

Alaska Scientific Crime Detection Laboratory

DataMaster Evaluation Form

Issued: 05/15/2020
Effective: 05/15/2020

Version: DMEF 2020 R0
Status: Active

Instrument # 100416

Start Date: 10/27/2021

Analysts: Carlisle Haister

Reason for instrument evaluation

Failed certification due to internal standard error

Visual Inspection

Clean

Cermetex Box is secure

Gas Valve upright or secured to wall

O-ring inspection and ensure 2 O-rings in replacement bag

Replace missing screws

Ensure modem cable present

All tubing and connections are secure

Troubleshooting/Repair

Gas valve becoming unadhered to wall. Removed & replaced double sided tape & secured to wall

Recalibrated stylus due to touchscreen issues.

Internal standard value normal on VOC.

Performed a filter wheel test for 55 cycles with 0 errors.

Unable to repeat internal standard error during eval.

VOC (attached)

Internal Standard value $\leq 3.00\%$

Verify software version

Return to Factory for Repair

Ready for Certification

Ready for Calibration

Proceed to Close Out

End Date: 10/28/2021

VERIFICATION OF CALIBRATION REPORT

of DataMaster dmt Breath Test Instrument

State of Alaska

Serial #: 100416

Scientific Crime Detection Laboratory - Statewide Breath Alcohol Program

Date: 10/27/2021

External Standard Test Values

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.28: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022
TANK PRESSURE: 1159 psi

BLANK TEST 0.000 14:39
INTERNAL STANDARD VERIFIED 14:39
Xq = 0.080 (1.31%)
EXTERNAL STANDARD 0.077 14:40
X[1] = 0.0770 (-0.0022) (-0.0006)
BLANK TEST 0.000 14:41
EXTERNAL STANDARD 0.076 14:41
X[1] = 0.0764 (-0.0025) (-0.0006)
BLANK TEST 0.000 14:42
EXTERNAL STANDARD 0.076 14:42
X[1] = 0.0761 (-0.0029) (-0.0004)
BLANK TEST 0.000 14:43
EXTERNAL STANDARD 0.076 14:43
X[1] = 0.0763 (-0.0024) (-0.0003)
BLANK TEST 0.000 14:44
EXTERNAL STANDARD 0.076 14:44
X[1] = 0.0764 (-0.0016) (-0.0005)
BLANK TEST 0.000 14:45

Average = 0.0762
Std Dev = 0.0004

Diagnostic Check

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 = 45.8°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.60 V PASSED
(0.95 V - 2.21 V)
Cooler Voltage = 1.53 V PASSED
(0.98 V - 2.30 V)
Bias Voltage = 82 V PASSED
(49 V - 115 V)
Chopper Freq = 520 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.3 in

PUMP INFO

Flow Rate = 4.721 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 = 0.080 0.88% (0.00% - 4.00%)

VERIFICATION OF CALIBRATION REPORT

of DataMaster dmt Breath Test Instrument

State of Alaska

Serial #: 100416

Scientific Crime Detection Laboratory - Statewide Breath Alcohol Program

Date: 10/28/2021

External Standard Test Values

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.32: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022
TANK PRESSURE: 1131 psi

| | | |
|---------------------------------|----------|-------|
| BLANK TEST | 0.000 | 14:10 |
| INTERNAL STANDARD | VERIFIED | 14:10 |
| Xq = 0.081 (1.42%) | | |
| EXTERNAL STANDARD | 0.077 | 14:10 |
| X[1] = 0.0771 (0.0006) (0.0039) | | |
| BLANK TEST | 0.000 | 14:11 |
| EXTERNAL STANDARD | 0.077 | 14:11 |
| X[1] = 0.0766 (0.0000) (0.0029) | | |
| BLANK TEST | 0.000 | 14:12 |
| EXTERNAL STANDARD | 0.077 | 14:13 |
| X[1] = 0.0766 (0.0003) (0.0026) | | |
| BLANK TEST | 0.000 | 14:13 |
| EXTERNAL STANDARD | 0.076 | 14:14 |
| X[1] = 0.0765 (0.0014) (0.0027) | | |
| BLANK TEST | 0.000 | 14:15 |
| EXTERNAL STANDARD | 0.076 | 14:15 |
| X[1] = 0.0764 (0.0011) (0.0024) | | |
| BLANK TEST | 0.000 | 14:16 |

Average = 0.0766
Std Dev = 0.0005

Diagnostic Check

VERSIONS

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

TEMPERATURES

| | |
|--|--------|
| Sample Chamber = 48.7°C (44.0°C - 52.0°C) | PASSED |
| Breath Tube = 45.8°C (38.0°C - 50.0°C) | PASSED |

SETTINGS

| | |
|--|--------|
| Lamp Voltage = 1.60 V (0.95 V - 2.21 V) | PASSED |
| Cooler Voltage = 1.53 V (0.98 V - 2.30 V) | PASSED |
| Bias Voltage = 82 V (49 V - 115 V) | PASSED |
| Chopper Freq = 527 Hz (475 Hz - 575 Hz) | PASSED |
| Barometer = 29.3 in | |

PUMP INFO

| | |
|--|--------|
| Flow Rate = 4.722 L/M (3.500 L/M - 6.500 L/M) | PASSED |
|--|--------|

DETECTOR INFO

| | |
|----------------------------------|--------|
| PUMP ON (0.002 V <= 0.010 V) | PASSED |
| PUMP OFF (0.002 V <= 0.010 V) | PASSED |

FILTER INFO

| | |
|----------|--------|
| Filter 1 | PASSED |
| Filter 2 | PASSED |
| Filter 3 | PASSED |

| | |
|----------------------------------|--------|
| INTERNAL STANDARD | PASSED |
| Xq = 0.079 0.11% (0.00% - 4.00%) | |