

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Effective: 11/10/2021

Version: 2.0

Instrument #: 100381 Analyst: C. Bryant Start Date: 11/23/21

- Diagnostic Test (attached)
- Adjust voltages, if needed
  - Lamp (2.6V Maximum)
  - Bias
  - Cooler (2.0V Maximum)
- Internal Standard value  $\leq$  3.00%
  - Chopper Frequency
  - Detector Voltage (-0.100V to 0.100V)
- Set RFI Sensitivity
- 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)
- Minimum Volume Test 1.6 L (1.3L to 1.7L)

### Linearity Test (attached)

0.020g/210L Mnf: Aucas Lot: AG100401 Exp: 1/4/23  
0.040g/210L Mnf: Aucas Lot: AG111710 Exp: 4/27/23  
0.080g/210L Mnf: Aucas Lot: AG018102 Exp: 6/29/22  
0.100g/210L Mnf: Aucas Lot: AG108404 Exp: 3/25/23  
0.200g/210L Mnf: Guth Lot: 20510 Exp: 12/13/22  
Simulator S/N: DR4161 Date Calibrated: 6/16/21  
0.300g/210L Mnf: Guth Lot: 21030 Exp: 2/2/23  
Simulator S/N: UD1202 Date Calibrated: 6/15/21

### Functional Tests (attached)

- Incomplete
- Invalid
- Maximum Attempts Exceeded
- Radio Frequency Interference
- Interference (Volatiles)

Acetone Mnf: Life/oc Lot: 21DP41158 Level: 0.100 Exp: 4/29/23  
Simulator S/N: 01177 Date Calibrated: 6/15/21  
Isopropanol Mnf: Life/oc Lot: 21DP41158 Level: 0.100 Exp: 4/29/23  
Simulator S/N: 01198 Date Calibrated: 6/15/21  
Neg. Control Mnf: Life/oc Lot: 21DP41158 Level: 0.100 Exp: 4/29/23  
Simulator S/N: 01088 Date Calibrated: 6/15/21

- Verify stylus is calibrated
- Non-Drinking Subject Test
- Reset Options
- Upload
- Clear Memory
- Remove Tank Prior to Shutdown
- Verification of Calibration
- Add Linearity Data to Spreadsheet

End Date: 11/24/21

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100381  
-----

Date: 11/23/2021  
Time: 07:11:46

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

TEMPERATURES

Sample Chamber = 49.1°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.70 V PASSED  
(1.02 V - 2.38 V)  
Cooler Voltage = 1.65 V PASSED  
(0.97 V - 2.27 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 531 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.3 in

PUMP INFO

Flow Rate = 4.648 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 = 0.092 0.38% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100381  
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Date: 11/23/2021  
Time: 3:04 PM

Temperatures (°C)

Sample Cell: 48.9°C  
Breath Tube: 48.0°C

Current Barometer 29.3 in  
Volume (Ltr) 1.50

Settings

Lamp: 1.70 V  
Bias: 80 V  
Cooler: 1.70 V  
Chopper: 530 Hz

Voltages (V)

Flow: 1.08 V  
Detector: 0.031 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100381  
-----

Date: 08/12/2015  
Time: 10:43:14

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

Ca = 0.1000  
CAL = 0.951119    0.800 <= CAL < 1.200  
b1 = 0.0003    0.0000 <= b1 < 0.0040  
b2 = 0.0036    0.0010 <= b2 < 0.0100  
b3 = 0.0003    0.0000 <= b3 < 0.0040  
Xq = 0.0913    0.0500 <= Xq < 0.2000  
a21 = 1.088949    1.050 <= a21 < 1.300  
a31 = 0.418374    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 11/23/2021  
Time: 15:13:19

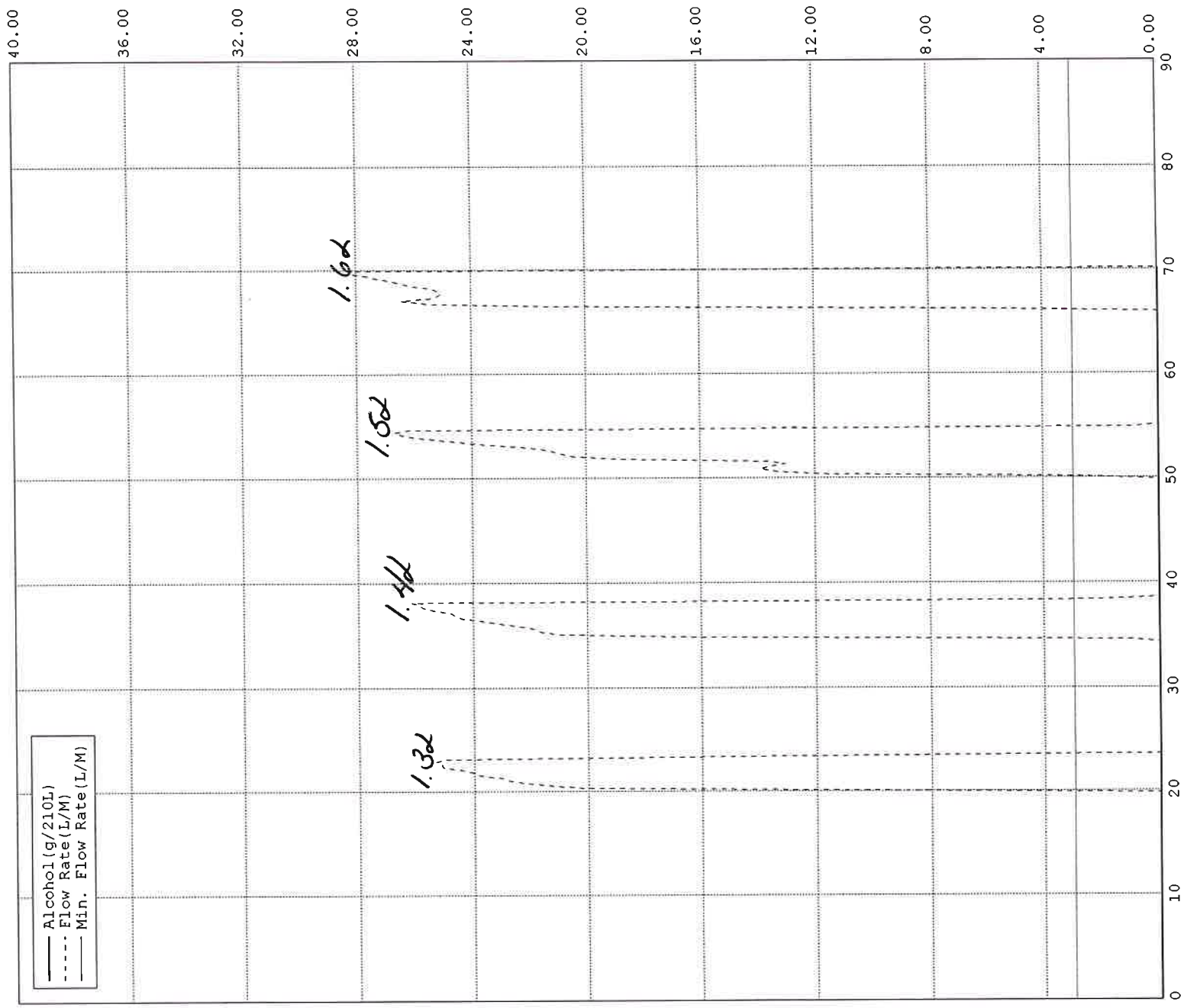
SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

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

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.35: 0.078  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	15:14
BLANK TEST	0.000	15:14
INTERNAL STANDARD	VERIFIED	15:14
EXTERNAL STANDARD	0.076	15:15
BLANK TEST	0.000	15:15
SUBJECT SAMPLE (Vol=1.65L)	0.000	15:17
BLANK TEST	0.000	15:18
EXTERNAL STANDARD	0.075	15:18
BLANK TEST	0.000	15:19



LINEARITY CHECK

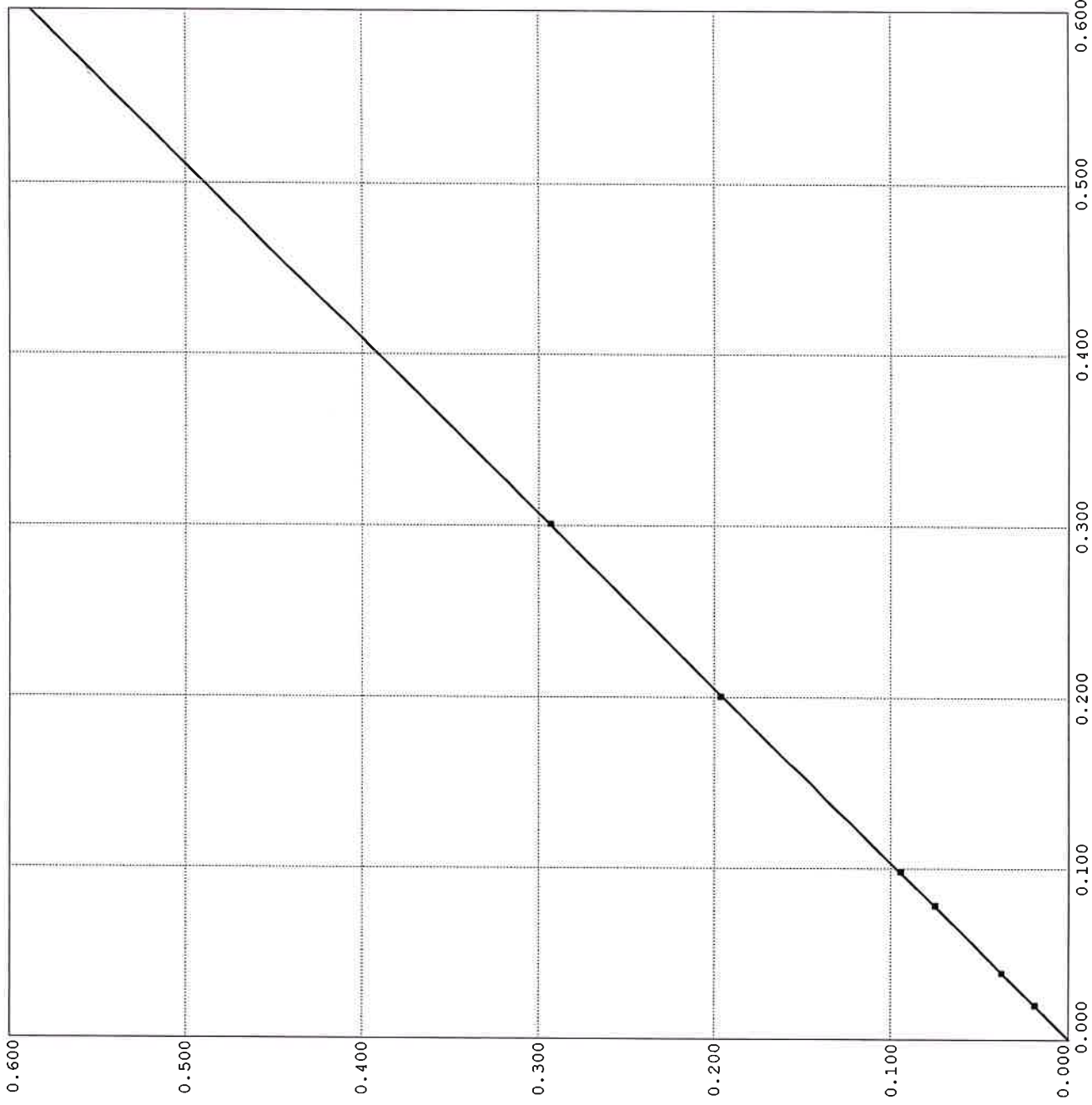
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100381  
 -----

Date: 11/23/2021  
 Time: 15:27:45

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0196	0.0005
0.039	0.0384	0.0005
0.078	0.0760	0.0000
0.098	0.0954	0.0005
0.200	0.1970	0.0000
0.300	0.2938	0.0004

SLOPE = 0.981081  
 R<sup>2</sup> = 0.999971



*CS*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

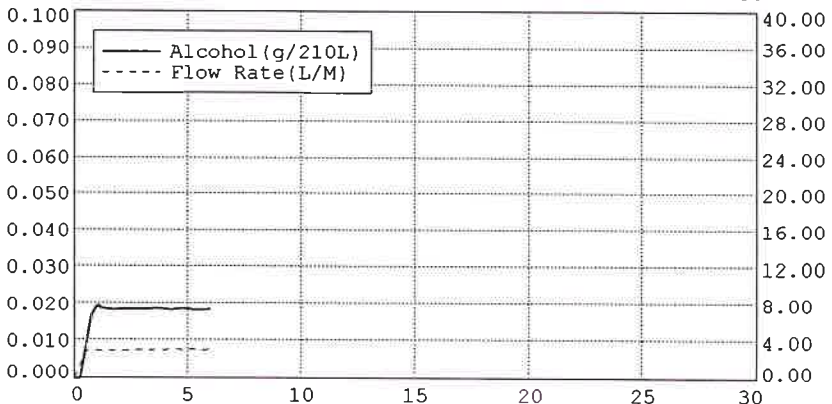
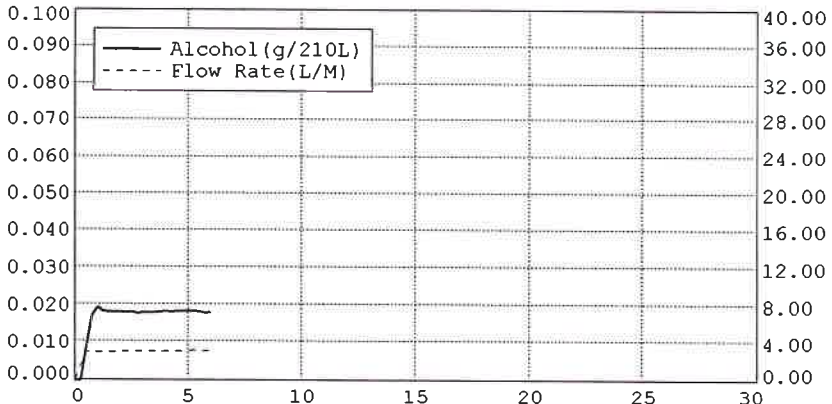
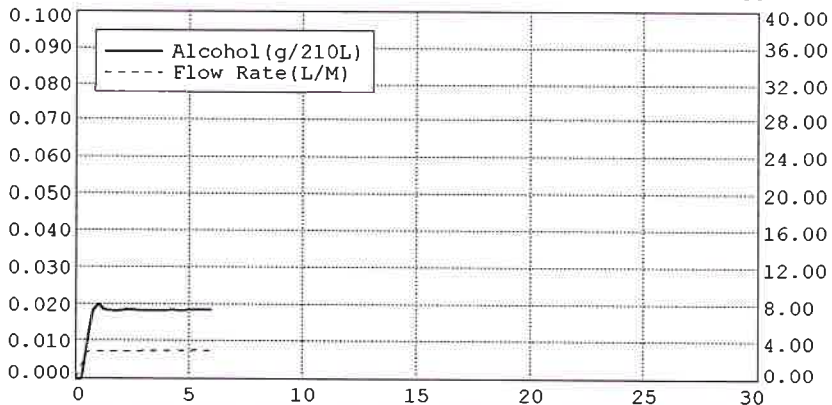
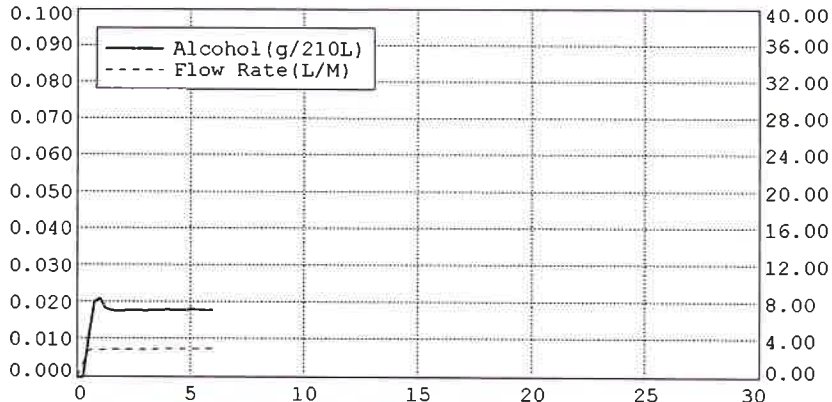
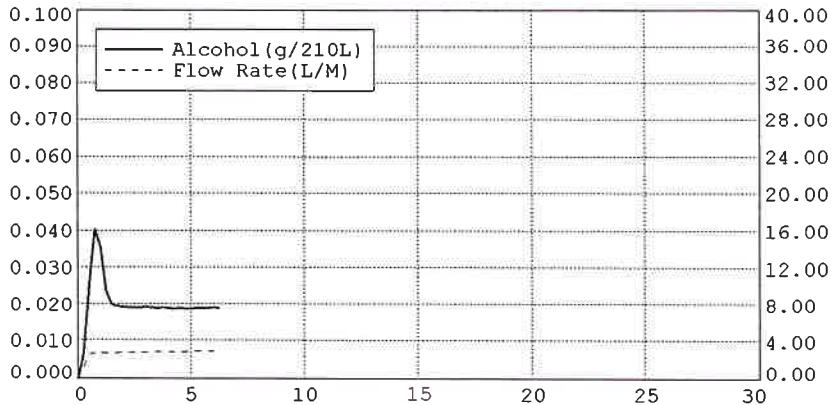
Date: 11/23/2021  
 Time: 15:27:48

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.34: 0.020  
 LOT #: AG100401  
 EXPIRATION: 01/04/2023  
 TANK PRESSURE: 974 psi

BLANK TEST	0.000	15:34
INTERNAL STANDARD	VERIFIED	15:35
EXTERNAL STANDARD	0.020	15:35
BLANK TEST	0.000	15:36
EXTERNAL STANDARD	0.019	15:36
BLANK TEST	0.000	15:37
EXTERNAL STANDARD	0.020	15:37
BLANK TEST	0.000	15:38
EXTERNAL STANDARD	0.019	15:38
BLANK TEST	0.000	15:39
EXTERNAL STANDARD	0.020	15:39
BLANK TEST	0.000	15:40

Average = 0.0196  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

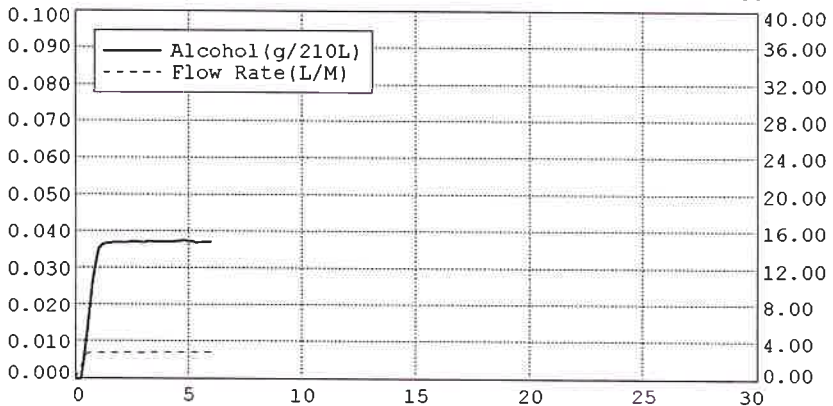
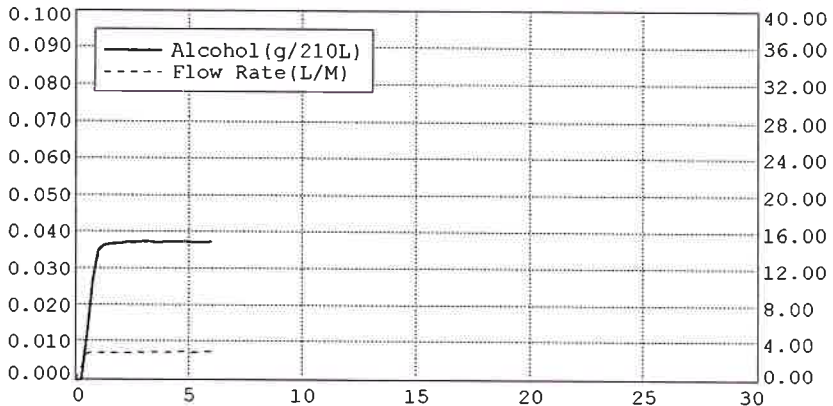
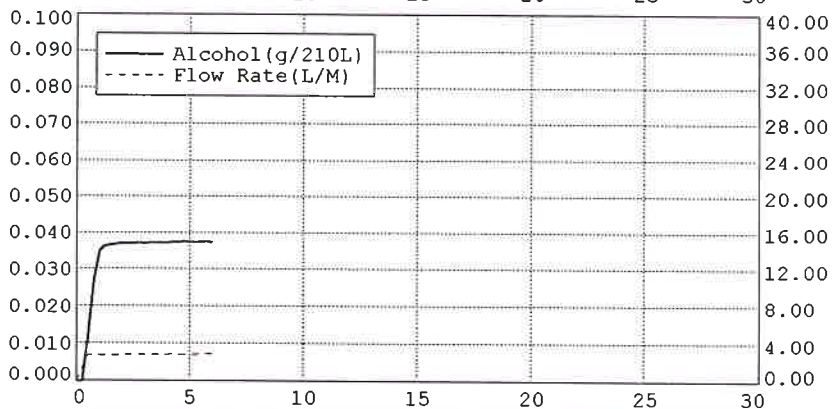
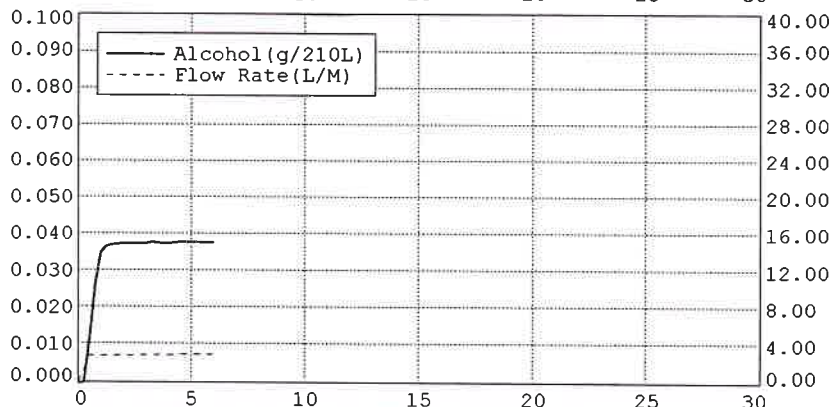
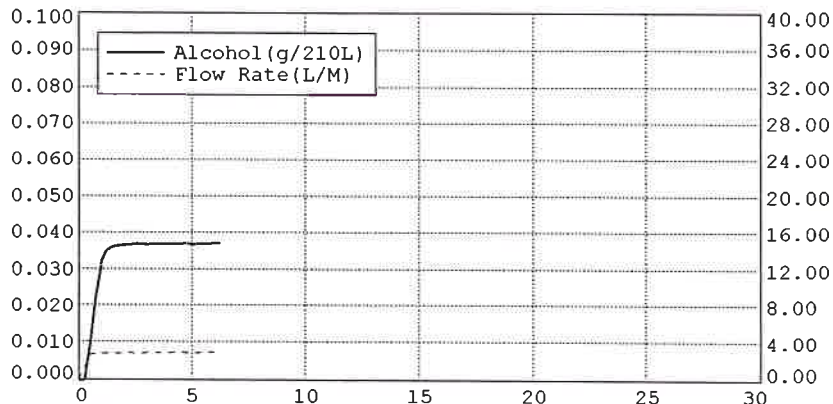
Date: 11/23/2021  
 Time: 15:42:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.33: 0.039  
 LOT #: AG111710  
 EXPIRATION: 04/27/2023  
 TANK PRESSURE: 642 psi

BLANK TEST	0.000	15:43
INTERNAL STANDARD	VERIFIED	15:43
EXTERNAL STANDARD	0.038	15:43
BLANK TEST	0.000	15:44
EXTERNAL STANDARD	0.038	15:44
BLANK TEST	0.000	15:45
EXTERNAL STANDARD	0.039	15:46
BLANK TEST	0.000	15:46
EXTERNAL STANDARD	0.039	15:47
BLANK TEST	0.000	15:48
EXTERNAL STANDARD	0.038	15:48
BLANK TEST	0.000	15:49

Average = 0.0384  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

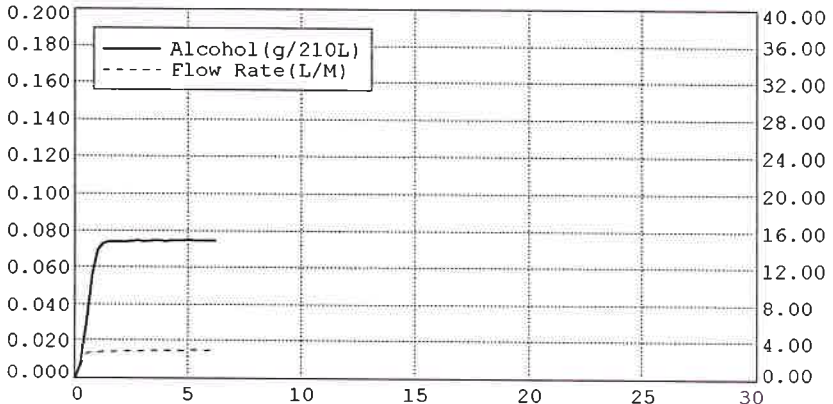
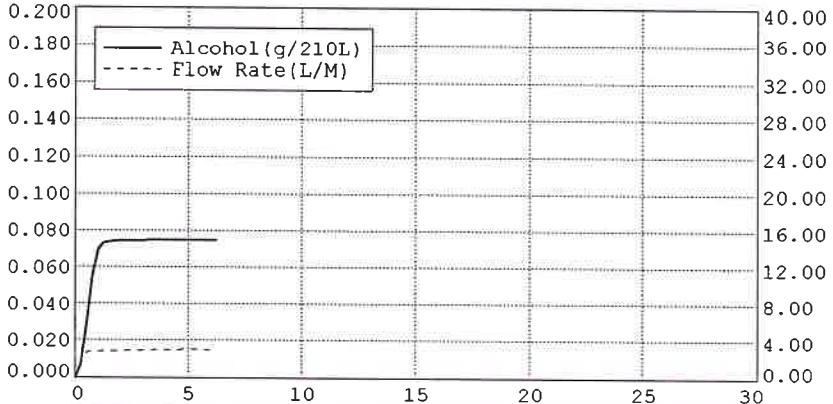
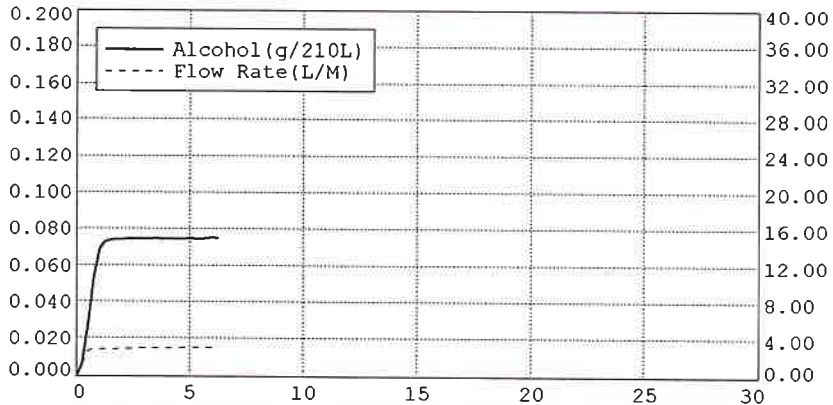
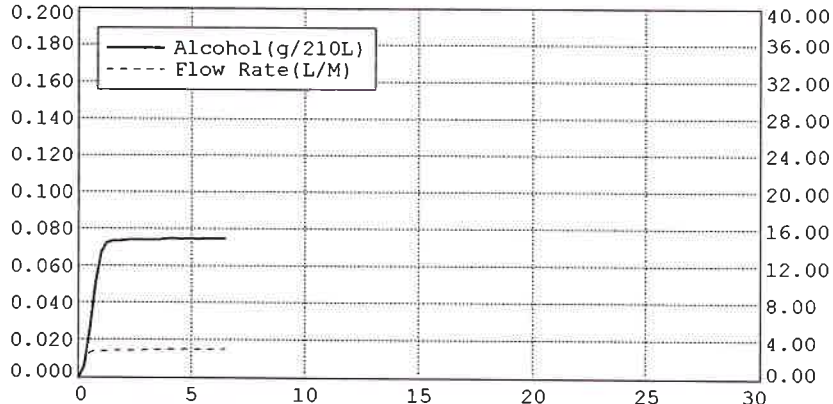
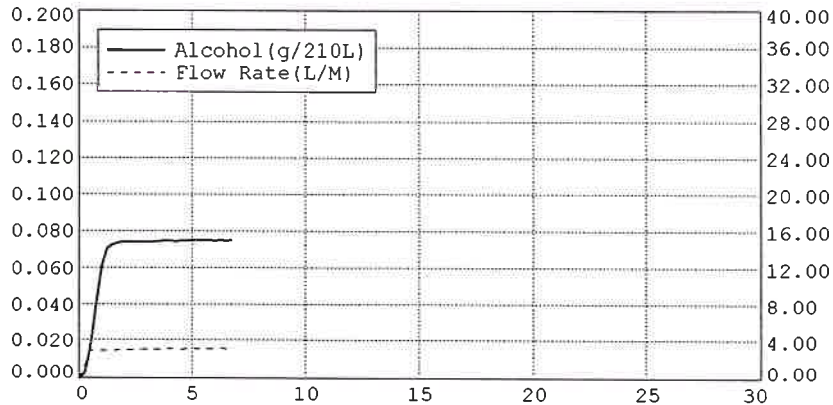
Date: 11/23/2021  
 Time: 15:51:17

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.33: 0.078  
 LOT #: AG018102  
 EXPIRATION: 06/29/2022  
 TANK PRESSURE: 1155 psi

BLANK TEST	0.000	15:52
INTERNAL STANDARD	VERIFIED	15:52
EXTERNAL STANDARD	0.076	15:52
BLANK TEST	0.000	15:53
EXTERNAL STANDARD	0.076	15:53
BLANK TEST	0.000	15:54
EXTERNAL STANDARD	0.076	15:54
BLANK TEST	0.000	15:55
EXTERNAL STANDARD	0.076	15:56
BLANK TEST	0.000	15:56
EXTERNAL STANDARD	0.076	15:57
BLANK TEST	0.000	15:58

Average = 0.0760  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

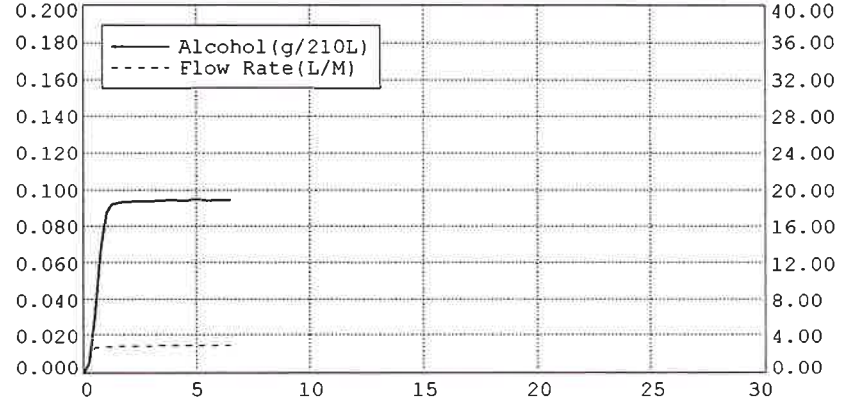
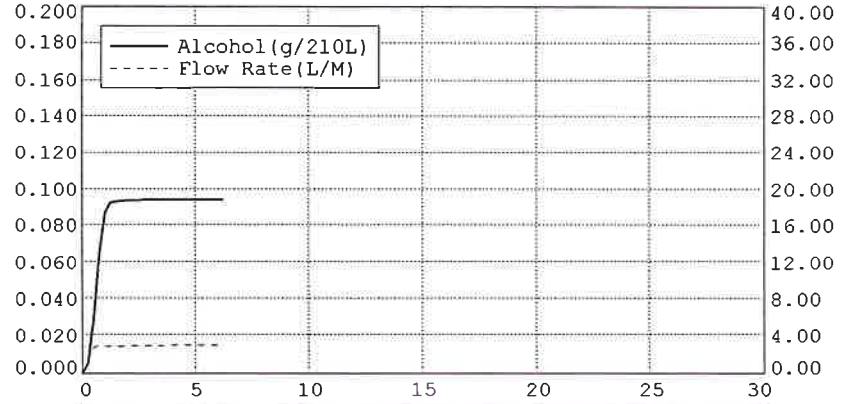
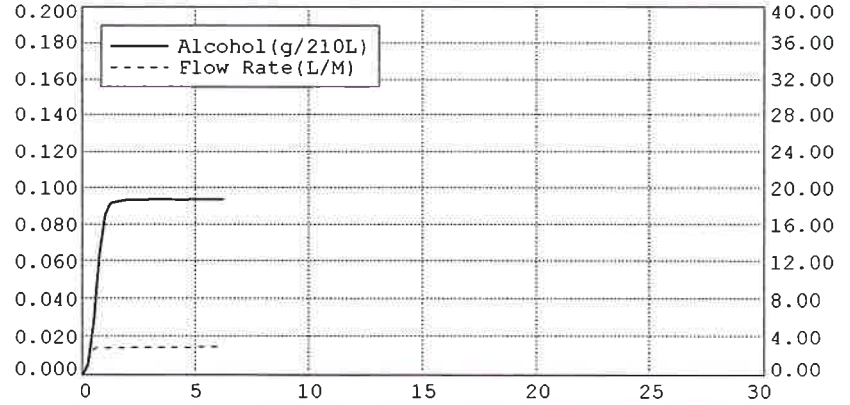
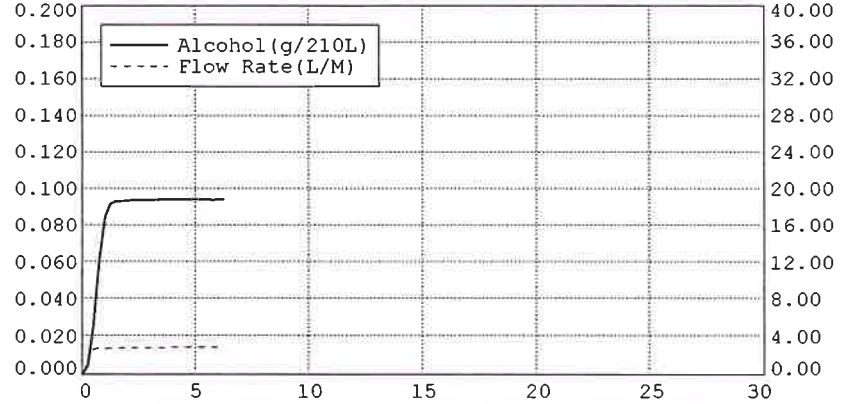
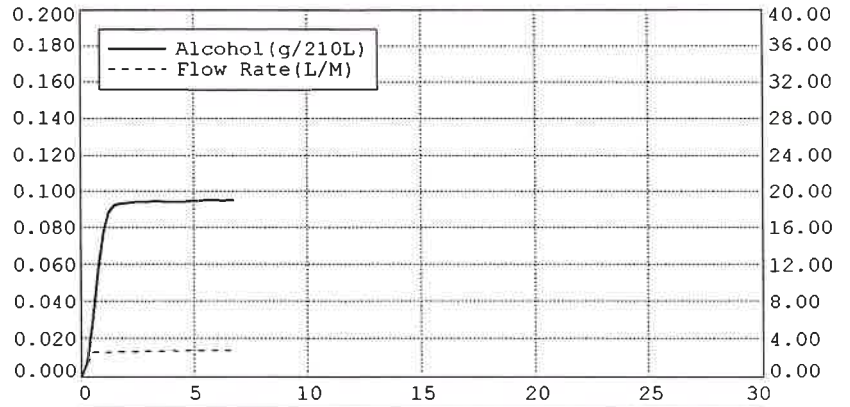
Date: 11/23/2021  
Time: 15:58:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
TARGET AT 29.32: 0.098  
LOT #: AG108404  
EXPIRATION: 03/25/2023  
TANK PRESSURE: 730 psi

BLANK TEST	0.000	15:59
INTERNAL STANDARD	VERIFIED	16:00
EXTERNAL STANDARD	0.096	16:00
BLANK TEST	0.000	16:01
EXTERNAL STANDARD	0.095	16:01
BLANK TEST	0.000	16:02
EXTERNAL STANDARD	0.095	16:02
BLANK TEST	0.000	16:03
EXTERNAL STANDARD	0.095	16:03
BLANK TEST	0.000	16:04
EXTERNAL STANDARD	0.096	16:04
BLANK TEST	0.000	16:05

Average = 0.0954  
Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

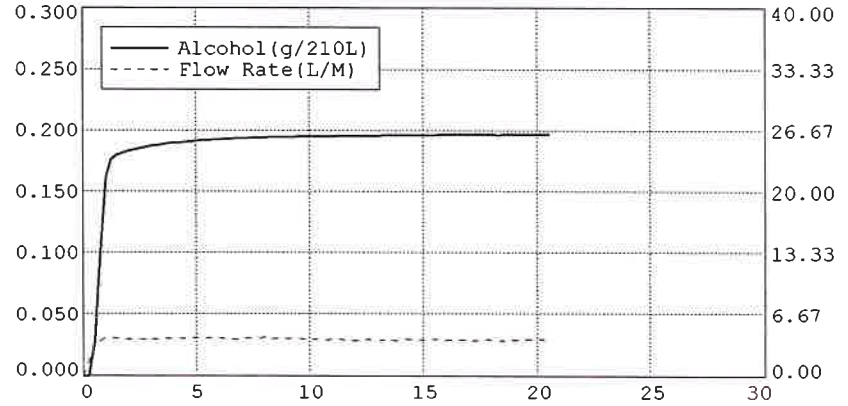
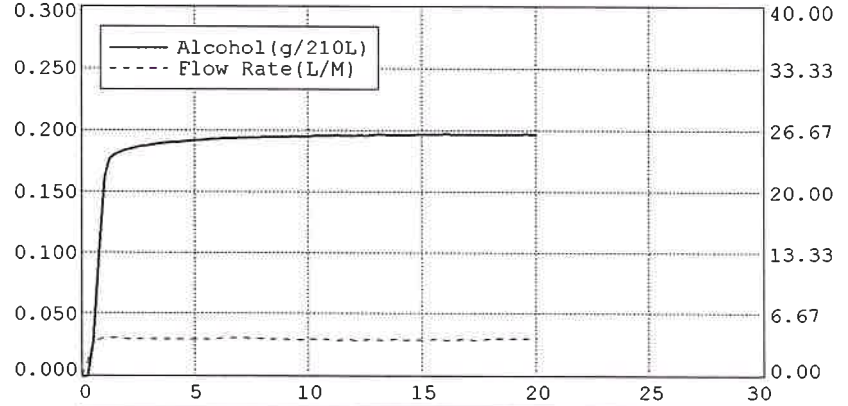
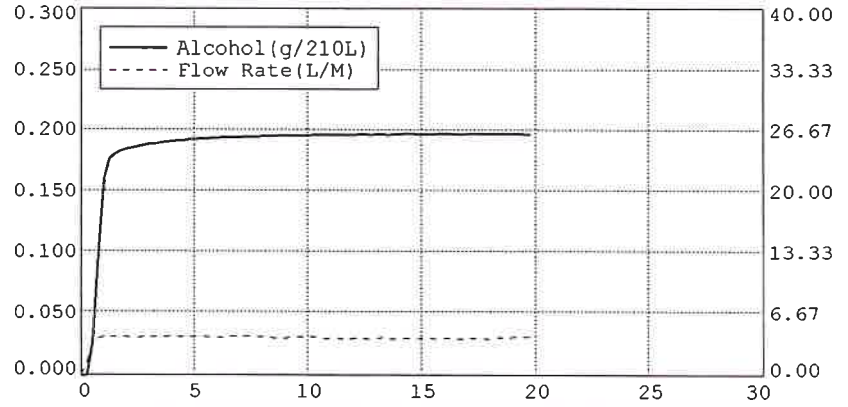
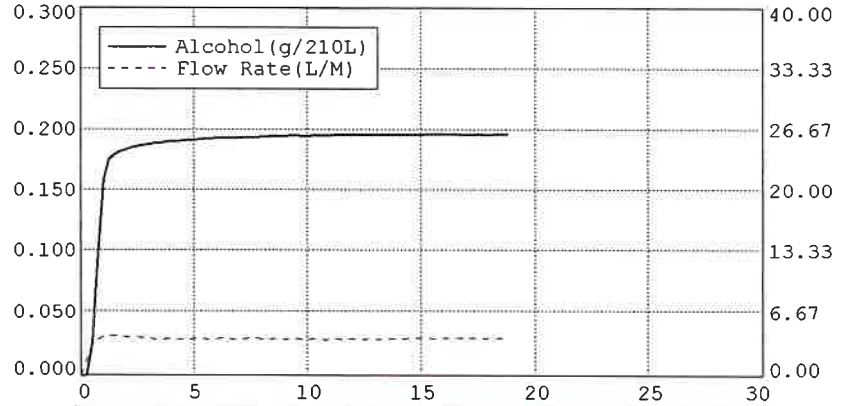
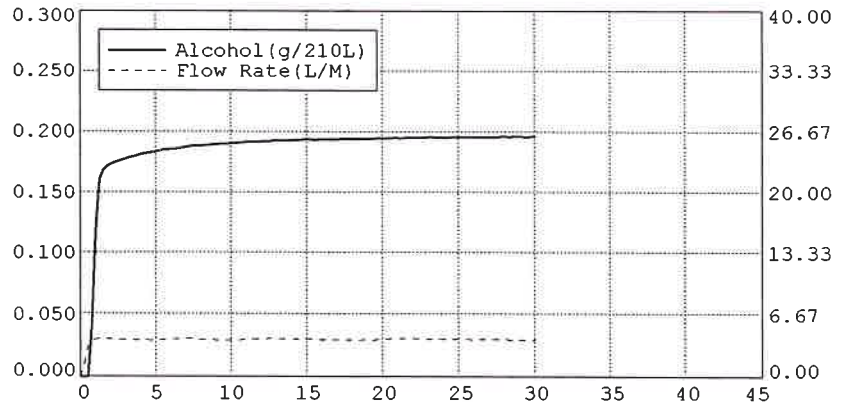
Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

Date: 11/23/2021  
 Time: 16:08:53

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

BLANK TEST	0.000	16:10
INTERNAL STANDARD	VERIFIED	16:10
EXTERNAL STANDARD	0.197	16:10
BLANK TEST	0.000	16:11
EXTERNAL STANDARD	0.197	16:12
BLANK TEST	0.000	16:13
EXTERNAL STANDARD	0.197	16:13
BLANK TEST	0.000	16:14
EXTERNAL STANDARD	0.197	16:14
BLANK TEST	0.000	16:15
EXTERNAL STANDARD	0.197	16:16
BLANK TEST	0.000	16:17

Average = 0.1970  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

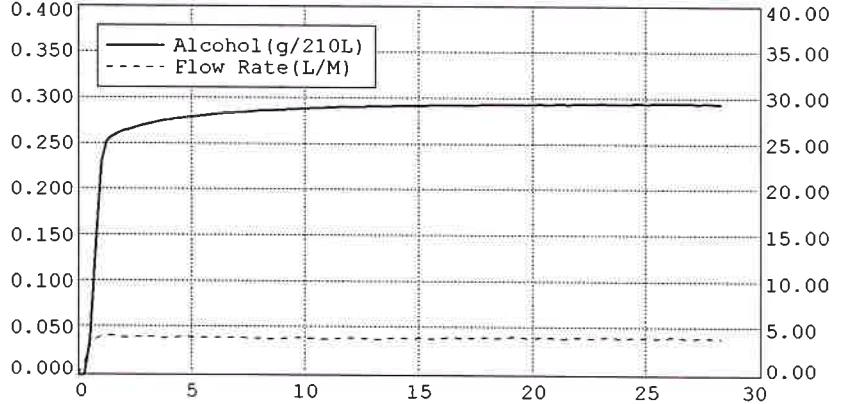
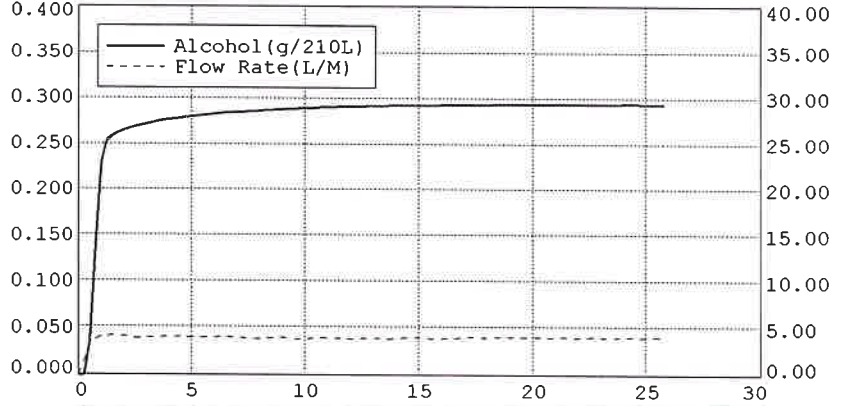
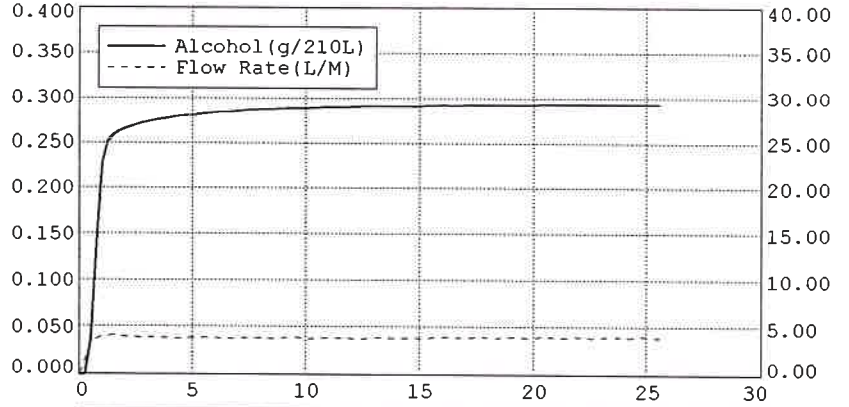
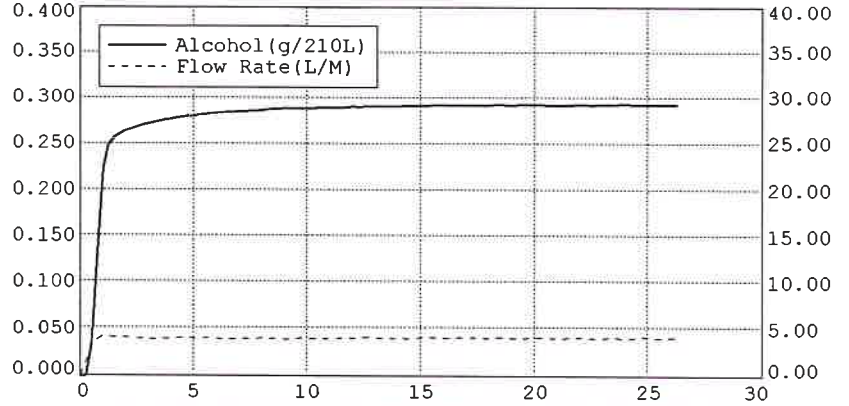
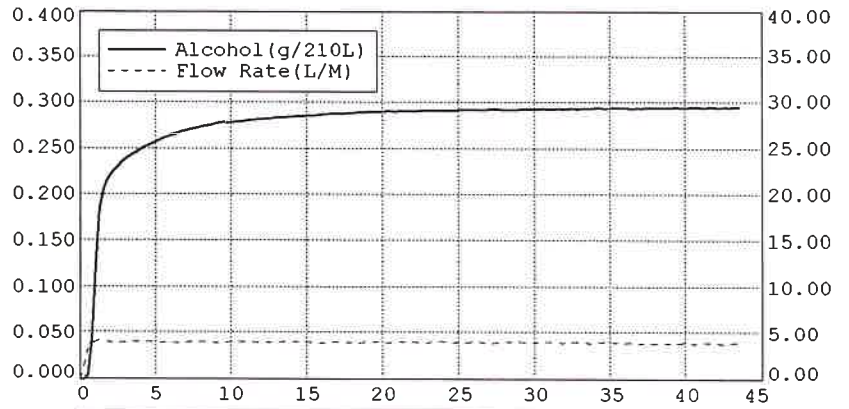
Date: 11/23/2021  
 Time: 16:18:54

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 21030  
 EXPIRATION: 02/02/2023

BLANK TEST	0.000	16:20
INTERNAL STANDARD	VERIFIED	16:20
EXTERNAL STANDARD	0.294	16:21
BLANK TEST	0.000	16:22
EXTERNAL STANDARD	0.293	16:22
BLANK TEST	0.000	16:23
EXTERNAL STANDARD	0.294	16:23
BLANK TEST	0.000	16:24
EXTERNAL STANDARD	0.294	16:25
BLANK TEST	0.000	16:26
EXTERNAL STANDARD	0.294	16:26
BLANK TEST	0.000	16:27

Average = 0.2938  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100381

Date: 11/24/2021

Time: 11:06:45

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 28.93: 0.077

LOT #: AG018102

EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK

PASSED 11:11

BLANK TEST 0.000 11:11

INTERNAL STANDARD

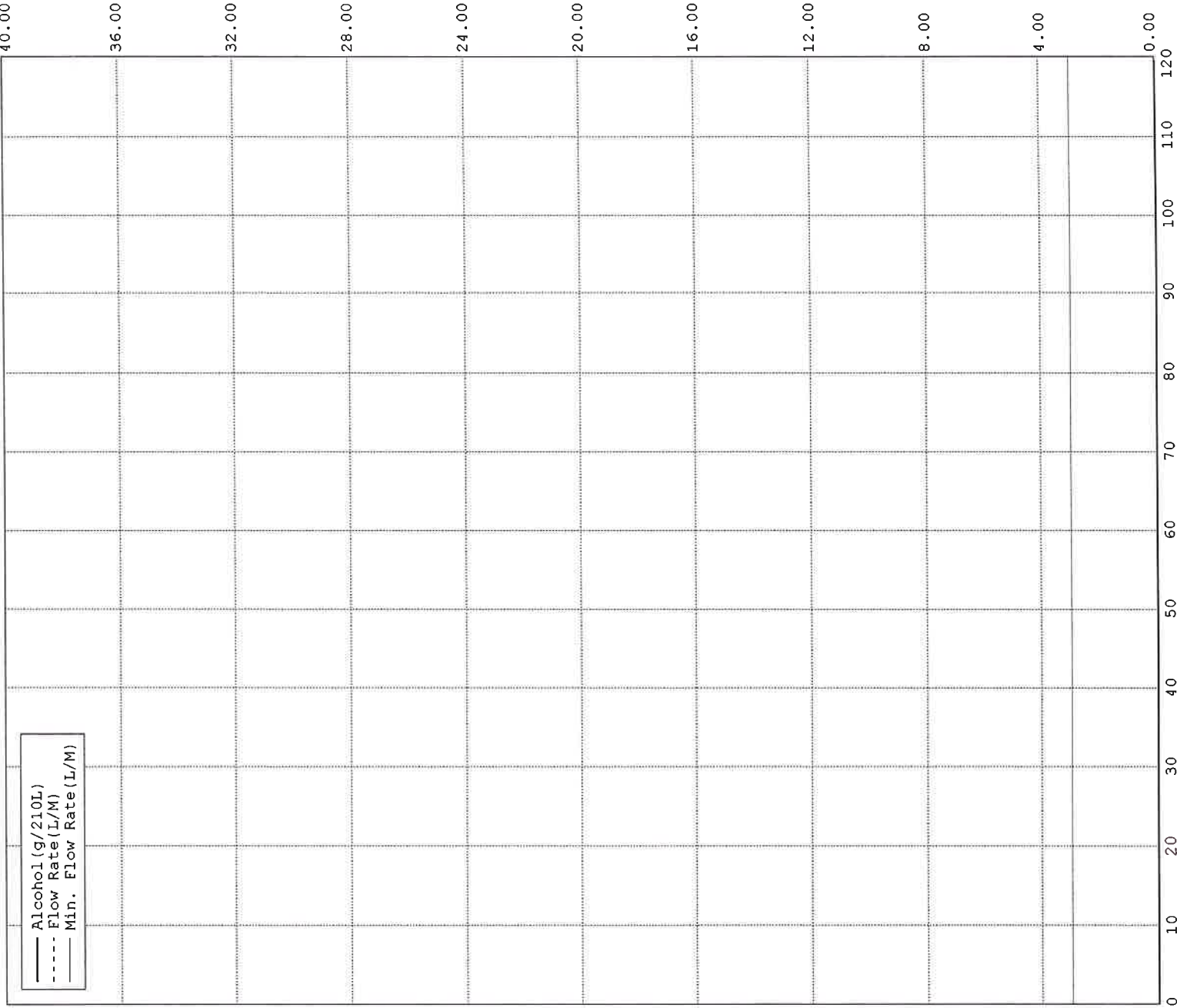
VERIFIED 11:12

EXTERNAL STANDARD 0.076 11:12

BLANK TEST 0.000 11:13

SUBJECT SAMPLE INCOMPLETE 11:15

CB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 11/24/2021  
Time: 11:17:48

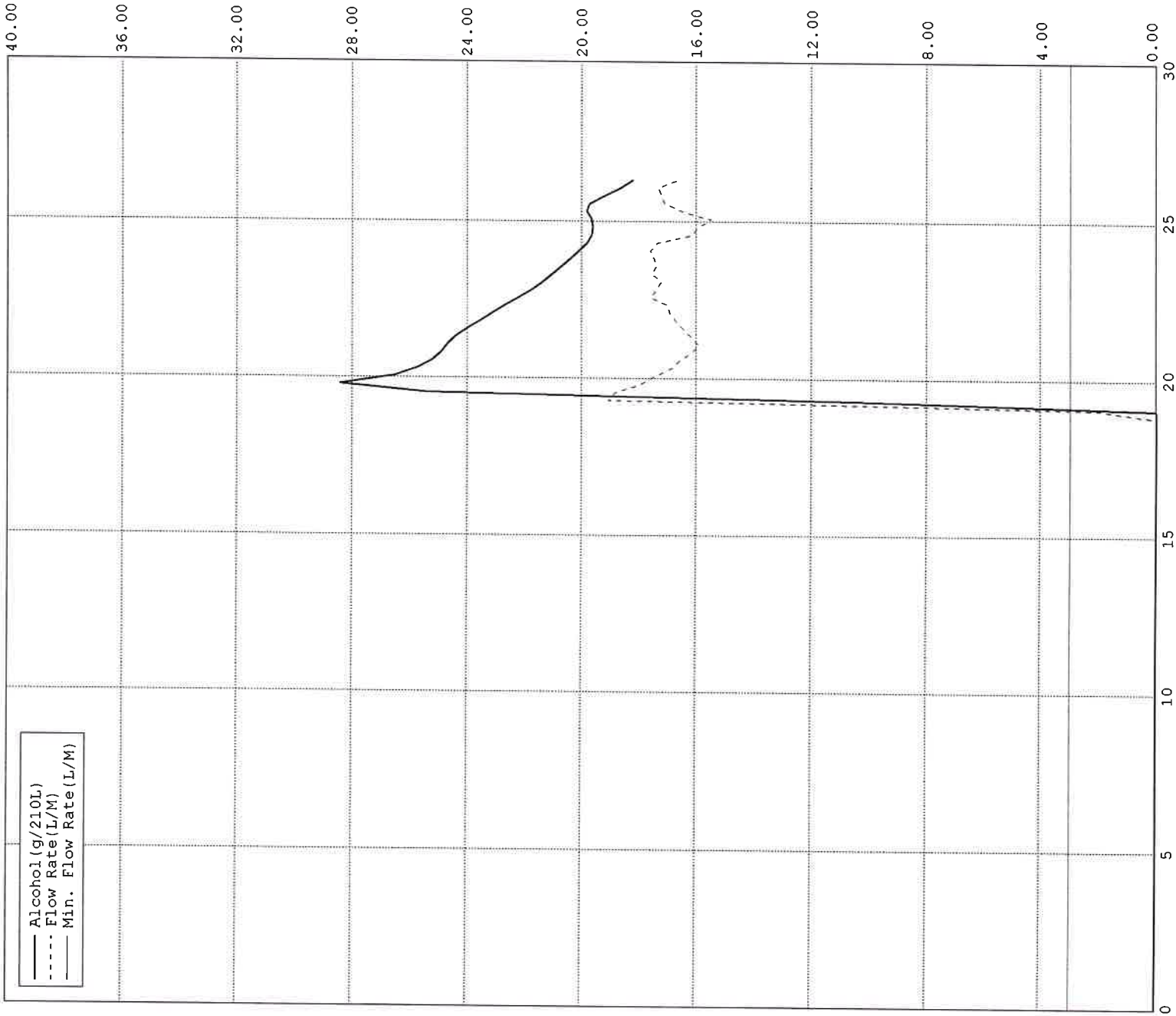
SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

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 28.93: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:19
BLANK TEST	0.000	11:19
INTERNAL STANDARD	VERIFIED	11:19
EXTERNAL STANDARD	0.075	11:19
BLANK TEST	0.000	11:20
SUBJECT SAMPLE	INVALID	11:21



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 11/24/2021  
Time: 11:35:48

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

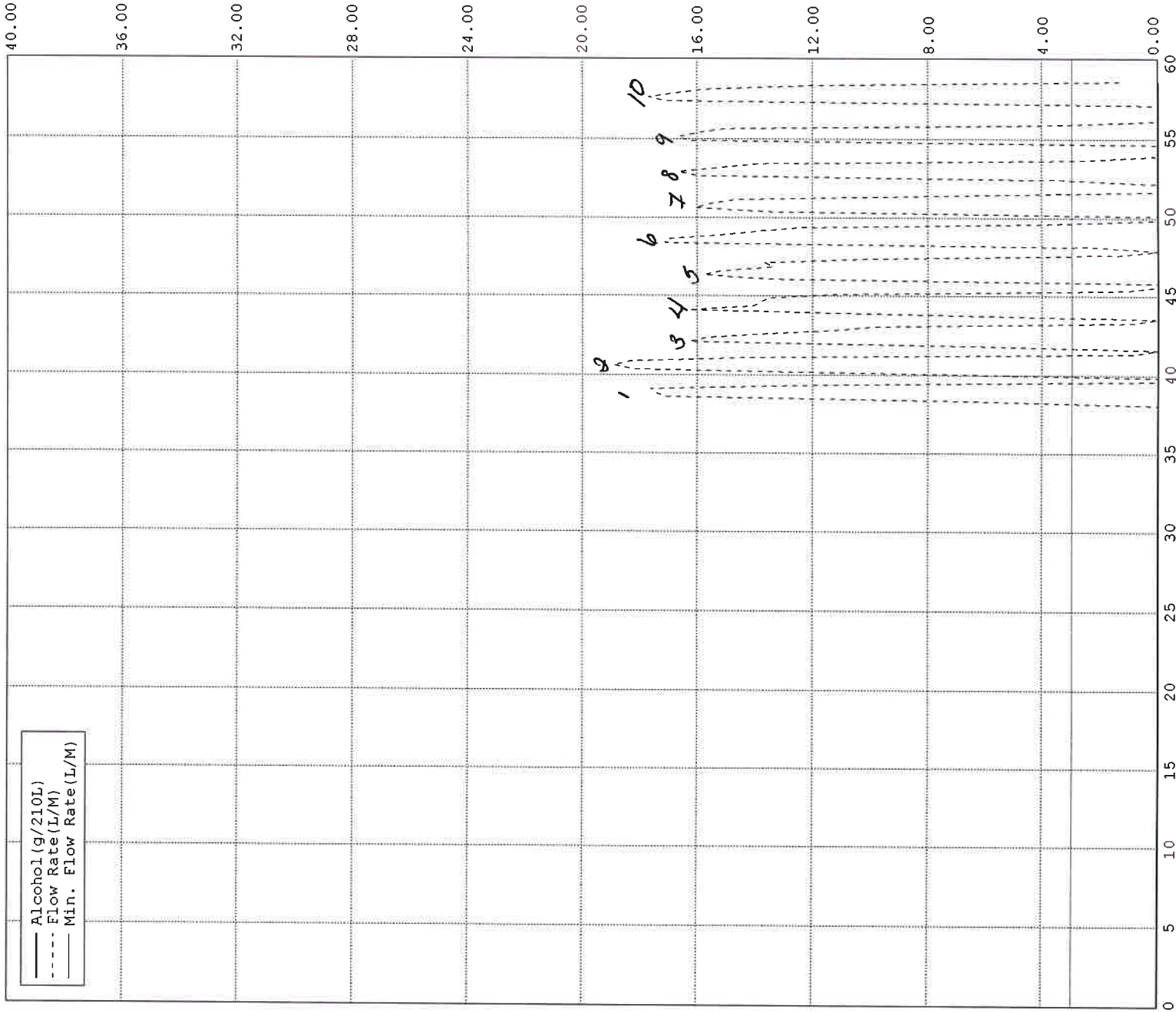
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.93: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 11:37  
BLANK TEST 0.000 11:37  
INTERNAL STANDARD VERIFIED 11:37  
EXTERNAL STANDARD 0.076 11:37  
BLANK TEST 0.000 11:38  
SUBJECT SAMPLE XXX 11:39

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 11/24/2021  
Time: 11:30:00

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

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

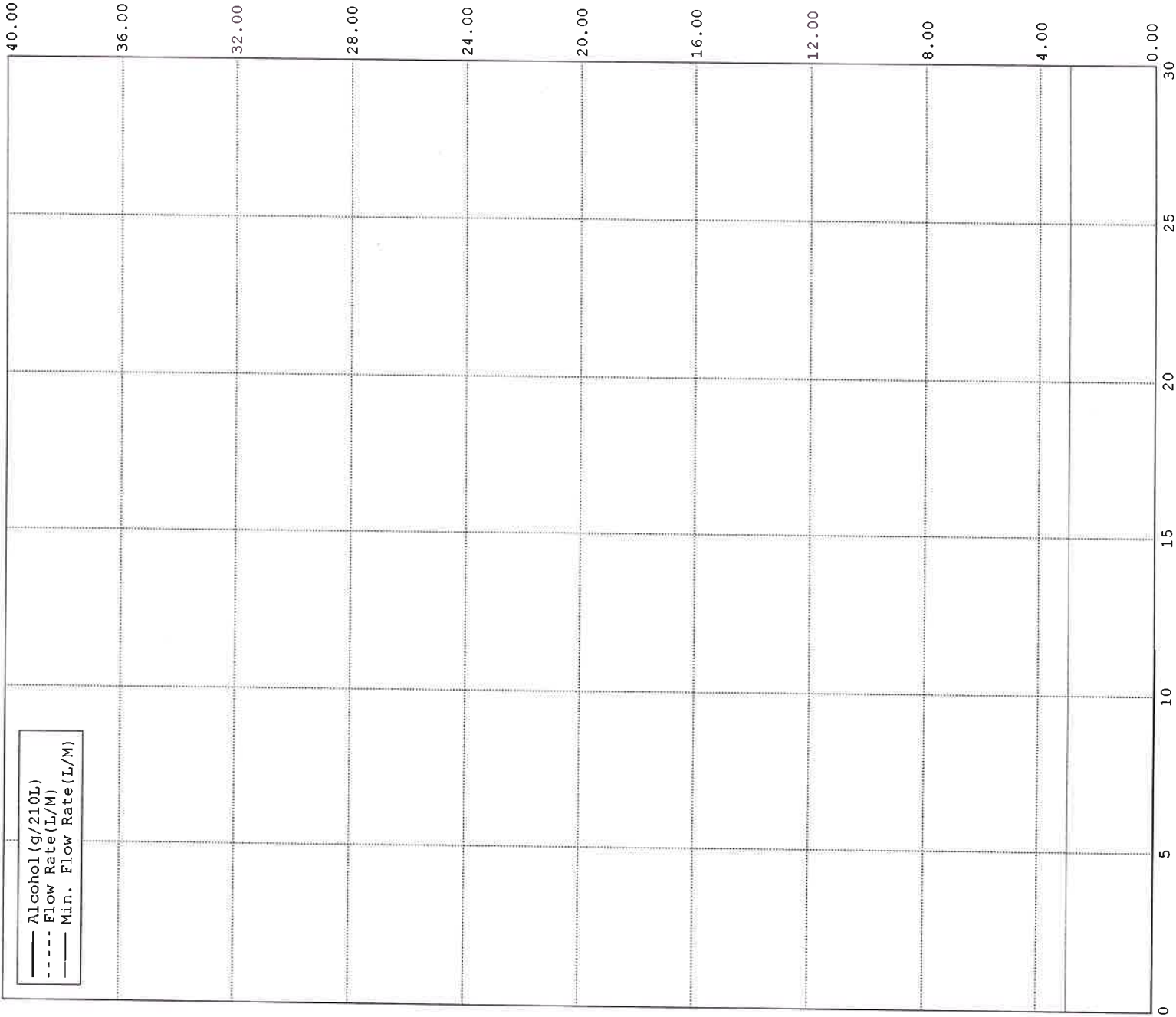
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.93: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 11:32  
BLANK TEST 0.000 11:32  
INTERNAL STANDARD VERIFIED 11:32  
EXTERNAL STANDARD 0.075 11:32  
BLANK TEST 0.000 11:33

RFI DETECTED

*CS*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 11/24/2021  
Time: 11:47:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

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

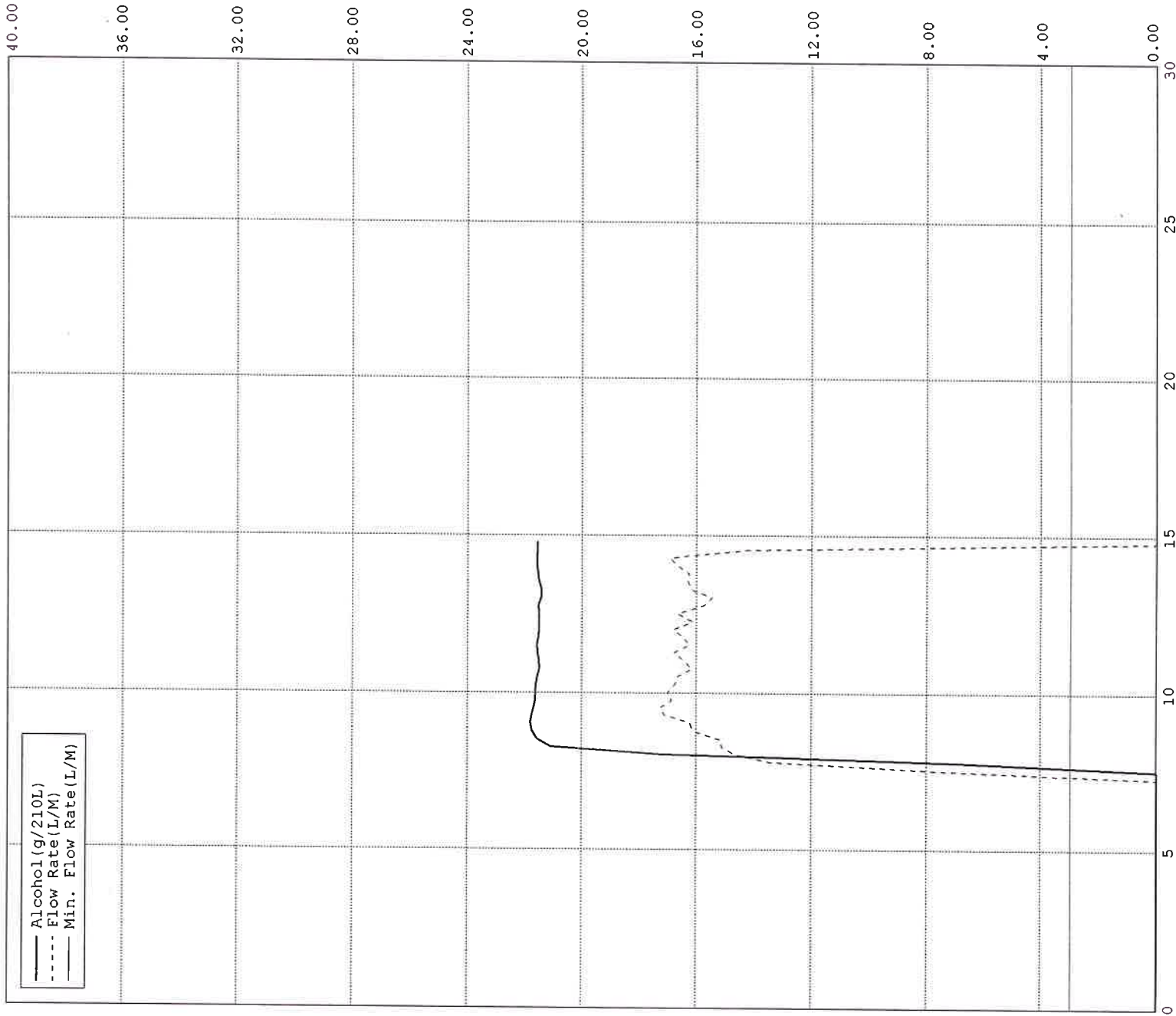
DEPT/AGENCY:  
AAA1

CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.93: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 11:49  
BLANK TEST 0.000 11:49  
INTERNAL STANDARD VERIFIED 11:49  
Xq = 0.093 (1.44%) 0.076 11:50  
EXTERNAL STANDARD (0.0023)  
X[1] = 0.0756 (-0.0009) 0.000 11:51  
BLANK TEST XXX 11:51  
SUBJECT SAMPLE X[1] = 0.1079 (-0.0163) (0.0010)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100381

Date: 11/24/2021  
Time: 12:23:09

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

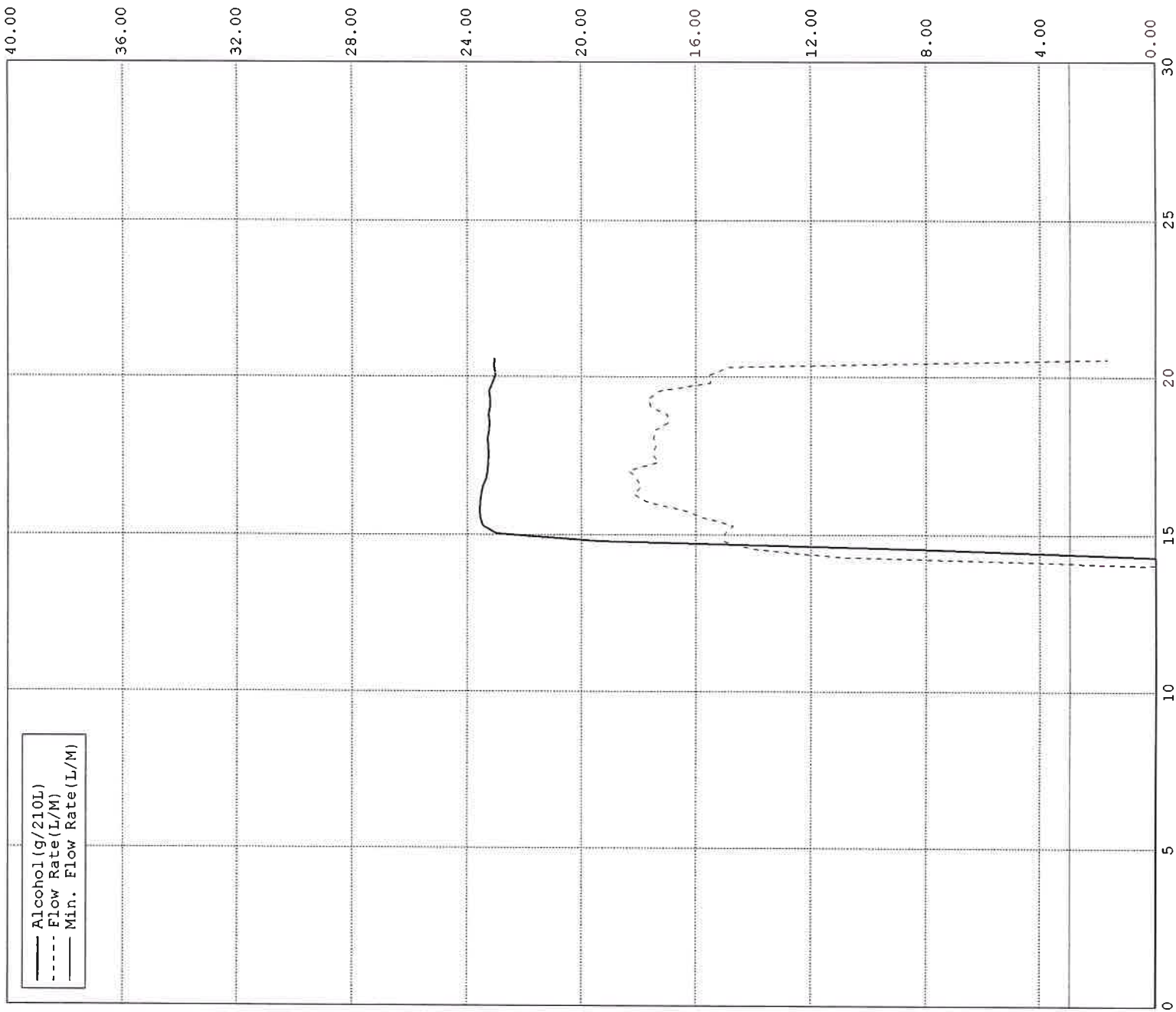
OPERATOR NAME:  
COLLEEN S OBRYANT  
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.91: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 12:25  
BLANK TEST 0.000 12:25  
INTERNAL STANDARD VERIFIED 12:25  
Xg = 0.092 (1.05%)  
EXTERNAL STANDARD 0.074 12:25  
X[1] = 0.0741 (-0.0021) (0.0020)  
BLANK TEST 0.000 12:26  
SUBJECT SAMPLE XXX 12:26  
X[1] = 0.1158 (-0.0225) (0.0006)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 11/24/2021  
Time: 12:33:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 21-1234  
TEST TYPE: TEST

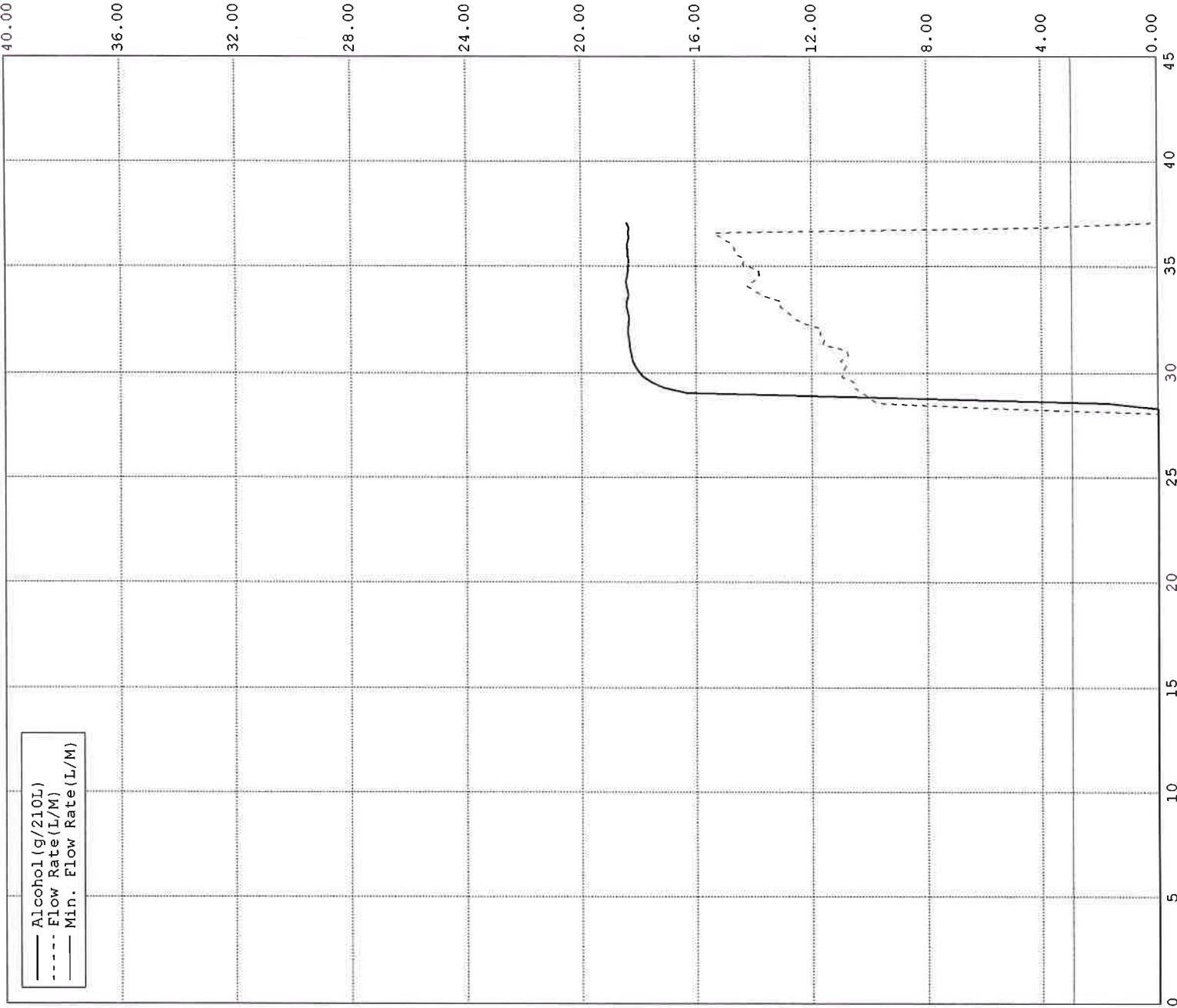
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 28.91: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	12:35
BLANK TEST	0.000	12:35
INTERNAL STANDARD	VERIFIED	12:35
Xq = 0.092 (0.866%)		
EXTERNAL STANDARD	0.075	12:35
X[1] = 0.0751 (-0.0013)	(0.0020)	
BLANK TEST	0.000	12:36
SUBJECT SAMPLE (Vol=1.77L)	0.092	12:37
X[1] = 0.0922 (-0.0008)	(0.0007)	
BLANK TEST	0.000	12:38
EXTERNAL STANDARD	0.075	12:38
X[1] = 0.0749 (-0.0016)	(0.0012)	
BLANK TEST	0.000	12:39

*Filter 2 Avg = -0.0015*

*Filter 3 Avg = 0.0019*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 11/24/2021  
Time: 14:22:23

SUBJECT NAME:  
TEST TEST  
LICENSE #: NON-DRINKING

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 28.87: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	14:23
BLANK TEST	0.000	14:23
INTERNAL STANDARD	VERIFIED	14:23
EXTERNAL STANDARD	0.075	14:24
BLANK TEST	0.000	14:25
SUBJECT SAMPLE (Vol=2.16L)	0.000	14:25
BLANK TEST	0.000	14:26
EXTERNAL STANDARD	0.075	14:26
BLANK TEST	0.000	14:27

*CAB*

