

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 05/15/2020  
Effective: 05/15/2020

Version: DMCEF 2020 R0  
Status: Active

Instrument S/N 100414 Analyst Derek Walton Start Date 02/04/2021

Diagnostic Test (attached)

Internal Standard value  $\leq 3.00\%$

### Voltage Checks

Adjust voltages, if needed

i. Lamp (2.6V Maximum)

iv. Chopper Frequency

ii. Bias

v. Detector Voltage (-0.100V to 0.100V)

iii. Cooler (2.0V Maximum)

Set RFI

Adjust barometer reading to match NIST traceable barometer

Adjust volume setting, if needed (1.5L +/- 0.1L)

Print Technician Screen (attached)

Print Calibration Factors (attached)

Volume Test - Minimum 1.5 L (1.3L to 1.7L)

### Linearity Test (attached)

#### 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 Wttn Lot 19200 Exp 08/06/21

Simulator S/N DR4161 Date Calibrated 05/08/20

vi. 0.300g/210L Mnf Wttn Lot 19330 Exp 11/13/21

Simulator S/N DR5298 Date Calibrated 05/08/20

### Functional Tests (attached)

Incomplete

Invalid

Interference

i. Acetone - Mnf Wttn Lot 19301 Level 0.100 Exp 10/30/21

Simulator S/N SD1202 Date Calibrated 05/08/20

ii. Isopropanol - Mnf Wttn Lot 19301 Level 0.100 Exp 10/30/21

Simulator S/N SD1177 Date Calibrated 05/07/20

iii. Negative Control - Mnf Wttn Lot 19301 Level 0.100 Exp 10/30/21

Simulator S/N SD1088 Date Calibrated 05/08/20

Exceeded Attempts

RFI

Verify stylus is calibrated

Verification of Calibration

Reset Options

Non-Drinking Subject Test (attached)

Clear Memory

Upload

Remove tank prior to shut down

Add Linearity Data to Spreadsheet

End Date 02/05/21

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100414  
-----

Date: 02/04/2021  
Time: 13:09:21

VERSIONS

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

TEMPERATURES

Sample Chamber = 49.0°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 47.6°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.82 V PASSED  
(1.06 V - 2.48 V)  
Cooler Voltage = 1.59 V PASSED  
(0.97 V - 2.25 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 546 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 30.1 in

PUMP INFO

Flow Rate = 4.855 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 = 0.088 1.21% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100414  
-----

Date: 02/04/2021  
Time: 1:29 PM

Temperatures (°C)

Sample Cell: 49.1°C  
Breath Tube: 46.0°C

Current Barometer 30.1 in ✓  
Volume (Ltr) 1.50 ✓

Settings

Lamp: 1.77 V  
Bias: 79 V  
Cooler: 1.79 V  
Chopper: 524 Hz

Voltages (V)

Flow: 1.05 V  
Detector: -0.049 V ✓

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100414  
-----

Date: 05/18/2011  
Time: 14:24:08

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

LOT #: GUTH100  
BOTTLE #: 10260  
EXPIRATION: 10/25/2010

Ca = 0.1000  
CAL = 0.986849    0.800 <= CAL < 1.200  
b1 = 0.0002    0.0000 <= b1 < 0.0040  
b2 = 0.0046    0.0010 <= b2 < 0.0100  
b3 = 0.0003    0.0000 <= b3 < 0.0040  
Xq = 0.0865    0.0500 <= Xq < 0.2000  
a21 = 1.125008    1.050 <= a21 < 1.300  
a31 = 0.489070    0.300 <= a31 < 0.800

SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100414  
-----

Date: 02/04/2021  
Time: 13:31:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

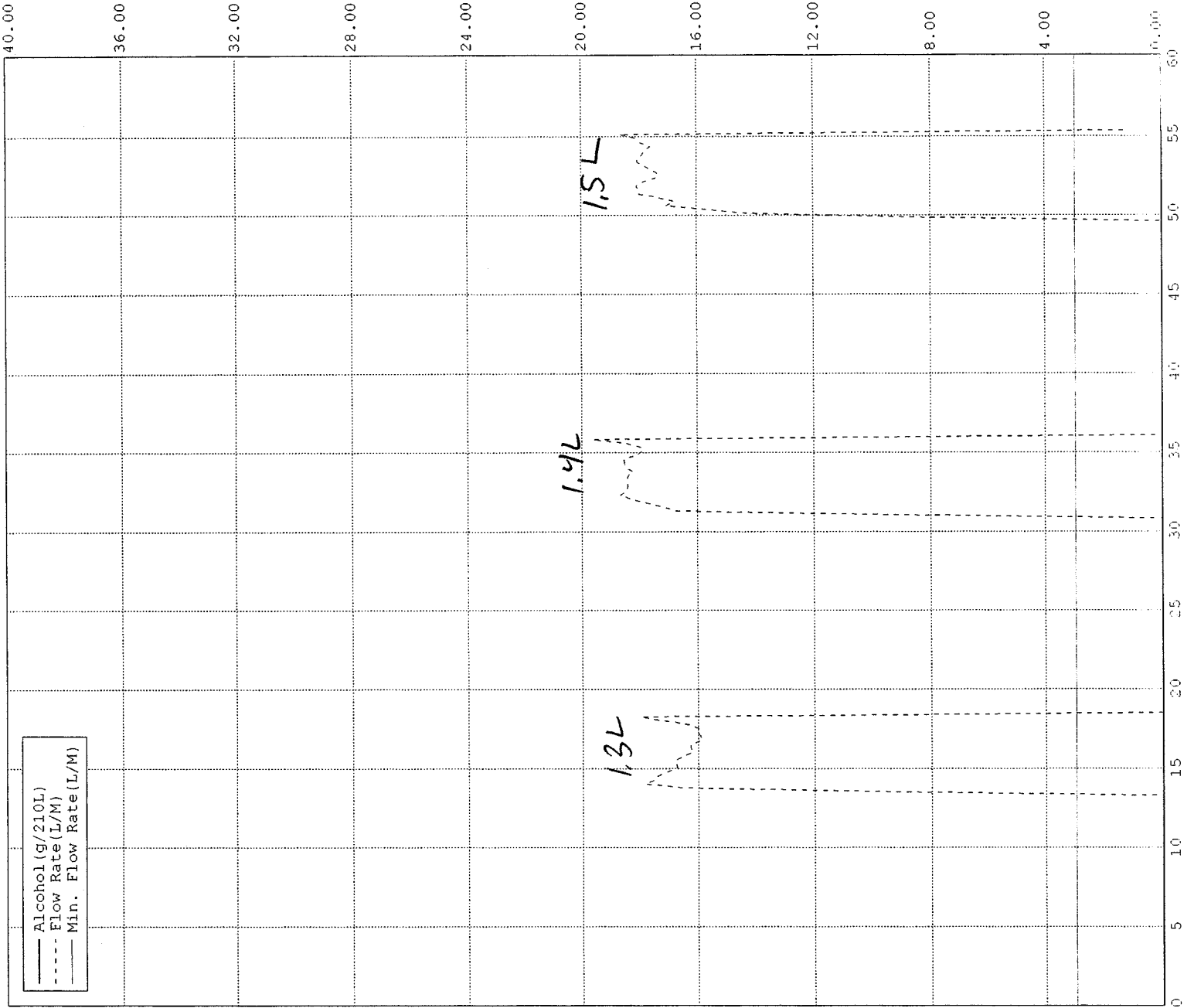
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.10: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 13:37  
BLANK TEST 0.000 13:38  
INTERNAL STANDARD VERIFIED 13:38  
EXTERNAL STANDARD 0.080 13:38  
BLANK TEST 0.000 13:39  
SUBJECT SAMPLE (Vol=1.57L) 0.000 13:40  
BLANK TEST 0.000 13:41  
EXTERNAL STANDARD 0.080 13:41  
BLANK TEST 0.000 13:42

*DM*



LINEARITY CHECK

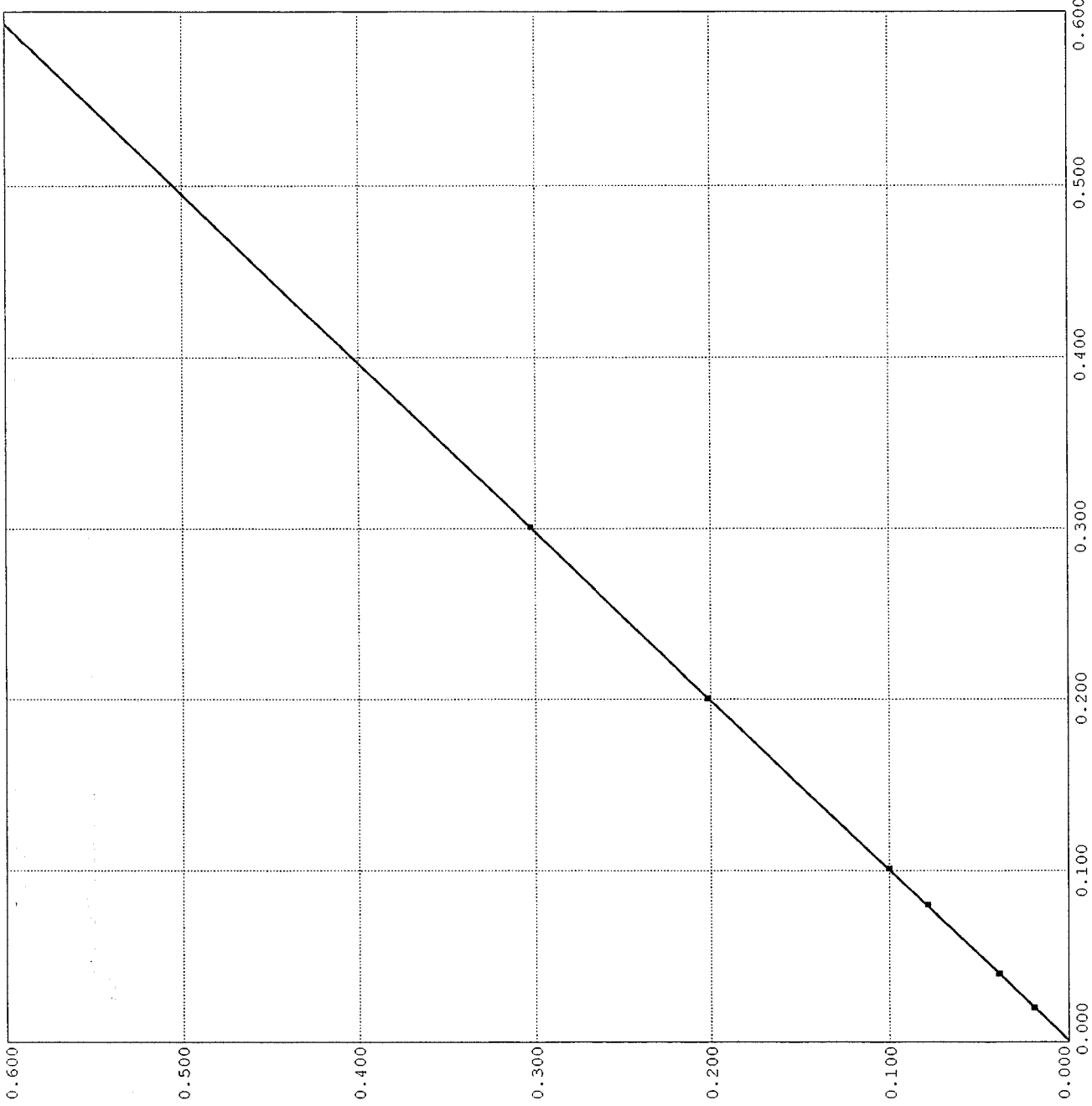
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100414  
 -----

Date: 02/04/2021  
 Time: 14:10:41

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.040	0.0400	0.0000
0.080	0.0796	0.0005
0.101	0.1012	0.0004
0.200	0.2026	0.0005
0.300	0.3034	0.0009

SLOPE = 1.013859  
 R<sup>2</sup> = 0.999973



*DM*

LINEARITY CHECK: Control Test 1

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100414  
 -----

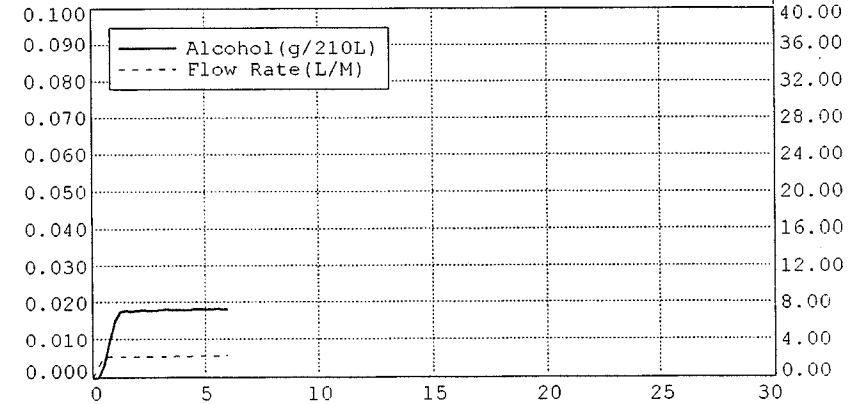
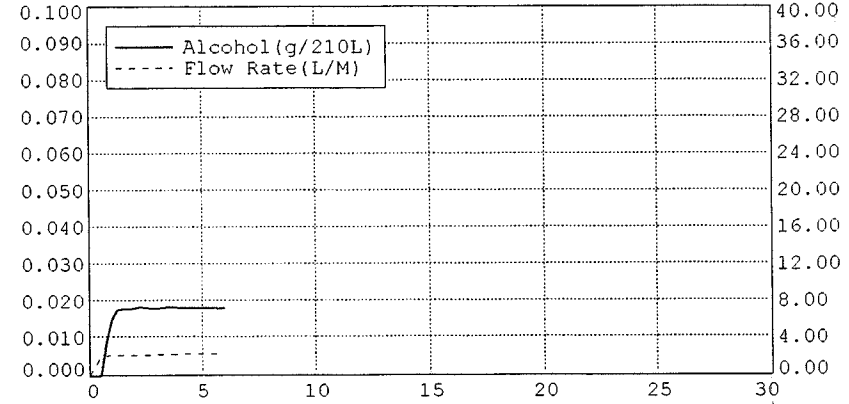
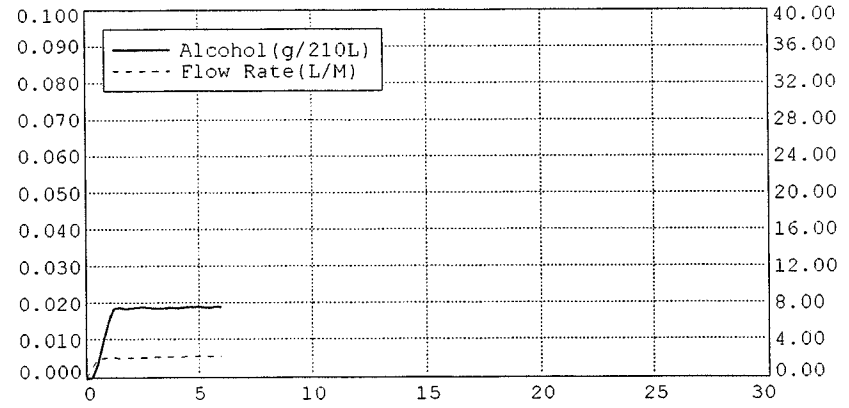
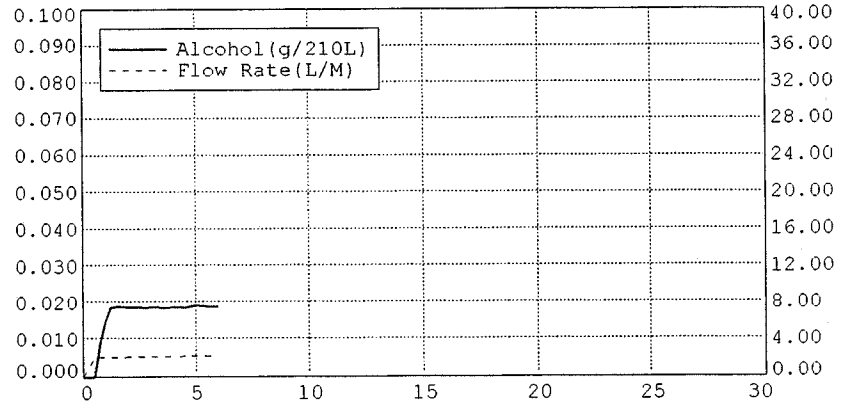
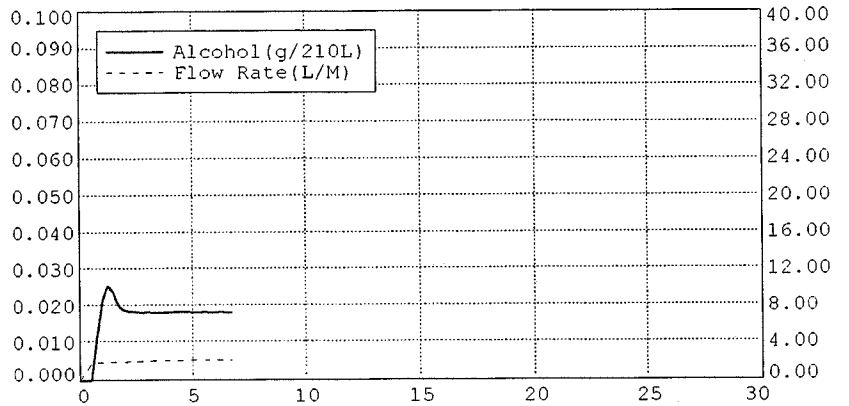
Date: 02/04/2021  
 Time: 14:10:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 30.09: 0.020  
 LOT #: AG928203  
 EXPIRATION: 10/09/2021  
 TANK PRESSURE: 694 psi

BLANK TEST	0.000	14:11
INTERNAL STANDARD	VERIFIED	14:12
EXTERNAL STANDARD	0.020	14:12
BLANK TEST	0.000	14:13
EXTERNAL STANDARD	0.020	14:13
BLANK TEST	0.000	14:14
EXTERNAL STANDARD	0.021	14:14
BLANK TEST	0.000	14:15
EXTERNAL STANDARD	0.020	14:15
BLANK TEST	0.000	14:16
EXTERNAL STANDARD	0.020	14:16
BLANK TEST	0.000	14:17

Average = 0.0202  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100414  
-----

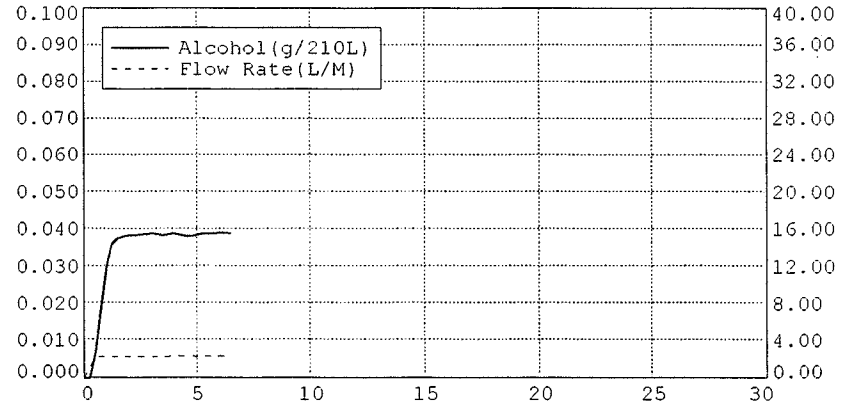
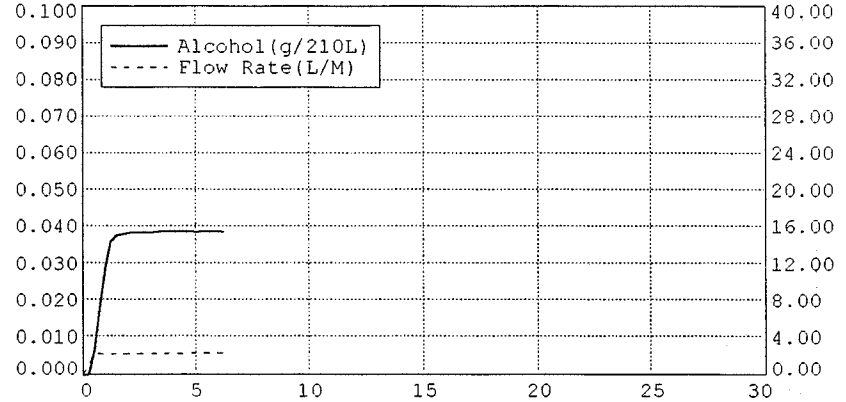
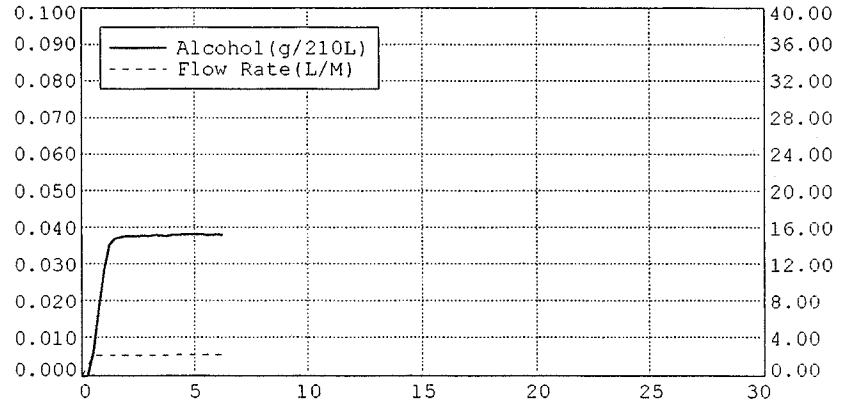
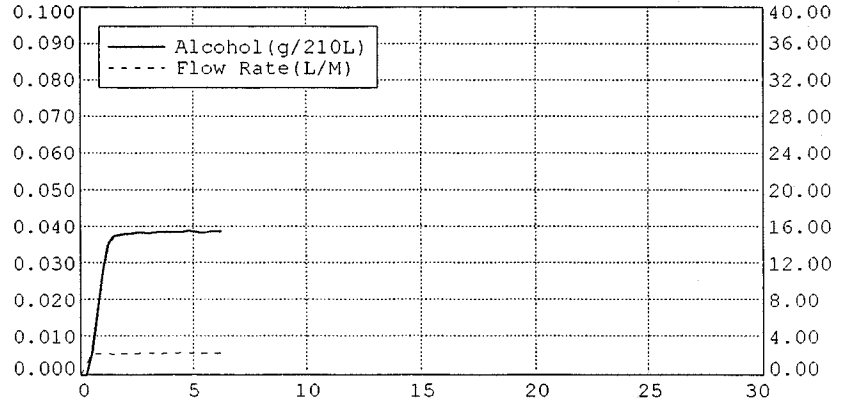
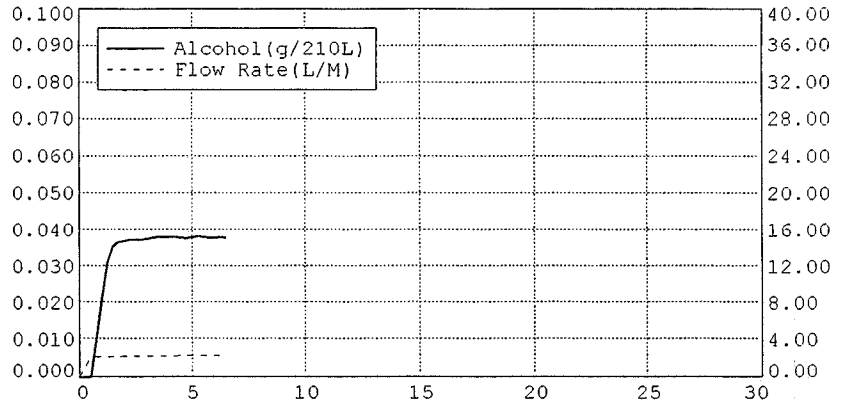
Date: 02/04/2021  
Time: 14:18:07

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 30.09: 0.040  
LOT #: AG915607  
EXPIRATION: 06/05/2021  
TANK PRESSURE: 632 psi

BLANK TEST	0.000	14:19
INTERNAL STANDARD	VERIFIED	14:19
EXTERNAL STANDARD	0.040	14:19
BLANK TEST	0.000	14:20
EXTERNAL STANDARD	0.040	14:20
BLANK TEST	0.000	14:21
EXTERNAL STANDARD	0.040	14:21
BLANK TEST	0.000	14:22
EXTERNAL STANDARD	0.040	14:22
BLANK TEST	0.000	14:23
EXTERNAL STANDARD	0.040	14:24
BLANK TEST	0.000	14:24

Average = 0.0400  
Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100414

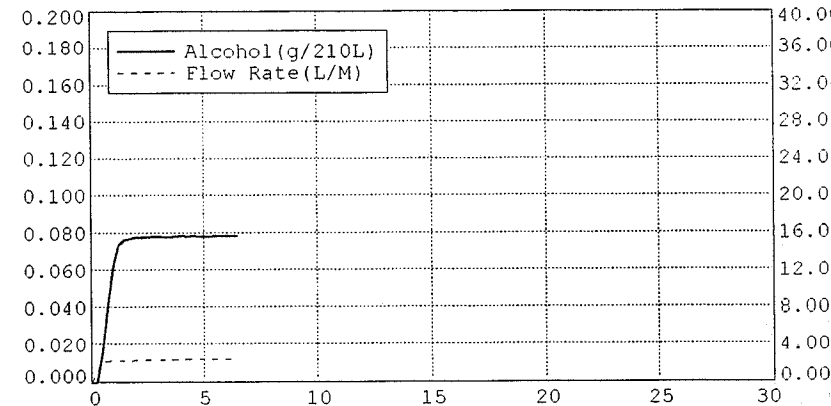
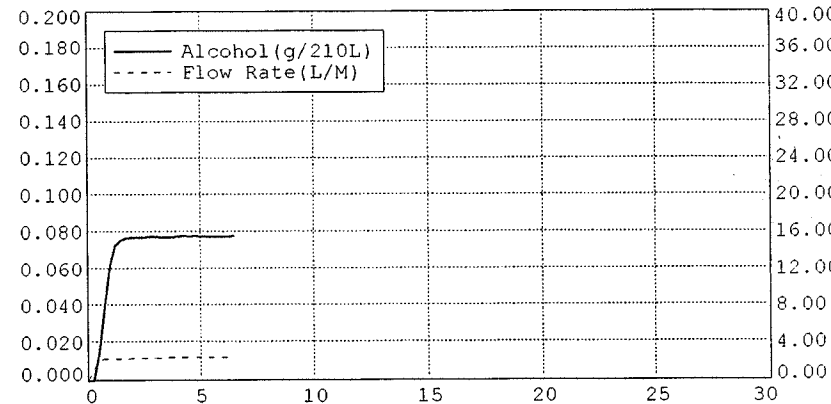
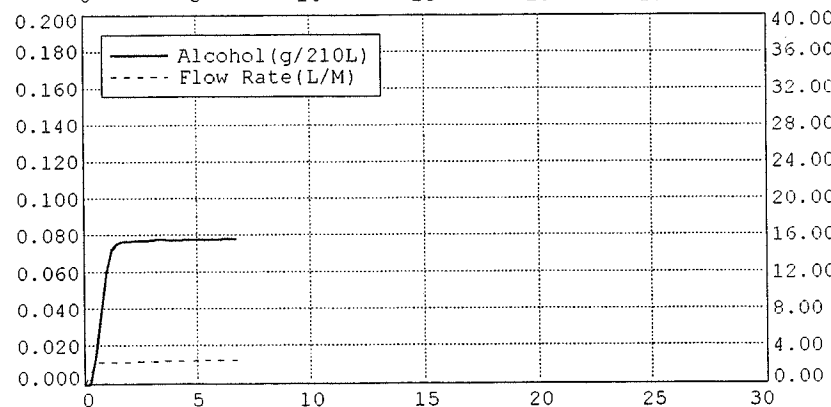
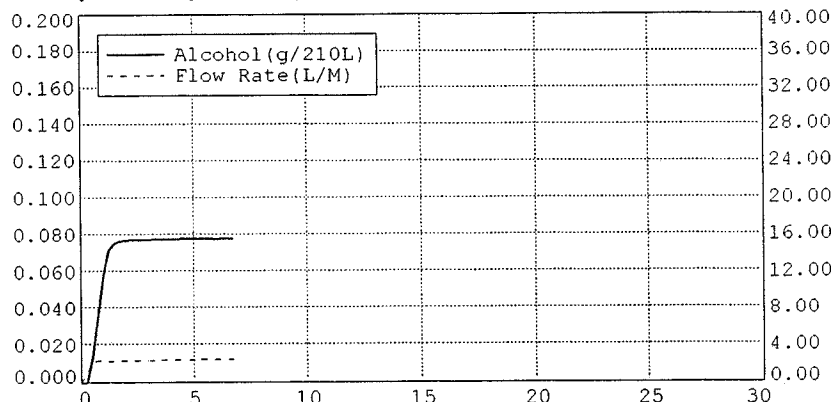
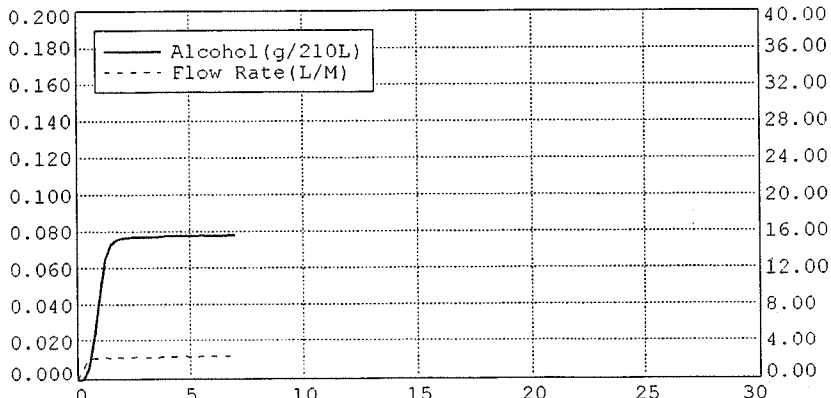
Date: 02/04/2021  
 Time: 14:26:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 30.09: 0.080  
 LOT #: AG018102  
 EXPIRATION: 06/29/2022  
 TANK PRESSURE: 1121 psi

BLANK TEST	0.000	14:27
INTERNAL STANDARD	VERIFIED	14:27
EXTERNAL STANDARD	0.080	14:27
BLANK TEST	0.000	14:28
EXTERNAL STANDARD	0.080	14:29
BLANK TEST	0.000	14:29
EXTERNAL STANDARD	0.079	14:30
BLANK TEST	0.000	14:31
EXTERNAL STANDARD	0.079	14:31
BLANK TEST	0.000	14:32
EXTERNAL STANDARD	0.080	14:32
BLANK TEST	0.000	14:33

Average = 0.0796  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100414  
 -----

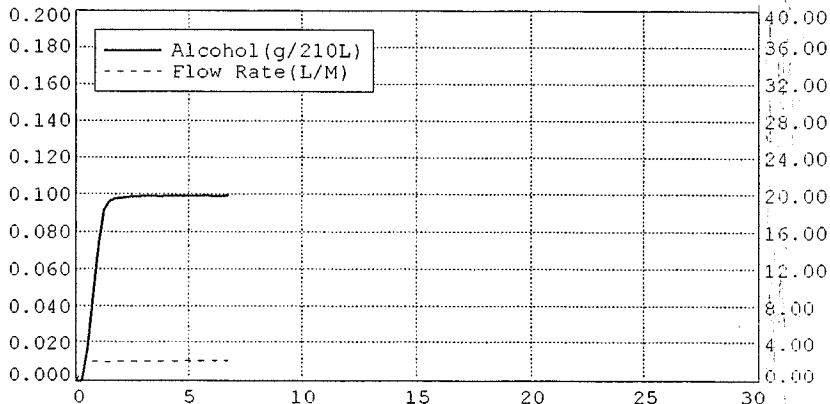
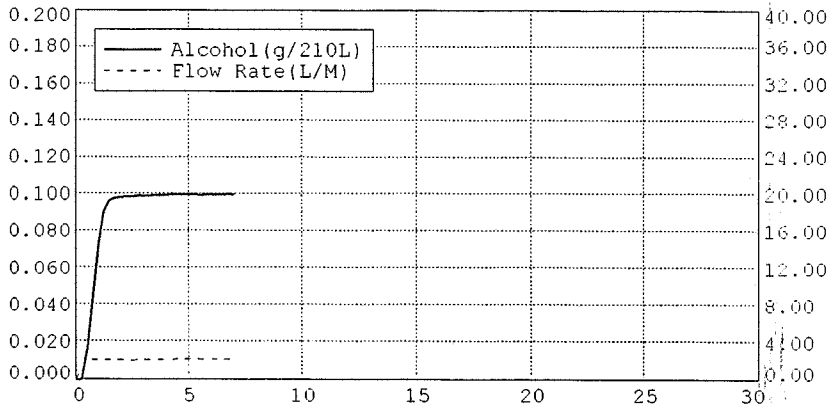
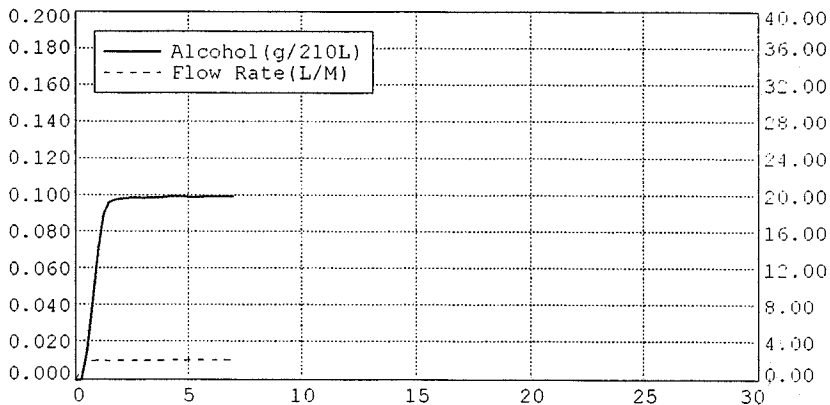
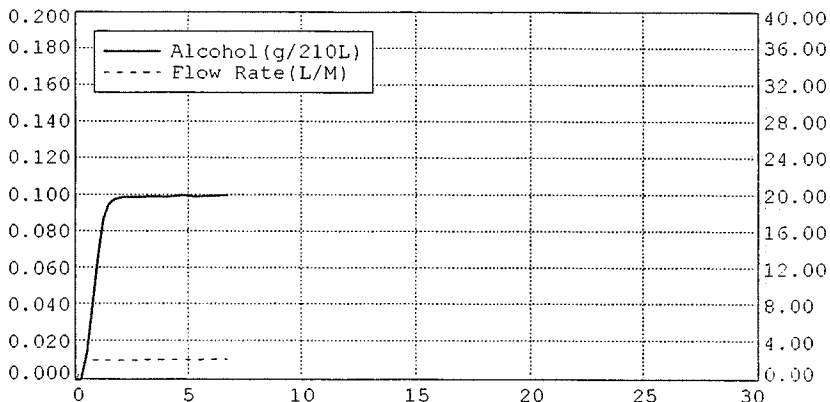
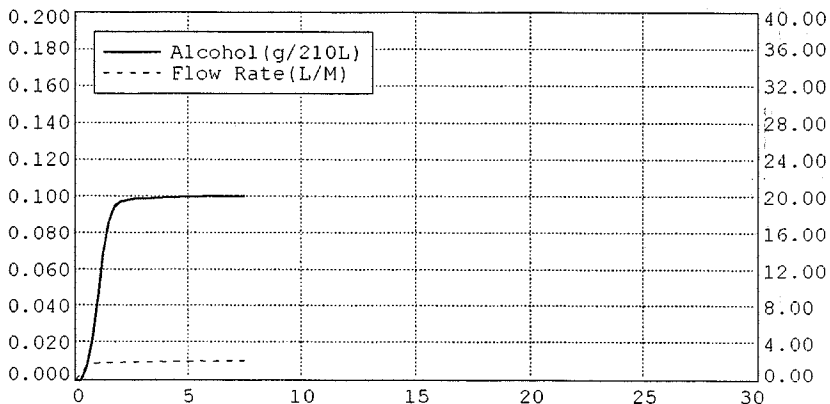
Date: 02/04/2021  
 Time: 14:41:54

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 30.08: 0.101  
 LOT #: AG924701  
 EXPIRATION: 09/04/2021  
 TANK PRESSURE: 255 psi

BLANK TEST	0.000	14:43
INTERNAL STANDARD	VERIFIED	14:43
EXTERNAL STANDARD	0.102	14:43
BLANK TEST	0.000	14:44
EXTERNAL STANDARD	0.101	14:44
BLANK TEST	0.000	14:45
EXTERNAL STANDARD	0.101	14:45
BLANK TEST	0.000	14:46
EXTERNAL STANDARD	0.101	14:46
BLANK TEST	0.000	14:47
EXTERNAL STANDARD	0.101	14:47
BLANK TEST	0.000	14:48

Average = 0.1012  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100414

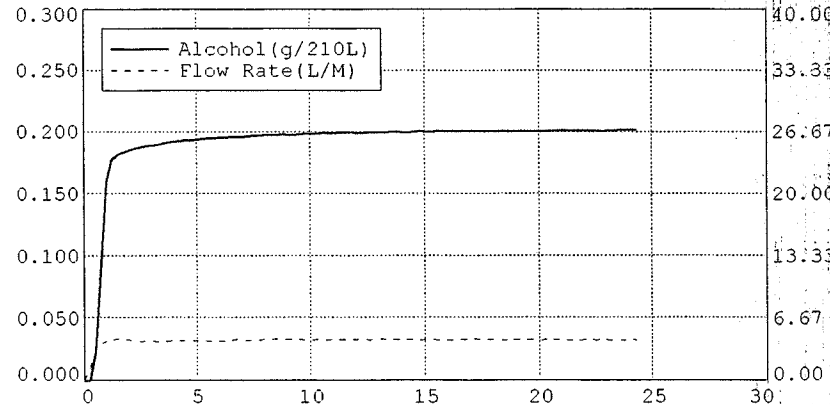
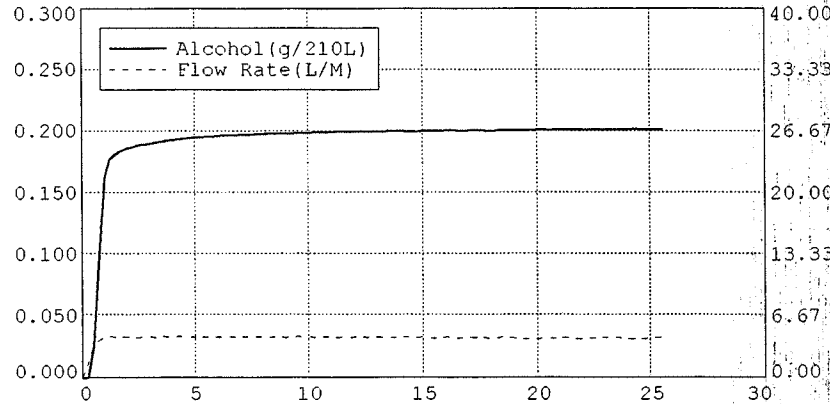
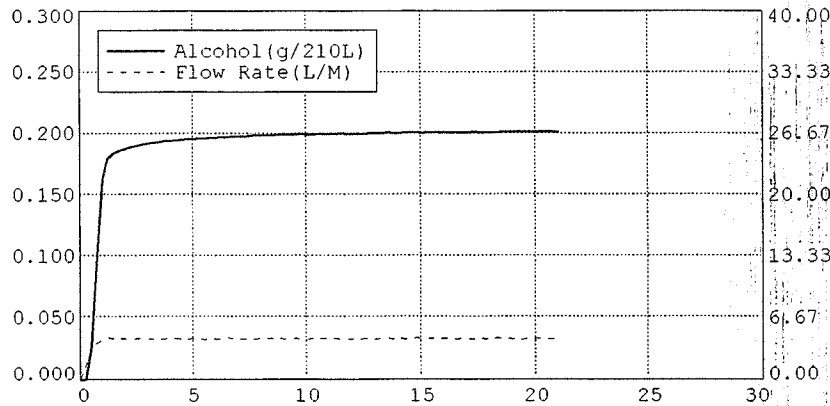
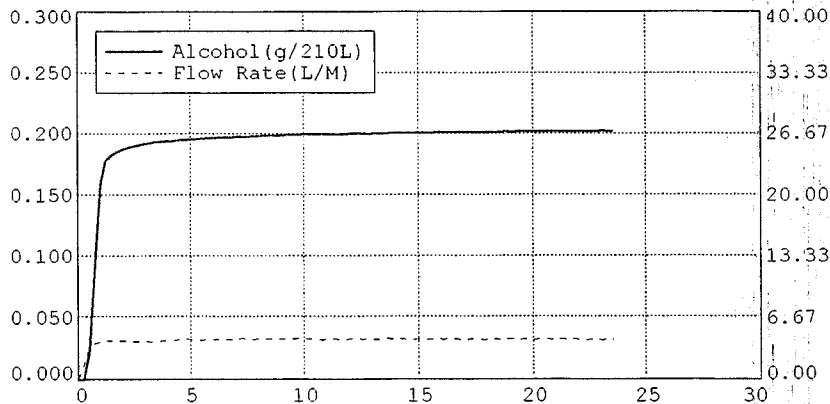
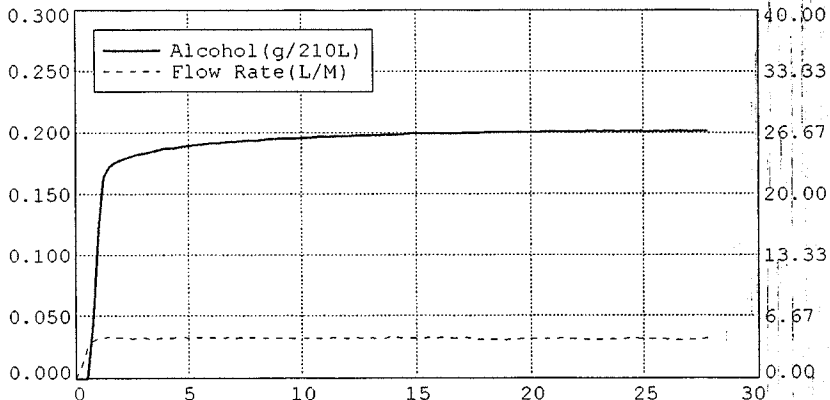
Date: 02/04/2021  
 Time: 14:57:17

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 19200  
 EXPIRATION: 08/06/2021

BLANK TEST	0.000	14:58
INTERNAL STANDARD	VERIFIED	14:58
EXTERNAL STANDARD	0.203	14:59
BLANK TEST	0.000	15:00
EXTERNAL STANDARD	0.203	15:00
BLANK TEST	0.000	15:01
EXTERNAL STANDARD	0.202	15:01
BLANK TEST	0.000	15:02
EXTERNAL STANDARD	0.202	15:03
BLANK TEST	0.000	15:04
EXTERNAL STANDARD	0.203	15:04
BLANK TEST	0.000	15:05

Average = 0.2026  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
DATAMASTER dmt: 100414

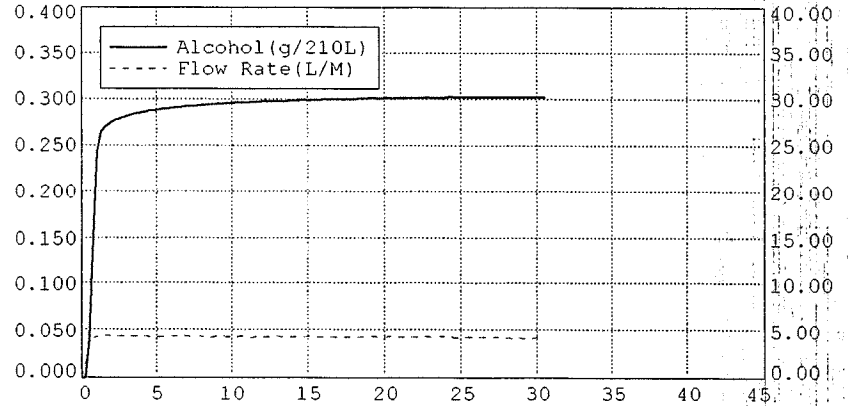
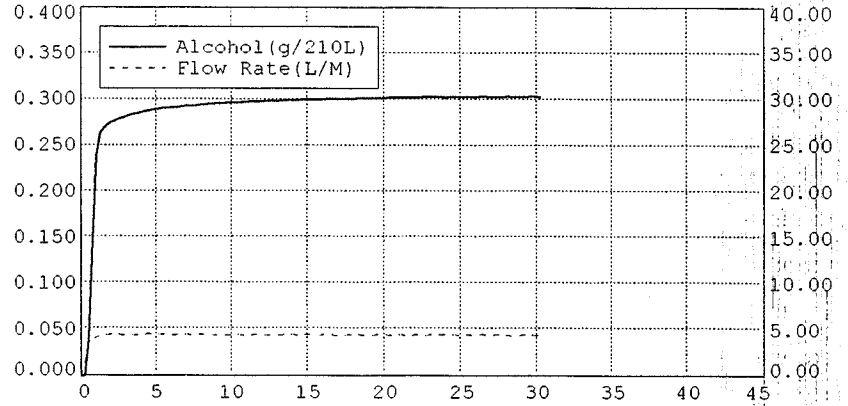
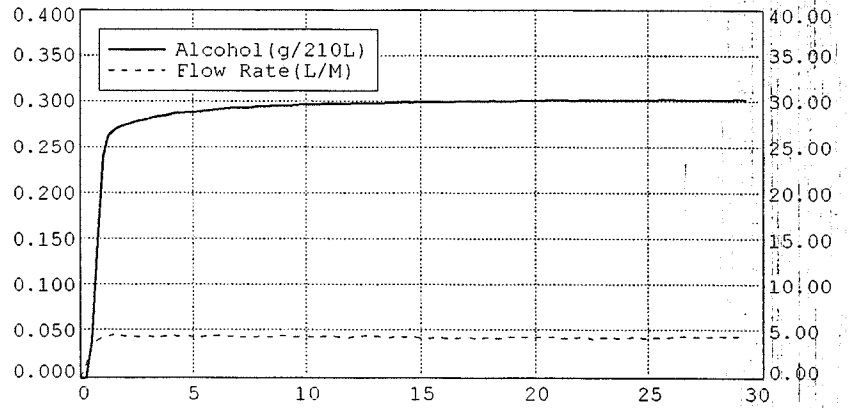
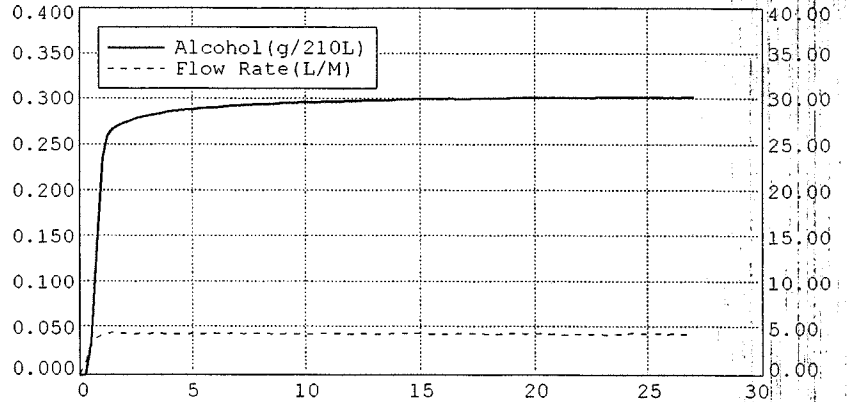
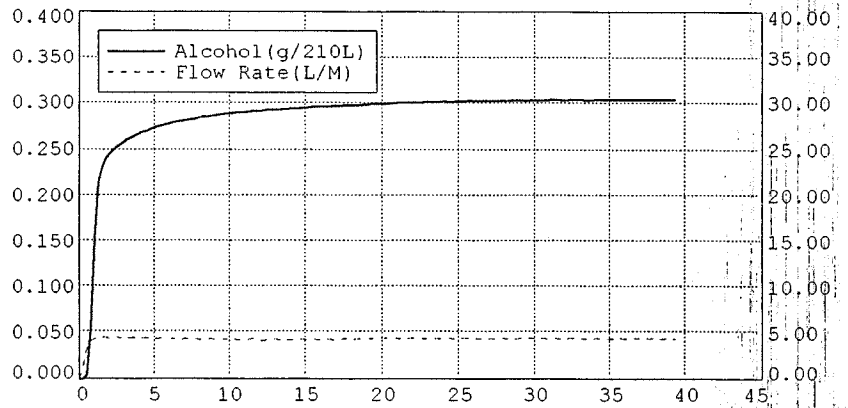
Date: 02/04/2021  
Time: 15:10:17

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
LOT #: 19330  
EXPIRATION: 11/13/2021

BLANK TEST	0.000	15:11
INTERNAL STANDARD	VERIFIED	15:11
EXTERNAL STANDARD	0.304	15:12
BLANK TEST	0.000	15:13
EXTERNAL STANDARD	0.302	15:13
BLANK TEST	0.000	15:14
EXTERNAL STANDARD	0.303	15:15
BLANK TEST	0.000	15:16
EXTERNAL STANDARD	0.304	15:16
BLANK TEST	0.000	15:17
EXTERNAL STANDARD	0.304	15:18
BLANK TEST	0.000	15:19

Average = 0.3034  
Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100414

Date: 02/04/2021  
Time: 15:26:57

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

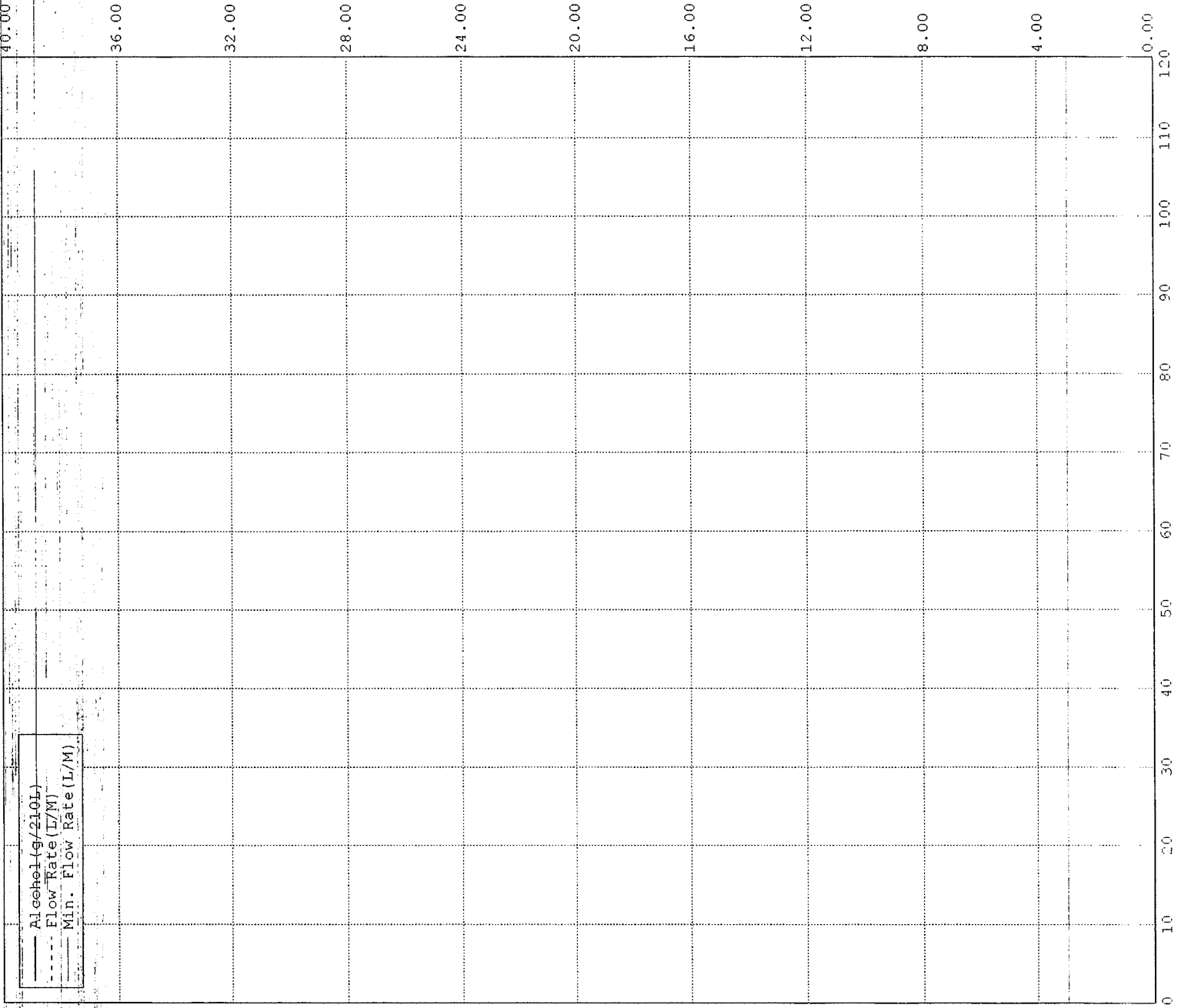
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.09: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 15:27  
BLANK TEST 0.000 15:28  
INTERNAL STANDARD VERIFIED 15:28  
EXTERNAL STANDARD 0.079 15:28  
BLANK TEST 0.000 15:29  
SUBJECT SAMPLE INCOMPLETE 15:31



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100414

Date: 02/05/2021  
Time: 08:43:33

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

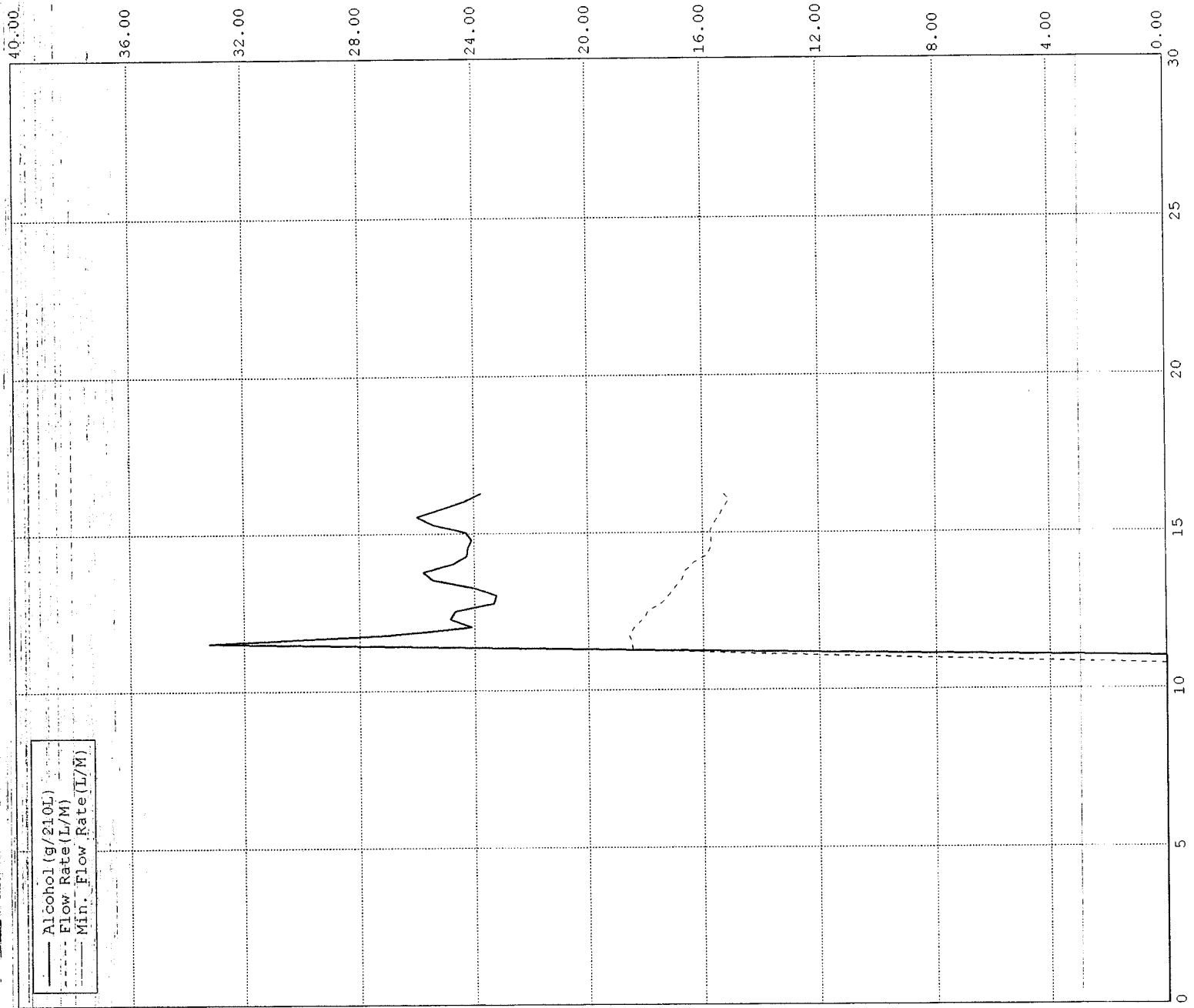
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.01: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 08:45  
BLANK TEST 0.000 08:45  
INTERNAL STANDARD VERIFIED 08:45  
EXTERNAL STANDARD 0.080 08:45  
BLANK TEST 0.000 08:46  
SUBJECT SAMPLE INVALID 08:47

*DMW*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100414

Date: 02/05/2021  
Time: 09:11:22

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 30.02: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

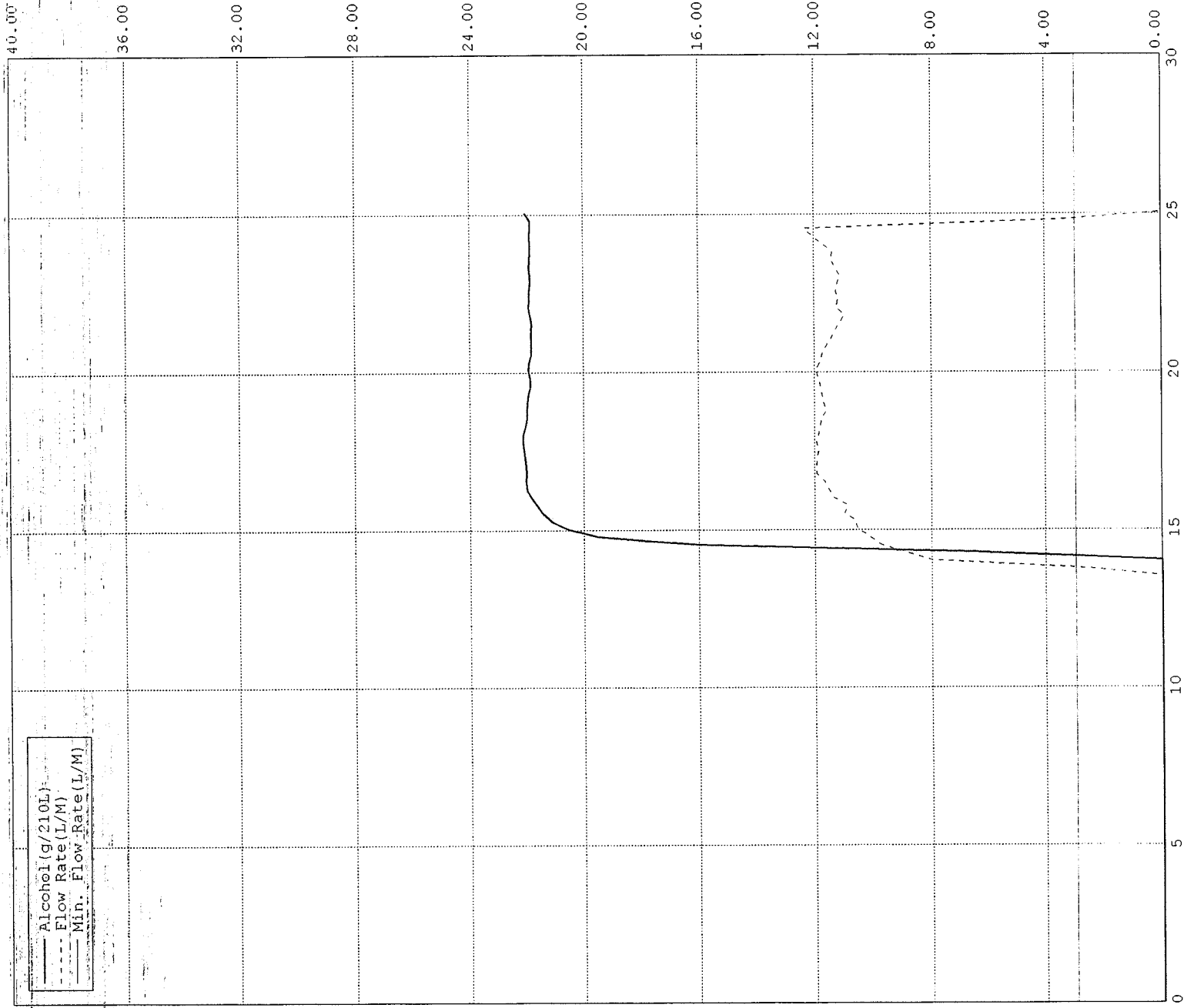
DIAGNOSTIC CHECK	PASSED	09:13
BLANK TEST	0.000	09:14
INTERNAL STANDARD	VERIFIED	09:14
Xq = 0.087 (0.71%)		
EXTERNAL STANDARD	0.079	09:14
X[1] = 0.0795 (-0.0035)	(0.0008)	
BLANK TEST	0.000	09:15
SUBJECT SAMPLE	XXX	09:15
X[1] = 0.1114 (-0.0213)	(-0.0003)	

Interference Detected

Filter 2 average: -0.0026

Filter 3 average: 0.0009

*DM*



Alcohol (g/210L):  
Flow Rate (L/M)  
Min. Flow Rate (L/M)

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100414

Date: 02/05/2021  
Time: 09:05:31

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

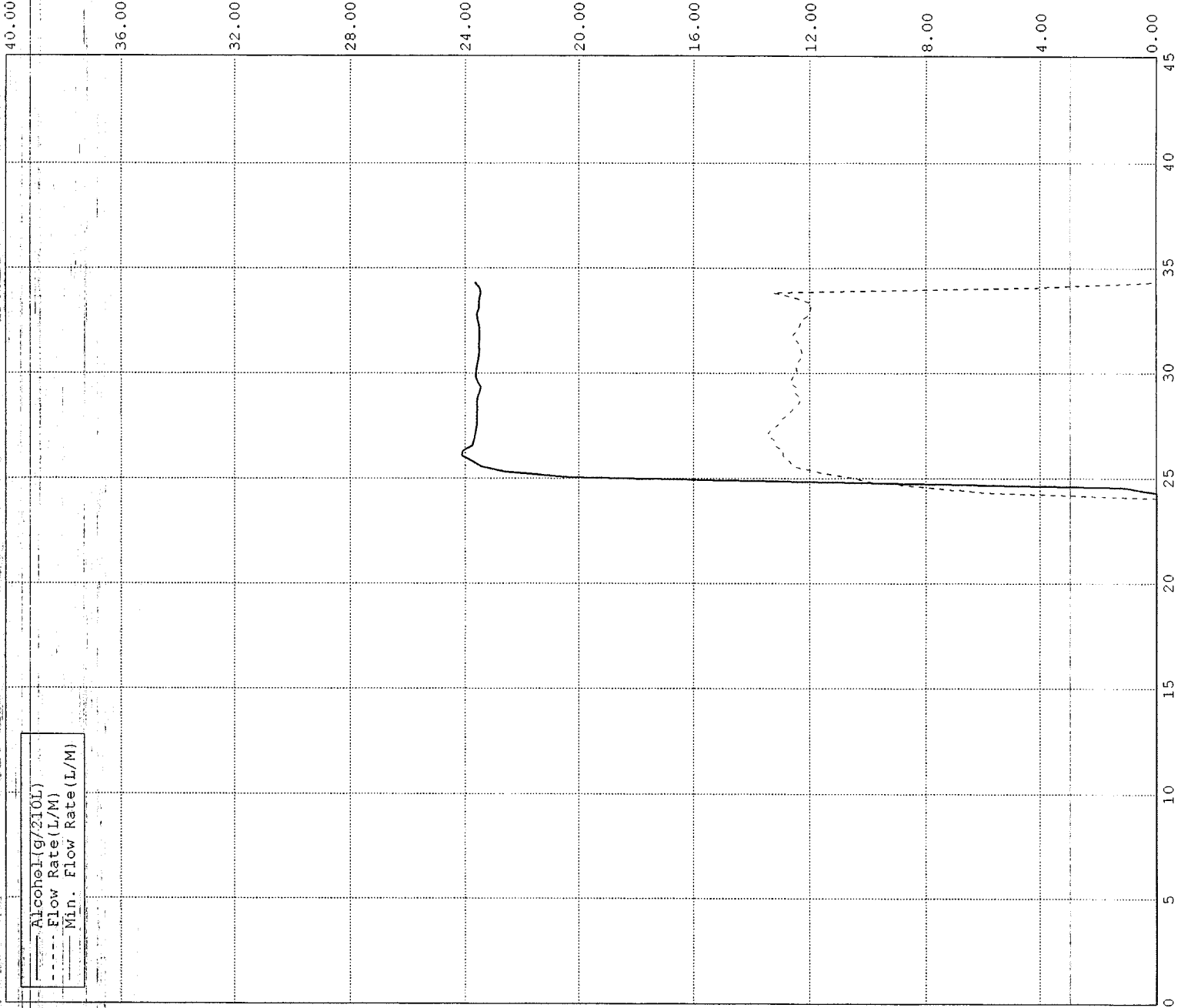
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.01: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 09:06  
BLANK TEST 0.000 09:06  
INTERNAL STANDARD VERIFIED 09:06  
Xq = 0.087 (1.11%)  
EXTERNAL STANDARD 0.079 09:06  
X[1] = 0.0792 (-0.0028) (0.0014)  
BLANK TEST 0.000 09:07  
SUBJECT SAMPLE XXX 09:08  
X[1] = 0.1202 (-0.0219) (0.0003)

Interference Detected

*DM*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100414

Date: 02/05/2021  
Time: 08:54:36

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

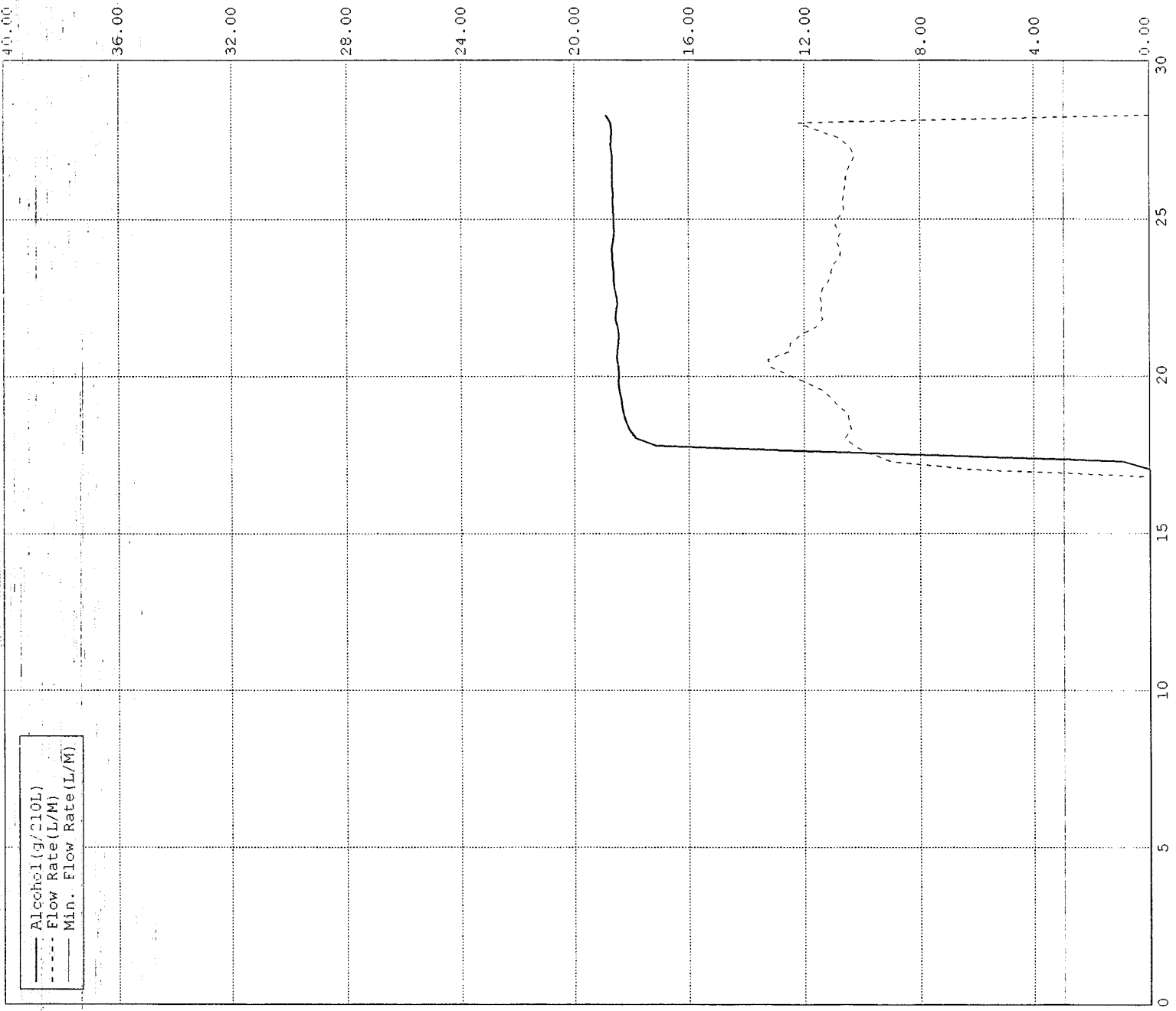
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.01: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	08:57
BLANK TEST	0.000	08:57
INTERNAL STANDARD	VERIFIED	08:57
$X_q = 0.087$ (0.10%)		
EXTERNAL STANDARD	0.079	08:57
$X[1] = 0.0792$ (-0.0023) (0.0008)		
BLANK TEST	0.000	08:58
SUBJECT SAMPLE (Vol=2.07L)	0.096	08:59
$X[1] = 0.0969$ (0.0003) (-0.0019)		
BLANK TEST	0.000	09:00
EXTERNAL STANDARD	0.079	09:00
$X[1] = 0.0794$ (-0.0018) (0.0004)		
BLANK TEST	0.000	09:01



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100414

Date: 02/05/2021  
Time: 09:21:41

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

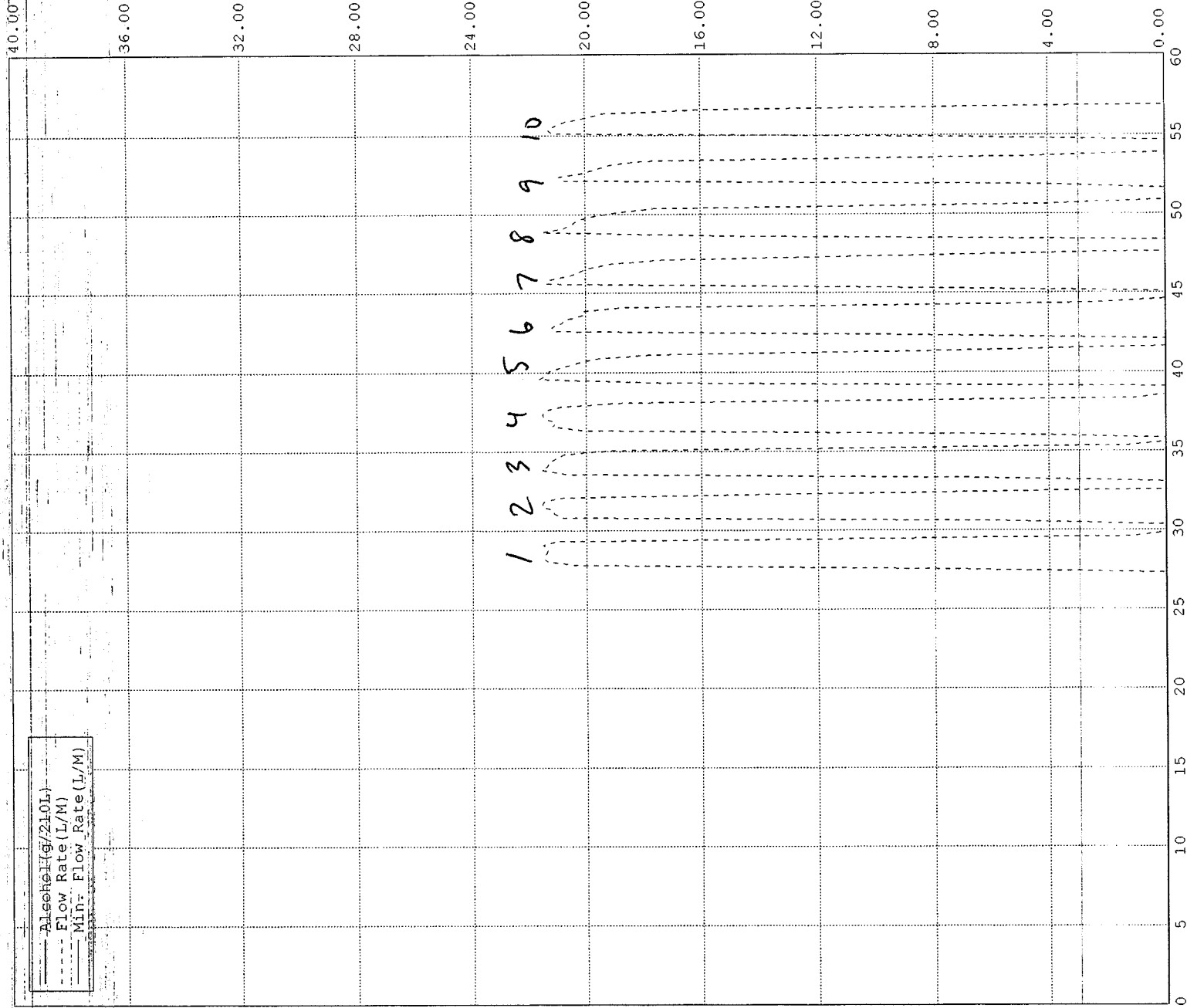
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.01: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 09:22  
BLANK TEST 0.000 09:22  
INTERNAL STANDARD VERIFIED 09:22  
EXTERNAL STANDARD 0.079 09:23  
BLANK TEST 0.000 09:24  
SUBJECT SAMPLE XXX 09:25

Maximum Attempts Exceeded

Algehel(g/210L)  
Flow Rate(L/M)  
Min- Flow\_Rate(L/M)





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100414

Date: 02/05/2021  
Time: 10:03:27

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 30.01: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	10:04
BLANK TEST	0.000	10:04
INTERNAL STANDARD	VERIFIED	10:04
EXTERNAL STANDARD	0.080	10:04
BLANK TEST	0.000	10:05
SUBJECT SAMPLE (Vol=2.34L)	0.000	10:06
BLANK TEST	0.000	10:07
EXTERNAL STANDARD	0.080	10:07
BLANK TEST	0.000	10:08

*Jm*

