

Alaska Scientific Crime Detection Laboratory

DataMaster Calibration Form

Effective: 1/23/2024

Version: 4.0

Instrument #: 100422 Analyst or Technician Name: C.O. Bryant

DataMaster DMT Calibration Start Date: 4/16/25

Diagnostic Test

- Perform Diagnostic Test (View Details)
- Internal Standard Value \leq 3.00%

Technician Screen and Calibration Factors

- Adjust Voltages (if needed)
 - Lamp (2.60 V Maximum)
 - Bias
 - Cooler (2.00 V Maximum)
 - Chopper Frequency
 - Detector Voltage (-0.100V to 0.100V)
- Set RFI Sensitivity
- Adjust internal barometer reading to match NIST-traceable barometer
Barometer/Thermometer/Hygrometer S/N: 240680771
Calibration Due Date: 10 Sep 26
- Verify Volume Setting (1.50 L +/- 0.10 L), adjust if needed
- Print Technician Screen
- Print "Cal Factors"

Minimum Volume Test

- Perform Minimum Volume (Subject) Test: 1.5 liters (1.3 L to 1.7 L)

As Left Linearity Testing

Barometric Pressure (in Hg) 29.56 Temperature (C) 22.4 Relative Humidity (%) 19
Approved Concentrations (g/210L): 0.020, 0.040, 0.080, 0.100, 0.150, 0.300*

Functional Tests

- Incomplete
 - Invalid
 - Interference (Volatiles) - Print with View Details
 - Maximum Attempts Exceeded
 - Radio Frequency Interference (RFI)
- *Linearity failed at 0.300 with detector overflow. Tried 3 different tanks. Recommend adjustment. COB 4/16/25
- Acetone Reagent Lot Number: _____ Expiration Date: _____
Simulator S/N: _____ Thermometer Verification Performed?
 - Isopropanol Reagent Lot Number: _____ Expiration Date: _____
Simulator S/N: _____ Thermometer Verification Performed?
 - Negative (Ethanol Only) Lot Number: _____ Expiration Date: _____
Simulator S/N: _____ Thermometer Verification Performed?

Calibrated External Thermometer S/N: _____
Calibration Due Date: _____

Administrative

- Verify Stylus Calibration
- Reset Options
- Clear Memory
- Verification of Calibration (VOC)
- Perform Non-Drinking Subject Test
- Upload Instrument
- Remove Dry Gas Tank Before Shutdown
- Add Ready for Tech Review Note

Completion

Lab Work End Date: 4/16/25 (uncomplete)
Data Interpretation Date (Technician): NA (if applicable)
Data Interpretation Date (Analyst): COB

All printed copies are uncontrolled.

Approved by: Chemistry Supervisor

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 04/16/2025
Time: 07:51:46

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 = 48.0°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.04 V PASSED
(1.15 V - 2.67 V)
Cooler Voltage = 1.75 V PASSED
(1.11 V - 2.59 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 526 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.6 in

PUMP INFO

Flow Rate = 4.995 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 = 0.109 0.16% (0.00% - 4.00%) PASSED

REJECTED

Technician Screen

DATAMASTER dmt: 100422

Date: 04/16/2025
Time: 8:26 AM

Temperatures (°C)
Sample Cell: 48.7°C
Breath Tube: 47.8°C

Current Barometer 29.6 in
Volume (Ltr) 1.53

Settings
Lamp: 2.04 V
Bias: 80 V
Cooler: 1.80 V
Chopper: 525 Hz

Voltages (V)
Flow: 1.06 V
Detector: -0.023 V

REJECTED

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 12/29/2022
Time: 14:38:53

OPERATOR NAME:
COLLEEN S OBRYANT
CERTIFICATE #: 6237

Ca = 0.1000
CAL = 0.987615 0.800 <= CAL < 1.200
b1 = 0.0005 0.0000 <= b1 < 0.0040
b2 = 0.0066 0.0010 <= b2 < 0.0100
b3 = 0.0002 0.0000 <= b3 < 0.0040
Xq = 0.1096 0.0500 <= Xq < 0.2000
a21 = 1.230569 1.050 <= a21 < 1.300
a31 = 0.416828 0.300 <= a31 < 0.800

REJECTED

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 04/16/2025
Time: 08:29:06

SUBJECT NAME:
TEST TEST
LICENSE #: VOLUME TEST

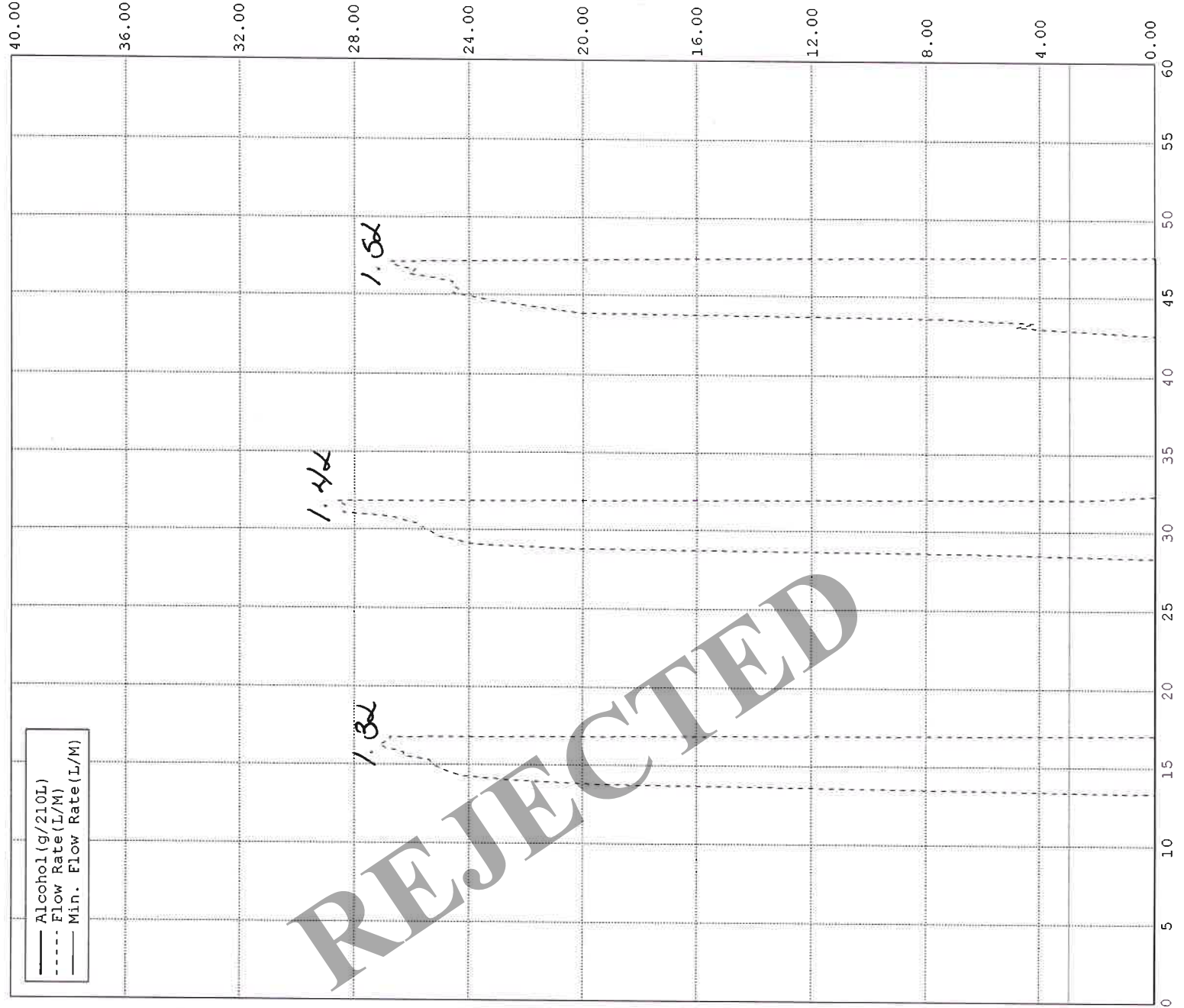
OPERATOR NAME:
COLLEEN S OBRyant
OPERATOR'S #: 6237

DEPT/AGENCY:
AAA1
CASE/REPORT: 25-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.58: 0.079
LOT #: AG335202
EXPIRATION: 12/18/2025

DIAGNOSTIC CHECK	PASSED	08:36
BLANK TEST	0.000	08:36
INTERNAL STANDARD	VERIFIED	08:36
EXTERNAL STANDARD	0.077	08:36
BLANK TEST	0.000	08:37
SUBJECT SAMPLE (Vol=1.55L)	0.000	08:38
BLANK TEST	0.000	08:39
EXTERNAL STANDARD	0.078	08:39
BLANK TEST	0.000	08:40

CS



LINEARITY CHECK

Alaska Department of Public Safety
 DATAMASTER dmt: 100422

Date: 04/16/2025
 Time: 08:44:00

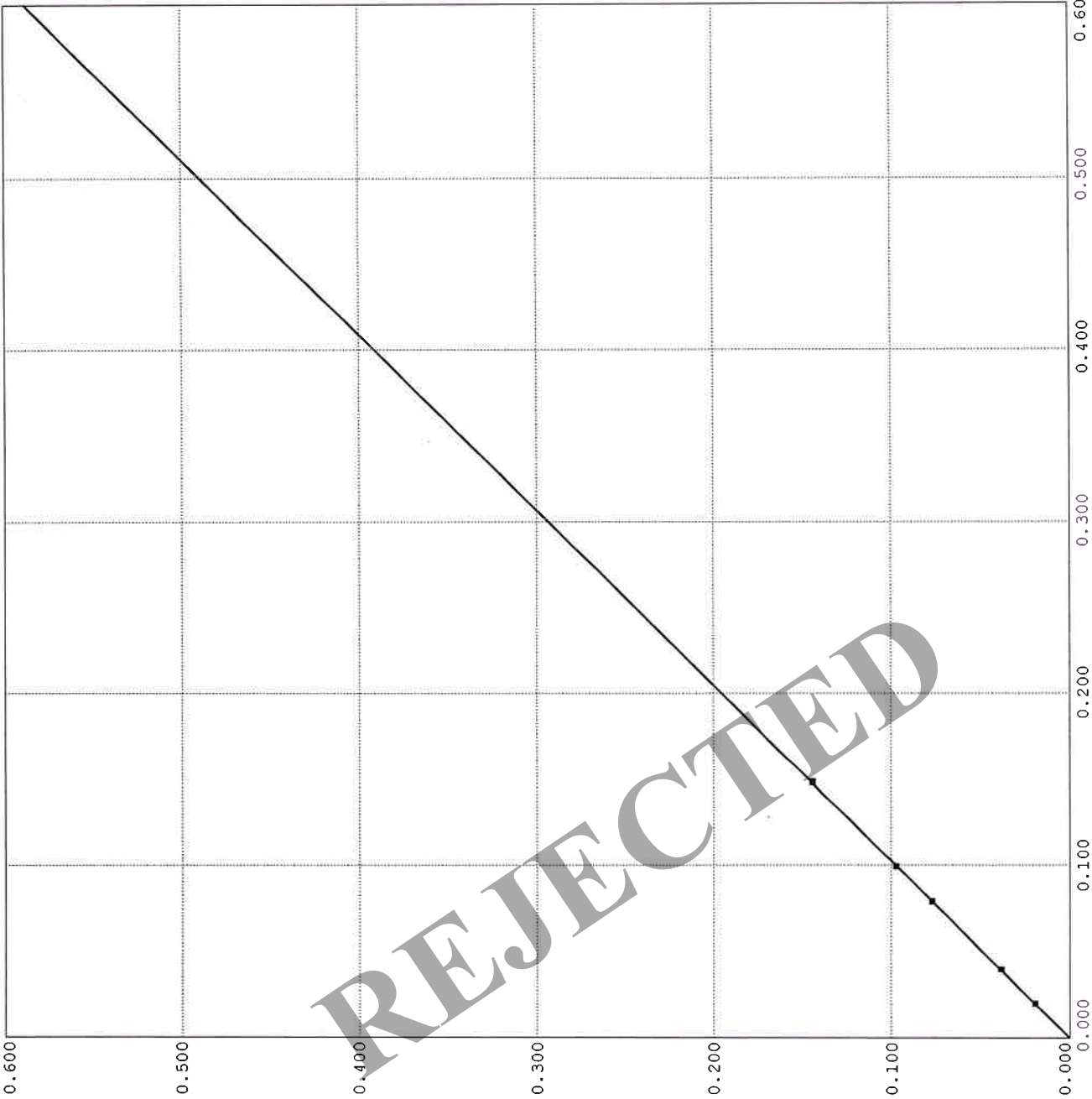
SUPERVISOR NAME:
 COLLEEN S O'BRYAN
 OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.040	0.0392	0.0004
0.079	0.0780	0.0000
0.099	0.0982	0.0004
0.148	0.1450	0.0000

SLOPE = 0.980104
 R^2 = 0.999898

*0.300 Failed
 due detector over flow*

CNS



Alaska Department of Public Safety

DATA MASTER dmt: 100422

Date: 04/16/2025

Time: 08:51:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020

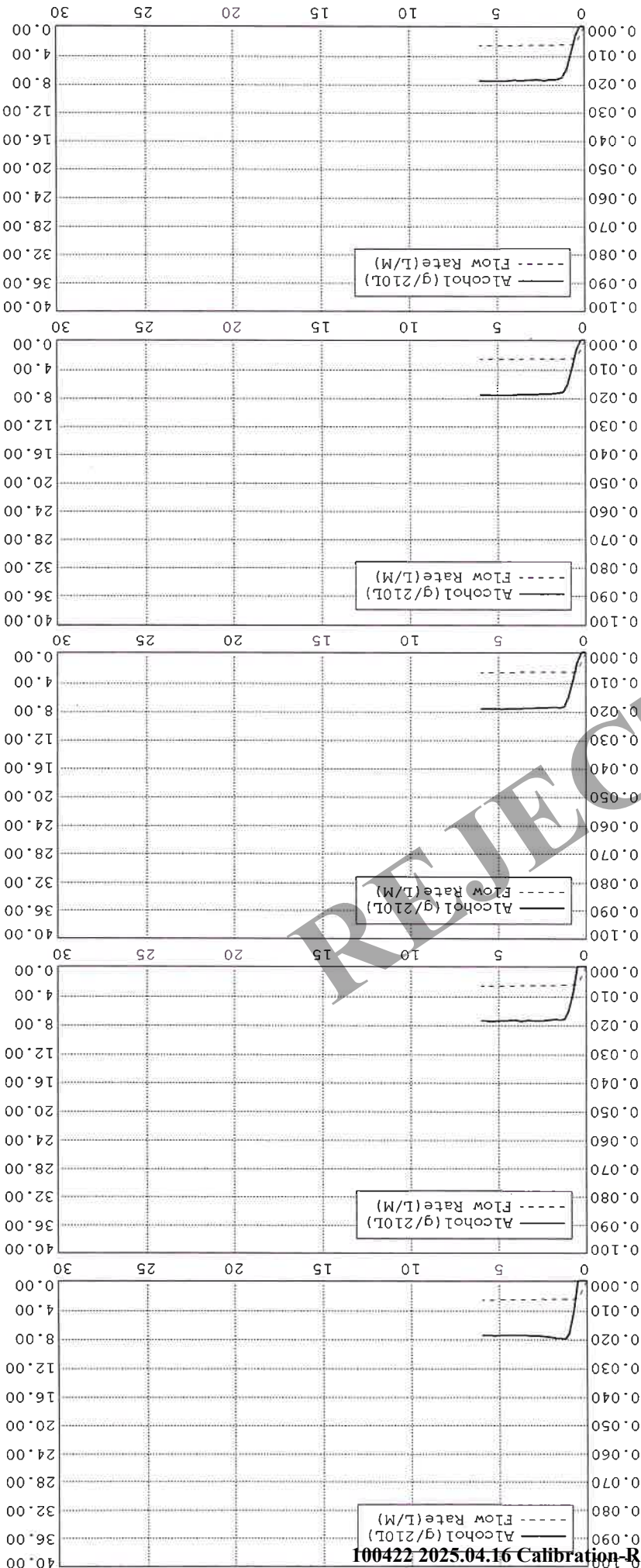
TARGET AT 29.58: 0.020

LOT #: AG408002

EXPIRATION: 03/20/2026

TANK PRESSURE: 213 psi

0.000	08:52	BLANK TEST
0.000	08:53	INTERNAL STANDARD
0.020	08:53	EXTERNAL STANDARD
0.000	08:54	BLANK TEST
0.020	08:54	EXTERNAL STANDARD
0.000	08:55	BLANK TEST
0.020	08:55	EXTERNAL STANDARD
0.000	08:56	BLANK TEST
0.020	08:56	EXTERNAL STANDARD
0.000	08:57	BLANK TEST
0.020	08:57	EXTERNAL STANDARD
0.000	08:58	BLANK TEST
Average = 0.0200		
Std Dev = 0.0000		



Alaska Department of Public Safety

DATA MASTER dmt: 100422

Date: 04/16/2025

Time: 09:00:41

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040

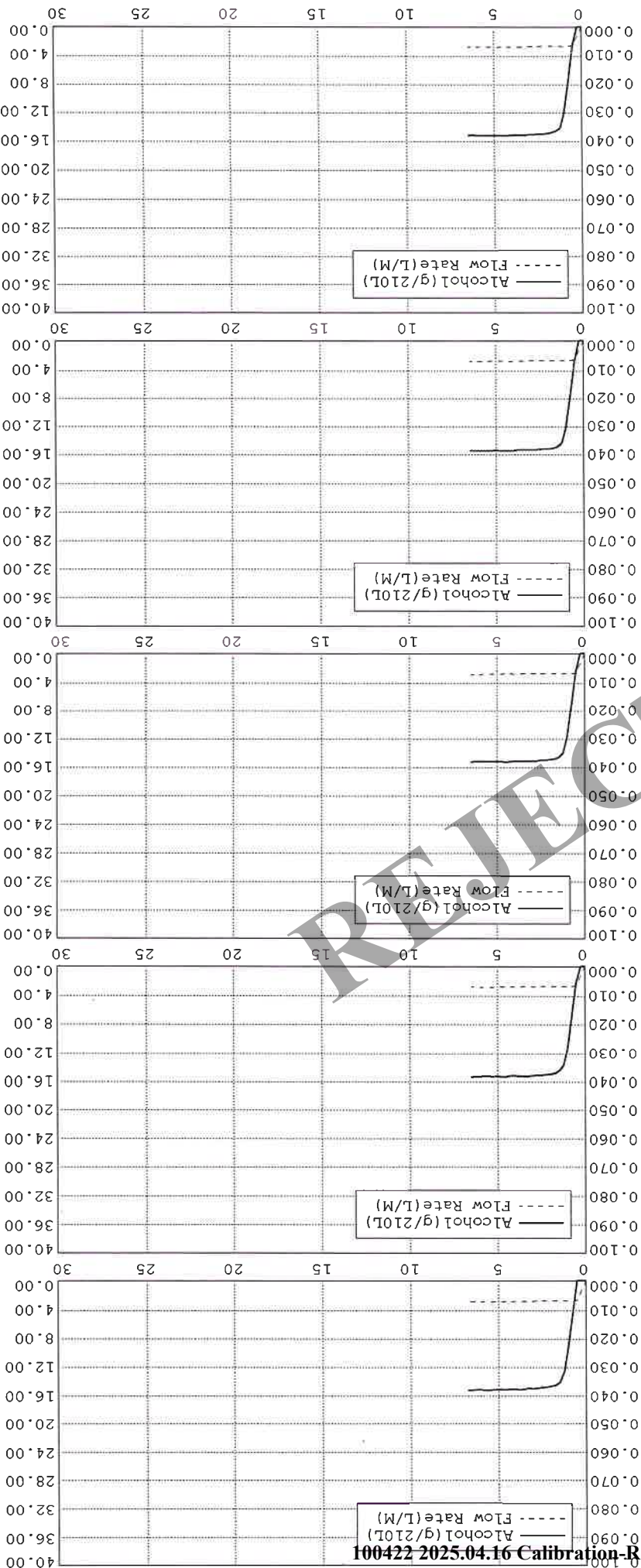
TARGET AT 29.57: 0.040

LOT #: AG407908

EXPIRATION: 03/19/2026

TANK PRESSURE: 934 psi

09:01	0.000	BLANK TEST
09:01	0.000	INTERNAL STANDARD
09:02	0.039	EXTERNAL STANDARD
09:02	0.000	BLANK TEST
09:03	0.039	EXTERNAL STANDARD
09:04	0.000	BLANK TEST
09:04	0.039	EXTERNAL STANDARD
09:05	0.000	BLANK TEST
09:05	0.040	EXTERNAL STANDARD
09:06	0.000	BLANK TEST
09:06	0.039	EXTERNAL STANDARD
09:07	0.000	BLANK TEST
Average = 0.0392		
Std Dev = 0.0004		



REJECTED

Alaska Department of Public Safety

DATAMASTER dmt: 100422

Date: 04/16/2025

Time: 09:09:28

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.57: 0.079

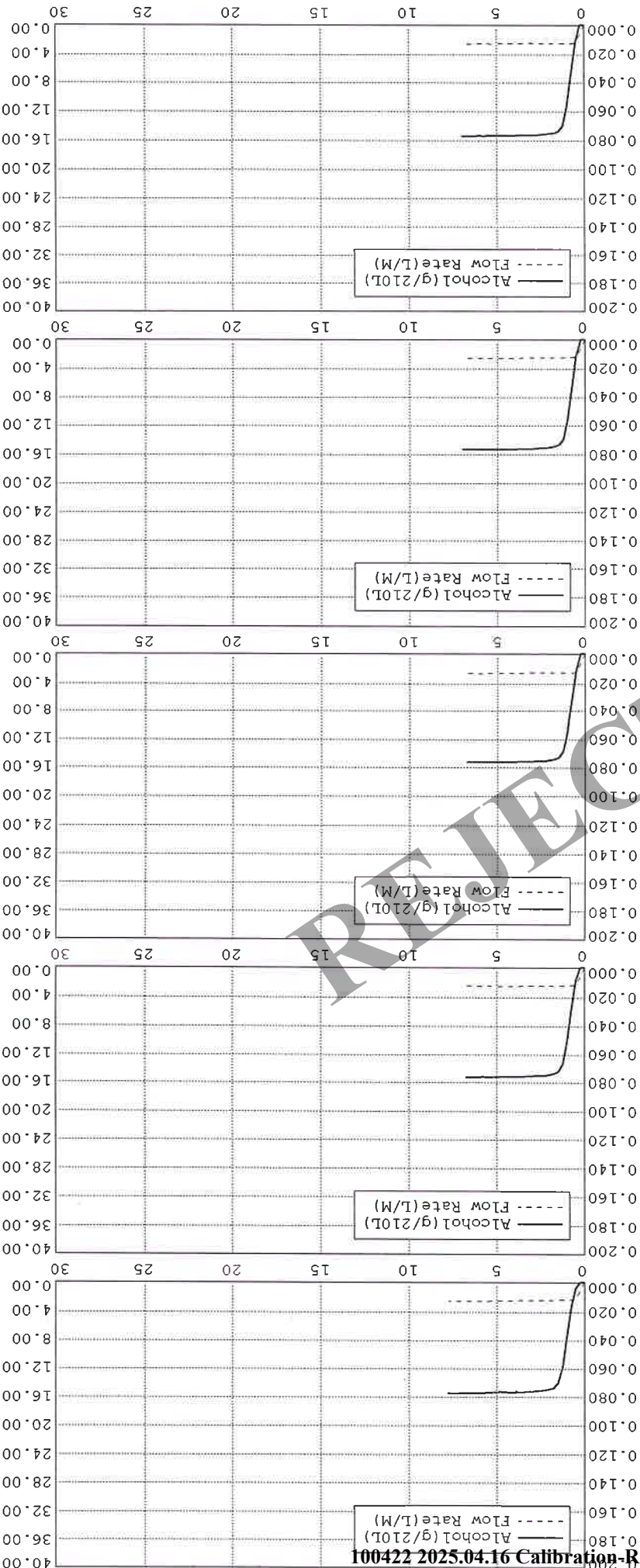
LOT #: AG335202

EXPIRATION: 12/18/2025

TANK PRESSURE: 280 psi

09:10	0.000	BLANK TEST
09:10	0.078	INTERNAL STANDARD
09:10	0.000	BLANK TEST
09:11	0.078	EXTERNAL STANDARD
09:12	0.078	EXTERNAL STANDARD
09:12	0.000	BLANK TEST
09:13	0.078	EXTERNAL STANDARD
09:14	0.000	BLANK TEST
09:14	0.078	EXTERNAL STANDARD
09:15	0.000	BLANK TEST
09:15	0.078	EXTERNAL STANDARD
09:16	0.000	BLANK TEST

Average = 0.0780
Std Dev = 0.0000



REJECTED

LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
DATAMASTER dmt: 100422

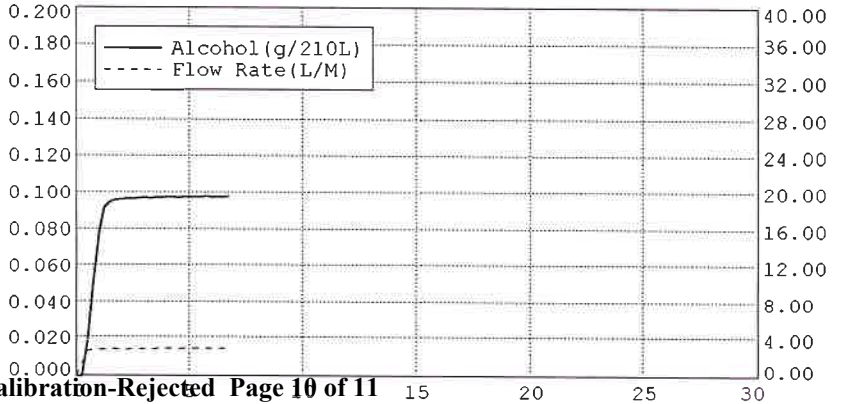
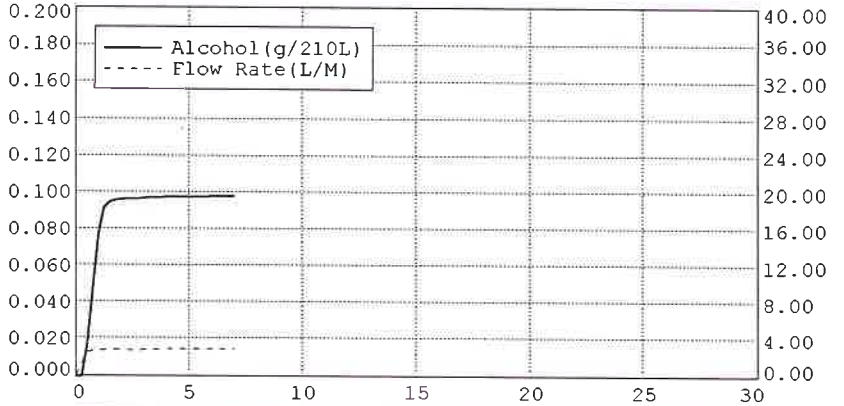
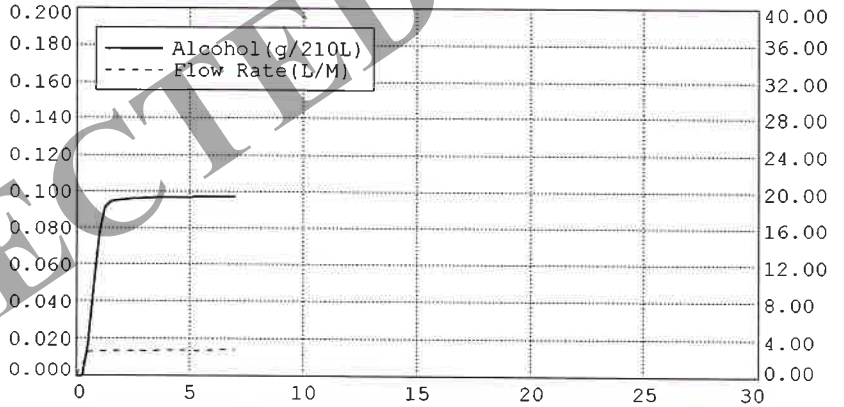
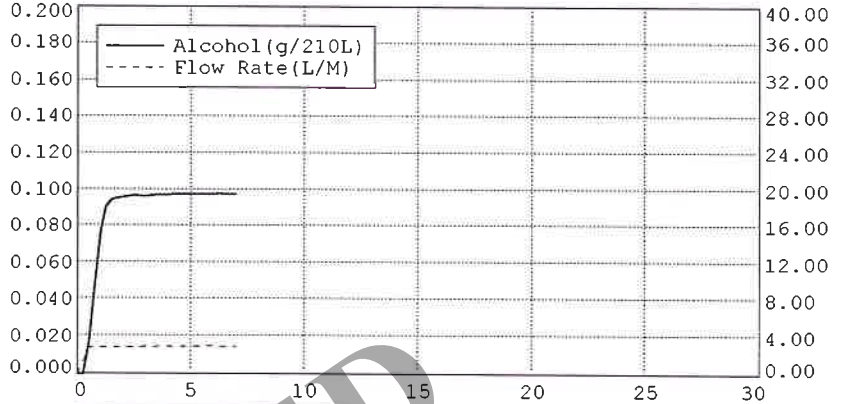
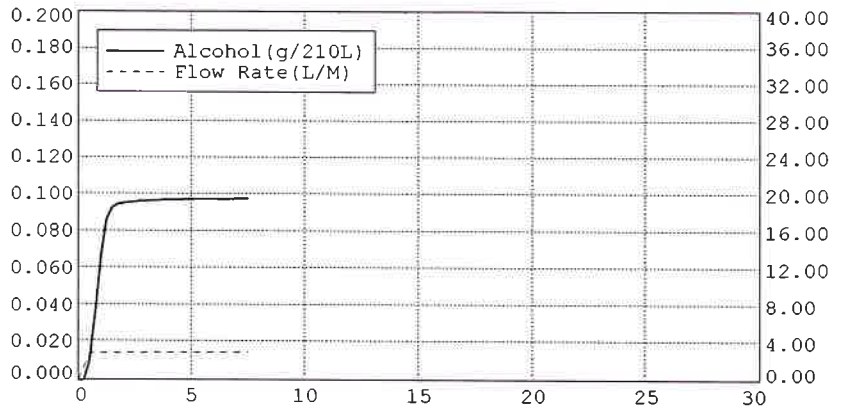
Date: 04/16/2025
Time: 09:17:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
TARGET AT 29.57: 0.099
LOT #: AG333401
EXPIRATION: 11/30/2025
TANK PRESSURE: 865 psi

BLANK TEST	0.000	09:18
INTERNAL STANDARD	VERIFIED	09:18
EXTERNAL STANDARD	0.098	09:19
BLANK TEST	0.000	09:20
EXTERNAL STANDARD	0.098	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.098	09:21
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.098	09:22
BLANK TEST	0.000	09:23
EXTERNAL STANDARD	0.099	09:23
BLANK TEST	0.000	09:24

Average = 0.0982
Std Dev = 0.0004



REJECTED

LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
DATAMASTER dmt: 100422

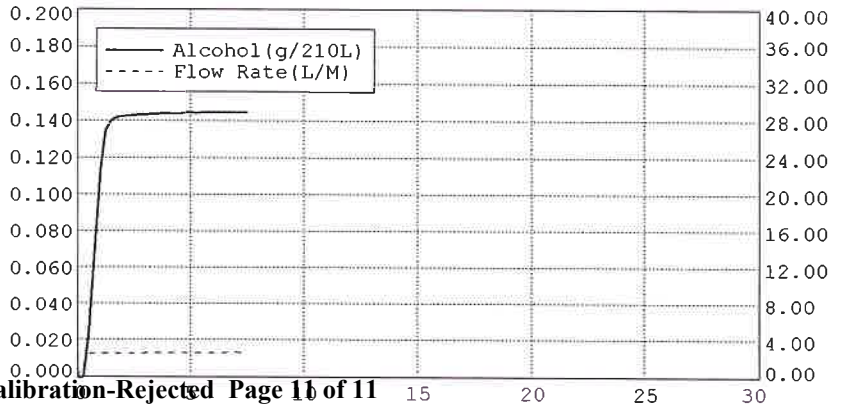
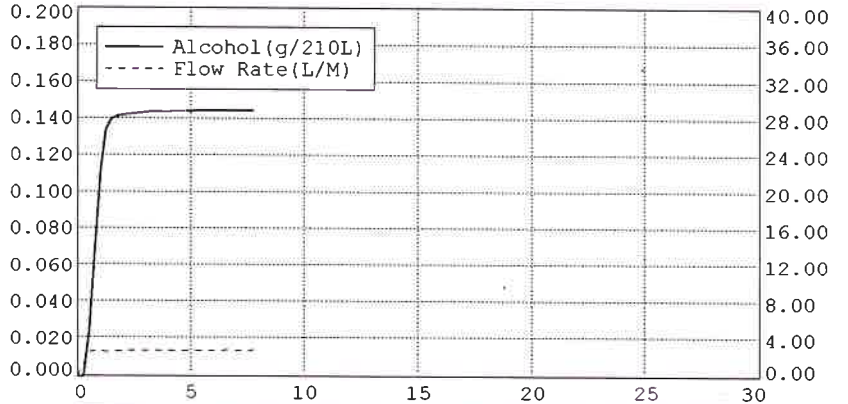
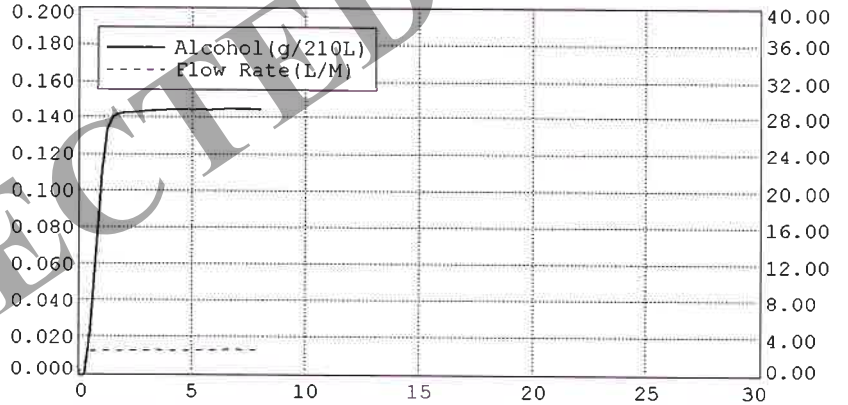
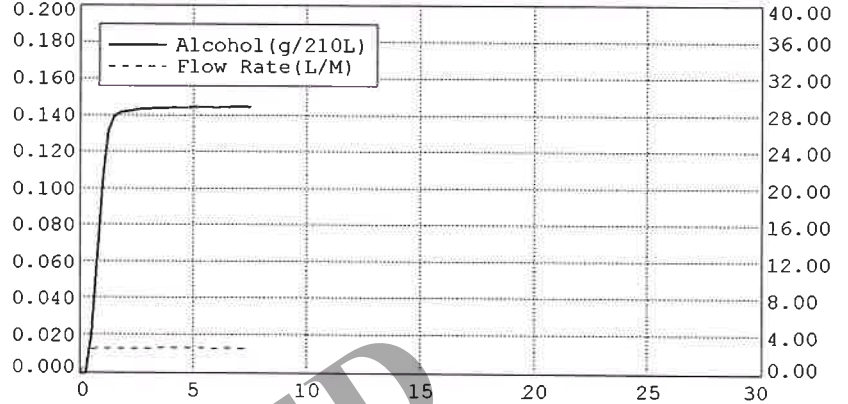
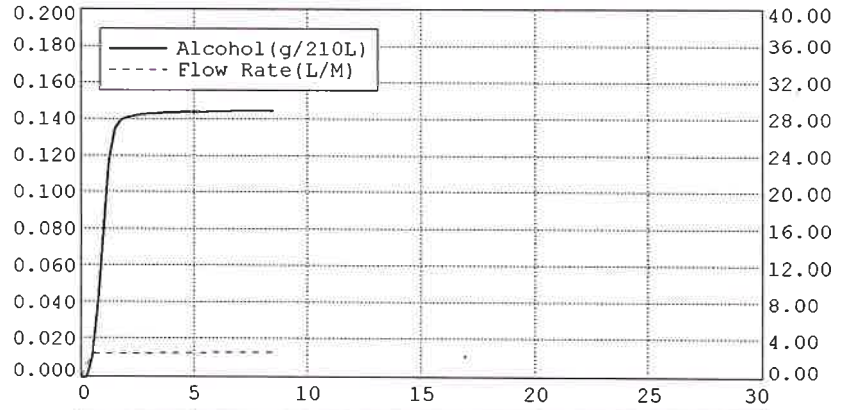
Date: 04/16/2025
Time: 09:27:24

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.150
TARGET AT 29.57: 0.148
LOT #: AG332004
EXPIRATION: 11/16/2025
TANK PRESSURE: 144 psi

BLANK TEST	0.000	09:28
INTERNAL STANDARD	VERIFIED	09:28
EXTERNAL STANDARD	0.145	09:28
BLANK TEST	0.000	09:29
EXTERNAL STANDARD	0.145	09:30
BLANK TEST	0.000	09:30
EXTERNAL STANDARD	0.145	09:31
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.145	09:32
BLANK TEST	0.000	09:33
EXTERNAL STANDARD	0.145	09:33
BLANK TEST	0.000	09:34

Average = 0.1450
Std Dev = 0.0000



REJECTED