

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 100417 Analyst C. O'Bryant Start Date 8/3/15

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 09214080A2 Exp 5/1/16
- iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17
- v. 0.200g/210L Mnf Guth Lot 13220 Exp 8/5/15
 - 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 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 8/4/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 08/03/2015
Time: 14:42:58

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 = 1.97 V PASSED
(1.18 V - 2.76 V)
Cooler Voltage = 1.89 V PASSED
(1.13 V - 2.65 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 538 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.938 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
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.095 (0.09%) (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100417

Date: 08/03/2015
Time: 3:01 PM

Temperatures (°C)

Sample Cell: 48.7°C
Breath Tube: 48.1°C

Current Barometer 29.8 in
Volume (Ltr) 1.41

Settings

Lamp: 1.89 V
Bias: 80 V
Cooler: 1.91 V
Chopper: 535 Hz

Voltages (V)

Flow: 1.03 V
Detector: 0.024 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 06/30/2015
Time: 11:48:29

OPERATOR NAME:
M M M
CERTIFICATE #: GUTH 2100, DR7001, 34.0C

Ca = 0.1010
CAL = 0.981577 0.800 <= CAL < 1.200
b1 = 0.0000 0.0000 <= b1 < 0.0040
b2 = 0.0028 0.0010 <= b2 < 0.0100
b3 = 0.0000 0.0000 <= b3 < 0.0040
Xq = 0.0950 0.0500 <= Xq < 0.2000
a21 = 1.161234 1.050 <= a21 < 1.300
a31 = 0.518447 0.300 <= a31 < 0.800

15640 DR7001
2-16-16 34.0 C

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 08/03/2015
Time: 15:22:22

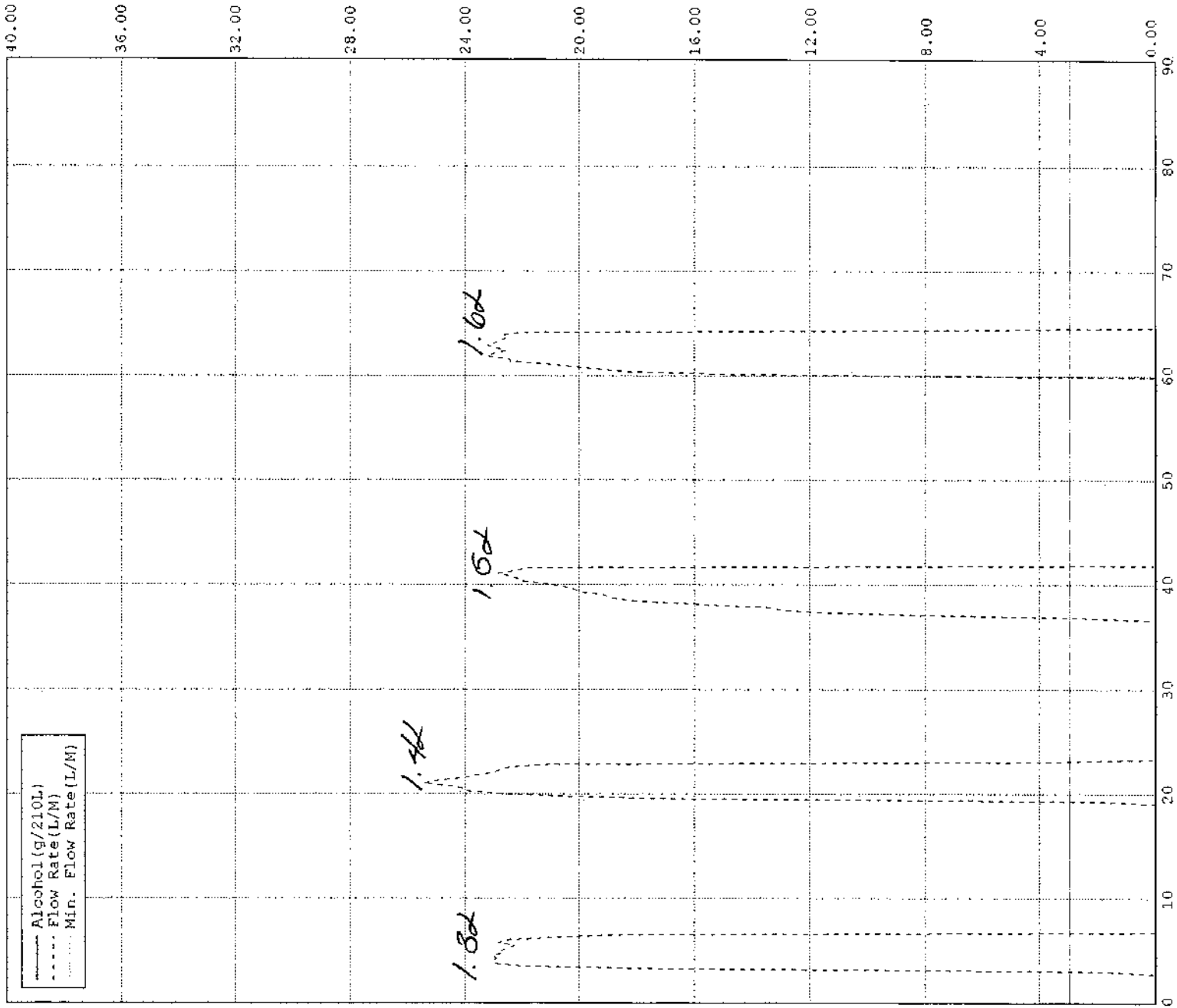
SUBJECT NAME:
TEST TEST
LICENSE #: VOLUME TEST

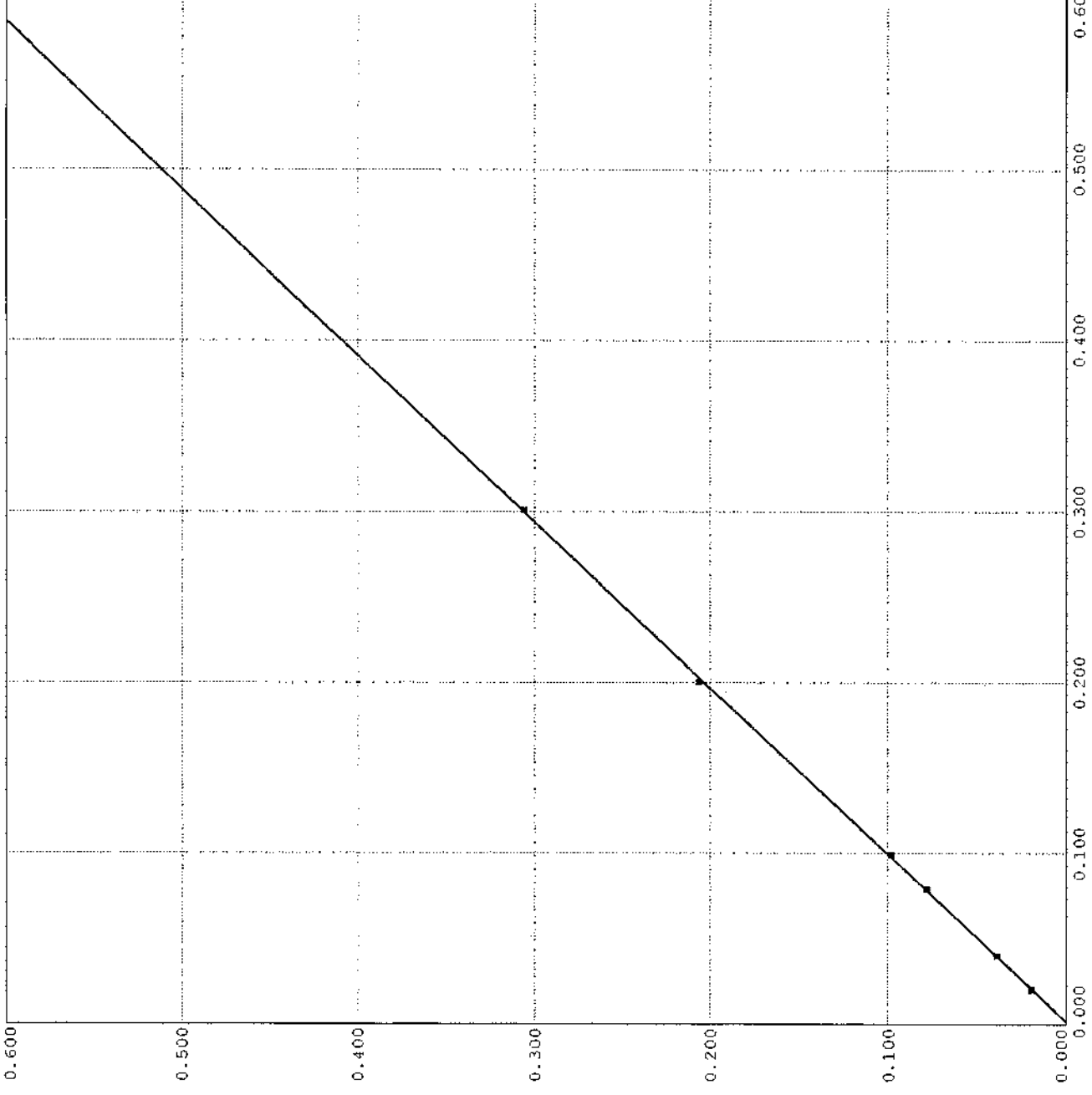
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.79: 0.080
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	15:23
BLANK TEST	0.000	15:23
INTERNAL STANDARD	VERIFIED	15:24
EXTERNAL STANDARD	0.079	15:24
BLANK TEST	0.000	15:25
SUBJECT SAMPLE (Vol=1.56L)	0.000	15:26
BLANK TEST	0.000	15:27
EXTERNAL STANDARD	0.080	15:27
BLANK TEST	0.000	15:28





LINEARITY CHECK

 Alaska Department of Public Safety
 DATAMASTER dmt: 100417

 Date: 08/04/2015
 Time: 08:56:48

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.040	0.0398	0.0004
0.079	0.0792	0.0004
0.099	0.0990	0.0000
0.200	0.2070	0.0000
0.300	0.3066	0.0005

SLOPE = 1.029587
 R² = 0.999822

CUB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100417

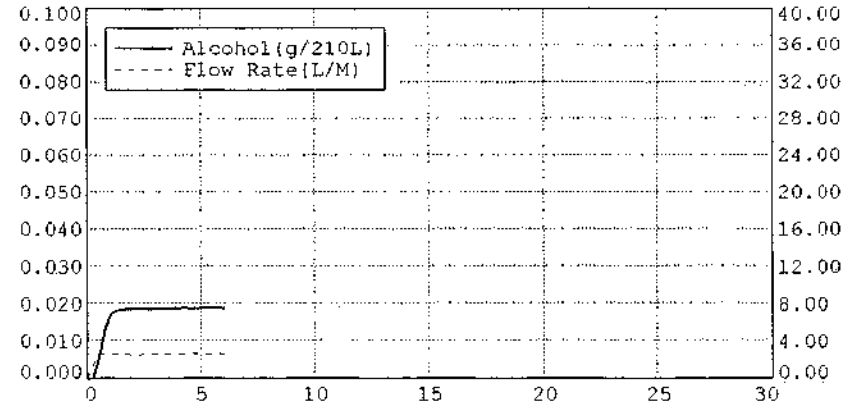
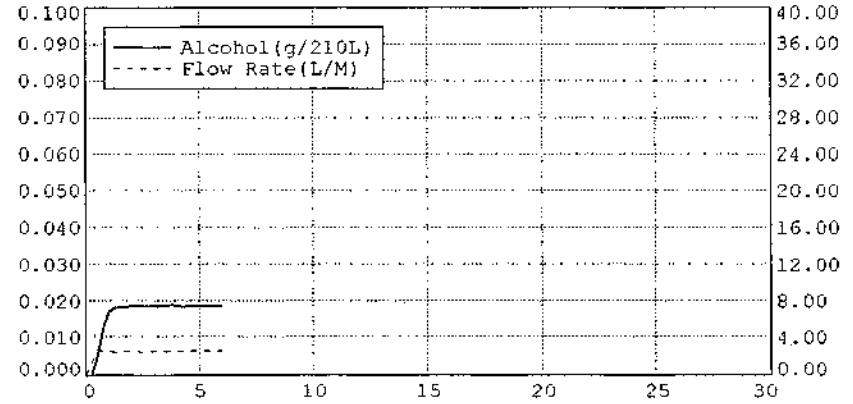
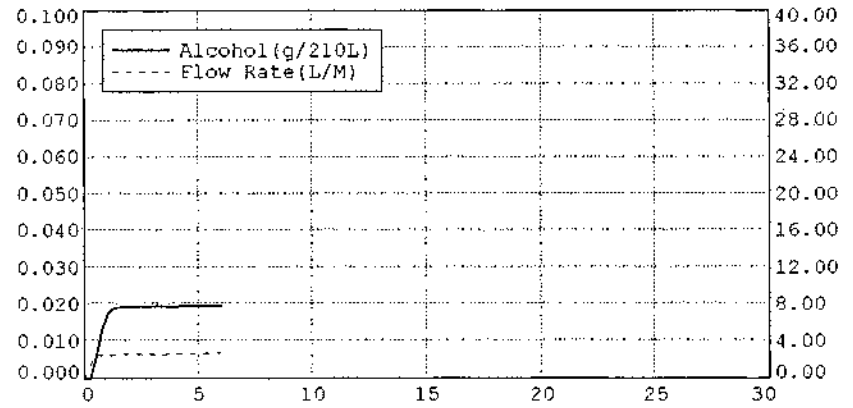
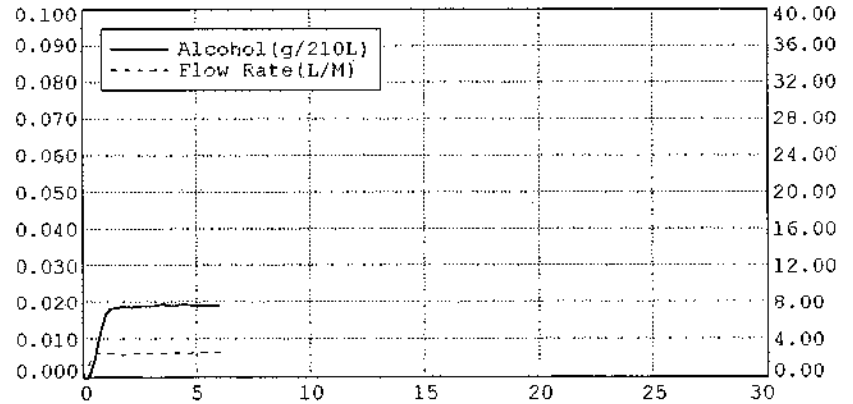
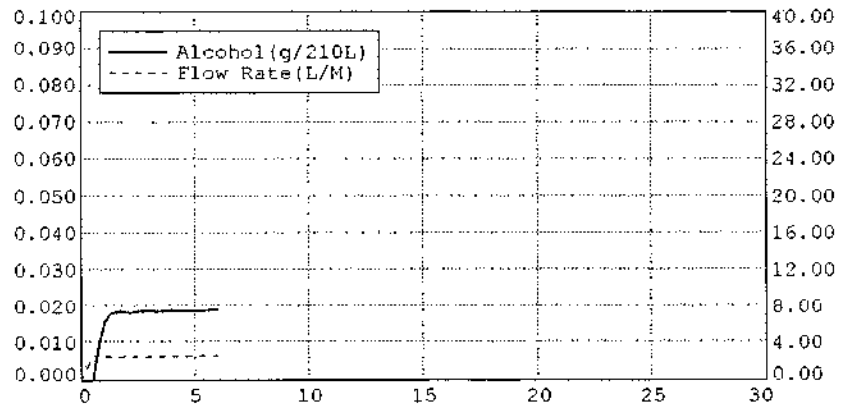
Date: 08/04/2015
Time: 08:56:50

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.71: 0.020
LOT #: 02915020A2
EXPIRATION: 03/05/2017
TANK PRESSURE: 680 psi

BLANK TEST	0.000	08:58
INTERNAL STANDARD	VERIFIED	08:58
EXTERNAL STANDARD	0.020	08:58
BLANK TEST	0.000	08:59
EXTERNAL STANDARD	0.020	08:59
BLANK TEST	0.000	09:00
EXTERNAL STANDARD	0.021	09:00
BLANK TEST	0.000	09:01
EXTERNAL STANDARD	0.020	09:01
BLANK TEST	0.000	09:02
EXTERNAL STANDARD	0.020	09:02
BLANK TEST	0.000	09:03

Average = 0.0202
Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
DATAMASTER dmt: 100417

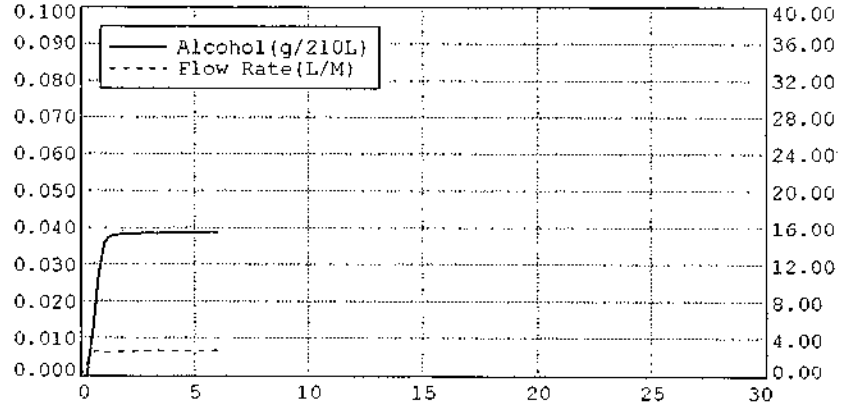
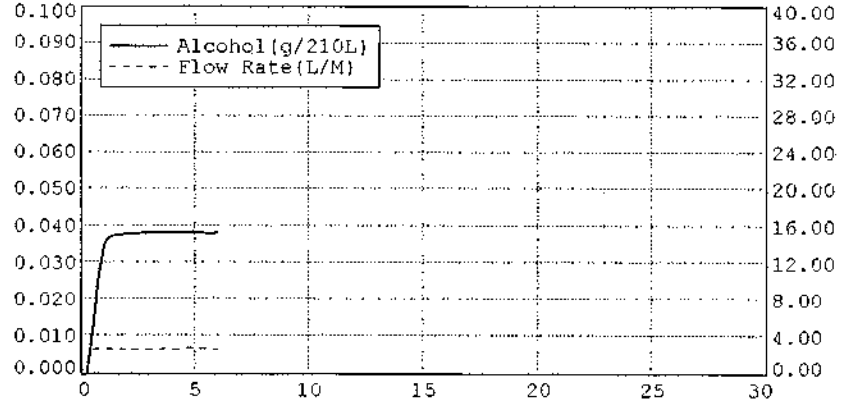
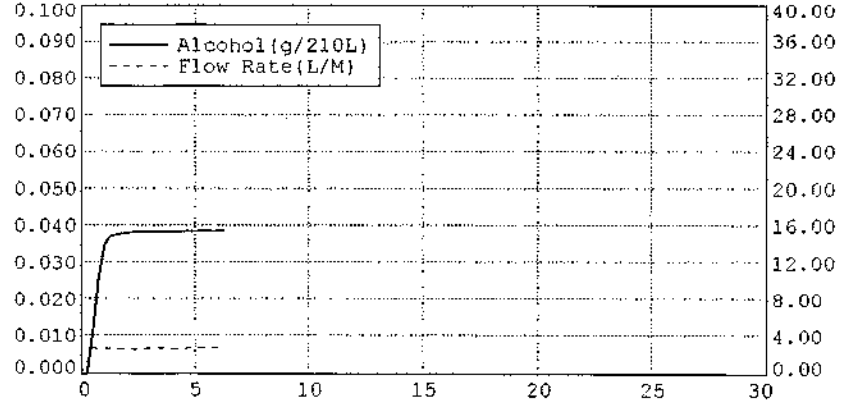
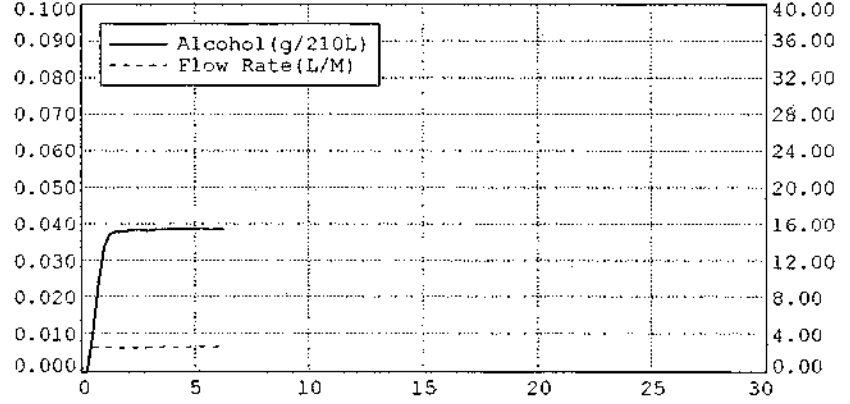
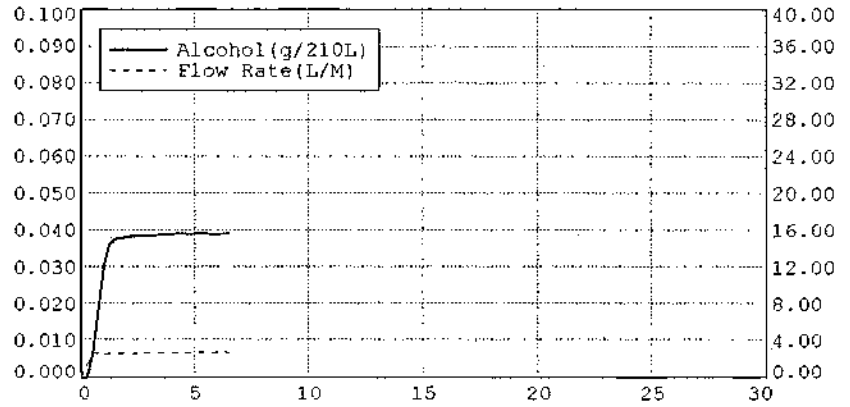
Date: 08/04/2015
Time: 09:04:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
TARGET AT 29.73: 0.040
LOT #: 02915040A3
EXPIRATION: 03/05/2017
TANK PRESSURE: 794 psi

BLANK TEST	0.000	09:05
INTERNAL STANDARD	VERIFIED	09:05
EXTERNAL STANDARD	0.040	09:06
BLANK TEST	0.000	09:07
EXTERNAL STANDARD	0.040	09:07
BLANK TEST	0.000	09:08
EXTERNAL STANDARD	0.040	09:08
BLANK TEST	0.000	09:09
EXTERNAL STANDARD	0.039	09:09
BLANK TEST	0.000	09:10
EXTERNAL STANDARD	0.040	09:10
BLANK TEST	0.000	09:11

Average = 0.0398
Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

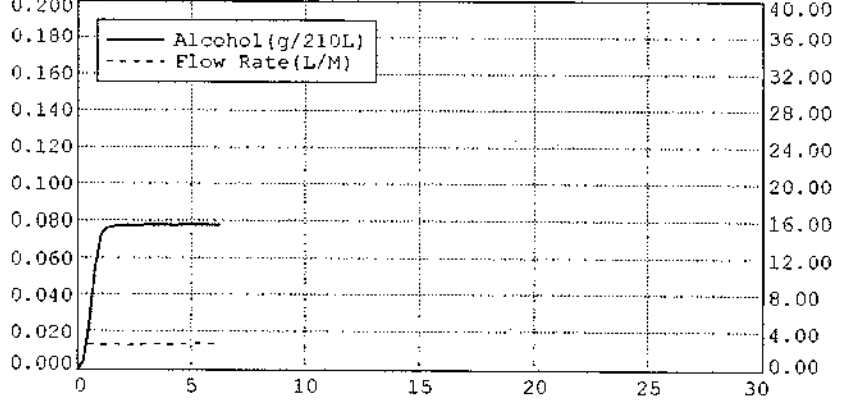
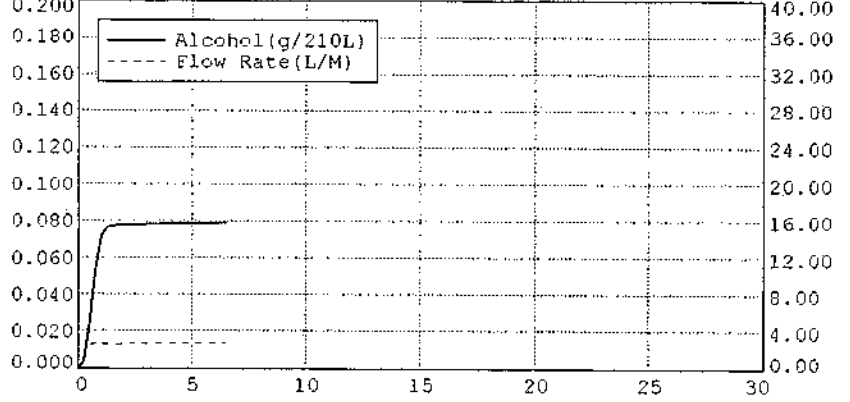
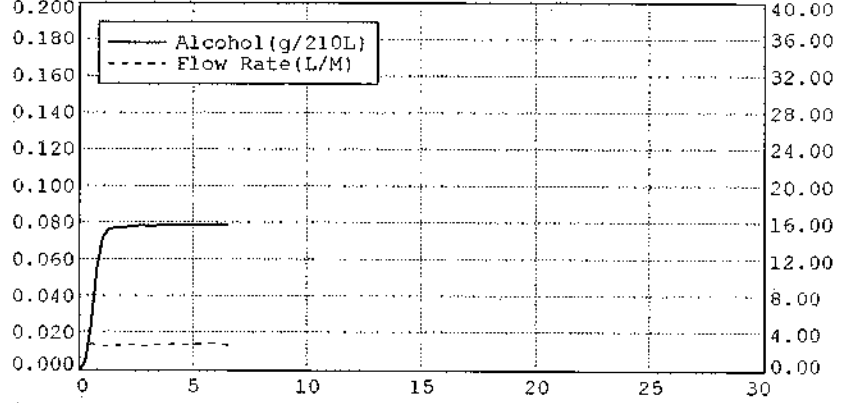
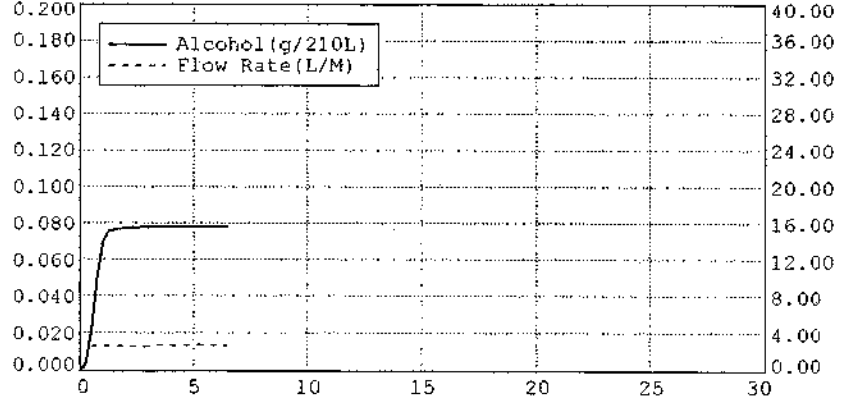
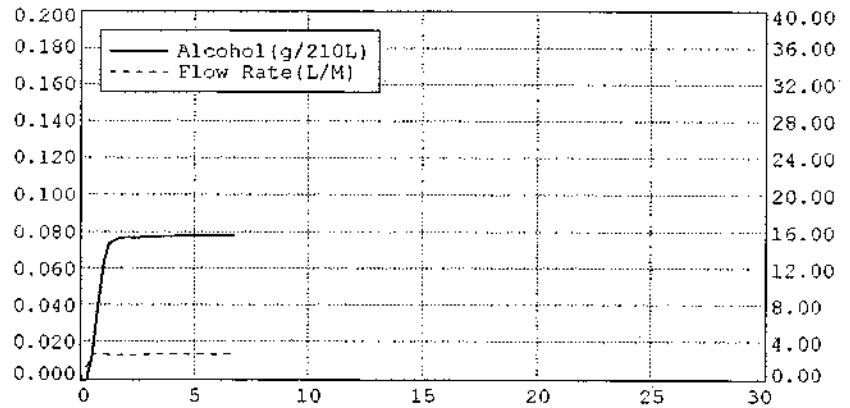
Alaska Department of Public Safety
 DATAMASTER dmt: 100417

Date: 08/04/2015
 Time: 09:11:57

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 29.72: 0.079
 LOT #: 09214080A2
 EXPIRATION: 05/01/2016
 TANK PRESSURE: 991 psi

BLANK TEST	0.000	09:13
INTERNAL STANDARD	VERIFIED	09:13
EXTERNAL STANDARD	0.079	09:13
BLANK TEST	0.000	09:14
EXTERNAL STANDARD	0.079	09:14
BLANK TEST	0.000	09:15
EXTERNAL STANDARD	0.079	09:15
BLANK TEST	0.000	09:16
EXTERNAL STANDARD	0.080	09:17
BLANK TEST	0.000	09:18
EXTERNAL STANDARD	0.079	09:18
BLANK TEST	0.000	09:19

Average = 0.0792
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100417

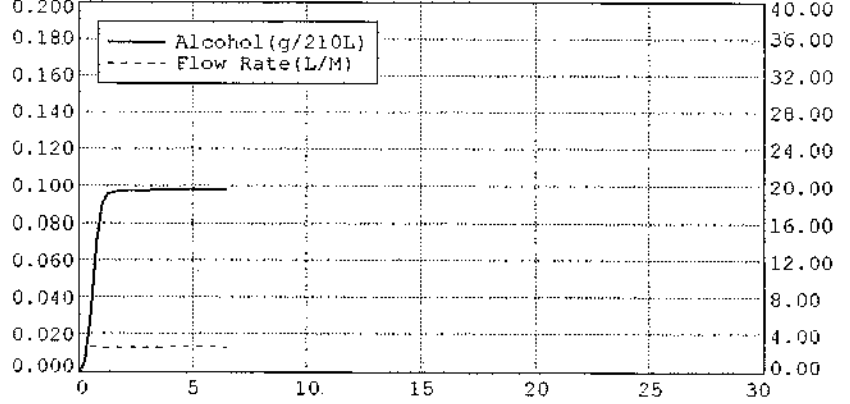
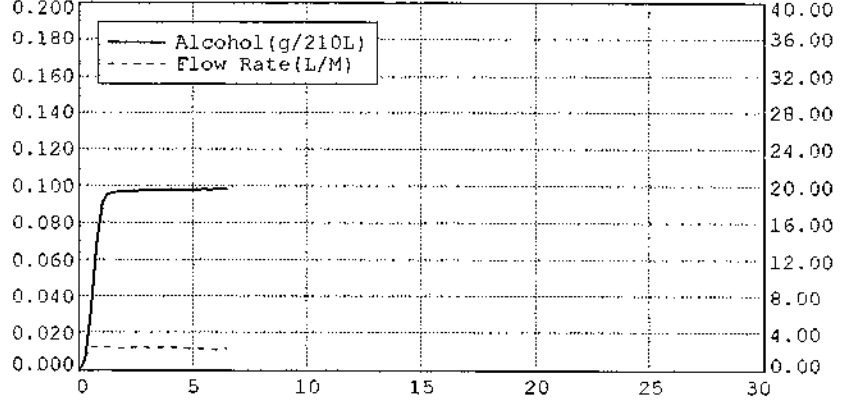
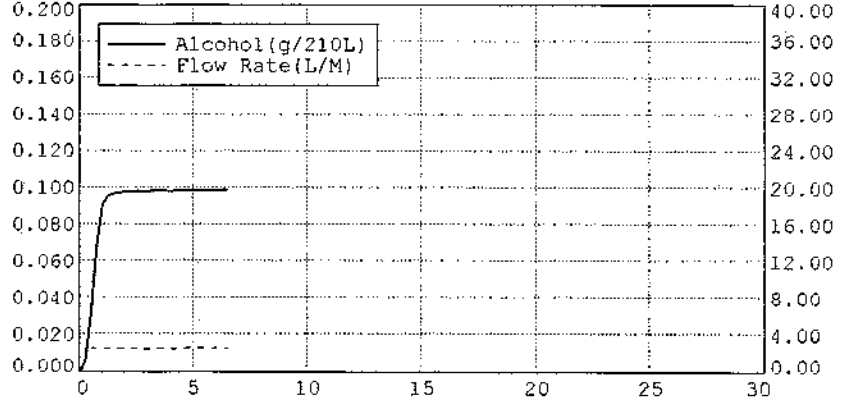
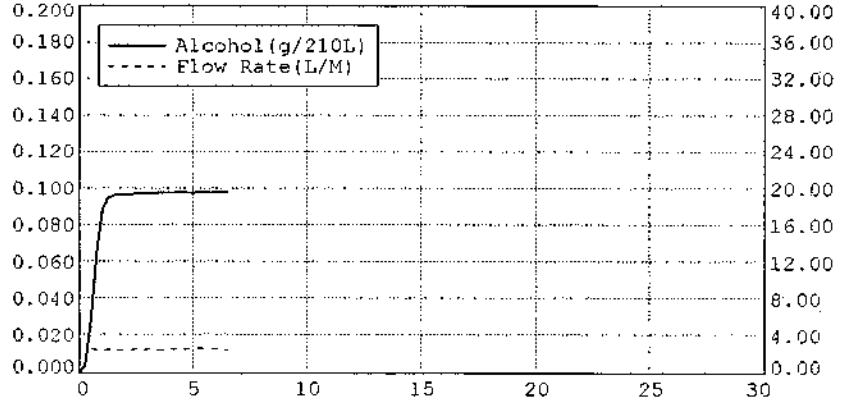
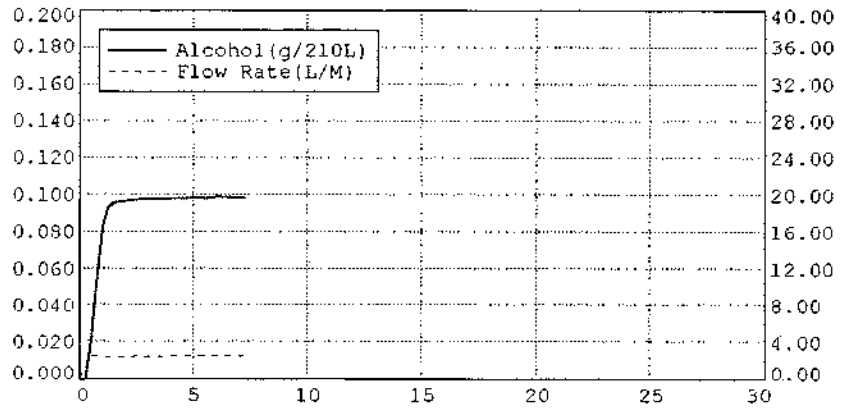
Date: 08/04/2015
 Time: 09:20:49

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.72: 0.099
 LOT #: 02915100A1
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 662 psi

BLANK TEST	0.000	09:22
INTERNAL STANDARD	VERIFIED	09:22
EXTERNAL STANDARD	0.099	09:22
BLANK TEST	0.000	09:23
EXTERNAL STANDARD	0.099	09:23
BLANK TEST	0.000	09:24
EXTERNAL STANDARD	0.099	09:24
BLANK TEST	0.000	09:25
EXTERNAL STANDARD	0.099	09:25
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.099	09:26
BLANK TEST	0.000	09:27

Average = 0.0990
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100417

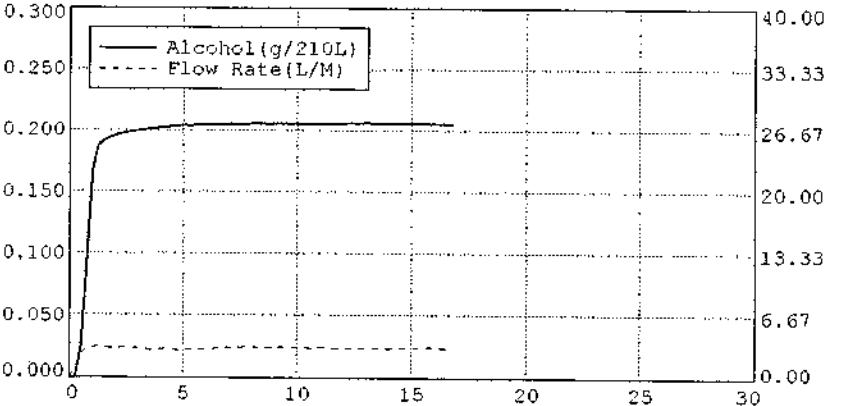
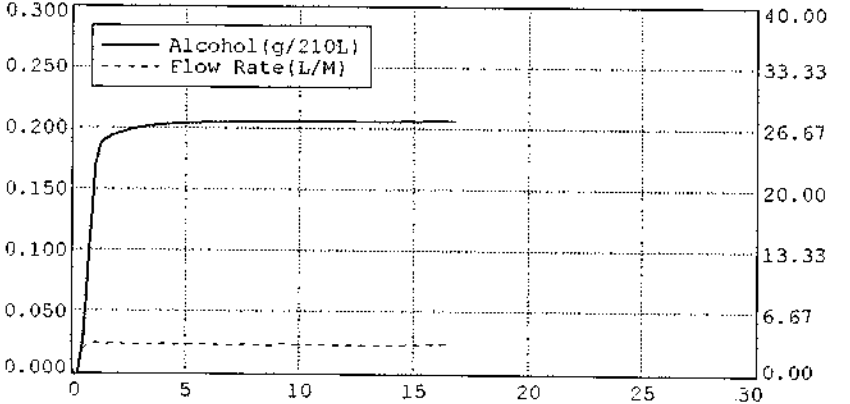
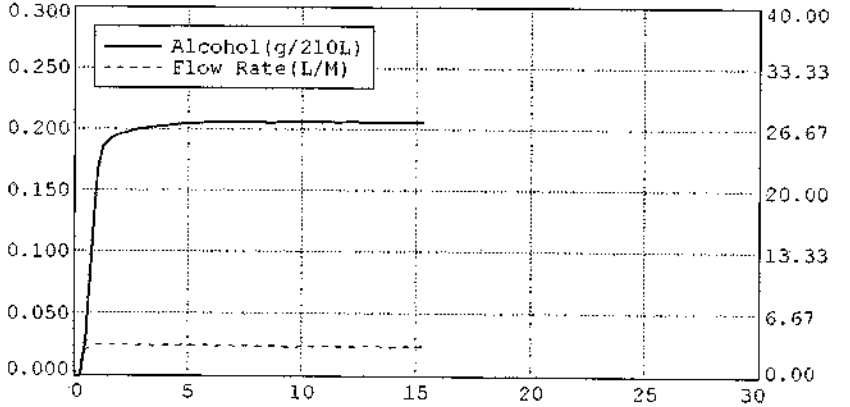
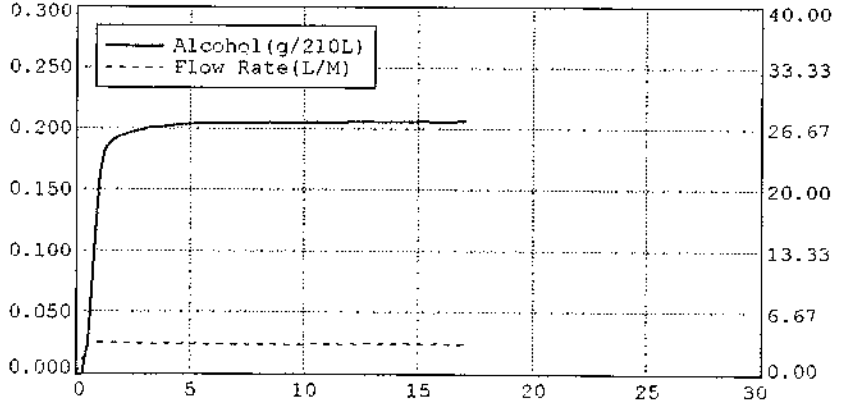
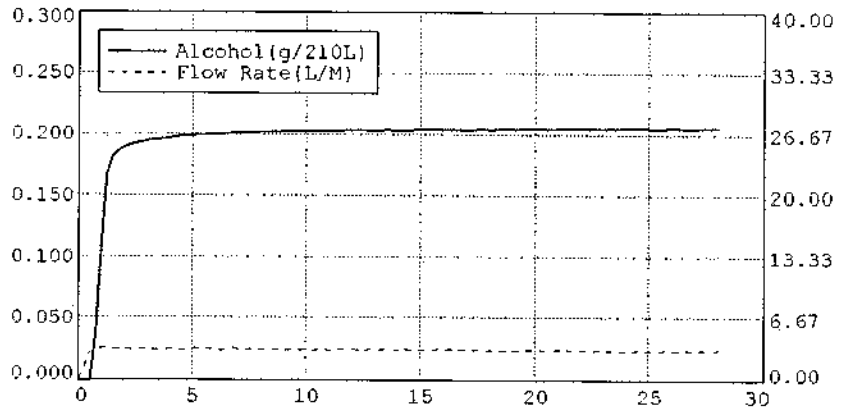
Date: 08/04/2015
 Time: 09:47:30

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200
 LOT #: 13220
 EXPIRATION: 08/05/2015

BLANK TEST	0.000	09:48
INTERNAL STANDARD	VERIFIED	09:48
EXTERNAL STANDARD	0.207	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.207	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.207	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.207	09:53
BLANK TEST	0.000	09:54
EXTERNAL STANDARD	0.207	09:54
BLANK TEST	0.000	09:55

Average = 0.2070
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100417

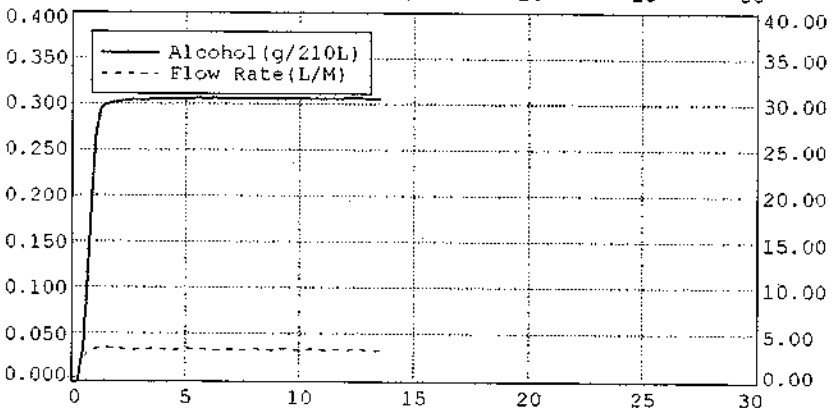
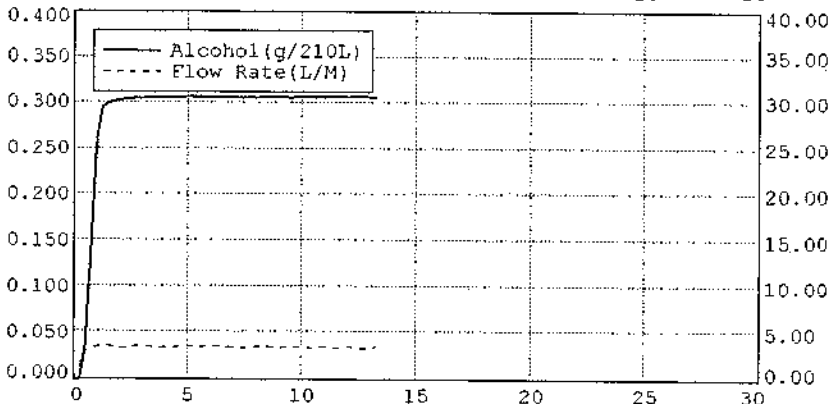
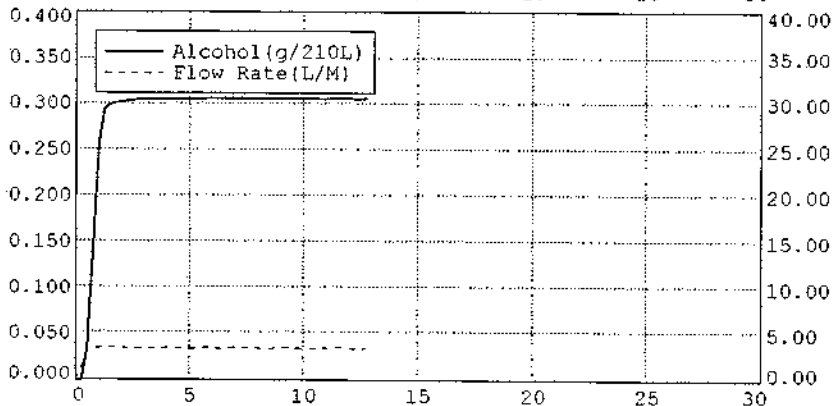
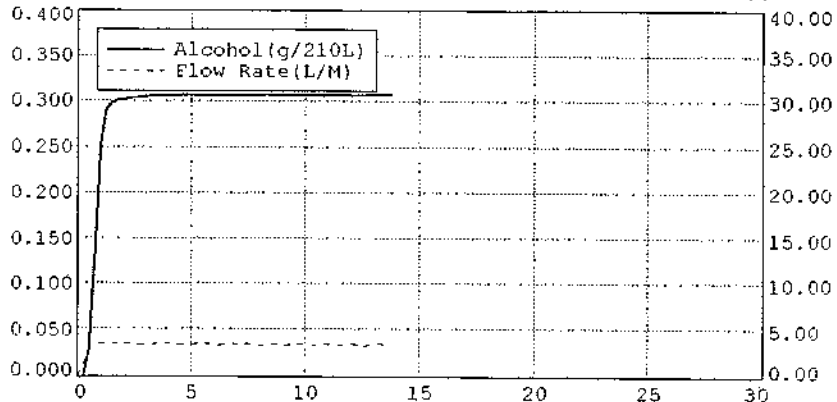
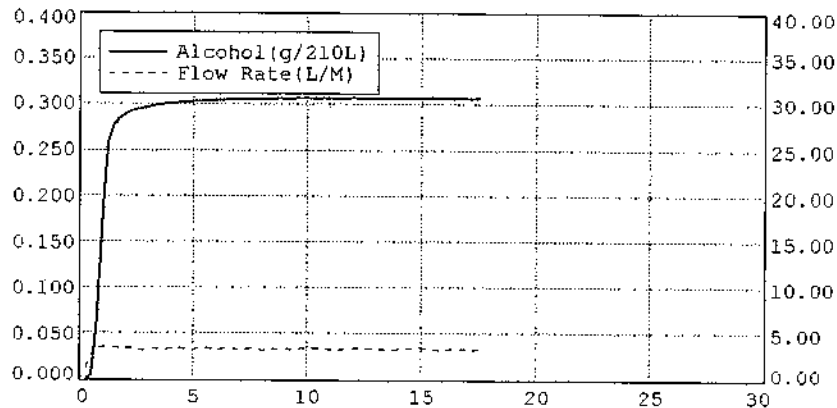
Date: 08/04/2015
 Time: 09:59:09

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:00
INTERNAL STANDARD	VERIFIED	10:00
EXTERNAL STANDARD	0.307	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.307	10:02
BLANK TEST	0.000	10:03
EXTERNAL STANDARD	0.306	10:03
BLANK TEST	0.000	10:04
EXTERNAL STANDARD	0.306	10:04
BLANK TEST	0.000	10:05
EXTERNAL STANDARD	0.307	10:05
BLANK TEST	0.000	10:06

Average = 0.3066
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 08/04/2015
Time: 10:35:56

SUBJECT NAME:
TEST TEST
LICENSE #: INCOMPLETE

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

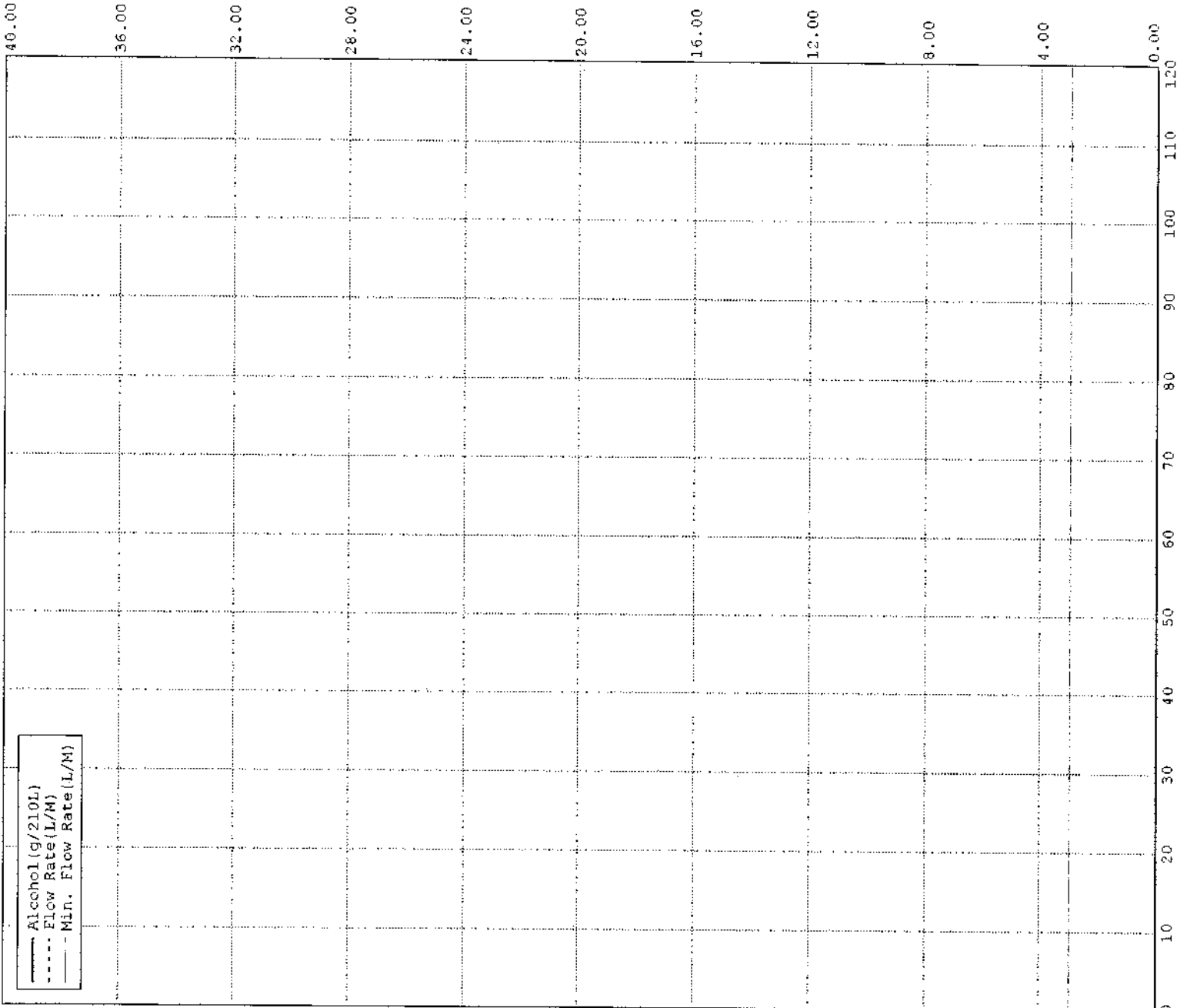
DEPT/AGENCY:
AAA1

CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.71: 0.079
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 10:36
BLANK TEST 0.000 10:37
INTERNAL STANDARD VERIFIED 10:37
EXTERNAL STANDARD 0.079 10:37
BLANK TEST 0.000 10:38
SUBJECT SAMPLE INCOMPLETE 10:40



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 08/04/2015
Time: 10:42:53

SUBJECT NAME:
TEST TEST
LICENSE #: INVALID

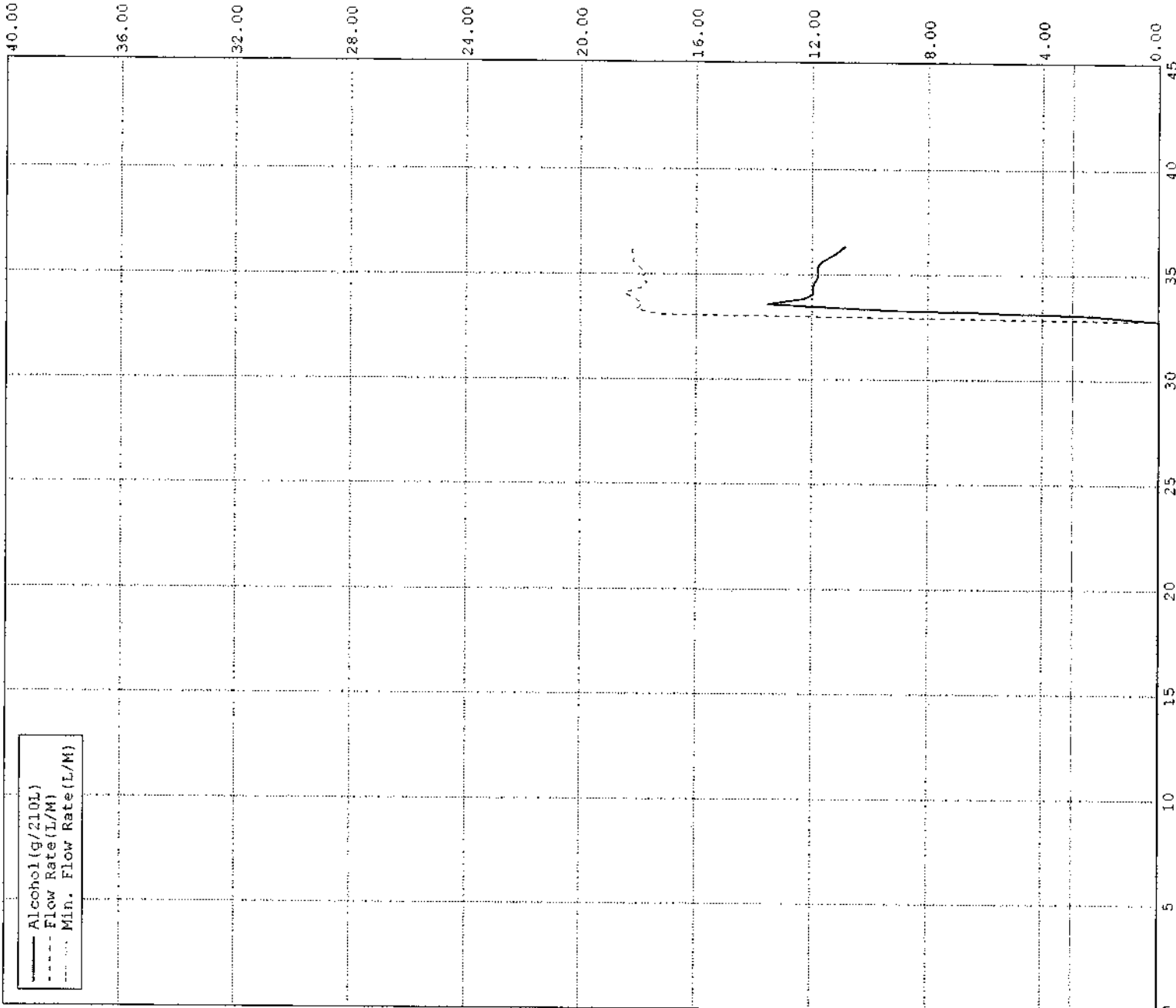
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.71: 0.079
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 10:44
BLANK TEST 0.000 10:44
INTERNAL STANDARD VERIFIED 10:45
EXTERNAL STANDARD 0.080 10:45
BLANK TEST 0.000 10:46
SUBJECT SAMPLE INVALID 10:47

Car



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 08/04/2015
Time: 12:40:32

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

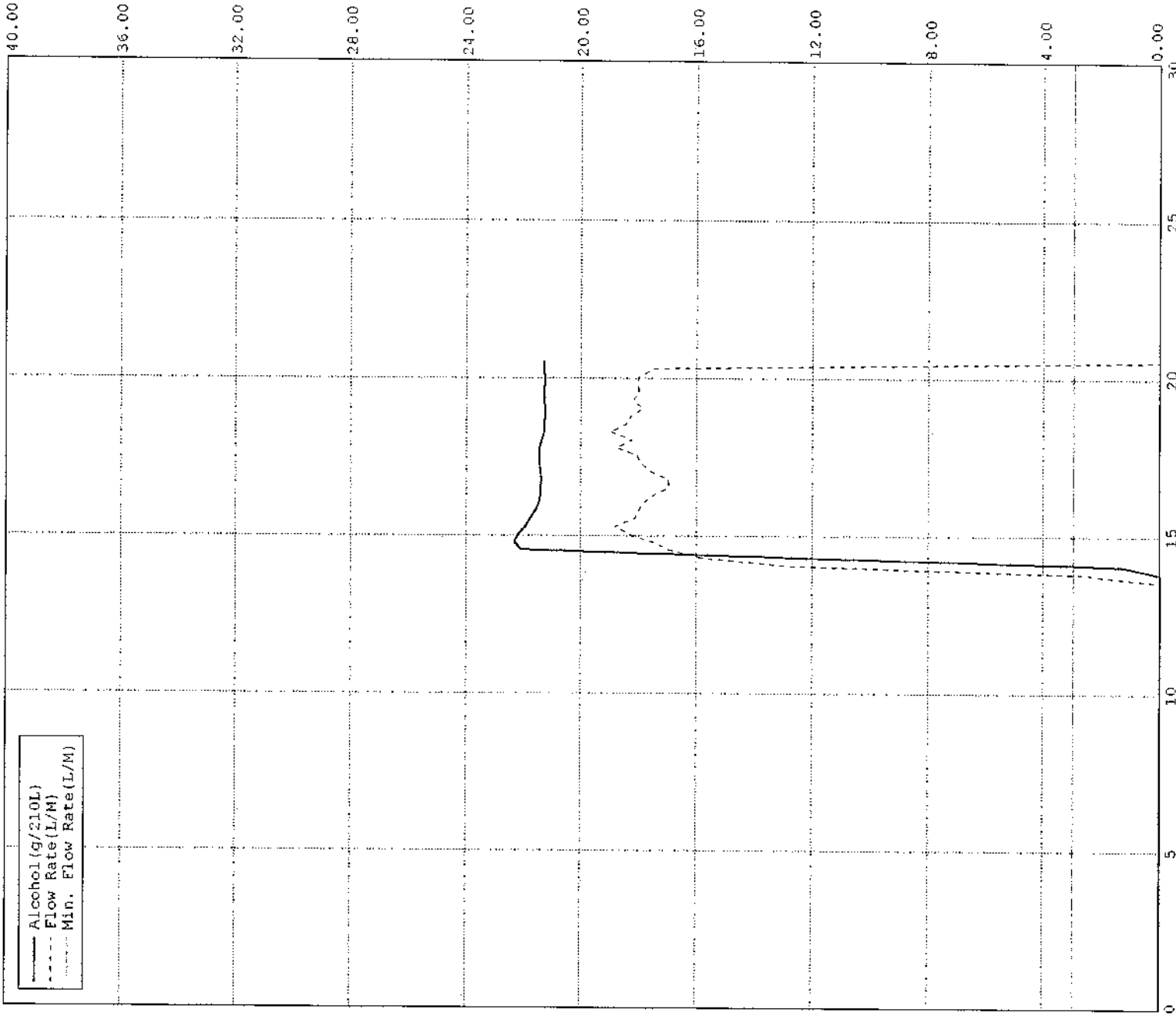
NOMINAL: 0.080
TARGET AT 29.69: 0.079
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	12:41
BLANK TEST	0.000	12:41
INTERNAL STANDARD	VERIFIED	12:41
Xq = 0.095 (0.18%)		
EXTERNAL STANDARD	0.079	12:42
X[l] = 0.0793 (0.0015) (0.0017)		
BLANK TEST	0.000	12:42
SUBJECT SAMPLE	XXX	12:43
X[j] = 0.1066 (-0.0161) (0.0002)		

Interference Detected

Filter 2 avg = 0.0018
Filter 3 avg = 0.0014

CAS



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 08/04/2015
Time: 12:45:48

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

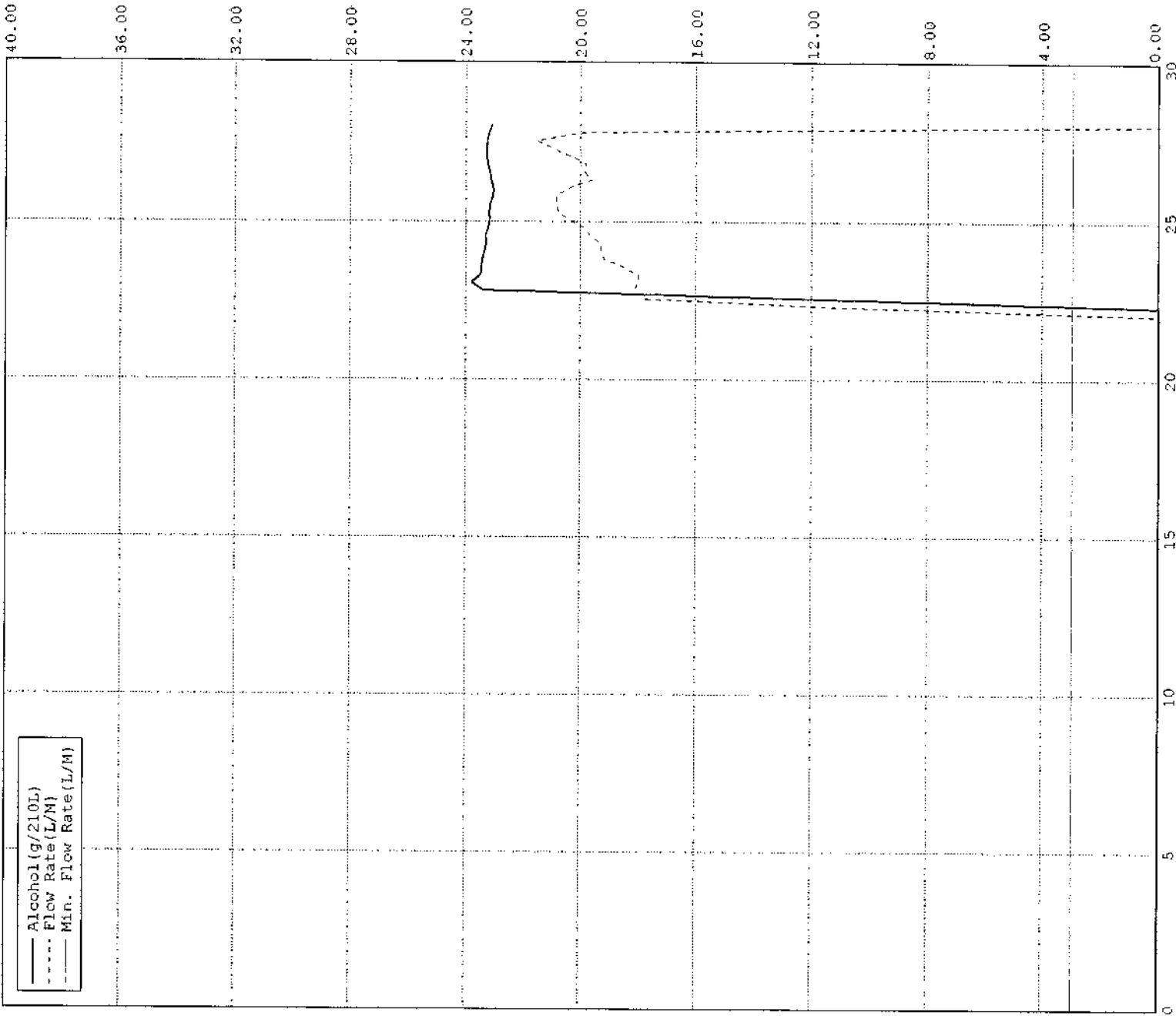
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.69: 0.079
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 12:46
BLANK TEST 0.000 12:46
INTERNAL STANDARD VERIFIED 12:47
Xg = 0.094 (0.64%)
EXTERNAL STANDARD 0.079 12:47
X[1] = 0.0794 (0.0014) (0.0011)
BLANK TEST 0.000 12:48
SUBJECT SAMPLE XXX 12:48
X[1] = 0.1150 (-0.0226) (-0.0001)

Interference Detected

CAS



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 08/04/2015
Time: 12:52:11

SUBJECT NAME:
TEST TEST
LICENSE #: INT-NEG

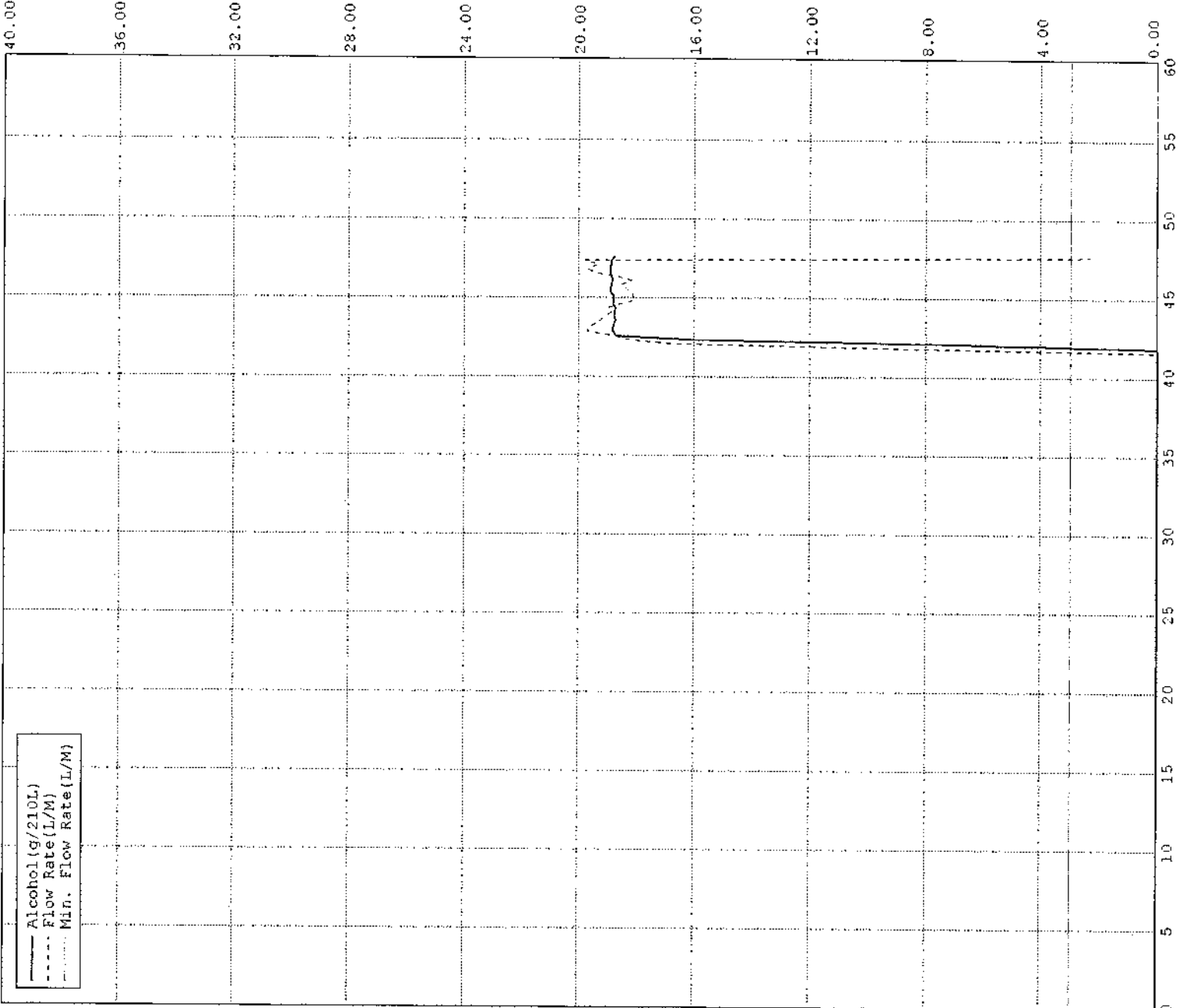
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

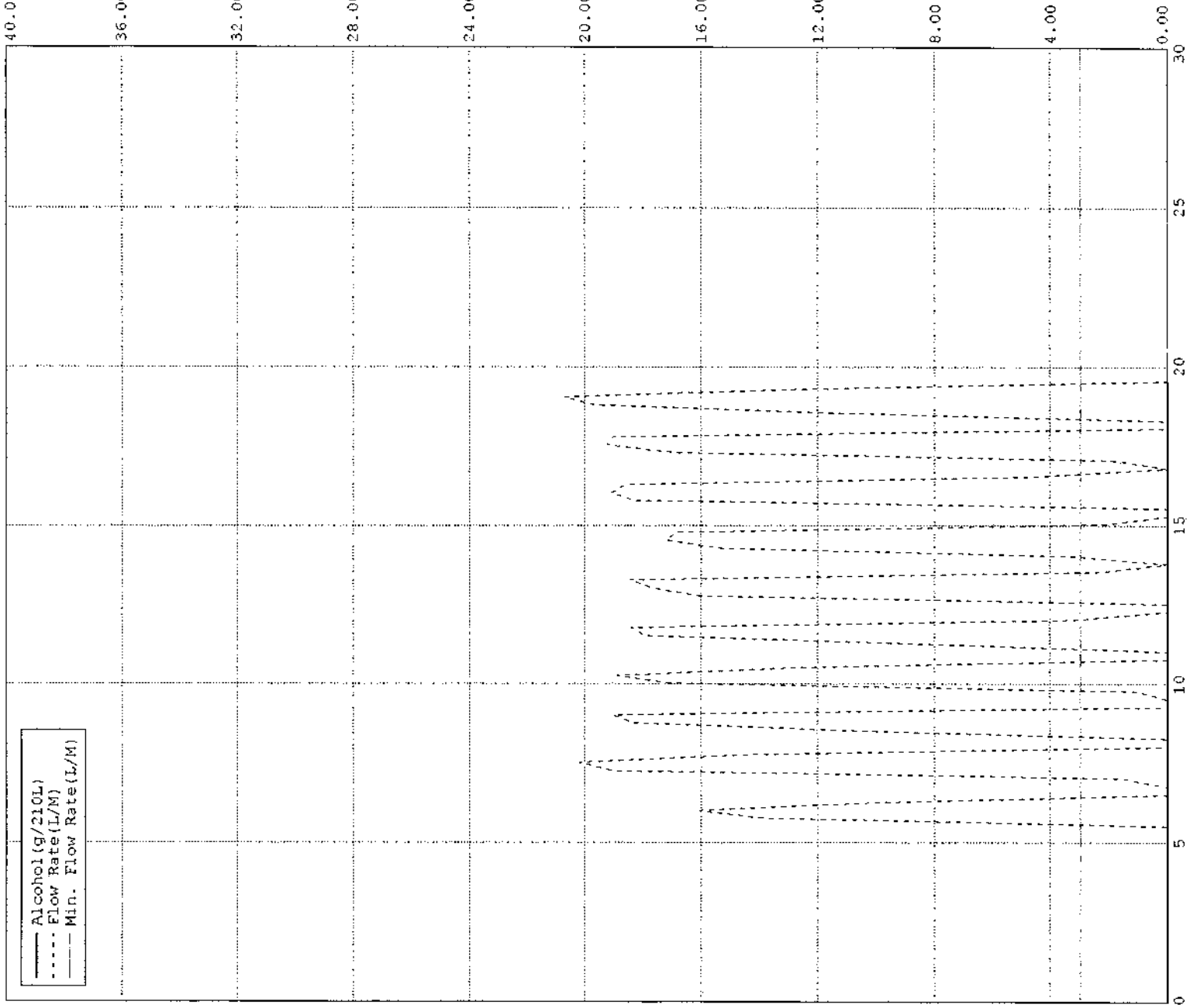
DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.69: 0.079
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	12:53
BLANK TEST	0.000	12:54
INTERNAL STANDARD	VERIFIED	12:54
$X_q = 0.095$ (0.37%)		
EXTERNAL STANDARD	0.080	12:54
$X[1] = 0.0802$ (0.0027) (0.0016)		
BLANK TEST	0.000	12:55
SUBJECT SAMPLE (Vol=1.76L)	0.093	12:56
$X[1] = 0.0938$ (-0.0004) (-0.0009)		
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.079	12:57
$X[1] = 0.0789$ (0.0015) (0.0011)		
BLANK TEST	0.000	12:58

COB





SUBJECT TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100417

Date: 08/04/2015
 Time: 13:05:07

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 29.69: 0.079
 LOT #: 09214080A2
 EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 13:08
 BLANK TEST 0.000 13:08
 INTERNAL STANDARD VERIFIED 13:09
 EXTERNAL STANDARD 0.079 13:09
 BLANK TEST 0.000 13:10
 SUBJECT SAMPLE XXX 13:10

Maximum Attempts Exceeded

OB

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 08/04/2015
Time: 13:14:08

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

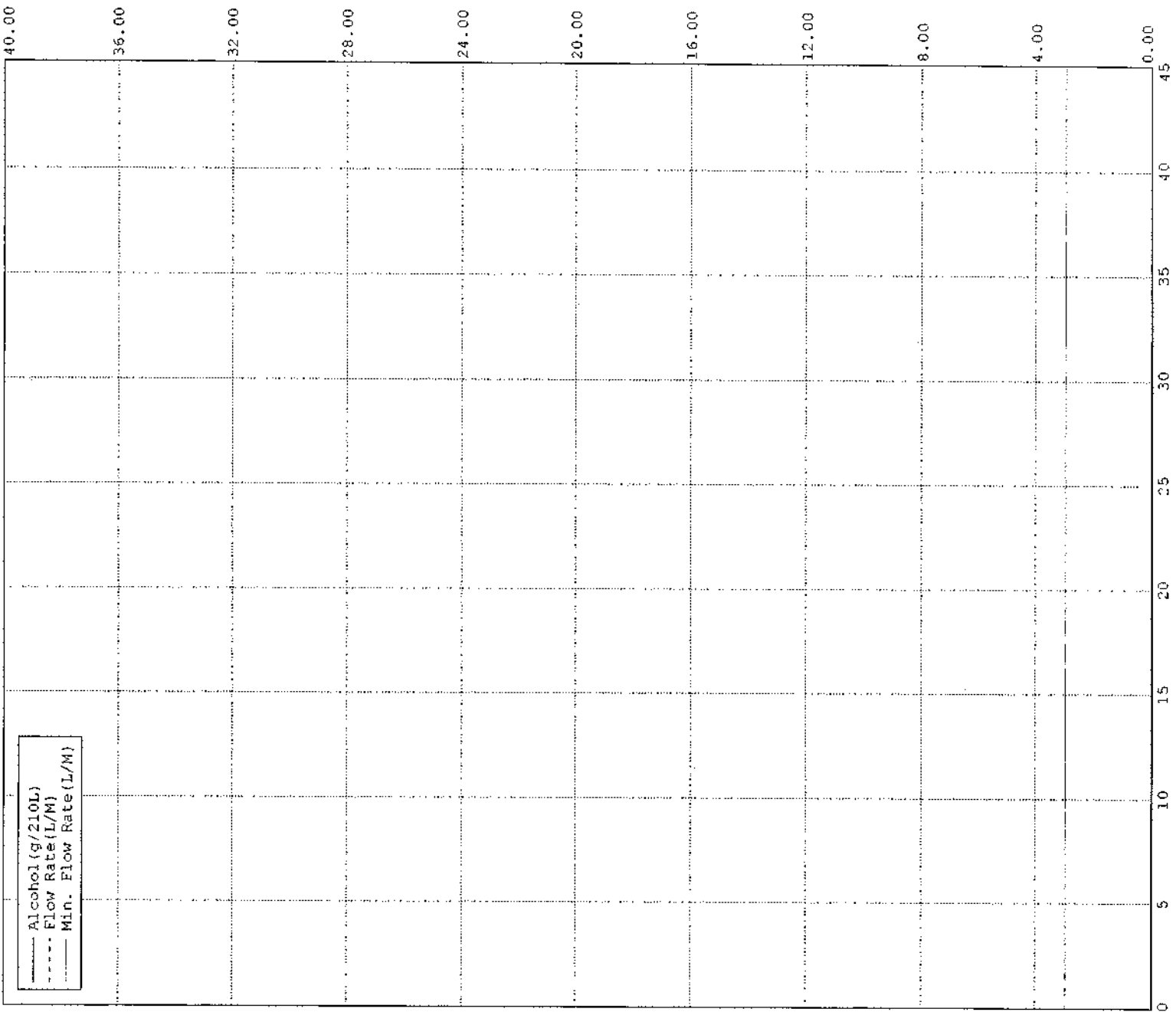
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.69: 0.079
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 13:15
BLANK TEST 0.000 13:15
INTERNAL STANDARD VERIFIED 13:15
EXTERNAL STANDARD 0.080 13:15
BLANK TEST 0.000 13:16

RFI DETECTED

CRB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100417

Date: 08/04/2015
Time: 13:29:43

SUBJECT NAME:
TEST TEST
LICENSE #: NONDRINKING

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 29.68: 0.079
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	13:30
BLANK TEST	0.000	13:30
INTERNAL STANDARD	VERIFIED	13:30
EXTERNAL STANDARD	0.080	13:31
BLANK TEST	0.000	13:32
SUBJECT SAMPLE (Vol=1.84L)	0.000	13:32
BLANK TEST	0.000	13:33
EXTERNAL STANDARD	0.080	13:33
BLANK TEST	0.000	13:34

COB

