

# 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 100424 Analyst C. O. Bryant Start Date 12/7/17

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 Aargas Lot AG616304 Exp 6/13/18
      - ii. 0.040g/210L Mnf Aargas Lot AG630101 Exp 10/27/18
      - iii. 0.080g/210L Mnf Aargas Lot AG634001 Exp 12/5/18
      - iv. 0.100g/210L Mnf Aargas Lot AG629304 Exp 10/19/18
      - v. 0.200g/210L Mnf Guth Lot 17090 Exp 2/24/19
        1. Simulator S/N SD1200 Date Calibrated 3/29/17
      - vi. 0.300g/210L Mnf Guth Lot 17140 Exp 5/15/19
        1. Simulator S/N DR4162 Date Calibrated 3/27/17
  5. Functional Tests (attached)
    - a. Incomplete
    - b. Invalid
    - c. Interference
    - d. Exceeded attempts
    - i. Acetone - Mnf Guth Lot 16160 Level 0.100 Exp 7/19/18
      1. Simulator S/N DR4178 Date Calibrated 3/27/17
    - ii. Isopropanol - Mnf Guth Lot 17060 Level 0.100 Exp 2/14/19
      1. Simulator S/N SD1176 Date Calibrated 2/14/19 <sup>10/17/17</sup> 3/29/17
    - iii. Negative Control - Mnf Guth Lot 17060 Level 0.100 Exp 2/14/19
      1. Simulator S/N DR4177 Date Calibrated 3/28/17
  - 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 12/7/17

DIAGNOSTIC RECORD

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Alaska Department of Public Safety  
DATAMASTER dmt: 100424  
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Date: 12/07/2017  
Time: 10:41:59

VERSIONS

DMT: 3.02  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 44.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.63 V PASSED  
(0.99 V - 2.31 V)  
Cooler Voltage = 1.63 V PASSED  
(1.04 V - 2.42 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 522 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.4 in

PUMP INFO

Flow Rate = 3.961 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 = 0.080 1.18% (0.00% - 4.00%) PASSED

Technician Screen

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DATAMASTER dmt: 100424  
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Date: 12/07/2017

Time: 10:45 AM

Temperatures (°C)

Sample Cell: 48.7°C

Breath Tube: 44.2°C

Current Barometer 29.4 in

Volume (Ltr) 1.50

Settings

Lamp: 1.63 V

Bias: 80 V

Cooler: 1.71 V

Chopper: 523 Hz

Voltages (V)

Flow: 1.04 V

Detector: 0.041 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100424  
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Date: 01/24/2014  
Time: 07:38:53

Ca = 0.1010  
CAL = 0.996059    0.800 <= CAL < 1.200  
b1 = 0.0003    0.0000 <= b1 < 0.0040  
b2 = 0.0047    0.0010 <= b2 < 0.0100  
b3 = 0.0000    0.0000 <= b3 < 0.0040  
Xq = 0.0812    0.0500 <= Xq < 0.2000  
a21 = 1.133555    1.050 <= a21 < 1.300  
a31 = 0.391341    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100424

Date: 12/07/2017  
Time: 10:46:27

SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

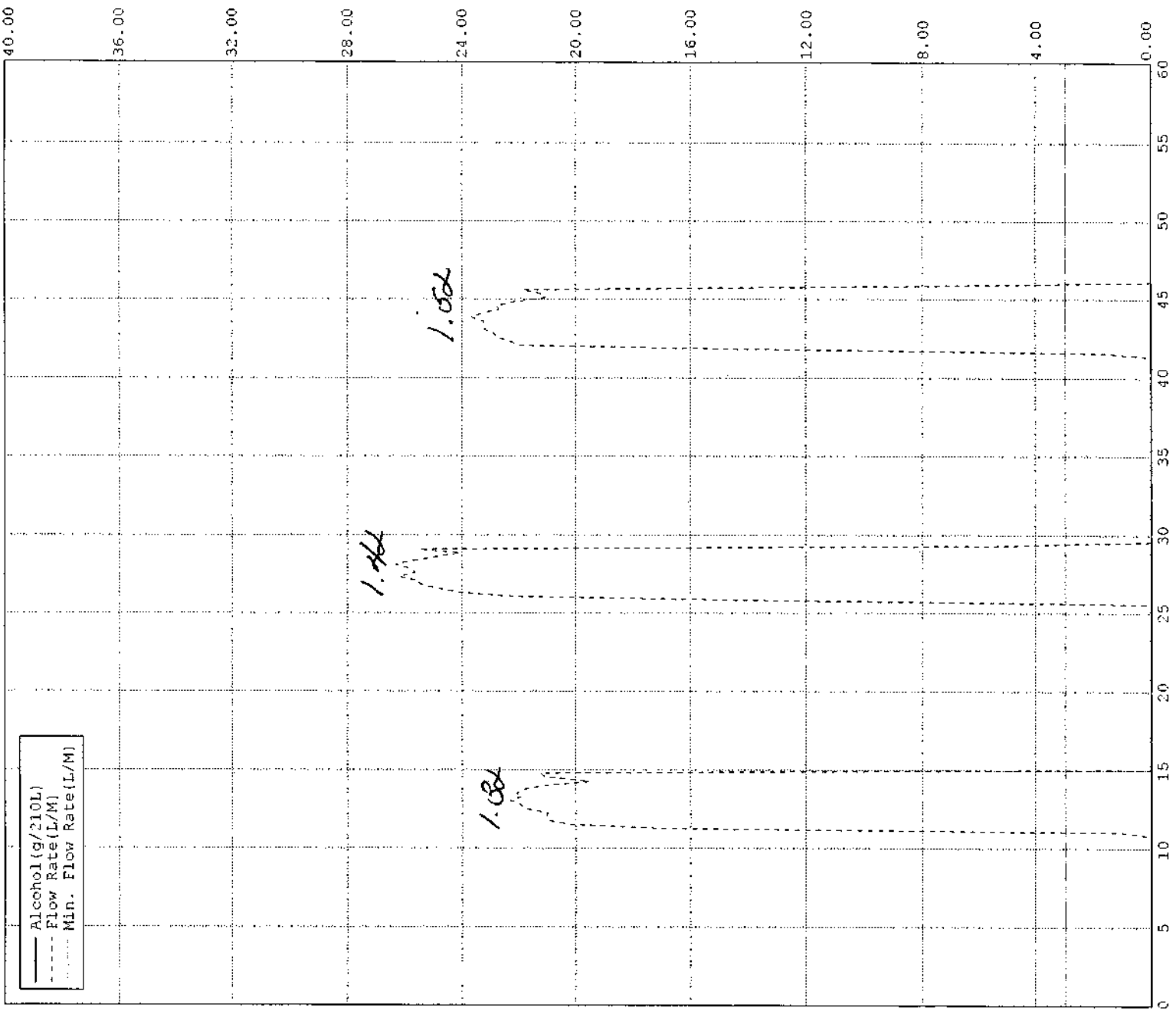
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 17-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.36: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	10:49
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 (Vol=1.50L)	0.000	10:51
BLANK TEST	0.000	10:52
EXTERNAL STANDARD	0.077	10:52
BLANK TEST	0.000	10:53

*CS*



LINEARITY CHECK

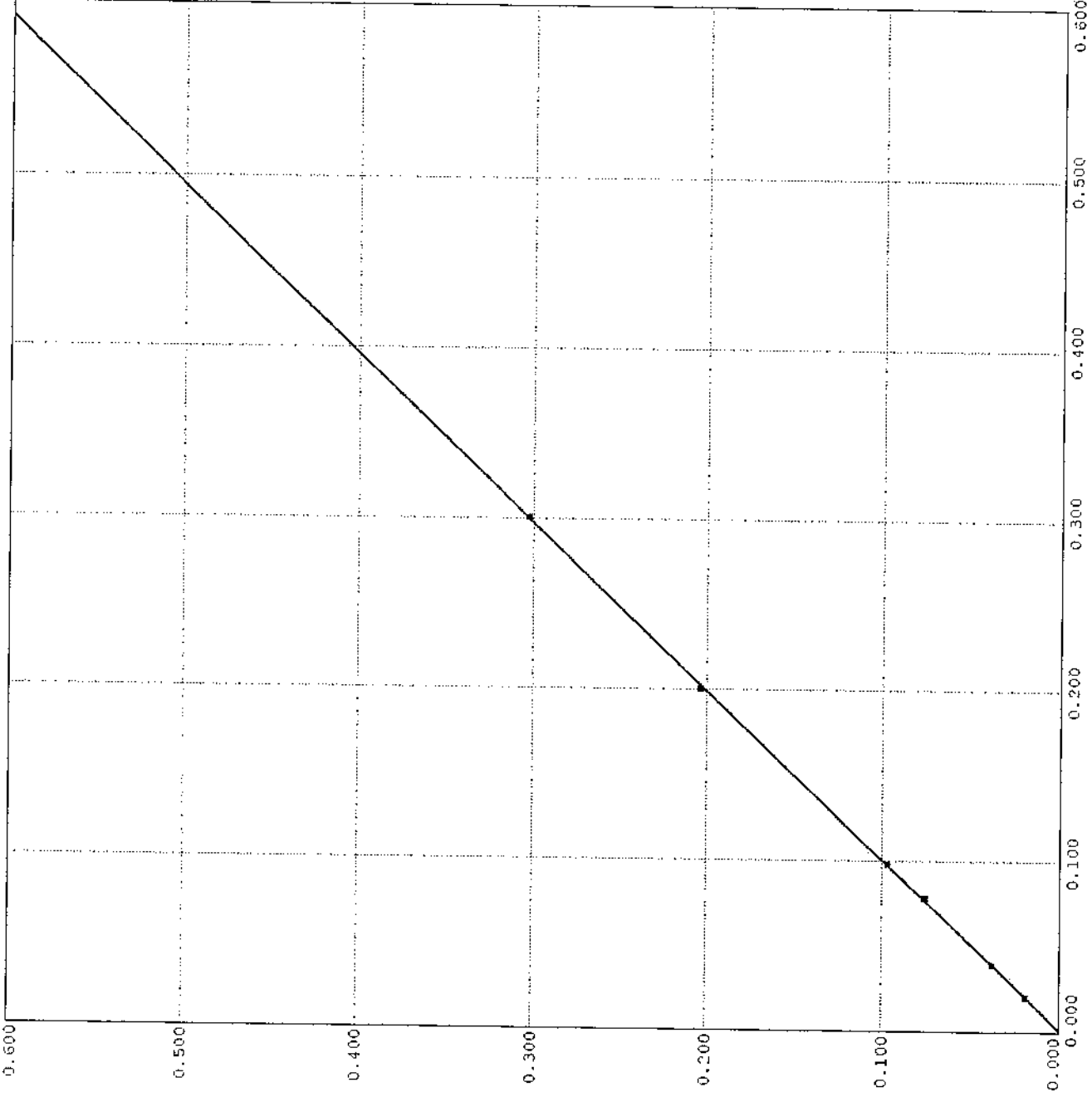
Alaska Department of Public Safety  
 DATAMASTER dmt: 100424

Date: 12/07/2017  
 Time: 10:57:17

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0390	0.0000
0.078	0.0770	0.0000
0.098	0.0980	0.0000
0.200	0.2044	0.0005
0.300	0.3032	0.0008

SLOPE = 1.016562  
 R<sup>2</sup> = 0.999873



*CS*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100424

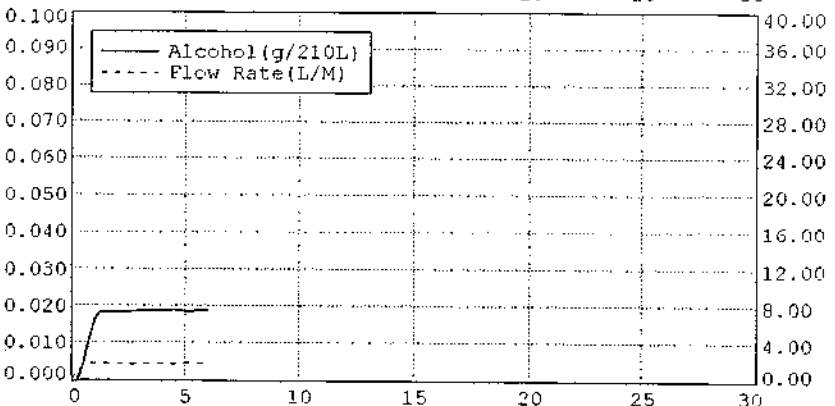
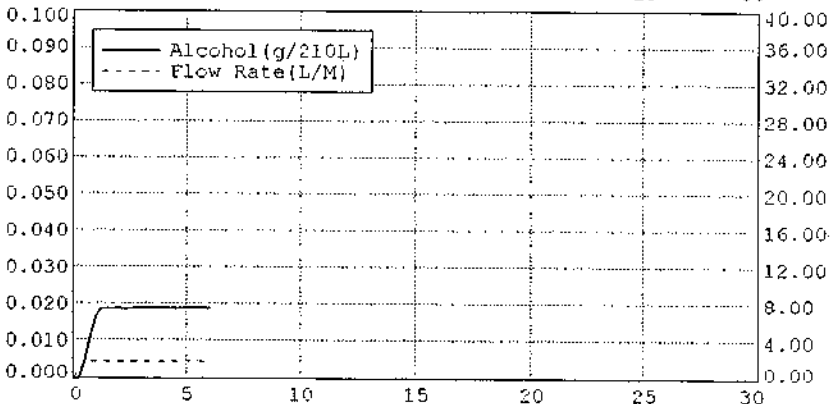
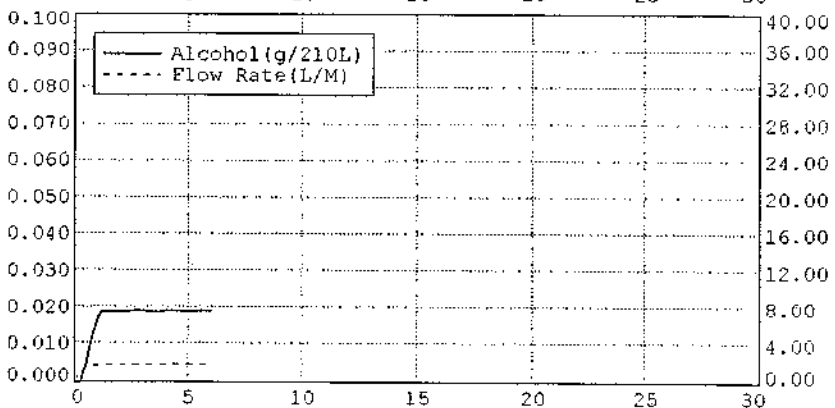
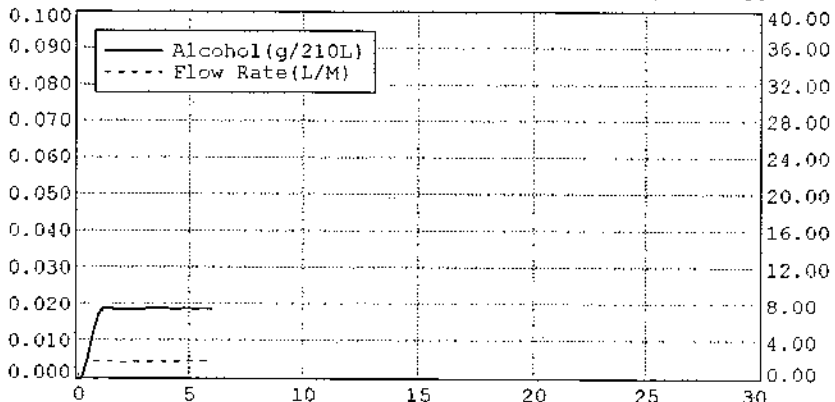
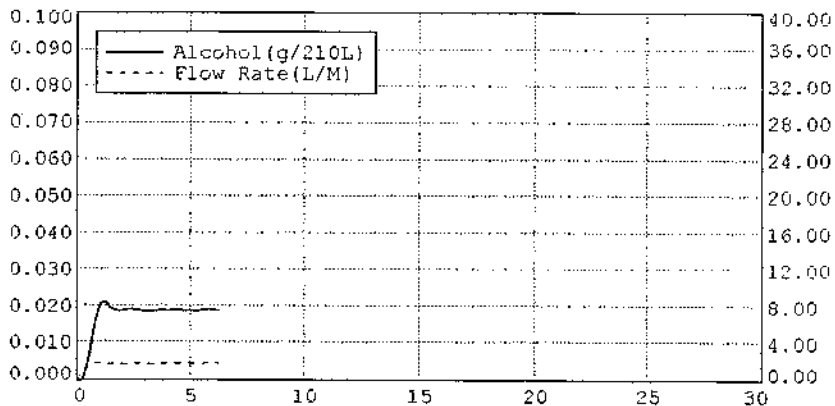
Date: 12/07/2017  
 Time: 10:57:19

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.35: 0.020  
 LOT #: AG616704 *COB 12/11/17*  
 EXPIRATION: 06/13/2018  
 TANK PRESSURE: 425 psi

BLANK TEST	0.000	11:07
INTERNAL STANDARD	VERIFIED	11:08
EXTERNAL STANDARD	0.020	11:08
BLANK TEST	0.000	11:09
EXTERNAL STANDARD	0.020	11:09
BLANK TEST	0.000	11:10
EXTERNAL STANDARD	0.020	11:10
BLANK TEST	0.000	11:11
EXTERNAL STANDARD	0.020	11:11
BLANK TEST	0.000	11:12
EXTERNAL STANDARD	0.020	11:12
BLANK TEST	0.000	11:13

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dnt: 100424

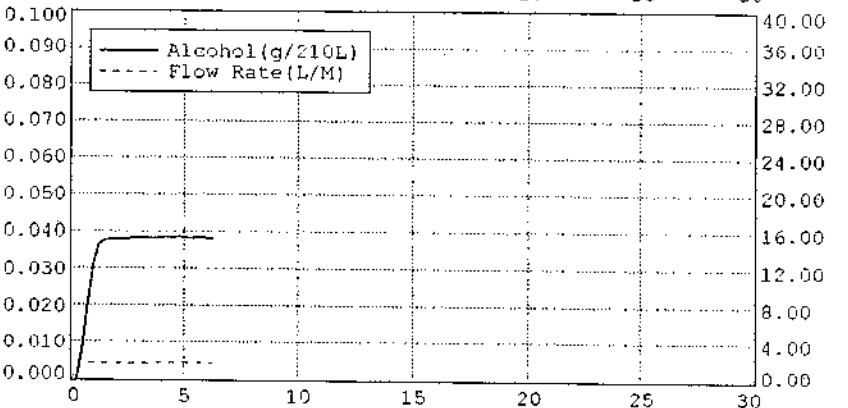
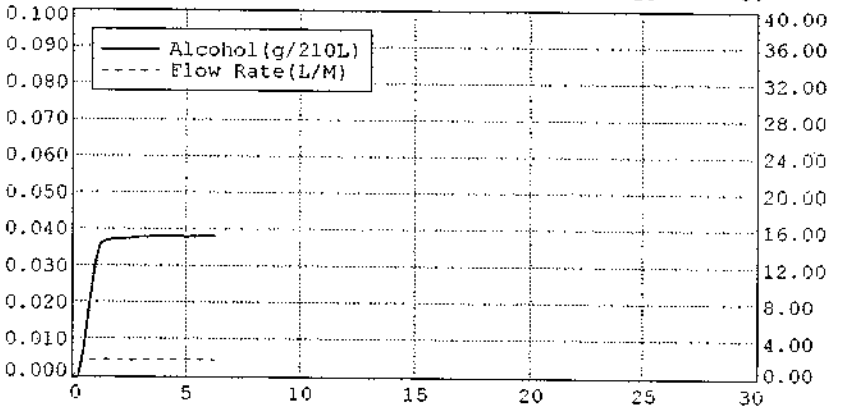
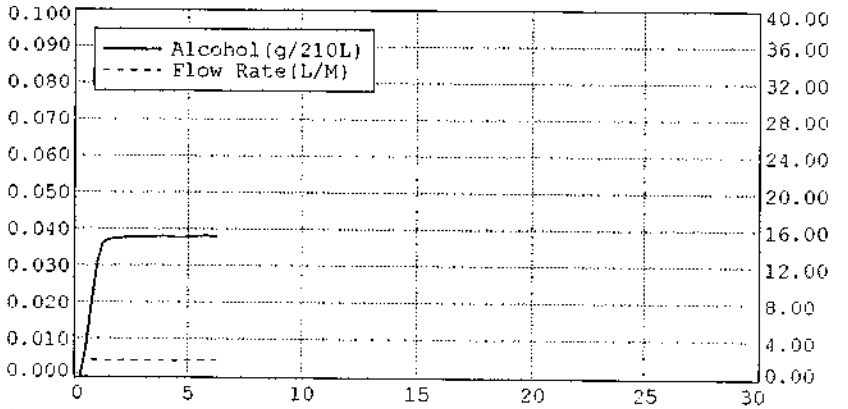
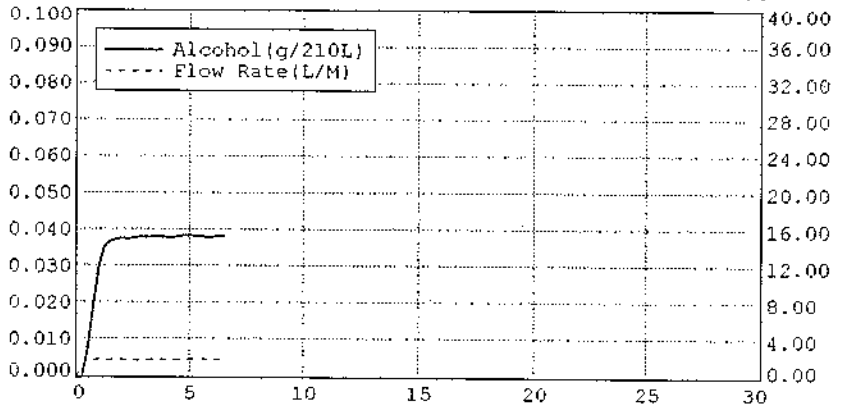
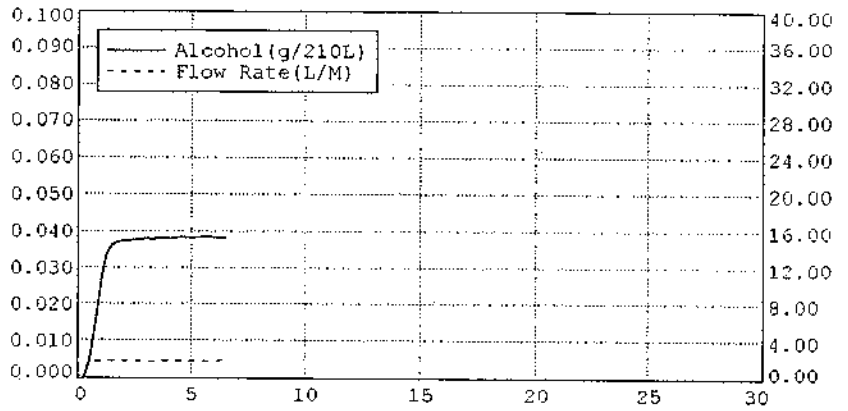
Date: 12/07/2017  
 Time: 11:15:45

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.35: 0.039  
 LOT #: AG630101  
 EXPIRATION: 10/27/2018  
 TANK PRESSURE: 508 psi

BLANK TEST	0.000	11:18
INTERNAL STANDARD	VERIFIED	11:18
EXTERNAL STANDARD	0.039	11:18
BLANK TEST	0.000	11:19
EXTERNAL STANDARD	0.039	11:19
BLANK TEST	0.000	11:20
EXTERNAL STANDARD	0.039	11:20
BLANK TEST	0.000	11:21
EXTERNAL STANDARD	0.039	11:22
BLANK TEST	0.000	11:22
EXTERNAL STANDARD	0.039	11:23
BLANK TEST	0.000	11:24

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dnt: 100424

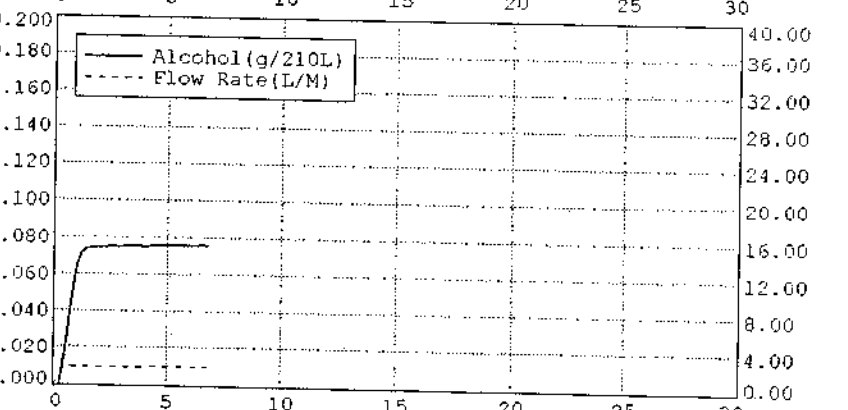
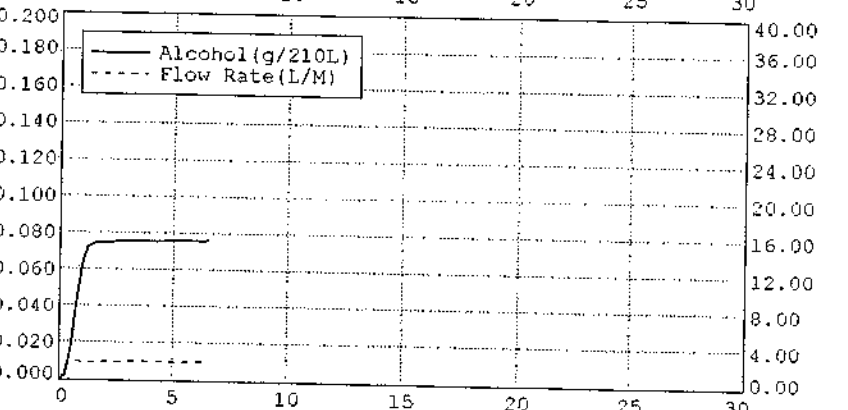
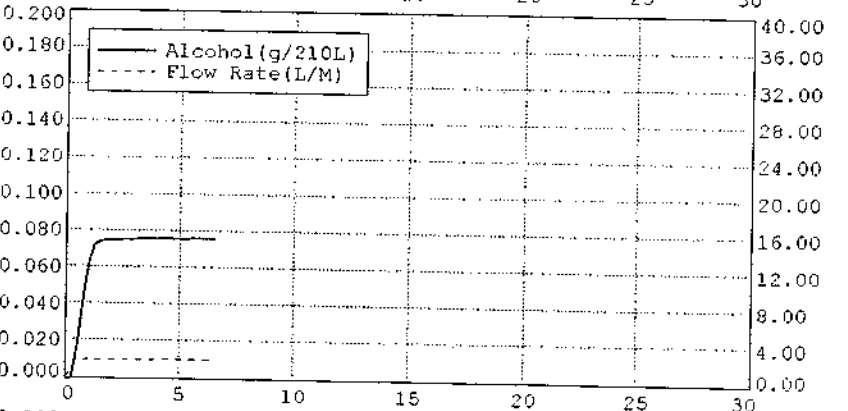
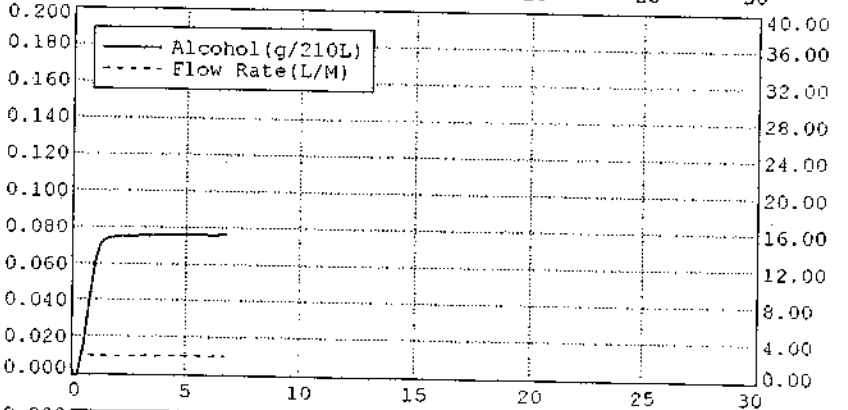
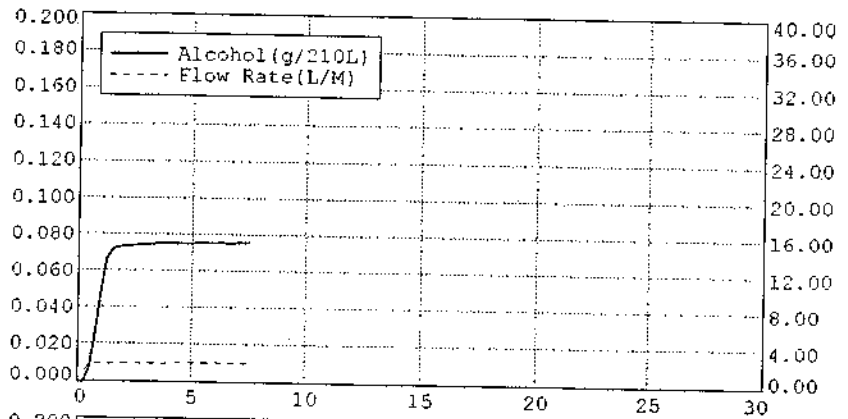
Date: 12/07/2017  
 Time: 11:34:42

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.35: 0.078  
 LOT #: AG634001  
 EXPIRATION: 12/05/2018  
 TANK PRESSURE: 836 psi

BLANK TEST	0.000	11:36
INTERNAL STANDARD	VERIFIED	11:36
EXTERNAL STANDARD	0.077	11:36
BLANK TEST	0.000	11:37
EXTERNAL STANDARD	0.077	11:37
BLANK TEST	0.000	11:38
EXTERNAL STANDARD	0.077	11:38
BLANK TEST	0.000	11:39
EXTERNAL STANDARD	0.077	11:39
BLANK TEST	0.000	11:40
EXTERNAL STANDARD	0.077	11:40
BLANK TEST	0.000	11:41

Average = 0.0770  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100424

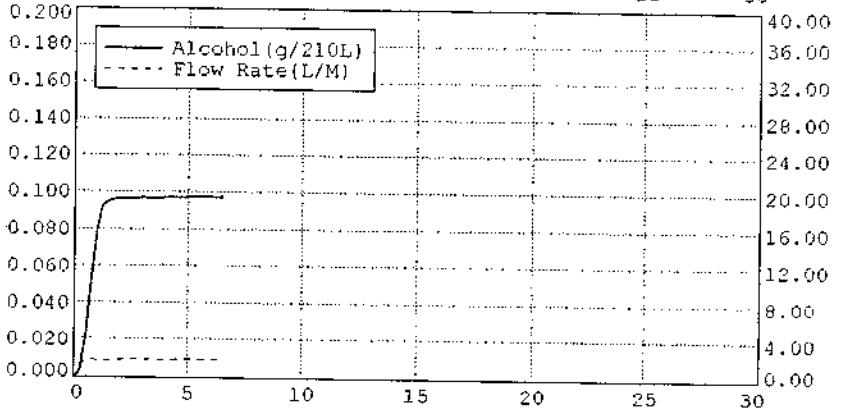
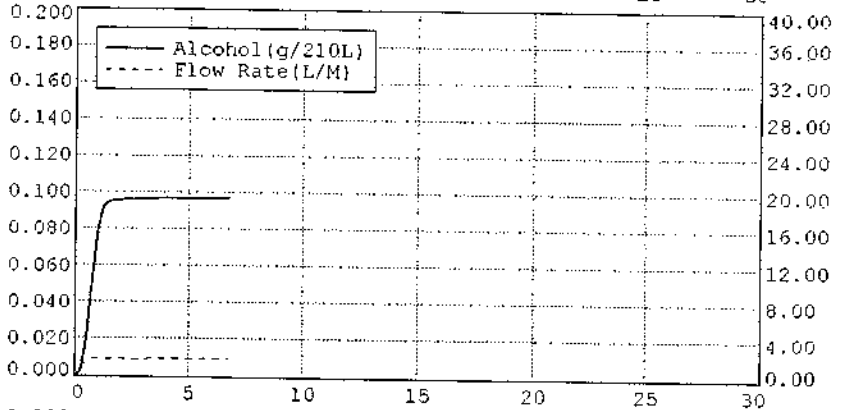
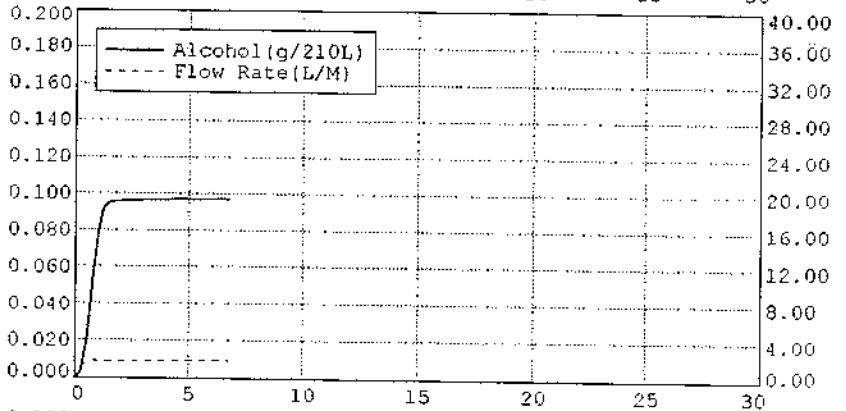
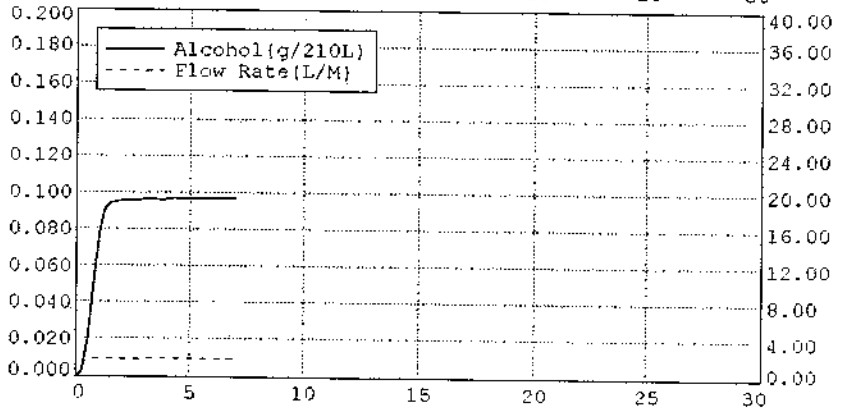
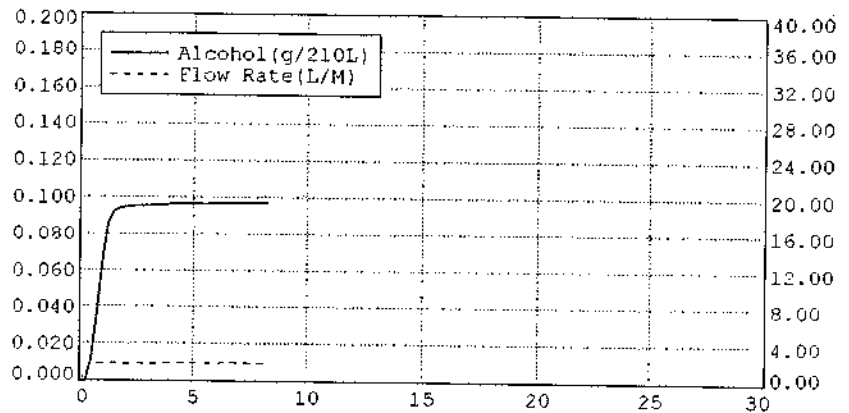
Date: 12/07/2017  
 Time: 11:46:32

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.34: 0.098  
 LOT #: AG629304  
 EXPIRATION: 10/19/2018  
 TANK PRESSURE: 638 psi

BLANK TEST	0.000	11:48
INTERNAL STANDARD	VERIFIED	11:48
EXTERNAL STANDARD	0.098	11:48
BLANK TEST	0.000	11:49
EXTERNAL STANDARD	0.098	11:49
BLANK TEST	0.000	11:50
EXTERNAL STANDARD	0.098	11:50
BLANK TEST	0.000	11:51
EXTERNAL STANDARD	0.098	11:51
BLANK TEST	0.000	11:52
EXTERNAL STANDARD	0.098	11:52
BLANK TEST	0.000	11:53

Average = 0.0980  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100424

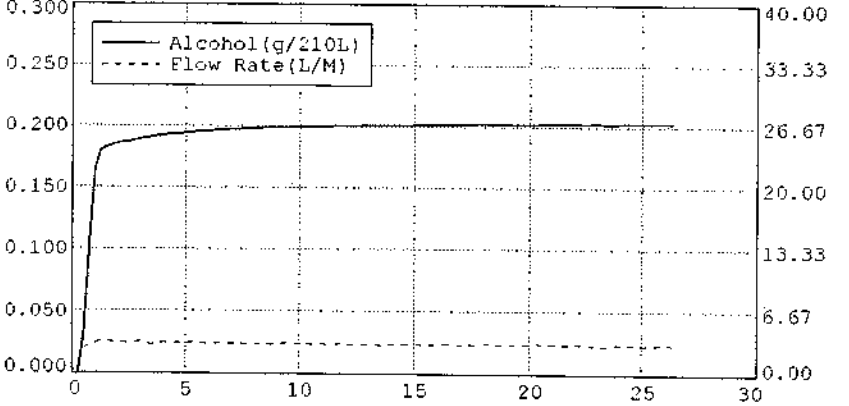
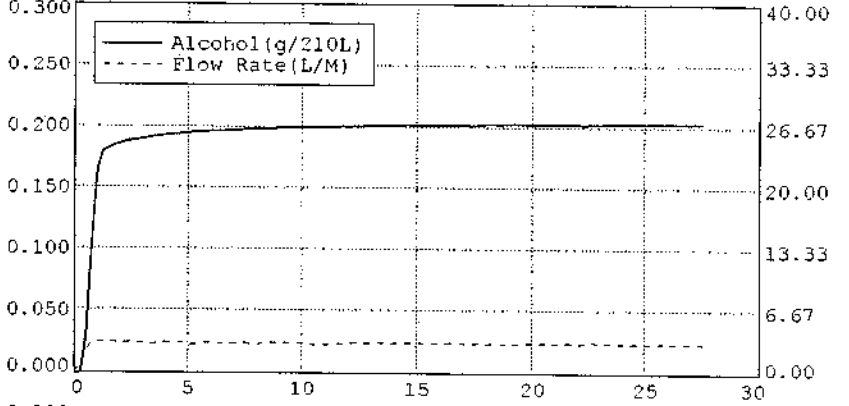
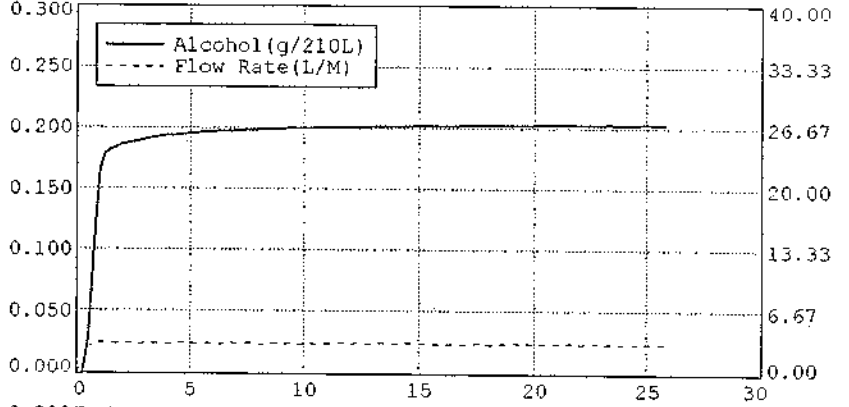
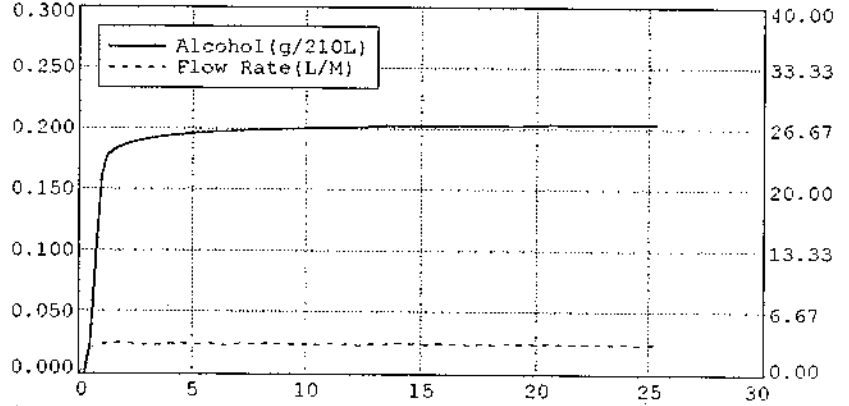
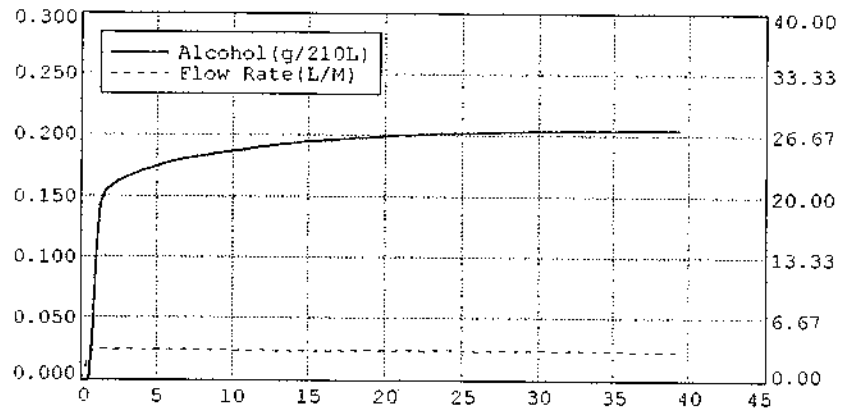
Date: 12/07/2017  
 Time: 12:51:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 17090  
 EXPIRATION: 02/24/2019

BLANK TEST	0.000	12:52
INTERNAL STANDARD	VERIFIED	12:52
EXTERNAL STANDARD	0.205	12:53
BLANK TEST	0.000	12:54
EXTERNAL STANDARD	0.205	12:55
BLANK TEST	0.000	12:55
EXTERNAL STANDARD	0.204	12:56
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.204	12:57
BLANK TEST	0.000	12:58
EXTERNAL STANDARD	0.204	12:59
BLANK TEST	0.000	13:00

Average = 0.2044  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100424

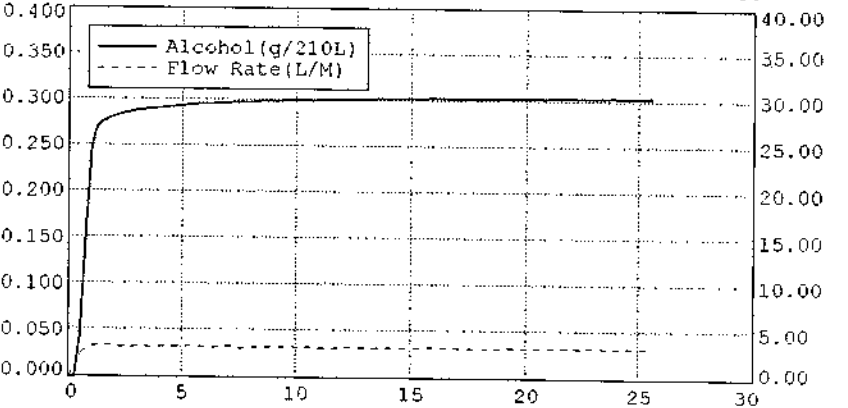
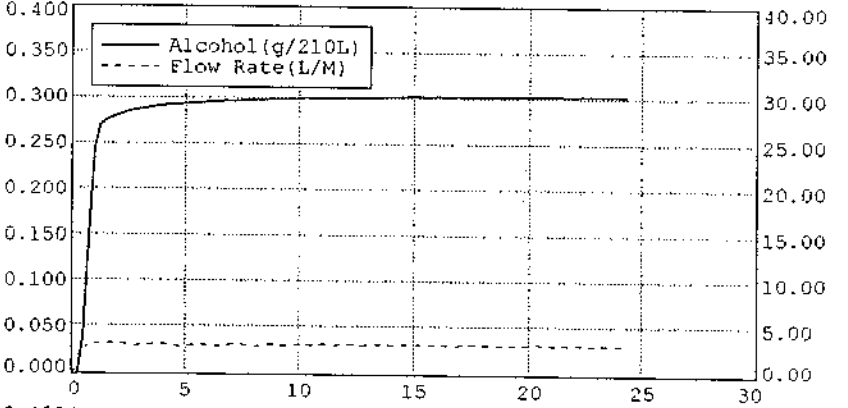
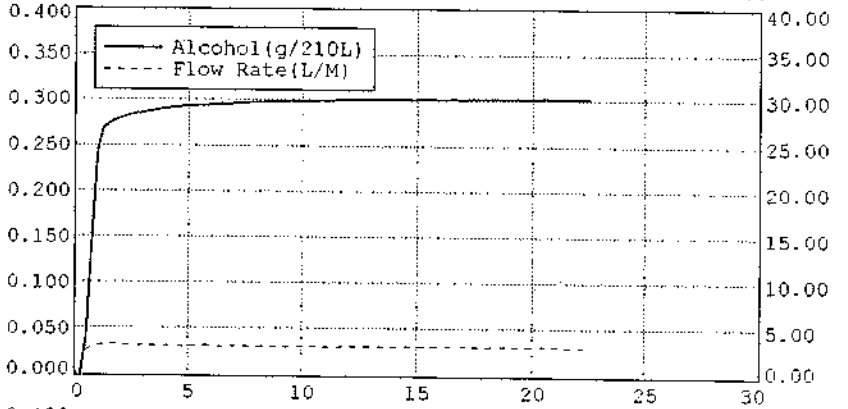
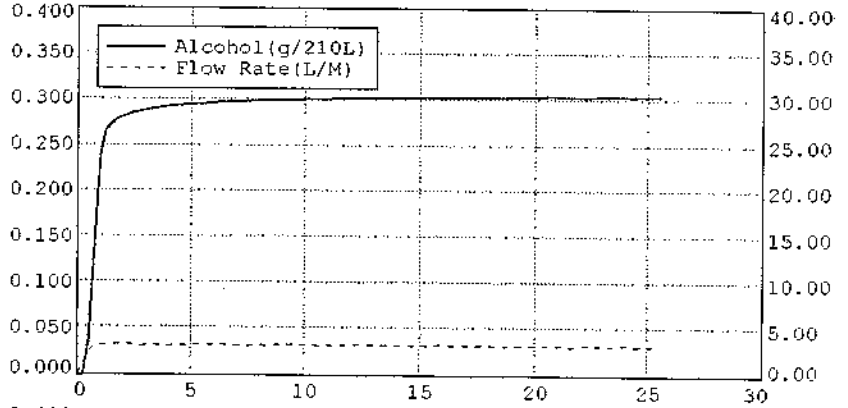
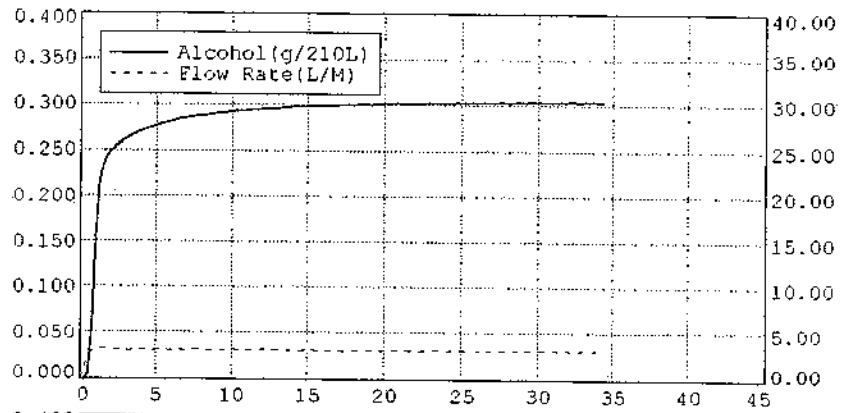
Date: 12/07/2017  
 Time: 13:01:35

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 17140  
 EXPIRATION: 05/15/2019

BLANK TEST	0.000	13:02
INTERNAL STANDARD	VERIFIED	13:02
EXTERNAL STANDARD	0.304	13:03
BLANK TEST	0.000	13:04
EXTERNAL STANDARD	0.304	13:05
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.302	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.303	13:07
BLANK TEST	0.000	13:08
EXTERNAL STANDARD	0.303	13:09
BLANK TEST	0.000	13:10

Average = 0.3032  
 Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100424

Date: 12/07/2017  
Time: 13:17:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

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

DEPT/AGENCY:  
AAA1

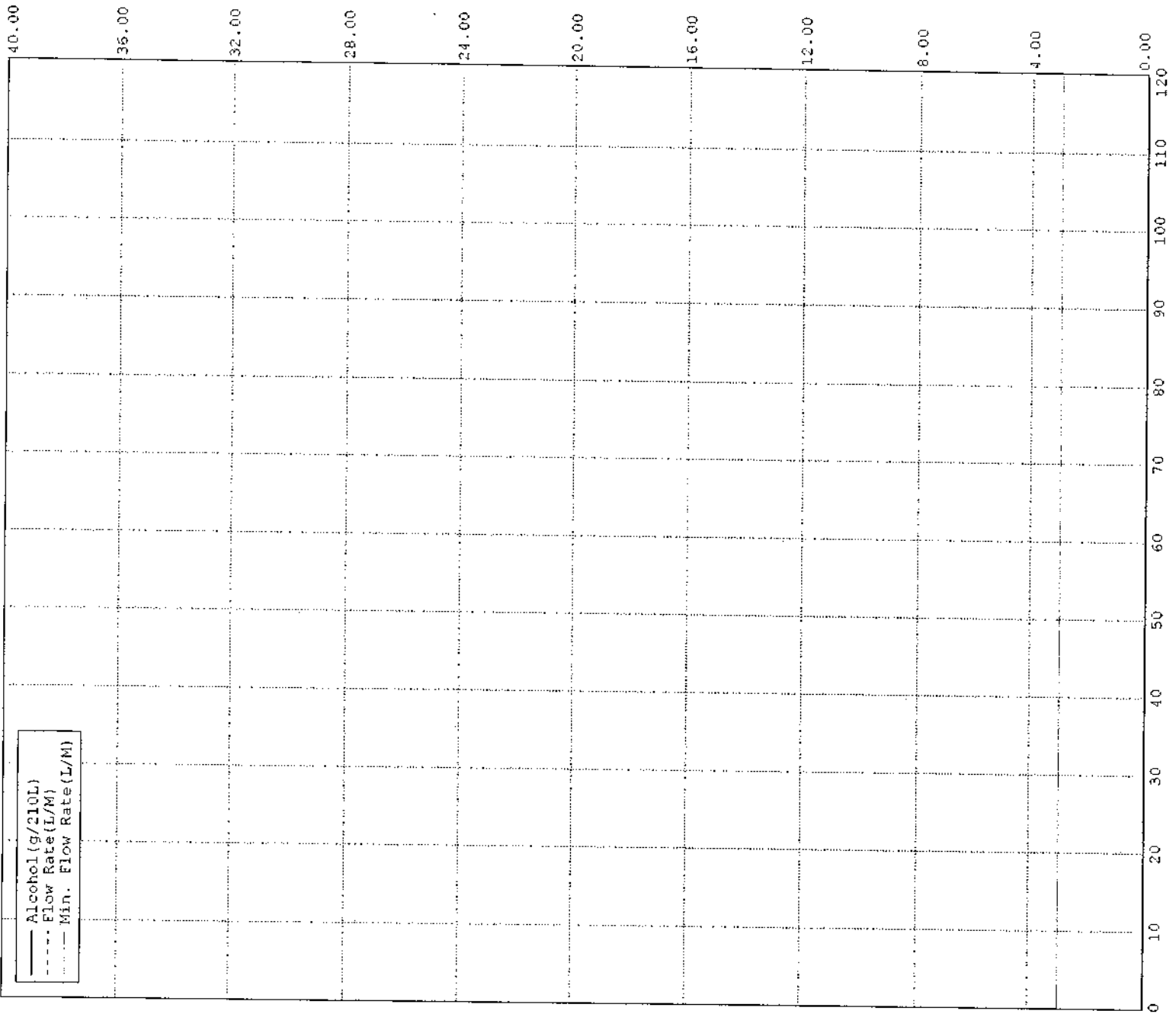
CASE/REPORT: 17-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.27: 0.078  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 13:18  
BLANK TEST 0.000 13:18  
INTERNAL STANDARD VERIFIED 13:18  
EXTERNAL STANDARD 0.077 13:18  
BLANK TEST 0.000 13:19  
SUBJECT SAMPLE INCOMPLETE 13:21

Alcohol (g/210L)  
Flow Rate (L/M)  
Min. Flow Rate (L/M)



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100424

Date: 12/07/2017  
Time: 13:23:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

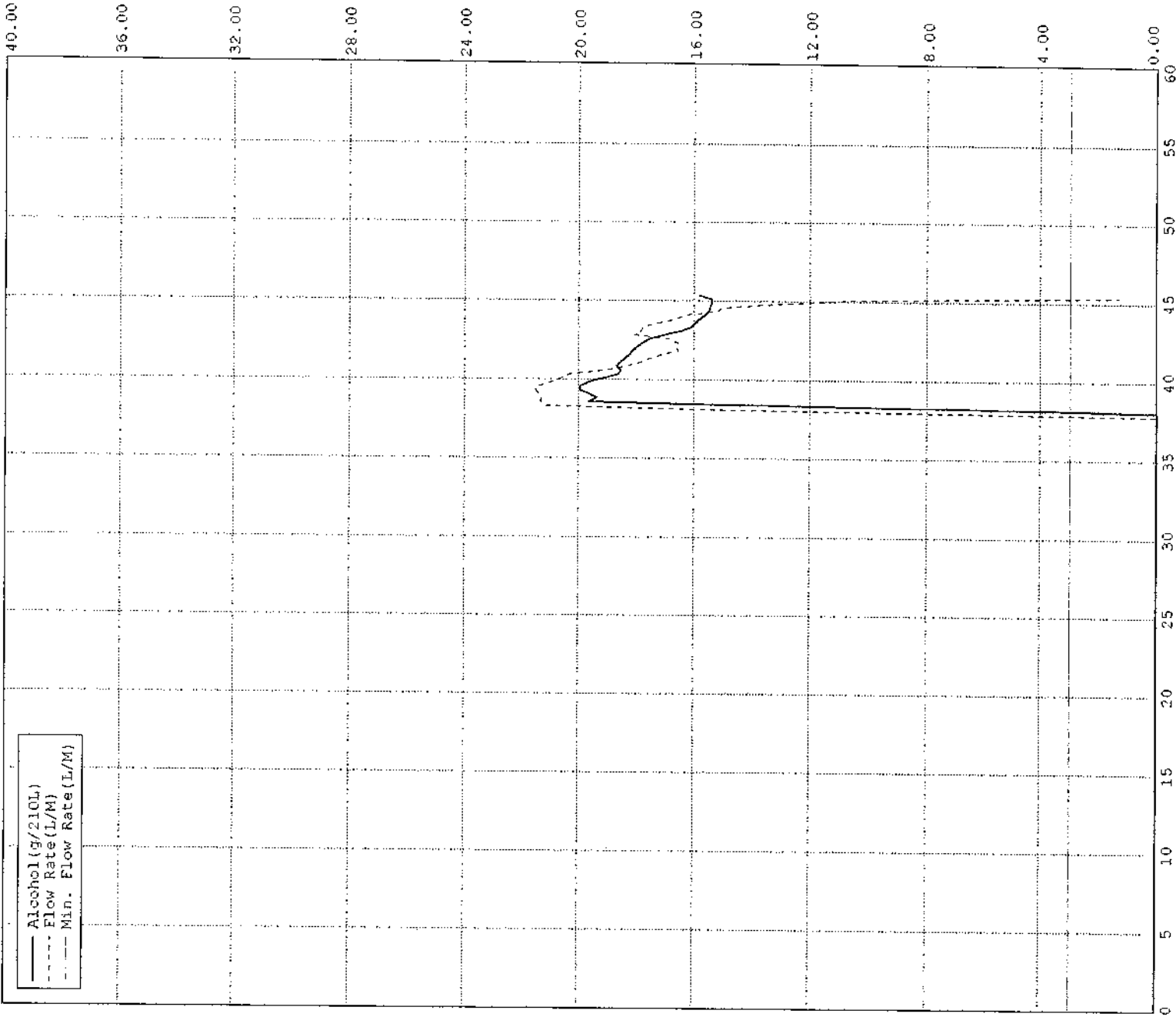
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 17-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.27: 0.078  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 13:24  
BLANK TEST 0.000 13:24  
INTERNAL STANDARD VERIFIED 13:24  
EXTERNAL STANDARD 0.077 13:25  
BLANK TEST 0.000 13:26  
SUBJECT SAMPLE INVALID 13:27

*CS*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100424

Date: 12/07/2017  
Time: 13:31:14

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

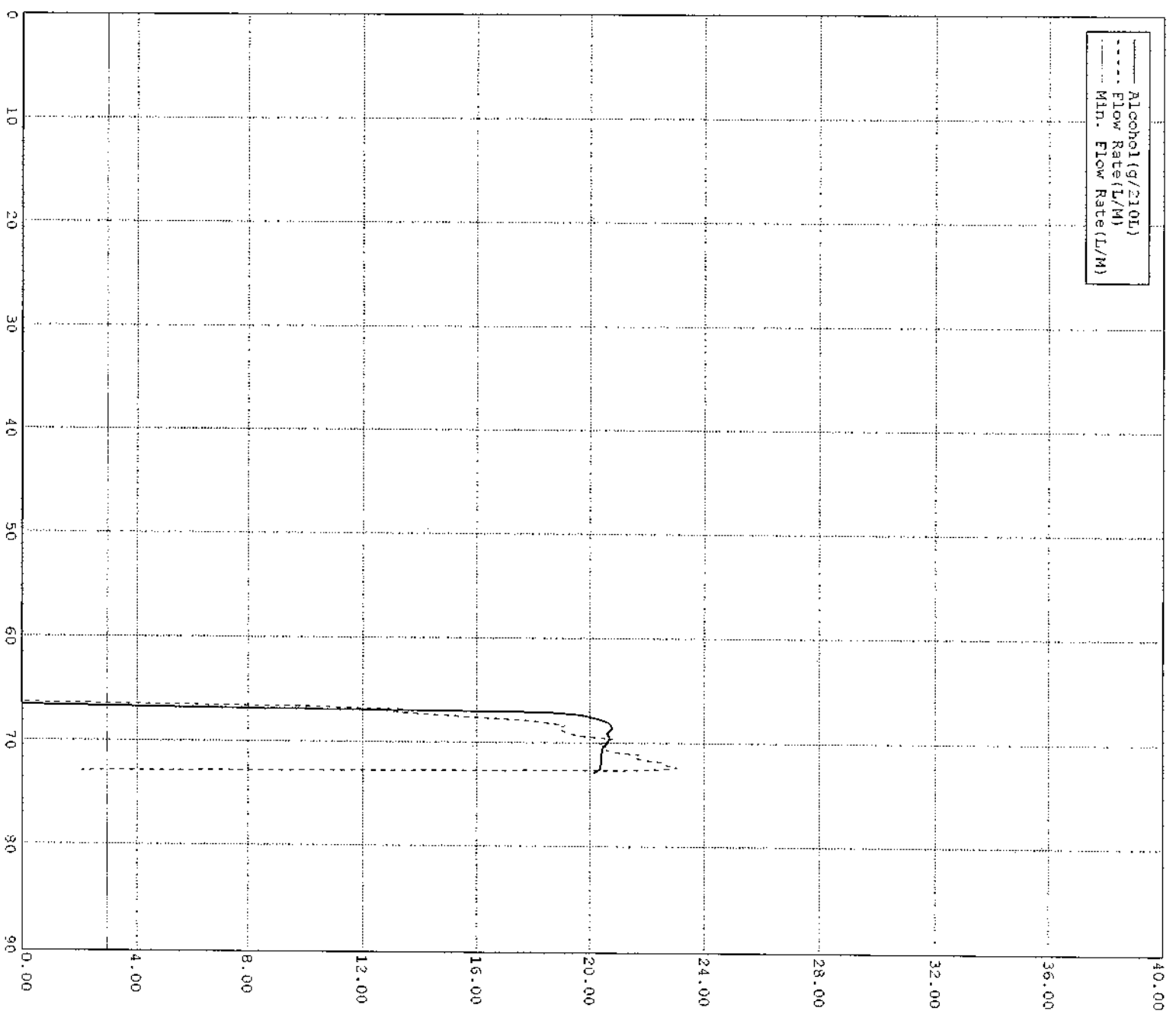
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 17-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.25: 0.078  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	13:39
BLANK TEST	0.000	13:39
INTERNAL STANDARD	VERIFIED	13:39
Xq = 0.081 (0.86%)		
EXTERNAL STANDARD	0.077	13:39
X[1] = 0.0769 (-0.0016)	(0.0014)	
BLANK TEST	0.000	13:40
SUBJECT SAMPLE	XXX	13:41
X[1] = 0.1007 (-0.0164)	(-0.0010)	

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100424

Date: 12/07/2017  
Time: 13:47:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

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

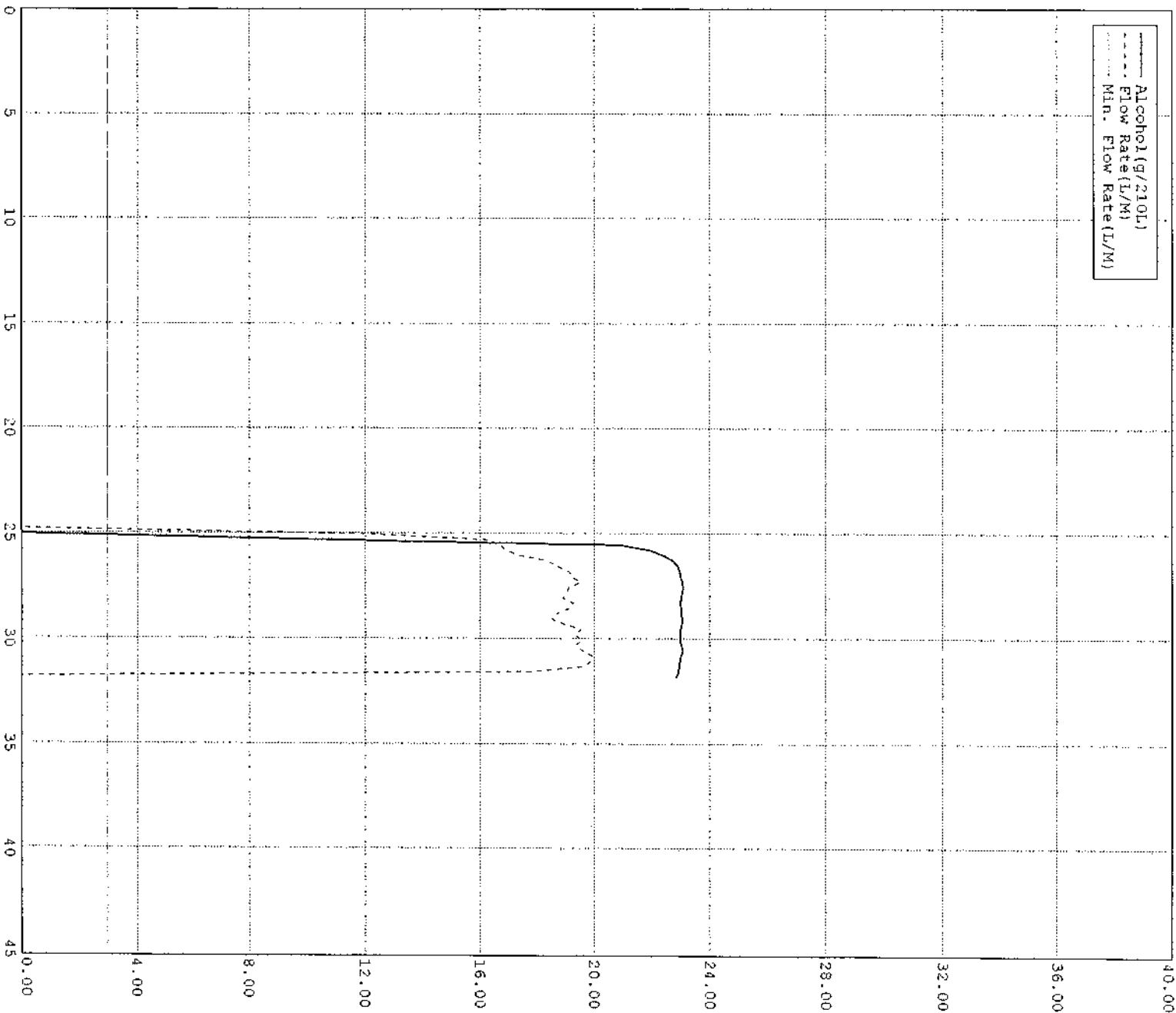
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 17-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.25: 0.078  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK  
BLANK TEST PASSED 13:48  
INTERNAL STANDARD VERIFIED 13:48  
Xq = 0.081 (0.32%)  
EXTERNAL STANDARD 0.077 13:49  
X[1] = 0.0766 (-0.0013) (0.0028)  
BLANK TEST 0.000 13:50  
SUBJECT SAMPLE XXXX 13:50  
X[1] = 0.1137 (-0.0190) (0.0011)

Interference Detected

*CCB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100424

Date: 12/07/2017  
Time: 13:53:48

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

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

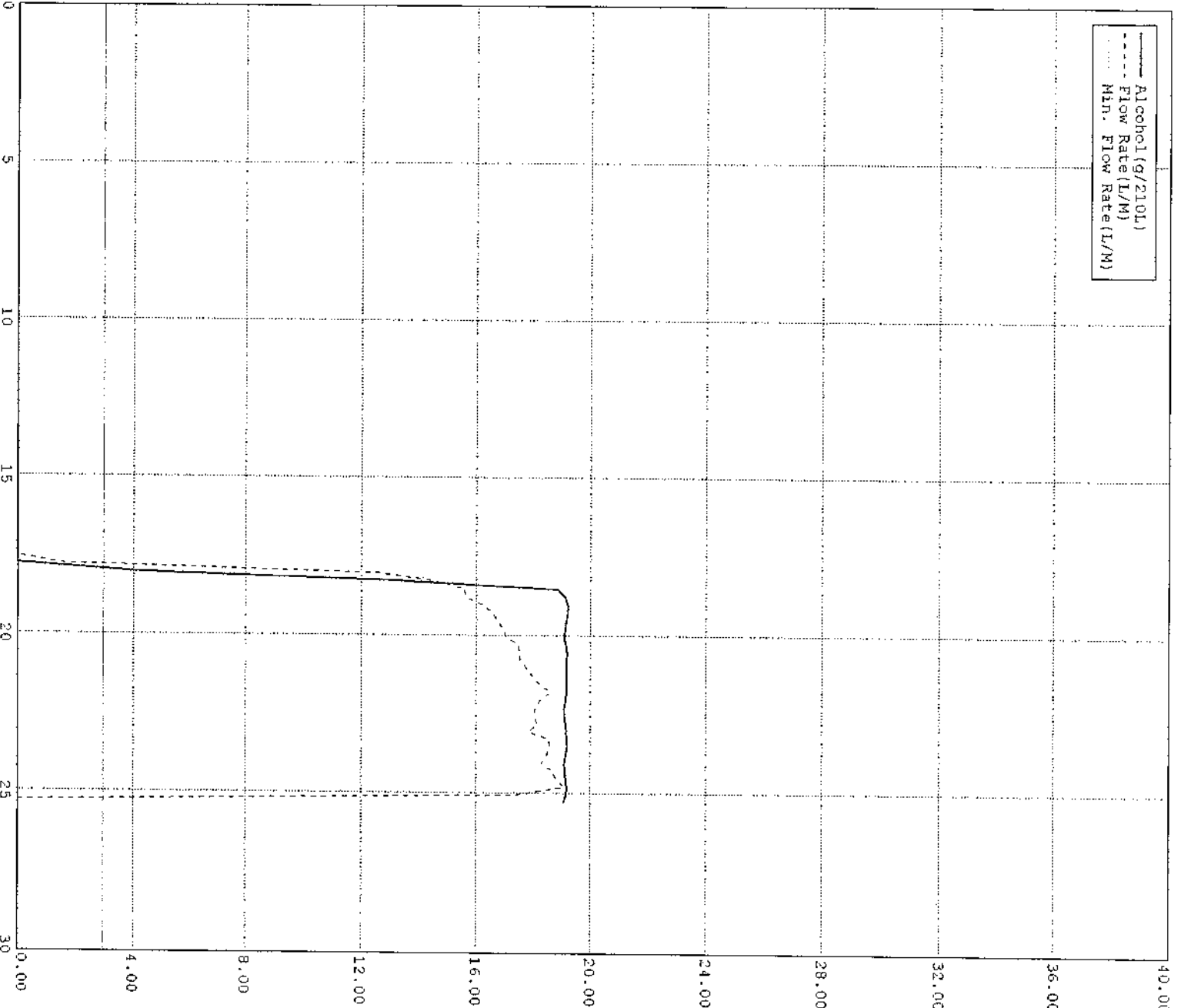
DEPT/AGENCY:  
AAAI  
CASE/REPORT: 17-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.25: 0.078  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	13:55
BLANK TEST	0.000	13:55
INTERNAL STANDARD	VERIFIED	13:55
Xg = 0.080 (1.71%)		
EXTERNAL STANDARD	0.077	13:55
X[1] = 0.0767 (-0.0015)	(0.0021)	
BLANK TEST	0.000	13:56
SUBJECT SAMPLE (Vol=2.11L)	0.095	13:57
X[1] = 0.0950 (-0.0004)	(-0.0002)	
BLANK TEST	0.000	13:58
EXTERNAL STANDARD	0.077	13:58
X[1] = 0.0767 (-0.0016)	(0.0015)	
BLANK TEST	0.000	13:59

*Fi/ter 2 avg = -0.0015*  
*Fi/ter 3 avg = 0.0000*

*003*



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100424

Date: 12/07/2017  
Time: 14:01:25

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 17-1234  
TEST TYPE: TEST

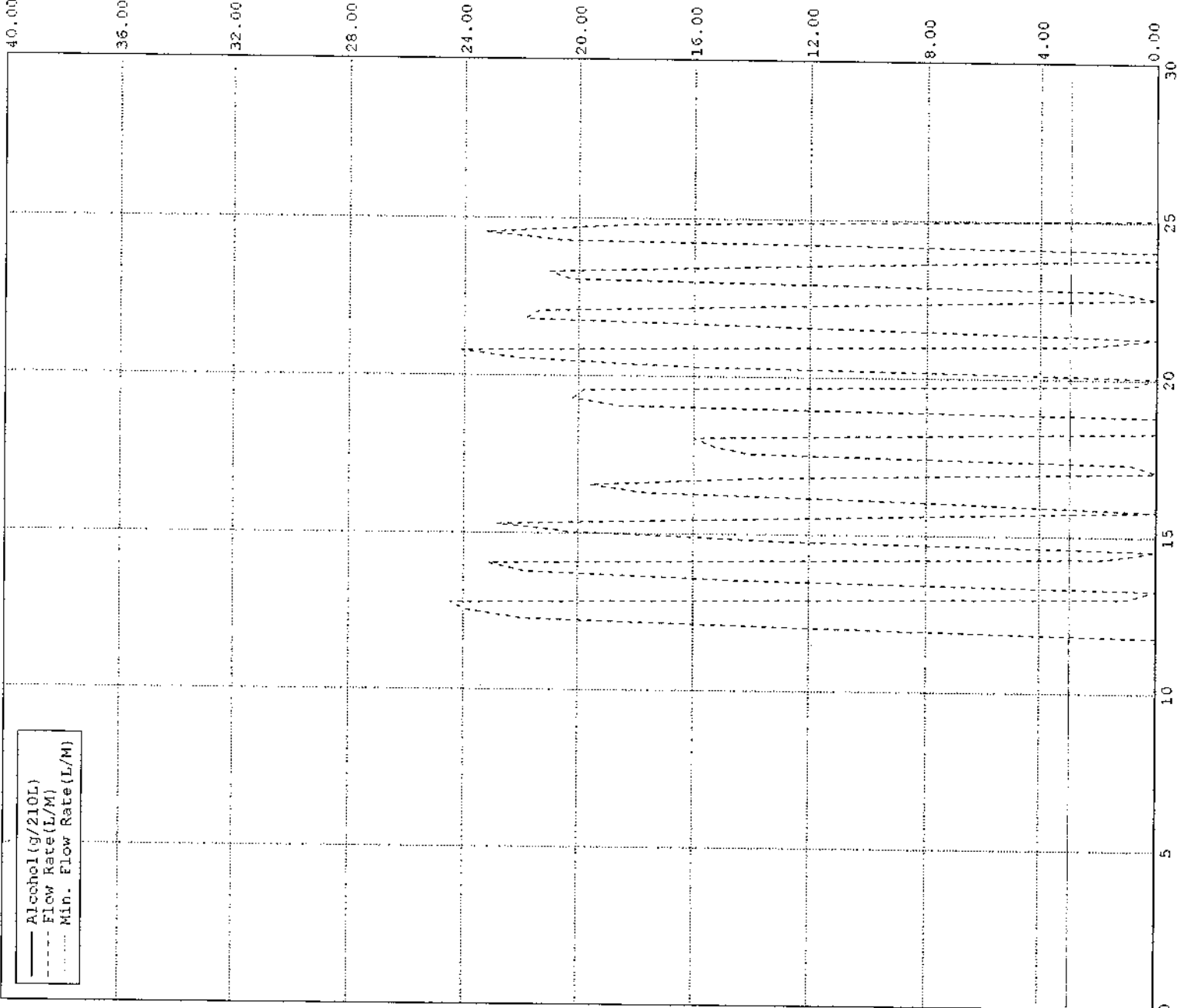
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.25: 0.078  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	14:02
BLANK TEST	0.000	14:02
INTERNAL STANDARD	VERIFIED	14:02
EXTERNAL STANDARD	0.077	14:02
BLANK TEST	0.000	14:03
SUBJECT SAMPLE	XXX	14:04

Maximum Attempts Exceeded

*COB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100424

Date: 12/07/2017  
Time: 14:09:32

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

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

DEPT/AGENCY:  
AAA1

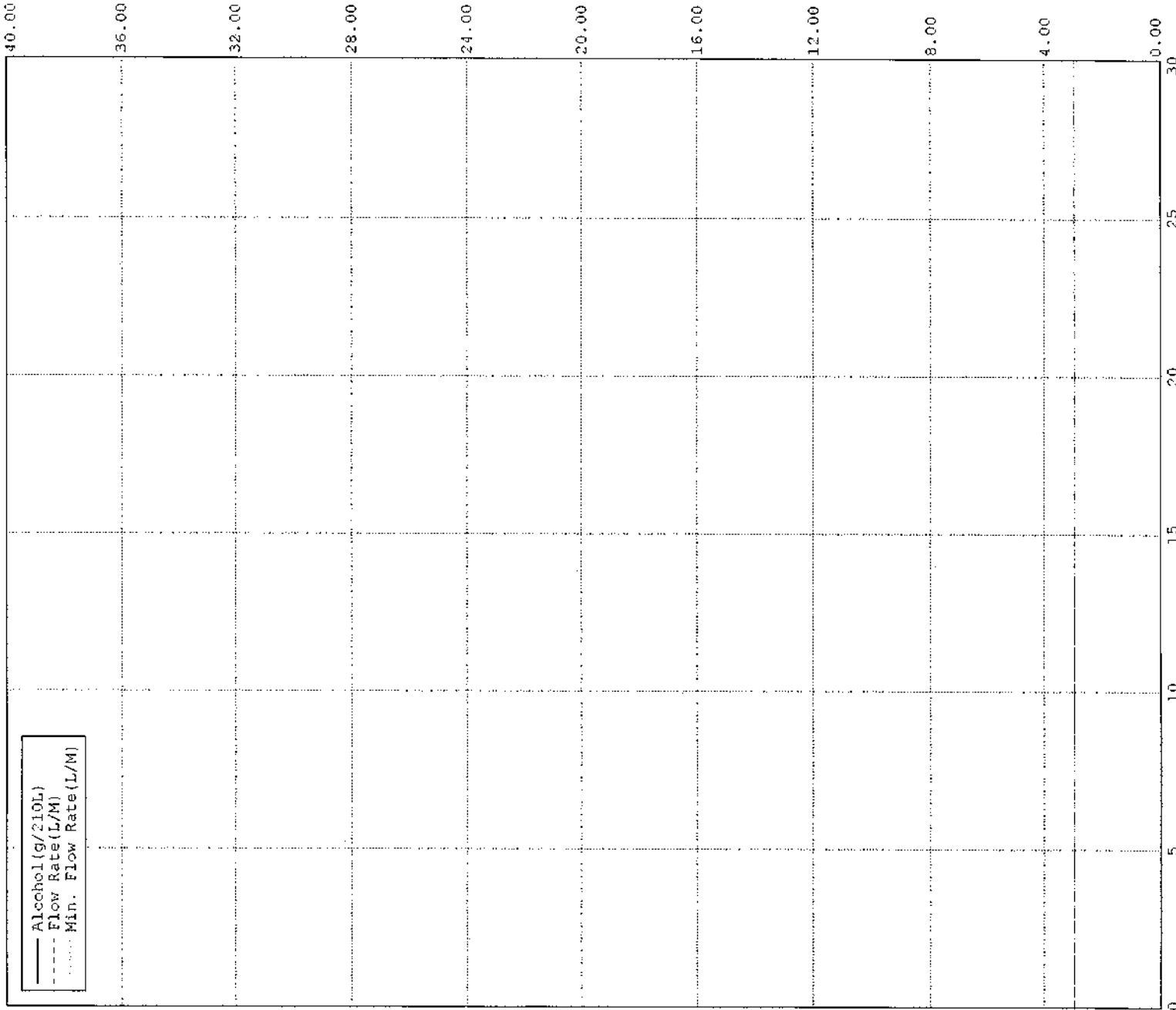
CASE/REPORT: 17-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.25: 0.078  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 14:13  
BLANK TEST 0.000 14:13  
INTERNAL STANDARD VERIFIED 14:14  
EXTERNAL STANDARD 0.078 14:14  
BLANK TEST 0.000 14:15

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100424

Date: 12/07/2017  
Time: 14:28:07

SUBJECT NAME:  
TEST TEST  
LICENSE #: NONDRINKING

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 17-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.22: 0.078  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	14:29
BLANK TEST	0.000	14:29
INTERNAL STANDARD	VERIFIED	14:29
EXTERNAL STANDARD	0.077	14:29
BLANK TEST	0.000	14:30
SUBJECT SAMPLE (Vol=2.01L)	0.000	14:31
BLANK TEST	0.000	14:32
EXTERNAL STANDARD	0.077	14:32
BLANK TEST	0.000	14:33

*COB*

