

Alaska Scientific Crime Detection Laboratory

DataMaster Evaluation Form

Issued: 04/03/2018
Effective: 04/04/2018

Version: DMEF2018 R0
Status: Active

Instrument # 100422

Date: 06/06/2019

Analyst: Derek Walton

1. Reason for instrument evaluation

Preventive maintenance

2. Visual Inspection

Clean

Replace missing screws

Cermetex Box is secure

Ensure modem cable present

Gas Valve upright or secured to wall

All tubing and connections are secure

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

4. Troubleshooting/Repair

Replaced o-ring. Noisy chopper motor. Routed filter wires separately.

Replaced chopper motor.

Adjusted lamp voltage to 1.83 V, cooler voltage to 1.75 V. Detector
voltage - 0.045 V

DW 06/06/19

4 DW 06/24/19

Update: On 6/22/19 while preparing for certification, instrument began
to exhibit internal standard failures. This happened on both
diagnostics and VOCs. Instrument in need of calibration.

5. VOC (attached)

6. Internal Standard value $\leq 3.00\%$ Yes No

7. Verify software version

Return to Factory for Repair

Ready for Calibration

Ready for Certification

Proceed to Close Out

DW
06/24/19

VERIFICATION OF CALIBRATION REPORT

of DataMaster dmt Breath Test Instrument

State of Alaska

Serial #: 100422

Scientific Crime Detection Laboratory - Statewide Breath Alcohol Program

Date: 06/06/2019

External Standard Test Values

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.77: 0.080
LOT #: AG826101
EXPIRATION: 09/18/2020
TANK PRESSURE: 1093 psi

BLANK TEST	0.000	09:22
INTERNAL STANDARD	VERIFIED	09:22
Xq = 0.096	(0.00%)	
EXTERNAL STANDARD	0.080	09:22
X[1] = 0.0798	(0.0007) (0.0017)	
BLANK TEST	0.000	09:23
EXTERNAL STANDARD	0.079	09:23
X[1] = 0.0795	(0.0002) (0.0007)	
BLANK TEST	0.000	09:24
EXTERNAL STANDARD	0.080	09:24
X[1] = 0.0796	(0.0008) (-0.0007)	
BLANK TEST	0.000	09:25
EXTERNAL STANDARD	0.079	09:25
X[1] = 0.0793	(0.0001) (-0.0001)	
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.080	09:27
X[1] = 0.0798	(-0.0002) (0.0006)	
BLANK TEST	0.000	09:27

Average = 0.0796
Std Dev = 0.0005

Diagnostic Check

VERSIONS

DMT: 3.02
PIC: 3.03
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C	PASSED
(44.0°C - 52.0°C)	
Breath Tube = 47.1°C	PASSED
(38.0°C - 50.0°C)	

SETTINGS

Lamp Voltage = 1.72 V	PASSED
(1.03 V - 2.41 V)	
Cooler Voltage = 1.65 V	PASSED
(1.00 V - 2.34 V)	
Bias Voltage = 80 V	PASSED
(48 V - 112 V)	
Chopper Freq = 542 Hz	PASSED
(475 Hz - 575 Hz)	
Barometer = 29.8 in	

PUMP INFO

Flow Rate = 4.917 L/M	PASSED
(3.500 L/M - 6.500 L/M)	

DETECTOR INFO

PUMP ON	PASSED
(0.007 V <= 0.010 V)	
PUMP OFF	PASSED
(0.003 V <= 0.010 V)	

FILTER INFO

Filter 1	PASSED
Filter 2	PASSED
Filter 3	PASSED

INTERNAL STANDARD PASSED

Xq = 0.096 (0.36%) (0.00% - 4.00%)

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 06/24/2019
Time: 14:42:20

VERSIONS
DMT: 3.02
PIC: 3.03
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.81 V PASSED
(1.03 V - 2.41 V)
Cooler Voltage = 1.70 V PASSED
(1.00 V - 2.34 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 546 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.758 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.003 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

Xq = 0.108 12.34% (0.00% - 4.00%) FAILED