

Alaska Scientific Crime Detection Laboratory

DataMaster Certification Form

Issued: 7/10/2015
Effective: 7/10/2015

Version: DMCEF 2015 R1
Status: Active

Instrument S/N 100353 Analyst Brandi Barnett Start Date 9/28/16

1. Diagnostic Test (attached) Internal Standard value $\leq 3.00\%$ Yes
1. Voltage Checks
- a. Adjust voltages, if needed
 - i. Lamp (2.6V Maximum)
 - ii. Bias
 - iii. Cooler (2.0V Maximum)
 - iv. Chopper Frequency
 - v. Detector Voltage (-0.100V to 0.100V)
 - b. Set RFI
 - c. Adjust barometer reading to match NIST traceable barometer
 - d. Adjust volume setting, if needed (1.5L +/- 0.1L)
 - e. Print Technician Screen (attached)

2. Print Calibration Factors (attached)

3. Volume Test - Minimum 1.5 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf ILMO Lot 02915020A2 Exp 3/5/17
- ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 3/5/17
- iii. 0.080g/210L Mnf Airgas Lot AG608504 Exp 3/25/18
- iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17
- v. 0.200g/210L Mnf Guth Lot 1530 Exp 5/11/17
 - 1. Simulator S/N DR6267 Date Calibrated 3/3/16
- vi. 0.300g/210L Mnf Guth Lot 1570 Exp 7/20/17
 - 1. Simulator S/N DR4176 Date Calibrated 3/3/16

5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts

- i. Acetone - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
 - 1. Simulator S/N DR4162 Date Calibrated 3/2/16
- ii. Isopropanol - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
 - 1. Simulator S/N DR4163 Date Calibrated 3/2/16
- iii. Negative Control - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
 - 1. Simulator S/N SD1700 Date Calibrated 3/3/16

e. RFI

- 6. Verify stylus is calibrated
- 7. Reset Options
- 8. Clear Memory

- 9. Verification of Calibration
- 10. Non-Drinking Subject Test (attached)
- 11. Upload
- 13. Remove tank prior to shut down

End Date 9/29/16

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/28/2016
Time: 10:11:02

VERSIONS

DMT: 3.02
PIC: 3.02
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 = 2.17 V PASSED
(1.30 V - 3.04 V)
Cooler Voltage = 2.10 V PASSED
(1.26 V - 2.94 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 534 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 30.1 in

PUMP INFO

Flow Rate = 5.243 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
(0.001 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED
Xq = 0.093 1.11% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100353

Date: 09/28/2016
Time: 10:16 AM

Temperatures (°C)

Sample Cell: 49.0°C
Breath Tube: 47.5°C

Current Barometer 30.1 in
Volume (Ltr) 1.51

Settings

Lamp: 2.17 V
Bias: 80 V
Cooler: 2.10 V
Chopper: 531 Hz

Voltages (V)

Flow: 1.06 V
Detector: 0.014 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 02/11/2016
Time: 14:05:58

OPERATOR NAME:
NPAS T TECH
CERTIFICATE #: G12921, 15200, 34.0C

Ca = 0.1010
CAL = 0.991996 0.800 <= CAL < 1.200
b1 = 0.0008 0.0000 <= b1 < 0.0040
b2 = 0.0067 0.0010 <= b2 < 0.0100
b3 = 0.0002 0.0000 <= b3 < 0.0040
Xq = 0.0942 0.0500 <= Xq < 0.2000
a21 = 1.174903 1.050 <= a21 < 1.300
a31 = 0.525450 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/28/2016
Time: 10:19:01

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

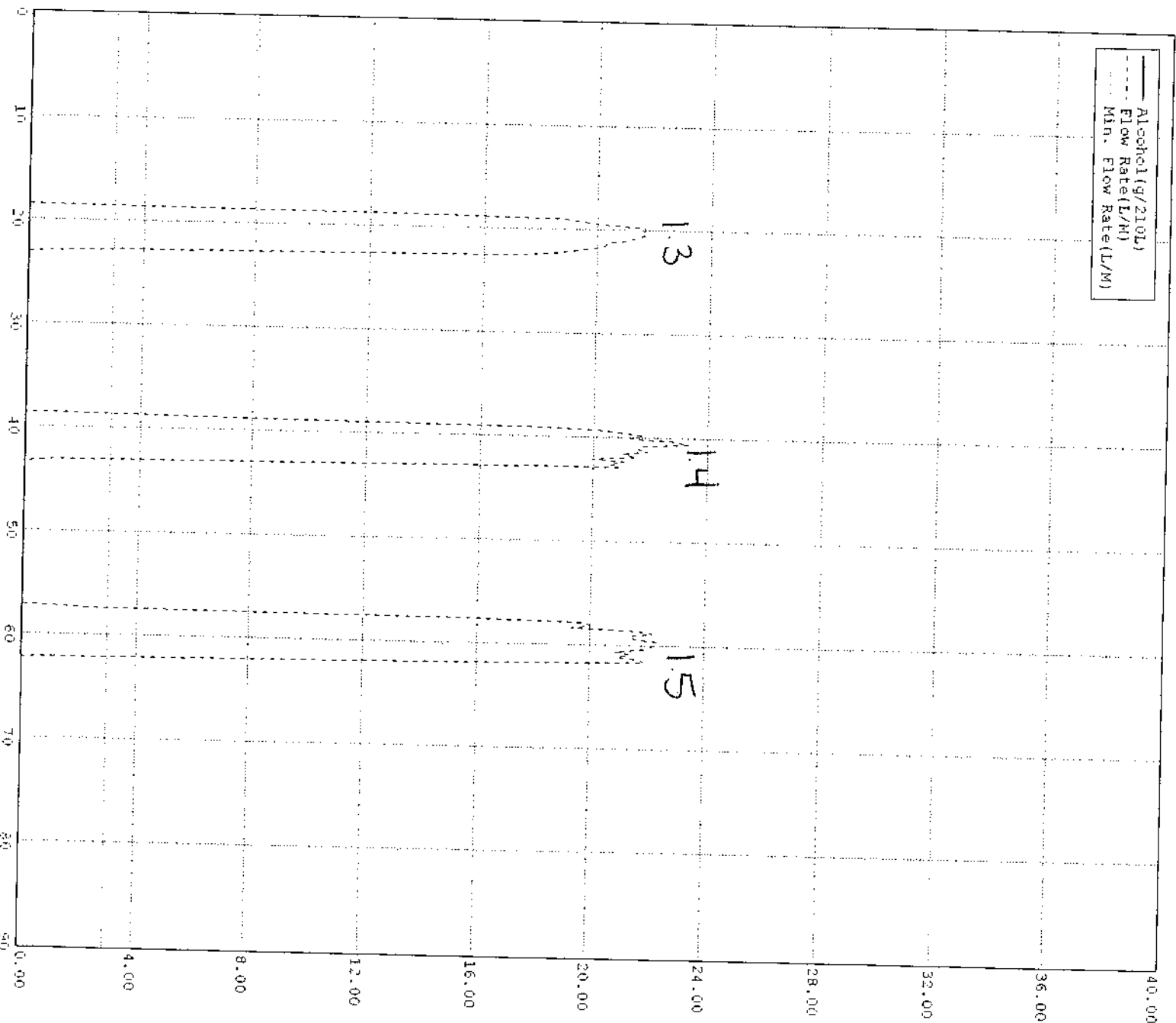
OPERATOR NAME:
BRANDI M BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.14: 0.081
LOT #: AG608504
EXPIRATION: 03/25/2018

| DIAGNOSTIC CHECK | PASSED | 10:20 |
|----------------------------|----------|-------|
| BLANK TEST | 0.000 | 10:20 |
| INTERNAL STANDARD | VERIFIED | 10:20 |
| EXTERNAL STANDARD | 0.081 | 10:20 |
| BLANK TEST | 0.000 | 10:21 |
| SUBJECT SAMPLE (Vol=1.55L) | 0.000 | 10:22 |
| BLANK TEST | 0.000 | 10:23 |
| EXTERNAL STANDARD | 0.082 | 10:23 |
| BLANK TEST | 0.000 | 10:24 |

BMB



LINEARITY CHECK

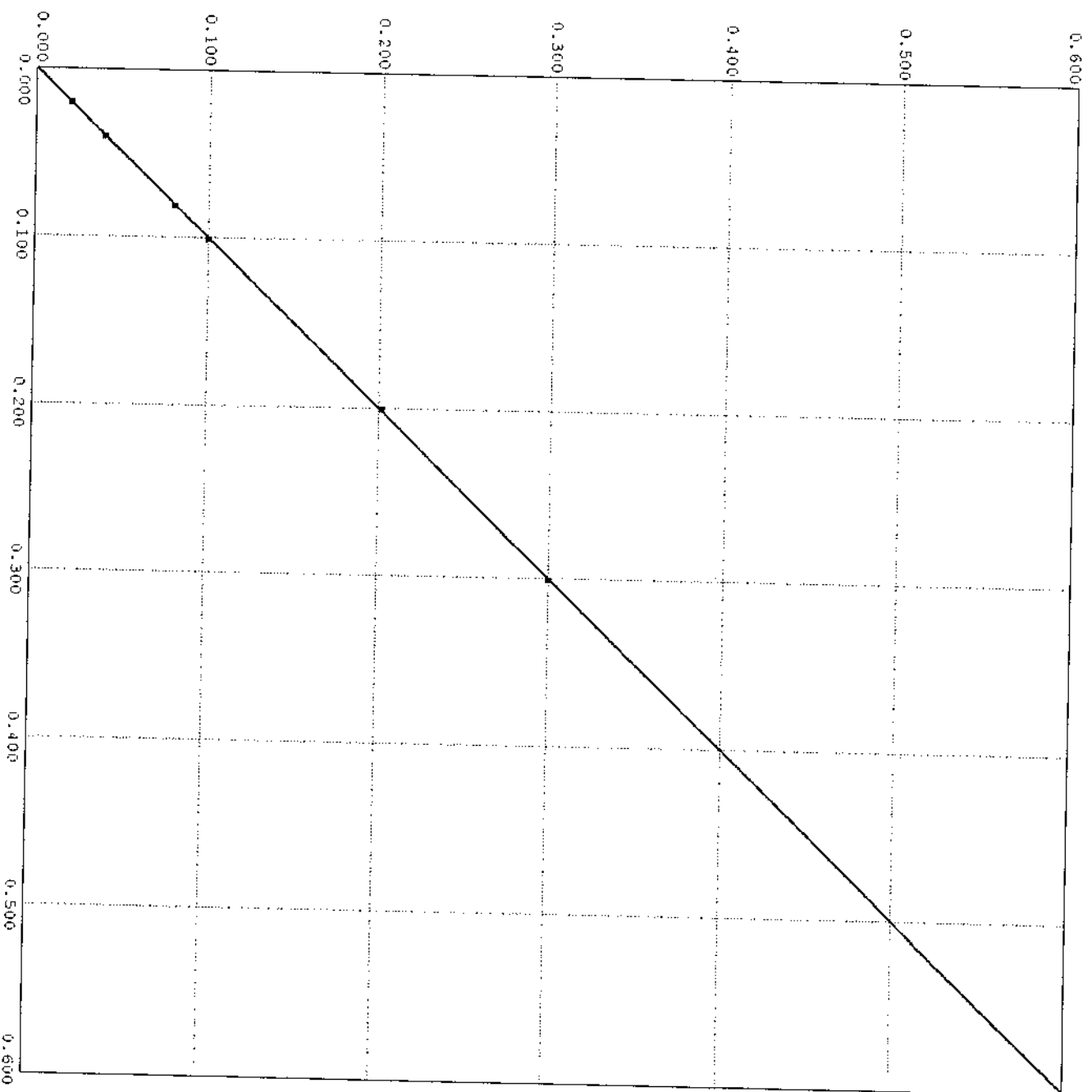
Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/28/2016
Time: 13:29:06

SUPERVISOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

| TARGET | AVERAGE | STD. DEV. |
|--------|---------|-----------|
| 0.020 | 0.0210 | 0.0000 |
| 0.040 | 0.0410 | 0.0000 |
| 0.081 | 0.0814 | 0.0005 |
| 0.101 | 0.1012 | 0.0004 |
| 0.200 | 0.2026 | 0.0005 |
| 0.300 | 0.3006 | 0.0009 |

SLOPE = 1.001672
R² = 0.999938



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

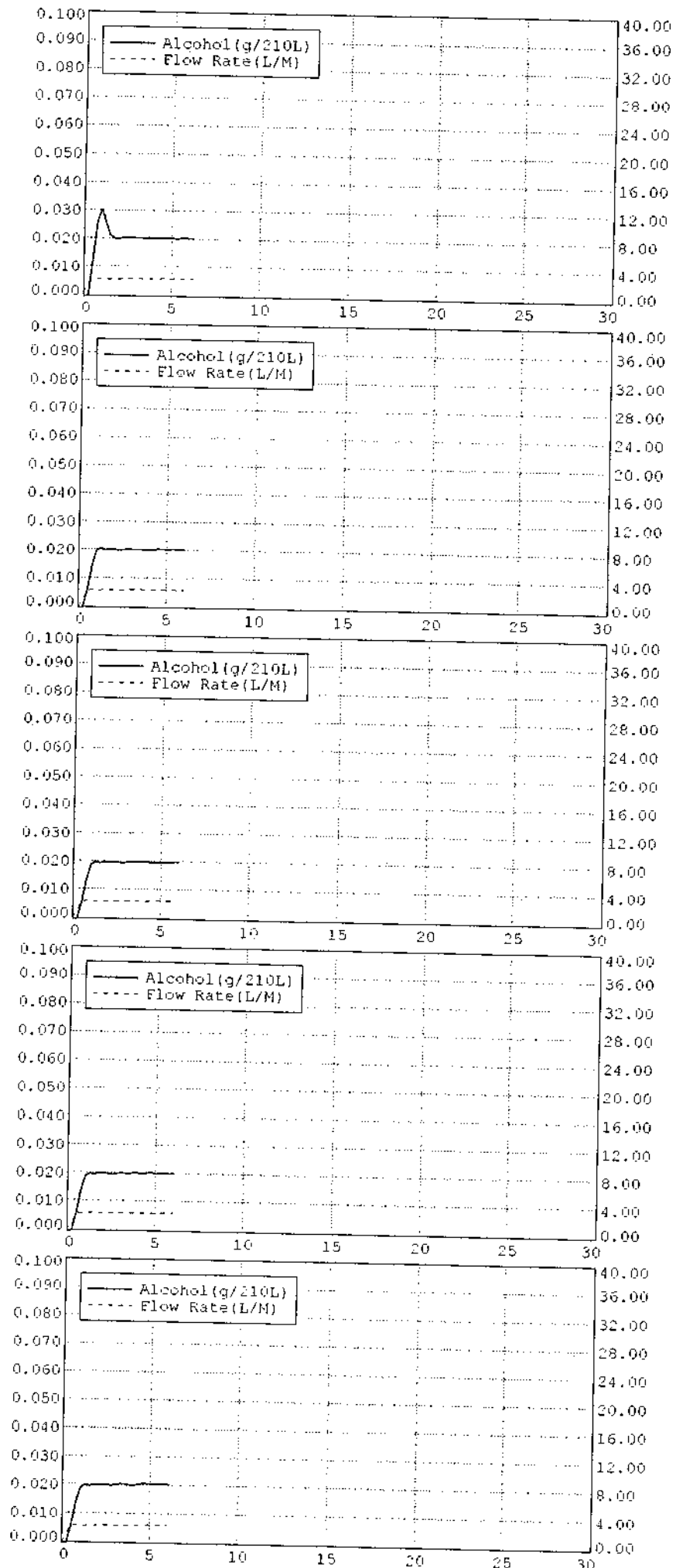
Date: 09/28/2016
 Time: 13:29:08

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 30.16: 0.020
 LOT #: 02915020A2
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 381 psi

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 13:30 |
| INTERNAL STANDARD | VERIFIED | 13:30 |
| EXTERNAL STANDARD | 0.021 | 13:30 |
| BLANK TEST | 0.000 | 13:31 |
| EXTERNAL STANDARD | 0.021 | 13:31 |
| BLANK TEST | 0.000 | 13:32 |
| EXTERNAL STANDARD | 0.021 | 13:33 |
| BLANK TEST | 0.000 | 13:33 |
| EXTERNAL STANDARD | 0.021 | 13:34 |
| BLANK TEST | 0.000 | 13:35 |
| EXTERNAL STANDARD | 0.021 | 13:35 |
| BLANK TEST | 0.000 | 13:36 |

Average = 0.0210
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
DATAMASTER dmt: 100353

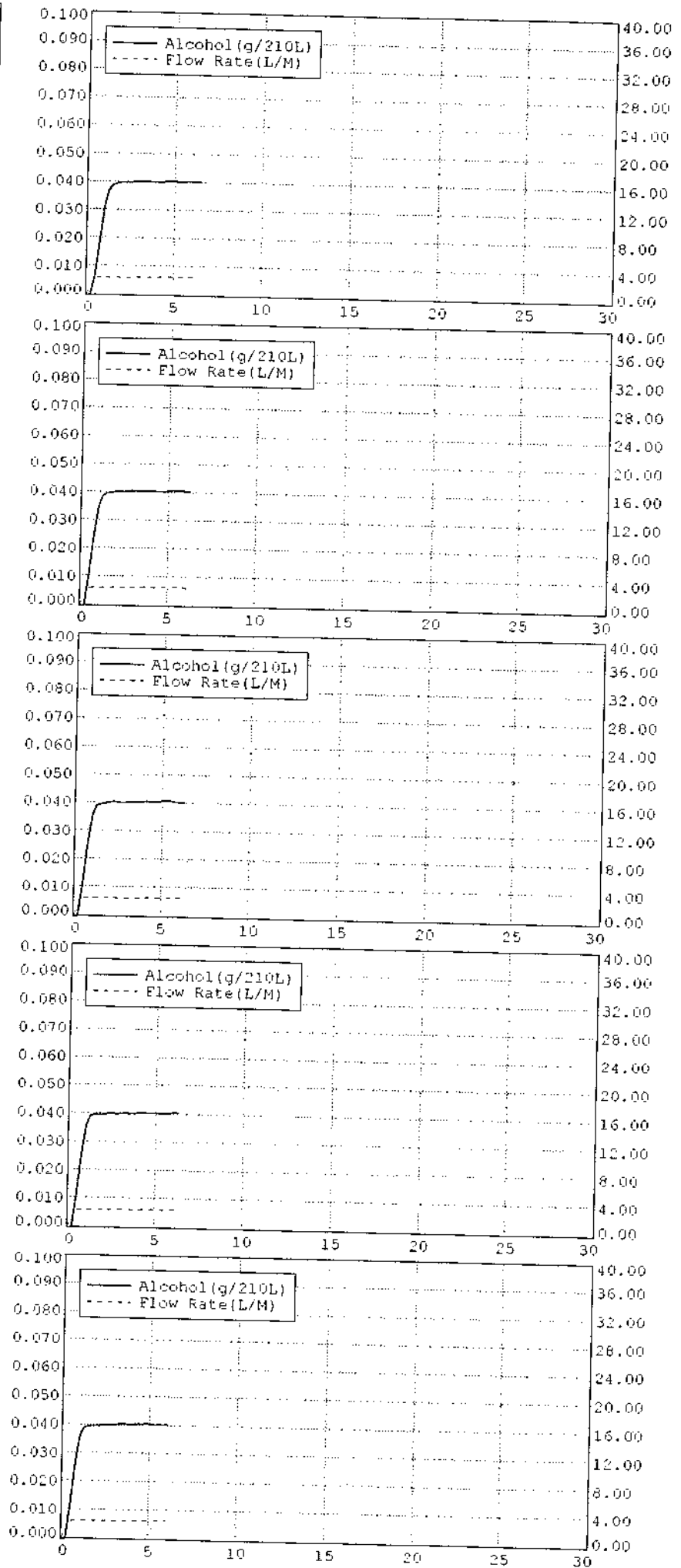
Date: 09/28/2016
Time: 13:38:05

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
TARGET AT 30.16: 0.040
LOT #: 02915040A3
EXPIRATION: 03/05/2017
TANK PRESSURE: 907 psi

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 13:39 |
| INTERNAL STANDARD | VERIFIED | 13:40 |
| EXTERNAL STANDARD | 0.041 | 13:40 |
| BLANK TEST | 0.000 | 13:41 |
| EXTERNAL STANDARD | 0.041 | 13:41 |
| BLANK TEST | 0.000 | 13:42 |
| EXTERNAL STANDARD | 0.041 | 13:42 |
| BLANK TEST | 0.000 | 13:43 |
| EXTERNAL STANDARD | 0.041 | 13:43 |
| BLANK TEST | 0.000 | 13:44 |
| EXTERNAL STANDARD | 0.041 | 13:44 |
| BLANK TEST | 0.000 | 13:45 |

Average = 0.0410
Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

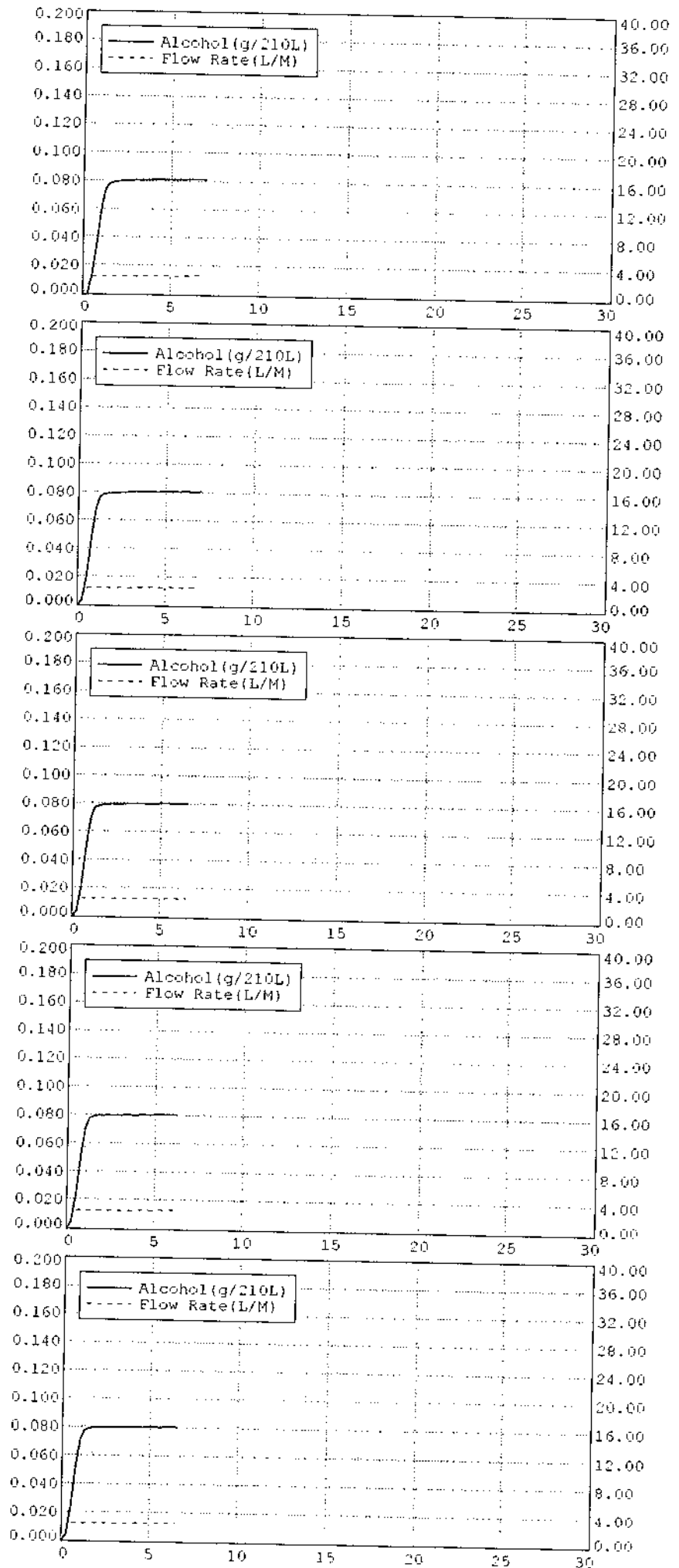
Date: 09/28/2016
 Time: 13:46:42

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 30.16: 0.081
 LOT #: AG608504
 EXPIRATION: 03/25/2018
 TANK PRESSURE: 1172 psi

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 13:50 |
| INTERNAL STANDARD | VERIFIED | 13:50 |
| EXTERNAL STANDARD | 0.082 | 13:50 |
| BLANK TEST | 0.000 | 13:51 |
| EXTERNAL STANDARD | 0.082 | 13:51 |
| BLANK TEST | 0.000 | 13:52 |
| EXTERNAL STANDARD | 0.081 | 13:52 |
| BLANK TEST | 0.000 | 13:53 |
| EXTERNAL STANDARD | 0.081 | 13:53 |
| BLANK TEST | 0.000 | 13:54 |
| EXTERNAL STANDARD | 0.081 | 13:55 |
| BLANK TEST | 0.000 | 13:55 |

Average = 0.0814
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
DATAMASTER dmt: 100353

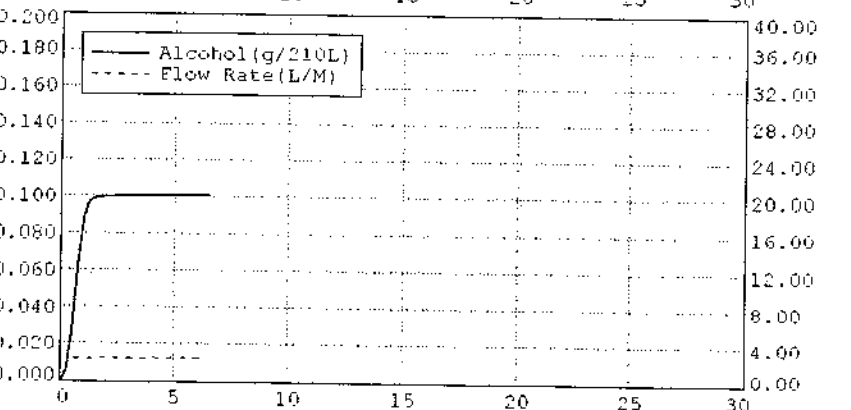
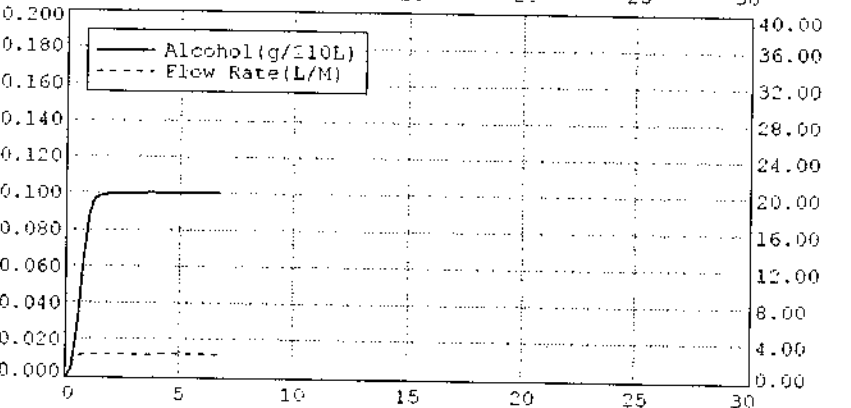
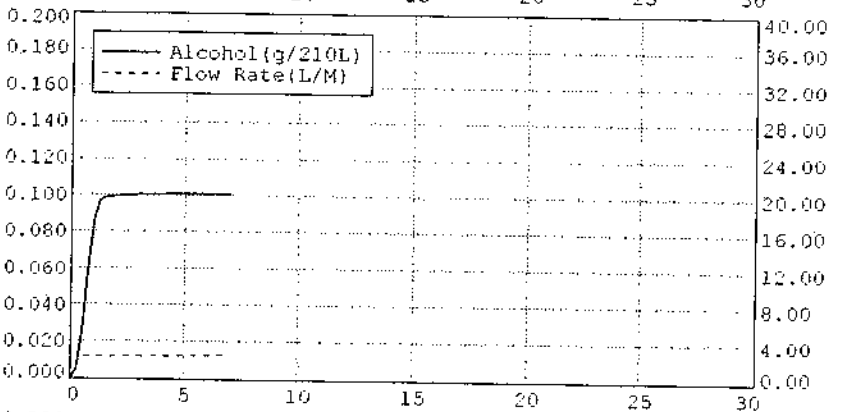
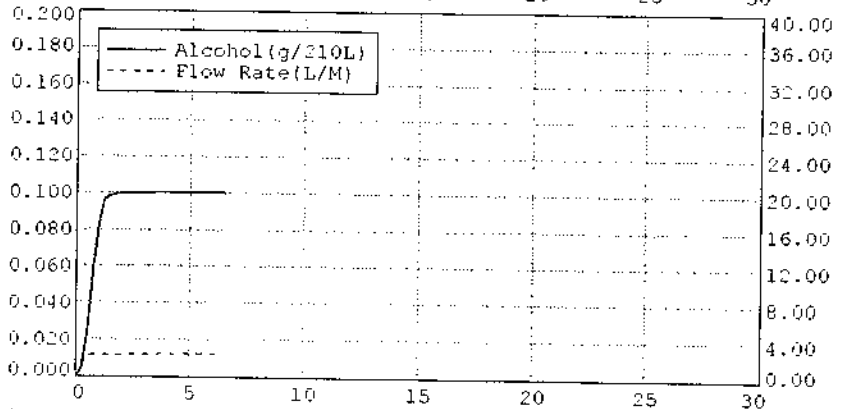
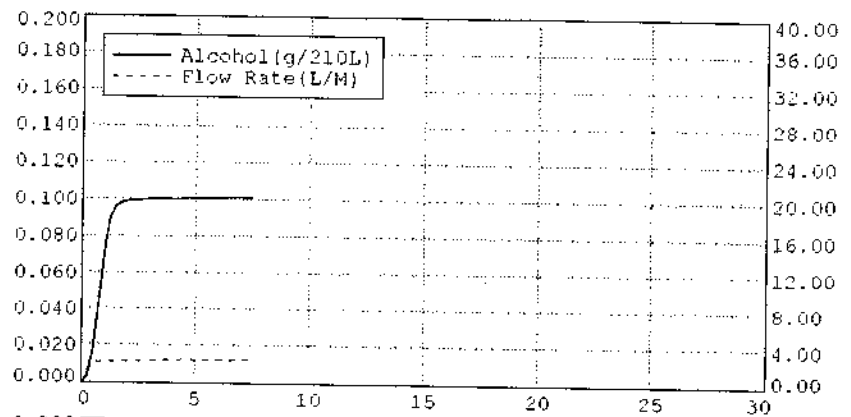
Date: 09/28/2016
Time: 13:56:42

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
TARGET AT 30.16: 0.101
LOT #: 02915100A1
EXPIRATION: 03/05/2017
TANK PRESSURE: 999 psi

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 13:59 |
| INTERNAL STANDARD | VERIFIED | 13:59 |
| EXTERNAL STANDARD | 0.102 | 13:59 |
| BLANK TEST | 0.000 | 14:00 |
| EXTERNAL STANDARD | 0.101 | 14:00 |
| BLANK TEST | 0.000 | 14:01 |
| EXTERNAL STANDARD | 0.101 | 14:02 |
| BLANK TEST | 0.000 | 14:02 |
| EXTERNAL STANDARD | 0.101 | 14:03 |
| BLANK TEST | 0.000 | 14:04 |
| EXTERNAL STANDARD | 0.101 | 14:04 |
| BLANK TEST | 0.000 | 14:05 |

Average = 0.1012
Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

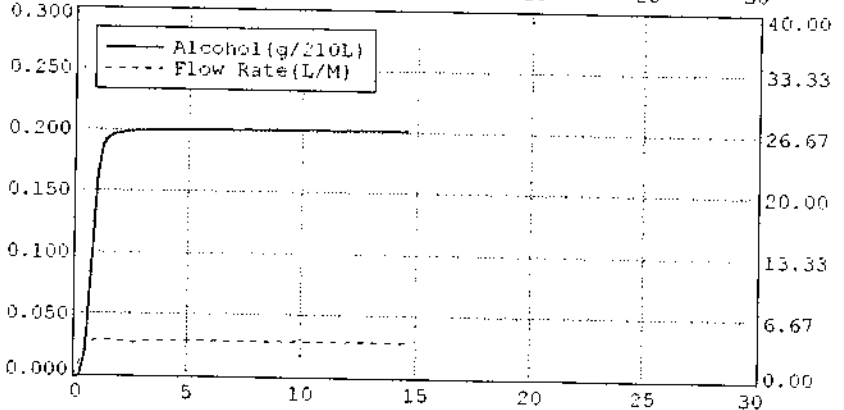
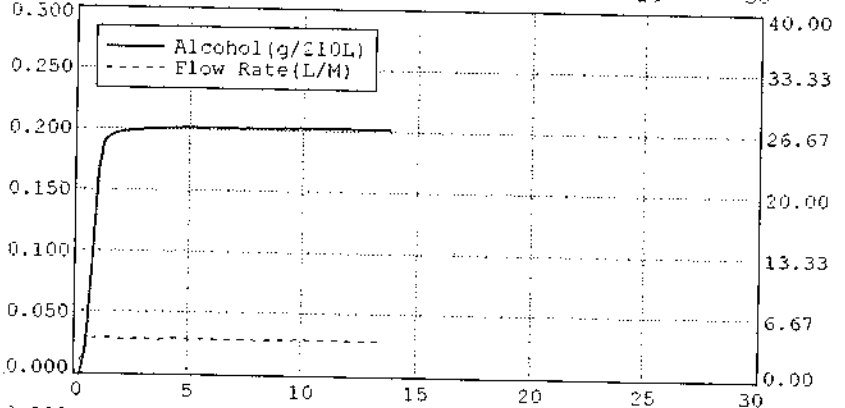
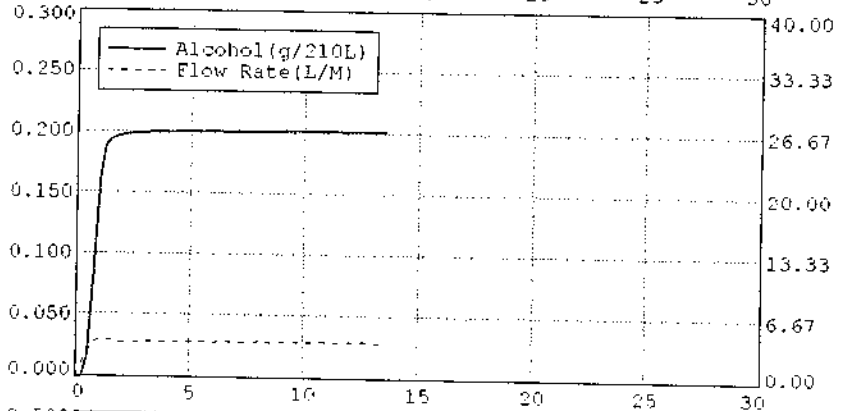
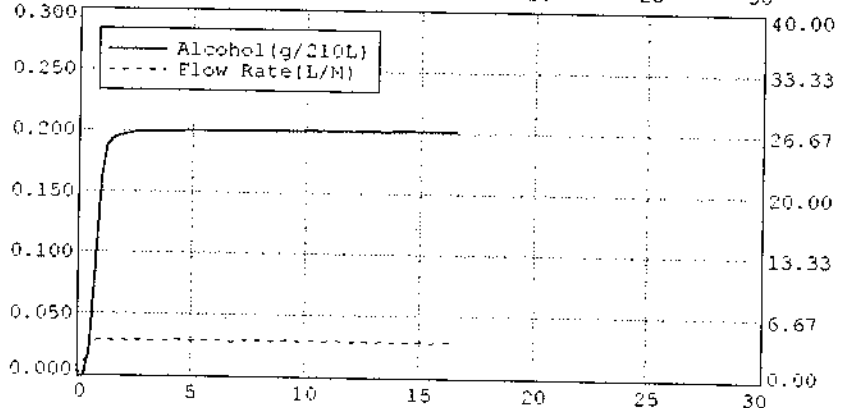
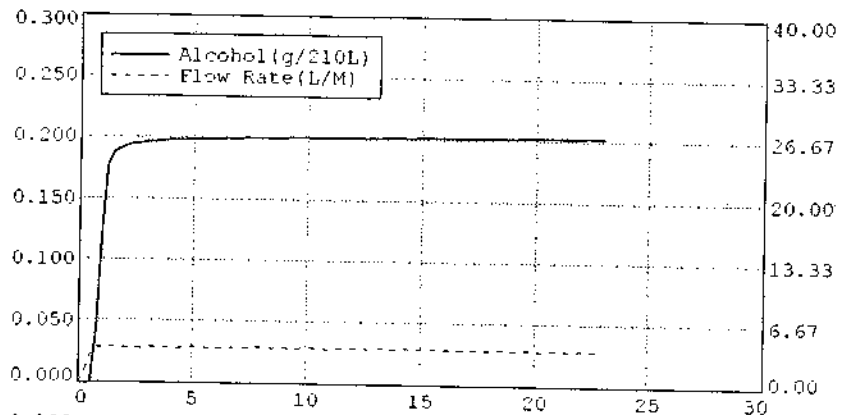
Date: 09/28/2016
 Time: 14:09:11

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200
 LOT #: GUTH 15130
 EXPIRATION: 05/11/2017

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 14:10 |
| INTERNAL STANDARD | VERIFIED | 14:11 |
| EXTERNAL STANDARD | 0.203 | 14:11 |
| BLANK TEST | 0.000 | 14:12 |
| EXTERNAL STANDARD | 0.202 | 14:12 |
| BLANK TEST | 0.000 | 14:13 |
| EXTERNAL STANDARD | 0.202 | 14:14 |
| BLANK TEST | 0.000 | 14:15 |
| EXTERNAL STANDARD | 0.203 | 14:15 |
| BLANK TEST | 0.000 | 14:16 |
| EXTERNAL STANDARD | 0.203 | 14:16 |
| BLANK TEST | 0.000 | 14:17 |

Average = 0.2026
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

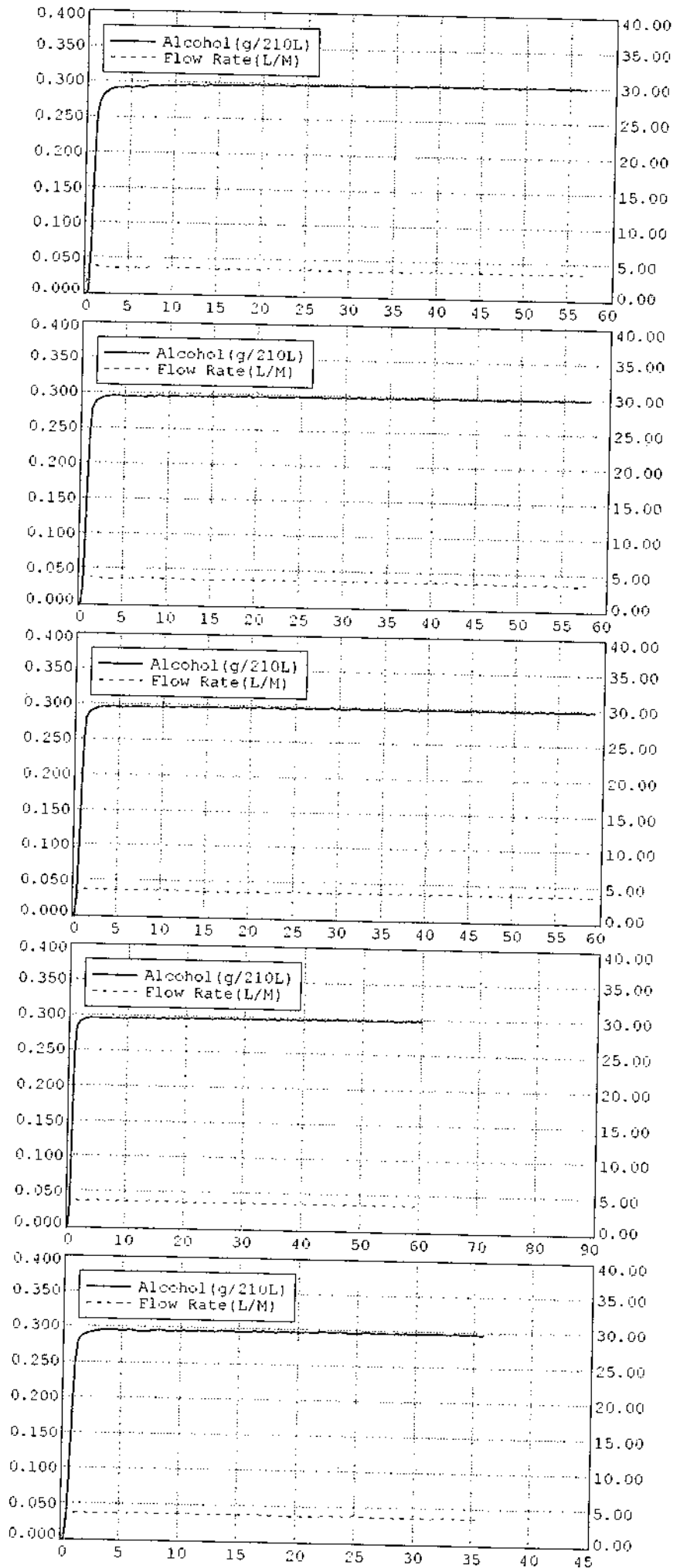
Date: 09/28/2016
 Time: 14:21:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: GUTH 15170
 EXPIRATION: 07/20/2017

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 14:22 |
| INTERNAL STANDARD | VERIFIED | 14:22 |
| EXTERNAL STANDARD | 0.302 | 14:23 |
| BLANK TEST | 0.000 | 14:24 |
| EXTERNAL STANDARD | 0.300 | 14:25 |
| BLANK TEST | 0.000 | 14:26 |
| EXTERNAL STANDARD | 0.301 | 14:27 |
| BLANK TEST | 0.000 | 14:28 |
| EXTERNAL STANDARD | 0.300 | 14:29 |
| BLANK TEST | 0.000 | 14:30 |
| EXTERNAL STANDARD | 0.300 | 14:31 |
| BLANK TEST | 0.000 | 14:32 |

Average = 0.3006
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/29/2016
Time: 09:48:51

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

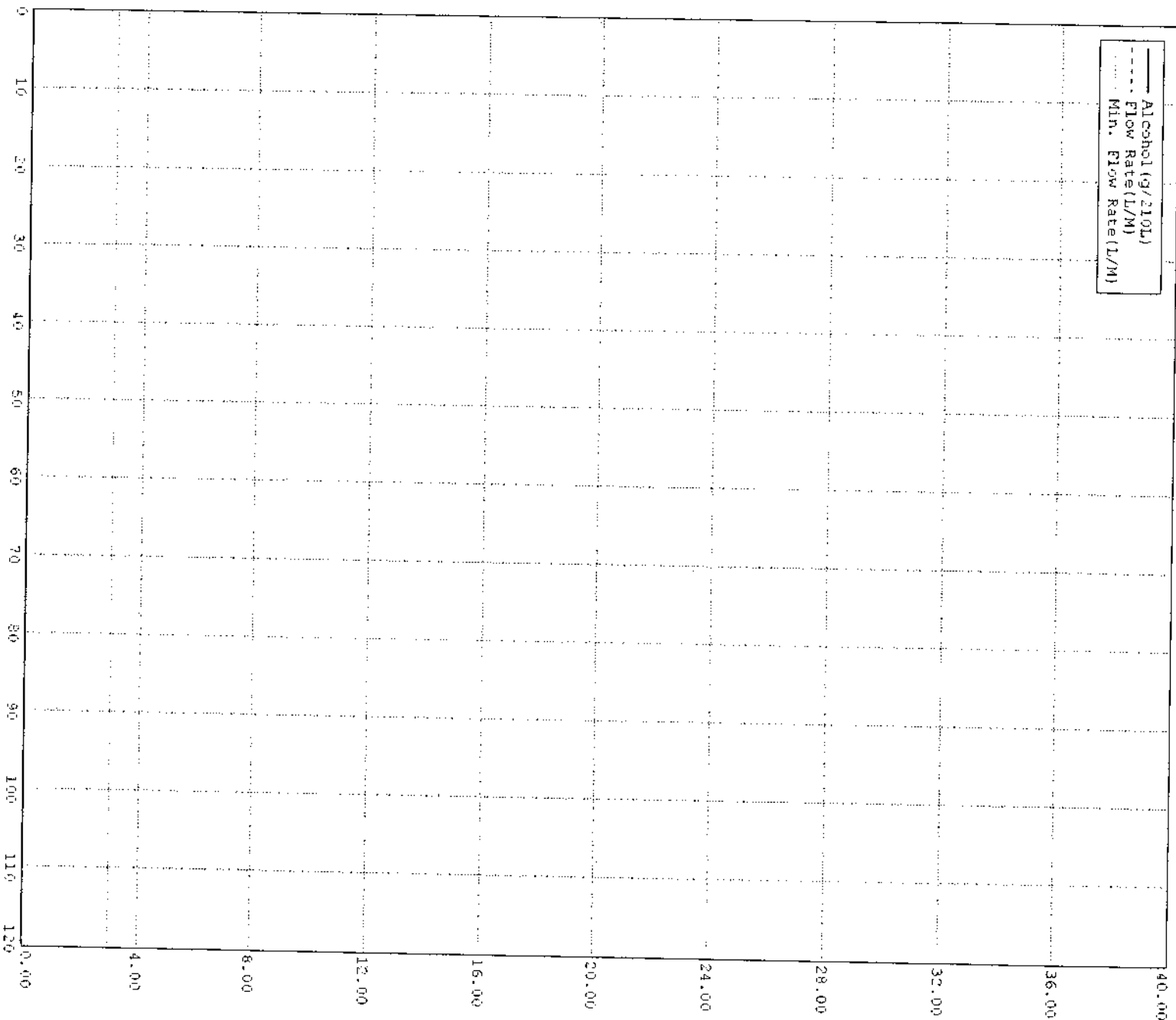
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
INCOMPLETE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.31: 0.081
LOT #: AG608504
EXPIRATION: 03/25/2018

| DIAGNOSTIC CHECK | PASSED | 09:50 |
|-------------------|------------|-------|
| BLANK TEST | 0.000 | 09:50 |
| INTERNAL STANDARD | VERIFIED | 09:51 |
| EXTERNAL STANDARD | 0.082 | 09:51 |
| BLANK TEST | 0.000 | 09:52 |
| SUBJECT SAMPLE | INCOMPLETE | 09:54 |

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/29/2016
Time: 10:20:25

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

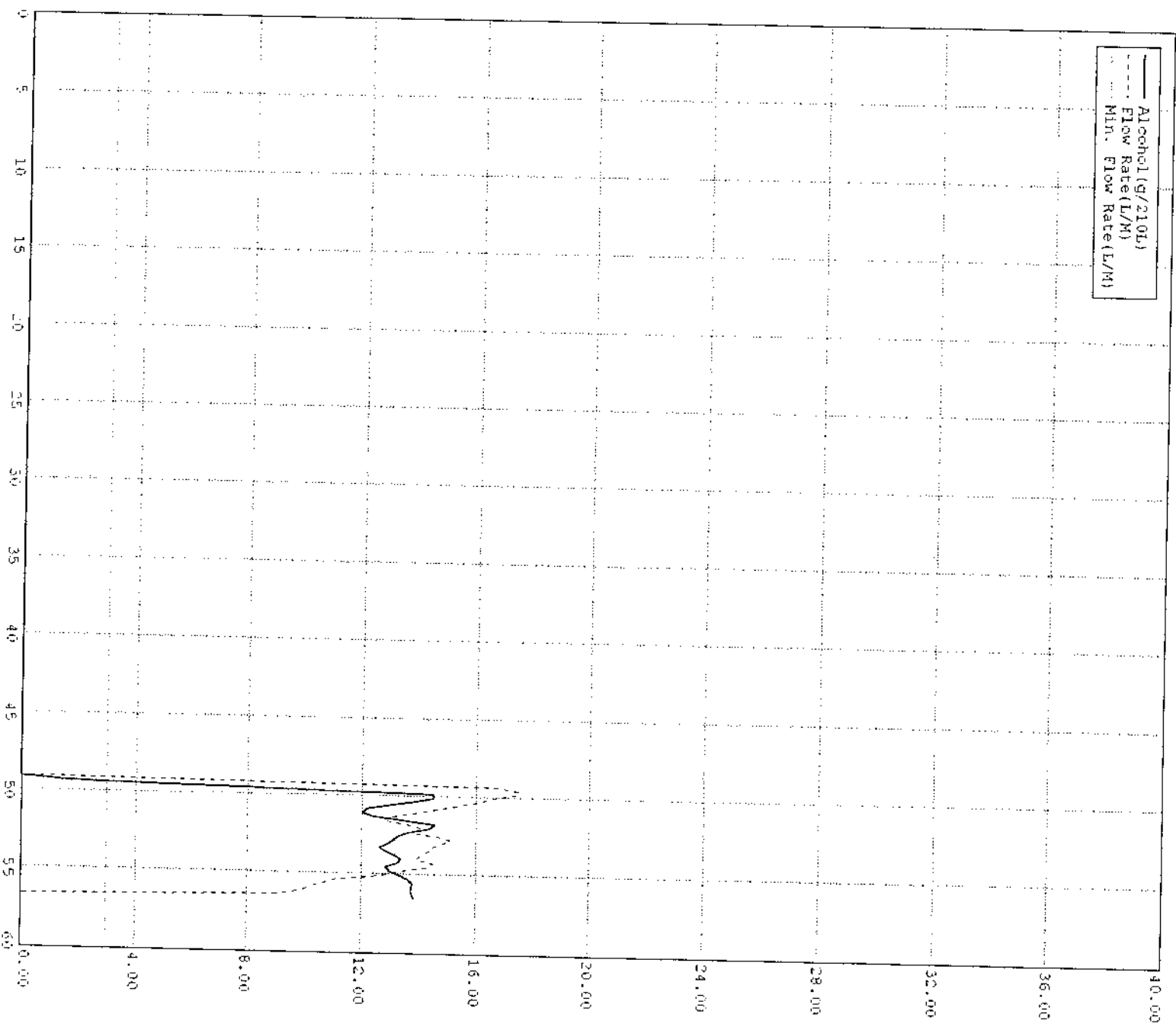
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
INVALID
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.32: 0.081
LOT #: AG608504
EXPIRATION: 03/25/2018

| DIAGNOSTIC CHECK | PASSED | 10:22 |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 10:22 |
| INTERNAL STANDARD | VERIFIED | 10:22 |
| EXTERNAL STANDARD | 0.082 | 10:23 |
| BLANK TEST | 0.000 | 10:24 |
| SUBJECT SAMPLE | INVALID | 10:25 |

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/29/2016
Time: 12:34:02

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
INTERFERENCE ACETONE
CASE/REPORT: XXXX
TEST TYPE: TEST

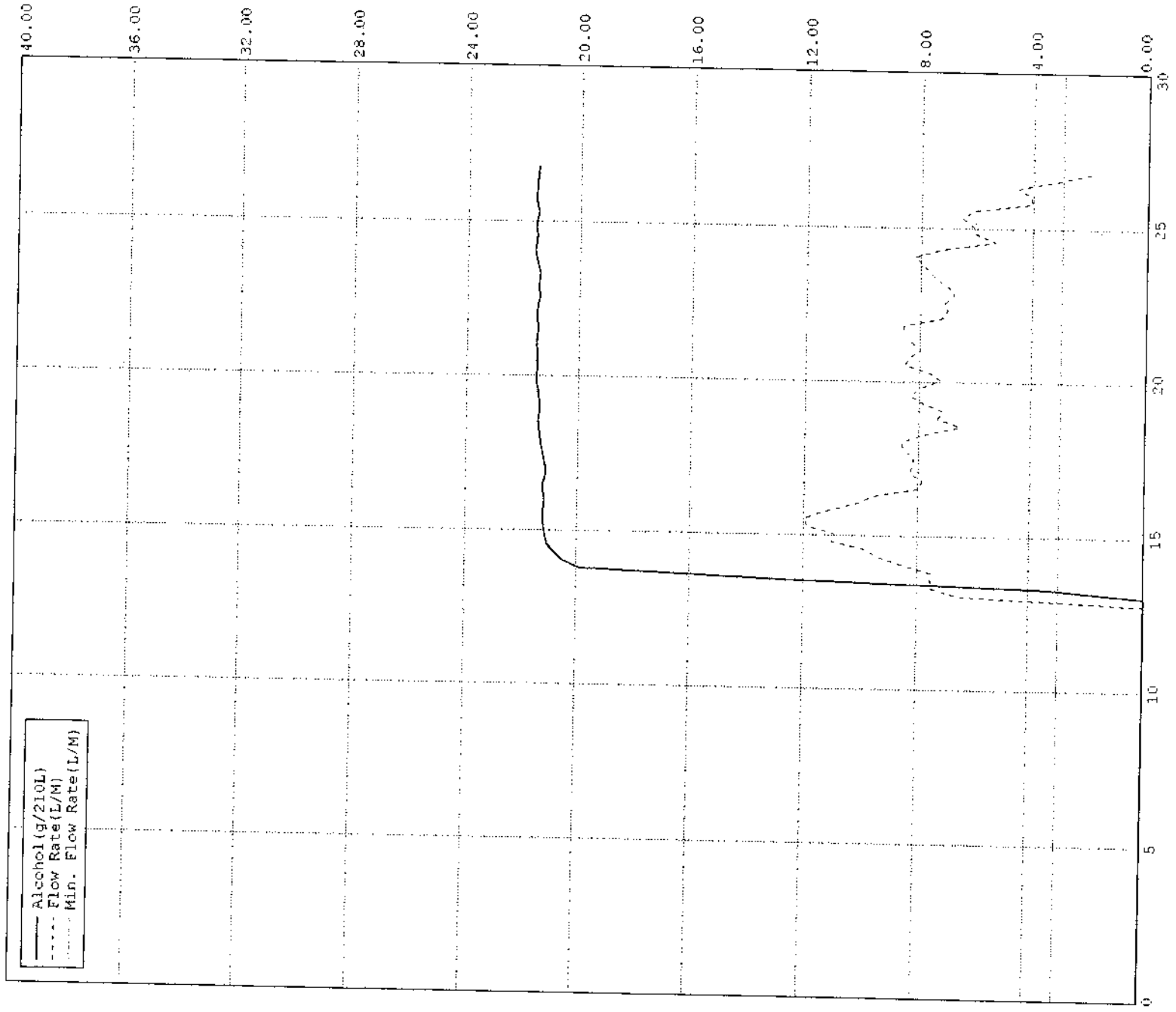
EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.33: 0.081
LOT #: AG608504
EXPIRATION: 03/25/2018

| | | |
|----------------------------------|----------|-------|
| DIAGNOSTIC CHECK | PASSED | 12:35 |
| BLANK TEST | 0.000 | 12:35 |
| INTERNAL STANDARD | VERIFIED | 12:35 |
| Xq = 0.094 (0.65%) | | |
| EXTERNAL STANDARD | 0.082 | 12:35 |
| X[1] = 0.0818 (-0.0010) (0.0030) | | |
| BLANK TEST | 0.000 | 12:36 |
| SUBJECT SAMPLE | XXX | 12:37 |
| X[1] = 0.1078 (-0.0159) (0.0010) | | |

Interference Detected

Filter 2 Avg: ~0.0011
Filter 3 Avg: 0.0029
SMB 9/29/16

SMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/29/2016
Time: 12:41:22

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

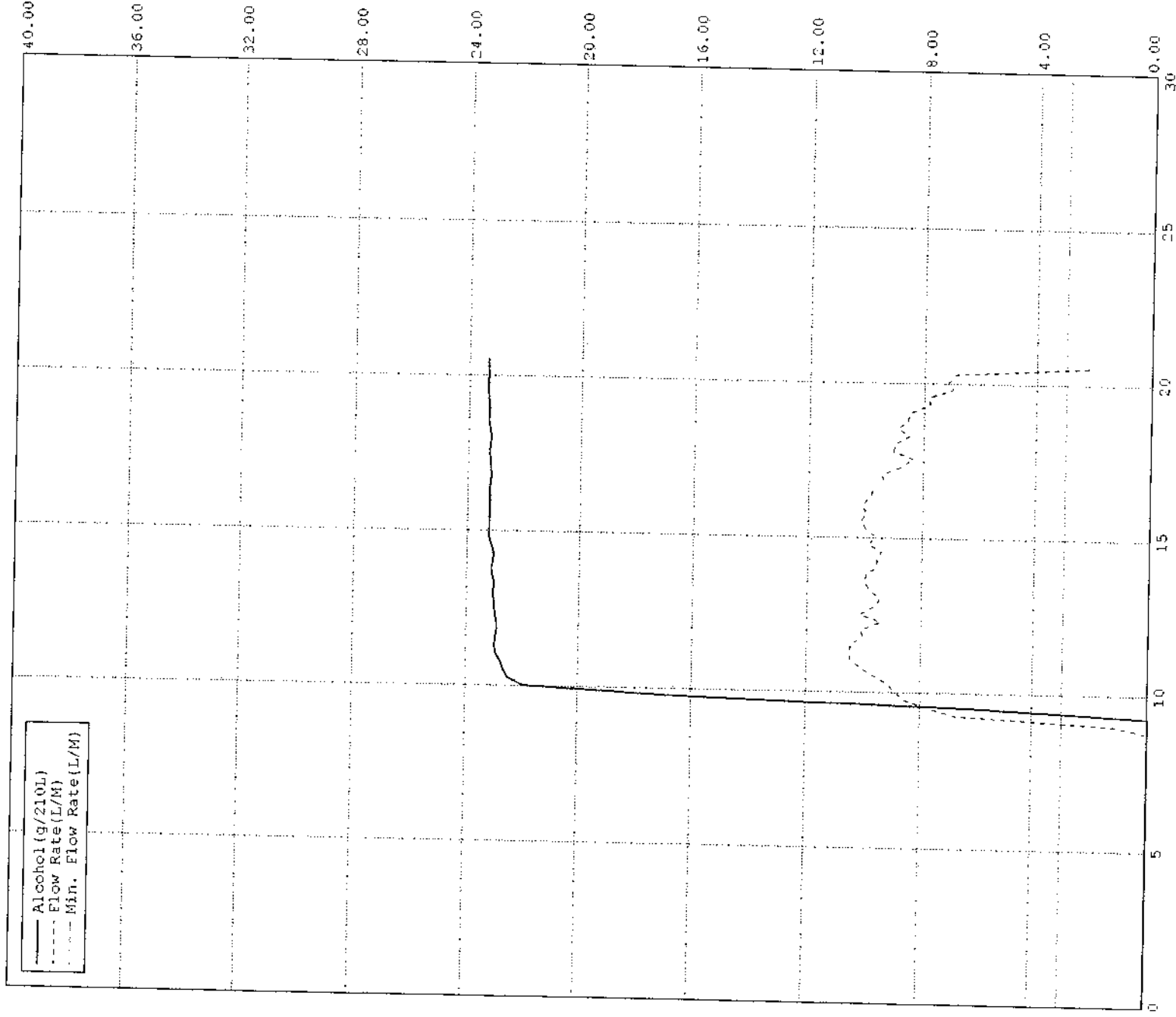
DEPT/AGENCY:
INTERFERENCE ISOPROPYL
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.33: 0.081
LOT #: AG608504
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 12:42
BLANK TEST 0.000 12:43
INTERNAL STANDARD VERIFIED 12:43
Xq = 0.095 (0.37%)
EXTERNAL STANDARD 0.082 12:43
X[1] = 0.0819 (-0.0014) (0.0024)
BLANK TEST 0.000 12:44
SUBJECT SAMPLE XXX 12:44
X[1] = 0.1174 (-0.0226) (0.0011)

Interference Detected

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/29/2016
Time: 12:53:25

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

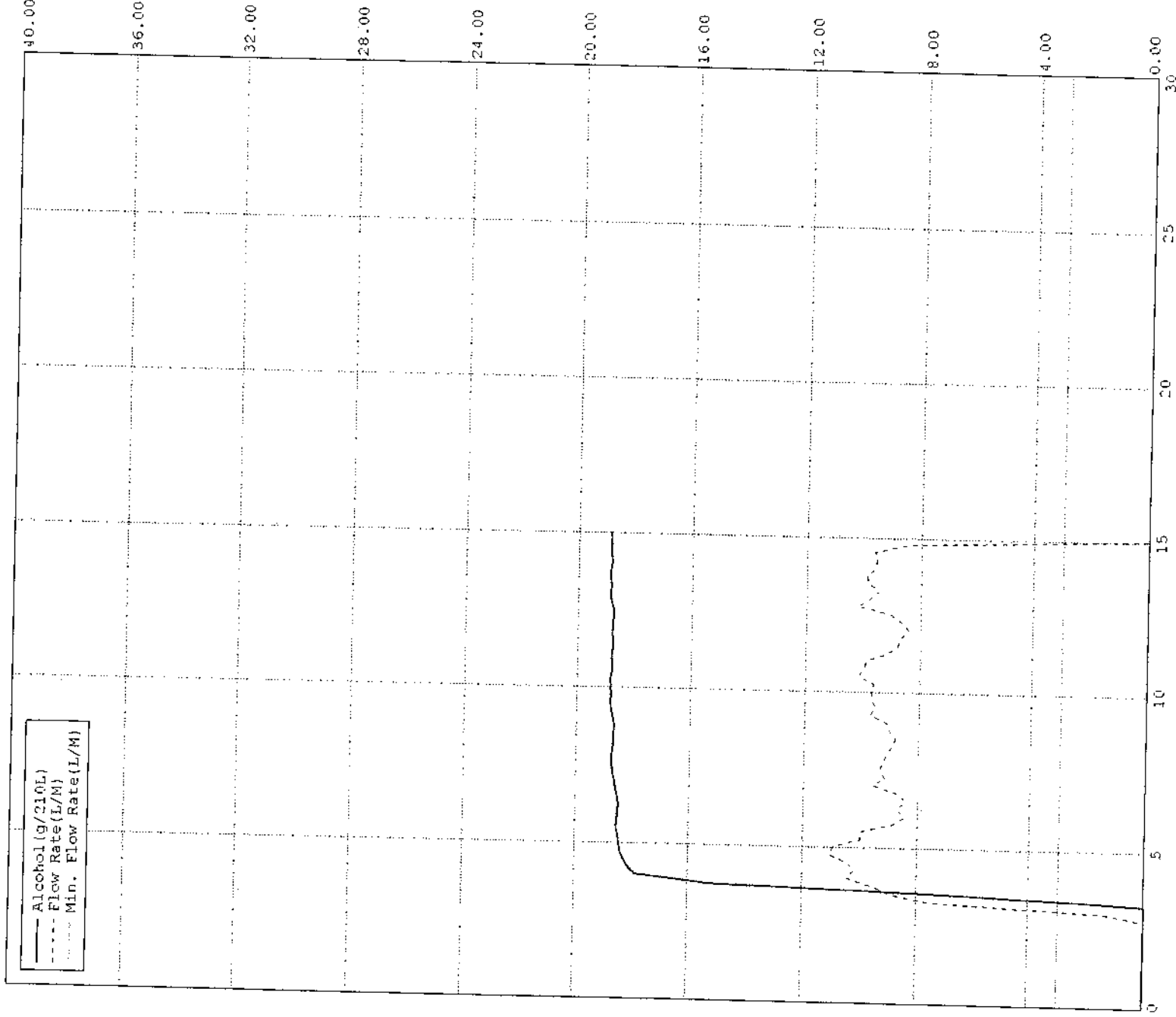
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
INTERFERENCE NEGATIVE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

| | | |
|------------------------|----------------------------------|-------------|
| NOMINAL: 0.080 | PASSED | 12:54 |
| TARGET AT 30.33: 0.081 | 0.000 | 12:54 |
| LOT #: AG608504 | VERIFIED | 12:54 |
| EXPIRATION: 03/25/2018 | | |
| | Xq = 0.094 (0.65%) | |
| | EXTERNAL STANDARD | 0.082 12:54 |
| | X[1] = 0.0817 (-0.0010) (0.0034) | |
| | BLANK TEST | 0.000 12:55 |
| | SUBJECT SAMPLE (Vol=1.85L) | 0.094 12:56 |
| | X[1] = 0.0949 (0.0003) (0.0008) | |
| | BLANK TEST | 0.000 12:57 |
| | EXTERNAL STANDARD | 0.082 12:57 |
| | X[1] = 0.0818 (-0.0011) (0.0026) | |
| | BLANK TEST | 0.000 12:58 |

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/29/2016
Time: 10:46:05

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
RFI
CASE/REPORT: XXXX
TEST TYPE: TEST

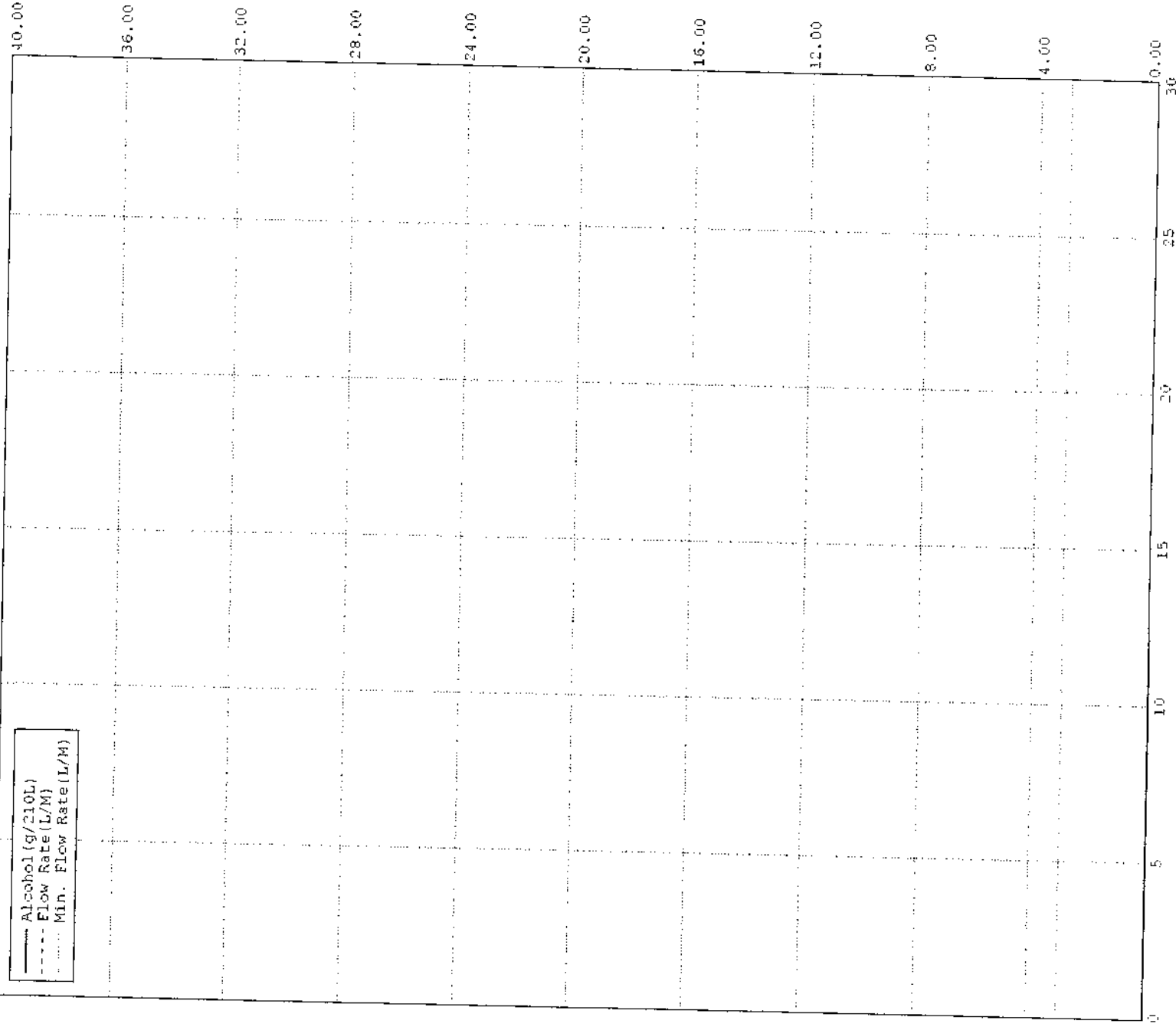
EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.32: 0.081
LOT #: AG608504
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 10:48
BLANK TEST 0.000 10:48
INTERNAL STANDARD VERIFIED 10:48
EXTERNAL STANDARD 0.081 10:49
BLANK TEST 0.000 10:50

RFI DETECTED

BMB

Alcohol (g/210L)
Flow Rate (L/M)
Min. Flow Rate (L/M)



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/29/2016
Time: 10:36:12

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

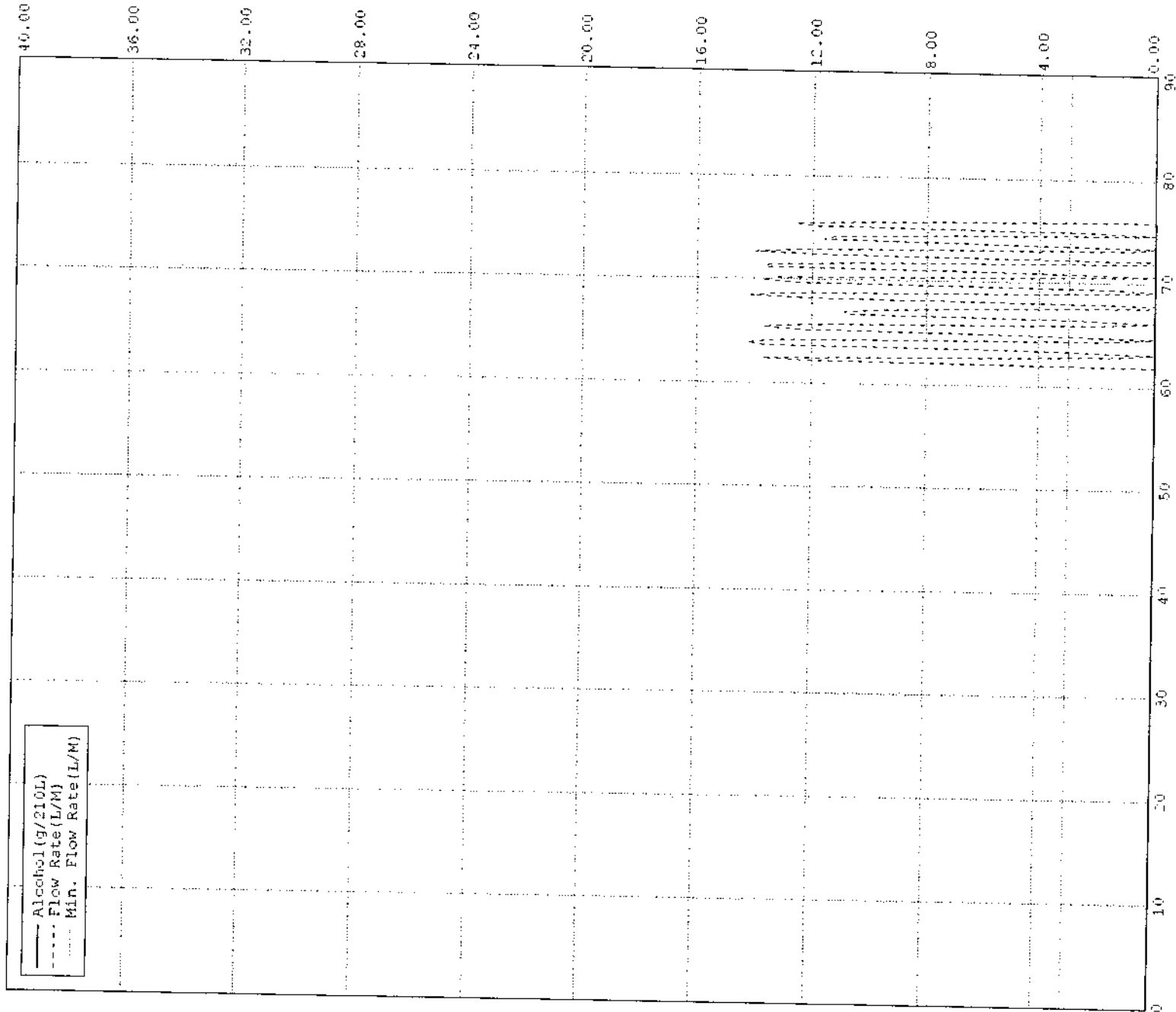
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
MAXIMUM ATTEMPTS EXCEEDED
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.32: 0.081
LOT #: AG608504
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 10:37
BLANK TEST 0.000 10:37
INTERNAL STANDARD VERIFIED 10:37
EXTERNAL STANDARD 0.082 10:37
BLANK TEST 0.000 10:38
SUBJECT SAMPLE XXX 10:40

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 09/29/2016
Time: 13:19:43

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
NON DRINKING SUBJECT
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.33: 0.081
LOT #: AG608504
EXPIRATION: 03/25/2018

| | | |
|----------------------------|----------|-------|
| DIAGNOSTIC CHECK | PASSED | 13:21 |
| BLANK TEST | 0.000 | 13:22 |
| INTERNAL STANDARD | VERIFIED | 13:22 |
| EXTERNAL STANDARD | 0.082 | 13:22 |
| BLANK TEST | 0.000 | 13:23 |
| SUBJECT SAMPLE (Vol=2.18L) | 0.000 | 13:23 |
| BLANK TEST | 0.000 | 13:24 |
| EXTERNAL STANDARD | 0.082 | 13:24 |
| BLANK TEST | 0.000 | 13:25 |

BMB

