

# 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 100391 Analyst Brandi Barnett Start Date 11/13/19

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 AG805804 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 19040 Exp 1/29/21
  1. Simulator S/N DR4162 Date Calibrated 10/7/19
- vi. 0.300g/210L Mnf Guth Lot 19010 Exp 1/3/19 <sup>BMS</sup>
  1. Simulator S/N DR4178 Date Calibrated 10/4/19

5. Functional Tests (attached)

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

i. Acetone - Mnf Guth Lot 18370 Level 0.100 Exp 12/5/20

1. Simulator S/N SD1199 Date Calibrated 3/6/19

ii. Isopropanol - Mnf Guth Lot 18370 Level 0.100 Exp 12/5/20

1. Simulator S/N DR4161 Date Calibrated 3/7/19 <sup>BMS</sup>

iii. Negative Control - Mnf Guth Lot 18370 Level 0.100 Exp 12/5/20

1. Simulator S/N SD1202 Date Calibrated 3/5/19

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 11/13/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100391  
-----

Date: 11/13/2019  
Time: 09:40:04

VERSIONS  
DMT: 3.02  
PIC: 3.01  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 49.1°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 47.4°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.67 V PASSED  
(1.00 V - 2.34 V)  
Cooler Voltage = 1.71 V PASSED  
(1.03 V - 2.39 V)  
Bias Voltage = 81 V PASSED  
(48 V - 112 V)  
Chopper Freq = 537 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.2 in

PUMP INFO

Flow Rate = 4.543 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 = 0.089 0.39% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100391  
-----

Date: 11/13/2019  
Time: 9:55 AM

Temperatures (°C)

Sample Cell: 49.0°C  
Breath Tube: 47.2°C

Current Barometer 29.2 in  
Volume (Ltr) 1.49

Settings

Lamp: 1.69 V  
Bias: 81 V  
Cooler: 1.71 V  
Chopper: 536 Hz

Voltages (V)

Flow: 1.05 V  
Detector: 0.052 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100391  
-----

Date: 10/29/2019  
Time: 12:38:08

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca = 0.1000  
CAL = 0.962832    0.800 <= CAL < 1.200  
b1 = 0.0000    0.0000 <= b1 < 0.0040  
b2 = 0.0053    0.0010 <= b2 < 0.0100  
b3 = 0.0001    0.0000 <= b3 < 0.0040  
Xq = 0.0887    0.0500 <= Xq < 0.2000  
a21 = 1.228847    1.050 <= a21 < 1.300  
a31 = 0.494974    0.300 <= a31 < 0.800



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100391

Date: 11/13/2019  
Time: 10:03:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

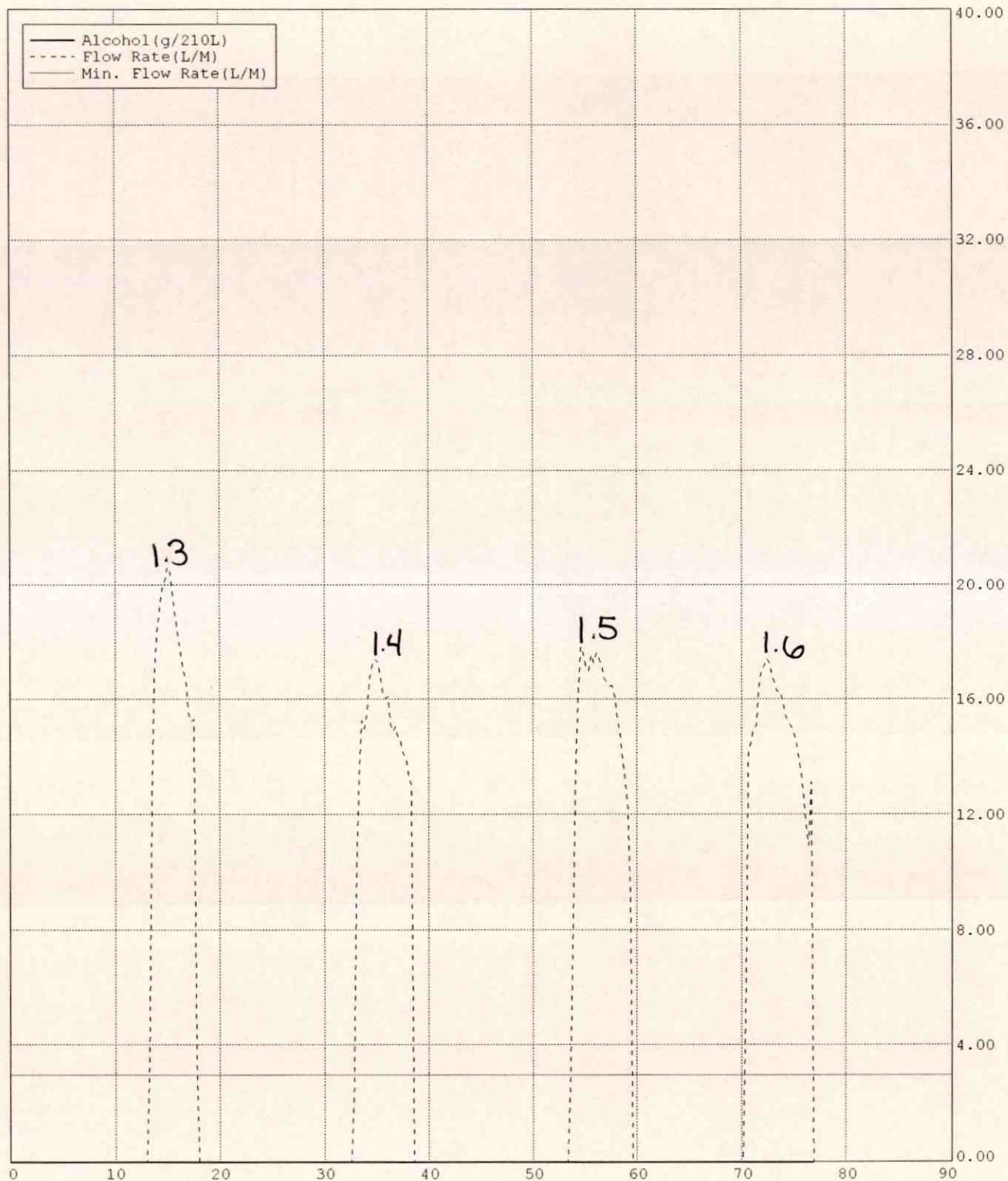
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.24: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	10:06
BLANK TEST	0.000	10:06
INTERNAL STANDARD	VERIFIED	10:06
EXTERNAL STANDARD	0.078	10:06
BLANK TEST	0.000	10:07
SUBJECT SAMPLE (Vol=1.60L)	0.000	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.078	10:10
BLANK TEST	0.000	10:10

*BMB*



LINEARITY CHECK

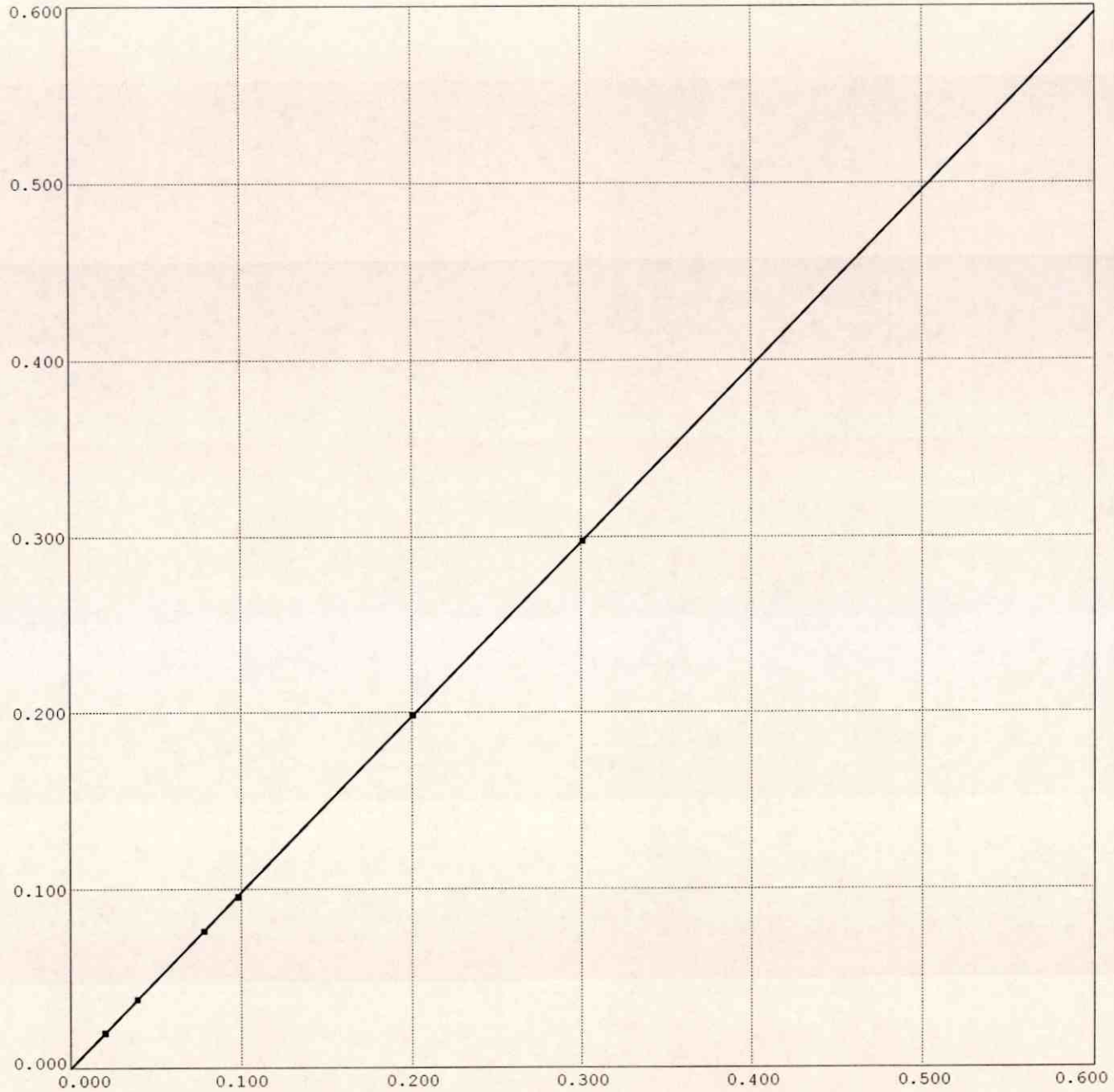
-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100391  
-----

Date: 11/13/2019  
Time: 10:17:54

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.039	0.0390	0.0000
0.078	0.0774	0.0005
0.098	0.0966	0.0005
0.200	0.1992	0.0004
0.300	0.2982	0.0004

SLOPE = 0.994077  
R<sup>2</sup> = 0.999983



BMB



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
DATAMASTER dmt: 100391

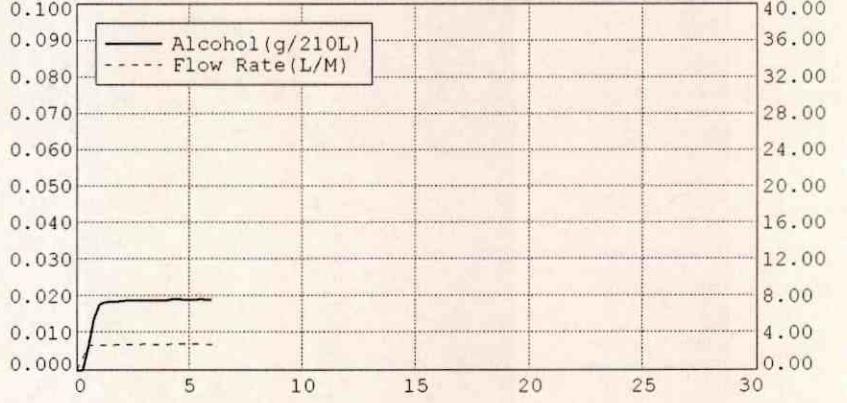
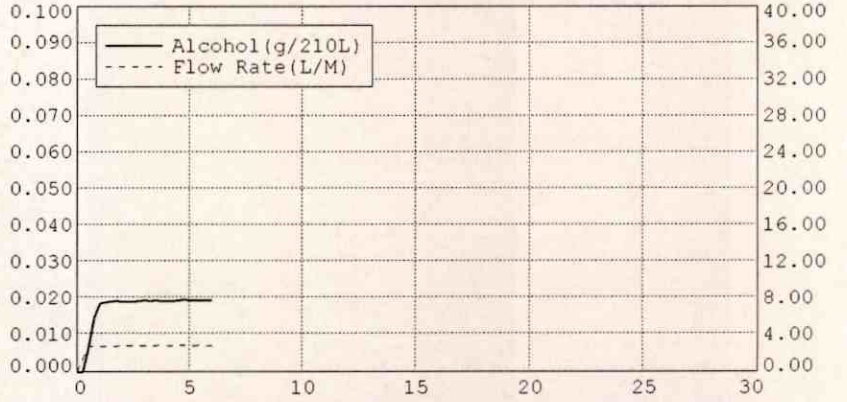
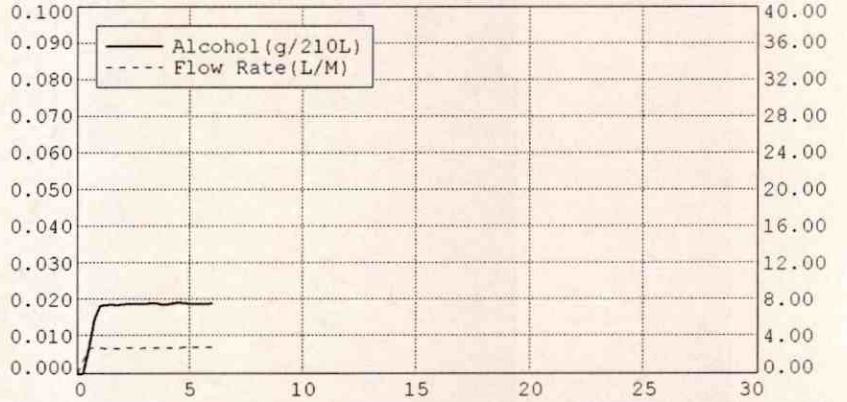
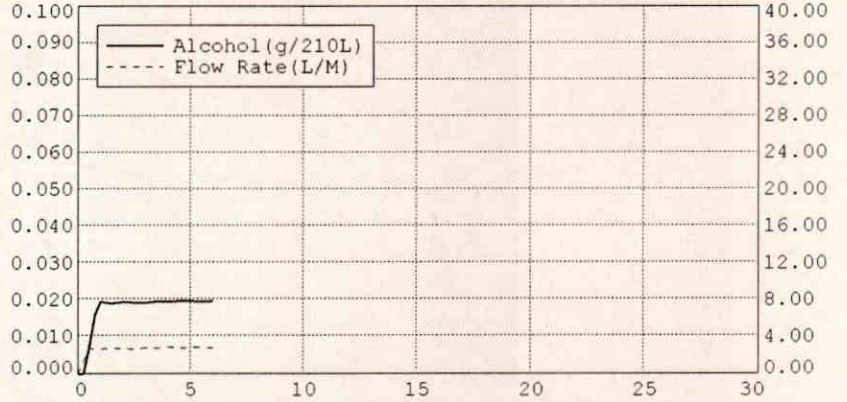
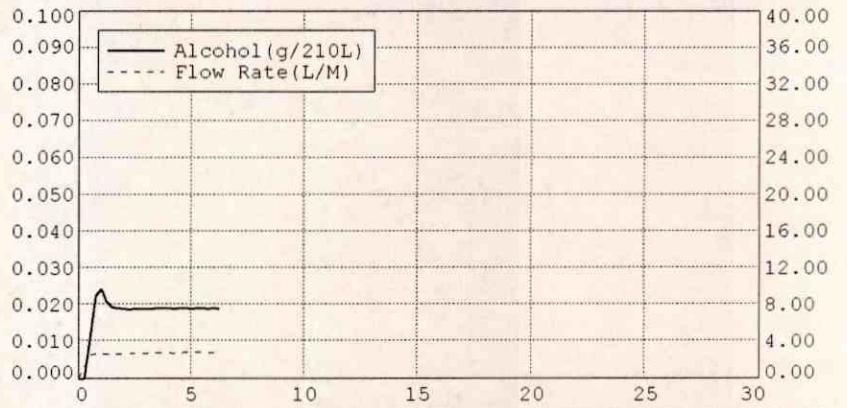
Date: 11/13/2019  
Time: 10:17:56

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.24: 0.020  
LOT #: AG805804  
EXPIRATION: 02/27/2020  
TANK PRESSURE: 357 psi

BLANK TEST	0.000	10:19
INTERNAL STANDARD	VERIFIED	10:19
EXTERNAL STANDARD	0.020	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.021	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.020	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.020	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.020	10:23
BLANK TEST	0.000	10:24

Average = 0.0202  
Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100391

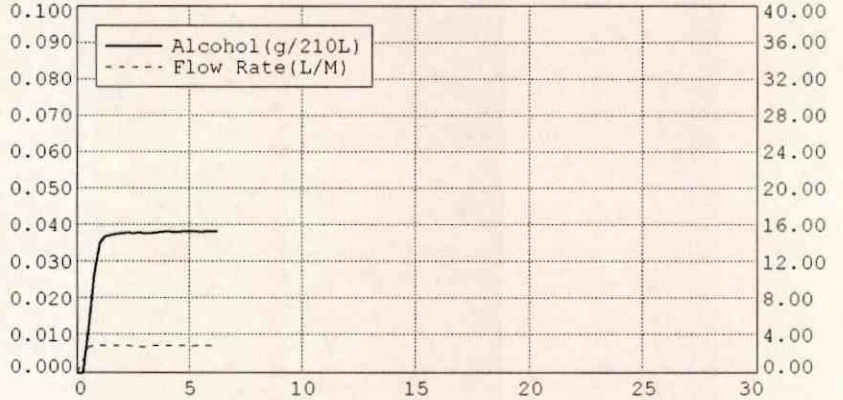
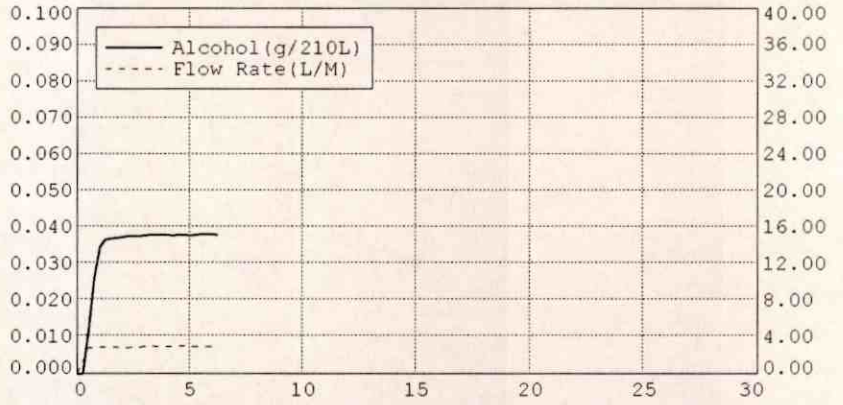
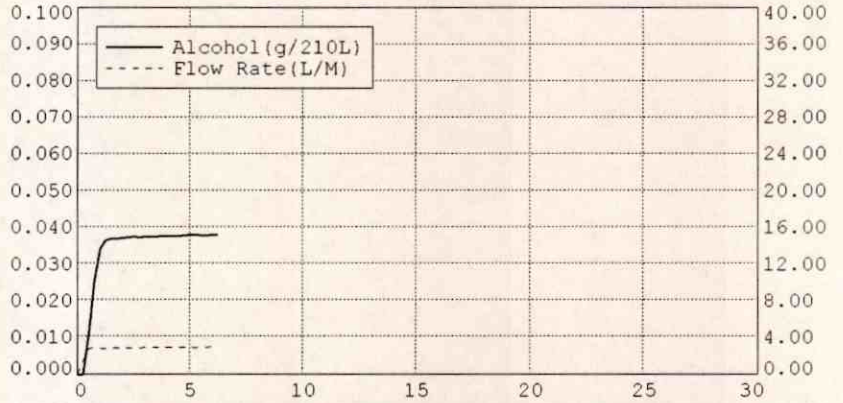
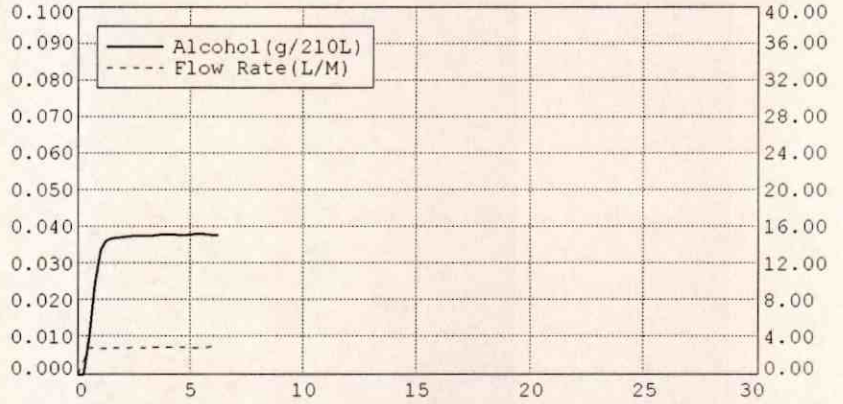
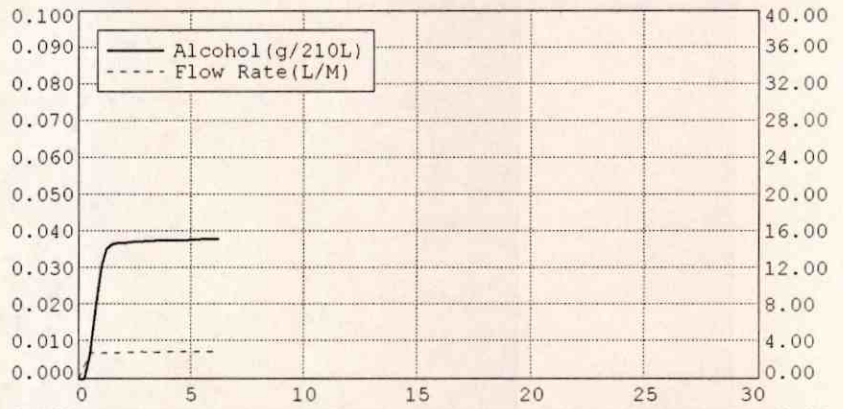
Date: 11/13/2019  
 Time: 10:29:37

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.23: 0.039  
 LOT #: AG733403  
 EXPIRATION: 11/30/2019  
 TANK PRESSURE: 941 psi

BLANK TEST	0.000	10:31
INTERNAL STANDARD	VERIFIED	10:31
EXTERNAL STANDARD	0.039	10:32
BLANK TEST	0.000	10:33
EXTERNAL STANDARD	0.039	10:33
BLANK TEST	0.000	10:34
EXTERNAL STANDARD	0.039	10:34
BLANK TEST	0.000	10:35
EXTERNAL STANDARD	0.039	10:35
BLANK TEST	0.000	10:36
EXTERNAL STANDARD	0.039	10:36
BLANK TEST	0.000	10:37

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100391

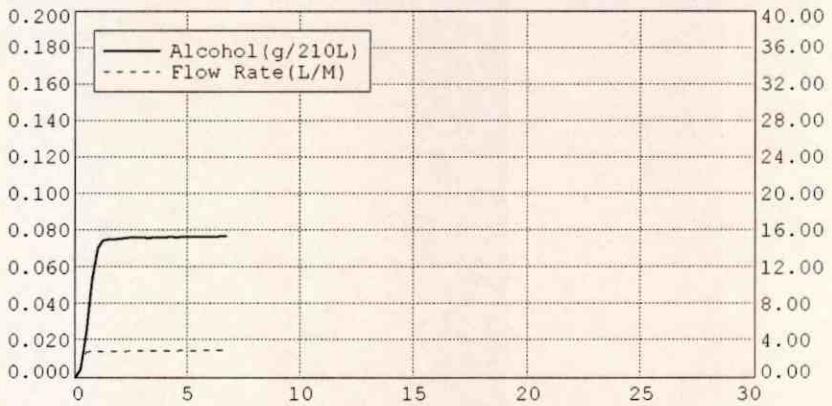
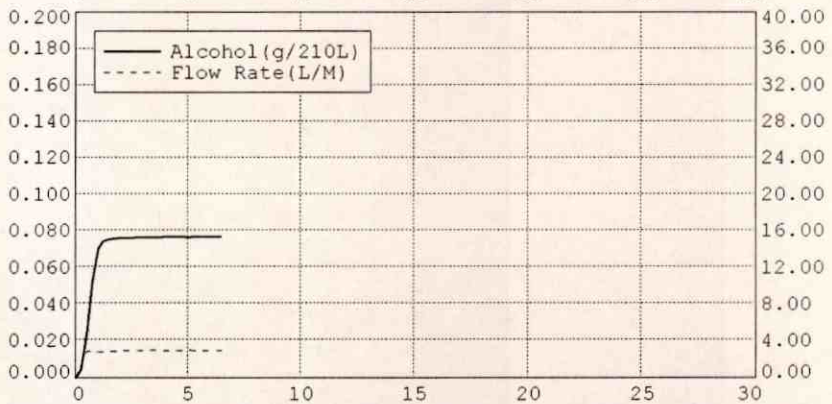
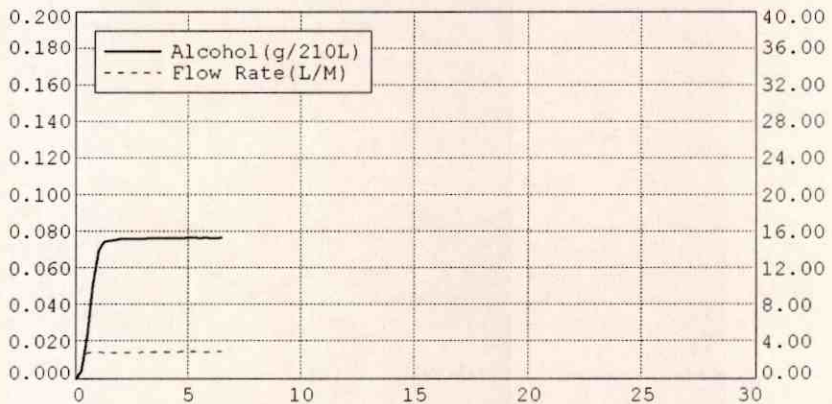
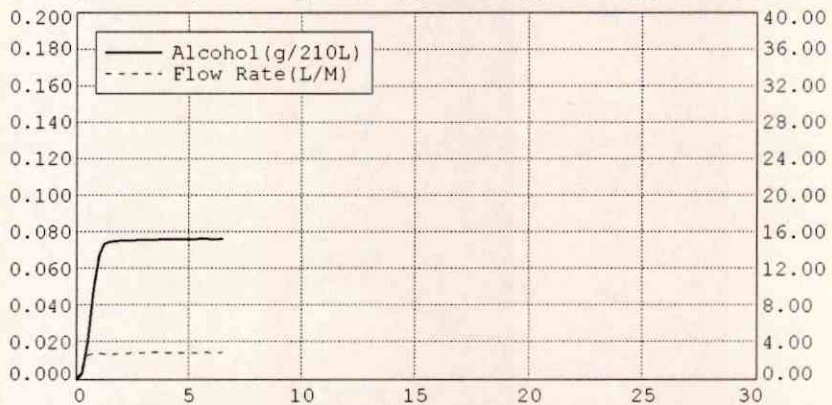
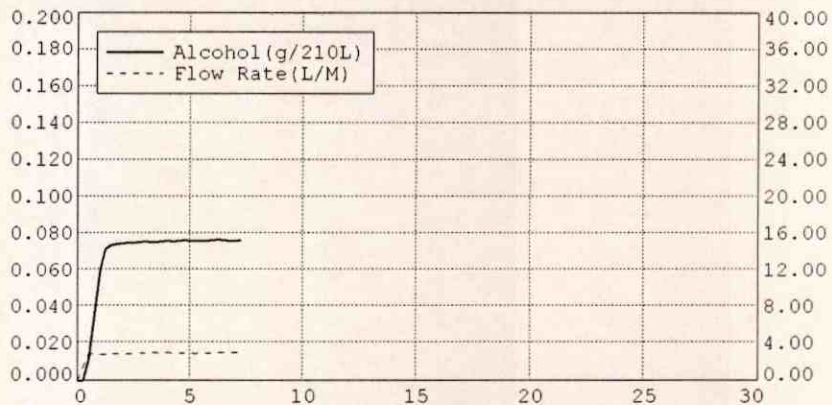
Date: 11/13/2019  
 Time: 10:39:17

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.24: 0.078  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 975 psi

BLANK TEST	0.000	10:40
INTERNAL STANDARD	VERIFIED	10:40
EXTERNAL STANDARD	0.077	10:40
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.077	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.078	10:42
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.077	10:44
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.078	10:45
BLANK TEST	0.000	10:46

Average = 0.0774  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100391

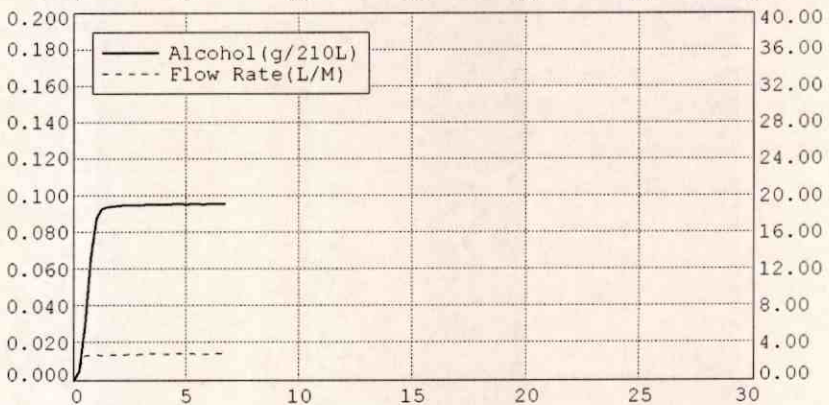
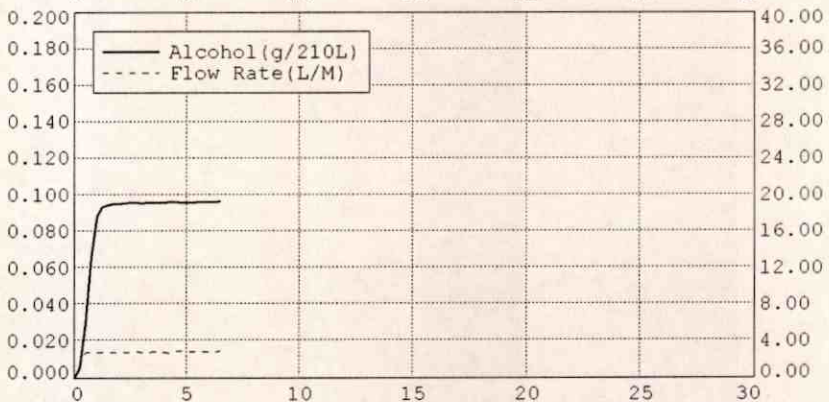
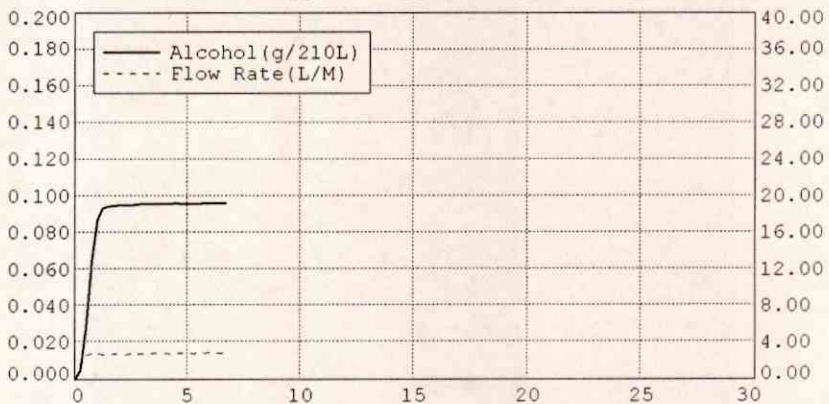
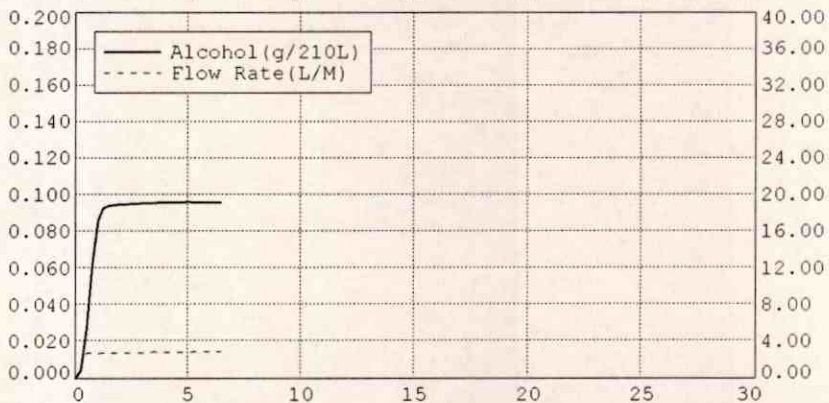
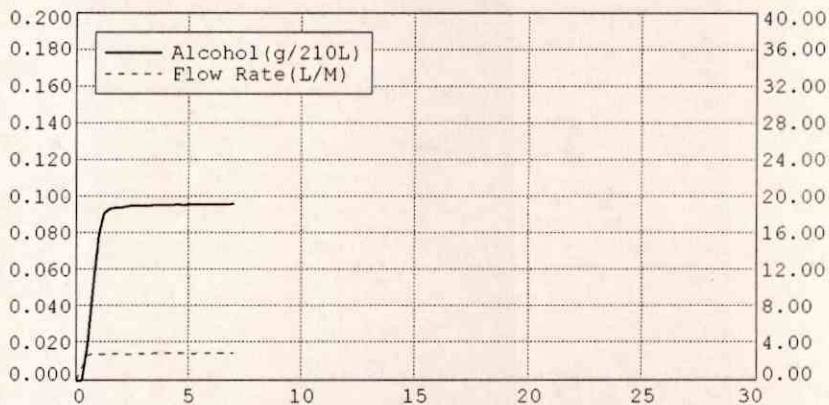
Date: 11/13/2019  
 Time: 10:48:36

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.23: 0.098  
 LOT #: AG805903  
 EXPIRATION: 02/28/2020  
 TANK PRESSURE: 776 psi

BLANK TEST	0.000	10:49
INTERNAL STANDARD	VERIFIED	10:49
EXTERNAL STANDARD	0.096	10:50
BLANK TEST	0.000	10:50
EXTERNAL STANDARD	0.097	10:51
BLANK TEST	0.000	10:52
EXTERNAL STANDARD	0.097	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.097	10:53
BLANK TEST	0.000	10:54
EXTERNAL STANDARD	0.096	10:54
BLANK TEST	0.000	10:55

Average = 0.0966  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 5

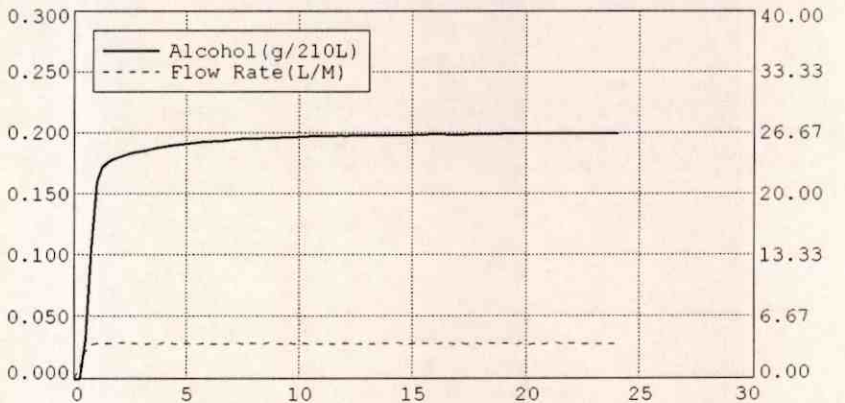
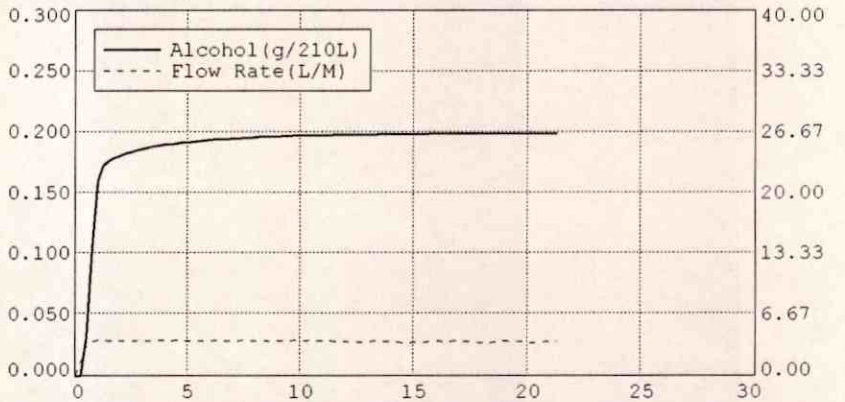
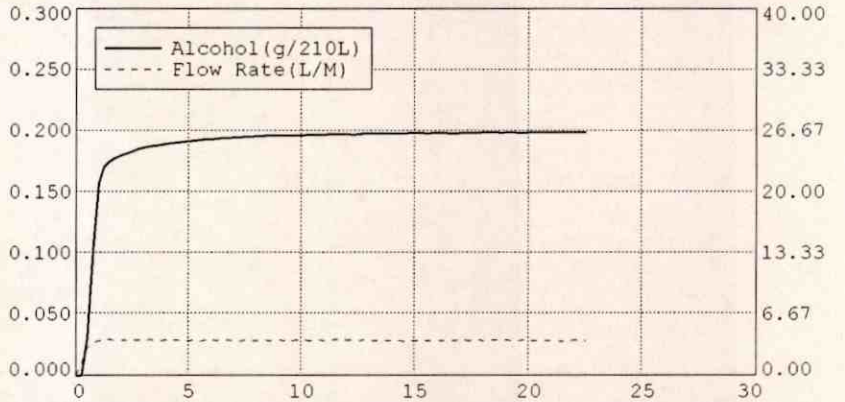
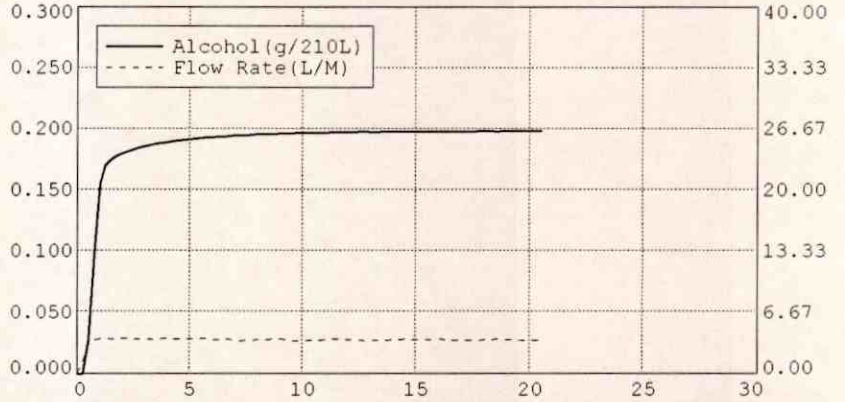
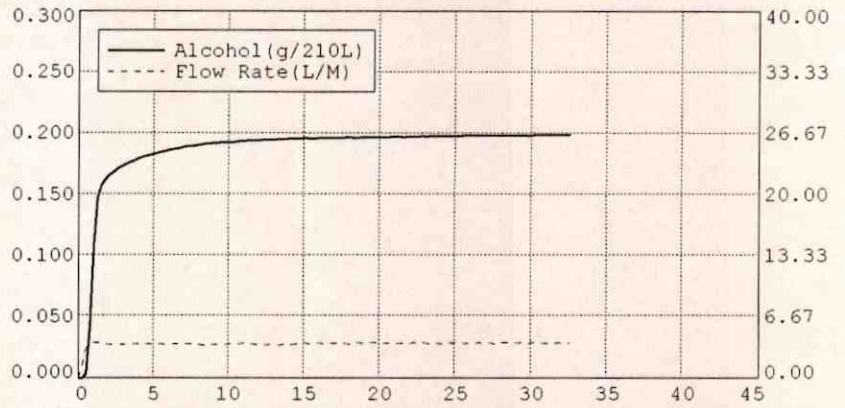
Alaska Department of Public Safety  
 DATAMASTER dmt: 100391

Date: 11/13/2019  
 Time: 10:57:23

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: GUTH 19040  
 EXPIRATION: 01/29/2021

BLANK TEST	0.000	10:59
INTERNAL STANDARD	VERIFIED	10:59
EXTERNAL STANDARD	0.199	11:00
BLANK TEST	0.000	11:00
EXTERNAL STANDARD	0.199	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.199	11:02
BLANK TEST	0.000	11:03
EXTERNAL STANDARD	0.199	11:04
BLANK TEST	0.000	11:05
EXTERNAL STANDARD	0.200	11:05
BLANK TEST	0.000	11:06

Average = 0.1992  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100391

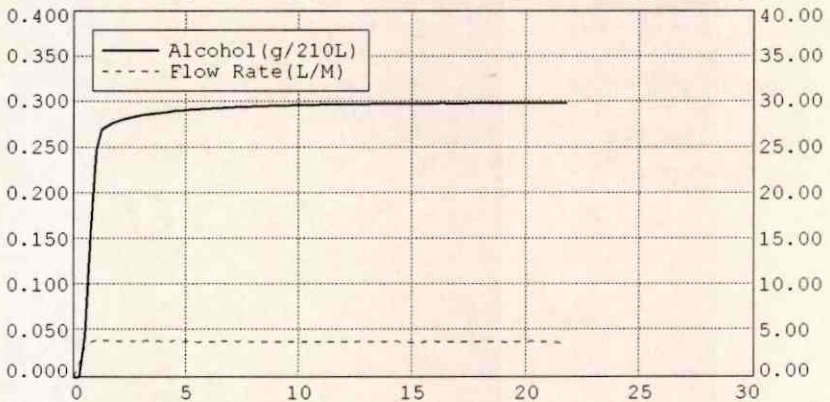
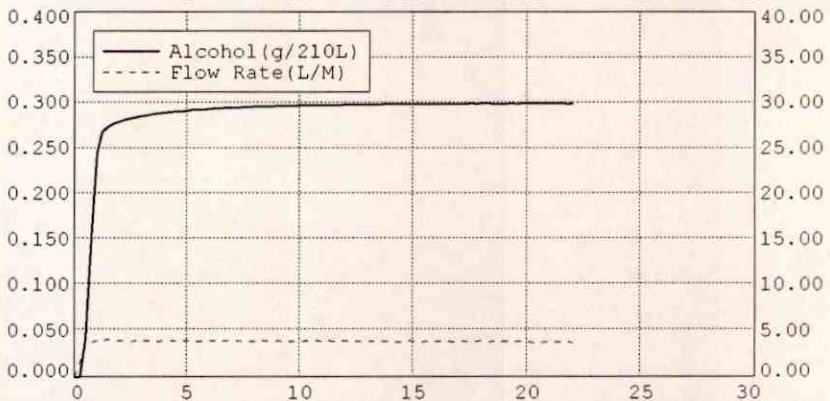
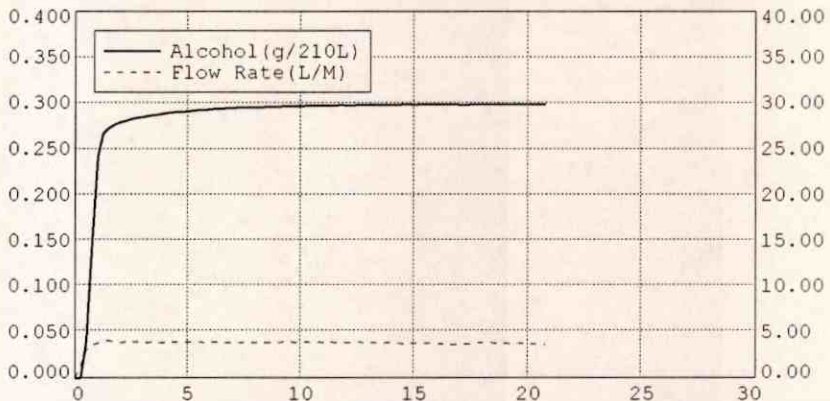
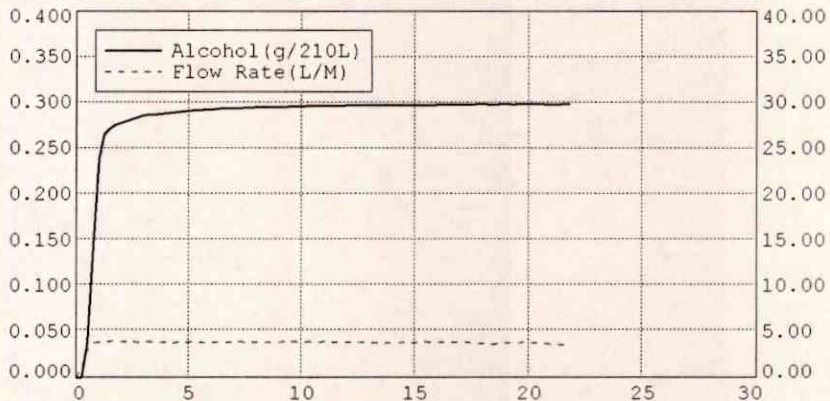
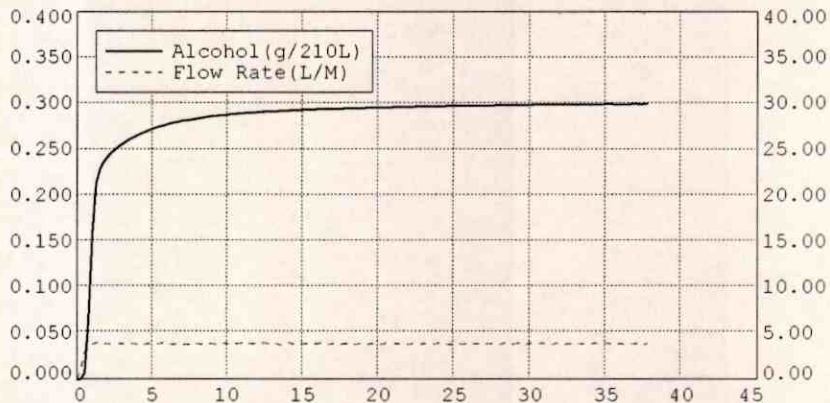
Date: 11/13/2019  
 Time: 11:28:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: GUTH 19010  
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	11:29
INTERNAL STANDARD	VERIFIED	11:30
EXTERNAL STANDARD	0.299	11:30
BLANK TEST	0.000	11:31
EXTERNAL STANDARD	0.298	11:32
BLANK TEST	0.000	11:33
EXTERNAL STANDARD	0.298	11:33
BLANK TEST	0.000	11:34
EXTERNAL STANDARD	0.298	11:34
BLANK TEST	0.000	11:35
EXTERNAL STANDARD	0.298	11:36
BLANK TEST	0.000	11:37

Average = 0.2982  
 Std Dev = 0.0004



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100391  
-----

Date: 11/13/2019  
Time: 13:17:29

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

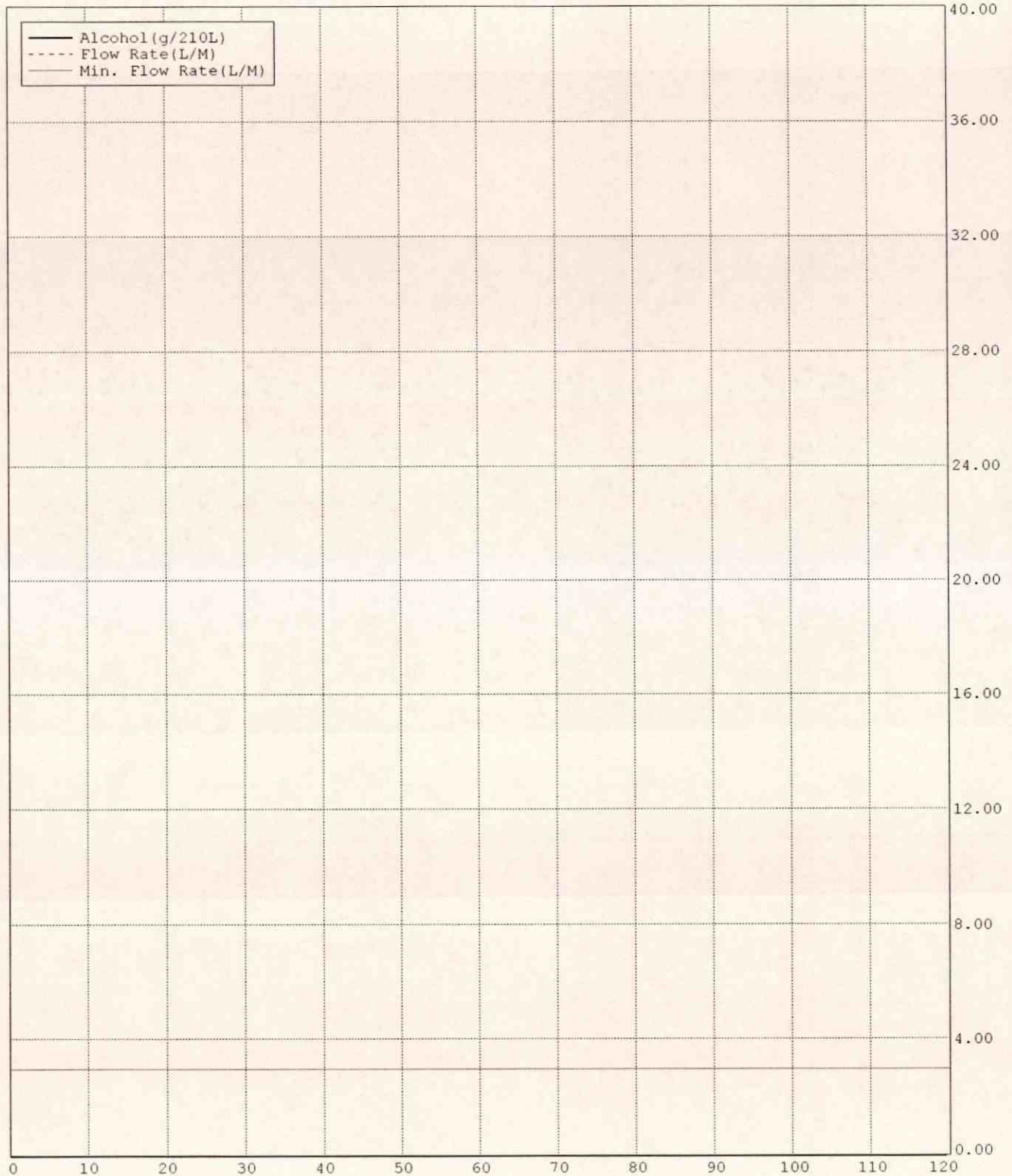
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

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

DIAGNOSTIC CHECK	PASSED	13:18
BLANK TEST	0.000	13:18
INTERNAL STANDARD	VERIFIED	13:18
EXTERNAL STANDARD	0.077	13:19
BLANK TEST	0.000	13:19
SUBJECT SAMPLE	INCOMPLETE	13:22

BMB





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100391

Date: 11/13/2019  
Time: 14:41:48

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

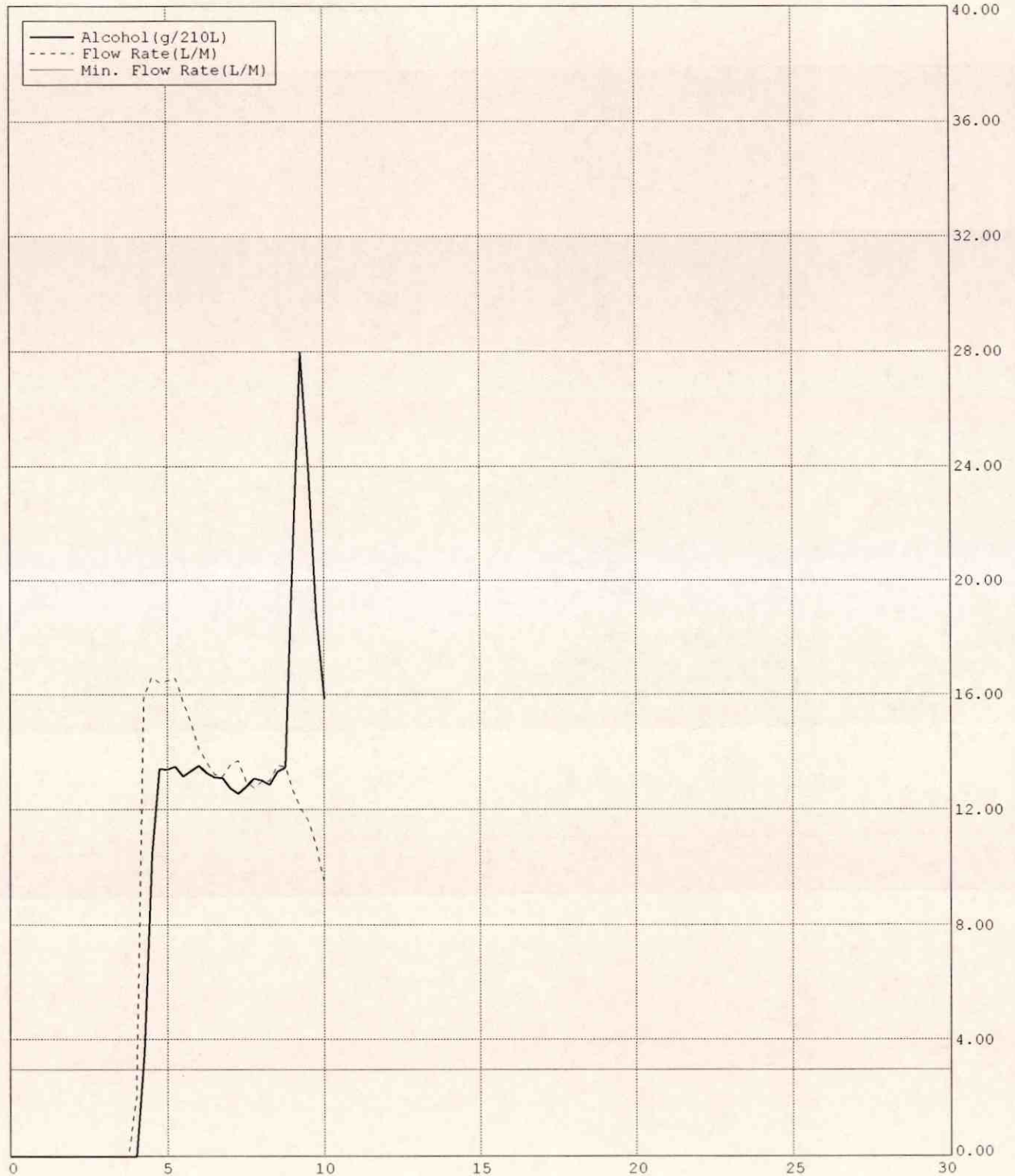
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.12: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	14:42
BLANK TEST	0.000	14:42
INTERNAL STANDARD	VERIFIED	14:43
EXTERNAL STANDARD	0.077	14:43
BLANK TEST	0.000	14:44
SUBJECT SAMPLE	INVALID	14:44

*BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100391

Date: 11/13/2019  
Time: 13:28:15

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

DIAGNOSTIC CHECK	PASSED	13:29
BLANK TEST	0.000	13:29
INTERNAL STANDARD	VERIFIED	13:29
Xq = 0.088 (0.30%)		
EXTERNAL STANDARD	0.076	13:29
X[1] = 0.0763 (-0.0005) (0.0025)		
BLANK TEST	0.000	13:30
SUBJECT SAMPLE	XXX	13:31
X[1] = 0.1073 (-0.0204) (0.0011)		

Interference Detected

Filter 2 Avg: -0.0001

Filter 3 Avg: 0.0020

BMB 11/13/19

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100391

Date: 11/13/2019  
Time: 13:36:05

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

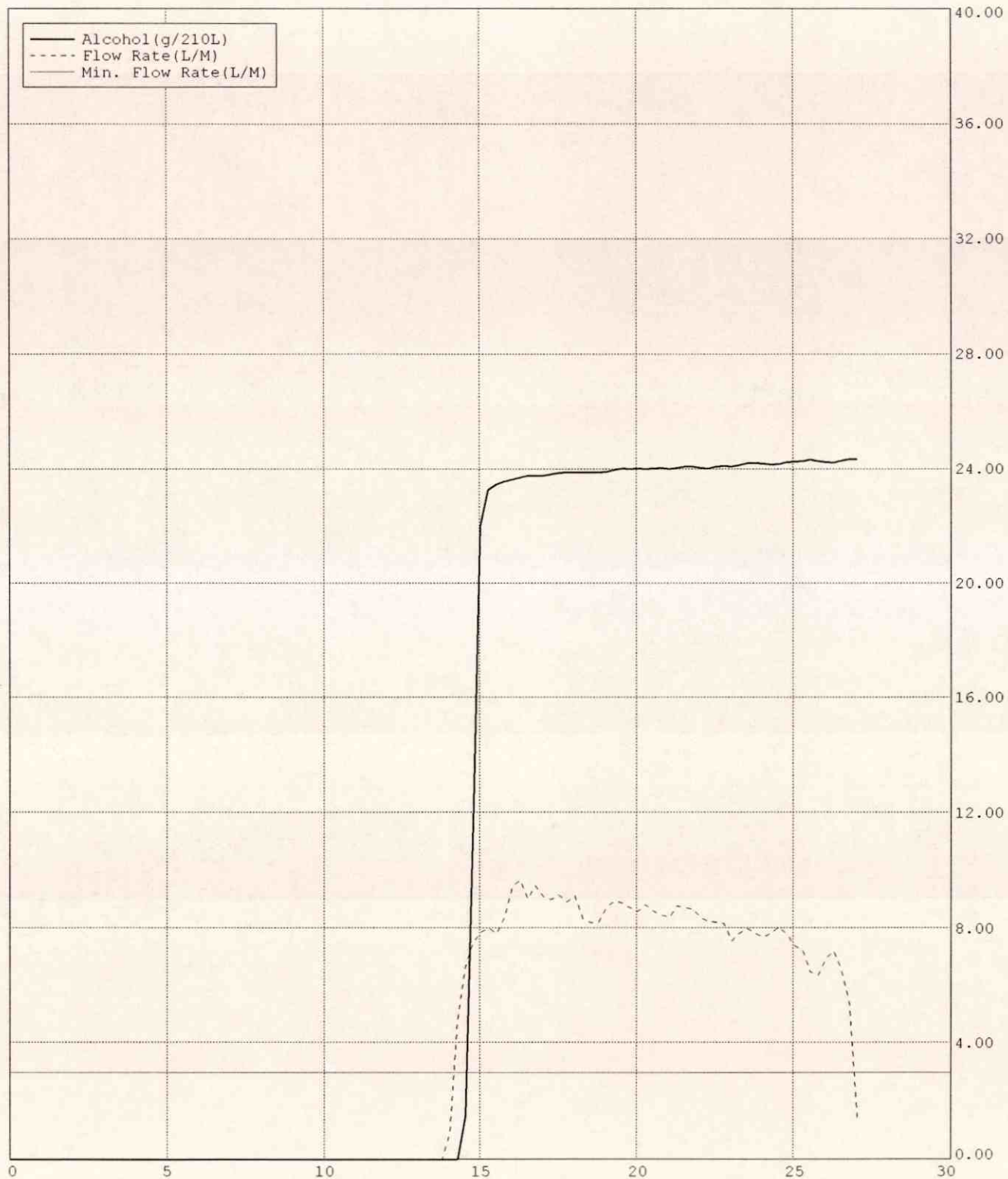
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

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

DIAGNOSTIC CHECK	PASSED	13:37
BLANK TEST	0.000	13:37
INTERNAL STANDARD	VERIFIED	13:37
Xq = 0.089 (0.39%)		
EXTERNAL STANDARD	0.077	13:37
X[1] = 0.0772 (0.0003) (0.0020)		
BLANK TEST	0.000	13:38
SUBJECT SAMPLE	XXX	13:39
X[1] = 0.1220 (-0.0333) (0.0022)		

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100391

Date: 11/13/2019  
Time: 13:41:28

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 29.16: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:42
BLANK TEST	0.000	13:42
INTERNAL STANDARD	VERIFIED	13:42
Xq = 0.089 (0.10%)		
EXTERNAL STANDARD	0.077	13:43
X[1] = 0.0766 (-0.0007) (0.0019)		
BLANK TEST	0.000	13:44
SUBJECT SAMPLE (Vol=1.83L)	0.094	13:44
X[1] = 0.0948 (-0.0005) (0.0008)		
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.077	13:45
X[1] = 0.0767 (0.0005) (0.0017)		
BLANK TEST	0.000	13:46

*AMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100391

Date: 11/13/2019  
Time: 13:51:04

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

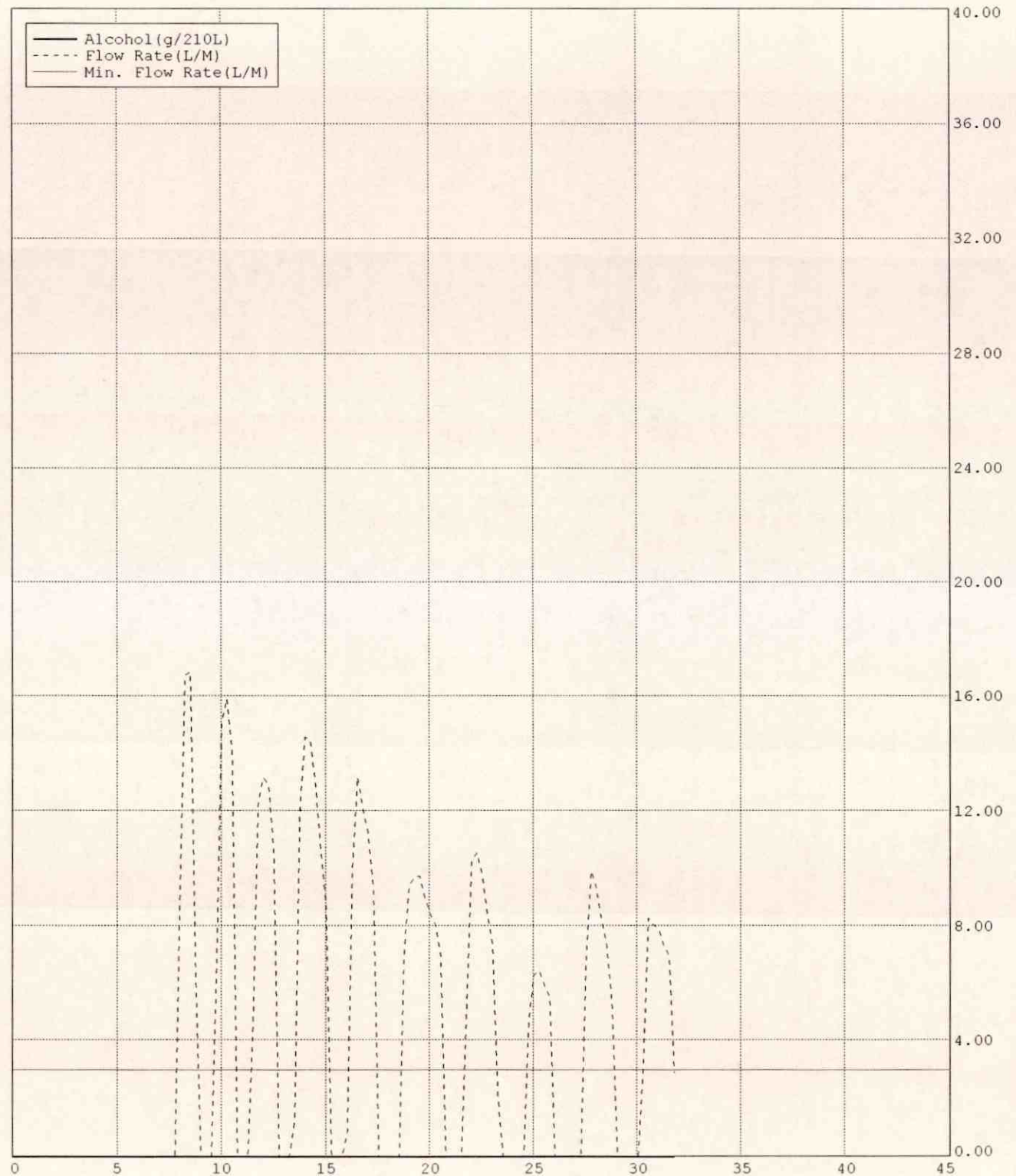
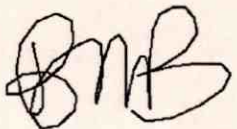
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.14: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:52
BLANK TEST	0.000	13:52
INTERNAL STANDARD	VERIFIED	13:52
EXTERNAL STANDARD	0.077	13:52
BLANK TEST	0.000	13:53
SUBJECT SAMPLE	XXX	13:54

Maximum Attempts Exceeded



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100391  
-----

Date: 11/13/2019  
Time: 14:46:55

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

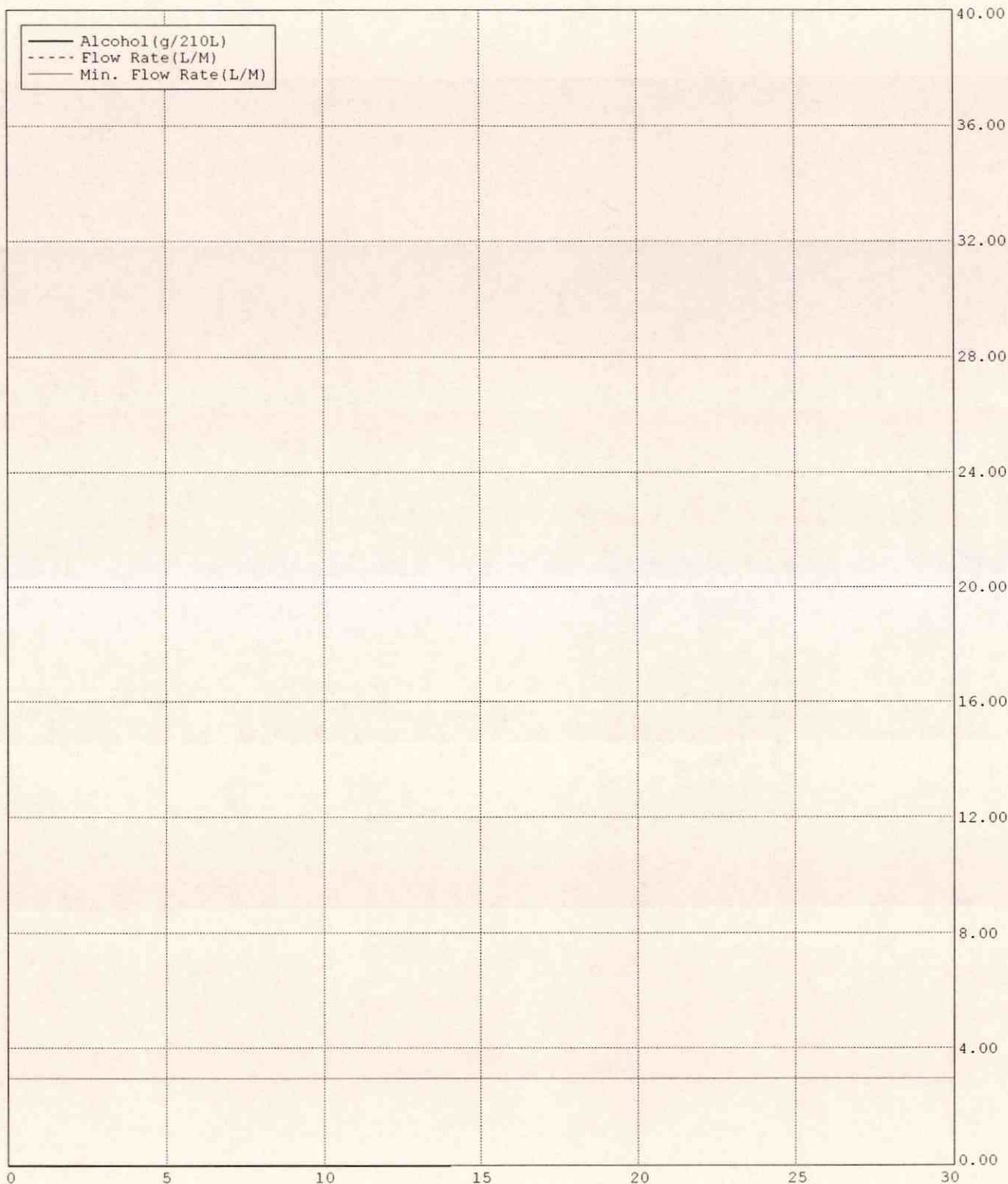
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.12: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	14:50
BLANK TEST	0.000	14:50
INTERNAL STANDARD	VERIFIED	14:50
EXTERNAL STANDARD	0.077	14:50
BLANK TEST	0.000	14:51

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100391

Date: 11/13/2019  
Time: 15:05:13

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 29.11: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	15:06
BLANK TEST	0.000	15:06
INTERNAL STANDARD	VERIFIED	15:06
EXTERNAL STANDARD	0.078	15:06
BLANK TEST	0.000	15:07
SUBJECT SAMPLE (Vol=2.47L)	0.000	15:08
BLANK TEST	0.000	15:09
EXTERNAL STANDARD	0.077	15:09
BLANK TEST	0.000	15:10

