

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 100668 Analyst Derek Walton Start Date 08/08/18

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 02/27/2020
 - ii. 0.040g/210L Mnf Airgas Lot AG630101 Exp 10/27/2018
 - iii. 0.080g/210L Mnf Airgas Lot AG735001 Exp 12/16/2019
 - iv. 0.100g/210L Mnf Airgas Lot AG629304 Exp 10/19/2018
 - v. 0.200g/210L Mnf Quth Lot 17090 Exp 02/24/2019
 1. Simulator S/N DR5248 Date Calibrated 01/24/2018
 - vi. 0.300g/210L Mnf Quth Lot 17350 Exp 10/11/2019
 1. Simulator S/N SD1198 Date Calibrated 01/23/2018
 5. Functional Tests (attached)
 - a. Incomplete
 - b. Invalid
 - c. Interference
 - d. Exceeded attempts
 - i. Acetone - Mnf Quth Lot 17280 Level 0.100 Exp 09/11/2019
 1. Simulator S/N SD1177 Date Calibrated 01/24/2018
 - ii. Isopropanol - Mnf Quth Lot 17280 Level 0.100 Exp 09/11/2019
 1. Simulator S/N SD1199 Date Calibrated 01/24/2018
 - iii. Negative Control - Mnf Quth Lot 17280 Level 0.100 Exp 09/11/2019
 1. Simulator S/N SD1088 Date Calibrated 01/24/2018
 - 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 08/09/18

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 08:30:06

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.80 V PASSED
(0.97 V - 2.25 V)
Cooler Voltage = 1.84 V PASSED
(1.04 V - 2.44 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 536 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.4 in

PUMP INFO

Flow Rate = 4.723 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 1.26% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 8:43 AM

Temperatures (°C)
Sample Cell: 49.0°C
Breath Tube: 48.1°C

Current Barometer 29.4 in
Volume (Ltr) 1.53

Settings
Lamp: 1.80 V
Bias: 80 V
Cooler: 1.84 V
Chopper: 535 Hz

Voltages (V)
Flow: 1.06 V
Detector: 0.023 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 07/31/2018
Time: 09:44:06

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca = 0.1000
CAL = 0.977818 0.800 <= CAL < 1.200
b1 = 0.0021 0.0000 <= b1 < 0.0040
b2 = 0.0063 0.0010 <= b2 < 0.0100
b3 = 0.0018 0.0000 <= b3 < 0.0040
Xq = 0.0899 0.0500 <= Xq < 0.2000
a21 = 1.160887 1.050 <= a21 < 1.300
a31 = 0.530987 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 12:13:35

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

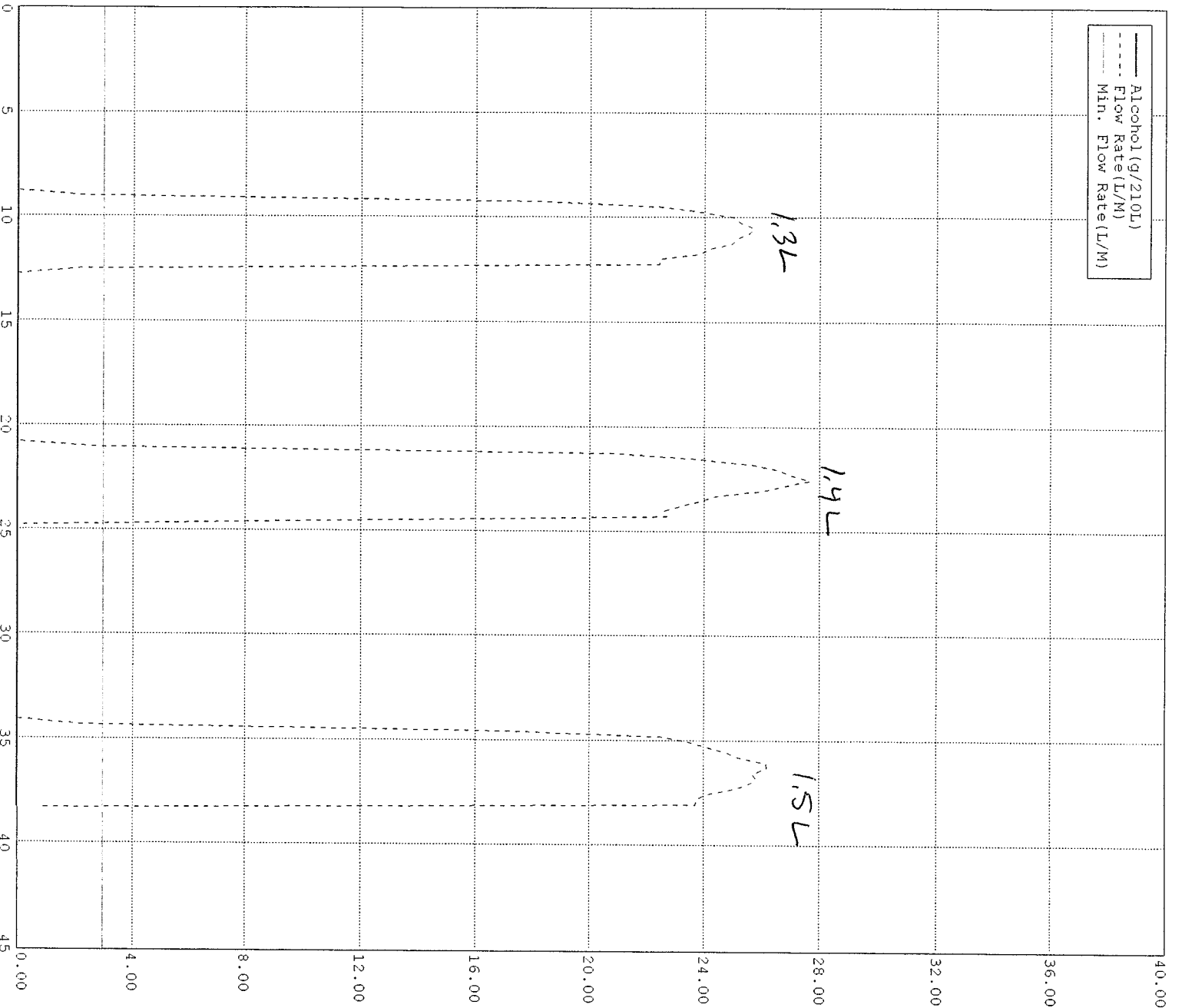
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.39: 0.079
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	12:16
BLANK TEST	0.000	12:16
INTERNAL STANDARD	VERIFIED	12:17
EXTERNAL STANDARD	0.078	12:17
BLANK TEST	0.000	12:18
SUBJECT SAMPLE (Vol=1.51L)	0.000	12:18
BLANK TEST	0.000	12:19
EXTERNAL STANDARD	0.079	12:20
BLANK TEST	0.000	12:20

Handwritten signature



LINEARITY CHECK

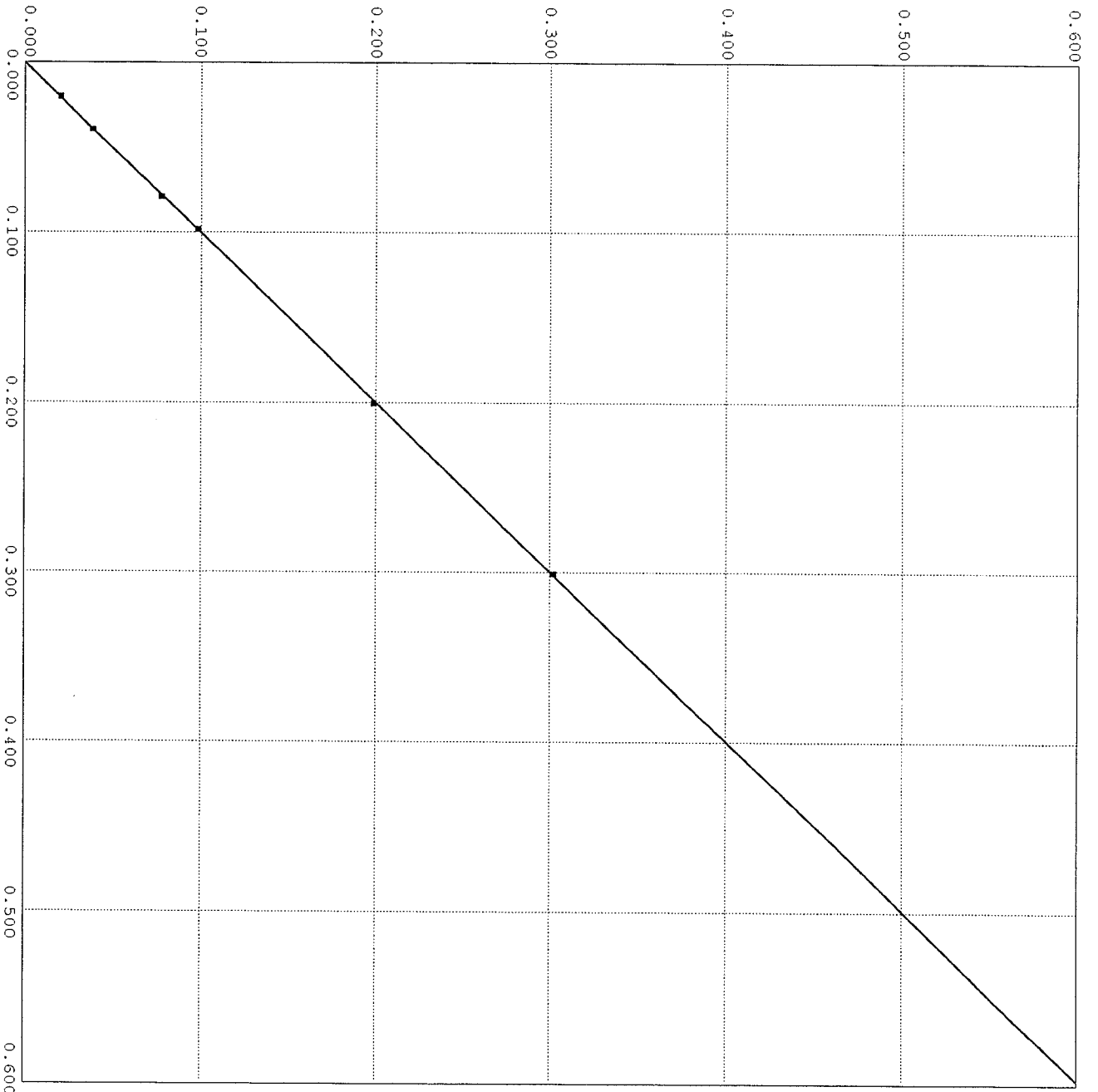
Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 12:26:32

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0212	0.0004
0.039	0.0398	0.0004
0.079	0.0786	0.0005
0.098	0.0992	0.0004
0.200	0.1996	0.0005
0.300	0.3026	0.0005

SLOPE = 1.003964
R² = 0.999905



DM

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100668

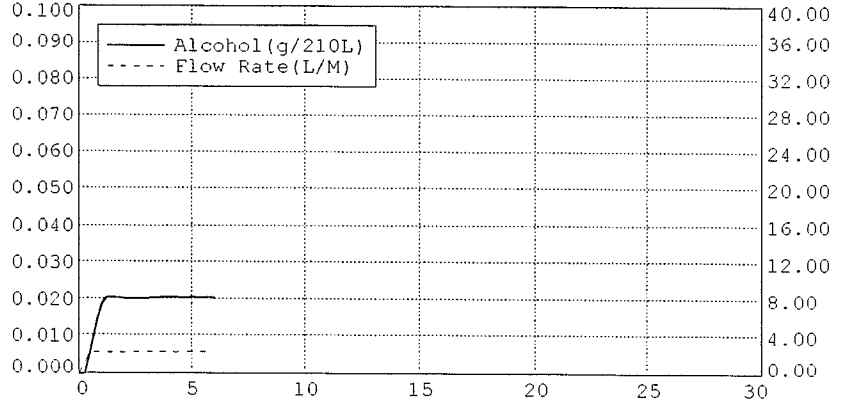
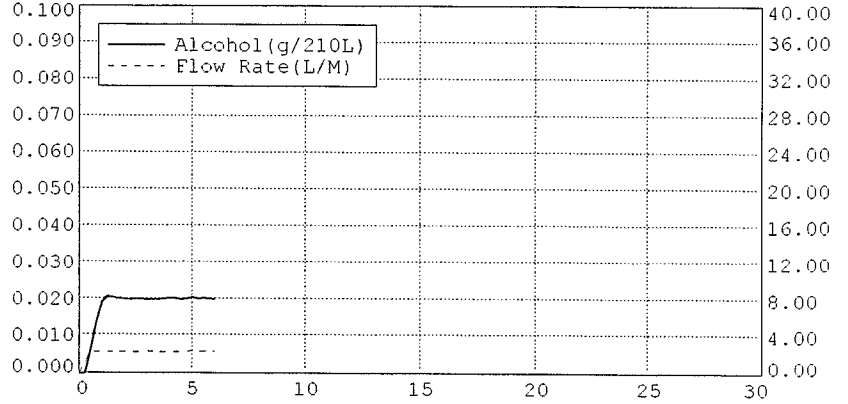
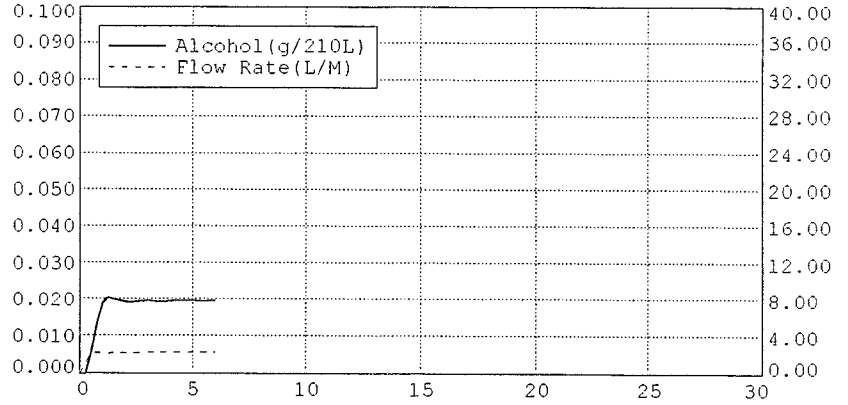
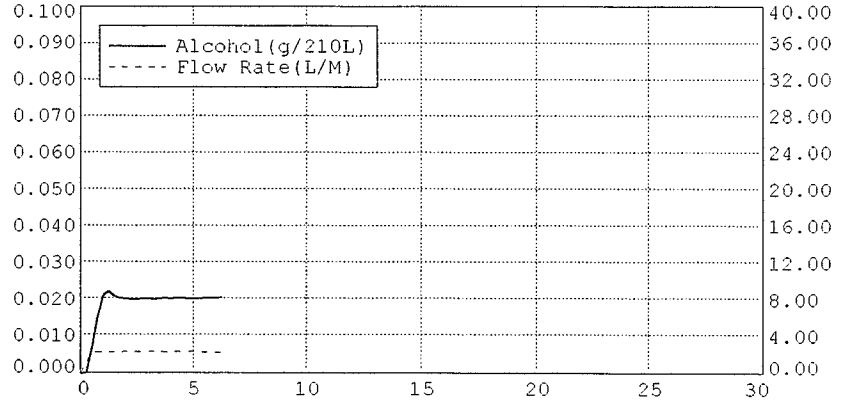
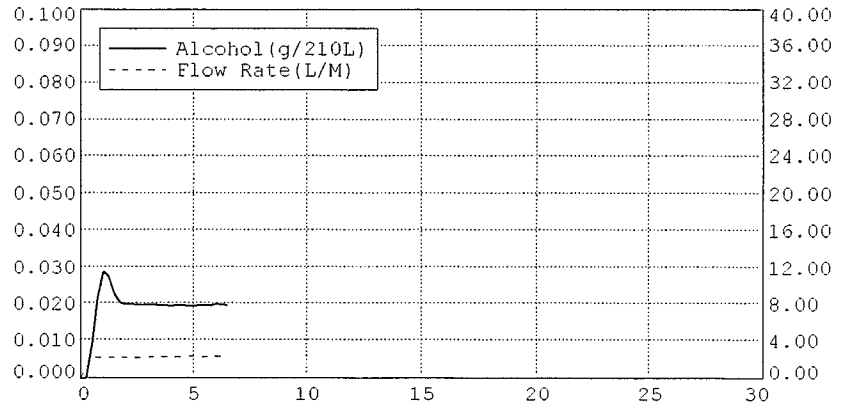
Date: 08/08/2018
 Time: 12:26:34

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.38: 0.020
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 1092 psi

BLANK TEST	0.000	12:27
INTERNAL STANDARD	VERIFIED	12:27
EXTERNAL STANDARD	0.021	12:28
BLANK TEST	0.000	12:29
EXTERNAL STANDARD	0.021	12:29
BLANK TEST	0.000	12:30
EXTERNAL STANDARD	0.021	12:30
BLANK TEST	0.000	12:31
EXTERNAL STANDARD	0.021	12:31
BLANK TEST	0.000	12:32
EXTERNAL STANDARD	0.022	12:32
BLANK TEST	0.000	12:33

Average = 0.0212
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
DATAMASTER dmt: 100668

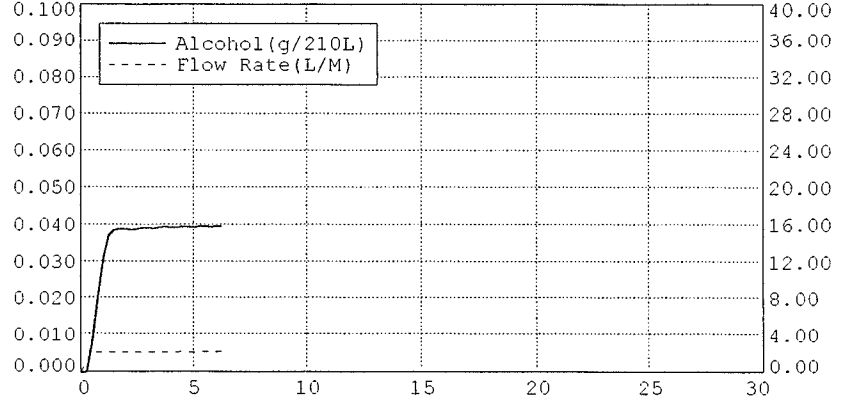
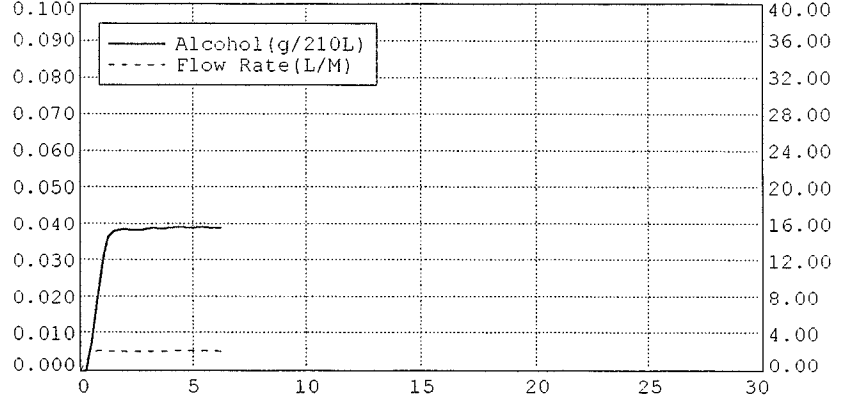
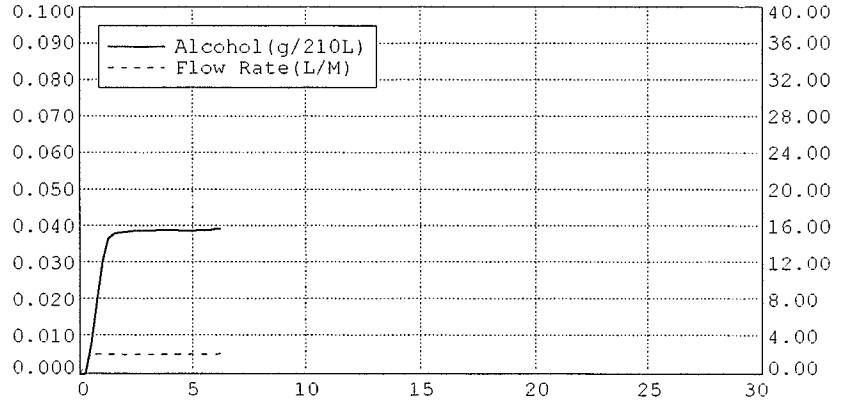
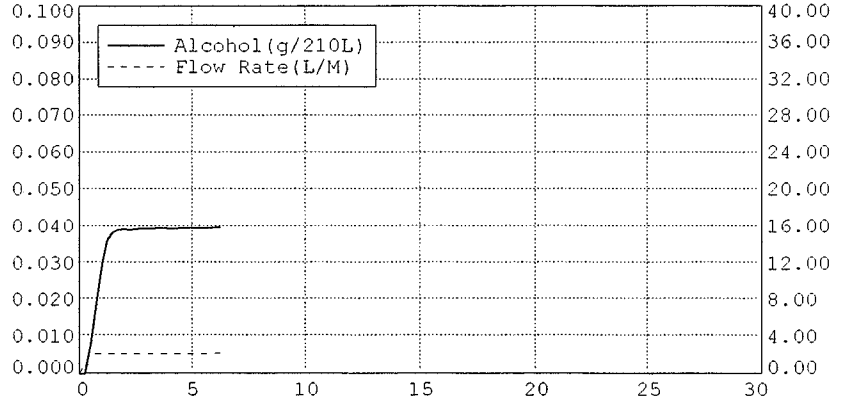
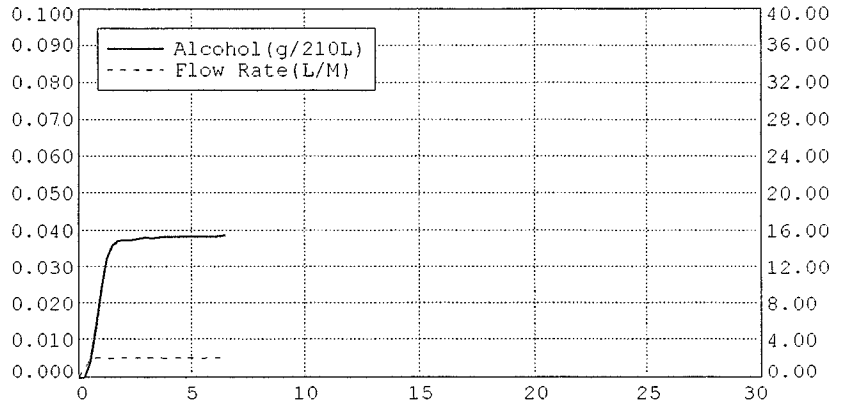
Date: 08/08/2018
Time: 12:34:18

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
TARGET AT 29.39: 0.039
LOT #: AG630101
EXPIRATION: 10/27/2018
TANK PRESSURE: 241 psi

BLANK TEST	0.000	12:35
INTERNAL STANDARD	VERIFIED	12:35
EXTERNAL STANDARD	0.039	12:35
BLANK TEST	0.000	12:36
EXTERNAL STANDARD	0.040	12:36
BLANK TEST	0.000	12:37
EXTERNAL STANDARD	0.040	12:38
BLANK TEST	0.000	12:38
EXTERNAL STANDARD	0.040	12:39
BLANK TEST	0.000	12:40
EXTERNAL STANDARD	0.040	12:40
BLANK TEST	0.000	12:41

Average = 0.0398
Std. Dev = 0.0004



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
DATAMASTER dmt: 100668

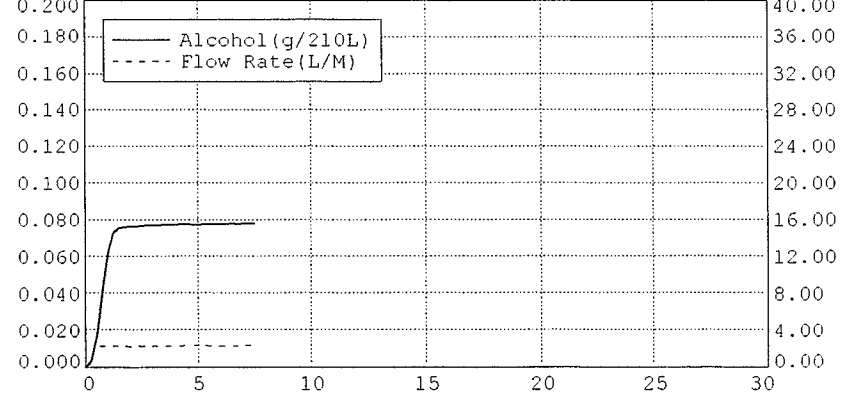
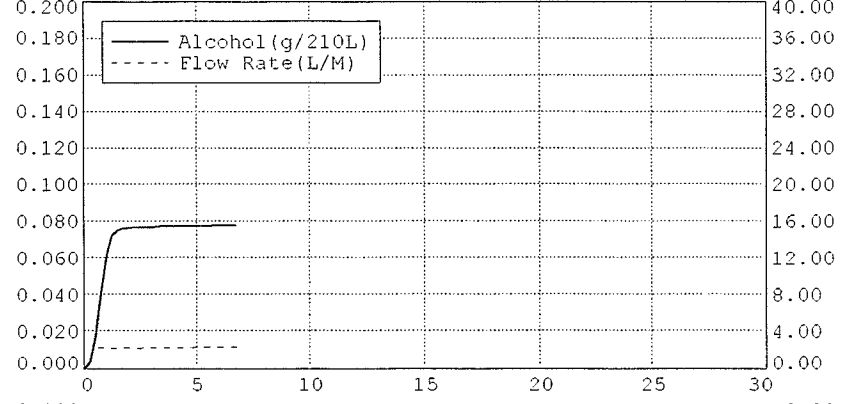
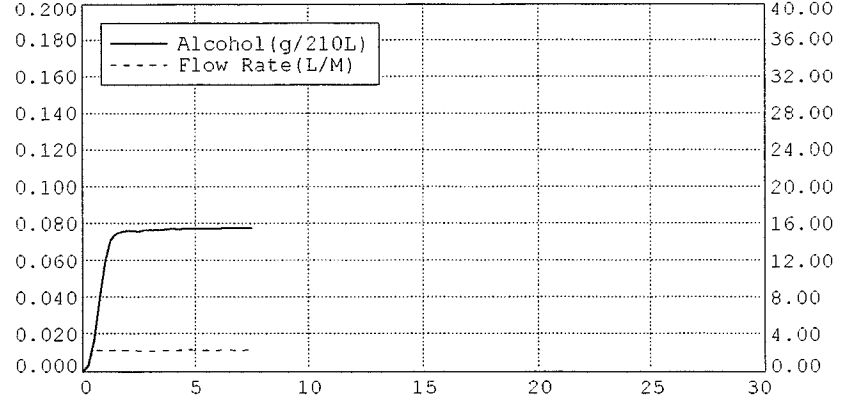
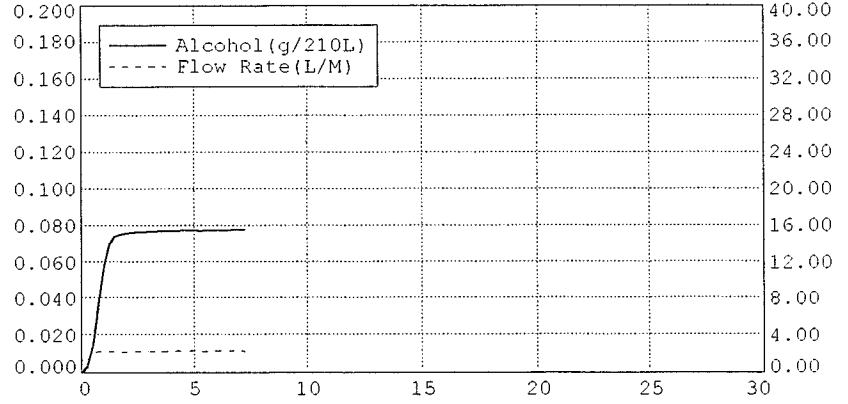
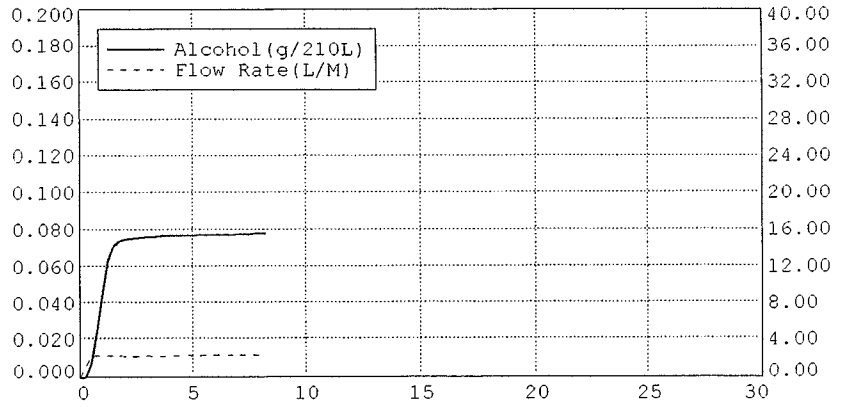
Date: 08/08/2018
Time: 12:42:37

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.38: 0.079
LOT #: AG735001
EXPIRATION: 12/16/2019
TANK PRESSURE: 1089 psi

BLANK TEST	0.000	12:43
INTERNAL STANDARD	VERIFIED	12:43
EXTERNAL STANDARD	0.079	12:44
BLANK TEST	0.000	12:45
EXTERNAL STANDARD	0.078	12:45
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.079	12:46
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.078	12:47
BLANK TEST	0.000	12:48
EXTERNAL STANDARD	0.079	12:48
BLANK TEST	0.000	12:49

Average = 0.0786
Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
DATAMASTER dmt: 100668

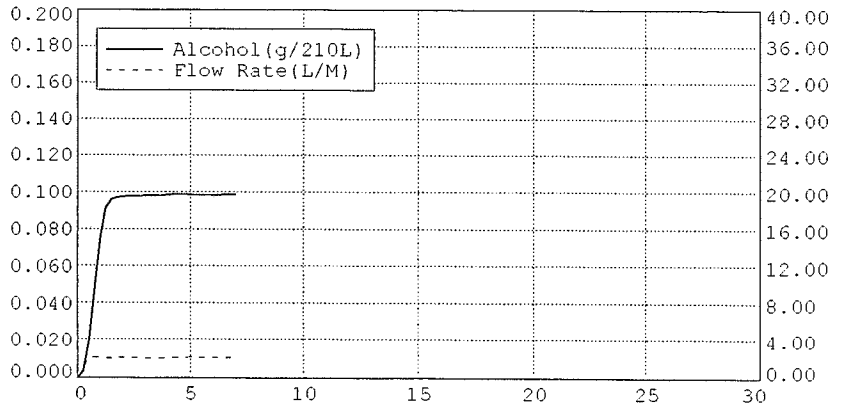
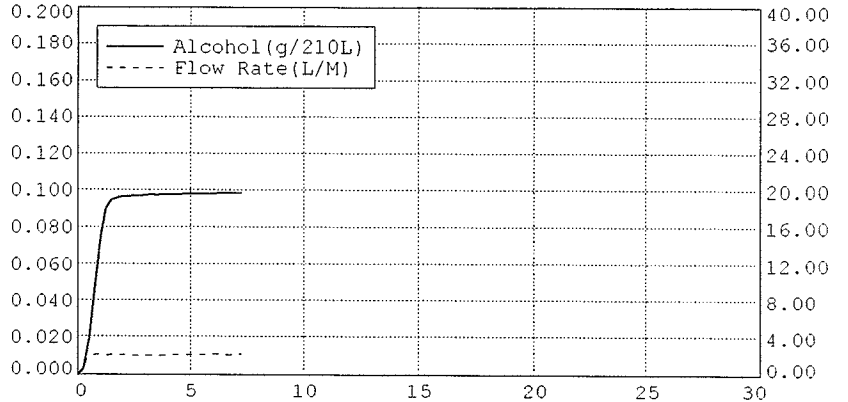
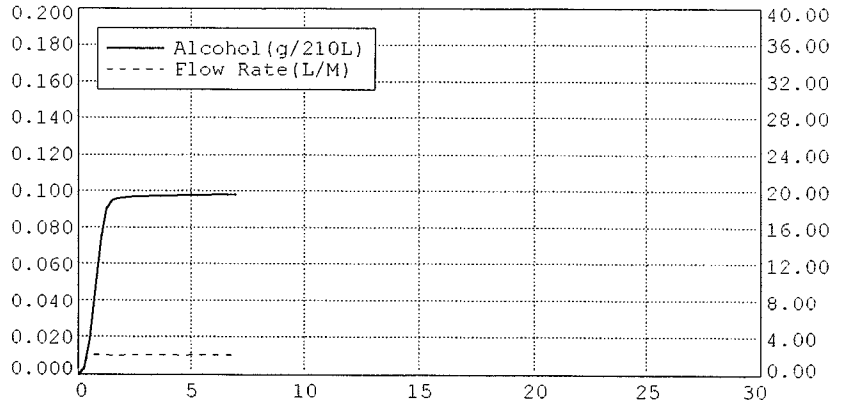
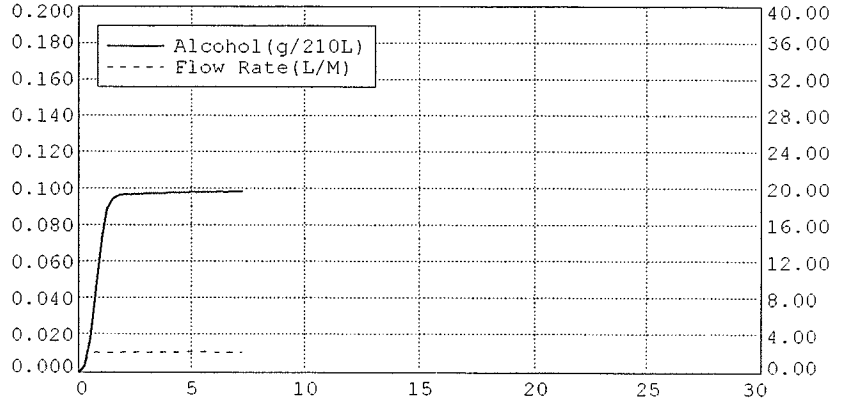
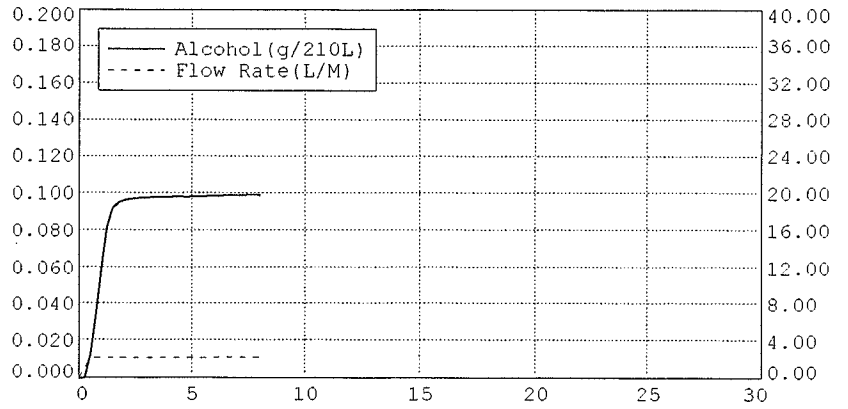
Date: 08/08/2018
Time: 12:53:33

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
TARGET AT 29.38: 0.098
LOT #: AG629304
EXPIRATION: 10/19/2018
TANK PRESSURE: 452 psi

BLANK TEST	0.000	12:54
INTERNAL STANDARD	VERIFIED	12:54
EXTERNAL STANDARD	0.099	12:55
BLANK TEST	0.000	12:56
EXTERNAL STANDARD	0.099	12:56
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.099	12:57
BLANK TEST	0.000	12:58
EXTERNAL STANDARD	0.099	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.100	12:59
BLANK TEST	0.000	13:00

Average = 0.0992
Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

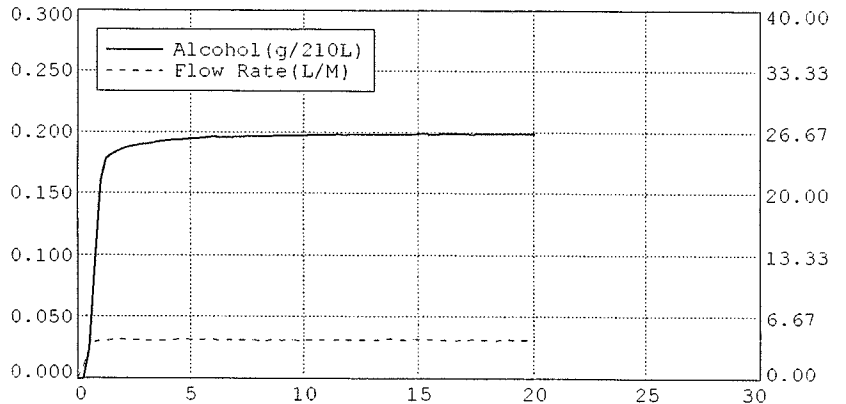
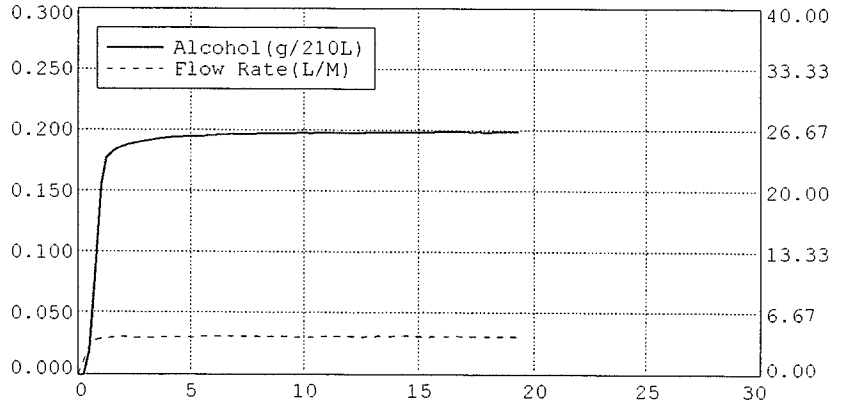
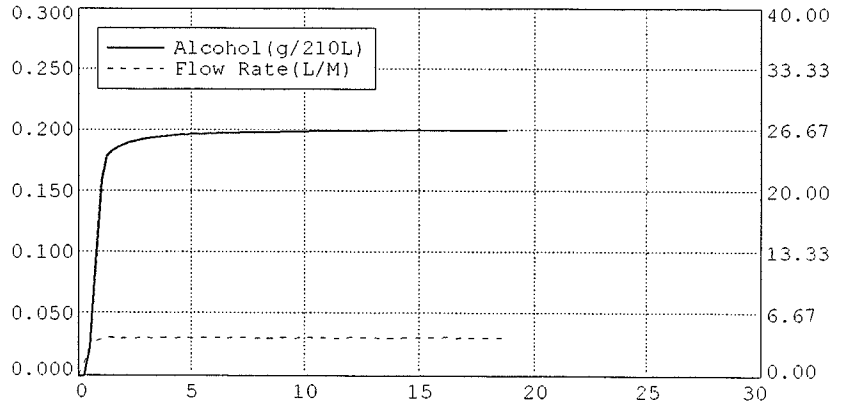
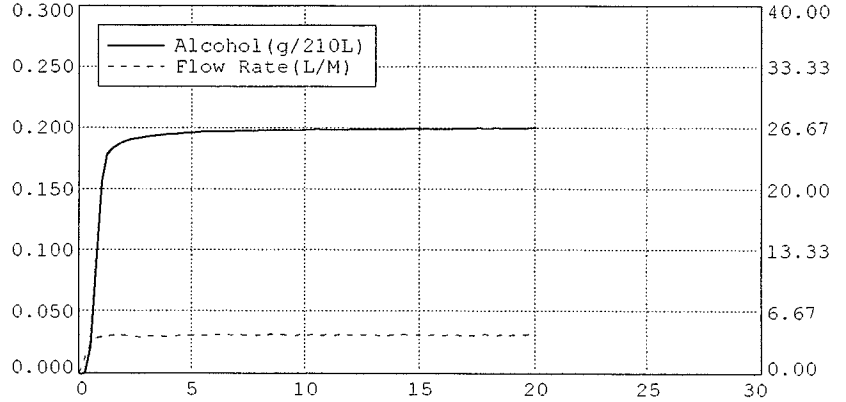
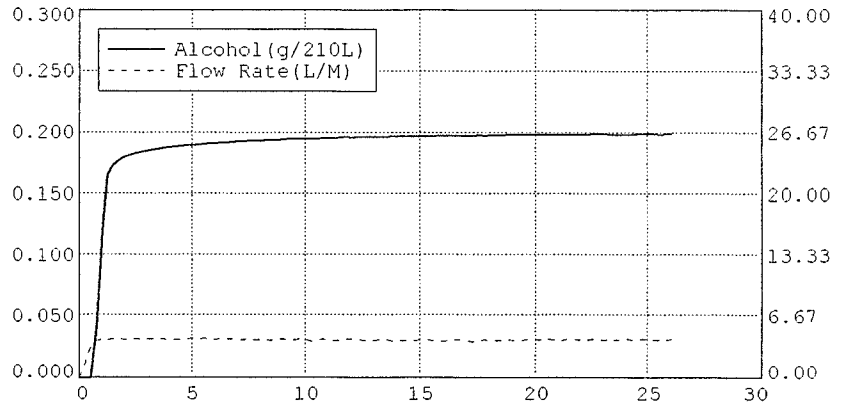
Alaska Department of Public Safety
 DATAMASTER dmt: 100668

Date: 08/08/2018
 Time: 13:16:11

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: 17090
 EXPIRATION: 02/24/2019

BLANK TEST	0.000	13:17
INTERNAL STANDARD	VERIFIED	13:17
EXTERNAL STANDARD	0.199	13:18
BLANK TEST	0.000	13:19
EXTERNAL STANDARD	0.200	13:19
BLANK TEST	0.000	13:20
EXTERNAL STANDARD	0.200	13:21
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.199	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.200	13:23
BLANK TEST	0.000	13:24

Average = 0.1996
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100668

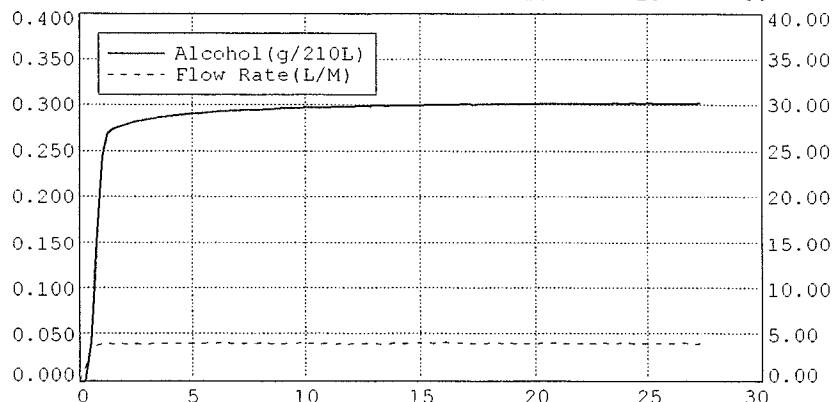
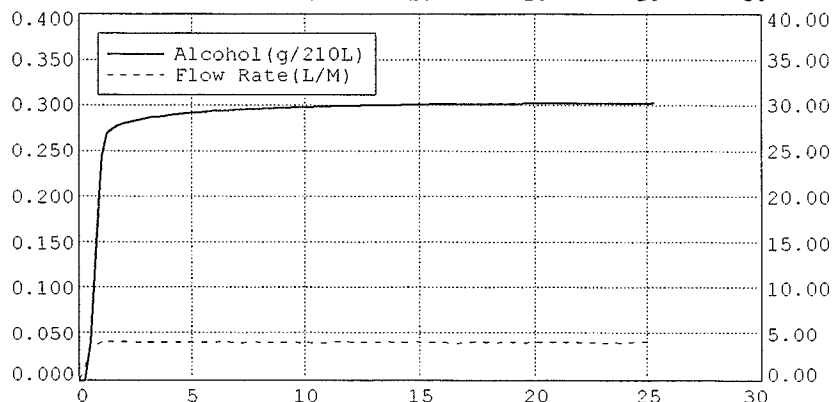
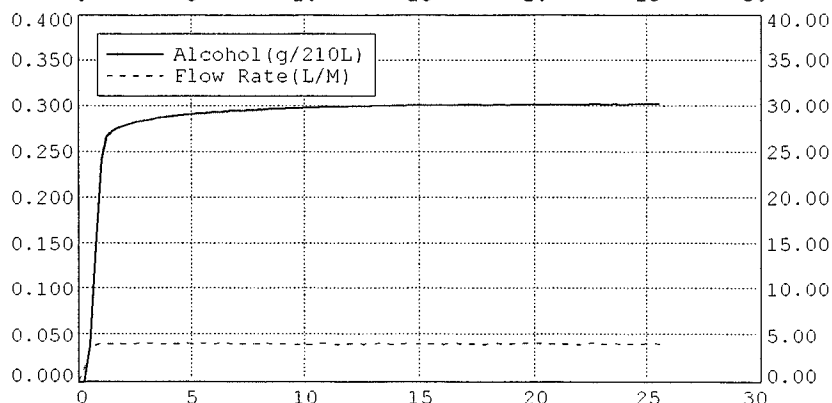
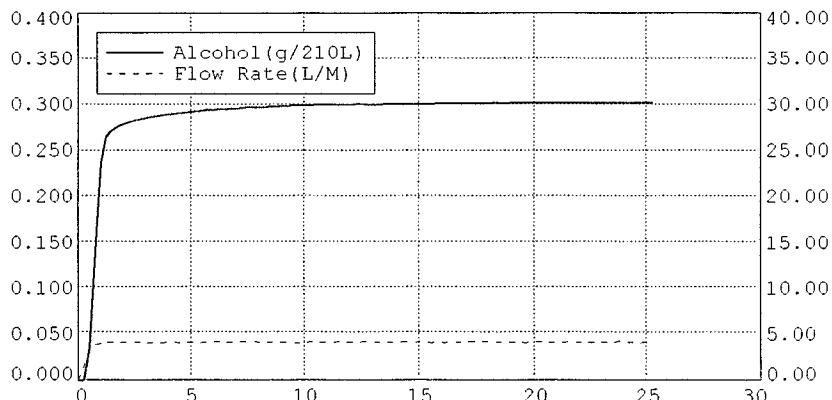
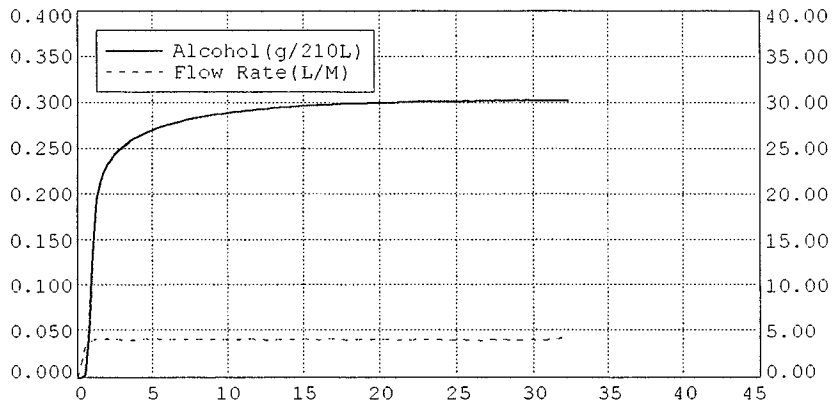
Date: 08/08/2018
 Time: 13:27:13

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 17350
 EXPIRATION: 10/11/2019

BLANK TEST	0.000	13:28
INTERNAL STANDARD	VERIFIED	13:28
EXTERNAL STANDARD	0.303	13:29
BLANK TEST	0.000	13:30
EXTERNAL STANDARD	0.302	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.303	13:32
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.303	13:33
BLANK TEST	0.000	13:34
EXTERNAL STANDARD	0.302	13:34
BLANK TEST	0.000	13:35

Average = 0.3026
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 13:42:56

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

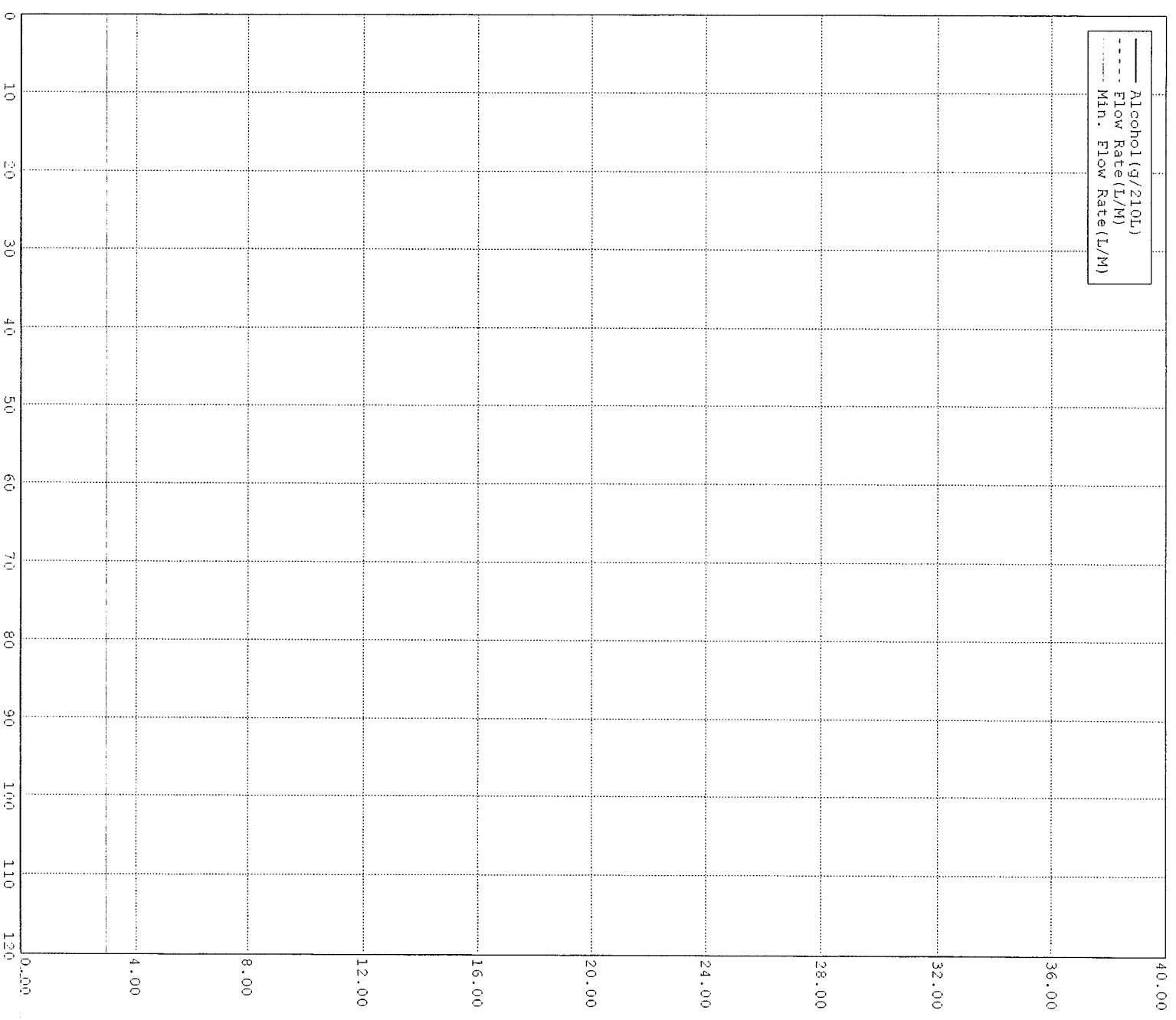
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.39: 0.079
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	13:43
BLANK TEST	0.000	13:44
INTERNAL STANDARD	VERIFIED	13:44
EXTERNAL STANDARD	0.078	13:44
BLANK TEST	0.000	13:45
SUBJECT SAMPLE	INCOMPLETE	13:47

W



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 13:51:39

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

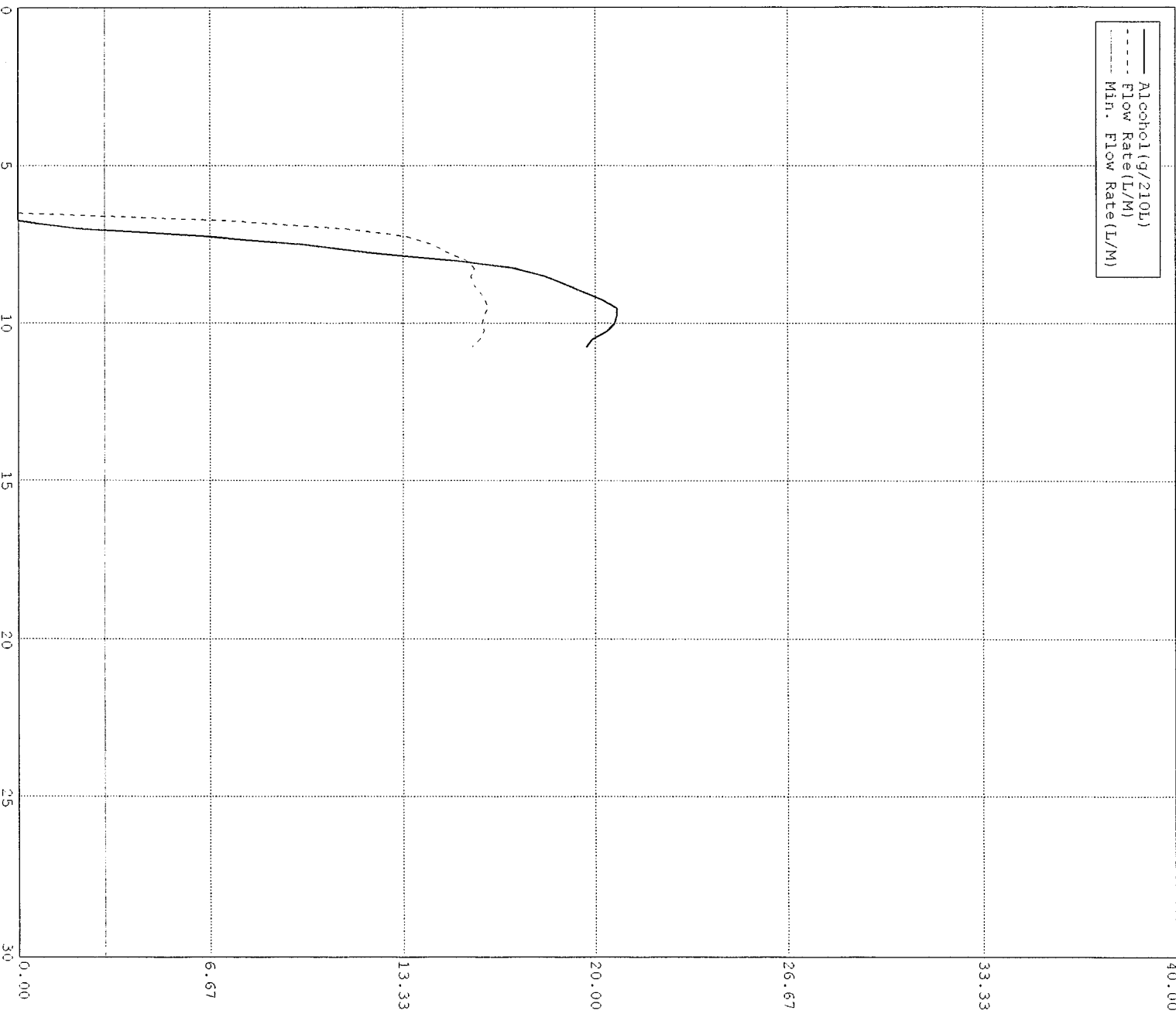
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.39: 0.079
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	13:52
BLANK TEST	0.000	13:52
INTERNAL STANDARD	VERIFIED	13:52
EXTERNAL STANDARD	0.078	13:53
BLANK TEST	0.000	13:54
SUBJECT SAMPLE	INVALID	13:54

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 14:00:23

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 29.39: 0.079
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	14:04
BLANK TEST	0.000	14:04
INTERNAL STANDARD	VERIFIED	14:04
Xq = 0.090 (0.58%)		
EXTERNAL STANDARD	0.078	14:04
X[1] = 0.0779 (-0.0003)	(0.0013)	
BLANK TEST	0.000	14:05
SUBJECT SAMPLE	XXX	14:06
X[1] = 0.1060 (-0.0148)	(0.0025)	

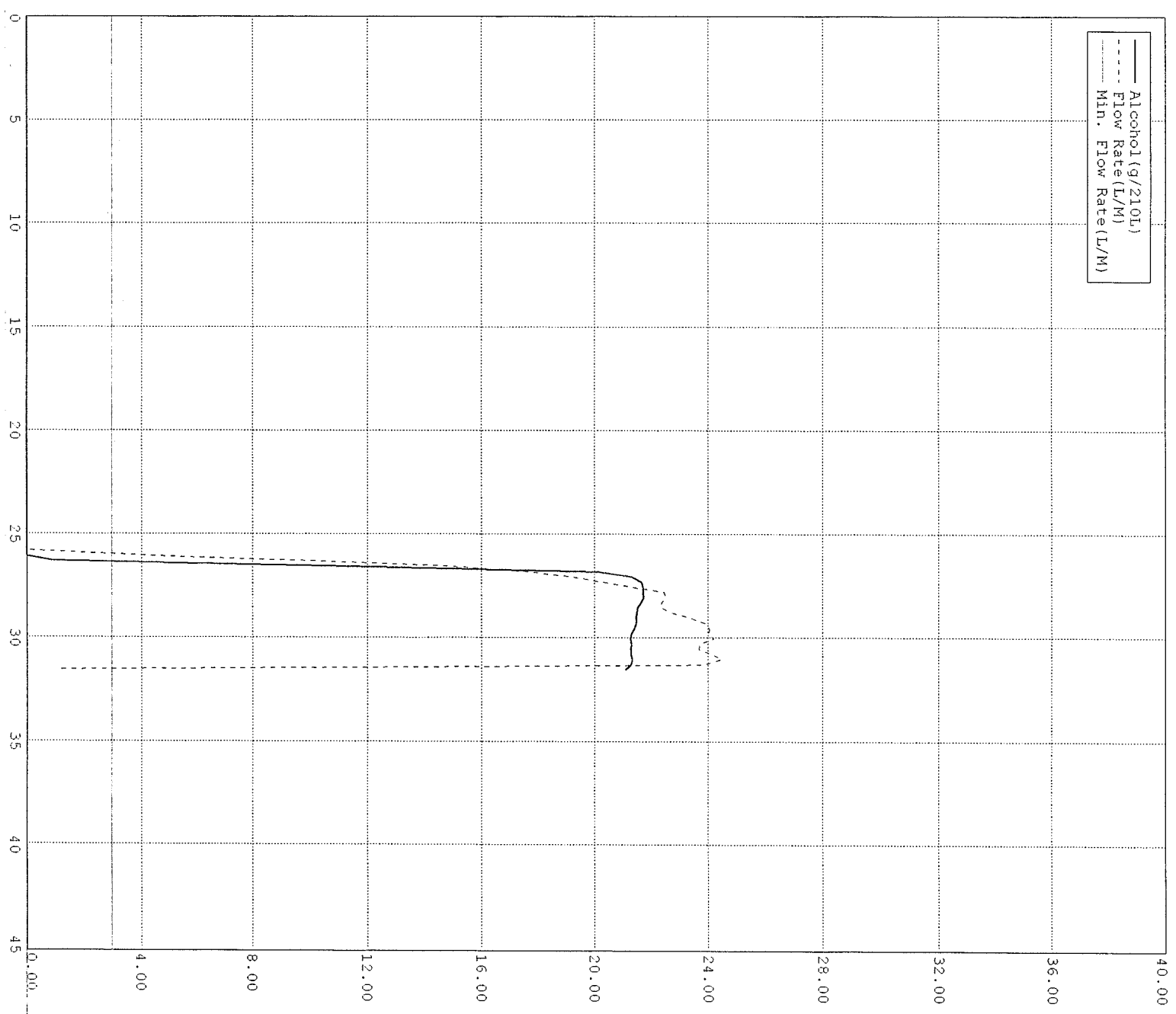
Interference Detected

Filt/ 2 Avg: 0.0003

Filt/ 3 Avg: 0.0013

NW 08/09/18

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 14:09:22

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

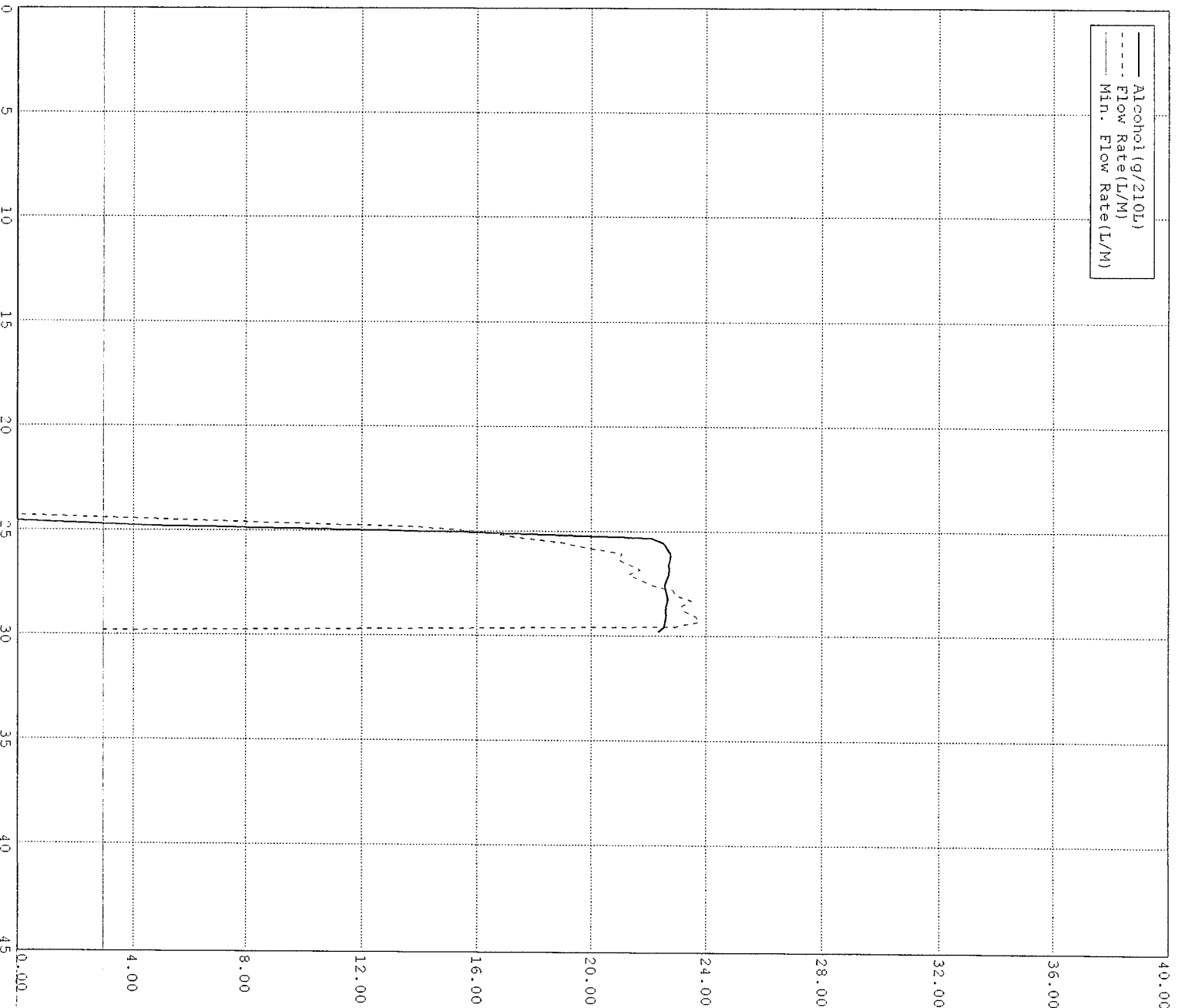
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.38: 0.079
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	14:10
BLANK TEST	0.000	14:10
INTERNAL STANDARD	VERIFIED	14:11
Xq = 0.091 (1.55%)		
EXTERNAL STANDARD	0.078	14:11
X[1] = 0.0783 (0.0004)	(0.0018)	
BLANK TEST	0.000	14:12
SUBJECT SAMPLE	XXX	14:12
X[1] = 0.1127 (-0.0234)	(0.0017)	

Interference Detected

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 14:15:30

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

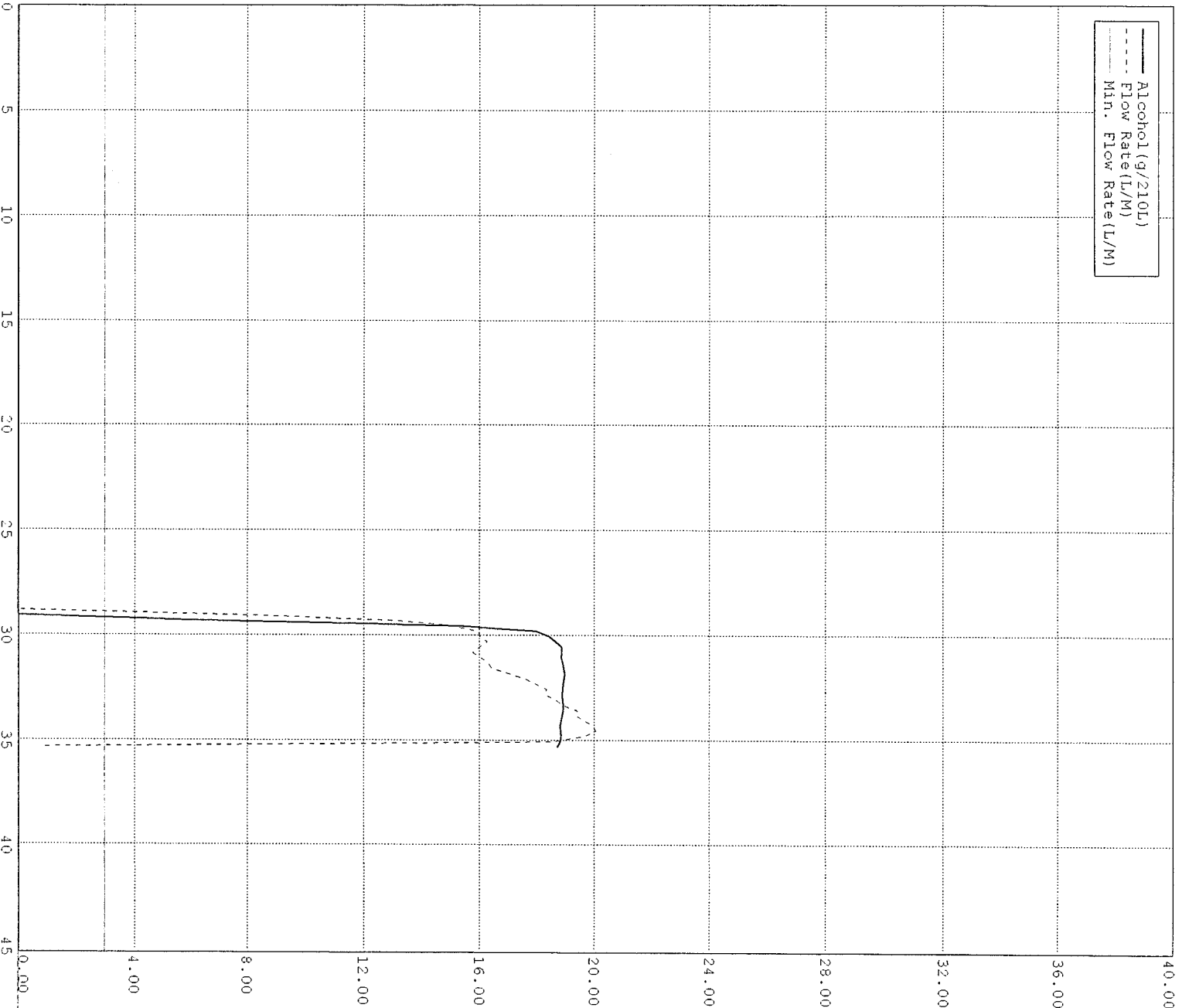
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.39: 0.079
LOT #: AG735001
EXPIRATION: 12/16/2019

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	14:17
BLANK TEST	0.000	14:17
INTERNAL STANDARD	VERIFIED	14:17
Xq = 0.091 (0.97%)		
EXTERNAL STANDARD	0.079	14:17
X[1] = 0.0791 (0.0004)	0.0013	14:18
BLANK TEST	0.000	14:18
SUBJECT SAMPLE (Vol=1.79L)	0.094	14:19
X[1] = 0.0945 (0.0009)	0.0011	14:19
BLANK TEST	0.000	14:20
EXTERNAL STANDARD	0.079	14:20
X[1] = 0.0786 (0.0005)	0.0007	14:21
BLANK TEST	0.000	14:21

mm



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 14:24:04

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

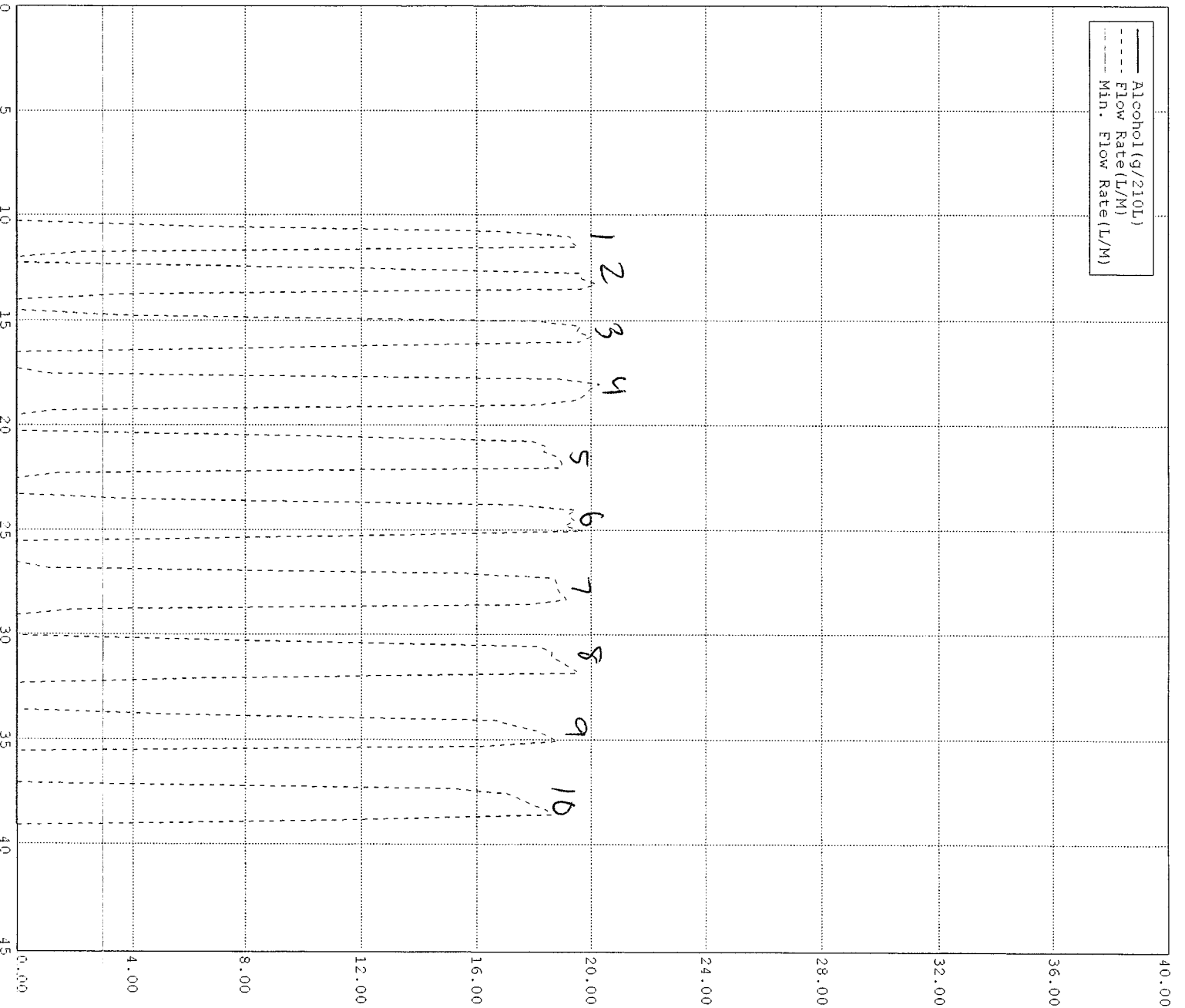
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.39: 0.079
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	14:26
BLANK TEST	0.000	14:26
INTERNAL STANDARD	0.079	14:27
EXTERNAL STANDARD	0.000	14:28
BLANK TEST	0.000	14:28
SUBJECT SAMPLE	XXX	14:28

Maximum Attempts Exceeded

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/08/2018
Time: 14:31:18

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

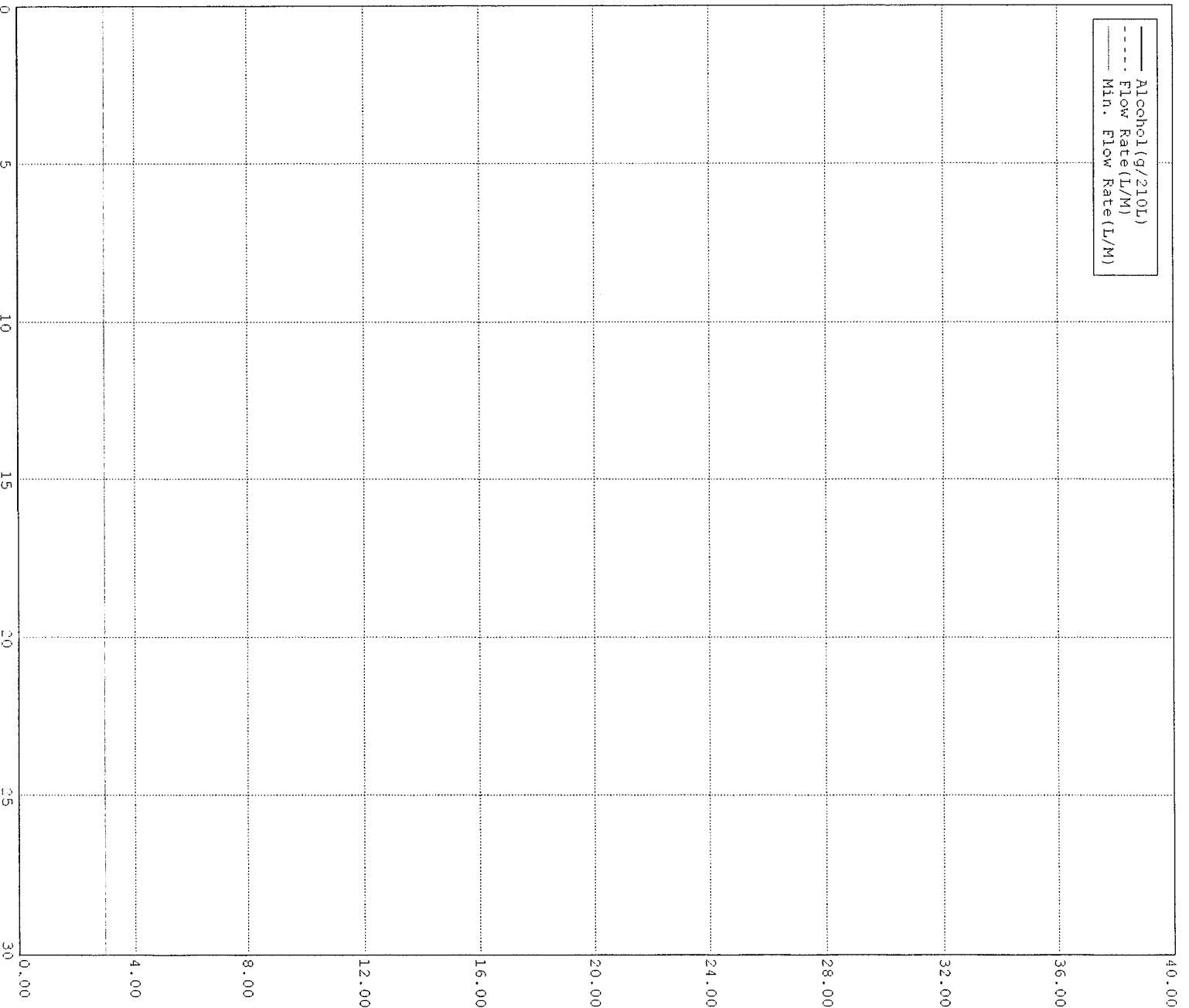
DEPT/AGENCY:
RFI
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.39: 0.079
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	14:32
BLANK TEST	0.000	14:32
INTERNAL STANDARD	VERIFIED	14:32
EXTERNAL STANDARD	0.079	14:32
BLANK TEST	0.000	14:33

RFI DETECTED

RFI



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 08/09/2018
Time: 09:53:20

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 29.47: 0.079
IOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	09:54
BLANK TEST	0.000	09:54
INTERNAL STANDARD	VERIFIED	09:54
EXTERNAL STANDARD	0.080	09:54
BLANK TEST	0.000	09:55
SUBJECT SAMPLE (Vol=2.20L)	0.000	09:56
BLANK TEST	0.000	09:56
EXTERNAL STANDARD	0.080	09:57
BLANK TEST	0.000	09:58

DM

