

INTOXILYZER® 8000 CALIBRATION ADJUSTMENT

Intoxilyzer® 8000 Serial Number: 80-003069 Location: TOXL

- A. Flow Sensor Calibration and Verification Check (Level 3,M,C,F)
1. Replaced o-rings if damaged ADJUST # VERIFY
 2. Flow Meter Serial Number: 40655 55260
 3. Air Supplied to Intoxilyzer® 8000 at:
 - a. 5 L/min 15 L/min 30 L/min
 4. Flow Rate Calibration Printout Attached
 - a. Correlation ≥ 0.99000
 5. Flow Sensor Calibration Verification (Level 3,D,F)
 - a. 10 L/min: 0. 156 L/S X 60 Sec/min = 9.36 L/min
 - b. 20 L/min: 0. 324 L/S X 60 Sec/min = 19.2 L/min
 - c. Flow Rates within ± 1 L/min of Expected Value

- B. Gas Tank Sensor Check (Level 3,D,G)
1. Display: 975 psi Regulator: 975 psi
 2. Display and Regulator within 50 psi
 3. Completed tare of tank sensor if needed (Level 3,M,C,G) NX

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

Soln.	g/210 L	Lot No.	Exp. Date	Simulator SN
1	Nom. 0.000 ACTUAL	NA - MilliQ H ₂ O	NA - MilliQ H ₂ O	MP5289
2	0.040 0.041	21GP41169	7.29.23	MP6041
3	0.080 0.080	21KP41174	11.9.23	MP6035
4	0.100 0.099	22BP41183	2.14.24	MP3048
5	0.300 0.301	202201F	1.18.24	MP3068

3. 0.100 AC Calibration Gas for H₂O Adjustment
 - a. Lot No. 07220100A1 Cyl No. 4 Exp. Date: 5/5/22
4. Atmospheric Pressure
 - a. 952 mbar Displayed by Intoxilyzer® 8000
 - b. 951 mbar Adjusted to using barometer
 - c. 951 mbar on Auto Calibration Report printout
5. Screen displayed "Calibration Success"

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

	Average	H ₂ O Adjust	=	
3 μm	<u>4211</u>	<u>550</u>	=	<u>4761</u>
9 μm	<u>4434</u>	<u>327</u>	=	<u>4761</u>

7. Optical Bench Calibration Verification (Level 1, S and C)

a. Wet Calibration Check

- i. Low AC Known Value ≤ 0.03 AC: 0.020 AC
 Sim. SN: MP3070 Lot No.: 22CP4118 Exp. Date: 3.1.24
- ii. High AC Known Value ≥ 0.25 AC: 0.400 AC
 Sim. SN: MP3065 Lot No.: 202103E Exp. Date: 3.24.23

b. Dry Calibration Check: Known Value 0.08 AC

Lot No. 02621080A1 Cyl No. 2 Exp. Date: 3.5.23

Test 1 <u>0.079</u> AC	Test 4 <u>0.086</u> AC	Test 7 <u>0.079</u> AC
Test 2 <u>0.080</u> AC	Test 5 <u>0.080</u> AC	Test 8 <u>0.080</u> AC
Test 3 <u>0.080</u> AC	Test 6 <u>0.080</u> AC	Test 9 <u>0.079</u> AC

Average 0.080 AC

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

D. Remarks/Maintenance: CALIBRATION DUE TO TRAINING

BATTERY STATUS ISSUE WHEN UNPLUGGED

Instrument is acceptable to be used in the field.

NO

Charles E. Ehr
 Breath Analyst Signature

3/30/22
 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 80-003069
Location = TOXL 8164.14.00 09/16
03/30/2022 10:06

Flow Rate Calibration*****

1: Rate (Liters/min) = 5
 SQRT(Diff)) = 7.414
2: Rate (Liters/min) = 15
 SQRT(Diff)) = 12.121
3: Rate (Liters/min) = 30
 SQRT(Diff)) = 21.906

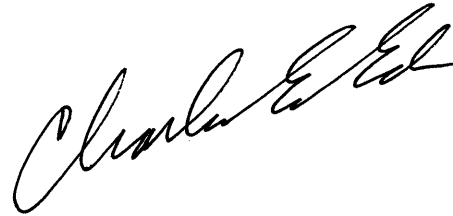
Dependent Data Scale Factor = 100000 L/min

Independent Data Scale Factor = 256

Rounded Slope = 662

Rounded Intercept = -676090

Correlation = 0.99642



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-003069
 03/30/2022 10:18:55

Auto Calibration

pg 1 of 2

```

  <<<<<      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 0.0900   (0.0050)     0.1150   (0.0020)
  Sample #2 0.0670   (0.0360)     0.0980   (0.0090)
  Sample #3 0.0720   (0.0470)     0.1040   (0.0210)
  Sample #4 0.0960   (0.0310)     0.1110   (0.0090)
  Avg % Abs 0.0783   (0.0380)     0.1043   (0.0130)
  STD DEV   0.0155   (0.0082)     0.0065   (0.0069)
  REL STD DEV 19.791   (21.540)     6.236    (53.294)
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  Solution = 0.041 g/210L or 0.1952 mg/l, Samples = 4, Discarded = 1
  Sample   % Abs   (% Abs Ref)   % Abs   (% Abs Ref)
  Sample #1 0.8070   (-0.0200)    1.5630   (-0.0040)
  Sample #2 0.7980   (-0.0040)    1.5630   (0.0060)
  Sample #3 0.8060   (-0.0040)    1.5450   (0.0140)
  Sample #4 0.7800   (0.0070)     1.5470   (0.0070)
  Avg % Abs 0.7947   (-0.0003)    1.5517   (0.0090)
  STD DEV   0.0133   (0.0064)     0.0099   (0.0044)
  REL STD DEV 1.676   (1905.256)    0.636    (48.432)
  -----
  
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  Solution = 0.080 g/210L or 0.3810 mg/l, Samples = 4, Discarded = 1
  Sample   % Abs   (% Abs Ref)   % Abs   (% Abs Ref)
  Sample #1 1.4280   (0.0030)     2.9080   (0.0000)
  Sample #2 1.4320   (0.0110)     2.8940   (0.0190)
  Sample #3 1.4540   (0.0020)     2.8960   (0.0170)
  Sample #4 1.4710   (0.0070)     2.8930   (0.0300)
  Avg % Abs 1.4523   (0.0067)     2.8943   (0.0220)
  STD DEV   0.0196   (0.0045)     0.0015   (0.0070)
  REL STD DEV 1.346   (67.639)     0.053    (31.818)
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  Solution = 0.099 g/210L or 0.4714 mg/l, Samples = 4, Discarded = 1
  Sample   % Abs   (% Abs Ref)   % Abs   (% Abs Ref)
  Sample #1 1.8060   (-0.0170)    3.6000   (0.0020)
  Sample #2 1.7820   (0.0070)     3.5840   (0.0070)
  Sample #3 1.8200   (-0.0070)    3.5950   (0.0190)
  Sample #4 1.8090   (0.0040)     3.5950   (0.0160)
  Avg % Abs 1.8037   (0.0013)     3.5913   (0.0140)
  STD DEV   0.0196   (0.0074)     0.0064   (0.0062)
  REL STD DEV 1.084   (552.834)    0.177    (44.607)
  -----
  
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  Solution = 0.301 g/210L or 1.4333 mg/l, Samples = 4, Discarded = 1
  Sample   % Abs   (% Abs Ref)   % Abs   (% Abs Ref)
  Sample #1 5.0270   (-0.0020)    9.9460   (0.0120)
  Sample #2 5.0210   (0.0360)     9.9580   (0.0410)
  Sample #3 5.0640   (0.0140)     9.9350   (0.0560)
  Sample #4 5.0500   (0.0150)     9.9490   (0.0350)
  Avg % Abs 5.0450   (0.0217)     9.9473   (0.0440)
  STD DEV   0.0219   (0.0124)     0.0116   (0.0108)
  REL STD DEV 0.435   (57.337)     0.117    (24.583)
  -----
  
```

TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-003069
 03/30/2022 10:18:55

Auto Calibration

pg 2 of 2

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

 Zero Order Coef -201.51
 First Order Coef 2672.93
 Second Order Coef 41.19

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

 Zero Order Coef -123.25
 First Order Coef 1303.83
 Second Order Coef 15.00

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	0.000	-0.0002
0.041	0.041	0.0001
0.080	0.079	0.0009
0.099	0.100	-0.0008
0.301	0.301	0.0000

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	0.000	-0.0003
0.041	0.041	0.0003
0.080	0.079	0.0007
0.099	0.100	-0.0008
0.301	0.301	0.0001

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

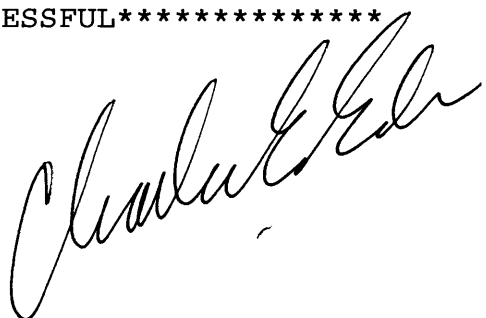
<<<<< 9um >>>>>

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

Sample	3um	9um
Sample #1	4245.00	4411.00
Sample #2	4148.00	4431.00
Sample #3	4244.00	4437.00
Sample #4	4241.00	4435.00
Avg	4211.0000	4434.3335
STD DEV	54.5802	3.0551
REL STD DEV	1.296	0.069
H2O adjust (mg/l*10k)	550	327

Atmospheric Pressure = 951

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



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-003069
 03/30/2022 10:18:55

Auto Calibration
 Max Power Res Value = 27
 Auto Range Res Value = 16

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

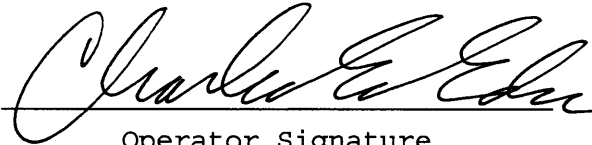
CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-003069
Location = TOXL 8164.14.00 09/16
03/30/2022 11:13

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	11:14
02 Std. Sol.	0.020	11:15
03 Room Air	0.000	11:15
04 Std. Sol.	0.020	11:16
05 Room Air	0.000	11:16
06 Std. Sol.	0.020	11:17
07 Room Air	0.000	11:18

08 Sim Temp = 34.0°C

Simul Ser No = MP3070
Std Sol No = 22CP41184
County = 08 Oper No. = 123456



Operator Signature
N/A STUDENT

Remarks:

Low AC
0.020 AC

Form 106-I8000

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

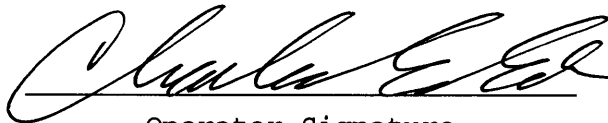
CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-003069
Location = TOXL 8164.14.00 09/16
03/30/2022 11:19

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	11:20
02 Std. Sol.	0.401	11:21
03 Room Air	0.000	11:21
04 Std. Sol.	0.402	11:22
05 Room Air	0.000	11:22
06 Std. Sol.	0.403	11:23
07 Room Air	0.000	11:24

08 Sim Temp = 34.0°C

Simul Ser No = MP3065
Std Sol No = 202103E
County = 08 Oper No. = 123456



Operator Signature
N/A STUDENT

Remarks:

HIGH AC
0.400 AC

Form 106-I8000

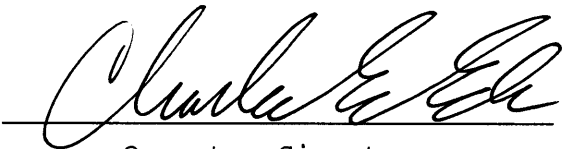
Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-003069
Location = TOXL 8164.14.00 09/16
03/30/2022 11:25

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	11:26
02 Std. Gas	0.079	11:26
03 Room Air	0.000	11:27
04 Std. Gas	0.080	11:27
05 Room Air	0.000	11:28
06 Std. Gas	0.080	11:28
07 Room Air	0.000	11:29

Lot No = 02621080A1
Cyl No = 2
Exp Date = 03/05/2023
County = 08 Oper No. = 123456



Operator Signature
N/A STUDENT

Remarks: *CALIBRATION CHECK*
0.080 AC

Form 106-I8000

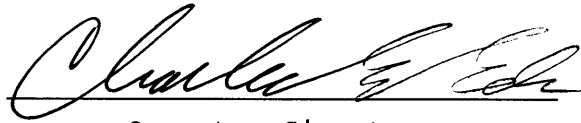
Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-003069
Location = TOXL 8164.14.00 09/16
03/30/2022 11:29

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	11:29
02 Std. Gas	0.080	11:30
03 Room Air	0.000	11:30
04 Std. Gas	0.080	11:31
05 Room Air	0.000	11:31
06 Std. Gas	0.080	11:32
07 Room Air	0.000	11:32

Lot No = 02621080A1
Cyl No = 2
Exp Date = 03/05/2023
County = 08 Oper No. = 123456



Operator Signature
N/A STUDENT

Remarks: CALIBRATION CHECK
0.080 AC

Form 106-I8000

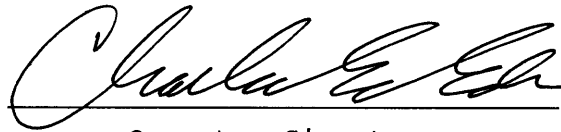
Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-003069
Location = TOXL 8164.14.00 09/16
03/30/2022 11:32

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	11:33
02 Std. Gas	0.079	11:33
03 Room Air	0.000	11:34
04 Std. Gas	0.080	11:34
05 Room Air	0.000	11:35
06 Std. Gas	0.079	11:35
07 Room Air	0.000	11:35

Lot No = 02621080A1
Cyl No = 2
Exp Date = 03/05/2023
County = 08 Oper No. = 123456



Operator Signature
N/A STUDENT

Remarks:

CALIBRATION CHECK
0.080 AC

Form 106-I8000