

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 100347 Analyst Derek Walker Start Date 12/11/19

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 A6805804 Exp 02/27/20
- 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 A6805903 Exp 02/28/20
- v. 0.200g/210L Mnf Guth Lot 19040 Exp 01/29/21
 1. Simulator S/N DR4162 Date Calibrated 10/07/19
- vi. 0.300g/210L Mnf Guth Lot 19010 Exp 01/03/21
 1. Simulator S/N DR4178 Date Calibrated 10/04/19

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 12/12/19

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/11/2019
Time: 08:52:18

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 = 46.0°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.44 V PASSED
(1.46 V - 3.42 V)
Cooler Voltage = 1.92 V PASSED
(1.15 V - 2.69 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 535 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.2 in

PUMP INFO

Flow Rate = 5.099 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 = 0.091 0.19% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100347

Date: 12/11/2019

Time: 9:21 AM

Temperatures (°C)

Sample Cell: 48.7°C

Breath Tube: 44.8°C

Current Barometer 29.2 in

Volume (Ltr) 1.46

Settings

Lamp: 2.52 V

Bias: 79 V

Cooler: 1.92 V

Chopper: 524 Hz

Voltages (V)

Flow: 1.05 V

Detector: 0.028 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 06/21/2019
Time: 10:21:07

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca = 0.1000
CAL = 0.967974 0.800 <= CAL < 1.200
b1 = 0.0003 0.0000 <= b1 < 0.0040
b2 = 0.0042 0.0010 <= b2 < 0.0100
b3 = 0.0004 0.0000 <= b3 < 0.0040
Xq = 0.0905 0.0500 <= Xq < 0.2000
a21 = 1.182505 1.050 <= a21 < 1.300
a31 = 0.445320 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/11/2019
Time: 09:35:15

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

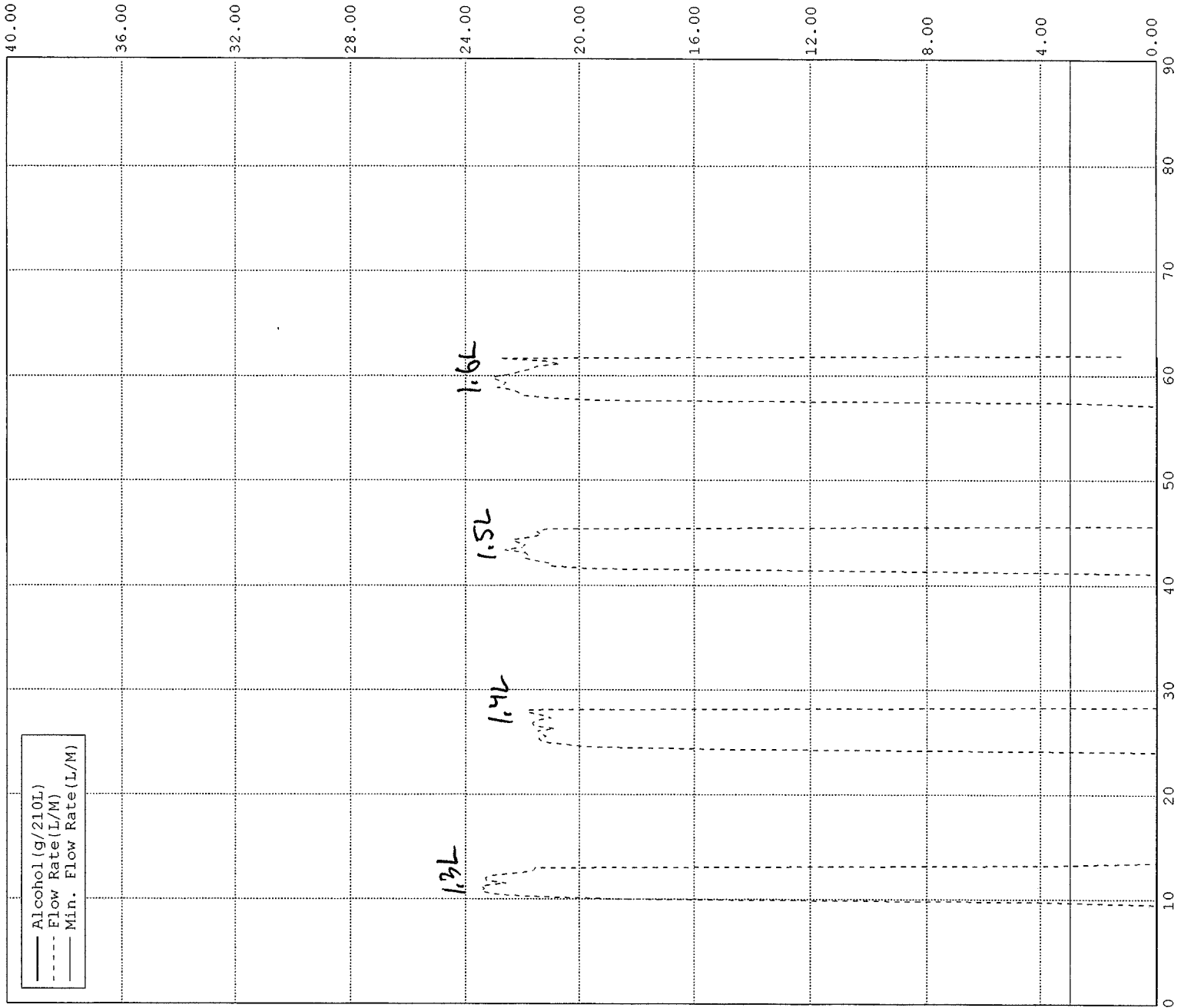
DEPT/AGENCY:
MINIMUM VOLUME
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.24: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	09:37
BLANK TEST	0.000	09:37
INTERNAL STANDARD	VERIFIED	09:37
EXTERNAL STANDARD	0.077	09:38
BLANK TEST	0.000	09:39
SUBJECT SAMPLE (Vol=1.56L)	0.000	09:40
BLANK TEST	0.000	09:41
EXTERNAL STANDARD	0.077	09:41
BLANK TEST	0.000	09:42

DW



LINEARITY CHECK

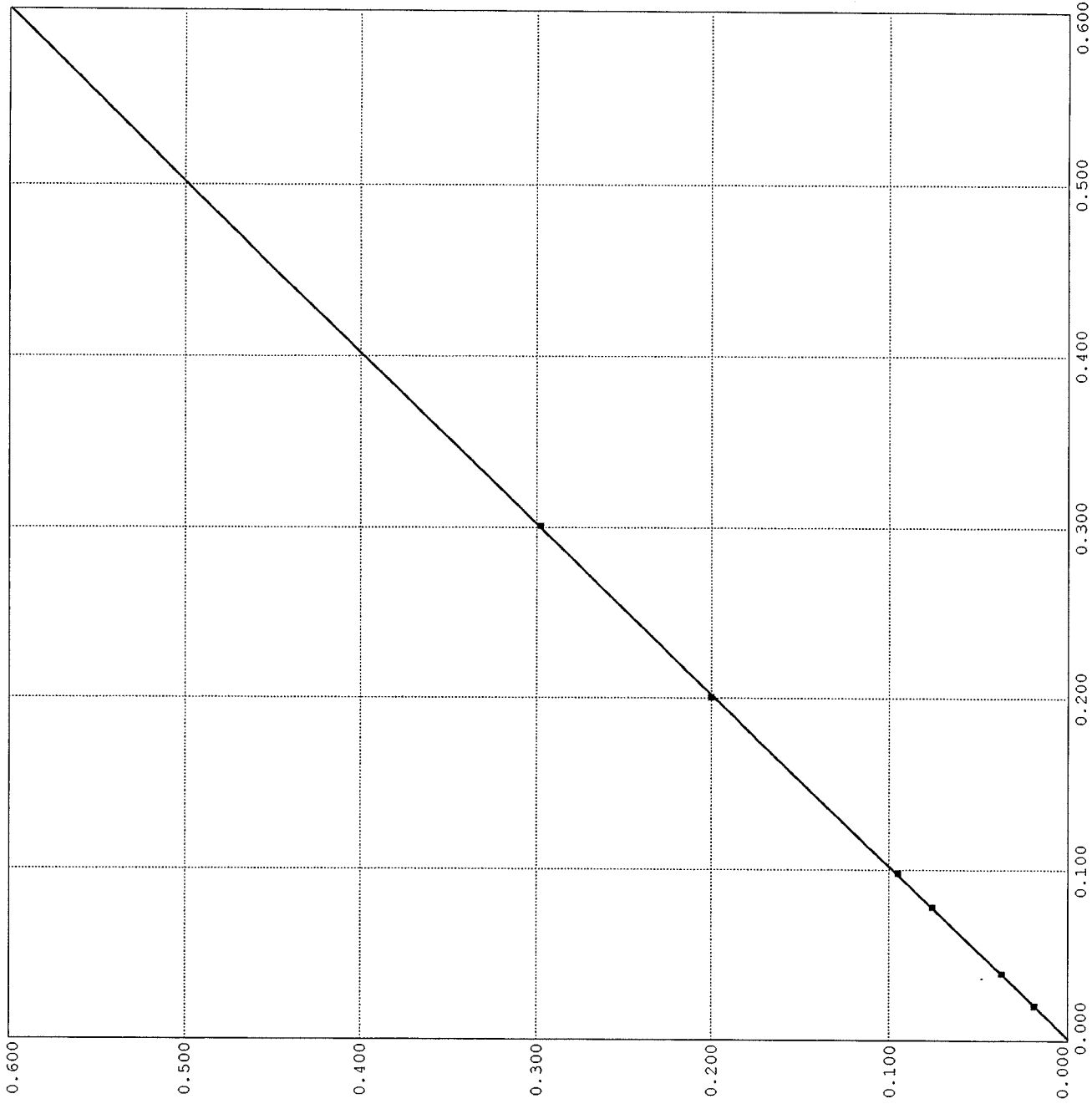
 Alaska Department of Public Safety
 DATAMASTER dmt: 100347

Date: 12/11/2019
 Time: 09:51:25

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0196	0.0005
0.039	0.0380	0.0000
0.078	0.0766	0.0005
0.098	0.0960	0.0000
0.200	0.2010	0.0007
0.300	0.2984	0.0009

SLOPE = 1.000509
 R² = 0.999899



MW

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100347

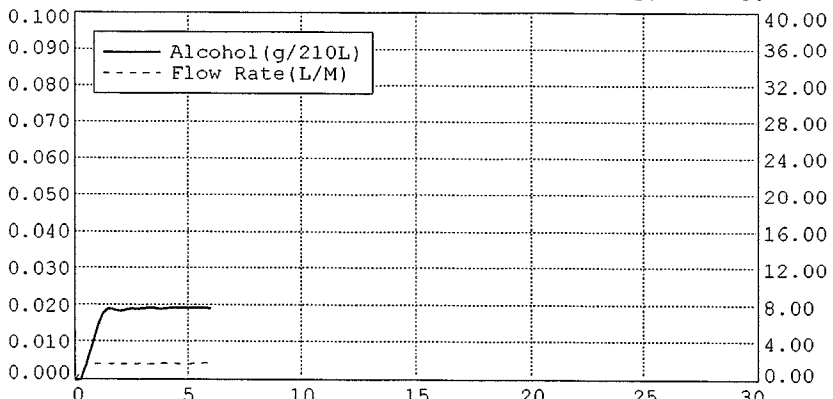
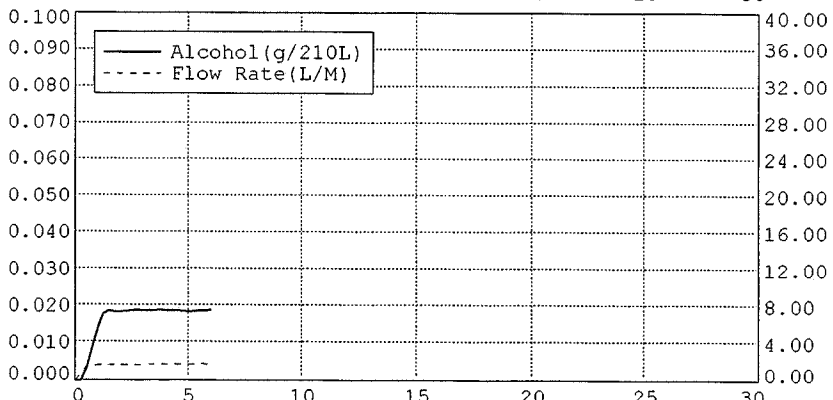
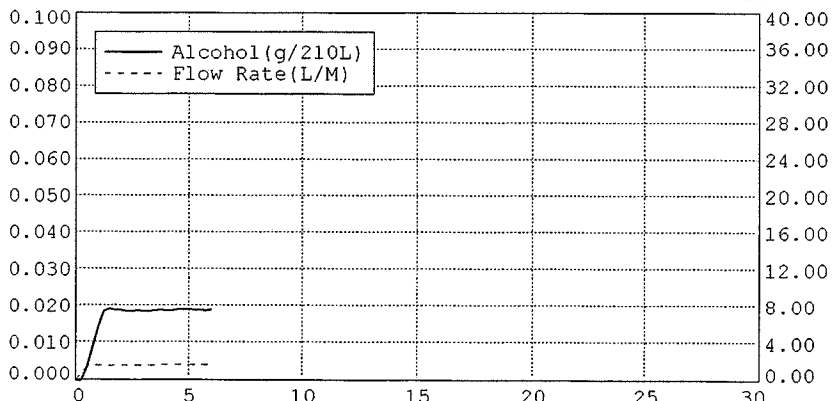
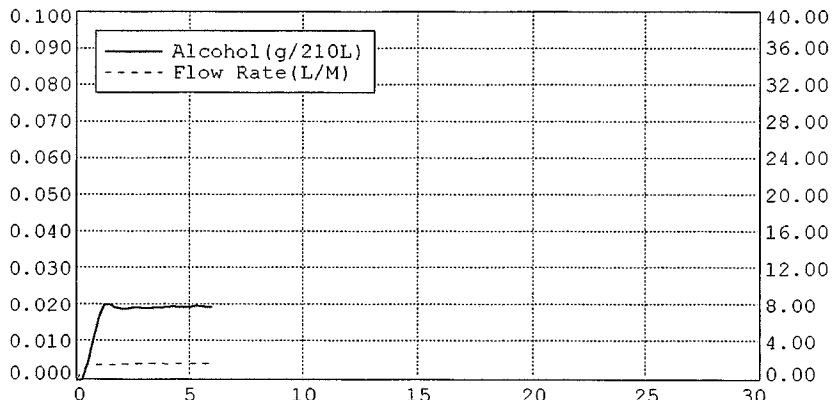
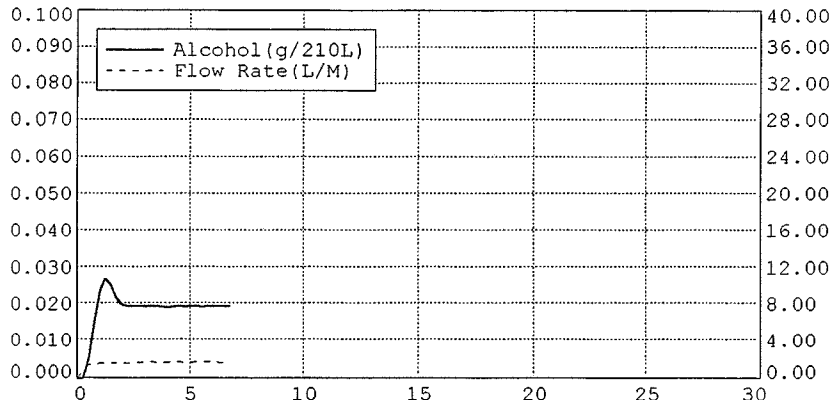
Date: 12/11/2019
 Time: 09:51:27

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.23: 0.020
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 540 psi

BLANK TEST	0.000	09:52
INTERNAL STANDARD	VERIFIED	09:52
EXTERNAL STANDARD	0.020	09:53
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.020	09:54
BLANK TEST	0.000	09:55
EXTERNAL STANDARD	0.019	09:55
BLANK TEST	0.000	09:56
EXTERNAL STANDARD	0.019	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.020	09:57
BLANK TEST	0.000	09:58

Average = 0.0196
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100347

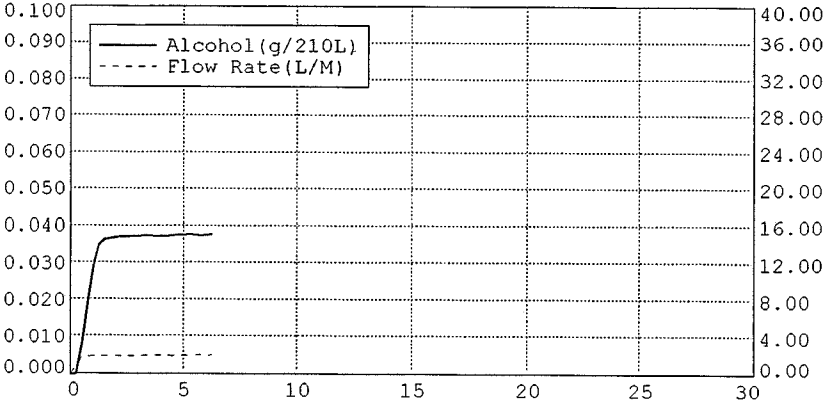
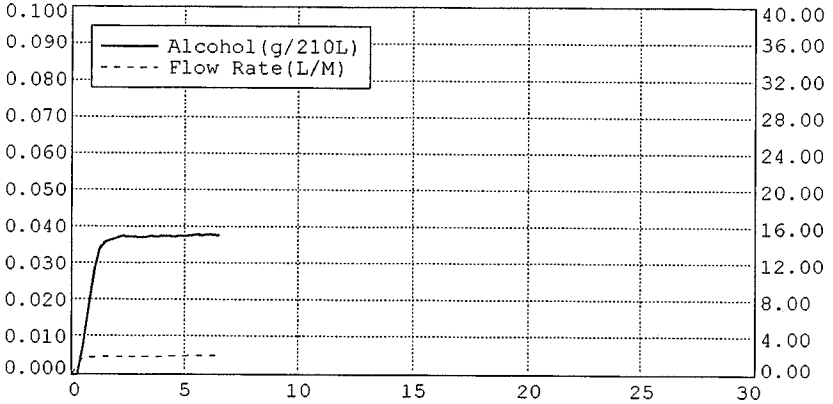
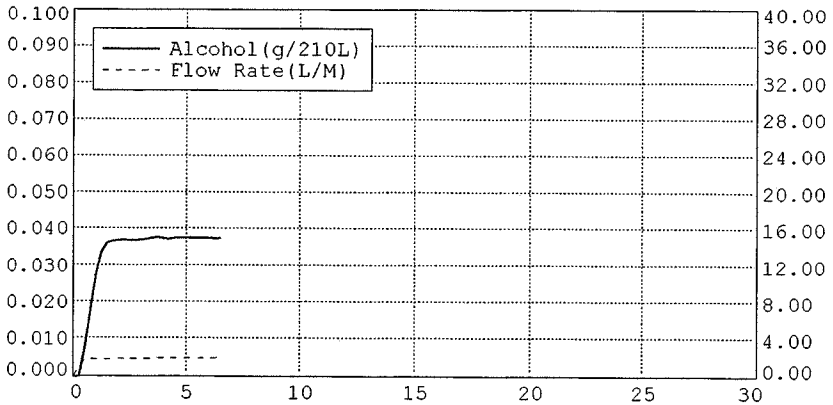
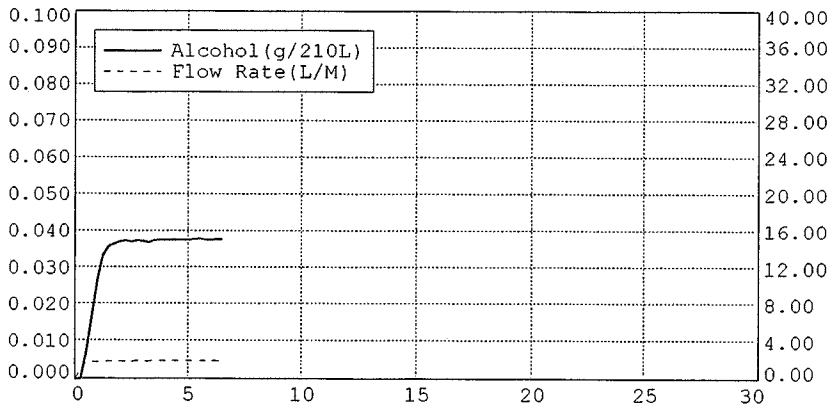
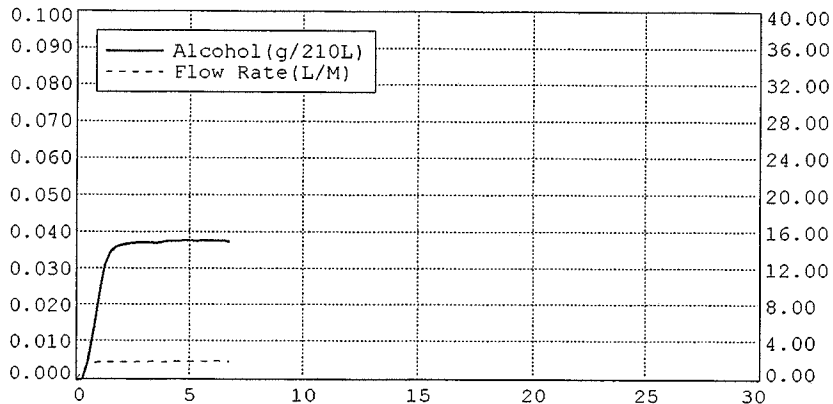
Date: 12/11/2019
 Time: 10:02:15

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.24: 0.039
 LOT #: AG915607
 EXPIRATION: 06/05/2021
 TANK PRESSURE: 1119 psi

BLANK TEST	0.000	10:03
INTERNAL STANDARD	VERIFIED	10:03
EXTERNAL STANDARD	0.038	10:03
BLANK TEST	0.000	10:04
EXTERNAL STANDARD	0.038	10:04
BLANK TEST	0.000	10:05
EXTERNAL STANDARD	0.038	10:06
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.038	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.038	10:08
BLANK TEST	0.000	10:09

Average = 0.0380
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100347

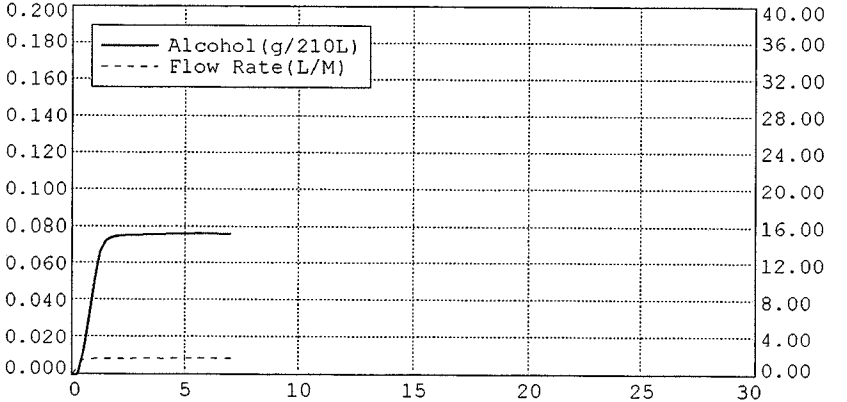
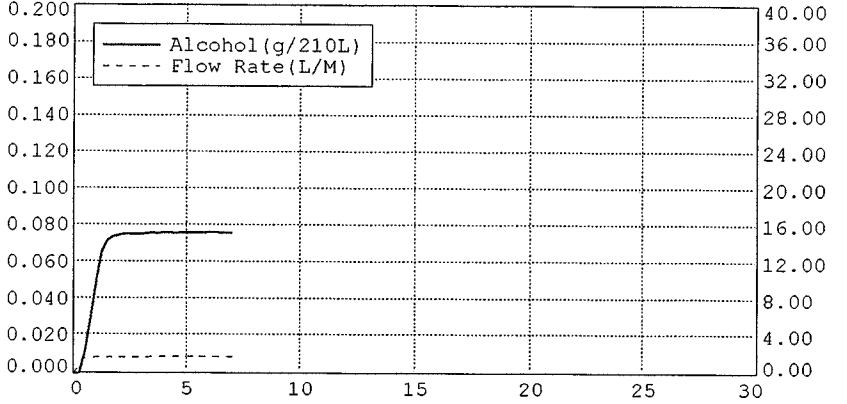
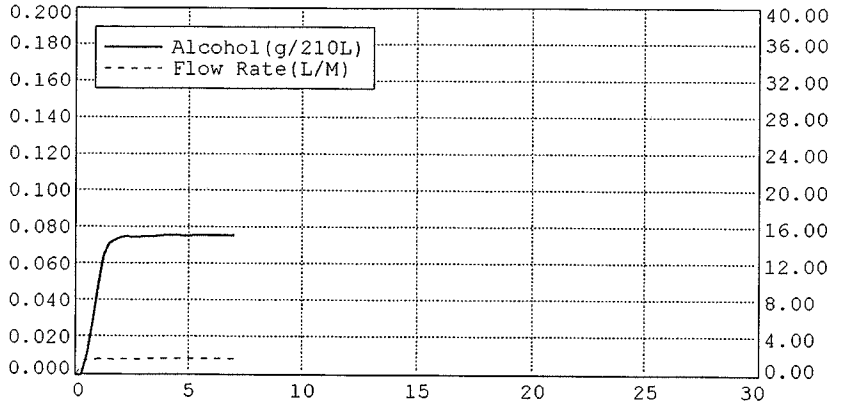
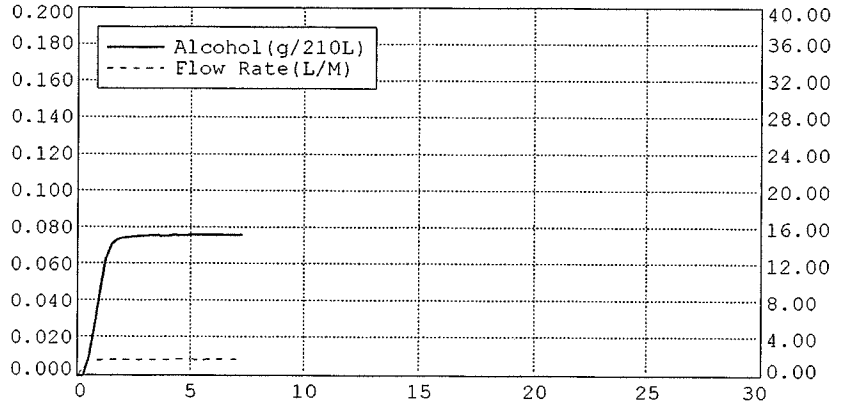
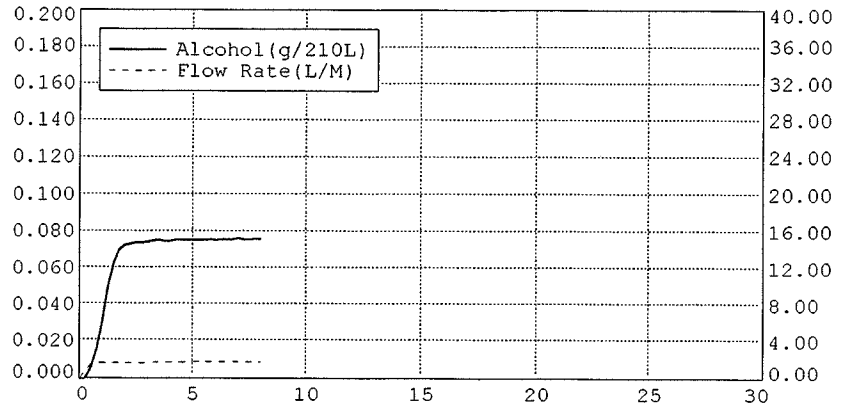
Date: 12/11/2019
 Time: 10:10:45

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.23: 0.078
 LOT #: AG923401
 EXPIRATION: 08/22/2021
 TANK PRESSURE: 597 psi

BLANK TEST	0.000	10:11
INTERNAL STANDARD	VERIFIED	10:12
EXTERNAL STANDARD	0.076	10:12
BLANK TEST	0.000	10:13
EXTERNAL STANDARD	0.077	10:13
BLANK TEST	0.000	10:14
EXTERNAL STANDARD	0.077	10:14
BLANK TEST	0.000	10:15
EXTERNAL STANDARD	0.076	10:15
BLANK TEST	0.000	10:16
EXTERNAL STANDARD	0.077	10:16
BLANK TEST	0.000	10:17

Average = 0.0766
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100347

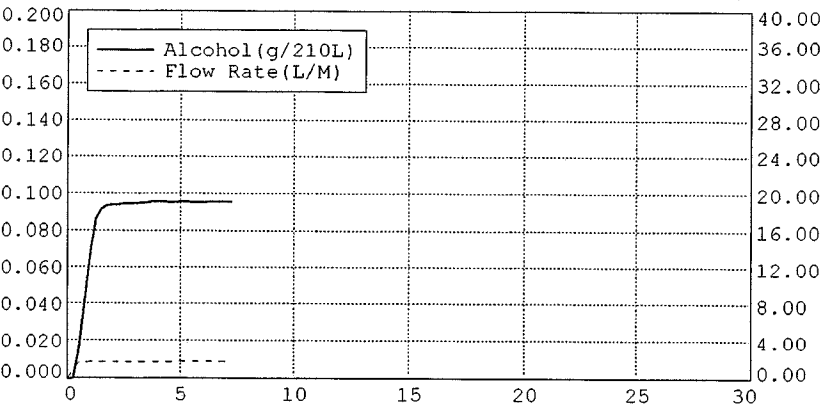
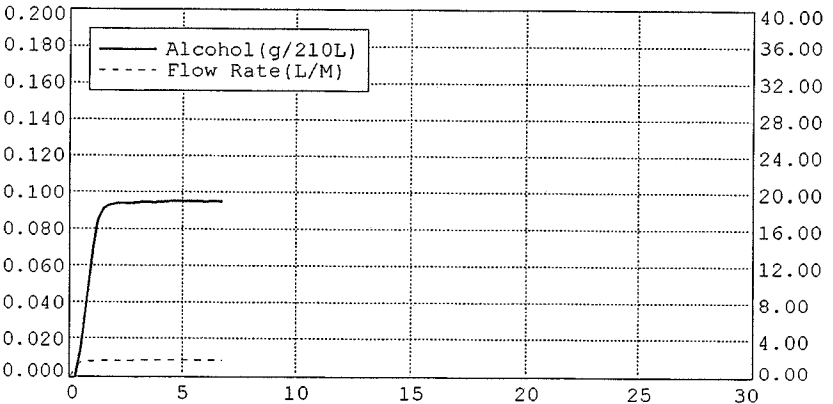
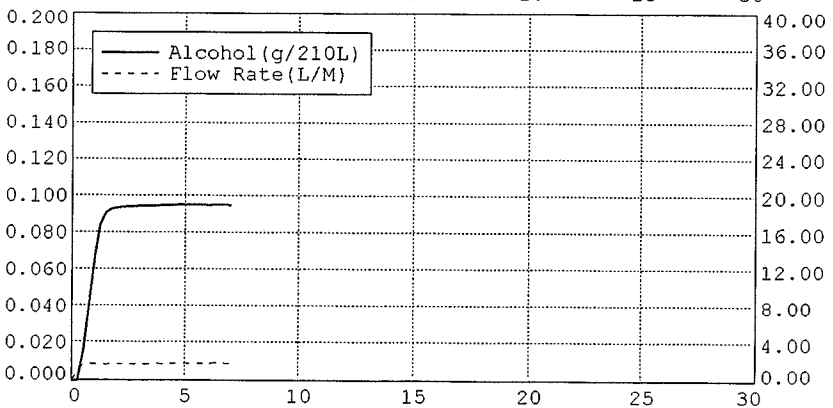
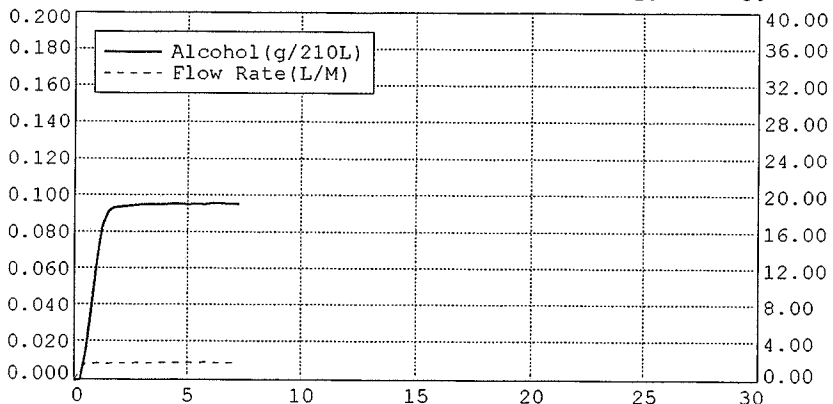
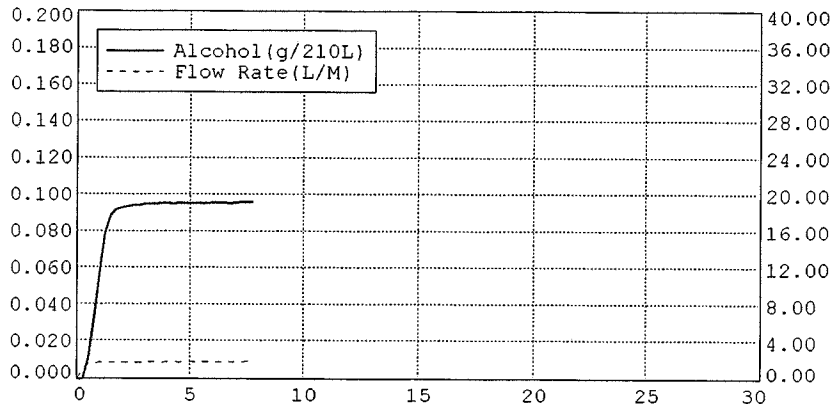
Date: 12/11/2019
 Time: 10:24:56

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.24: 0.098
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 651 psi

BLANK TEST	0.000	10:26
INTERNAL STANDARD	VERIFIED	10:26
EXTERNAL STANDARD	0.096	10:26
BLANK TEST	0.000	10:27
EXTERNAL STANDARD	0.096	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.096	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.096	10:29
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.096	10:31
BLANK TEST	0.000	10:31

Average = 0.0960
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100347

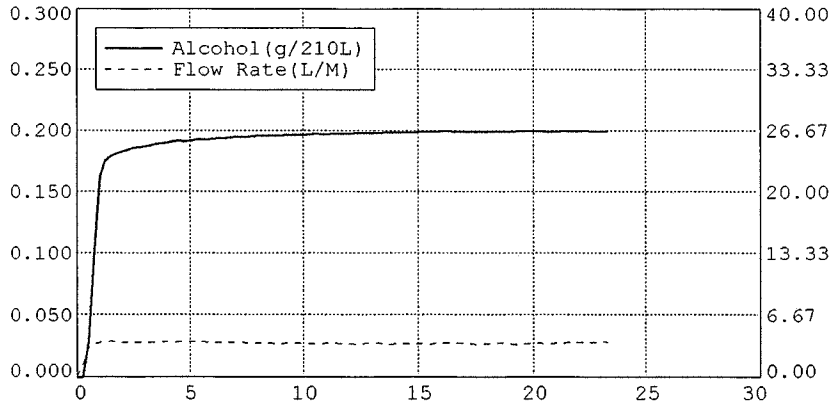
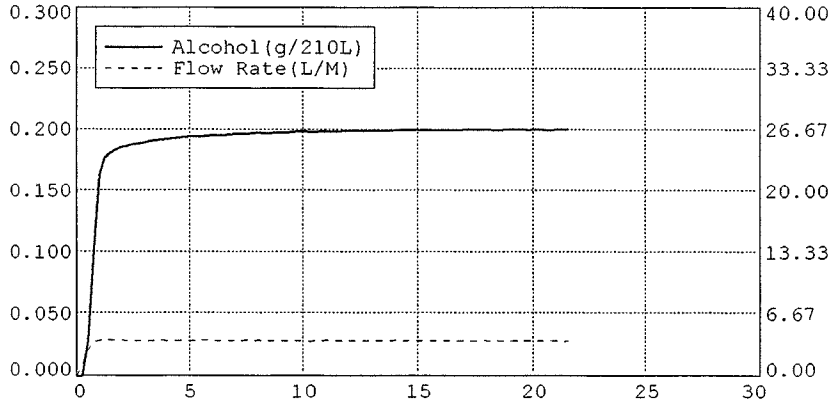
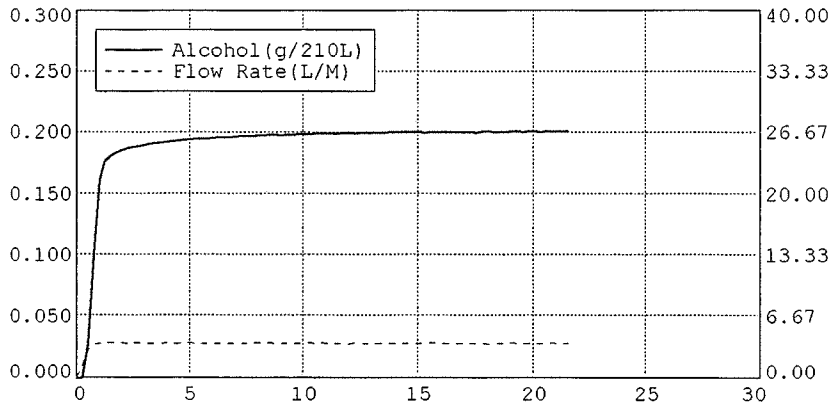
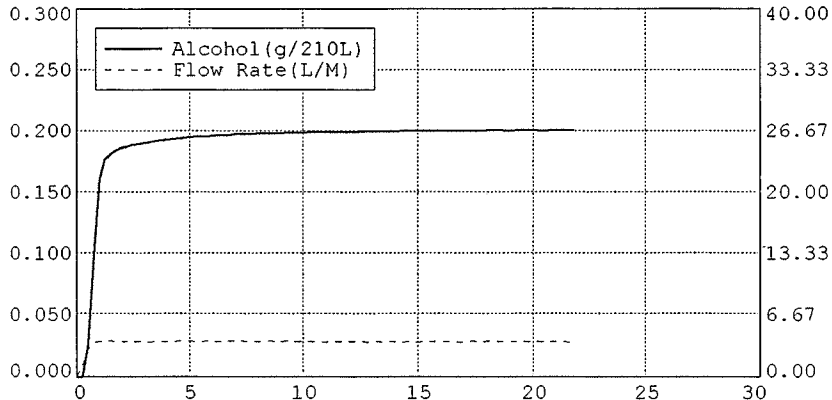
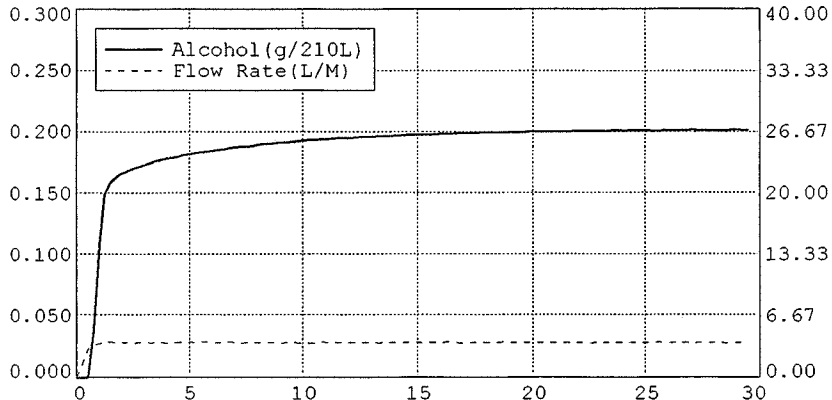
Date: 12/11/2019
 Time: 10:42:02

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:43
INTERNAL STANDARD	VERIFIED	10:43
EXTERNAL STANDARD	0.202	10:44
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.201	10:45
BLANK TEST	0.000	10:46
EXTERNAL STANDARD	0.201	10:47
BLANK TEST	0.000	10:48
EXTERNAL STANDARD	0.201	10:48
BLANK TEST	0.000	10:49
EXTERNAL STANDARD	0.200	10:49
BLANK TEST	0.000	10:50

Average = 0.2010
 Std Dev = 0.0007



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100347

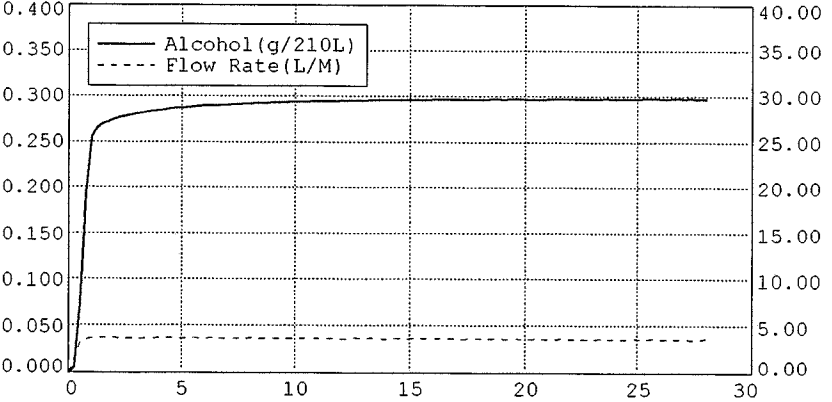
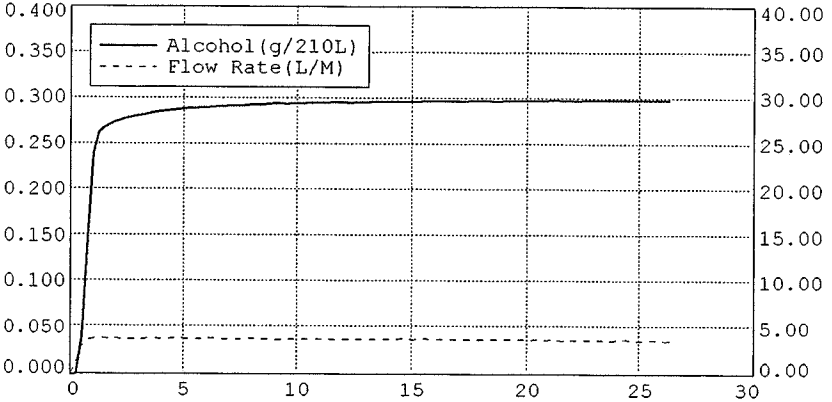
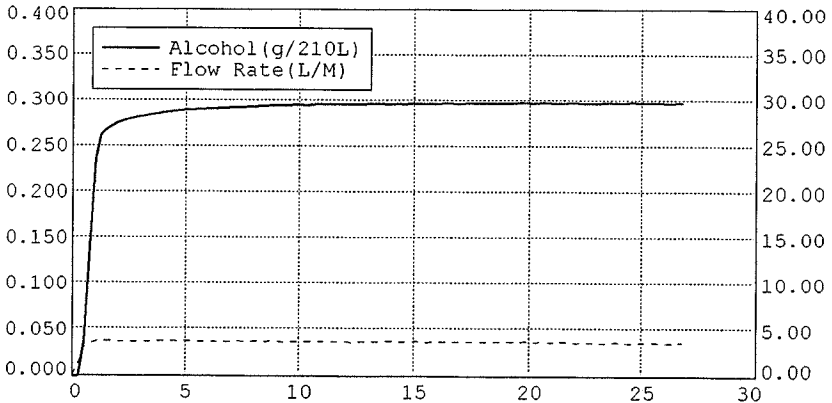
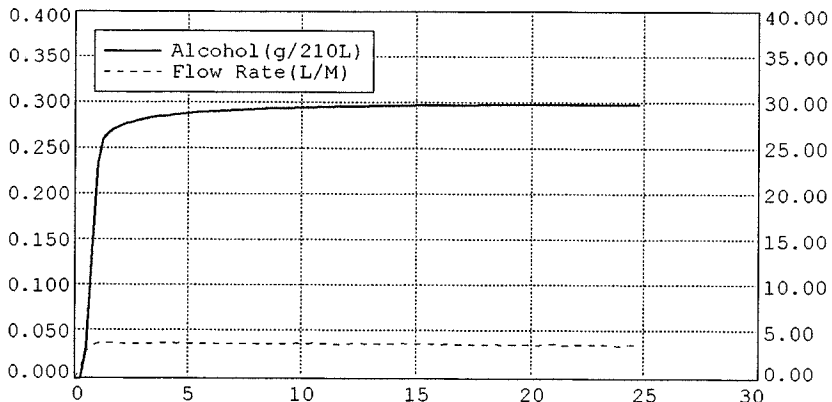
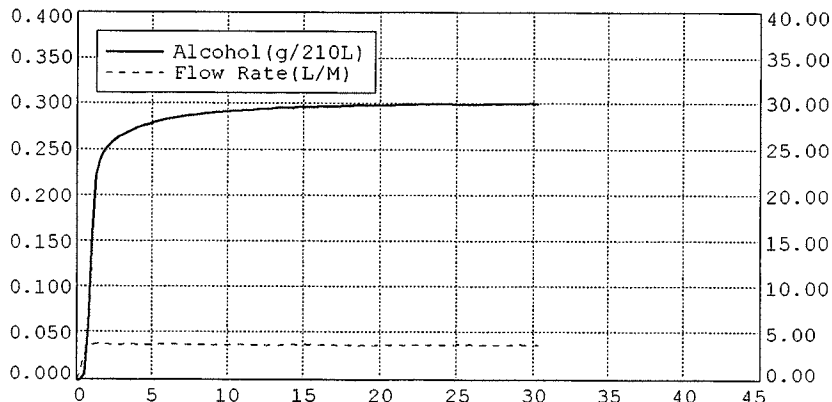
Date: 12/11/2019
 Time: 10:53:14

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:54
INTERNAL STANDARD	VERIFIED	10:54
EXTERNAL STANDARD	0.300	10:55
BLANK TEST	0.000	10:56
EXTERNAL STANDARD	0.298	10:56
BLANK TEST	0.000	10:57
EXTERNAL STANDARD	0.298	10:58
BLANK TEST	0.000	10:59
EXTERNAL STANDARD	0.298	10:59
BLANK TEST	0.000	11:00
EXTERNAL STANDARD	0.298	11:01
BLANK TEST	0.000	11:01

Average = 0.2984
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/11/2019
Time: 11:11:04

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

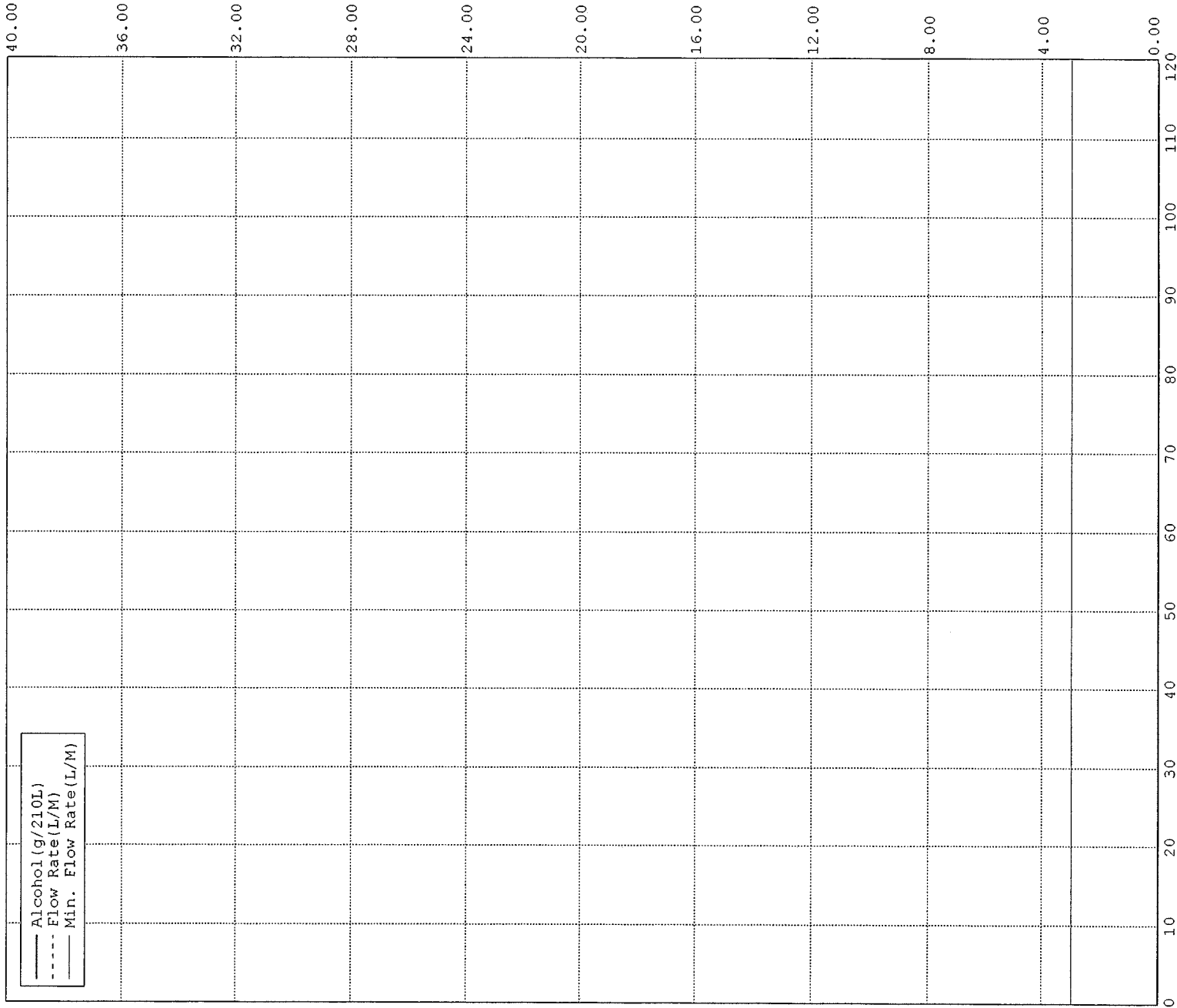
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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 11:13
BLANK TEST 0.000 11:13
INTERNAL STANDARD VERIFIED 11:14
EXTERNAL STANDARD 0.076 11:14
BLANK TEST 0.000 11:15
SUBJECT SAMPLE INCOMPLETE 11:17

Handwritten signature



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/11/2019
Time: 11:22:47

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

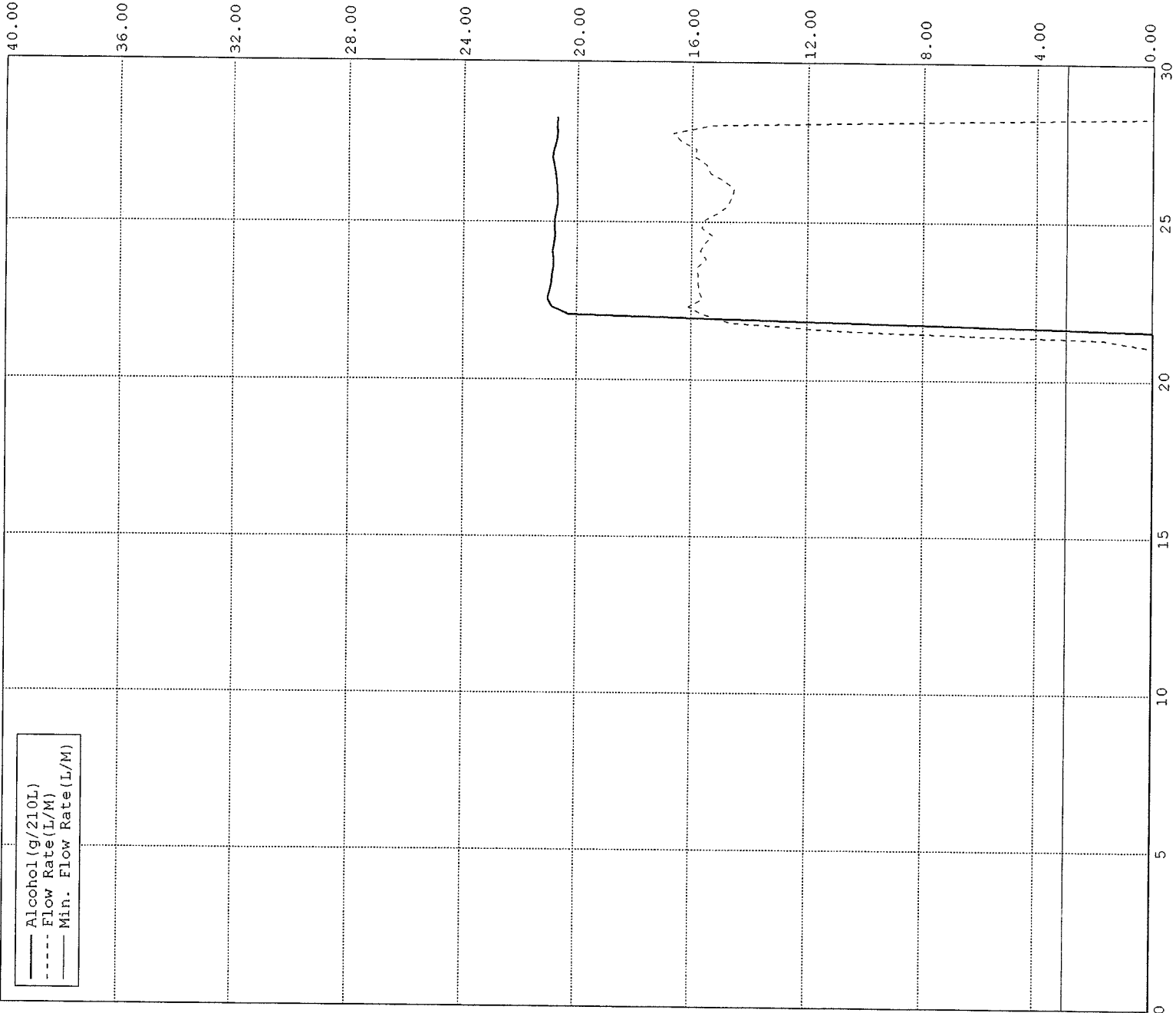
EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.20: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 11:23
BLANK TEST 0.000 11:24
INTERNAL STANDARD VERIFIED 11:24
Xq = 0.092 (1.35%)
EXTERNAL STANDARD 0.077 11:24
X[1] = 0.0768 (0.0004) (0.0030)
BLANK TEST 0.000 11:25
SUBJECT SAMPLE XXX 11:25
X[1] = 0.1035 (-0.0184) (0.0016)

Interference Detected

Filter 2 Avg: 0.0003
Filter 3 Avg: 0.0025

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/11/2019
Time: 11:27:38

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

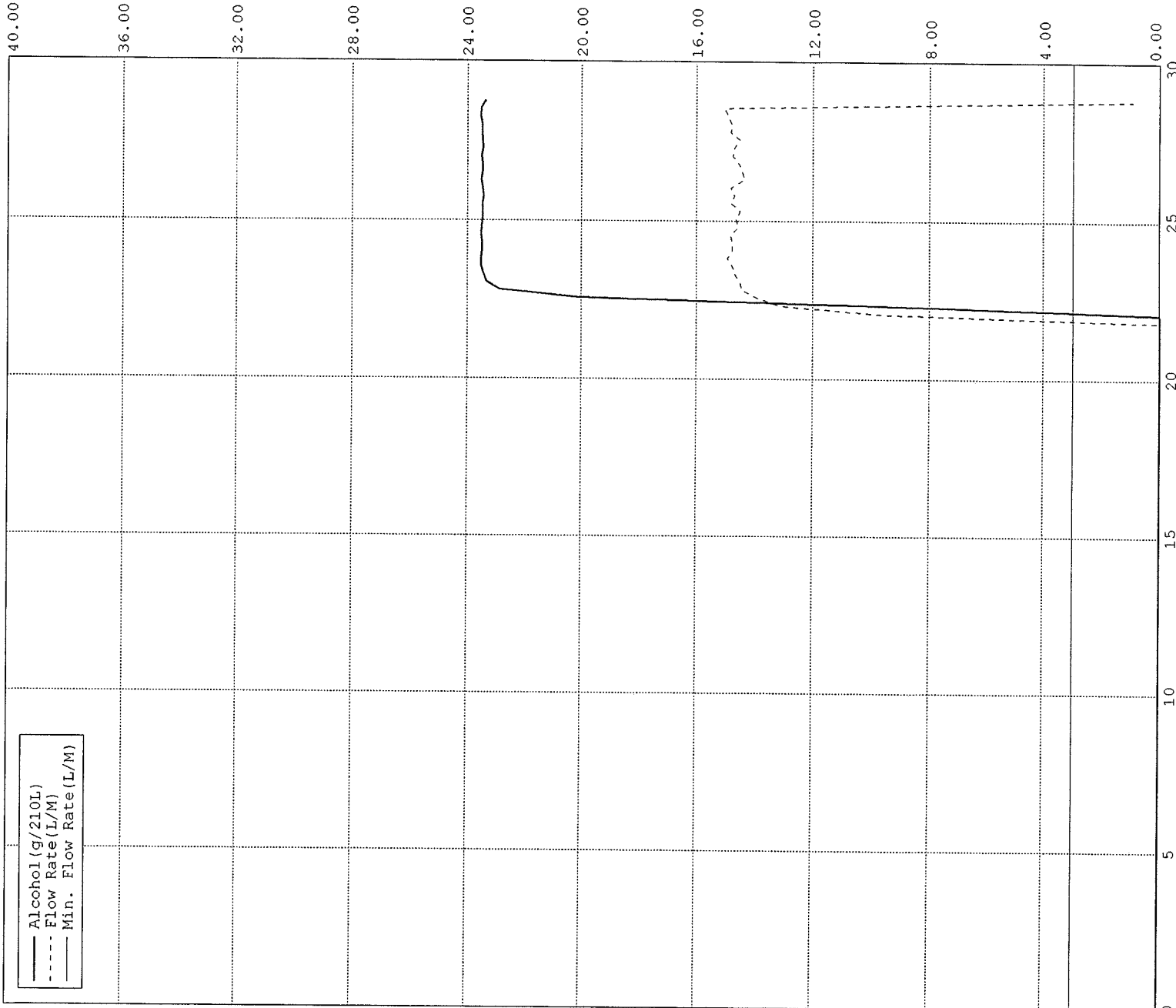
DEPT/AGENCY:
INTERFERENCE ISOPROPANOL
CASE/REPORT: XXXX
TEST TYPE: TEST

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

DIAGNOSTIC CHECK PASSED 11:28
BLANK TEST 0.000 11:29
INTERNAL STANDARD VERIFIED 11:29
Xq = 0.091 (0.77%)
EXTERNAL STANDARD 0.076 11:29
X[1] = 0.0764 (-0.0002) (0.0024)
BLANK TEST 0.000 11:30
SUBJECT SAMPLE XXX 11:30
X[1] = 0.1171 (-0.0288) (0.0024)

Interference Detected

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/11/2019
Time: 11:32:29

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

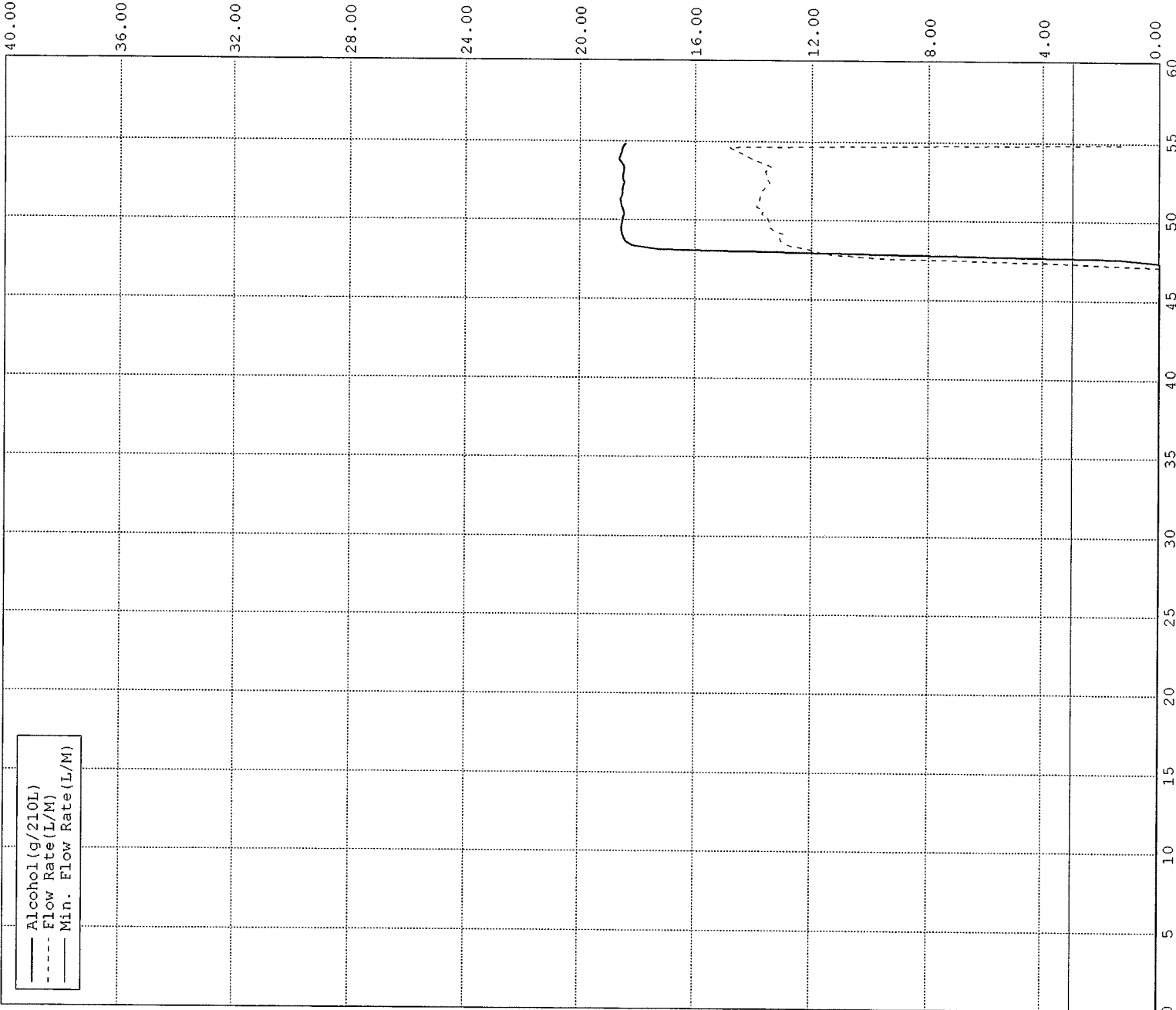
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK	PASSED	11:33
BLANK TEST	0.000	11:33
INTERNAL STANDARD	VERIFIED	11:33
Xq = 0.092 (1.74%)		
EXTERNAL STANDARD	0.077	11:33
X[1] = 0.0770 (0.0011) (0.0022)		
BLANK TEST	0.000	11:34
SUBJECT SAMPLE (Vol=1.63L)	0.092	11:35
X[1] = 0.0924 (-0.0012) (0.0015)		
BLANK TEST	0.000	11:36
EXTERNAL STANDARD	0.076	11:37
X[1] = 0.0763 (-0.0002) (0.0025)		
BLANK TEST	0.000	11:37



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/11/2019
Time: 11:43:27

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

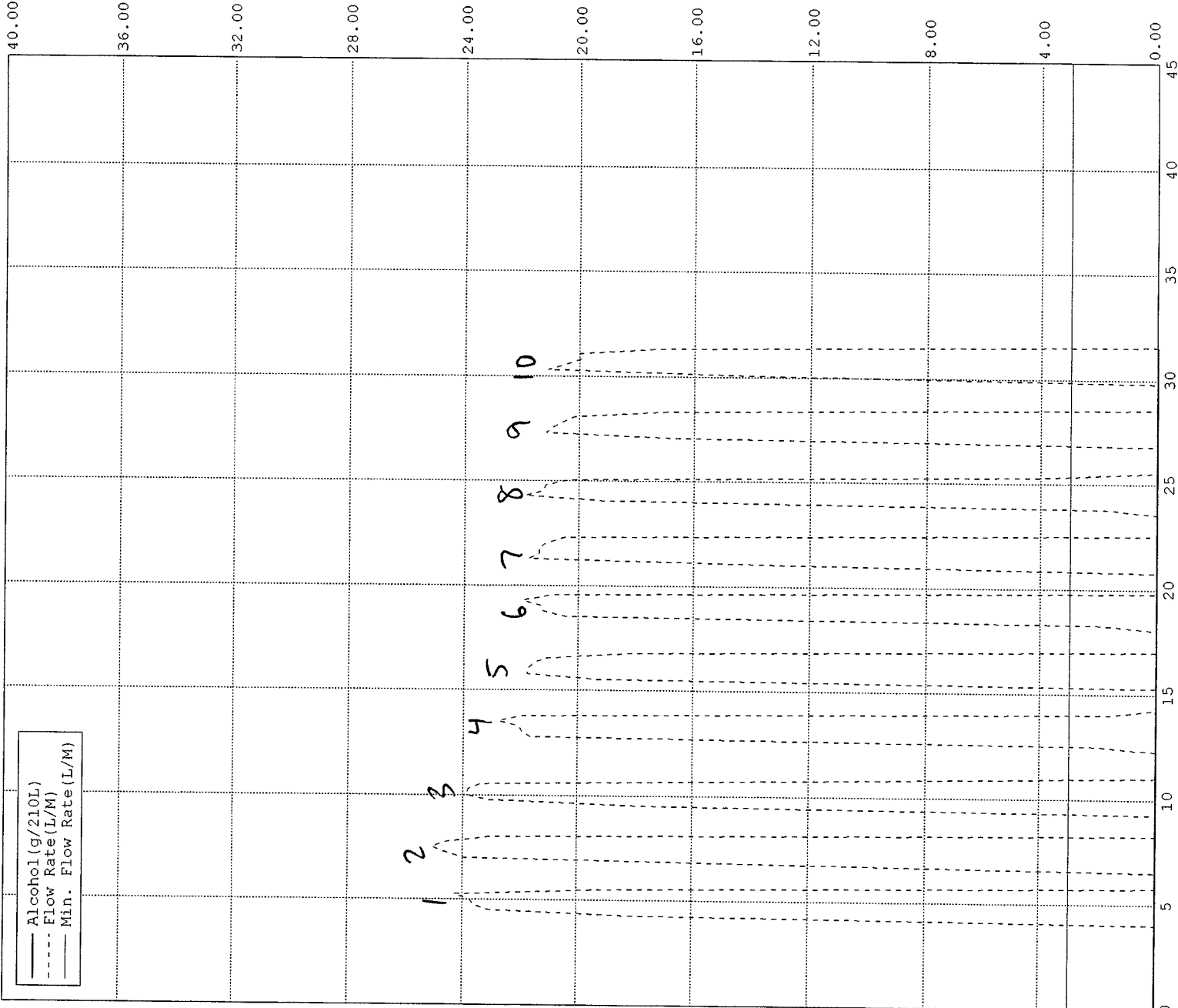
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

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

DIAGNOSTIC CHECK PASSED 11:44
BLANK TEST 0.000 11:44
INTERNAL STANDARD VERIFIED 11:44
EXTERNAL STANDARD 0.076 11:44
BLANK TEST 0.000 11:45
SUBJECT SAMPLE XXX 11:46

Maximum Attempts Exceeded

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/11/2019
Time: 14:54:15

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

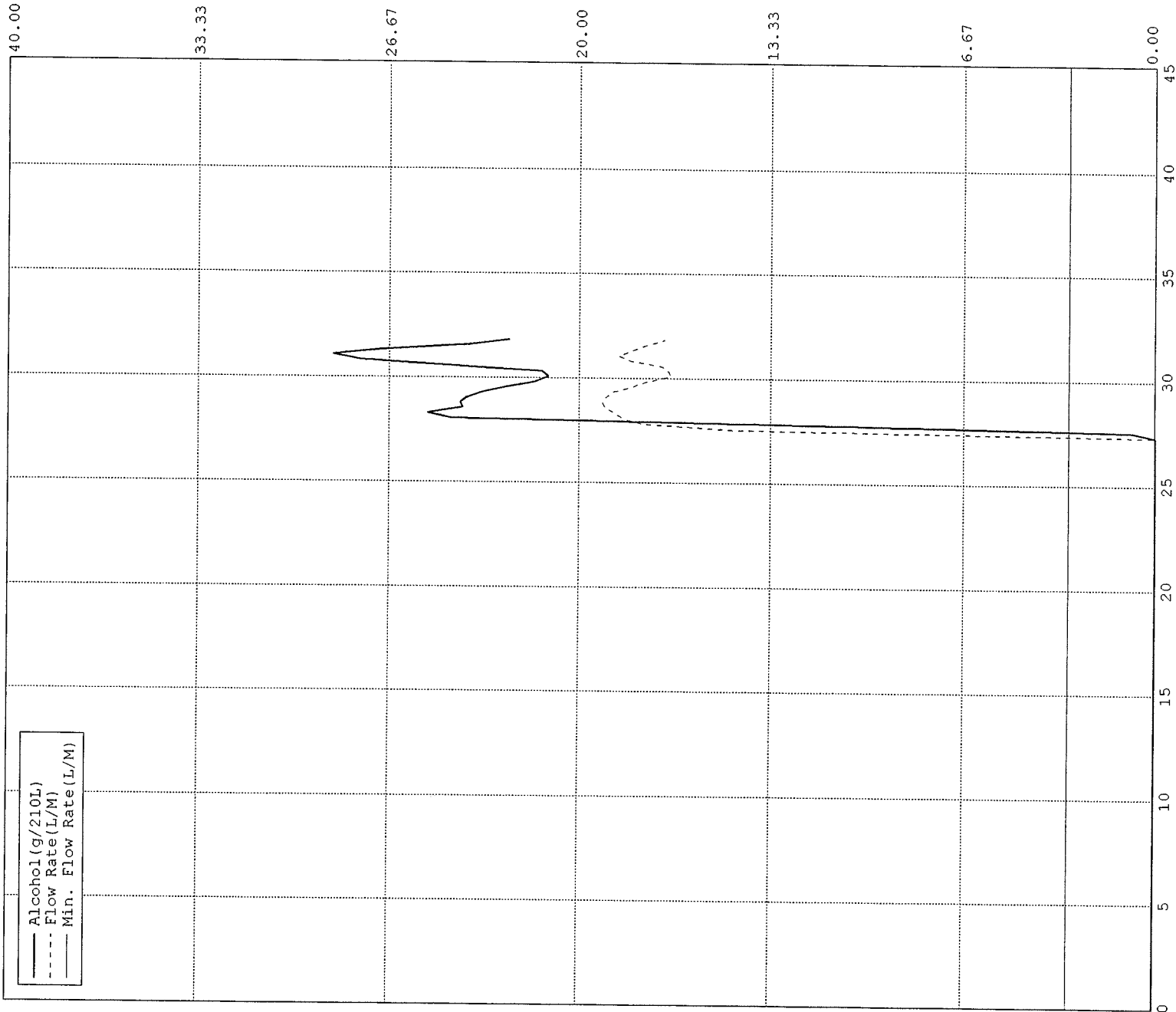
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.14: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 14:56
BLANK TEST 0.000 14:56
INTERNAL STANDARD VERIFIED 14:56
EXTERNAL STANDARD 0.077 14:56
BLANK TEST 0.000 14:57
SUBJECT SAMPLE INVALID 14:58

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/11/2019
Time: 15:00:28

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

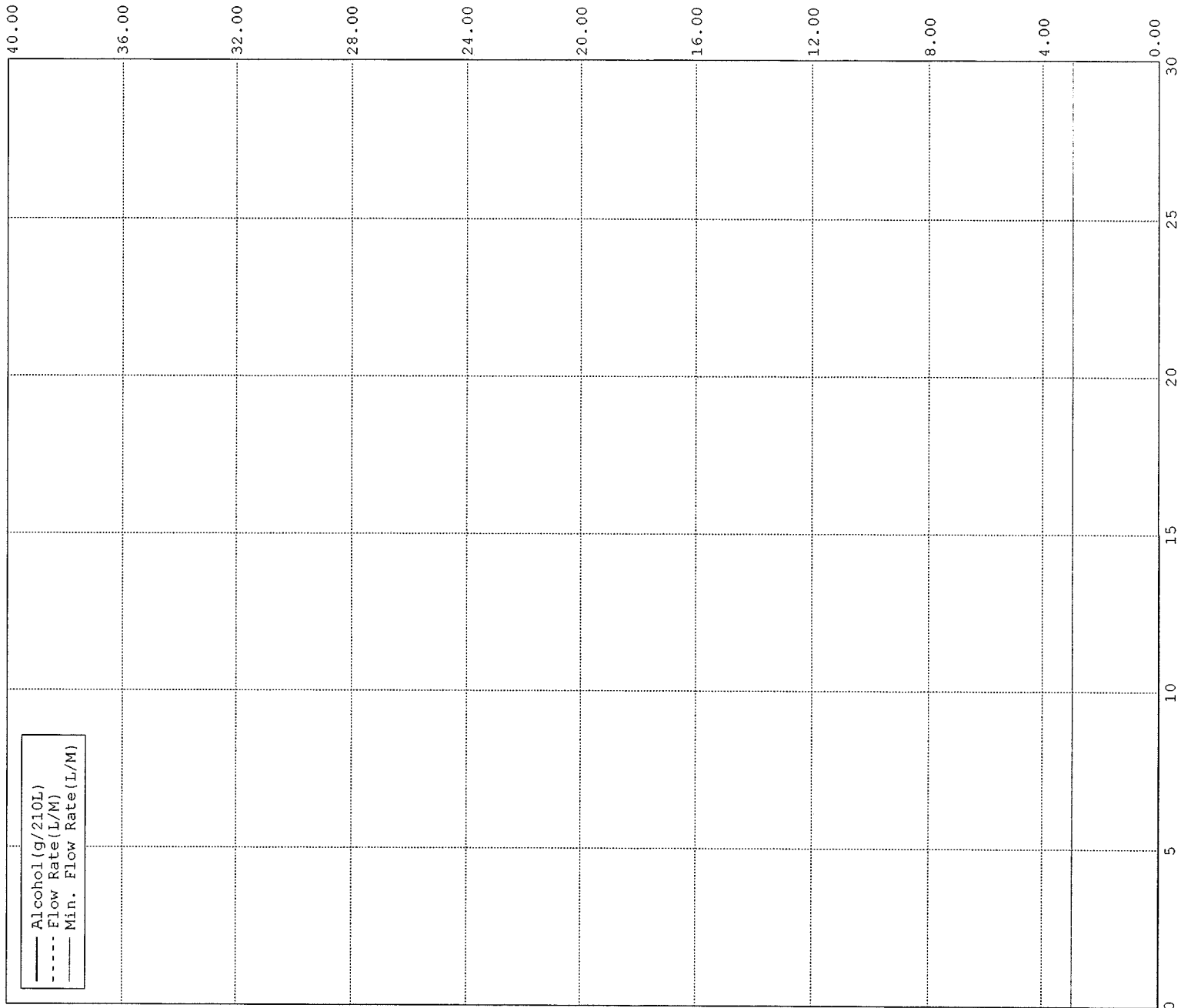
DEPT/AGENCY:
RADIO FREQUENCY
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.14: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 15:02
BLANK TEST 0.000 15:02
INTERNAL STANDARD VERIFIED 15:02
EXTERNAL STANDARD 0.076 15:02
BLANK TEST 0.000 15:03

RFI DETECTED

JMW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100347

Date: 12/12/2019
Time: 10:50:20

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 29.07: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 10:51
BLANK TEST 0.000 10:51
INTERNAL STANDARD VERIFIED 10:51
EXTERNAL STANDARD 0.076 10:51
BLANK TEST 0.000 10:52
SUBJECT SAMPLE (Vol=1.85L) 0.000 10:53
BLANK TEST 0.000 10:54
EXTERNAL STANDARD 0.076 10:54
BLANK TEST 0.000 10:55

DMC

