

# 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 100386 Analyst C. O'Bryant Start Date 10/4/21

Diagnostic Test (attached)

Internal Standard value  $\leq$  3.00%

### Voltage Checks

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)

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 1.6 L (1.3L to 1.7L)

*\* Factory Refurbishment  
Not Currently Needed.  
Instrument Ready for  
Certification.  
COB 10/4/21*

### Linearity Test (attached)

#### Levels Used

i. 0.020g/210L Mnf Argas Lot AG928203 Exp 10/9/21

ii. 0.040g/210L Mnf Argas Lot AG111710 Exp 4/27/23

iii. 0.080g/210L Mnf Argas Lot AG018102 Exp 6/29/22

iv. 0.100g/210L Mnf Argas Lot AG108404 Exp 3/25/23

v. 0.200g/210L Mnf Guth Lot 20510 Exp 12/3/20

Simulator S/N DR4161 Date Calibrated 6/16/21

vi. 0.300g/210L Mnf Guth Lot 21030 Exp 2/2/23

Simulator S/N WD202 Date Calibrated 6/15/21

### Functional Tests (attached)

Incomplete

Invalid

Interference

X added  
2021.10.12 COB

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

Simulator S/N SD1174 Date Calibrated 6/15/21

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

SD1198 Simulator S/N GUTH03 Date Calibrated 6/15/21

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

Simulator S/N SD1088 Date Calibrated 6/15/21

Exceeded Attempts

RFI

Verify stylus is calibrated

Reset Options

Clear Memory

Remove tank prior to shut down

Verification of Calibration

Non-Drinking Subject Test (attached)

Upload

Add Linearity Data to Spreadsheet

End Date 10/5/21

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100386  
-----

Date: 10/04/2021  
Time: 12:13:00

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 = 47.5°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.70 V PASSED  
(1.00 V - 2.34 V)  
Cooler Voltage = 1.66 V PASSED  
(1.01 V - 2.35 V)  
Bias Voltage = 80 V PASSED  
(47 V - 111 V)  
Chopper Freq = 528 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.9 in

PUMP INFO

Flow Rate = 4.647 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 = 0.093 1.43% PASSED  
(0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100386  
-----

Date: 10/04/2021  
Time: 12:17 PM

Temperatures (°C)

Sample Cell: 48.9°C  
Breath Tube: 46.5°C

Current Barometer 29.9 in  
Volume (Ltr) 1.55

Settings

Lamp: 1.70 V  
Bias: 80 V  
Cooler: 1.66 V  
Chopper: 527 Hz

Voltages (V)

Flow: 1.06 V  
Detector: 0.020 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100386  
-----

Date: 05/01/2015  
Time: 11:38:05

OPERATOR NAME:  
CHARLES FOSTER  
CERTIFICATE #: 7734

Ca	=	0.1000		
CAL	=	0.966252	0.800	<= CAL < 1.200
b1	=	0.0008	0.0000	<= b1 < 0.0040
b2	=	0.0057	0.0010	<= b2 < 0.0100
b3	=	0.0006	0.0000	<= b3 < 0.0040
Xq	=	0.0918	0.0500	<= Xq < 0.2000
a21	=	1.179077	1.050	<= a21 < 1.300
a31	=	0.553536	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100386

Date: 10/04/2021  
Time: 12:18:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: MIN VOLUME

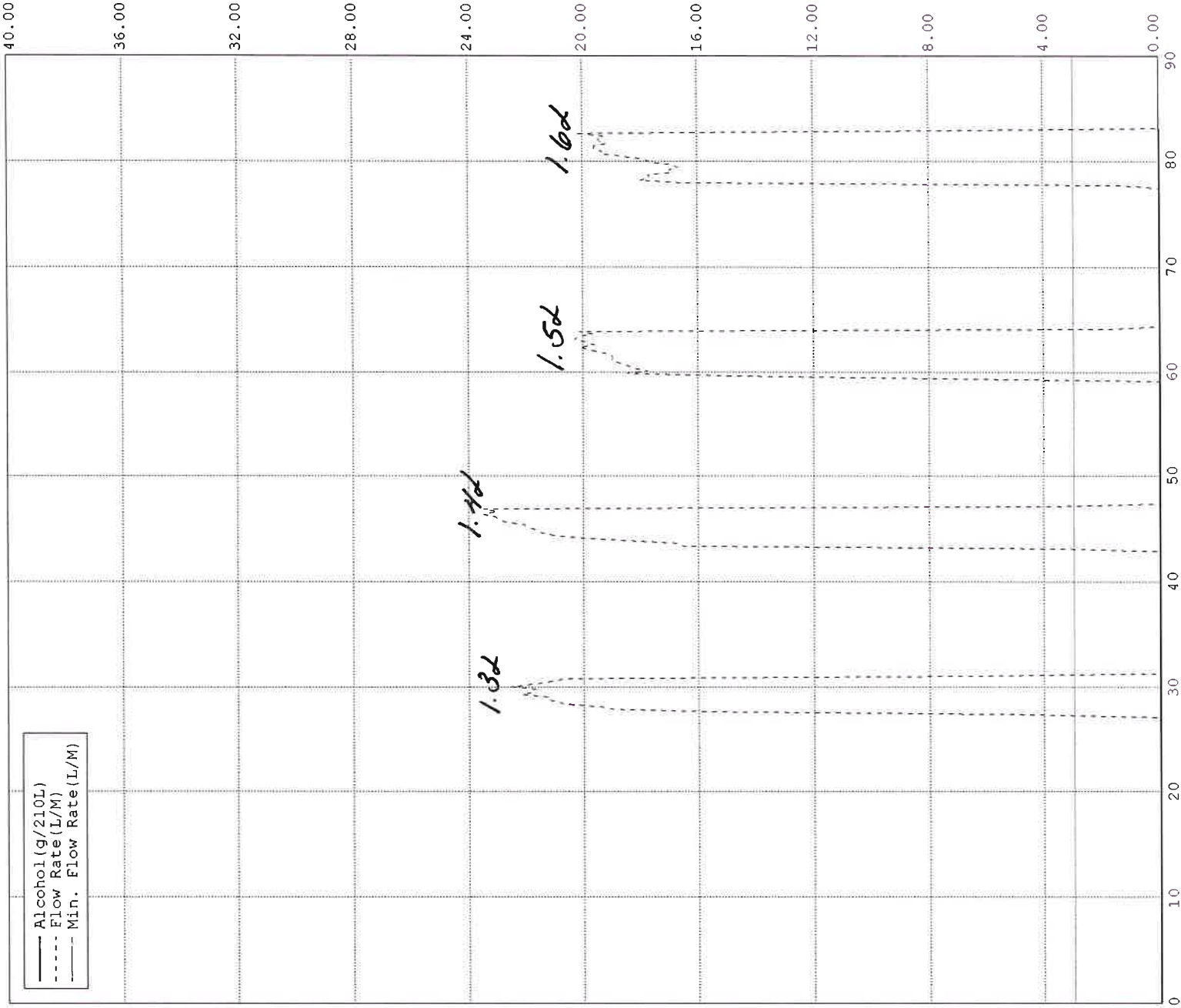
OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.89: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 12:19  
BLANK TEST 0.000 12:20  
INTERNAL STANDARD VERIFIED 12:20  
EXTERNAL STANDARD 0.076 12:20  
BLANK TEST 0.000 12:21  
SUBJECT SAMPLE (Vol=1.57L) 0.000 12:22  
BLANK TEST 0.000 12:23  
EXTERNAL STANDARD 0.077 12:23  
BLANK TEST 0.000 12:24

CAB



LINEARITY CHECK

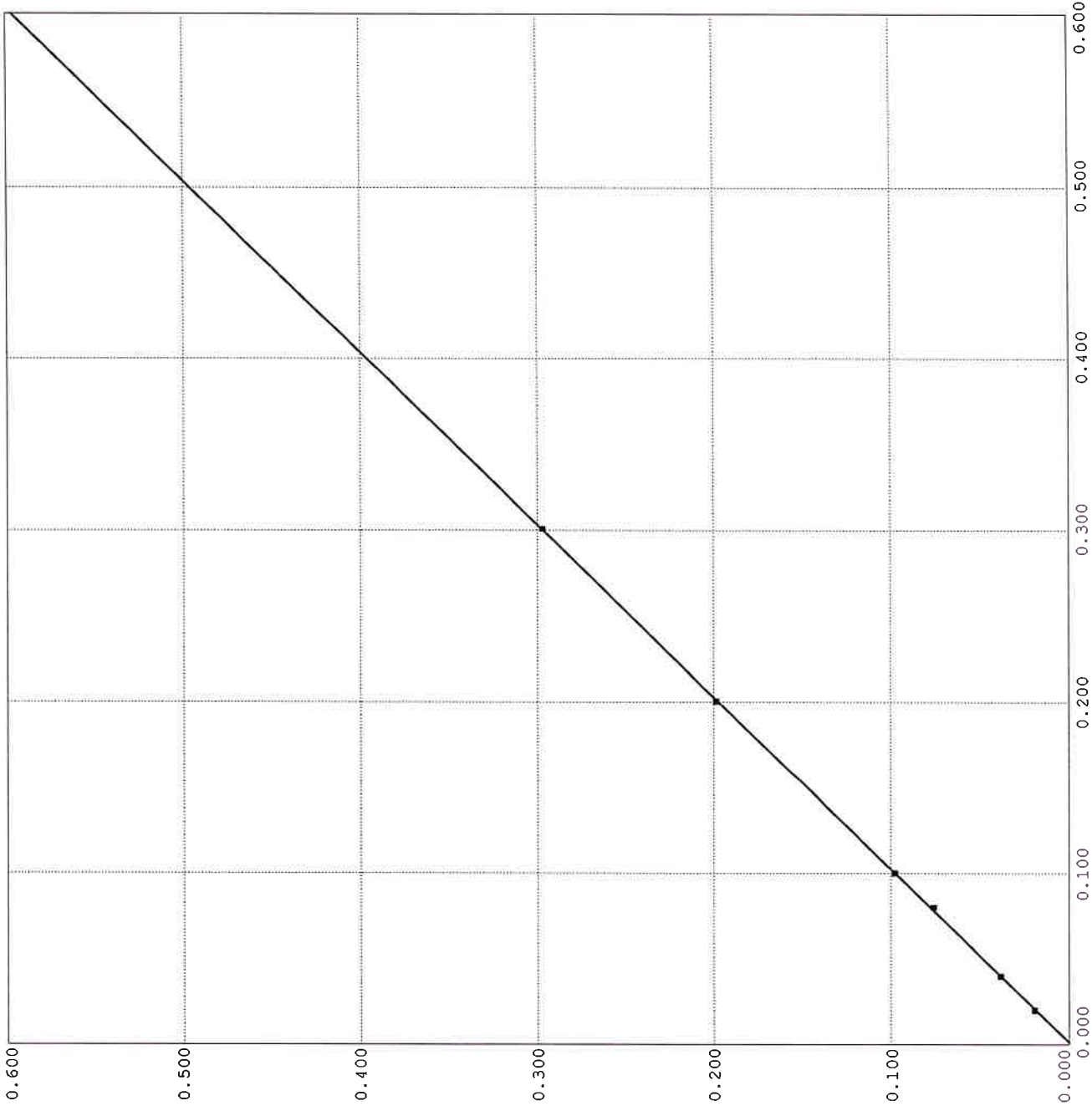
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100386  
 -----

Date: 10/04/2021  
 Time: 12:39:33

SUPERVISOR NAME:  
 COLLEEN S OBRyant  
 OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.040	0.0392	0.0004
0.080	0.0770	0.0000
0.100	0.0988	0.0004
0.200	0.1994	0.0009
0.300	0.2978	0.0008

SLOPE = 0.996324  
 R<sup>2</sup> = 0.999905



*OK*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100386

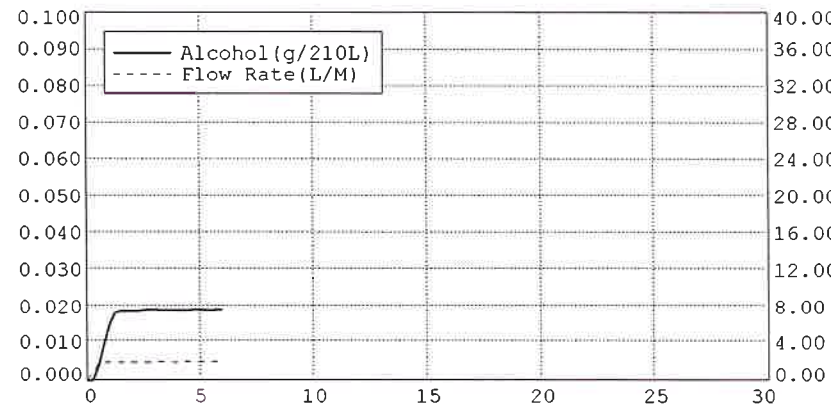
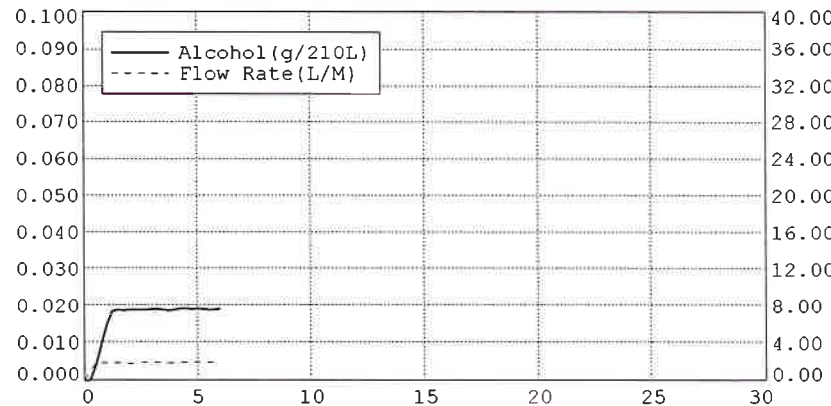
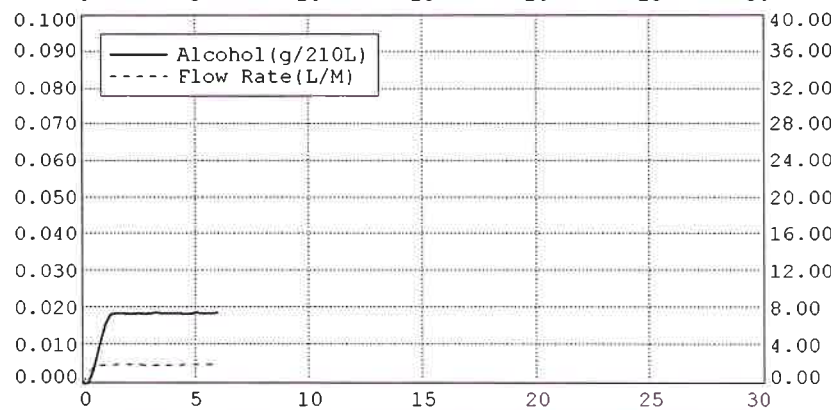
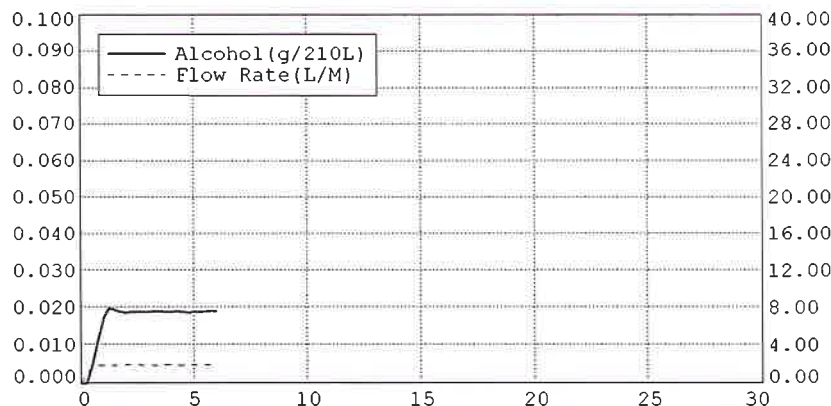
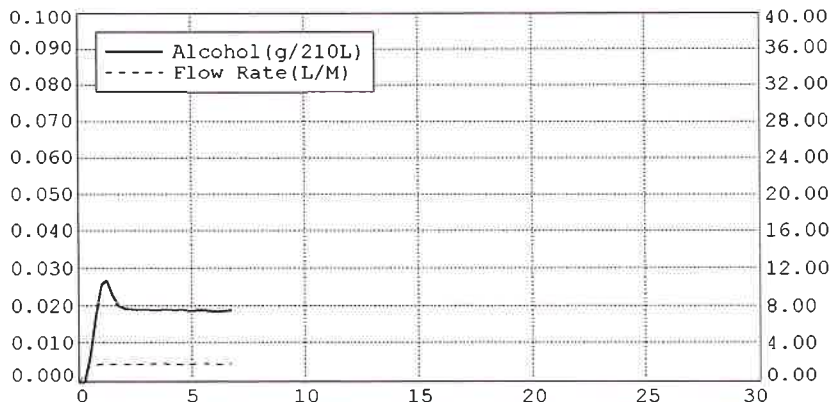
Date: 10/04/2021  
 Time: 12:41:57

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.88: 0.020  
 LOT #: AG928203  
 EXPIRATION: 10/09/2021  
 TANK PRESSURE: 296 psi

BLANK TEST	0.000	12:43
INTERNAL STANDARD	VERIFIED	12:43
EXTERNAL STANDARD	0.020	12:43
BLANK TEST	0.000	12:44
EXTERNAL STANDARD	0.020	12:44
BLANK TEST	0.000	12:45
EXTERNAL STANDARD	0.020	12:45
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.020	12:46
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.020	12:47
BLANK TEST	0.000	12:48

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
DATAMASTER dmt: 100386

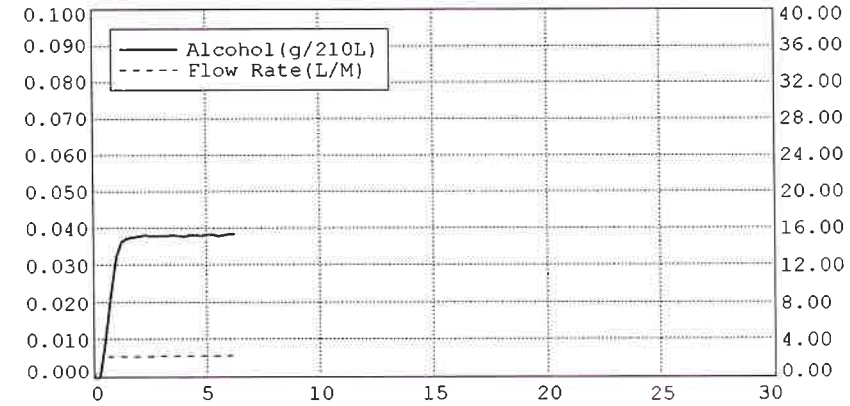
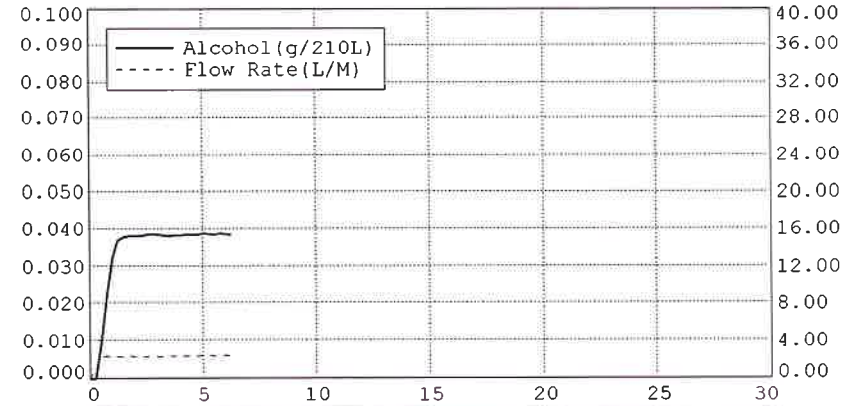
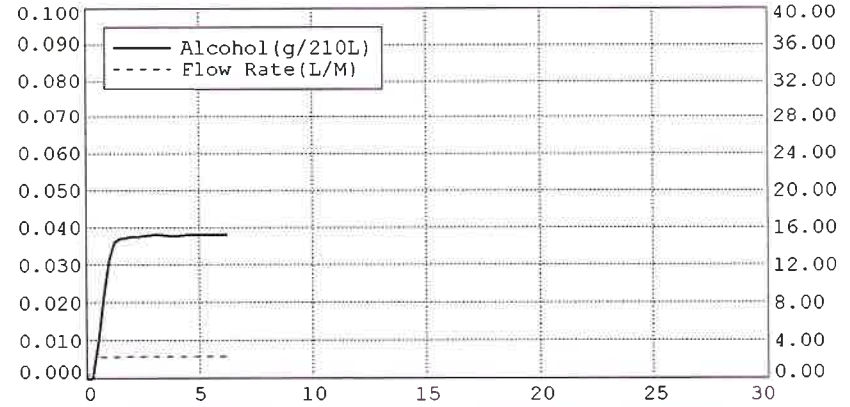
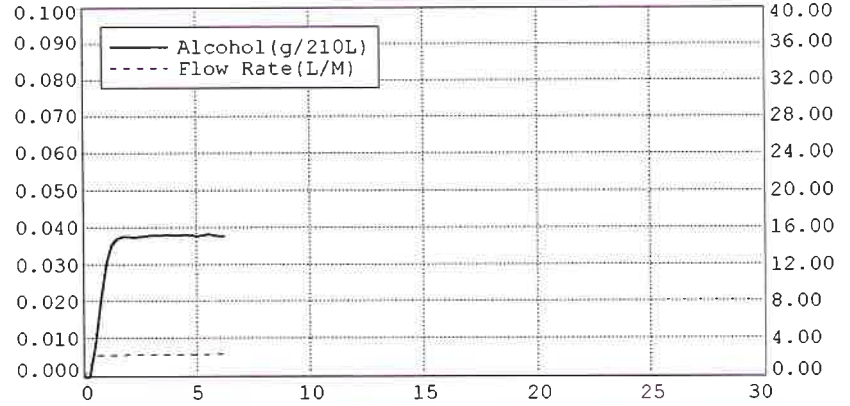
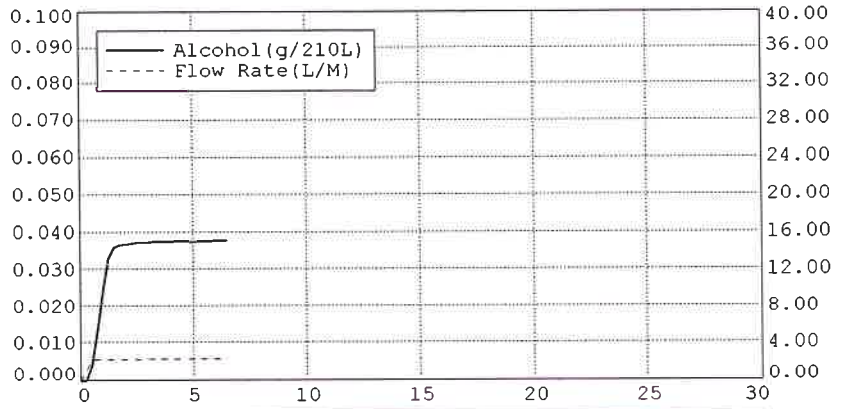
Date: 10/04/2021  
Time: 12:50:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 29.88: 0.040  
LOT #: AG111710  
EXPIRATION: 04/27/2023  
TANK PRESSURE: 868 psi

BLANK TEST	0.000	12:51
INTERNAL STANDARD	VERIFIED	12:51
EXTERNAL STANDARD	0.039	12:52
BLANK TEST	0.000	12:53
EXTERNAL STANDARD	0.039	12:53
BLANK TEST	0.000	12:54
EXTERNAL STANDARD	0.039	12:54
BLANK TEST	0.000	12:55
EXTERNAL STANDARD	0.040	12:55
BLANK TEST	0.000	12:56
EXTERNAL STANDARD	0.039	12:56
BLANK TEST	0.000	12:57

Average = 0.0392  
Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100386

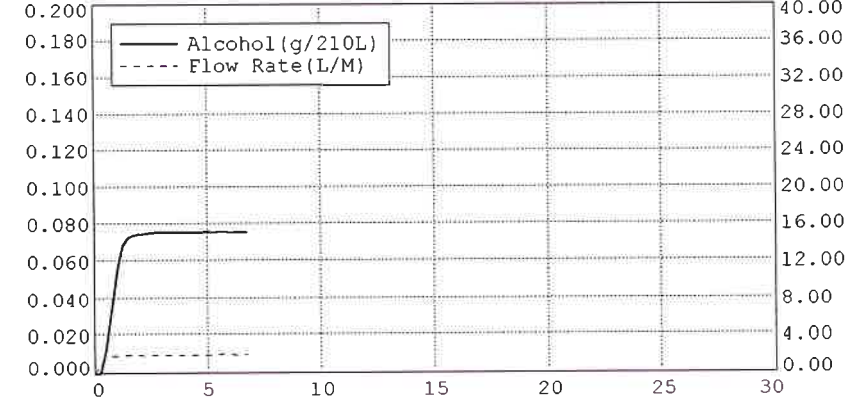
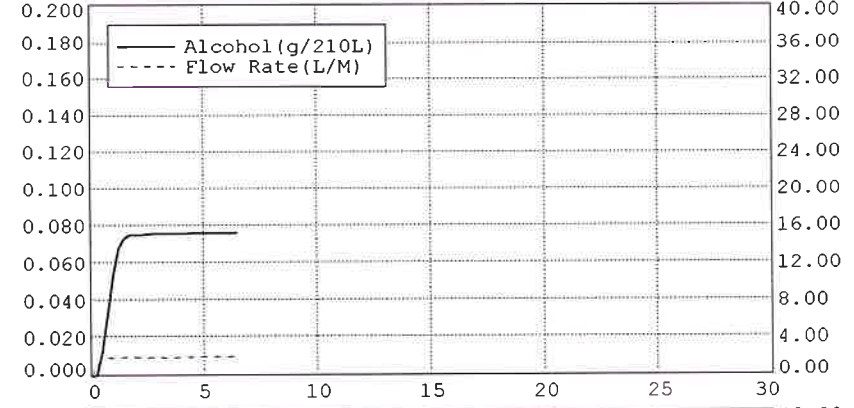
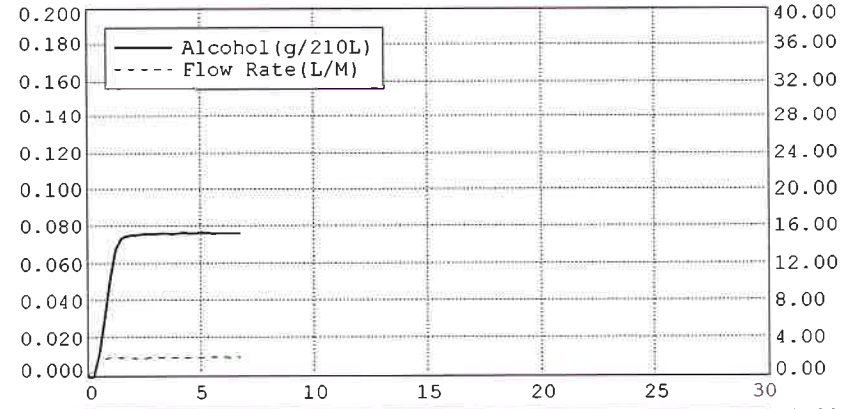
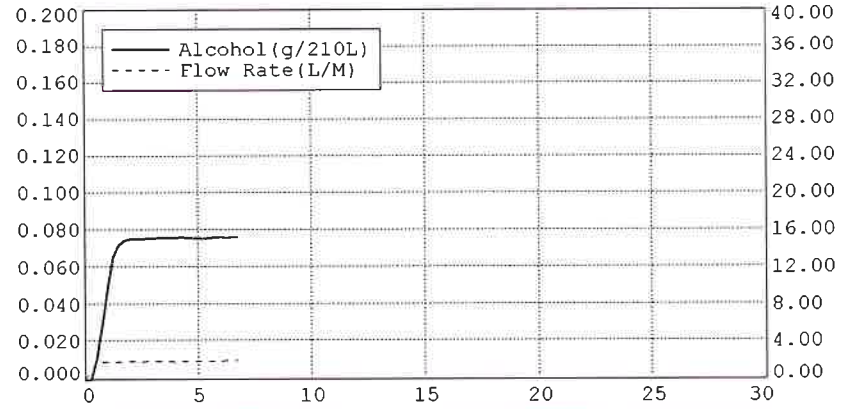
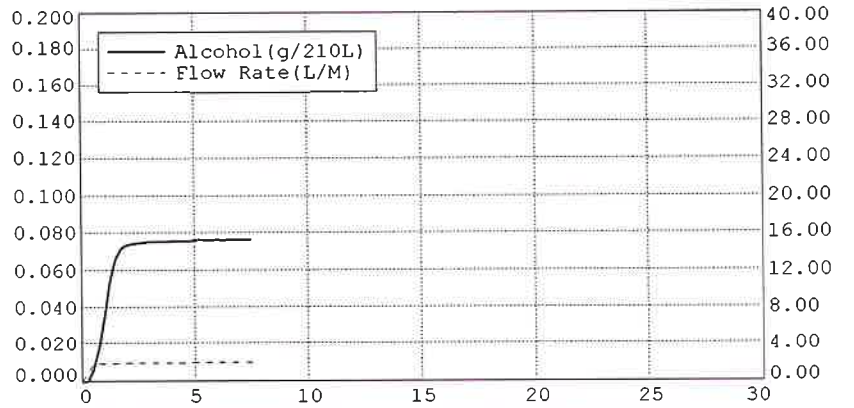
Date: 10/04/2021  
 Time: 12:59:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.88: 0.080  
 LOT #: AG018102  
 EXPIRATION: 06/29/2022  
 TANK PRESSURE: 310 psi

BLANK TEST	0.000	13:00
INTERNAL STANDARD	VERIFIED	13:00
EXTERNAL STANDARD	0.077	13:00
BLANK TEST	0.000	13:01
EXTERNAL STANDARD	0.077	13:01
BLANK TEST	0.000	13:02
EXTERNAL STANDARD	0.077	13:02
BLANK TEST	0.000	13:03
EXTERNAL STANDARD	0.077	13:03
BLANK TEST	0.000	13:04
EXTERNAL STANDARD	0.077	13:05
BLANK TEST	0.000	13:06

Average = 0.0770  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100386

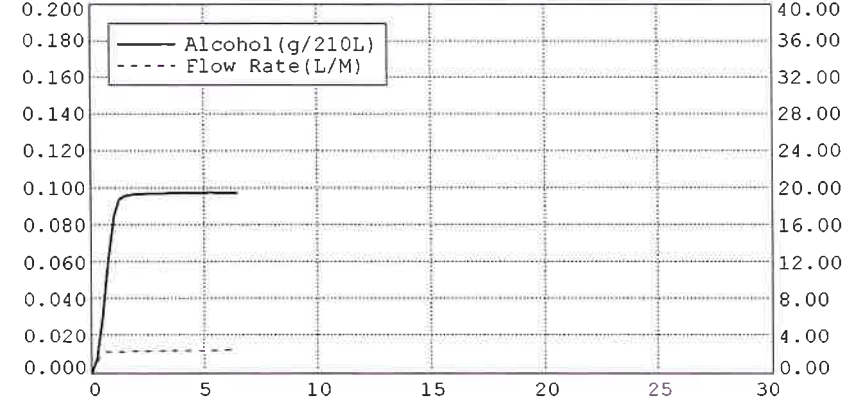
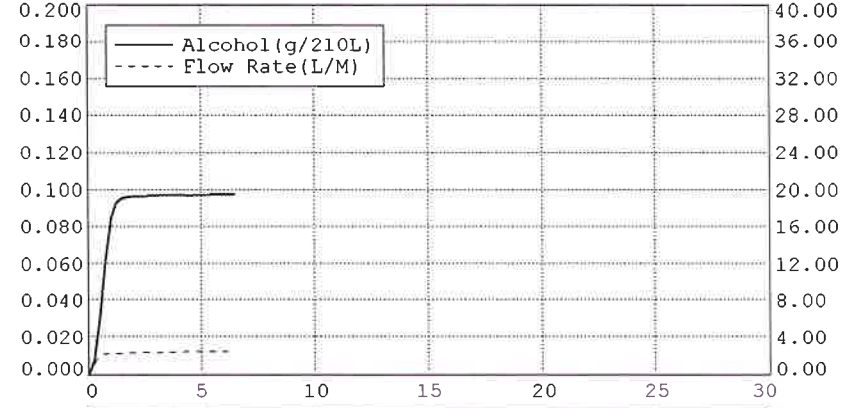
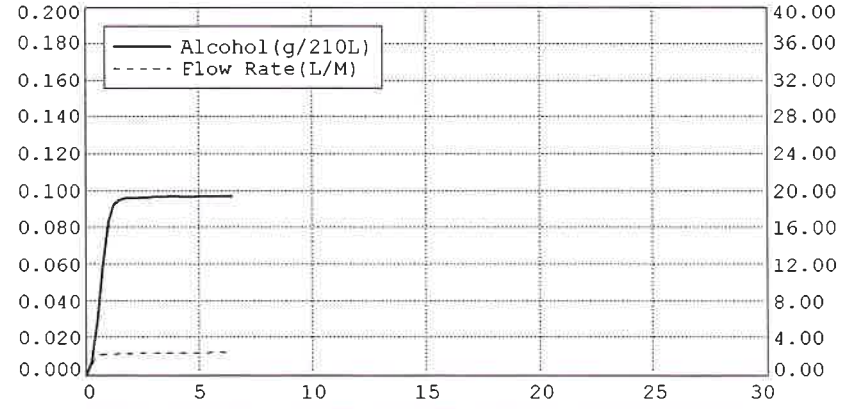
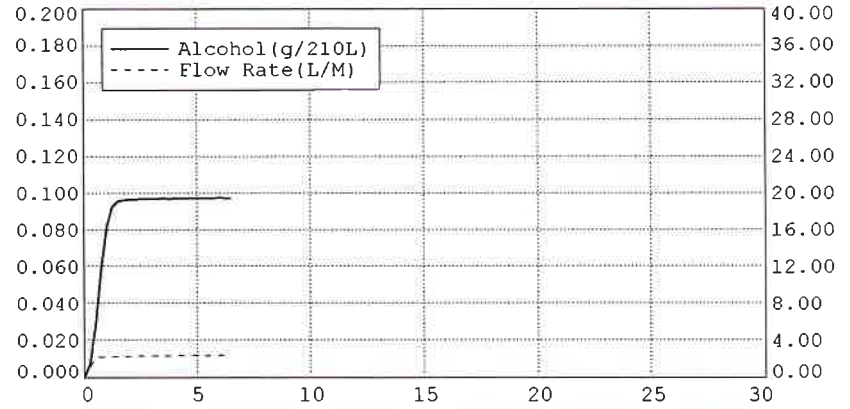
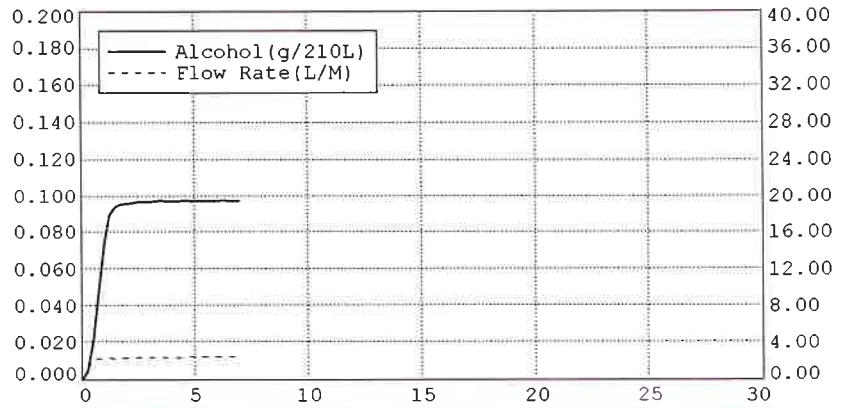
Date: 10/04/2021  
 Time: 13:07:11

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.88: 0.100  
 LOT #: AG108404  
 EXPIRATION: 03/25/2023  
 TANK PRESSURE: 1045 psi

BLANK TEST	0.000	13:08
INTERNAL STANDARD	VERIFIED	13:08
EXTERNAL STANDARD	0.099	13:08
BLANK TEST	0.000	13:09
EXTERNAL STANDARD	0.099	13:09
BLANK TEST	0.000	13:10
EXTERNAL STANDARD	0.098	13:10
BLANK TEST	0.000	13:11
EXTERNAL STANDARD	0.099	13:12
BLANK TEST	0.000	13:12
EXTERNAL STANDARD	0.099	13:13
BLANK TEST	0.000	13:14

Average = 0.0988  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

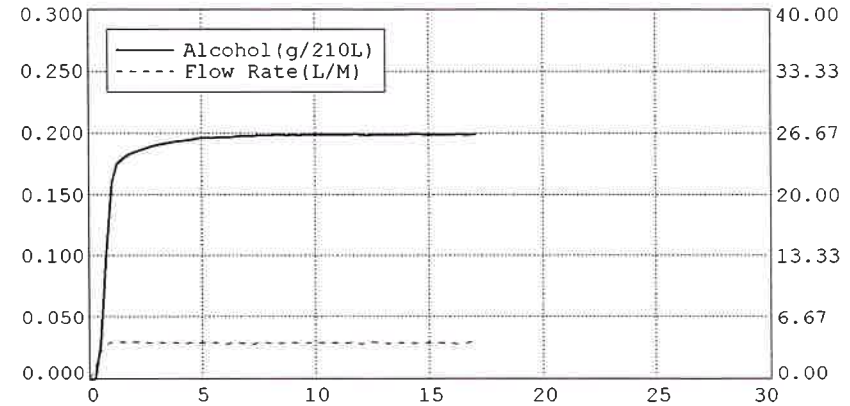
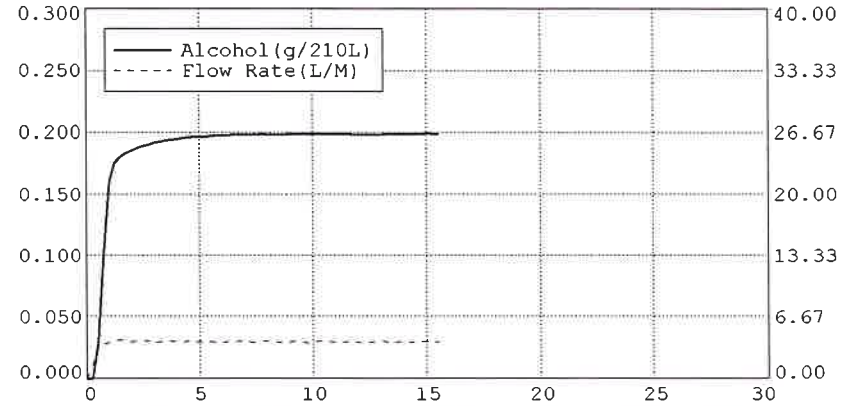
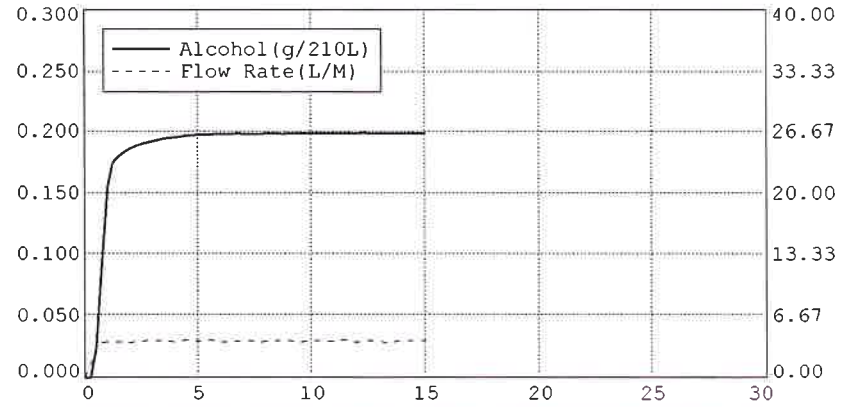
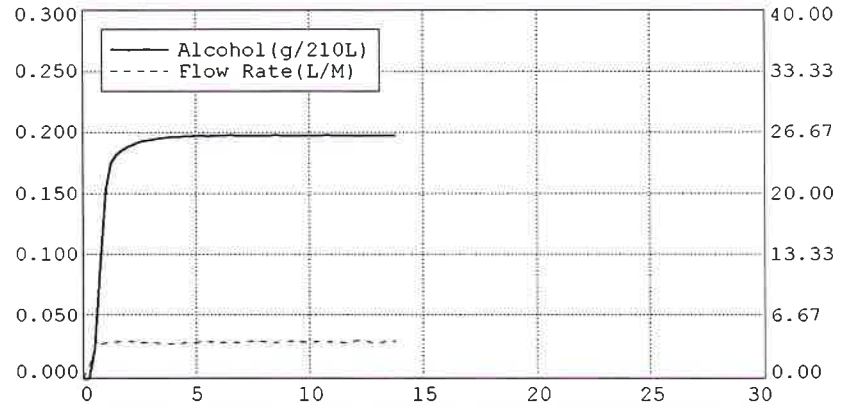
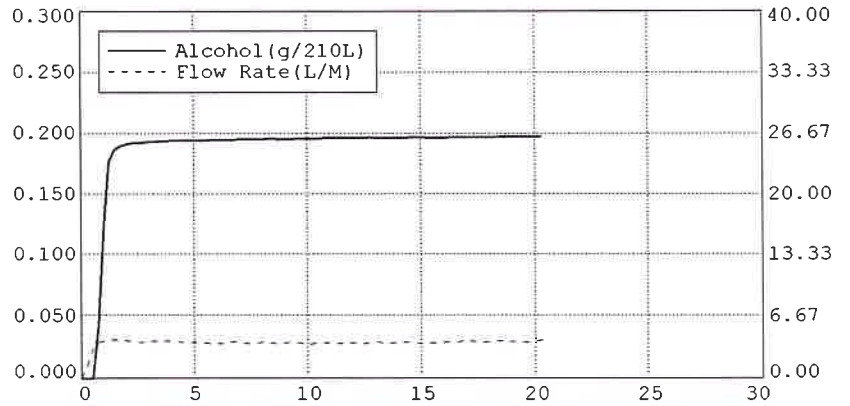
Alaska Department of Public Safety  
 DATAMASTER dmt: 100386

Date: 10/04/2021  
 Time: 15:05:32

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: 20510  
 EXPIRATION: 12/03/2022

BLANK TEST	0.000	15:06
INTERNAL STANDARD	VERIFIED	15:07
EXTERNAL STANDARD	0.198	15:07
BLANK TEST	0.000	15:08
EXTERNAL STANDARD	0.199	15:08
BLANK TEST	0.000	15:09
EXTERNAL STANDARD	0.200	15:10
BLANK TEST	0.000	15:10
EXTERNAL STANDARD	0.200	15:11
BLANK TEST	0.000	15:12
EXTERNAL STANDARD	0.200	15:12
BLANK TEST	0.000	15:13

Average = 0.1994  
 Std Dev = 0.0009



LINEARITY CHECK: Control Test 6

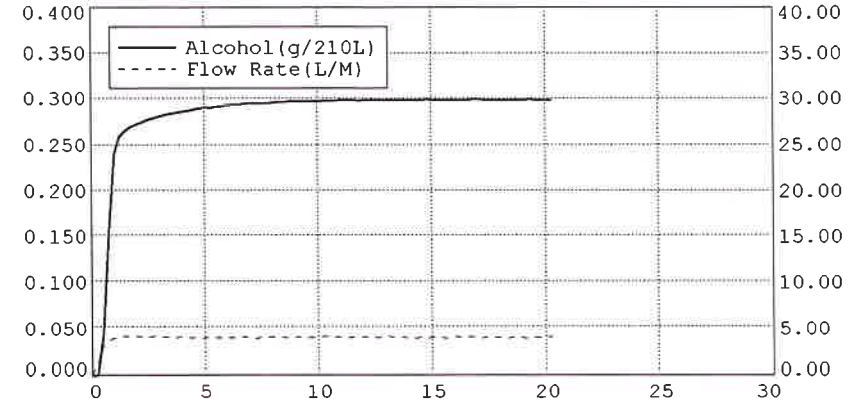
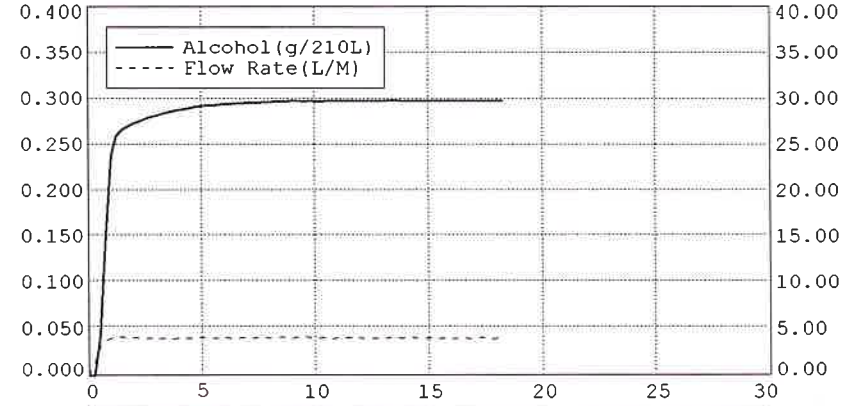
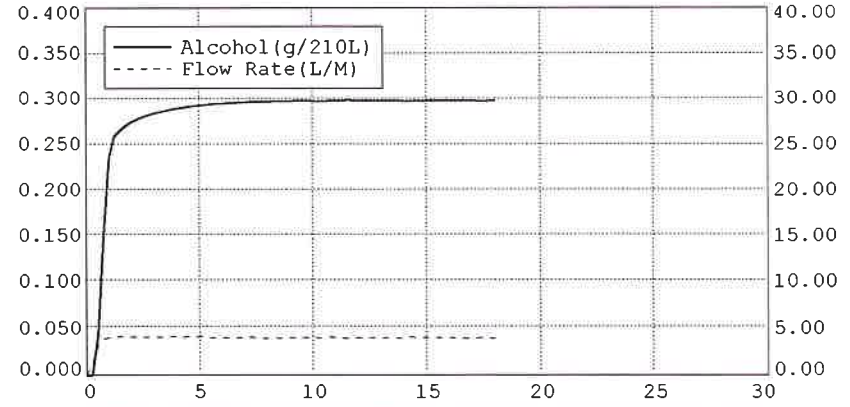
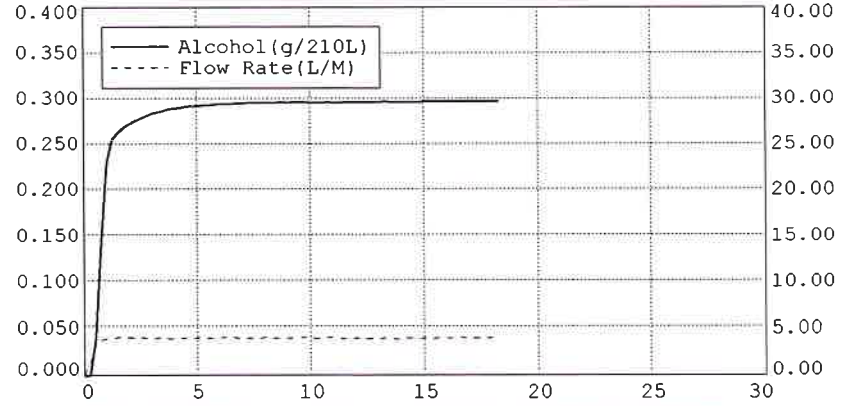
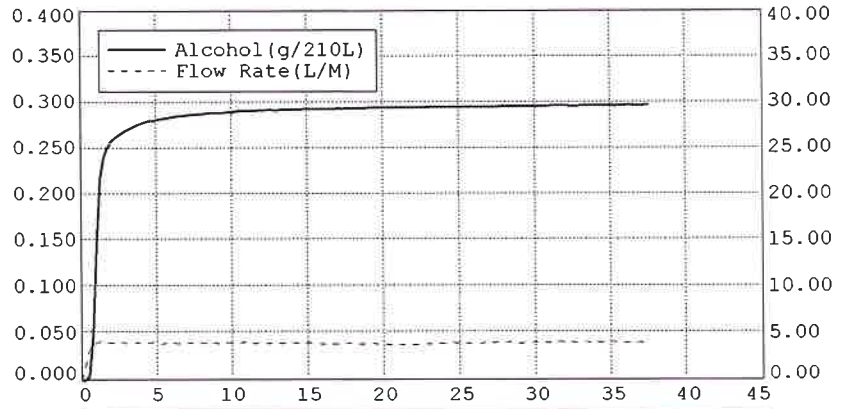
Alaska Department of Public Safety  
 DATAMASTER dmt: 100386

Date: 10/04/2021  
 Time: 15:15:35

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 21030  
 EXPIRATION: 02/02/2023

BLANK TEST	0.000	15:16
INTERNAL STANDARD	VERIFIED	15:16
EXTERNAL STANDARD	0.297	15:17
BLANK TEST	0.000	15:18
EXTERNAL STANDARD	0.297	15:18
BLANK TEST	0.000	15:19
EXTERNAL STANDARD	0.299	15:20
BLANK TEST	0.000	15:21
EXTERNAL STANDARD	0.298	15:21
BLANK TEST	0.000	15:22
EXTERNAL STANDARD	0.298	15:22
BLANK TEST	0.000	15:23

Average = 0.2978  
 Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100386

Date: 10/04/2021  
Time: 15:41:12

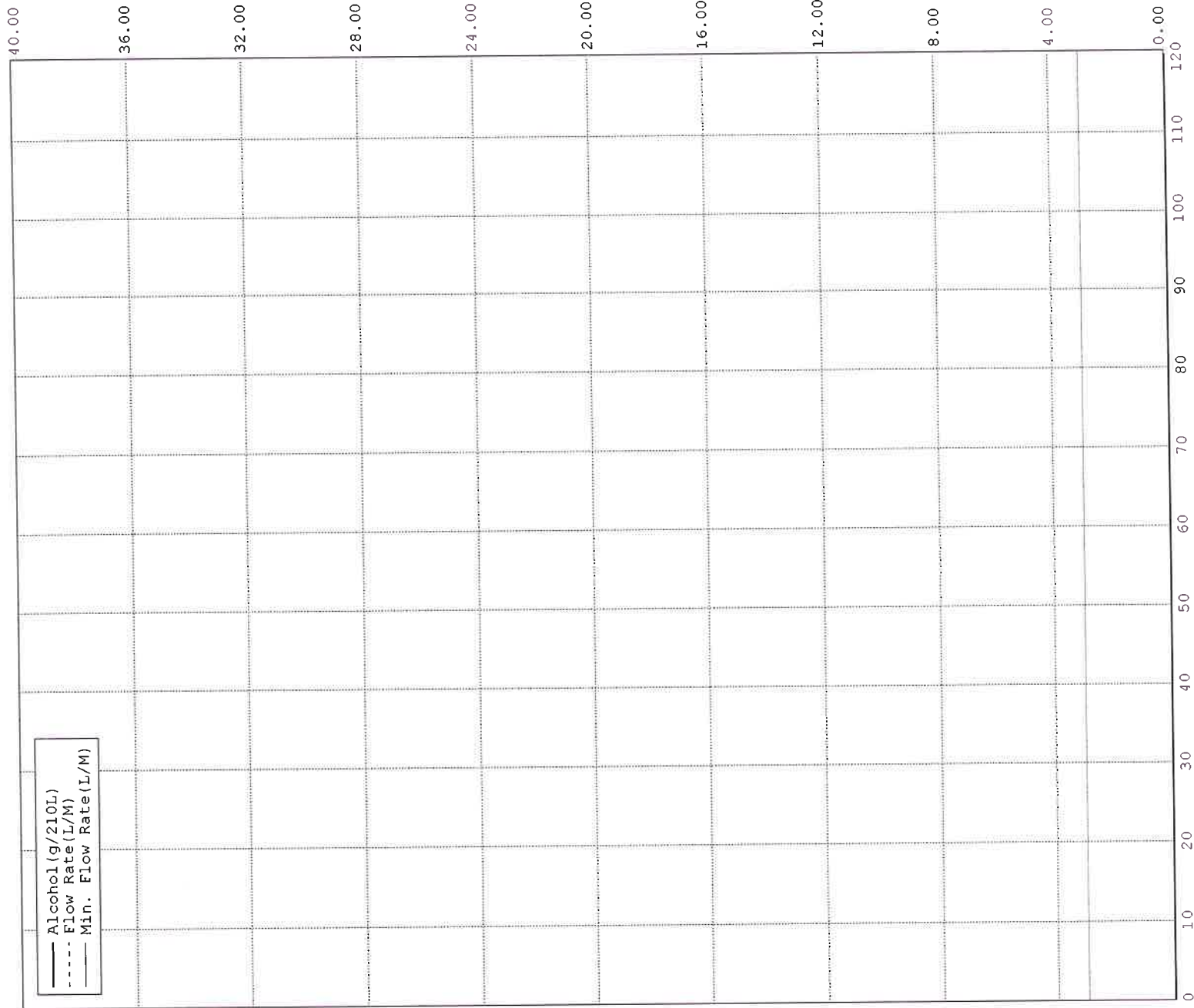
SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 16:42  
BLANK TEST 0.000 16:42  
INTERNAL STANDARD VERIFIED 16:42  
EXTERNAL STANDARD 0.077 16:42  
BLANK TEST 0.000 16:43  
SUBJECT SAMPLE INCOMPLETE 16:45



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100386

Date: 10/05/2021  
Time: 08:18:30

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

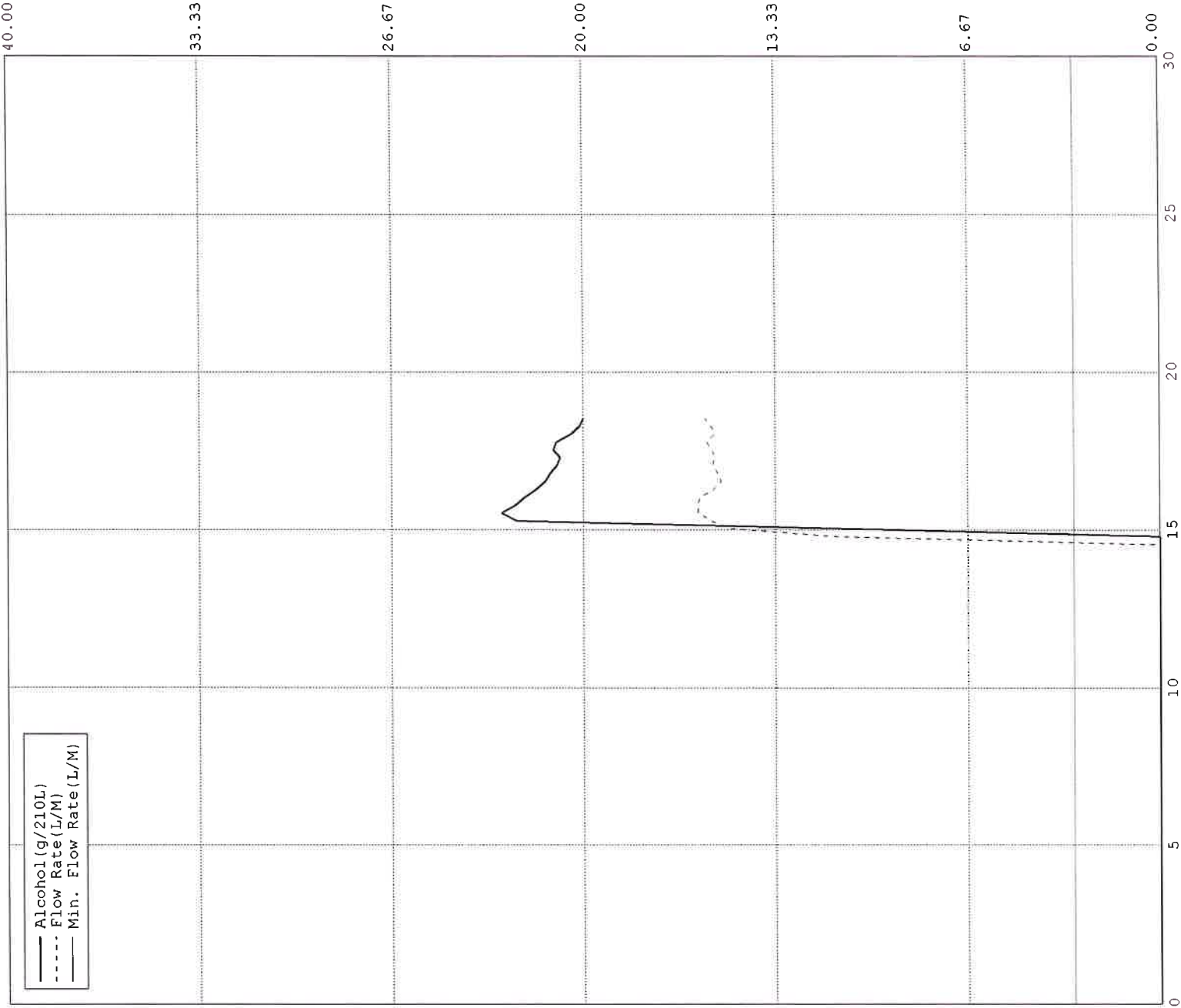
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	08:19
BLANK TEST	0.000	08:20
INTERNAL STANDARD	VERIFIED	08:20
EXTERNAL STANDARD	0.076	08:20
BLANK TEST	0.000	08:21
SUBJECT SAMPLE	INVALID	08:21



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100386

Date: 10/05/2021  
Time: 08:34:30

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAAA  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG018102  
EXPIRATION: 06/29/2022

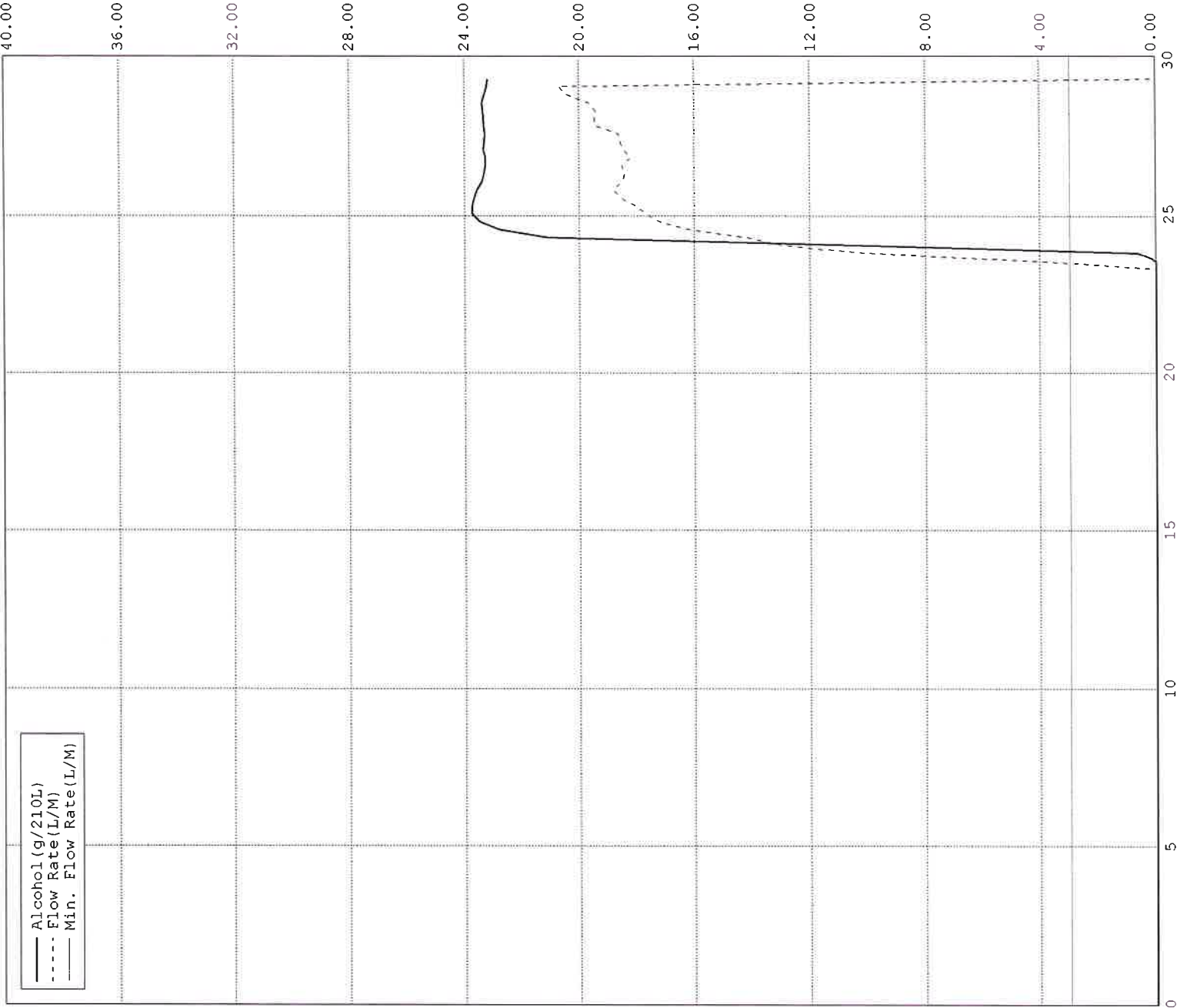
DIAGNOSTIC CHECK PASSED 08:35  
BLANK TEST 0.000 08:36  
INTERNAL STANDARD VERIFIED 08:36  
Xq = 0.093 (1.62%)  
EXTERNAL STANDARD 0.076 08:36  
X[1] = 0.0764 (-0.0007) (0.0010)  
BLANK TEST 0.000 08:37  
SUBJECT SAMPLE XXX 08:37  
X[1] = 0.1163 (-0.0283) (-0.0010)

Interference Detected

Filter 2 Average: -0.0004

Filter 3 Average: 0.0014

COB 2021.10.05



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100386

Date: 10/05/2021  
Time: 08:27:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

OPERATOR NAME:  
COLLEEN S OBRYANT  
OPERATOR'S #: 6237

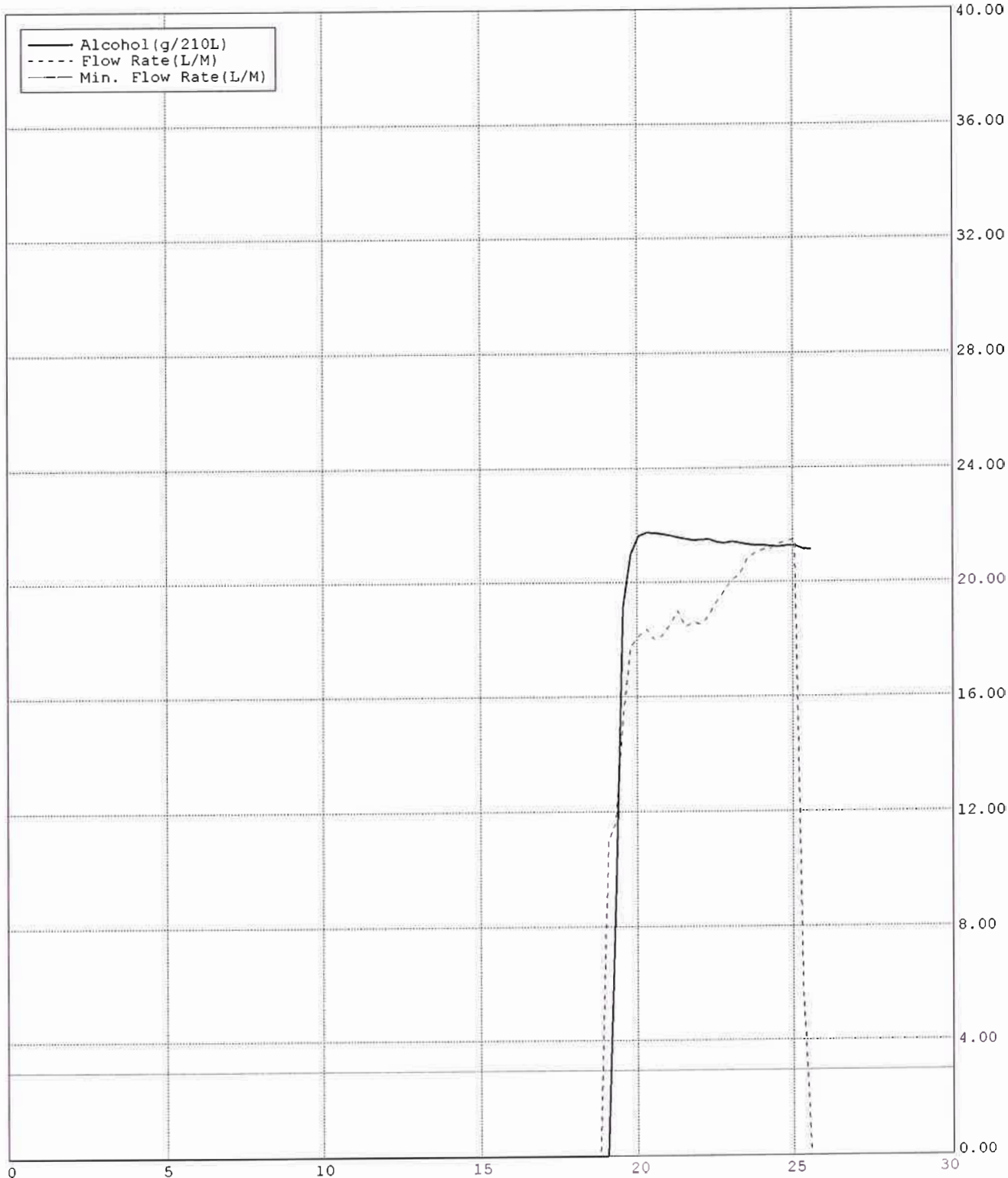
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	08:29
BLANK TEST	0.000	08:29
INTERNAL STANDARD	VERIFIED	08:29
Xq = 0.093 (1.24%)		
EXTERNAL STANDARD	0.076	08:29
X[1] = 0.0764 (-0.0001) (0.0016)		
BLANK TEST	0.000	08:30
SUBJECT SAMPLE	XXX	08:31
X[1] = 0.1066 (-0.0121) (0.0013)		

Interference Detected

*POB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100386

Date: 10/05/2021  
Time: 08:40:49

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

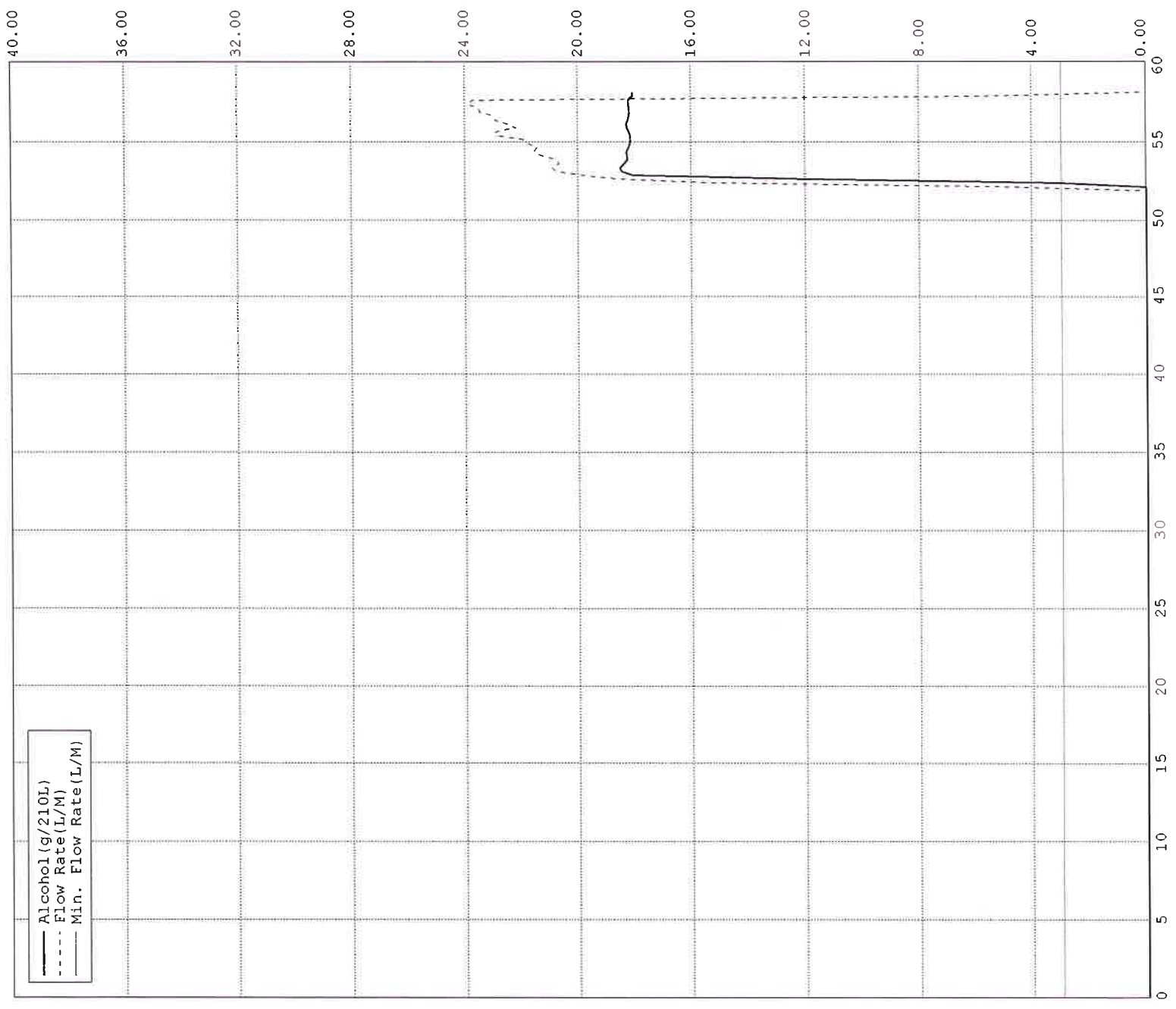
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	08:42
BLANK TEST	0.000	08:42
INTERNAL STANDARD	VERIFIED	08:42
Xq = 0.094 (2.09%)		
EXTERNAL STANDARD	0.077	08:42
X[1] = 0.0770 (-0.0006)	(0.0016)	
BLANK TEST	0.000	08:43
SUBJECT SAMPLE (Vol=2.03L)	0.091	08:44
X[1] = 0.0914 (-0.0008)	(-0.0006)	
BLANK TEST	0.000	08:45
EXTERNAL STANDARD	0.076	08:45
X[1] = 0.0764 (-0.0002)	(0.0013)	
BLANK TEST	0.000	08:46

*CUB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100386

Date: 10/05/2021  
Time: 08:51:11

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

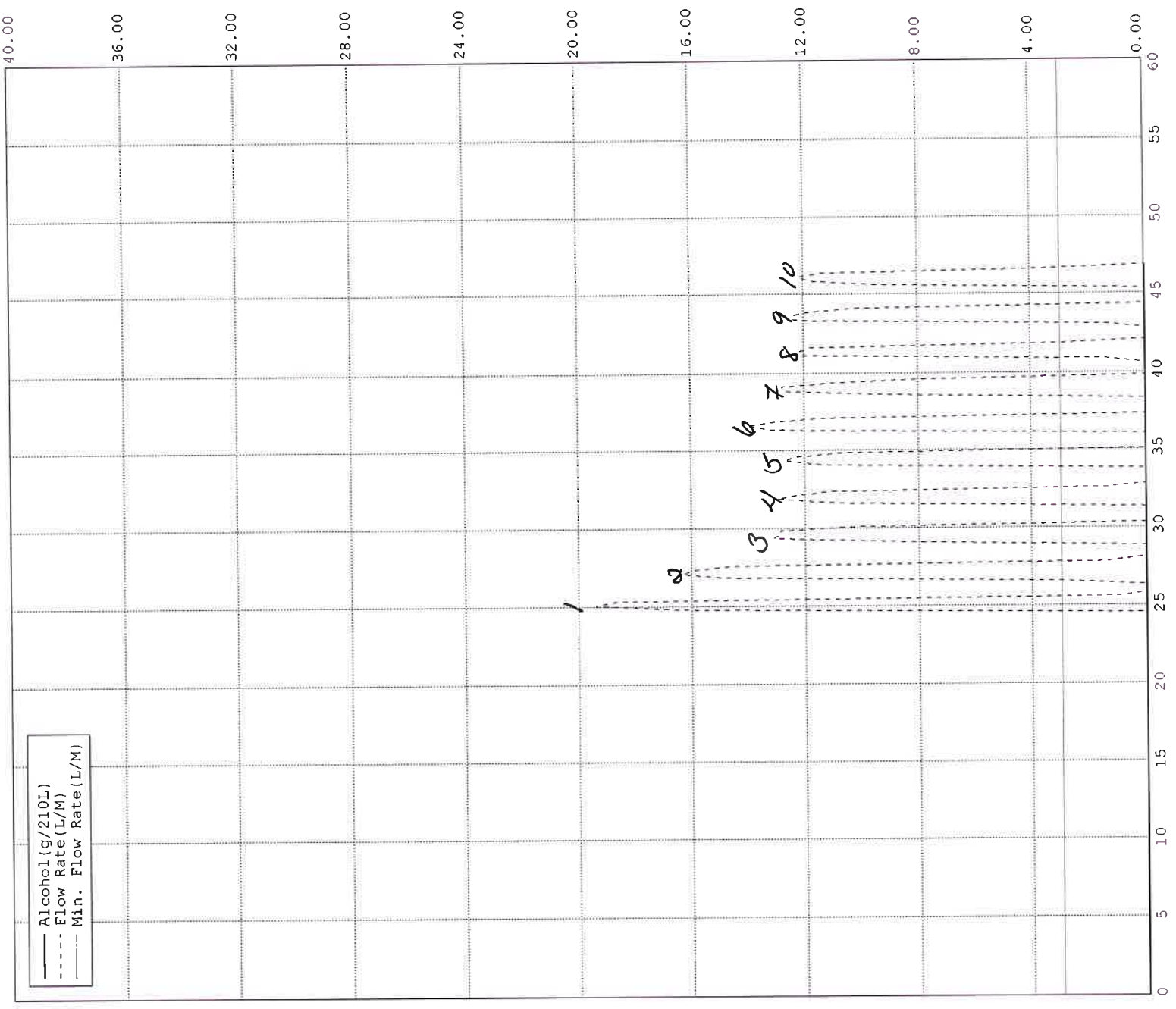
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	08:52
BLANK TEST	0.000	08:52
INTERNAL STANDARD	VERIFIED	08:52
EXTERNAL STANDARD	0.077	08:52
BLANK TEST	0.000	08:53
SUBJECT SAMPLE	XXX	08:54

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100386

Date: 10/05/2021  
Time: 09:01:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

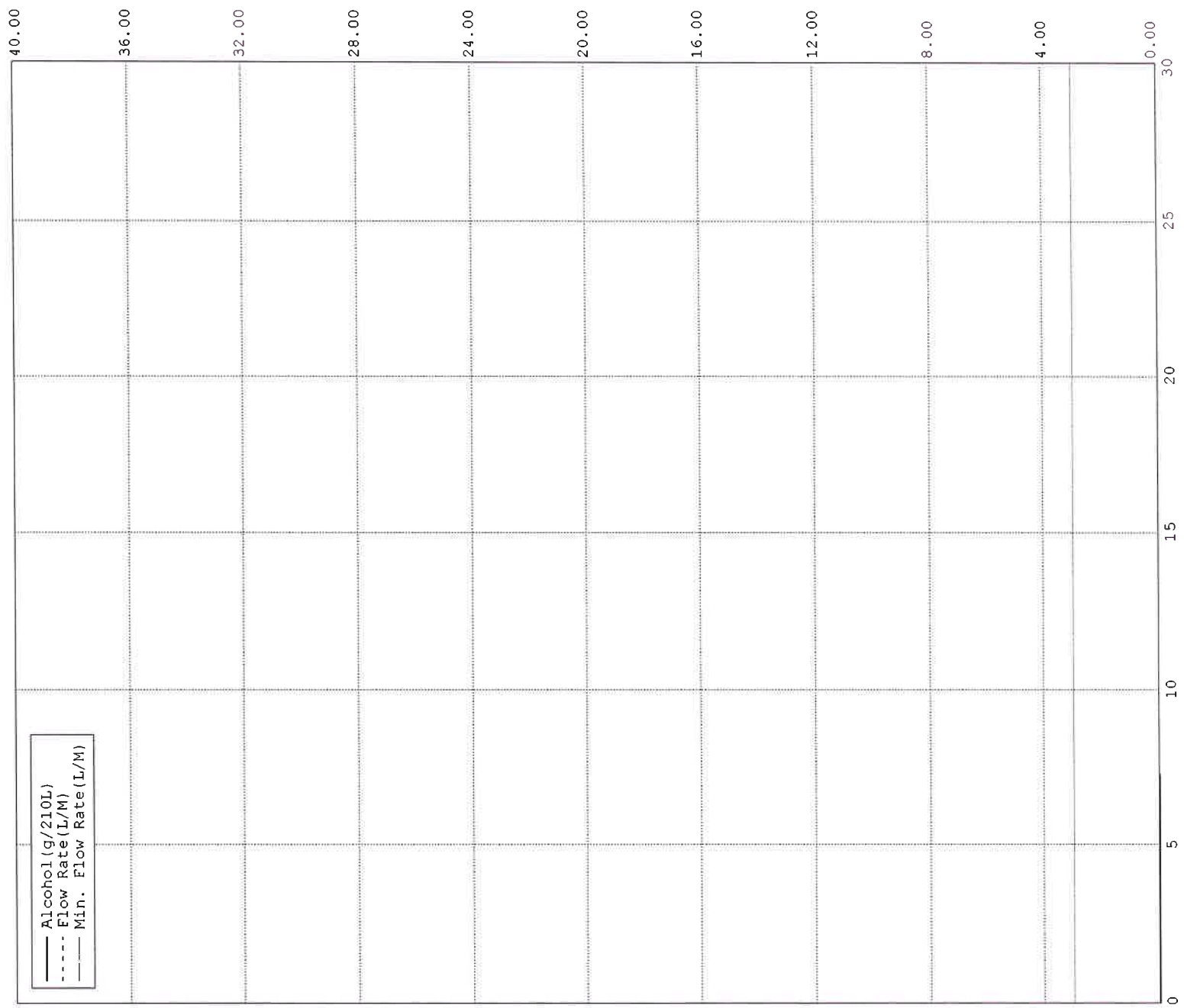
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 09:10  
BLANK TEST 0.000 09:10  
INTERNAL STANDARD VERIFIED 09:10  
EXTERNAL STANDARD 0.077 09:10  
BLANK TEST 0.000 09:11

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100386

Date: 10/05/2021  
Time: 09:23:11

SUBJECT NAME:  
TEST TEST  
LICENSE #: NONDRINKING

OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	09:24
BLANK TEST	0.000	09:24
INTERNAL STANDARD	VERIFIED	09:24
EXTERNAL STANDARD	0.077	09:24
BLANK TEST	0.000	09:25
SUBJECT SAMPLE (Vol=1.91L)	0.000	09:25
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.077	09:27
BLANK TEST	0.000	09:27

