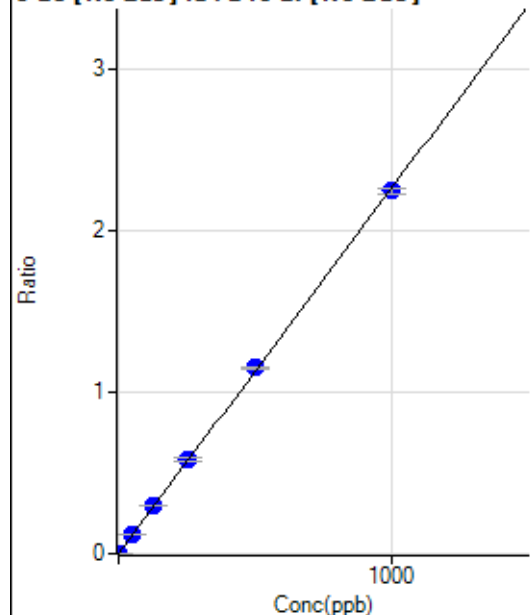


Batch Folder: D:\P8022519-MS.b\
Analysis File: P8022519-MS.batch.bin
DA Date-Time: 2019-02-25 11:08:08
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	005CALB.d	S00	2019-02-25 12:32:15
2			
3	007CALS.d	S02	2019-02-25 12:39:51
4	008CALS.d	S03	2019-02-25 12:43:48
5	009CALS.d	S04	2019-02-25 12:47:46
6	010CALS.d	S05	2019-02-25 12:51:40
7	011CALS.d	S06	2019-02-25 12:55:28
8	012CALS.d	S07	2019-02-25 12:59:13
9	013CALS.d	S08	2019-02-25 13:02:49

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	18.89	0.0001	P	40.5
2	☐	0.100					
3	☐	1.000	0.975	544.46	0.0023	P	6.1
4	☐	50.000	53.443	29551.64	0.1207	P	0.7
5	☐	125.000	131.324	74932.01	0.2966	P	1.9
6	☐	250.000	257.911	150916.19	0.5824	P	2.6
7	☐	500.000	507.935	318150.11	1.1469	P	1.4
8	☐	1000.000	993.092	633916.63	2.2424	P	1.3
9	☐			117.78	0.0004	P	31.1

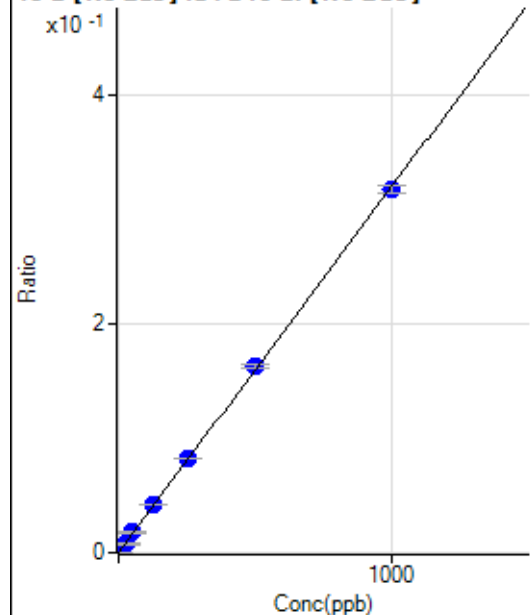
$$y = 0.0023 * x + 8.0337E-005$$

$$R = 0.9999$$

$$DL = 0.0432$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0001	P	57.0
2	☐	2.500					
3	☐	25.000	23.423	1808.52	0.0076	P	5.8
4	☐	50.000	54.973	4320.29	0.0177	P	4.7
5	☐	125.000	130.902	10587.69	0.0419	P	1.4
6	☐	250.000	257.371	21330.52	0.0823	P	1.2
7	☐	500.000	510.837	45283.87	0.1633	P	2.5
8	☐	1000.000	991.792	89577.21	0.3169	P	2.2
9	☐			1864.09	0.0066	P	12.3

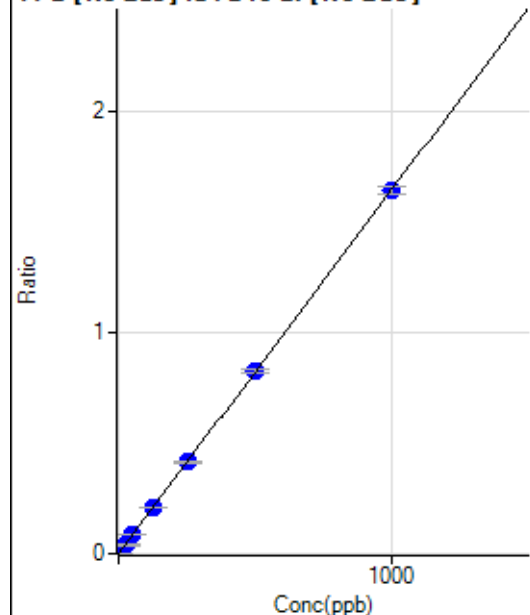
$$y = 3.1941E-004 * x + 9.4447E-005$$

$$R = 0.9999$$

$$DL = 0.5053$$

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	138.89	0.0006	P	20.9
2	☐	2.500					
3	☐	25.000	24.005	9567.47	0.0401	P	5.0
4	☐	50.000	50.672	20543.21	0.0839	P	0.6
5	☐	125.000	128.223	53447.84	0.2115	P	0.9
6	☐	250.000	252.670	107849.19	0.4162	P	2.6
7	☐	500.000	502.431	229401.97	0.8270	P	2.8
8	☐	1000.000	997.705	464087.54	1.6417	P	2.0
9	☐			9456.25	0.0334	P	5.3

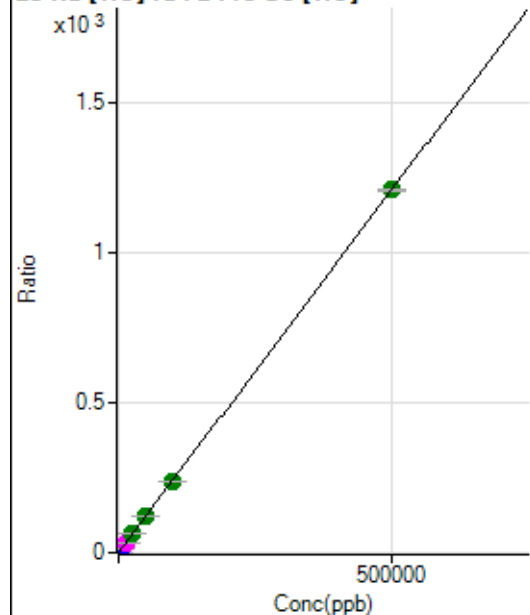
$$y = 0.0016 * x + 5.9126E-004$$

$$R = 1.0000$$

$$DL = 0.225$$

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	9542.52	0.3009	P	2.2
2	☐	50.000					
3	☐	500.000	477.913	47680.85	1.4585	P	1.7
4	☐	5000.000	5139.493	412903.29	12.7498	P	4.0
5	☐	12500.000	12988.932	1040059.93	31.7627	M	2.1
6	☐	25000.000	25861.976	2062635.49	62.9438	A	0.8
7	☐	50000.000	50586.819	4091699.44	122.8323	A	2.4
8	☐	100000.00	98352.801	8004319.80	238.5310	A	1.7
9	☐	500000.00	500214.06	40957285.64	1,211.919	A	0.6

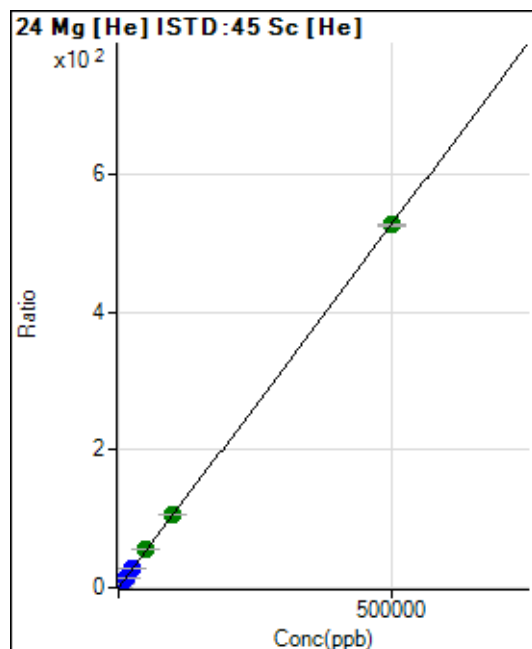
$$y = 0.0024 * x + 0.3009$$

$$R = 1.0000$$

$$DL = 8.215$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	444.47	0.0140	P	10.1
2	☐	50.000					
3	☐	500.000	493.193	17461.38	0.5341	P	1.9
4	☐	5000.000	5088.931	174287.46	5.3808	P	3.2
5	☐	12500.000	12866.454	444754.56	13.5830	P	2.3
6	☐	25000.000	25391.533	877954.20	26.7920	P	1.3
7	☐	50000.000	52275.538	1836911.04	55.1440	A	2.4
8	☐	100000.00	101094.85	3578123.82	106.6291	A	1.6
9	☐	500000.00	499523.85	17803974.70	526.8139	A	0.8

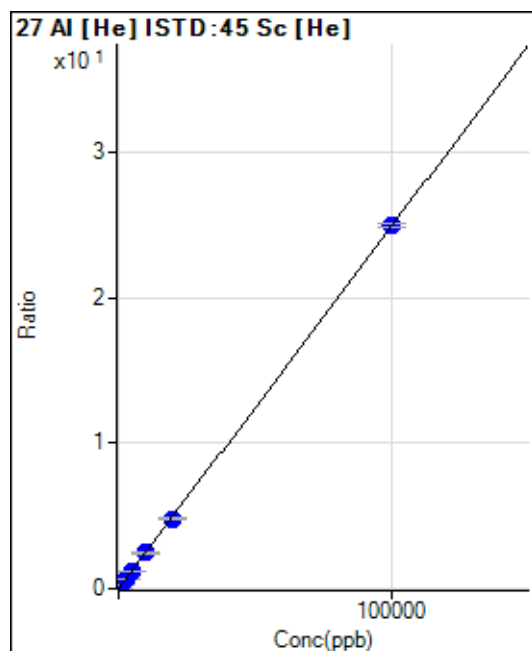
$$y = 0.0011 * x + 0.0140$$

$$R = 1.0000$$

$$DL = 4.039$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	71.69	0.0023	P	11.1
2	☐	2.000					
3	☐	20.000	14.777	194.22	0.0059	P	10.7
4	☐	1000.000	997.902	8126.12	0.2509	P	4.1
5	☐	2500.000	2496.346	20444.93	0.6243	P	1.5
6	☐	5000.000	4961.026	40583.68	1.2385	P	1.3
7	☐	10000.000	9865.110	81965.98	2.4605	P	2.1
8	☐	20000.000	19298.632	161449.76	4.8112	P	1.6
9	☐	100000.00	100155.82	843525.05	24.9599	P	0.9

$$y = 2.4919E-004 * x + 0.0023$$

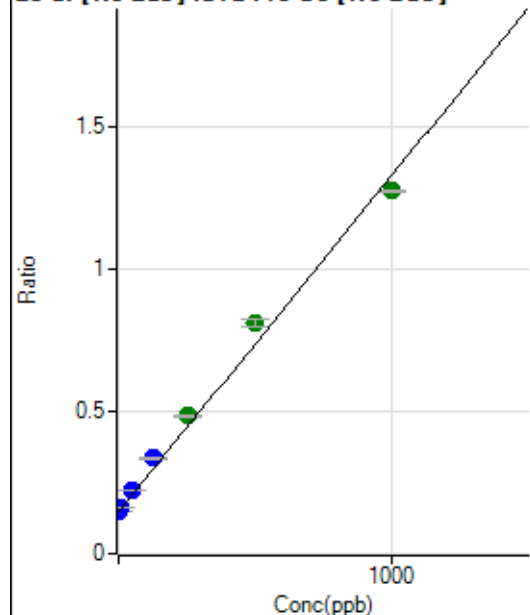
$$R = 1.0000$$

$$DL = 3.032$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	299488.96	0.1469	P	1.4
2	☐	1.000					
3	☐	10.000	12.006	324460.77	0.1610	P	1.0
4	☐	50.000	62.254	449906.95	0.2203	P	0.1
5	☐	125.000	160.533	686431.11	0.3363	P	1.9
6	☐	250.000	285.421	1001565.82	0.4836	A	1.9
7	☐	500.000	562.096	1693282.40	0.8101	A	2.8
8	☐	1000.000	955.022	2713768.88	1.2737	A	0.7
9	☐			452867.74	0.2117	P	1.5

$$y = 0.0012 * x + 0.1469$$

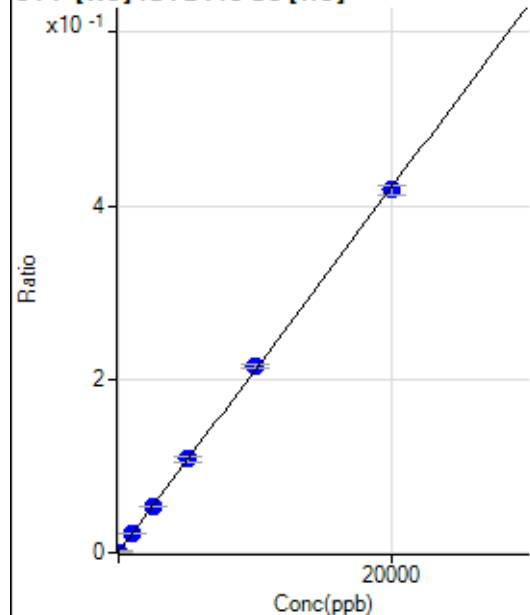
$$R = 0.9959$$

$$DL = 5.332$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-18.077	8.33	0.0003	P	1.0
2	☐	0.000					
3	☐	0.000	18.077	33.33	0.0010	P	51.2
4	☐	1000.000	1034.931	725.05	0.0224	P	7.2
5	☐	2500.000	2506.596	1747.42	0.0533	P	3.0
6	☐	5000.000	5083.469	3522.82	0.1075	P	6.2
7	☐	10000.000	10232.193	7188.25	0.2158	P	2.2
8	☐	20000.000	19860.465	14032.53	0.4182	P	2.8
9	☐			11.11	0.0003	P	86.6

$$y = 2.1025E-005 * x + 6.4275E-004$$

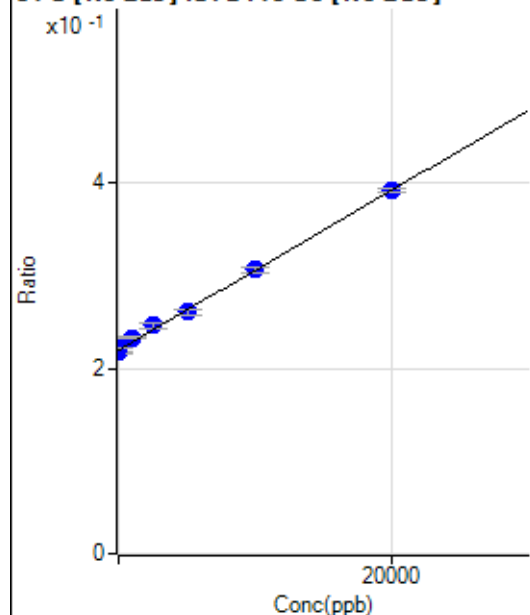
$$R = 0.9999$$

$$DL = 37.52$$

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	-255.590	443819.96	0.2177	P	0.9
2	☐	0.000					
3	☐	0.000	255.590	447409.66	0.2221	P	0.5
4	☐	1000.000	1553.474	476321.97	0.2333	P	0.3
5	☐	2500.000	3121.802	503732.99	0.2468	P	2.4
6	☐	5000.000	4770.623	540487.66	0.2610	P	2.0
7	☐	10000.000	10089.504	641641.19	0.3069	P	2.2
8	☐	20000.000	19907.193	834488.41	0.3917	P	1.1
9	☐			433056.20	0.2025	P	1.0

$$y = 8.6304\text{E-}006 * x + 0.2199$$

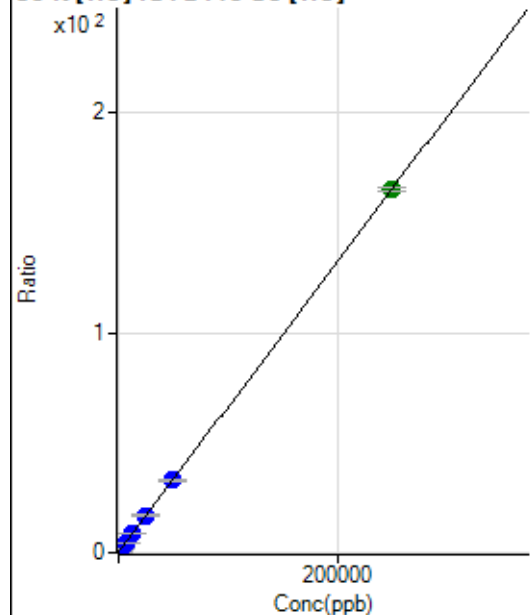
$$R = 0.9989$$

$$DL = 502.6$$

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	6207.22	0.1957	P	3.5
2	☐	50.000					
3	☐	500.000	481.957	16780.09	0.5132	P	3.0
4	☐	2500.000	2558.161	60916.24	1.8809	P	3.9
5	☐	6250.000	6450.712	145554.01	4.4452	P	2.2
6	☐	12500.000	12803.435	282813.01	8.6302	P	0.8
7	☐	25000.000	25536.284	566990.77	17.0183	P	1.3
8	☐	50000.000	49811.564	1107737.01	33.0101	P	1.5
9	☐	250000.00	249963.32	5571507.16	164.8645	A	1.2

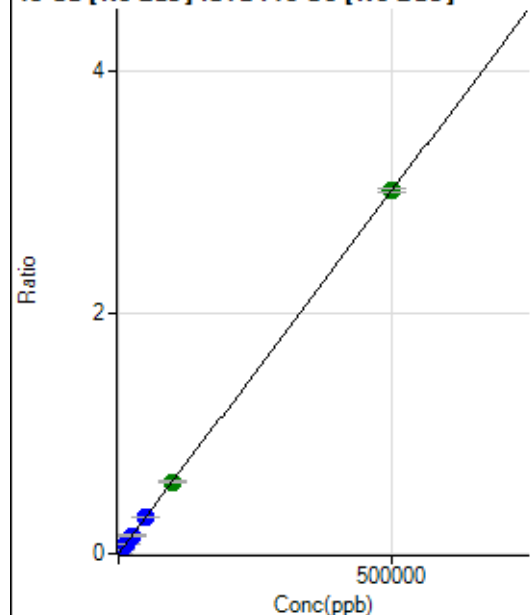
$$y = 6.5877\text{E-}004 * x + 0.1957$$

$$R = 1.0000$$

$$DL = 31.31$$

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	442.24	0.0002	P	10.1
2	☐	50.000					
3	☐	500.000	460.685	6021.39	0.0030	P	3.1
4	☐	5000.000	5042.957	62402.18	0.0306	P	0.7
5	☐	12500.000	12697.656	156382.12	0.0766	P	2.4
6	☐	25000.000	24952.068	311297.71	0.1504	P	2.5
7	☐	50000.000	50480.023	635395.17	0.3040	P	2.3
8	☐	100000.00	99004.494	1269639.37	0.5959	A	1.7
9	☐	500000.00	500148.16	6437654.00	3.0096	A	1.0

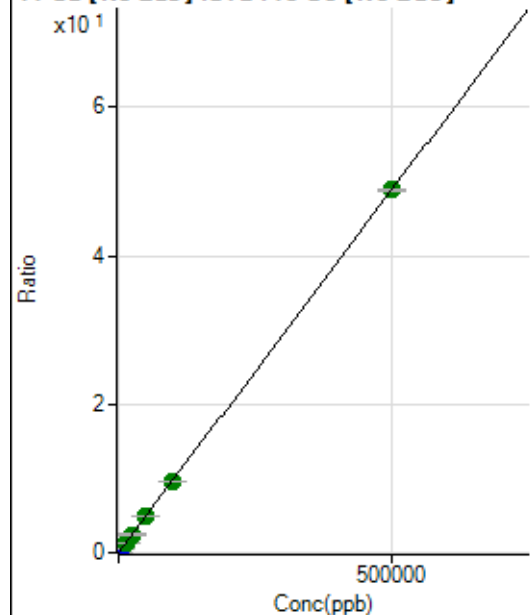
$$y = 6.0170\text{E-}006 * x + 2.1678\text{E-}004$$

$$R = 1.0000$$

$$DL = 10.92$$

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	30259.35	0.0148	P	0.4
2	☐	50.000					
3	☐	500.000	470.700	122438.08	0.0608	P	0.3
4	☐	5000.000	5047.652	1036098.30	0.5074	P	0.5
5	☐	12500.000	12790.611	2577600.73	1.2630	A	2.9
6	☐	25000.000	24893.616	5060499.12	2.4440	A	2.1
7	☐	50000.000	50157.282	10262984.99	4.9094	A	2.0
8	☐	100000.00	97375.770	20277568.31	9.5171	A	0.9
9	☐	500000.00	500506.72	104508912.8	48.8560	A	0.2

$$y = 9.7583\text{E-}005 * x + 0.0148$$

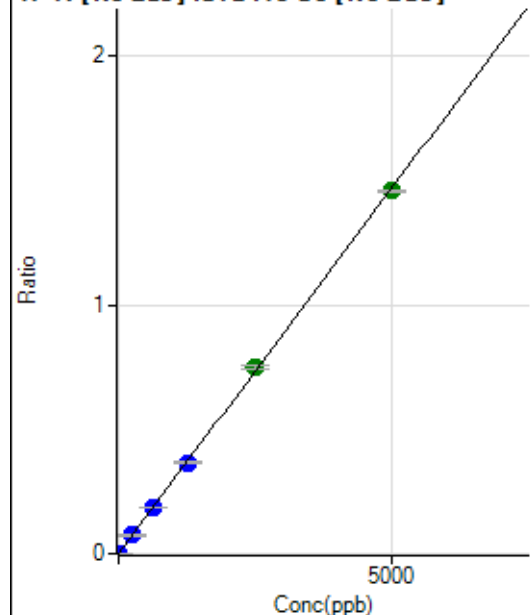
$$R = 1.0000$$

$$DL = 1.9$$

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	122.23	0.0001	P	25.0
2	☐	0.500					
3	☐	5.000	4.681	2889.33	0.0014	P	7.8
4	☐	250.000	250.705	150400.17	0.0737	P	1.1
5	☐	625.000	629.973	377553.34	0.1850	P	2.7
6	☐	1250.000	1246.911	758013.69	0.3661	P	2.1
7	☐	2500.000	2565.086	1574246.78	0.7530	A	2.0
8	☐	5000.000	4967.573	3107286.14	1.4583	A	0.2
9	☐			486.14	0.0002	P	7.5

$$y = 2.9355E-004 * x + 5.9864E-005$$

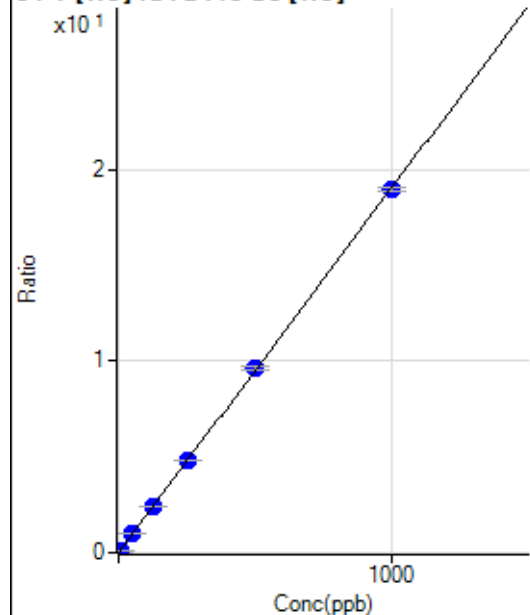
$$R = 0.9999$$

$$DL = 0.1531$$

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	13.34	0.0004	P	43.2
2	☐	0.500					
3	☐	5.000	5.140	3212.66	0.0983	P	6.1
4	☐	50.000	51.139	31563.60	0.9743	P	2.3
5	☐	125.000	127.463	79496.44	2.4278	P	2.0
6	☐	250.000	253.396	158144.89	4.8260	P	1.0
7	☐	500.000	507.114	321712.93	9.6578	P	2.3
8	☐	1000.000	995.228	636037.12	18.9533	P	1.1
9	☐			100.00	0.0030	P	6.2

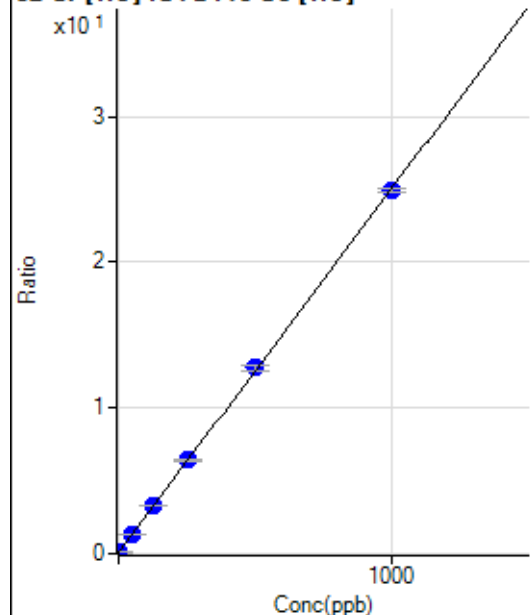
$$y = 0.0190 * x + 4.2034E-004$$

$$R = 1.0000$$

$$DL = 0.02861$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2011.29	0.0634	P	1.8
2	☐	0.200					
3	☐	2.000	1.845	3579.41	0.1095	P	2.1
4	☐	50.000	51.180	43454.10	1.3417	P	3.6
5	☐	125.000	129.320	107842.53	3.2933	P	1.2
6	☐	250.000	254.969	210751.10	6.4314	P	1.4
7	☐	500.000	507.463	424307.14	12.7377	P	2.4
8	☐	1000.000	994.428	835589.30	24.9000	P	1.2
9	☐			7531.05	0.2228	P	0.7

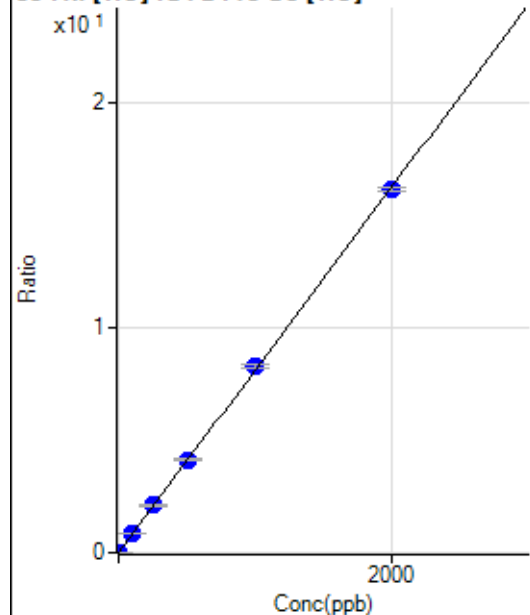
$$y = 0.0250 * x + 0.0634$$

$$R = 0.9999$$

$$DL = 0.1405$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	86.67	0.0027	P	18.3
2	☐	0.100					
3	☐	1.000	0.955	343.34	0.0105	P	4.6
4	☐	100.000	103.458	27315.81	0.8432	P	2.7
5	☐	250.000	259.034	69000.61	2.1071	P	1.4
6	☐	500.000	508.551	135472.64	4.1341	P	1.1
7	☐	1000.000	1020.446	276256.94	8.2927	P	1.9
8	☐	2000.000	1986.337	541608.85	16.1394	P	1.1
9	☐			2053.52	0.0608	P	1.5

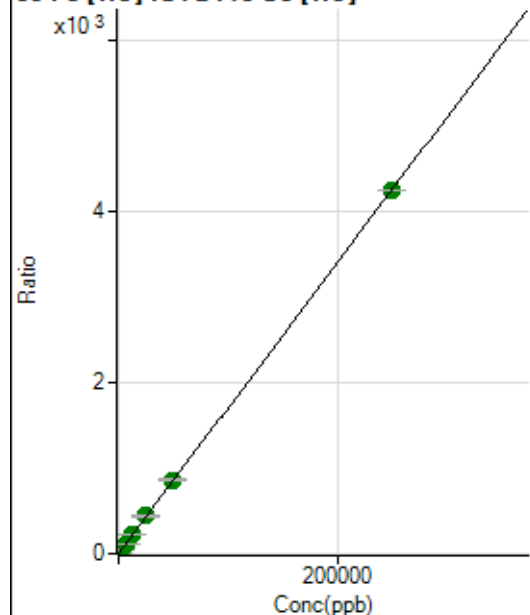
$$y = 0.0081 * x + 0.0027$$

$$R = 0.9999$$

$$DL = 0.185$$

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	4247.09	0.1339	P	3.4
2	☐	5.000					
3	☐	50.000	53.549	34097.78	1.0430	P	1.5
4	☐	2500.000	2675.240	1475434.09	45.5531	A	3.4
5	☐	6250.000	6666.580	3710999.62	113.3167	A	0.7
6	☐	12500.000	13109.366	7297742.52	222.6999	A	1.2
7	☐	25000.000	25861.681	14630536.21	439.2041	A	2.3
8	☐	50000.000	50886.989	28997246.02	864.0746	A	0.9
9	☐	250000.00	249693.79	143273184.6	4,239.344	A	0.1

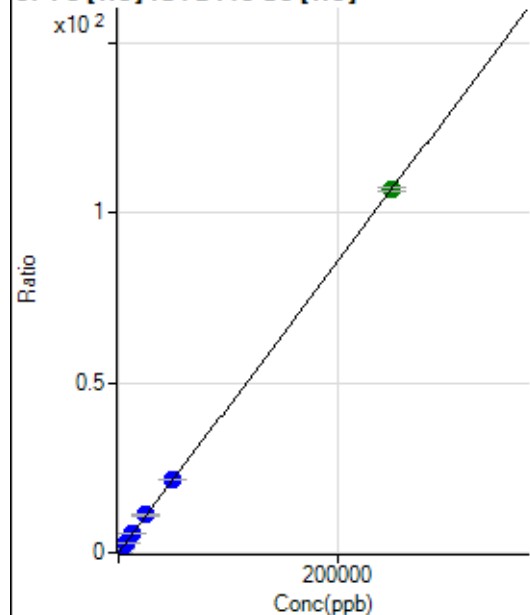
$$y = 0.0170 * x + 0.1339$$

$$R = 1.0000$$

$$DL = 0.8$$

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	155.56	0.0049	P	20.2
2	☐	5.000					
3	☐	50.000	47.580	824.12	0.0252	P	8.7
4	☐	2500.000	2593.342	36004.45	1.1117	P	3.8
5	☐	6250.000	6610.212	92546.93	2.8261	P	0.7
6	☐	12500.000	12896.499	180524.37	5.5090	P	1.0
7	☐	25000.000	25924.024	368746.25	11.0690	P	1.9
8	☐	50000.000	50489.325	723285.30	21.5532	P	1.1
9	☐	250000.00	249779.96	3602875.95	106.6083	A	1.2

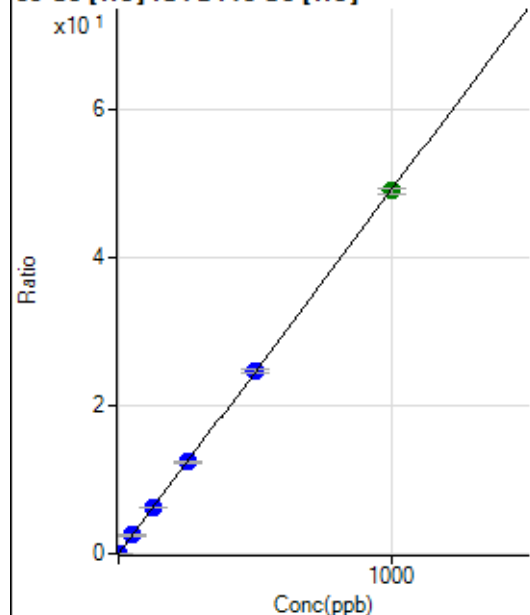
$$y = 4.2679E-004 * x + 0.0049$$

$$R = 1.0000$$

$$DL = 6.975$$

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	111.11	0.0035	P	13.8
2	☐	0.100					
3	☐	1.000	0.968	1667.91	0.0510	P	3.7
4	☐	50.000	51.178	81509.91	2.5170	P	4.3
5	☐	125.000	127.976	205935.67	6.2889	P	1.4
6	☐	250.000	252.359	406257.91	12.3979	P	1.5
7	☐	500.000	503.457	823830.04	24.7303	P	2.1
8	☐	1000.000	997.251	1643660.88	48.9826	A	1.9
9	☐			18589.24	0.5501	P	1.5

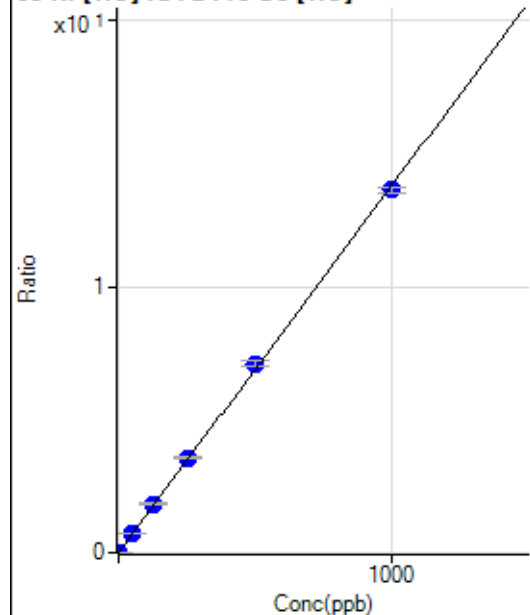
$$y = 0.0491 * x + 0.0035$$

$$R = 1.0000$$

$$DL = 0.02943$$

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	117.78	0.0037	P	2.6
2	☐	0.100					
3	☐	1.000	1.135	633.36	0.0194	P	11.3
4	☐	50.000	52.803	23708.14	0.7320	P	3.6
5	☐	125.000	132.620	60018.96	1.8329	P	1.7
6	☐	250.000	258.840	117110.92	3.5738	P	1.4
7	☐	500.000	515.257	236853.21	7.1105	P	2.6
8	☐	1000.000	989.069	457913.94	13.6457	P	1.4
9	☐			5730.16	0.1695	P	2.0

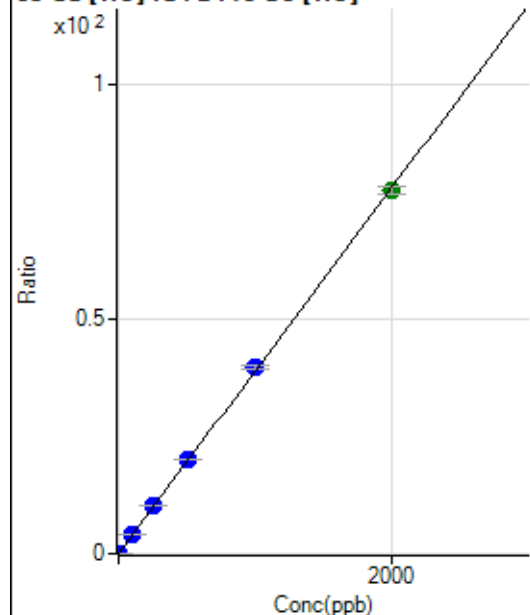
$$y = 0.0138 * x + 0.0037$$

$$R = 0.9998$$

$$DL = 0.02064$$

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	398.90	0.0126	P	8.9
2	☐	0.200					
3	☐	2.000	1.923	2857.01	0.0874	P	6.5
4	☐	100.000	104.148	131666.88	4.0647	P	2.8
5	☐	250.000	260.564	332385.59	10.1504	P	1.3
6	☐	500.000	515.479	657635.93	20.0684	P	0.6
7	☐	1000.000	1018.946	1321070.10	39.6568	P	2.1
8	☐	2000.000	1985.129	2592048.88	77.2482	A	2.2
9	☐			3592.74	0.1063	P	0.9

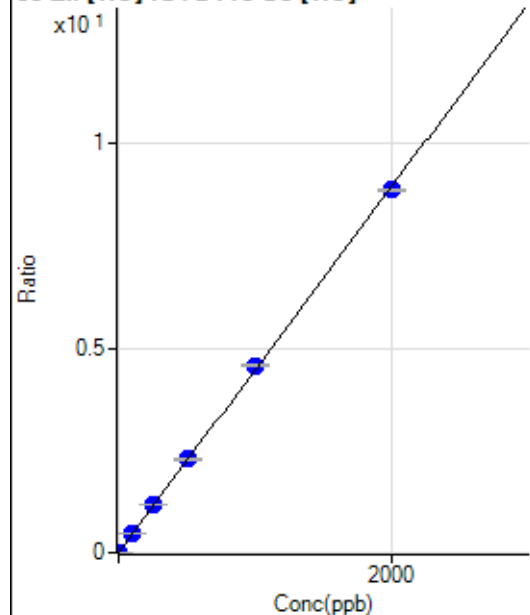
$$y = 0.0389 * x + 0.0126$$

$$R = 0.9999$$

$$DL = 0.08637$$

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	94.45	0.0030	P	13.1
2	☐	0.200					
3	☐	2.000	1.861	368.90	0.0113	P	10.6
4	☐	100.000	103.920	15148.47	0.4675	P	1.7
5	☐	250.000	262.557	38525.77	1.1766	P	2.2
6	☐	500.000	512.020	75091.00	2.2916	P	1.9
7	☐	1000.000	1024.058	152590.16	4.5803	P	1.8
8	☐	2000.000	1983.200	297585.78	8.8675	P	0.7
9	☐			1687.91	0.0499	P	1.6

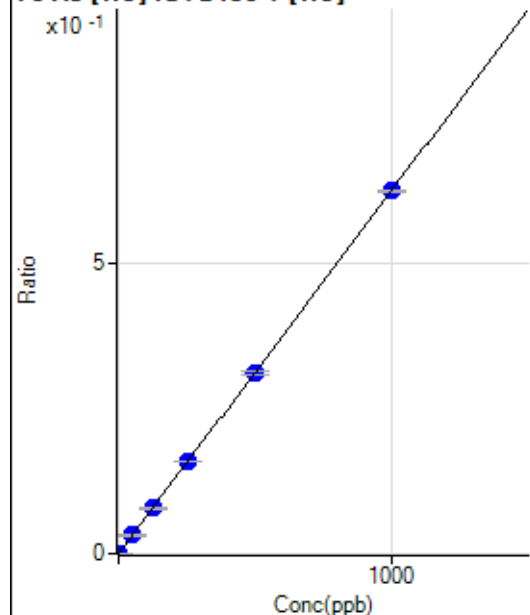
$$y = 0.0045 * x + 0.0030$$

$$R = 0.9999$$

$$DL = 0.262$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.71	0.0000	P	86.6
2	☐	0.100					
3	☐	1.000	0.959	111.11	0.0006	P	9.2
4	☐	50.000	50.456	5720.98	0.0315	P	3.8
5	☐	125.000	124.983	14474.96	0.0781	P	1.8
6	☐	250.000	254.388	28944.53	0.1589	P	0.7
7	☐	500.000	498.653	58516.41	0.3114	P	1.5
8	☐	1000.000	999.556	116338.87	0.6242	P	0.5
9	☐			156.79	0.0008	P	15.8

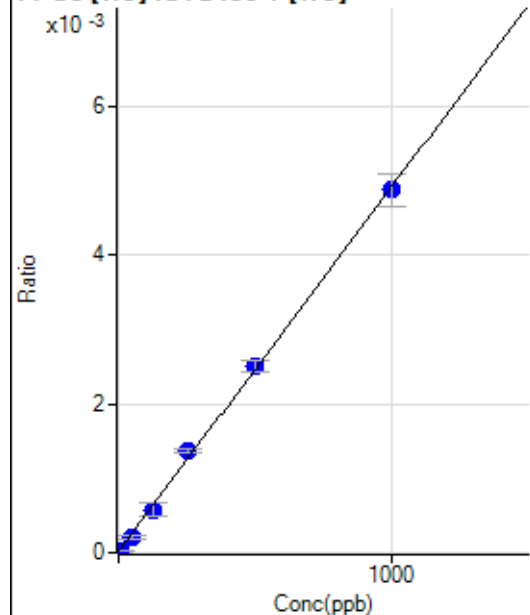
$$y = 6.2442\text{E-}004 * x + 2.0696\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.08611$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	0.500					
3	☐	5.000	1.282	4.45	0.0000	P	86.6
4	☐	50.000	39.648	38.89	0.0002	P	24.6
5	☐	125.000	114.703	107.78	0.0006	P	32.9
6	☐	250.000	274.882	248.90	0.0014	P	3.6
7	☐	500.000	506.541	470.02	0.0025	P	5.9
8	☐	1000.000	992.332	910.05	0.0049	P	9.0
9	☐			0.00	0.0000	P	

$$y = 4.9019\text{E-}006 * x + 1.8565\text{E-}005$$

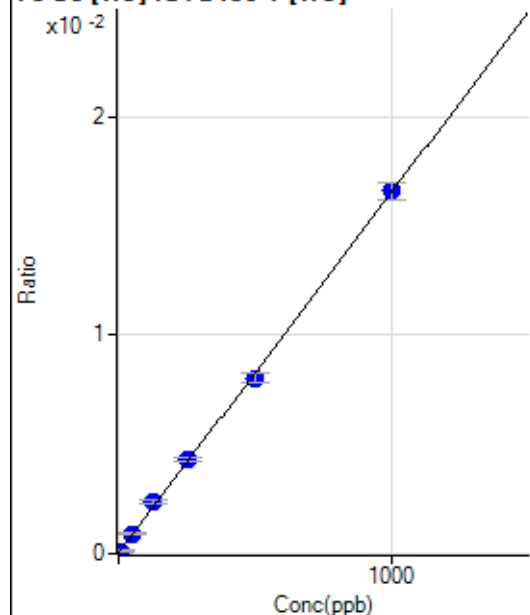
$$R = 0.9994$$

$$DL = 19.68$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6.18	0.0000	P	17.0
2	☐	0.500					
3	☐	5.000	5.638	22.84	0.0001	P	41.9
4	☐	50.000	52.232	162.35	0.0009	P	12.5
5	☐	125.000	140.089	435.20	0.0023	P	7.4
6	☐	250.000	258.315	782.75	0.0043	P	5.2
7	☐	500.000	484.920	1509.36	0.0080	P	5.0
8	☐	1000.000	1003.460	3092.35	0.0166	P	5.0
9	☐			7.41	0.0000	P	75.4

$$y = 1.6500\text{E-}005 * x + 3.4448\text{E-}005$$

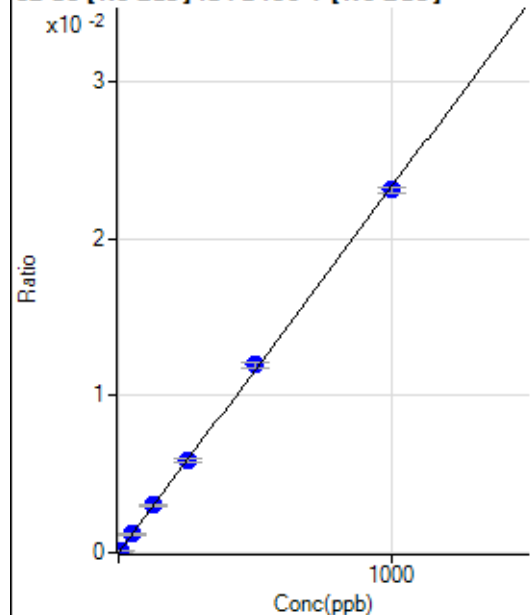
$$R = 0.9997$$

$$DL = 1.065$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-34.62	0.0000	P	-249.
2	☐	0.500					
3	☐	5.000	4.709	280.26	0.0001	P	20.7
4	☐	50.000	50.180	3339.89	0.0012	P	4.2
5	☐	125.000	128.857	8727.79	0.0030	P	2.4
6	☐	250.000	252.151	17175.93	0.0059	P	2.5
7	☐	500.000	514.014	35371.77	0.0120	P	2.7
8	☐	1000.000	991.966	70120.89	0.0231	P	1.7
9	☐			2.86	0.0000	P	2391.

$$y = 2.3329\text{E-}005 * x - 1.2016\text{E-}005$$

$$R = 0.9998$$

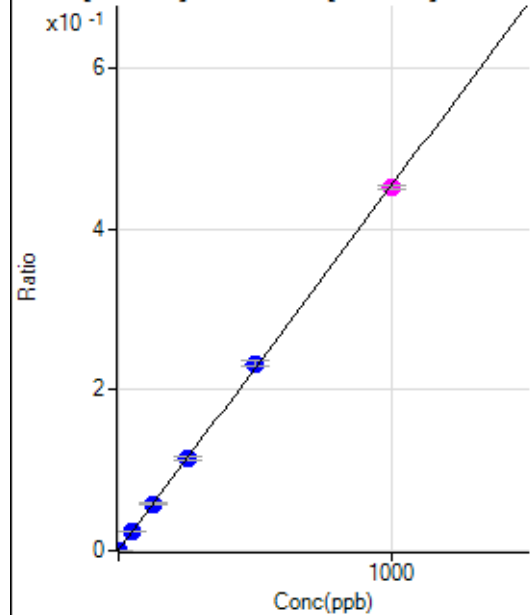
$$DL = 3.861$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			836.71		P	2.4
2	☐						
3	☐			866.71		P	6.3
4	☐			886.71		P	7.3
5	☐			886.71		P	9.1
6	☐			910.05		P	10.5
7	☐			848.93		P	8.0
8	☐			857.82		P	3.8
9	☐			844.49		P	10.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1322.35	0.0005	P	5.2
2	☐	0.100					
3	☐	1.000	0.739	2266.96	0.0008	P	1.7
4	☐	50.000	49.963	66647.37	0.0231	P	0.9
5	☐	125.000	127.864	170447.28	0.0585	P	1.8
6	☐	250.000	251.345	334918.52	0.1145	P	3.3
7	☐	500.000	511.782	686925.09	0.2327	P	3.0
8	☐	1000.000	993.417	1367834.96	0.4512	M	1.2
9	☐			6307.27	0.0021	P	6.4

$$y = 4.5371\text{E-}004 * x + 4.5592\text{E-}004$$

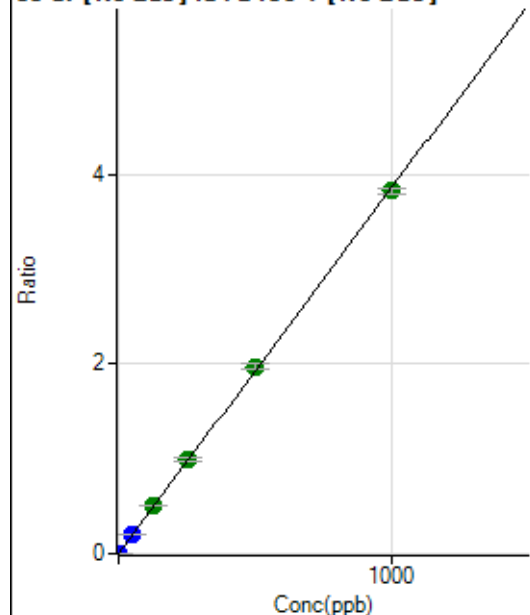
$$R = 0.9999$$

$$DL = 0.1567$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	83.34	0.0000	P	9.3
2	☐	0.100					
3	☐	1.000	0.816	9095.12	0.0032	P	2.2
4	☐	50.000	51.072	567399.12	0.1969	P	0.4
5	☐	125.000	130.658	1468057.14	0.5036	A	2.4
6	☐	250.000	256.507	2892284.59	0.9887	A	3.2
7	☐	500.000	511.134	5817071.14	1.9701	A	2.7
8	☐	1000.000	992.046	11592181.16	3.8237	A	1.3
9	☐			42116.28	0.0141	P	2.2

$$y = 0.0039 * x + 2.8727E-005$$

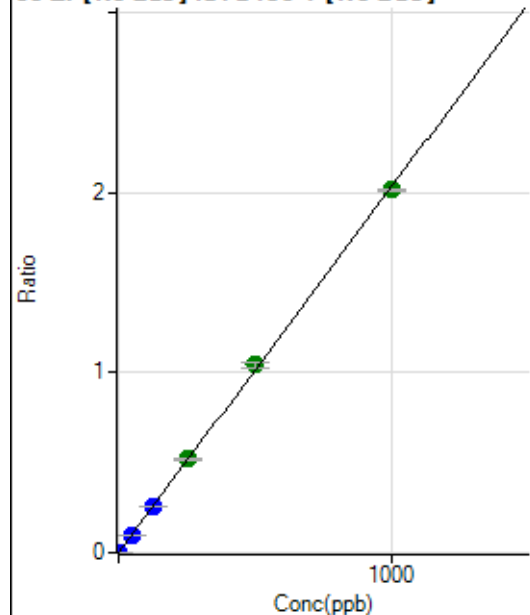
$$R = 0.9999$$

$$DL = 0.002086$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	219.46	0.0001	P	28.1
2	☐	0.100					
3	☐	1.000	0.902	5462.43	0.0019	P	3.7
4	☐	50.000	49.637	290639.68	0.1009	P	0.9
5	☐	125.000	125.732	744289.27	0.2553	P	2.6
6	☐	250.000	255.468	1517544.39	0.5187	A	2.9
7	☐	500.000	513.494	3078255.34	1.0426	A	3.0
8	☐	1000.000	991.813	6105217.93	2.0137	A	0.4
9	☐			1527.94	0.0005	P	1.9

$$y = 0.0020 * x + 7.5594E-005$$

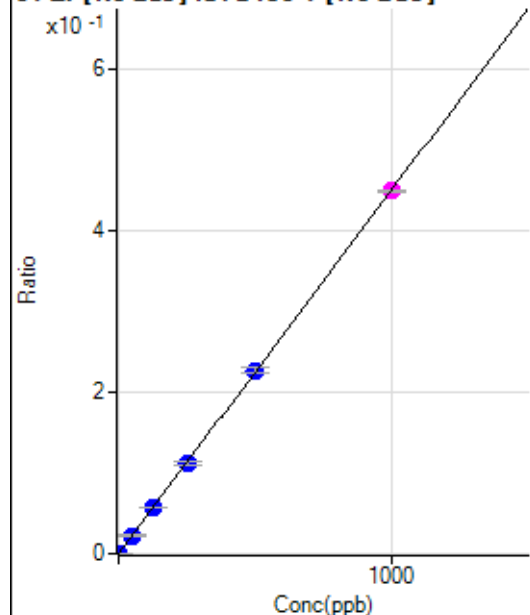
$$R = 0.9998$$

$$DL = 0.03137$$

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	44.45	0.0000	P	28.8
2	☐	0.100					
3	☐	1.000	0.875	1169.55	0.0004	P	8.2
4	☐	50.000	50.052	64835.89	0.0225	P	1.9
5	☐	125.000	126.347	165494.48	0.0568	P	2.1
6	☐	250.000	249.759	328226.44	0.1122	P	3.4
7	☐	500.000	503.639	668008.50	0.2263	P	3.1
8	☐	1000.000	998.070	1359384.26	0.4484	M	0.5
9	☐			291.68	0.0001	P	11.1

$$y = 4.4921\text{E-}004 * x + 1.5334\text{E-}005$$

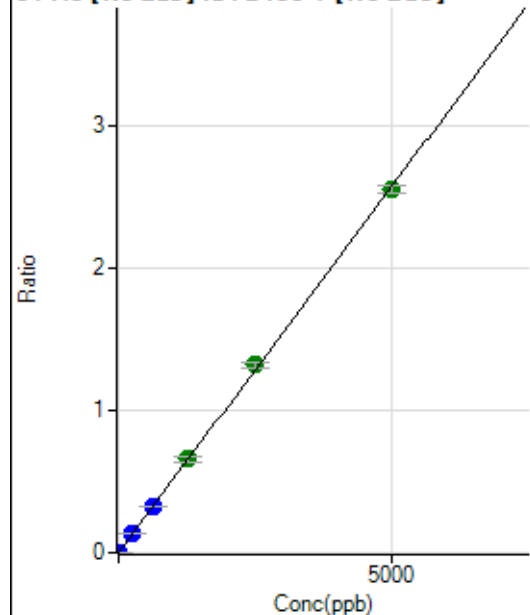
$$R = 1.0000$$

$$DL = 0.02948$$

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	88.89	0.0000	P	46.5
2	☐	0.500					
3	☐	5.000	4.501	6707.45	0.0023	P	3.7
4	☐	250.000	250.787	371133.65	0.1288	P	0.7
5	☐	625.000	630.524	943726.41	0.3237	P	1.6
6	☐	1250.000	1275.081	1914429.36	0.6546	A	4.3
7	☐	2500.000	2566.829	3890516.62	1.3178	A	3.4
8	☐	5000.000	4959.586	7718640.02	2.5461	A	2.1
9	☐			2580.92	0.0009	P	5.8

$$y = 5.1337\text{E-}004 * x + 3.0708\text{E-}005$$

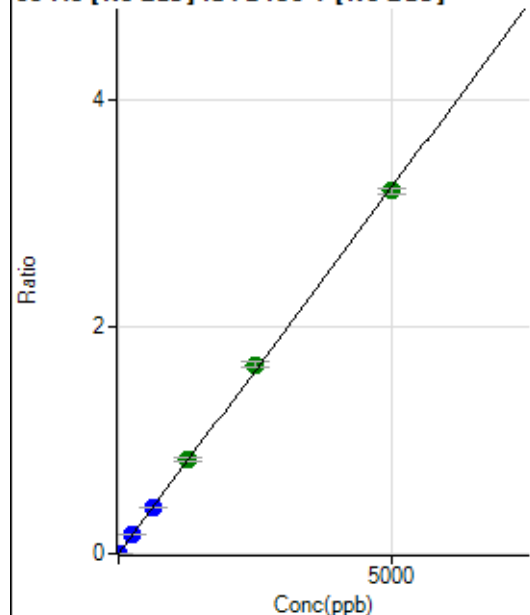
$$R = 0.9998$$

$$DL = 0.08352$$

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	13.89	0.0000	P	91.3
2	☐	0.500					
3	☐	5.000	4.781	8867.20	0.0031	P	3.2
4	☐	250.000	251.326	468111.12	0.1624	P	0.6
5	☐	625.000	629.517	1186044.34	0.4068	P	1.7
6	☐	1250.000	1288.629	2435234.56	0.8328	A	4.9
7	☐	2500.000	2574.892	4913288.39	1.6641	A	3.0
8	☐	5000.000	4952.266	9702900.83	3.2005	A	1.3
9	☐			3420.04	0.0011	P	6.8

$$y = 6.4628\text{E-}004 * x + 4.7840\text{E-}006$$

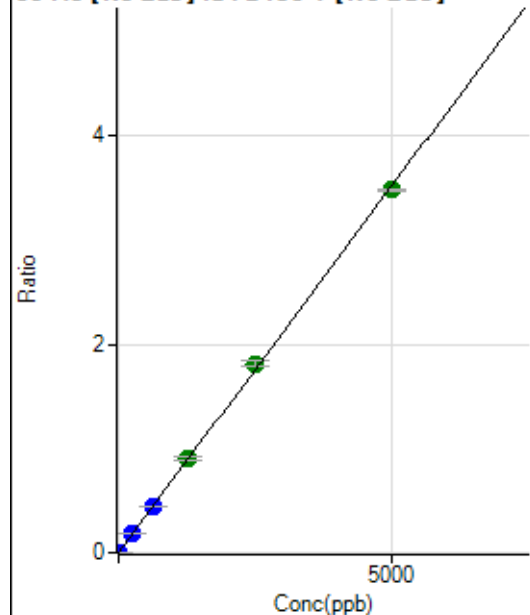
$$R = 0.9998$$

$$DL = 0.02028$$

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	33.33	0.0000	P	66.3
2	☐	0.500					
3	☐	5.000	4.916	9948.48	0.0035	P	1.3
4	☐	250.000	252.744	512855.78	0.1780	P	0.4
5	☐	625.000	634.693	1302607.16	0.4469	P	2.4
6	☐	1250.000	1276.084	2627639.95	0.8984	A	4.1
7	☐	2500.000	2583.045	5369522.60	1.8186	A	2.9
8	☐	5000.000	4950.608	10567360.05	3.4855	A	0.7
9	☐			4384.25	0.0015	P	5.7

$$y = 7.0405\text{E-}004 * x + 1.1521\text{E-}005$$

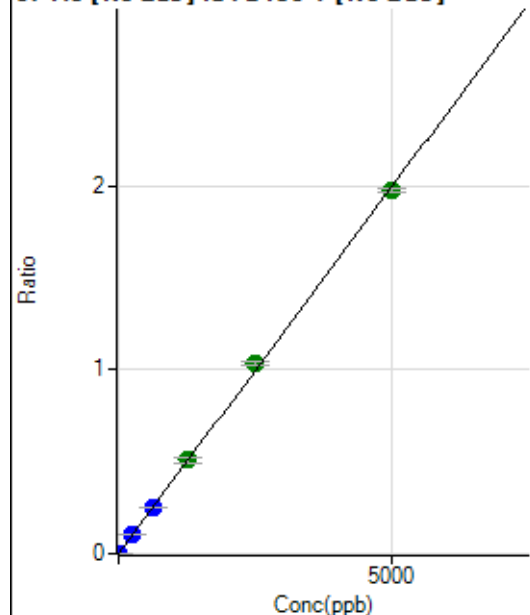
$$R = 0.9998$$

$$DL = 0.03253$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69.45	0.0000	P	30.9
2	☐	0.500					
3	☐	5.000	4.771	5515.26	0.0019	P	4.8
4	☐	250.000	252.780	290445.34	0.1008	P	0.5
5	☐	625.000	632.318	734798.29	0.2521	P	2.1
6	☐	1250.000	1272.393	1483119.21	0.5072	A	4.8
7	☐	2500.000	2587.201	3045280.21	1.0313	A	2.2
8	☐	5000.000	4949.748	5981526.52	1.9730	A	0.9
9	☐			2305.87	0.0008	P	4.8

$$y = 3.9860E-004 * x + 2.3982E-005$$

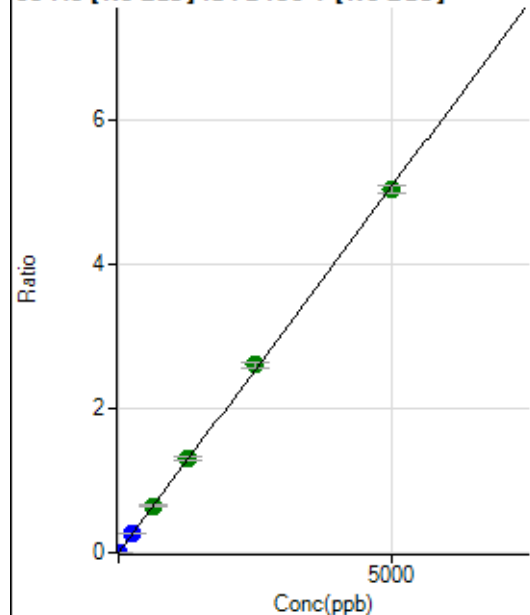
$$R = 0.9998$$

$$DL = 0.0557$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13.89	0.0000	P	69.3
2	☐	0.500					
3	☐	5.000	4.808	14024.57	0.0049	P	4.6
4	☐	250.000	251.823	738262.33	0.2562	P	0.9
5	☐	625.000	642.858	1906360.35	0.6539	A	2.0
6	☐	1250.000	1283.851	3819004.30	1.3060	A	4.7
7	☐	2500.000	2565.311	7705359.11	2.6095	A	2.5
8	☐	5000.000	4956.559	15284909.72	5.0420	A	2.0
9	☐			5540.27	0.0019	P	2.4

$$y = 0.0010 * x + 4.7889E-006$$

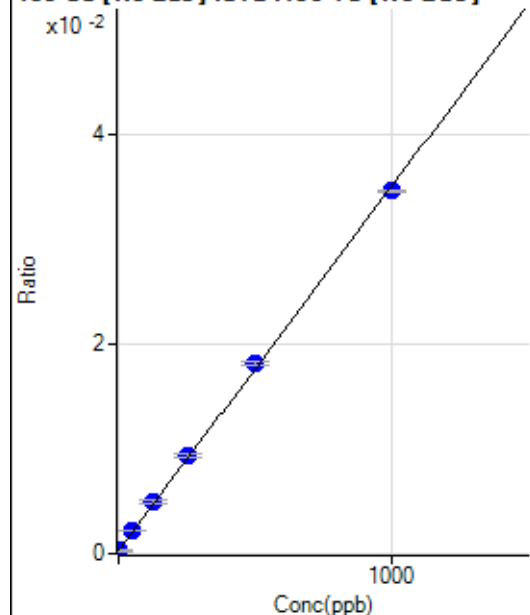
$$R = 0.9998$$

$$DL = 0.009787$$

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	716.72	0.0003	P	6.0
2	☐	0.100					
3	☐	1.000	0.268	733.40	0.0003	P	10.5
4	☐	50.000	55.625	5712.60	0.0022	P	2.4
5	☐	125.000	134.835	12970.68	0.0050	P	6.8
6	☐	250.000	259.950	24737.30	0.0093	P	3.6
7	☐	500.000	515.630	50077.33	0.0182	P	1.9
8	☐	1000.000	988.188	98324.47	0.0346	P	0.7
9	☐			705.61	0.0003	P	8.0

$$y = 3.4737\text{E-}005 * x + 2.7977\text{E-}004$$

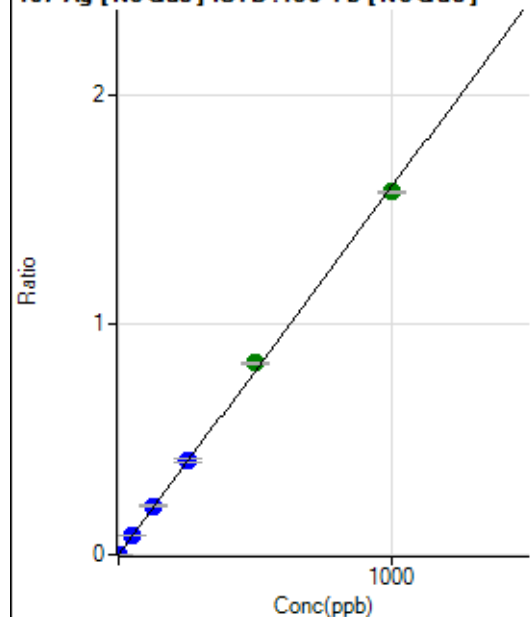
$$R = 0.9997$$

$$DL = 1.45$$

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	61.12	0.0000	P	34.2
2	☐	0.100					
3	☐	1.000	1.002	4125.82	0.0016	P	5.4
4	☐	50.000	52.371	216293.62	0.0838	P	1.6
5	☐	125.000	131.689	550695.21	0.2106	P	4.4
6	☐	250.000	256.904	1091885.10	0.4109	P	2.6
7	☐	500.000	520.706	2292364.92	0.8327	A	1.7
8	☐	1000.000	986.967	4484204.49	1.5783	A	0.7
9	☐			611.16	0.0002	P	12.8

$$y = 0.0016 * x + 2.3855\text{E-}005$$

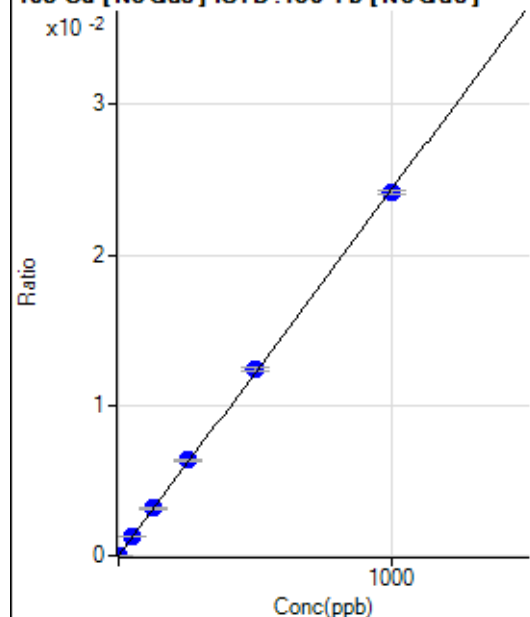
$$R = 0.9996$$

$$DL = 0.0153$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6.94	0.0000	P	34.8
2	☐	0.100					
3	☐	1.000	0.901	62.50	0.0000	P	13.5
4	☐	50.000	53.246	3351.88	0.0013	P	1.3
5	☐	125.000	130.054	8281.90	0.0032	P	3.6
6	☐	250.000	260.177	16830.21	0.0063	P	2.2
7	☐	500.000	510.893	34224.27	0.0124	P	2.1
8	☐	1000.000	991.216	68517.71	0.0241	P	1.0
9	☐			11.11	0.0000	P	20.4

$$y = 2.4328\text{E-}005 * x + 2.7121\text{E-}006$$

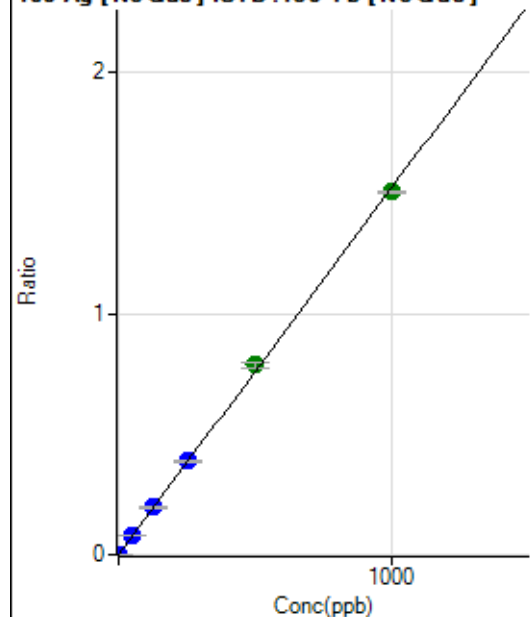
$$R = 0.9999$$

$$DL = 0.1163$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19.44	0.0000	P	49.2
2	☐	0.100					
3	☐	1.000	1.020	3956.31	0.0016	P	0.4
4	☐	50.000	51.801	203502.41	0.0788	P	1.5
5	☐	125.000	130.647	519778.99	0.1988	P	4.1
6	☐	250.000	255.291	1032151.77	0.3884	P	3.1
7	☐	500.000	516.696	2163747.44	0.7861	A	2.9
8	☐	1000.000	989.533	4277132.25	1.5055	A	0.7
9	☐			530.59	0.0002	P	18.3

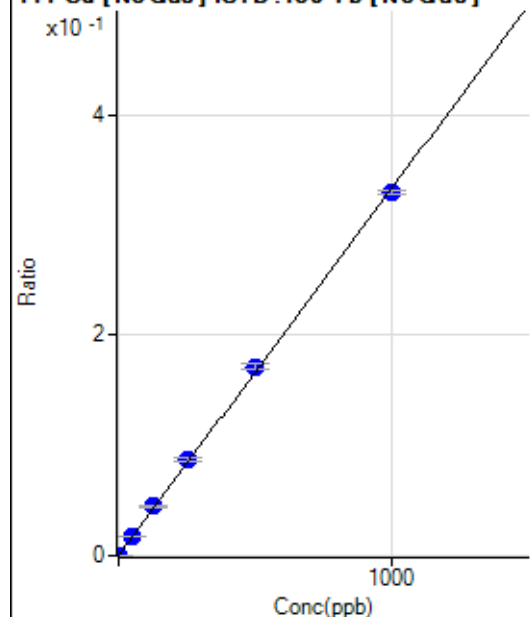
$$y = 0.0015 * x + 7.5772\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.007354$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	498.24	0.0002	P	5.5
2	☐	0.100					
3	☐	1.000	0.999	1336.34	0.0005	P	5.6
4	☐	50.000	52.868	45883.55	0.0178	P	1.8
5	☐	125.000	134.190	117146.00	0.0448	P	4.9
6	☐	250.000	261.480	231555.70	0.0871	P	2.5
7	☐	500.000	514.278	471173.35	0.1712	P	2.7
8	☐	1000.000	988.699	934420.44	0.3289	P	1.0
9	☐			512.54	0.0002	P	6.8

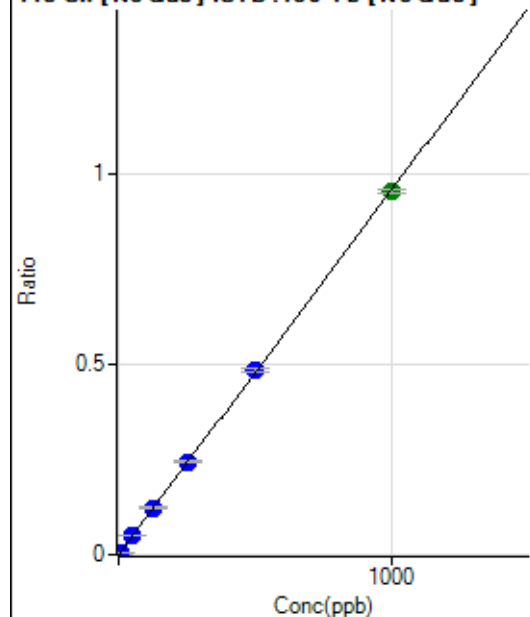
$$y = 3.3246\text{E-}004 * x + 1.9448\text{E-}004$$

$$R = 0.9998$$

$$DL = 0.09638$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	225.01	0.0001	P	7.9
2	☐	0.500					
3	☐	5.000	5.106	12628.63	0.0050	P	1.2
4	☐	50.000	51.591	127746.97	0.0495	P	2.2
5	☐	125.000	128.943	323035.41	0.1235	P	4.2
6	☐	250.000	254.578	647997.71	0.2438	P	2.6
7	☐	500.000	505.751	1333248.48	0.4843	P	1.6
8	☐	1000.000	995.407	2707770.20	0.9531	A	1.1
9	☐			1564.05	0.0006	P	8.3

$$y = 9.5740\text{E-}004 * x + 8.7856\text{E-}005$$

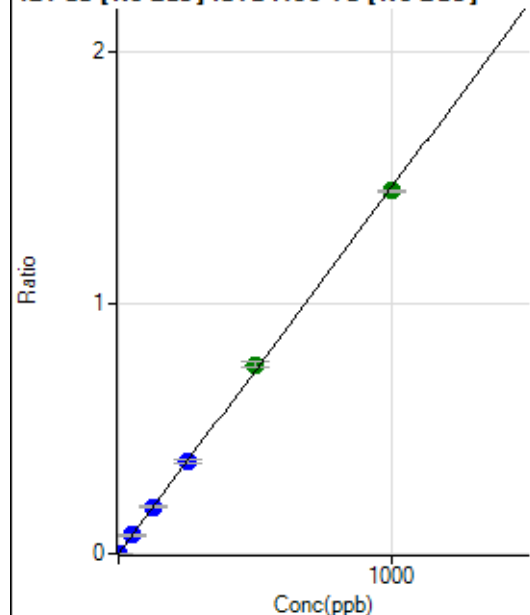
$$R = 1.0000$$

$$DL = 0.02167$$

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	27.78	0.0000	P	45.6
2	☐	0.200					
3	☐	2.000	1.806	6718.65	0.0026	P	1.8
4	☐	50.000	50.482	190250.67	0.0737	P	2.4
5	☐	125.000	127.509	486730.42	0.1861	P	3.8
6	☐	250.000	252.247	978520.53	0.3682	P	2.3
7	☐	500.000	516.852	2076617.06	0.7544	A	2.3
8	☐	1000.000	990.675	4108101.48	1.4460	A	0.6
9	☐			4773.29	0.0017	P	4.4

$$y = 0.0015 * x + 1.0842E-005$$

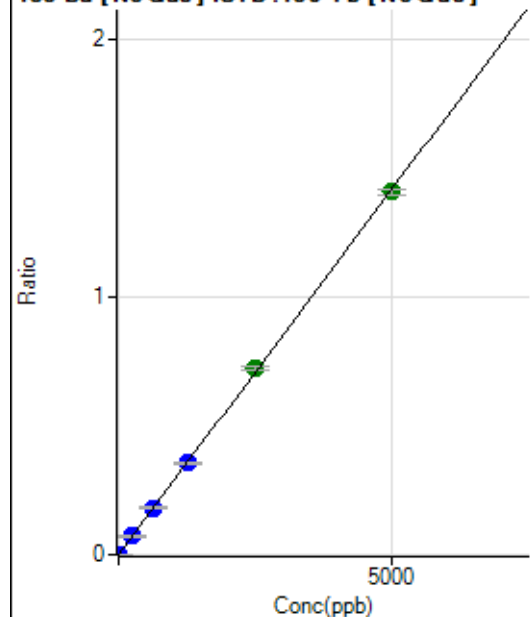
$$R = 0.9998$$

$$DL = 0.01017$$

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	33.33	0.0000	P	25.5
2	☐	1.000					
3	☐	10.000	9.930	7182.82	0.0028	P	1.7
4	☐	250.000	251.147	183993.78	0.0713	P	1.3
5	☐	625.000	634.622	470817.20	0.1801	P	4.2
6	☐	1250.000	1252.507	944428.32	0.3553	P	2.2
7	☐	2500.000	2554.474	1995101.26	0.7247	A	1.5
8	☐	5000.000	4970.876	4006445.49	1.4102	A	1.5
9	☐			319.46	0.0001	P	10.3

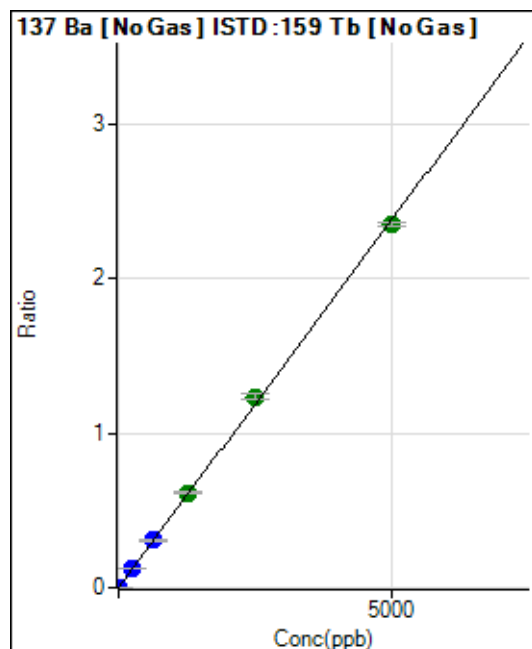
$$y = 2.8370E-004 * x + 1.3022E-005$$

$$R = 0.9999$$

$$DL = 0.03507$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	47.22	0.0000	P	10.4
2	☐	1.000					
3	☐	10.000	9.919	12022.74	0.0047	P	0.7
4	☐	250.000	256.540	315196.51	0.1221	P	0.3
5	☐	625.000	649.726	808249.22	0.3091	P	4.6
6	☐	1250.000	1294.833	1637298.89	0.6160	A	2.3
7	☐	2500.000	2598.136	3402557.28	1.2361	A	2.5
8	☐	5000.000	4936.306	6672070.89	2.3485	A	1.2
9	☐			616.71	0.0002	P	3.3

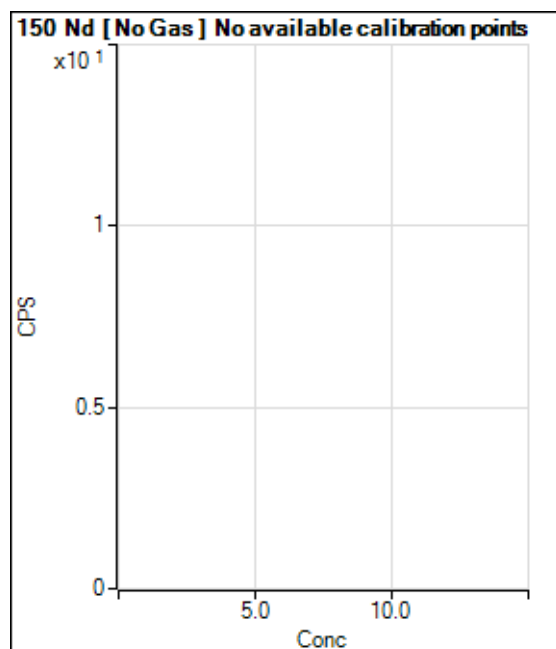
$$y = 4.7575E-004 * x + 1.8438E-005$$

$$R = 0.9997$$

$$DL = 0.01214$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			4.45		P	86.6
4	☐			15.56		P	65.5
5	☐			13.33		P	50.0
6	☐			53.34		P	12.5
7	☐			62.23		P	22.3
8	☐			124.45		P	27.0
9	☐			64.45		P	26.0

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.2
5	☐			1.11		P	173.2
6	☐			1.11		P	173.2
7	☐			4.44		P	43.4
8	☐			6.67		P	50.0
9	☐			8.89		P	21.6

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	34.7
2	☐						
3	☐			13.89		P	69.3
4	☐			8.33		P	100.0
5	☐			13.89		P	34.7
6	☐			27.78		P	62.5
7	☐			33.33		P	50.0
8	☐			61.11		P	20.8
9	☐			36.11		P	53.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.2
5	☐			2.22		P	86.6
6	☐			1.11		P	173.2
7	☐			4.44		P	114.6
8	☐			7.78		P	24.7
9	☐			8.89		P	21.6

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	57.3
2	☐						
3	☐			11.11		P	114.6
4	☐			16.67		P	100.0
5	☐			25.00		P	88.2
6	☐			22.22		P	78.1
7	☐			25.00		P	57.7
8	☐			52.78		P	24.1
9	☐			58.34		P	51.5

160 Gd [He] No available calibration points

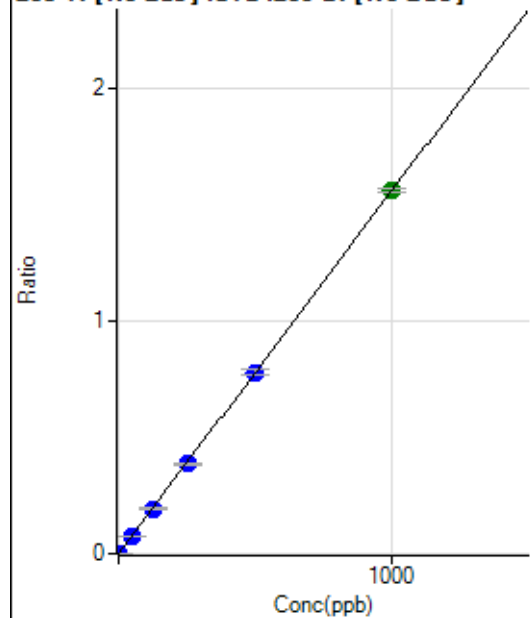
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.2
2	☐						
3	☐			2.22		P	86.6
4	☐			2.22		P	86.6
5	☐			7.78		P	49.5
6	☐			8.89		P	78.1
7	☐			7.78		P	65.5
8	☐			8.89		P	57.3
9	☐			15.56		P	53.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	69.3
2	☐						
3	☐			13.89		P	69.3
4	☐			5.55		P	86.6
5	☐			16.67		P	86.6
6	☐			22.22		P	108.3
7	☐			13.89		P	91.6
8	☐			16.67		P	50.0
9	☐			22.23		P	86.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			3.33		P	173.2
2	☐						
3	☐			1.11		P	173.2
4	☐			3.33		P	100.1
5	☐			2.22		P	86.6
6	☐			3.33		P	100.1
7	☐			5.56		P	91.6
8	☐			4.44		P	114.6
9	☐			5.56		P	91.6

203 Tl [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	34.2
2	☐	0.100					
3	☐	1.000	0.902	1939.14	0.0014	P	1.9
4	☐	50.000	49.001	104931.33	0.0762	P	0.6
5	☐	125.000	124.568	272013.51	0.1938	P	2.0
6	☐	250.000	247.590	546582.31	0.3851	P	2.7
7	☐	500.000	499.915	1144594.26	0.7776	P	3.0
8	☐	1000.000	1000.749	2341668.58	1.5566	A	1.2
9	☐			136.12	0.0001	P	20.2

$$y = 0.0016 * x + 1.8601E-005$$

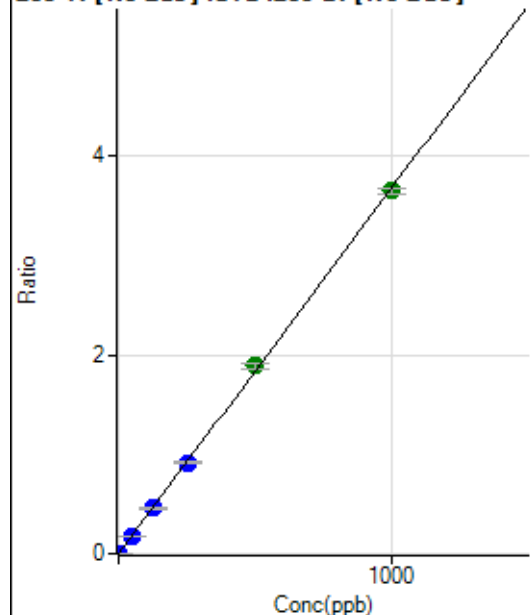
$$R = 1.0000$$

$$DL = 0.01226$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	63.89	0.0000	P	41.5
2	☐	0.100					
3	☐	1.000	0.963	4898.41	0.0036	P	7.4
4	☐	50.000	49.468	250565.17	0.1820	P	0.4
5	☐	125.000	125.172	646266.25	0.4606	P	3.8
6	☐	250.000	248.726	1298697.53	0.9151	P	3.0
7	☐	500.000	515.144	2789887.46	1.8953	A	2.9
8	☐	1000.000	992.752	5494601.81	3.6525	A	1.2
9	☐			347.25	0.0002	P	7.2

$$y = 0.0037 * x + 4.7342E-005$$

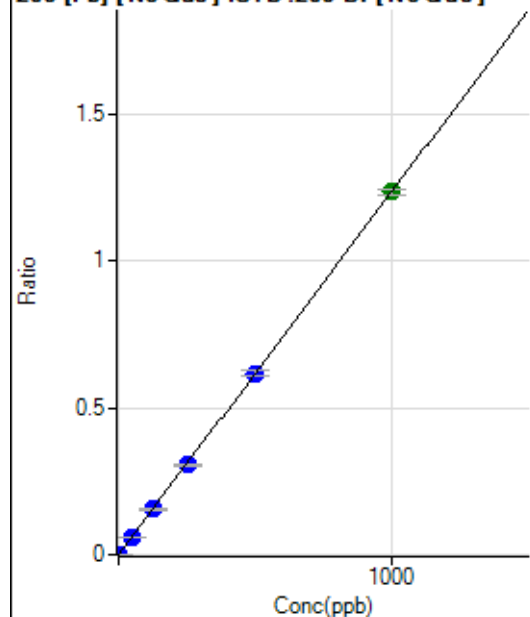
$$R = 0.9998$$

$$DL = 0.01602$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	62.97	0.0000	P	36.0
2	☐	0.100					
3	☐	1.000	0.856	1503.84	0.0011	P	4.5
4	☐	50.000	49.399	83925.82	0.0610	P	0.9
5	☐	125.000	124.851	216122.17	0.1540	P	4.4
6	☐	250.000	247.832	433890.43	0.3057	P	2.7
7	☐	500.000	500.503	908808.71	0.6174	P	2.6
8	☐	1000.000	1000.339	1856265.47	1.2339	A	1.6
9	☐			3306.09	0.0023	P	8.2

$$y = 0.0012 * x + 4.6681E-005$$

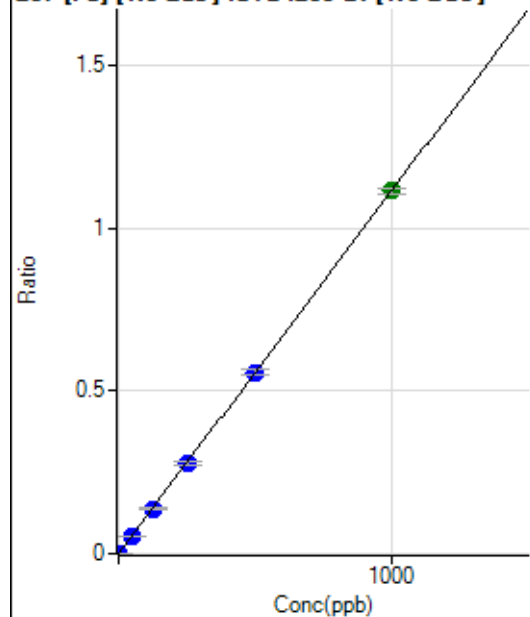
$$R = 1.0000$$

$$DL = 0.04083$$

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	51.85	0.0000	P	38.5
2	☐	0.100					
3	☐	1.000	0.885	1398.27	0.0010	P	8.3
4	☐	50.000	49.454	75906.01	0.0551	P	0.5
5	☐	125.000	124.000	193915.87	0.1382	P	4.6
6	☐	250.000	249.066	393968.84	0.2776	P	2.7
7	☐	500.000	500.535	821103.58	0.5578	P	3.0
8	☐	1000.000	1000.118	1676812.58	1.1145	A	1.6
9	☐			2902.28	0.0021	P	7.1

$$y = 0.0011 * x + 3.8588E-005$$

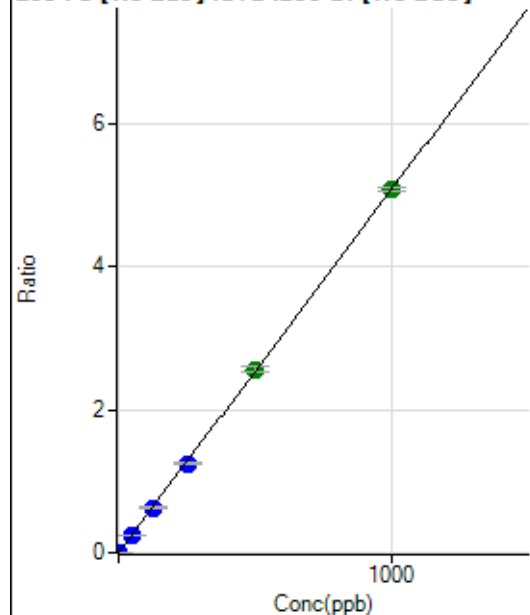
$$R = 1.0000$$

$$DL = 0.04$$

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	259.27	0.0002	P	19.1
2	☐	0.100					
3	☐	1.000	0.877	6336.02	0.0046	P	2.0
4	☐	50.000	48.622	339923.23	0.2470	P	0.9
5	☐	125.000	122.420	872055.08	0.6215	P	4.1
6	☐	250.000	244.685	1762821.62	1.2421	P	2.6
7	☐	500.000	505.209	3774492.62	2.5643	A	3.2
8	☐	1000.000	999.116	7629105.51	5.0711	A	1.0
9	☐			13243.87	0.0094	P	5.3

$$y = 0.0051 * x + 1.9243E-004$$

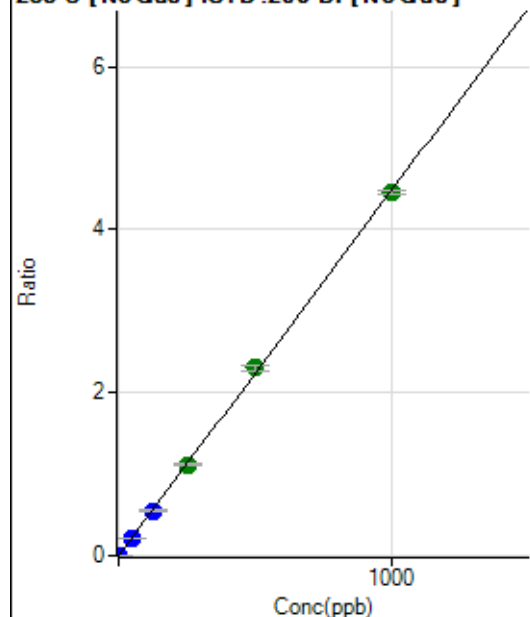
$$R = 1.0000$$

$$DL = 0.0217$$

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	8.33	0.0000	P	173.2
2	☐	0.100					
3	☐	1.000	0.881	5387.53	0.0039	P	4.9
4	☐	50.000	48.109	296447.53	0.2154	P	0.2
5	☐	125.000	122.393	768954.98	0.5479	P	3.3
6	☐	250.000	249.408	1584543.85	1.1166	A	3.0
7	☐	500.000	513.911	3386496.99	2.3007	A	3.0
8	☐	1000.000	993.613	6691587.65	4.4482	A	1.2
9	☐			130.56	0.0001	P	28.7

$$y = 0.0045 * x + 6.1321E-006$$

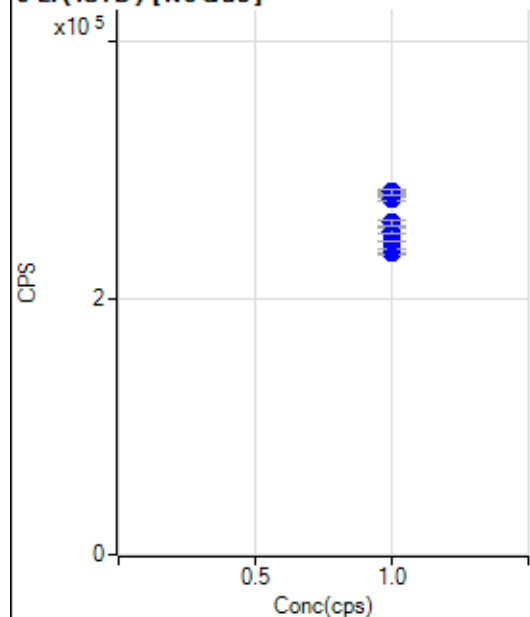
$$R = 0.9998$$

$$DL = 0.007117$$

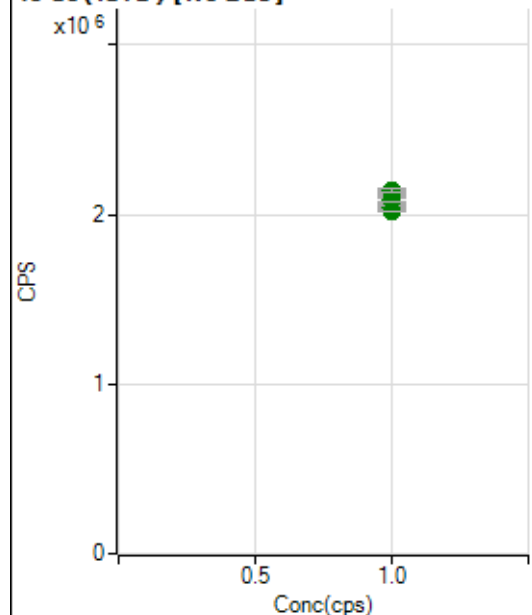
Weight: <None>

Min Conc: 0

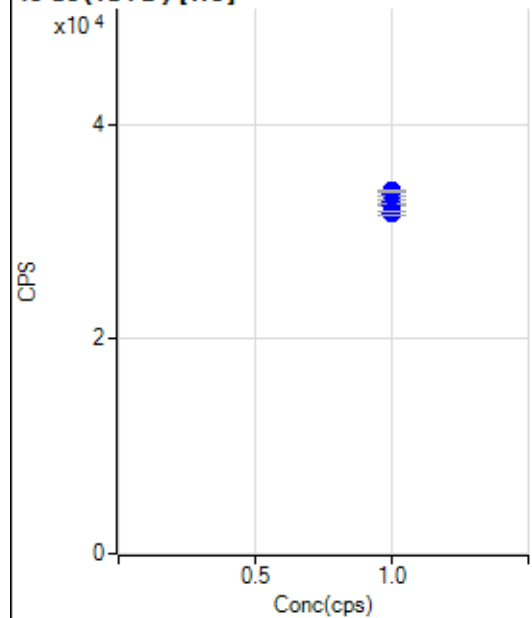
6 Li (ISTD) [No Gas]



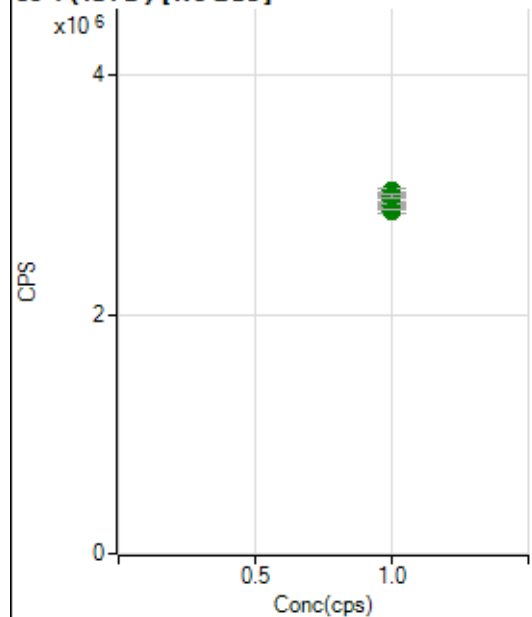
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		234822.23		P	0.5
2	☐	1.000					
3	☐	1.000		238725.97		P	0.2
4	☐	1.000		244735.44		P	0.3
5	☐	1.000		252687.39		P	1.6
6	☐	1.000		259207.16		P	1.9
7	☐	1.000		277414.92		P	1.0
8	☐	1.000		282721.28		P	0.9
9	☐	1.000		283047.00		P	1.5

45 Sc (ISTD) [No Gas]

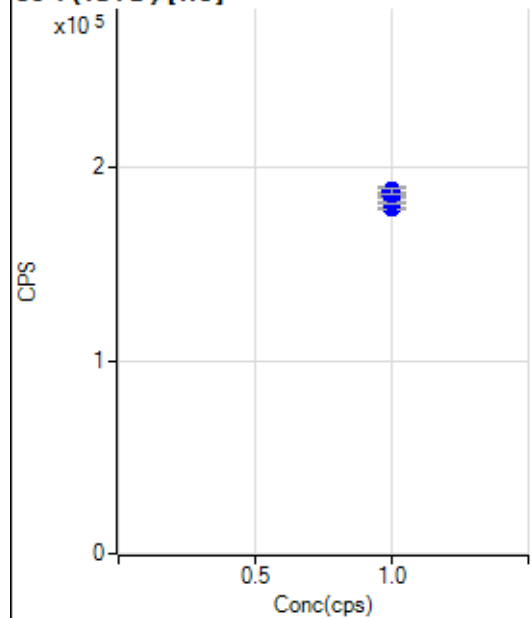
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2039242.45		A	1.2
2	☐	1.000					
3	☐	1.000		2014752.02		A	0.2
4	☐	1.000		2041973.72		A	0.5
5	☐	1.000		2041842.00		A	2.5
6	☐	1.000		2071236.40		A	2.3
7	☐	1.000		2091019.43		A	1.9
8	☐	1.000		2130754.58		A	1.0
9	☐	1.000		2139123.66		A	1.0

45 Sc (ISTD) [He]

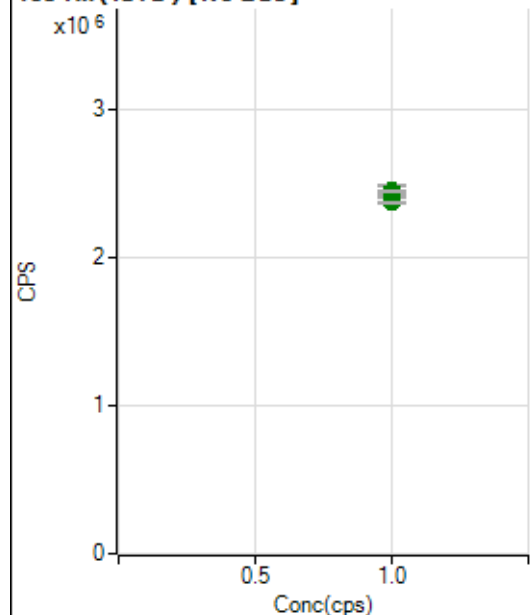
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		31715.89		P	1.0
2	☐	1.000					
3	☐	1.000		32695.88		P	1.6
4	☐	1.000		32411.09		P	3.0
5	☐	1.000		32749.42		P	1.2
6	☐	1.000		32770.59		P	0.7
7	☐	1.000		33323.02		P	2.3
8	☐	1.000		33561.36		P	1.3
9	☐	1.000		33796.25		P	0.8

89 Y (ISTD) [No Gas]

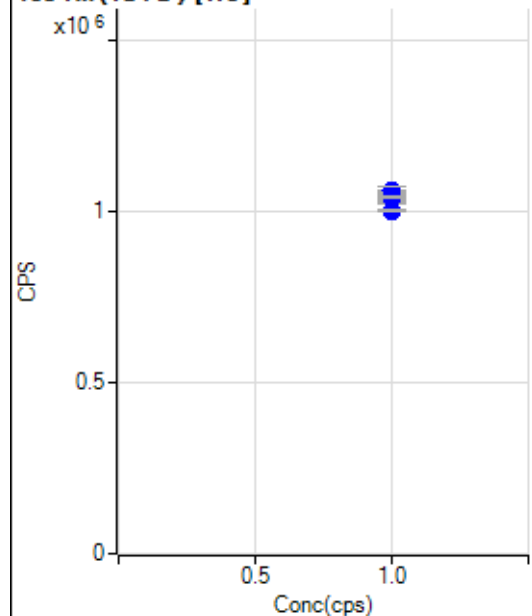
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2899745.17		A	0.7
2	☐	1.000					
3	☐	1.000		2864737.04		A	1.0
4	☐	1.000		2881990.48		A	0.7
5	☐	1.000		2915792.28		A	1.8
6	☐	1.000		2927500.76		A	3.6
7	☐	1.000		2953917.84		A	2.4
8	☐	1.000		3031909.30		A	1.0
9	☐	1.000		2991934.36		A	1.4

89 Y (ISTD) [He]

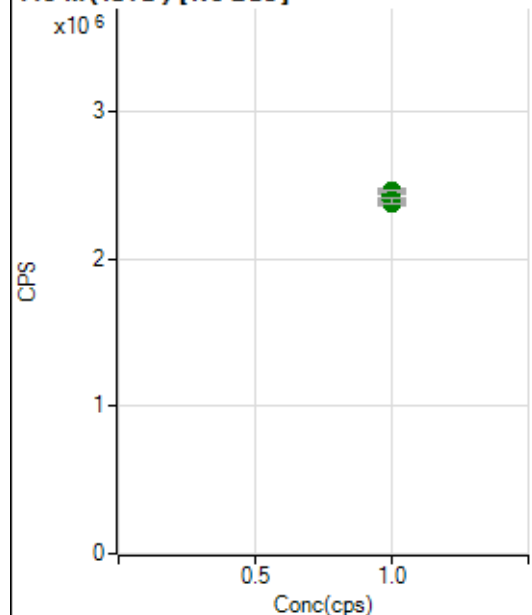
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		179249.48		P	0.4
2	☐	1.000					
3	☐	1.000		179271.18		P	0.3
4	☐	1.000		181631.67		P	3.7
5	☐	1.000		185432.33		P	0.9
6	☐	1.000		182197.86		P	0.7
7	☐	1.000		187956.37		P	2.0
8	☐	1.000		186393.35		P	0.4
9	☐	1.000		187786.65		P	1.1

103 Rh (ISTD) [No Gas]

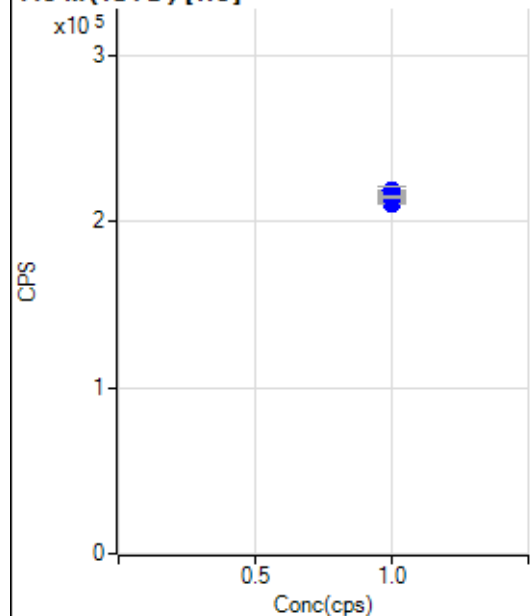
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2443419.17		A	1.0
2	☐	1.000					
3	☐	1.000		2429228.87		A	0.4
4	☐	1.000		2432234.10		A	0.5
5	☐	1.000		2437319.30		A	3.1
6	☐	1.000		2418653.18		A	1.4
7	☐	1.000		2448372.52		A	3.0
8	☐	1.000		2443894.09		A	0.8
9	☐	1.000		2369407.26		A	0.9

103 Rh (ISTD) [He]

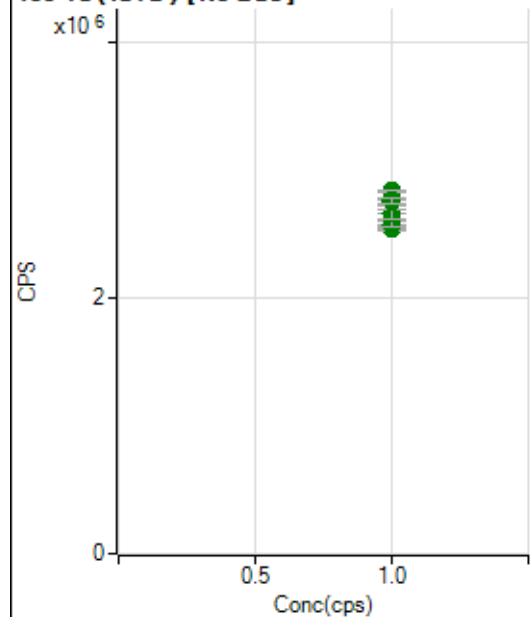
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1030605.45		P	0.4
2	☐	1.000					
3	☐	1.000		1034287.55		P	0.6
4	☐	1.000		1037481.84		P	2.5
5	☐	1.000		1058684.72		P	0.6
6	☐	1.000		1037862.08		P	0.4
7	☐	1.000		1059176.08		P	2.1
8	☐	1.000		1041928.19		P	0.8
9	☐	1.000		1002028.82		P	1.0

115 In (ISTD) [No Gas]

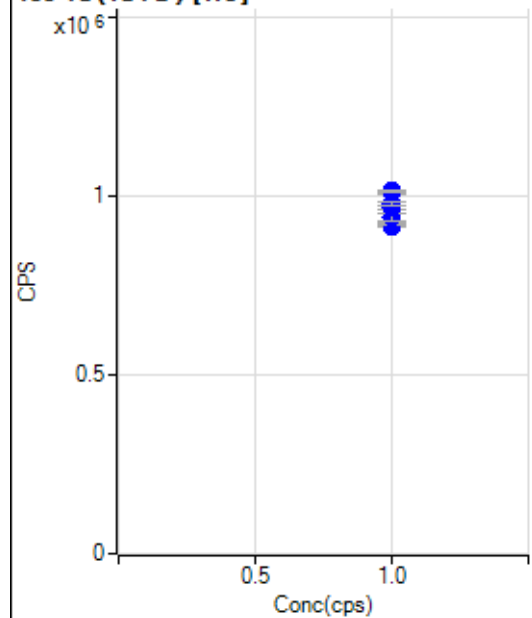
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2392536.05		A	0.1
2	☐	1.000					
3	☐	1.000		2371103.91		A	0.6
4	☐	1.000		2395630.82		A	0.7
5	☐	1.000		2418444.43		A	2.8
6	☐	1.000		2422977.10		A	1.8
7	☐	1.000		2440056.63		A	3.0
8	☐	1.000		2464054.25		A	0.4
9	☐	1.000		2397800.24		A	1.8

115 In (ISTD) [He]

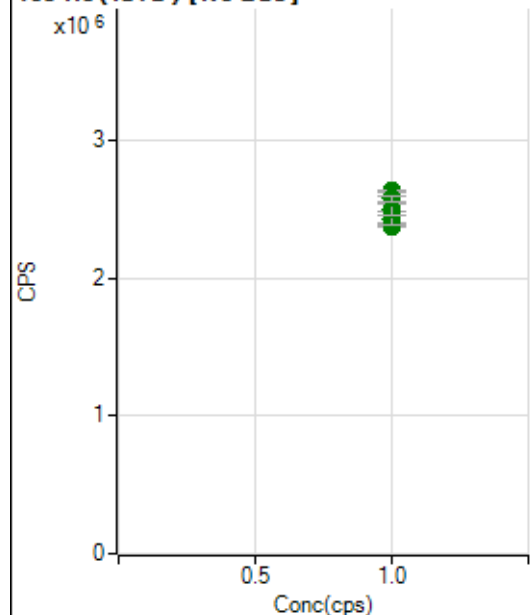
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		211422.89		P	0.4
2	☐	1.000					
3	☐	1.000		213077.56		P	0.5
4	☐	1.000		213668.51		P	2.6
5	☐	1.000		218343.08		P	0.9
6	☐	1.000		214427.09		P	0.4
7	☐	1.000		218598.35		P	2.6
8	☐	1.000		214937.37		P	1.2
9	☐	1.000		215327.46		P	0.6

159 Tb (ISTD) [No Gas]

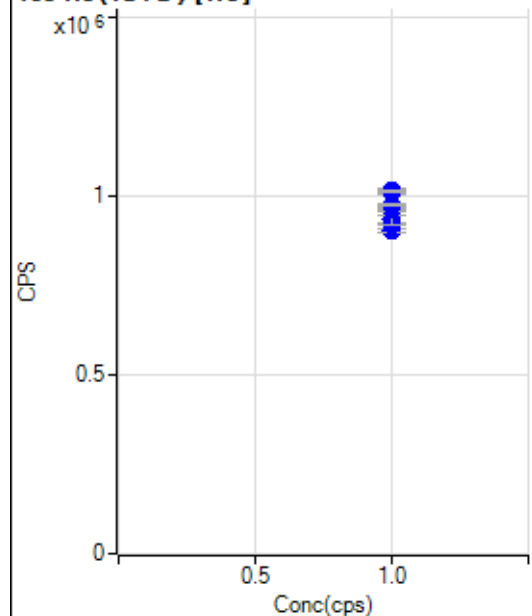
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2561737.37		A	0.5
2	☐	1.000					
3	☐	1.000		2537934.01		A	0.5
4	☐	1.000		2582189.91		A	1.3
5	☐	1.000		2617882.04		A	4.1
6	☐	1.000		2658737.37		A	2.4
7	☐	1.000		2753409.65		A	1.6
8	☐	1.000		2841156.14		A	0.6
9	☐	1.000		2766980.79		A	1.6

159 Tb (ISTD) [He]

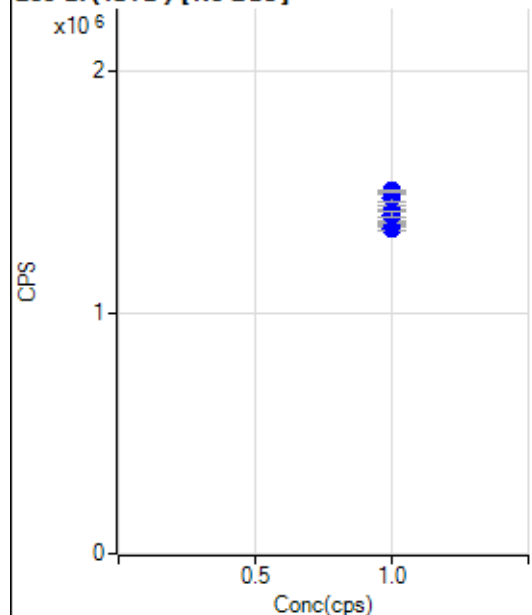
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		913354.71		P	0.4
2	☐	1.000					
3	☐	1.000		922288.50		P	0.4
4	☐	1.000		938478.31		P	2.3
5	☐	1.000		966242.72		P	0.9
6	☐	1.000		972655.64		P	0.1
7	☐	1.000		1012628.17		P	0.9
8	☐	1.000		1014471.52		P	0.5
9	☐	1.000		979425.76		P	1.2

165 Ho (ISTD) [No Gas]

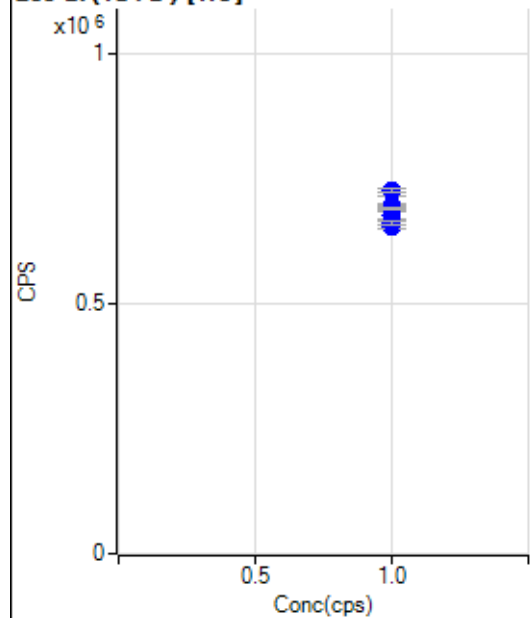
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2395923.71		A	0.6
2	☐	1.000					
3	☐	1.000		2377163.08		A	0.3
4	☐	1.000		2400012.51		A	0.4
5	☐	1.000		2438892.48		A	3.6
6	☐	1.000		2502697.65		A	3.3
7	☐	1.000		2595579.92		A	2.9
8	☐	1.000		2637144.03		A	0.8
9	☐	1.000		2583563.71		A	1.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		903227.94		P	0.9
2	☐	1.000					
3	☐	1.000		920601.69		P	0.4
4	☐	1.000		933335.45		P	3.0
5	☐	1.000		965981.10		P	0.8
6	☐	1.000		960114.67		P	0.6
7	☐	1.000		1012431.88		P	1.8
8	☐	1.000		1014141.68		P	0.3
9	☐	1.000		973359.62		P	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1346860.74		P	0.9
2	☐	1.000					
3	☐	1.000		1364442.17		P	0.2
4	☐	1.000		1376392.81		P	0.1
5	☐	1.000		1404349.93		P	3.3
6	☐	1.000		1419956.56		P	2.9
7	☐	1.000		1472646.25		P	2.3
8	☐	1.000		1504431.59		P	0.9
9	☐	1.000		1407146.45		P	1.4

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		654040.00		P	0.7
2	☐	1.000					
3	☐	1.000		666676.62		P	0.1
4	☐	1.000		677847.82		P	2.5
5	☐	1.000		697762.49		P	0.9
6	☐	1.000		691286.56		P	0.8
7	☐	1.000		722064.62		P	2.2
8	☐	1.000		725772.97		P	1.1
9	☐	1.000		663439.66		P	1.2

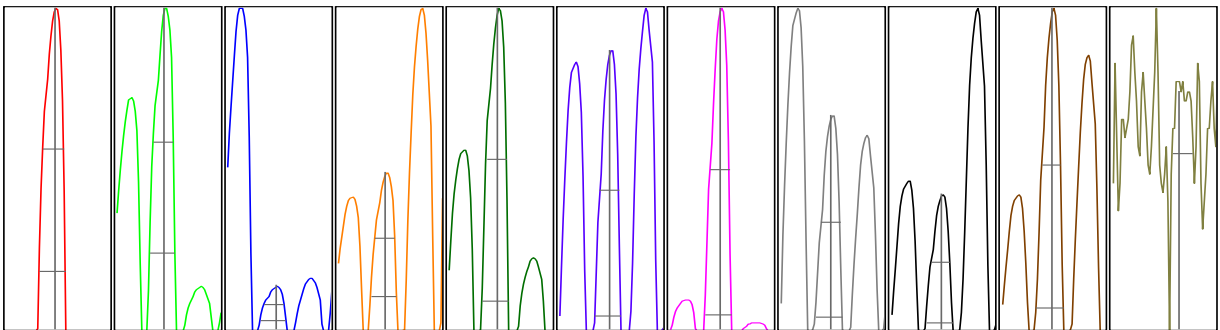
US EPA Tune Check Sample Report

Batch Folder D:\P8022519-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	2290	0.25	5.00	
24	31639	0.53	5.00	
25	4590	0.71	5.00	
26	5569	0.63	5.00	
59	29292	0.42	5.00	
113	3216	0.66	5.00	
115	38032	0.30	5.00	
206	6211	0.88	5.00	
207	5678	0.45	5.00	
208	13318	0.74	5.00	
220	1	22.72		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	2282	2295	2295	2286	2293
24	31374	31730	31593	31695	31805
25	4571	4597	4547	4604	4632
26	5535	5584	5620	5538	5567
59	29112	29414	29355	29354	29224
113	3191	3247	3224	3209	3207
115	37908	38076	38195	38037	37942
206	6136	6240	6223	6278	6180
207	5637	5681	5704	5673	5696
208	13144	13384	13342	13342	13376
220	1	1	1	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	4039	8.95	8.9 - 9.1		0.743	0.900	
24	57079	23.90	23.9 - 24.1		0.723	0.900	
25	7804	24.95	24.9 - 25.1		0.739	0.900	
26	9239	25.90	25.9 - 26.1		0.740	0.900	
59	53225	58.95	58.9 - 59.1		0.753	0.900	
113	6199	113.00	112.9 - 113.1		0.735	0.900	
115	73134	115.00	114.9 - 115.1		0.767	0.900	
206	11802	206.00	205.9 - 206.1		0.773	0.900	
207	10756	207.00	206.9 - 207.1		0.774	0.900	
208	25456	208.00	207.9 - 208.1		0.776	0.900	
220	1	220.45	-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	11.2	V	Deflect	15.4	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-120	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination	5.0	V
He Flow	0.0	mL/min	OctP RF	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	5923	0.49	
89	2528	0.74	
205	4985	0.31	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	5955	5892	5898	5950	5920
89	2501	2545	2546	2522	2527
205	4967	4987	5001	4970	4998

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	11.2	V	Deflect	3.0	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-120	V	Cell Exit	-60	V			

Cell Parameters

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