Quantitative Analysis for Ethanol \& Qualitative Analysis for Other Volatiles


| Ethanol Calibration Reference Material |  |  |
| :---: | :---: | :---: |
| Calibrator level | Expiration | Cerilliant Lot \# |
| 0.050 | Jul-19 | FN06231406 |
| 0.080 |  |  |
| 0.100 | Aug-21 | FN08101601 |
| 0.200 | Dec-19 | FN12011401 |
| 0.300 | Feb-21 | FN02121601 |
| 0.400 |  |  |
| 0.500 | Sep-21 | FN08031602 |



| Control level | Expiration | Cerilliant Lot \# | Target Value | Acceptable Range | Overall Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.080 | May-22 | FN04171701 | 0.08000 | $0.076-0.084$ | $0.080 \quad \mathrm{~g} / 100 \mathrm{cc}$ |

$\sim$ Any information on this document can be changed for laboratory use, except for the precision and mean determination formulas.

## Worklist: 2767

| LAB CASE | $\frac{\text { ITEM }}{\text { M2018-3702 }}$ | 2 | $\frac{\text { TASK ID }}{130736}$ |
| :--- | :--- | :--- | :--- |

```
Sample Name : INTERNAL STD BLK 1
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CNI1180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.40758 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 51.23080 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : MIX VOL FNOb04150z FNOY171701
Laboratory : Meridian JG
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| -- | Column 1: | 9.26188 | 0.1351 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 1. Ethanol | Column 2: | 9.57652 | 0.1366 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 1: | 37.64969 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Col |  |  |  |
| 4. n-Propanol | Column 2: | 38.45804 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

## VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-1
Analysis Dates): 31 Oct 2018

|  | Column 1 <br> FID A | Column 2 <br> FID B | Column <br> Precision | Mean Value | Over-all Mean |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Results | 0.0772 | 0.0777 | 0.0005 | 0.0774 | 0.0775 |  |
| $(\mathrm{~g} / \mathbf{1 0 0 c c})$ | 0.0773 | 0.0781 | 0.0008 | 0.0777 |  |  |

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/10 nc) | 0.073 | 0.081 |
| 0.077 |  | High |


|  | Reported Result |  |
| :--- | :---: | :--- |
|  | 0.077 |  |

Calibration and control data are stored centrally.

```
Sample Name :
```

Laboratory : Meridian
QC1-1-A
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acc. Instrument: CN11180014-CN11041167


| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 6.91356 | 0.0772 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 7.02376 | 0.0777 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.28895 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 50.86791 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : QCl-1-B
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 6.94683 | 0.0773 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 7.06316 | 0.0781 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.47131 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 50.87889 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

## VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.08 FN04171701 Analysis Dates): 31 Oct 2018

|  | Column 1 <br> FID A | Column 2 <br> FID B | Column <br> Precision | Mean Value | Over-all Mean |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Results | 0.0799 | 0.0805 | 0.0006 | 0.0802 |  | 0.0803 |
| (g/100cc) | 0.0800 | 0.0808 | 0.0008 | 0.0804 |  |  |

Analysis Method
Refer to Blood Alcohol Method \#1


Calibration and control data are stored centrally.

```
Sample Name : 0.08 FN04171701-A
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```


\# Compound Column Area Amount Units

| 1. Ethanol | Column 1: | 7.12054 | 0.0799 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| :--- | ---: | ---: | ---: | ---: |
| 2. Ethanol | Column 2: | 7.23088 | 0.0805 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.03587 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 50.43997 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : 0.08 FN04171701-B
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | ---: | ---: | ---: |
| 1. Ethanol | Column 1: | 7.14542 | 0.0800 | $\mathrm{~g} / 100 \mathrm{Cc}$ |
| 2. Ethanol | Column 2: | 7.26507 | 0.0808 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.18392 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 50.49620 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

Sequence File $C: \backslash C h e m 32 \backslash . . .8 \_S A M P L E S \backslash 10-31-18 \_S A M P L E S$ 2018-10-31 16-26-12\10-31-18_SAMPLES.S Sample S ( mmmary

| Sequence table: | C: \Chem32\1\Data \10-31-18_SAMPLES $\backslash 10-31-18 \_$SAMPLES 2018-10-31 16-26-12\10 31-18 SAMPLES.S |
| :---: | :---: |
| Data directory path: | C: \Chem32\1\Data \10-31-18_SAMPLES $\backslash 10-31-18$ SAMPLES 2018-10-31 16-26-12\} |
| Logbook: | C: \Chem32\1\Data \10-31-18_SAMPLES $\backslash 10-31-18 \_$SAMPLES 2018-10-31 16-26-12\10 31-18 SAMPLES.LOG |
| Sequence start: | 10/31/2018 4:40:54 PM |
| Sequence Operator: | SYSTEM |
| Operator: | SYSTEM |

Method file name:
C: \Chem32\1\Data $\backslash 10-31-18 \_S A M P L E S \backslash 10-31-18 \_S A M P L E S$ 2018-10-31 16-26-12 $\backslash \mathrm{ALCOHOL} . \mathrm{M}$

| Run \# | Location | $\begin{gathered} \text { Inj } \\ \# \end{gathered}$ | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | $\begin{array}{cc} \text { Cal } & \# \\ \text { Cmp } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | INTERNAL STD BLK | - | 1.0000 | 001F0101.D | 2 |
| 2 | 2 |  | MIX VOL FN060415 | - | 1.0000 | 002F0201.D | 10 |
| 3 | 3 |  | 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 | 0.08018803 \#4-A | - | 1.0000 | 007F0701.D | 4 |
| 8 | 8 | 1 | 0.08018803 \#4-B | - | 1.0000 | 008F0801.D | 4 |
| 9 | 9 | 1 | 0.20018110 \#3-A | - | 1.0000 | 009F0901.D | 4 |
| 10 | 10 |  | 0.20018110 \#3-B | - | 1.0000 | 010F1001.D | 4 |
| 11 | 11 |  | QC2-1-A | - | 1.0000 | 011F1101.D | 4 |
| 12 | 12 |  | QC2-1-B | - | 1.0000 | 012F1201.D | 4 |
| 13 | 13 |  | M2018-3702-2-A | - | 1.0000 | 013F1301.D | 4 |
| 14 | 14 | 1 | M2018-3702-2-B | - | 1.0000 | 014F1401.D | 4 |
| 15 | 15 |  | 1 INTERNAL STD BLK | - | 1.0000 | 015F1501.D | 2 |
| 16 | 16 | 1 | M2018-3702-2DIL9 | - | 1.0000 | 016F1601.D | 4 |
| 17 | 17 | 1 | M2018-3702-2DIL9 | - | 1.0000 | 017F1701.D | 4 |
| 18 | 18 |  | 1 INTERNAL STD BLK | - | 1.0000 | 018F1801.D | 2 |
| 19 | 19 | 1 | M2018-3702DIL81- | - | 1.0000 | 019F1901.D | 4 |
| 20 | 20 | 1 | M2018-3702DIL81- | - | 1.0000 | 020F2001.D | 4 |
| 21 | 21 |  | 1 INTERNAL STD BLK | - | 1.0000 | 021F2101.D | 2 |
| 22 | 22 |  | QC1-2-A | - | 1.0000 | 022F2201.D | 4 |
| 23 | 23 |  | QC1-2-B | - | 1.0000 | 023F2301.D | 4 |
| 24 | 24 | 1 | 1 INTERNAL STD BLK | - | 1.0000 | 024F2401.D | 2 |

Method file name: $\quad C: \backslash C h e m 32 \backslash 1 \backslash D a t a \backslash 10-31-18 \_S A M P L E S \backslash 10-31-18 \_S A M P L E S ~ 2018-10-31$ 16-26-12 \SHUTDOWN.M


## Calibration Table



## General Calibration Setting

Calib. Data Modified : Wednesday, October 31, 2018 4:06:51 PM
Signals calculated separately : No


## Signal Details

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

## Overview Table

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


## Peak Sum Table

```
***No Entries in table***
```


## 1 Warnings or Errors :

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



Acetaldehyde at exp. RT: 2.809 FIDi A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y=m x+b$

| $\mathrm{m}:$ | $8.10378 \mathrm{e}-2$ |
| :--- | :--- |
| $\mathrm{~b}:$ | 0.00000 |
| $\mathrm{x}:$ | Amount Ratio |
| $\mathrm{y}:$ | Area Ratio |



Acetaldehyde at exp. RT: 2.977 FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y=m x+b$
$\mathrm{m}: \quad 8.10378 \mathrm{e}-2$
b: $\quad 0.00000$
x: Amount Ratio
y: Area Ratio

ethanol at exp. RT: 3.075
FID1 A, Front Signal
Correlation:
0.99997

Residual Std. Dev.: 0.00270
Formula: $y=m x+b$
$\mathrm{m}: \quad 1.82724$
b: $\quad-8.36339 \mathrm{e}-4$
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: $y=m x+b$
$\mathrm{m}: \quad 8.10306 \mathrm{e}-2$
b: $\quad 0.00000$
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: $y=m x+b$

| $\mathrm{m}:$ | $1.93972 \mathrm{e}-1$ |
| :--- | :--- |
| $\mathrm{~b}:$ | 0.00000 |
| $\mathrm{x}:$ | Amount Ratio |
| $\mathrm{y}:$ | Area Ratio |


ethanol at exp. RT: 4.285
FID2 B, Back Signal
Correlation: 0.99998
Residual Std. Dev.: 0.00232
Formula: $y=m x+b$
$\mathrm{m}: \quad 1.88291$
b: $\quad-8.25733 \mathrm{e}-3$
x: Amount Ratio
y: Area Ratio

acetone at exp. RT: 4.308
FID1 A, Front Signal
Correlation: $\quad 1.00000$
Residual Std. Dev.: 0.00000
Formula: $y=m x+b$
$\mathrm{m}: \quad 1.29561 \mathrm{e}-1$
b: $\quad 0.00000$
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: $\mathrm{y}=\mathrm{mx}+\mathrm{b}$
$\mathrm{m}: \quad 1.00000$
b: $\quad 0.00000$
x: Amount Ratio
y: Area Ratio

acetone at exp. RT: 4.661
FID2 B, Back Signal
Correlation:
1.00000

Residual Std. Dev.: 0.00000
Formula: $y=m x+b$

| $\mathrm{m}:$ | $1.31095 \mathrm{e}-1$ |
| :--- | :---: |
| $\mathrm{~b}:$ | 0.00000 |
| $\mathrm{x}:$ | Amount Ratio |
| $\mathrm{y}:$ | Area Ratio |


isopropyl alcohol at exp. RT: 4.969 FID2 B, Back Signal
Correlation: $\quad 1.00000$
Residual Std. Dev.: 0.00000
Formula: $y=m x+b$
$\mathrm{m}: \quad 2.03620 \mathrm{e}-1$
b: $\quad 0.00000$
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: $y=m x+b$
$\mathrm{m}: \quad 1.00000$
b: $\quad 0.00000$
x: Amount Ratio
y: Area Ratio

```
Sample Name : 0.050 FNO6231406
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- |
| -- | Column 1: | 4.53615 | 0.0499 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 1. Ethanol | Column 2: | 4.63880 | 0.0512 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 1: | 50.16470 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Coll |  |  |  |
| 4. n-Propanol | Column 2: | 52.58041 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : 0.100 FN08101601
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 9.03009 | 0.0993 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 9.31339 | 0.0994 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.98732 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 52.08379 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : 0.200 FN12011401
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```

FID1 A, Front Signal (10-31-18_CALl10-31-18_CAL 2018-10-31 15-01-431003F0301.D)


| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 18.12409 | 0.1995 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 18.90689 | 0.1986 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.82826 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 51.71439 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : 0.300 FN02121601
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 27.03236 | 0.3022 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 28.24488 | 0.3007 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.02808 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 50.62835 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name $:$ | 0.500 FN08031602 |
| :--- | :--- | :--- |
| Laboratory $:$ | Meridian |
| Injection Date : | Oct 31, 2018 |
| Method | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 46.02385 | 0.4990 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 48.71275 | 0.5002 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 50.52134 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 52.18080 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name $:$ | INTERNAL STANDARD BLANK |
| :--- | :--- | :--- |
| Laboratory $:$ | Meridian |
| Injection Date : | Oct 31, 2018 |
| Method $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | Column 1: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 1. Ethanol | Column 2: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 1: | 49.82584 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Col |  |  |  |
| 4. n-Propanol | Column 2: | 51.29085 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

Sequence File C: \Chem32\1\Data\10-31-18_CAL \10-31-18_CAL 2018-10-31 15-01-43\10-31-18_CAL.S
Sample Summary
Sequence table: $\quad C: \backslash$ Chem32 $\backslash 1 \backslash$ Data $\backslash 10-31$-18_CAL\10-31-18_CAL 2018-10-31 15-01-43\10-31-18_ CAL.S
Data directory path: C:\Chem32\1\Data\10-31-18_CAL\10-31-18_CAL 2018-10-31 15-01-43\} Logbook:

C: \Chem32\1\Data \10-31-18_CAL\10-31-18_CAL 2018-10-31 15-01-43\10-31-18 CAL. LOG
Sequence start: 10/31/2018 3:16:19 PM Sequence Operator: SYSTEM Operator: SYSTEM

Method file name: $\quad C: \backslash C h e m 32 \backslash 1 \backslash$ Data $\backslash 10-31-18 \_C A L \backslash 10-31-18 \_C A L$ 2018-10-31 15-01-43\ALCOHOL.M


## VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC2-1
Analysis Dates): 31 Oct 2018

|  | Column 1 <br> FID A | Column 2 <br> FID B | Column <br> Precision | Mean Value | Over-all Mean |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Results | 0.1987 | 0.1987 | 0.0000 | 0.1987 | 0.1978 |  |
| (g/100cc) | 0.1973 | 0.1965 | 0.0008 | 0.1969 |  |  |

## 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) | 0.187 | 0.207 |
| 0.197 |  | High |
|  |  | 0.010 |


|  | Reported Result |  |
| :--- | ---: | :--- |
|  | 0.197 |  |

Calibration and control data are stored centrally.

Issued: 12/30/2016
Volatiles BAC Calculation Spreadsheet Rev 4

```
Sample Name :
Laboratory :
```

Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167


| \# Compound | Column | Area | Amount | Units |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| -2. | Ethanol | Column 1: | 17.67059 | 0.1987 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 1. Ethanol | Column 2: | 18.33540 | 0.1987 | $\mathrm{~g} / 100 \mathrm{cc}$ |  |
| 3. n-Propanol | Column 1: | 48.77832 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |  |
| 4. n-Propanol | Column 2: | 50.11301 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |  |

Sample Name :
Laboratory $:$
Injection Date :
Method
Acq. Instrument:

```
QC2-1-B
Meridian
Oct 31, 2018
ALCOHOL.M
CN11180014-CN11041167
```



Area
Amount
Units

| 1. Ethanol | Column 1: | 17.84373 | 0.1973 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| :--- | :--- | :--- | :--- | :--- |
| 2. Ethanol | Column 2: | 18.48874 | 0.1965 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.61602 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 51.10719 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : INTERNAL STD BLK
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```


\# Compound Column Area Amount Units

| 1. Ethanol | Column 1: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| :--- | ---: | ---: | ---: | ---: |
| 2. Ethanol | Column 2: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 48.74186 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 50.07950 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : INTERNAL STD BLK
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 48.66111 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 49.92752 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : INTERNAI STD BLK
Laboratory : Meridian
Injection Date : Oct 31, 2018
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 48.64458 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 50.04656 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name | $:$ | INTERNAL STD BLK |
| :--- | :--- | :--- |
| Laboratory $:$ | Meridian |  |
| Injection Date : | Oct 31, 2018 |  |
| Method | ALCOHOL.M |  |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | ---: | ---: | ---: |
| 1. Ethanol | Column 1: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 0.00000 | 0.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 48.61103 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 49.85572 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

## VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-2
Analysis Dates): 31 Oct 2018

|  | Column 1 <br> FID A | Column 2 <br> FID B | Column <br> Precision | Mean Value | Over-all Mean | 0.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Results | 0.0805 | 0.0811 | 0.0006 | 0.0808 | 0 | 0.08 |
| $(g / 100 c c)$ | 0.0803 | 0.0816 | 0.0013 | 0.0809 |  |  |

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/10 Oc) | 0.076 | 0.084 | 5\% of Mean |
| 0.080 |  |  |  |


| Reported Result |  |  |
| :--- | ---: | :--- | :--- |
|  | 0.080 |  |

Calibration and control data are stored centrally.

Issued: 12/30/2016
Volatiles BAC Calculation Spreadsheet Rev 4 Issuing Authority: Quality Manager

| Sample Name $:$ | QC1-2-A |
| :--- | :--- | :--- |
| Laboratory $:$ | Meridian |
| Injection Date : | Oct 31, 2018 |
| Method $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 7.24818 | 0.0805 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 7.37051 | 0.0811 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.58873 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 51.03055 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name $:$ | QC1-2-B |  |
| :--- | :--- | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Oct 31, 2018 |  |
| Method | $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 7.17524 | 0.0803 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 7.31748 | 0.0816 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 49.21073 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 50.35202 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

