

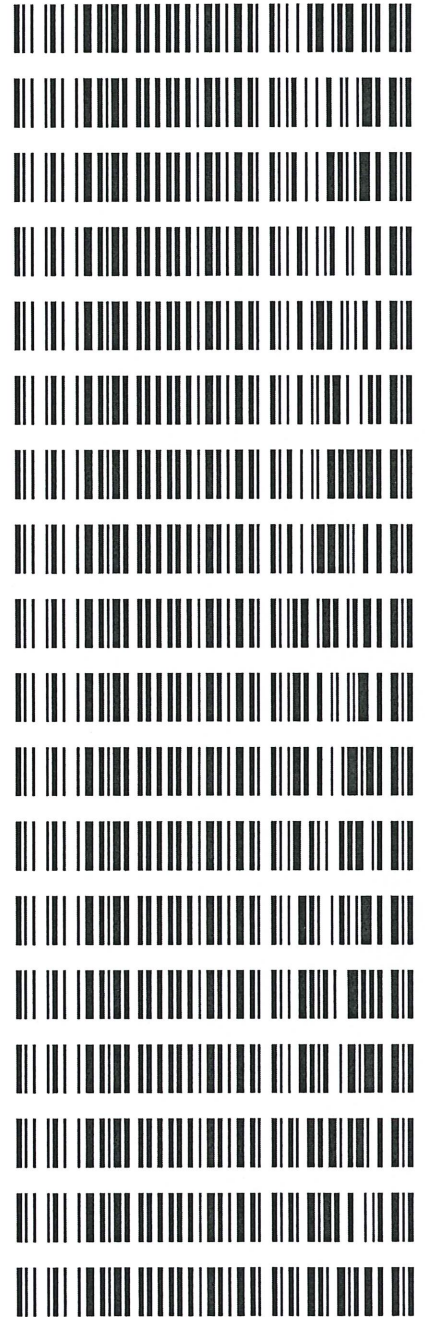
APPROVED

By John Garner at 9:02 am, Mar 02, 2022

2/28/2022

Worklist: 5640

| <u>LAB CASE</u> | <u>ITEM</u> | <u>ITEM TYPE</u> | <u>DESCRIPTION</u> |
|-----------------|-------------|------------------|--------------------|
| M2022-0654 | 1 | BCK | Alcohol Analysis |
| M2022-0667 | 1 | BCK | Alcohol Analysis |
| M2022-0669 | 1 | BCK | Alcohol Analysis |
| M2022-0687 | 2 | BCK | Alcohol Analysis |
| M2022-0716 | 1 | BCK | Alcohol Analysis |
| M2022-0717 | 1 | BCK | Alcohol Analysis |
| M2022-0729 | 1 | BCK | Alcohol Analysis |
| M2022-0730 | 1 | BCK | Alcohol Analysis |
| M2022-0731 | 1 | BCK | Alcohol Analysis |
| M2022-0746 | 1 | BCK | Alcohol Analysis |
| M2022-0747 | 1 | BCK | Alcohol Analysis |
| M2022-0773 | 1 | BCK | Alcohol Analysis |
| M2022-0806 | 2 | BCK | Alcohol Analysis |
| M2022-0807 | 1 | BCK | Alcohol Analysis |
| M2022-0808 | 1 | BCK | Alcohol Analysis |
| M2022-0849 | 1 | BCK | Alcohol Analysis |
| M2022-0857 | 1 | BCK | Alcohol Analysis |
| M2022-0858 | 1 | BCK | Alcohol Analysis |



Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB Liquid Processor/Dilutor Serial Number: L600HC11378

Volatiles Quality Assurance Controls Run Date(s): 2/28/22

Calibration Date: 2/16/22

Worklist #: 5640

| Control Level | Expiration | Lot # | Target Value | Acceptable Range | Overall Results |
|--------------------------|------------|-------------|------------------|------------------|-----------------|
| Level 1 | Jul-23 | 1907006 | 0.0764 | 0.0688-0.0840 | 0.0738 g/100cc |
| | | | | | 0.0778 g/100cc |
| Level 2 | Jul-23 | 1907007 | 0.2170 | 0.1953-0.2387 | 0.2158 g/100cc |
| | | | | | g/100cc |
| Multi-Component mixture: | | Exp: Jul-22 | Lot # FN07101701 | | acceptable |
| Curve Fit: | | Column 1 | Column 2 | 0.99994 | 0.99997 |

Ethanol Calibration Reference Material

| Calibrator level | Target Value | Acceptable Range | Column 1 | Column 2 | Precision | Mean |
|-------------------|--------------|------------------|----------|----------|-----------|---------|
| 50 | 0.050 | 0.045 - 0.055 | 0.0513 | 0.0506 | 0.0007 | 0.0509 |
| 100 | 0.100 | 0.090 - 0.110 | 0.0997 | 0.1000 | 0.0003 | 0.0998 |
| 200 | 0.200 | 0.180 - 0.220 | 0.1996 | 0.2001 | 0.0005 | 0.1998 |
| 300 | 0.300 | 0.270 - 0.330 | 0.2978 | 0.2982 | 0.0004 | 0.298 |
| 400 | 0.400 | 0.360 - 0.440 | | | 0 | #DIV/0! |
| 500 | 0.500 | 0.450 - 0.550 | 0.5013 | 0.5009 | 0.0004 | 0.5011 |
| Internal Standard | Average | (-) 20% | | (+) 20% | | |
| N-Propanol: | 213688.0 | 170950.4 | | 256425.6 | | |

Aqueous Controls

| Control level | Target Value | Acceptable Range | Overall Results |
|---------------|--------------|------------------|-----------------|
| 80 | 0.080 | 0.076 - 0.084 | 0.081 g/100cc |

Internal Standard Monitoring Worksheet

Worksheet #: **5640** Run Date(s): **2/28/22**

Internal Standard Solution: _____ Prep Date: 2/2/22 Exp Date: 8/2/22

| Sample Name | Column 1 Value | Column 2 Value | Average |
|-------------|----------------|----------------|----------|
| 0.080A | 199002 | 187871 | 193436.5 |
| 0.080B | 194757 | 183855 | 189306 |
| QC1-1A | 196774 | 185730 | 191252 |
| QC1-1B | 199521 | 188306 | 193913.5 |
| QC1-2A | 250240 | 236162 | 243201 |
| QC1-2B | 258212 | 243408 | 250810 |
| QC2-1A | 228114 | 215403 | 221758.5 |
| QC2-1B | 232469 | 219184 | 225826.5 |
| | | | #DIV/0! |
| | | | #DIV/0! |
| | | | #DIV/0! |
| | | | #DIV/0! |
| | | | #DIV/0! |
| | | | #DIV/0! |

| Combined Average | (-)20% | (+)20% |
|------------------|----------|----------|
| 213688.0 | 170950.4 | 256425.6 |

Idaho State Police
Forensic Services

Request for Departure from an Analytical Method or Quality Standard

Deviation Number (assigned by QM): BLA-22-01

Date of Request: 1/21/2022

Requestor/Discipline: Melissa (Nikka) Bradley/Blood Alcohol

Analytical Method/Quality Standard, Revision #: AM#1 Analysis for Volatiles by Headspace GC/ 4.3.9

Temporary or Permanent Deviation: Permanent

Scope of Deviation There is a noticeable increased drift of internal standard (n-propanol signals) from the calibrators, beginning of the run and towards the end of the sample run that is consistent in multiple batches of blood alcohol runs. Because all the samples that are analyzed are being compared to calibrators that are performed at the beginning of the run, the n-propanol signal of end samples tend to be outside or close to being outside of the +/- 20% of the mean value from the calibration curve used. Despite this drift the values of known control samples are within acceptable limits.

Deviation Request

4.3.9.1.1 The average values for the internal standard will be established by averaging the IS counts throughout the calibration curve samples.

Requesting that the internal standard monitoring average be changed to average the aqueous and matrix controls within the run.

4.3.9.1.1 The average values for the internal standard will be established by averaging the IS counts from the aqueous control and all matrix blood control samples.

Technical Justification for Analytical Method Deviations:

The designed purpose of the internal standard monitoring is to evaluate the quality of injection of each sample. There is a gradual increase of internal standard response from the beginning of the batch (calibrators and early samples) to the end that is inherent to the current instrument set up as shown in trends from previous batches in multiple laboratories. Attempts to pre-condition/warm up the instrument using by running a pre-batch sequence utilizing old calibrator/blank samples prior to running a new calibration curve did not appear to minimize this occurrence. Furthermore, it can be seen that the drifting trend is not due to the extraction procedure because some of the later batch samples were extracted prior to the samples that are injected during the run. It is worth noting that despite this

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trend, the values of the known control samples are still within the specified acceptable range. By utilizing known control n-propanol signals throughout the batch, any potential drift will be taken into account while still being able to monitor a possible mis-injection or partial injection throughout the batch/sequence.

This deviation will have an expiration date of July 1st, 2022.

Technical Review

Departure approved

Comments: Forms will be updated to reflect the new process concurrent with the deviation.

Departure Not Approved

Comments:

Approver:
Title: Discipline Lead

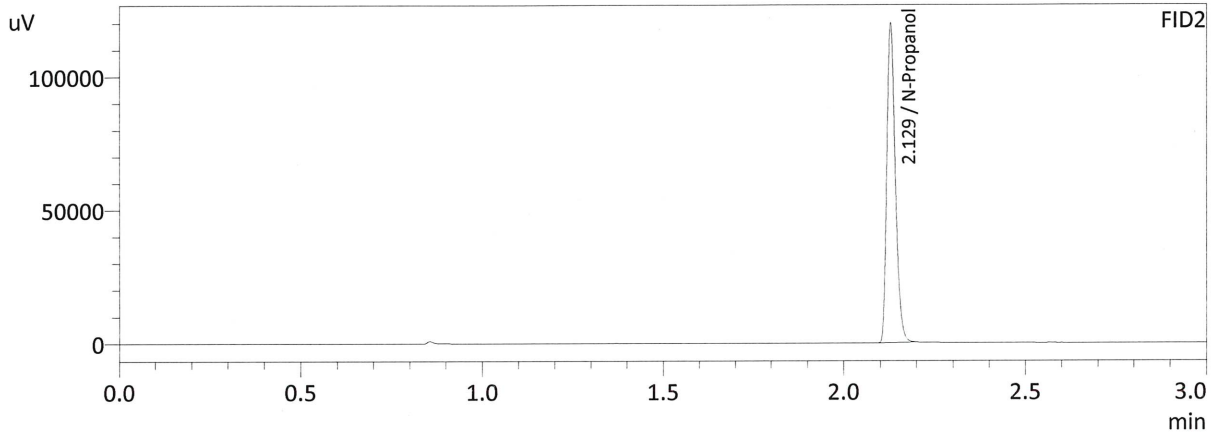
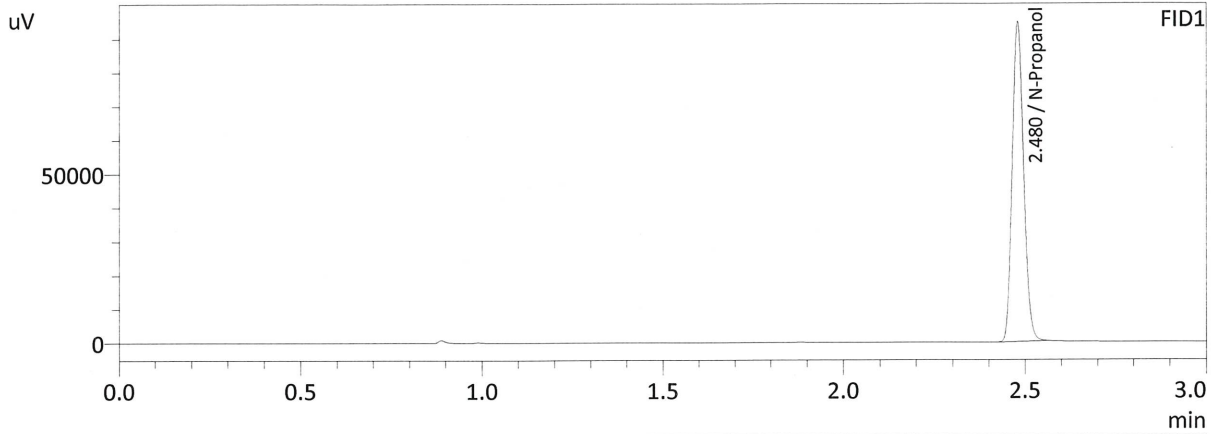
Date: 1/21/22

Quality Review

Quality Approver: Jason Crowe
Title: Quality Manager
Date: 01/24/2022



Sample Name : INT STD BLK 1
 Laboratory : Meridian
 Injection Date : 2/28/2022 11:50:53 AM
 Vial # : 1
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

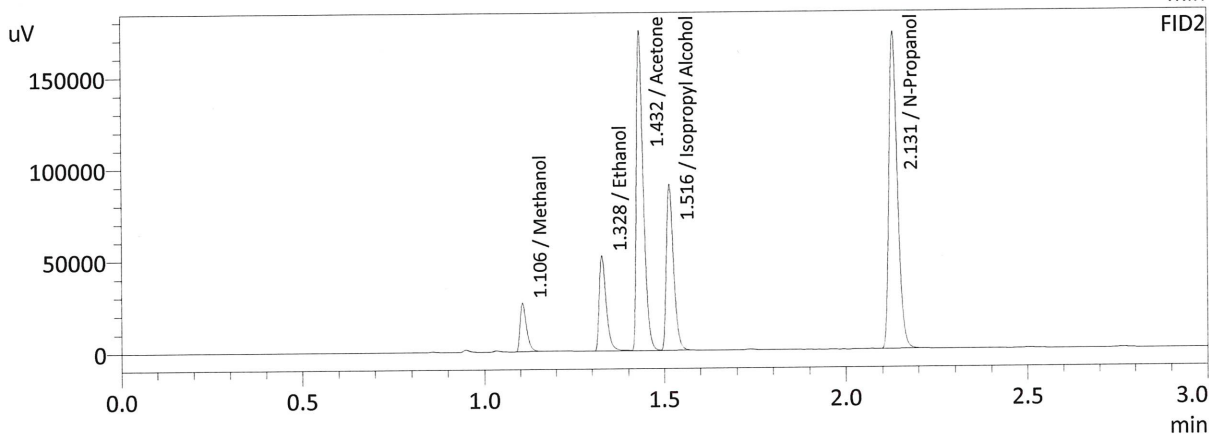
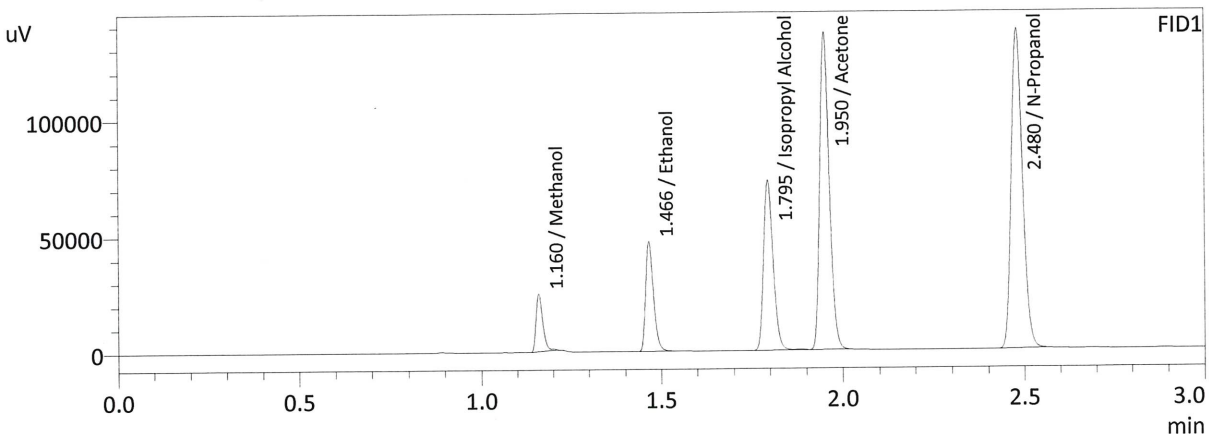
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 209260 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 197732 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

NR

Sample Name : MIXED VOLATILES FN 07101701
 Laboratory : Meridian
 Injection Date : 2/28/2022 11:58:13 AM
 Vial # : 2
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | 0.0000 | 33118 | g/100cc |
| Ethanol | 0.1122 | 72069 | g/100cc |
| Isopropyl Alcohol | 0.0000 | 134517 | g/100cc |
| Acetone | 0.0000 | 250422 | g/100cc |
| N-Propanol | 0.0000 | 303543 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | 0.0000 | 32698 | g/100cc |
| Ethanol | 0.1141 | 69024 | g/100cc |
| Acetone | 0.0000 | 234009 | g/100cc |
| Isopropyl Alcohol | 0.0000 | 126070 | g/100cc |
| N-Propanol | 0.0000 | 284261 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

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VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: 0.080 QA

Item #

Analysis Date(s): 2/28/22

| | Column 1 FID A | Column 2 FID B | FID Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|-------------------------|------------|--------------------------|---------------|
| Sample Results | 0.0827 | 0.0826 | 0.0001 | 0.0826 | 0.0021 | 0.0815 |
| (g/100cc) | 0.0805 | 0.0805 | 0.0000 | 0.0805 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument information is stored centrally.

Refer to Instrument Method: Alcohol.m/.gcm, Volatiles.m/.gcm

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

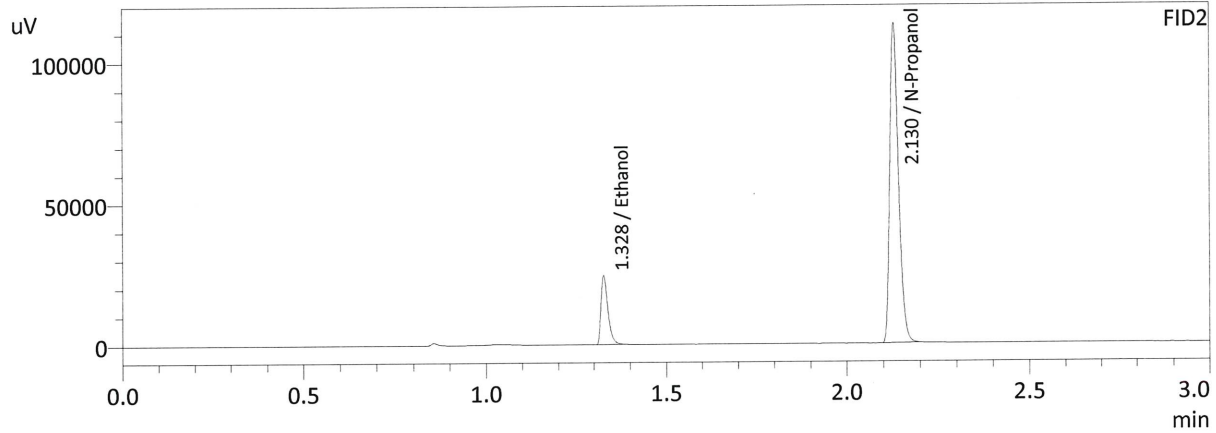
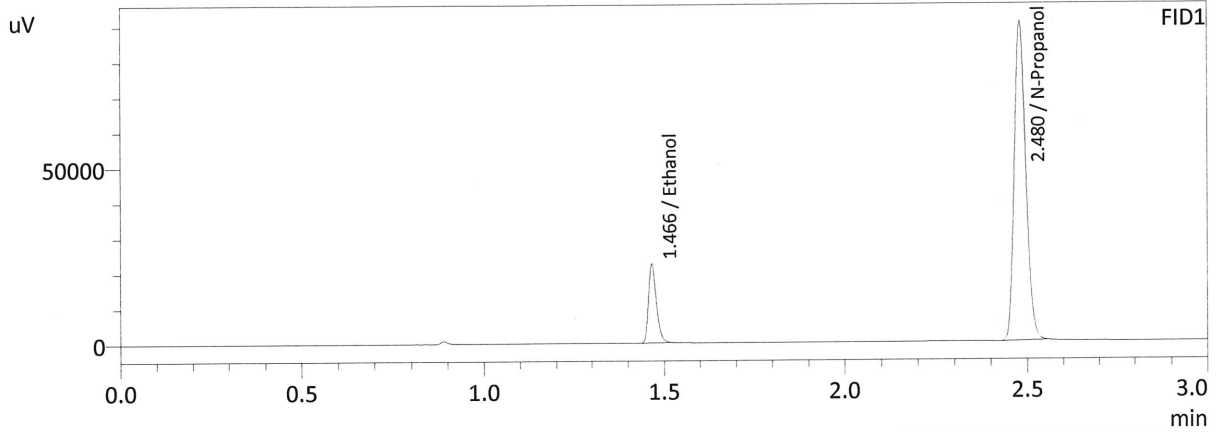
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.081 | 0.076 | 0.086 | 0.005 |

| | | |
|--|--|--|
| | <p>Reported Result</p> <hr style="border-top: 1px dashed black;"/> <p style="text-align: center;">0.081</p> | |
|--|--|--|

Calibration and control data are stored centrally.

NB

Sample Name : 0.08 QA-A
 Laboratory : Meridian
 Injection Date : 2/28/2022 12:22:04 PM
 Vial # : 5
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

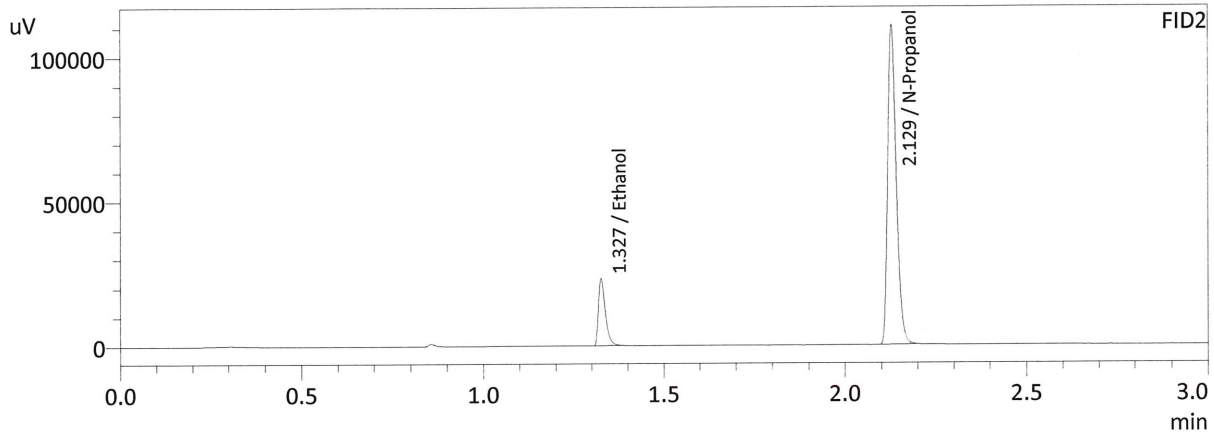
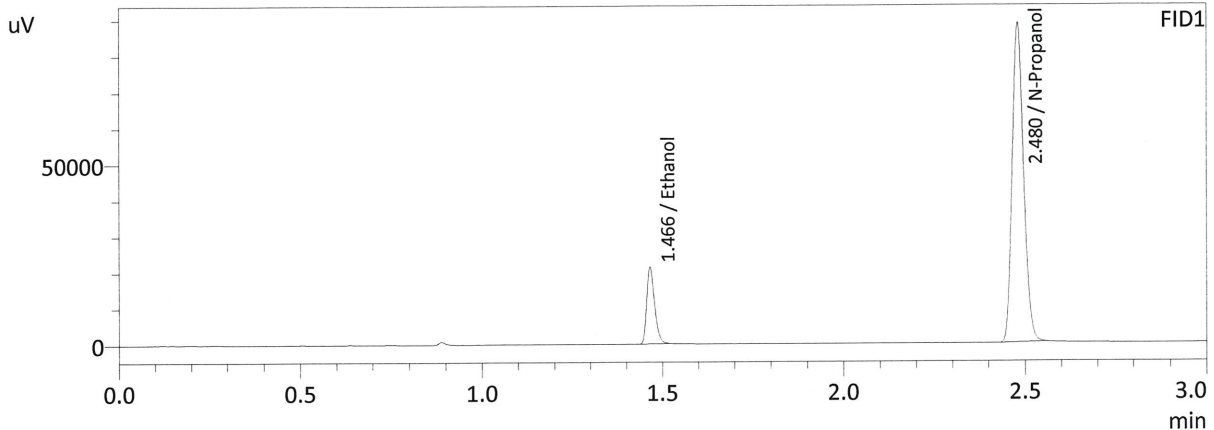
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0827 | 34294 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 199002 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0826 | 32709 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 187871 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : 0.08 QA-B
 Laboratory : Meridian
 Injection Date : 2/28/2022 12:30:17 PM
 Vial # : 6
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0805 | 32598 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 194757 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0805 | 31136 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 183855 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

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VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-1

Item #

Analysis Date(s): 2/28/22

| | Column 1 FID A | Column 2 B | FID | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|---------------|-----|------------------|------------|--------------------------|---------------|
| Sample Results | 0.0736 | 0.0735 | | 0.0001 | 0.0735 | 0.0007 | 0.0738 |
| (g/100cc) | 0.0742 | 0.0742 | | 0.0000 | 0.0742 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument information is stored centrally.

Refer to Instrument Method: Alcohol.m/.gcm, Volatiles.m/.gcm

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

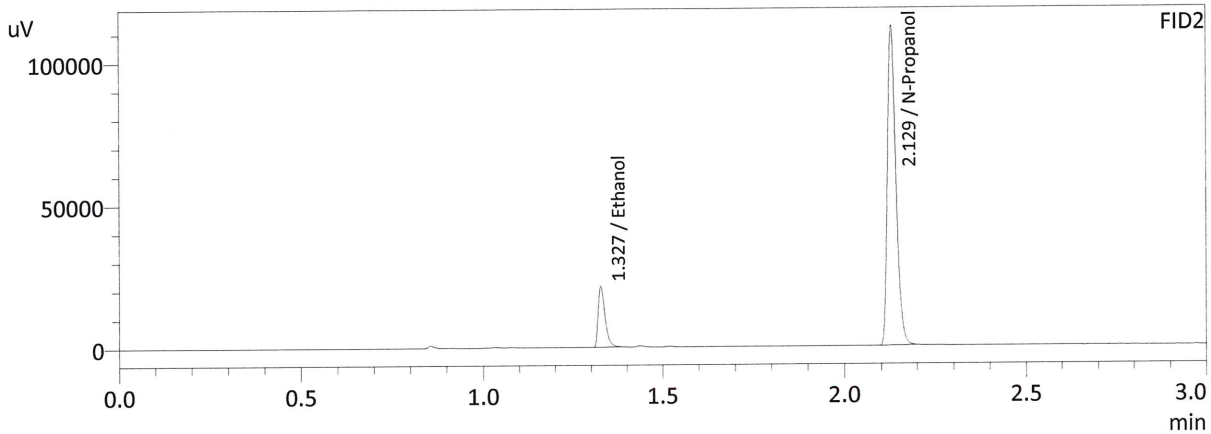
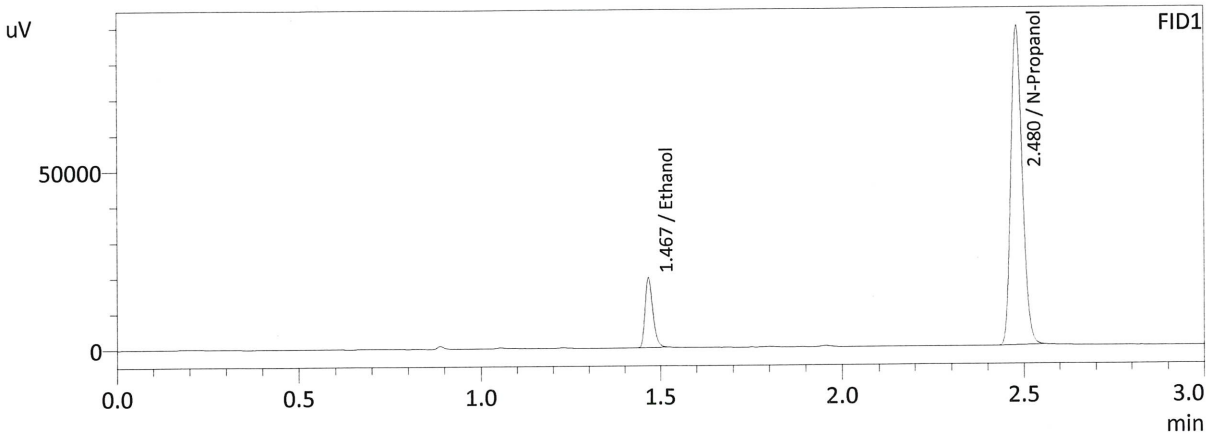
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.073 | 0.069 | 0.077 | 0.004 |

| Reported Result | |
|-----------------|--|
| 0.073 | |

Calibration and control data are stored centrally.



Sample Name : QC-1-1-A
 Laboratory : Meridian
 Injection Date : 2/28/2022 12:05:34 PM
 Vial # : 3
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

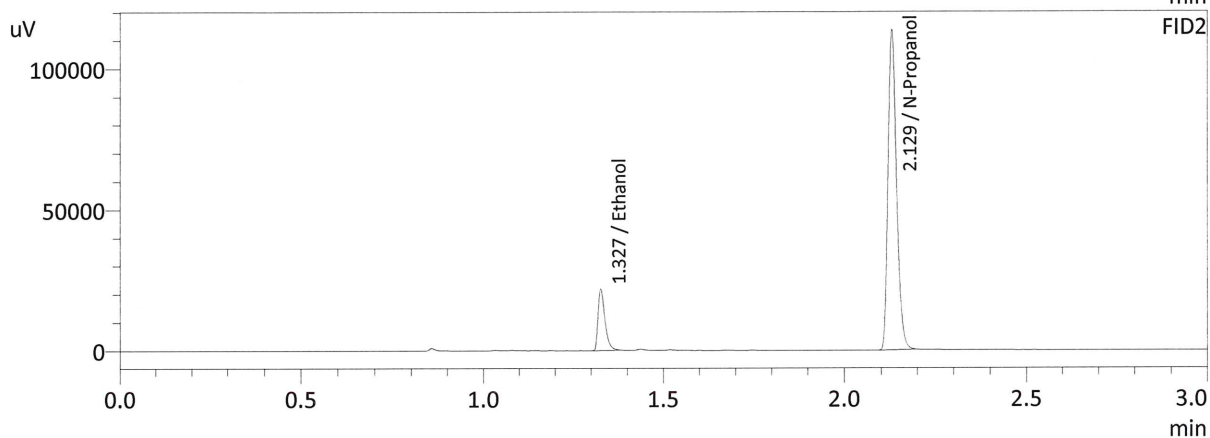
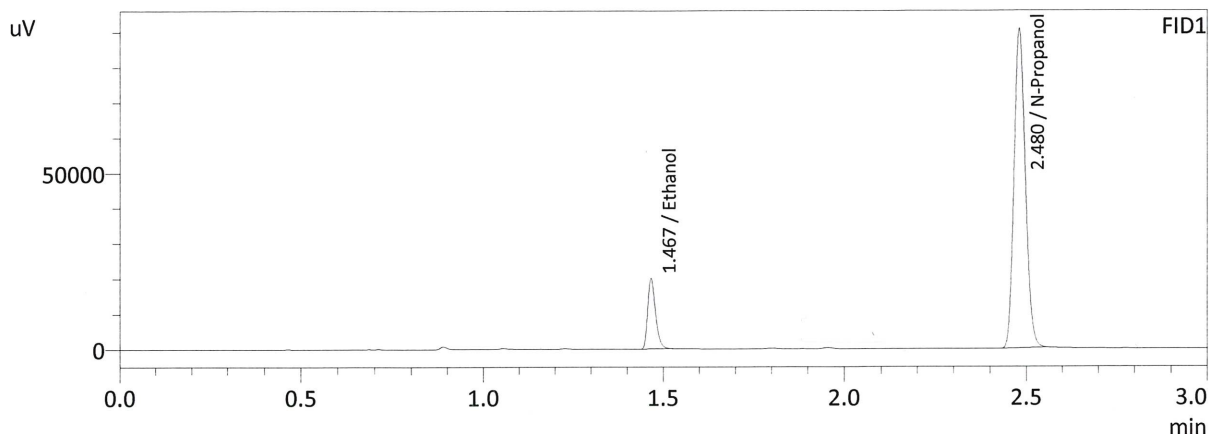
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0736 | 29966 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 196774 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0735 | 28612 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 185730 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

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Sample Name : QC-1-1-B
 Laboratory : Meridian
 Injection Date : 2/28/2022 12:14:34 PM
 Vial # : 4
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0742 | 30643 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 199521 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0742 | 29299 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 188306 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

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VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-2

Item #

Analysis Date(s): 2/28/22

| | Column 1 FID A | Column 2 FID B | FID | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|-----|------------------|------------|--------------------------|---------------|
| Sample Results | 0.0774 | 0.0777 | | 0.0003 | 0.0775 | 0.0006 | 0.0778 |
| (g/100cc) | 0.0779 | 0.0783 | | 0.0004 | 0.0781 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument information is stored centrally.

Refer to Instrument Method: Alcohol.m/.gcm, Volatiles.m/.gcm

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

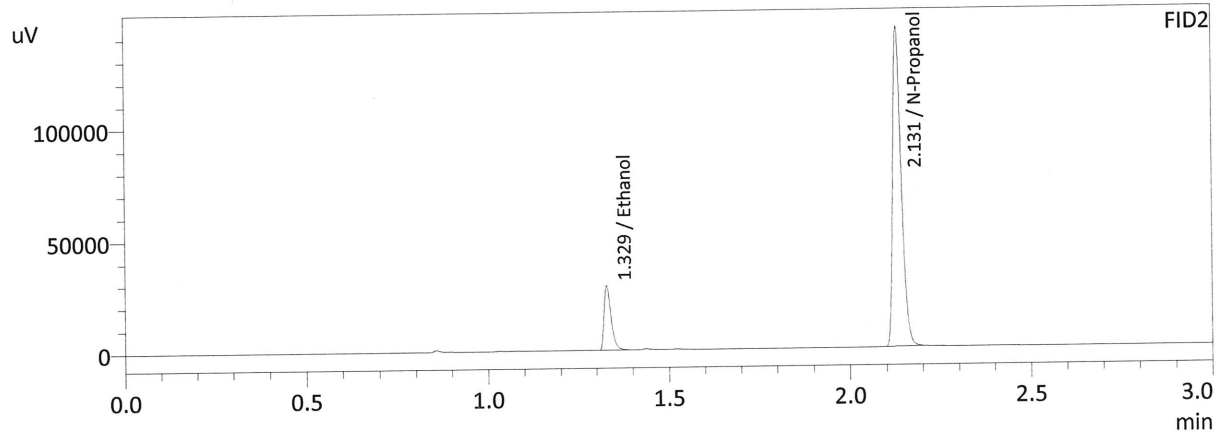
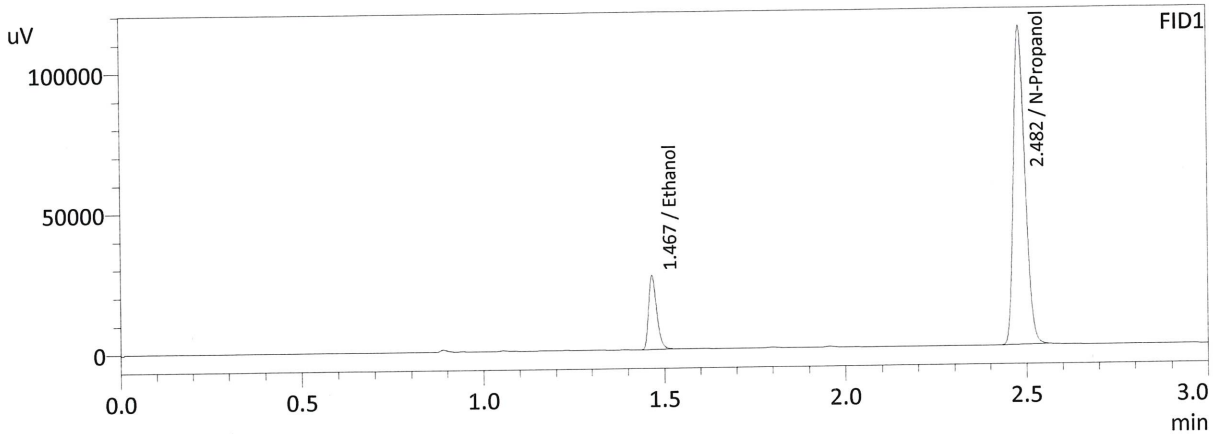
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.077 | 0.073 | 0.081 | 0.004 |

| | | |
|--|--|--|
| | <p>Reported Result</p> <hr style="border-top: 1px dashed black;"/> <p style="text-align: center;">0.077</p> | |
|--|--|--|

Calibration and control data are stored centrally.



Sample Name : QC1-2-A
 Laboratory : Meridian
 Injection Date : 2/28/2022 5:48:04 PM
 Vial # : 45
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

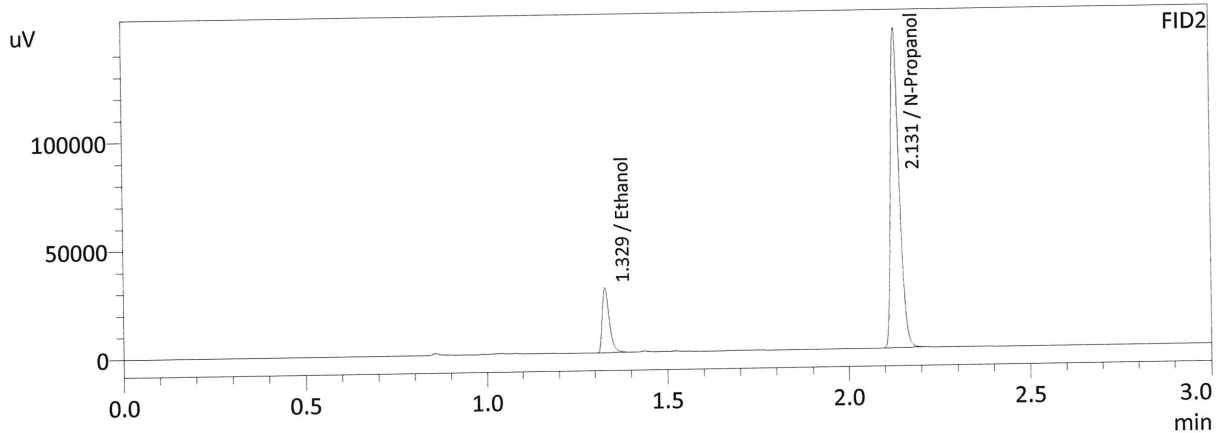
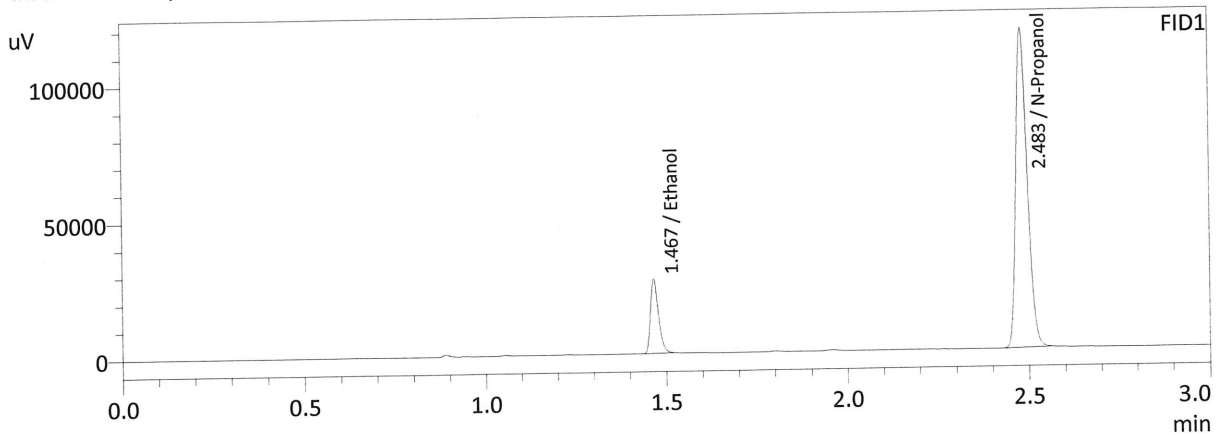
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0774 | 40181 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 250240 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0777 | 38576 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 236162 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

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Sample Name : QC1-2-B
 Laboratory : Meridian
 Injection Date : 2/28/2022 5:55:33 PM
 Vial # : 46
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0779 | 41754 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 258212 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0783 | 40088 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 243408 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

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VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC2-1

Item #

Analysis Date(s): 2/28/22

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.2155 | 0.2168 | 0.0013 | 0.2161 | 0.0006 | 0.2158 |
| (g/100cc) | 0.2150 | 0.2161 | 0.0011 | 0.2155 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument information is stored centrally.

Refer to Instrument Method: Alcohol.m/.gcm, Volatiles.m/.gcm

Reporting of Results

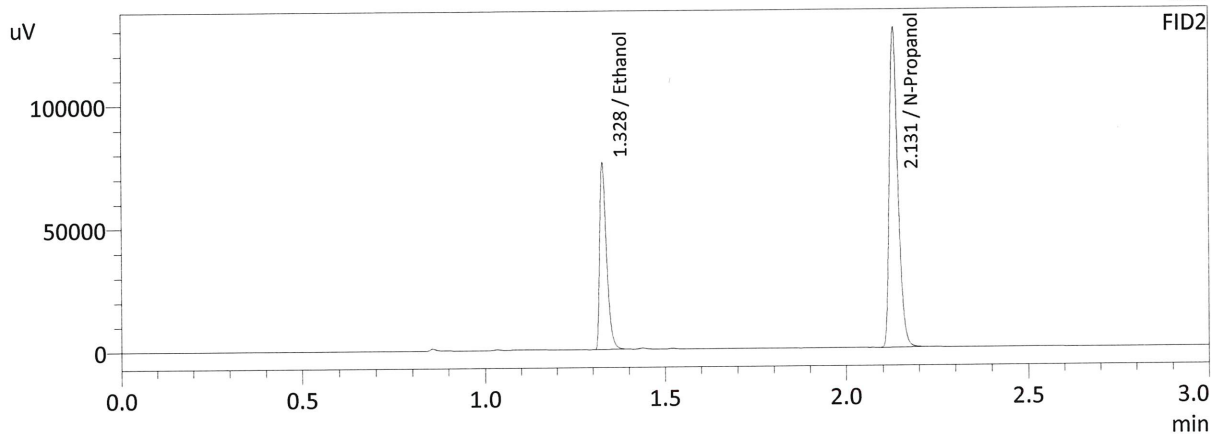
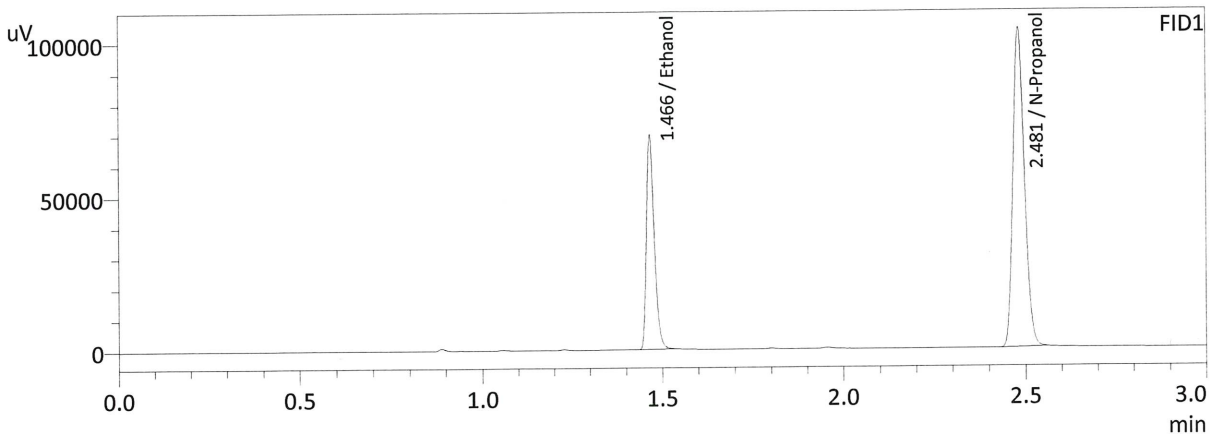
Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.215 | 0.204 | 0.226 | 0.011 |

| Reported Result |
|-----------------|
| 0.215 |

Calibration and control data are stored centrally.

Sample Name : QC-2-1-A
 Laboratory : Meridian
 Injection Date : 2/28/2022 3:04:33 PM
 Vial # : 25
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

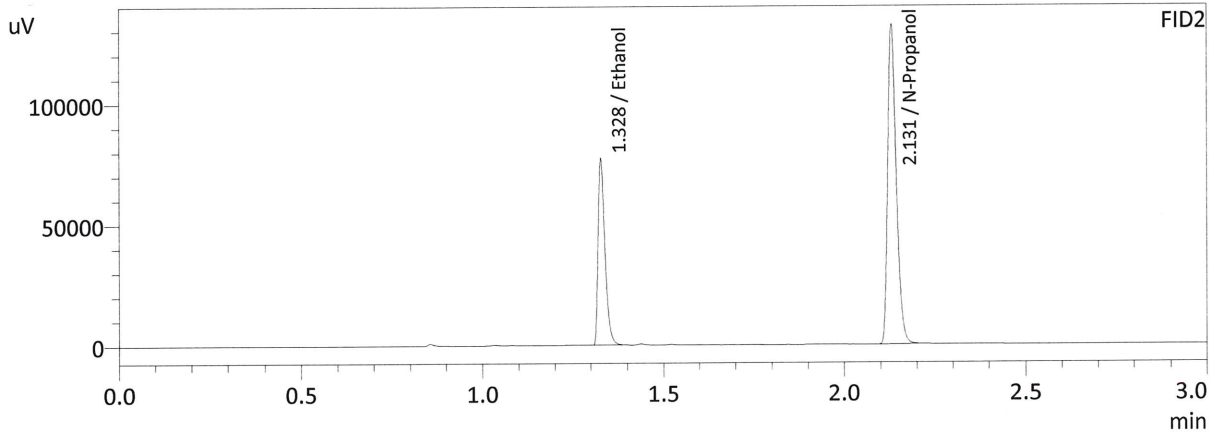
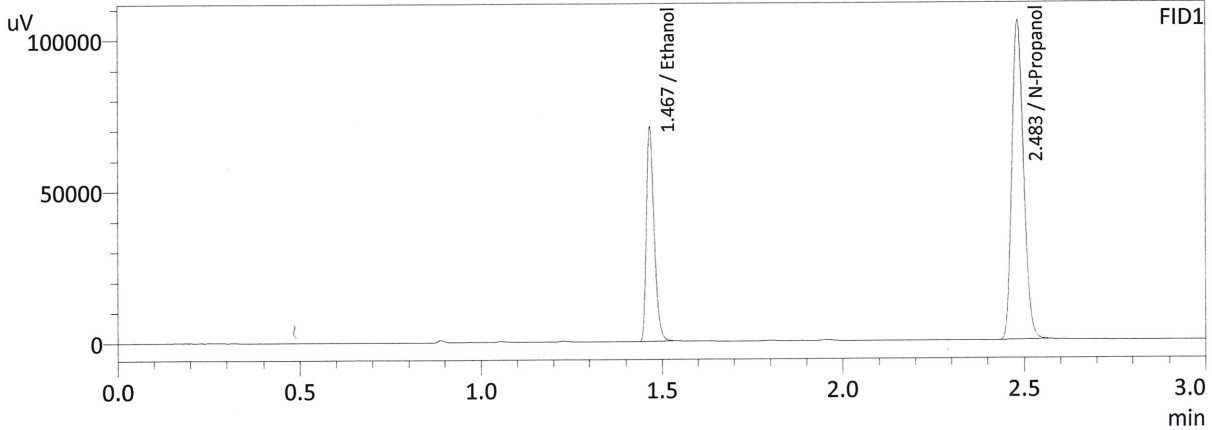
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2155 | 106155 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 228114 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2168 | 100568 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 215403 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

RB

Sample Name : QC-2-1-B
 Laboratory : Meridian
 Injection Date : 2/28/2022 3:11:49 PM
 Vial # : 26
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

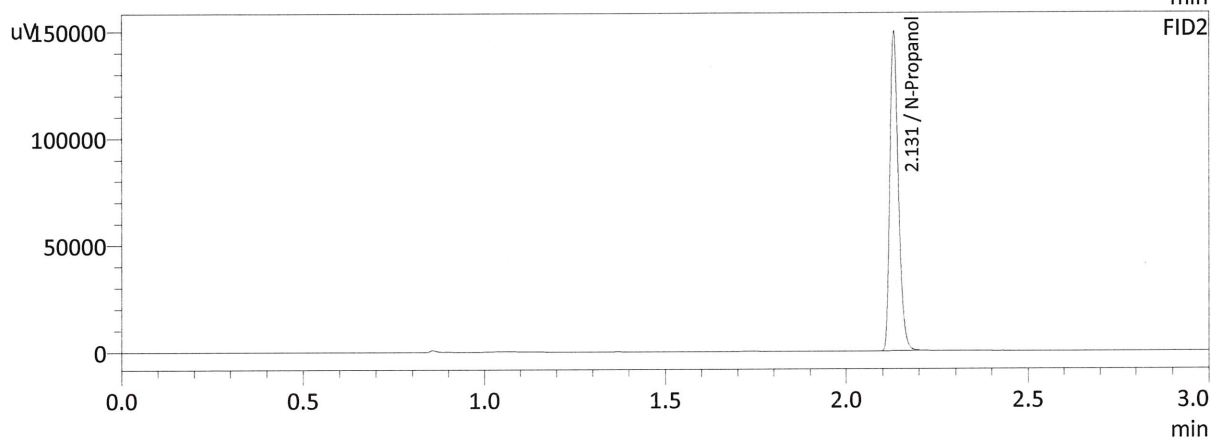
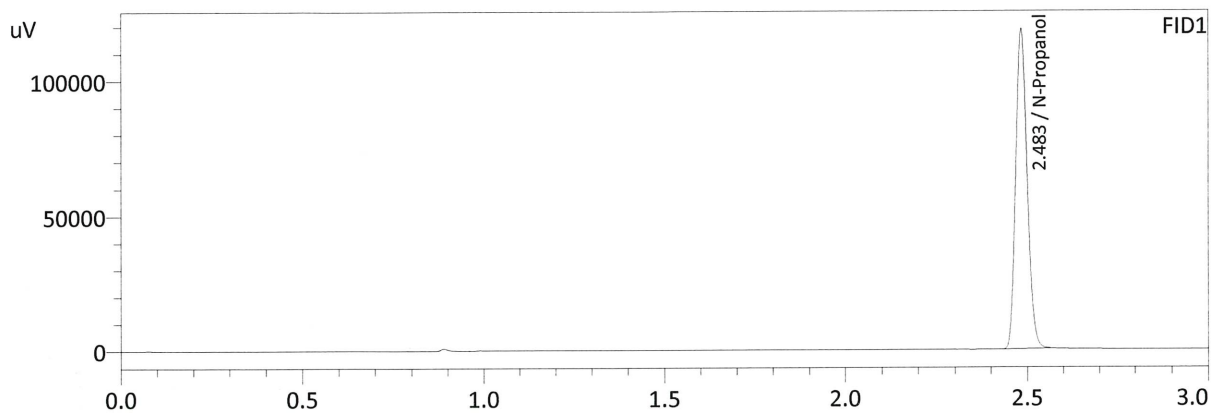
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2150 | 107921 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 232469 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2161 | 102013 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 219184 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

MR

Sample Name : INT STD BLK
 Laboratory : Meridian
 Injection Date : 2/28/2022 6:03:01 PM
 Vial # : 47
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 261408 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 246629 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

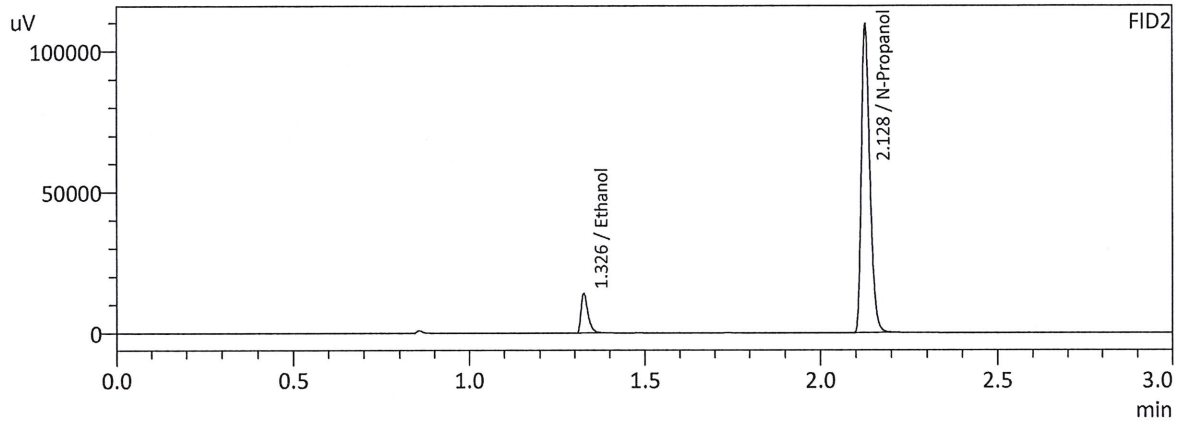
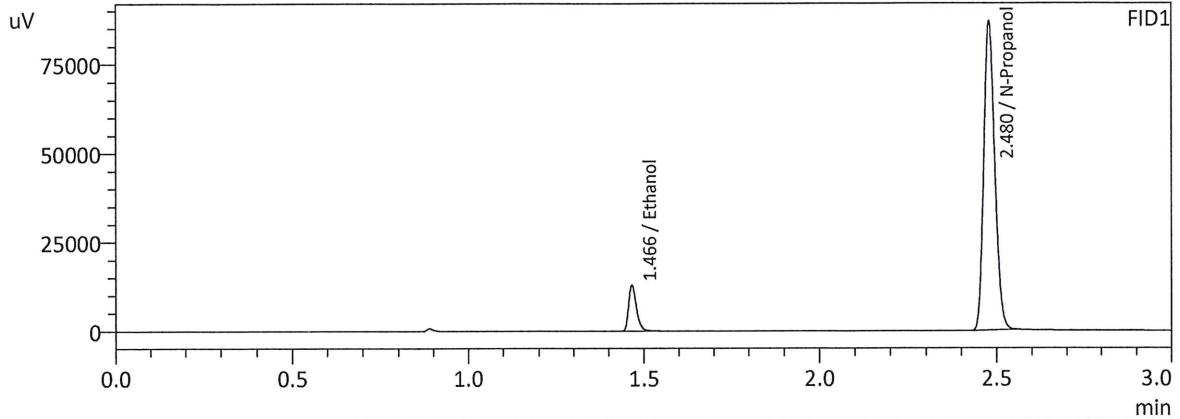
NB

Meridian Blood Alcohol Analysis Batch Table

Shimadzu GC-2030 Serial #C12255750548
 Shimadzu HS-20 Serial #C12595800409
 Lab Solutions Software Ver. 5.99
 Copyright (C) 2008-2020 Shimadzu Corporation

| Vial# | Sample Name | Method File |
|-------|----------------------|---|
| 1 | INT STD BLK 1 | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 2 | ED VOLATILES FN 0710 | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 3 | QC-1-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 4 | QC-1-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 5 | 0.08 QA-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 6 | 0.08 QA-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 7 | M2022-0654-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 8 | M2022-0654-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 9 | M2022-0667-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 10 | M2022-0667-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 11 | M2022-0669-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 12 | M2022-0669-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 13 | M2022-0687-2-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 14 | M2022-0687-2-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 15 | M2022-0716-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 16 | M2022-0716-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 17 | M2022-0717-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 18 | M2022-0717-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 19 | M2022-0729-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 20 | M2022-0729-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 21 | M2022-0730-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 22 | M2022-0730-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 23 | M2022-0731-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 24 | M2022-0731-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 25 | QC-2-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 26 | QC-2-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 27 | M2022-0746-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 28 | M2022-0746-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 29 | M2022-0747-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 30 | M2022-0747-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 31 | M2022-0773-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 32 | M2022-0773-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 33 | M2022-0806-2-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 34 | M2022-0806-2-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 35 | M2022-0807-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 36 | M2022-0807-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 37 | M2022-0808-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 38 | M2022-0808-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 39 | M2022-0849-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 40 | M2022-0849-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 41 | M2022-0857-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 42 | M2022-0857-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 43 | M2022-0858-1-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 44 | M2022-0858-1-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 45 | QC1-2-A | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 46 | QC1-2-B | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |
| 47 | INT STD BLK | C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM |

Sample Name : 0.050
 Laboratory : Meridian
 Injection Date : 2/16/2022 10:45:01 AM
 Vial # : 1
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

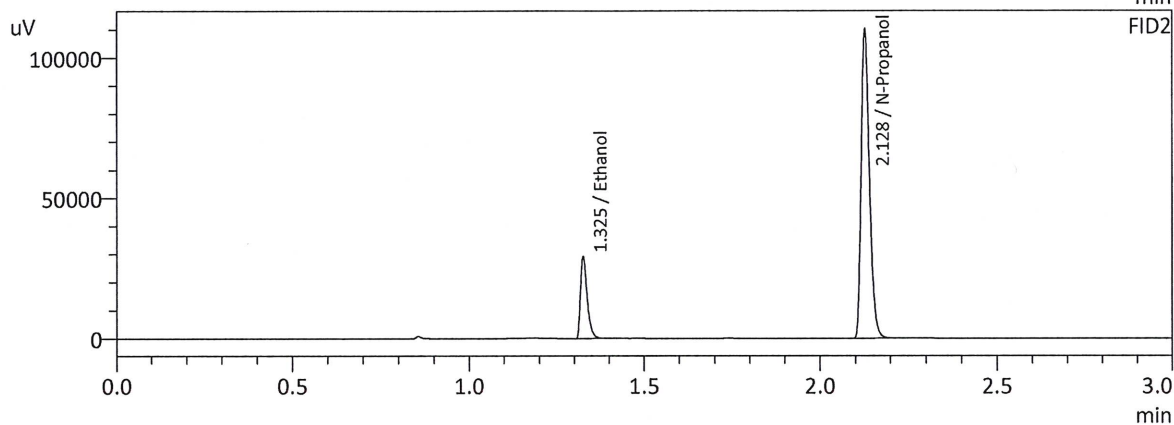
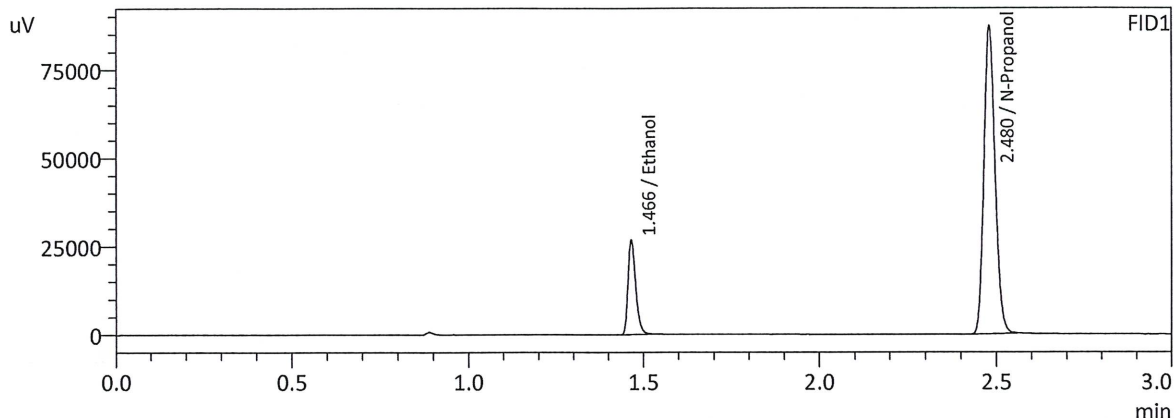
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0513 | 19673 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 191026 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0506 | 18802 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 180488 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : 0.100
 Laboratory : Meridian
 Injection Date : 2/16/2022 10:52:23 AM
 Vial # : 2
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

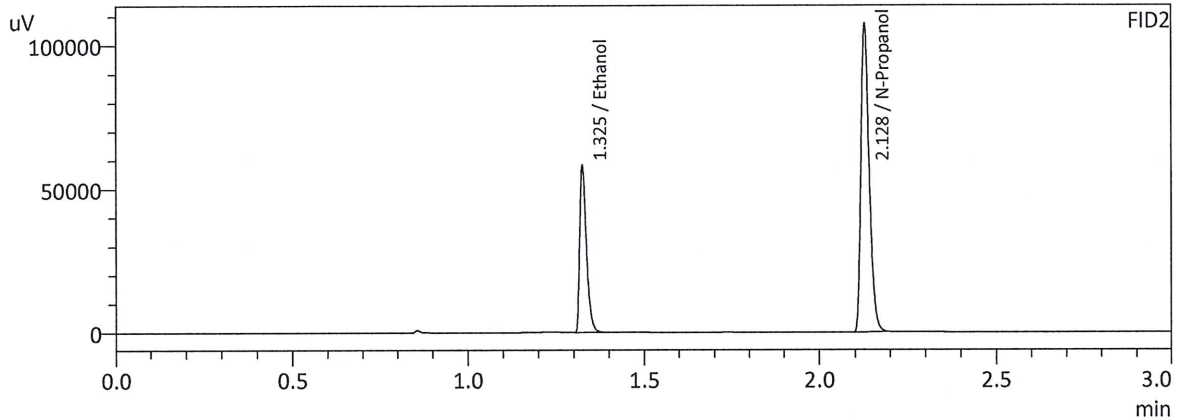
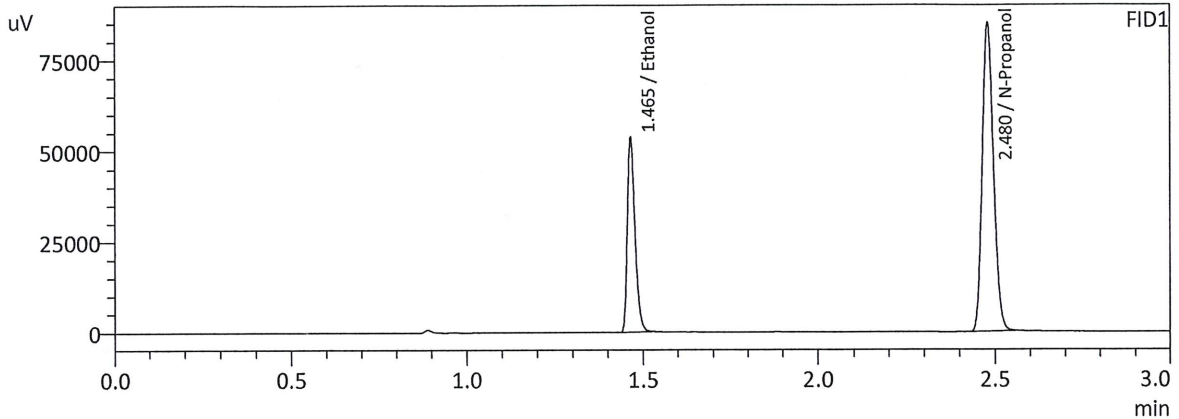
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0997 | 40476 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 192812 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.1000 | 38521 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 181805 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

MB

Sample Name : 0.200
 Laboratory : Meridian
 Injection Date : 2/16/2022 10:59:40 AM
 Vial # : 3
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

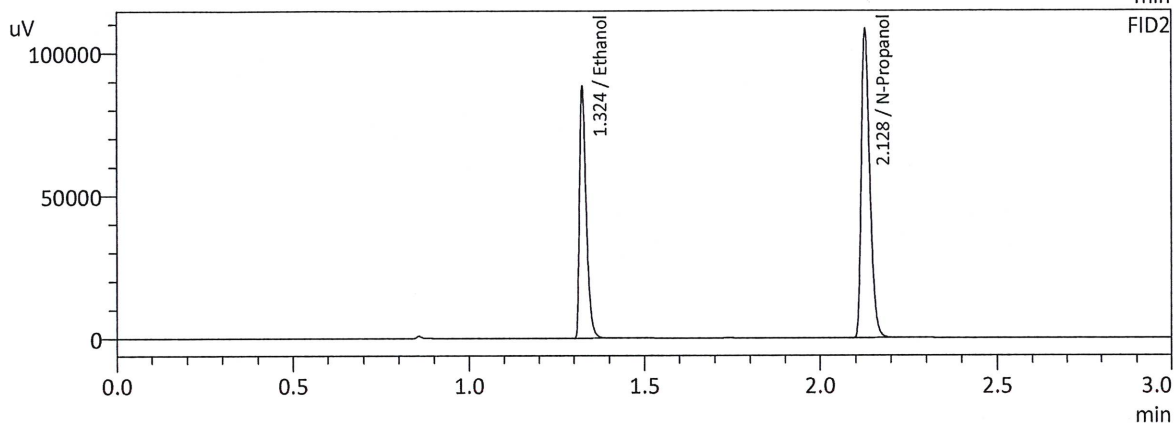
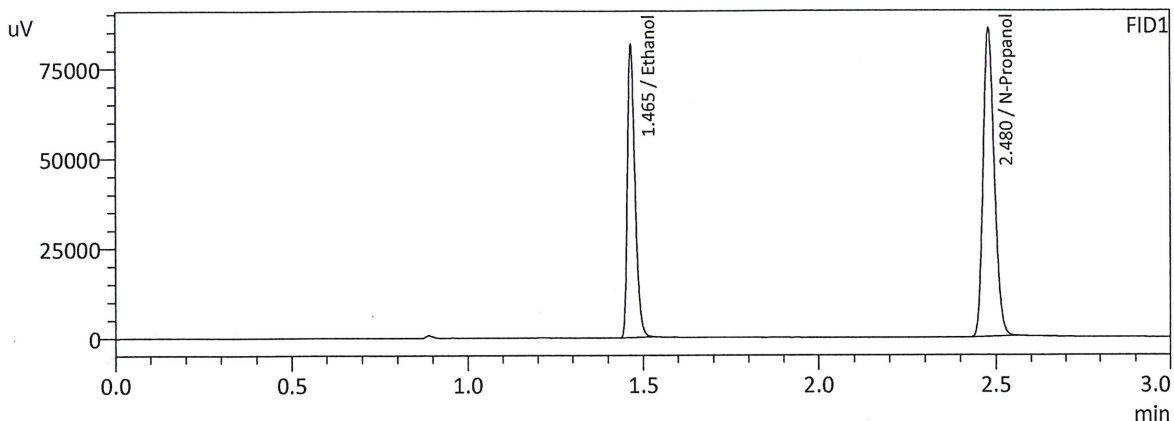
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.1996 | 81184 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 188662 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2001 | 76571 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 177877 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : 0.300
 Laboratory : Meridian
 Injection Date : 2/16/2022 11:08:36 AM
 Vial # : 4
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

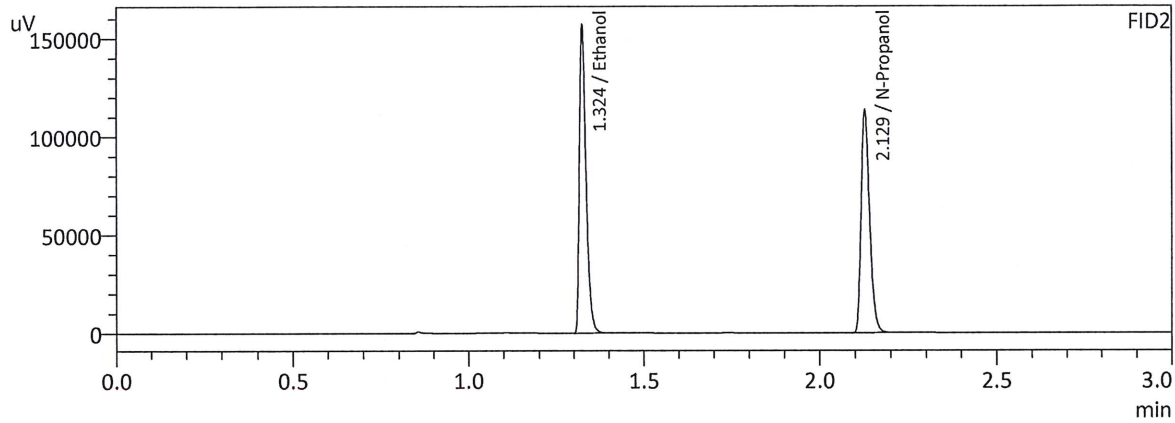
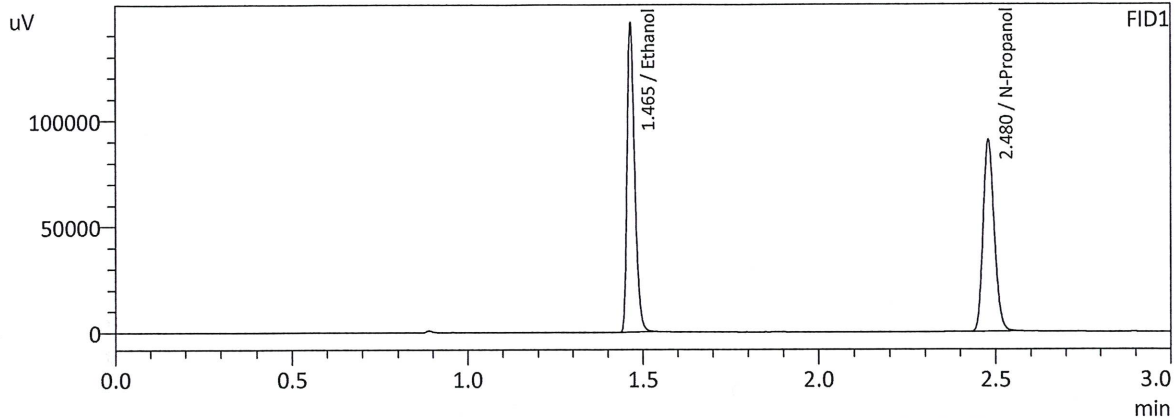
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2978 | 122967 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 190070 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2982 | 115471 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 179077 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : 0.500
 Laboratory : Meridian
 Injection Date : 2/16/2022 11:16:01 AM
 Vial # : 5
 Method Filename : C:\LabSolutions\Data\220216\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.5013 | 219373 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 200201 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

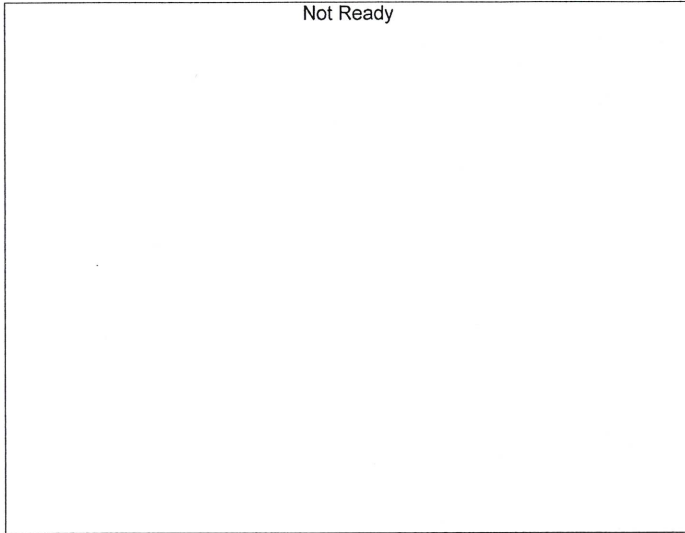
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.5009 | 204308 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 187929 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Calibration Table

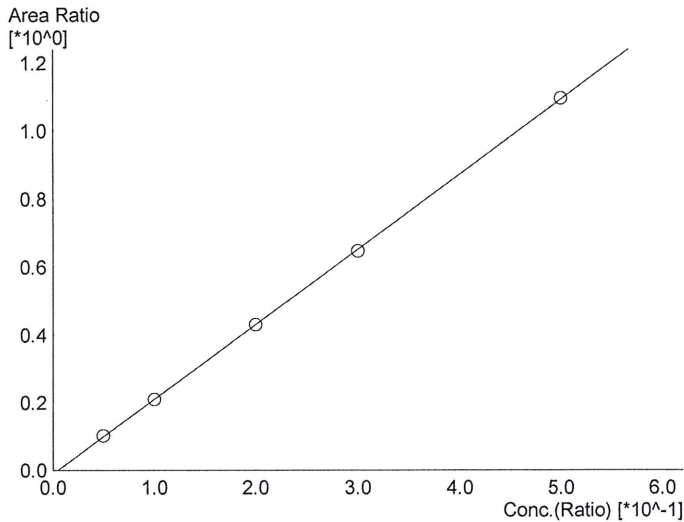
Laboratory : MERIDIAN
 Instrument Name : GC-HS
 Instrument Serial # : C12595800409 / C12255750548

<<Data File>>
 Method File : C:\LabSolutions\Data\220216\CALIBRATIONALCOHOL.GCM
 Batch File : C:\LabSolutions\Data\220216\CALIBRATION\CALCURVE_TEMPLATE.gcb
 Date Acquired : 2/16/2022 11:16:01 AM
 Date Created : 2/16/2022 11:11:45 AM
 Date Modified : 2/16/2022 11:19:04 AM



Name : Methanol
 Detector Name: FID1
 Function : $f(x)=0*x+0$
 R² value= 0
 FitType: Linear
 ZeroThrough: Not Through

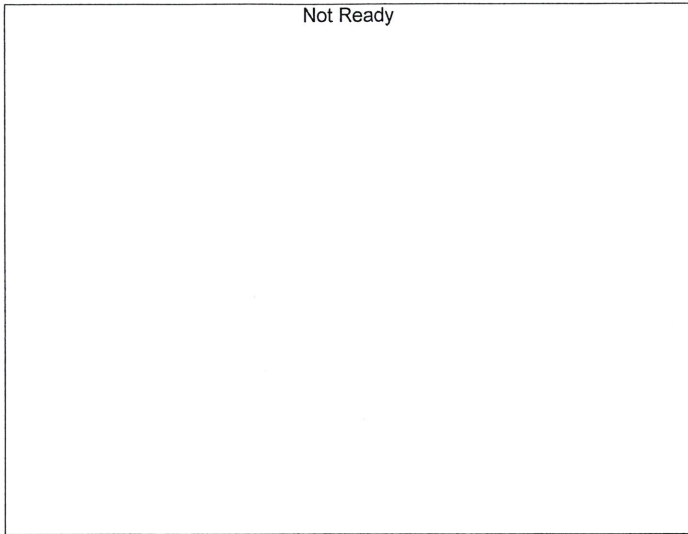
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Ethanol
 Detector Name: FID1
 Function : $f(x)=2.20630*x-0.0102597$
 R² value= 0.9999369
 FitType: Linear
 ZeroThrough: Not Through

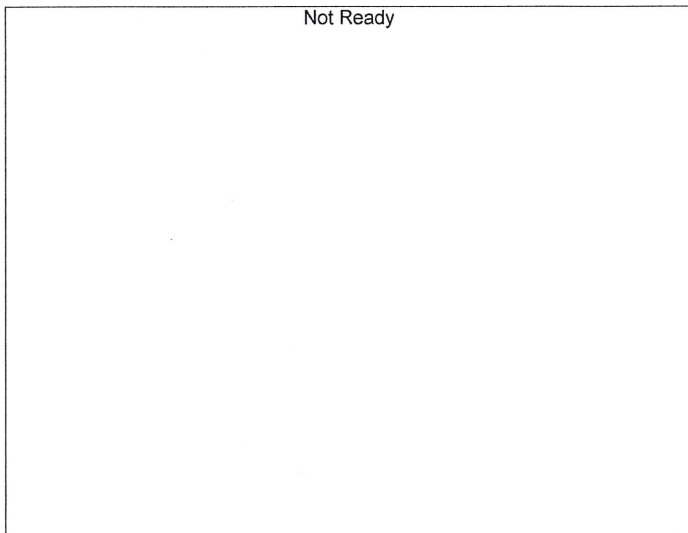
| # | Conc. | Area | Std. Conc. |
|---|-------|--------|------------|
| 1 | 0.050 | 19673 | 0.0513 |
| 2 | 0.100 | 40476 | 0.0997 |
| 3 | 0.200 | 81184 | 0.1996 |
| 4 | 0.300 | 122967 | 0.2978 |
| 5 | 0.500 | 219373 | 0.5013 |

NB



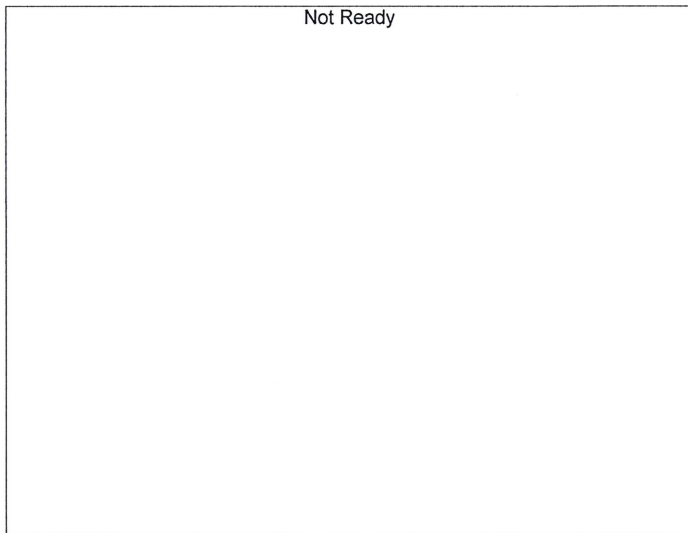
Name : Isopropyl Alcohol
Detector Name: FID1
Function : $f(x)=0*x+0$
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Acetone
Detector Name: FID1
Function : $f(x)=0*x+0$
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Fluor. Hydrocarbon(s)
Detector Name: FID1
Function : $f(x)=0*x+0$
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

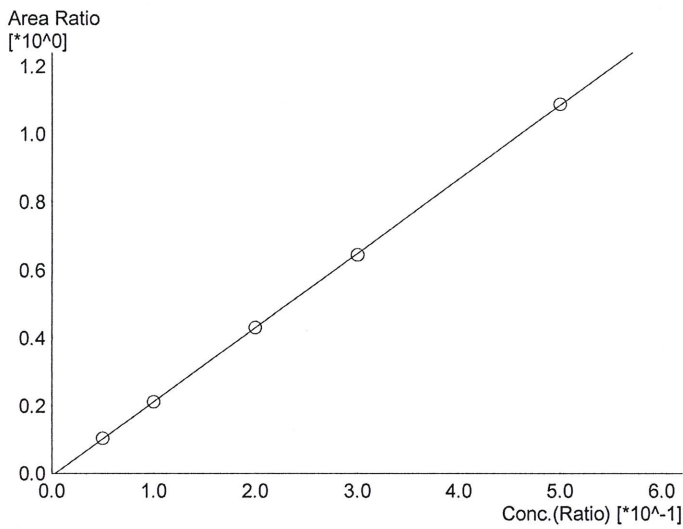
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|

NB



Name : Methanol
 Detector Name: FID2
 Function : $f(x)=0*x+0$
 R² value= 0
 FitType: Linear
 ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Ethanol
 Detector Name: FID2
 Function : $f(x)=2.18326*x-0.00645134$
 R² value= 0.9999674
 FitType: Linear
 ZeroThrough: Not Through

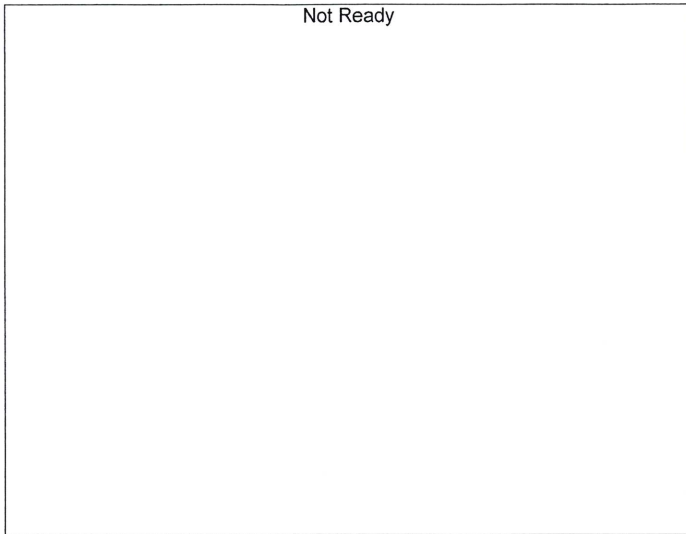
| # | Conc. | Area | Std. Conc. |
|---|-------|--------|------------|
| 1 | 0.050 | 18802 | 0.0506 |
| 2 | 0.100 | 38521 | 0.1000 |
| 3 | 0.200 | 76571 | 0.2001 |
| 4 | 0.300 | 115471 | 0.2982 |
| 5 | 0.500 | 204308 | 0.5009 |



Name : Acetone
 Detector Name: FID2
 Function : $f(x)=0*x+0$
 R² value= 0
 FitType: Linear
 ZeroThrough: Not Through

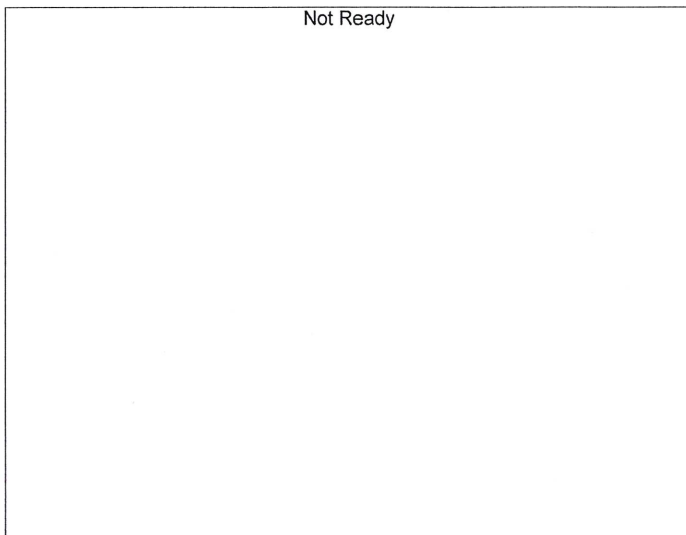
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|

NB



Name : Isopropyl Alcohol
Detector Name: FID2
Function : $f(x)=0*x+0$
R² value= 0
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Fluor. Hydrocarbon(s)
Detector Name: FID2
Function : $f(x)=0*x+0$
R² value= 0
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|

Meridian Blood Alcohol Analysis Batch Table

Shimadzu GC-2030 Serial #C12255750548
Shimadzu HS-20 Serial #C12595800409
Lab Solutions Software Ver. 5.99
Copyright (C) 2008-2020 Shimadzu Corporation

| Vial# | Sample Name | Sample Type | Level# | Method File |
|-------|-------------|----------------|--------|-------------|
| 1 | 0.050 | 1:Standard:(I) | 1 | ALCOHOL.GCM |
| 2 | 0.100 | 1:Standard | 2 | ALCOHOL.GCM |
| 3 | 0.200 | 1:Standard | 3 | ALCOHOL.GCM |
| 4 | 0.300 | 1:Standard | 4 | ALCOHOL.GCM |
| 5 | 0.500 | 1:Standard | 5 | ALCOHOL.GCM |
| 6 | INT STD BLK | 0:Unknown | 0 | ALCOHOL.GCM |