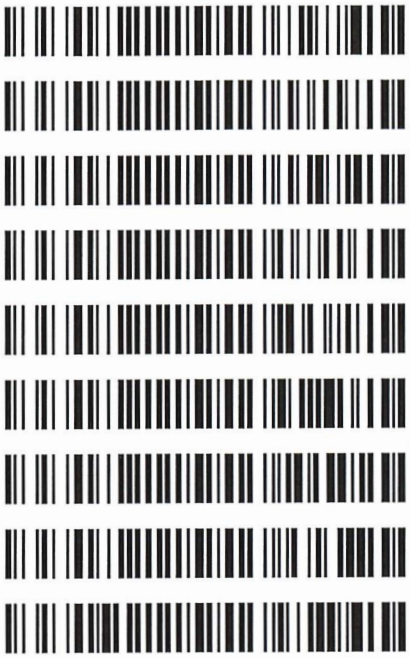
6/14/2022

**Worklist: 5989**

| LAB_CASE | ITEM | ITEM_TYPE | DESCRIPTION |
|---|---|---|---|
| C2022-1090 | 1 | BCK | Alcohol Analysis |
| C2022-1094 | 1 | BCK | Alcohol Analysis |
| C2022-1102 | 1 | BCK | Alcohol Analysis |
| C2022-1117 | 1 | BCK | Alcohol Analysis |
| C2022-1179 | 1 | BCK | Alcohol Analysis |
| C2022-1185 | 1 | BCK | Alcohol Analysis |
| C2022-1206 | 1 | BCK | Alcohol Analysis |
| C2022-1223 | 1 | BCK | Alcohol Analysis |
| M2022-2071 | 1 | UCK | Alcohol Analysis |



99

# Region 1 CDA Blood Alcohol Analysis Batch Table

Shimadzu GC-2030 Serial #C12255850700
Shimadzu HS-20 Serial #C12595700181
Lab Solutions Software Ver. 5.99


| Vial# | Sample Name | Sample Type | Level# | Method File |
|---|---|---|---|---|
| 1 | INT STD BLK 1 | 0:Unknown | 0 | ALCOHOL.GCM |
| 2 | 0.050 | 1:Standard:(R) | 1 | ALCOHOL.GCM |
| 3 | 0.100 | 1:Standard:(R) | 2 | ALCOHOL.GCM |
| 4 | 0.200 | 1:Standard:(R) | 3 | ALCOHOL.GCM |
| 5 | 0.300 | 1:Standard:(R) | 4 | ALCOHOL.GCM |
| 6 | 0.500 | 1:Standard:(R) | 5 | ALCOHOL.GCM |
| 7 | INT STD BLK 2 | 0:Unknown | 0 | ALCOHOL.GCM |
| 8 | MULTI-COMP MIX | 1:Standard:(R) | 6 | ALCOHOL.GCM |
| 9 | INT STD BLK 3 | 0:Unknown | 0 | ALCOHOL.GCM |
| 10 | QC-1-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 11 | QC-1-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 12 | 0.08 QA - A | 0:Unknown | 0 | ALCOHOL.GCM |
| 13 | 0.08 QA - B | 0:Unknown | 0 | ALCOHOL.GCM |
| 14 | C2022-1090-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 15 | C2022-1090-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 16 | C2022-1094-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 17 | C2022-1094-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 18 | C2022-1102-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 19 | C2022-1102-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 20 | C2022-1117-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 21 | C2022-1117-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 22 | C2022-1179-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 23 | C2022-1179-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 24 | C2022-1185-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 25 | C2022-1185-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 26 | C2022-1206-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 27 | C2022-1206-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 28 | C2022-1223-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 29 | C2022-1223-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 30 | M2022-2071-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 31 | M2022-2071-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 32 | QC-2-1-A | 0:Unknown | 0 | ALCOHOL.GCM |
| 33 | QC-2-1-B | 0:Unknown | 0 | ALCOHOL.GCM |
| 34 | INT STD BLK 4 | 0:Unknown | 0 | ALCOHOL.GCM |

99

REVIEWED
By Rachel Cutler at 3:24 pm, Jun 15, 2022

## Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

*Analytical Method(s): 1.0*

*Device: Hamilton MICROLAB Liquid Processor/Dilutor Serial Number: ML600HC11379*

**Volatiles Quality Assurance Controls** **Run Date(s): 6-7-2022**

**Calibration Date:** *(if different)*

**Worklist #: 5989**

| Control level | Expiration | Lot # | Target Value | Acceptable Range | Overall Results |
|---|---|---|---|---|---|
| Level 1 | Jul-23 | 19070006 | 0.0764 | 0.0688-0.0840 | 0.0710 g/100cc |
| | | | | | g/100cc |
| | | | | | g/100cc |
| Level 2 | Jul-23 | 19070007 | 0.2170 | 0.1953-0.2387 | 0.2107 g/100cc |
| | | | | | g/100cc |
| | | | | | g/100cc |

| Multi-Component mixture: | Exp: | 22-Jul | Lot # | FN07101701 | OK |
|---|---|---|---|---|---|
| **Curve Fit:** | | **Column 1** | 0.99966 | **Column2** | 0.99960 |

**Ethanol Calibration Reference Material**

| Calibrator level | Target Value | Acceptable Range | Column 1 | Column 2 | Precision | Mean |
|---|---|---|---|---|---|---|
| 50 | 0.050 | 0.045 - 0.055 | 0.0459 | 0.0455 | 0.0004 | 0.0457 |
| 100 | 0.100 | 0.090 - 0.110 | 0.1016 | 0.1004 | 0.0012 | 0.101 |
| 200 | 0.200 | 0.180 - 0.220 | 0.1959 | 0.1944 | 0.0015 | 0.1951 |
| 300 | 0.300 | 0.270 - 0.330 | 0.2960 | 0.2955 | 0.0005 | 0.2957 |
| 400 | 0.400 | 0.360 - 0.440 | | | 0 | #DIV/0! |
| 500 | 0.500 | 0.450 - 0.550 | 0.5041 | 0.5052 | 0.0011 | 0.5046 |

| Internal Standard | Average | (-) 20% | (+) 20% |
|---|---|---|---|
| N-Propanol: | 240345.5 | 192276.4 | 288414.6 |

**Aqueous Controls**

| Control level | Target Value | Acceptable Range | Overall Results |
|---|---|---|---|
| 80 | 0.080 | 0.076 - 0.084 | 0.077 g/100cc |

# Internal Standard Monitoring Worksheet

**Worklist #:** **5989** **Run Date(s):** **6-7-2022**

| Internal Standard Solution: Lot# A014463901 | Prep Date: 4/28/22 | Exp Date: 10/28/22 |
|---|---|---|

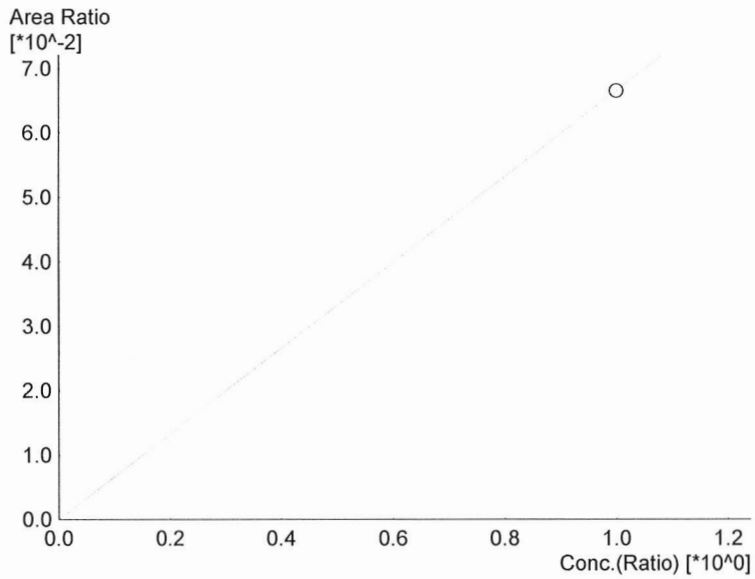
| Sample Name | Column 1 Value | Column 2 Value | Average |
|---|---|---|---|
| 0.080 | 221220 | 241795 | 231507.5 |
| 0.080 | 216484 | 237514 | 226999 |
| QC1 | 222092 | 243710 | 232901 |
| QC1 | 221926 | 243373 | 232649.5 |
| QC1 | | | #DIV/0! |
| QC1 | | | #DIV/0! |
| QC1 | | | #DIV/0! |
| QC1 | | | #DIV/0! |
| QC2 | 248432 | 275503 | 261967.5 |
| QC2 | 242852 | 269245 | 256048.5 |
| QC2 | | | #DIV/0! |
| QC2 | | | #DIV/0! |
| QC2 | | | #DIV/0! |
| QC2 | | | #DIV/0! |

| Combined Average | (-)20% | (+)20% |
|---|---|---|
| 240345.5 | 192276.4 | 288414.6 |

# Calibration Table

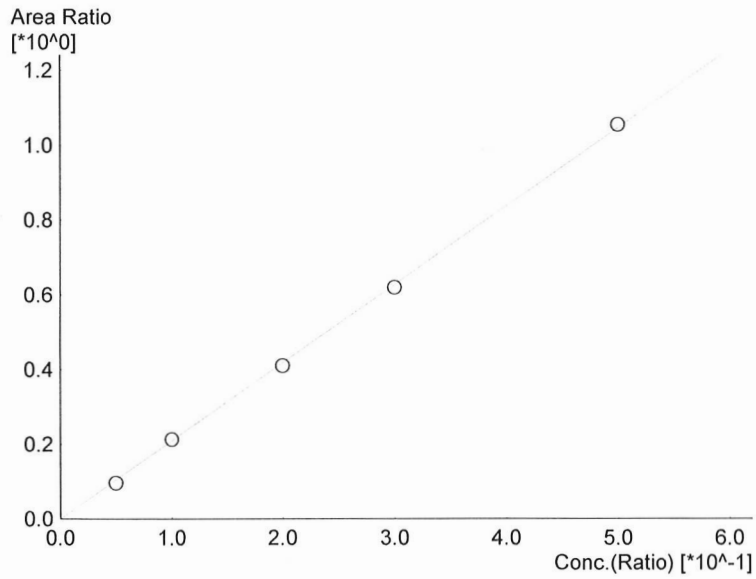
Laboratory : Coeur d' Alene
Instrument Name : Nexis GC2030
Instrument Serial # : C12255850700 / C12595700181

<<Data File>>
Method File :C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Batch File :C:\LabSolutions\Data\6-7-22\6-7-22.gcb
Date Acquired :6/7/2022 10:42:33 AM
Date Created :6/7/2022 10:39:22 AM
Date Modified :6/8/2022 2:41:37 PM




Name : Methanol
Detector Name: FID1
Function : f(x)=0.0664900*x+0
R^2 value= 1.000000
FitType: Linear
ZeroThrough: Through

| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 6 | 1.000 | 15435 | 1.0000 |




Name : Ethanol
Detector Name: FID1
Function : f(x)=2.09165*x+0
R^2 value= 0.9996658
FitType: Linear
ZeroThrough: Through

| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 1 | 0.050 | 21716 | 0.0459 |
| 2 | 0.100 | 47924 | 0.1016 |
| 3 | 0.200 | 93486 | 0.1959 |
| 4 | 0.300 | 141639 | 0.2960 |
| 5 | 0.500 | 242353 | 0.5041 |

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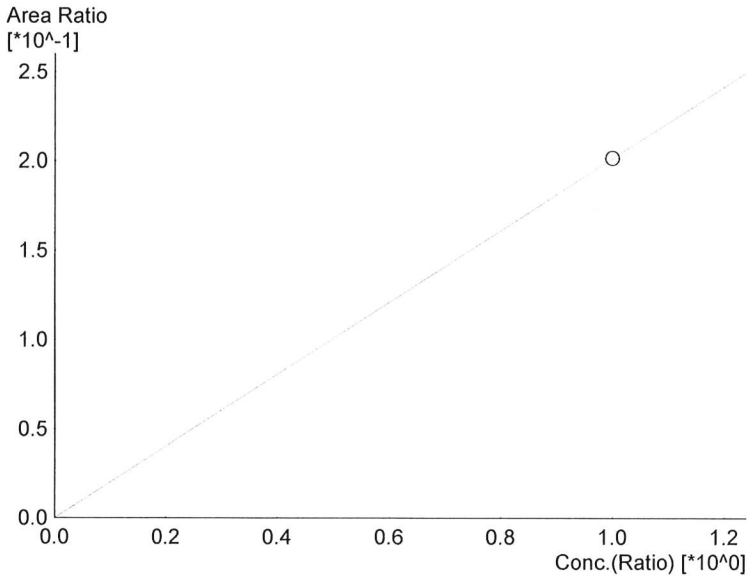
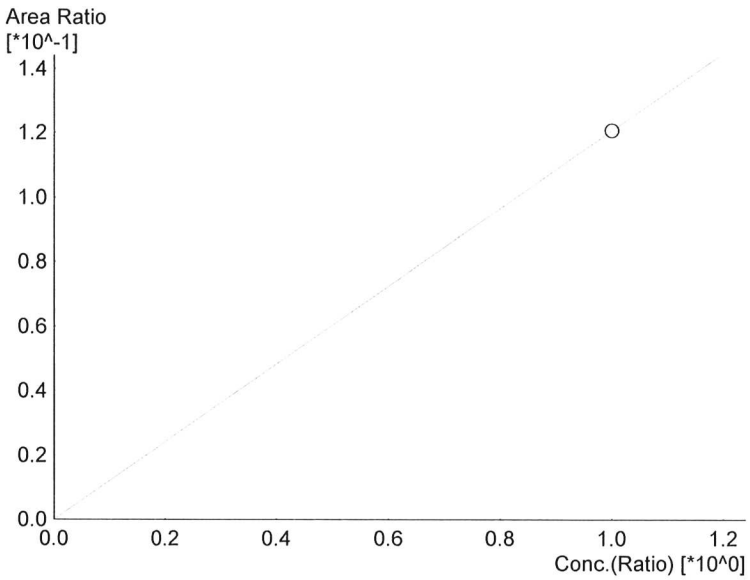


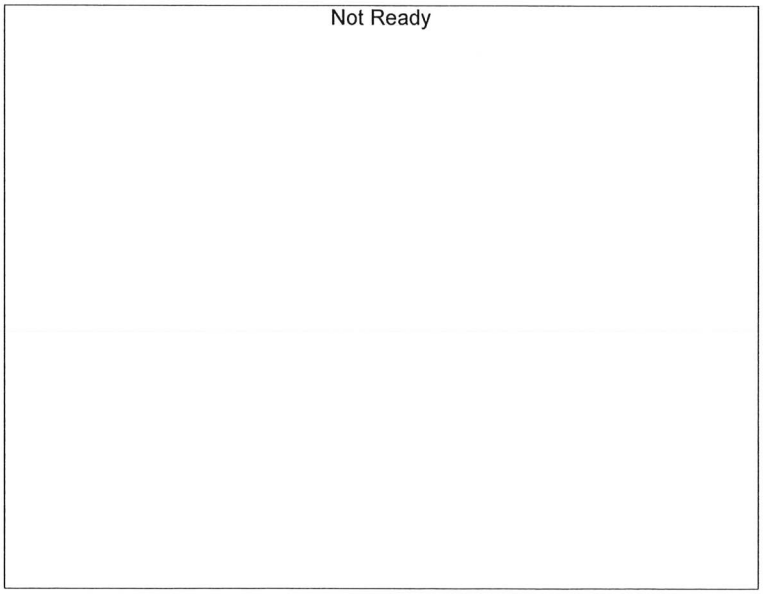

Name : Isopropyl Alcohol
Detector Name: FID1
Function : f(x)=0.201625*x+0
R^2 value= 1.000000
FitType: Linear
ZeroThrough: Through

| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 6 | 1.000 | 46805 | 1.0000 |



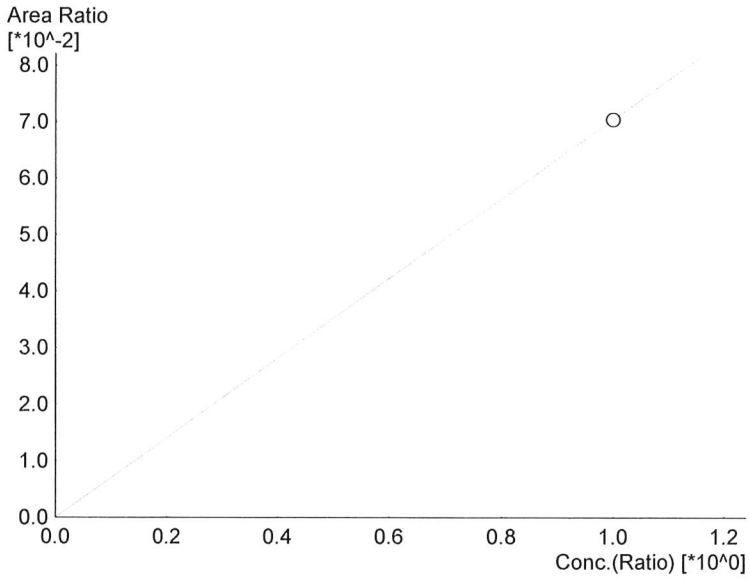

Name : Acetone
Detector Name: FID1
Function : f(x)=0.120709*x+0
R^2 value= 1.000000
FitType: Linear
ZeroThrough: Through

| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 6 | 1.000 | 28021 | 1.0000 |



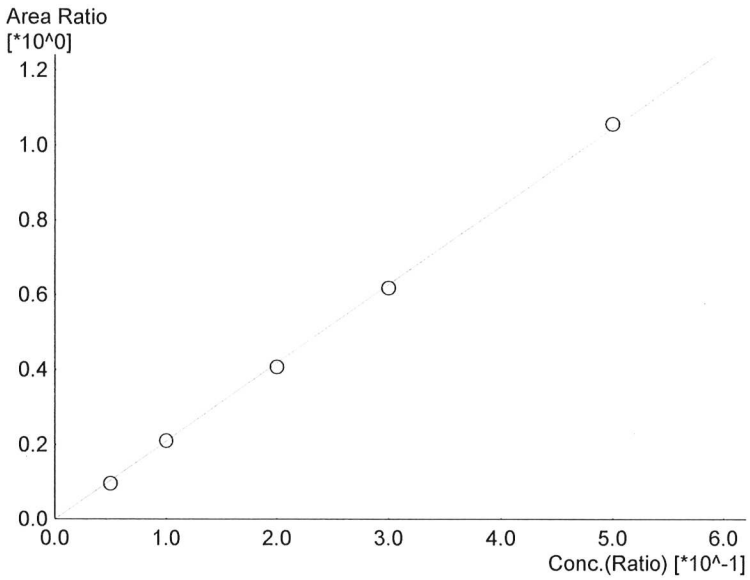

Name : Fluor. Hydrocarbon(s)
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Through

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



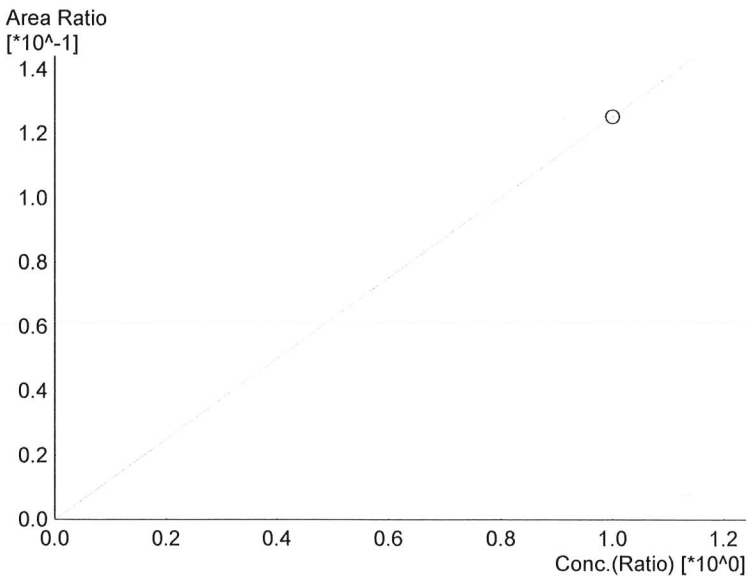

Name : Methanol
Detector Name: FID2
Function : f(x)=0.0704001*x+0
R^2 value= 1.000000
FitType: Linear
ZeroThrough: Through

| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 6 | 1.000 | 18015 | 1.0000 |



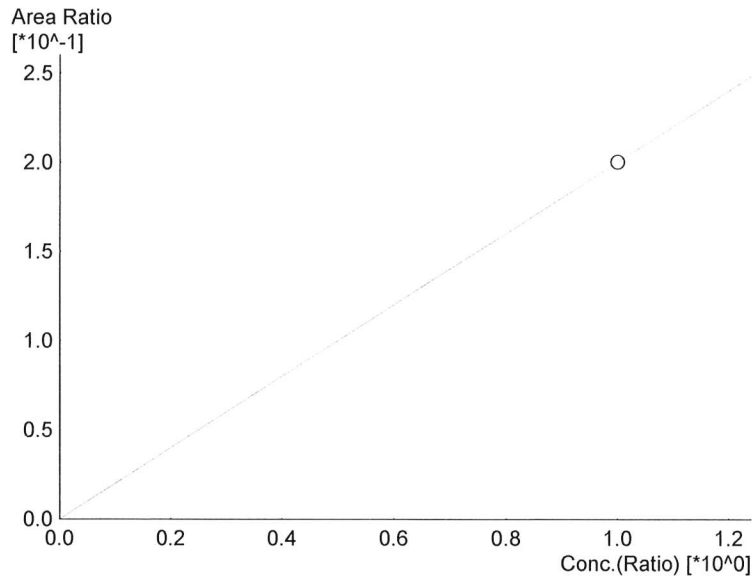

Name : Ethanol
Detector Name: FID2
Function : f(x)=2.09212*x+0
R^2 value= 0.9996097
FitType: Linear
ZeroThrough: Through

| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 1 | 0.050 | 23324 | 0.0455 |
| 2 | 0.100 | 51496 | 0.1004 |
| 3 | 0.200 | 101146 | 0.1944 |
| 4 | 0.300 | 153957 | 0.2955 |
| 5 | 0.500 | 264854 | 0.5052 |



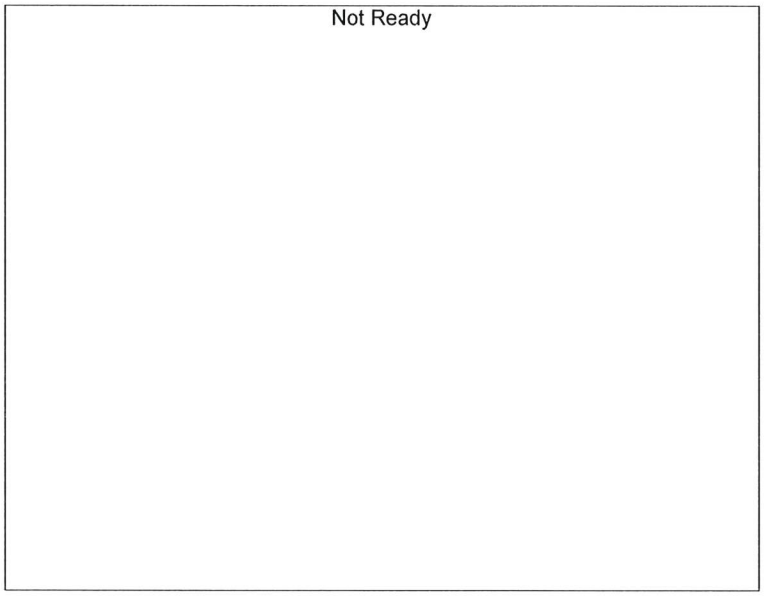

Name : Acetone
Detector Name: FID2
Function : f(x)=0.125364*x+0
R^2 value= 1.000000
FitType: Linear
ZeroThrough: Through

| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 6 | 1.000 | 32080 | 1.0000 |




Name : Isopropyl Alcohol
Detector Name: FID2
Function : f(x)=0.200395*x+0
R^2 value= 1.000000
FitType: Linear
ZeroThrough: Through

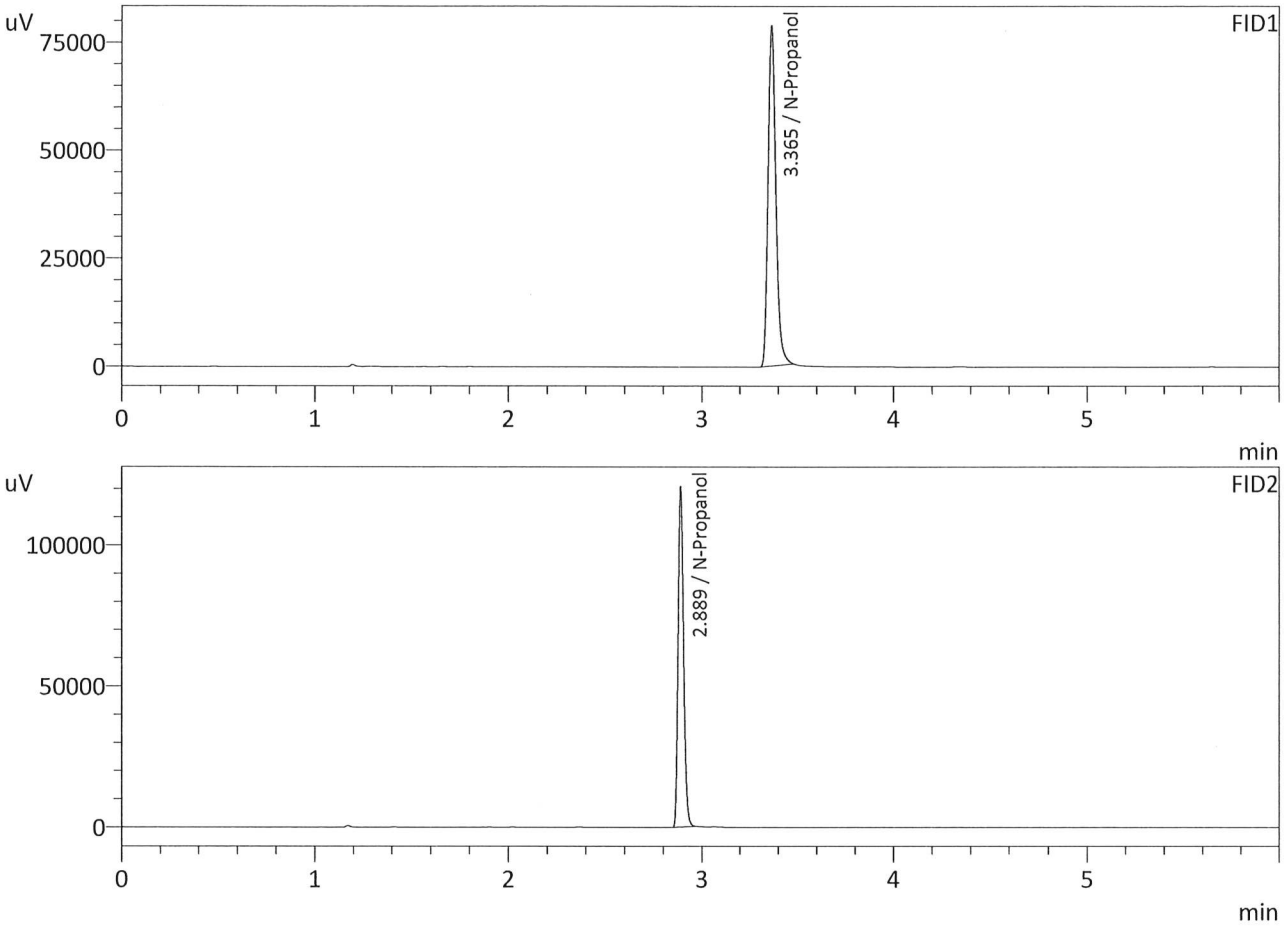
| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 6 | 1.000 | 51279 | 1.0000 |




Name : Fluor. Hydrocarbon(s)
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Through

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

Sample Name : INT STD BLK 1
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 9:33:54 AM
Vial # : 1
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

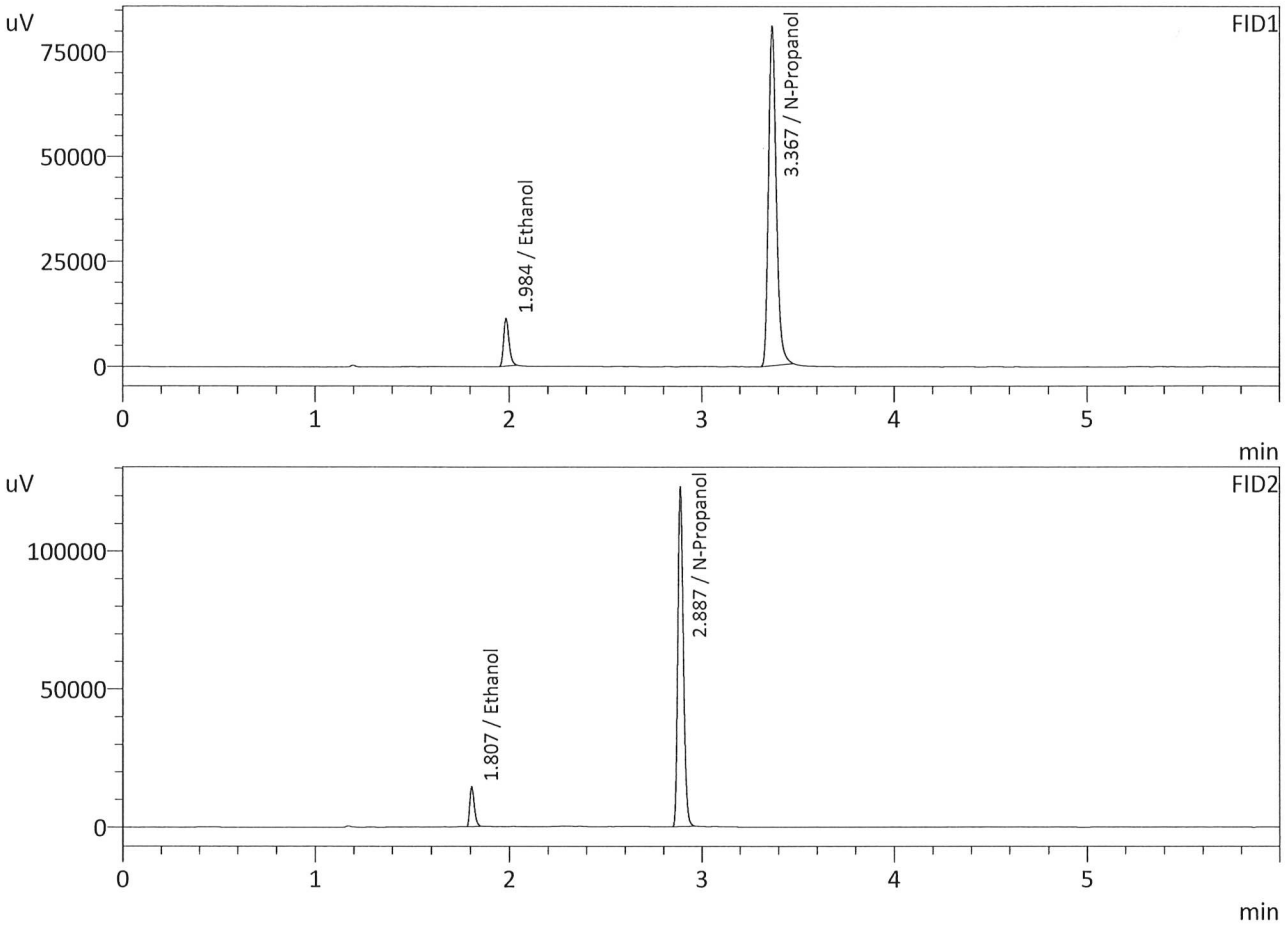
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 221147 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 239104 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : 0.050
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 9:43:10 AM
Vial # : 2
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

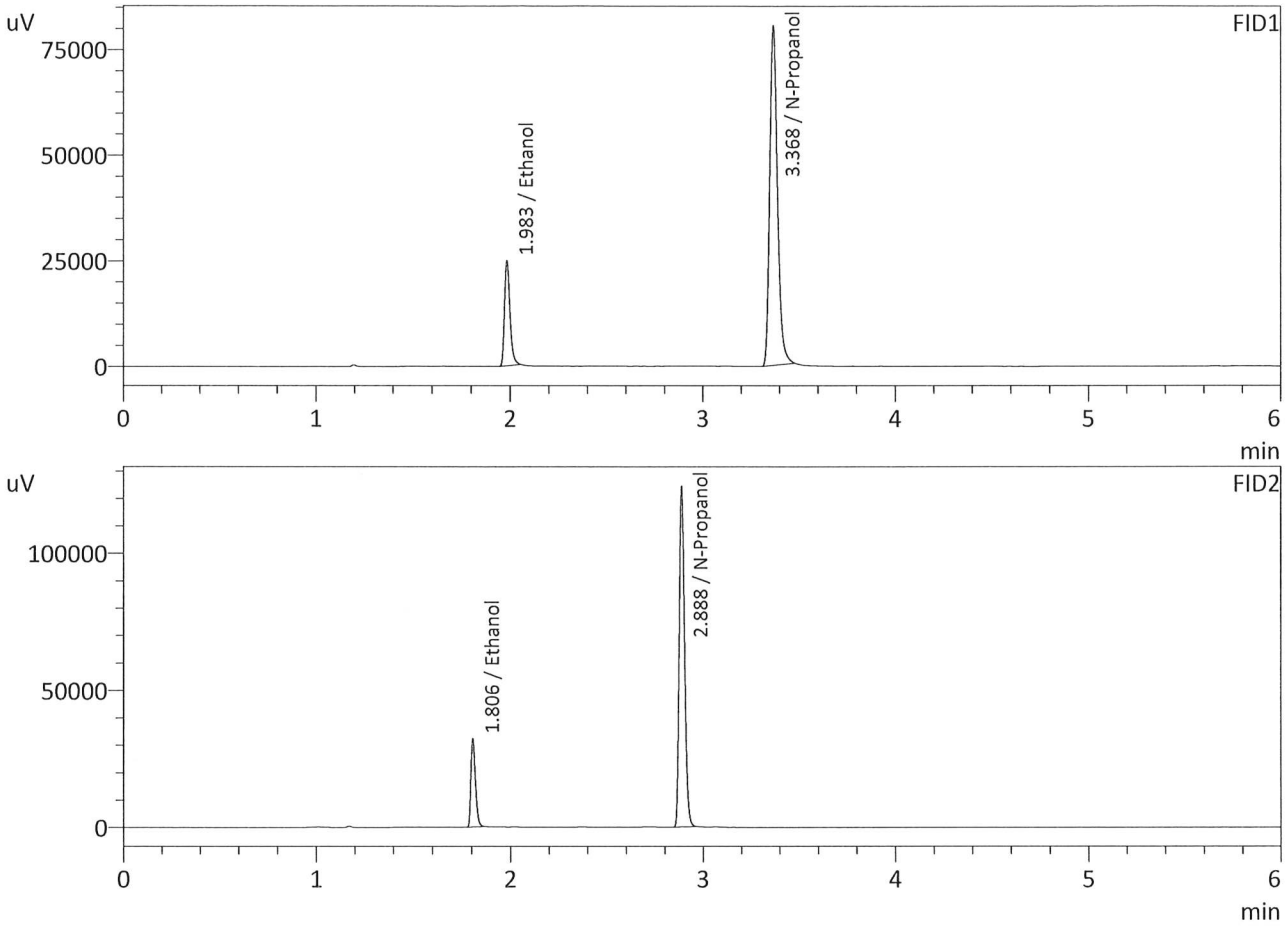
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0459 | 21716 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 226083 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0455 | 23324 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 244658 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : 0.100
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 9:53:40 AM
Vial # : 3
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

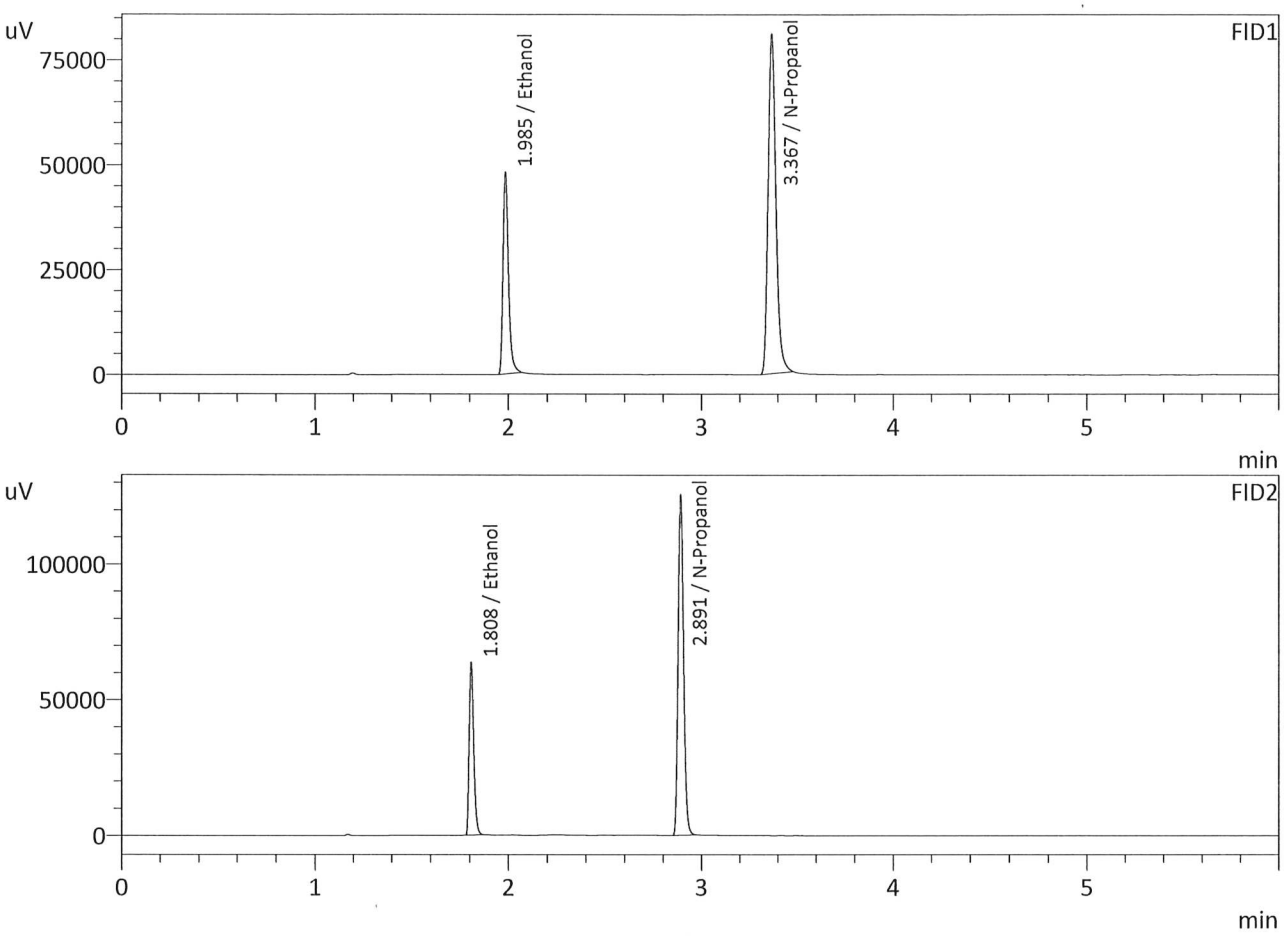
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.1016 | 47924 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 225410 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.1004 | 51496 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 244959 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : 0.200
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 10:02:59 AM
Vial # : 4
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

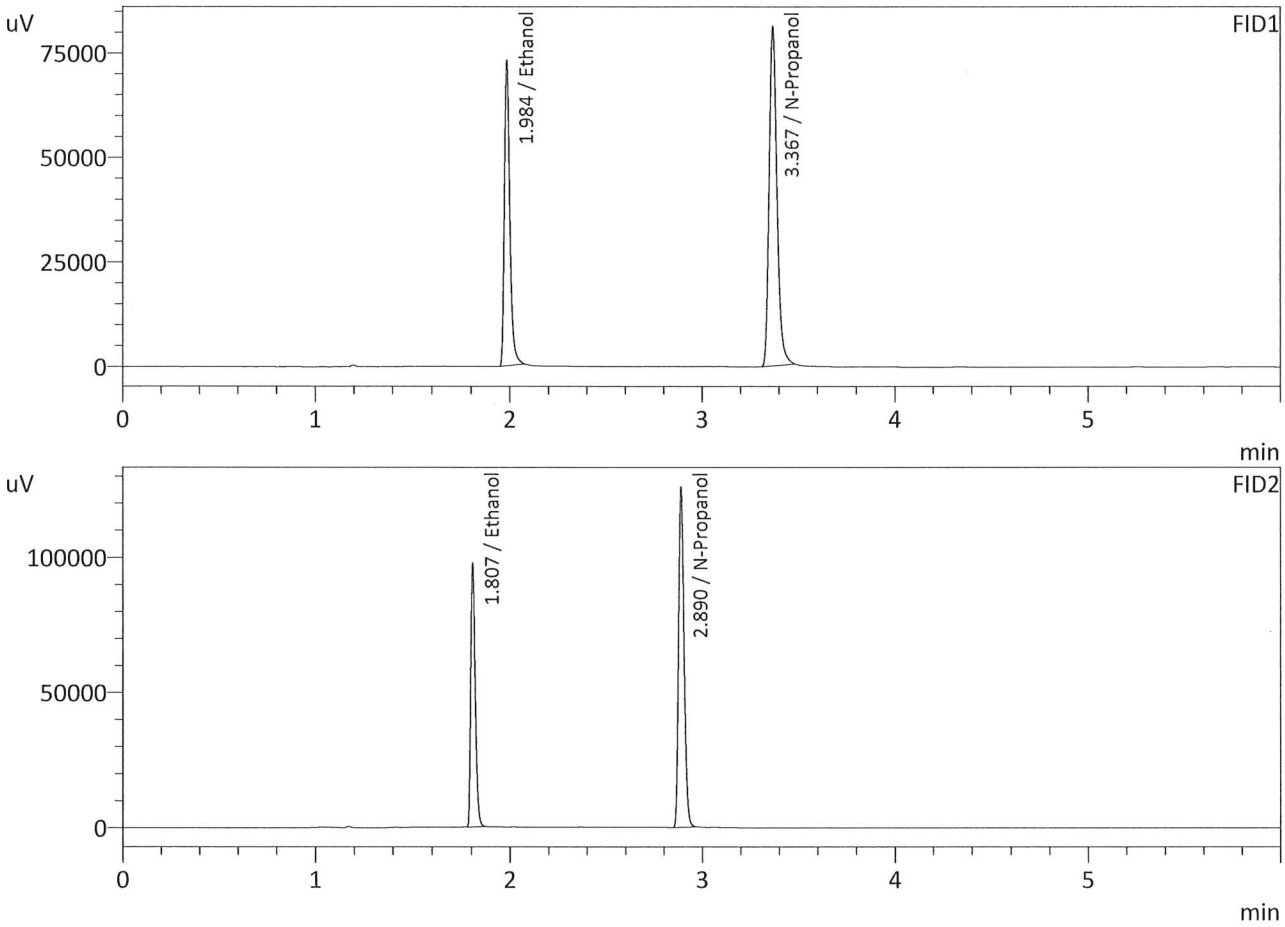
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.1959 | 93486 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 228146 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.1944 | 101146 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 248622 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : 0.300
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 10:13:27 AM
Vial # : 5
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

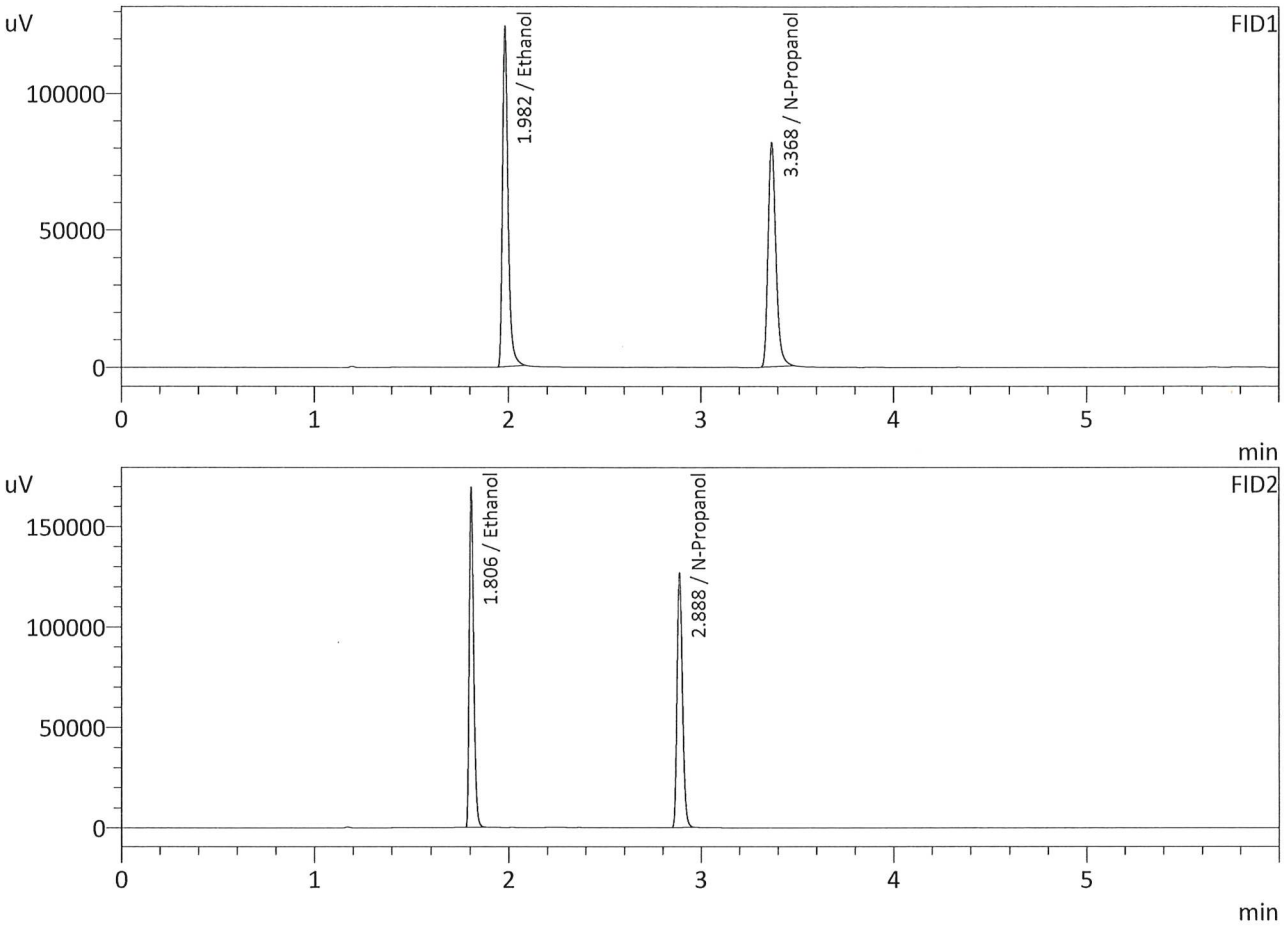
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2960 | 141639 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 228765 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2955 | 153957 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 249011 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : 0.500
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 10:22:46 AM
Vial # : 6
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

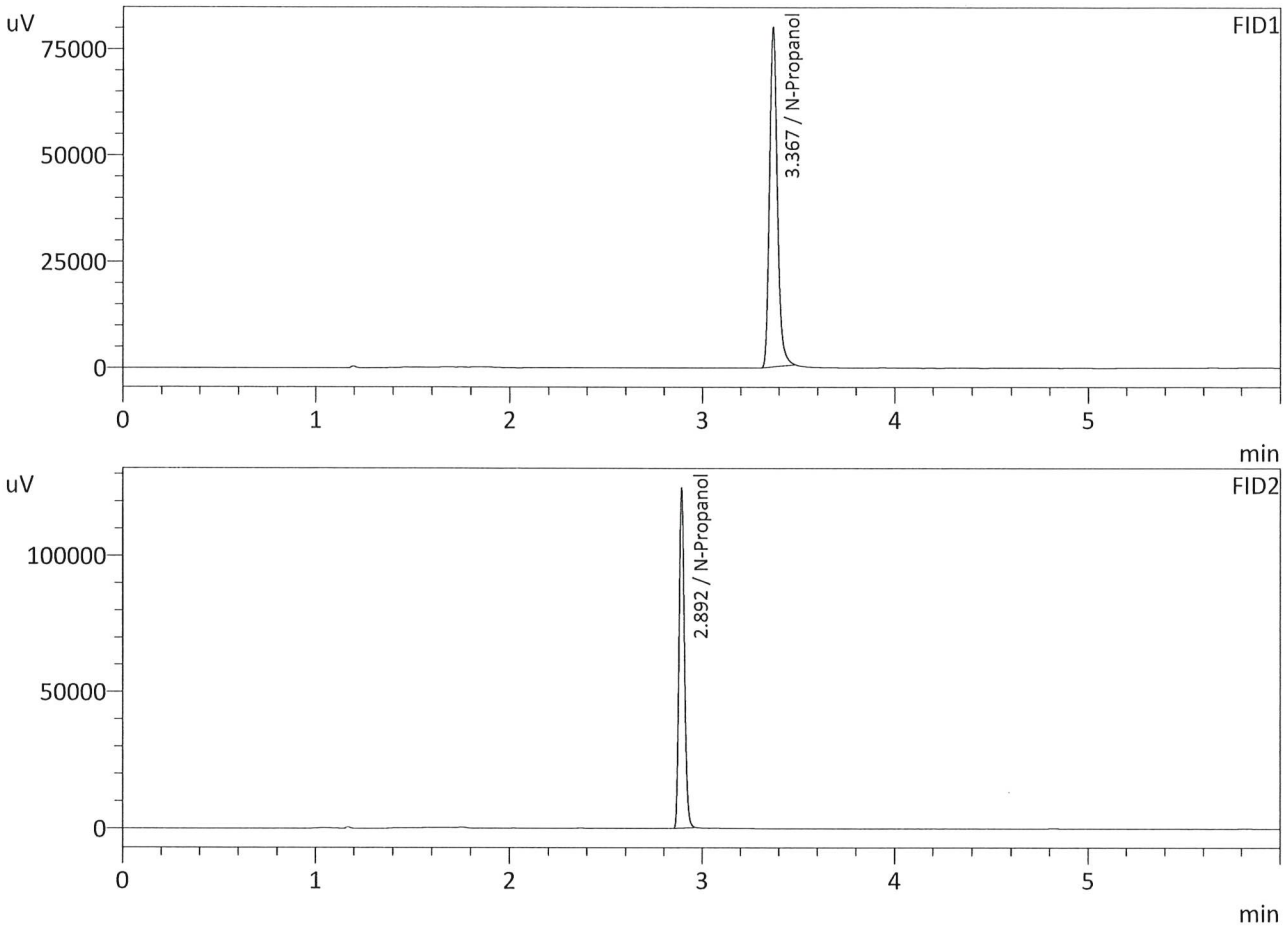
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.5041 | 242353 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 229843 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.5052 | 264854 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 250562 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : INT STD BLK 2
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 10:33:15 AM
Vial # : 7
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

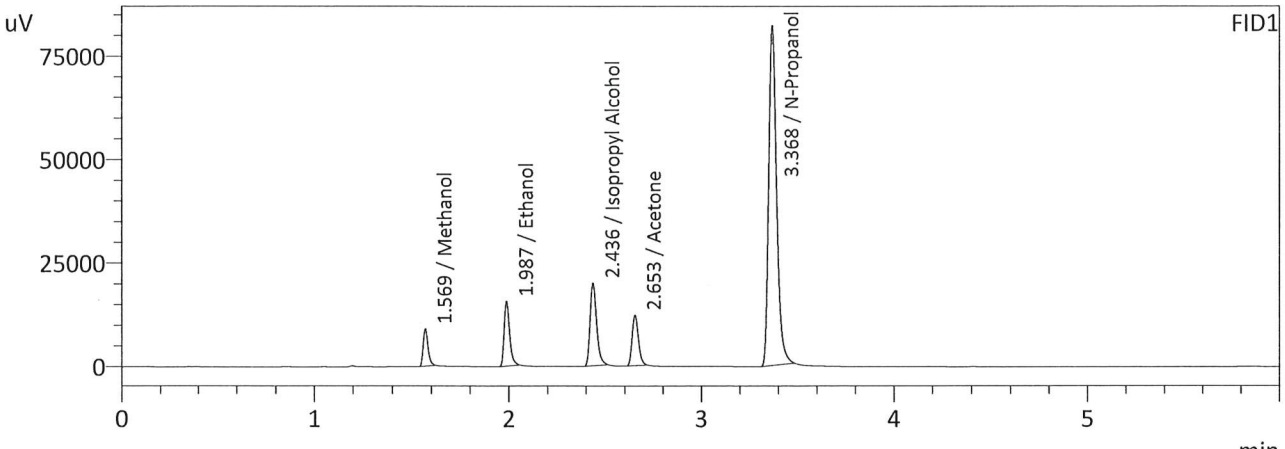
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 226348 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

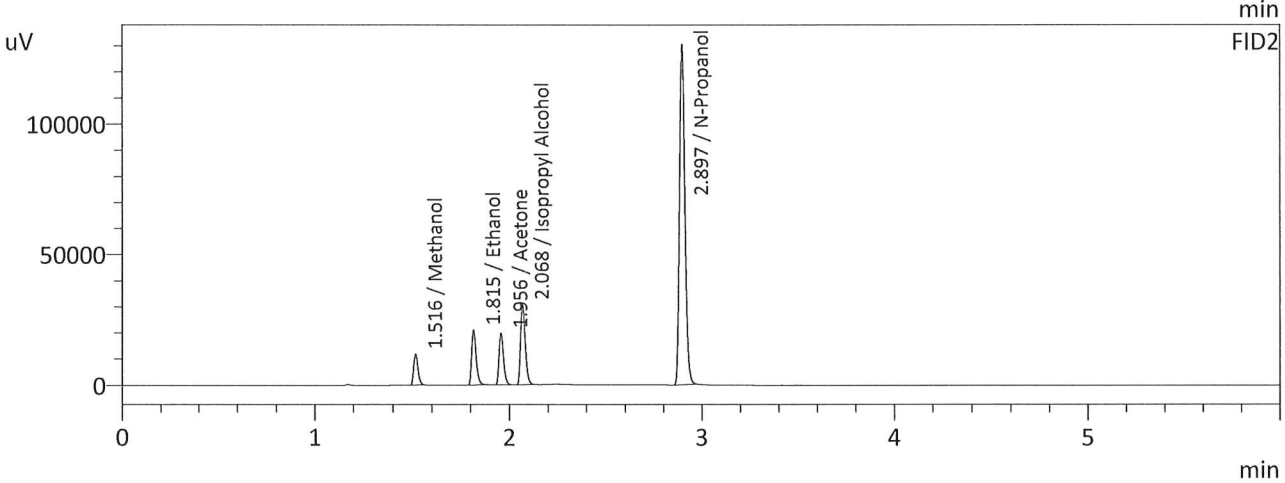
FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 246340 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : MULTI-COMP MIX
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 10:42:33 AM
Vial # : 8
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

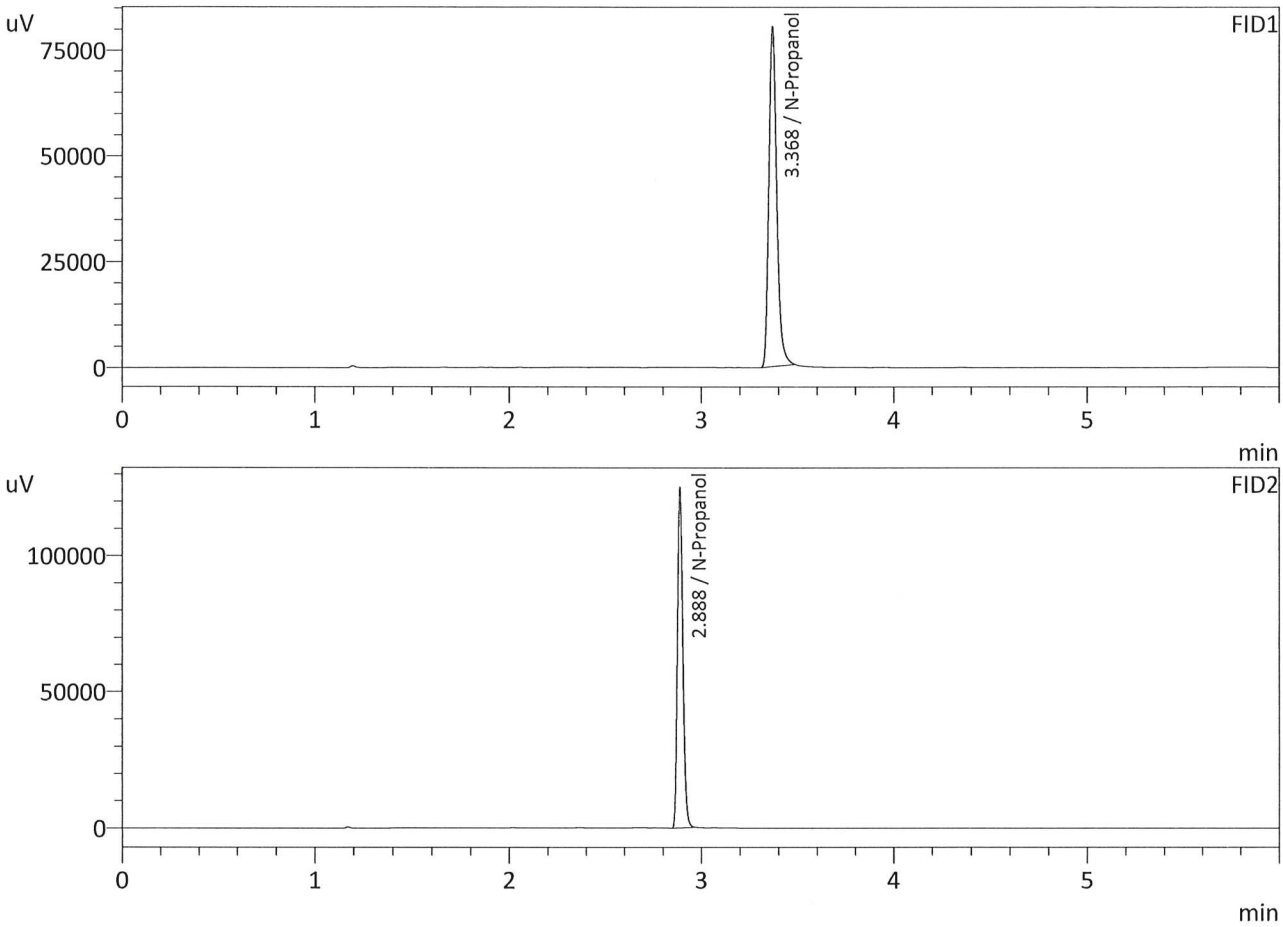
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | 1.0000 | 15435 | g/100cc |
| Ethanol | 0.0629 | 30567 | g/100cc |
| Isopropyl Alcohol | 1.0000 | 46805 | g/100cc |
| Acetone | 1.0000 | 28021 | g/100cc |
| N-Propanol | 0.0000 | 232140 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | 1.0000 | 18015 | g/100cc |
| Ethanol | 0.0635 | 34031 | g/100cc |
| Acetone | 1.0000 | 32080 | g/100cc |
| Isopropyl Alcohol | 1.0000 | 51279 | g/100cc |
| N-Propanol | 0.0000 | 255891 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : INT STD BLK 3
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 10:53:01 AM
Vial # : 9
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 226371 | 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 | 246594 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

# VOLATILES BAC CASEFILE WORKSHEET

**Laboratory No.:QC1** **Item #** **Analysis Date(s): 6/7/22**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|---|---|---|---|---|---|---|
| Sample Results | 0.0712 | 0.0708 | 0.0004 | 0.0710 | 0.0001 | 0.0710 |
| (g/100cc) | 0.0713 | 0.0709 | 0.0004 | 0.0711 | | |

**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%**

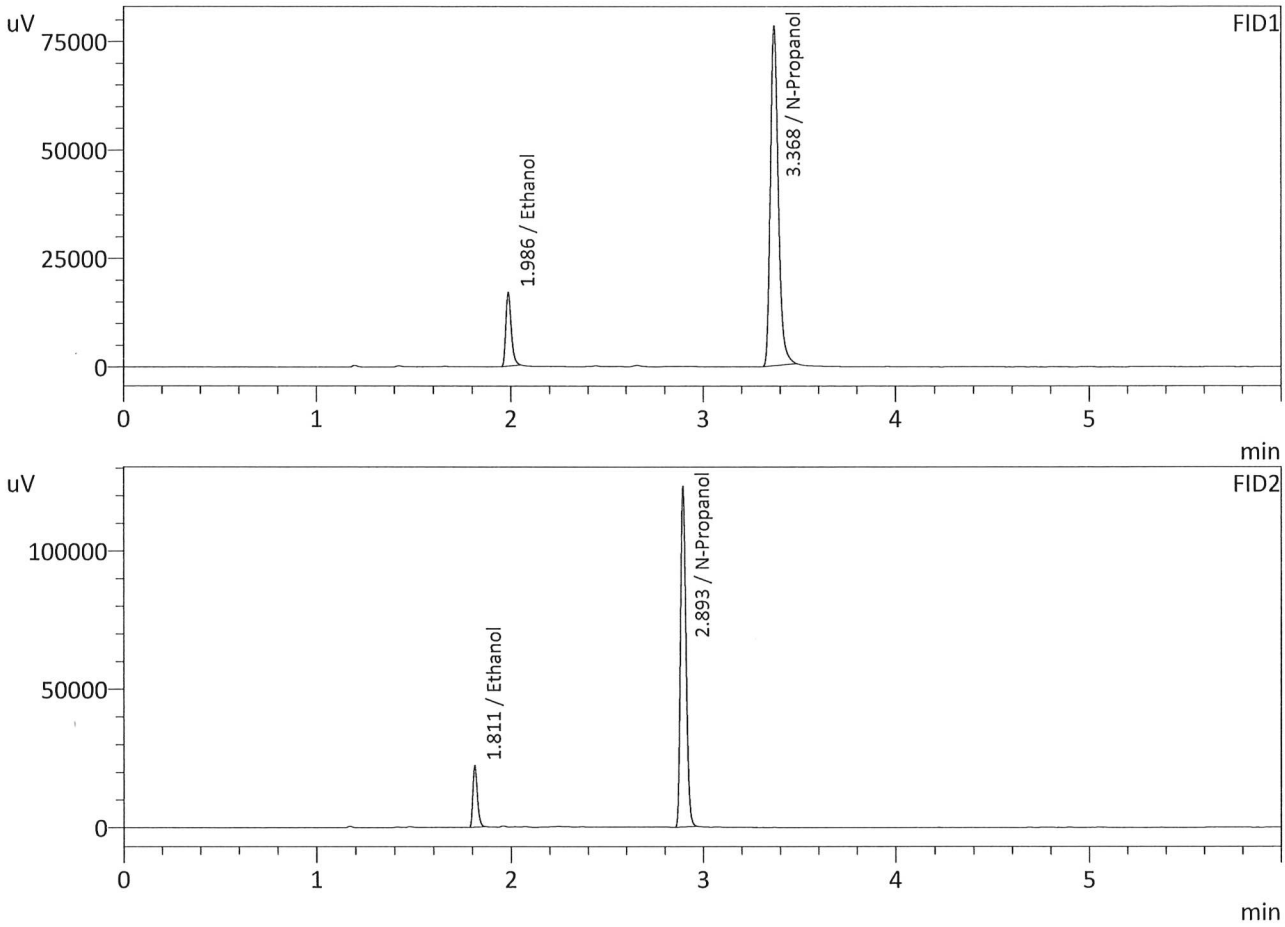
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|---|---|---|---|
| **0.071** | **0.067** | **0.075** | **0.004** |

| | Reported Result | |
|---|---|---|
| | **0.071** | |

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

99

Sample Name : QC-1-1-A
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 11:02:20 AM
Vial # : 10
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

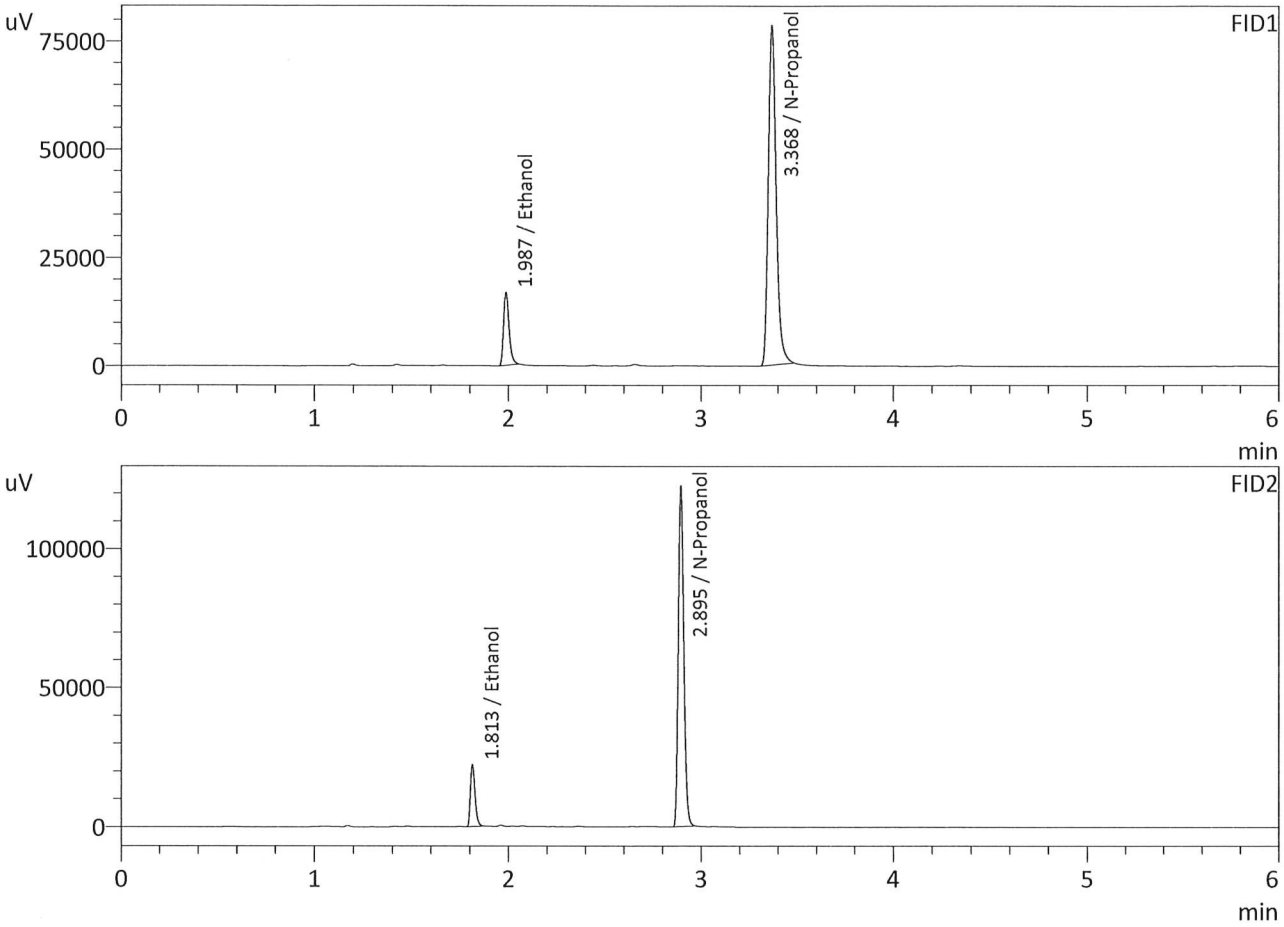
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0712 | 33093 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 222092 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0708 | 36127 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 243710 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : QC-1-1-B
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 11:12:49 AM
Vial # : 11
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0713 | 33129 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 221926 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0709 | 36113 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 243373 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

# VOLATILES BAC CASEFILE WORKSHEET

**Laboratory No.: 0.080** **Item #** **Analysis Date(s): 6/7/22**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|---|---|---|---|---|---|---|
| Sample Results | 0.0777 | 0.0777 | 0.0000 | 0.0777 | 0.0004 | 0.0775 |
| (g/100cc) | 0.0773 | 0.0773 | 0.0000 | 0.0773 | | |

**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** |

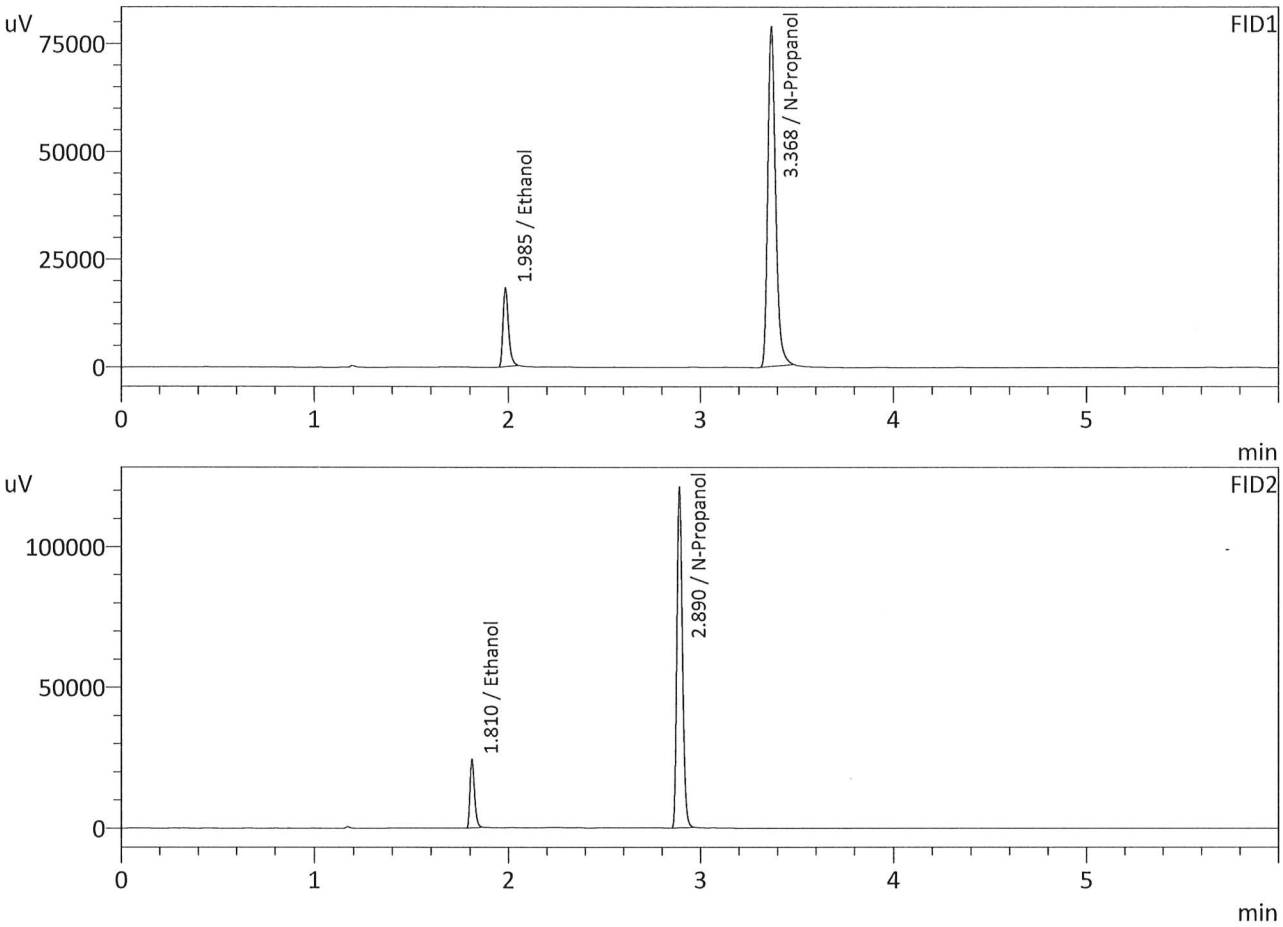
**Reported Result**

**0.077**

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

99

Sample Name : 0.08 QA - A
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 11:22:07 AM
Vial # : 12
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

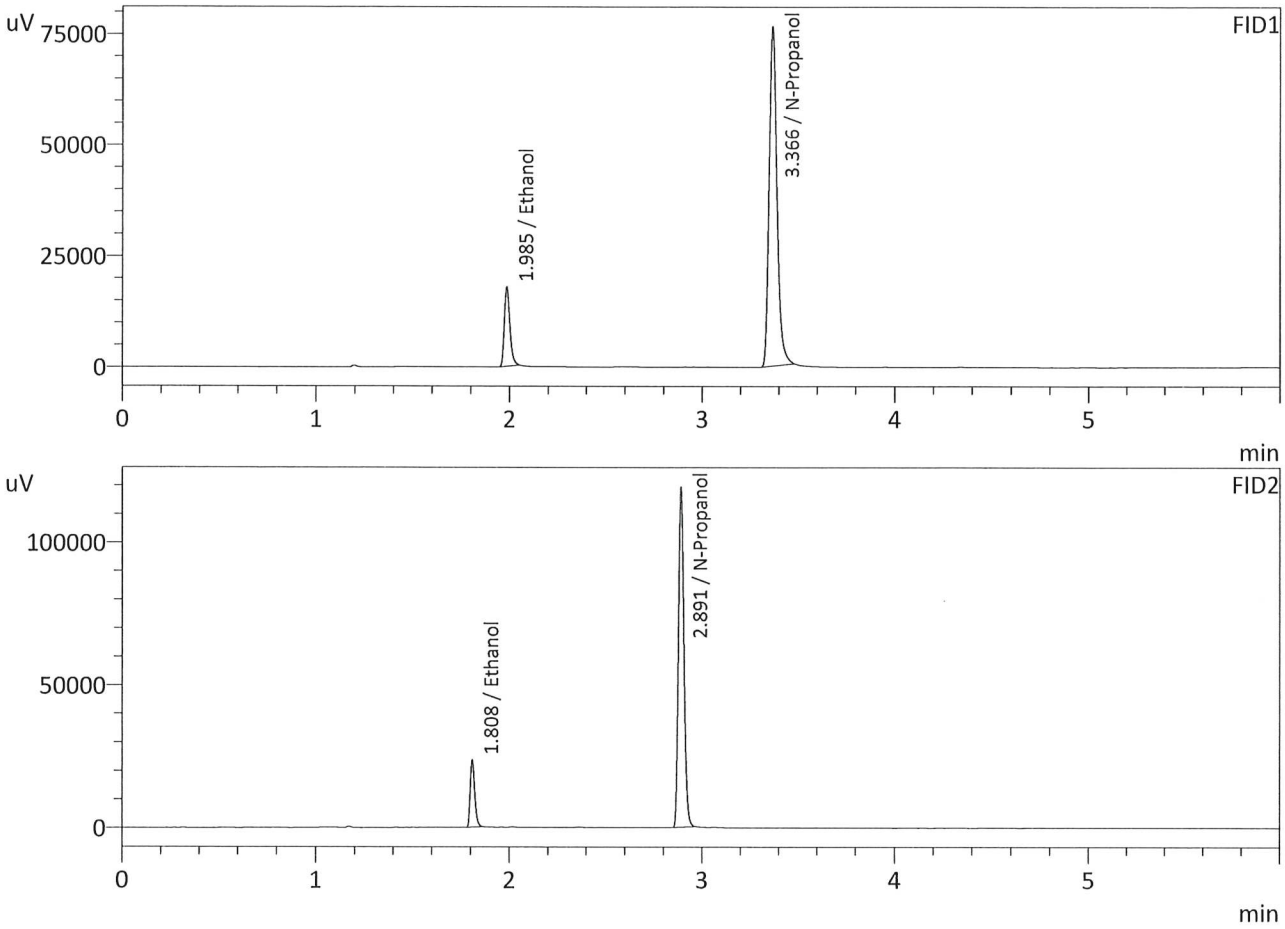
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0777 | 35962 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 221220 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0777 | 39342 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 241795 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : 0.08 QA - B
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 11:32:34 AM
Vial # : 13
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0773 | 35008 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 216484 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0773 | 38458 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 237514 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

# VOLATILES BAC CASEFILE WORKSHEET

**Laboratory No.:QC2** **Item #** **Analysis Date(s): 6/7/22**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|---|---|---|---|---|---|---|
| Sample Results | 0.2119 | 0.2120 | 0.0001 | 0.2119 | 0.0023 | 0.2107 |
| (g/100cc) | 0.2096 | 0.2096 | 0.0000 | 0.2096 | | |

**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 |
|---|---|---|---|
| **0.210** | **0.199** | **0.221** | **0.011** |

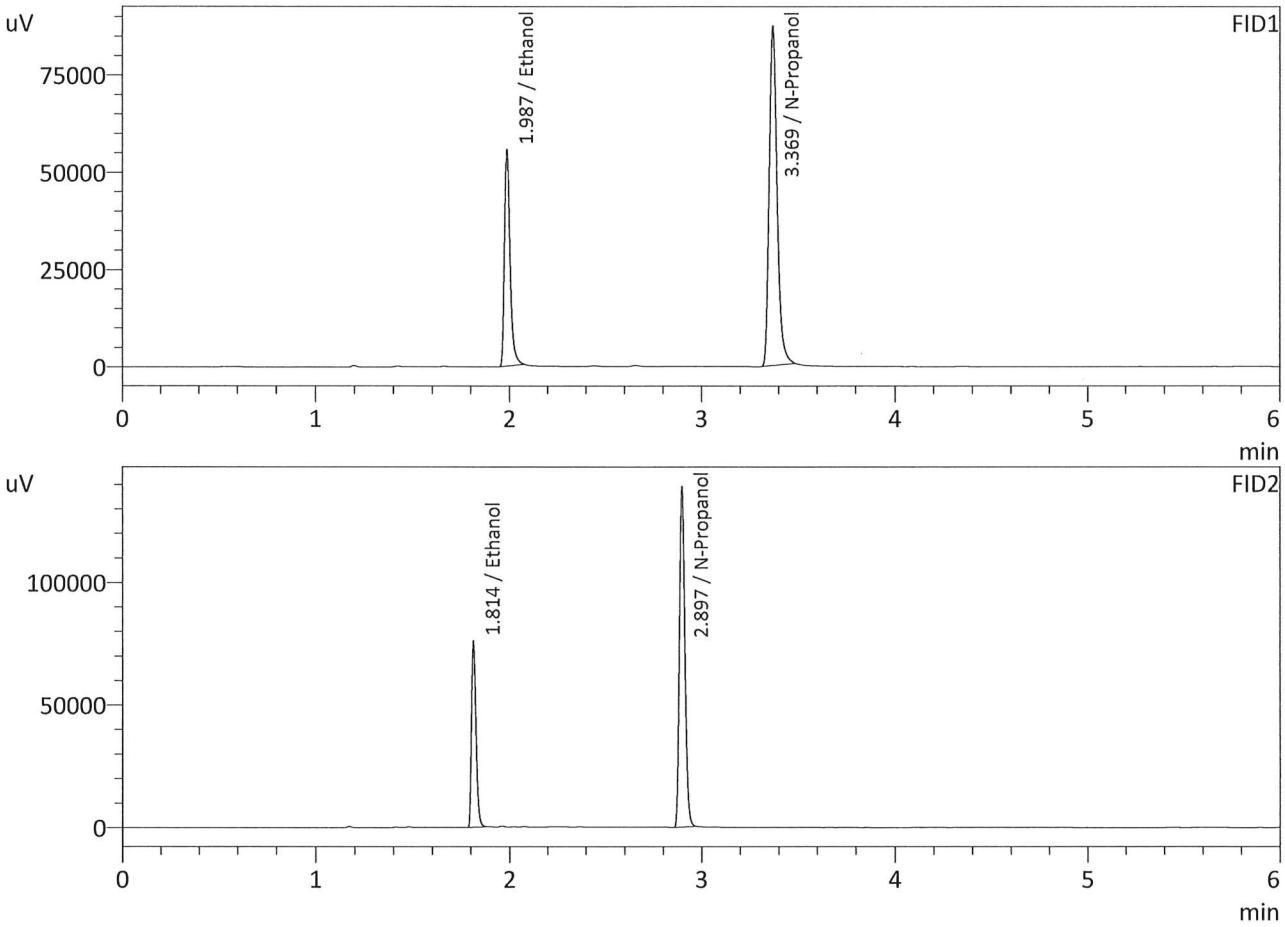
**Reported Result**

**0.210**

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

99

Sample Name : QC-2-1-A
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 2:39:55 PM
Vial # : 32
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

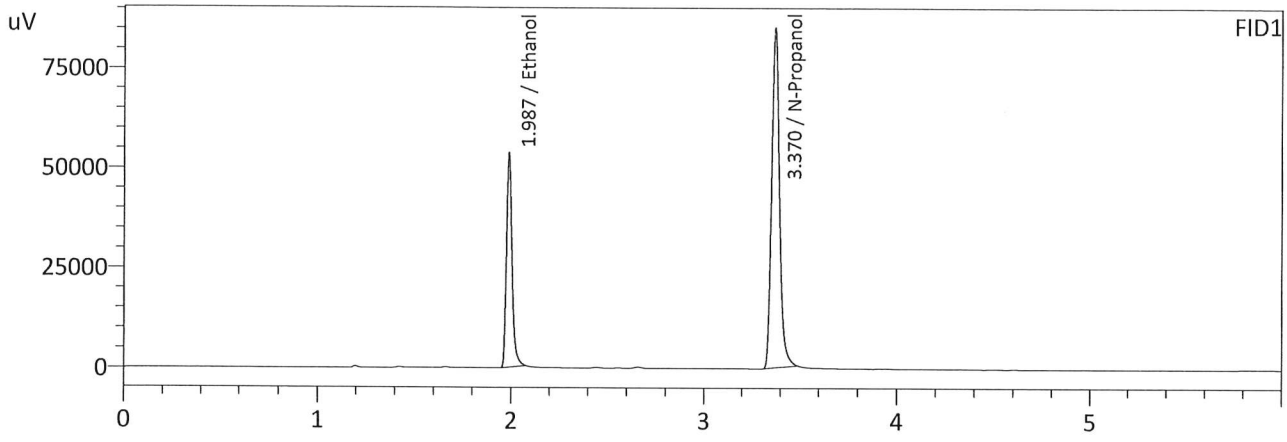
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2119 | 110149 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 248432 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

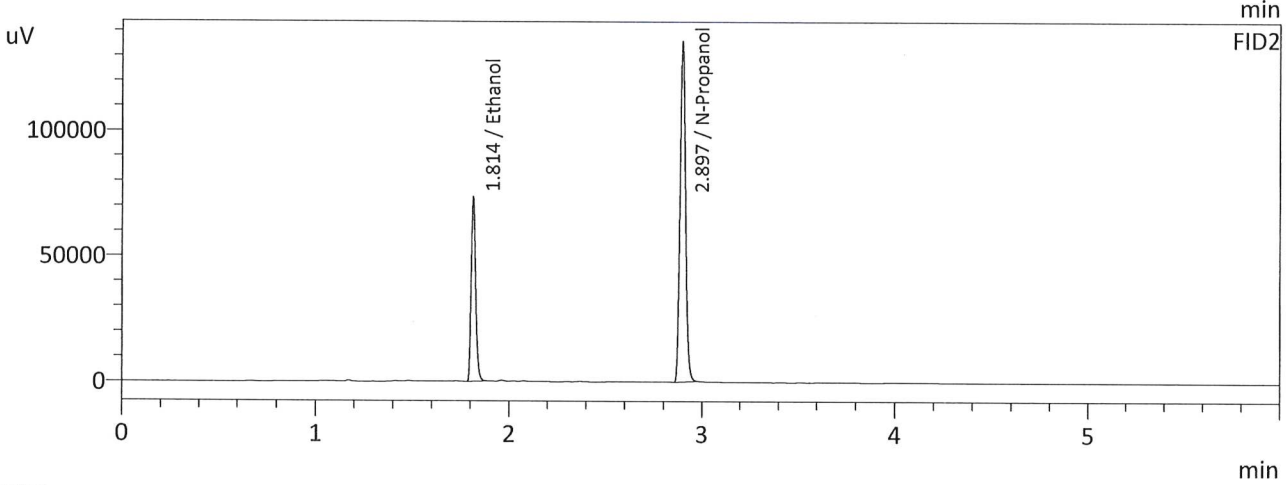
FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2120 | 122241 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 275503 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : QC-2-1-B
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 2:50:25 PM
Vial # : 33
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

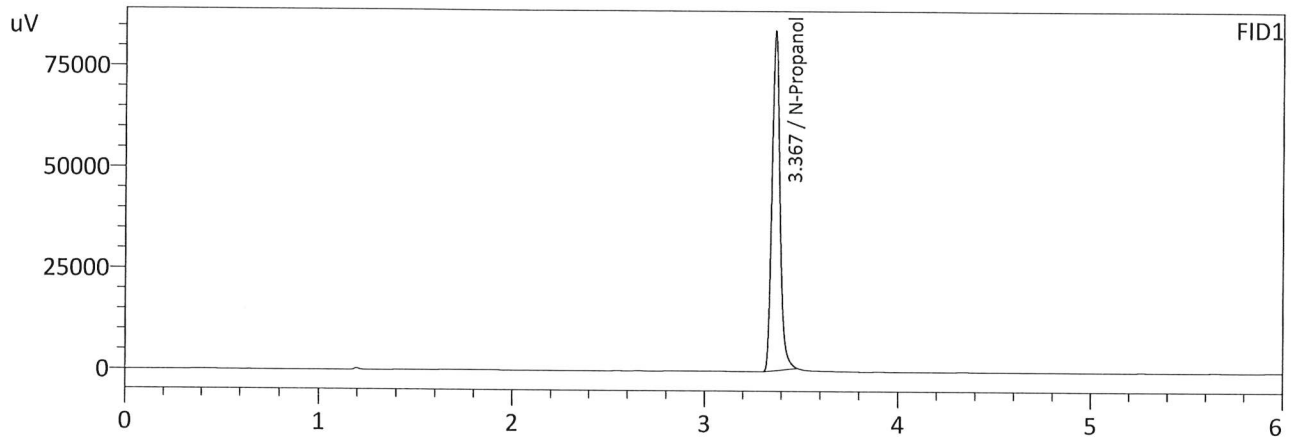
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2096 | 106471 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 242852 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

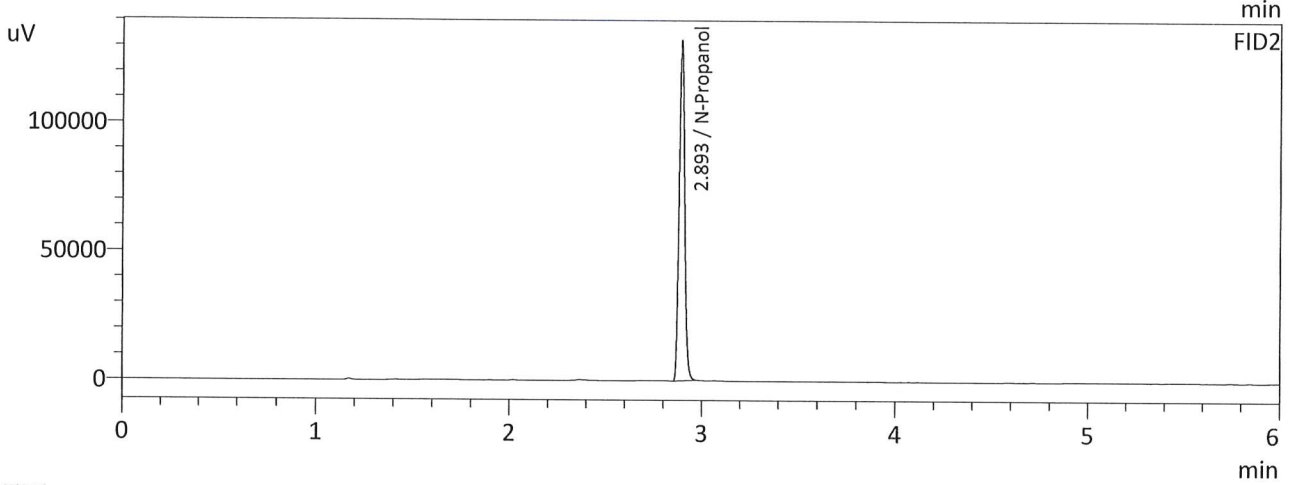
FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2096 | 118092 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 269245 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

Sample Name : INT STD BLK 4
Laboratory : Coeur d' Alene Lab
Injection Date : 6/7/2022 2:59:34 PM
Vial # : 34
Method Filename : C:\LabSolutions\Data\6-7-22\ALCOHOL.GCM
Instrument #GC/HS : C12255850700 / C12595700181




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 238401 | 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 | 263321 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

99

**Idaho State Police**
**Forensic Services**

## Request for Departure from an Analytical Method or Quality Standard

Deviation Number (assigned by QM):

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

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: Jeremy Fortuna Date: 1/21/22
Title: Discipline Lead

**Quality Review**

Quality Approver:
Title:
Date:

99

66

## Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

*Analytical Method(s): 1.0*

*Device: Hamilton MICROLAB Liquid Processor/Dilutor Serial Number: ML600HC11379*

**Volatiles Quality Assurance Controls** **Run Date(s):** 6-7-2022

**Calibration Date:** *(if different)*

**Worklist #:** 5989

| Control level | Expiration | Lot # | Target Value | Acceptable Range | Overall Results |
|---|---|---|---|---|---|
| Level 1 | Jul-23 | 19070006 | 0.0764 | 0.0688-0.0840 | 0.0710 g/100cc |
| | | | | | g/100cc |
| | | | | | g/100cc |
| Level 2 | Jul-23 | 19070007 | 0.2170 | 0.1953-0.2387 | 0.2107 g/100cc |
| | | | | | g/100cc |
| | | | | | g/100cc |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Multi-Component mixture:** | **Exp:** | **22-Jul** | **Lot #** | FN07101701 | | OK |
| **Curve Fit:** | | **Column 1** | 0.99966 | | **Column2** | 0.99960 |

### Ethanol Calibration Reference Material

| Calibrator level | Target Value | Acceptable Range | Column 1 | Column 2 | Precision | Mean |
|---|---|---|---|---|---|---|
| 50 | 0.050 | 0.045 - 0.055 | 0.0459 | 0.0455 | 0.0004 | 0.0457 |
| 100 | 0.100 | 0.090 - 0.110 | 0.1016 | 0.1004 | 0.0012 | 0.101 |
| 200 | 0.200 | 0.180 - 0.220 | 0.1959 | 0.1944 | 0.0015 | 0.1951 |
| 300 | 0.300 | 0.270 - 0.330 | 0.2960 | 0.2955 | 0.0005 | 0.2957 |
| 400 | 0.400 | 0.360 - 0.440 | | | 0 | #DIV/0! |
| 500 | 0.500 | 0.450 - 0.550 | 0.5041 | 0.5052 | 0.0011 | 0.5046 |

| Internal Standard | Average | (-) 20% | (+) 20% |
|---|---|---|---|
| N-Propanol: | 237845.5 | 190276.4 | 285414.6 |

### Aqueous Controls

| Control level | Target Value | Acceptable Range | Overall Results |
|---|---|---|---|
| 80 | 0.080 | 0.076 - 0.084 | 0.077 g/100cc |

6-15-22

JJ

REVISED
11:22 am, Jun 15, 2022

Revision: 4
Issue Date: 01/24/2022
Issuing Authority: Quality Manager

# Internal Standard Monitoring Worksheet

**Worklist #:** 5989 **Run Date(s):** 6-7-2022

| Internal Standard Solution: Lot# A014463901 | Prep Date: 4/28/22 | Exp Date: 10/28/22 |
|---|---|---|

| Sample Name | Column 1 Value | Column 2 Value | Average |
|---|---|---|---|
| 0.080 | 221220 | 241795 | 231507.5 |
| 0.080 | 216484 | 237514 | 226999 |
| QC1 | 222092 | 243710 | 232901 |
| QC1 | 221926 | 243373 | 232649.5 |
| QC1 | | | #DIV/0! |
| QC1 | | | #DIV/0! |
| QC1 | | | #DIV/0! |
| QC1 | | | #DIV/0! |
| QC2 | 248432 | 275503 | 261967.5 |
| QC2 | 242852 | ~~239245~~ | 241048.5 |
| QC2 | | 269245 6-15-22 | #DIV/0! |
| QC2 | | | #DIV/0! |
| QC2 | | | #DIV/0! |
| QC2 | | | #DIV/0! |

| Combined Average | (-)20% | (+)20% |
|---|---|---|
| ~~237845.5~~ | ~~190276.4~~ | ~~285414.6~~ |

6-15-22

**REVISED**
*11:23 am, Jun 15, 2022*