

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 100396
~~100369~~ ⁹⁹⁸ Analyst Colleen O'Bryen Start Date 4/10/18

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 1.5 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf Argas Lot AG 6060 ⁶¹⁶⁵⁰⁴ ~~6060~~ ^{4/10/18} Exp 6/13/18
- ii. 0.040g/210L Mnf Argas Lot AG 630101 Exp 10/27/18
- iii. 0.080g/210L Mnf Argas Lot AG 634001 Exp 12/5/18
- iv. 0.100g/210L Mnf Argas Lot AG 629304 Exp 10/19/18
- v. 0.200g/210L Mnf guth Lot 17340 Exp 10/9/19
 - 1. Simulator S/N DR 5298 Date Calibrated 1/24/18
- vi. 0.300g/210L Mnf guth Lot 17140 Exp 5/15/19
 - 1. Simulator S/N SD 1198 Date Calibrated 1/23/18

5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts

- i. Acetone - Mnf guth Lot 17280 Level 0.100 Exp 9/11/19
 - 1. Simulator S/N SD 1177 Date Calibrated 1/24/18
- ii. Isopropanol - Mnf guth Lot 17280 Level 0.100 Exp 9/11/19
 - 1. Simulator S/N SD 1199 Date Calibrated 1/24/18
- iii. Negative Control - Mnf guth Lot 17060 Level 0.100 Exp 2/14/19
 - 1. Simulator S/N SD 1088 Date Calibrated 1/24/18

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 4/10/18

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100396

Date: 04/10/2018
Time: 09:14:11

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 = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.85 V PASSED
(1.11 V - 2.59 V)
Cooler Voltage = 1.83 V PASSED
(1.10 V - 2.56 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 539 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.1 in

PUMP INFO

Flow Rate = 5.046 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.003 V <= 0.010 V)
PUMP OFF PASSED
(0.003 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.110 0.64% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100396

Date: 04/10/2018
Time: 9:38 AM

Temperatures (°C)

Sample Cell: 48.7°C
Breath Tube: 47.9°C

Current Barometer 29.0 in
Volume (Ltr) 1.51

Settings

Lamp: 1.88 V
Bias: 80 V
Cooler: 1.89 V
Chopper: 538 Hz

Voltages (V)

Flow: 1.08 V
Detector: 0.057 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100396

Date: 04/04/2018
Time: 09:57:00

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca = 0.1000
CAL = 0.965386 0.800 <= CAL < 1.200
b1 = 0.0005 0.0000 <= b1 < 0.0040
b2 = 0.0063 0.0010 <= b2 < 0.0100
b3 = 0.0010 0.0000 <= b3 < 0.0040
Xq = 0.1108 0.0500 <= Xq < 0.2000
a21 = 1.187446 1.050 <= a21 < 1.300
a31 = 0.442848 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100396

Date: 04/10/2018
Time: 09:39:32

SUBJECT NAME:
TEST TEST
LICENSE #: VOLUME TEST

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

DEPT/AGENCY:
AAA1

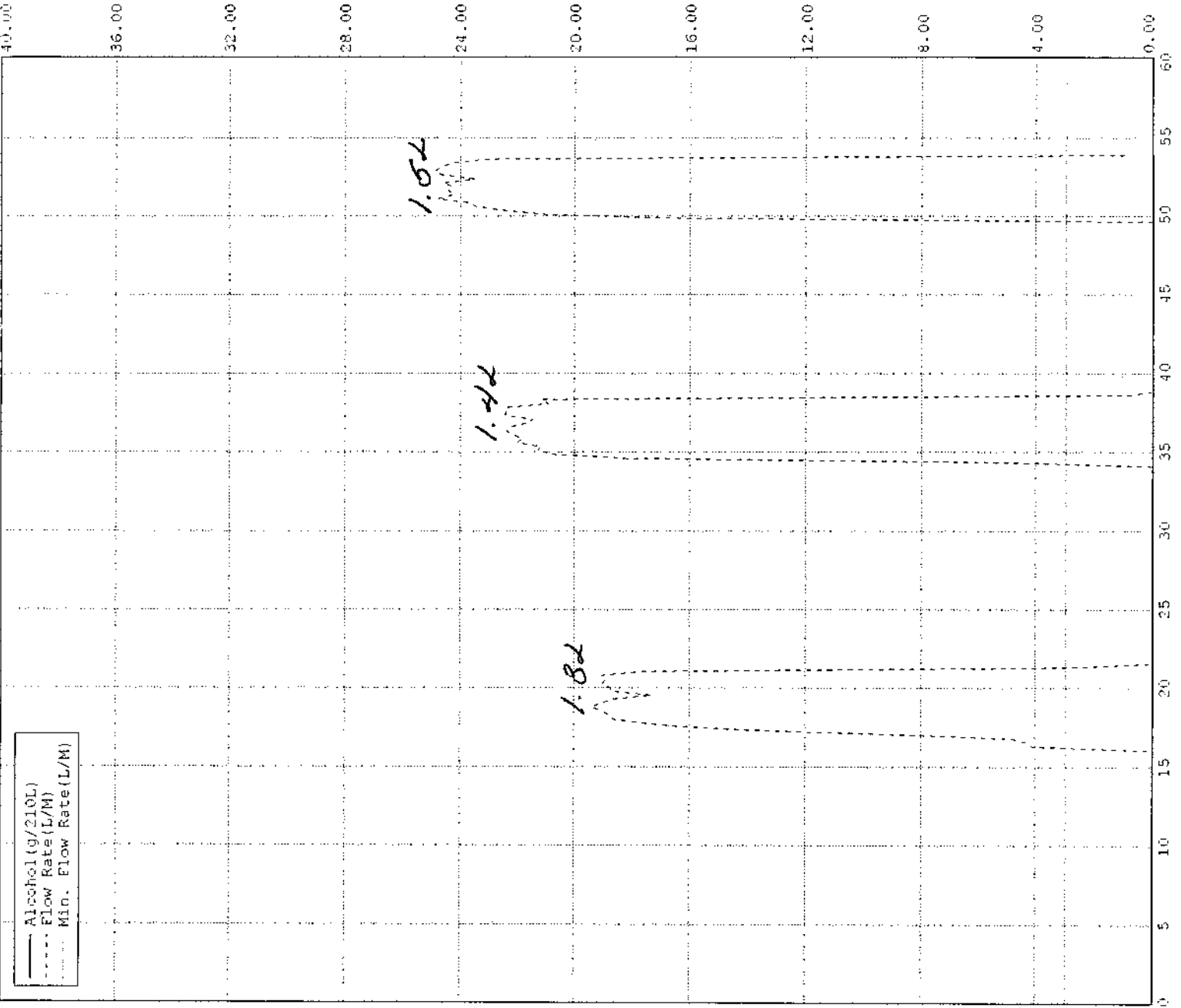
CASE/REPORT: 18-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.05: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	09:45
BLANK TEST	0.000	09:45
INTERNAL STANDARD	VERIFIED	09:45
EXTERNAL STANDARD	0.077	09:46
BLANK TEST	0.000	09:46
SUBJECT SAMPLE (Vol=1.56L)	0.000	09:47
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.077	09:49
BLANK TEST	0.000	09:49

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



LINEARITY CHECK

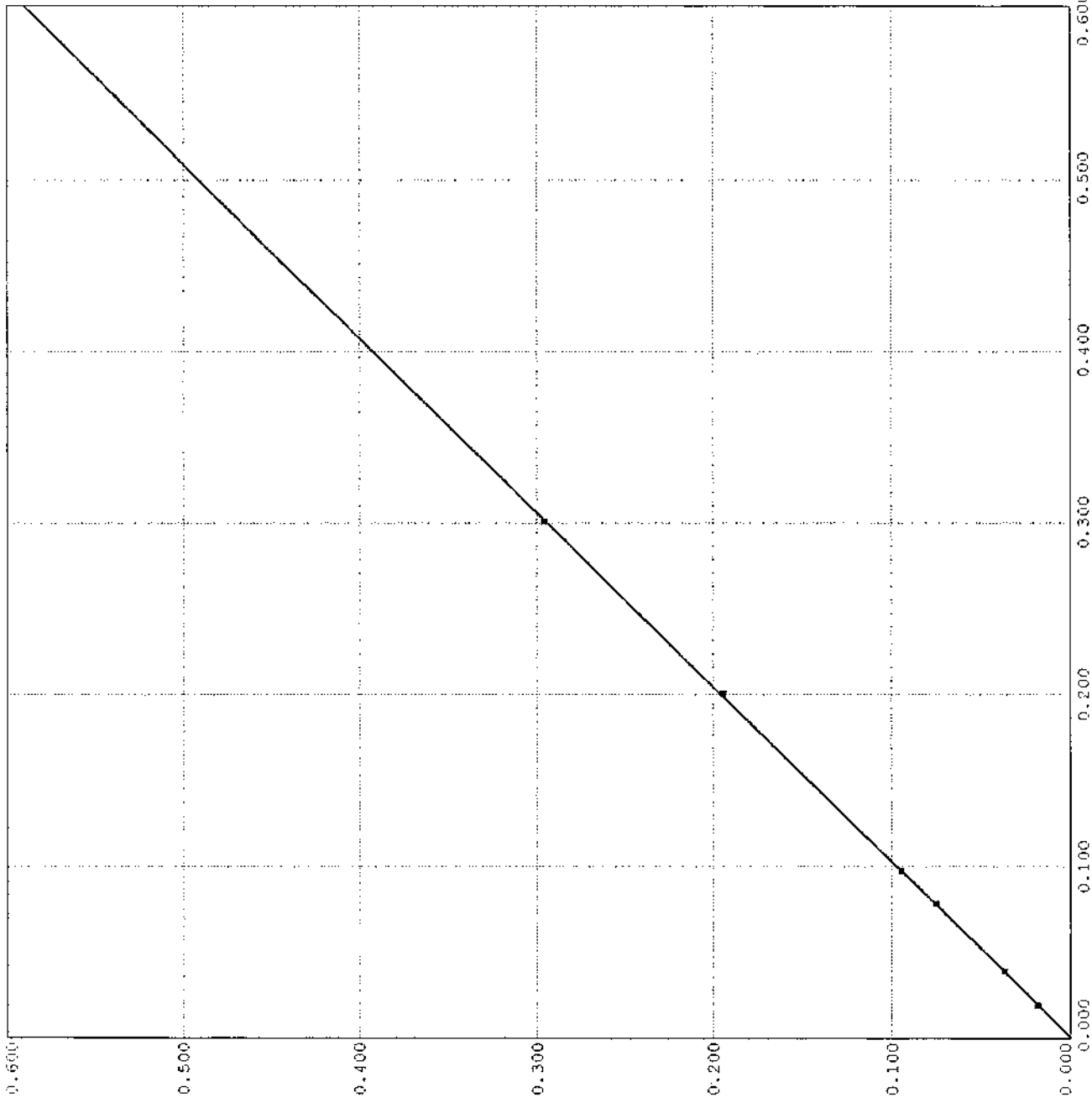
Alaska Department of Public Safety
 DATAMASTER dmt: 100396

Date: 04/10/2018
 Time: 10:00:06

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

TARGET	AVERAGE	STD. DEV.
0.019	0.0190	0.0000
0.039	0.0380	0.0000
0.078	0.0762	0.0004
0.097	0.0956	0.0005
0.200	0.1952	0.0004
0.300	0.2962	0.0004

SLOPE = 0.985276
 R² = 0.999932



CS

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100396

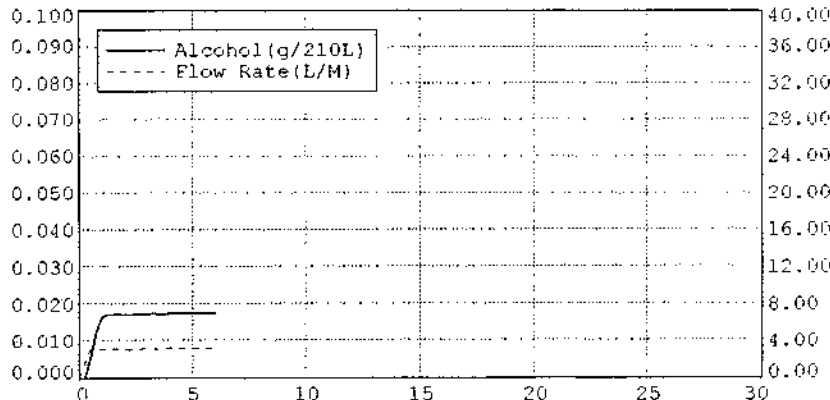
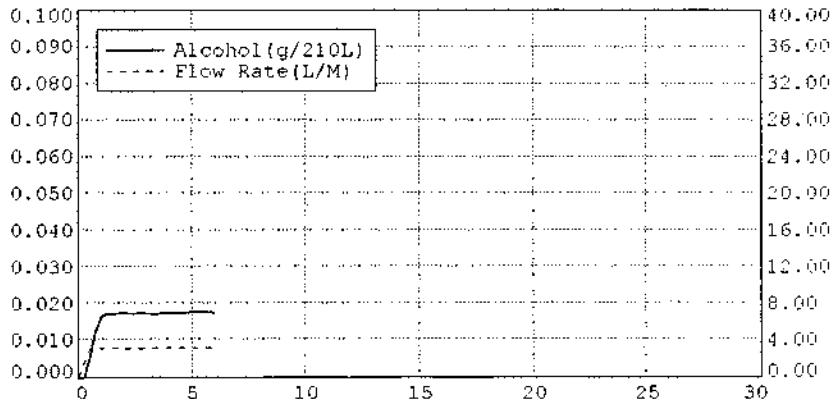
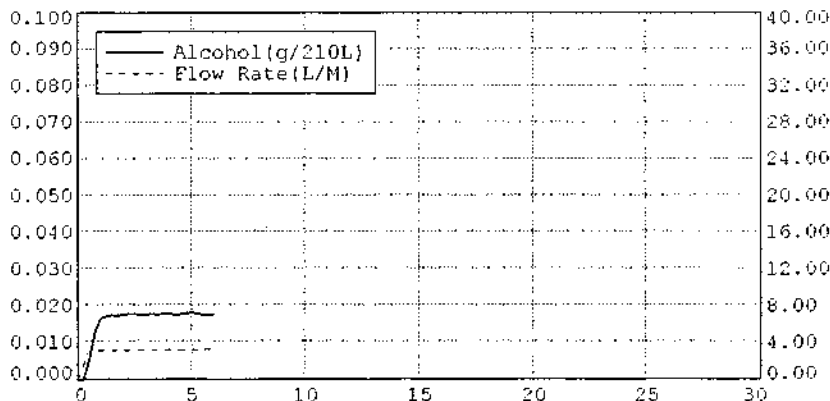
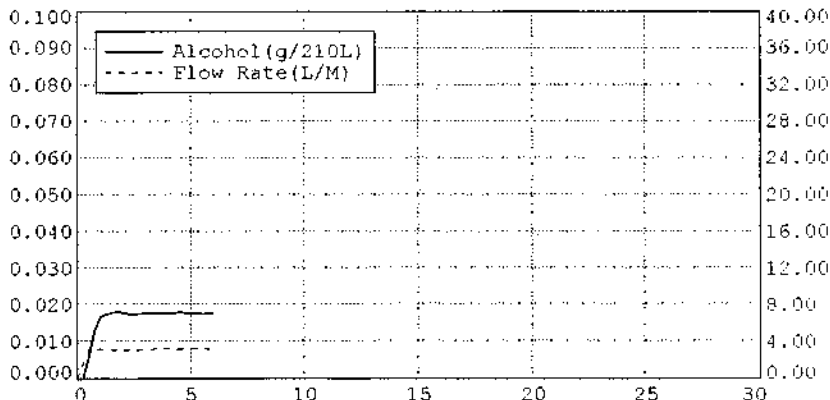
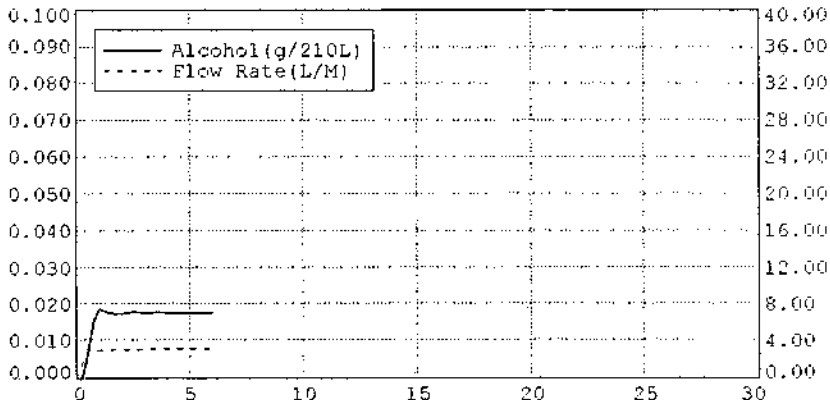
Date: 04/10/2018
Time: 10:00:09

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.05: 0.019
LOT #: AG616504
EXPIRATION: 06/13/2018
TANK PRESSURE: 1016 psi

BLANK TEST	0.000	10:01
INTERNAL STANDARD	VERIFIED	10:01
EXTERNAL STANDARD	0.019	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.019	10:02
BLANK TEST	0.000	10:03
EXTERNAL STANDARD	0.019	10:04
BLANK TEST	0.000	10:04
EXTERNAL STANDARD	0.019	10:05
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.019	10:06
BLANK TEST	0.000	10:07

Average = 0.0190
Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100396

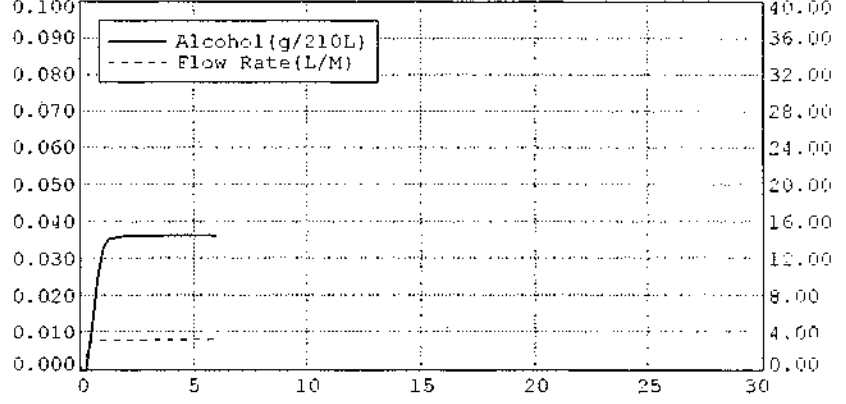
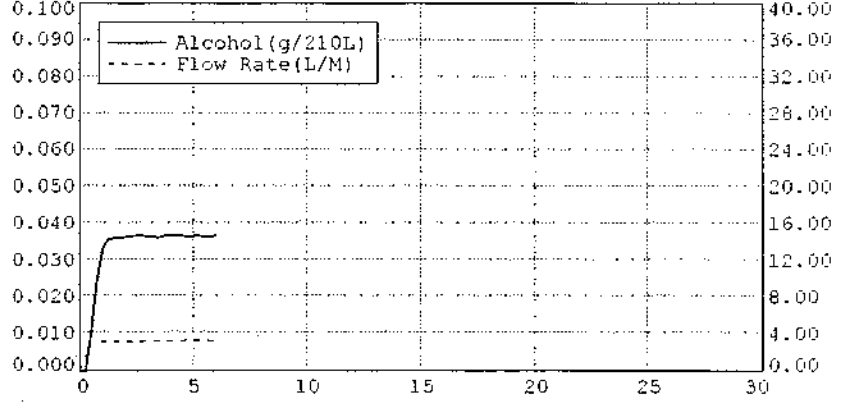
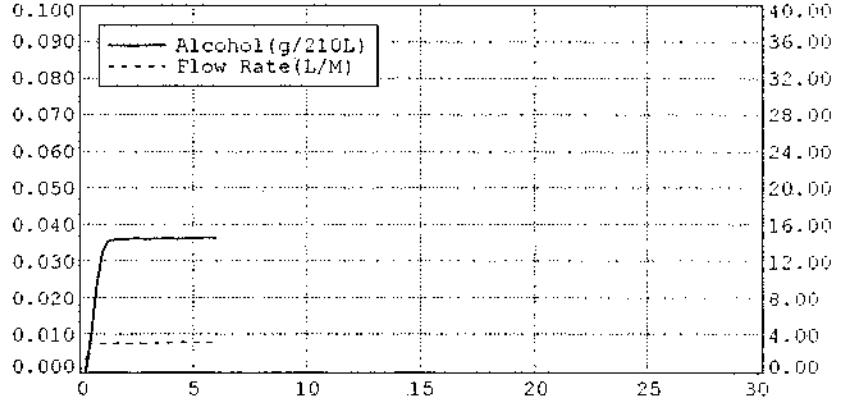
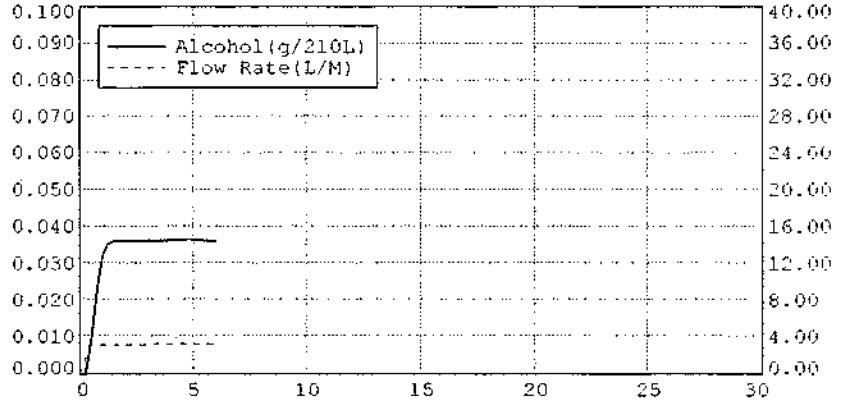
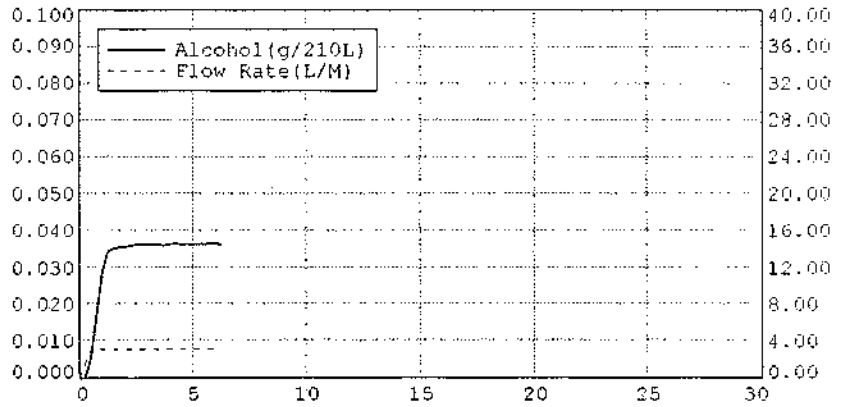
Date: 04/10/2018
 Time: 10:11:06

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.05: 0.039
 LOT #: AG630101
 EXPIRATION: 10/27/2018
 TANK PRESSURE: 1017 psi

BLANK TEST	0.000	10:12
INTERNAL STANDARD	VERIFIED	10:12
EXTERNAL STANDARD	0.038	10:12
BLANK TEST	0.000	10:13
EXTERNAL STANDARD	0.038	10:13
BLANK TEST	0.000	10:14
EXTERNAL STANDARD	0.038	10:14
BLANK TEST	0.000	10:15
EXTERNAL STANDARD	0.038	10:15
BLANK TEST	0.000	10:16
EXTERNAL STANDARD	0.038	10:16
BLANK TEST	0.000	10:17

Average = 0.0380
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100396

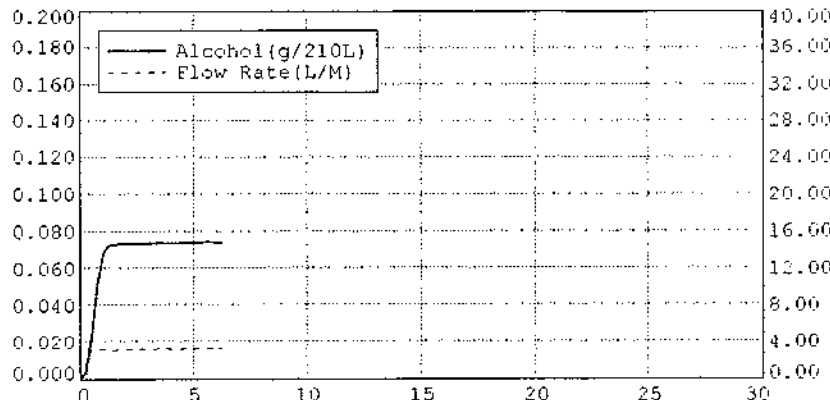
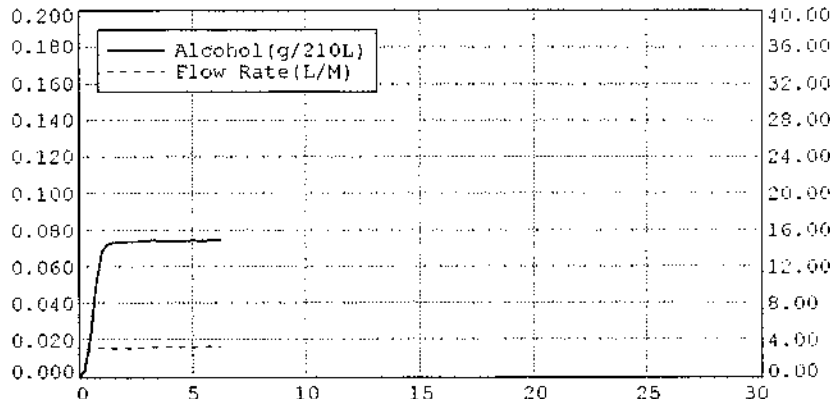
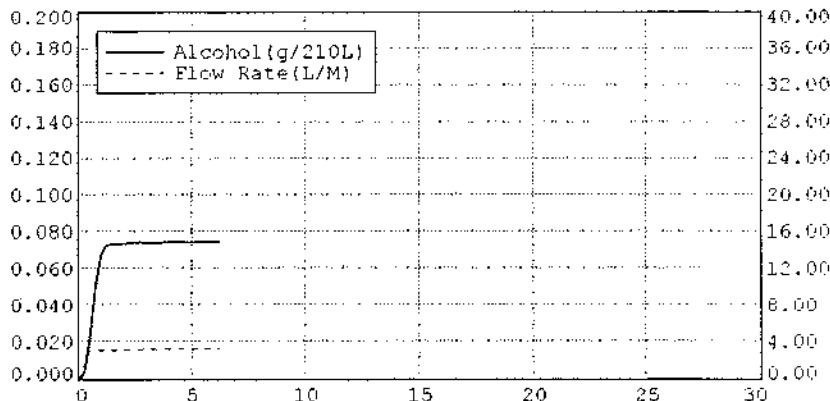
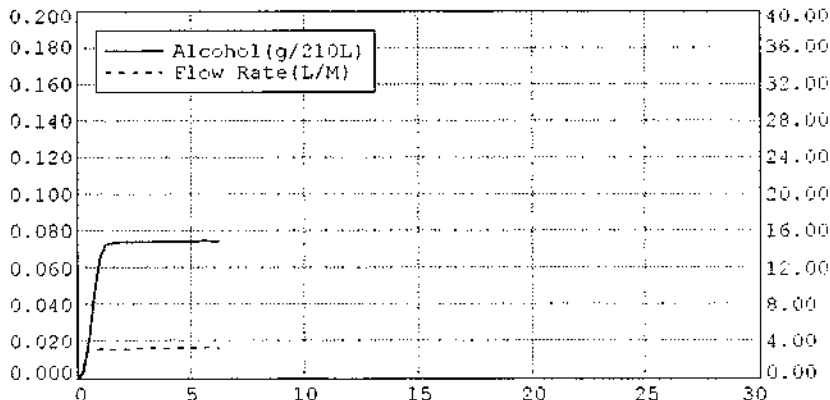
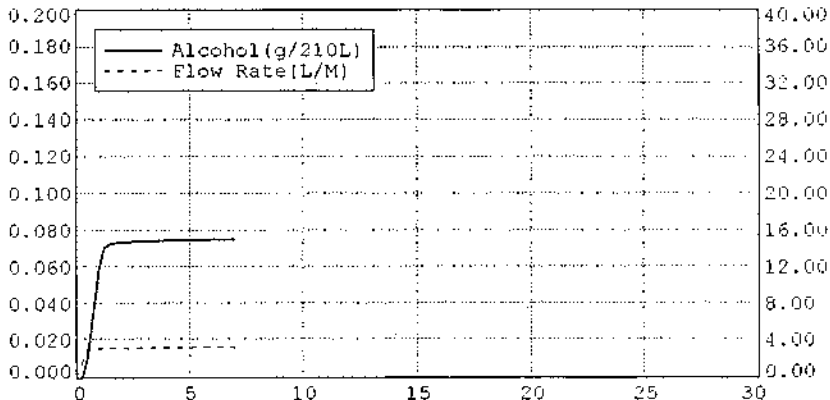
Date: 04/10/2018
 Time: 10:18:40

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.04: 0.078
 LOT #: AG634001
 EXPIRATION: 12/05/2018
 TANK PRESSURE: 1146 psi

BLANK TEST	0.000	10:19
INTERNAL STANDARD	VERIFIED	10:19
EXTERNAL STANDARD	0.077	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.076	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.076	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.076	10:23
BLANK TEST	0.000	10:24
EXTERNAL STANDARD	0.076	10:24
BLANK TEST	0.000	10:25

Average = 0.0762
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100396

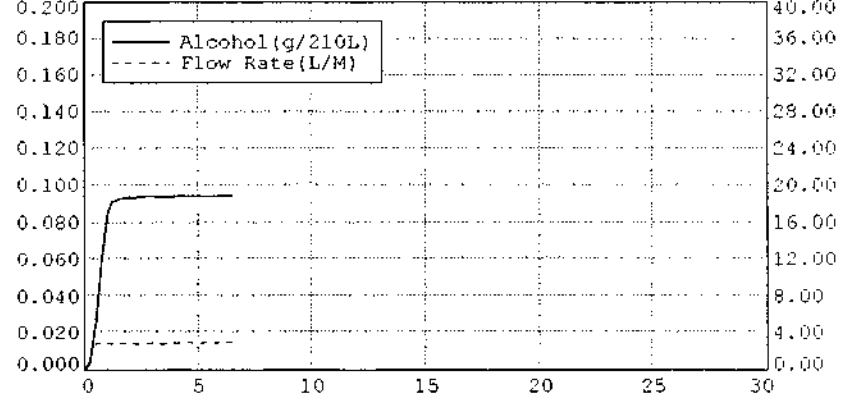
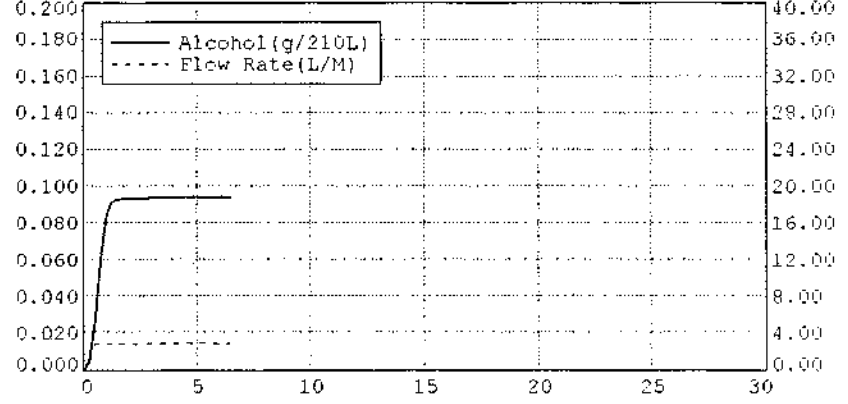
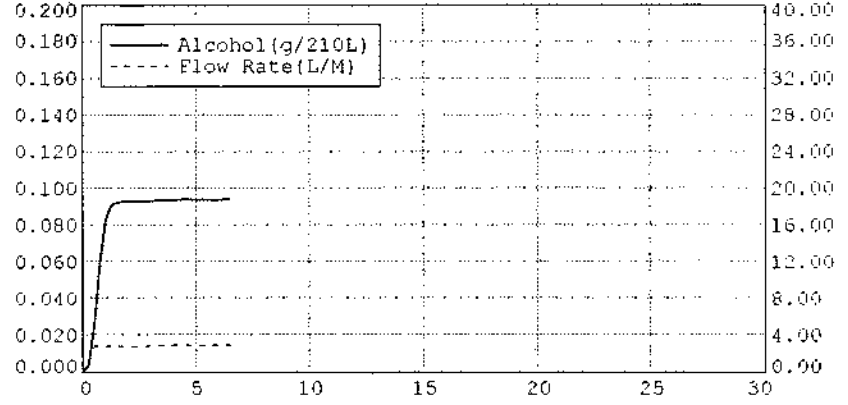
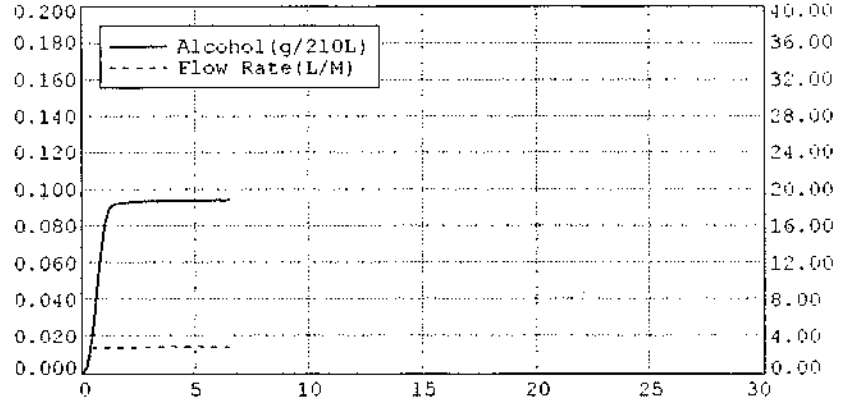
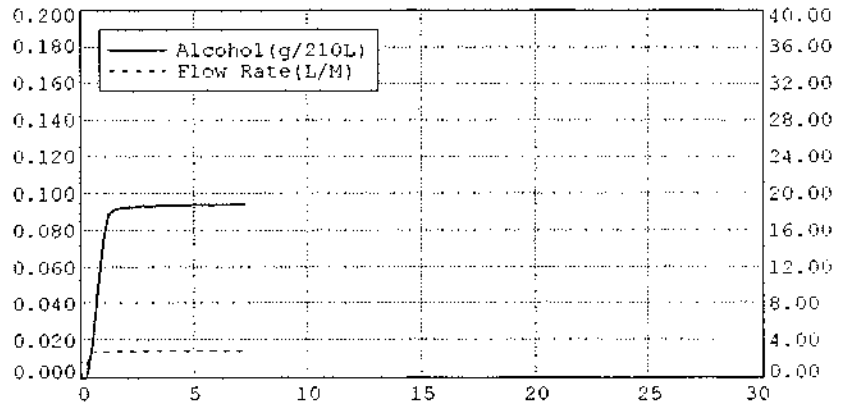
Date: 04/10/2018
 Time: 10:25:47

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.04: 0.097
 LOT #: AG629304
 EXPIRATION: 10/19/2018
 TANK PRESSURE: 604 psi

BLANK TEST	0.000	10:27
INTERNAL STANDARD	VERIFIED	10:27
EXTERNAL STANDARD	0.096	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.095	10:29
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.095	10:30
BLANK TEST	0.000	10:31
EXTERNAL STANDARD	0.096	10:31
BLANK TEST	0.000	10:32
EXTERNAL STANDARD	0.096	10:32
BLANK TEST	0.000	10:33

Average = 0.0956
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

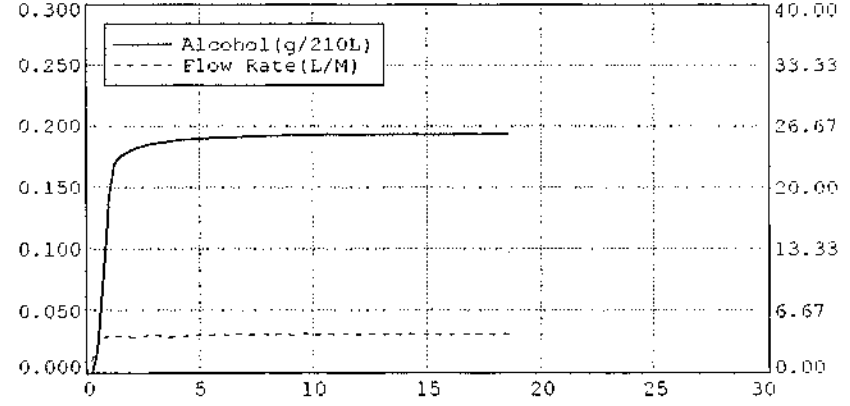
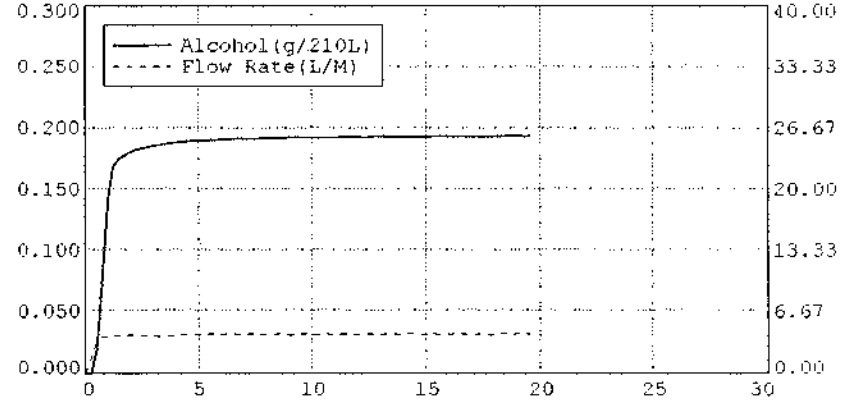
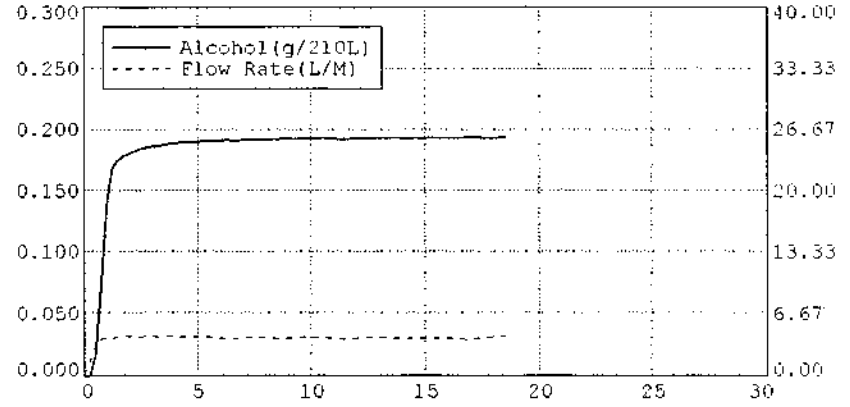
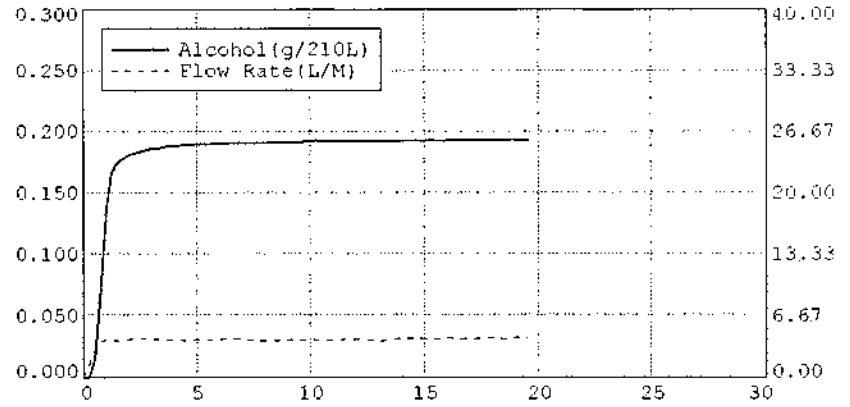
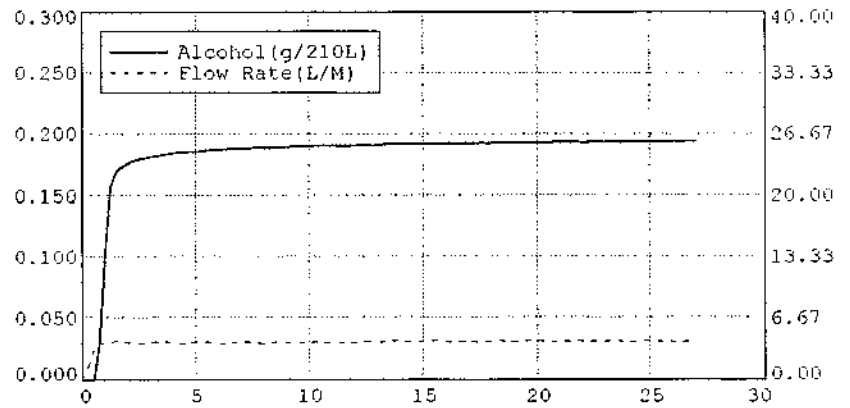
Alaska Department of Public Safety
 DATAMASTER dmt: 100396

Date: 04/10/2018
 Time: 13:58:32

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: 17340
 EXPIRATION: 10/09/2019

BLANK TEST	0.000	14:05
INTERNAL STANDARD	VERIFIED	14:05
EXTERNAL STANDARD	0.195	14:05
BLANK TEST	0.000	14:06
EXTERNAL STANDARD	0.195	14:07
BLANK TEST	0.000	14:08
EXTERNAL STANDARD	0.195	14:08
BLANK TEST	0.000	14:09
EXTERNAL STANDARD	0.195	14:09
BLANK TEST	0.000	14:10
EXTERNAL STANDARD	0.196	14:11
BLANK TEST	0.000	14:12

Average = 0.1952
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100396

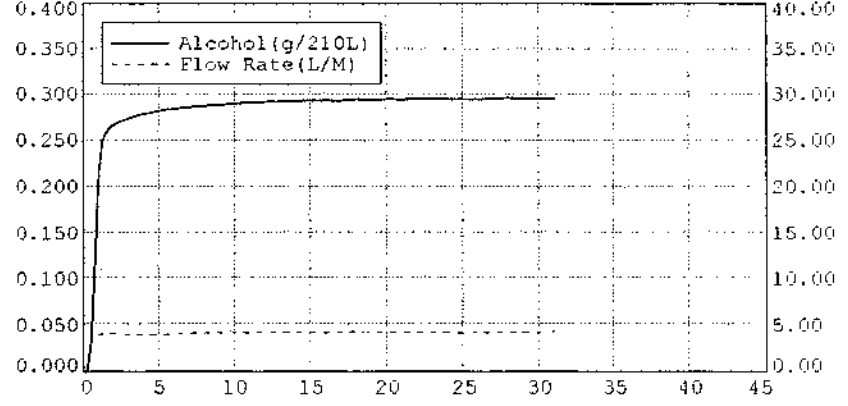
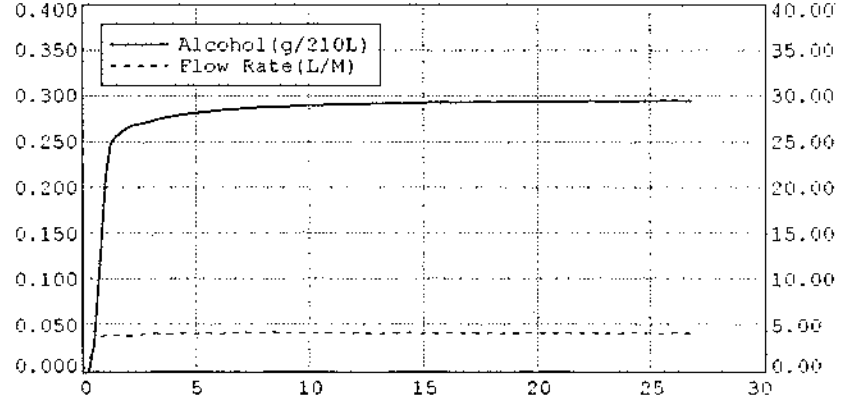
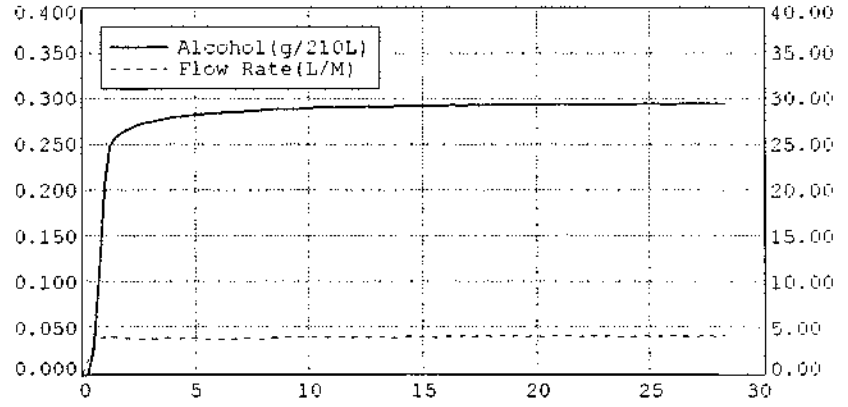
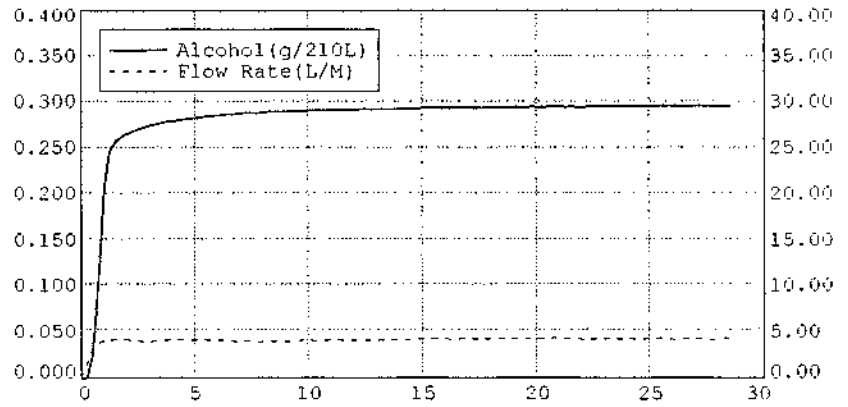
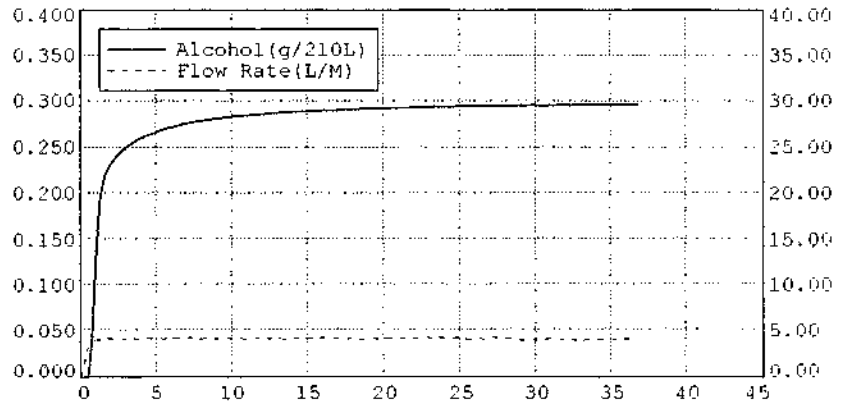
Date: 04/10/2018
 Time: 14:13:10

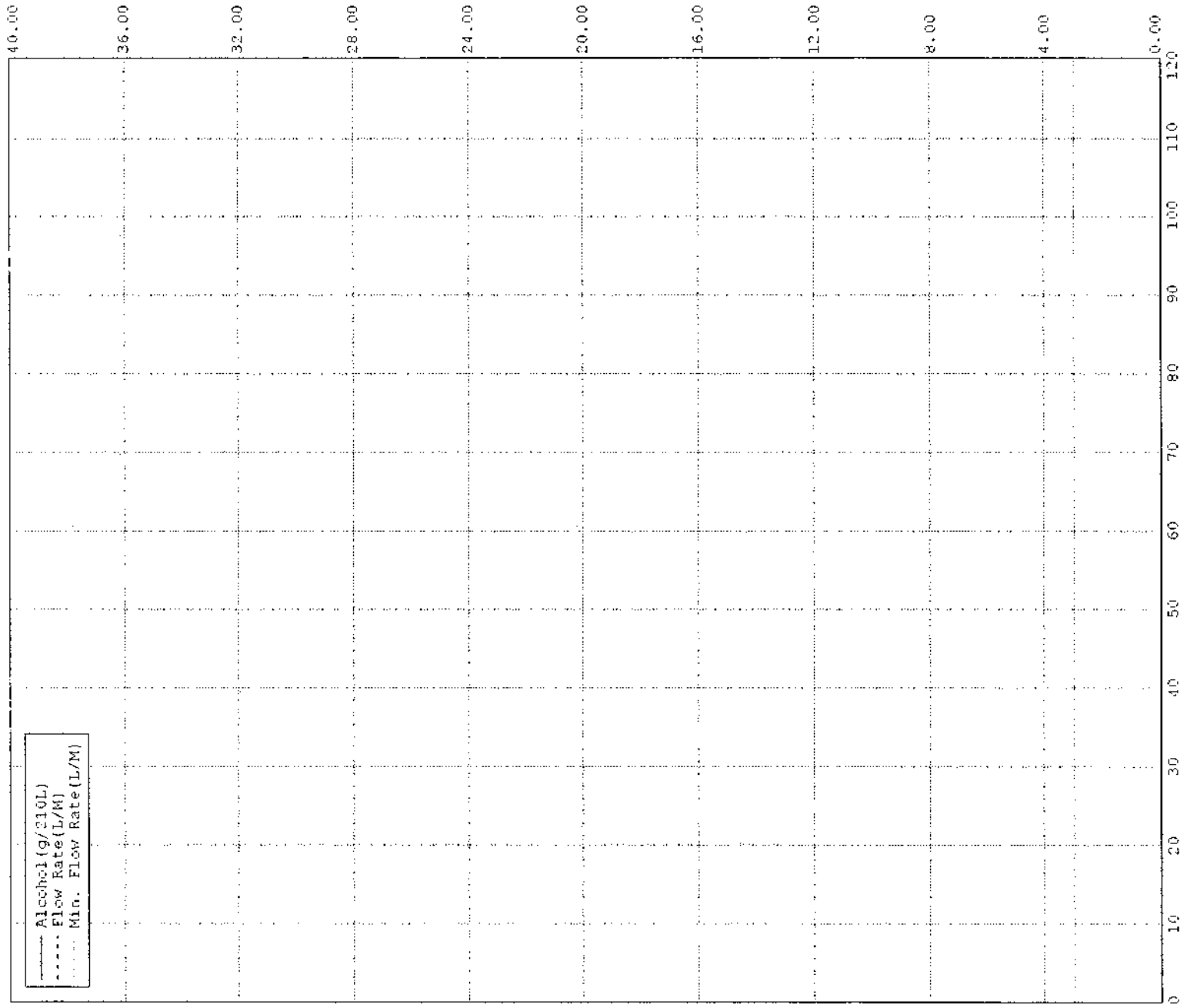
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 17140
 EXPIRATION: 05/15/2019

BLANK TEST	0.000	14:26
INTERNAL STANDARD	VERIFIED	14:26
EXTERNAL STANDARD	0.297	14:27
BLANK TEST	0.000	14:28
EXTERNAL STANDARD	0.296	14:29
BLANK TEST	0.000	14:29
EXTERNAL STANDARD	0.296	14:30
BLANK TEST	0.000	14:31
EXTERNAL STANDARD	0.296	14:32
BLANK TEST	0.000	14:32
EXTERNAL STANDARD	0.296	14:33
BLANK TEST	0.000	14:34

Average = 0.2962
 Std Dev = 0.0004





SUBJECT TEST

 Alaska Department of Public Safety
 DATAMASTER dmt: 100396

 Date: 04/10/2018
 Time: 14:39:56

SUBJECT NAME:
 TEST TEST
 LICENSE #: INCOMPLETE

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

DEPT/AGENCY:
 AAA1

CASE/REPORT: 18-1234
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 28.97: 0.077
 LOT #: AG634001
 EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 14:41
 BLANK TEST 0.000 14:41
 INTERNAL STANDARD VERIFIED 14:41
 EXTERNAL STANDARD 0.075 14:41
 BLANK TEST 0.000 14:42
 SUBJECT SAMPLE INCOMPLETE 14:44

CB

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100396

Date: 04/10/2018
Time: 14:49:26

SUBJECT NAME:
TEST TEST
LICENSE #: INVALID

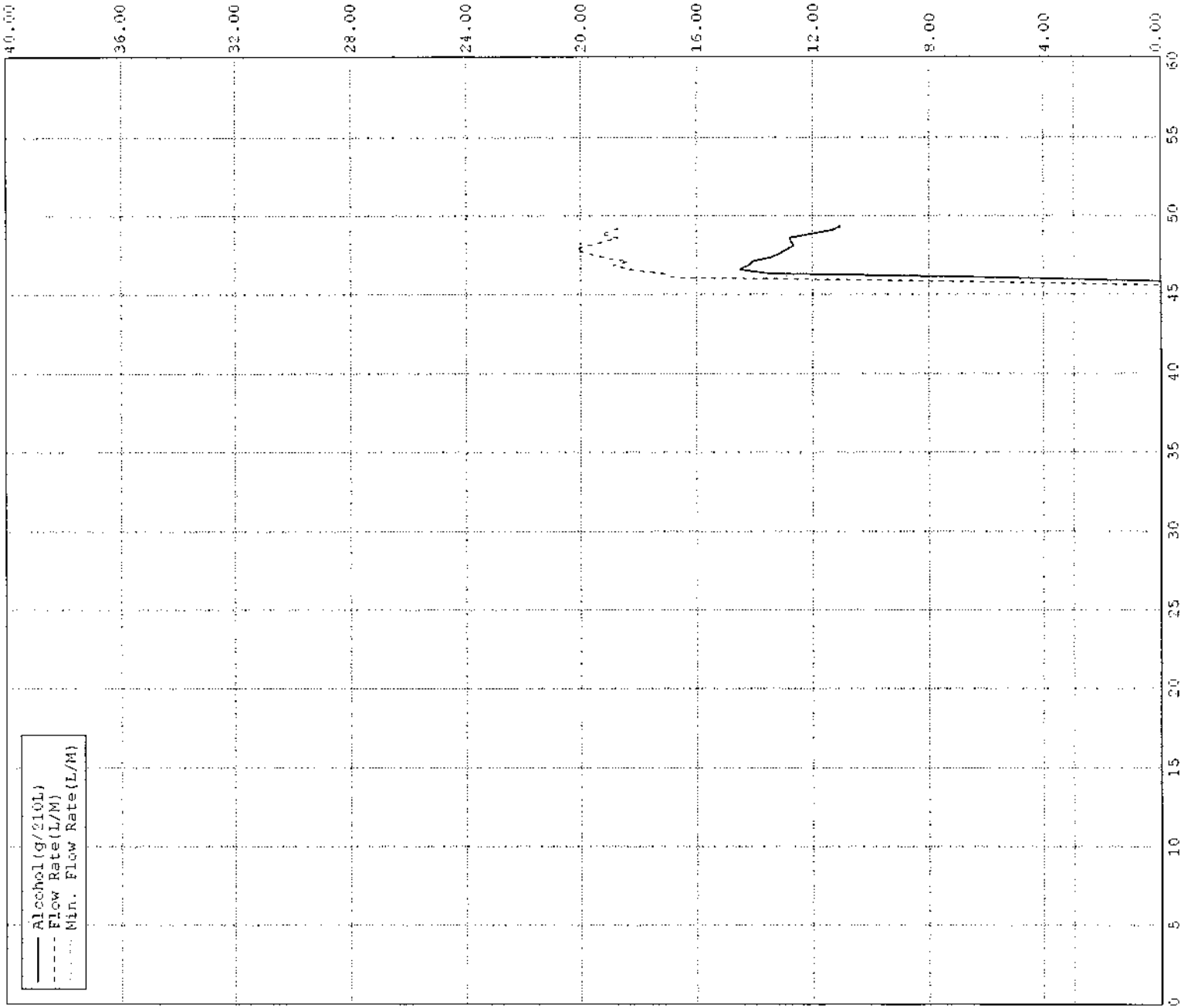
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

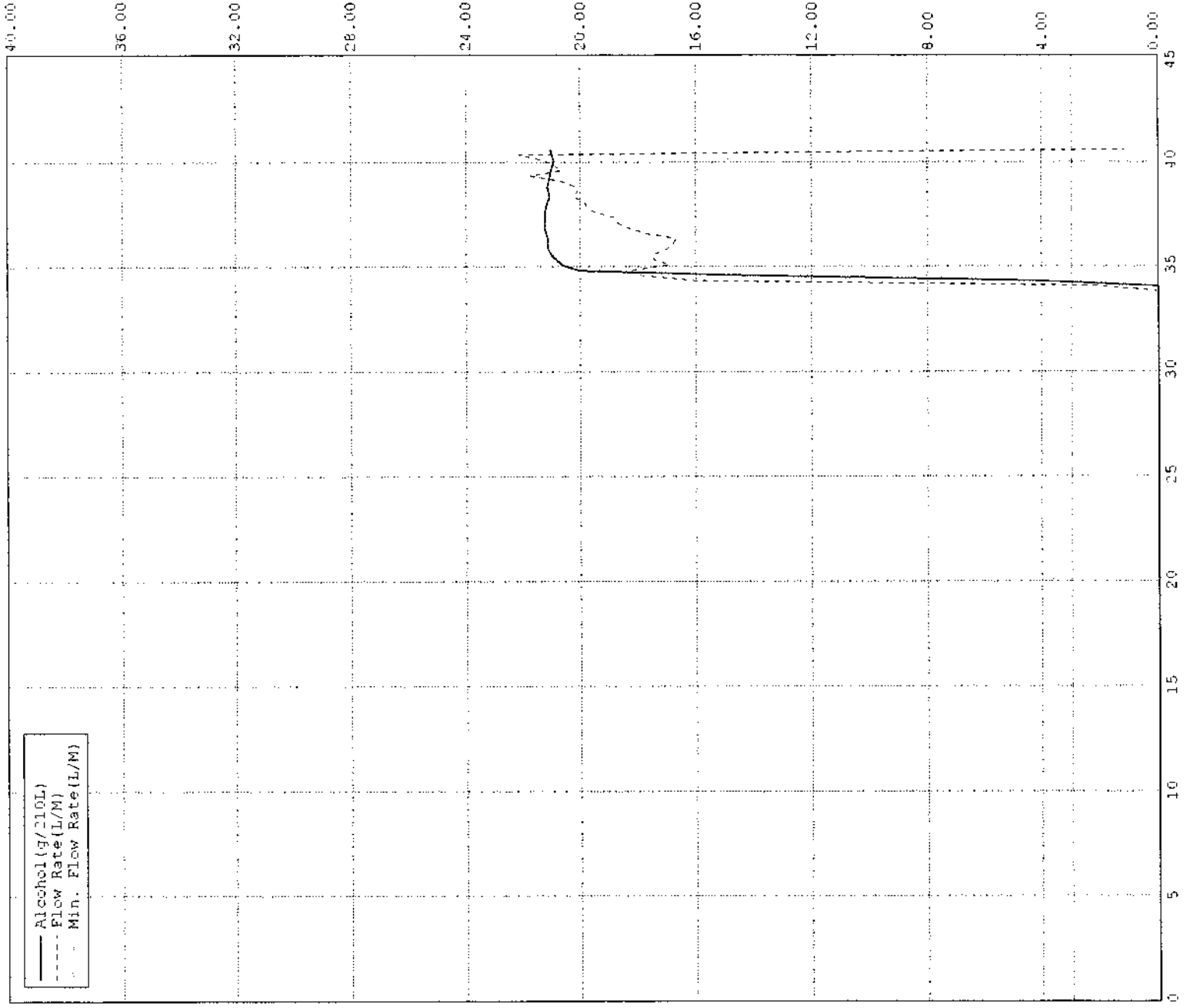
DEPT/AGENCY:
AAA1
CASE/REPORT: 18-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 28.96: 0.077
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 14:50
BLANK TEST 0.000 14:50
INTERNAL STANDARD VERIFIED 14:50
EXTERNAL STANDARD 0.076 14:51
BLANK TEST 0.000 14:51
SUBJECT SAMPLE INVALID 14:52

COB





SUBJECT TEST

 Alaska Department of Public Safety
 DATAMASTER dmt: 100396

 Date: 04/10/2018
 Time: 15:08:09

SUBJECT NAME:
 TEST TEST
 LICENSE #: INT-ACETONE

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

DEPT/AGENCY:
 AAAA

CASE/REPORT: 18-1234
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 28.96: 0.077
 LOT #: AG634001
 EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	15:10
BLANK TEST	0.000	15:10
INTERNAL STANDARD	VERIFIED	15:11
$x_q = 0.110$ (0.72%)		
EXTERNAL STANDARD	0.075	15:11
$x[1] = 0.0755$ (-0.0016) (0.0029)		
BLANK TEST	0.000	15:12
SUBJECT SAMPLE	XXX	15:12
$x[1] = 0.1060$ (-0.0119) (0.0041)		

Interference Detected

C CB

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100396

Date: 04/10/2018
Time: 15:15:33

SUBJECT NAME:
TEST TEST
LICENSE #: INT-IPA

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

DEPT/AGENCY:
AAA1
CASE/REPORT: 18-1234
TEST TYPE: TEST

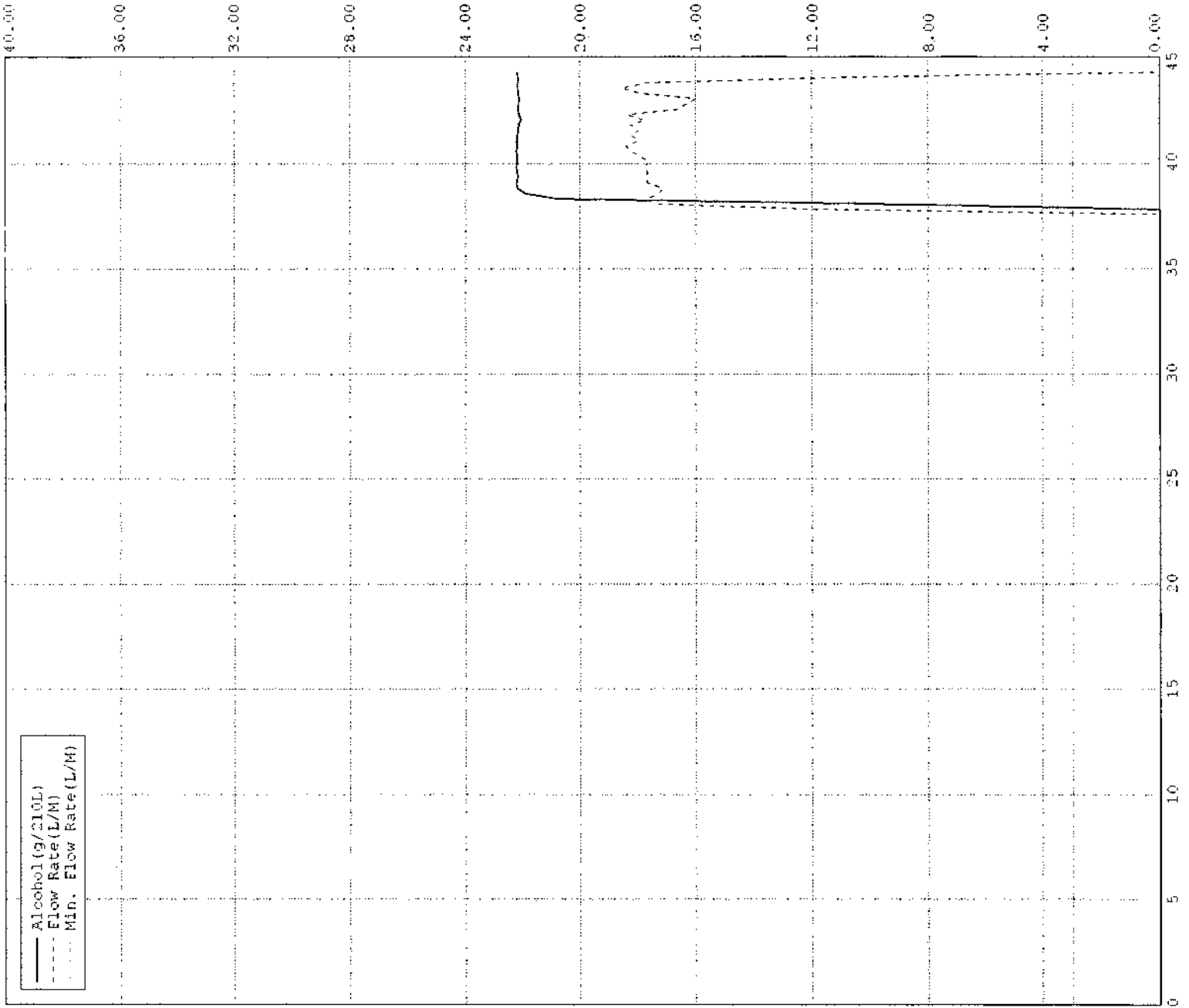
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 28.95: 0.077
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	15:16
BLANK TEST	0.000	15:16
INTERNAL STANDARD	VERIFIED	15:16
$X_q = 0.111$ (0.08%)		
EXTERNAL STANDARD	0.076	15:16
$X[1] = 0.0764$ (-0.0001) (0.0026)		
BLANK TEST	0.000	15:17
SUBJECT SAMPLE	XXX	15:18
$X[1] = 0.1121$ (-0.0247) (0.0032)		

Interference Detected

OB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100396

Date: 04/10/2018
Time: 15:21:00

SUBJECT NAME:
TEST TEST
LICENSE #: INT-NEGATIVE

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

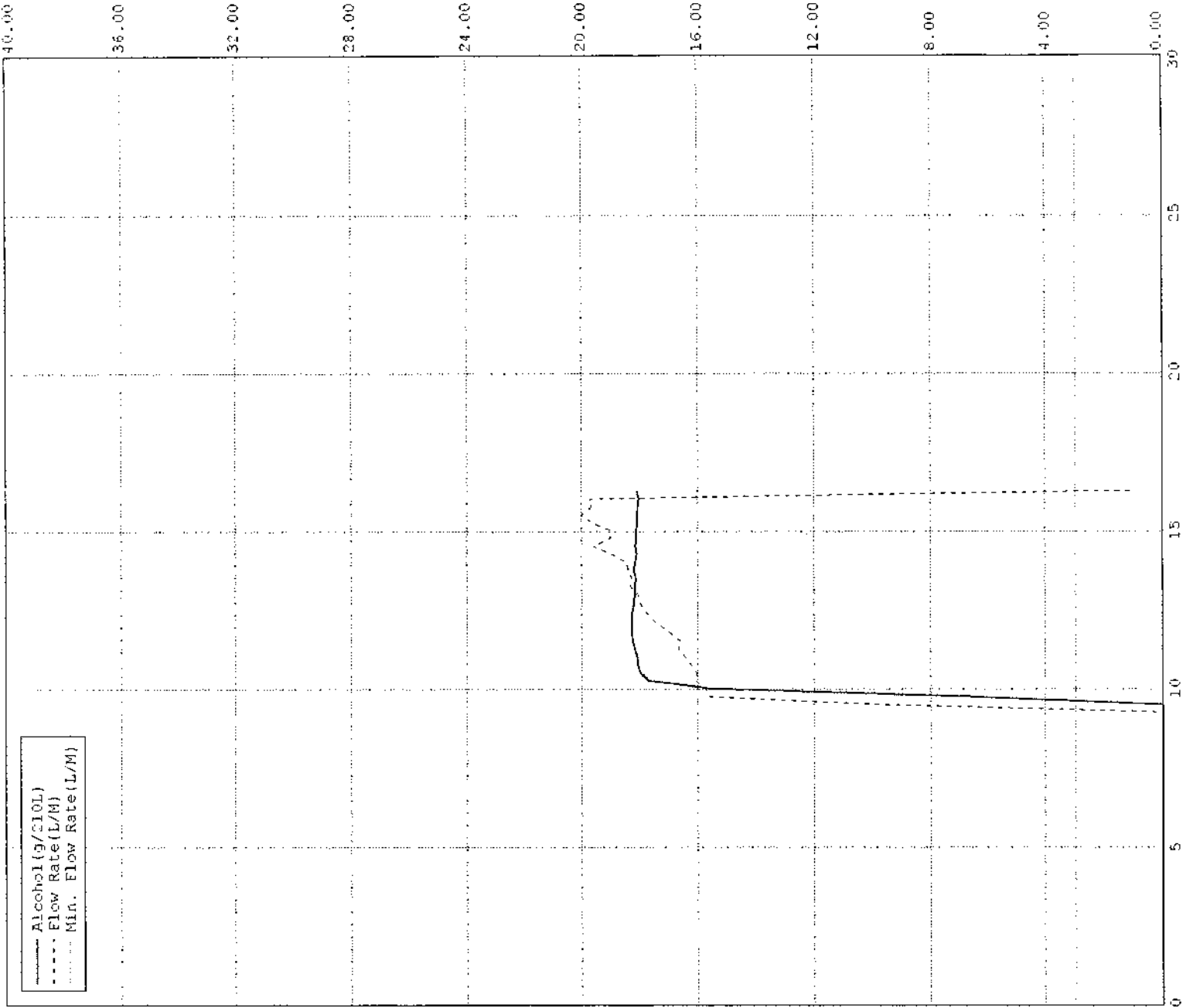
DEPT/AGENCY:
AAAI
CASE/REPORT: 18-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 28.96: 0.077
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	15:22
BLANK TEST	0.000	15:22
INTERNAL STANDARD	VERIFIED	15:22
$x_q = 0.110$ (0.64%)		
EXTERNAL STANDARD	0.076	15:22
$x[1] = 0.0760$ (-0.0011) (0.0030)		
BLANK TEST	0.000	15:23
SUBJECT SAMPLE (Vol=1.98L)	0.091	15:24
$x[1] = 0.0918$ (0.0014) (0.0025)		
BLANK TEST	0.000	15:25
EXTERNAL STANDARD	0.075	15:25
$x[1] = 0.0753$ (-0.0015) (0.0021)		
BLANK TEST	0.000	15:26

Filter 2 avg = -0.0011

Filter 3 avg = 0.0027



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100396

Date: 04/10/2018
Time: 15:29:04

SUBJECT NAME:
TEST TEST
LICENSE #: MAX ATTEMPTS

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

DEPT/AGENCY:
AAA1

CASE/REPORT: 18-1234
TEST TYPE: TEST

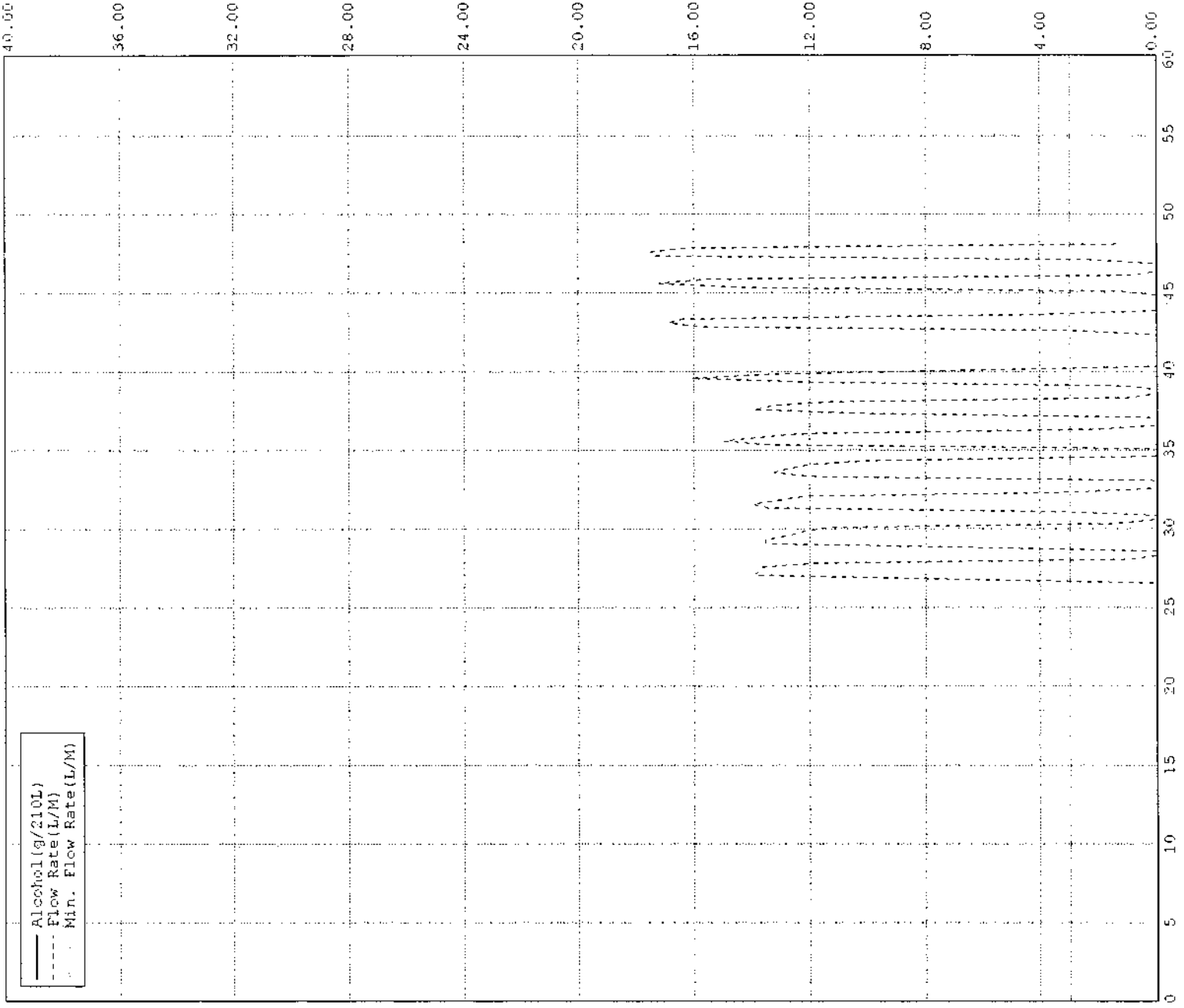
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 28.95: 0.077
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	15:30
BLANK TEST	0.000	15:30
INTERNAL STANDARD	VERIFIED	15:30
EXTERNAL STANDARD	0.076	15:30
BLANK TEST	0.000	15:31
SUBJECT SAMPLE	XXX	15:32

Maximum Attempts Exceeded

COB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100396

Date: 04/10/2018
Time: 15:34:26

SUBJECT NAME:
TEST TEST
LICENSE #: RFI

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

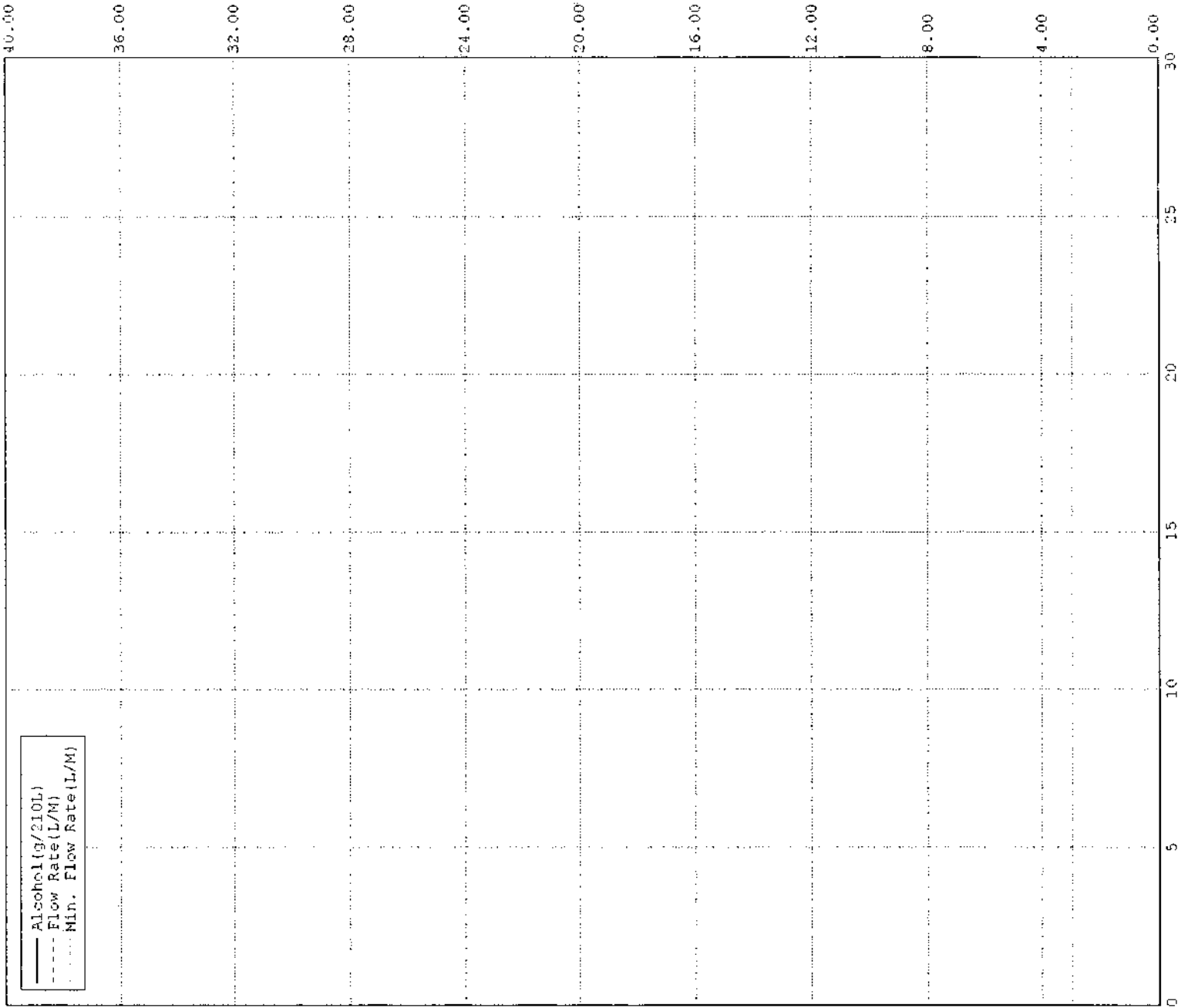
DEPT/AGENCY:
AAA1
CASE/REPORT: 18-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 28.94: 0.077
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 15:35
BLANK TEST 0.000 15:35
INTERNAL STANDARD VERIFIED 15:35
EXTERNAL STANDARD 0.076 15:35
BLANK TEST 0.000 15:36

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100396

Date: 04/10/2018
Time: 15:48:33

SUBJECT NAME:
TEST TEST
LICENSE #: NON-DRINKING

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

DEPT/AGENCY:
AAA1
CASE/REPORT: 18-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 28.96: 0.077
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	15:49
BLANK TEST	0.000	15:50
INTERNAL STANDARD	VERIFIED	15:50
EXTERNAL STANDARD	0.076	15:50
BLANK TEST	0.000	15:51
SUBJECT SAMPLE (Vol=2.01L)	0.000	15:51
BLANK TEST	0.000	15:52
EXTERNAL STANDARD	0.076	15:52
BLANK TEST	0.000	15:53

