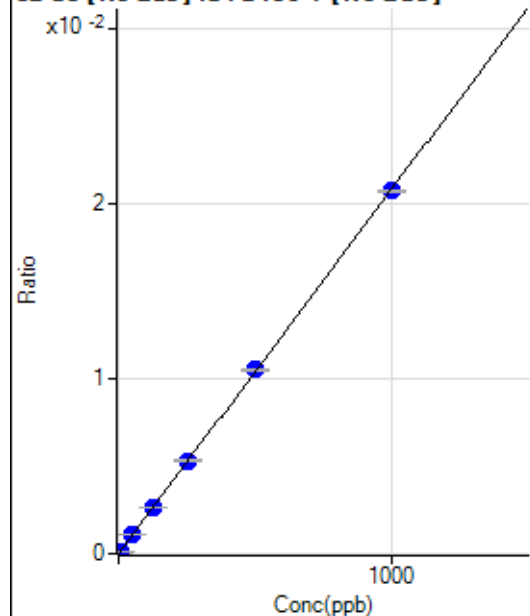
$$R = 1.0000$$

$$DL = 2.286$$

$$BEC = 6.304$$

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	9.04	0.0000	P	473.
2	☐	0.500					
3	☐	5.000	3.775	357.95	0.0001	P	10.5
4	☐	50.000	51.316	4702.19	0.0011	P	1.2
5	☐	125.000	126.372	11669.83	0.0026	P	1.5
6	☐	250.000	255.438	23410.14	0.0053	P	0.6
7	☐	500.000	504.882	46831.70	0.0105	P	0.6
8	☐	1000.000	995.968	92003.47	0.0207	P	0.2
9	☐			72.71	0.0000	P	93.3

$$y = 2.0808\text{E-}005 * x + 2.0814\text{E-}006$$

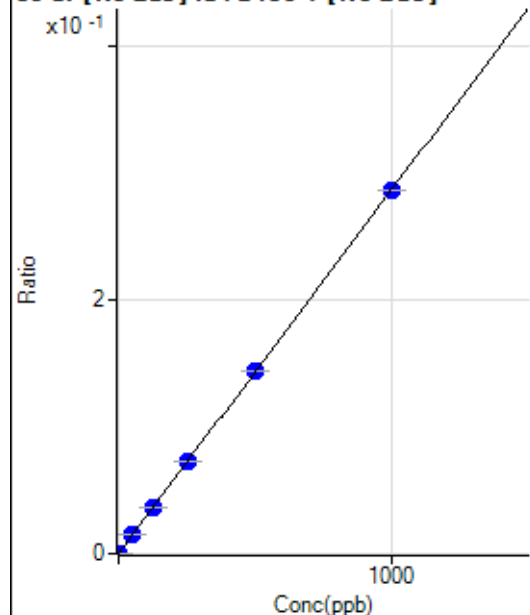
$$R = 1.0000$$

$$DL = 1.42$$

$$BEC = 0.1$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	744.50	0.0002	P	20.3
2	☐	0.100					
3	☐	1.000	0.899	1897.44	0.0004	P	4.5
4	☐	50.000	51.160	65045.29	0.0148	P	0.6
5	☐	125.000	125.803	160290.02	0.0361	P	1.2
6	☐	250.000	252.761	318956.32	0.0724	P	1.0
7	☐	500.000	503.313	642219.49	0.1441	P	0.3
8	☐	1000.000	997.495	1266927.74	0.2854	P	0.2
9	☐			44277.98	0.0104	P	1.4

$$y = 2.8595E-004 * x + 1.7022E-004$$

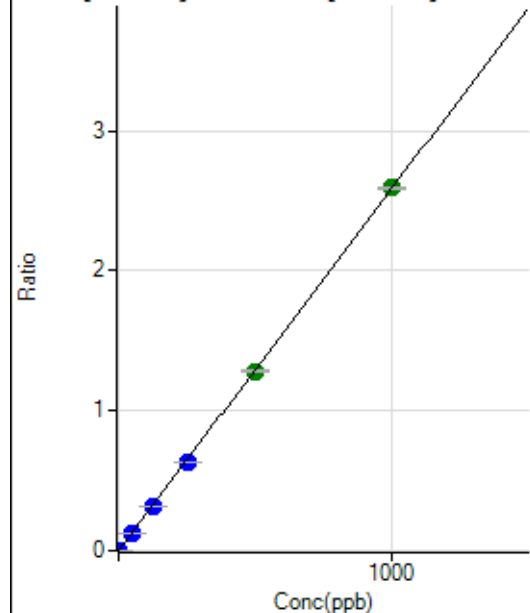
$$R = 1.0000$$

$$DL = 0.3623$$

$$BEC = 0.5953$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.12	0.0000	P	19.9
2	☐	0.100					
3	☐	1.000	0.921	10701.62	0.0024	P	2.9
4	☐	50.000	49.223	559145.37	0.1272	P	1.5
5	☐	125.000	122.220	1400680.07	0.3158	P	0.9
6	☐	250.000	244.448	2781032.94	0.6317	P	0.3
7	☐	500.000	497.071	5724694.66	1.2844	A	1.0
8	☐	1000.000	1003.239	11507544.62	2.5924	A	0.3
9	☐			377641.49	0.0887	P	1.1

$$y = 0.0026 * x + 3.1127E-005$$

$$R = 1.0000$$

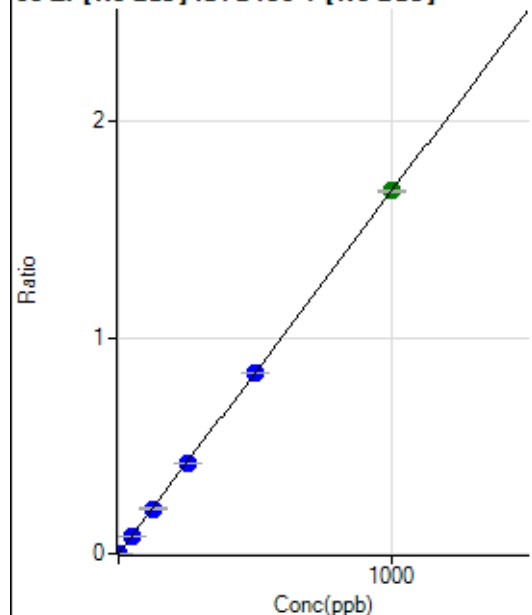
$$DL = 0.007194$$

$$BEC = 0.01205$$

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	352.80	0.0001	P	19.5
2	☐	0.100					
3	☐	1.000	0.827	6515.64	0.0015	P	0.6
4	☐	50.000	48.980	361444.71	0.0822	P	1.1
5	☐	125.000	124.015	922858.53	0.2081	P	1.3
6	☐	250.000	247.461	1827828.88	0.4152	P	0.3
7	☐	500.000	499.267	3732819.35	0.8375	P	0.8
8	☐	1000.000	1001.175	7455148.69	1.6794	A	0.9
9	☐			1864.09	0.0004	P	9.8

$$y = 0.0017 * x + 8.0703E-005$$

$$R = 1.0000$$

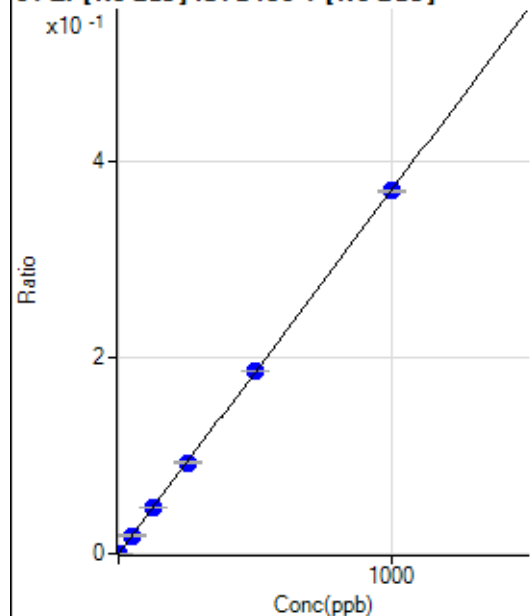
$$DL = 0.02818$$

$$BEC = 0.04811$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	26.4
2	☐	0.100					
3	☐	1.000	0.884	1536.26	0.0003	P	3.5
4	☐	50.000	50.197	81818.26	0.0186	P	0.8
5	☐	125.000	125.441	206185.96	0.0465	P	1.5
6	☐	250.000	250.140	408081.44	0.0927	P	1.4
7	☐	500.000	502.914	830528.43	0.1863	P	0.3
8	☐	1000.000	998.443	1642160.10	0.3699	P	0.5
9	☐			461.14	0.0001	P	16.2

$$y = 3.7050E-004 * x + 1.8430E-005$$

$$R = 1.0000$$

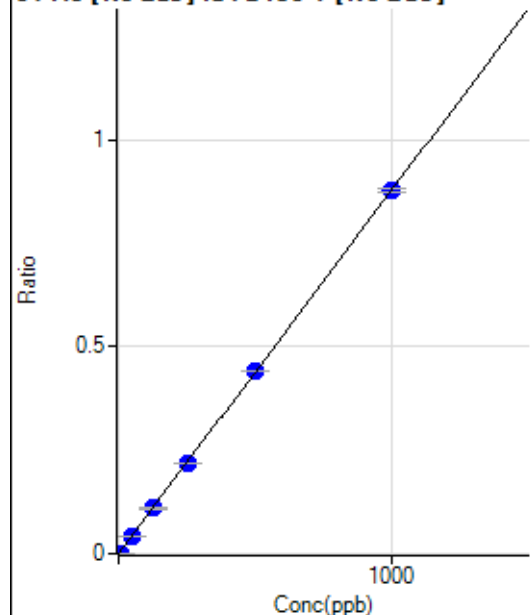
$$DL = 0.03933$$

$$BEC = 0.04974$$

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	163.90	0.0000	P	28.2
2	☐	0.500					
3	☐	5.000	1.904	7580.10	0.0017	P	1.1
4	☐	50.000	49.418	190615.64	0.0434	P	1.0
5	☐	125.000	124.936	485965.09	0.1096	P	1.4
6	☐	250.000	249.630	963857.58	0.2189	P	0.1
7	☐	500.000	502.632	1964490.41	0.4408	P	0.2
8	☐	1000.000	998.829	3887967.19	0.8759	P	1.2
9	☐			3978.50	0.0009	P	3.3

$$y = 8.7686\text{E-}004 * x + 3.7481\text{E-}005$$

$$R = 1.0000$$

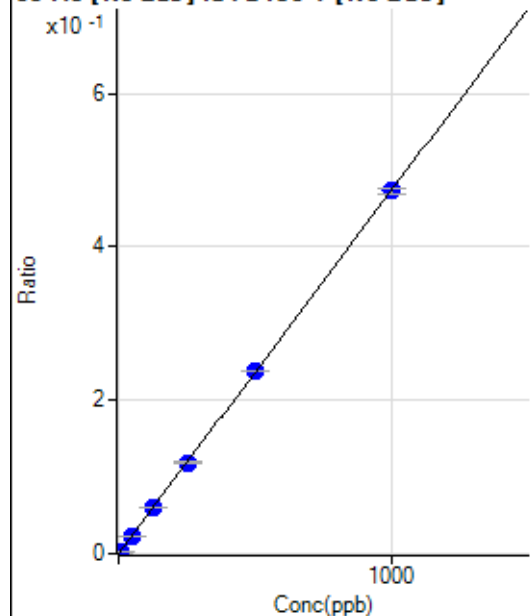
$$DL = 0.03617$$

$$BEC = 0.04275$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.67	0.0000	P	34.4
2	☐	0.500					
3	☐	5.000	4.525	9556.38	0.0022	P	0.9
4	☐	50.000	49.492	103062.78	0.0234	P	0.9
5	☐	125.000	125.511	263660.58	0.0595	P	0.7
6	☐	250.000	250.908	523213.86	0.1188	P	0.4
7	☐	500.000	502.310	1060326.96	0.2379	P	0.7
8	☐	1000.000	998.582	2099351.63	0.4729	P	1.9
9	☐			5395.70	0.0013	P	5.7

$$y = 4.7361\text{E-}004 * x + 9.5178\text{E-}006$$

$$R = 1.0000$$

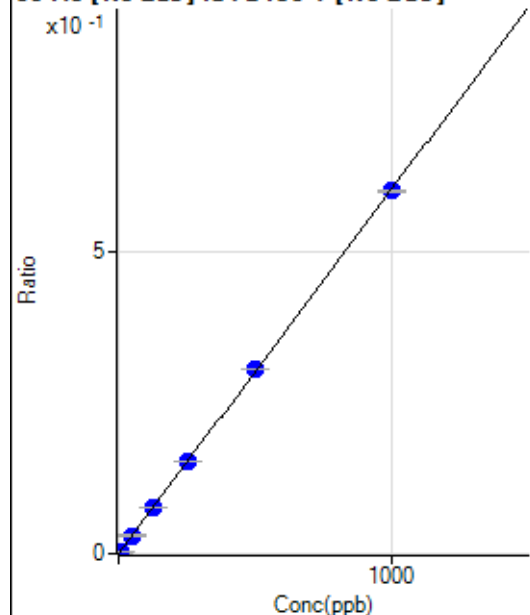
$$DL = 0.02074$$

$$BEC = 0.0201$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0000	P	7.1
2	☐	0.500					
3	☐	5.000	3.923	10623.84	0.0024	P	4.2
4	☐	50.000	50.059	132837.81	0.0302	P	1.0
5	☐	125.000	125.659	336287.88	0.0758	P	0.4
6	☐	250.000	253.598	673631.20	0.1530	P	0.7
7	☐	500.000	506.127	1360882.03	0.3053	P	0.7
8	☐	1000.000	995.957	2667086.24	0.6008	P	0.3
9	☐			7443.93	0.0017	P	3.8

$$y = 6.0324\text{E-}004 * x + 2.6671\text{E-}005$$

$$R = 1.0000$$

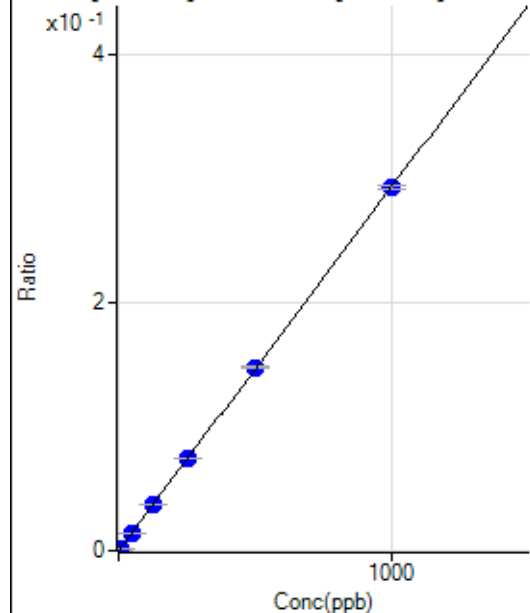
$$DL = 0.009382$$

$$BEC = 0.04421$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.67	0.0000	P	15.2
2	☐	0.500					
3	☐	5.000	4.330	5731.94	0.0013	P	2.6
4	☐	50.000	49.672	64134.24	0.0146	P	1.6
5	☐	125.000	125.141	162895.12	0.0367	P	0.6
6	☐	250.000	252.789	326593.79	0.0742	P	0.6
7	☐	500.000	503.474	658371.22	0.1477	P	0.9
8	☐	1000.000	997.568	1299112.36	0.2927	P	1.2
9	☐			3492.22	0.0008	P	8.6

$$y = 2.9336\text{E-}004 * x + 2.0946\text{E-}005$$

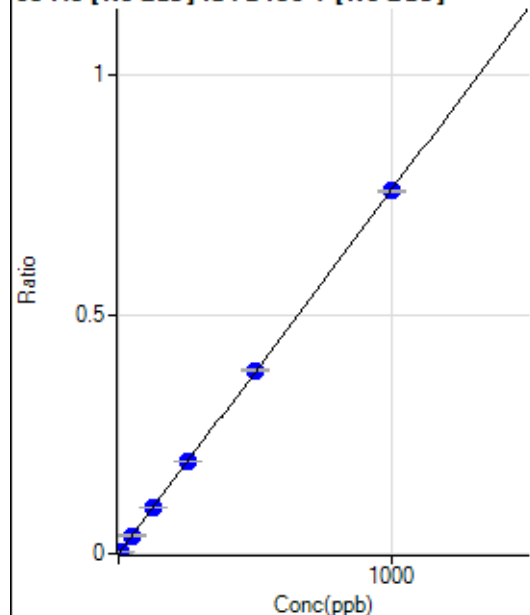
$$R = 1.0000$$

$$DL = 0.03259$$

$$BEC = 0.0714$$

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	66.67	0.0000	P	45.2
2	☐	0.500					
3	☐	5.000	4.470	15161.38	0.0034	P	3.3
4	☐	50.000	50.122	167619.92	0.0381	P	0.5
5	☐	125.000	124.862	421234.73	0.0950	P	0.2
6	☐	250.000	252.523	845679.20	0.1921	P	0.4
7	☐	500.000	503.179	1705817.85	0.3827	P	0.9
8	☐	1000.000	997.793	3368899.68	0.7589	P	0.6
9	☐			8908.69	0.0021	P	3.7

$$y = 7.6061\text{E-}004 * x + 1.5243\text{E-}005$$

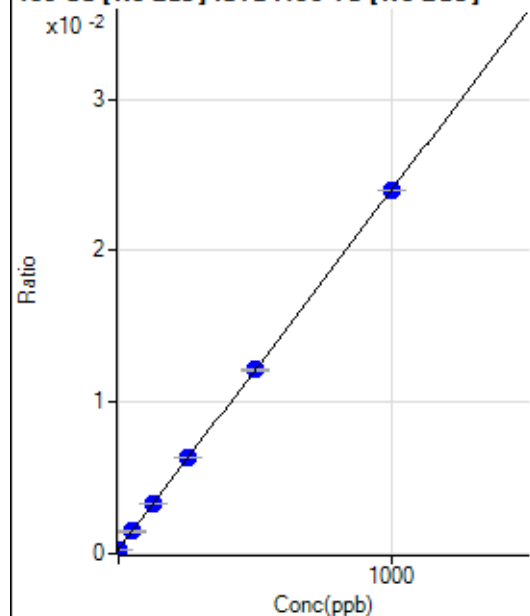
$$R = 1.0000$$

$$DL = 0.02716$$

$$BEC = 0.02004$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1477.92	0.0003	P	11.0
2	☐	0.100					
3	☐	1.000	0.459	1555.71	0.0003	P	3.8
4	☐	50.000	49.704	7702.44	0.0015	P	3.6
5	☐	125.000	127.810	17720.05	0.0033	P	2.1
6	☐	250.000	254.155	33315.24	0.0063	P	0.3
7	☐	500.000	501.116	65321.09	0.0122	P	1.3
8	☐	1000.000	998.067	127740.06	0.0240	P	0.1
9	☐			1416.80	0.0003	P	5.6

$$y = 2.3721\text{E-}005 * x + 2.8160\text{E-}004$$

$$R = 1.0000$$

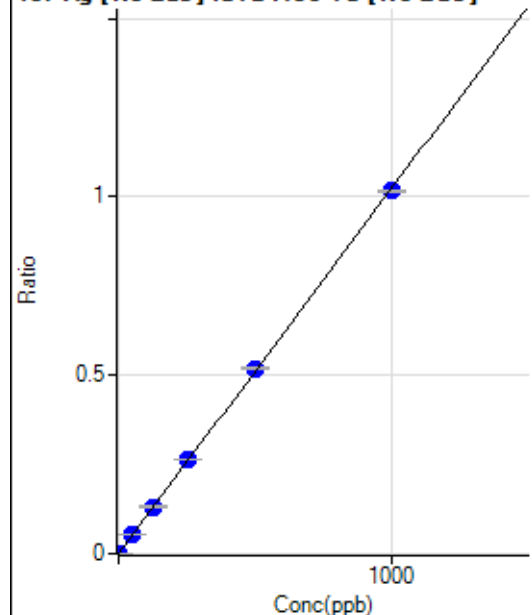
$$DL = 3.914$$

$$BEC = 11.87$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.67	0.0000	P	39.8
2	☐	0.100					
3	☐	1.000	0.967	5306.78	0.0010	P	6.8
4	☐	50.000	51.797	279594.22	0.0530	P	1.2
5	☐	125.000	128.893	705391.36	0.1319	P	0.8
6	☐	250.000	258.901	1398836.25	0.2650	P	1.4
7	☐	500.000	506.995	2785320.09	0.5189	P	1.1
8	☐	1000.000	993.701	5422463.31	1.0170	P	0.6
9	☐			1111.21	0.0002	P	14.8

$$y = 0.0010 * x + 7.9338E-006$$

$$R = 0.9999$$

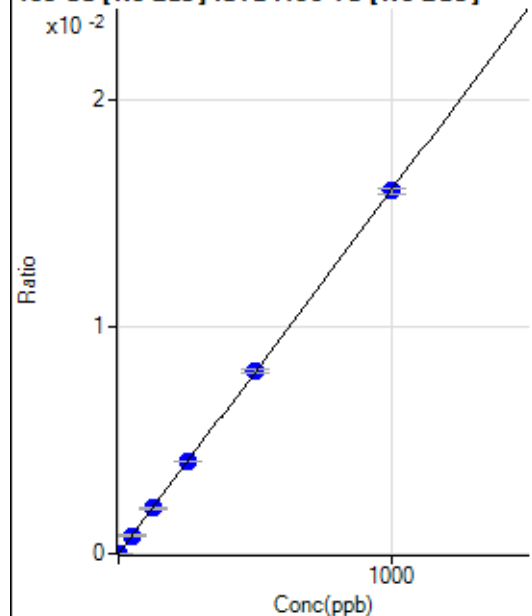
$$DL = 0.009255$$

$$BEC = 0.007752$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.89	0.0000	P	46.1
2	☐	0.100					
3	☐	1.000	0.748	77.78	0.0000	P	18.3
4	☐	50.000	49.846	4220.17	0.0008	P	1.0
5	☐	125.000	125.705	10768.17	0.0020	P	3.4
6	☐	250.000	253.223	21402.52	0.0041	P	0.6
7	☐	500.000	502.473	43168.68	0.0080	P	1.1
8	☐	1000.000	997.878	85144.63	0.0160	P	1.3
9	☐			22.22	0.0000	P	60.5

$$y = 1.5999E-005 * x + 2.6477E-006$$

$$R = 1.0000$$

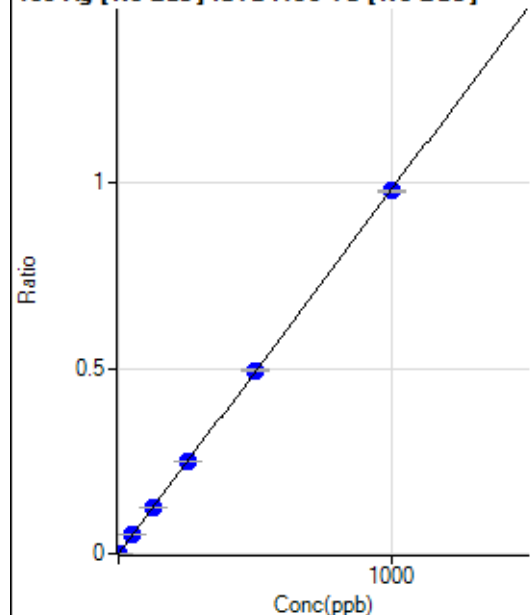
$$DL = 0.2289$$

$$BEC = 0.1655$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	35.5
2	☐	0.100					
3	☐	1.000	0.908	4784.33	0.0009	P	2.6
4	☐	50.000	51.284	265855.33	0.0504	P	1.0
5	☐	125.000	127.149	668282.64	0.1250	P	0.7
6	☐	250.000	255.292	1324731.77	0.2509	P	0.1
7	☐	500.000	503.813	2658166.25	0.4952	P	1.3
8	☐	1000.000	996.438	5221962.83	0.9794	P	0.6
9	☐			972.31	0.0002	P	18.3

$$y = 9.8286E-004 * x + 6.8838E-006$$

$$R = 1.0000$$

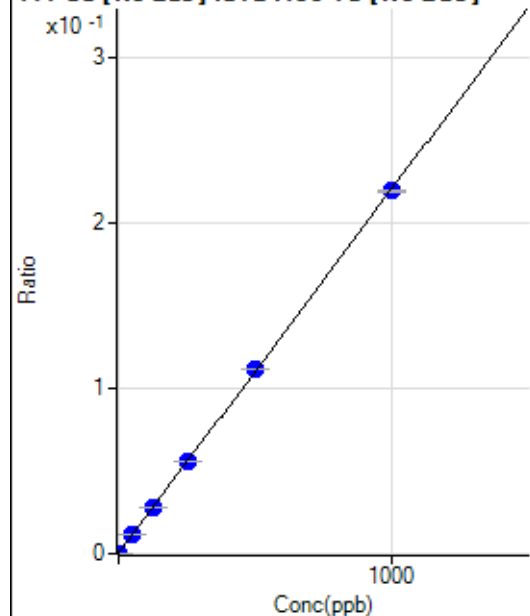
$$DL = 0.007463$$

$$BEC = 0.007004$$

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	1047.04	0.0002	P	10.7
2	☐	0.100					
3	☐	1.000	0.896	2112.39	0.0004	P	6.2
4	☐	50.000	50.673	59987.86	0.0114	P	0.1
5	☐	125.000	126.311	150019.38	0.0281	P	0.5
6	☐	250.000	253.881	296634.35	0.0562	P	0.4
7	☐	500.000	506.230	600366.64	0.1118	P	0.7
8	☐	1000.000	995.717	1171881.97	0.2198	P	0.4
9	☐			1098.43	0.0002	P	2.6

$$y = 2.2053E-004 * x + 1.9950E-004$$

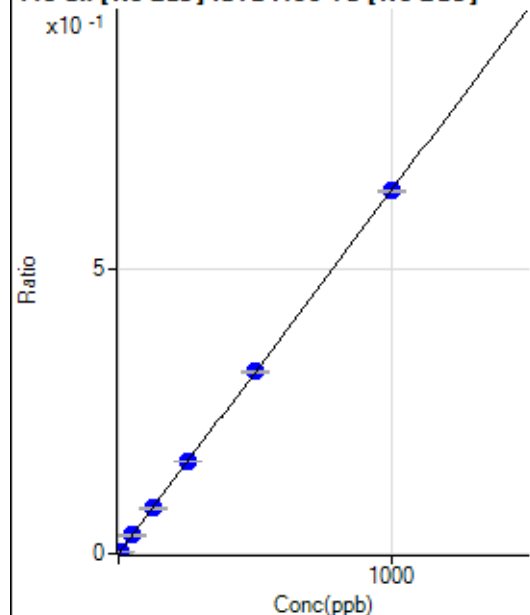
$$R = 1.0000$$

$$DL = 0.2891$$

$$BEC = 0.9047$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD :159 Tb [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	455.64	0.0001	P	18.3
2	☐	0.500					
3	☐	5.000	4.588	16006.82	0.0030	P	5.5
4	☐	50.000	50.465	170033.91	0.0322	P	1.5
5	☐	125.000	124.836	425831.36	0.0796	P	1.1
6	☐	250.000	253.929	854630.70	0.1619	P	1.0
7	☐	500.000	501.012	1714125.04	0.3193	P	0.9
8	☐	1000.000	998.511	3392761.97	0.6363	P	0.6
9	☐			4314.75	0.0008	P	2.3

$$y = 6.3717\text{E-}004 * x + 8.6816\text{E-}005$$

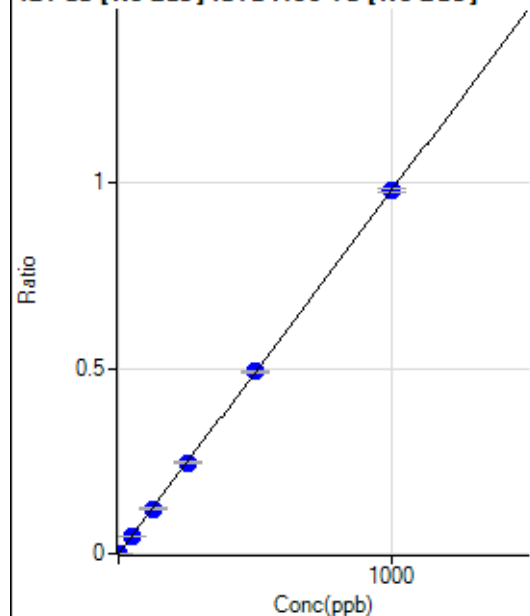
$$R = 1.0000$$

$$DL = 0.07501$$

$$BEC = 0.1363$$

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	172.23	0.0000	P	13.9
2	☐	0.200					
3	☐	2.000	1.797	9528.66	0.0018	P	4.5
4	☐	50.000	48.578	250876.94	0.0476	P	1.8
5	☐	125.000	123.809	648060.80	0.1212	P	1.3
6	☐	250.000	250.640	1295147.11	0.2453	P	1.0
7	☐	500.000	500.784	2631110.99	0.4901	P	0.8
8	☐	1000.000	999.668	5216586.40	0.9784	P	1.0
9	☐			13721.19	0.0027	P	4.5

$$y = 9.7867\text{E-}004 * x + 3.2812\text{E-}005$$

$$R = 1.0000$$

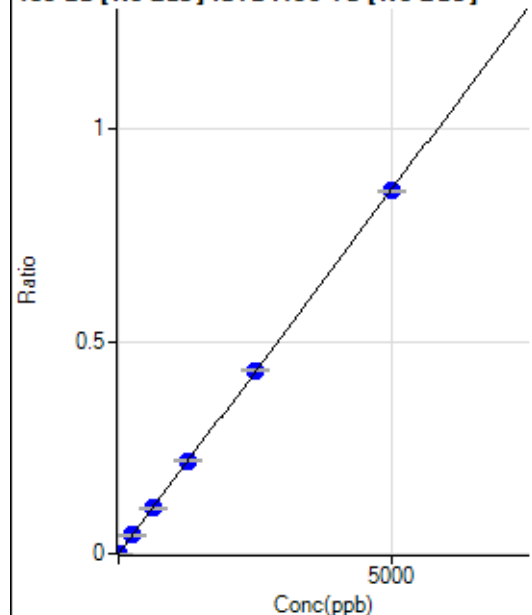
$$DL = 0.01396$$

$$BEC = 0.03353$$

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	58.34	0.0000	P	28.8
2	☐	1.000					
3	☐	10.000	9.214	8464.10	0.0016	P	2.9
4	☐	250.000	251.130	227107.33	0.0431	P	1.9
5	☐	625.000	623.054	571254.67	0.1068	P	0.8
6	☐	1250.000	1274.377	1153591.22	0.2185	P	1.3
7	☐	2500.000	2520.282	2319584.15	0.4321	P	1.3
8	☐	5000.000	4983.953	4556284.52	0.8545	P	0.4
9	☐			1586.27	0.0003	P	7.3

$$y = 1.7145\text{E-}004 * x + 1.1119\text{E-}005$$

$$R = 1.0000$$

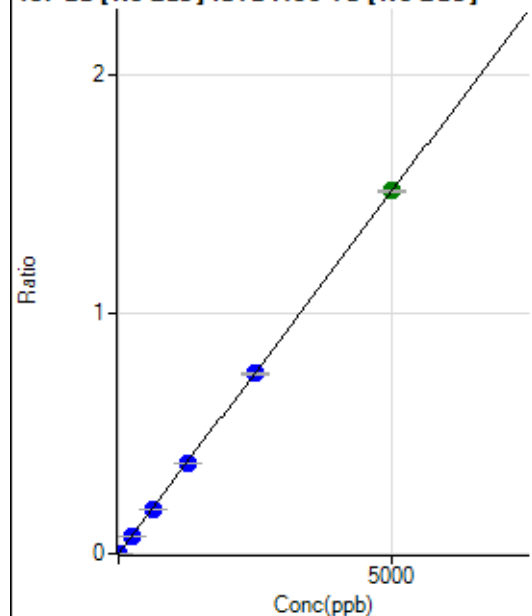
$$DL = 0.05602$$

$$BEC = 0.06485$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119.45	0.0000	P	3.9
2	☐	1.000					
3	☐	10.000	8.897	14424.77	0.0027	P	0.8
4	☐	250.000	247.369	394385.72	0.0748	P	0.6
5	☐	625.000	617.966	998726.60	0.1868	P	1.3
6	☐	1250.000	1244.884	1986393.71	0.3762	P	0.4
7	☐	2500.000	2486.293	4033924.70	0.7514	P	0.7
8	☐	5000.000	5009.145	8072054.17	1.5139	A	0.3
9	☐			2889.33	0.0006	P	7.8

$$y = 3.0222\text{E-}004 * x + 2.2758\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.008701$$

$$BEC = 0.0753$$

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	☐						
3	☐			2.22		P	173.
4	☐			20.00		P	66.7
5	☐			33.33		P	52.9
6	☐			53.34		P	37.5
7	☐			155.56		P	17.8
8	☐			233.35		P	9.9
9	☐			44.45		P	60.6

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			0.00		P	
4	☐			2.22		P	86.6
5	☐			1.11		P	173.
6	☐			6.67		P	0.0
7	☐			11.11		P	17.3
8	☐			20.00		P	44.1
9	☐			11.11		P	34.6

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	41.7
2	☐						
3	☐			63.89		P	32.8
4	☐			91.67		P	9.1
5	☐			25.00		P	0.0
6	☐			69.45		P	38.6
7	☐			75.00		P	19.2
8	☐			105.56		P	32.9
9	☐			63.89		P	27.2

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	173.
2	☐						
3	☐			3.33		P	173.
4	☐			7.78		P	107.
5	☐			20.00		P	44.1
6	☐			18.89		P	36.7
7	☐			34.44		P	29.6
8	☐			50.00		P	29.1
9	☐			24.44		P	31.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	68.9
2	☐						
3	☐			61.11		P	55.1
4	☐			80.56		P	51.0
5	☐			33.33		P	50.0
6	☐			61.11		P	47.9
7	☐			86.12		P	39.1
8	☐			72.23		P	35.3
9	☐			83.34		P	17.3

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			48.89		P	43.3
2	☐						
3	☐			56.67		P	25.6
4	☐			50.00		P	40.0
5	☐			40.00		P	38.2
6	☐			67.78		P	24.8
7	☐			46.67		P	21.4
8	☐			81.11		P	15.6
9	☐			57.78		P	18.5

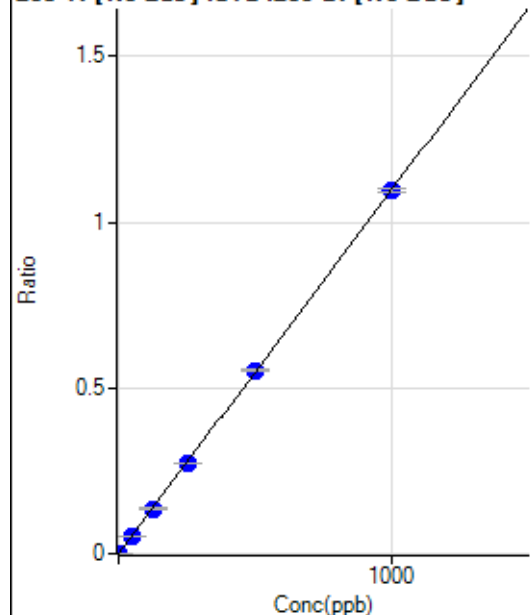
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	33.3
2	☐						
3	☐			19.45		P	24.7
4	☐			22.22		P	57.3
5	☐			8.33		P	100.
6	☐			27.78		P	62.5
7	☐			22.22		P	78.1
8	☐			30.56		P	63.0
9	☐			38.89		P	81.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			11.11		P	17.3
4	☐			17.78		P	28.6
5	☐			16.67		P	20.0
6	☐			14.44		P	35.3
7	☐			14.44		P	70.5
8	☐			15.56		P	53.9
9	☐			18.89		P	10.2

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.22	0.0000	P	29.8
2	☐	0.100					
3	☐	1.000	0.896	3350.57	0.0010	P	2.8
4	☐	50.000	49.952	180155.46	0.0548	P	0.9
5	☐	125.000	124.096	452146.03	0.1360	P	1.7
6	☐	250.000	248.812	898582.92	0.2728	P	0.4
7	☐	500.000	504.981	1817032.88	0.5535	P	0.8
8	☐	1000.000	997.922	3550531.16	1.0939	P	0.9
9	☐			1527.93	0.0005	P	12.2

$$y = 0.0011 * x + 2.2015E-005$$

$$R = 1.0000$$

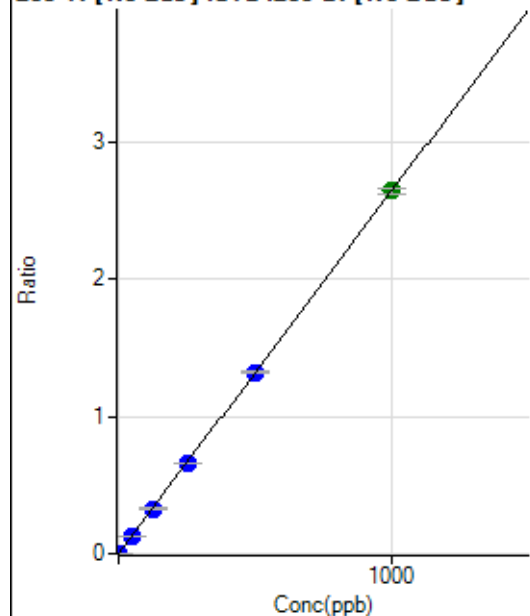
$$DL = 0.01795$$

$$BEC = 0.02008$$

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	127.79	0.0000	P	29.9
2	☐	0.100					
3	☐	1.000	0.872	7813.76	0.0023	P	1.2
4	☐	50.000	49.503	430313.22	0.1308	P	0.2
5	☐	125.000	124.282	1091430.99	0.3284	P	0.8
6	☐	250.000	248.327	2161689.83	0.6561	P	0.3
7	☐	500.000	499.675	4333637.99	1.3202	P	0.7
8	☐	1000.000	1000.695	8581882.74	2.6439	A	1.4
9	☐			3950.77	0.0013	P	12.3

$$y = 0.0026 * x + 3.8913E-005$$

$$R = 1.0000$$

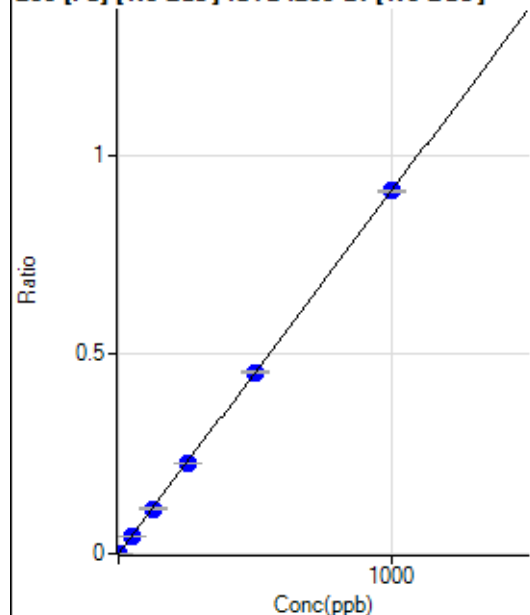
$$DL = 0.0132$$

$$BEC = 0.01473$$

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	355.57	0.0001	P	3.4
2	☐	0.100					
3	☐	1.000	0.912	3130.10	0.0009	P	1.7
4	☐	50.000	49.776	149473.92	0.0454	P	0.8
5	☐	125.000	124.256	376499.08	0.1133	P	0.4
6	☐	250.000	248.781	746864.27	0.2267	P	0.3
7	☐	500.000	500.720	1497365.82	0.4562	P	1.0
8	☐	1000.000	1000.049	2956880.22	0.9110	P	0.3
9	☐			3574.68	0.0012	P	3.9

$$y = 9.1080\text{E-}004 * x + 1.0818\text{E-}004$$

$$R = 1.0000$$

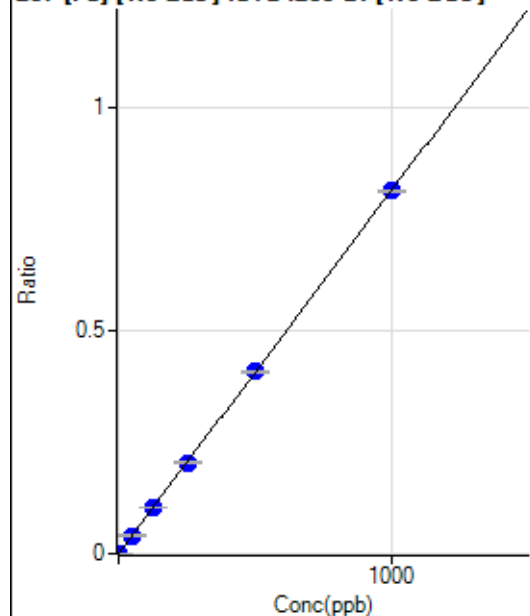
$$DL = 0.01214$$

$$BEC = 0.1188$$

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	340.76	0.0001	P	8.5
2	☐	0.100					
3	☐	1.000	0.907	2811.50	0.0008	P	8.7
4	☐	50.000	49.971	134227.97	0.0408	P	0.9
5	☐	125.000	125.032	338847.00	0.1020	P	0.4
6	☐	250.000	249.549	669976.22	0.2034	P	1.6
7	☐	500.000	501.841	1342175.40	0.4089	P	1.0
8	☐	1000.000	999.190	2642273.90	0.8140	P	0.3
9	☐			3126.39	0.0010	P	3.0

$$y = 8.1457\text{E-}004 * x + 1.0374\text{E-}004$$

$$R = 1.0000$$

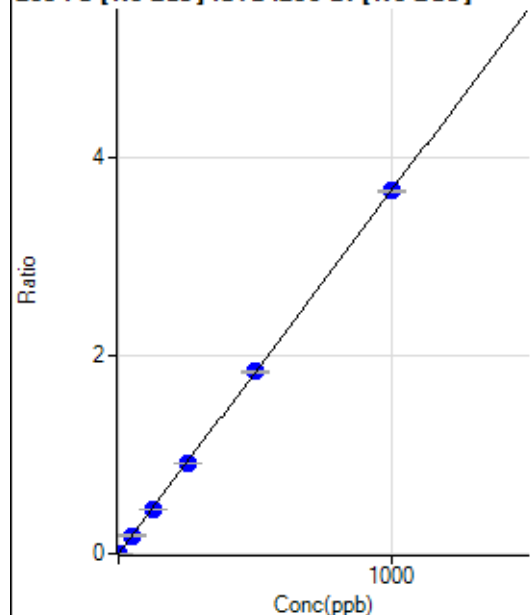
$$DL = 0.03255$$

$$BEC = 0.1274$$

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	1537.13	0.0005	P	1.1
2	☐	0.100					
3	☐	1.000	0.911	12719.46	0.0038	P	3.2
4	☐	50.000	49.984	605561.23	0.1841	P	1.0
5	☐	125.000	124.091	1516805.63	0.4564	P	0.2
6	☐	250.000	249.771	3024724.37	0.9181	P	0.6
7	☐	500.000	501.515	6049839.53	1.8430	P	0.5
8	☐	1000.000	999.414	11919843.84	3.6723	P	0.4
9	☐			14435.03	0.0048	P	3.1

$$y = 0.0037 * x + 4.6777E-004$$

$$R = 1.0000$$

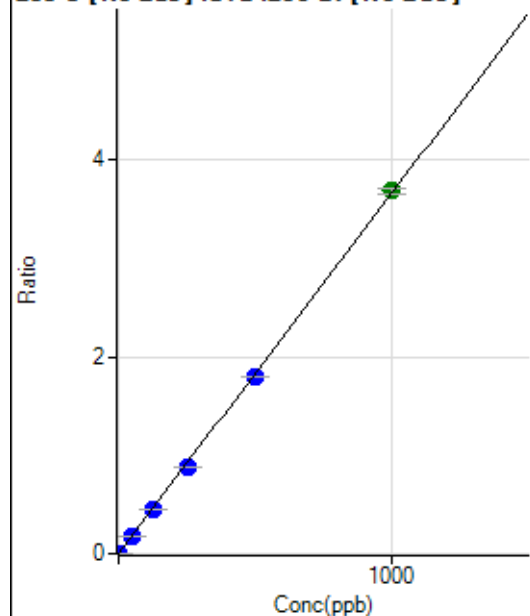
$$DL = 0.004146$$

$$BEC = 0.1273$$

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	25.00	0.0000	P	67.2
2	☐	0.100					
3	☐	1.000	0.848	10371.27	0.0031	P	3.1
4	☐	50.000	48.121	579024.22	0.1760	P	0.1
5	☐	125.000	120.265	1462287.32	0.4400	P	0.2
6	☐	250.000	241.890	2915292.08	0.8849	P	0.4
7	☐	500.000	491.385	5900638.28	1.7976	P	0.8
8	☐	1000.000	1007.021	11957123.10	3.6839	A	1.6
9	☐			1608.52	0.0005	P	18.9

$$y = 0.0037 * x + 7.6175E-006$$

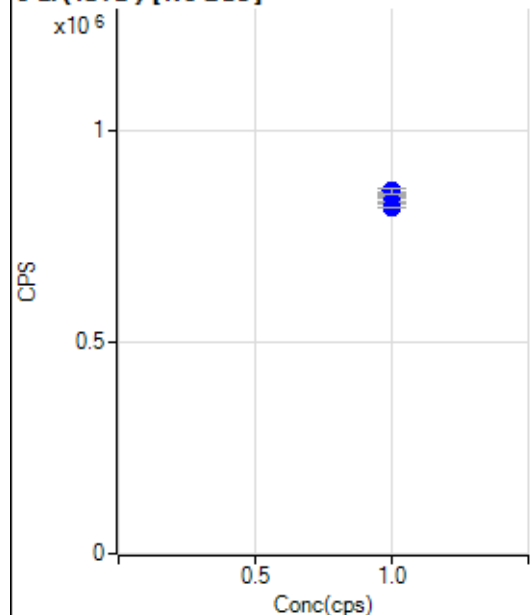
$$R = 0.9999$$

$$DL = 0.004198$$

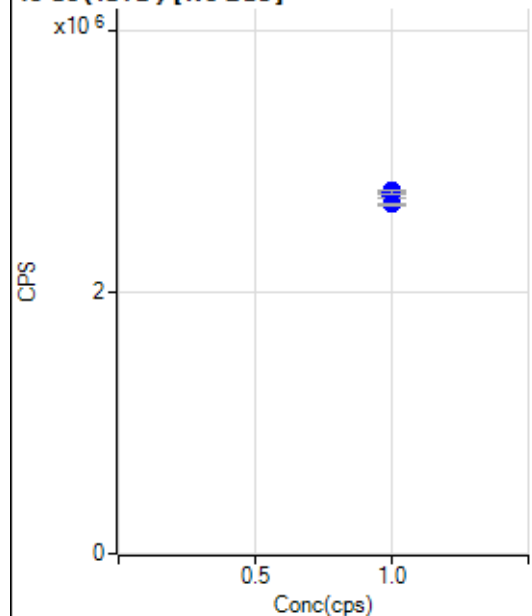
$$BEC = 0.002082$$

Weight: <None>

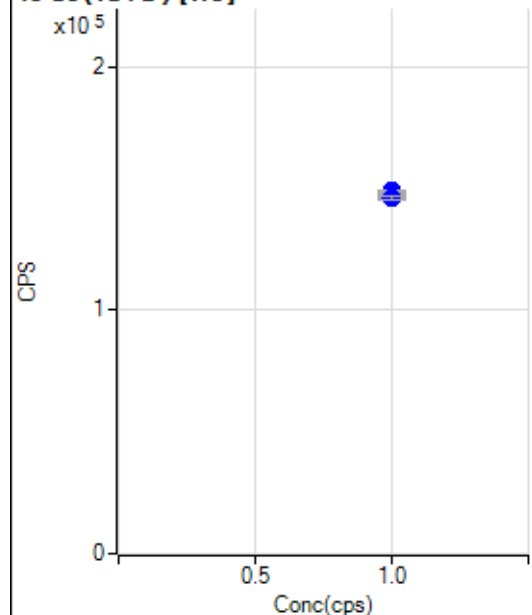
Min Conc: 0

6 Li (ISTD) [No Gas]

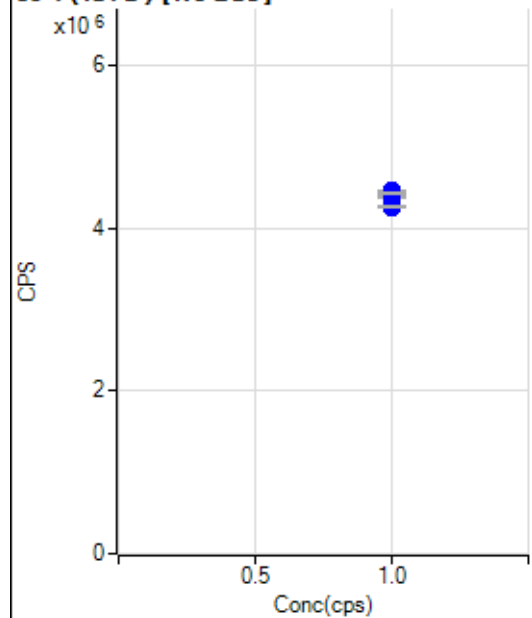
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		829012.81		P	0.5
2	☐	1.000					
3	☐	1.000		848870.29		P	0.6
4	☐	1.000		844883.25		P	0.5
5	☐	1.000		855317.41		P	0.1
6	☐	1.000		849223.74		P	0.6
7	☐	1.000		858417.83		P	1.3
8	☐	1.000		829228.53		P	0.6
9	☐	1.000		820660.77		P	0.0

45 Sc (ISTD) [No Gas]

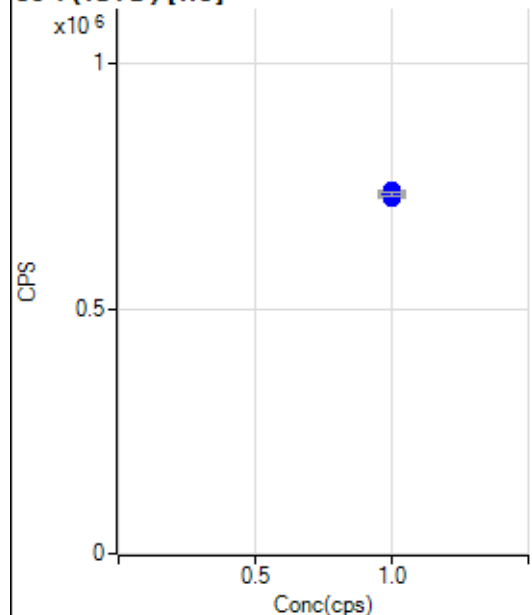
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2719694.57		P	0.2
2	☐	1.000					
3	☐	1.000		2763293.96		P	0.7
4	☐	1.000		2736121.02		P	0.8
5	☐	1.000		2761438.54		P	0.9
6	☐	1.000		2739723.30		P	1.3
7	☐	1.000		2775703.34		P	0.0
8	☐	1.000		2766194.05		P	0.6
9	☐	1.000		2674416.99		P	0.6

45 Sc (ISTD) [He]

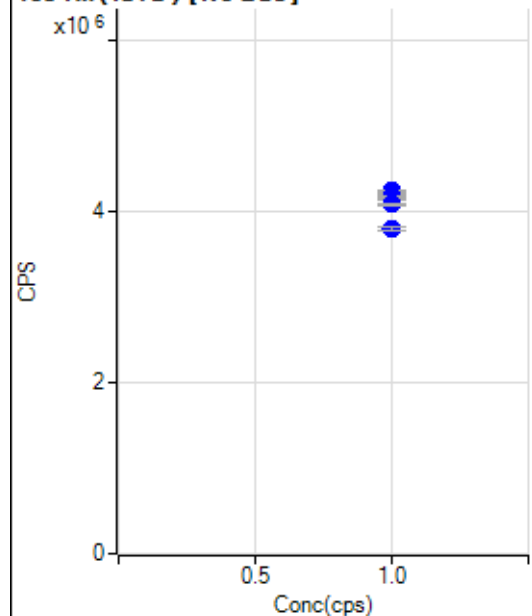
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		147052.69		P	0.3
2	☐	1.000					
3	☐	1.000		147679.53		P	0.1
4	☐	1.000		147906.35		P	0.5
5	☐	1.000		146990.13		P	1.6
6	☐	1.000		146454.02		P	0.5
7	☐	1.000		146812.95		P	0.8
8	☐	1.000		149127.31		P	0.6
9	☐	1.000		146464.50		P	1.1

89 Y (ISTD) [No Gas]

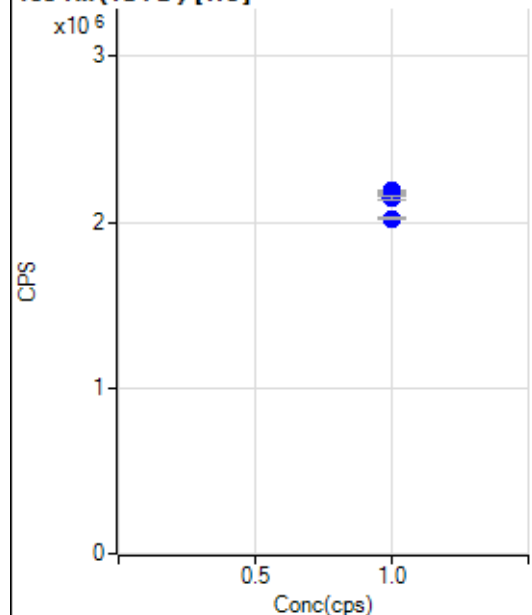
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4374408.65		P	0.5
2	☐	1.000					
3	☐	1.000		4439714.41		P	0.1
4	☐	1.000		4395030.56		P	0.3
5	☐	1.000		4434708.16		P	0.7
6	☐	1.000		4402651.36		P	0.6
7	☐	1.000		4456921.67		P	0.3
8	☐	1.000		4439006.25		P	0.6
9	☐	1.000		4259784.56		P	0.5

89 Y(ISTD) [He]

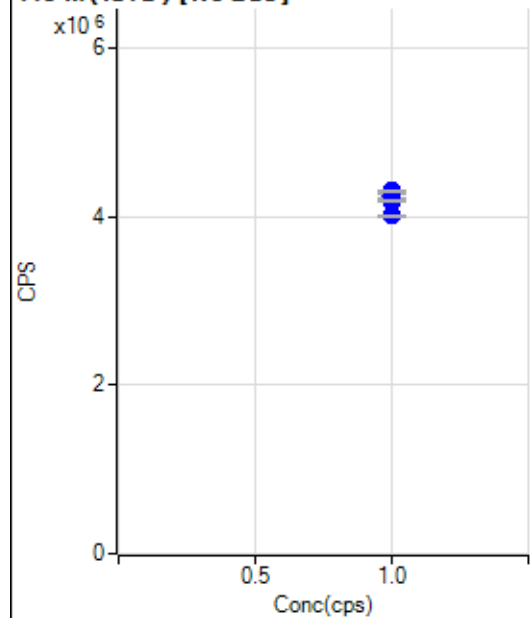
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		726782.01		P	0.6
2	☐	1.000					
3	☐	1.000		727599.47		P	0.3
4	☐	1.000		735561.20		P	0.4
5	☐	1.000		733483.90		P	0.6
6	☐	1.000		733116.22		P	0.5
7	☐	1.000		737197.62		P	0.2
8	☐	1.000		740003.15		P	0.8
9	☐	1.000		733756.01		P	0.8

103 Rh(ISTD) [No Gas]

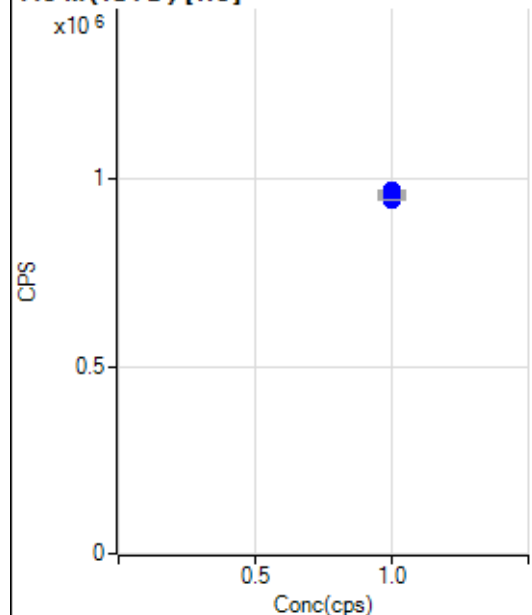
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4196404.74		P	0.5
2	☐	1.000					
3	☐	1.000		4235627.87		P	0.4
4	☐	1.000		4157373.75		P	1.0
5	☐	1.000		4166675.53		P	0.9
6	☐	1.000		4137828.74		P	0.4
7	☐	1.000		4165014.51		P	0.2
8	☐	1.000		4076315.33		P	0.2
9	☐	1.000		3798412.02		P	0.9

103 Rh (ISTD) [He]

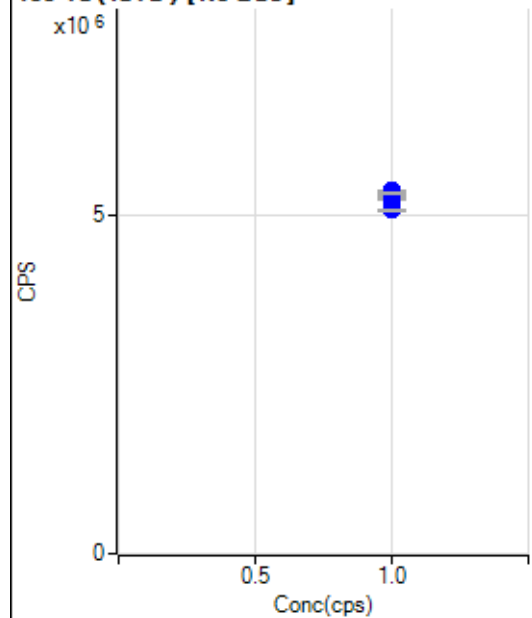
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2176682.85		P	0.5
2	☐	1.000					
3	☐	1.000		2186306.48		P	0.2
4	☐	1.000		2188097.93		P	0.4
5	☐	1.000		2176595.56		P	0.7
6	☐	1.000		2177043.23		P	0.7
7	☐	1.000		2167233.62		P	0.1
8	☐	1.000		2142969.84		P	1.1
9	☐	1.000		2023371.25		P	0.4

115 In (ISTD) [No Gas]

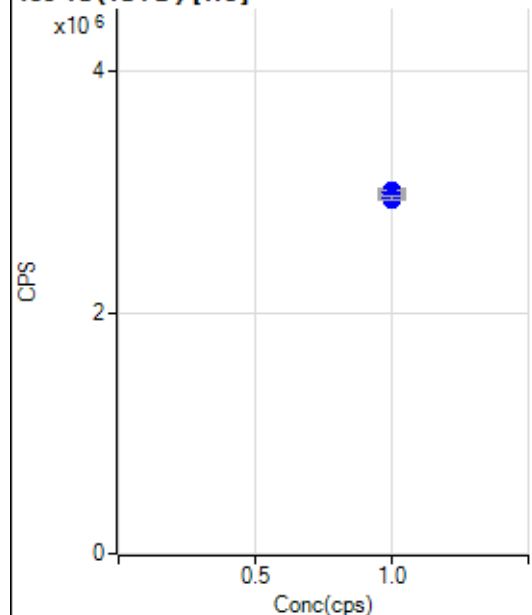
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4275399.13		P	0.4
2	☐	1.000					
3	☐	1.000		4311901.01		P	0.7
4	☐	1.000		4283733.34		P	0.7
5	☐	1.000		4302549.97		P	1.0
6	☐	1.000		4257772.84		P	1.2
7	☐	1.000		4308178.74		P	0.2
8	☐	1.000		4190547.21		P	0.2
9	☐	1.000		4015343.03		P	0.4

115 In (ISTD) [He]

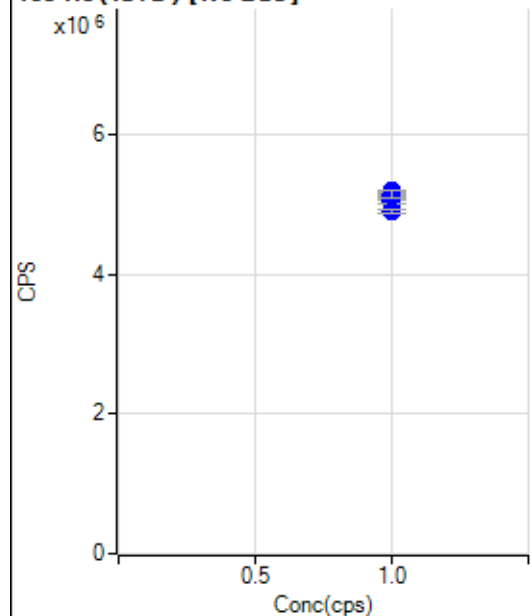
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		959667.31		P	0.3
2	☐	1.000					
3	☐	1.000		967709.66		P	0.4
4	☐	1.000		963330.39		P	0.7
5	☐	1.000		956399.60		P	0.5
6	☐	1.000		958178.56		P	0.9
7	☐	1.000		957723.03		P	0.4
8	☐	1.000		946477.49		P	0.7
9	☐	1.000		941890.16		P	0.1

159 Tb (ISTD) [No Gas]

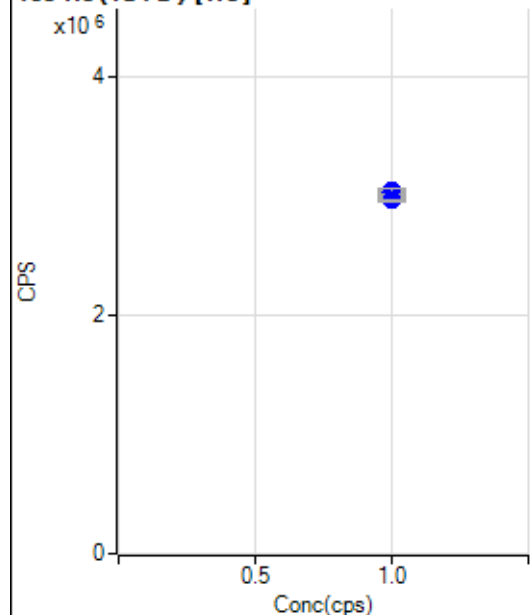
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5248594.99		P	0.3
2	☐	1.000					
3	☐	1.000		5319744.30		P	1.0
4	☐	1.000		5273986.03		P	1.0
5	☐	1.000		5347556.79		P	1.2
6	☐	1.000		5279421.66		P	0.4
7	☐	1.000		5368353.39		P	0.7
8	☐	1.000		5332094.85		P	0.6
9	☐	1.000		5087606.42		P	0.6

159 Tb (ISTD) [He]

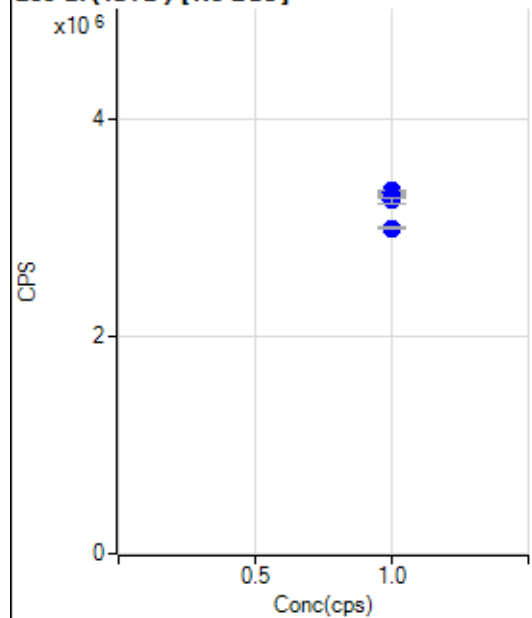
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2938010.55		P	0.6
2	☐	1.000					
3	☐	1.000		2959525.72		P	0.4
4	☐	1.000		2980449.75		P	1.0
5	☐	1.000		2991894.57		P	0.9
6	☐	1.000		2995980.20		P	0.6
7	☐	1.000		3010752.28		P	0.9
8	☐	1.000		2998806.83		P	1.6
9	☐	1.000		2947381.48		P	1.0

165 Ho (ISTD) [No Gas]

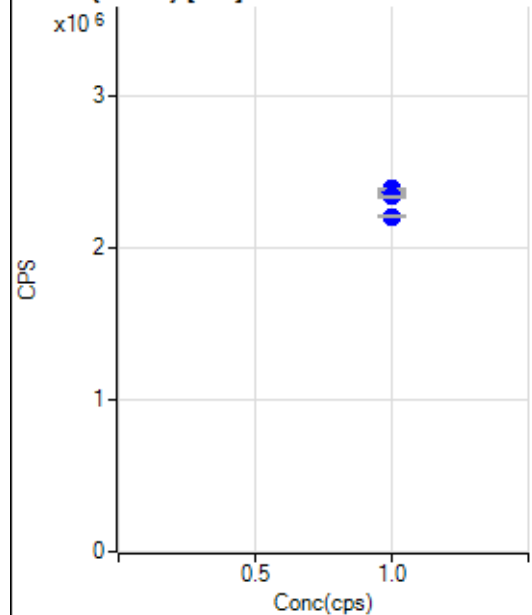
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5028839.13		P	1.1
2	☐	1.000					
3	☐	1.000		5093648.16		P	0.9
4	☐	1.000		5057603.67		P	1.4
5	☐	1.000		5158930.71		P	0.8
6	☐	1.000		5115507.36		P	0.8
7	☐	1.000		5194139.18		P	0.9
8	☐	1.000		5152177.68		P	1.8
9	☐	1.000		4900158.09		P	0.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2988738.08		P	0.5
2	☐	1.000					
3	☐	1.000		2982246.59		P	0.8
4	☐	1.000		3018096.10		P	0.4
5	☐	1.000		3022674.57		P	1.2
6	☐	1.000		3031728.43		P	0.4
7	☐	1.000		3047481.31		P	0.7
8	☐	1.000		3041633.19		P	1.3
9	☐	1.000		2964161.35		P	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3286228.67		P	0.9
2	☐	1.000					
3	☐	1.000		3335624.67		P	0.6
4	☐	1.000		3289086.86		P	0.9
5	☐	1.000		3323641.34		P	0.9
6	☐	1.000		3294583.25		P	1.0
7	☐	1.000		3282607.07		P	0.5
8	☐	1.000		3245990.30		P	1.3
9	☐	1.000		2994269.19		P	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2345374.24		P	0.5
2	☐	1.000					
3	☐	1.000		2361635.97		P	0.3
4	☐	1.000		2384955.21		P	0.6
5	☐	1.000		2377097.03		P	0.7
6	☐	1.000		2370009.81		P	1.3
7	☐	1.000		2380200.57		P	0.3
8	☐	1.000		2336081.91		P	0.7
9	☐	1.000		2203536.41		P	0.6

US EPA Tune Check Sample Report

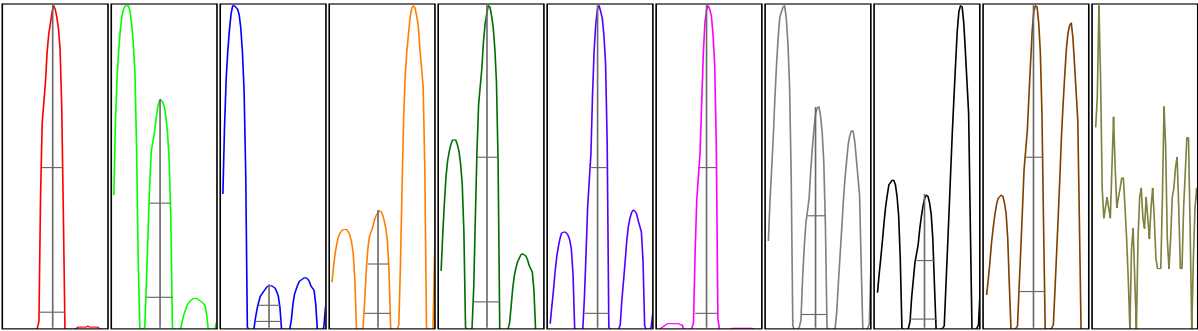
Batch Folder D:\ICP-MS Data\P7101417MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	3670	0.49	5.00	
24	26548	0.79	5.00	
25	3675	1.30	5.00	
26	4453	1.21	5.00	
59	32323	1.04	5.00	
113	11998	0.89	5.00	
115	232193	0.93	5.00	
206	9879	1.72	5.00	
207	8973	1.03	5.00	
208	20932	1.53	5.00	
220	1	19.56		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	3650	3663	3690	3687	3658
24	26270	26429	26604	26608	26831
25	3618	3640	3713	3670	3732
26	4408	4393	4447	4506	4510
59	31884	32194	32249	32517	32773
113	11830	11959	12052	12050	12098
115	229580	230691	233037	235167	232491
206	9621	9836	9984	10067	9888
207	8850	8898	9058	9028	9030
208	20423	20845	21063	21075	21255
220	1	1	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	6364	8.95	8.9 - 9.1		0.739	0.900	
24	45038	23.90	23.9 - 24.1		0.752	0.900	
25	6072	24.90	24.9 - 25.1		0.748	0.900	
26	7182	25.90	25.9 - 26.1		0.758	0.900	
59	56235	58.90	58.9 - 59.1		0.760	0.900	
113	23425	112.95	112.9 - 113.1		0.721	0.900	
115	454745	114.95	114.9 - 115.1		0.691	0.900	
206	18980	205.95	205.9 - 206.1		0.736	0.900	
207	17006	206.95	206.9 - 207.1		0.733	0.900	
208	41146	207.95	207.9 - 208.1		0.739	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	9.5	V	Deflect	14.2	V
Extract 2	-240.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-95	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	9771	0.19	
89	4344	0.97	
205	10600	0.65	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	9759	9779	9759	9758	9801
89	4403	4346	4350	4338	4285
205	10601	10517	10704	10609	10568

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	10.0	V	Deflect	2.8	V
Extract 2	-235.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-100	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			