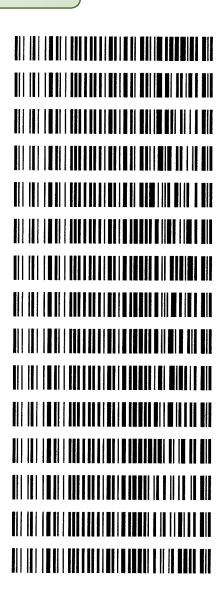
APPROVED

By John Garner at 4:35 pm, Jun 10, 2019

Worklist: 3451

| LA | B CASE | <u>ITEM</u> | TASK ID | DESCRIPTION |
|-----|----------|-------------|---------|------------------|
| C20 | 019-0903 | 1 | 151769 | Alcohol Analysis |
| C20 | 019-0904 | 1 | 151770 | Alcohol Analysis |
| C20 | 019-0905 | 1 | 151771 | Alcohol Analysis |
| C20 | 019-0912 | 1 | 151793 | Alcohol Analysis |
| C20 | 019-0944 | 1 | 152157 | Alcohol Analysis |
| C20 |)19-0978 | 1 | 152520 | Alcohol Analysis |
| C20 |)19-0979 | 1 | 152521 | Alcohol Analysis |
| C20 |)19-0980 | 1 | 152587 | Alcohol Analysis |
| C20 |)19-0982 | 1 | 152589 | Alcohol Analysis |
| C20 | 19-0993 | 1 | 152715 | Alcohol Analysis |
| C20 |)19-1010 | 1 | 152920 | Alcohol Analysis |
| C20 |)19-1017 | 1 | 152952 | Alcohol Analysis |
| C20 | 119-1054 | 1 | 153365 | Alcohol Analysis |
| C20 | 19-1084 | 1 | 153603 | Alcohol Analysis |
| C20 | 19-1085 | 1 | 153606 | Alcohol Analysis |



Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB 600A Liquid Processor/Dilutor Serial Number: ML600HC11379

Volatiles Quality Assurance Controls Run Date(s): 6/9/19

| 0.99999 | Column2 | 1.00000 | Column 1 | | Curve Fit: | |
|-----------------|----------------|---------|--------------|---------|---------------|--------------------------|
| OK | FN06041502 | Lot# | | Sep-20 | nent mixture: | Multi-Component mixture: |
| g/100cc | | | | | | |
| g/100cc |).1832-0.2238 |)35 (| 0.2035 | 1803028 | Jan-22 | Level 2 |
| 0.1990 g/100cc | | | | | | |
| g/100cc | | | | | | |
| 0.0802 g/100cc |).0731-0.0893 | | 0.0812 | 1801036 | Jan-22 | Level 1 |
| 0.0788 g/100cc | | | | | | |
| Overall Results | ceptable Range | Ac | Target Value | Lot# | Expiration | Control level |

| Ethanol Ca | Ethanol Calibration Reference Material | | | | | |
|------------------|---|------------------|----------|-------------------------|-----------|--------|
| Calibrator level | Target Value | Acceptable Range | Column 1 | umn 1Column 2 Precision | Precision | Mean |
| 50 | 0.050 | 0.045 - 0.055 | 0.0499 | 0.0499 | 0 | 0.0499 |
| 100 | 0.100 | 0.090 - 0.110 | 0.0999 | 0.0989 | 0.001 | 0.0994 |
| 200 | 0.200 | 0.180 - 0.220 | 0.1993 | 0.1984 | 6000.0 | 0.1988 |
| 300 | 0.300 | 0.270 - 0.330 | 0.3004 | 0.2998 | 0.0006 | 0.3001 |
| 500 | 0.500 | 0.450 - 0.550 | 0.5001 | 0.5010 | 0.0009 | 0.5005 |
| | | | 0.00 | | L | |

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

Revision: 1

BLALC Volatiles QA_QC Data Spreadsheet-v5.xls

Page: 1 of 1

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

Sample Summary

Sequence table: C:\Chem32\1\TEMP\AESEQ\QS_09.06.2019_08.02.12\6-9-2019.S

Data directory path: C:\Chem32\1\Data\6-9-2019-JJ

Logbook: C:\Chem32\1\Data\6-9-2019-JJ\6-9-2019.LOG

Sequence start: 6/9/2019 8:15:58 PM

Sequence Operator: SYSTEM Operator: SYSTEM

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

| Run # | Location | Inj # | Sample Name | Sample Amt [q/100cc] | Multip.* Dilution | File name | Cal | # Cmp |
|----------|----------|----------|----------------------------------|----------------------|-------------------|--------------------------|-----|----------|
| | l | | | | | | I I | |
| 1 | ' ' 1 | , | water | _ | • | 001F0101.D | 1 1 | 0 |
| | 2 | | VOL MIX FN-06041 | _ | | 002F0201.D | | 10 |
| | 3 | 1 | | _ | | 003F0301.D | | 2 |
| 4 | 4 | _ | QC-1-A | _ | | 004F0401.D | | 4 |
| 5 | 5 | | QC-1-B | - | | 005F0501.D | | 4 |
| 6 | 6 | | 0.08 FN04171701- | - | | 006F0601.D | | 4 |
| 7 | 7 | | 0.08 FN04171701- | - | | 007F0701.D | | 4 |
| . 8 | 8 | | C2019-0903-1-A | _ | | 008F0801.D | | 6 |
| 9 | 9 | 1 | C2019-0903-1-B | - | 1.0000 | 009F0901.D | | 6 |
| 10 | 10 | 1 | C2019-0904-1-A | ~ | 1.0000 | 010F1001.D | | 6 |
| 11 | 11 | 1 | C2019-0904-1-B | - | 1.0000 | 011F1101.D | | 6 |
| 12 | 12 | 1 | C2019-0905-1-A | - | 1.0000 | 012F1201.D | | 6 |
| 13 | 13 | 1 | C2019-0905-1-B | - | 1.0000 | 013F1301.D | | 6 |
| 14 | 14 | 1 | C2019-0912-1-A | - | 1.0000 | 014F1401.D | | 4 |
| 15 | 15 | 1 | C2019-0912-1-B | - | 1.0000 | 015F1501.D | | 4 |
| 16 | 16 | 1 | C2019-0944-1-A | _ | 1.0000 | 016F1601.D | | 4 |
| 17 | 17 | 1 | C2019-0944-1-B | - | 1.0000 | 017F1701.D | | 4 |
| 18 | 18 | 1 | C2019-0978-1-A | - | 1.0000 | 018F1801.D | | 8 |
| 19 | 19 | 1 | C2019-0978-1-B | - | 1.0000 | 019F1901.D | | 8 |
| | 20 | 1 | C2019-0979-1-A | - | 1.0000 | 020F2001.D | | 4 |
| 21 | 21 | 1 | C2019-0979-1-B | <u></u> | 1.0000 | 021F2101.D | | 4 |
| 22 | | 1 | C2019-0980-1-A | - | 1.0000 | 022F2201.D | | 6 |
| 23 | | | C2019-0980-1-B | - | | 023F2301.D | | 6 |
| | 24 | 1 | C2019-0982-1-A | - | | 024F2401.D | | 4 |
| 25 | | | C2019-0982-1-B | - | | 025F2501.D | | 4 |
| | 26 | | QC-2-A | - | | 026F2601.D | | 4 |
| 27 | 27 | | QC-2-B | - | | 027F2701.D | | 4 |
| 28 | 28 | | C2019-0993-1-A | - | | 028F2801.D | | 4 |
| 29 | 29 | | C2019-0993-1-B | - | | 029F2901.D | | 4 |
| | 30 | | C2019-1010-1-A | - | | 030F3001.D | | 4 |
| | 31 | | C2019-1010-1-B | | | 031F3101.D | | 4 |
| | 32 | | C2019-1017-1-A | - | | 032F3201.D | | 4 |
| 33 | 33 | | C2019-1017-1-B | _ | | 033F3301.D | | 4 4 |
| 34 | | | C2019-1054-1-A | *** | | 034F3401.D | | |
| 35 | | | C2019-1054-1-B C2019-1084-1-A | _ | | 035F3501.D 036F3601.D | | 4 2 |
| 36 37 | | | C2019-1084-1-A | _ | | 037F3701.D | | 2 |
| 38 | | | C2019-1084-1-B | _ | | 038F3801.D | | 2 |
| 39 | | | C2019-1085-1-B | _ | | 039F3901.D | | 2 |
| 40 | | 1. | QC 2 A 91 QC-1 | | | 040F4001.D | | 4 |
| 41 | | | $QC_{-2} - B(Y)$ | = | | 041F4101.D | | 4 |
| 42 | | | ISTD BLANK | _ | | 042F4201.D | | 2 |
| 43 | | | water | _ | | 043F4301.D | | 0 |
| 44 | | | 0.05 | _ | | 044F4401.D | | 4 |
| 45 | | | 0.100 | _ | | 045F4501.D | | 4 |
| 46 | • | | 0.200 | | | 046F4601.D | | 4 |
| | | | | | | | | |

| Run | Location | Inj | Sample | Name | Sample Amt | Multip.* | File name | Cal | # |
|-----|----------|-----|--------|------|------------|----------|------------|-----|-----|
| # | | # | | | [g/100cc] | Dilution | | | Cmp |
| | | | | | | | | | |
| 47 | 47 | 1 | 0.300 | · | - | 1.0000 | 047F4701.D | | 4 |
| 48 | 48 | 1 | .0500 | | _ | 1.0000 | 048F4801.D | | 4 |

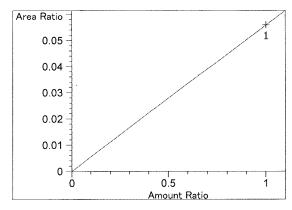
```
______
                     Calibration Table
_______
                 General Calibration Setting
Calib. Data Modified : Sunday, June 09, 2019 7:49:58 PM
Signals calculated separately: No
Rel. Reference Window: 0.000 %
Abs. Reference Window: 0.100 min
Rel. Non-ref. Window: 0.000 %
Abs. Non-ref. Window: 0.100 min
Uncalibrated Peaks: not reported
Partial Calibration: No recalibration if peaks missing
              : Linear
: Forced
Curve Type
Origin
Weight
                       Equal
Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%
Calibration Report Options :
   Printout of recalibrations within a sequence:
      Calibration Table after Recalibration
      Normal Report after Recalibration
   If the sequence is done with bracketing:
      Results of first cycle (ending previous bracket)
Default Sample ISTD Information (if not set in sample table):
ISTD ISTD Amount Name
 # [g/100cc]
----
       1.00000 n-Propanol
       1.00000 n-Propanol
                      Signal Details
______
Signal 1: FID1 A, Front Signal
Signal 2: FID2 B, Back Signal
______
                      Overview Table
```

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```
Area Rsp.Factor Ref ISTD #
  RT Siq Lvl Amount
                                                Compound
            [q/100cc]
1.00000
                      5.00000 2.00000e-1 No No 2 Difluoroethane
                      5.00000 2.00000e-1 No No 1 Difluoroethane
 2.000 1 1
             1.00000
                      3.69669 2.70512e-1 No No 1 Methanol
 2.494 1 1
             1.00000
 2.772 1 1
             1.00000
                    3.19311 3.13174e-1 No No 1 Acetaldehyde
 2.797 2 1
             1.00000
                     3.10575 3.21983e-1 No No 2 Acetaldehyde
                     8.77619 5.69724e-3 No No 1 Ethanol
 3.107 1 1 5.00000e-2
         2 1.00000e-1
                     17.74381 5.63577e-3
         3 2.00000e-1 35.55938 5.62439e-3
         4 3.00000e-1 53.53571 5.60374e-3
         5 5.00000e-1 89.29799 5.59923e-3
                    4.26062 2.34707e-1 No No 2 Methanol
 3.211 2 1
             1.00000
             1.00000 9.73055 1.02769e-1 No No 1 Isopropyl alcohol
 3.715 1 1
 4.179 2 1 5.00000e-2
                     8.84320 5.65406e-3 No No 2 Ethanol
         2 1.00000e-1 17.76432 5.62926e-3
         3 2.00000e-1 35.59586 5.61863e-3
         4 3.00000e-1 53.61593 5.59535e-3
         5 5.00000e-1 89.36402 5.59509e-3
            1.00000 6.49940 1.53860e-1 No No 1 Acetone
 4.530 1 1
             1.00000 6.89301 1.45075e-1 No No 2 Acetone
 4.549 2 1
 4.870 2 1
             1.00000 10.70642 9.34019e-2 No No 2 Isopropyl alcohol
             1.00000 89.48758 1.11747e-2 No Yes 1 n-Propanol
 4.941 1 1
         2
             1.00000 90.27682 1.10770e-2
             1.00000 90.71432 1.10236e-2
         3
         4
             1.00000 90.60426 1.10370e-2
         5
             1.00000 90.77634 1.10161e-2
 7.620 2
        1
             1.00000 89.20023 1.12107e-2 No Yes 2 n-Propanol
             1.00000 90.27976 1.10767e-2
         2
         3
             1.00000 90.23859 1.10817e-2
             1.00000 89.93332 1.11193e-2
             1.00000
                     89.69579 1.11488e-2
    _____
                      Peak Sum Table
***No Entries in table***
Calibration Curves
______
Area Ratio
                             Difluoroethane at exp. RT: 2.000
                             FID2 B, Back Signal
  0.05
                             Correlation:
                                                1,00000
                             Residual Std. Dev.:
                                               0.00000
  0.04
                             Formula: y = mx
  0.03
                                        5.60537e-2
                                  m:
                                  x: Amount Ratio
  0.02
                                  y: Area Ratio
  0.01
               0.5
```



Amount Ratio

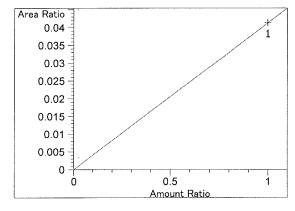


Difluoroethane at exp. RT: 2.000 FID1 A, Front Signal

Correlation: 1.00000 Residual Std. Dev.: 0.00000

Formula: y = mx

5.58737e-2 m: x: Amount Ratio y: Area Ratio



Methanol at exp. RT: 2.494

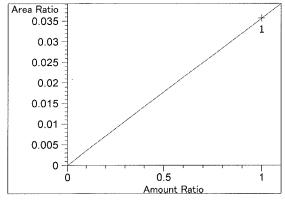
FID1 A, Front Signal Correlation:

1.00000 Residual Std. Dev.: 0.00000

Formula: y = mx

4.13096e-2 m: x: Amount Ratio

y: Area Ratio



Acetaldehyde at exp. RT: 2.772

FID1 A, Front Signal

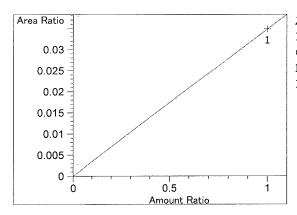
Correlation: 1.00000 Residual Std. Dev.: 0.00000

Formula: y = mx

m : 3.56822e-2

x: Amount Ratio

y: Area Ratio



Acetaldehyde at exp. RT: 2.797

FID2 B, Back Signal

Correlation: 1.00000

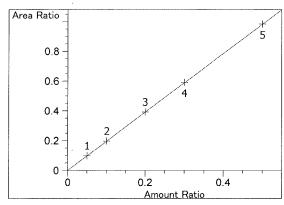
Residual Std. Dev.: 0.00000

Formula: y = mx

m: 3.48177e-2

x: Amount Ratio

y: Area Ratio



Ethanol at exp. RT: 3.107

FID1 A, Front Signal

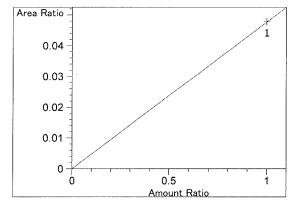
Correlation: 1.00000
Residual Std. Dev.: 0.00083

Formula: y = mx

m: 1.96707

x: Amount Ratio

y: Area Ratio



Methanol at exp. RT: 3.211

FID2 B, Back Signal

Correlation: 1.00000

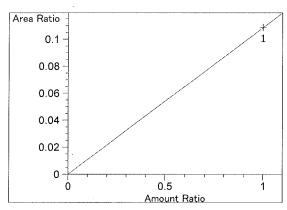
Residual Std. Dev.: 0.00000

Formula: y = mx

m: 4.77647e-2

x: Amount Ratio

y: Area Ratio



Isopropyl alcohol at exp. RT: 3.715

FID1 A, Front Signal

Correlation: 1.00000

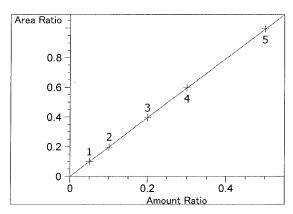
Residual Std. Dev.: 0.00000

Formula: y = mx

m: 1.08736e-1

x: Amount Ratio

y: Area Ratio



Ethanol at exp. RT: 4.179

FID2 B, Back Signal

Correlation: 0.99999

Residual Std. Dev.: 0.00219

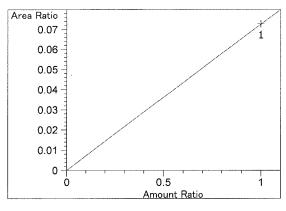
Formula: y = mx

m: 1.98861

x: Amount Ratio

y: Area Ratio

S/)



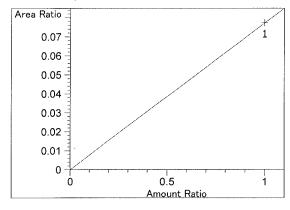
Acetone at exp. RT: 4.530 FID1 A, Front Signal

Correlation: 1.00000 Residual Std. Dev.: 0.00000

Formula: y = mx

m: 7.26291e-2 x: Amount Ratio

y: Area Ratio



Acetone at exp. RT: 4.549

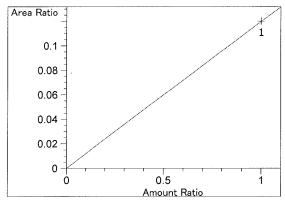
FID2 B, Back Signal

Correlation: 1.00000 Residual Std. Dev.: 0.00000

Formula: y = mx

m: 7.72757e-2
x: Amount Ratio

y: Area Ratio



Isopropyl alcohol at exp. RT: 4.870

FID2 B, Back Signal

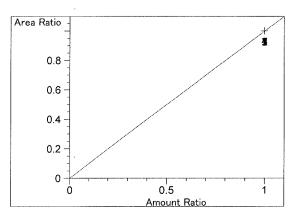
Correlation: 1.00000 Residual Std. Dev.: 0.00000

Formula: y = mx

m: 1.20027e-1

x: Amount Ratio

y: Area Ratio



n-Propanol at exp. RT: 4.941

FID1 A, Front Signal

Correlation: 1.00000

Residual Std. Dev.: 0.00000

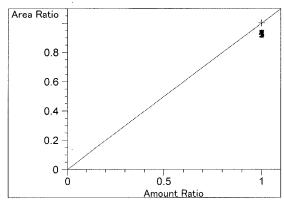
Formula: y = mx

m: 1.00000

x: Amount Ratio

y: Area Ratio

71



n-Propanol at exp. RT: 7.620

FID2 B, Back Signal

Correlation: 1.00000 Residual Std. Dev.: 0.00000

Formula: y = mx

m: 1.00000
x: Amount Ratio
y: Area Ratio

Sample Summary

Sequence table: C:\Chem32\1\TEMP\AESEQ\QS_09.06.2019_06.31.40\6-9-19cal.S

Data directory path: C:\Chem32\1\Data\6-9-19calJJ

Logbook: C:\Chem32\1\Data\6-9-19calJJ\6-9-19cal.LOG

Sequence start: 6/9/2019 6:45:22 PM

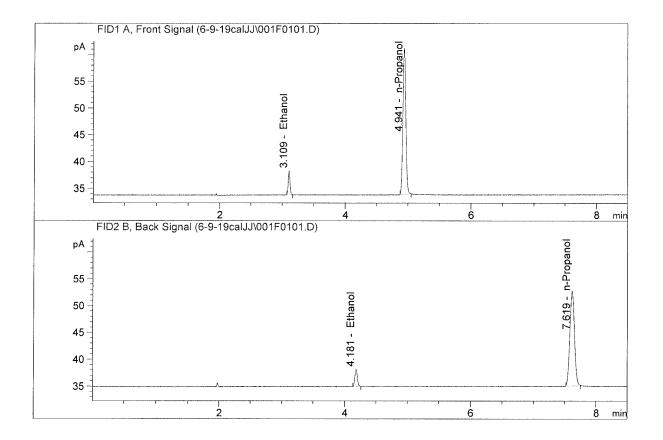
Sequence Operator: SYSTEM Operator: SYSTEM

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

| Run # | Location | Inj # | Sample Name | Sample Amt [g/100cc] | _ | File name | Cal | # Cmp |
|----------|----------|----------|-------------|----------------------|--------|------------|-----|----------|
| | | | | | | | | |
| 1 | 1 | 1 | 0.05 | - | 1.0000 | 001F0101.D | * | 4 |
| 2 | 2 | 1 | 0.100 | - | 1.0000 | 002F0201.D | * | 4 |
| 3 | 3 | 1 | 0.200 | - | 1.0000 | 003F0301.D | * | 4 |
| 4 | 4 | 1 | 0.300 | - | 1.0000 | 004F0401.D | * | 4 |
| 5 | 5 | 1 | 0.500 | - | 1.0000 | 005F0501.D | * | 4 |
| 6 | 6 | 1 | blank | _ | 1.0000 | 006F0601.D | | 2 |

Sample Name : 0.05

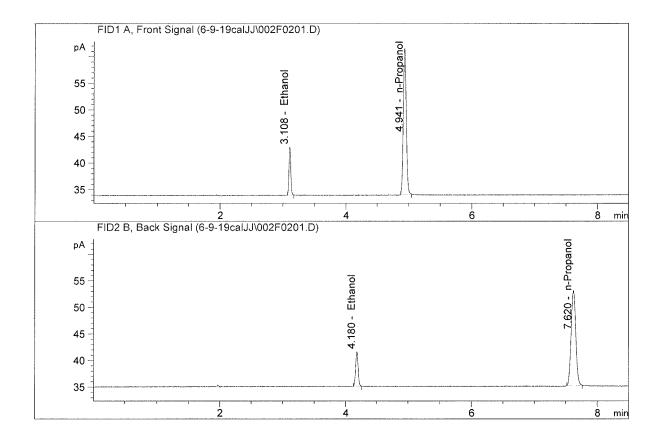
Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|--------------|-----------|----------|--------|---------|
| | - | | | | |
| 1. | Ethanol | Column 1: | 8.77619 | 0.0499 | g/100cc |
| 2. | Ethanol | Column 2: | 8.84320 | 0.0499 | g/100cc |
| 3. | n-Propanol | Column 1: | 89.48758 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 89.20023 | 1.0000 | g/100cc |

Sample Name : 0.100

Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M

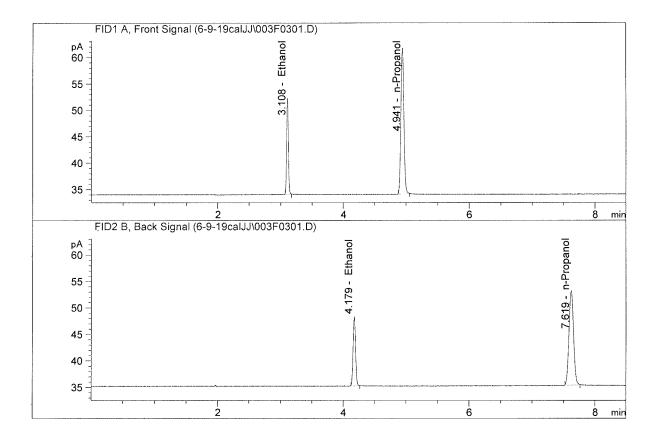


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 17.74381 | 0.0999 | g/100cc |
| 2. | Ethanol | Column 2: | 17.76432 | 0.0989 | g/100cc |
| 3. | n-Propanol | Column 1: | 90.27682 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 90.27976 | 1.0000 | g/100cc |



Sample Name : 0.200

Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M

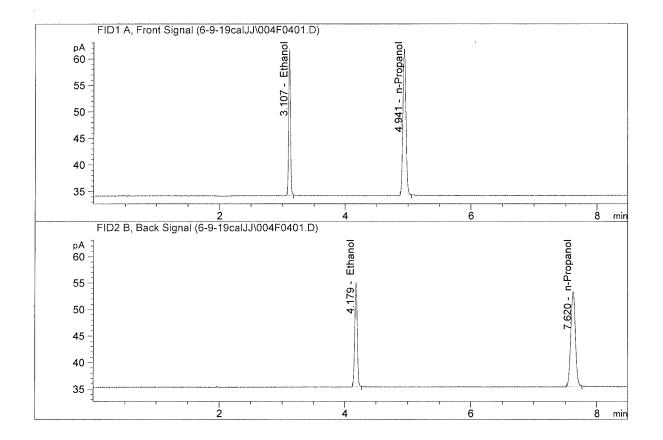


| # | Compound | Column | | Area | Amount | Units |
|----|------------|----------|-------|----------|--------|---------|
| 1. | Ethanol | Column 1 | .: 35 | .55938 (| 0.1993 | g/100cc |
| 2. | Ethanol | Column 2 | 2: 35 | .59586 | 0.1984 | g/100cc |
| 3. | n-Propanol | Column 1 | .: 90 | .71432 | L.0000 | g/100cc |
| 4. | n-Propanol | Column 2 | 2: 90 | .23859 | L.0000 | g/100cc |



Sample Name : 0.300

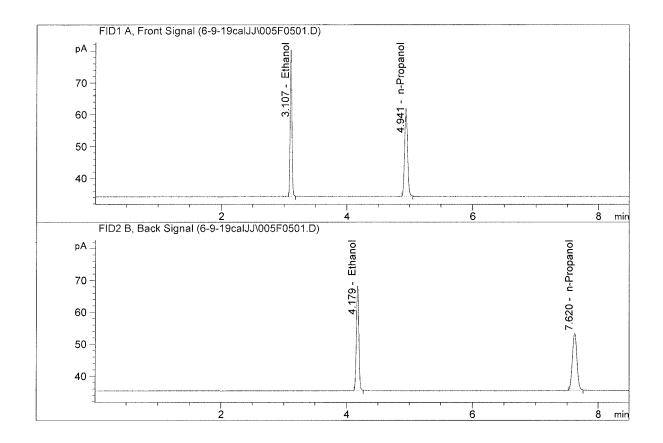
Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M



| # | Compound | Column | | Area | Amount | Units |
|----|------------|--------|----|----------|--------|---------|
| 1. | Ethanol | Column | 1: | 53.53571 | 0.3004 | g/100cc |
| 2. | Ethanol | Column | 2: | 53.61593 | 0.2998 | g/100cc |
| 3. | n-Propanol | Column | 1: | 90.60426 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column | 2: | 89.93332 | 1.0000 | g/100cc |

Sample Name : 0.500

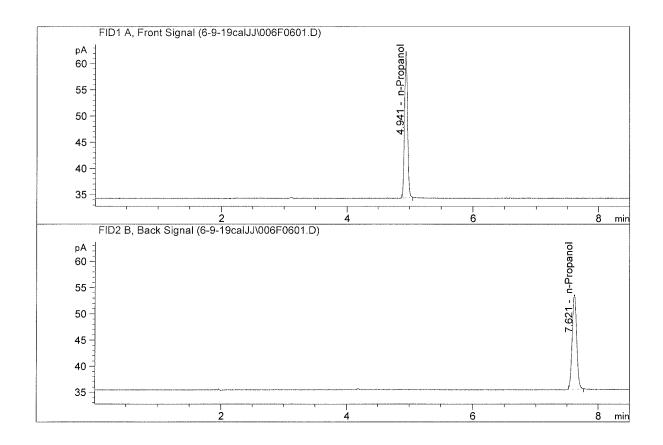
Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 89.29799 | 0.5001 | q/100cc |
| | Ethanol | Column 2: | 89.36402 | 0.5010 | g/100cc |
| 3. | n-Propanol | Column 1: | 90.77634 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 89.69579 | 1.0000 | g/100cc |

Sample Name : blank

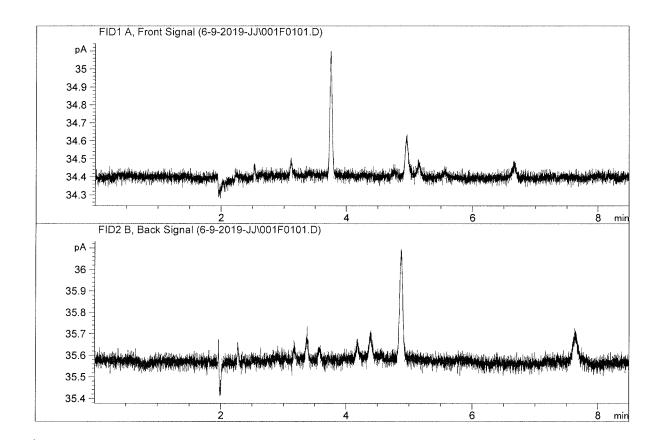
Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | q/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 91.53770 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 91.05978 | 1.0000 | g/100cc |

Sample Name : water

Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M

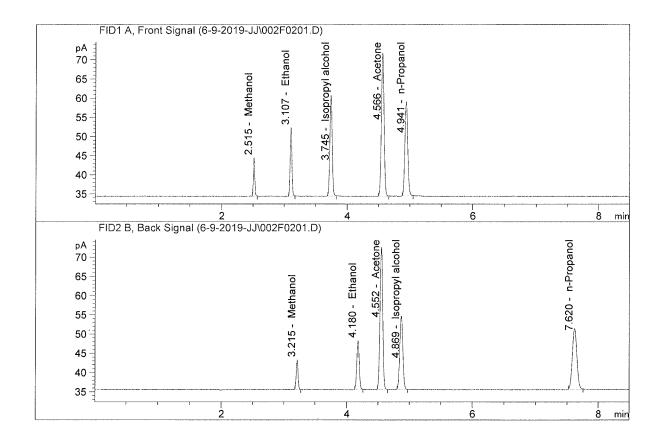


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|---------|--------|---------|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 4. | n-Propanol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



Sample Name : VOL MIX FN-06041502

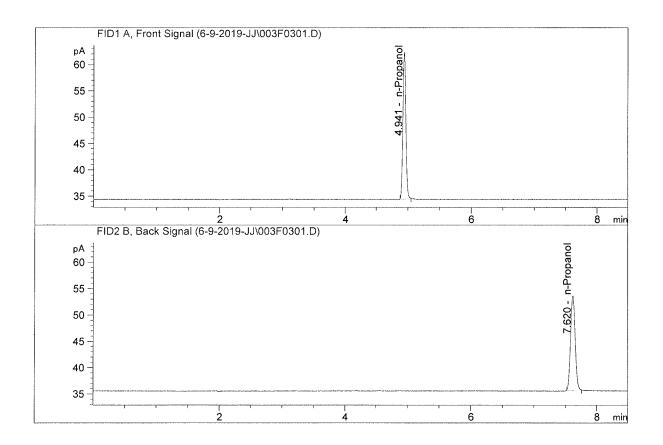
Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 34.99635 | 0.2206 | g/100cc |
| 2. | Ethanol | Column 2: | 34.95907 | 0.2206 | g/100cc |
| 3. | n-Propanol | Column 1: | 80.63120 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 79.70235 | 1.0000 | g/100cc |



Sample Name : ISTD BLANK
Laboratory : Coeur d' Alene
Injection Date : Jun 9, 2019
Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1 | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| т. | ECHAHOL | Column 1: | 0.00000 | 0.0000 | 9/10000 |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 91.04556 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 90.57236 | 1.0000 | g/100cc |

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC-1 Analysis Date(s): 09 Jun 2019

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|---------------|
| Sample Results | 0.0787 | 0.0785 | 0.0002 | 0.0786 | 0.0788 |
| (g/100cc) | 0.0794 | 0.0789 | 0.0005 | 0.0791 | 0.0788 |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: Alcohol.m

Hamilton Auto-Dilutor Serial Number: ML600HC11379

| Reporting of Results | Uncertainty of Measurement (UM%): 5.00% | | |
|------------------------|---|-------|------------|
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
| 0.078 | 0.074 | 0.082 | 0.004 |

| Reported Result | |
|-----------------|--|
| 0.078 | |

Page: 1 of 1

Calibration and control data are stored centrally.

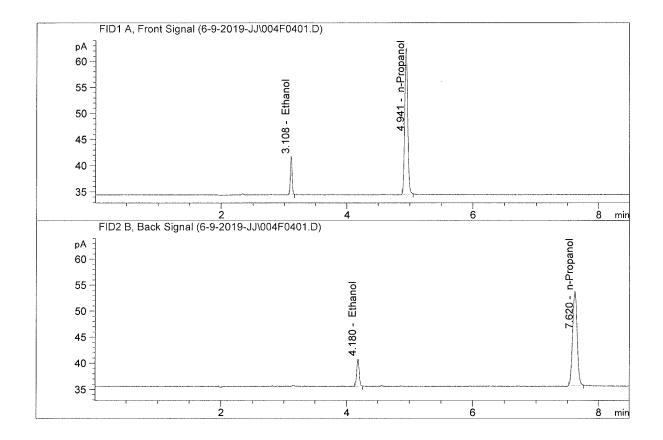
Revision: 1

Issue Date: 01/04/2019

Issuing Authority: Quality Manager

Sample Name : QC-1-A

Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M

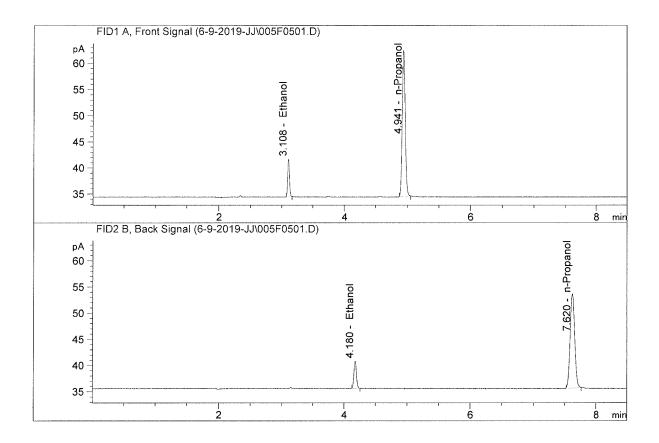


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| | | | | | |
| 1. | Ethanol | Column 1: | 14.26041 | 0.0787 | g/100cc |
| 2. | Ethanol | Column 2: | 14.27632 | 0.0785 | g/100cc |
| 3. | n-Propanol | Column 1: | 92.09785 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 91.45859 | 1.0000 | g/100cc |



Sample Name : QC-1-B

Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 14.31132 | 0.0794 | g/100cc |
| 2. | Ethanol | Column 2: | 14.29057 | 0.0789 | g/100cc |
| 3. | n-Propanol | Column 1: | 91.58770 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 91.02373 | 1.0000 | g/100cc |



VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.08 FN04171701 Analysis Date(s): 09 Jun 2019

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|---------------|
| Sample Results | 0.0797 | 0.0795 | 0.0002 | 0.0796 | 0.0800 |
| (g/100cc) | 0.0809 | 0.0801 | 0.0008 | 0.0805 | |

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: ML600HC11379

| Reporting of Results | Uncertainty of Measurement (UM%): 5.00% | | | |
|------------------------|---|-------|------------|--|
| Overall Mean (g/100cc) | Low | High | 5% of Mean | |
| 0.080 | 0.076 | 0.084 | 0.004 | |

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

Page: 1 of 1

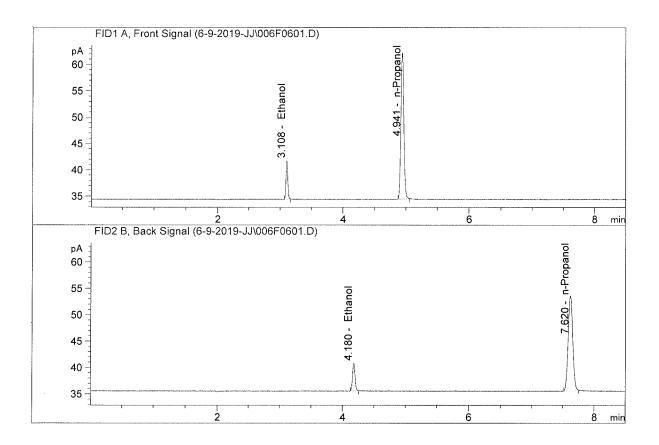
Calibration and control data are stored centrally.

Revision: 1

Issue Date: 01/04/2019

Issuing Authority: Quality Manager

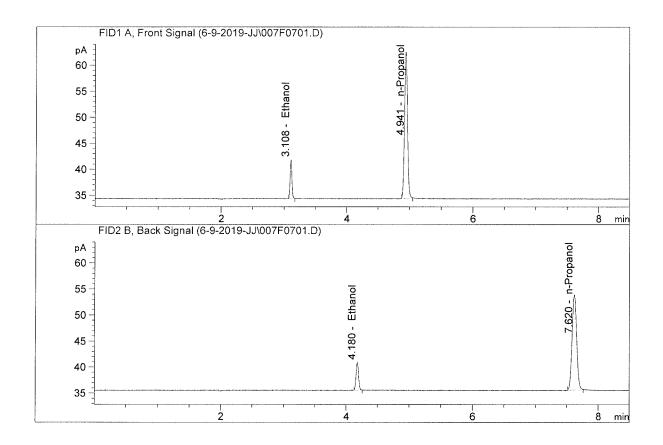
Sample Name : 0.08 FN04171701-A Laboratory : Coeur d'Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 14.31771 | 0.0797 | g/100cc |
| 2. | Ethanol | Column 2: | 14.32326 | 0.0795 | g/100cc |
| 3. | n-Propanol | Column 1: | 91.31330 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 90.57057 | 1.0000 | g/100cc |



Sample Name : 0.08 FN04171701-B Laboratory : Coeur d' Alene Injection Date : Jun 9, 2019 Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| | | | | | |
| 1. | Ethanol | Column 1: | 14.67994 | 0.0809 | g/100cc |
| 2. | Ethanol | Column 2: | 14.64181 | 0.0801 | g/100cc |
| 3. | n-Propanol | Column 1: | 92.30214 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 91.88639 | 1.0000 | g/100cc |

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC-2 Analysis Date(s): 10 Jun 2019

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|------------------|------------|---------------|--|
| Sample Results | 0.2001 | 0.2008 | 0.0007 | 0.2004 | 0.1990 | |
| (g/100cc) | 0.1974 | 0.1979 | 0.0005 | 0.1976 | 0.1990 | |

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: ML600HC11379

| Reporting of Results | Uncertainty of Measurement (UM%): 5.00% | | | |
|------------------------|---|-------|------------|--|
| Overall Mean (g/100cc) | Low | High | 5% of Mean | |
| 0.199 | 0.189 | 0.209 | 0.010 | |

| Reported Result | |
|-----------------|--|
| 0.199 | |

Page: 1 of 1

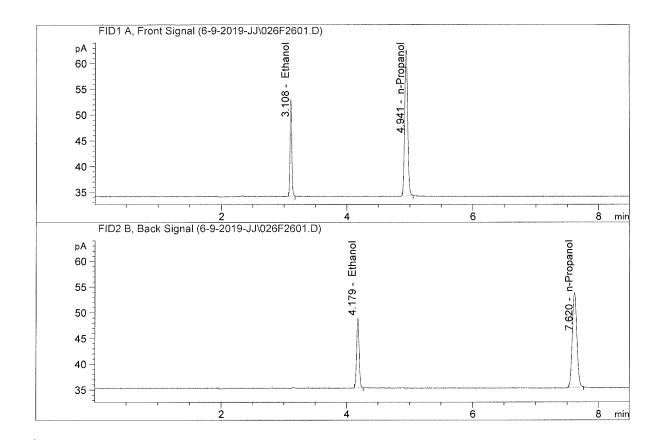
Calibration and control data are stored centrally.

Revision: 14 Issue Date: 01/04/2019

Issuing Authority: Quality Manager

Sample Name : QC-2-A

Laboratory : Coeur d' Alene Injection Date : Jun 10, 2019 Method : ALCOHOL.M

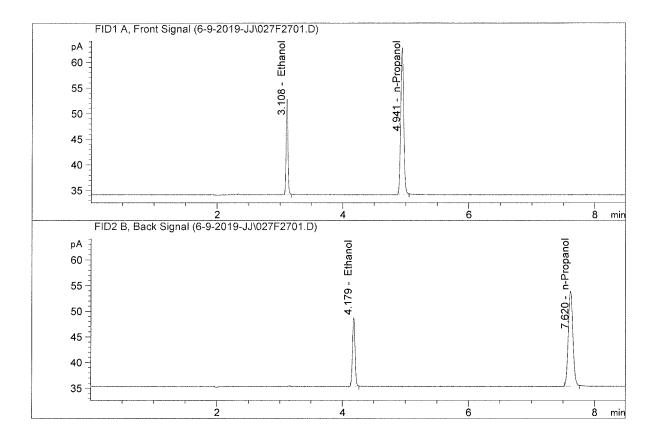


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| | | | | | |
| 1. | Ethanol | Column 1: | 36.83308 | 0.2001 | g/100cc |
| 2. | Ethanol | Column 2: | 37.02594 | 0.2008 | g/100cc |
| 3. | n-Propanol | Column 1: | 93.59265 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 92.72155 | 1.0000 | g/100cc |



Sample Name : QC-2-B

Laboratory : Coeur d' Alene Injection Date : Jun 10, 2019 Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 36.48096 | 0.1974 | g/100cc |
| 2. | Ethanol | Column 2: | 36.66457 | 0.1979 | g/100cc |
| 3. | n-Propanol | Column 1: | 93.95741 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 93.16154 | 1.0000 | g/100cc |



VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC-21 99 Analysis Date(s): 10 Jun 2019

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|------------------|------------|---------------|--|
| Sample Results | 0.0800 | 0.0802 | 0.0002 | 0.0801 | 0.0802 | |
| (g/100cc) | 0.0802 | 0.0804 | 0.0002 | 0.0803 | 0.0802 | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: Alcohol.m

Hamilton Auto-Dilutor Serial Number: ML600HC11379

| Reporting of Results | Uncertainty of Measurement (UM%): 5.00% | | |
|------------------------|---|-------|------------|
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
| 0.080 | 0.076 | 0.084 | 0.004 |

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

Page: 1 of 1

Calibration and control data are stored centrally.

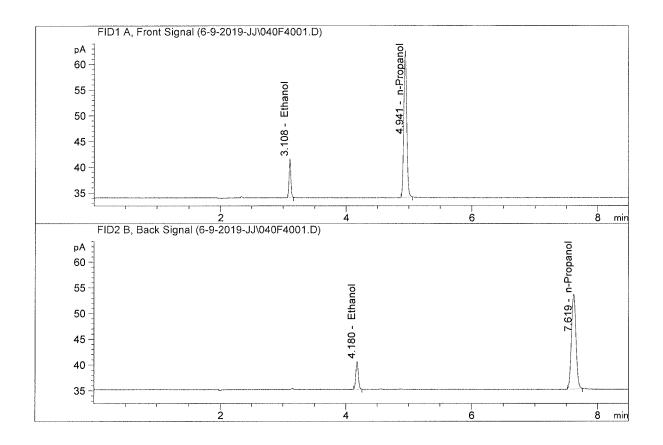
Revision: 1

Issue Date: 01/04/2019
Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

Sample Name : QC-Z-A

Laboratory : Coeur d' Alene Injection Date : Jun 10, 2019 Method : ALCOHOL.M

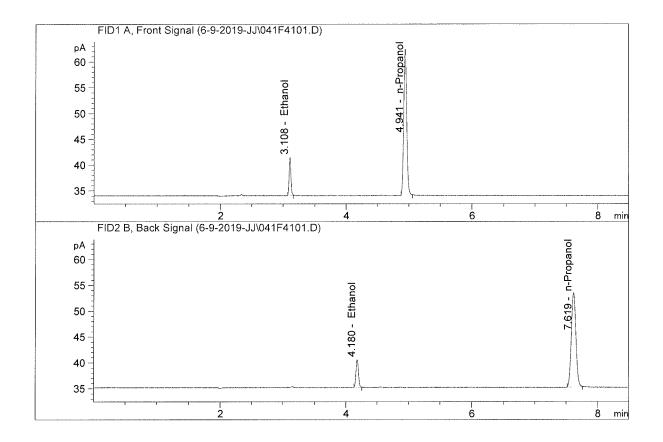


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 14.76336 | 0.0800 | g/100cc |
| 2. | Ethanol | Column 2: | 14.81789 | 0.0802 | g/100cc |
| 3. | n-Propanol | Column 1: | 93.87208 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 92.90201 | 1.0000 | g/100cc |

ISP Forensic Services Blood Alcohol Report

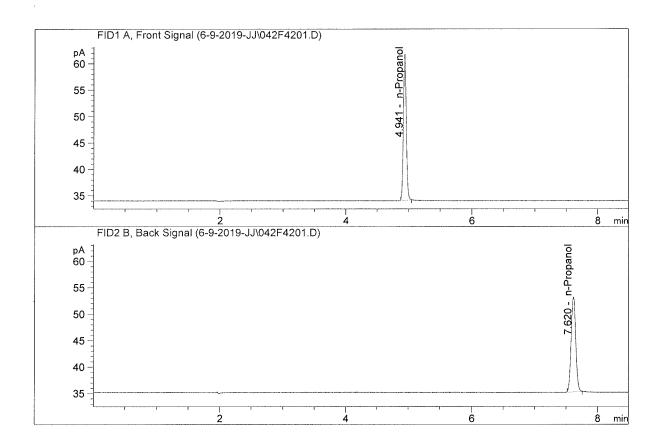
Sample Name : QC-Z-B

Laboratory : Coeur d' Alene Injection Date : Jun 10, 2019 Method : ALCOHOL.M



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 14.69520 | 0.0802 | g/100cc |
| 2. | Ethanol | Column 2: | 14.74603 | 0.0804 | g/100cc |
| 3. | n-Propanol | Column 1: | 93.11027 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 92.19047 | 1.0000 | g/100cc |

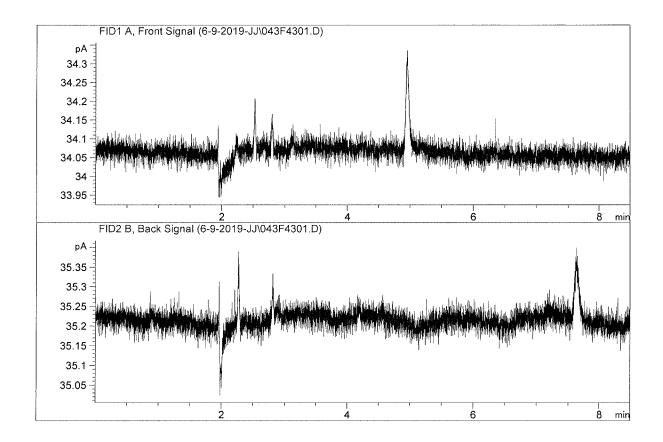
Sample Name : ISTD BLANK
Laboratory : Coeur d' Alene
Injection Date : Jun 10, 2019
Method : ALCOHOL.M



| # | Compound | Column | | Area | Amount | Units |
|----|------------|----------|----|----------|--------|---------|
| 1. | Ethanol | Column | 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column | 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column | 1: | 90.93388 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column : | 2: | 90.30281 | 1.0000 | g/100cc |

water Sample Name :

Laboratory : Coeur d' Alene
Injection Date : Jun 10, 2019
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



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