

# 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 100379 Analyst CRF Start Date 8/31/15

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 ILMO Lot 02915020A2 Exp 3/5/17

ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 3/5/17

iii. 0.080g/210L Mnf ILMO Lot 01315080A2 Exp 2/5/17

iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17

v. 0.200g/210L Mnf Guth Lot 15130 Exp 5/11/17

1. Simulator S/N DR4162 Date Calibrated 1/19/15

vi. 0.300g/210L Mnf Guth Lot 14270 Exp 12/2/16

1. Simulator S/N DR6267 Date Calibrated 1/20/15

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

i. Acetone - Mnf Guth Lot 14110 Level 0.100 Exp 5/1/16

1. Simulator S/N DR4163 Date Calibrated 1/19/15

ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17

1. Simulator S/N SD1176 Date Calibrated 1/20/15

iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17

1. Simulator S/N SD1200 Date Calibrated 1/20/15

e. RFI

6. Verify stylus is calibrated

9. Verification of Calibration

7. Reset Options

10. Non-Drinking Subject Test (attached)

8. Clear Memory

11. Upload

13. Remove tank prior to shut down

End Date 9/1/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 08/31/2015  
Time: 09:25:00

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.9°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.55 V PASSED  
(0.95 V - 2.21 V)  
Cooler Voltage = 1.52 V PASSED  
(0.96 V - 2.24 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 549 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.5 in

PUMP INFO

Flow Rate = 4.471 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  
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.080 0.55% PASSED  
(0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100378  
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Date: 08/31/2015  
Time: 9:39 AM

Temperatures (°C)  
Sample Cell: 48.6°C  
Breath Tube: 48.0°C

Current Barometer 29.4 in  
Volume (Ltr) 1.48

Settings  
Lamp: 1.55 V  
Bias: 80 V  
Cooler: 1.52 V  
Chopper: 548 Hz

Voltages (V)  
Flow: 1.05 V  
Detector: 0.034 V

CALIBRATION FACTORS

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Alaska Department of Public Safety  
DATAMASTER dmt: 100378  
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Date: 03/02/2011  
Time: 16:36:22

Ca = 0.1000  
CAL = 0.979544 0.800 <= CAL < 1.200  
b1 = 0.0003 0.0000 <= b1 < 0.0040  
b2 = 0.0051 0.0010 <= b2 < 0.0100  
b3 = 0.0000 0.0000 <= b3 < 0.0040  
Xq = 0.0794 0.0500 <= Xq < 0.2000  
a21 = 1.179335 1.050 <= a21 < 1.300  
a31 = 0.448413 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 08/31/2015  
Time: 10:07:05

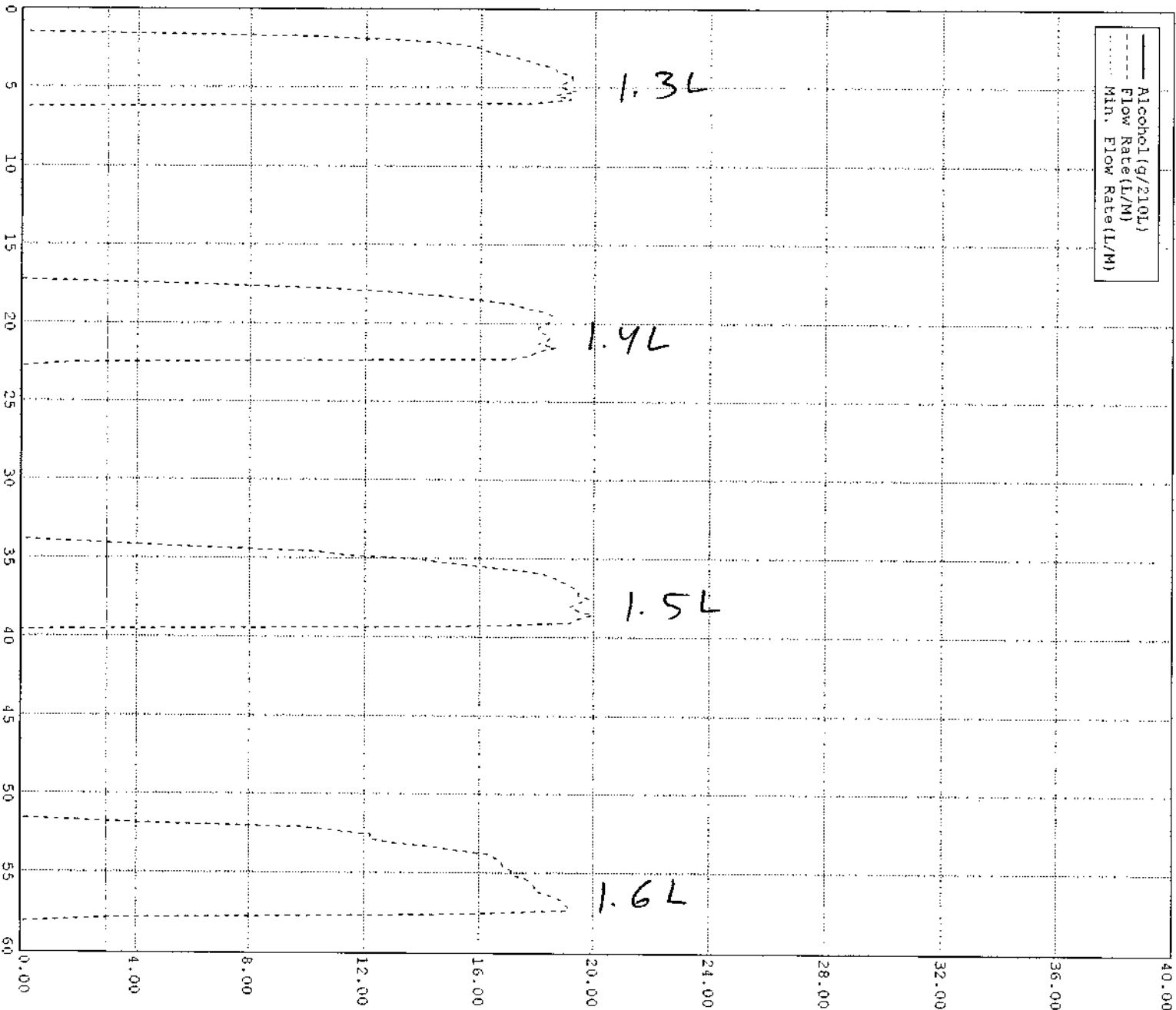
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
MINIMUM VOLUME  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AV 29.37: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:09
BLANK TEST	0.000	10:09
INTERNAL STANDARD	VERIFIED	10:09
EXTERNAL STANDARD	0.080	10:09
BLANK TEST	0.000	10:10
SUBJECT SAMPLE (Vol=1.57L)	0.000	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.079	10:12
BLANK TEST	0.000	10:13



LINEARITY CHECK

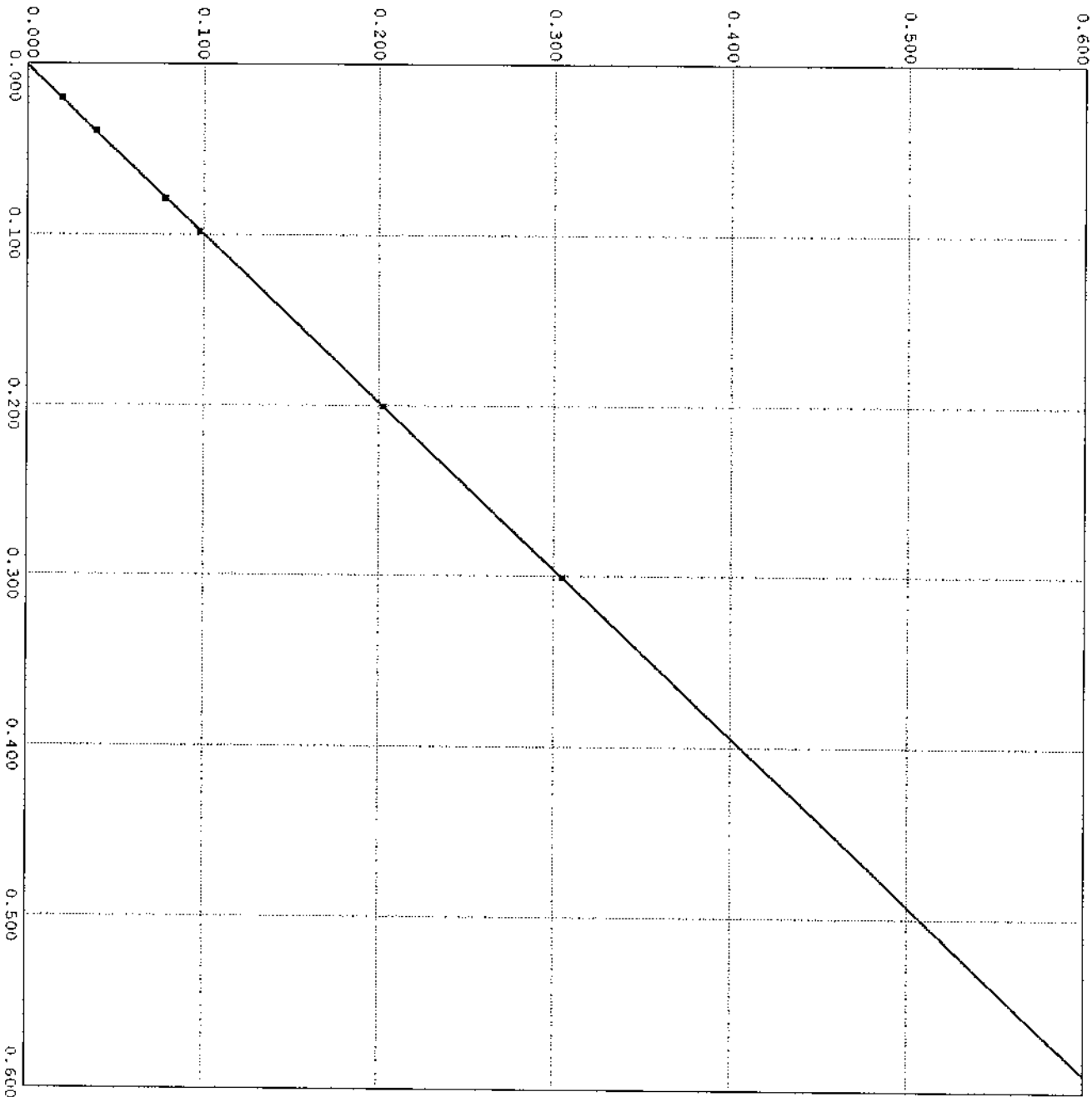
Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 08/31/2015  
Time: 11:37:52

SUPERVISOR NAME:  
CHARLES FOSTER  
OPERATOR'S #: 7734

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.039	0.0400	0.0000
0.079	0.0792	0.0004
0.098	0.0986	0.0005
0.200	0.2034	0.0009
0.300	0.3054	0.0005

SLOPE = 1.019011  
R<sup>2</sup> = 0.999967



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100378

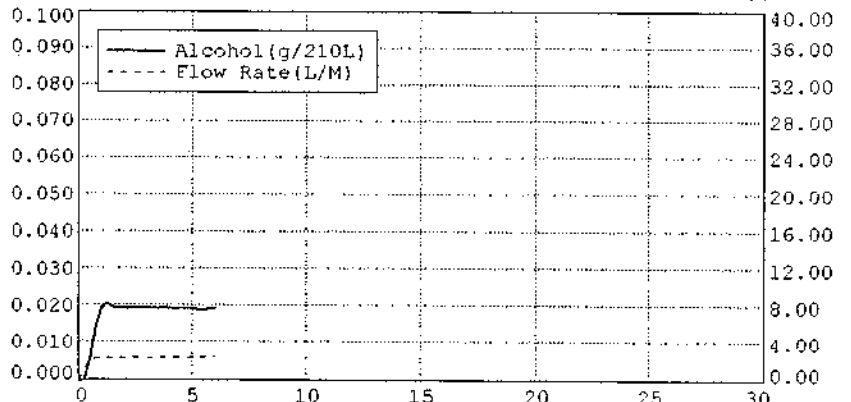
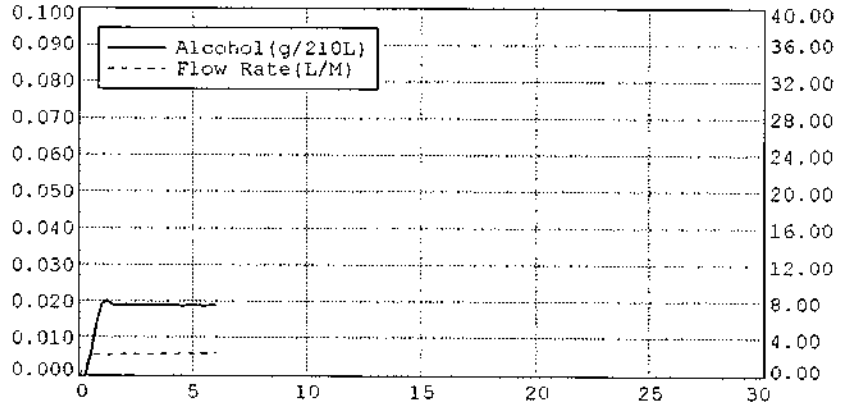
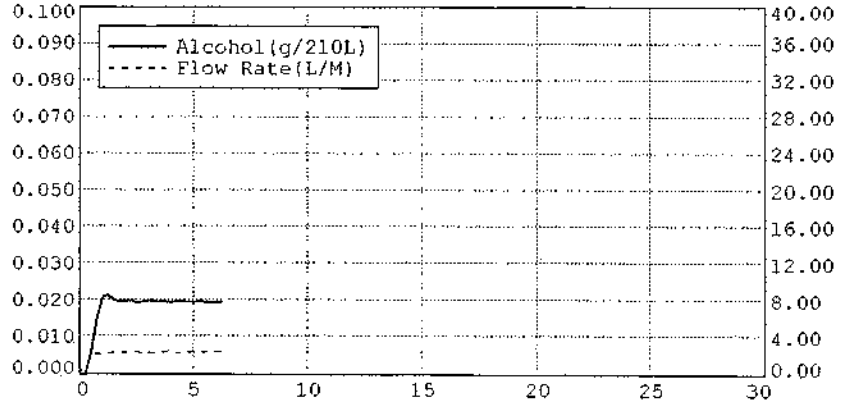
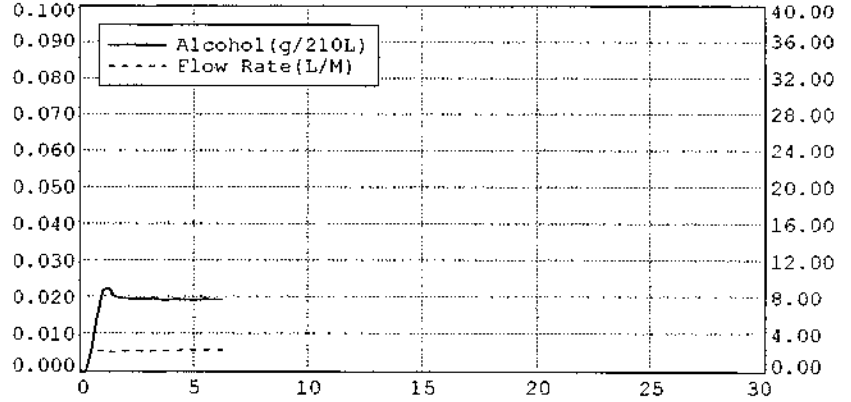
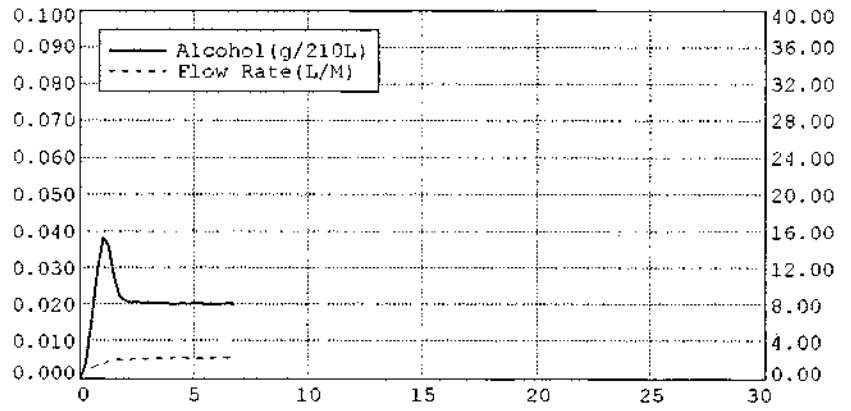
Date: 08/31/2015  
 Time: 11:37:54

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.38: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 436 psi

BLANK TEST	0.000	11:39
INTERNAL STANDARD	VERIFIED	11:39
EXTERNAL STANDARD	0.021	11:39
BLANK TEST	0.000	11:40
EXTERNAL STANDARD	0.020	11:40
BLANK TEST	0.000	11:41
EXTERNAL STANDARD	0.020	11:41
BLANK TEST	0.000	11:42
EXTERNAL STANDARD	0.020	11:42
BLANK TEST	0.000	11:43
EXTERNAL STANDARD	0.020	11:44
BLANK TEST	0.000	11:44

Average = 0.0202  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

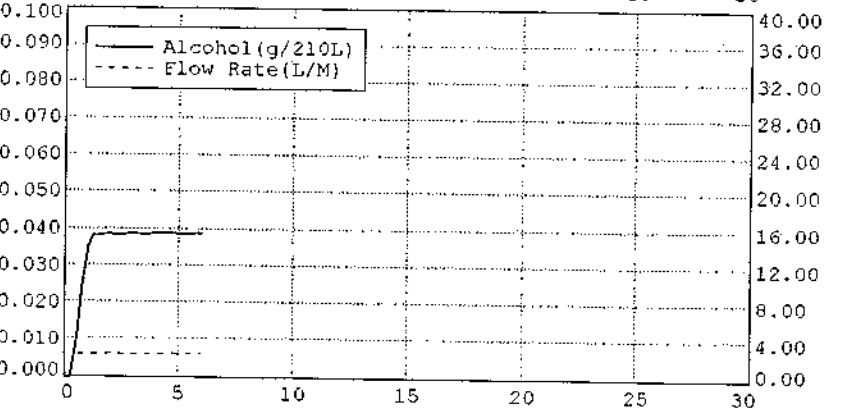
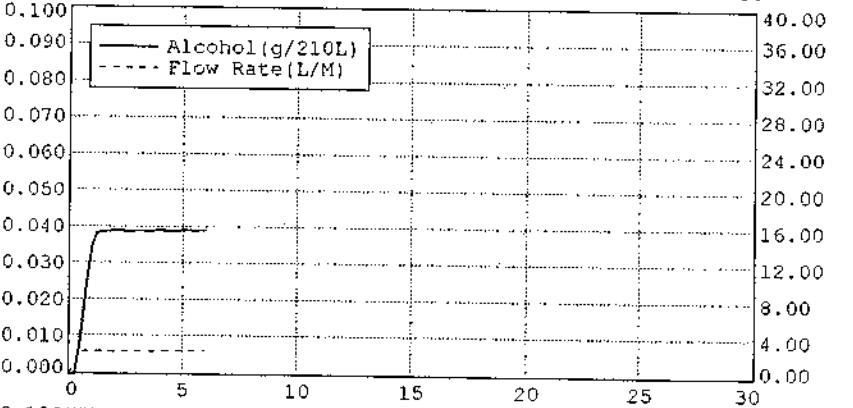
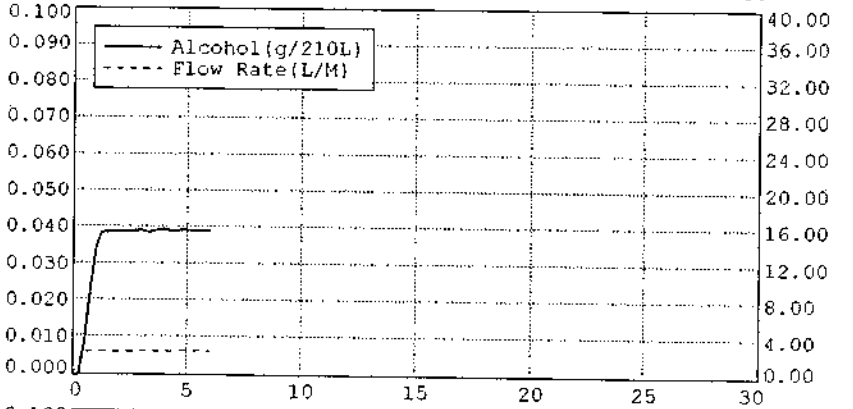
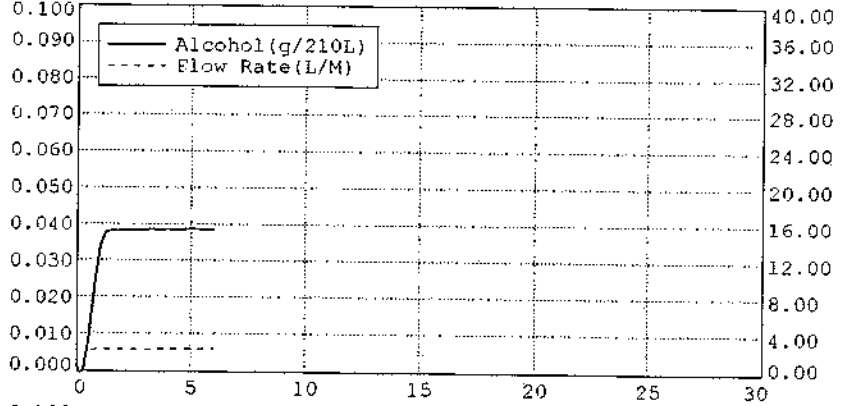
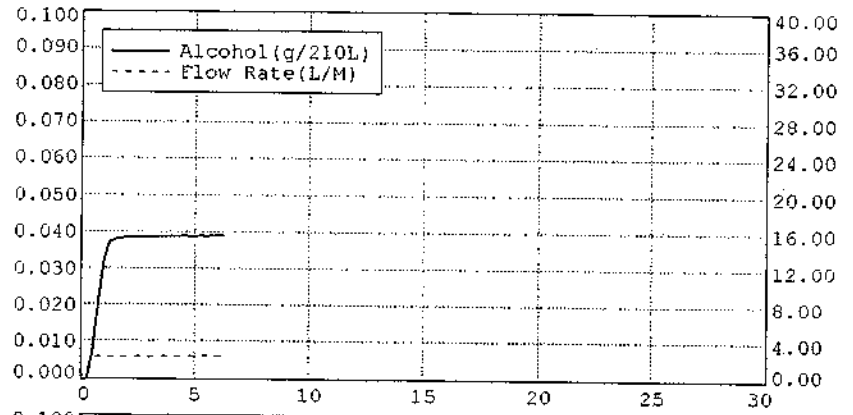
Date: 08/31/2015  
Time: 11:46:06

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 29.38: 0.039  
LOT #: 02915040A3  
EXPIRATION: 03/05/2017  
TANK PRESSURE: 528 psi

BLANK TEST	0.000	11:47
INTERNAL STANDARD	VERIFIED	11:47
EXTERNAL STANDARD	0.040	11:47
BLANK TEST	0.000	11:48
EXTERNAL STANDARD	0.040	11:48
BLANK TEST	0.000	11:49
EXTERNAL STANDARD	0.040	11:50
BLANK TEST	0.000	11:50
EXTERNAL STANDARD	0.040	11:51
BLANK TEST	0.000	11:52
EXTERNAL STANDARD	0.040	11:52
BLANK TEST	0.000	11:53

Average = 0.0400  
Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

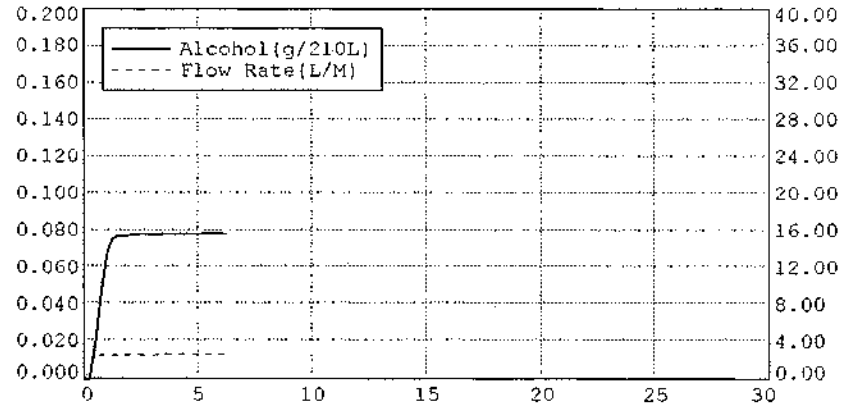
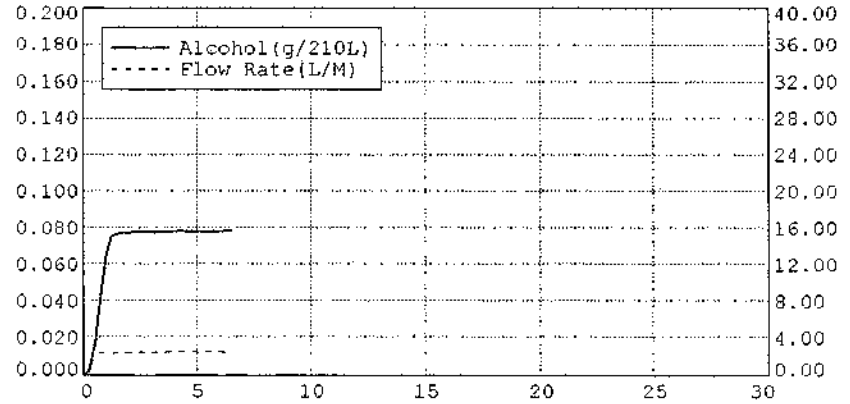
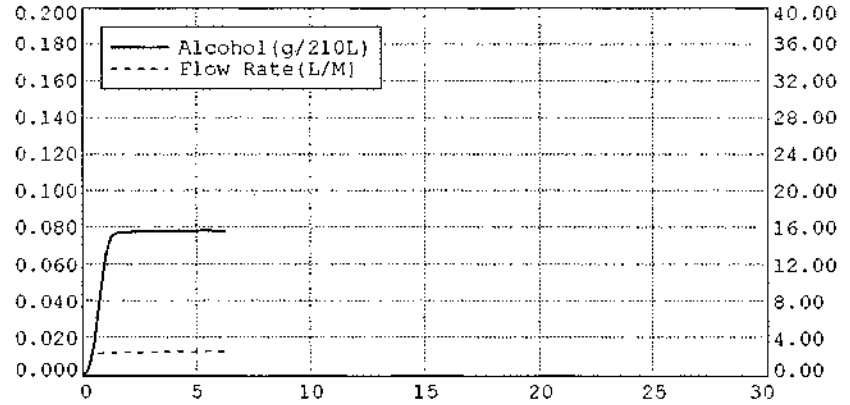
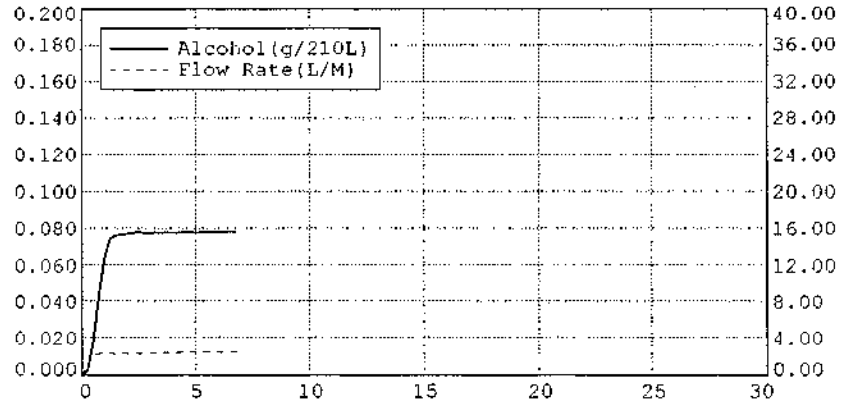
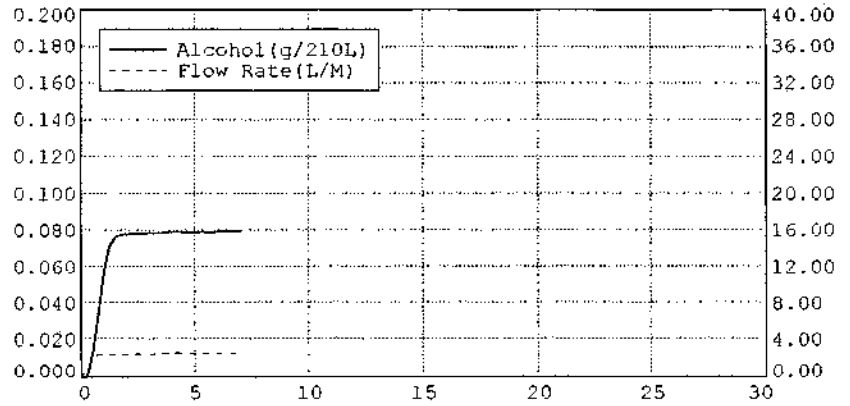
Date: 08/31/2015  
Time: 11:55:05

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.38: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017  
TANK PRESSURE: 924 psi

BLANK TEST	0.000	11:56
INTERNAL STANDARD	VERIFIED	11:56
EXTERNAL STANDARD	0.080	11:56
BLANK TEST	0.000	11:57
EXTERNAL STANDARD	0.079	11:58
BLANK TEST	0.000	11:59
EXTERNAL STANDARD	0.079	11:59
BLANK TEST	0.000	12:00
EXTERNAL STANDARD	0.079	12:00
BLANK TEST	0.000	12:01
EXTERNAL STANDARD	0.079	12:01
BLANK TEST	0.000	12:02

Average = 0.0792  
Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100378

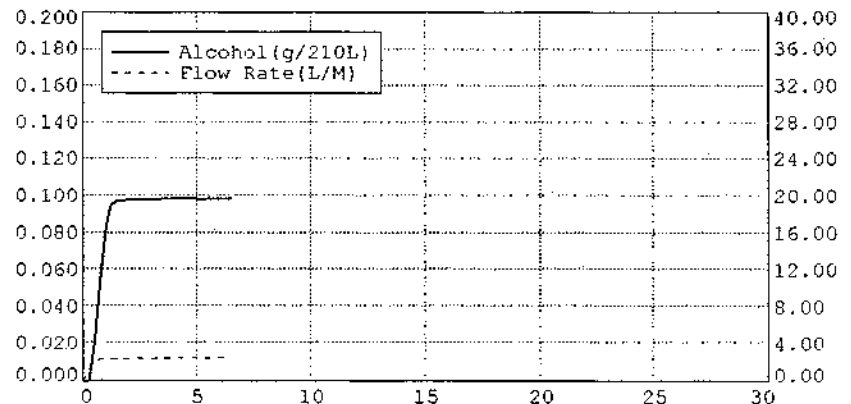
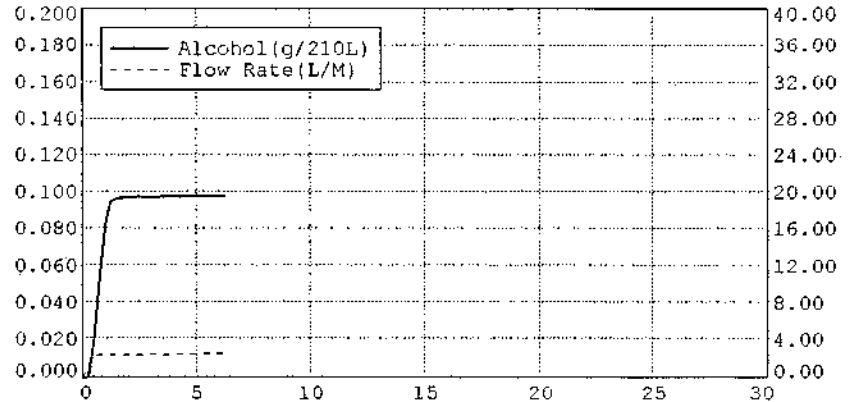
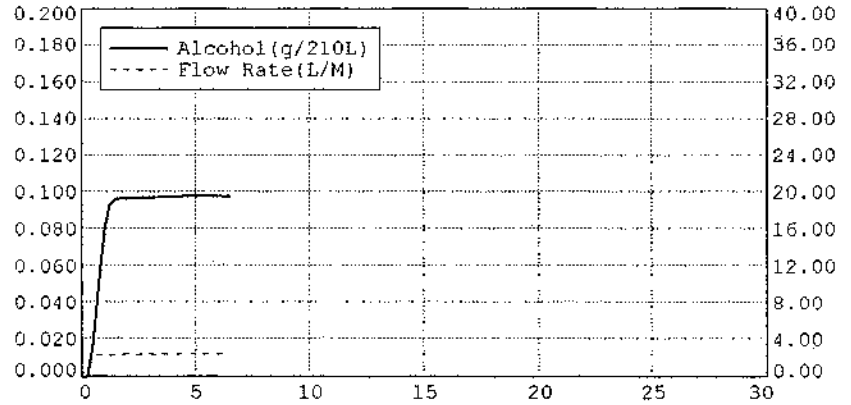
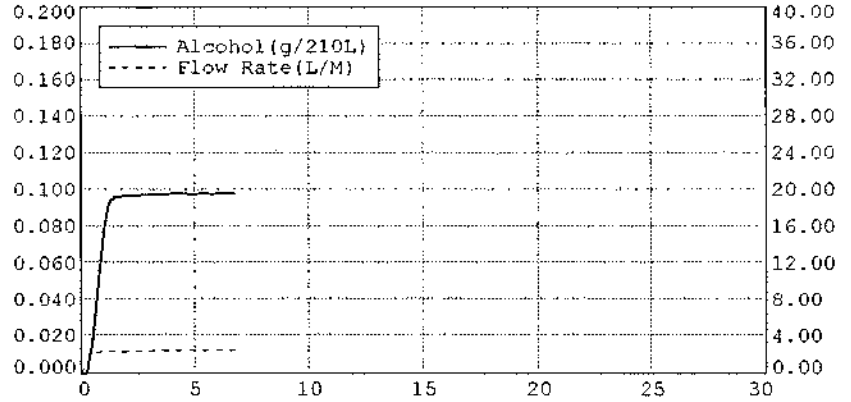
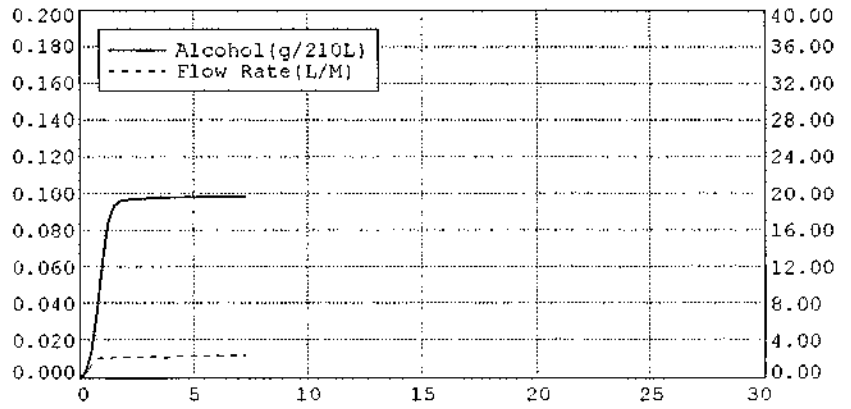
Date: 08/31/2015  
 Time: 12:03:24

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.39: 0.098  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 382 psi

BLANK TEST	0.000	12:04
INTERNAL STANDARD	VERIFIED	12:04
EXTERNAL STANDARD	0.099	12:05
BLANK TEST	0.000	12:06
EXTERNAL STANDARD	0.098	12:06
BLANK TEST	0.000	12:07
EXTERNAL STANDARD	0.099	12:07
BLANK TEST	0.000	12:08
EXTERNAL STANDARD	0.098	12:08
BLANK TEST	0.000	12:09
EXTERNAL STANDARD	0.099	12:09
BLANK TEST	0.000	12:10

Average = 0.0986  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100378

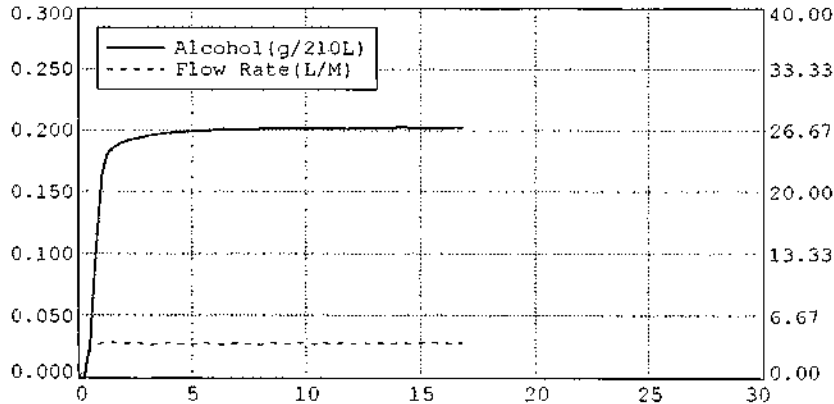
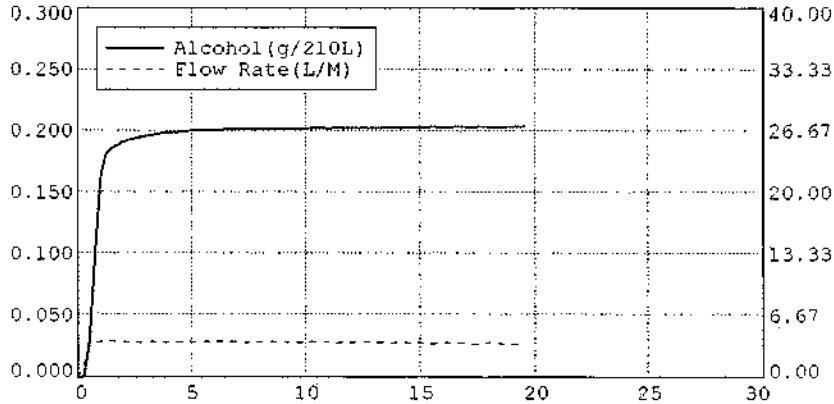
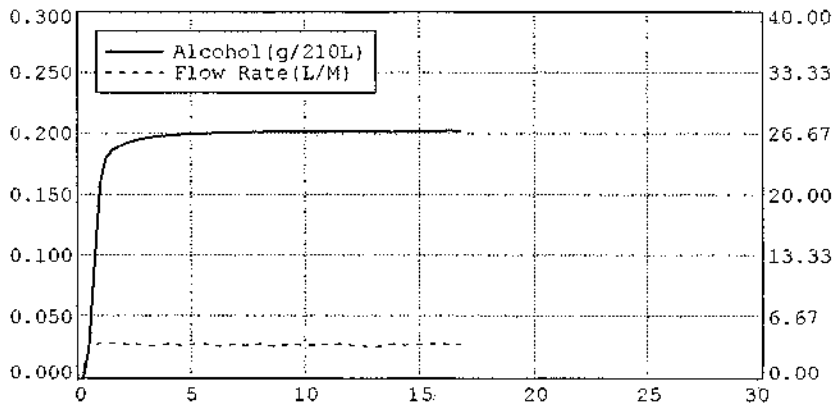
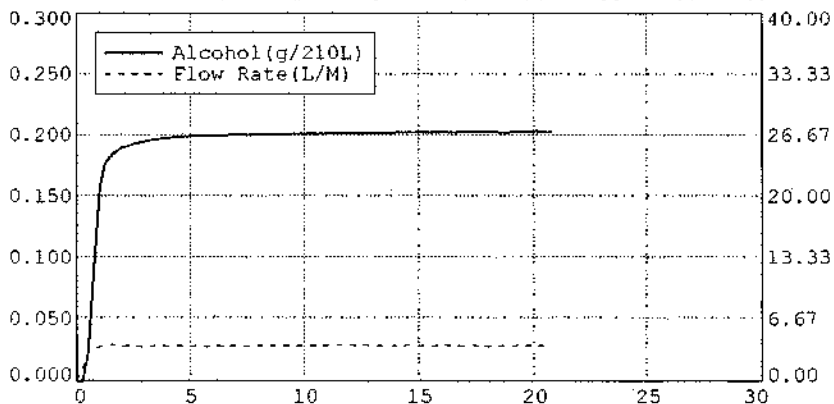
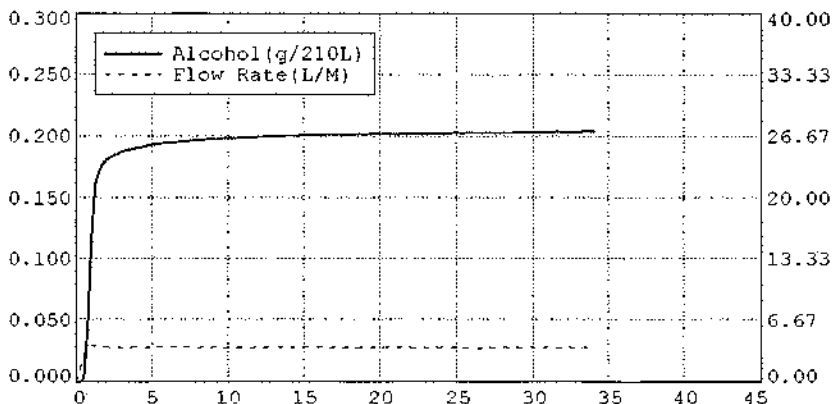
Date: 08/31/2015  
 Time: 12:12:34

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 15130  
 EXPIRATION: 05/11/2017

BLANK TEST	0.000	12:13
INTERNAL STANDARD	VERIFIED	12:13
EXTERNAL STANDARD	0.205	12:14
BLANK TEST	0.000	12:15
EXTERNAL STANDARD	0.203	12:16
BLANK TEST	0.000	12:17
EXTERNAL STANDARD	0.203	12:17
BLANK TEST	0.000	12:18
EXTERNAL STANDARD	0.203	12:18
BLANK TEST	0.000	12:19
EXTERNAL STANDARD	0.203	12:20
BLANK TEST	0.000	12:20

Average = 0.2034  
 Std Dev = 0.0009



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100378

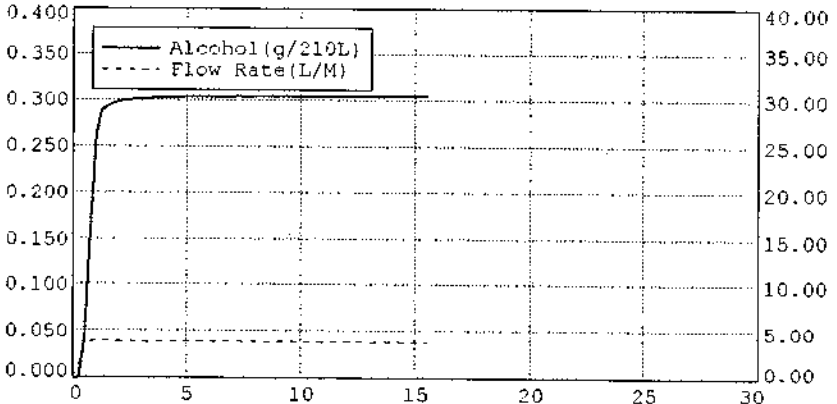
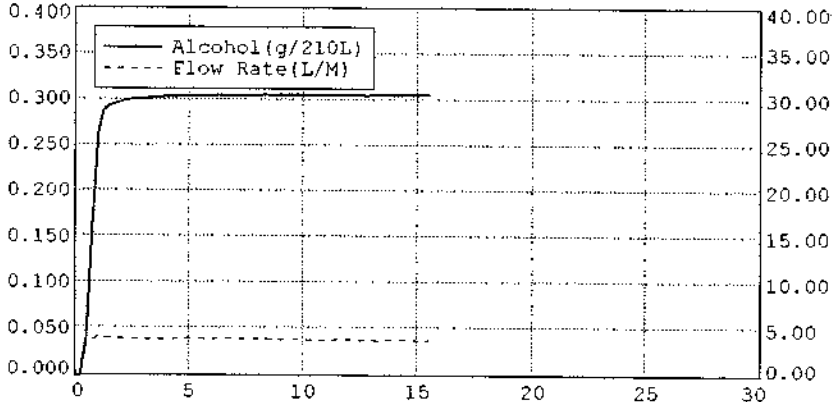
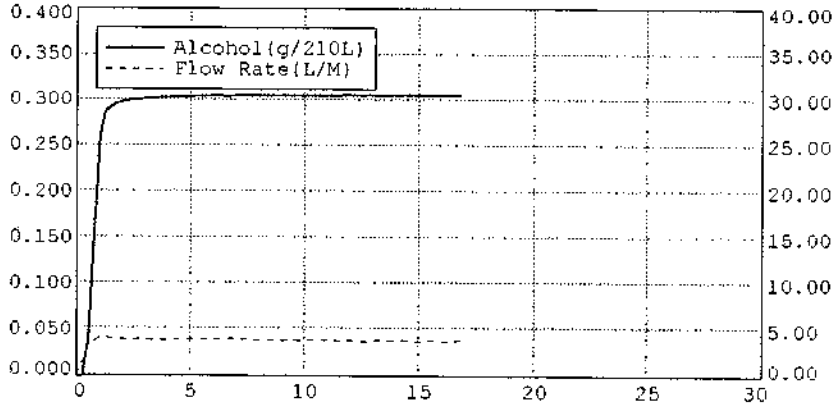
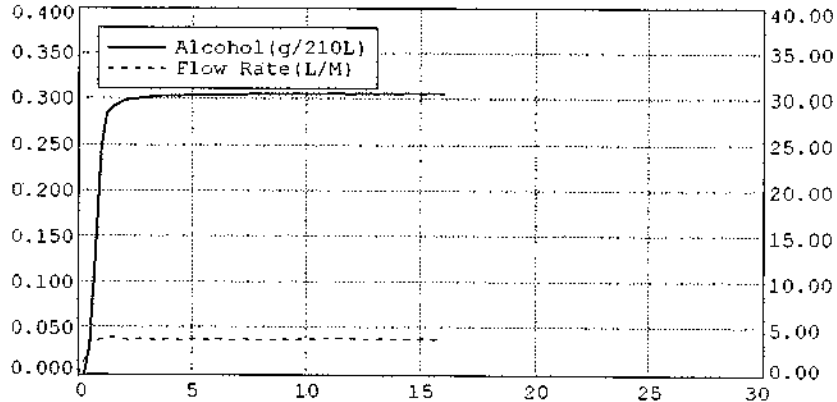
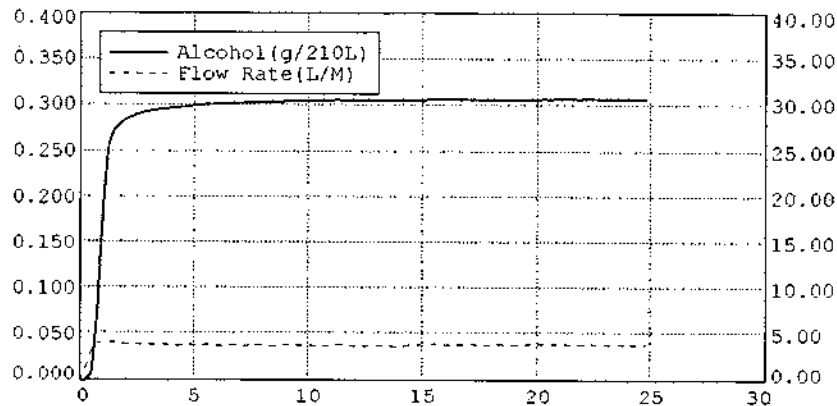
Date: 08/31/2015  
 Time: 12:22:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 14270  
 EXPIRATION: 12/02/2016

BLANK TEST	0.000	12:23
INTERNAL STANDARD	VERIFIED	12:23
EXTERNAL STANDARD	0.306	12:24
BLANK TEST	0.000	12:25
EXTERNAL STANDARD	0.306	12:26
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.305	12:27
BLANK TEST	0.000	12:28
EXTERNAL STANDARD	0.305	12:28
BLANK TEST	0.000	12:29
EXTERNAL STANDARD	0.305	12:30
BLANK TEST	0.000	12:31

Average = 0.3054  
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 09/01/2015  
Time: 11:44:38

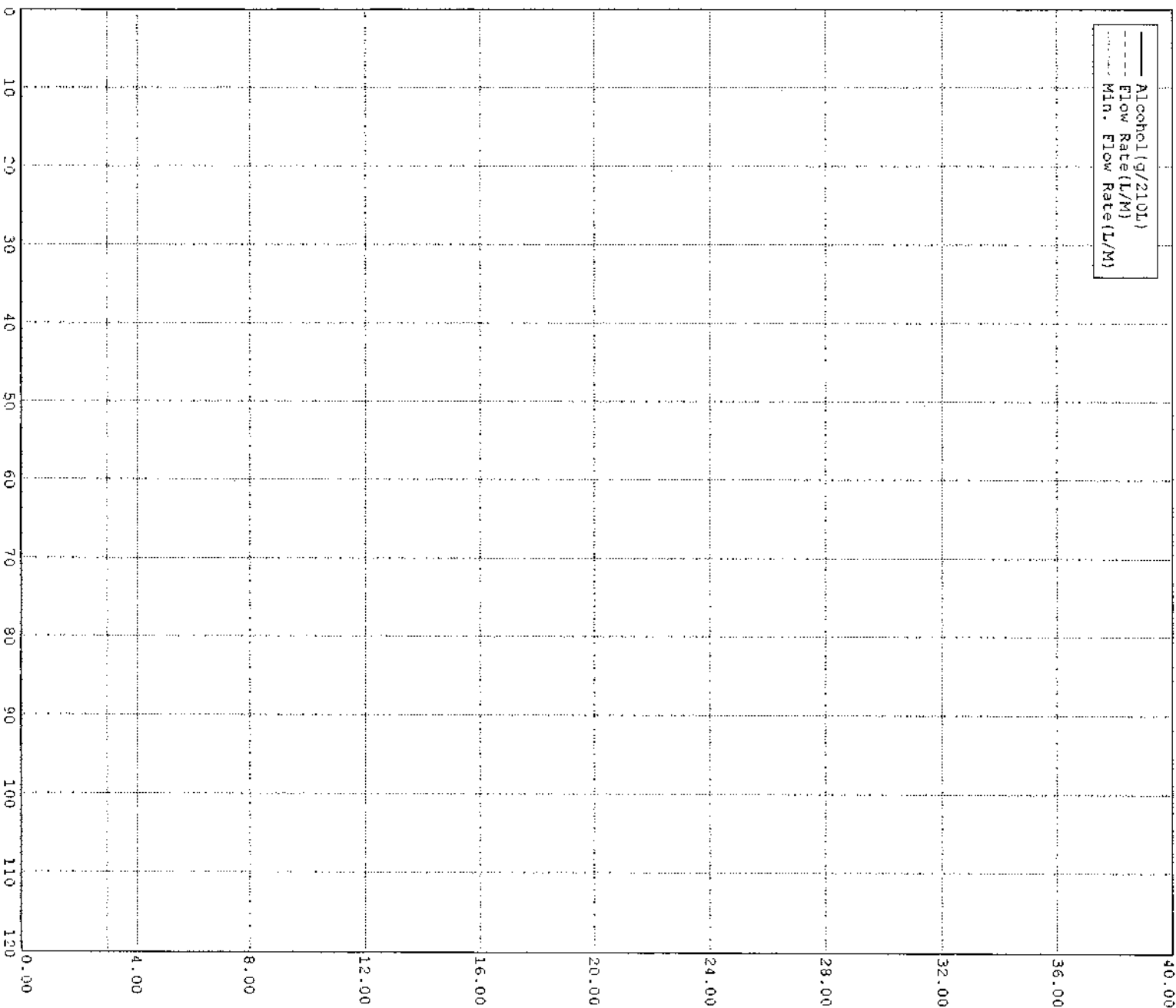
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INCOMPLETE XXXX  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.78: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:46
BLANK TEST	0.000	11:46
INTERNAL STANDARD	VERIFIED	11:46
EXTERNAL STANDARD	0.080	11:46
BLANK TEST	0.000	11:47
SUBJECT SAMPLE	INCOMPLETE	11:49



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 09/01/2015  
Time: 12:10:21

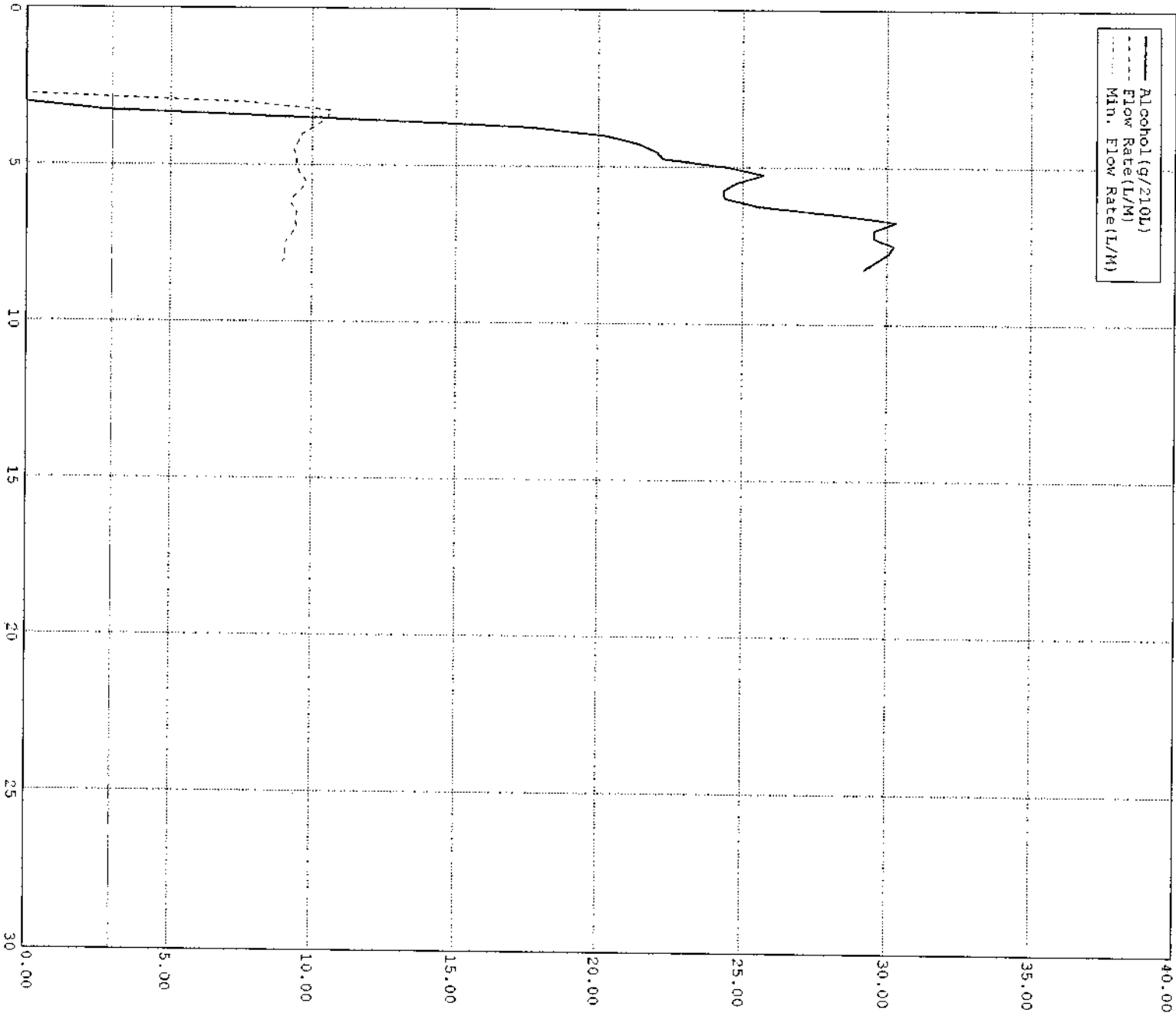
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INVALID XXXX  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.77: 0.080  
LOF #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:13
BLANK TEST	0.000	12:13
INTERNAL STANDARD	VERIFIED	12:13
EXTERNAL STANDARD	0.081	12:13
BLANK TEST	0.000	12:14
SUBJECT SAMPLE	INVALID	12:14



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 09/01/2015  
Time: 12:24:44

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INTERFERENCE ACETONE  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.78: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

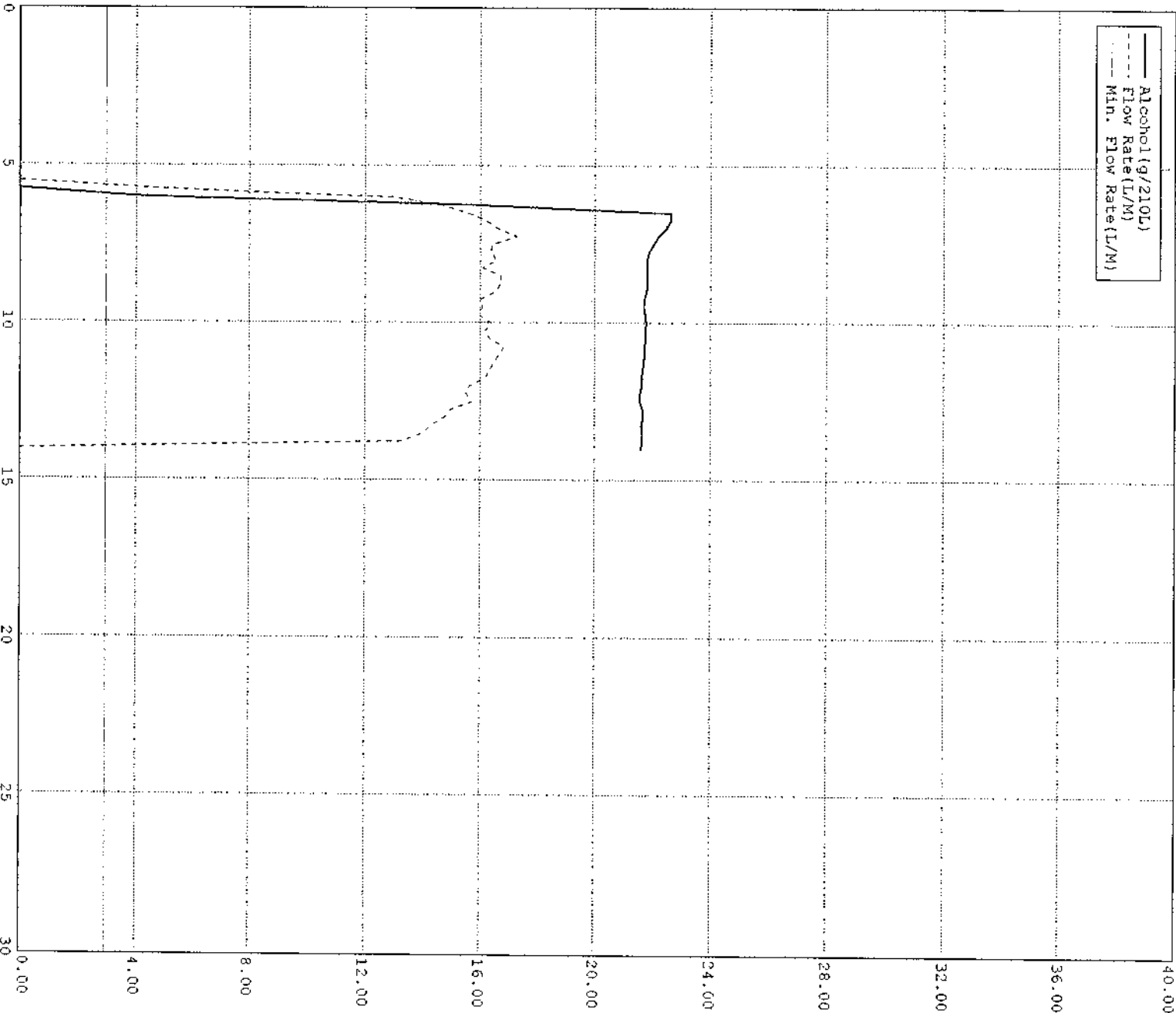
DIAGNOSTIC CHECK	PASSED	12:26
BLANK TEST	0.000	12:26
INTERNAL STANDARD	VERIFIED	12:26
Xq = 0.080 (0.66%)		
EXTERNAL STANDARD	0.080	12:26
X[1] = 0.0802 (-0.0010)	(0.0018)	
BLANK TEST	0.000	12:27
SUBJECT SAMPLE	XXX	12:28
X[1] = 0.1086 (-0.0136)	(0.0003)	

Interference Detected

Filter 2 Average = -0.0004

Filter 3 Average = 0.0019

CRF 9/1/15



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 09/01/2015  
Time: 12:32:26

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

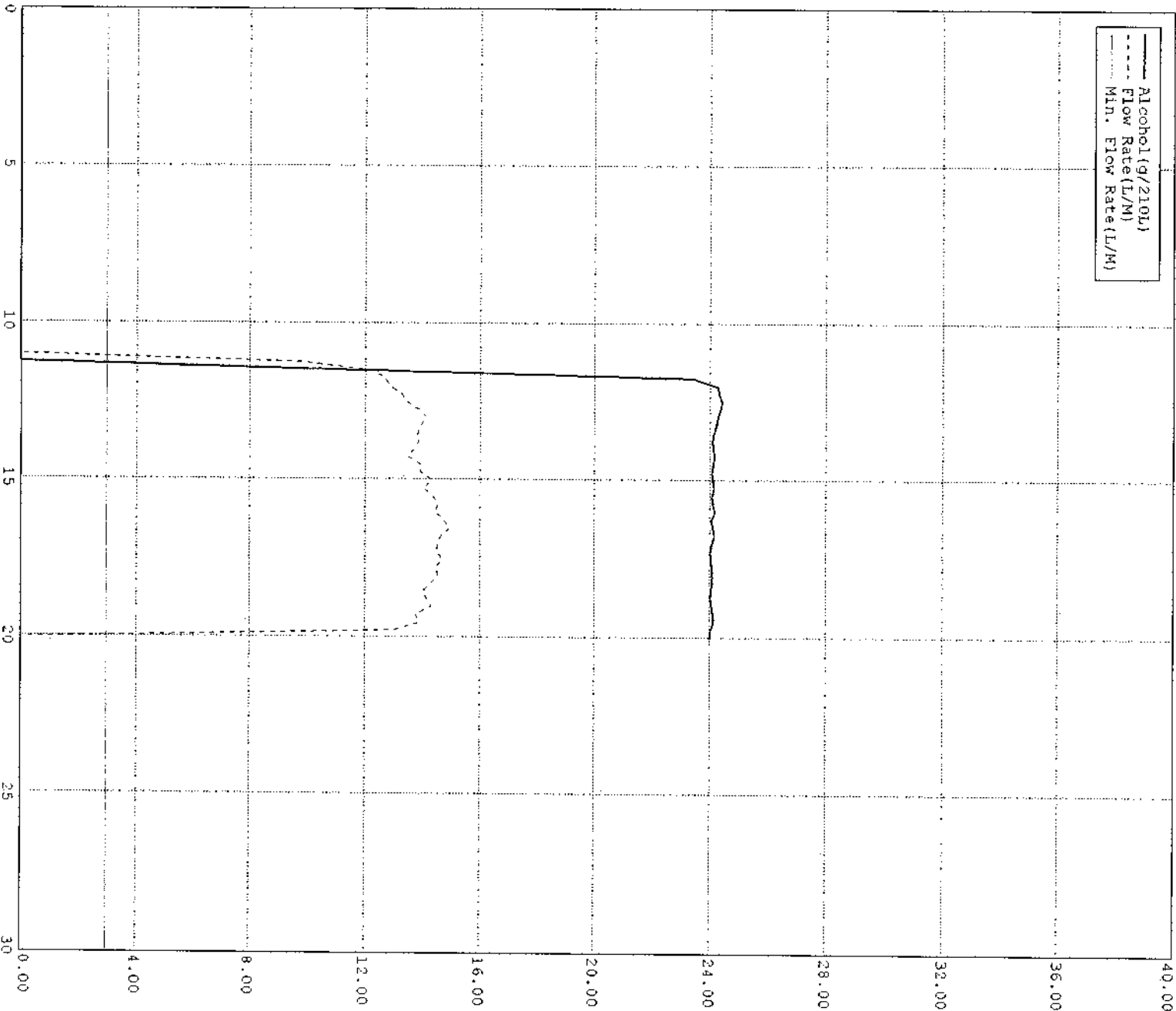
OPERATOR NAME:  
INTERFERENCE IPA  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.77: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 12:33  
BLANK TEST 0.000 12:33  
INTERNAL STANDARD VERIFIED 12:34  
Xq = 0.080 (1.09%)  
EXTERNAL STANDARD 0.080 12:34  
X[1] = 0.0804 (-0.0003) (0.0021)  
BLANK TEST 0.000 12:35  
SUBJECT SAMPLE XXX 12:35  
X[1] = 0.1203 (-0.0250) (0.0005)

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 09/01/2015  
Time: 12:40:26

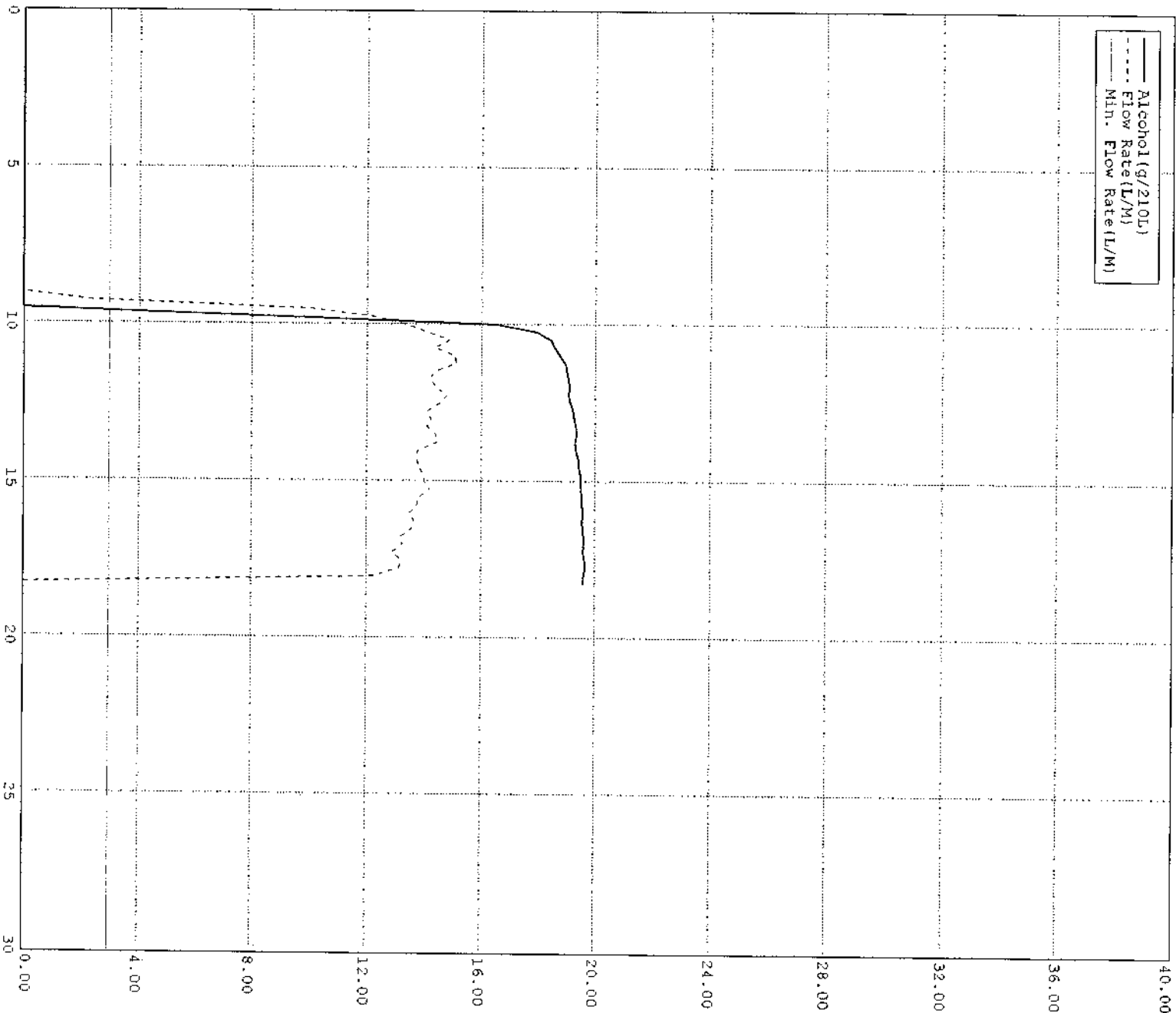
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INTERFERENCE NEGATIVE  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AP 29.77: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:41
BLANK TEST	0.000	12:41
INTERNAL STANDARD	VERIFIED	12:42
Xq = 0.080 (1.09%)		
EXTERNAL STANDARD	0.081	12:42
X[1] = 0.0810 (0.0003)	(0.0019)	
BLANK TEST	0.000	12:43
SUBJECT SAMPLE (Vol=2.02L)	0.098	12:43
X[1] = 0.0987 (-0.0006)	(0.0009)	
BLANK TEST	0.000	12:44
EXTERNAL STANDARD	0.080	12:44
X[1] = 0.0802 (-0.0004)	(0.0018)	
BLANK TEST	0.000	12:45



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 09/01/2015  
Time: 13:11:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

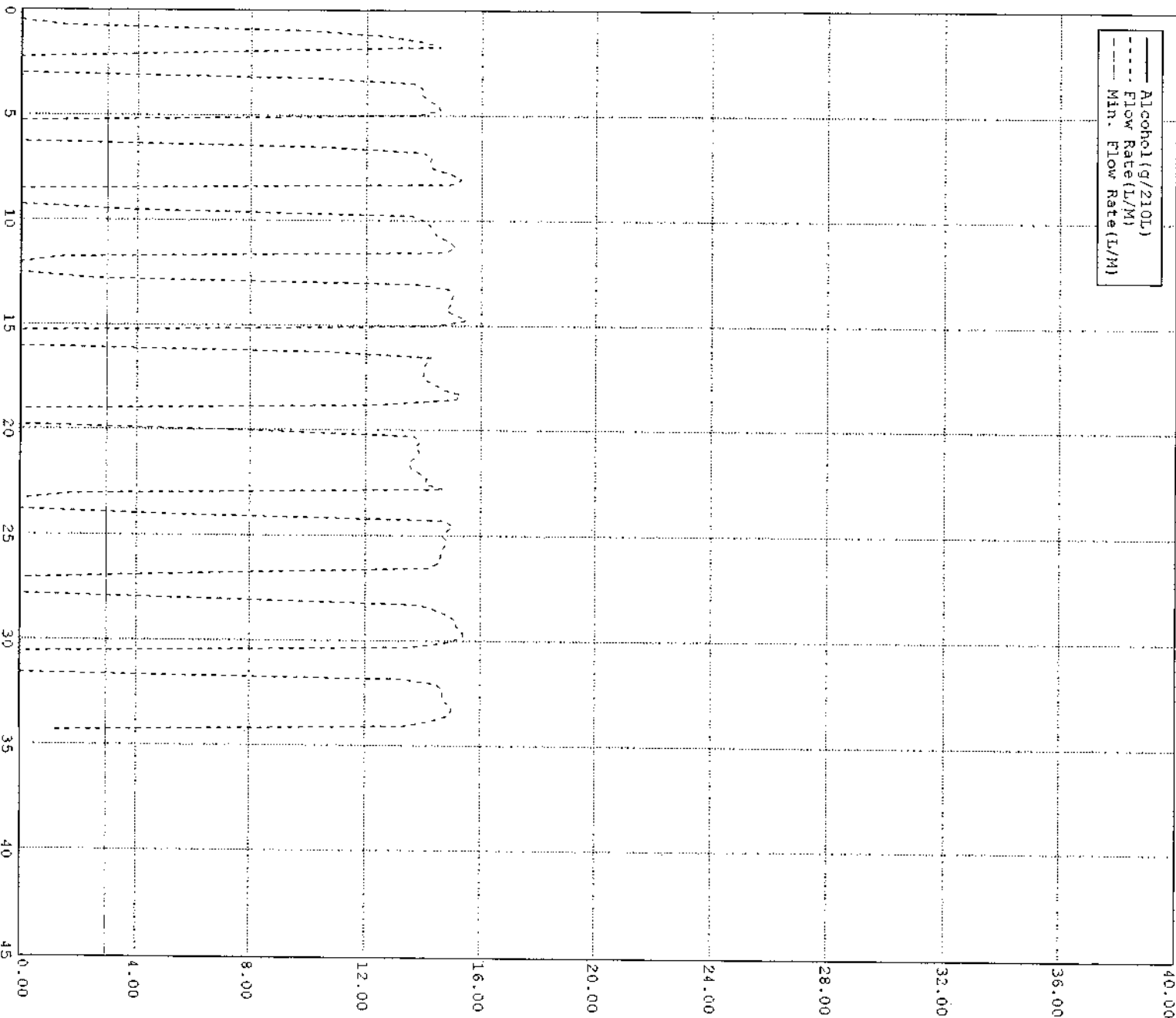
OPERATOR NAME:  
EXCEEDED ATTEMPTS  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.77: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK  
BLANK TEST PASSED 13:13  
INTERNAL STANDARD VERIFIED 13:13  
EXTERNAL STANDARD 0.081 13:14  
BLANK TEST 0.000 13:14  
SUBJECT SAMPLE XXX 13:15

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100378

Date: 09/01/2015  
Time: 13:20:41

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

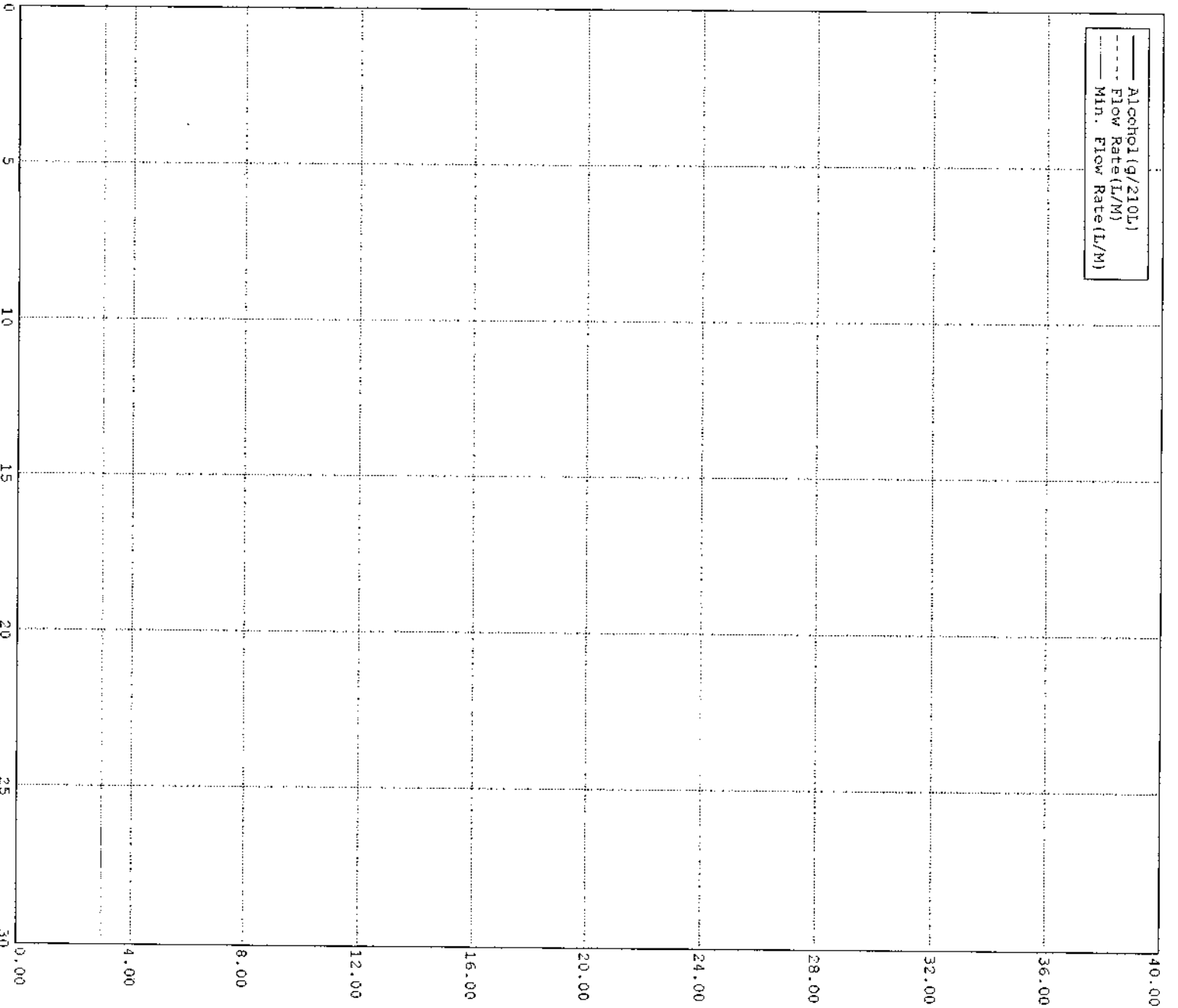
OPERATOR NAME:  
RFI XXXX  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.78: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK  
BLANK TEST PASSED 13:22  
INTERNAL STANDARD VERIFIED 13:22  
EXTERNAL STANDARD 0.080 13:22  
BLANK TEST 0.000 13:23

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100378

Date: 09/01/2015  
Time: 13:37:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
CHARLES FOSTER  
OPERATOR'S #: 7734

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.78: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:39
BLANK TEST	0.000	13:39
INTERNAL STANDARD	VERIFIED	13:39
EXTERNAL STANDARD	0.081	13:40
BLANK TEST	0.000	13:40
SUBJECT SAMPLE (Vol=2.24L)	0.000	13:41
BLANK TEST	0.000	13:42
EXTERNAL STANDARD	0.081	13:42
BLANK TEST	0.000	13:43

