INTOXILYZER® 8000 CALIBRATION ADJUSTMENT

Intoxilyzer® 8000 Serial Number: 80-007093 Location: TOXL

A. Flow Sensor Calibration and Verification Check (Level 3,M,C,F)
1. X Replaced o-rings if damaged ADJUST VERIFY
2. Flow Meter Serial Number: 40655 & 55260
3. Air Supplied to Intoxilyzer® 8000 at:
   a. X 5 L/min X 15 L/min X 30 L/min
4. X Flow Rate Calibration Printout Attached
   a. X Correlation ≥ 0.99000
5. X Flow Sensor Calibration Verification (Level 3,D,F)
   a. 10 L/min: 0. 160 L/S X 60 Sec/min = 9.6 L/min
   b. 20 L/min: 0. 320 L/S X 60 Sec/min = 19.2 L/min
   c. X Flow Rates within ± 1 L/min of Expected Value

B. Gas Tank Sensor Check (Level 3,D,G)
1. Display: 995 psi Regulator: 1000 psi
2. X Display and Regulator within 50 psi
3. X Completed tare of tank sensor if needed (Level 3,M,C,G)

C. Optical Bench Calibration and Verification Check (Level 3,M,C,O)
1. X Autocalibration Printout Attached
   a. X Max Power Res Value ≥ 10
   b. X Auto Range Res Value ≥ 4
2. Simulator Solutions for Optical Bench Calibration Adjustment
   a. X Set # Solutions to Run at 5

Soln.	g/210 L	Lot No.	Exp. Date	Simulator SN
1	0.000	NA – MilliQ H_2O	NA – MilliQ H_2O	MP3066
2	0.040	201808D	8.22.20	MP3067
3	0.080	201707E	7.25.19	MP3068
4	0.150	201811E	11.26.20	MP3069
5	0.300	201803H	3.22.20	MP3070

3. 0.100 AC Calibration Gas for H2O Adjustment
   a. Lot No. 135181006A3 Cyl No. 6 Exp. Date: 8.5.20
4. Atmospheric Pressure
   a. 942 mbar Displayed by Intoxilyzer® 8000
   b. 942 mbar Adjusted to using barometer
   c. 941/942 mbar on Auto Calibration Report printout
5. X Screen displayed "Calibration Success"

6. X Calibration Adjustment Printout Attached
   a. X Solution 1 Avg % Abs ≤ 0.2500
   b. X Solution 2-5 REL STD DEV ≤ 3.000
   c. X Residual (g/210 L) Values for Solutions 1-5 ≤ 0.0020 for 3 μm and 9 μm channels
   d. X Dry Gas H2O Adjustment Sum for 3 μm and 9 μm channels within ± 10

	Average		H_2O Adjust		
3 μm	4323	+	438	=	4761
9 μm	4121	+	640	=	4761

7. X Optical Bench Calibration Verification (Level 1, S and C)
   a. Wet Calibration Check
      i. Low AC Known Value ≤ 0.03 AC: 0.015 AC
      Sim. SN: DR5113 Lot No.: 201805C Exp. Date: 5.30.20
      ii. High AC Known Value ≥ 0.25 AC: 0.300 AC
      Sim. SN: DR7089 Lot No.: 17350 Exp. Date: 10.11.19
   b. Dry Calibration Check: Known Value 0.08 AC
      Lot No. 344/18080A2 Cyl No. 45 Exp. Date: 2.5.21
      Test 1 0.082 AC Test 4 0.081 AC Test 7 0.081 AC
      Test 2 0.079 AC Test 5 0.079 AC Test 8 0.080 AC
      Test 3 0.079 AC Test 6 0.079 AC Test 9 0.079 AC
      Average 0.080 AC

   c. X Wet Calibration Check and Dry Calibration Check AC results are within ± 0.005 or ± 5% (whichever is greater) of stated value.

D. Remarks/Maintenance: CALIBRATION ADJUST WAS DONE DUE TO STABILITY TEST DURING INITIAL INSPECTION DETERMINED AN AVERAGE VALUE OF 0.076 AC FOR AN 0.080 AC STANDARD. STILL WITHIN TOLERANCE, BUT CLOSE TO +/- 0.005 AC.

X Instrument is acceptable to be used in the field.

Charles E. Eden
Breath Analyst Signature

6.7.2019
Date

NA
Reviewed by

NA
Date

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-007093
Location = TOXL 8164.16.00 09/18
06/07/2019 13:13
Flow Rate Calibration********
1: Rate (Liters/min) = 5
SQRT(Diff)) = 7.277
2: Rate (Liters/min) = 15
SQRT(Diff)) = 12.246
3: Rate (Liters/min) = 30
SQRT(Diff)) = 22.359
Dependent Data Scale Factor = 100000 L/min
Independent Data Scale Factor = 256
Rounded Slope = 638
Rounded Intercept = -611758
Correlation = 0.99684

Charles E Ed

6/7/2019

FLOW CALIBRATION ADJUST

TOXL
Intoxilyzer - Alcohol Analyzer
Model 8000 SN 80-007093
06/07/2019 13:23:31

Auto Calibration

	<<<<< 3um >>>>>		<<<<< 9um >>>>>	
Solution = 0.000 g/210L or 0.0000 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	0.0540	(-0.0150)	0.1710	(-0.0220)
Sample #2	0.0510	(0.0280)	0.1650	(-0.0010)
Sample #3	0.0240	(0.0520)	0.1420	(0.0040)
Sample #4	0.0170	(0.0620)	0.1560	(-0.0020)
Avg % Abs	0.0307	(0.0473)	0.1543	(0.0003)
STD DEV	0.0180	(0.0175)	0.0116	(0.0032)
REL STD DEV	58.544	(36.916)	7.510	(964.365)
Solution = 0.040 g/210L or 0.1905 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	0.7210	(0.0060)	1.4670	(0.0000)
Sample #2	0.7400	(0.0030)	1.4890	(-0.0120)
Sample #3	0.7470	(0.0200)	1.4940	(-0.0040)
Sample #4	0.7570	(0.0020)	1.4920	(-0.0200)
Avg % Abs	0.7480	(0.0083)	1.4917	(-0.0120)
STD DEV	0.0085	(0.0101)	0.0025	(0.0080)
REL STD DEV	1.142	(121.392)	0.169	(66.667)
Solution = 0.080 g/210L or 0.3810 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	1.4630	(0.0160)	2.8070	(0.0050)
Sample #2	1.4960	(-0.0010)	2.8360	(-0.0060)
Sample #3	1.4990	(0.0040)	2.8400	(-0.0060)
Sample #4	1.4920	(0.0190)	2.8530	(-0.0080)
Avg % Abs	1.4957	(0.0073)	2.8430	(-0.0067)
STD DEV	0.0035	(0.0104)	0.0089	(0.0012)
REL STD DEV	0.235	(141.932)	0.313	(17.321)
Solution = 0.150 g/210L or 0.7143 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	2.6250	(0.0060)	4.9470	(0.0170)
Sample #2	2.6280	(0.0270)	4.9890	(0.0190)
Sample #3	2.6360	(0.0300)	5.0030	(0.0100)
Sample #4	2.6770	(0.0130)	5.0160	(0.0070)
Avg % Abs	2.6470	(0.0233)	5.0027	(0.0120)
STD DEV	0.0263	(0.0091)	0.0135	(0.0062)
REL STD DEV	0.993	(38.888)	0.270	(52.042)
Solution = 0.300 g/210L or 1.4286 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	5.1230	(-0.0210)	9.4040	(-0.0060)
Sample #2	5.1440	(-0.0080)	9.4390	(0.0010)
Sample #3	5.1260	(-0.0050)	9.4520	(0.0130)
Sample #4	5.1160	(0.0070)	9.4630	(0.0120)
Avg % Abs	5.1287	(-0.0020)	9.4513	(0.0087)
STD DEV	0.0142	(0.0079)	0.0120	(0.0067)
REL STD DEV	0.277	(396.863)	0.127	(76.827)

TOXL
Intoxilyzer - Alcohol Analyzer
Model 8000 SN 80-007093
06/07/2019 13:23:31

Auto Calibration

	<<<<< 3um >>>>>	<<<<< 9um >>>>>
Zero Order Coef	-92.57	-217.72
First Order Coef	2610.14	1387.91
Second Order Coef	38.04	15.56

Act (g/210L)	Fit (g/210L)	Residual (g/210L)	Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	-0.000	0.0003	0.000	-0.000	0.0001
0.040	0.040	0.0005	0.040	0.040	0.0004
0.080	0.082	-0.0018	0.080	0.081	-0.0009
0.150	0.149	0.0013	0.150	0.149	0.0006
0.300	0.300	-0.0002	0.300	0.300	-0.0001

	<<<<< 3um >>>>>	<<<<< 9um >>>>>

Solution = 0.100 g/210L or 0.4762 mg/l, Samples = 4, Discarded = 1

Sample		
Sample #1	4479.00	4241.00
Sample #2	4338.00	4149.00
Sample #3	4309.00	4108.00
Sample #4	4324.00	4106.00
Avg	4323.6665	4121.0000
STD DEV	14.5029	24.2693
REL STD DEV	0.335	0.589
H2O adjust (mg/l*10k)	438	640

Atmospheric Pressure = 941

**********CALIBRATION SUCCESSFUL**********

TOXL
Intoxilyzer - Alcohol Analyzer
Model 8000 SN 80-007093
06/07/2019 13:23:31

Auto Calibration
Max Power Res Value = 96
Auto Range Res Value = 78

6.7.2019

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer — Alcohol Analyzer
North Dakota Model 8000 — SN 80-007093
Location = TOXL — 8164.16.00 09/18
06/07/2019 — 14:14

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	14:15
02 Std. Sol.	0.014	14:16
03 Room Air	0.000	14:16
04 Std. Sol.	0.013	14:17
05 Room Air	0.000	14:17
06 Std. Sol.	0.014	14:18
07 Room Air	0.000	14:19

08 Sim Temp = 34.0°C

Simul Ser No = DR5113
Std Sol No = 201805C
County = 08 — Oper No. = 666666

Operator Signature
CHARLES EDER

Remarks: 0.015 AC
Low AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer — Alcohol Analyzer
North Dakota Model 8000 — SN 80-007093
Location = TOXL — 8164.16.00 09/18
06/07/2019 — 14:21

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	14:21
02 Std. Sol.	0.305	14:22
03 Room Air	0.000	14:23
04 Std. Sol.	0.305	14:23
05 Room Air	0.000	14:24
06 Std. Sol.	0.305	14:25
07 Room Air	0.000	14:25

08 Sim Temp = 34.0°C

Simul Ser No = DR7089
Std Sol No = 17350
County = 08 — Oper No. = 666666

Operator Signature
CHARLES EDER

Remarks: 1764 AC
0.300 AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer — Alcohol Analyzer
North Dakota Model 8000 — SN 80-007093
Location = TOXL — 8164.16.00 09/18
06/07/2019 — 14:27

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	14:28
02 Std. Gas	0.082	14:28
03 Room Air	0.000	14:29
04 Std. Gas	0.079	14:29
05 Room Air	0.000	14:29
06 Std. Gas	0.079	14:30
07 Room Air	0.000	14:30

Lot No = 34418080A2
Cyl No = 45
Exp Date = 02/05/2021
County = 08 — Oper No. = 666666

Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK
0.080 AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer — Alcohol Analyzer
North Dakota Model 8000 — SN 80-007093
Location = TOXL — 8164.16.00 09/18
06/07/2019 — 14:31

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	14:31
02 Std. Gas	0.081	14:32
03 Room Air	0.000	14:32
04 Std. Gas	0.079	14:33
05 Room Air	0.000	14:33
06 Std. Gas	0.079	14:33
07 Room Air	0.000	14:34

Lot No = 34418080A2
Cyl No = 45
Exp Date = 02/05/2021
County = 08 — Oper No. = 666666

Charles E Eder

Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK
0.080 AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer — Alcohol Analyzer
North Dakota Model 8000 — SN 80-007093
Location = TOXL — 8164.16.00 09/18
06/07/2019 — 14:34

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	14:35
02 Std. Gas	0.081	14:35
03 Room Air	0.000	14:36
04 Std. Gas	0.080	14:36
05 Room Air	0.000	14:37
06 Std. Gas	0.079	14:37
07 Room Air	0.000	14:38

Lot No = 34418080A2
Cyl No = 45
Exp Date = 02/05/2021
County = 08 — Oper No. = 666666

Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK
0.080 AC

Form 106-I8000