

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 100344 Analyst Derek Watten Start Date 10/08/20

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 1.6 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 AG018102 Exp 06/29/22
 - iv. 0.100g/210L Mnf Airgas Lot AG924701 Exp 09/04/21
 - v. 0.200g/210L Mnf Cuth Lot 19200 Exp 08/06/21
 1. Simulator S/N DR4161 Date Calibrated 05/08/20
 - vi. 0.300g/210L Mnf Cuth Lot 19330 Exp 11/13/21
 1. Simulator S/N DR5298 Date Calibrated 05/08/20
 5. Functional Tests (attached)
 - a. Incomplete
 - b. Invalid
 - c. Interference
 - d. Exceeded attempts
 - i. Acetone - Mnf Cuth Lot 19301 Level 0.100 Exp 10/30/21
 1. Simulator S/N SD1202 Date Calibrated 05/08/20
 - ii. Isopropanol - Mnf Cuth Lot 19301 Level 0.100 Exp 10/30/21
 1. Simulator S/N SD1177 Date Calibrated 05/07/20
 - iii. Negative Control - Mnf Cuth Lot 19301 Level 0.100 Exp 10/30/21
 1. Simulator S/N SP1088 Date Calibrated 05/08/20
 - 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 10/09/20

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100344

Date: 10/08/2020
Time: 09:56:40

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

TEMPERATURES

Sample Chamber = 48.9°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.25 V PASSED
(1.35 V - 3.15 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 = 5.740 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.001 V <= 0.010 V)
PUMP OFF PASSED
(0.001 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD ✓ PASSED
Xq = 0.108 0.32% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100344

Date: 10/08/2020
Time: 10:08 AM

Temperatures (°C)
Sample Cell: 49.2°C
Breath Tube: 47.6°C

Current Barometer 29.2 in
Volume (Ltr) 1.42 ✓

Settings
Lamp: 2.25 V
Bias: 79 V
Cooler: 1.94 V
Chopper: 525 Hz

Voltages (V)
Flow: 1.09 V
Detector: 0.039 V ✓

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100344

Date: 09/17/2020
Time: 14:07:08

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca = 0.1000
CAL = 0.975312 0.800 <= CAL < 1.200
b1 = 0.0005 0.0000 <= b1 < 0.0040
b2 = 0.0029 0.0010 <= b2 < 0.0100
b3 = 0.0003 0.0000 <= b3 < 0.0040
Xq = 0.1087 0.0500 <= Xq < 0.2000
a21 = 1.104109 1.050 <= a21 < 1.300
a31 = 0.580129 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100344

Date: 10/08/2020
Time: 10:12:08

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

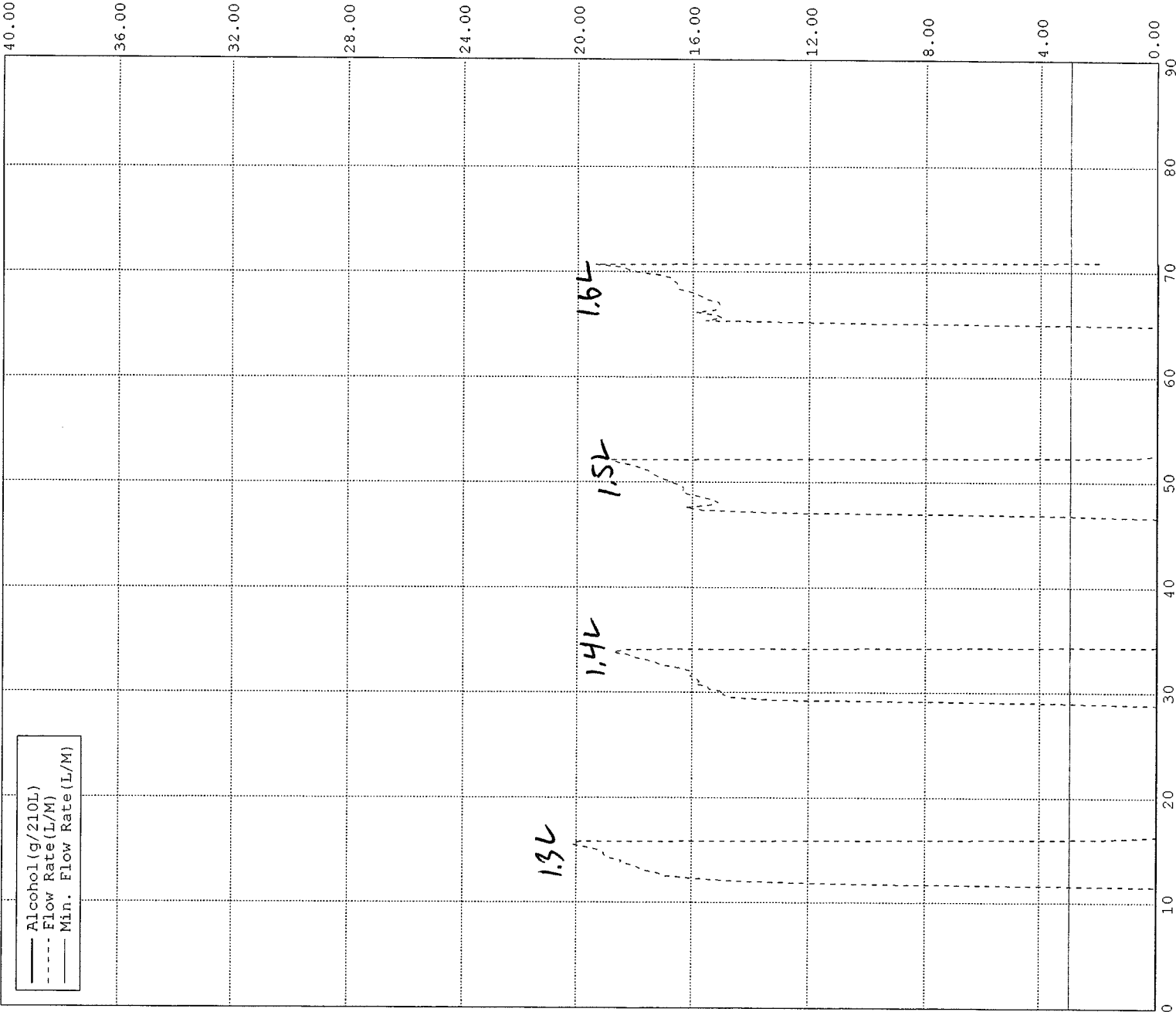
DEPT/AGENCY:
MINIMUM VOLUME
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.22: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	10:13
BLANK TEST	0.000	10:13
INTERNAL STANDARD	VERIFIED	10:13
EXTERNAL STANDARD	0.076	10:13
BLANK TEST	0.000	10:14
SUBJECT SAMPLE (Vol=1.54L)	0.000	10:15
BLANK TEST	0.000	10:16
EXTERNAL STANDARD	0.076	10:16
BLANK TEST	0.000	10:17

DM



LINEARITY CHECK

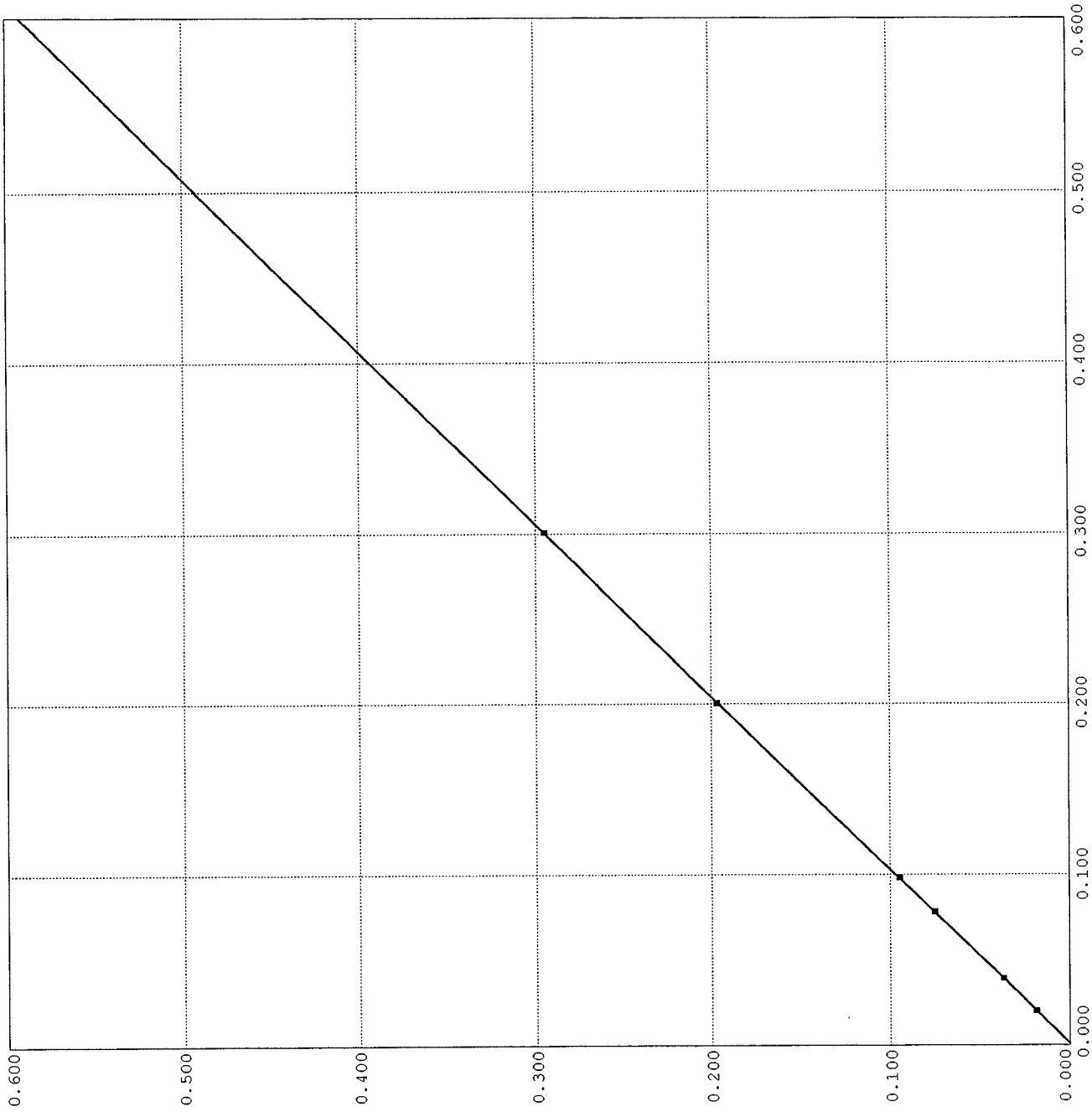
 Alaska Department of Public Safety
 DATAMASTER dmt: 100344

Date: 10/08/2020
 Time: 10:20:48

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0192	0.0004
0.039	0.0380	0.0000
0.078	0.0760	0.0000
0.098	0.0958	0.0004
0.200	0.1976	0.0005
0.300	0.2956	0.0005

SLOPE = 0.988560
 R² = 0.999987



DW

LINEARITY CHECK: Control Test 1

 Alaska Department of Public Safety
 DATAMASTER dmt: 100344

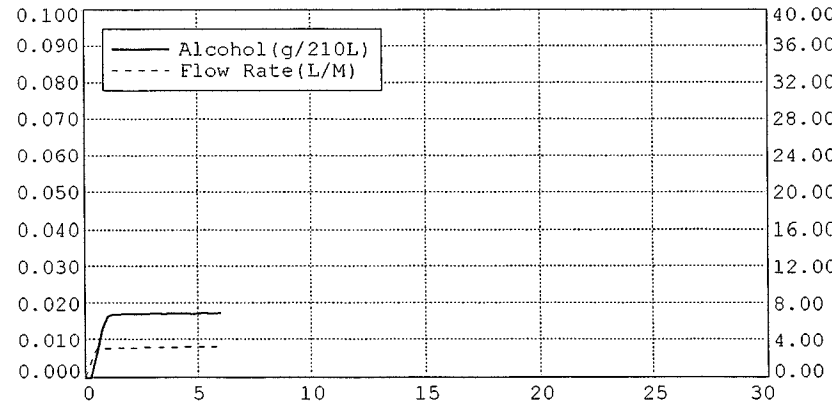
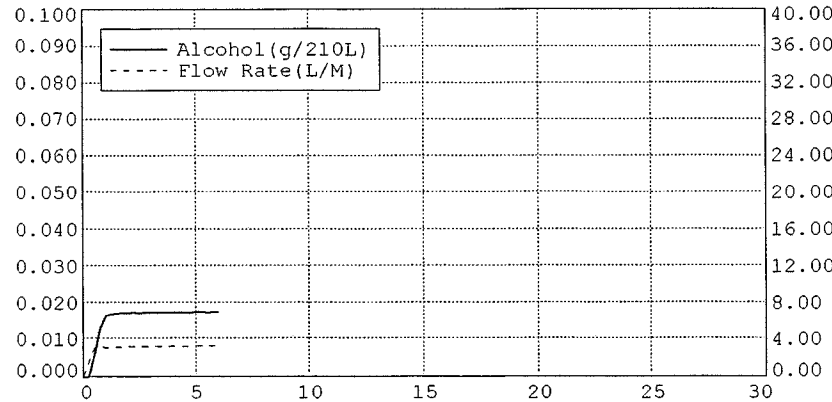
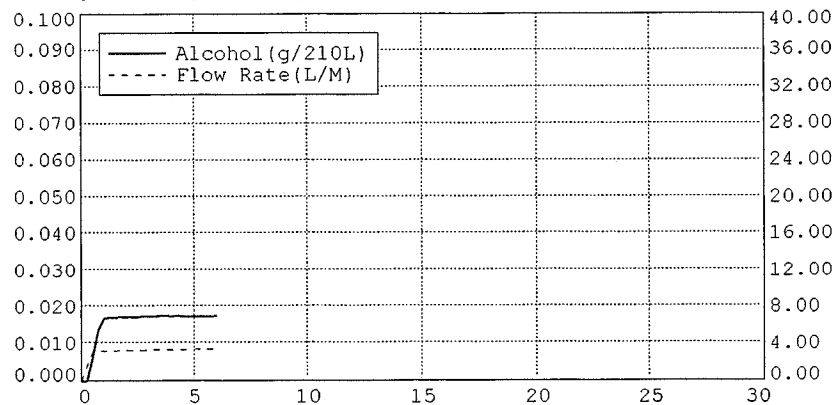
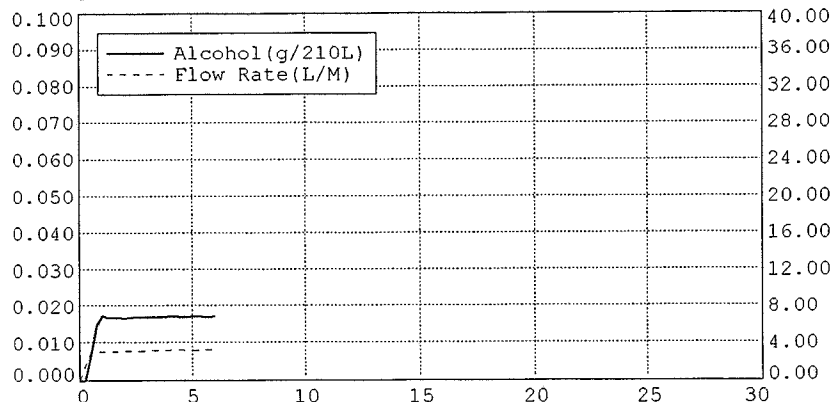
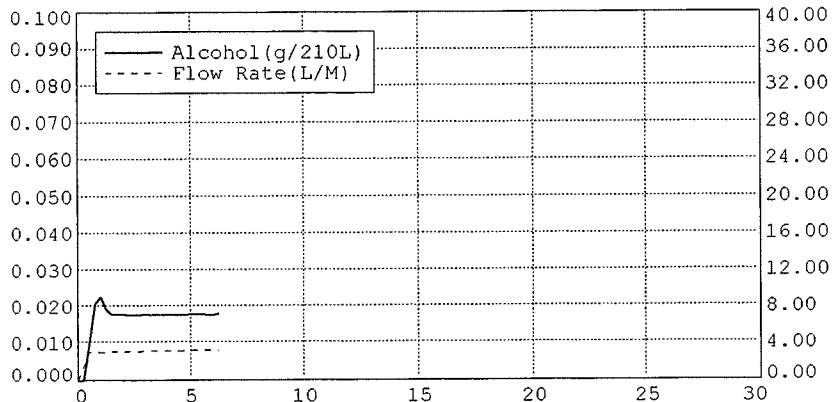
Date: 10/08/2020
 Time: 10:20:50

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.23: 0.020
 LOT #: AG928203
 EXPIRATION: 10/09/2021
 TANK PRESSURE: 771 psi

BLANK TEST	0.000	10:22
INTERNAL STANDARD	VERIFIED	10:22
EXTERNAL STANDARD	0.020	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.019	10:23
BLANK TEST	0.000	10:24
EXTERNAL STANDARD	0.019	10:24
BLANK TEST	0.000	10:25
EXTERNAL STANDARD	0.019	10:25
BLANK TEST	0.000	10:26
EXTERNAL STANDARD	0.019	10:26
BLANK TEST	0.000	10:27

Average = 0.0192
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100344

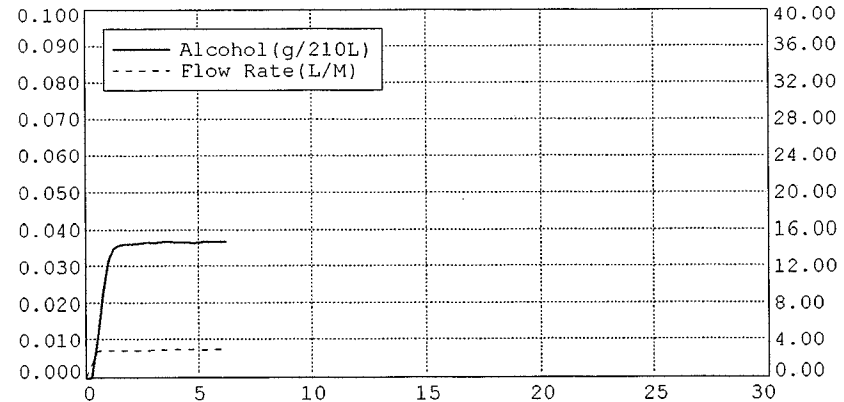
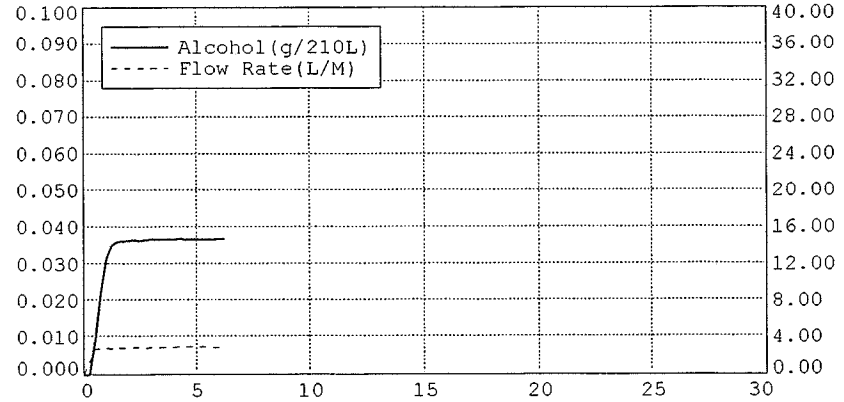
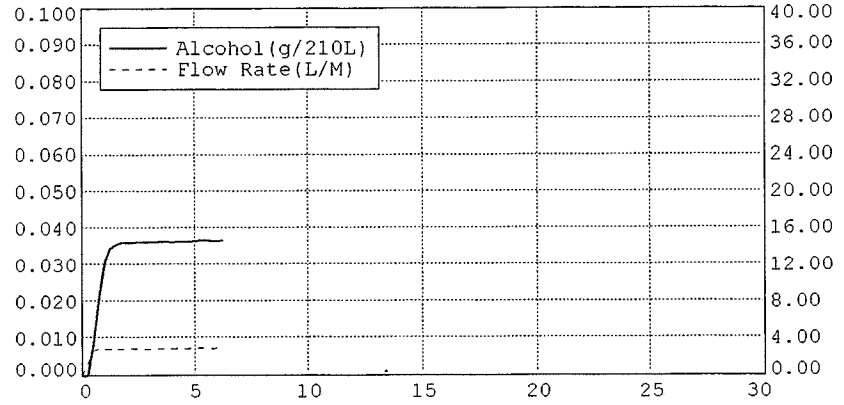
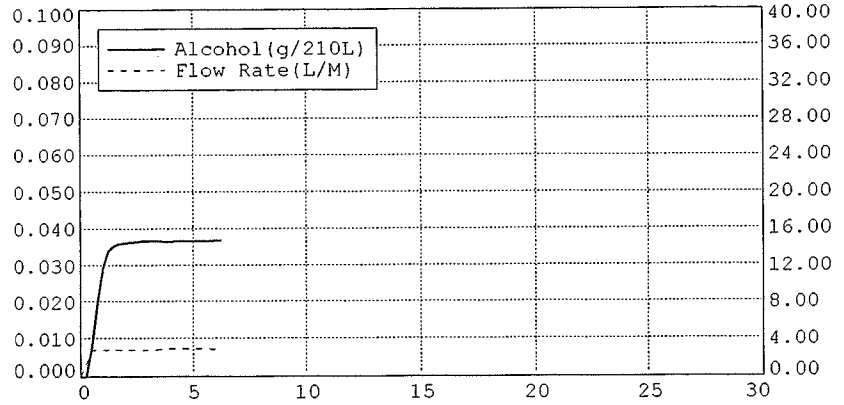
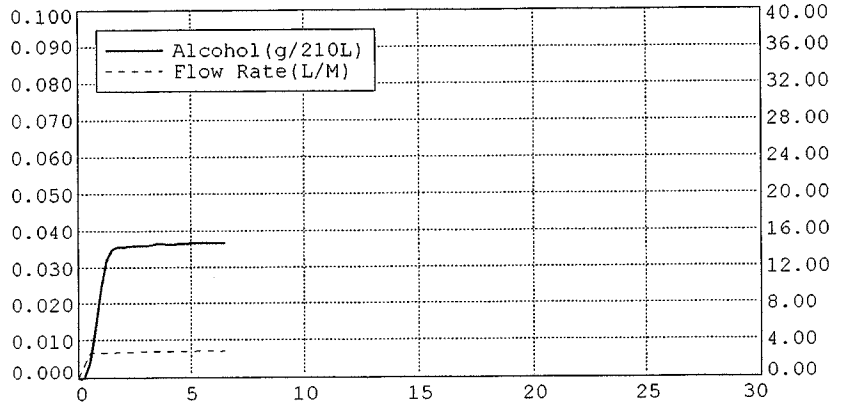
Date: 10/08/2020
 Time: 10:29:08

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.23: 0.039
 LOT #: AG915607
 EXPIRATION: 06/05/2021
 TANK PRESSURE: 535 psi

BLANK TEST	0.000	10:30
INTERNAL STANDARD	VERIFIED	10:30
EXTERNAL STANDARD	0.038	10:30
BLANK TEST	0.000	10:31
EXTERNAL STANDARD	0.038	10:31
BLANK TEST	0.000	10:32
EXTERNAL STANDARD	0.038	10:32
BLANK TEST	0.000	10:33
EXTERNAL STANDARD	0.038	10:33
BLANK TEST	0.000	10:34
EXTERNAL STANDARD	0.038	10:35
BLANK TEST	0.000	10:35

Average = 0.0380
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
DATAMASTER dmt: 100344

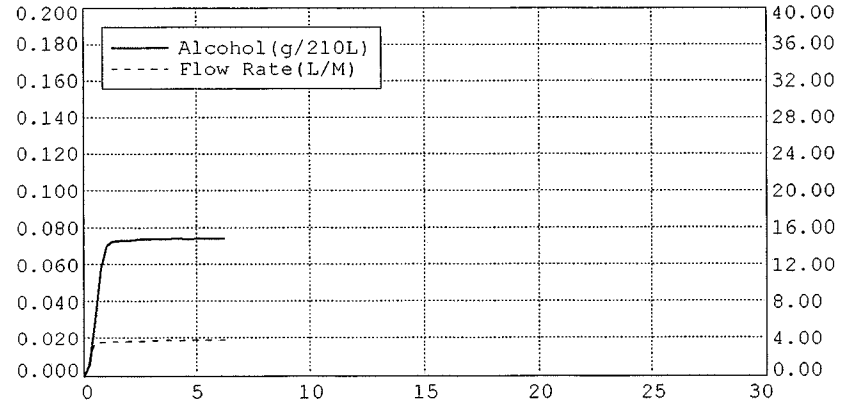
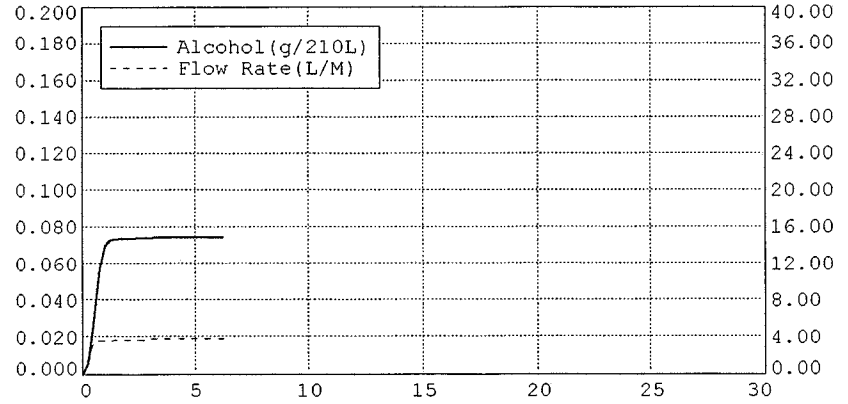
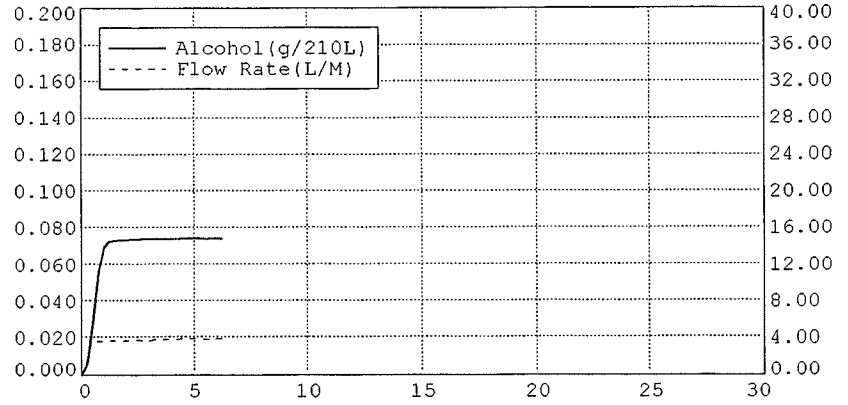
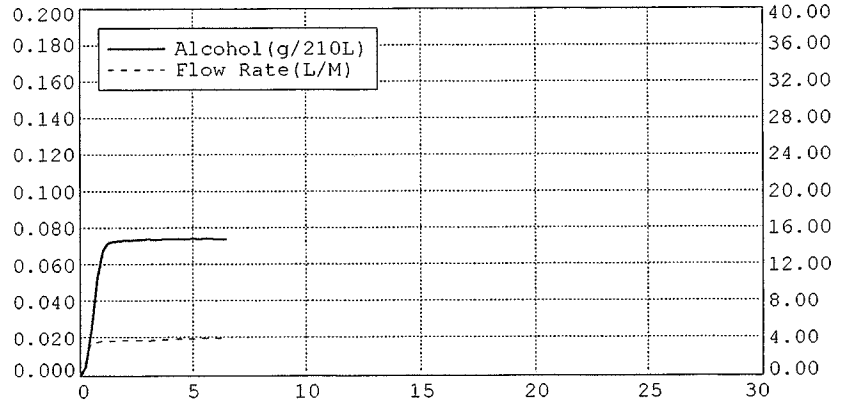
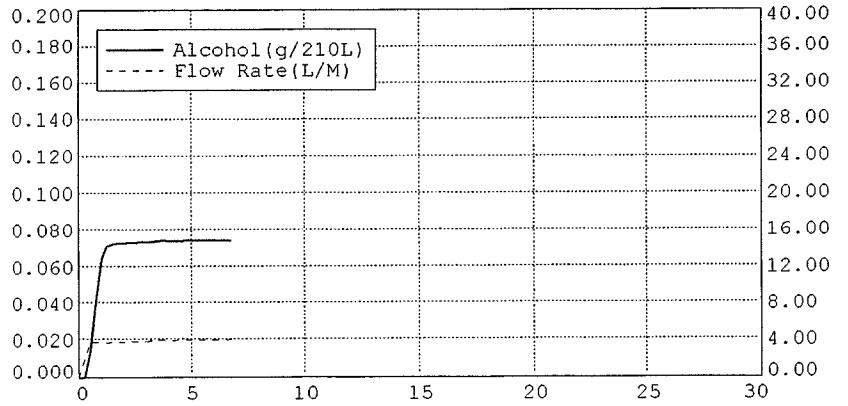
Date: 10/08/2020
Time: 10:39:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.23: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022
TANK PRESSURE: 1171 psi

BLANK TEST	0.000	10:40
INTERNAL STANDARD	VERIFIED	10:41
EXTERNAL STANDARD	0.076	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.076	10:42
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.076	10:43
BLANK TEST	0.000	10:44
EXTERNAL STANDARD	0.076	10:44
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.076	10:45
BLANK TEST	0.000	10:46

Average = 0.0760
Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
DATAMASTER dmt: 100344

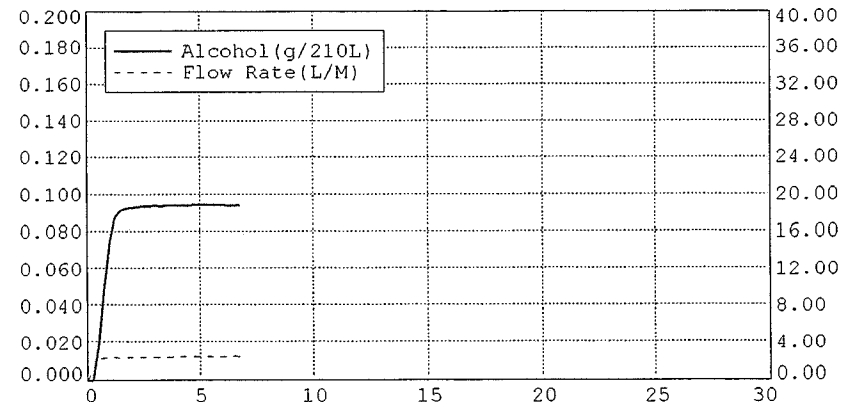
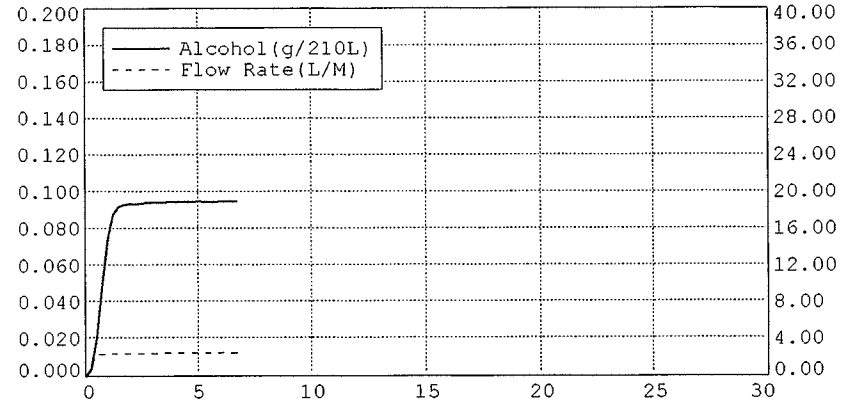
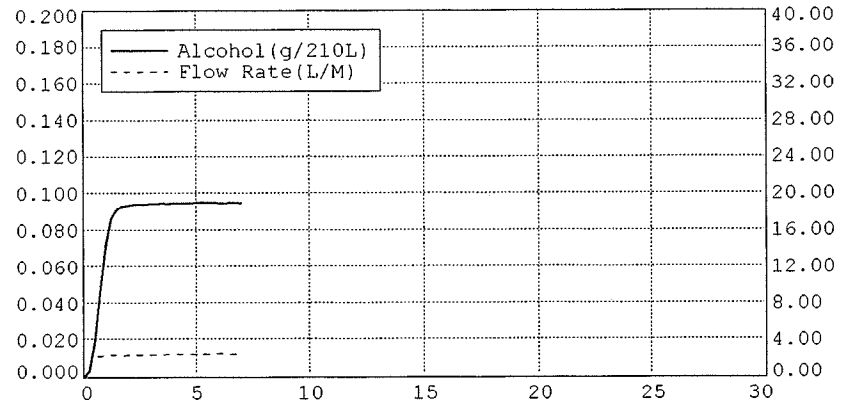
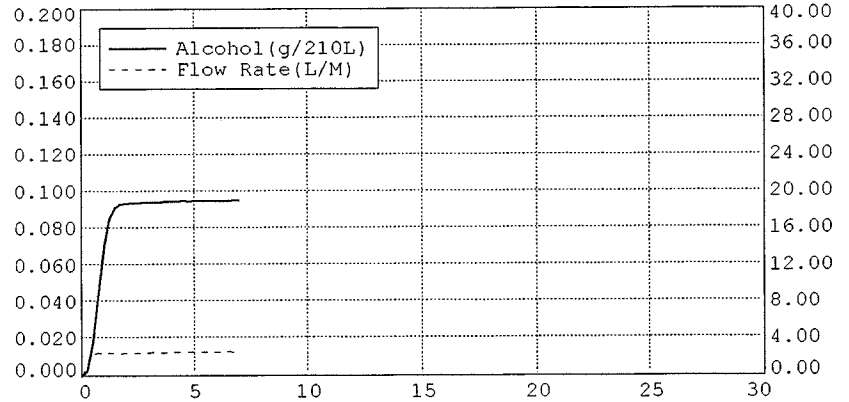
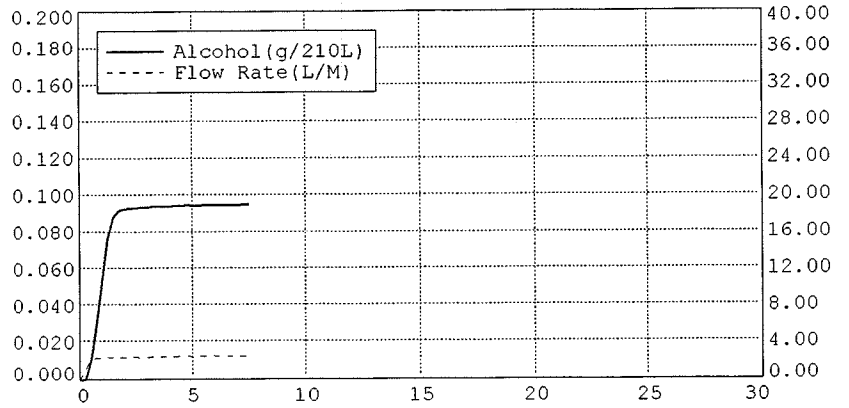
Date: 10/08/2020
Time: 10:48:47

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
TARGET AT 29.23: 0.098
LOT #: AG924701
EXPIRATION: 09/04/2021
TANK PRESSURE: 335 psi

BLANK TEST	0.000	10:50
INTERNAL STANDARD	VERIFIED	10:50
EXTERNAL STANDARD	0.096	10:50
BLANK TEST	0.000	10:51
EXTERNAL STANDARD	0.096	10:51
BLANK TEST	0.000	10:52
EXTERNAL STANDARD	0.096	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.096	10:53
BLANK TEST	0.000	10:54
EXTERNAL STANDARD	0.095	10:54
BLANK TEST	0.000	10:55

Average = 0.0958
Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

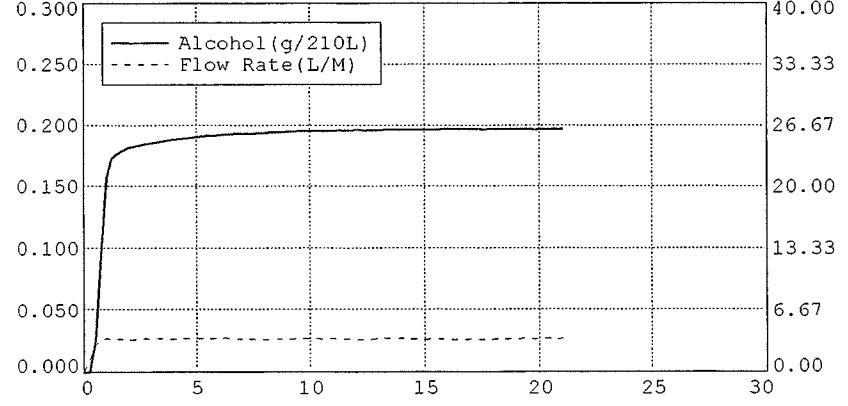
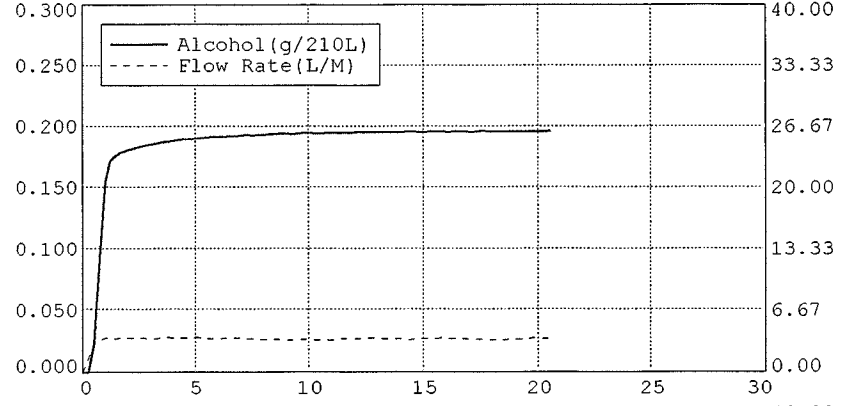
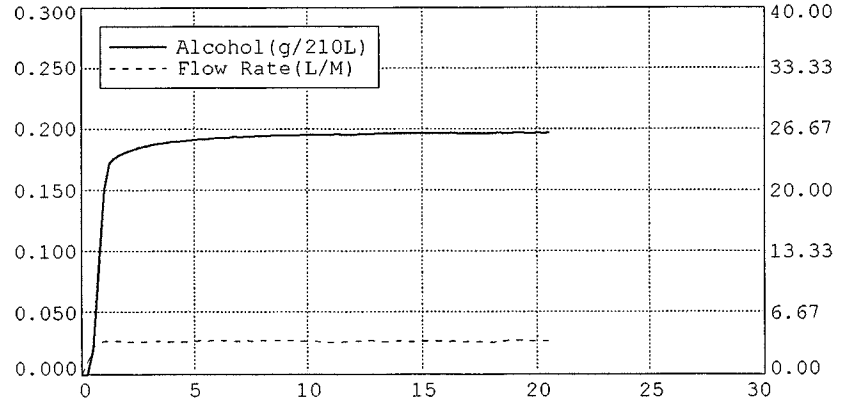
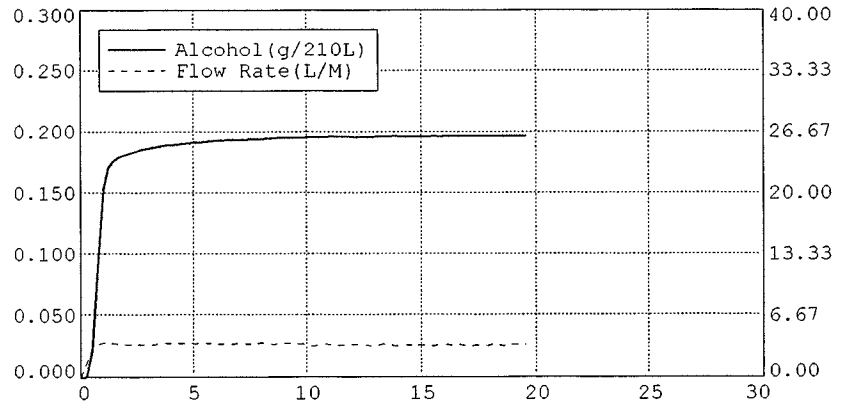
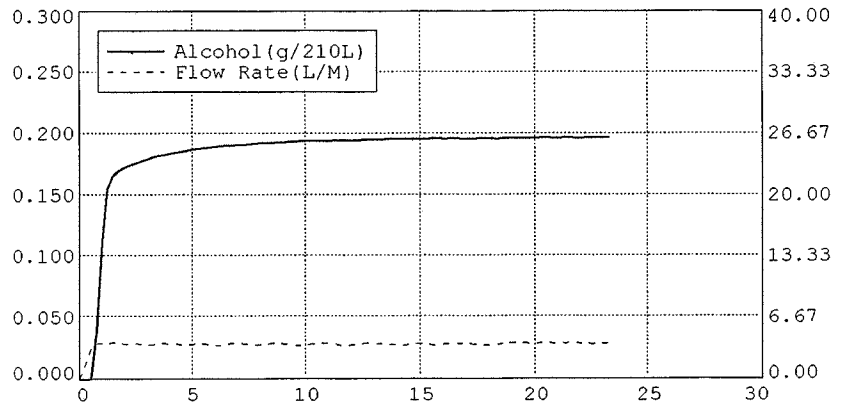
 Alaska Department of Public Safety
 DATAMASTER dmt: 100344

Date: 10/08/2020
 Time: 11:05:41

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: 19200
 EXPIRATION: 08/06/2021

BLANK TEST	0.000	11:06
INTERNAL STANDARD	VERIFIED	11:06
EXTERNAL STANDARD	0.197	11:07
BLANK TEST	0.000	11:08
EXTERNAL STANDARD	0.197	11:08
BLANK TEST	0.000	11:09
EXTERNAL STANDARD	0.198	11:10
BLANK TEST	0.000	11:10
EXTERNAL STANDARD	0.198	11:11
BLANK TEST	0.000	11:12
EXTERNAL STANDARD	0.198	11:12
BLANK TEST	0.000	11:13

Average = 0.1976
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

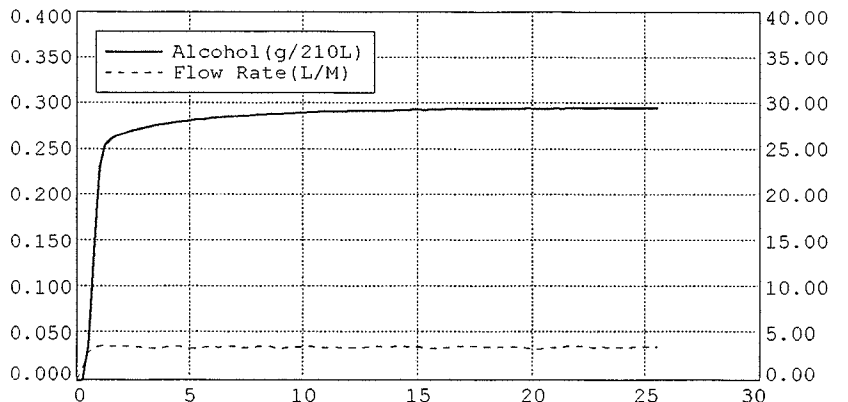
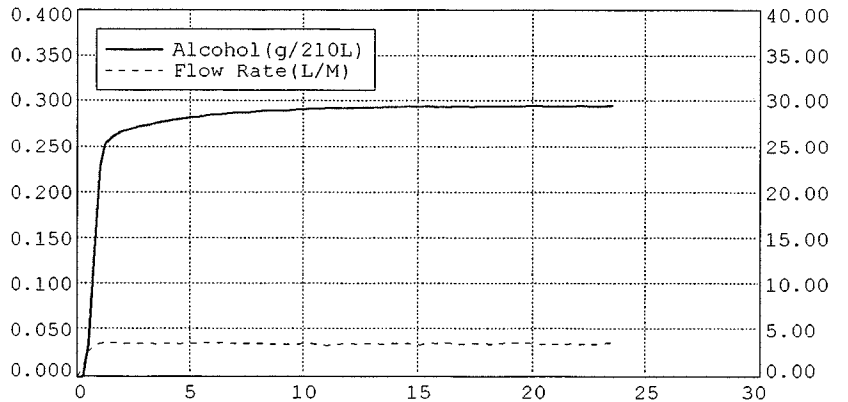
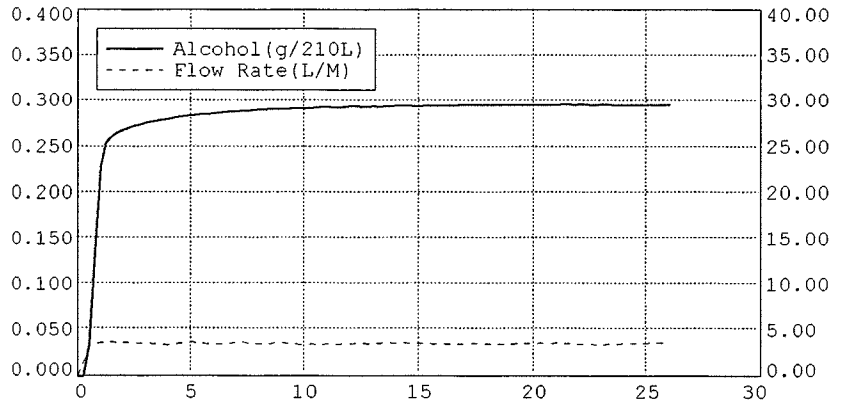
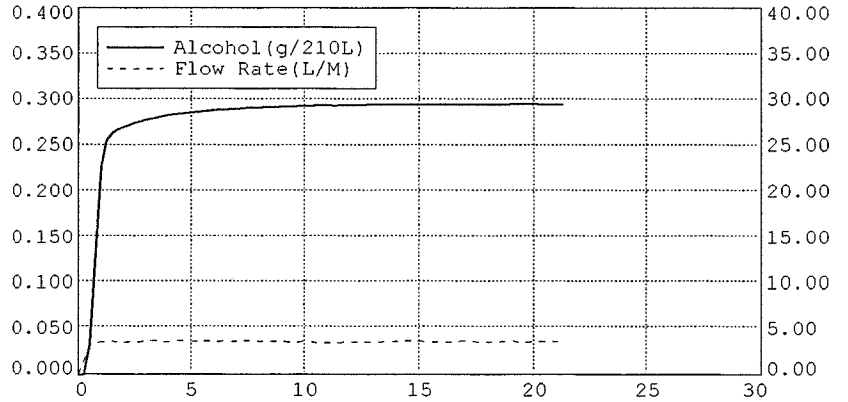
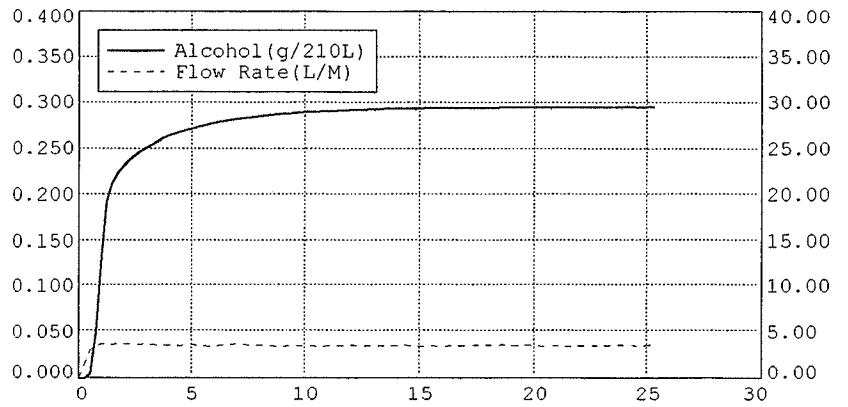
Alaska Department of Public Safety
 DATAMASTER dmt: 100344

Date: 10/08/2020
 Time: 11:16:28

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.300
 LOT #: 19330
 EXPIRATION: 11/13/2021

BLANK TEST	0.000	11:17
INTERNAL STANDARD	VERIFIED	11:17
EXTERNAL STANDARD	0.296	11:18
BLANK TEST	0.000	11:19
EXTERNAL STANDARD	0.295	11:19
BLANK TEST	0.000	11:20
EXTERNAL STANDARD	0.296	11:21
BLANK TEST	0.000	11:21
EXTERNAL STANDARD	0.295	11:22
BLANK TEST	0.000	11:23
EXTERNAL STANDARD	0.296	11:23
BLANK TEST	0.000	11:24

Average = 0.2956
 Std Dev = 0.0005



SUBJECT TEST

 Alaska Department of Public Safety
 DATAMASTER dmt: 100344

 Date: 10/08/2020
 Time: 11:29:28

SUBJECT NAME:
 TEST TEST
 LICENSE #: XXXX

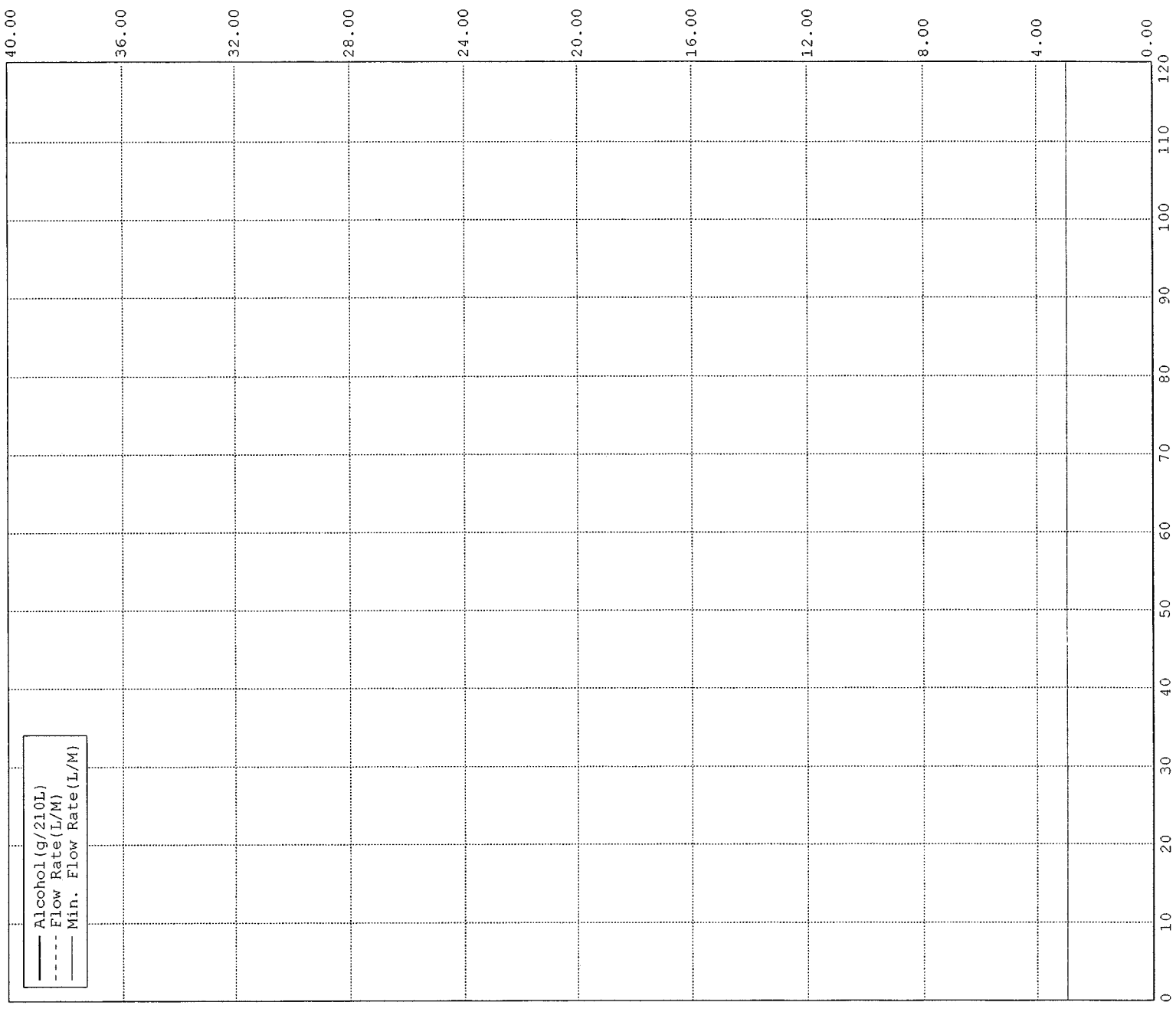
OPERATOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 29.22: 0.078
 LOT #: AG018102
 EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 11:30
 BLANK TEST 0.000 11:30
 INTERNAL STANDARD VERIFIED 11:30
 EXTERNAL STANDARD 0.076 11:30
 BLANK TEST 0.000 11:31
 SUBJECT SAMPLE INCOMPLETE 11:33

DM



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100344

Date: 10/08/2020
Time: 14:12:15

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

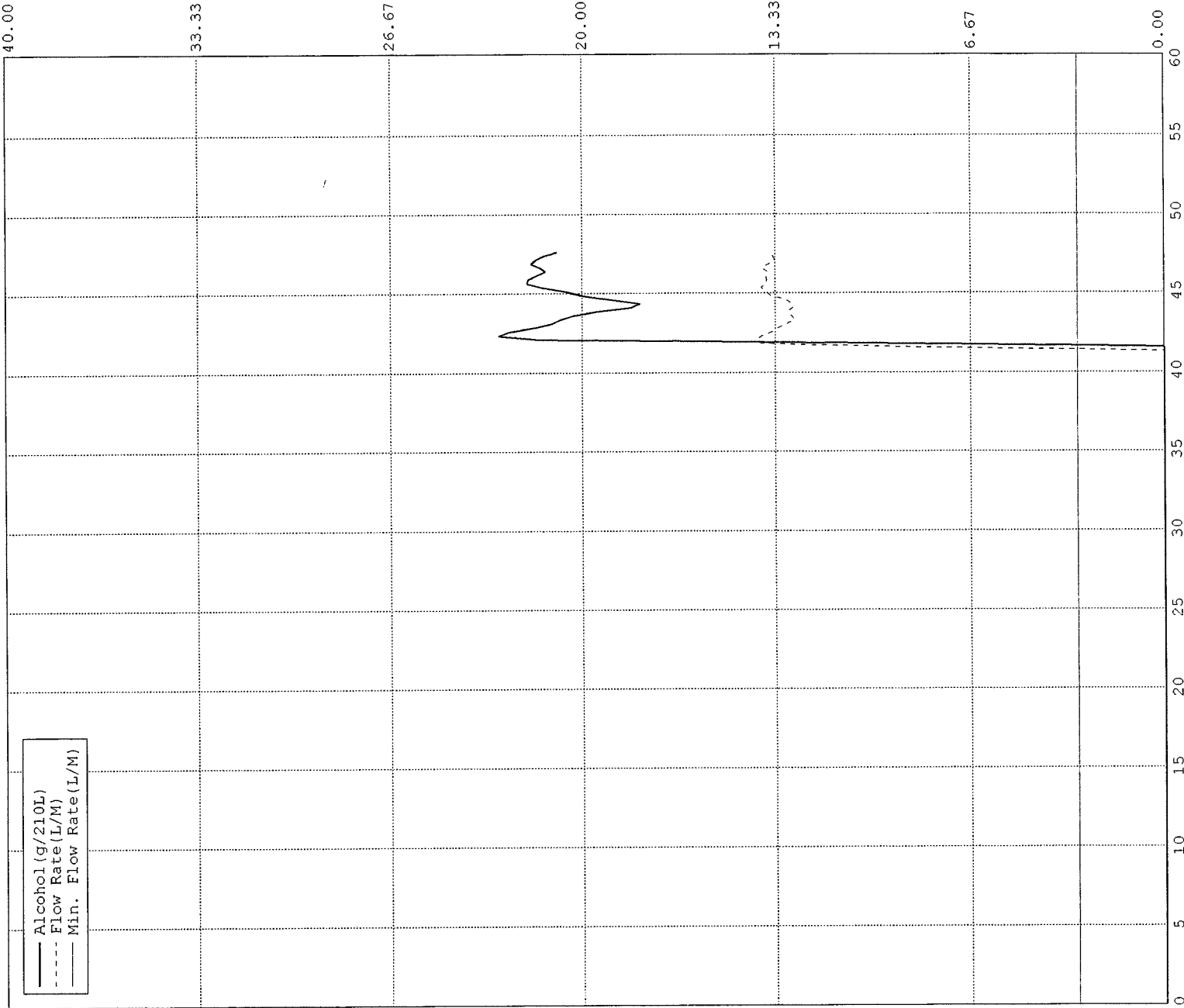
DEPT/AGENCY:
INVALID
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.17: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 14:14
BLANK TEST 0.000 14:14
INTERNAL STANDARD VERIFIED 14:14
EXTERNAL STANDARD 0.076 14:14
BLANK TEST 0.000 14:15
SUBJECT SAMPLE INVALID 14:17

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100344

Date: 10/08/2020
Time: 14:23:12

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

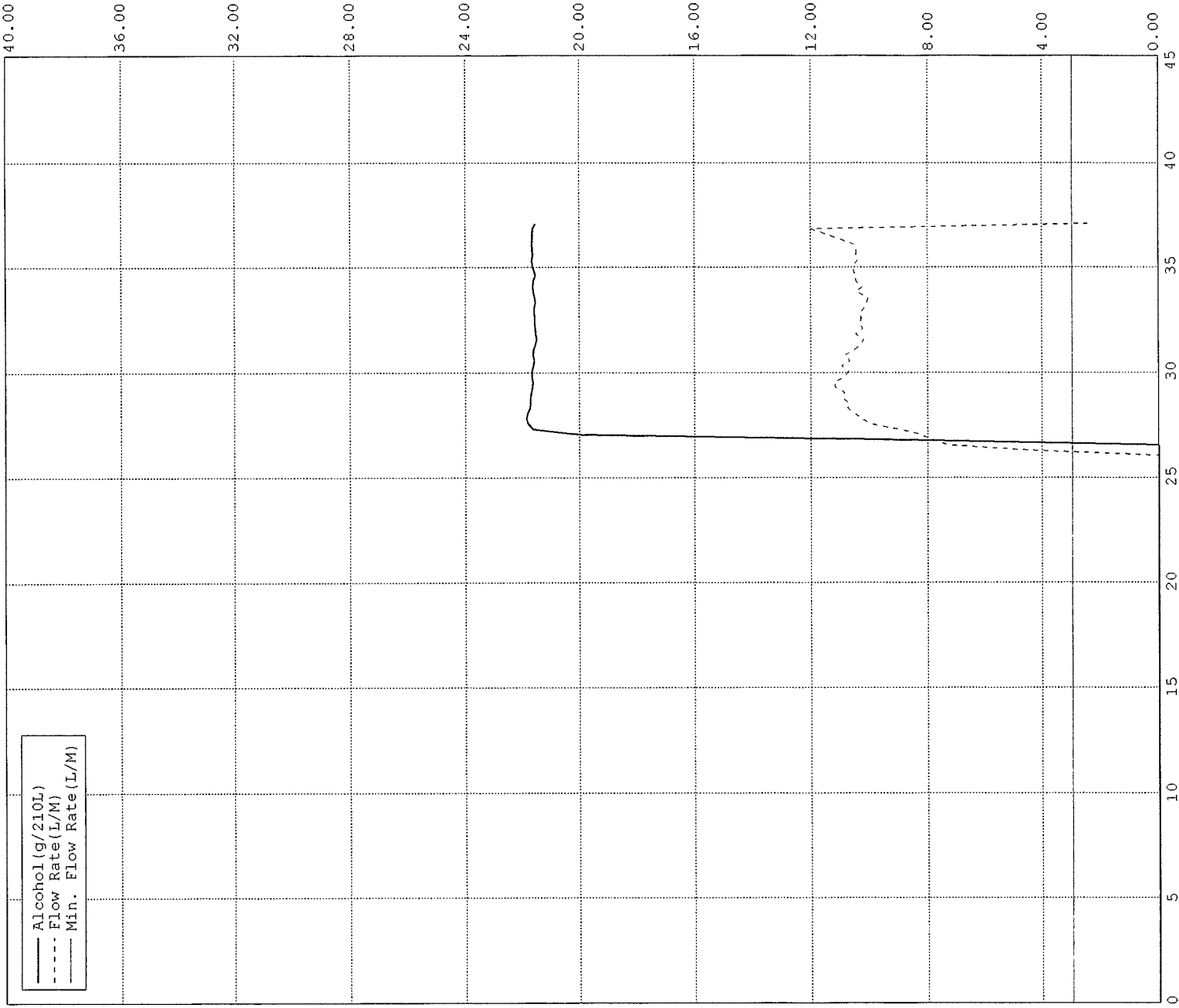
NOMINAL: 0.080
TARGET AT 29.17: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 14:25
BLANK TEST 0.000 14:25
INTERNAL STANDARD VERIFIED 14:25
Xq = 0.109 (0.00%)
EXTERNAL STANDARD 0.076 14:25
X[1] = 0.0755 (-0.0001) (0.0021)
BLANK TEST 0.000 14:26
SUBJECT SAMPLE XXX 14:27
X[1] = 0.1100 (-0.0202) (0.0018)

Interference Detected

Filter 2 average: 0.0000

Filter 3 average: 0.0018



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100344

Date: 10/08/2020
Time: 14:29:26

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

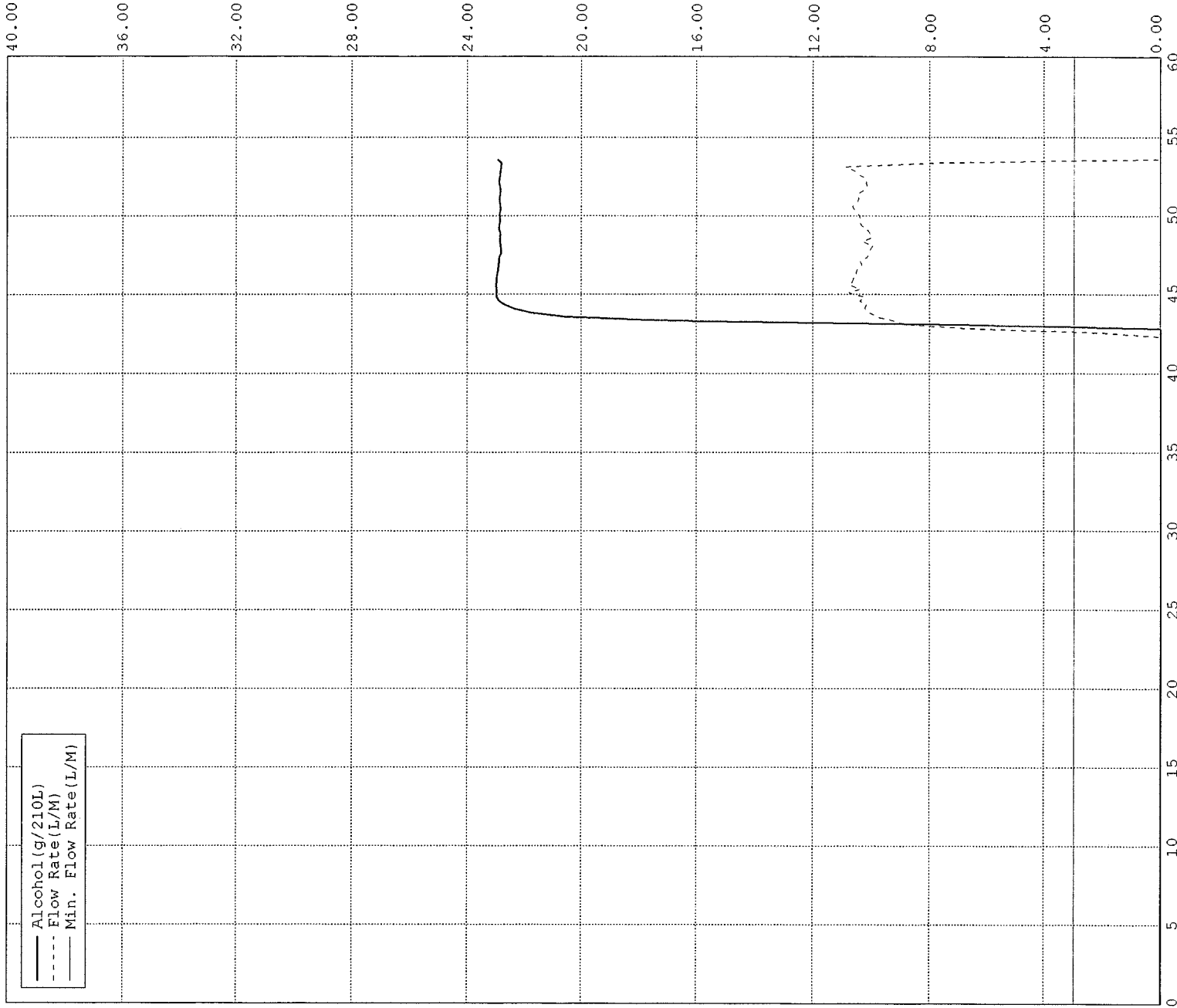
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.17: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 14:31
BLANK TEST 0.000 14:31
INTERNAL STANDARD VERIFIED 14:31
xq = 0.108 (0.16%)
EXTERNAL STANDARD 0.076 14:31
x[1] = 0.0758 (0.0005) (0.0017)
BLANK TEST 0.000 14:32
SUBJECT SAMPLE XXX 14:33
x[1] = 0.1161 (-0.0156) (0.0006)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100344

Date: 10/08/2020
Time: 14:35:34

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

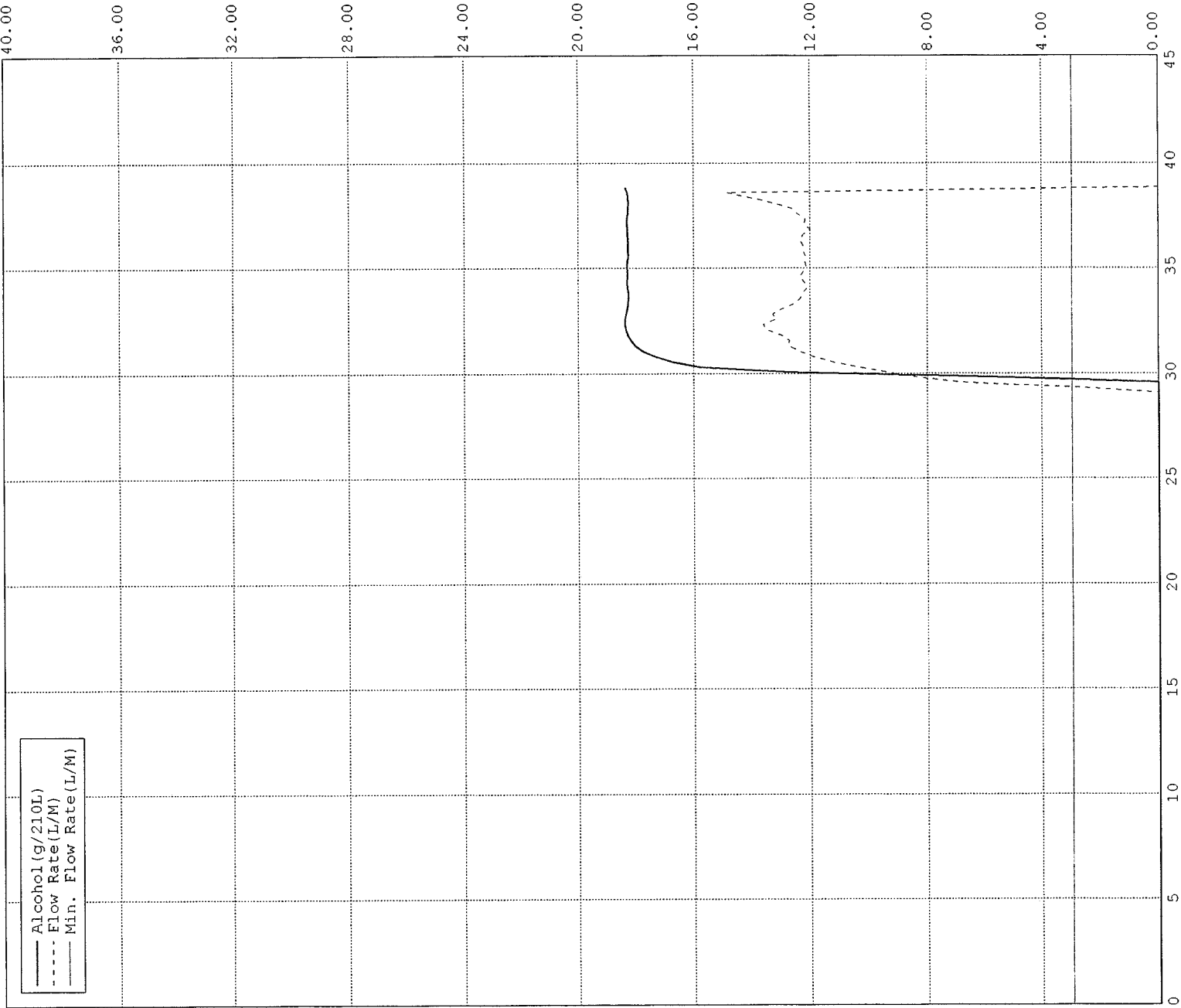
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.16: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	14:36
BLANK TEST	0.000	14:36
INTERNAL STANDARD	VERIFIED	14:36
$Xq = 0.108$ (0.24%)		
EXTERNAL STANDARD	0.075	14:37
$X[1] = 0.0753$ (-0.0007) (0.0019)		
BLANK TEST	0.000	14:38
SUBJECT SAMPLE (Vol=1.88L)	0.093	14:38
$X[1] = 0.0933$ (-0.0002) (-0.0002)		
BLANK TEST	0.000	14:39
EXTERNAL STANDARD	0.075	14:39
$X[1] = 0.0755$ (0.0003) (0.0016)		
BLANK TEST	0.000	14:40



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100344

Date: 10/08/2020
Time: 11:36:08

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

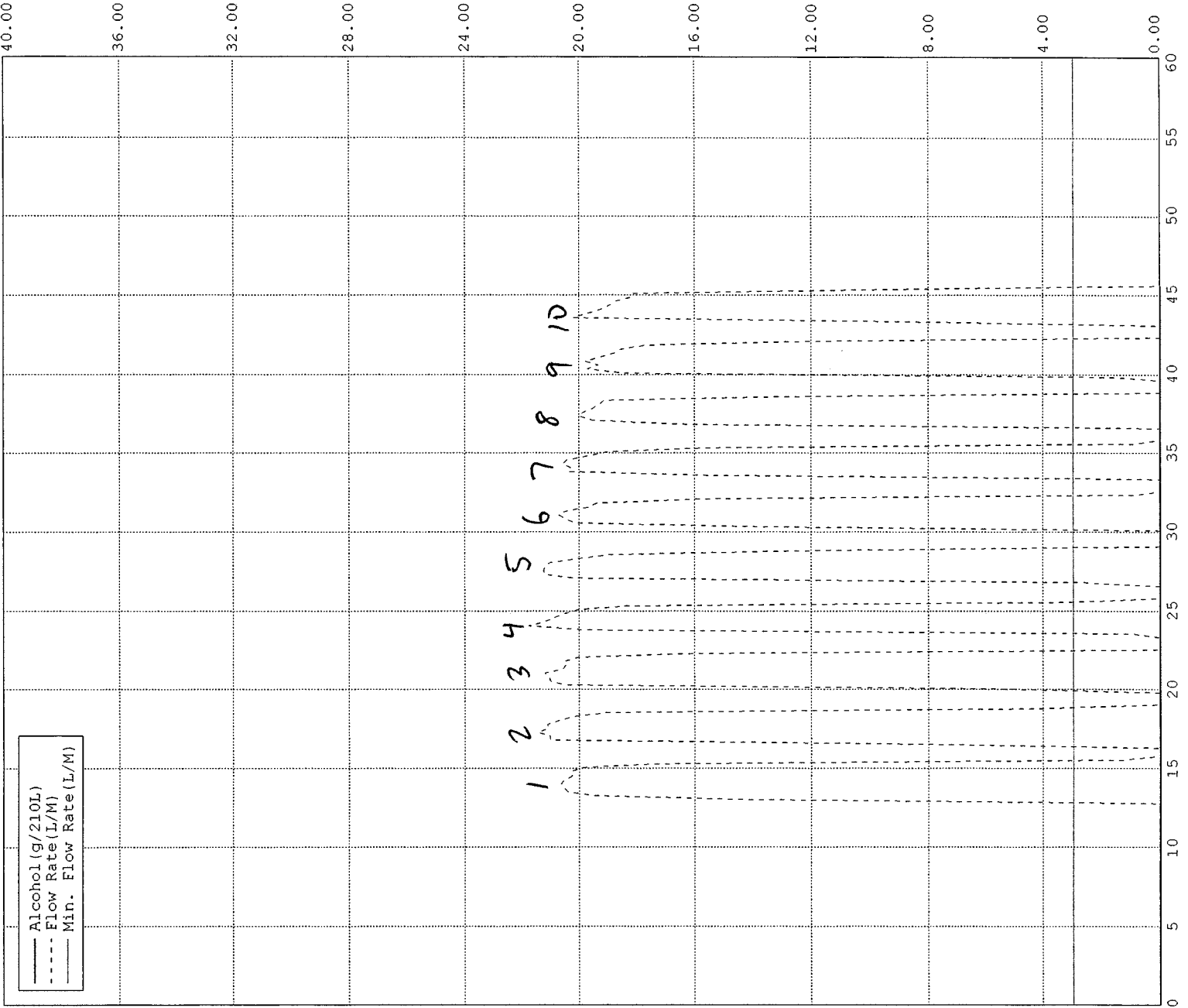
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.22: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:37
BLANK TEST	0.000	11:37
INTERNAL STANDARD	VERIFIED	11:37
EXTERNAL STANDARD	0.076	11:37
BLANK TEST	0.000	11:38
SUBJECT SAMPLE	XXX	11:39

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100344

Date: 10/08/2020
Time: 13:55:04

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

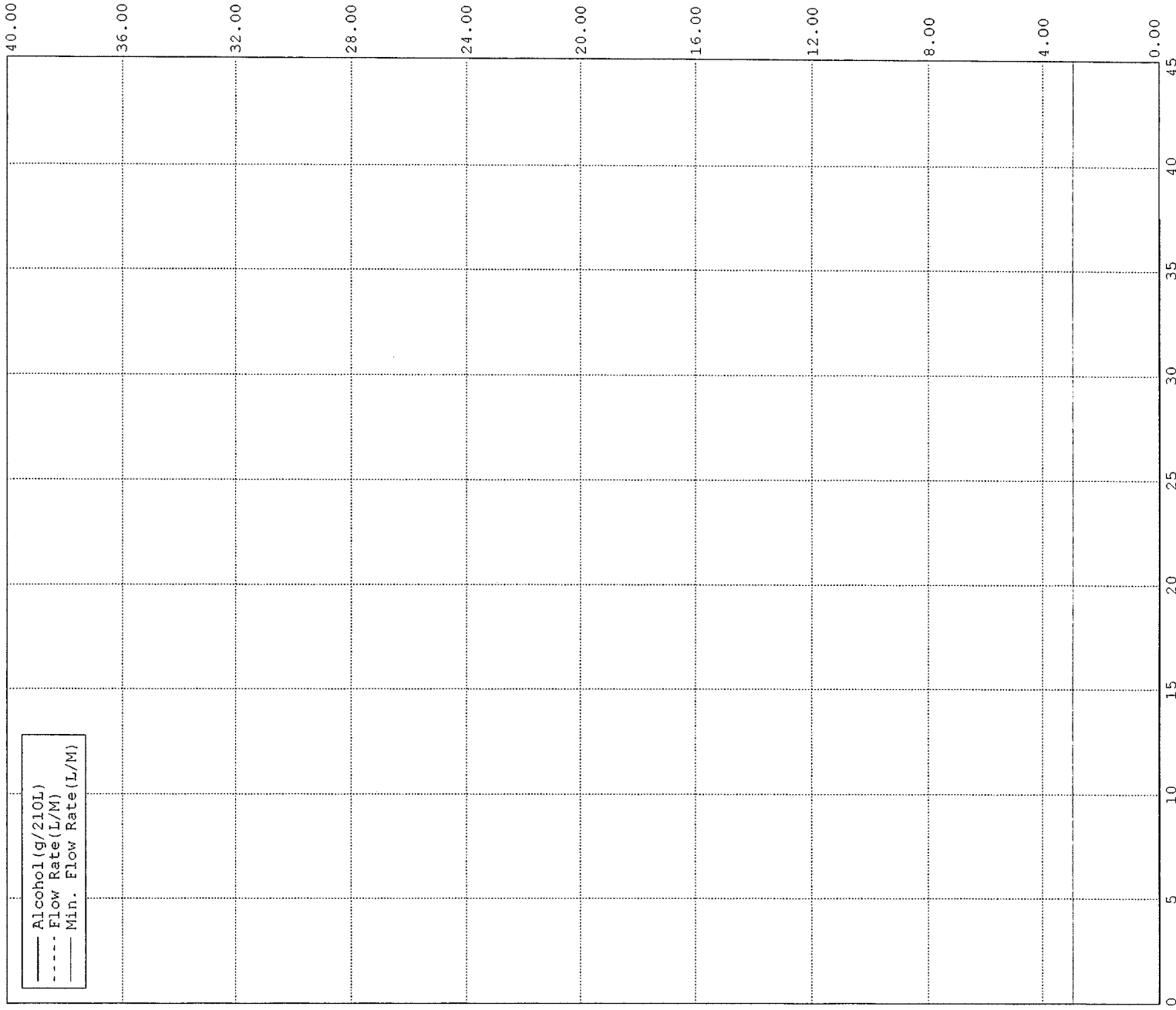
DEPT/AGENCY:
RADIO FREQUENCY
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.17: 0.078
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 13:56
BLANK TEST 0.000 13:56
INTERNAL STANDARD VERIFIED 13:57
EXTERNAL STANDARD 0.076 13:57
BLANK TEST 0.000 13:58

RFI DETECTED

Dm



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100344

Date: 10/09/2020
Time: 09:46:06

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 28.99: 0.077
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	09:47
BLANK TEST	0.000	09:48
INTERNAL STANDARD	VERIFIED	09:48
EXTERNAL STANDARD	0.076	09:48
BLANK TEST	0.000	09:49
SUBJECT SAMPLE (Vol=2.77L)	0.000	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.075	09:50
BLANK TEST	0.000	09:51

