

# 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 100412 Analyst Derech Watson Start Date 01/22/20

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 A6805804 Exp 02/27/20

ii. 0.040g/210L Mnf Airgas Lot A6915607 Exp 06/05/21

iii. 0.080g/210L Mnf Airgas Lot A6826101 Exp 09/18/20

iv. 0.100g/210L Mnf Airgas Lot A6805903 Exp 02/28/20

v. 0.200g/210L Mnf Cwtm Lot 19040 Exp 01/29/21

1. Simulator S/N DR4176 Date Calibrated 10/07/19

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

1. Simulator S/N DR6267 Date Calibrated 10/08/19

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

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

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

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

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

iii. Negative Control - Mnf Cwtm 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 01/22/20

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100412  
-----

Date: 01/22/2020  
Time: 11:58:40

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

TEMPERATURES

Sample Chamber = 49.0°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 43.8°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.78 V PASSED  
(1.07 V - 2.49 V)  
Cooler Voltage = 1.71 V PASSED  
(1.04 V - 2.44 V)  
Bias Voltage = 81 V PASSED  
(49 V - 113 V)  
Chopper Freq = 531 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.5 in

PUMP INFO

Flow Rate = 4.631 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  
(0.003 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD ✓ PASSED  
Xq = 0.104 0.59% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100412  
-----

Date: 01/22/2020  
Time: 12:02 PM

Temperatures (°C)

Sample Cell: 48.9°C  
Breath Tube: 43.7°C

Current Barometer 29.5 in  
Volume (Ltr) 1.57

Settings

Lamp: 1.81 V  
Bias: 81 V  
Cooler: 1.74 V  
Chopper: 527 Hz

Voltages (V)

Flow: 1.05 V  
Detector: 0.041 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100412  
-----

Date: 10/29/2019  
Time: 12:44:57

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca = 0.1000  
CAL = 0.957838    0.800 <= CAL < 1.200  
b1 = 0.0012    0.0000 <= b1 < 0.0040  
b2 = 0.0058    0.0010 <= b2 < 0.0100  
b3 = 0.0004    0.0000 <= b3 < 0.0040  
Xq = 0.1049    0.0500 <= Xq < 0.2000  
a21 = 1.179432    1.050 <= a21 < 1.300  
a31 = 0.563128    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100412

Date: 01/22/2020  
Time: 12:03:53

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

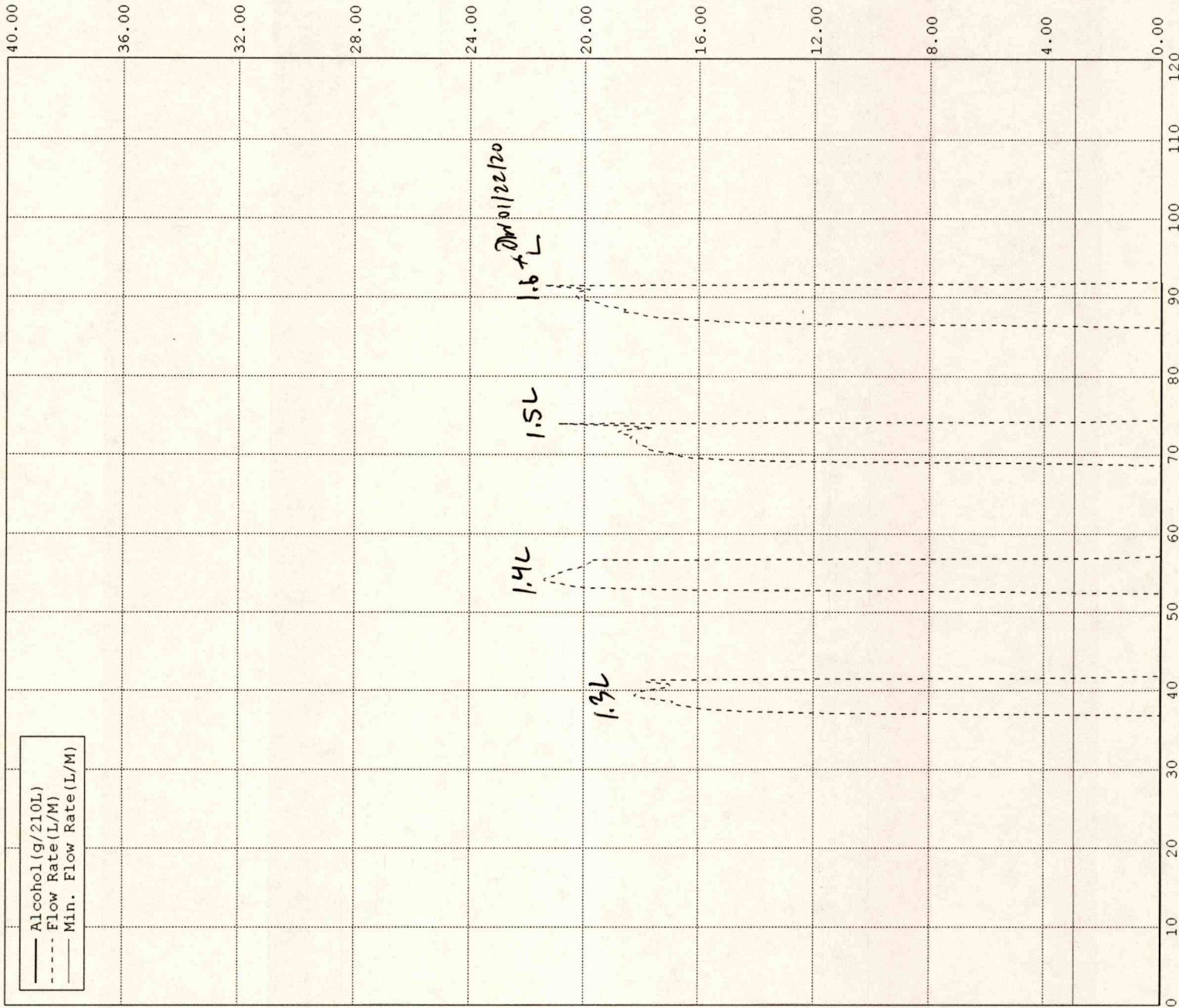
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.48: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:06
BLANK TEST	0.000	12:06
INTERNAL STANDARD	VERIFIED	12:06
EXTERNAL STANDARD	0.077	12:06
BLANK TEST	0.000	12:07
SUBJECT SAMPLE (Vol=1.60L)	0.000	12:09
BLANK TEST	0.000	12:10
EXTERNAL STANDARD	0.078	12:10
BLANK TEST	0.000	12:11

*DW*



LINEARITY CHECK

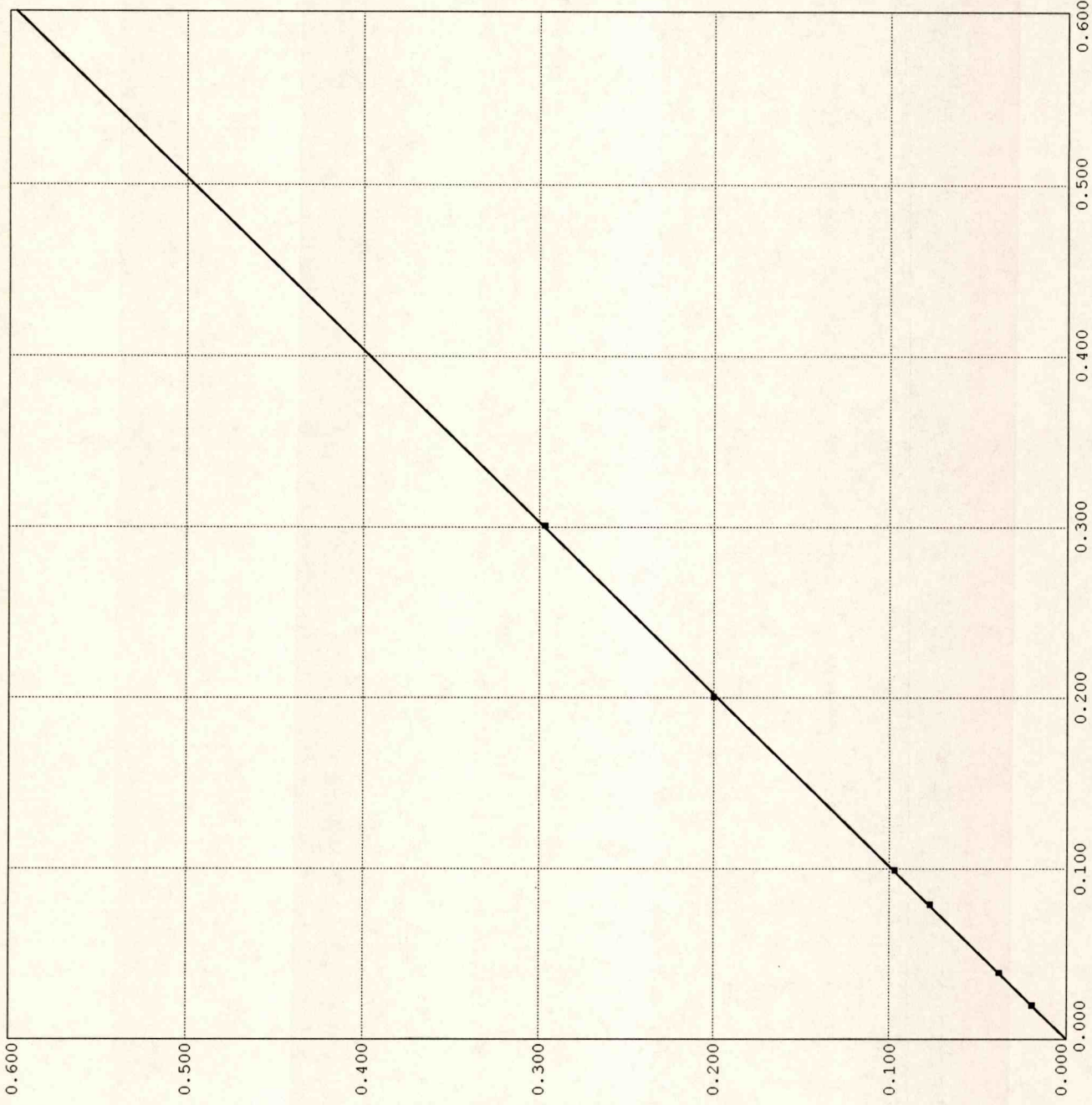
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100412  
 -----

Date: 01/22/2020  
 Time: 12:17:10

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.039	0.0388	0.0004
0.079	0.0780	0.0000
0.099	0.0980	0.0007
0.200	0.2008	0.0004
0.300	0.2974	0.0005

SLOPE = 0.994167  
 R<sup>2</sup> = 0.999910



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LINEARITY CHECK: Control Test 1

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 Alaska Department of Public Safety  
 DATAMASTER dmt: 100412  
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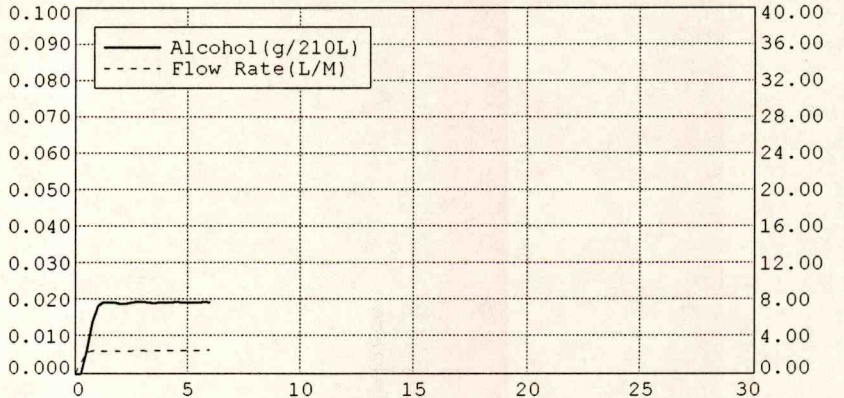
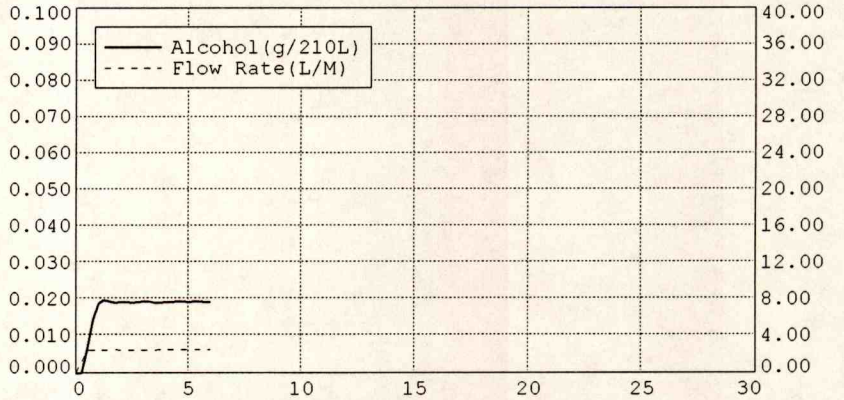
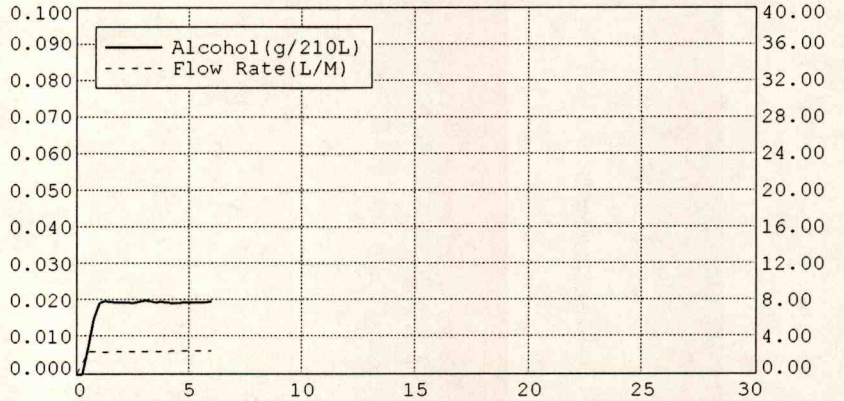
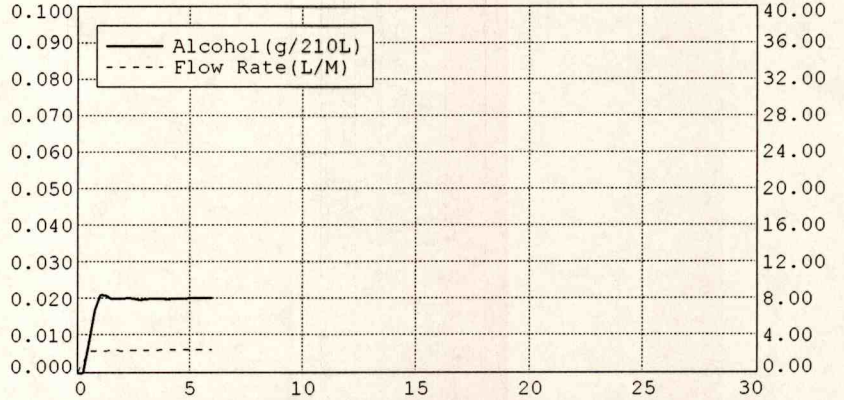
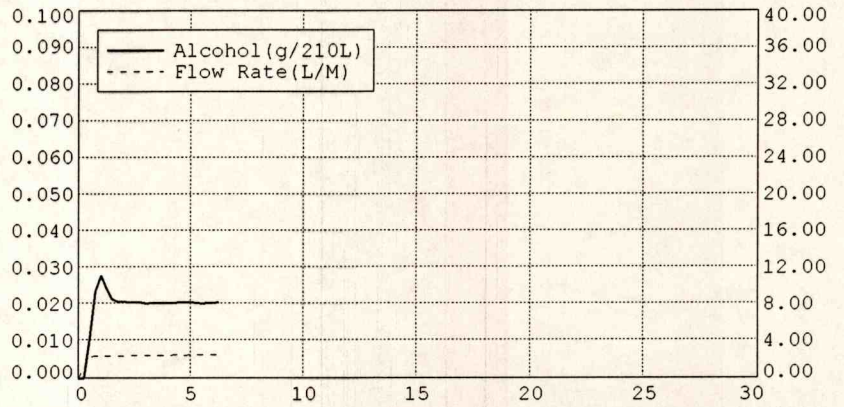
Date: 01/22/2020  
 Time: 12:17:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.47: 0.020  
 LOT #: AG805804  
 EXPIRATION: 02/27/2020  
 TANK PRESSURE: 390 psi

BLANK TEST	0.000	12:18
INTERNAL STANDARD	VERIFIED	12:18
EXTERNAL STANDARD	0.020	12:18
BLANK TEST	0.000	12:19
EXTERNAL STANDARD	0.021	12:19
BLANK TEST	0.000	12:20
EXTERNAL STANDARD	0.020	12:20
BLANK TEST	0.000	12:21
EXTERNAL STANDARD	0.020	12:21
BLANK TEST	0.000	12:22
EXTERNAL STANDARD	0.020	12:23
BLANK TEST	0.000	12:23

Average = 0.0202  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100412

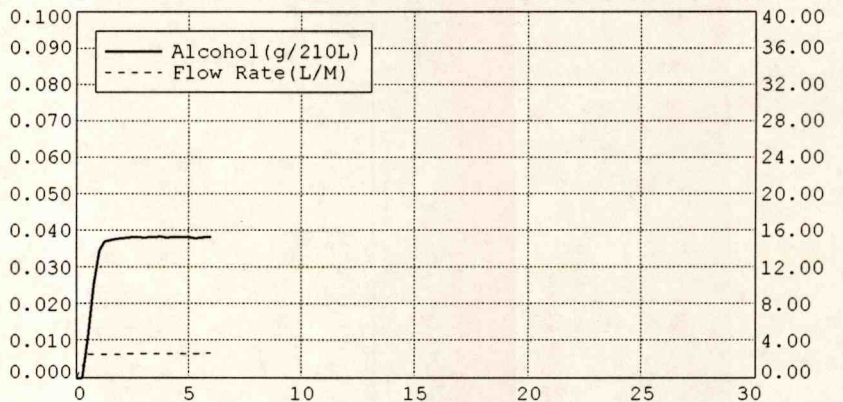
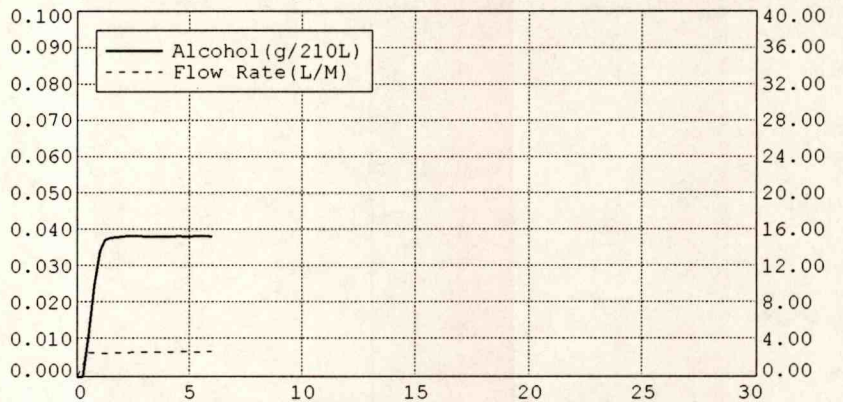
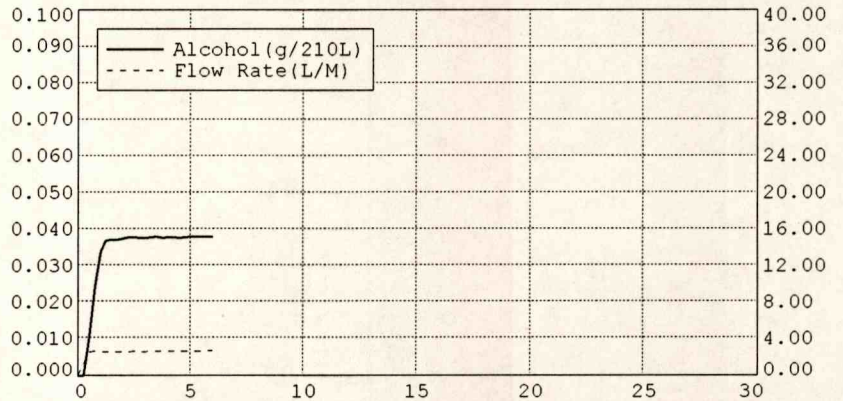
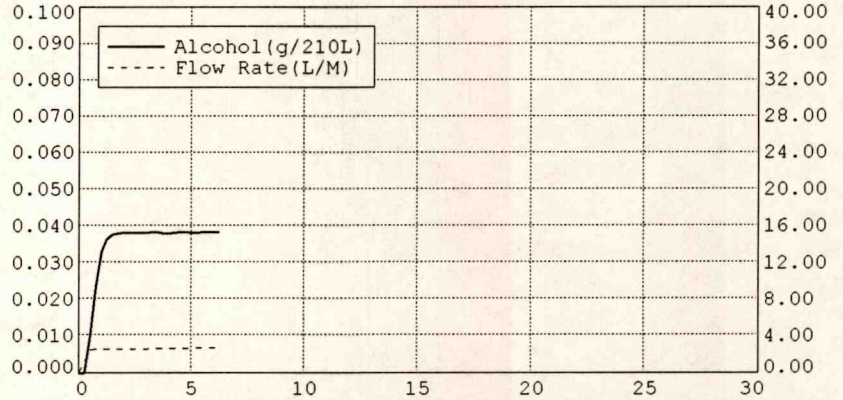
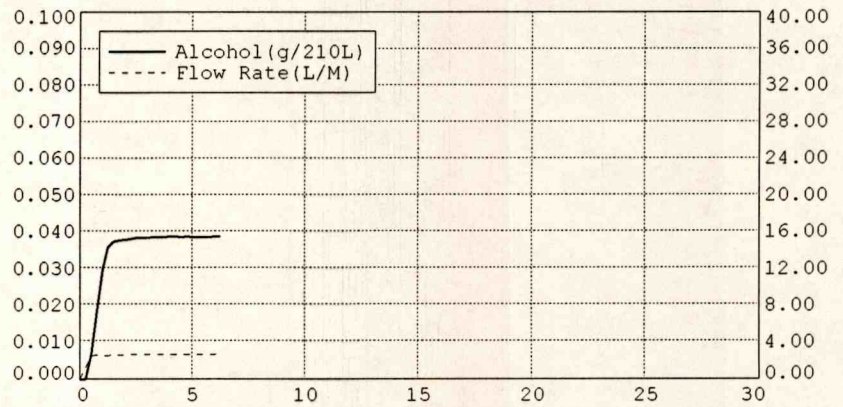
Date: 01/22/2020  
 Time: 12:25:09

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.48: 0.039  
 LOT #: AG915607  
 EXPIRATION: 06/05/2021  
 TANK PRESSURE: 917 psi

BLANK TEST	0.000	12:26
INTERNAL STANDARD	VERIFIED	12:26
EXTERNAL STANDARD	0.039	12:26
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.039	12:27
BLANK TEST	0.000	12:28
EXTERNAL STANDARD	0.038	12:28
BLANK TEST	0.000	12:29
EXTERNAL STANDARD	0.039	12:29
BLANK TEST	0.000	12:30
EXTERNAL STANDARD	0.039	12:31
BLANK TEST	0.000	12:31

Average = 0.0388  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

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 Alaska Department of Public Safety  
 DATAMASTER dmt: 100412  
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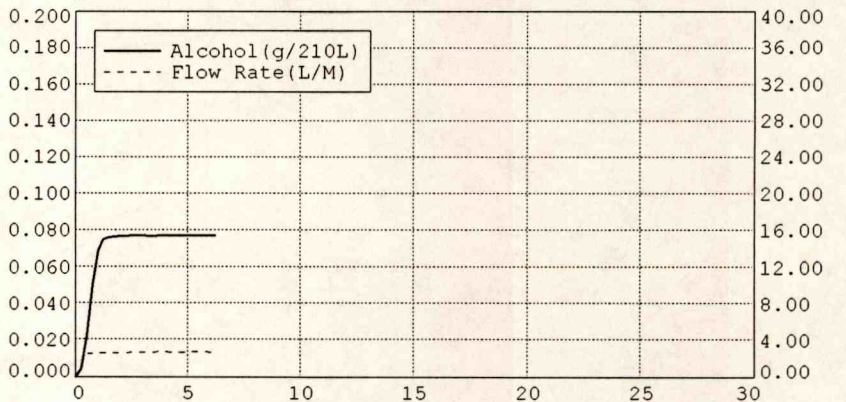
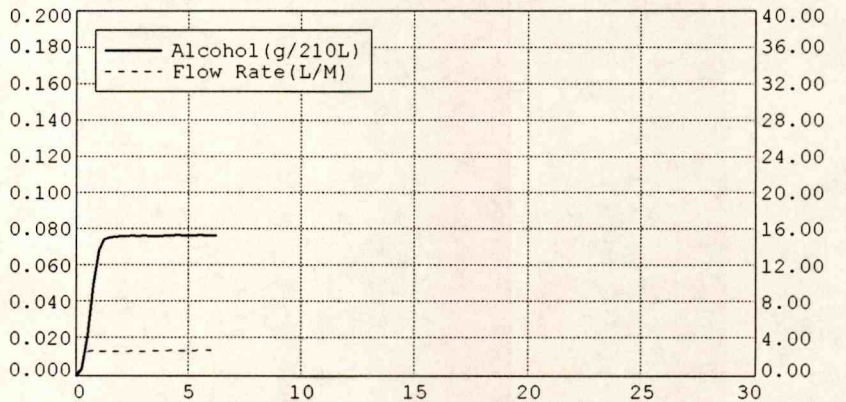
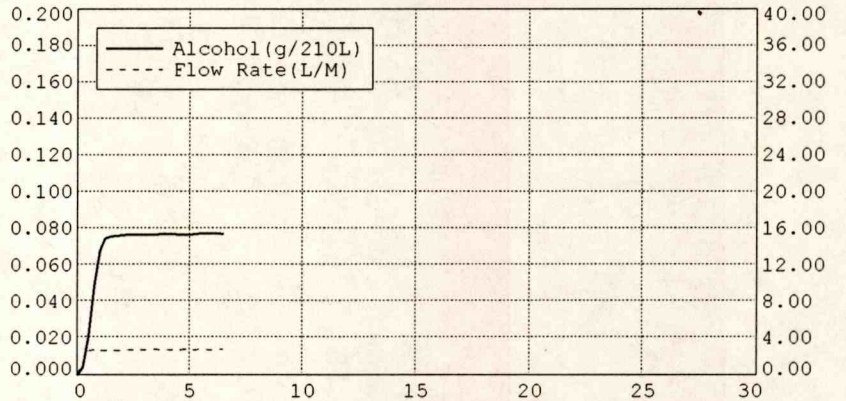
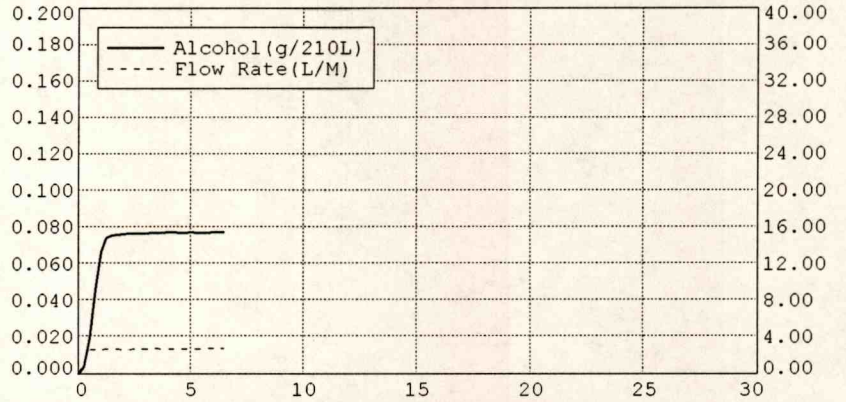
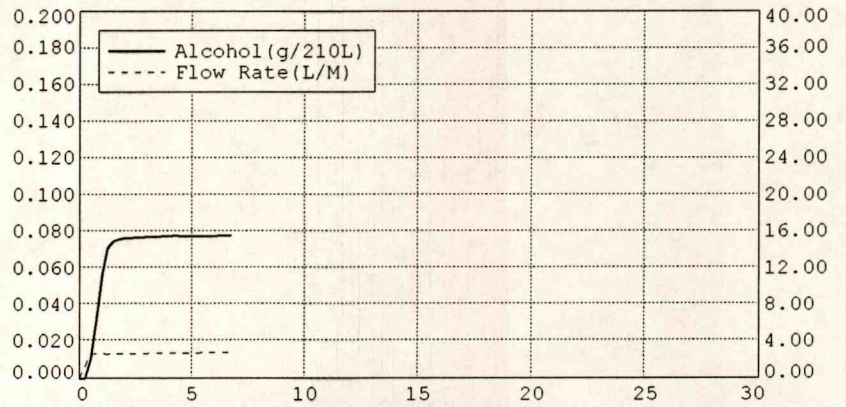
Date: 01/22/2020  
 Time: 12:36:25

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.48: 0.079  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 901 psi

BLANK TEST	0.000	12:37
INTERNAL STANDARD	VERIFIED	12:37
EXTERNAL STANDARD	0.078	12:37
BLANK TEST	0.000	12:38
EXTERNAL STANDARD	0.078	12:39
BLANK TEST	0.000	12:39
EXTERNAL STANDARD	0.078	12:40
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.078	12:41
BLANK TEST	0.000	12:42
EXTERNAL STANDARD	0.078	12:42
BLANK TEST	0.000	12:43

Average = 0.0780  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100412

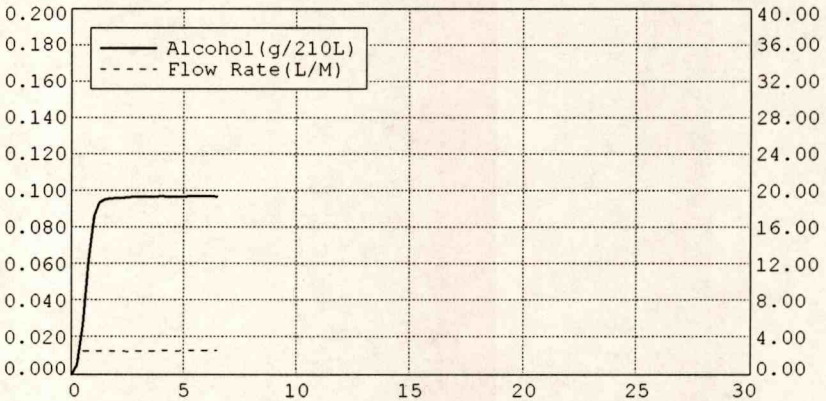
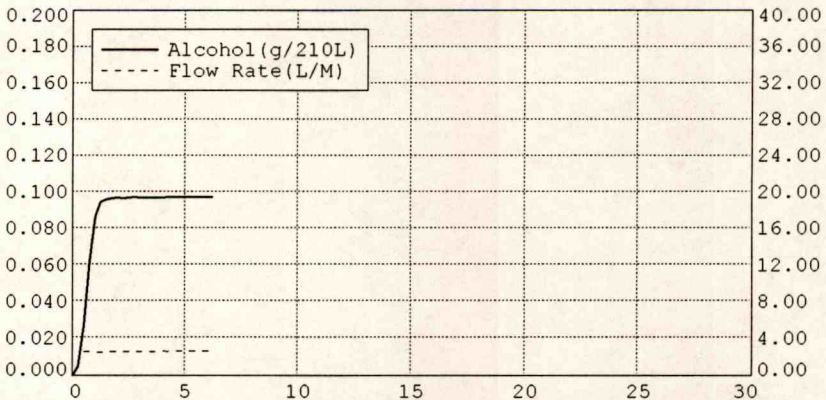
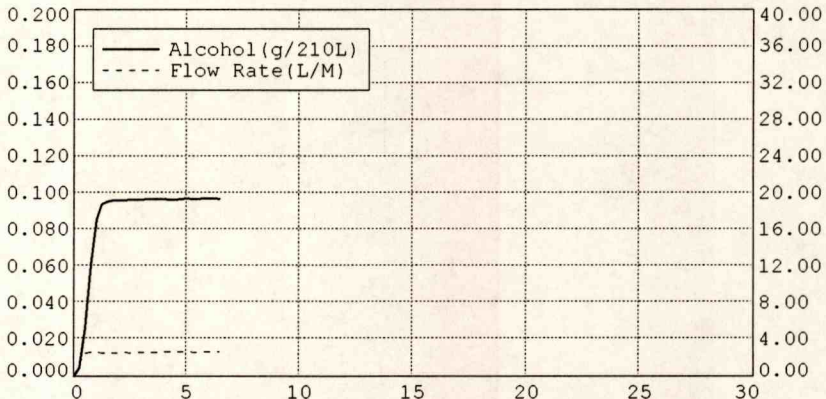
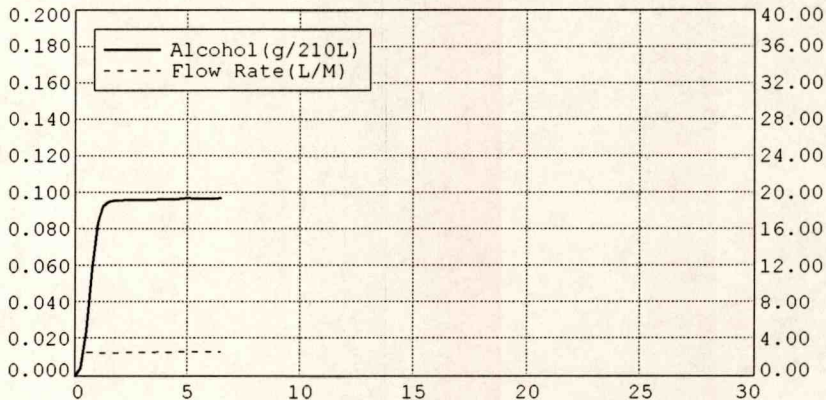
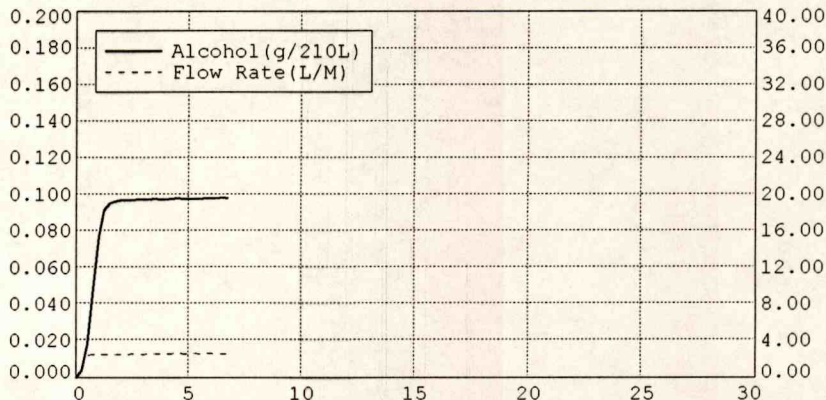
Date: 01/22/2020  
 Time: 12:44:04

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.49: 0.099  
 LOT #: AG805903  
 EXPIRATION: 02/28/2020  
 TANK PRESSURE: 433 psi

BLANK TEST	0.000	12:45
INTERNAL STANDARD	VERIFIED	12:45
EXTERNAL STANDARD	0.099	12:45
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.098	12:46
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.097	12:47
BLANK TEST	0.000	12:48
EXTERNAL STANDARD	0.098	12:48
BLANK TEST	0.000	12:49
EXTERNAL STANDARD	0.098	12:50
BLANK TEST	0.000	12:50

Average = 0.0980  
 Std Dev = 0.0007



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100412

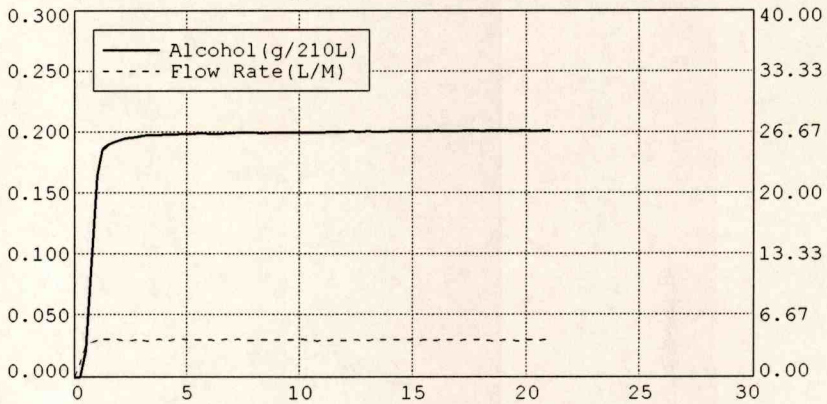
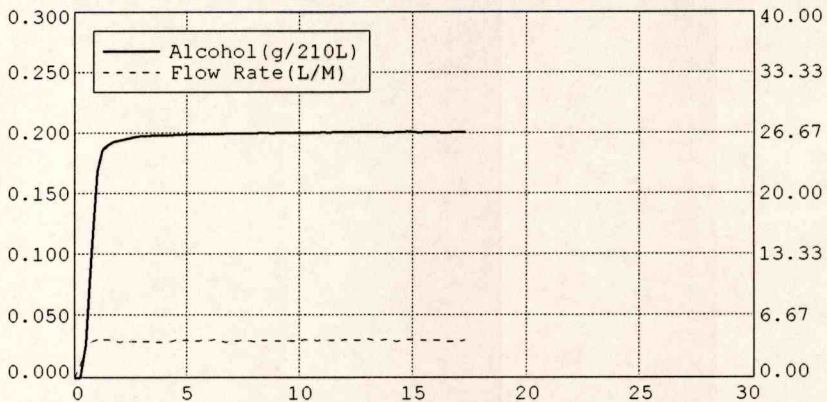
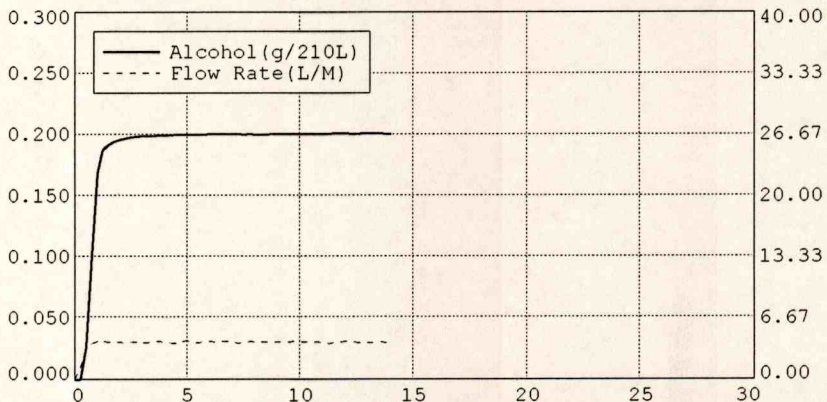
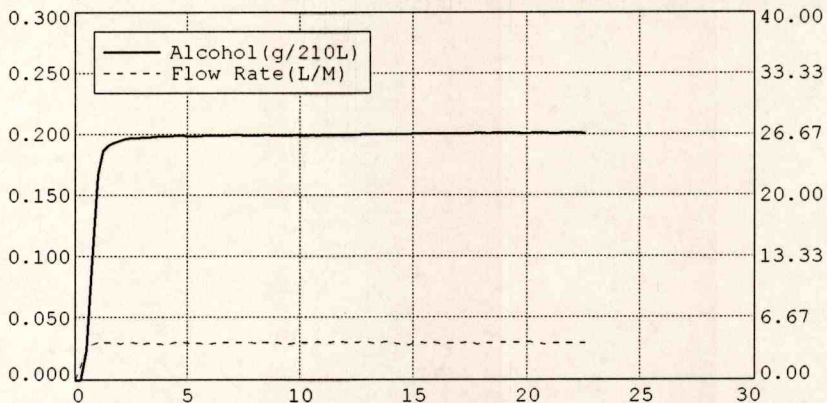
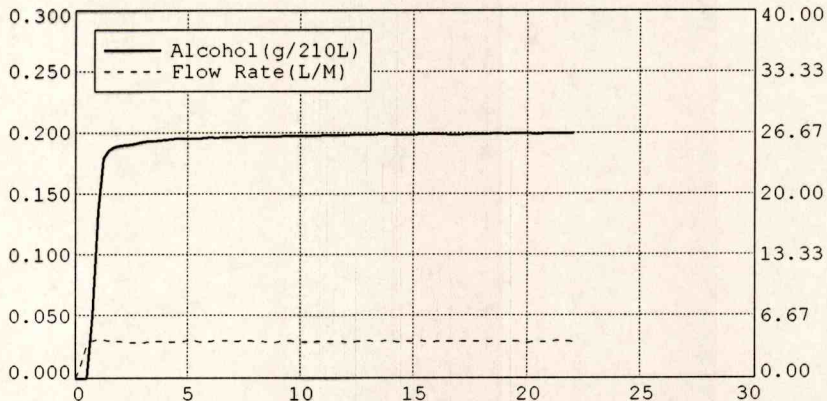
Date: 01/22/2020  
 Time: 12:53:22

EXTERNAL STANDARD INFORMATION.

NOMINAL: 0.200  
 LOT #: 19040  
 EXPIRATION: 01/29/2021

BLANK TEST	0.000	13:40
INTERNAL STANDARD	VERIFIED	13:40
EXTERNAL STANDARD	0.200	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.201	13:42
BLANK TEST	0.000	13:43
EXTERNAL STANDARD	0.201	13:43
BLANK TEST	0.000	13:44
EXTERNAL STANDARD	0.201	13:44
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.201	13:46
BLANK TEST	0.000	13:46

Average = 0.2008  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100412

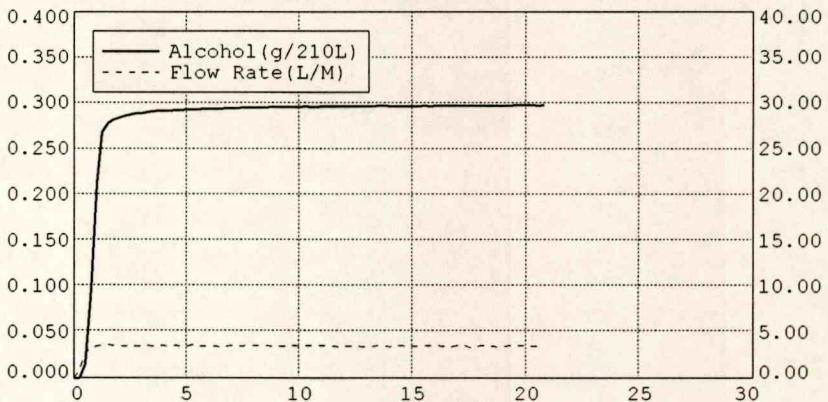
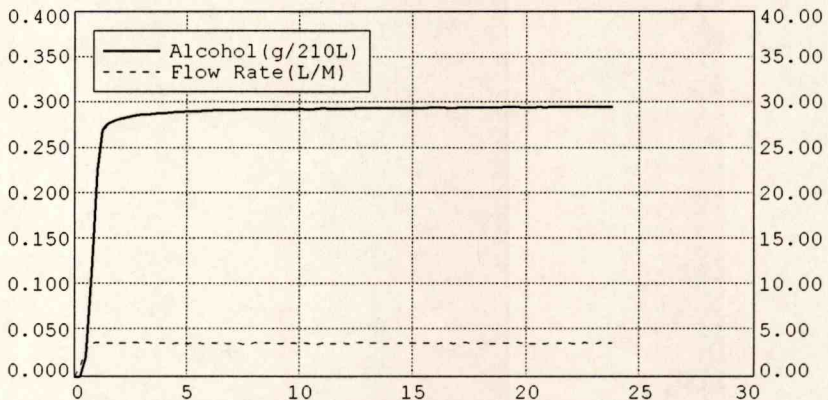
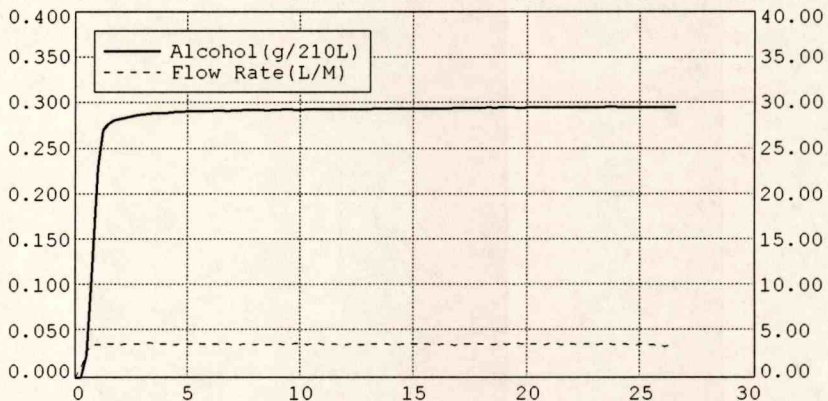
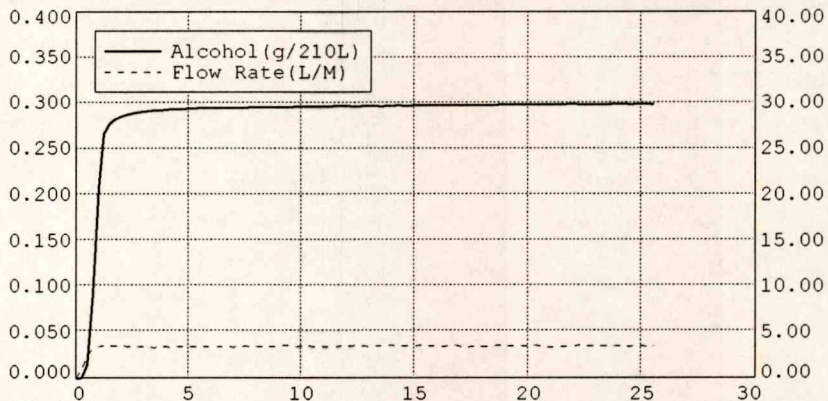
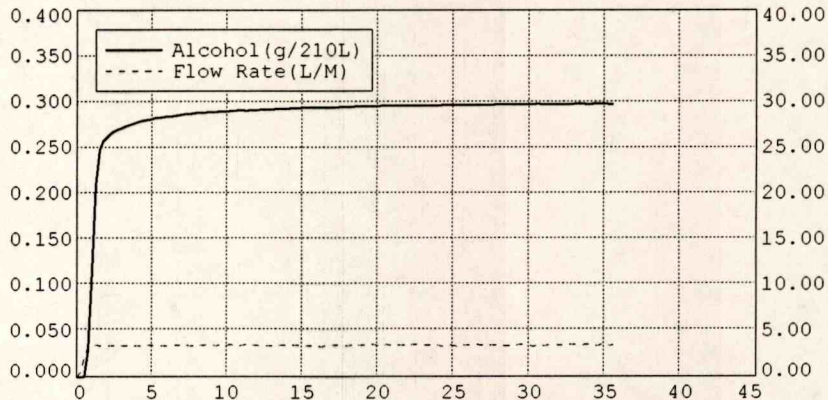
Date: 01/22/2020  
 Time: 13:49:50

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:50
INTERNAL STANDARD	VERIFIED	13:51
EXTERNAL STANDARD	0.298	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.298	13:53
BLANK TEST	0.000	13:54
EXTERNAL STANDARD	0.297	13:54
BLANK TEST	0.000	13:55
EXTERNAL STANDARD	0.297	13:56
BLANK TEST	0.000	13:57
EXTERNAL STANDARD	0.297	13:57
BLANK TEST	0.000	13:58

Average = 0.2974  
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100412

Date: 01/22/2020  
Time: 14:05:41

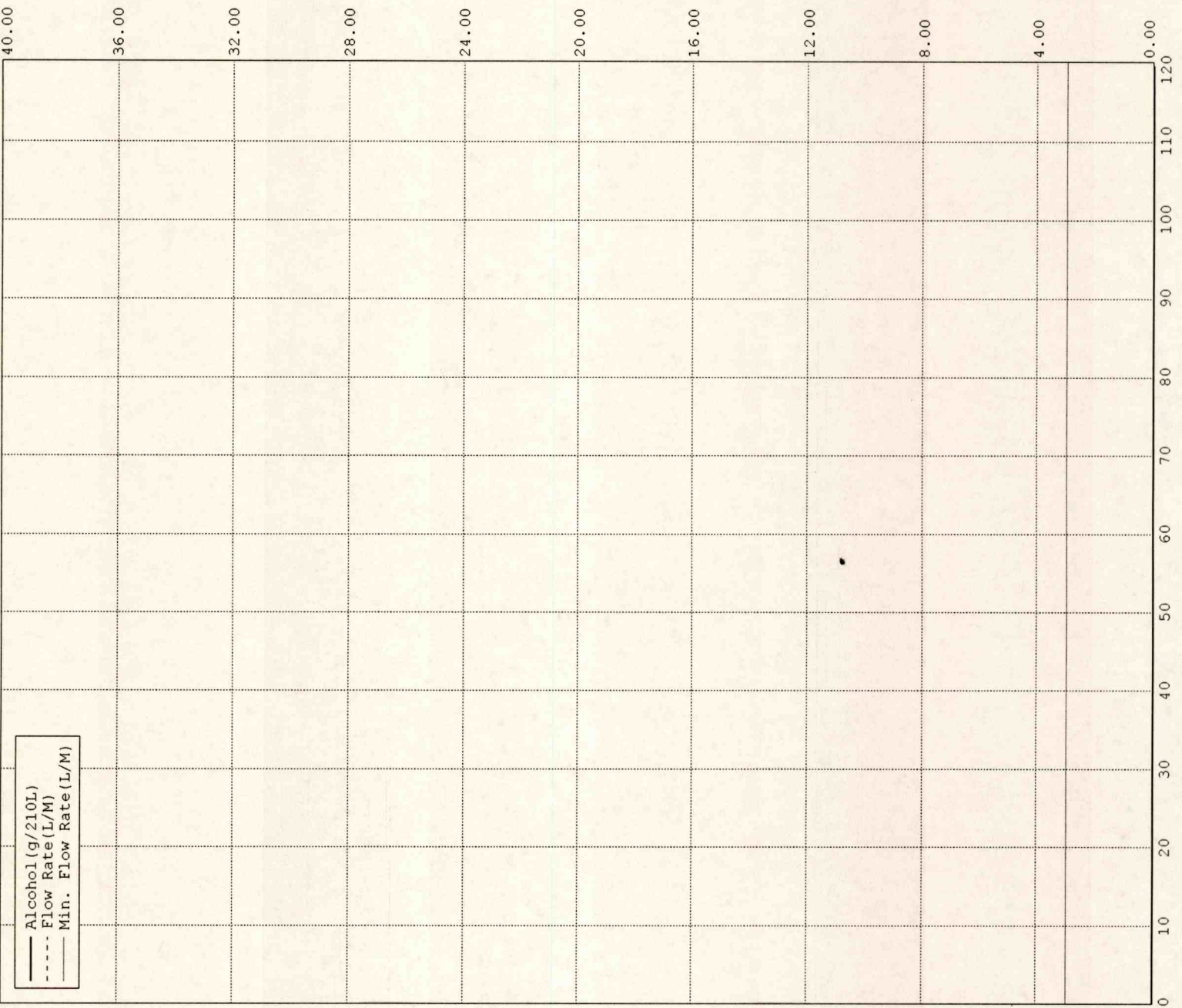
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.49: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:06  
BLANK TEST 0.000 14:06  
INTERNAL STANDARD VERIFIED 14:06  
EXTERNAL STANDARD 0.077 14:07  
BLANK TEST 0.000 14:08  
SUBJECT SAMPLE INCOMPLETE 14:10



SUBJECT TEST

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Alaska Department of Public Safety  
DATAMASTER dmt: 100412  
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Date: 01/22/2020  
Time: 14:25:07

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

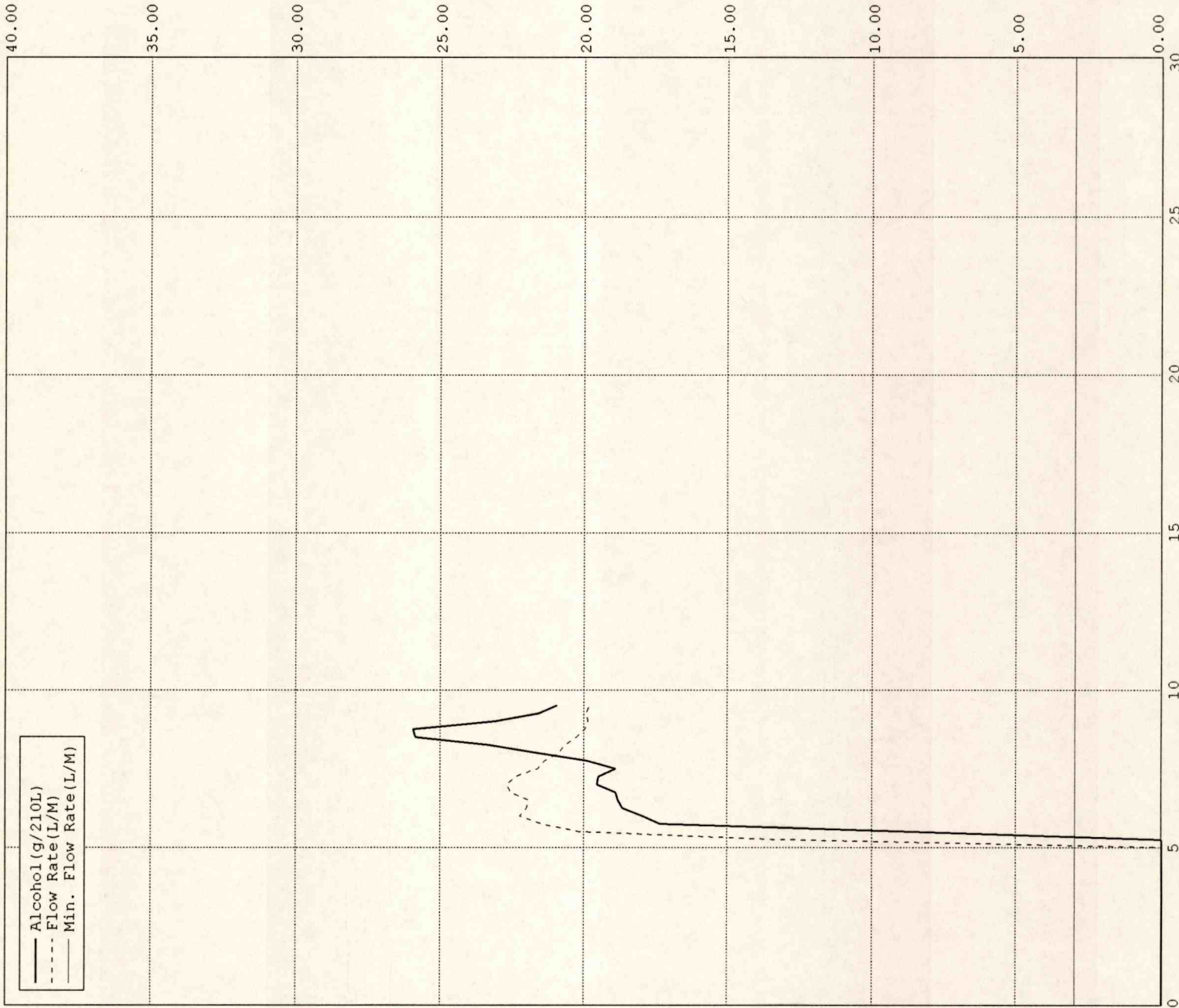
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.49: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK            PASSED    14:26  
BLANK TEST                    0.000    14:26  
INTERNAL STANDARD           VERIFIED   14:26  
EXTERNAL STANDARD           0.078    14:26  
BLANK TEST                    0.000    14:27  
SUBJECT SAMPLE               INVALID    14:28

*MAN*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100412

Date: 01/22/2020  
Time: 14:38:54

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

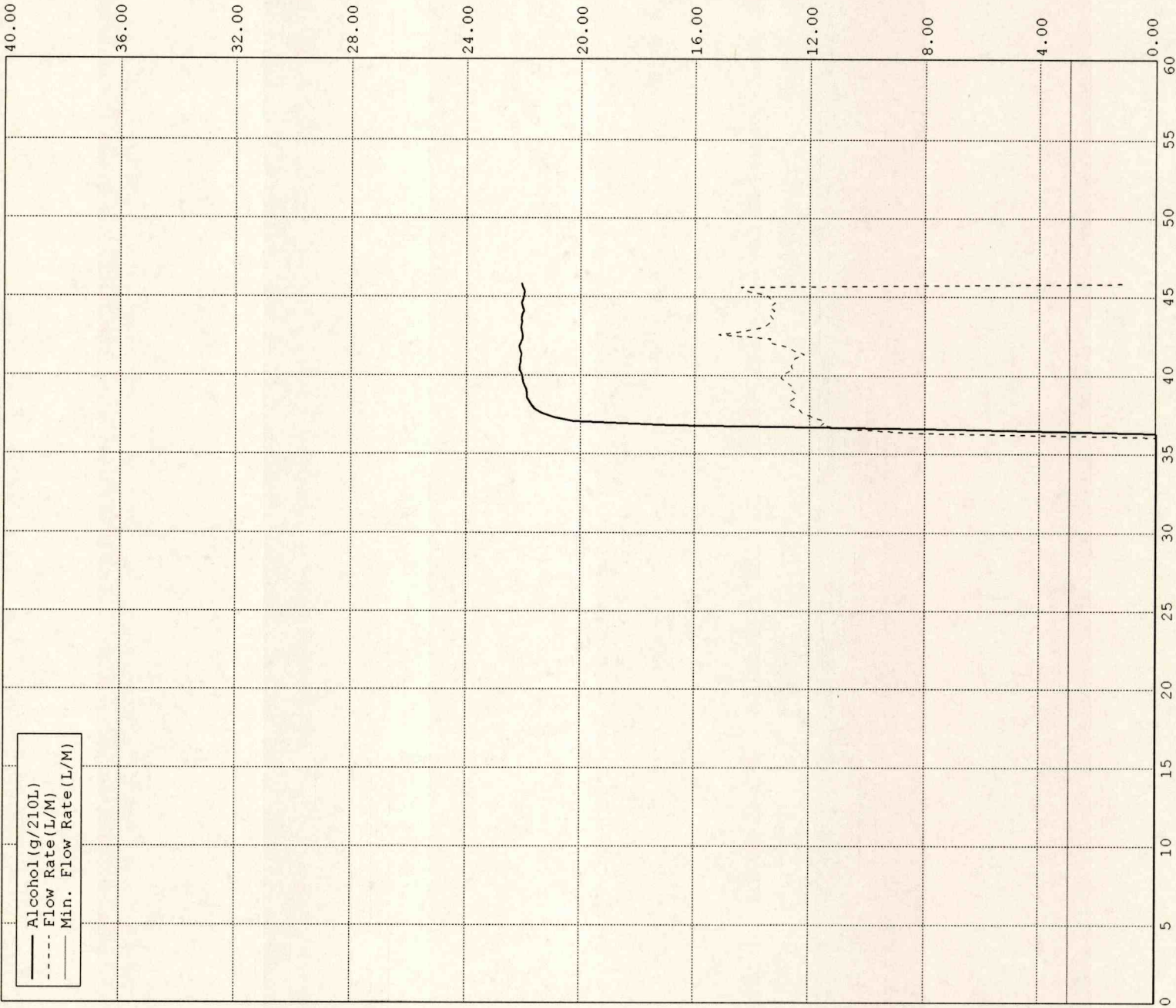
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.49: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:40  
BLANK TEST 0.000 14:40  
INTERNAL STANDARD VERIFIED 14:40  
Xq = 0.103 (1.42%)  
EXTERNAL STANDARD 0.078 14:40  
X[1] = 0.0779 (-0.0001) (0.0034)  
BLANK TEST 0.000 14:41  
SUBJECT SAMPLE XXX 14:42  
X[1] = 0.1108 (-0.0145) (0.0050)

Interference Detected

Filter 2 Avg: -0.0004

Filter 3 Avg: 0.0033



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100412

Date: 01/22/2020  
Time: 14:44:16

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

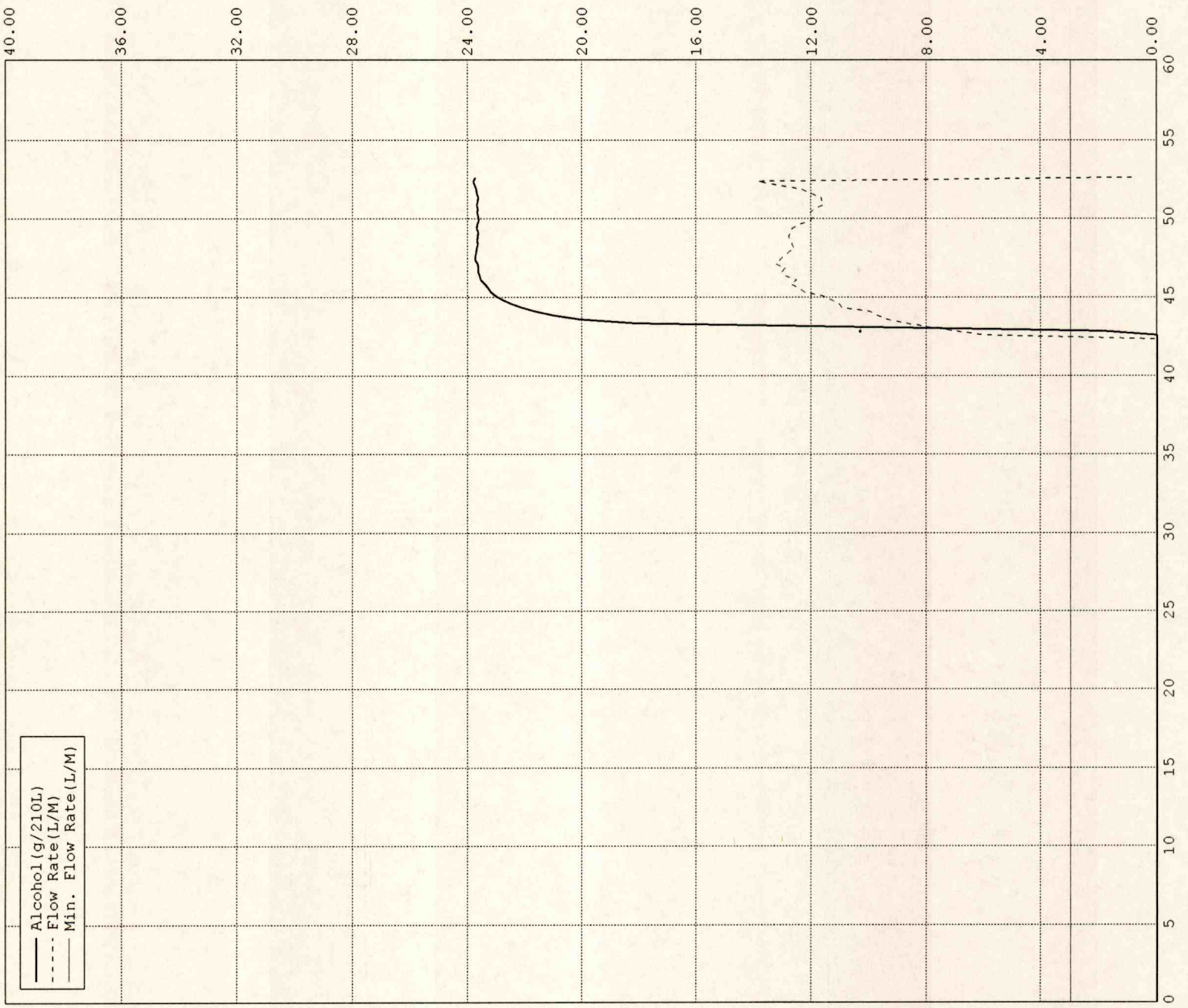
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.49: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:45  
BLANK TEST 0.000 14:45  
INTERNAL STANDARD VERIFIED 14:45  
Xg = 0.104 (0.92%)  
EXTERNAL STANDARD 0.078 14:45  
X[1] = 0.0783 (-0.0003) (0.0032)  
BLANK TEST 0.000 14:46  
SUBJECT SAMPLE XXX 14:47  
X[1] = 0.1189 (-0.0283) (0.0014)

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100412

Date: 01/22/2020  
Time: 15:02:26

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

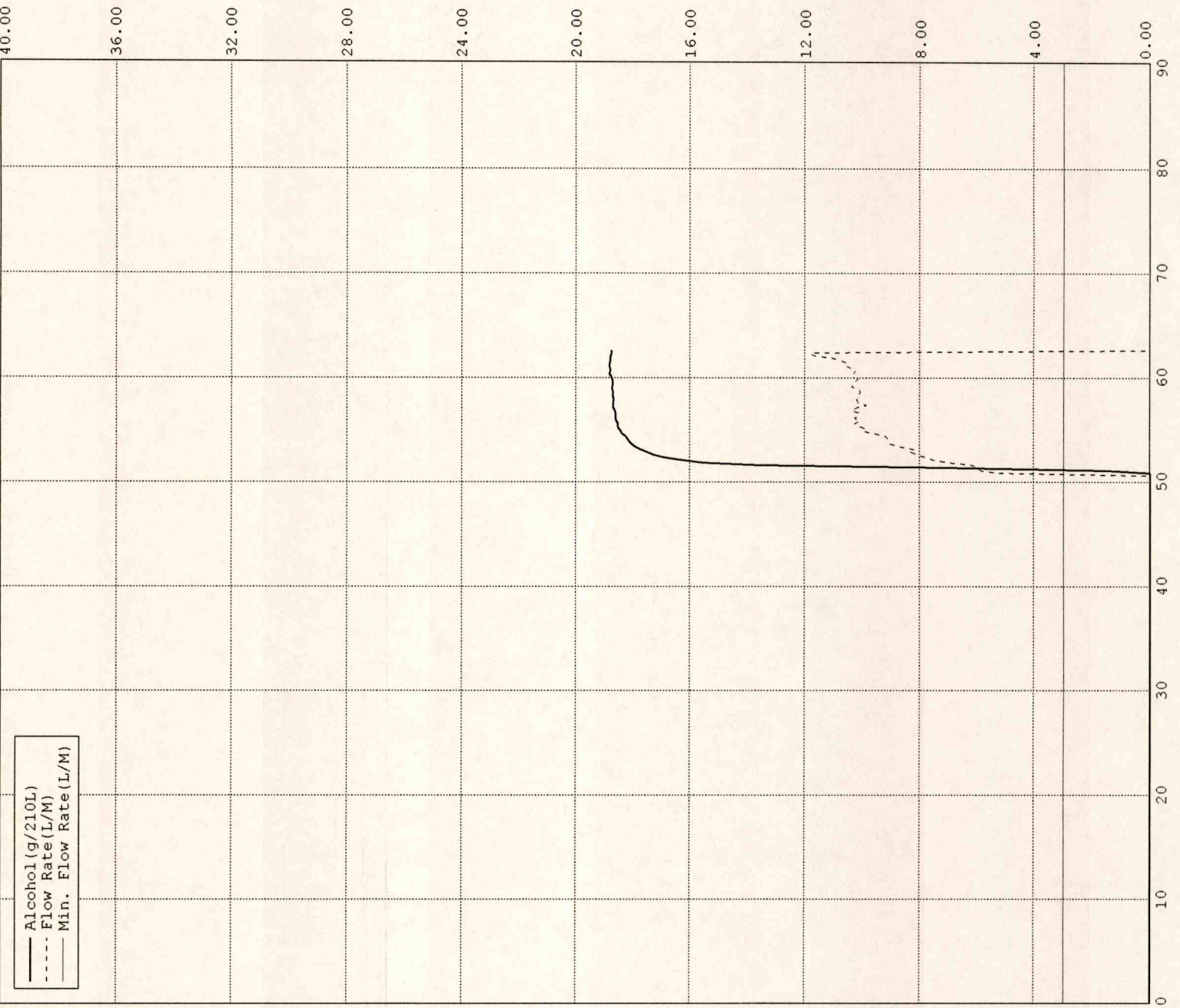
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.49: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	15:03
BLANK TEST	0.000	15:03
INTERNAL STANDARD	VERIFIED	15:03
Xq = 0.103 (1.76%)		
EXTERNAL STANDARD	0.077	15:03
X[1] = 0.0771 (-0.0009) (0.0034)		
BLANK TEST	0.000	15:04
SUBJECT SAMPLE (Vol=1.86L)	0.094	15:05
X[1] = 0.0945 (0.0012) (0.0022)		
BLANK TEST	0.000	15:06
EXTERNAL STANDARD	0.077	15:07
X[1] = 0.0772 (-0.0003) (0.0033)		
BLANK TEST	0.000	15:08

*JW*



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100412  
-----

Date: 01/22/2020  
Time: 14:12:43

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

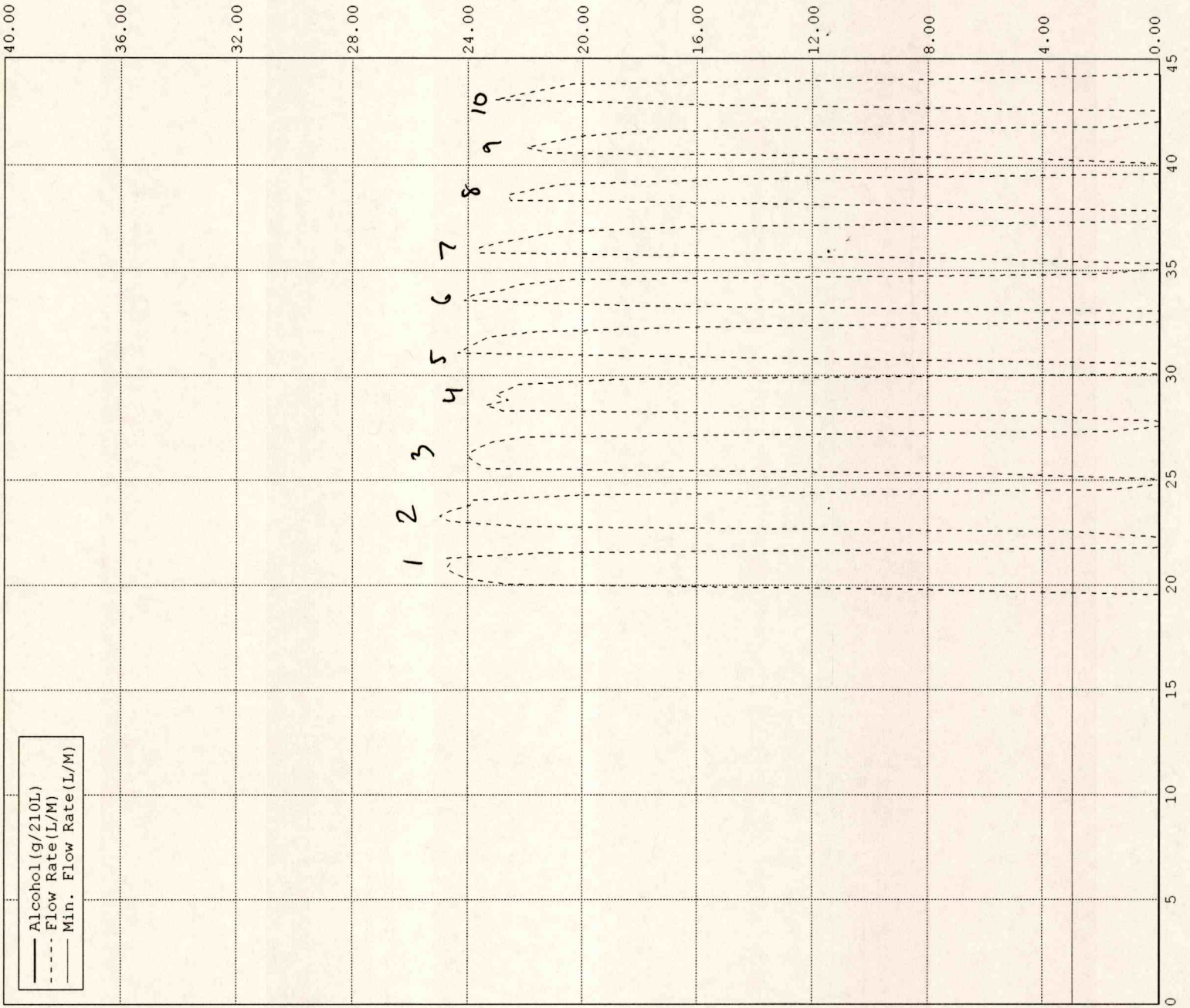
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.49: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:13  
BLANK TEST 0.000 14:13  
INTERNAL STANDARD VERIFIED 14:13  
EXTERNAL STANDARD 0.077 14:14  
BLANK TEST 0.000 14:15  
SUBJECT SAMPLE XXX 14:15

Maximum Attempts Exceeded

*DM*



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100412  
-----

Date: 01/22/2020  
Time: 14:32:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

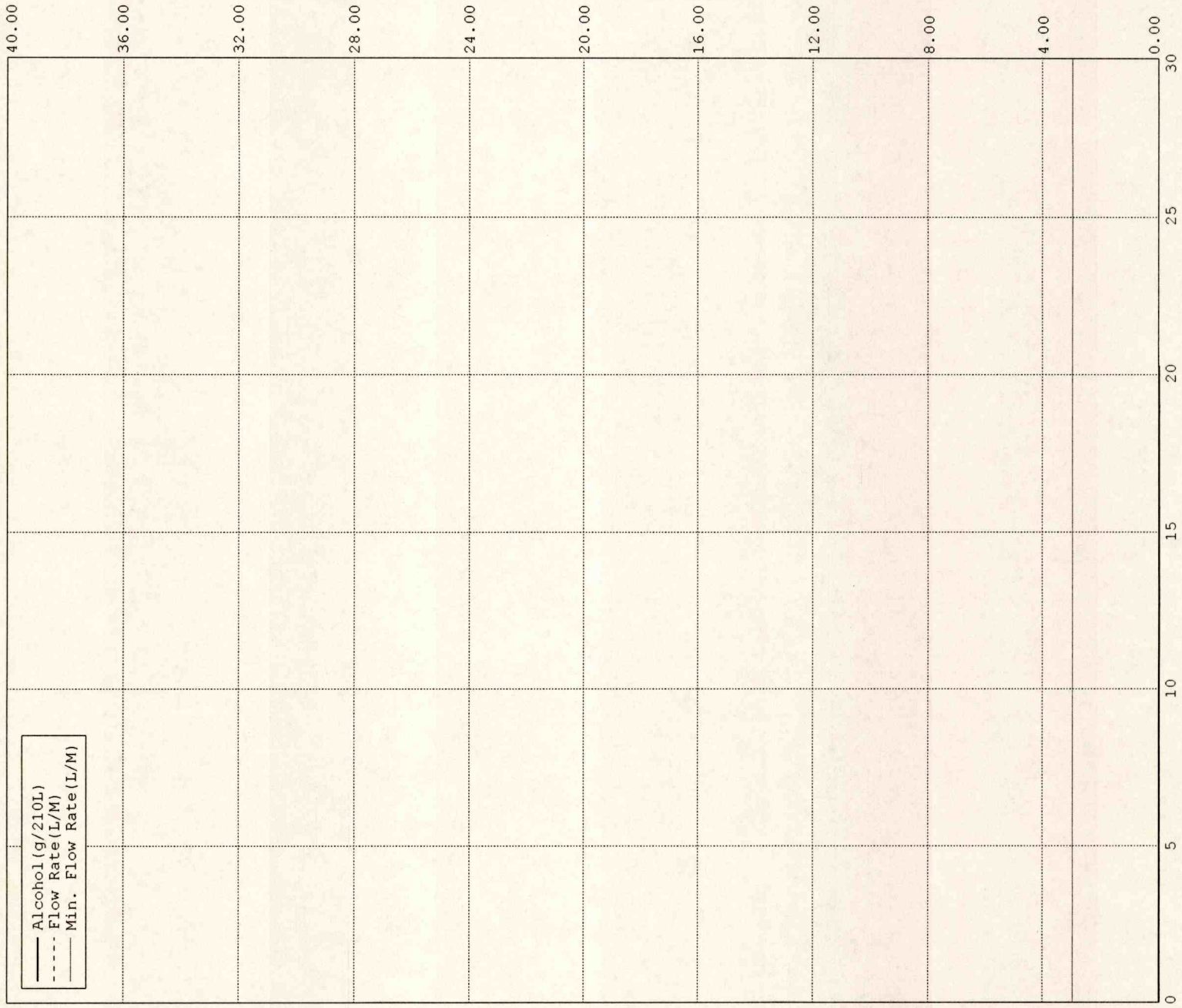
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.49: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK  
PASSES 14:33  
BLANK TEST 0.000 14:34  
INTERNAL STANDARD VERIFIED 14:34  
EXTERNAL STANDARD 0.077 14:34  
BLANK TEST 0.000 14:35

RFI DETECTED

*DM*

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



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100412  
-----

Date: 01/22/2020  
Time: 16:13:35

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 29.49: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	16:17
BLANK TEST	0.000	16:17
INTERNAL STANDARD	VERIFIED	16:17
EXTERNAL STANDARD	0.078	16:17
BLANK TEST	0.000	16:18
SUBJECT SAMPLE (Vol=2.93L)	0.000	16:19
BLANK TEST	0.000	16:20
EXTERNAL STANDARD	0.079	16:20
BLANK TEST	0.000	16:21

*DMG*

