

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 100380 Analyst Derek Watton Start Date 01/22/20

1. Diagnostic Test (attached) Internal Standard value $\leq 3.00\%$ Yes
 1. Voltage Checks
 - a. Adjust voltages, if needed
 - i. Lamp (2.6V Maximum)
 - ii. Bias
 - iii. Cooler (2.0V Maximum)
 - iv. Chopper Frequency
 - v. Detector Voltage (-0.100V to 0.100V)
 - b. Set RFI
 - c. Adjust barometer reading to match NIST traceable barometer
 - d. Adjust volume setting, if needed (1.5L +/- 0.1L)
 - e. Print Technician Screen (attached)
 2. Print Calibration Factors (attached)
 3. Volume Test - Minimum 1.5 L (1.3L to 1.7L)
 4. Linearity Test (attached)
 - a. Levels Used
 - i. 0.020g/210L Mnf Airgas Lot AG928203 Exp 10/09/21
 - ii. 0.040g/210L Mnf Airgas Lot AG915607 Exp 06/05/21
 - iii. 0.080g/210L Mnf Airgas Lot AG826101 Exp 09/18/20
 - iv. 0.100g/210L Mnf Airgas Lot AG924701 Exp 09/04/21
 - v. 0.200g/210L Mnf Watts Lot 19040 Exp 01/29/2021
 1. Simulator S/N DR4176 Date Calibrated 10/07/19
 - vi. 0.300g/210L Mnf Watts Lot 19010 Exp 01/03/21
 1. Simulator S/N DR6267 Date Calibrated 10/08/19
 5. Functional Tests (attached)
 - a. Incomplete
 - b. Invalid
 - c. Interference
 - d. Exceeded attempts
 - i. Acetone - Mnf Watts Lot 18370 Level 0.100 Exp 12/05/20
 1. Simulator S/N SD1199 Date Calibrated 03/06/19
 - ii. Isopropanol - Mnf Watts Lot 18370 Level 0.100 Exp 12/05/20
 1. Simulator S/N DR4161 Date Calibrated 03/07/19
 - iii. Negative Control - Mnf Watts 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 01/22/20

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 09:40:33

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 = 42.7°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.64 V PASSED
(0.97 V - 2.25 V)
Cooler Voltage = 1.54 V PASSED
(0.95 V - 2.23 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 527 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.4 in

PUMP INFO

Flow Rate = 4.694 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 = 0.085 0.51% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 9:50 AM

Temperatures (°C)
Sample Cell: 48.7°C
Breath Tube: 42.8°C

Current Barometer 29.4 in
Volume (Ltr) 1.58

Settings
Lamp: 1.69 V
Bias: 80 V
Cooler: 1.51 V
Chopper: 526 Hz

Voltages (V)
Flow: 1.04 V
Detector: -0.062 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100380

Date: 03/04/2011
Time: 10:42:19

Ca = 0.1000
CAL = 0.981773 0.800 <= CAL < 1.200
b1 = 0.0000 0.0000 <= b1 < 0.0040
b2 = 0.0046 0.0010 <= b2 < 0.0100
b3 = 0.0000 0.0000 <= b3 < 0.0040
Xq = 0.0849 0.0500 <= Xq < 0.2000
a21 = 1.212608 1.050 <= a21 < 1.300
a31 = 0.452285 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 09:52:03

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

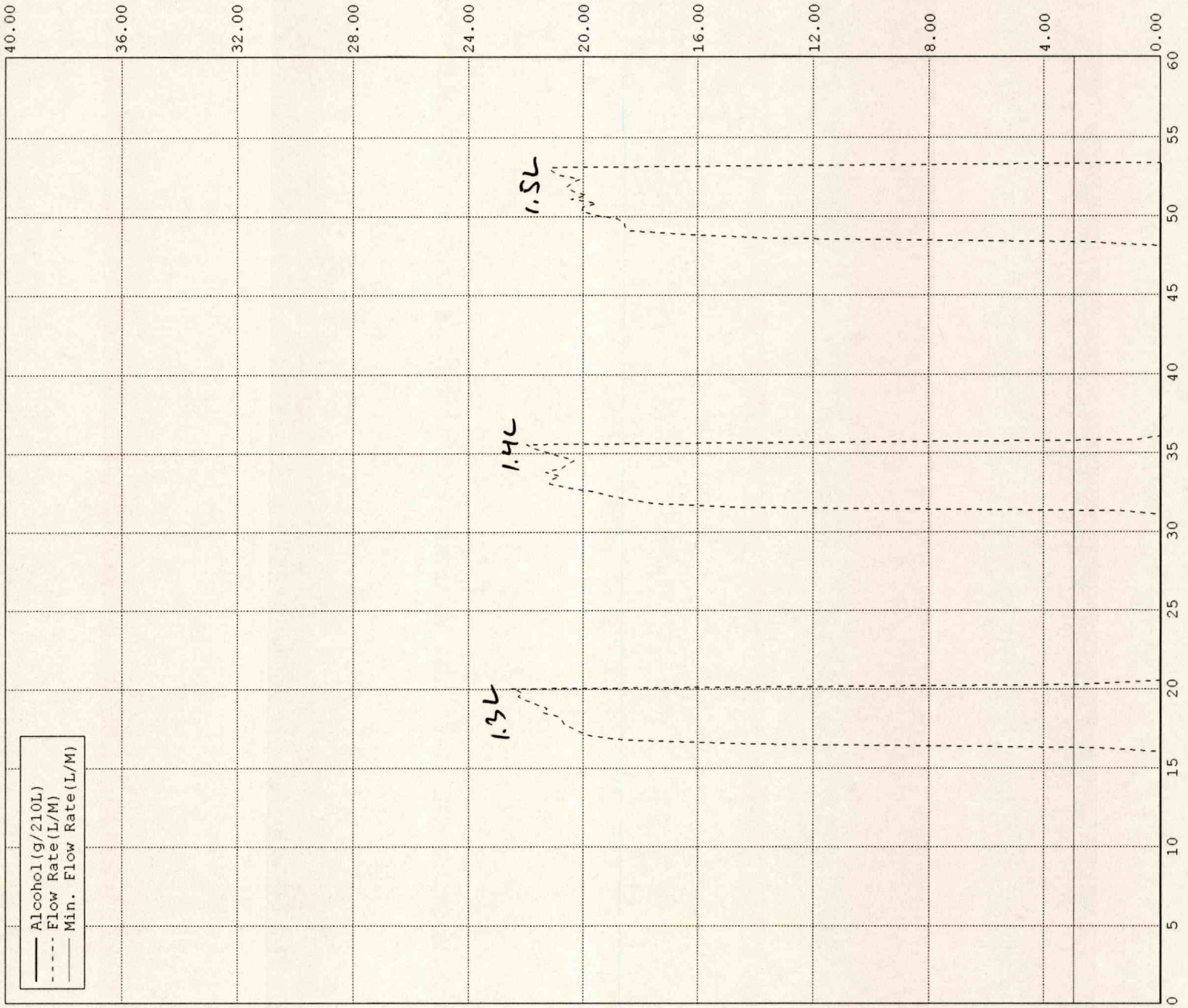
DEPT/AGENCY:
MINIMUM VOLUME
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.44: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:53
BLANK TEST	0.000	09:53
INTERNAL STANDARD	VERIFIED	09:53
EXTERNAL STANDARD	0.078	09:53
BLANK TEST	0.000	09:54
SUBJECT SAMPLE (Vol=1.54L)	0.000	09:55
BLANK TEST	0.000	09:56
EXTERNAL STANDARD	0.078	09:56
BLANK TEST	0.000	09:57

DW



LINEARITY CHECK

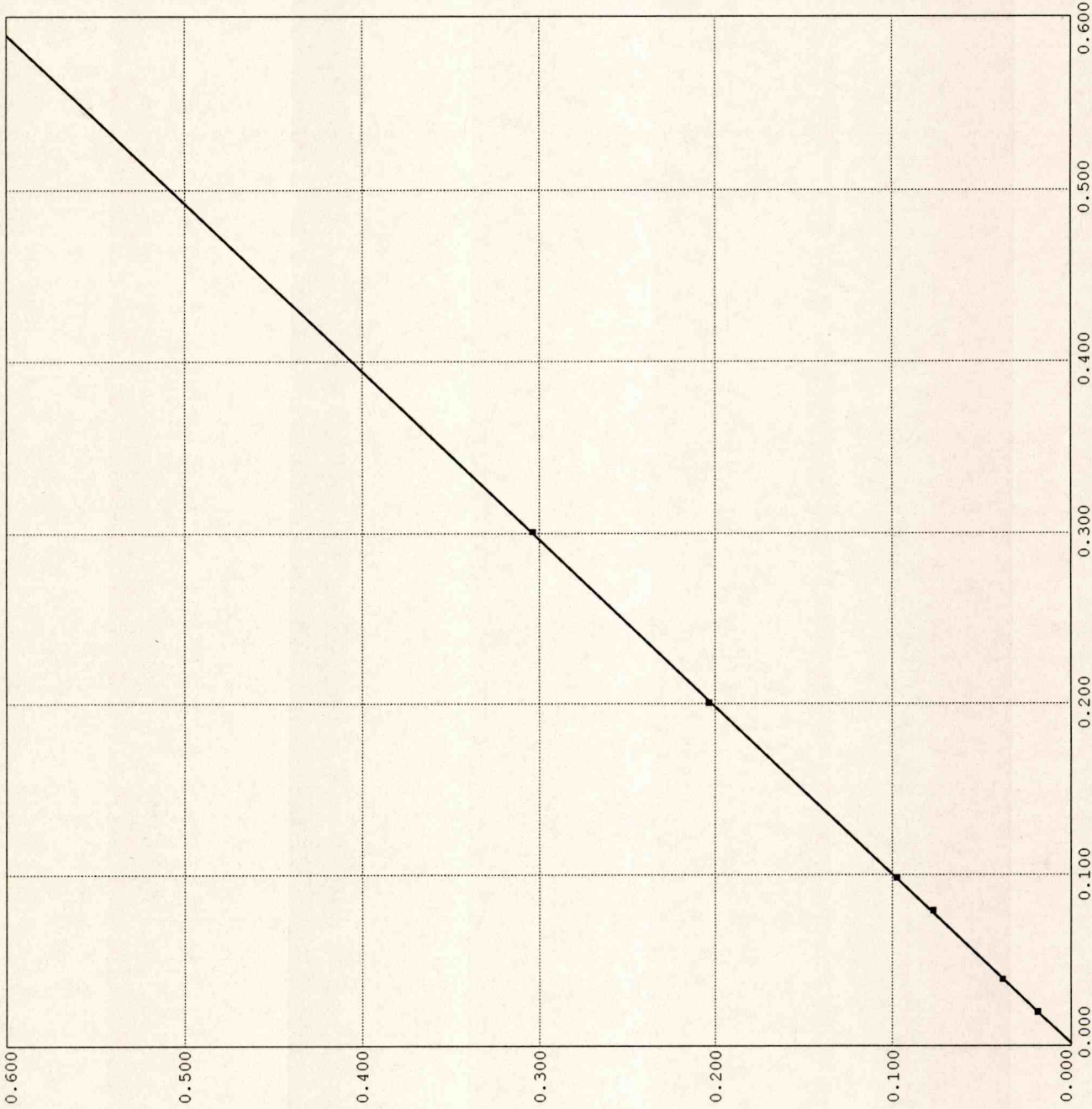
Alaska Department of Public Safety
DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 10:16:40

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0192	0.0004
0.039	0.0390	0.0000
0.079	0.0780	0.0000
0.098	0.0984	0.0005
0.200	0.2044	0.0005
0.300	0.3044	0.0005

SLOPE = 1.021510
R² = 0.999920



mw

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100380

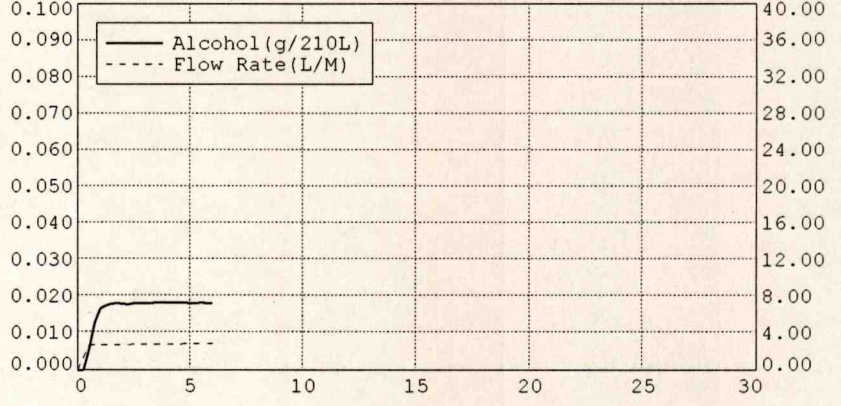
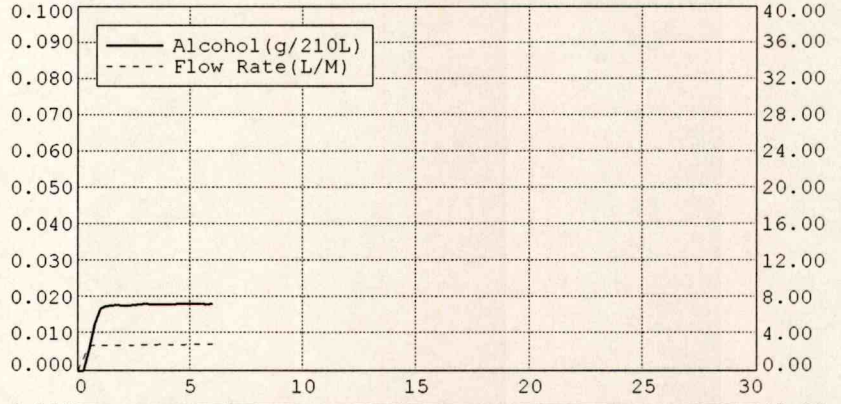
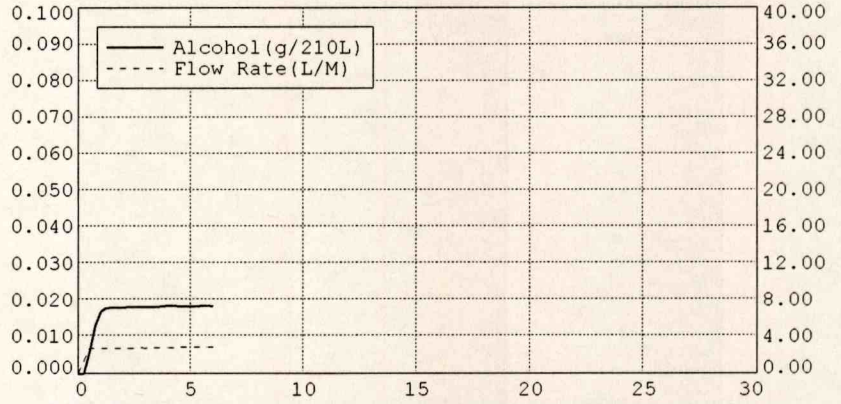
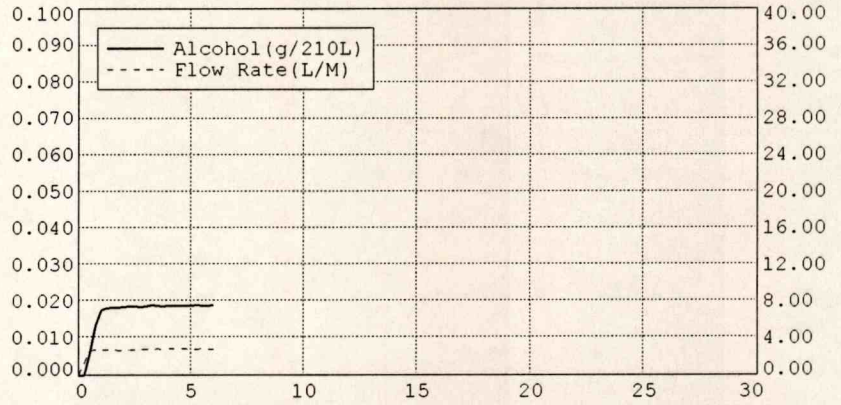
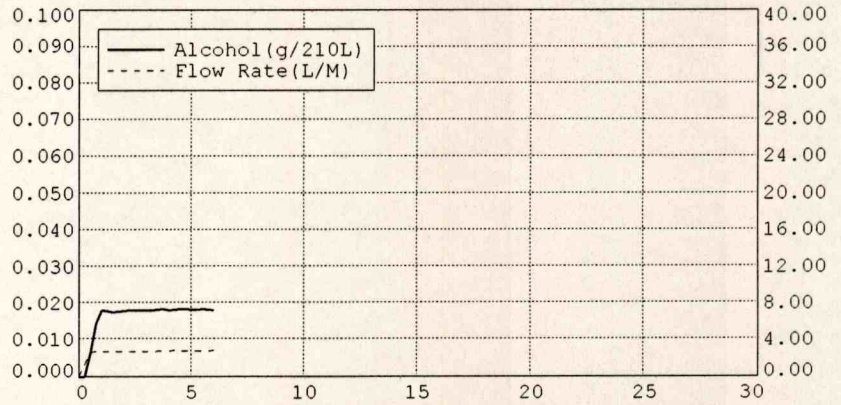
Date: 01/22/2020
Time: 10:16:42

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.45: 0.020
LOT #: AG928203
EXPIRATION: 10/09/2021
TANK PRESSURE: 1076 psi

BLANK TEST	0.000	10:18
INTERNAL STANDARD	VERIFIED	10:18
EXTERNAL STANDARD	0.019	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.020	10:20
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.019	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.019	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.019	10:23
BLANK TEST	0.000	10:24

Average = 0.0192
Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100380

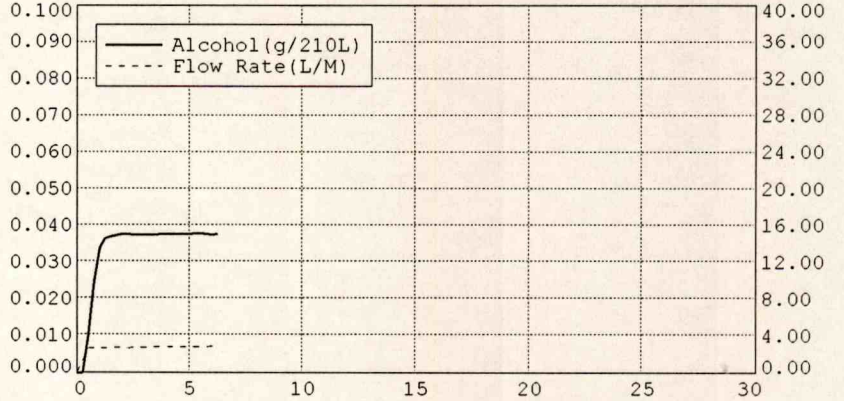
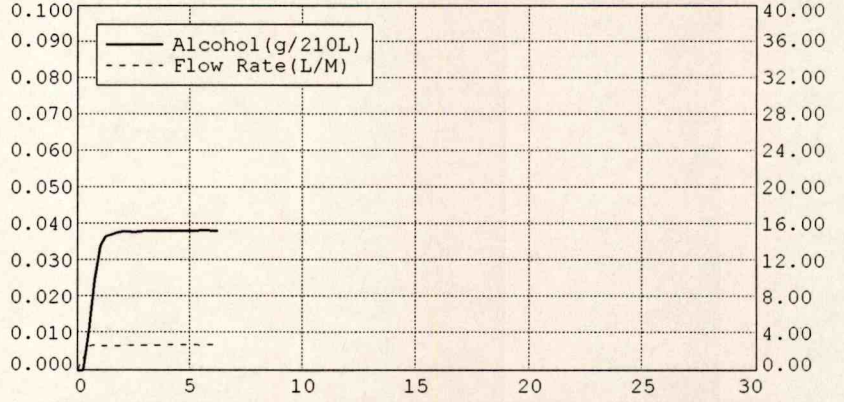
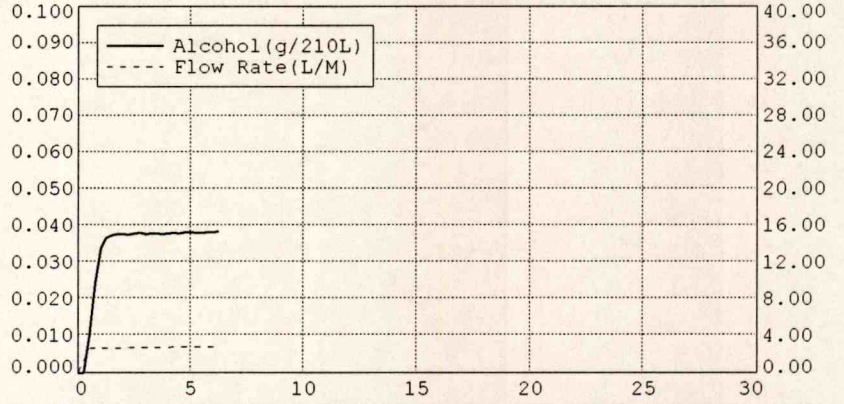
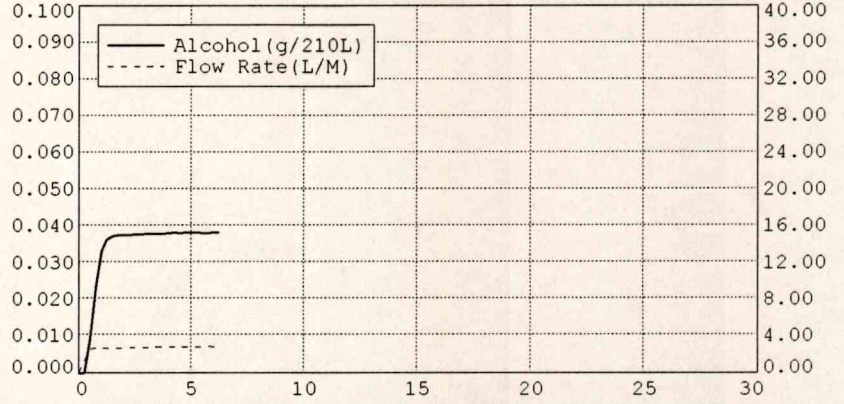
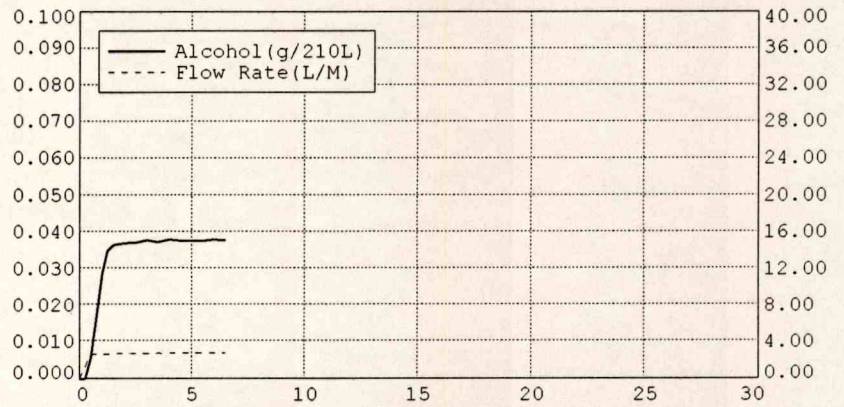
Date: 01/22/2020
 Time: 10:25:37

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.45: 0.039
 LOT #: AG915607
 EXPIRATION: 06/05/2021
 TANK PRESSURE: 958 psi

BLANK TEST	0.000	10:27
INTERNAL STANDARD	VERIFIED	10:27
EXTERNAL STANDARD	0.039	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.039	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.039	10:29
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.039	10:30
BLANK TEST	0.000	10:31
EXTERNAL STANDARD	0.039	10:31
BLANK TEST	0.000	10:32

Average = 0.0390
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100380

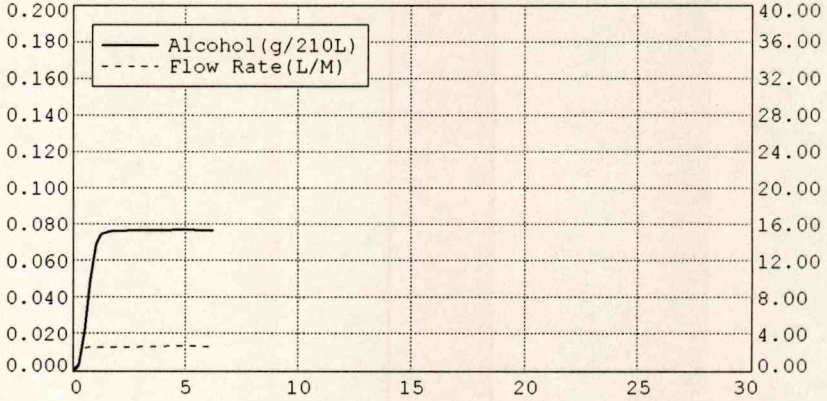
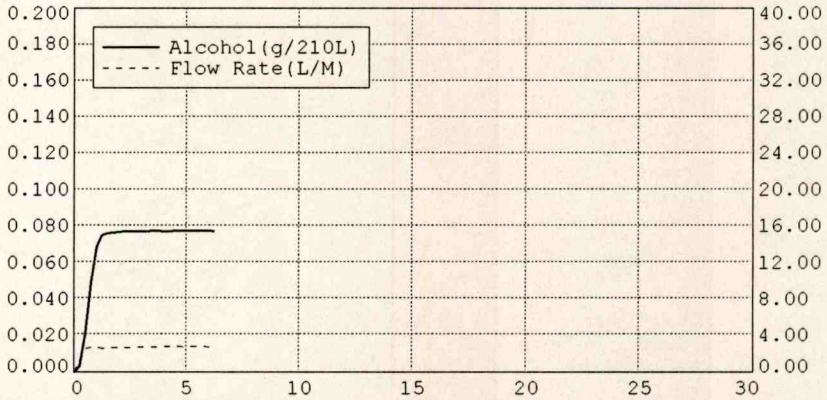
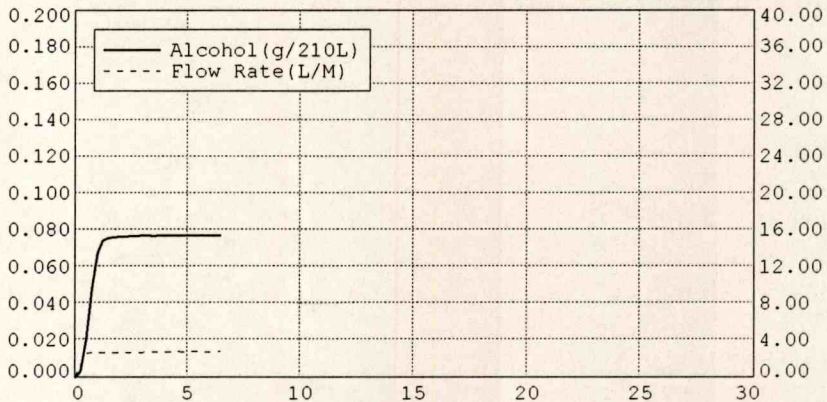
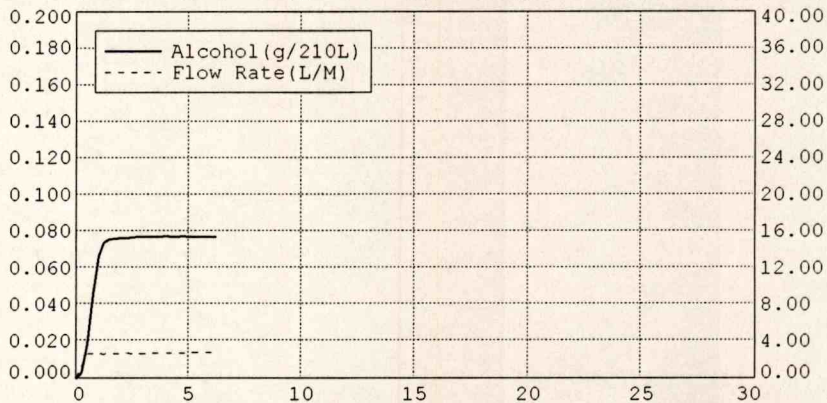
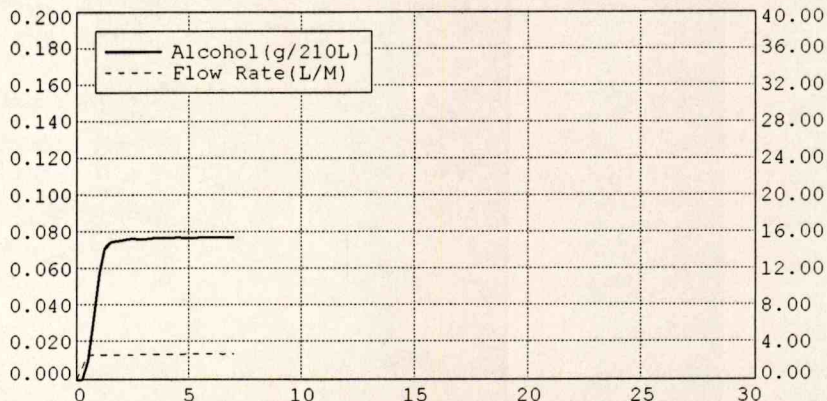
Date: 01/22/2020
 Time: 10:35:08

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.45: 0.079
 LOT #: AG826101
 EXPIRATION: 09/18/2020
 TANK PRESSURE: 851 psi

BLANK TEST	0.000	10:36
INTERNAL STANDARD	VERIFIED	10:36
EXTERNAL STANDARD	0.078	10:36
BLANK TEST	0.000	10:37
EXTERNAL STANDARD	0.078	10:38
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.078	10:39
BLANK TEST	0.000	10:40
EXTERNAL STANDARD	0.078	10:40
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.078	10:41
BLANK TEST	0.000	10:42

Average = 0.0780
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100380

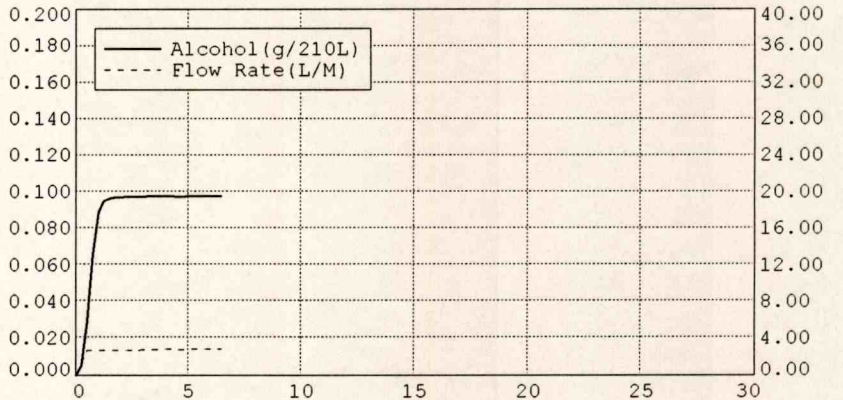
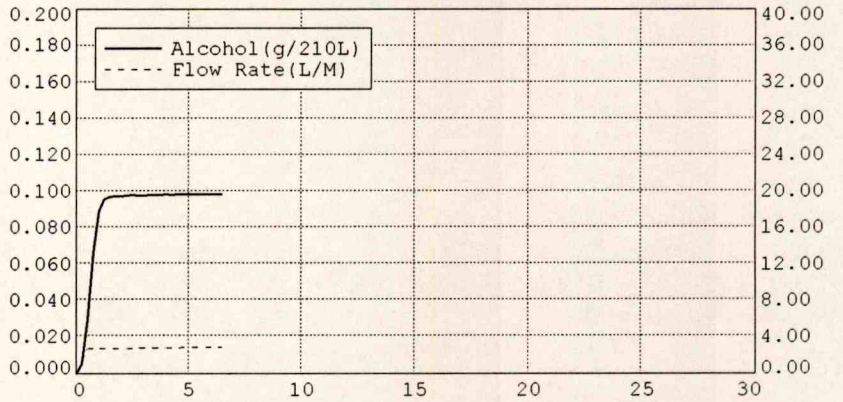
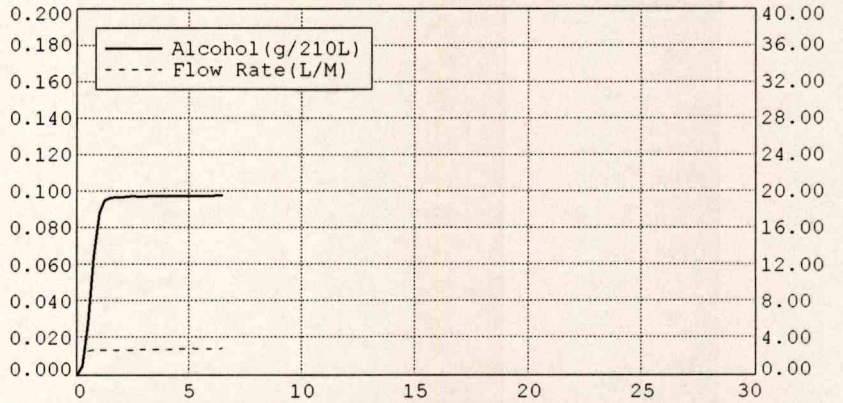
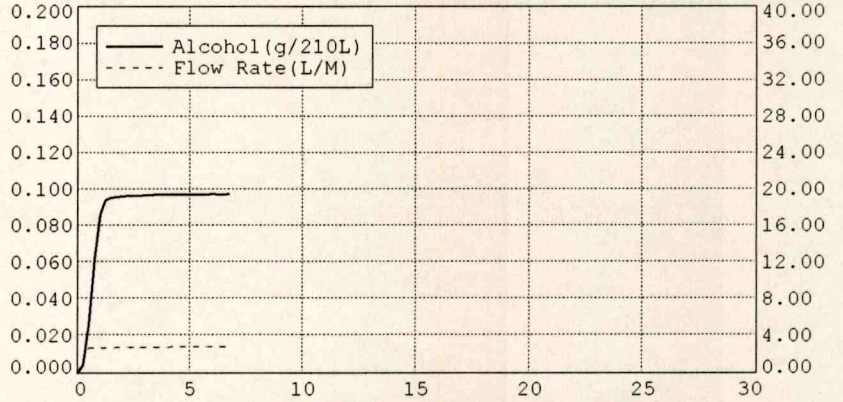
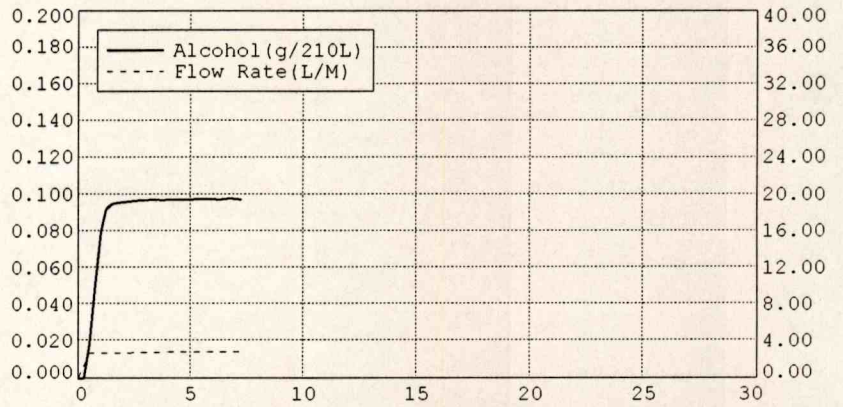
Date: 01/22/2020
 Time: 10:44:47

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.45: 0.098
 LOT #: AG924701
 EXPIRATION: 09/04/2021
 TANK PRESSURE: 1060 psi

BLANK TEST	0.000	10:46
INTERNAL STANDARD	VERIFIED	10:46
EXTERNAL STANDARD	0.098	10:46
BLANK TEST	0.000	10:47
EXTERNAL STANDARD	0.098	10:47
BLANK TEST	0.000	10:48
EXTERNAL STANDARD	0.099	10:48
BLANK TEST	0.000	10:49
EXTERNAL STANDARD	0.099	10:49
BLANK TEST	0.000	10:50
EXTERNAL STANDARD	0.098	10:50
BLANK TEST	0.000	10:51

Average = 0.0984
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

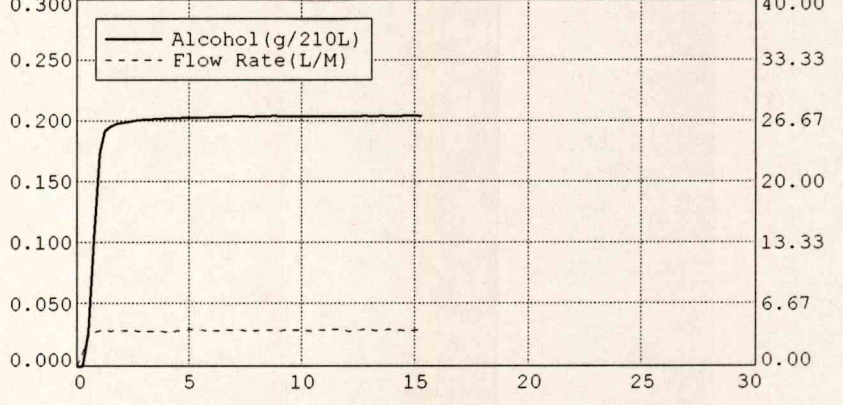
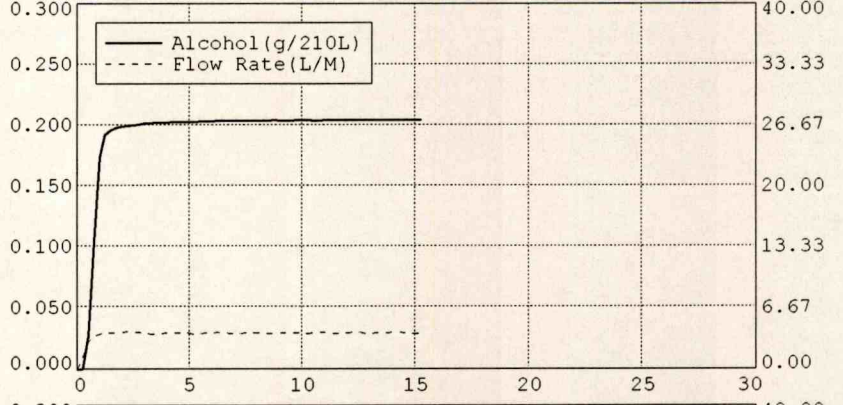
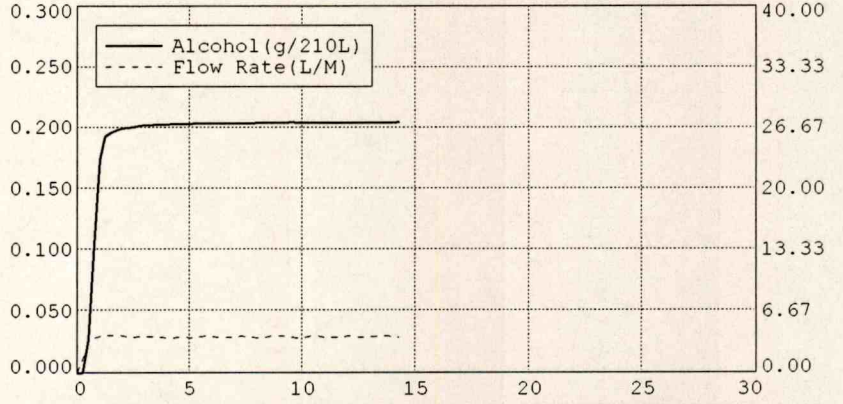
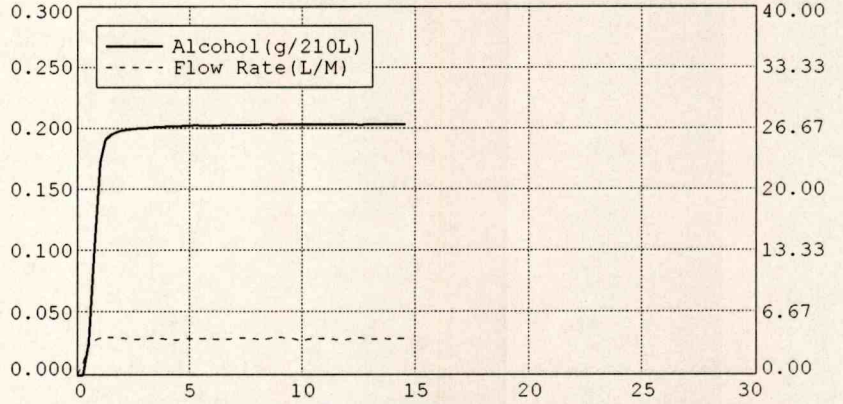
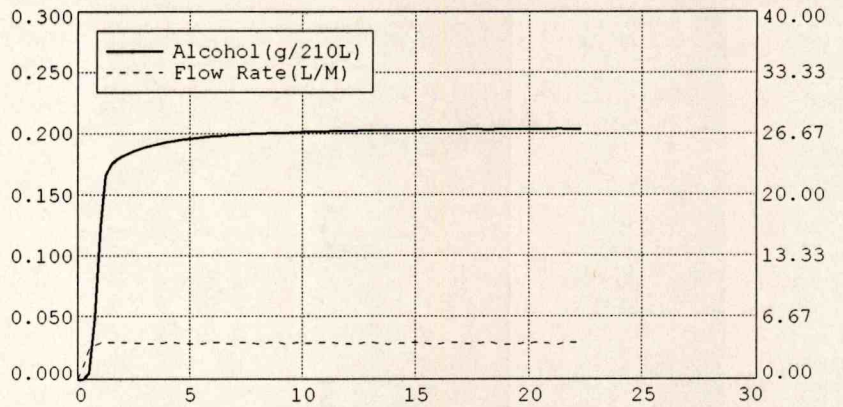
Alaska Department of Public Safety
 DATAMASTER dmt: 100380

Date: 01/22/2020
 Time: 10:57:25

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: 19040
 EXPIRATION: 01/29/2021

BLANK TEST	0.000	10:58
INTERNAL STANDARD	VERIFIED	10:58
EXTERNAL STANDARD	0.205	10:59
BLANK TEST	0.000	11:00
EXTERNAL STANDARD	0.204	11:00
BLANK TEST	0.000	11:01
EXTERNAL STANDARD	0.204	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.204	11:02
BLANK TEST	0.000	11:03
EXTERNAL STANDARD	0.205	11:04
BLANK TEST	0.000	11:05

Average = 0.2044
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100380

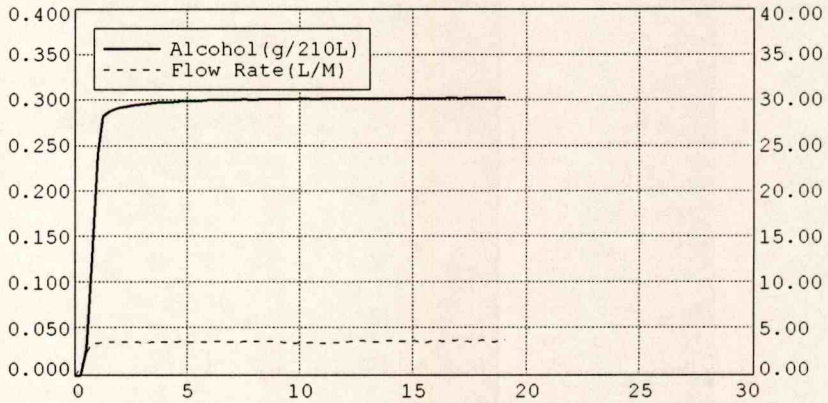
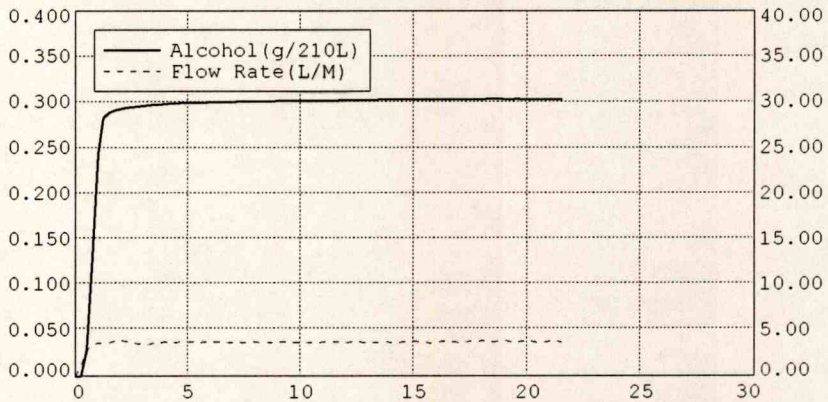
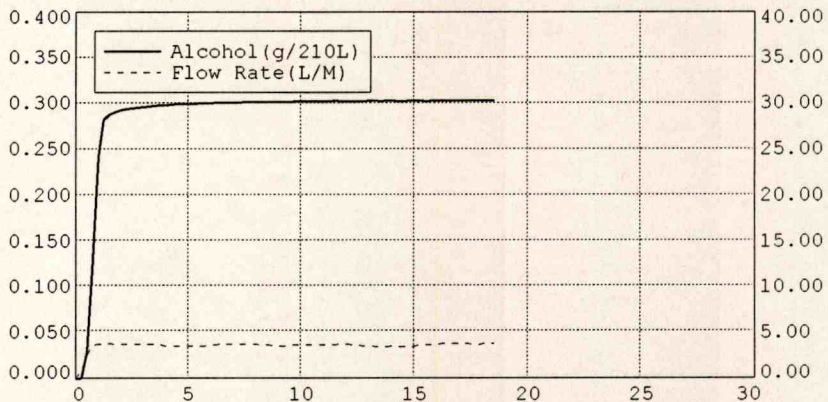
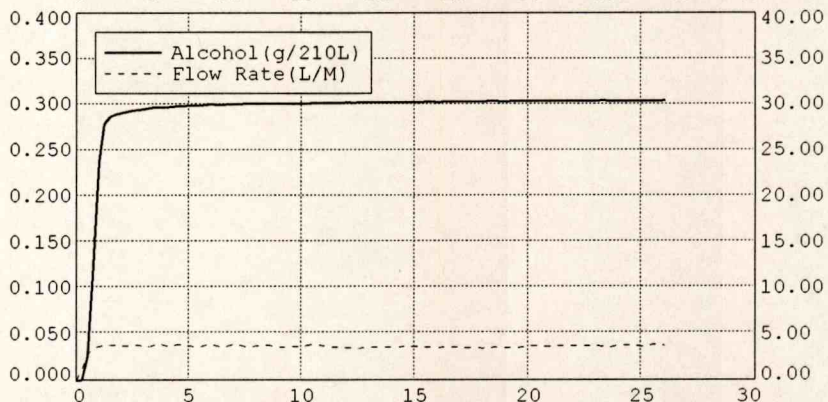
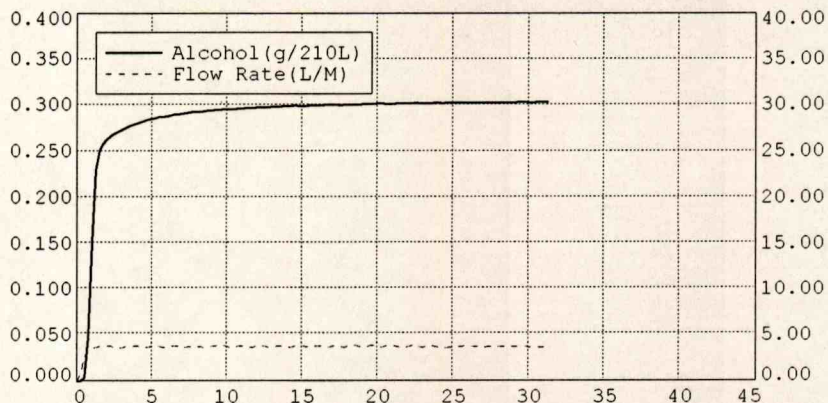
Date: 01/22/2020
 Time: 11:08:43

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	11:09
INTERNAL STANDARD	VERIFIED	11:09
EXTERNAL STANDARD	0.304	11:10
BLANK TEST	0.000	11:11
EXTERNAL STANDARD	0.305	11:12
BLANK TEST	0.000	11:13
EXTERNAL STANDARD	0.304	11:13
BLANK TEST	0.000	11:14
EXTERNAL STANDARD	0.305	11:14
BLANK TEST	0.000	11:15
EXTERNAL STANDARD	0.304	11:16
BLANK TEST	0.000	11:17

Average = 0.3044
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 11:22:53

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

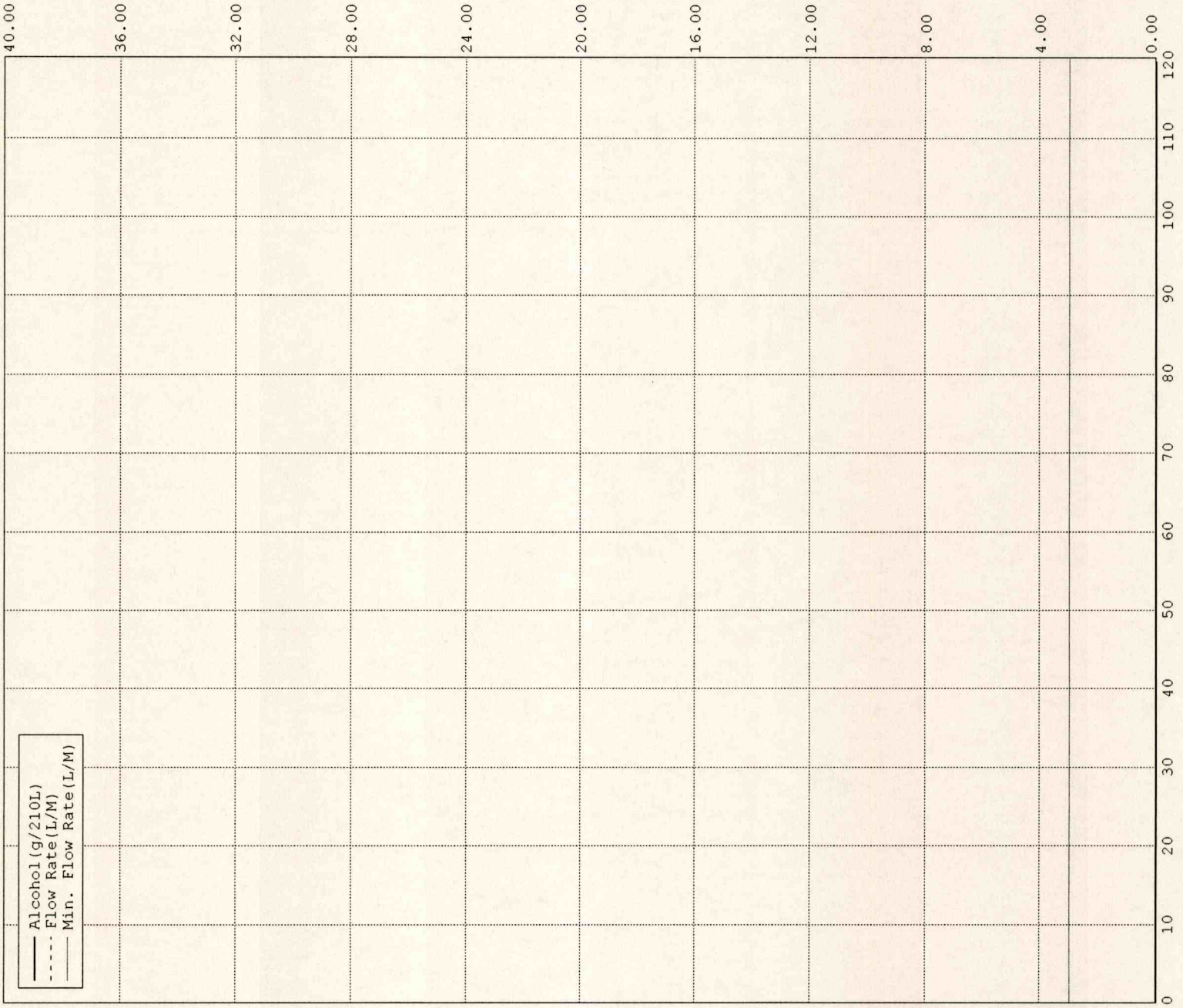
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.47: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:31
BLANK TEST 0.000 11:31
INTERNAL STANDARD VERIFIED 11:31
EXTERNAL STANDARD 0.079 11:31
BLANK TEST 0.000 11:32
SUBJECT SAMPLE INCOMPLETE 11:34

DM



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 14:22:09

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

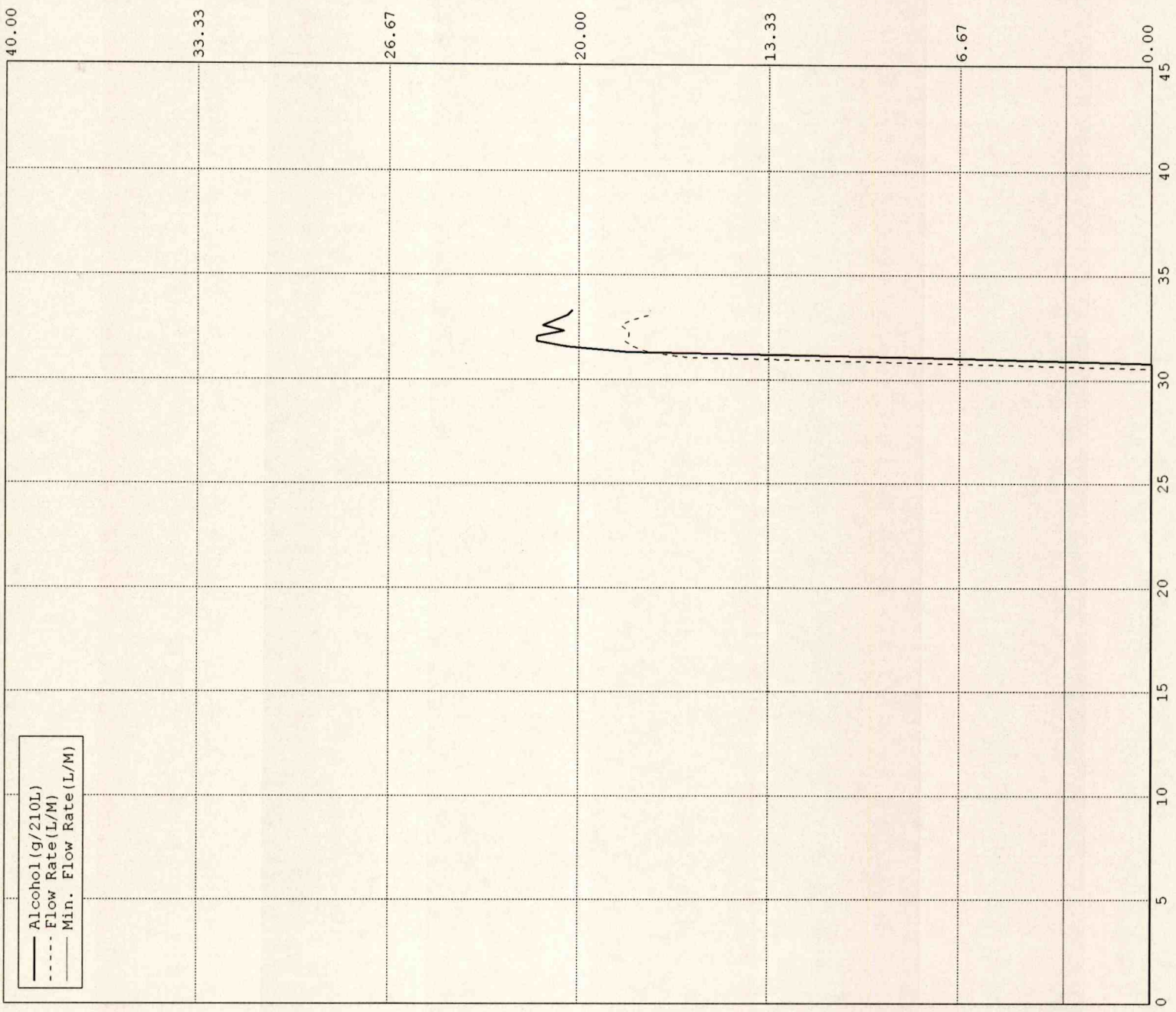
DEPT/AGENCY:
INVALID
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.49: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:23
BLANK TEST 0.000 14:23
INTERNAL STANDARD VERIFIED 14:23
EXTERNAL STANDARD 0.078 14:23
BLANK TEST 0.000 14:24
SUBJECT SAMPLE INVALID 14:25

Handwritten signature



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100380

Date: 01/22/2020

Time: 11:56:53

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 29.47: 0.079

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK

BLANK TEST

INTERNAL STANDARD

Xq = 0.086 (1.13%)

EXTERNAL STANDARD

X[1] = 0.0791 (0.0000) (0.0007)

BLANK TEST

SUBJECT SAMPLE

X[1] = 0.1121 (-0.0190) (-0.0009)

PASSED 11:57

0.000

11:58

VERIFIED

11:58

0.079

11:58

0.000

11:59

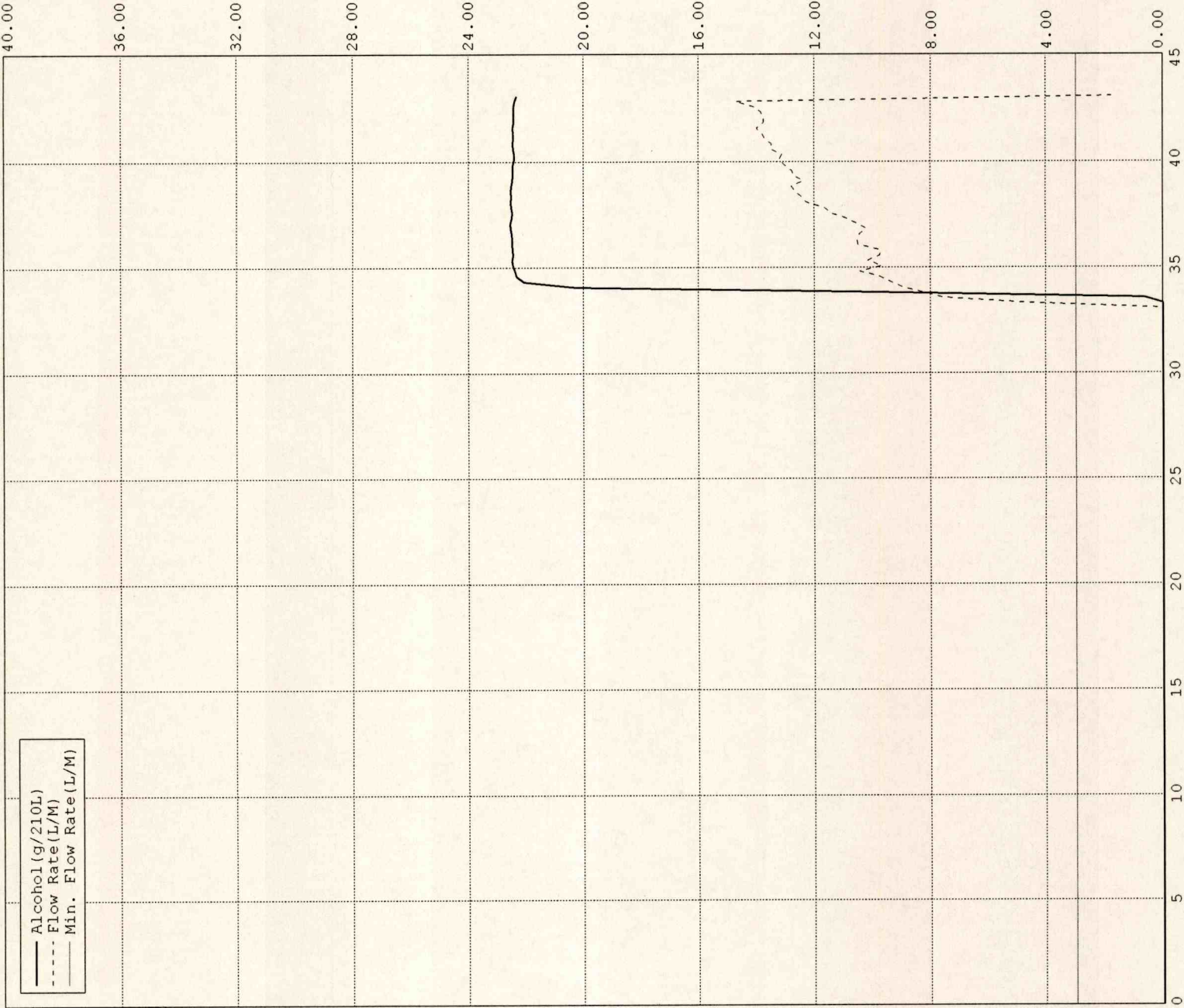
12:00

Interference Detected

Filter 2 Avg: -0.0004

Filter 3 Avg: 0.0008

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 12:02:24

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

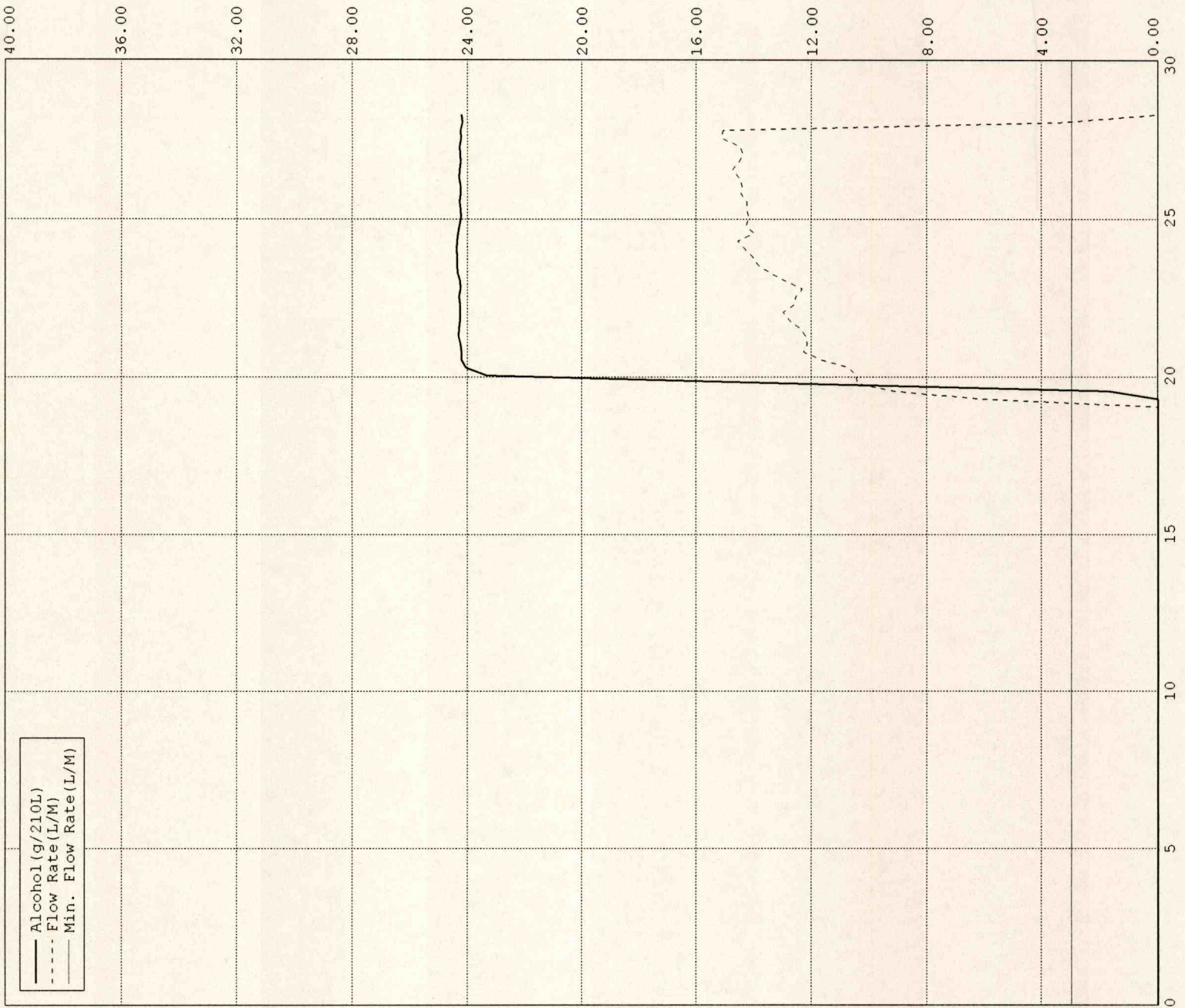
DEPT/AGENCY:
INTERFERENCE ISOPROPANOL
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.47: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 12:03
BLANK TEST 0.000 12:03
INTERNAL STANDARD VERIFIED 12:03
Xq = 0.085 (0.31%)
EXTERNAL STANDARD 0.078 12:03
X[1] = 0.0783 (-0.0008) (0.0005)
BLANK TEST 0.000 12:04
SUBJECT SAMPLE XXX 12:05
X[1] = 0.1215 (-0.0341) (-0.0017)

Interference Detected

Handwritten signature



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 12:08:23

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

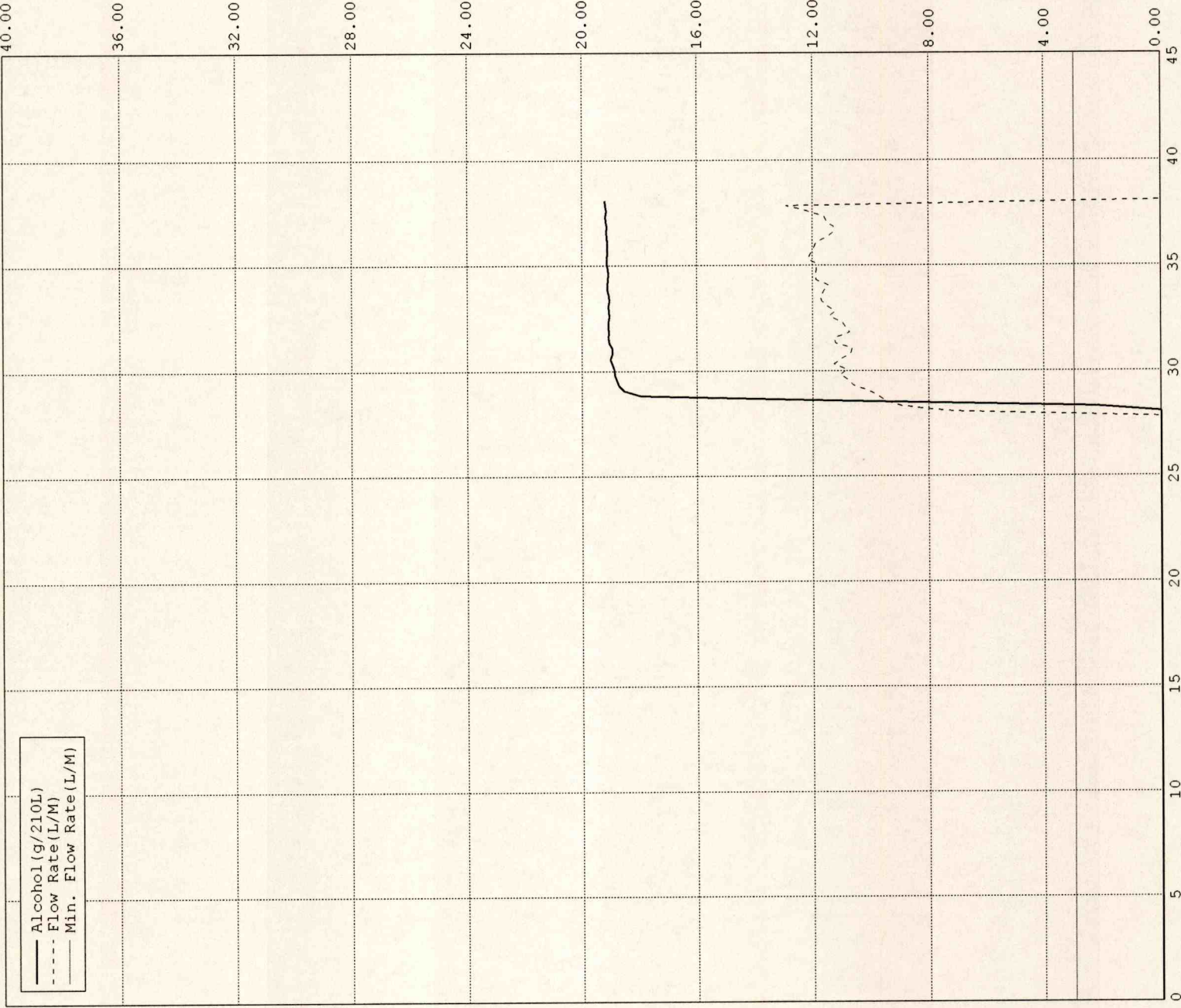
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.47: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:09
BLANK TEST	0.000	12:09
INTERNAL STANDARD	VERIFIED	12:09
Xq = 0.085 (0.62%)		
EXTERNAL STANDARD	0.078	12:10
X[1] = 0.0784 (-0.0001)	(0.0012)	
BLANK TEST	0.000	12:11
SUBJECT SAMPLE (Vol=1.86L)	0.096	12:11
X[1] = 0.0966 (-0.0014)	(-0.0013)	
BLANK TEST	0.000	12:12
EXTERNAL STANDARD	0.078	12:12
X[1] = 0.0782 (-0.0006)	(0.0008)	
BLANK TEST	0.000	12:13



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100380

Date: 01/22/2020

Time: 11:49:42

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 29.47: 0.079

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK

PASSED 11:50

BLANK TEST

0.000 11:50

INTERNAL STANDARD

VERIFIED

0.078 11:51

EXTERNAL STANDARD

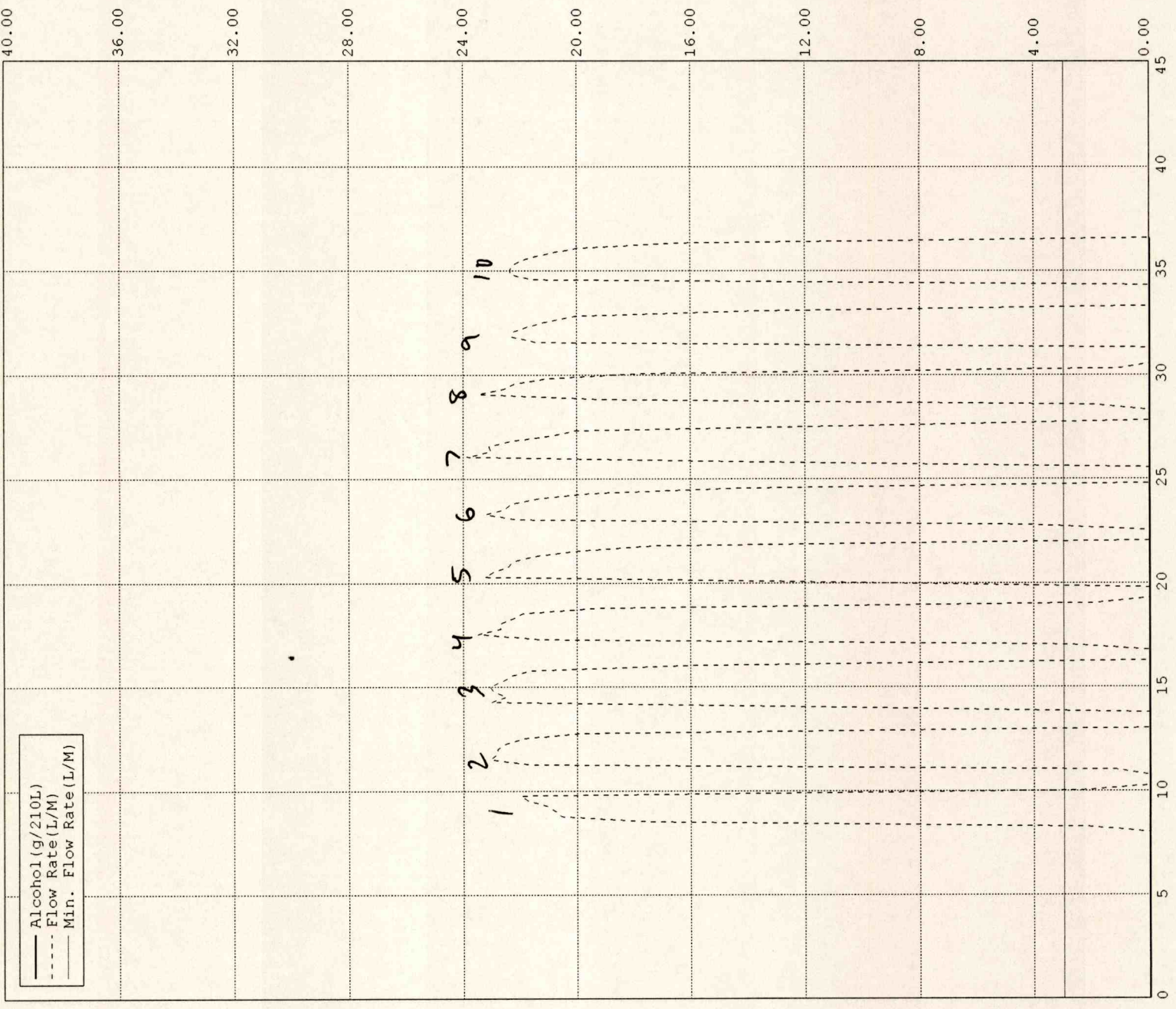
0.000 11:52

BLANK TEST

XXX 11:52

SUBJECT SAMPLE

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 14:29:22

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

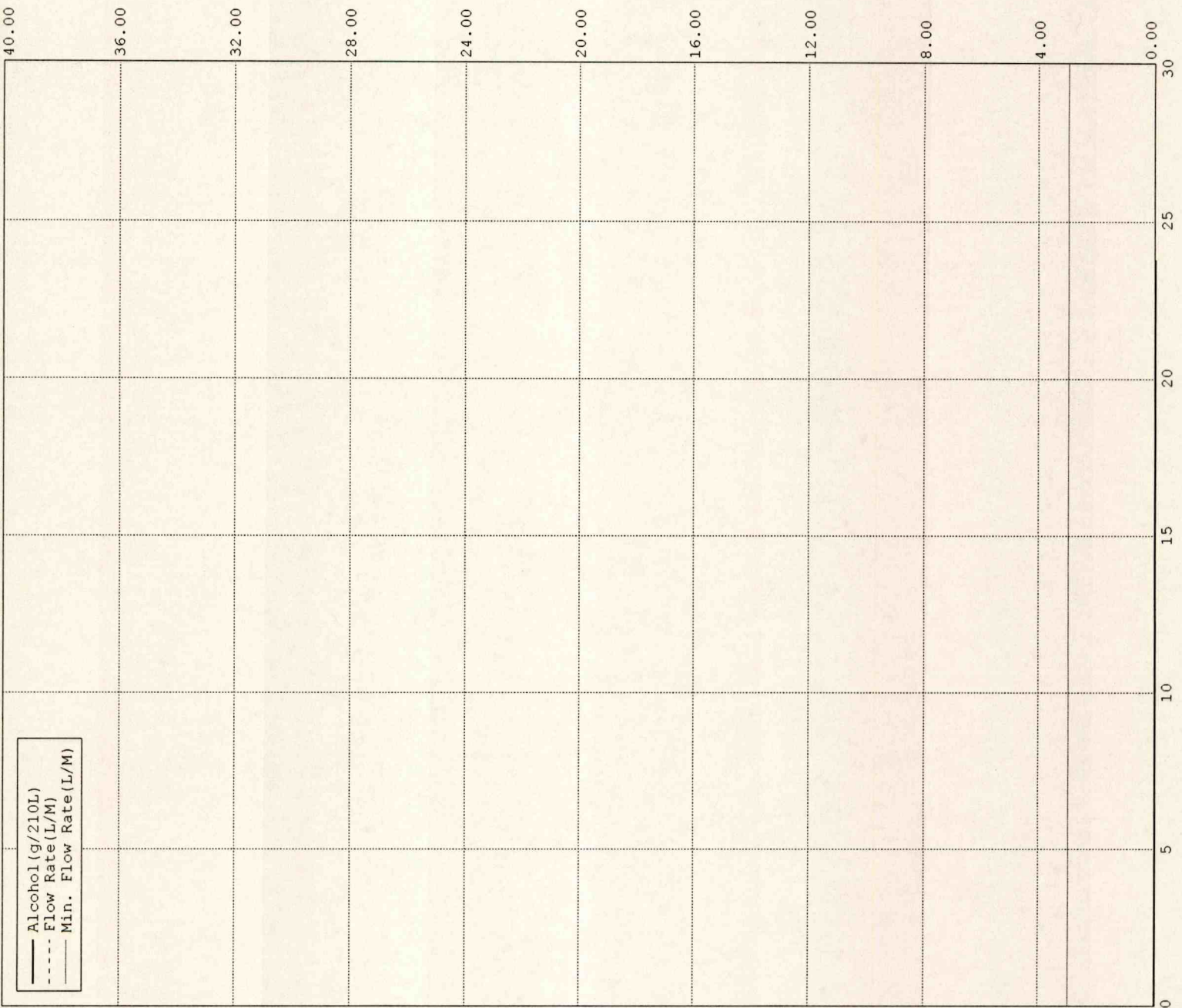
DEPT/AGENCY:
RADIO FREQUENCY
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.49: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK
BLANK TEST PASSED 14:30
INTERNAL STANDARD VERIFIED 14:31
EXTERNAL STANDARD 0.079 14:31
BLANK TEST 0.000 14:32

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100380

Date: 01/22/2020
Time: 16:00:29

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 29.49: 0.079
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	16:02
BLANK TEST	0.000	16:02
INTERNAL STANDARD	VERIFIED	16:02
EXTERNAL STANDARD	0.080	16:03
BLANK TEST	0.000	16:04
SUBJECT SAMPLE (Vol=2.53L)	0.000	16:04
BLANK TEST	0.000	16:05
EXTERNAL STANDARD	0.080	16:05
BLANK TEST	0.000	16:06

DWK

