

# 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 100855 Analyst Colleen Bryant Start Date 1/14/16

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 1.5 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 01315080A3 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 DR6267 Date Calibrated 1/20/15
- vi. 0.300g/210L Mnf Guth Lot 15170 Exp 7/20/17
  - 1. Simulator S/N DR4162 Date Calibrated 1/19/15

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 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 DR4178 Date Calibrated 1/19/15

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 1/19/16

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/14/2016  
Time: 08:45:27

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 = 1.74 V PASSED  
(1.04 V - 2.44 V)  
Cooler Voltage = 1.76 V PASSED  
(1.06 V - 2.46 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 537 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.6 in

PUMP INFO

Flow Rate = 4.559 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  
(0.001 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.078 0.00% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100355  
-----

Date: 01/14/2016  
Time: 10:05 AM

Temperatures (°C)

Sample Cell: 48.8°C  
Breath Tube: 47.3°C

Current Barometer 29.5 in  
Volume (Ltr) 1.51

Settings

Lamp: 1.69 V  
Bias: 80 V  
Cooler: 1.76 V  
Chopper: 536 Hz

Voltages (V)

Flow: 1.04 V  
Detector: 0.026 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100355  
-----

Date: 03/12/2012  
Time: 14:35:08

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca = 0.1000  
CAL = 0.994966 0.800 <= CAL < 1.200  
b1 = 0.0003 0.0000 <= b1 < 0.0040  
b2 = 0.0065 0.0010 <= b2 < 0.0100  
b3 = 0.0004 0.0000 <= b3 < 0.0040  
Xq = 0.0779 0.0500 <= Xq < 0.2000  
a21 = 1.192575 1.050 <= a21 < 1.300  
a31 = 0.523892 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/14/2016  
Time: 10:10:25

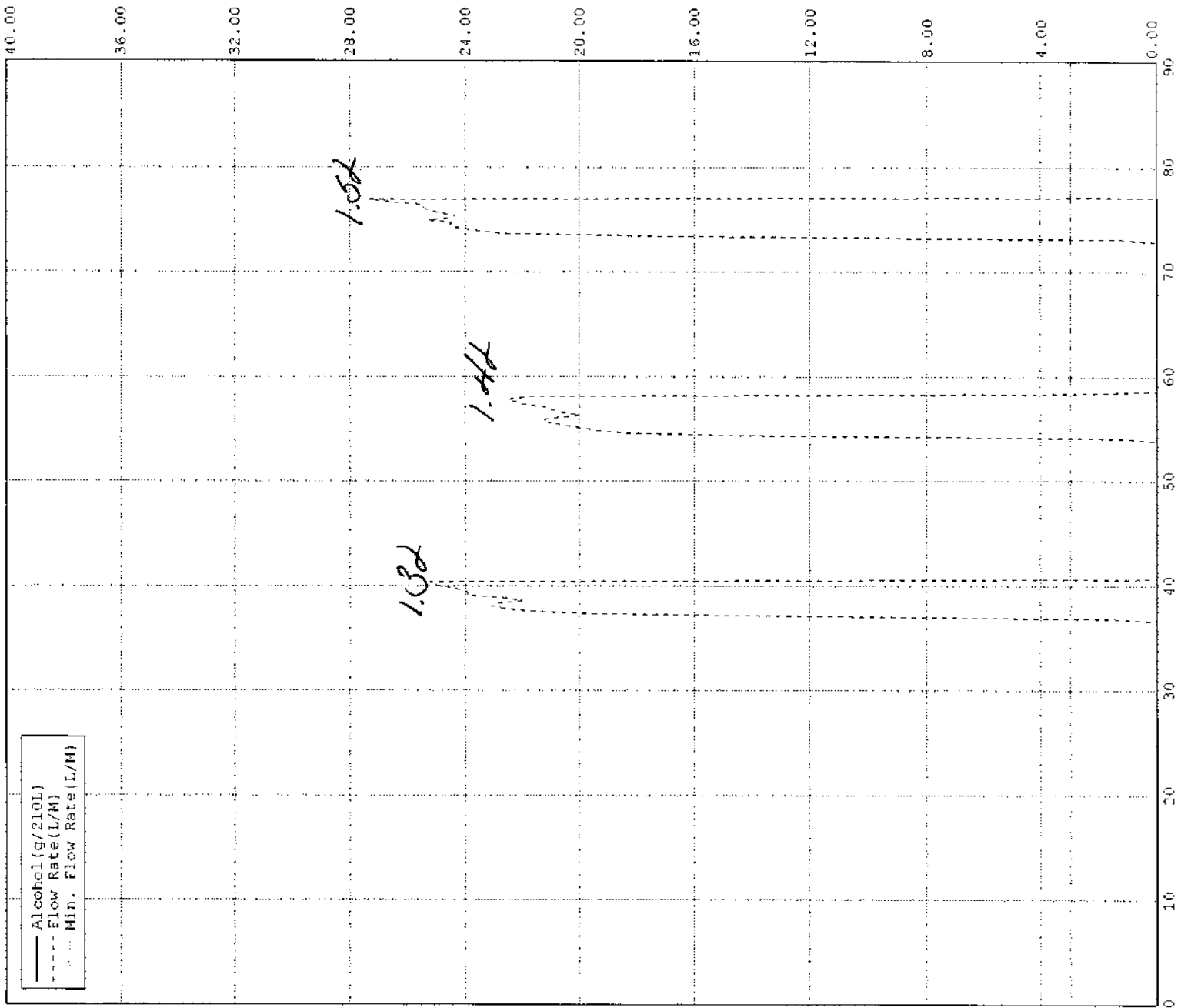
SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.55: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:12
INTERNAL STANDARD	0.000	10:12
EXTERNAL STANDARD	0.077	10:12
INTERNAL STANDARD	0.000	10:13
EXTERNAL STANDARD	0.000	10:13
SUBJECT SAMPLE (Vol=1.52L)	0.000	10:14
INTERNAL STANDARD	0.000	10:15
EXTERNAL STANDARD	0.078	10:16
INTERNAL STANDARD	0.000	10:16
EXTERNAL STANDARD	0.000	10:16



LINEARITY CHECK

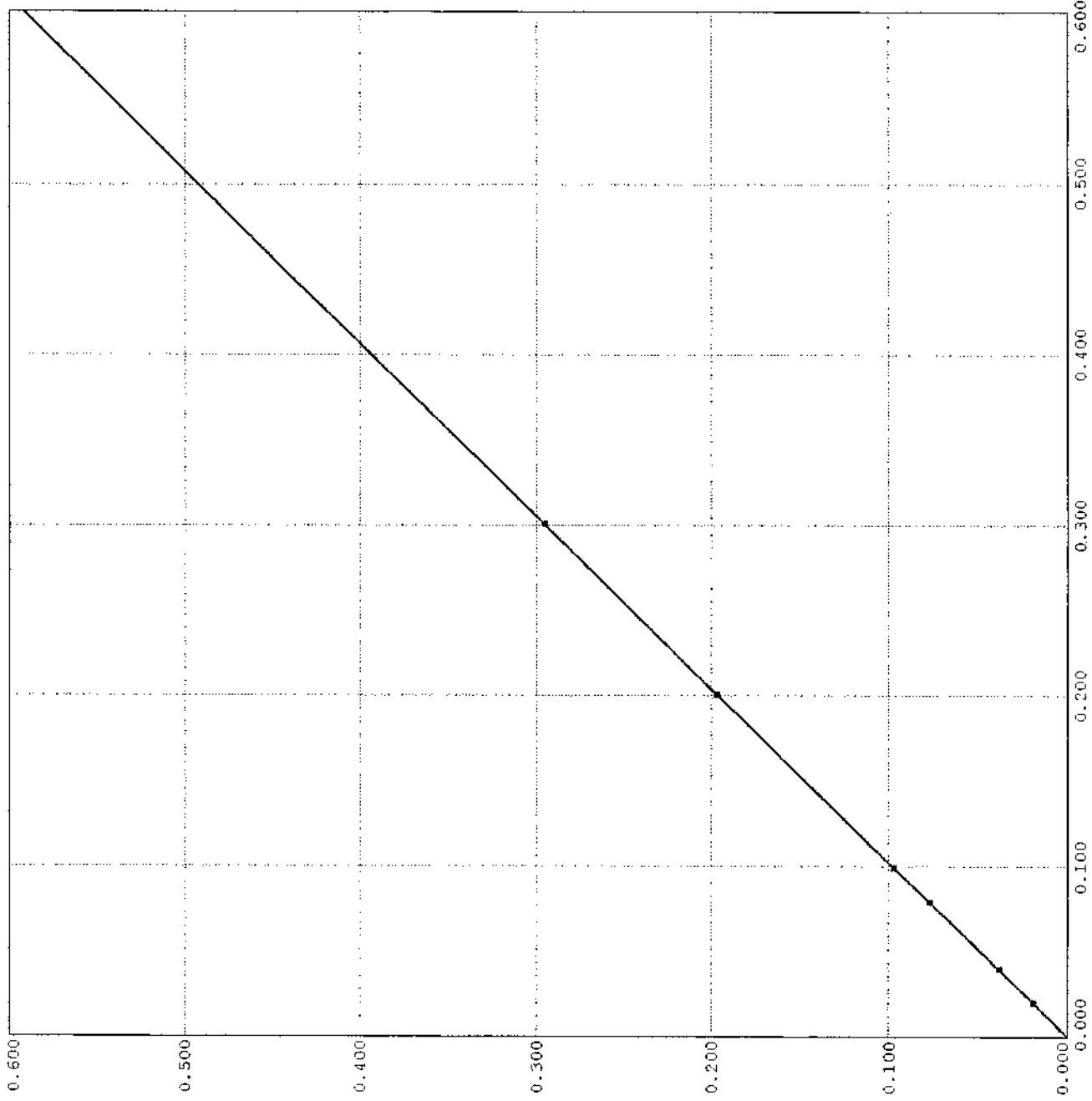
Alaska Department of Public Safety  
 DATAMASTER dmt: 100355

Date: 01/14/2016  
 Time: 10:48:01

SUPERVISOR NAME:  
 COLLEEN S O'BRYAN  
 OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.040	0.0394	0.0005
0.079	0.0778	0.0004
0.099	0.0980	0.0000
0.200	0.1976	0.0005
0.300	0.2960	0.0007

SLOPE = 0.986621  
 R<sup>2</sup> = 0.999996



CUB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100355

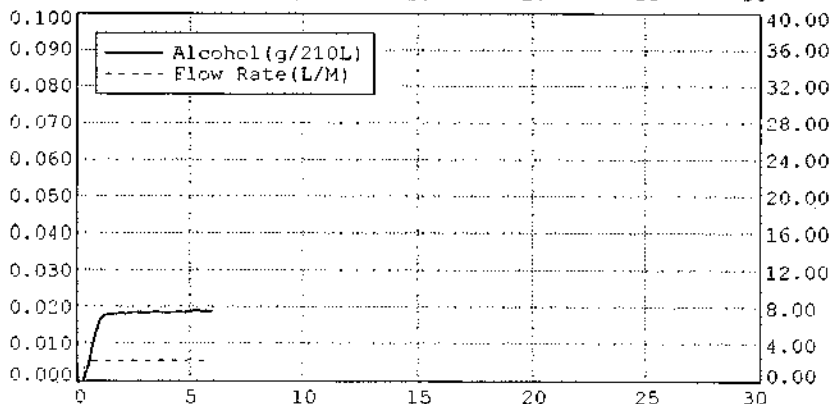
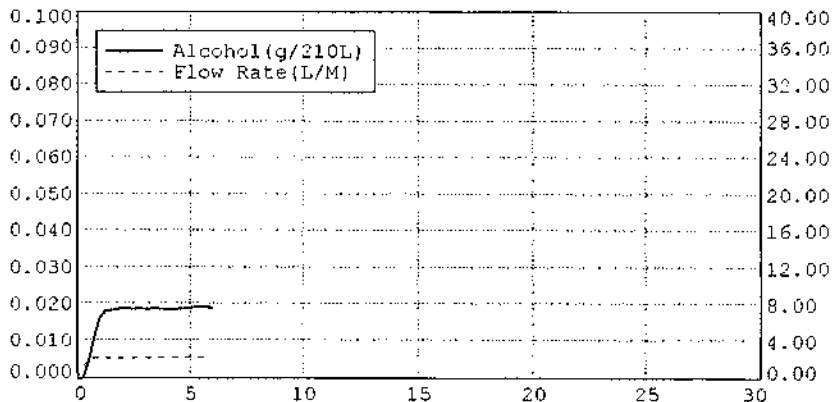
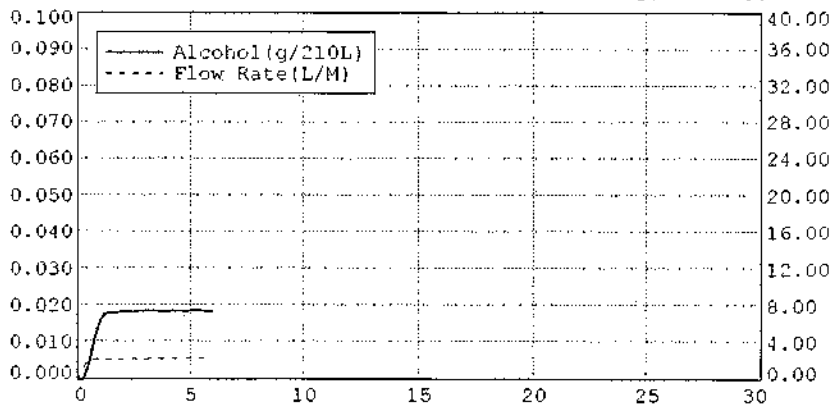
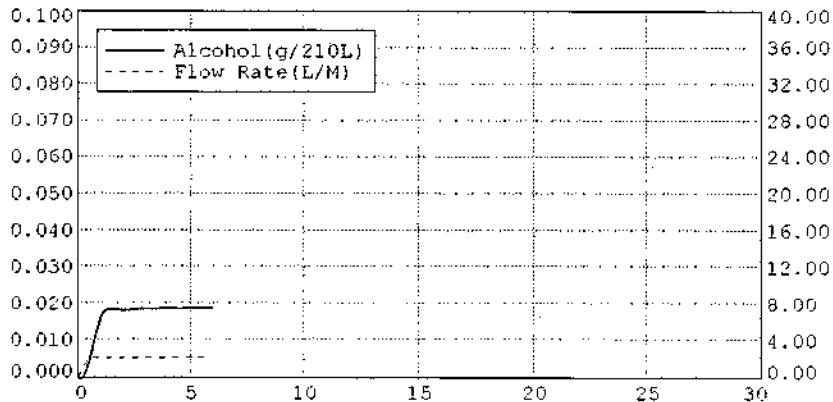
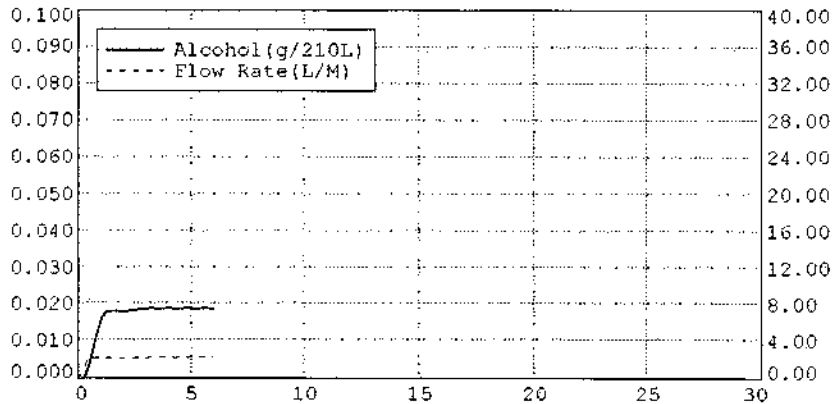
Date: 01/14/2016  
 Time: 10:48:03

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.57: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 918 psi

BLANK TEST	0.000	10:55
INTERNAL STANDARD	VERIFIED	10:55
EXTERNAL STANDARD	0.020	10:55
BLANK TEST	0.000	10:56
EXTERNAL STANDARD	0.020	10:57
BLANK TEST	0.000	10:57
EXTERNAL STANDARD	0.020	10:58
BLANK TEST	0.000	10:59
EXTERNAL STANDARD	0.020	10:59
BLANK TEST	0.000	11:00
EXTERNAL STANDARD	0.020	11:00
BLANK TEST	0.000	11:01

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100355

Date: 01/14/2016  
 Time: 14:15:09

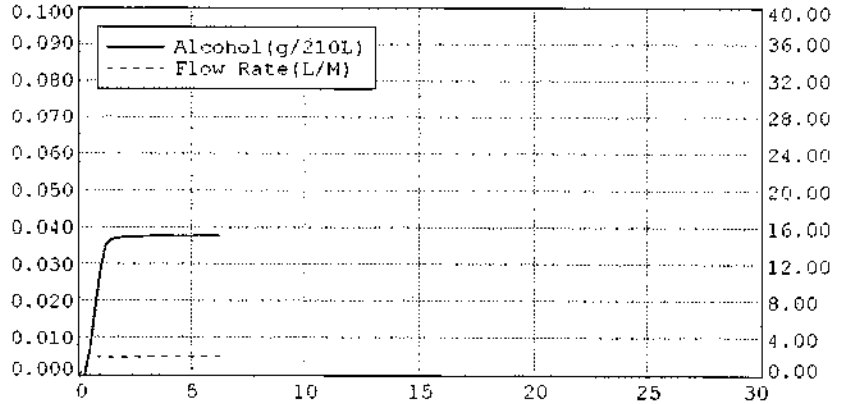
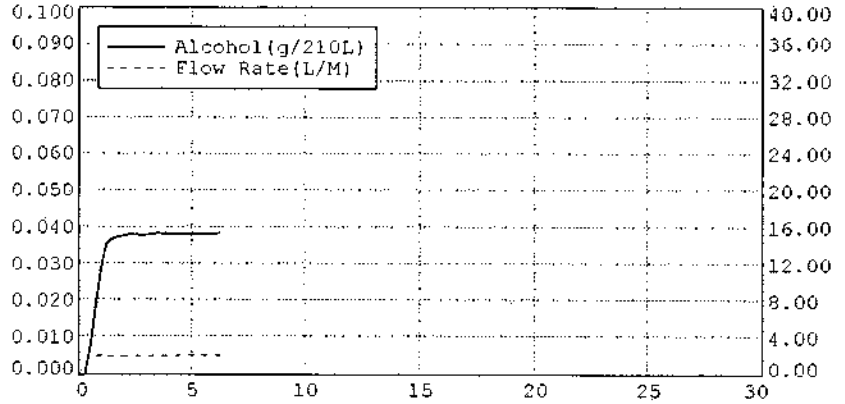
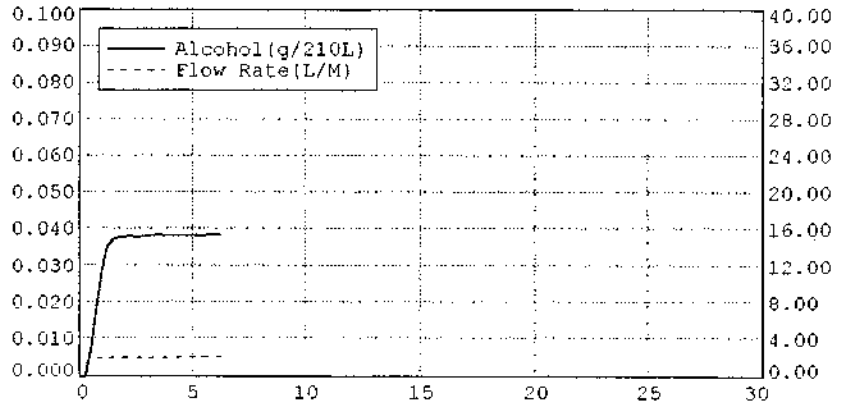
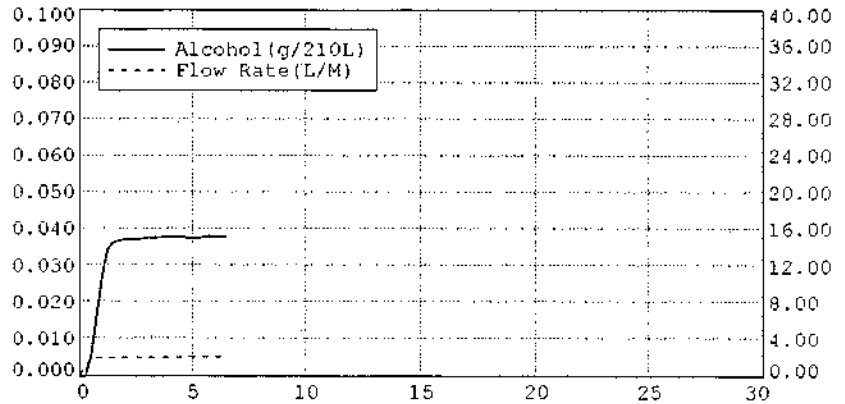
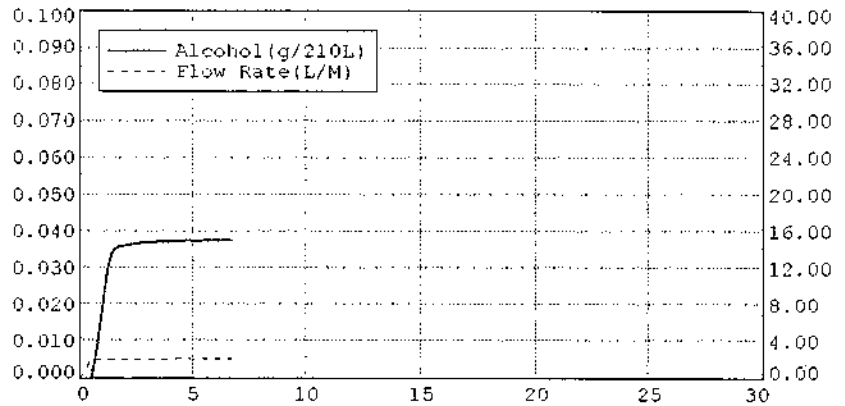
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.61: 0.040  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: ~~0 psi~~ *CRB/20/16*

*Actual PSI ~ 550*

BLANK TEST	0.000	14:17
INTERNAL STANDARD	VERIFIED	14:17
EXTERNAL STANDARD	0.039	14:17
BLANK TEST	0.000	14:18
EXTERNAL STANDARD	0.039	14:18
BLANK TEST	0.000	14:19
EXTERNAL STANDARD	0.040	14:19
BLANK TEST	0.000	14:20
EXTERNAL STANDARD	0.040	14:20
BLANK TEST	0.000	14:21
EXTERNAL STANDARD	0.039	14:21
BLANK TEST	0.000	14:22

Average = 0.0394  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100355

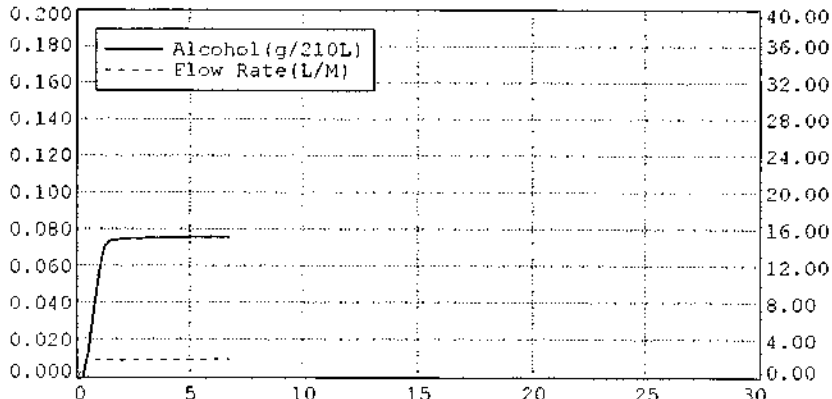
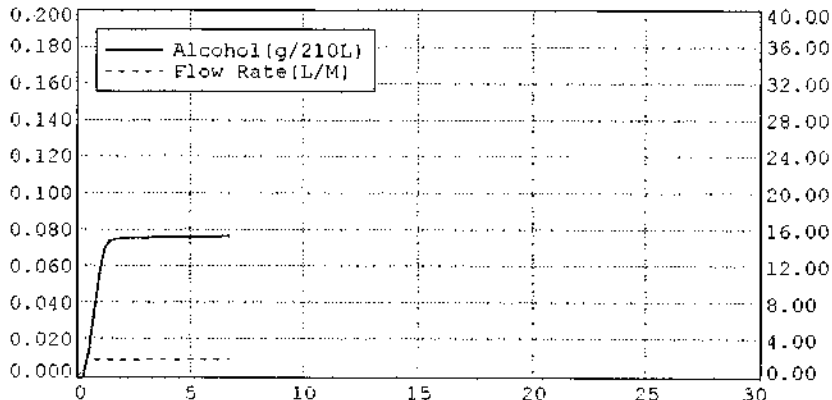
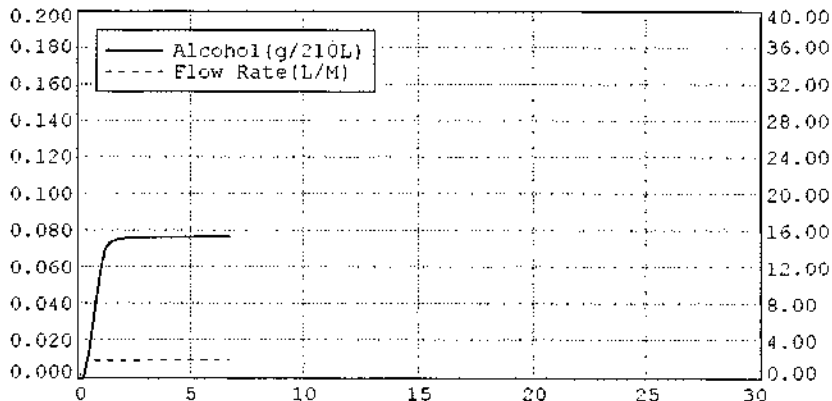
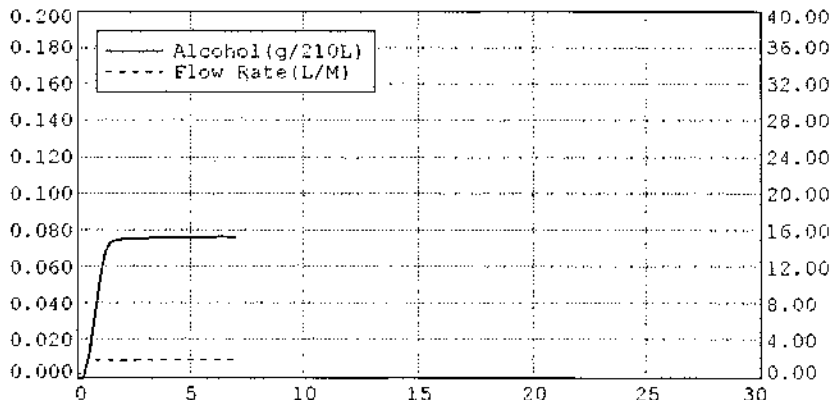
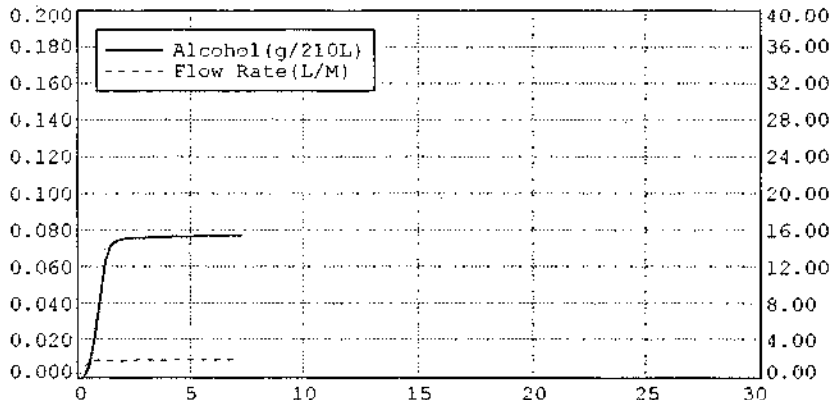
Date: 01/14/2016  
 Time: 14:23:03

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.61: 0.079  
 LOT #: 01315080A3  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 340 psi

BLANK TEST	0.000	14:24
INTERNAL STANDARD	VERIFIED	14:24
EXTERNAL STANDARD	0.078	14:24
BLANK TEST	0.000	14:25
EXTERNAL STANDARD	0.078	14:25
BLANK TEST	0.000	14:26
EXTERNAL STANDARD	0.078	14:26
BLANK TEST	0.000	14:27
EXTERNAL STANDARD	0.078	14:27
BLANK TEST	0.000	14:28
EXTERNAL STANDARD	0.077	14:29
BLANK TEST	0.000	14:30

Average = 0.0778  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

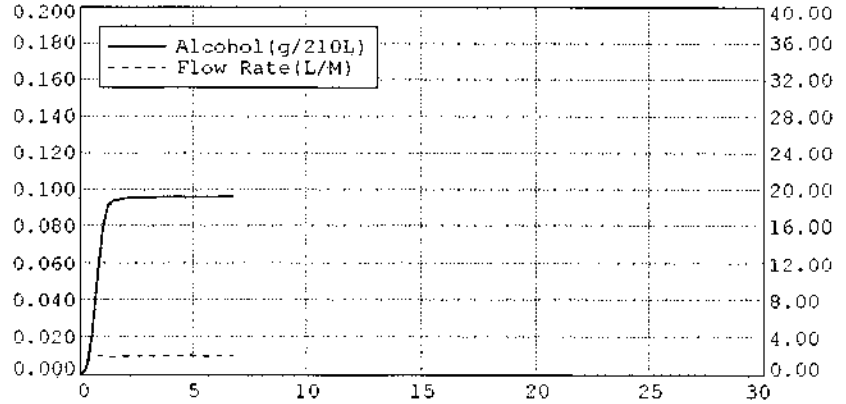
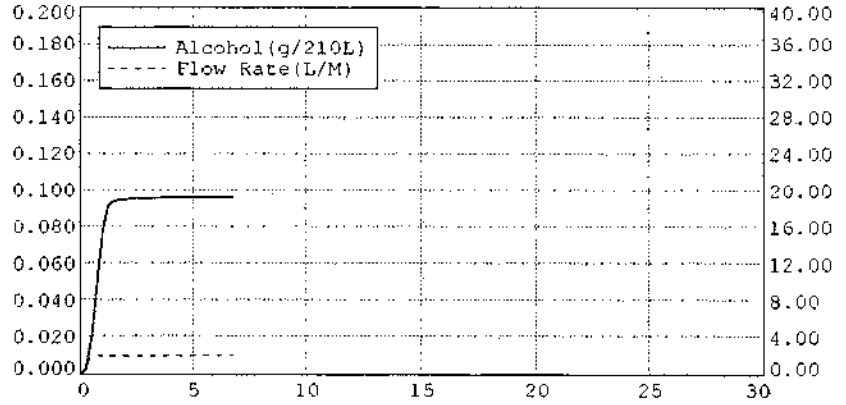
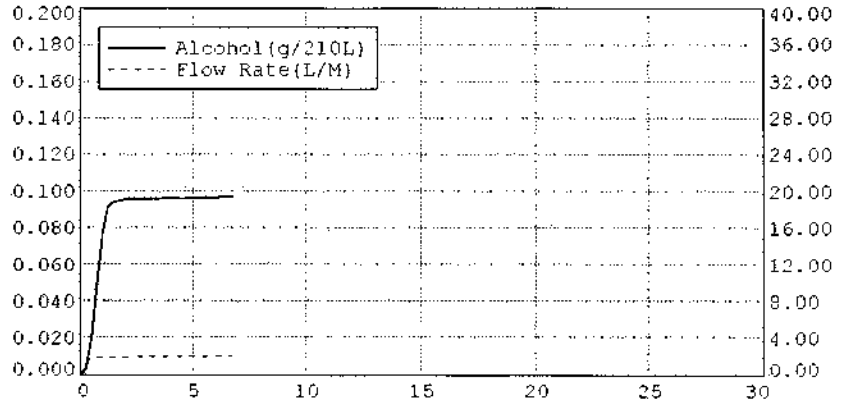
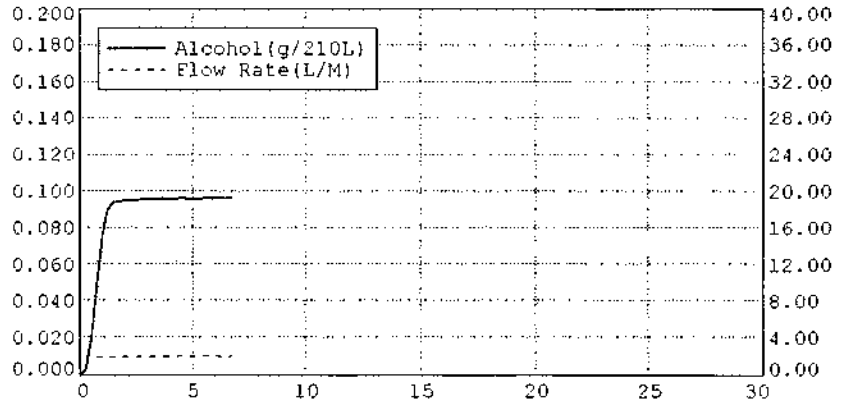
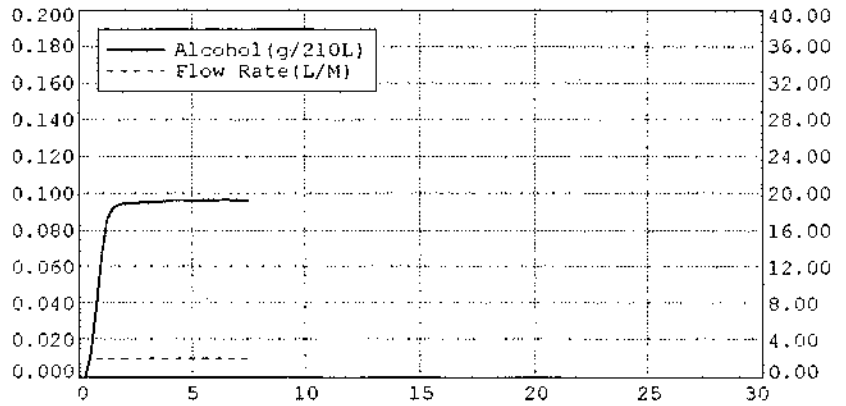
Alaska Department of Public Safety  
 DATAMASTER dmt: 100355

Date: 01/14/2016  
 Time: 14:30:28

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.100  
 TARGET AT 29.60: 0.099  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 513 psi

BLANK TEST	0.000	14:31
INTERNAL STANDARD	VERIFIED	14:31
EXTERNAL STANDARD	0.098	14:32
BLANK TEST	0.000	14:33
EXTERNAL STANDARD	0.098	14:33
BLANK TEST	0.000	14:34
EXTERNAL STANDARD	0.098	14:34
BLANK TEST	0.000	14:35
EXTERNAL STANDARD	0.098	14:35
BLANK TEST	0.000	14:36
EXTERNAL STANDARD	0.098	14:36
BLANK TEST	0.000	14:37

Average = 0.0980  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

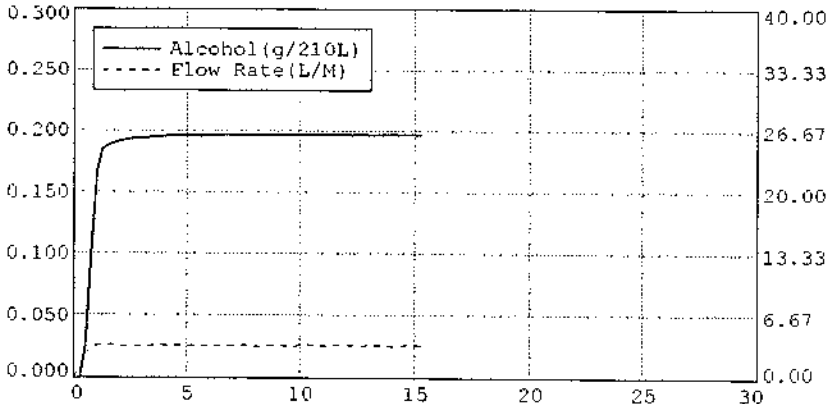
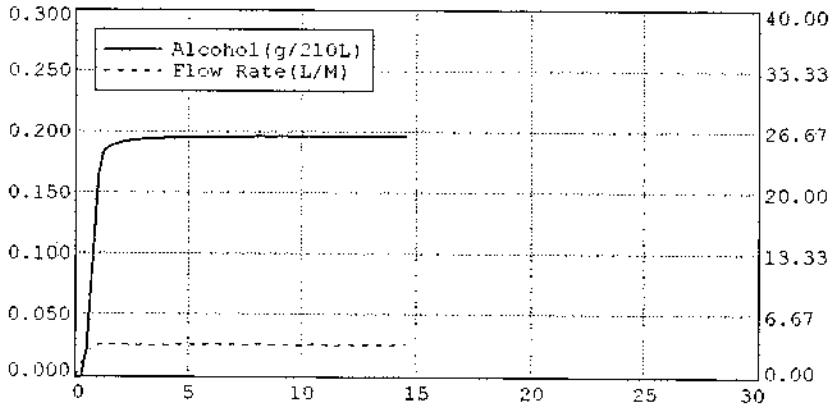
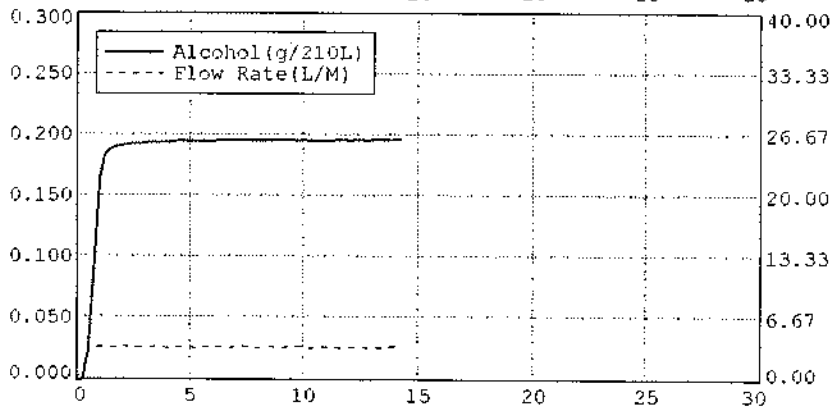
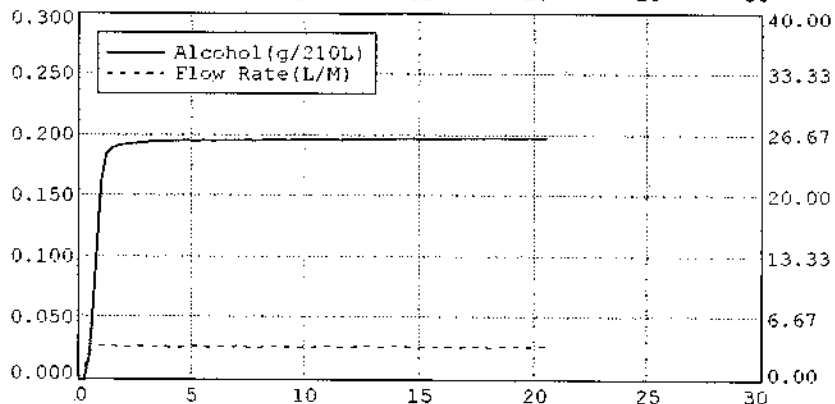
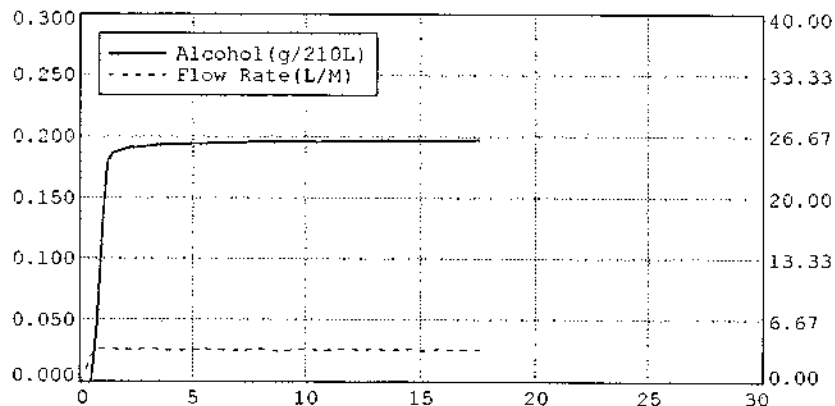
Alaska Department of Public Safety  
 DATAMASTER dmt: 100355

Date: 01/14/2016  
 Time: 14:38:07

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: 15130  
 EXPIRATION: 05/11/2017

BLANK TEST	0.000	14:39
INTERNAL STANDARD	VERIFIED	14:39
EXTERNAL STANDARD	0.198	14:39
BLANK TEST	0.000	14:40
EXTERNAL STANDARD	0.198	14:41
BLANK TEST	0.000	14:42
EXTERNAL STANDARD	0.197	14:42
BLANK TEST	0.000	14:43
EXTERNAL STANDARD	0.197	14:43
BLANK TEST	0.000	14:44
EXTERNAL STANDARD	0.198	14:45
BLANK TEST	0.000	14:46

Average = 0.1976  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100355

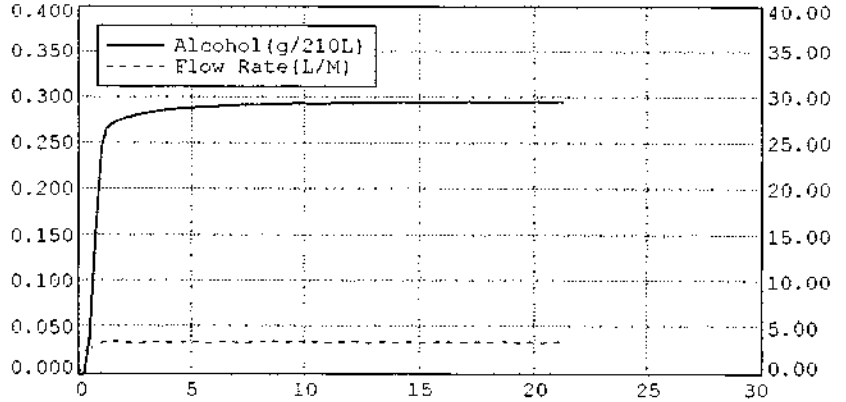
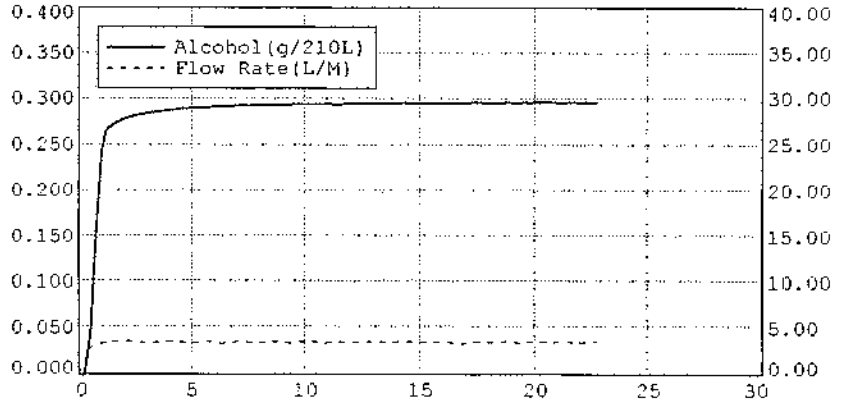
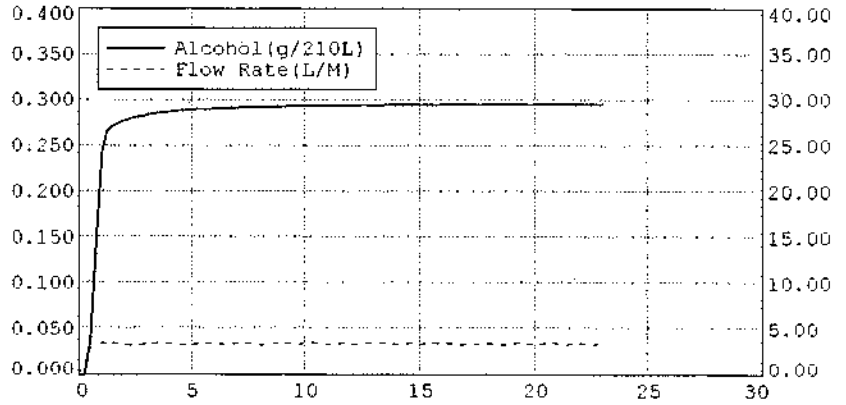
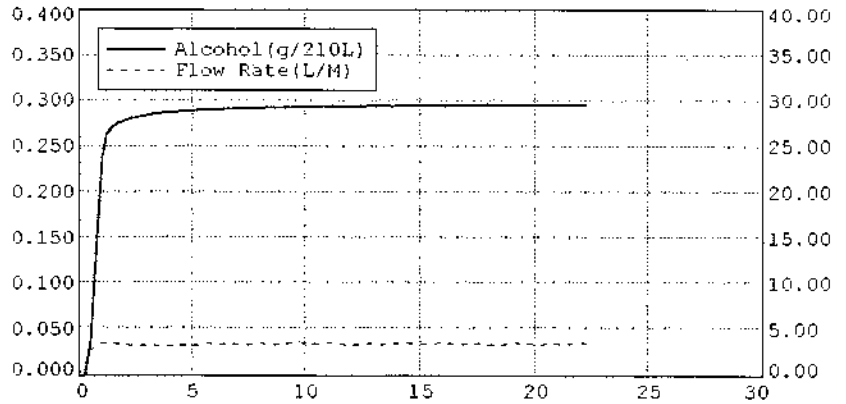
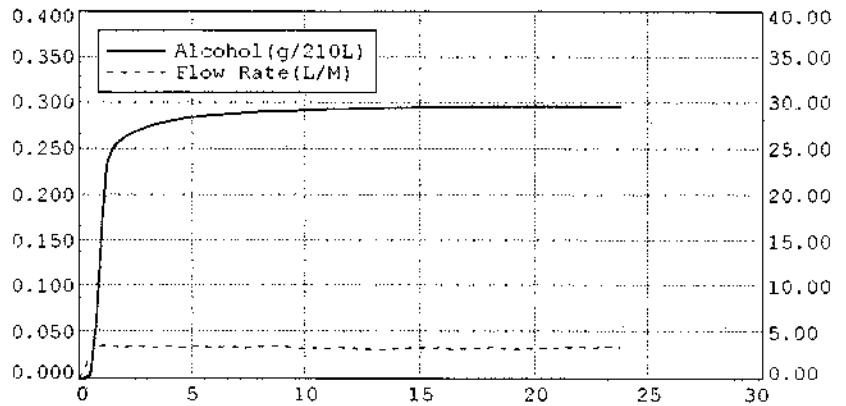
Date: 01/14/2016  
 Time: 14:49:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 15170  
 EXPIRATION: 07/20/2017

BLANK TEST	0.000	14:50
INTERNAL STANDARD	VERIFIED	14:50
EXTERNAL STANDARD	0.297	14:51
BLANK TEST	0.000	14:52
EXTERNAL STANDARD	0.296	14:52
BLANK TEST	0.000	14:53
EXTERNAL STANDARD	0.296	14:54
BLANK TEST	0.000	14:54
EXTERNAL STANDARD	0.296	14:55
BLANK TEST	0.000	14:56
EXTERNAL STANDARD	0.295	14:56
BLANK TEST	0.000	14:57

Average = 0.2960  
 Std Dev = 0.0007



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/14/2016  
Time: 15:03:17

SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

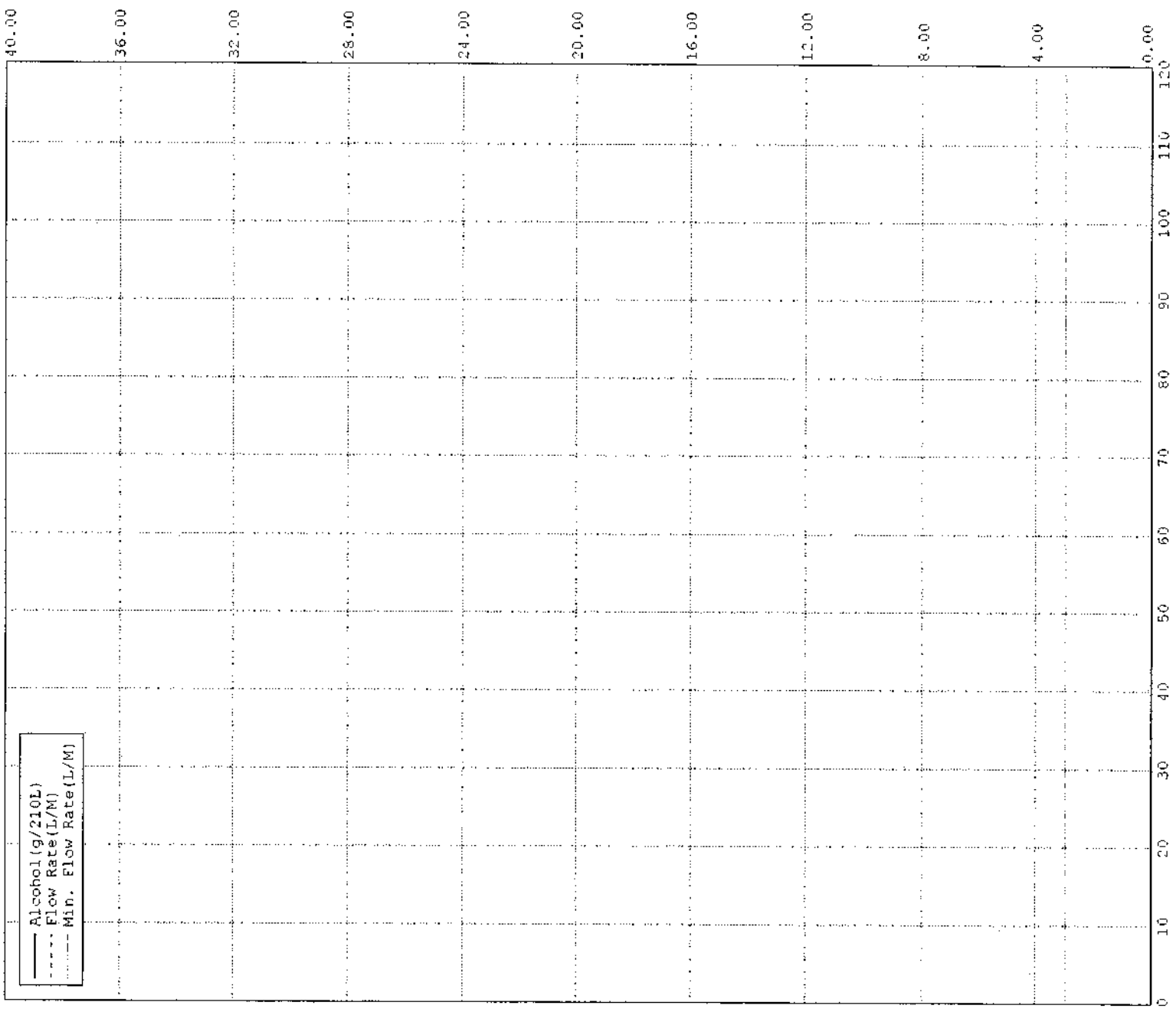
DEPT/AGENCY:  
AAA1

CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.61: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 15:10  
BLANK TEST 0.000 15:10  
INTERNAL STANDARD VERIFIED 15:10  
EXTERNAL STANDARD 0.078 15:10  
BLANK TEST 0.000 15:11  
SUBJECT SAMPLE INCOMPLETE 15:13



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/14/2016  
Time: 15:16:03

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

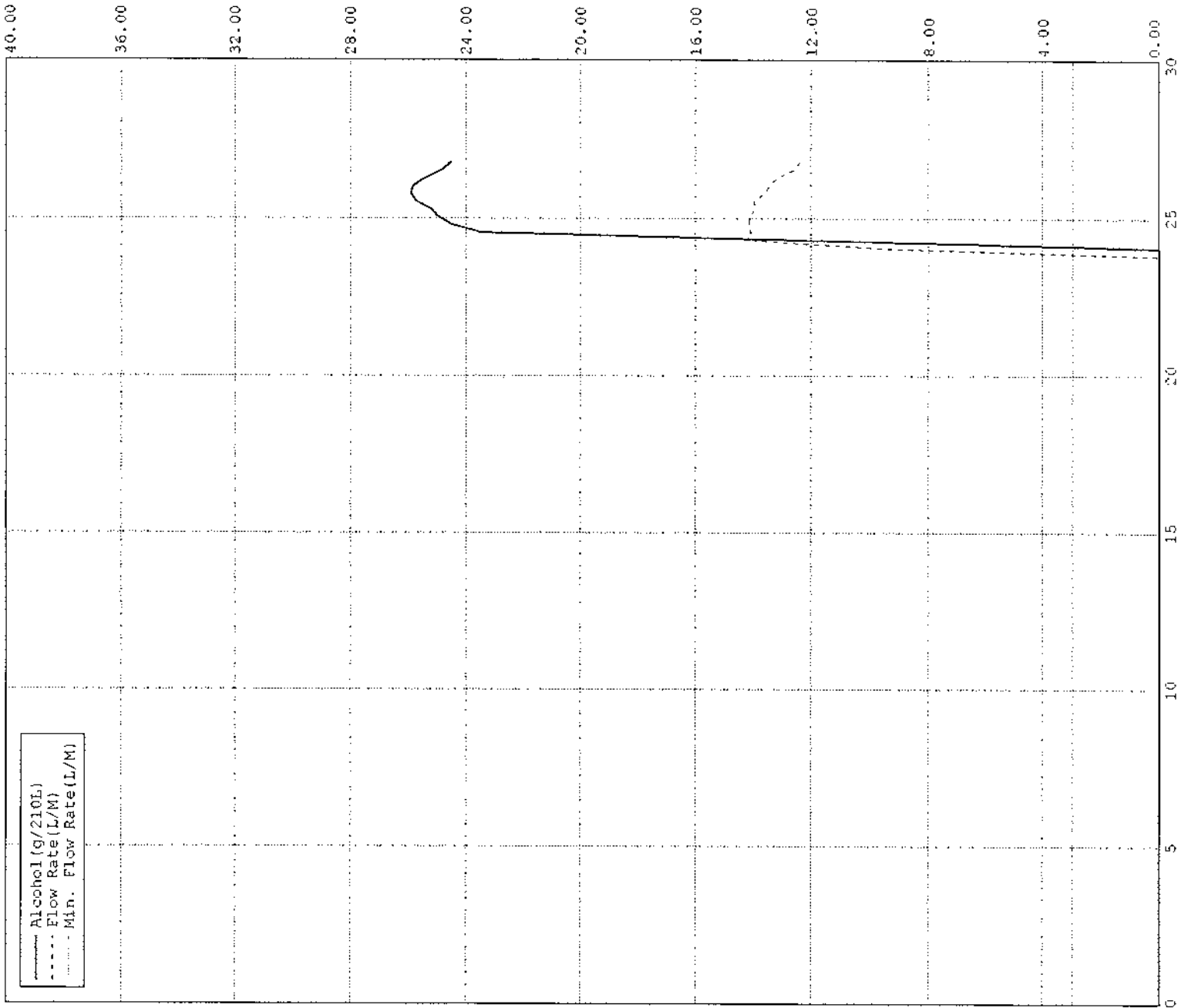
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.60: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	15:17
BLANK TEST	0.000	15:17
INTERNAL STANDARD	VERIFIED	15:18
EXTERNAL STANDARD	0.078	15:18
BLANK TEST	0.000	15:19
SUBJECT SAMPLE	INVALID	15:19



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/14/2016  
Time: 15:21:53

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

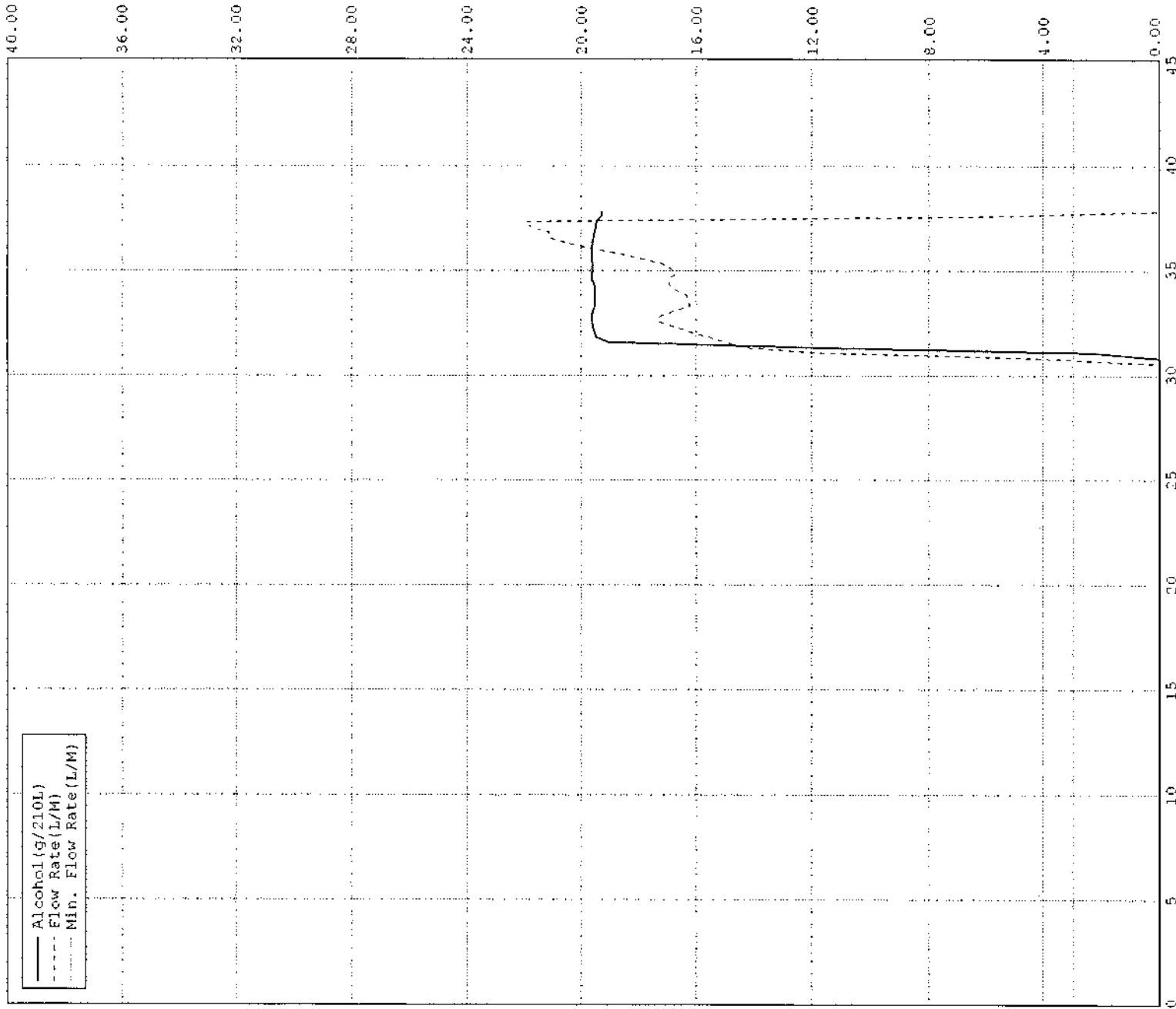
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.60: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	15:24
BLANK TEST	0.000	15:24
INTERNAL STANDARD	VERIFIED	15:24
Xq = 0.078 (0.67%)		
EXTERNAL STANDARD	0.078	15:24
X[1] = 0.0775 (-0.0020)	(0.0022)	
BLANK TEST	0.000	15:25
SUBJECT SAMPLE	XXX	15:26
X[1] = 0.0970 (-0.0137)	(0.0001)	

Interference Detected

CS



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/14/2016  
Time: 15:28:45

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

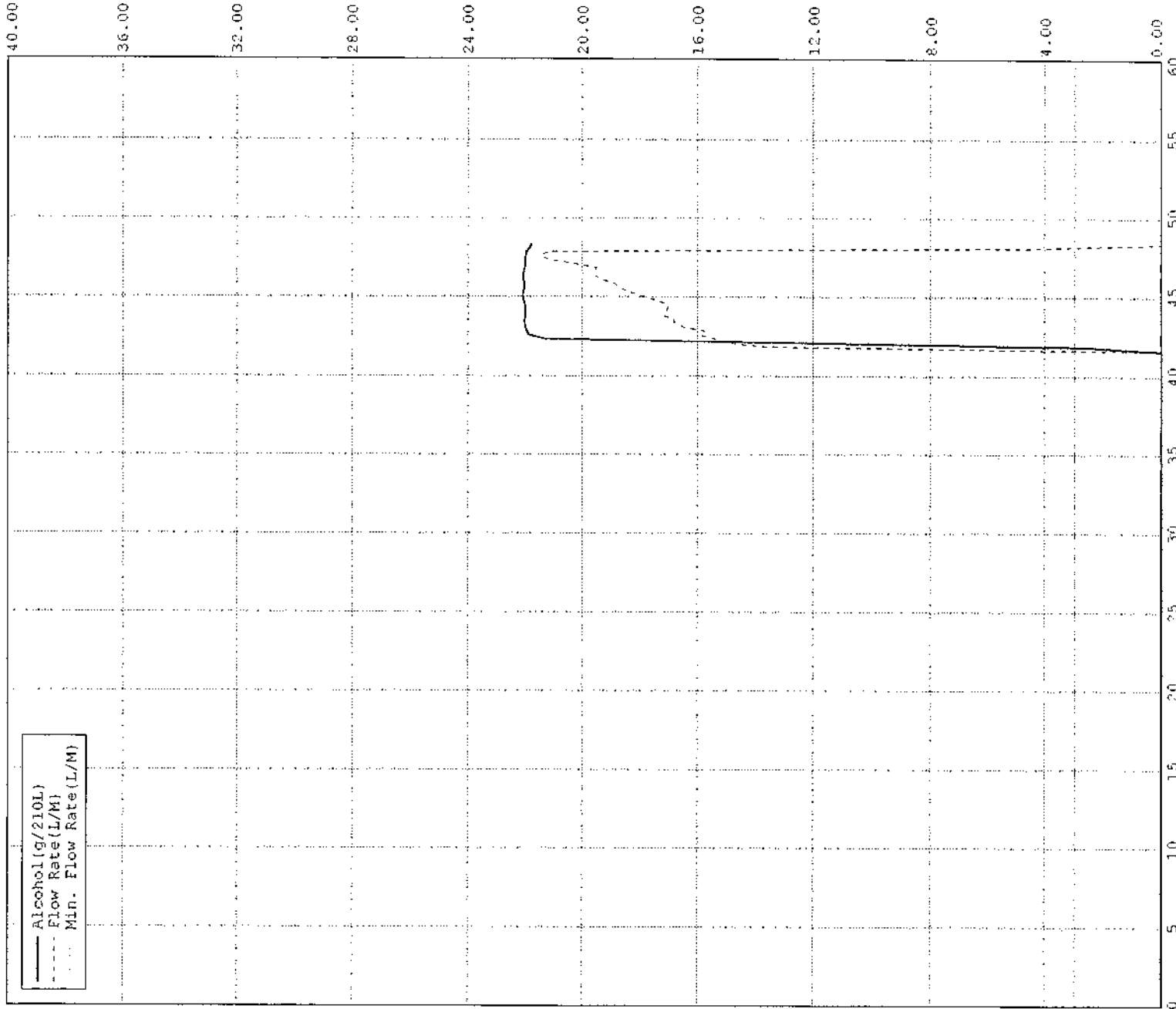
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.61: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	15:30
BLANK TEST	0.000	15:30
INTERNAL STANDARD	VERIFIED	15:30
Xq = 0.079 (0.78%)		
EXTERNAL STANDARD	0.078	15:30
X[1] = 0.0779 (-0.0016) (0.0022)		
BLANK TEST	0.000	15:31
SUBJECT SAMPLE	XXX	15:32
X[1] = 0.1094 (-0.0196) (0.0012)		

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/14/2016  
Time: 15:35:18

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

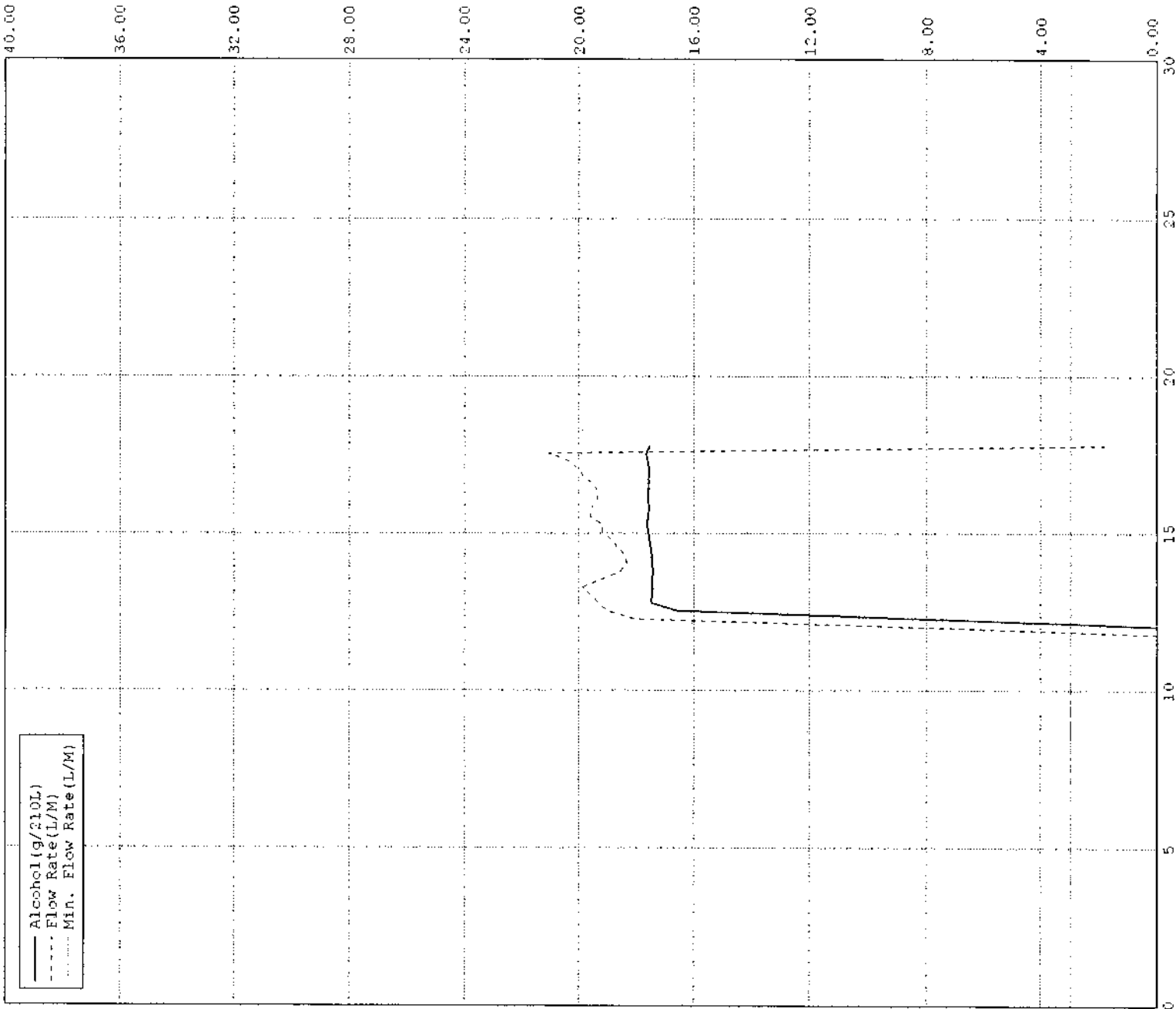
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.61: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	15:37
BLANK TEST	0.000	15:37
INTERNAL STANDARD	VERIFIED	15:37
Xq = 0.079 (0.89%)		
EXTERNAL STANDARD	0.078	15:37
X[1] = 0.0780 (-0.0013) (0.0025)		
BLANK TEST	0.000	15:38
SUBJECT SAMPLE (Vol=1.81L)	0.088	15:38
X[1] = 0.0883 (0.0012) (0.0002)		
BLANK TEST	0.000	15:39
EXTERNAL STANDARD	0.078	15:40
X[1] = 0.0776 (-0.0015) (0.0022)		
BLANK TEST	0.000	15:41

Filter Avg = 0.0016  
Filter Avg = 0.0023



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/19/2016  
Time: 09:31:03

SUBJECT NAME:  
TEST TEST

LICENSE #: MAX ATTEMPTS

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

CASE/REPORT: 16-1234  
TEST TYPE: TEST

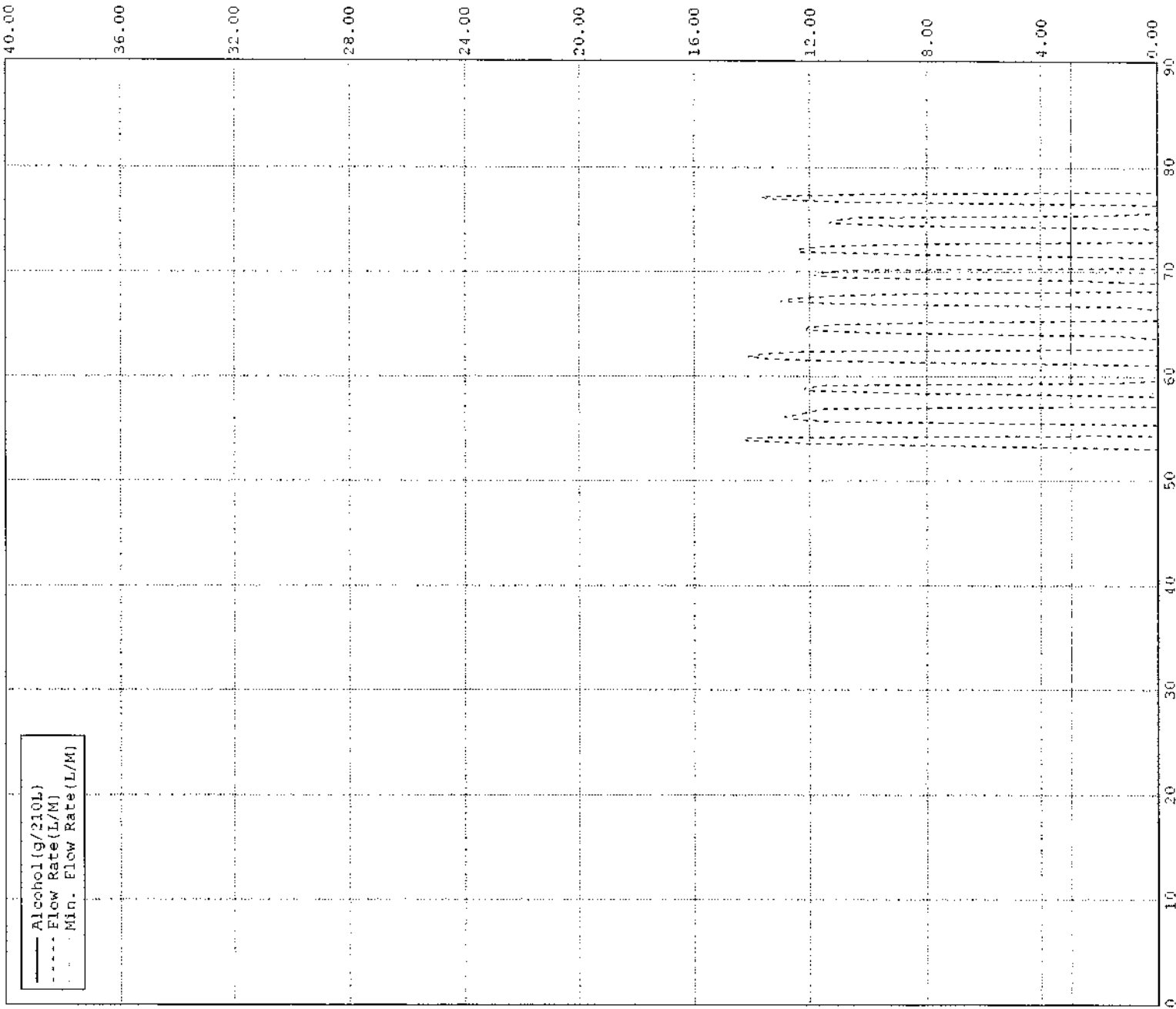
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.28: 0.078  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:32
BLANK TEST	0.000	09:32
INTERNAL STANDARD	VERIFIED	09:32
EXTERNAL STANDARD	0.077	09:32
BLANK TEST	0.000	09:33
SUBJECT SAMPLE	XXX	09:34

Maximum Attempts Exceeded

*CBS*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/19/2016  
Time: 09:37:38

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

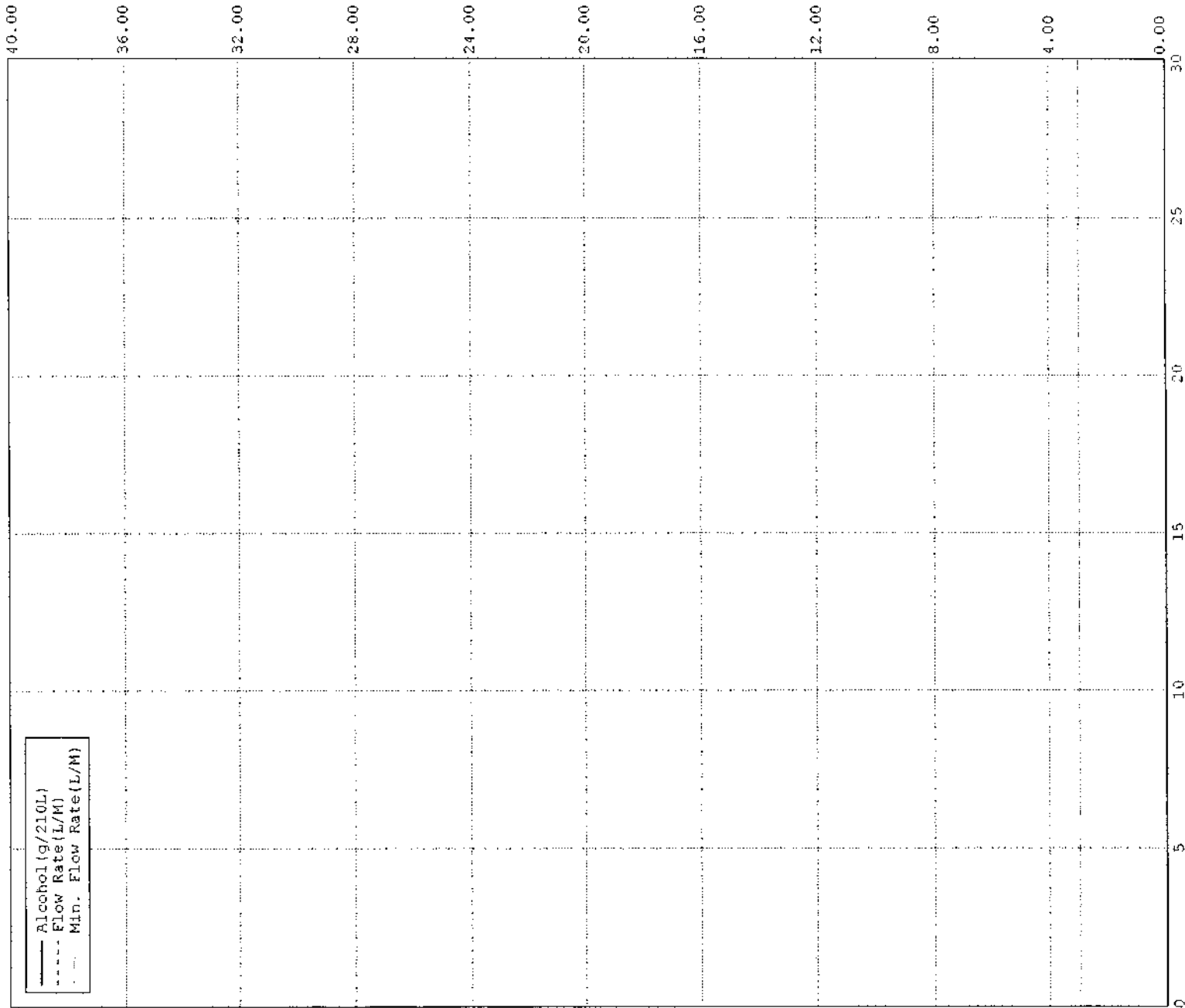
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.27: 0.078  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 09:38  
BLANK TEST 0.000 09:38  
INTERNAL STANDARD VERIFIED 09:38  
EXTERNAL STANDARD 0.077 09:39  
BLANK TEST 0.000 09:40

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100355

Date: 01/19/2016  
Time: 09:54:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: NONDRINKING

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.090  
TARGET AT 29.27: 0.078  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:56
BLANK TEST	0.000	09:56
INTERNAL STANDARD	VERIFIED	09:56
EXTERNAL STANDARD	0.077	09:56
BLANK TEST	0.000	09:57
SUBJECT SAMPLE (Vol=1.79L)	0.000	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.077	09:59
BLANK TEST	0.000	10:00

