

# 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 100686 Analyst Derek Walton Start Date 12/17/19

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 AG915607 Exp 06/05/21

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 Autu Lot 19040 Exp 01/29/21

1. Simulator S/N DR4162 Date Calibrated 10/07/19

vi. 0.300g/210L Mnf Autu Lot 19010 Exp 01/03/21

1. Simulator S/N DR4178 Date Calibrated 10/04/19

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

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

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

ii. Isopropanol - Mnf Autu Lot 18370 Level 0.100 Exp 12/05/20

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

iii. Negative Control - Mnf Autu 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 12/17/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100686  
-----

Date: 12/17/2019  
Time: 08:48:46

VERSIONS  
DMT: 3.02  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 43.3°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.73 V PASSED  
(1.04 V - 2.42 V)  
Cooler Voltage = 1.64 V PASSED  
(0.98 V - 2.30 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 539 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.1 in

PUMP INFO

Flow Rate = 3.942 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  
(0.001 v <= 0.010 v)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD PASSED  
Xq = 0.094 0.94% ✓ (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100686  
-----

Date: 12/17/2019  
Time: 9:46 AM

Temperatures (°C)  
Sample Cell: 48.8°C  
Breath Tube: 42.1°C

Current Barometer 29.1 in  
Volume (Ltr) 1.56

Settings  
Lamp: 1.73 V  
Bias: 80 V  
Cooler: 1.64 V  
Chopper: 514 Hz

Voltages (V)  
Flow: 1.06 V  
Detector: 0.039 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100686  
-----

Date: 12/16/2019  
Time: 10:44:41

OPERATOR NAME:  
DEREK WALTON  
CERTIFICATE #: 9508

Ca = 0.1000  
CAL = 0.964014    0.800 <= CAL < 1.200  
b1 = 0.0001    0.0000 <= b1 < 0.0040  
b2 = 0.0049    0.0010 <= b2 < 0.0100  
b3 = 0.0006    0.0000 <= b3 < 0.0040  
Xq = 0.0934    0.0500 <= Xq < 0.2000  
a21 = 1.174809    1.050 <= a21 < 1.300  
a31 = 0.400764    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100686

Date: 12/17/2019  
Time: 09:48:34

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

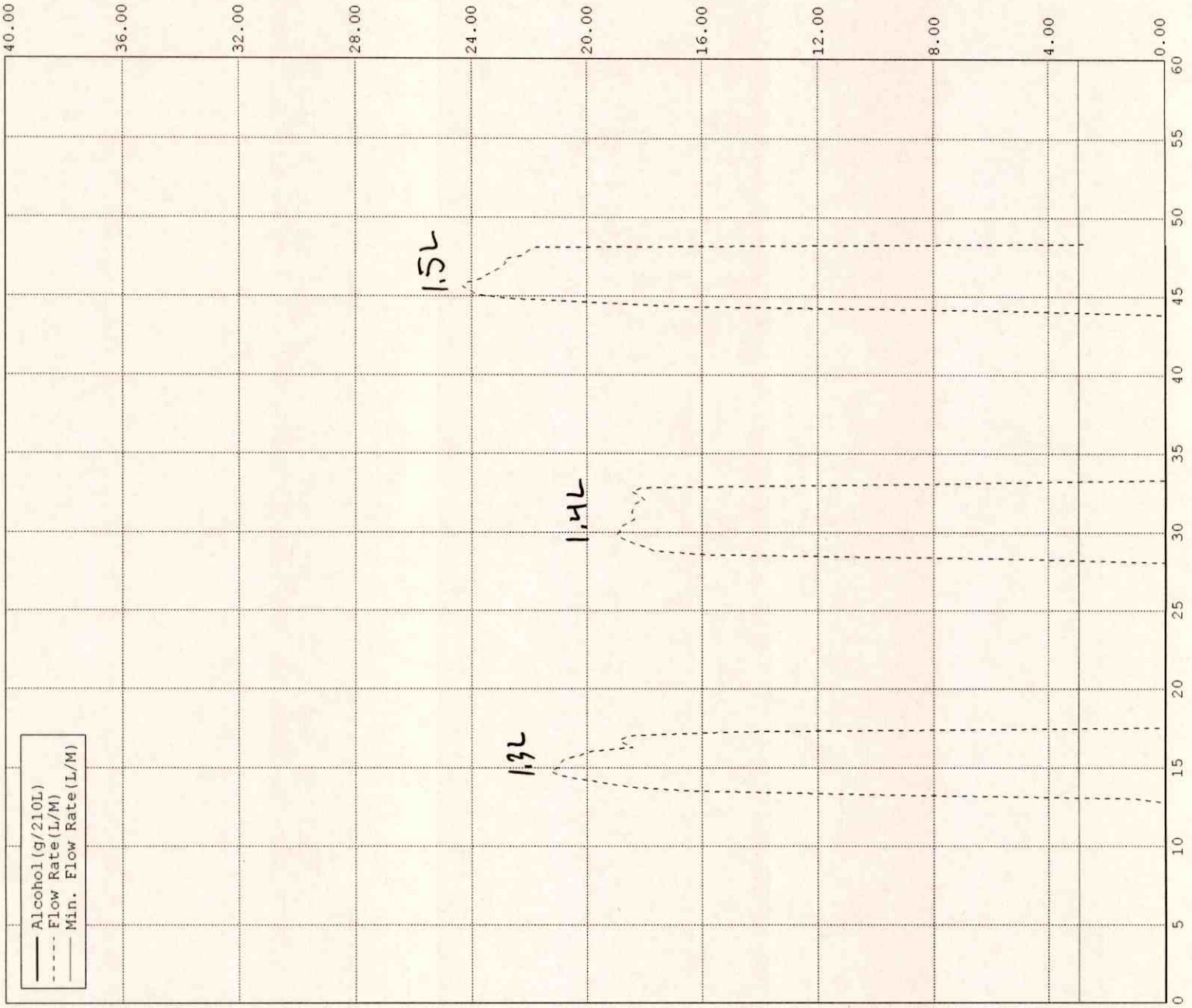
DEPT/AGENCY:  
MINIMUM VOLUME  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.09: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:50
BLANK TEST	0.000	09:50
INTERNAL STANDARD	VERIFIED	09:50
EXTERNAL STANDARD	0.074	09:50
BLANK TEST	0.000	09:51
SUBJECT SAMPLE (Vol=1.53L)	0.000	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.075	09:53
BLANK TEST	0.000	09:54

*DM*



LINEARITY CHECK

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100686  
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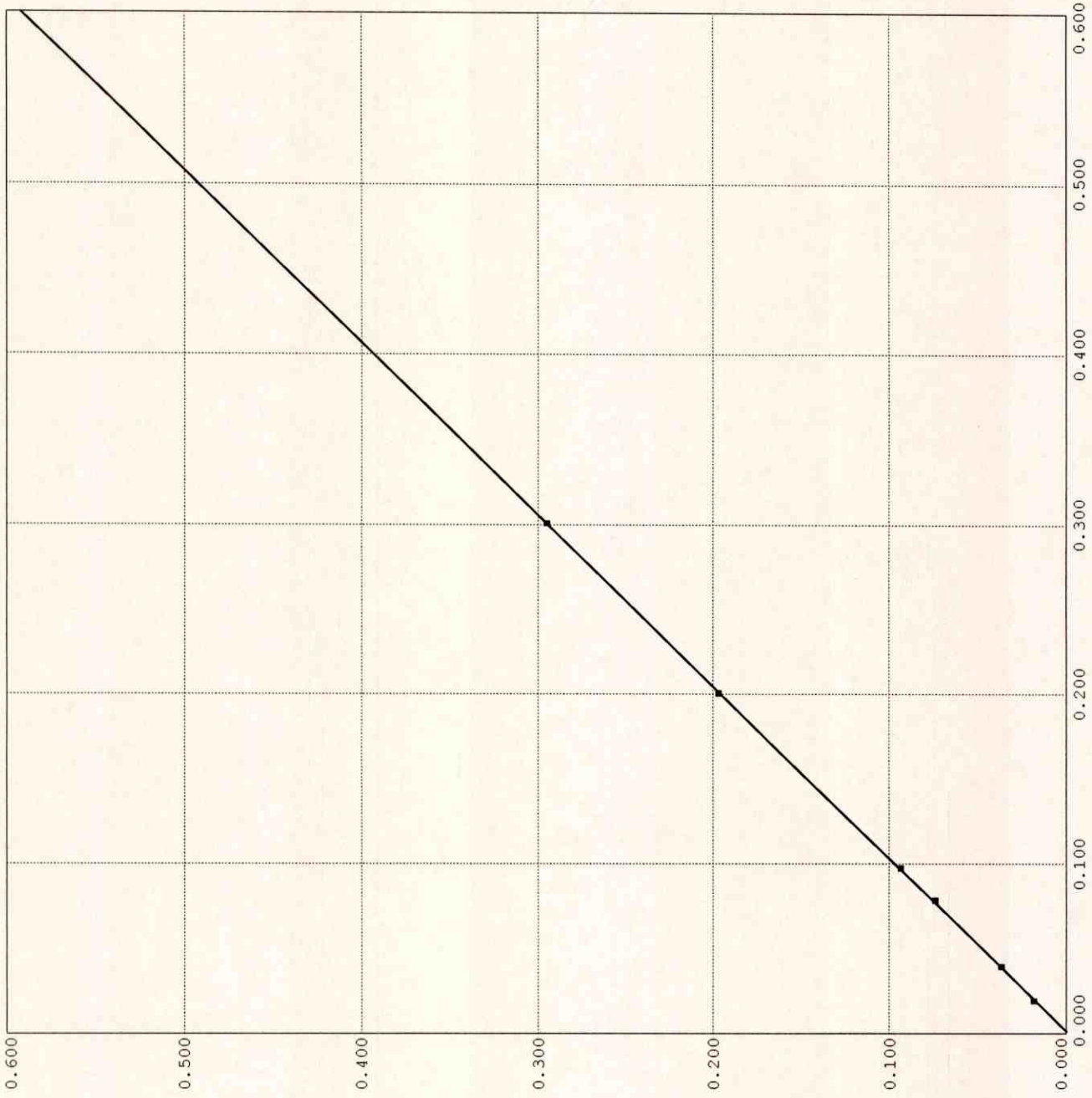
Date: 12/17/2019  
 Time: 09:59:19

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.019	0.0190	0.0000
0.039	0.0374	0.0005
0.078	0.0748	0.0004
0.097	0.0944	0.0005
0.200	0.1976	0.0005
0.300	0.2956	0.0005

SLOPE = 0.989115  
 R<sup>2</sup> = 0.999925

*DM*



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100686

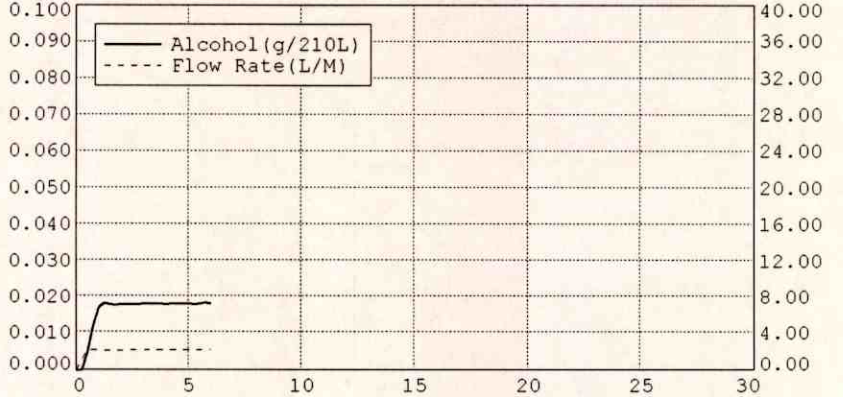
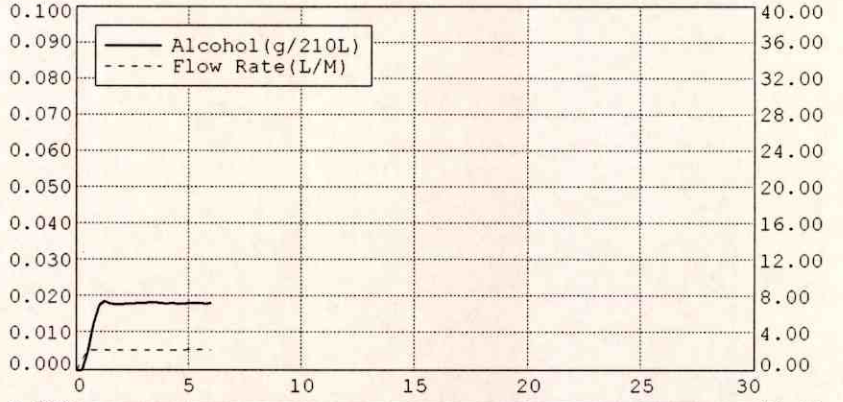
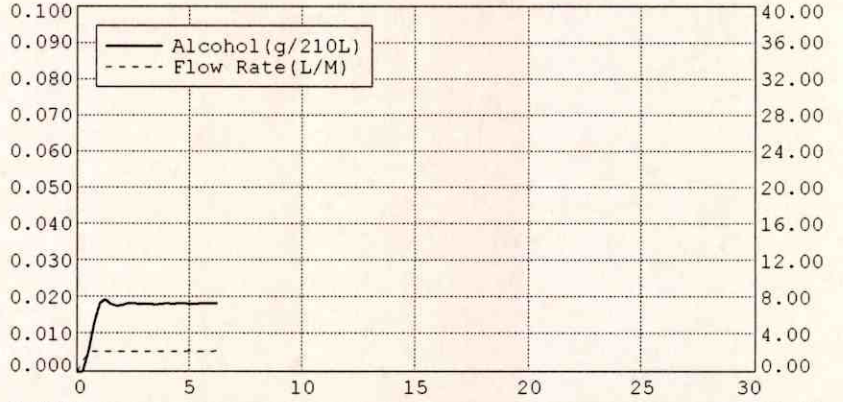
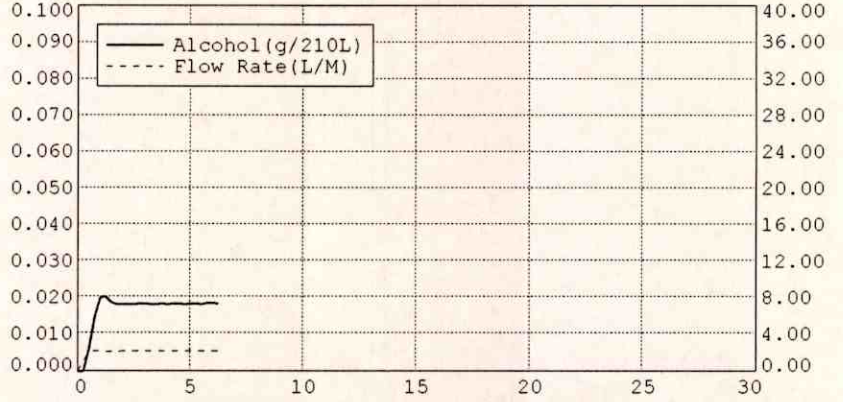
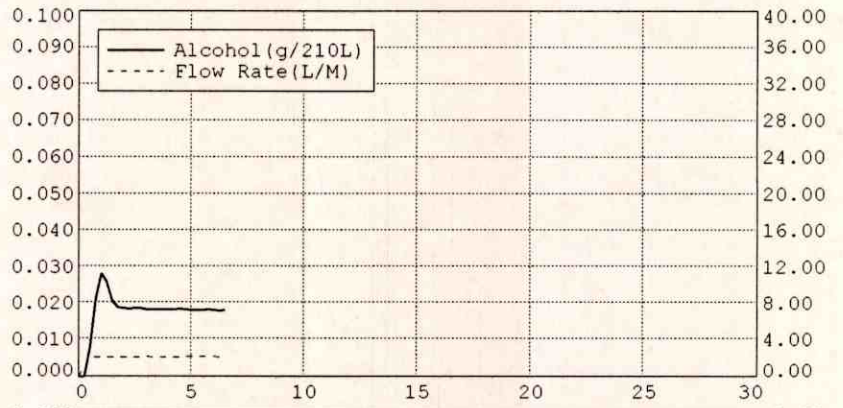
Date: 12/17/2019  
 Time: 09:59:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.09: 0.019  
 LOT #: AG805804  
 EXPIRATION: 02/27/2020  
 TANK PRESSURE: 245 psi

BLANK TEST	0.000	10:00
INTERNAL STANDARD	VERIFIED	10:00
EXTERNAL STANDARD	0.019	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.019	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.019	10:03
BLANK TEST	0.000	10:03
EXTERNAL STANDARD	0.019	10:04
BLANK TEST	0.000	10:05
EXTERNAL STANDARD	0.019	10:05
BLANK TEST	0.000	10:06

Average = 0.0190  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100686

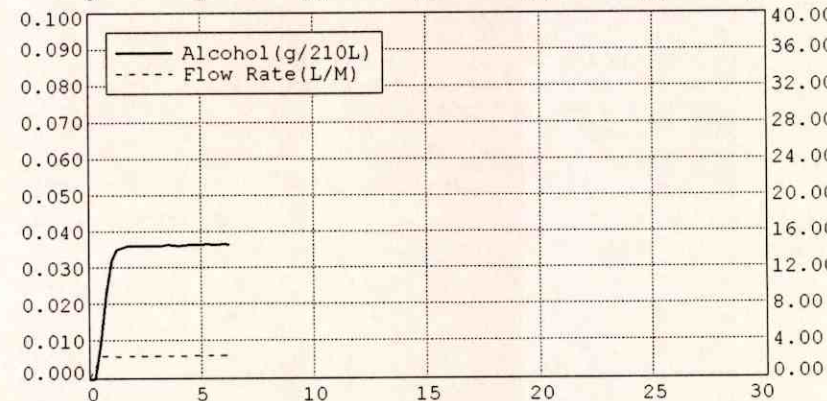
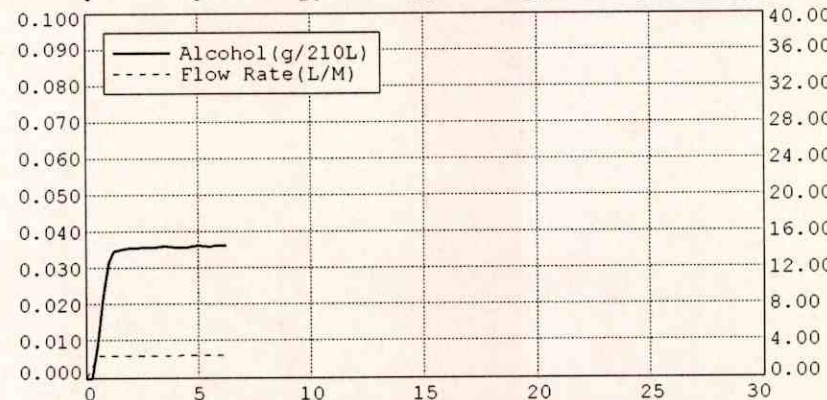
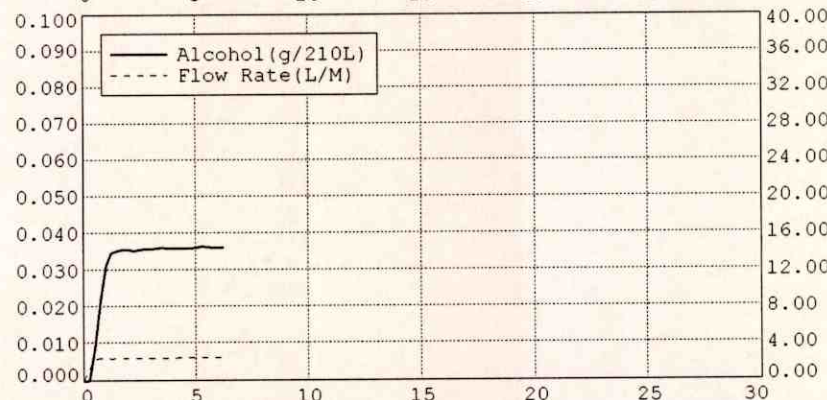
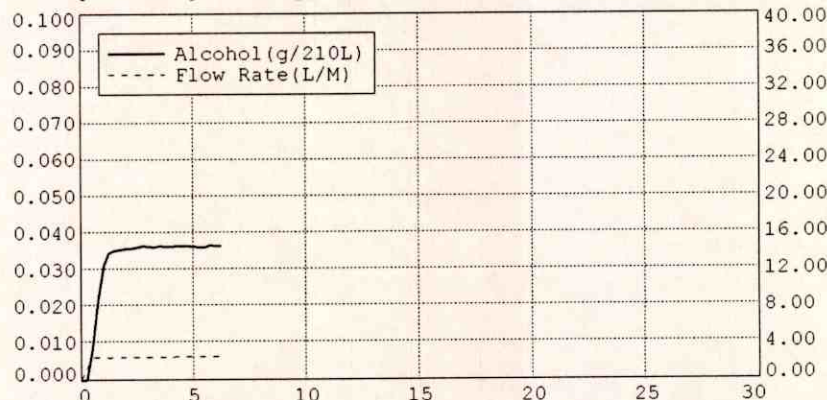
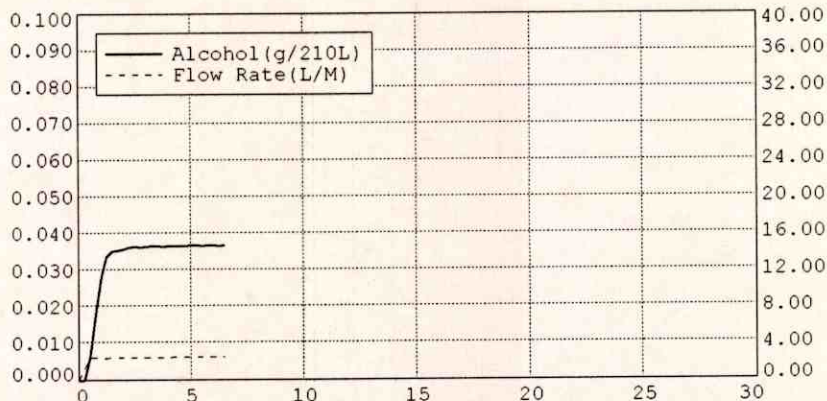
Date: 12/17/2019  
 Time: 10:15:38

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.09: 0.039  
 LOT #: AG915607  
 EXPIRATION: 06/05/2021  
 TANK PRESSURE: 1029 psi

BLANK TEST	0.000	10:16
INTERNAL STANDARD	VERIFIED	10:16
EXTERNAL STANDARD	0.038	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.037	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.037	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.037	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.038	10:21
BLANK TEST	0.000	10:22

Average = 0.0374  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100686

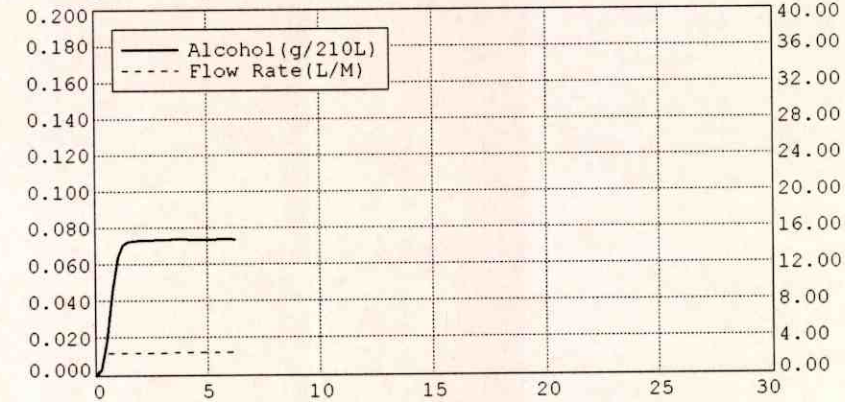
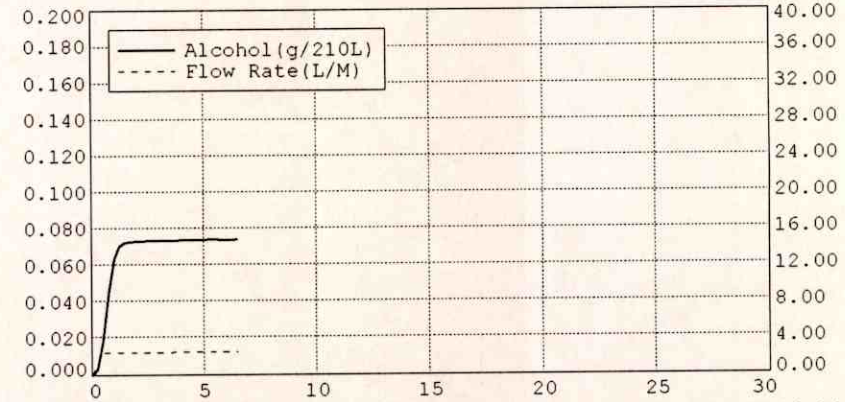
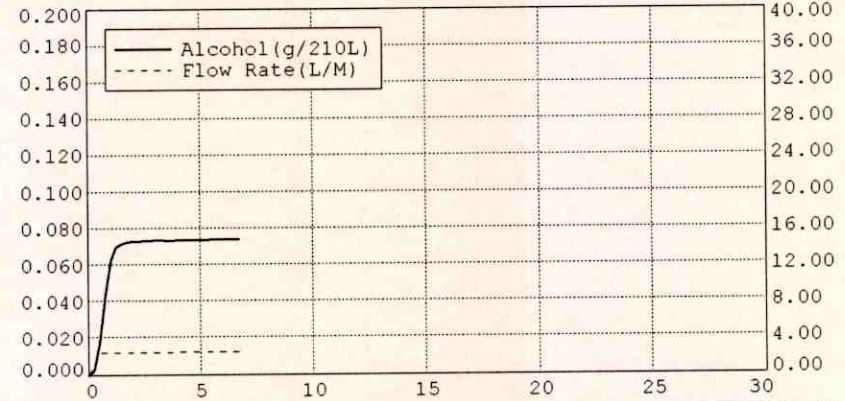
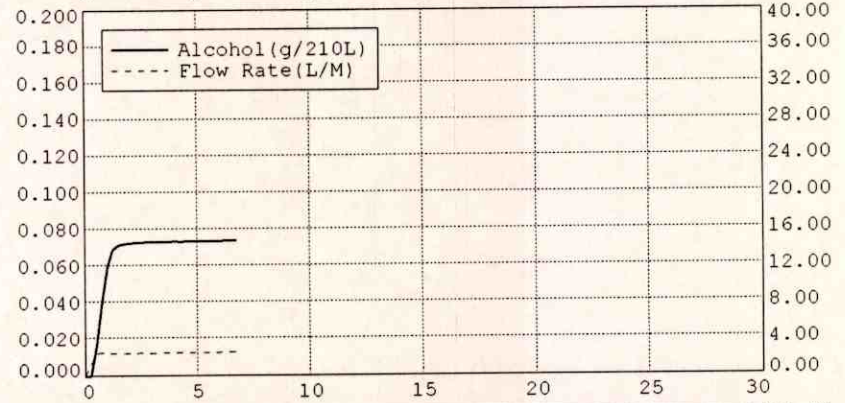
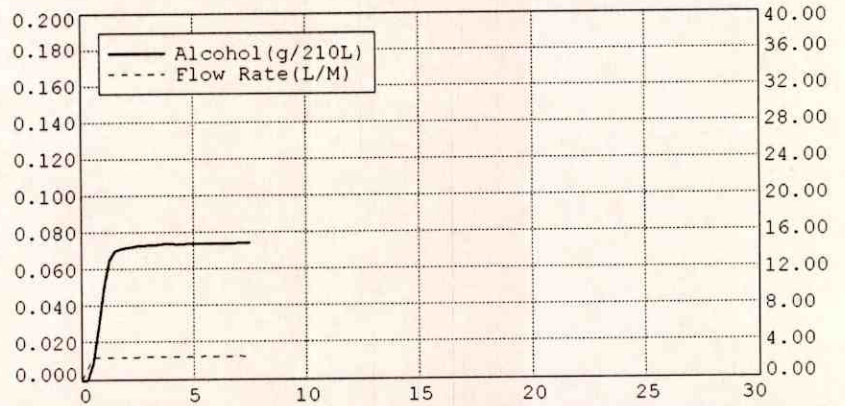
Date: 12/17/2019  
 Time: 10:23:40

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.09: 0.078  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 1045 psi

BLANK TEST	0.000	10:24
INTERNAL STANDARD	VERIFIED	10:25
EXTERNAL STANDARD	0.075	10:25
BLANK TEST	0.000	10:26
EXTERNAL STANDARD	0.074	10:26
BLANK TEST	0.000	10:27
EXTERNAL STANDARD	0.075	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.075	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.075	10:29
BLANK TEST	0.000	10:30

Average = 0.0748  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100686

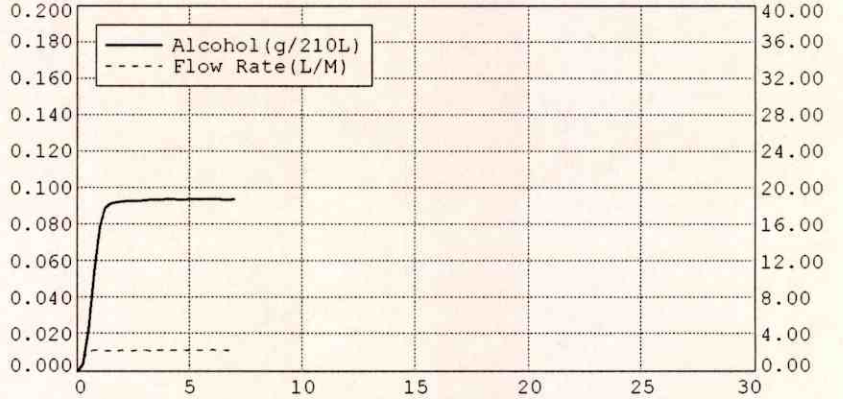
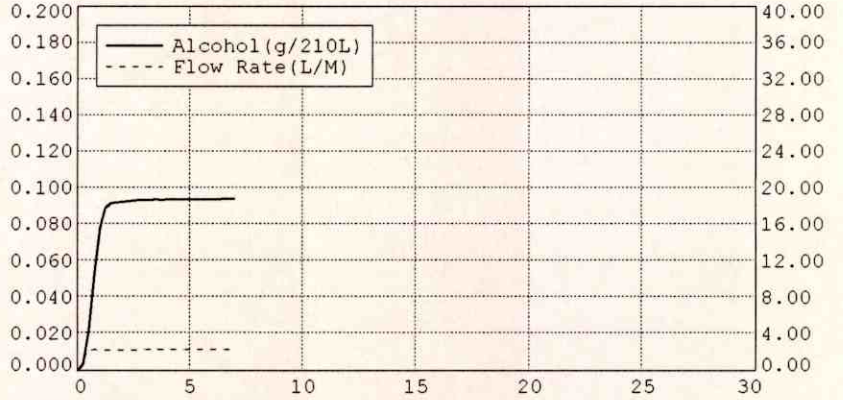
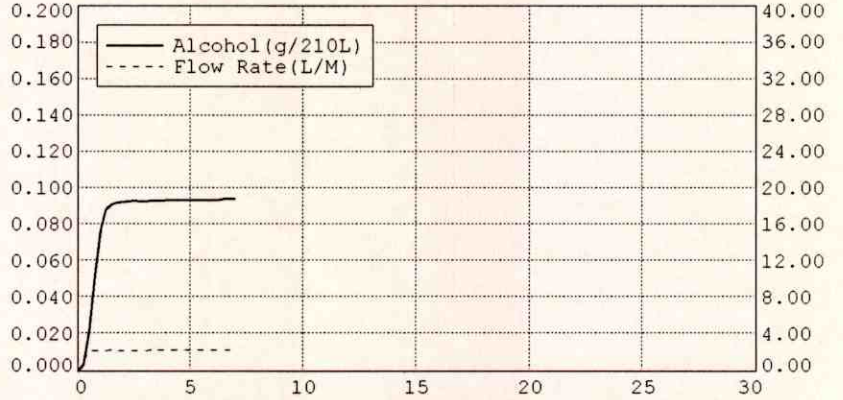
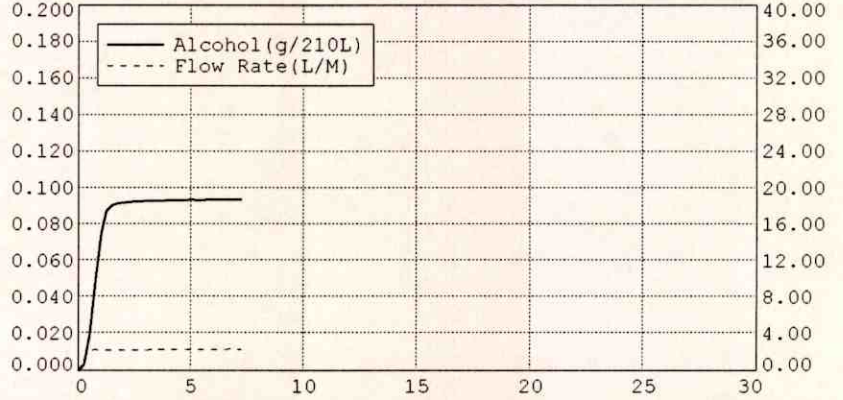
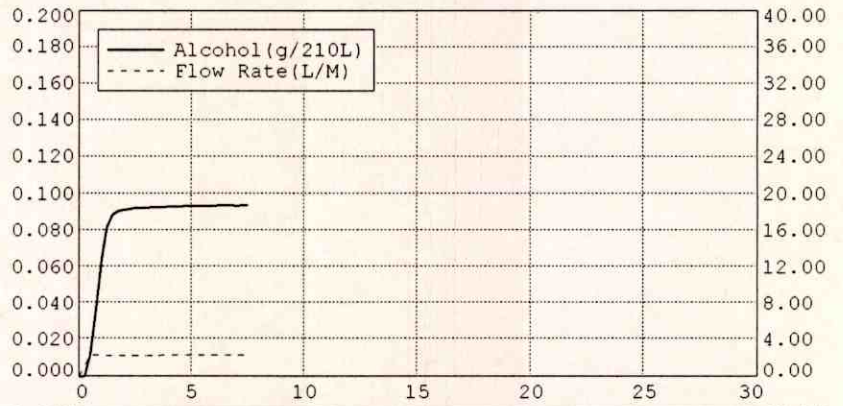
Date: 12/17/2019  
 Time: 10:36:24

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.09: 0.097  
 LOT #: AG805903  
 EXPIRATION: 02/28/2020  
 TANK PRESSURE: 610 psi

BLANK TEST	0.000	10:37
INTERNAL STANDARD	VERIFIED	10:37
EXTERNAL STANDARD	0.094	10:37
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.094	10:39
BLANK TEST	0.000	10:39
EXTERNAL STANDARD	0.094	10:40
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.095	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.095	10:42
BLANK TEST	0.000	10:43

Average = 0.0944  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

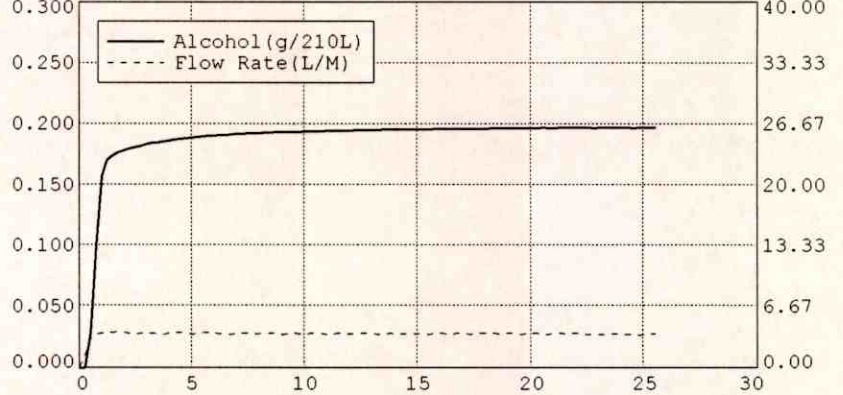
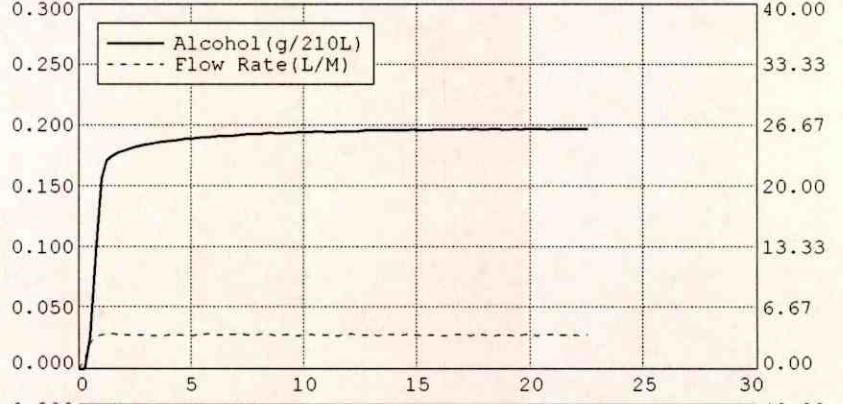
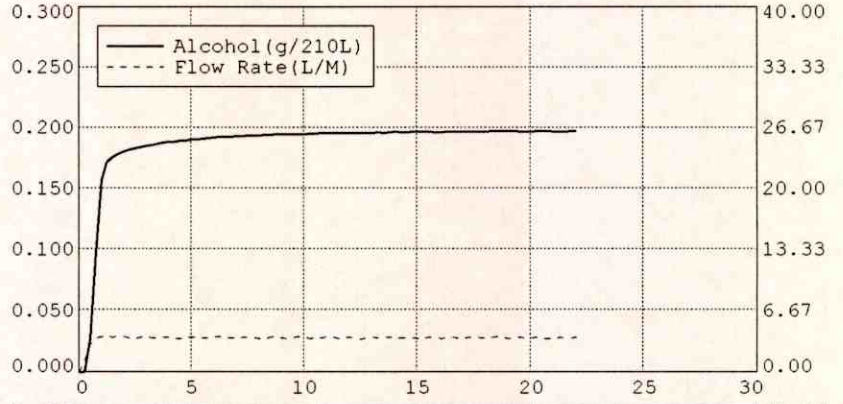
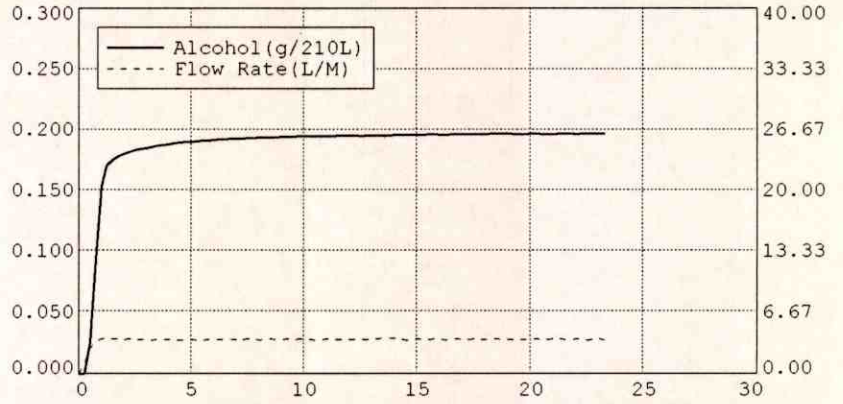
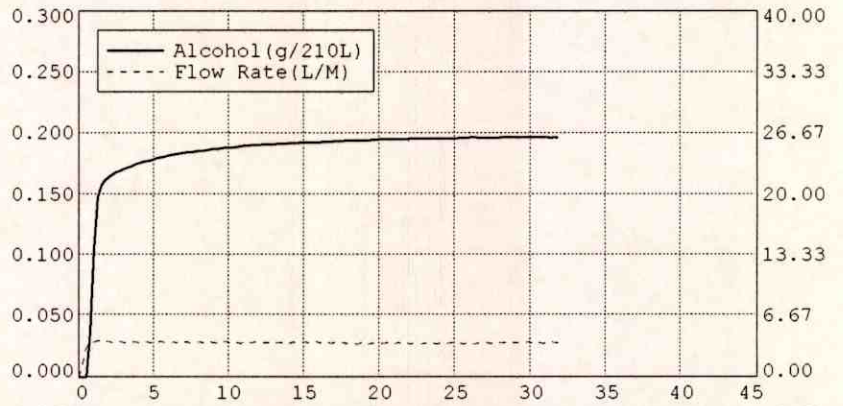
Alaska Department of Public Safety  
 DATAMASTER dmt: 100686

Date: 12/17/2019  
 Time: 11:06:30

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: 19040  
 EXPIRATION: 01/29/2021

BLANK TEST	0.000	11:07
INTERNAL STANDARD	VERIFIED	11:07
EXTERNAL STANDARD	0.197	11:08
BLANK TEST	0.000	11:09
EXTERNAL STANDARD	0.197	11:09
BLANK TEST	0.000	11:10
EXTERNAL STANDARD	0.198	11:11
BLANK TEST	0.000	11:12
EXTERNAL STANDARD	0.198	11:12
BLANK TEST	0.000	11:13
EXTERNAL STANDARD	0.198	11:14
BLANK TEST	0.000	11:14

Average = 0.1976  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100686

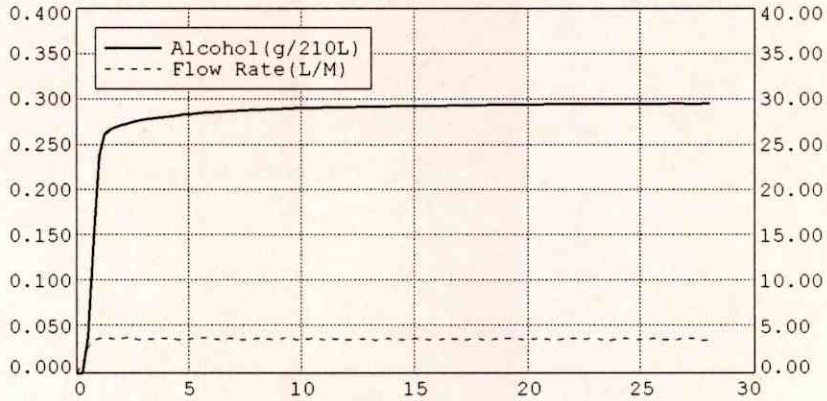
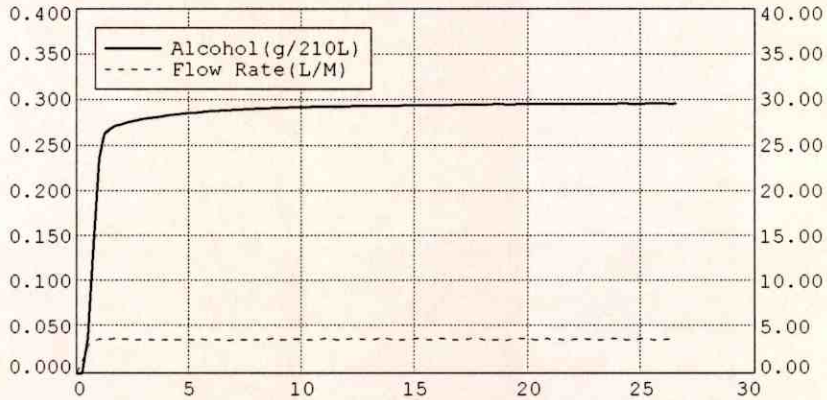
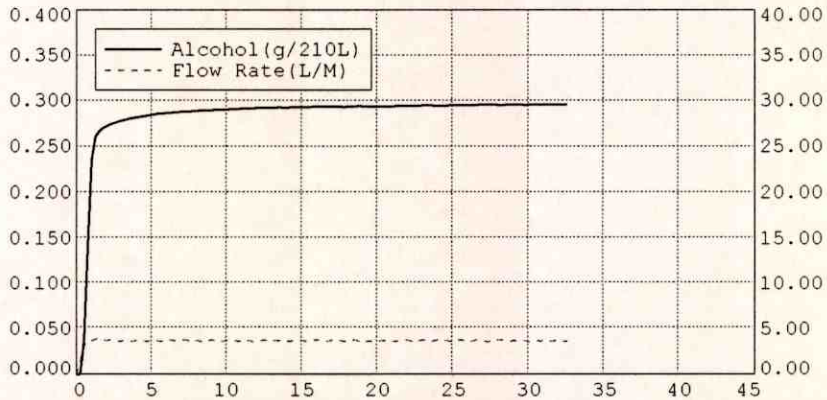
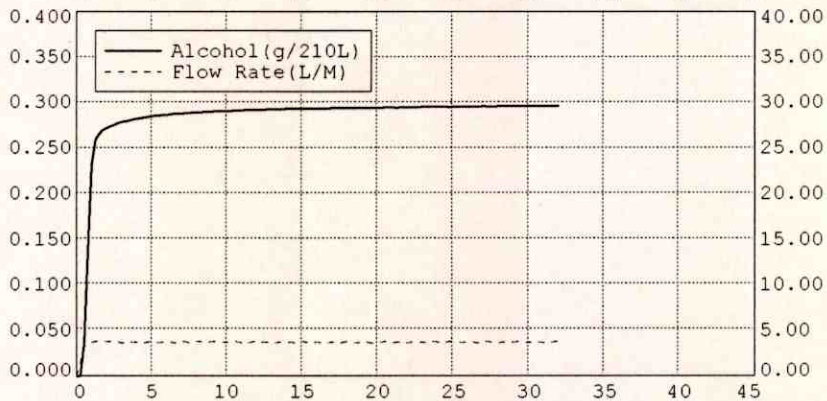
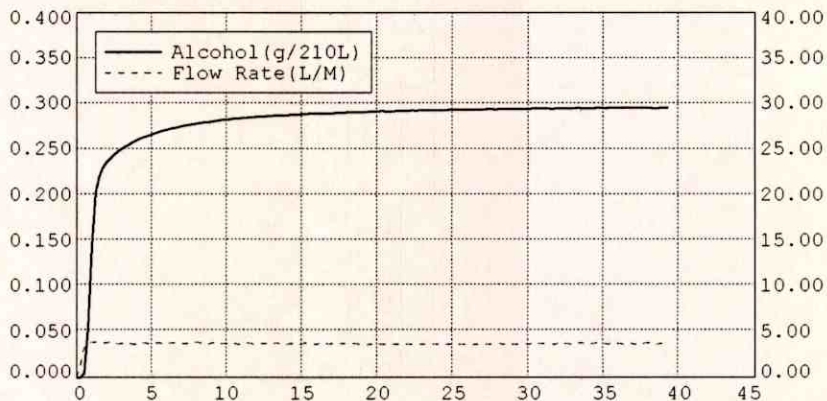
Date: 12/17/2019  
 Time: 11:18:18

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 19010  
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	11:19
INTERNAL STANDARD	VERIFIED	11:19
EXTERNAL STANDARD	0.295	11:20
BLANK TEST	0.000	11:21
EXTERNAL STANDARD	0.296	11:22
BLANK TEST	0.000	11:23
EXTERNAL STANDARD	0.296	11:23
BLANK TEST	0.000	11:24
EXTERNAL STANDARD	0.296	11:25
BLANK TEST	0.000	11:26
EXTERNAL STANDARD	0.295	11:26
BLANK TEST	0.000	11:27

Average = 0.2956  
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100686

Date: 12/17/2019  
Time: 11:36:32

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

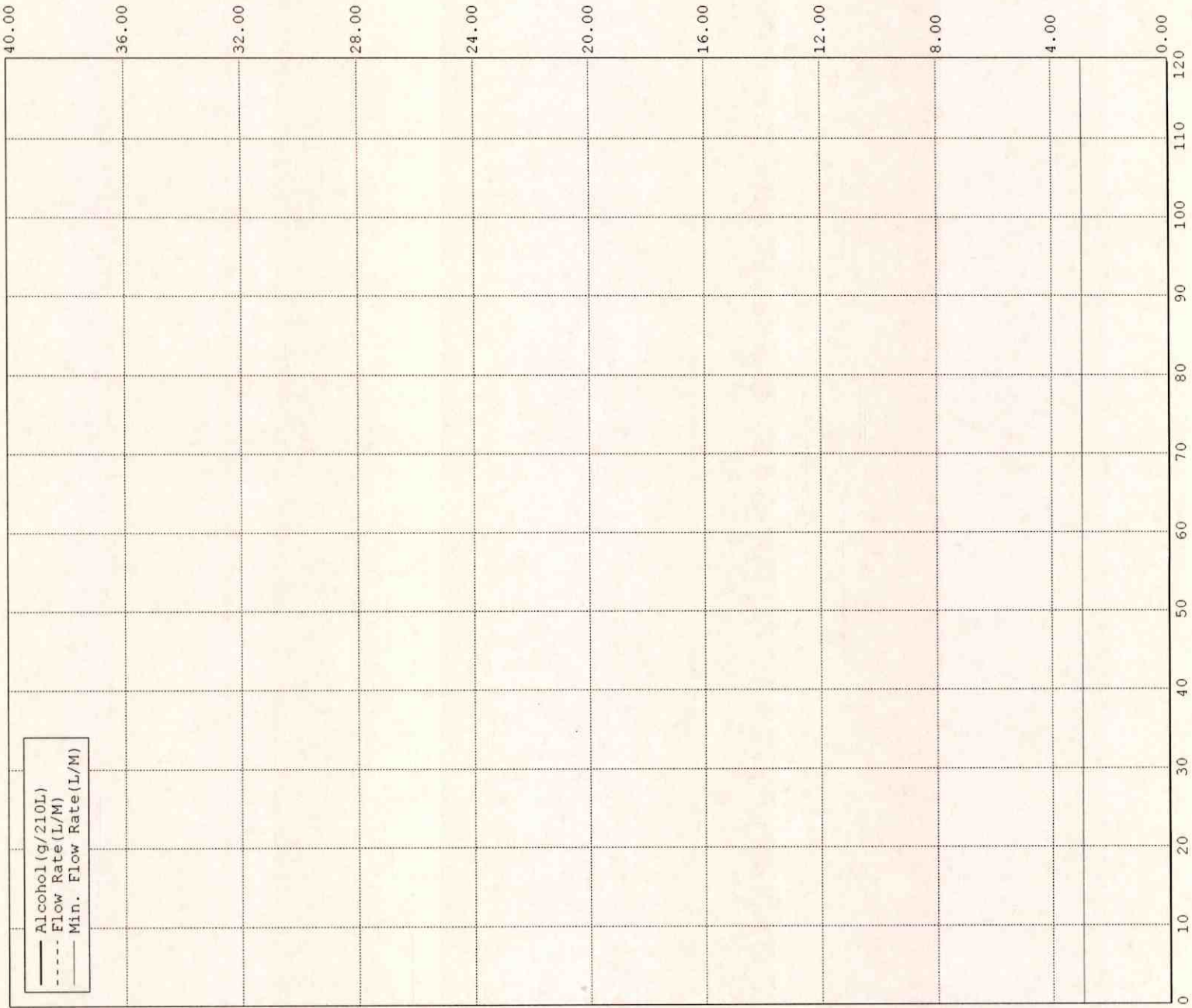
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.07: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:38  
BLANK TEST 0.000 11:39  
INTERNAL STANDARD VERIFIED 11:39  
EXTERNAL STANDARD 0.075 11:39  
BLANK TEST 0.000 11:40  
SUBJECT SAMPLE INCOMPLETE 11:42



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100686  
-----

Date: 12/17/2019  
Time: 13:43:19

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

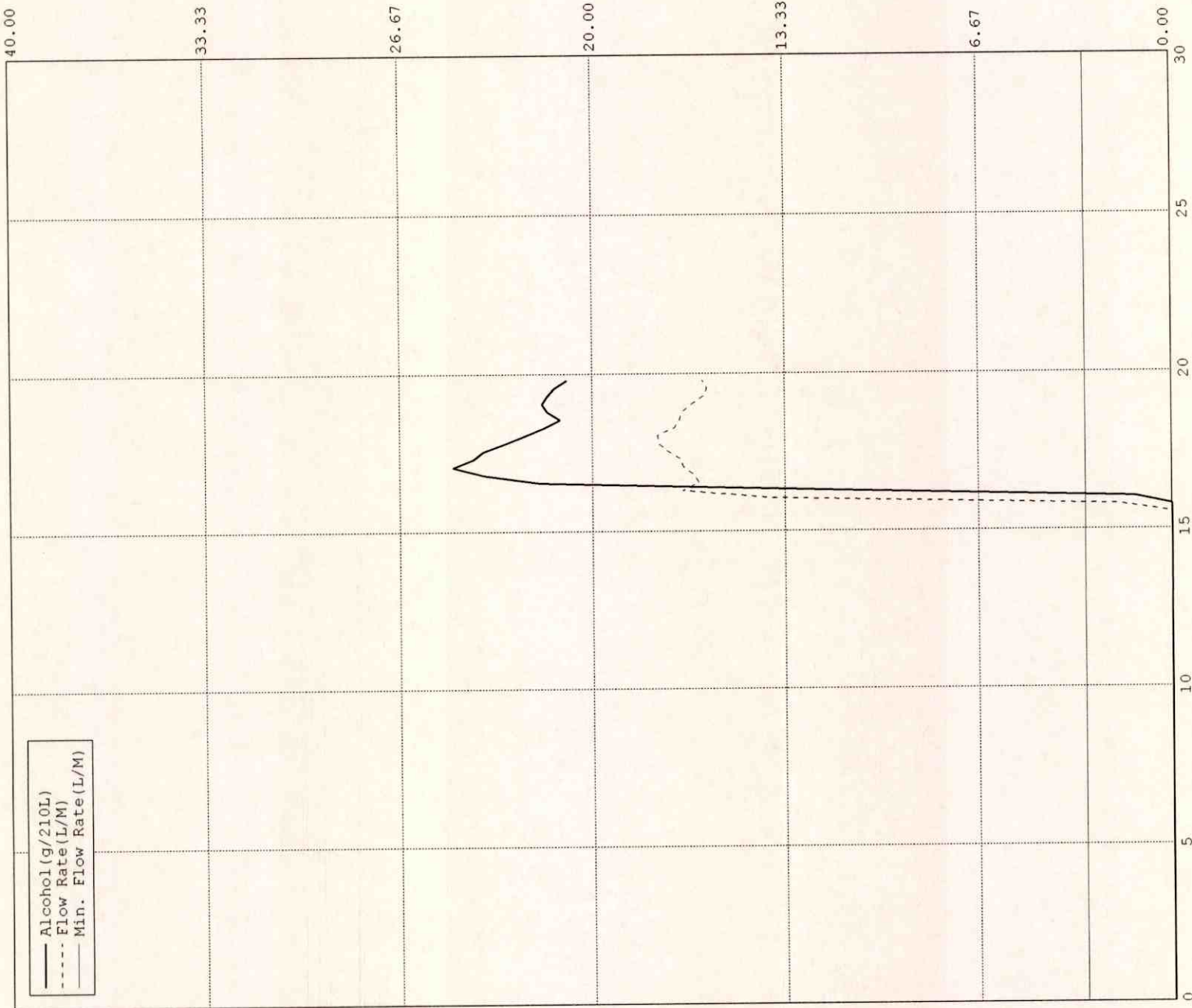
DEPT/AGENCY:  
INVALID  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.05: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:53  
BLANK TEST 0.000 13:53  
INTERNAL STANDARD VERIFIED 13:53  
EXTERNAL STANDARD 0.076 13:54  
BLANK TEST 0.000 13:55  
SUBJECT SAMPLE INVALID 13:55

*DW*



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100686

Date: 12/17/2019

Time: 13:21:05

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 29.05: 0.078

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK

BLANK TEST

INTERNAL STANDARD

Xg = 0.095 (1.97%)

EXTERNAL STANDARD

X[1] = 0.0760 (-0.0005) (0.0017)

BLANK TEST

SUBJECT SAMPLE

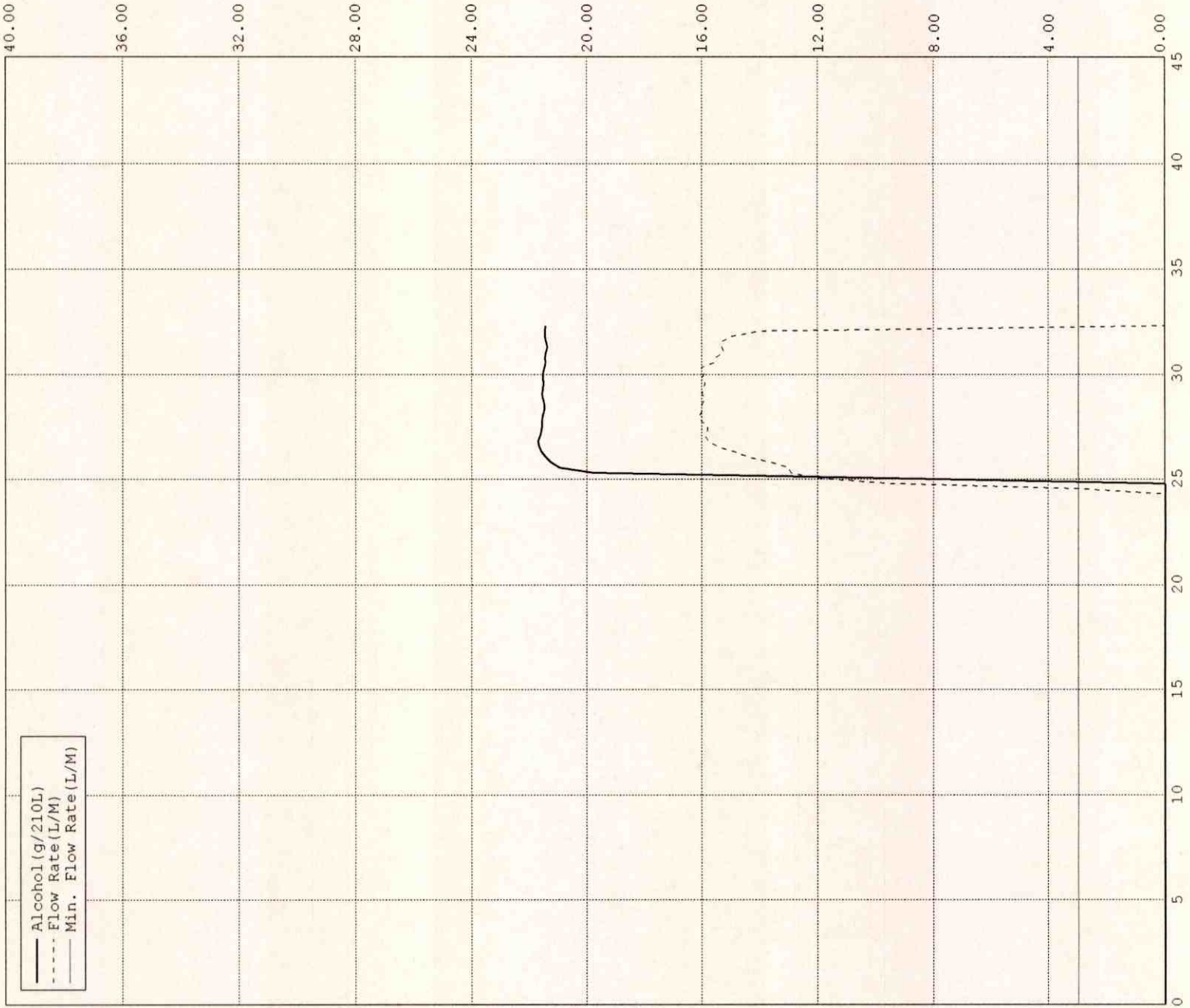
X[1] = 0.1074 (-0.0214) (-0.0009)

Interference Detected

Filter 2 Avg: -0.0006

Filter 3 Avg: 0.0016

*Handwritten signature*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100686

Date: 12/17/2019  
Time: 13:26:31

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

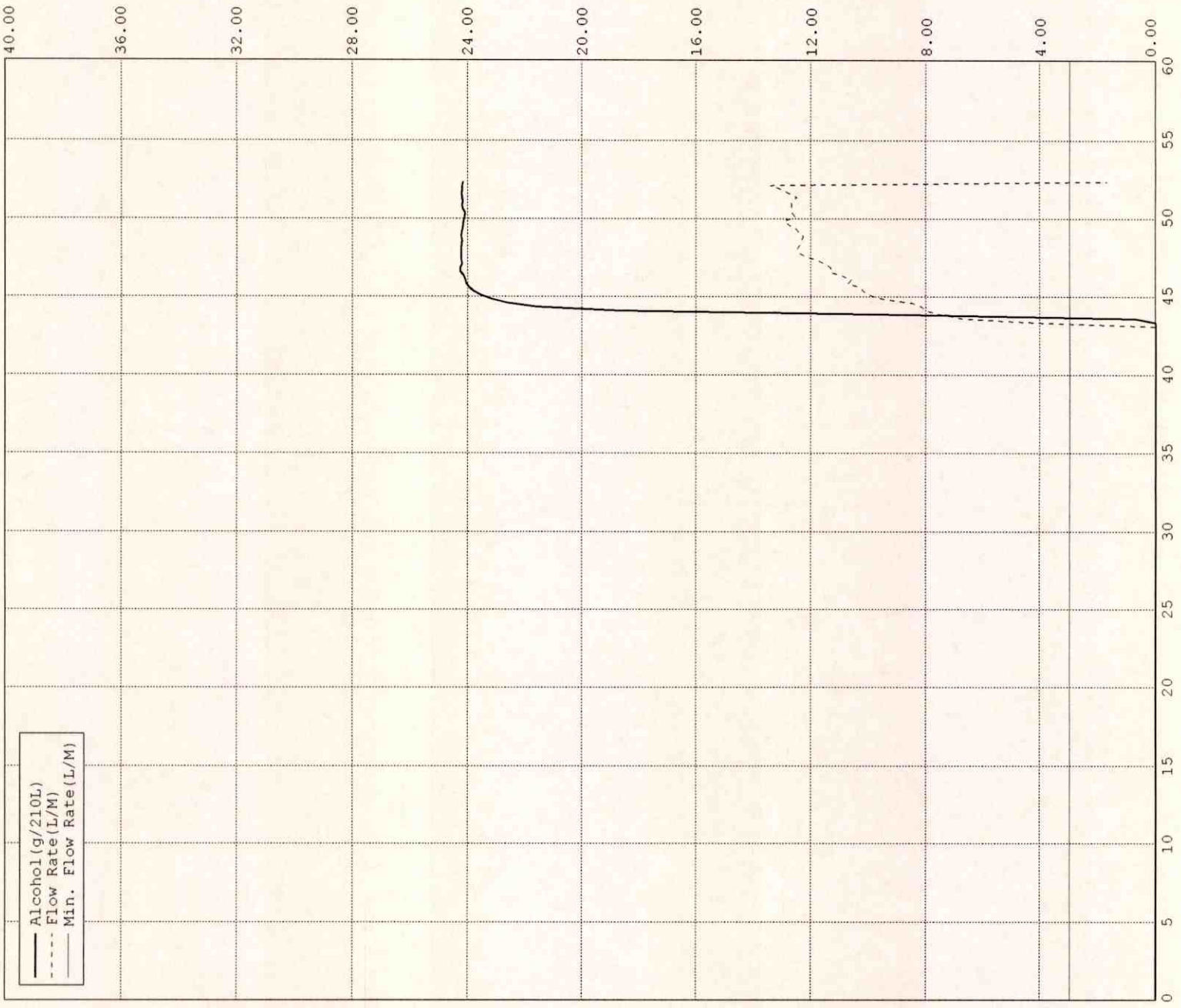
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.05: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:27
BLANK TEST	0.000	13:27
INTERNAL STANDARD	VERIFIED	13:28
Xq = 0.094 (0.66%)	0.076	13:28
EXTERNAL STANDARD	X[1] = 0.0758 (-0.0005)	(0.0015)
BLANK TEST	0.000	13:29
SUBJECT SAMPLE	XXX	13:30
X[1] = 0.1213 (-0.0270)	(0.0008)	

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety

DATA MASTER dmt: 100686

Date: 12/17/2019  
Time: 13:33:04

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

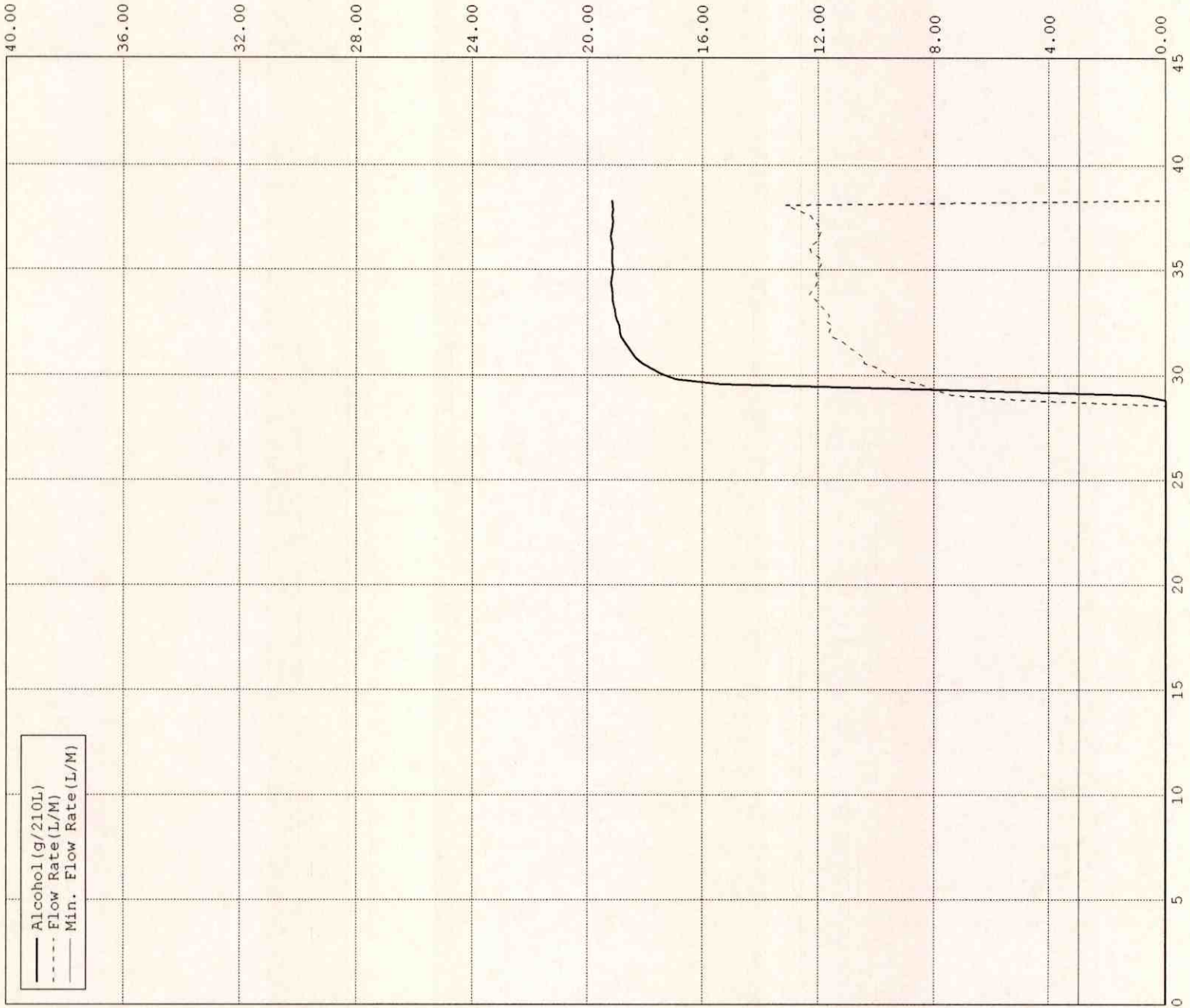
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.05: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:34
BLANK TEST	0.000	13:34
INTERNAL STANDARD	VERIFIED	13:34
$X_q = 0.094$ (0.47%)		
EXTERNAL STANDARD	0.075	13:34
$X[1] = 0.0753$ (0.0001) (0.0021)		
BLANK TEST	0.000	13:35
SUBJECT SAMPLE (Vol=1.77L)	0.095	13:36
$X[1] = 0.0958$ (-0.0002) (0.0000)		
BLANK TEST	0.000	13:37
EXTERNAL STANDARD	0.074	13:37
$X[1] = 0.0740$ (-0.0013) (0.0010)		
BLANK TEST	0.000	13:38



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100686

Date: 12/17/2019  
Time: 13:13:37

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

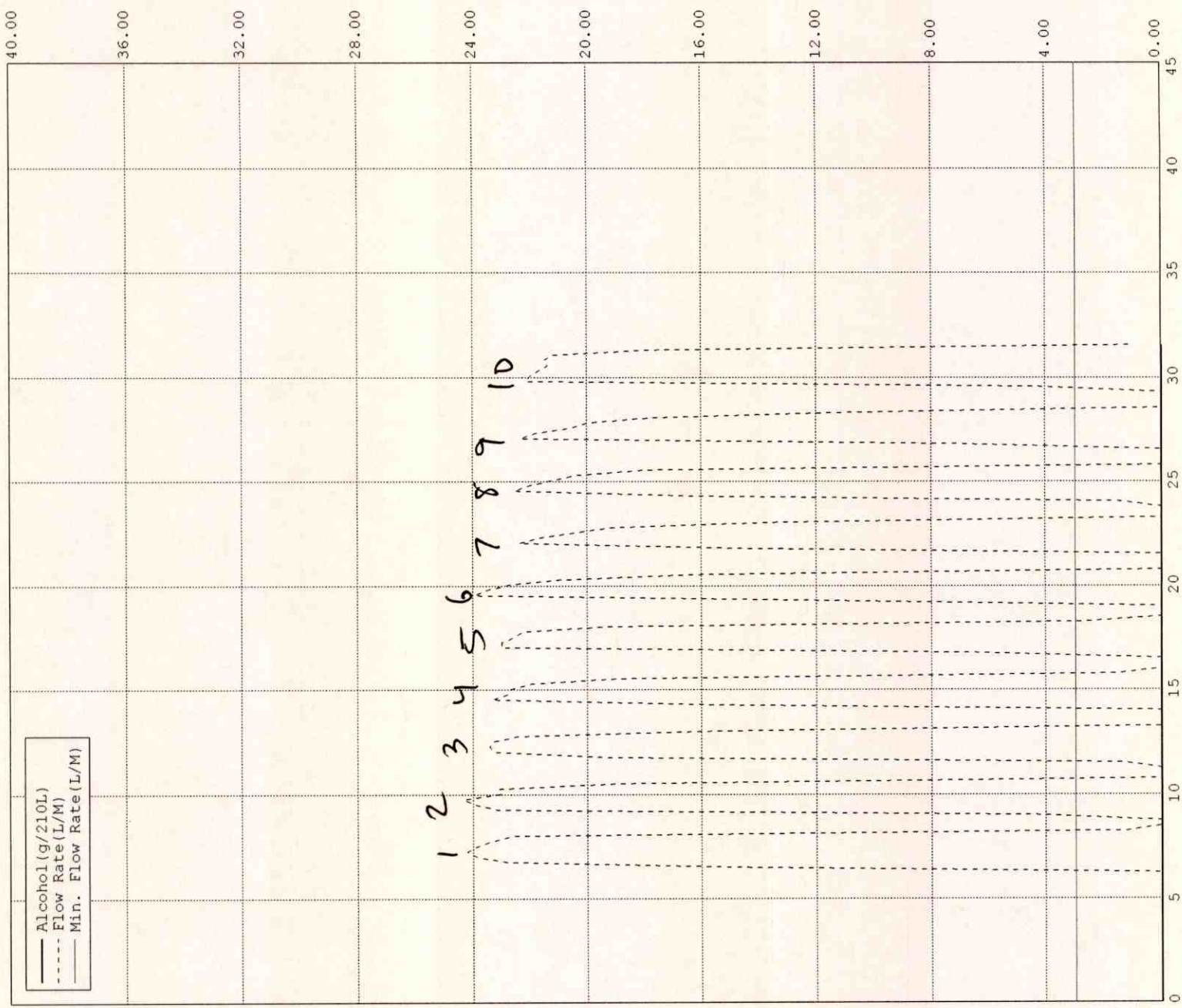
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.05: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK  
BLANK TEST PASSED 13:14  
INTERNAL STANDARD VERIFIED 13:15  
EXTERNAL STANDARD 0.074 13:15  
BLANK TEST 0.000 13:16  
SUBJECT SAMPLE XXX 13:16

Maximum Attempts Exceeded

*DM*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100686

Date: 12/17/2019  
Time: 13:58:41

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

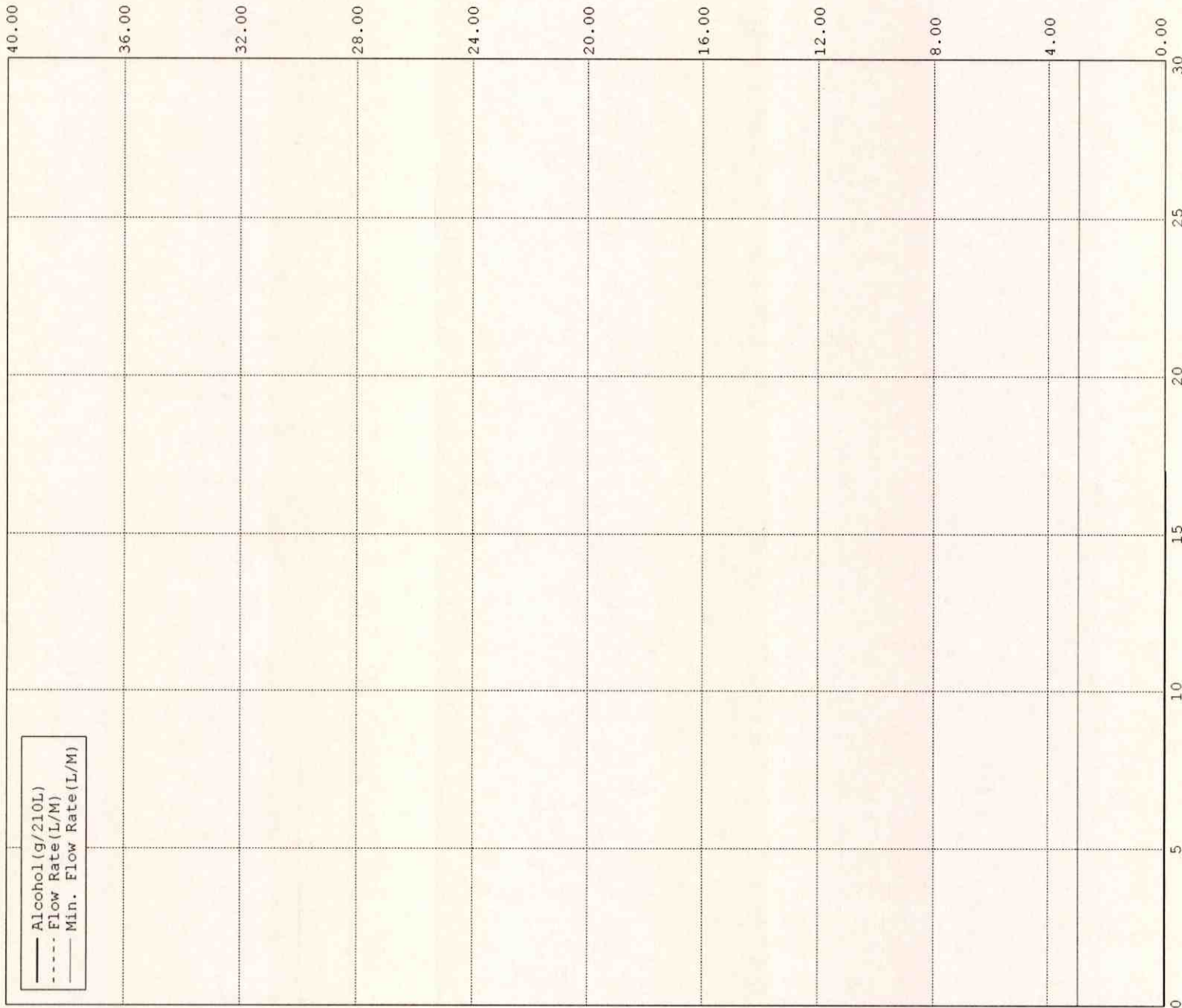
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.05: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:00  
BLANK TEST 0.000 14:00  
INTERNAL STANDARD VERIFIED 14:00  
EXTERNAL STANDARD 0.075 14:00  
BLANK TEST 0.000 14:01

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100686

Date: 12/17/2019

Time: 14:58:20

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 29.04: 0.078

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK

BLANK TEST

INTERNAL STANDARD

EXTERNAL STANDARD

BLANK TEST

SUBJECT SAMPLE (Vol=2.84L)

BLANK TEST

EXTERNAL STANDARD

BLANK TEST

PASSED

0.000

0.000

0.076

0.000

0.000

0.000

0.076

0.000

14:59

14:59

14:59

15:00

15:01

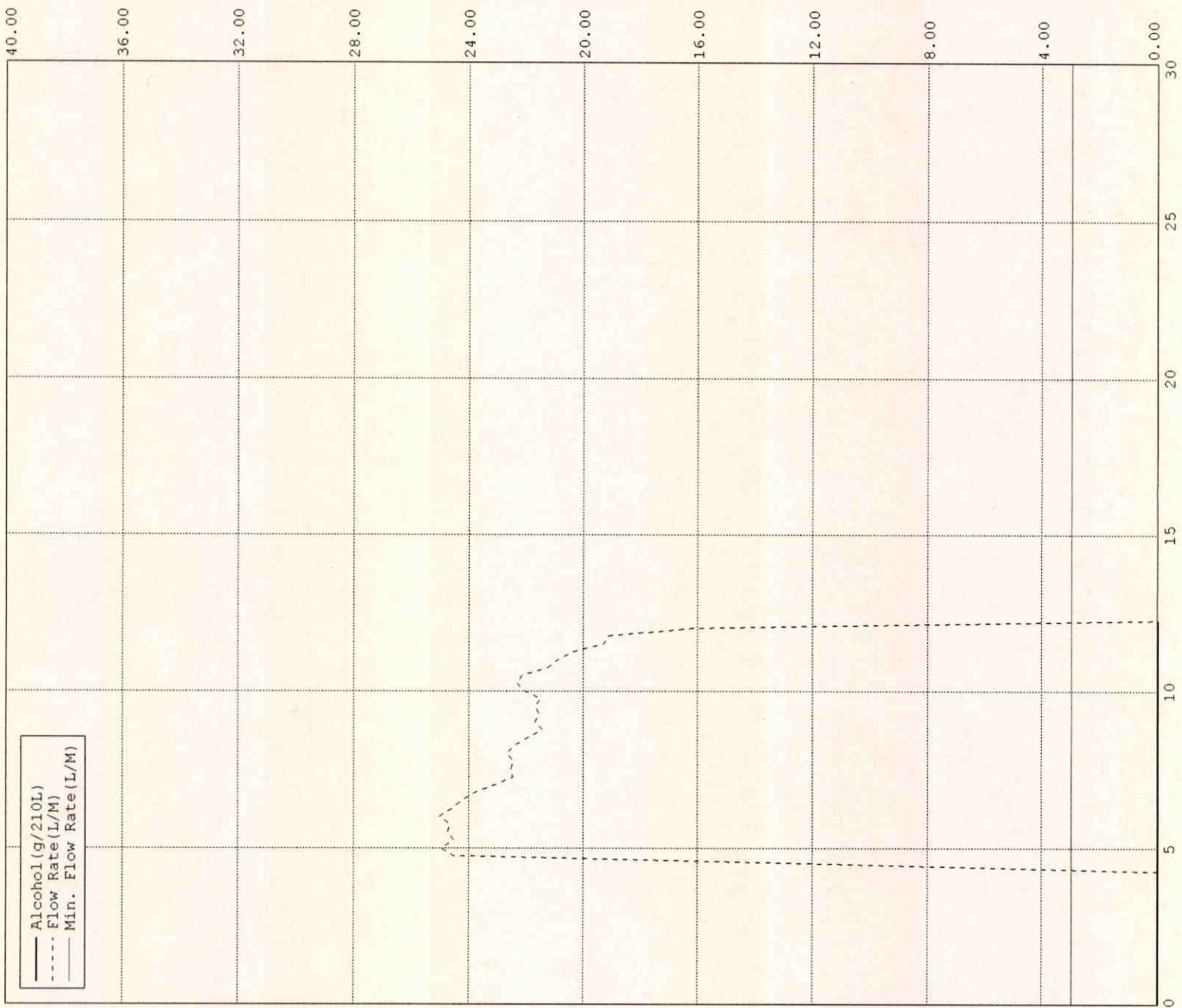
15:01

15:02

15:02

15:03

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



DW