

# 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 100369 Analyst C. O. Bryant Start Date 7/14/20

- 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)

### Linearity Test (attached)

#### Levels Used

- i. 0.020g/210L Mnf Argas Lot AG928203 Exp 10/9/21
- ii. 0.040g/210L Mnf Argas Lot AG915607 Exp 6/5/21
- iii. 0.080g/210L Mnf Argas Lot AG923401 Exp 8/22/21
- iv. 0.100g/210L Mnf Argas Lot AG924701 Exp 9/4/21
- v. 0.200g/210L Mnf Both Lot 19200 Exp 8/6/21
- vi. Simulator S/N DR4177 Date Calibrated 10/8/19  
0.300g/210L Mnf Both Lot 19330 Exp 11/13/21  
Simulator S/N SD1200 Date Calibrated 8/6/19 10/8/19  
COB 7/15/20

### Functional Tests (attached)

- Incomplete  Invalid  
 Interference

- i. Acetone - Mnf Both Lot 19301 Level 0.100 Exp 10/30/21  
Simulator S/N DR4163 Date Calibrated 10/4/19
- ii. Isopropanol - Mnf Both Lot 19301 Level 0.100 Exp 10/30/21  
Simulator S/N DR4162 Date Calibrated 10/7/19
- iii. Negative Control - Mnf Both Lot 19301 Level 0.100 Exp 10/30/21  
Simulator S/N SD1176 Date Calibrated 10/7/19

- 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 7/15/20

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100369  
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Date: 07/14/2020  
Time: 08:42:15

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.3°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.56 V PASSED  
(0.93 V - 2.17 V)  
Cooler Voltage = 1.63 V PASSED  
(1.00 V - 2.32 V)  
Bias Voltage = 77 V PASSED  
(47 V - 109 V)  
Chopper Freq = 532 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.6 in

PUMP INFO

Flow Rate = 5.281 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 = 0.084 0.83% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100369  
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Date: 07/14/2020  
Time: 12:50 PM

Temperatures (°C)  
Sample Cell: 48.9°C  
Breath Tube: 45.8°C

Current Barometer 29.6 in  
Volume (Ltr) 1.59

Settings  
Lamp: 1.61 V  
Bias: 80 V  
Cooler: 1.58 V  
Chopper: 531 Hz

Voltages (V)  
Flow: 1.05 V  
Detector: -0.044 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100369  
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Date: 12/17/2019  
Time: 13:08:22

OPERATOR NAME:  
DEREK WALTON  
CERTIFICATE #: 9508

Ca = 0.1000  
CAL = 0.971577    0.800 <= CAL < 1.200  
b1 = 0.0006    0.0000 <= b1 < 0.0040  
b2 = 0.0051    0.0010 <= b2 < 0.0100  
b3 = 0.0004    0.0000 <= b3 < 0.0040  
Xq = 0.0837    0.0500 <= Xq < 0.2000  
a21 = 1.196816    1.050 <= a21 < 1.300  
a31 = 0.486796    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100369

Date: 07/14/2020  
Time: 13:07:18

SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

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

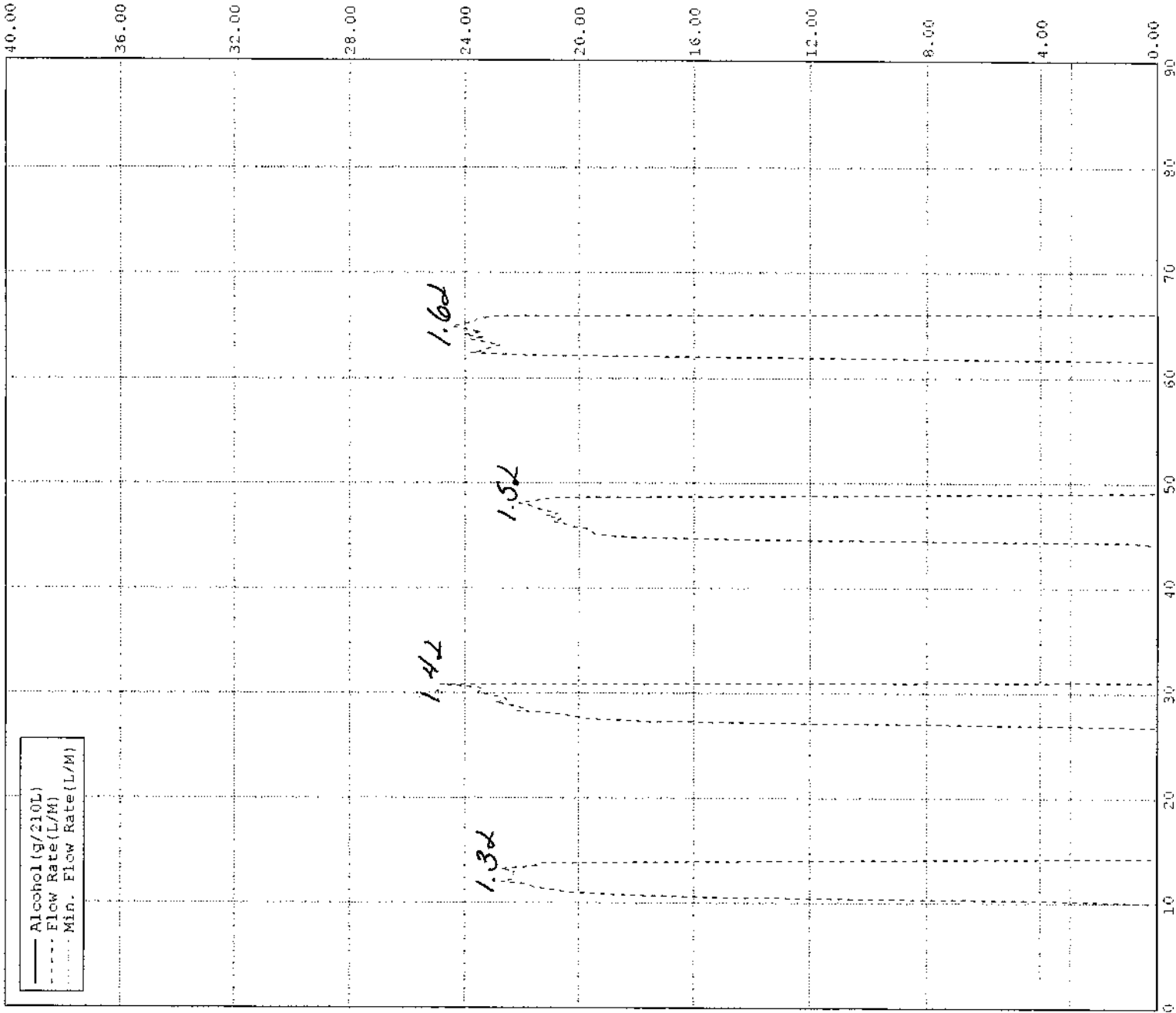
DEPT/AGENCY:  
AAA1

CASE/REPORT: 20-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.61: 0.079  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	13:08
BLANK TEST	0.000	13:08
INTERNAL STANDARD	VERIFIED	13:08
EXTERNAL STANDARD	0.077	13:08
BLANK TEST	0.000	13:09
SUBJECT SAMPLE (Vol=1.61L)	0.000	13:10
BLANK TEST	0.000	13:11
EXTERNAL STANDARD	0.078	13:11
BLANK TEST	0.000	13:12



LINEARITY CHECK

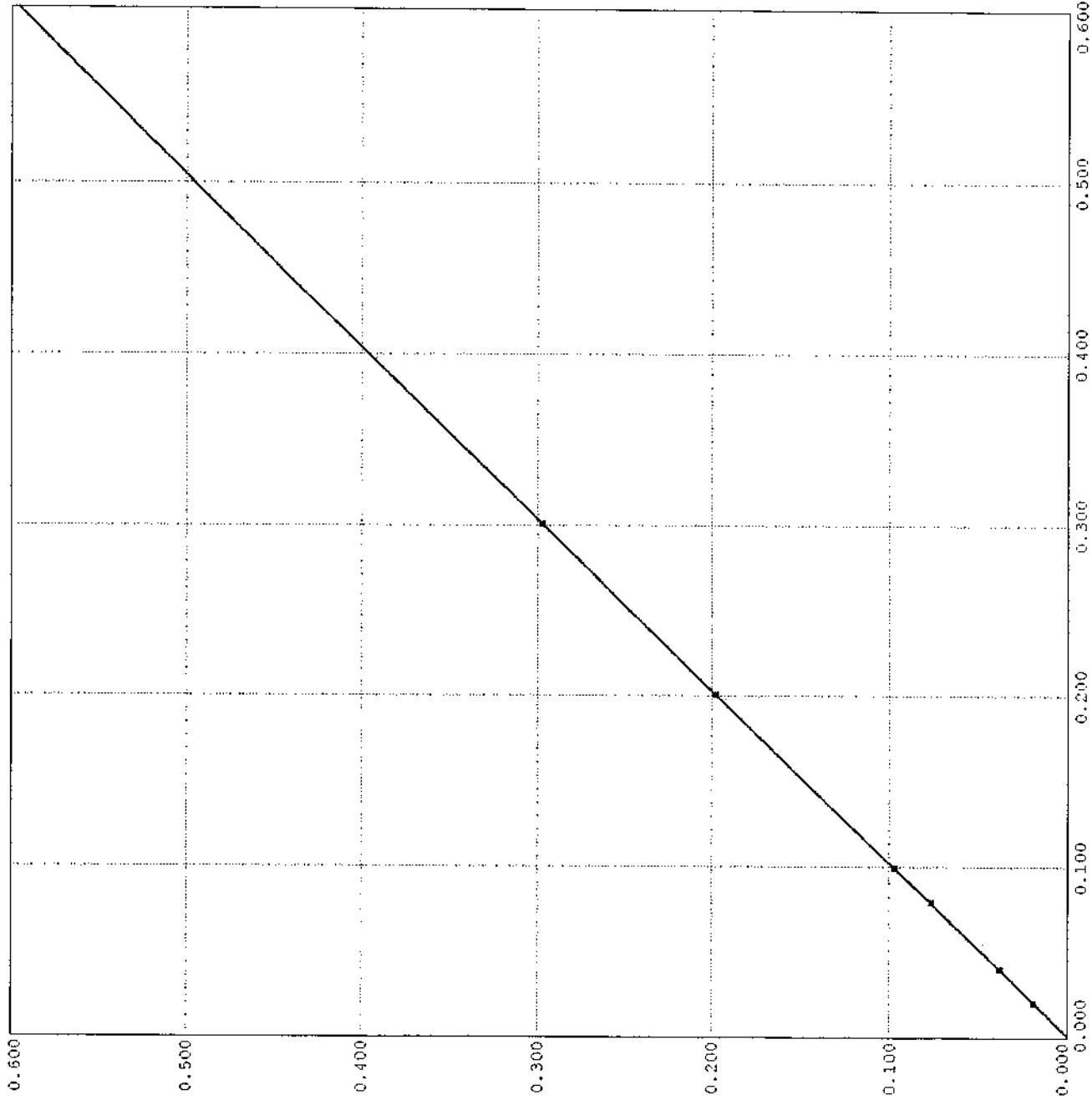
Alaska Department of Public Safety  
 DATAMASTER dmt: 100369

Date: 07/14/2020  
 Time: 14:50:19

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.040	0.0392	0.0004
0.079	0.0774	0.0005
0.099	0.0980	0.0000
0.200	0.1986	0.0005
0.300	0.2980	0.0010

SLOPE = 0.994744  
 R: = 0.999985



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100369

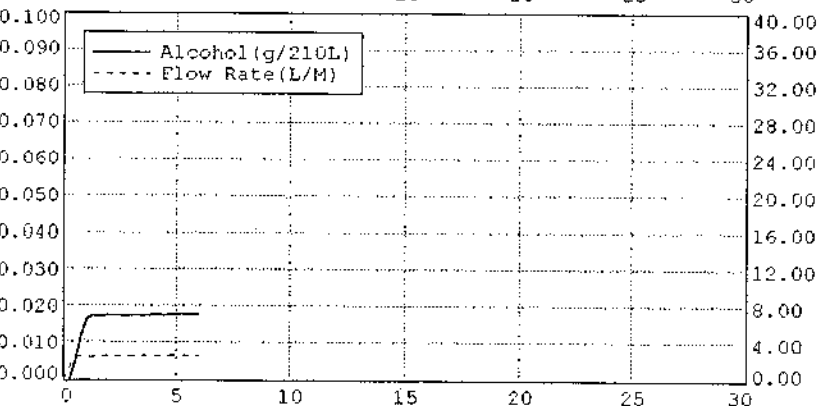
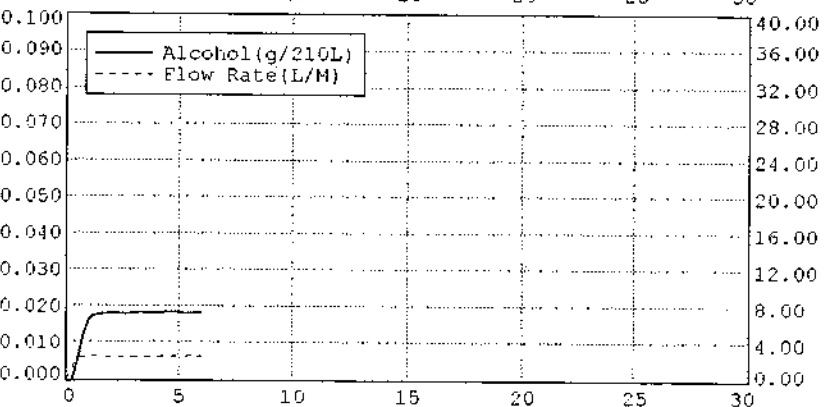
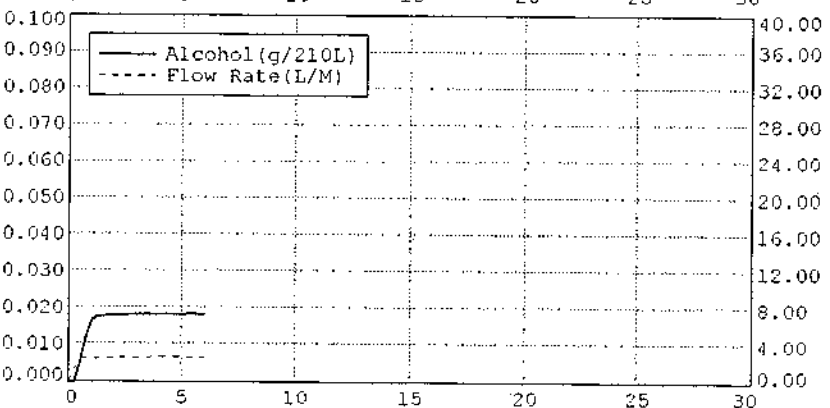
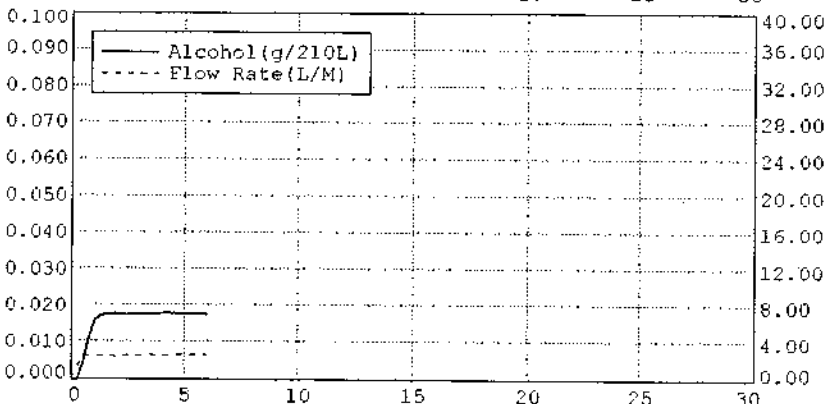
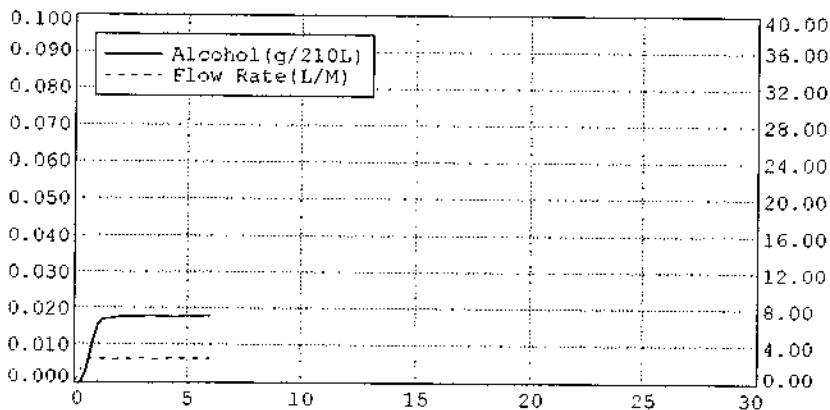
Date: 07/14/2020  
 Time: 14:50:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.60: 0.020  
 LOT #: AG928203  
 EXPIRATION: 10/09/2021  
 TANK PRESSURE: 884 psi

BLANK TEST	0.000	14:56
INTERNAL STANDARD	VERIFIED	14:56
EXTERNAL STANDARD	0.020	14:56
BLANK TEST	0.000	14:57
EXTERNAL STANDARD	0.020	14:57
BLANK TEST	0.000	14:58
EXTERNAL STANDARD	0.020	14:58
BLANK TEST	0.000	14:59
EXTERNAL STANDARD	0.020	14:59
BLANK TEST	0.000	15:00
EXTERNAL STANDARD	0.020	15:00
BLANK TEST	0.000	15:01

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100369

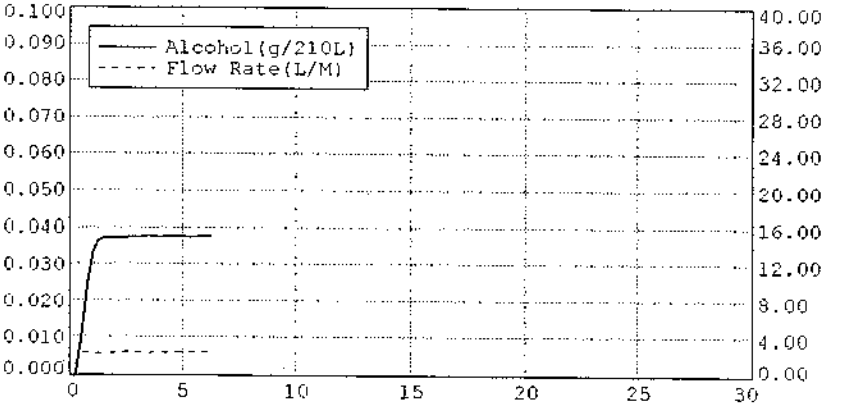
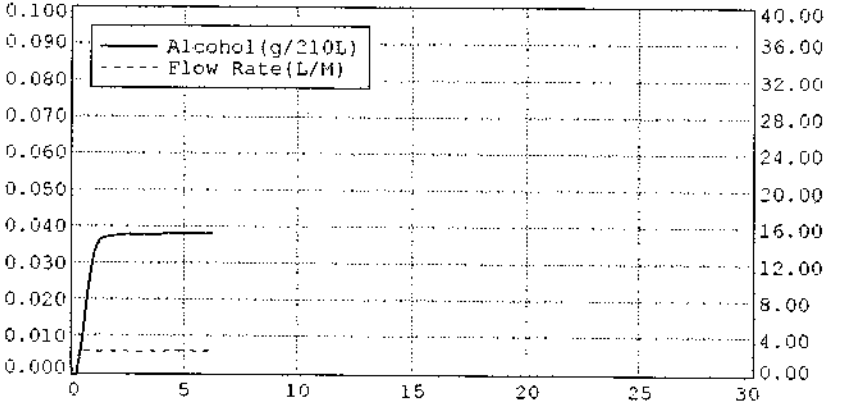
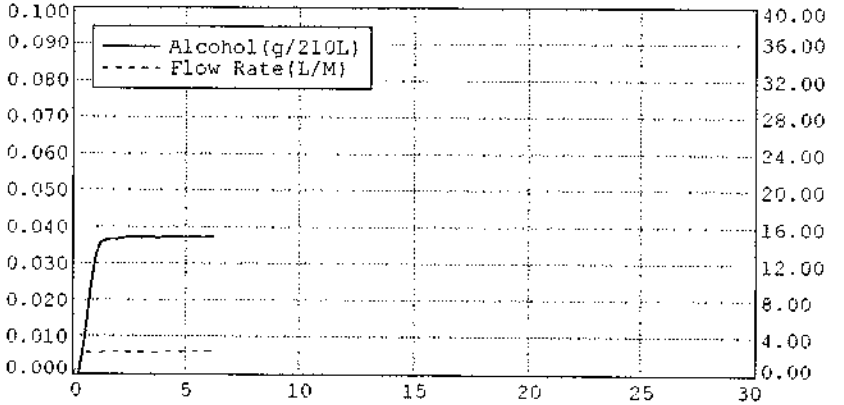
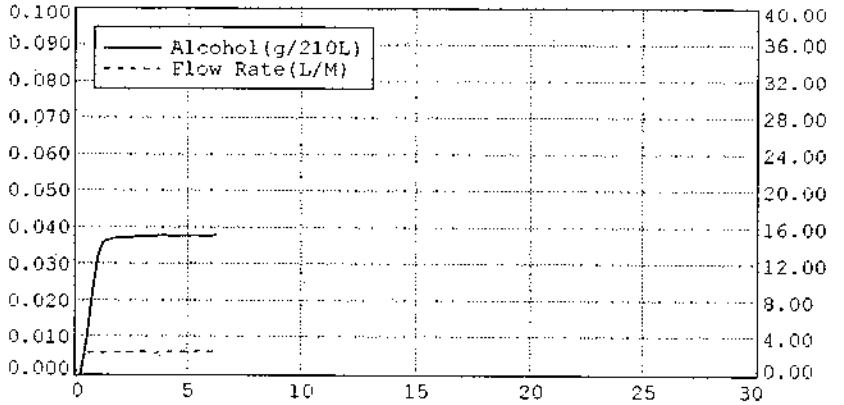
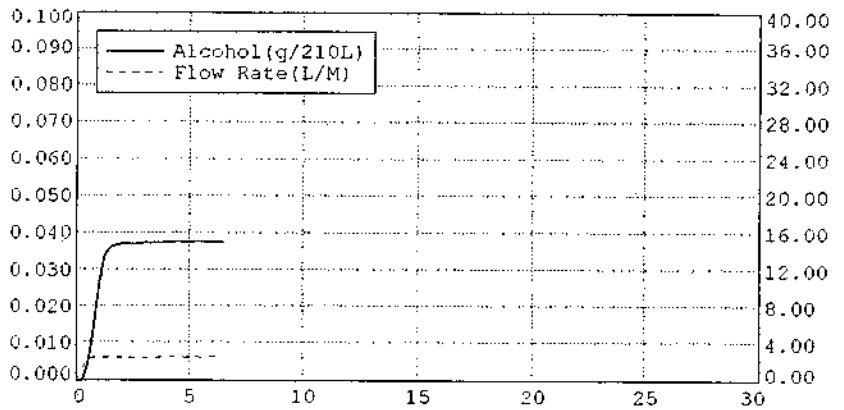
Date: 07/14/2020  
 Time: 15:07:07

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.60: 0.040  
 LOT #: AG915607<sup>05</sup>  
 EXPIRATION: 06/02/2021  
 TANK PRESSURE: 662 psi

BLANK TEST	0.000	15:08
INTERNAL STANDARD	VERIFIED	15:08
EXTERNAL STANDARD	0.039	15:08
BLANK TEST	0.000	15:09
EXTERNAL STANDARD	0.039	15:09
BLANK TEST	0.000	15:10
EXTERNAL STANDARD	0.039	15:10
BLANK TEST	0.000	15:11
EXTERNAL STANDARD	0.040	15:11
BLANK TEST	0.000	15:12
EXTERNAL STANDARD	0.039	15:12
BLANK TEST	0.000	15:13

Average = 0.0392  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100369

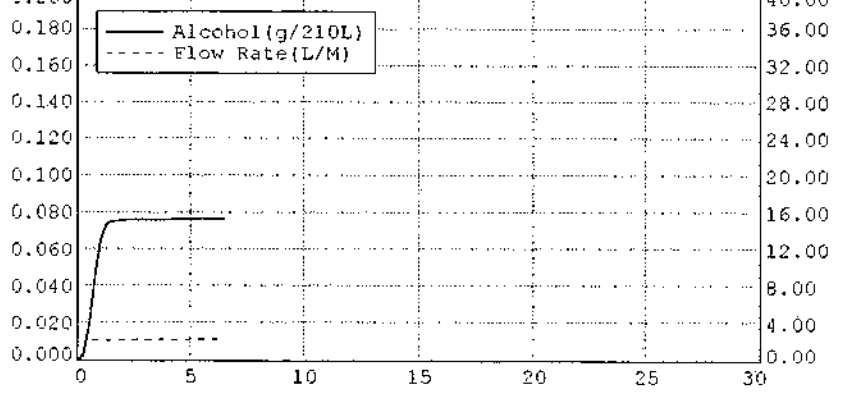
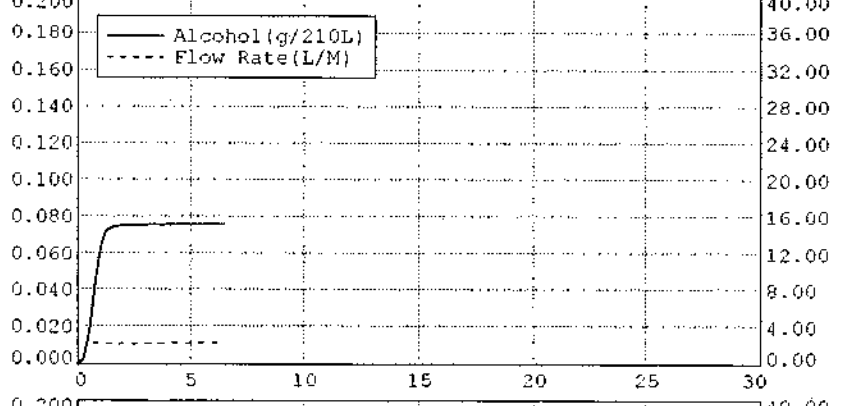
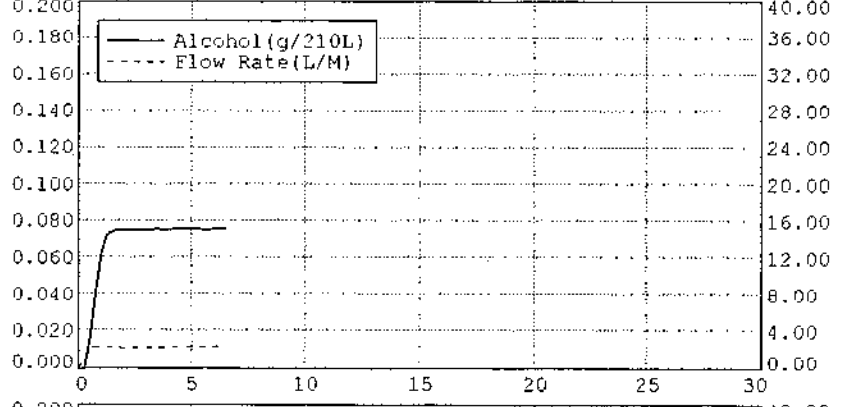
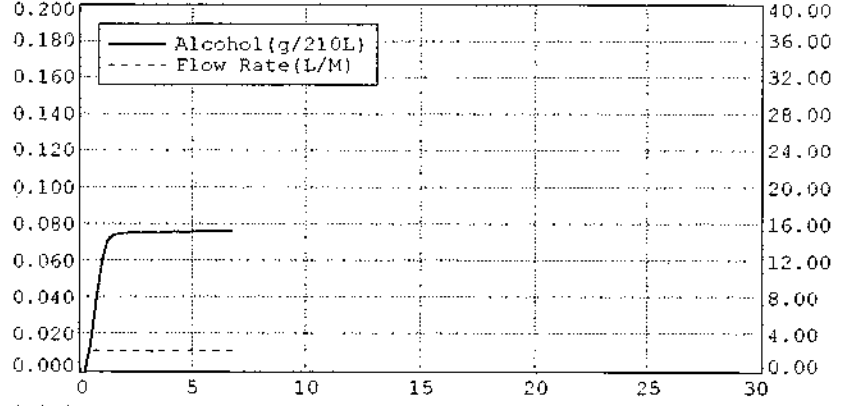
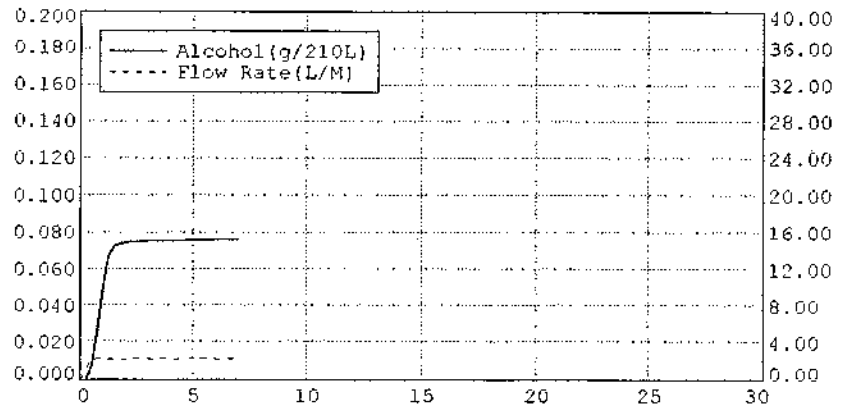
Date: 07/14/2020  
 Time: 15:14:19

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.59: 0.079  
 LOT #: AG923401  
 EXPIRATION: 08/22/2021  
 TANK PRESSURE: 247 psi

BLANK TEST	0.000	15:15
INTERNAL STANDARD	VERIFIED	15:15
EXTERNAL STANDARD	0.077	15:15
BLANK TEST	0.000	15:16
EXTERNAL STANDARD	0.078	15:16
BLANK TEST	0.000	15:17
EXTERNAL STANDARD	0.077	15:18
BLANK TEST	0.000	15:18
EXTERNAL STANDARD	0.077	15:19
BLANK TEST	0.000	15:20
EXTERNAL STANDARD	0.078	15:20
BLANK TEST	0.000	15:21

Average = 0.0774  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100369

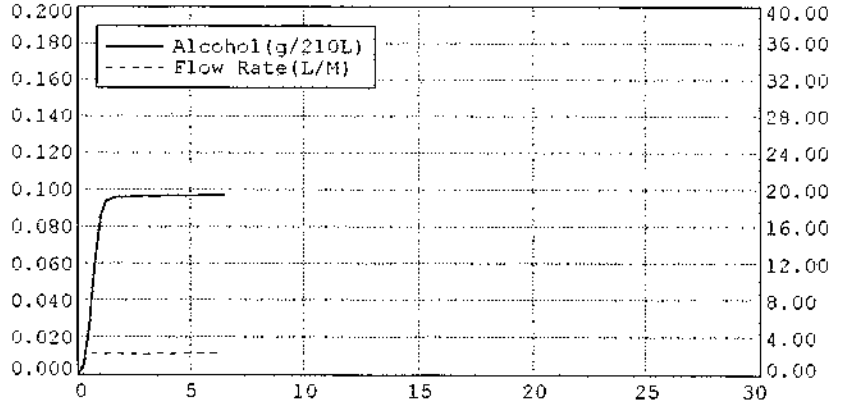
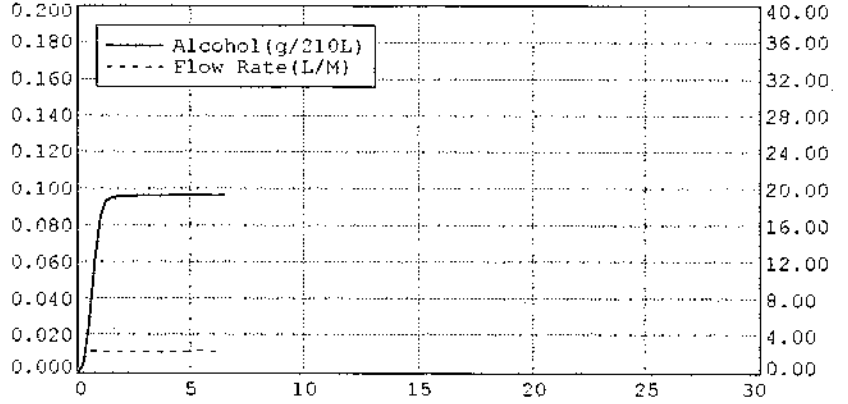
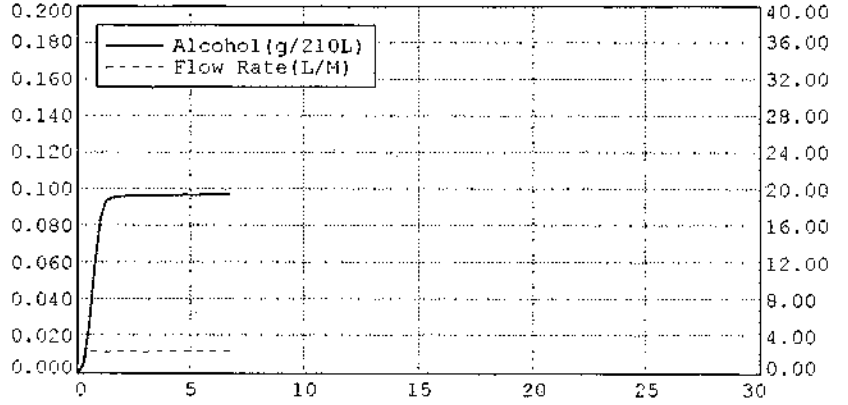
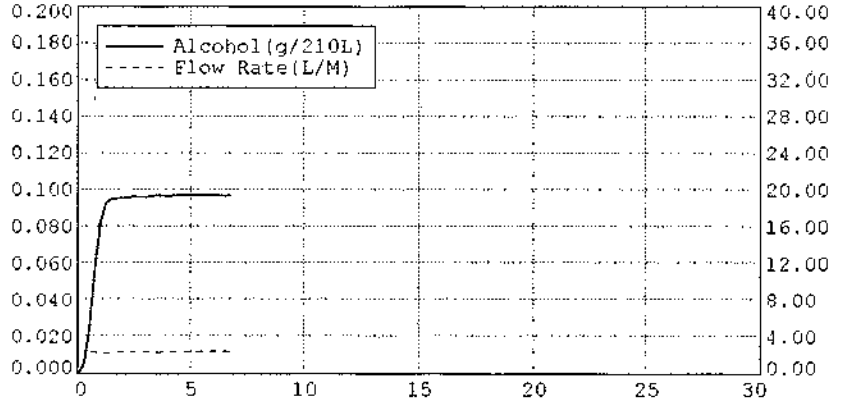
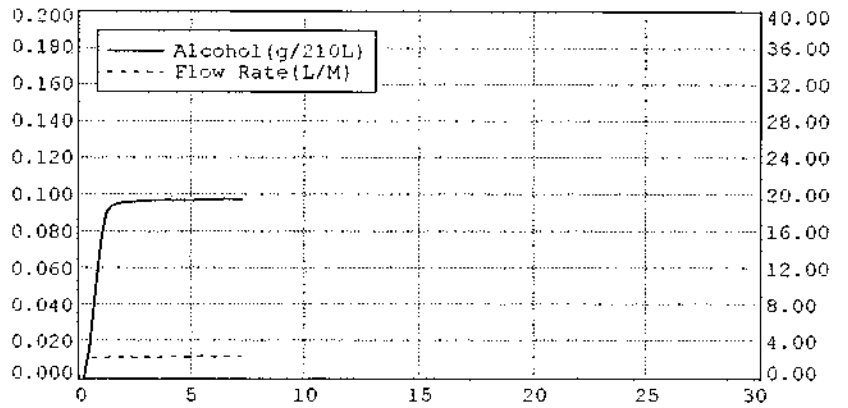
Date: 07/14/2020  
 Time: 15:22:48

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.59: 0.099  
 LOT #: AG924701  
 EXPIRATION: 09/04/2021  
 TANK PRESSURE: 468 psi

BLANK TEST	0.000	15:23
INTERNAL STANDARD	VERIFIED	15:24
EXTERNAL STANDARD	0.098	15:24
BLANK TEST	0.000	15:25
EXTERNAL STANDARD	0.098	15:25
BLANK TEST	0.000	15:26
EXTERNAL STANDARD	0.098	15:26
BLANK TEST	0.000	15:27
EXTERNAL STANDARD	0.098	15:27
BLANK TEST	0.000	15:28
EXTERNAL STANDARD	0.098	15:28
BLANK TEST	0.000	15:29

Average = 0.0980  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

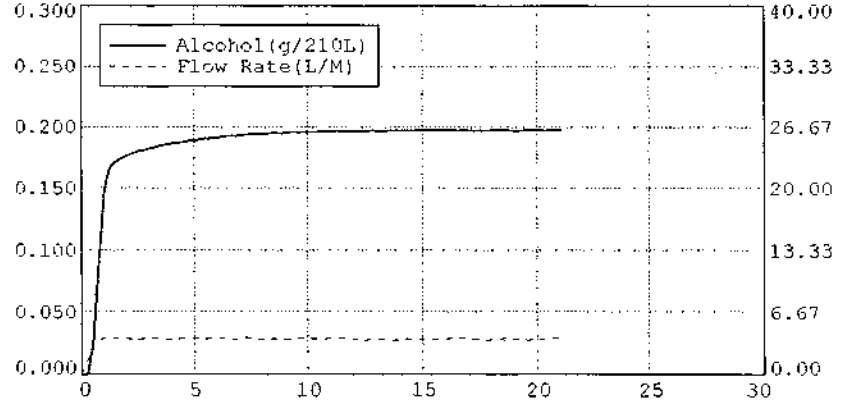
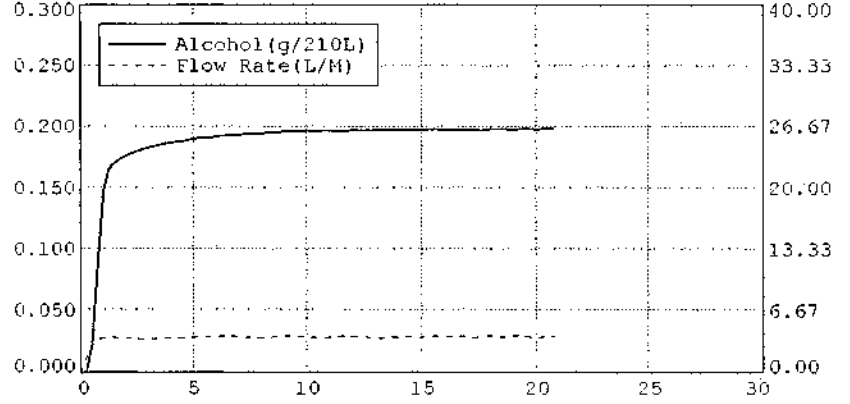
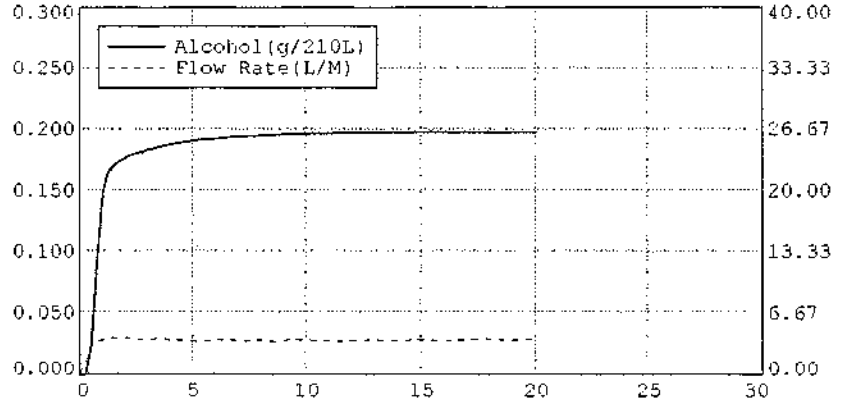
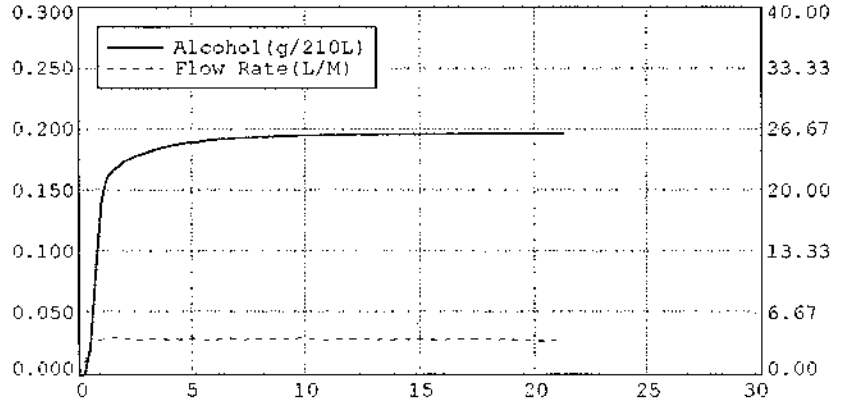
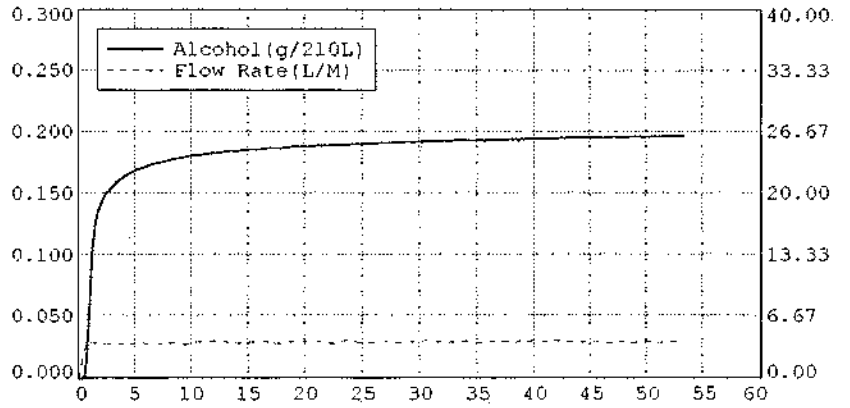
Alaska Department of Public Safety  
 DATAMASTER dmt: 100369

Date: 07/14/2020  
 Time: 15:30:30

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: 19200  
 EXPIRATION: 08/06/2021

BLANK TEST	0.000	15:32
INTERNAL STANDARD	VERIFIED	15:32
EXTERNAL STANDARD	0.198	15:33
BLANK TEST	0.000	15:34
EXTERNAL STANDARD	0.198	15:34
BLANK TEST	0.000	15:35
EXTERNAL STANDARD	0.199	15:35
BLANK TEST	0.000	15:36
EXTERNAL STANDARD	0.199	15:37
BLANK TEST	0.000	15:38
EXTERNAL STANDARD	0.199	15:38
BLANK TEST	0.000	15:39

Average = 0.1986  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

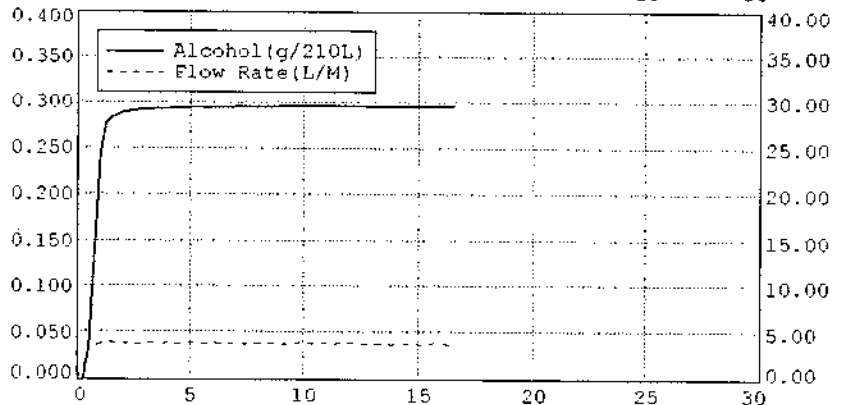
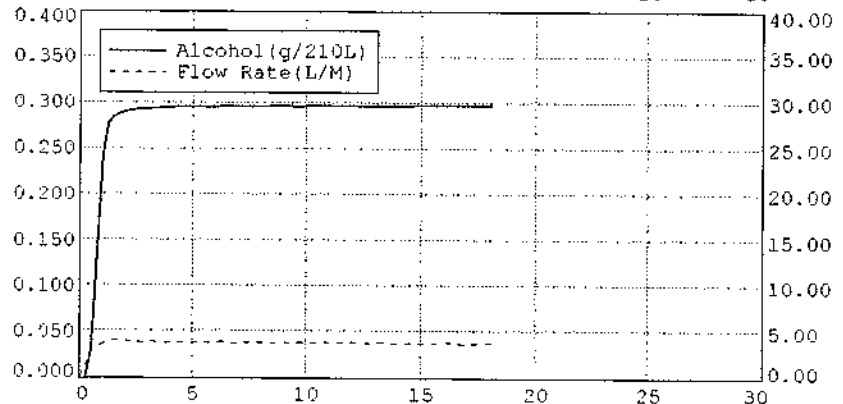
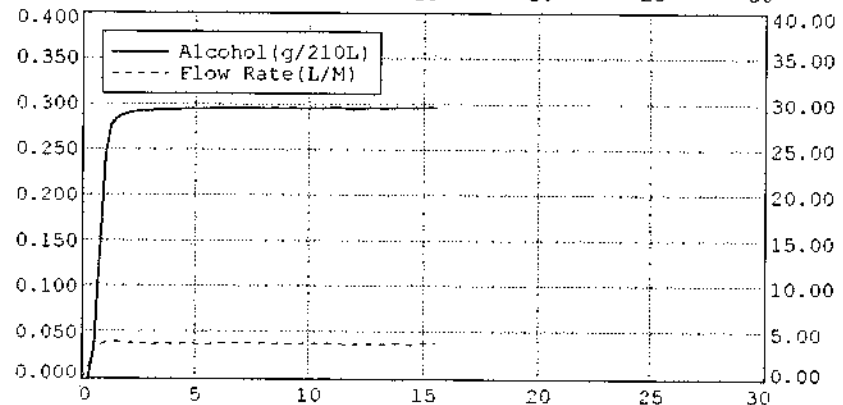
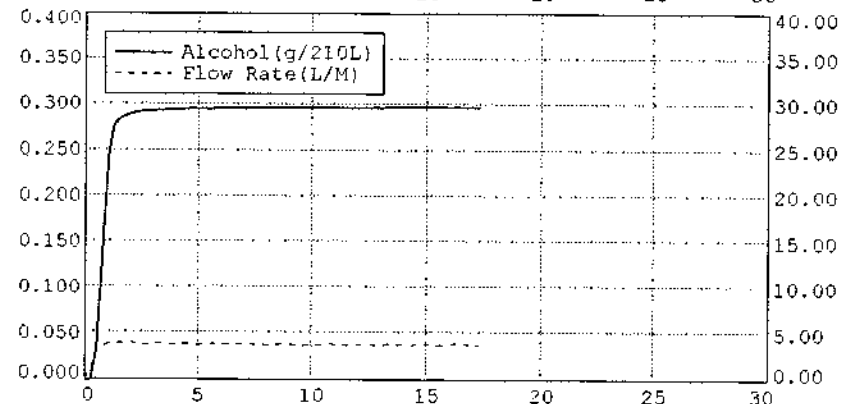
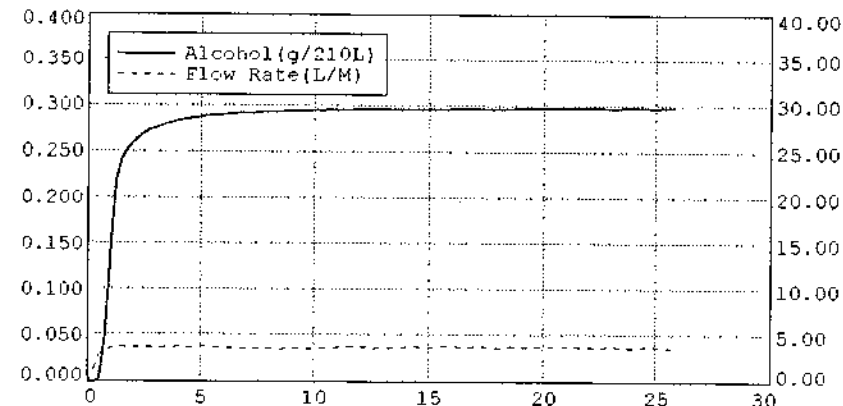
Alaska Department of Public Safety  
 DATAMASTER dmt: 100369

Date: 07/14/2020  
 Time: 15:41:11

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 19330  
 EXPIRATION: 11/13/2021

BLANK TEST	0.000	15:42
INTERNAL STANDARD	VERIFIED	15:42
EXTERNAL STANDARD	0.299	15:43
BLANK TEST	0.000	15:44
EXTERNAL STANDARD	0.298	15:44
BLANK TEST	0.000	15:45
EXTERNAL STANDARD	0.297	15:45
BLANK TEST	0.000	15:46
EXTERNAL STANDARD	0.299	15:47
BLANK TEST	0.000	15:48
EXTERNAL STANDARD	0.297	15:48
BLANK TEST	0.000	15:49

Average = 0.2980  
 Std Dev = 0.0010



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100369

Date: 07/14/2020  
Time: 15:56:54

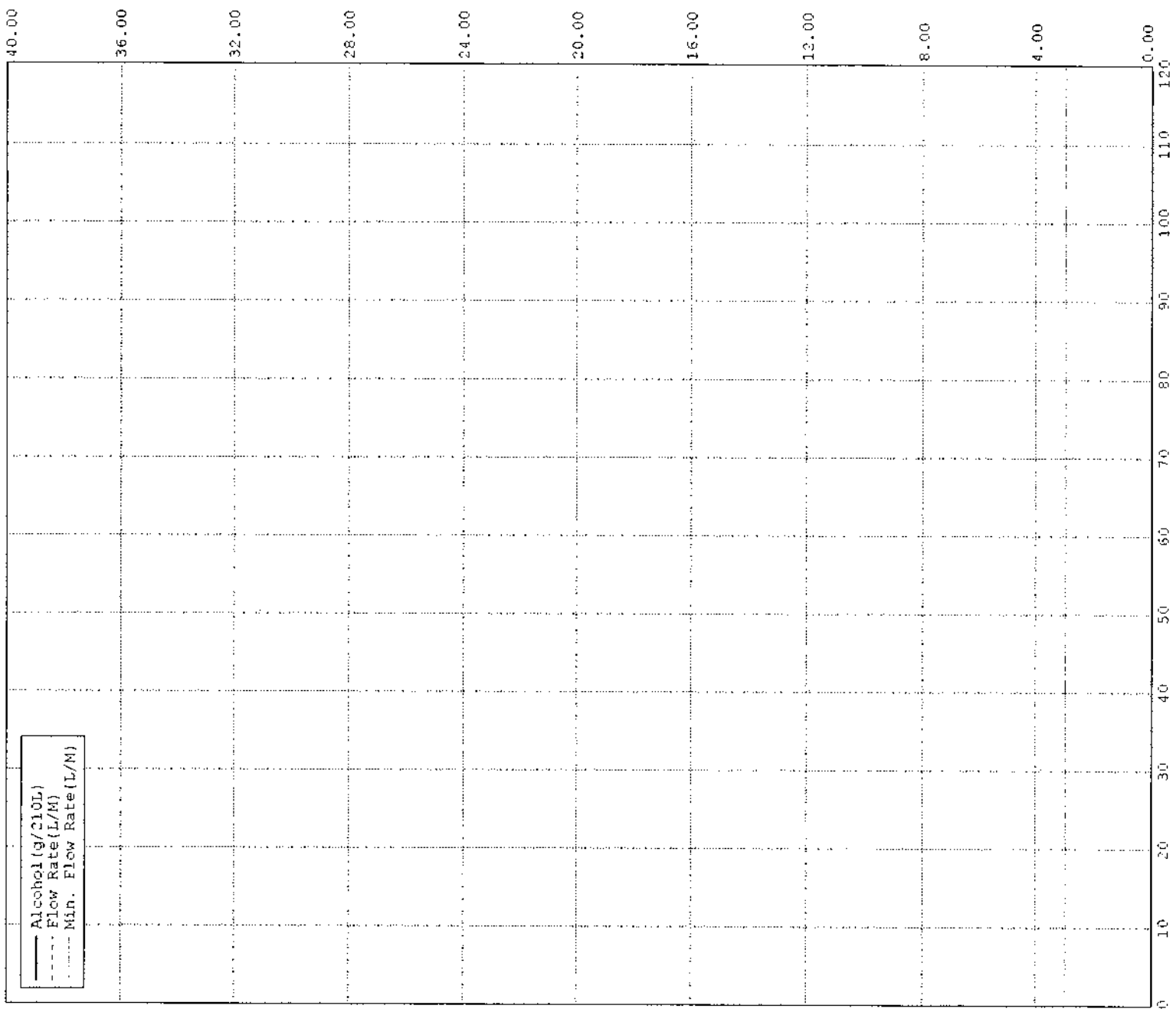
SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 20-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.59: 0.079  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 15:57  
BLANK TEST 0.000 15:58  
INTERNAL STANDARD VERIFIED 15:58  
EXTERNAL STANDARD 0.077 15:58  
BLANK TEST 0.000 15:59  
SUBJECT SAMPLE INCOMPLETE 16:01



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100369

Date: 07/15/2020  
Time: 07:40:07

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 20-1234  
TEST TYPE: TEST

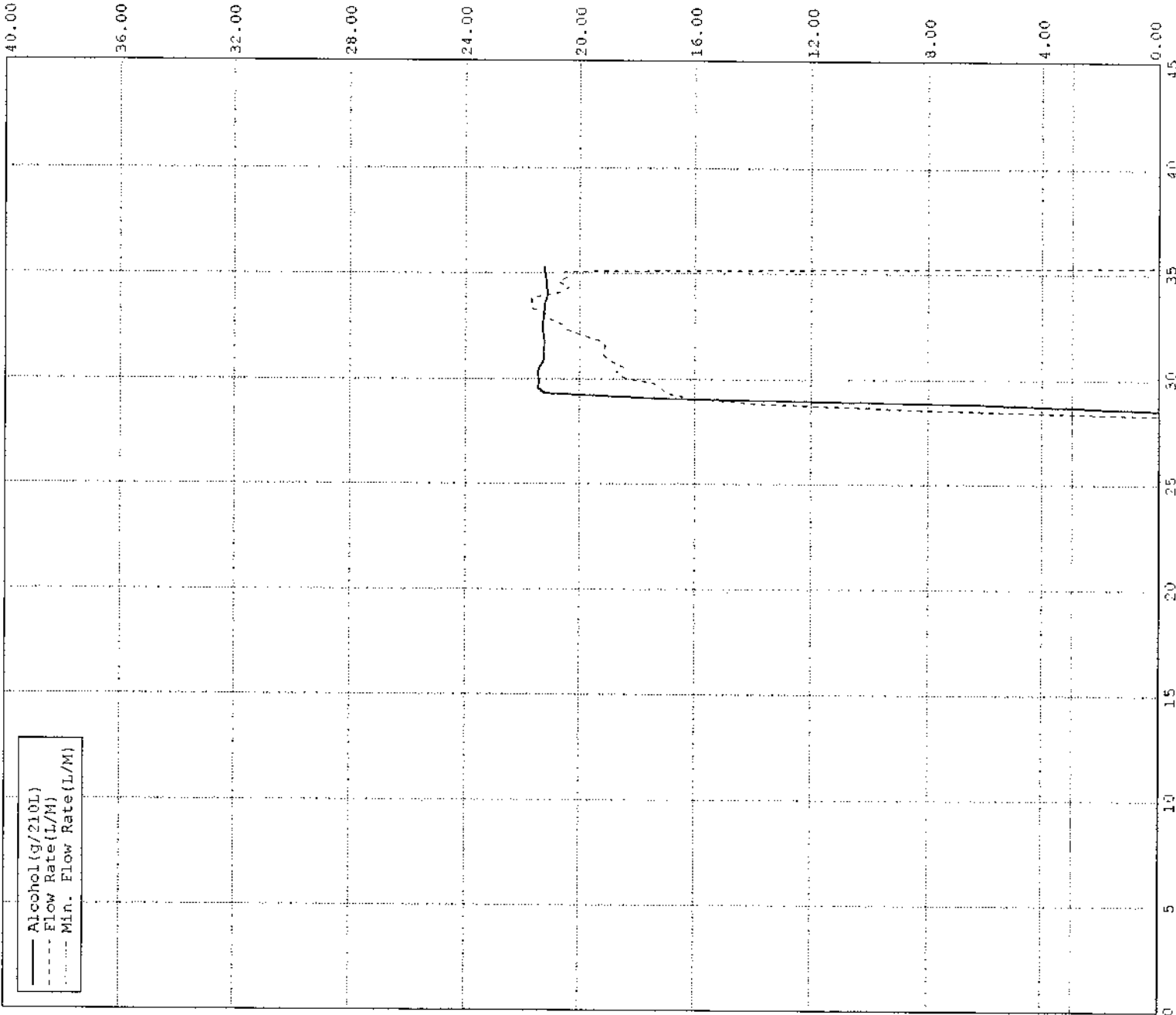
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.64: 0.079  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	07:41
BLANK TEST	0.000	07:41
INTERNAL STANDARD	VERIFIED	07:41
Xq = 0.085 (1.35%)		
EXTERNAL STANDARD	0.078	07:41
X[1] = 0.0780 (0.0011) (0.0026)		
BLANK TEST	0.000	07:42
SUBJECT SAMPLE	XXX	07:43
X[1] = 0.1067 (-0.0135) (0.0021)		

Interference Detected

*Filter 2 avg = 0.0009*

*Filter 3 avg = 0.0085*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100369

Date: 07/15/2020  
Time: 07:47:37

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

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

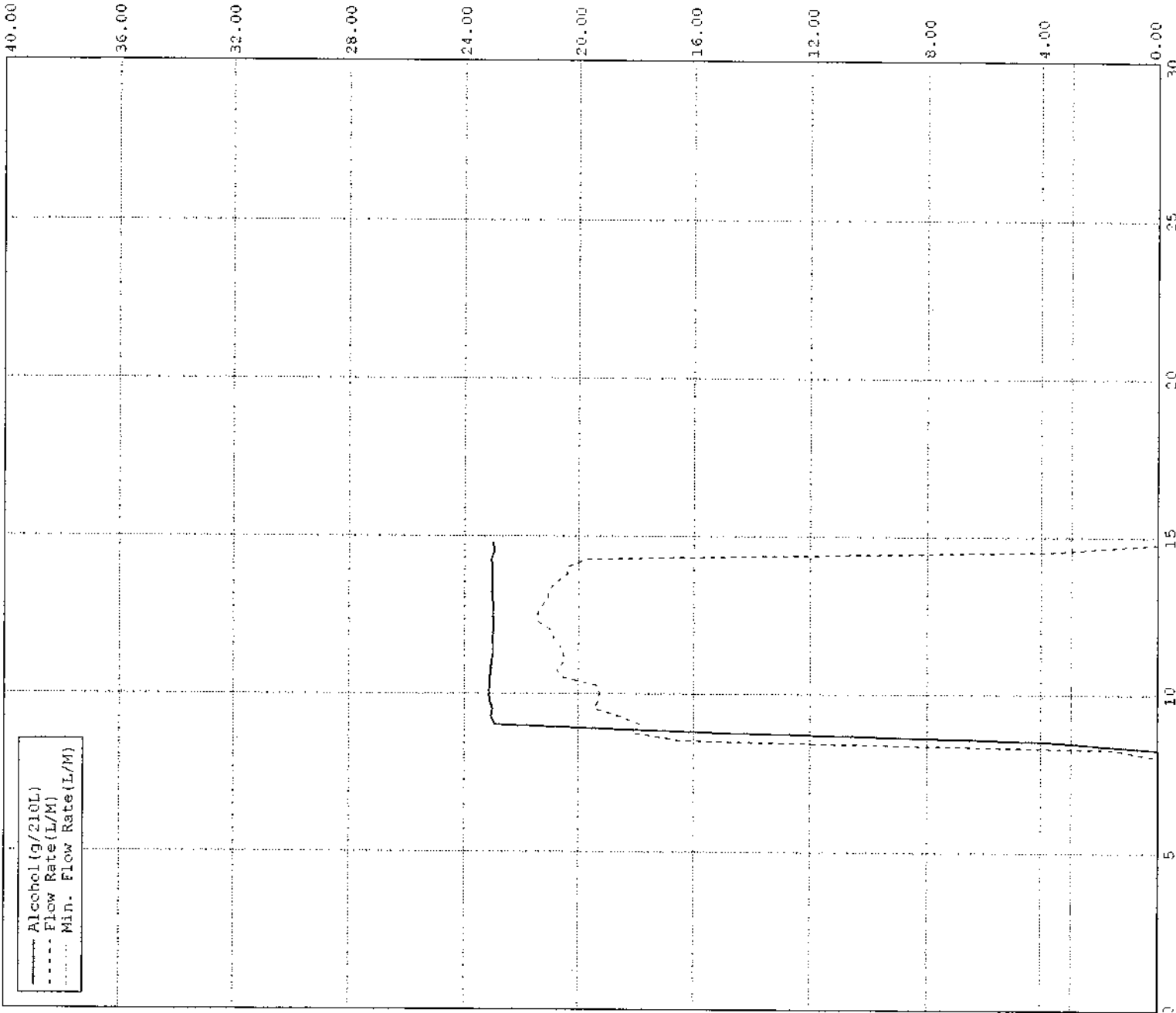
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 20-1234  
TEST TYPE: TEST

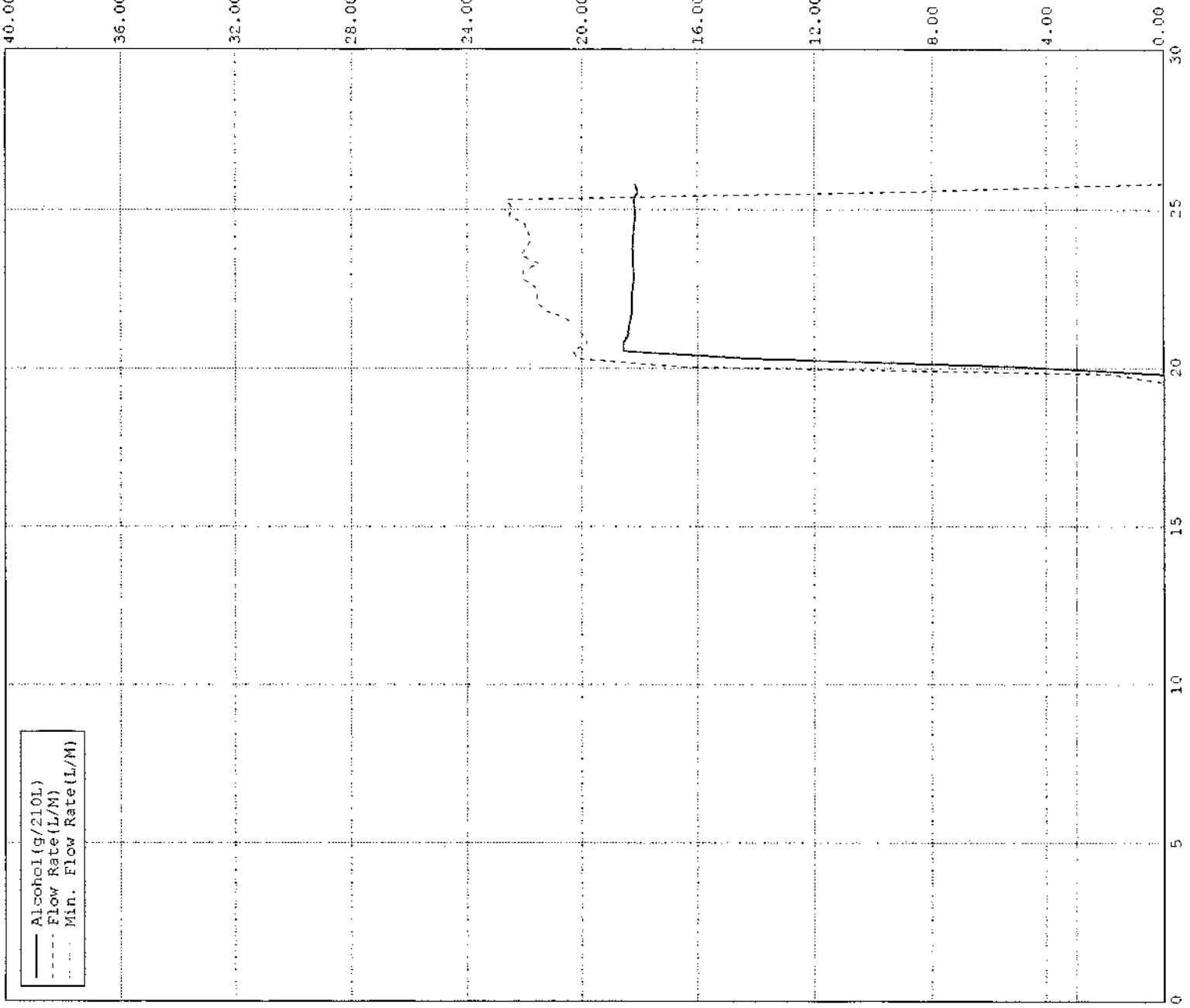
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	07:48
BLANK TEST	0.000	07:48
INTERNAL STANDARD	VERIFIED	07:49
Xg = 0.084 (0.83%)		
EXTERNAL STANDARD	0.077	07:49
X[1] = 0.0772 (0.0005) (0.0027)		
BLANK TEST	0.000	07:50
SUBJECT SAMPLE	XXX	07:50
X[1] = 0.1160 (-0.0268) (0.0016)		

Interference Detected





**SUBJECT TEST**

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100369  
 -----  
 Date: 07/15/2020  
 Time: 07:53:29

**SUBJECT NAME:**  
**TEST TEST**  
**LICENSE #:** INT-NEGATIVE

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

**DEPT/AGENCY:**  
 AAAJ

**CASE/REPORT:** 20-1234  
**TEST TYPE:** TEST

**EXTERNAL STANDARD INFORMATION**  
 NOMINAL: 0.080  
 TARGET AT 29.63: 0.079  
 LOT #: AG923401  
 EXPIRATION: 08/22/2021

<b>DIAGNOSTIC CHECK</b>	PASSED	07:54
BLANK TEST	0.000	07:54
INTERNAL STANDARD	VERIFIED	07:54
Xq = 0.085 (1.25%)		
EXTERNAL STANDARD	0.077	07:54
X[1] = 0.0775 (0.0013) (0.0027)		
BLANK TEST	0.000	07:55
SUBJECT SAMPLE (Vol=1.98L)	0.091	07:56
X[1] = 0.0918 (0.0007) (0.0005)		
BLANK TEST	0.000	07:57
EXTERNAL STANDARD	0.077	07:57
X[1] = 0.0768 (0.0008) (0.0018)		
BLANK TEST	0.000	07:58



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100369

Date: 07/15/2020  
Time: 07:15:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

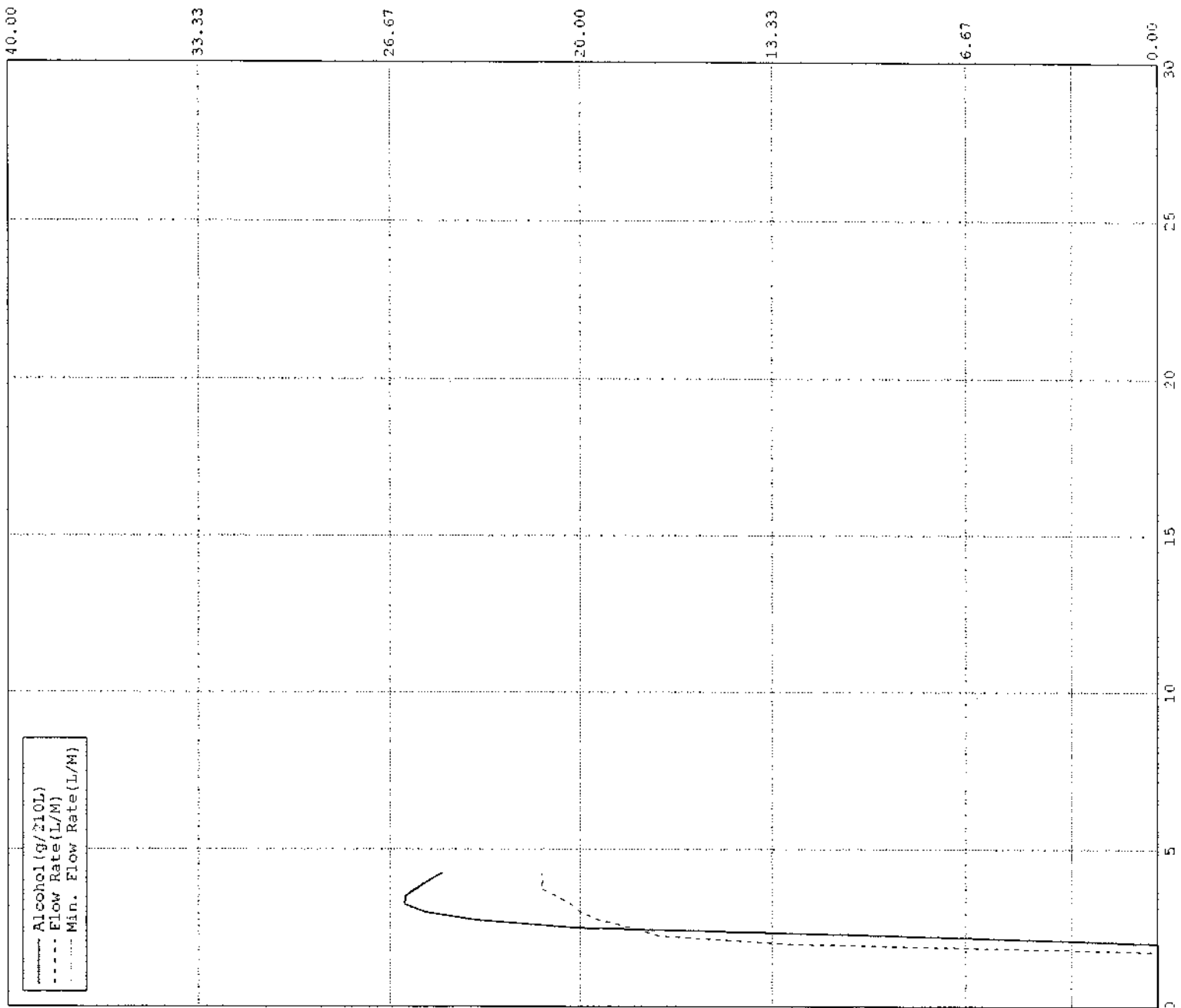
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 20-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.63: 0.079

DIAGNOSTIC CHECK PASSED 07:20  
BLANK TEST 0.000 07:20  
INTERNAL STANDARD VERIFIED 07:20  
EXTERNAL STANDARD 0.078 07:20  
BLANK TEST 0.000 07:21  
SUBJECT SAMPLE INVALID 07:21

*Lot # A 6988401  
Exp 8/22/21  
C207/15/20*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100369

Date: 07/14/2020  
Time: 16:03:43

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

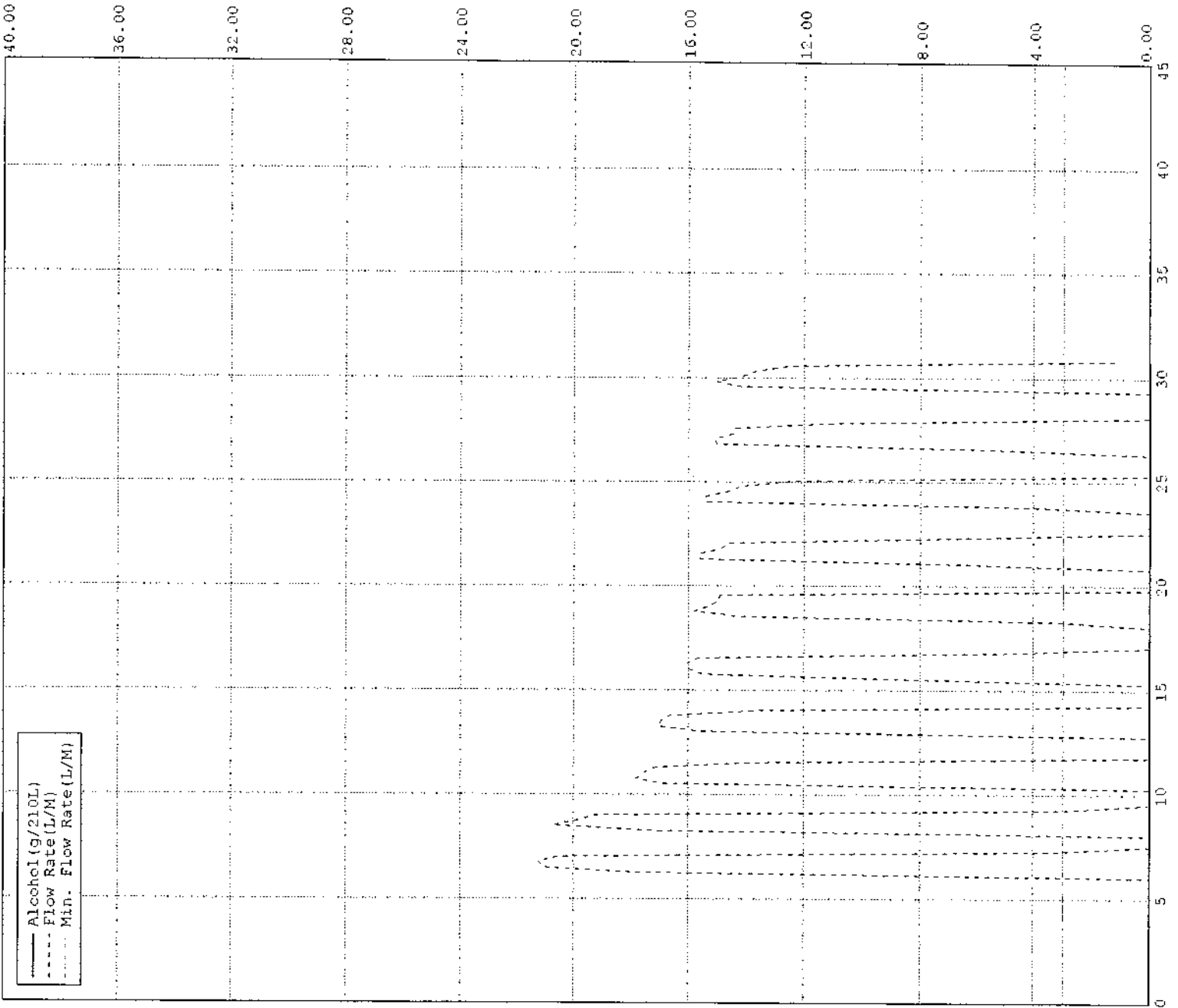
OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

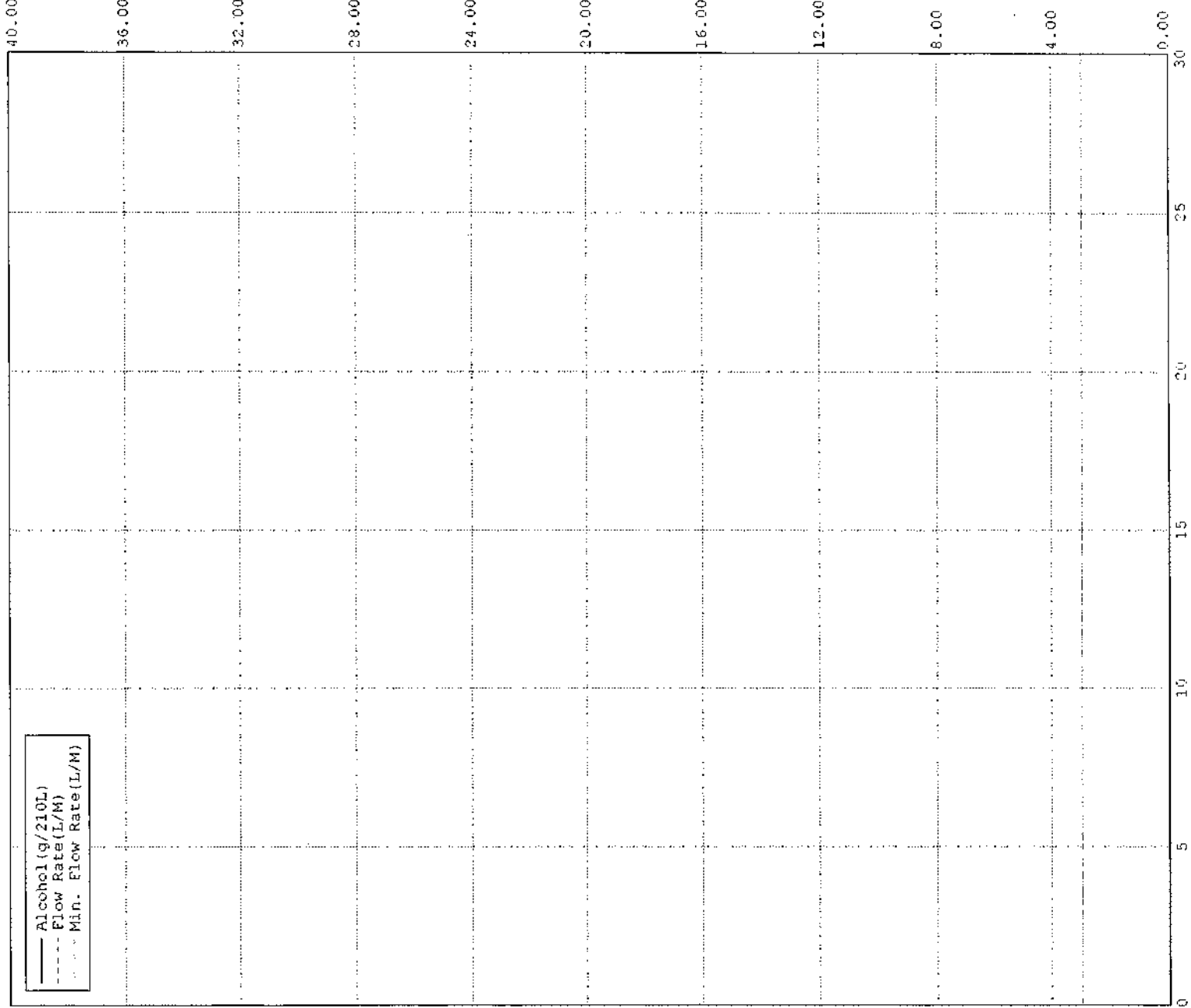
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 20-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.59: 0.079  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 16:05  
BLANK TEST 0.000 16:05  
INTERNAL STANDARD VERIFIED 16:05  
EXTERNAL STANDARD 0.078 16:05  
BLANK TEST 0.000 16:06  
SUBJECT SAMPLE XXX 16:07

Maximum Attempts Exceeded





**SUBJECT TEST**

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100369  
 -----  
 Date: 07/15/2020  
 Time: 07:25:08

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: RFI

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

DEPT/AGENCY:  
 AAA1

CASE/REPORT: 20-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.63: 0.079  
 LOT #: AG923401  
 EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 07:36  
 BLANK TEST 0.000 07:36  
 INTERNAL STANDARD VERIFIED 07:36  
 EXTERNAL STANDARD 0.078 07:36  
 BLANK TEST 0.000 07:37

RFI DETECTED

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100369

Date: 07/15/2020  
Time: 08:10:27

SUBJECT NAME:  
TEST TEST  
LICENSE #: NONDRINKING

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 20-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOT #: AG923401  
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	08:11
BLANK TEST	0.000	08:11
INTERNAL STANDARD	VERIFIED	08:11
EXTERNAL STANDARD	0.078	08:12
BLANK TEST	0.000	08:13
SUBJECT SAMPLE (Vol=2.38L)	0.000	08:13
BLANK TEST	0.000	08:14
EXTERNAL STANDARD	0.078	08:14
BLANK TEST	0.000	08:15

