

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 100689 Analyst Derech Walton Start Date 12/17/19

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 1.4 1.5 L (1.3L to 1.7L)

4. Linearity Test (attached) DN 12/17/19

a. Levels Used

- i. 0.020g/210L Mnf Airgas Lot AG805804 Exp 02/27/20
- 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 Autn Lot 19040 Exp 01/29/2021
 - 1. Simulator S/N DR4162 Date Calibrated 10/07/19
- vi. 0.300g/210L Mnf Autn 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 Autn Lot 18370 Level 0.100 Exp 12/05/20
 - 1. Simulator S/N SD1199 Date Calibrated 03/06/19
- ii. Isopropanol - Mnf Autn Lot 18370 Level 0.100 Exp 12/05/20
 - 1. Simulator S/N DR4161 Date Calibrated 03/07/19
- iii. Negative Control - Mnf Autn 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 12/17/19

DIAGNOSTIC RECORD

 Alaska Department of Public Safety
 DATAMASTER dmt: 100689

Date: 12/17/2019
 Time: 08:48:58

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED
 (44.0°C - 52.0°C)
 Breath Tube = 45.2°C PASSED
 (38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.81 V PASSED
 (1.10 V - 2.56 V)
 Cooler Voltage = 1.63 V PASSED
 (0.99 V - 2.31 V)
 Bias Voltage = 79 V PASSED
 (47 V - 111 V)
 Chopper Freq = 537 Hz PASSED
 (475 Hz - 575 Hz)
 Barometer = 29.1 in

PUMP INFO

Flow Rate = 4.169 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 = 0.097 1.34% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100689

Date: 12/17/2019
Time: 9:56 AM

Temperatures (°C)
Sample Cell: 49.1°C
Breath Tube: 45.5°C

Current Barometer 29.1 in
Volume (Ltr) 1.49

Settings
Lamp: 1.81 V
Bias: 79 V
Cooler: 1.73 V
Chopper: 523 Hz

Voltages (V)
Flow: 0.99 V
Detector: -0.048 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 12/16/2019
Time: 10:52:30

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca	=	0.1000		
CAL	=	0.979465	0.800	<= CAL < 1.200
b1	=	0.0013	0.0000	<= b1 < 0.0040
b2	=	0.0069	0.0010	<= b2 < 0.0100
b3	=	0.0011	0.0000	<= b3 < 0.0040
Xq	=	0.0979	0.0500	<= Xq < 0.2000
a21	=	1.227391	1.050	<= a21 < 1.300
a31	=	0.543345	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100689

Date: 12/17/2019
Time: 09:57:52

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

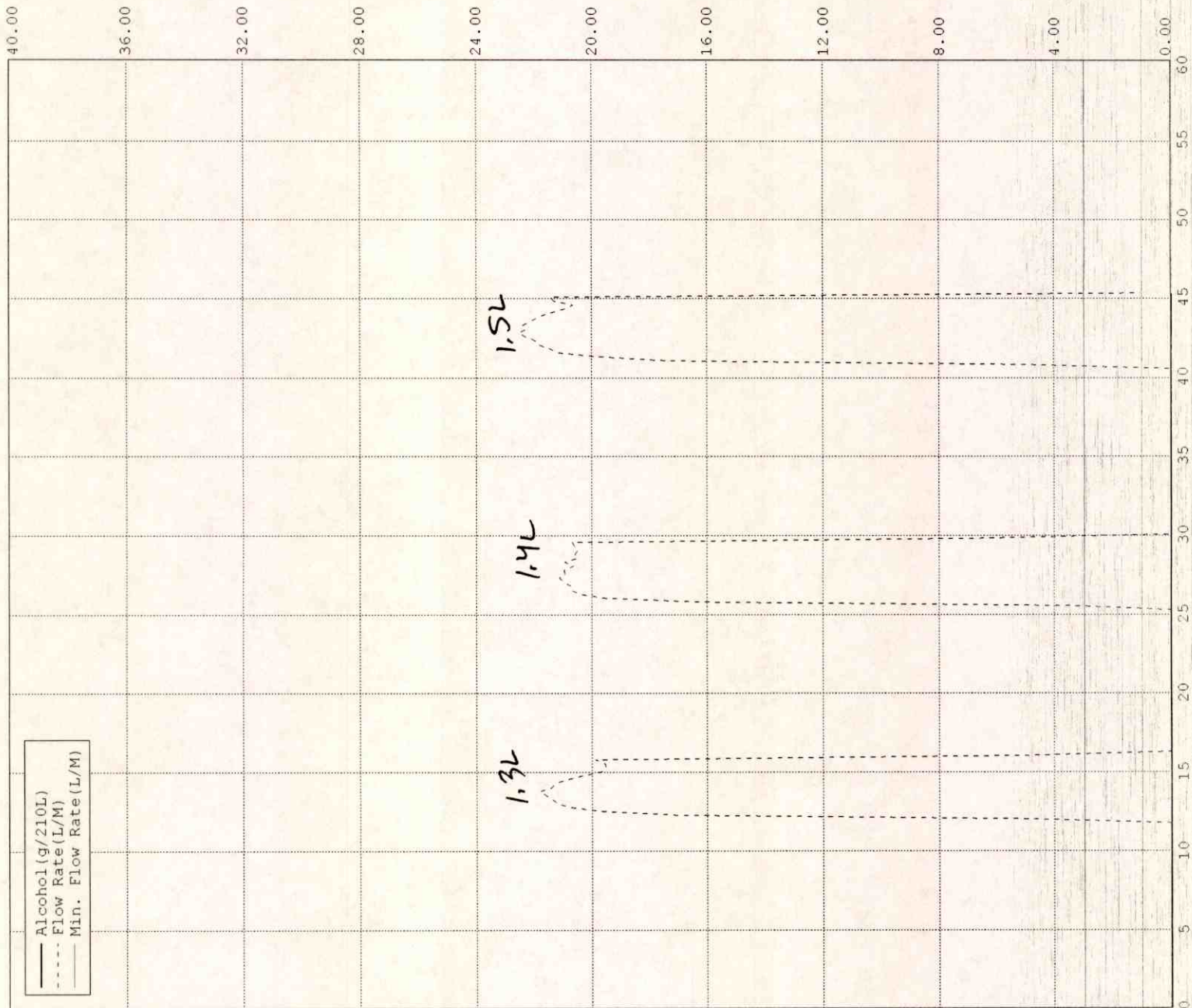
DEPT/AGENCY:
MINIMUM VOLUME
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.08: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:58
BLANK TEST	0.000	09:59
INTERNAL STANDARD	VERIFIED	09:59
EXTERNAL STANDARD	0.077	09:59
BLANK TEST	0.000	10:00
SUBJECT SAMPLE (Vol=1.53L)	0.000	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.077	10:02
BLANK TEST	0.000	10:03

MJC



LINEARITY CHECK

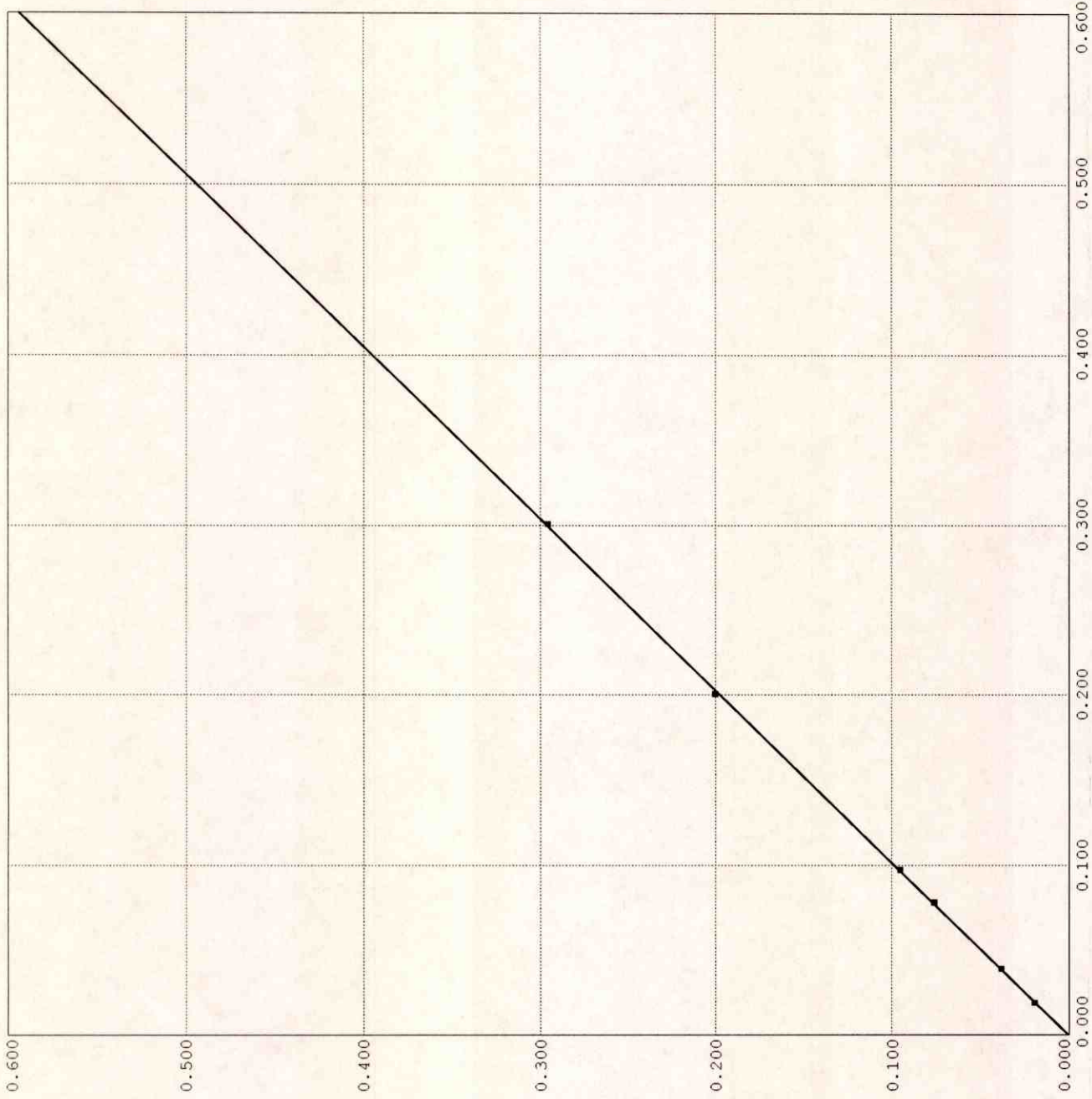
 Alaska Department of Public Safety
 DATAMASTER dmt: 100689

Date: 12/17/2019
 Time: 10:06:39

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.019	0.0202	0.0004
0.039	0.0390	0.0000
0.078	0.0770	0.0000
0.097	0.0962	0.0004
0.200	0.2010	0.0000
0.300	0.2964	0.0015

SLOPE = 0.989246
 R² = 0.999847



W

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100689

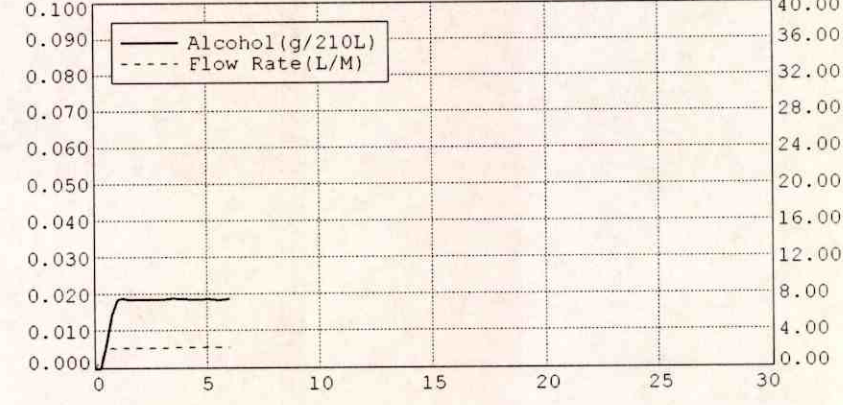
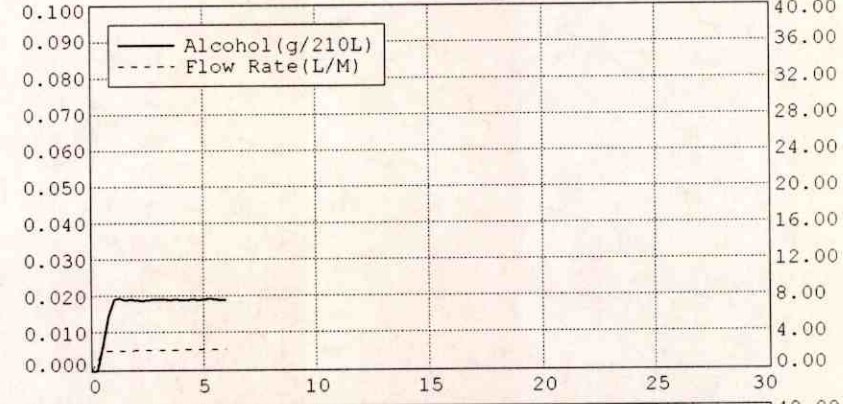
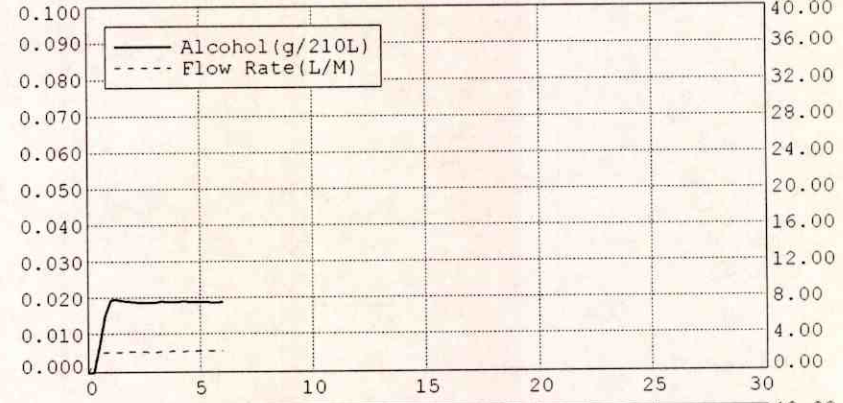
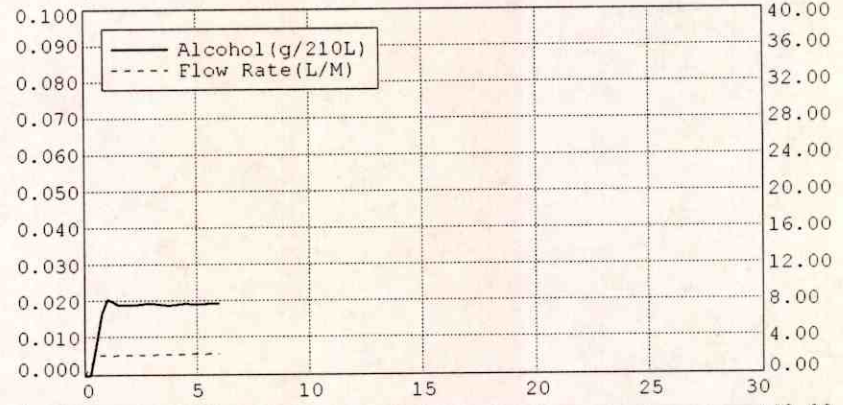
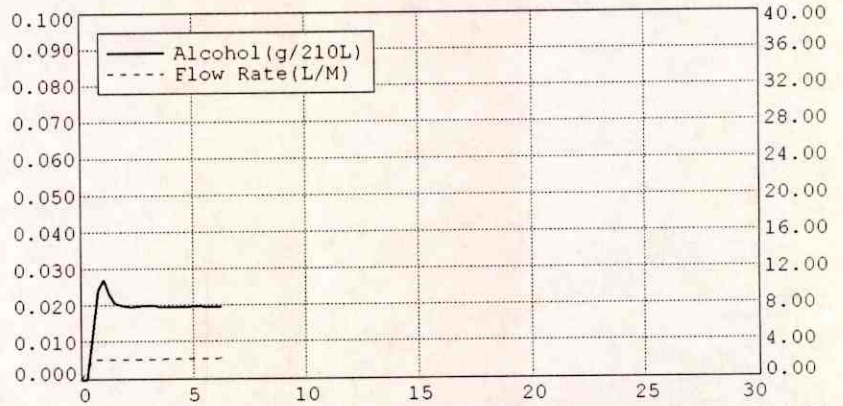
Date: 12/17/2019
Time: 10:06:41

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.07: 0.019
LOT #: AG804805
EXPIRATION: 02/27/2020
TANK PRESSURE: 470 psi

BLANK TEST	0.000	10:08
INTERNAL STANDARD	VERIFIED	10:08
EXTERNAL STANDARD	0.021	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.020	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.020	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.020	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.020	10:12
BLANK TEST	0.000	10:13

Average = 0.0202
Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
DATAMASTER dmt: 100689

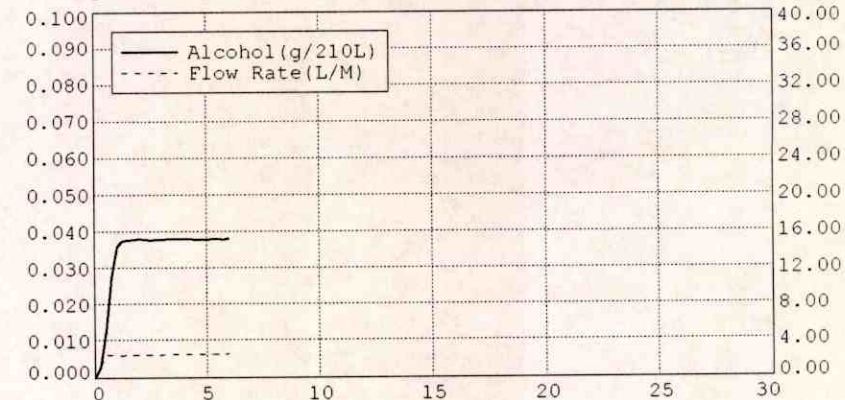
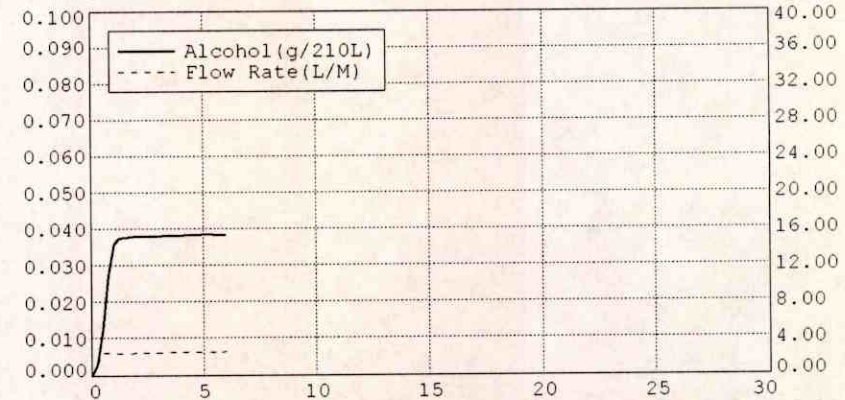
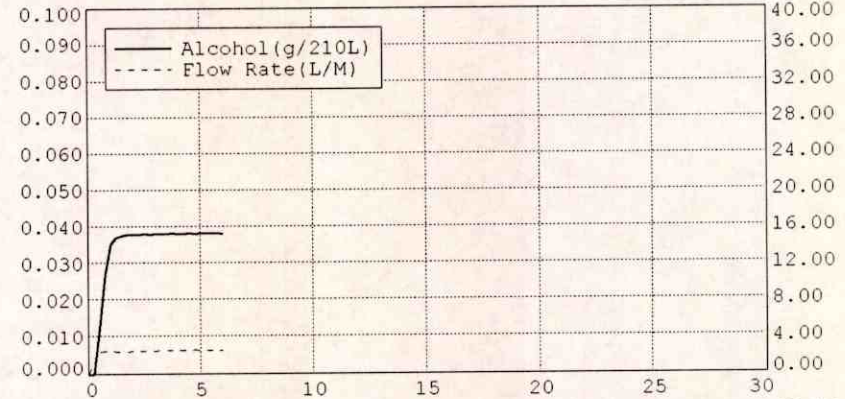
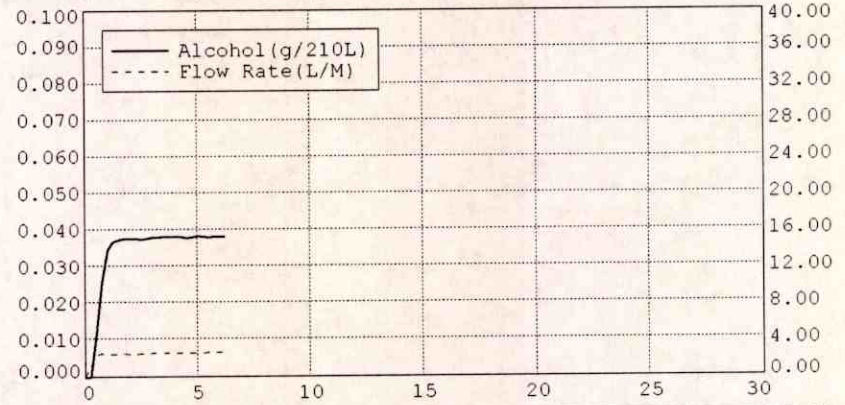
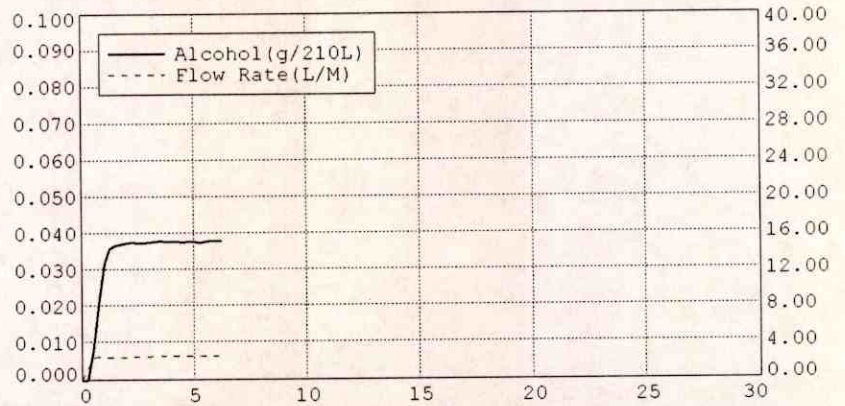
Date: 12/17/2019
Time: 10:16:30

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
TARGET AT 29.07: 0.039
LOT #: AG915607
EXPIRATION: 06/05/2021
TANK PRESSURE: 1077 psi

BLANK TEST	0.000	10:17
INTERNAL STANDARD	VERIFIED	10:17
EXTERNAL STANDARD	0.039	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.039	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.039	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.039	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.039	10:22
BLANK TEST	0.000	10:23

Average = 0.0390
Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100689

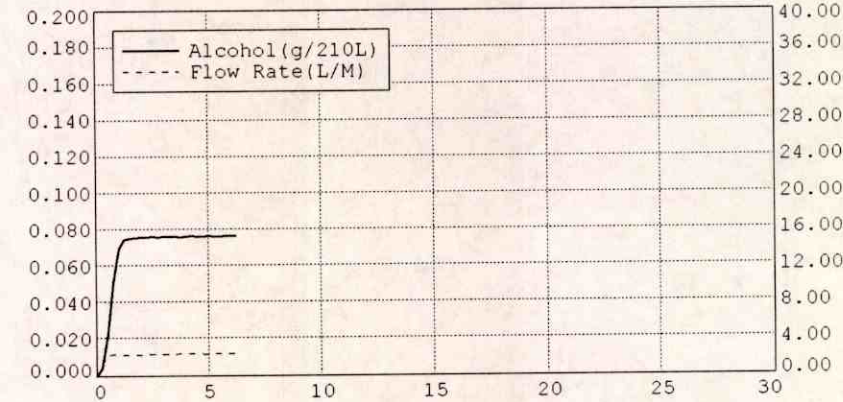
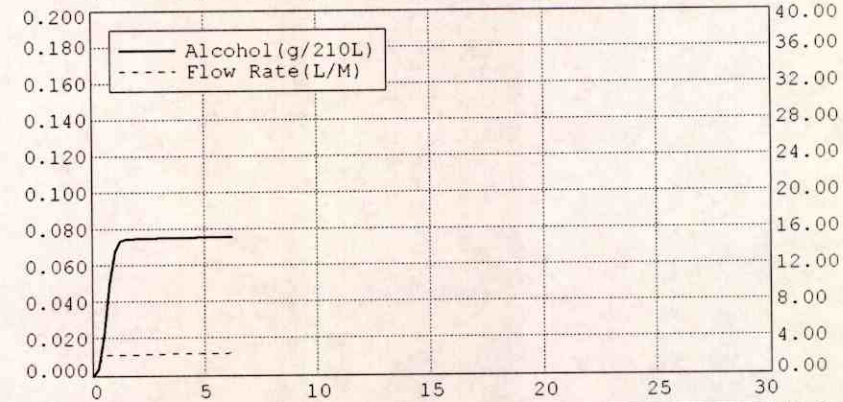
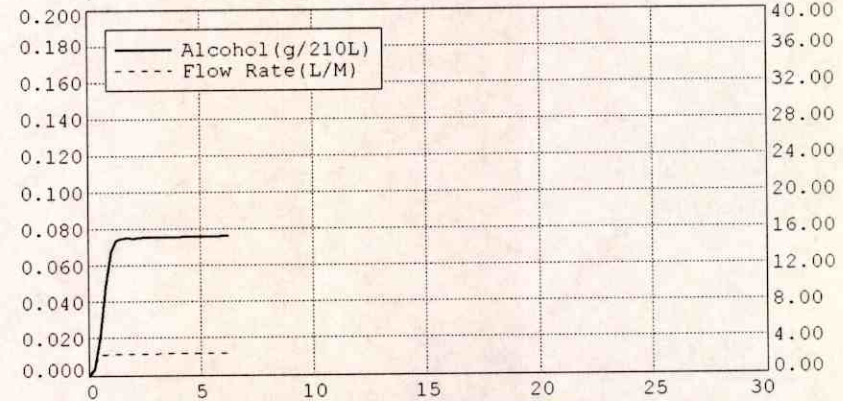
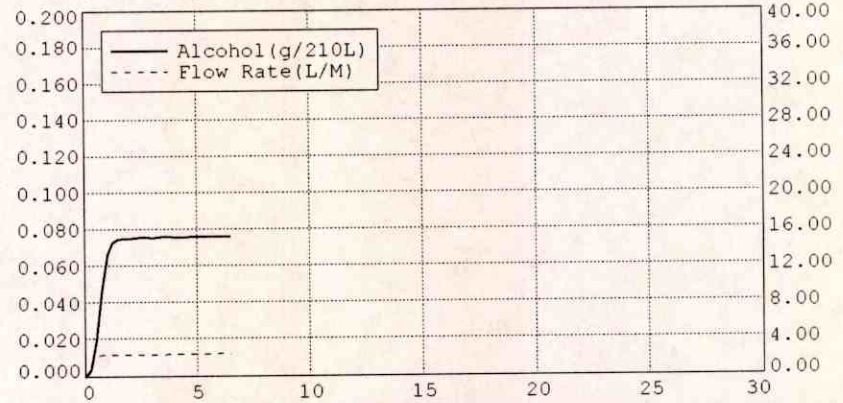
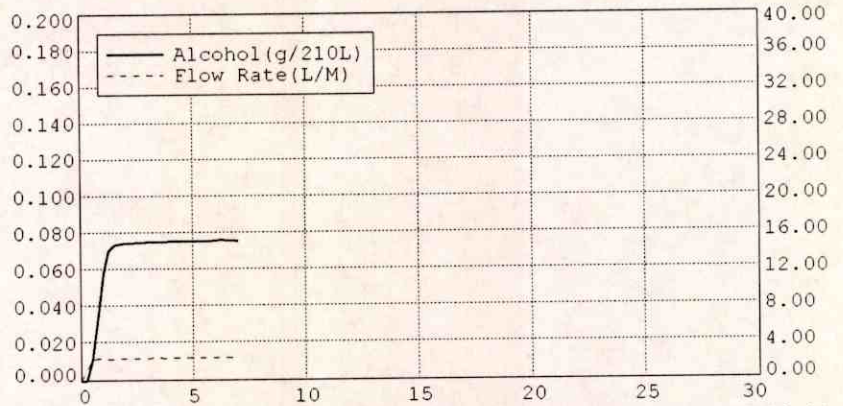
Date: 12/17/2019
 Time: 10:24:35

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.07: 0.078
 LOT #: AG826101
 EXPIRATION: 09/18/2020
 TANK PRESSURE: 717 psi

BLANK TEST	0.000	10:25
INTERNAL STANDARD	VERIFIED	10:25
EXTERNAL STANDARD	0.077	10:26
BLANK TEST	0.000	10:26
EXTERNAL STANDARD	0.077	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.077	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.077	10:29
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.077	10:30
BLANK TEST	0.000	10:31

Average = 0.0770
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100689

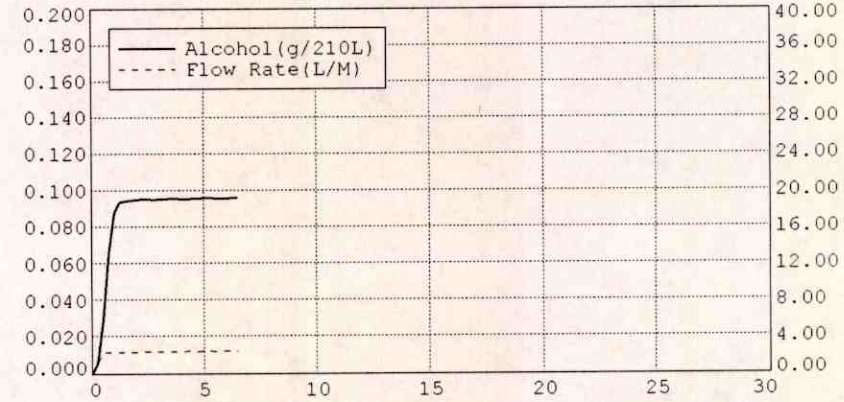
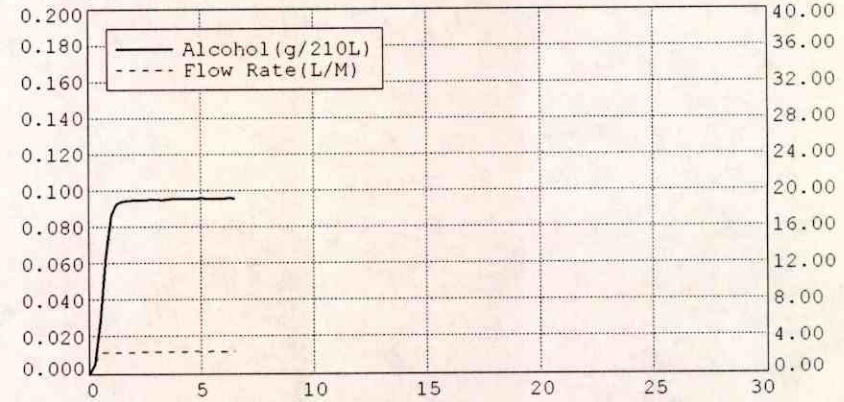
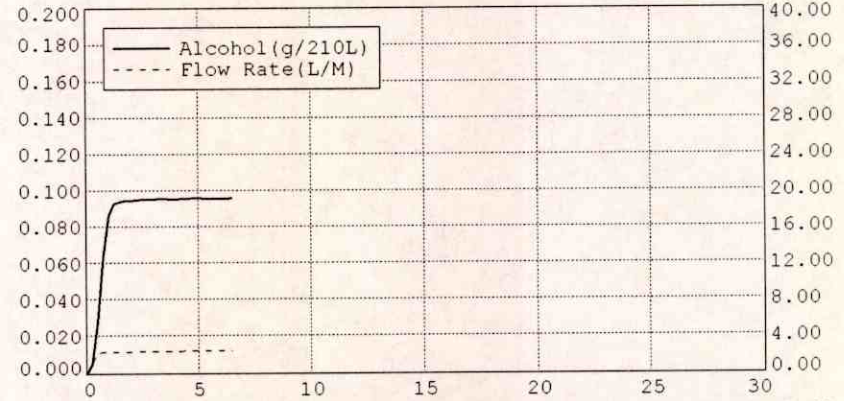
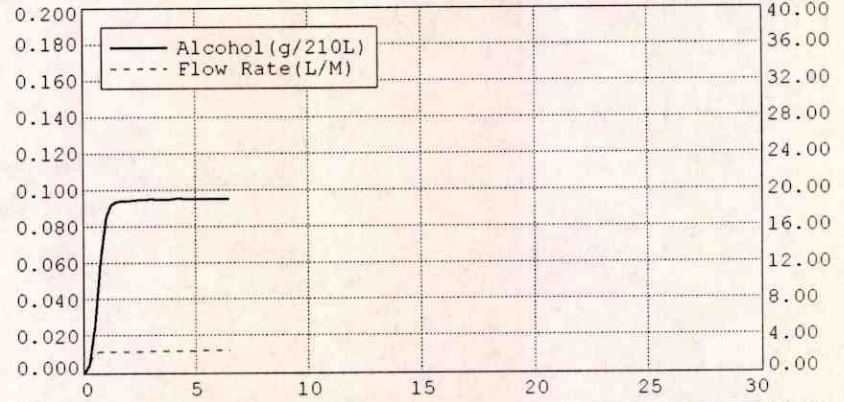
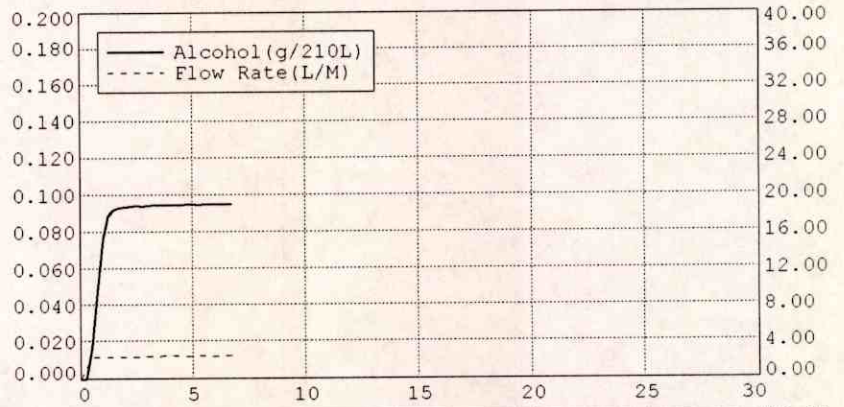
Date: 12/17/2019
 Time: 10:37:10

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.07: 0.097
 LOT #: AG924701
 EXPIRATION: 09/04/2021
 TANK PRESSURE: 792 psi

BLANK TEST	0.000	10:38
INTERNAL STANDARD	VERIFIED	10:38
EXTERNAL STANDARD	0.096	10:38
BLANK TEST	0.000	10:39
EXTERNAL STANDARD	0.096	10:39
BLANK TEST	0.000	10:40
EXTERNAL STANDARD	0.097	10:41
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.096	10:42
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.096	10:43
BLANK TEST	0.000	10:44

Average = 0.0962
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

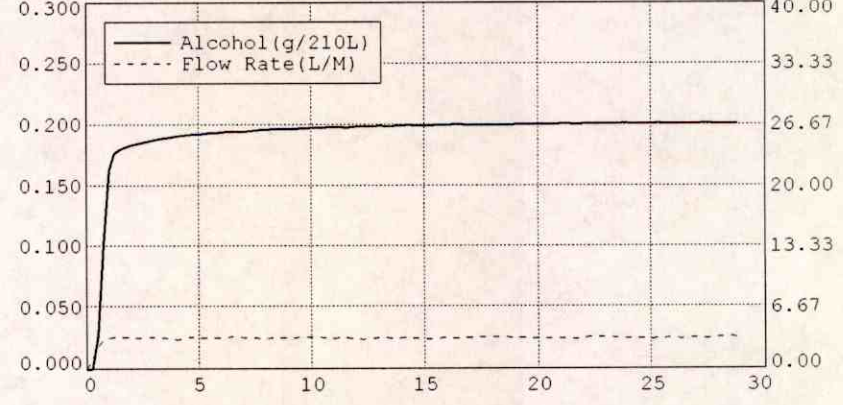
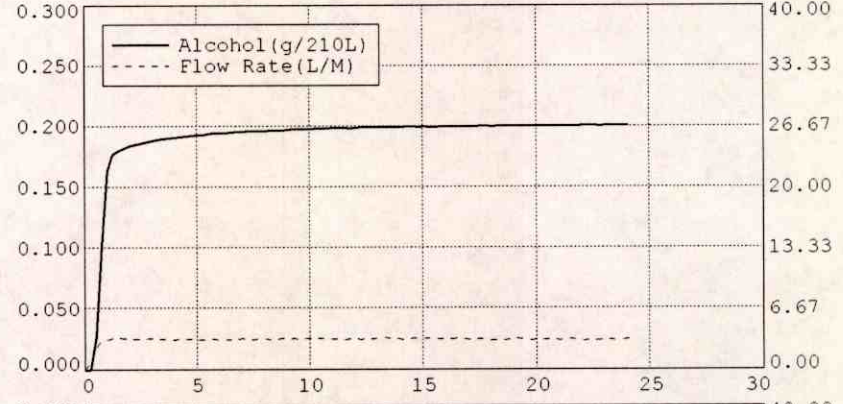
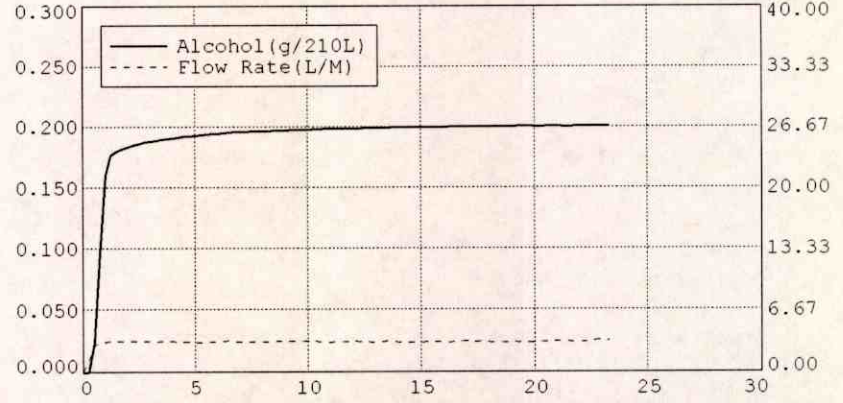
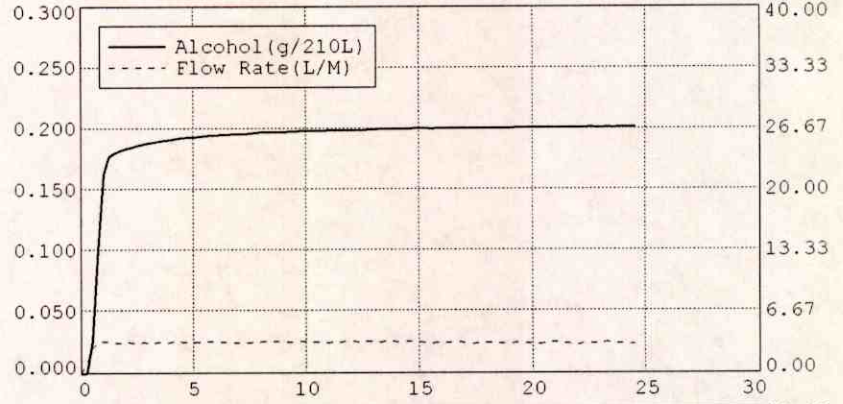
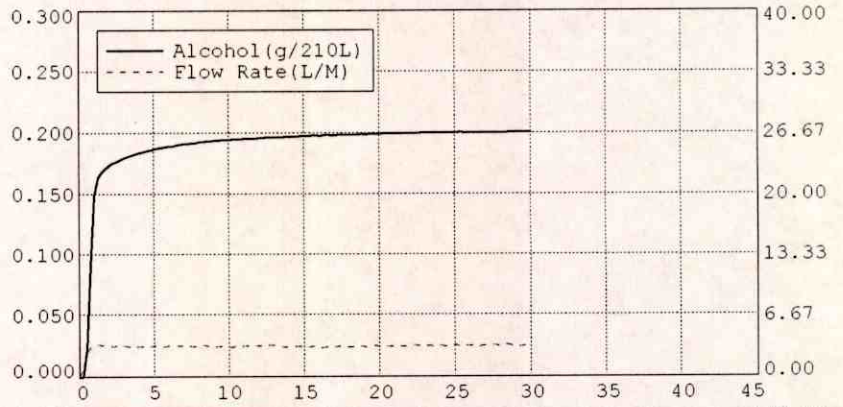
Alaska Department of Public Safety
 DATAMASTER dmt: 100689

Date: 12/17/2019
 Time: 11:24:10

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

BLANK TEST	0.000	11:25
INTERNAL STANDARD	VERIFIED	11:25
EXTERNAL STANDARD	0.201	11:25
BLANK TEST	0.000	11:26
EXTERNAL STANDARD	0.201	11:27
BLANK TEST	0.000	11:28
EXTERNAL STANDARD	0.201	11:28
BLANK TEST	0.000	11:29
EXTERNAL STANDARD	0.201	11:30
BLANK TEST	0.000	11:31
EXTERNAL STANDARD	0.201	11:31
BLANK TEST	0.000	11:32

Average = 0.2010
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

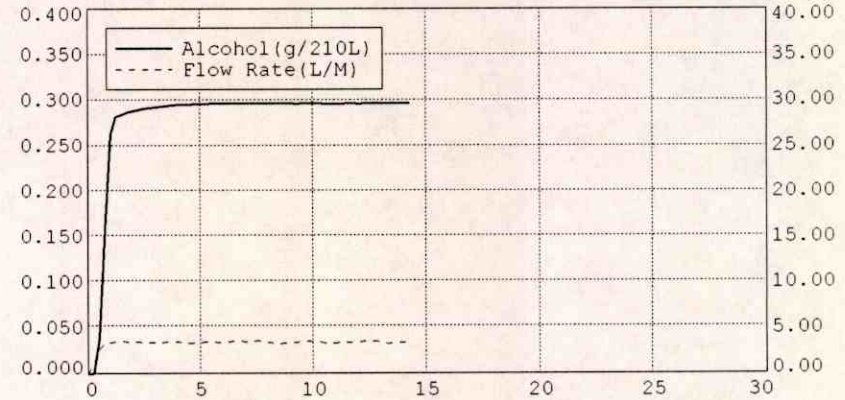
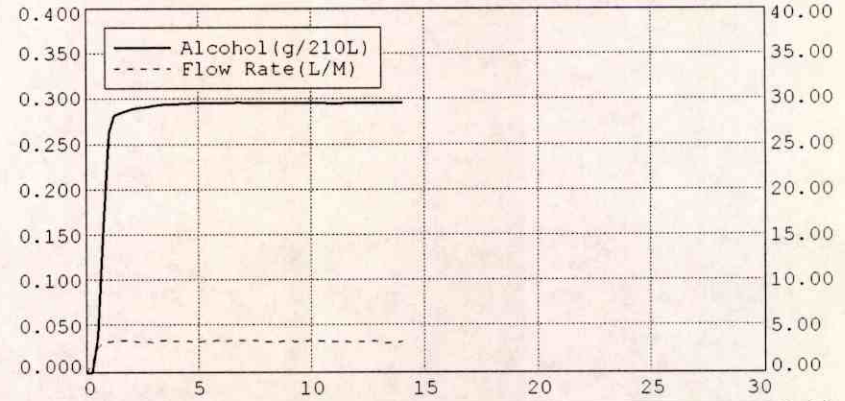
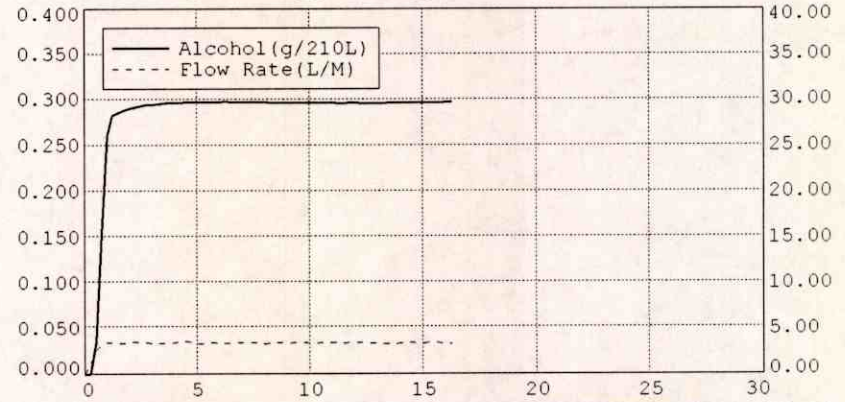
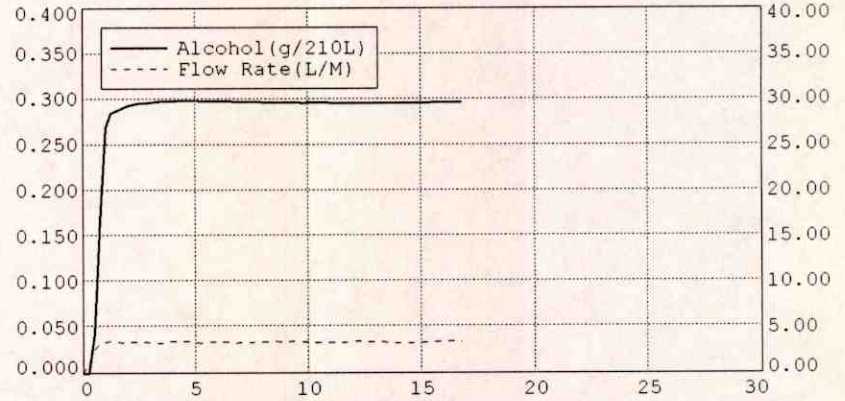
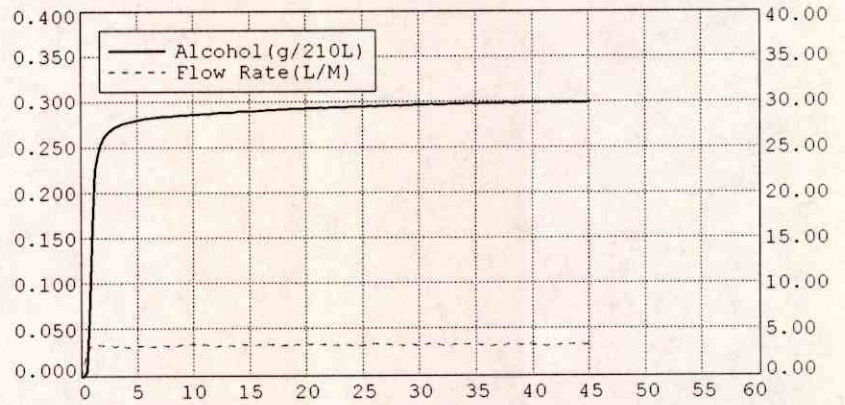
Alaska Department of Public Safety
 DATAMASTER dmt: 100689

Date: 12/17/2019
 Time: 11:33:45

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.300
 LOT #: 19010
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	11:35
INTERNAL STANDARD	VERIFIED	11:35
EXTERNAL STANDARD	0.299	11:36
BLANK TEST	0.000	11:37
EXTERNAL STANDARD	0.296	11:37
BLANK TEST	0.000	11:38
EXTERNAL STANDARD	0.296	11:38
BLANK TEST	0.000	11:39
EXTERNAL STANDARD	0.295	11:39
BLANK TEST	0.000	11:40
EXTERNAL STANDARD	0.296	11:41
BLANK TEST	0.000	11:42

Average = 0.2964
 Std Dev = 0.0015



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 12/17/2019
Time: 13:16:11

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

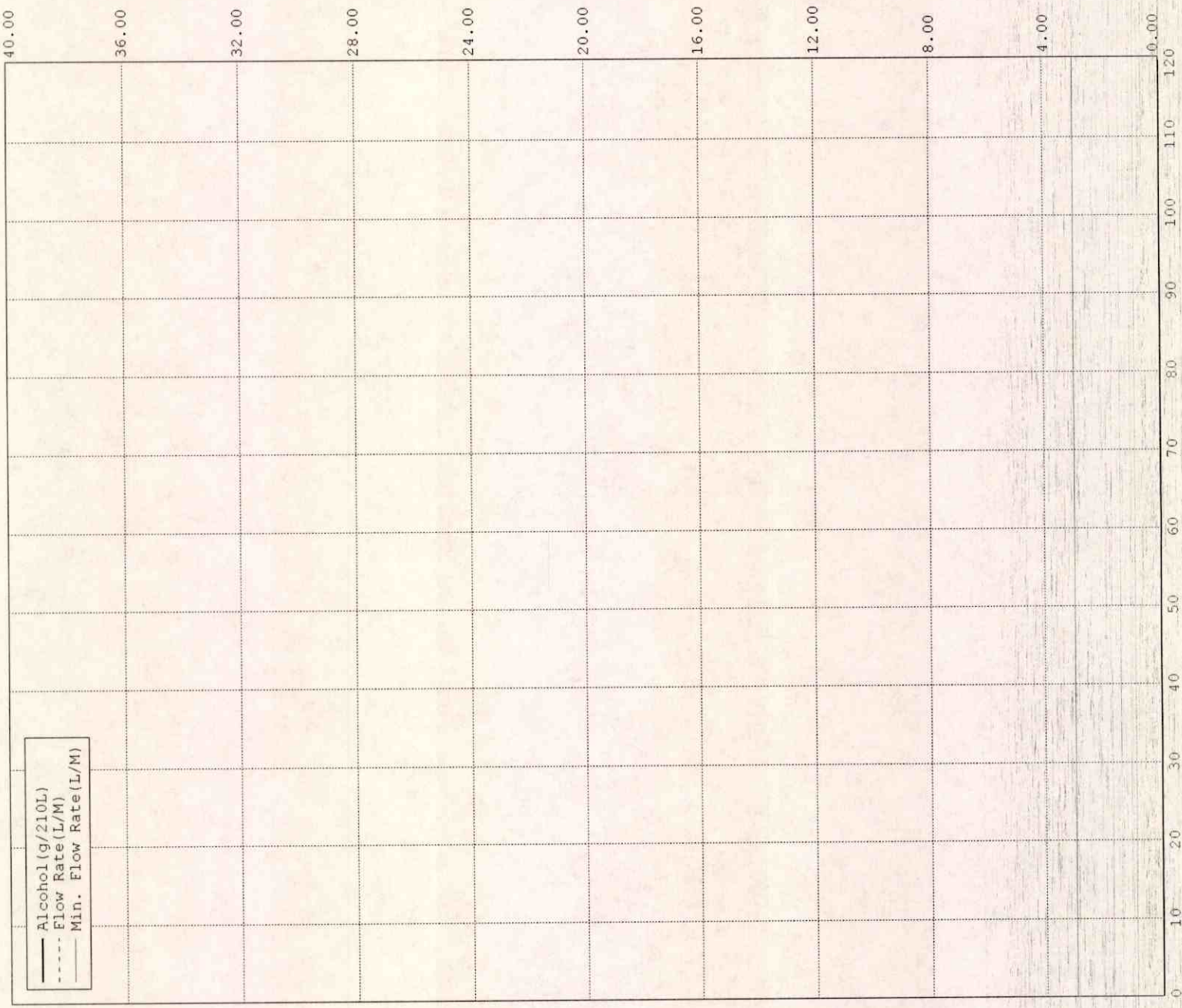
DEPT/AGENCY:
INCOMPLETE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.05: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:18
BLANK TEST 0.000 13:18
INTERNAL STANDARD VERIFIED 13:18
EXTERNAL STANDARD 0.077 13:18
BLANK TEST 0.000 13:19
SUBJECT SAMPLE INCOMPLETE 13:21

DM



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100689

Date: 12/17/2019

Time: 13:52:14

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 29.04: 0.078

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK

PASSED 13:53

BLANK TEST

0.000 13:53

INTERNAL STANDARD

VERIFIED 13:53

0.077 13:53

EXTERNAL STANDARD

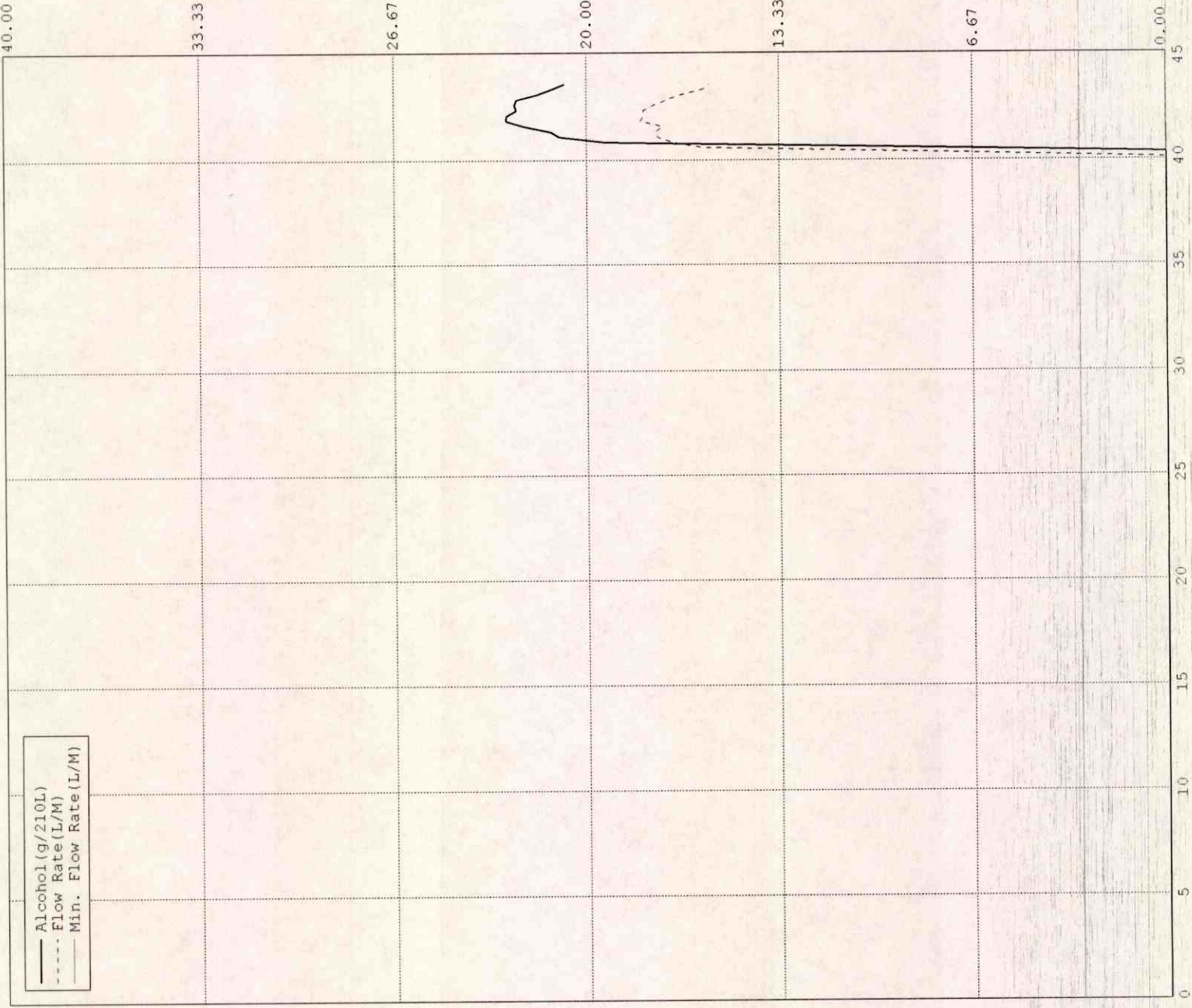
0.000 13:54

BLANK TEST

INVALID 13:55

SUBJECT SAMPLE

Handwritten signature



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 12/17/2019
Time: 13:33:58

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

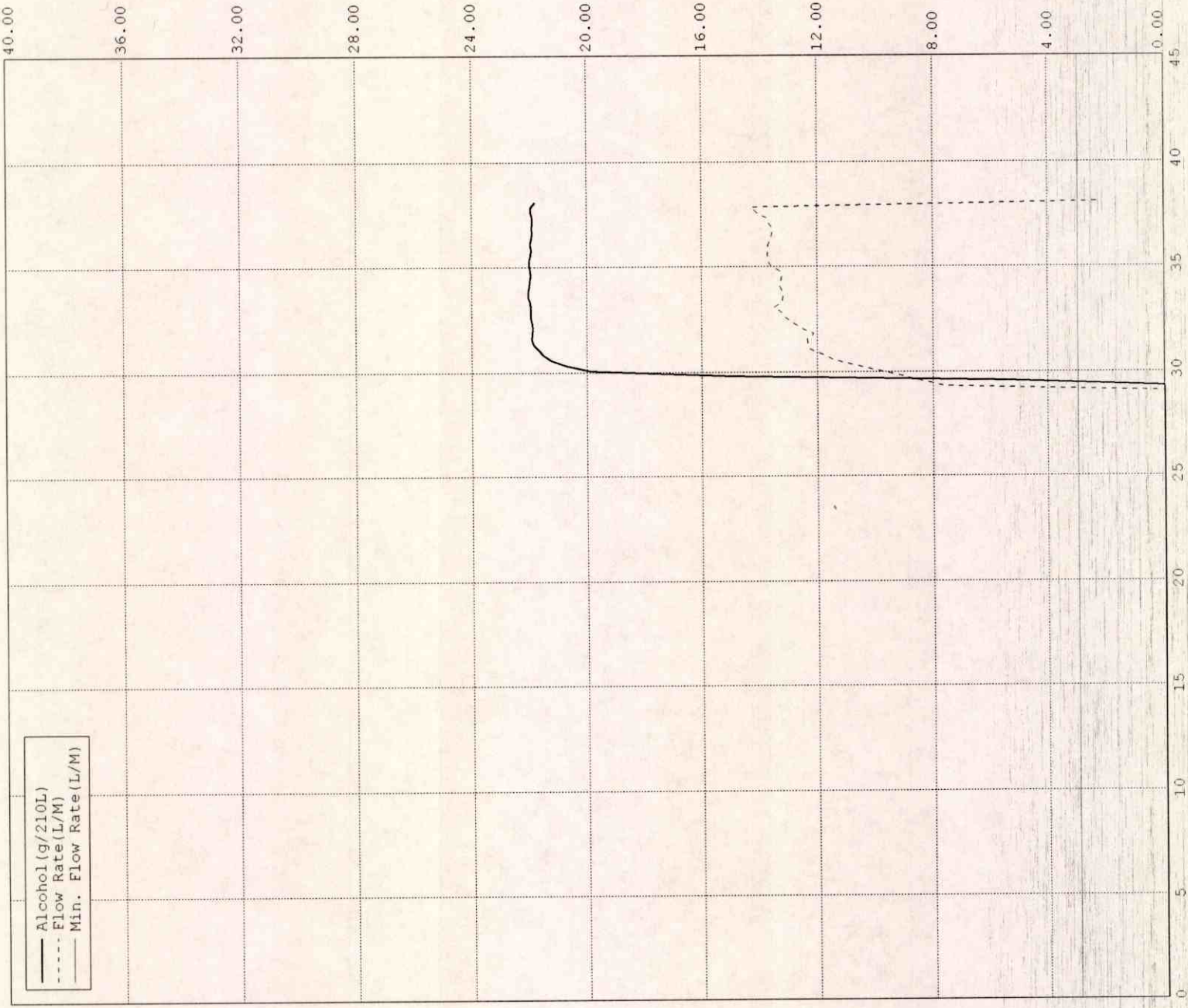
DEPT/AGENCY:
INTERFERENCE ACETONE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:35
BLANK TEST 0.000 13:35
INTERNAL STANDARD VERIFIED 13:35
Xq = 0.098 (0.27%)
EXTERNAL STANDARD 0.077 13:35
X[1] = 0.0771 (0.0002) (0.0020)
BLANK TEST 0.000 13:36
SUBJECT SAMPLE XXX 13:37
X[1] = 0.1093 (-0.0205) (0.0008)

Interference Detected

Filter 2 Avg: -0.0004
Filter 3 Avg: 0.0017



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 12/17/2019
Time: 13:39:07

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

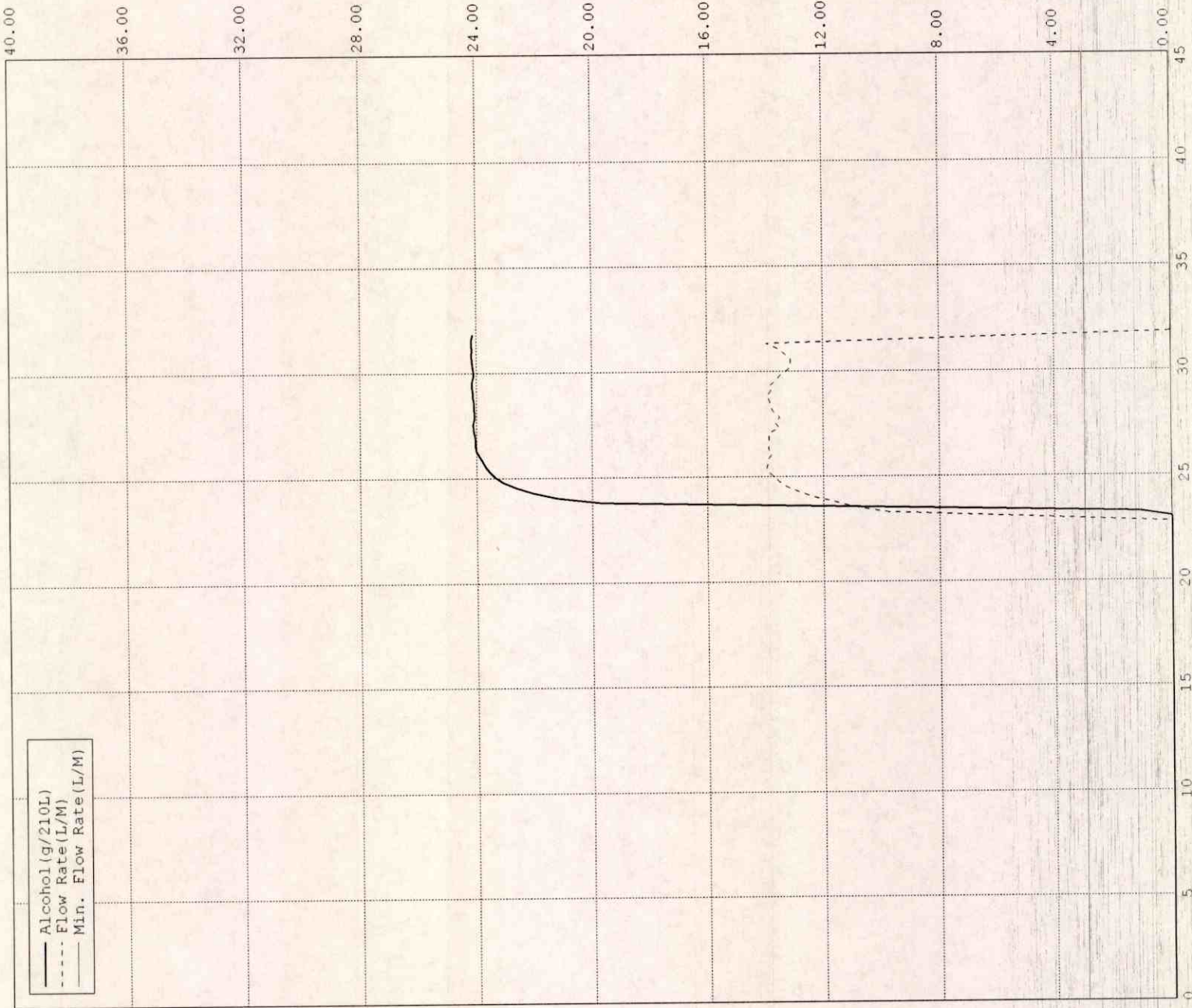
DEPT/AGENCY:
INTERFERENCE ISOPROPANOL
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.05: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:40
BLANK TEST 0.000 13:40
INTERNAL STANDARD VERIFIED 13:40
Xg = 0.098 (0.18%)
EXTERNAL STANDARD 0.077 13:40
X[1] = 0.0770 (-0.0003) (0.0016)
BLANK TEST 0.000 13:41
SUBJECT SAMPLE XXX 13:42
X[1] = 0.1205 (-0.0328) (0.0004)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100689

Date: 12/17/2019

Time: 13:43:44

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 29.05: 0.078

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK

PASSED 13:44

BLANK TEST

0.000 13:44

INTERNAL STANDARD

VERIFIED 13:44

Xg = 0.097 (0.90%)

EXTERNAL STANDARD

0.076 13:45

X[1] = 0.0763 (-0.0012) (0.0014)

BLANK TEST

0.000 13:46

SUBJECT SAMPLE (Vol=1.83L)

0.096 13:46

X[1] = 0.0969 (0.0006) (0.0011)

BLANK TEST

0.000 13:47

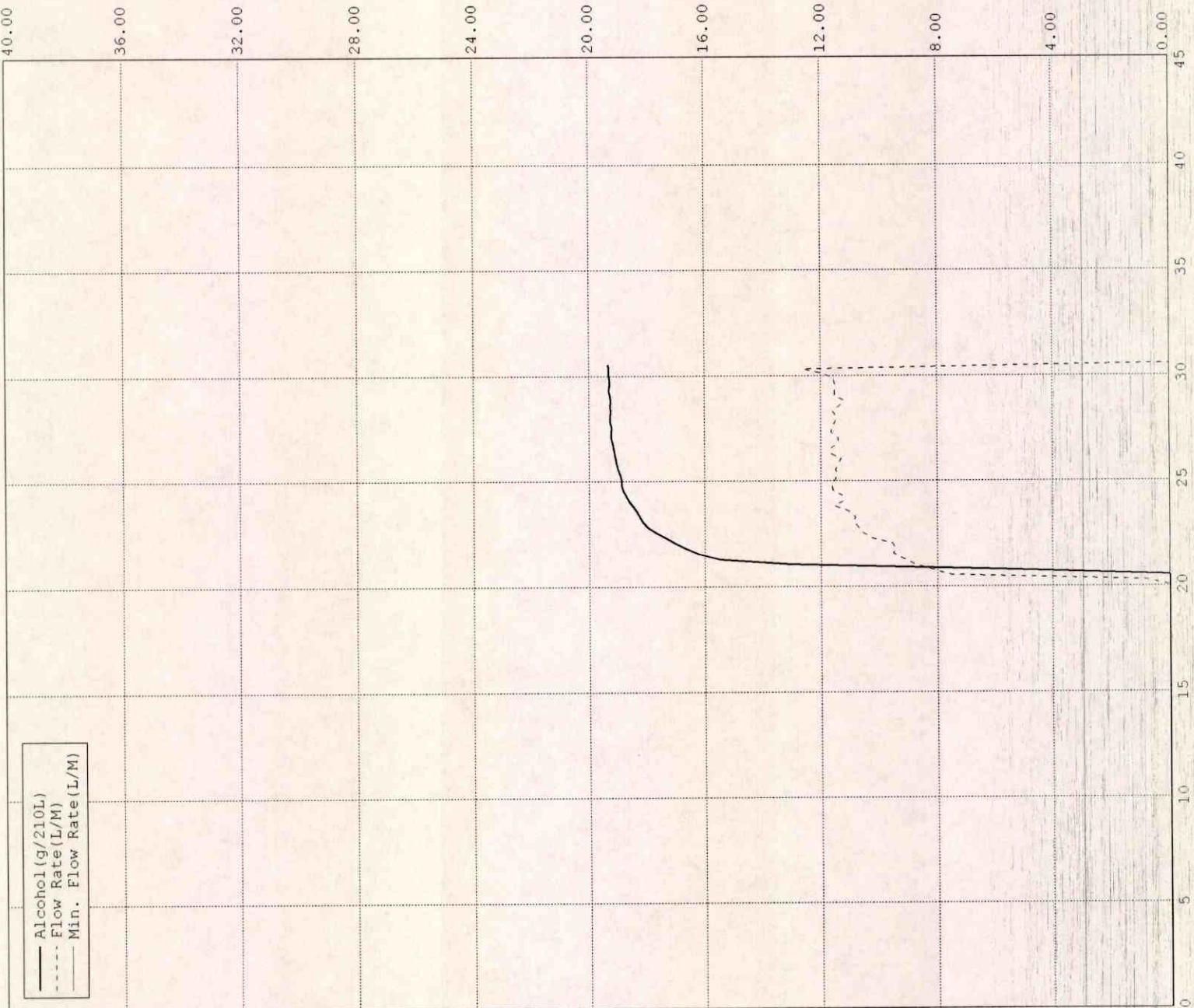
EXTERNAL STANDARD

0.077 13:47

X[1] = 0.0768 (-0.0001) (0.0018)

BLANK TEST

0.000 13:48



DW

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 12/17/2019
Time: 13:25:37

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

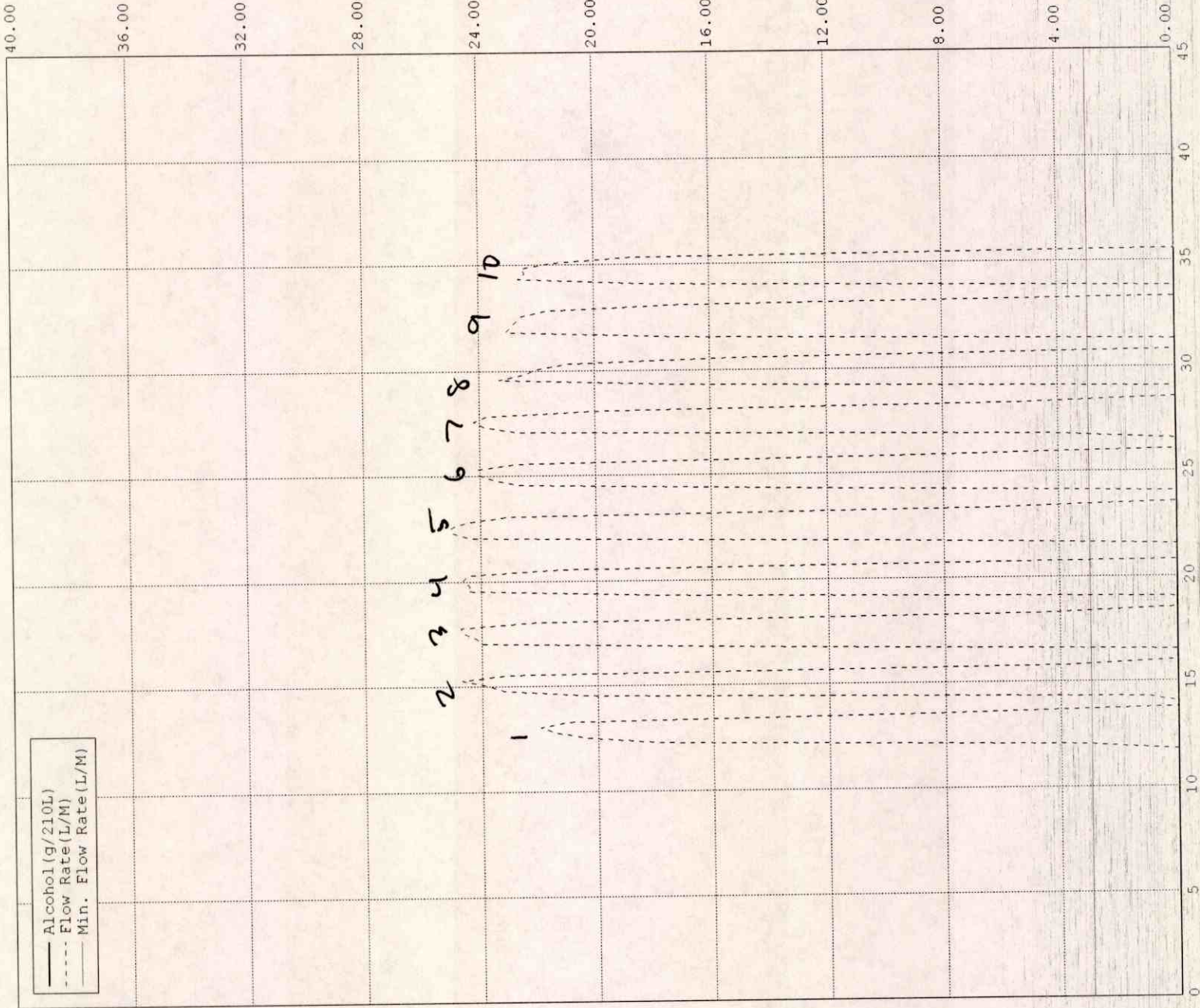
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:27
BLANK TEST 0.000 13:27
INTERNAL STANDARD VERIFIED 13:27
EXTERNAL STANDARD 0.077 13:27
BLANK TEST 0.000 13:28
SUBJECT SAMPLE XXX 13:29

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100689

Date: 12/17/2019
Time: 13:58:58

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

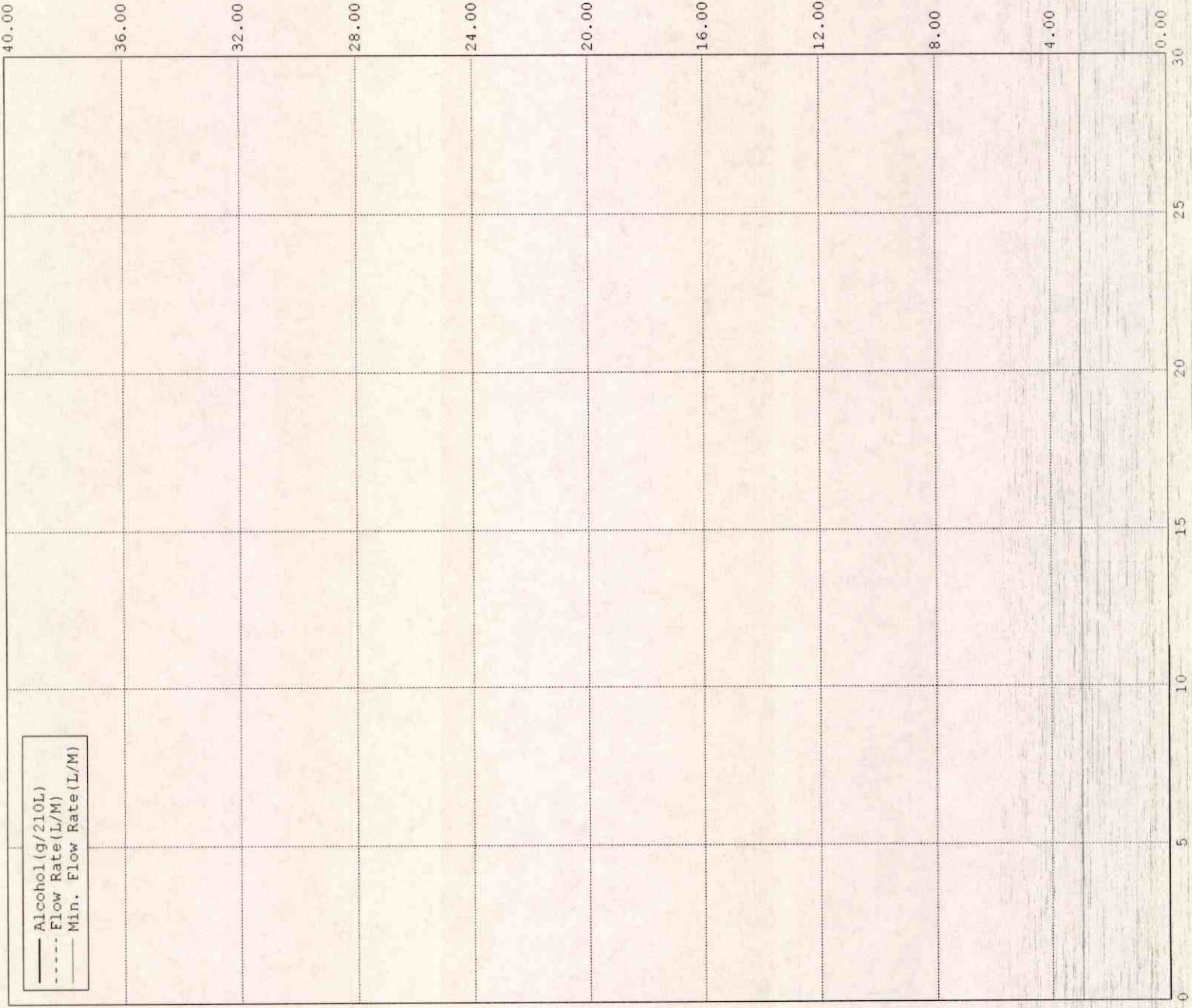
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:00
BLANK TEST 0.000 14:00
INTERNAL STANDARD VERIFIED 14:00
EXTERNAL STANDARD 0.077 14:00
BLANK TEST 0.000 14:01

RFI DETECTED

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100689

Date: 12/17/2019
Time: 14:56:51

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 29.04: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	14:57
BLANK TEST	0.000	14:57
INTERNAL STANDARD	VERIFIED	14:58
EXTERNAL STANDARD	0.077	14:58
BLANK TEST	0.000	14:59
SUBJECT SAMPLE (Vol=2.61L)	0.000	14:59
BLANK TEST	0.000	15:00
EXTERNAL STANDARD	0.077	15:00
BLANK TEST	0.000	15:01

DW

