

# 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 100415 Analyst Derech 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 Auth Lot 17340 Exp 10/09/19
  - 1. Simulator S/N SD1177 Date Calibrated 03/05/19
- vi. 0.300g/210L Mnf Auth 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 Auth Lot 18370 Level 0.100 Exp 12/05/20

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

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

1. Simulator S/N 0R4161 Date Calibrated 03/07/19

iii. Negative Control - Mnf Auth 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: 100415  
-----

Date: 06/25/2019  
Time: 09:02:44

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 44.7°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.73 V PASSED  
(1.04 V - 2.42 V)  
Cooler Voltage = 1.73 V PASSED  
(1.04 V - 2.42 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 541 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.913 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 = 0.101 0.69% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100415  
-----

Date: 06/25/2019

Time: 9:27 AM

Temperatures (°C)

Sample Cell: 48.9°C

Breath Tube: 44.9°C

Current Barometer 29.8 in

Volume (Ltr) 1.52

Settings

Lamp: 1.84 V

Bias: 79 V

Cooler: 1.81 V

Chopper: 528 Hz

Voltages (V)

Flow: 1.07 V

Detector: 0.014 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100415  
-----

Date: 06/21/2019  
Time: 09:39:06

OPERATOR NAME:  
DEREK WALTON  
CERTIFICATE #: 9508

Ca = 0.1000  
CAL = 0.995204    0.800 <= CAL < 1.200  
b1 = 0.0001    0.0000 <= b1 < 0.0040  
b2 = 0.0046    0.0010 <= b2 < 0.0100  
b3 = 0.0003    0.0000 <= b3 < 0.0040  
Xq = 0.1015    0.0500 <= Xq < 0.2000  
a21 = 1.185899    1.050 <= a21 < 1.300  
a31 = 0.416230    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100415

Date: 06/25/2019  
Time: 09:35:08

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

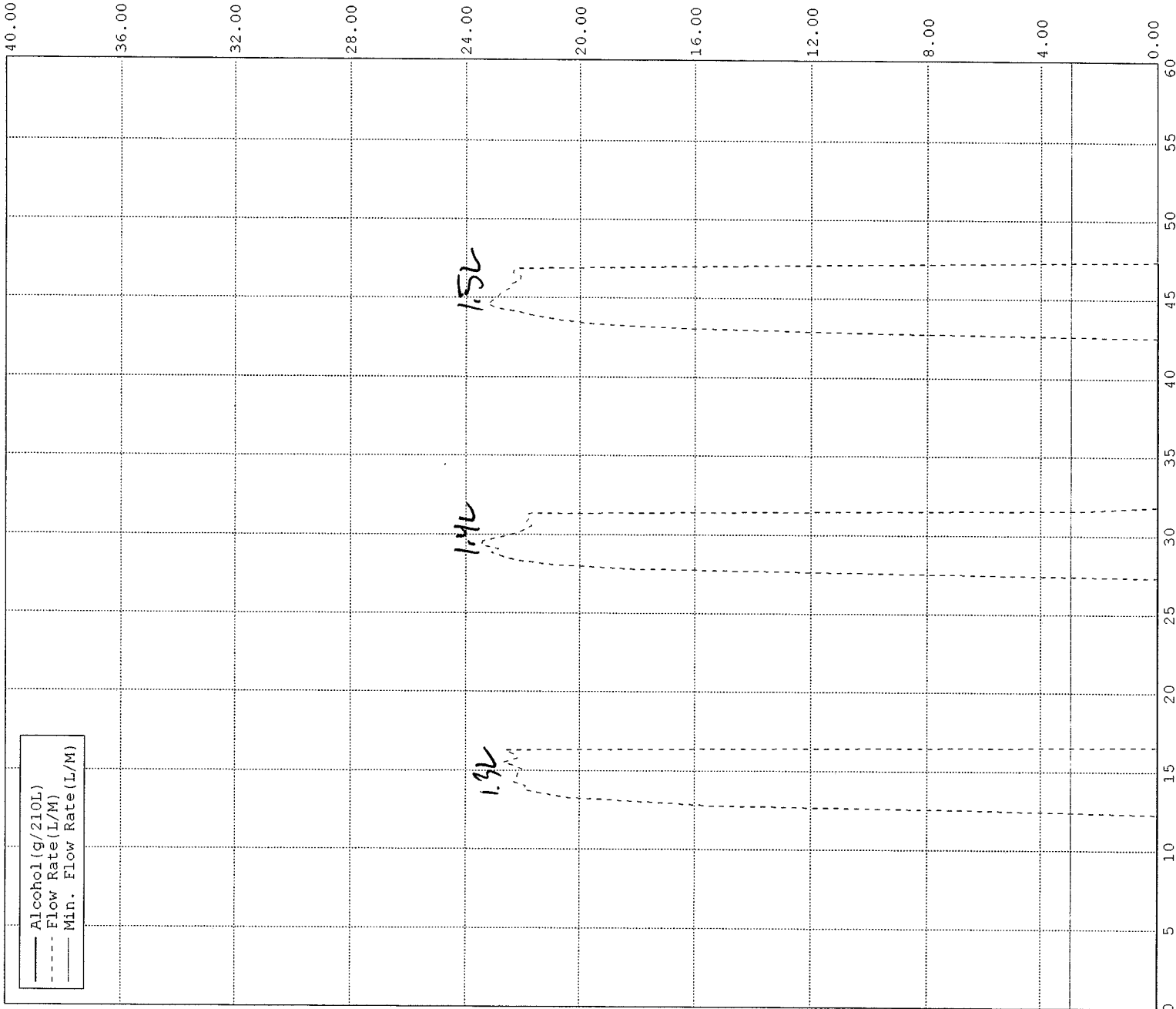
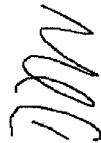
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK	PASSED	09:38
BLANK TEST	0.000	09:38
INTERNAL STANDARD	VERIFIED	09:38
EXTERNAL STANDARD	0.079	09:38
BLANK TEST	0.000	09:39
SUBJECT SAMPLE (Vol=1.54L)	0.000	09:40
BLANK TEST	0.000	09:41
EXTERNAL STANDARD	0.079	09:41
BLANK TEST	0.000	09:42



LINEARITY CHECK

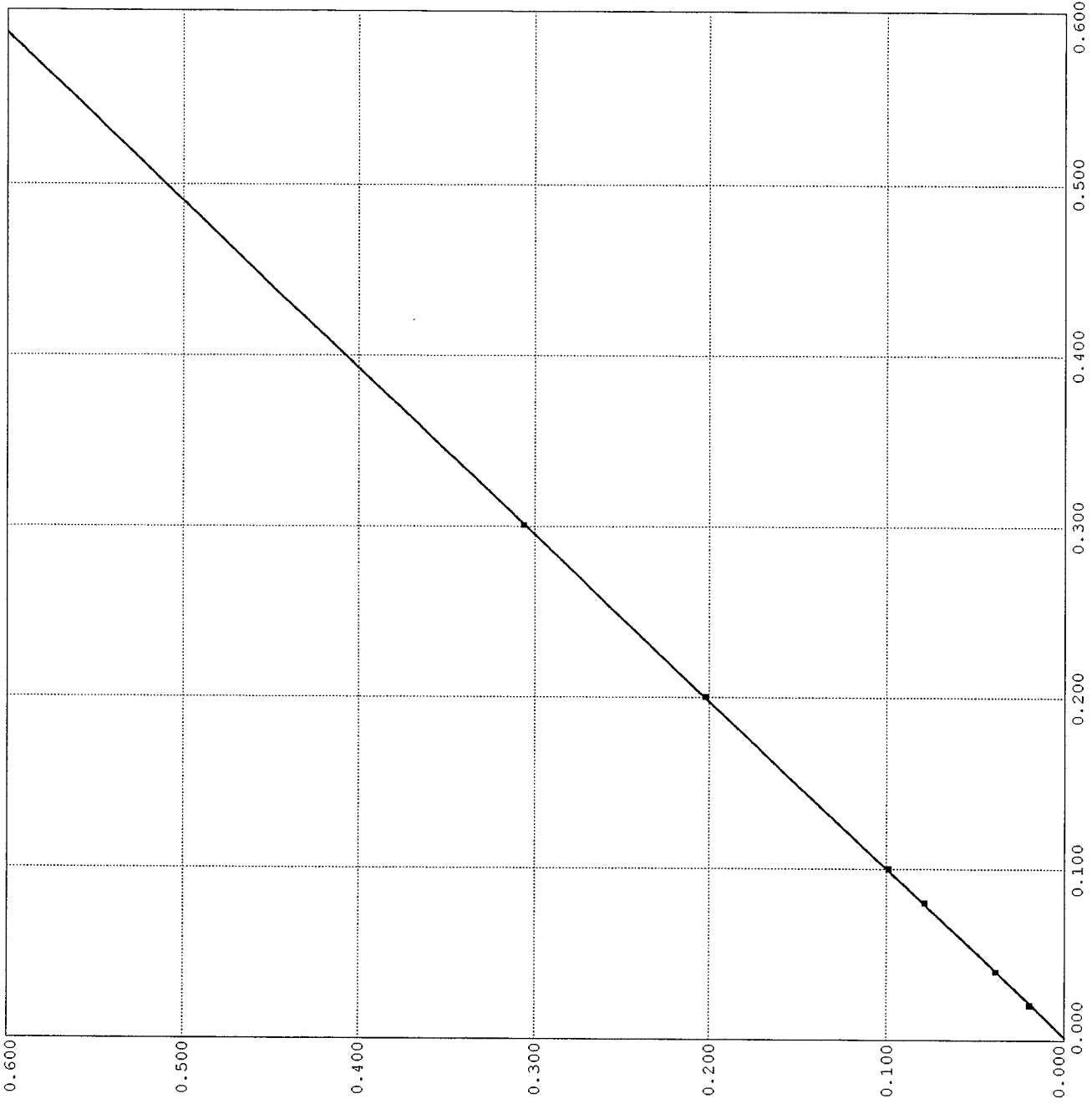
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100415  
 -----

Date: 06/25/2019  
 Time: 09:47:20

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0204	0.0005
0.040	0.0398	0.0004
0.080	0.0796	0.0005
0.100	0.0998	0.0004
0.200	0.2028	0.0004
0.300	0.3070	0.0012

SLOPE = 1.025356  
 R<sup>2</sup> = 0.999904



*DW*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
DATAMASTER dmt: 100415

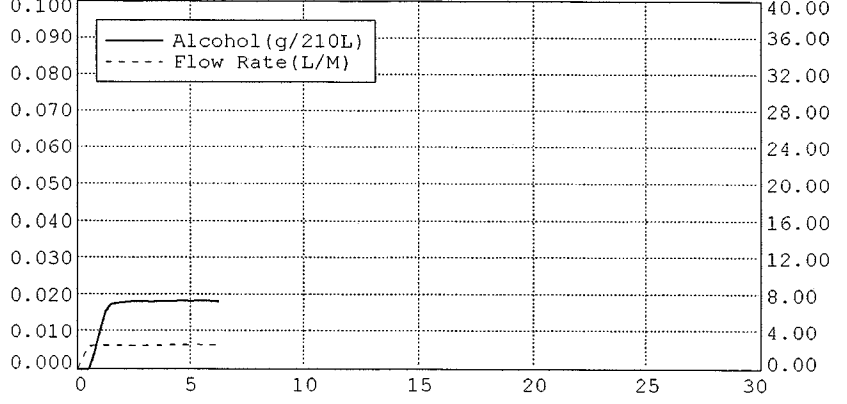
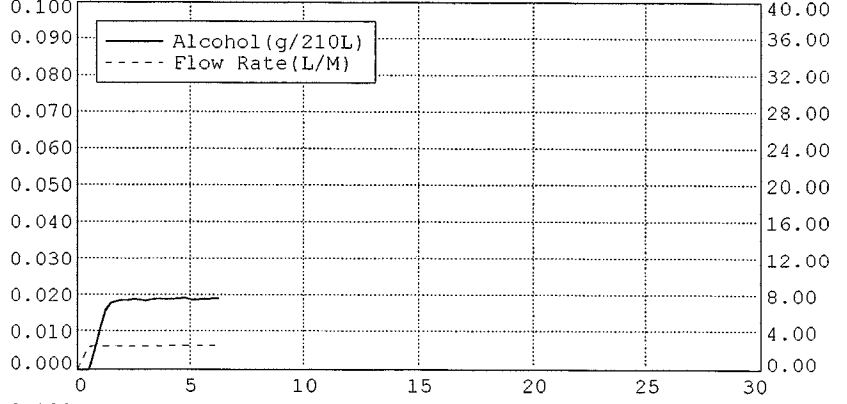
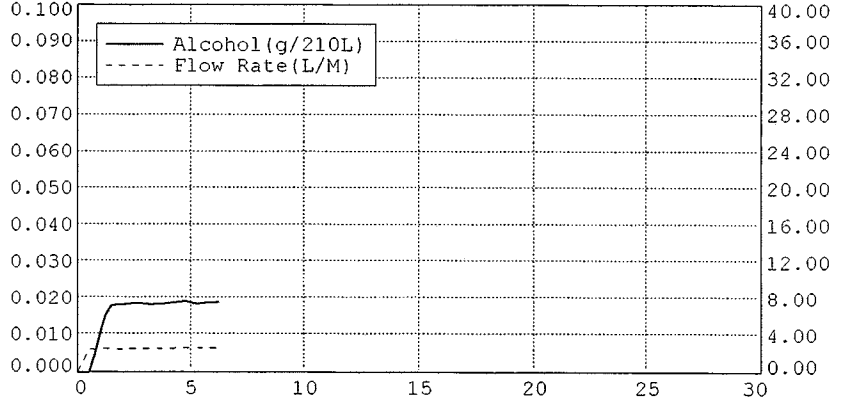
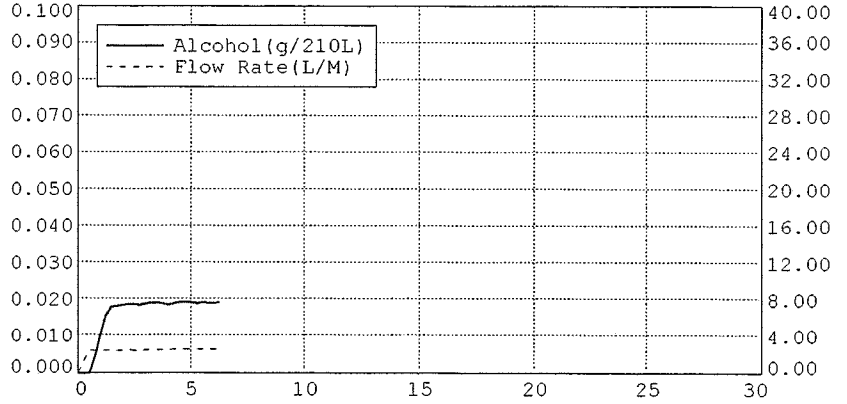
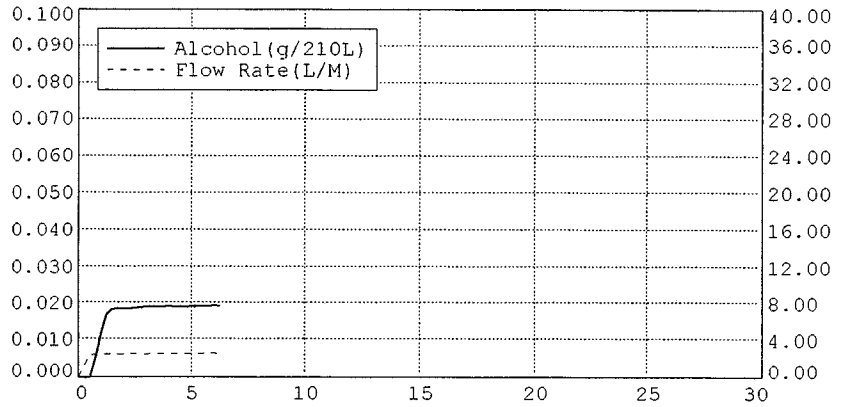
Date: 06/25/2019  
Time: 09:47:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.85: 0.020  
LOT #: AG805804  
EXPIRATION: 02/27/2020  
TANK PRESSURE: 621 psi

BLANK TEST	0.000	09:48
INTERNAL STANDARD	VERIFIED	09:48
EXTERNAL STANDARD	0.021	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.020	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.020	09:51
BLANK TEST	0.000	09:52
EXTERNAL STANDARD	0.021	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.020	09:53
BLANK TEST	0.000	09:54

Average = 0.0204  
Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
DATAMASTER dmt: 100415

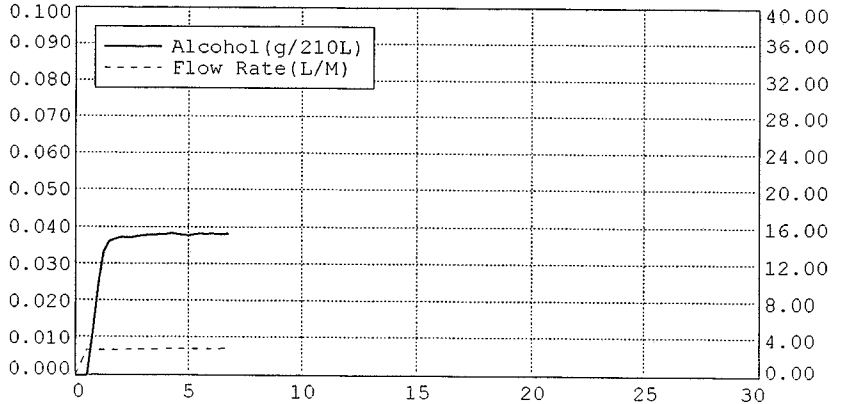
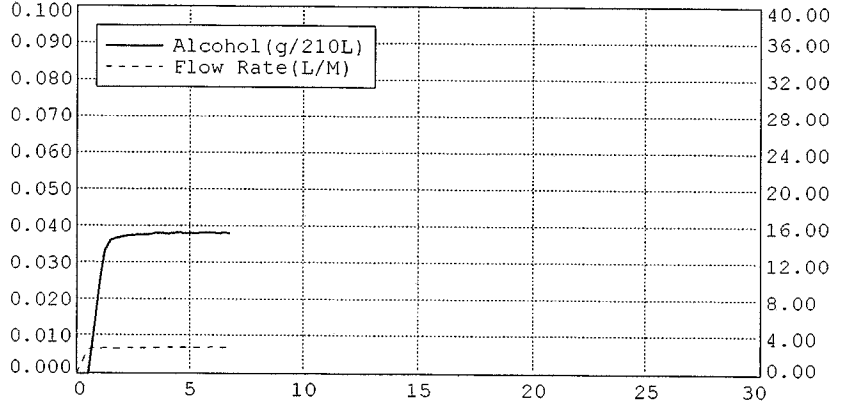
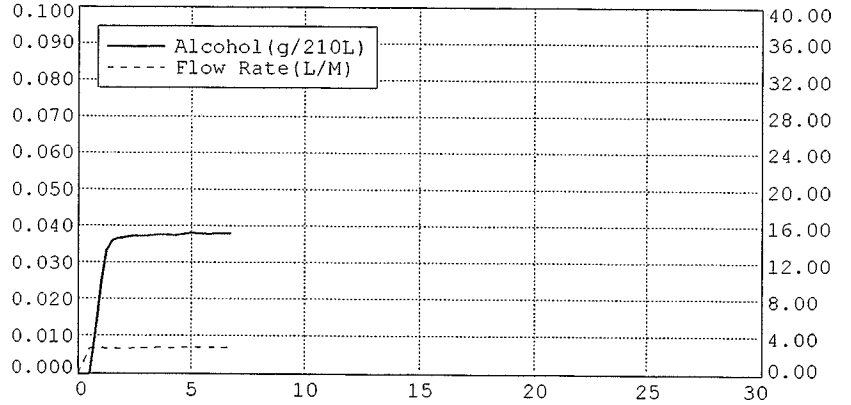
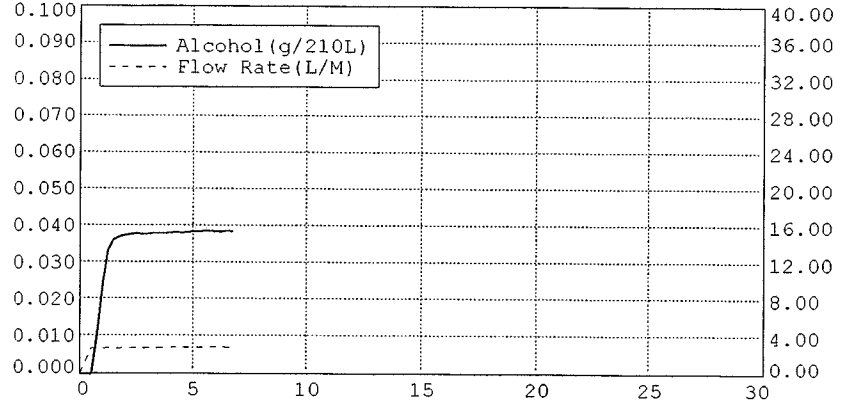
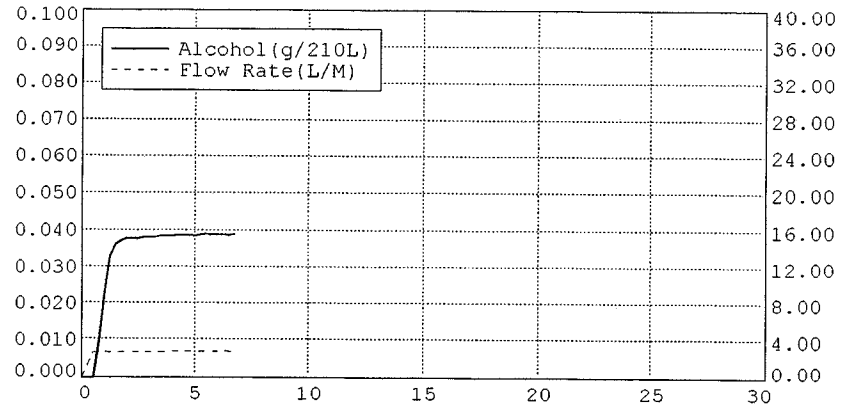
Date: 06/25/2019  
Time: 09:55:44

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 29.85: 0.040  
LOT #: AG733403  
EXPIRATION: 11/30/2019  
TANK PRESSURE: 1018 psi

BLANK TEST	0.000	09:57
INTERNAL STANDARD	VERIFIED	09:57
EXTERNAL STANDARD	0.040	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.040	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.040	09:59
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.040	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.039	10:01
BLANK TEST	0.000	10:02

Average = 0.0398  
Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100415

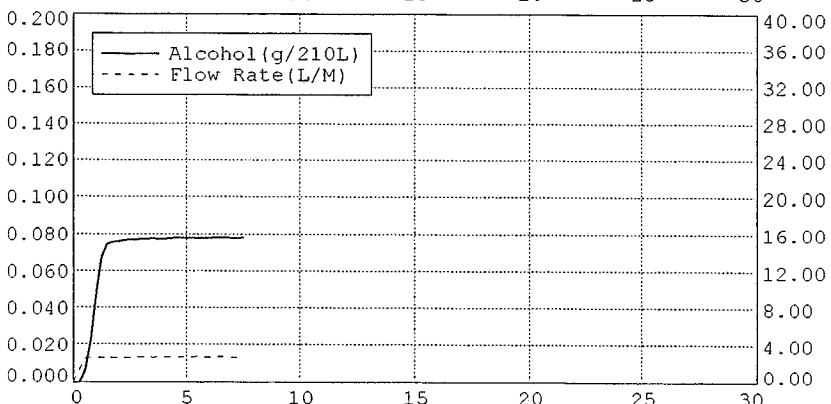
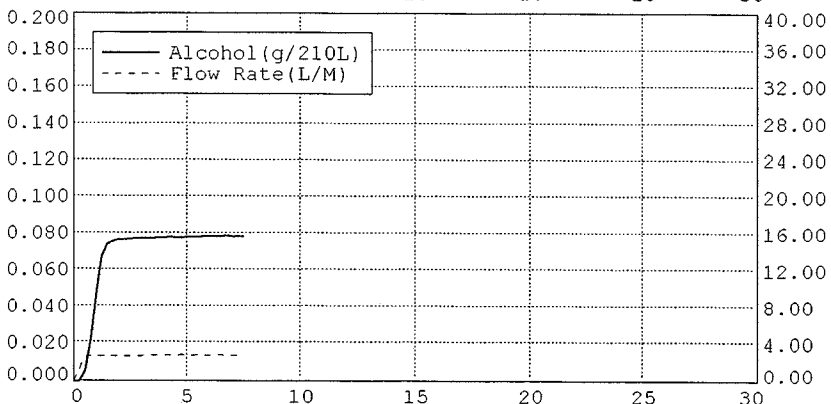
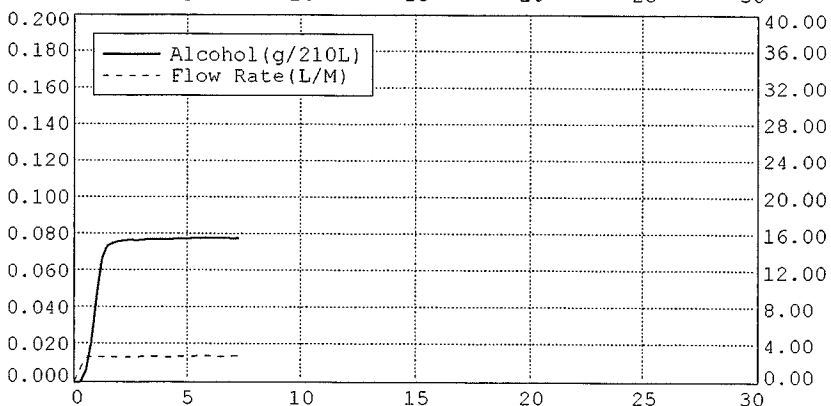
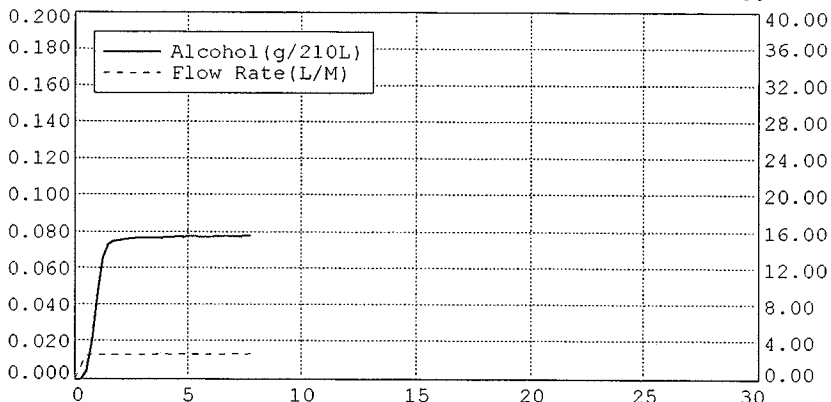
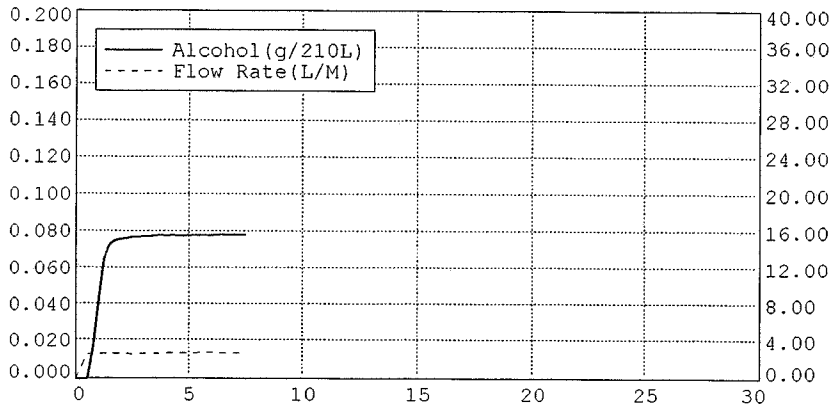
Date: 06/25/2019  
 Time: 10:04:37

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.85: 0.080  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 848 psi

BLANK TEST	0.000	10:05
INTERNAL STANDARD	VERIFIED	10:05
EXTERNAL STANDARD	0.080	10:06
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.079	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.079	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.080	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.080	10:10
BLANK TEST	0.000	10:11

Average = 0.0796  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100415

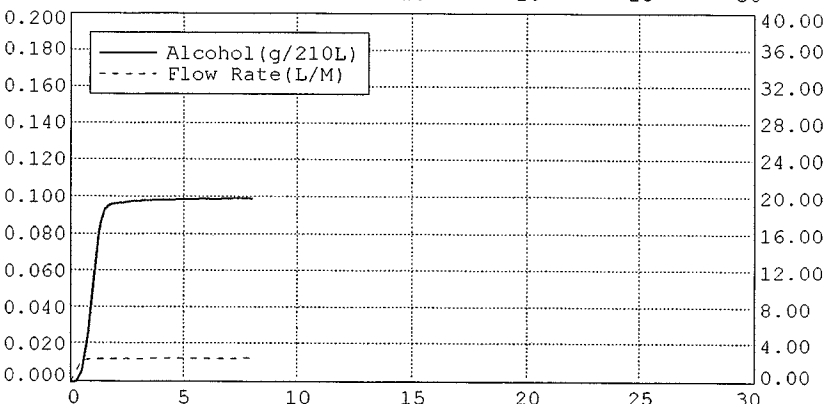
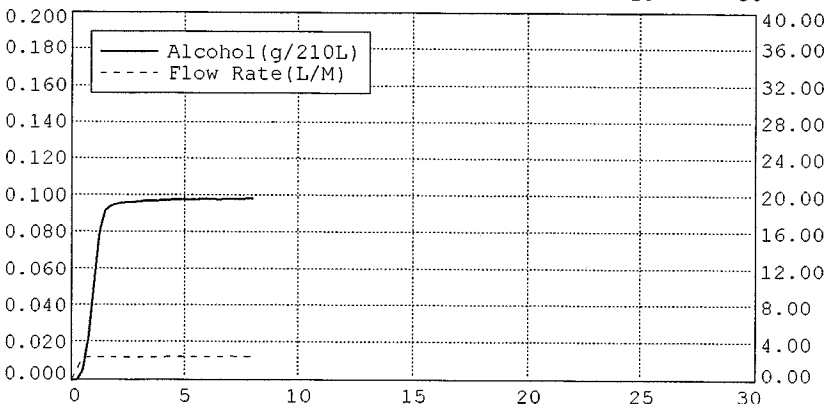
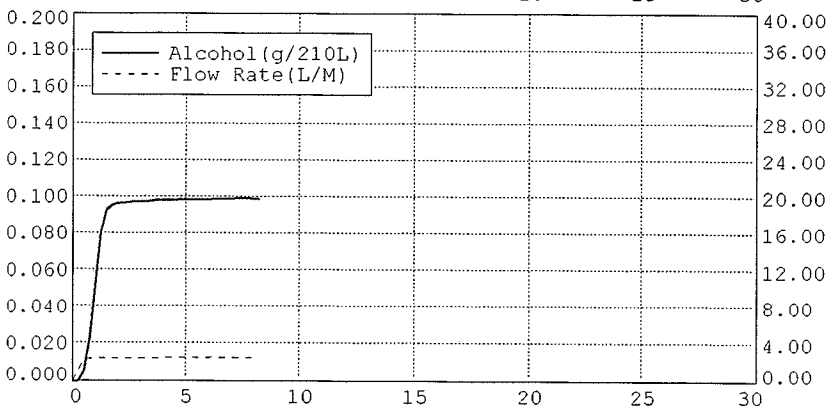
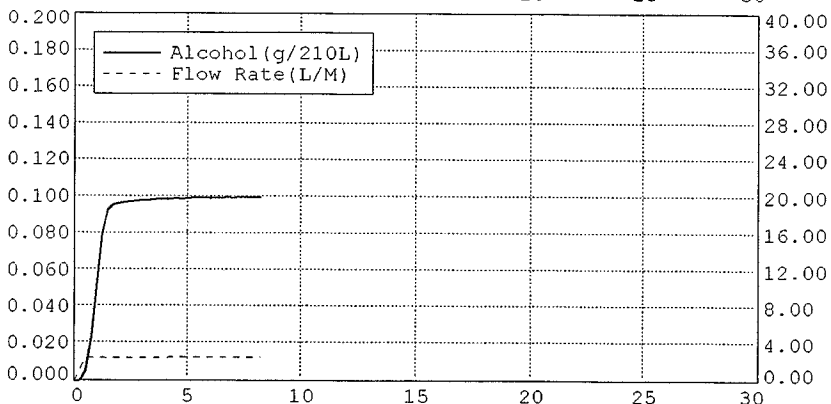
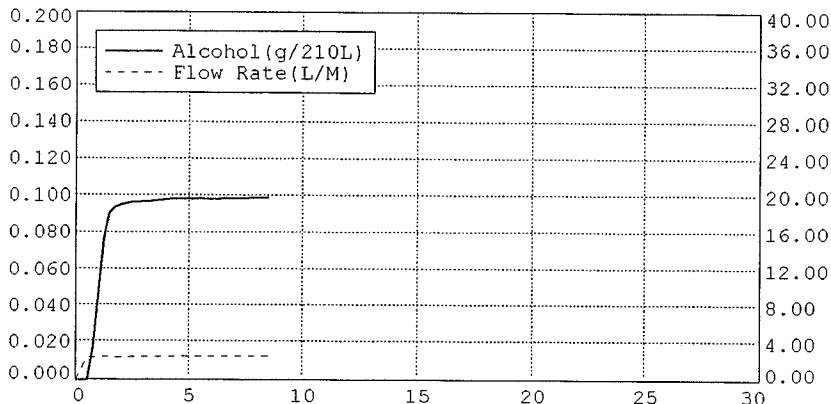
Date: 06/25/2019  
 Time: 10:15:32

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.85: 0.100  
 LOT #: AG805903  
 EXPIRATION: 02/28/2020  
 TANK PRESSURE: 493 psi

BLANK TEST	0.000	10:16
INTERNAL STANDARD	VERIFIED	10:16
EXTERNAL STANDARD	0.100	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.100	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.100	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.099	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.100	10:22
BLANK TEST	0.000	10:23

Average = 0.0998  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

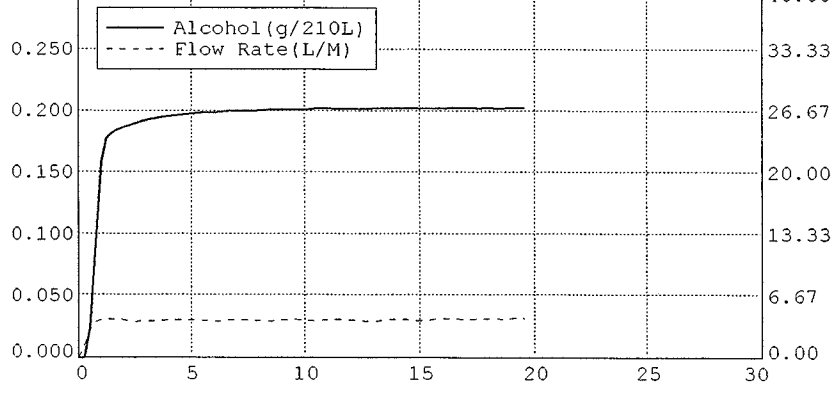
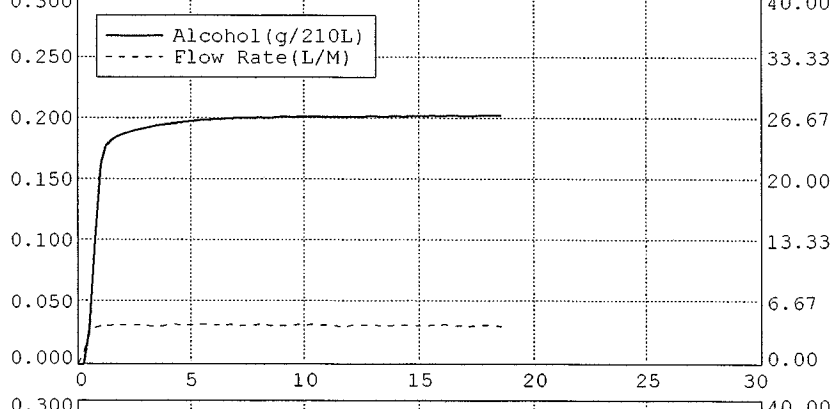
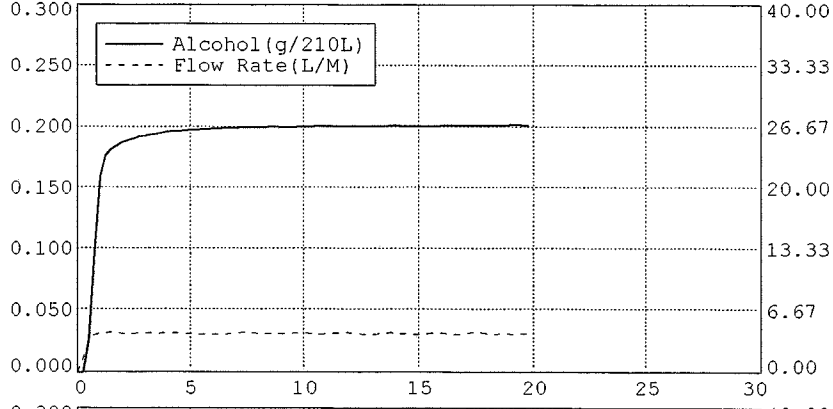
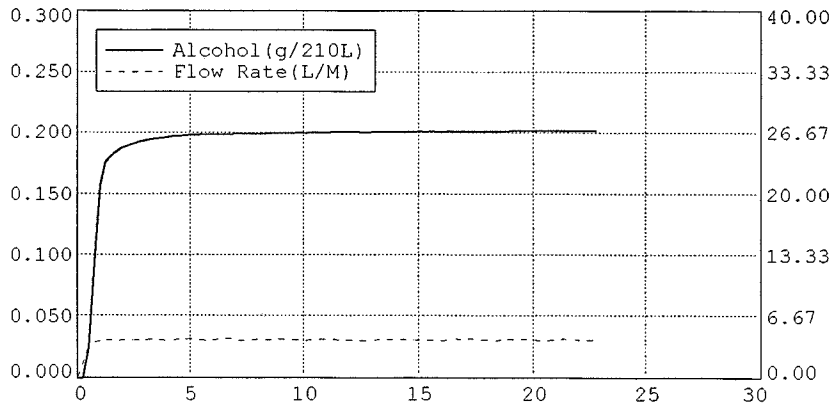
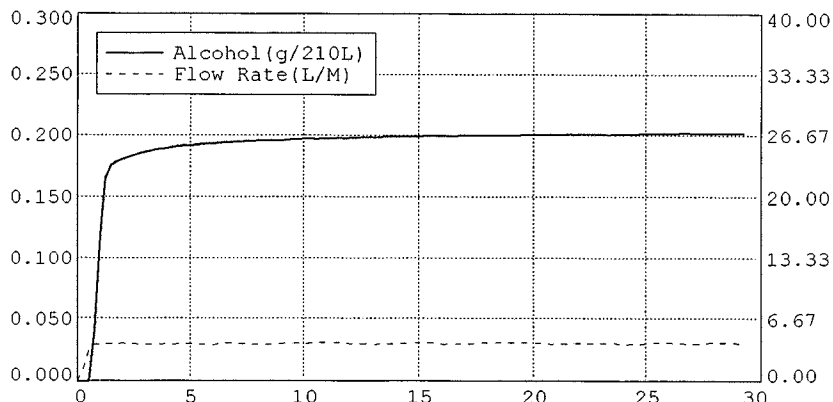
Alaska Department of Public Safety  
 DATAMASTER dmt: 100415

Date: 06/25/2019  
 Time: 11:28:11

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: 17340  
 EXPIRATION: 10/09/2019

BLANK TEST	0.000	11:29
INTERNAL STANDARD	VERIFIED	11:29
EXTERNAL STANDARD	0.203	11:30
BLANK TEST	0.000	11:31
EXTERNAL STANDARD	0.203	11:31
BLANK TEST	0.000	11:32
EXTERNAL STANDARD	0.202	11:32
BLANK TEST	0.000	11:33
EXTERNAL STANDARD	0.203	11:34
BLANK TEST	0.000	11:35
EXTERNAL STANDARD	0.203	11:35
BLANK TEST	0.000	11:36

Average = 0.2028  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

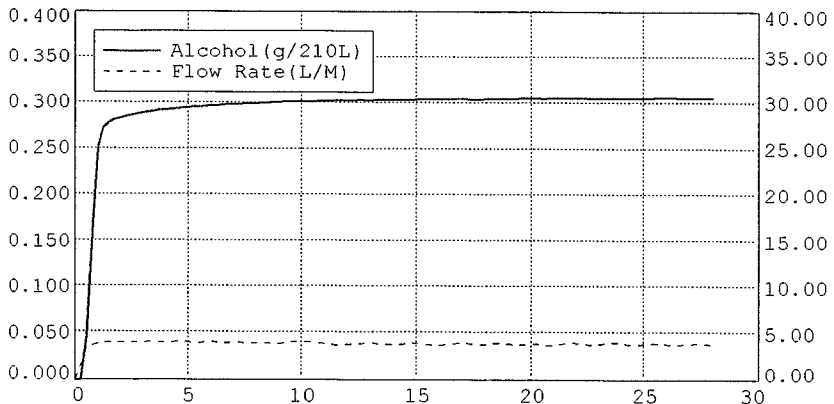
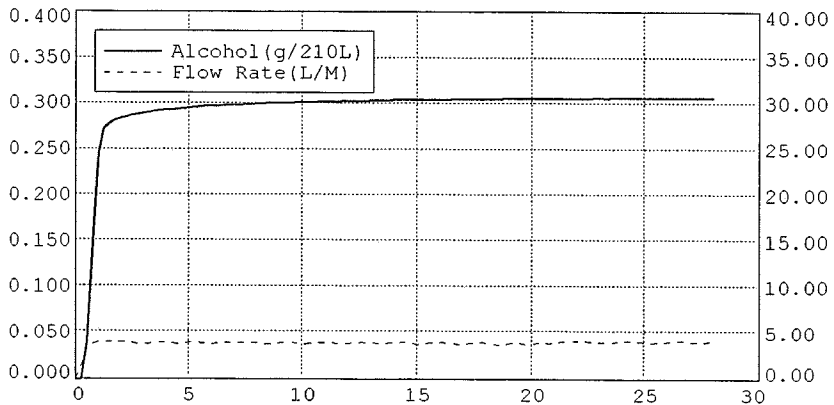
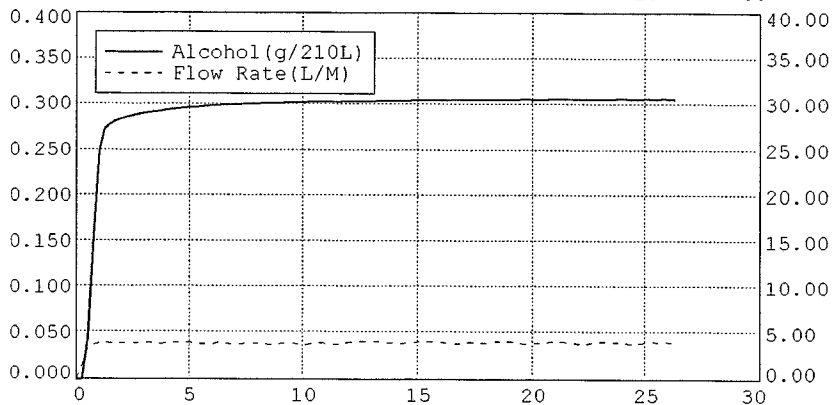
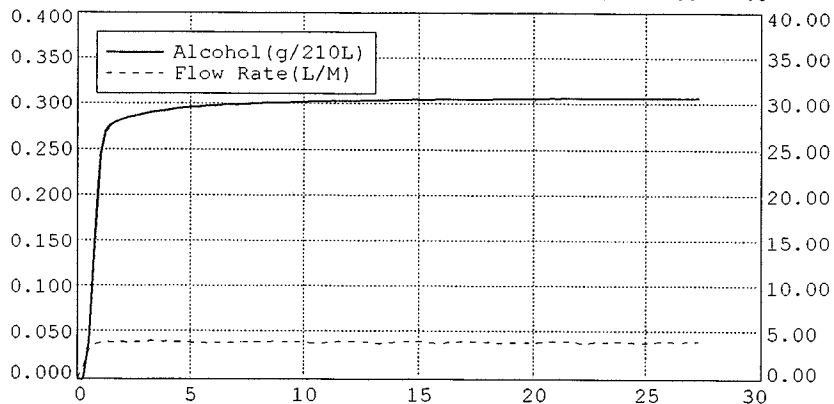
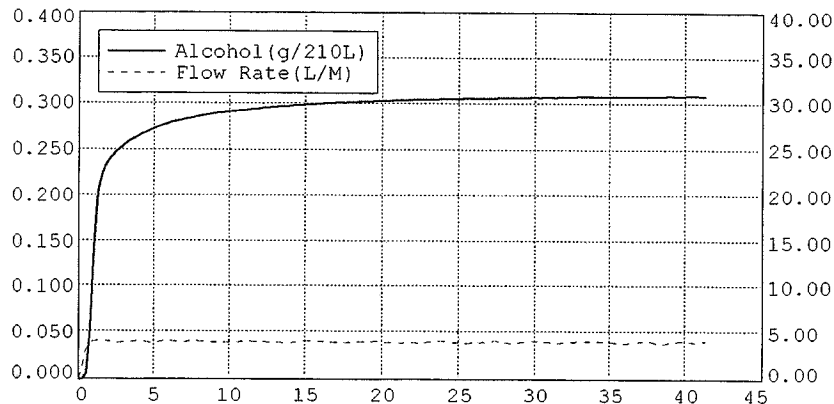
Alaska Department of Public Safety  
 DATAMASTER dmt: 100415

Date: 06/25/2019  
 Time: 11:40:44

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 19010  
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	11:41
INTERNAL STANDARD	VERIFIED	11:42
EXTERNAL STANDARD	0.309	11:42
BLANK TEST	0.000	11:43
EXTERNAL STANDARD	0.307	11:44
BLANK TEST	0.000	11:45
EXTERNAL STANDARD	0.307	11:45
BLANK TEST	0.000	11:46
EXTERNAL STANDARD	0.306	11:47
BLANK TEST	0.000	11:48
EXTERNAL STANDARD	0.306	11:48
BLANK TEST	0.000	11:49

Average = 0.3070  
 Std Dev = 0.0012



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100415  
-----

Date: 06/25/2019  
Time: 12:56:57

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

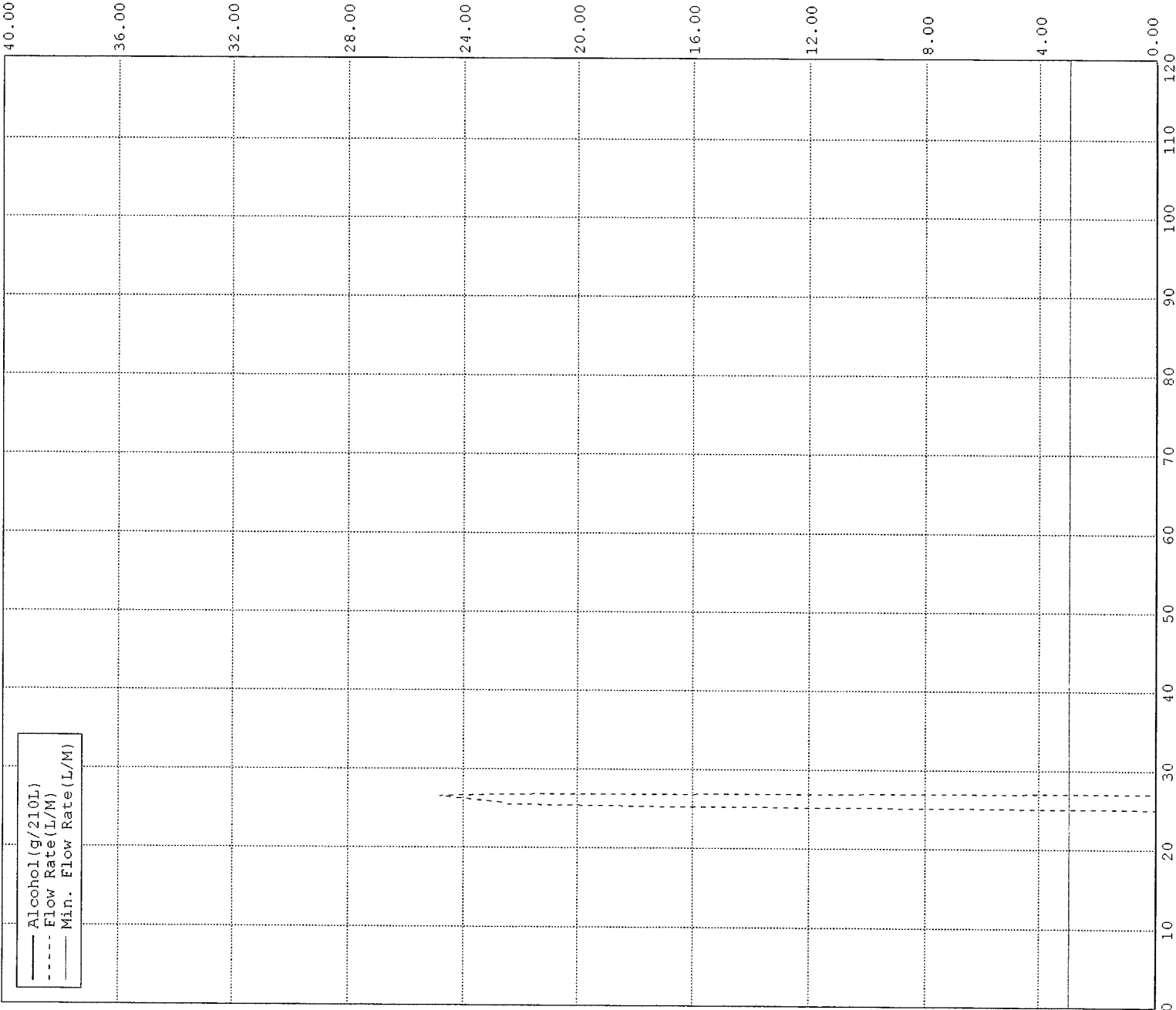
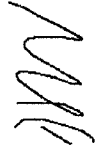
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.85: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 12:57  
BLANK TEST 0.000 12:58  
INTERNAL STANDARD VERIFIED 12:58  
EXTERNAL STANDARD 0.079 12:58  
BLANK TEST 0.000 12:59  
SUBJECT SAMPLE INCOMPLETE 13:01



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100415  
-----

Date: 06/25/2019  
Time: 12:44:19

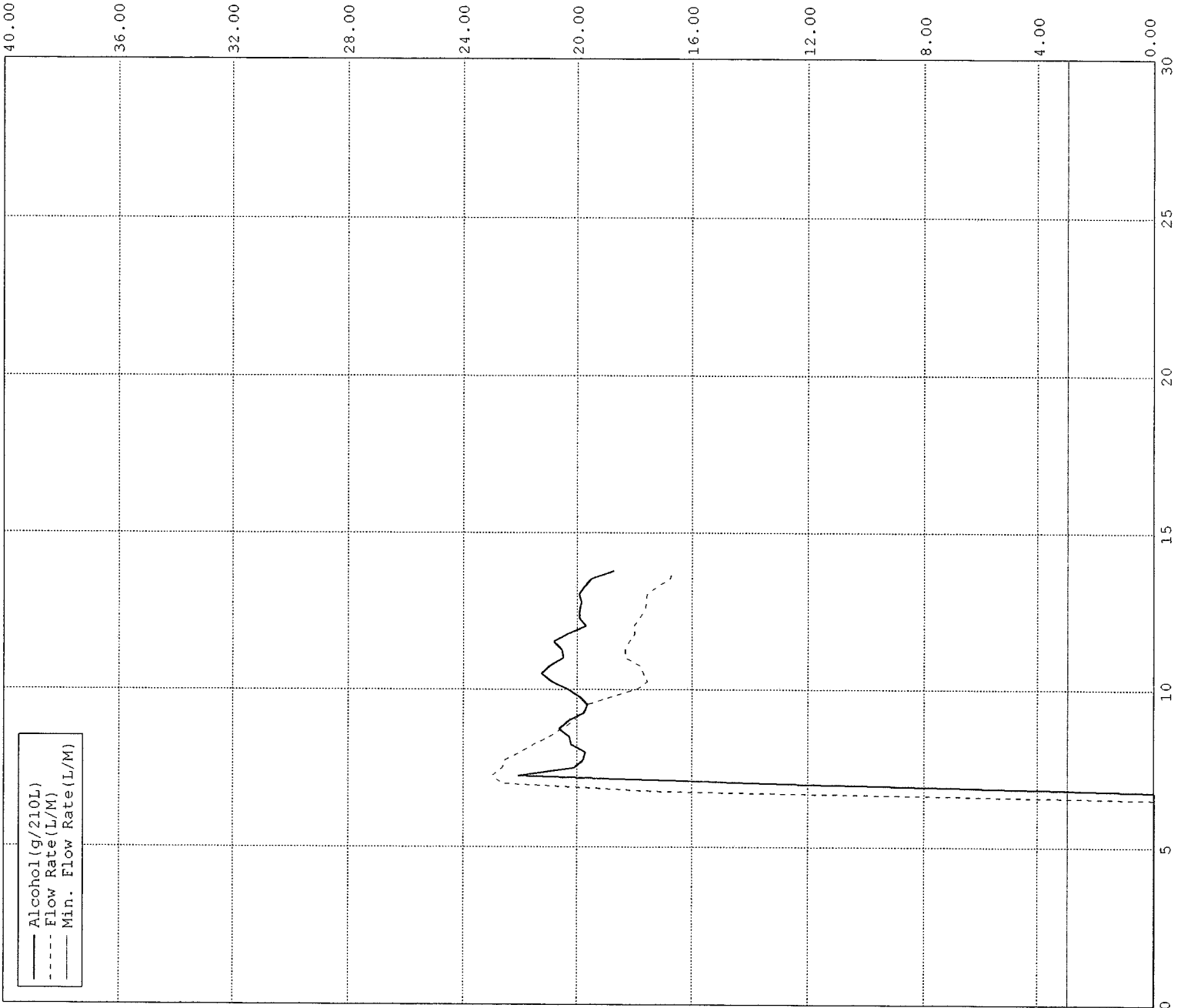
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

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

DIAGNOSTIC CHECK PASSED 12:45  
BLANK TEST 0.000 12:45  
INTERNAL STANDARD VERIFIED 12:45  
EXTERNAL STANDARD 0.080 12:45  
BLANK TEST 0.000 12:46  
SUBJECT SAMPLE INVALID 12:47



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100415  
-----

Date: 06/25/2019  
Time: 13:26:15

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	13:29
BLANK TEST	0.000	13:29
INTERNAL STANDARD	VERIFIED	13:29
Xq = 0.102 (0.09%)		
EXTERNAL STANDARD	0.080	13:30
X[1] = 0.0797 (0.0007) (0.0017)		
BLANK TEST	0.000	13:31
SUBJECT SAMPLE	XXX	13:31
X[1] = 0.1110 (-0.0149) (0.0008)		

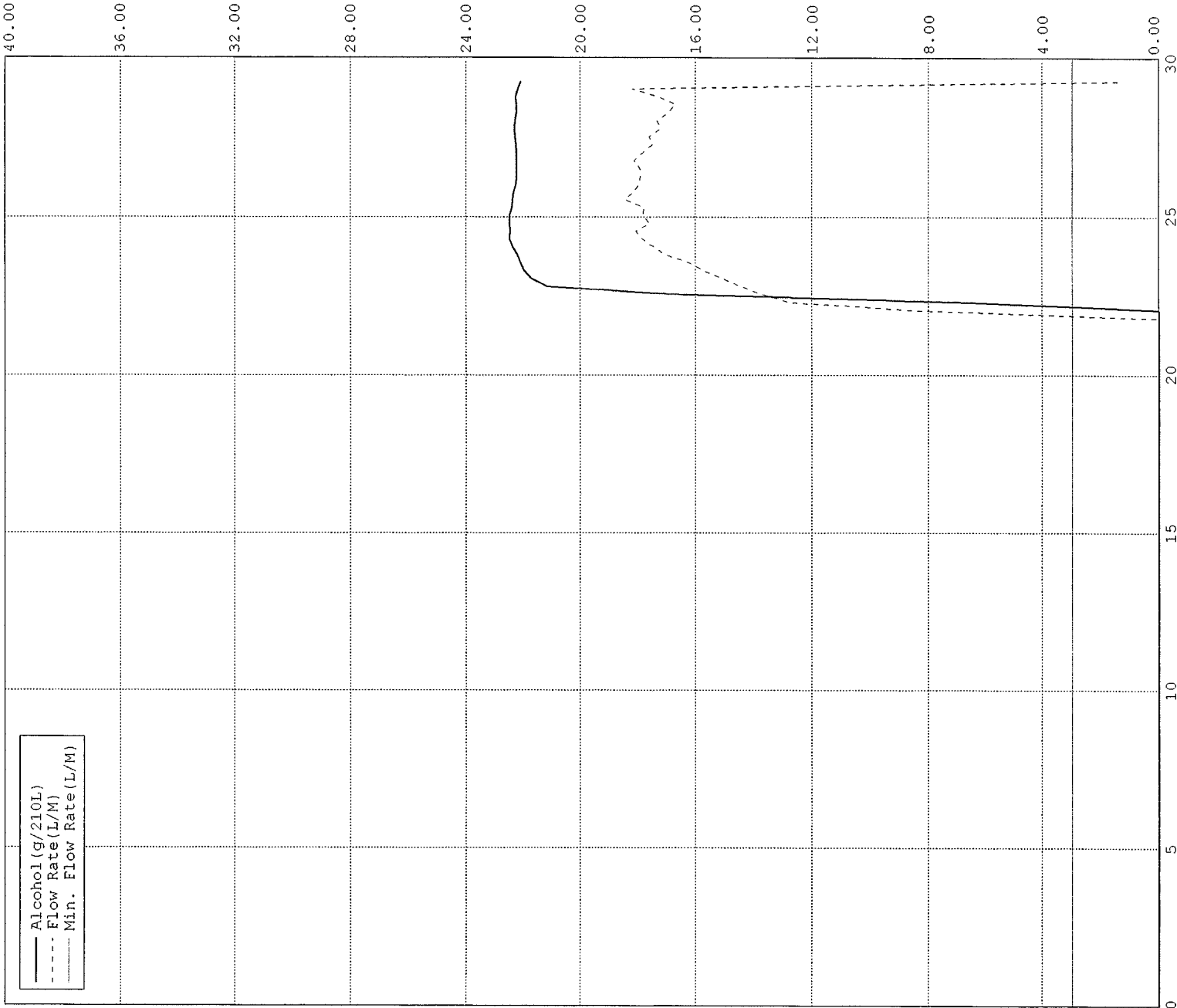
Interference Detected

*Filter 2 Avg: 0.0005*

*Filter 3 Avg: 0.0010*

*JM 06/25/19*

*DW*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100415

Date: 06/25/2019  
Time: 13:34:05

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

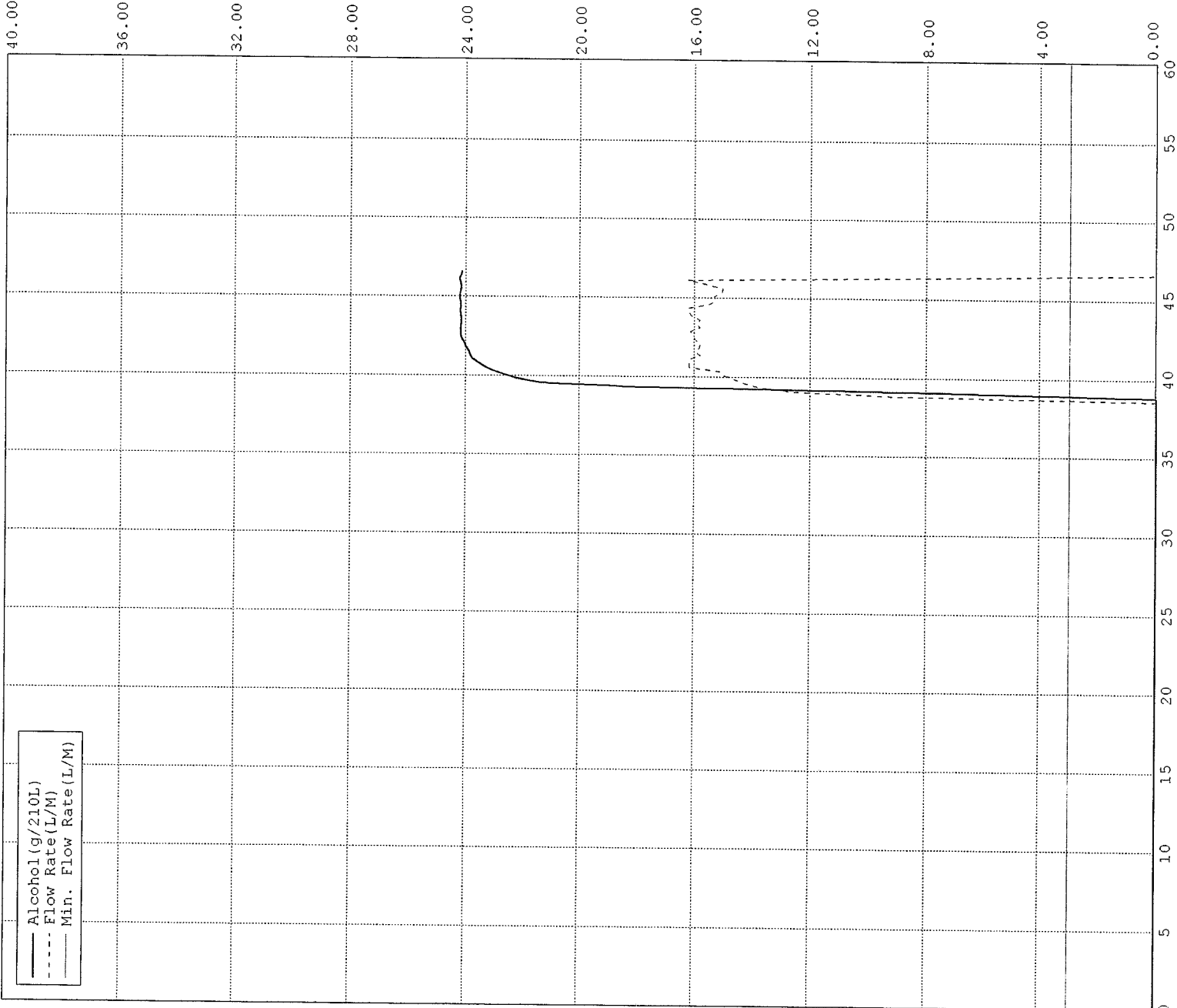
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

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

DIAGNOSTIC CHECK	PASSED	13:35
BLANK TEST	0.000	13:35
INTERNAL STANDARD	VERIFIED	13:35
Xq = 0.101 (0.17%)		
EXTERNAL STANDARD	0.080	13:35
X[1] = 0.0796 (0.0001) (0.0005)		
BLANK TEST	0.000	13:36
SUBJECT SAMPLE	XXX	13:37
X[1] = 0.1210 (-0.0295) (0.0005)		

Interference Detected

*DM*





SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100415  
-----

Date: 06/25/2019  
Time: 13:41:13

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

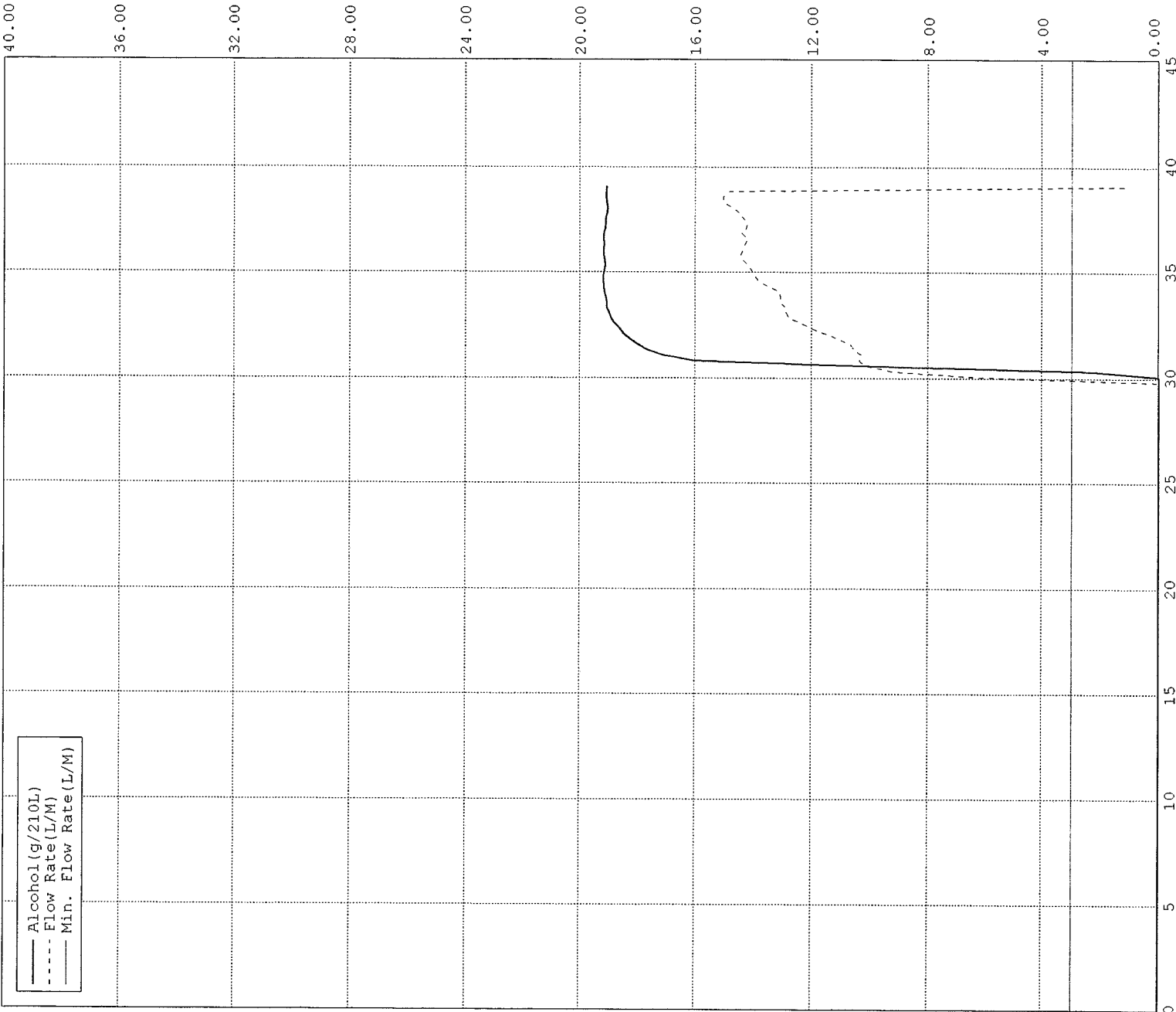
DEPT/AGENCY:  
INTERFERENCE NEGATIVE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK	PASSED	13:42
BLANK TEST	0.000	13:42
INTERNAL STANDARD	VERIFIED	13:42
Xq = 0.101 (0.09%)		
EXTERNAL STANDARD	0.080	13:42
X[1] = 0.0796 (0.0004) (0.0010)		
BLANK TEST	0.000	13:43
SUBJECT SAMPLE (Vol=1.94L)	0.095	13:44
X[1] = 0.0957 (0.0005) (0.0001)		
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.079	13:45
X[1] = 0.0792 (0.0008) (0.0008)		
BLANK TEST	0.000	13:46

*DWR*



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100415  
-----

Date: 06/25/2019  
Time: 13:49:23

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

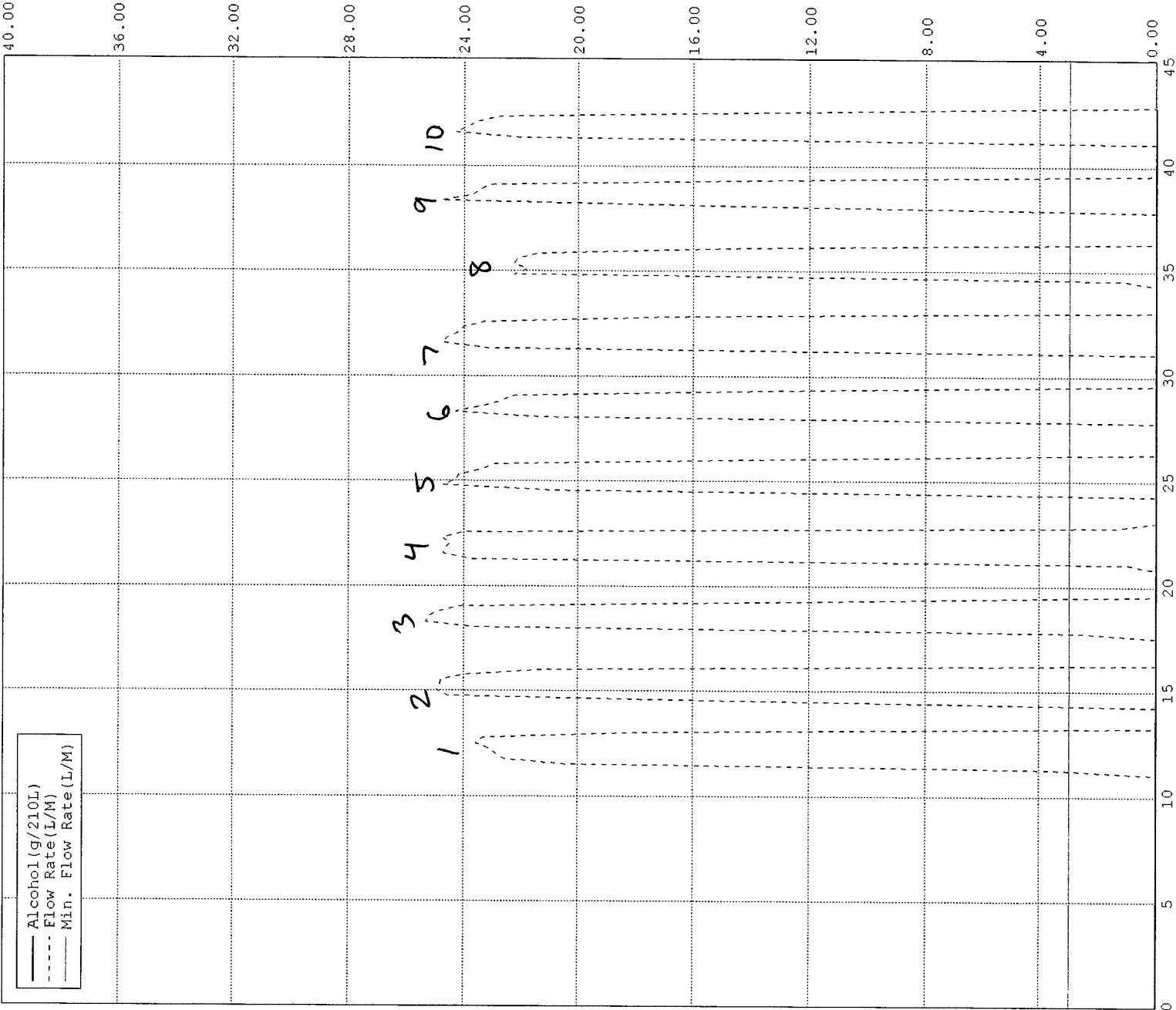
EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK PASSED 13:51  
BLANK TEST 0.000 13:51  
INTERNAL STANDARD VERIFIED 13:51  
EXTERNAL STANDARD 0.080 13:51  
BLANK TEST 0.000 13:52  
SUBJECT SAMPLE XXX 13:53

Maximum Attempts Exceeded

*DM*



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100415  
-----

Date: 06/25/2019  
Time: 12:49:50

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 29.83: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 12:53  
BLANK TEST 0.000 12:53  
INTERNAL STANDARD VERIFIED 12:53  
EXTERNAL STANDARD 0.080 12:53  
BLANK TEST 0.000 12:54

RFI DETECTED

*DM*

Alcohol (g/210L)	Flow Rate (L/M)	Min. Flow Rate (L/M)
40.00		
36.00		
32.00		
28.00		
24.00		
20.00		
16.00		
12.00		
8.00		
4.00		
0.00		

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100415

Date: 06/25/2019  
Time: 14:22:09

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 14:24  
BLANK TEST 0.000 14:24  
INTERNAL STANDARD VERIFIED 14:24  
EXTERNAL STANDARD 0.079 14:24  
BLANK TEST 0.000 14:25  
SUBJECT SAMPLE (Vol=2.93L) 0.000 14:25  
BLANK TEST 0.000 14:26  
EXTERNAL STANDARD 0.080 14:26  
BLANK TEST 0.000 14:27

