

# 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 100360 Analyst C. O. Bryant Start Date 8/5/15

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 09214080A2 Exp 5/1/16
- iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17
- v. 0.200g/210L Mnf Both Lot 13220 Exp 8/5/15
  - 1. Simulator S/N DR4162 Date Calibrated 1/19/15
- vi. 0.300g/210L Mnf Both 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 Both Lot 14110 Level 0.100 Exp 5/1/16
  - 1. Simulator S/N DR4168 Date Calibrated 1/19/15
- ii. Isopropanol - Mnf Both Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N SD1176 Date Calibrated 1/20/15
- iii. Negative Control - Mnf Both 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 8/6/15

DIAGNOSTIC RECORD

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100360  
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Date: 08/05/2015  
 Time: 09:12:36

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.9°C PASSED  
 (44.0°C - 52.0°C)  
 Breath Tube = 45.6°C PASSED  
 (38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.27 V PASSED  
 (1.36 V - 3.18 V)  
 Cooler Voltage = 1.93 V PASSED  
 (1.16 V - 2.70 V)  
 Bias Voltage = 79 V PASSED  
 (47 V - 111 V)  
 Chopper Freq = 548 Hz PASSED  
 (475 Hz - 575 Hz)  
 Barometer = 29.9 in

PUMP INFO

Flow Rate = 5.556 L/M PASSED  
 (3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
 (0.003 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 = 0.115 0.31% (0.00% - 4.00%) PASSED

Technician Screen

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DATAMASTER dnt: 100360  
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Date: 08/05/2015  
Time: 9:36 AM

Temperatures (°C)

Sample Cell: 49.5°C  
Breath Tube: 46.2°C

Current Barometer 29.7 in  
Volume (Ltr) 1.51

Settings

Lamp: 2.27 V  
Bias: 80 V  
Cooler: 2.03 V  
Chopper: 548 Hz

Voltages (V)

Flow: 1.06 V  
Detector: 0.086 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dnt: 100360  
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Date: 05/16/2013  
Time: 07:33:53

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

Ca = 0.1000  
CAL = 0.978988 0.800 <= CAL < 1.200  
b1 = 0.0006 0.0000 <= b1 < 0.0040  
b2 = 0.0071 0.0010 <= b2 < 0.0100  
b3 = 0.0002 0.0000 <= b3 < 0.0040  
Xq = 0.1148 0.0500 <= Xq < 0.2000  
a21 = 1.227049 1.050 <= a21 < 1.300  
a31 = 0.511803 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100360

Date: 08/05/2015  
Time: 10:14:08

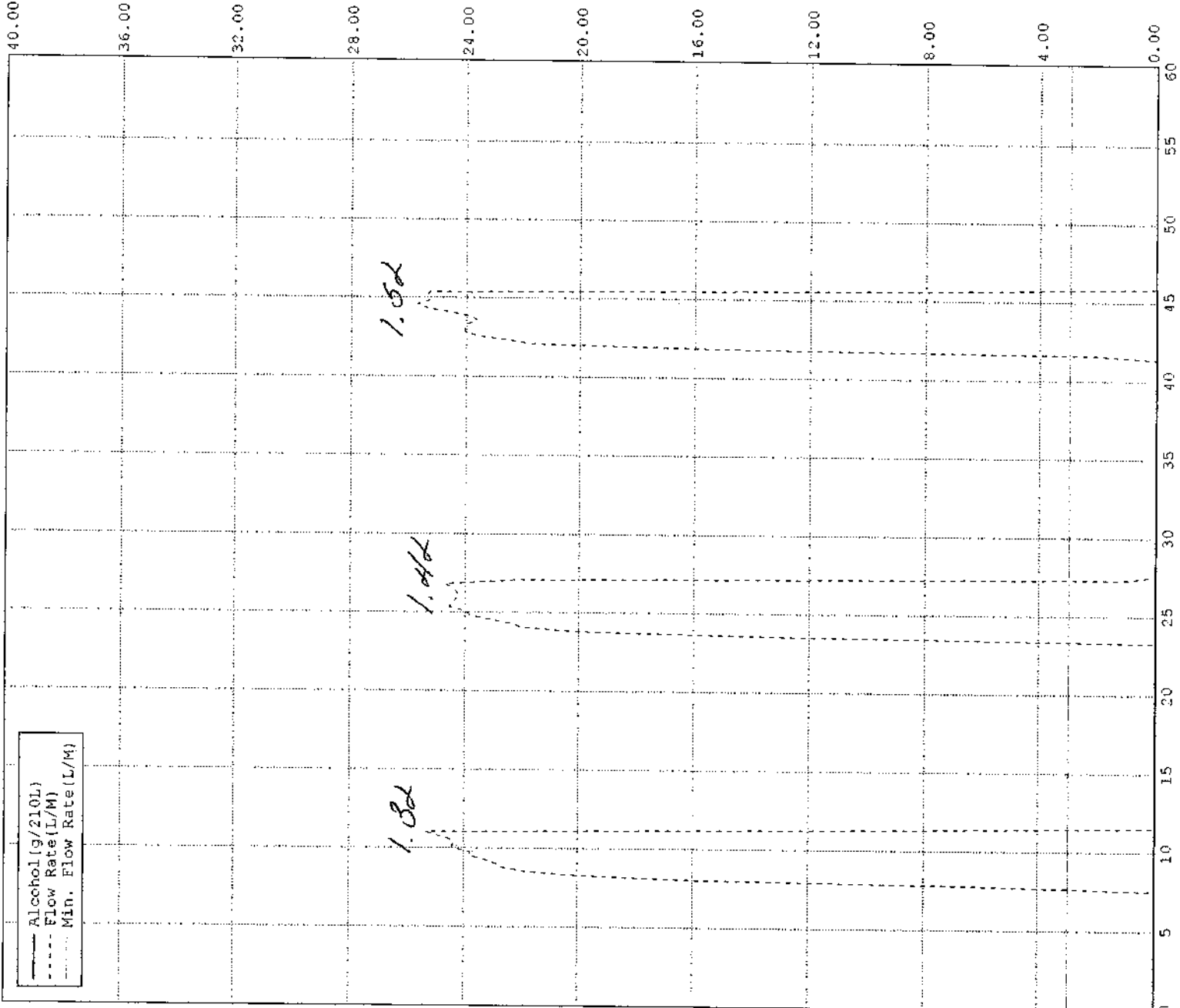
SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

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 29.67: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	TIME
BLANK TEST	0.000	10:15
INTERNAL STANDARD	VERIFIED	10:15
EXTERNAL STANDARD	0.079	10:15
BLANK TEST	0.000	10:16
SUBJECT SAMPLE (Vol=1.51L)	0.000	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.079	10:18
BLANK TEST	0.000	10:19



LINEARITY CHECK

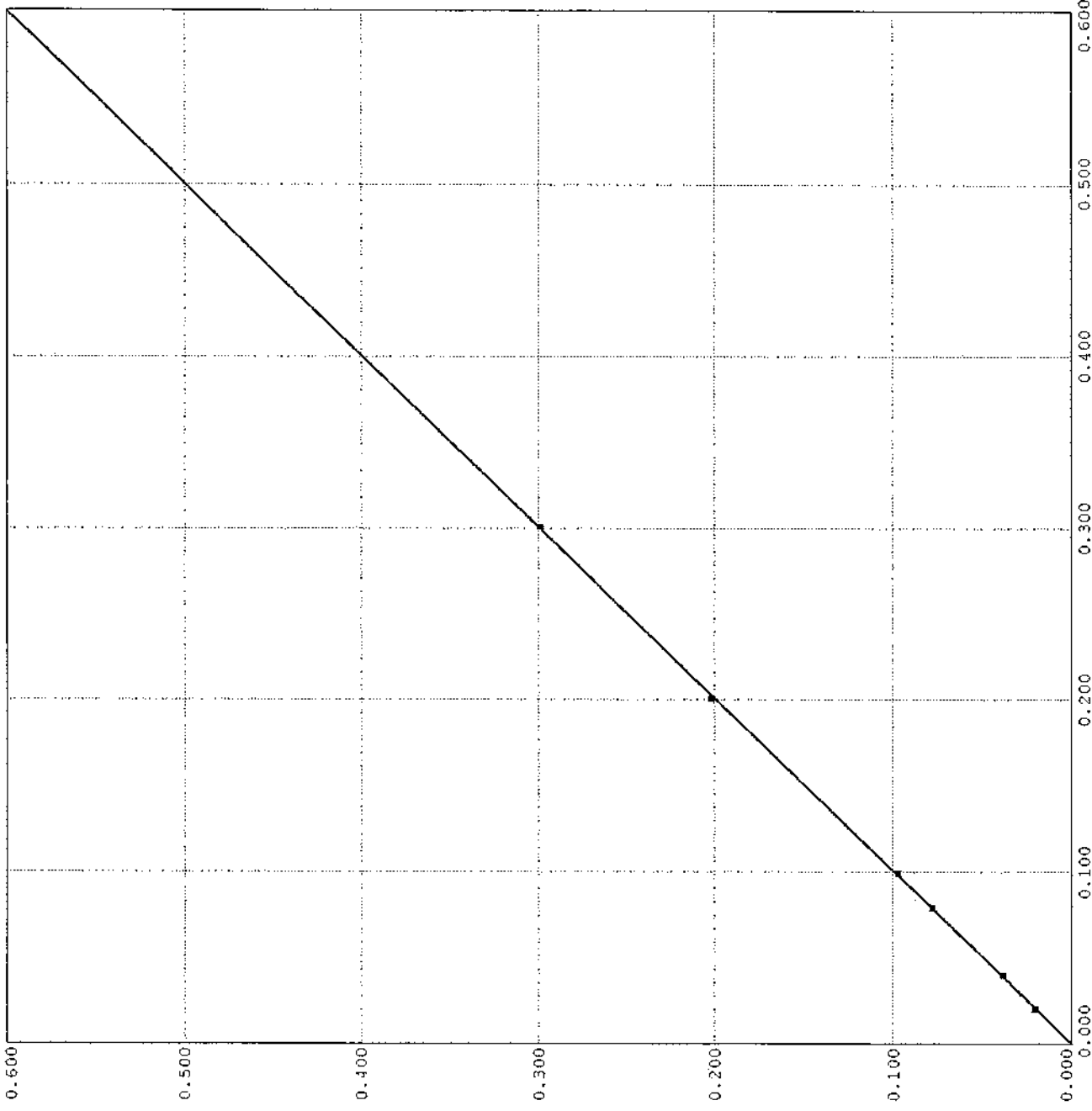
Alaska Department of Public Safety  
 DATAMASTER dmt: 100360

Date: 08/05/2015  
 Time: 10:32:33

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0000
0.040	0.0394	0.0005
0.079	0.0790	0.0000
0.099	0.0980	0.0000
0.200	0.2026	0.0005
0.300	0.2996	0.0009

SLOPE = 1.001750  
 R<sup>2</sup> = 0.999849



*CRB*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100360

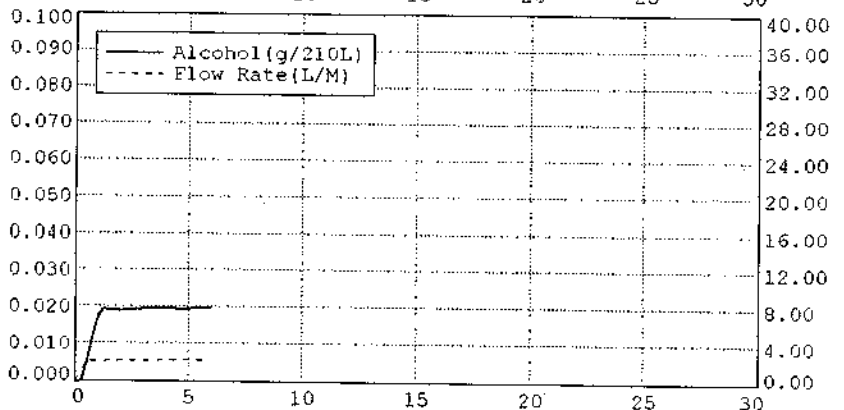
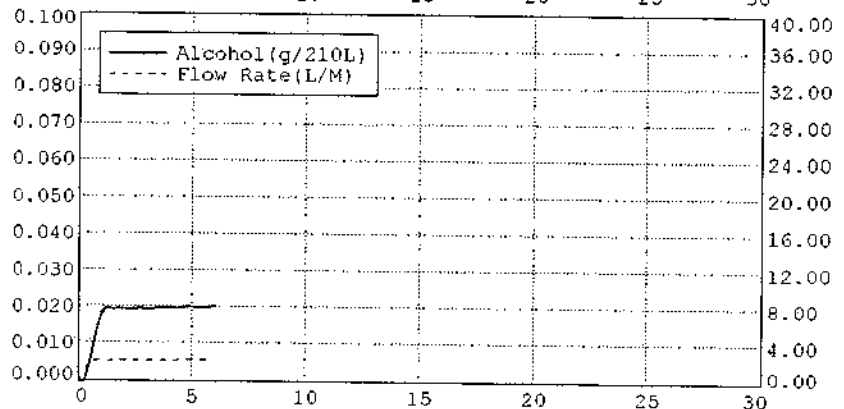
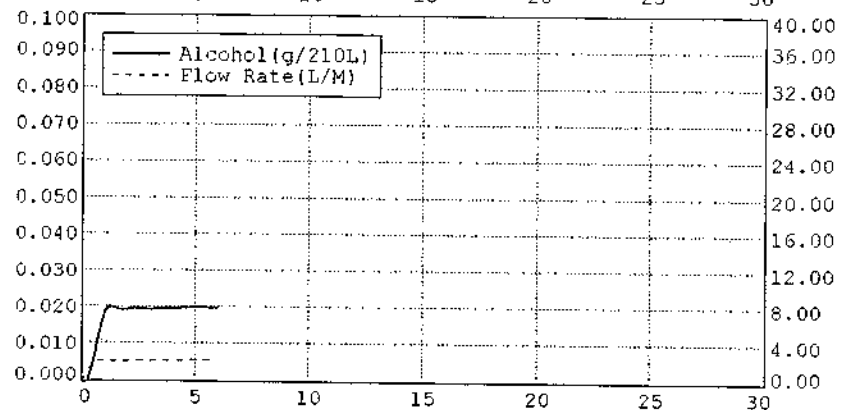
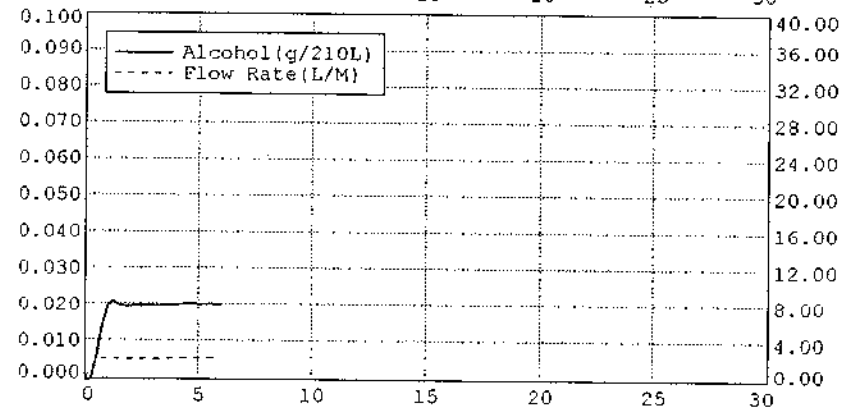
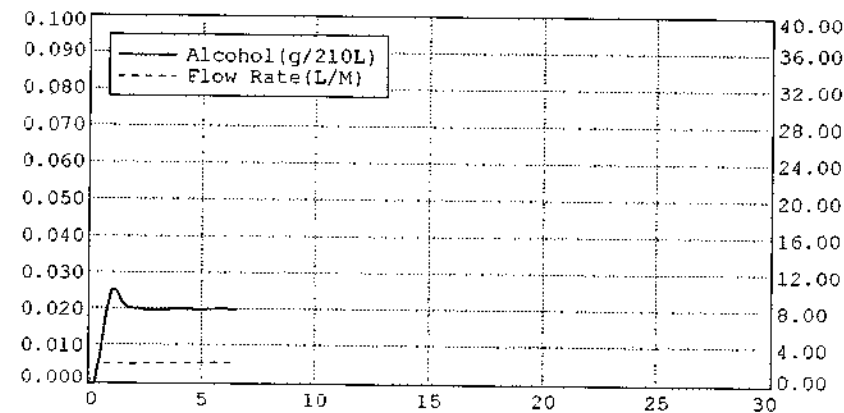
Date: 08/05/2015  
 Time: 10:32:34

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.66: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 613 psi

BLANK TEST	0.000	10:33
INTERNAL STANDARD	VERIFIED	10:33
EXTERNAL STANDARD	0.021	10:34
BLANK TEST	0.000	10:35
EXTERNAL STANDARD	0.021	10:35
BLANK TEST	0.000	10:36
EXTERNAL STANDARD	0.021	10:36
BLANK TEST	0.000	10:37
EXTERNAL STANDARD	0.021	10:37
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.021	10:38
BLANK TEST	0.000	10:39

Average = 0.0210  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100360

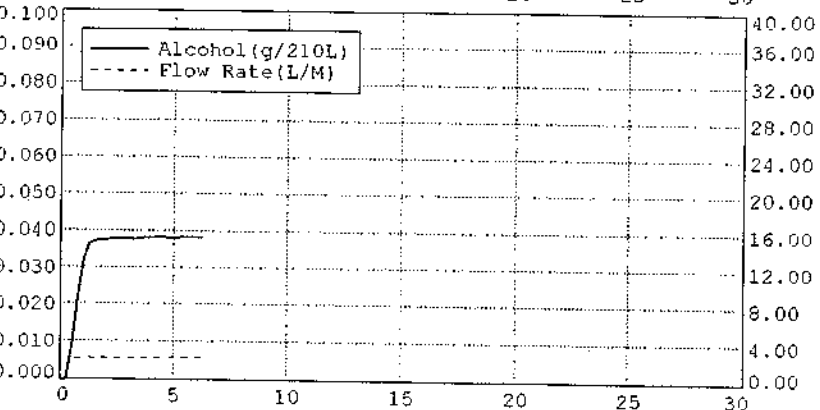
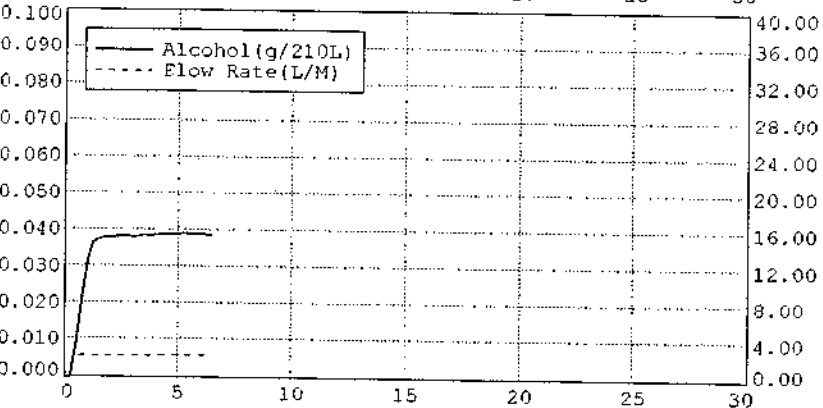
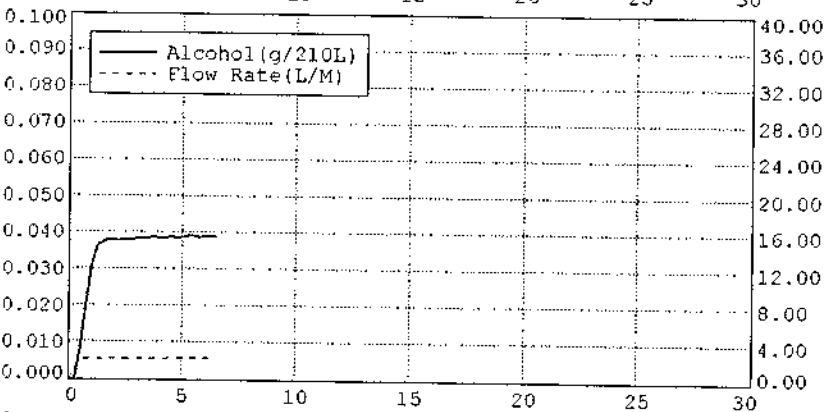
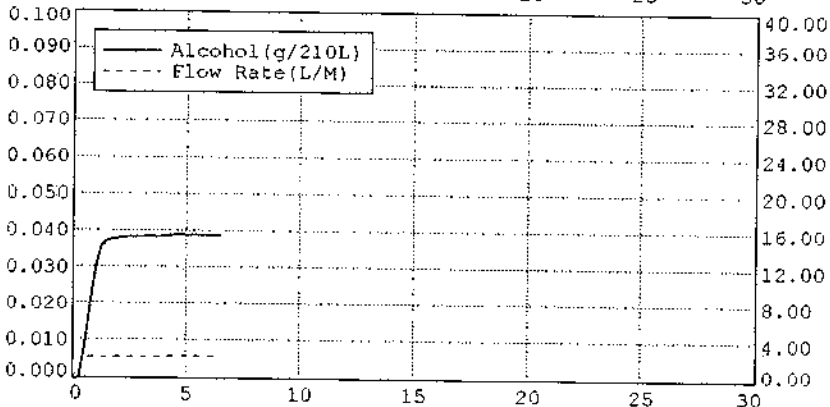
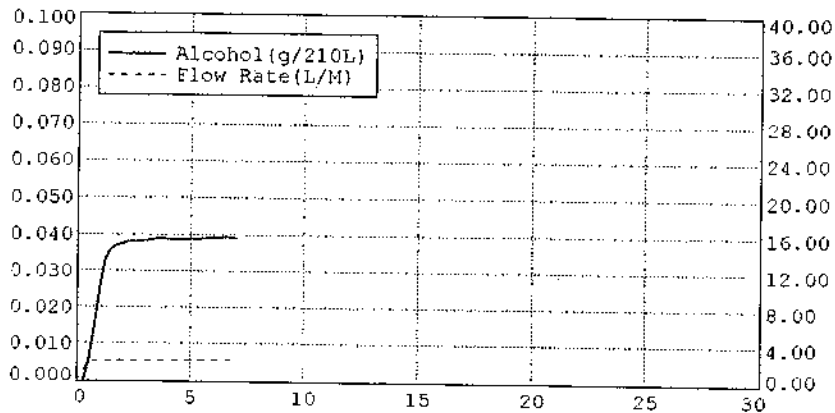
Date: 08/05/2015  
 Time: 10:39:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.66: 0.040  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 720 psi

BLANK TEST	0.000	10:41
INTERNAL STANDARD	VERIFIED	10:41
EXTERNAL STANDARD	0.040	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.039	10:42
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.040	10:43
BLANK TEST	0.000	10:44
EXTERNAL STANDARD	0.039	10:45
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.039	10:46
BLANK TEST	0.000	10:47

Average = 0.0394  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dnt: 100360

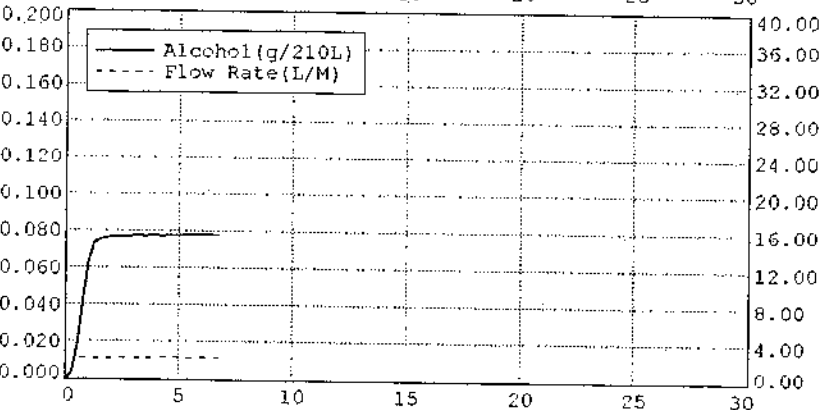
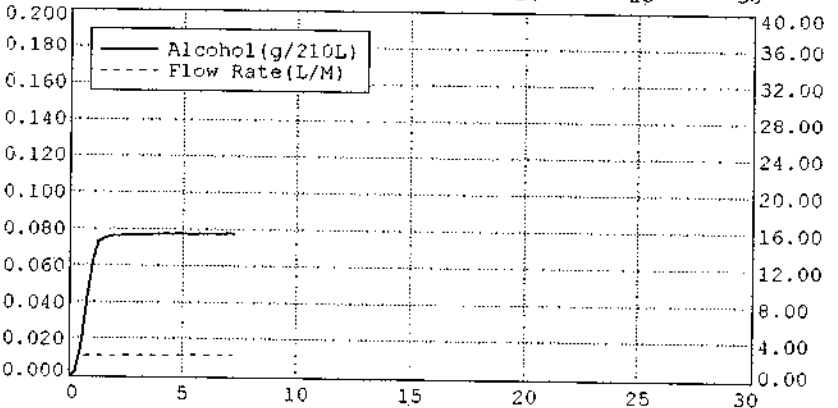
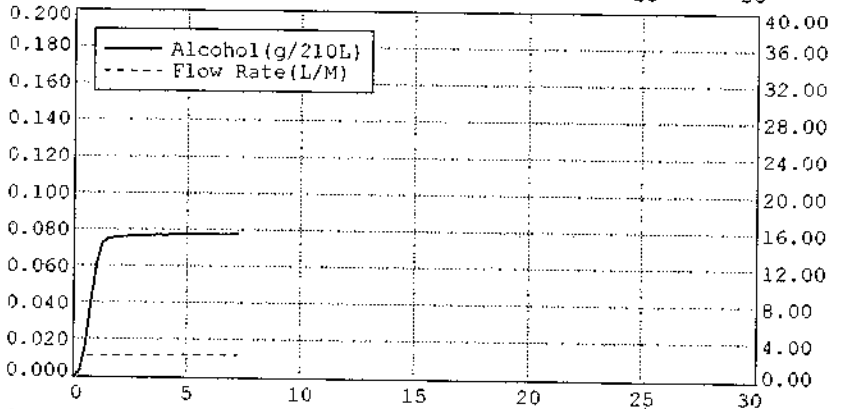
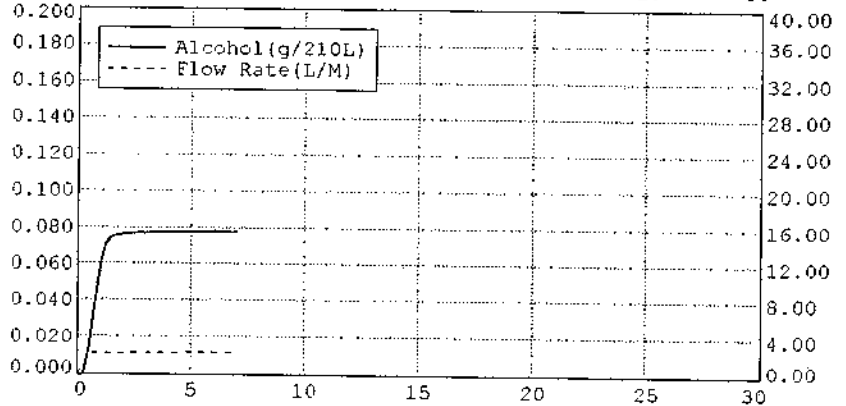
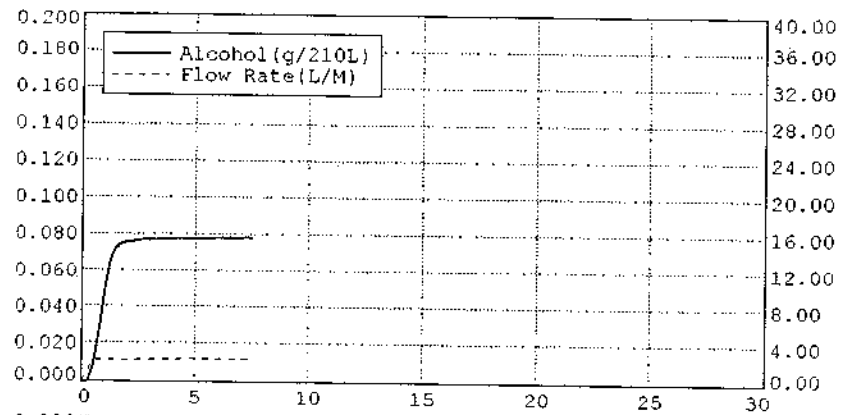
Date: 08/05/2015  
 Time: 10:48:02

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.66: 0.079  
 LOT #: 09214080A2  
 EXPIRATION: 05/01/2016  
 TANK PRESSURE: 876 psi

BLANK TEST	0.000	10:49
INTERNAL STANDARD	VERIFIED	10:49
EXTERNAL STANDARD	0.079	10:50
BLANK TEST	0.000	10:50
EXTERNAL STANDARD	0.079	10:51
BLANK TEST	0.000	10:52
EXTERNAL STANDARD	0.079	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.079	10:53
BLANK TEST	0.000	10:54
EXTERNAL STANDARD	0.079	10:54
BLANK TEST	0.000	10:55

Average = 0.0790  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100360

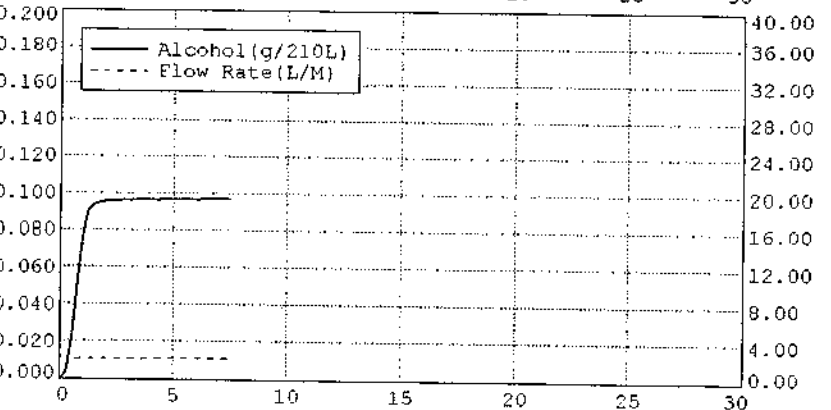
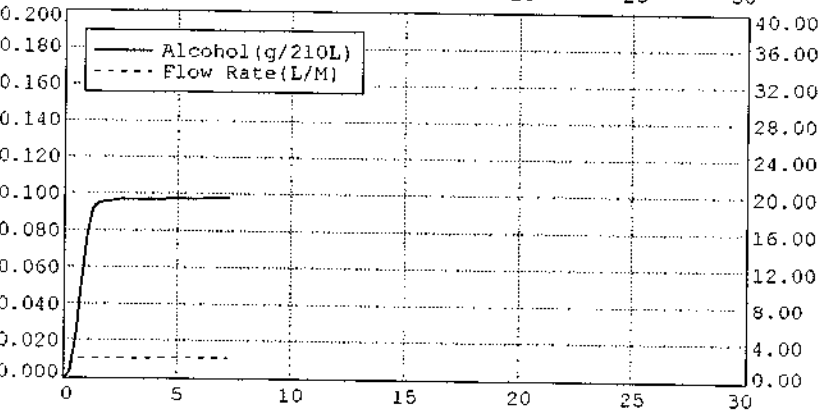
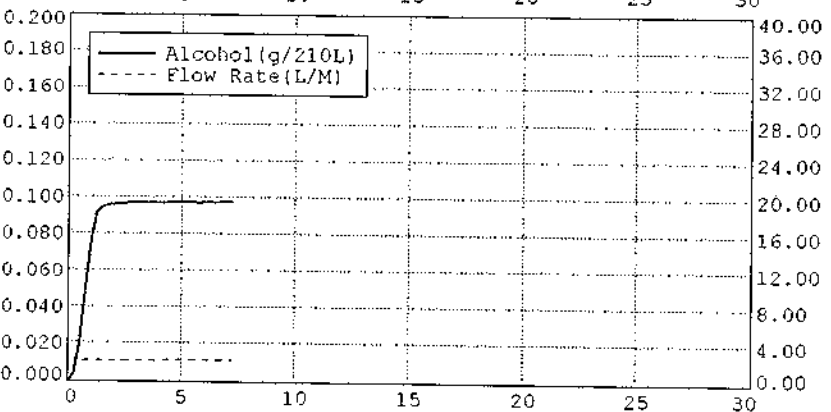
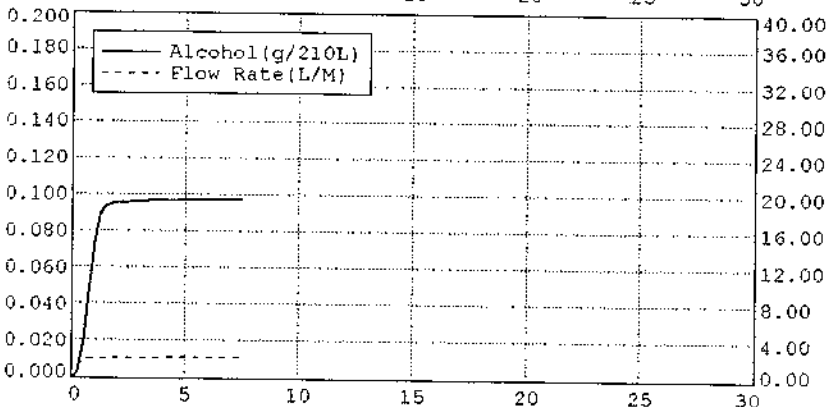
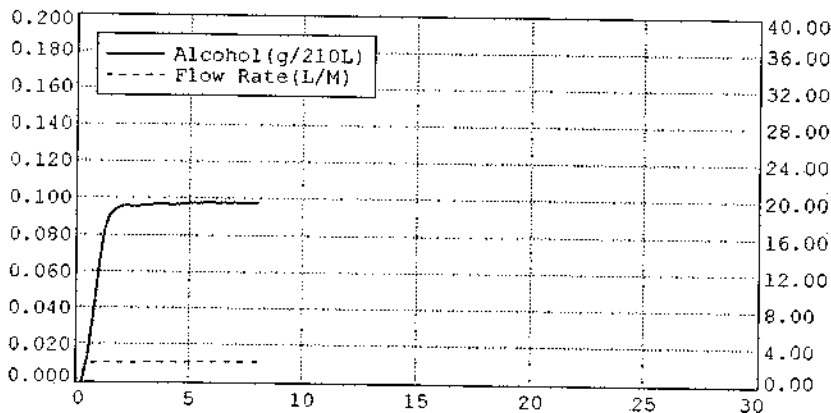
Date: 08/05/2015  
 Time: 10:57:20

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.67: 0.099  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 589 psi

BLANK TEST	0.000	10:58
INTERNAL STANDARD	VERIFIED	10:58
EXTERNAL STANDARD	0.098	10:59
BLANK TEST	0.000	10:59
EXTERNAL STANDARD	0.098	11:00
BLANK TEST	0.000	11:01
EXTERNAL STANDARD	0.098	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.098	11:02
BLANK TEST	0.000	11:03
EXTERNAL STANDARD	0.098	11:03
BLANK TEST	0.000	11:04

Average = 0.0980  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100360

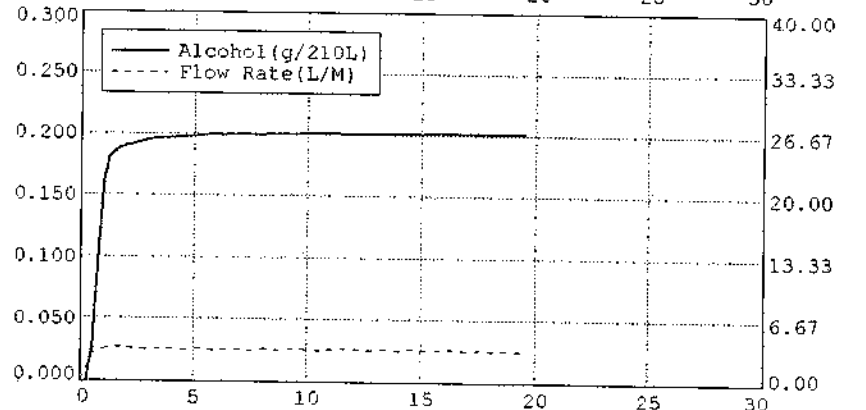
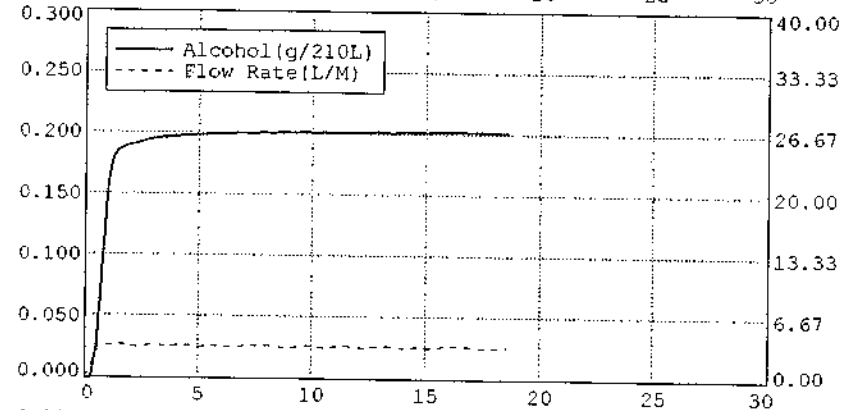
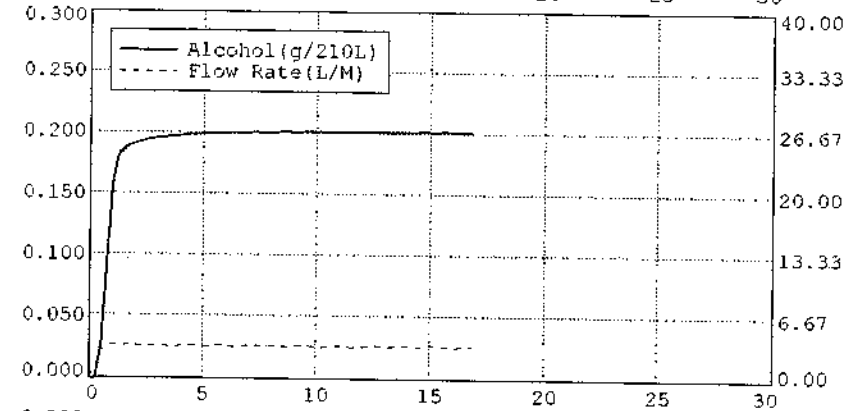
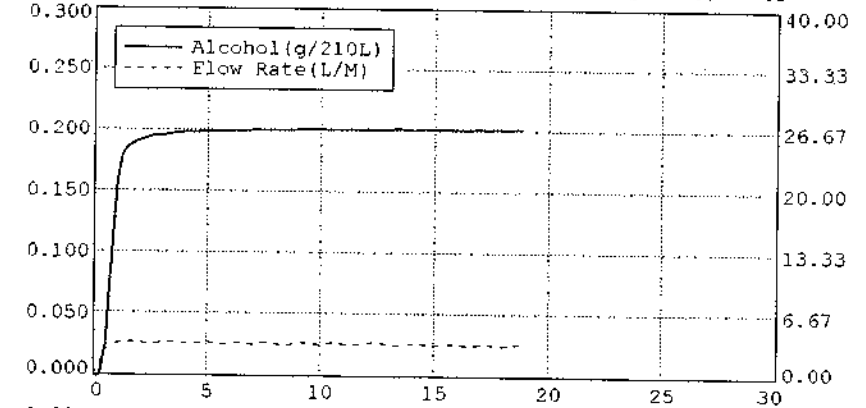
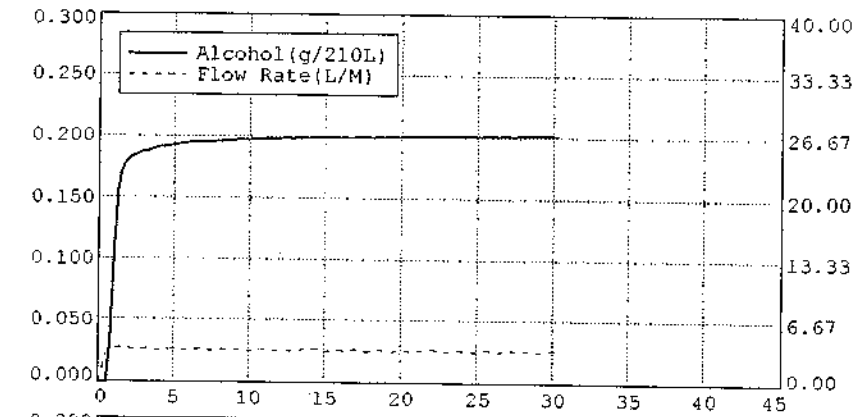
Date: 08/05/2015  
 Time: 11:04:54

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	11:06
INTERNAL STANDARD	VERIFIED	11:06
EXTERNAL STANDARD	0.203	11:07
BLANK TEST	0.000	11:08
EXTERNAL STANDARD	0.202	11:08
BLANK TEST	0.000	11:09
EXTERNAL STANDARD	0.202	11:10
BLANK TEST	0.000	11:10
EXTERNAL STANDARD	0.203	11:11
BLANK TEST	0.000	11:12
EXTERNAL STANDARD	0.203	11:12
BLANK TEST	0.000	11:13

Average = 0.2026  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100360

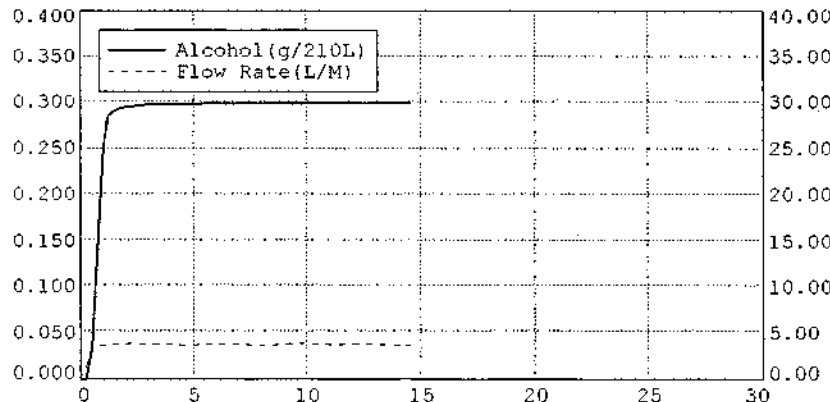
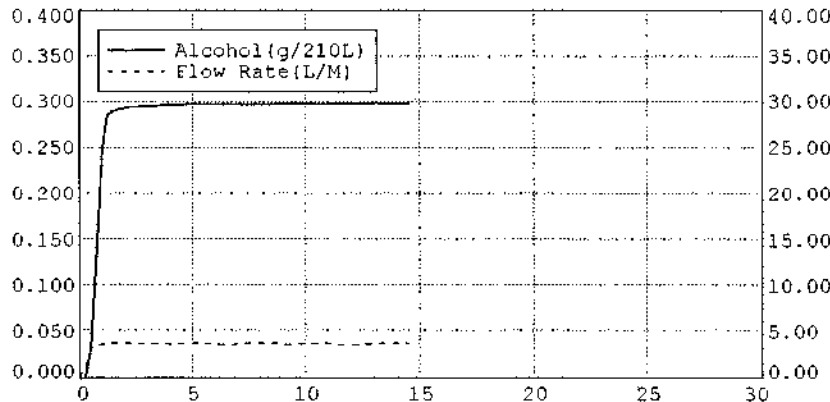
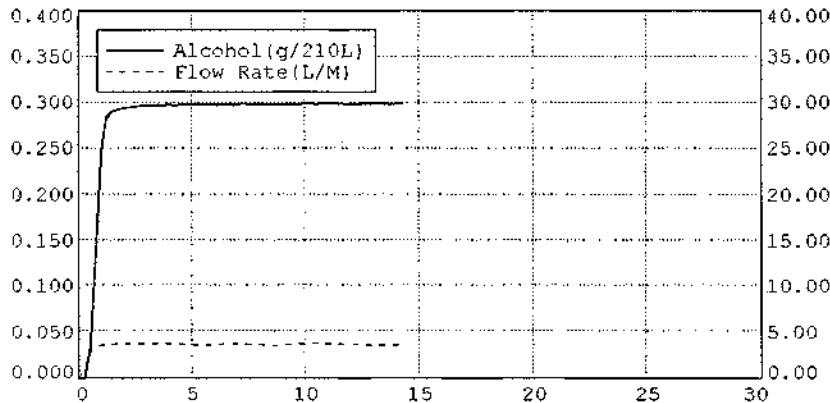
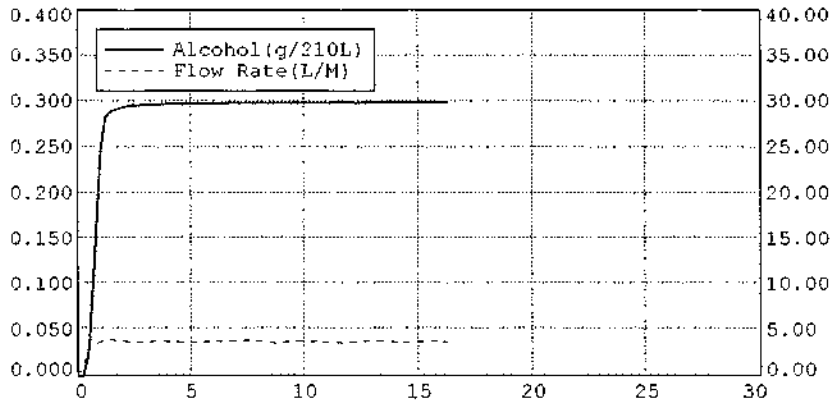
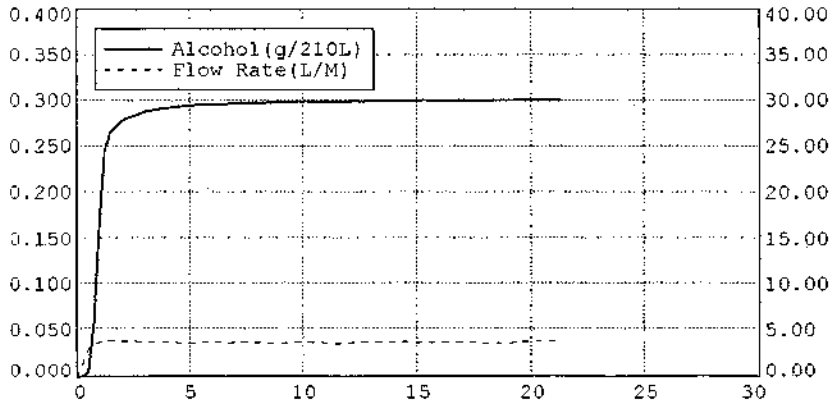
Date: 08/05/2015  
 Time: 11:16:13

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	11:17
INTERNAL STANDARD	VERIFIED	11:17
EXTERNAL STANDARD	0.301	11:17
BLANK TEST	0.000	11:18
EXTERNAL STANDARD	0.300	11:19
BLANK TEST	0.000	11:20
EXTERNAL STANDARD	0.299	11:20
BLANK TEST	0.000	11:21
EXTERNAL STANDARD	0.299	11:21
BLANK TEST	0.000	11:22
EXTERNAL STANDARD	0.299	11:23
BLANK TEST	0.000	11:23

Average = 0.2996  
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100360

Date: 08/05/2015  
Time: 11:43:23

SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

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

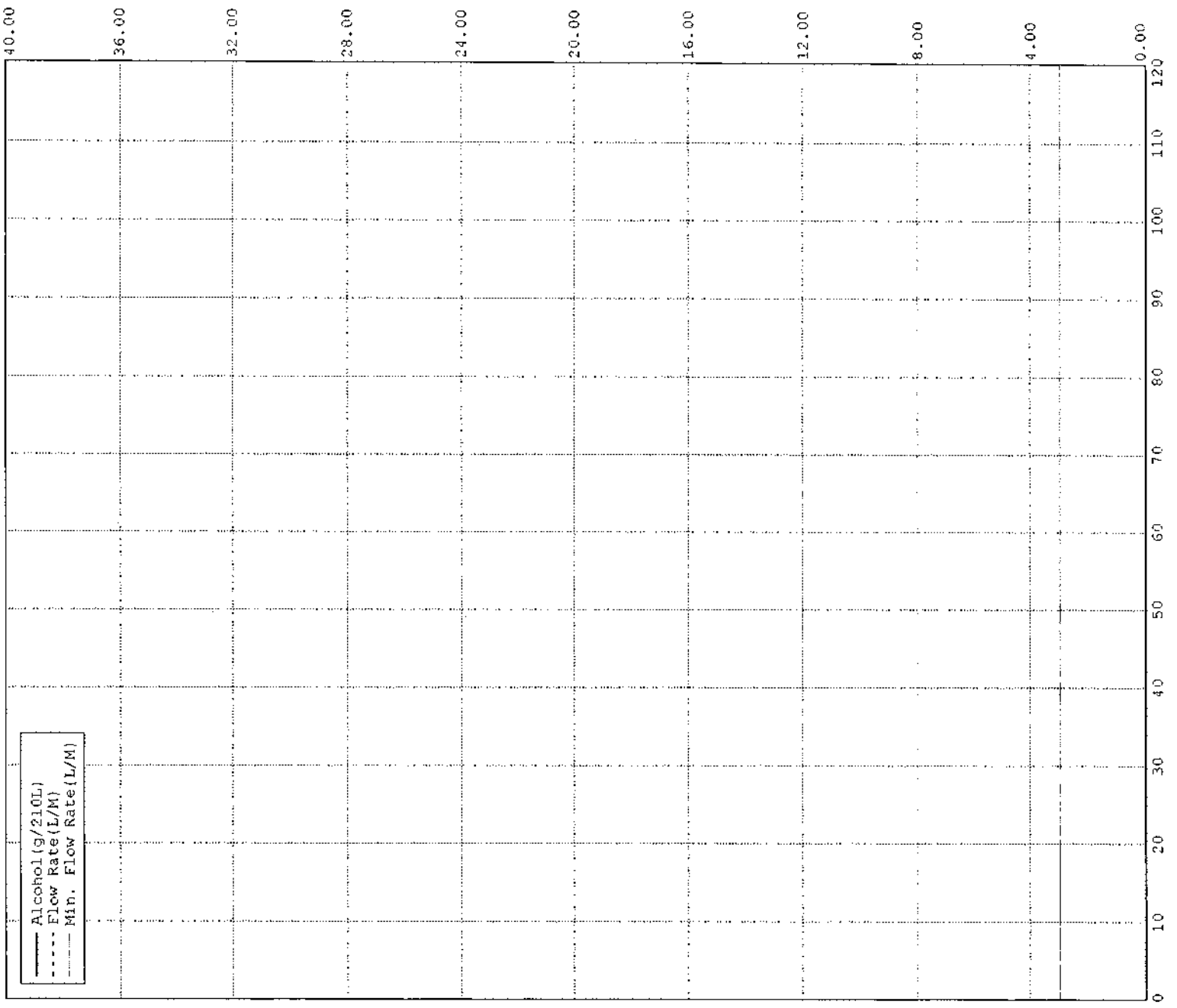
DEPT/AGENCY:

AAAA  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.66: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 11:55  
BLANK TEST 0.000 11:56  
INTERNAL STANDARD VERIFIED 11:56  
EXTERNAL STANDARD 0.078 11:56  
BLANK TEST 0.000 11:57  
SUBJECT SAMPLE INCOMPLETE 11:59



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100360

Date: 08/06/2015  
Time: 09:23:02

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

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

DEPT/AGENCY:  
AAA1

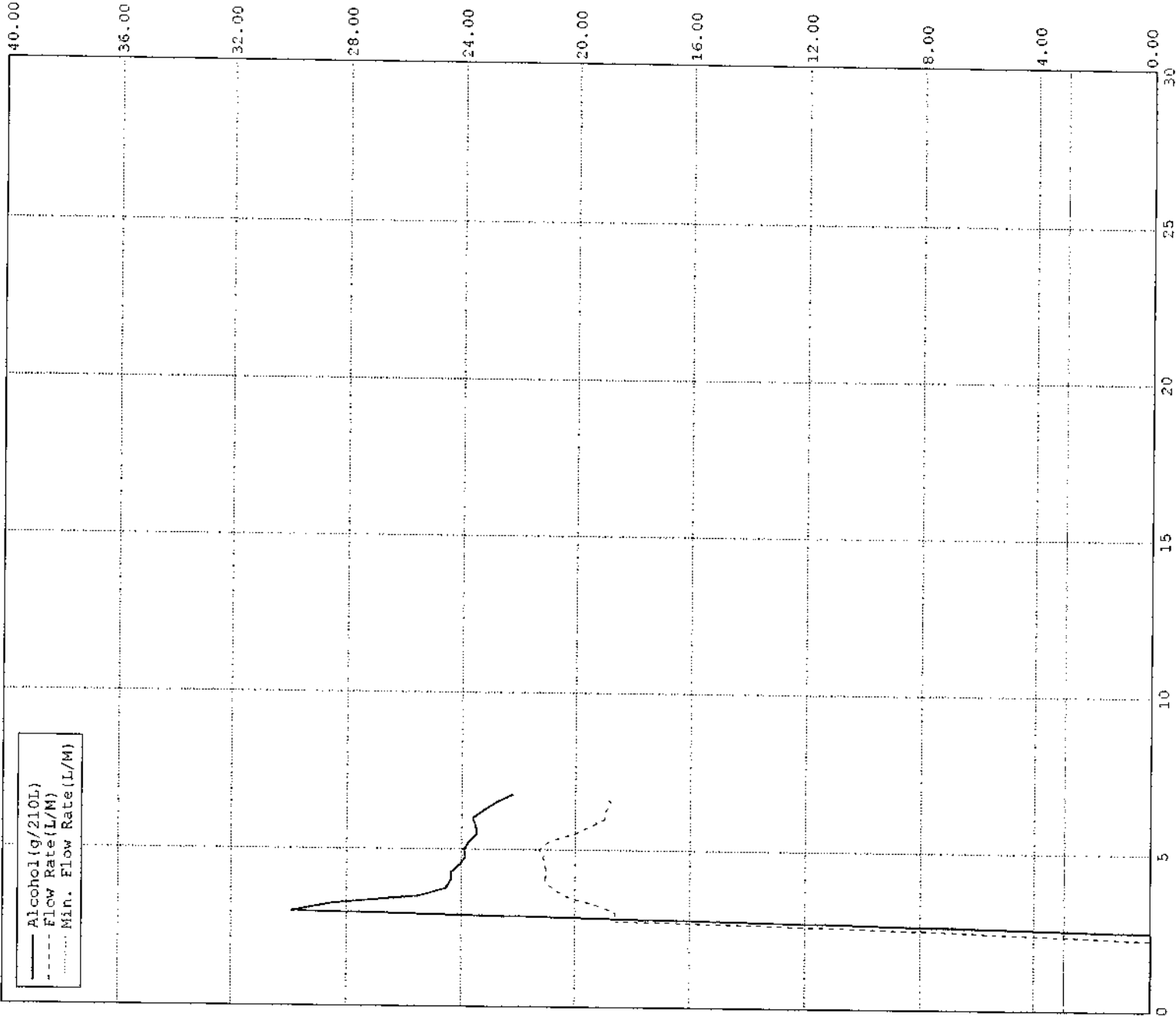
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.66: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 09:24  
BLANK TEST 0.000 09:25  
INTERNAL STANDARD VERIFIED 09:25  
EXTERNAL STANDARD 0.079 09:25  
BLANK TEST 0.000 09:26  
SUBJECT SAMPLE INVALID 09:26

*Car*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100360

Date: 08/06/2015  
Time: 09:31:43

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 29.67: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

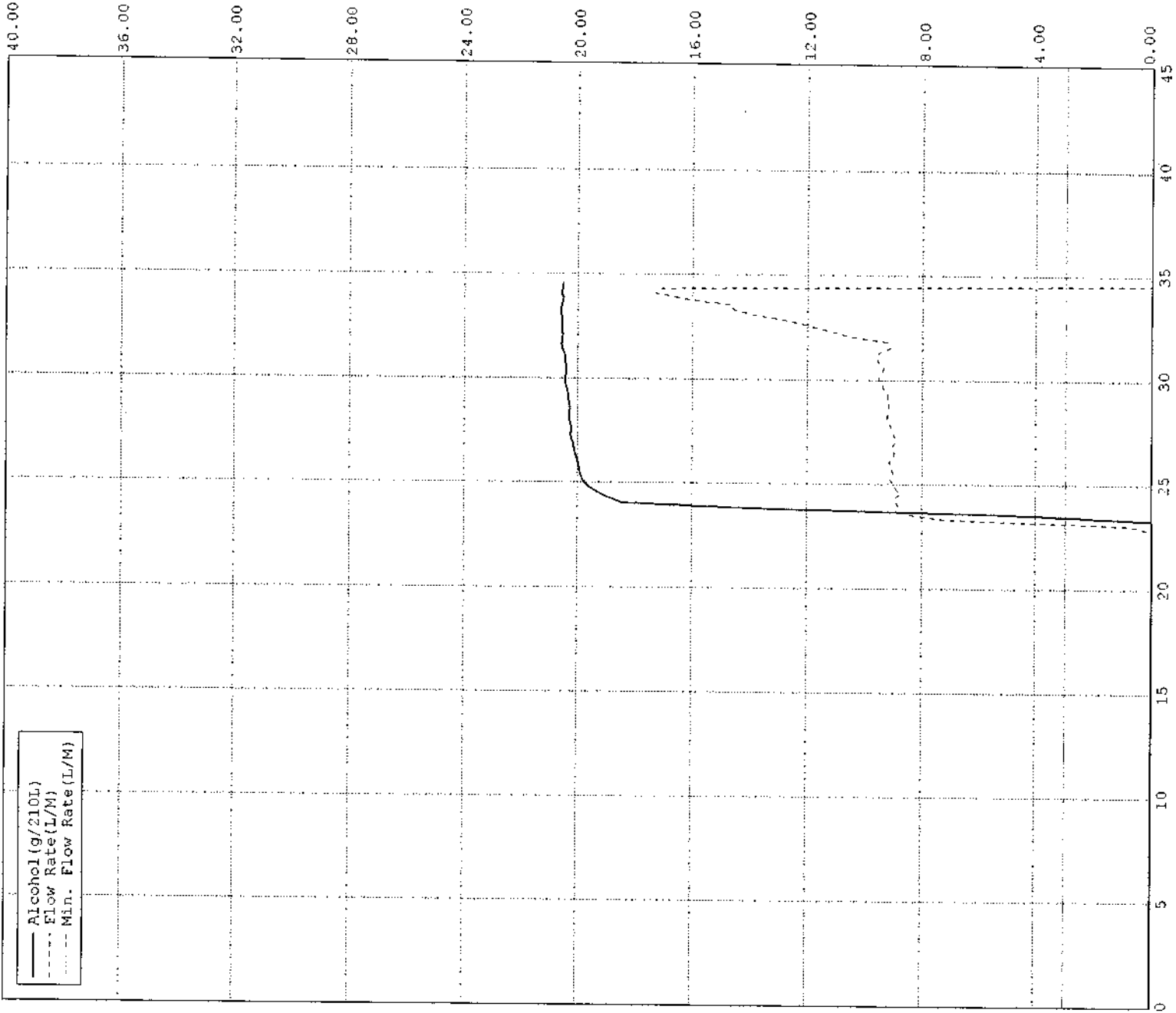
DIAGNOSTIC CHECK	PASSED	09:32
BLANK TEST	0.000	09:32
INTERNAL STANDARD	VERIFIED	09:33
Xq = 0.116 (1.00%)		
EXTERNAL STANDARD	0.079	09:33
X[1] = 0.0789 (0.0003)	(0.0030)	
BLANK TEST	0.000	09:34
SUBJECT SAMPLE	XXX	09:34
X[1] = 0.1029 (-0.0139)	(0.0011)	

Interference Detected

*Filter 2 avg = 0.0010*

*Filter 3 avg = 0.0025*

*CAS*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100360

Date: 08/06/2015  
Time: 09:38:32

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

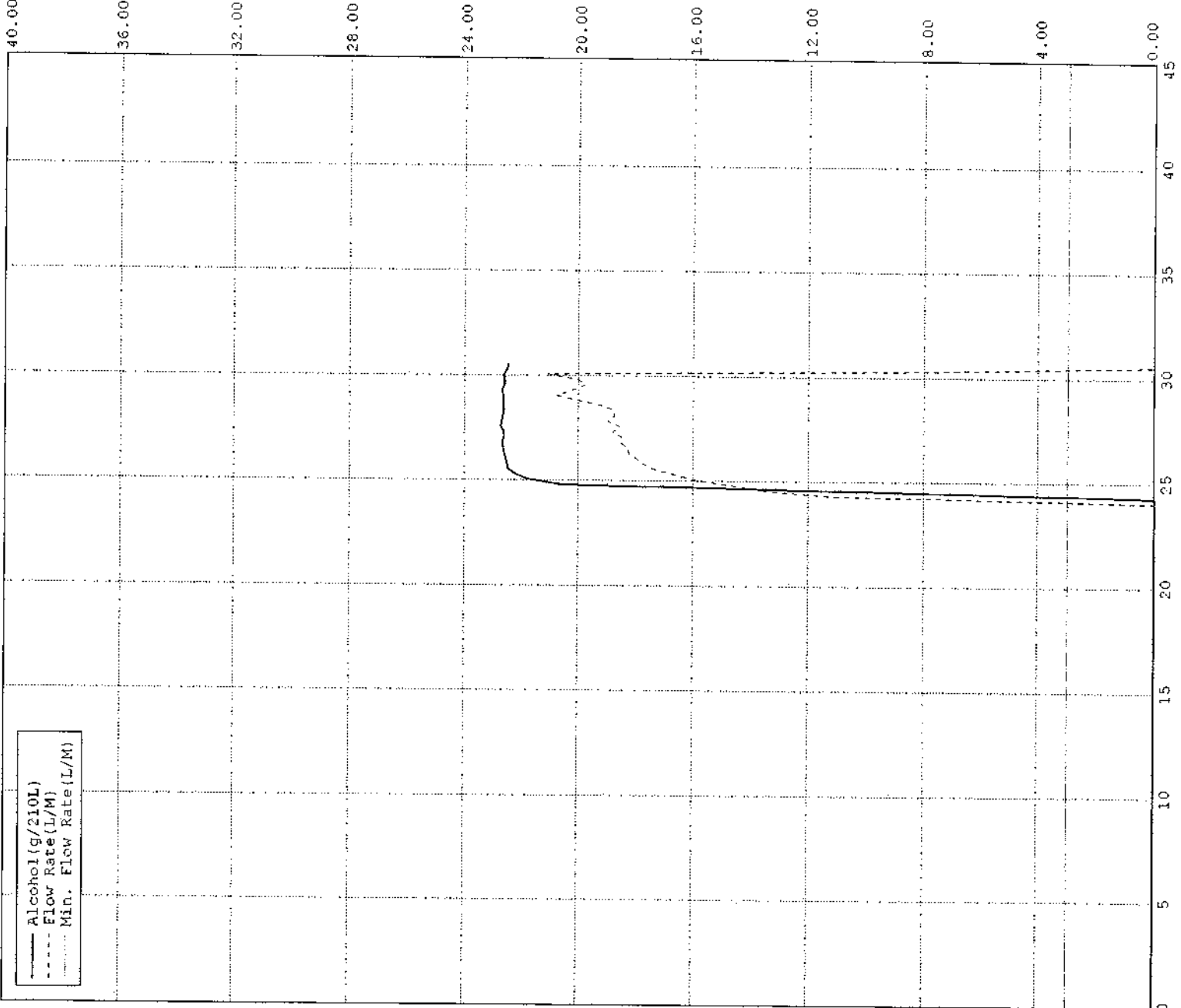
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.66: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 09:39  
BLANK TEST 0.000 09:39  
INTERNAL STANDARD VERIFIED 09:39  
Xq = 0.116 (1.00%)  
EXTERNAL STANDARD 0.079 09:40  
X[1] = 0.0787 (0.0002) (0.0024)  
BLANK TEST 0.000 09:40  
SUBJECT SAMPLE XXX 09:41  
X[1] = 0.1127 (-0.0260) (0.0014)

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100360

Date: 08/06/2015  
Time: 09:44:19

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

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

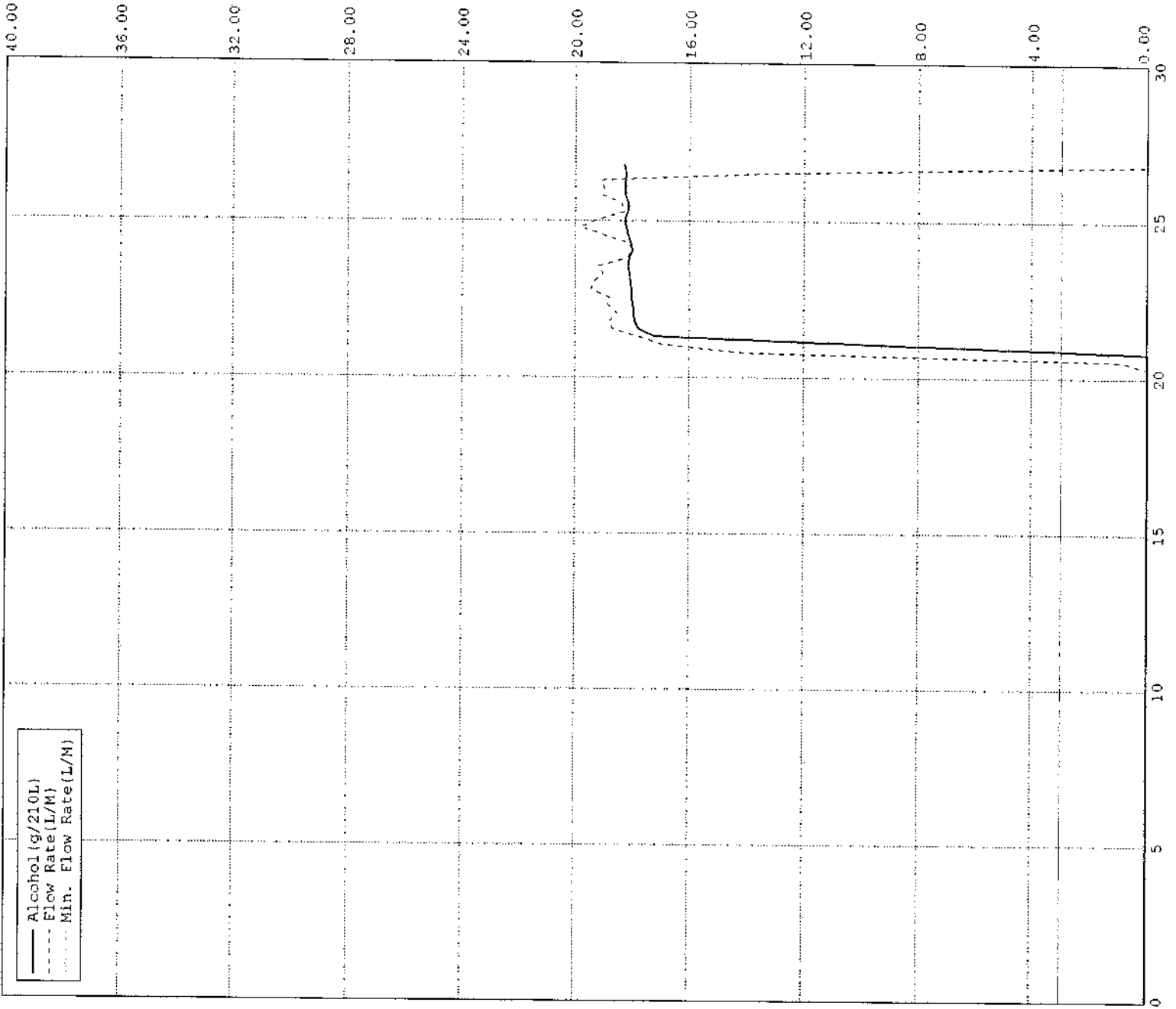
DEPT/AGENCY:  
AAA1

CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.66: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	09:45
BLANK TEST	0.000	09:45
INTERNAL STANDARD	VERIFIED	09:45
Xq = 0.116 (0.77%)		
EXTERNAL STANDARD	0.079	09:45
X[1] = 0.0790 (0.0012) (0.0029)		
BLANK TEST	0.000	09:46
SUBJECT SAMPLE (Vol=1.83L)	0.091	09:47
X[1] = 0.0918 (0.0030) (0.0012)		
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.078	09:48
X[1] = 0.0783 (0.0021) (0.0018)		
BLANK TEST	0.000	09:49



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100360

Date: 08/06/2015  
Time: 09:56:10

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

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

DEPT/AGENCY:  
AAA1

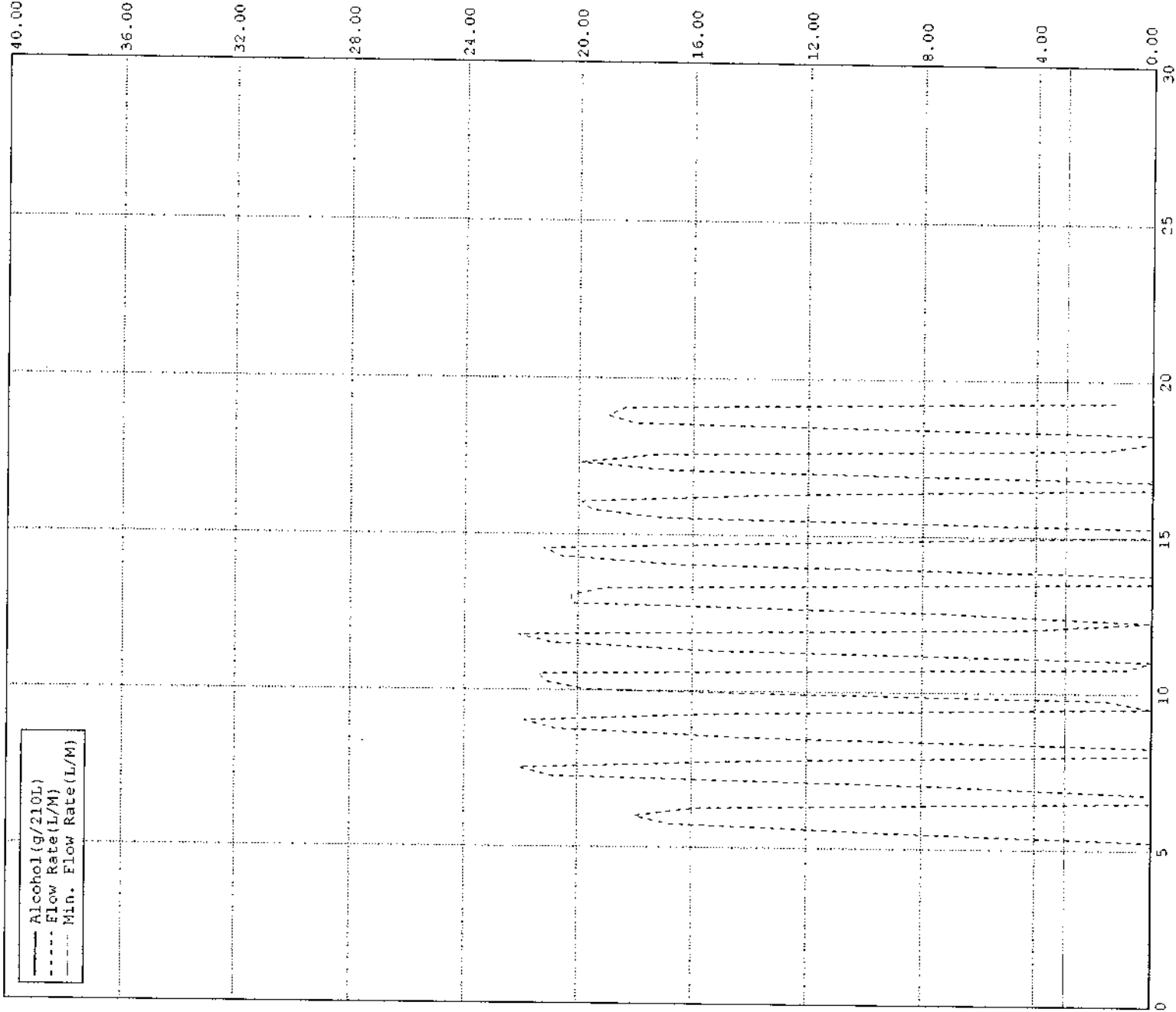
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.66: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	09:57
BLANK TEST	0.000	09:57
INTERNAL STANDARD	VERIFIED	09:57
EXTERNAL STANDARD	0.079	09:57
BLANK TEST	0.000	09:58
SUBJECT SAMPLE	XXX	09:59

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100360

Date: 08/06/2015  
Time: 10:01:46

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

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

DEPT/AGENCY:  
AAA1

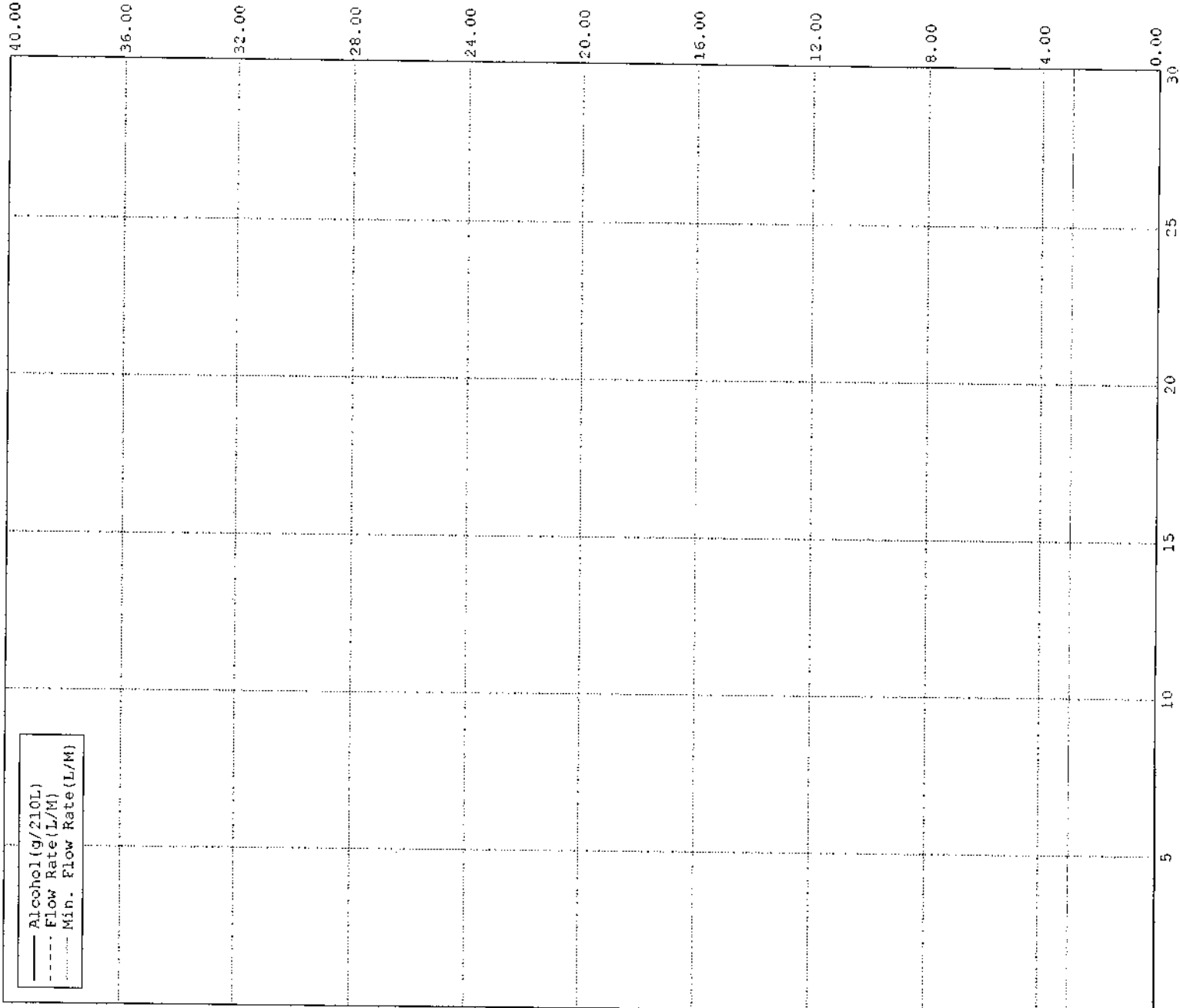
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.65: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 10:03  
BLANK TEST 0.000 10:03  
INTERNAL STANDARD VERIFIED 10:03  
EXTERNAL STANDARD 0.078 10:03  
BLANK TEST 0.000 10:04

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100360

Date: 08/06/2015  
Time: 10:18:07

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 29.66: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	10:19
BLANK TEST	0.000	10:19
INTERNAL STANDARD	VERIFIED	10:19
EXTERNAL STANDARD	0.079	10:19
BLANK TEST	0.000	10:20
SUBJECT SAMPLE (Vol=2.47L)	0.000	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.079	10:22
BLANK TEST	0.000	10:23

*COB*

