

# 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 100365 Analyst Derek Walton Start Date 06/25/19

1. Diagnostic Test (attached)  Internal Standard value  $\leq 3.00\%$  Yes
1. Voltage Checks
- a. Adjust voltages, if needed 
    - i. Lamp (2.6V Maximum)
    - ii. Bias
    - iii. Cooler (2.0V Maximum)
    - iv. Chopper Frequency
    - v. Detector Voltage (-0.100V to 0.100V)
  - b. Set RFI
  - c. Adjust barometer reading to match NIST traceable barometer
  - d. Adjust volume setting, if needed (1.5L +/- 0.1L)
  - e. Print Technician Screen (attached)

2. Print Calibration Factors (attached)

3. Volume Test - Minimum 1.5 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf Airgas Lot AG805804 Exp 02/27/20
- ii. 0.040g/210L Mnf Airgas Lot AG733403 Exp 11/30/19
- iii. 0.080g/210L Mnf Airgas Lot AG826101 Exp 09/18/20
- iv. 0.100g/210L Mnf Airgas Lot AG805903 Exp 02/28/20
- v. 0.200g/210L Mnf Auto Lot 17340 Exp 10/09/19
  - 1. Simulator S/N SD1177 Date Calibrated 03/05/19
- vi. 0.300g/210L Mnf Auto Lot 19010 Exp 01/03/21
  - 1. Simulator S/N SD1088 Date Calibrated 03/05/19

5. Functional Tests (attached)

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

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

e. RFI

- 6. Verify stylus is calibrated
- 7. Reset Options
- 8. Clear Memory

- 9. Verification of Calibration
- 10. Non-Drinking Subject Test (attached)
- 11. Upload
- 13. Remove tank prior to shut down

End Date 06/25/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100365  
-----

Date: 06/25/2019  
Time: 08:13:50

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       = 45.7°C                PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage    = 2.13 V                    PASSED  
(1.28 V - 2.98 V)  
Cooler Voltage = 2.07 V                    PASSED  
(1.24 V - 2.90 V)  
Bias Voltage    = 80 V                      PASSED  
(48 V - 112 V)  
Chopper Freq   = 537 Hz                    PASSED  
(475 Hz - 575 Hz)  
Barometer       = 29.8 in

PUMP INFO

Flow Rate = 4.462 L/M                    PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON                                    PASSED  
(0.003 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 = 0.106 0.83% (0.00% - 4.00%)                    PASSED

Technician Screen

-----  
DATAMASTER dmt: 100365  
-----

Date: 06/25/2019

Time: 8:47 AM

Temperatures (°C)

Sample Cell: 48.7°C

Breath Tube: 46.0°C

Current Barometer 29.8 in

Volume (Ltr) 1.59

Settings

Lamp: 2.23 V

Bias: 80 V

Cooler: 1.94 V

Chopper: 530 Hz

Voltages (V)

Flow: 1.04 V

Detector: -0.001 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100365  
-----

Date: 06/21/2019  
Time: 09:29:42

OPERATOR NAME:  
DEREK WALTON  
CERTIFICATE #: 9508

Ca = 0.1000  
CAL = 0.974981 0.800 <= CAL < 1.200  
b1 = 0.0006 0.0000 <= b1 < 0.0040  
b2 = 0.0043 0.0010 <= b2 < 0.0100  
b3 = 0.0003 0.0000 <= b3 < 0.0040  
Xq = 0.1065 0.0500 <= Xq < 0.2000  
a21 = 1.172048 1.050 <= a21 < 1.300  
a31 = 0.449853 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 06/25/2019  
Time: 08:51:09

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

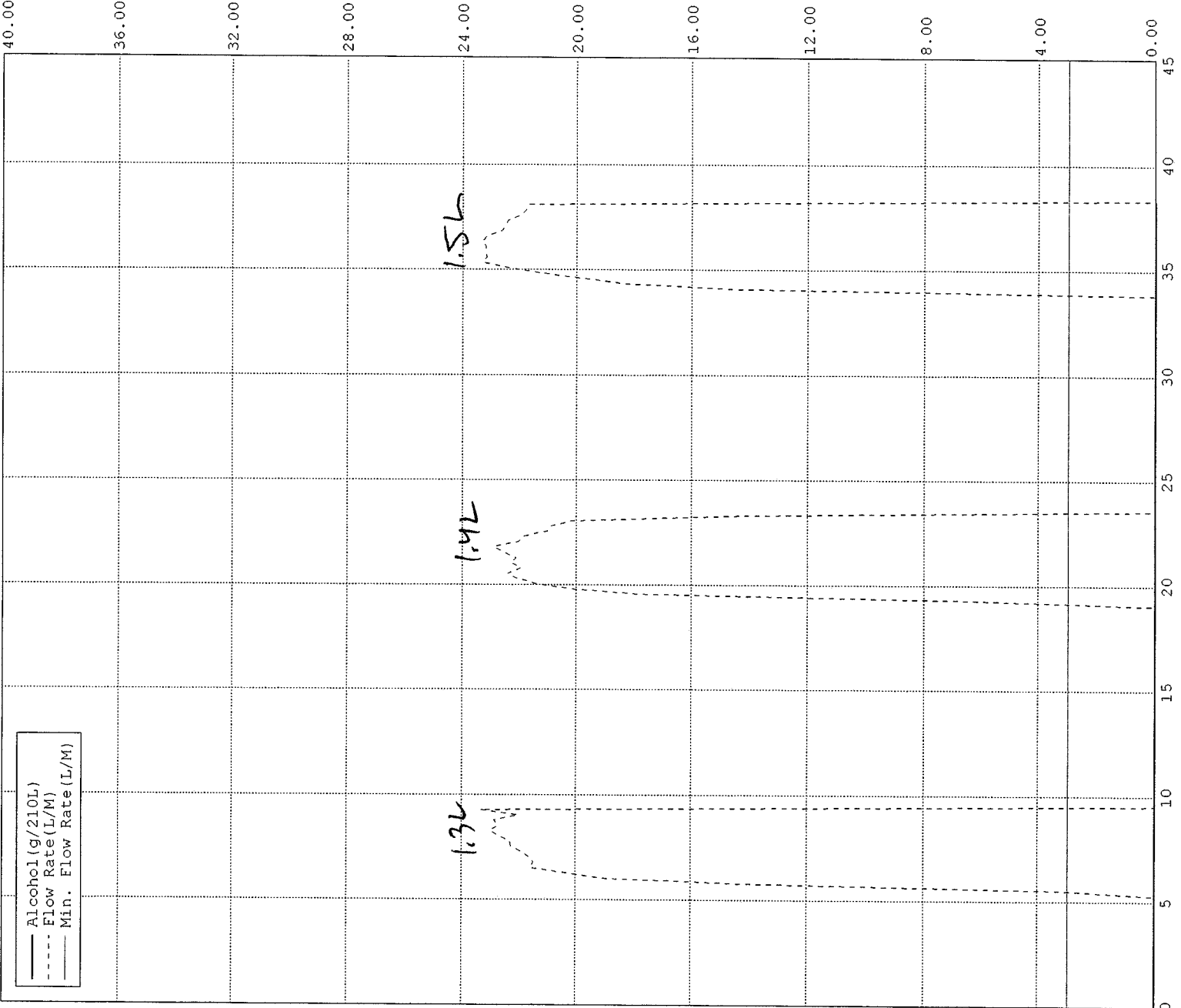
DEPT/AGENCY:  
MINIMUM VOLUME  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK	PASSED	08:52
BLANK TEST	0.000	08:52
INTERNAL STANDARD	VERIFIED	08:52
EXTERNAL STANDARD	0.078	08:53
BLANK TEST	0.000	08:53
SUBJECT SAMPLE (Vol=1.54L)	0.000	08:55
BLANK TEST	0.000	08:56
EXTERNAL STANDARD	0.079	08:56
BLANK TEST	0.000	08:57

*DM*



LINEARITY CHECK

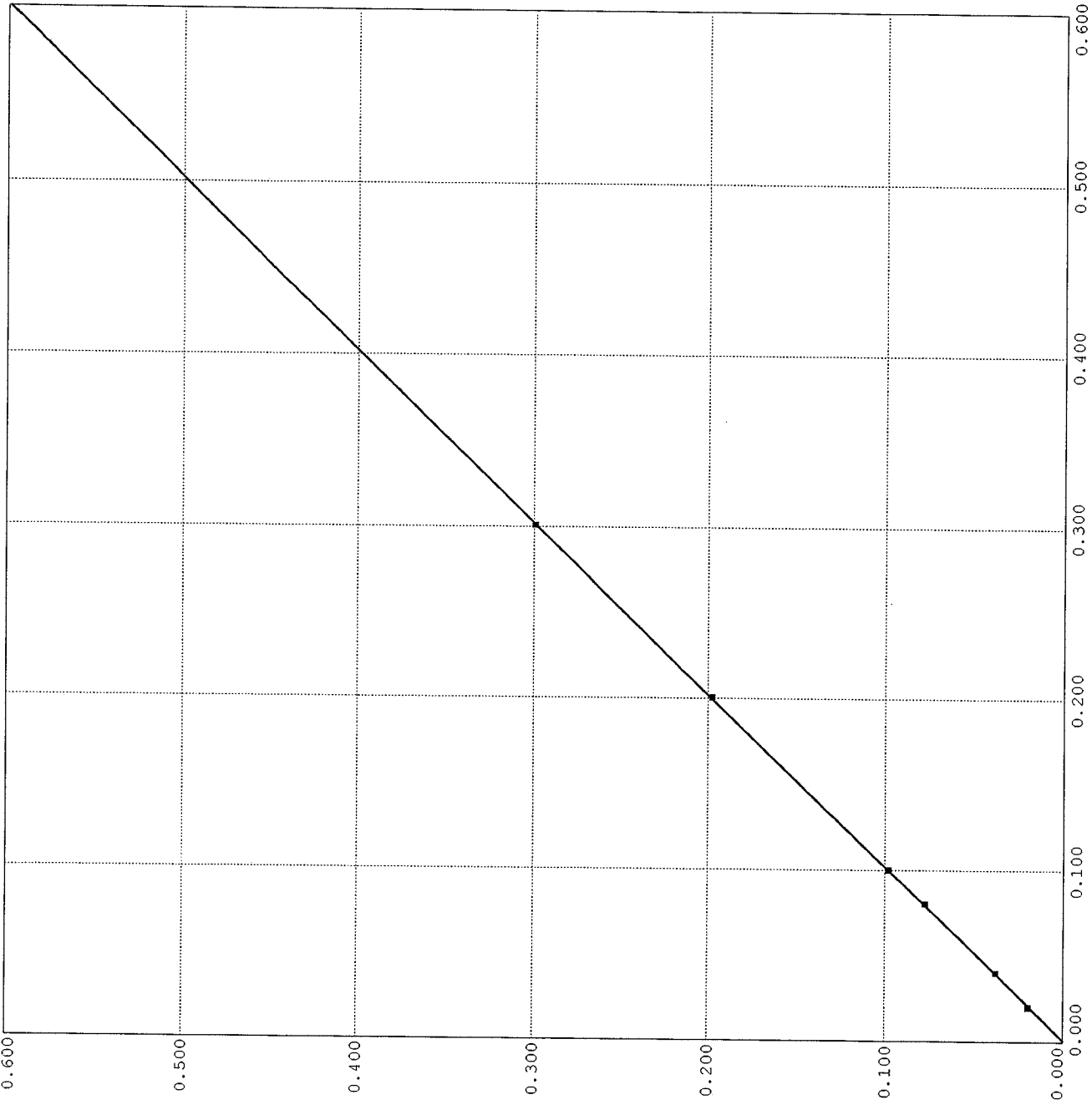
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100365  
 -----

Date: 06/25/2019  
 Time: 09:08:21

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0204	0.0005
0.040	0.0390	0.0000
0.080	0.0788	0.0004
0.100	0.0990	0.0000
0.200	0.1984	0.0005
0.300	0.3000	0.0007

SLOPE = 0.999907  
 R<sup>2</sup> = 0.999949



*WME*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

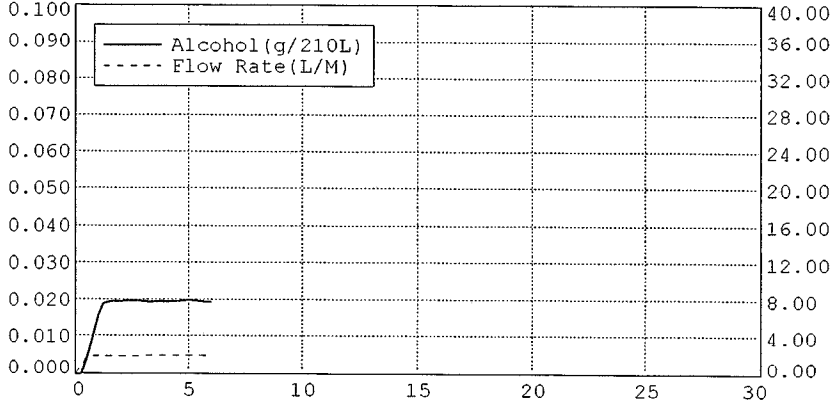
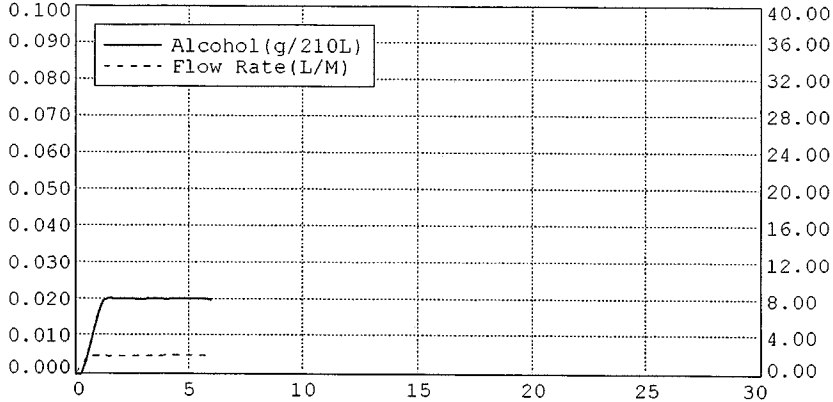
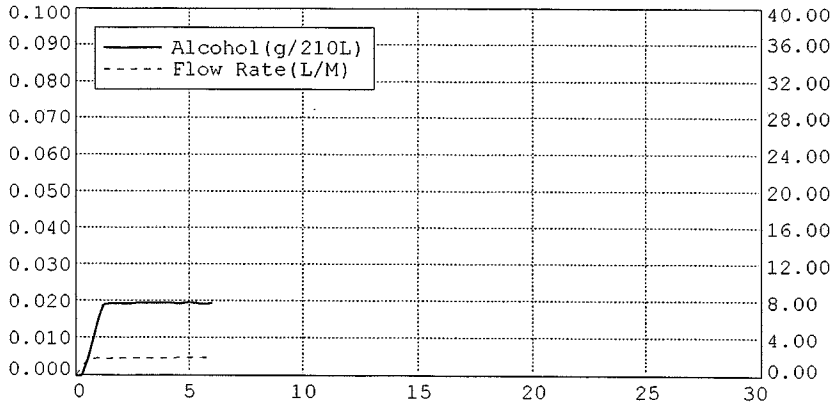
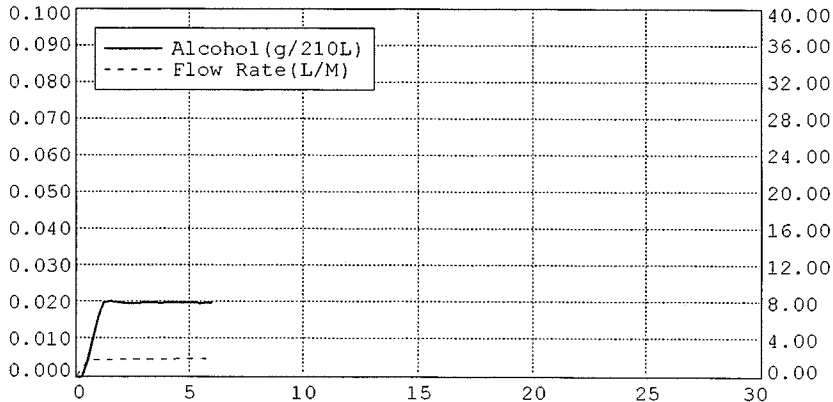
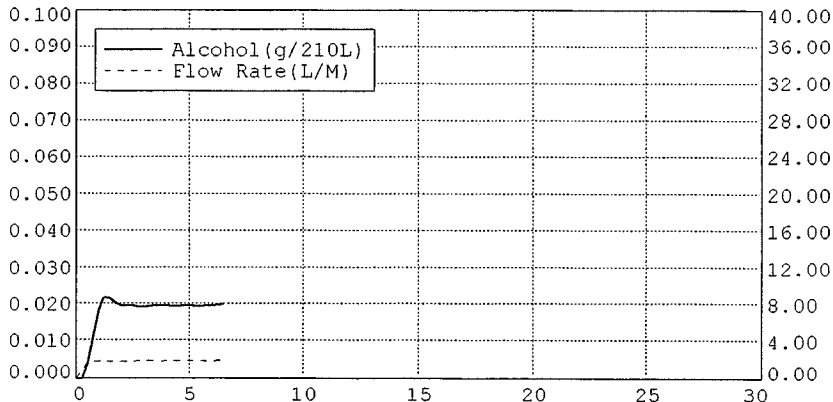
Date: 06/25/2019  
Time: 09:08:23

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.84: 0.020  
LOT #: AG805804  
EXPIRATION: 02/27/2020  
TANK PRESSURE: 630 psi

BLANK TEST	0.000	09:09
INTERNAL STANDARD	VERIFIED	09:09
EXTERNAL STANDARD	0.021	09:10
BLANK TEST	0.000	09:11
EXTERNAL STANDARD	0.021	09:11
BLANK TEST	0.000	09:12
EXTERNAL STANDARD	0.020	09:12
BLANK TEST	0.000	09:13
EXTERNAL STANDARD	0.020	09:13
BLANK TEST	0.000	09:14
EXTERNAL STANDARD	0.020	09:14
BLANK TEST	0.000	09:15

Average = 0.0204  
Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

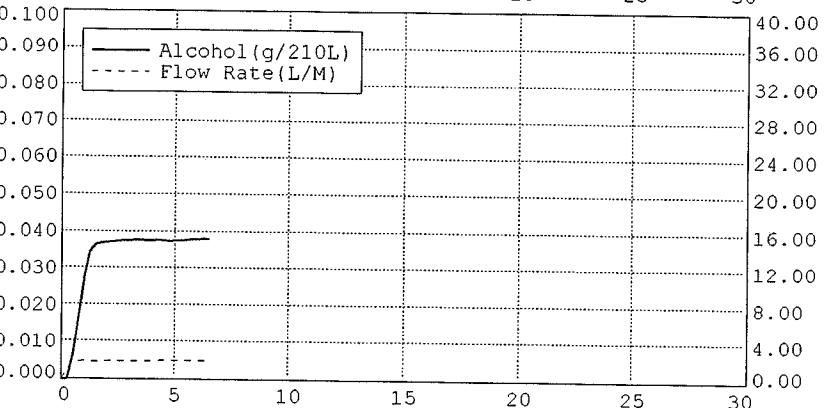
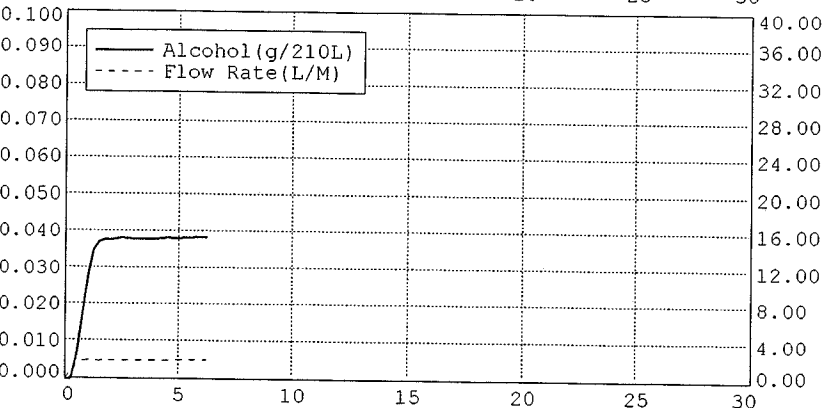
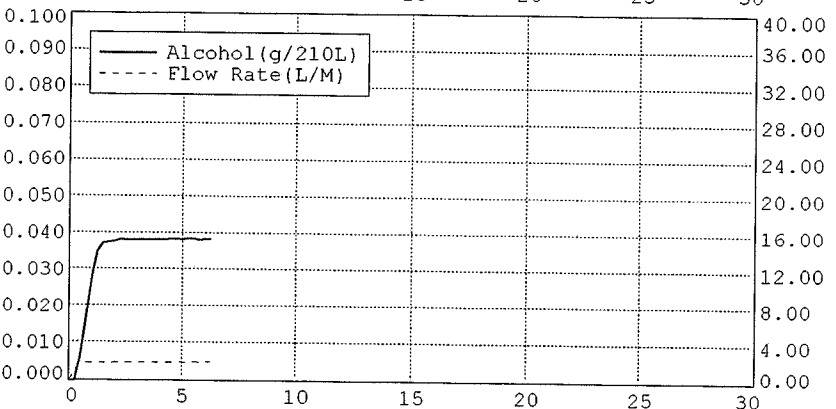
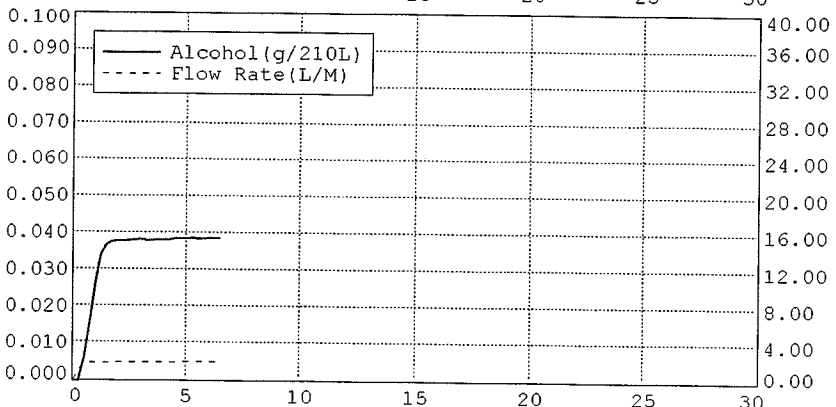
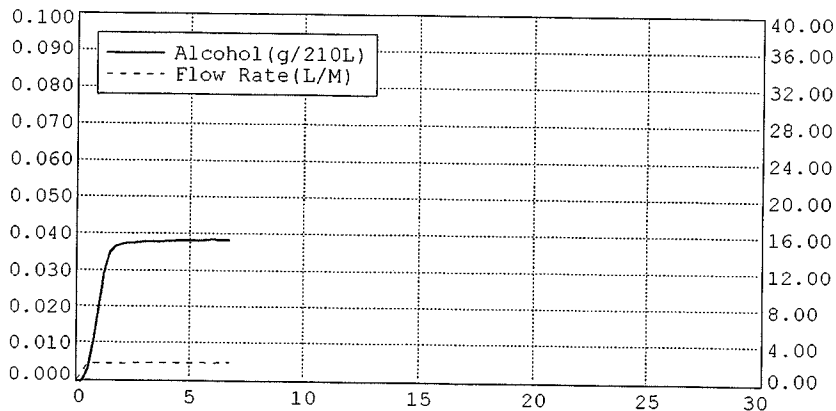
Date: 06/25/2019  
 Time: 09:16:06

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.84: 0.040  
 LOT #: AG733403  
 EXPIRATION: 11/30/2019  
 TANK PRESSURE: 616 psi

BLANK TEST	0.000	09:17
INTERNAL STANDARD	VERIFIED	09:17
EXTERNAL STANDARD	0.039	09:17
BLANK TEST	0.000	09:18
EXTERNAL STANDARD	0.039	09:18
BLANK TEST	0.000	09:19
EXTERNAL STANDARD	0.039	09:19
BLANK TEST	0.000	09:20
EXTERNAL STANDARD	0.039	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.039	09:22
BLANK TEST	0.000	09:22

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

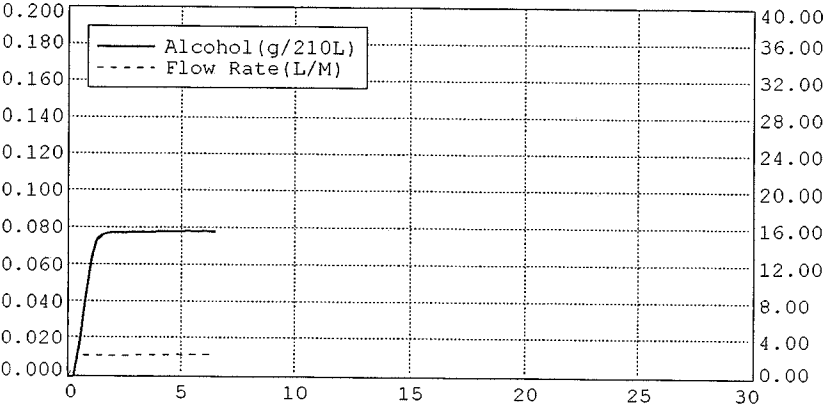
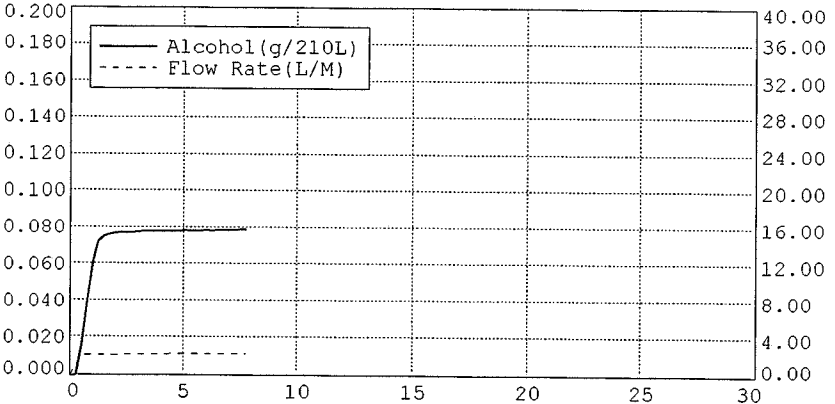
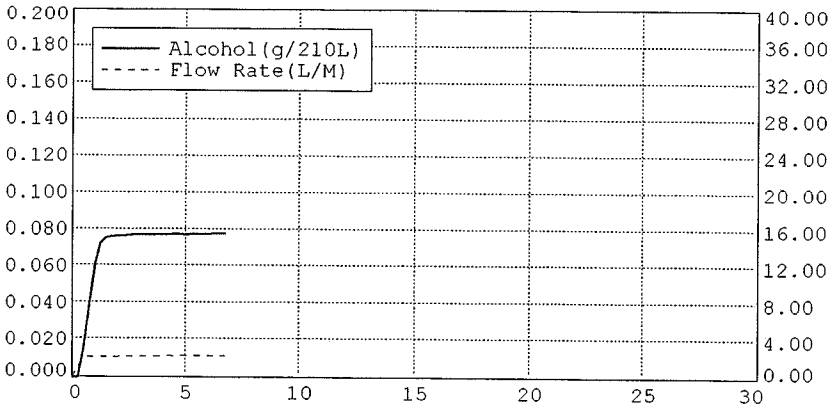
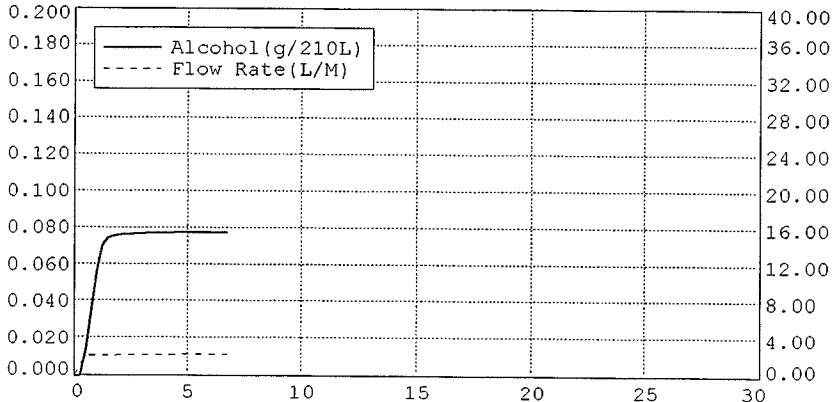
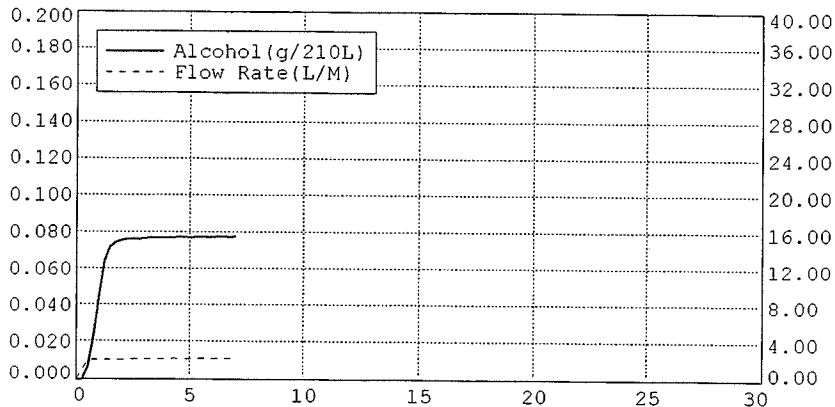
Date: 06/25/2019  
 Time: 09:24:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.84: 0.080  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 1069 psi

BLANK TEST	0.000	09:25
INTERNAL STANDARD	VERIFIED	09:26
EXTERNAL STANDARD	0.079	09:26
BLANK TEST	0.000	09:27
EXTERNAL STANDARD	0.078	09:27
BLANK TEST	0.000	09:28
EXTERNAL STANDARD	0.079	09:28
BLANK TEST	0.000	09:29
EXTERNAL STANDARD	0.079	09:29
BLANK TEST	0.000	09:30
EXTERNAL STANDARD	0.079	09:30
BLANK TEST	0.000	09:31

Average = 0.0788  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

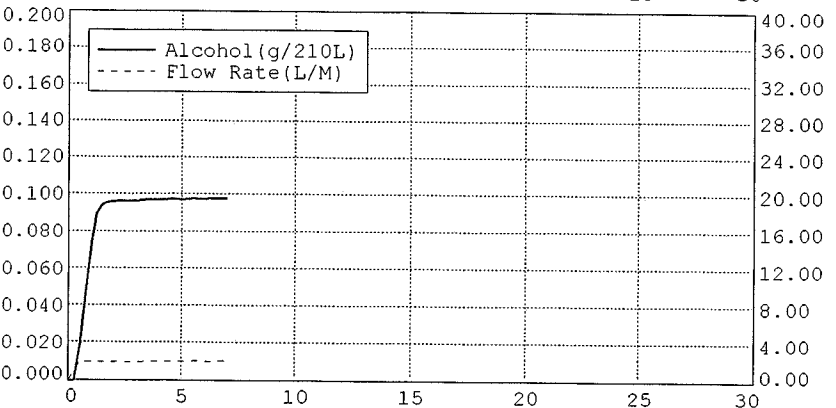
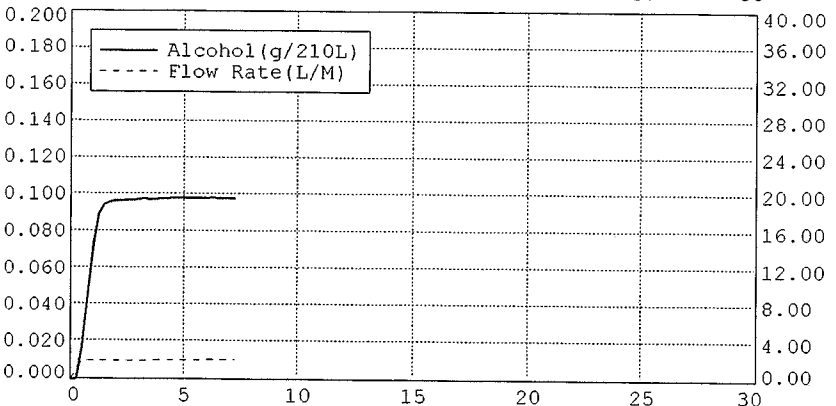
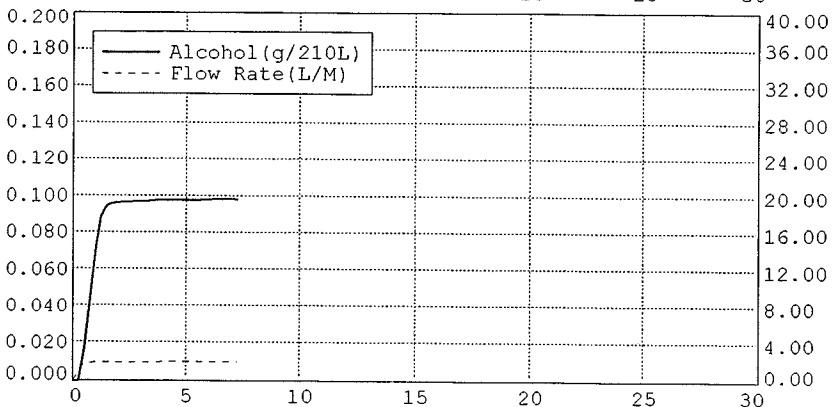
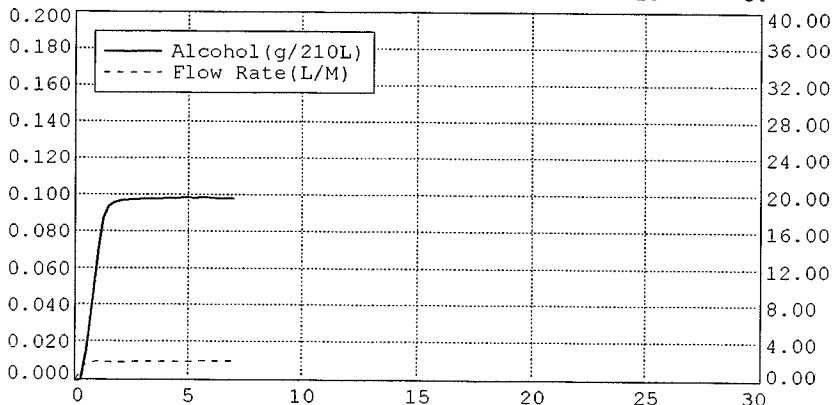
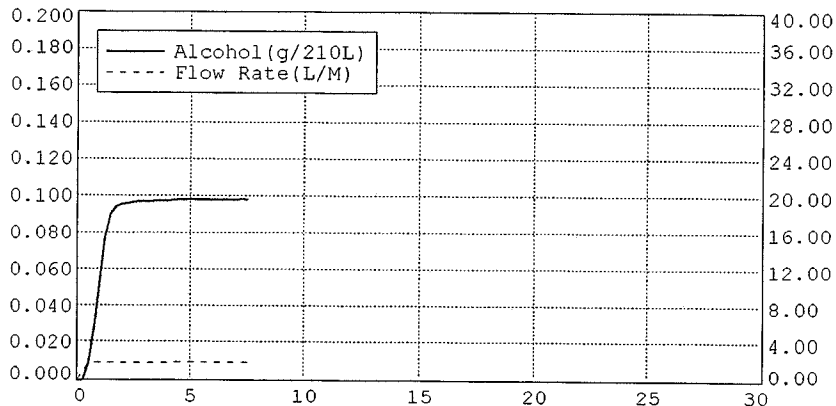
Date: 06/25/2019  
 Time: 09:37:36

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.84: 0.100  
 LOT #: AG805903  
 EXPIRATION: 02/28/2020  
 TANK PRESSURE: 564 psi

BLANK TEST	0.000	09:38
INTERNAL STANDARD	VERIFIED	09:38
EXTERNAL STANDARD	0.099	09:39
BLANK TEST	0.000	09:40
EXTERNAL STANDARD	0.099	09:40
BLANK TEST	0.000	09:41
EXTERNAL STANDARD	0.099	09:41
BLANK TEST	0.000	09:42
EXTERNAL STANDARD	0.099	09:42
BLANK TEST	0.000	09:43
EXTERNAL STANDARD	0.099	09:43
BLANK TEST	0.000	09:44

Average = 0.0990  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

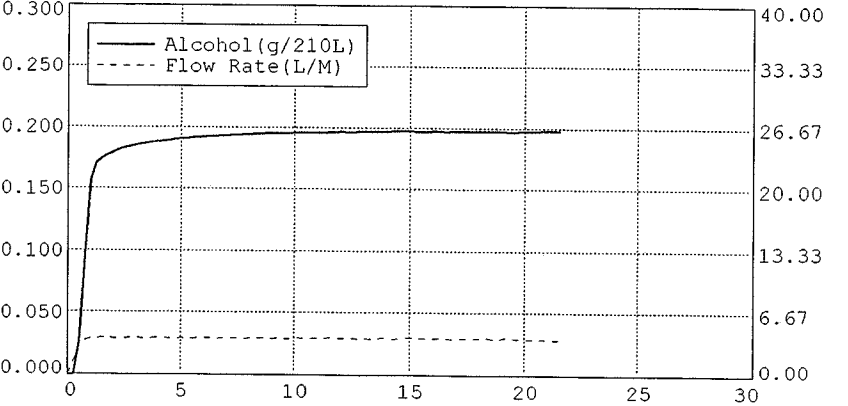
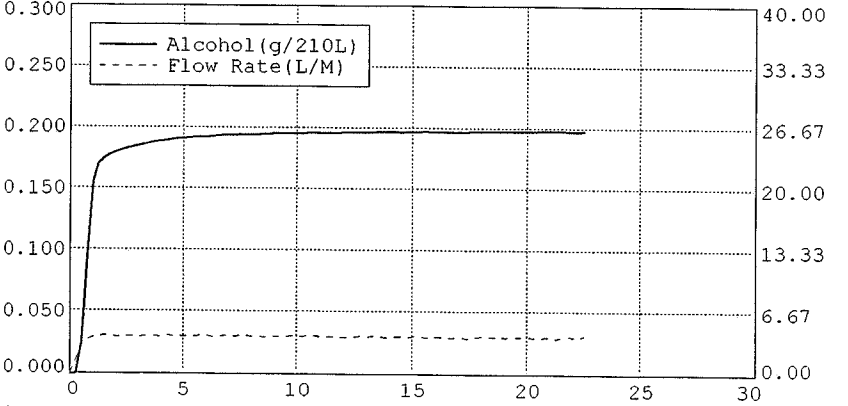
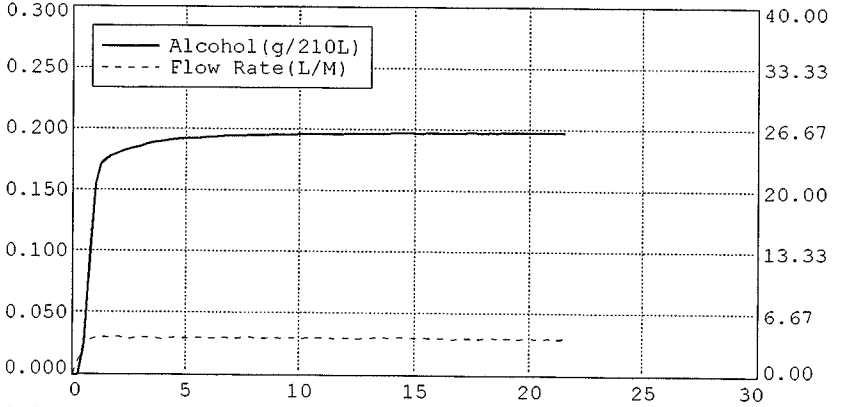
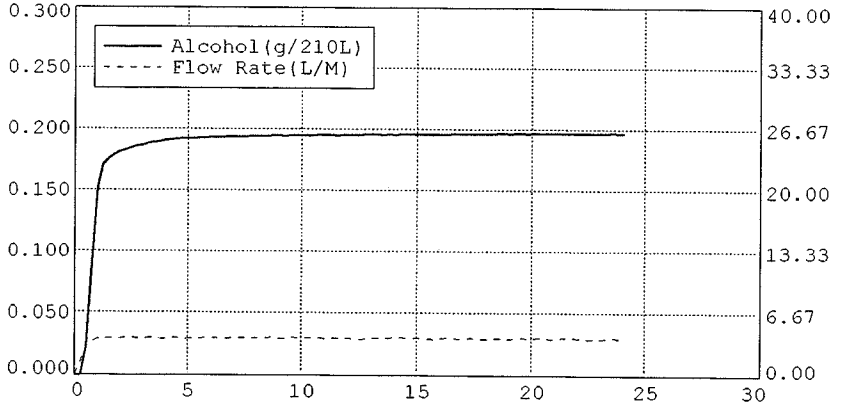
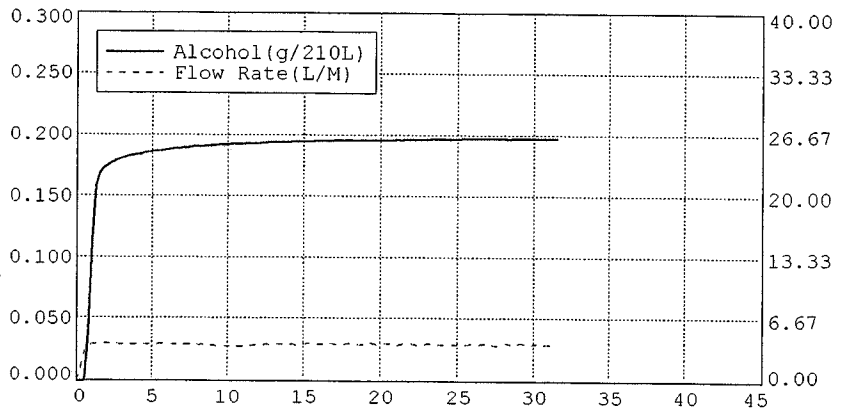
Date: 06/25/2019  
 Time: 10:50:50

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 17340  
 EXPIRATION: 10/09/2019

BLANK TEST	0.000	10:52
INTERNAL STANDARD	VERIFIED	10:52
EXTERNAL STANDARD	0.199	10:53
BLANK TEST	0.000	10:54
EXTERNAL STANDARD	0.198	10:54
BLANK TEST	0.000	10:55
EXTERNAL STANDARD	0.198	10:55
BLANK TEST	0.000	10:56
EXTERNAL STANDARD	0.198	10:57
BLANK TEST	0.000	10:58
EXTERNAL STANDARD	0.199	10:58
BLANK TEST	0.000	10:59

Average = 0.1984  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

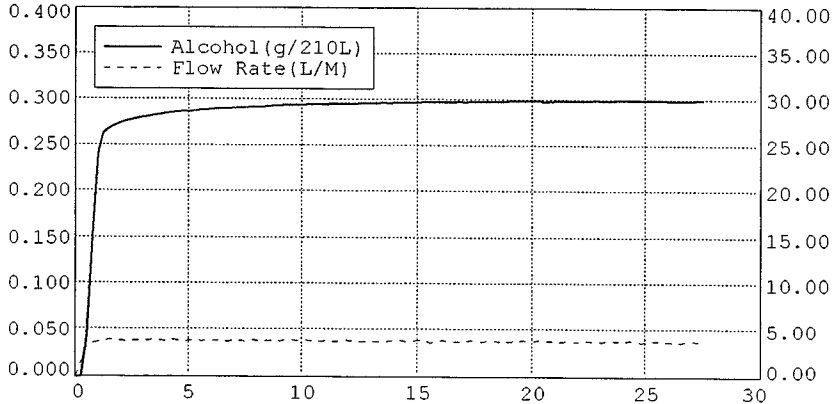
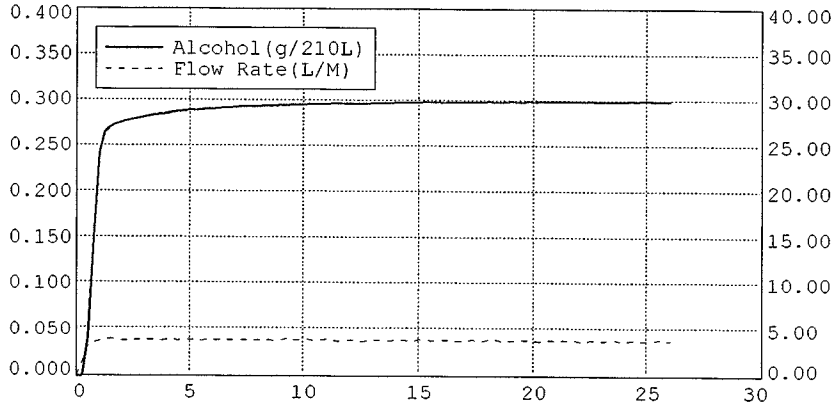
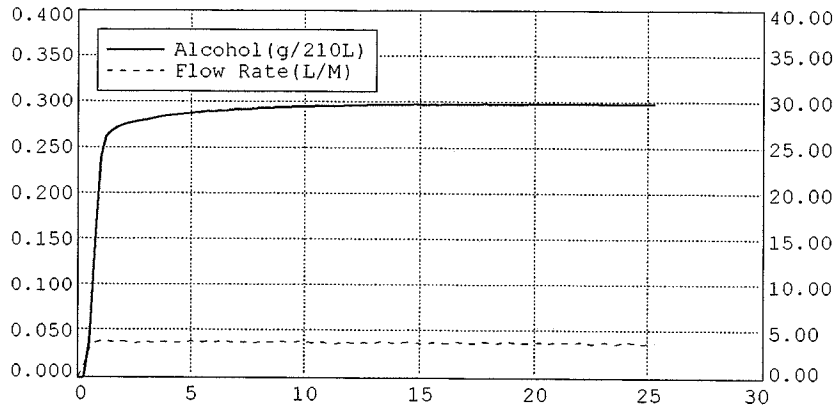
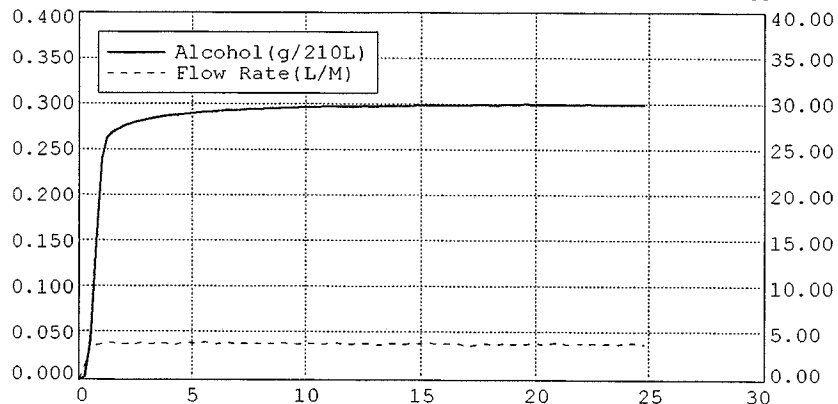
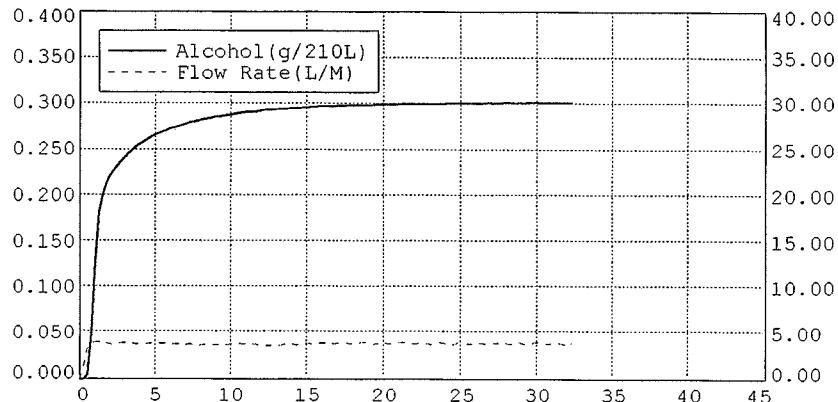
Date: 06/25/2019  
 Time: 11:03:29

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	11:04
INTERNAL STANDARD	VERIFIED	11:04
EXTERNAL STANDARD	0.301	11:05
BLANK TEST	0.000	11:06
EXTERNAL STANDARD	0.300	11:06
BLANK TEST	0.000	11:07
EXTERNAL STANDARD	0.299	11:08
BLANK TEST	0.000	11:09
EXTERNAL STANDARD	0.300	11:09
BLANK TEST	0.000	11:10
EXTERNAL STANDARD	0.300	11:11
BLANK TEST	0.000	11:12

Average = 0.3000  
 Std Dev = 0.0007



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 06/25/2019  
Time: 11:22:46

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

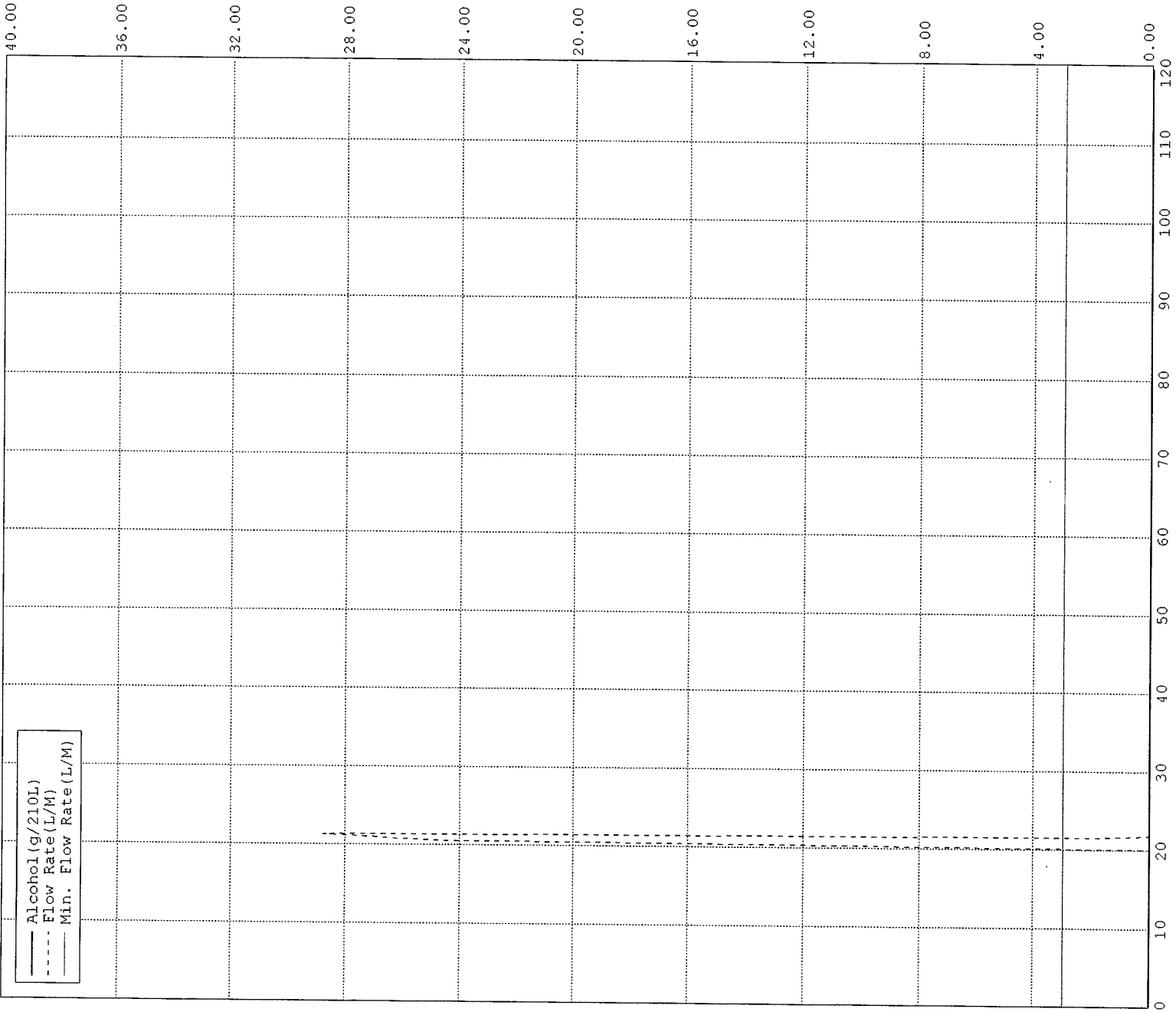
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.83: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:24  
BLANK TEST 0.000 11:24  
INTERNAL STANDARD VERIFIED 11:24  
EXTERNAL STANDARD 0.078 11:24  
BLANK TEST 0.000 11:25  
SUBJECT SAMPLE INCOMPLETE 11:27



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 06/25/2019  
Time: 12:26:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

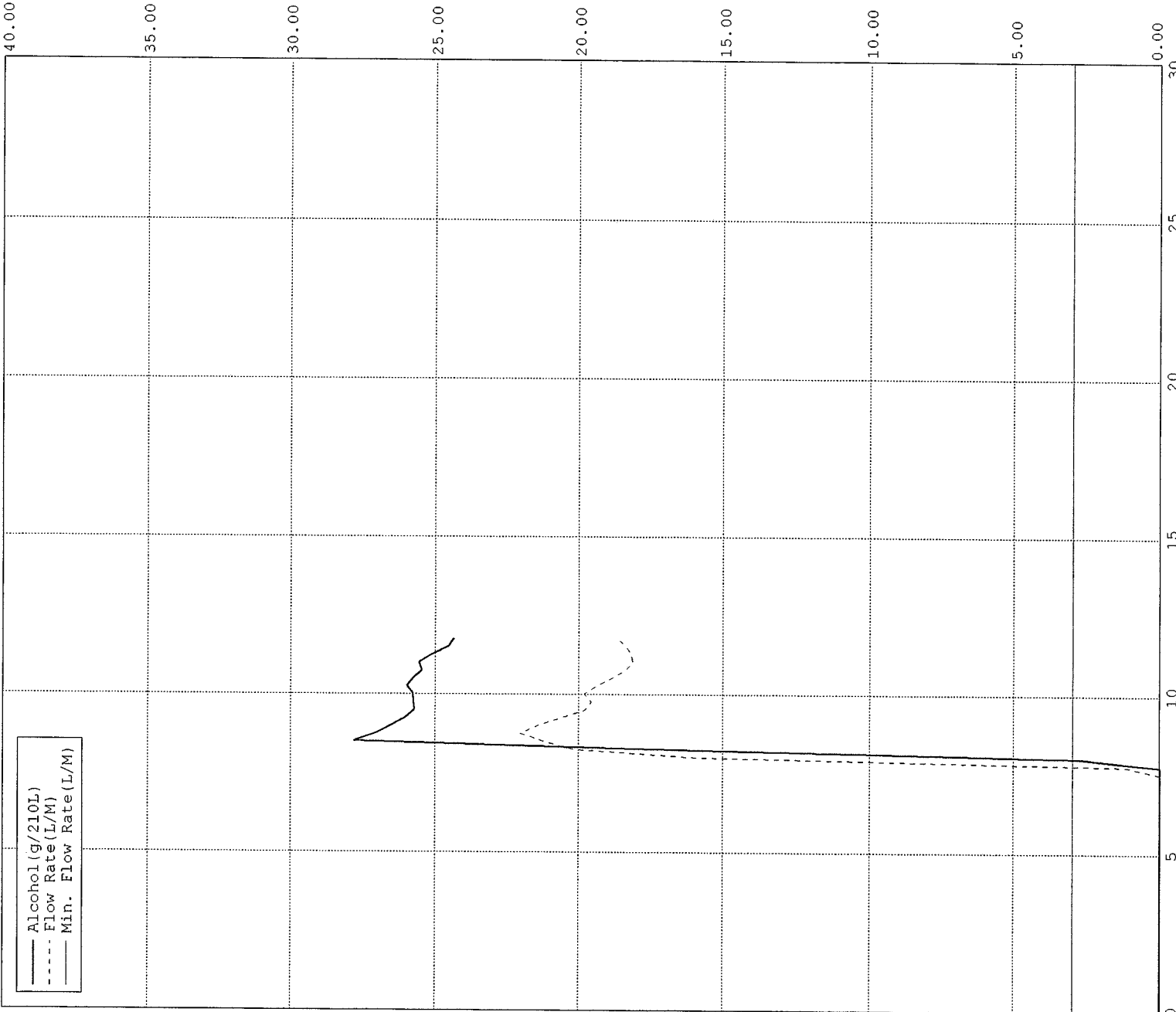
DEPT/AGENCY:  
INVALID  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK PASSED 12:27  
BLANK TEST 0.000 12:28  
INTERNAL STANDARD VERIFIED 12:28  
EXTERNAL STANDARD 0.078 12:28  
BLANK TEST 0.000 12:29  
SUBJECT SAMPLE INVALID 12:29

*DM*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 06/25/2019  
Time: 12:59:43

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

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

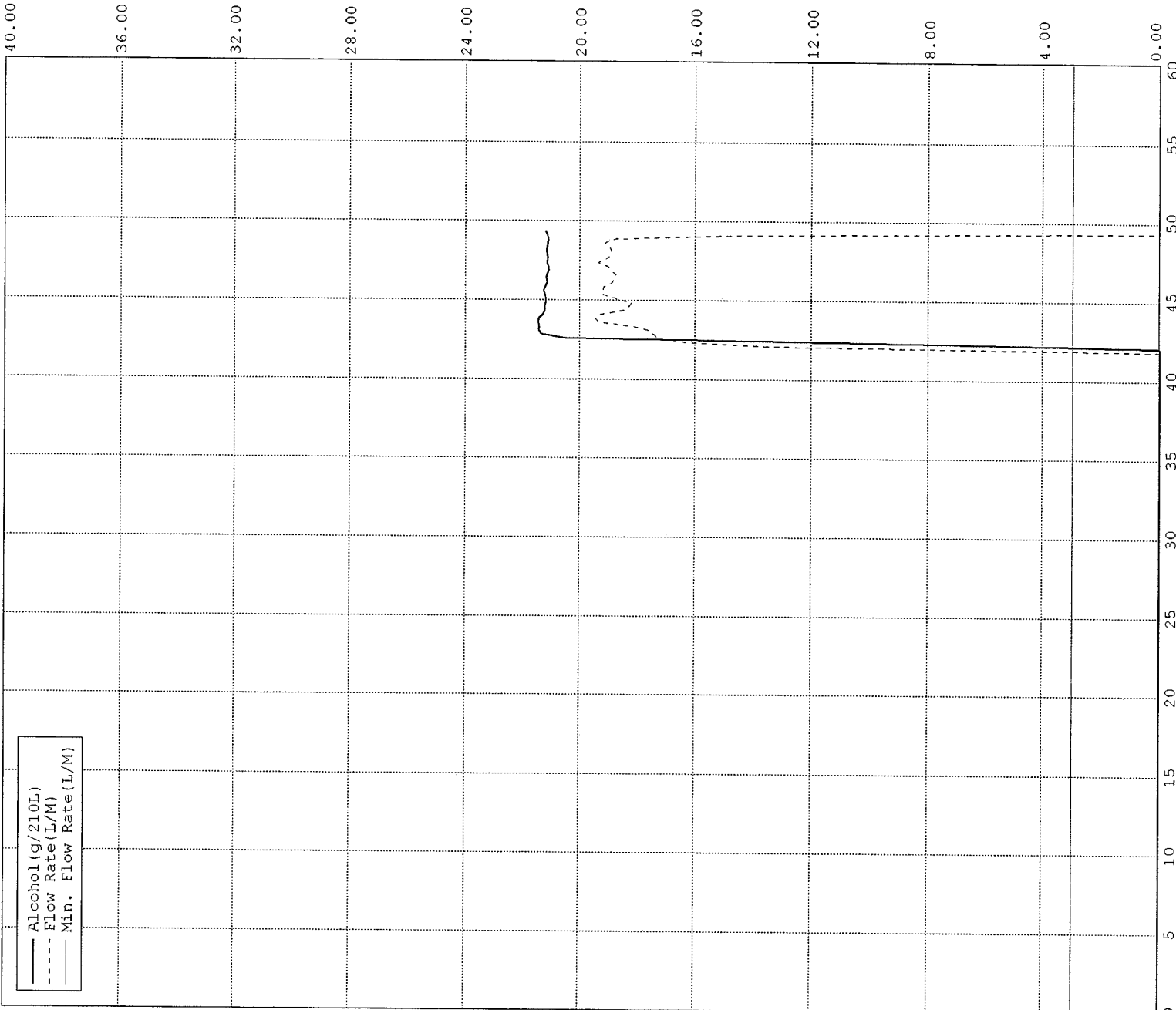
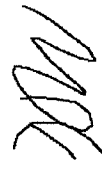
DIAGNOSTIC CHECK	PASSED	13:01
BLANK TEST	0.000	13:01
INTERNAL STANDARD	VERIFIED	13:01
Xq = 0.106 (0.25%)		
EXTERNAL STANDARD	0.078	13:01
X[1] = 0.0782 (0.0005) (0.0029)		
BLANK TEST	0.000	13:02
SUBJECT SAMPLE	XXX	13:03
X[1] = 0.1056 (-0.0185) (0.0003)		

Interference Detected

Filter 2 Avg = 0.0010

Filter 3 Avg = 0.0072

DW 06/26/19



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100365  
-----

Date: 06/25/2019  
Time: 13:09:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

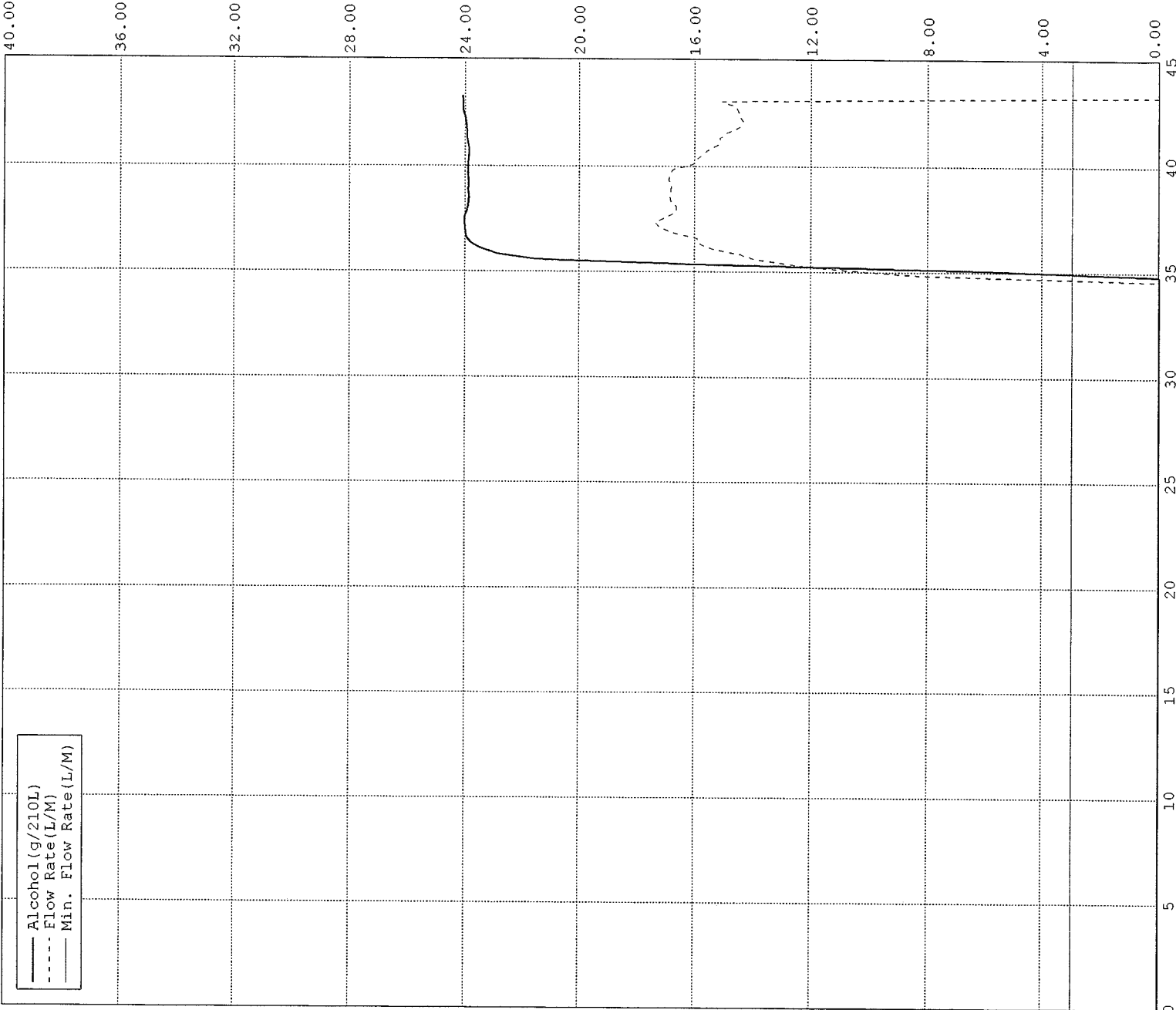
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

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

DIAGNOSTIC CHECK PASSED 13:10  
BLANK TEST 0.000 13:10  
INTERNAL STANDARD VERIFIED 13:10  
Xq = 0.107 (0.17%)  
EXTERNAL STANDARD 0.079 13:10  
X[1] = 0.0786 (0.0014) (0.0026)  
BLANK TEST 0.000 13:11  
SUBJECT SAMPLE XXX 13:12  
X[1] = 0.1202 (-0.0251) (0.0016)

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 06/25/2019  
Time: 13:23:20

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

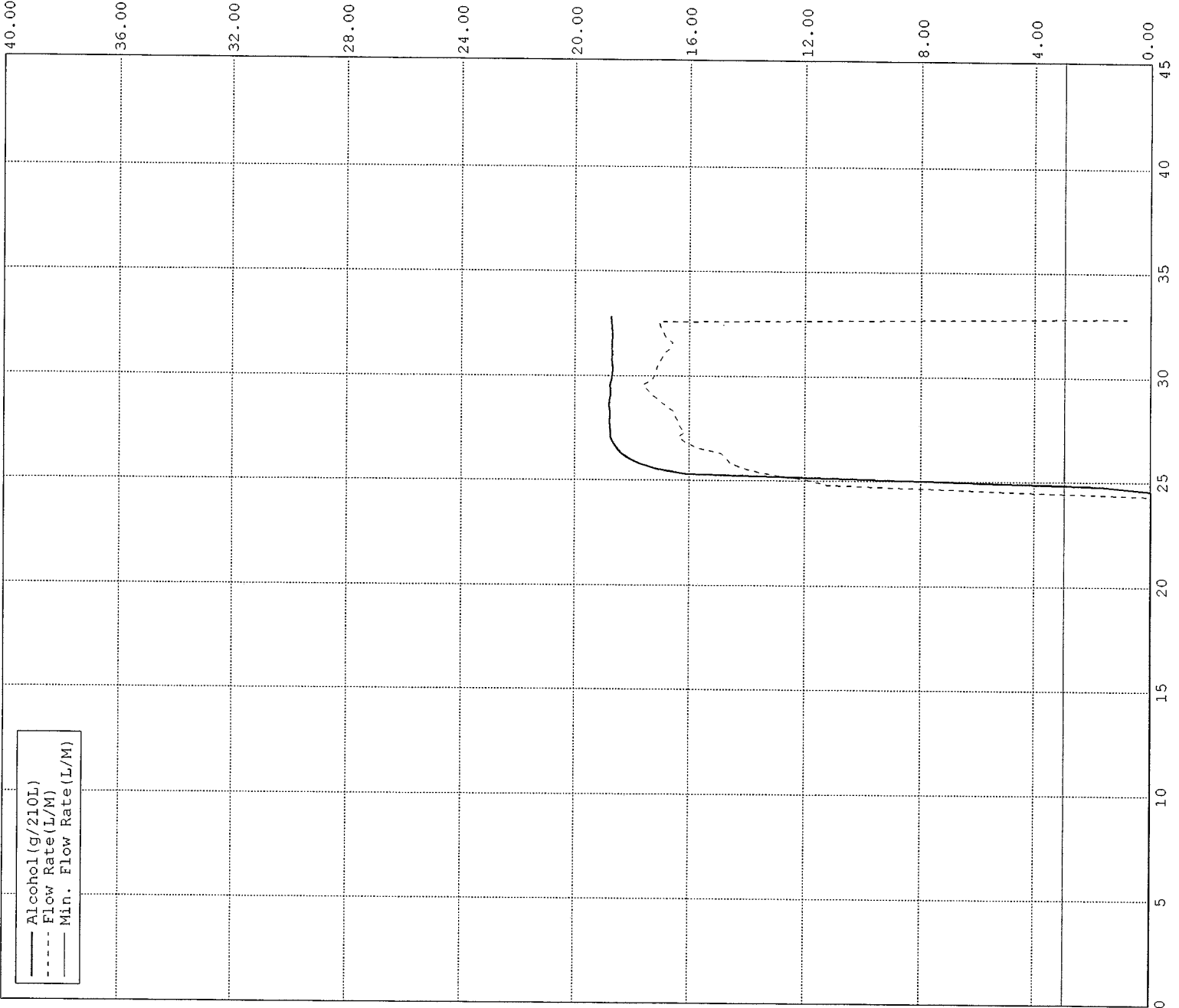
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.83: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:24
BLANK TEST	0.000	13:24
INTERNAL STANDARD	VERIFIED	13:24
Xq = 0.106 (0.17%)		
EXTERNAL STANDARD	0.079	13:24
X[1] = 0.0787 (0.0012) (0.0018)		
BLANK TEST	0.000	13:25
SUBJECT SAMPLE (Vol=2.17L)	0.093	13:26
X[1] = 0.0938 (0.0017) (0.0008)		
BLANK TEST	0.000	13:27
EXTERNAL STANDARD	0.079	13:27
X[1] = 0.0787 (0.0010) (0.0014)		
BLANK TEST	0.000	13:28

*DW*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 06/25/2019  
Time: 11:30:08

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

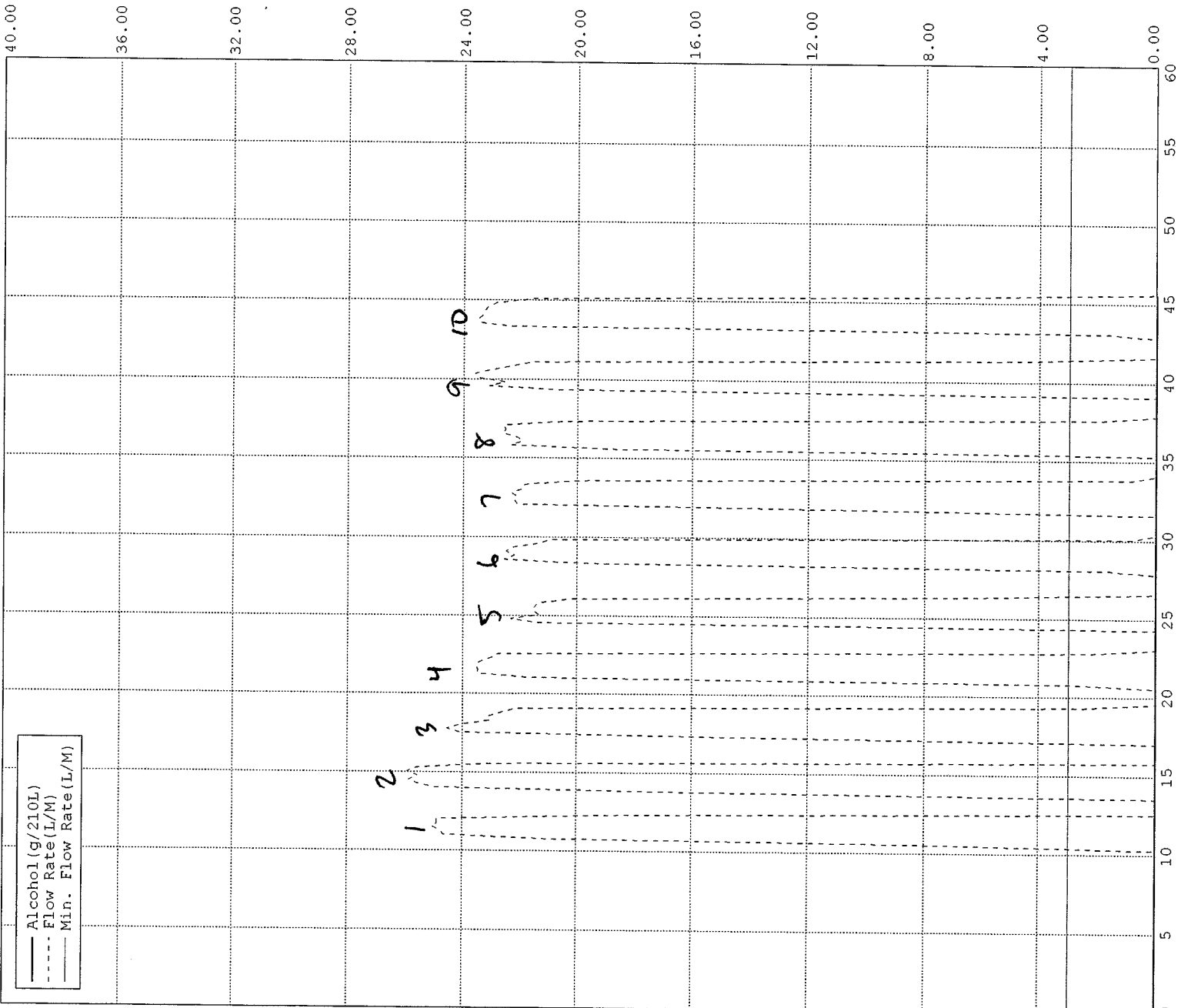
DEPT/AGENCY:  
MAXIMUM ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.83: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:32  
BLANK TEST 0.000 11:32  
INTERNAL STANDARD VERIFIED 11:32  
EXTERNAL STANDARD 0.079 11:33  
BLANK TEST 0.000 11:34  
SUBJECT SAMPLE XXX 11:34

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 06/25/2019  
Time: 12:34:35

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

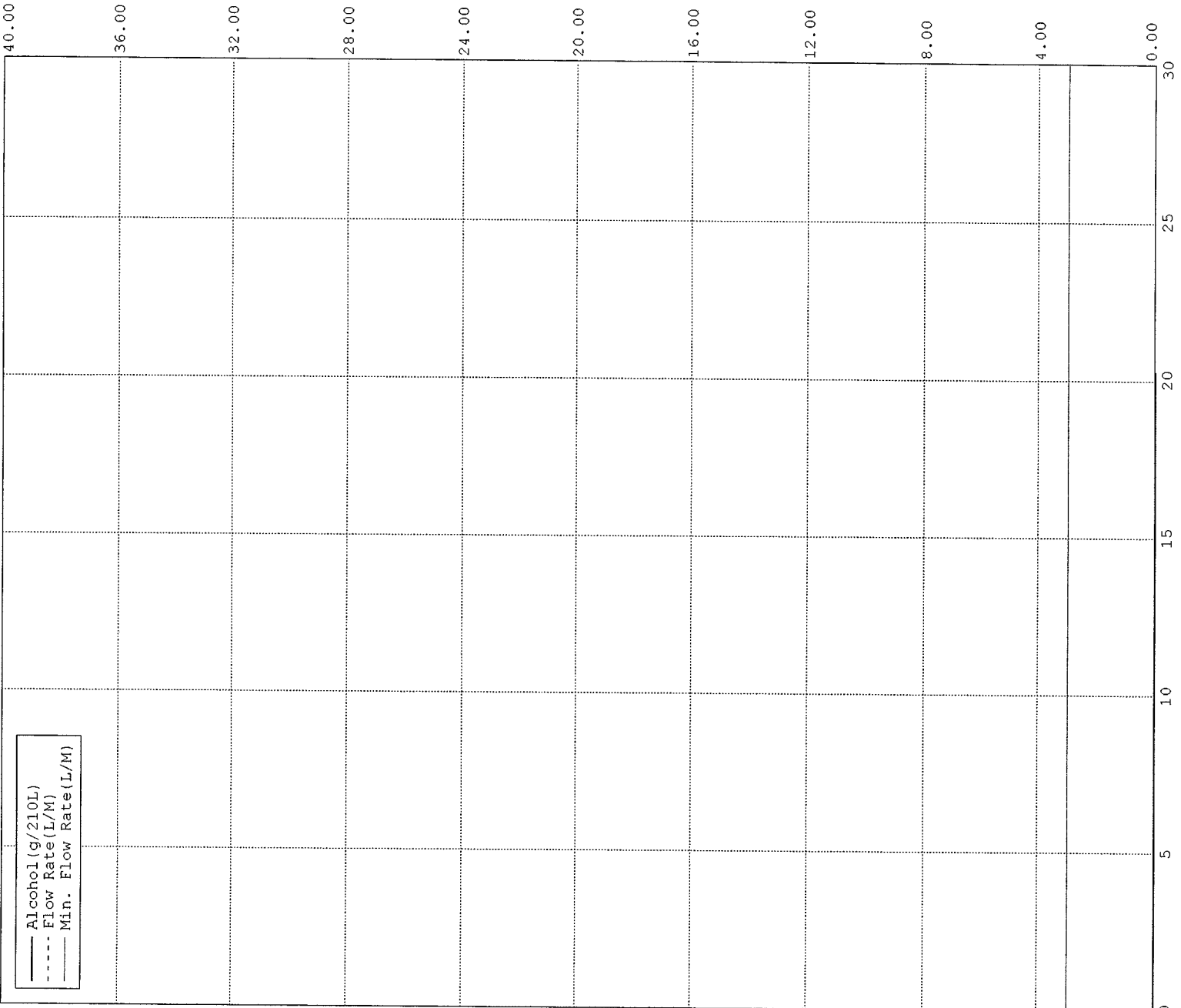
DEPT/AGENCY:  
RADIO FREQUENCY  
CASE/REPORT: XXXX  
TEST TYPE: TEST

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

DIAGNOSTIC CHECK PASSED 12:49  
BLANK TEST 0.000 12:49  
INTERNAL STANDARD VERIFIED 12:49  
EXTERNAL STANDARD 0.078 12:49  
BLANK TEST 0.000 12:50

RFI DETECTED

*DW*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 06/25/2019  
Time: 14:00:39

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

DEPT/AGENCY:  
NON-DRINKING SUBJECT  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK	PASSED	14:01
BLANK TEST	0.000	14:01
INTERNAL STANDARD	VERIFIED	14:02
EXTERNAL STANDARD	0.079	14:02
BLANK TEST	0.000	14:03
SUBJECT SAMPLE (Vol=3.31L)	0.000	14:03
BLANK TEST	0.000	14:04
EXTERNAL STANDARD	0.079	14:04
BLANK TEST	0.000	14:05

*DM*

