

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 100681 Analyst Colleen O'Bryant Start Date 12/29/15

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 1.5 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 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 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 GUTHSD1176 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 12/30/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100691

Date: 12/29/2015
Time: 09:28:25

VERSIONS
DMT: 3.01
PIC: 3.03
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 46.6°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.67 V PASSED
(0.98 V - 2.30 V)
Cooler Voltage = 1.58 V PASSED
(0.98 V - 2.28 V)
Bias Voltage = 80 V PASSED
(47 V - 111 V)
Chopper Freq = 533 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.5 in

PUMP INFO

Flow Rate = 4.279 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 PASSED

Xq = 0.106 1.48% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100681

Date: 12/29/2015
Time: 9:41 AM

Temperatures (°C)
Sample Cell: 48.7°C
Breath Tube: 45.7°C

Current Barometer 29.5 in
Volume (Ltr) 1.50

Settings
Lamp: 1.70 V
Bias: 80 V
Cooler: 1.58 V
Chopper: 532 Hz

Voltages (V)
Flow: 1.07 V
Detector: -0.049 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dnt: 100681

Date: 10/25/2011
Time: 11:27:48

Ca = 0.1000
CAL = 0.999423 0.800 <= CAL < 1.200
b1 = 0.0000 0.0000 <= b1 < 0.0040
b2 = 0.0023 0.0010 <= b2 < 0.0100
b3 = 0.0000 0.0000 <= b3 < 0.0040
Xq = 0.1073 0.0500 <= Xq < 0.2000
a21 = 1.171221 1.050 <= a21 < 1.300
a31 = 0.478868 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100681

Date: 12/29/2015
Time: 13:22:28

SUBJECT NAME:
TEST TEST
LICENSE #: VOLUME TEST

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

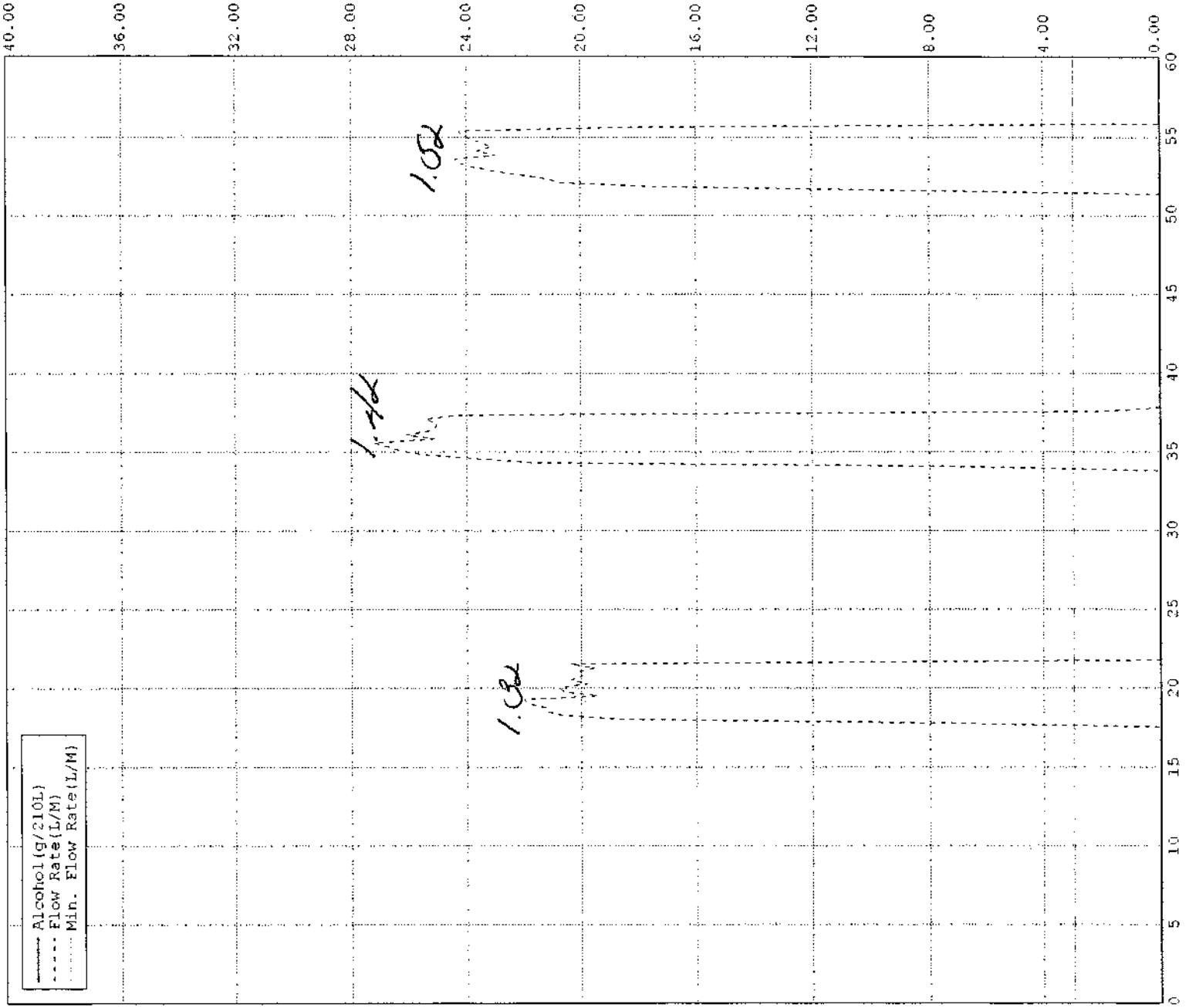
DEPT/AGENCY:
AAA1

CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.52: 0.079
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:25
BLANK TEST	0.000	13:25
INTERNAL STANDARD	VERIFIED	13:25
EXTERNAL STANDARD	0.079	13:25
BLANK TEST	0.000	13:26
SUBJECT SAMPLE (Vol=1.54L)	0.000	13:27
BLANK TEST	0.000	13:28
EXTERNAL STANDARD	0.079	13:28
BLANK TEST	0.000	13:29



LINEARITY CHECK

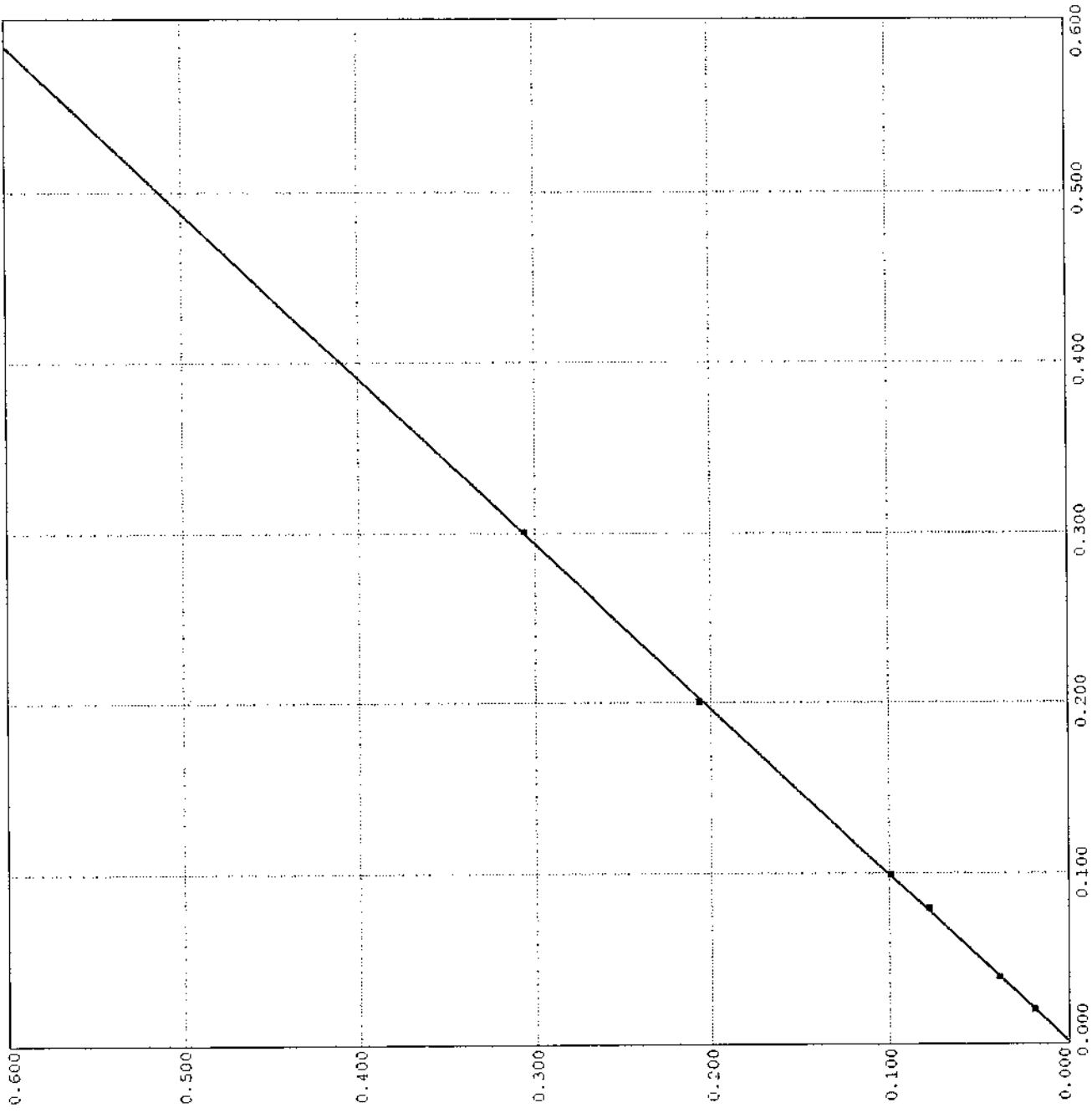
Alaska Department of Public Safety
 DATAMASTER dmt: 100681

Date: 12/29/2015
 Time: 13:41:23

SUPERVISOR NAME:
 COLLEEN S OBRYANI
 OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.039	0.0400	0.0000
0.079	0.0790	0.0000
0.099	0.1000	0.0000
0.200	0.2074	0.0005
0.300	0.3070	0.0007

SLOPE = 1.029302
 R² = 0.999827



CAS

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100681

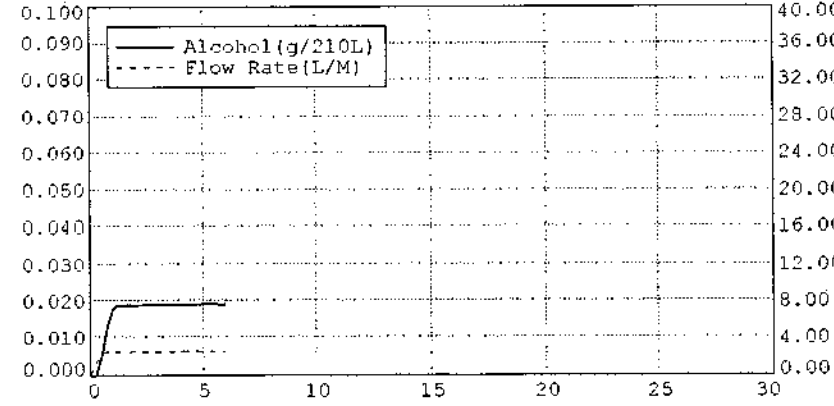
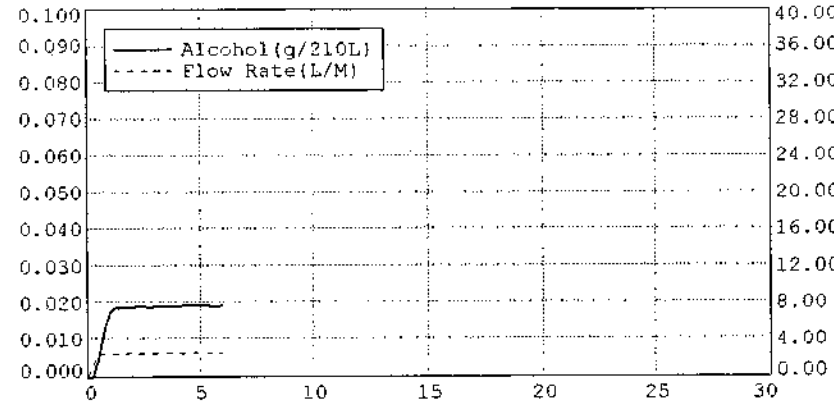
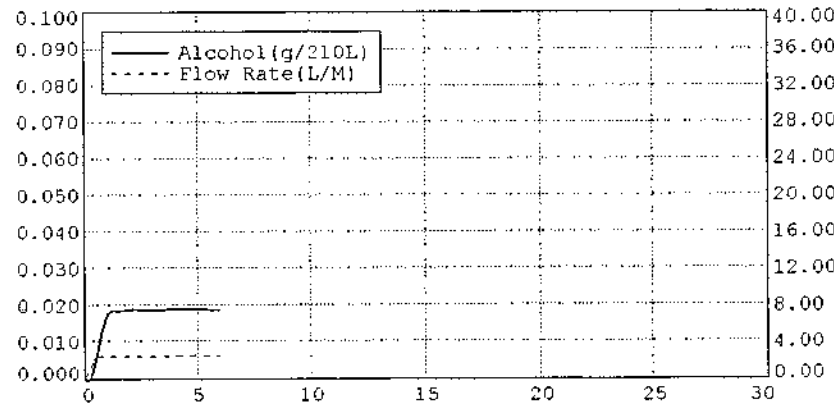
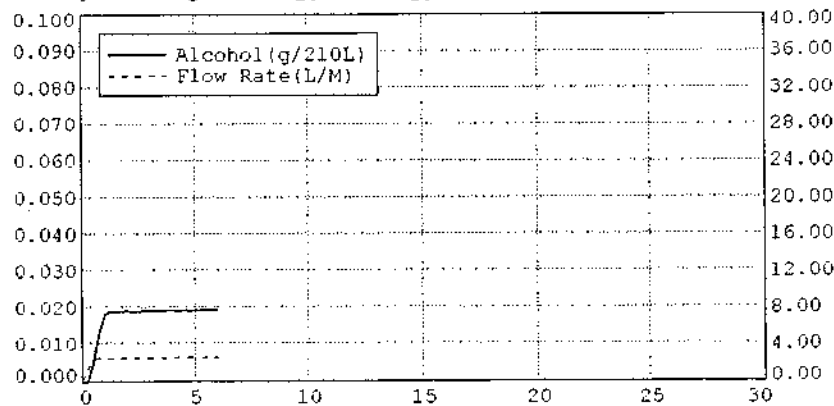
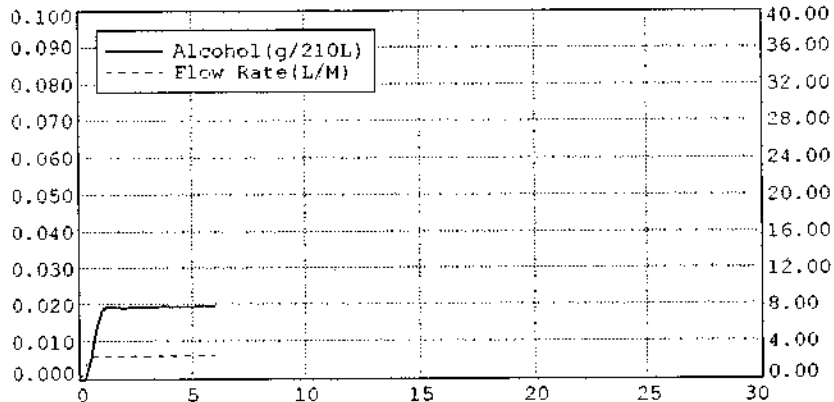
Date: 12/29/2015
 Time: 13:41:24

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.53: 0.020
 LOT #: 02915020A2
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 596 psi

BLANK TEST	0.000	13:48
INTERNAL STANDARD	VERIFIED	13:48
EXTERNAL STANDARD	0.021	13:48
BLANK TEST	0.000	13:49
EXTERNAL STANDARD	0.020	13:49
BLANK TEST	0.000	13:50
EXTERNAL STANDARD	0.020	13:50
BLANK TEST	0.000	13:51
EXTERNAL STANDARD	0.020	13:52
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.020	13:53
BLANK TEST	0.000	13:54

Average = 0.0202
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100681

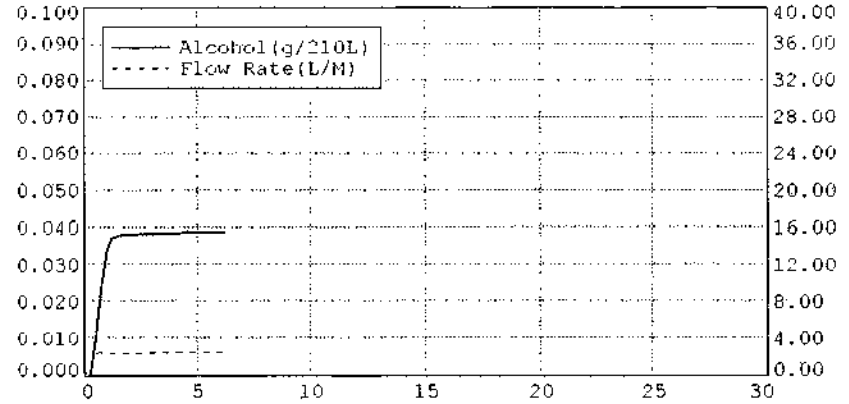
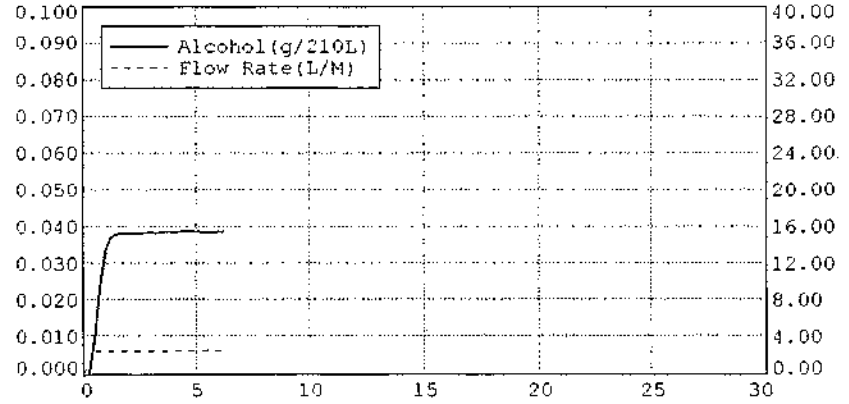
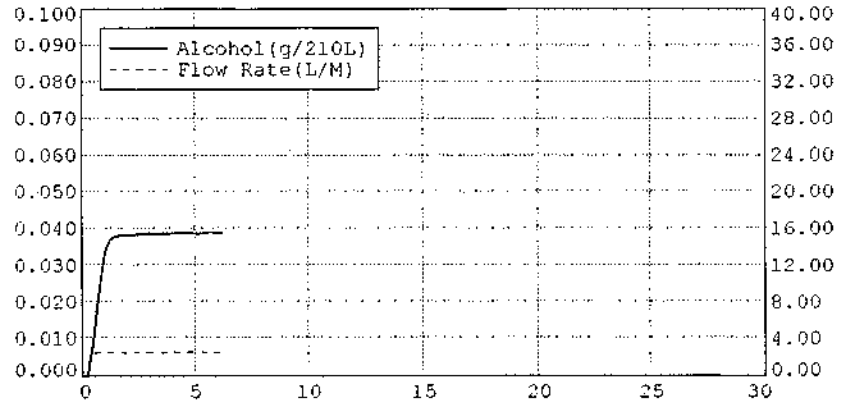
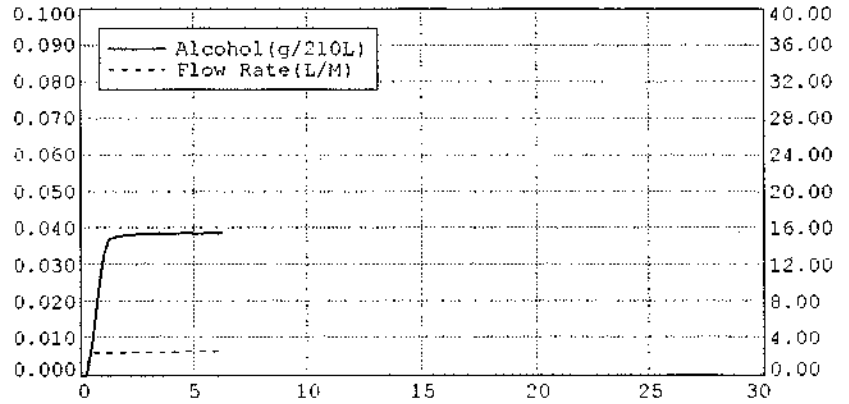
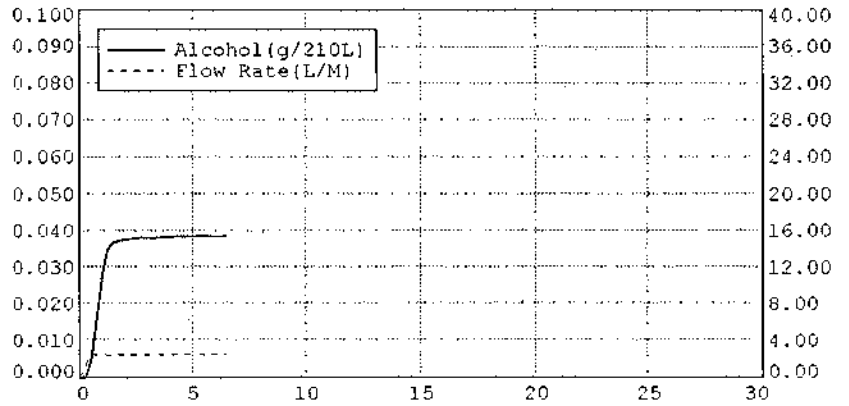
Date: 12/29/2015
 Time: 14:05:04

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.53: 0.039
 LOT #: 02915040A3
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 619 psi

BLANK TEST	0.000	14:06
INTERNAL STANDARD	VERIFIED	14:06
EXTERNAL STANDARD	0.040	14:06
BLANK TEST	0.000	14:07
EXTERNAL STANDARD	0.040	14:08
BLANK TEST	0.000	14:08
EXTERNAL STANDARD	0.040	14:09
BLANK TEST	0.000	14:10
EXTERNAL STANDARD	0.040	14:10
BLANK TEST	0.000	14:11
EXTERNAL STANDARD	0.040	14:11
BLANK TEST	0.000	14:12

Average = 0.0400
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100681

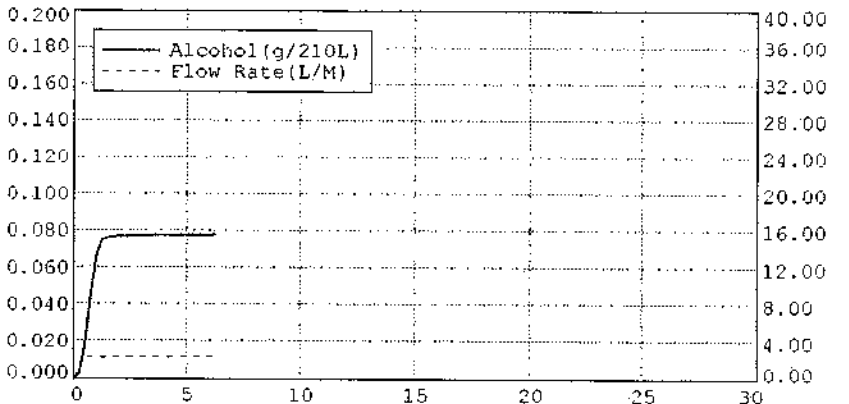
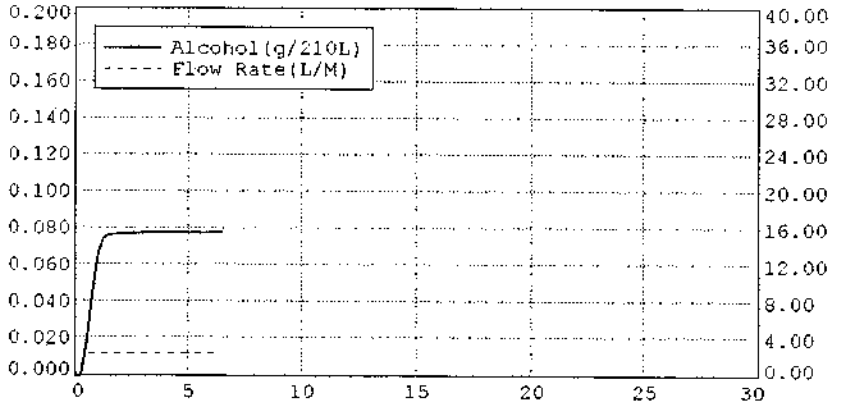
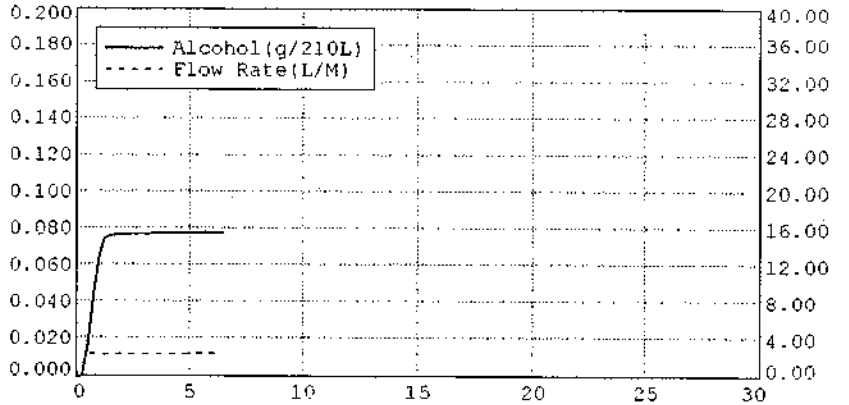
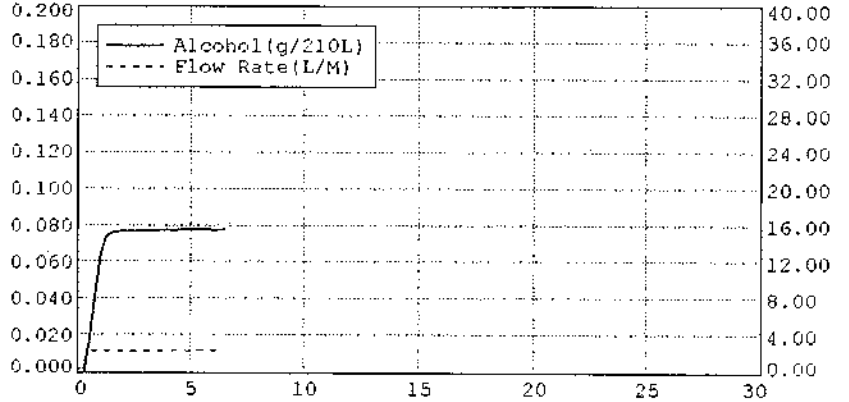
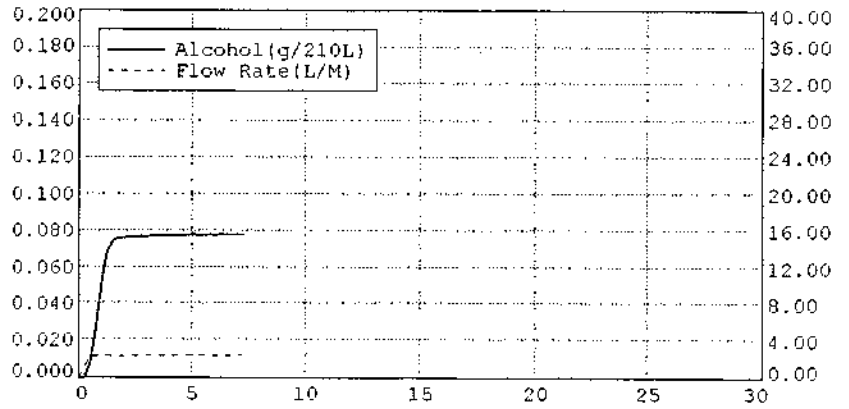
Date: 12/29/2015
 Time: 14:13:27

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.53: 0.079
 LOT #: 01315080A2
 EXPIRATION: 02/05/2017
 TANK PRESSURE: 334 psi

BLANK TEST	0.000	14:14
INTERNAL STANDARD	VERIFIED	14:14
EXTERNAL STANDARD	0.079	14:14
BLANK TEST	0.000	14:15
EXTERNAL STANDARD	0.079	14:16
BLANK TEST	0.000	14:16
EXTERNAL STANDARD	0.079	14:17
BLANK TEST	0.000	14:18
EXTERNAL STANDARD	0.079	14:18
BLANK TEST	0.000	14:19
EXTERNAL STANDARD	0.079	14:19
BLANK TEST	0.000	14:20

Average = 0.0790
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100681

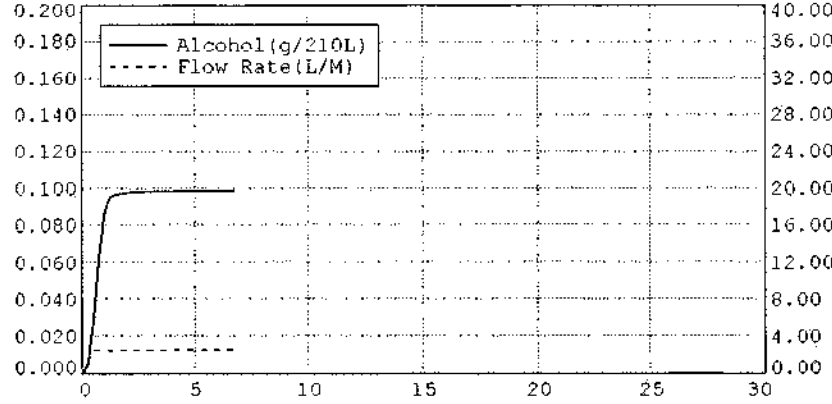
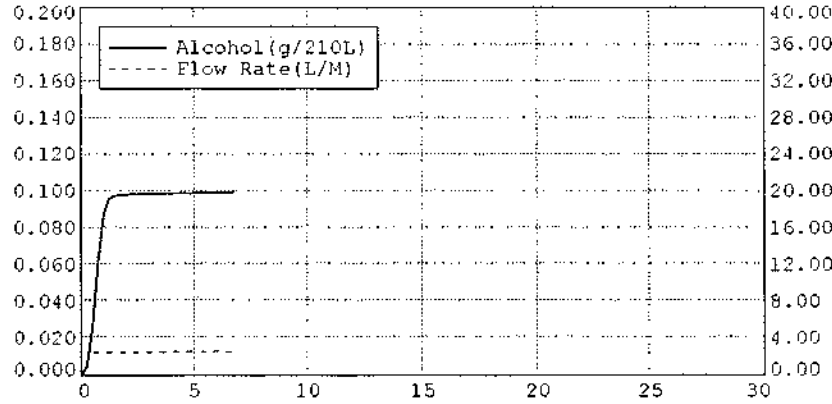
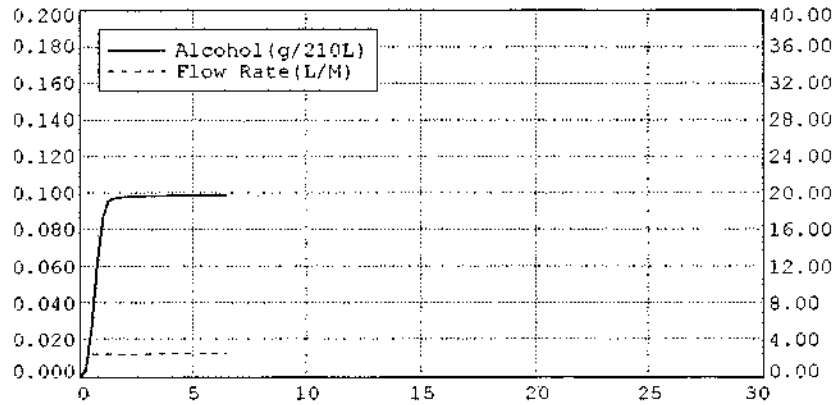
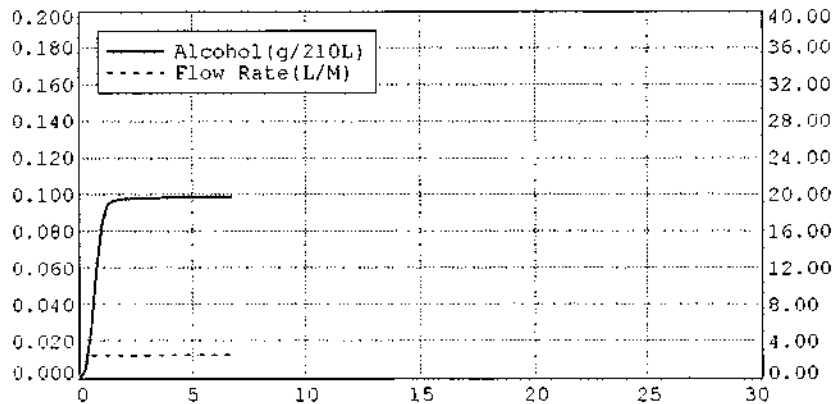
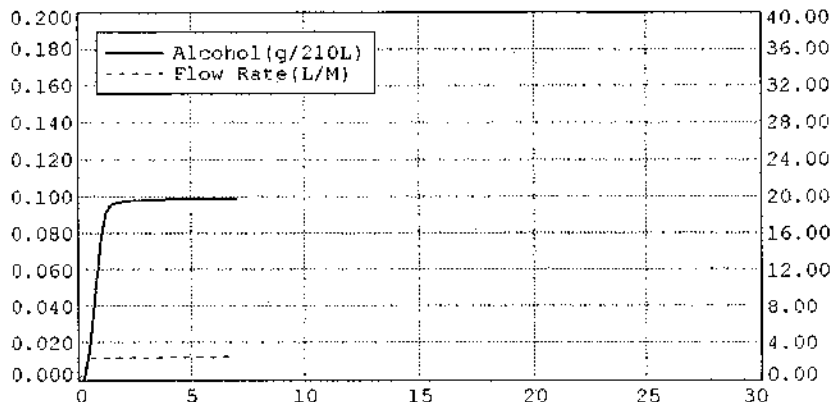
Date: 12/29/2015
 Time: 14:22:18

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.53: 0.099
 LOT #: 02915100A1
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 0 psi*

BLANK TEST	0.000	14:23
INTERNAL STANDARD	VERIFIED	14:23
EXTERNAL STANDARD	0.100	14:23
BLANK TEST	0.000	14:24
EXTERNAL STANDARD	0.100	14:24
BLANK TEST	0.000	14:25
EXTERNAL STANDARD	0.100	14:26
BLANK TEST	0.000	14:26
EXTERNAL STANDARD	0.100	14:27
BLANK TEST	0.000	14:28
EXTERNAL STANDARD	0.100	14:28
BLANK TEST	0.000	14:29

Average = 0.1000
 Std Dev = 0.0000



*DMT software listed psi as 0.
 True psi was ~ 600psi. COB 1/4/16

LINEARITY CHECK: Control Test 5

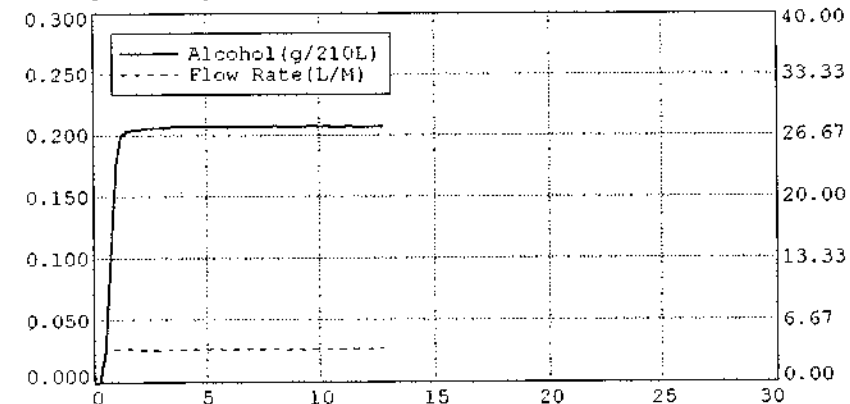
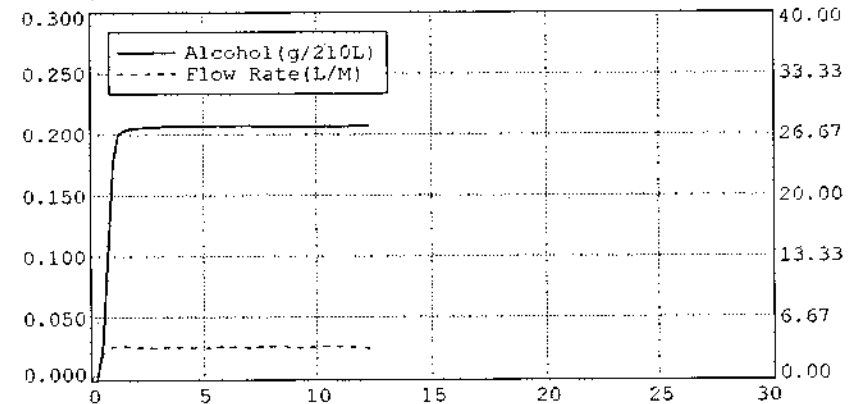
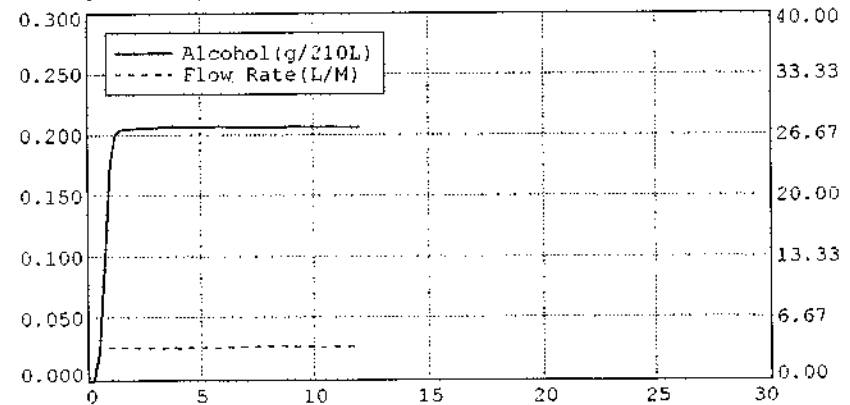
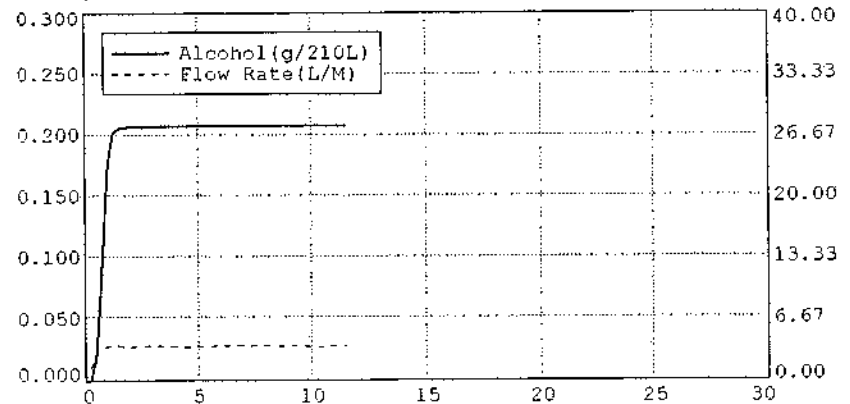
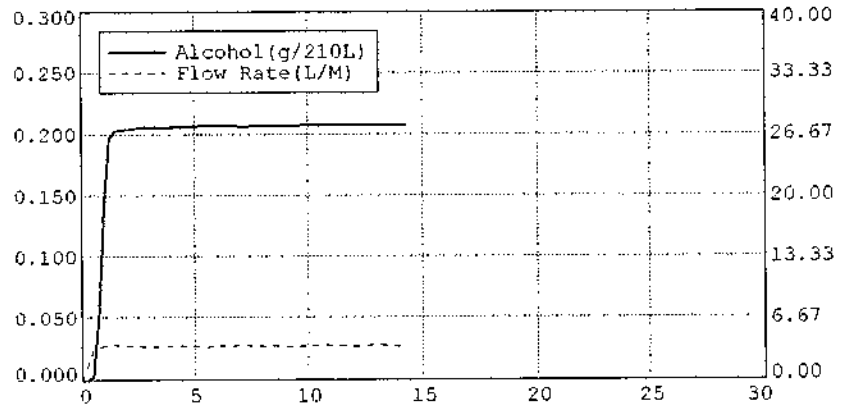
Alaska Department of Public Safety
 DATAMASTER dmt: 100681

Date: 12/29/2015
 Time: 14:31:56

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

BLANK TEST	0.000	14:33
INTERNAL STANDARD	VERIFIED	14:33
EXTERNAL STANDARD	0.208	14:33
BLANK TEST	0.000	14:34
EXTERNAL STANDARD	0.208	14:35
BLANK TEST	0.000	14:35
EXTERNAL STANDARD	0.207	14:36
BLANK TEST	0.000	14:37
EXTERNAL STANDARD	0.207	14:37
BLANK TEST	0.000	14:38
EXTERNAL STANDARD	0.207	14:38
BLANK TEST	0.000	14:39

Average = 0.2074
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

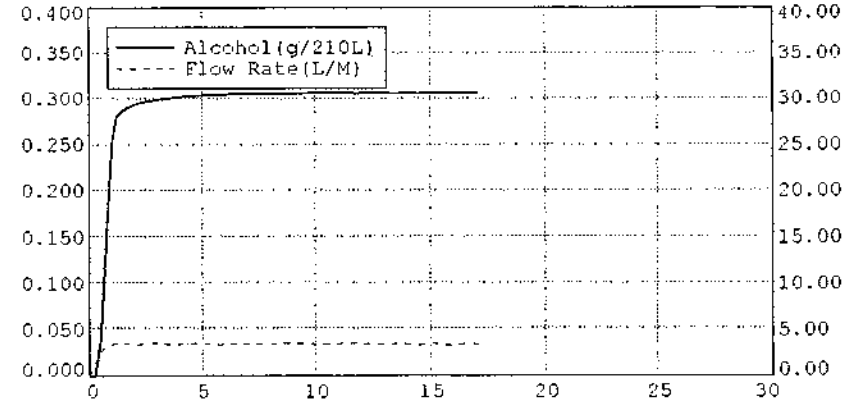
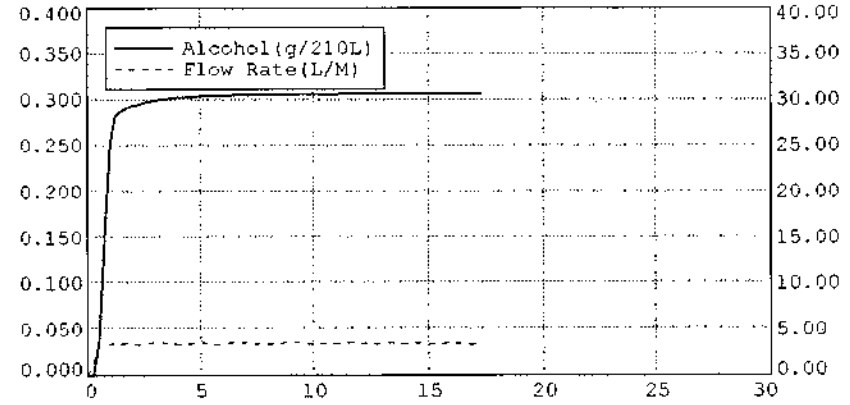
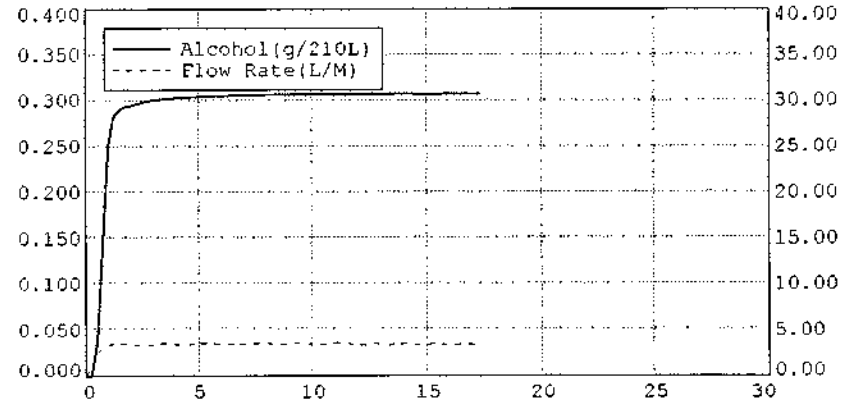
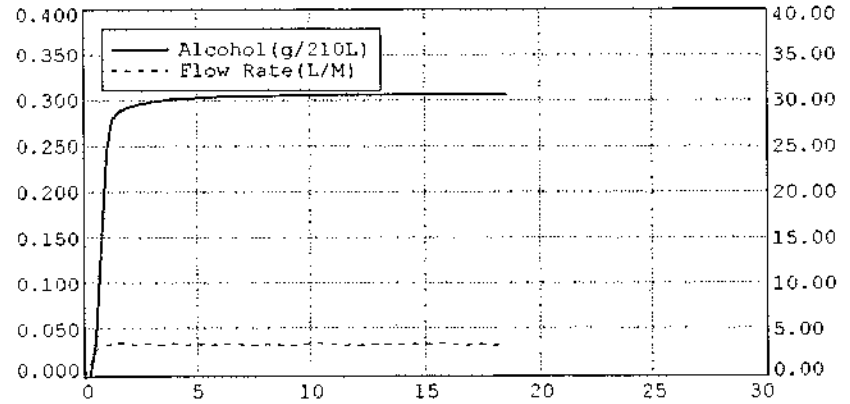
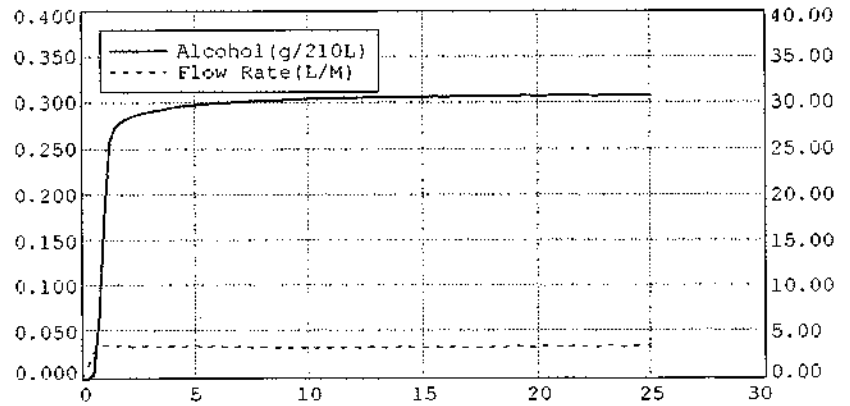
Alaska Department of Public Safety
 DATAMASTER dmt: 100681

Date: 12/29/2015
 Time: 14:43:41

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.300
 LOT #: 15170
 EXPIRATION: 07/20/2017

BLANK TEST	0.000	14:44
INTERNAL STANDARD	VERIFIED	14:44
EXTERNAL STANDARD	0.308	14:45
BLANK TEST	0.000	14:46
EXTERNAL STANDARD	0.307	14:46
BLANK TEST	0.000	14:47
EXTERNAL STANDARD	0.307	14:48
BLANK TEST	0.000	14:49
EXTERNAL STANDARD	0.307	14:49
BLANK TEST	0.000	14:50
EXTERNAL STANDARD	0.306	14:50
BLANK TEST	0.000	14:51

Average = 0.3070
 Std Dev = 0.0007



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100681

Date: 12/30/2015
Time: 09:51:39

SUBJECT NAME:
TEST TEST
LICENSE #: INCOMPLETE

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

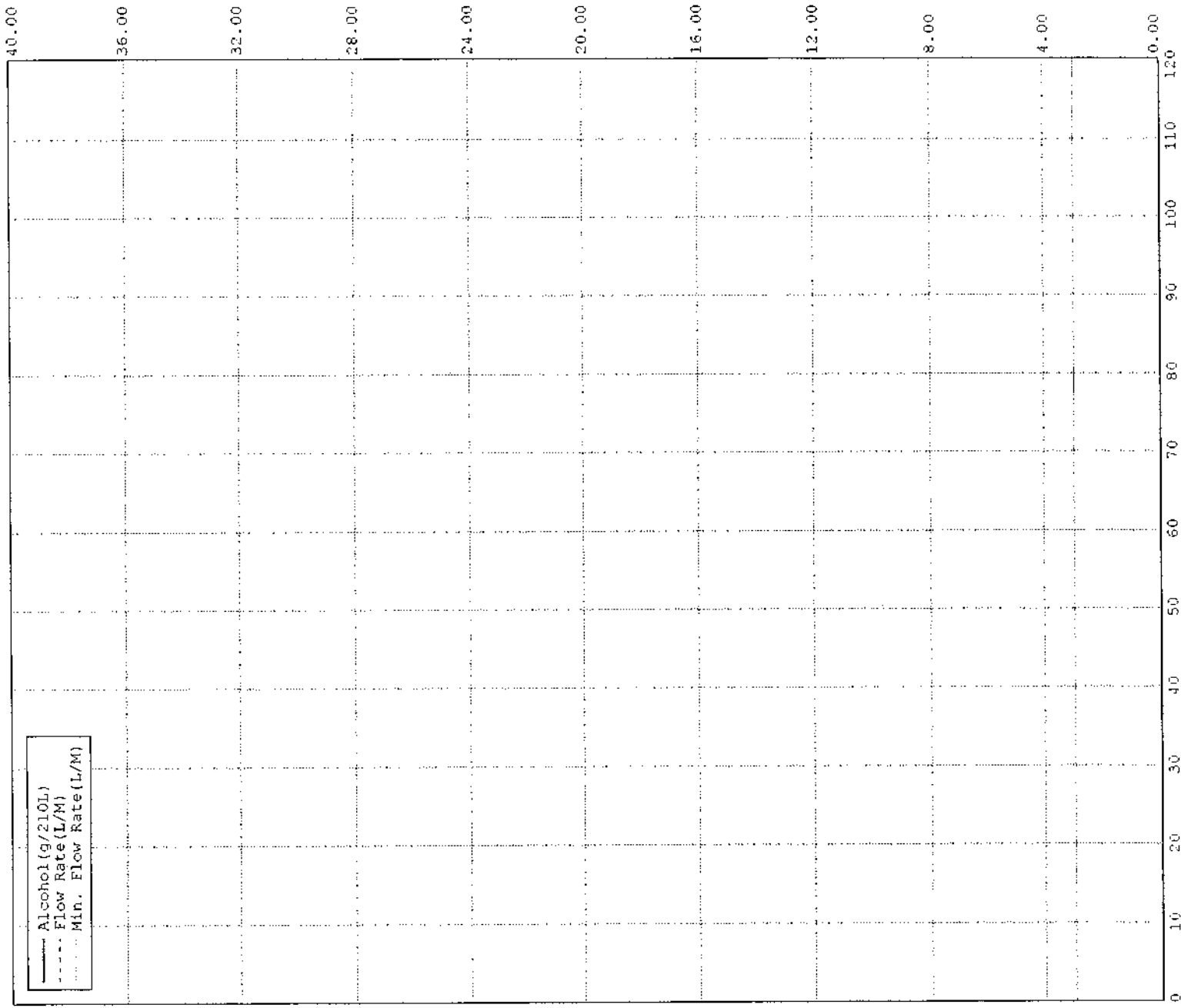
DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

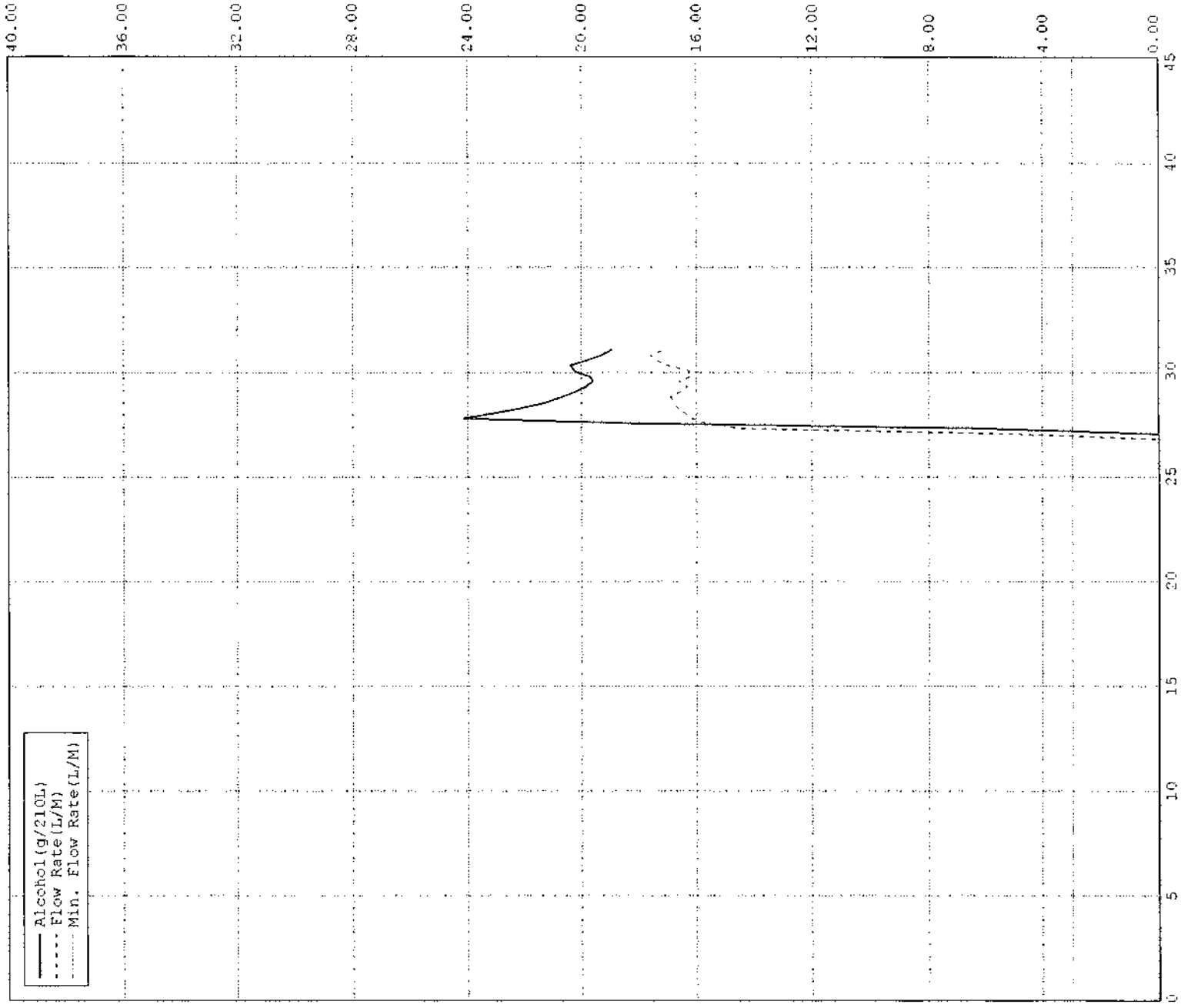
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.26: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 09:52
BLANK TEST 0.000 09:53
INTERNAL STANDARD VERIFIED 09:53
EXTERNAL STANDARD 0.078 09:53
BLANK TEST 0.000 09:54
SUBJECT SAMPLE INCOMPLETE 09:56

CAB





SUBJECT TEST

 Alaska Department of Public Safety
 DATAMASTER dmt: 100681

 Date: 12/30/2015
 Time: 10:04:51

SUBJECT NAME:
TEST TEST
LICENSE #: INVALID

OPERATOR NAME:
 COLLEEN S OBRYANT
 OPERATOR'S #: 6237

DEPT/AGENCY:
 AAAI

CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 29.27: 0.078
 LOT #: 01315080A2
 EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 10:08
BLANK TEST 0.000 10:09
INTERNAL STANDARD VERIFIED 10:09
EXTERNAL STANDARD 0.078 10:09
BLANK TEST 0.000 10:10
SUBJECT SAMPLE INVALID 10:10

COB

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100681

Date: 12/30/2015
Time: 10:21:43

SUBJECT NAME:
TEST TEST
LICENSE #: INT-ACETONE

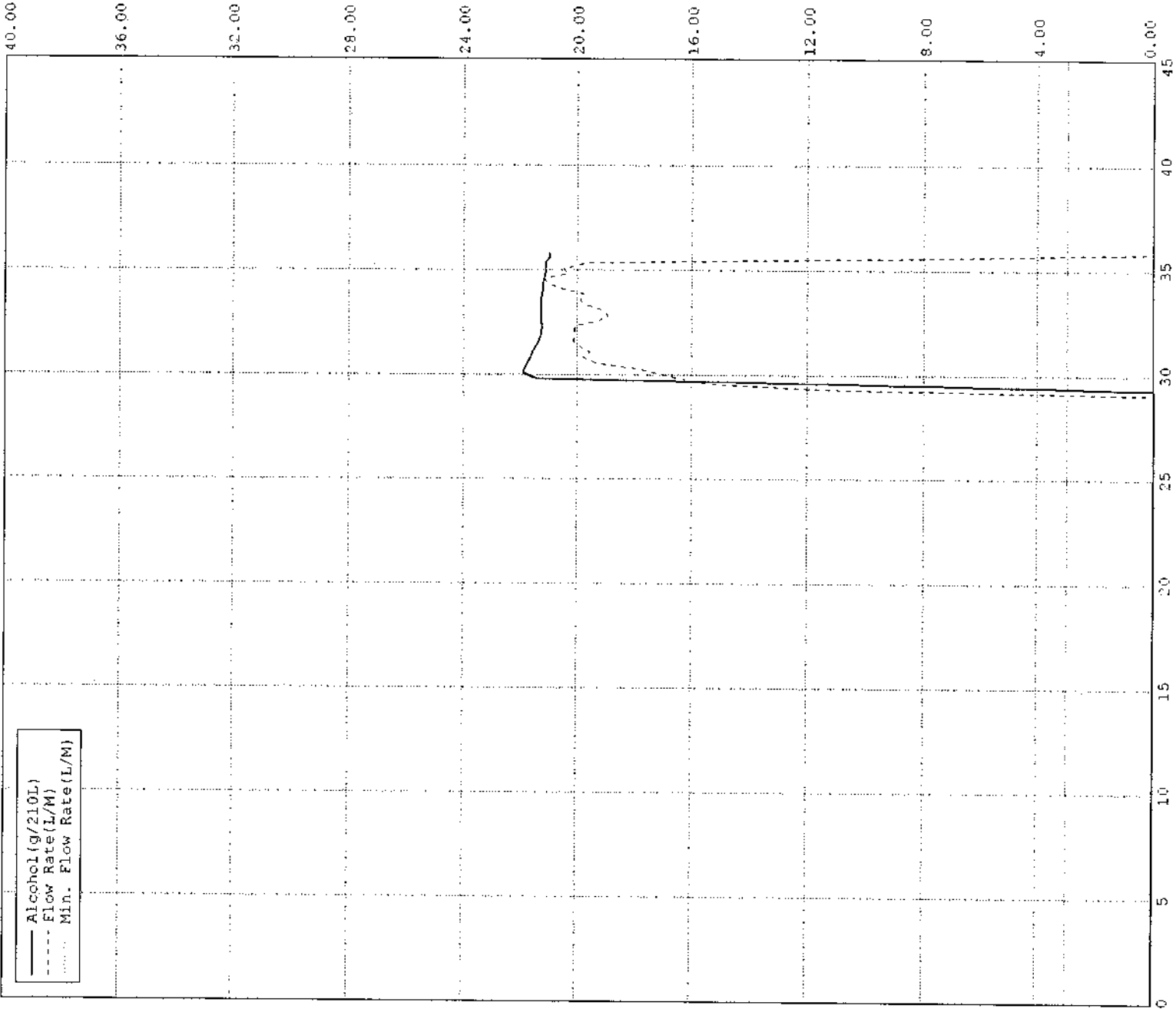
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.30: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:23
BLANK TEST	0.000	10:23
INTERNAL STANDARD	VERIFIED	10:23
Xq = 0.106 (0.74%)		
EXTERNAL STANDARD	0.079	10:24
X[1] = 0.0786 (0.0014) (0.0016)		
BLANK TEST	0.000	10:25
SUBJECT SAMPLE	XXX	10:25
X[1] = 0.1058 (-0.0168) (-0.0007)		

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100681

Date: 12/30/2015
Time: 10:28:39

SUBJECT NAME:
TEST TEST
LICENSE #: INT-IPA

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

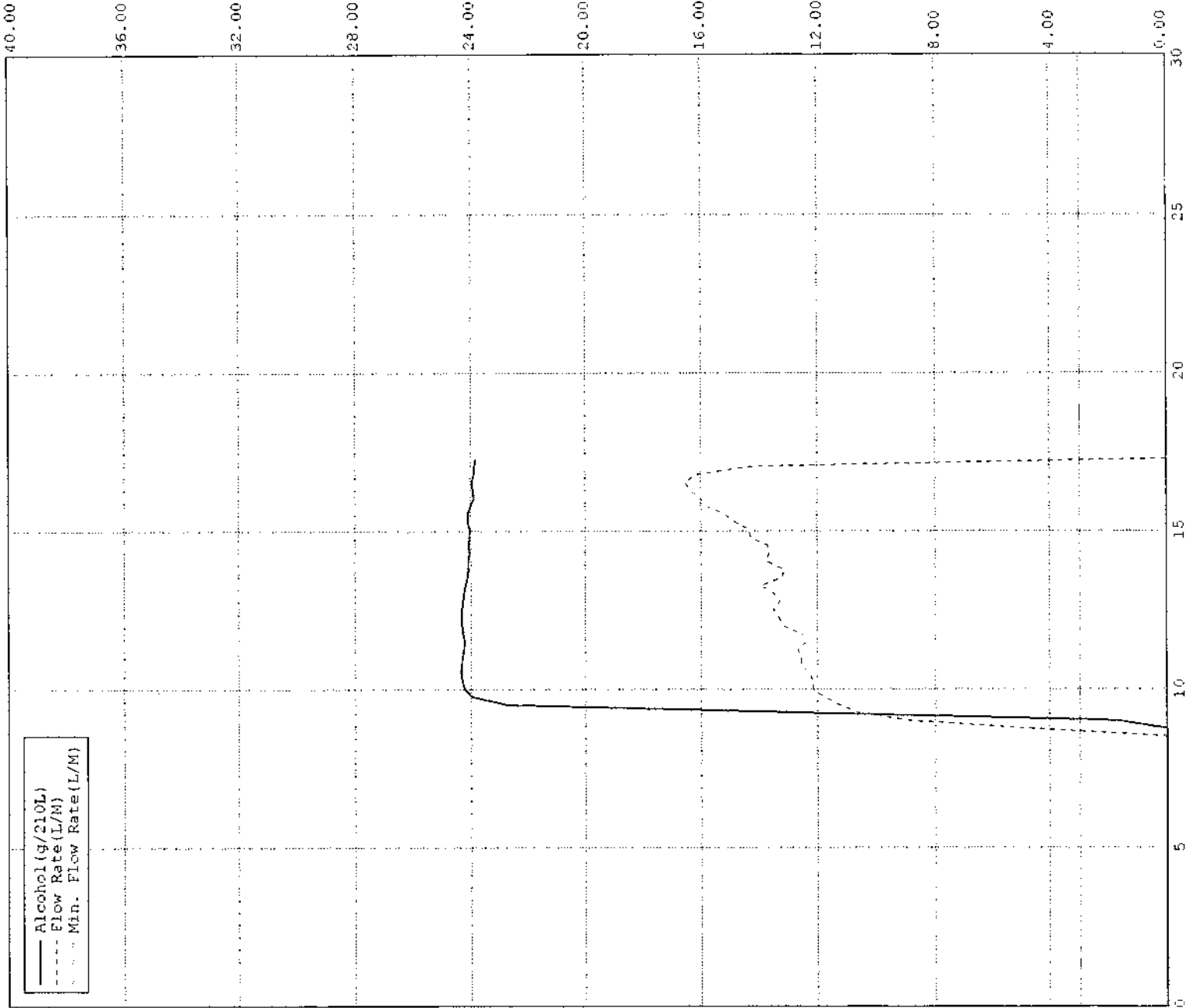
DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.30: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:29
BLANK TEST	0.000	10:29
INTERNAL STANDARD	VERIFIED	10:29
$x_q = 0.106$ (0.90%)		
EXTERNAL STANDARD	0.078	10:30
$x[1] = 0.0783$ (0.0009)	(0.0011)	
BLANK TEST	0.000	10:31
SUBJECT SAMPLE	XXX	10:31
$x[1] = 0.1194$ (-0.0224)	(0.0001)	

Interference Detected

COB



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100681

Date: 12/30/2015
Time: 10:34:28

SUBJECT NAME:
TEST TEST
LICENSE #: INT-NEGATIVE

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

DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

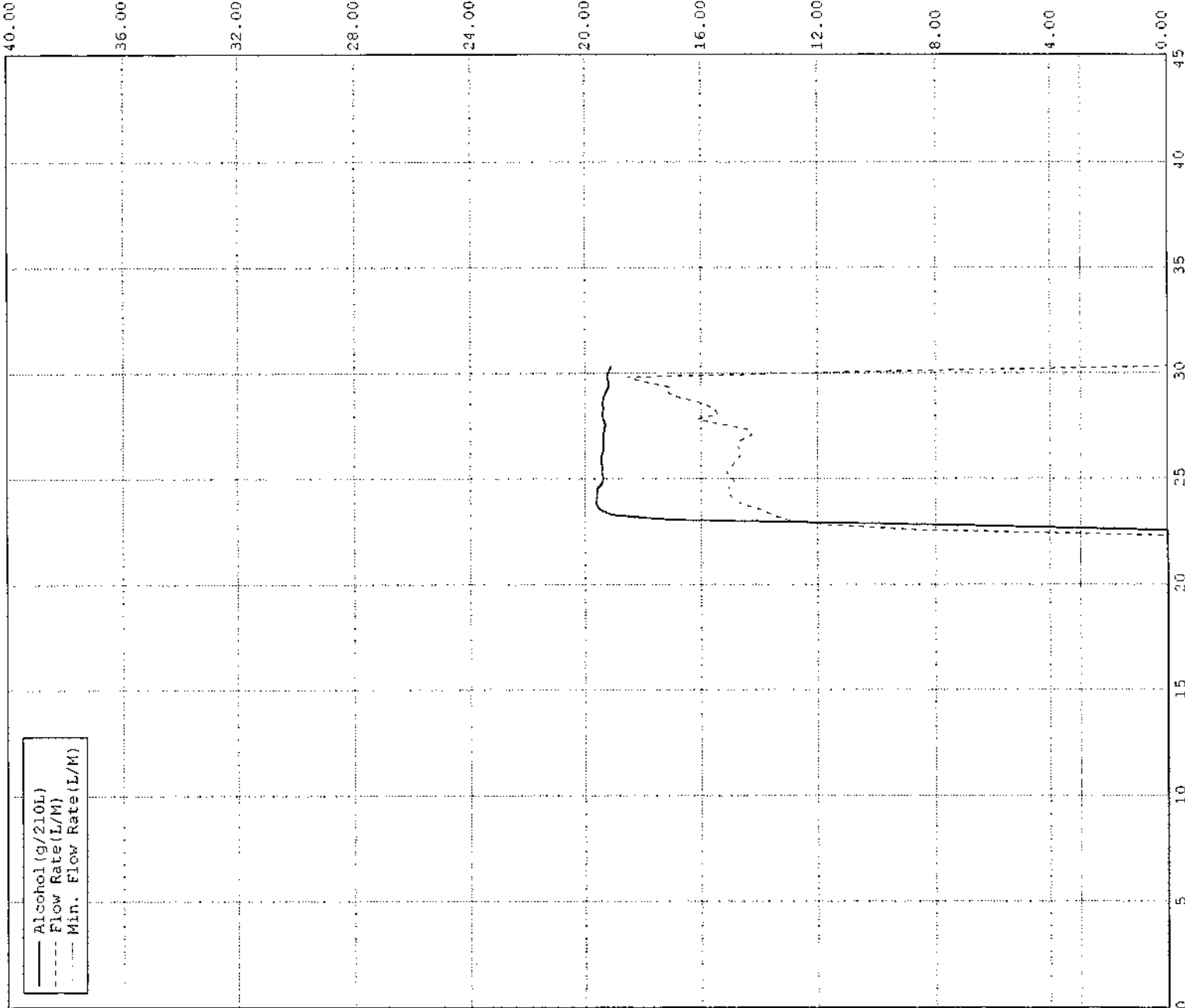
NOMINAL: 0.080
TARGET AT 29.30: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:35
BLANK TEST	0.000	10:35
INTERNAL STANDARD	VERIFIED	10:36
$xg = 0.106$ (0.98%)		
EXTERNAL STANDARD	0.078	10:36
$x[1] = 0.0781$ (0.0010) (0.0013)		
BLANK TEST	0.000	10:37
SUBJECT SAMPLE (Vol=1.91L)	0.096	10:37
$x[1] = 0.0960$ (-0.0011) (-0.0006)		
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.078	10:38
$x[1] = 0.0780$ (0.0013) (0.0016)		
BLANK TEST	0.000	10:39

Filter 2 avg = 0.0012

Filter 3 avg = 0.0014

CS



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 1096981

Date: 12/30/2015
Time: 10:46:36

SUBJECT NAME:
TEST TEST
LICENSE #: MAX ATTEMPTS

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

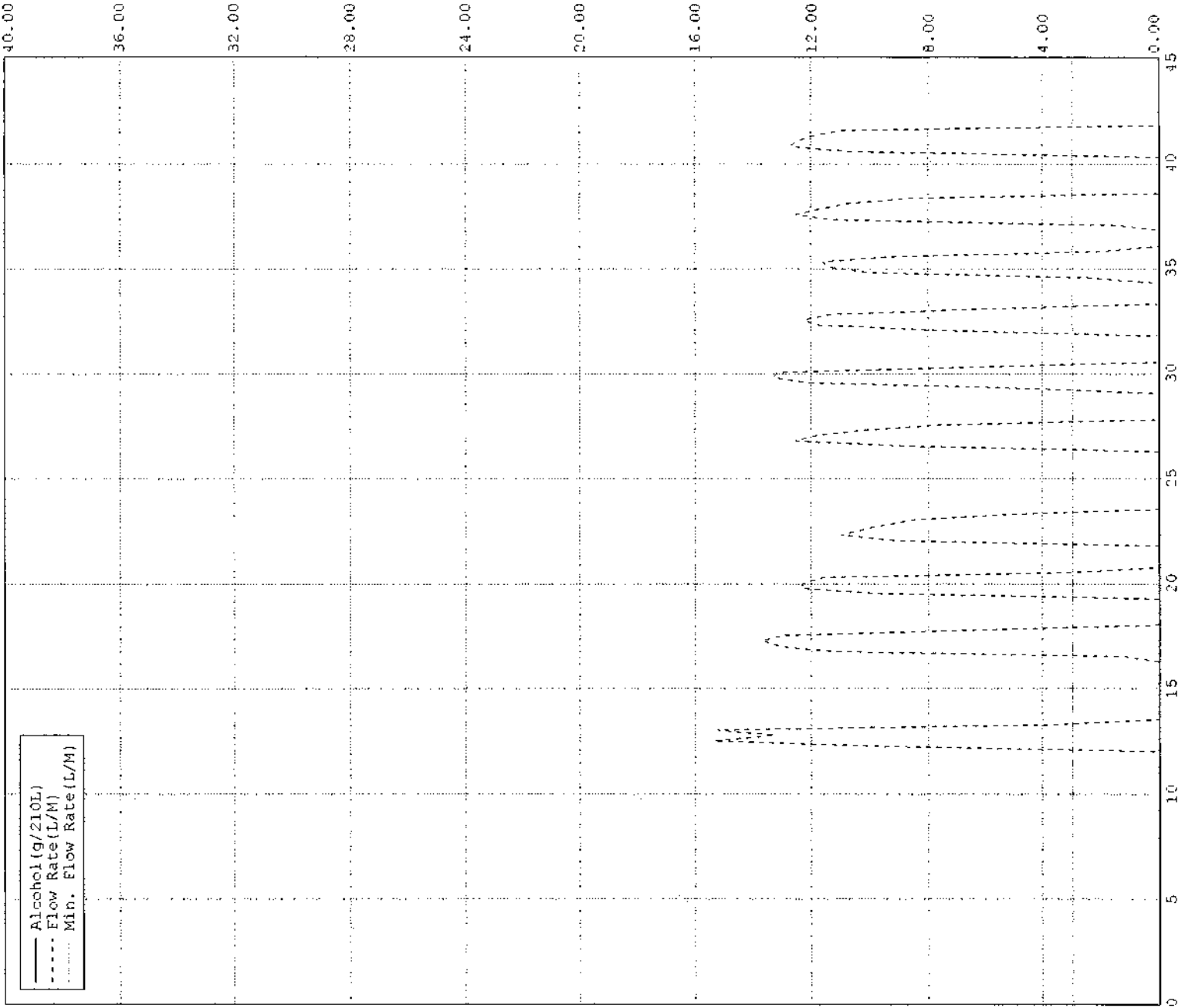
DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.31: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 10:48
BLANK TEST 0.000 10:49
INTERNAL STANDARD VERIFIED 10:49
EXTERNAL STANDARD 0.078 10:49
BLANK TEST 0.000 10:50
SUBJECT SAMPLE XXX 10:51

Maximum Attempts Exceeded

COB



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100681

Date: 12/30/2015

Time: 10:55:26

SUBJECT NAME:

TEST TEST

LICENSE #: RFI

OPERATOR NAME:

COLLEEN S O'BRYAN

OPERATOR'S #: 6237

DEPT/AGENCY:

AAA1

CASE/REPORT: 15-1234

TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.31: 0.078

LOT #: 01315080A2

EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK

PASSED 10:57

BLANK TEST

0.000

INTERNAL STANDARD

VERIFIED 10:58

EXTERNAL STANDARD

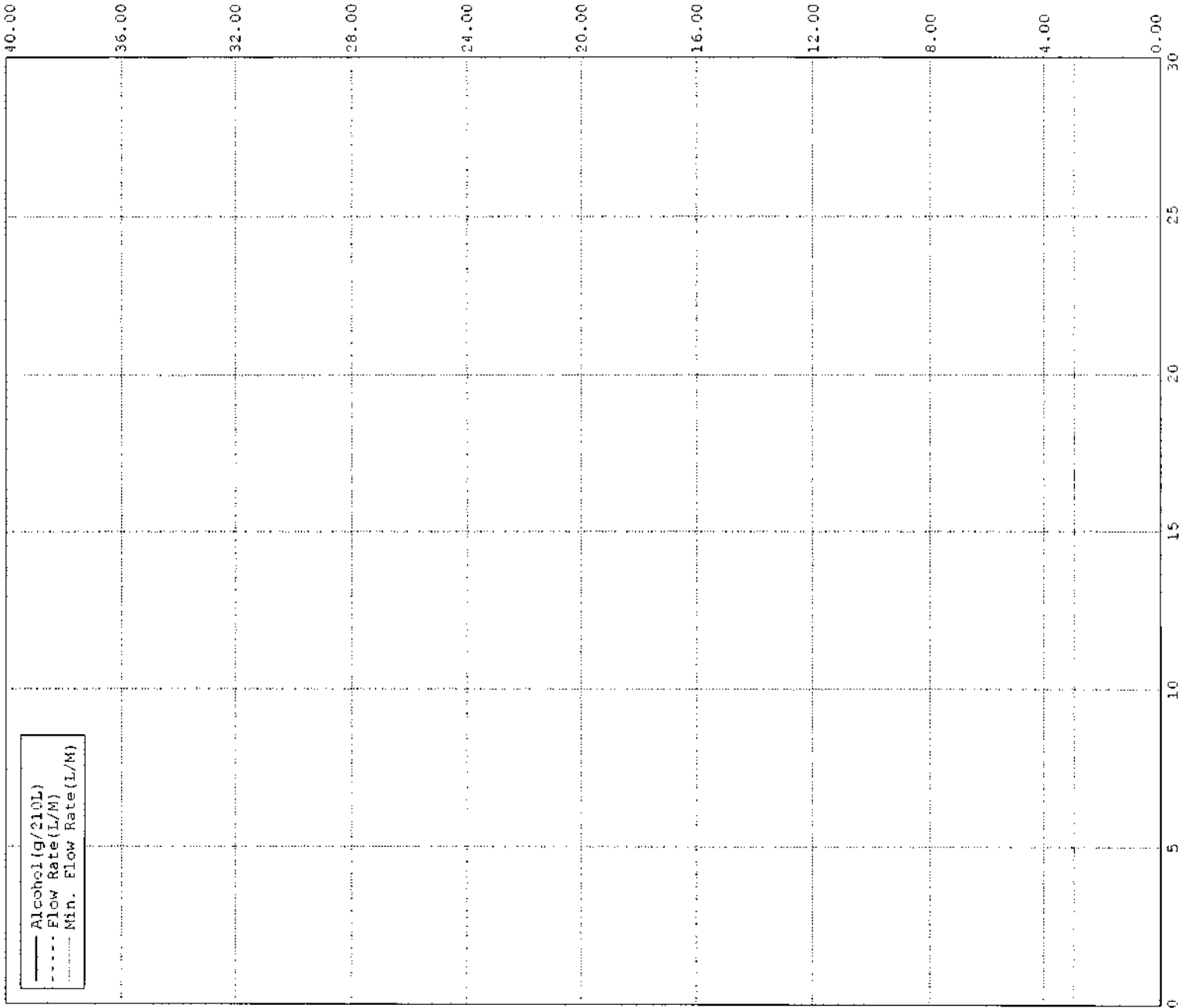
0.079

BLANK TEST

0.000 10:59

RFI DETECTED

CDB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100681

Date: 12/30/2015
Time: 11:12:04

SUBJECT NAME:
TEST TEST
LICENSE #: NON-DRINKING

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

DEPT/AGENCY:
AAA1

CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.31: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:13
BLANK TEST	0.000	11:13
INTERNAL STANDARD	VERIFIED	11:13
EXTERNAL STANDARD	0.079	11:13
BLANK TEST	0.000	11:14
SUBJECT SAMPLE (Vol=2.03L)	0.000	11:14
BLANK TEST	0.000	11:15
EXTERNAL STANDARD	0.079	11:16
BLANK TEST	0.000	11:16

COB

