

Alaska Scientific Crime Detection Laboratory

DataMaster Evaluation Form

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

Version: DMEF 2020 R0
Status: Active

Instrument # 100350

Start Date: 7/14/20

Analysts: C. OBryant

Reason for instrument evaluation

Detector overflow + ambient fails. Instrument wasn't maintaining lamp + cooler voltages post-adjustment

Visual Inspection

- | | |
|---|---|
| <input checked="" type="checkbox"/> Clean | <input checked="" type="checkbox"/> Replace missing screws |
| <input checked="" type="checkbox"/> Cermetex Box is secure | <input checked="" type="checkbox"/> Ensure modem cable present |
| <input checked="" type="checkbox"/> Gas Valve upright or secured to wall | <input checked="" type="checkbox"/> All tubing and connections are secure |
| <input checked="" type="checkbox"/> O-ring inspection and ensure 2 O-rings in replacement bag | |

Troubleshooting/Repair

Cycled the instrument on and off multiple times, taking note of the lamp, cooler, Bias + Detector voltages each time.

Replaced the detector and ensured the voltages maintained through several reboots

Recommend Calibration following detector change.

- VOC (attached) COB
- Internal Standard value $\leq 3.00\%$ Failed
- Verify software version

- | | |
|---|---|
| <input type="checkbox"/> Return to Factory for Repair | <input checked="" type="checkbox"/> Ready for Calibration |
| <input type="checkbox"/> Ready for Certification | <input type="checkbox"/> Proceed to Close Out |

End Date: 7/14/20

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100350

Date: 07/14/2020
Time: 08:37:06

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

TEMPERATURES

Sample Chamber = 48.9°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 45.7°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.21 V PASSED
(1.09 V - 2.53 V)
Cooler Voltage = 1.87 V PASSED
(1.12 V - 2.62 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 546 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.6 in

PUMP INFO

Flow Rate = 4.333 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.005 V <= 0.010 V)
PUMP OFF PASSED
(0.005 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.103 0.34% (0.00% - 4.00%) PASSED

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100350

Date: 07/14/2020
Time: 13:57:00

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 = 42.0°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.20 V PASSED
(1.09 V - 2.53 V)
Cooler Voltage = 4.13 V FAILED
(1.12 V - 2.62 V)
Bias Voltage = 79 V PASSED
(48 V - 112 V)
Chopper Freq = 528 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.6 in

PUMP INFO

Flow Rate = 4.343 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.009 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

Xq = 0.109 6.42% (0.00% - 4.00%) FAILED