

## Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 04/04/2012  
Effective: 04/04/2012

Version: DMCEF2012 R1  
Status: Active

Instrument S/N 100422 Analyst C. O'Bryant Start Date 10/25/12  
Diagnostic Test (attached)

## 1. Voltage Checks

- a. Adjust voltages, if needed
- i. Lamp (2.6V Maximum)
  - ii. Bias (80V)
  - 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 1.500 mL (1.3L to 1.7L)

## 4. Linearity Test (attached)

- a. Levels Used
- i. 0.020g/210L Mnf ILMO Lot 07611020A5 Exp 08/01/13
  - ii. 0.040g/210L Mnf ILMO Lot 07611040A4 Exp 03/01/13
  - iii. 0.080g/210L Mnf ILMO Lot 02012080A1 Exp 08/01/14
  - iv. 0.100g/210L Mnf ILMO Lot 05611100A2 Exp 03/01/2013
  - v. 0.200g/210L Mnf Guth Lot 11120 Exp 7/19/12
    - 1. Simulator S/N DR4178 Date Calibrated 03/21/12
  - vi. 0.300g/210L Mnf Guth Lot 11110 Exp 7/13/13
    - 1. Simulator S/N DR4162 Date Calibrated 10/09/2012

## 5. Functional Tests (attached)

- a. Incomplete  b. Invalid
- c. Interference
- i. Acetone - Mnf Guth Lot 11100 Level 0.100 Exp 7/6/13
    - 1. Simulator S/N DR 5298 Date Calibrated 10/08/12
  - ii. Isopropanol - Mnf Guth Lot 11250 Level 0.100 Exp 10/6/13
    - 1. Simulator S/N SD 1202 Date Calibrated 10/9/12
  - iii. Negative Control - Mnf Guth Lot 11220 Level 0.100 Exp 10/24/13
    - 1. Simulator S/N SD1176 Date Calibrated 10/09/12

d. RFI

6. Verify stylus is calibrated

7. Verify card reader is functional

8. Reset Options

9. Clear Memory

10. Verification of Calibration

11. Non-Drinking Subject Test (attached)

12. Upload

13. Update agency information and polling status in DM Host Calling Program

End Date 10/25/12

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATACASTER dmt: 100422  
-----

Date: 10/25/2012  
Time: 08:28:44

VERSIONS

DMT: 2.00  
PIC: 3.03  
Modem: 2.3  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.9°C            PASSED  
Breath Tube     = 45.8°C           PASSED

PUMP INFO

Flow Rate = 4.985 L/M            PASSED

DETECTOR INFO

PUMP ON                           PASSED  
PUMP OFF                          PASSED

FILTER INFO

Filter 1                           PASSED  
Filter 2                           PASSED  
Filter 3                           PASSED

INTERNAL STANDARD               PASSED

Technician Screen

-----  
DATAMASTER dmt: 100422  
-----

Date: 10/25/2012  
Time: 8:51 AM

Temperatures (°C)  
Sample Cell: 49.5°C  
Breath Tube: 46.9°C

Current Barometer 30.3 in  
Volume (Ltr) 1.58

Settings  
Lamp: 1.72 V  
Bias: 80 V  
Cooler: 1.67 V  
Chopper: 553 Hz

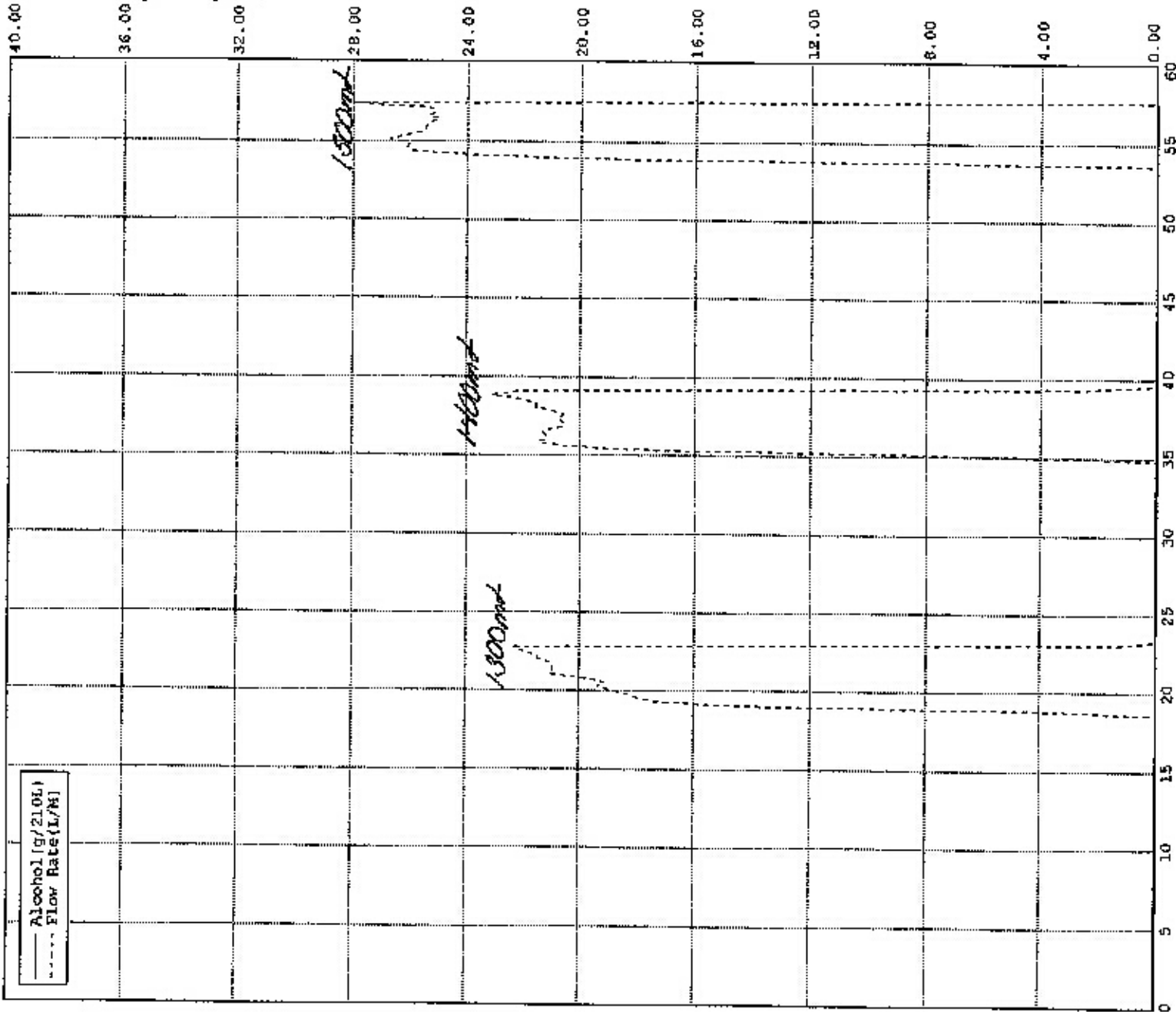
Voltages (V)  
Flow: 1.06 V  
Detector: -0.043 V

## CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dnt: 100422  
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Date: 10/03/2011  
Time: 13:45:03

Ca = 0.1000  
CAL = 1.010043    0.800 <= CAL < 1.200  
b1 = 0.0000    0.0000 <= b1 < 0.0040  
b2 = 0.0050    0.0010 <= b2 < 0.0100  
b3 = 0.0000    0.0000 <= b3 < 0.0040  
Kq = 0.0960    0.0500 <= Kq < 0.2000  
a21 = 1.221242    1.050 <= a21 < 1.300  
a31 = 0.412262    0.300 <= a31 < 0.800



**SUBJECT TEST**

Alaska Department of Public Safety  
 DATAMASTER dnt: 100422

Date: 10/25/2012  
 Time: 08:56:41

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: VOLUME TEST

OPERATOR NAME:  
 COLLEEN S OBRVANT  
 OPERATOR'S #: 5237

DEPT/AGENCY:  
 AAA1

CASE/REPORT: 12-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 30.29: 0.080  
 LOT #: 02012080A1  
 EXPIRATION: 03/01/2014

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	08:57
BLANK TEST	0.000	08:57
INTERNAL STANDARD	VERIFIED	08:57
EXTERNAL STANDARD	0.081	08:58
BLANK TEST	0.000	08:59
SUBJECT SAMPLE	0.000	09:00
BLANK TEST	0.000	09:01
EXTERNAL STANDARD	0.081	09:01
BLANK TEST	0.000	09:02

OBS  
OBS/19

**LINEARITY CHECK**

Alaska Department of Public Safety  
 DATA MASTER dmt: 100422

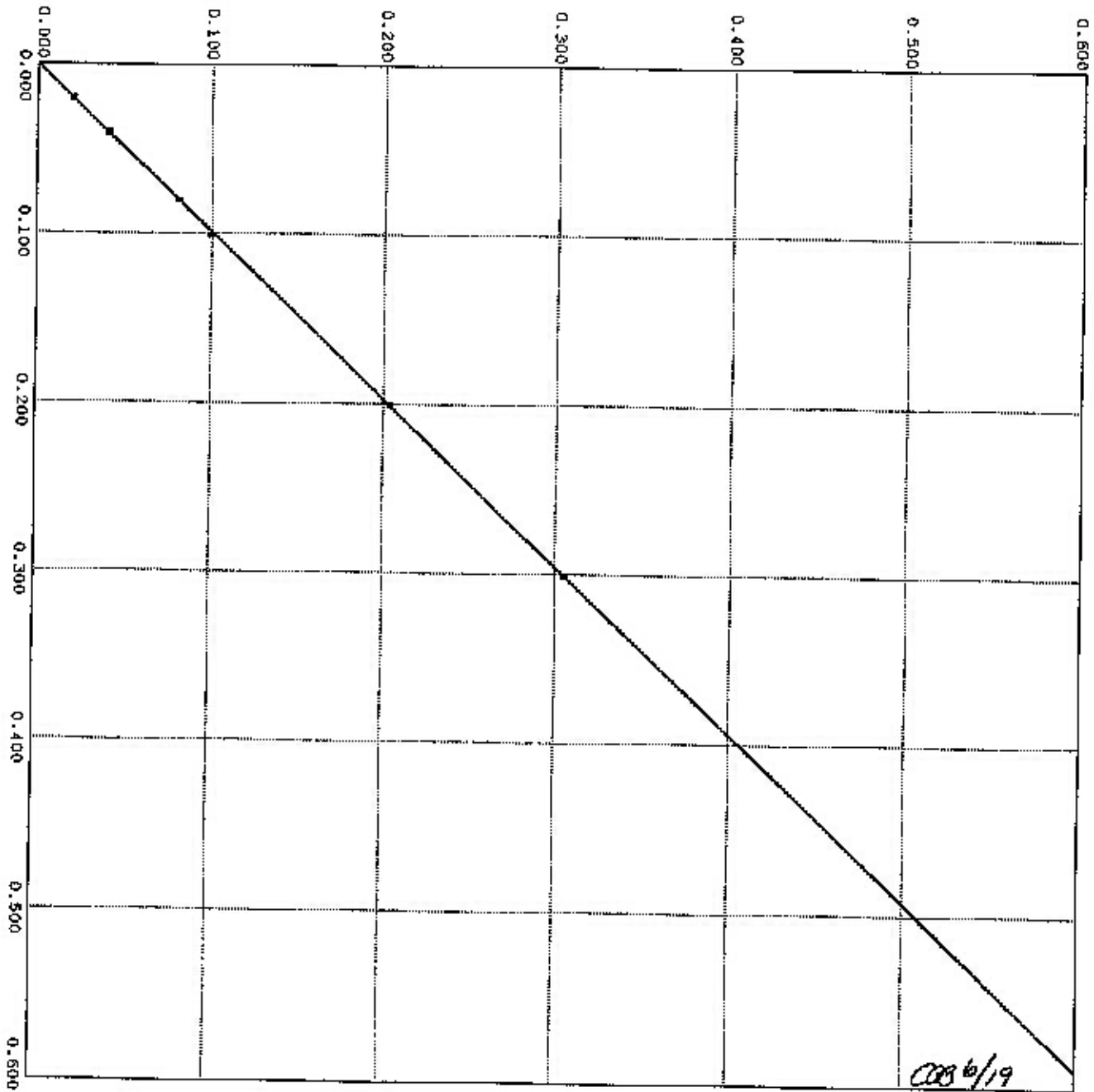
Date: 10/23/2012  
 Time: 09:04:37

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0311	0.0002
0.040	0.0415	0.0002
0.080	0.0819	0.0005
0.101	0.1006	0.0002
0.200	0.2045	0.0003
0.300	0.3056	0.0002

SLPGE = 1.017783  
 R<sup>2</sup> = 0.999878

*CO*





LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dnt: 100422

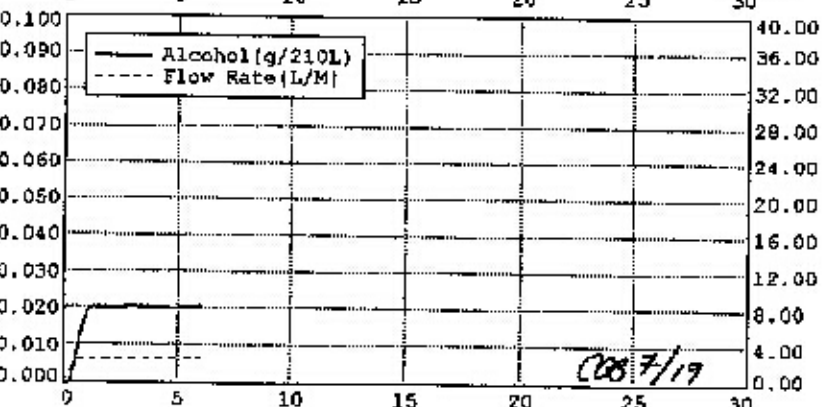
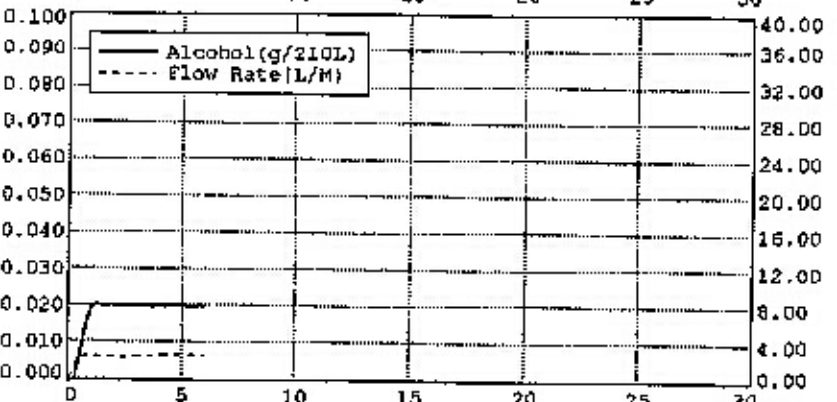
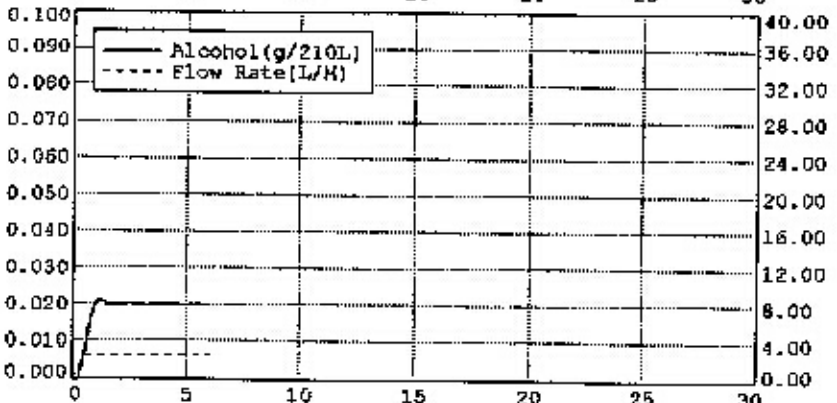
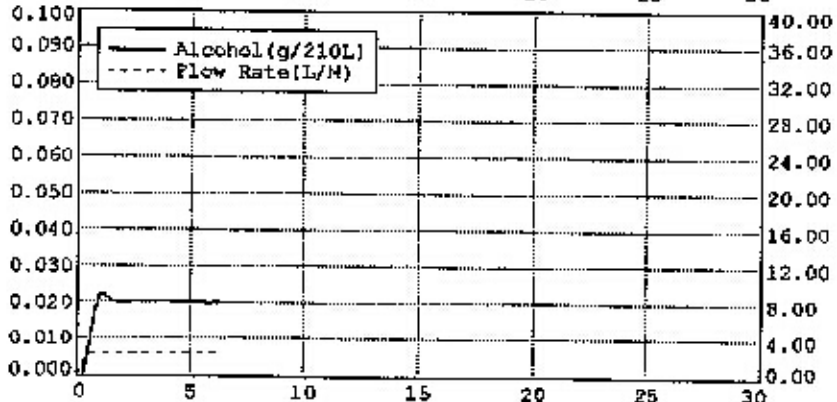
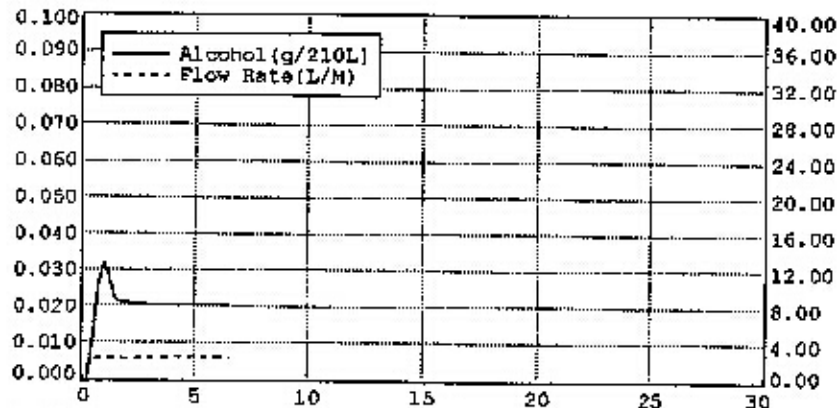
Date: 10/25/2012  
 Time: 09:04:39

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 30.29: 0.020  
 LOT #: 07611020A5  
 EXPIRATION: 03/01/2013

BLANK TEST	0.000	09:05
INTERNAL STANDARD	VERIFIED 0.021	09:05
EXTERNAL STANDARD	0.021	09:06
BLANK TEST	0.000	09:06
EXTERNAL STANDARD	0.021	09:07
BLANK TEST	0.000	09:08
EXTERNAL STANDARD	0.021	09:08
BLANK TEST	0.000	09:09
EXTERNAL STANDARD	0.020	09:09
BLANK TEST	0.000	09:10
EXTERNAL STANDARD	0.021	09:10
BLANK TEST	0.000	09:11

Average = 0.0211  
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dnt: 100422

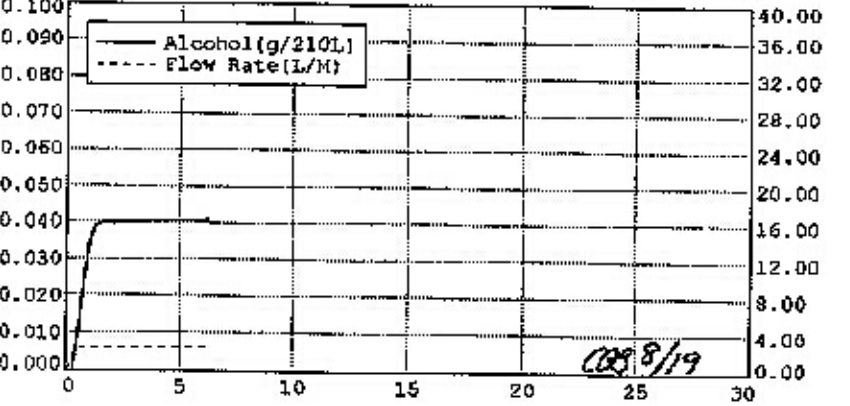
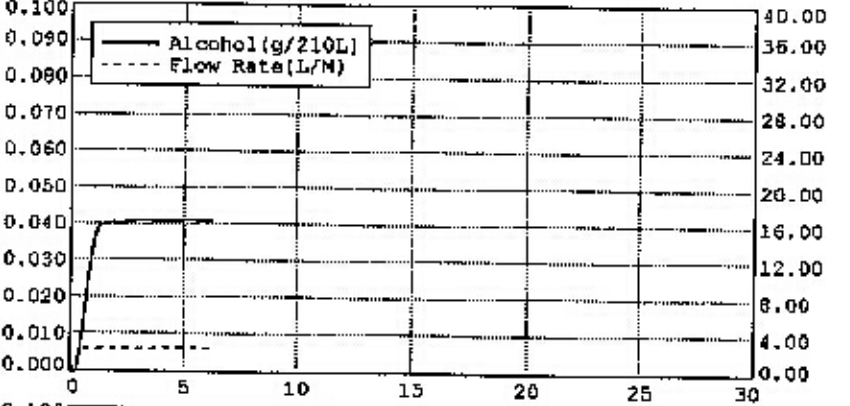
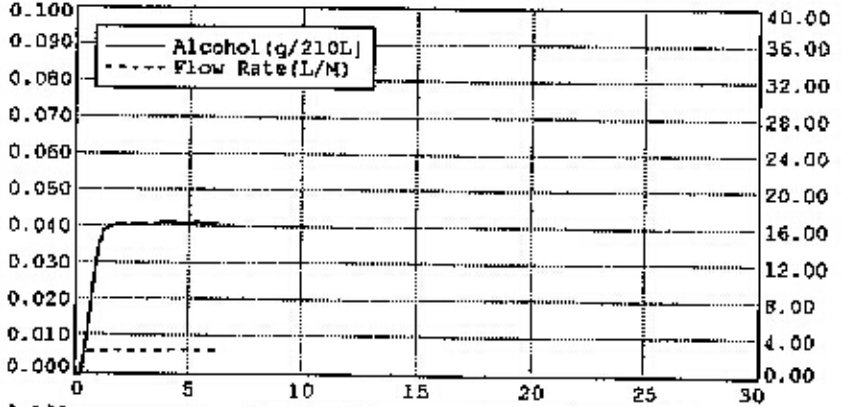
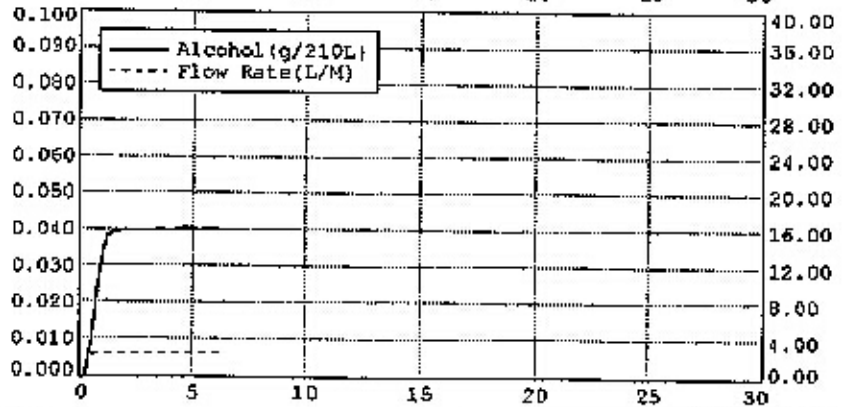
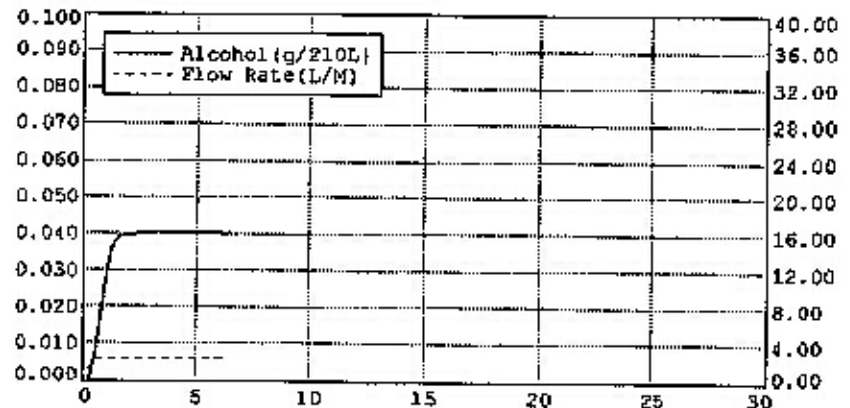
Date: 10/25/2012  
 Time: 09:12:16

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 30.29: 0.040  
 LOT #: 07611040A4  
 EXPIRATION: 03/01/2013

BLANK TEST	0.000	09:13
INTERNAL STANDARD	VERIFIED	09:13
EXTERNAL STANDARD	0.041	09:14
BLANK TEST	0.000	09:15
EXTERNAL STANDARD	0.041	09:15
BLANK TEST	0.000	09:16
EXTERNAL STANDARD	0.041	09:16
BLANK TEST	0.000	09:17
EXTERNAL STANDARD	0.041	09:17
BLANK TEST	0.000	09:18
EXTERNAL STANDARD	0.041	09:18
BLANK TEST	0.000	09:19

Average = 0.0415  
 Std Dev = 0.0002





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100422

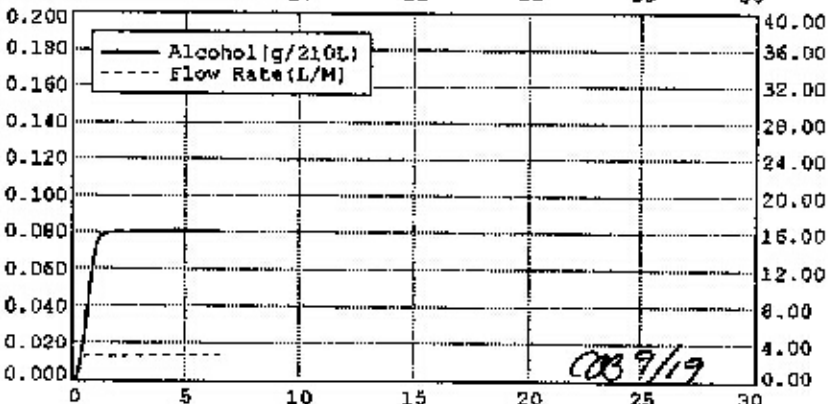
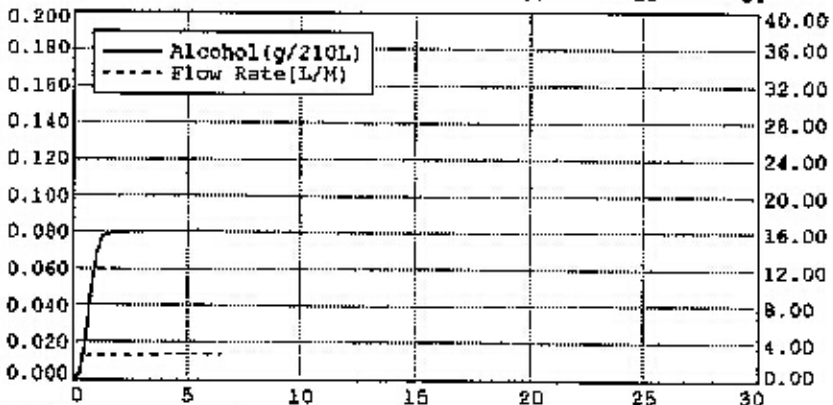
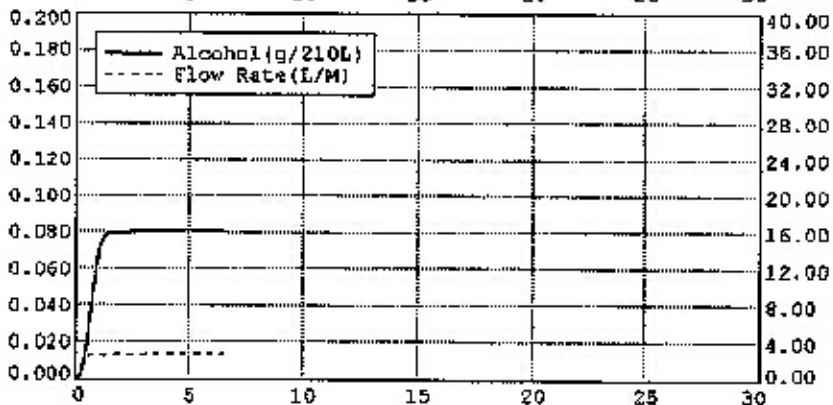
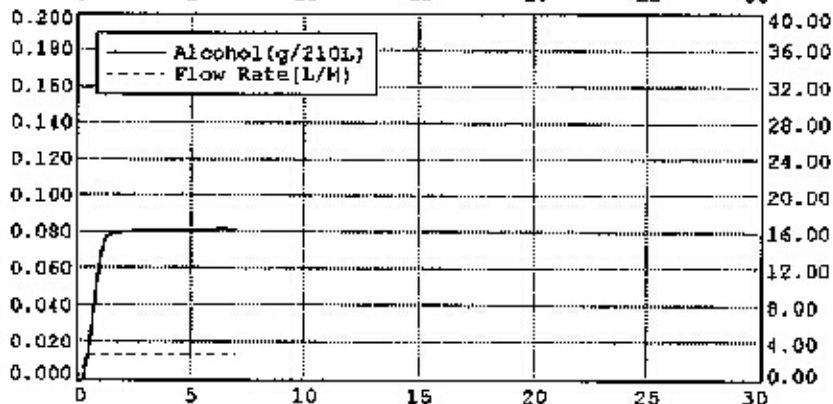
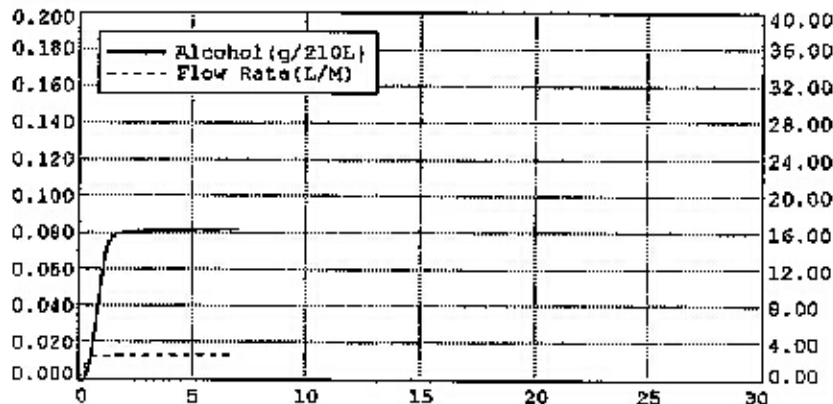
Date: 10/25/2012  
 Time: 09:21:31

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 30.29: 0.080  
 LOT #: Q2012080A1  
 EXPIRATION: 03/01/2014

BLANK TEST	0.000	09:23
INTERNAL STANDARD	VERIFIED	09:23
EXTERNAL STANDARD	0.082	09:23
BLANK TEST	0.000	09:24
EXTERNAL STANDARD	0.082	09:25
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.081	09:26
BLANK TEST	0.000	09:27
EXTERNAL STANDARD	0.081	09:27
BLANK TEST	0.000	09:28
EXTERNAL STANDARD	0.081	09:28
BLANK TEST	0.000	09:29

Average = 0.0819  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100422

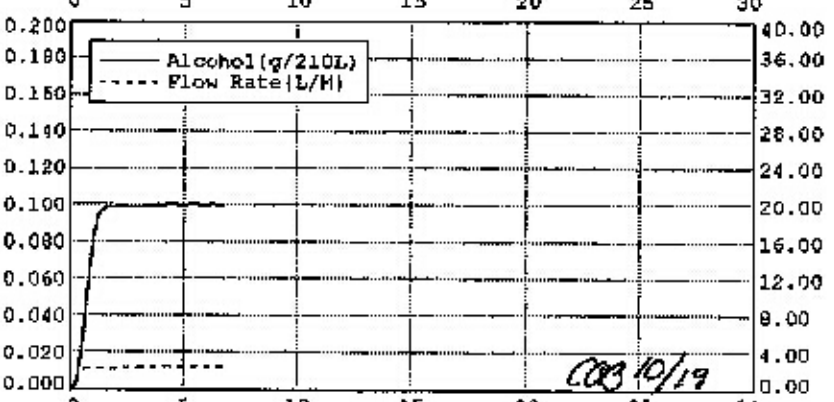
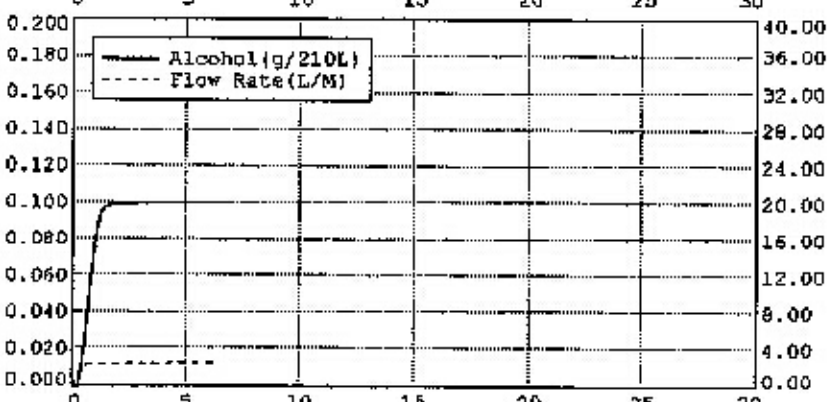
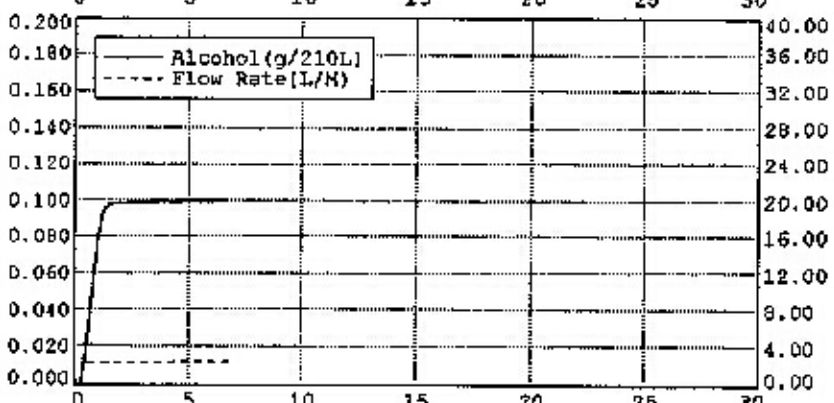
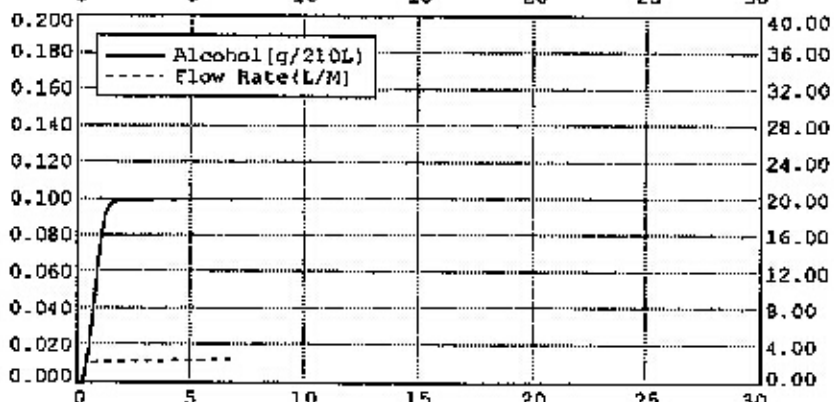
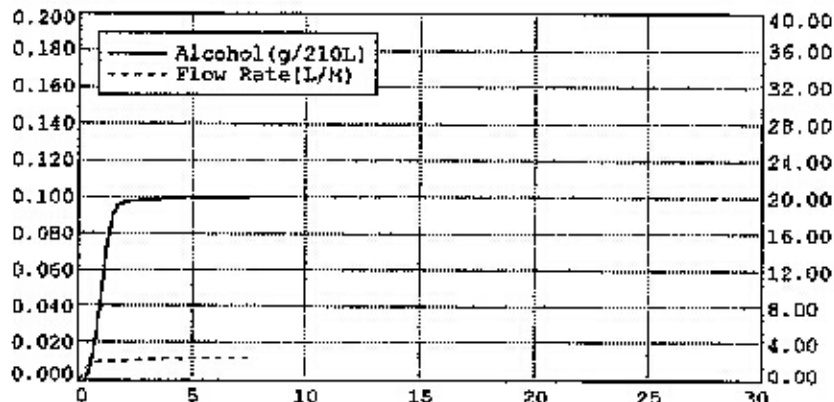
Date: 10/25/2012  
 Time: 09:43:23

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 30.30: 0.101  
 LOT #: 05611100A2  
 EXPIRATION: 03/01/2013

BLANK TEST	0.000	09:44
INTERNAL STANDARD	VERIFIED	09:45
EXTERNAL STANDARD	0.100	09:45
BLANK TEST	0.000	09:46
EXTERNAL STANDARD	0.100	09:46
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.100	09:47
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.100	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.100	09:49
BLANK TEST	0.000	09:50

Average = 0.1005  
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dnt: 100422

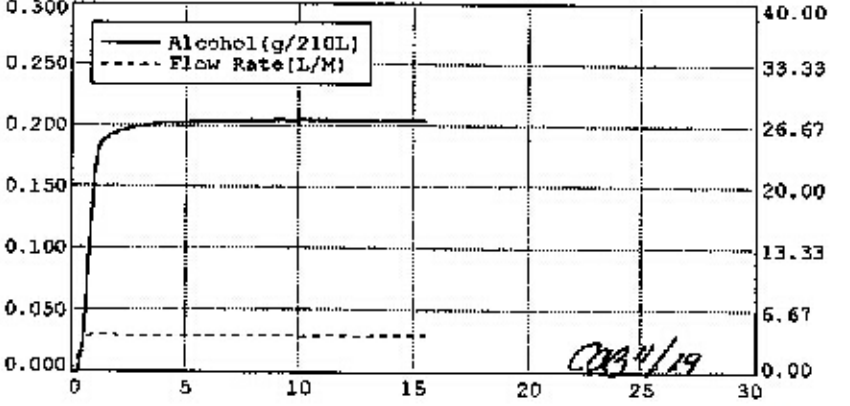
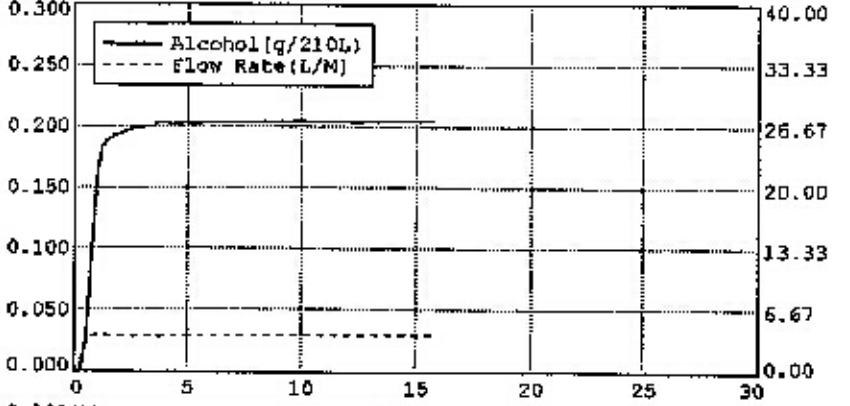
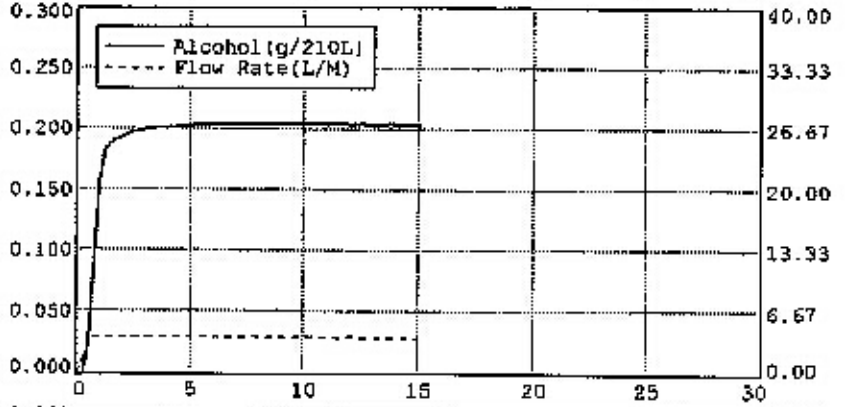
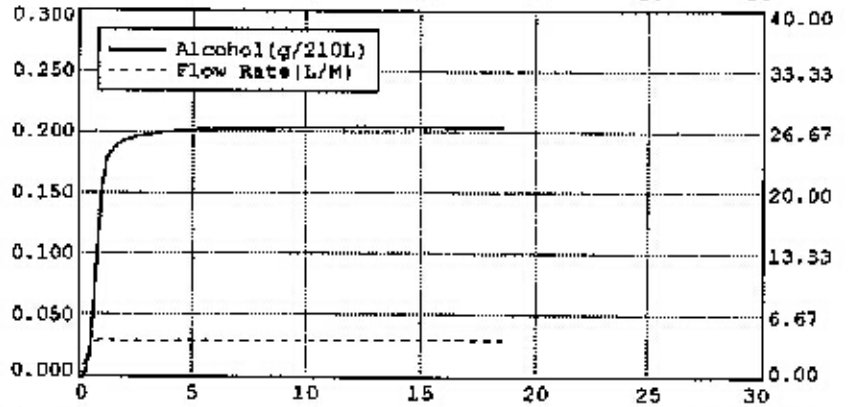
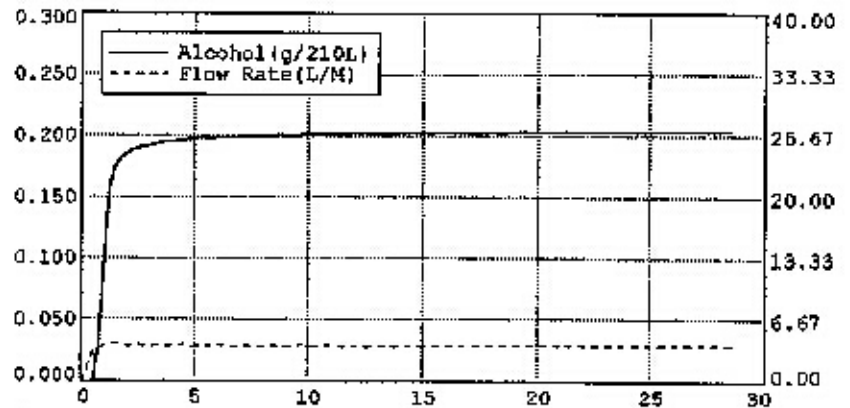
Date: 10/25/2012  
 Time: 09:51:44

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 11120  
 EXPIRATION: 07/19/2013

BLANK TEST	0.000	09:52
INTERNAL STANDARD	VERIFIED	09:52
EXTERNAL STANDARD	0.204	09:53
BLANK TEST	0.000	09:54
EXTERNAL STANDARD	0.204	09:54
BLANK TEST	0.000	09:55
EXTERNAL STANDARD	0.204	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.204	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.204	09:58
BLANK TEST	0.000	09:59

Average = 0.2045  
 Std Dev = 0.0003





LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100422

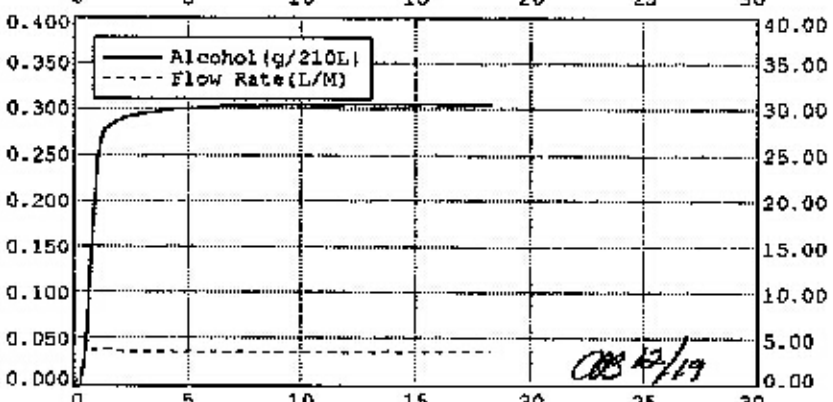
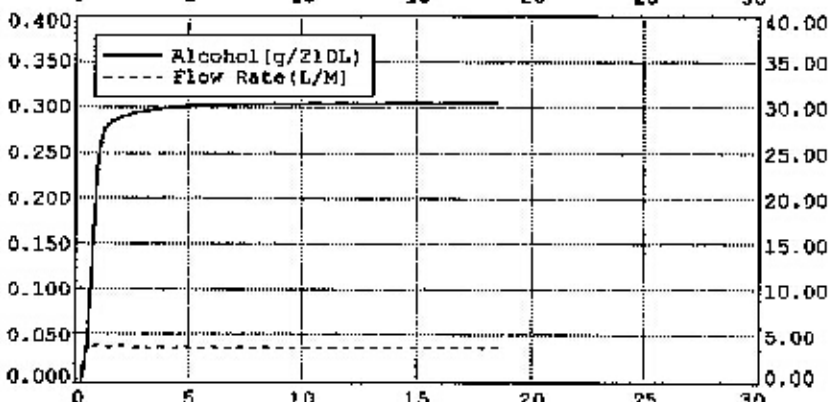
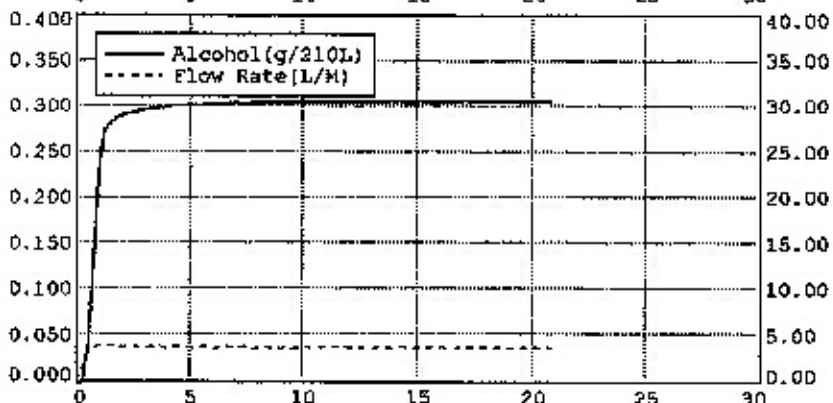
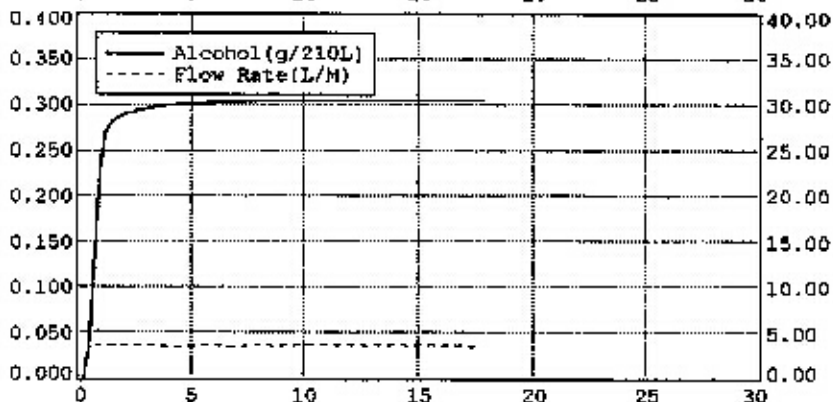
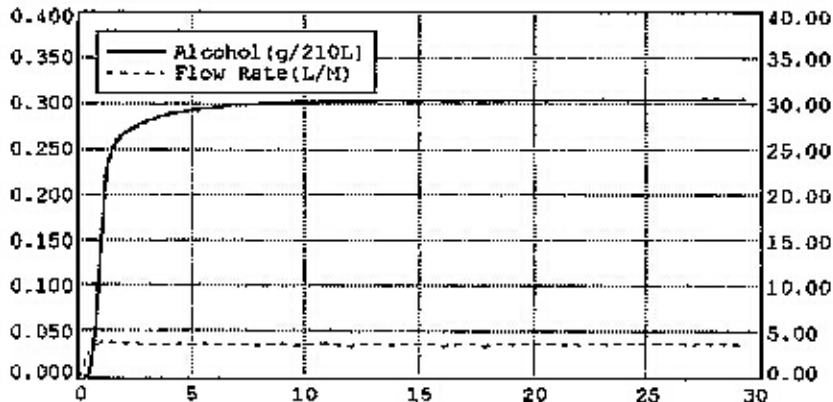
Date: 10/25/2012  
 Time: 10:02:10

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 11110  
 EXPIRATION: 07/13/2013

BLANK TEST	0.000	10:03
INTERNAL STANDARD	VERIFIED	10:03
EXTERNAL STANDARD	0.305	10:04
BLANK TEST	0.000	10:05
EXTERNAL STANDARD	0.305	10:05
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.305	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.305	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.305	10:10
BLANK TEST	0.000	10:11

Average = 0.3056  
 Std Dev = 0.0002



SUBJECT TEST

Alaska Department of Public Safety  
 DATA MASTER dmt: 100422

Date: 10/25/2012  
 Time: 10:38:57

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: INCOMPLETE

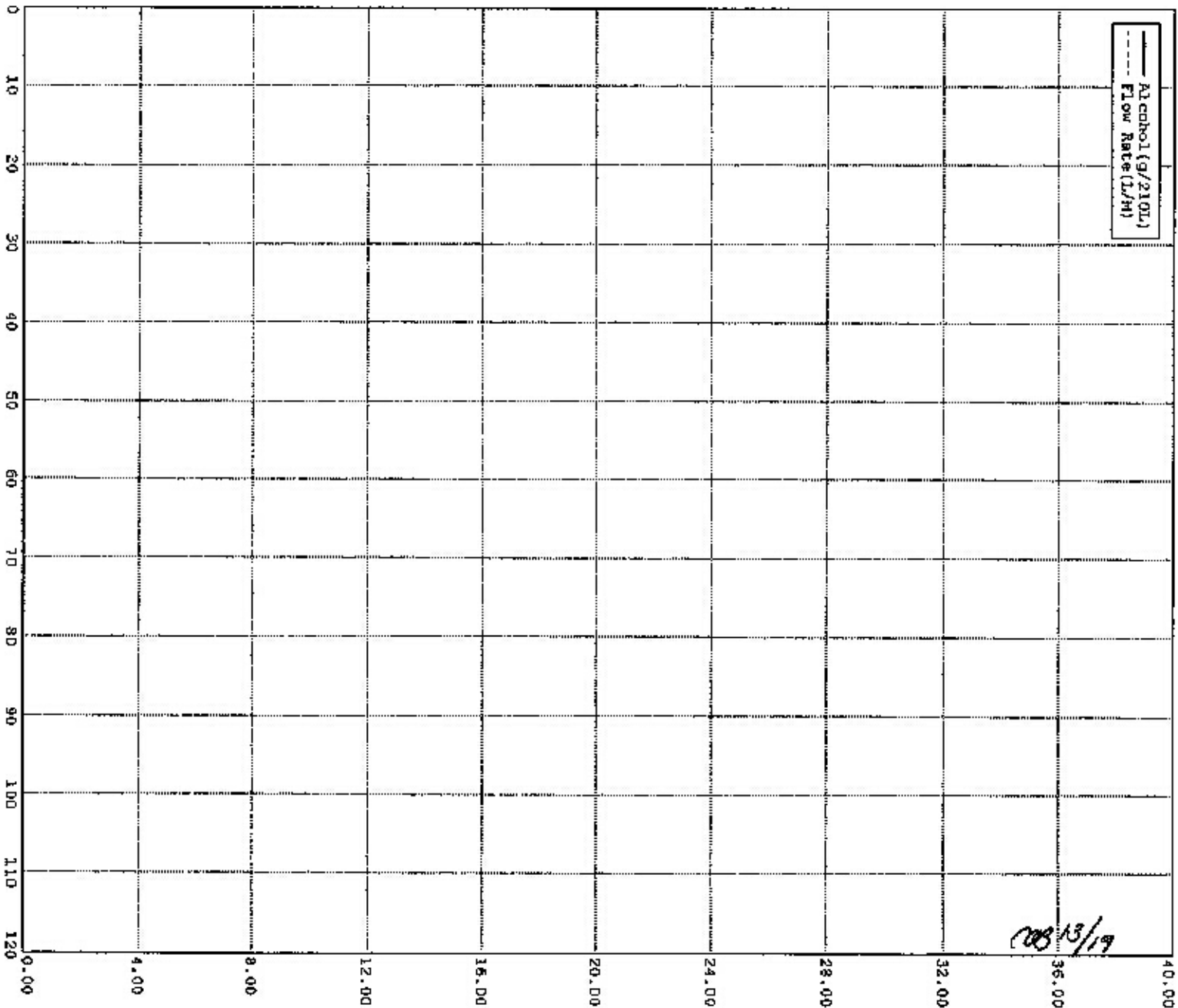
OPERATOR NAME:  
 COLLEEN S O'BRYANT  
 OPERATOR'S #: 6237

DEPT/AGENCY:  
 AAAL  
 CASE/REPORT: 12-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 30.30: 0.081  
 LOT #: 02012080A1  
 EXPIRATION: 03/01/2014

DIAGNOSTIC CHECK	PASSED	10:40
BLANK TEST	0.000	10:40
INTERNAL STANDARD	VERIFIED	10:40
EXTERNAL STANDARD	0.081	10:40
BLANK TEST	0.000	10:41
SUBJECT SAMPLE	INCOMPLETE	10:43

*CS*





SUBJECT TEST

Alaska Department of Public Safety  
 DATA MASTER dmt: 100422

Date: 10/25/2012  
 Time: 10:50:27

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: INVALID

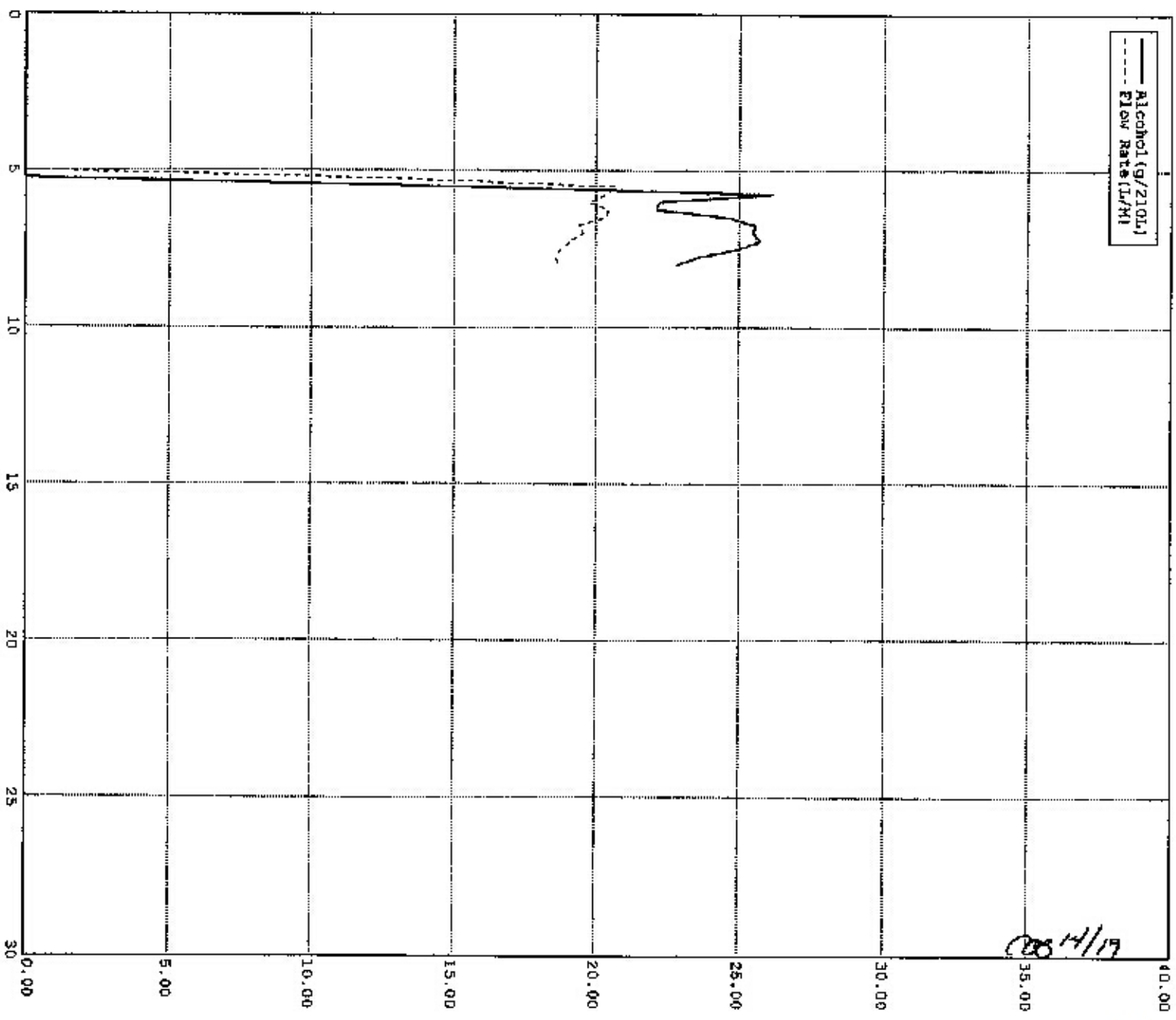
OPERATOR NAME:  
 COLLEEN S O'BRYANT  
 OPERATOR'S #: 6237

DEPT/AGENCY:  
 AA#1  
 CASE/REPORT: 12-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 30.31: 0.081  
 LOT #: 02012080A1  
 EXPIRATION: 03/01/2014

DIAGNOSTIC CHECK	PASSED	10:51
BLANK TEST	0.000	10:51
INTERNAL STANDARD	VERIFIED	10:51
EXTERNAL STANDARD	0.081	10:52
BLANK TEST	0.000	10:53
SUBJECT SAMPLE	INVALID	10:53

*Handwritten initials*



SUBJECT TEST

Alaska Department of Public Safety  
 DATA MASTER dmt: 100422

Date: 10/25/2012  
 Time: 11:11:01

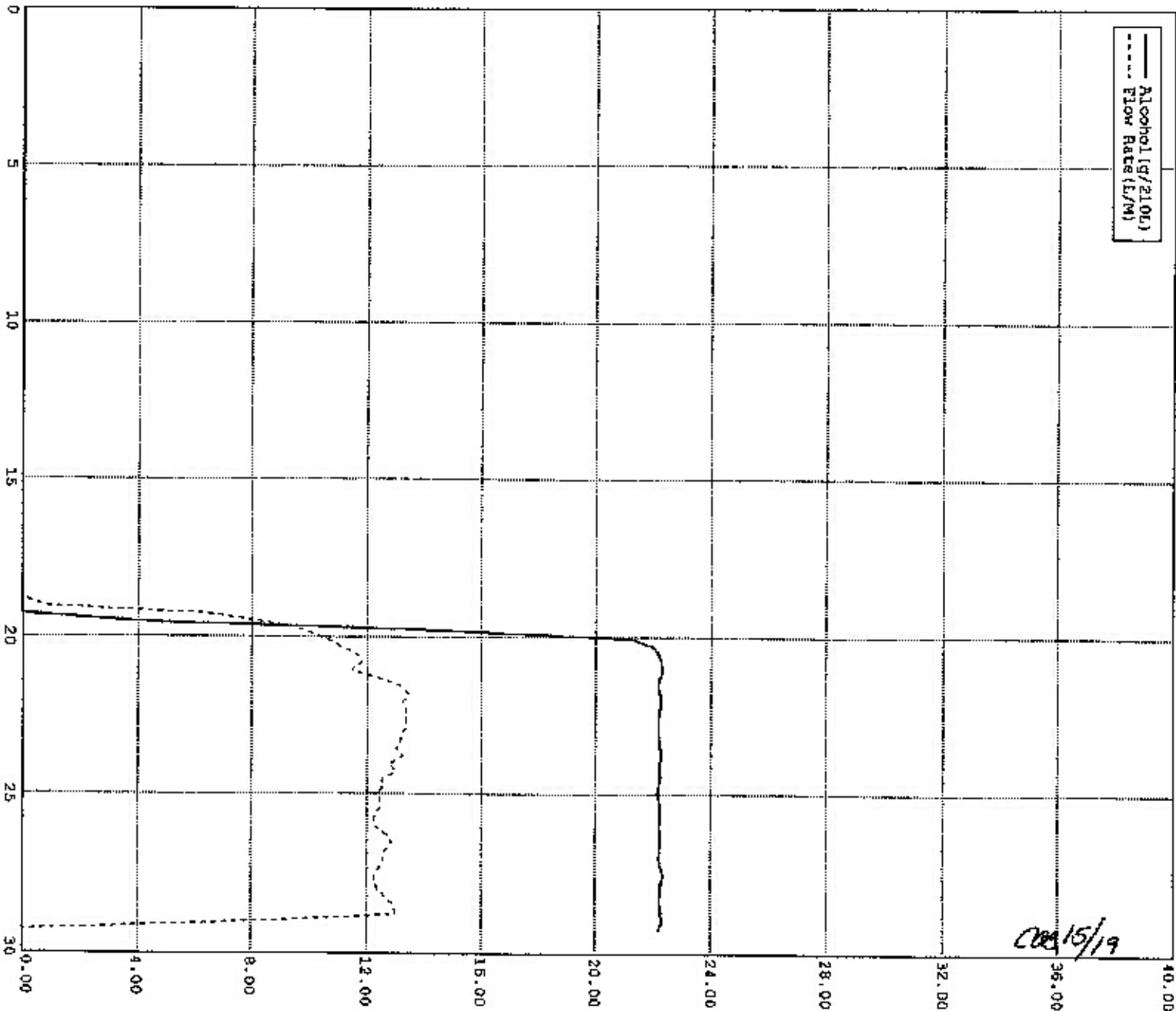
SUBJECT NAME:  
 TEST TEST  
 LICENSE #: INT-ACETONE

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

DEPT/AGENCY:  
 AAAL  
 CASE/REPORT: 12-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 30.31: 0.081  
 LOT #: 02012086A1  
 EXPIRATION: 03/01/2014

DIAGNOSTIC CHECK	PASSED	11:12
BLANK TEST	0.000	11:12
INTERNAL STANDARD	VERIFIED	11:12
X[9] = 0.096 (0.008)		
EXTERNAL STANDARD	0.081	11:12
X[1] = 0.0919 (-0.0010) (0.0025)		
BLANK TEST	0.000	11:13
SUBJECT SAMPLE	INTERFERENCE	11:13
X[1] = 0.1114 (-0.0207) (0.0013)		



SUBJECT TEST

Alaska Department of Public Safety  
DATABASE# dnt: 100422

Date: 10/25/2012  
Time: 11:04:12

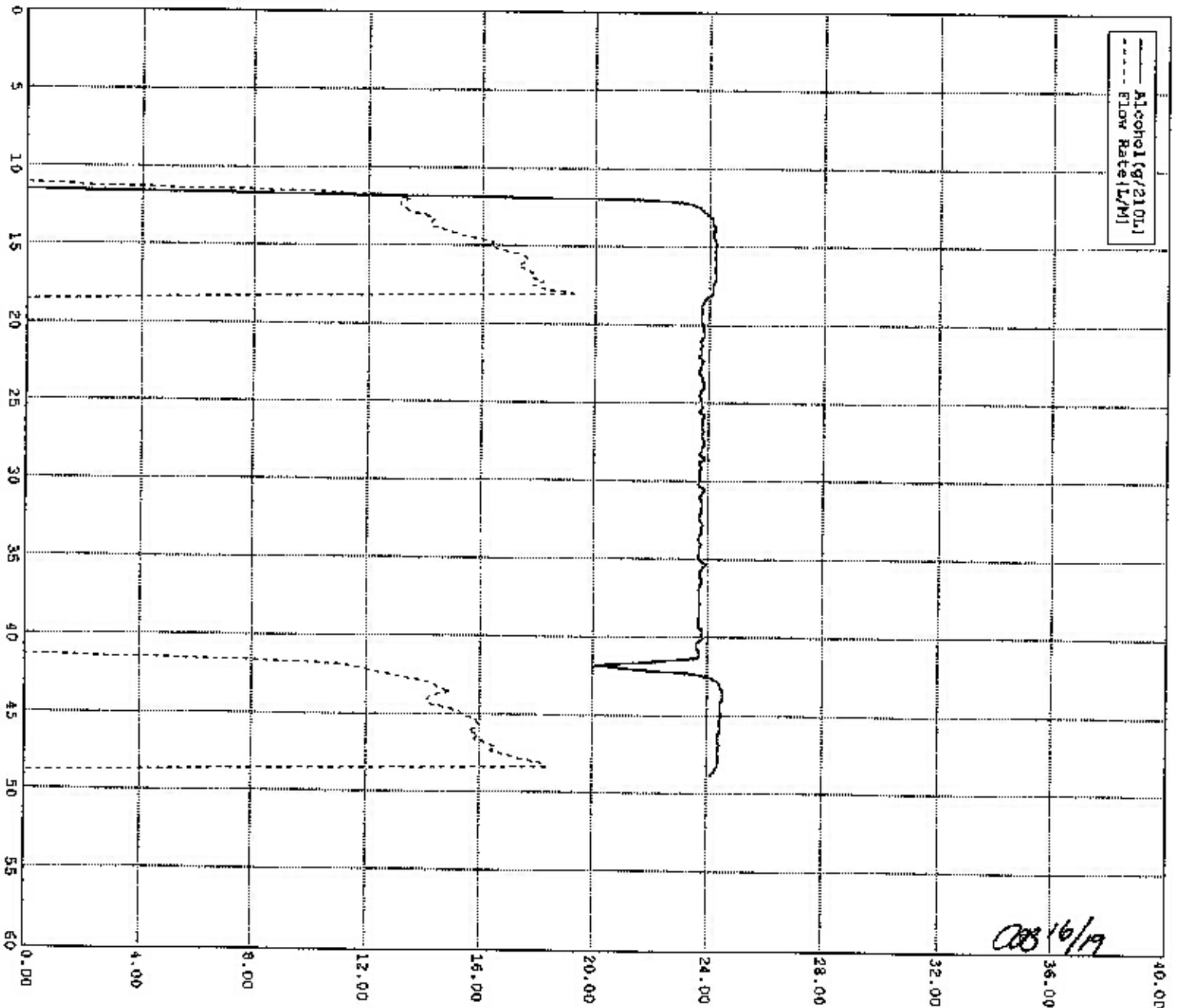
SUBJECT NAME:  
TEST TEST  
LICENSE #: INF-1PA

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

DEPT/AGENCY:  
AAAI  
CASE/REPORT: 12-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.31: 0.081  
LOT #: 02012080A1  
EXPIRATION: 03/01/2014

DIAGNOSTIC CHECK	PASSED	11:06
BLANK TEST	0.000	11:06
INTERNAL STANDARD	VERIFIED	11:06
Xq = 0.096 (0.184)		
EXTERNAL STANDARD	0.082	11:06
X[1] = 0.0831 (-0.0007) (0.0029)		
BLANK TEST	0.000	11:07
SUBJECT SAMPLE	INTERFERENCE	11:08
X[1] = 0.1206 (-0.0328) (0.0021)		



SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmc: 100422

Date: 10/25/2012  
 Time: 10:56:36

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: INT-NEG CONT

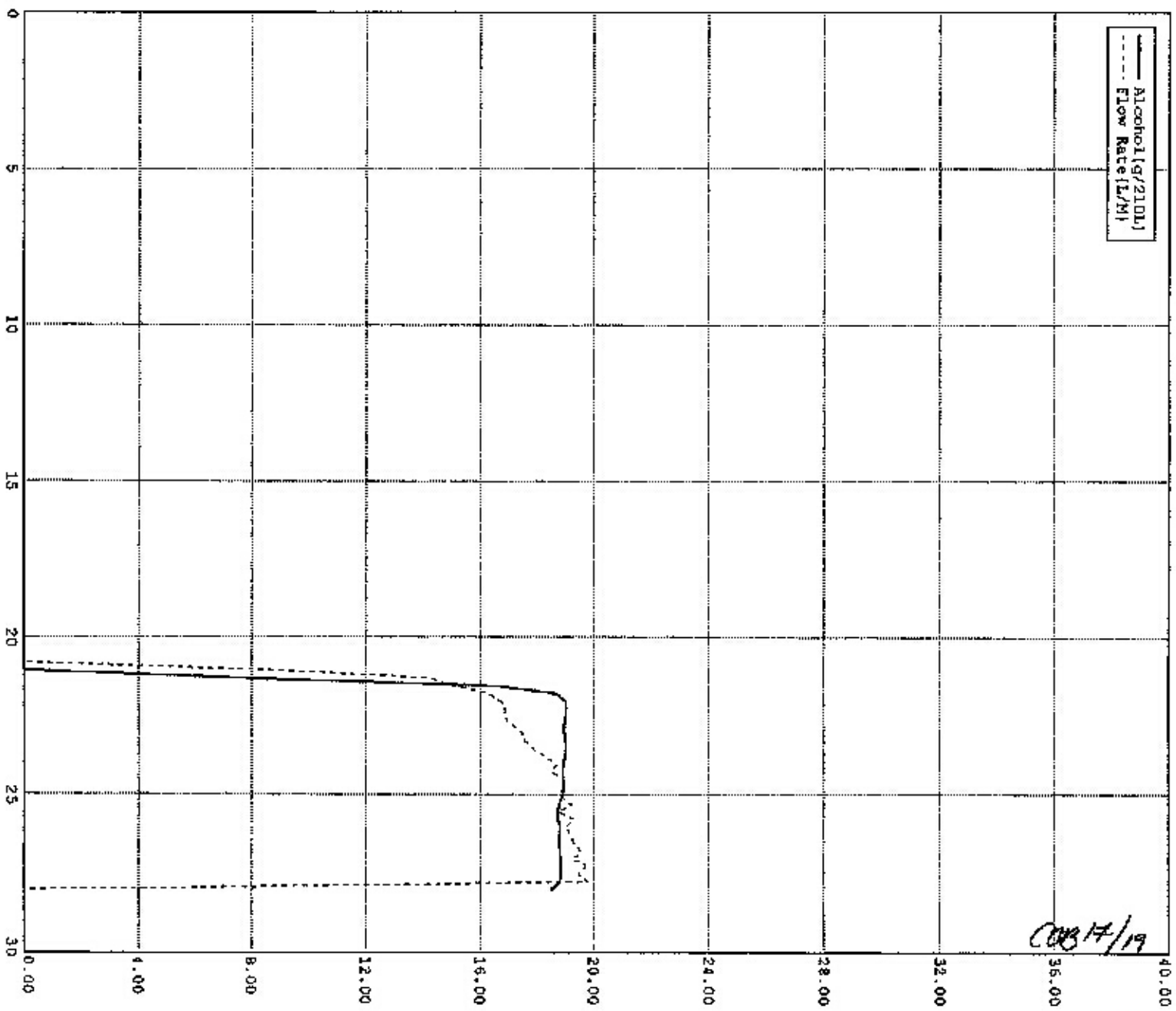
OPERATOR NAME:  
 COLLEEN S O'BRYANT  
 OPERATOR'S #: 6237

DEPT/AGENCY:  
 AAAA  
 CASE/REPORT: 12-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 30.31: 0.081  
 LOT #: 02012080A1  
 EXPIRATION: 03/01/2014

DIAGNOSTIC CHECK	PASSED	10:57
BLANK TEST	0.000	10:57
INTERNAL STANDARD	VERIFIED	10:57
XG = 0.096 (0.46%)		
EXTERNAL STANDARD	0.081	10:58
X[1] = 0.0816 (-0.0005)	(0.0027)	
BLANK TEST	0.000	10:59
SUBJECT SAMPLE (Vol=2.08L)	0.092	10:59
X[1] = 0.0929 (-0.0017)	(0.0010)	
BLANK TEST	0.000	11:00
EXTERNAL STANDARD	0.081	11:00
X[1] = 0.0816 (-0.0011)	(0.0022)	
BLANK TEST	0.000	11:01

COB



SUBJECT TEST

Alaska Department of Public Safety  
 DATABASE#R dmc: 100422

Date: 10/25/2012  
 Time: 11:16:46

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: RPI

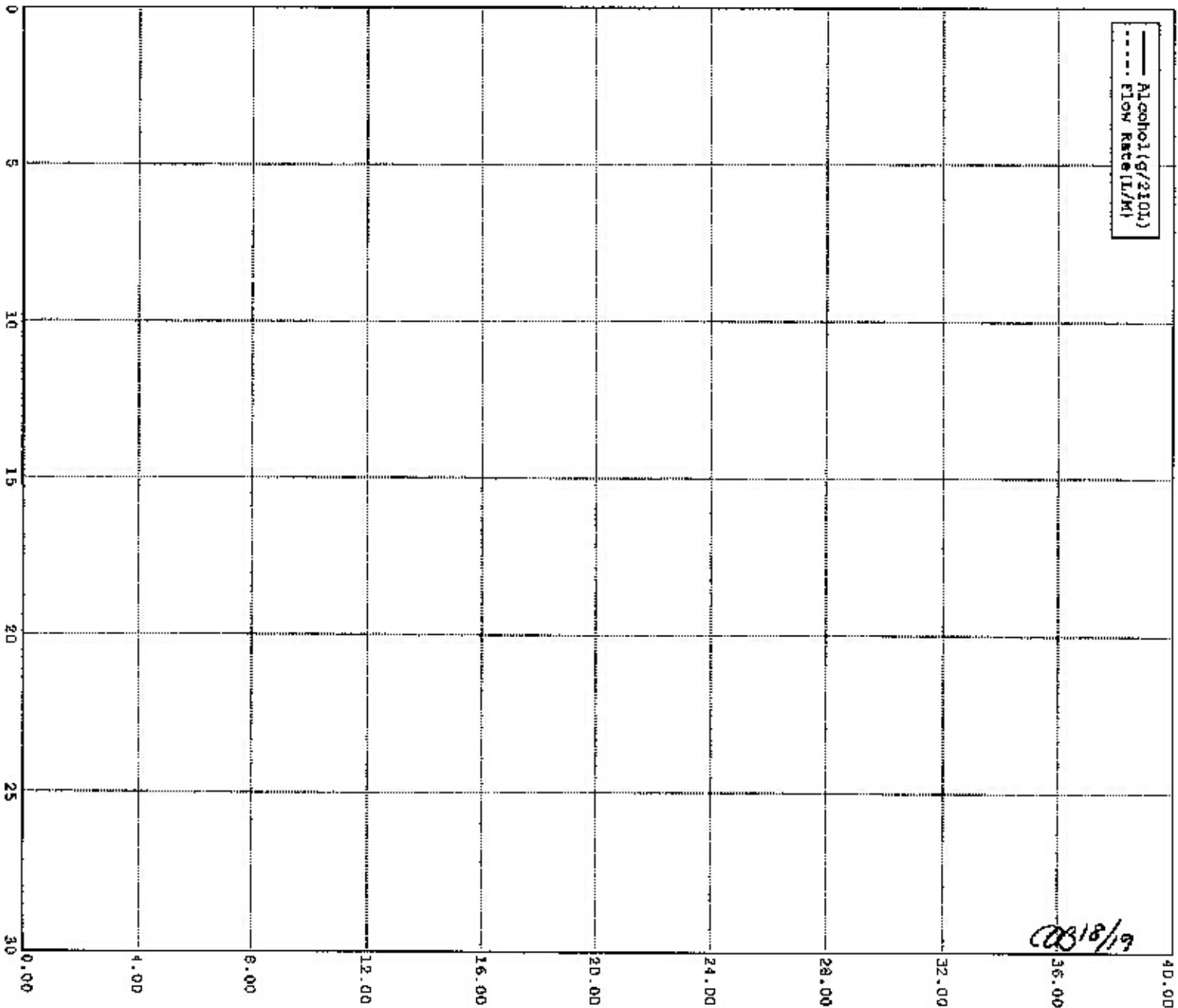
OPERATOR NAME:  
 COLISEN S O'BRYANT  
 OPERATOR'S #: 6237

DEPT/AGENCY:  
 AAAl  
 CASE/REPORT: 12-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 30.31: 0.081  
 LOT #: 02012880A1  
 EXPIRATION: 03/01/2014

DIAGNOSTIC CHECK	PASSED	11:17
BLANK TEST	0.000	11:17
INTERNAL STANDARD	VERIFIED	11:18
EXTERNAL STANDARD	0.081	11:18
BLANK TEST	0.000	11:19

RPI DETECTED





SUBJECT TEST

Alaska Department of Public Safety  
 DATABASE# dnt: 100422

Date: 10/25/2012  
 Time: 11:36:02

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: NONDRINKING

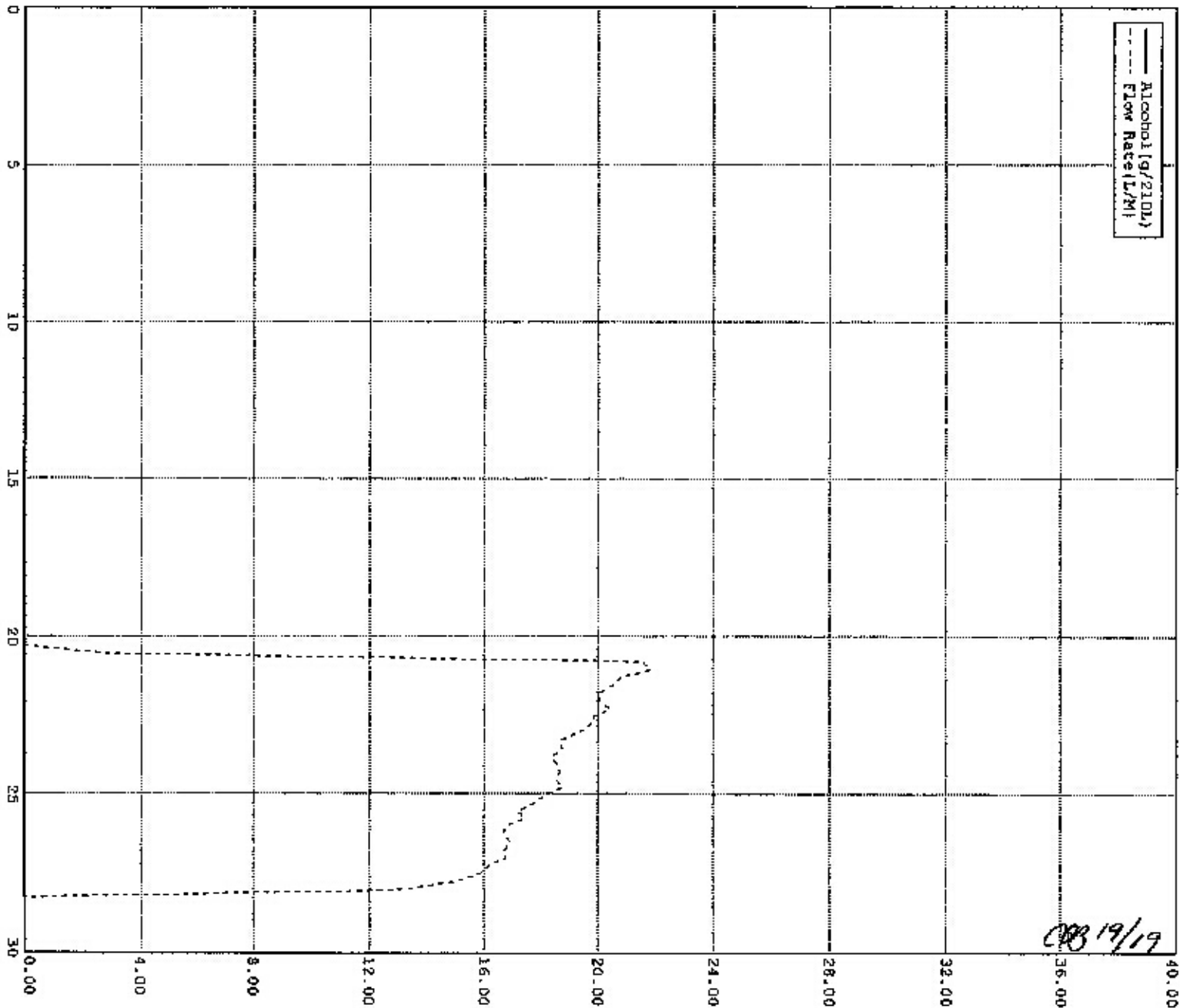
OPERATOR NAME:  
 COLLEEN S O'BRYANT  
 OPERATOR'S #: 6237

DEPT/AGENCY:  
 AAAL  
 CASE/REPORT: 12-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 30.32: 0.081  
 LOT #: 02012080A1  
 EXPIRATION: 03/01/2014

DIAGNOSTIC CHECK	PASSED	11:37
BLANK TEST	0.000	11:37
INTERNAL STANDARD	VERIFIED	11:37
EXTERNAL STANDARD	0.081	11:37
BLANK TEST	0.000	11:38
SUBJECT SAMPLE	0.000	11:38
BLANK TEST	0.000	11:39
EXTERNAL STANDARD	0.082	11:40
BLANK TEST	0.000	11:40

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10/19/12

Final page for report

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2/18/2014