

# 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 100694 Analyst Derek Watten Start Date 10/08/20

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 A6928203 Exp 10/09/21
- ii. 0.040g/210L Mnf Airgas Lot A6915607 Exp 06/05/21
- iii. 0.080g/210L Mnf Airgas Lot A6923401 Exp 08/22/21
- iv. 0.100g/210L Mnf Airgas Lot A6924701 Exp 09/04/21
- v. 0.200g/210L Mnf Cutn Lot 19200 Exp 08/06/21
  - 1. Simulator S/N DR4161 Date Calibrated 05/08/20
- vi. 0.300g/210L Mnf Cutn Lot 19330 Exp 11/13/21
  - 1. Simulator S/N DR5298 Date Calibrated 05/08/20

5. Functional Tests (attached)

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

- i. Acetone - Mnf Cutn Lot 19301 Level 0.100 Exp 10/30/21
  - 1. Simulator S/N SD1202 Date Calibrated 05/08/20
- ii. Isopropanol - Mnf Cutn Lot 19301 Level 0.100 Exp 10/30/21
  - 1. Simulator S/N SD1177 Date Calibrated 05/07/20
- iii. Negative Control - Mnf Cutn Lot 19301 Level 0.100 Exp 10/30/21
  - 1. Simulator S/N SD1088 Date Calibrated 05/08/20

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 10/09/20

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100694  
-----

Date: 10/08/2020  
Time: 10:03:15

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.66 V PASSED  
(1.00 V - 2.32 V)  
Cooler Voltage = 1.56 V PASSED  
(0.94 V - 2.18 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 546 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.2 in

PUMP INFO

Flow Rate = 4.074 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 = 0.099 1.52% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100694  
-----

Date: 10/08/2020  
Time: 10:33 AM

Temperatures (°C)  
Sample Cell: 49.0°C  
Breath Tube: 48.1°C

Current Barometer 29.2 in  
Volume (Ltr) 1.44 ✓

Settings  
Lamp: 1.66 V  
Bias: 79 V  
Cooler: 1.51 V  
Chopper: 527 Hz

Voltages (V)  
Flow: 1.04 V  
Detector: 0.065 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100694  
-----

Date: 09/17/2020  
Time: 14:49:34

OPERATOR NAME:  
DEREK WALTON  
CERTIFICATE #: 9508

Ca = 0.1000  
CAL = 0.999183    0.800 <= CAL < 1.200  
b1 = 0.0007    0.0000 <= b1 < 0.0040  
b2 = 0.0054    0.0010 <= b2 < 0.0100  
b3 = 0.0004    0.0000 <= b3 < 0.0040  
Xq = 0.0978    0.0500 <= Xq < 0.2000  
a21 = 1.208090    1.050 <= a21 < 1.300  
a31 = 0.423296    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100694

Date: 10/08/2020  
Time: 10:35:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

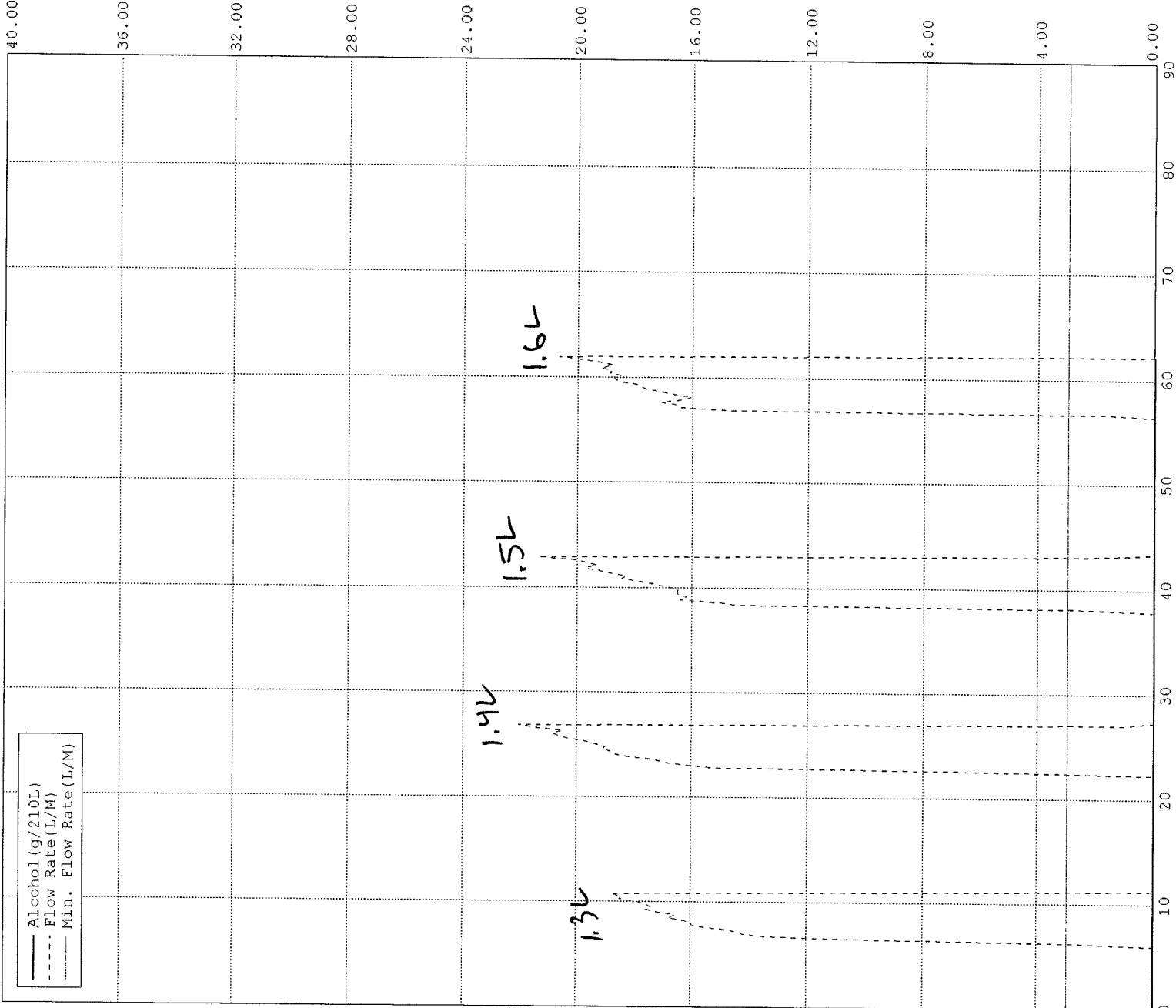
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.22: 0.078  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	10:36
BLANK TEST	0.000	10:36
INTERNAL STANDARD	VERIFIED	10:36
EXTERNAL STANDARD	0.078	10:36
BLANK TEST	0.000	10:37
SUBJECT SAMPLE (Vol=1.57L)	0.000	10:39
BLANK TEST	0.000	10:40
EXTERNAL STANDARD	0.078	10:40
BLANK TEST	0.000	10:41



LINEARITY CHECK

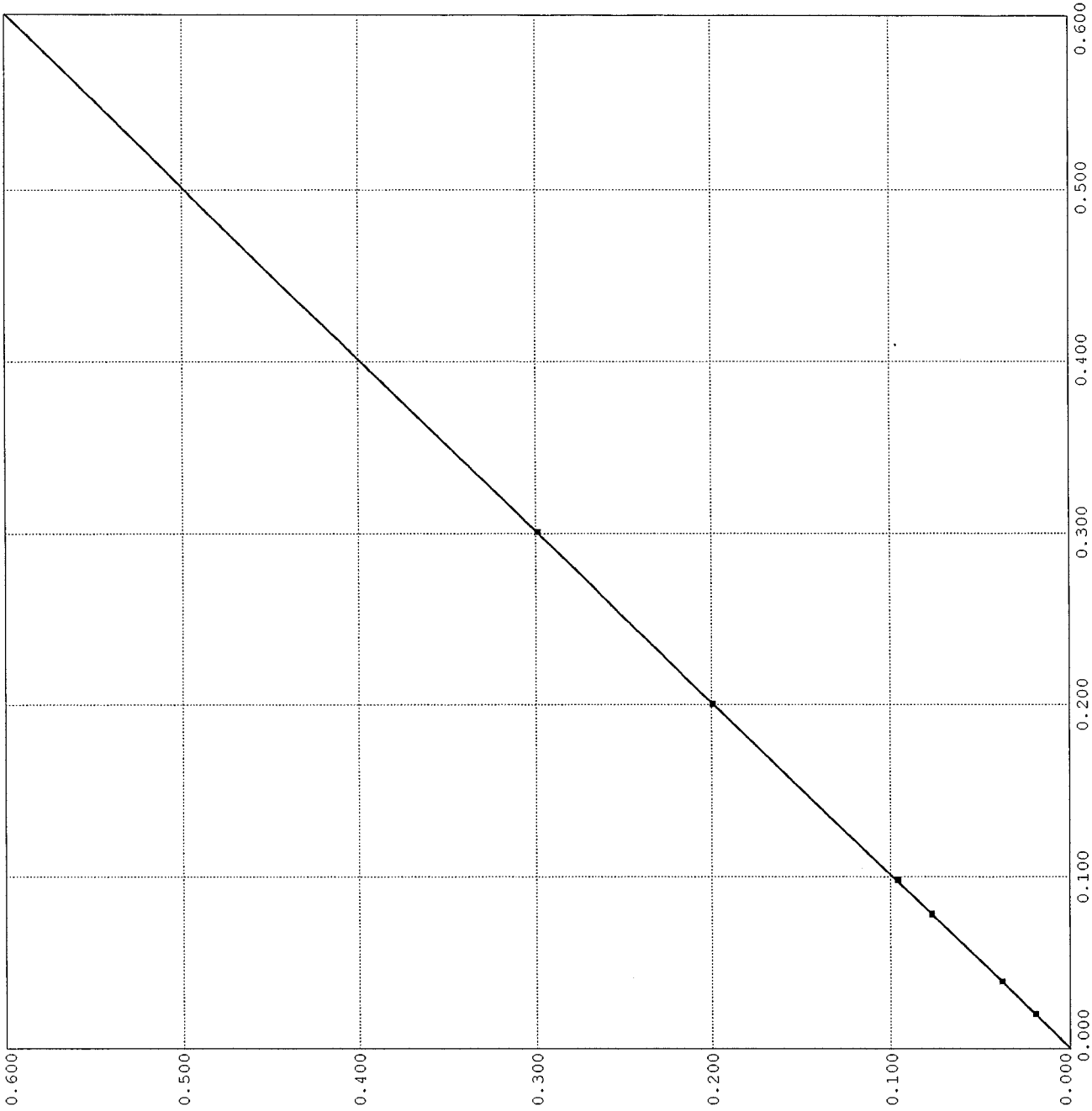
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100694  
 -----

Date: 10/08/2020  
 Time: 10:44:04

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0390	0.0000
0.078	0.0780	0.0000
0.098	0.0970	0.0000
0.200	0.2002	0.0004
0.300	0.2996	0.0011

SLOPE = 0.999462  
 R<sup>2</sup> = 0.999984



*DW*

LINEARITY CHECK: Control Test 1

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Alaska Department of Public Safety  
DATAMASTER dmt: 100694  
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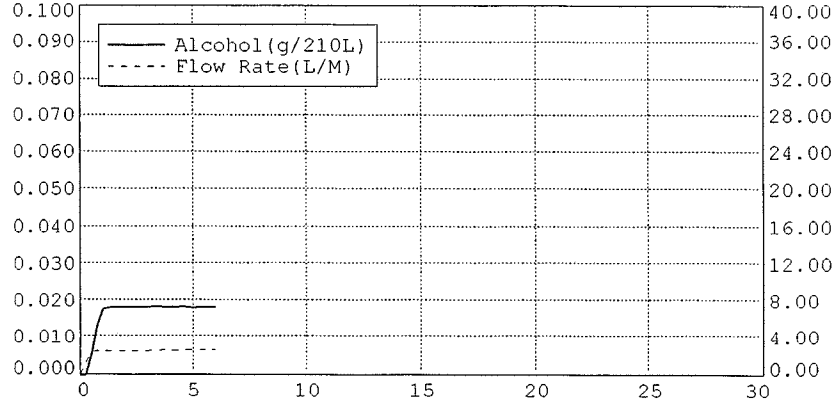
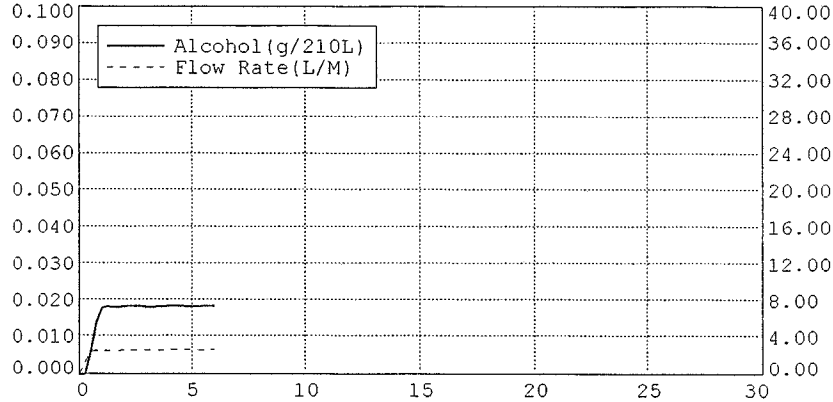
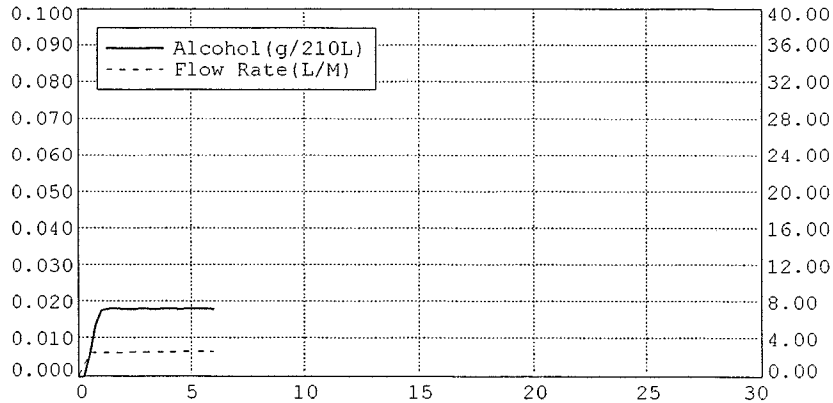
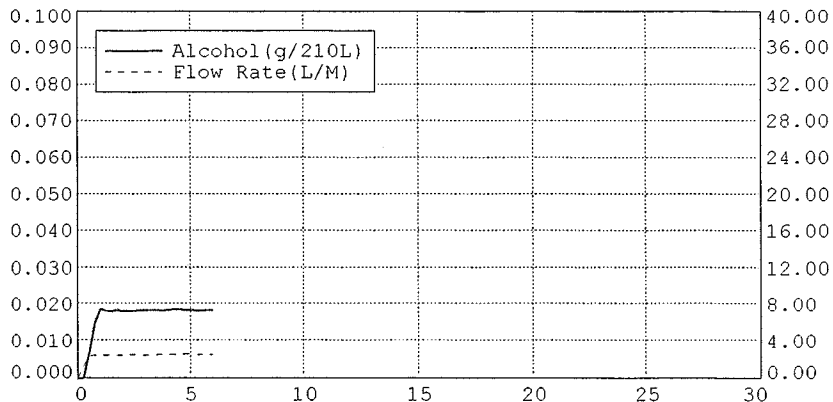
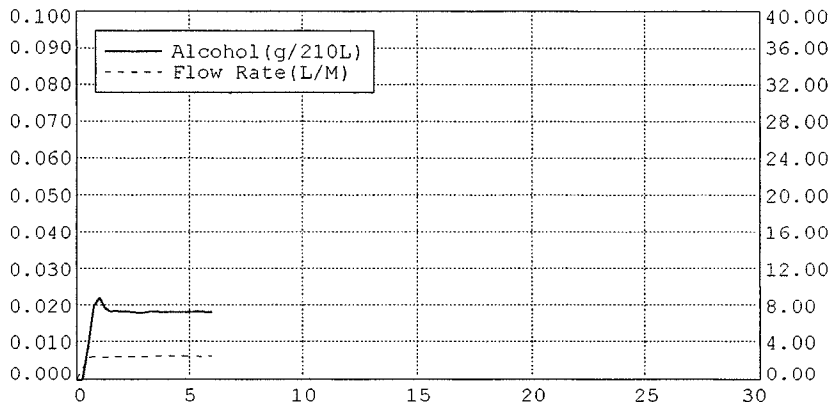
Date: 10/08/2020  
Time: 10:44:06

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.22: 0.020  
LOT #: AG928203  
EXPIRATION: 10/09/2021  
TANK PRESSURE: 713 psi

BLANK TEST	0.000	10:46
INTERNAL STANDARD	VERIFIED	10:46
EXTERNAL STANDARD	0.020	10:46
BLANK TEST	0.000	10:47
EXTERNAL STANDARD	0.020	10:47
BLANK TEST	0.000	10:48
EXTERNAL STANDARD	0.020	10:49
BLANK TEST	0.000	10:49
EXTERNAL STANDARD	0.020	10:50
BLANK TEST	0.000	10:51
EXTERNAL STANDARD	0.020	10:51
BLANK TEST	0.000	10:52

Average = 0.0200  
Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100694

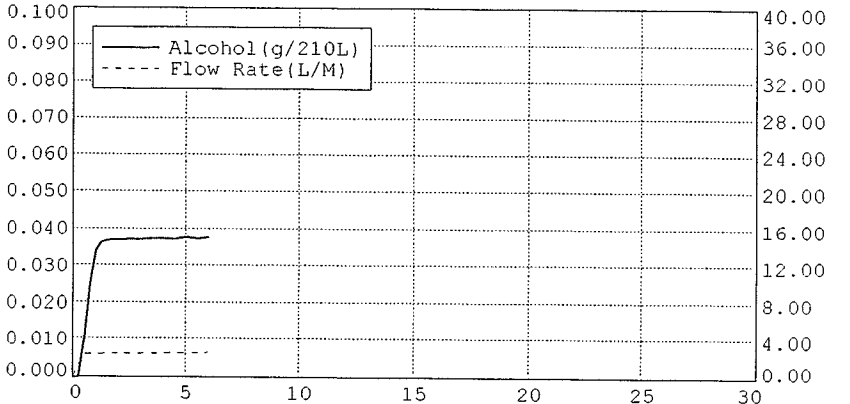
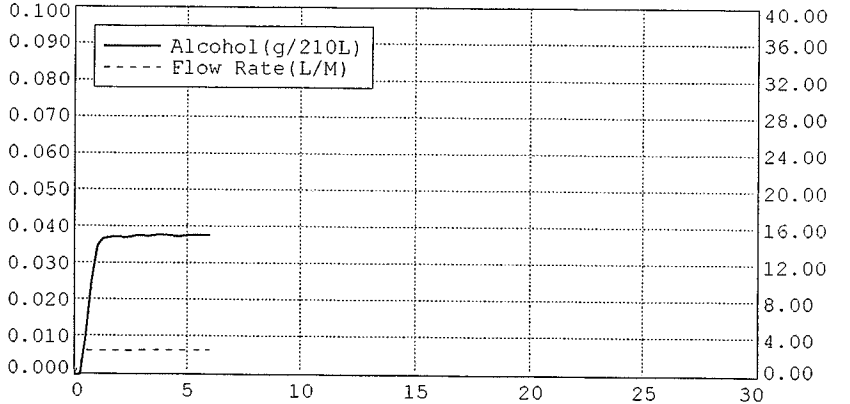
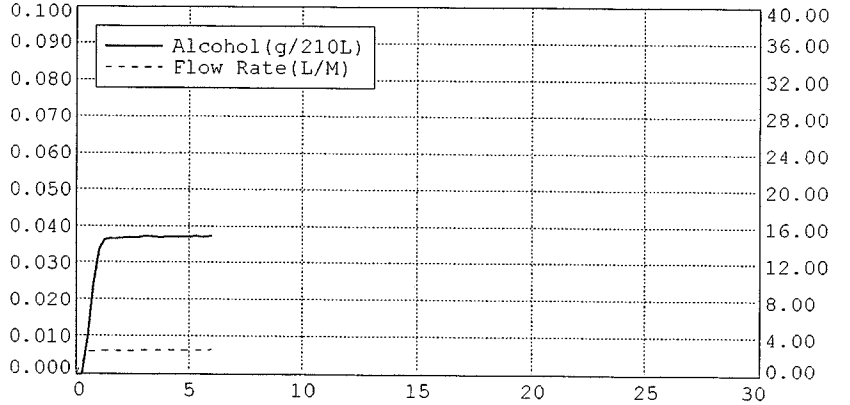
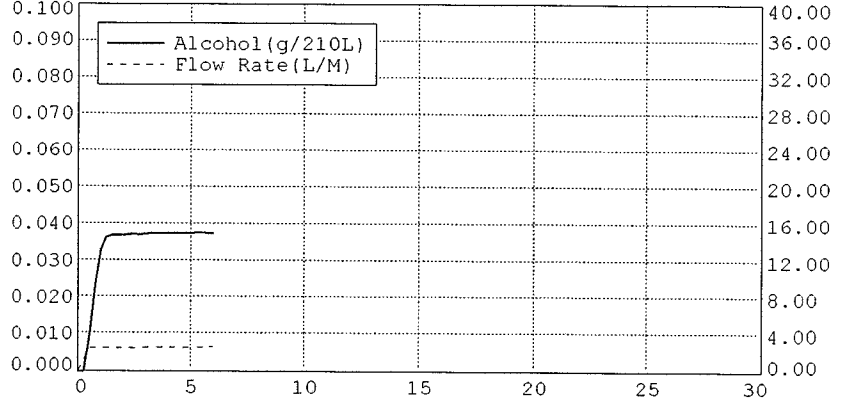
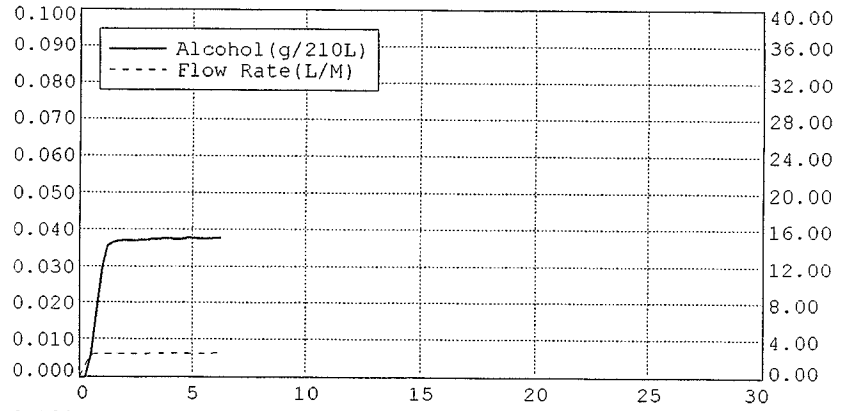
Date: 10/08/2020  
 Time: 10:53:04

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.22: 0.039  
 LOT #: AG915607  
 EXPIRATION: 06/05/2021  
 TANK PRESSURE: 664 psi

BLANK TEST	0.000	10:54
INTERNAL STANDARD	VERIFIED	10:54
EXTERNAL STANDARD	0.039	10:54
BLANK TEST	0.000	10:55
EXTERNAL STANDARD	0.039	10:55
BLANK TEST	0.000	10:56
EXTERNAL STANDARD	0.039	10:56
BLANK TEST	0.000	10:57
EXTERNAL STANDARD	0.039	10:57
BLANK TEST	0.000	10:58
EXTERNAL STANDARD	0.039	10:59
BLANK TEST	0.000	10:59

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
DATAMASTER dmt: 100694

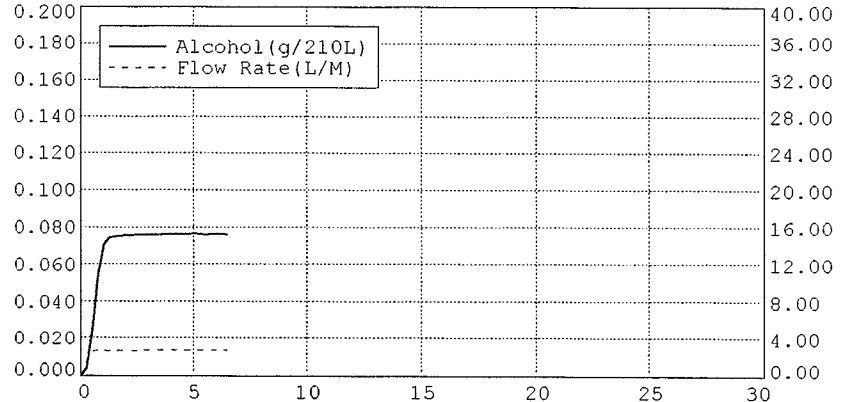
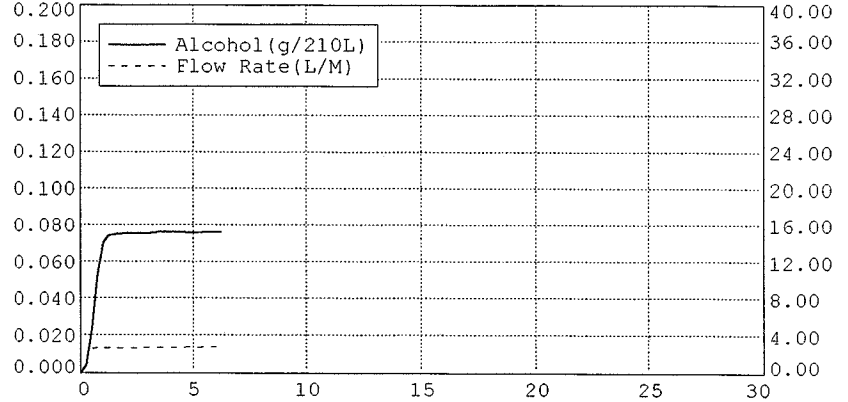
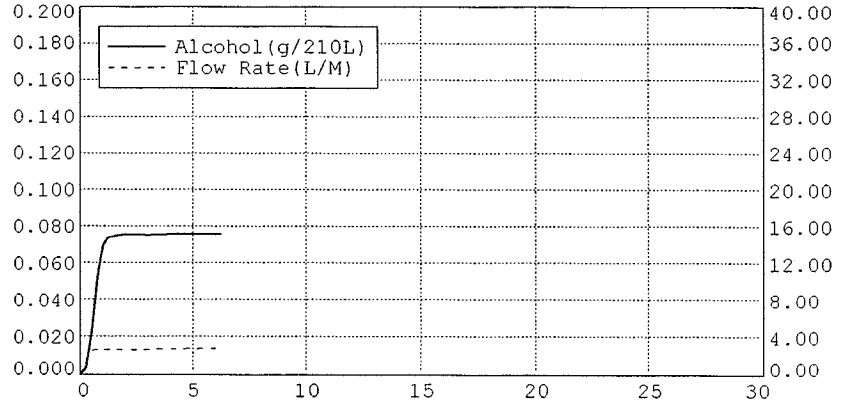
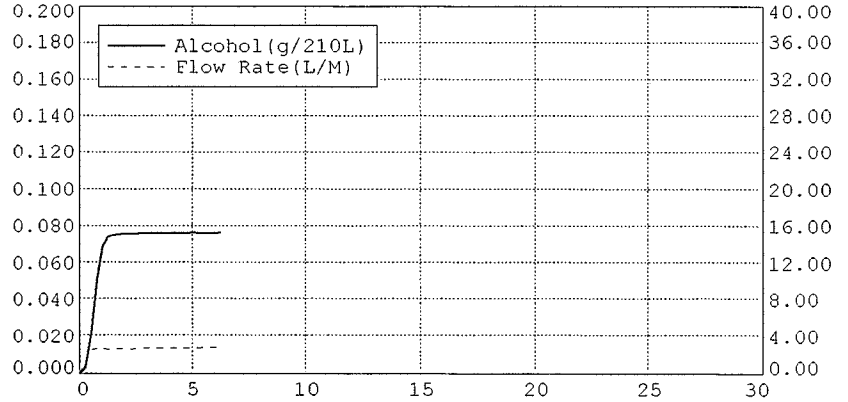
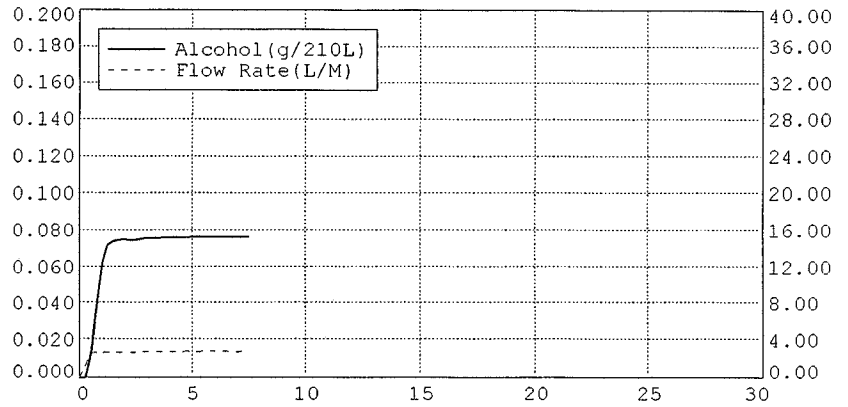
Date: 10/08/2020  
Time: 11:00:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.22: 0.078  
LOT #: AG923401  
EXPIRATION: 08/22/2021  
TANK PRESSURE: 1167 psi

BLANK TEST	0.000	11:01
INTERNAL STANDARD	VERIFIED	11:01
EXTERNAL STANDARD	0.078	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.078	11:02
BLANK TEST	0.000	11:03
EXTERNAL STANDARD	0.078	11:04
BLANK TEST	0.000	11:04
EXTERNAL STANDARD	0.078	11:05
BLANK TEST	0.000	11:06
EXTERNAL STANDARD	0.078	11:06
BLANK TEST	0.000	11:07

Average = 0.0780  
Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100694

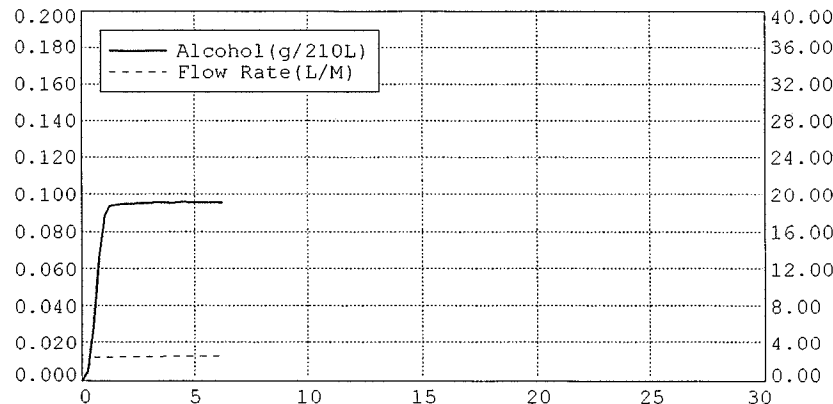
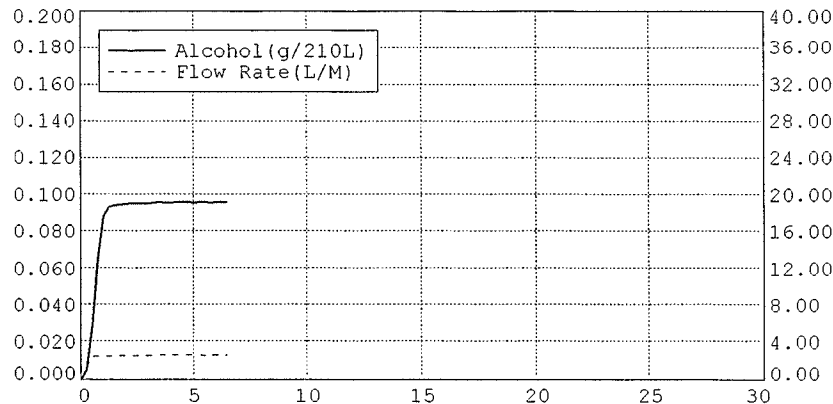
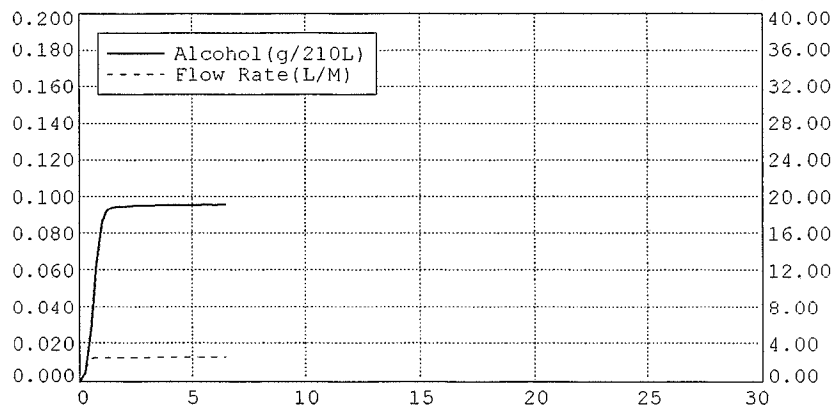
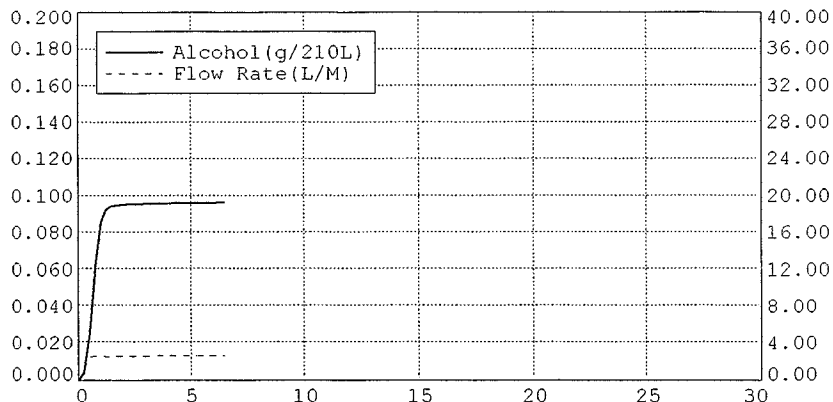
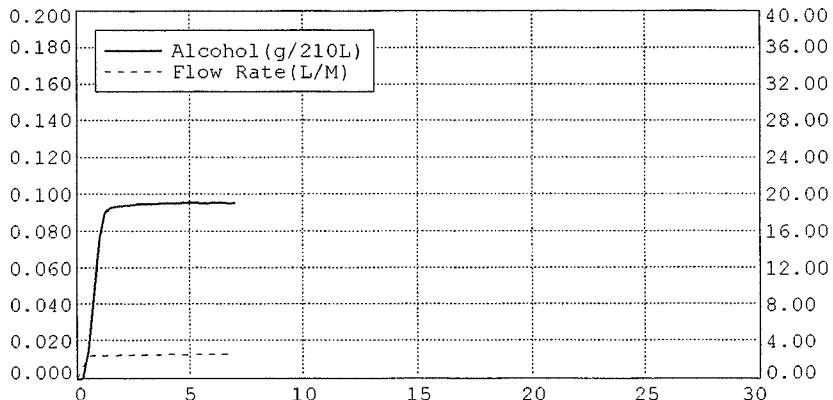
Date: 10/08/2020  
 Time: 11:16:17

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.22: 0.098  
 LOT #: AG924701  
 EXPIRATION: 09/04/2021  
 TANK PRESSURE: 805 psi

BLANK TEST	0.000	11:17
INTERNAL STANDARD	VERIFIED	11:17
EXTERNAL STANDARD	0.097	11:17
BLANK TEST	0.000	11:18
EXTERNAL STANDARD	0.097	11:18
BLANK TEST	0.000	11:19
EXTERNAL STANDARD	0.097	11:20
BLANK TEST	0.000	11:20
EXTERNAL STANDARD	0.097	11:21
BLANK TEST	0.000	11:22
EXTERNAL STANDARD	0.097	11:22
BLANK TEST	0.000	11:23

Average = 0.0970  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100694

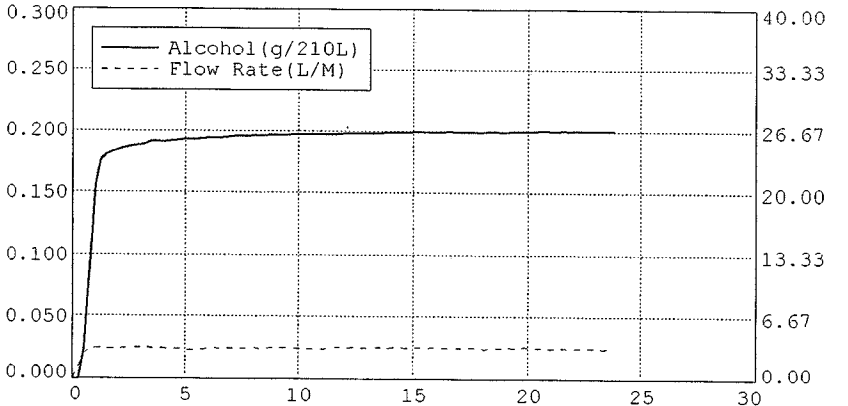
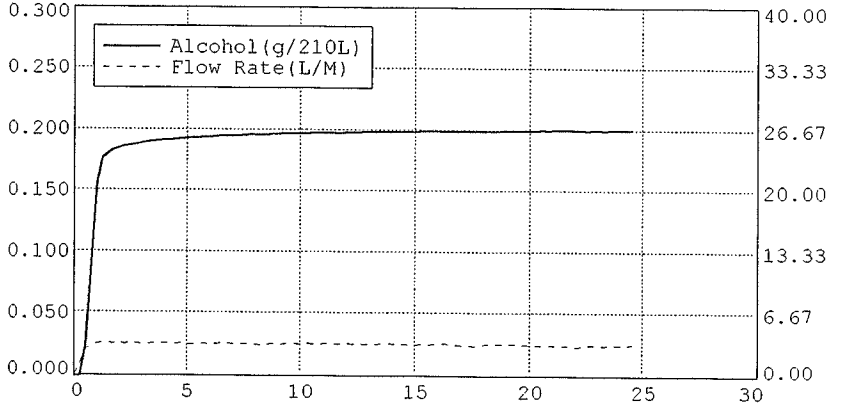
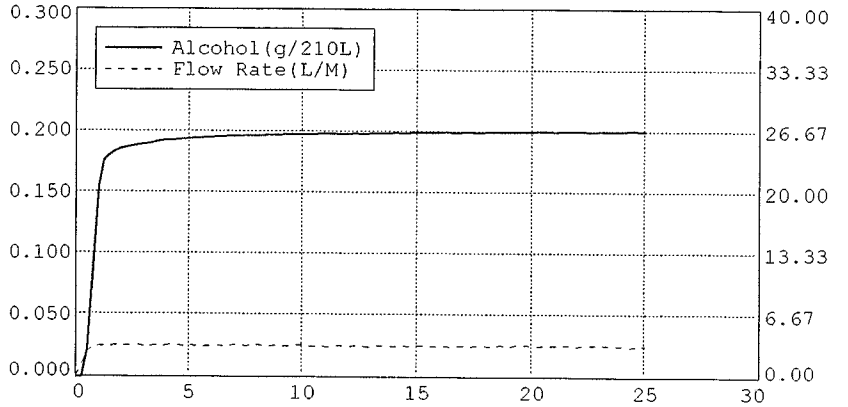
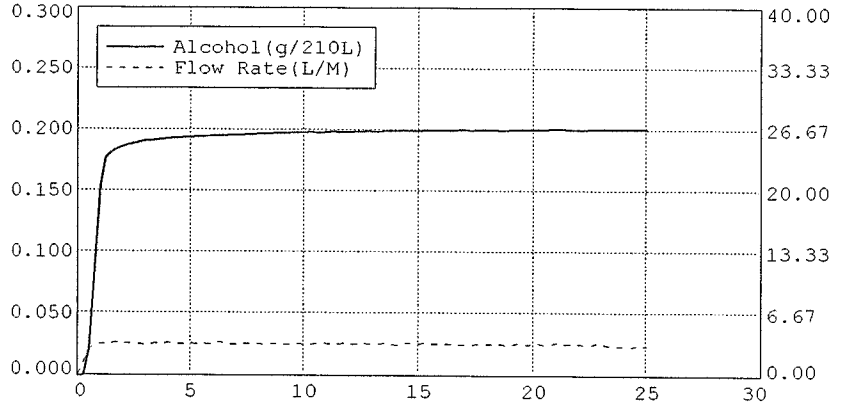
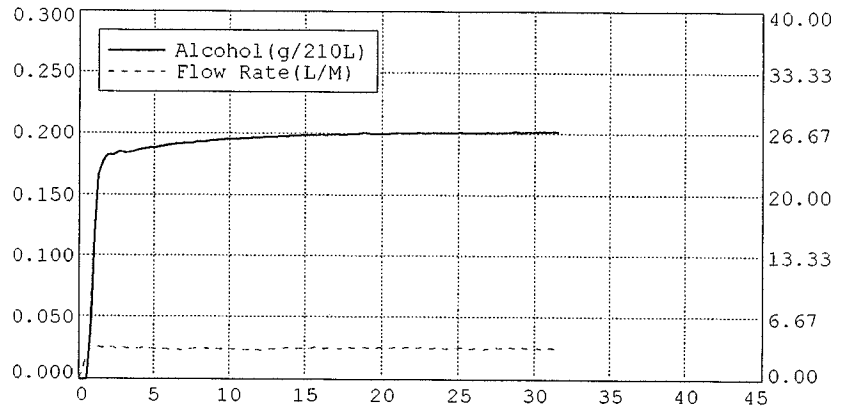
Date: 10/08/2020  
 Time: 11:30:02

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 19200  
 EXPIRATION: 08/06/2021

BLANK TEST	0.000	11:31
INTERNAL STANDARD	VERIFIED	11:31
EXTERNAL STANDARD	0.201	11:31
BLANK TEST	0.000	11:32
EXTERNAL STANDARD	0.200	11:33
BLANK TEST	0.000	11:34
EXTERNAL STANDARD	0.200	11:34
BLANK TEST	0.000	11:35
EXTERNAL STANDARD	0.200	11:36
BLANK TEST	0.000	11:37
EXTERNAL STANDARD	0.200	11:37
BLANK TEST	0.000	11:38

Average = 0.2002  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

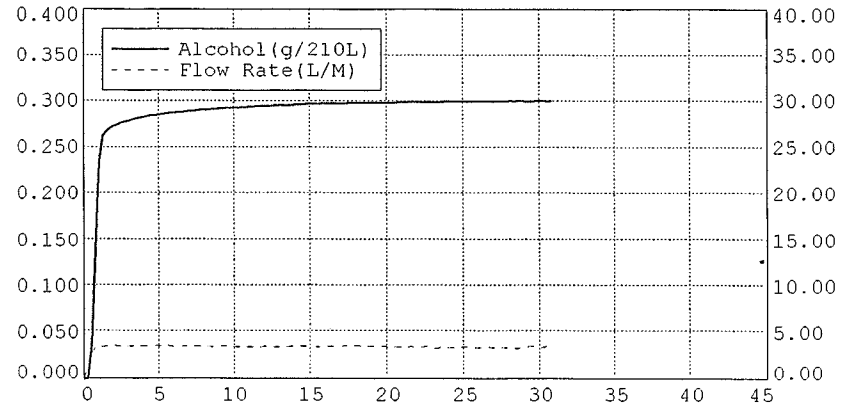
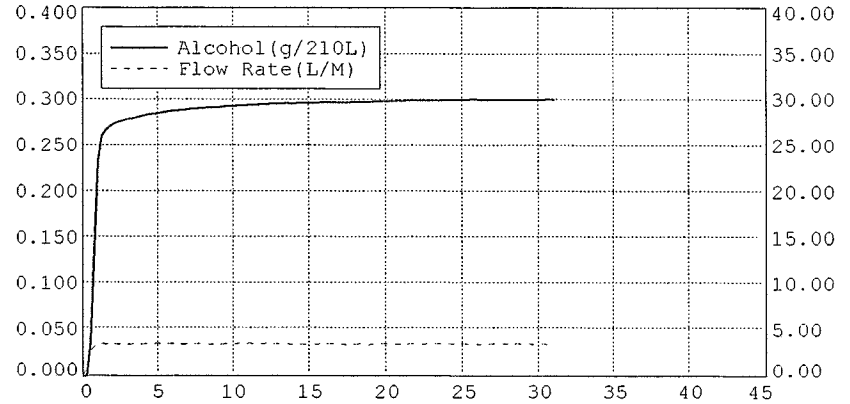
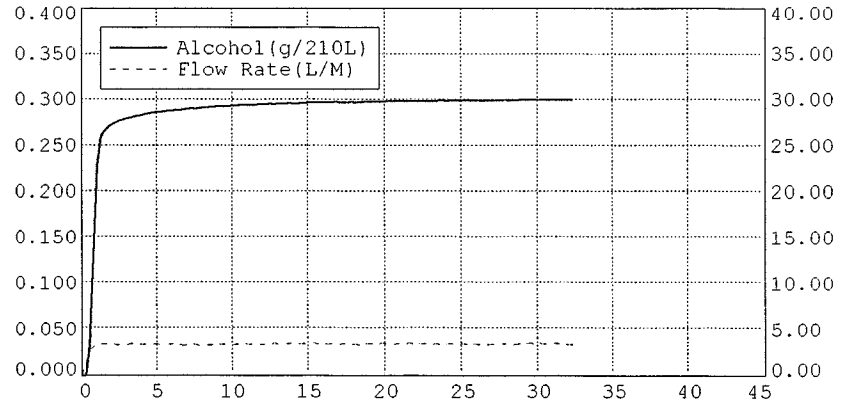
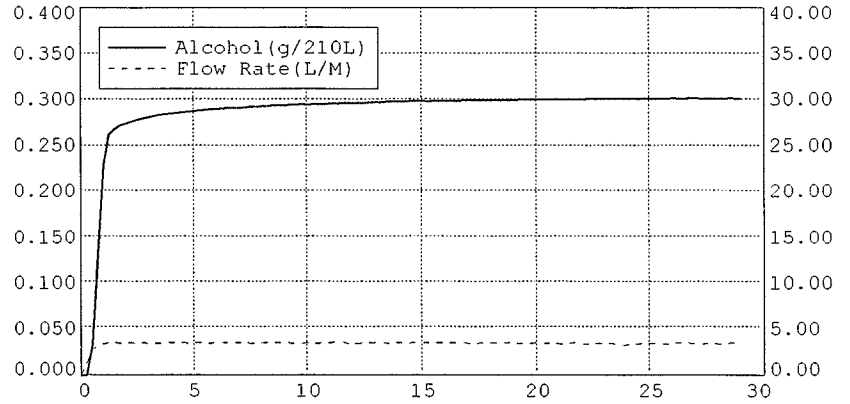
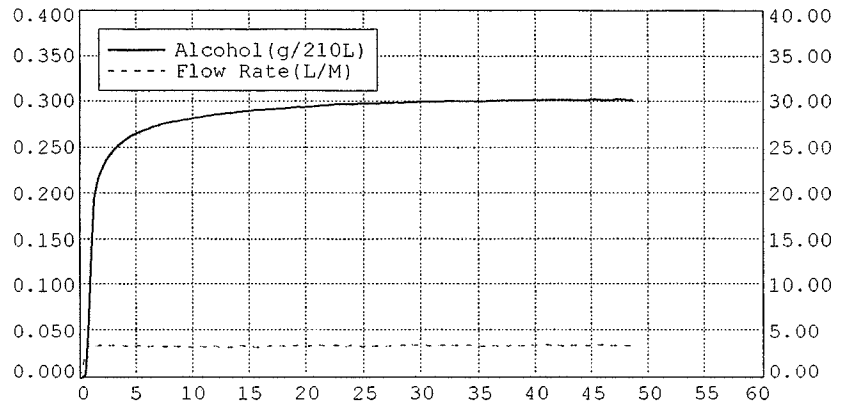
Alaska Department of Public Safety  
 DATAMASTER dmt: 100694

Date: 10/08/2020  
 Time: 11:42:34

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 19330  
 EXPIRATION: 11/13/2021

BLANK TEST	0.000	11:43
INTERNAL STANDARD	VERIFIED	11:43
EXTERNAL STANDARD	0.301	11:44
BLANK TEST	0.000	11:45
EXTERNAL STANDARD	0.300	11:46
BLANK TEST	0.000	11:47
EXTERNAL STANDARD	0.298	11:47
BLANK TEST	0.000	11:48
EXTERNAL STANDARD	0.299	11:49
BLANK TEST	0.000	11:50
EXTERNAL STANDARD	0.300	11:50
BLANK TEST	0.000	11:51

Average = 0.2996  
 Std Dev = 0.0011



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100694  
-----

Date: 10/08/2020  
Time: 12:00:00

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

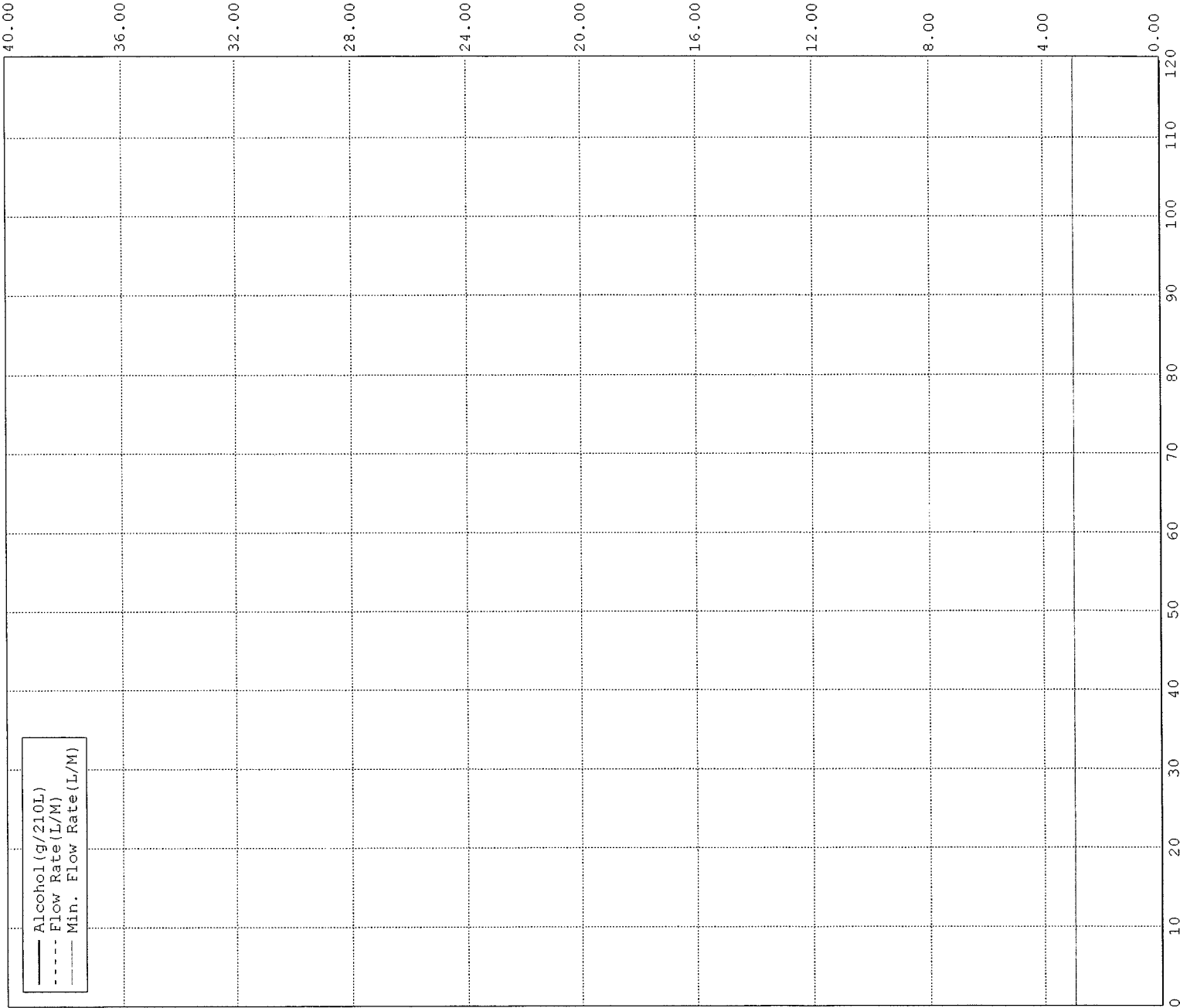
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.20: 0.078  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 12:01  
BLANK TEST 0.000 12:01  
INTERNAL STANDARD VERIFIED 12:01  
EXTERNAL STANDARD 0.077 12:01  
BLANK TEST 0.000 12:02  
SUBJECT SAMPLE INCOMPLETE 12:04

*Handwritten signature*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100694

Date: 10/08/2020  
Time: 14:20:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

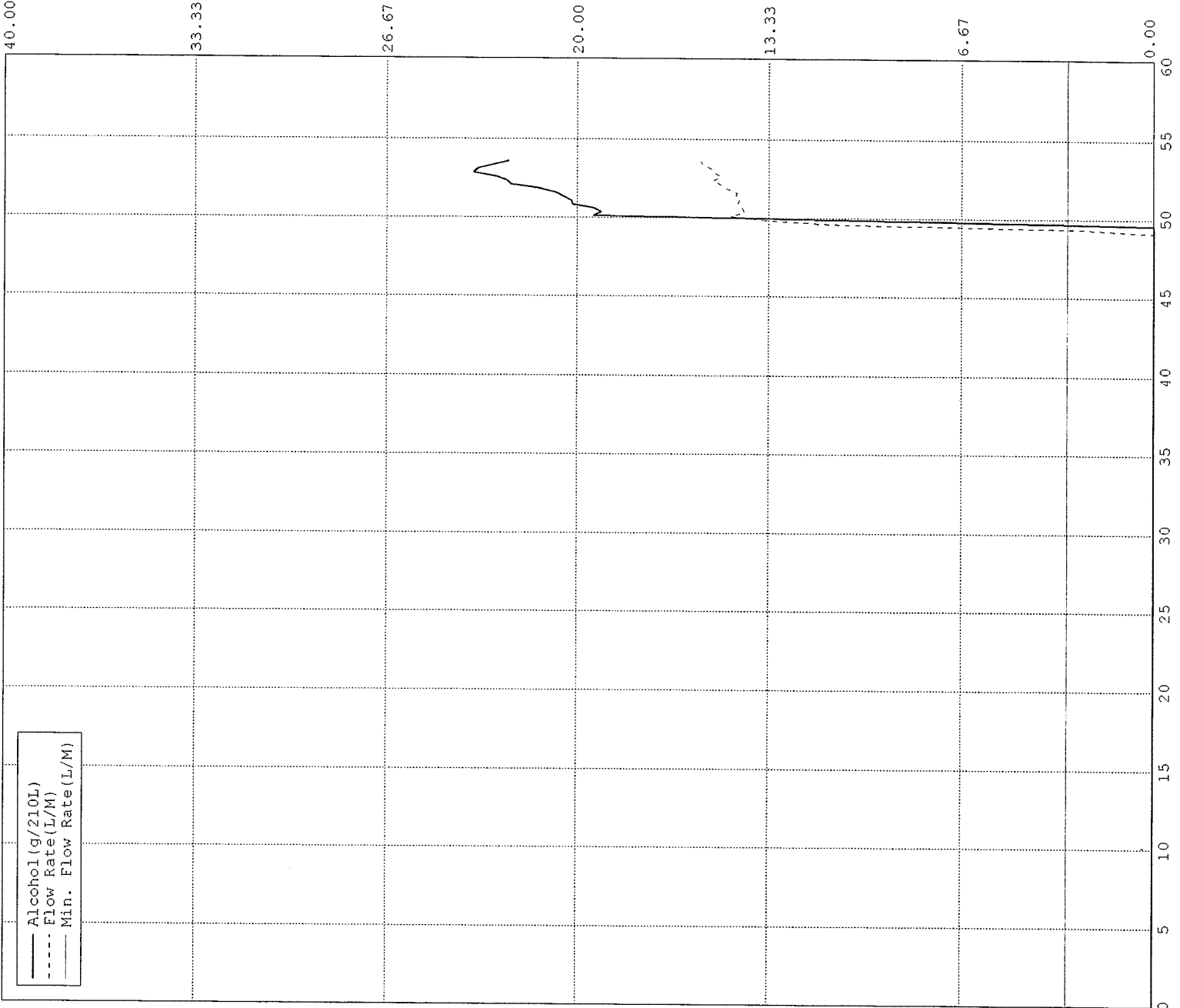
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.17: 0.078  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 14:21  
BLANK TEST 0.000 14:21  
INTERNAL STANDARD VERIFIED 14:21  
EXTERNAL STANDARD 0.077 14:22  
BLANK TEST 0.000 14:23  
SUBJECT SAMPLE INVALID 14:24

*DM*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100694

Date: 10/08/2020  
Time: 14:50:46

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

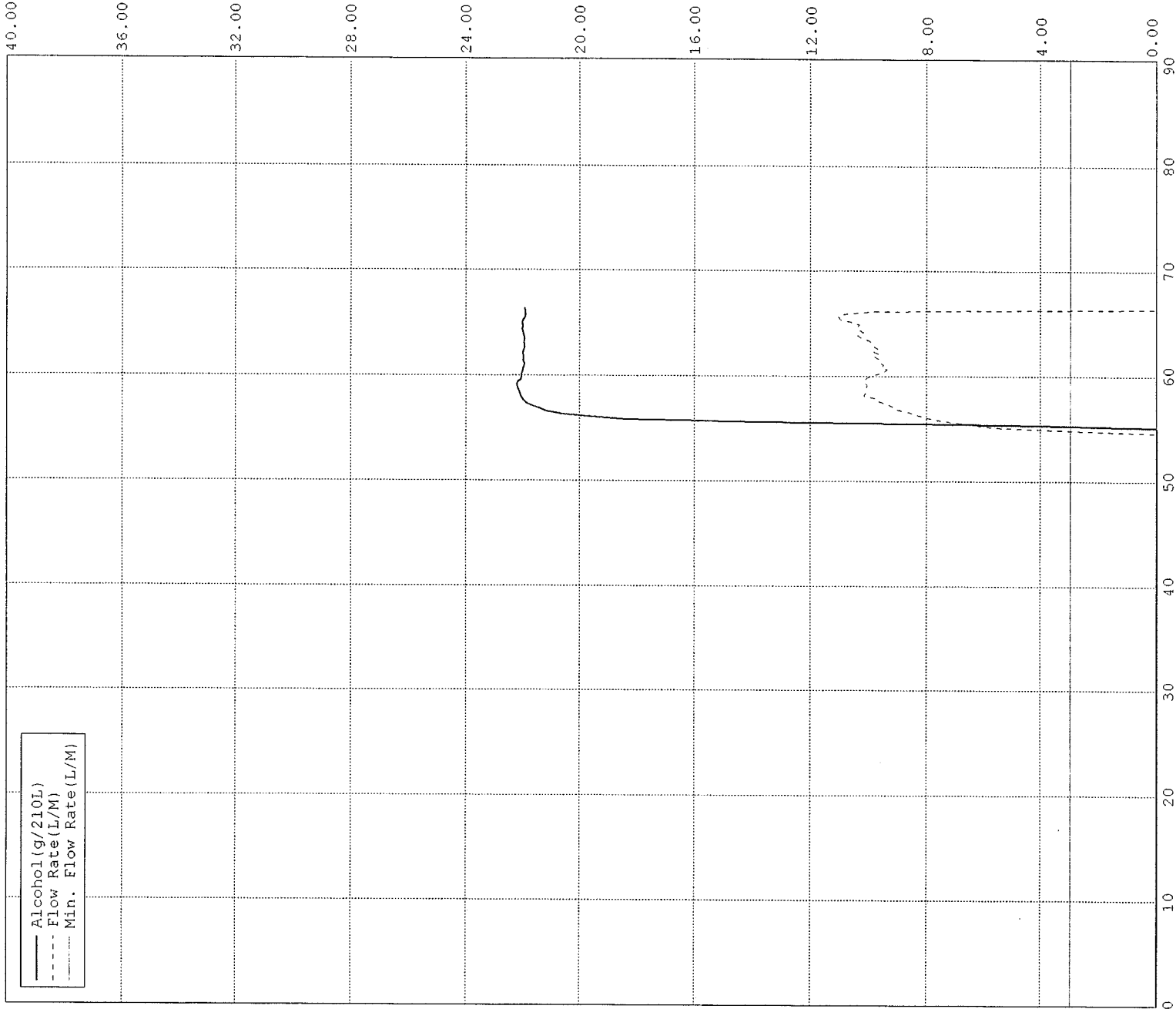
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.16: 0.078  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 14:52  
BLANK TEST 0.000 14:52  
INTERNAL STANDARD VERIFIED 14:52  
Xq = 0.099 (1.08%)  
EXTERNAL STANDARD 0.077 14:52  
X[1] = 0.0773 (-0.0003) (0.0016)  
BLANK TEST 0.000 14:53  
SUBJECT SAMPLE XXX 14:54  
X[1] = 0.1102 (-0.0217) (-0.0004)

Interference Detected

Filter 2 average: 0.0001

Filter 3 average: 0.0020



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100694  
-----

Date: 10/08/2020  
Time: 14:45:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

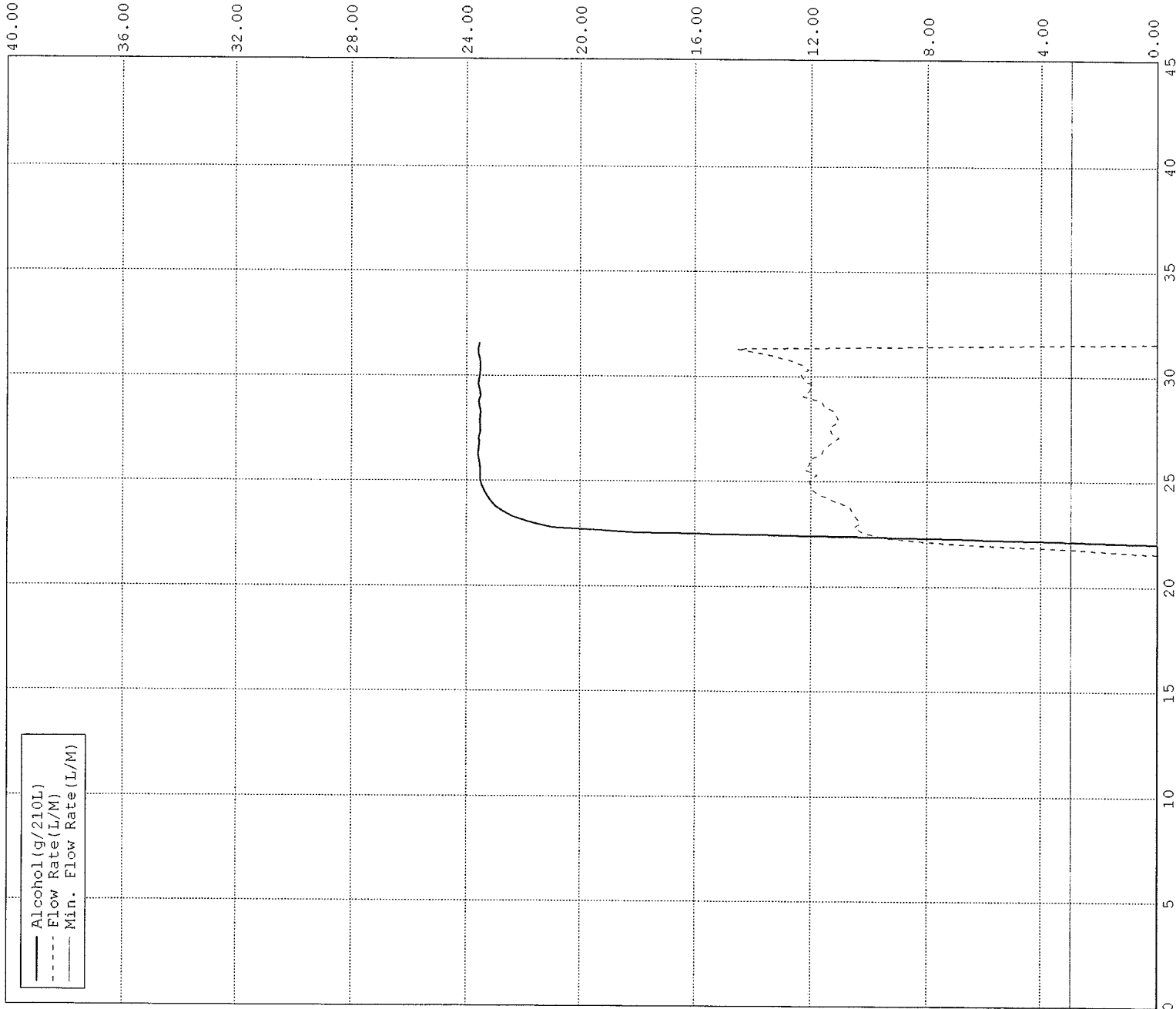

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.16: 0.078  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 14:46  
BLANK TEST 0.000 14:46  
INTERNAL STANDARD VERIFIED 14:46  
Xq = 0.099 (1.61%)  
EXTERNAL STANDARD 0.078 14:47  
X[1] = 0.0778 (0.0009) (0.0024)  
BLANK TEST 0.000 14:47  
SUBJECT SAMPLE XXX 14:48  
X[1] = 0.1177 (-0.0247) (0.0016)

Interference Detected





SUBJECT TEST

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Alaska Department of Public Safety  
DATAMASTER dmt: 100694  
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Date: 10/08/2020  
Time: 14:57:21

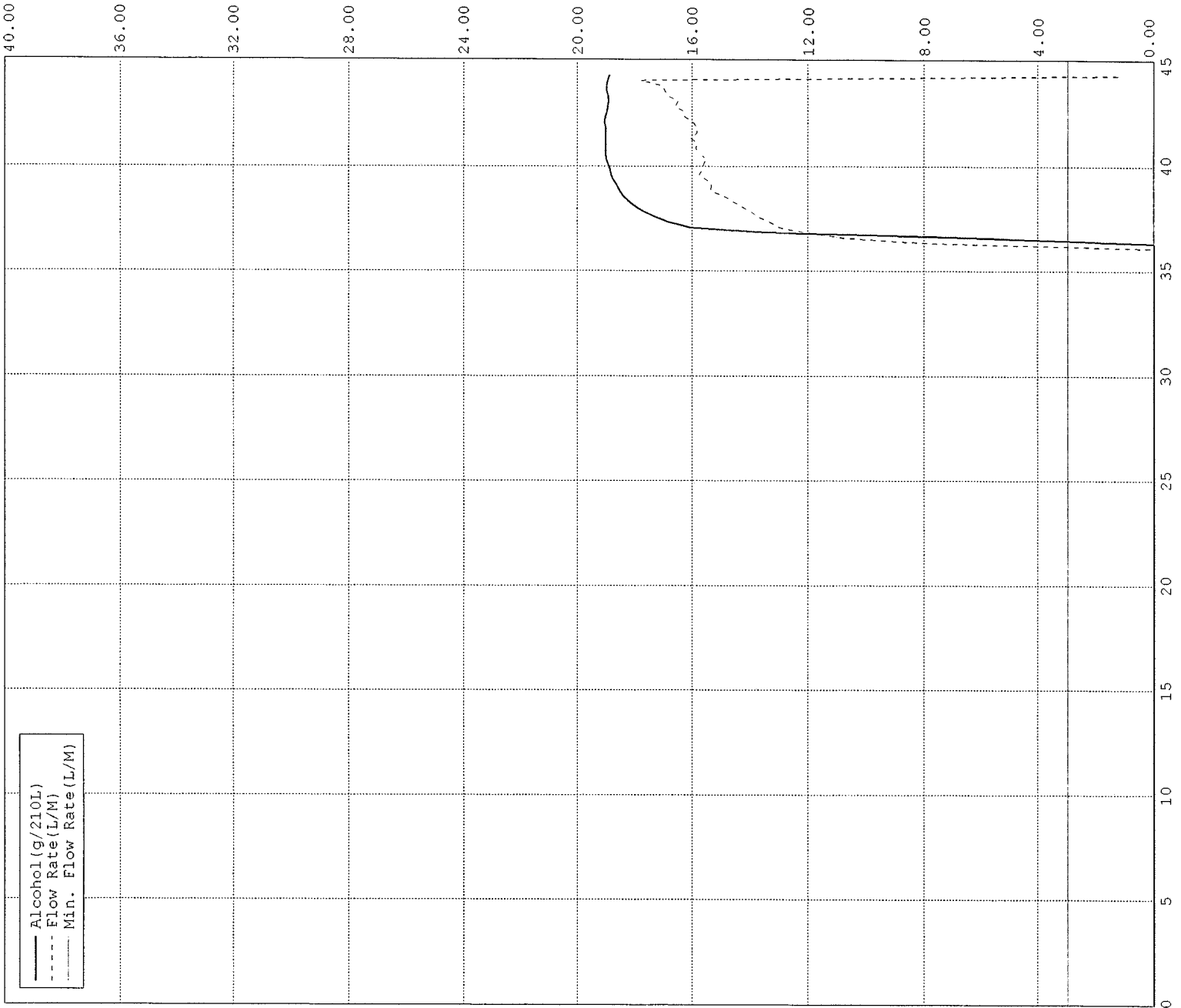
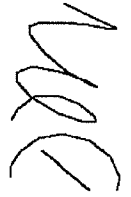
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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 29.15: 0.078  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	14:58
BLANK TEST	0.000	14:58
INTERNAL STANDARD	VERIFIED	14:58
Xq = 0.099 (1.34%)		
EXTERNAL STANDARD	0.077	14:59
X[1] = 0.0773 (0.0000) (0.0017)		
BLANK TEST	0.000	14:59
SUBJECT SAMPLE (Vol=2.01L)	0.094	15:00
X[1] = 0.0949 (0.0013) (0.0009)		
BLANK TEST	0.000	15:01
EXTERNAL STANDARD	0.077	15:01
X[1] = 0.0770 (-0.0001) (0.0021)		
BLANK TEST	0.000	15:02



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100694

Date: 10/08/2020  
Time: 12:06:12

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

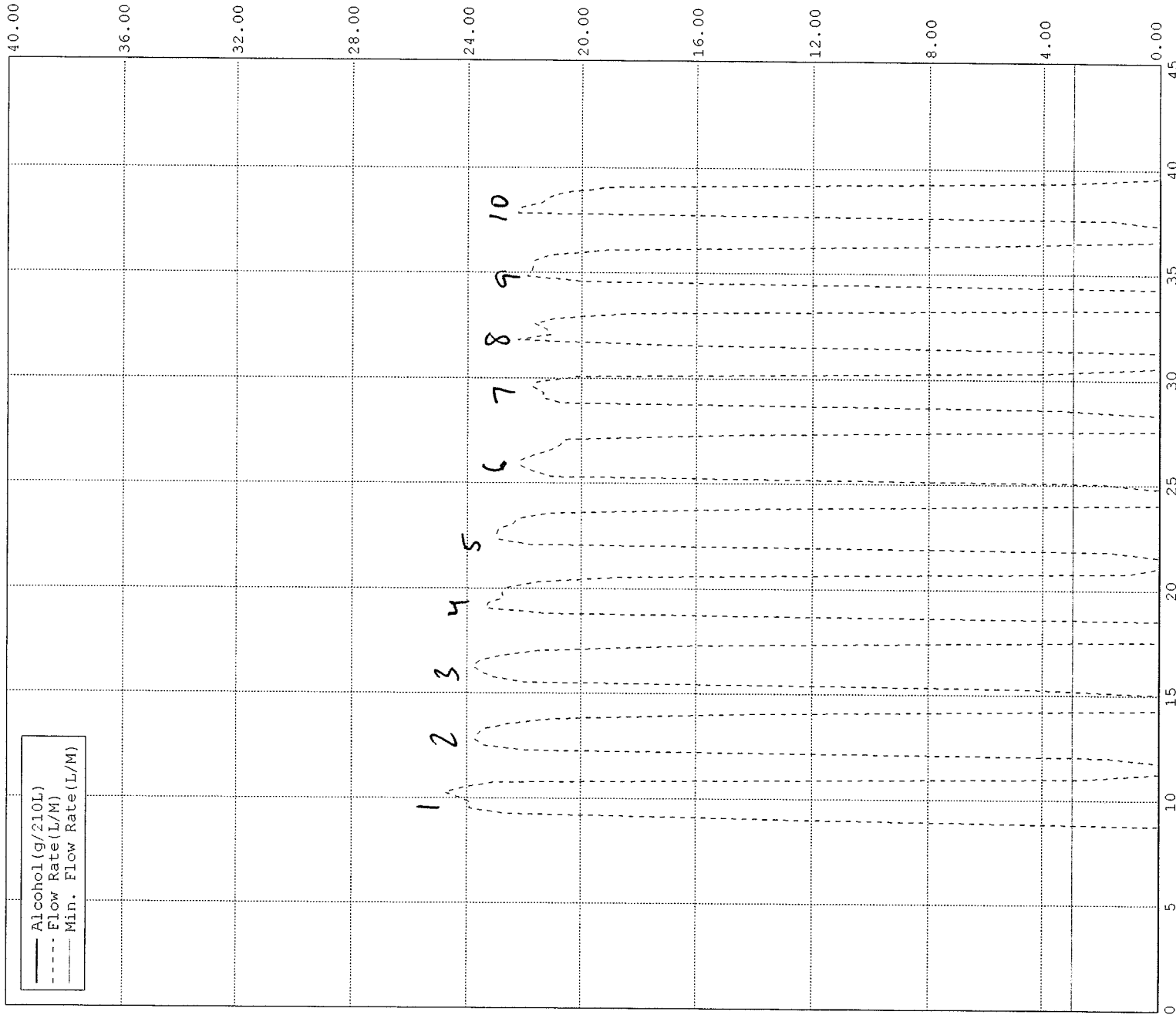
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

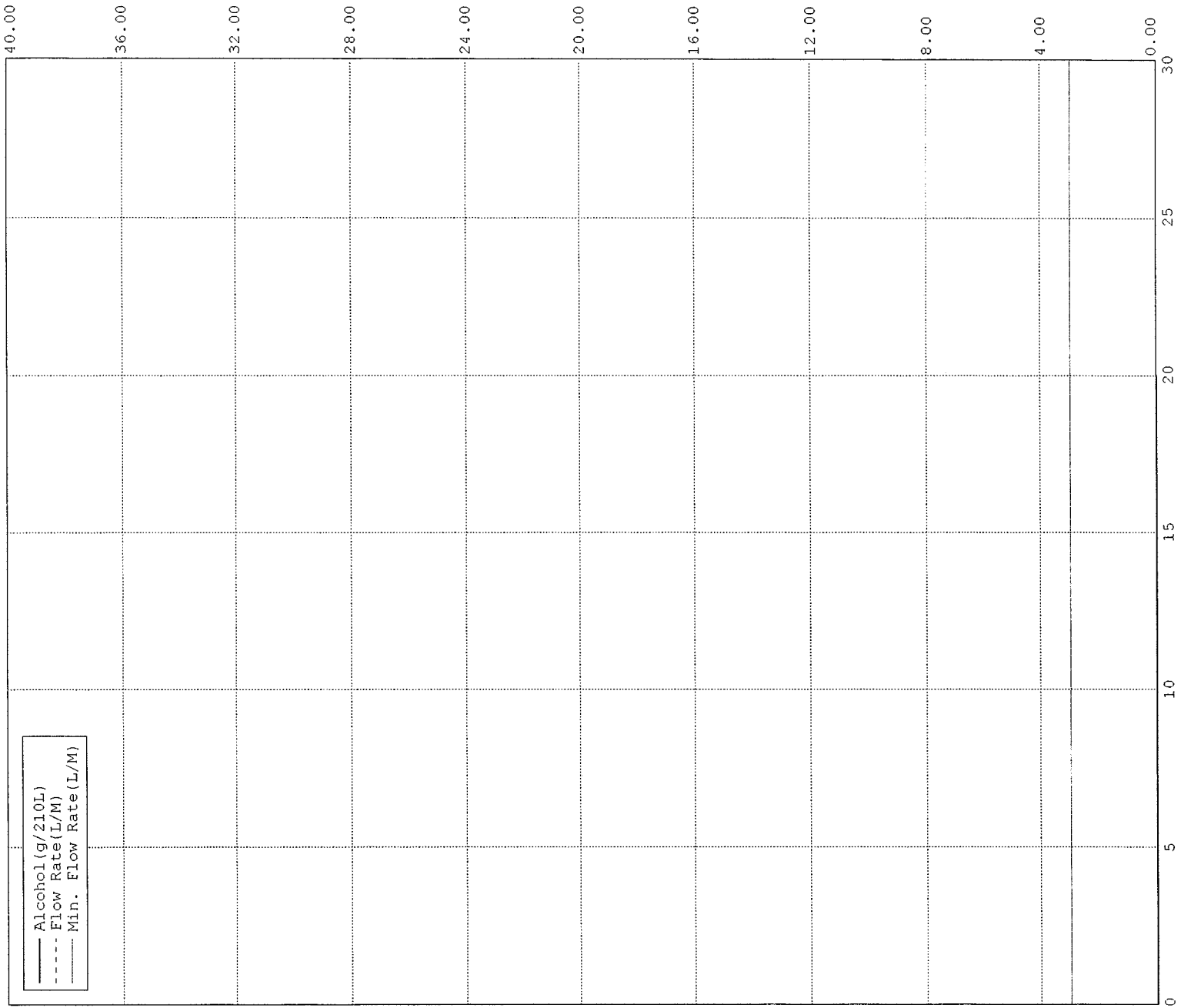
DEPT/AGENCY:  
MAXIMUM ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.20: 0.078  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 12:07  
BLANK TEST 0.000 12:07  
INTERNAL STANDARD VERIFIED 12:07  
EXTERNAL STANDARD 0.078 12:07  
BLANK TEST 0.000 12:08  
SUBJECT SAMPLE XXX 12:09

Maximum Attempts Exceeded





SUBJECT TEST

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 Alaska Department of Public Safety  
 DATAMASTER dmt: 100694  
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 Date: 10/08/2020  
 Time: 14:02:10

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 29.17: 0.078  
 LOT #: AG923401  
 EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 14:04  
 BLANK TEST 0.000 14:04  
 INTERNAL STANDARD VERIFIED 14:04  
 EXTERNAL STANDARD 0.078 14:04  
 BLANK TEST 0.000 14:05

RFI DETECTED

DMW

SUBJECT TEST

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Alaska Department of Public Safety

DATAMASTER dmt: 100694

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Date: 10/09/2020

Time: 10:24:07

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 28.99: 0.078

LOT #: AG923401

EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK

BLANK TEST	PASSED	10:25
INTERNAL STANDARD	0.000	10:25
EXTERNAL STANDARD	VERIFIED	10:25
BLANK TEST	0.078	10:25
INTERNAL STANDARD	0.000	10:26
EXTERNAL STANDARD	0.000	10:26
SUBJECT SAMPLE (Vol=2.74L)	0.000	10:27
INTERNAL STANDARD	0.078	10:28
EXTERNAL STANDARD	0.000	10:28

*DW*

