

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 05/15/2020  
Effective: 05/15/2020

Version: DMCEF 2020 R0  
Status: Active

Instrument S/N 100359 Analyst Brandi Barnett Start Date 6/10/20

- Diagnostic Test (attached)  Internal Standard value  $\leq$  3.00%

### Voltage Checks

- 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)

- Set RFI  
 Adjust barometer reading to match NIST traceable barometer  
 Adjust volume setting, if needed (1.5L +/- 0.1L)  
 Print Technician Screen (attached)  
 Print Calibration Factors (attached)  
 Volume Test - Minimum 1.5 L (1.3L to 1.7L)

### Linearity Test (attached)

#### Levels Used

- i. 0.020g/210L Mnf Airgas Lot AG 928203 Exp 10/9/21
- ii. 0.040g/210L Mnf Airgas Lot AG 915607 Exp 6/5/21
- iii. 0.080g/210L Mnf Airgas Lot AG 826101 Exp 9/18/20
- iv. 0.100g/210L Mnf Airgas Lot AG 924701 Exp 9/4/21
- v. 0.200g/210L Mnf Guth Lot 19200 Exp 8/6/21  
Simulator S/N SD1200 Date Calibrated 10/8/19
- vi. 0.300g/210L Mnf Guth Lot 19330 Exp 11/13/21  
Simulator S/N DR4177 Date Calibrated 10/8/19

### Functional Tests (attached)

- Incomplete  Invalid  
 Interference

- i. Acetone - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/21  
Simulator S/N DR4162 Date Calibrated 10/7/19
- ii. Isopropanol - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/21  
Simulator S/N DR4163 Date Calibrated 10/4/19
- iii. Negative Control - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/21  
Simulator S/N SD1176 Date Calibrated 10/7/19

- Exceeded Attempts  RFI

- Verify stylus is calibrated  Verification of Calibration  
 Reset Options  Non-Drinking Subject Test (attached)  
 Clear Memory  Upload  
 Remove tank prior to shut down  Add Linearity Data to Spreadsheet

End Date 6/11/20

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100359  
-----

Date: 06/10/2020  
Time: 10:51:00

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.2°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.50 V PASSED  
(0.90 V - 2.10 V)  
Cooler Voltage = 1.51 V PASSED  
(0.89 V - 2.07 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 527 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.7 in

PUMP INFO

Flow Rate = 4.463 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  
(0.005 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD PASSED

Xq = 0.104 2.16% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100359  
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Date: 06/10/2020  
Time: 11:14 AM

Temperatures (°C)  
Sample Cell: 48.9°C  
Breath Tube: 45.7°C

Current Barometer 29.6 in  
Volume (Ltr) 1.44

Settings  
Lamp: 1.61 V  
Bias: 80 V  
Cooler: 1.51 V  
Chopper: 525 Hz

Voltages (V)  
Flow: 1.04 V  
Detector: -0.013 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100359  
-----

Date: 05/02/2019  
Time: 10:20:36

OPERATOR NAME:  
INTOX I I  
CERTIFICATE #: I

Ca = 0.2000  
CAL = 0.985456    0.800 <= CAL < 1.200  
b1 = 0.0005    0.0000 <= b1 < 0.0040  
b2 = 0.0039    0.0010 <= b2 < 0.0100  
b3 = 0.0006    0.0000 <= b3 < 0.0040  
Xq = 0.1017    0.0500 <= Xq < 0.2000  
a21 = 1.140567    1.050 <= a21 < 1.300  
a31 = 0.401748    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/10/2020  
Time: 11:15:45

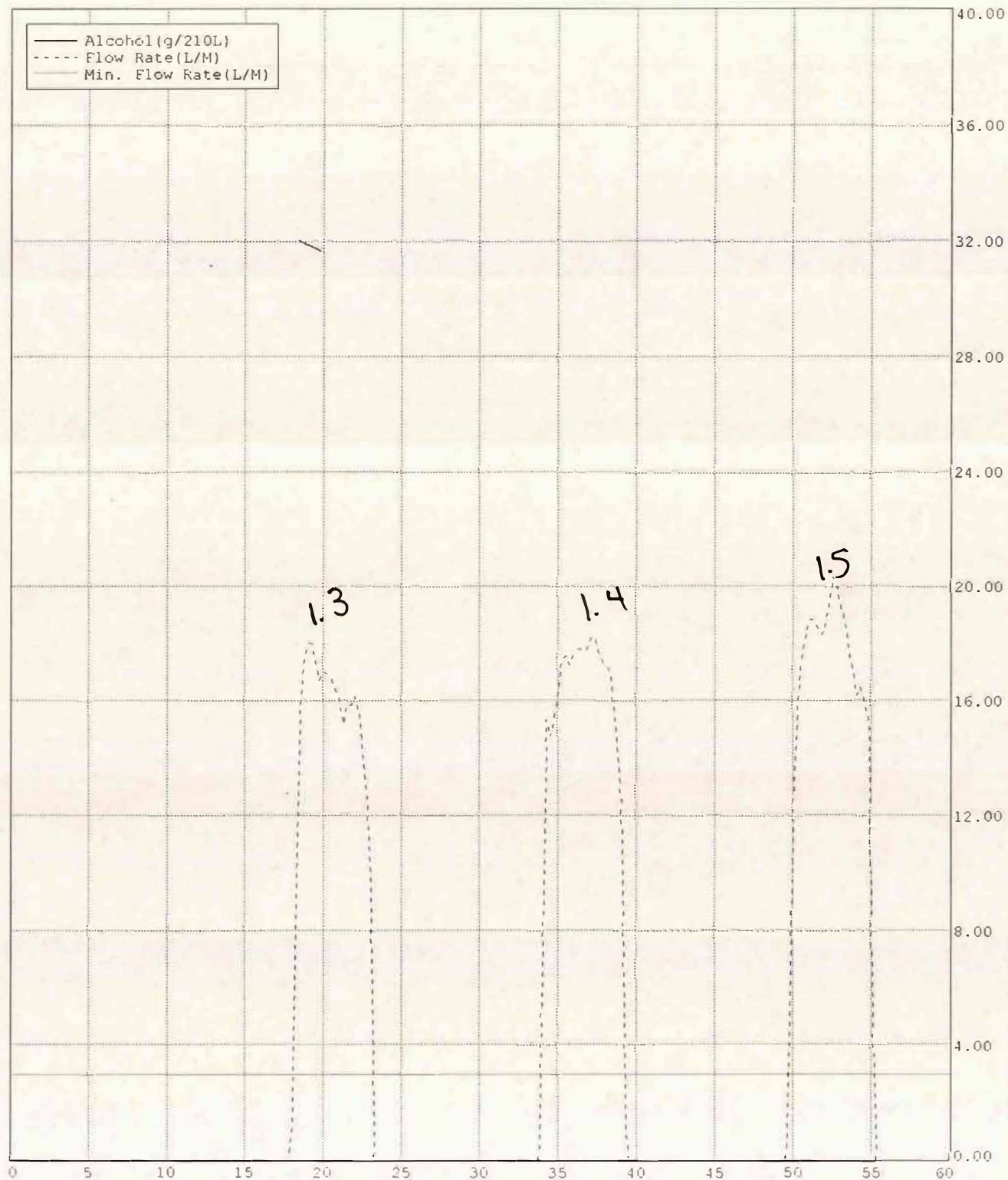
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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 29.65: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	11:17
BLANK TEST	0.000	11:17
INTERNAL STANDARD	VERIFIED	11:17
EXTERNAL STANDARD	0.079	11:17
BLANK TEST	0.000	11:18
SUBJECT SAMPLE (Vol=1.53L)	0.000	11:19
BLANK TEST	0.000	11:20
EXTERNAL STANDARD	0.079	11:20
BLANK TEST	0.000	11:21



LINEARITY CHECK

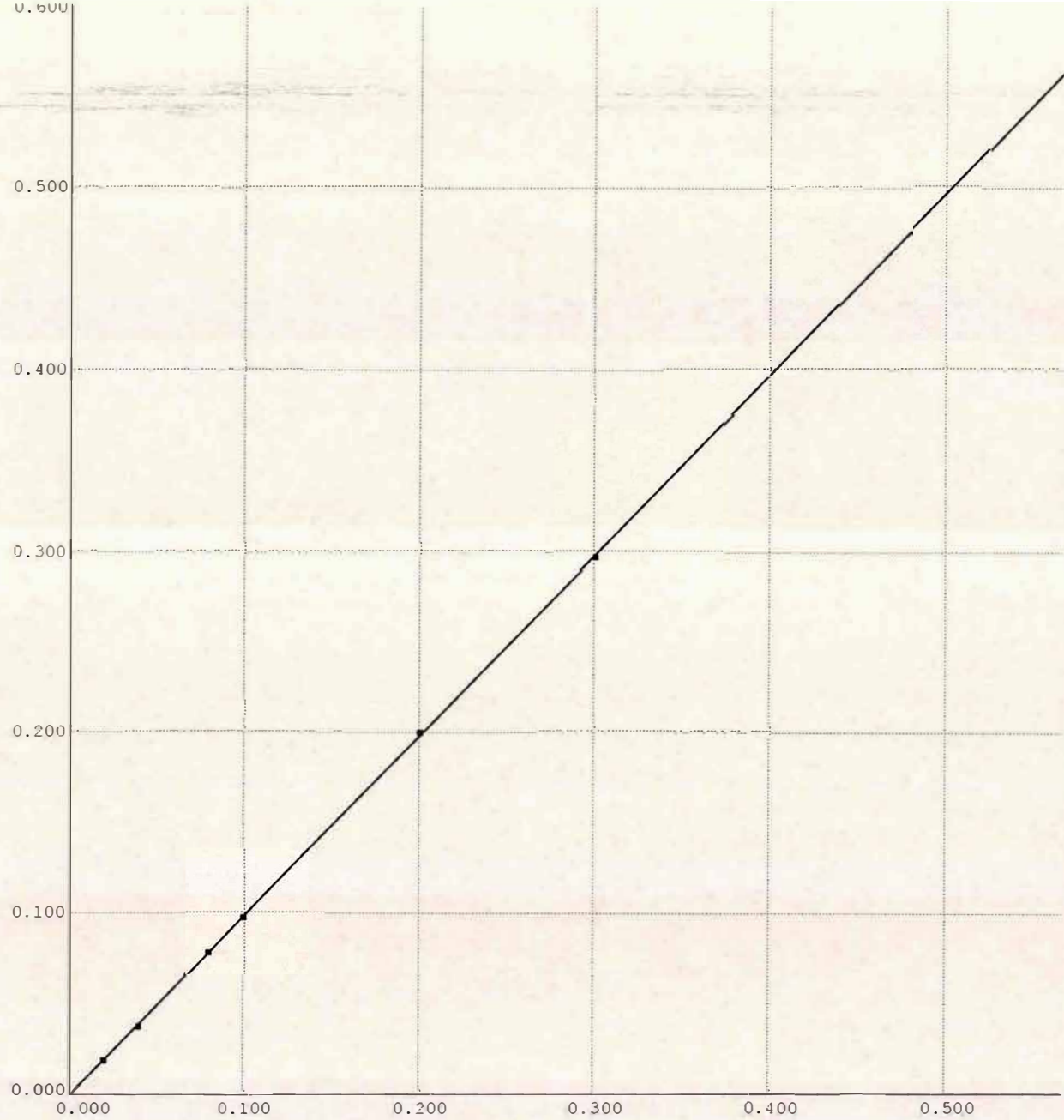
Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/10/2020  
Time: 12:30:26

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0198	0.0008
0.040	0.0386	0.0005
0.079	0.0790	0.0000
0.099	0.0980	0.0000
0.200	0.2008	0.0008
0.300	0.2970	0.0007

SLOPE = 0.994611  
R<sup>2</sup> = 0.999874



*Handwritten signature: BB*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100359

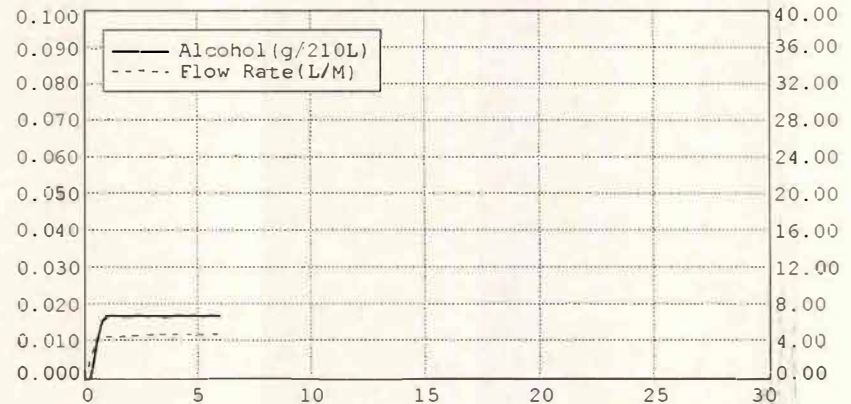
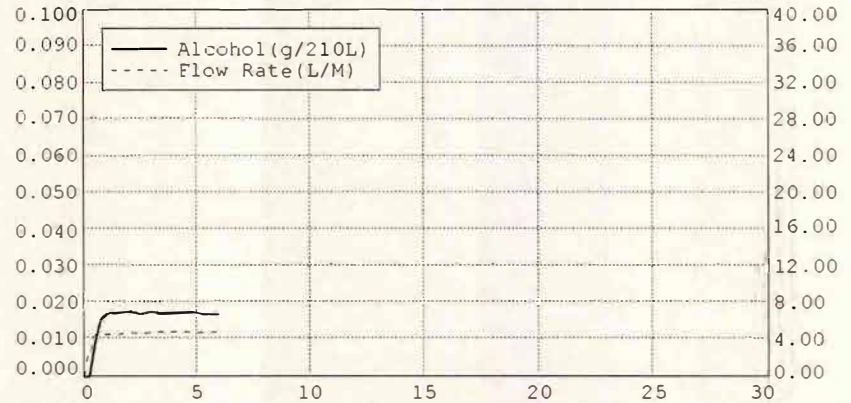
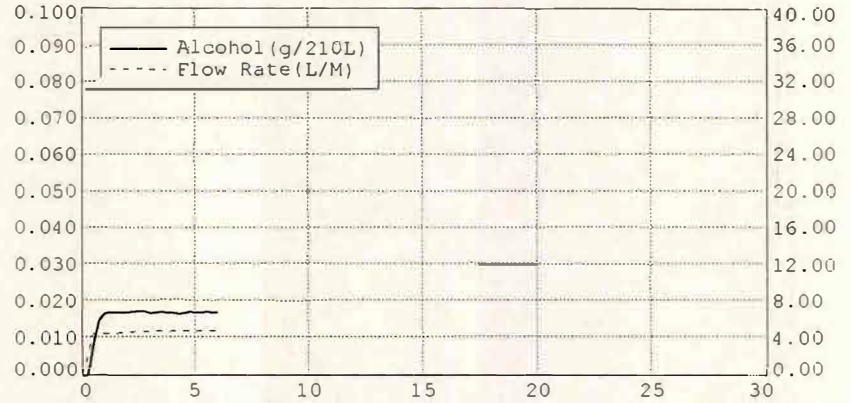
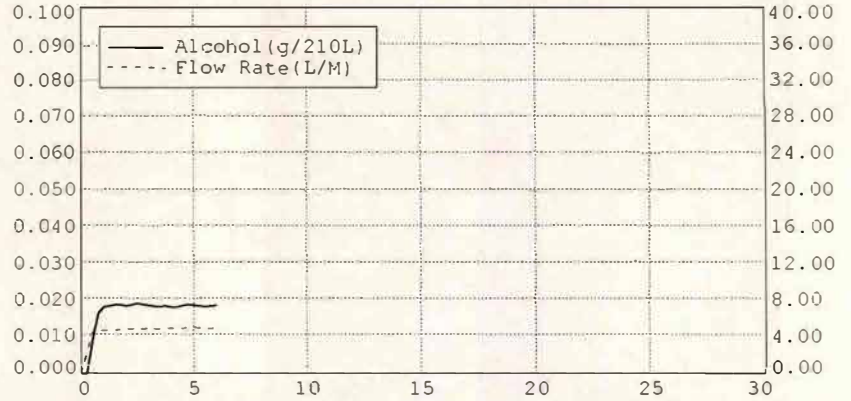
Date: 06/10/2020  
 Time: 12:30:28

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.66: 0.020  
 LOT #: AG928203  
 EXPIRATION: 10/09/2021  
 TANK PRESSURE: 928 psi

BLANK TEST	0.000	12:31
INTERNAL STANDARD	VERIFIED	12:31
EXTERNAL STANDARD	0.020	12:32
BLANK TEST	0.000	12:32
EXTERNAL STANDARD	0.021	12:33
BLANK TEST	0.000	12:34
EXTERNAL STANDARD	0.019	12:34
BLANK TEST	0.000	12:35
EXTERNAL STANDARD	0.019	12:35
BLANK TEST	0.000	12:36
EXTERNAL STANDARD	0.020	12:36
BLANK TEST	0.000	12:37

Average = 0.0198  
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100359

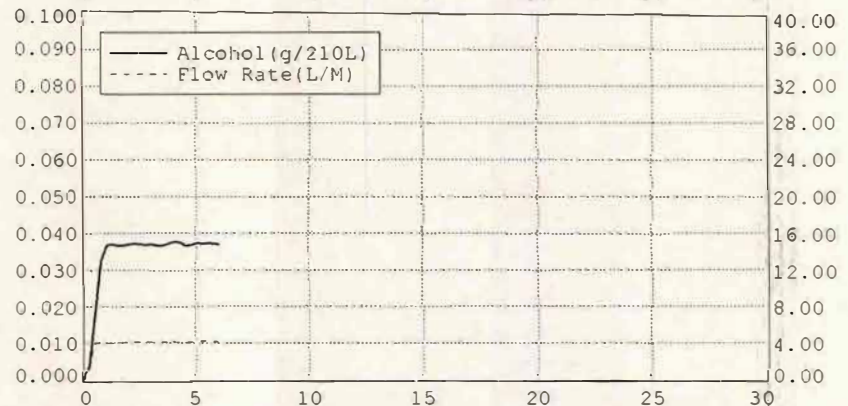
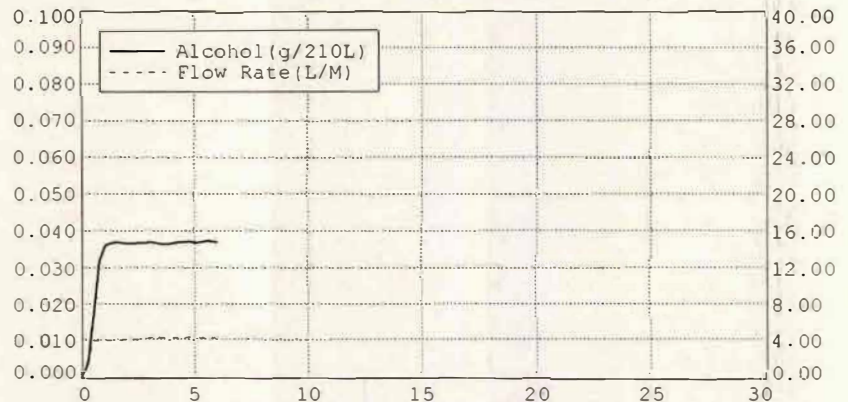
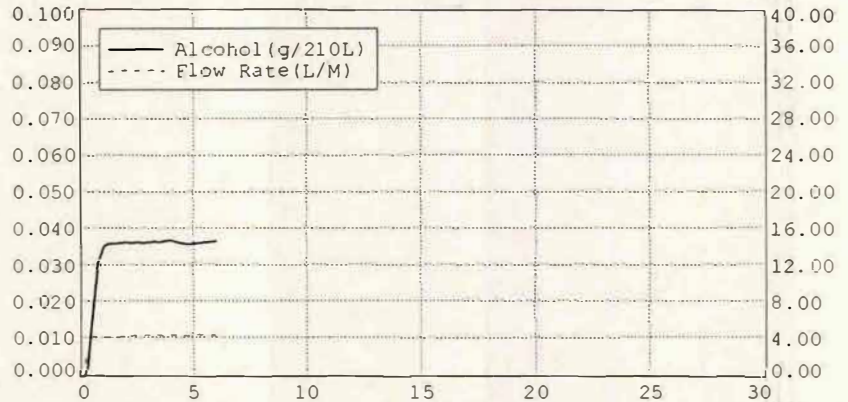
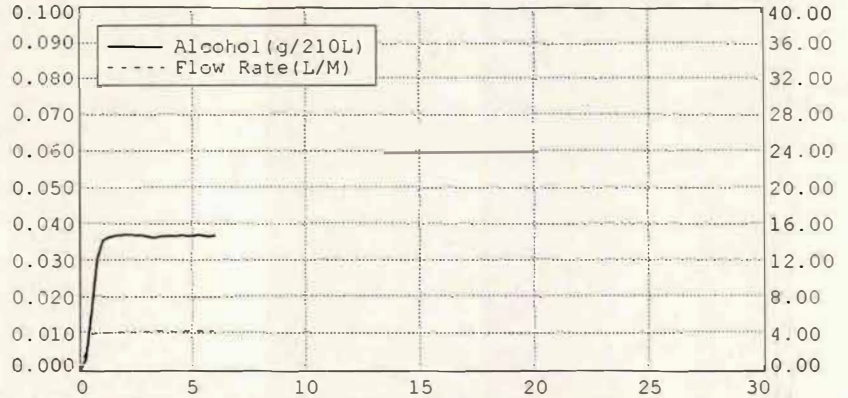
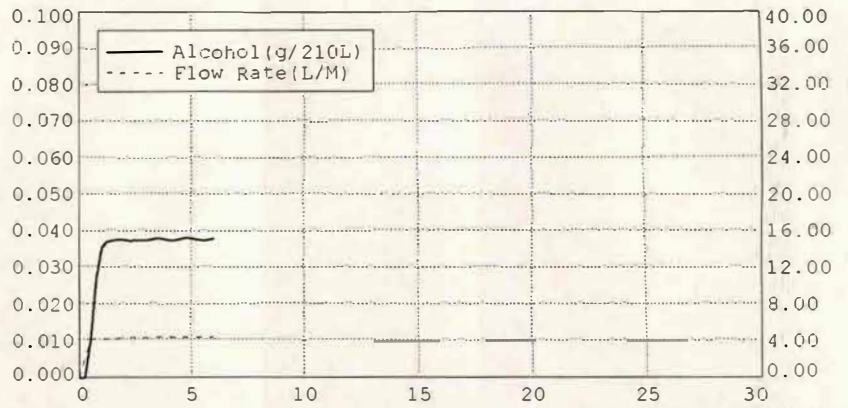
Date: 06/10/2020  
 Time: 12:43:06

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.66: 0.040  
 LOT #: AG915607  
 EXPIRATION: 06/05/2021  
 TANK PRESSURE: 699 psi

BLANK TEST	0.000	12:44
INTERNAL STANDARD	VERIFIED	12:44
EXTERNAL STANDARD	0.039	12:44
BLANK TEST	0.000	12:45
EXTERNAL STANDARD	0.038	12:45
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.038	12:46
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.039	12:48
BLANK TEST	0.000	12:48
EXTERNAL STANDARD	0.039	12:49
BLANK TEST	0.000	12:50

Average = 0.0386  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
DATAMASTER dmt: 100359

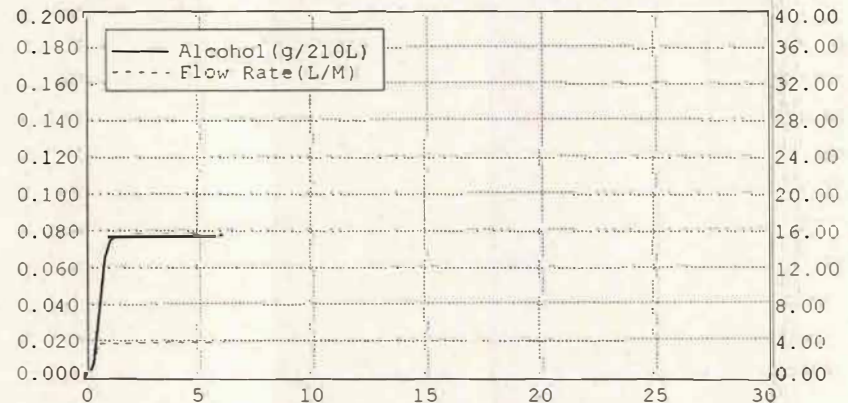
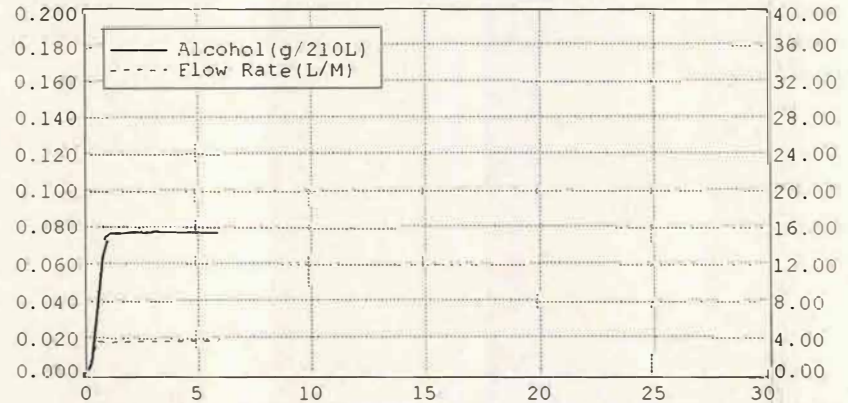
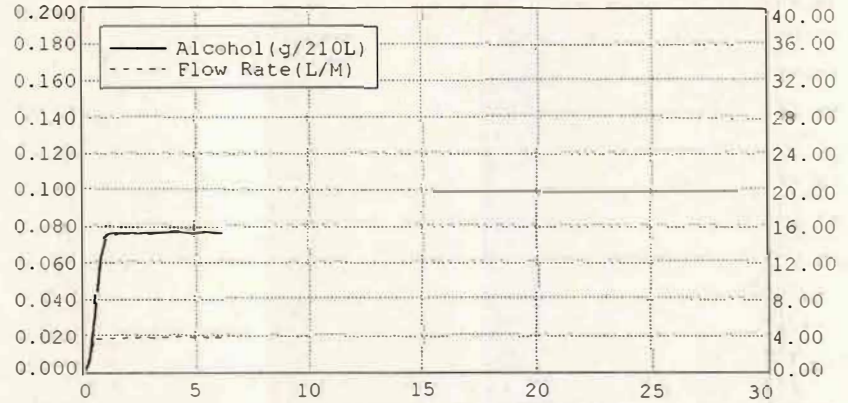
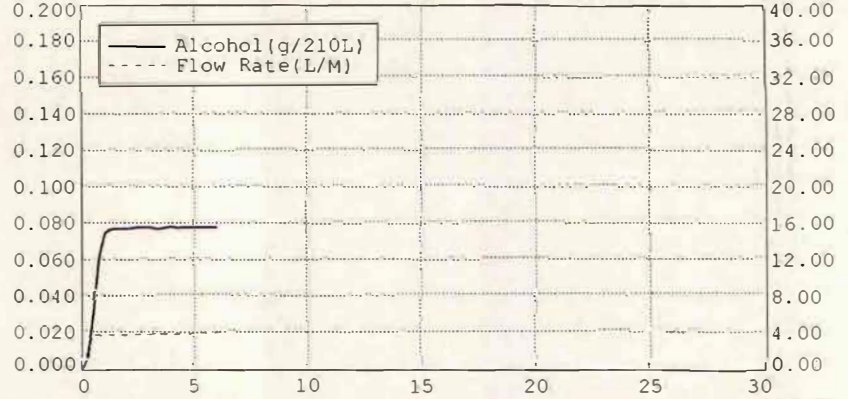
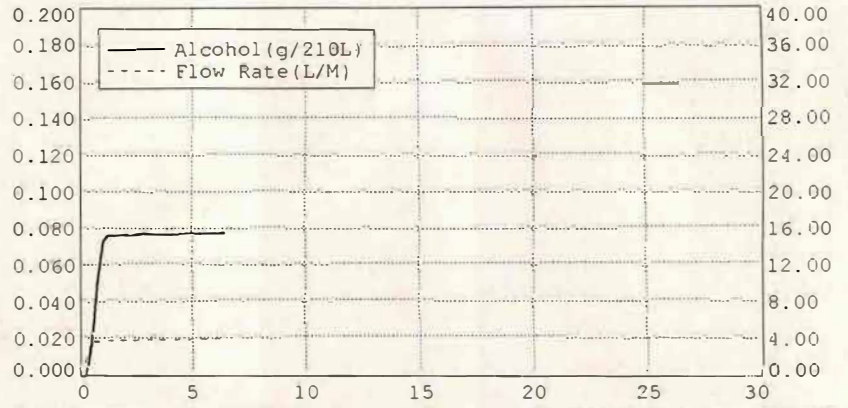
Date: 06/10/2020  
Time: 12:53:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.66: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020  
TANK PRESSURE: 475 psi

BLANK TEST	0.000	12:54
INTERNAL STANDARD	VERIFIED	12:54
EXTERNAL STANDARD	0.079	12:55
BLANK TEST	0.000	12:56
EXTERNAL STANDARD	0.079	12:56
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.079	12:57
BLANK TEST	0.000	12:58
EXTERNAL STANDARD	0.079	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.079	12:59
BLANK TEST	0.000	13:00

Average = 0.0790  
Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100359

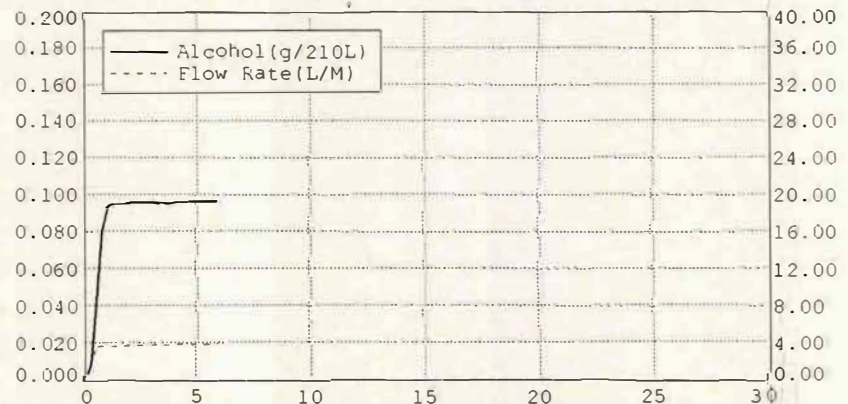
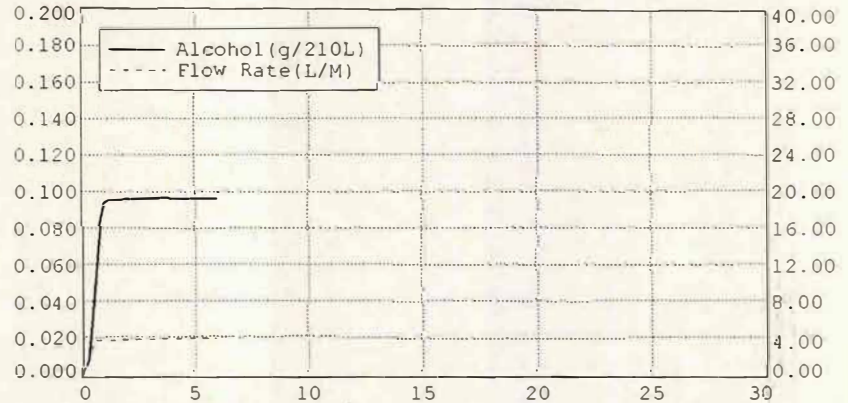
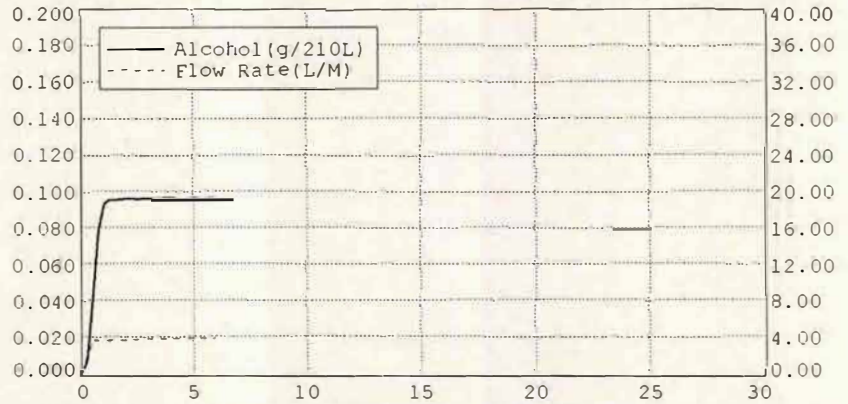
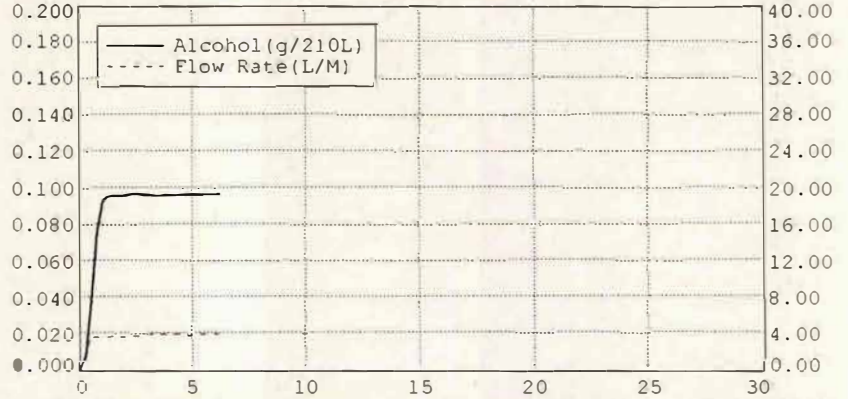
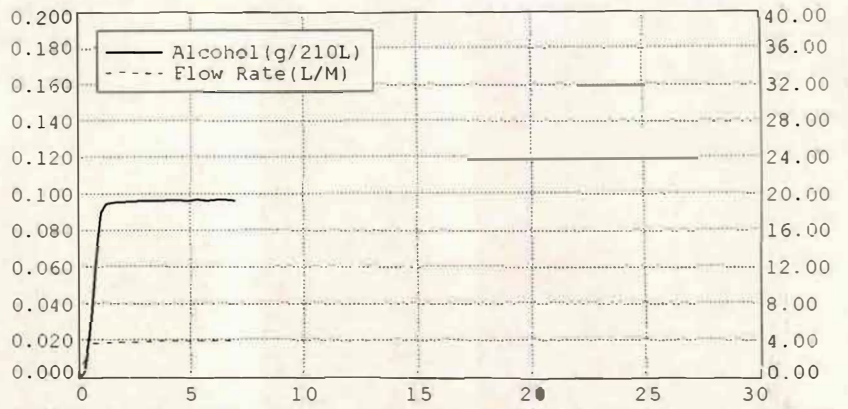
Date: 06/10/2020  
 Time: 13:29:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.67: 0.099  
 LOT #: AG924701  
 EXPIRATION: 09/04/2021  
 TANK PRESSURE: 498 psi

BLANK TEST	0.000	13:30
INTERNAL STANDARD	VERIFIED	13:30
EXTERNAL STANDARD	0.098	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.098	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.098	13:33
BLANK TEST	0.000	13:33
EXTERNAL STANDARD	0.098	13:34
BLANK TEST	0.000	13:35
EXTERNAL STANDARD	0.098	13:35
BLANK TEST	0.000	13:36

Average = 0.0980  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

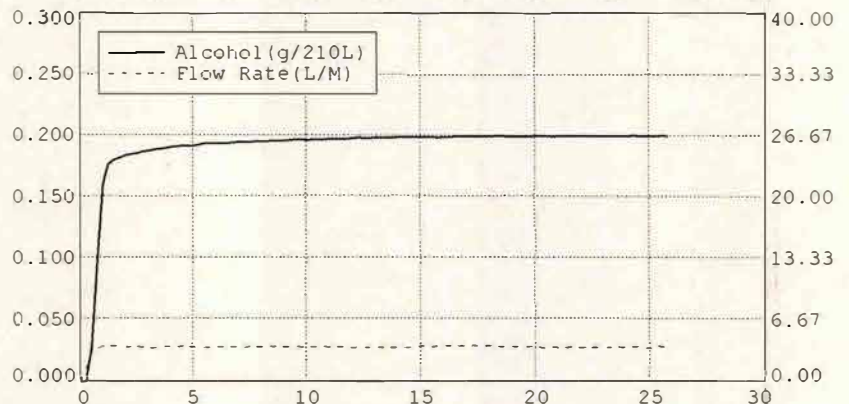
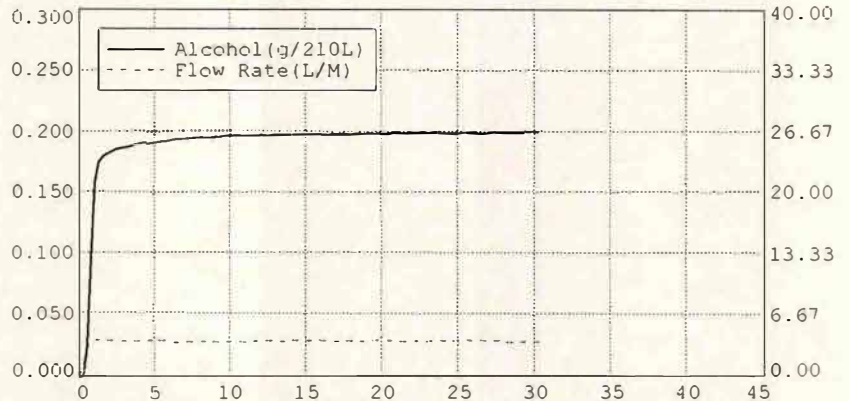
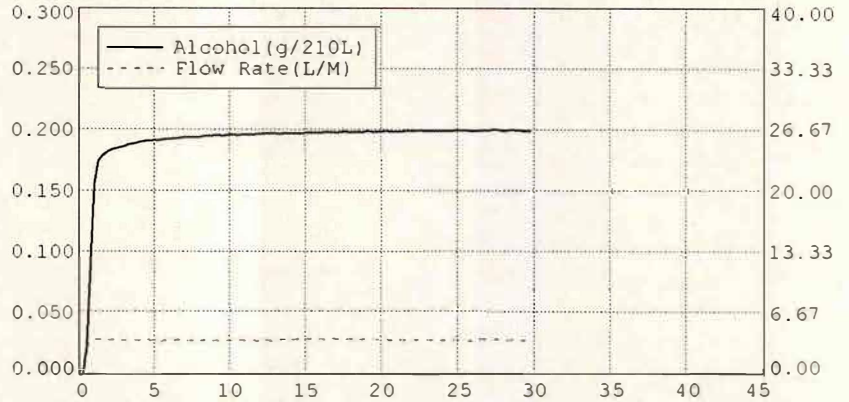
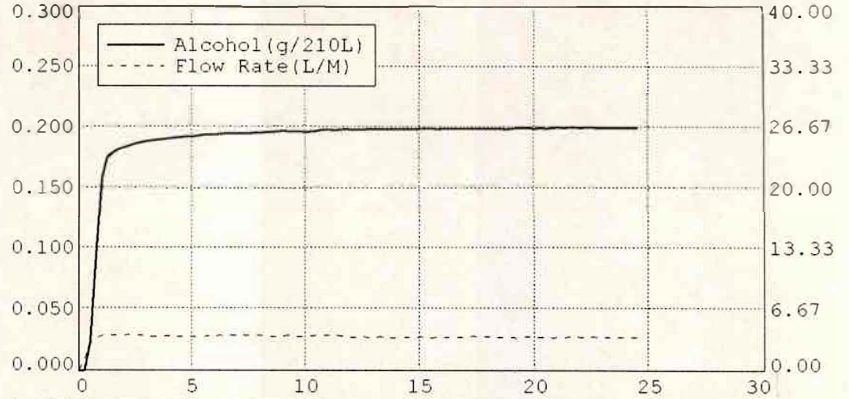
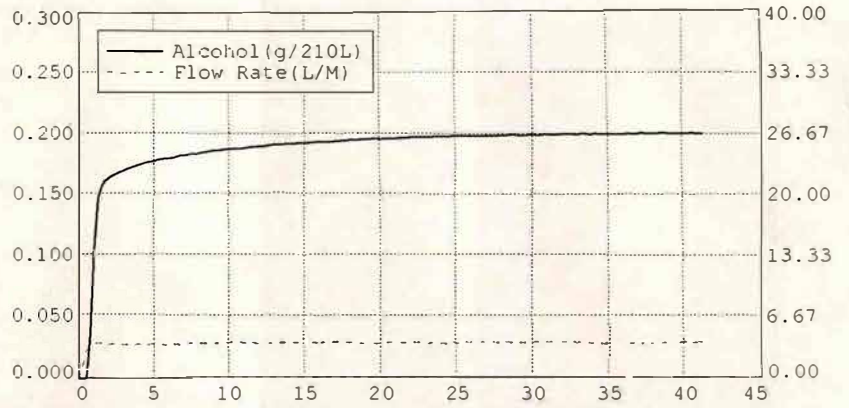
Alaska Department of Public Safety  
 DATAMASTER dmt: 100359

Date: 06/10/2020  
 Time: 13:38:44

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: GUTH 19200  
 EXPIRATION: 08/06/2021

BLANK TEST	0.000	13:40
INTERNAL STANDARD	VERIFIED	13:40
EXTERNAL STANDARD	0.202	13:41
BLANK TEST	0.000	13:42
EXTERNAL STANDARD	0.200	13:42
BLANK TEST	0.000	13:43
EXTERNAL STANDARD	0.201	13:44
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.200	13:45
BLANK TEST	0.000	13:46
EXTERNAL STANDARD	0.201	13:47
BLANK TEST	0.000	13:48

Average = 0.2008  
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 6

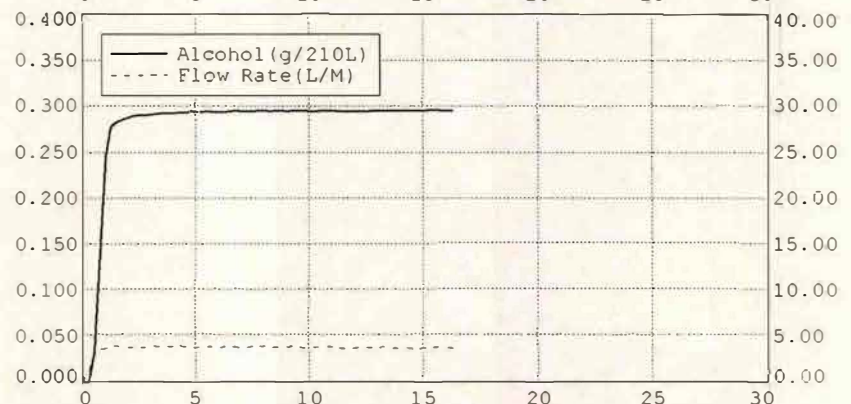
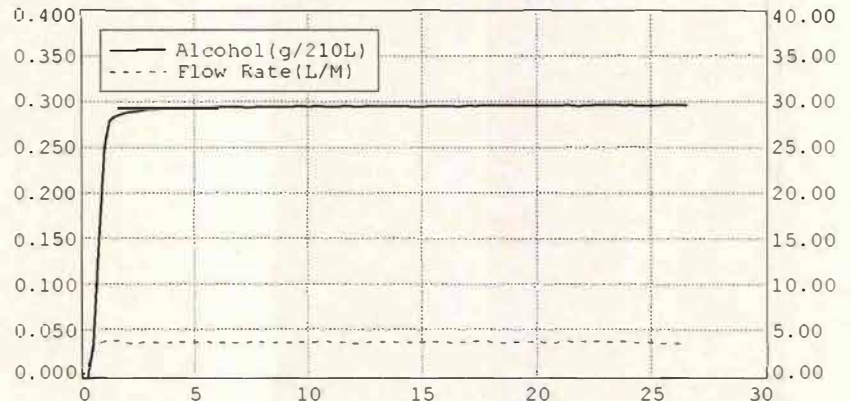
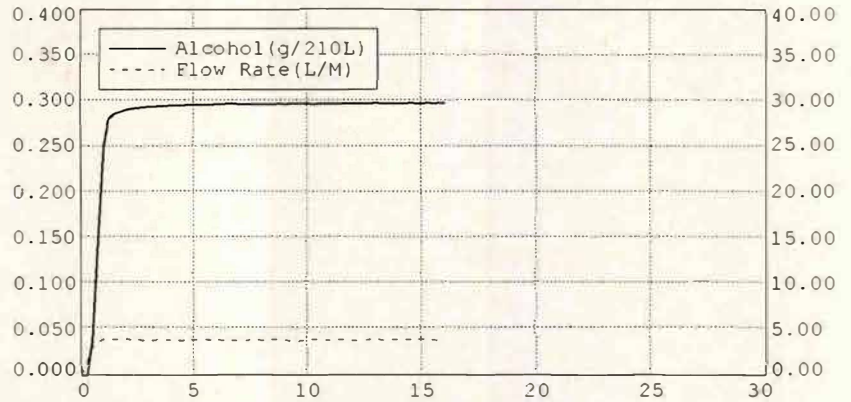
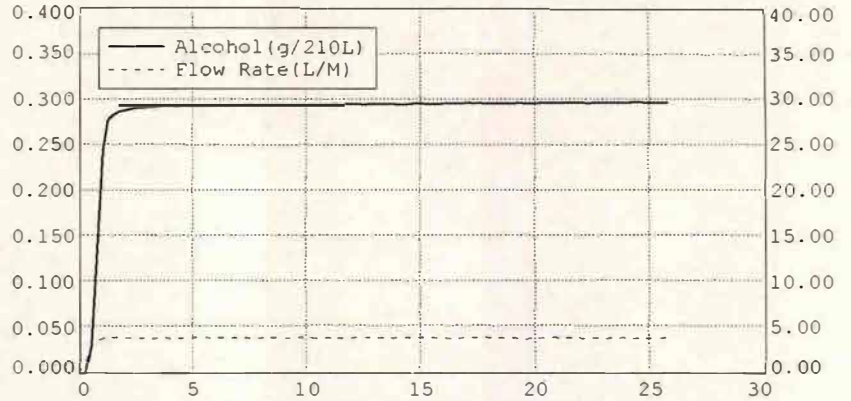
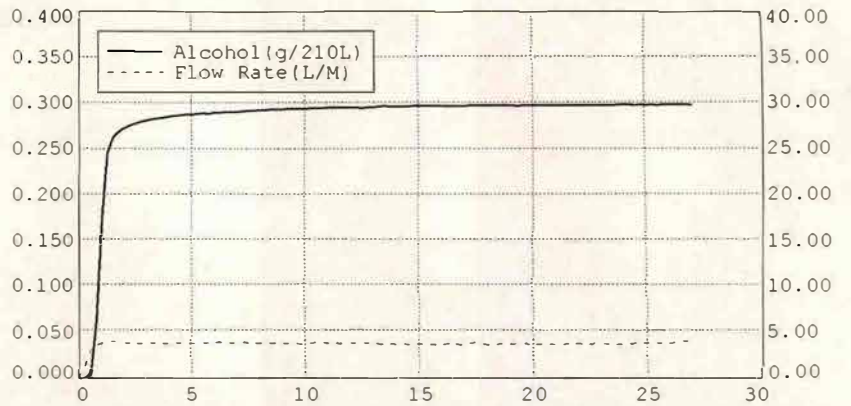
Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/10/2020  
Time: 13:50:41

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.300  
LOT #: GUTH 19330  
EXPIRATION: 11/13/2021

BLANK TEST	0.000	13:51
INTERNAL STANDARD	VERIFIED	13:51
EXTERNAL STANDARD	0.298	13:52
BLANK TEST	0.000	13:53
EXTERNAL STANDARD	0.297	13:53
BLANK TEST	0.000	13:54
EXTERNAL STANDARD	0.297	13:55
BLANK TEST	0.000	13:56
EXTERNAL STANDARD	0.297	13:56
BLANK TEST	0.000	13:57
EXTERNAL STANDARD	0.296	13:57
BLANK TEST	0.000	13:58

Average = 0.2970  
Std Dev = 0.0007



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/11/2020  
Time: 11:01:09

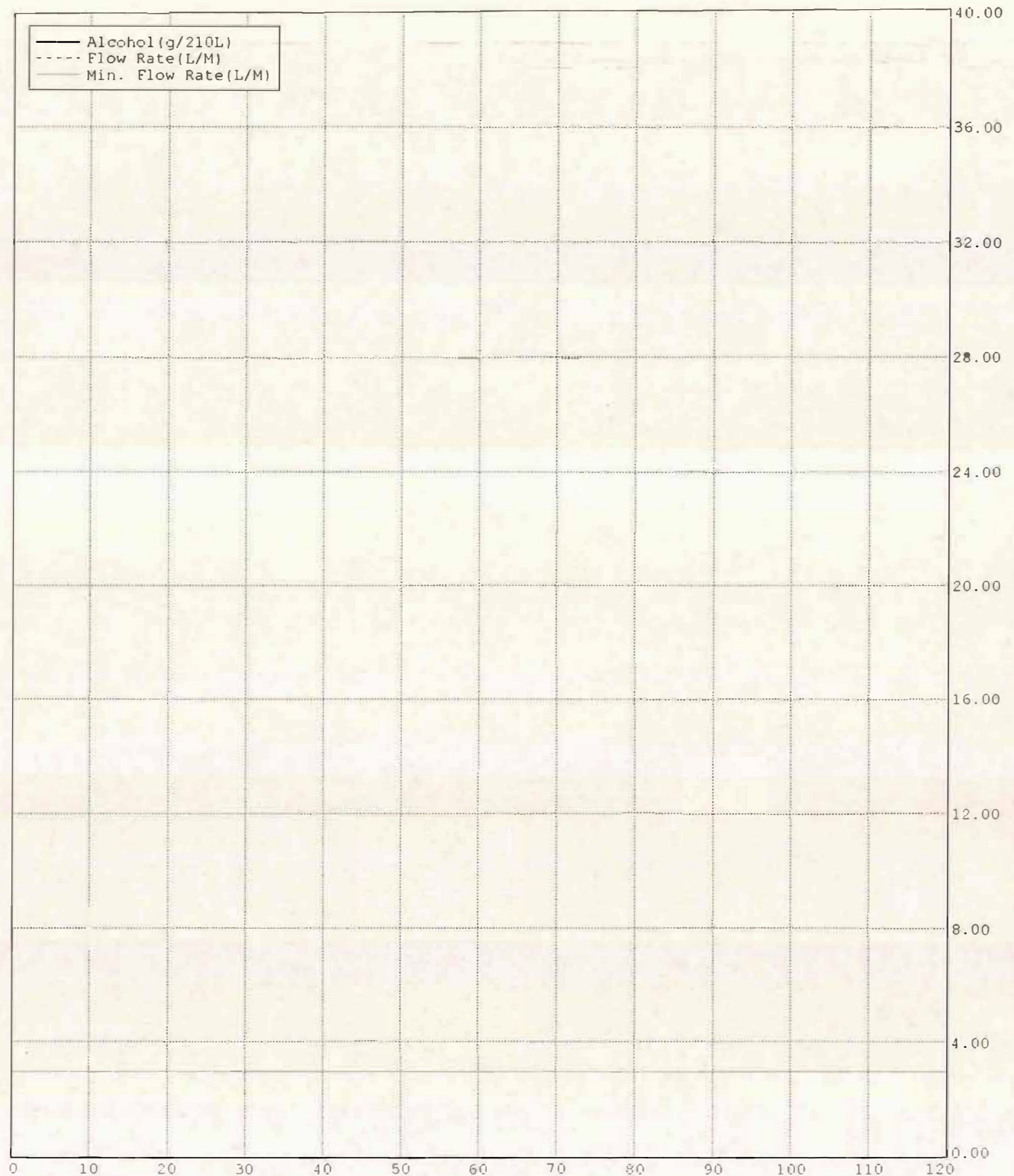
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.82: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	11:02
BLANK TEST	0.000	11:02
INTERNAL STANDARD	VERIFIED	11:02
EXTERNAL STANDARD	0.080	11:02
BLANK TEST	0.000	11:03
SUBJECT SAMPLE	INCOMPLETE	11:05



SUBJECT TEST

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Alaska Department of Public Safety  
DATAMASTER dmt: 100359  
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Date: 06/11/2020  
Time: 11:07:16

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

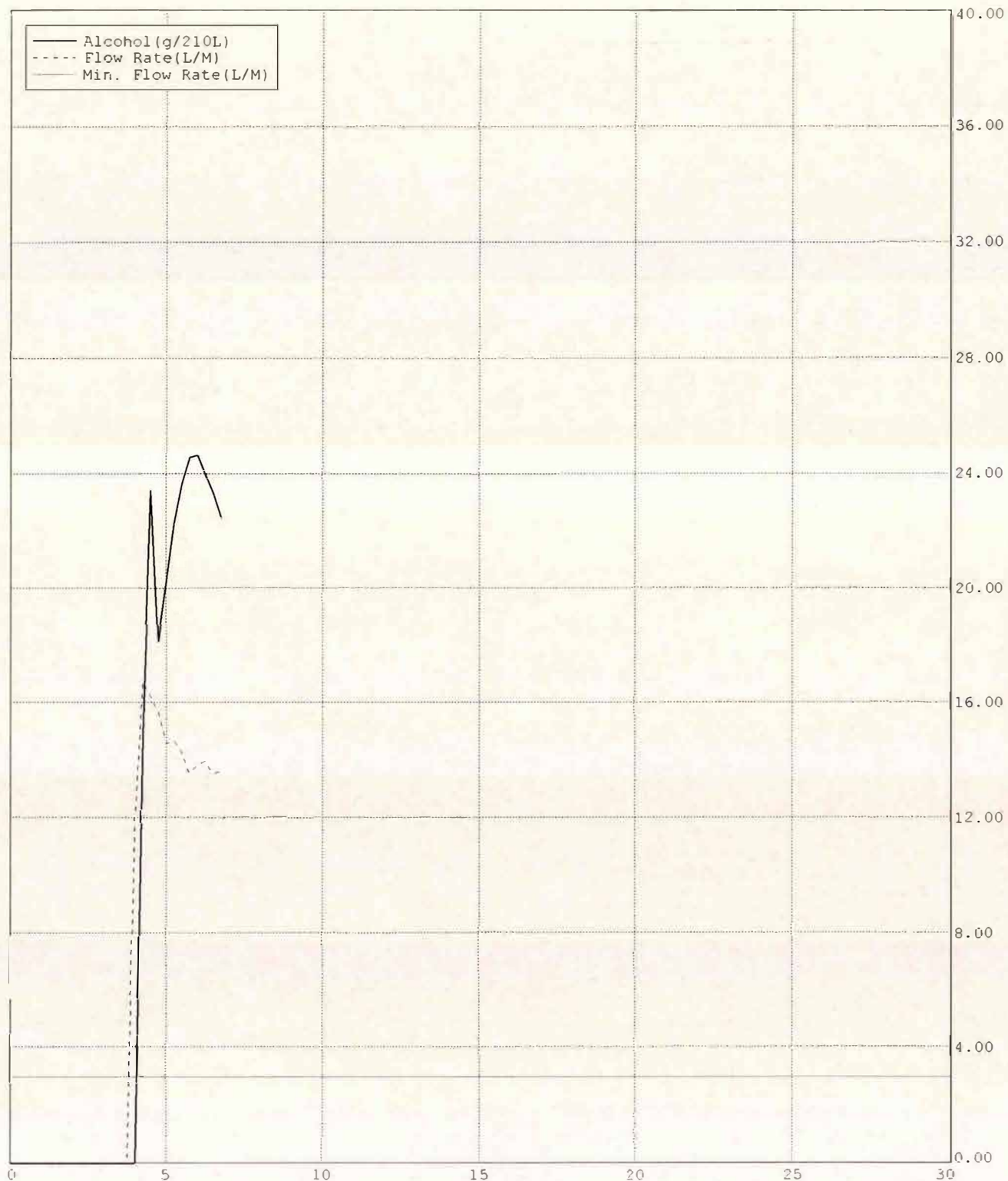
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.81: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	11:08
BLANK TEST	0.000	11:08
INTERNAL STANDARD	VERIFIED	11:08
EXTERNAL STANDARD	0.080	11:09
BLANK TEST	0.000	11:09
SUBJECT SAMPLE	INVALID	11:10

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SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/11/2020  
Time: 12:22:33

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

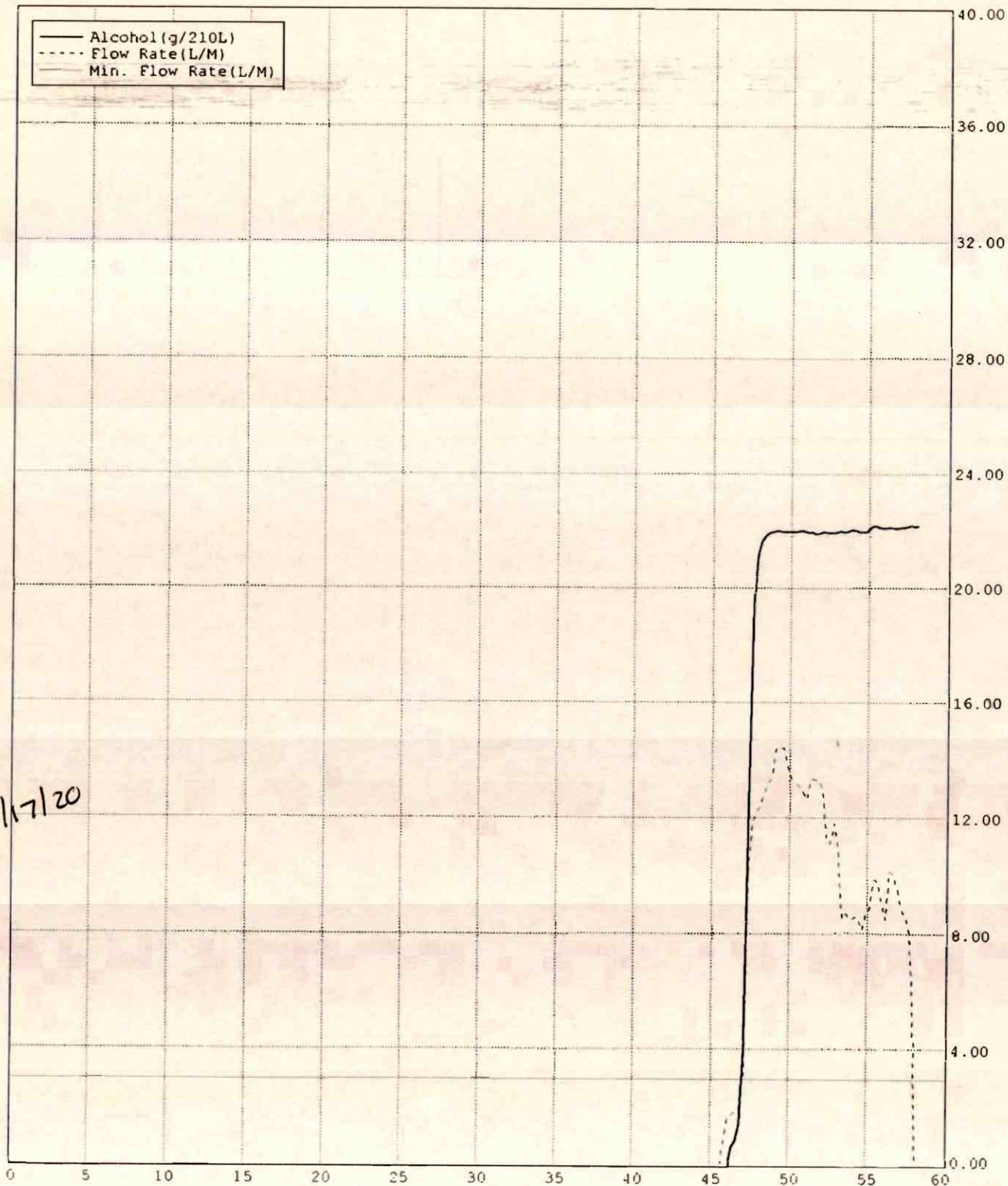

DEPT/AGENCY:  
INTERFERENCE ACETONE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.81: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:26
BLANK TEST	0.000	12:26
INTERNAL STANDARD	VERIFIED	12:26
Xq = 0.102 (0.69%)		
EXTERNAL STANDARD	0.080	12:26
X[1] = 0.0797 (-0.0013) (0.0008)		
BLANK TEST	0.000	12:27
SUBJECT SAMPLE	XXX	12:28
X[1] = 0.1119 (-0.0153) (0.0002)		

Interference Detected

Filter 2 Avg: -0.0014  
Filter 3 Avg: ~~0.0007~~ BMB 6/11/20  
BMB 6/11/20 0.0011



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/11/2020  
Time: 12:31:26

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

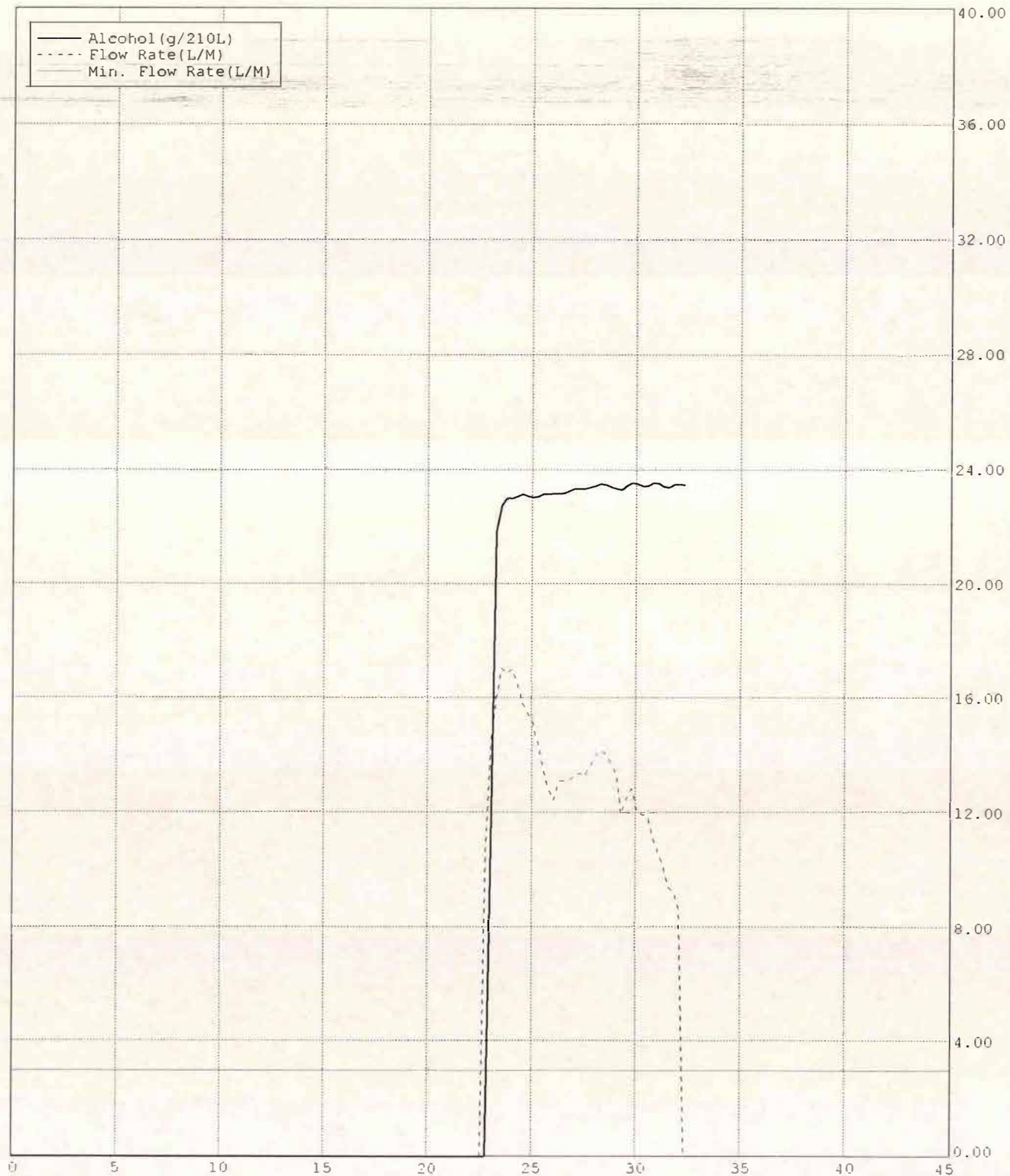
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.81: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:33
BLANK TEST	0.000	12:33
INTERNAL STANDARD	VERIFIED	12:33
Xq = 0.103 (0.95%)		
EXTERNAL STANDARD	0.079	12:33
X[1] = 0.0794 (-0.0016) (0.0008)		
BLANK TEST	0.000	12:34
SUBJECT SAMPLE	XXX	12:35
X[1] = 0.1183 (-0.0253) (-0.0005)		

Interference Detected

AMB





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/11/2020  
Time: 12:37:38

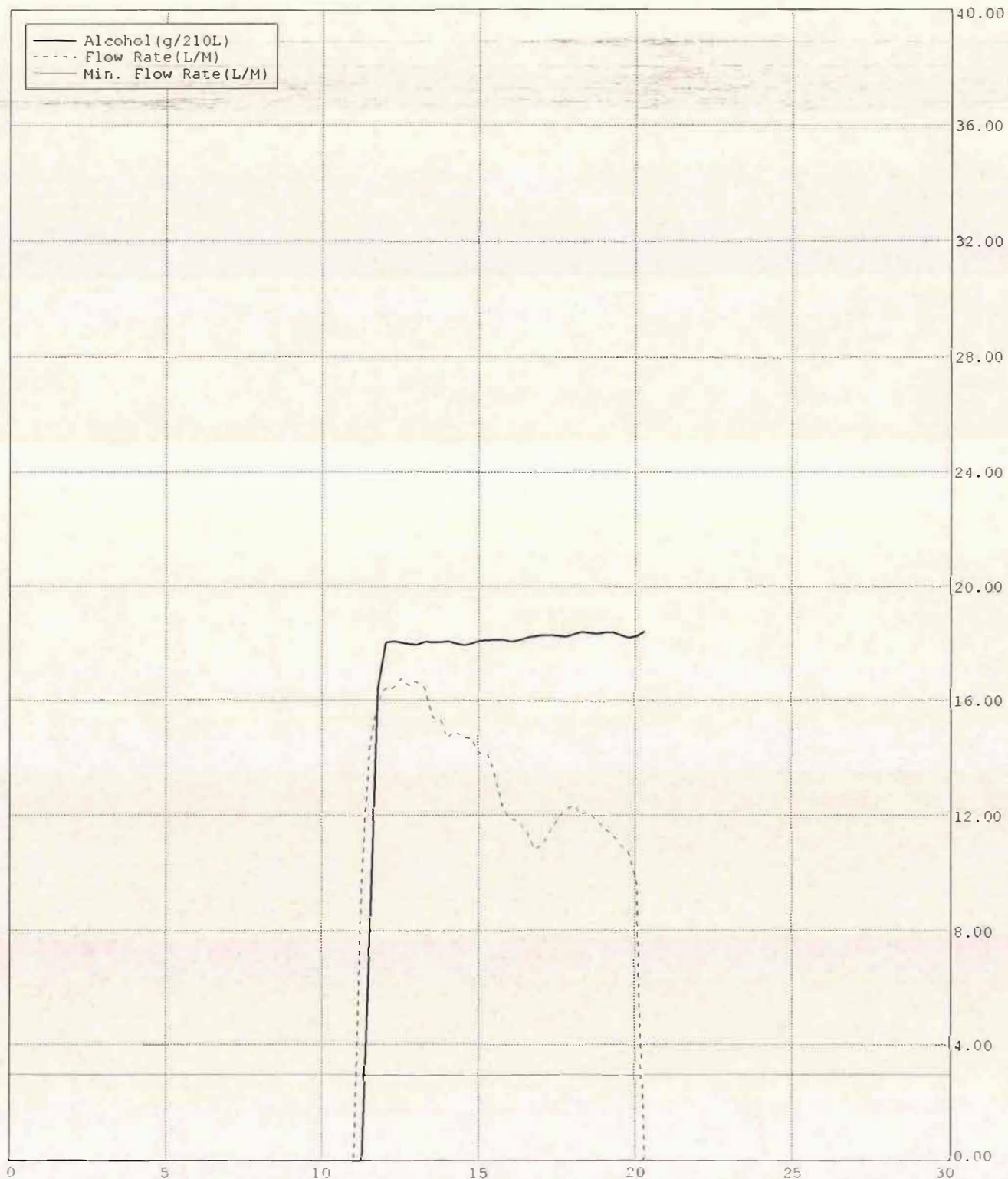
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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 #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:38
BLANK TEST	0.000	12:38
INTERNAL STANDARD	VERIFIED	12:39
Xq = 0.102 (0.09%)		
EXTERNAL STANDARD	0.079	12:39
X[1] = 0.0793 (-0.0008) (0.0011)		
BLANK TEST	0.000	12:40
SUBJECT SAMPLE (Vol=2.00L)	0.093	12:40
X[1] = 0.0931 (0.0000) (0.0006)		
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.079	12:41
X[1] = 0.0790 (-0.0019) (0.0016)		
BLANK TEST	0.000	12:42



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/11/2020  
Time: 12:16:31

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

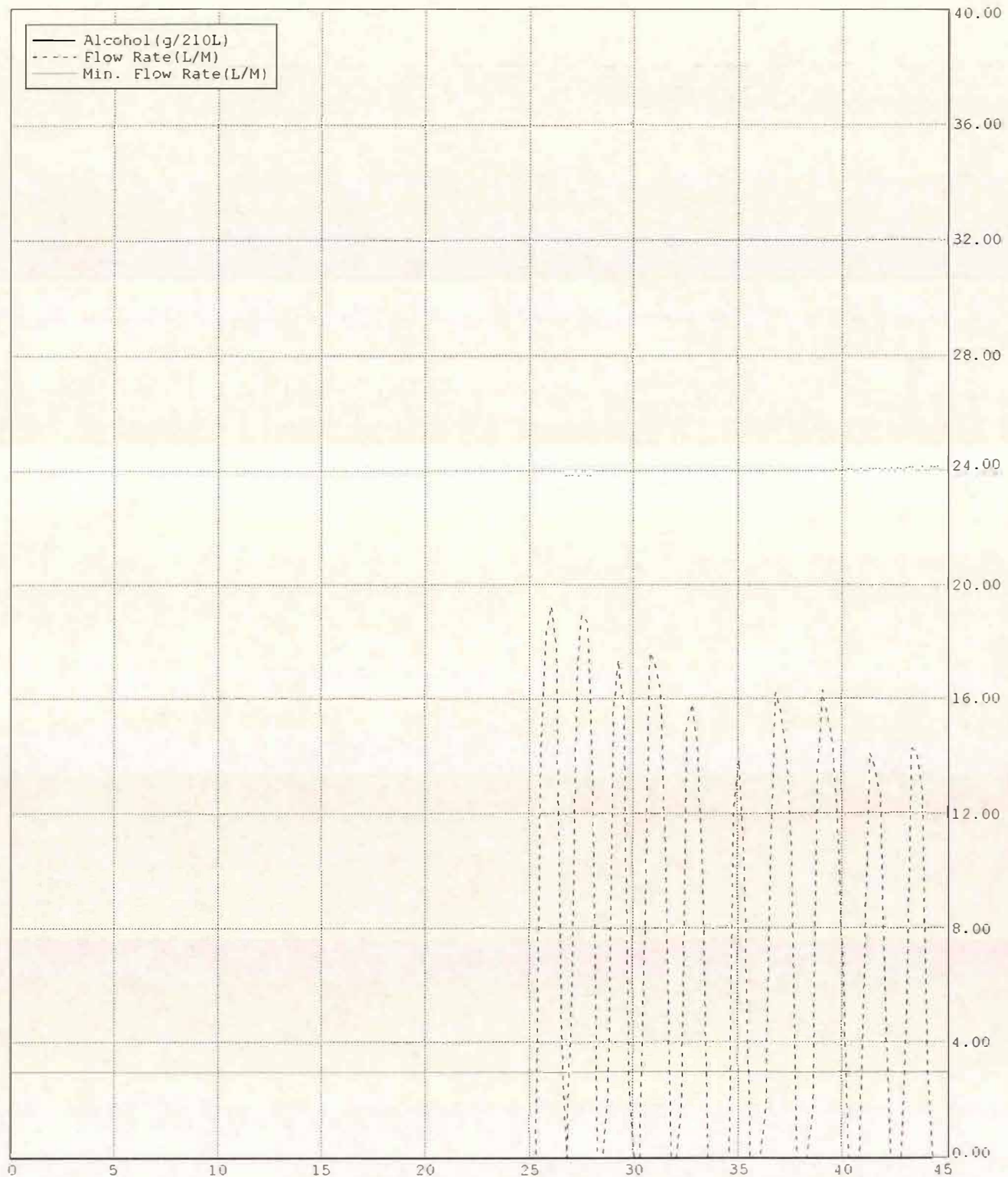
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.82: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:17
BLANK TEST	0.000	12:17
INTERNAL STANDARD	VERIFIED	12:17
EXTERNAL STANDARD	0.079	12:17
BLANK TEST	0.000	12:18
SUBJECT SAMPLE	XXX	12:19

Maximum Attempts Exceeded

*Handwritten signature: BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/11/2020  
Time: 11:12:43

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

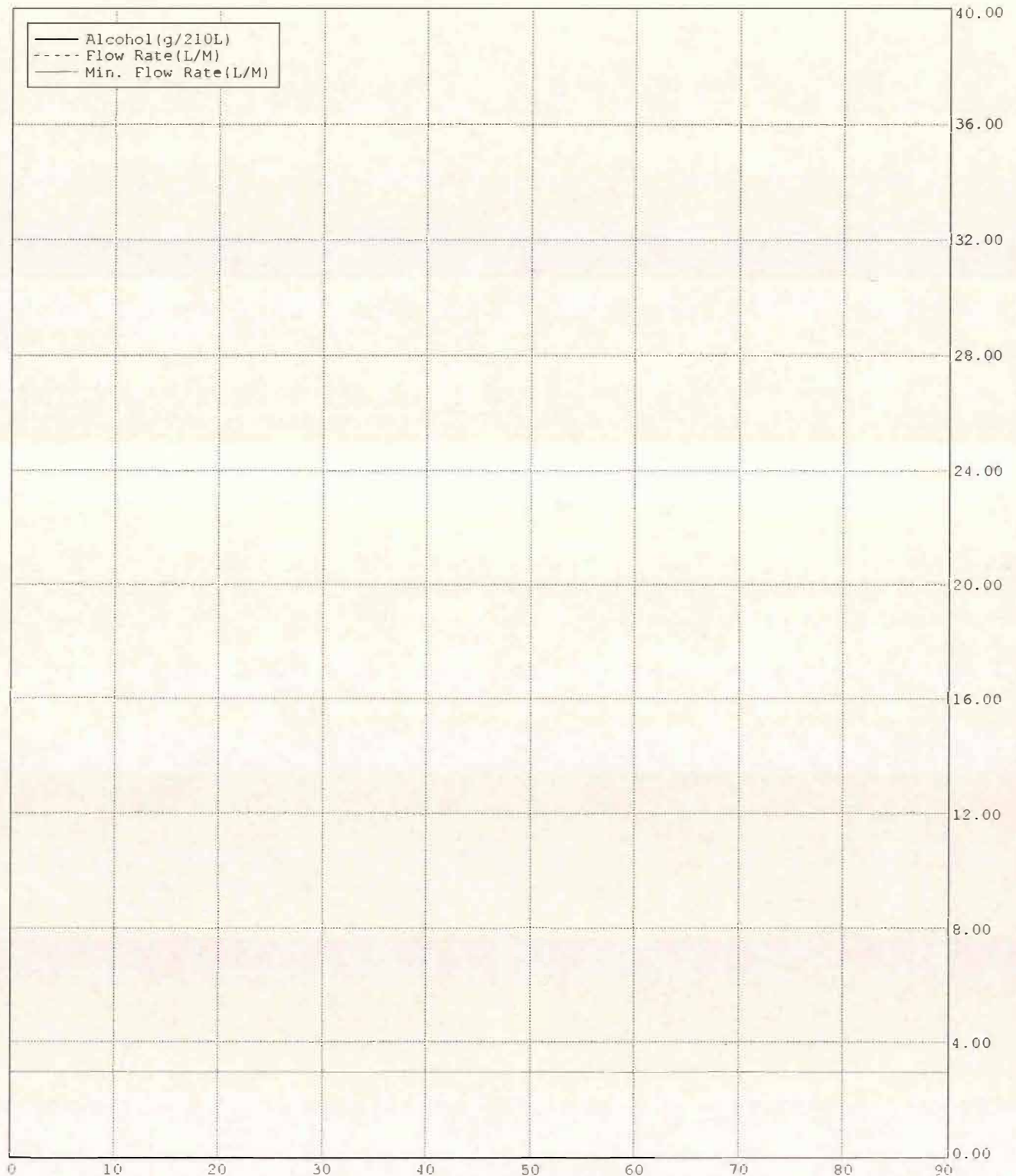
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.81: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	11:14
BLANK TEST	0.000	11:14
INTERNAL STANDARD	VERIFIED	11:14
EXTERNAL STANDARD	0.080	11:15
BLANK TEST	0.000	11:16

RFI DETECTED

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100359

Date: 06/11/2020  
Time: 13:03:37

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 #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:04
BLANK TEST	0.000	13:05
INTERNAL STANDARD	VERIFIED	13:05
EXTERNAL STANDARD	0.080	13:05
BLANK TEST	0.000	13:06
SUBJECT SAMPLE (Vol=1.50L)	0.000	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.080	13:07
BLANK TEST	0.000	13:08

