

# Alaska Scientific Crime Detection Laboratory

## DataMaster Calibration Form

Effective: 10/10/2022

Version: 3.0

Instrument #: 100255 Analyst: Charlie Flaister Start Date: 11/30/23

- Diagnostic Test (attached)
- Adjust voltages, if needed
  - Lamp (2.60 V Maximum)
  - Bias
  - Cooler (2.00 V Maximum)
- Internal Standard value  $\leq$  3.00%
  - Chopper Frequency
  - Detector Voltage (-0.100V to 0.100V)
- Set RFI Sensitivity
- Adjust internal barometer reading to match NIST-traceable barometer
- Adjust volume setting, if needed (1.50 L +/- 0.10 L)
- Print Technician Screen (attached)
- Print Calibration Factors (attached)
- Minimum Volume Test 1.5 L (1.3L to 1.7L)

As Left Conditions:

Barometric Pressure (in Hg): 28.83 Temperature (C): 22.3 Relative Humidity (%): 19

Linearity Test (attached) \* The slope failed requirement. Needs Adjustment.

Weight	Mnf	Lot	Exp
0.020g/210L	Airgas	AG-217902	6/28/24
0.040g/210L	Airgas	AG-217904	6/28/24
0.080g/210L	Airgas	AG-310901	4/19/25
0.100g/210L	Airgas	AG-211003	4/20/24
0.150g/210L	Airgas	AG-134205	12/8/23
0.300g/210L	Airgas	AG-217903	6/28/24

Functional Tests (attached)

- Incomplete
  - Maximum Attempts Exceeded
  - Interference (Volatiles)
  - Invalid
  - Radio Frequency Interference (RFI)
- Acetone Mnf: \_\_\_\_\_ Lot: \_\_\_\_\_ Level: 0.100 Exp: \_\_\_\_\_  
Simulator S/N: \_\_\_\_\_ Verification Performed?
- Isopropanol Mnf: \_\_\_\_\_ Lot: \_\_\_\_\_ Level: 0.100 Exp: \_\_\_\_\_  
Simulator S/N: \_\_\_\_\_ Verification Performed?
- Neg. Control Mnf: \_\_\_\_\_ Lot: \_\_\_\_\_ Level: 0.100 Exp: \_\_\_\_\_  
Simulator S/N: \_\_\_\_\_ Verification Performed?

Calibrated External Thermometer:

Thermometer S/N: \_\_\_\_\_ Calibration Due Date: \_\_\_\_\_

- Verify stylus is calibrated
  - Reset Options
  - Clear Memory
  - Verification of Calibration (VOC)
  - Non-Drinking Subject Test
  - Upload
  - Remove Tank Prior to Shutdown
- Calibration End Date: \_\_\_\_\_

DIAGNOSTIC RECORD

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Alaska Department of Public Safety  
DATAMASTER dmt: 100255  
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Date: 11/30/2023  
Time: 10:25:37

VERSIONS  
DMT: 3.02  
PIC: 2.05  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.9°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.4°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.63 V PASSED  
(0.98 V - 2.30 V)  
Cooler Voltage = 1.59 V PASSED  
(0.95 V - 2.23 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 526 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 28.8 in

PUMP INFO

Flow Rate = 4.683 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

Xq = 0.077 0.90% PASSED  
(0.00% - 4.00%)

Rejected

Technician Screen

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DATAMASTER dmt: 100255  
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Date: 11/30/2023  
Time: 12:29 PM

Temperatures (°C)  
Sample Cell: 48.9°C  
Breath Tube: 45.0°C

Current Barometer 28.8 in  
Volume (Ltr) 1.56

Settings  
Lamp: 1.58 V  
Bias: 80 V  
Cooler: 1.69 V  
Chopper: 527 Hz

Voltages (V)  
Flow: 1.04 V  
Detector: 0.011 V

Rejected

CALIBRATION FACTORS

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Alaska Department of Public Safety  
DATAMASTER dmt: 100255  
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Date: 09/27/2023  
Time: 10:57:33

OPERATOR NAME:  
INTOX I METERS  
CERTIFICATE #: INTOXIMETERS

Ca = 0.0800  
CAL = 1.010389    0.800 <= CAL < 1.200  
b1 = 0.0018    0.0000 <= b1 < 0.0040  
b2 = 0.0083    0.0010 <= b2 < 0.0100  
b3 = 0.0019    0.0000 <= b3 < 0.0040  
Xq = 0.0773    0.0500 <= Xq < 0.2000  
a21 = 1.200563    1.050 <= a21 < 1.300  
a31 = 0.437645    0.300 <= a31 < 0.800

Rejected



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100255

Date: 11/30/2023  
Time: 12:34:55

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

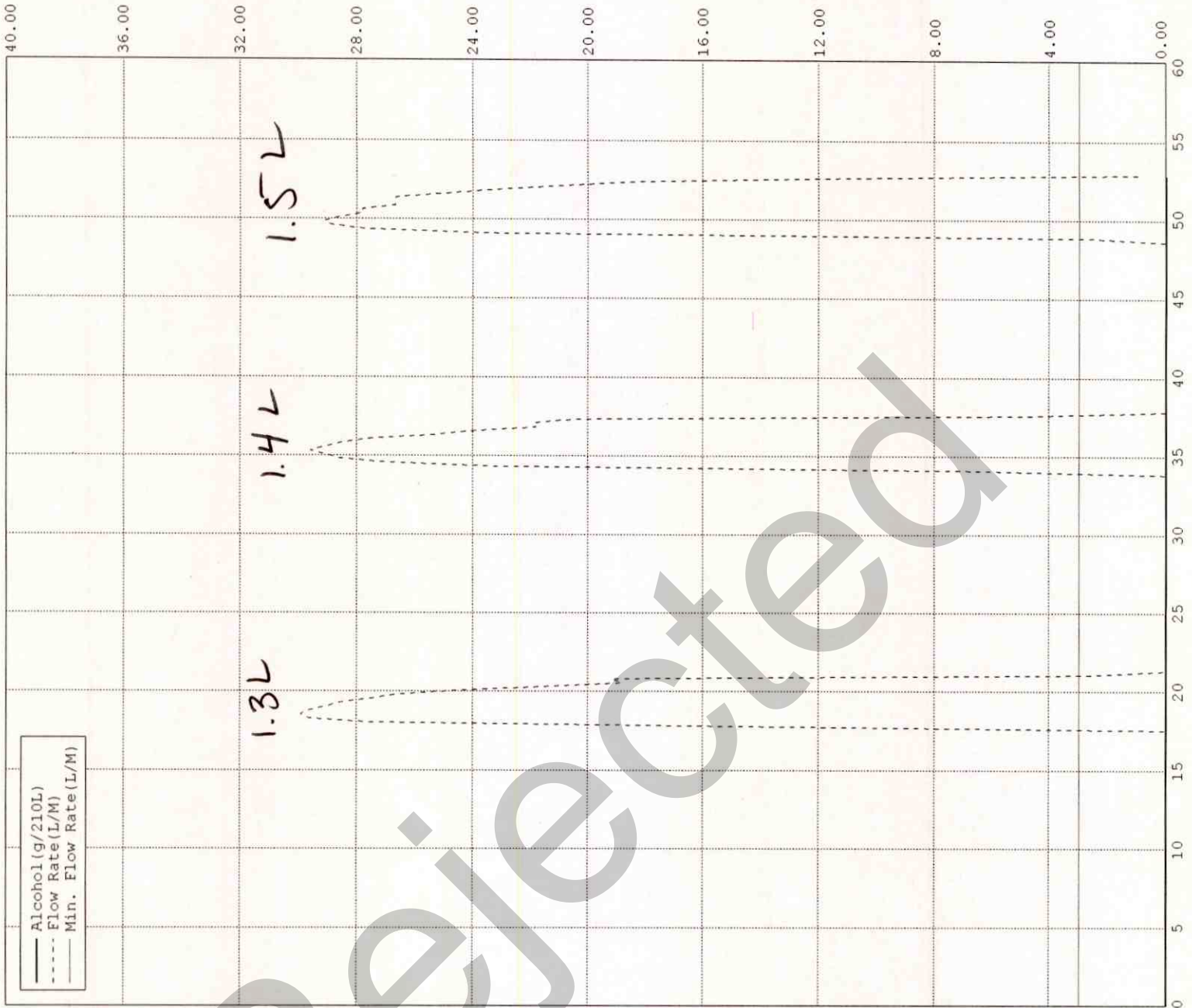
OPERATOR NAME:  
CARLIE GLAISTER  
OPERATOR'S #: 10436

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.84: 0.077  
LOT #: AG310901  
EXPIRATION: 04/19/2025

DIAGNOSTIC CHECK	PASSED
BLANK TEST	0.000
INTERNAL STANDARD	VERIFIED
EXTERNAL STANDARD	0.078
BLANK TEST	0.000
SUBJECT SAMPLE (Vol=1.55L)	0.000
BLANK TEST	0.000
EXTERNAL STANDARD	0.079
BLANK TEST	0.000

CUG



LINEARITY CHECK

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 Alaska Department of Public Safety  
 DATAMASTER dmt: 100255  
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Date: 11/30/2023  
 Time: 13:08:12

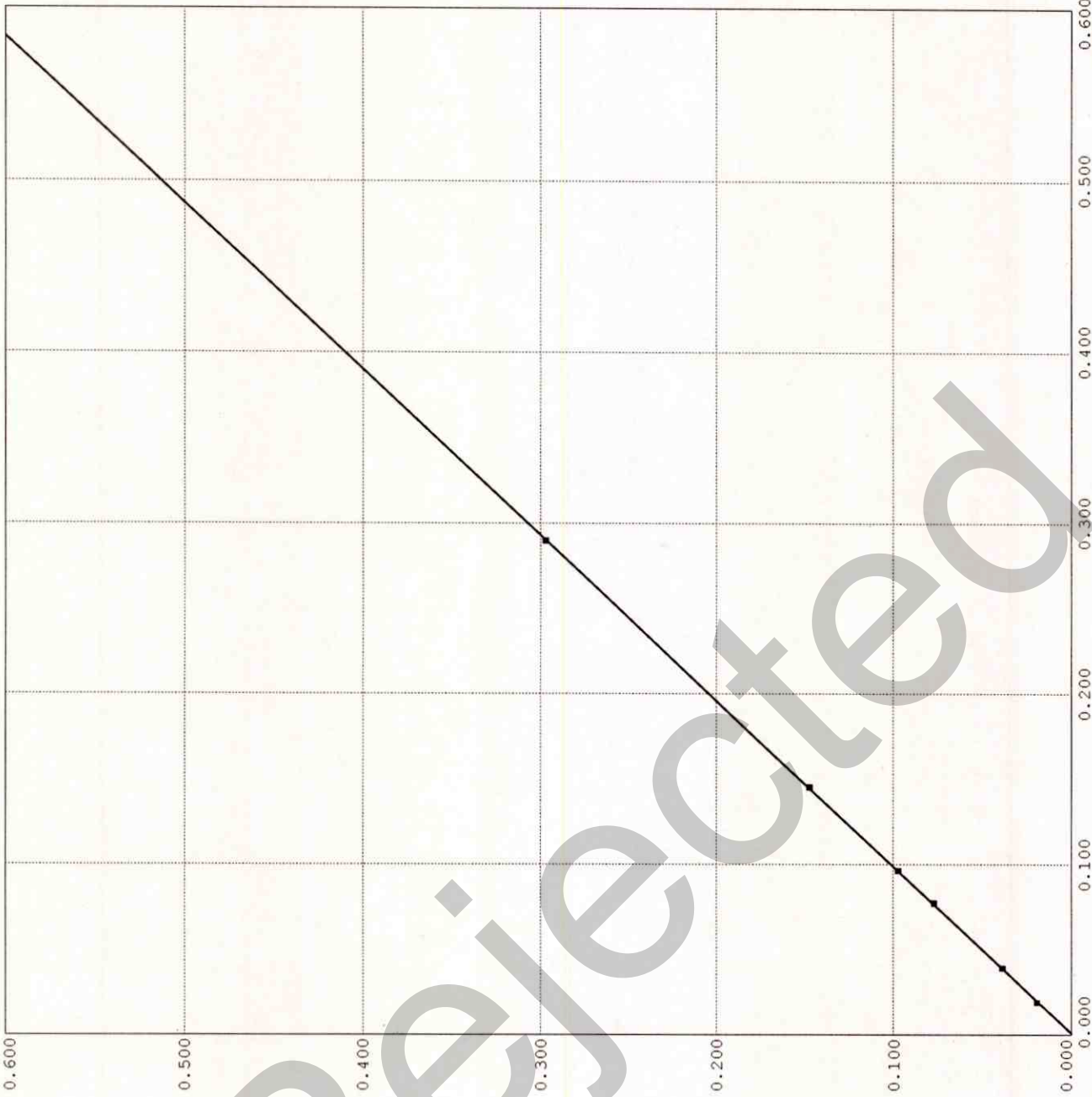
SUPERVISOR NAME:  
 CARLIE GLAISTER  
 OPERATOR'S #: 10436

TARGET	AVERAGE	STD. DEV.
0.019	0.0200	0.0000
0.039	0.0394	0.0005
0.077	0.0780	0.0000
0.096	0.0982	0.0004
0.145	0.1480	0.0000
0.289	0.2978	0.0008

SLOPE = 1.030987  
 R<sup>2</sup> = 0.999948

*The slope requirement  
 is 1.000000 ± 0.030000.  
 The slope failed this  
 requirement.  
 Ready for Adjustment.  
 CMG- 11/30/23*

*CMG*





LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100255

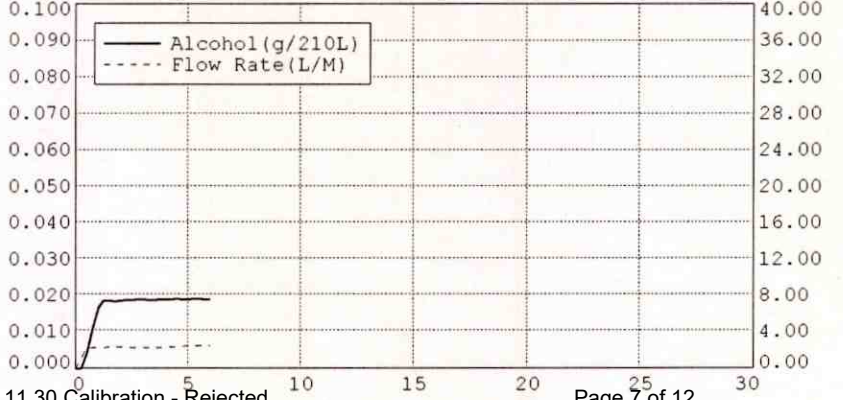
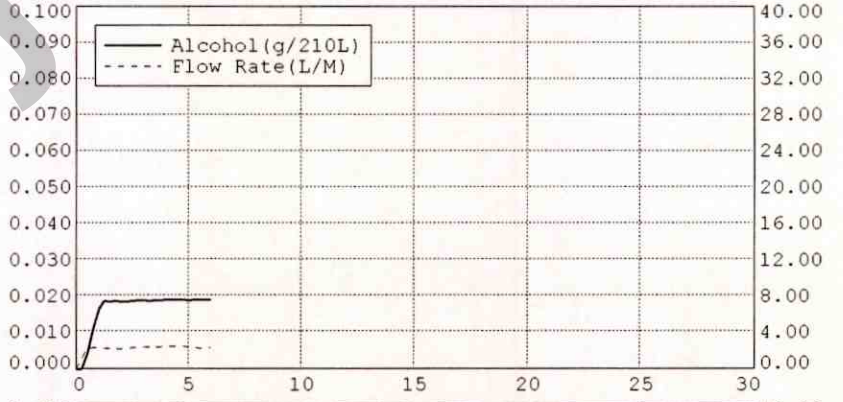
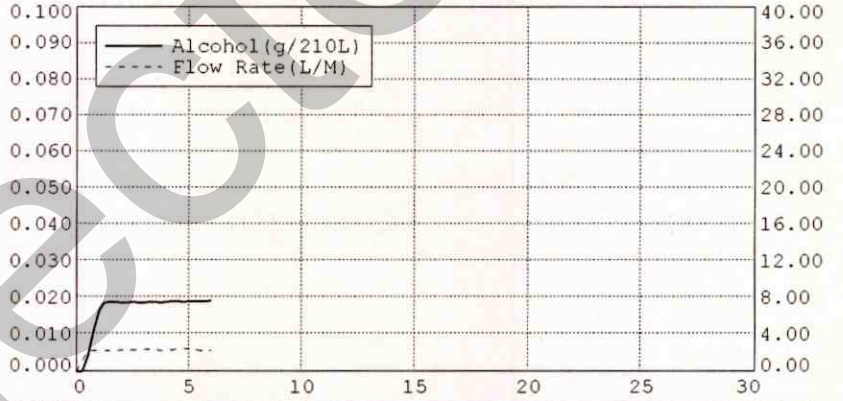
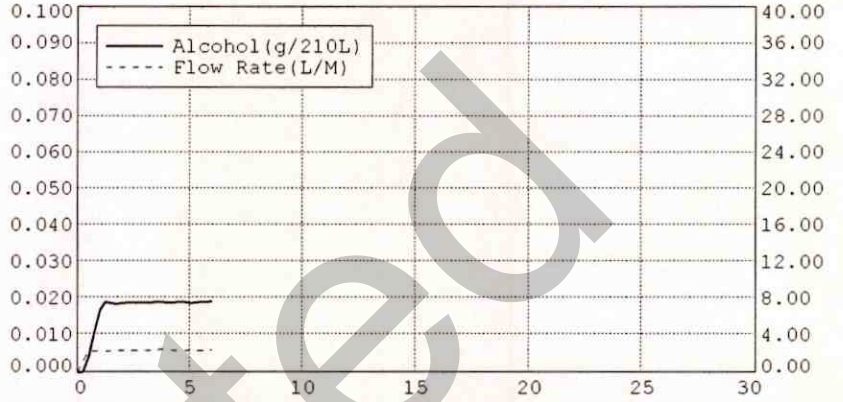
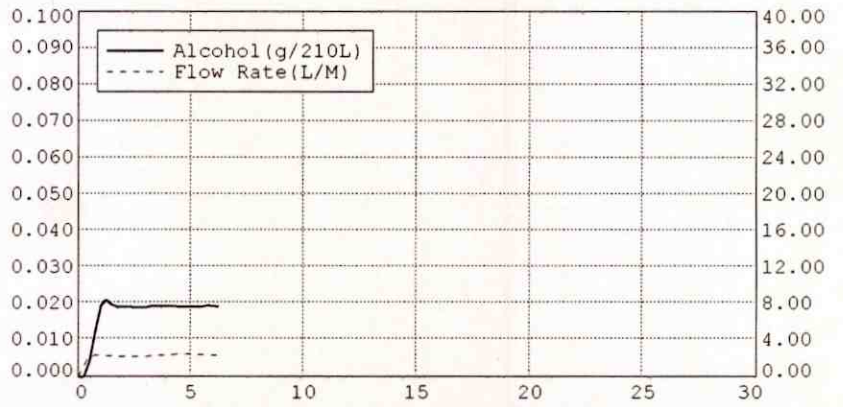
Date: 11/30/2023  
 Time: 13:08:14

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 28.84: 0.019  
 LOT #: AG217902  
 EXPIRATION: 06/28/2024  
 TANK PRESSURE: 807 psi

BLANK TEST	0.000	13:10
INTERNAL STANDARD	VERIFIED	13:10
EXTERNAL STANDARD	0.020	13:10
BLANK TEST	0.000	13:11
EXTERNAL STANDARD	0.020	13:11
BLANK TEST	0.000	13:12
EXTERNAL STANDARD	0.020	13:12
BLANK TEST	0.000	13:13
EXTERNAL STANDARD	0.020	13:13
BLANK TEST	0.000	13:14
EXTERNAL STANDARD	0.020	13:14
BLANK TEST	0.000	13:15

Average = 0.0200  
 Std Dev = 0.0000



Rejected

LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
DATAMASTER dmt: 100255

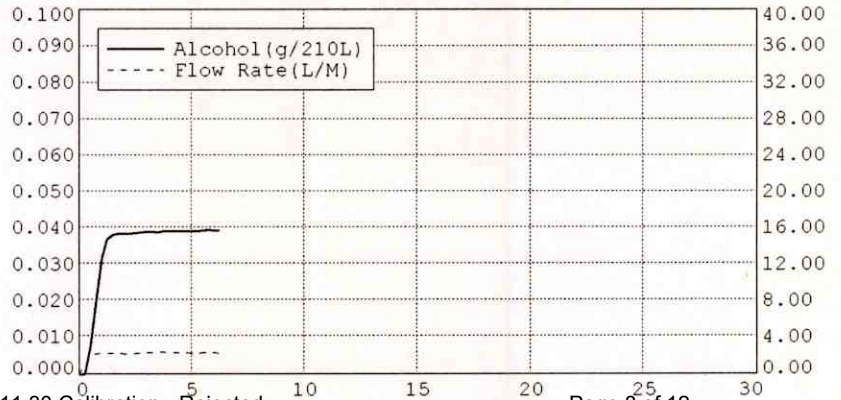
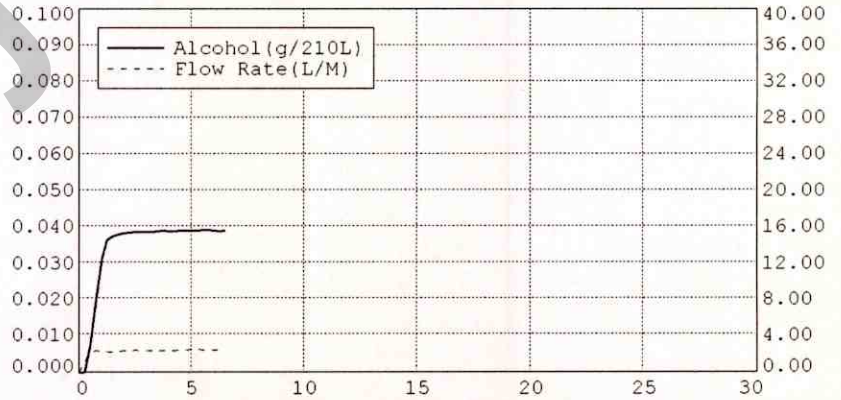
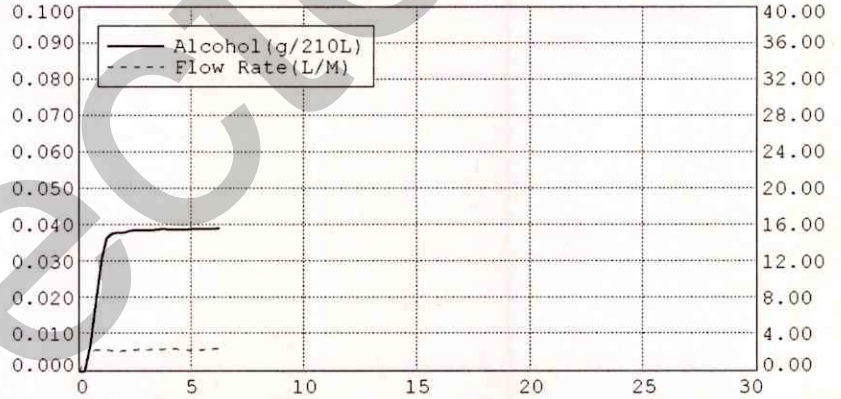
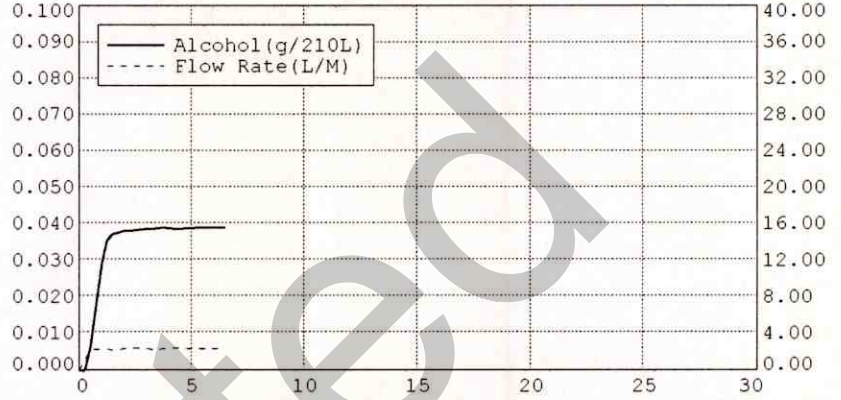
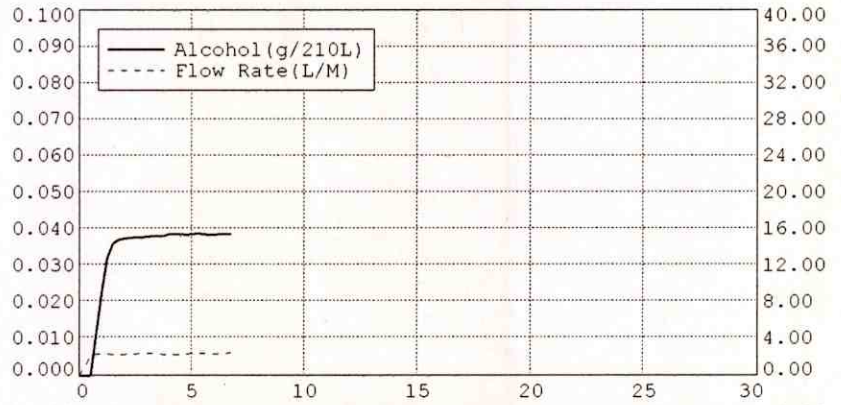
Date: 11/30/2023  
Time: 13:28:04

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 28.84: 0.039  
LOT #: AG217904  
EXPIRATION: 06/28/2024  
TANK PRESSURE: 804 psi

BLANK TEST	0.000	13:29
INTERNAL STANDARD	VERIFIED	13:29
EXTERNAL STANDARD	0.039	13:29
BLANK TEST	0.000	13:30
EXTERNAL STANDARD	0.039	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.040	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.039	13:32
BLANK TEST	0.000	13:33
EXTERNAL STANDARD	0.040	13:33
BLANK TEST	0.000	13:34

Average = 0.0394  
Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100255

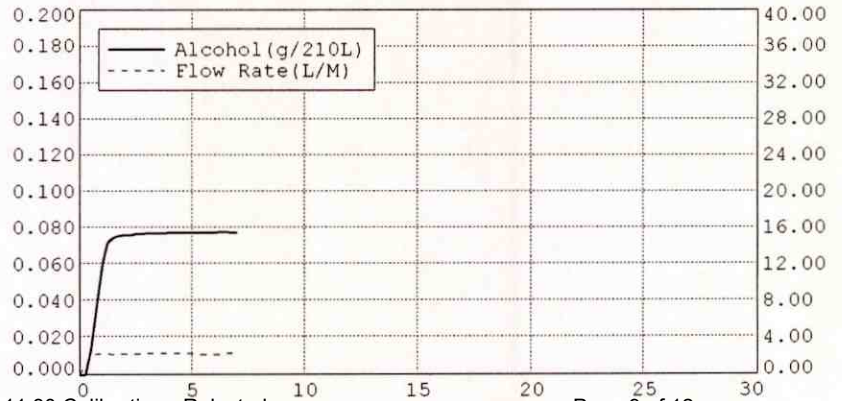
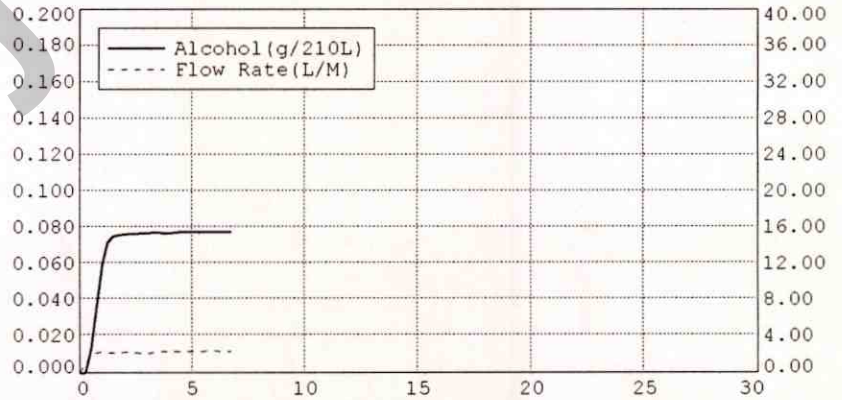
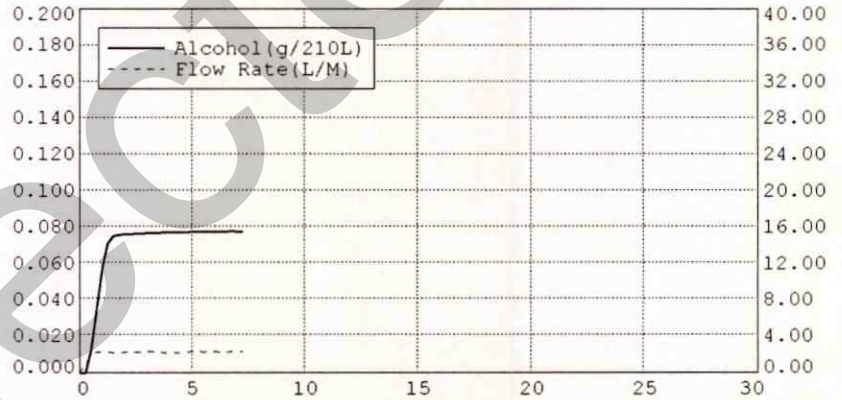
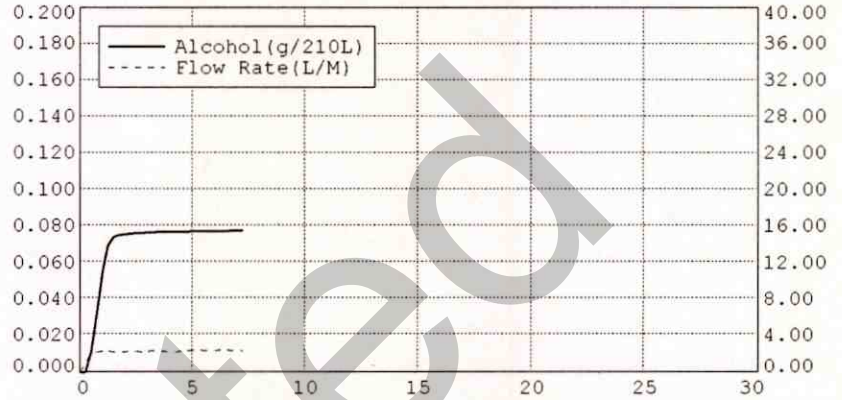
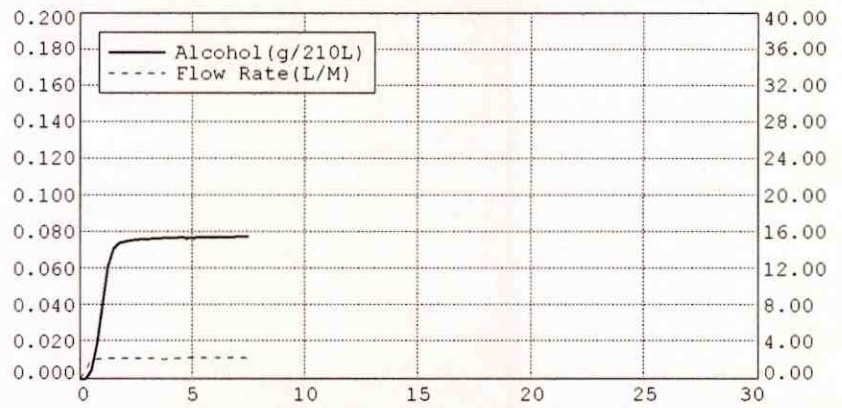
Date: 11/30/2023  
 Time: 13:39:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 28.84: 0.077  
 LOT #: AG310901  
 EXPIRATION: 04/19/2025  
 TANK PRESSURE: 596 psi

BLANK TEST	0.000	13:41
INTERNAL STANDARD	VERIFIED	13:41
EXTERNAL STANDARD	0.078	13:41
BLANK TEST	0.000	13:42
EXTERNAL STANDARD	0.078	13:42
BLANK TEST	0.000	13:43
EXTERNAL STANDARD	0.078	13:43
BLANK TEST	0.000	13:44
EXTERNAL STANDARD	0.078	13:44
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.078	13:46
BLANK TEST	0.000	13:46

Average = 0.0780  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
DATAMASTER dmt: 100255

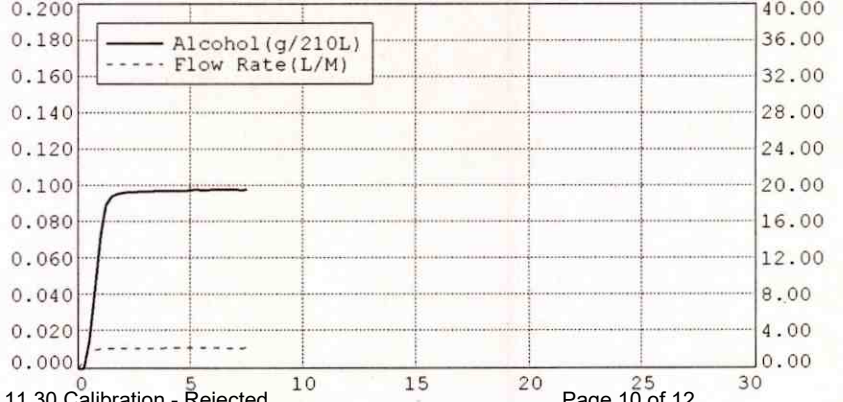
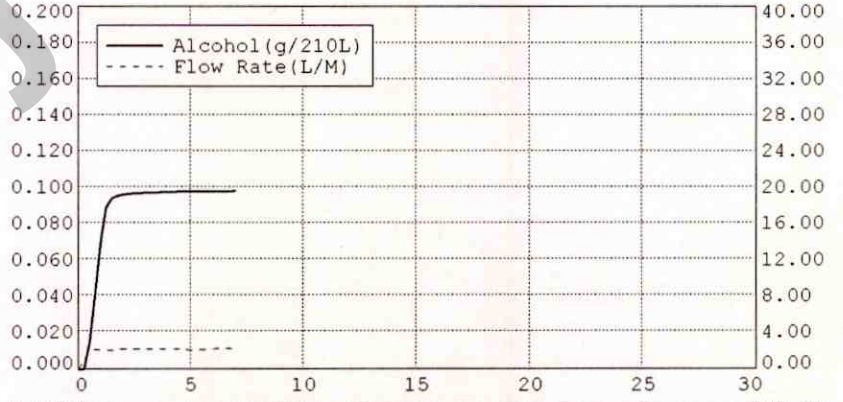
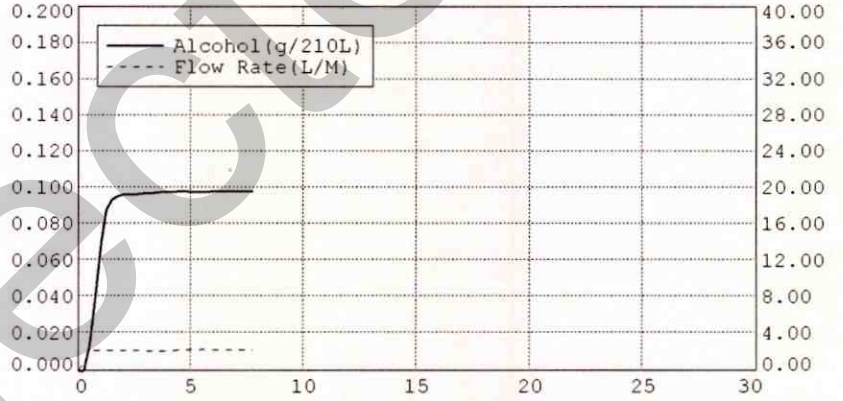
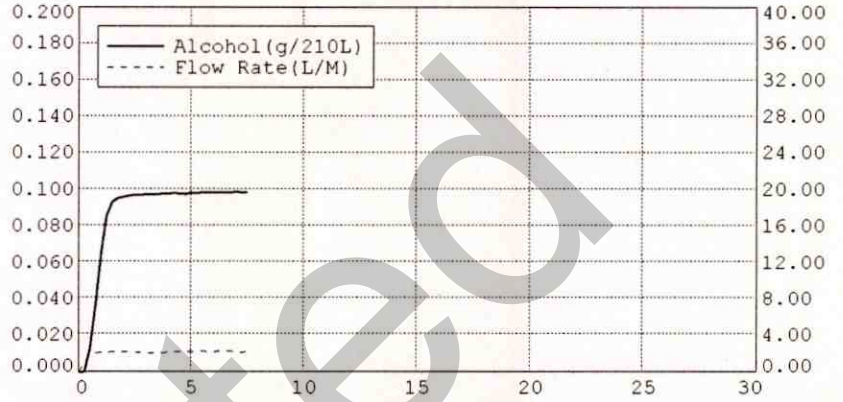
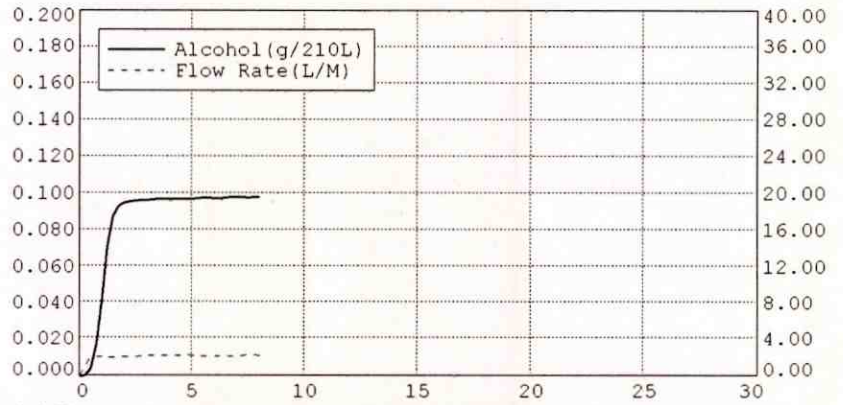
Date: 11/30/2023  
Time: 15:27:08

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
TARGET AT 28.84: 0.096  
LOT #: AG211003  
EXPIRATION: 04/20/2024  
TANK PRESSURE: 494 psi

BLANK TEST	0.000	15:28
INTERNAL STANDARD	VERIFIED	15:28
EXTERNAL STANDARD	0.098	15:28
BLANK TEST	0.000	15:29
EXTERNAL STANDARD	0.099	15:29
BLANK TEST	0.000	15:30
EXTERNAL STANDARD	0.098	15:31
BLANK TEST	0.000	15:31
EXTERNAL STANDARD	0.098	15:32
BLANK TEST	0.000	15:32
EXTERNAL STANDARD	0.098	15:33
BLANK TEST	0.000	15:33

Average = 0.0982  
Std Dev = 0.0004





LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
DATAMASTER dmt: 100255

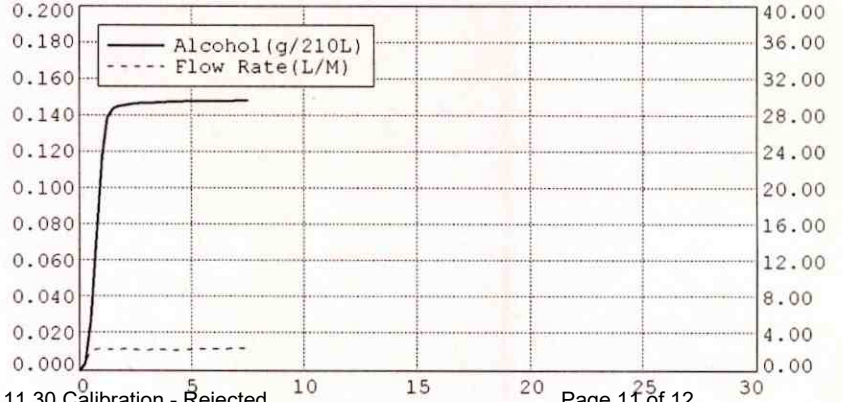
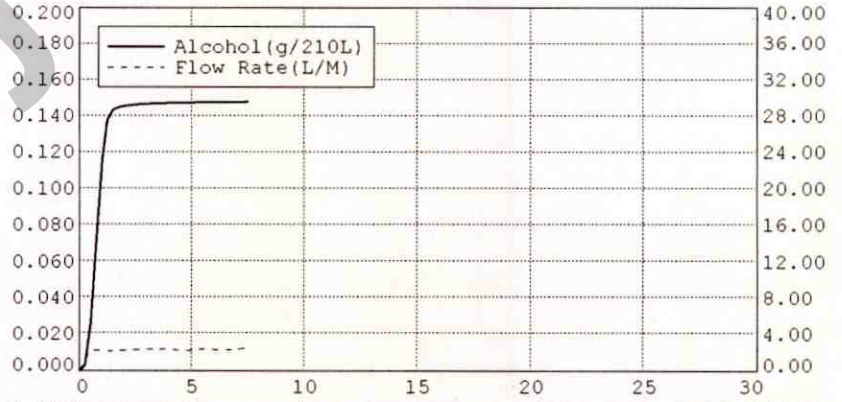
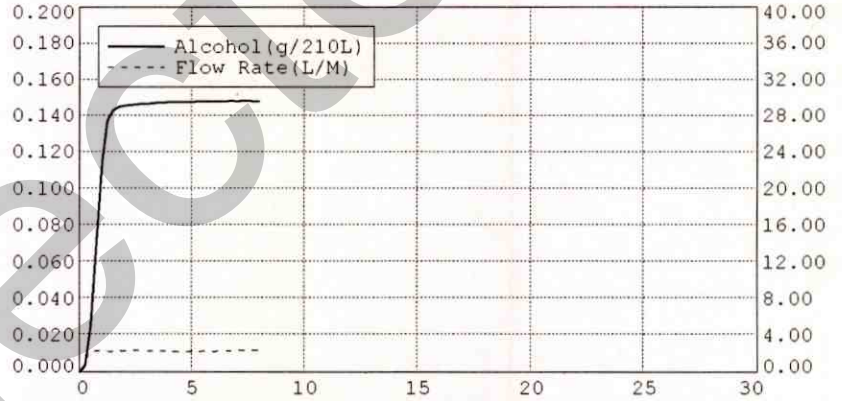
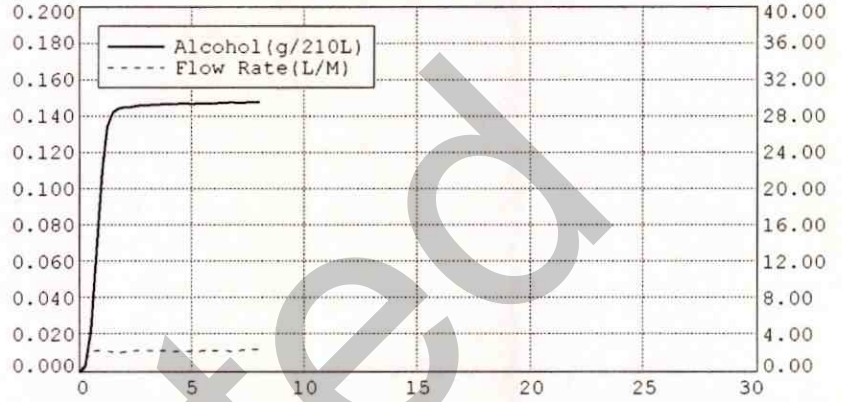
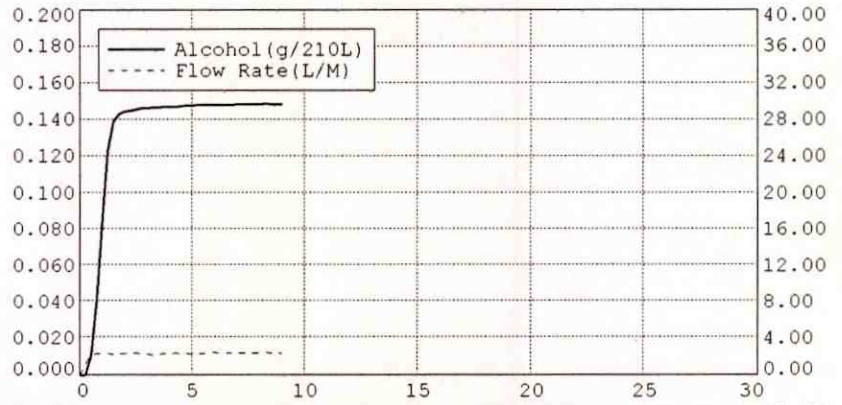
Date: 11/30/2023  
Time: 15:43:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.150  
TARGET AT 28.84: 0.145  
LOT #: AG134205  
EXPIRATION: 12/08/2023  
TANK PRESSURE: 795 psi

BLANK TEST	0.000	15:44
INTERNAL STANDARD	VERIFIED	15:44
EXTERNAL STANDARD	0.148	15:45
BLANK TEST	0.000	15:46
EXTERNAL STANDARD	0.148	15:46
BLANK TEST	0.000	15:47
EXTERNAL STANDARD	0.148	15:47
BLANK TEST	0.000	15:48
EXTERNAL STANDARD	0.148	15:48
BLANK TEST	0.000	15:49
EXTERNAL STANDARD	0.148	15:49
BLANK TEST	0.000	15:50

Average = 0.1480  
Std Dev = 0.0000



Rejected



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
DATAMASTER dmt: 100255

Date: 11/30/2023  
Time: 15:51:05

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
TARGET AT 28.86: 0.289  
LOT #: AG217903  
EXPIRATION: 06/28/2024  
TANK PRESSURE: 130 psi

BLANK TEST	0.000	15:52
INTERNAL STANDARD	VERIFIED	15:52
EXTERNAL STANDARD	0.299	15:52
BLANK TEST	0.000	15:53
EXTERNAL STANDARD	0.297	15:53
BLANK TEST	0.000	15:54
EXTERNAL STANDARD	0.297	15:55
BLANK TEST	0.000	15:55
EXTERNAL STANDARD	0.298	15:56
BLANK TEST	0.000	15:56
EXTERNAL STANDARD	0.298	15:57
BLANK TEST	0.000	15:57

Average = 0.2978  
Std Dev = 0.0008

