

Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB 600A Liquid Processor/Dilutor Serial Number: ML600HC11378

Volatiles Quality Assurance Controls Run Date(s): 5/30/19

Calibration Date: 5/23/19

| Control level | Expiration | Lot # | Target Value | Acceptable Range | Overall Results |
|--------------------------|------------|----------|--------------|------------------|-----------------|
| Level 1 | Jan-22 | 1801036 | 0.0812 | 0.0731-0.0893 | 0.0768 g/100cc |
| | | | | | 0.0799 g/100cc |
| Level 2 | Mar-22 | 1803028 | 0.2035 | 0.1832-0.2238 | 0.2022 g/100cc |
| | | | | | g/100cc |
| Multi-Component mixture: | | Sep-20 | Lot # | FN06041502 | ok |
| Curve Fit: | | Column 1 | 0.99998 | Column 2 | 0.99995 |

| Ethanol Calibration Reference Material | | | | | | |
|--|--------------|------------------|----------|----------|-----------|--------|
| Calibrator level | Target Value | Acceptable Range | Column 1 | Column 2 | Precision | Mean |
| 50 | 0.050 | 0.045 - 0.055 | 0.0507 | 0.0522 | 0.0015 | 0.0514 |
| 100 | 0.100 | 0.090 - 0.110 | 0.0989 | 0.0983 | 0.0006 | 0.0986 |
| 200 | 0.200 | 0.180 - 0.220 | 0.1994 | 0.1982 | 0.0012 | 0.1988 |
| 300 | 0.300 | 0.270 - 0.330 | 0.3015 | 0.3011 | 0.0004 | 0.3013 |
| 500 | 0.500 | 0.450 - 0.550 | 0.4995 | 0.5002 | 0.0007 | 0.4998 |

| Aqueous Controls | | | |
|------------------|--------------|------------------|-----------------|
| Control level | Target Value | Acceptable Range | Overall Results |
| 80 | 0.080 | 0.076 - 0.084 | 0.079 g/100cc |

REVIEWED

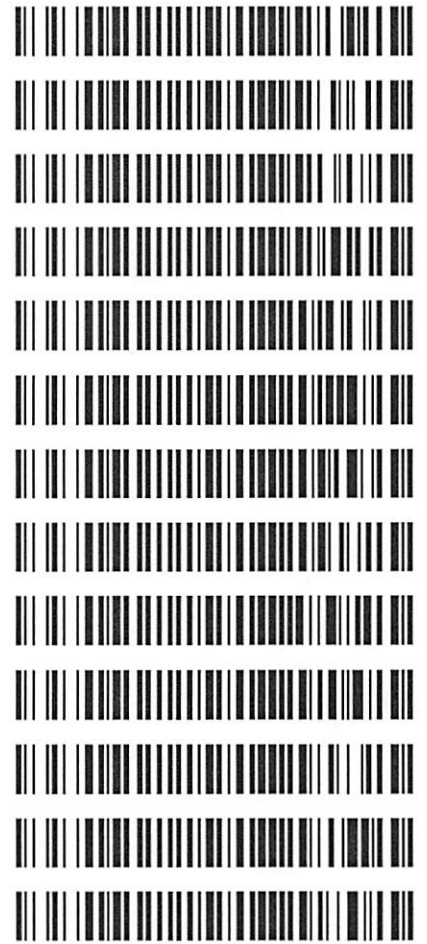
By Melissa (Nikka) Bradley at 2:07 pm, May 31, 2019

NB

JS

Worklist: 3421

| <u>LAB CASE</u> | <u>ITEM</u> | <u>TASK ID</u> | <u>DESCRIPTION</u> |
|-----------------|-------------|----------------|--------------------|
| M2019-2383 | 1 | 152409 | Alcohol Analysis |
| M2019-2384 | 1 | 152410 | Alcohol Analysis |
| M2019-2385 | 1 | 152417 | Alcohol Analysis |
| M2019-2386 | 1 | 152421 | Alcohol Analysis |
| M2019-2408 | 1 | 152525 | Alcohol Analysis |
| M2019-2409 | 1 | 152529 | Alcohol Analysis |
| M2019-2410 | 1 | 152533 | Alcohol Analysis |
| M2019-2411 | 1 | 152537 | Alcohol Analysis |
| M2019-2437 | 1 | 152837 | Alcohol Analysis |
| M2019-2445 | 1 | 152850 | Alcohol Analysis |
| M2019-2450 | 2 | 152859 | Alcohol Analysis |
| M2019-2451 | 1 | 152860 | Alcohol Analysis |
| M2019-2452 | 1 | 152861 | Alcohol Analysis |



JG

=====
Calibration Table
=====

General Calibration Setting

Calib. Data Modified : Thursday, May 23, 2019 3:02:31 PM
Signals calculated separately : No

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Ignored
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
 Calibration Table after Recalibration
 Normal Report after Recalibration
If the sequence is done with bracketing:
 Results of first cycle (ending previous bracket)

Default Sample ISTD Information (if not set in sample table):

| ISTD # | ISTD Amount [g/100cc] | Name |
|--------|-----------------------|------------|
| 1 | 1.00000 | n-propanol |
| 2 | 1.00000 | n-propanol |

Signal Details

Signal 1: FID1 A, Front Signal
Signal 2: FID2 B, Back Signal

Overview Table

JK

| RT | Sig | Lvl | Amount [g/100cc] | Area | Rsp.Factor | Ref | ISTD # | Compound |
|-------|-----|-----|---------------------|----------|------------|-----|--------|-------------------|
| 2.586 | 1 | 1 | 1.00000 | 3.69669 | 2.70512e-1 | No | No 1 | methanol |
| 2.809 | 1 | 1 | 1.00000 | 4.26100 | 2.34687e-1 | No | No 2 | Acetaldehyde |
| 2.977 | 2 | 1 | 1.00000 | 4.26100 | 2.34687e-1 | No | No 2 | Acetaldehyde |
| 3.075 | 1 | 1 | 5.00000e-2 | 4.24947 | 1.17662e-2 | No | No 1 | ethanol |
| | | 2 | 1.00000e-1 | 9.04180 | 1.10597e-2 | | | |
| | | 3 | 2.00000e-1 | 17.77557 | 1.12514e-2 | | | |
| | | 4 | 3.00000e-1 | 26.94232 | 1.11349e-2 | | | |
| | | 5 | 5.00000e-1 | 45.17418 | 1.10683e-2 | | | |
| 3.388 | 2 | 1 | 1.00000 | 4.26062 | 2.34707e-1 | No | No 2 | methanol |
| 3.628 | 1 | 1 | 1.00000 | 9.73055 | 1.02769e-1 | No | No 1 | isopropyl alcohol |
| 4.285 | 2 | 1 | 5.00000e-2 | 4.35494 | 1.14812e-2 | No | No 2 | ethanol |
| | | 2 | 1.00000e-1 | 9.28511 | 1.07699e-2 | | | |
| | | 3 | 2.00000e-1 | 18.54273 | 1.07859e-2 | | | |
| | | 4 | 3.00000e-1 | 28.34126 | 1.05853e-2 | | | |
| | | 5 | 5.00000e-1 | 47.91503 | 1.04351e-2 | | | |
| 4.308 | 1 | 1 | 1.00000 | 6.49940 | 1.53860e-1 | No | No 1 | acetone |
| 4.620 | 1 | 1 | 1.00000 | 43.21984 | 2.31375e-2 | No | Yes 1 | n-propanol |
| | | 2 | 1.00000 | 47.56534 | 2.10237e-2 | | | |
| | | 3 | 1.00000 | 46.56002 | 2.14777e-2 | | | |
| | | 4 | 1.00000 | 46.72795 | 2.14005e-2 | | | |
| | | 5 | 1.00000 | 47.35318 | 2.11179e-2 | | | |
| 4.661 | 2 | 1 | 1.00000 | 6.89301 | 1.45075e-1 | No | No 2 | acetone |
| 4.969 | 2 | 1 | 1.00000 | 10.70642 | 9.34019e-2 | No | No 2 | isopropyl alcohol |
| 7.550 | 2 | 1 | 1.00000 | 44.63704 | 2.24029e-2 | No | Yes 2 | n-propanol |
| | | 2 | 1.00000 | 49.27885 | 2.02927e-2 | | | |
| | | 3 | 1.00000 | 48.12565 | 2.07789e-2 | | | |
| | | 4 | 1.00000 | 48.17410 | 2.07580e-2 | | | |
| | | 5 | 1.00000 | 48.85555 | 2.04685e-2 | | | |

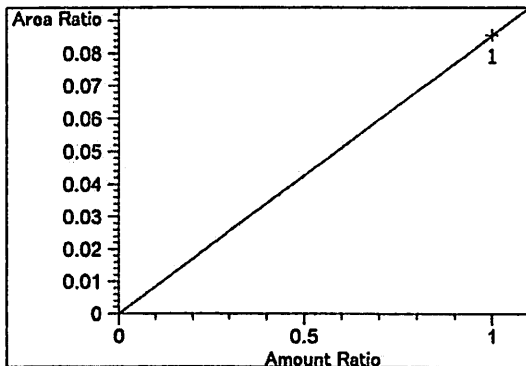
Peak Sum Table

No Entries in table

1 Warnings or Errors :

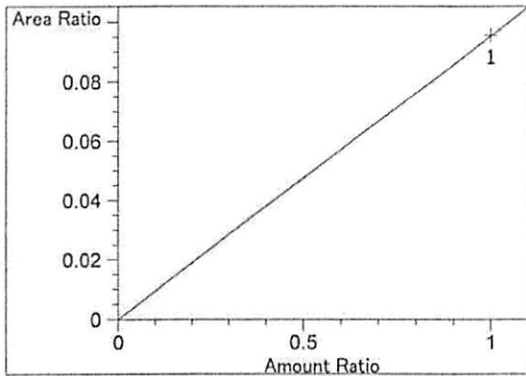
Warning : Curve requires more calibration points., (methanol)

Calibration Curves

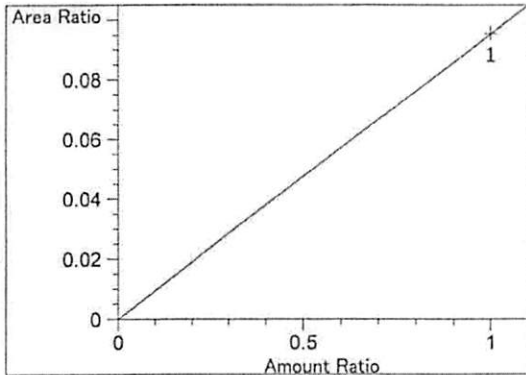


methanol at exp. RT: 2.586
 FID1 A, Front Signal
 Correlation: 1.00000
 Residual Std. Dev.: 0.00000
 Formula: $y = mx + b$
 m: 8.55324e-2
 b: 0.00000
 x: Amount Ratio
 y: Area Ratio

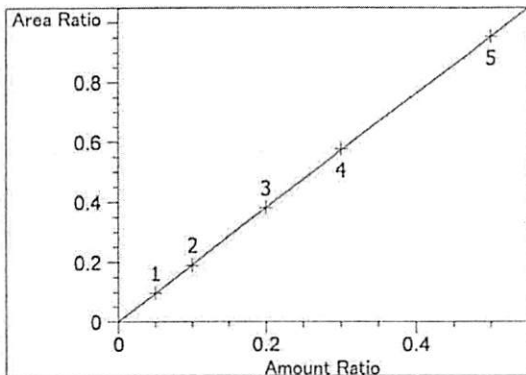
Ju



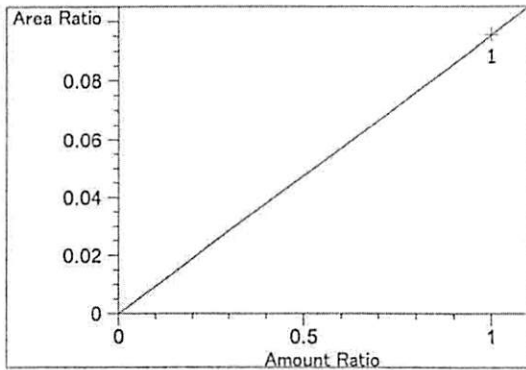
Acetaldehyde at exp. RT: 2.809
 FID1 A, Front Signal
 Correlation: 1.00000
 Residual Std. Dev.: 0.00000
 Formula: $y = mx + b$
 m: 9.54588e-2
 b: 0.00000
 x: Amount Ratio
 y: Area Ratio



Acetaldehyde at exp. RT: 2.977
 FID2 B, Back Signal
 Correlation: 1.00000
 Residual Std. Dev.: 0.00000
 Formula: $y = mx + b$
 m: 9.54588e-2
 b: 0.00000
 x: Amount Ratio
 y: Area Ratio

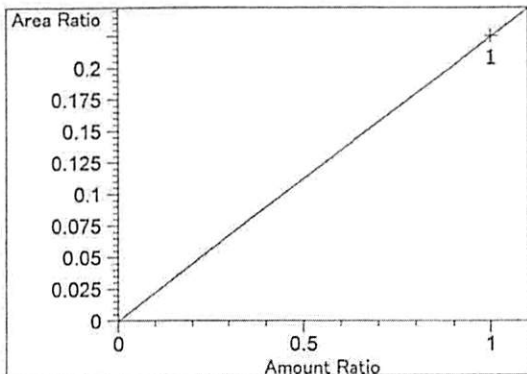


ethanol at exp. RT: 3.075
 FID1 A, Front Signal
 Correlation: 0.99998
 Residual Std. Dev.: 0.00243
 Formula: $y = mx + b$
 m: 1.90682
 b: 1.58239e-3
 x: Amount Ratio
 y: Area Ratio

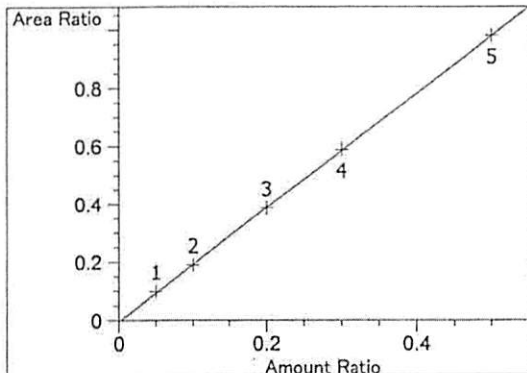


methanol at exp. RT: 3.388
 FID2 B, Back Signal
 Correlation: 1.00000
 Residual Std. Dev.: 0.00000
 Formula: $y = mx + b$
 m: 9.54504e-2
 b: 0.00000
 x: Amount Ratio
 y: Area Ratio

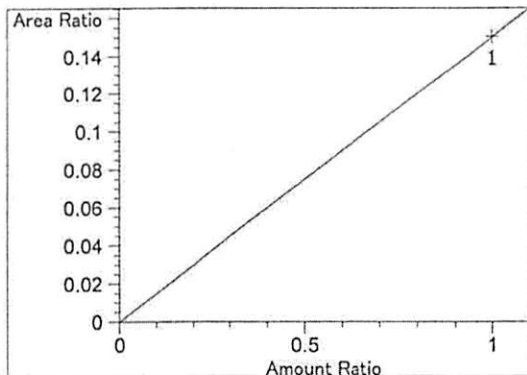
JG



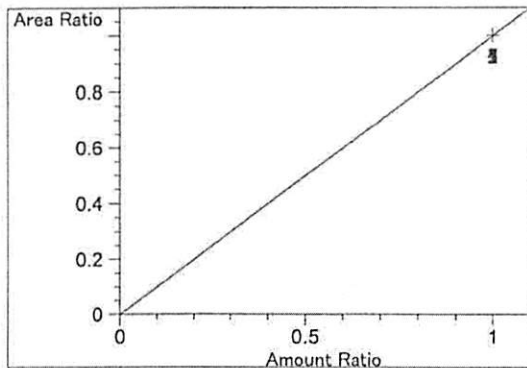
isopropyl alcohol at exp. RT: 3.628
 FID1 A, Front Signal
 Correlation: 1.00000
 Residual Std. Dev.: 0.00000
 Formula: $y = mx + b$
 m: 2.25141e-1
 b: 0.00000
 x: Amount Ratio
 y: Area Ratio



ethanol at exp. RT: 4.285
 FID2 B, Back Signal
 Correlation: 0.99995
 Residual Std. Dev.: 0.00402
 Formula: $y = mx + b$
 m: 1.97163
 b: -5.40743e-3
 x: Amount Ratio
 y: Area Ratio

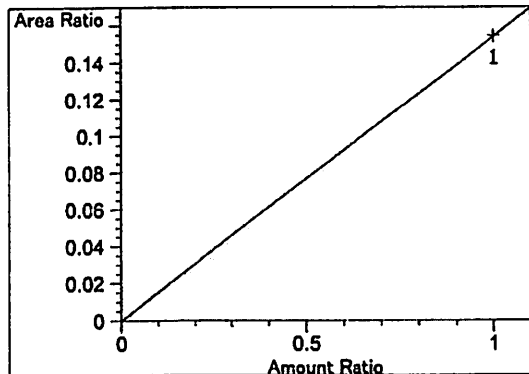


acetone at exp. RT: 4.308
 FID1 A, Front Signal
 Correlation: 1.00000
 Residual Std. Dev.: 0.00000
 Formula: $y = mx + b$
 m: 1.50380e-1
 b: 0.00000
 x: Amount Ratio
 y: Area Ratio

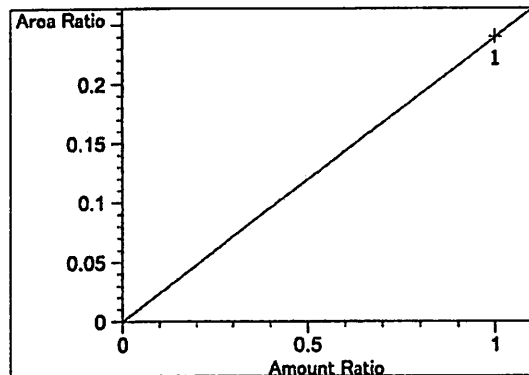


n-propanol at exp. RT: 4.620
 FID1 A, Front Signal
 Correlation: 1.00000
 Residual Std. Dev.: 0.00000
 Formula: $y = mx + b$
 m: 1.00000
 b: 0.00000
 x: Amount Ratio
 y: Area Ratio

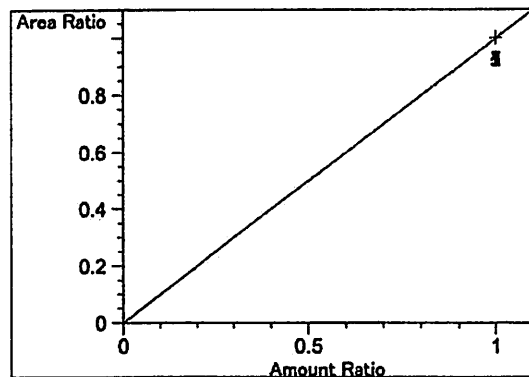
Ja



acetone at exp. RT: 4.661
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx + b$
m: 1.54424e-1
b: 0.00000
x: Amount Ratio
y: Area Ratio



isopropyl alcohol at exp. RT: 4.969
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx + b$
m: 2.39855e-1
b: 0.00000
x: Amount Ratio
y: Area Ratio



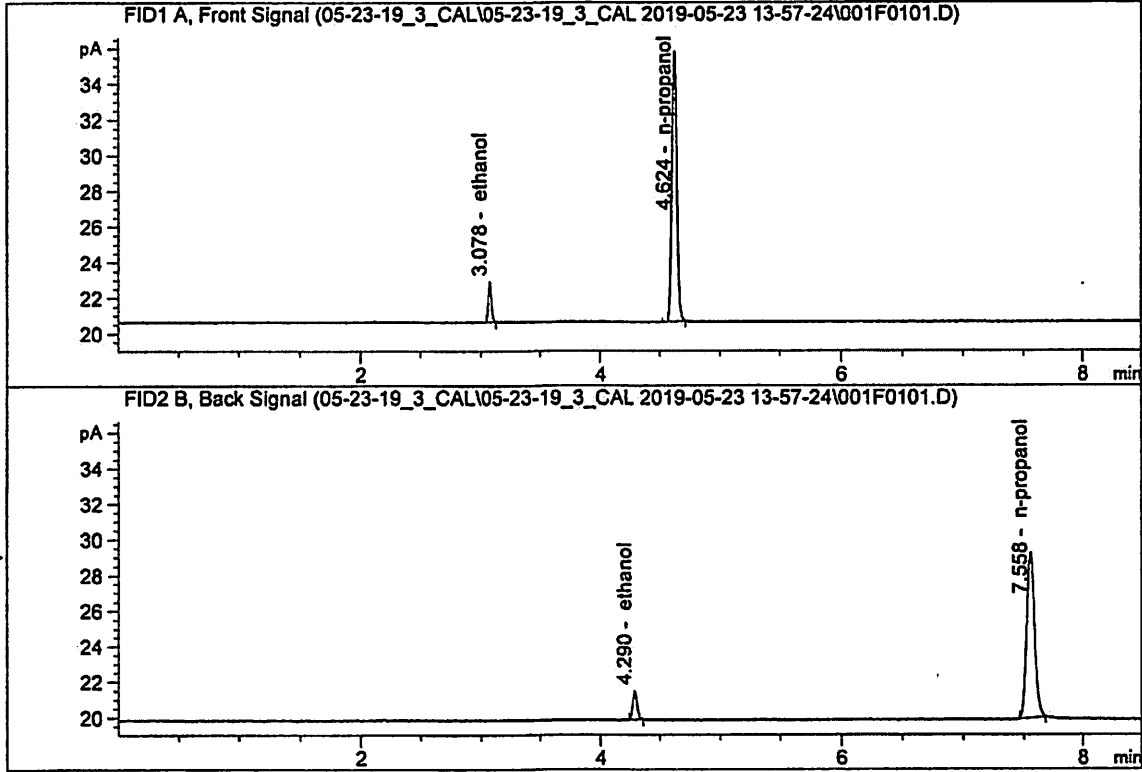
n-propanol at exp. RT: 7.550
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx + b$
m: 1.00000
b: 0.00000
x: Amount Ratio
y: Area Ratio

=====

20

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.050 FN04271601
 Laboratory : Meridian
 Injection Date : May 23, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

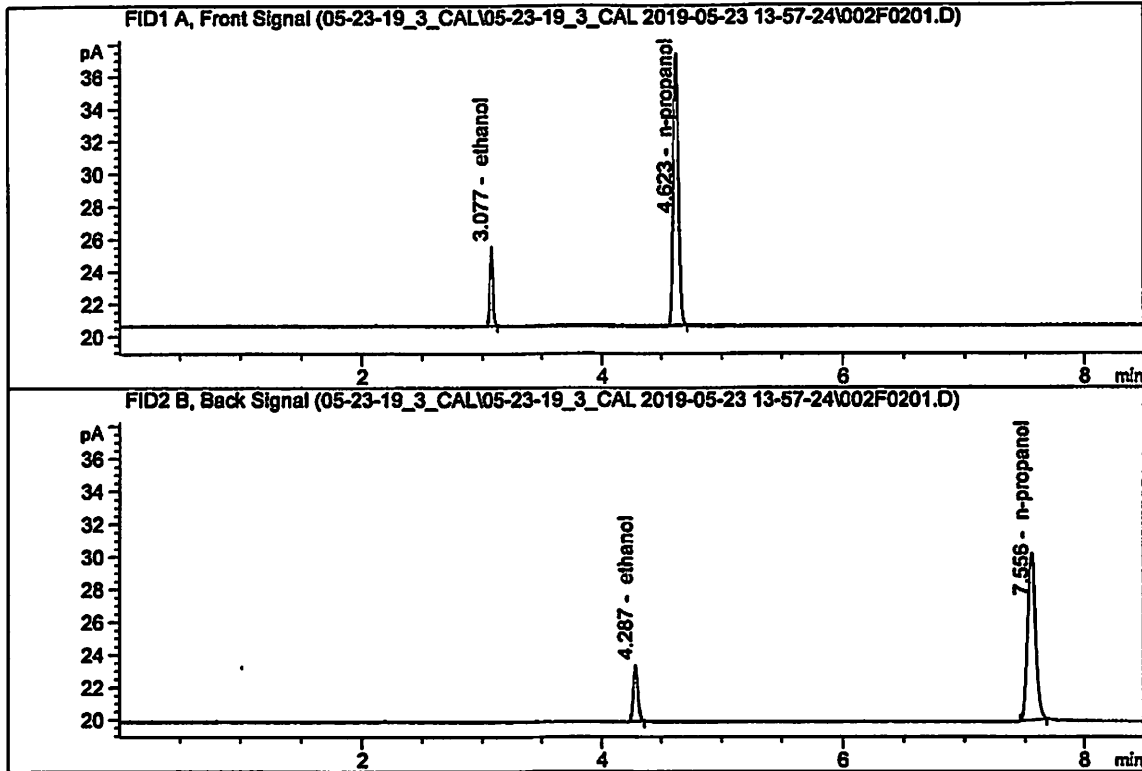


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 4.24947 | 0.0507 | g/100cc |
| 2. | Ethanol | Column 2: | 4.35494 | 0.0522 | g/100cc |
| 3. | n-Propanol | Column 1: | 43.21984 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 44.63704 | 1.0000 | g/100cc |

Jo

ISP Forensic Services Blood Alcohol Report

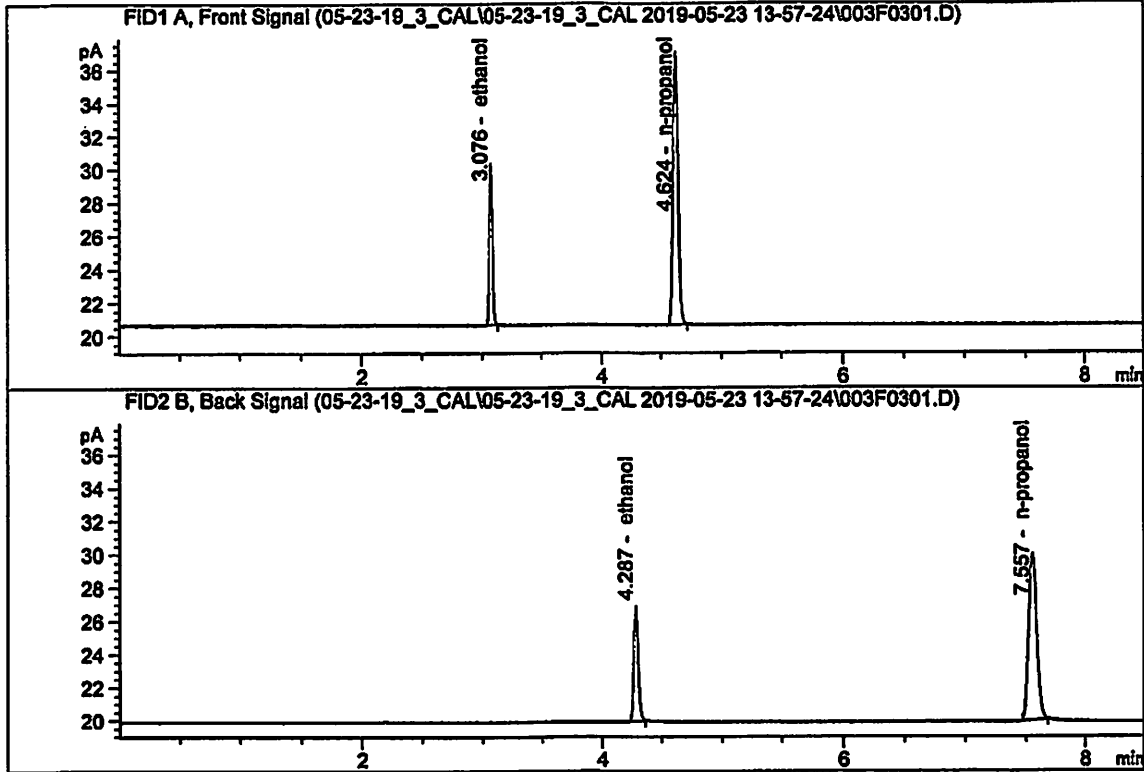
Sample Name : 0.100 FN08101601
 Laboratory : Meridian
 Injection Date : May 23, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 9.04180 | 0.0989 | g/100cc |
| 2. | Ethanol | Column 2: | 9.28511 | 0.0983 | g/100cc |
| 3. | n-Propanol | Column 1: | 47.56534 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 49.27885 | 1.0000 | g/100cc |

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.200 FN03301601
 Laboratory : Meridian
 Injection Date : May 23, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

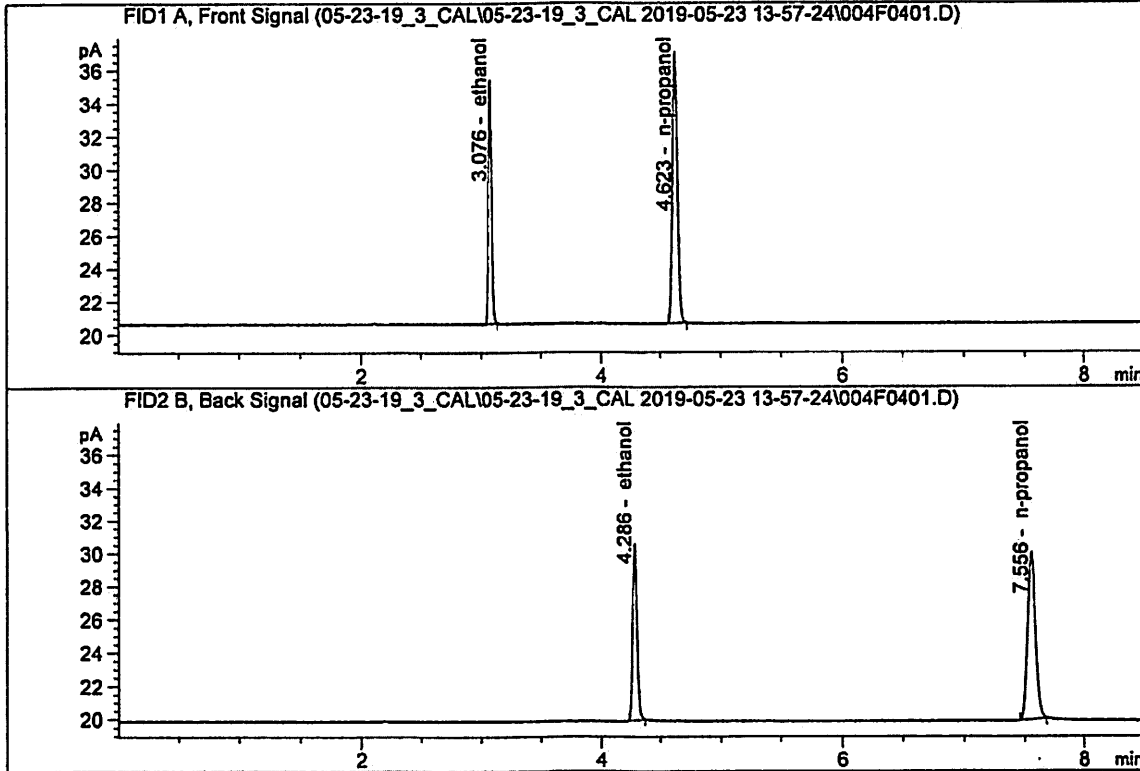


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 17.77557 | 0.1994 | g/100cc |
| 2. | Ethanol | Column 2: | 18.54273 | 0.1982 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.56002 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.12565 | 1.0000 | g/100cc |

ISP Forensic Services Blood Alcohol Report

FNO7311804

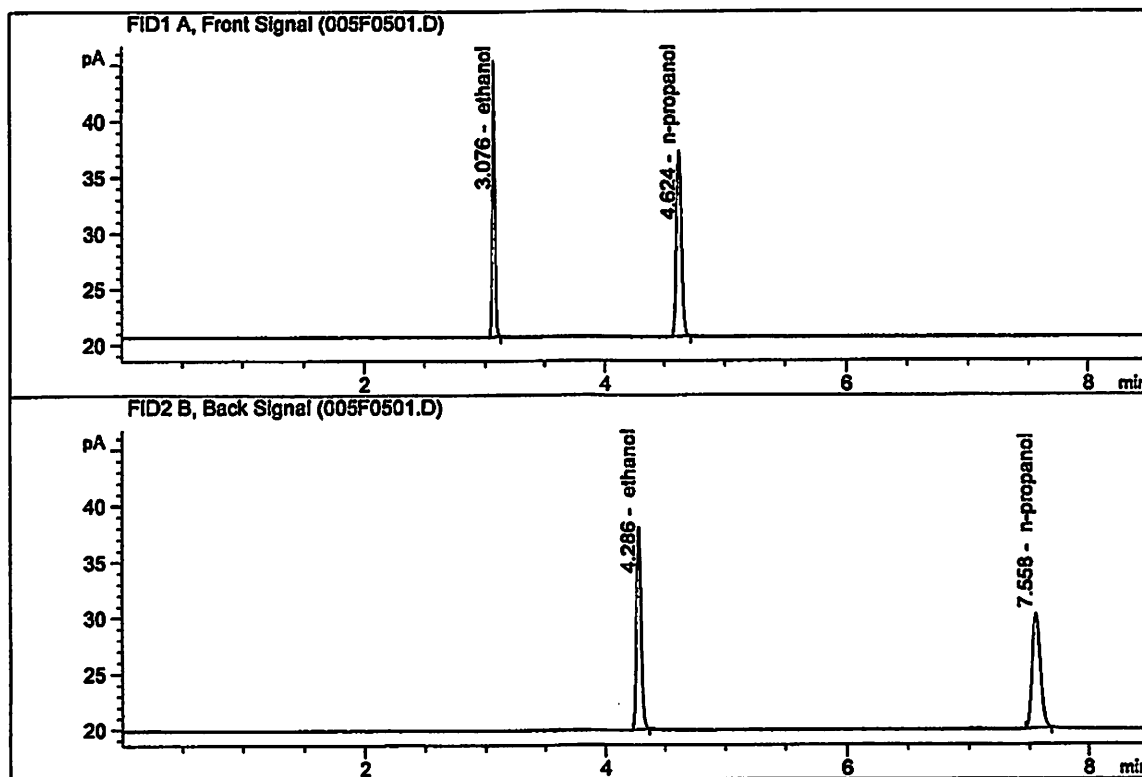
Sample Name : 0.300 ~~FNO7311809~~ JG
 Laboratory : Meridian
 Injection Date : May 23, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 26.94232 | 0.3015 | g/100cc |
| 2. | Ethanol | Column 2: | 28.34126 | 0.3011 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.72795 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.17410 | 1.0000 | g/100cc |

ISP Forensic Services Blood Alcohol Report

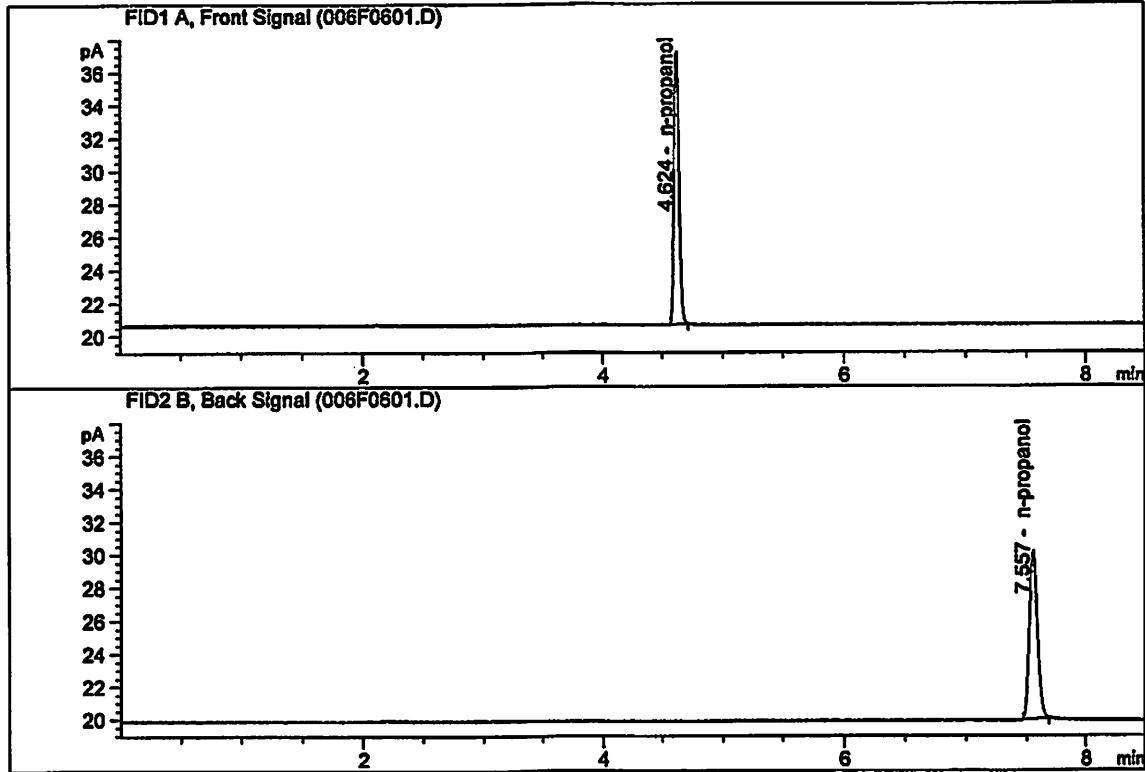
Sample Name : 0.500 FN08031602
 Laboratory : Meridian
 Injection Date : May 23, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 45.17418 | 0.4995 | g/100cc |
| 2. | Ethanol | Column 2: | 47.91503 | 0.5002 | g/100cc |
| 3. | n-Propanol | Column 1: | 47.35318 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.85555 | 1.0000 | g/100cc |

ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STANDARD BLANK
 Laboratory : Meridian
 Injection Date : May 23, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 47.05196 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.75097 | 1.0000 | g/100cc |

S a m p l e S u m m a r y

Sequence table: C:\Chem32\1\Data\05-23-19_3_CAL\05-23-19_3_CAL 2019-05-23 13-57-24\05-23-19_3_CAL.S
 Data directory path: C:\Chem32\1\Data\05-23-19_3_CAL\05-23-19_3_CAL 2019-05-23 13-57-24\
 Logbook: C:\Chem32\1\Data\05-23-19_3_CAL\05-23-19_3_CAL 2019-05-23 13-57-24\05-23-19_3_CAL.LOG
 Sequence start: 5/23/2019 2:12:00 PM
 Sequence Operator: SYSTEM
 Operator: SYSTEM
 Method file name: C:\Chem32\1\Data\05-23-19_3_CAL\05-23-19_3_CAL 2019-05-23 13-57-24\ALCOHO.M

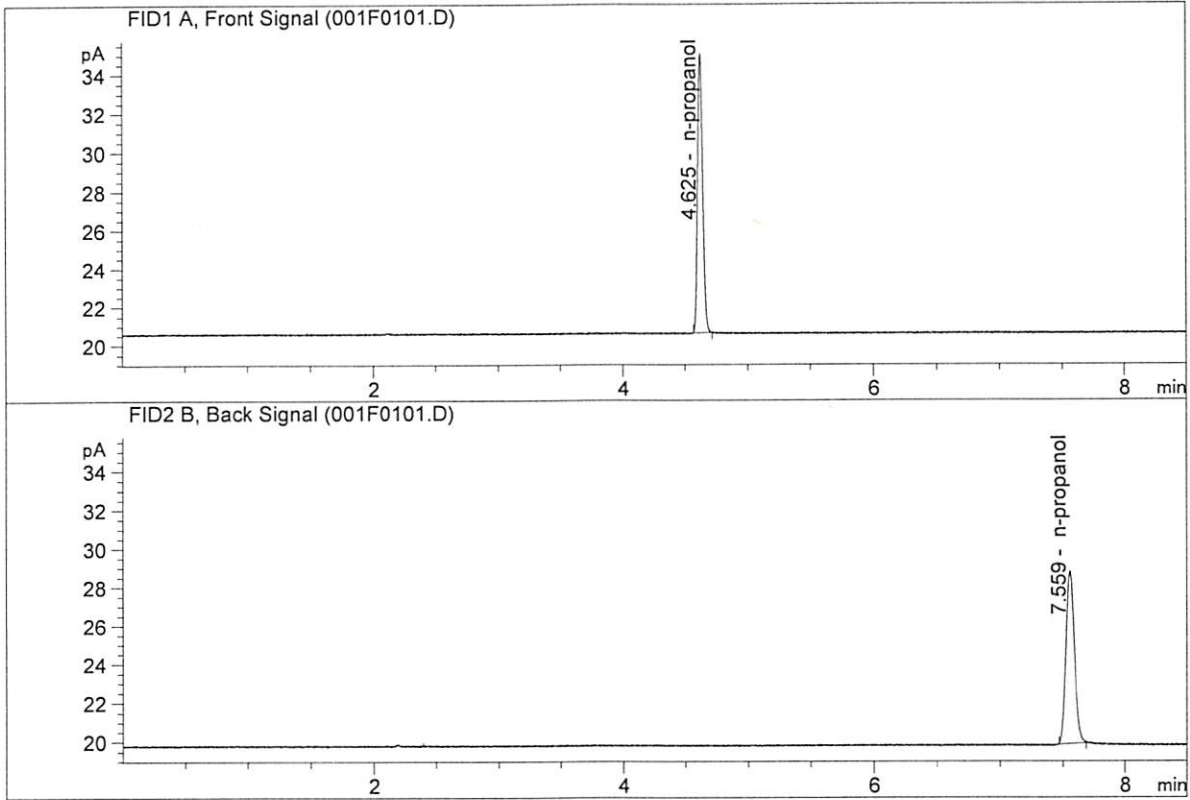
| Run # | Location # | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # | # Cmp |
|-------|------------|-------|-----------------------------|----------------------|-------------------|------------|-------|-------|
| 1 | 1 | 1 | 0.050 FN04271601 | - | 1.0000 | 001F0101.D | * | 4 |
| 2 | 2 | 1 | 0.100 FN08101601 | - | 1.0000 | 002F0201.D | * | 4 |
| 3 | 3 | 1 | 0.200 FN03301601 | - | 1.0000 | 003F0301.D | * | 4 |
| 4 | 4 | 1 | 0.300 FN07311804 | - | 1.0000 | 004F0401.D | * | 4 |
| 5 | 5 | 1 | 0.500 FN08031602 | - | 1.0000 | 005F0501.D | * | 4 |
| 6 | 6 | 1 | INTERNAL STANDAR | - | 1.0000 | 006F0601.D | | 2 |

FN07311804

cb

ISP Forensic Services Blood Alcohol Report

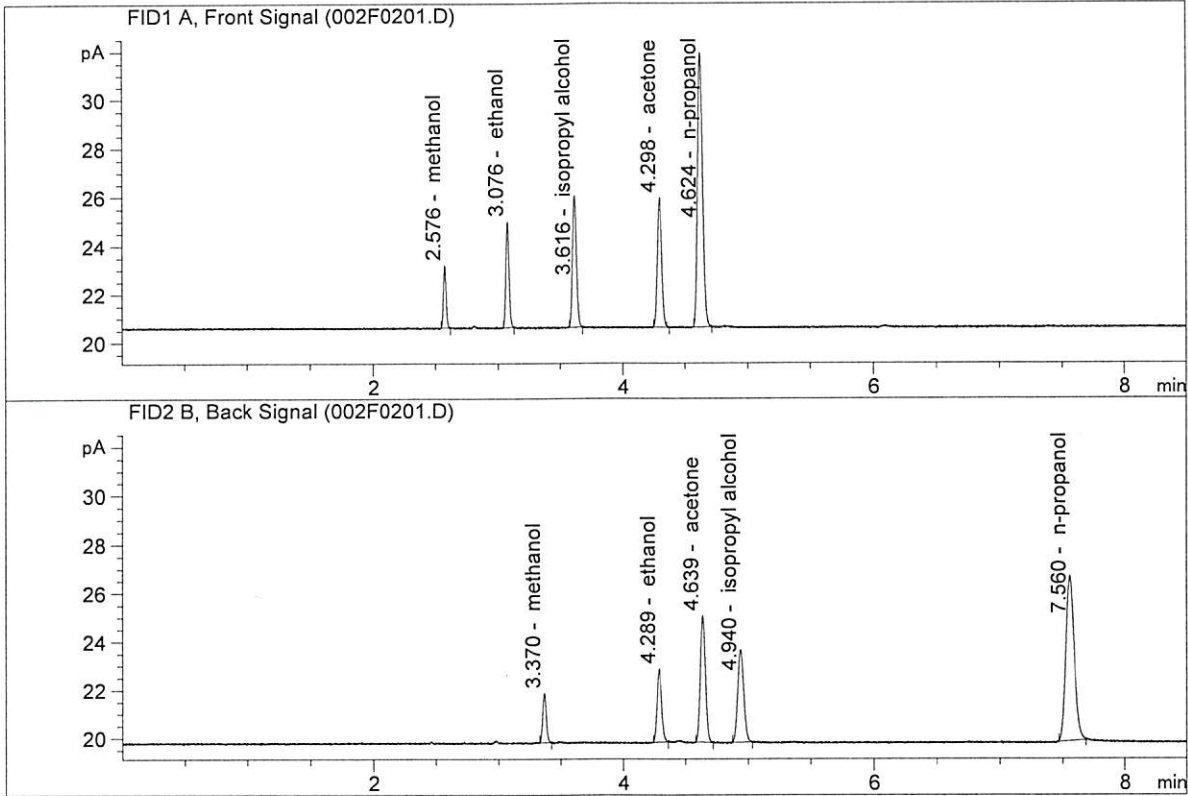
Sample Name : INTERNAL STD BLK 1
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 40.88338 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 42.85710 | 1.0000 | g/100cc |

ISP Forensic Services Blood Alcohol Report

Sample Name : MIX VOL FN06041502
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 7.75356 | 0.1271 | g/100cc |
| 2. | Ethanol | Column 2: | 8.04295 | 0.1275 | g/100cc |
| 3. | n-Propanol | Column 1: | 31.78728 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 32.69696 | 1.0000 | g/100cc |

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-1

Analysis Date(s): 30 May 2019

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|---------------|
| Sample Results | 0.0762 | 0.0776 | 0.0014 | 0.0769 | 0.0768 |
| (g/100cc) | 0.0763 | 0.0773 | 0.0010 | 0.0768 | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: Alcohol.m
Hamilton Auto-Dilutor Serial Number: ML600HC11378

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.076 | 0.072 | 0.080 | 0.004 |

| Reported Result | |
|-----------------|--|
| 0.076 | |

Calibration and control data are stored centrally.

JG

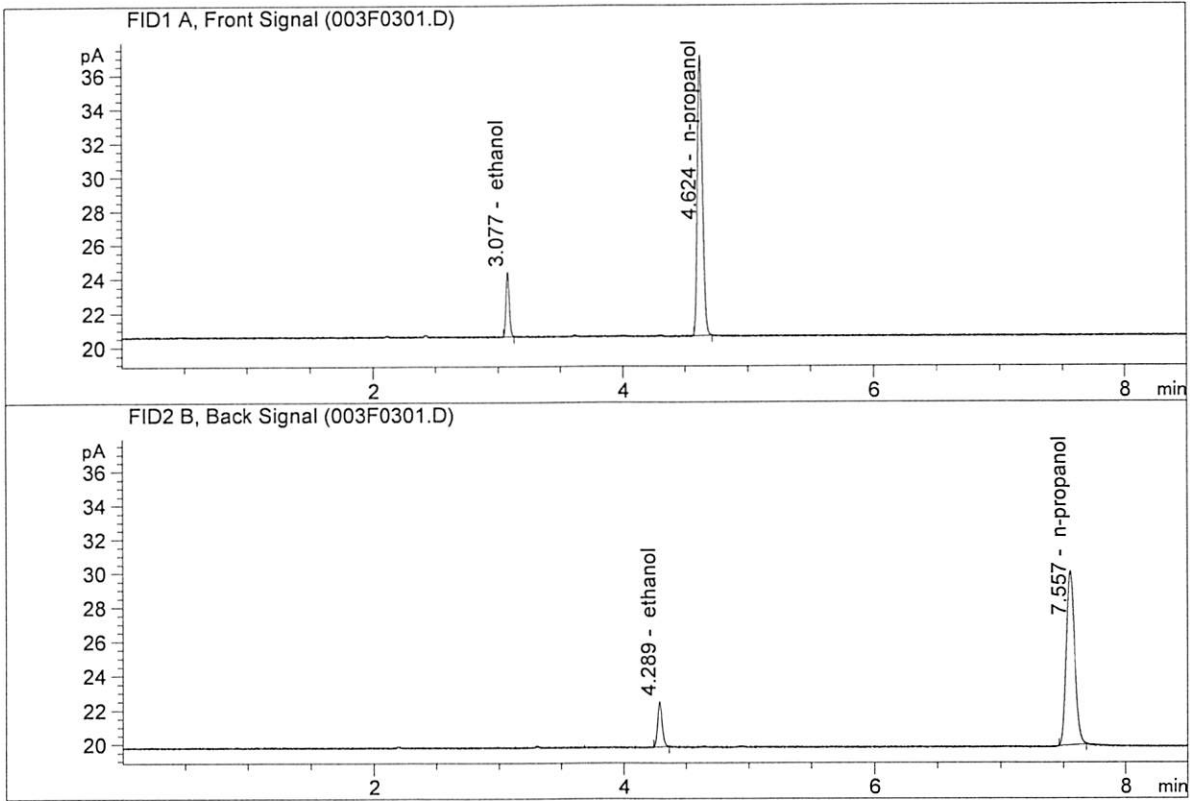
Revision: 1

Issue Date: 01/04/2019

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-1-A
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

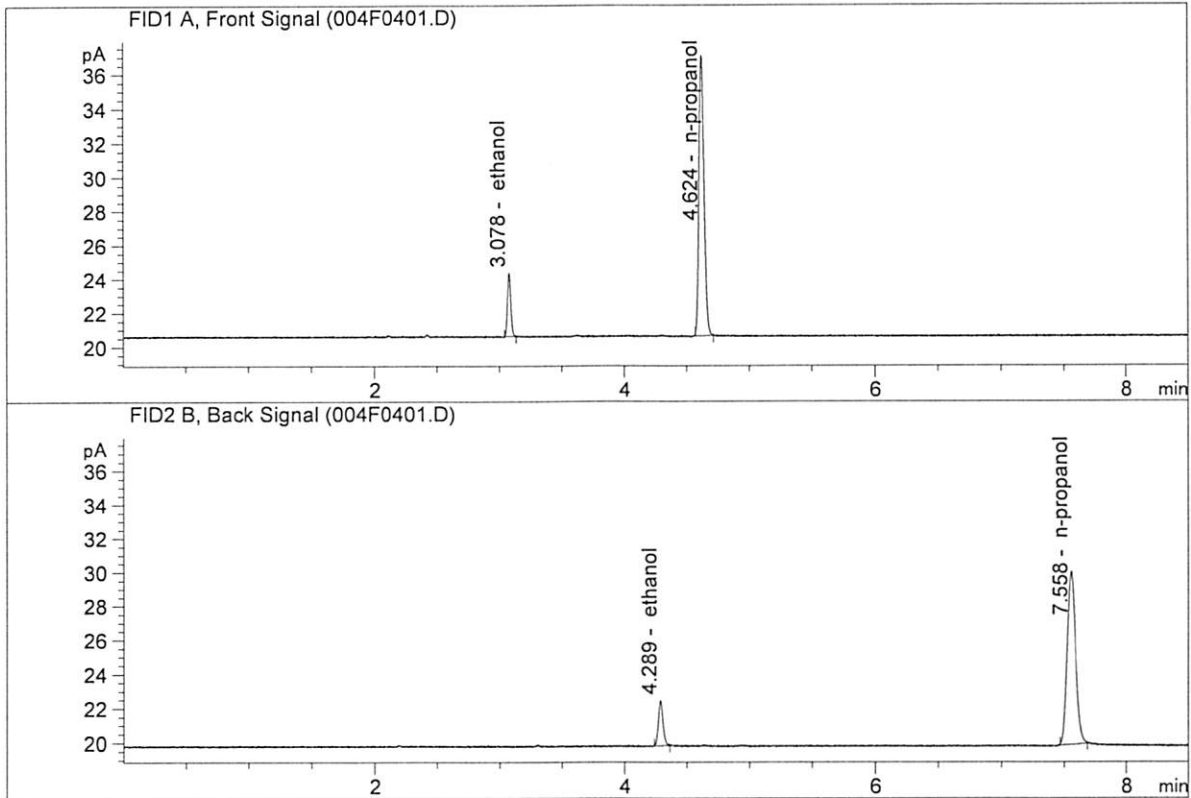


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 6.87972 | 0.0762 | g/100cc |
| 2. | Ethanol | Column 2: | 7.18220 | 0.0776 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.81071 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.63187 | 1.0000 | g/100cc |

JG

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-1-B
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 6.86374 | 0.0763 | g/100cc |
| 2. | Ethanol | Column 2: | 7.13808 | 0.0773 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.66447 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.56918 | 1.0000 | g/100cc |

JK

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.08 FN04171701

Analysis Date(s): 30 May 2019

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|------------------|------------|---------------|--|
| Sample Results | 0.0792 | 0.0793 | 0.0001 | 0.0792 | 0.0794 | |
| (g/100cc) | 0.0789 | 0.0803 | 0.0014 | 0.0796 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: Alcohol.m
Hamilton Auto-Dilutor Serial Number: ML600HC11378

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.079 | 0.075 | 0.083 | 0.004 |

| | Reported Result | |
|--|-----------------|--|
| | 0.079 | |

Calibration and control data are stored centrally.

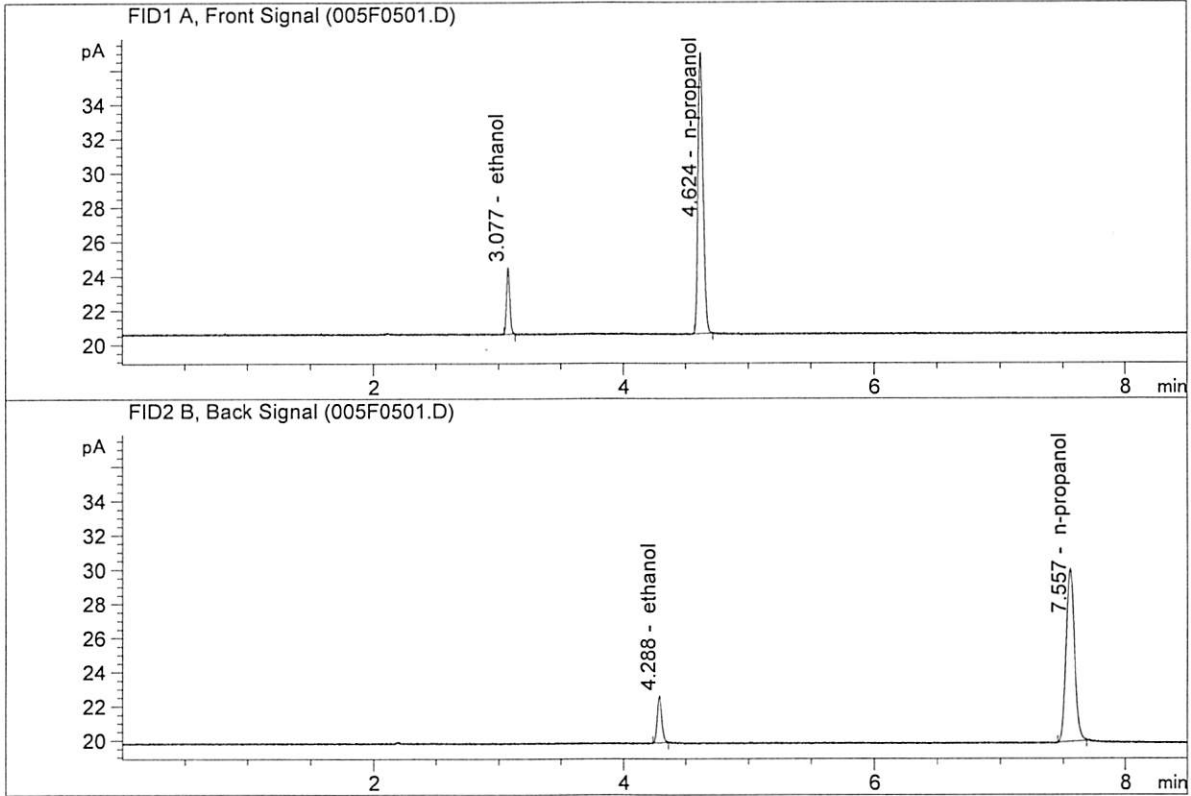
Revision: 1

Issue Date: 01/04/2019

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

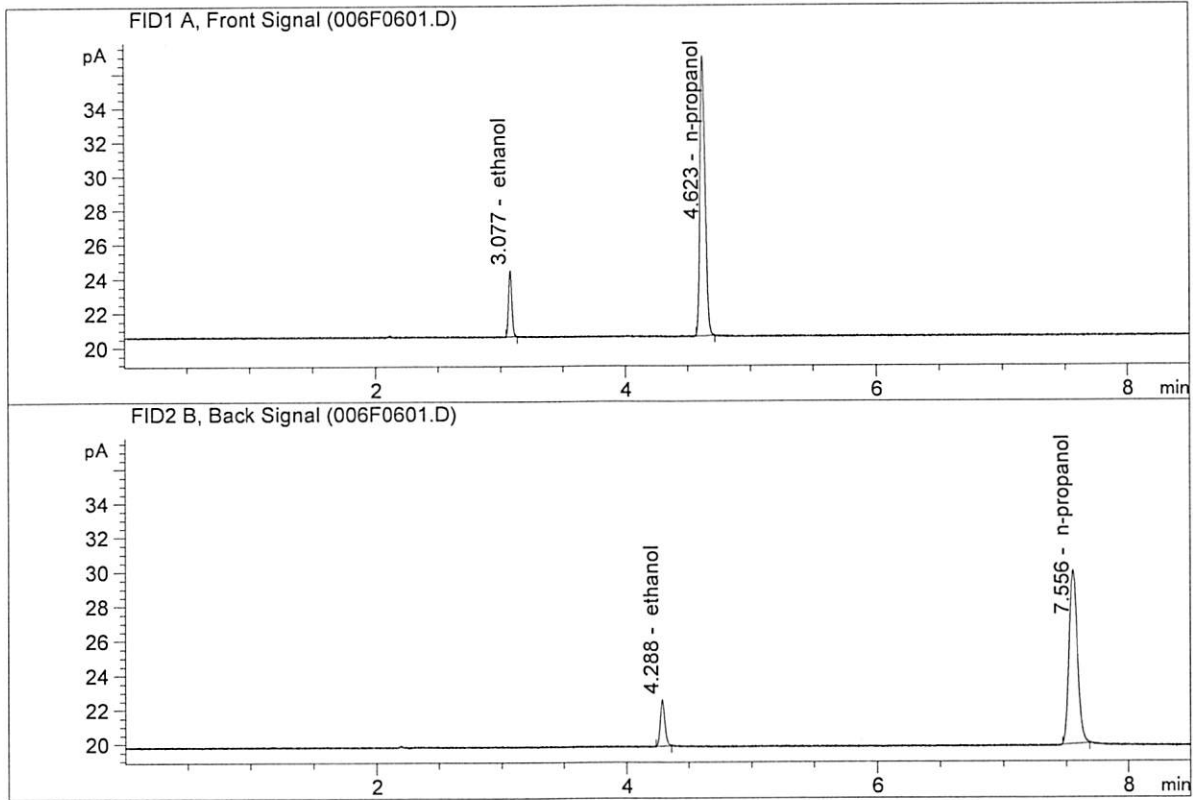
Sample Name : 0.08 FN04171701-A
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 7.12324 | 0.0792 | g/100cc |
| 2. | Ethanol | Column 2: | 7.33952 | 0.0793 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.65824 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.62578 | 1.0000 | g/100cc |

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.08 FN04171701-B
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 7.08146 | 0.0789 | g/100cc |
| 2. | Ethanol | Column 2: | 7.39314 | 0.0803 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.60773 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.35611 | 1.0000 | g/100cc |

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC2-1

Analysis Date(s): 30 May 2019

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|------------------|------------|---------------|--|
| Sample Results | 0.2022 | 0.2018 | 0.0004 | 0.2020 | 0.2022 | |
| (g/100cc) | 0.2025 | 0.2025 | 0.0000 | 0.2025 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: Alcohol.m
Hamilton Auto-Dilutor Serial Number: ML600HC11378

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.202 | 0.191 | 0.213 | 0.011 |

| | Reported Result | |
|--|-----------------|--|
| | 0.202 | |

Calibration and control data are stored centrally.

JK

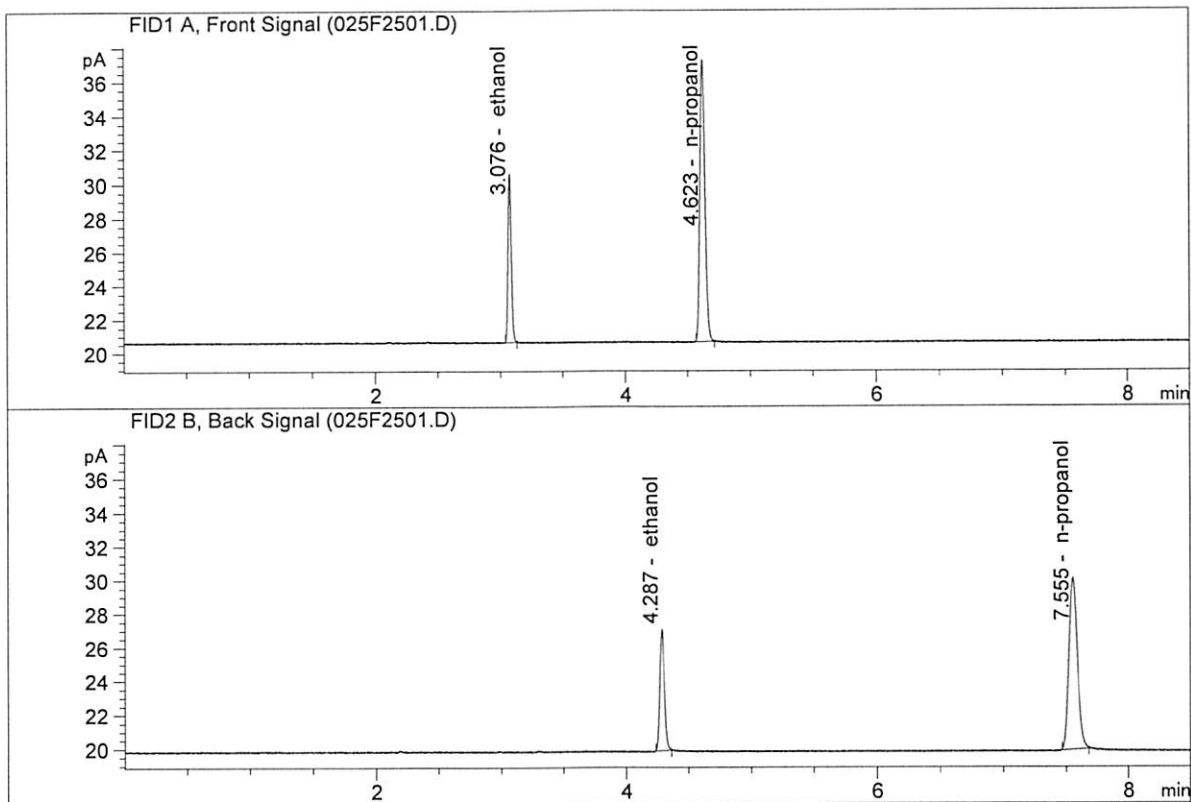
Revision: 1

Issue Date: 01/04/2019

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

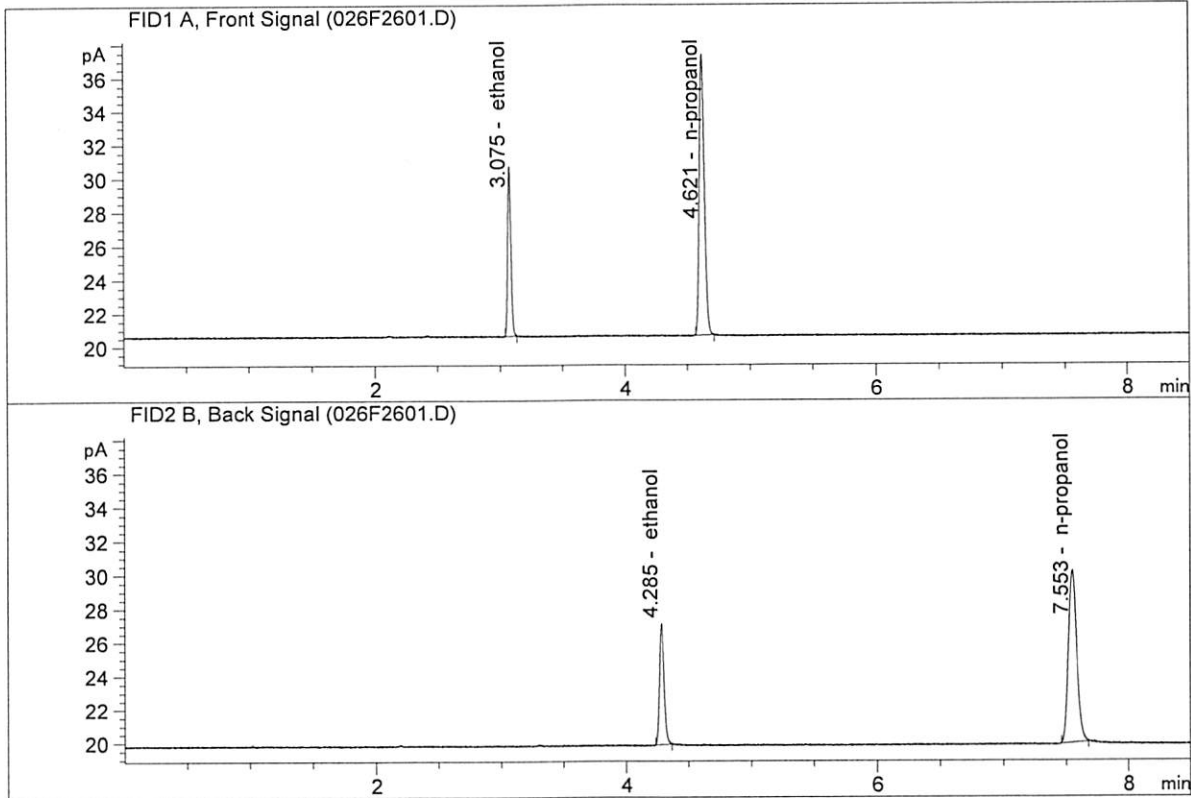
Sample Name : QC2-1-A
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 18.21526 | 0.2022 | g/100cc |
| 2. | Ethanol | Column 2: | 19.07900 | 0.2018 | g/100cc |
| 3. | n-Propanol | Column 1: | 47.05870 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.62133 | 1.0000 | g/100cc |

ISP Forensic Services Blood Alcohol Report

Sample Name : QC2-1-B
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 18.36955 | 0.2025 | g/100cc |
| 2. | Ethanol | Column 2: | 19.27961 | 0.2025 | g/100cc |
| 3. | n-Propanol | Column 1: | 47.36866 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.95411 | 1.0000 | g/100cc |

06

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-2

Analysis Date(s): 30 May 2019

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|------------------|------------|---------------|--|
| Sample Results | 0.0789 | 0.0800 | 0.0011 | 0.0794 | 0.0799 | |
| (g/100cc) | 0.0799 | 0.0810 | 0.0011 | 0.0804 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: Alcohol.m
Hamilton Auto-Dilutor Serial Number: ML600HC11378

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.079 | 0.075 | 0.083 | 0.004 |

| Reported Result | |
|-----------------|--|
| 0.079 | |

Calibration and control data are stored centrally.

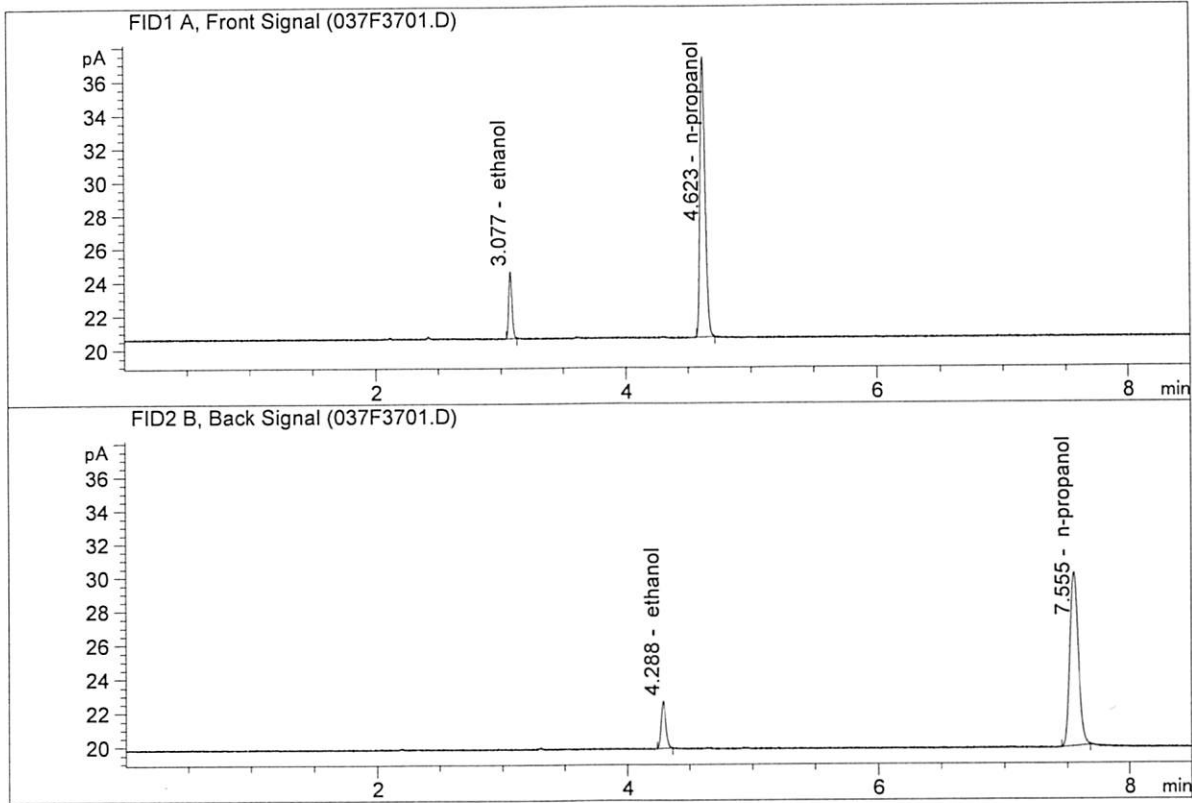
Revision: 1

Issue Date: 01/04/2019

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-2-A
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

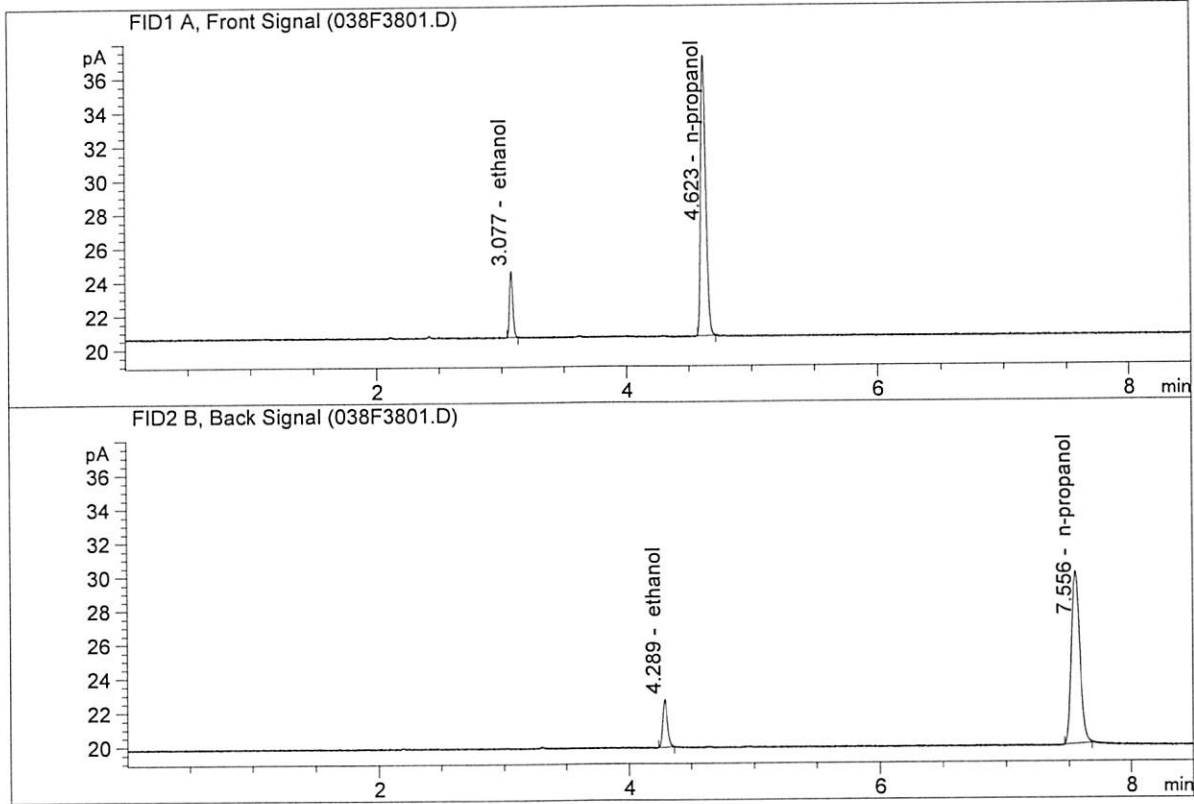


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 7.19922 | 0.0789 | g/100cc |
| 2. | Ethanol | Column 2: | 7.46944 | 0.0800 | g/100cc |
| 3. | n-Propanol | Column 1: | 47.32824 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 49.05298 | 1.0000 | g/100cc |

✓

ISP Forensic Services Blood Alcohol Report

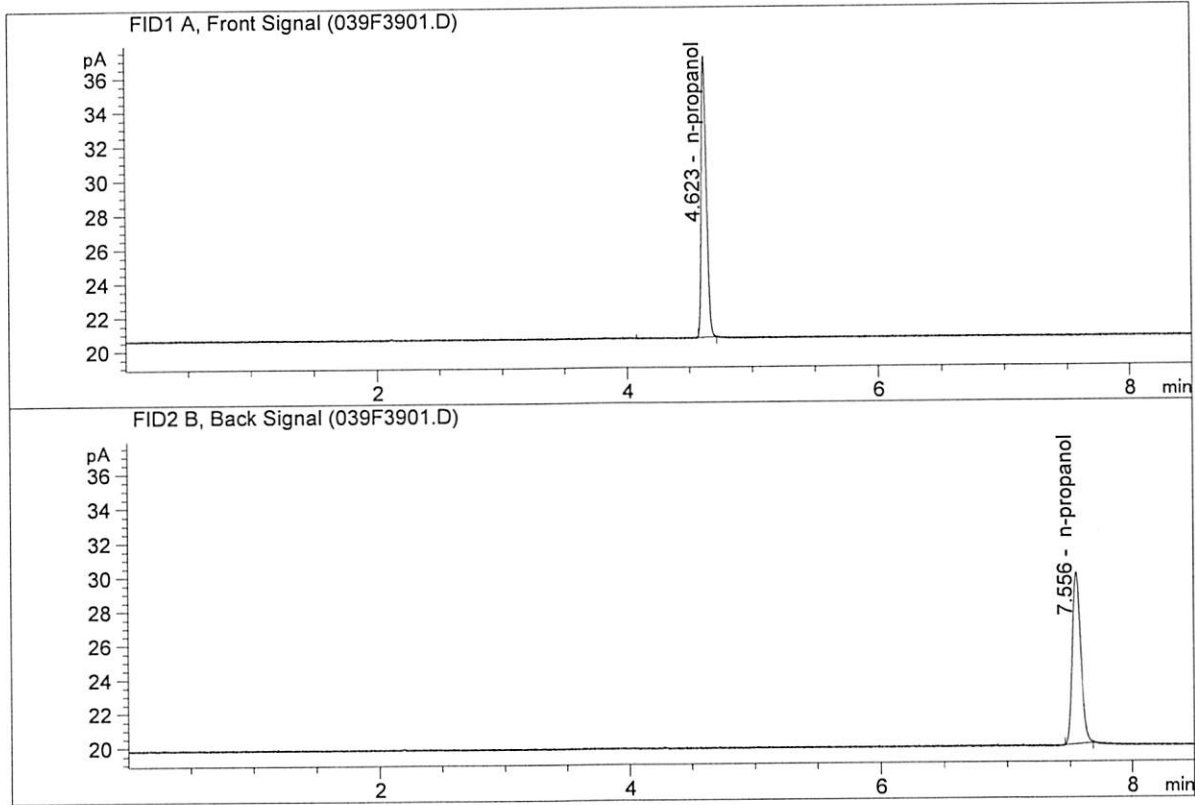
Sample Name : QC1-2-B
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 7.21864 | 0.0799 | g/100cc |
| 2. | Ethanol | Column 2: | 7.48495 | 0.0810 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.87681 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.50157 | 1.0000 | g/100cc |

ISP Forensic Services Blood Alcohol Report

Sample Name : BLK
 Laboratory : Meridian
 Injection Date : May 30, 2019
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.54891 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.11423 | 1.0000 | g/100cc |

✓

S a m p l e S u m m a r y

Sequence table: C:\Chem32\1\Data\05-30-19_SAMPLES\05-30-19_SAMPLES 2019-05-30 15-18-07\05-30-19_SAMPLES.S
 Data directory path: C:\Chem32\1\Data\05-30-19_SAMPLES\05-30-19_SAMPLES 2019-05-30 15-18-07\
 Logbook: C:\Chem32\1\Data\05-30-19_SAMPLES\05-30-19_SAMPLES 2019-05-30 15-18-07\05-30-19_SAMPLES.LOG
 Sequence start: 5/30/2019 3:32:57 PM
 Sequence Operator: SYSTEM
 Operator: SYSTEM
 Method file name: C:\Chem32\1\Data\05-30-19_SAMPLES\05-30-19_SAMPLES 2019-05-30 15-18-07\ALCOHOL.M

| Run # | Location # | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # | # Cmp |
|-------|------------|-------|------------------|----------------------|-------------------|------------|-------|-------|
| 1 | 1 | 1 | INTERNAL STD BLK | - | 1.0000 | 001F0101.D | | 2 |
| 2 | 2 | 1 | MIX VOL FN060415 | - | 1.0000 | 002F0201.D | | 10 |
| 3 | 3 | 1 | QC1-1-A | - | 1.0000 | 003F0301.D | | 4 |
| 4 | 4 | 1 | QC1-1-B | - | 1.0000 | 004F0401.D | | 4 |
| 5 | 5 | 1 | 0.08 FN04171701- | - | 1.0000 | 005F0501.D | | 4 |
| 6 | 6 | 1 | 0.08 FN04171701- | - | 1.0000 | 006F0601.D | | 4 |
| 7 | 7 | 1 | M2019-2370-1-A | - | 1.0000 | 007F0701.D | | 4 |
| 8 | 8 | 1 | M2019-2370-1-B | - | 1.0000 | 008F0801.D | | 4 |
| 9 | 9 | 1 | M2019-2383-1-A | - | 1.0000 | 009F0901.D | | 4 |
| 10 | 10 | 1 | M2019-2383-1-B | - | 1.0000 | 010F1001.D | | 4 |
| 11 | 11 | 1 | M2019-2384-1-A | - | 1.0000 | 011F1101.D | | 4 |
| 12 | 12 | 1 | M2019-2384-1-B | - | 1.0000 | 012F1201.D | | 4 |
| 13 | 13 | 1 | M2019-2385-1-A | - | 1.0000 | 013F1301.D | | 4 |
| 14 | 14 | 1 | M2019-2385-1-B | - | 1.0000 | 014F1401.D | | 4 |
| 15 | 15 | 1 | M2019-2386-1-A | - | 1.0000 | 015F1501.D | | 2 |
| 16 | 16 | 1 | M2019-2386-1-B | - | 1.0000 | 016F1601.D | | 2 |
| 17 | 17 | 1 | M2019-2408-1-A | - | 1.0000 | 017F1701.D | | 4 |
| 18 | 18 | 1 | M2019-2408-1-B | - | 1.0000 | 018F1801.D | | 4 |
| 19 | 19 | 1 | M2019-2409-1-A | - | 1.0000 | 019F1901.D | | 2 |
| 20 | 20 | 1 | M2019-2409-1-B | - | 1.0000 | 020F2001.D | | 2 |
| 21 | 21 | 1 | M2019-2410-1-A | - | 1.0000 | 021F2101.D | | 2 |
| 22 | 22 | 1 | M2019-2410-1-B | - | 1.0000 | 022F2201.D | | 2 |
| 23 | 23 | 1 | M2019-2411-1-A | - | 1.0000 | 023F2301.D | | 4 |
| 24 | 24 | 1 | M2019-2411-1-B | - | 1.0000 | 024F2401.D | | 4 |
| 25 | 25 | 1 | QC2-1-A | - | 1.0000 | 025F2501.D | | 4 |
| 26 | 26 | 1 | QC2-1-B | - | 1.0000 | 026F2601.D | | 4 |
| 27 | 27 | 1 | M2019-2437-1-A | - | 1.0000 | 027F2701.D | | 4 |
| 28 | 28 | 1 | M2019-2437-1-B | - | 1.0000 | 028F2801.D | | 4 |
| 29 | 29 | 1 | M2019-2445-1-A | - | 1.0000 | 029F2901.D | | 4 |
| 30 | 30 | 1 | M2019-2445-1-B | - | 1.0000 | 030F3001.D | | 4 |
| 31 | 31 | 1 | M2019-2450-2-A | - | 1.0000 | 031F3101.D | | 2 |
| 32 | 32 | 1 | M2019-2450-2-B | - | 1.0000 | 032F3201.D | | 2 |
| 33 | 33 | 1 | M2019-2451-1-A | - | 1.0000 | 033F3301.D | | 4 |
| 34 | 34 | 1 | M2019-2451-1-B | - | 1.0000 | 034F3401.D | | 4 |
| 35 | 35 | 1 | M2019-2452-1-A | - | 1.0000 | 035F3501.D | | 2 |
| 36 | 36 | 1 | M2019-2452-1-B | - | 1.0000 | 036F3601.D | | 2 |
| 37 | 37 | 1 | QC1-2-A | - | 1.0000 | 037F3701.D | | 4 |
| 38 | 38 | 1 | QC1-2-B | - | 1.0000 | 038F3801.D | | 4 |
| 39 | 39 | 1 | BLK | - | 1.0000 | 039F3901.D | | 2 |

return on next batch JG

JG

Method file name: C:\Chem32\1\Data\05-30-19_SAMPLES\05-30-19_SAMPLES 2019-05-30 15-18-07
\SHUTDOWN.M

| Run # | Location | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # | Cmp |
|-------|----------|-------|-------------|----------------------|-------------------|------------|-------|-----|
| 40 | 40 | 1 | SHUTDOWN | - | 1.0000 | 040F4001.D | | 0 |

JG