

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 100689 Analyst Brandi Barnett Start Date 7/13/17

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 1.4 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf Airgas Lot AG1616504 Exp 6/13/18
- ii. 0.040g/210L Mnf Airgas Lot AG630101 Exp 10/27/18
- iii. 0.080g/210L Mnf Airgas Lot AG634001 Exp 12/5/18
- iv. 0.100g/210L Mnf Airgas Lot AG629304 Exp 10/19/18
- v. 0.200g/210L Mnf Guth Lot 16190 Exp 8/15/18
 - 1. Simulator S/N DR5298 Date Calibrated 9/14/16
- vi. 0.300g/210L Mnf Guth Lot 16210 Exp 8/22/18
 - 1. Simulator S/N SD1177 Date Calibrated 9/13/16

5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts,
 - i. Acetone - Mnf Guth Lot 16160 Level 0.100 Exp 10/3/17 ^{7/19/18 BMB} _{7/18/17}
 - 1. Simulator S/N SD1199 Date Calibrated 9/13/16
 - ii. Isopropanol - Mnf Guth Lot 16160 Level 0.100 Exp 10/3/17 ^{7/19/18 BMB} _{7/18/17}
 - 1. Simulator S/N SD1088 Date Calibrated 9/13/16
 - iii. Negative Control - Mnf Guth Lot 16160 Level 0.100 Exp 10/3/17 ^{BMB}
 - 1. Simulator S/N DR4161 Date Calibrated 9/14/16 _{7/19/18}

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 7/14/17

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/13/2017
Time: 13:16:59

VERSIONS
DMT: 3.02
PIC: 3.03
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.8°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.73 V PASSED
(1.04 V - 2.42 V)
Cooler Voltage = 1.70 V PASSED
(1.02 V - 2.38 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 536 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.345 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 PASSED
Xq = 0.096 1.95% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100689

Date: 07/13/2017

Time: 1:25 PM

Temperatures (°C)

Sample Cell: 49.0°C

Breath Tube: 48.0°C

Current Barometer 29.8 in

Volume (Ltr) 1.55

Settings

Lamp: 1.75 V

Bias: 79 V

Cooler: 1.70 V

Chopper: 535 Hz

Voltages (V)

Flow: 0.99 V

Detector: -0.040 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/12/2017
Time: 09:50:30

OPERATOR NAME:
BRANDI BARNETT
CERTIFICATE #: 7038

Ca	=	0.1000		
CAL	=	0.976322	0.800	<= CAL < 1.200
b1	=	0.0010	0.0000	<= b1 < 0.0040
b2	=	0.0060	0.0010	<= b2 < 0.0100
b3	=	0.0007	0.0000	<= b3 < 0.0040
Xq	=	0.0941	0.0500	<= Xq < 0.2000
a21	=	1.219467	1.050	<= a21 < 1.300
a31	=	0.546563	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/13/2017
Time: 13:26:44

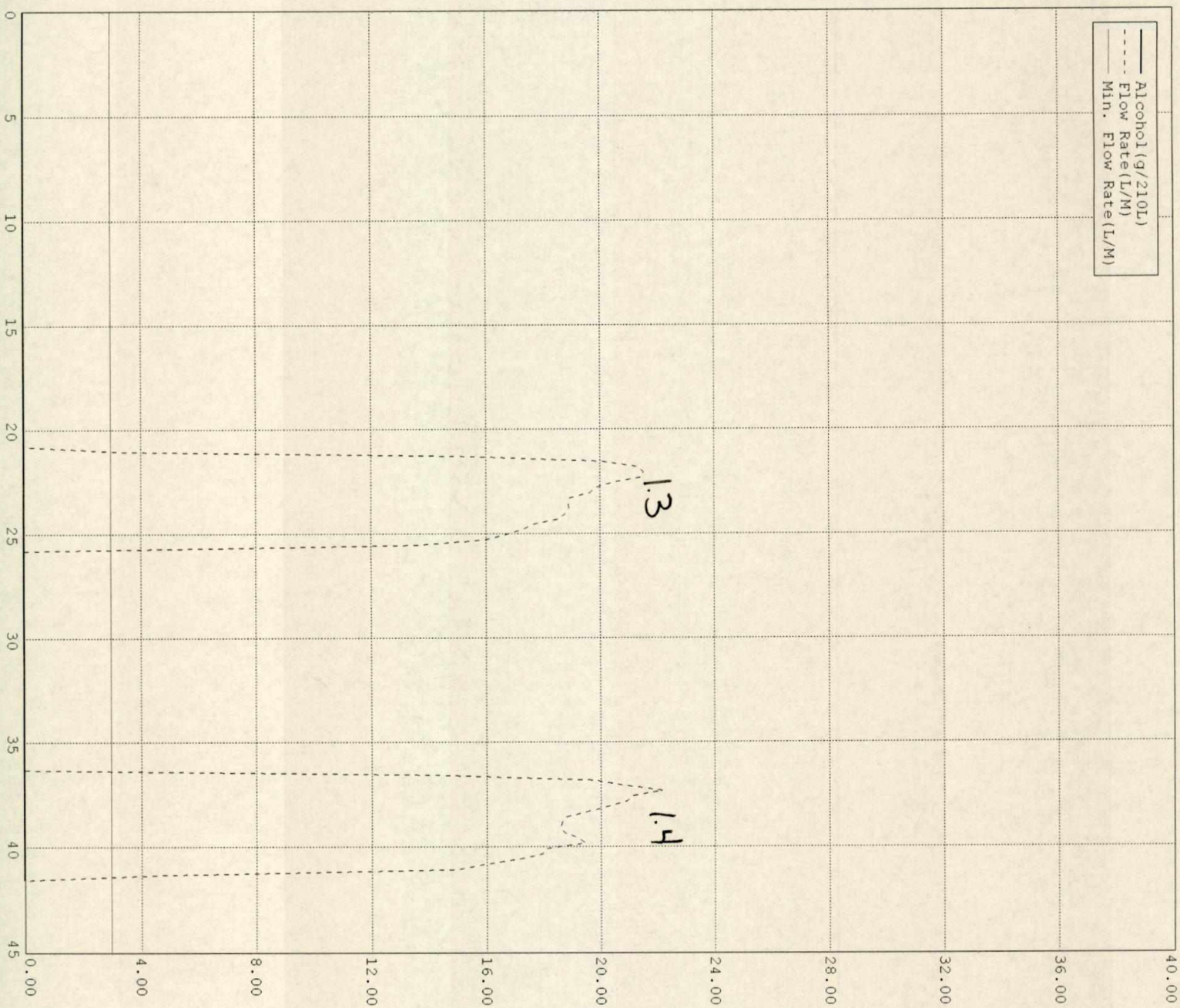
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	13:29
BLANK TEST	0.000	13:29
INTERNAL STANDARD	VERIFIED	13:29
EXTERNAL STANDARD	0.078	13:29
BLANK TEST	0.000	13:30
SUBJECT SAMPLE (Vol=1.51L)	0.000	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.078	13:32
BLANK TEST	0.000	13:33



LINEARITY CHECK

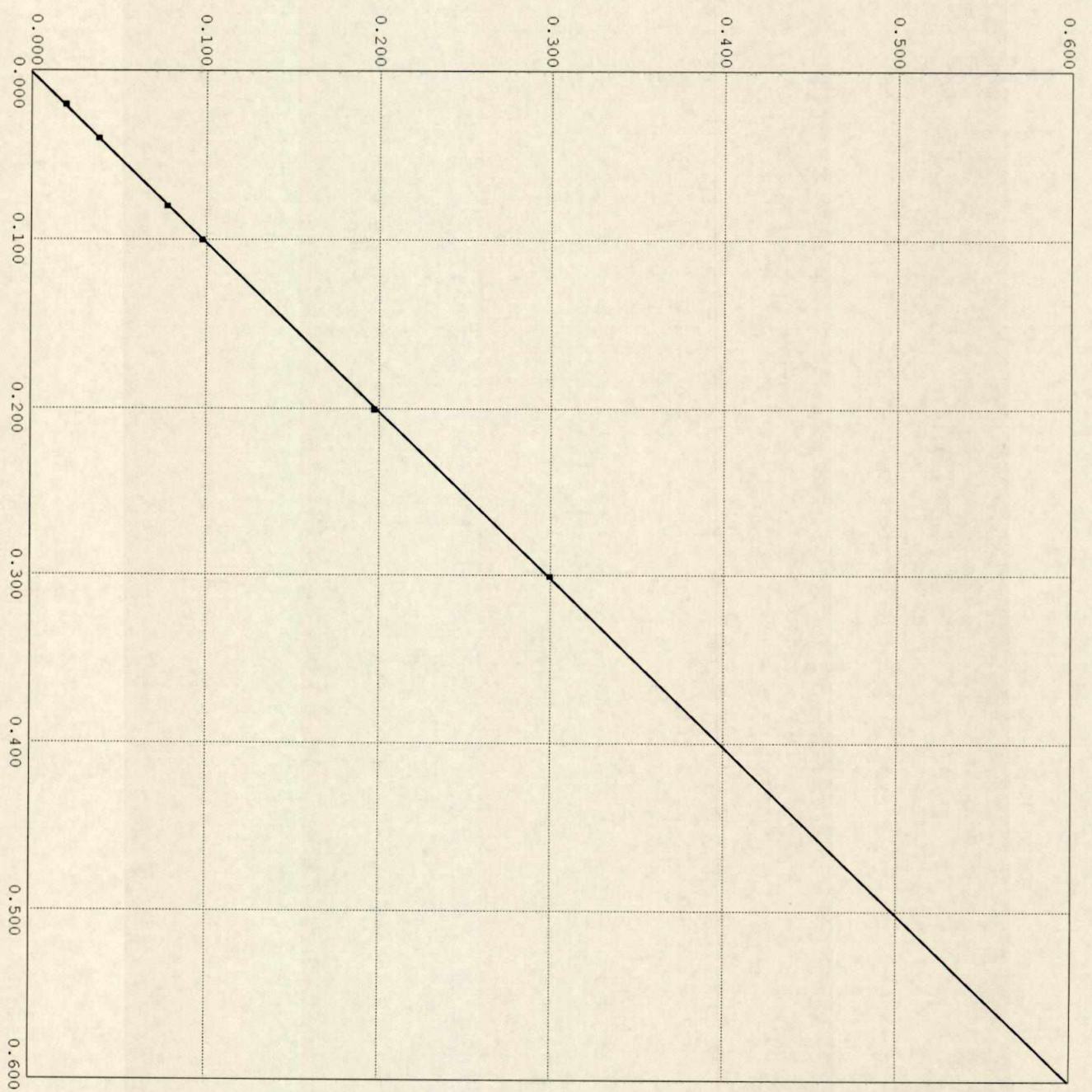
Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/13/2017
Time: 13:39:25

SUPERVISOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.040	0.0392	0.0004
0.080	0.0784	0.0005
0.100	0.0986	0.0005
0.200	0.1980	0.0000
0.300	0.3002	0.0008

SLOPE = 1.000525
R² = 0.999924



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100689

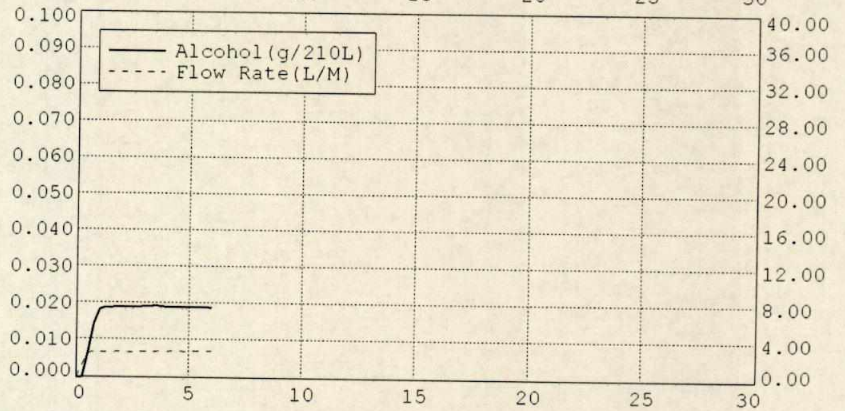
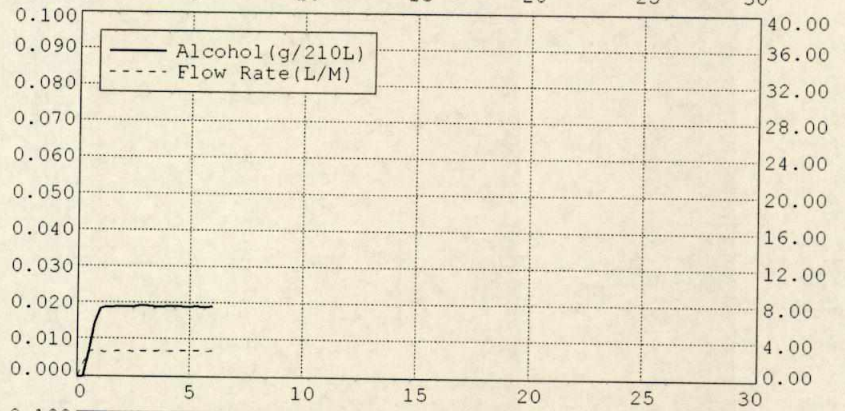
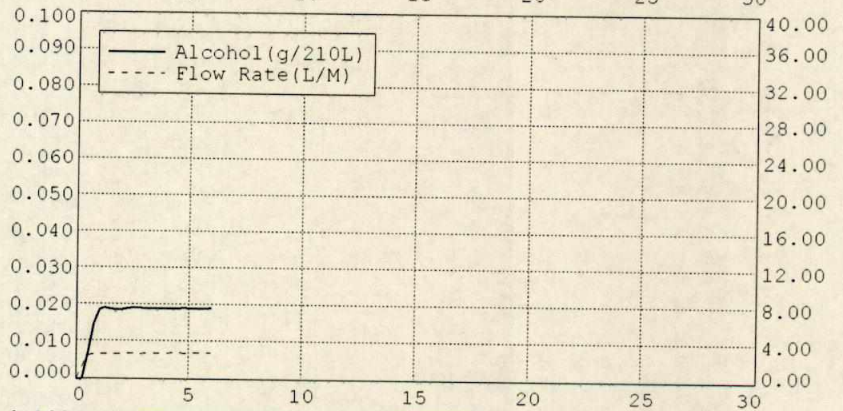
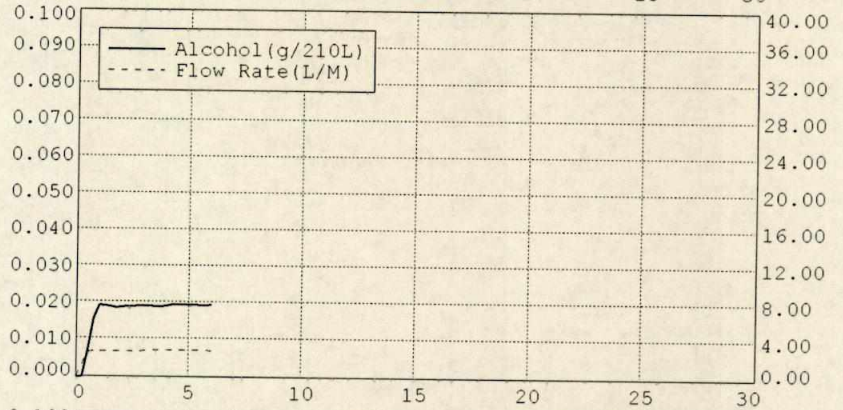
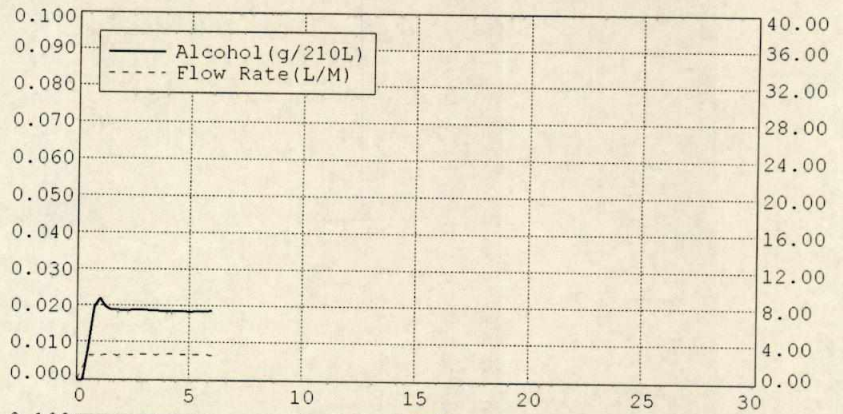
Date: 07/13/2017
 Time: 13:39:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.80: 0.020
 LOT #: AG616504
 EXPIRATION: 06/13/2018
 TANK PRESSURE: 1154 psi

BLANK TEST	0.000	13:40
INTERNAL STANDARD	VERIFIED	13:40
EXTERNAL STANDARD	0.020	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.021	13:41
BLANK TEST	0.000	13:42
EXTERNAL STANDARD	0.020	13:43
BLANK TEST	0.000	13:43
EXTERNAL STANDARD	0.020	13:44
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.020	13:45
BLANK TEST	0.000	13:46

Average = 0.0202
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100689

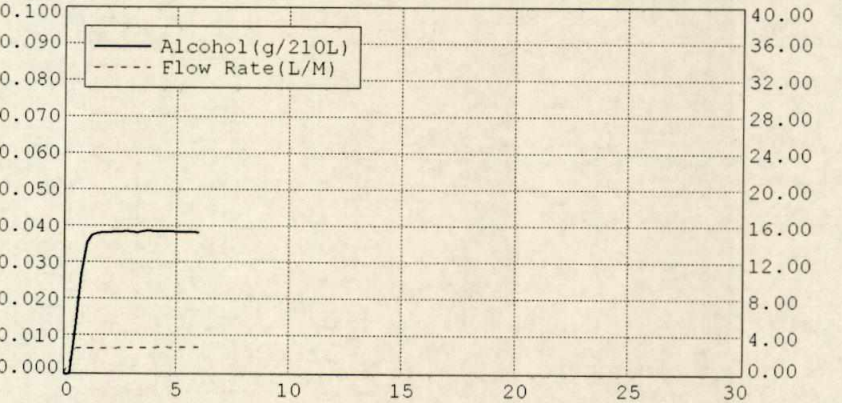
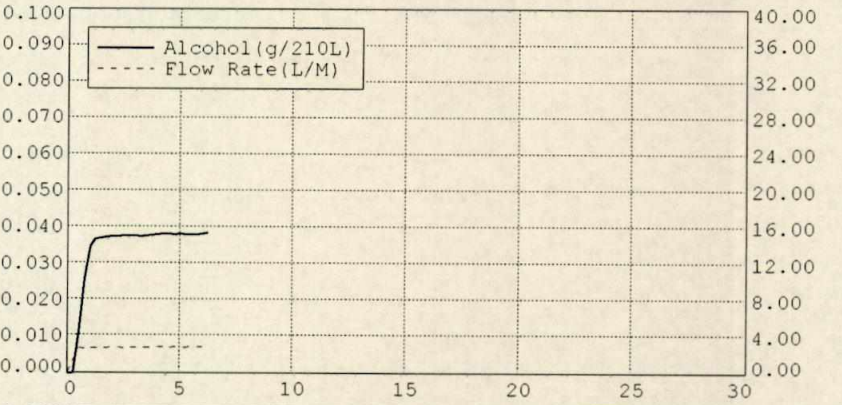
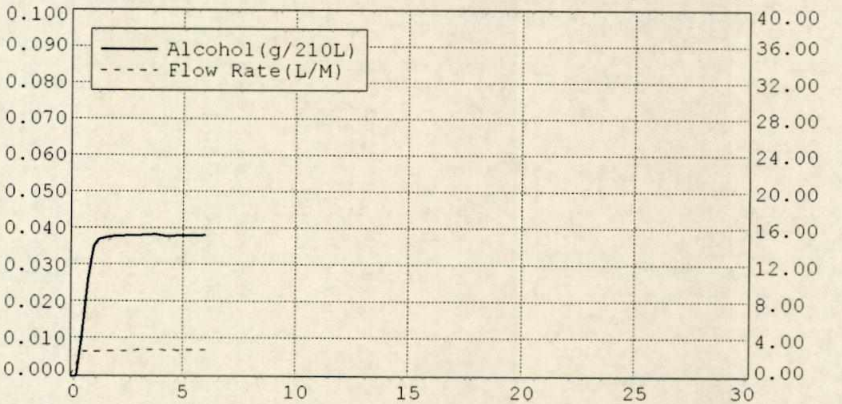
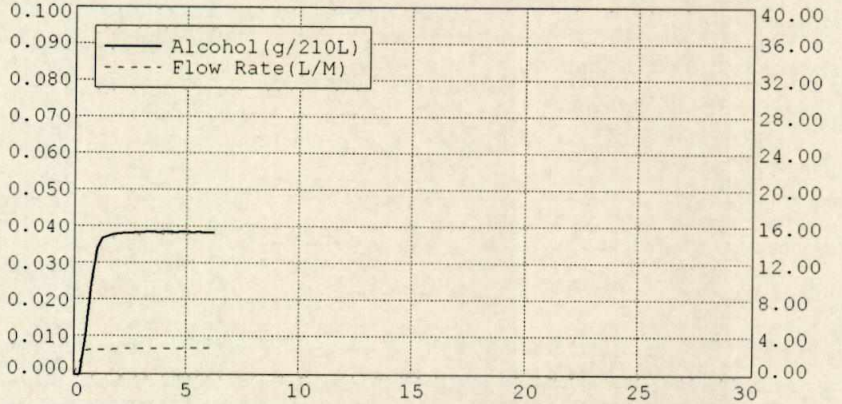
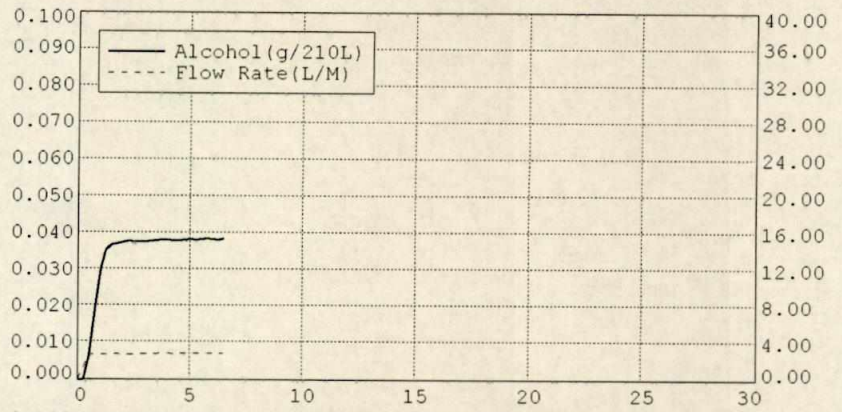
Date: 07/13/2017
 Time: 13:47:45

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.79: 0.040
 LOT #: AG630101
 EXPIRATION: 10/27/2018
 TANK PRESSURE: 1127 psi

BLANK TEST	0.000	13:48
INTERNAL STANDARD	VERIFIED	13:48
EXTERNAL STANDARD	0.040	13:49
BLANK TEST	0.000	13:50
EXTERNAL STANDARD	0.039	13:50
BLANK TEST	0.000	13:51
EXTERNAL STANDARD	0.039	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.039	13:52
BLANK TEST	0.000	13:53
EXTERNAL STANDARD	0.039	13:53
BLANK TEST	0.000	13:54

Average = 0.0392
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100689

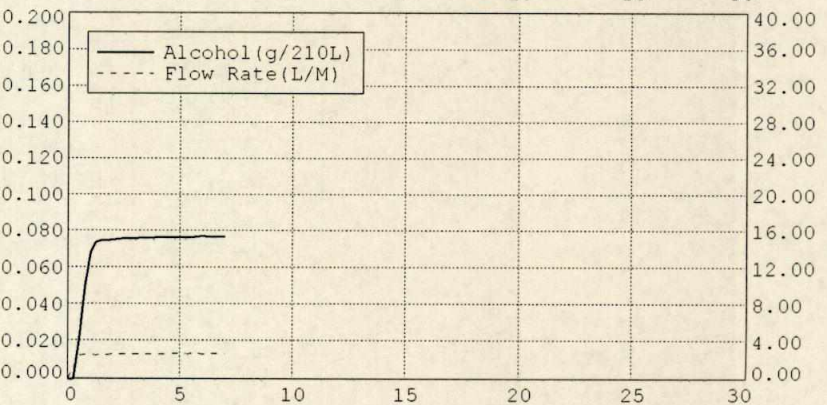
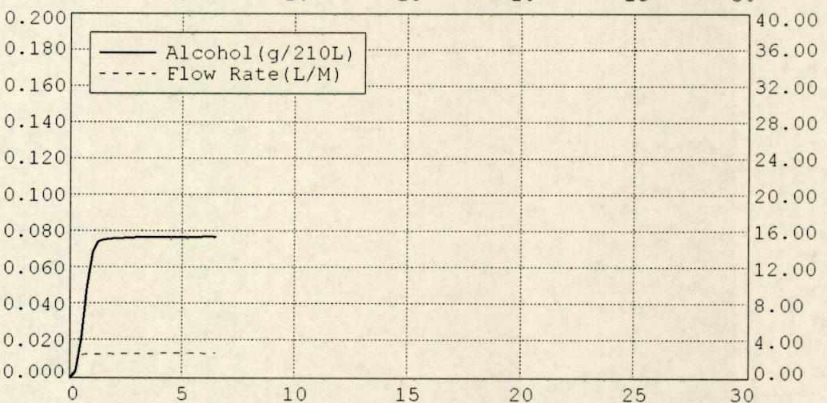
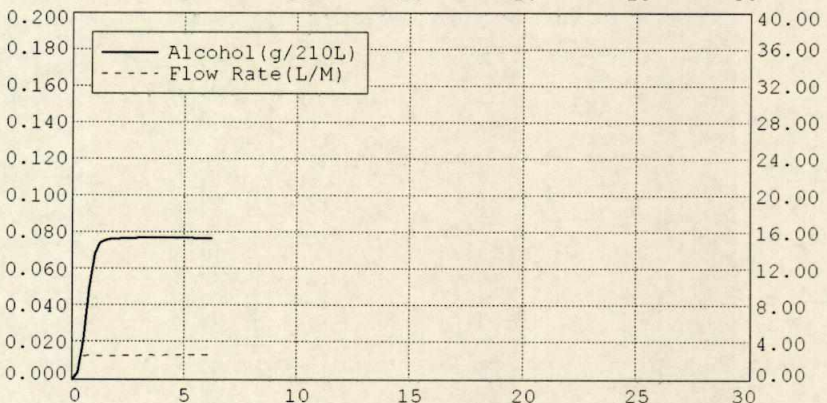
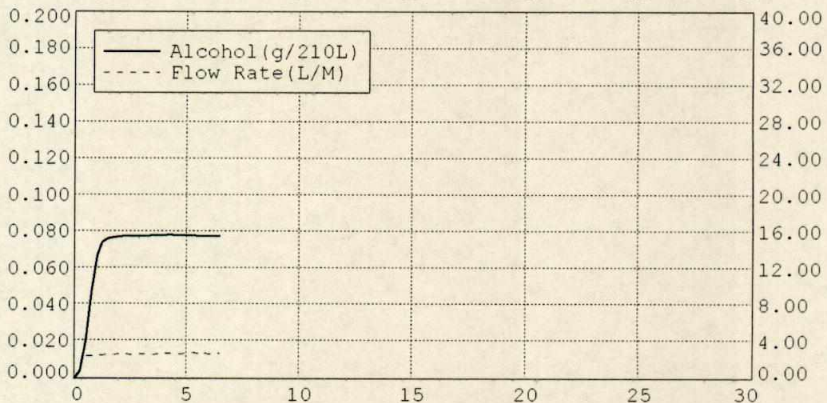
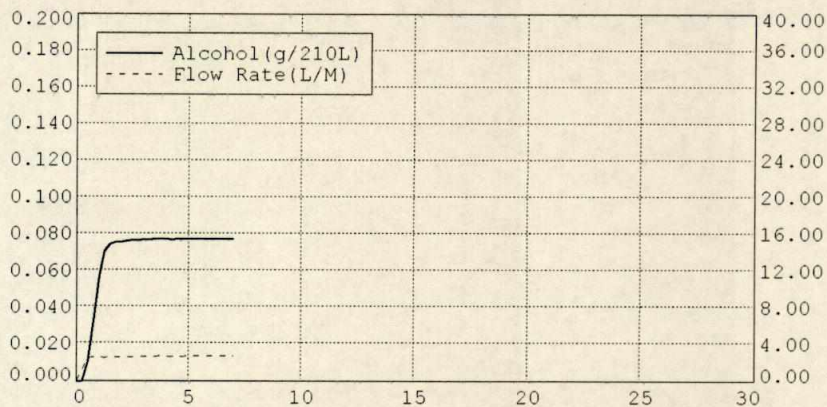
Date: 07/13/2017
 Time: 13:55:51

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.78: 0.080
 LOT #: AG634001
 EXPIRATION: 12/05/2018
 TANK PRESSURE: 825 psi

BLANK TEST	0.000	13:58
INTERNAL STANDARD	VERIFIED	13:58
EXTERNAL STANDARD	0.078	13:58
BLANK TEST	0.000	13:59
EXTERNAL STANDARD	0.079	13:59
BLANK TEST	0.000	14:00
EXTERNAL STANDARD	0.078	14:00
BLANK TEST	0.000	14:01
EXTERNAL STANDARD	0.079	14:01
BLANK TEST	0.000	14:02
EXTERNAL STANDARD	0.078	14:03
BLANK TEST	0.000	14:03

Average = 0.0784
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100689

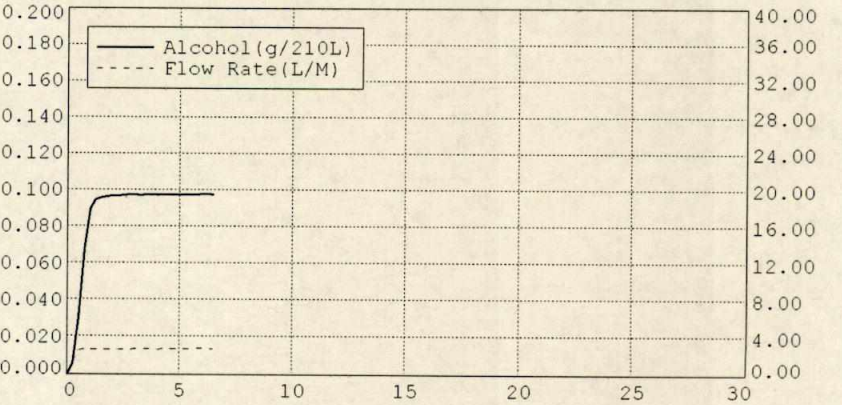
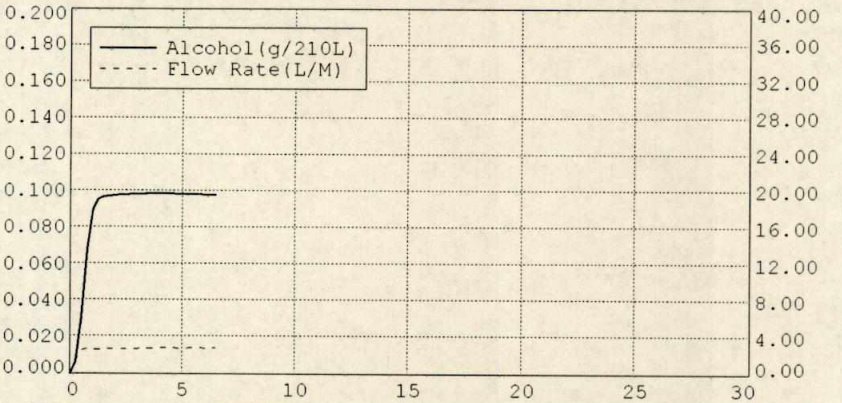
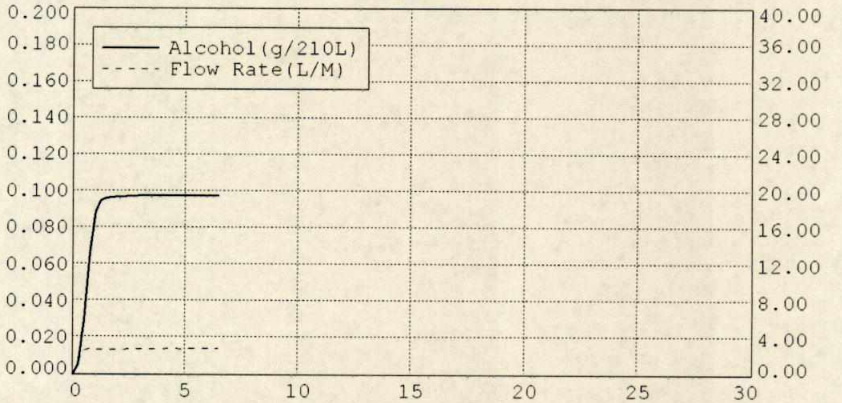
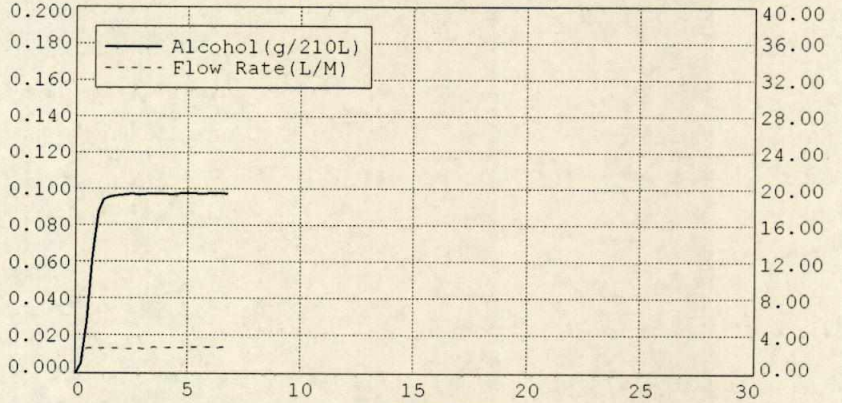
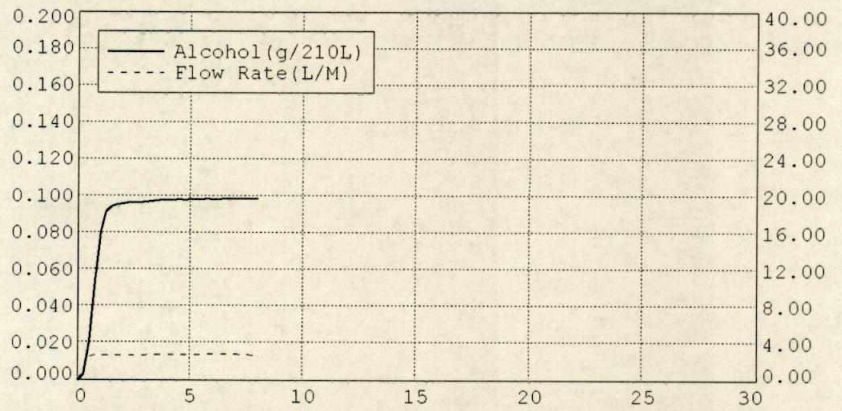
Date: 07/13/2017
 Time: 14:04:34

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.79: 0.100
 LOT #: AG629304
 EXPIRATION: 10/19/2018
 TANK PRESSURE: 1138 psi

BLANK TEST	0.000	14:05
INTERNAL STANDARD	VERIFIED	14:06
EXTERNAL STANDARD	0.099	14:06
BLANK TEST	0.000	14:07
EXTERNAL STANDARD	0.099	14:07
BLANK TEST	0.000	14:08
EXTERNAL STANDARD	0.098	14:08
BLANK TEST	0.000	14:09
EXTERNAL STANDARD	0.099	14:09
BLANK TEST	0.000	14:10
EXTERNAL STANDARD	0.098	14:10
BLANK TEST	0.000	14:11

Average = 0.0986
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

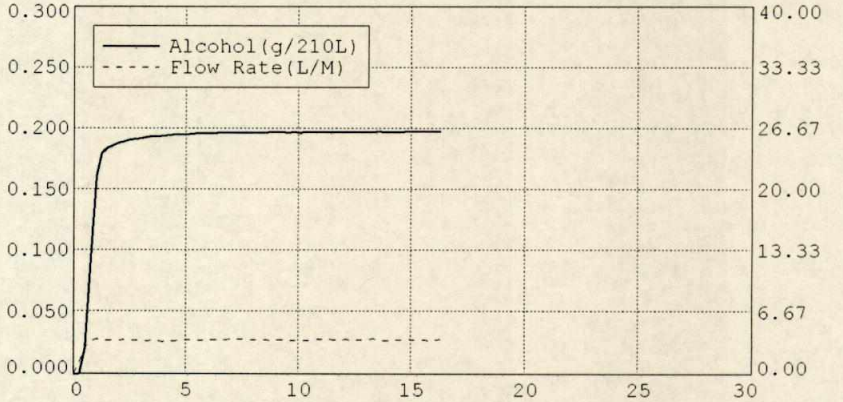
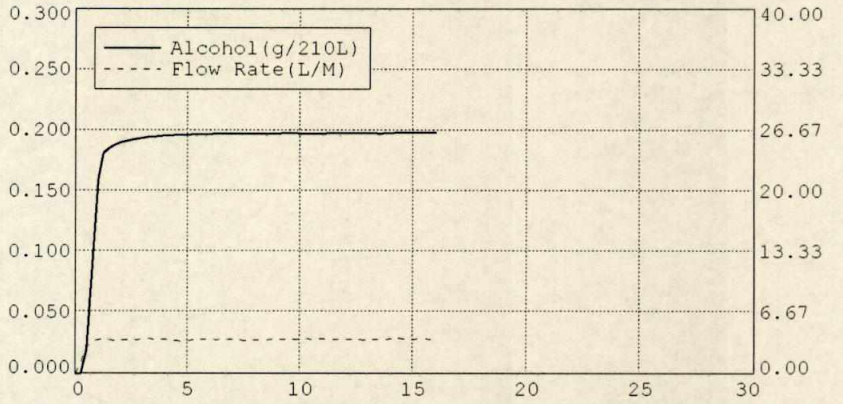
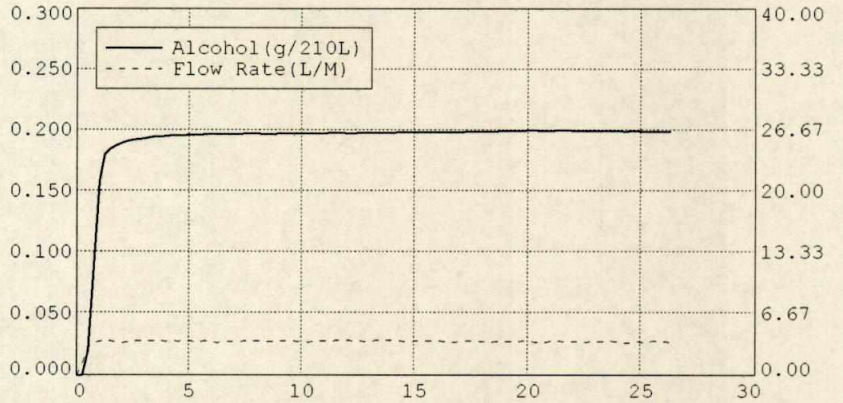
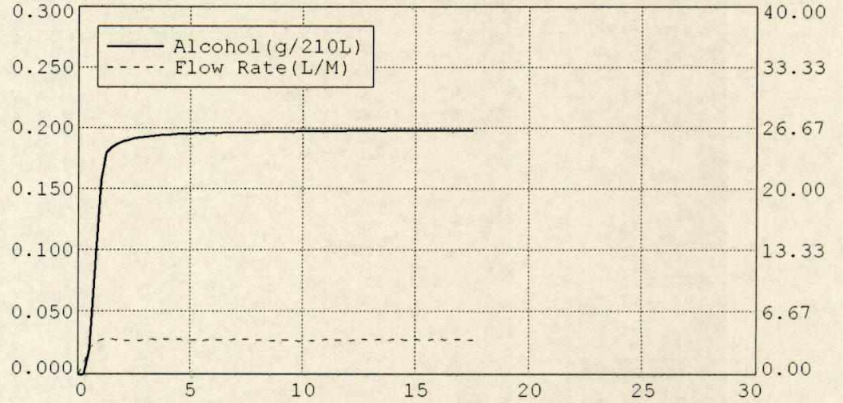
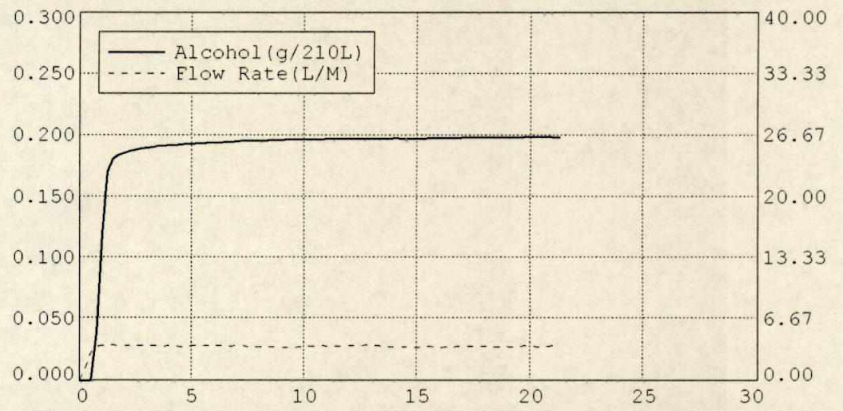
Alaska Department of Public Safety
 DATAMASTER dmt: 100689

Date: 07/13/2017
 Time: 14:20:54

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: GUTH 16190
 EXPIRATION: 08/15/2018

BLANK TEST	0.000	14:21
INTERNAL STANDARD	VERIFIED	14:22
EXTERNAL STANDARD	0.198	14:22
BLANK TEST	0.000	14:23
EXTERNAL STANDARD	0.198	14:23
BLANK TEST	0.000	14:24
EXTERNAL STANDARD	0.198	14:25
BLANK TEST	0.000	14:26
EXTERNAL STANDARD	0.198	14:26
BLANK TEST	0.000	14:27
EXTERNAL STANDARD	0.198	14:27
BLANK TEST	0.000	14:28

Average = 0.1980
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

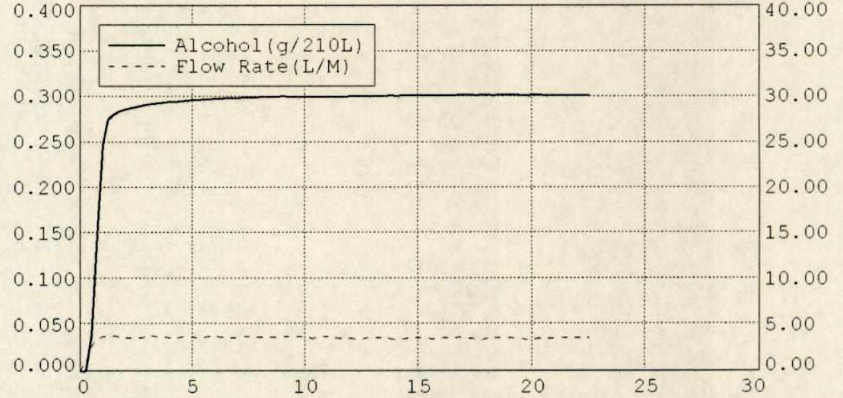
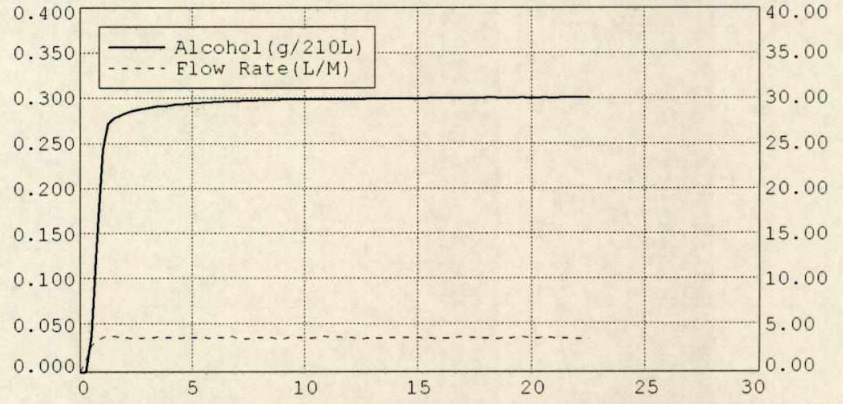
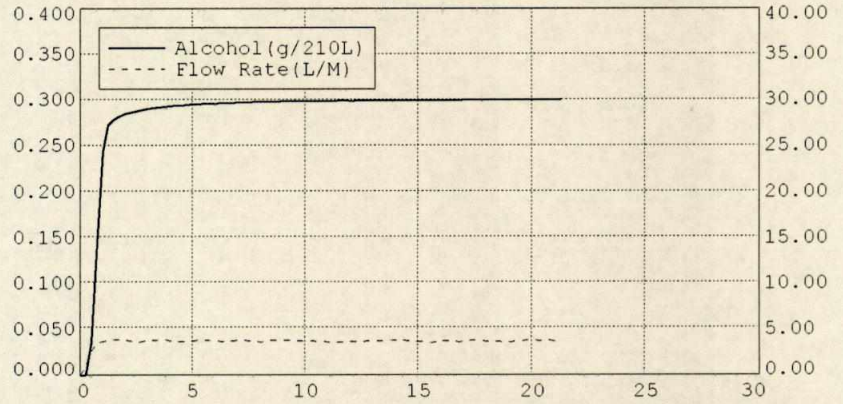
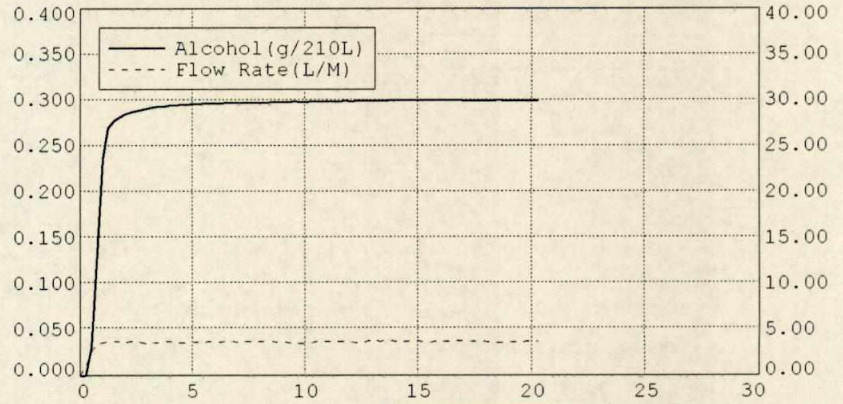
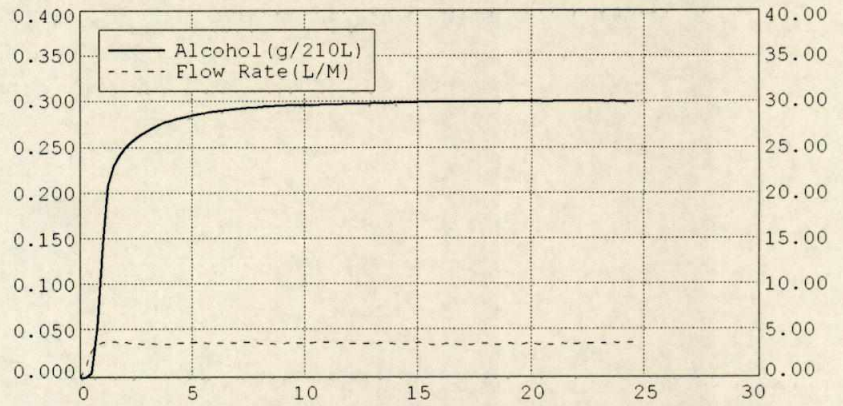
Alaska Department of Public Safety
 DATAMASTER dmt: 100689

Date: 07/13/2017
 Time: 14:32:29

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.300
 LOT #: GUTH 16210
 EXPIRATION: 08/22/2018

BLANK TEST	0.000	14:33
INTERNAL STANDARD	VERIFIED	14:33
EXTERNAL STANDARD	0.300	14:34
BLANK TEST	0.000	14:35
EXTERNAL STANDARD	0.299	14:35
BLANK TEST	0.000	14:36
EXTERNAL STANDARD	0.300	14:36
BLANK TEST	0.000	14:37
EXTERNAL STANDARD	0.301	14:38
BLANK TEST	0.000	14:39
EXTERNAL STANDARD	0.301	14:39
BLANK TEST	0.000	14:40

Average = 0.3002
 Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/14/2017
Time: 12:10:19

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

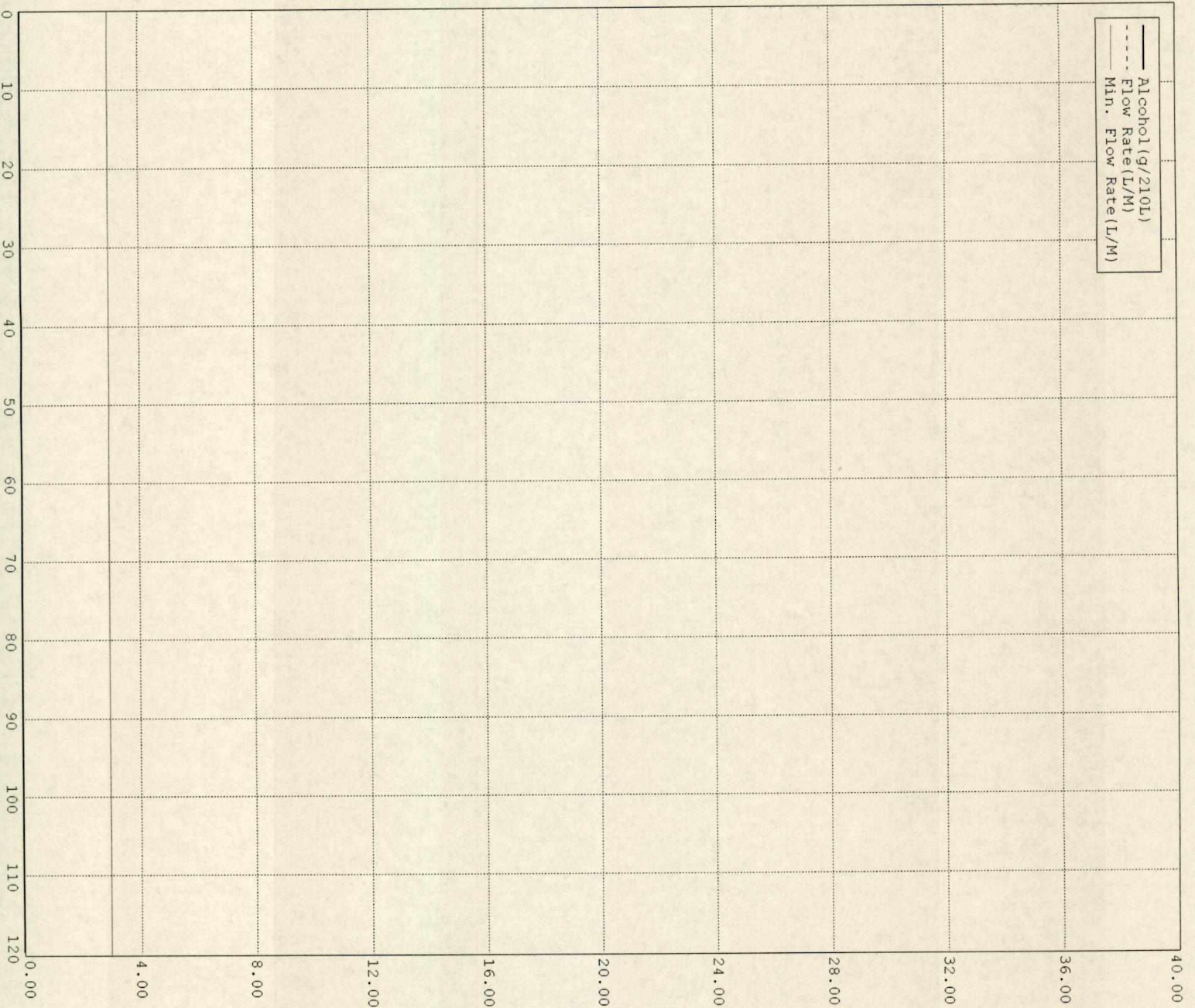
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	12:11
BLANK TEST	0.000	12:11
INTERNAL STANDARD	VERIFIED	12:11
EXTERNAL STANDARD	0.078	12:12
BLANK TEST	0.000	12:13
SUBJECT SAMPLE	INCOMPLETE	12:15

Handwritten signature: BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/14/2017
Time: 12:17:07

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

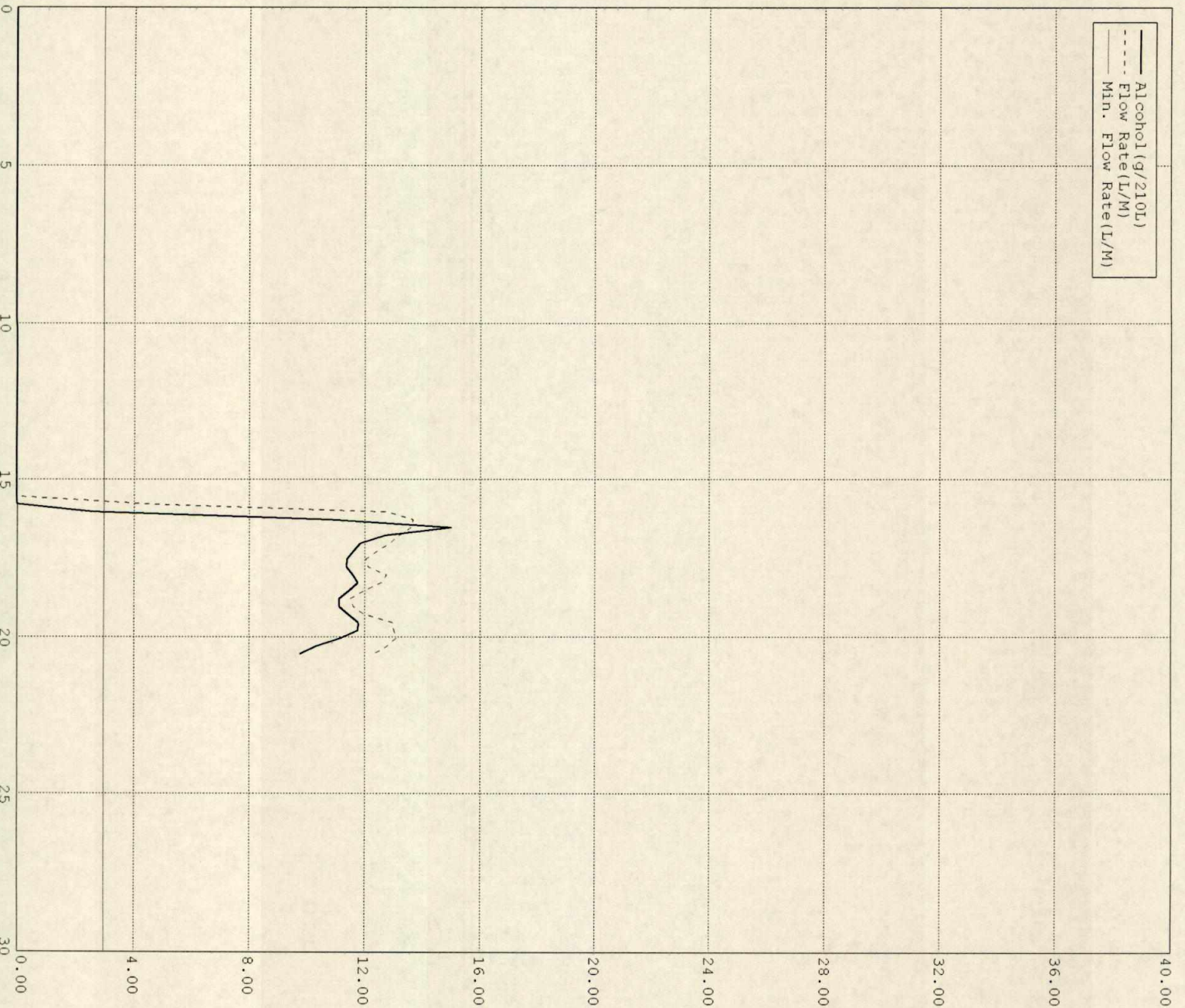
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	12:18
BLANK TEST	0.000	12:18
INTERNAL STANDARD	VERIFIED	12:18
EXTERNAL STANDARD	0.078	12:18
BLANK TEST	0.000	12:19
SUBJECT SAMPLE	INVALID	12:20

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/14/2017
Time: 12:35:27

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

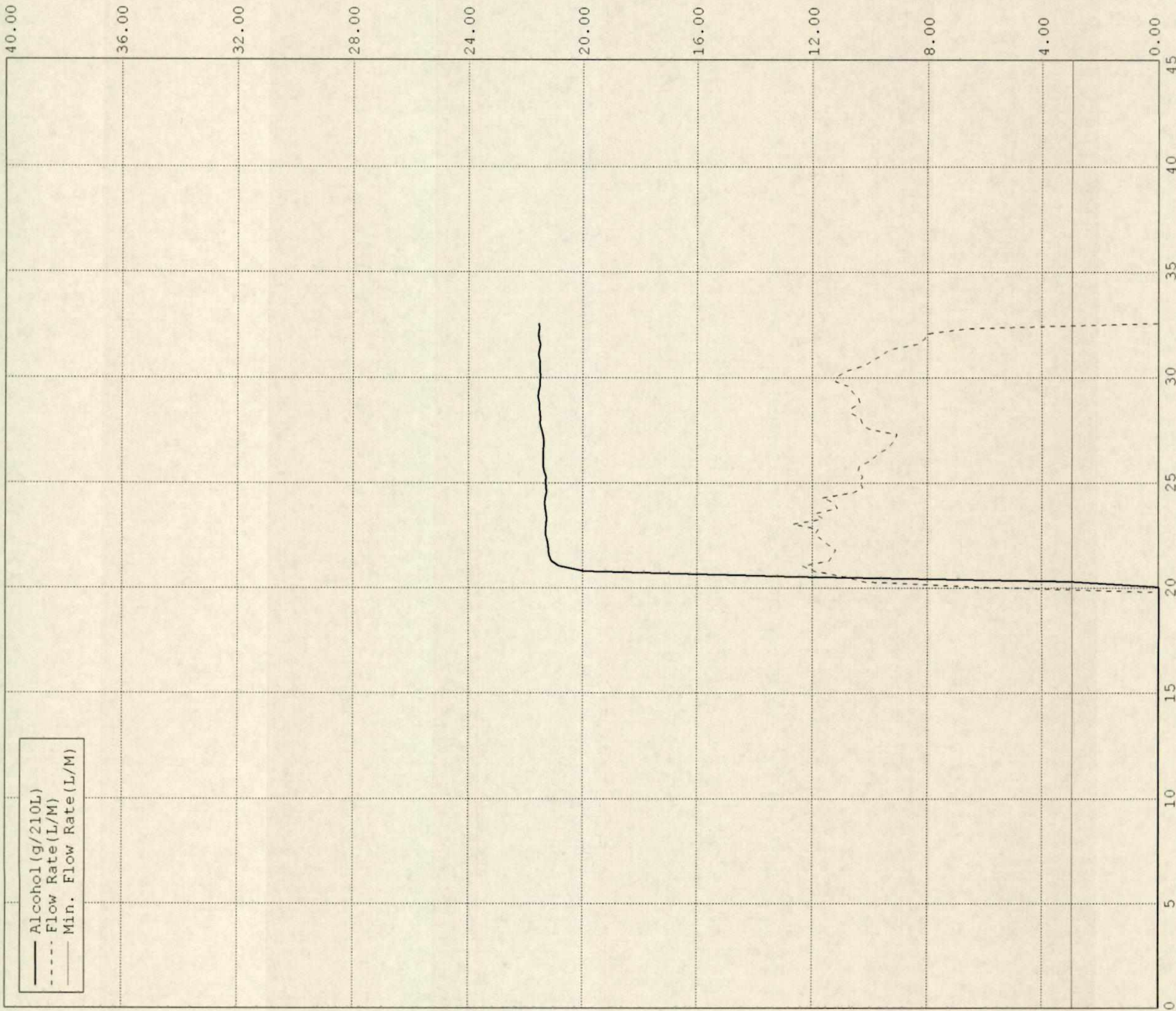
EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	12:36
BLANK TEST	0.000	12:37
INTERNAL STANDARD	VERIFIED	12:37
Xq = 0.095 (1.30%)		
EXTERNAL STANDARD	0.078	12:37
X[1] = 0.0780 (0.0005) (0.0024)		
BLANK TEST	0.000	12:38
SUBJECT SAMPLE	XXX	12:38
X[1] = 0.1087 (-0.0146) (0.0027)		

Interference Detected

Filter 2 Avg: 0.0010
Filter 3 Avg: 0.0024
SMB 7/14/17

SMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/14/2017
Time: 12:43:29

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

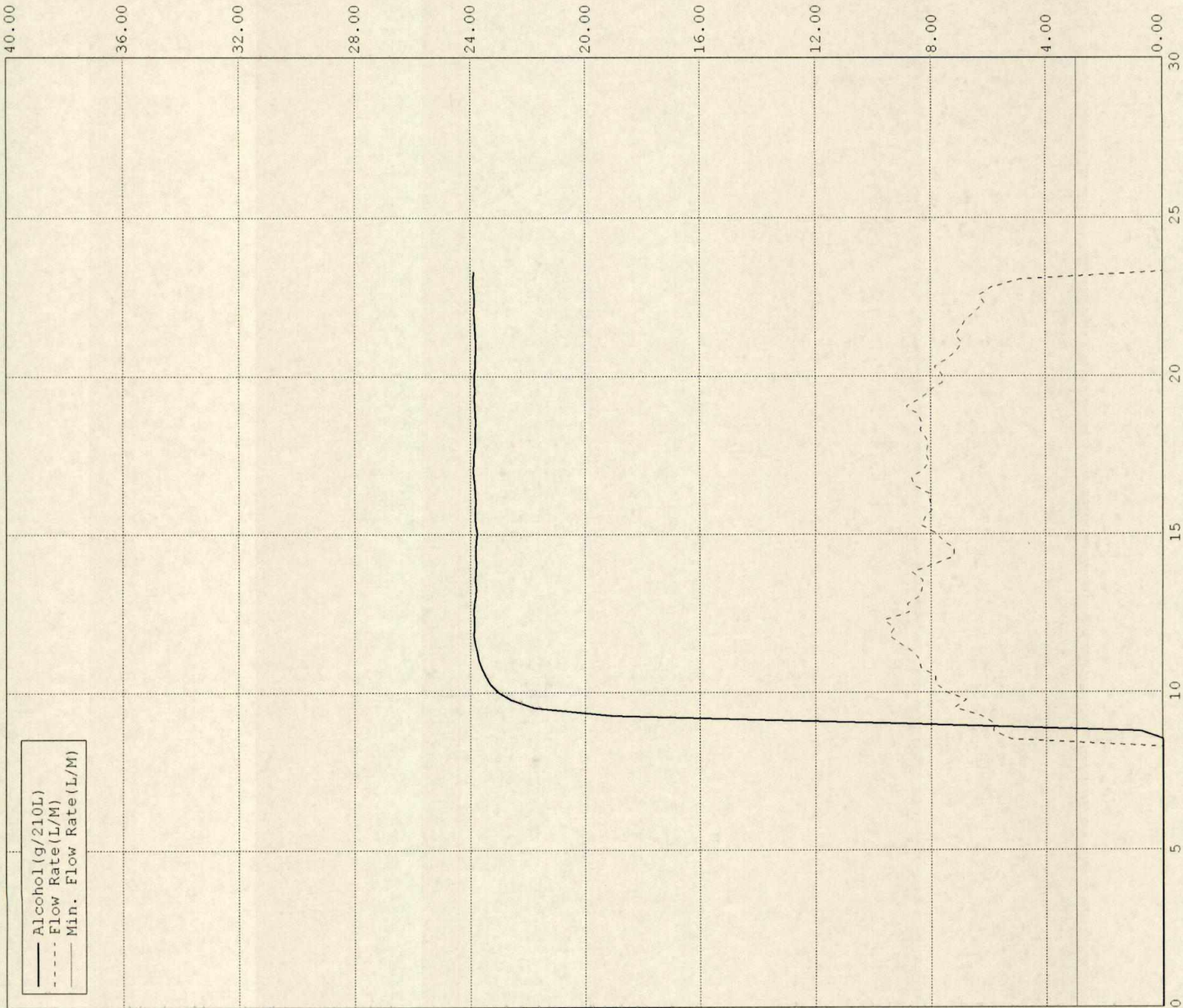
DEPT/AGENCY:
INTERFERENCE ISOPROPYL
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 12:44
BLANK TEST 0.000 12:44
INTERNAL STANDARD VERIFIED 12:44
Xg = 0.096 (1.58%)
EXTERNAL STANDARD 0.077 12:45
X[1] = 0.0769 (0.0008) (0.0024)
BLANK TEST 0.000 12:46
SUBJECT SAMPLE XXX 12:46
X[1] = 0.1211 (-0.0281) (0.0034)

Interference Detected

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/14/2017
Time: 12:53:30

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

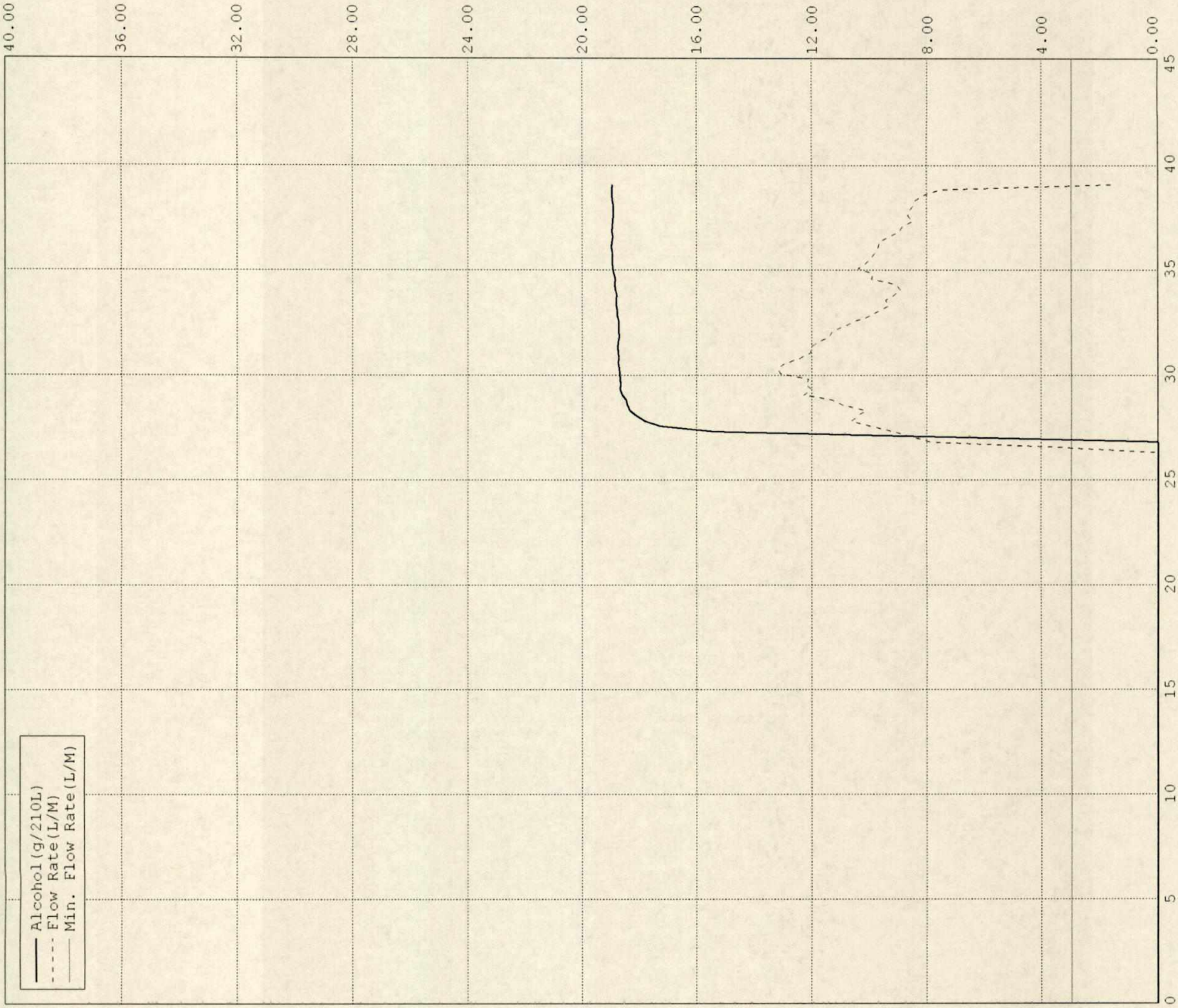
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	12:54
BLANK TEST	0.000	12:54
INTERNAL STANDARD	VERIFIED	12:54
Xg = 0.096 (1.58%)		
EXTERNAL STANDARD	0.078	12:55
X[1] = 0.0782 (0.0017) (0.0026)		
BLANK TEST	0.000	12:55
SUBJECT SAMPLE (Vol=2.10L)	0.096	12:56
X[1] = 0.0963 (0.0009) (0.0020)		
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.078	12:57
X[1] = 0.0776 (0.0009) (0.0020)		
BLANK TEST	0.000	12:58

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/14/2017
Time: 12:28:18

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

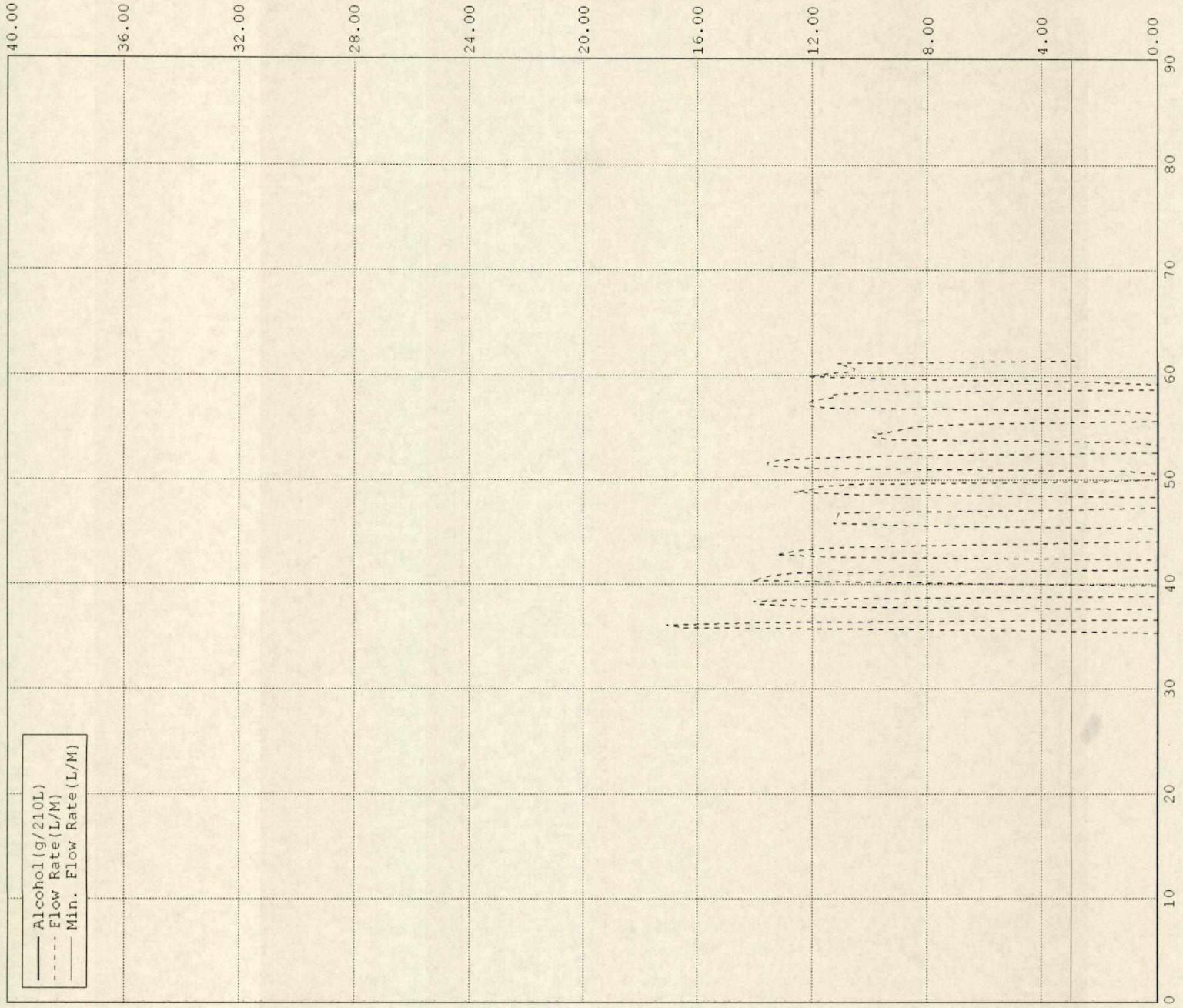
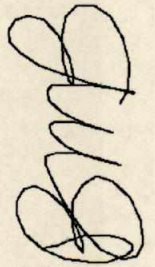
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 12:29
BLANK TEST 0.000 12:29
INTERNAL STANDARD VERIFIED 12:29
EXTERNAL STANDARD 0.078 12:29
BLANK TEST 0.000 12:30
SUBJECT SAMPLE XXX 12:31

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/14/2017
Time: 12:21:41

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

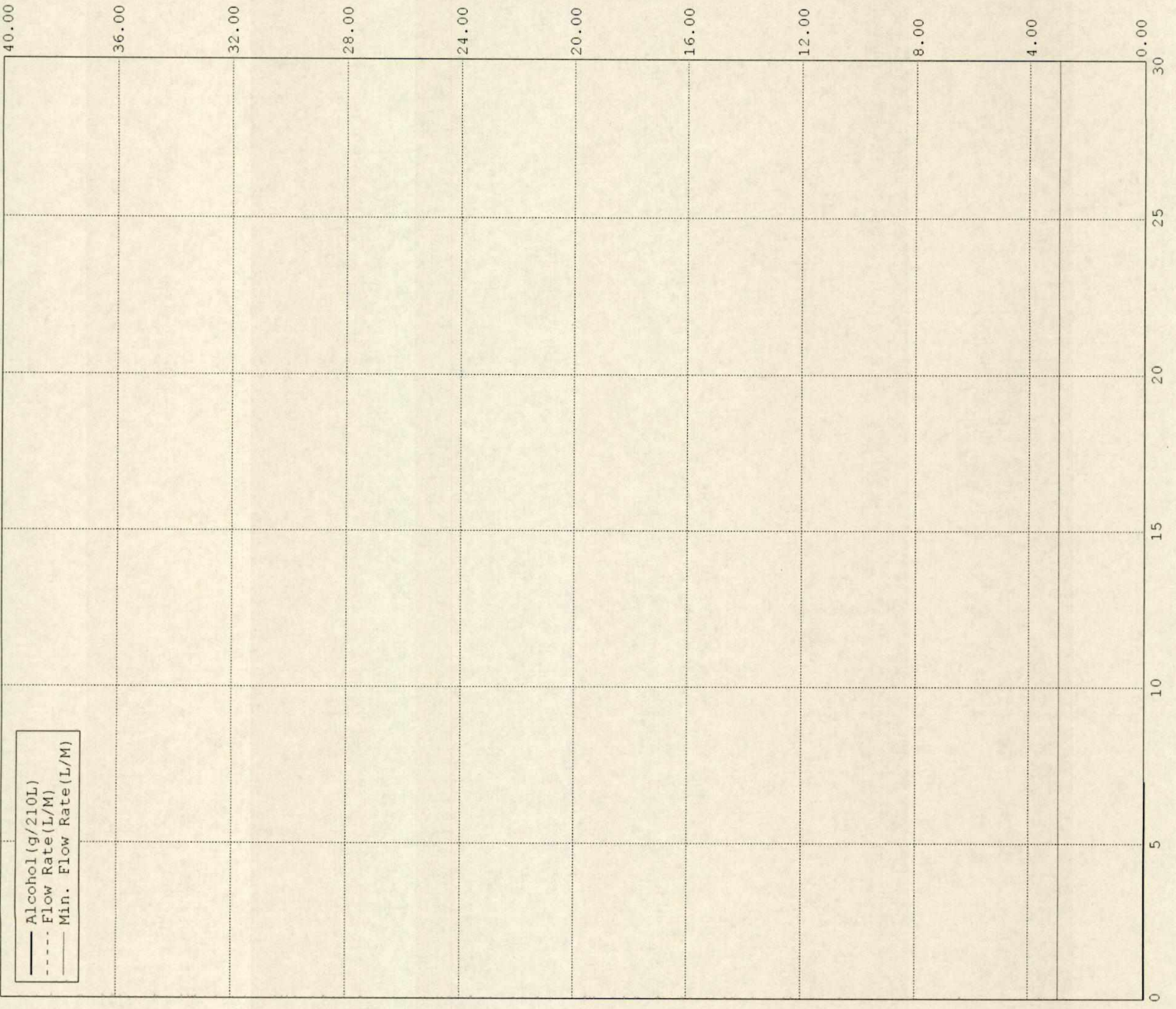
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 12:22
BLANK TEST 0.000 12:22
INTERNAL STANDARD VERIFIED 12:22
EXTERNAL STANDARD 0.078 12:23
BLANK TEST 0.000 12:24

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 07/14/2017
Time: 13:35:46

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	13:37
BLANK TEST	0.000	13:37
INTERNAL STANDARD	VERIFIED	13:37
EXTERNAL STANDARD	0.079	13:37
BLANK TEST	0.000	13:38
SUBJECT SAMPLE (Vol=1.61L)	0.000	13:38
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.079	13:39
BLANK TEST	0.000	13:40

