

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 100422 Analyst Derek Walton Start Date 10/14/19

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 1.6 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 Guth Lot 19040 Exp 01/29/21
 - 1. Simulator S/N SD1177 Date Calibrated 03/05/19
- vi. 0.300g/210L Mnf Guth 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 Guth Lot 18370 Level 0.100 Exp 12/05/20
 - 1. Simulator S/N SD1199 Date Calibrated 03/06/19
- ii. Isopropanol - Mnf Guth Lot 18370 Level 0.100 Exp 12/05/20
 - 1. Simulator S/N DR4161 Date Calibrated 03/07/19
- iii. Negative Control - Mnf Guth 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 10/14/19

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 10:02:33

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

TEMPERATURES

Sample Chamber = 49.0°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 42.5°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.80 V PASSED
(1.09 V - 2.53 V)
Cooler Voltage = 1.73 V PASSED
(1.02 V - 2.38 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 543 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.6 in

PUMP INFO

Flow Rate = 4.798 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

Xq = 0.108 0.25% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 10:23 AM

Temperatures (°C)
Sample Cell: 49.0°C
Breath Tube: 42.7°C

Current Barometer 29.6 in
Volume (ltr) 1.55

Settings
Lamp: 1.75 V
Bias: 80 V
Cooler: 1.78 V
Chopper: 517 Hz

Voltages (V)
Flow: 1.06 V
Detector: 0.035 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/04/2019
Time: 09:33:43

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca = 0.1000
CAL = 1.004874 0.800 <= CAL < 1.200
b1 = 0.0017 0.0000 <= b1 < 0.0040
b2 = 0.0063 0.0010 <= b2 < 0.0100
b3 = 0.0007 0.0000 <= b3 < 0.0040
Xq = 0.1076 0.0500 <= Xq < 0.2000
a21 = 1.227246 1.050 <= a21 < 1.300
a31 = 0.426886 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 10:27:36

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

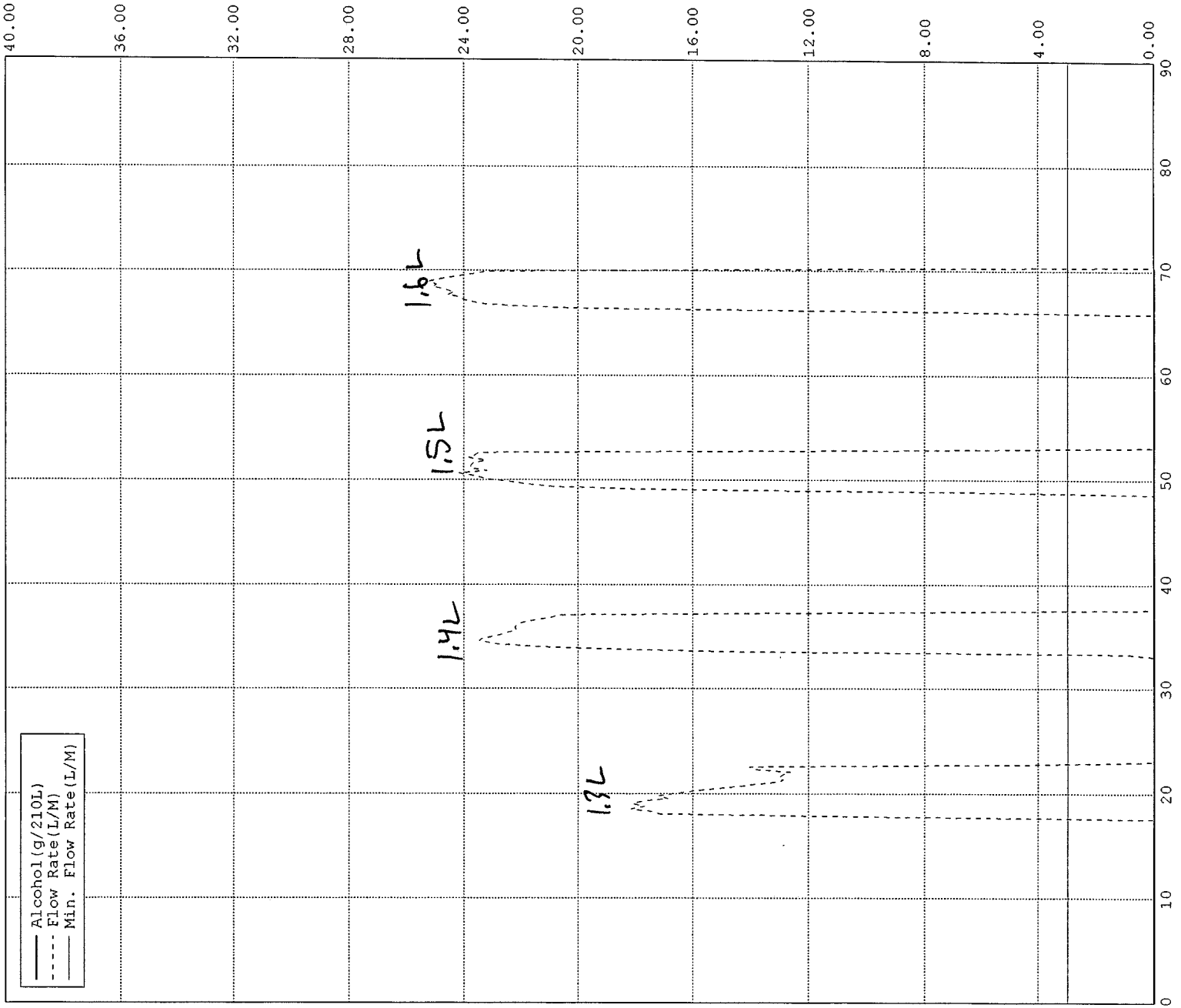
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.60: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	10:32
BLANK TEST	0.000	10:32
INTERNAL STANDARD	VERIFIED	10:33
EXTERNAL STANDARD	0.079	10:33
BLANK TEST	0.000	10:34
SUBJECT SAMPLE (Vol=1.59L)	0.000	10:35
BLANK TEST	0.000	10:36
EXTERNAL STANDARD	0.079	10:36
BLANK TEST	0.000	10:37

JM



LINEARITY CHECK

 Alaska Department of Public Safety
 DATAMASTER dmt: 100422

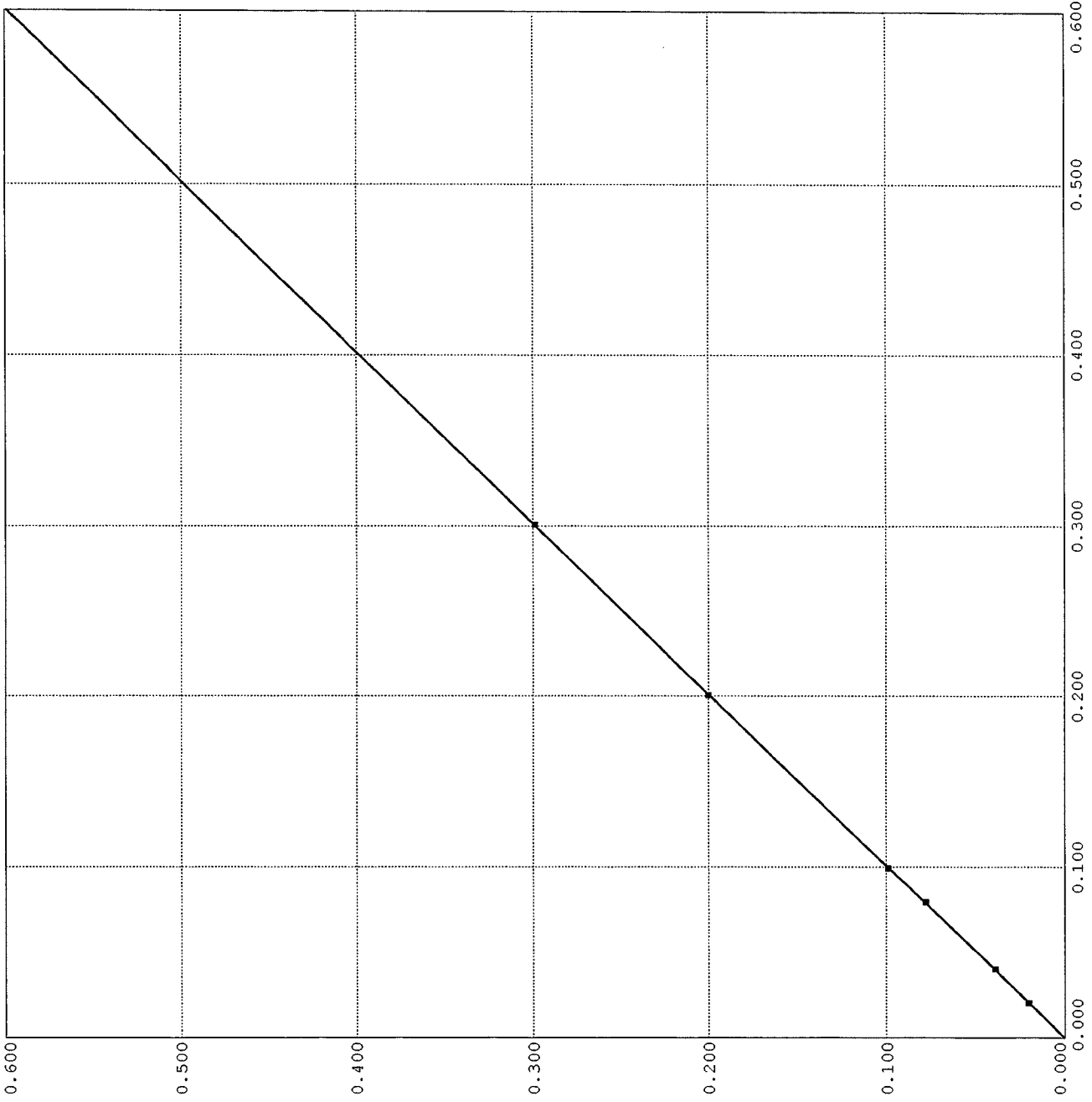
Date: 10/14/2019
 Time: 10:48:01

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0000
0.040	0.0400	0.0000
0.079	0.0788	0.0004
0.099	0.0998	0.0004
0.200	0.2008	0.0008
0.300	0.2994	0.0011

SLOPE = 0.997241
 R² = 0.999970

DM



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100422

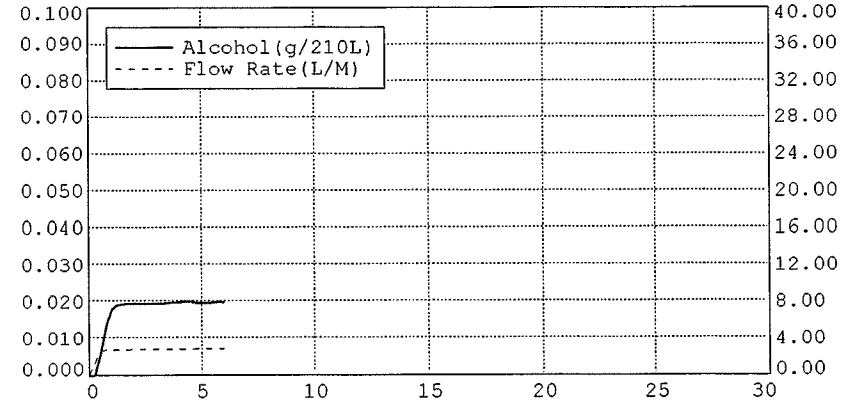
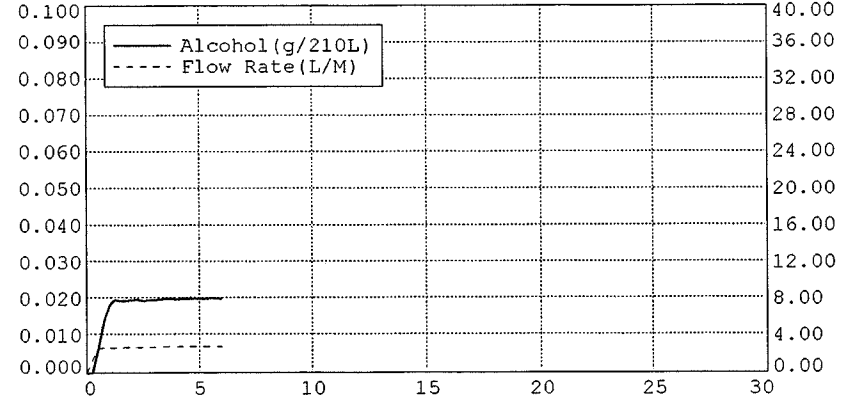
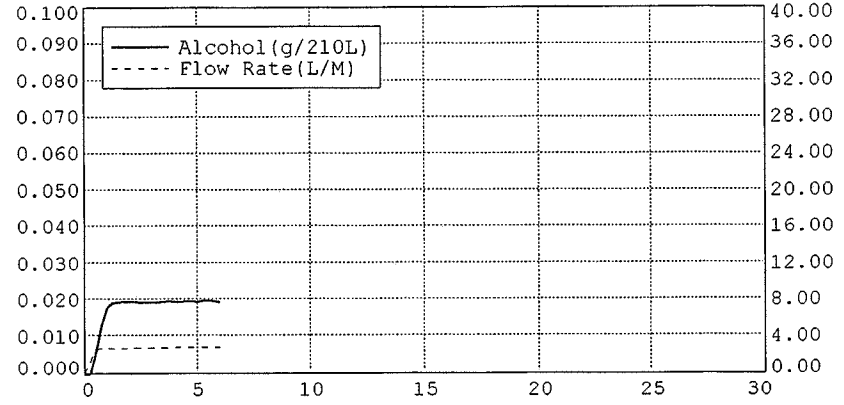
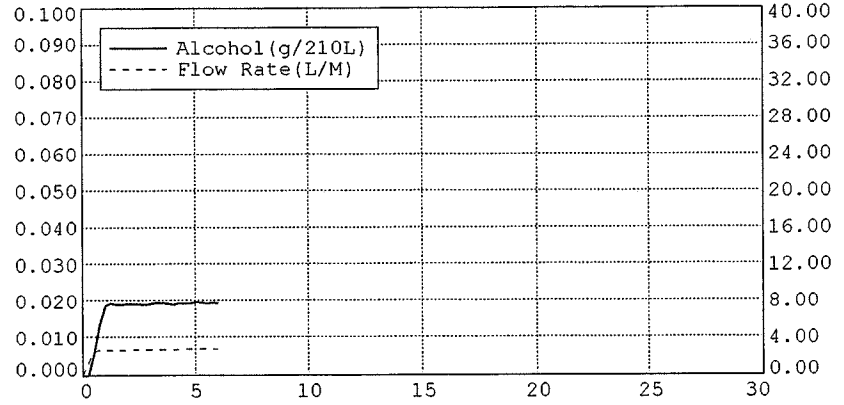
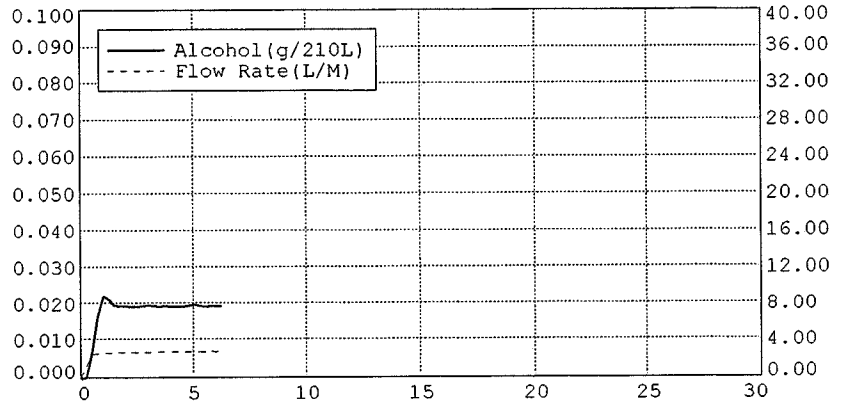
Date: 10/14/2019
Time: 10:48:03

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.59: 0.020
LOT #: AG805804
EXPIRATION: 02/27/2020
TANK PRESSURE: 436 psi

BLANK TEST	0.000	10:49
INTERNAL STANDARD	VERIFIED	10:49
EXTERNAL STANDARD	0.021	10:49
BLANK TEST	0.000	10:50
EXTERNAL STANDARD	0.021	10:50
BLANK TEST	0.000	10:51
EXTERNAL STANDARD	0.021	10:51
BLANK TEST	0.000	10:52
EXTERNAL STANDARD	0.021	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.021	10:54
BLANK TEST	0.000	10:54

Average = 0.0210
Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

 Alaska Department of Public Safety
 DATAMASTER dmt: 100422

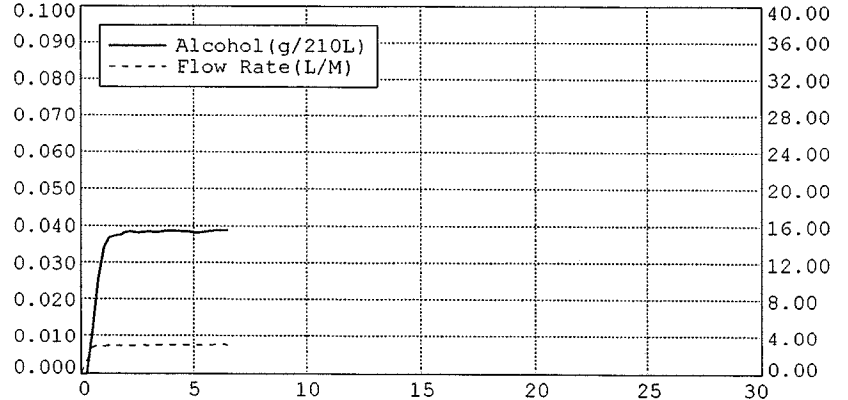
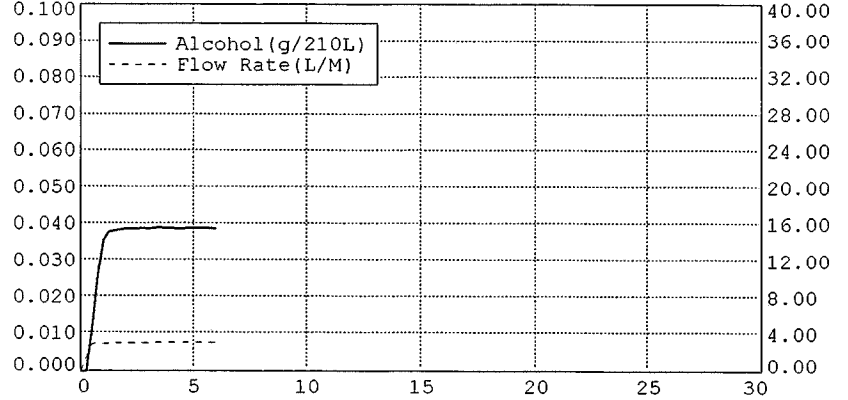
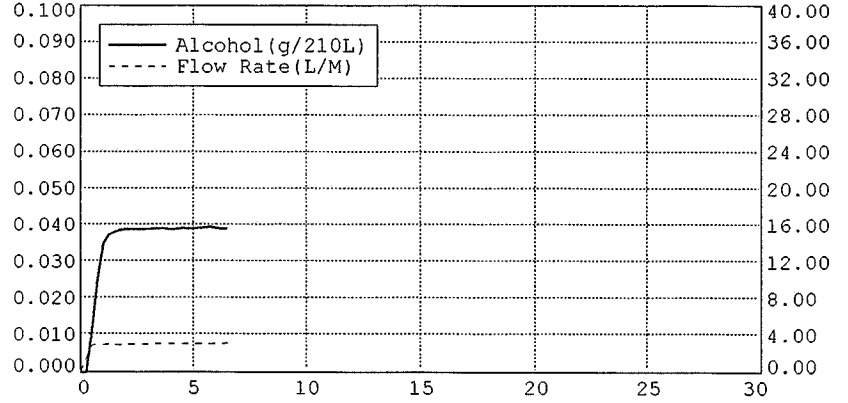
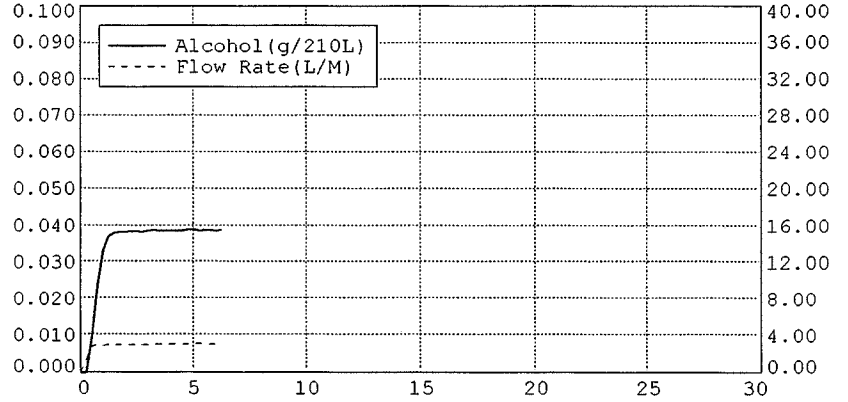
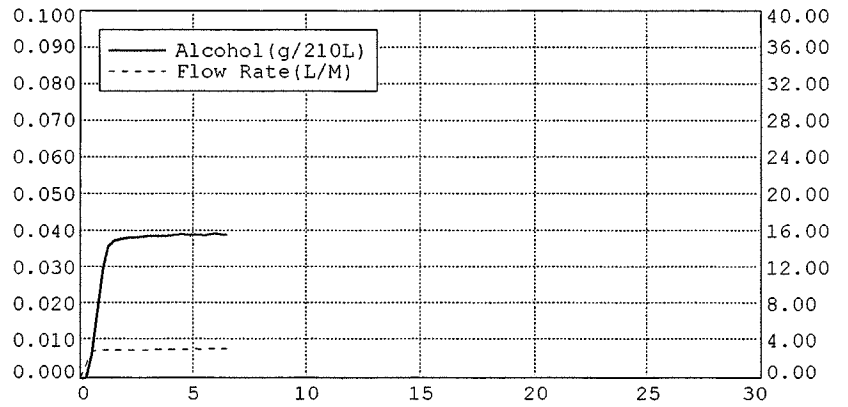
Date: 10/14/2019
 Time: 11:00:18

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.59: 0.040
 LOT #: AG733403
 EXPIRATION: 11/30/2019
 TANK PRESSURE: 972 psi

BLANK TEST	0.000	11:01
INTERNAL STANDARD	VERIFIED	11:01
EXTERNAL STANDARD	0.040	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.040	11:02
BLANK TEST	0.000	11:03
EXTERNAL STANDARD	0.040	11:04
BLANK TEST	0.000	11:04
EXTERNAL STANDARD	0.040	11:05
BLANK TEST	0.000	11:06
EXTERNAL STANDARD	0.040	11:06
BLANK TEST	0.000	11:07

Average = 0.0400
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
DATAMASTER dmt: 100422

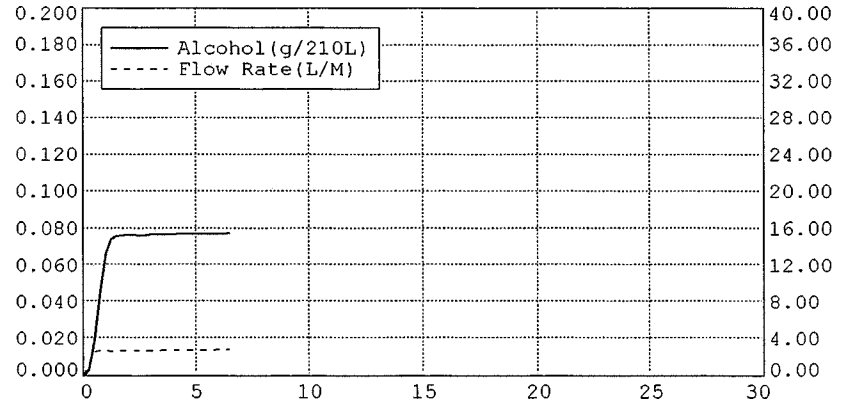
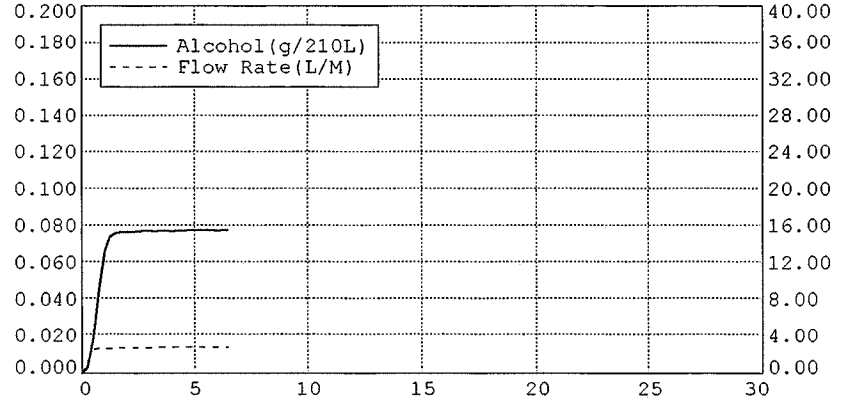
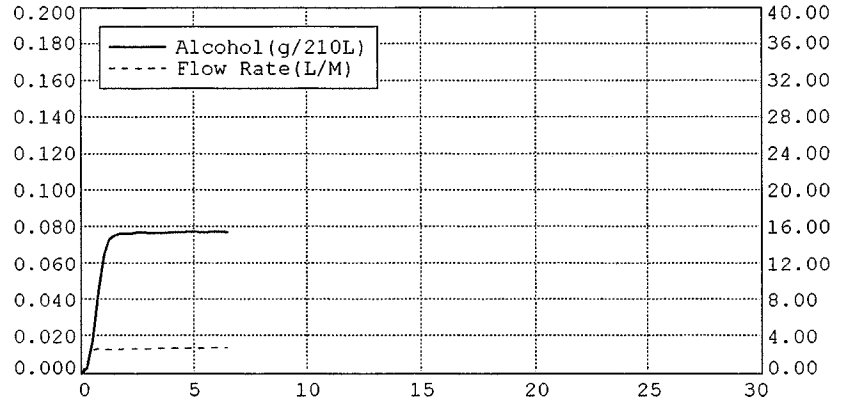
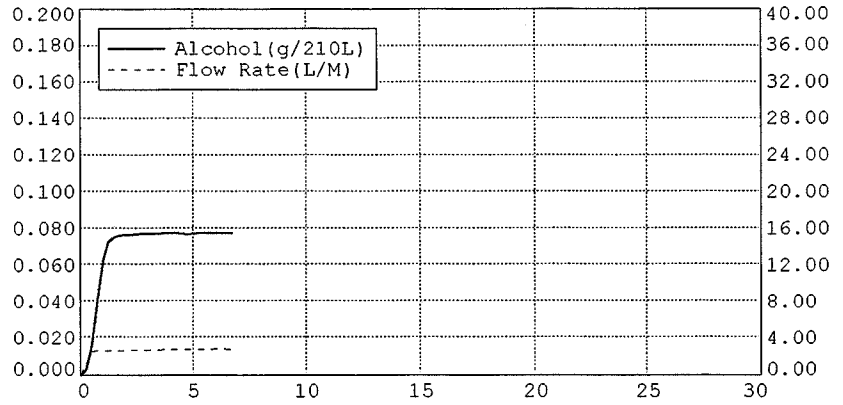
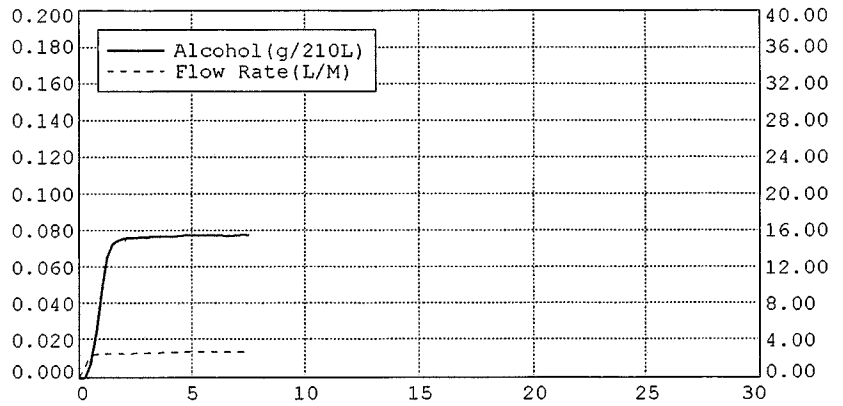
Date: 10/14/2019
Time: 11:08:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.60: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020
TANK PRESSURE: 364 psi

BLANK TEST	0.000	11:10
INTERNAL STANDARD	VERIFIED	11:10
EXTERNAL STANDARD	0.079	11:10
BLANK TEST	0.000	11:11
EXTERNAL STANDARD	0.079	11:11
BLANK TEST	0.000	11:12
EXTERNAL STANDARD	0.079	11:12
BLANK TEST	0.000	11:13
EXTERNAL STANDARD	0.079	11:13
BLANK TEST	0.000	11:14
EXTERNAL STANDARD	0.078	11:14
BLANK TEST	0.000	11:15

Average = 0.0788
Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100422

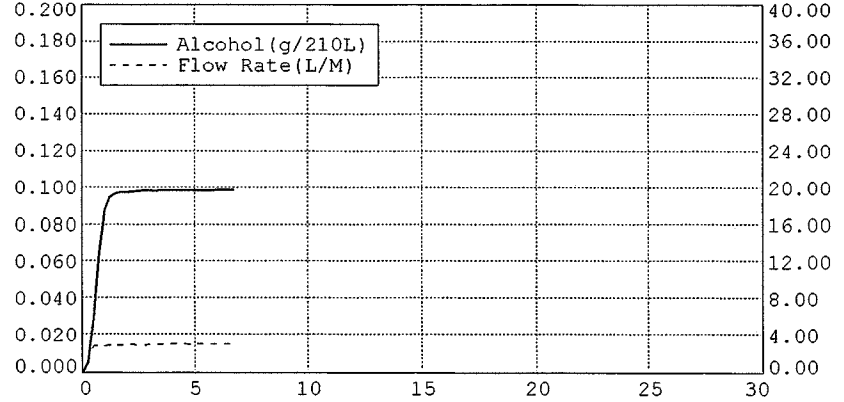
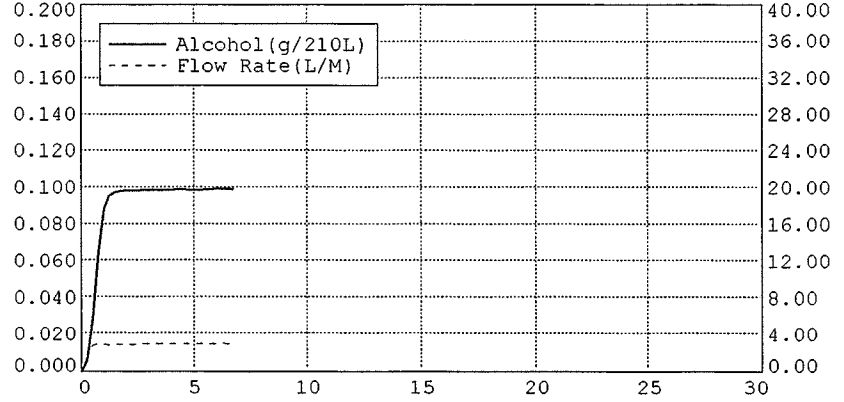
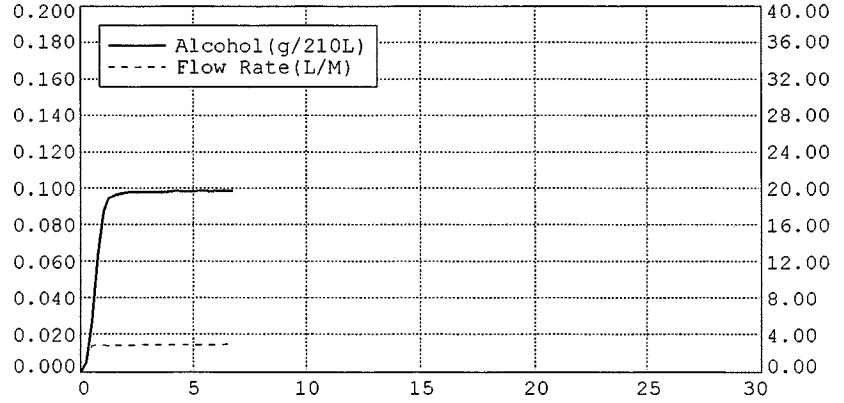
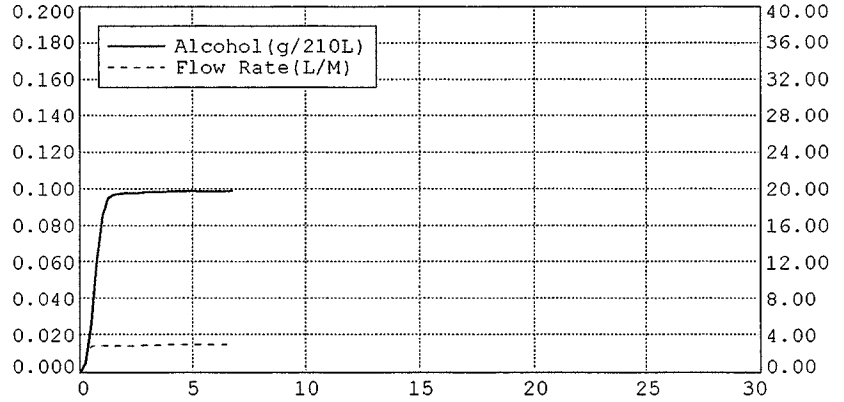
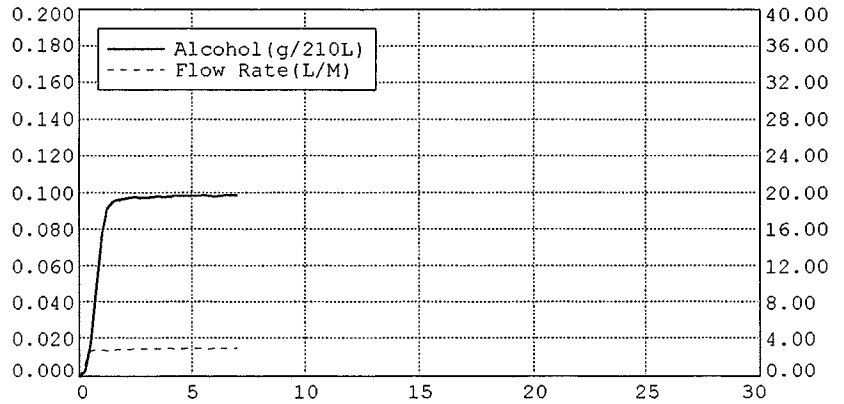
Date: 10/14/2019
 Time: 11:18:18

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.60: 0.099
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 866 psi

BLANK TEST	0.000	11:19
INTERNAL STANDARD	VERIFIED	11:19
EXTERNAL STANDARD	0.099	11:19
BLANK TEST	0.000	11:20
EXTERNAL STANDARD	0.100	11:21
BLANK TEST	0.000	11:21
EXTERNAL STANDARD	0.100	11:22
BLANK TEST	0.000	11:23
EXTERNAL STANDARD	0.100	11:23
BLANK TEST	0.000	11:24
EXTERNAL STANDARD	0.100	11:24
BLANK TEST	0.000	11:25

Average = 0.0998
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100422

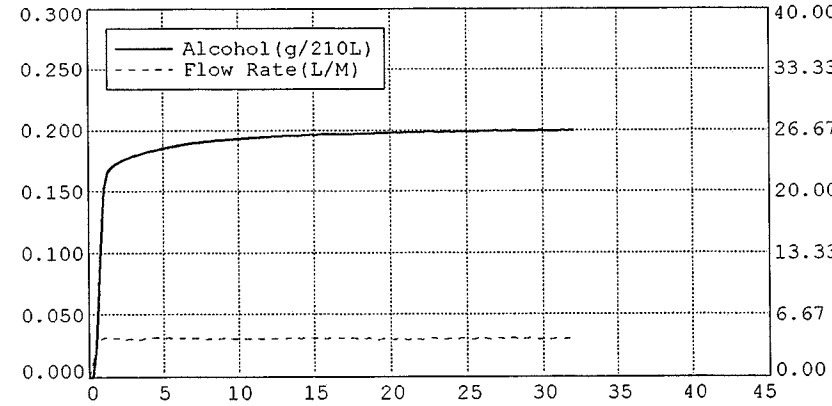
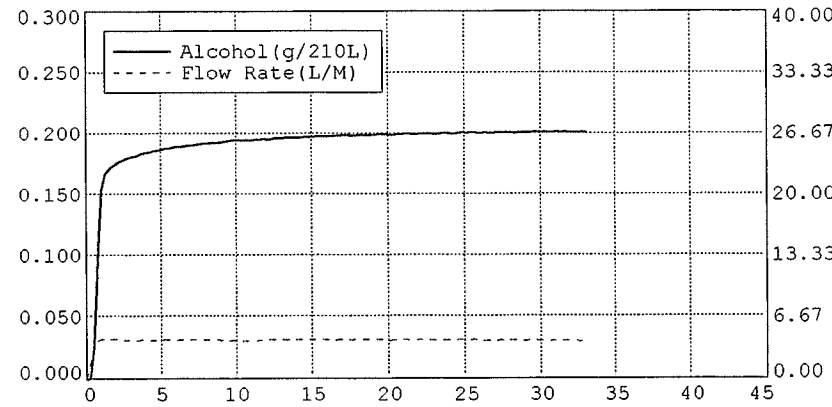
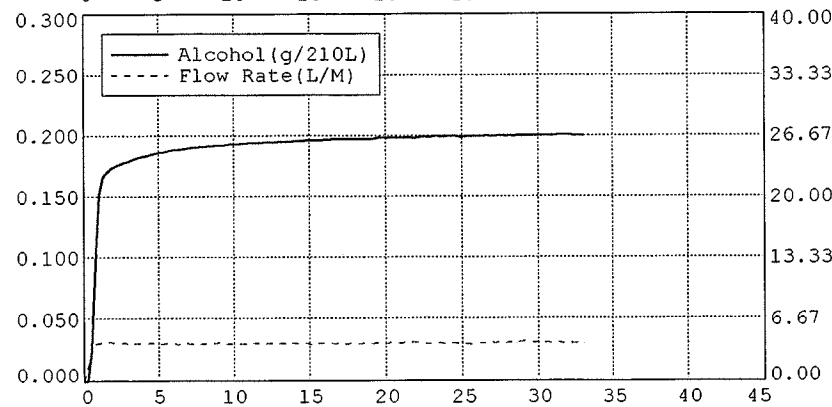
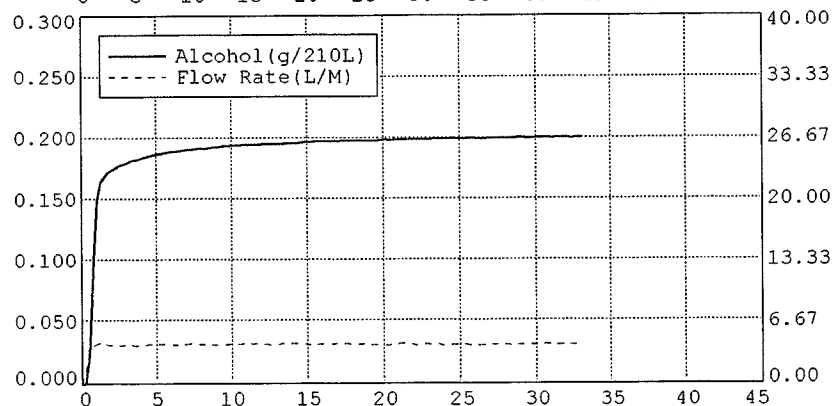
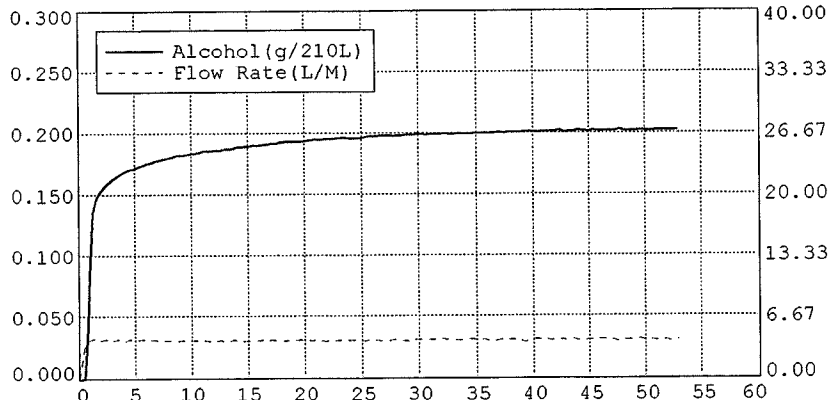
Date: 10/14/2019
 Time: 11:54:31

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	11:55
INTERNAL STANDARD	VERIFIED	11:55
EXTERNAL STANDARD	0.202	11:56
BLANK TEST	0.000	11:57
EXTERNAL STANDARD	0.200	11:58
BLANK TEST	0.000	11:59
EXTERNAL STANDARD	0.201	11:59
BLANK TEST	0.000	12:00
EXTERNAL STANDARD	0.201	12:01
BLANK TEST	0.000	12:02
EXTERNAL STANDARD	0.200	12:02
BLANK TEST	0.000	12:03

Average = 0.2008
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 6

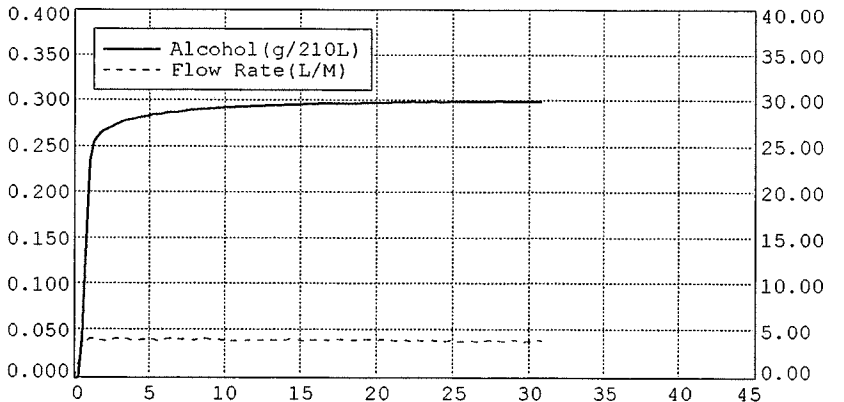
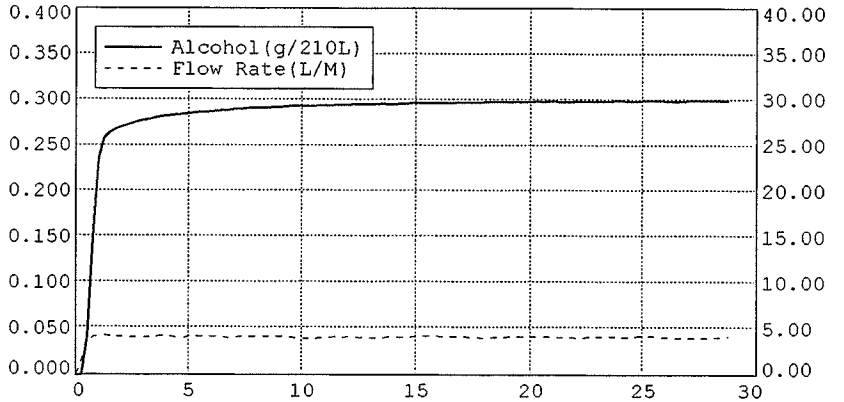
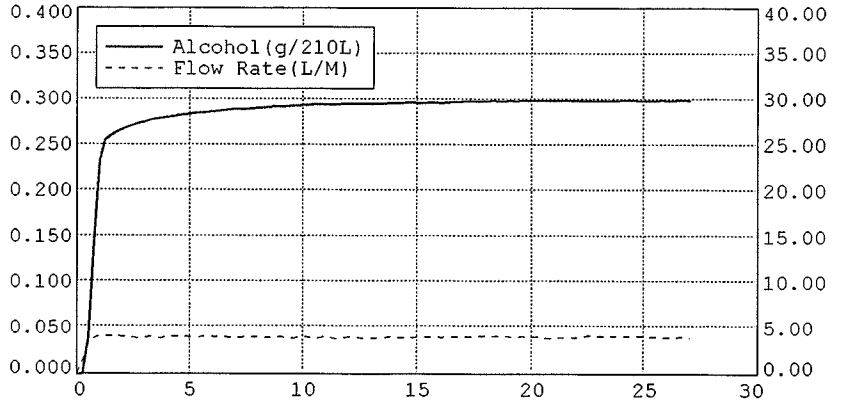
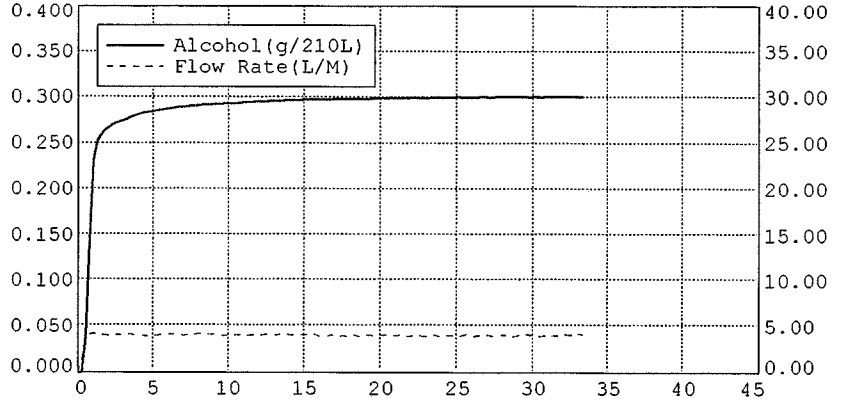
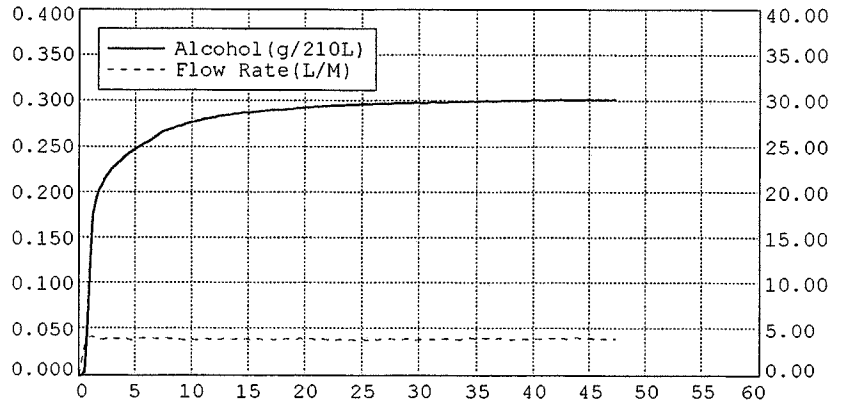
Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 12:10:04

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

BLANK TEST	0.000	12:11
INTERNAL STANDARD	VERIFIED	12:11
EXTERNAL STANDARD	0.301	12:12
BLANK TEST	0.000	12:13
EXTERNAL STANDARD	0.300	12:13
BLANK TEST	0.000	12:14
EXTERNAL STANDARD	0.298	12:15
BLANK TEST	0.000	12:16
EXTERNAL STANDARD	0.299	12:16
BLANK TEST	0.000	12:17
EXTERNAL STANDARD	0.299	12:18
BLANK TEST	0.000	12:19

Average = 0.2994
Std Dev = 0.0011



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 12:59:35

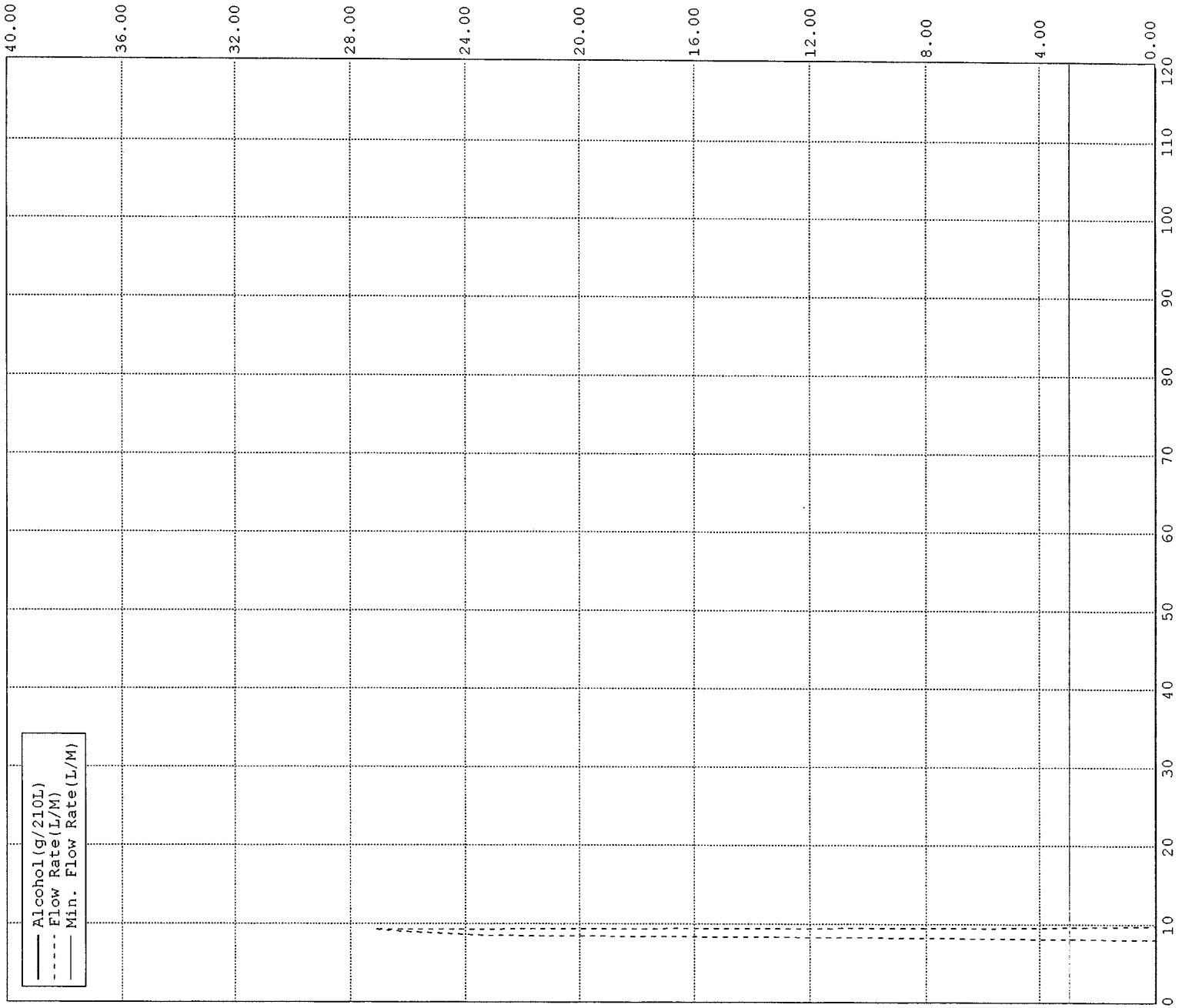
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.55: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:04
BLANK TEST 0.000 13:04
INTERNAL STANDARD VERIFIED 13:04
EXTERNAL STANDARD 0.079 13:04
BLANK TEST 0.000 13:05
SUBJECT SAMPLE INCOMPLETE 13:07



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 13:10:58

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

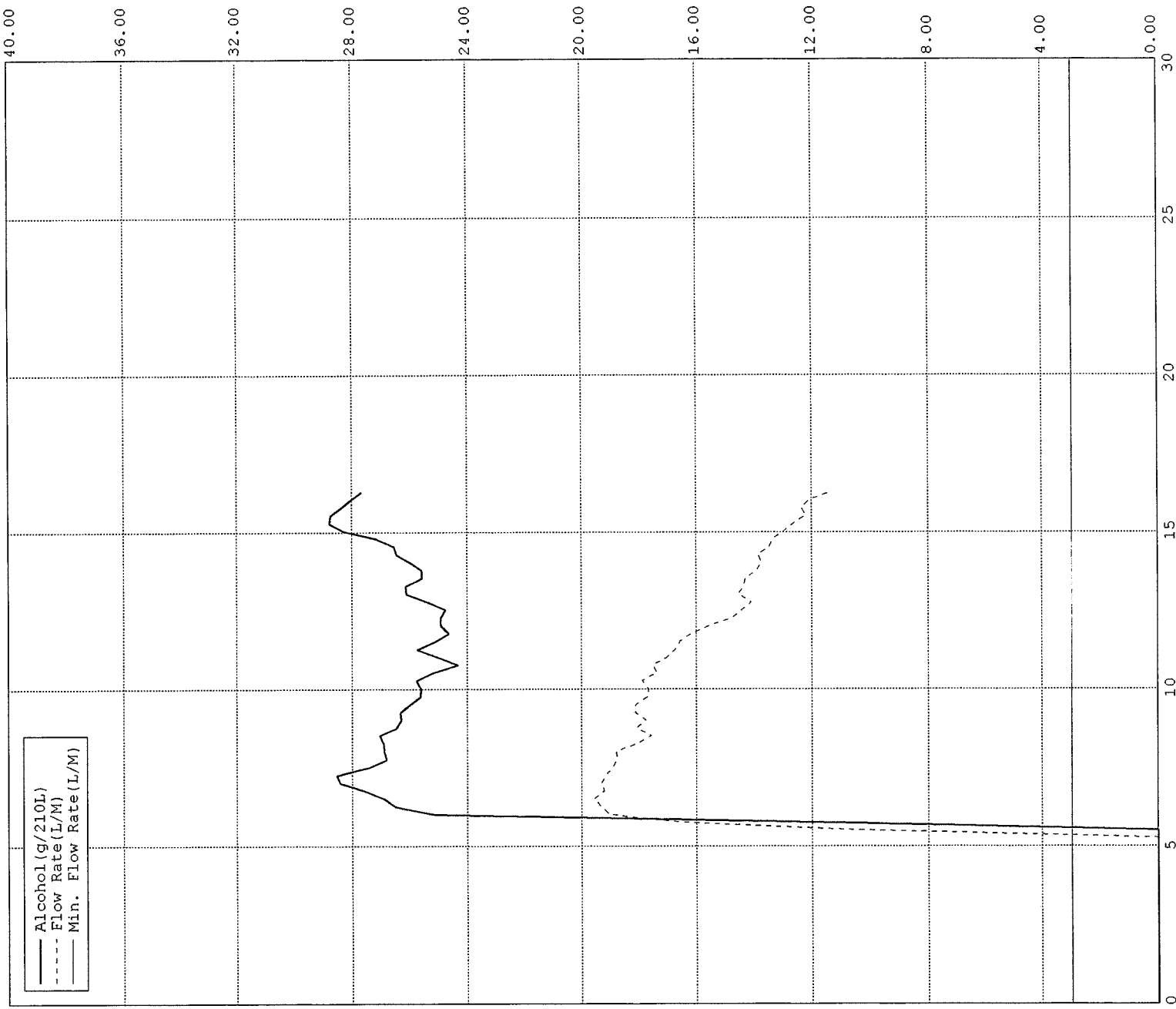
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.55: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK
BLANK TEST PASSED 13:16
INTERNAL STANDARD 0.000 13:16
EXTERNAL STANDARD VERIFIED 13:16
BLANK TEST 0.079 13:16
SUBJECT SAMPLE 0.000 13:17
INVALID 13:18

DMC



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 13:32:35

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 29.54: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:33
BLANK TEST 0.000 13:33
INTERNAL STANDARD VERIFIED 13:33
Xq = 0.107 (0.90%)
EXTERNAL STANDARD 0.078 13:34
X[1] = 0.0781 (-0.0004) (0.0023)
BLANK TEST 0.000 13:34
SUBJECT SAMPLE XXX 13:35
X[1] = 0.1065 (-0.0198) (0.0014)

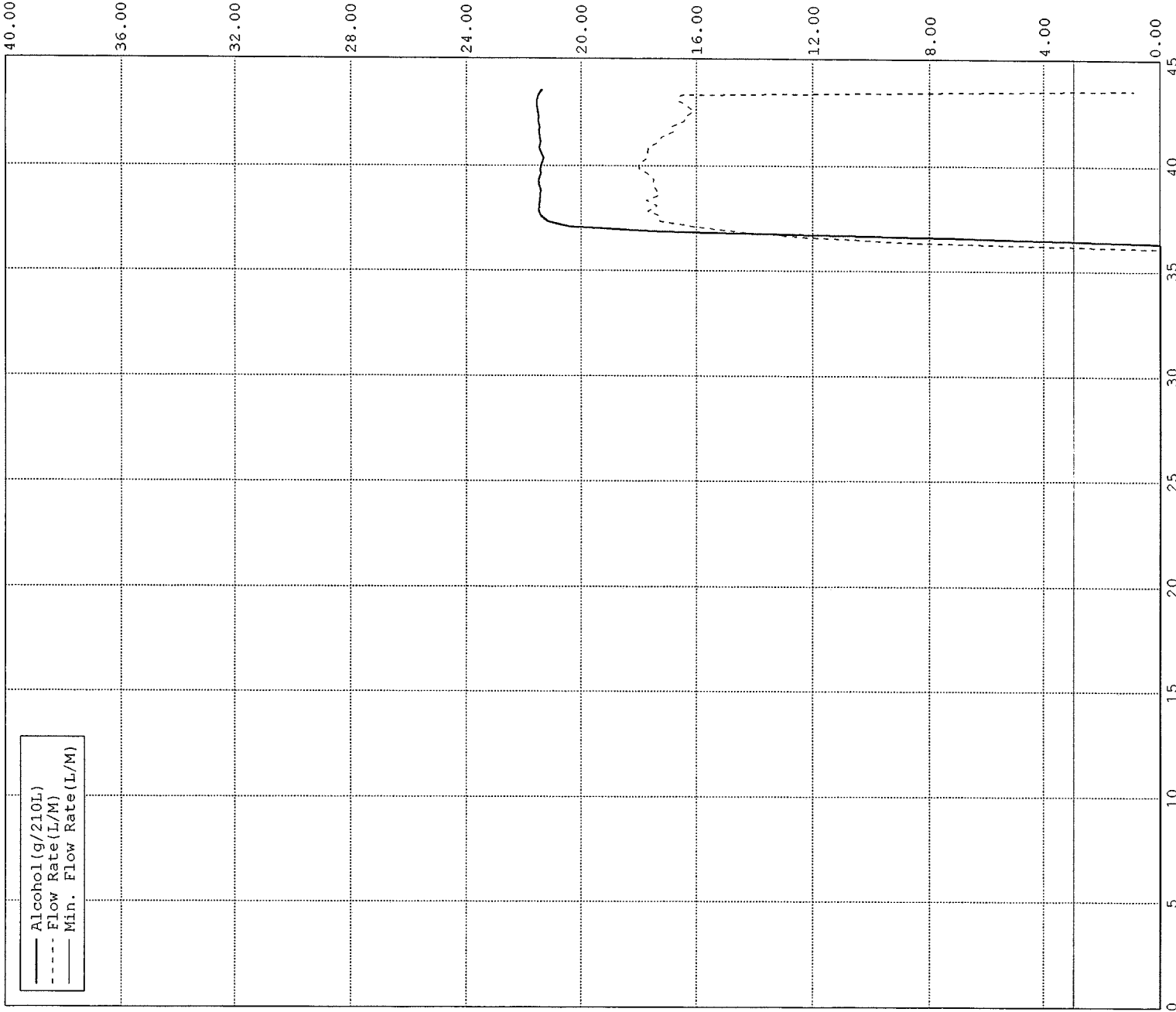
Interference Detected

Filter 2 Avg: 0.0002

Filter 3 Avg: 0.0022

DW 10/14/19

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 13:38:04

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

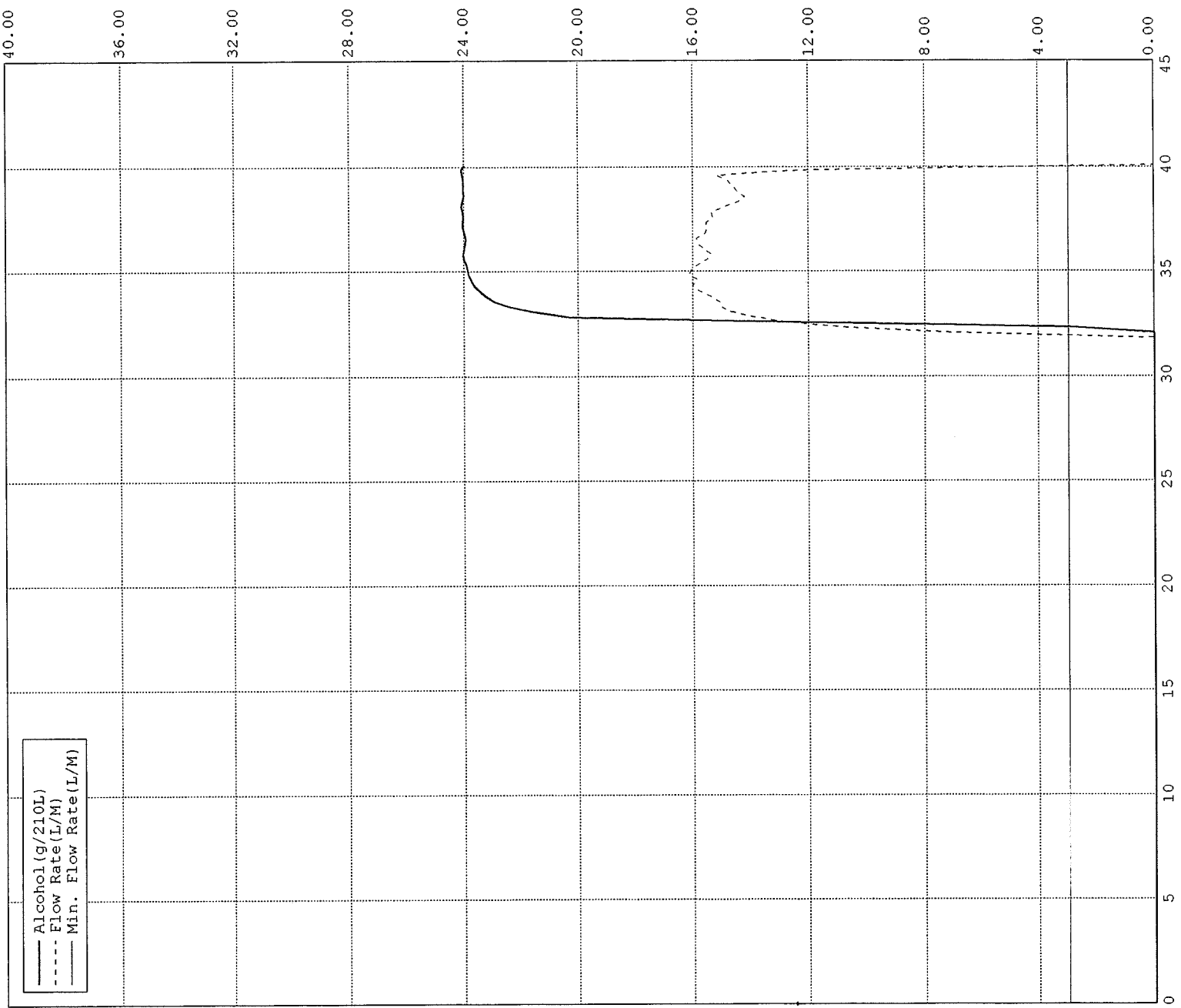
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.53: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:39
BLANK TEST 0.000 13:39
INTERNAL STANDARD VERIFIED 13:39
Xq = 0.107 (0.33%)
EXTERNAL STANDARD 0.078 13:39
X[1] = 0.0783 (0.0000) (0.0022)
BLANK TEST 0.000 13:40
SUBJECT SAMPLE XXX 13:41
X[1] = 0.1194 (-0.0345) (0.0029)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 13:24:45

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

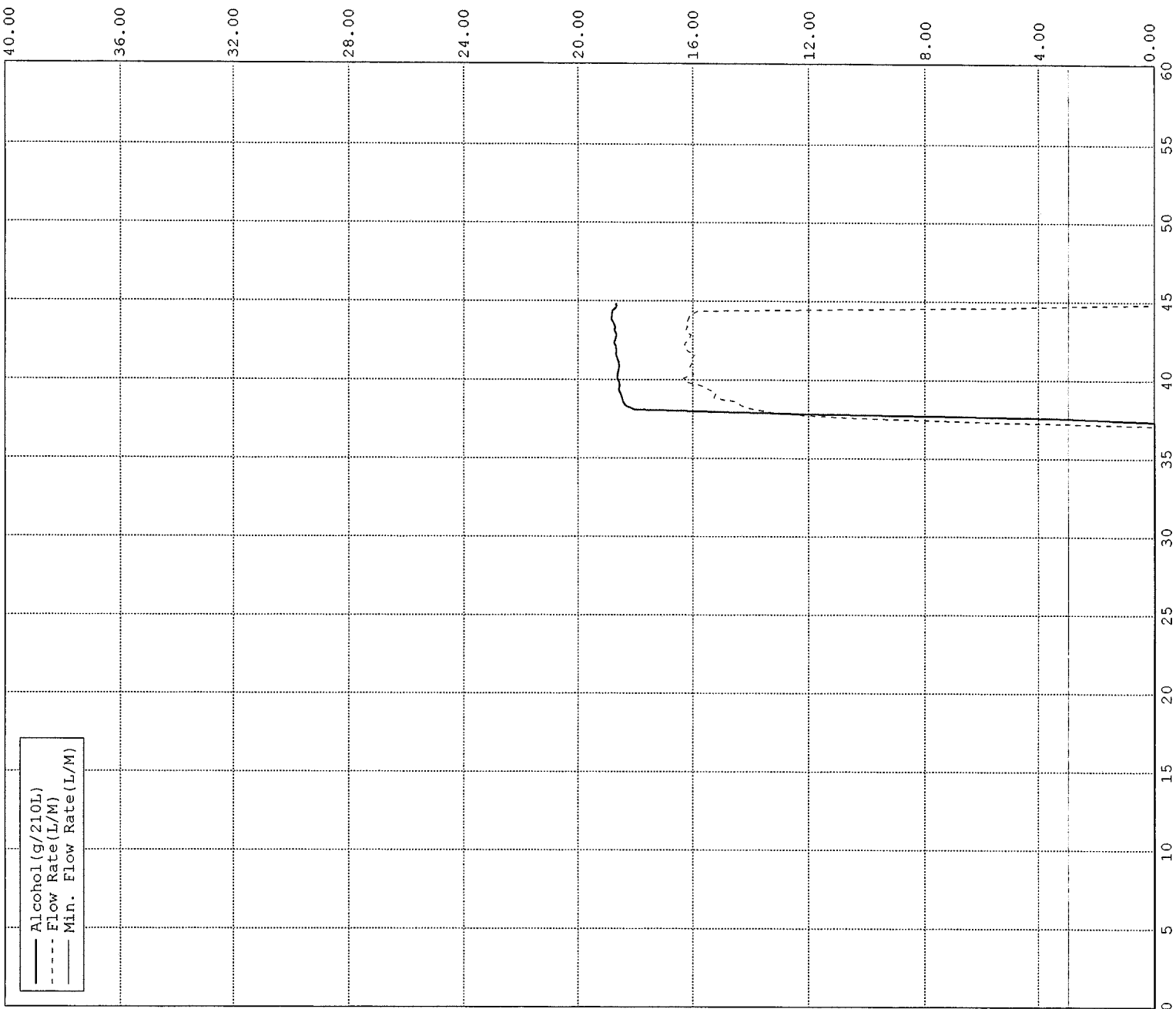
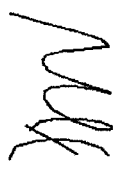
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.54: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:25
BLANK TEST	0.000	13:25
INTERNAL STANDARD	VERIFIED	13:26
$x_q = 0.107 (0.65\%)$		
EXTERNAL STANDARD	0.078	13:26
$X[1] = 0.0780 (0.0002)$	(0.0026)	
BLANK TEST	0.000	13:27
SUBJECT SAMPLE (Vol=1.86L)	0.093	13:27
$X[1] = 0.0931 (-0.0012)$	(0.0014)	
BLANK TEST	0.000	13:28
EXTERNAL STANDARD	0.078	13:29
$X[1] = 0.0781 (0.0009)$	(0.0018)	
BLANK TEST	0.000	13:30



SUBJECT TEST

Alaska Department of Public Safety
DATA MASTER dmt: 100422

Date: 10/14/2019
Time: 13:46:28

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

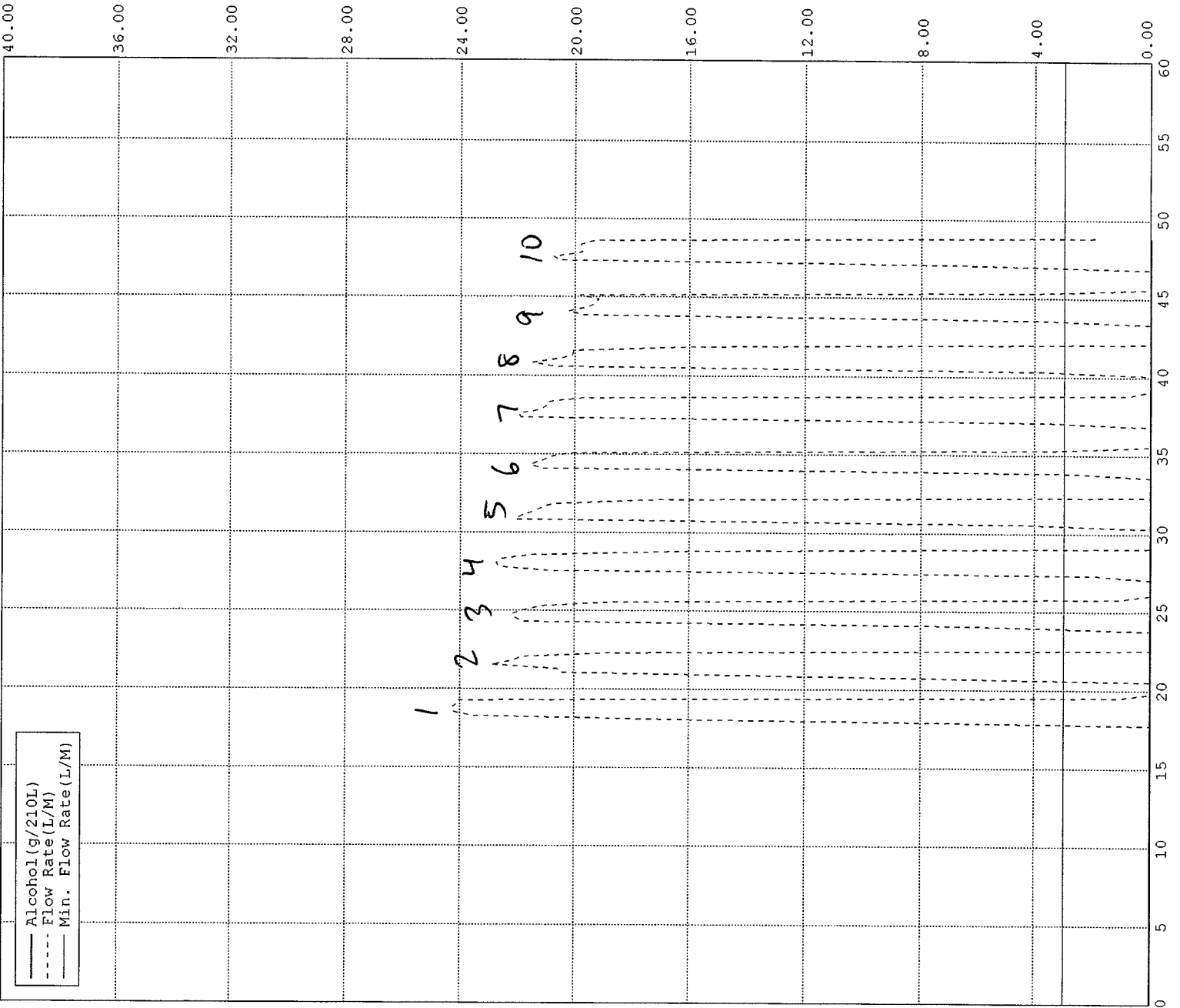
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.53: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK
BLANK TEST PASSED 13:49
INTERNAL STANDARD 0.000 13:49
EXTERNAL STANDARD VERIFIED 13:50
BLANK TEST 0.078 13:50
SUBJECT SAMPLE 0.000 13:51
XXX 13:52

Maximum Attempts Exceeded

DM



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100422

Date: 10/14/2019

Time: 13:54:33

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 29.53: 0.079

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK

PASSED 13:56

BLANK TEST

0.000 13:56

INTERNAL STANDARD

VERIFIED 13:57

EXTERNAL STANDARD

0.078 13:57

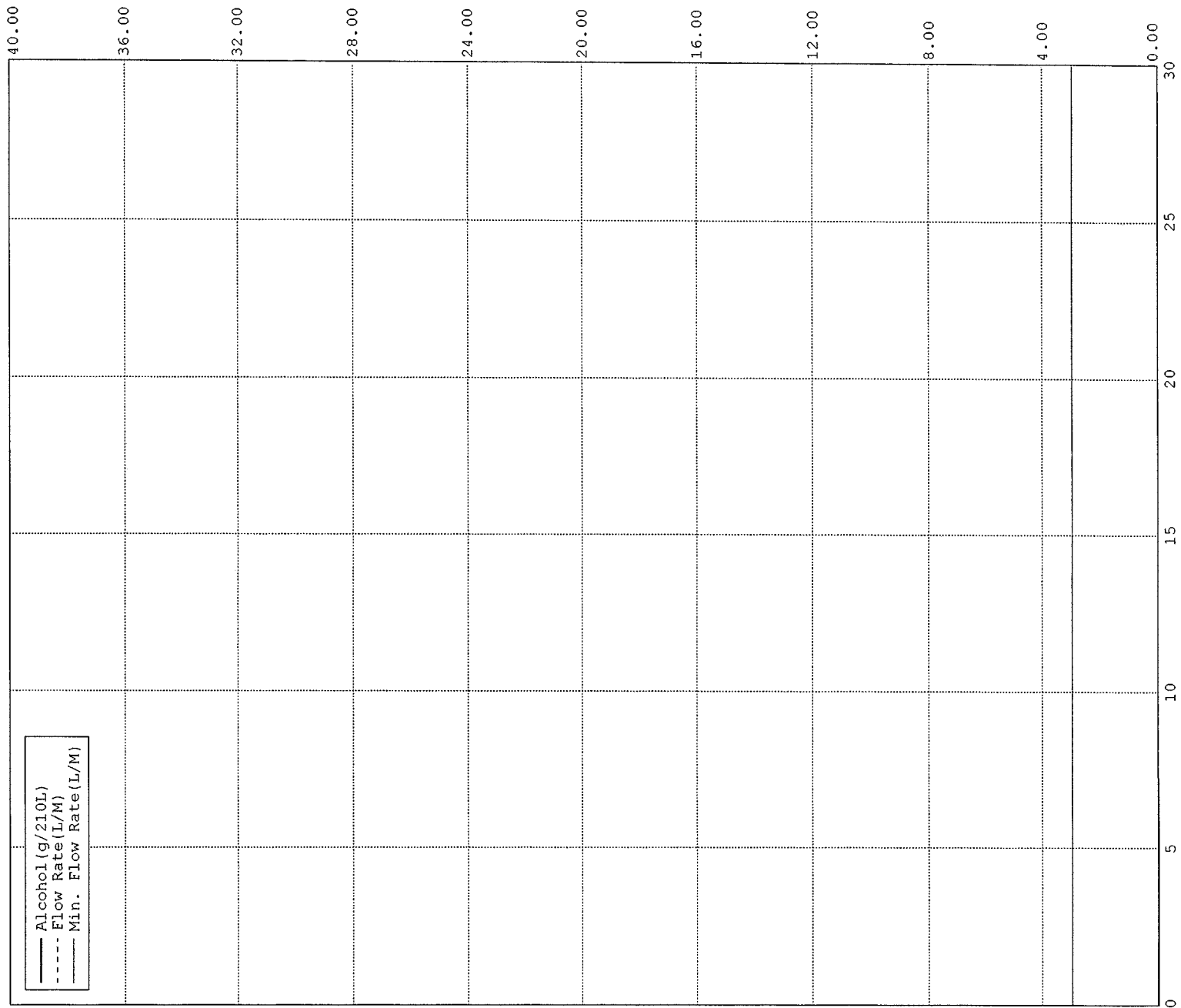
BLANK TEST

0.000 13:58

RFI DETECTED

DMV

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



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100422

Date: 10/14/2019
Time: 14:19:34

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 29.53: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	14:20
BLANK TEST	0.000	14:20
INTERNAL STANDARD	VERIFIED	14:20
EXTERNAL STANDARD	0.079	14:21
BLANK TEST	0.000	14:22
SUBJECT SAMPLE (Vol=3.44L)	0.000	14:22
BLANK TEST	0.000	14:23
EXTERNAL STANDARD	0.079	14:23
BLANK TEST	0.000	14:24

