

Alaska Scientific Crime Detection Laboratory

DataMaster Calibration Form

Effective: 1/23/2024

Version: 4.0

Instrument #: 100420 Analyst or Technician Name: Derek Watten

DataMaster DMT Calibration Start Date: 05/16/24

Diagnostic Test

- Perform Diagnostic Test (View Details)
- Internal Standard Value \leq 3.00%

Technician Screen and Calibration Factors

- Adjust Voltages (if needed)
 - Lamp (2.60 V Maximum)
 - Bias
 - Cooler (2.00 V Maximum)
 - Chopper Frequency
 - Detector Voltage (-0.100V to 0.100V)

Set RFI Sensitivity

Adjust internal barometer reading to match NIST-traceable barometer
Barometer/Thermometer/Hygrometer S/N: 230307229

Calibration Due Date: 05/02/25

- Verify Volume Setting (1.50 L +/- 0.10 L), adjust if needed
- Print Technician Screen
- Print "Cal Factors"

Minimum Volume Test

Perform Minimum Volume (Subject) Test: _____ liters (1.3 L to 1.7 L)

As Left Linearity Testing

Barometric Pressure (in Hg) _____ Temperature(C) _____ Relative Humidity(%) _____

Approved Concentrations (g/210L): 0.020, 0.040, 0.080, 0.100, 0.150, 0.300

Functional Tests

- Incomplete
- Invalid
- Interference (Volatiles) - *Print with View Details*
- Maximum Attempts Exceeded
- Radio Frequency Interference (RFI)

1. Acetone Reagent Lot Number: _____ Expiration Date: _____
Simulator S/N: _____ Thermometer Verification Performed?
2. Isopropanol Reagent Lot Number: _____ Expiration Date: _____
Simulator S/N: _____ Thermometer Verification Performed?
3. Negative (Ethanol Only) Lot Number: _____ Expiration Date: _____
Simulator S/N: _____ Thermometer Verification Performed?

Calibrated External Thermometer S/N: _____

Calibration Due Date: _____

Administrative

- Verify Stylus Calibration
- Reset Options
- Clear Memory
- Verification of Calibration (VOC)
- Perform Non-Drinking Subject Test
- Upload Instrument
- Remove Dry Gas Tank Before Shutdown
- Add Ready for Tech Review Note

Completion

Lab Work End Date: _____

Data Interpretation Date (Technician): _____ (if applicable)

Data Interpretation Date (Analyst): _____

All printed copies are uncontrolled.

Approved by: Chemistry Supervisor

Filter wheel error during
Calibration. Seems to be
caused by filter wheel
Solenoid shorting to
the sample chamber.
Needs Repair
DMV 05/16/24

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 05/16/2024
Time: 09:14:17

VERSIONS
DMT: 3.02
PIC: 3.02
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.8°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.89 V PASSED
(1.10 V - 2.58 V)
Cooler Voltage = 1.71 V PASSED
(1.01 V - 2.35 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 535 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 5.031 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.002 v <= 0.010 v)
PUMP OFF PASSED
(0.002 v <= 0.010 v)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED
Xq = 0.079 0.22% (0.00% - 4.00%)

Rejected

Technician Screen

DATAMASTER dmt: 100420

Date: 05/16/2024
Time: 9:31 AM

Temperatures (°C)
Sample Cell: 48.7°C
Breath Tube: 47.9°C

Current Barometer 29.8 in
Volume (Ltr) 1.50 ✓

Settings
Lamp: 1.89 v ✓
Bias: 79 v
Cooler: 1.83 v ✓
Chopper: 524 Hz

Voltages (V)
Flow: 1.05 v
Detector: -0.068 v ✓

Rejected

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 05/18/2011
Time: 13:54:20

OPERATOR NAME:
COLLEEN S OBRYANT
CERTIFICATE #: 6237

LOT #: GUTH100
BOTTLE #: 10260
EXPIRATION: 10/25/2010

Ca = 0.1000
CAL = 0.987303 0.800 <= CAL < 1.200
b1 = 0.0000 0.0000 <= b1 < 0.0040
b2 = 0.0034 0.0010 <= b2 < 0.0100
b3 = 0.0000 0.0000 <= b3 < 0.0040
Xq = 0.0794 0.0500 <= Xq < 0.2000
a21 = 1.113495 1.050 <= a21 < 1.300
a31 = 0.362455 0.300 <= a31 < 0.800

Rejected

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 05/16/2024
Time: 09:38:51

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

DEPT/AGENCY:
MINIMUM VOLUME
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.78: 0.080
LOT #: AG335202
EXPIRATION: 12/18/2025

Filter Wheel Error

Rejected