

# 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 100683 Analyst Derek Walton Start Date 06/21/2018

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 Airgas Lot AG 805 804 Exp 02/27/2020
      - ii. 0.040g/210L Mnf Airgas Lot AG 630/01 Exp 10/27/2018
      - iii. 0.080g/210L Mnf Airgas Lot AG 634001 Exp 12/05/2018
      - iv. 0.100g/210L Mnf Airgas Lot AG 629304 Exp 10/19/2018
      - v. 0.200g/210L Mnf Wuth Lot 17090 Exp 02/24/2019
        1. Simulator S/N DR5298 Date Calibrated 01/24/2018
      - vi. 0.300g/210L Mnf Wuth Lot 17140 Exp 05/15/2019
        1. Simulator S/N SD1198 Date Calibrated 01/23/2018
  5. Functional Tests (attached)
    - a. Incomplete
    - b. Invalid
    - c. Interference
    - d. Exceeded attempts
    - i. Acetone - Mnf Wuth Lot 17280 Level 0.100 Exp 09/11/2019
      1. Simulator S/N SD1177 Date Calibrated 01/24/2018
    - ii. Isopropanol - Mnf Wuth Lot 17280 Level 0.100 Exp 09/11/2019
      1. Simulator S/N SD1199 Date Calibrated 01/24/2018
    - iii. Negative Control - Mnf Wuth Lot 17280 Level 0.100 Exp 09/11/2019
      1. Simulator S/N SD1088 Date Calibrated 01/24/2018
  - 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 06/22/2018

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100683  
-----

Date: 06/21/2018  
Time: 09:00:15

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 = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.65 V PASSED  
(1.00 V - 2.34 V)  
Cooler Voltage = 1.64 V PASSED  
(1.00 V - 2.32 V)  
Bias Voltage = 79 V PASSED  
(48 V - 112 V)  
Chopper Freq = 559 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.5 in

PUMP INFO

Flow Rate = 4.190 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 PASSED

Xq = 0.103 (0.25%) (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100683  
-----

Date: 06/21/2018  
Time: 9:28 AM

Temperatures (°C)  
Sample Cell: 48.7°C  
Breath Tube: 48.0°C

Current Barometer 29.5 in  
Volume (Ltr) 1.46

Settings  
Lamp: 1.70 V  
Bias: 79 V  
Cooler: 1.69 V  
Chopper: 558 Hz

Voltages (V)  
Flow: 1.02 V  
Detector: -0.033 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100683  
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Date: 07/11/2012  
Time: 14:00:01

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca = 0.1000  
CAL = 0.988714    0.800 <= CAL < 1.200  
b1 = 0.0014    0.0000 <= b1 < 0.0040  
b2 = 0.0087    0.0010 <= b2 < 0.0100  
b3 = 0.0009    0.0000 <= b3 < 0.0040  
Xq = 0.1035    0.0500 <= Xq < 0.2000  
a21 = 1.205951    1.050 <= a21 < 1.300  
a31 = 0.512447    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100683

Date: 06/21/2018  
Time: 09:34:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

DEPT/AGENCY:  
MINIMUM VOLUME  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.49: 0.079

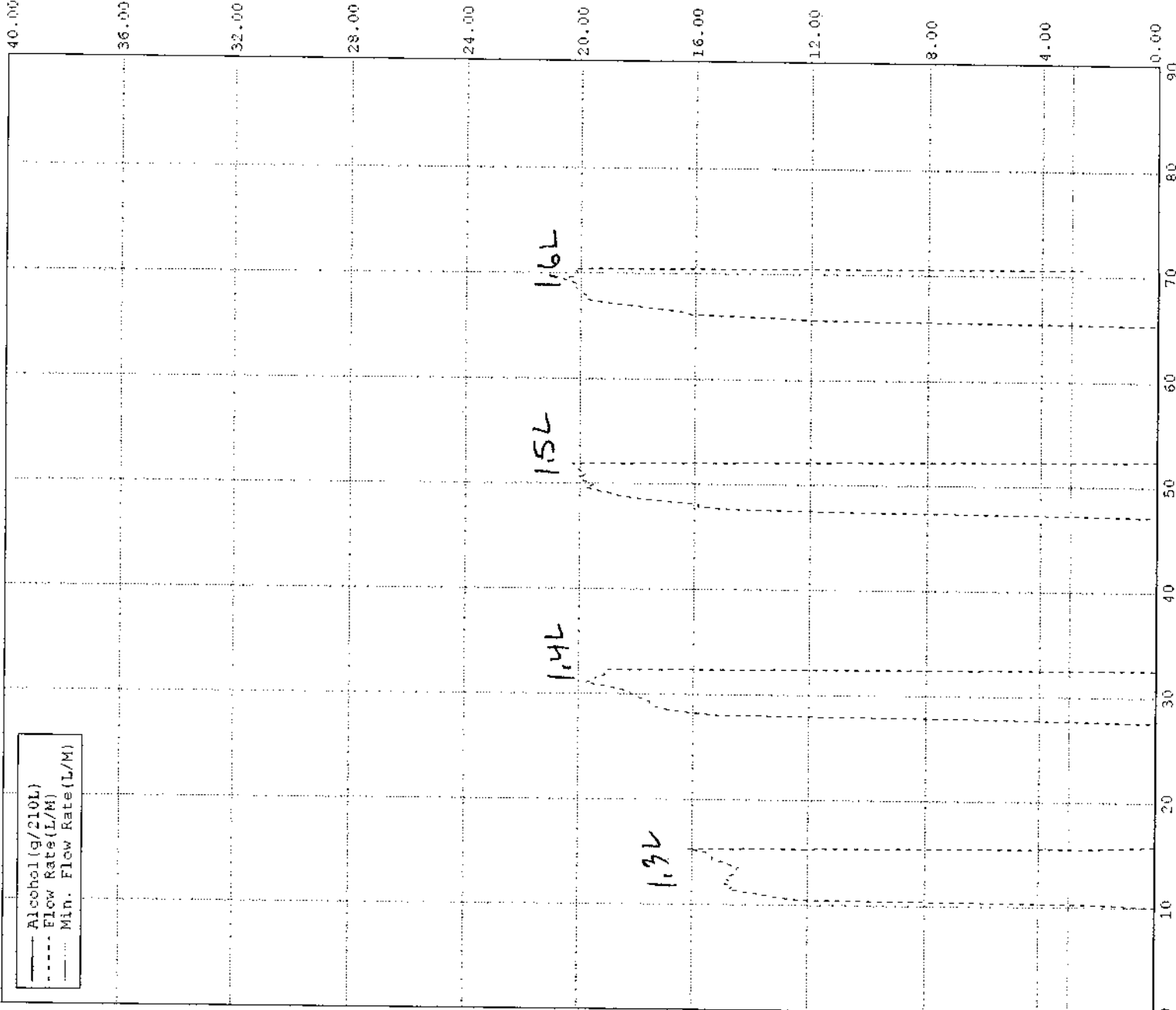
DIAGNOSTIC CHECK	PASSED	09:36
BLANK TEST	0.000	09:36
INTERNAL STANDARD	VERIFIED	09:37
EXTERNAL STANDARD	0.078	09:37
BLANK TEST	0.000	09:38
SUBJECT SAMPLE (Vol=1.56L)	0.000	09:39
BLANK TEST	0.000	09:40
EXTERNAL STANDARD	0.079	09:40
BLANK TEST	0.000	09:41

External standard lot

AG654001

Exp. 12/05/2018 JM 06/21/18

*DM*



LINEARITY CHECK

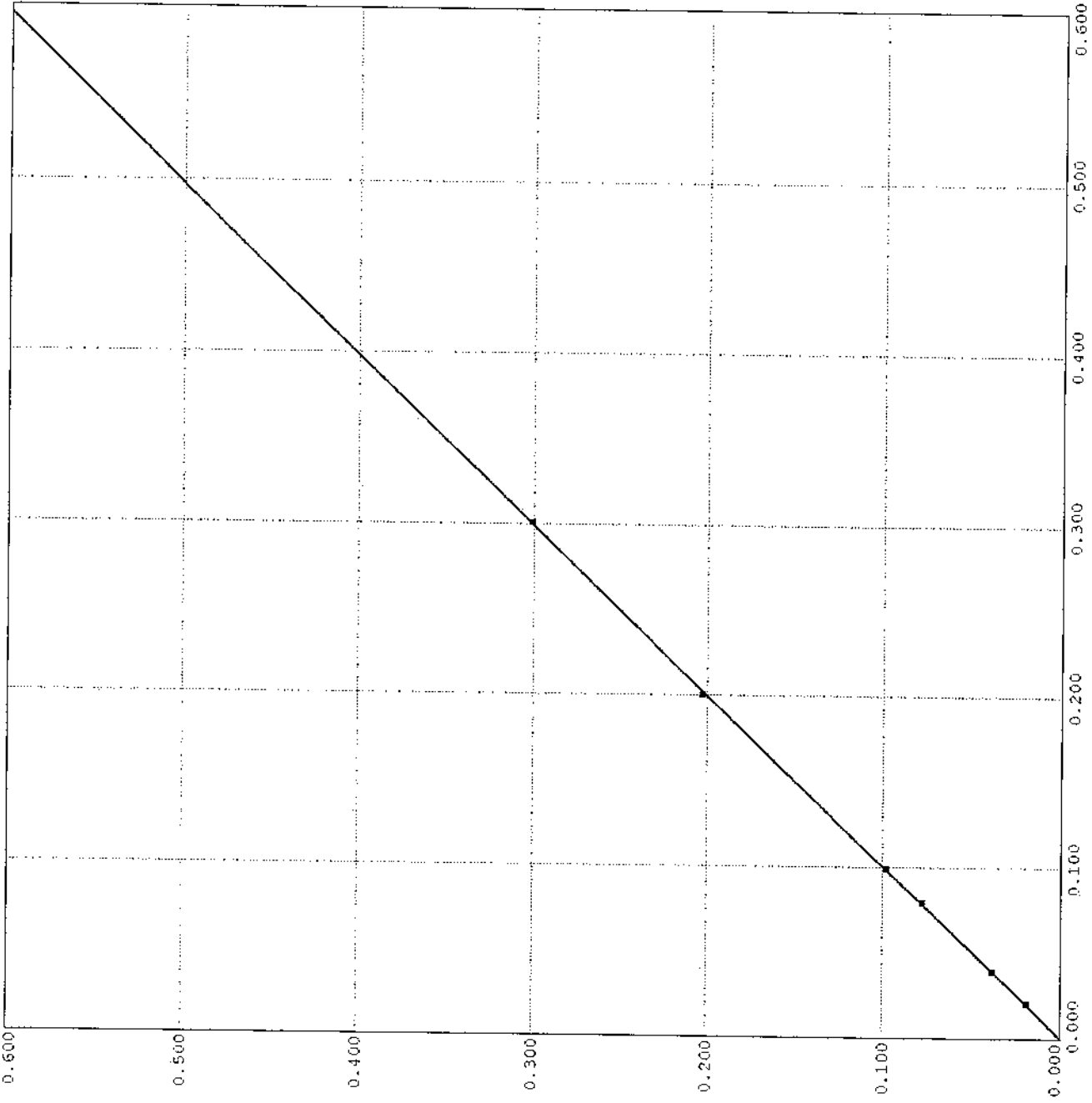
Alaska Department of Public Safety  
 DATAMASTER dmt: 100683

Date: 06/21/2018  
 Time: 09:46:45

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0396	0.0005
0.079	0.0790	0.0000
0.099	0.0990	0.0000
0.200	0.2036	0.0005
0.300	0.3016	0.0005

SLOPE = 1.008896  
 R<sup>2</sup> = 0.999902



*DM*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100683

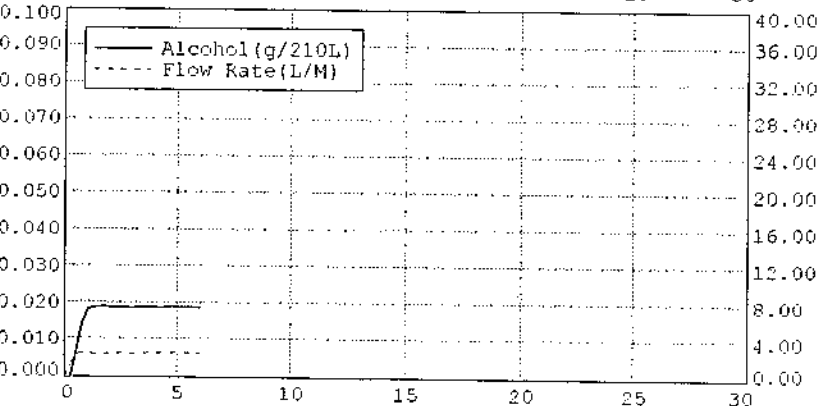
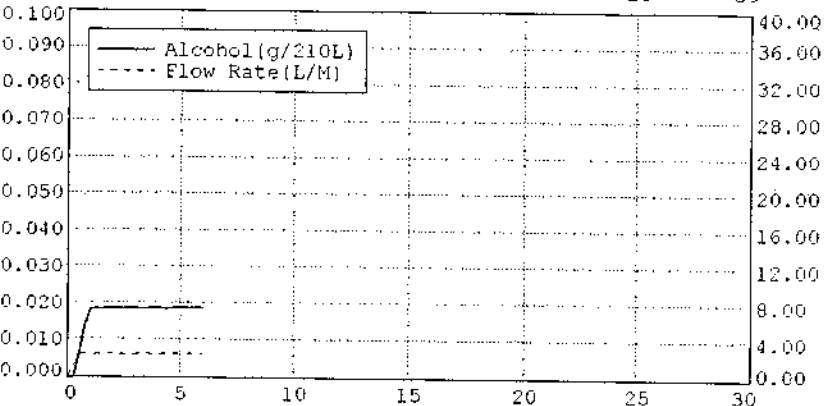
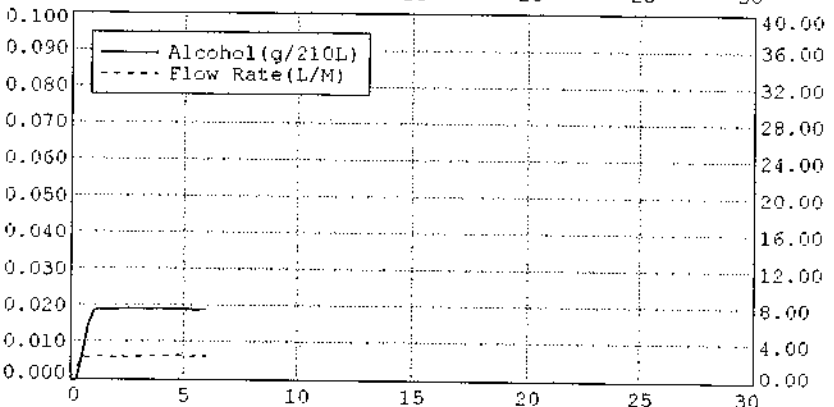
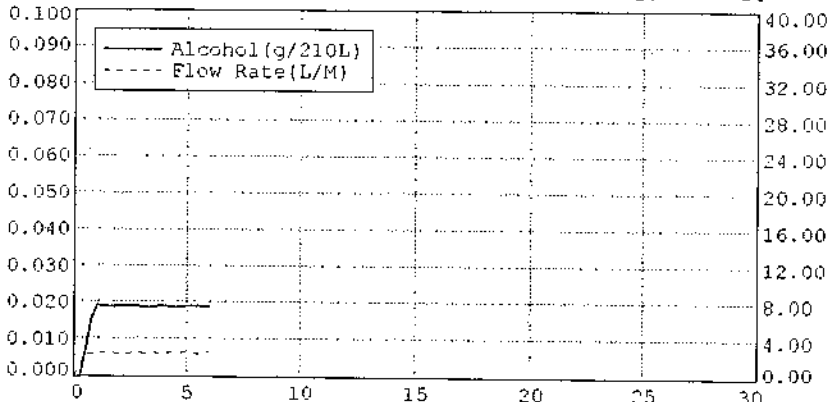
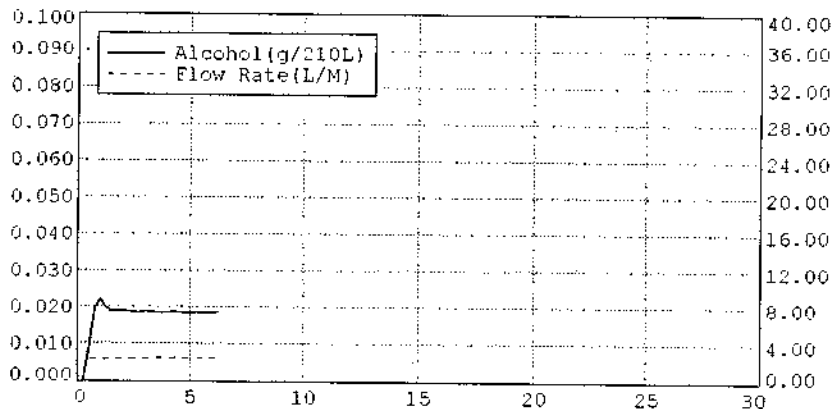
Date: 06/21/2018  
 Time: 09:46:47

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.50: 0.020  
 LOT #: AG805804  
 EXPIRATION: 02/27/2020  
 TANK PRESSURE: 1112 psi

BLANK TEST	0.000	09:48
INTERNAL STANDARD	VERIFIED	09:48
EXTERNAL STANDARD	0.020	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.020	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.020	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.020	09:52
BLANK TEST	0.000	09:52
EXTERNAL STANDARD	0.020	09:53
BLANK TEST	0.000	09:54

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100683

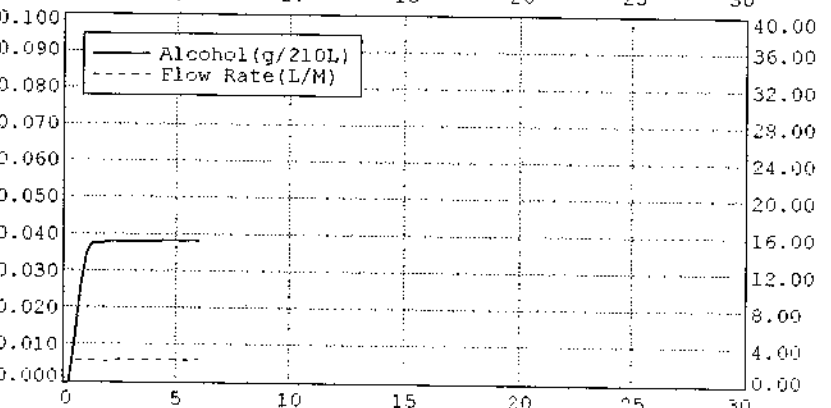
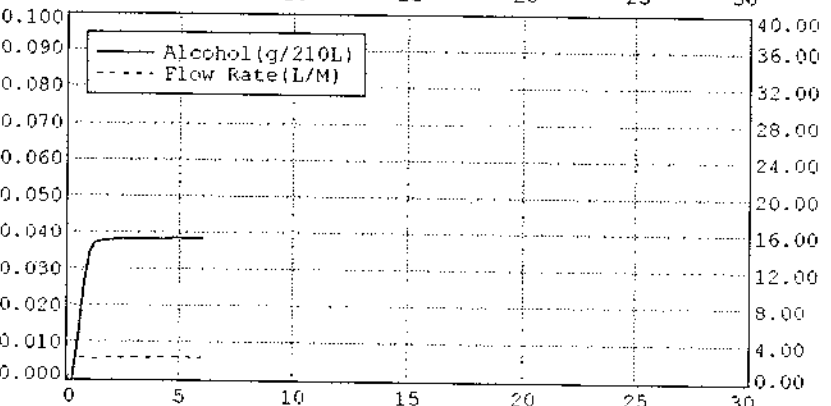
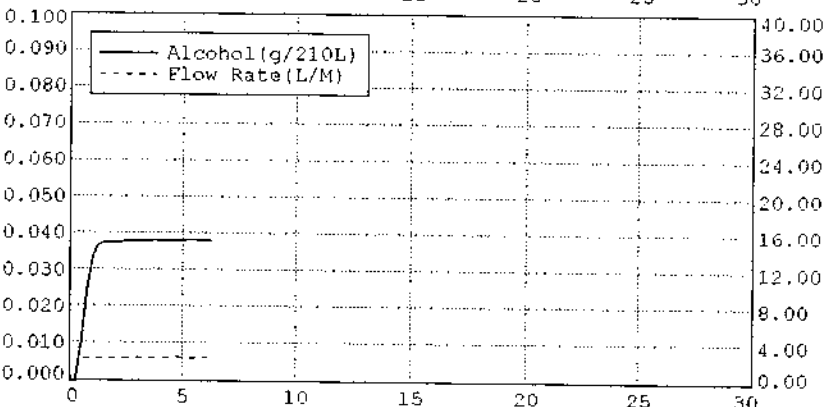
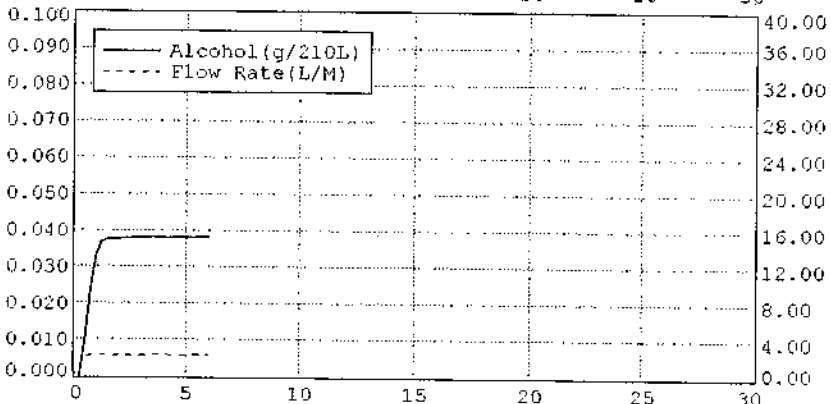
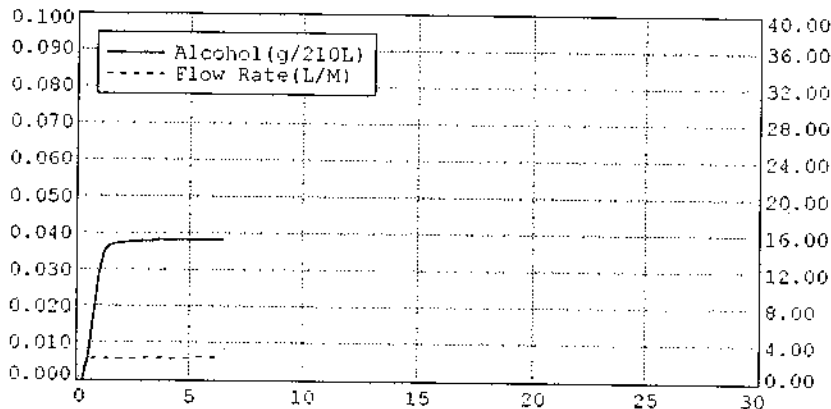
Date: 06/21/2018  
 Time: 09:55:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.49: 0.039  
 LOT #: AG630101  
 EXPIRATION: 10/27/2018  
 TANK PRESSURE: 899 psi

BLANK TEST	0.000	09:57
INTERNAL STANDARD	VERIFIED	09:57
EXTERNAL STANDARD	0.040	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.039	09:59
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.039	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.040	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.040	10:02
BLANK TEST	0.000	10:03

Average = 0.0396  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100683

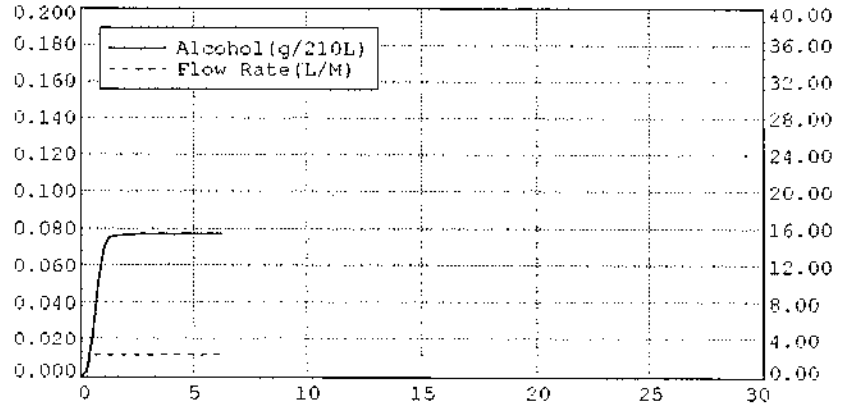
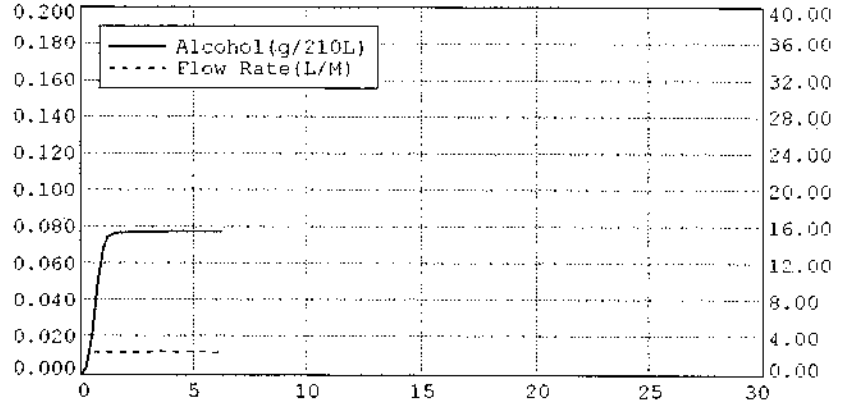
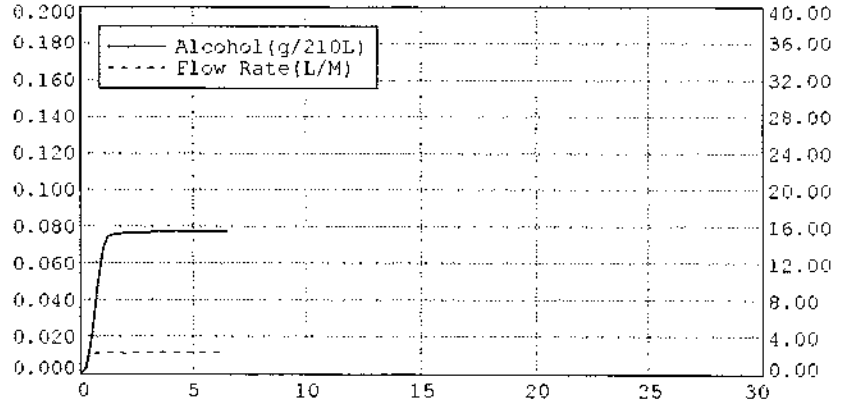
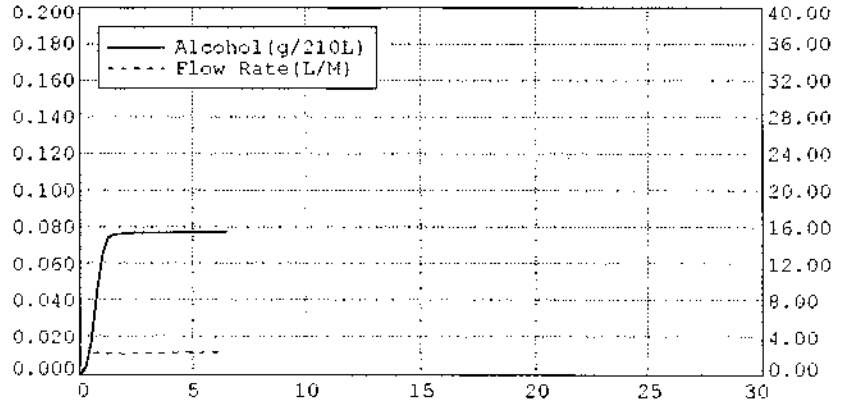
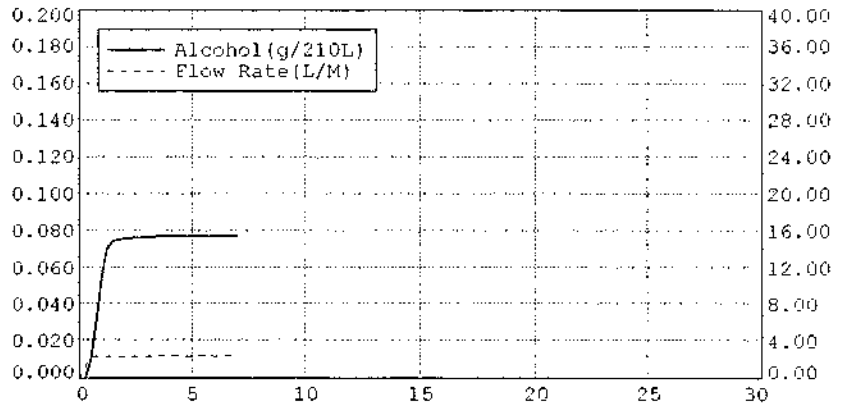
Date: 06/21/2018  
 Time: 10:08:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.50: 0.079  
 LOT #: AG634001  
 EXPIRATION: 12/05/2018  
 TANK PRESSURE: 830 psi

BLANK TEST	0.000	10:09
INTERNAL STANDARD	VERIFIED	10:09
EXTERNAL STANDARD	0.079	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.079	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.079	10:12
BLANK TEST	0.000	10:13
EXTERNAL STANDARD	0.079	10:13
BLANK TEST	0.000	10:14
EXTERNAL STANDARD	0.079	10:14
BLANK TEST	0.000	10:15

Average = 0.0790  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100683

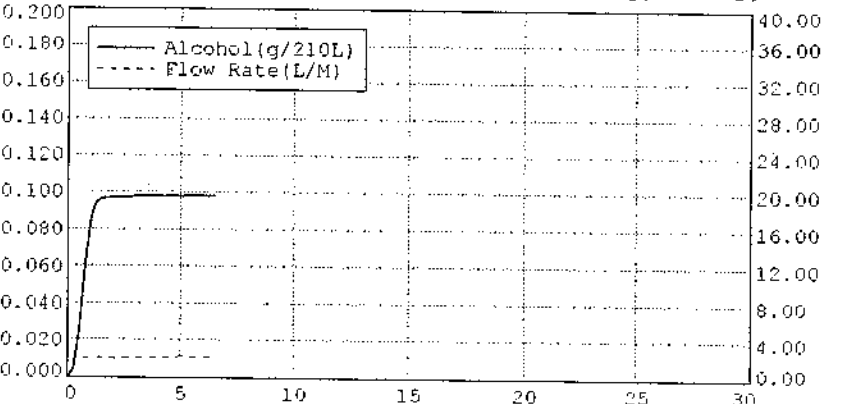
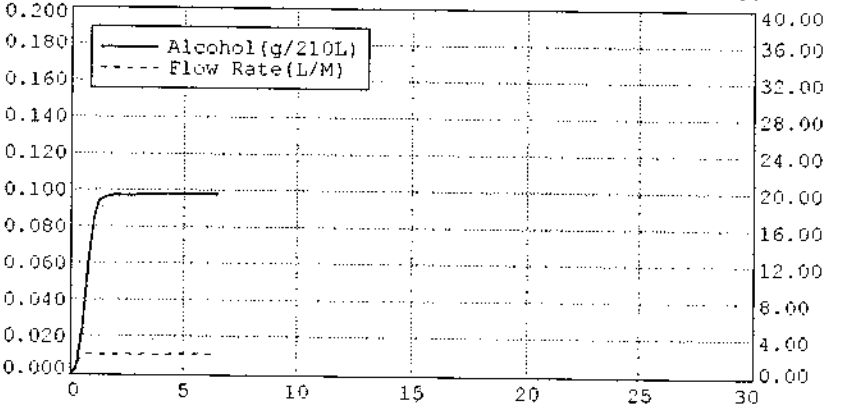
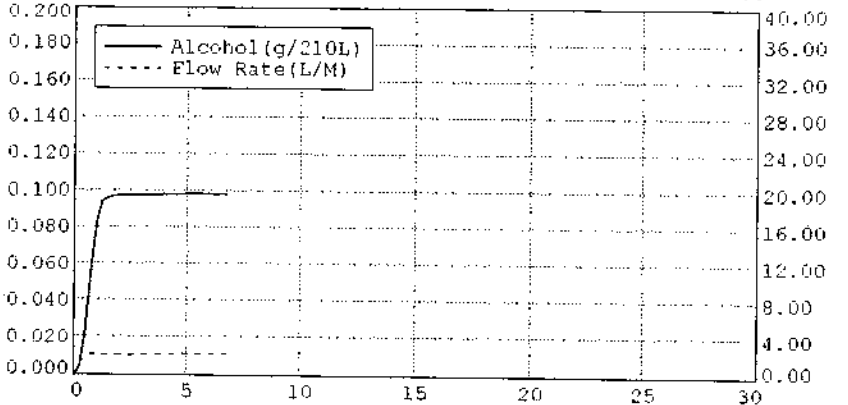
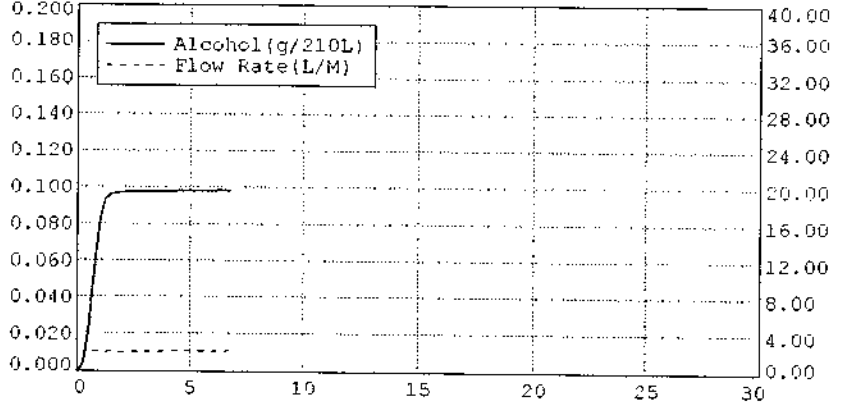
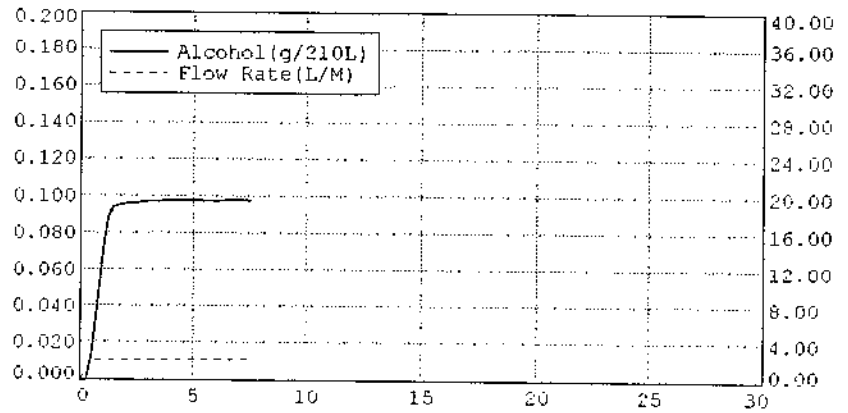
Date: 06/21/2018  
 Time: 10:18:32

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.50: 0.099  
 LOT #: AG629304  
 EXPIRATION: 10/19/2018  
 TANK PRESSURE: 449 psi

BLANK TEST	0.000	10:20
INTERNAL STANDARD	VERIFIED	10:20
EXTERNAL STANDARD	0.099	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.099	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.099	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.099	10:23
BLANK TEST	0.000	10:24
EXTERNAL STANDARD	0.099	10:24
BLANK TEST	0.000	10:25

Average = 0.0990  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100683

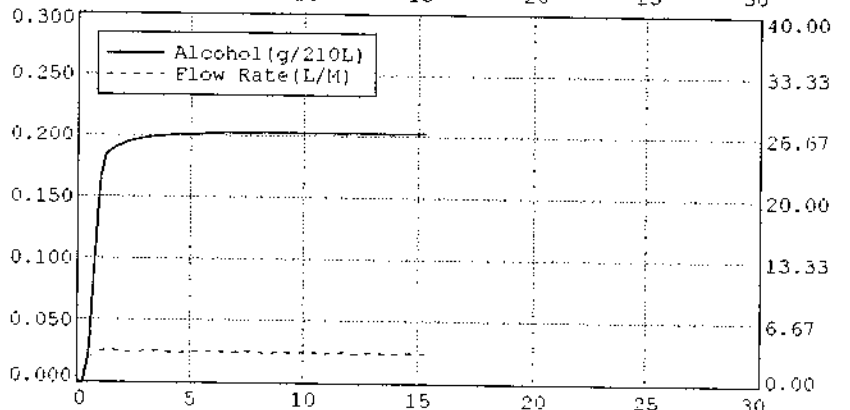
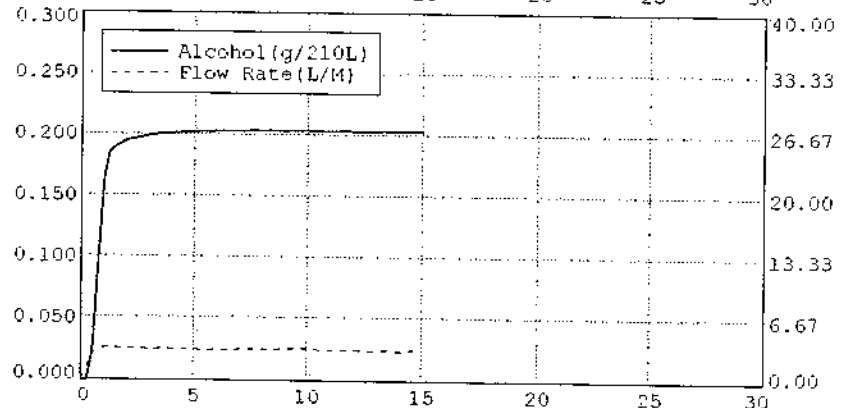
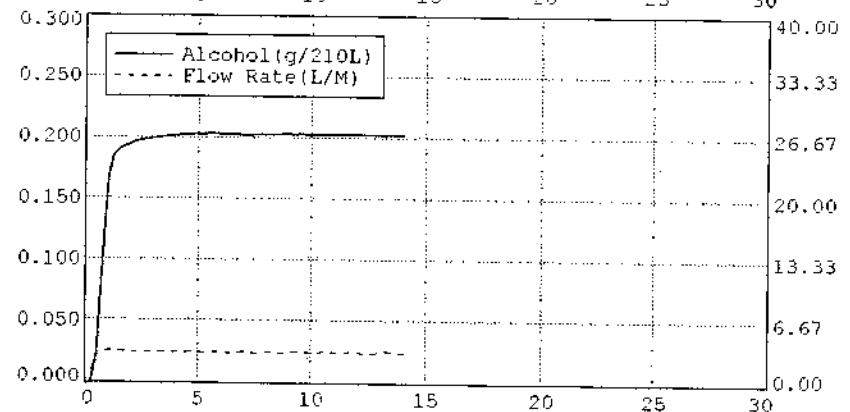
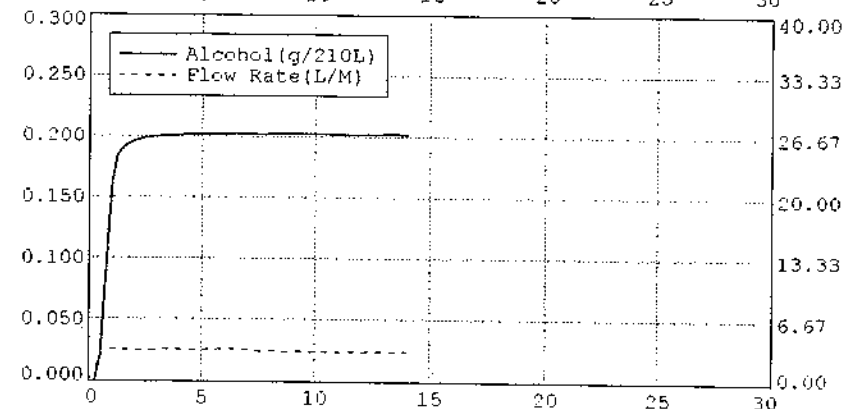
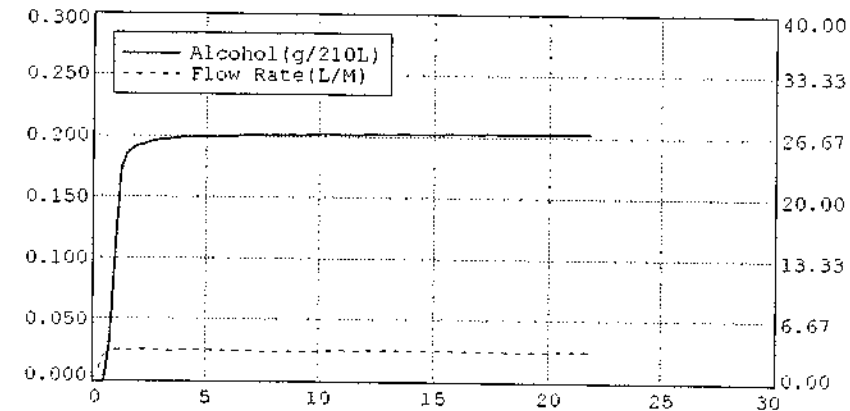
Date: 06/21/2018  
 Time: 10:28:40

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:49
INTERNAL STANDARD	VERIFIED	10:49
EXTERNAL STANDARD	0.204	10:49
BLANK TEST	0.000	10:50
EXTERNAL STANDARD	0.203	10:50
BLANK TEST	0.000	10:51
EXTERNAL STANDARD	0.203	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.204	10:53
BLANK TEST	0.000	10:54
EXTERNAL STANDARD	0.204	10:54
BLANK TEST	0.000	10:55

Average = 0.2036  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100683

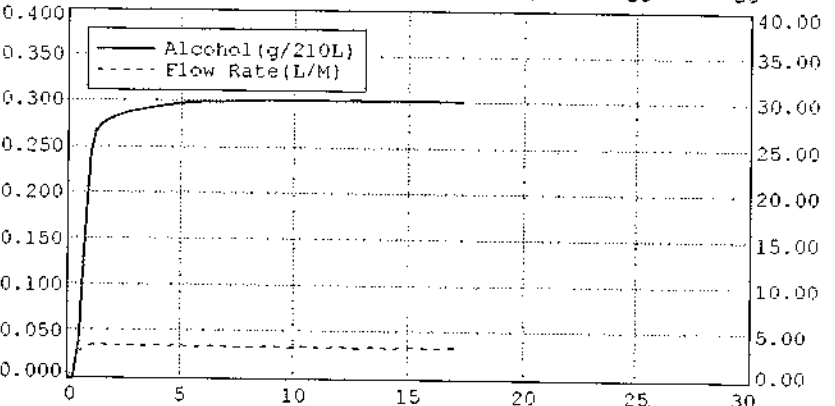
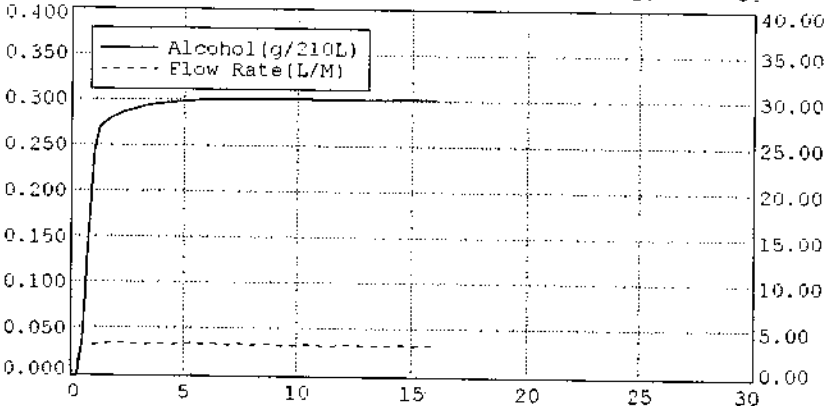
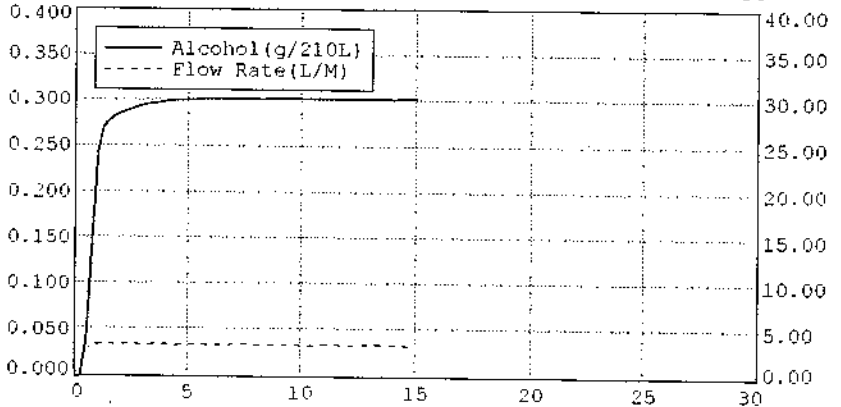
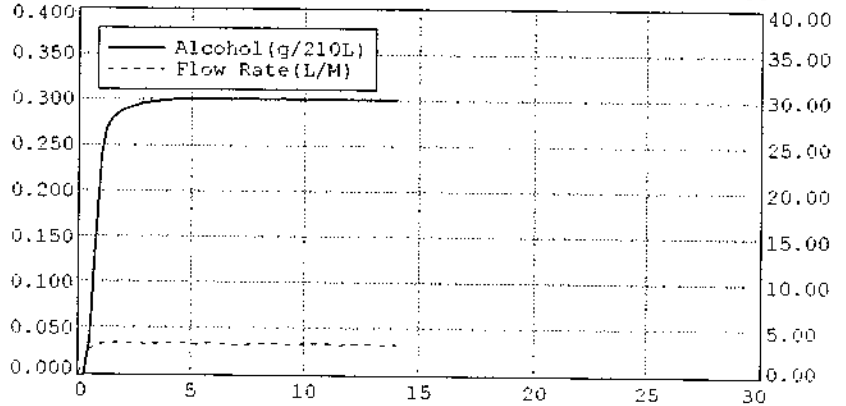
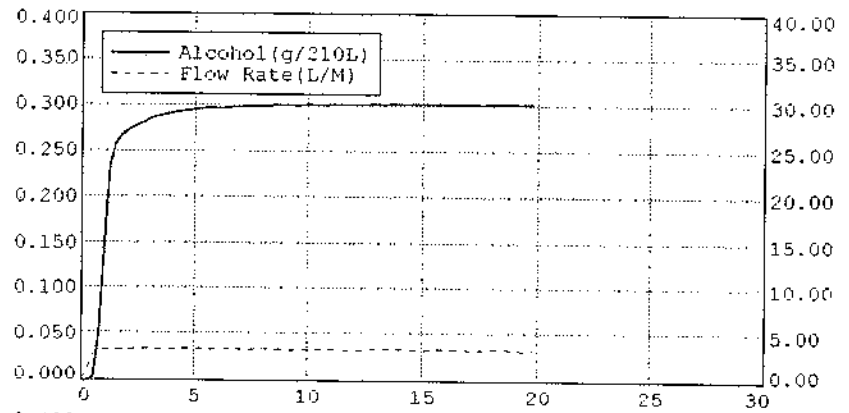
Date: 06/21/2018  
 Time: 10:57:27

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:58
INTERNAL STANDARD	VERIFIED	10:58
EXTERNAL STANDARD	0.302	10:59
BLANK TEST	0.000	11:00
EXTERNAL STANDARD	0.301	11:00
BLANK TEST	0.000	11:01
EXTERNAL STANDARD	0.302	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.302	11:03
BLANK TEST	0.000	11:04
EXTERNAL STANDARD	0.301	11:04
BLANK TEST	0.000	11:05

Average = 0.3016  
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100683

Date: 06/21/2018

Time: 15:01:46

SUBJECT NAME:

TEST TEST

LICENSE #: XXXX

OPERATOR NAME:

DEREK WALTON

OPERATOR'S #: 9508

DEPT/AGENCY:

INCOMPLETE

CASE/REPORT: XXXX

TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.54: 0.079

DIAGNOSTIC CHECK

BLANK TEST

INTERNAL STANDARD

EXTERNAL STANDARD

BLANK TEST

SUBJECT SAMPLE

PASSED 15:04  
0.000 15:04  
VERIFIED 15:04  
0.080 15:04  
0.000 15:05  
INCOMPLETE 15:07

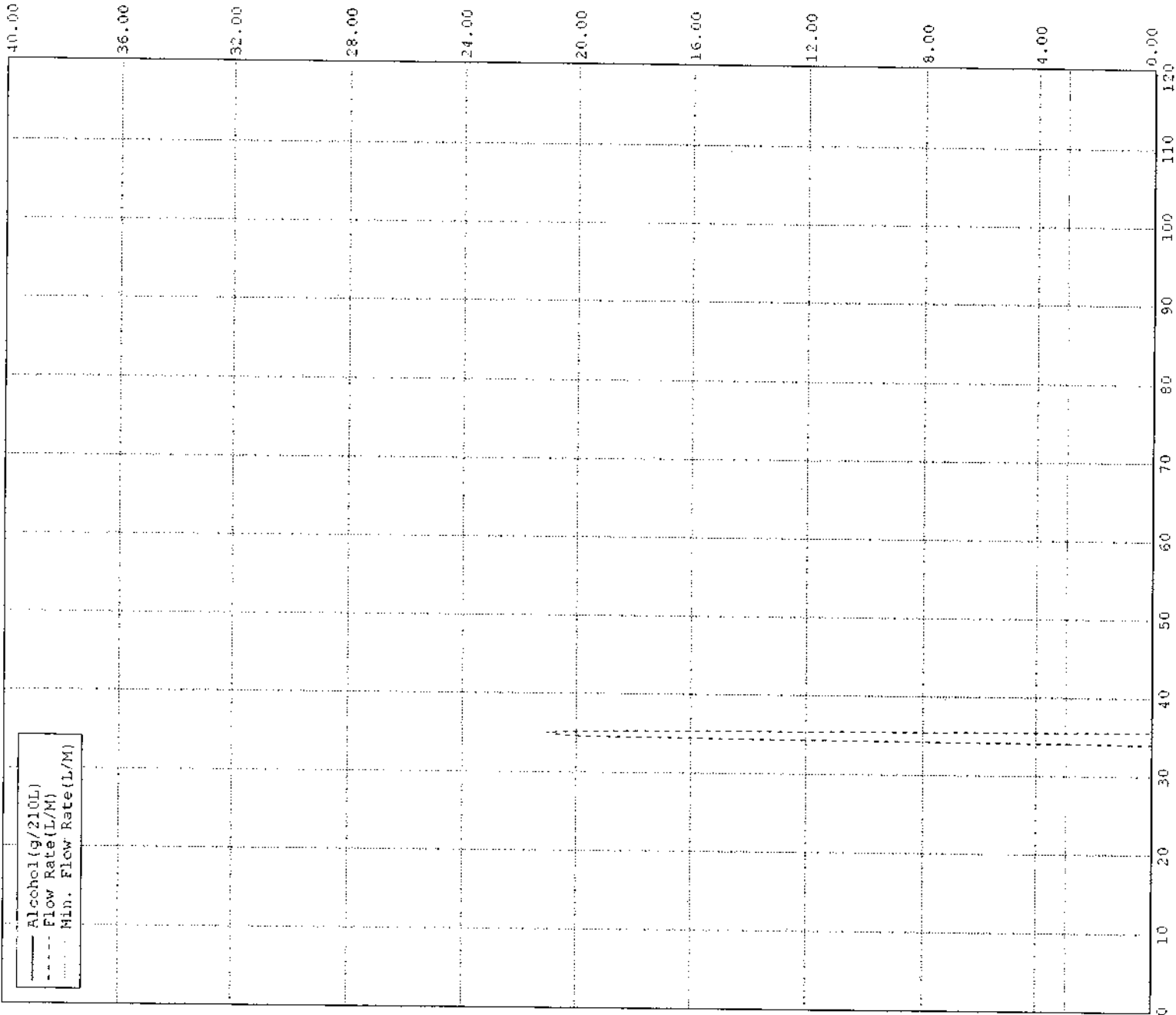
External standard lot

AG634001

Exp. 12/05/2018

Dm 06/21/18

DW



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100683

Date: 06/21/2018  
Time: 15:13:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

DEPT/AGENCY:  
INVALID  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.54: 0.079

DIAGNOSTIC CHECK	PASSED	15:15
BLANK TEST	0.000	15:15
INTERNAL STANDARD	VERIFIED	15:15
EXTERNAL STANDARD	0.079	15:15
BLANK TEST	0.000	15:16
SUBJECT SAMPLE	INVALID	15:17

External standard lot

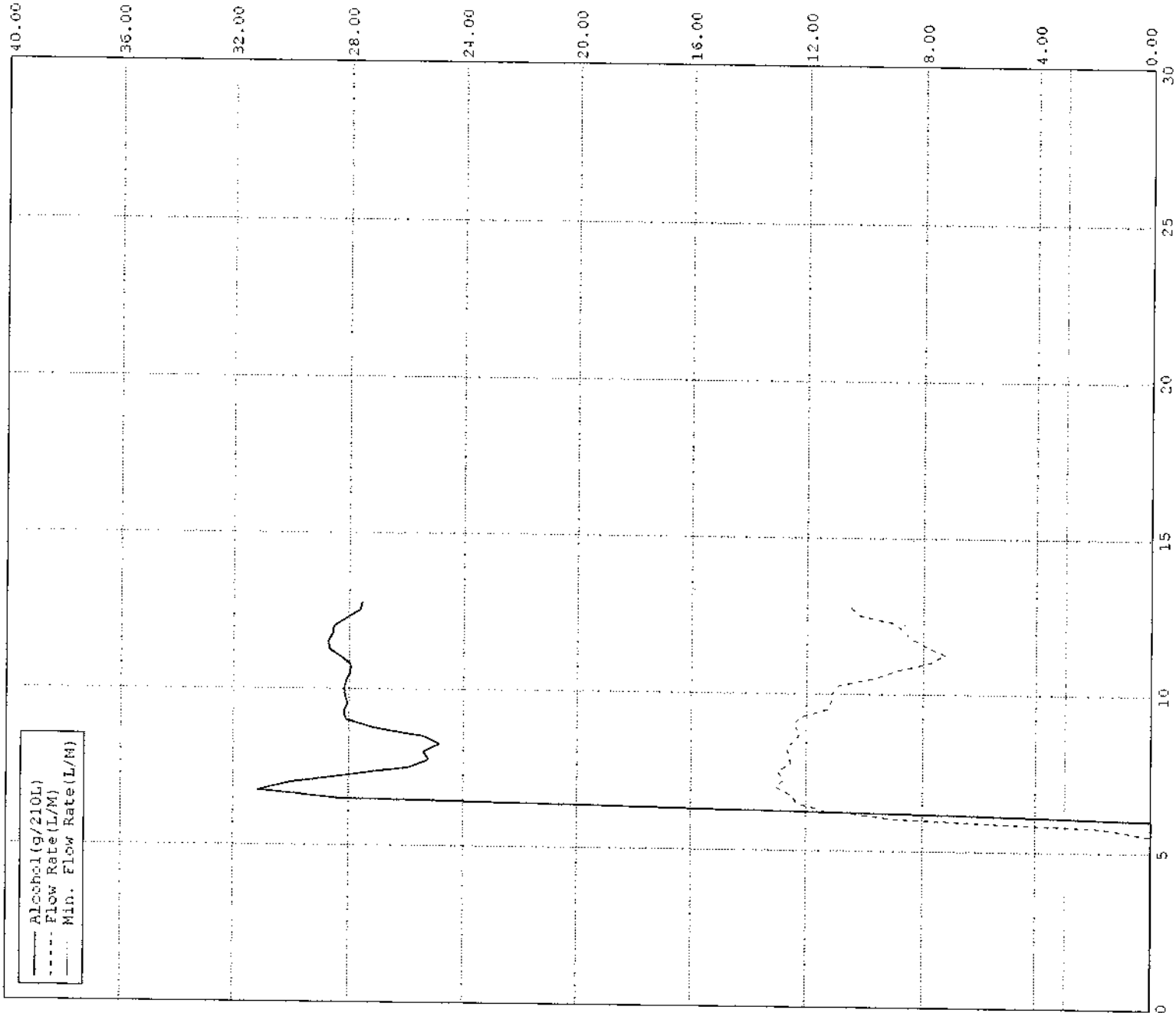
AG634001

Exp. ~~06/21~~ 12/05/2018

JM 06/21/18

JM 06/21/18

MJC



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER gmt: 100583

Date: 06/22/2018  
Time: 08:10:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

DEPT/AGENCY:  
INTERFERENCE ACETONE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.77: 0.080

DIAGNOSTIC CHECK PASSED 08:11  
BLANK TEST 0.000 08:11  
INTERNAL STANDARD VERIFIED 08:11  
Xq = 0.104 (0.348)  
EXTERNAL STANDARD 0.080 08:12  
X[1] = 0.0799 (-0.0016) (0.0008)  
BLANK TEST 0.000 08:13  
SUBJECT SAMPLE XXX 08:13  
X[1] = 0.1109 (-0.0182) (-0.0006)

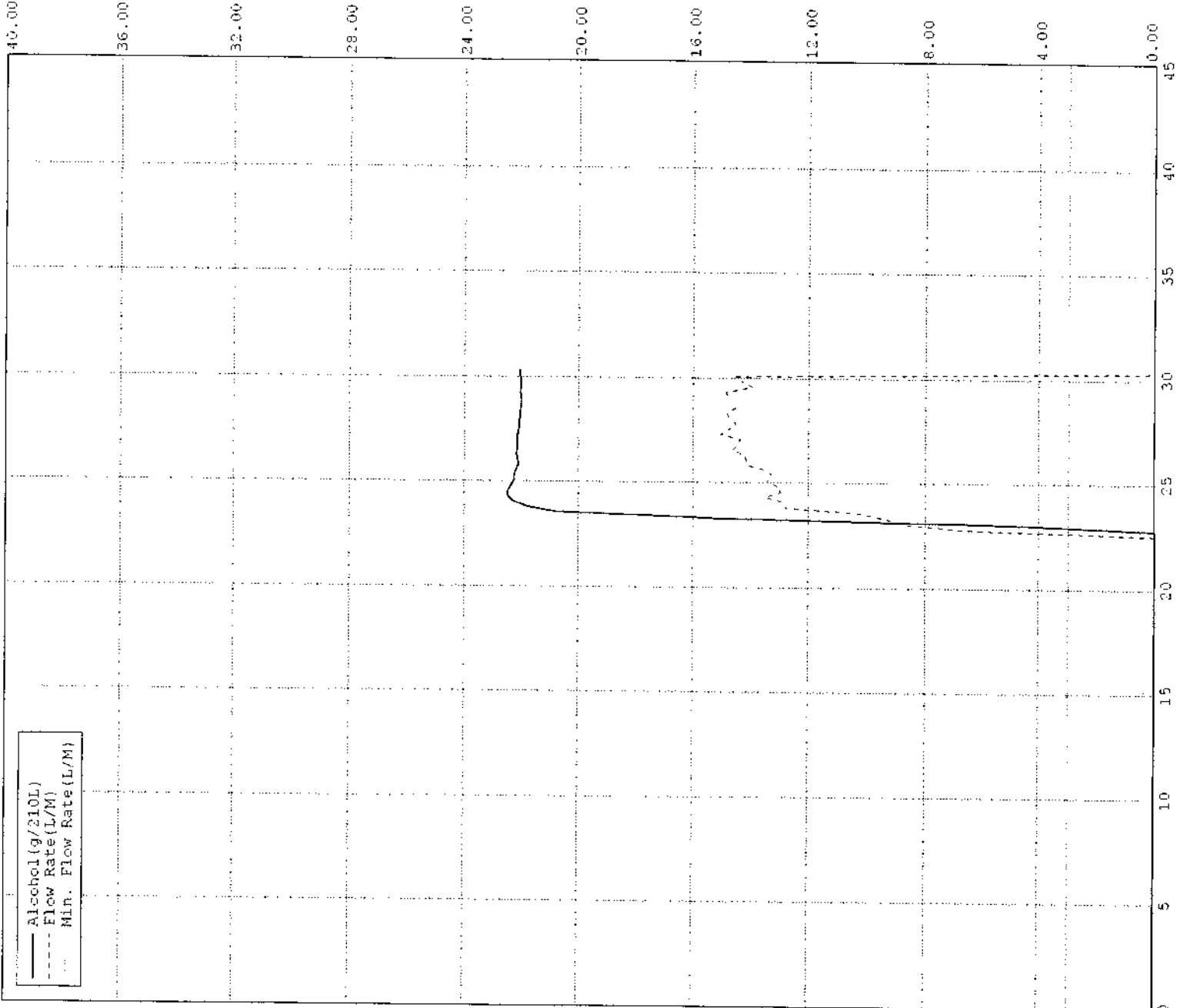
Interference Detected

External standard lot

AG634001

Exp. 12/05/2018

DM 06/22/2018



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100683

Date: 06/22/2018  
Time: 08:20:07

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.77: 0.080

DIAGNOSTIC CHECK	PASSED	08:21
BLANK TEST	0.000	08:21
INTERNAL STANDARD	VERIFIED	08:21
Xq = 0.104 (0.17%)		
EXTERNAL STANDARD	0.080	08:21
X[1] = 0.0801 (-0.0010) (0.0014)		
BLANK TEST	0.000	08:22
SUBJECT SAMPLE	XXX	08:23
X[1] = 0.1182 (-0.0303) (-0.0010)		

Interference Detected

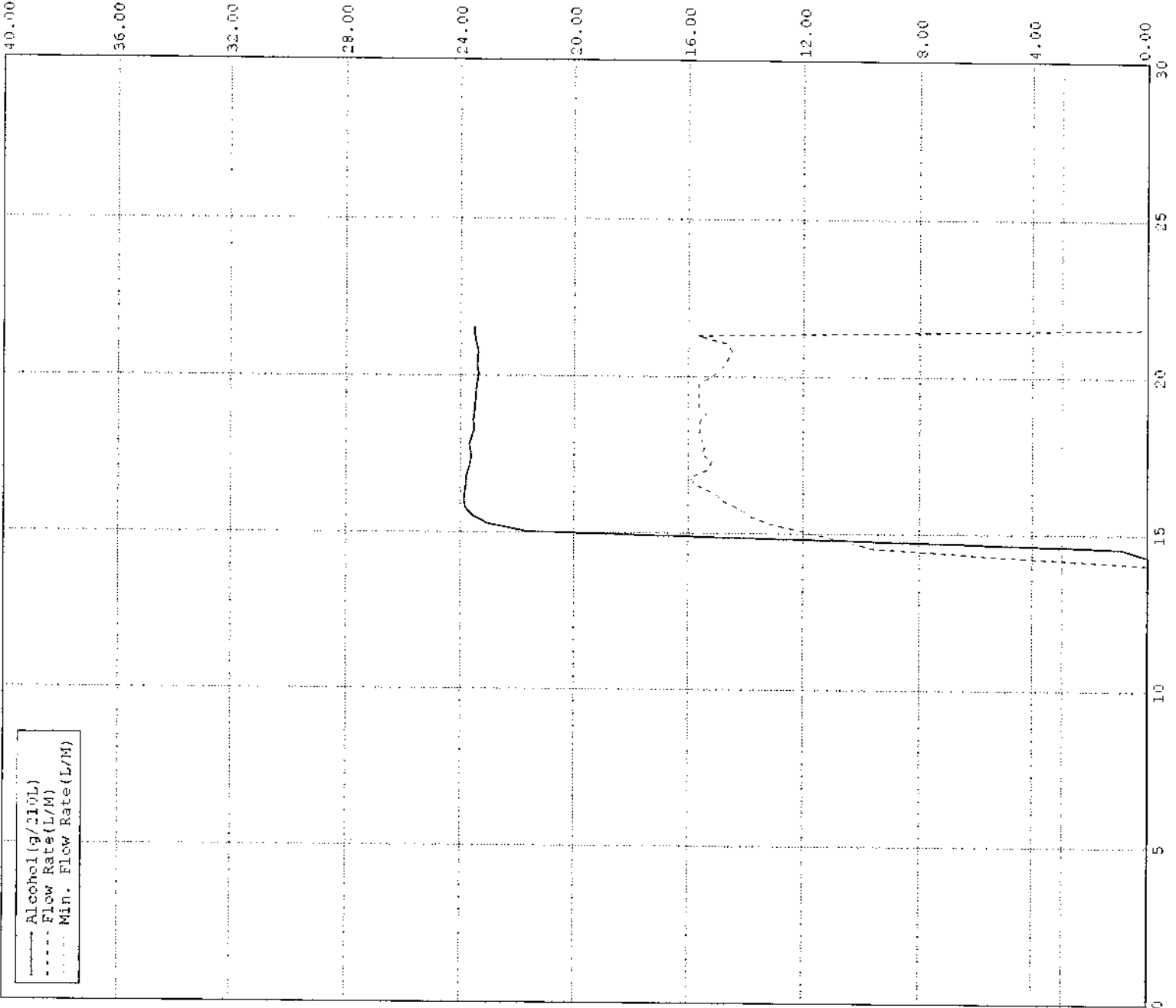
External Standard lot

A6634001

Exp. 12/05/2018

JHW 06/22/18

*DJW*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100683

Date: 06/22/2018  
Time: 08:29:34

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

DEPT/AGENCY:  
INTERFERENCE NEGATIVE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.77: 0.080

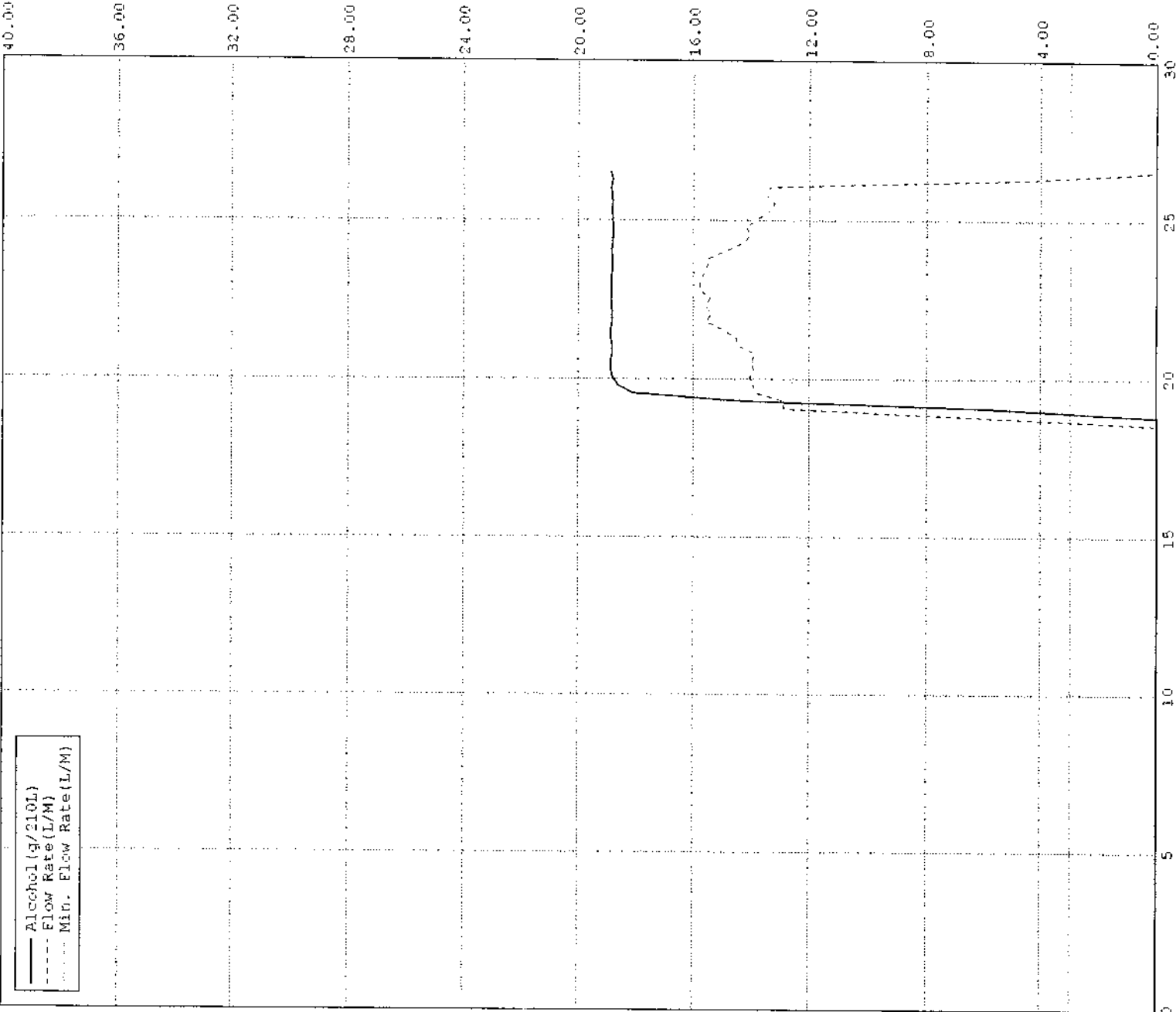
DIAGNOSTIC CHECK	PASSED	08:30
BLANK TEST	0.000	08:30
INTERNAL STANDARD	VERIFIED	08:30
Xq = 0.103 (0.348)		
EXTERNAL STANDARD	0.079	08:31
X[1] = 0.0791 (-0.0012) (0.0020)		
BLANK TEST	0.000	08:31
SUBJECT SAMPLE (Vol=1.79L)	0.095	08:32
X[1] = 0.0951 (0.0005) (-0.0007)		
BLANK TEST	0.000	08:33
EXTERNAL STANDARD	0.079	08:33
X[1] = 0.0790 (-0.0018) (0.0010)		
BLANK TEST	0.000	08:34

External standard lot AG654001

Exp. 12/05/2018

Filter 2 avg: -0.0014

Filter 3 avg: 0.0013



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100683

Date: 06/21/2018  
Time: 15:29:34

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

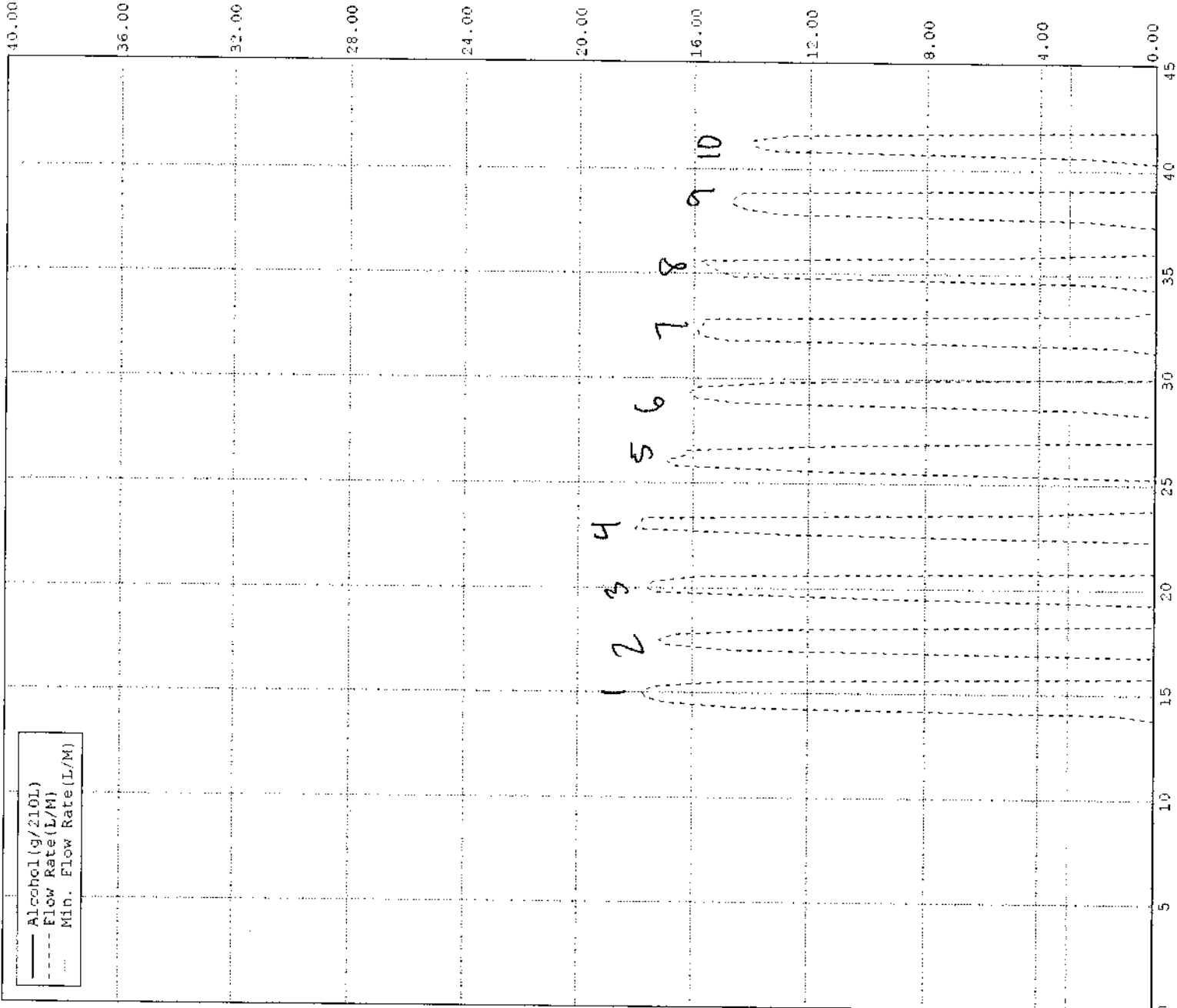
DEPT/AGENCY:  
MAXIMUM ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.53: 0.079

DIAGNOSTIC CHECK	PASSED	15:30
BLANK TEST	0.000	15:30
INTERNAL STANDARD	VERIFIED	15:31
EXTERNAL STANDARD	0.079	15:31
BLANK TEST	0.000	15:32
SUBJECT SAMPLE	XXX	15:32

Maximum Attempts Exceeded

External standard lot  
AK634001  
Exp. 12/05/2018  
JW 06/21/18



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100683

Date: 06/21/2018  
Time: 15:36:43

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

DEPT/AGENCY:  
RFI

CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.54: 0.079

DIAGNOSTIC CHECK PASSED 15:38  
BLANK TEST 0.000 15:38  
INTERNAL STANDARD VERIFIED 15:38  
EXTERNAL STANDARD 0.079 15:38  
BLANK TEST 0.000 15:39

RFI DETECTED

*External Standard lot*

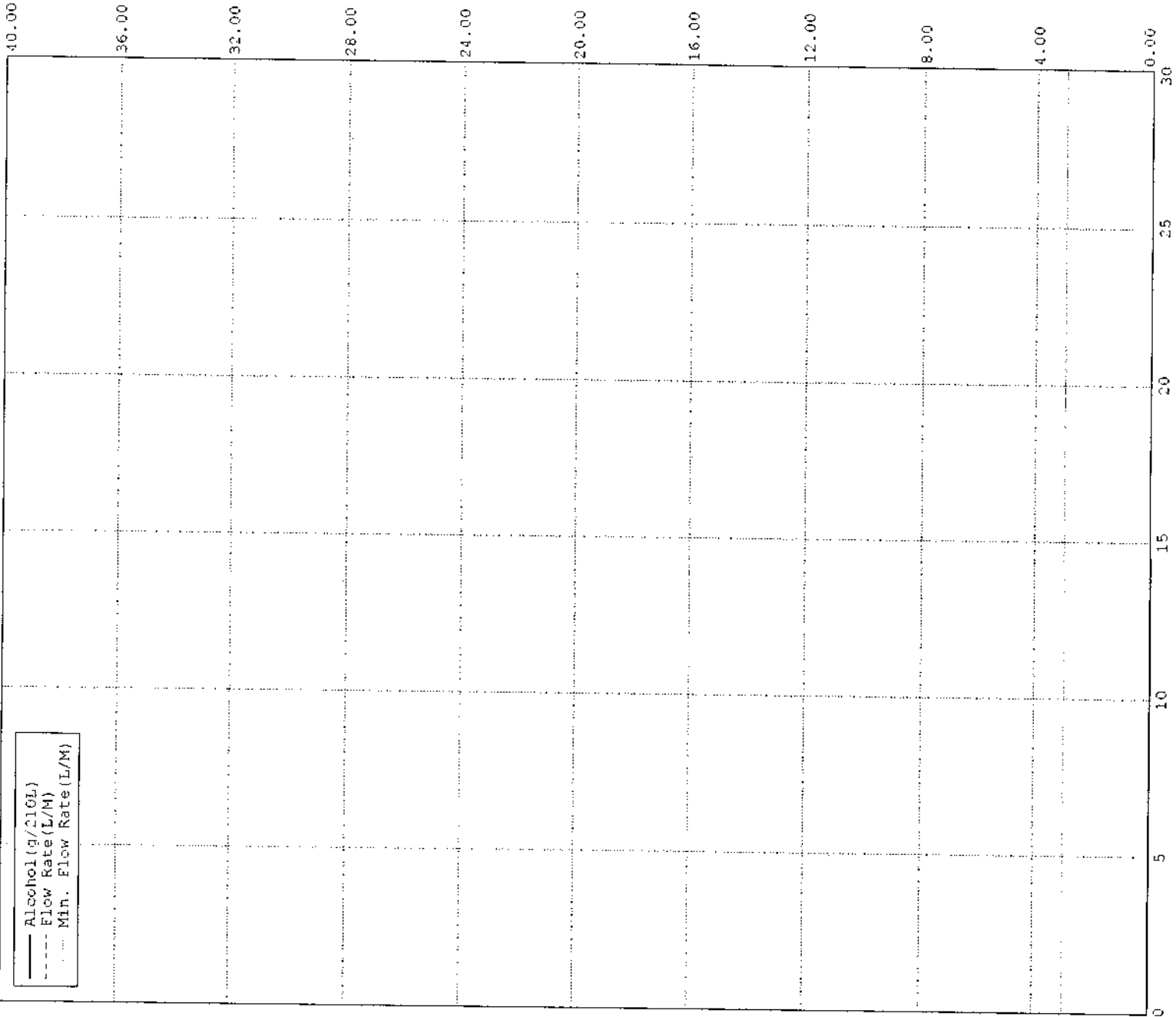
*A6634001*

*Exp. 12/05/2018*

*DWN 06/21/18*

*DWN*

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



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100683

Date: 06/22/2018  
Time: 09:02:29

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

DEPT/AGENCY:  
NON-DRINKING SUBJECT TEST  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.79: 0.080

DIAGNOSTIC CHECK	PASSED	09:04
BLANK TEST	0.000	09:04
INTERNAL STANDARD	VERIFIED	09:04
EXTERNAL STANDARD	0.080	09:04
BLANK TEST	0.000	09:05
SUBJECT SAMPLE (Vol=2.79L)	0.000	09:06
BLANK TEST	0.000	09:07
EXTERNAL STANDARD	0.080	09:07
BLANK TEST	0.000	09:08

External Standard lot

A6834001

Exp. 12/05/2018

Dmt 06/22/18

*DMT*

