

# 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 160381 Analyst Drew Walton Start Date 06/25/19

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 Airgas Lot AG805804 Exp 02/27/20
- ii. 0.040g/210L Mnf Airgas Lot AG733403 Exp 11/30/19
- iii. 0.080g/210L Mnf Airgas Lot AG826101 Exp 09/18/20
- iv. 0.100g/210L Mnf Airgas Lot AG805903 Exp 02/28/20
- v. 0.200g/210L Mnf Auto Lot 17340 Exp 10/09/19
  - 1. Simulator S/N SD1177 Date Calibrated 03/05/19
- vi. 0.300g/210L Mnf Auto Lot 19010 Exp 01/03/21
  - 1. Simulator S/N SD1088 Date Calibrated 03/05/19

5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts

- i. Acetone - Mnf Auto Lot 18370 Level 0.100 Exp 12/05/20
  - 1. Simulator S/N SD1199 Date Calibrated 03/06/19
- ii. Isopropanol - Mnf Auto Lot 18070 Level 0.100 Exp 02/26/20
  - 1. Simulator S/N DR4161 Date Calibrated 03/07/19
- iii. Negative Control - Mnf Auto Lot 18370 Level 0.100 Exp 12/05/20
  - 1. Simulator S/N SD1202 Date Calibrated 03/05/19

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 06/25/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100381  
-----

Date: 06/25/2019  
Time: 10:06:25

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 47.2°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.67 V PASSED  
(1.02 V - 2.38 V)  
Cooler Voltage = 1.68 V PASSED  
(0.97 V - 2.27 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 539 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.885 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 = 0.092 1.24% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100381  
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Date: 06/25/2019  
Time: 10:21 AM

Temperatures (°C)  
Sample Cell: 48.7°C  
Breath Tube: 47.5°C

Current Barometer 29.8 in  
Volume (Ltr) 1.49

Settings  
Lamp: 1.72 V  
Bias: 79 V  
Cooler: 1.68 V  
Chopper: 527 Hz

Voltages (V)  
Flow: 1.08 V  
Detector: -0.084 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100381  
-----

Date: 08/12/2015  
Time: 10:43:14

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

Ca = 0.1000  
CAL = 0.951119    0.800 <= CAL < 1.200  
b1 = 0.0003    0.0000 <= b1 < 0.0040  
b2 = 0.0036    0.0010 <= b2 < 0.0100  
b3 = 0.0003    0.0000 <= b3 < 0.0040  
Xq = 0.0913    0.0500 <= Xq < 0.2000  
a21 = 1.088949    1.050 <= a21 < 1.300  
a31 = 0.418374    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 06/25/2019  
Time: 10:27:10

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

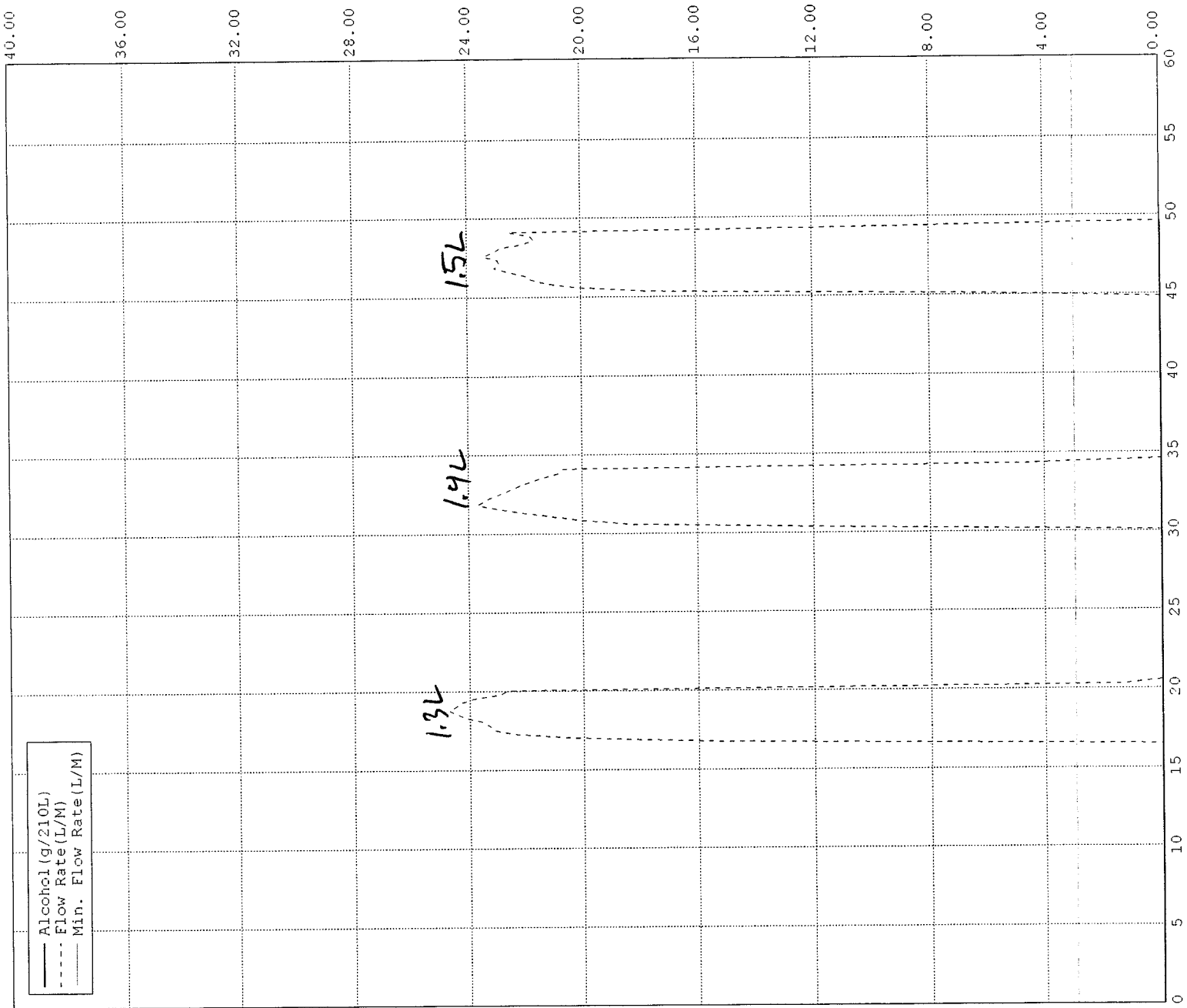
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.85: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	10:28
BLANK TEST	0.000	10:28
INTERNAL STANDARD	VERIFIED	10:28
EXTERNAL STANDARD	0.076	10:28
BLANK TEST	0.000	10:29
SUBJECT SAMPLE (Vol=1.53L)	0.000	10:30
BLANK TEST	0.000	10:31
EXTERNAL STANDARD	0.077	10:31
BLANK TEST	0.000	10:32

DW



LINEARITY CHECK

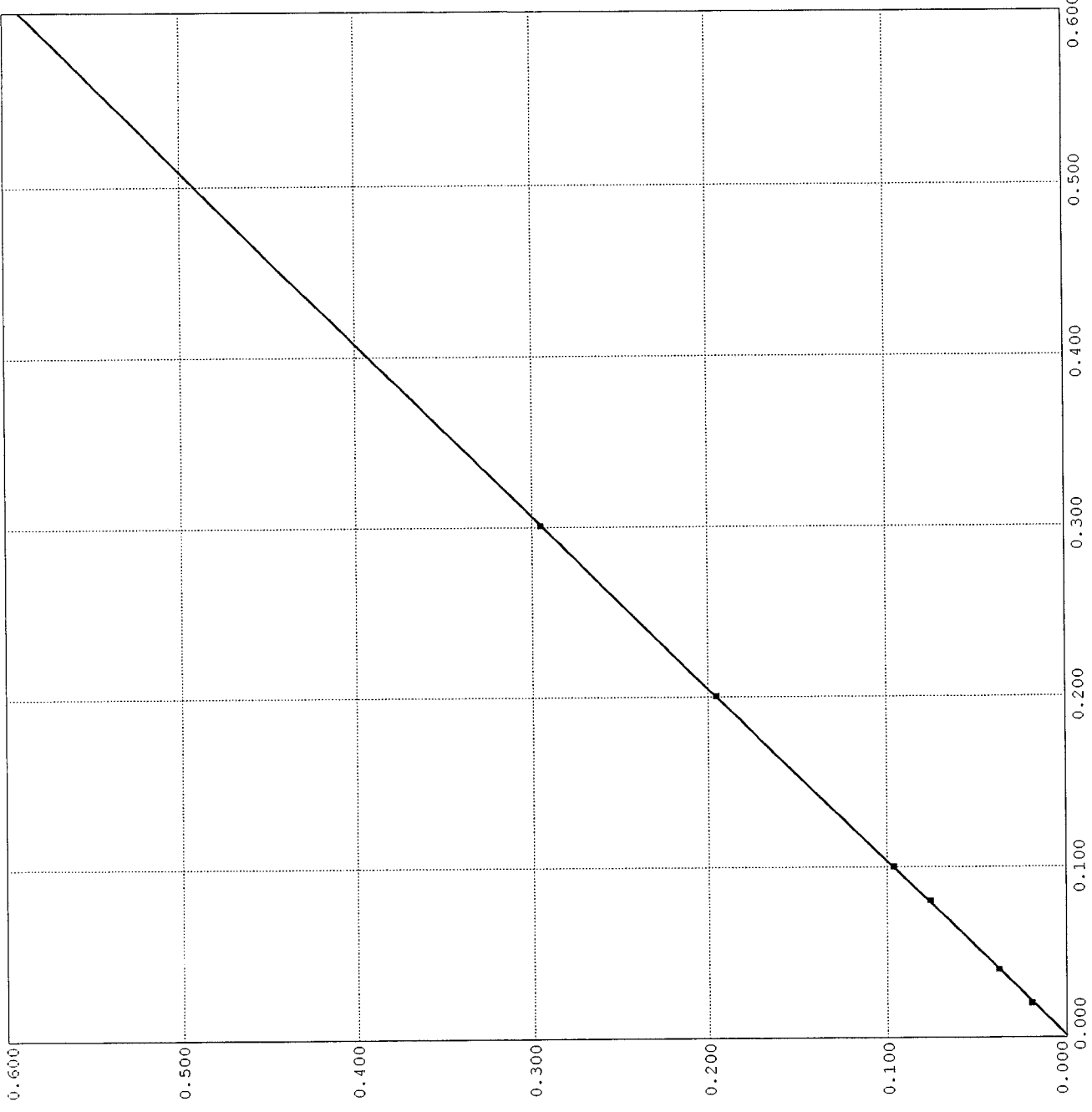
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100381  
 -----

Date: 06/25/2019  
 Time: 10:37:12

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.040	0.0388	0.0004
0.080	0.0770	0.0000
0.100	0.0972	0.0004
0.200	0.1962	0.0008
0.300	0.2958	0.0008

SLOPE = 0.986721  
 R<sup>2</sup> = 0.999931



*DW*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

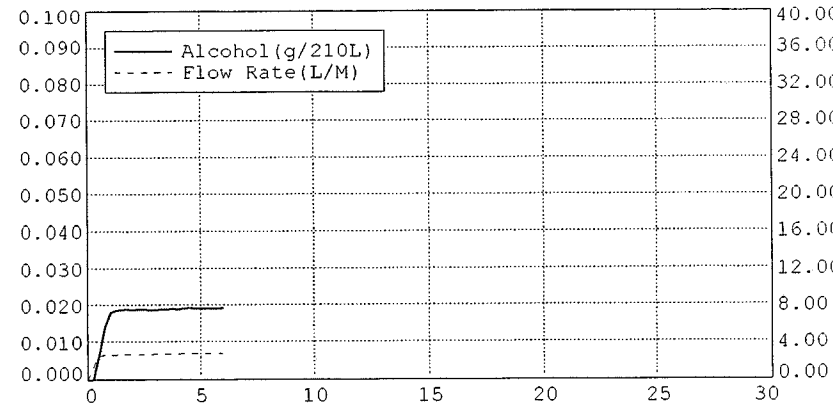
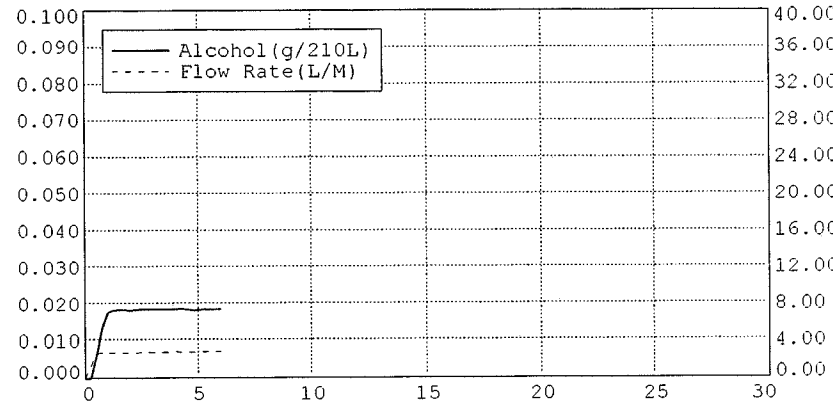
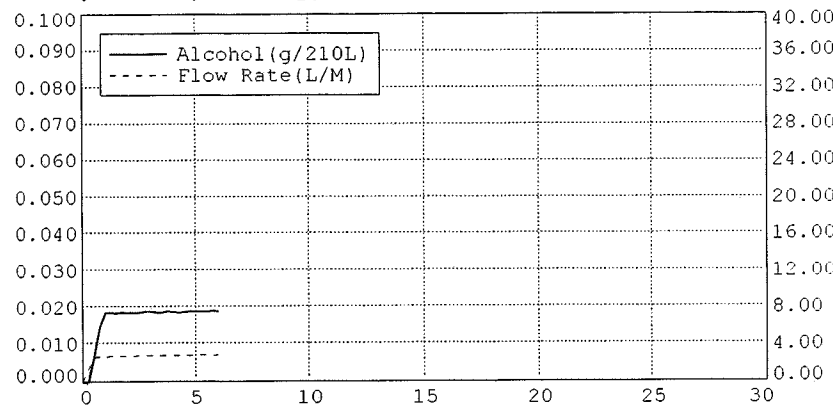
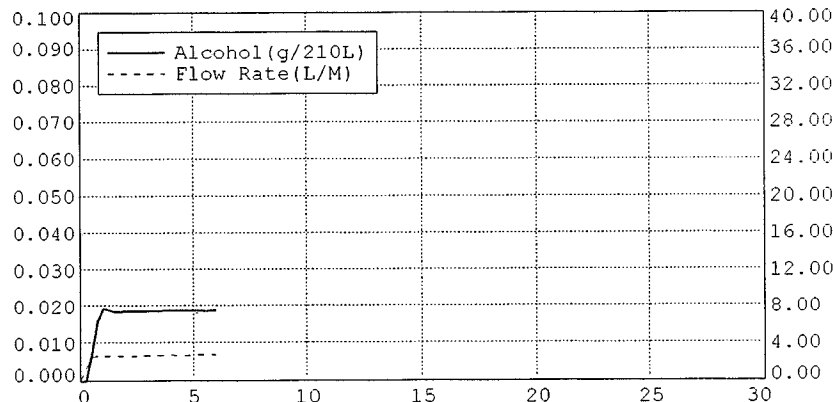
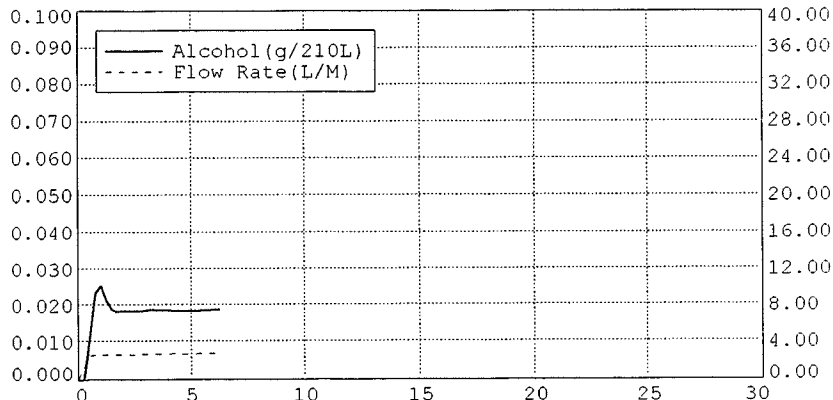
Date: 06/25/2019  
 Time: 10:37:14

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.85: 0.020  
 LOT #: AG805804  
 EXPIRATION: 02/27/2020  
 TANK PRESSURE: 644 psi

BLANK TEST	0.000	10:38
INTERNAL STANDARD	VERIFIED	10:38
EXTERNAL STANDARD	0.020	10:38
BLANK TEST	0.000	10:39
EXTERNAL STANDARD	0.020	10:39
BLANK TEST	0.000	10:40
EXTERNAL STANDARD	0.020	10:41
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.020	10:42
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.021	10:43
BLANK TEST	0.000	10:44

Average = 0.0202  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

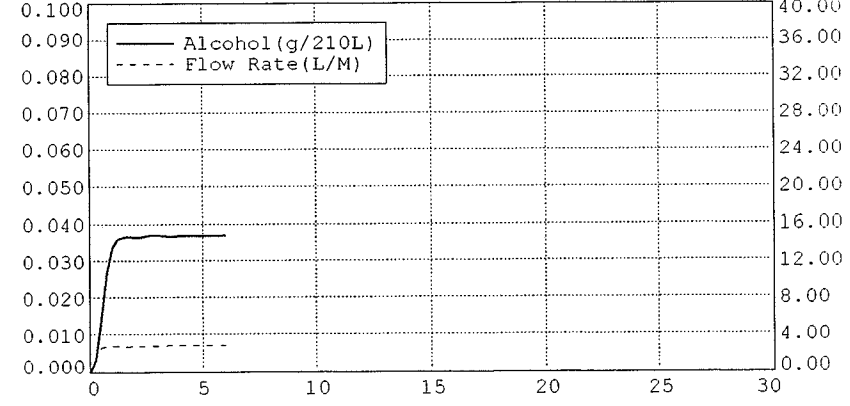
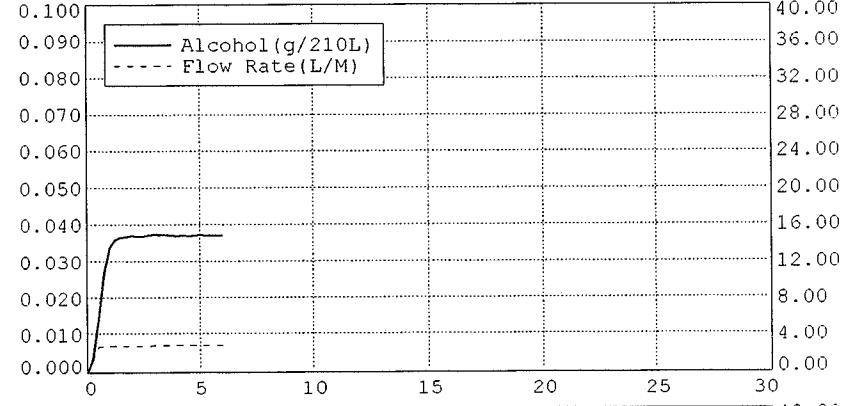
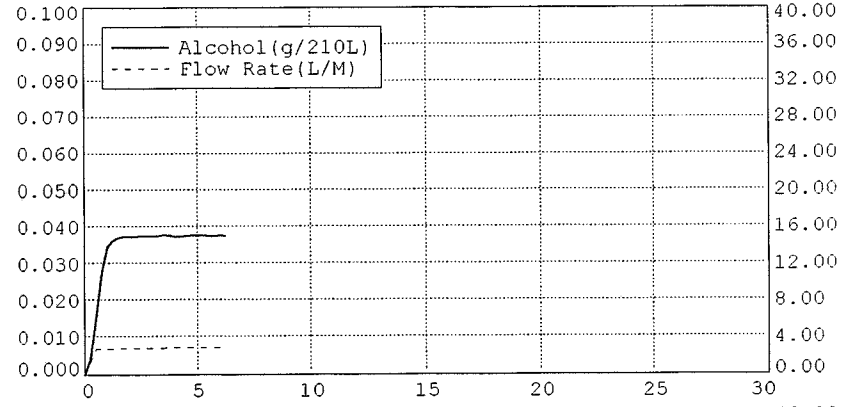
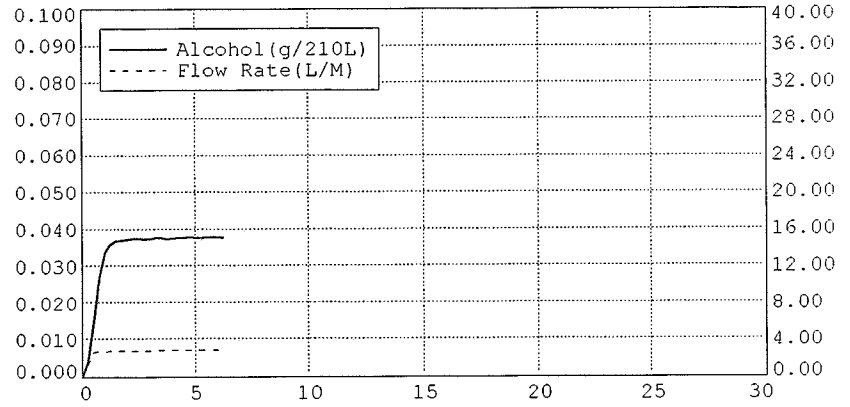
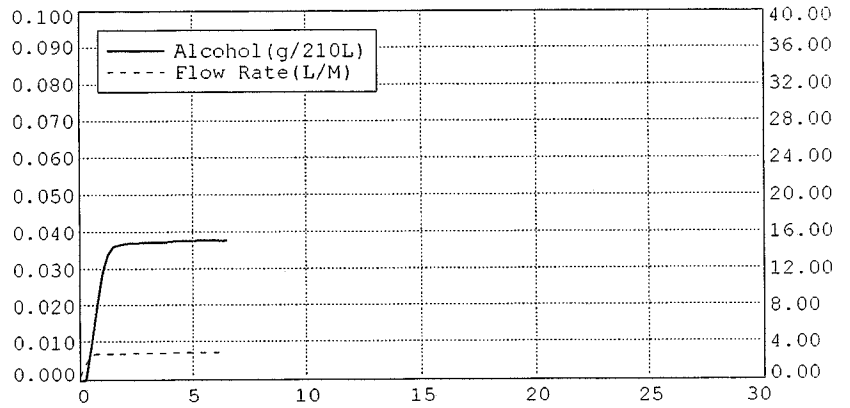
Date: 06/25/2019  
Time: 10:48:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 29.85: 0.040  
LOT #: AG733403  
EXPIRATION: 11/30/2019  
TANK PRESSURE: 1043 psi

BLANK TEST	0.000	10:50
INTERNAL STANDARD	VERIFIED	10:50
EXTERNAL STANDARD	0.039	10:50
BLANK TEST	0.000	10:51
EXTERNAL STANDARD	0.039	10:51
BLANK TEST	0.000	10:52
EXTERNAL STANDARD	0.039	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.039	10:53
BLANK TEST	0.000	10:54
EXTERNAL STANDARD	0.038	10:54
BLANK TEST	0.000	10:55

Average = 0.0388  
Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

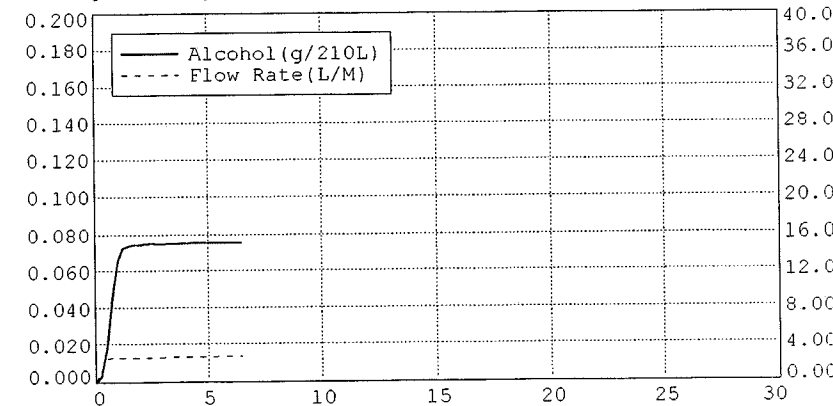
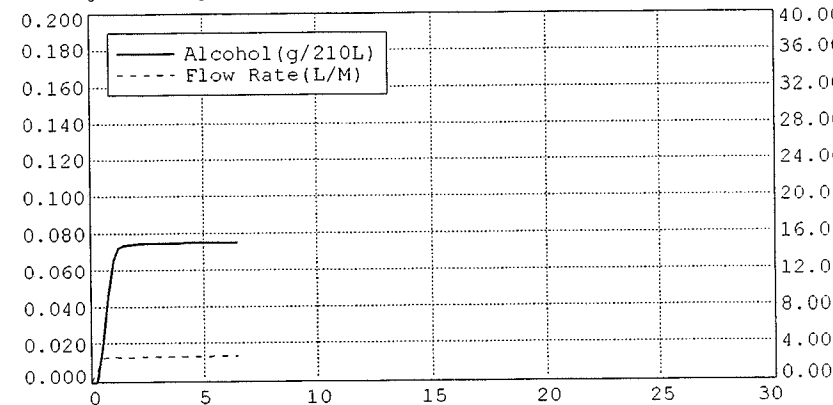
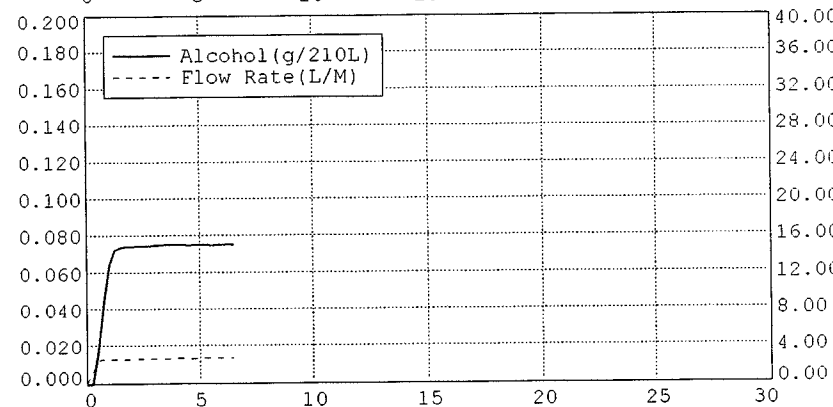
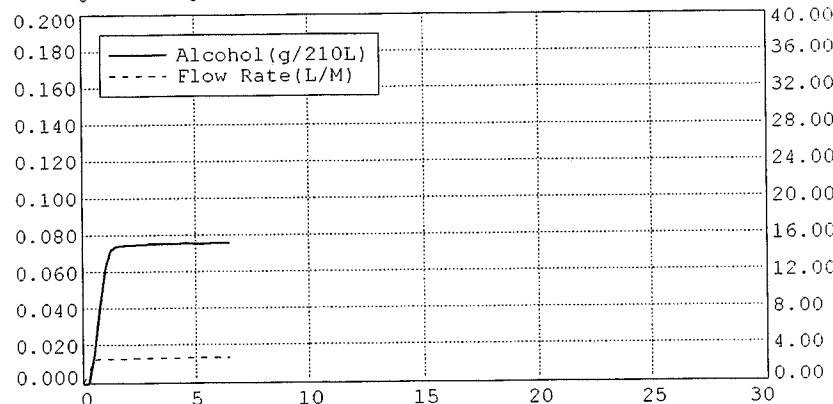
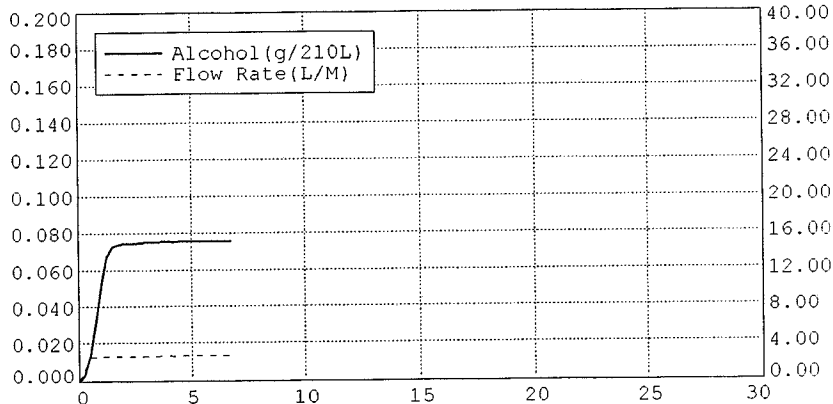
Date: 06/25/2019  
 Time: 10:58:36

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.85: 0.080  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 251 psi

BLANK TEST	0.000	10:59
INTERNAL STANDARD	VERIFIED	10:59
EXTERNAL STANDARD	0.077	11:00
BLANK TEST	0.000	11:01
EXTERNAL STANDARD	0.077	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.077	11:02
BLANK TEST	0.000	11:03
EXTERNAL STANDARD	0.077	11:03
BLANK TEST	0.000	11:04
EXTERNAL STANDARD	0.077	11:04
BLANK TEST	0.000	11:05

Average = 0.0770  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

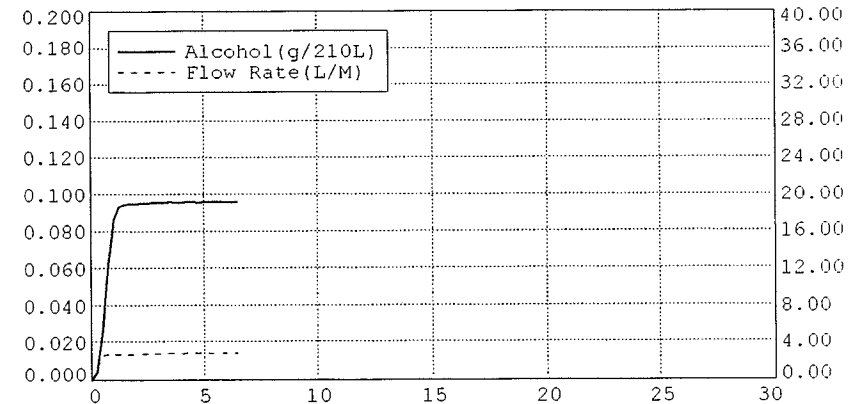
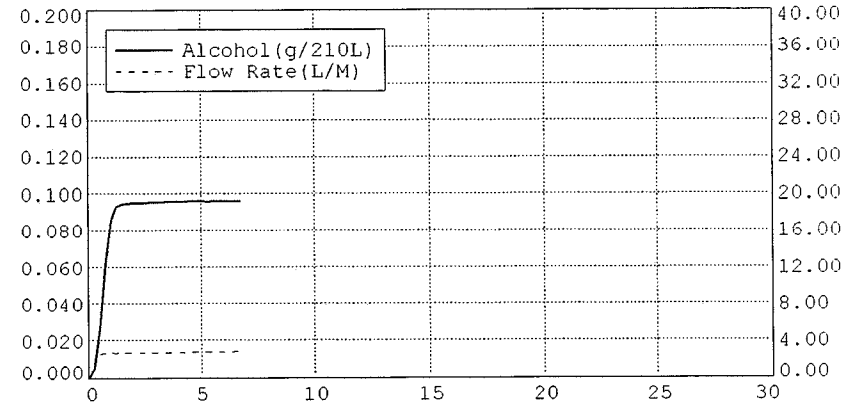
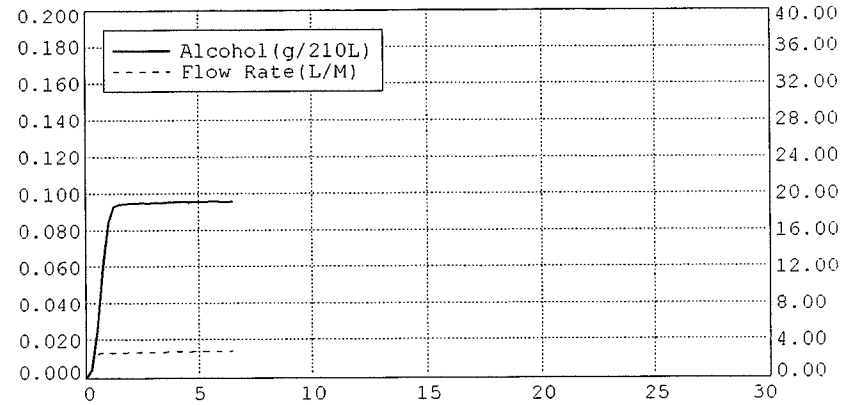
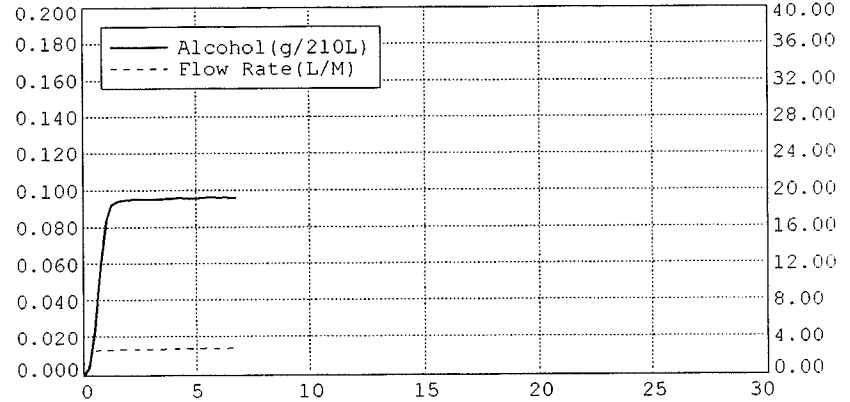
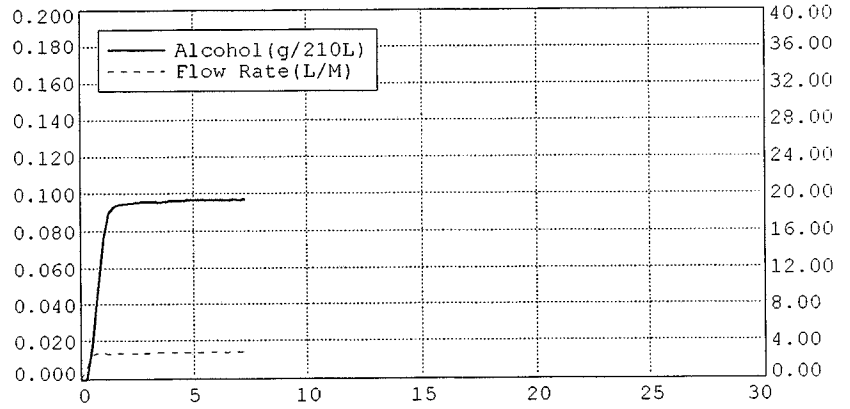
Date: 06/25/2019  
 Time: 11:07:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.85: 0.100  
 LOT #: AG805903  
 EXPIRATION: 02/28/2020  
 TANK PRESSURE: 524 psi

BLANK TEST	0.000	11:08
INTERNAL STANDARD	VERIFIED	11:08
EXTERNAL STANDARD	0.098	11:08
BLANK TEST	0.000	11:09
EXTERNAL STANDARD	0.097	11:10
BLANK TEST	0.000	11:10
EXTERNAL STANDARD	0.097	11:11
BLANK TEST	0.000	11:12
EXTERNAL STANDARD	0.097	11:12
BLANK TEST	0.000	11:13
EXTERNAL STANDARD	0.097	11:13
BLANK TEST	0.000	11:14

Average = 0.0972  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

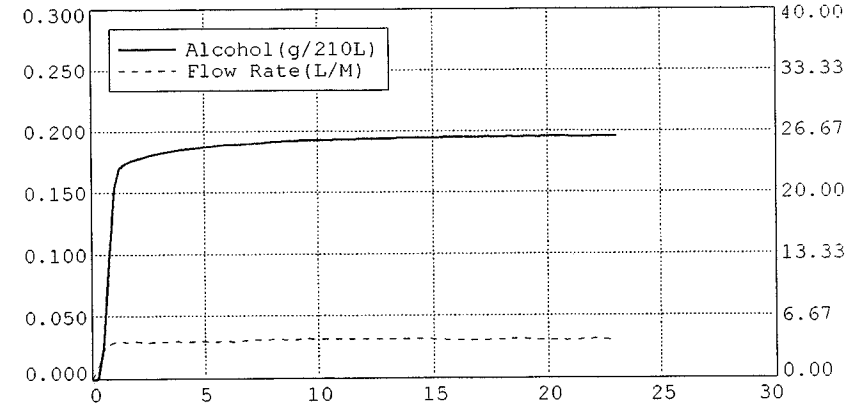
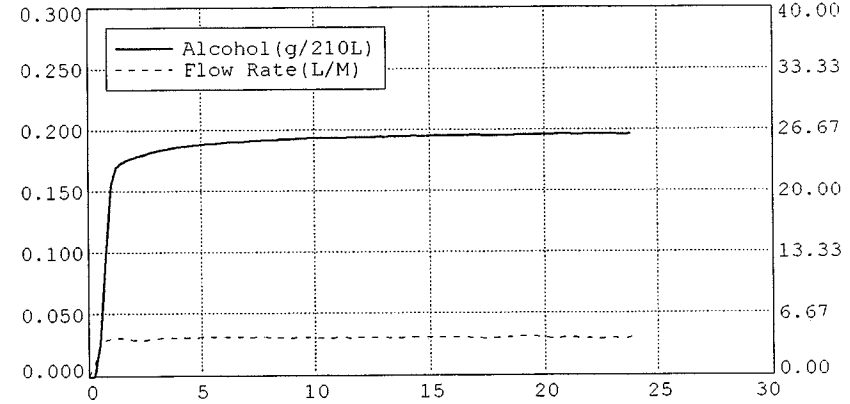
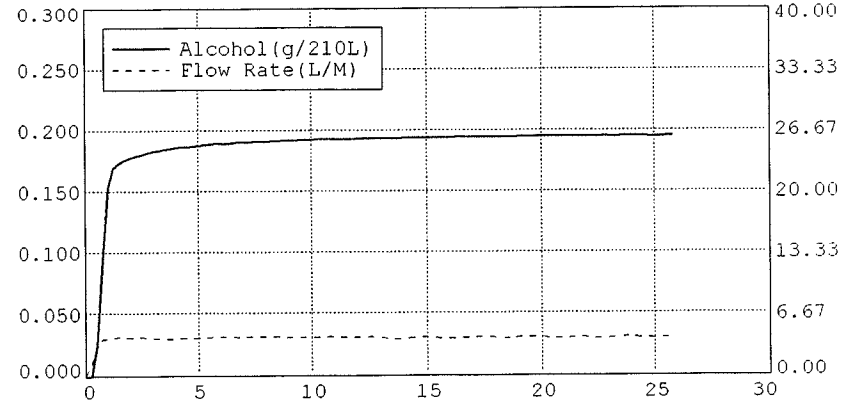
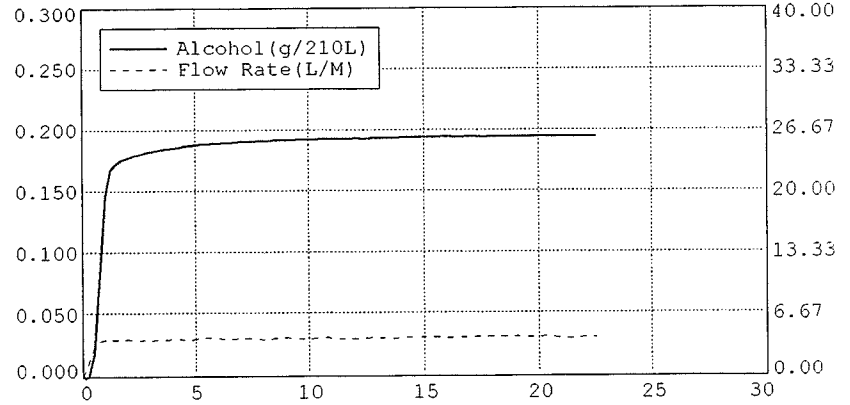
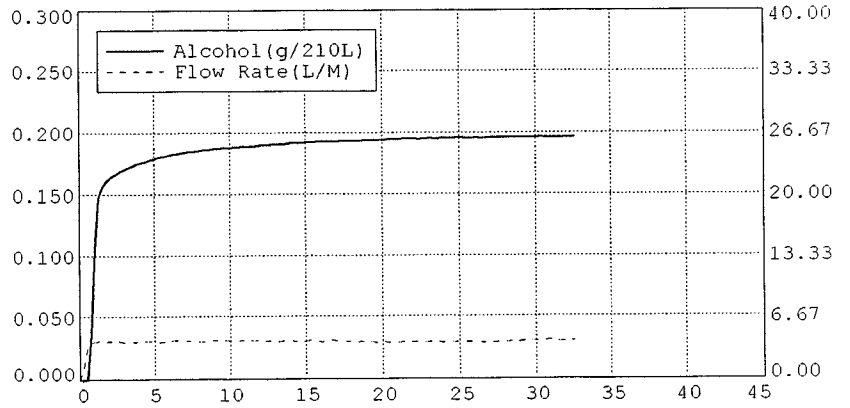
Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

Date: 06/25/2019  
 Time: 12:09:27

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: 17340  
 EXPIRATION: 10/09/2019

BLANK TEST	0.000	12:10
INTERNAL STANDARD	VERIFIED	12:10
EXTERNAL STANDARD	0.197	12:11
BLANK TEST	0.000	12:12
EXTERNAL STANDARD	0.195	12:12
BLANK TEST	0.000	12:13
EXTERNAL STANDARD	0.196	12:14
BLANK TEST	0.000	12:15
EXTERNAL STANDARD	0.197	12:15
BLANK TEST	0.000	12:16
EXTERNAL STANDARD	0.196	12:17
BLANK TEST	0.000	12:18

Average = 0.1962  
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 6

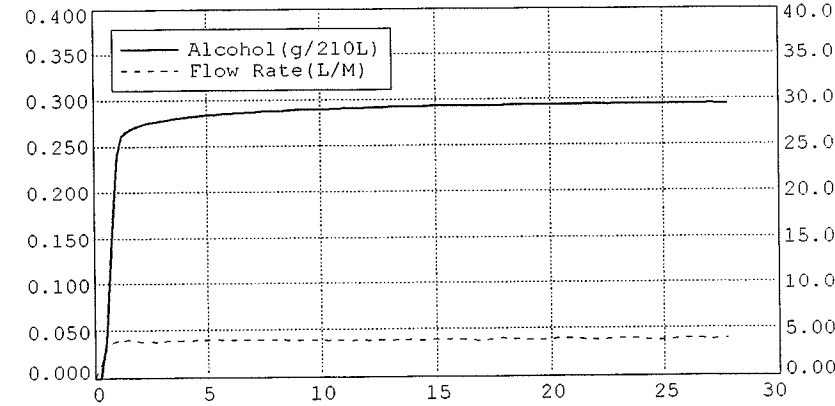
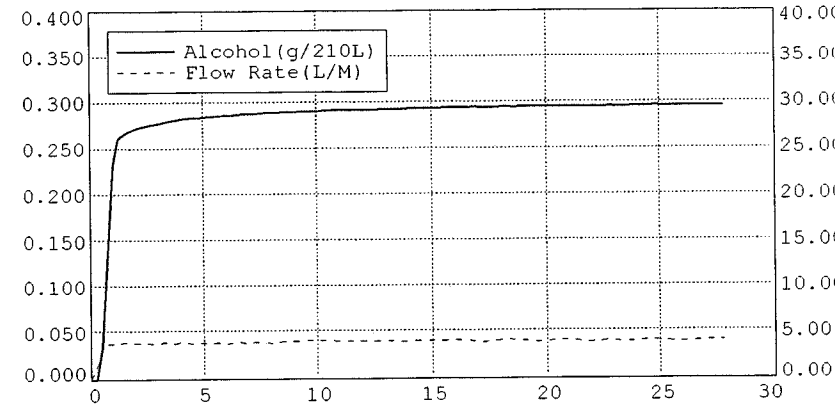
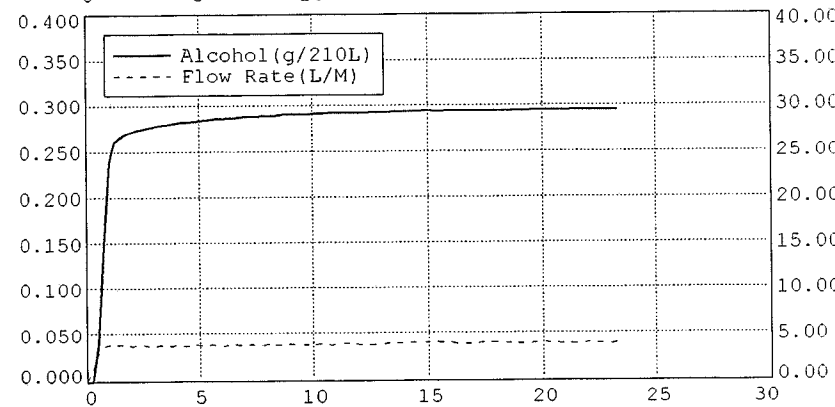
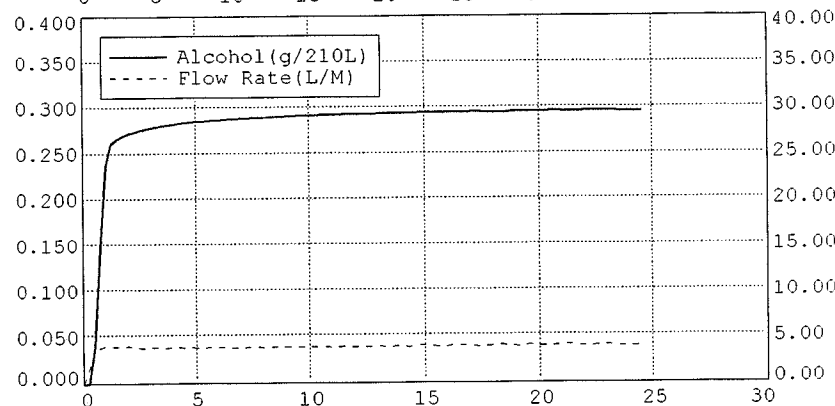
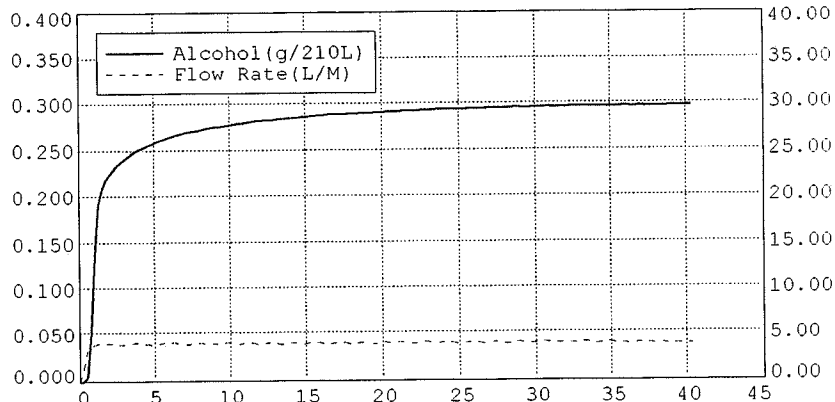
Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

Date: 06/25/2019  
 Time: 12:22:51

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 19010  
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	12:24
INTERNAL STANDARD	VERIFIED	12:24
EXTERNAL STANDARD	0.297	12:24
BLANK TEST	0.000	12:25
EXTERNAL STANDARD	0.295	12:26
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.295	12:27
BLANK TEST	0.000	12:28
EXTERNAL STANDARD	0.296	12:29
BLANK TEST	0.000	12:30
EXTERNAL STANDARD	0.296	12:30
BLANK TEST	0.000	12:31

Average = 0.2958  
 Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety

DATA MASTER dmt: 100381

Date: 06/25/2019  
Time: 12:41:28

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

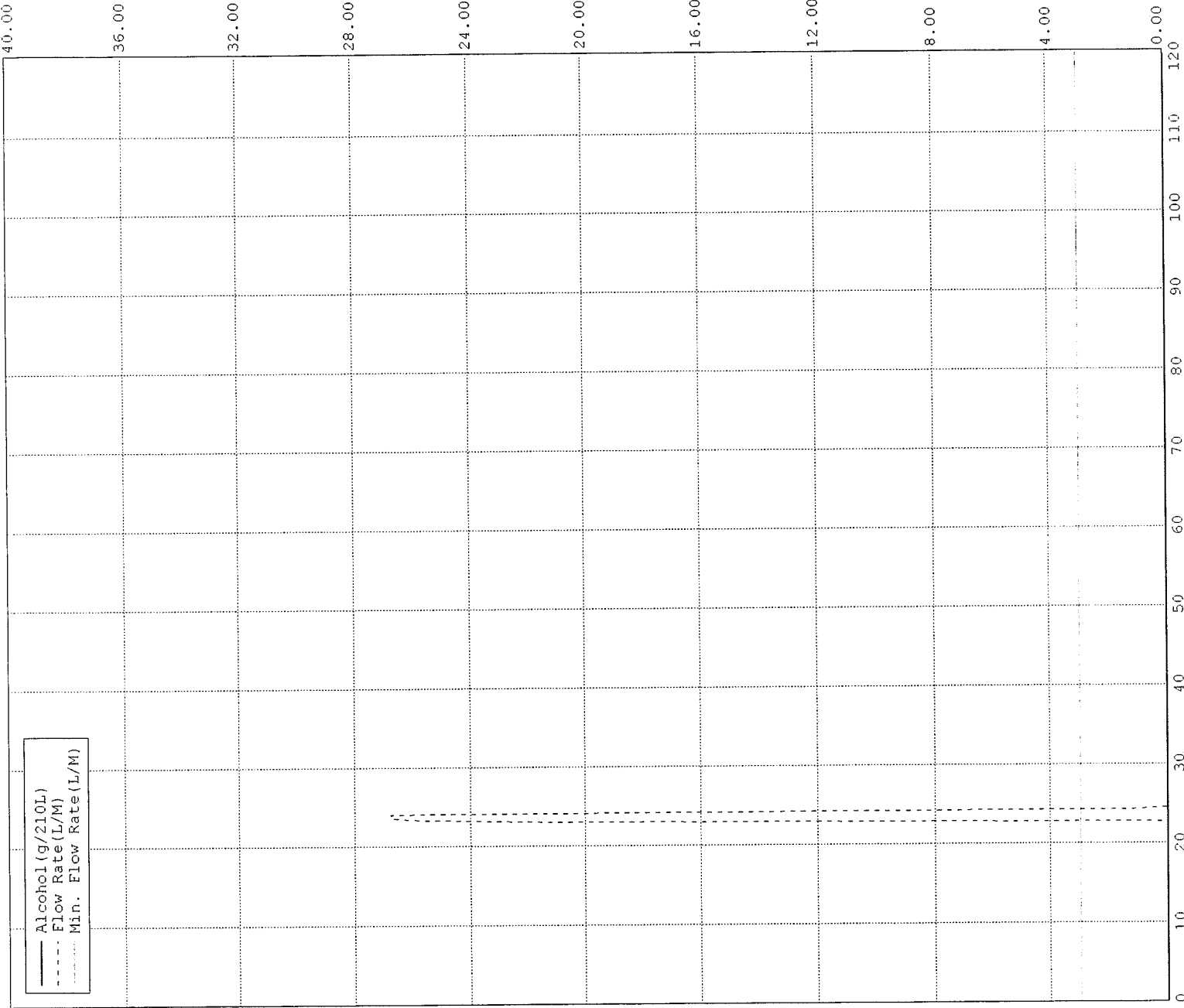
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 12:42  
BLANK TEST 0.000 12:42  
INTERNAL STANDARD VERIFIED 12:42  
EXTERNAL STANDARD 0.076 12:42  
BLANK TEST 0.000 12:43  
SUBJECT SAMPLE INCOMPLETE 12:45

*DM*



SUBJECT TEST

Alaska Department of Public Safety

DATA MASTER dmt: 100381

Date: 06/25/2019  
Time: 13:34:46

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

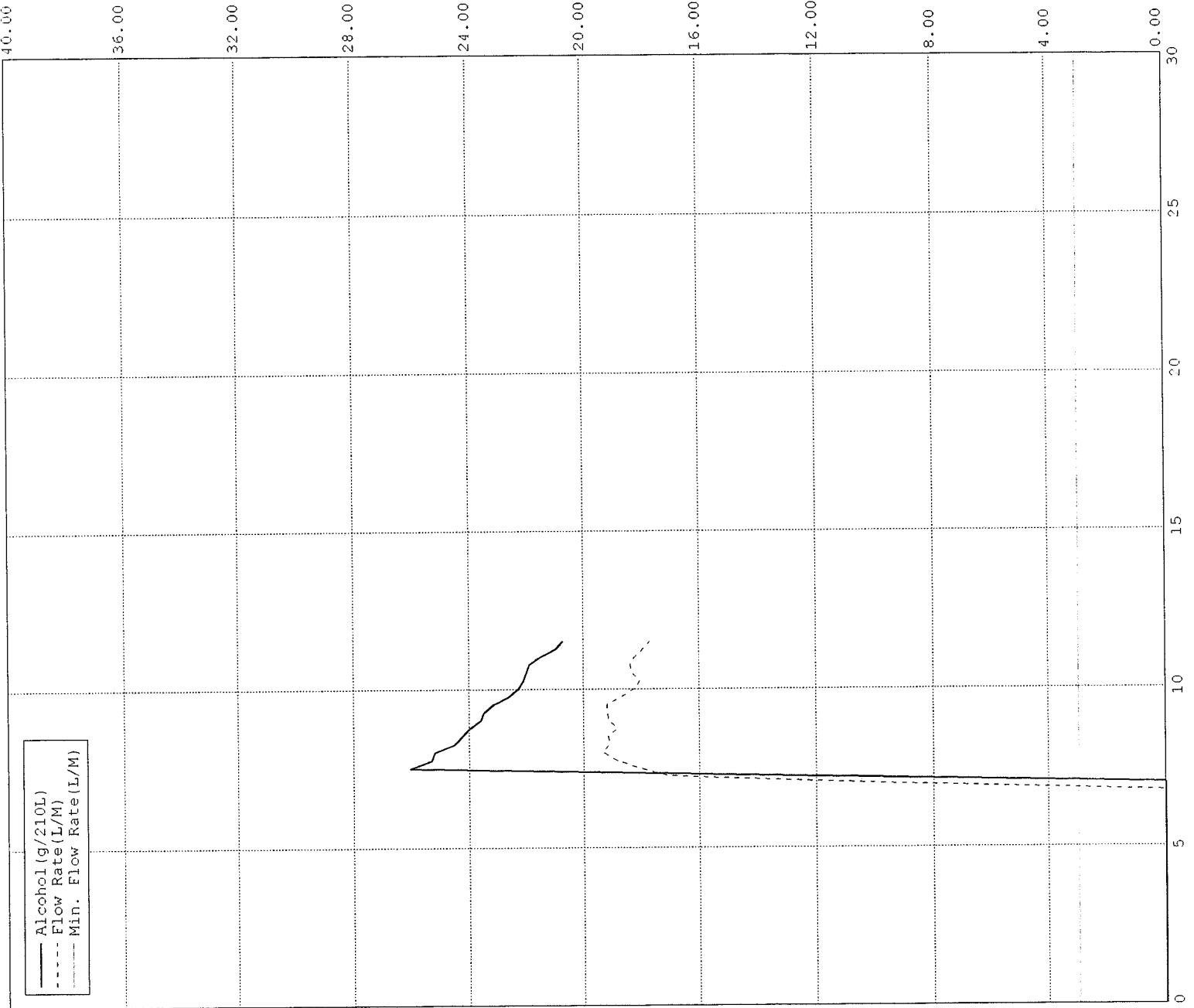
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK  
BLANK TEST PASSED 13:37  
INTERNAL STANDARD VERIFIED 13:37  
EXTERNAL STANDARD 0.077 13:38  
BLANK TEST 0.000 13:39  
SUBJECT SAMPLE INVALID 13:39

*DW*



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100381  
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Date: 06/25/2019  
Time: 14:13:32

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 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

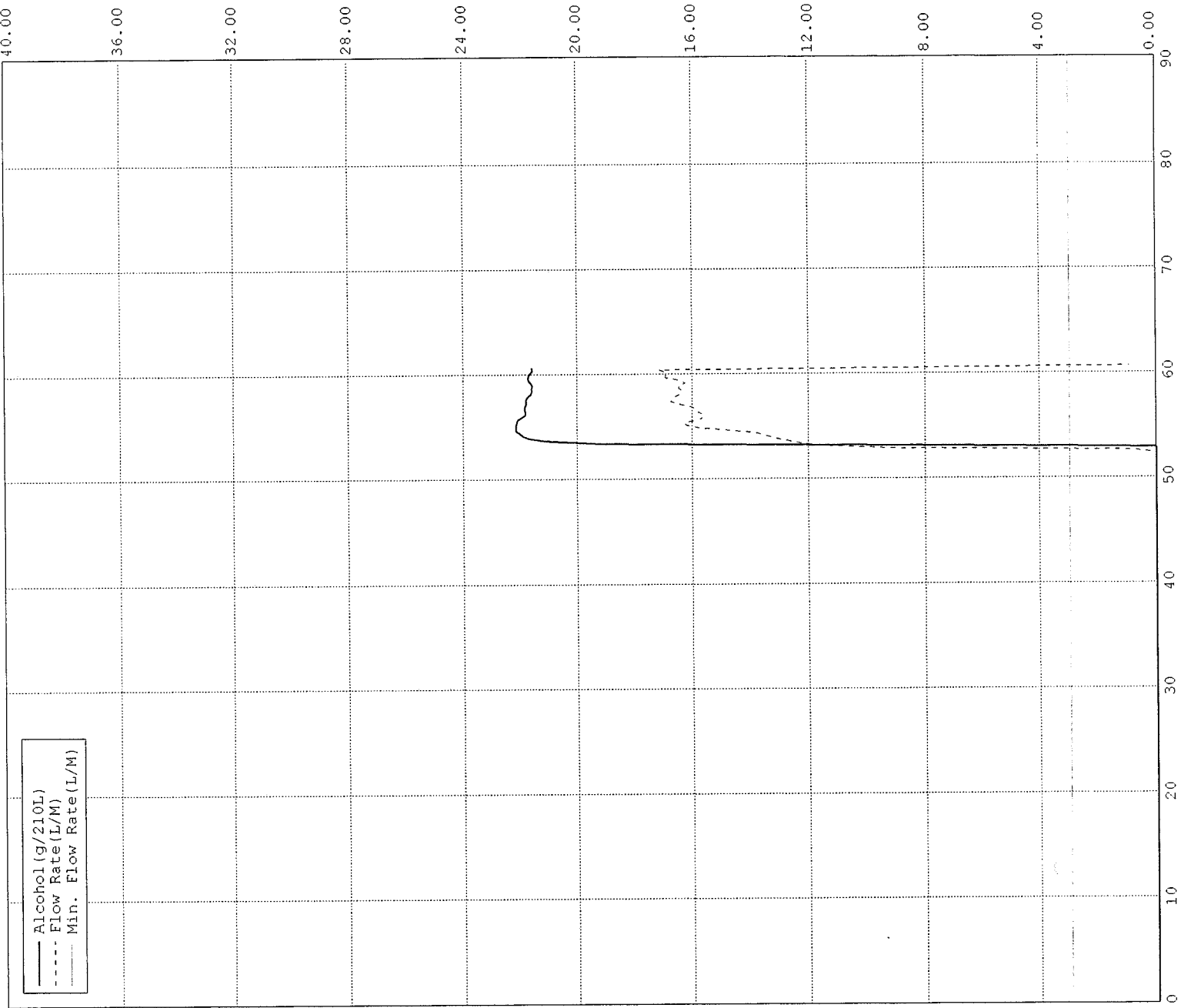
DIAGNOSTIC CHECK	PASSED	14:18
BLANK TEST	0.000	14:18
INTERNAL STANDARD	VERIFIED	14:18
Xq = 0.093 (2.01%)		
EXTERNAL STANDARD	0.077	14:19
X[1] = 0.0768 (-0.0003) (0.0020)		
BLANK TEST	0.000	14:20
SUBJECT SAMPLE	XXX	14:21
X[1] = 0.1083 (-0.0157) (0.0004)		

Interference Detected

Filter 2 Avg = -0.0004

Filter 3 Avg = 0.0023

*DW*



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100381  
-----

Date: 06/25/2019  
Time: 14:24:04

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

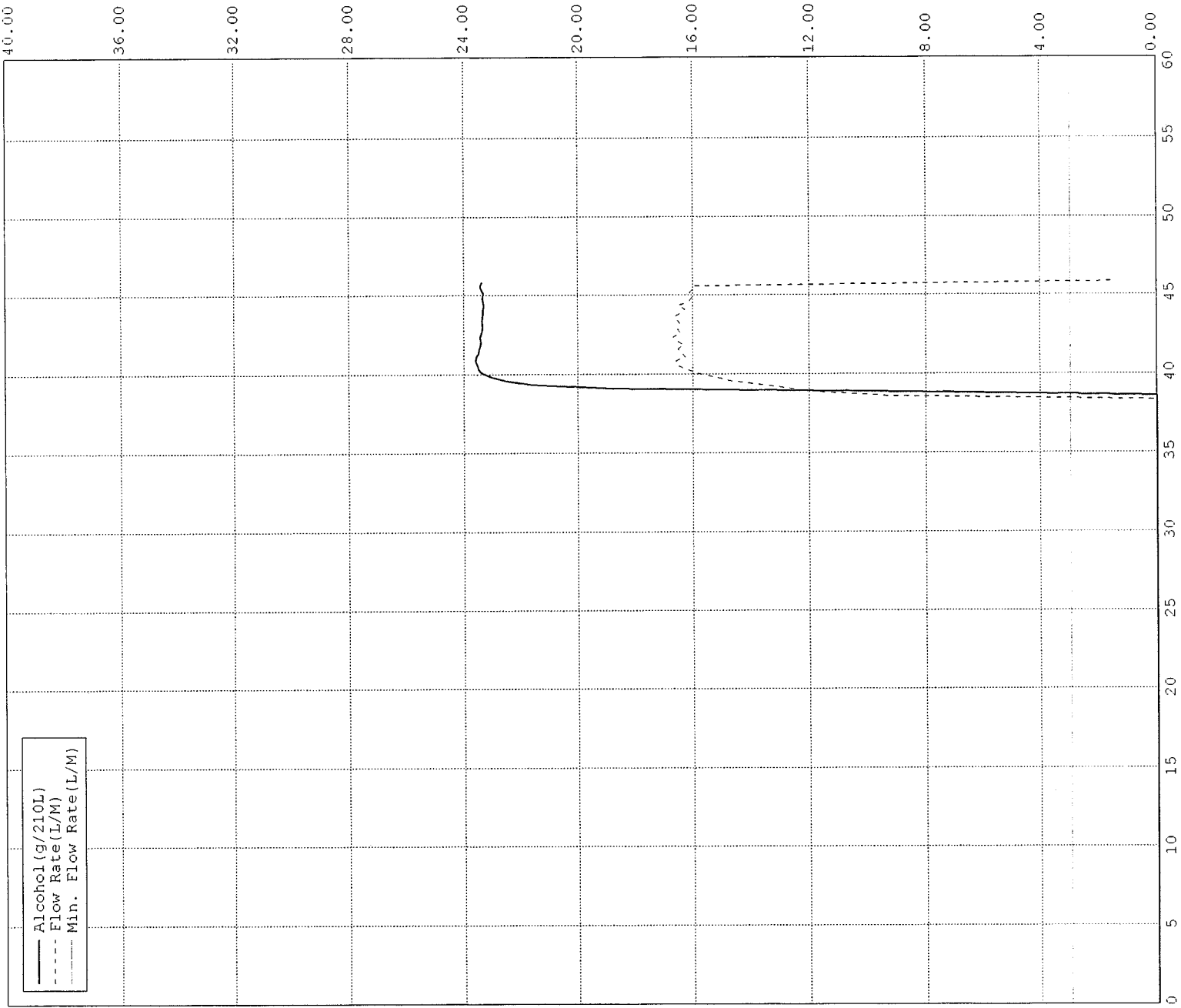
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:25  
BLANK TEST 0.000 14:25  
INTERNAL STANDARD VERIFIED 14:25  
Xq = 0.092 (0.86%)  
EXTERNAL STANDARD 0.077 14:25  
X[1] = 0.0769 (-0.0007) (0.0020)  
BLANK TEST 0.000 14:26  
SUBJECT SAMPLE XXX 14:27  
X[1] = 0.1174 (-0.0182) (0.0010)

Interference Detected

*JWC*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 06/25/2019  
Time: 14:36:52

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

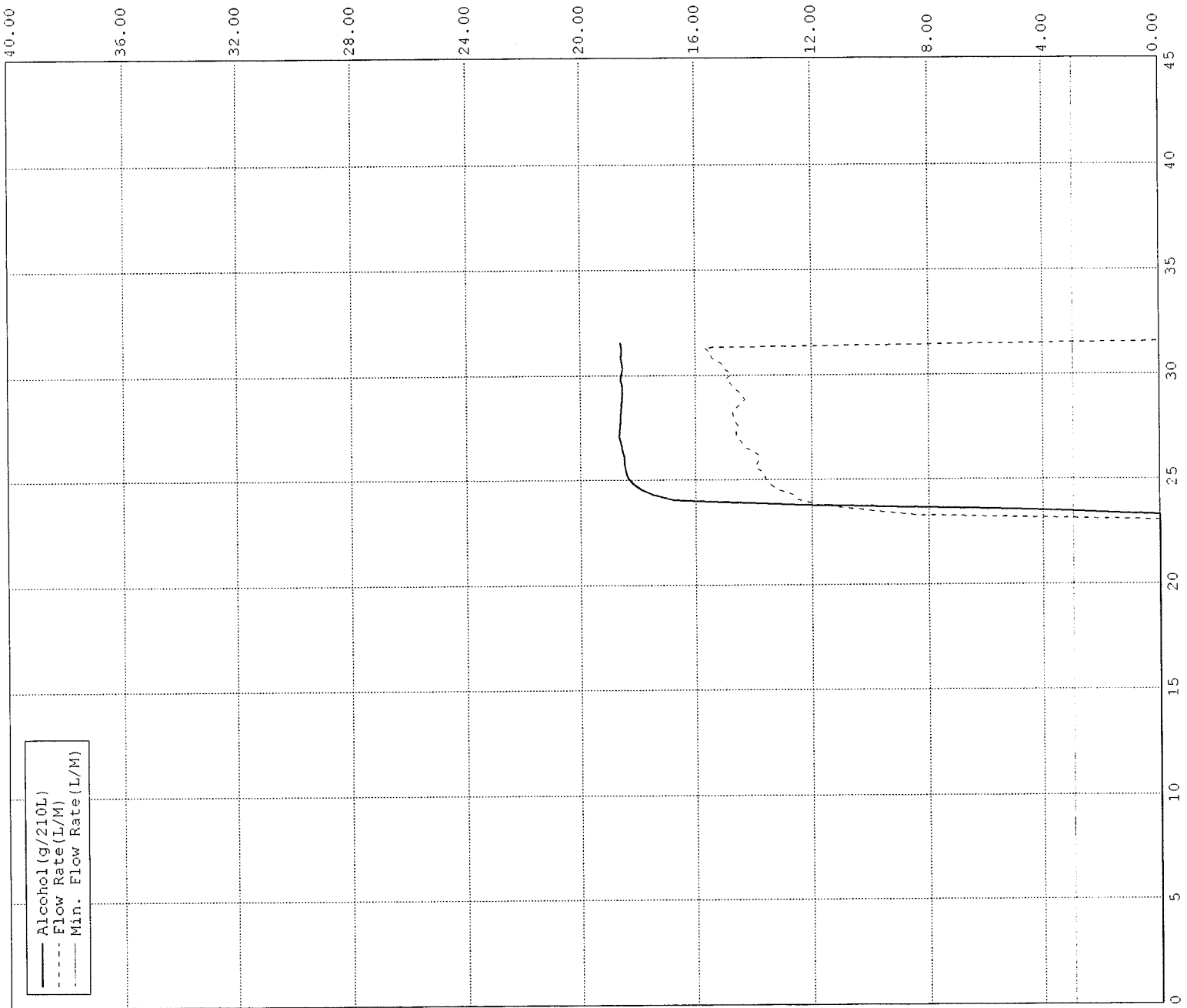
DEPT/AGENCY:  
INTERFERENCE NEGATIVE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	14:37
BLANK TEST	0.000	14:38
INTERNAL STANDARD	VERIFIED	14:38
Xq = 0.092 (0.86%)		
EXTERNAL STANDARD	0.077	14:38
X[1] = 0.0768 (-0.0002) (0.0029)		
BLANK TEST	0.000	14:39
SUBJECT SAMPLE (Vol=1.92L)	0.092	14:39
X[1] = 0.0928 (0.0008) (0.0009)		
BLANK TEST	0.000	14:40
EXTERNAL STANDARD	0.077	14:41
X[1] = 0.0766 (-0.0005) (0.0022)		
BLANK TEST	0.000	14:41

*DW*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 06/25/2019  
Time: 14:01:53

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

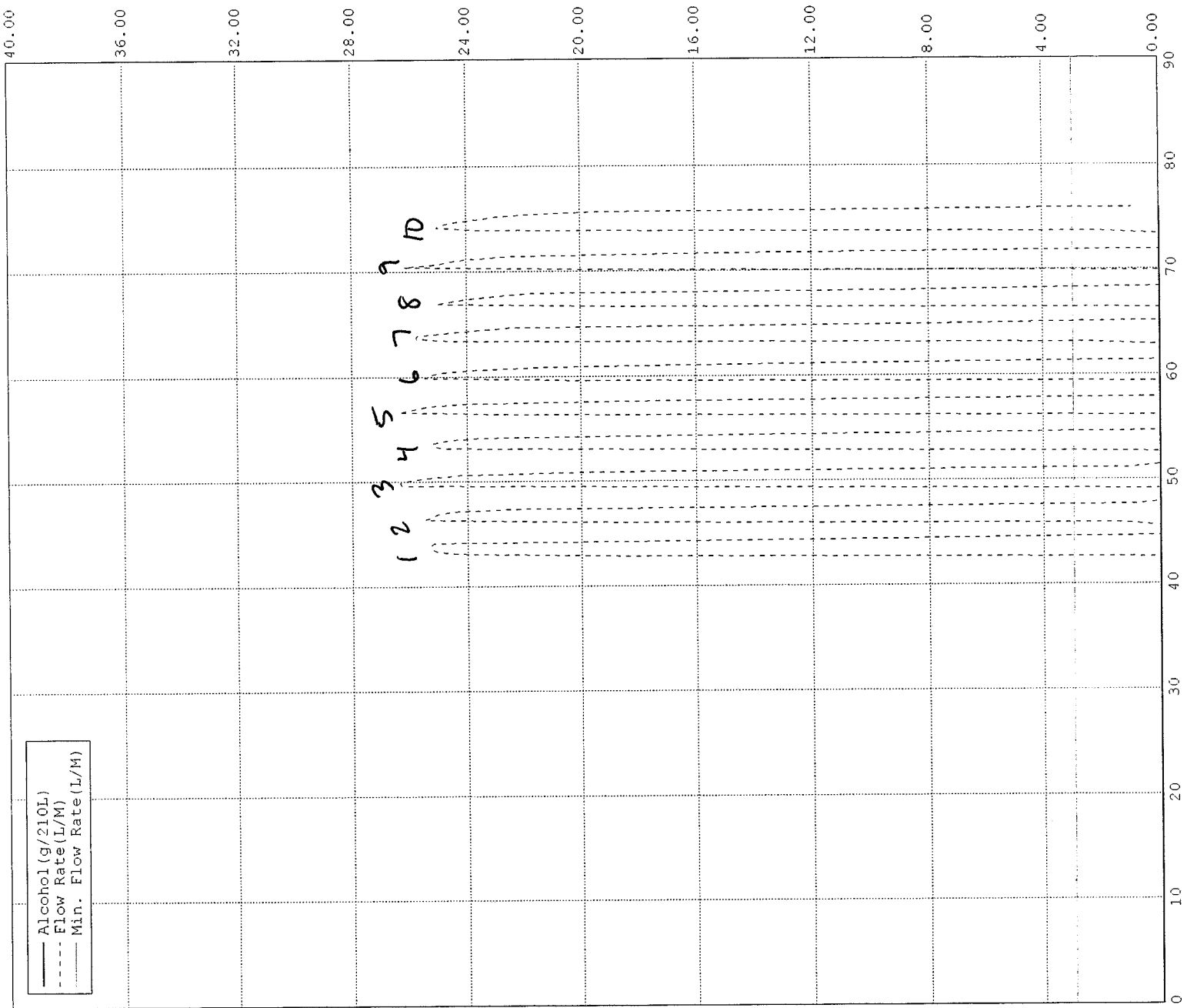
DEPT/AGENCY:  
MAXIMUM ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.85: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:02  
BLANK TEST 0.000 14:03  
INTERNAL STANDARD VERIFIED 14:03  
EXTERNAL STANDARD 0.077 14:03  
BLANK TEST 0.000 14:04  
SUBJECT SAMPLE XXX 14:05

Maximum Attempts Exceeded

*OPW*



SUBJECT TEST

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Alaska Department of Public Safety  
DATAMASTER dmt: 100381  
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Date: 06/25/2019  
Time: 13:44:20

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

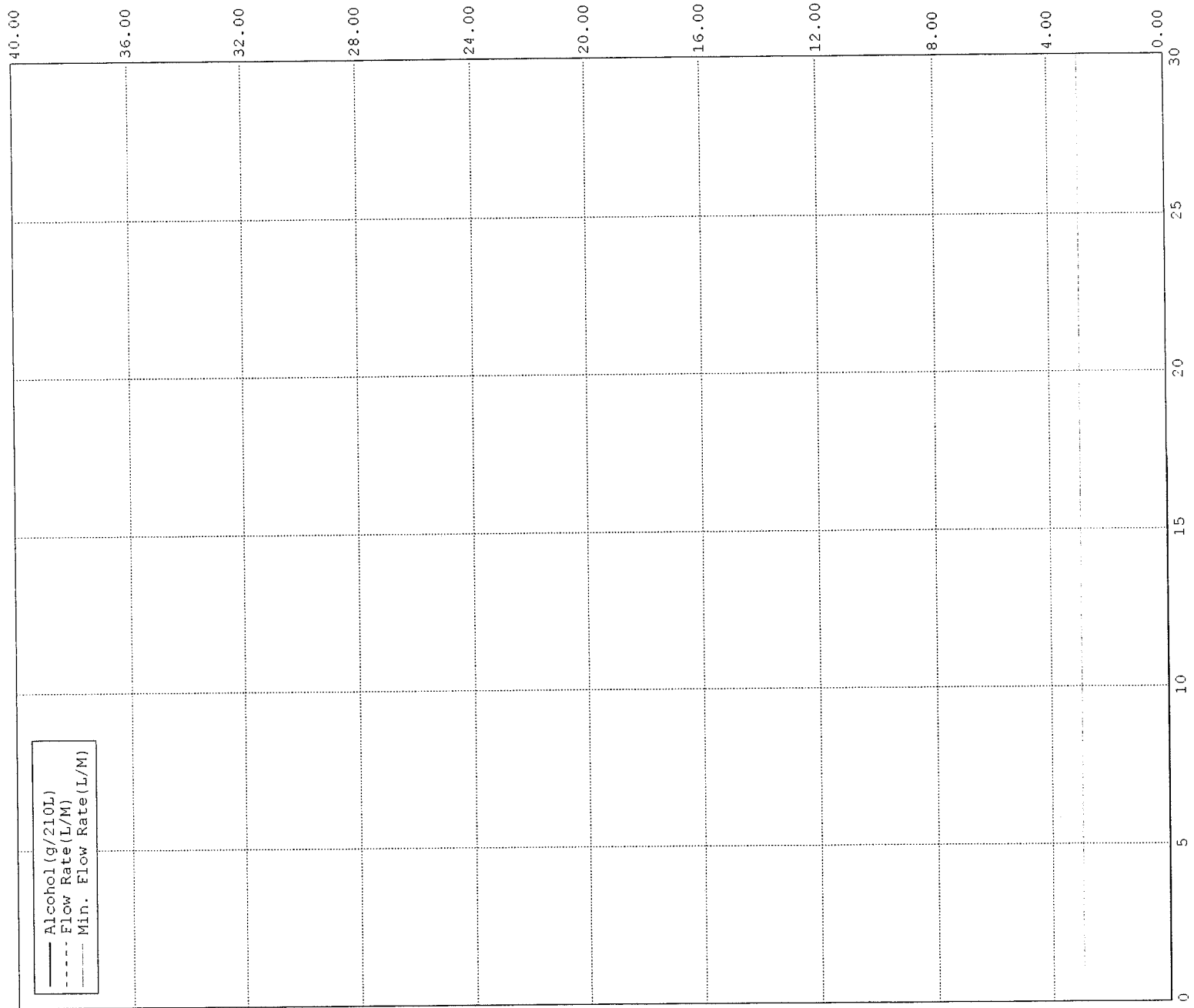
DEPT/AGENCY:  
RADIO FREQUENCY  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.85: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:57  
BLANK TEST 0.000 13:57  
INTERNAL STANDARD VERIFIED 13:57  
EXTERNAL STANDARD 0.077 13:57  
BLANK TEST 0.000 13:58

RFI DETECTED

*Handwritten signature*



SUBJECT TEST

Alaska Department of Public Safety

DATA MASTER dmt: 100381

Date: 06/25/2019

Time: 15:09:51

SUBJECT NAME:

TEST TEST

LICENSE #: XXXX

OPERATOR NAME:

DEREK WALTON

OPERATOR'S #: 9508

DEPT/AGENCY:

NON-DRINKING SUBJECT

CASE/REPORT: XXXX

TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.84: 0.080

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK

BLANK TEST

INTERNAL STANDARD

INTERNAL STANDARD

BLANK TEST

SUBJECT SAMPLE (Vol=3.38L)

BLANK TEST

EXTERNAL STANDARD

BLANK TEST

PASSED 15:10  
0.000 15:10  
VERIFIED 15:11  
0.076 15:11  
0.000 15:12  
0.000 15:12  
0.000 15:13  
0.077 15:14  
0.000 15:15

