## 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): 2/20/19-2/21/19**

Calibration Date: 2/20/19

| Control level | Expiration | Lot # | Target Value | Acceptable Range | Overall Results |
|---|---|---|---|---|---|
| Level 1 | Jan-22 | 1801036 | 0.0812 | 0.0731-0.0893 | 0.0792 g/100cc |
| | | | | | 0.0814 g/100cc |
| | | | | | g/100cc |
| Level 2 | Mar-22 | 1803028 | 0.2035 | 0.1832-0.2238 | 0.2010 g/100cc |
| | | | | | g/100cc |
| | | | | | g/100cc |

| Multi-Component mixture: | Sep-20 | Lot # | FN06041502 | ok |
|---|---|---|---|---|
| **Curve Fit:** | **Column 1** | 0.99998 | **Column2** | 0.99996 |

**Ethanol Calibration Reference Material**

| Calibrator level | Target Value | Acceptable Range | Column 1 | Column 2 | Precision | Mean |
|---|---|---|---|---|---|---|
| 50 | 0.050 | 0.045 - 0.055 | 0.0502 | 0.0520 | 0.0018 | 0.0511 |
| 100 | 0.100 | 0.090 - 0.110 | 0.0991 | 0.0998 | 0.0007 | 0.0994 |
| 200 | 0.200 | 0.180 - 0.220 | 0.1999 | 0.1978 | 0.0021 | 0.1988 |
| 300 | 0.300 | 0.270 - 0.330 | 0.3016 | 0.2992 | 0.0024 | 0.3004 |
| 500 | 0.500 | 0.450 - 0.550 | 0.4992 | 0.5012 | 0.002 | 0.5002 |

**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 3:52 pm, Feb 21, 2019

JG



Revision: 1
Issue Date: 01/03/2019
Issuing Authority: Quality Manager

**Worklist: 2963**

| LAB_CASE | ITEM | TASK_ID | DESCRIPTION |
|---|---|---|---|
| M2019-0732 | 3 | 139816 | Alcohol Analysis |
| M2019-0746 | 1 | 139404 | Alcohol Analysis |
| M2019-0758 | 1 | 139438 | Alcohol Analysis |
| M2019-0759 | 1 | 139439 | Alcohol Analysis |
| M2019-0768 | 1 | 139460 | Alcohol Analysis |
| M2019-0769 | 1 | 139461 | Alcohol Analysis |
| M2019-0770 | 1 | 139462 | Alcohol Analysis |
| M2019-0787 | 1 | 139512 | Alcohol Analysis |
| M2019-0788 | 1 | 139513 | Alcohol Analysis |
| M2019-0789 | 1 | 139533 | Alcohol Analysis |
| M2019-0790 | 1 | 139534 | Alcohol Analysis |
| M2019-0795 | 1 | 139568 | Alcohol Analysis |
| M2019-0812 | 1 | 139599 | Alcohol Analysis |
| M2019-0827 | 1 | 139639 | Alcohol Analysis |
| M2019-0828 | 1 | 139640 | Alcohol Analysis |
| M2019-0850 | 1 | 139815 | Alcohol Analysis |
| M2019-0863 | 1 | 141997 | Alcohol Analysis |
| M2019-0864 | 1 | 141998 | Alcohol Analysis |
| M2019-0865 | 1 | 141999 | Alcohol Analysis |

JC

Method C:\CHEM32\1\METHODS\ALCOHOL.M

## Calibration Table

### General Calibration Setting

Calib. Data Modified : Wednesday, February 20, 2019 2:49:50 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

JG

Method C:\CHEM32\1\METHODS\ALCOHOL.M

| 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 | 4.50994 | 1.10866e-2 | No | No | 1 | ethanol |
| | | 2 | 1.00000e-1 | 9.20050 | 1.08690e-2 | | | | |
| | | 3 | 2.00000e-1 | 18.63809 | 1.07307e-2 | | | | |
| | | 4 | 3.00000e-1 | 27.97259 | 1.07248e-2 | | | | |
| | | 5 | 5.00000e-1 | 47.13963 | 1.06068e-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 | 4.66614 | 1.07155e-2 | No | No | 2 | ethanol |
| | | 2 | 1.00000e-1 | 9.58445 | 1.04336e-2 | | | | |
| | | 3 | 2.00000e-1 | 19.35337 | 1.03341e-2 | | | | |
| | | 4 | 3.00000e-1 | 29.33559 | 1.02265e-2 | | | | |
| | | 5 | 5.00000e-1 | 50.08694 | 9.98264e-3 | | | | |
| 4.308 | 1 | 1 | 1.00000 | 6.49940 | 1.53860e-1 | No | No | 1 | acetone |
| 4.620 | 1 | 1 | 1.00000 | 45.37858 | 2.20368e-2 | No | Yes | 1 | n-propanol |
| | | 2 | 1.00000 | 46.75404 | 2.13885e-2 | | | | |
| | | 3 | 1.00000 | 46.87068 | 2.13353e-2 | | | | |
| | | 4 | 1.00000 | 46.59780 | 2.14602e-2 | | | | |
| | | 5 | 1.00000 | 47.42130 | 2.10876e-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 | 47.42397 | 2.10864e-2 | No | Yes | 2 | n-propanol |
| | | 2 | 1.00000 | 48.55627 | 2.05947e-2 | | | | |
| | | 3 | 1.00000 | 48.39064 | 2.06652e-2 | | | | |
| | | 4 | 1.00000 | 48.12415 | 2.07796e-2 | | | | |
| | | 5 | 1.00000 | 48.76479 | 2.05066e-2 | | | | |

---

---

Peak Sum Table

---

***No Entries in table***

---

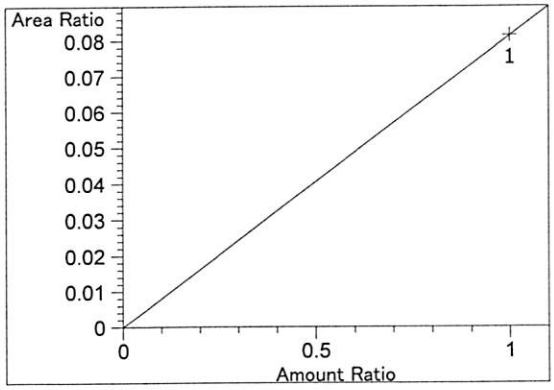
1 Warnings or Errors :

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

==========

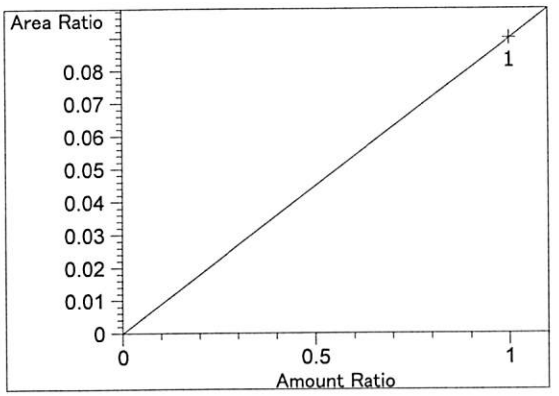
Calibration Curves

==========

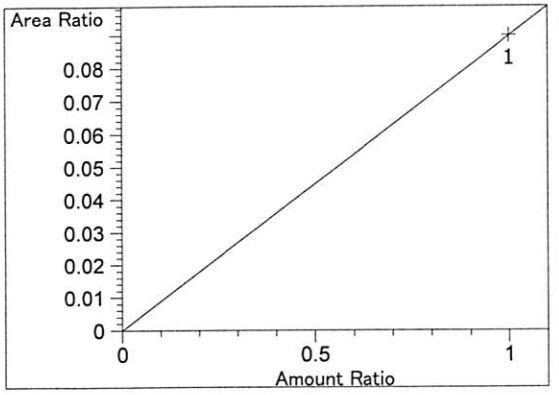



methanol at exp. RT: 2.586
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 8.14634e-2
b: 0.00000
x: Amount Ratio
y: Area Ratio

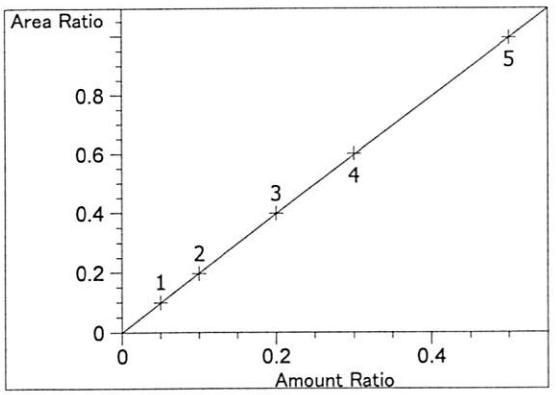
JG



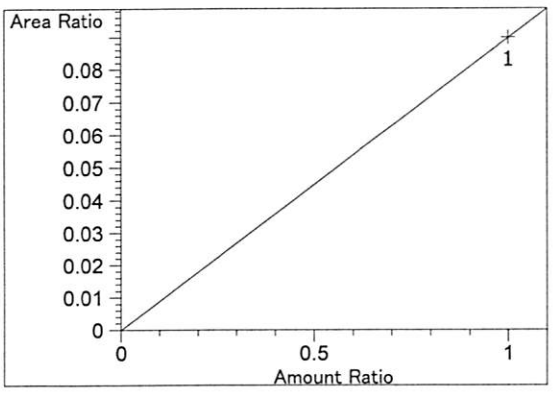

Acetaldehyde at exp. RT: 2.809
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 8.98491e-2
b: 0.00000
x: Amount Ratio
y: Area Ratio



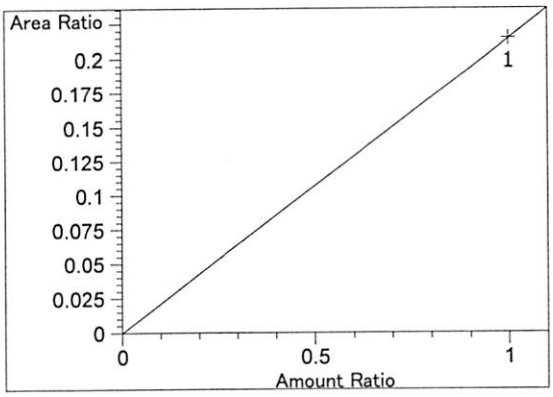

Acetaldehyde at exp. RT: 2.977
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 8.98491e-2
b: 0.00000
x: Amount Ratio
y: Area Ratio



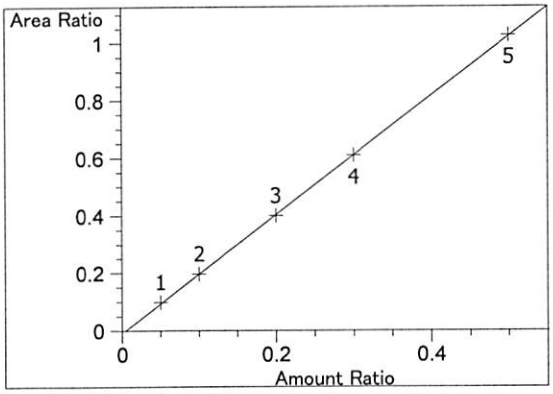

ethanol at exp. RT: 3.075
FID1 A, Front Signal
Correlation: 0.99998
Residual Std. Dev.: 0.00232
Formula: y = mx + b
m: 1.99232
b: -5.96924e-4
x: Amount Ratio
y: Area Ratio



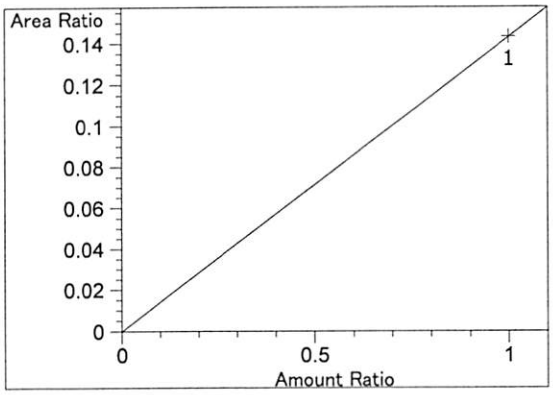

methanol at exp. RT: 3.388
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 8.98412e-2
b: 0.00000
x: Amount Ratio
y: Area Ratio



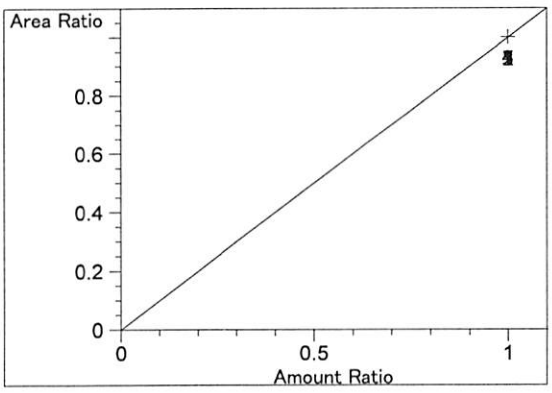

isopropyl alcohol at exp. RT: 3.628
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 2.14431e-1
b: 0.00000
x: Amount Ratio
y: Area Ratio




ethanol at exp. RT: 4.285
FID2 B, Back Signal
Correlation: 0.99996
Residual Std. Dev.: 0.00389
Formula: y = mx + b
m: 2.06736
b: -9.00937e-3
x: Amount Ratio
y: Area Ratio

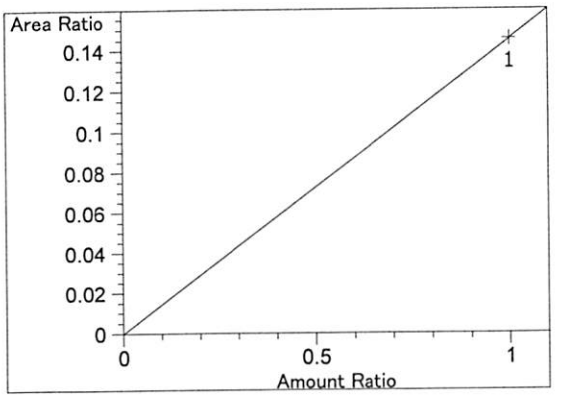



acetone at exp. RT: 4.308
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 1.43226e-1
b: 0.00000
x: Amount Ratio
y: Area Ratio

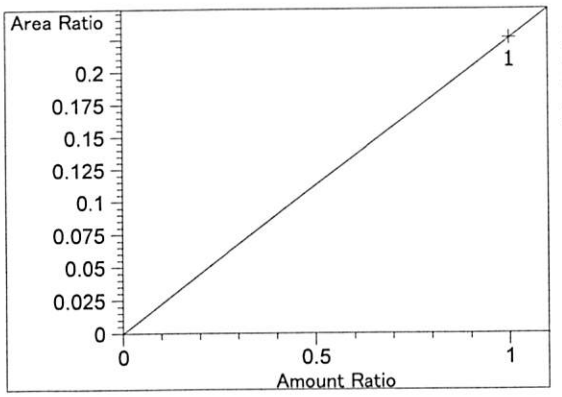



n-propanol at exp. RT: 4.620
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 1.00000
b: 0.00000
x: Amount Ratio
y: Area Ratio

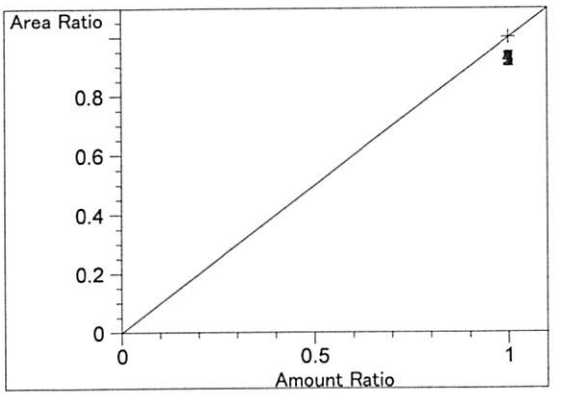
JG




acetone at exp. RT: 4.661
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 1.45349e-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: 2.25760e-1
b: 0.00000
x: Amount Ratio
y: Area Ratio



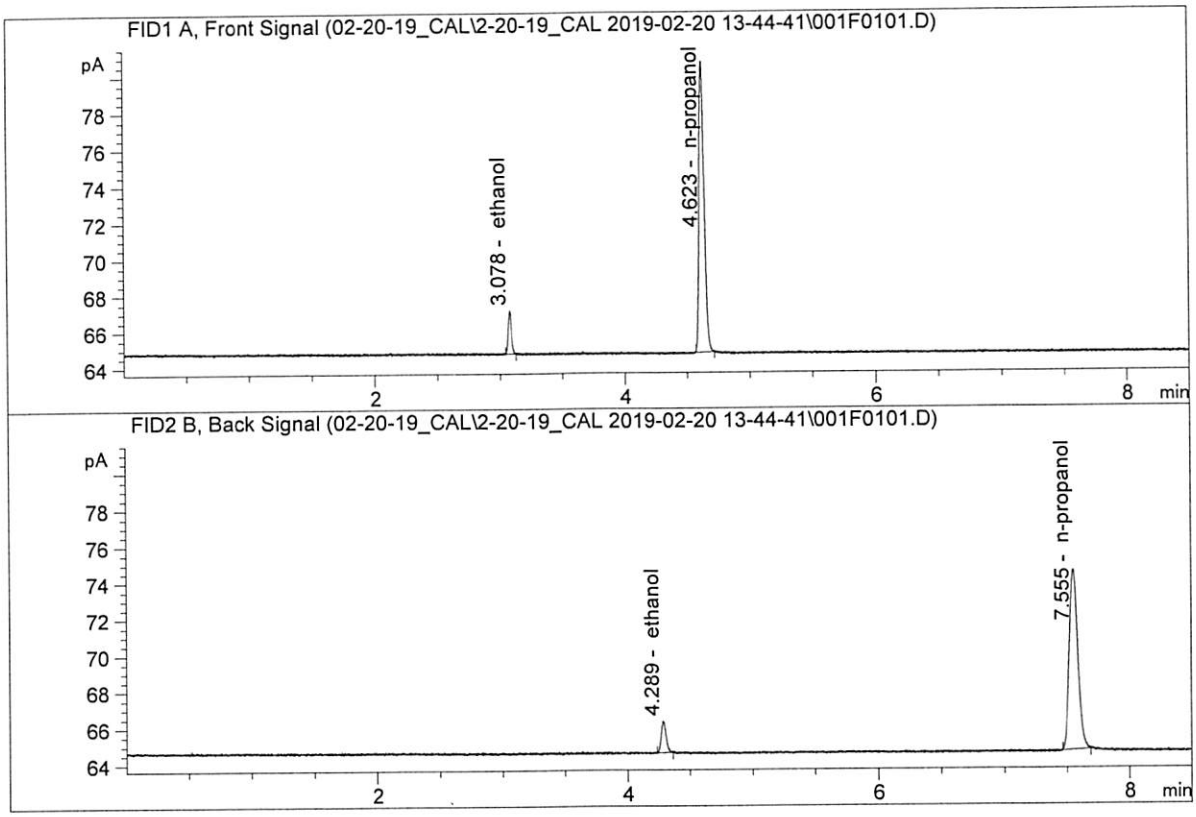

n-propanol at exp. RT: 7.550
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 1.00000
b: 0.00000
x: Amount Ratio
y: Area Ratio

==========

JG

# ISP Forensic Services Blood Alcohol Report

Sample Name : 0.050 FN04271601
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

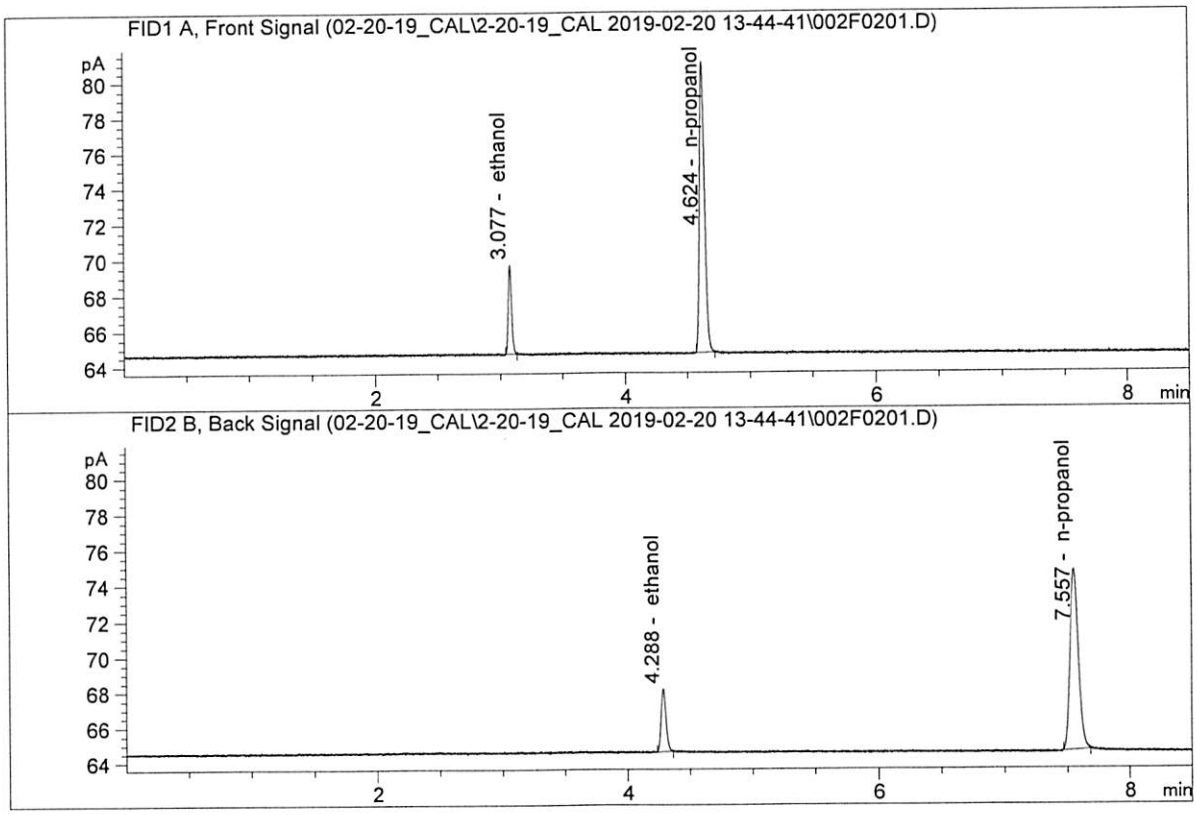



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 4.50994 | 0.0502 | g/100cc |
| 2. | Ethanol | Column 2: | 4.66614 | 0.0520 | g/100cc |
| 3. | n-Propanol | Column 1: | 45.37858 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 47.42397 | 1.0000 | g/100cc |

JG

# ISP Forensic Services Blood Alcohol Report

Sample Name : 0.100 FN08101601
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

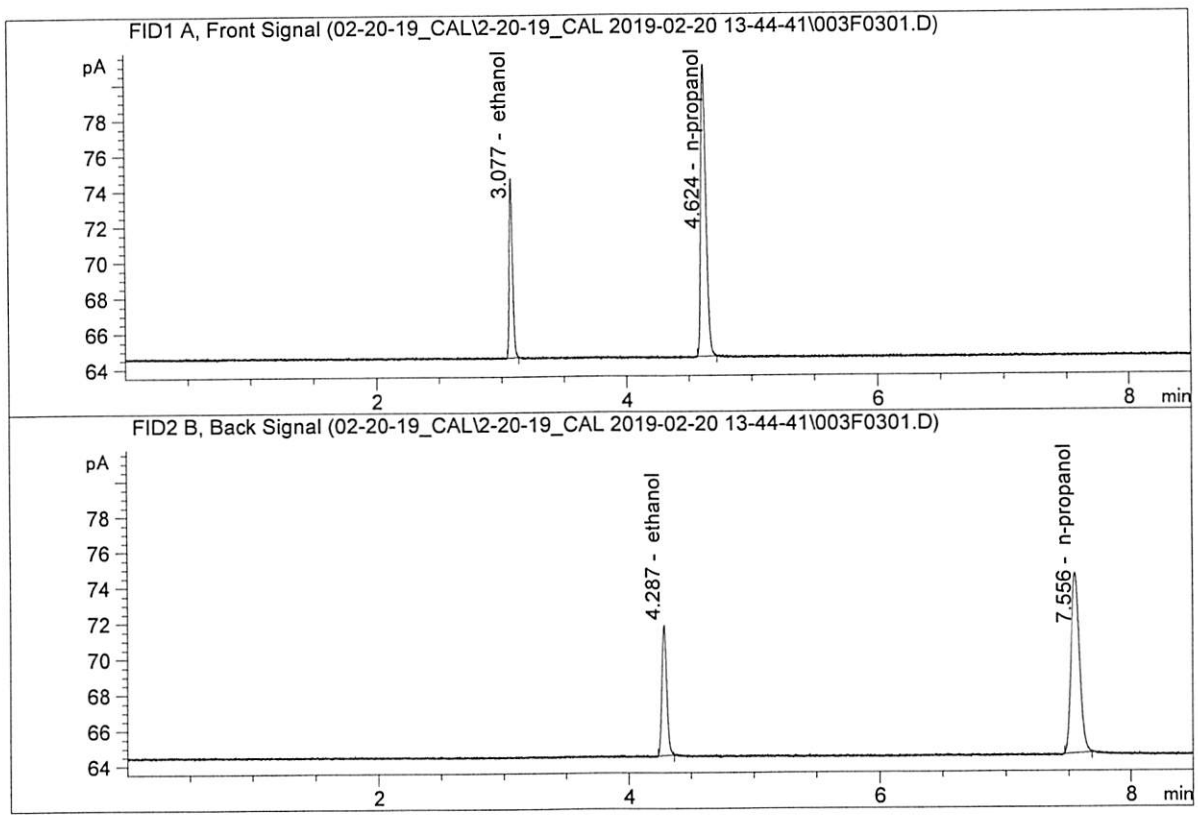



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 9.20050 | 0.0991 | g/100cc |
| 2. | Ethanol | Column 2: | 9.58445 | 0.0998 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.75404 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.55627 | 1.0000 | g/100cc |

JG

# ISP Forensic Services Blood Alcohol Report

Sample Name : 0.200 FN03301601
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

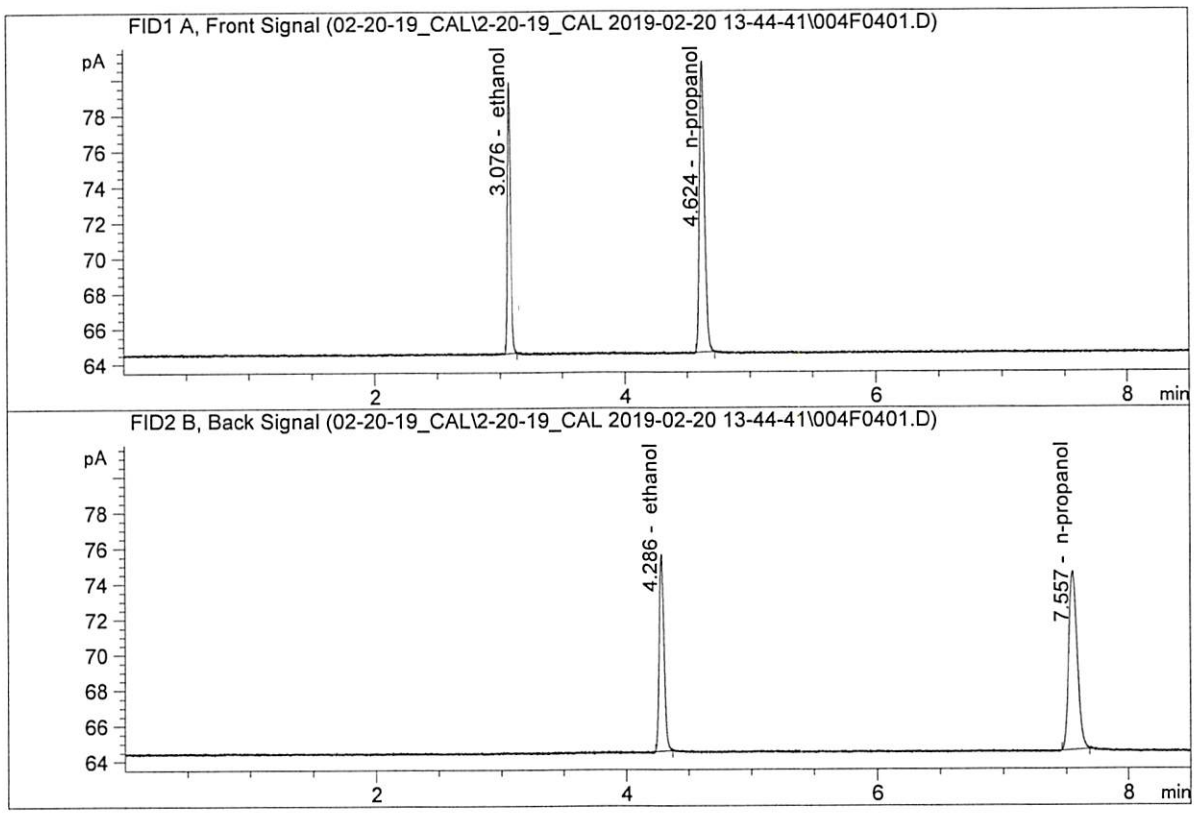



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 18.63809 | 0.1999 | g/100cc |
| 2. | Ethanol | Column 2: | 19.35337 | 0.1978 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.87068 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.39064 | 1.0000 | g/100cc |

JG

# ISP Forensic Services Blood Alcohol Report

Sample Name : 0.300 FN02121601
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

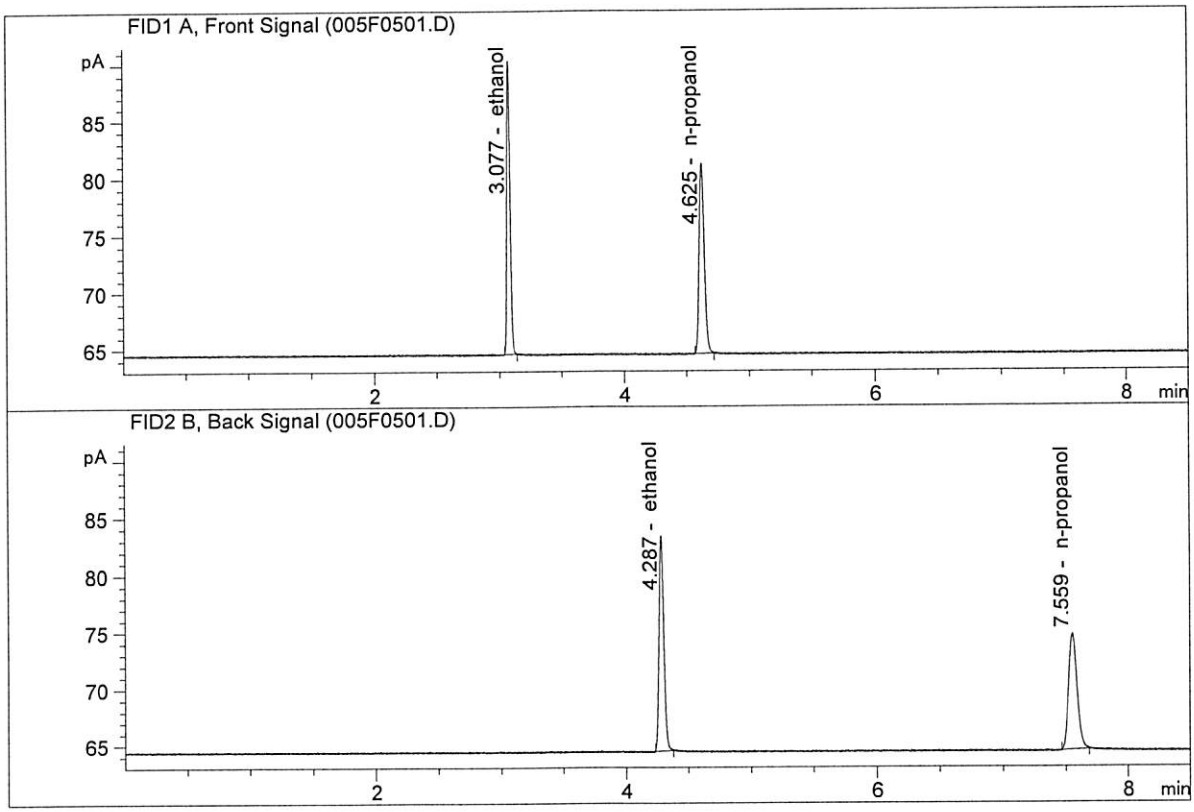



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 27.97259 | 0.3016 | g/100cc |
| 2. | Ethanol | Column 2: | 29.33559 | 0.2992 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.59780 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.12415 | 1.0000 | g/100cc |

JG

# ISP Forensic Services Blood Alcohol Report

Sample Name : 0.500 FN08031602
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

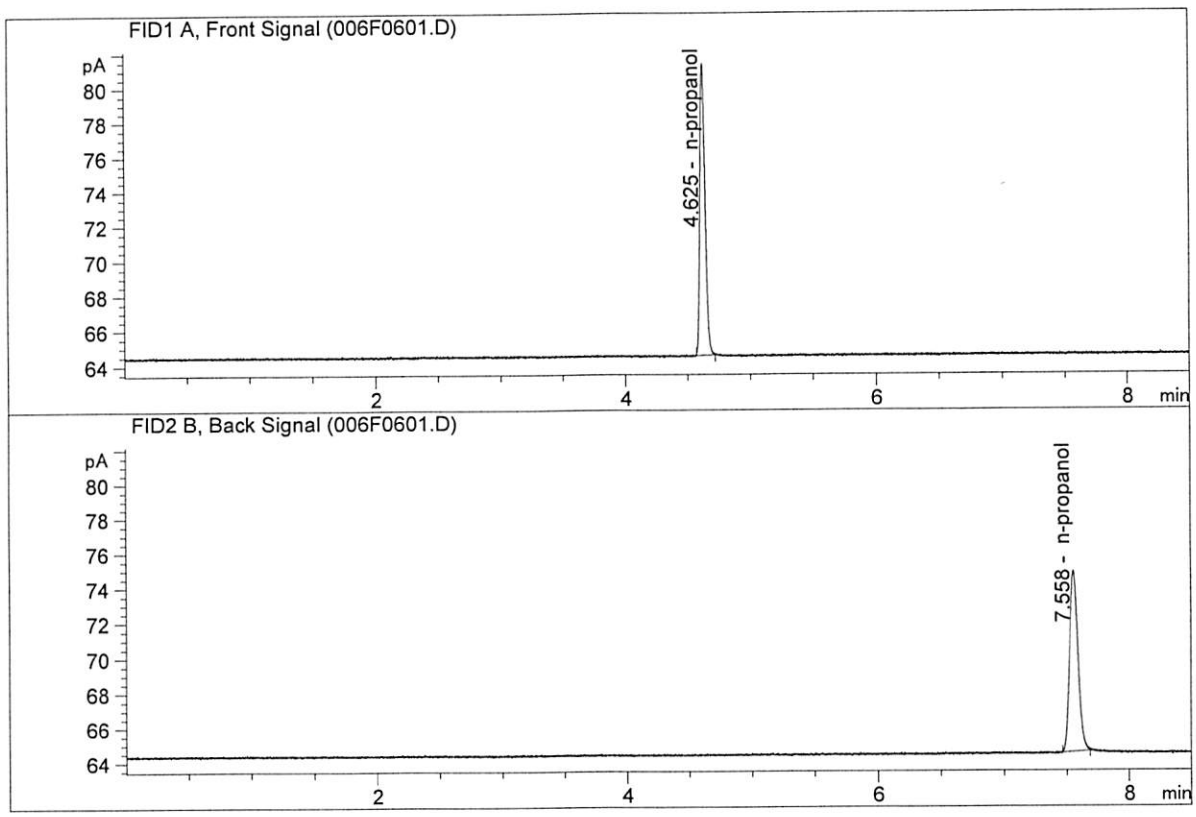



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 47.13963 | 0.4992 | g/100cc |
| 2. | Ethanol | Column 2: | 50.08694 | 0.5012 | g/100cc |
| 3. | n-Propanol | Column 1: | 47.42130 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.76479 | 1.0000 | g/100cc |

JG

# ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STANDARD BLANK
Laboratory : Meridian
Injection Date : Feb 20, 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: | 47.92826 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 49.58934 | 1.0000 | g/100cc |

Sequence File C:\Chem32\1\Data\02-20-19_CAL\2-20-19_CAL 2019-02-20 13-44-41\2-20-19_CAL.S

## Sample Summary

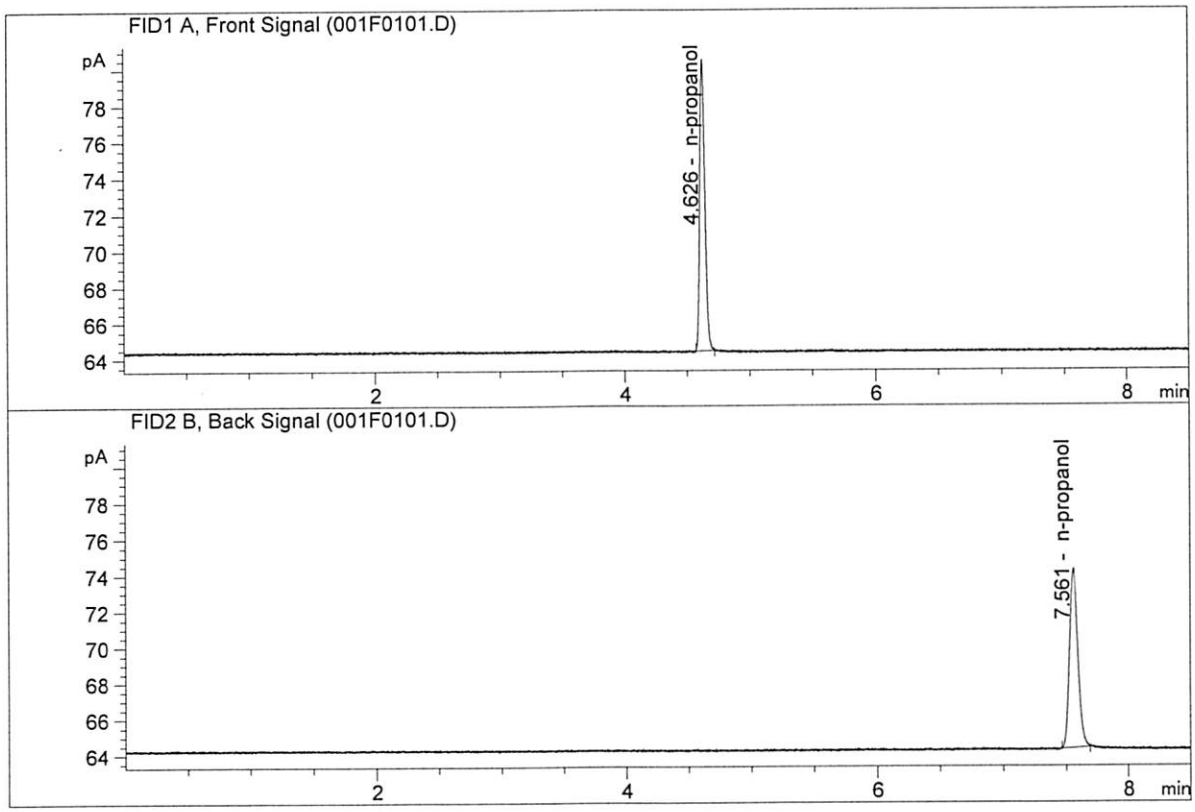
Sequence table: C:\Chem32\1\Data\02-20-19_CAL\2-20-19_CAL 2019-02-20 13-44-41\2-20-19_CAL S
Data directory path: C:\Chem32\1\Data\02-20-19_CAL\2-20-19_CAL 2019-02-20 13-44-41\
Logbook: C:\Chem32\1\Data\02-20-19_CAL\2-20-19_CAL 2019-02-20 13-44-41\2-20-19_CAL LOG
Sequence start: 2/20/2019 1:59:18 PM
Sequence Operator: SYSTEM
Operator: SYSTEM

Method file name: C:\Chem32\1\Data\02-20-19_CAL\2-20-19_CAL 2019-02-20 13-44-41\ALCOHOL.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 FN02121601 | - | 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 |

# ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STD BLK 1
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

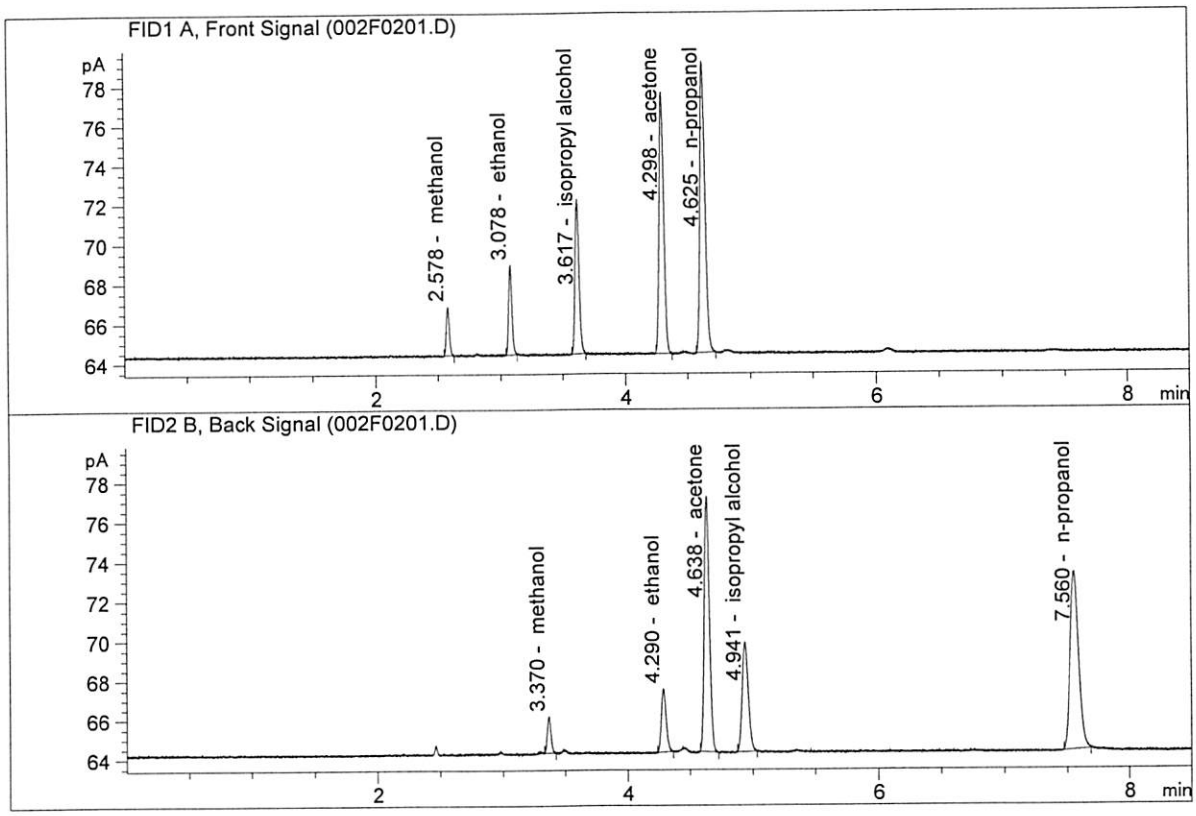



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 45.96582 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 47.81641 | 1.0000 | g/100cc |

JC

# ISP Forensic Services Blood Alcohol Report

Sample Name : MIX VOL FN06041502
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167




| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 8.30222 | 0.1001 | g/100cc |
| 2. | Ethanol | Column 2: | 8.59073 | 0.1011 | g/100cc |
| 3. | n-Propanol | Column 1: | 41.74678 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 42.94003 | 1.0000 | g/100cc |

JG

# VOLATILES DETERMINATION CASEFILE WORKSHEET

**Laboratory No.: QC1-1** **Analysis Date(s): 20 Feb 2019**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|---|---|---|---|---|---|---|
| Sample Results | 0.0791 | 0.0802 | 0.0011 | 0.0796 | 0.0792 | |
| (g/100cc) | 0.0784 | 0.0793 | 0.0009 | 0.0788 | | |

**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 |

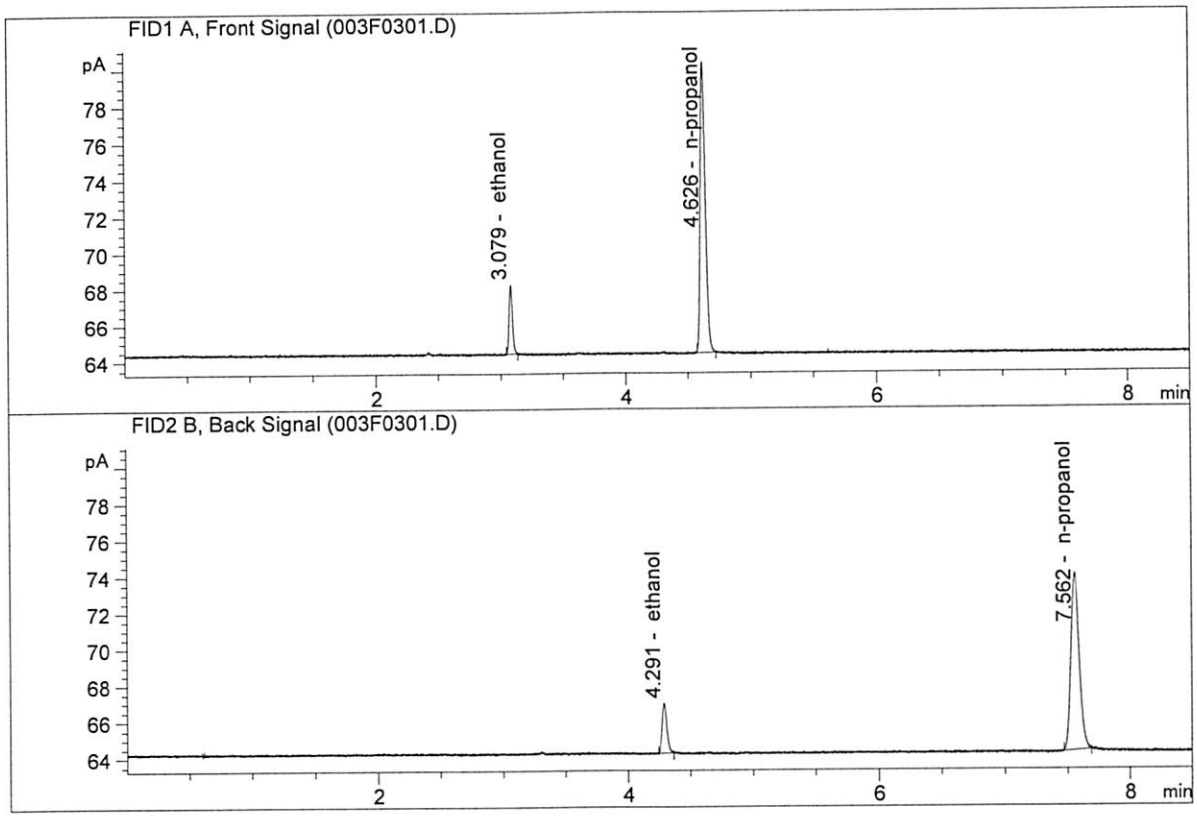
| | Reported Result | |
|---|---|---|
| | 0.079 | |

***Calibration and control data are stored centrally.***

JL

# ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-1-A
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

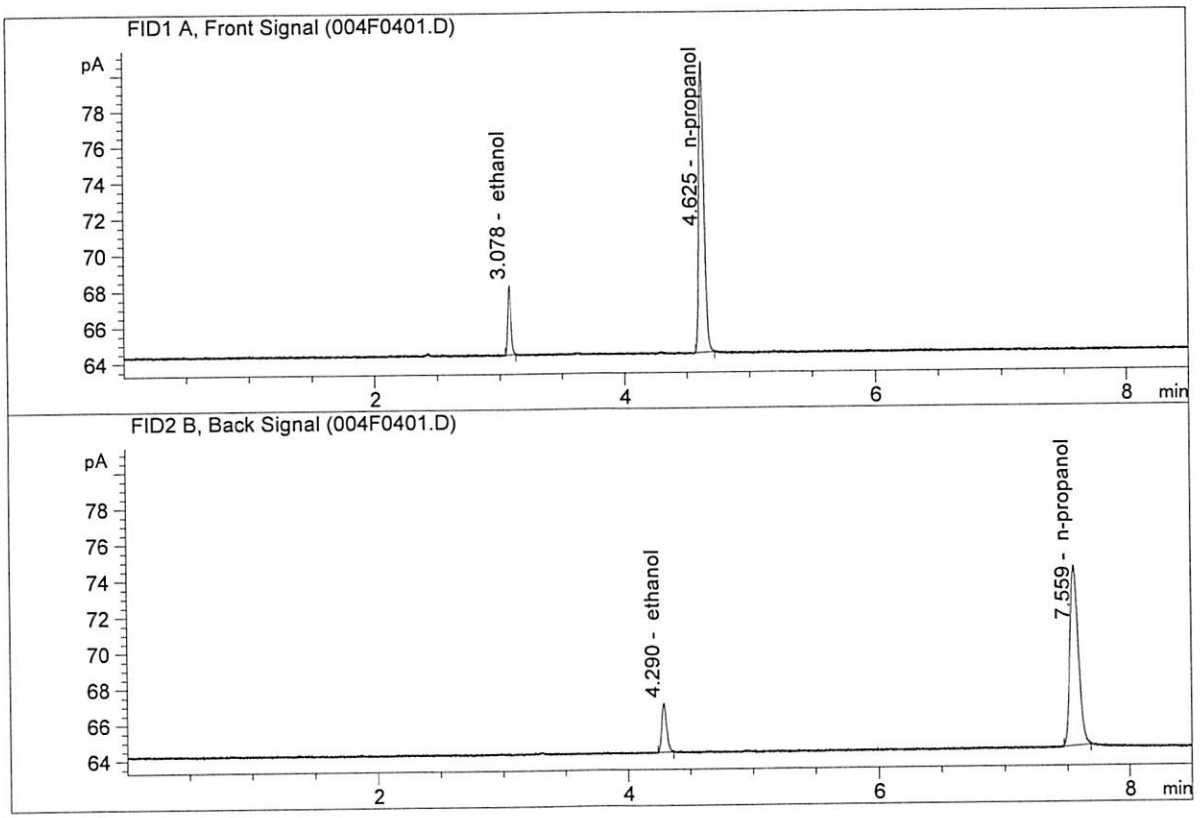



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 7.10032 | 0.0791 | g/100cc |
| 2. | Ethanol | Column 2: | 7.31242 | 0.0802 | g/100cc |
| 3. | n-Propanol | Column 1: | 45.23124 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 46.62544 | 1.0000 | g/100cc |

JL

# ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-1-B
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167




| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 7.20633 | 0.0784 | g/100cc |
| 2. | Ethanol | Column 2: | 7.36746 | 0.0793 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.29676 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 47.57454 | 1.0000 | g/100cc |

JC

# VOLATILES DETERMINATION CASEFILE WORKSHEET

**Laboratory No.: 0.08 FN04171701** **Analysis Date(s): 20 Feb 2019**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|---|---|---|---|---|---|---|
| Sample Results | 0.0787 | 0.0807 | 0.0020 | 0.0797 | 0.0799 | |
| (g/100cc) | 0.0796 | 0.0808 | 0.0012 | 0.0802 | | |

**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 |

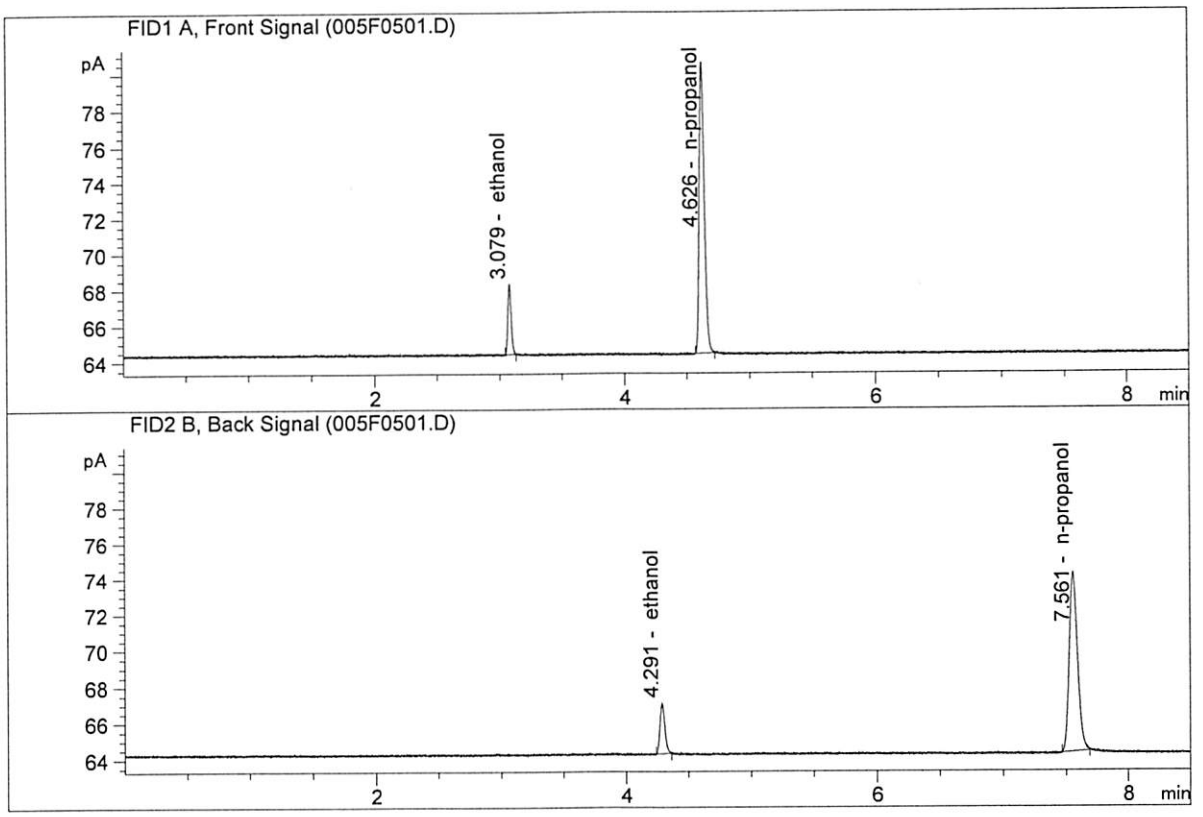
| | Reported Result | |
|---|---|---|
| | 0.079 | |

***Calibration and control data are stored centrally.***

JG

# ISP Forensic Services Blood Alcohol Report

Sample Name : 0.08 FN04171701-A
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

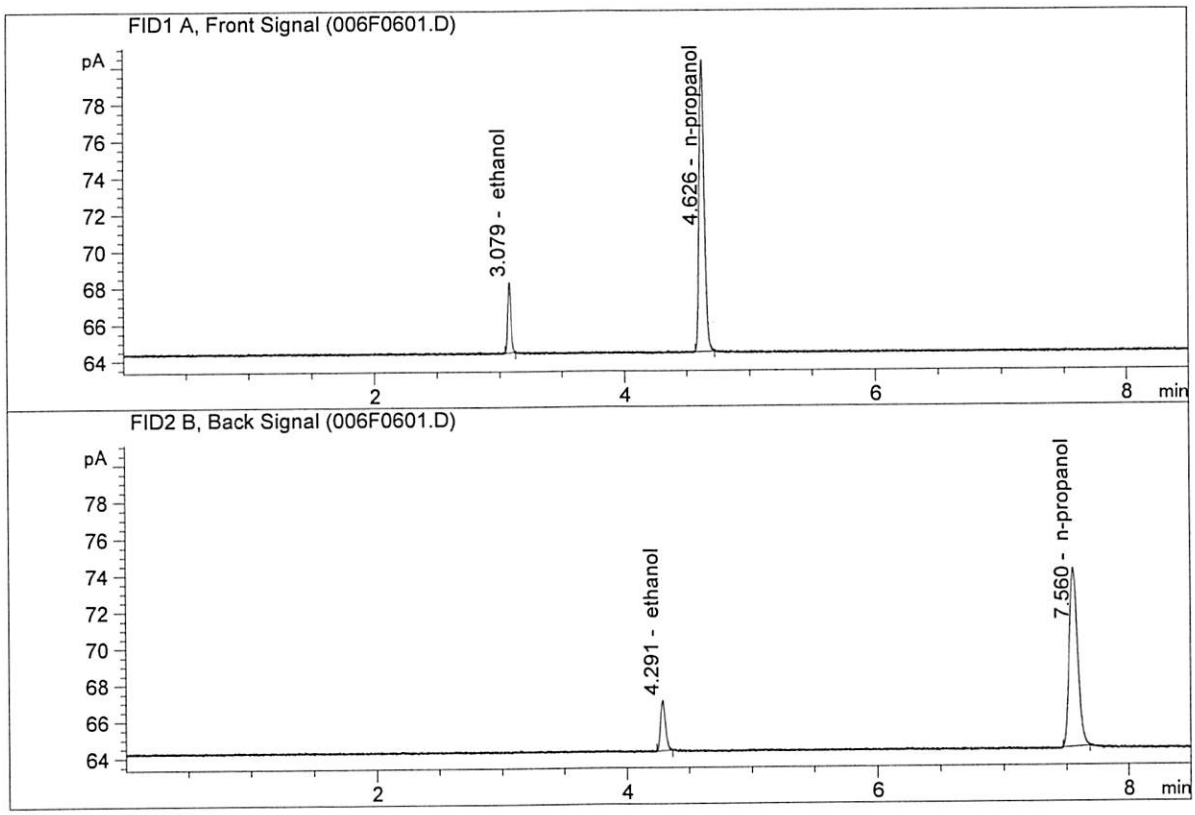



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 7.20604 | 0.0787 | g/100cc |
| 2. | Ethanol | Column 2: | 7.48699 | 0.0807 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.15023 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 47.44872 | 1.0000 | g/100cc |

JC

# ISP Forensic Services Blood Alcohol Report

Sample Name : 0.08 FN04171701-B
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167




| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 7.20747 | 0.0796 | g/100cc |
| 2. | Ethanol | Column 2: | 7.38773 | 0.0808 | g/100cc |
| 3. | n-Propanol | Column 1: | 45.63541 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 46.74889 | 1.0000 | g/100cc |

JG

# VOLATILES DETERMINATION CASEFILE WORKSHEET

**Laboratory No.: QC2-1** **Analysis Date(s): 20 Feb 2019**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|---|---|---|---|---|---|---|
| Sample Results | 0.2020 | 0.2015 | 0.0005 | 0.2017 | 0.2010 | |
| (g/100cc) | 0.2008 | 0.2000 | 0.0008 | 0.2004 | | |

**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 |
|---|---|---|---|
| 0.201 | 0.190 | 0.212 | 0.011 |

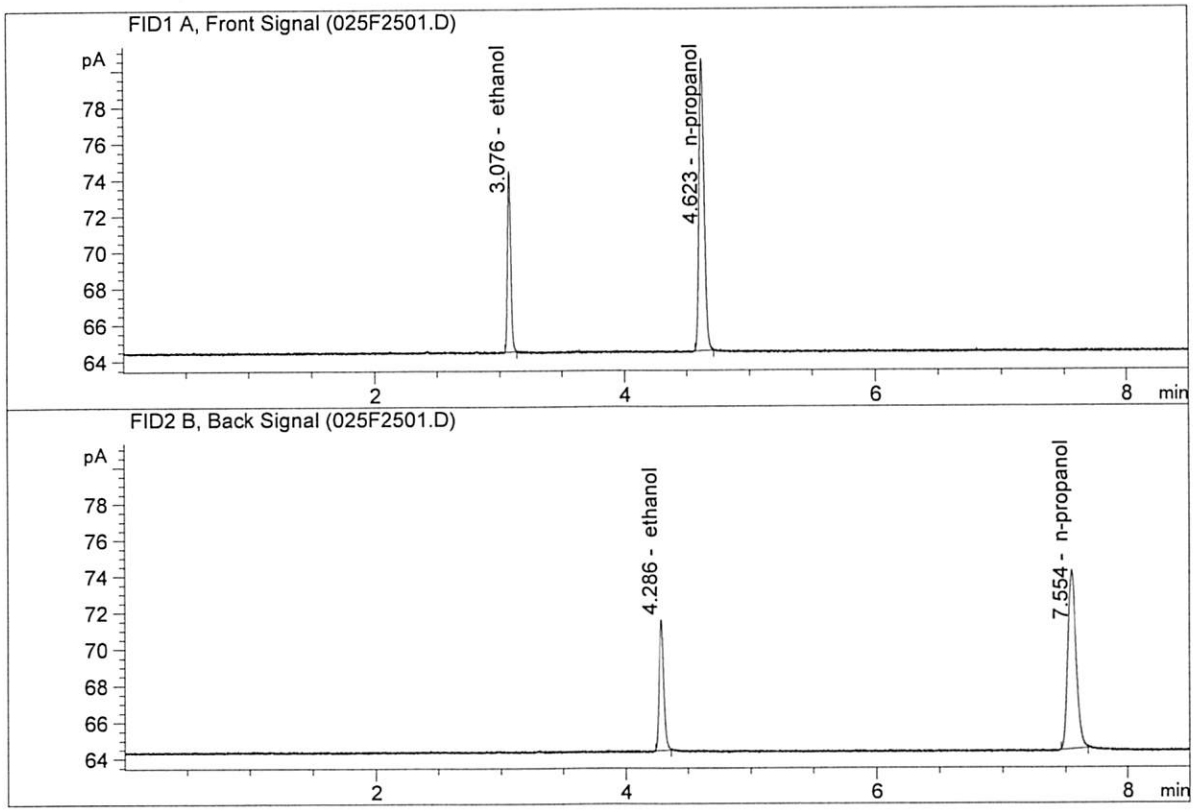
| | Reported Result | |
|---|---|---|
| | 0.201 | |

***Calibration and control data are stored centrally.***

JC

# ISP Forensic Services Blood Alcohol Report

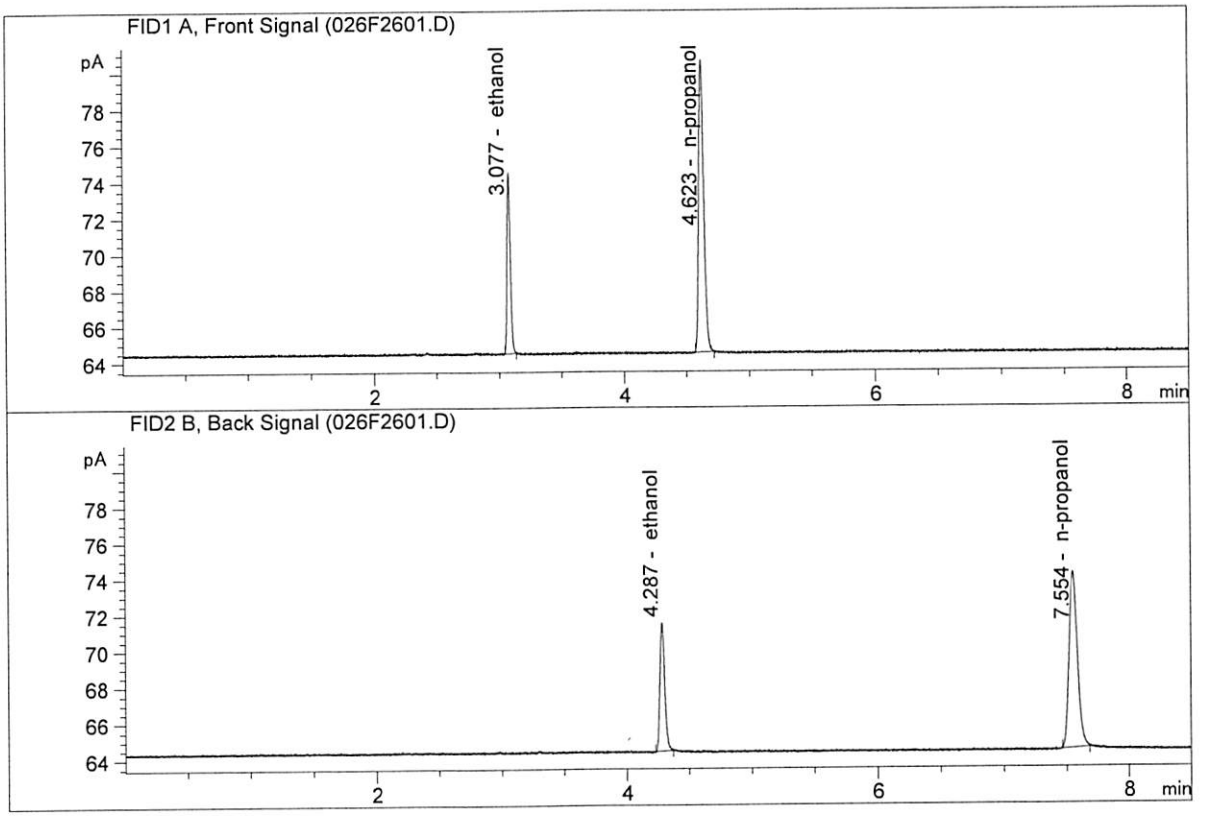
Sample Name : QC2-1-A
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167




| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 18.33366 | 0.2020 | g/100cc |
| 2. | Ethanol | Column 2: | 18.91478 | 0.2015 | g/100cc |
| 3. | n-Propanol | Column 1: | 45.62125 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 46.40293 | 1.0000 | g/100cc |

# ISP Forensic Services Blood Alcohol Report

Sample Name : QC2-1-B
Laboratory : Meridian
Injection Date : Feb 20, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167




| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 18.34186 | 0.2008 | g/100cc |
| 2. | Ethanol | Column 2: | 18.92999 | 0.2000 | g/100cc |
| 3. | n-Propanol | Column 1: | 45.92660 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 46.80445 | 1.0000 | g/100cc |

JG

# VOLATILES DETERMINATION CASEFILE WORKSHEET

**Laboratory No.: QC1-2** **Analysis Date(s): 21 Feb 2019**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|---|---|---|---|---|---|---|
| Sample Results | 0.0811 | 0.0822 | 0.0011 | 0.0816 | 0.0814 | |
| (g/100cc) | 0.0802 | 0.0821 | 0.0019 | 0.0811 | | |

**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 |
|---|---|---|---|
| **0.081** | **0.076** | **0.086** | **0.005** |

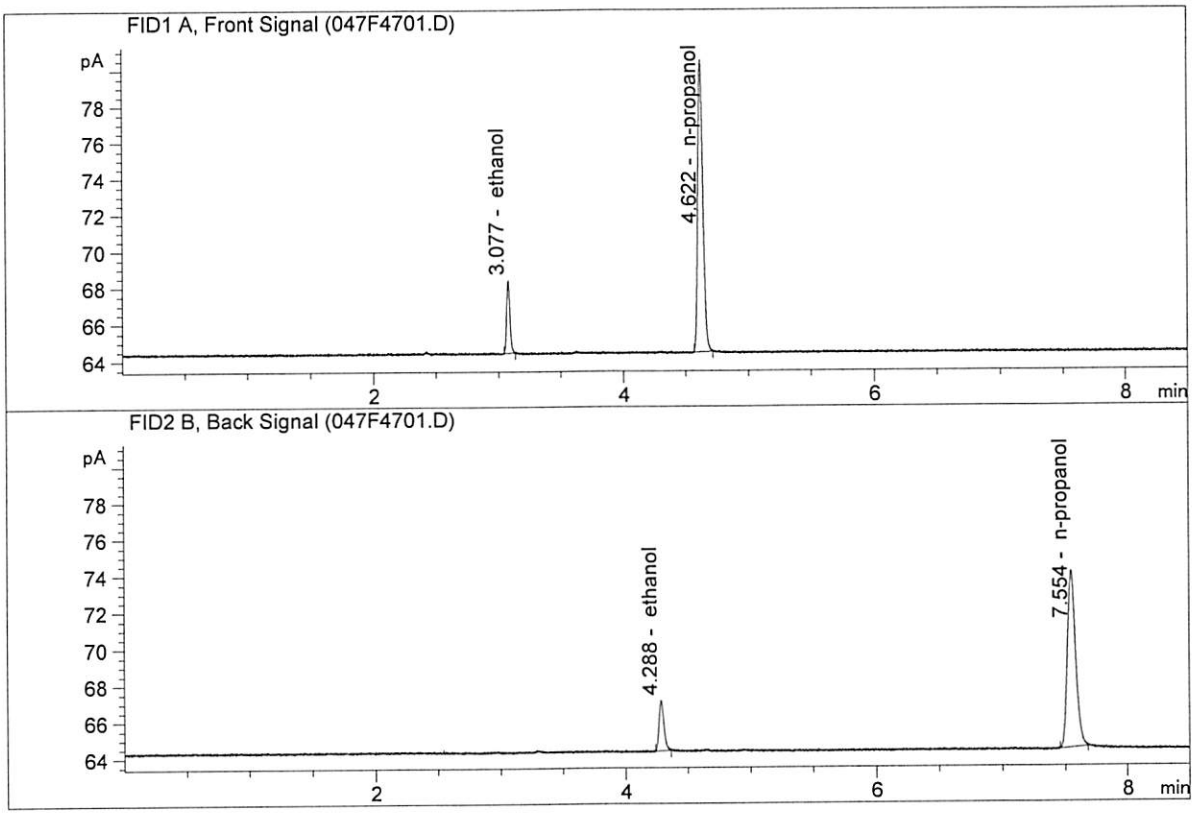
| | Reported Result | |
|---|---|---|
| | **0.081** | |

***Calibration and control data are stored centrally.***

JG

# ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-2-A
Laboratory : Meridian
Injection Date : Feb 21, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

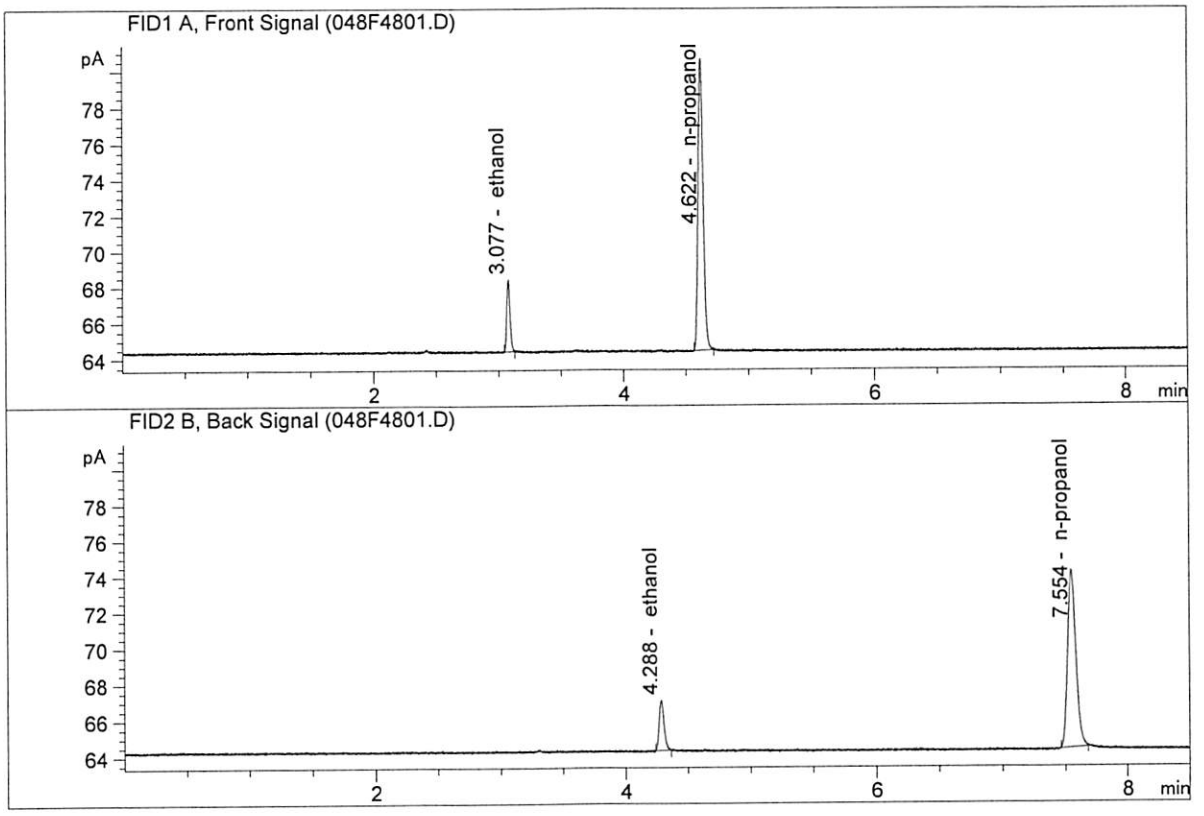



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 7.34110 | 0.0811 | g/100cc |
| 2. | Ethanol | Column 2: | 7.47403 | 0.0822 | g/100cc |
| 3. | n-Propanol | Column 1: | 45.62327 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 46.46840 | 1.0000 | g/100cc |

JG

# ISP Forensic Services Blood Alcohol Report

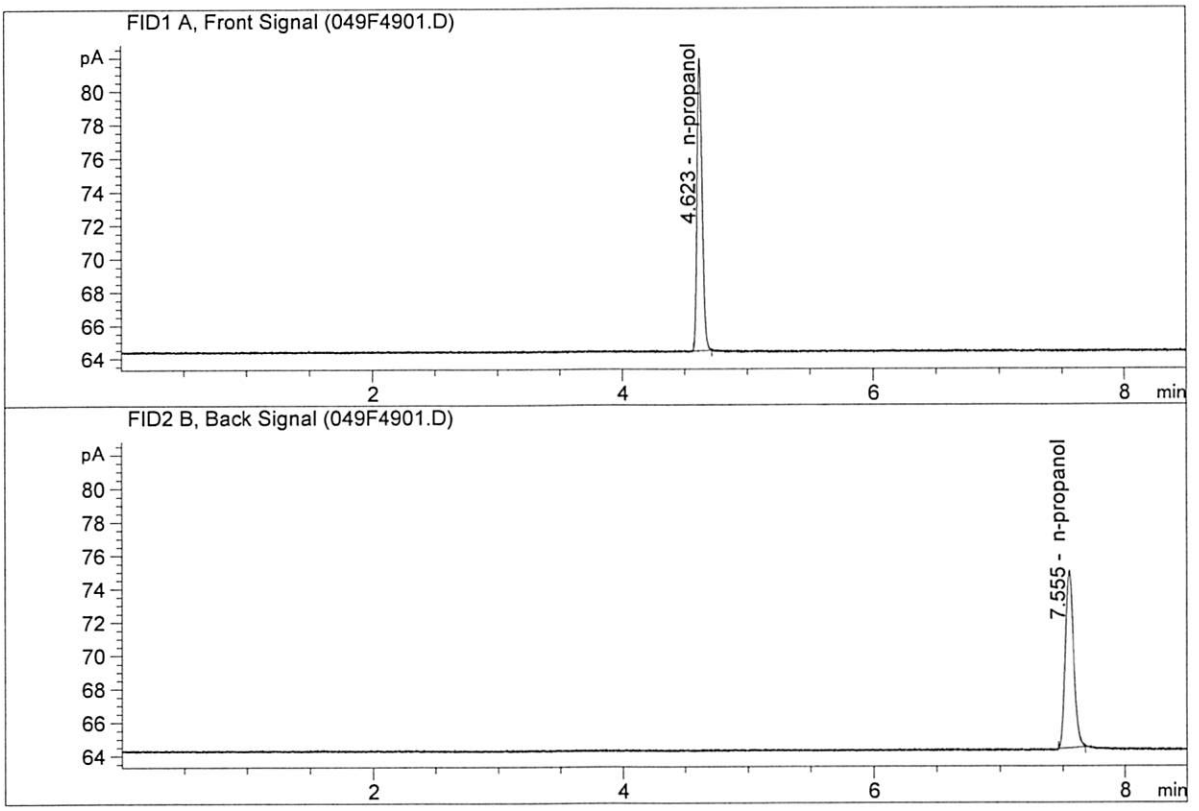
Sample Name : QC1-2-B
Laboratory : Meridian
Injection Date : Feb 21, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167




| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 7.34091 | 0.0802 | g/100cc |
| 2. | Ethanol | Column 2: | 7.54178 | 0.0821 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.13398 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 46.93394 | 1.0000 | g/100cc |

# ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STD BLK
Laboratory : Meridian
Injection Date : Feb 21, 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: | 49.52242 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 50.39812 | 1.0000 | g/100cc |

JL

# Sample Summary

Sequence table: C:\Chem32\1\Data\2-20-19_SAMPLES\2-20-19t_SAMPLES 2019-02-20 16-55-11\2-2-19t_SAMPLES.S
Data directory path: C:\Chem32\1\Data\2-20-19_SAMPLES\2-20-19t_SAMPLES 2019-02-20 16-55-11\
Logbook: C:\Chem32\1\Data\2-20-19_SAMPLES\2-20-19t_SAMPLES 2019-02-20 16-55-11\2-2-19t_SAMPLES.LOG
Sequence start: 2/20/2019 5:09:57 PM
Sequence Operator: SYSTEM
Operator: SYSTEM

Method file name: C:\Chem32\1\Data\2-20-19_SAMPLES\2-20-19t_SAMPLES 2019-02-20 16-55-11\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 | M2019-0732-3-A | - | 1.0000 | 007F0701.D | | 2 |
| 8 | 8 | 1 | M2019-0732-3-B | - | 1.0000 | 008F0801.D | | 2 |
| 9 | 9 | 1 | M2019-0746-1-A | - | 1.0000 | 009F0901.D | | 4 |
| 10 | 10 | 1 | M2019-0746-1-B | - | 1.0000 | 010F1001.D | | 4 |
| 11 | 11 | 1 | M2019-0758-1-A | - | 1.0000 | 011F1101.D | | 4 |
| 12 | 12 | 1 | M2019-0758-1-B | - | 1.0000 | 012F1201.D | | 4 |
| 13 | 13 | 1 | M2019-0759-1-A | - | 1.0000 | 013F1301.D | | 4 |
| 14 | 14 | 1 | M2019-0759-1-B | - | 1.0000 | 014F1401.D | | 4 |
| 15 | 15 | 1 | M2019-0768-1-A | - | 1.0000 | 015F1501.D | | 4 |
| 16 | 16 | 1 | M2019-0768-1-B | - | 1.0000 | 016F1601.D | | 4 |
| 17 | 17 | 1 | M2019-0769-1-A | - | 1.0000 | 017F1701.D | | 4 |
| 18 | 18 | 1 | M2019-0769-1-B | - | 1.0000 | 018F1801.D | | 4 |
| 19 | 19 | 1 | M2019-0770-1-A | - | 1.0000 | 019F1901.D | | 2 |
| 20 | 20 | 1 | M2019-0770-1-B | - | 1.0000 | 020F2001.D | | 2 |
| 21 | 21 | 1 | M2019-0787-1-A | - | 1.0000 | 021F2101.D | | 4 |
| 22 | 22 | 1 | M2019-0787-1-B | - | 1.0000 | 022F2201.D | | 4 |
| 23 | 23 | 1 | M2019-0788-1-A | - | 1.0000 | 023F2301.D | | 4 |
| 24 | 24 | 1 | M2019-0788-1-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 | M2019-0789-1-A | - | 1.0000 | 027F2701.D | | 4 |
| 28 | 28 | 1 | M2019-0789-1-B | - | 1.0000 | 028F2801.D | | 4 |
| 29 | 29 | 1 | M2019-0790-1-A | - | 1.0000 | 029F2901.D | | 4 |
| 30 | 30 | 1 | M2019-0790-1-B | - | 1.0000 | 030F3001.D | | 4 |
| 31 | 31 | 1 | M2019-0795-1-A | - | 1.0000 | 031F3101.D | | 4 |
| 32 | 32 | 1 | M2019-0795-1-B | - | 1.0000 | 032F3201.D | | 4 |
| 33 | 33 | 1 | M2019-0812-1-A | - | 1.0000 | 033F3301.D | | 4 |
| 34 | 34 | 1 | M2019-0812-1-B | - | 1.0000 | 034F3401.D | | 4 |
| 35 | 35 | 1 | M2019-0827-1-A | - | 1.0000 | 035F3501.D | | 4 |
| 36 | 36 | 1 | M2019-0827-1-B | - | 1.0000 | 036F3601.D | | 4 |
| 37 | 37 | 1 | M2019-0828-1-A | - | 1.0000 | 037F3701.D | | 4 |
| 38 | 38 | 1 | M2019-0828-1-B | - | 1.0000 | 038F3801.D | | 4 |
| 39 | 39 | 1 | M2019-0850-1-A | - | 1.0000 | 039F3901.D | | 4 |
| 40 | 40 | 1 | M2019-0850-1-B | - | 1.0000 | 040F4001.D | | 4 |
| 41 | 41 | 1 | M2019-0863-1-A | - | 1.0000 | 041F4101.D | | 4 |
| 42 | 42 | 1 | M2019-0863-1-B | - | 1.0000 | 042F4201.D | | 4 |
| 43 | 43 | 1 | M2019-0864-1-A | - | 1.0000 | 043F4301.D | | 4 |

Sequence File C:\Chem32\...9_SAMPLES\2-20-19t_SAMPLES 2019-02-20 16-55-11\2-20-19t_SAMPLES.S

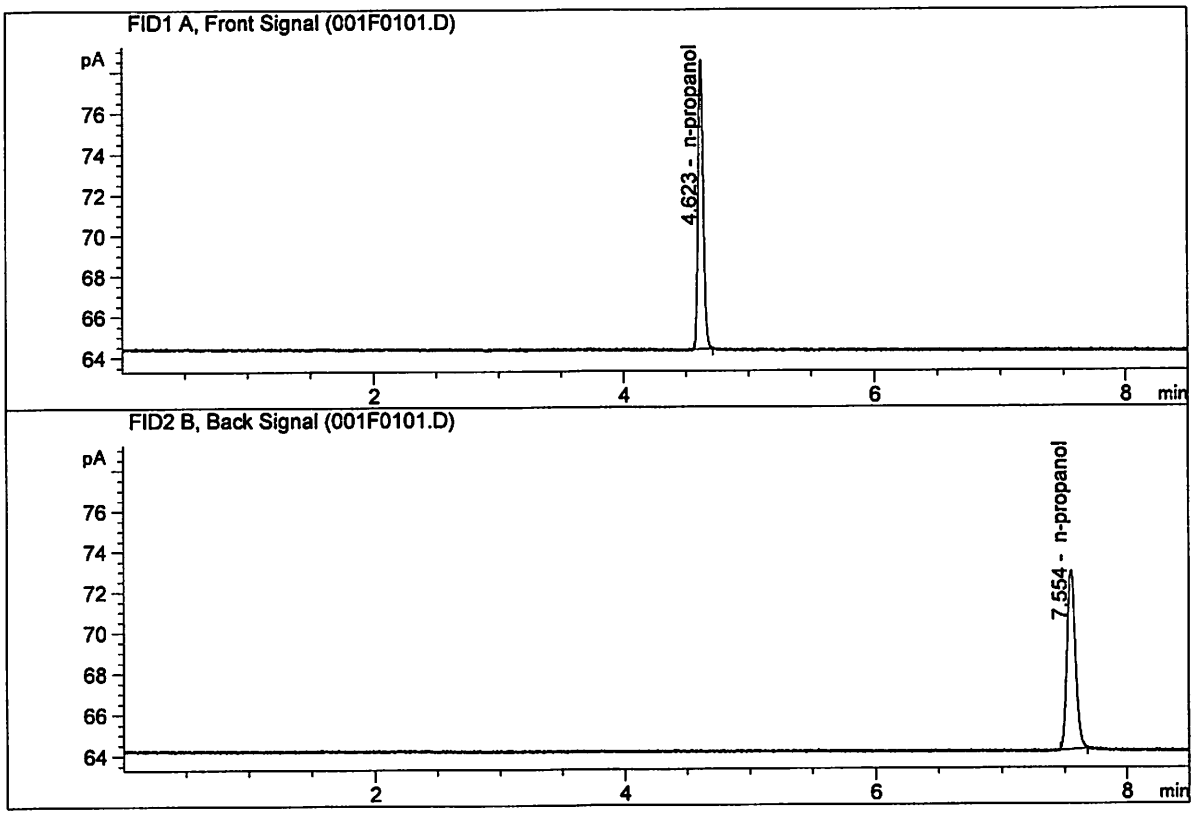
| Run # | Location # | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # Cmp |
|---|---|---|---|---|---|---|---|
| 44 | 44 | 1 | M2019-0864-1-B | - | 1.0000 | 044F4401.D | 4 |
| 45 | 45 | 1 | M2019-0865-1-A | - | 1.0000 | 045F4501.D | 4 |
| 46 | 46 | 1 | M2019-0865-1-B | - | 1.0000 | 046F4601.D | 4 |
| 47 | 47 | 1 | QC1-2-A | - | 1.0000 | 047F4701.D | 4 |
| 48 | 48 | 1 | QC1-2-B | - | 1.0000 | 048F4801.D | 4 |
| 49 | 49 | 1 | INTERNAL STD BLK | - | 1.0000 | 049F4901.D | 2 |

Method file name: C:\Chem32\1\Data\2-20-19_SAMPLES\2-20-19t_SAMPLES 2019-02-20 16-55-11 \SHUTDOWN.M

| Run # | Location # | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # Cmp |
|---|---|---|---|---|---|---|---|
| 50 | 50 | 1 | EMPTY | - | 1.0000 | 050F5001.D | 0 |

# ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STD BLK 1
Laboratory : Meridian
Injection Date : Feb 21, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

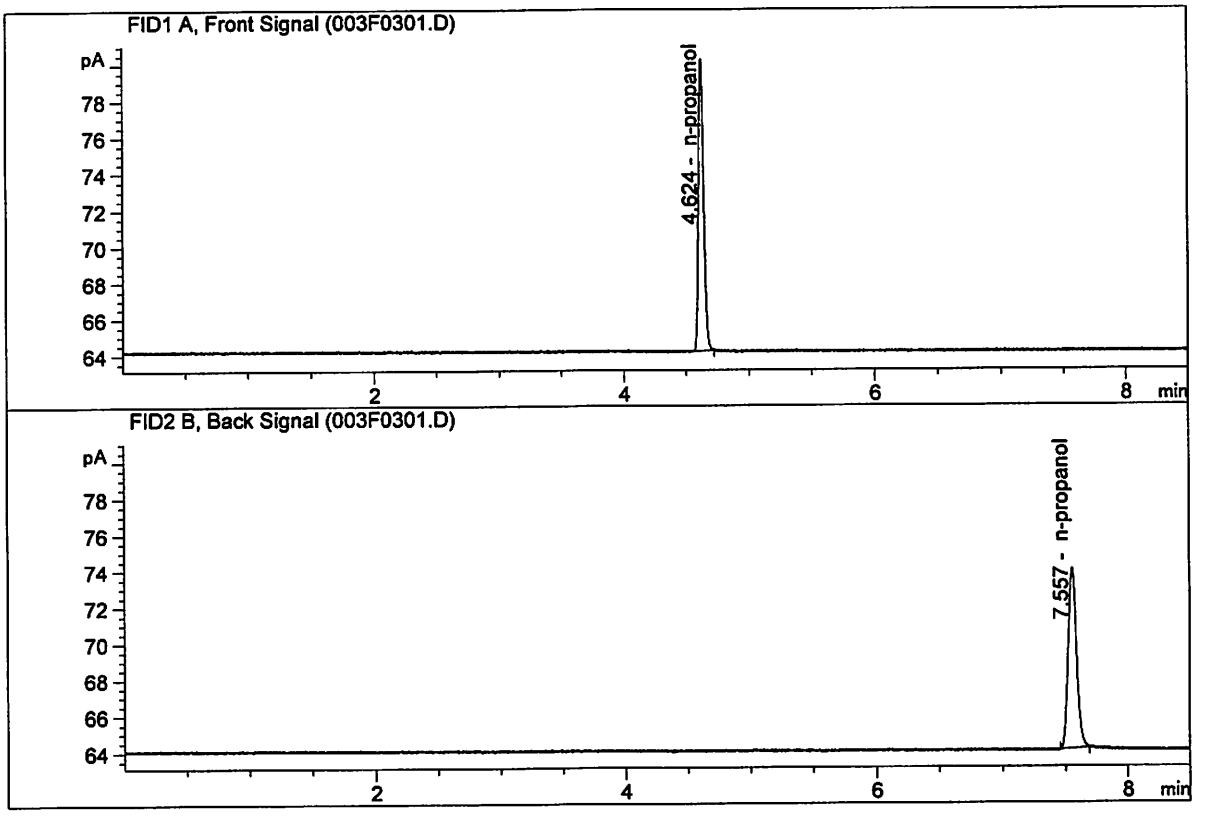



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 40.51367 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 42.16127 | 1.0000 | g/100cc |

JC

# ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STD BLK
Laboratory : Meridian
Injection Date : Feb 21, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

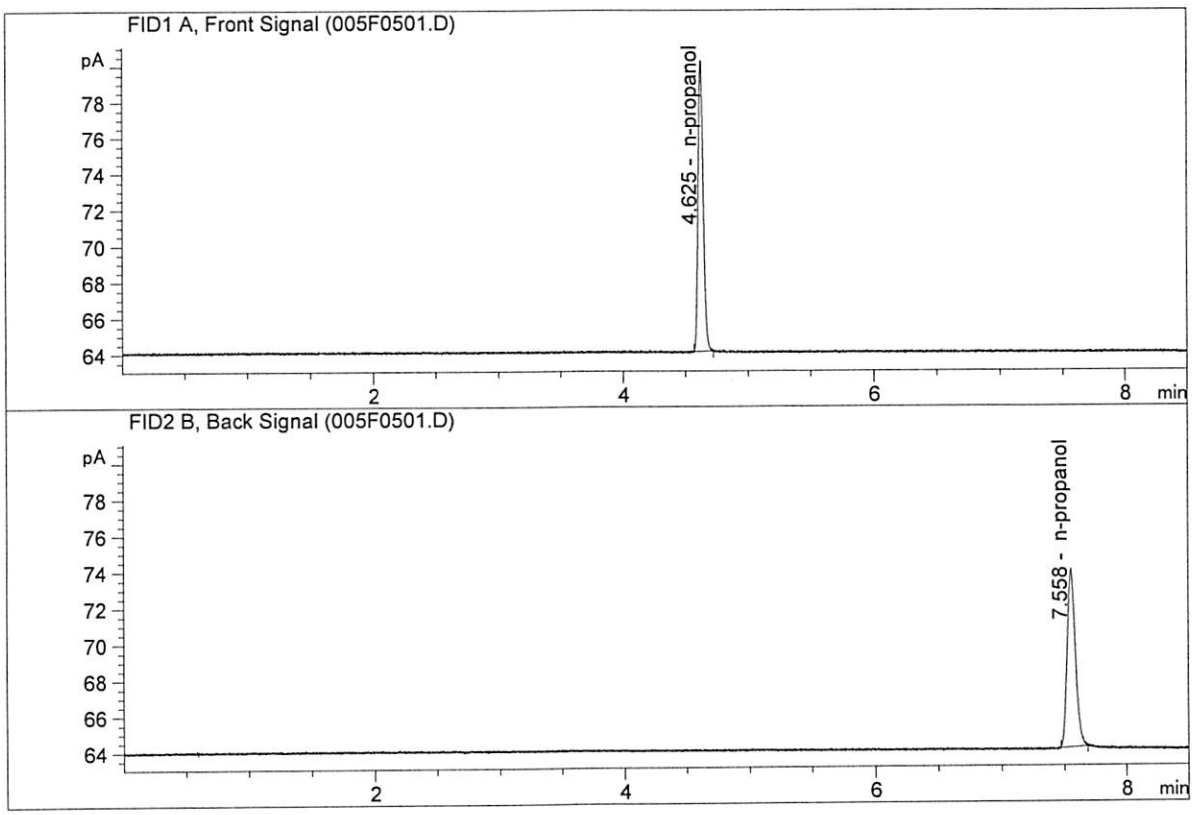



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.02289 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 47.71391 | 1.0000 | g/100cc |

JC

# ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STD BLK
Laboratory : Meridian
Injection Date : Feb 21, 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: | 46.23718 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 47.55281 | 1.0000 | g/100cc |

JG

Sequence File C:\Chem32\1\Data\2-21-19_INH\2-21-19_INH 2019-02-21 08-39-57\2-21-19_INH.S

## Sample Summary

Sequence table: C:\Chem32\1\Data\2-21-19_INH\2-21-19_INH 2019-02-21 08-39-57\2-21-19_INH.
Data directory path: C:\Chem32\1\Data\2-21-19_INH\2-21-19_INH 2019-02-21 08-39-57\
Logbook: C:\Chem32\1\Data\2-21-19_INH\2-21-19_INH 2019-02-21 08-39-57\2-21-19_INH.LOG
Sequence start: 2/21/2019 8:54:33 AM
Sequence Operator: SYSTEM
Operator: SYSTEM

Method file name: C:\Chem32\1\Data\2-21-19_INH\2-21-19_INH 2019-02-21 08-39-57\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 | DFE 111914OM | - | 1.0000 | 002F0201.D | | 2 |
| 3 | 3 | 1 | INTERNAL STD BLK | - | 1.0000 | 003F0301.D | | 2 |
| 4 | 4 | 1 | TFE 111914 | - | 1.0000 | 004F0401.D | | 2 |
| 5 | 5 | 1 | INTERNAL STD BLK | - | 1.0000 | 005F0501.D | | 2 |

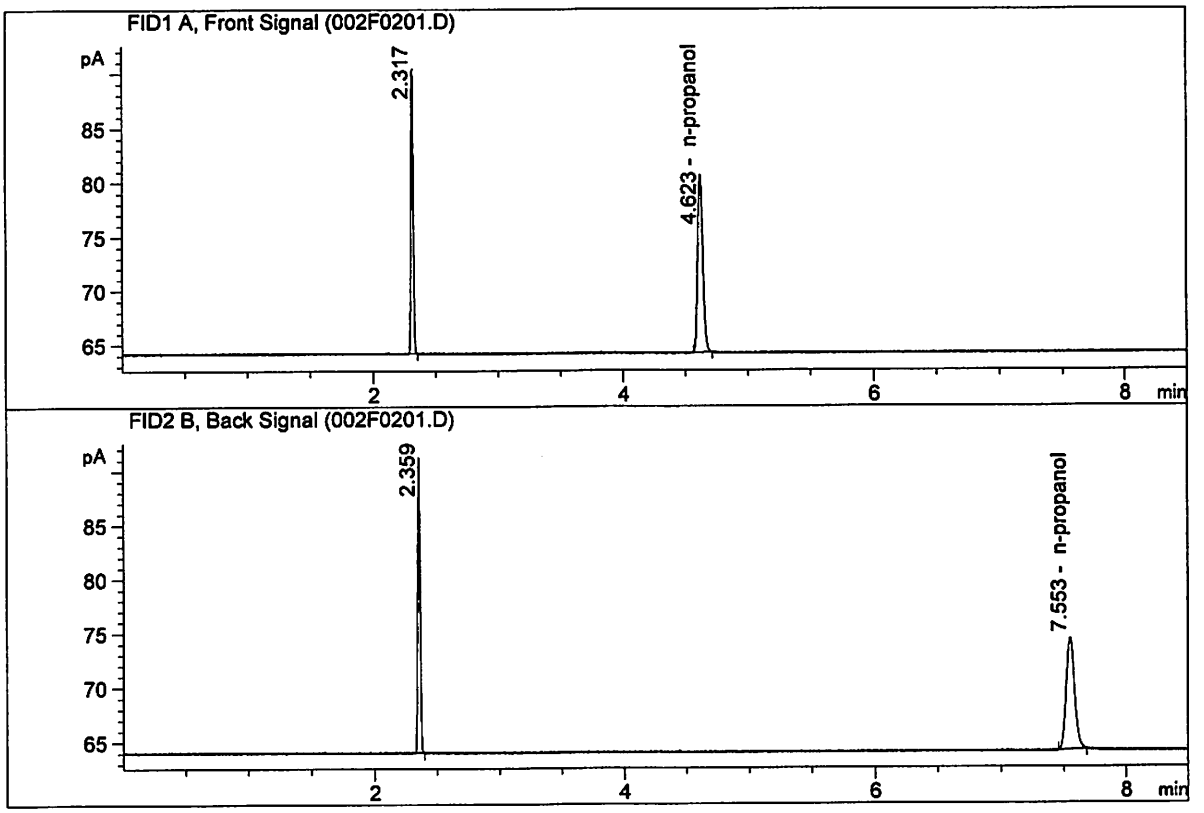
Method file name: C:\Chem32\1\Data\2-21-19_INH\2-21-19_INH 2019-02-21 08-39-57\SHUTDOWN.M

| Run # | Location # | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # | # Cmp |
|---|---|---|---|---|---|---|---|---|
| 6 | 6 | 1 | EMPTY | - | 1.0000 | 006F0601.D | | 0 |

JC

# ISP Forensic Services Blood Alcohol Report

Sample Name : DFE 111914OM
Laboratory : Meridian
Injection Date : Feb 21, 2019
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

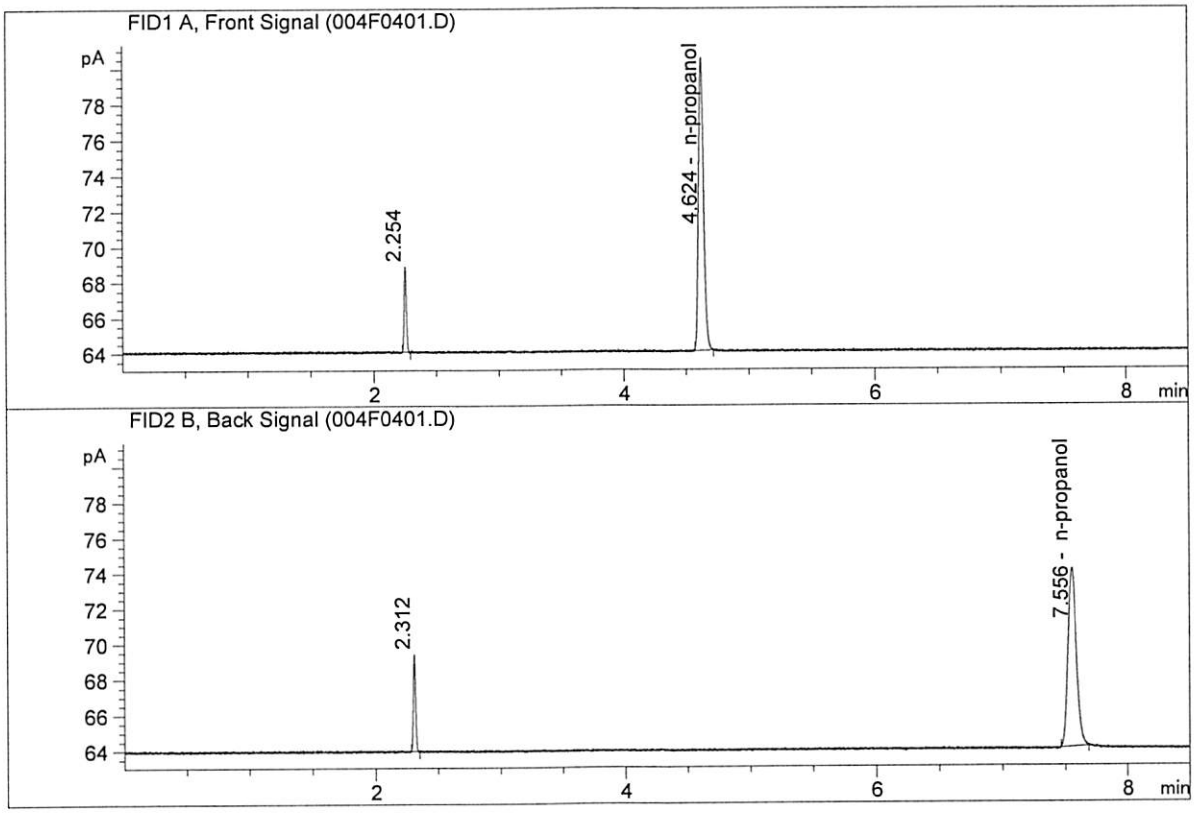



| # | Compound | Column | Area | Amount | Units |
|---|---|---|---|---|---|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 46.93663 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.81399 | 1.0000 | g/100cc |

JG

# ISP Forensic Services Blood Alcohol Report

Sample Name : TFE 111914
Laboratory : Meridian
Injection Date : Feb 21, 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: | 46.96431 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 48.60050 | 1.0000 | g/100cc |