

# 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 100399 Analyst Brandi Barnett Start Date 7/29/21

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 10/09/21
- ii. 0.040g/210L Mnf Airgas Lot AG 111710 Exp 04/27/23
- iii. 0.080g/210L Mnf Airgas Lot AG 018102 Exp 06/29/22
- iv. 0.100g/210L Mnf Airgas Lot AG 924701 Exp 09/04/21
- v. 0.200g/210L Mnf Guth Lot 19200 Exp 08/06/21  
Simulator S/N DR4161 Date Calibrated 06/16/21
- vi. 0.300g/210L Mnf Guth Lot 19330 Exp 11/13/21  
Simulator S/N SD1202 Date Calibrated 06/15/21

### Functional Tests (attached)

Incomplete

Invalid

Interference

- i. Acetone - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/2021  
Simulator S/N DR4178 Date Calibrated 11/18/2020
- ii. Isopropanol - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/2021  
Simulator S/N DR4176 Date Calibrated 11/18/2020
- iii. Negative Control - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/21  
Simulator S/N DR4163 Date Calibrated 11/17/2020

Exceeded Attempts

RFI

Verify stylus is calibrated

Reset Options

Clear Memory

Remove tank prior to shut down

Verification of Calibration

Non-Drinking Subject Test (attached)

Upload (only uploads to USB) BMB

Add Linearity Data to Spreadsheet 7/30/21

End Date 7/30/21

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100399  
-----

Date: 07/29/2021  
Time: 09:00:33

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 = 1.66 V PASSED  
(1.00 V - 2.32 V)  
Cooler Voltage = 1.65 V PASSED  
(0.99 V - 2.31 V)  
Bias Voltage = 81 V PASSED  
(49 V - 113 V)  
Chopper Freq = 522 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 30.0 in

PUMP INFO

Flow Rate = 4.487 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
(0.001 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 = 0.084 0.10% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100399  
-----

Date: 07/29/2021

Time: 9:13 AM

Temperatures (°C)

Sample Cell: 48.6°C

Breath Tube: 48.1°C

Current Barometer 30.0 in

Volume (Ltr) 1.47

Settings

Lamp: 1.66 V

Bias: 81 V

Cooler: 1.65 V

Chopper: 521 Hz

Voltages (V)

Flow: 1.06 V

Detector: 0.023 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100399  
-----

Date: 07/26/2021  
Time: 14:45:57

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca	=	0.1000			
CAL	=	0.997064	0.800	<=	CAL < 1.200
b1	=	0.0003	0.0000	<=	b1 < 0.0040
b2	=	0.0053	0.0010	<=	b2 < 0.0100
b3	=	0.0003	0.0000	<=	b3 < 0.0040
Xq	=	0.0844	0.0500	<=	Xq < 0.2000
a21	=	1.216343	1.050	<=	a21 < 1.300
a31	=	0.426899	0.300	<=	a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/29/2021  
Time: 09:13:51

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

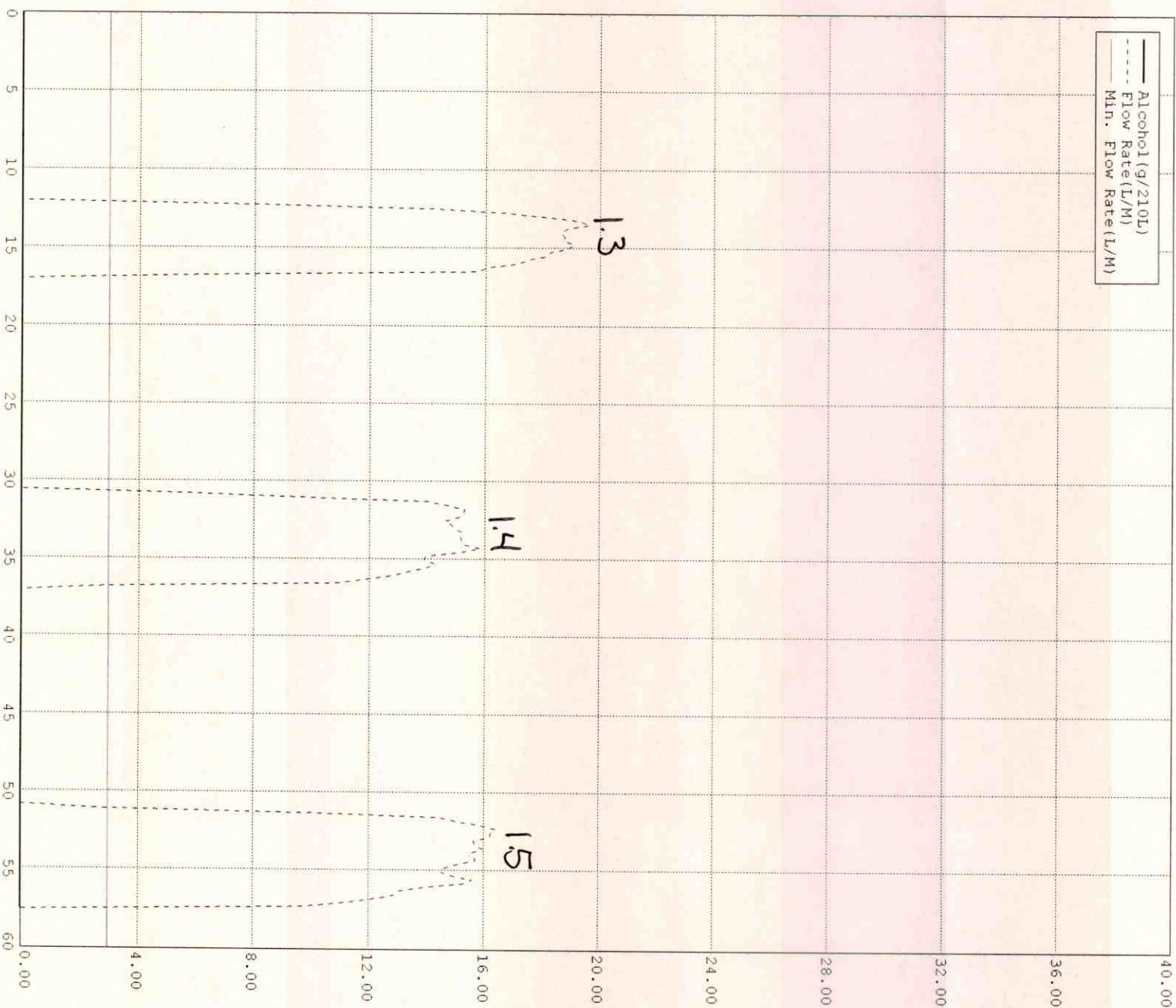
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.99: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	09:15
BLANK TEST	0.000	09:15
INTERNAL STANDARD	VERIFIED	09:15
EXTERNAL STANDARD	0.080	09:15
BLANK TEST	0.000	09:16
SUBJECT SAMPLE (Vol=1.51L)	0.000	09:17
BLANK TEST	0.000	09:18
EXTERNAL STANDARD	0.080	09:18
BLANK TEST	0.000	09:19

*BBMB*



LINEARITY CHECK

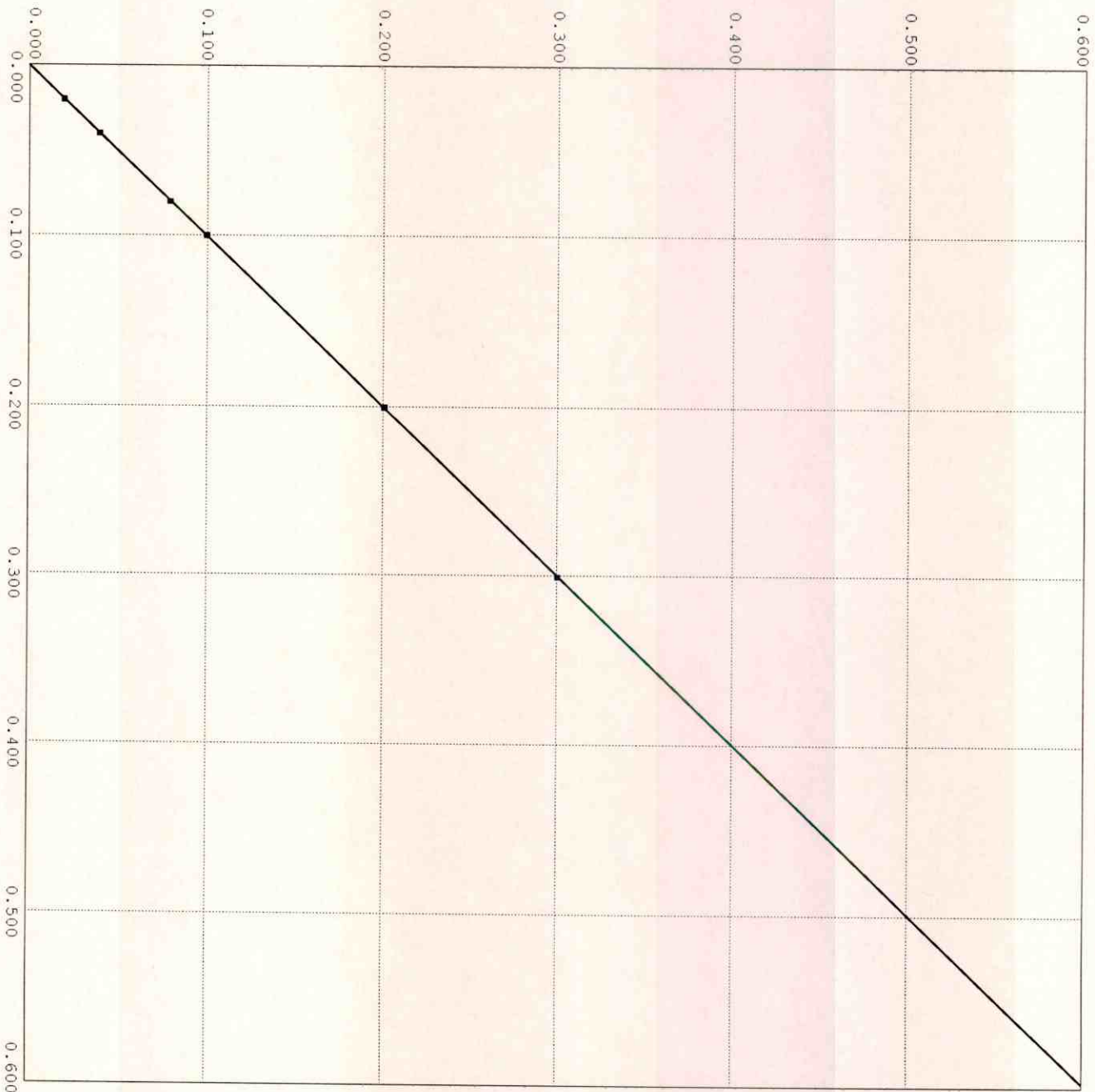
Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/29/2021  
Time: 09:28:18

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.040	0.0400	0.0000
0.080	0.0800	0.0000
0.100	0.1006	0.0005
0.200	0.2016	0.0005
0.300	0.3010	0.0010

SLOPE = 1.004994  
R<sup>2</sup> = 0.999986



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100399

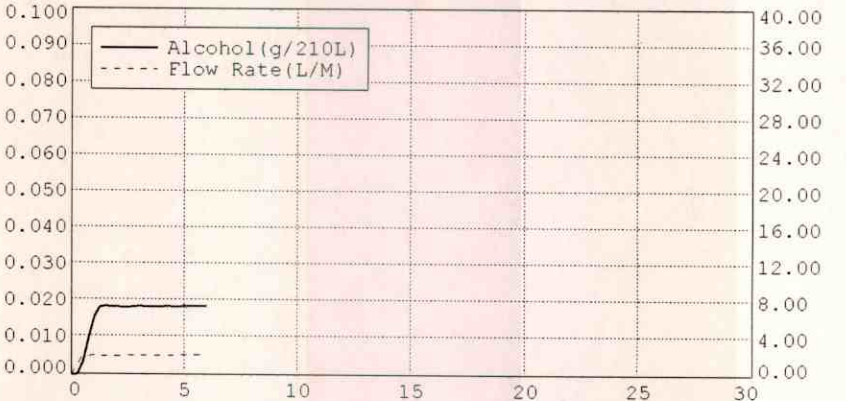
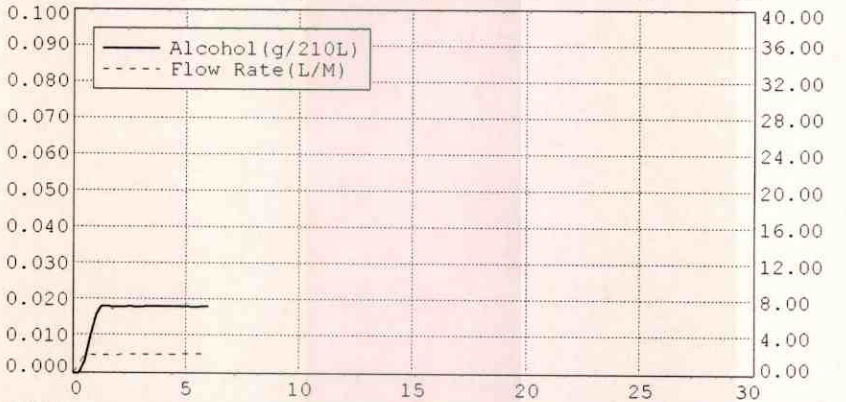
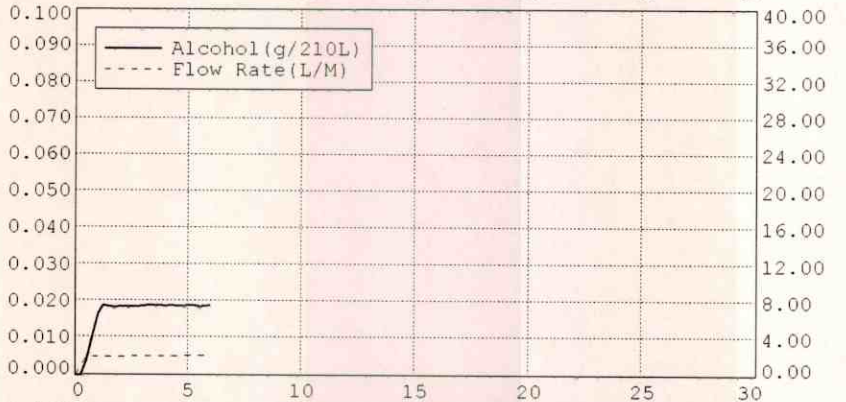
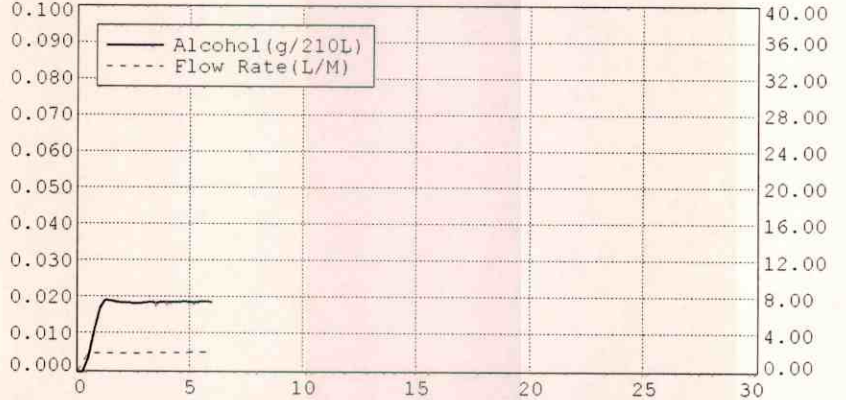
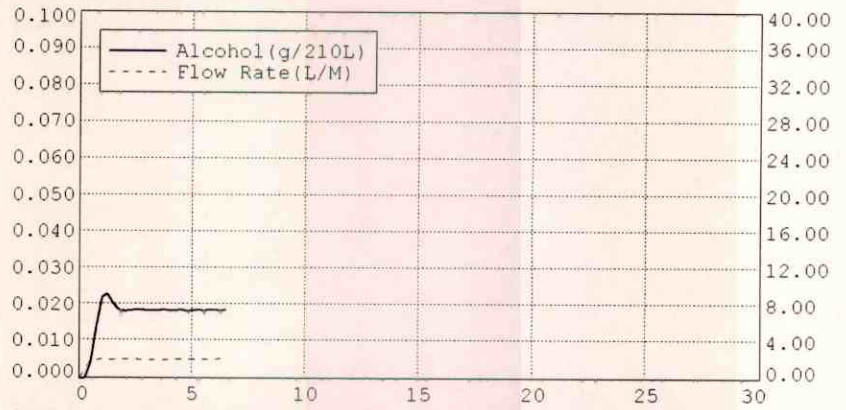
Date: 07/29/2021  
 Time: 09:28:20

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 30.00: 0.020  
 LOT #: AG928203  
 EXPIRATION: 10/09/2021  
 TANK PRESSURE: 224 psi

BLANK TEST	0.000	09:30
INTERNAL STANDARD	VERIFIED	09:30
EXTERNAL STANDARD	0.020	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.020	09:31
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.020	09:32
BLANK TEST	0.000	09:33
EXTERNAL STANDARD	0.020	09:33
BLANK TEST	0.000	09:34
EXTERNAL STANDARD	0.020	09:35
BLANK TEST	0.000	09:35

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100399

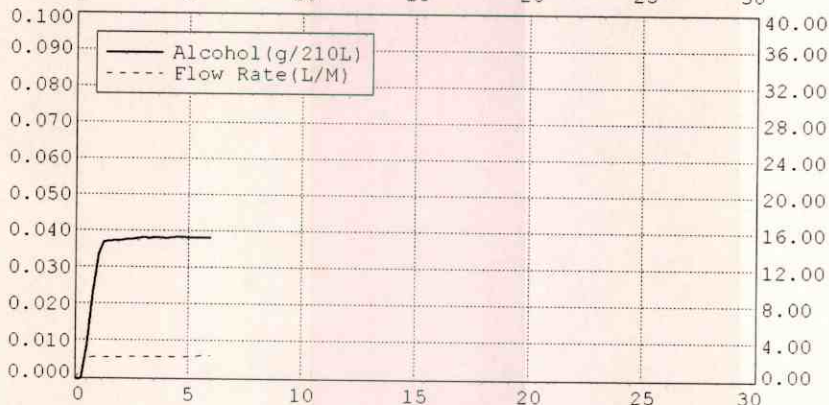
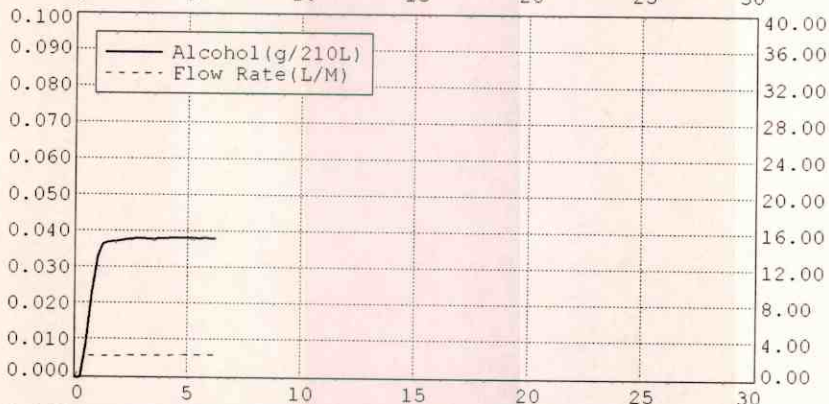
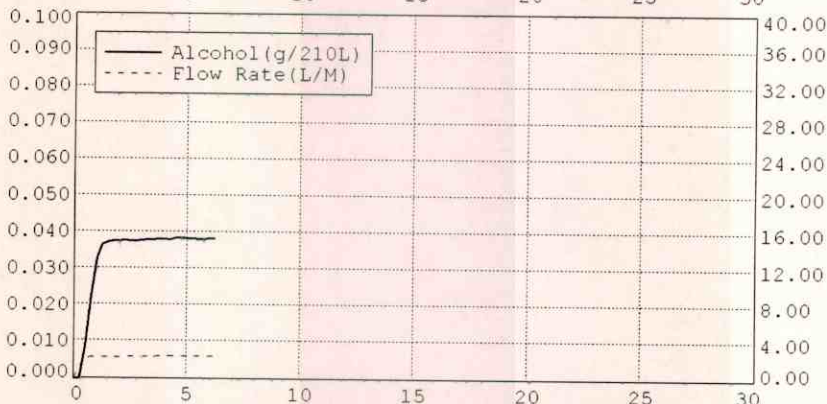
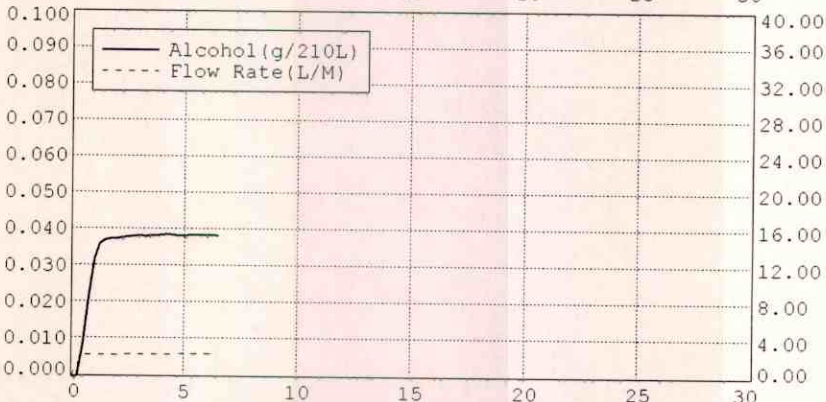
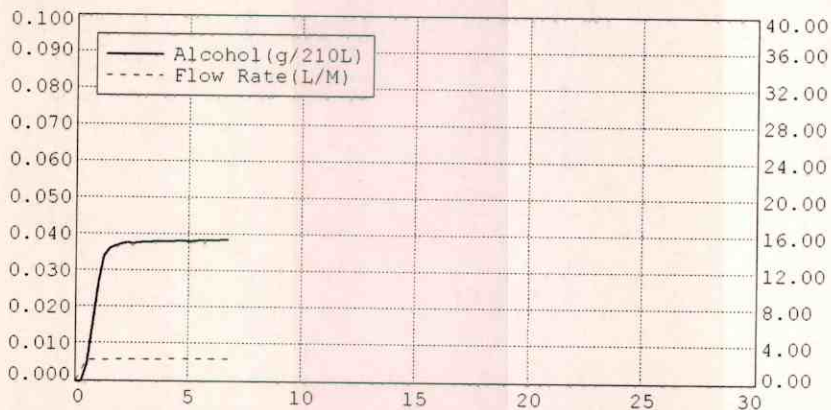
Date: 07/29/2021  
 Time: 09:37:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.99: 0.040  
 LOT #: AG111710  
 EXPIRATION: 04/27/2023  
 TANK PRESSURE: 1052 psi

BLANK TEST	0.000	09:38
INTERNAL STANDARD	VERIFIED	09:38
EXTERNAL STANDARD	0.040	09:39
BLANK TEST	0.000	09:39
EXTERNAL STANDARD	0.040	09:40
BLANK TEST	0.000	09:41
EXTERNAL STANDARD	0.040	09:41
BLANK TEST	0.000	09:42
EXTERNAL STANDARD	0.040	09:42
BLANK TEST	0.000	09:43
EXTERNAL STANDARD	0.040	09:43
BLANK TEST	0.000	09:44

Average = 0.0400  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100399

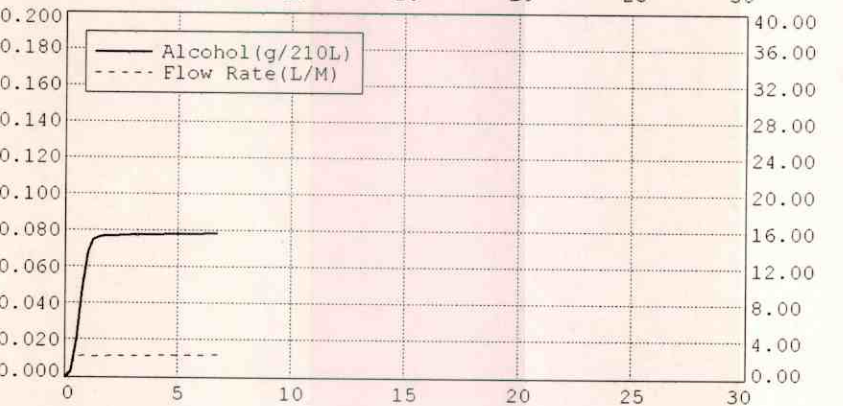
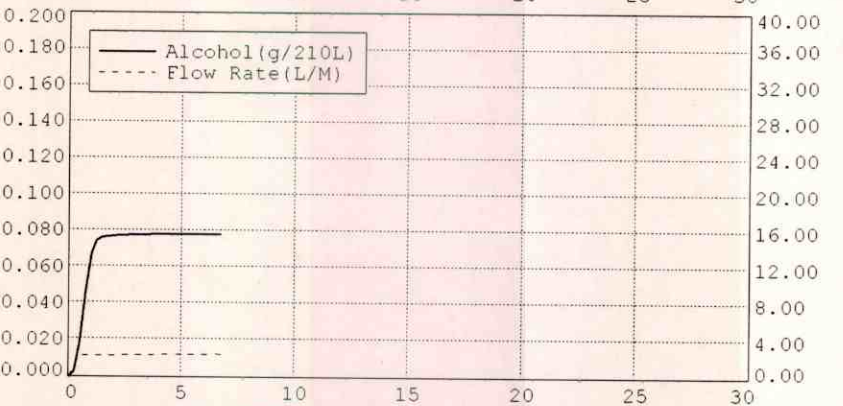
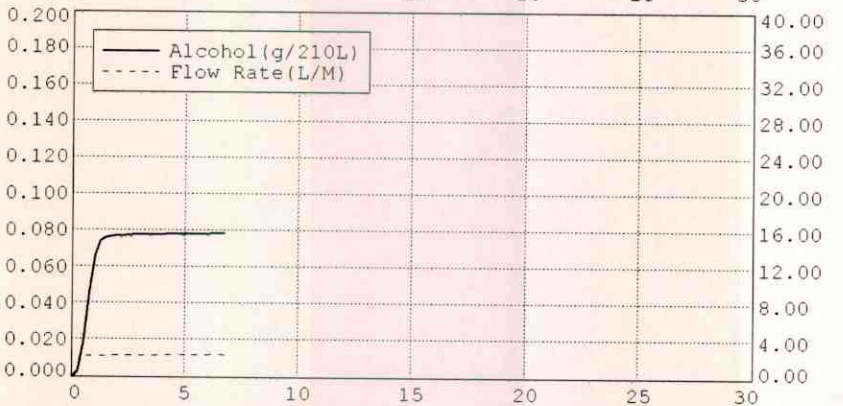
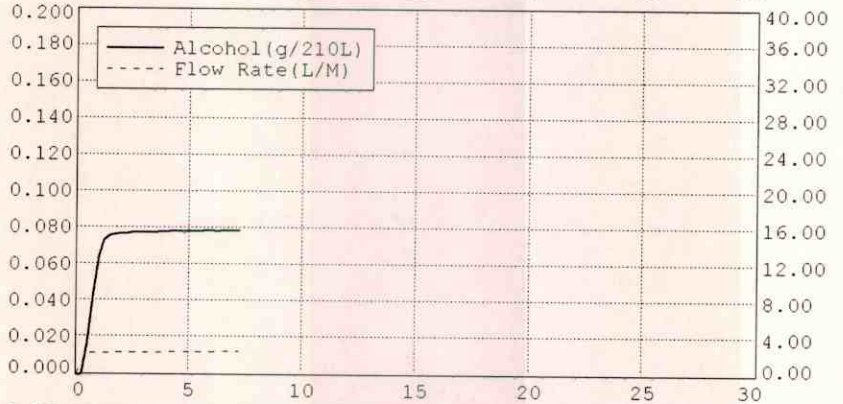
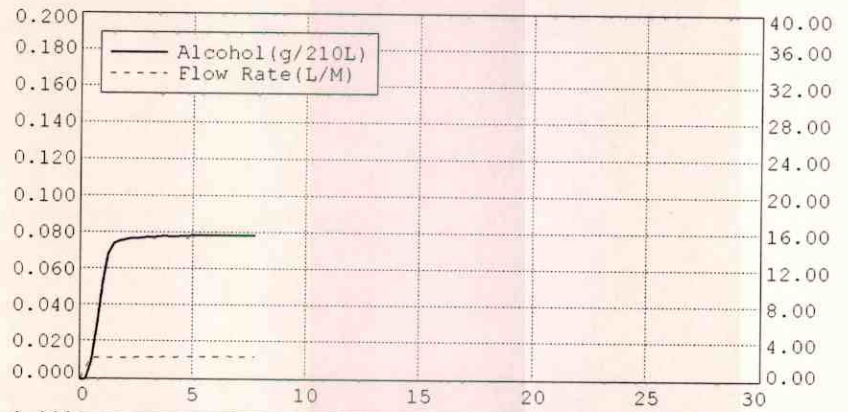
Date: 07/29/2021  
 Time: 09:45:09

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.99: 0.080  
 LOT #: AG018102  
 EXPIRATION: 06/29/2022  
 TANK PRESSURE: 1178 psi

BLANK TEST	0.000	09:46
INTERNAL STANDARD	VERIFIED	09:46
EXTERNAL STANDARD	0.080	09:46
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.080	09:47
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.080	09:49
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.080	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.080	09:51
BLANK TEST	0.000	09:52

Average = 0.0800  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100399

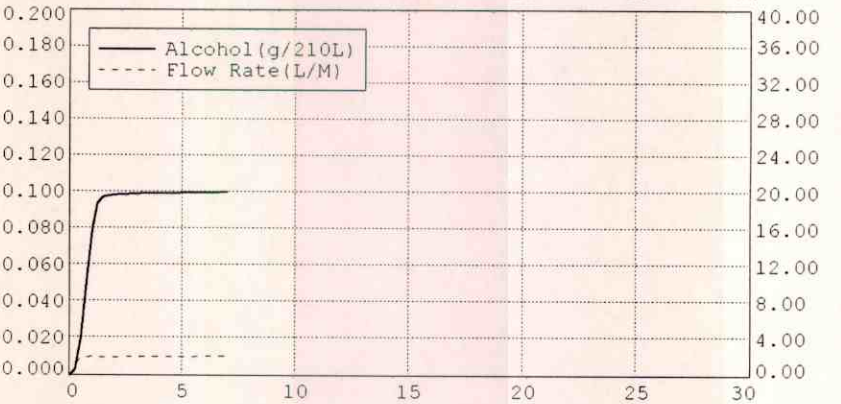
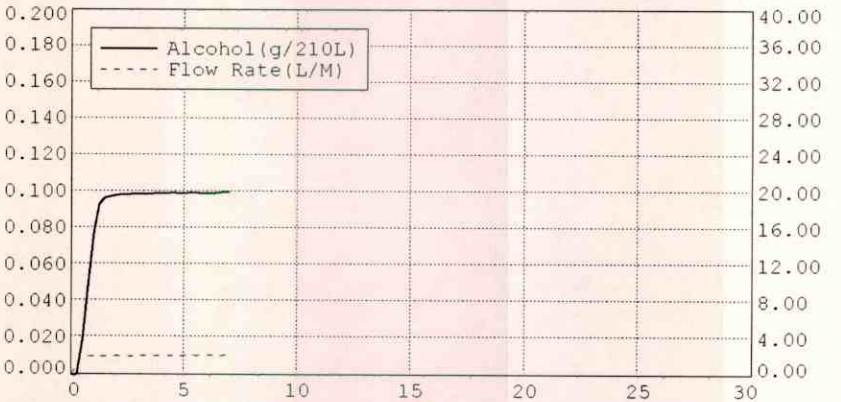
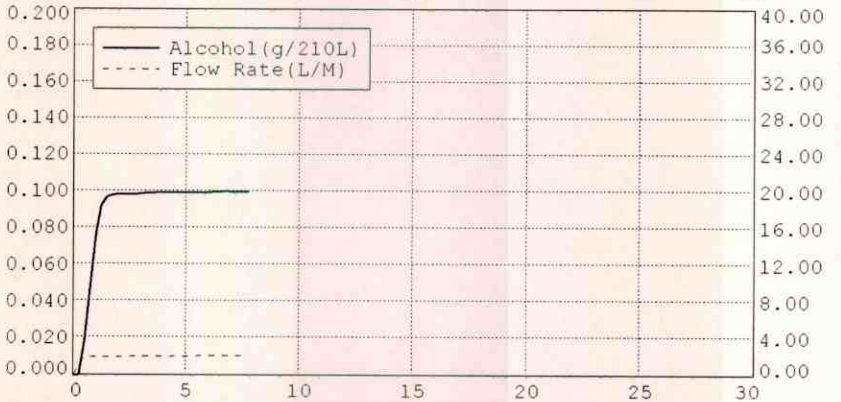
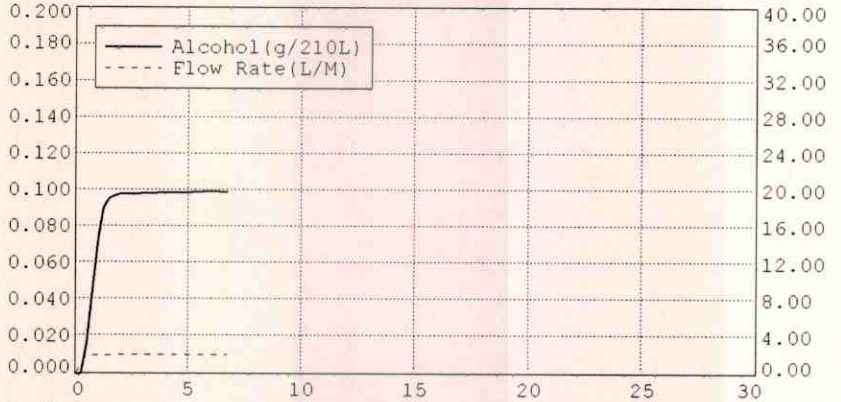
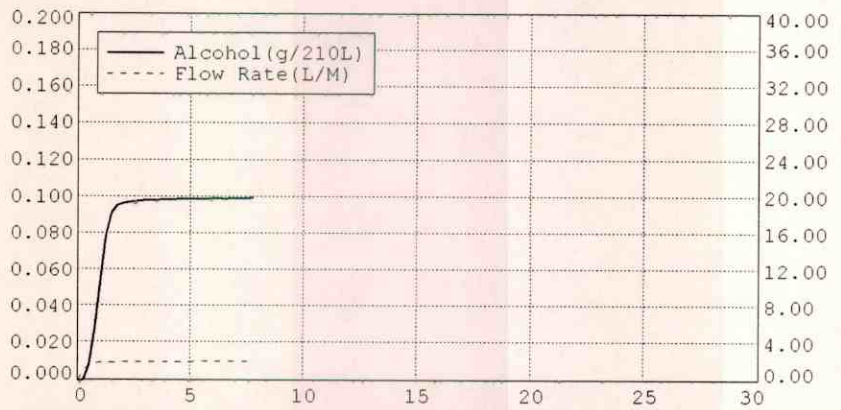
Date: 07/29/2021  
 Time: 09:54:59

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 30.00: 0.100  
 LOT #: AG924701  
 EXPIRATION: 09/04/2021  
 TANK PRESSURE: 275 psi

BLANK TEST	0.000	09:56
INTERNAL STANDARD	VERIFIED	09:56
EXTERNAL STANDARD	0.100	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.100	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.101	09:59
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.101	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.101	10:01
BLANK TEST	0.000	10:02

Average = 0.1006  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

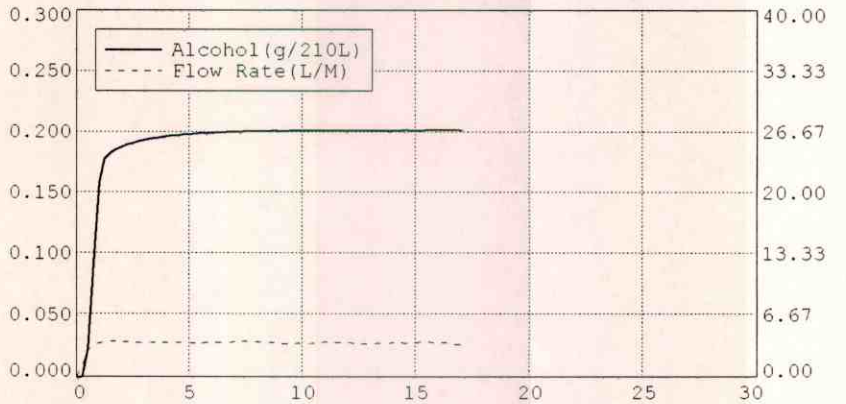
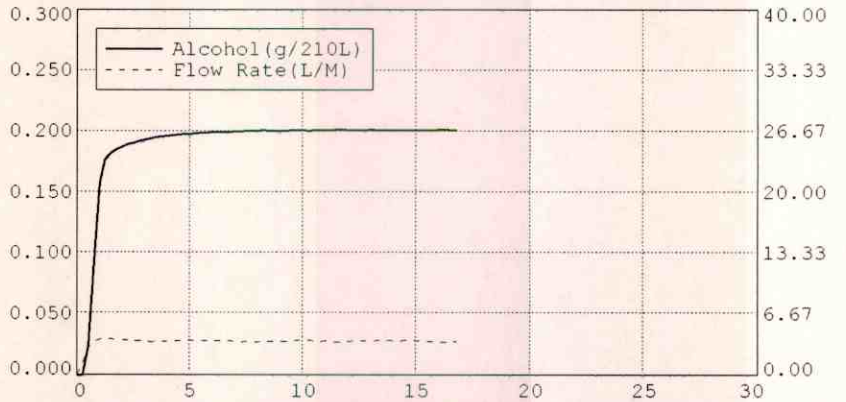
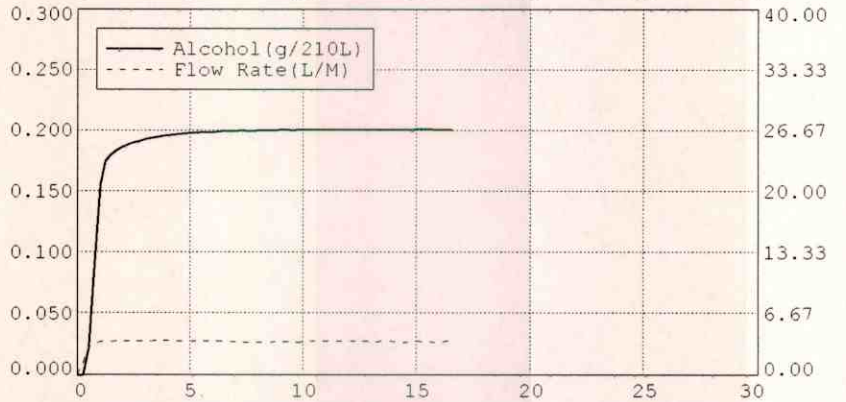
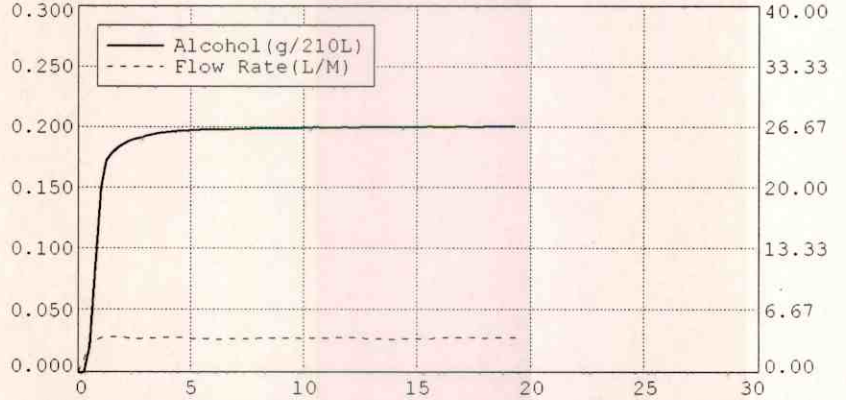
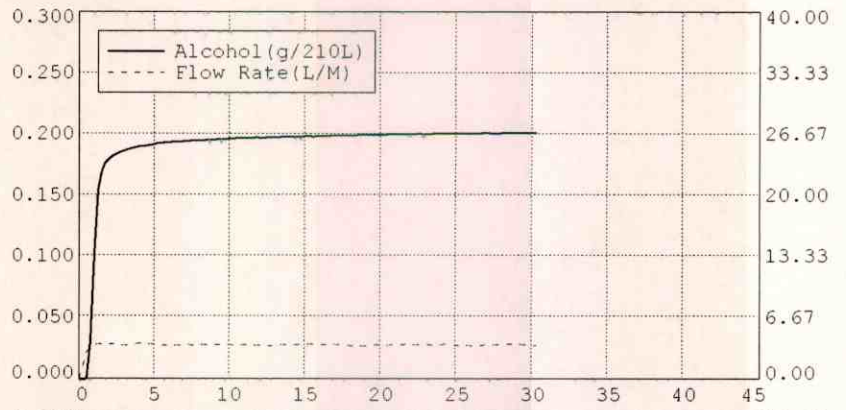
Alaska Department of Public Safety  
 DATAMASTER dmt: 100399

Date: 07/29/2021  
 Time: 10:03:55

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

BLANK TEST	0.000	10:05
INTERNAL STANDARD	VERIFIED	10:05
EXTERNAL STANDARD	0.201	10:05
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.201	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.202	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.202	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.202	10:11
BLANK TEST	0.000	10:11

Average = 0.2016  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100399

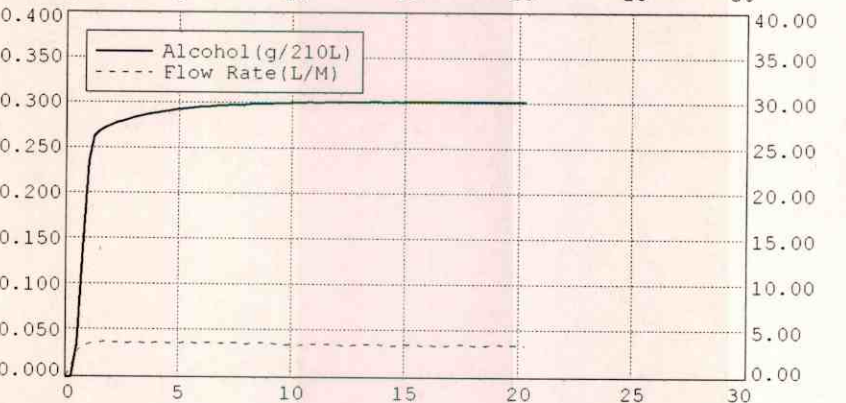
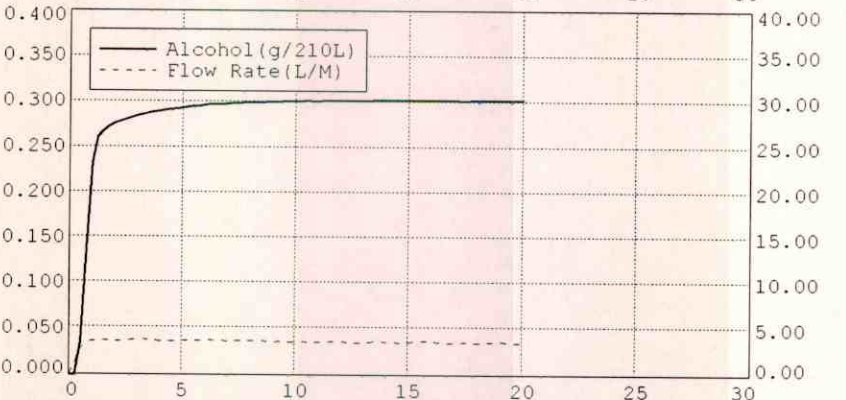
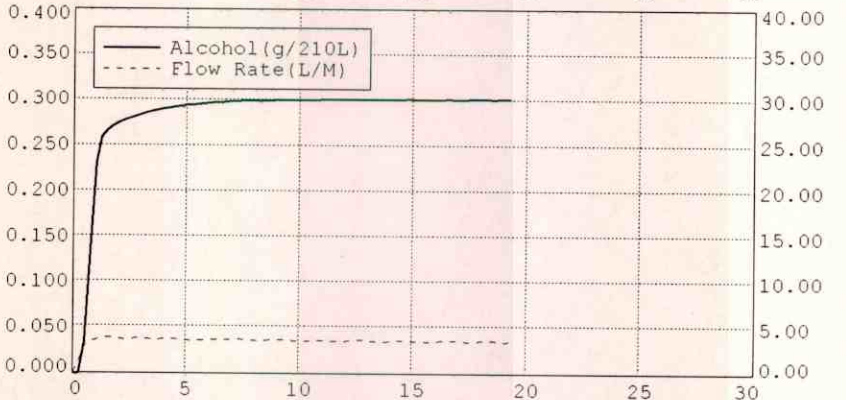
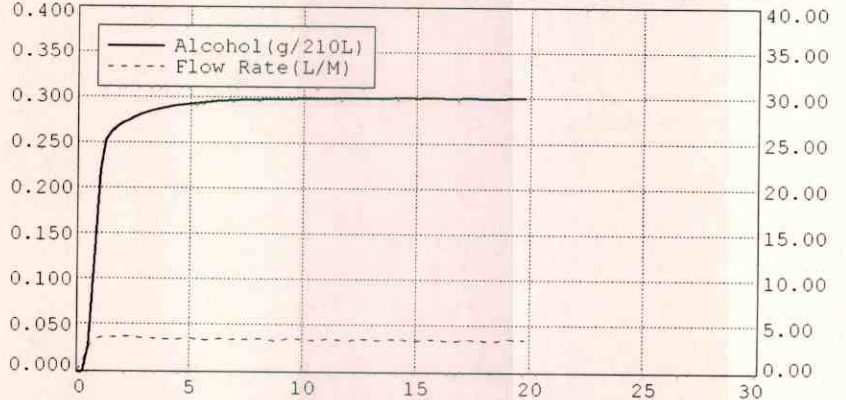
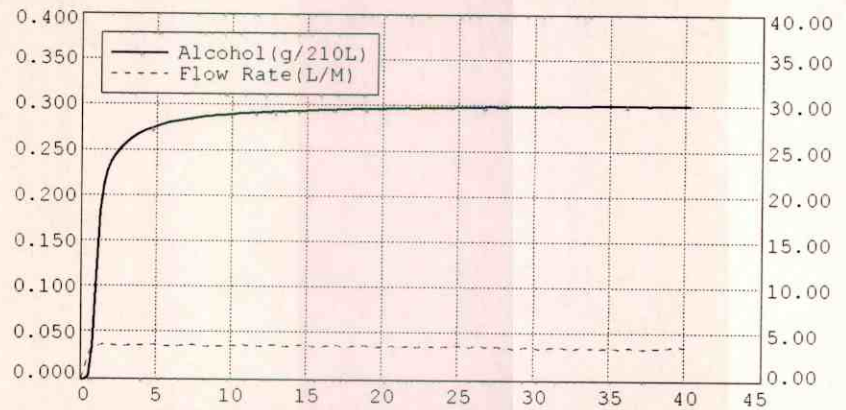
Date: 07/29/2021  
 Time: 10:14:41

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:16
INTERNAL STANDARD	VERIFIED	10:16
EXTERNAL STANDARD	0.300	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.300	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.301	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.302	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.302	10:22
BLANK TEST	0.000	10:23

Average = 0.3010  
 Std Dev = 0.0010



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/29/2021  
Time: 11:02:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

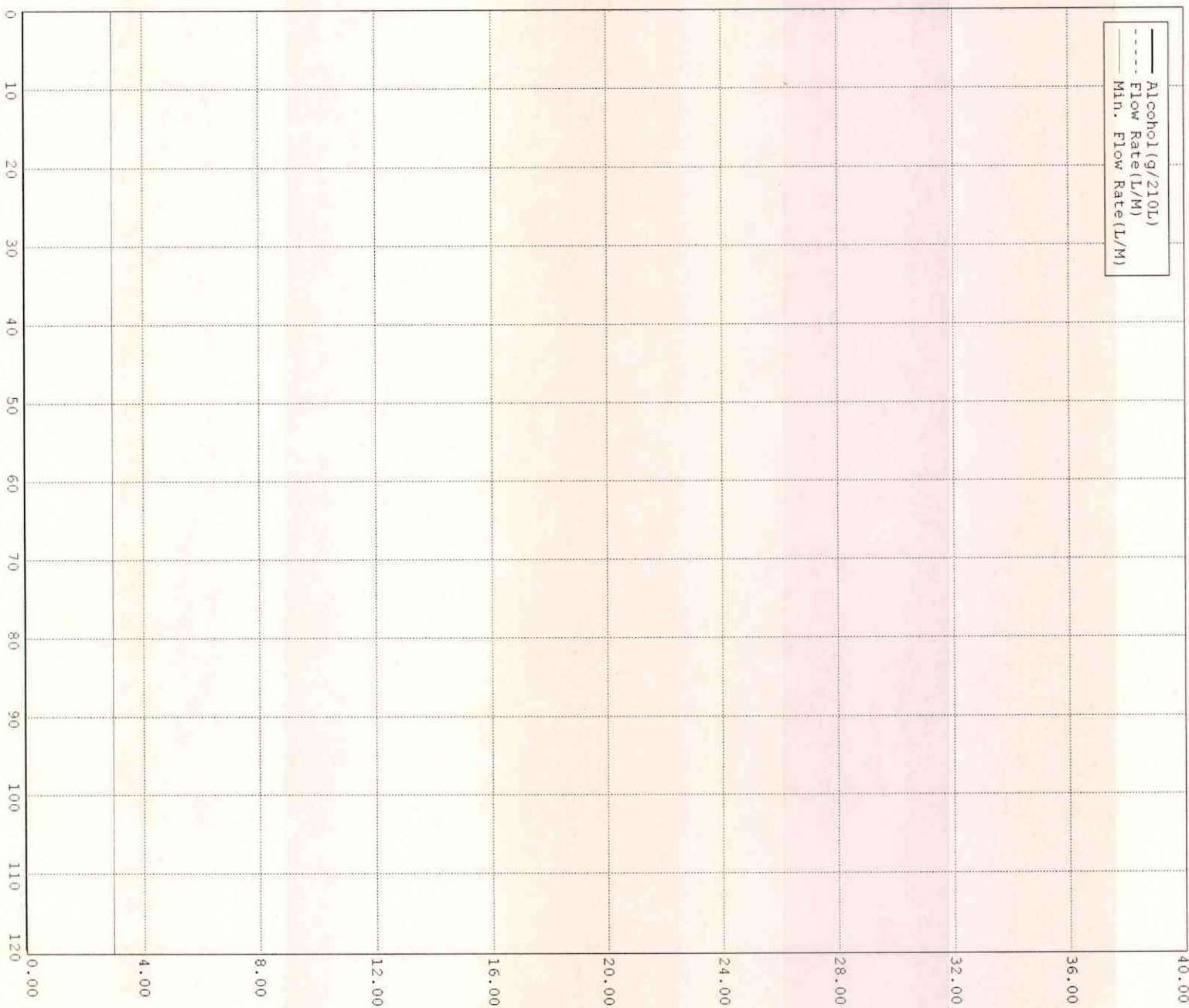
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.99: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	11:04
BLANK TEST	0.000	11:04
INTERNAL STANDARD	VERIFIED	11:04
EXTERNAL STANDARD	0.080	11:04
BLANK TEST	0.000	11:05
SUBJECT SAMPLE	INCOMPLETE	11:07

*BBMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/30/2021  
Time: 11:01:46

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

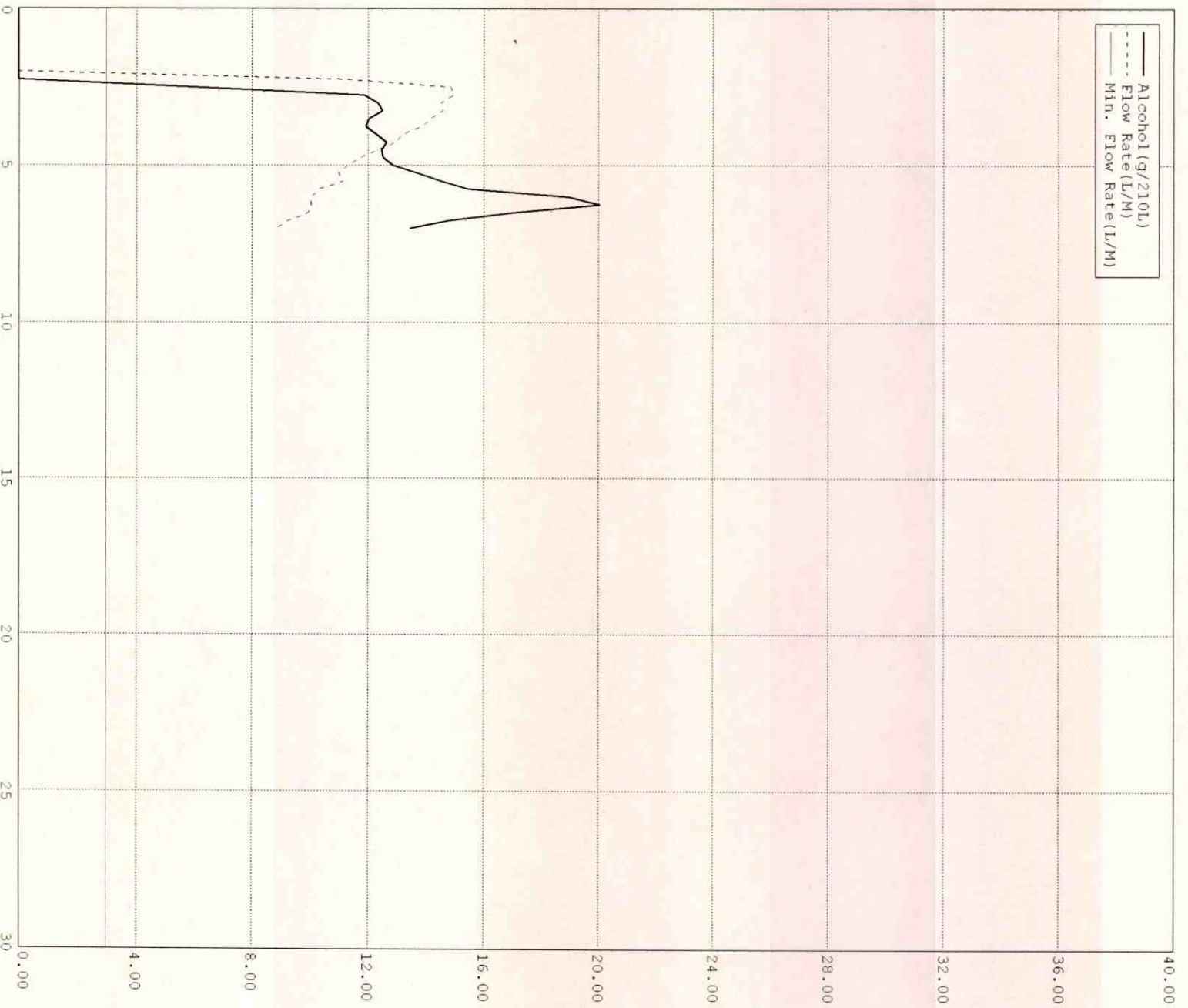
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.92: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:02
BLANK TEST	0.000	11:02
INTERNAL STANDARD	0.079	11:03
EXTERNAL STANDARD	0.000	11:04
BLANK TEST	INVALID	11:04
SUBJECT SAMPLE	INVALID	11:04

BNB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/30/2021  
Time: 11:16:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

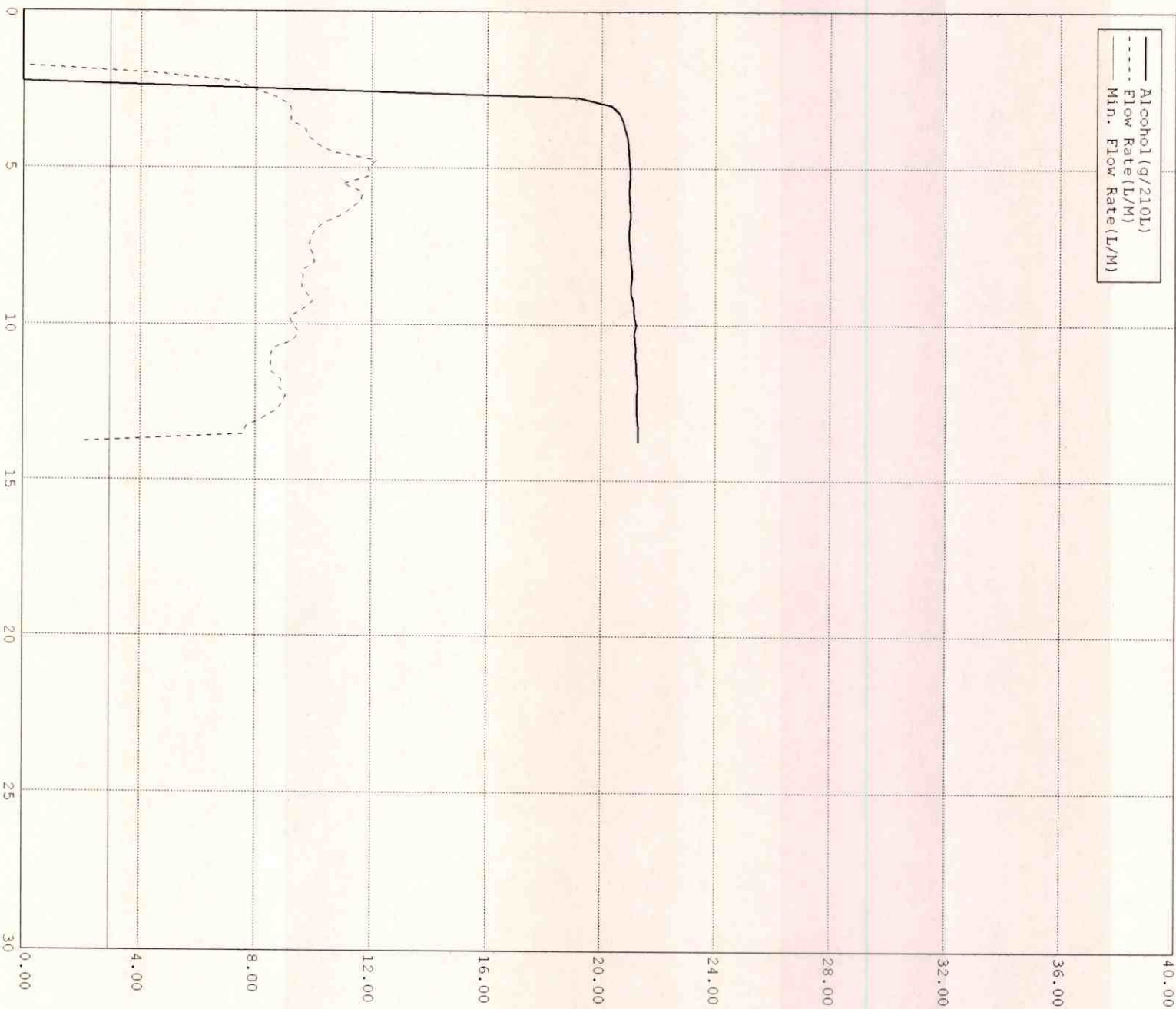
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.93: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:17
BLANK TEST	0.000	11:17
INTERNAL STANDARD	VERIFIED	11:17
Xq = 0.085 (0.72%)		
EXTERNAL STANDARD	0.080	11:18
X[1] = 0.0800 (-0.0006)	(0.0025)	
BLANK TEST	0.000	11:19
SUBJECT SAMPLE	XXX	11:19
X[1] = 0.1079 (-0.0183)	(0.0004)	

Interference Detected

Flkr 2 Avg: -0.0004  
Flkr 3 Avg: 0.0026  
BMB 7/30/21

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/30/2021  
Time: 11:25:02

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

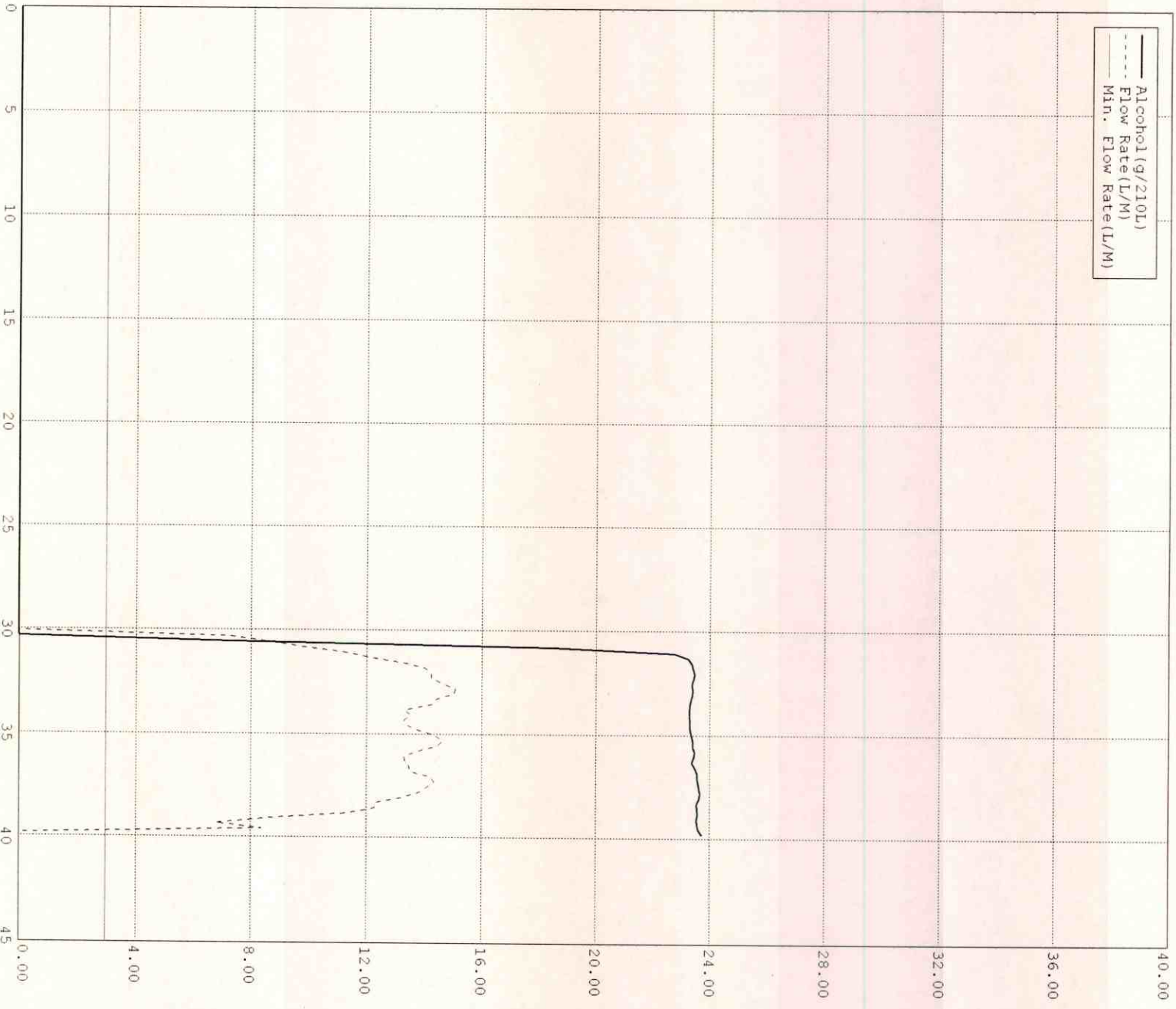
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.93: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK  
BLANK TEST PASSED 11:26  
INTERNAL STANDARD VERIFIED 11:26  
Xq = 0.085 (1.03%)  
EXTERNAL STANDARD 0.080 11:26  
X[1] = 0.0797 (-0.0012) (0.0028)  
BLANK TEST 0.000 11:27  
SUBJECT SAMPLE XXX 11:28  
X[1] = 0.1189 (-0.0316) (0.0025)

Interference Detected

EMR





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/30/2021  
Time: 11:31:09

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

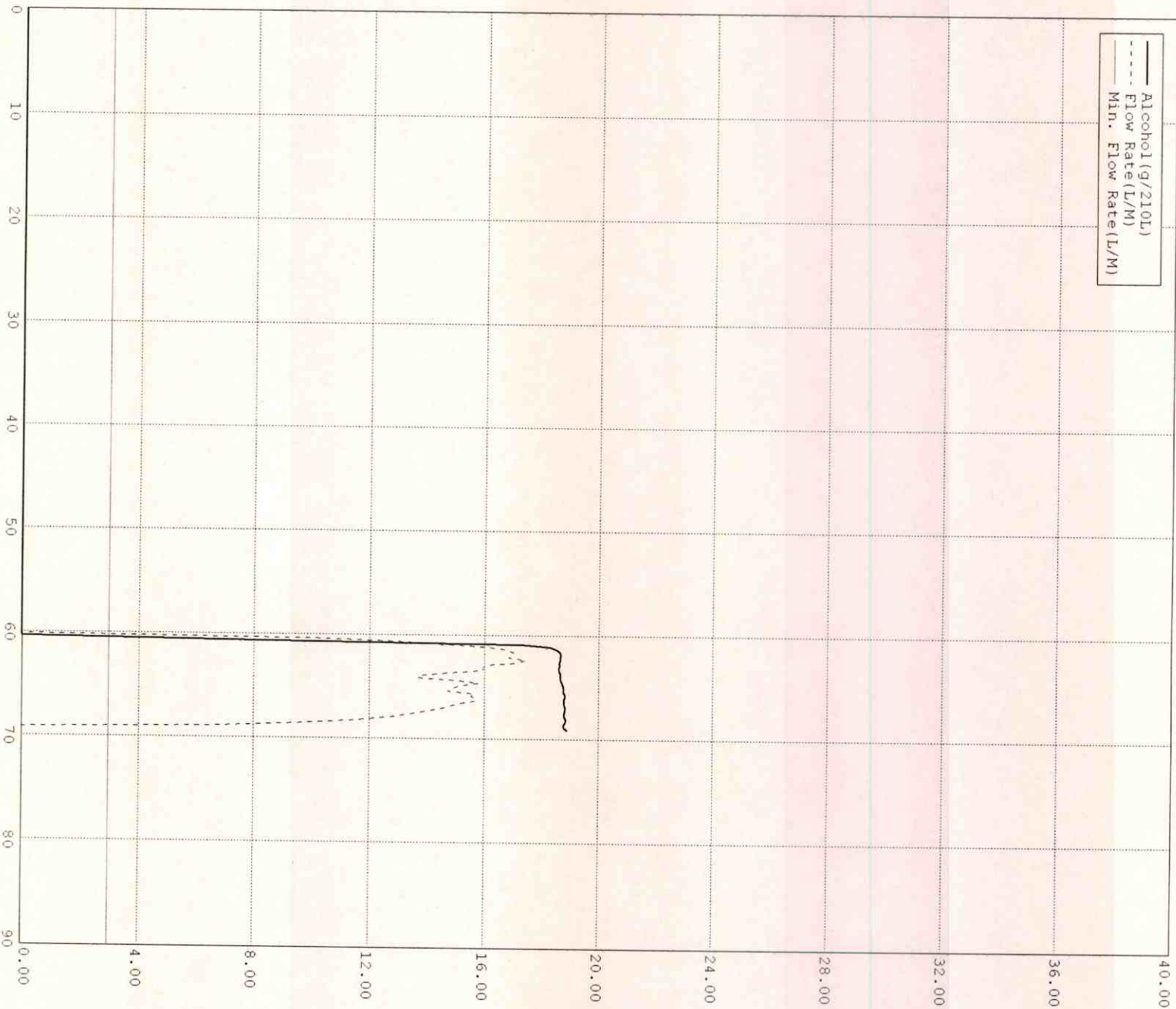
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.93: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:32
BLANK TEST	0.000	11:32
INTERNAL STANDARD	VERIFIED	11:32
Xq = 0.086 (1.34%)		
EXTERNAL STANDARD	0.080	11:32
X[1] = 0.0800 (0.0000)	(0.0031)	
BLANK TEST	0.000	11:33
SUBJECT SAMPLE (Vol=2.12L)	0.095	11:34
X[1] = 0.0954 (-0.0005)	(0.0016)	
BLANK TEST	0.000	11:35
EXTERNAL STANDARD	0.080	11:36
X[1] = 0.0796 (0.0004)	(0.0021)	
BLANK TEST	0.000	11:36

*BBB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/30/2021  
Time: 11:10:43

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

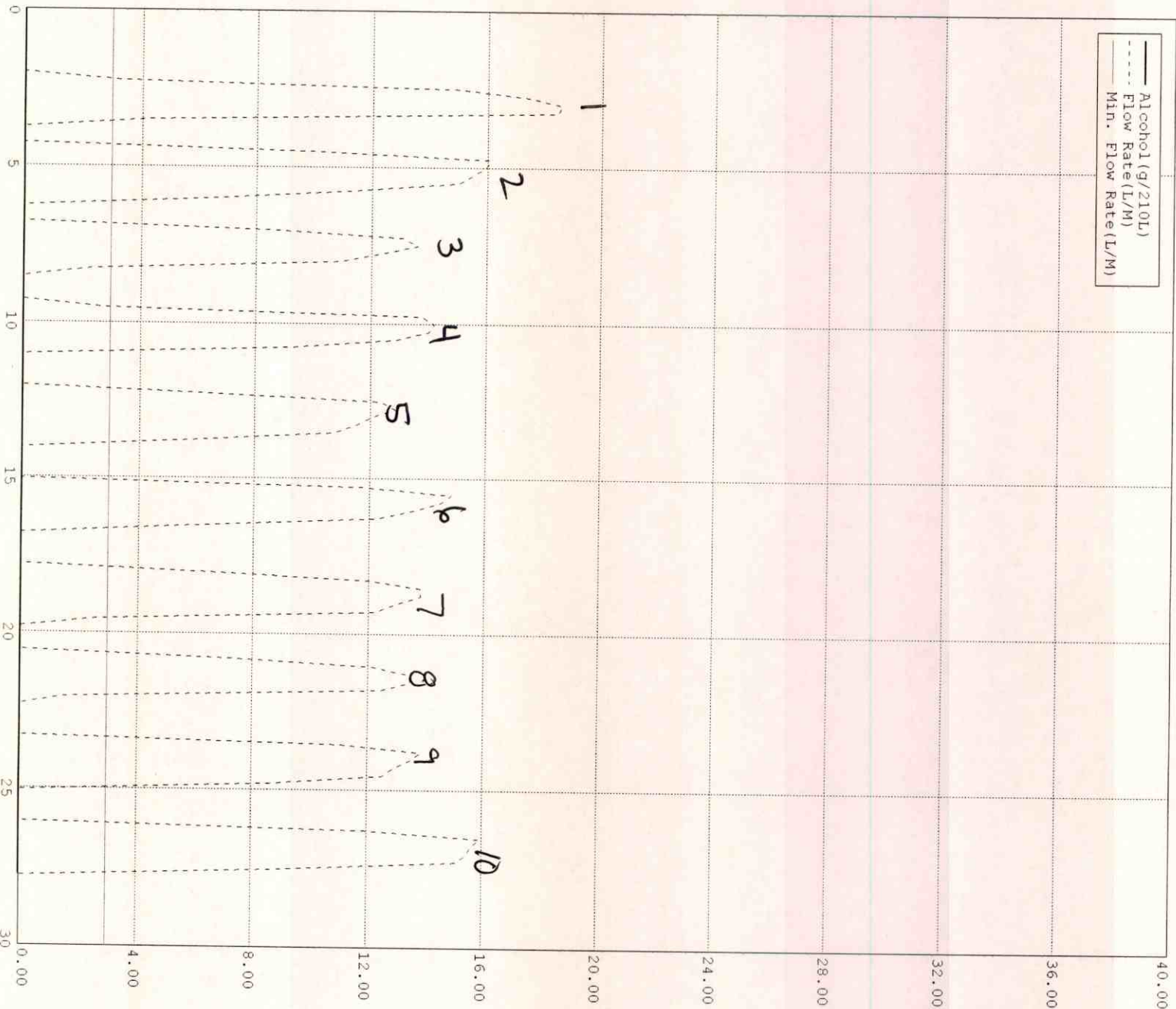
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.93: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:11
BLANK TEST	0.000	11:12
INTERNAL STANDARD	VERIFIED	11:12
EXTERNAL STANDARD	0.080	11:12
BLANK TEST	0.000	11:13
SUBJECT SAMPLE	XXX	11:13

Maximum Attempts Exceeded

*BB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/30/2021  
Time: 11:06:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

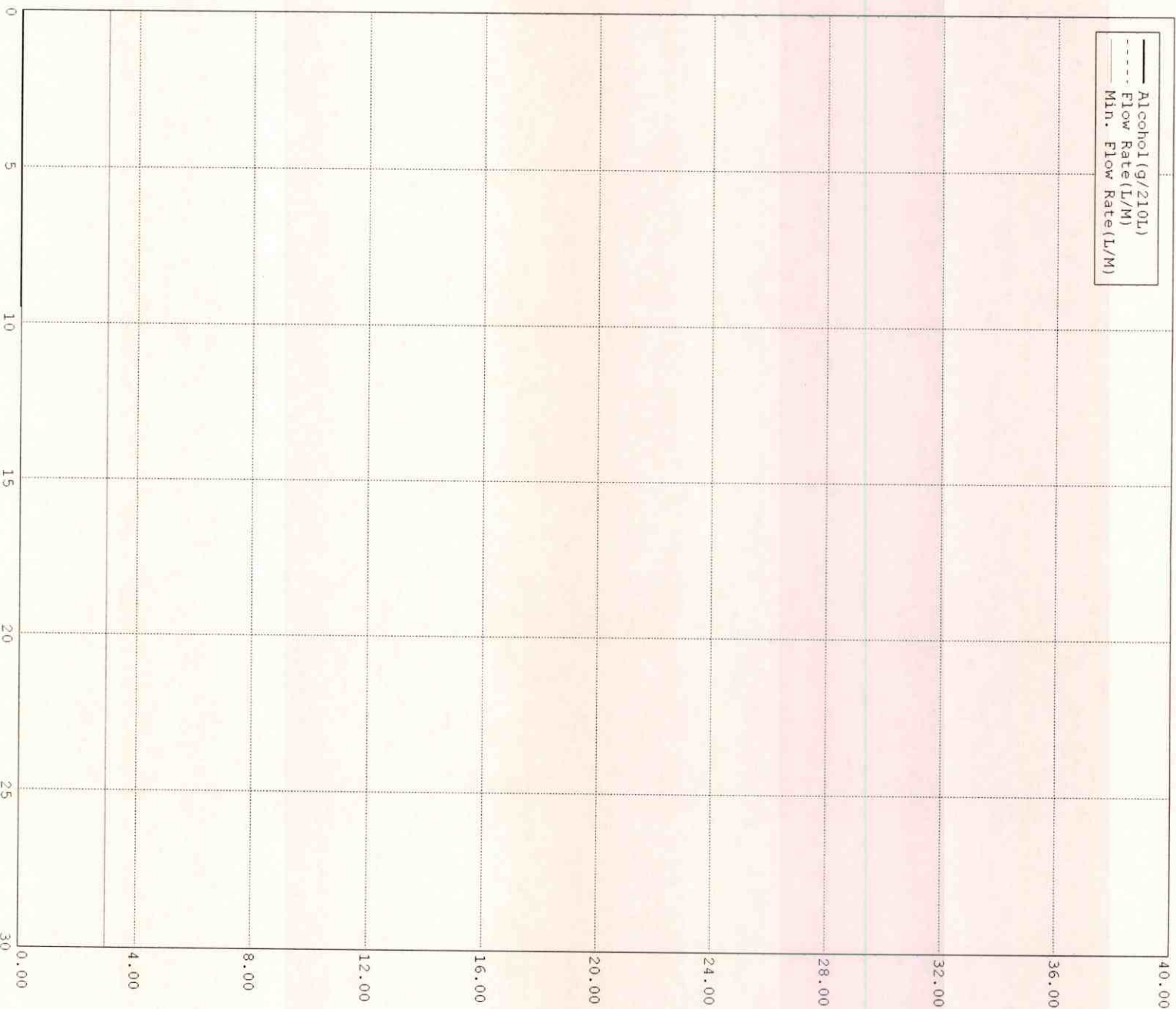
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.93: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:07
BLANK TEST	0.000	11:07
INTERNAL STANDARD	VERIFIED	11:07
EXTERNAL STANDARD	0.080	11:07
BLANK TEST	0.000	11:08

RFI DETECTED

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100399

Date: 07/30/2021  
Time: 12:14:26

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 29.93: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	12:15
BLANK TEST	0.000	12:15
INTERNAL STANDARD	VERIFIED	12:15
EXTERNAL STANDARD	0.080	12:15
BLANK TEST	0.000	12:16
SUBJECT SAMPLE (Vol=2.61L)	0.000	12:17
BLANK TEST	0.000	12:18
EXTERNAL STANDARD	0.080	12:18
BLANK TEST	0.000	12:19

Handwritten signature: BMB

