REVIEWED
By Rachel Cutler at 6:03 pm, Aug 07, 2020
BLALC Volatiles QA_QC Data Spreadsheet-v5.xls
Quantitative Analysis for Ethanol \& Qualitative Analysis for Other Volatiles

| Device: Hamilton MICROLAB Liquid Processor/Dilutor Serial Number: ML600HC11378 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| Volatiles Quality Assurance Controls |  |  |  | un D | s): 0 | 020-08/0 | 000 |
|  |  | Calibration Date: 08/03/2020 |  |  |  |  |  |
| Control level | Expiration | Lot \# | Target Value |  | Acc | e Range | Overall Results |
| Level 1 | Jul-23 | 1907006 | 0.0764 |  | 0.0688-0.0840 |  | $0.0743 \mathrm{~g} / 100 \mathrm{cc}$ |
|  |  |  |  |  | $0.0759 \mathrm{~g} / 100 \mathrm{cc}$ |
|  |  |  |  |  | $\mathrm{g} / 100 \mathrm{cc}$ |
| Level 2 | Mar-22 | 1803028 | 0.2035 |  |  |  | 0.1832-0.2238 |  | $0.2006 \mathrm{~g} / 100 \mathrm{cc}$ |
|  |  |  |  |  | $0.2003 \mathrm{~g} / 100 \mathrm{cc}$ |  |  |
|  |  |  |  |  | $\mathrm{g} / 100 \mathrm{cc}$ |  |  |
| Multi-Component mixture: |  |  |  | Lot \# |  |  |  | 41502 | OK |
| Curve Fit: |  |  | Column 1 | 0.99999 |  | 99 Column2 | 0.99991 |

Ethanol Calibration Reference Material

| Column 1 | Column 2 | Precision | Mean |
| :---: | :---: | :---: | :---: |
| 0.0508 | 0.0522 | 0.0014 | 0.0515 |
| 0.0998 | 0.1005 | 0.0007 | 0.1001 |
| 0.1990 | 0.1980 | 0.001 | 0.1985 |
| 0.3002 | 0.2970 | 0.0032 | 0.2986 |
|  |  |  |  |
| 0.5003 | 0.5023 | 0.002 | 0.5013 |

[^0]Worklist: 4410


| LAB CASE | ITEM |  | ITEM TYPE |  |
| :--- | :---: | :--- | :--- | :--- |
| DESCRIPTION |  |  |  |  |
| P2020-2272 | 1 | BCK |  | Alcohol Analysis |
| P2020-2273 | 1 | BCK |  | Alcohol Analysis |
| P2020-2275 | 1 | BCK |  | Alcohol Analysis |
| P2020-2276 | 1 | BCK |  | Alcohol Analysis |




## General Calibration Setting

Calib. Data Modified : Monday, August 03, 2020 2:32:43 PM /
Signals calculated separately : $\quad$ 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 |



Signal Details

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

Overview Table

Method C: \CHEM32 $\backslash 1 \backslash$ METHODS $\backslash$ ALCOHOL.M
RT Sig Lvl Amount Area Rsp.Factor Ref ISTD \# Compound

| 2.5861 | 1 | 1.00000 | 3.69669 | $2.70512 \mathrm{e}-1$ | No | No 1 methanol |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2.8091 | 1 | 1.00000 | 4.26100 | $2.34687 \mathrm{e}-1$ | No | No 2 Acetaldehyde |
| 2.9772 | 1 | 1.00000 | 4.26100 | $2.34687 \mathrm{e}-1$ | No | No 2 Acetaldehyde |
| 3.0751 | 1 | 5.00000e-2 | 4.43784 | 1.12667e-2 | No | No 1 ethanol |
|  | 2 | $1.00000 \mathrm{e}-1$ | 8.88982 | 1.12488e-2 |  |  |
|  | 3 | $2.00000 \mathrm{e}-1$ | 17.86740 | $1.11936 \mathrm{e}-2$ |  |  |
|  | 4 | $3.00000 \mathrm{e}-1$ | 26.62480 | 1.12677e-2 |  |  |
|  | 5 | $5.00000 \mathrm{e}-1$ | 44.75724 | $1.11714 \mathrm{e}-2$ |  |  |
| 3.3882 | 1 | 1.00000 | 4.26062 | $2.34707 \mathrm{e}-1$ | No | No 2 methanol |
| 3.6281 | 1 | 1.00000 | 9.73055 | $1.02769 \mathrm{e}-1$ | No | No 1 isopropyl alcohol |
| 4.2852 | 1 | $5.00000 \mathrm{e}-2$ | 4.54595 | 1.09988e-2 | No | No 2 ethanol |
|  | 2 | $1.00000 \mathrm{e}-1$ | 9.20193 | $1.08673 \mathrm{e}-2$ |  |  |
|  | 3 | $2.00000 \mathrm{e}-1$ | 18.65465 | $1.07212 \mathrm{e}-2$ |  |  |
|  | 4 | 3.00000e-1 | 27.84667 | $1.07733 \mathrm{e}-2$ |  |  |
|  | 5 | $5.00000 \mathrm{e}-1$ | 47.41045 | $1.05462 \mathrm{e}-2$ |  |  |
| 4.3081 | 1 | 1.00000 | 6.49940 | $1.53860 \mathrm{e}-1$ | No | No 1 acetone |
| 4.620 | 1 | 1.00000 | 42.36873 | $2.36023 \mathrm{e}-2$ | No | Yes 1 n-propanol |
|  | 2 | 1.00000 | 42.39096 | $2.35899 \mathrm{e}-2$ |  |  |
|  | 3 | 1.00000 | 42.31837 | $2.36304 \mathrm{e}-2$ |  |  |
|  | 4 | 1.00000 | 41.66415 | $2.40014 \mathrm{e}-2$ |  |  |
|  | 5 | 1.00000 | 41.91922 | $2.38554 \mathrm{e}-2$ |  |  |
| 4.6612 | 1 | 1.00000 | 6.89301 | $1.45075 \mathrm{e}-1$ | No | No 2 acetone |
| 4.9692 | 1 | 1.00000 | 10.70642 | 9.34019e-2 | No | No 2 isopropyl alcohol |
| 7.5502 | 1 | 1.00000 | 43.75035 | $2.28570 \mathrm{e}-2$ | No | Yes 2 n-propanol |
|  | 2 | 1.00000 | 43.43819 | $2.30212 \mathrm{e}-2$ |  |  |
|  | 3 | 1.00000 | 43.41034 | $2.30360 \mathrm{e}-2$ |  |  |
|  | 4 | 1.00000 | 42.77103 | $2.33803 \mathrm{e}-2$ |  |  |
|  | 5 | 1.00000 | 42.71841 | $2.34091 \mathrm{e}-2$ |  |  |

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: $y=m x+b$

| $\mathrm{m}:$ | $8.72505 \mathrm{e}-2$ |
| :--- | :--- |
| $\mathrm{~b}:$ | 0.00000 |

x : Amount Ratio
y: Area Ratio



ethanol at exp. RT: 3.075 FID1 A, Front Signal Correlation: 0.99999

Residual Std. Dev.: 0.00167

Formula: $y=m x+b$

| $\mathrm{m}:$ | 2.14242 |
| :--- | :--- |
| $\mathrm{~b}:$ | $-4.07529 \mathrm{e}-3$ |
| $\mathrm{x}:$ | Amount Ratio |
| $\mathrm{y}:$ | Area Ratio |


methanol at exp. RT: 3.388 FID2 B, Back Signal Correlation:
1.00000

Residual Std. Dev.: 0.00000

Formula: $y=m x+b$
$\mathrm{m}: \quad 9.73849 \mathrm{e}-2$
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: $y=m x+b$
$\begin{array}{ll}\mathrm{m}: & 2.29664 \mathrm{e}-1 \\ \mathrm{~b}: & 0.00000\end{array}$
x: Amount Ratio
y: Area Ratio

ethanol at exp. RT: 4.285 FID2 B, Back Signal Correlation: 0.99991
Residual Std. Dev.: 0.00623
Formula: $y=m x+b$

$$
\begin{array}{ll}
\mathrm{m}: & 2.23513 \\
\mathrm{~b}: & -1.28039 \mathrm{e}-2
\end{array}
$$

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: $y=m x+b$

$$
\begin{array}{lc}
\mathrm{m}: & 1.53401 \mathrm{e}-1 \\
\mathrm{~b}: & 0.00000 \\
\mathrm{x}: & \text { Amount Ratio } \\
\mathrm{y}: & \text { Area Ratio }
\end{array}
$$


$\begin{array}{ll}\text { n-propanol at exp. RT: } & 4.620 \\ \text { FIDI A, Front Signal } & \\ \text { Correlation: } & 1.00000 \\ \text { Residual Std. Dev.: } & 0.00000 \\ \text { Formula: y }=\mathrm{mx}+\mathrm{b} & \\ \mathrm{m}: & 1.00000 \\ \mathrm{~b}: & 0.00000 \\ \mathrm{x}: & \\ \text { y: Amount Ratio } & \end{array}$

acetone at exp. RT: 4.661
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y=m x+b$
$\mathrm{m}: \quad 1.57553 \mathrm{e}-1$
b: $\quad 0.00000$
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: $y=m x+b$
$\mathrm{m}: \quad 2.44716 \mathrm{e}-1$
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 FN05211804 |
| :--- | :--- | :--- |
| Laboratory $:$ | Meridian |
| Injection Date : | Aug 3, 2020 |
| Method $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 4.43784 | 0.0508 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 4.54595 | 0.0522 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 42.36873 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 43.75035 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name $:$ | 0.100 FN02271802 |
| :--- | :--- | :--- |
| Laboratory $:$ | Meridian |
| Injection Date : | Aug 3, 2020 |
| Method | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | ---: | ---: | :---: |
| 1. Ethanol | Column 1: | 8.88982 | 0.0998 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 9.20193 | 0.1005 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 42.39096 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 43.43819 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name | $:$ | 0.200 FN06231704 |
| :--- | ---: | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 3, 2020 |  |
| Method | $:$ | ALCOHOL.M |
| Aeq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| -- | Column 1: | 17.86740 | 0.1990 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 1. Ethanol | Column 2: | 18.65465 | 0.1980 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 1: | 42.31837 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Col |  |  |  |
| 4. n-Propanol | Column 2: | 43.41034 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name | $:$ | 0.300 FN07311804 |
| :--- | :--- | :--- |
| Laboratory $:$ | Meridian |  |
| Injection Date : | Aug 3, 2020 |  |
| Method | ALCOHOL.M |  |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 26.62480 | 0.3002 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 27.84667 | 0.2970 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 41.66415 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 42.77103 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name | $:$ | 0.500 FN08031602 |
| :--- | :--- | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 3, 2020 |  |
| Method | $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |  |




```
Sample Name : INTERNAL STANDARD BLANK
Laboratory : Meridian
Injection Date : Aug 3, 2020
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: | 38.62105 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 39.37968 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

Sample $S$ ummary
Sequence table: $\quad C: \backslash$ Chem $32 \backslash 1 \backslash$ Data $\backslash 08-03-20 \_1 \_C A L \backslash 8-3-20 \_1 \_C A L$ 2020-08-03 13-27-32\8-3-20_1 CAL. S
Data directory path: Logbook:

C: \Chem32 $\backslash 1 \backslash$ Data $\backslash 08-03-20 \_1 \_C A L \backslash 8-3-20 \_1 \_$CAL 2020-08-03 13-27-32\}
C: \Chem32\1\Data \08-03-20_1_CAL\8-3-20_1_CAL 2020-08-03 13-27-32\8-3-20_1
CAL. LOG
Sequence start: Sequence Operator: Operator:

8/3/2020 1:42:10 PM
SYSTEM
SYSTEM
Method file name: $\quad \mathrm{C}: \backslash$ Chem $32 \backslash 1 \backslash$ Data $\backslash 08-03-20 \_1 \_C A L \backslash 8-3-20 \_1 \_$CAL 2020-08-03 13-27-32\ALCOHOL.


Sequence File C: \Chem32\...0_SAMPLES $\backslash 08-03-20 \_$SAMPLES 2020-08-03 15-10-39\08-03-20_SAMPLES.S

S a mple $\quad$ Summary
Sequence table: C:\Chem32\1\Data\08-03-20_SAMPLES $\backslash 08-03-20 \_$SAMPLES 2020-08-03 15-10-39\08 03-20_SAMPLES.S
Data directory path: C: \Chem32 \1 \Data $\backslash 08-03-20 \_$SAMPLES $\backslash 08-03-20$ SAMPLES 2020-08-03 15-10-39

Logbook:

Sequence start: Sequence Operator:
Operator:

Method file name: C:\Chem32\1\Data \08-03-20_SAMPLES $\backslash 08-03-20 \_$SAMPLES 2020-08-03 15-10-39 $\backslash$ ALCOHOL.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 | 1 | MIX VOL FNO60415 | - | 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 | M2020-2833-1-A | - | 1.0000 | 007F0701.D | 4 |
| 8 | 8 | 1 | M2020-2833-1-B | - | 1.0000 | 008F0801.D | 4 |
| 9 | 9 | 1 | M2020-2834-1-A | - | 1.0000 | 009F0901.D | 4 |
| 10 | 10 | 1 | M2020-2834-1-B | - | 1.0000 | 010F1001.D | 4 |
| 11 | 11 | 1 | M2020-2887-1-A | - | 1.0000 | 011F1101.D | 4 |
| 12 | 12 | 1 | M2020-2887-1-B | - | 1.0000 | 012F1201.D | 4 |
| 13 | 13 | 1 | M2020-2894-1-A | - | 1.0000 | 013F1301.D | 4 |
| 14 | 14 | 1 | M2020-2894-1-B | - | 1.0000 | 014F1401.D | 4 |
| 15 | 15 | 1 | M2020-2895-1-A | - | 1.0000 | 015F1501.D | 4 |
| 16 | 16 | 1 | M2020-2895-1-B | - | 1.0000 | 016F1601.D | 4 |
| 17 | 17 | 1 | M2020-2932-1-A | - | 1.0000 | 017F1701.D | 4 |
| 18 | 18 |  | M2020-2932-1-B | - | 1.0000 | 018F1801.D | 4 |
| 19 | 19 |  | M2020-2938-1-A | - | 1.0000 | 019F1901.D | 4 |
| 20 | 20 |  | M2020-2938-1-B | - | 1.0000 | 020F2001.D | 4 |
| 21 | 21 |  | P2020-2155-1-A | - | 1.0000 | 021F2101.D | 4 |
| 22 | 22 |  | P2020-2155-1-B | - | 1.0000 | 022F2201.D | 4 |
| 23 | 23 |  | P2020-2169-1-A | - | 1.0000 | 023F2301.D | 2 |
| 24 | 24 |  | P2020-2169-1-B | - | 1.0000 | 024F2401.D | 2 |
| 25 | 25 |  | QC2-1-A | - | 1.0000 | 025F2501.D | 4 |
| 26 | 26 |  | QC2-1-B | - | 1.0000 | 026F2601.D | 4 |
| 27 | 27 |  | P2020-2170-1-A | - | 1.0000 | 027F2701.D | 4 |
| 28 | 28 |  | P2020-2170-1-B | - | 1.0000 | 028F2801.D | 4 |
| 29 | 29 |  | P2020-2170-2-A | - | 1.0000 | 029F2901.D | 2 |
| 30 | 30 |  | P2020-2170-2-B | - | 1.0000 | 030F3001.D | 2 |
| 31 | 31 |  | P2020-2180-1-A | - | 1.0000 | 031F3101.D | 4 |
| 32 | 32 |  | P2020-2180-1-B | - | 1.0000 | 032F3201.D | 4 |
| 33 | 33 |  | P2020-2185-1-A | - | 1.0000 | 033F3301.D | 4 |
| 34 | 34 |  | P2020-2185-1-B | - | 1.0000 | 034F3401.D | 4 |
| 35 | 35 |  | P2020-2195-1-A | - | 1.0000 | 035F3501.D | 5 |
| 36 | 36 |  | P2020-2195-1-B | - | 1.0000 | 036F3601.D | 5 |
| 37 | 37 |  | P2020-2199-1-A | - | 1.0000 | 037F3701.D | 4 |
| 38 | 38 |  | P2020-2199-1-B | - | 1.0000 | 038F3801.D | 4 |
| 39 | 39 |  | P2020-2200-1-A | - | 1.0000 | 039F3901.D | 6 |
| 40 | 40 |  | P2020-2200-1-B | - | 1.0000 | 040F4001.D | 6 |
| 41 | 41 |  | P2020-2201-1-A | - | 1.0000 | 041F4101.D | 2 |
| 42 | 42 | 1 | P2020-2201-1-B | - | 1.0000 | 042F4201.D | 2 |
| 43 | 43 | 1 | P2020-2236-1-A | - | 1.0000 | 043F4301.D | 4 |

Sequence File C:\Chem32\...0_SAMPLES $\backslash 08-03-20 \_$SAMPLES 2020-08-03 15-10-39\08-03-20_SAMPLES.S

| Run \# |  | $\begin{gathered} \text { Inj } \\ \# \end{gathered}$ | Sample Name | Sample Amt [g/100cc] | $\begin{aligned} & \text { Multip.* } \\ & \text { Dilution } \end{aligned}$ | File name | $\begin{array}{cc} \text { Cal } \\ \\ \text { Cmp } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 44 | 44 | 1 | P2020-2236-1-B | - | 1.0000 | 044F4401.D | 4 |
| 45 | 45 | 1 | P2020-2245-1-A | - | 1.0000 | 045F4501.D | 4 |
| 46 | 46 | 1 | P2020-2245-1-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 | P2020-2246-1-A | - | 1.0000 | 049F4901.D | 4 |
| 50 | 50 | 1 | P2020-2246-1-B | - | 1.0000 | 050F5001.D | 4 |
| 51 | 51 | 1 | P2020-2247-1-A | - | 1.0000 | 051F5101.D | 2 |
| 52 | 52 | 1 | P2020-2247-1-B | - | 1.0000 | 052F5201.D | 2 |
| 53 | 53 | 1 | P2020-2272-1-A | - | 1.0000 | 053F5301.D | 4 |
| 54 | 54 | 1 | P2020-2272-1-B | - | 1.0000 | 054F5401.D | 4 |
| 55 | 55 | 1 | P2020-2273-1-A | - | 1.0000 | 055F5501.D | 2 |
| 56 | 56 | 1 | P2020-2273-1-B | - | 1.0000 | 056F5601.D | 2 |
| 57 | 57 | 1 | P2020-2275-1-A | - | 1.0000 | 057F5701.D | 5 |
| 58 | 58 | 1 | P2020-2275-1-B | - | 1.0000 | 058F5801.D | 5 |
| 59 | 59 | 1 | P2020-2276-1-A | - | 1.0000 | 059F5901.D | 4 |
| 60 | 60 | 1 | P2020-2276-1-B | - | 1.0000 | 060F6001.D | 4 |
| 61 | 61 | 1 | QC2-2-A | - | 1.0000 | 061F6101.D | 4 |
| 62 | 62 | 1 | QC2-2-B | - | 1.0000 | 062F6201.D | 4 |
| 63 | 63 | 1 | INTERNAL STD BLK | - | 1.0000 | 063F6301.D | 2 |

Method file name: C:\Chem32\1\Data\08-03-20_SAMPLES $\backslash 08-03-20 \_$SAMPLES 2020-08-03 15-10-39 \SHUTDOWN.M


| Sample Name $:$ | INTERNAL STD BLK 1 |
| :--- | :--- | :--- |
| Laboratory $:$ | Meridian |
| Injection Date : | Aug 3, 2020 |
| 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: | 43.35563 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 44.75909 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : MIX VOL FN06041502
Laboratory : Meridian
Injection Date : Aug 3, 2020
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 10.40728 | 0.1181 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 10.72600 | 0.1182 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 41.79328 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 42.68348 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

## VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-1
Analysis Date(s): 03 Aug 2020

|  | Column 1 <br> FID A | Column 2 <br> FID B | Column Precision | Mean Value | Sample A-B <br> Difference | Over-all Mean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Results | 0.0731 | 0.0744 | 0.0013 | 0.0737 |  | 0.0 .0012 |

Analysis Method
Refer to Blood Alcohol Method \#1

| Instrument Information | Instrument information is stored centrally. |
| :--- | ---: |
| Refer to Instrument Method: Alcohol.m |  |


| Reporting of Results <br> Overall Mean $(\mathrm{g} / 100 \mathrm{cc})$ | Low | High | $5 \%$ of Mean |
| :---: | :---: | :---: | :---: |
| 0.074 | 0.070 | 0.078 | 0.004 |

Calibration and control data are stored centrally.

| Sample Name | $:$ | QC1-1-A |
| :--- | :--- | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 3, 2020 |  |
| Method | $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| --- | Column 1: | 6.65297 | 0.0731 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 1. Ethanol | Column 2: | 6.88522 | 0.0744 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 1: | 43.59488 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Coll |  |  |  |
| 4. n-Propanol | Column 2: | 44.84755 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name | $:$ | QC1-1-B |
| :--- | :--- | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 3, 2020 |  |
| Method | $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| -- | Column 1: | 6.41731 | 0.0742 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 1. Ethanol | Column 2: | 6.63522 | 0.0756 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 1: | 41.42122 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Coll |  |  |  |
| 4. n-Propanol | Column 2: | 42.48141 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

## VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-2
Analysis Date(s): 03 Aug 2020


Calibration and control data are stored centrally.

Revision: 2
Issue Date: 12/23/2019

```
Sample Name : QCl-2-A
Laboratory : Meridian
Injection Date : Aug 3, 2020
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```




| Sample Name | $:$ | QCl-2-B |
| :--- | ---: | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 3, 2020 |  |
| Method | ALCOHOL.M |  |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 6.58196 | 0.0756 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 6.73501 | 0.0765 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 41.66911 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 42.55035 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

## VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC2-1
Analysis Date(s): 03 Aug 2020

|  | Column 1 <br> FID A | Column 2 <br> FID B | Column Precision | Mean Value | Sample A-B <br> Difference | Over-all Mean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Results | 0.2005 | 0.1996 | 0.0009 | 0.2000 |  | 0.2006 |
| $(\mathrm{~g} / 100 \mathrm{cc})$ | 0.2015 | 0.2009 | 0.0006 | 0.2012 |  |  |

Analysis Method
Refer to Blood Alcohol Method \#1

| Instrument Information | Instrument information is stored centrally. |
| :--- | :--- |
| Refer to Instrument Method: Alcohol.m |  |


| Reporting of Results |  |  |  |
| :---: | :---: | :---: | :---: |
| Overall Mean (g/100cc) | Low | High | $5 \%$ of Mean |
| 0.200 | 0.190 | 0.210 | 0.010 |

Calibration and control data are stored centrally.

```
Sample Name : QC2-1-A
Laboratory : Meridian
Injection Date : Aug 3, 2020
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 18.06762 | 0.2005 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 18.79276 | 0.1996 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 42.46585 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 43.37063 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : QC2-1-B
Laboratory : Meridian
Injection Date : Aug 3, 2020
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```

| $\begin{aligned} & \mathrm{pA} \\ & 32 \\ & 30 \\ & 28 \\ & 26 \\ & 24 \\ & 22 \\ & 20 \end{aligned}$ | FID1 A, Front Signal (026F2601.D) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | 1 1 | 4 |  | 6 |  | 8 | min |
|  | FID2 B, Back Signal (026F2601.D) | 4.290 - ethanol |  |  |  |  |  |
|  | $1 \quad 1 \quad 1$ | 4 |  | 6 |  |  |  |


| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 17.91791 | 0.2015 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 18.63644 | 0.2009 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 41.89214 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 42.71069 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

Laboratory No.: QC2-2 Analysis Date(s): 04 Aug 2020

|  | Column 1 <br> FID A | Column 2 <br> FID B | Column Precision | Mean Value | Sample A-B <br> Difference | Over-all Mean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Results | 0.2013 | 0.2009 | 0.0004 | 0.2011 |  |  |
| (g/00cc) | 0.1998 | 0.1995 | 0.0003 | 0.1996 | 0.0015 | 0.2003 |


| Analysis Method |
| :--- |
| Refer to Blood Alcohol Method \#1 |
|  |



Calibration and control data are stored centrally.

```
Sample Name : QC2-2-A
Laboratory : Meridian
Injection Date : Aug 4, 2020
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167
```



| \# Compound | Column | Area | Amount | Units |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | Ethanol | Column 1: | 18.11157 | 0.2013 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 1. | Ethanol | Column 2: | 18.89099 | 0.2009 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. |  |  |  |  |  |
| 3. n-Propanol | Column 1: | 42.39926 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |  |
| 4. n-Propanol | Column 2: | 43.29881 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |  |


| Sample Name | $:$ | QC2-2-B |
| :--- | :--- | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 4, 2020 |  |
| Method | $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :---: | :---: | :---: | :---: | :---: |
| 1. Ethanol | Column 1: | 18.20170 | 0.1998 | $\mathrm{g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 18.99921 | 0.1995 | $\mathrm{g} / 100 \mathrm{cc}$ |
| 3. n -Propanol | Column 1: | 42.93401 | 1.0000 | $\mathrm{g} / 100 \mathrm{cc}$ |
| 4. n -Propanol | Column 2: | 43.87828 | 1.0000 | g/100cc |

Laboratory No.: 0.08 FN04171701
Analysis Date(s): 03 Aug 2020

|  | Column 1 <br> FID A | Column 2 <br> FID B | Column Precision | Mean Value | Sample A-B <br> Difference | Over-all Mean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Results | 0.0808 | 0.0815 | 0.0007 | 0.0811 |  |  |
| $(\mathrm{~g} / \mathbf{1 0 0 c c})$ | 0.0804 | 0.0813 | 0.0009 | 0.0808 | 0.0003 | 0.0810 |

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 $:$ | Aug 3, 2020 |  |
| Method | ALCOHOL.M |  |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Ethanol | Column 1: | 7.01621 | 0.0808 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 7.17740 | 0.0815 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Column 1: | 41.53315 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 42.40545 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name | $:$ | 0.08 FN04171701-B |
| :--- | :--- | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 3, 2020 |  |
| Method | $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :---: | :---: | :---: | :---: | :---: |
| 1. Ethanol | Column 1: | 6.94346 | 0.0804 | $\mathrm{g} / 100 \mathrm{cc}$ |
| 2. Ethanol | Column 2: | 7.13464 | 0.0813 | g/100cc |
| 3. n -Propanol | Column 1: | 41.30838 | 1.0000 | g/100cc |
| 4. n -Propanol | Column 2: | 42.23626 | 1.0000 | g/100cc |


| Sample Name | $:$ | INTERNAL STD BLK |
| :--- | ---: | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 4, 2020 |  |
| 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 | g/100cc |
| 3. n -Propanol | Column 1: | 43.01685 | 1.0000 | g/100cc |
| 4. n -Propanol | Column 2: | 44.03774 | 1.0000 | $\mathrm{g} / 100 \mathrm{cc}$ |

Sequence File C: \Chem32\1\Data\08-04-20_INH \08-04-20_INH 2020-08-04 09-10-35\08-04-20_INH.S
Sample $\quad$ Summary


Method file name: $\quad \mathrm{C}: \backslash$ Chem32\1\Data $\backslash 08-04-20 \_$INH $\backslash 08-04-20 \_$INH 2020-08-04 09-10-35\SHUTDOWN.M


| Sample Name | $:$ | INTERNAL STD BLK 1 |
| :--- | :--- | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 4, 2020 |  |
| Method | ALCOHOL.M |  |
| Acc. Instrument: | CN11180014-CN11041167 |  |




| Sample Name | $:$ | DFE 1119140M |
| :--- | ---: | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date : | Aug 4, 2020 |  |
| Method | $:$ | ALCOHOL.M |
| Acq. Instrument: | CN11180014-CN11041167 |  |



| \# Compound | Column | Area | Amount | Units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| --2. | 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: | 42.26768 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Col |  |  |  |
| 4. n-Propanol | Column 2: | 43.85588 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |


| Sample Name | $:$ | INTERNAL STD BKL2 |
| :--- | :--- | :--- |
| Laboratory | $:$ | Meridian |
| Injection Date $:$ | Aug 4, 2020 |  |
| 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: | 41.24004 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 4. n-Propanol | Column 2: | 42.64863 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

## ISP Forensic Services Blood Alcohol Report

```
Sample Name : TFE 111914
Laboratory : Meridian
Injection Date : Aug 4, 2020
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: | 41.83076 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |
| 3. n-Propanol | Col |  |  |  |
| 4. n-Propanol | Column 2: | 43.16260 | 1.0000 | $\mathrm{~g} / 100 \mathrm{cc}$ |

```
Sample Name : INTERNAL STD BLK3
Laboratory : Meridian
Injection Date : Aug 4, 2020
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 | g/100cc |
| 3. n-Propanol | Column 1: | 36.53241 | 1.0000 | g/100cc |
| 4. n-Propanol | Column 2: | 37.37842 | 1.0000 | g/100cc |


[^0]:    Aqueous Controls

    | Control level | Target Value | Acceptable Range | Overall Results |  |
    | :---: | :---: | :---: | :---: | :---: |
    | 80 | 0.080 | $0.076-0.084$ | 0.081 | $\mathrm{~g} / 100 \mathrm{cc}$ |

