

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 160688 Analyst Derela Walton Start Date 03/20/18

- 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 1.7 L (1.3L to 1.7L)

4. Linearity Test (attached) Test re-run after options reset JW 03/20/18

- a. Levels Used
 - i. 0.020g/210L Mnf Airgas Lot AG616504 Exp 06/13/18
 - ii. 0.040g/210L Mnf Airgas Lot AG630101 Exp 10/27/18
 - iii. 0.080g/210L Mnf Airgas Lot AG634001 Exp 12/05/18
 - iv. 0.100g/210L Mnf Airgas Lot AG629304 Exp 10/19/18
 - v. 0.200g/210L Mnf Cuth Lot 17090 Exp 02/24/19
 - 1. Simulator S/N DR4161 Date Calibrated 01/24/2018
 - vi. 0.300g/210L Mnf Cuth Lot 17140 Exp 05/15/19
 - 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 Cuth Lot 17280 Level 0.100 Exp 09/11/19
 - 1. Simulator S/N SD1177 Date Calibrated 01/24/2018
- ii. Isopropanol - Mnf Cuth Lot 17280 Level 0.100 Exp 09/11/19
 - 1. Simulator S/N SD1199 Date Calibrated 01/24/2018
- iii. Negative Control - Mnf Cuth Lot 17060 Level 0.100 Exp 02/14/19
 - 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 03/20/2018 JW

All printed copies are uncontrolled.

Supervised casework performed with Colleen OBryant. 03/29/18

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 10:44:47

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 = 45.4°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.99 V PASSED
(1.18 V - 2.74 V)
Cooler Voltage = 1.96 V PASSED
(1.13 V - 2.63 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 543 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.9 in

PUMP INFO

Flow Rate = 3.980 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 = 0.099 1.31% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 10:51 AM

Temperatures (°C)

Sample Cell: 48.9°C
Breath Tube: 45.4°C

Current Barometer 29.9 in
Volume (Ltr) 1.41

Settings

Lamp: 1.99 V
Bias: 80 V
Cooler: 1.96 V
Chopper: 544 Hz

Voltages (V)

Flow: 1.02 V
Detector: -0.001 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 01/19/2018
Time: 10:54:27

OPERATOR NAME:
BRANDI BARNETT
CERTIFICATE #: 7038

Ca = 0.1000
CAL = 0.953358 0.800 <= CAL < 1.200
b1 = 0.0005 0.0000 <= b1 < 0.0040
b2 = 0.0047 0.0010 <= b2 < 0.0100
b3 = 0.0007 0.0000 <= b3 < 0.0040
Xq = 0.1001 0.0500 <= Xq < 0.2000
a21 = 1.150052 1.050 <= a21 < 1.300
a31 = 0.497634 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 11:03:58

SUBJECT NAME:
TEST TEST
LICENSE #: VOLUME TEST

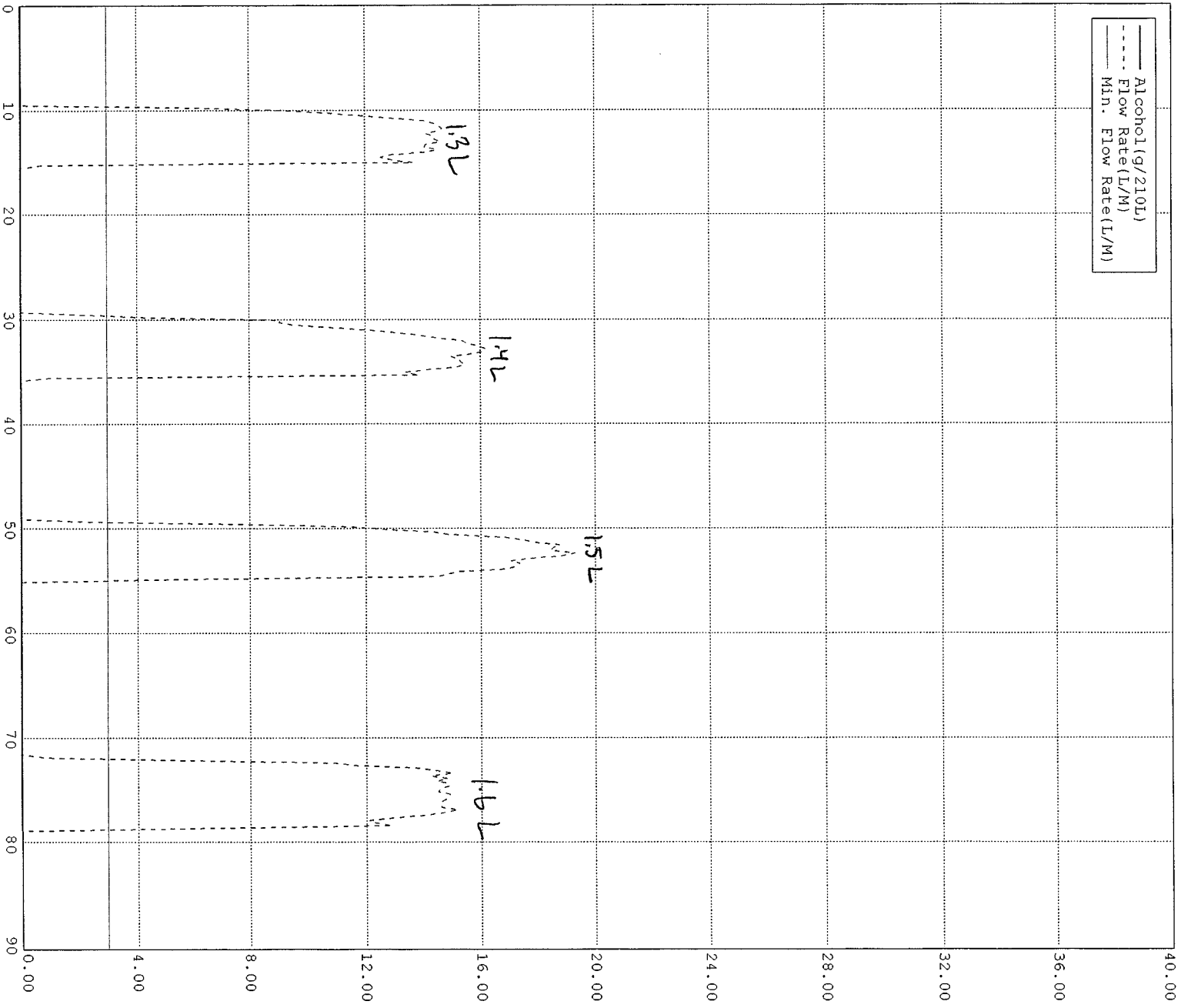
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

DEPT/AGENCY:
AAAI
CASE/REPORT: VOL TEST
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.94: 0.080

DIAGNOSTIC CHECK	PASSED	11:04
BLANK TEST	0.000	11:05
INTERNAL STANDARD	VERIFIED	11:05
EXTERNAL STANDARD	0.077	11:05
BLANK TEST	0.000	11:06
SUBJECT SAMPLE (Vol=1.52L)	0.000	11:07
BLANK TEST	0.000	11:08
EXTERNAL STANDARD	0.078	11:08
BLANK TEST	0.000	11:09

Dry gas lot # AG 634001
Exp. 12/05/18 QM 03/20/18



LINEARITY CHECK

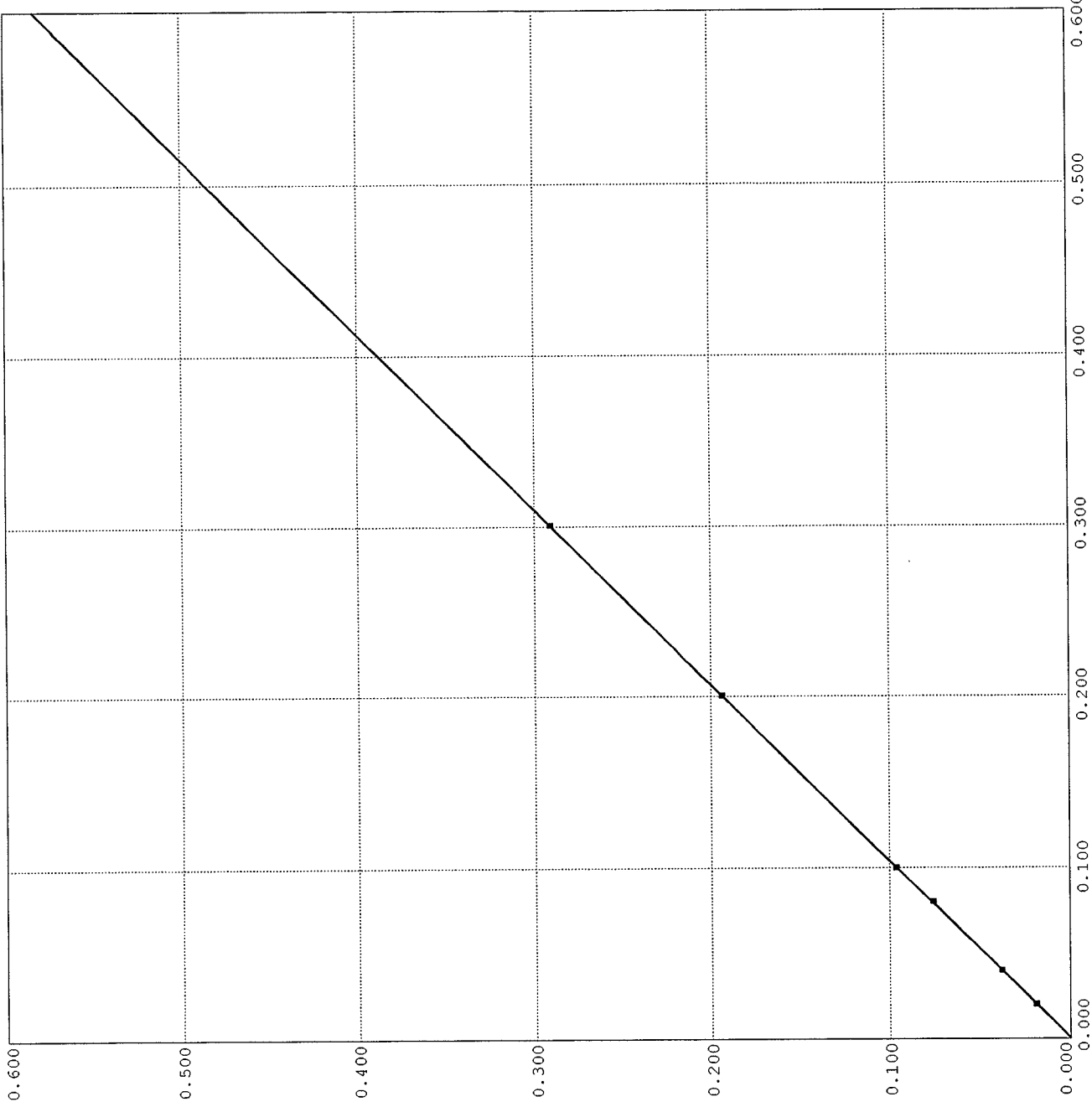
Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 11:40:56

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0198	0.0004
0.040	0.0390	0.0007
0.080	0.0770	0.0000
0.100	0.0972	0.0004
0.200	0.1946	0.0005
0.300	0.2918	0.0008

SLOPE = 0.972637
R² = 0.999986



Derek Walton

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100688

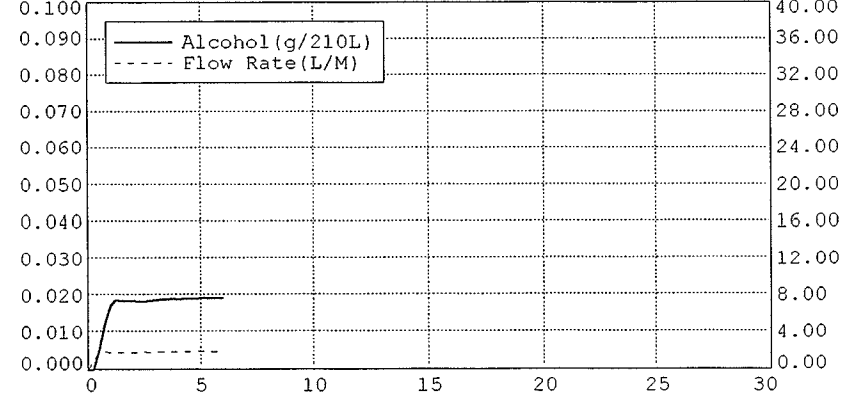
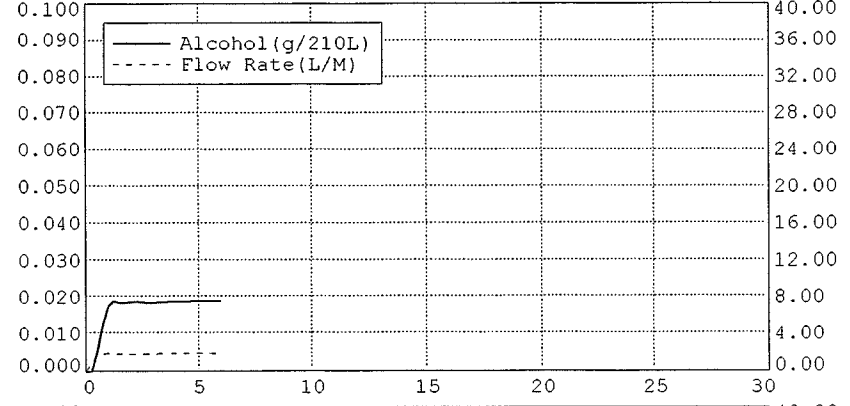
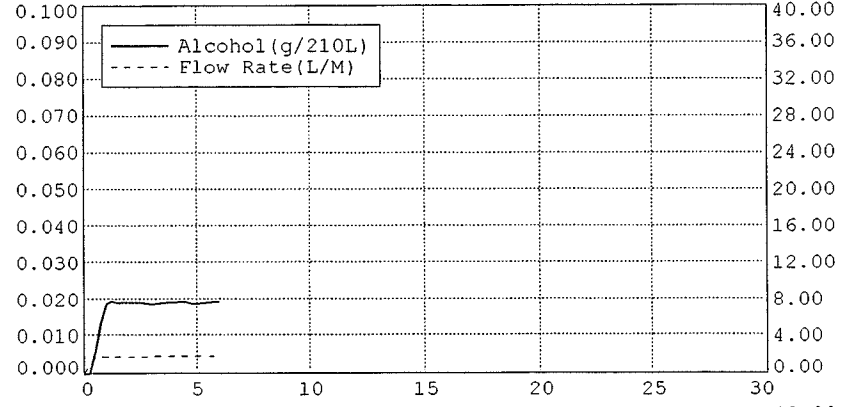
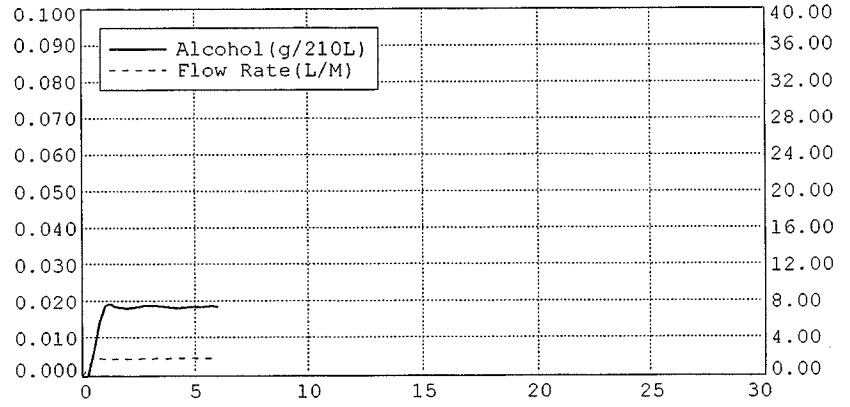
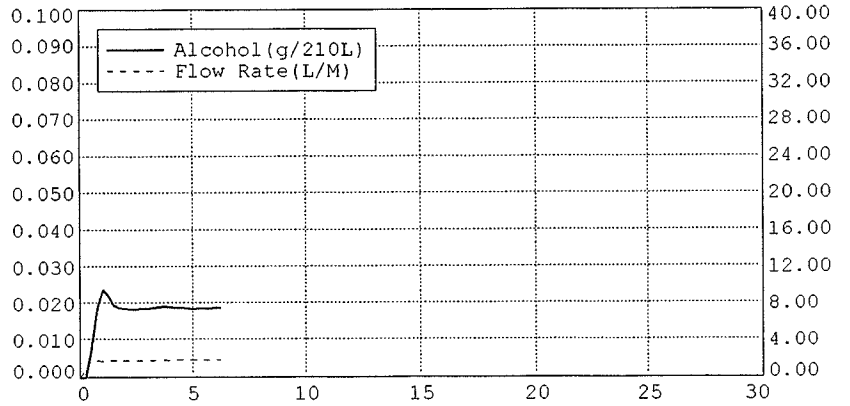
Date: 03/20/2018
Time: 11:40:58

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.96: 0.020
LOT #: AG616504
EXPIRATION: 06/13/2018
TANK PRESSURE: 232 psi

BLANK TEST	0.000	11:43
INTERNAL STANDARD	VERIFIED	11:43
EXTERNAL STANDARD	0.020	11:43
BLANK TEST	0.000	11:44
EXTERNAL STANDARD	0.019	11:44
BLANK TEST	0.000	11:45
EXTERNAL STANDARD	0.020	11:45
BLANK TEST	0.000	11:46
EXTERNAL STANDARD	0.020	11:46
BLANK TEST	0.000	11:47
EXTERNAL STANDARD	0.020	11:48
BLANK TEST	0.000	11:48

Average = 0.0198
Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100688

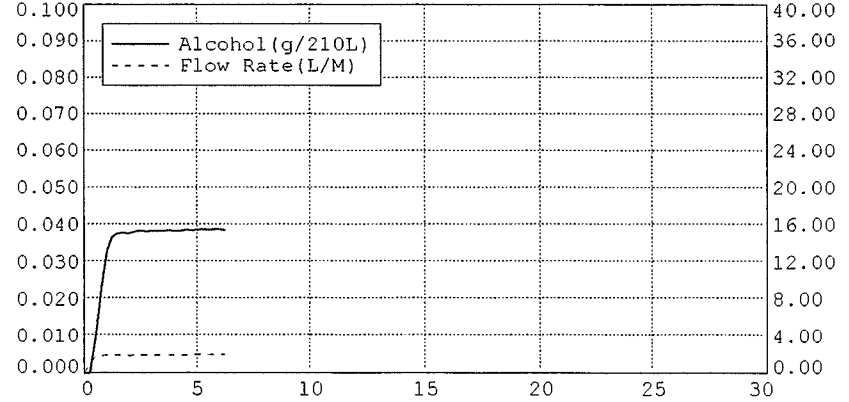
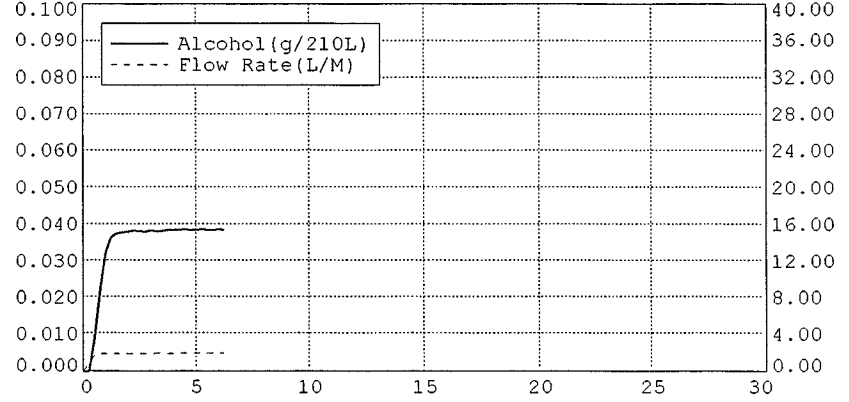
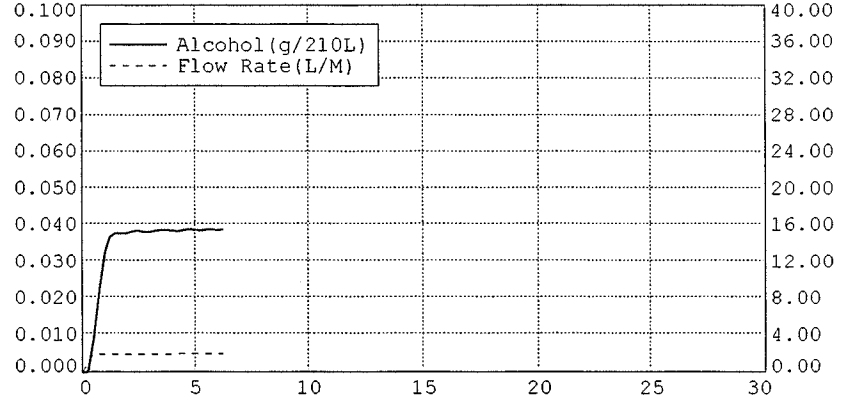
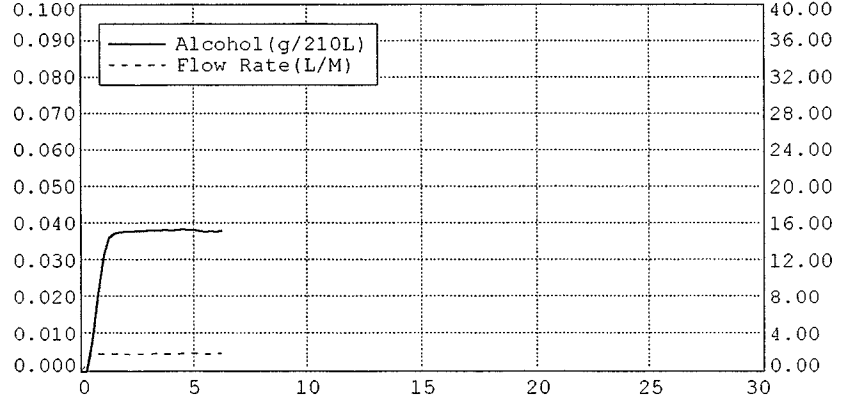
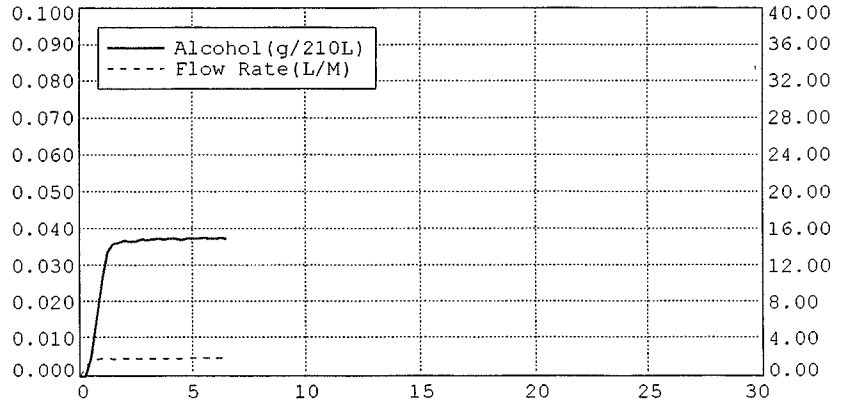
Date: 03/20/2018
 Time: 12:56:36

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.98: 0.040
 LOT #: AG630101
 EXPIRATION: 10/27/2018
 TANK PRESSURE: 315 psi

BLANK TEST	0.000	12:58
INTERNAL STANDARD	VERIFIED	12:58
EXTERNAL STANDARD	0.038	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.039	12:59
BLANK TEST	0.000	13:00
EXTERNAL STANDARD	0.039	13:00
BLANK TEST	0.000	13:01
EXTERNAL STANDARD	0.039	13:02
BLANK TEST	0.000	13:02
EXTERNAL STANDARD	0.040	13:03
BLANK TEST	0.000	13:04

Average = 0.0390
 Std Dev = 0.0007



LINEARITY CHECK: Control Test 3

 Alaska Department of Public Safety
 DATAMASTER dmt: 100688

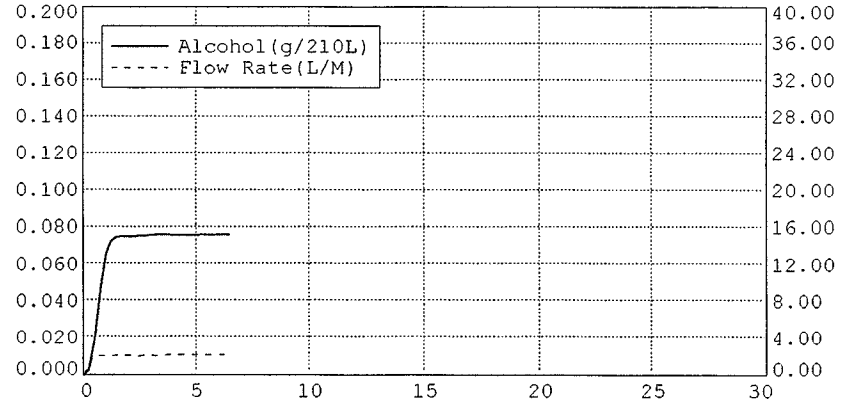
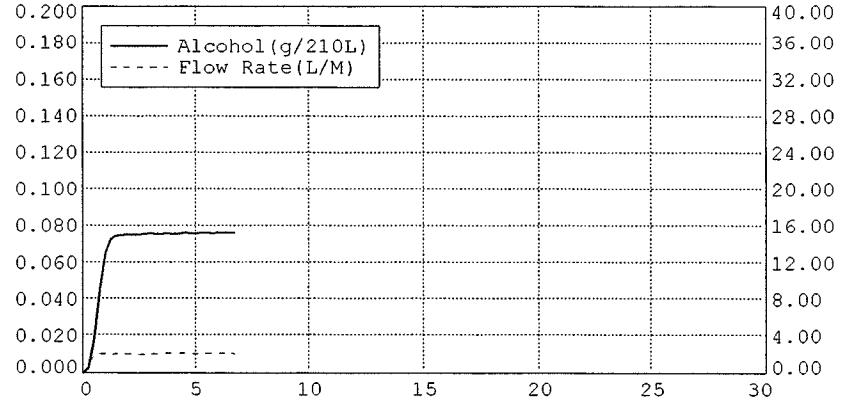
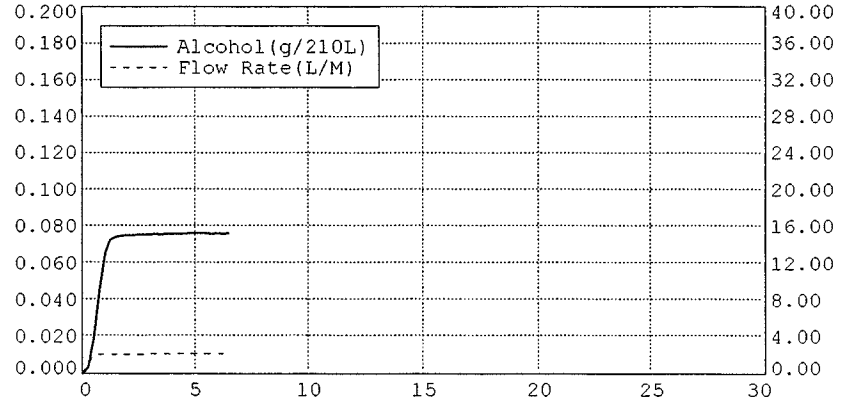
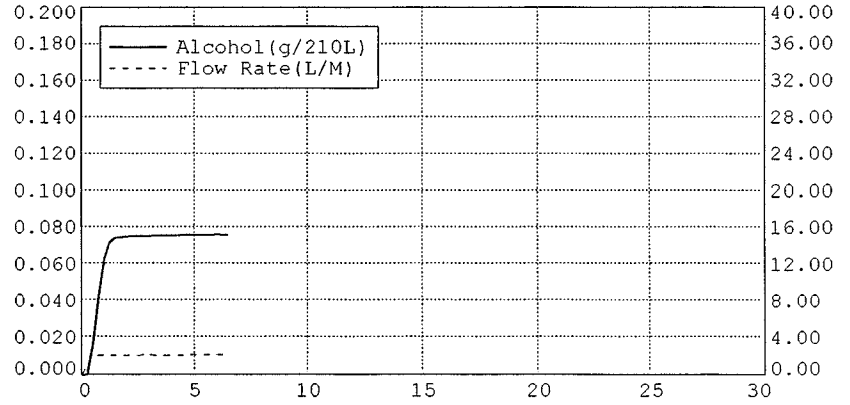
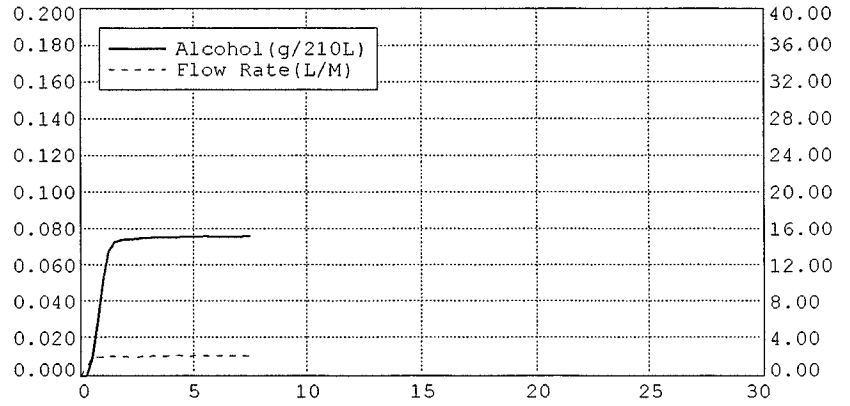
Date: 03/20/2018
 Time: 13:04:55

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.97: 0.080
 LOT #: AG634001
 EXPIRATION: 12/05/2018
 TANK PRESSURE: 656 psi

BLANK TEST	0.000	13:06
INTERNAL STANDARD	VERIFIED	13:06
EXTERNAL STANDARD	0.077	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.077	13:07
BLANK TEST	0.000	13:08
EXTERNAL STANDARD	0.077	13:08
BLANK TEST	0.000	13:09
EXTERNAL STANDARD	0.077	13:10
BLANK TEST	0.000	13:10
EXTERNAL STANDARD	0.077	13:11
BLANK TEST	0.000	13:12

Average = 0.0770
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

 Alaska Department of Public Safety
 DATAMASTER dmt: 100688

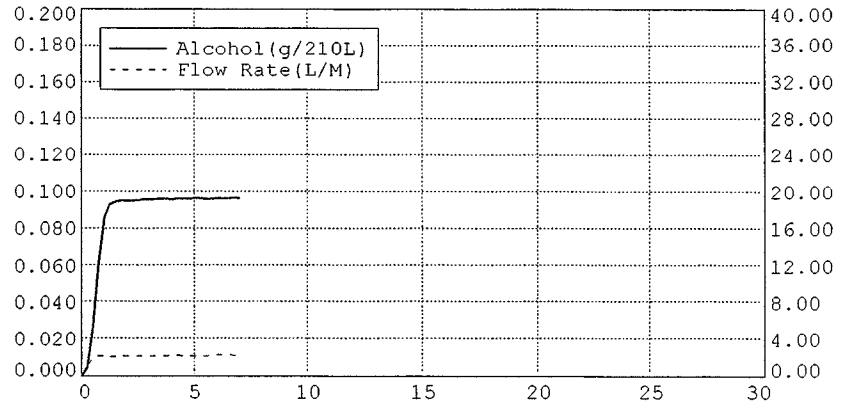
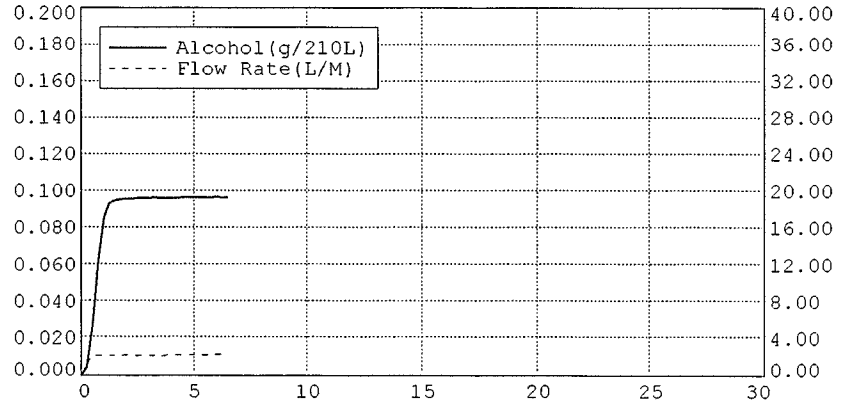
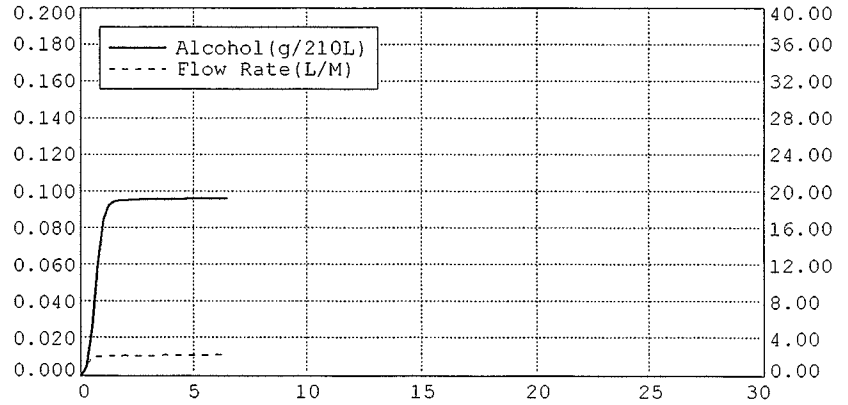
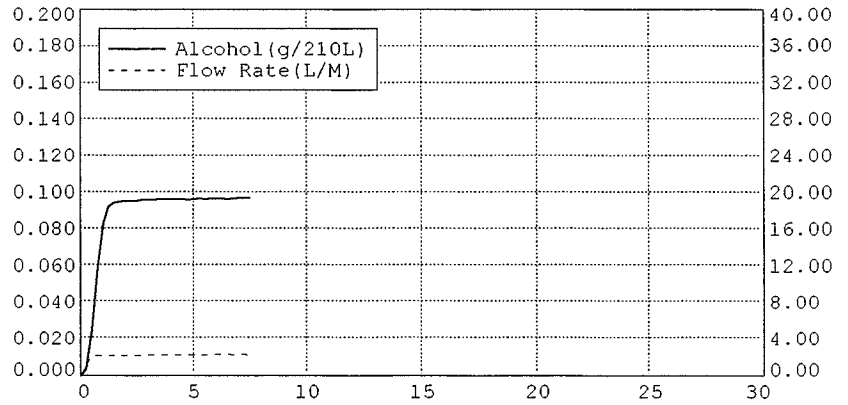
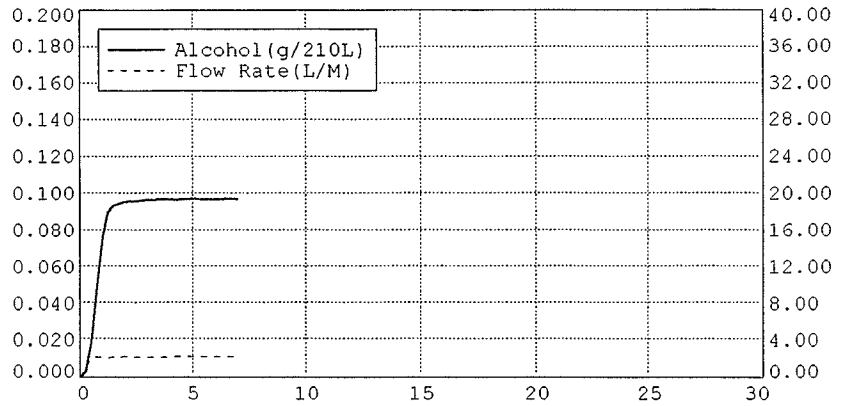
Date: 03/20/2018
 Time: 13:12:48

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.97: 0.100
 LOT #: AG629304
 EXPIRATION: 10/19/2018
 TANK PRESSURE: 1070 psi

BLANK TEST	0.000	13:14
INTERNAL STANDARD	VERIFIED	13:14
EXTERNAL STANDARD	0.098	13:14
BLANK TEST	0.000	13:15
EXTERNAL STANDARD	0.097	13:15
BLANK TEST	0.000	13:16
EXTERNAL STANDARD	0.097	13:16
BLANK TEST	0.000	13:17
EXTERNAL STANDARD	0.097	13:18
BLANK TEST	0.000	13:18
EXTERNAL STANDARD	0.097	13:19
BLANK TEST	0.000	13:20

Average = 0.0972
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

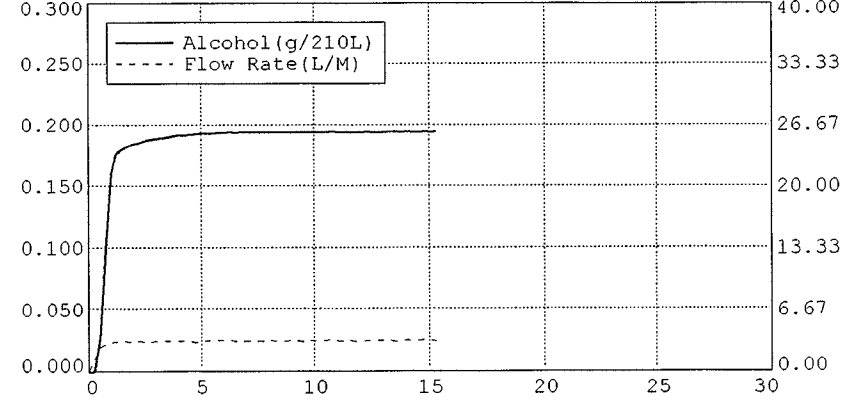
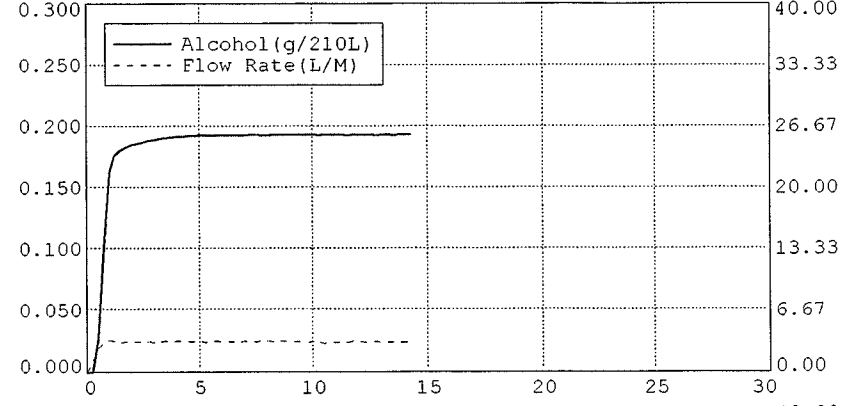
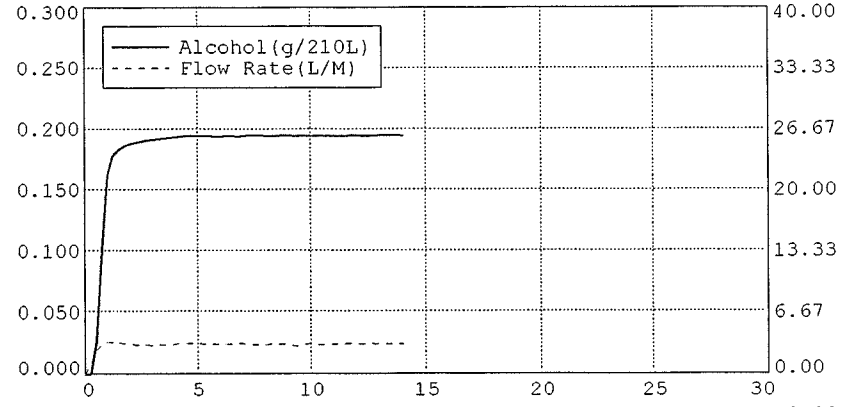
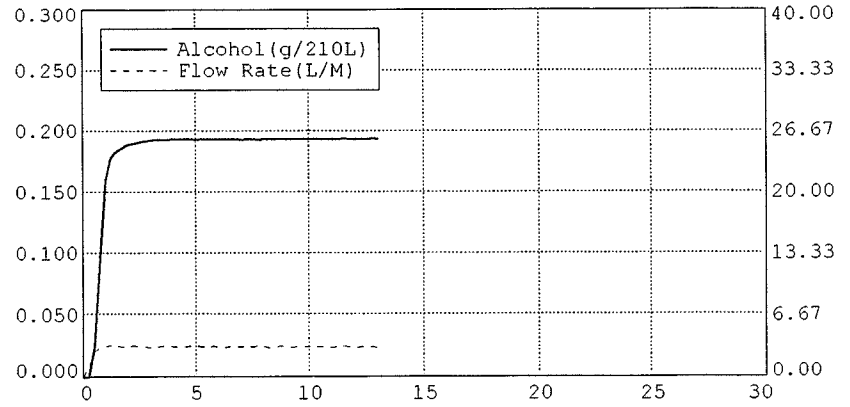
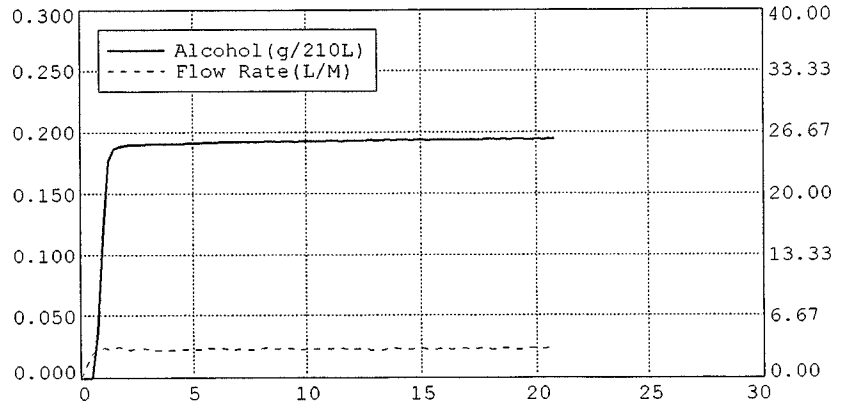
 Alaska Department of Public Safety
 DATAMASTER dmt: 100688

Date: 03/20/2018
 Time: 13:24:54

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

BLANK TEST	0.000	13:26
INTERNAL STANDARD	VERIFIED	13:26
EXTERNAL STANDARD	0.195	13:26
BLANK TEST	0.000	13:27
EXTERNAL STANDARD	0.194	13:27
BLANK TEST	0.000	13:28
EXTERNAL STANDARD	0.195	13:29
BLANK TEST	0.000	13:30
EXTERNAL STANDARD	0.194	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.195	13:31
BLANK TEST	0.000	13:32

Average = 0.1946
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

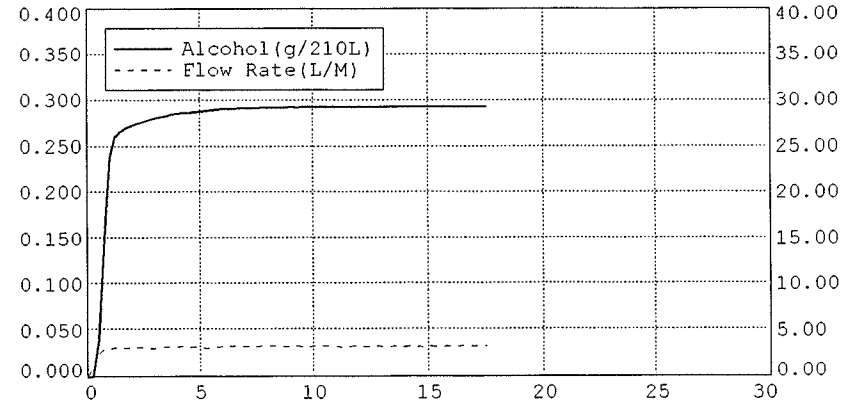
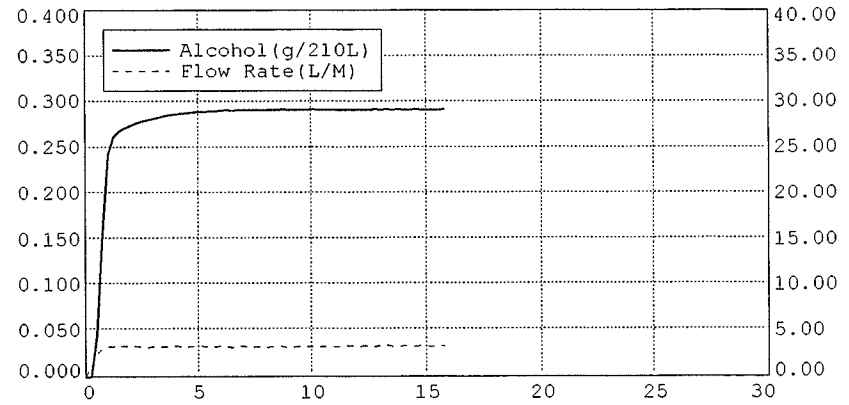
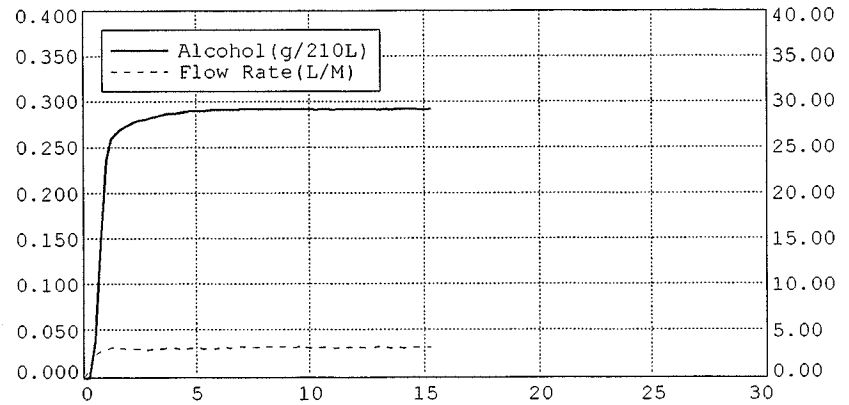
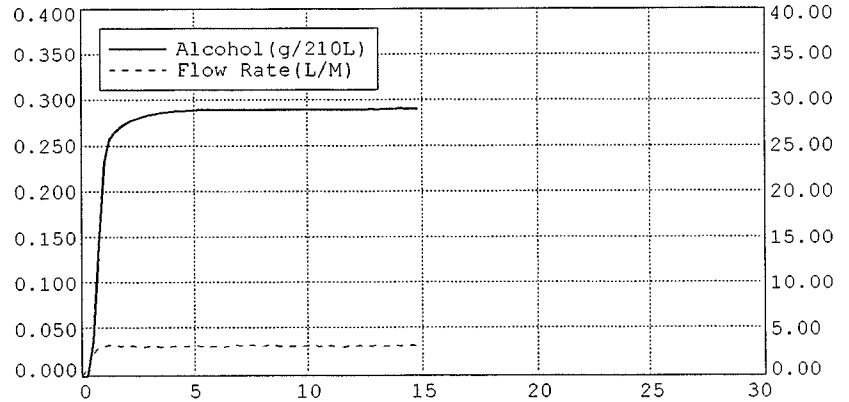
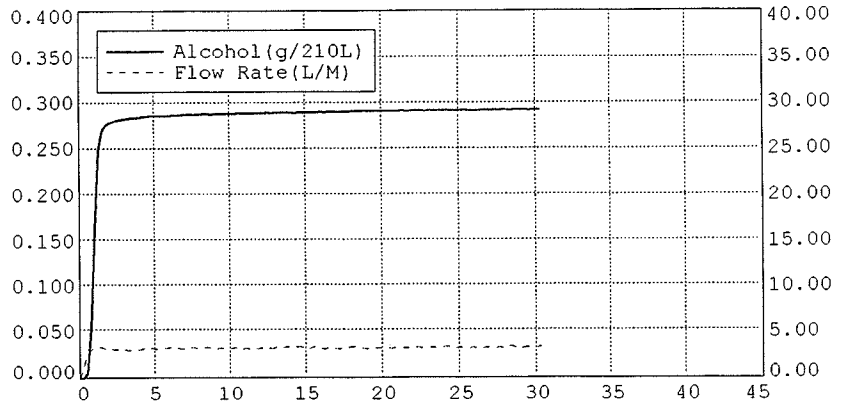
Alaska Department of Public Safety
 DATAMASTER dmt: 100688

Date: 03/20/2018
 Time: 13:35:38

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.300
 LOT #: 17140
 EXPIRATION: 05/15/2019

BLANK TEST	0.000	13:36
INTERNAL STANDARD	VERIFIED	13:36
EXTERNAL STANDARD	0.292	13:37
BLANK TEST	0.000	13:38
EXTERNAL STANDARD	0.291	13:38
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.292	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.291	13:41
BLANK TEST	0.000	13:42
EXTERNAL STANDARD	0.293	13:42
BLANK TEST	0.000	13:43

Average = 0.2918
 Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 13:48:39

SUBJECT NAME:
TEST TEST
LICENSE #: INCOMPLETE

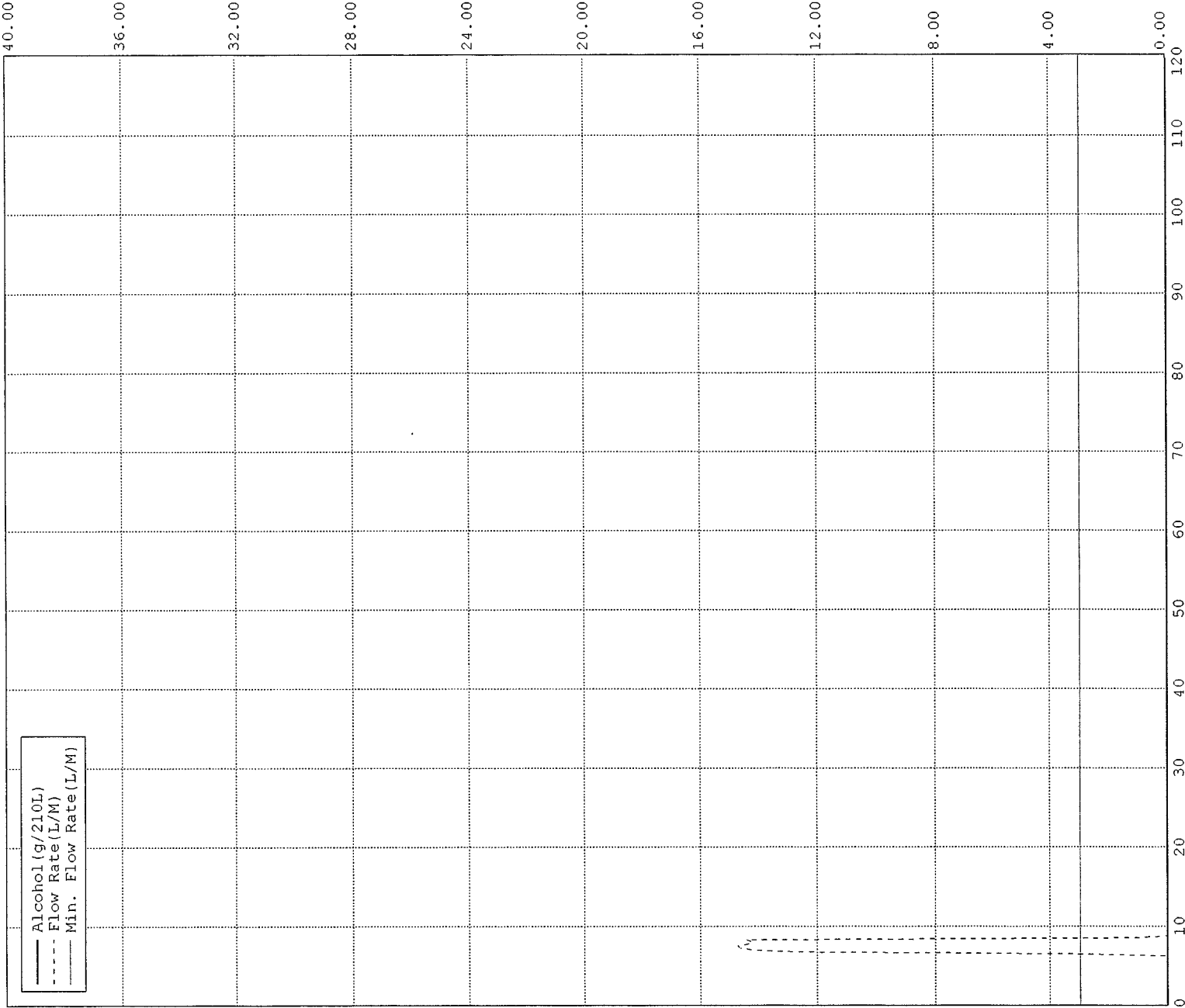
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

DEPT/AGENCY:
AAA1
CASE/REPORT: INCOMPLETE
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.99: 0.080

DIAGNOSTIC CHECK	PASSED	13:49
BLANK TEST	0.000	13:49
INTERNAL STANDARD	VERIFIED	13:50
EXTERNAL STANDARD	0.076	13:50
BLANK TEST	0.000	13:51
SUBJECT SAMPLE	INCOMPLETE	13:53

28'N



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 14:29:00

SUBJECT NAME:
TEST TEST
LICENSE #: INVALID

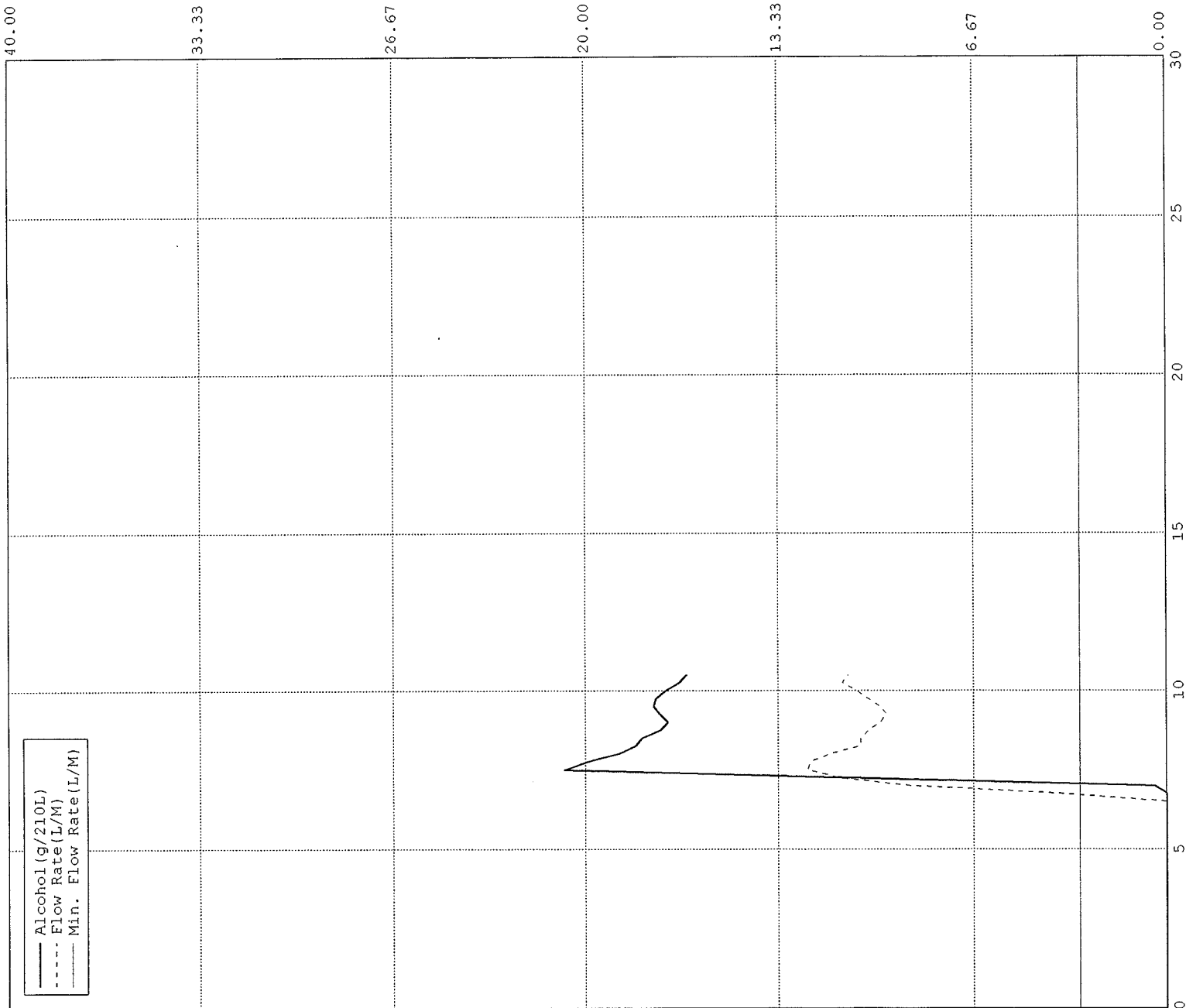
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

DEPT/AGENCY:
AAA1
CASE/REPORT: INVALID
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.00: 0.080

DIAGNOSTIC CHECK	PASSED	14:29
BLANK TEST	0.000	14:30
INTERNAL STANDARD	VERIFIED	14:30
EXTERNAL STANDARD	0.077	14:30
BLANK TEST	0.000	14:31
SUBJECT SAMPLE	INVALID	14:31

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 14:45:59

SUBJECT NAME:
TEST TEST
LICENSE #: INTERF ACET

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

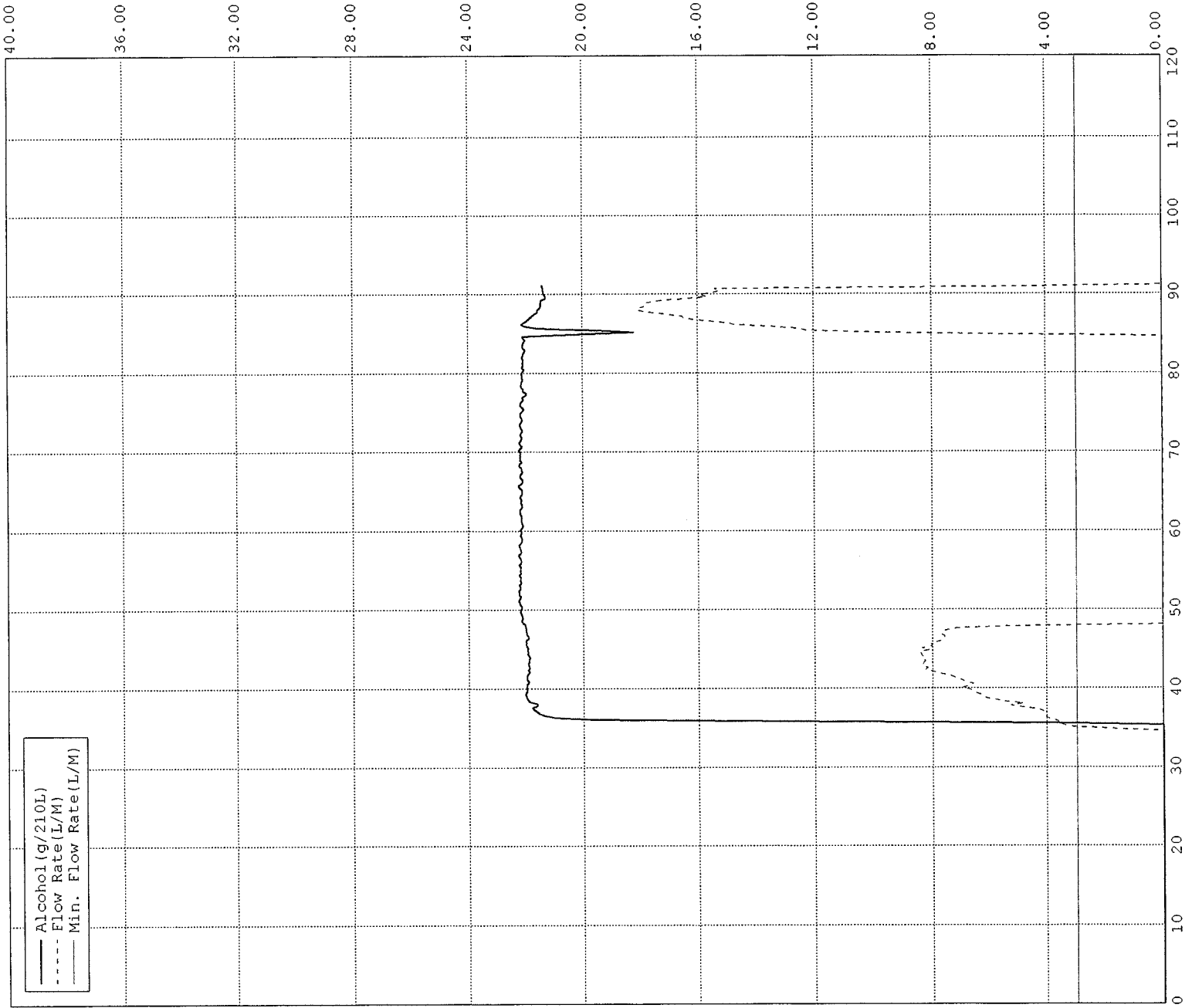
DEPT/AGENCY:
AAA1

CASE/REPORT: INTERF ACET
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.01: 0.080

DIAGNOSTIC CHECK	PASSED	14:47
BLANK TEST	0.000	14:48
INTERNAL STANDARD	VERIFIED	14:48
Xq = 0.100 (0.53%)		
EXTERNAL STANDARD	0.077	14:48
X[1] = 0.0766 (0.0006) (0.0021)		
BLANK TEST	0.000	14:49
SUBJECT SAMPLE	XXX	14:50
X[1] = 0.1078 (-0.0127) (0.0032)		

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 14:35:46

SUBJECT NAME:
TEST TEST
LICENSE #: INTERF IPA

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

DEPT/AGENCY:
AAA1

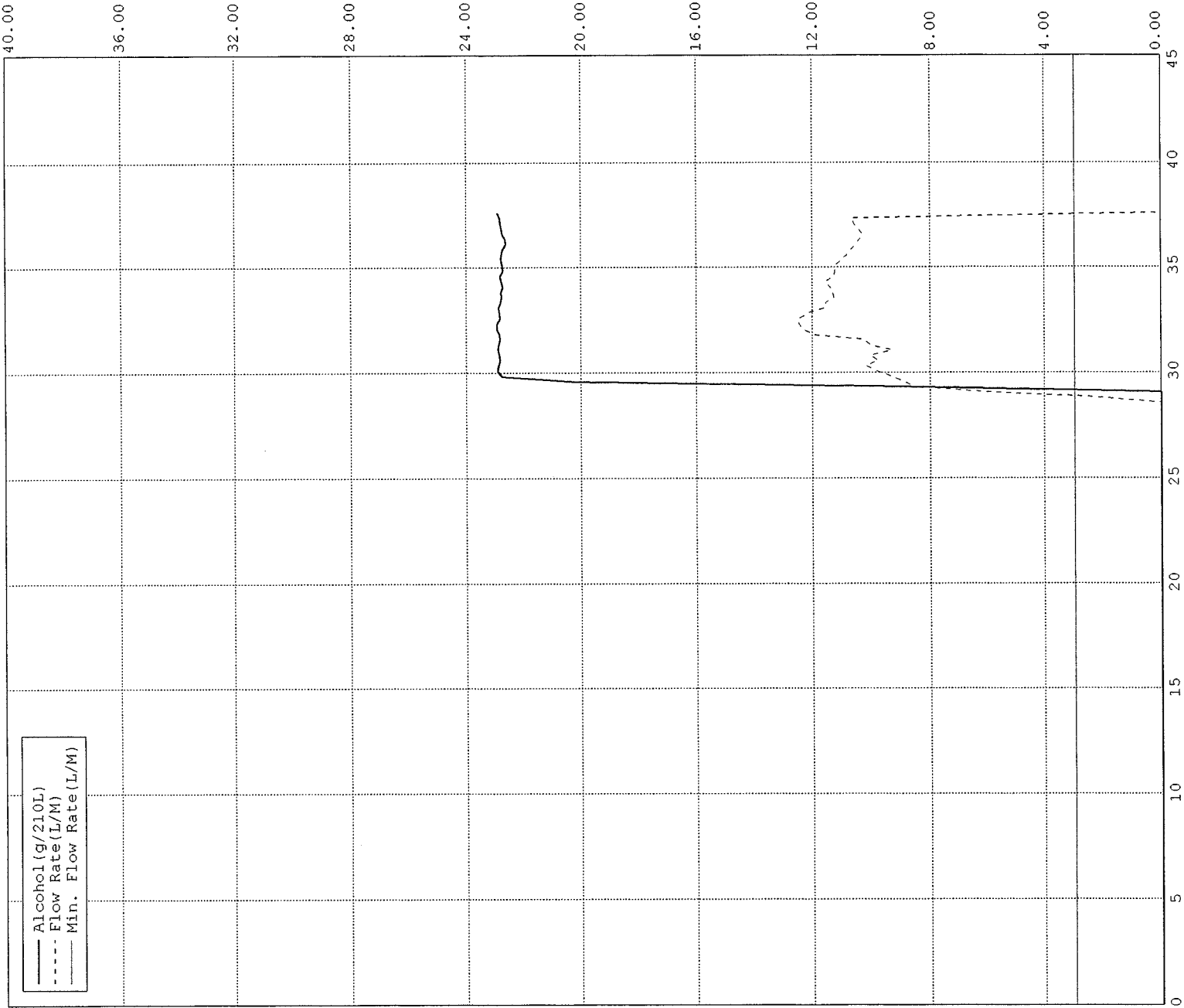
CASE/REPORT: INTERF IPA
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 30.00: 0.080

DIAGNOSTIC CHECK	PASSED	14:36
BLANK TEST	0.000	14:36
INTERNAL STANDARD	VERIFIED	14:37
$x_q = 0.099$ (0.96%)		
EXTERNAL STANDARD	0.076	14:37
$x[1] = 0.0764$ (0.0011) (0.0035)		
BLANK TEST	0.000	14:38
SUBJECT SAMPLE	XXX	14:38
$X[1] = 0.1151$ (-0.0198) (0.0023)		

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 14:12:45

SUBJECT NAME:
TEST TEST
LICENSE #: INTERF NEG

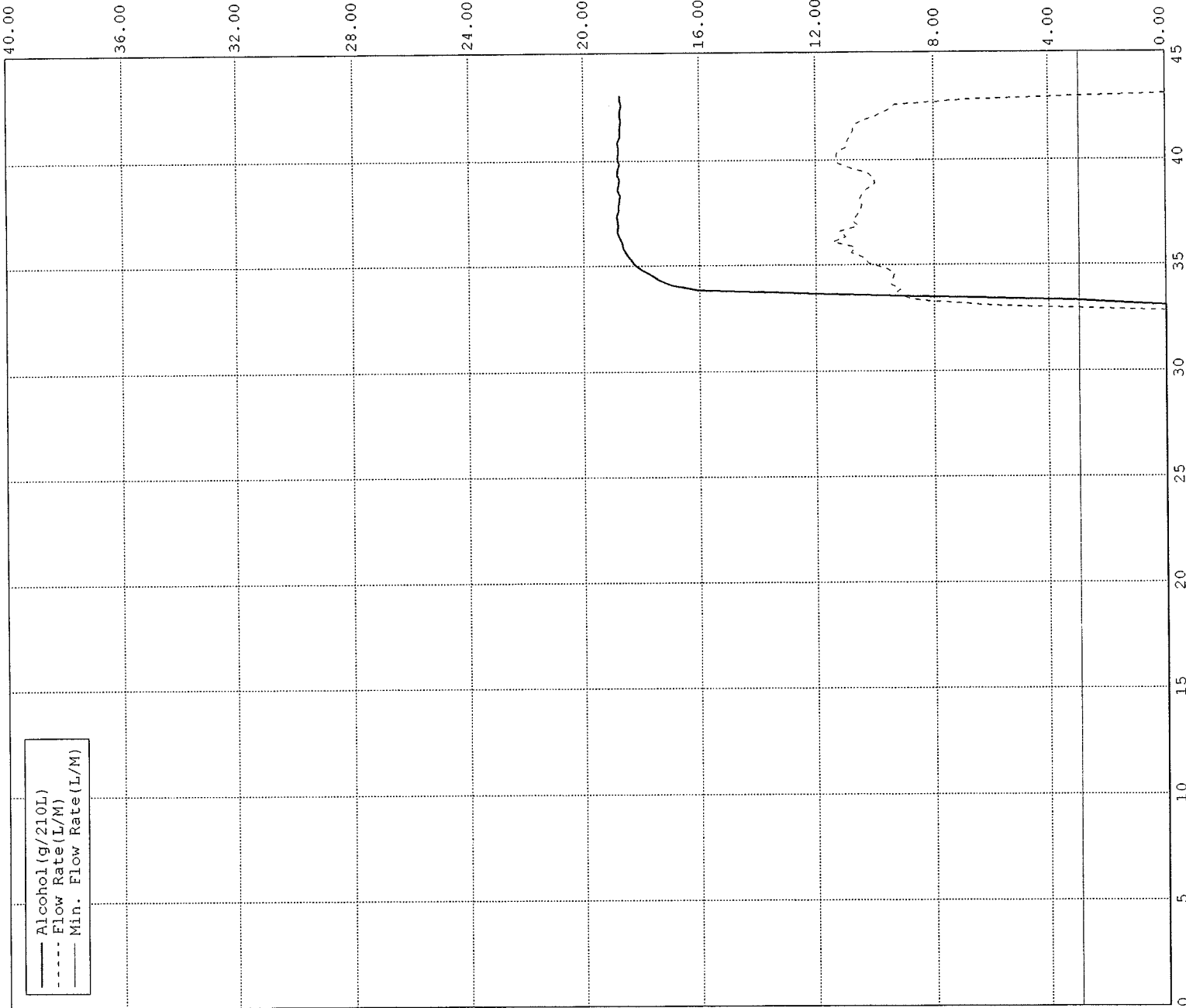
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

DEPT/AGENCY:
AAA1
CASE/REPORT: INTERF NEG
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.00: 0.080

DIAGNOSTIC CHECK	PASSED	14:13
BLANK TEST	0.000	14:13
INTERNAL STANDARD	VERIFIED	14:14
Xq = 0.100 (0.35%)		
EXTERNAL STANDARD	0.077	14:14
X[1] = 0.0765 (0.0001)	(0.0024)	
BLANK TEST	0.000	14:15
SUBJECT SAMPLE (Vol=1.70L)	0.094	14:15
X[1] = 0.0946 (0.0018)	(0.0010)	
BLANK TEST	0.000	14:16
EXTERNAL STANDARD	0.077	14:17
X[1] = 0.0767 (-0.0002)	(0.0022)	
BLANK TEST	0.000	14:18

Filter 2 avg: 0.0004
Filter 3 avg: 0.0026



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/28/2018 *
Time: 14:30:23

SUBJECT NAME:
TEST TEST
LICENSE #: MAX ATTEMPT2

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

DEPT/AGENCY:
AAA1
CASE/REPORT: MAX ATTEMPT2
TEST TYPE: TEST

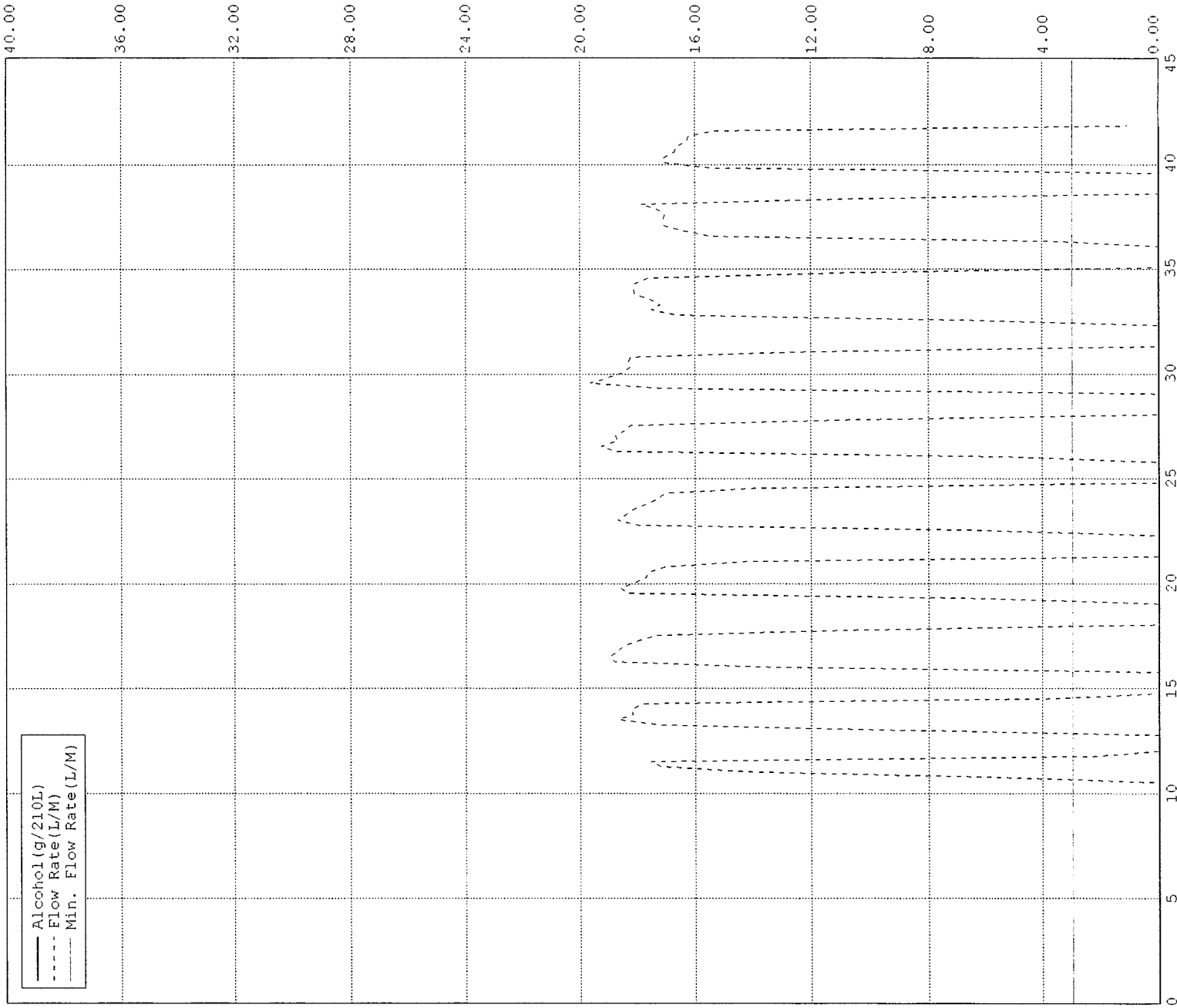
EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.05: 0.080

DIAGNOSTIC CHECK PASSED 14:31
BLANK TEST 0.000 14:31
INTERNAL STANDARD VERIFIED 14:31
EXTERNAL STANDARD 0.078 14:31
BLANK TEST 0.000 14:32
SUBJECT SAMPLE XXX 14:33

Maximum Attempts Exceeded

* Initial maximum attempts
exceeded test run 3/26/18.
Test re-run 3/28/18. DM 3/28/18

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 14:22:17

SUBJECT NAME:
TEST TEST
LICENSE #: RFI

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

DEPT/AGENCY:
AAA1

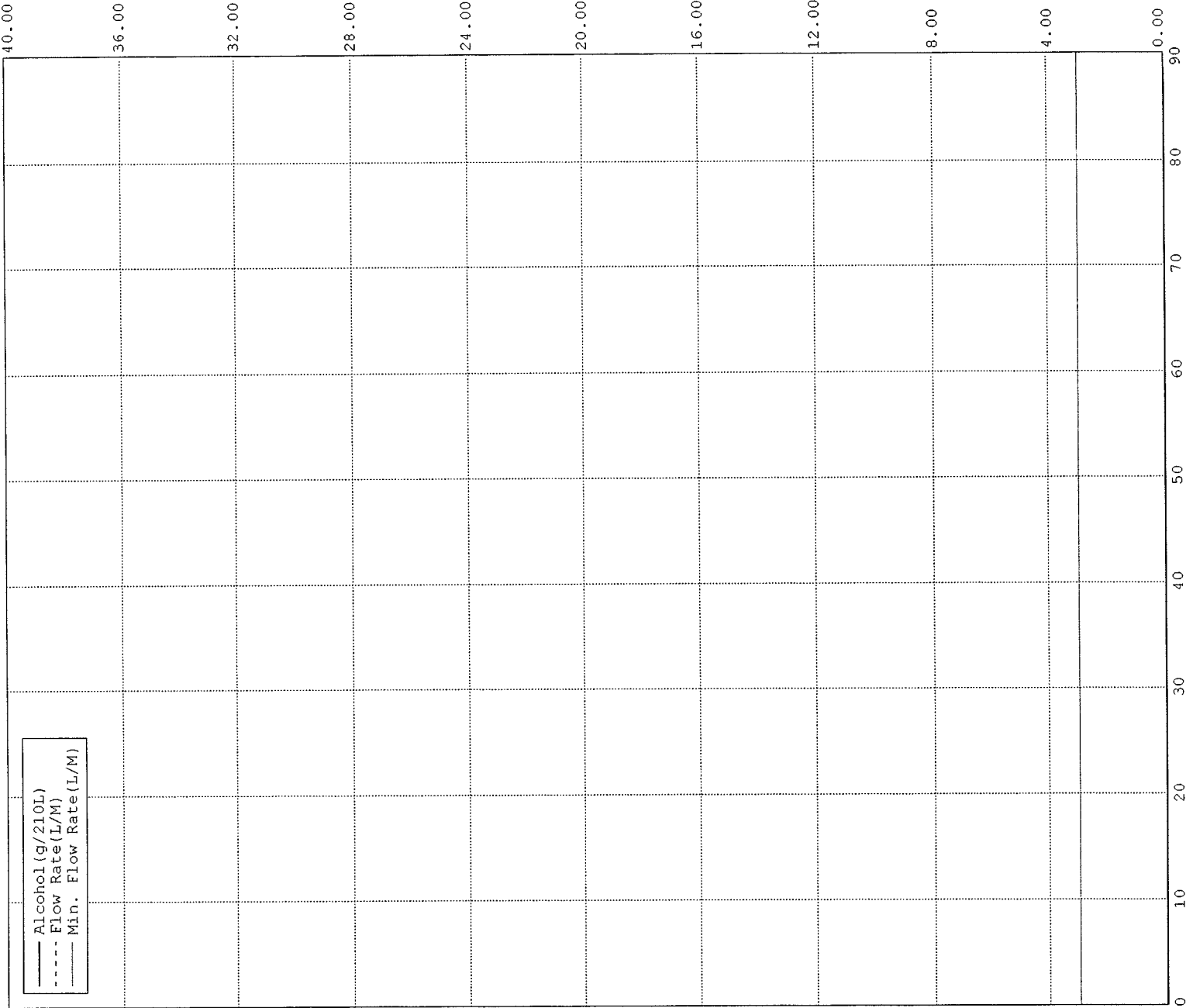
CASE/REPORT: RFI
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 30.00: 0.080

DIAGNOSTIC CHECK PASSED 14:23
BLANK TEST 0.000 14:23
INTERNAL STANDARD VERIFIED 14:23
EXTERNAL STANDARD 0.077 14:23
BLANK TEST 0.000 14:24

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100688

Date: 03/20/2018
Time: 15:08:50

SUBJECT NAME:
TEST TEST
LICENSE #: NON-DRINKING

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

DEPT/AGENCY:
AAA1
CASE/REPORT: NON-DRINKING
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.02: 0.080

DIAGNOSTIC CHECK	PASSED	15:09
BLANK TEST	0.000	15:09
INTERNAL STANDARD	VERIFIED	15:10
EXTERNAL STANDARD	0.077	15:10
BLANK TEST	0.000	15:11
SUBJECT SAMPLE (Vol=3.69L)	0.000	15:11
BLANK TEST	0.000	15:12
EXTERNAL STANDARD	0.077	15:12
BLANK TEST	0.000	15:13

DOWN

