

# 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 160385 Analyst Derek Walton Start Date 05/30/19

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 1.4 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 Guth Lot 17340 Exp 10/07/19

1. Simulator S/N DR4177 Date Calibrated 06/04/18

vi. 0.300g/210L Mnf Guth Lot 17350 Exp 10/11/19

1. Simulator S/N DR6267 Date Calibrated 06/04/18

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

i. Acetone - Mnf Guth Lot 18370 Level 0.100 Exp 12/05/20

1. Simulator S/N SD1199 Date Calibrated 03/06/19

ii. Isopropanol - Mnf Guth Lot 18070 Level 0.100 Exp 02/26/20

1. Simulator S/N DR4161 Date Calibrated 03/07/19

iii. Negative Control - Mnf Guth 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

9. Verification of Calibration

7. Reset Options

10. Non-Drinking Subject Test (attached)

8. Clear Memory

11. Upload

13. Remove tank prior to shut down

End Date 05/30/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100385  
-----

Date: 5/30/2019  
Time: 08:25:29

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 = 45.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.65 V PASSED  
(0.94 V - 2.20 V)  
Cooler Voltage = 1.56 V PASSED  
(0.95 V - 2.21 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 548 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.7 in

PUMP INFO

Flow Rate = 4.577 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
(0.002 V <= 0.010 V)  
PUMP OFF PASSED  
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.093 0.86% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100385  
-----

Date: 5/30/2019

Time: 8:35 AM

Temperatures (°C)

Sample Cell: 48.7°C

Breath Tube: 45.2°C

Current Barometer 29.8 in

Volume (Ltr) 1.57

Settings

Lamp: 1.65 V

Bias: 79 V

Cooler: 1.58 V

Chopper: 526 Hz

Voltages (V)

Flow: 1.05 V

Detector: -0.016 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100385  
-----

Date: 3/9/2011  
Time: 12:02:20

Ca = 0.1000  
CAL = 0.994034    0.800 <= CAL < 1.200  
b1 = 0.0002    0.0000 <= b1 < 0.0040  
b2 = 0.0044    0.0010 <= b2 < 0.0100  
b3 = 0.0001    0.0000 <= b3 < 0.0040  
Xq = 0.0918    0.0500 <= Xq < 0.2000  
a21 = 1.184989    1.050 <= a21 < 1.300  
a31 = 0.500132    0.300 <= a31 < 0.800

SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100385  
-----

Date: 5/30/2019  
Time: 08:54:14

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

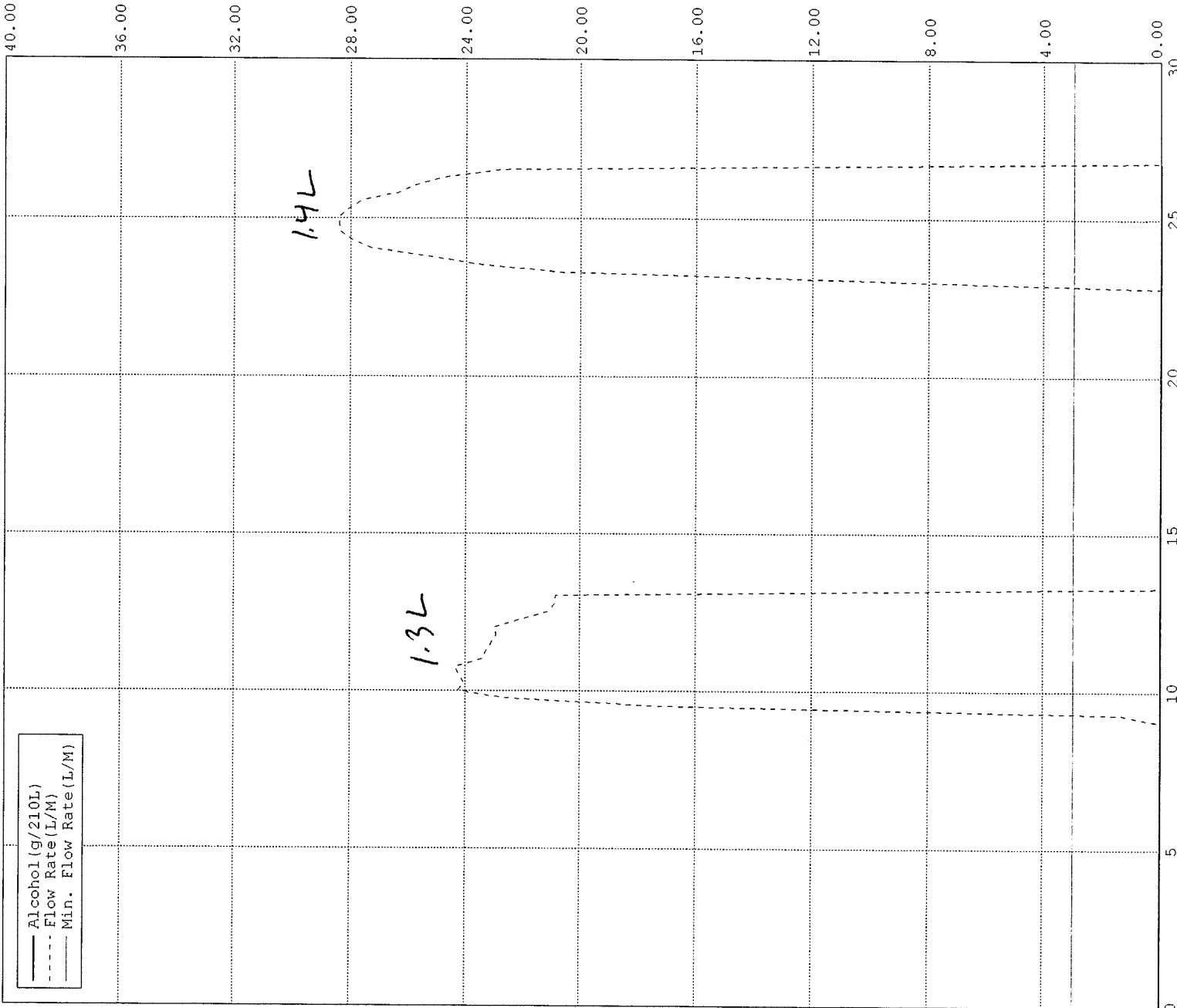
DEPT/AGENCY:  
MINIMUM VOLUME  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.76: 0.080  
LOT #: AG826101  
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK	PASSED	09:02
BLANK TEST	0.000	09:02
INTERNAL STANDARD	VERIFIED	09:02
EXTERNAL STANDARD	0.080	09:02
BLANK TEST	0.000	09:03
SUBJECT SAMPLE (Vol=1.57L)	0.000	09:04
BLANK TEST	0.000	09:05
EXTERNAL STANDARD	0.080	09:05
BLANK TEST	0.000	09:06

*DW*



LINEARITY CHECK

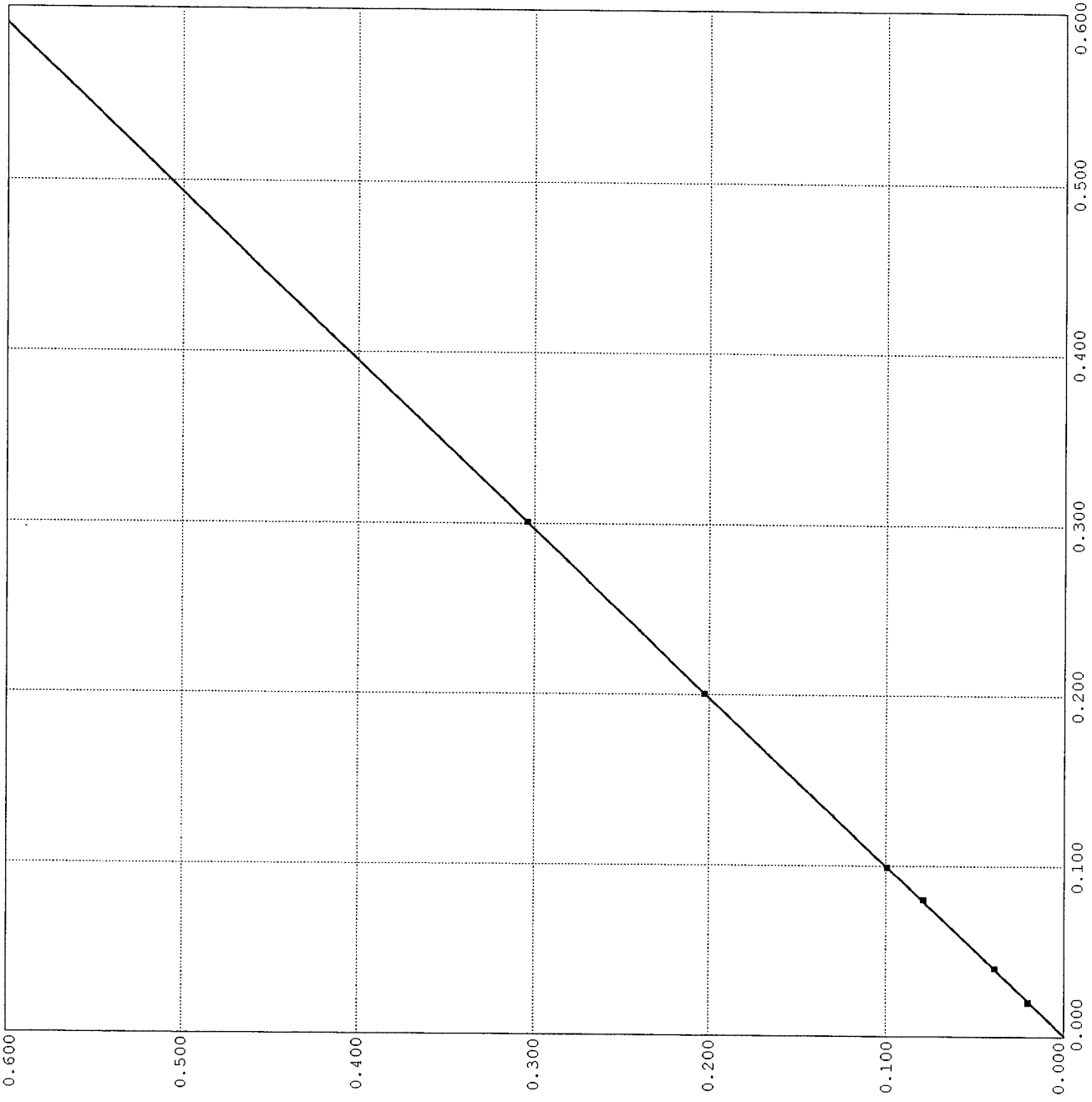
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100385  
 -----

Date: 5/30/2019  
 Time: 09:09:49

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0000
0.040	0.0400	0.0000
0.080	0.0800	0.0000
0.099	0.1004	0.0005
0.200	0.2034	0.0009
0.300	0.3048	0.0008

SLOPE = 1.017017  
 R<sup>2</sup> = 0.999962



*MC*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100385

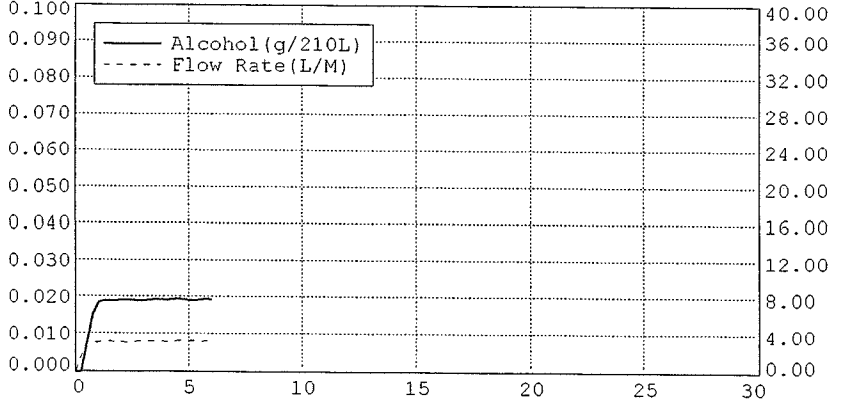
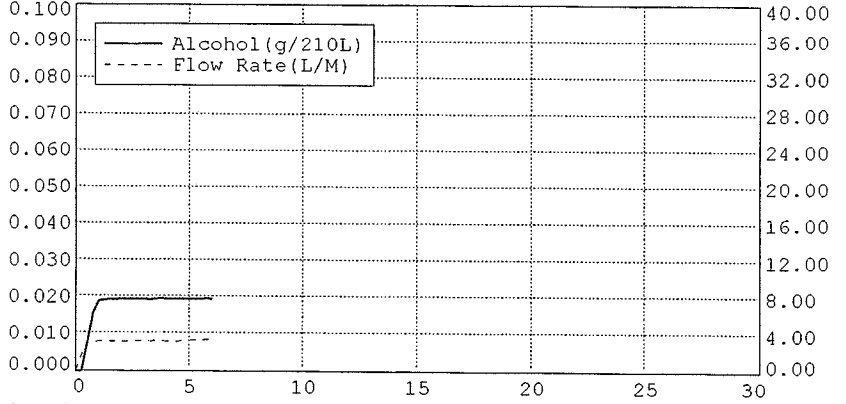
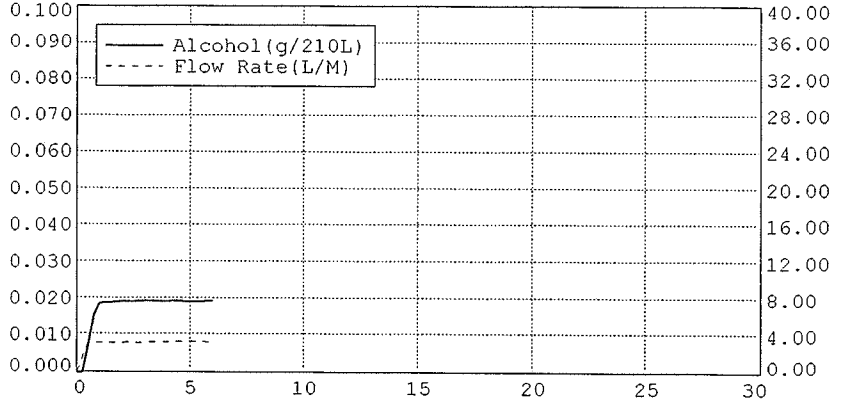
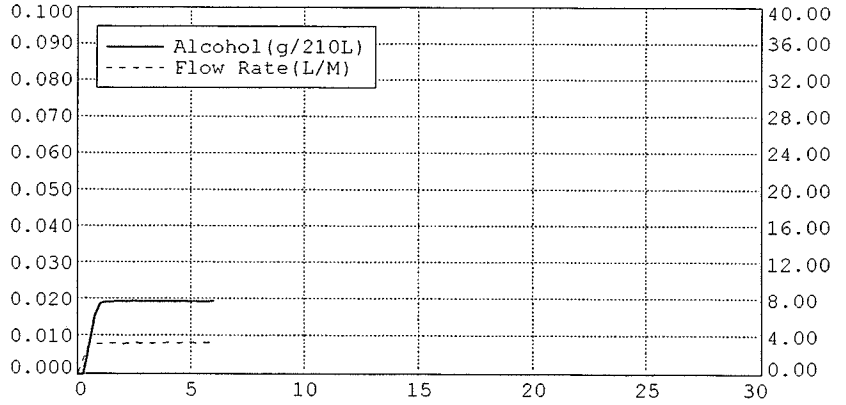
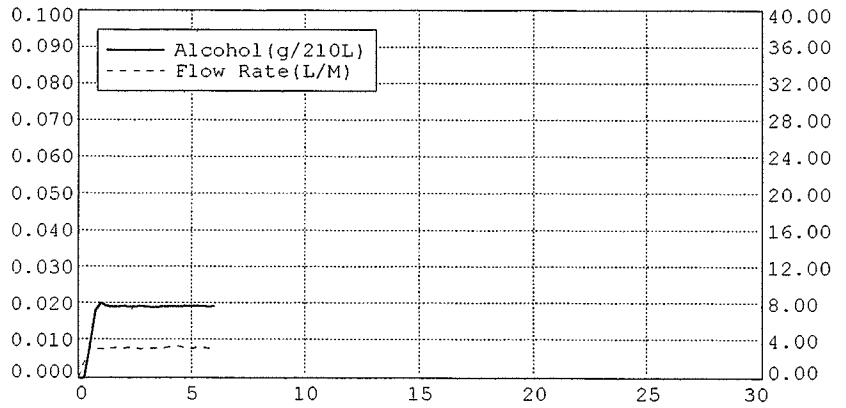
Date: 5/30/2019  
 Time: 09:09:51

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.76: 0.020  
 LOT #: AG805804  
 EXPIRATION: 2/27/2020  
 TANK PRESSURE: 688 psi

BLANK TEST	0.000	09:18
INTERNAL STANDARD	VERIFIED	09:18
EXTERNAL STANDARD	0.021	09:18
BLANK TEST	0.000	09:19
EXTERNAL STANDARD	0.021	09:19
BLANK TEST	0.000	09:20
EXTERNAL STANDARD	0.021	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.021	09:21
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.021	09:22
BLANK TEST	0.000	09:23

Average = 0.0210  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
DATAMASTER dmt: 100385

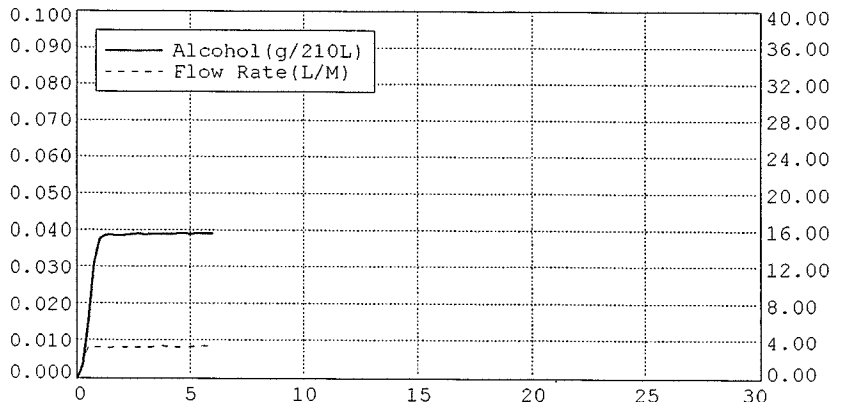
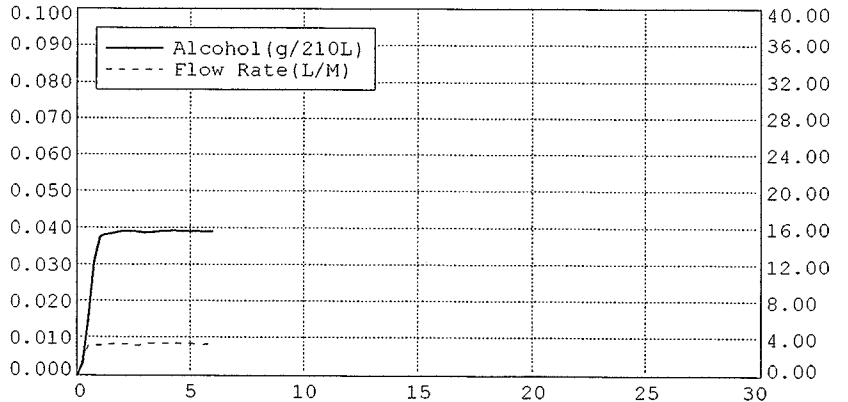
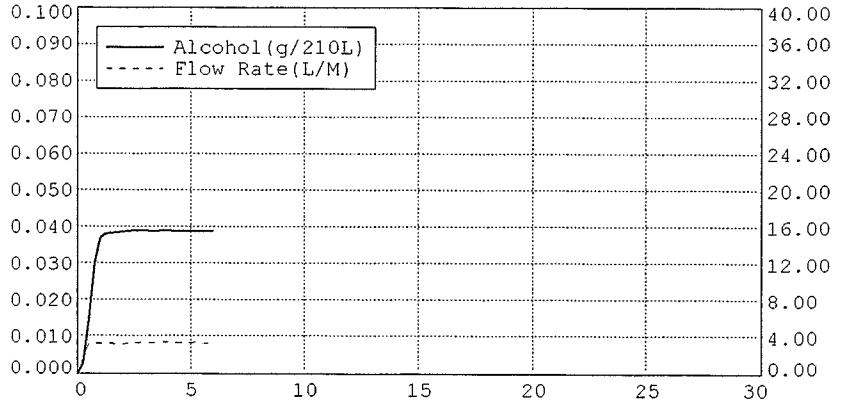
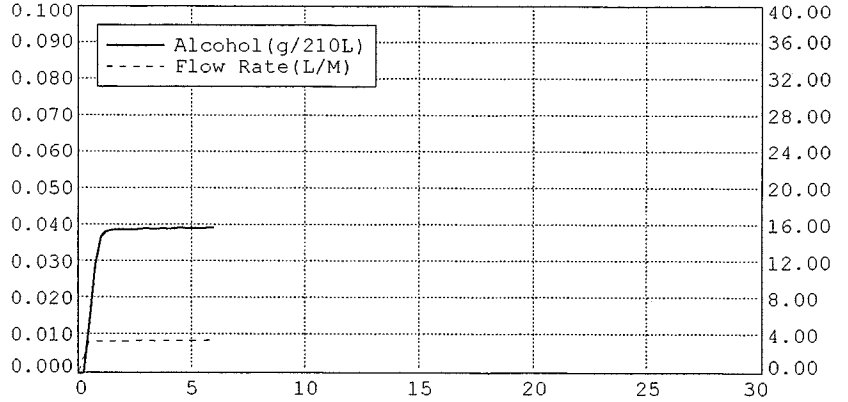
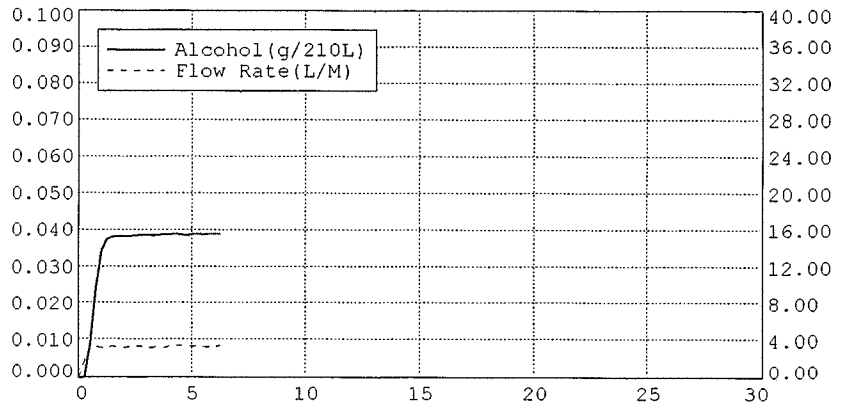
Date: 5/30/2019  
Time: 09:24:51

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 29.76: 0.040  
LOT #: AG733403  
EXPIRATION: 11/30/2019  
TANK PRESSURE: 1095 psi

BLANK TEST	0.000	09:26
INTERNAL STANDARD	VERIFIED	09:26
EXTERNAL STANDARD	0.040	09:26
BLANK TEST	0.000	09:27
EXTERNAL STANDARD	0.040	09:27
BLANK TEST	0.000	09:28
EXTERNAL STANDARD	0.040	09:28
BLANK TEST	0.000	09:29
EXTERNAL STANDARD	0.040	09:29
BLANK TEST	0.000	09:30
EXTERNAL STANDARD	0.040	09:30
BLANK TEST	0.000	09:31

Average = 0.0400  
Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100385

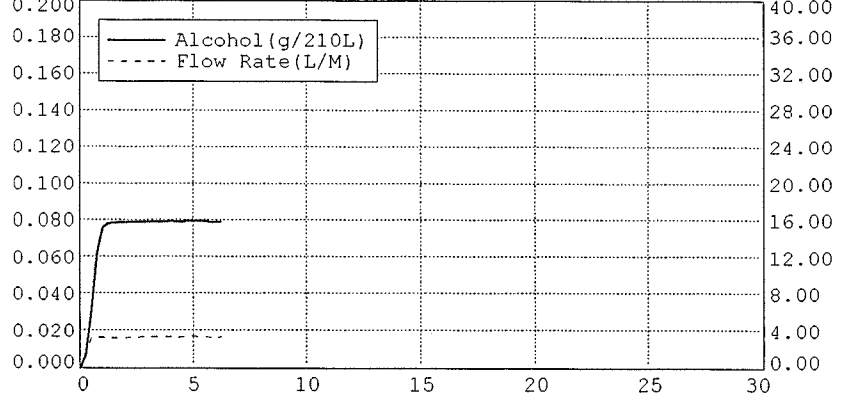
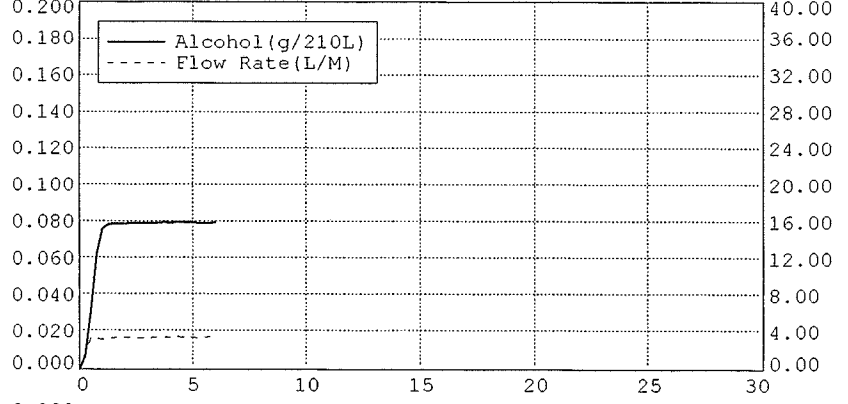
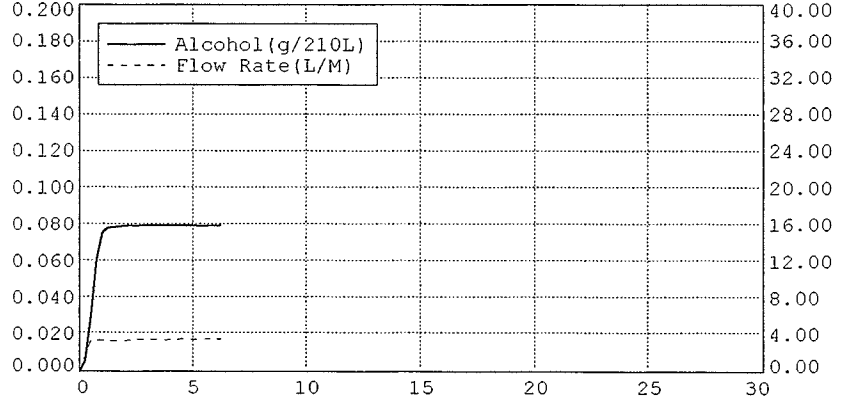
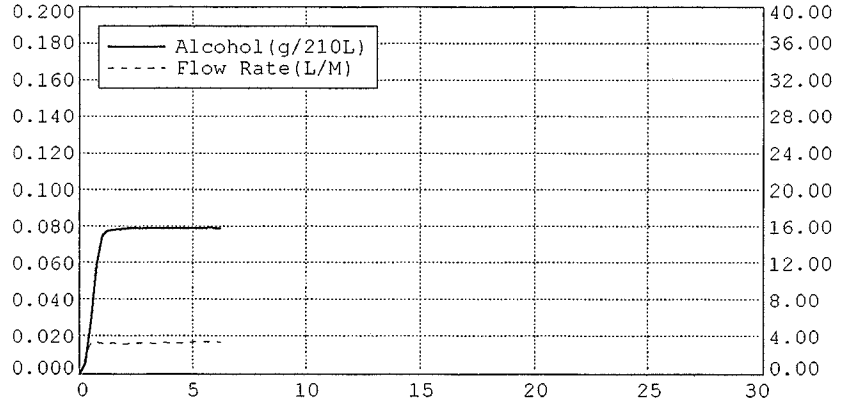
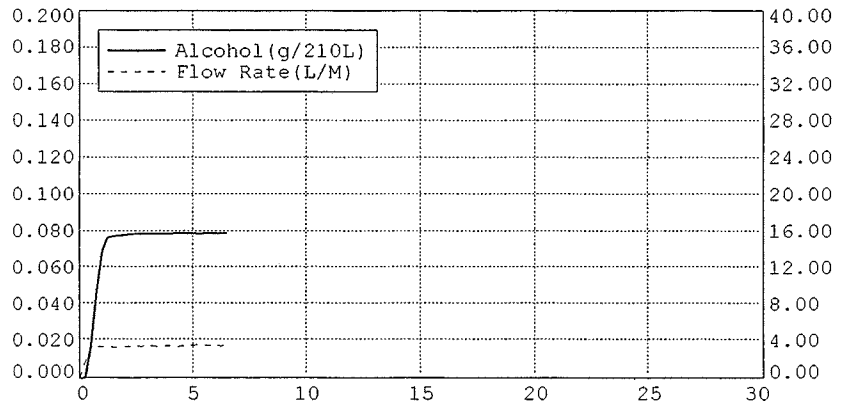
Date: 5/30/2019  
 Time: 09:33:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.76: 0.080  
 LOT #: AG826101  
 EXPIRATION: 9/18/2020  
 TANK PRESSURE: 1046 psi

BLANK TEST	0.000	09:34
INTERNAL STANDARD	VERIFIED	09:34
EXTERNAL STANDARD	0.080	09:34
BLANK TEST	0.000	09:35
EXTERNAL STANDARD	0.080	09:35
BLANK TEST	0.000	09:36
EXTERNAL STANDARD	0.080	09:36
BLANK TEST	0.000	09:37
EXTERNAL STANDARD	0.080	09:37
BLANK TEST	0.000	09:38
EXTERNAL STANDARD	0.080	09:39
BLANK TEST	0.000	09:39

Average = 0.0800  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100385

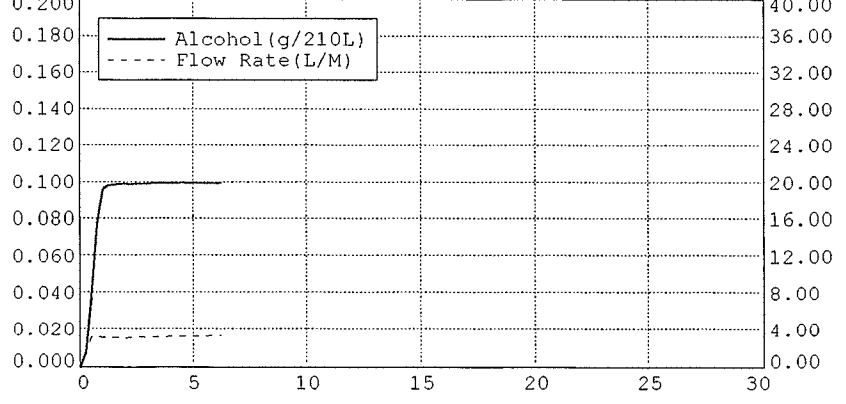
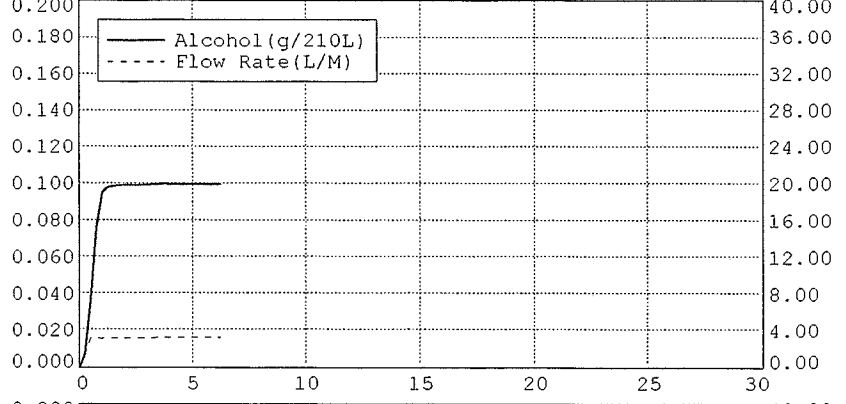
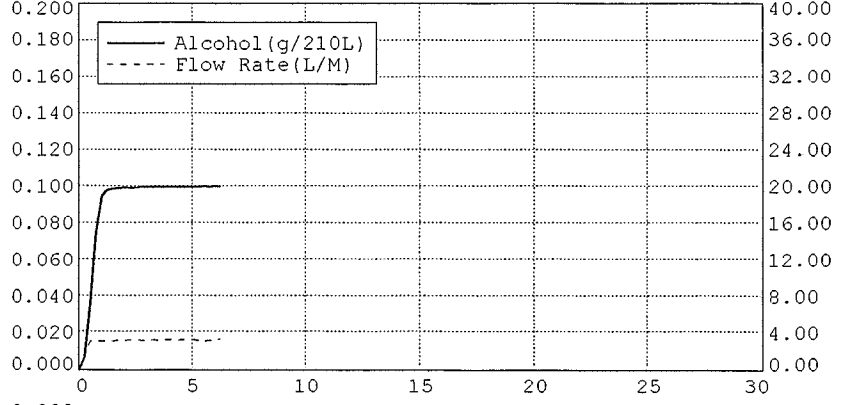
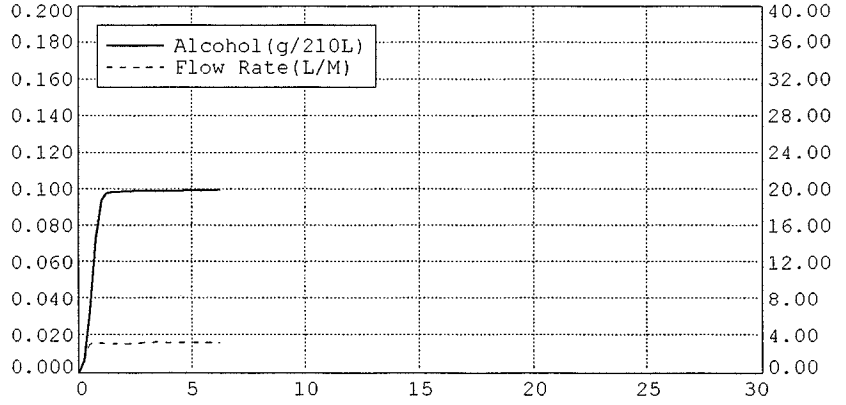
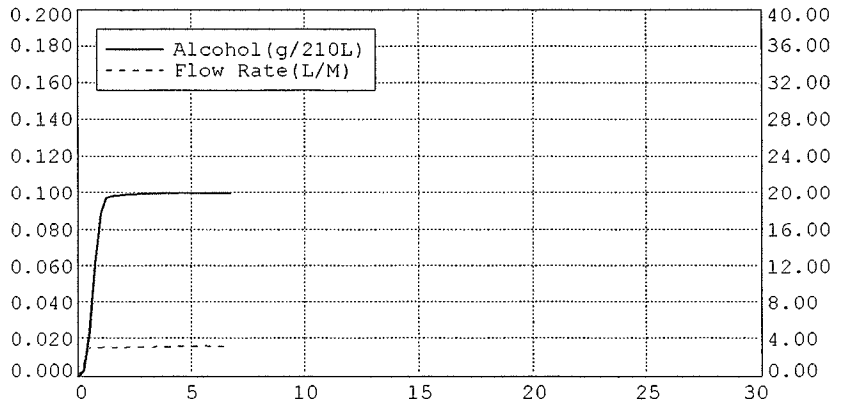
Date: 5/30/2019  
 Time: 09:45:28

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.75: 0.099  
 LOT #: AG805903  
 EXPIRATION: 2/28/2020  
 TANK PRESSURE: 614 psi

BLANK TEST	0.000	09:46
INTERNAL STANDARD	VERIFIED	09:46
EXTERNAL STANDARD	0.101	09:47
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.100	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.101	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.100	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.100	09:51
BLANK TEST	0.000	09:52

Average = 0.1004  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100385

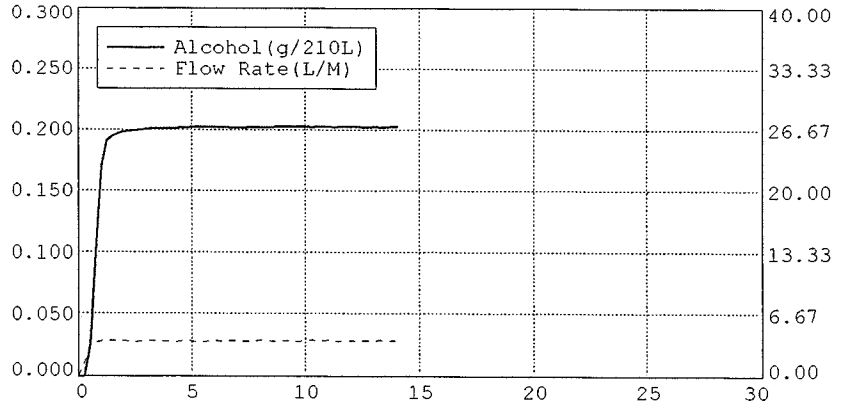
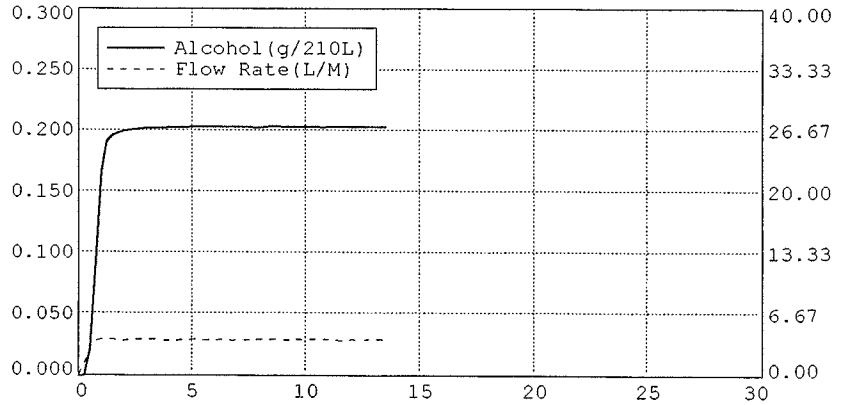
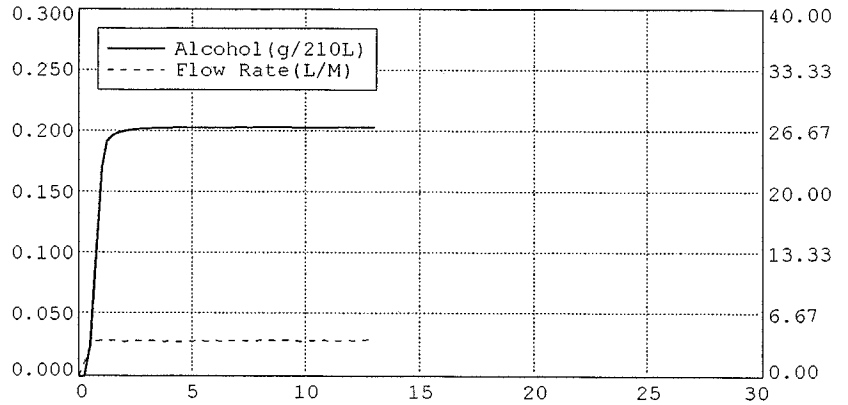
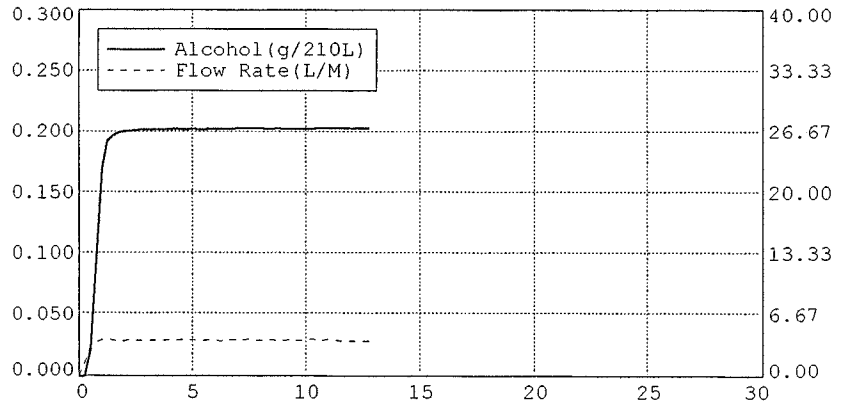
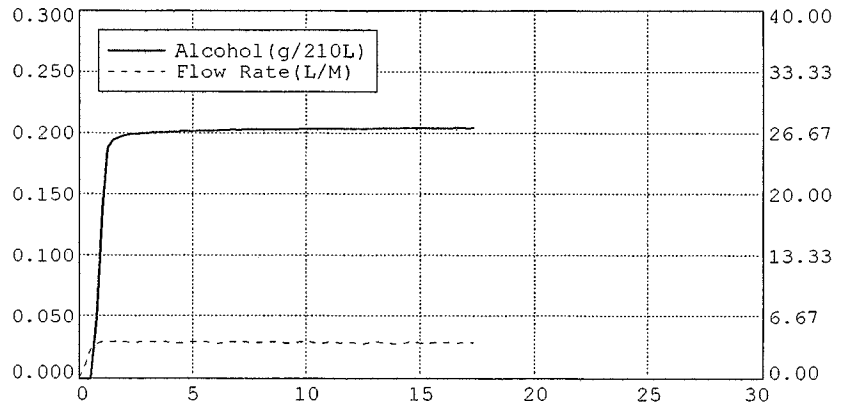
Date: 5/30/2019  
 Time: 09:54:35

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 17340  
 EXPIRATION: 10/9/2019

BLANK TEST	0.000	10:16
INTERNAL STANDARD	VERIFIED	10:16
EXTERNAL STANDARD	0.205	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.203	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.203	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.203	10:21
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.203	10:22
BLANK TEST	0.000	10:23

Average = 0.2034  
 Std Dev = 0.0009



LINEARITY CHECK: Control Test 6

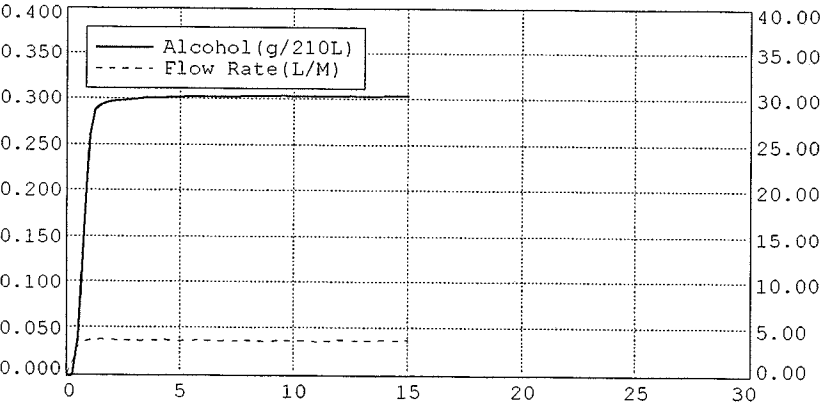
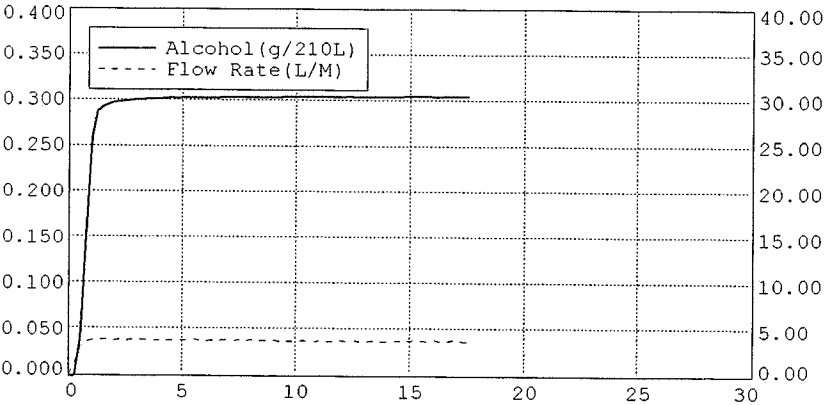
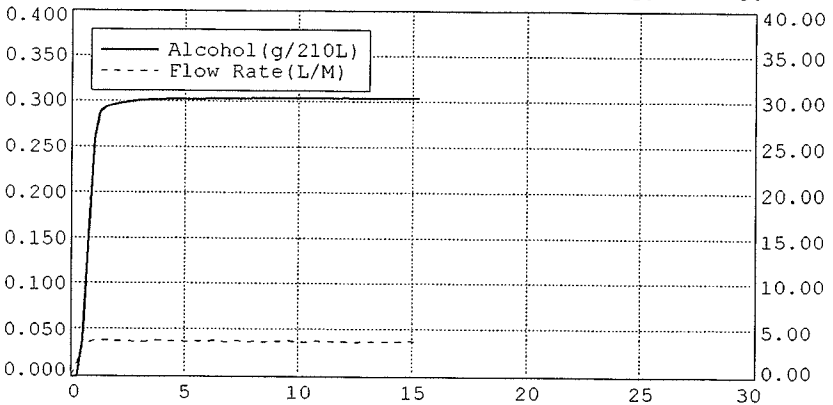
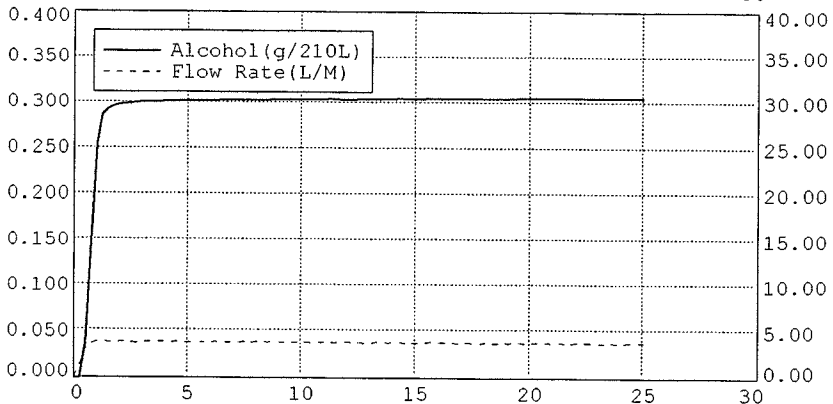
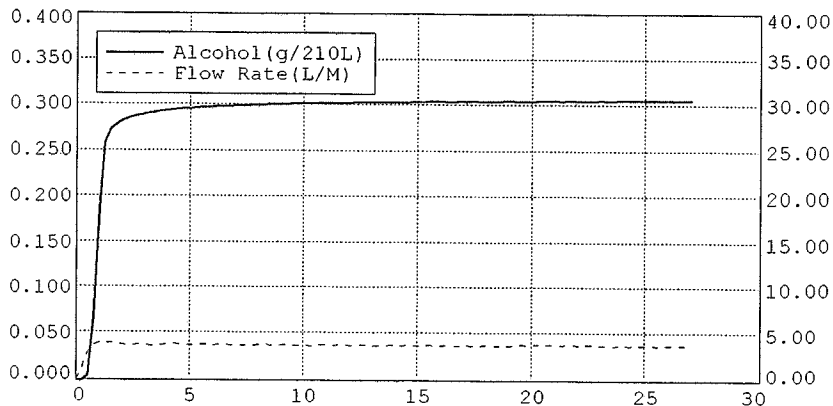
Alaska Department of Public Safety  
 DATAMASTER dmt: 100385

Date: 5/30/2019  
 Time: 10:35:28

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 17350  
 EXPIRATION: 10/11/2019

BLANK TEST	0.000	10:36
INTERNAL STANDARD	VERIFIED	10:36
EXTERNAL STANDARD	0.305	10:37
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.306	10:38
BLANK TEST	0.000	10:39
EXTERNAL STANDARD	0.305	10:40
BLANK TEST	0.000	10:40
EXTERNAL STANDARD	0.304	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.304	10:42
BLANK TEST	0.000	10:43

Average = 0.3048  
 Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100385

Date: 5/30/2019  
Time: 11:04:58

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

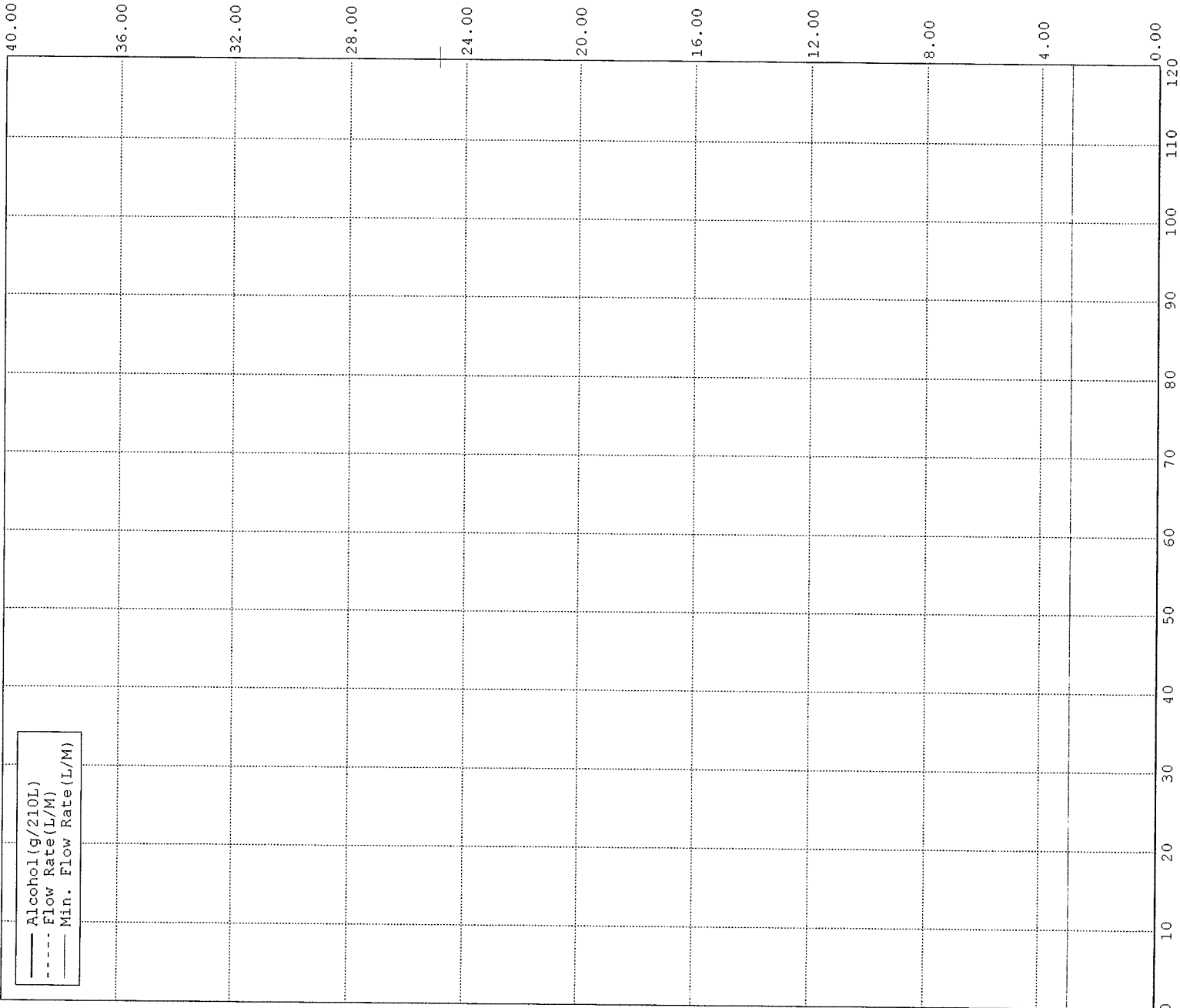
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG826101  
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 11:05  
BLANK TEST 0.000 11:06  
INTERNAL STANDARD VERIFIED 11:06  
EXTERNAL STANDARD 0.080 11:06  
BLANK TEST 0.000 11:07  
SUBJECT SAMPLE INCOMPLETE 11:09



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100385  
-----

Date: 5/30/2019  
Time: 10:50:00

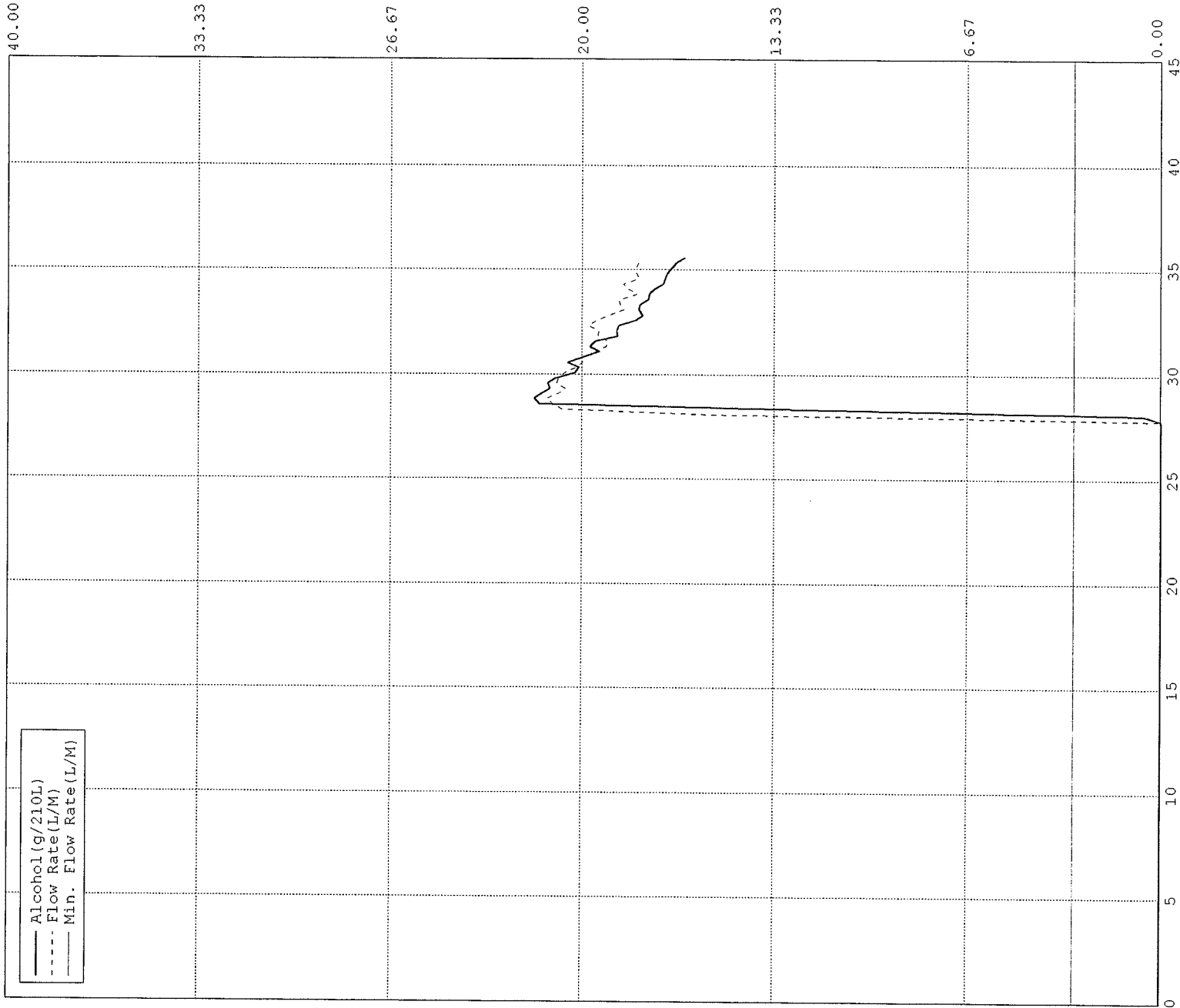
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.74: 0.080  
LOT #: AG826101  
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 10:51  
BLANK TEST 0.000 10:51  
INTERNAL STANDARD VERIFIED 10:51  
EXTERNAL STANDARD 0.080 10:51  
BLANK TEST 0.000 10:52  
SUBJECT SAMPLE INVALID 10:53



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100385  
-----

Date: 5/30/2019  
Time: 11:28:53

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 29.72: 0.079  
LOT #: AG826101  
EXPIRATION: 9/18/2020

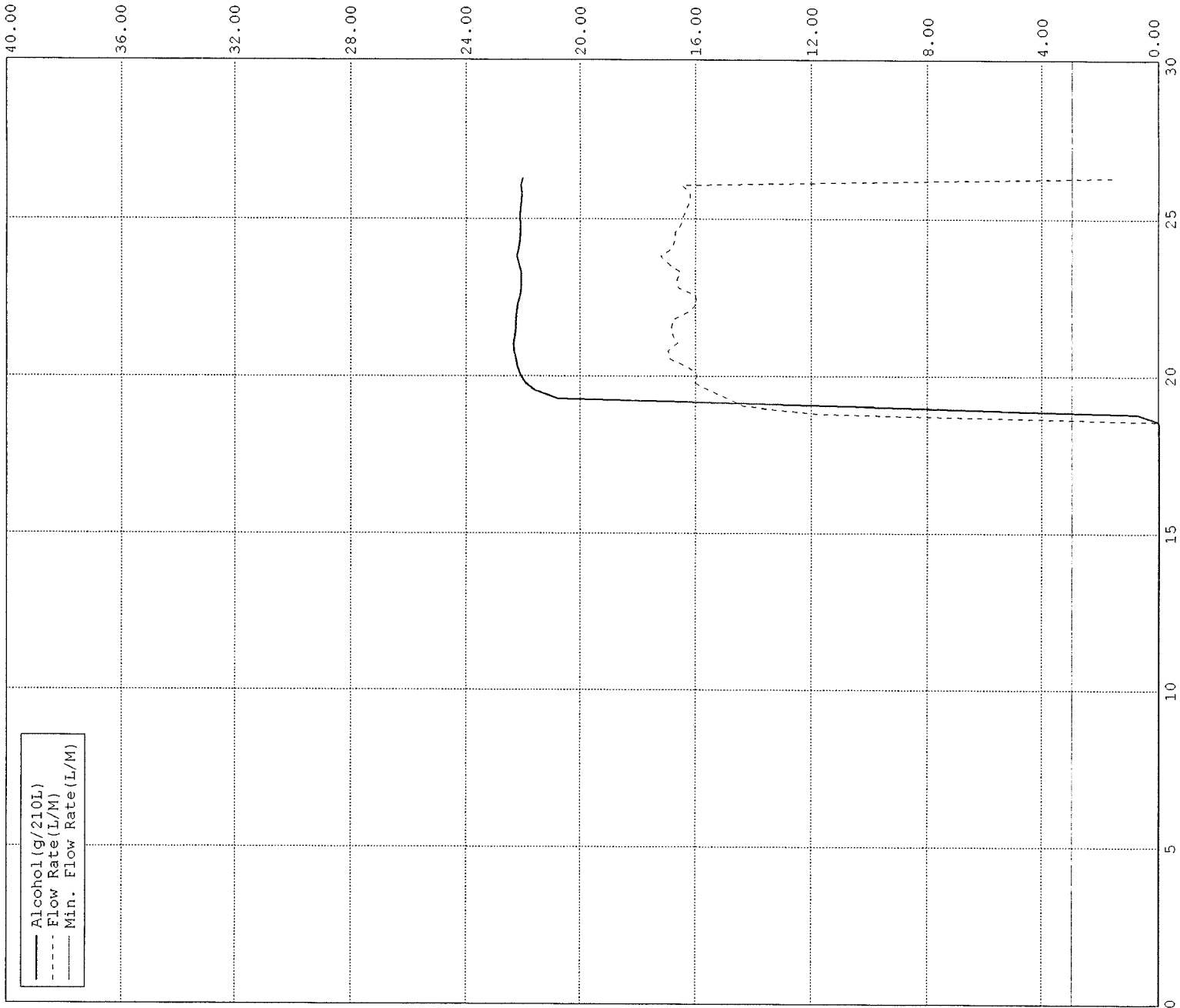
DIAGNOSTIC CHECK	PASSED	11:30
BLANK TEST	0.000	11:30
INTERNAL STANDARD	VERIFIED	11:30
Xq = 0.093 (1.43%)		
EXTERNAL STANDARD	0.080	11:31
X[1] = 0.0801 (0.0006) (0.0033)		
BLANK TEST	0.000	11:32
SUBJECT SAMPLE	XXX	11:32
X[1] = 0.1106 (-0.0208) (0.0017)		

Interference Detected

Filter 2 Avg: 0.0010

Filter 3 Avg: 0.0037

DW



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100385  
-----

Date: 5/30/2019  
Time: 11:23:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

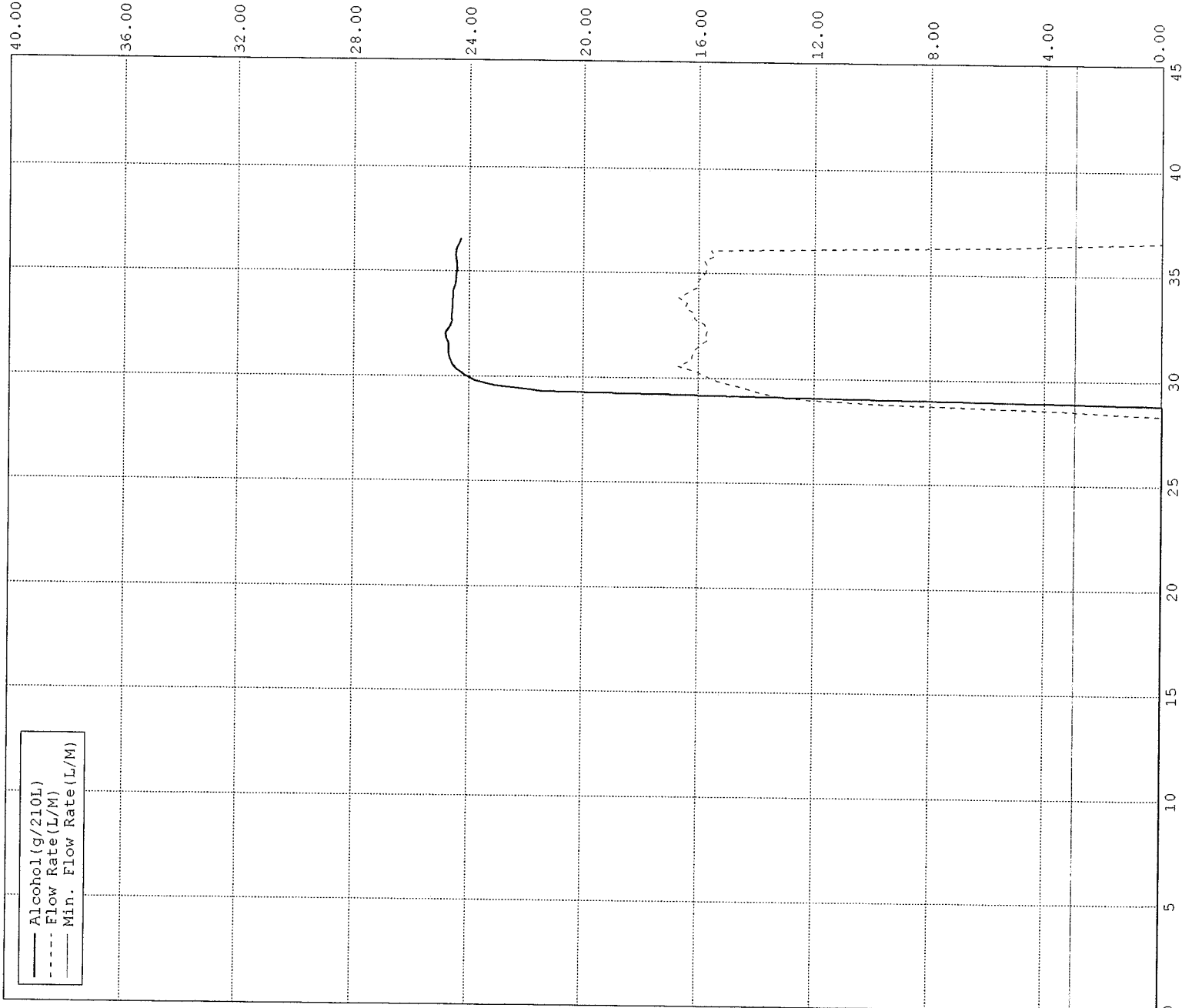
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG826101  
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 11:24  
BLANK TEST 0.000 11:24  
INTERNAL STANDARD VERIFIED 11:25  
Xq = 0.093 (0.86%)  
EXTERNAL STANDARD 0.080 11:25  
X[1] = 0.0802 (0.0015) (0.0042)  
BLANK TEST 0.000 11:26  
SUBJECT SAMPLE XXX 11:26  
X[1] = 0.1221 (-0.0274) (0.0041)

Interference Detected

*DM*





SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100385  
-----

Date: 5/30/2019  
Time: 11:34:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

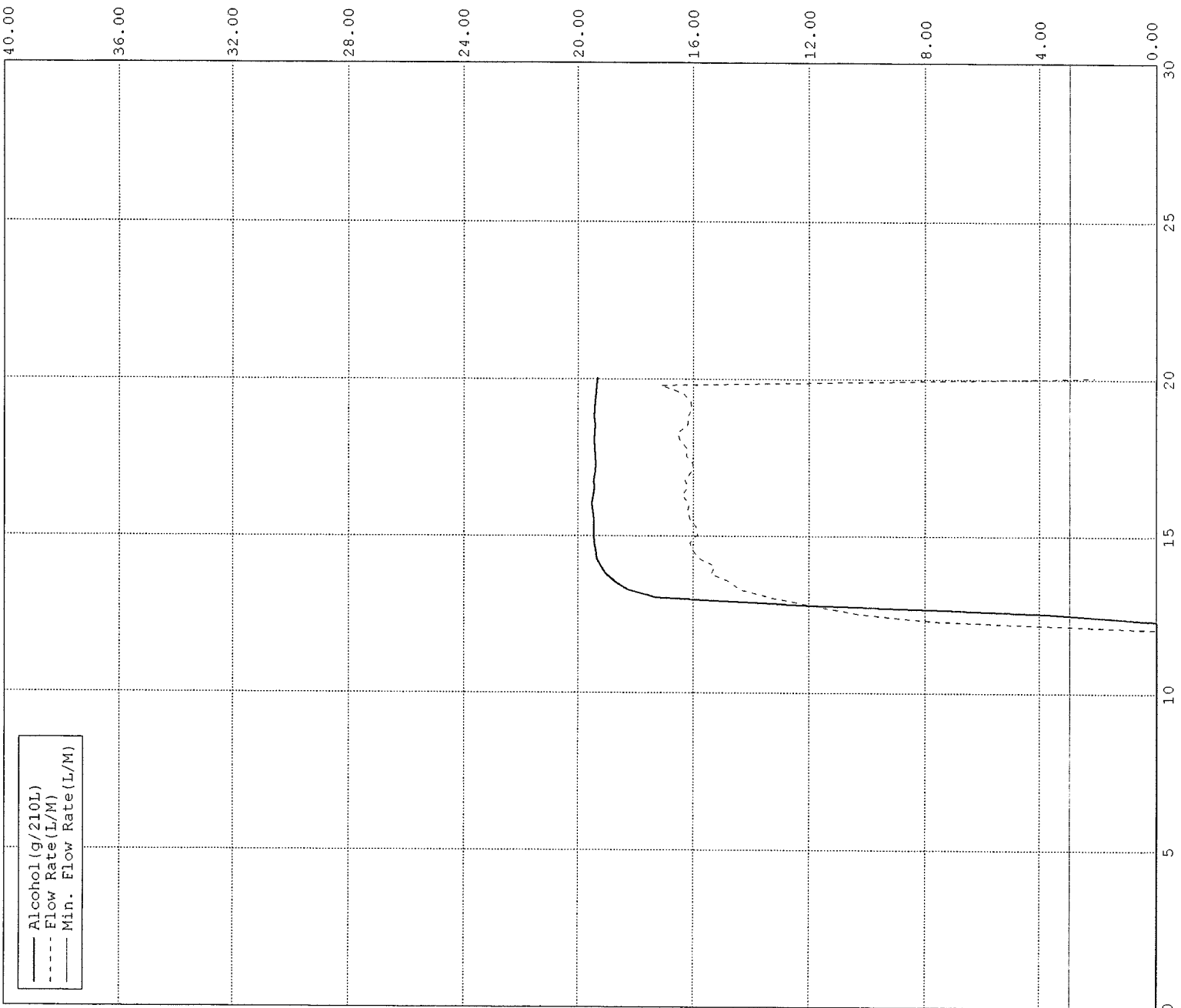
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG826101  
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK	PASSED	11:37
BLANK TEST	0.000	11:37
INTERNAL STANDARD	VERIFIED	11:37
Xq = 0.093 (1.52%)		
EXTERNAL STANDARD	0.081	11:37
X[1] = 0.0805 (0.0011) (0.0038)		
BLANK TEST	0.000	11:38
SUBJECT SAMPLE (Vol=1.99L)	0.097	11:39
X[1] = 0.0970 (0.0003) (0.0018)		
BLANK TEST	0.000	11:40
EXTERNAL STANDARD	0.080	11:40
X[1] = 0.0799 (0.0009) (0.0035)		
BLANK TEST	0.000	11:41

*DW*



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100385  
-----

Date: 5/30/2019  
Time: 11:12:03

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

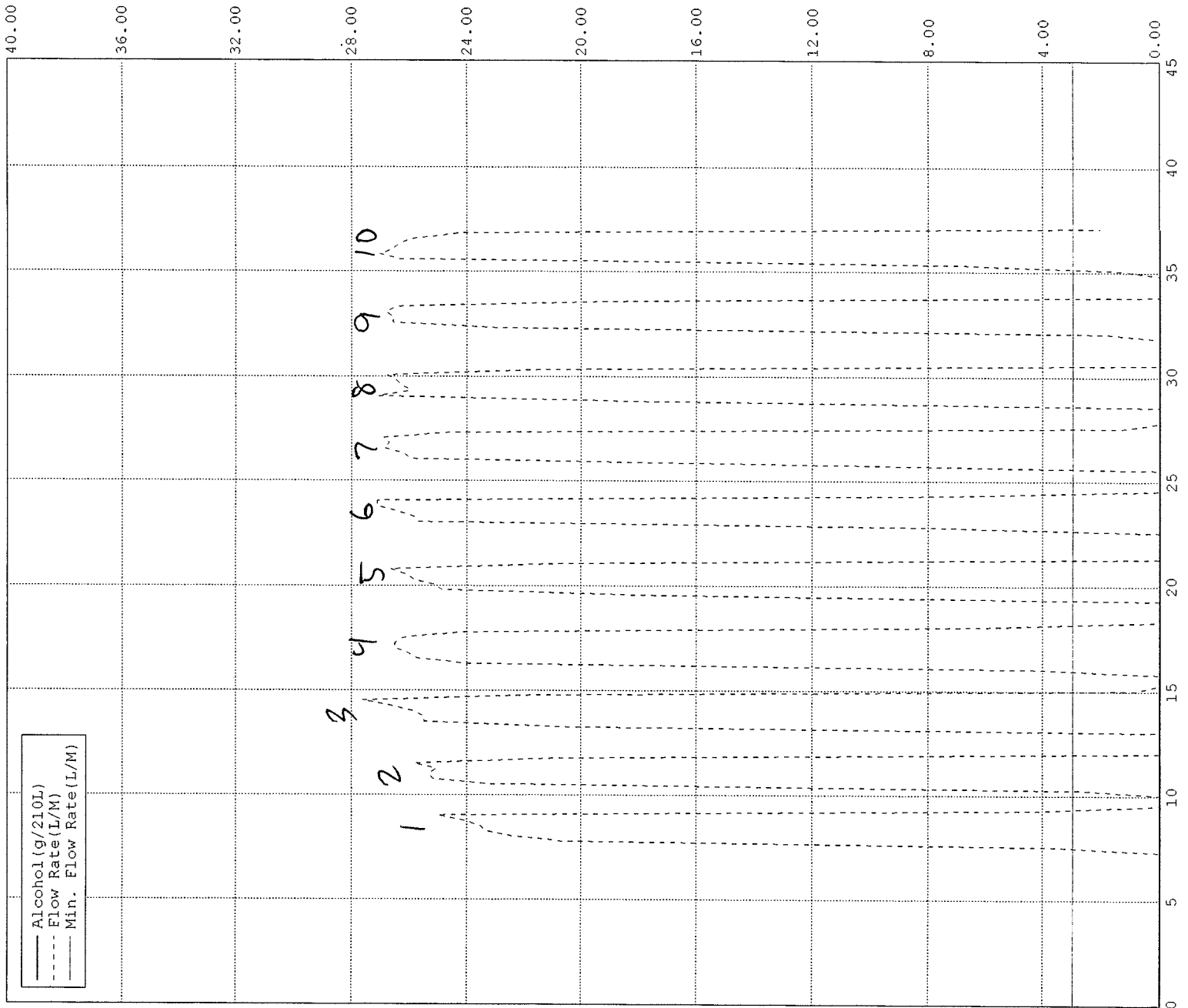
DEPT/AGENCY:  
MAXIMUM ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG826101  
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 11:13  
BLANK TEST 0.000 11:13  
INTERNAL STANDARD VERIFIED 11:13  
EXTERNAL STANDARD 0.080 11:13  
BLANK TEST 0.000 11:14  
SUBJECT SAMPLE XXX 11:15

Maximum Attempts Exceeded

*DKW*



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100385  
-----

Date: 5/30/2019  
Time: 10:56:48

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

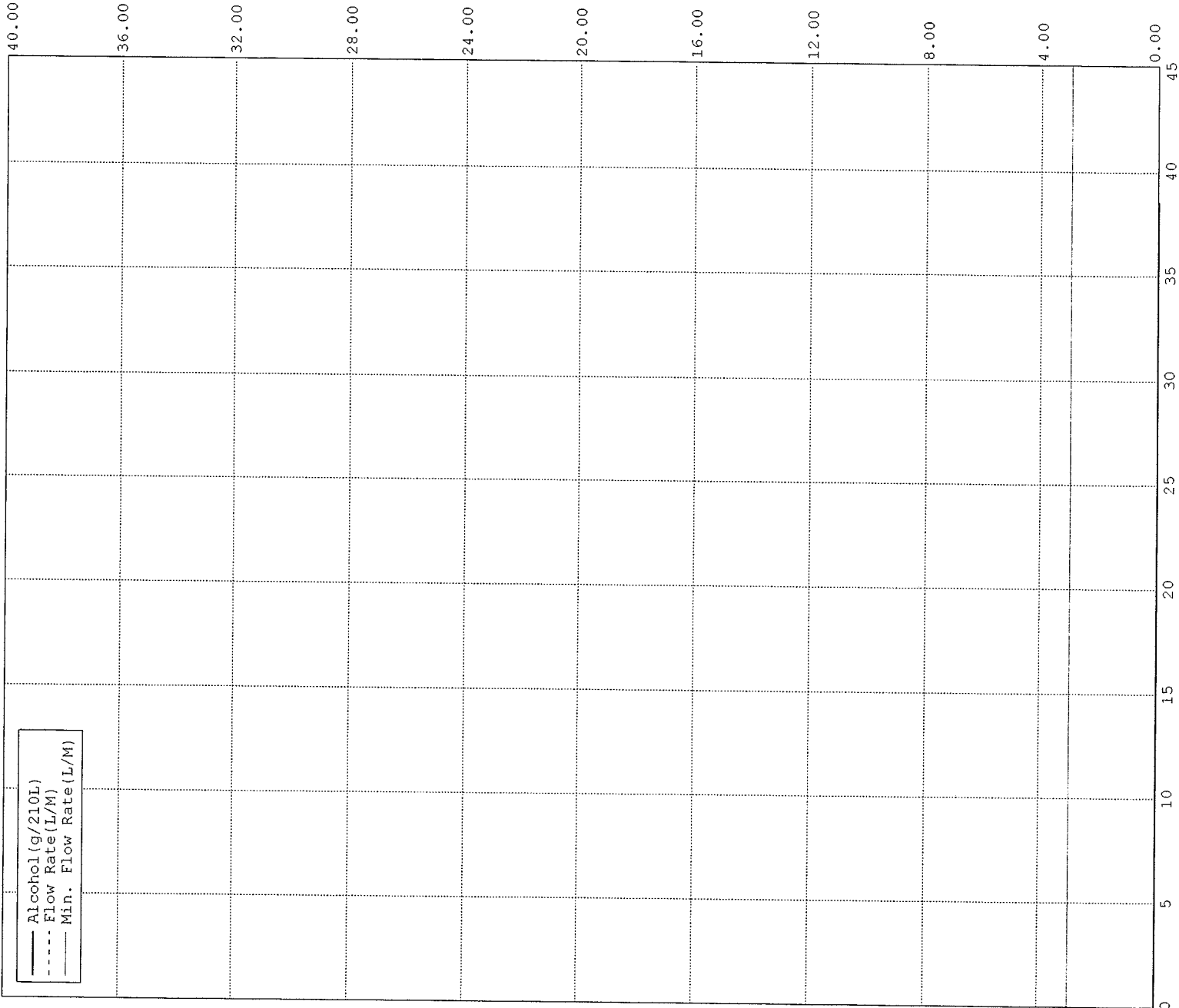
DEPT/AGENCY:  
RADIO FREQUENCY  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG826101  
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 10:58  
BLANK TEST 0.000 10:58  
INTERNAL STANDARD VERIFIED 10:59  
EXTERNAL STANDARD 0.081 10:59  
BLANK TEST 0.000 11:00

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100385

Date: 5/30/2019  
Time: 11:54:15

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

DEPT/AGENCY:  
NON-DRINKING ~~SUBJECT~~ Subject *DNW* 05/30/19  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG826101  
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 11:55  
BLANK TEST 0.000 11:55  
INTERNAL STANDARD VERIFIED 11:55  
EXTERNAL STANDARD 0.080 11:55  
BLANK TEST 0.000 11:56  
SUBJECT SAMPLE (Vol=3.41L) 0.000 11:57  
BLANK TEST 0.000 11:57  
EXTERNAL STANDARD 0.080 11:58  
BLANK TEST 0.000 11:59

*DNW*

