

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 100360 Analyst Brandi Barnett Start Date 4/3/19

- 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 1.6 L (1.3L to 1.7L)

4. Linearity Test (attached)

- a. Levels Used
 - i. 0.020g/210L Mnf Airgas Lot A6805804 Exp 2/27/20
 - ii. 0.040g/210L Mnf Airgas Lot AG733403 Exp 11/30/19
 - iii. 0.080g/210L Mnf Airgas Lot AG826101 Exp 9/18/20
 - iv. 0.100g/210L Mnf Airgas Lot AG805903 Exp 2/28/20
 - v. 0.200g/210L Mnf Guth Lot 17340 Exp 10/9/19
 - 1. Simulator S/N DR4177 Date Calibrated 6/4/18
 - vi. 0.300g/210L Mnf Guth Lot 17350 Exp 10/11/19
 - 1. Simulator S/N DR6267 Date Calibrated 6/4/18

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 18070 Level 0.100 Exp 5/14/19 02/26/20
 - 1. Simulator S/N SD1200 Date Calibrated 6/1/18 BMB 4/10/19
- ii. Isopropanol - Mnf Guth Lot 18070 Level 0.100 Exp 5/14/19 02/26/20
 - 1. Simulator S/N DR4176 Date Calibrated 6/4/18 BMB 4/10/19
- iii. Negative Control - Mnf Guth Lot 18070 Level 0.100 Exp 5/14/19 02/26/20
 - 1. Simulator S/N DR4163 Date Calibrated 6/4/18 BMB 4/10/19

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 4/5/19

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/03/2019
Time: 12:53:03

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 = 42.7°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.37 V PASSED
(1.42 V - 3.32 V)
Cooler Voltage = 2.03 V PASSED
(1.22 V - 2.84 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 530 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.4 in

PUMP INFO

Flow Rate = 4.699 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.003 V <= 0.010 V)
PUMP OFF PASSED
(0.003 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.117 0.53% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100360

Date: 04/03/2019
Time: 12:57 PM

Temperatures (°C)
Sample Cell: 48.9°C
Breath Tube: 42.8°C

Current Barometer 29.4 in
Volume (Ltr) 1.48

Settings
Lamp: 2.37 V
Bias: 79 V
Cooler: 2.03 V
Chopper: 529 Hz

Voltages (V)
Flow: 1.06 V
Detector: 0.001 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/01/2019
Time: 09:17:18

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca = 0.1000
CAL = 0.968735 0.800 <= CAL < 1.200
b1 = 0.0006 0.0000 <= b1 < 0.0040
b2 = 0.0066 0.0010 <= b2 < 0.0100
b3 = 0.0002 0.0000 <= b3 < 0.0040
Xq = 0.1173 0.0500 <= Xq < 0.2000
a21 = 1.216992 1.050 <= a21 < 1.300
a31 = 0.503489 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/03/2019
Time: 13:00:03

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

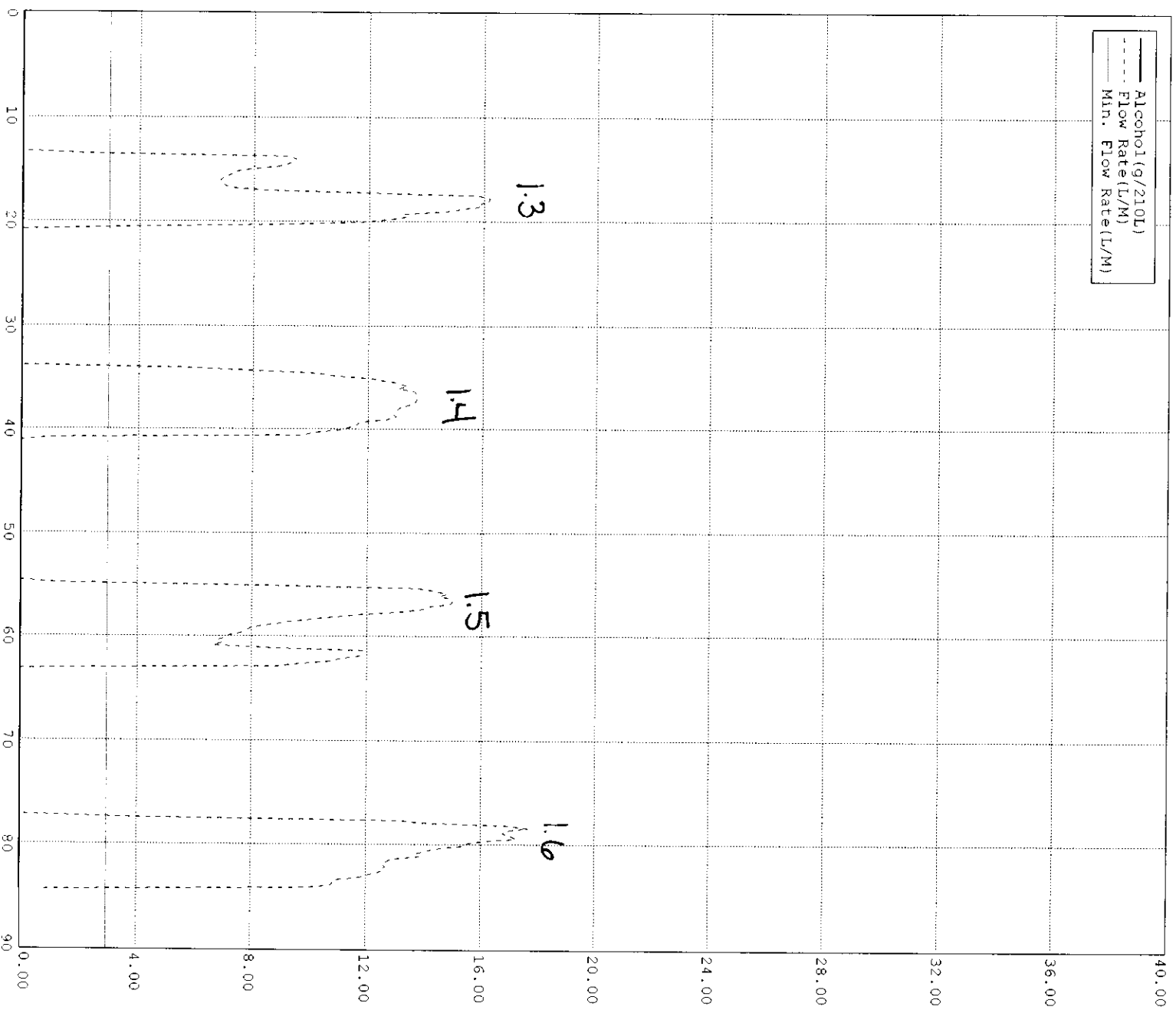
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.36: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:01
BLANK TEST	0.000	13:01
INTERNAL STANDARD	VERIFIED	13:02
EXTERNAL STANDARD	0.077	13:02
BLANK TEST	0.000	13:03
SUBJECT SAMPLE (Vol=1.58L)	0.000	13:04
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.077	13:05
BLANK TEST	0.000	13:06

BMB



LINEARITY CHECK

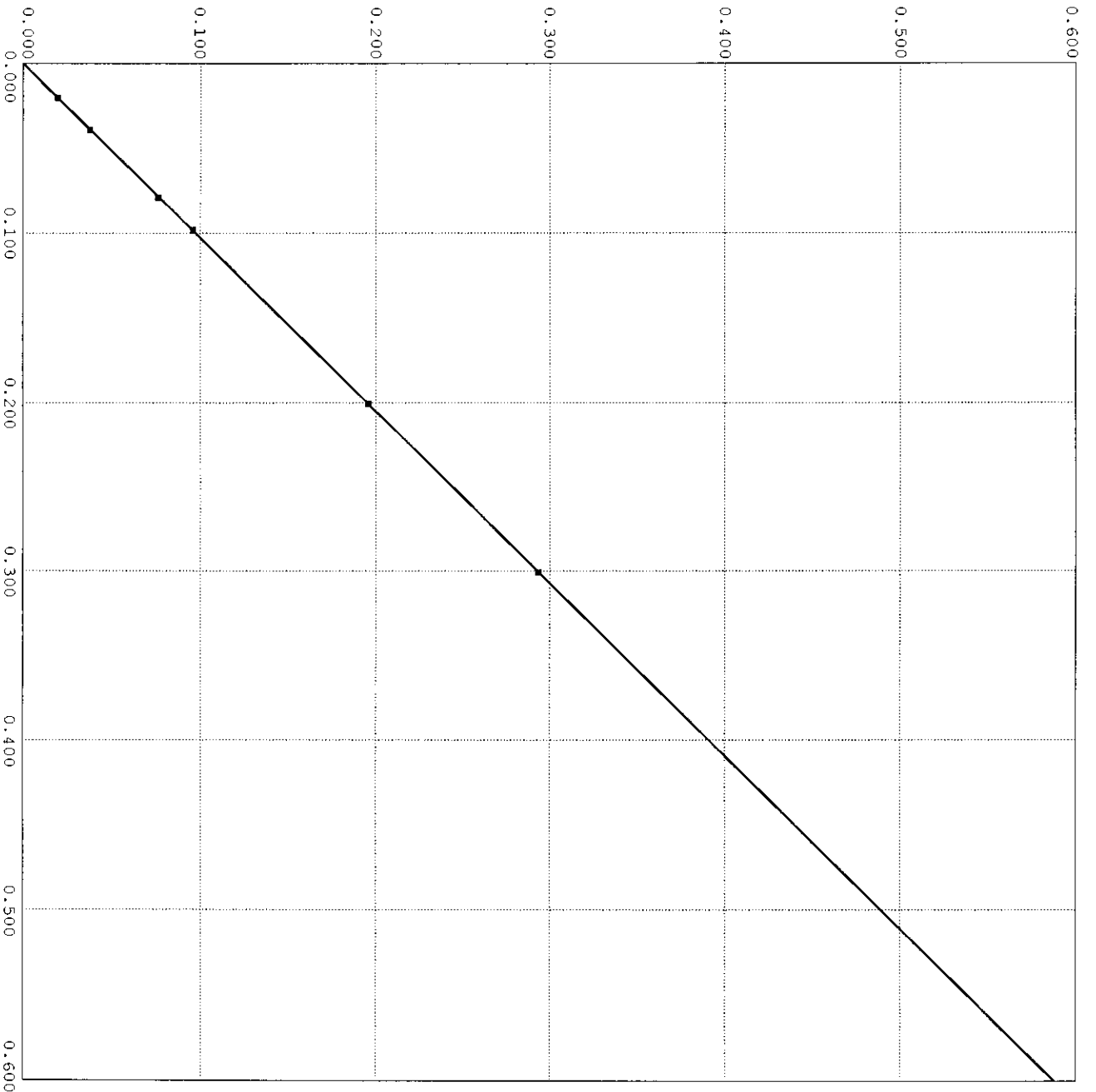
Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/04/2019
Time: 11:02:14

SUPERVISOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0384	0.0005
0.079	0.0770	0.0000
0.098	0.0968	0.0004
0.200	0.1964	0.0005
0.300	0.2942	0.0008

SLOPE = 0.980172
R² = 0.999986



Handwritten signature: BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100360

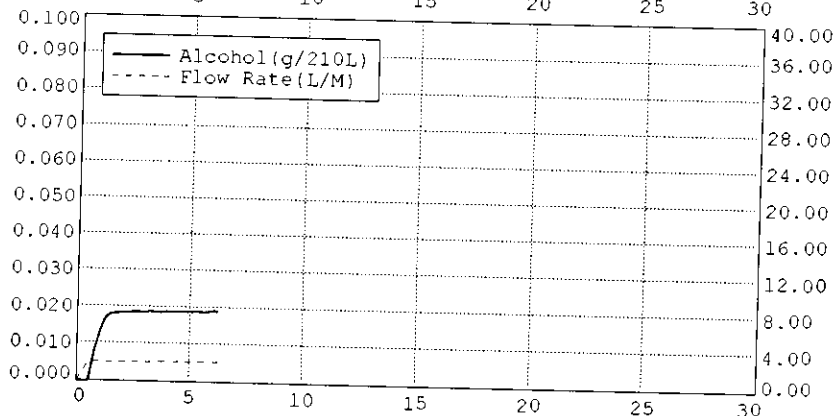
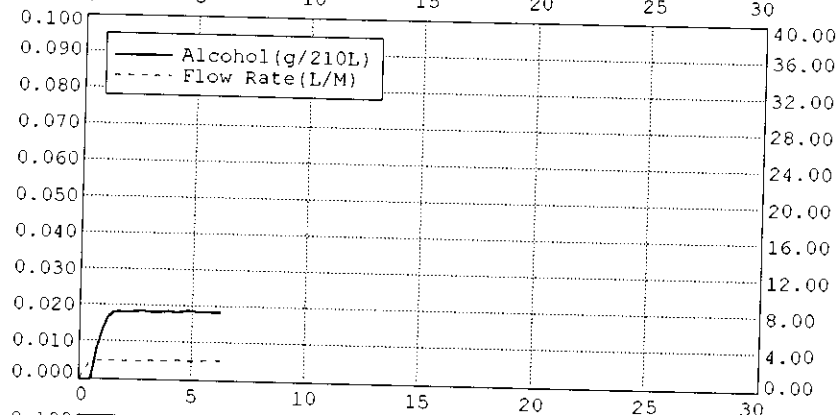
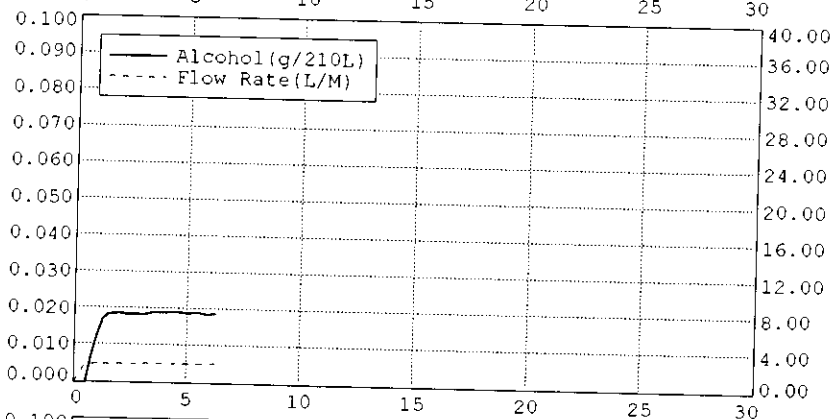
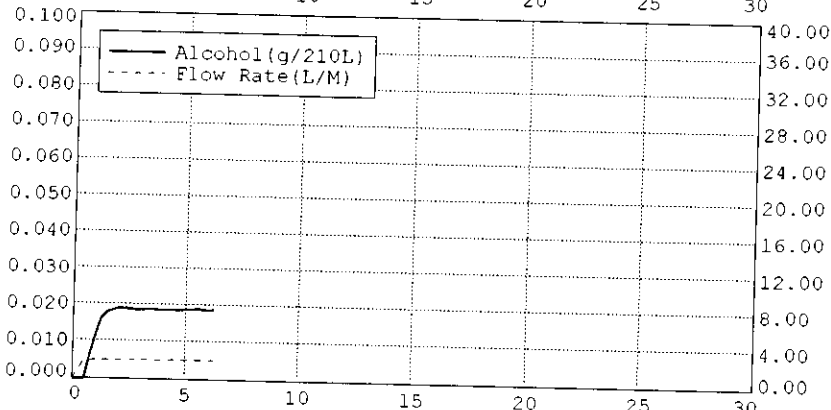
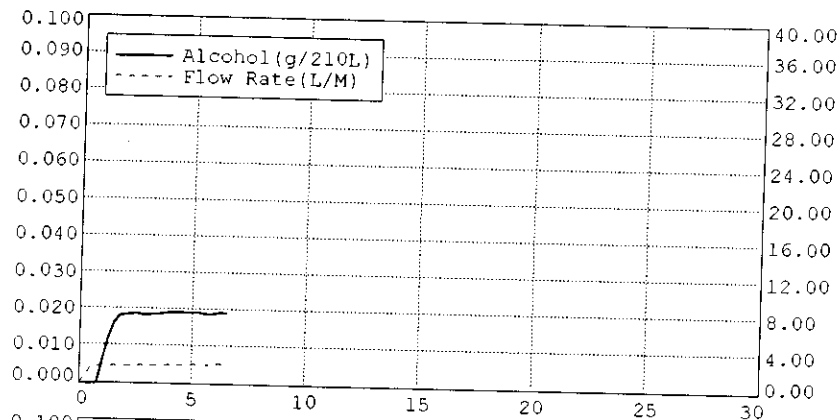
Date: 04/04/2019
 Time: 11:02:16

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.34: 0.020
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 823 psi

BLANK TEST	0.000	11:03
INTERNAL STANDARD	VERIFIED	11:03
EXTERNAL STANDARD	0.020	11:03
BLANK TEST	0.000	11:04
EXTERNAL STANDARD	0.020	11:04
BLANK TEST	0.000	11:05
EXTERNAL STANDARD	0.020	11:05
BLANK TEST	0.000	11:06
EXTERNAL STANDARD	0.020	11:06
BLANK TEST	0.000	11:07
EXTERNAL STANDARD	0.020	11:08
BLANK TEST	0.000	11:08

Average = 0.0200
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
DATAMASTER dmt: 100360

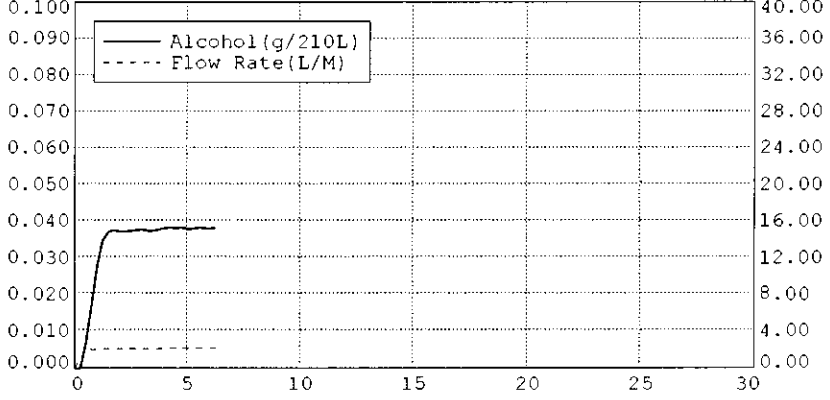
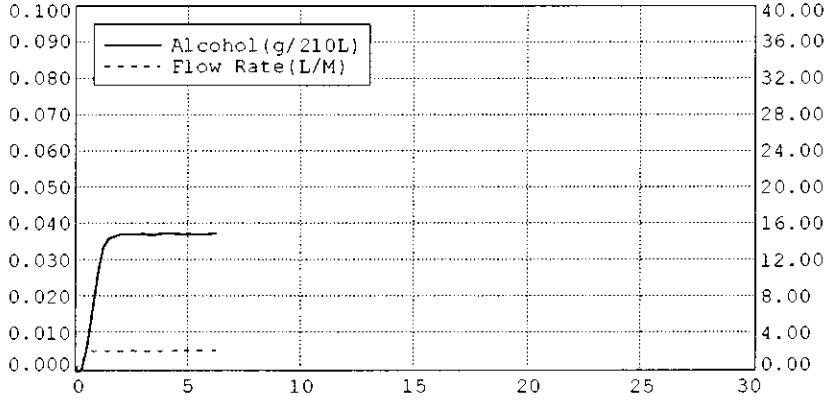
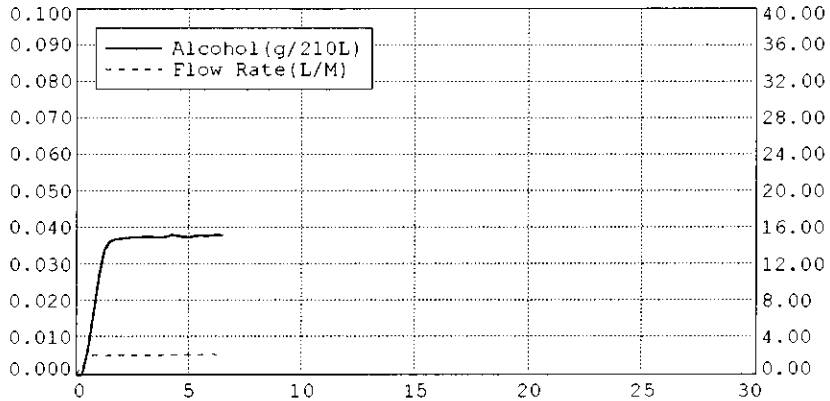
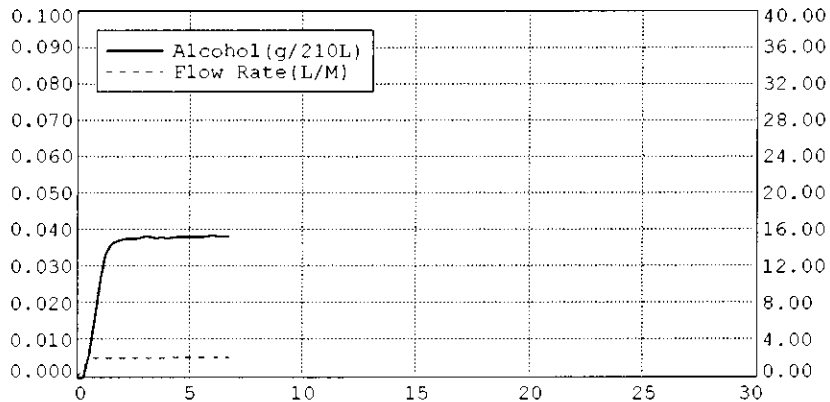
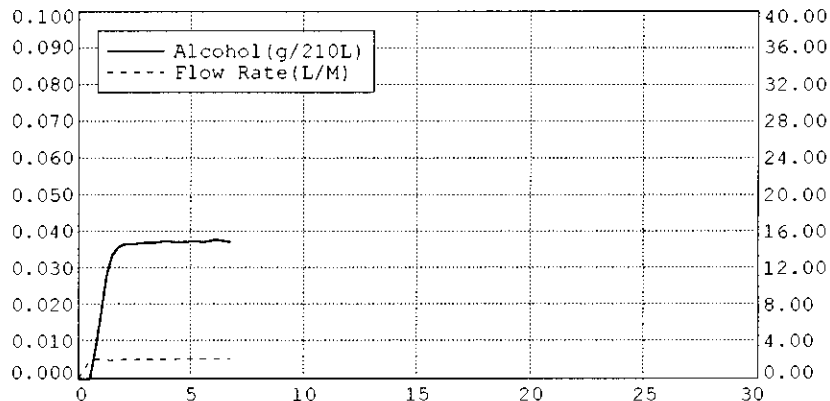
Date: 04/04/2019
Time: 11:11:36

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
TARGET AT 29.35: 0.039
LOT #: AG733403
EXPIRATION: 11/30/2019
TANK PRESSURE: 818 psi

BLANK TEST	0.000	11:13
INTERNAL STANDARD	VERIFIED	11:13
EXTERNAL STANDARD	0.038	11:14
BLANK TEST	0.000	11:14
EXTERNAL STANDARD	0.039	11:15
BLANK TEST	0.000	11:16
EXTERNAL STANDARD	0.038	11:16
BLANK TEST	0.000	11:17
EXTERNAL STANDARD	0.038	11:17
BLANK TEST	0.000	11:18
EXTERNAL STANDARD	0.039	11:18
BLANK TEST	0.000	11:19

Average = 0.0384
Std Dev = 0.0005



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
DATAMASTER dmt: 100360

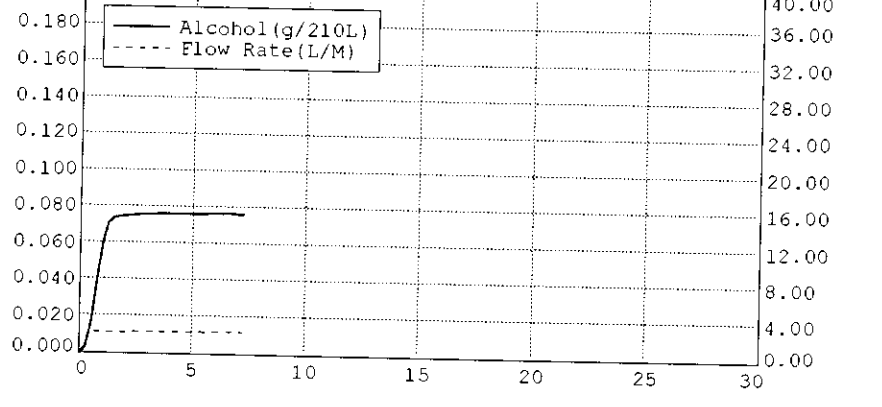
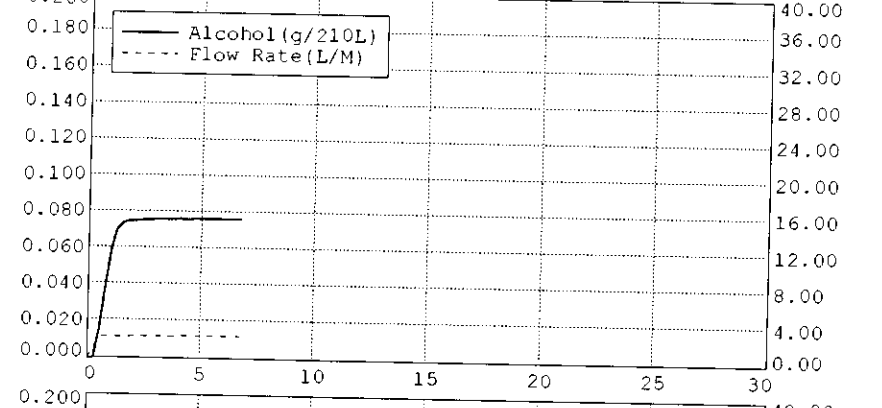
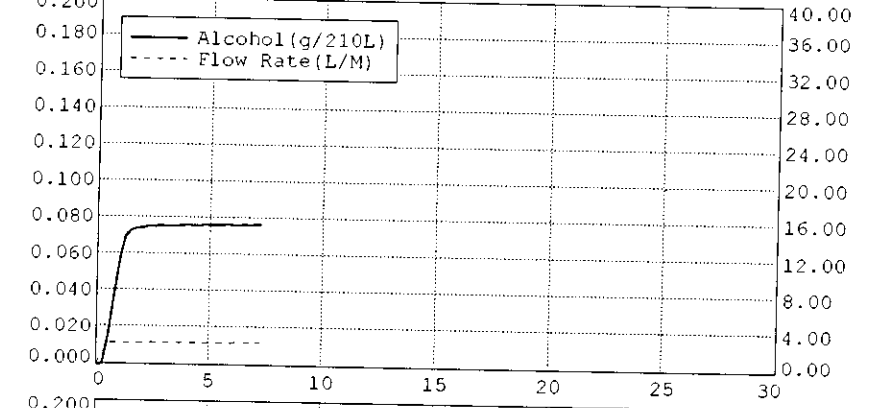
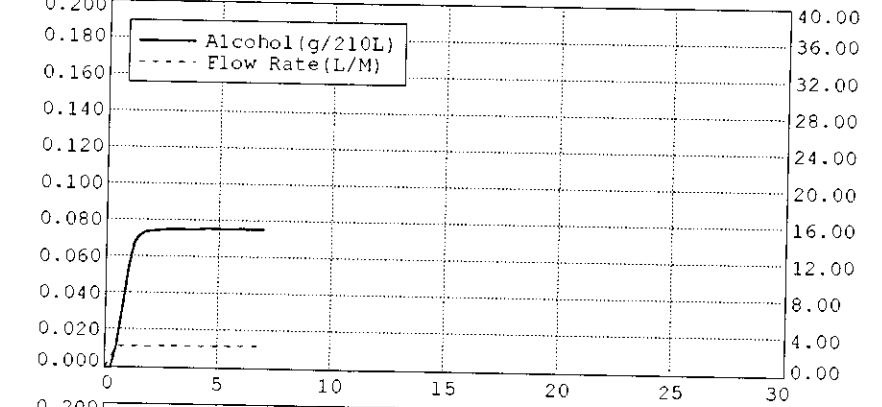
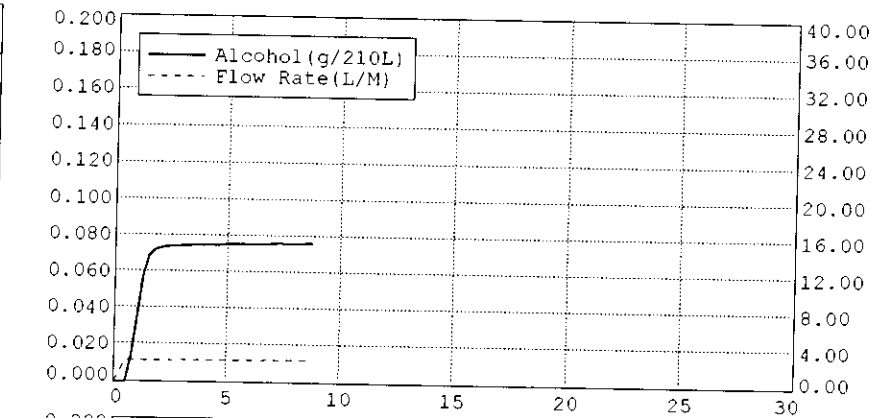
Date: 04/04/2019
Time: 12:46:20

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.36: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020
TANK PRESSURE: 1162 psi

BLANK TEST	0.000	12:48
INTERNAL STANDARD	VERIFIED	12:48
EXTERNAL STANDARD	0.077	12:48
BLANK TEST	0.000	12:49
EXTERNAL STANDARD	0.077	12:49
BLANK TEST	0.000	12:50
EXTERNAL STANDARD	0.077	12:50
BLANK TEST	0.000	12:51
EXTERNAL STANDARD	0.077	12:51
BLANK TEST	0.000	12:52
EXTERNAL STANDARD	0.077	12:52
BLANK TEST	0.000	12:53

Average = 0.0770
Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100360

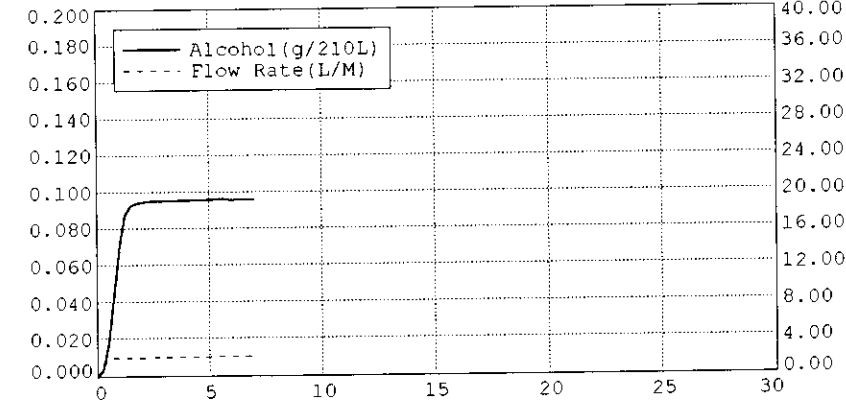
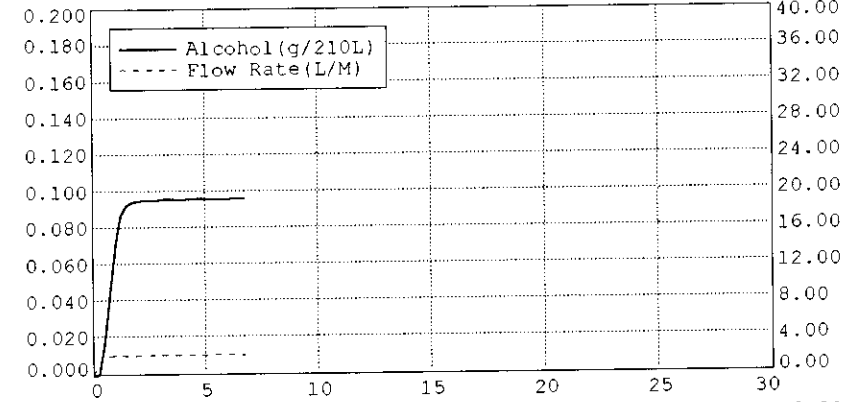
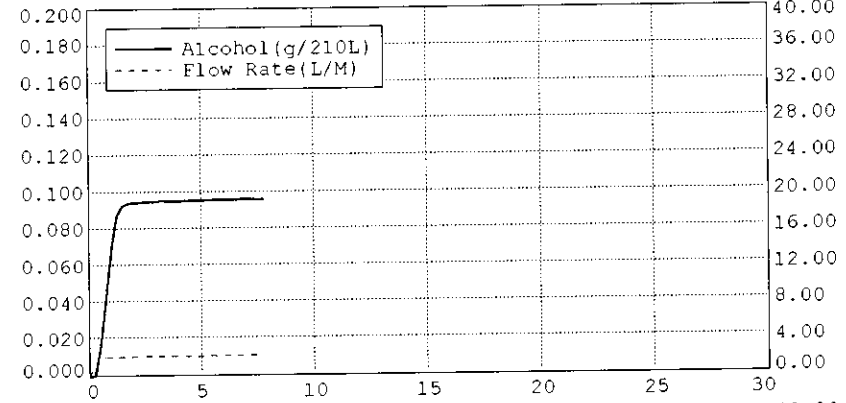
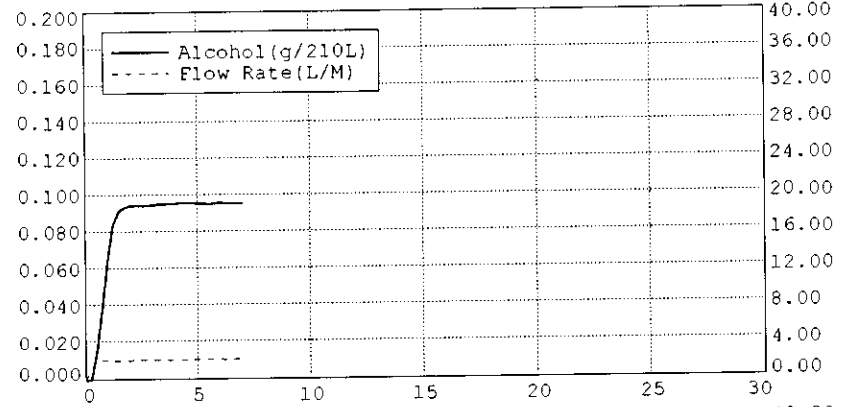
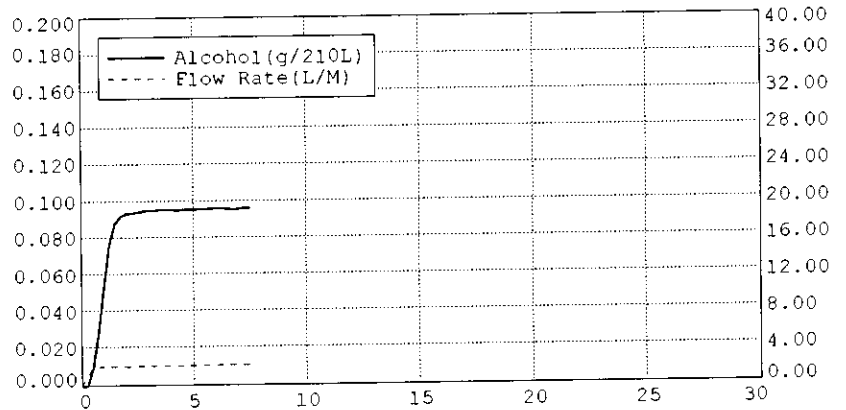
Date: 04/04/2019
 Time: 12:55:59

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.36: 0.098
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 764 psi

BLANK TEST	0.000	12:57
INTERNAL STANDARD	VERIFIED	12:57
EXTERNAL STANDARD	0.097	12:57
BLANK TEST	0.000	12:58
EXTERNAL STANDARD	0.096	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.097	12:59
BLANK TEST	0.000	13:00
EXTERNAL STANDARD	0.097	13:00
BLANK TEST	0.000	13:01
EXTERNAL STANDARD	0.097	13:01
BLANK TEST	0.000	13:02

Average = 0.0968
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100360

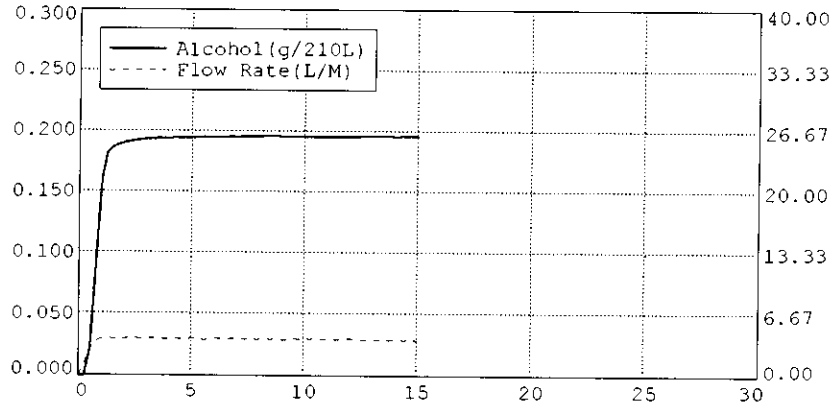
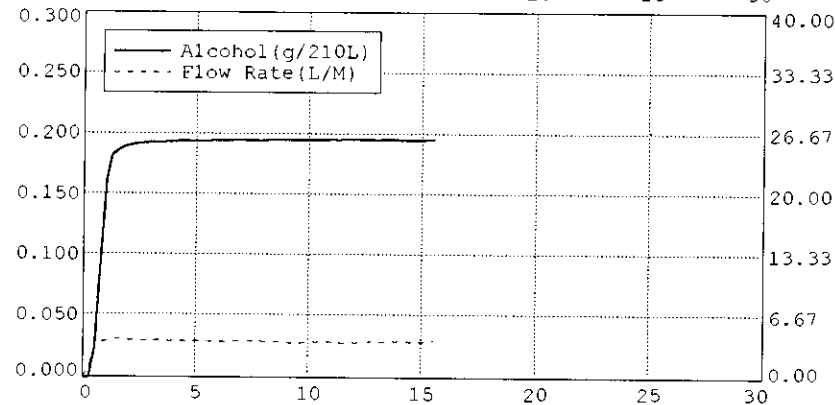
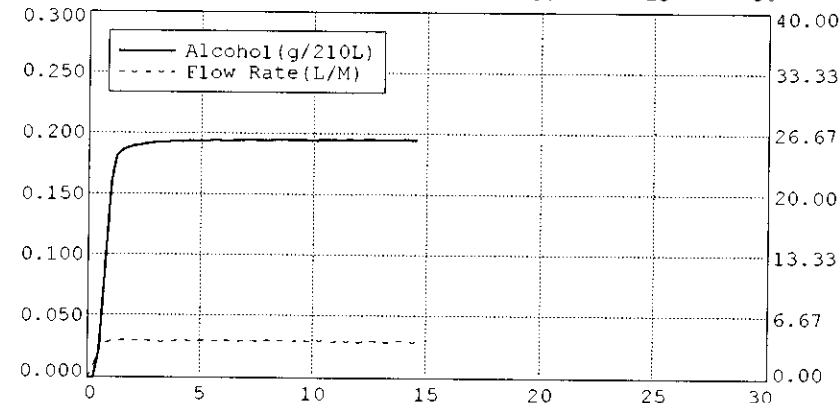
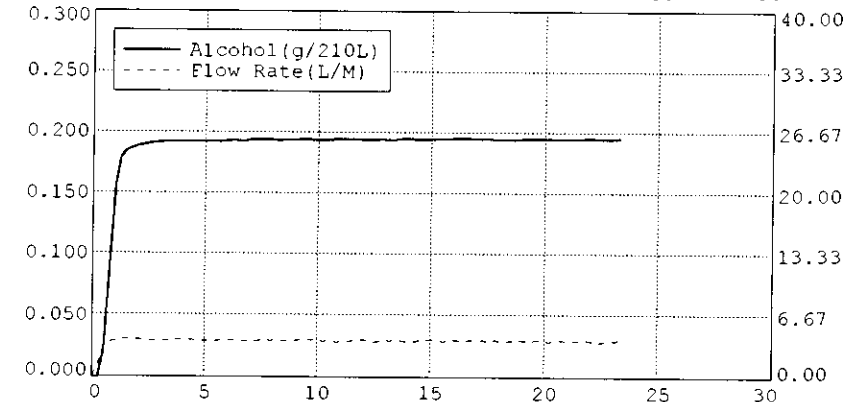
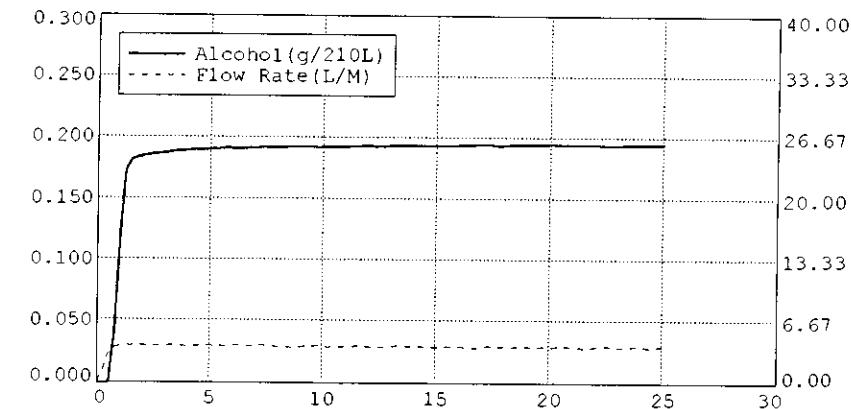
Date: 04/04/2019
 Time: 13:08:31

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200
 LOT #: GUTH 17340
 EXPIRATION: 10/09/2019

BLANK TEST	0.000	13:09
INTERNAL STANDARD	VERIFIED	13:09
EXTERNAL STANDARD	0.196	13:10
BLANK TEST	0.000	13:11
EXTERNAL STANDARD	0.197	13:11
BLANK TEST	0.000	13:12
EXTERNAL STANDARD	0.196	13:13
BLANK TEST	0.000	13:13
EXTERNAL STANDARD	0.196	13:14
BLANK TEST	0.000	13:15
EXTERNAL STANDARD	0.197	13:15
BLANK TEST	0.000	13:16

Average = 0.1964
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100360

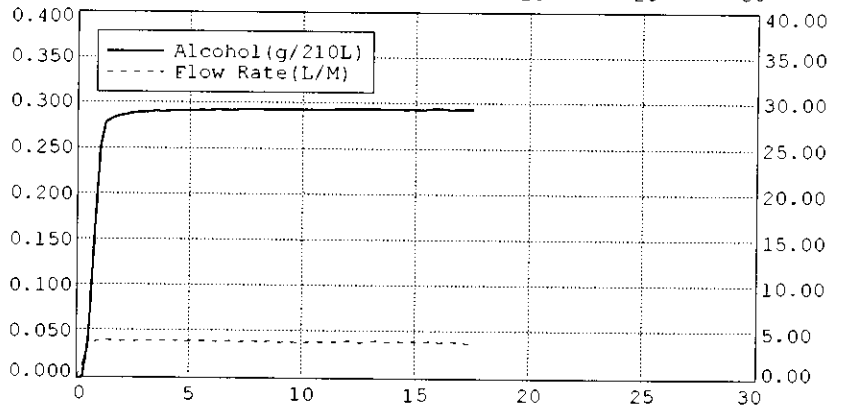
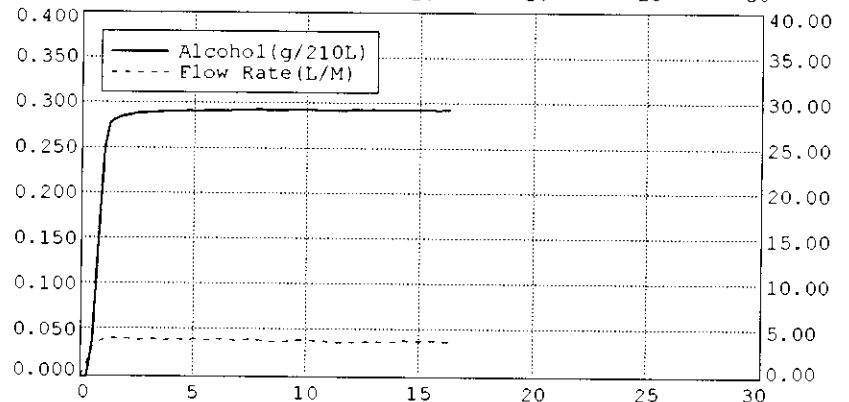
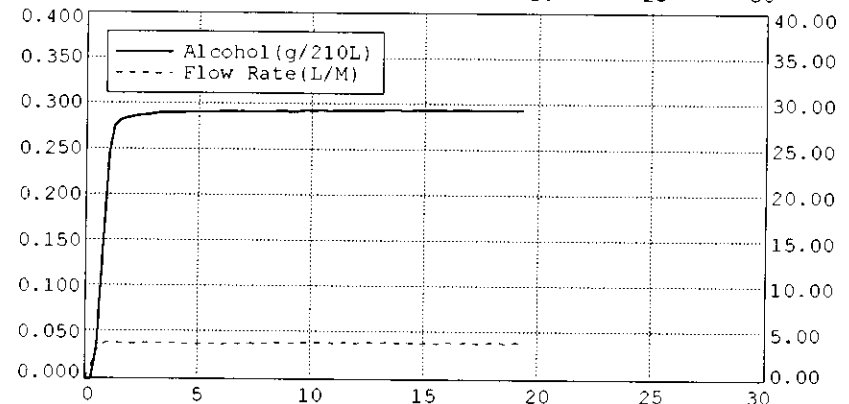
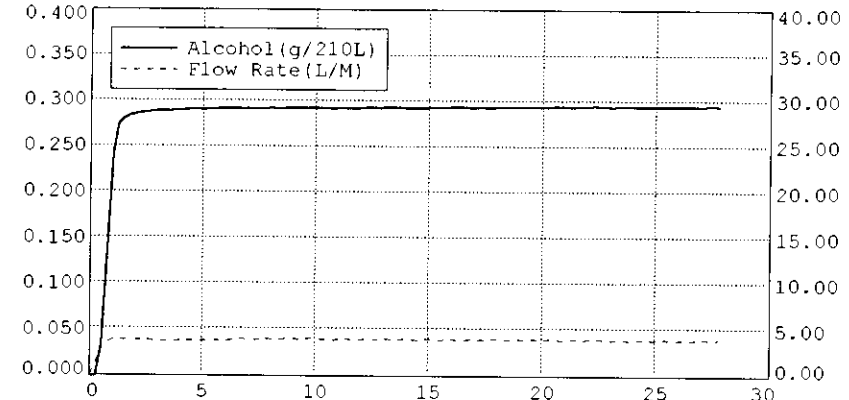
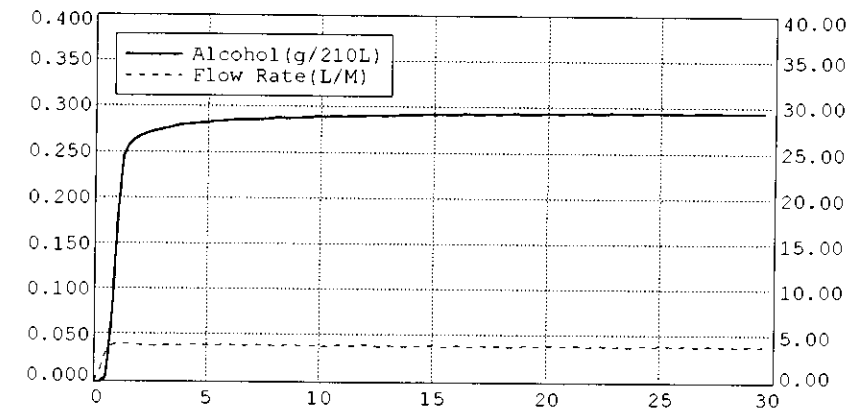
Date: 04/04/2019
 Time: 13:18:47

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: GUTH 17350
 EXPIRATION: 10/11/2019

BLANK TEST	0.000	13:19
INTERNAL STANDARD	VERIFIED	13:20
EXTERNAL STANDARD	0.295	13:20
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.295	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.294	13:23
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.293	13:24
BLANK TEST	0.000	13:25
EXTERNAL STANDARD	0.294	13:26
BLANK TEST	0.000	13:26

Average = 0.2942
 Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/05/2019
Time: 10:47:15

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

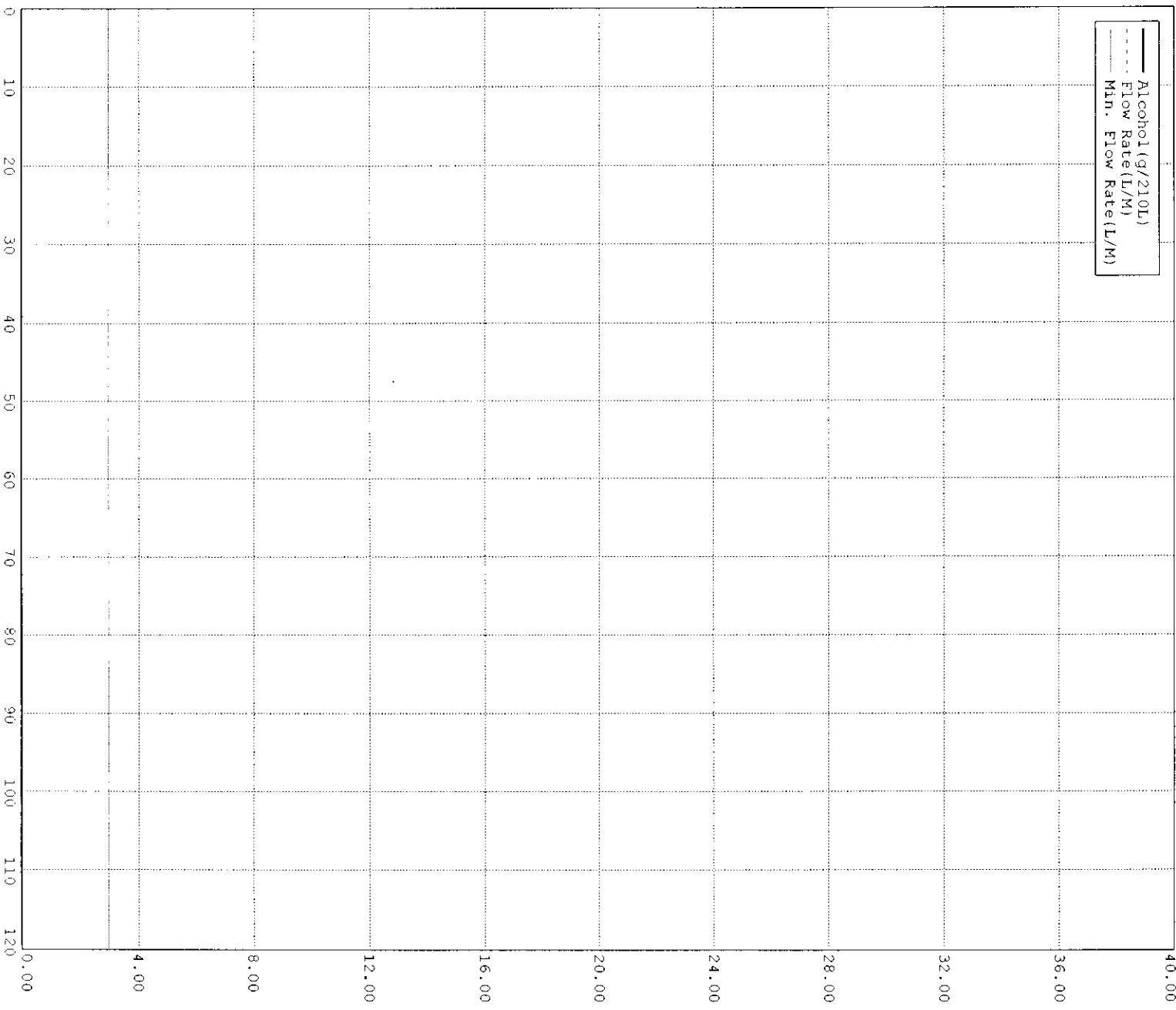
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.20: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	10:48
BLANK TEST	0.000	10:48
INTERNAL STANDARD	VERIFIED	10:48
EXTERNAL STANDARD	0.076	10:49
BLANK TEST	0.000	10:50
SUBJECT SAMPLE	INCOMPLETE	10:52

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmtc: 100360

Date: 04/05/2019
Time: 10:54:23

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

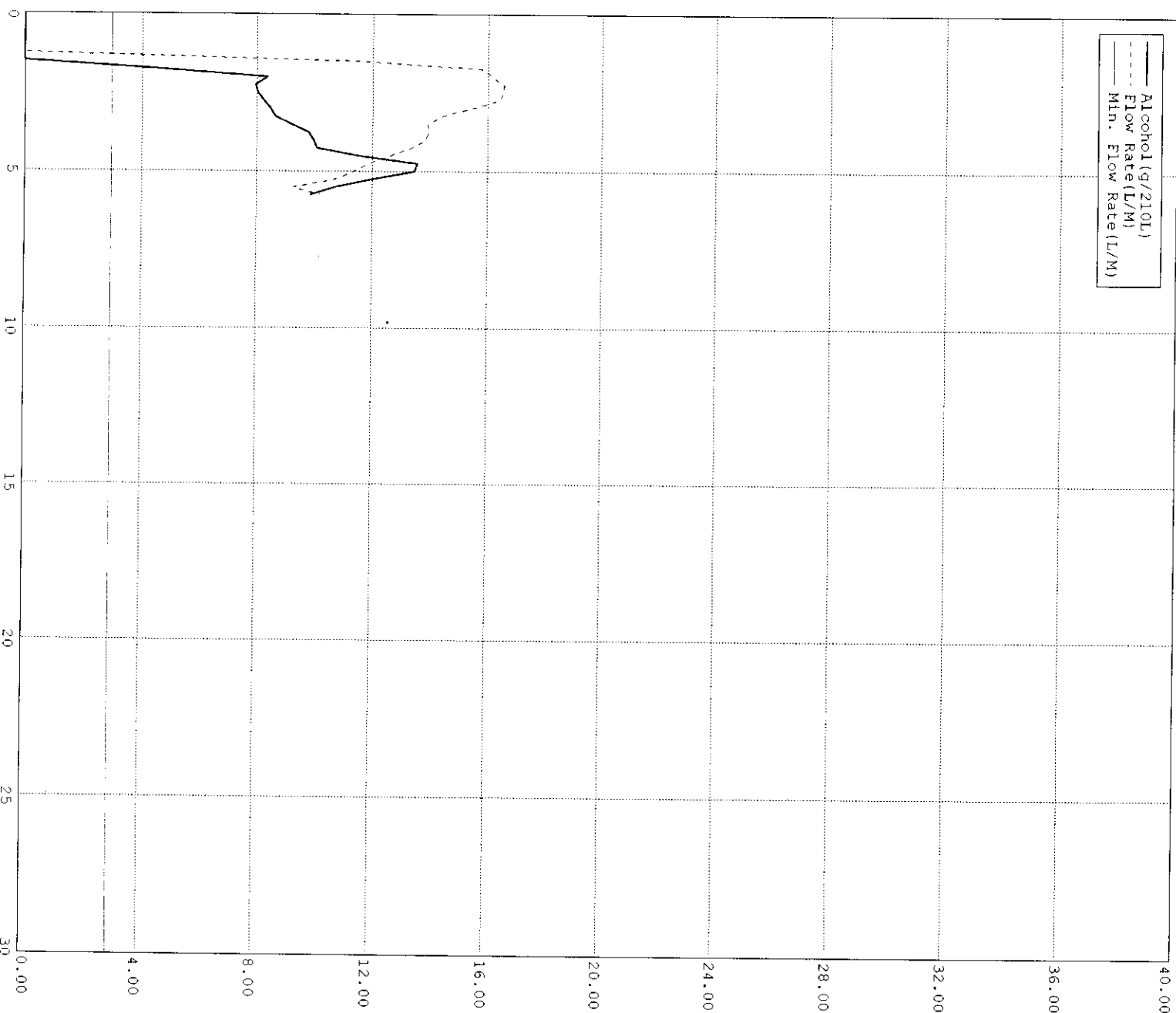
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.20: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	10:57
BLANK TEST	0.000	10:57
INTERNAL STANDARD	VERIFIED	10:57
EXTERNAL STANDARD	0.077	10:57
BLANK TEST	0.000	10:58
SUBJECT SAMPLE	INVALID	10:59

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/05/2019
Time: 12:26:19

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

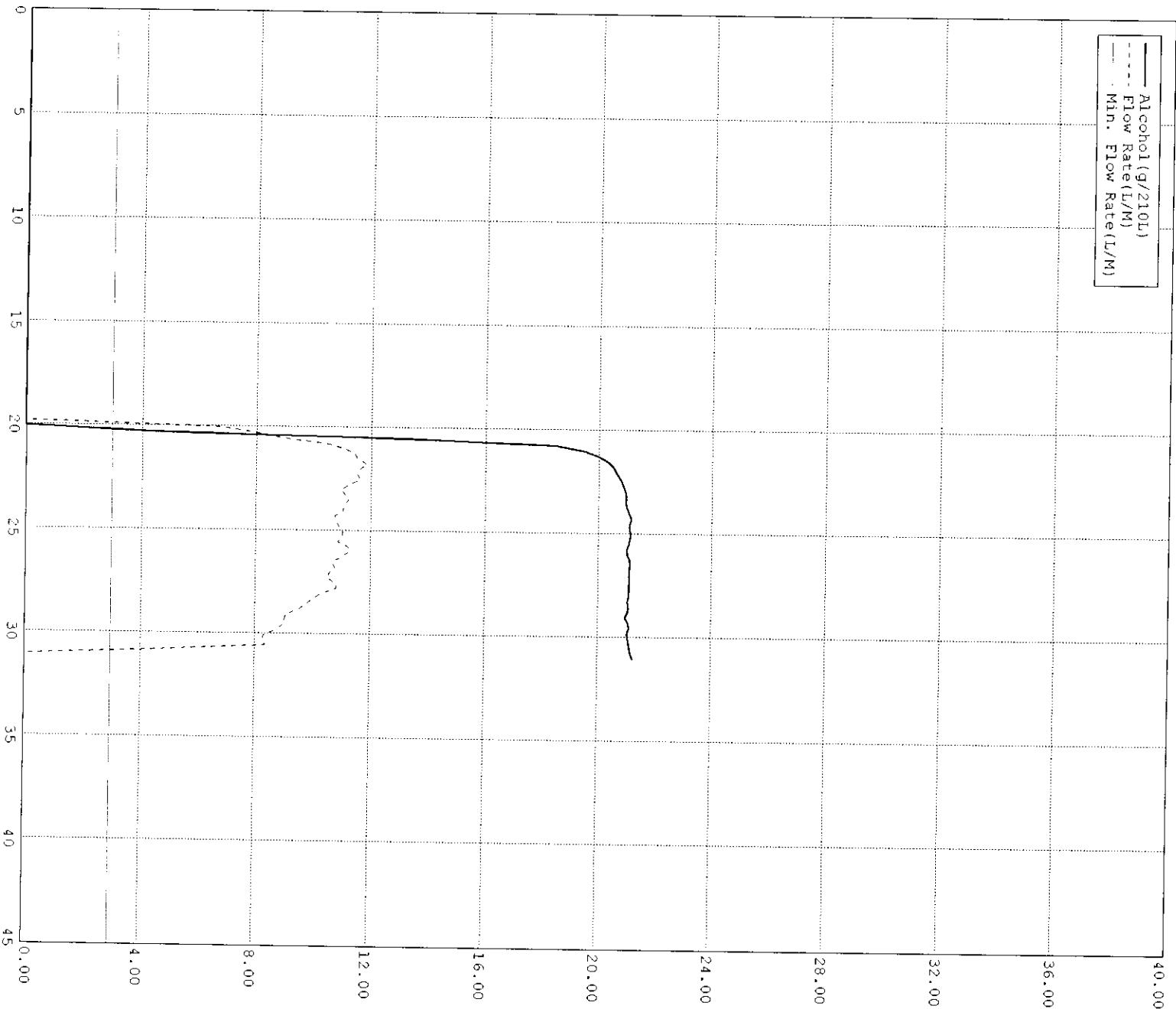
EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.18: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK
BLANK TEST PASSED 12:27
INTERNAL STANDARD VERIFIED 12:27
Xq = 0.118 (0.30%)
EXTERNAL STANDARD 0.077 12:27
X[1] = 0.0766 (-0.0011) (0.0018)
BLANK TEST 0.000 12:28
SUBJECT SAMPLE XXX 12:29
X[1] = 0.1075 (-0.0155) (-0.0003)

Interference Detected

Filter 2 Avg: -0.0009
Filter 3 Avg: 0.0013
BMB 4/5/19

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/05/2019
Time: 12:35:07

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

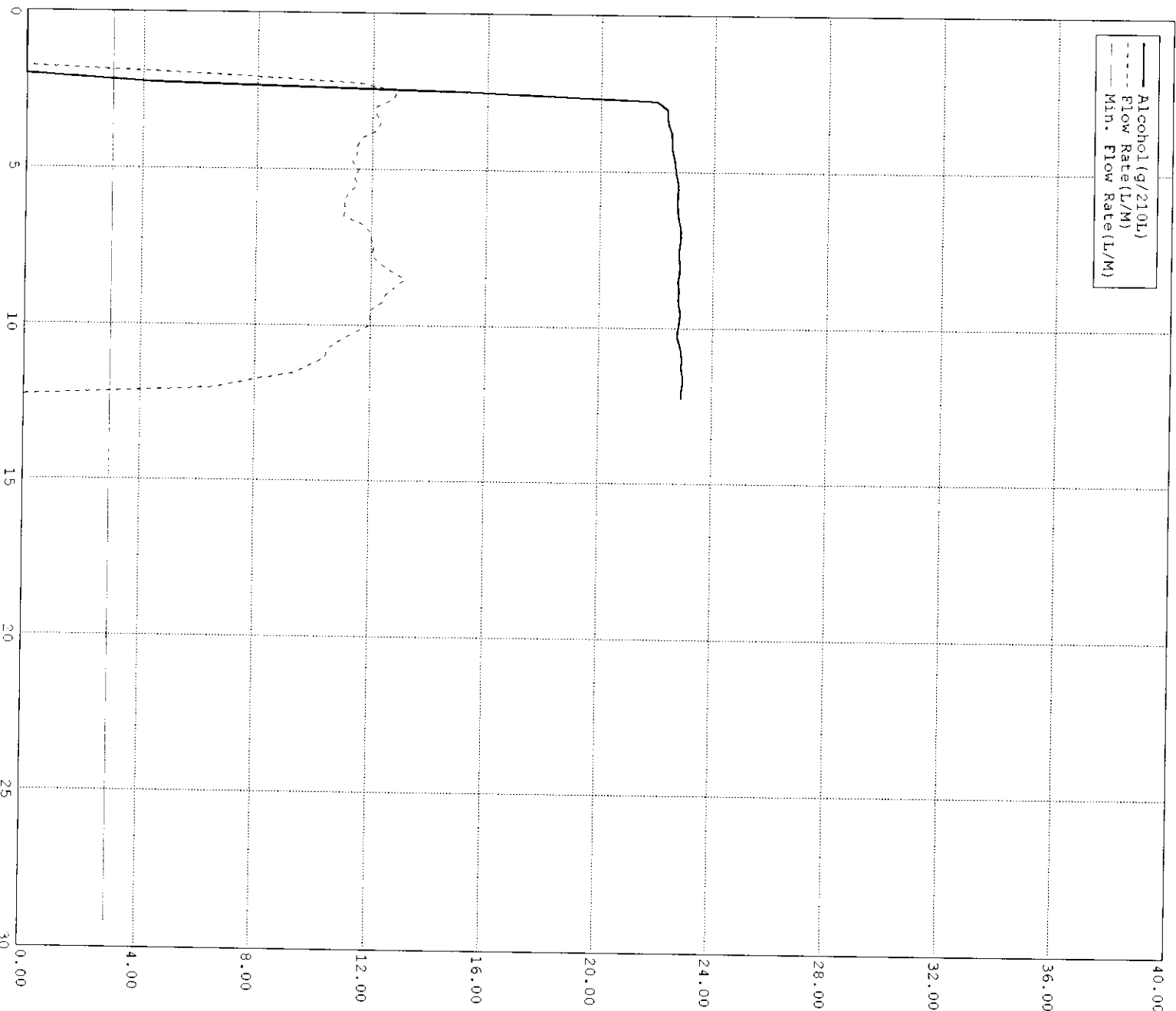
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.17: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:37
BLANK TEST	0.000	12:37
INTERNAL STANDARD	VERIFIED	12:37
Xq = 0.117 (0.08%)	0.077	12:37
EXTERNAL STANDARD	X[1] = 0.0768 (-0.0007)	(0.0014)
BLANK TEST	0.000	12:38
SUBJECT SAMPLE	XXX	12:39
X[1] = 0.1160 (-0.0284)	(-0.0001)	

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/05/2019
Time: 12:42:40

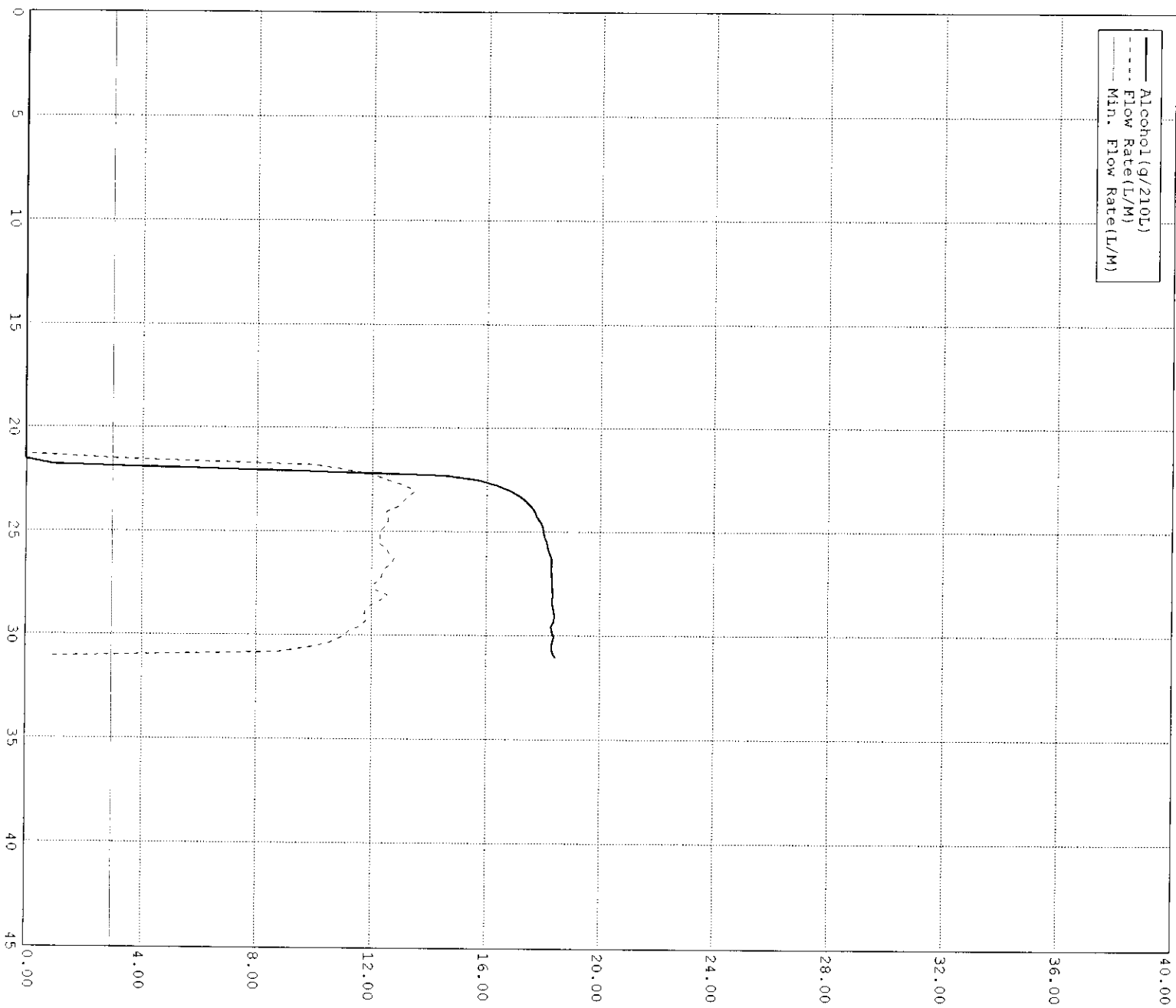
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

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 29.17: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:43
BLANK TEST	0.000	12:43
INTERNAL STANDARD	VERIFIED	12:43
Xq = 0.117 (0.08%)		
EXTERNAL STANDARD	0.077	12:44
X[1] = 0.0771 (-0.0015)	(0.0011)	
BLANK TEST	0.000	12:45
SUBJECT SAMPLE (Vol=1.88L)	0.093	12:45
X[1] = 0.0930 (-0.0006)	(-0.0006)	
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.076	12:46
X[1] = 0.0762 (-0.0003)	(0.0007)	
BLANK TEST	0.000	12:47



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/05/2019
Time: 11:02:20

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

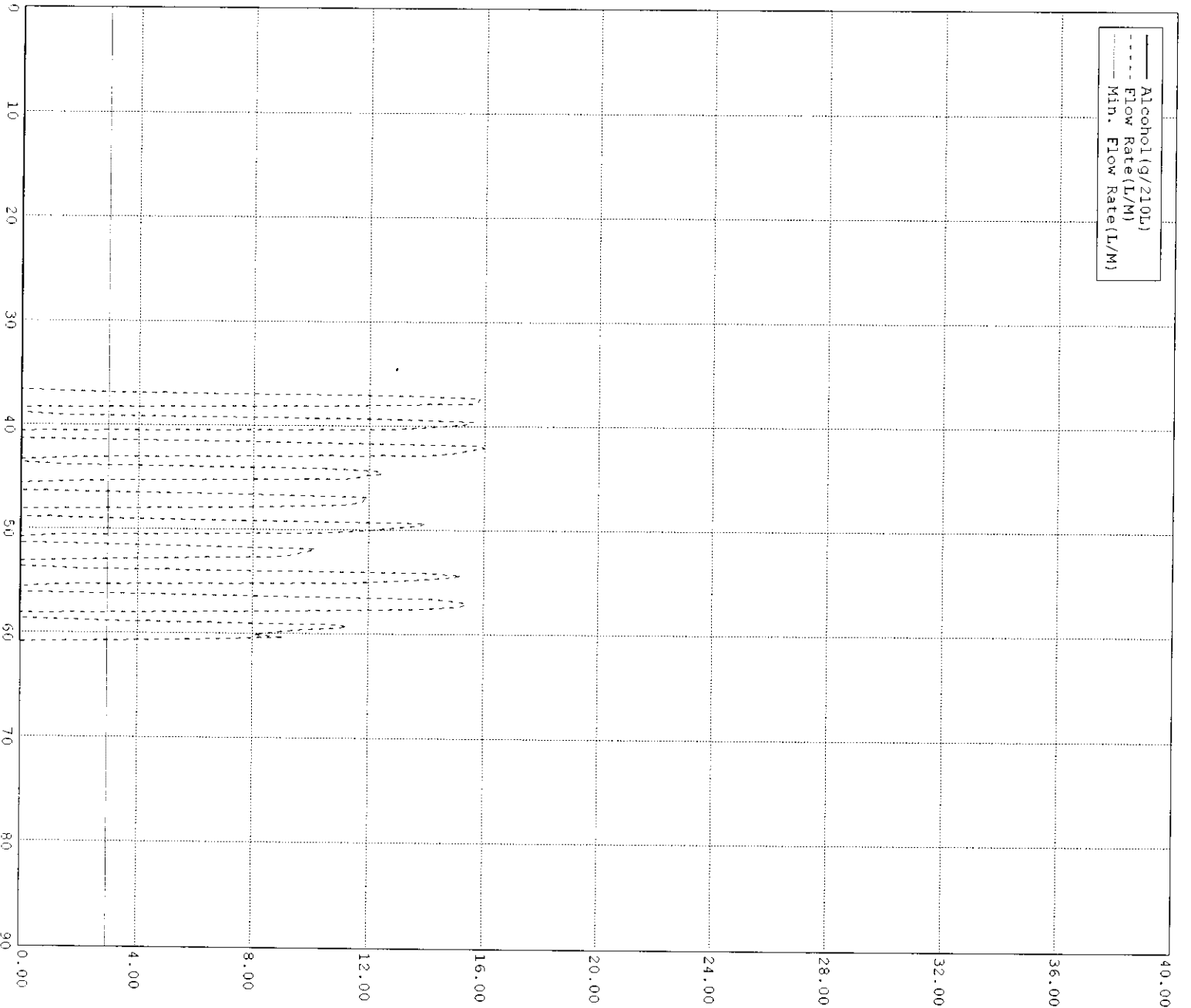
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.20: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	11:05
BLANK TEST	0.000	11:05
INTERNAL STANDARD	VERIFIED	11:05
EXTERNAL STANDARD	0.076	11:05
BLANK TEST	0.000	11:06
SUBJECT SAMPLE	XXX	11:07

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/05/2019
Time: 12:03:22

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

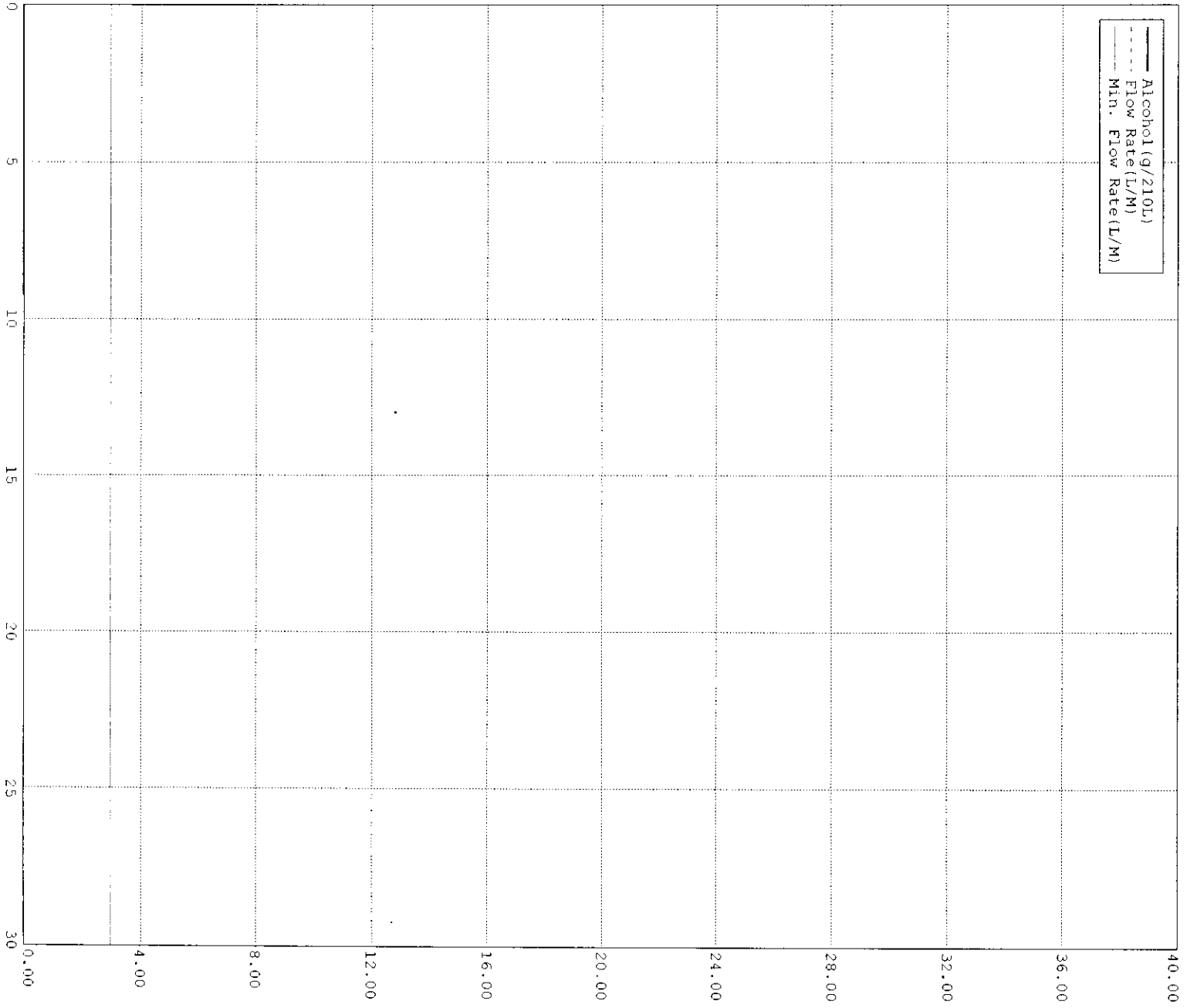
DEPT/AGENCY:
RFI
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.19: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:04
BLANK TEST	0.000	12:04
INTERNAL STANDARD	VERIFIED	12:04
EXTERNAL STANDARD	0.077	12:05
BLANK TEST	0.000	12:06

RFI DETECTED

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100360

Date: 04/05/2019
Time: 13:05:09

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
NONDRINKING SUBJECT TEST
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.16: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:06
BLANK TEST	0.000	13:06
INTERNAL STANDARD	VERIFIED	13:06
EXTERNAL STANDARD	0.077	13:06
BLANK TEST	0.000	13:07
SUBJECT SAMPLE (Vol=2.13L)	0.000	13:08
BLANK TEST	0.000	13:09
EXTERNAL STANDARD	0.077	13:09
BLANK TEST	0.000	13:10

