



DMT Technical Support Inquiry

DMT Serial #: 100158
 Agency/Site: Northfield PD
 Date: 5/16/2023
 DMT Supervisor: Monica Welch

Problem:

The 5/15/2023 diagnostic for Northfield indicated a high Xq, which continued to climb over time.

Work Performed:

On 7/6/2023, VFL staff retrieved the DMT from the agency for cleaning. On 7/10/2023, the detector block was removed, disassembled, and cleaned. Initially the DMT's touch screen was unresponsive when the instrument was booted up; however, this was resolved by adjusting the wires. Upon reassembly of the detector block, 45 filter wheel cycles were completed without error. Based on the instrument's history of cal check errors, the quartz disc was replaced on 7/20/2023. Upon reassembly of the detector block, 50 filter wheel cycles were completed without error. The detector voltage was optimized and the instrument was allowed to stabilize. The flow rate was adjusted. A successful calibration adjustment and certification were performed. The instrument is now ready for installation at the agency.

Performed On Site
 Performed In house

Performed By: Sarah Stratton *SSS* Date: 7/26/2023
 Technical Reviewer: *[Signature]* Date: 7/31/23
 Administrative Reviewer: *[Signature]* Date: 7/31/23
 Director Reviewer: *[Signature]* Date: 7/31/2023

CALIBRATION REPORT

DataMaster DMT: 100158
Calibration Date: 07/26/2023
Calibrated by: SARAH STRATTON
Lot: 23-05-100



Ca	=	0.101		
CAL	=	0.968782	0.800	<= CAL < 1.200
b1	=	0.000	0.000	<= b1 < 0.004
b2	=	0.003	0.002	<= b2 < 0.010
b3	=	0.000	0.000	<= b3 < 0.004
Xq	=	0.096	0.050	<= Xq < 0.200
a21	=	1.180103	1.050	<= a21 < 1.300
a31	=	0.483392	0.300	<= a31 < 0.800

DI Water

BL-DMT10222021 34.00°C SOS 7/26/2023

Performed by

SOS SOS

Date

07/26/2023



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100158

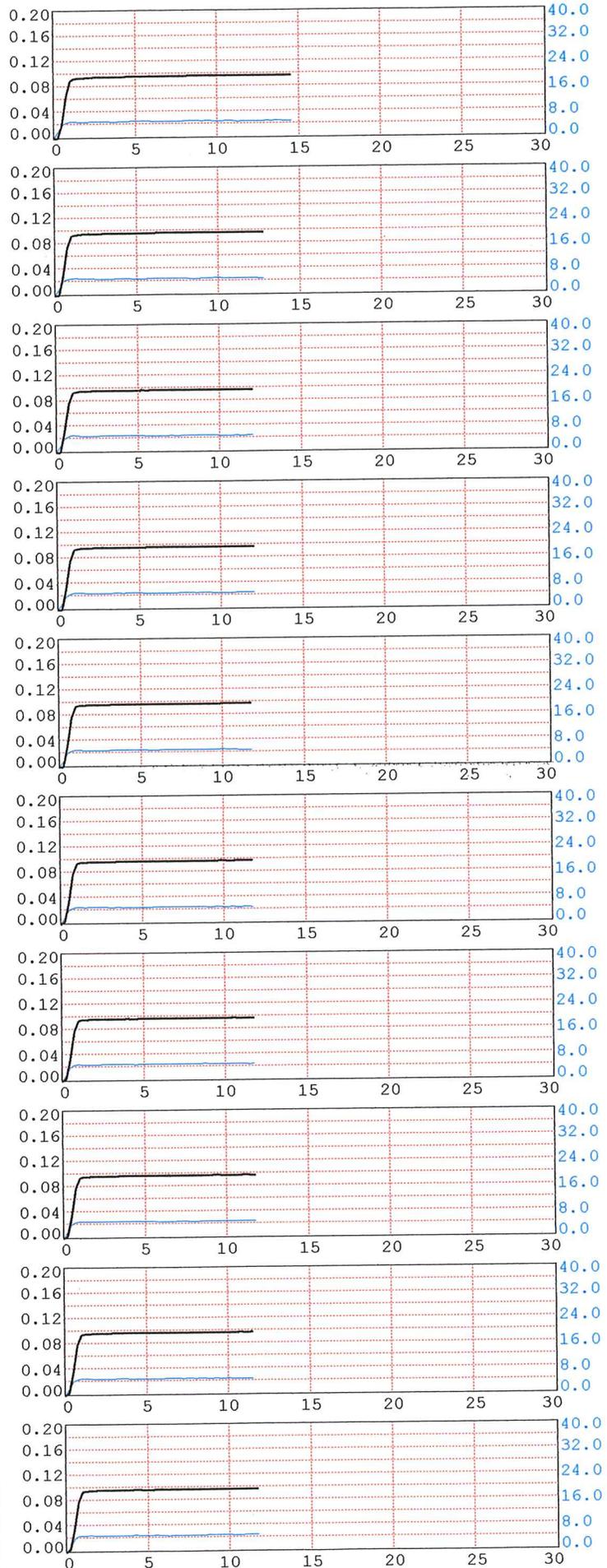
Date: 07/26/2023
Time: 13:12:09

SUPERVISOR NAME:
SGS CAL CHECK

SOLUTION LOT #: 22HP41201
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	13:13
CALIBRATION CHECK	PASSED	13:13
SIMULATOR VAPOR 34.0°C	0.098	13:13
SIMULATOR VAPOR 34.0°C	0.098	13:14
SIMULATOR VAPOR 34.0°C	0.098	13:15
SIMULATOR VAPOR 34.0°C	0.098	13:16
SIMULATOR VAPOR 34.0°C	0.098	13:18
SIMULATOR VAPOR 34.0°C	0.098	13:19
SIMULATOR VAPOR 34.0°C	0.098	13:20
SIMULATOR VAPOR 34.0°C	0.098	13:21
SIMULATOR VAPOR 34.0°C	0.098	13:22
SIMULATOR VAPOR 34.0°C	0.098	13:23
BLANK TEST	0.000	13:24

Average = 0.098
Std Dev = 0.0000



CERTIFICATION REPORT

DataMaster DMT: 100158
Calibration Date: 07/26/2023
Certification Date: 07/26/2023
Certified by: SARAH STRATTON



Diagnostic Results

VERSIONS

DMT: 2.06
PIC: 3.07
Modem: 2.6
Questions: 2.1

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube = 42.4°C
Digital Sim = 34.0°C

SETTINGS

Lamp Voltage = 1.57 V
Cooler Voltage = 1.58 V
Bias Voltage = 80 V
Chopper Freq = 558 Hz

PUMP INFO

Flow Rate = 5.579 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX (V)	0.0535	0.0581
MIN (V)	0.0524	0.0565

FILTER INFO

Filter 1	0.058	Zero = true
Filter 2	0.415	Zero = true
Filter 3	1.360	Zero = true

CALIBRATION CHECK

Xq = 0.096 0.00%

Options

OPTIONS

Units

Alcohol..... g/210L

Simulator

Tolerance Check..... yes
Standard Type..... wet
Nominal..... 0.100
Digital Simulator..... Guth

Subject

Ask Questions..... yes
Number of Tests..... 2
Alcohol Display..... yes
Volume Display..... yes
Query Refusal..... yes
Copies..... 3
Simulator Before..... yes
Simulator Between..... yes
Simulator After..... no
Observation Time..... 0

Supervisor

Number of Tests..... 10

Calibration

Standard Type..... wet
Nominal..... 0.100
Nominal (Dry Gas)..... 0.100
Number of Tests..... 1

Printer

Printer On..... yes

Software Configuration

Data Collection..... yes

DIAGNOSTIC RESULT

DataMaster DMT: 100158
Location: NORTHFIELD PD
Calibration Date: 02/23/2023
Certification Date: 02/23/2023
Installation Date: 03/22/2023
Test Date: 07/25/2023
Test Time: 09:41:41



VERSIONS

DMT: 2.06
PIC: 3.07
Modem: 2.6
Questions: 2.1

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube = 45.4°C
Digital Sim = 0.0°C

SETTINGS

Lamp Voltage = 1.57 V
Cooler Voltage = 1.58 V
Bias Voltage = 80 V
Chopper Freq = 558 Hz

PUMP INFO

Flow Rate = 4.795 L/M

DETECTOR INFO

	ON	OFF
MAX (V)	0.0419	0.0465
MIN (V)	0.0407	0.0451

FILTER INFO

Filter 1	0.046	Zero = true
Filter 2	0.403	Zero = true
Filter 3	1.349	Zero = true

CALIBRATION CHECK

Xq = 0.095 5.72%

Prior to the flow rate adjustment and after the quartz disc was replaced. SRS 7/26/2023