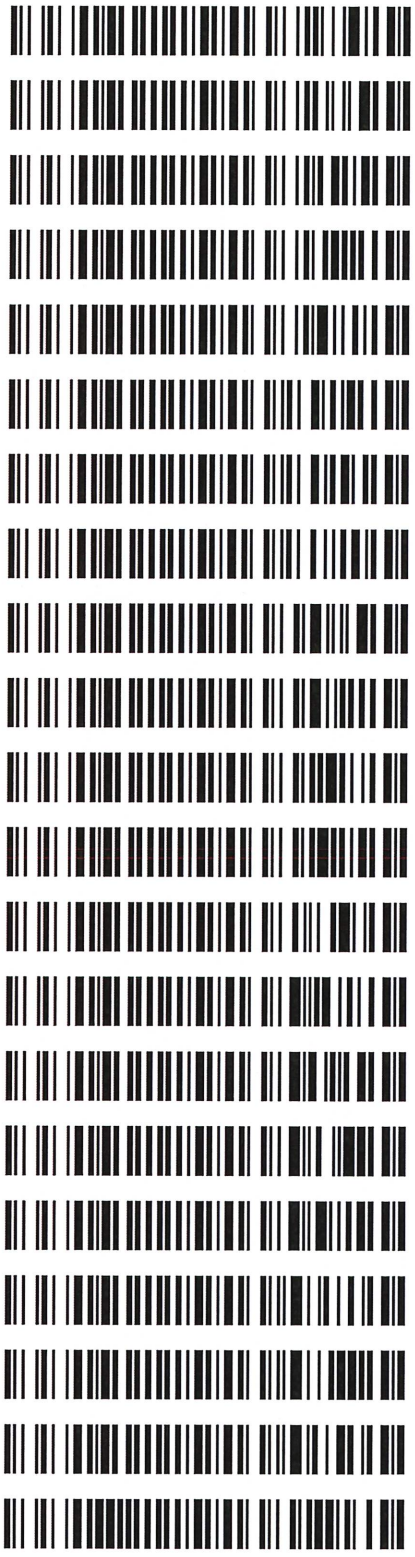
APPROVED
By John Garner at 4:01 pm, Mar 18, 2022

3/18/2022

Worklist: 5688

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
M2022-1001	1	BCK	Alcohol Analysis
M2022-1002	1	BCK	Alcohol Analysis
M2022-1003	1	BCK	Alcohol Analysis
M2022-1004	1	BCK	Alcohol Analysis
M2022-1022	1	BCK	Alcohol Analysis
M2022-1025	2	BCK	Alcohol Analysis
M2022-1026	1	BCK	Alcohol Analysis
M2022-1027	1	BCK	Alcohol Analysis
M2022-1071	1	BCK	Alcohol Analysis
M2022-1072	1	BCK	Alcohol Analysis
M2022-1073	1	BCK	Alcohol Analysis
M2022-1074	1	BCK	Alcohol Analysis
M2022-1081	3	BCK	Alcohol Analysis
M2022-1105	1	BCK	Alcohol Analysis
M2022-1116	1	BCK	Alcohol Analysis
M2022-1121	1	BCK	Alcohol Analysis
M2022-1129	1	BCK	Alcohol Analysis
M2022-1132	1	BCK	Alcohol Analysis
M2022-1133	1	BCK	Alcohol Analysis
M2022-1134	1	BCK	Alcohol Analysis
P2022-0716	1	BCK	Alcohol Analysis



Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

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

Volatiles Quality Assurance Controls | **Run Date(s):** 3/17/2022 | **Calibration Date:** 3/9/2022 | **Worklist #:** 5688

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Jul-23	1907006	0.0764	0.0688-0.0840	0.0742 g/100cc
					0.0779 g/100cc
					g/100cc
Level 2	Jul-23	1907007	0.2170	0.1953-0.2387	0.2144 g/100cc
					0.2195 g/100cc
					g/100cc

Multi-Component mixture:	Exp:	Jul-22	Lot #	FN07101701	
Curve Fit:		Column 1	0.99992	Column2	0.99997

Ethanol Calibration Reference Material

Calibrator level	Target Value	Acceptable Range	Column 1	Column 2	Precision	Mean
50	0.050	0.045 - 0.055	0.0522	0.0514	0.0008	0.0518
100	0.100	0.090 - 0.110	0.0990	0.0990	0	0.099
200	0.200	0.180 - 0.220	0.1983	0.1990	0.0007	0.1986
300	0.300	0.270 - 0.330	0.2994	0.3001	0.0007	0.2997
400	0.400	0.360 - 0.440			0	#DIV/0!
500	0.500	0.450 - 0.550	0.5009	0.5003	0.0006	0.5006

Internal Standard	Average	(-) 20%	(+) 20%
N-Propanol:	221103.0	176882.4	265323.6

Aqueous Controls

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

Internal Standard Monitoring Worksheet

Worklist #: 5688 **Run Date(s):** 3/17/2022

Internal Standard Solution:	Prep Date: 2/2/2022	Exp Date: 8/2/2022

Sample Name	Column 1 Value	Column 2 Value	Average
0.08 A	196997	185714	191355.5
0.08 B	193431	182585	188008
QC1-1 A	202977	191327	197152
QC1-1 B	199458	188302	193880
QC1-2 A	255048	239845	247446.5
QC1-2 B	252264	237360	244812
			#DIV/0!
			#DIV/0!
QC2-1 A	228556	215471	222013.5
QC2-1 B	231150	217760	224455
QC2-2A	254416	239304	246860
QC2-2B	263053	247042	255047.5
			#DIV/0!
			#DIV/0!

Combined Average	(-)20%	(+)20%
221103.0	176882.4	265323.6

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

Idaho State Police
Forensic Services

Request for Departure from an Analytical Method or Quality Standard

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

Date of Request: **1/21/2022**

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

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

Temporary or Permanent Deviation: Permanent

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

Deviation Request

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

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

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

Technical Justification for Analytical Method Deviations:

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

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

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

Technical Review

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

☐ Departure Not Approved
Comments:

Approver: Date: 1/21/22
Title: Discipline Lead

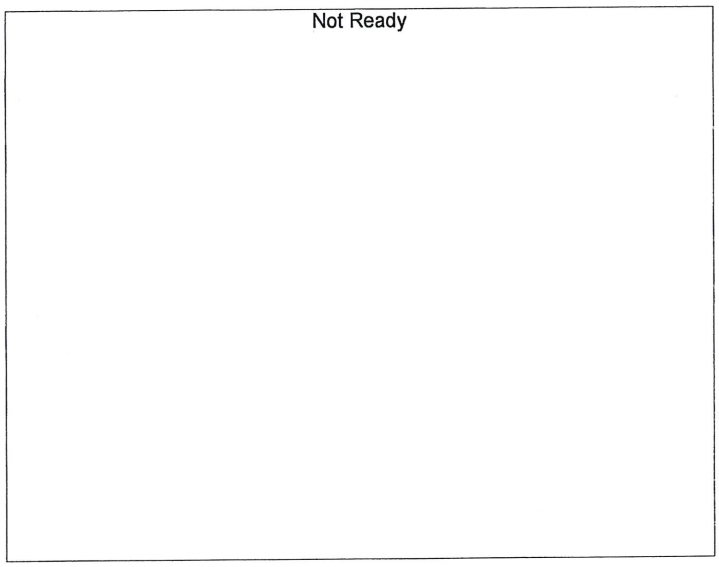
Quality Review

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

Calibration Table

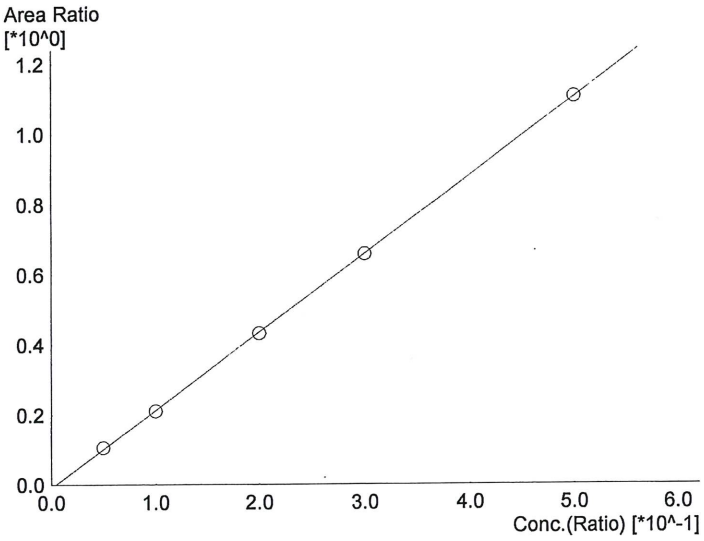
Laboratory : MERIDIAN
Instrument Name : GC-HS
Instrument Serial # : C12595800409 / C12255750548

<<Data File>>
Method File :C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Batch File :C:\LabSolutions\Data\220309\CALIBRATION\CALCURVE_TEMPLATE.gcb
Date Acquired :3/9/2022 11:41:25 AM
Date Created :3/9/2022 11:36:53 AM
Date Modified :3/9/2022 12:00:26 PM



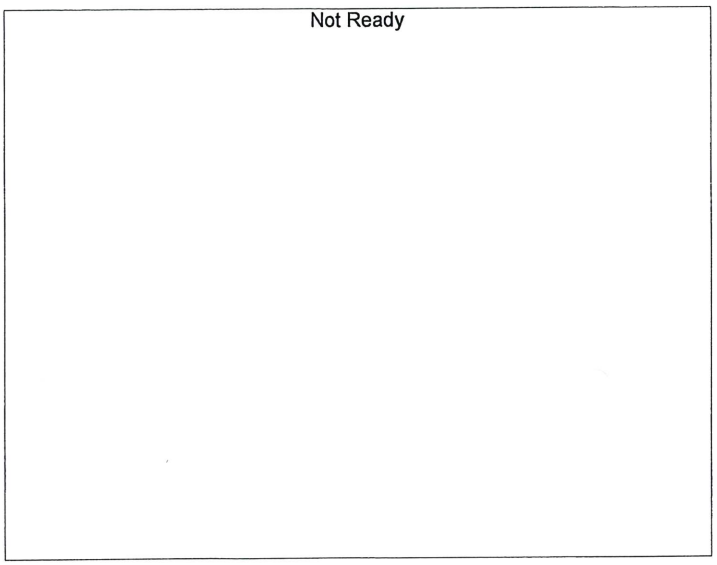
Name : Methanol
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



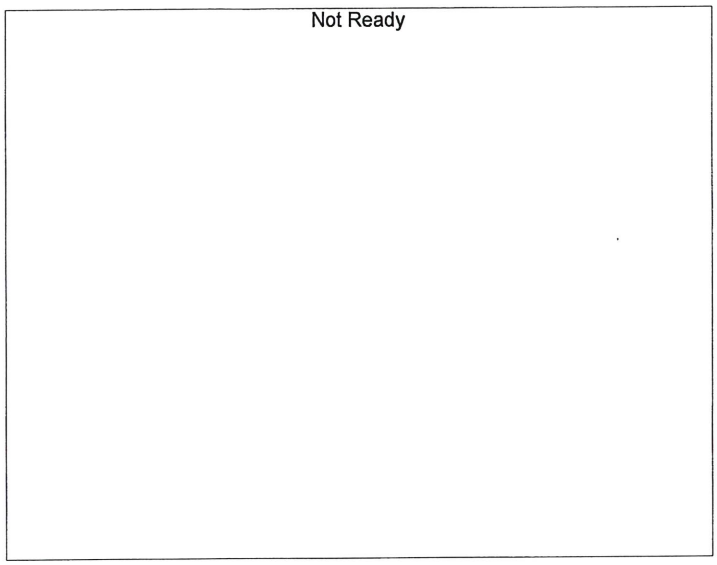
Name : Ethanol
Detector Name: FID1
Function : f(x)=2.22634*x-0.0104171
R^2 value= 0.9999234
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.
1	0.050	21377	0.0522
2	0.100	40442	0.0990
3	0.200	83552	0.1983
4	0.300	124861	0.2994
5	0.500	222002	0.5009



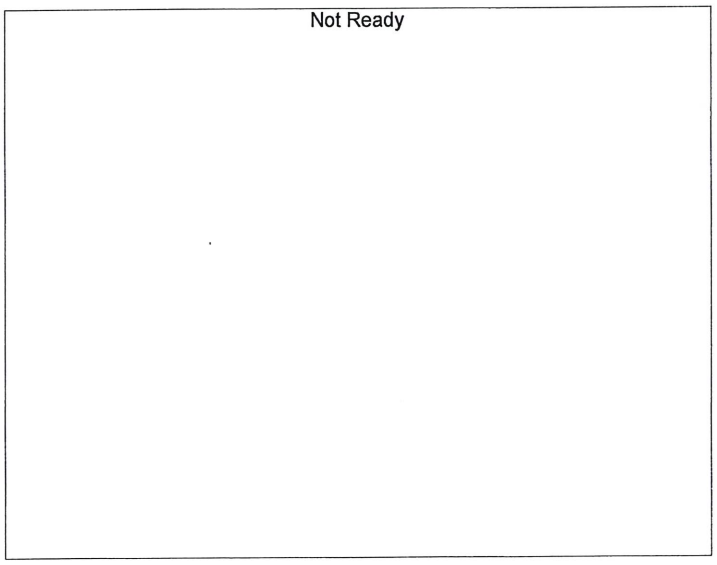
Name : Isopropyl Alcohol
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



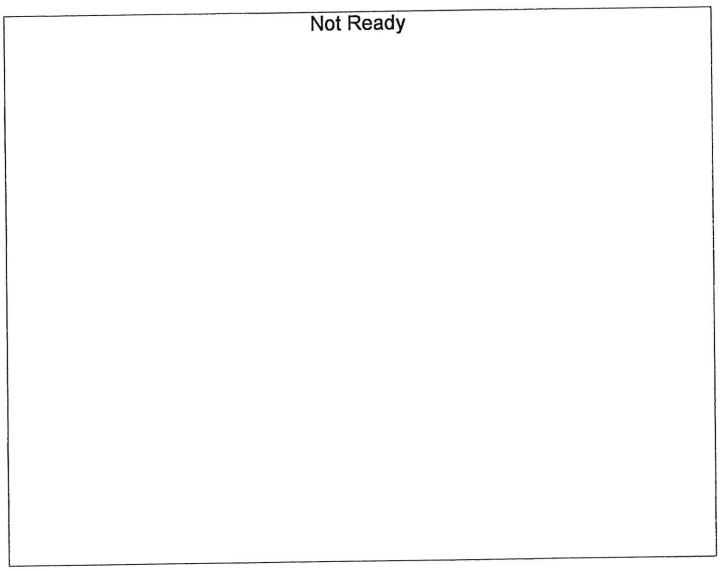
Name : Acetone
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



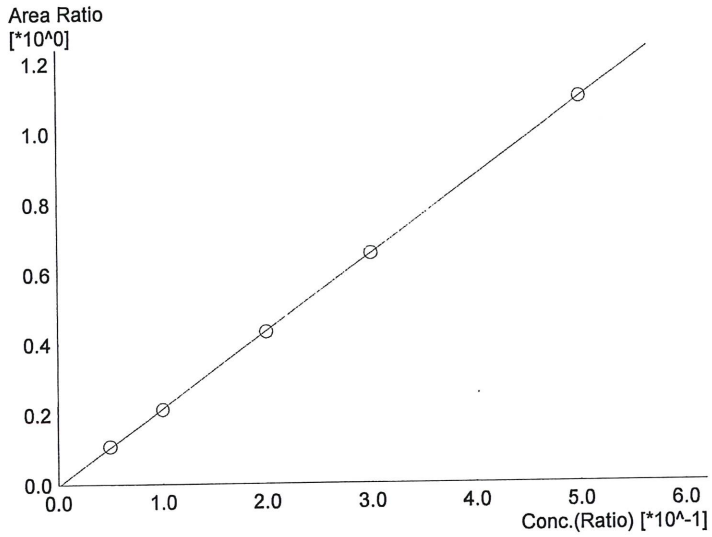
Name : Fluor. Hydrocarbon(s)
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



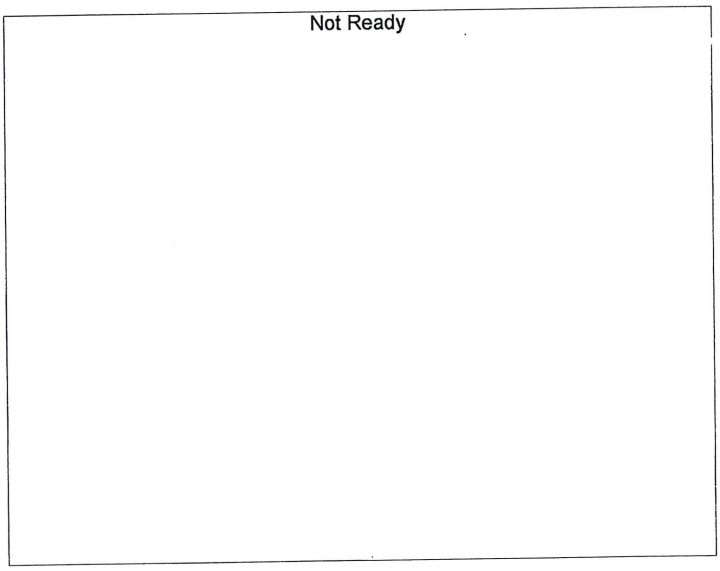
Name : Methanol
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



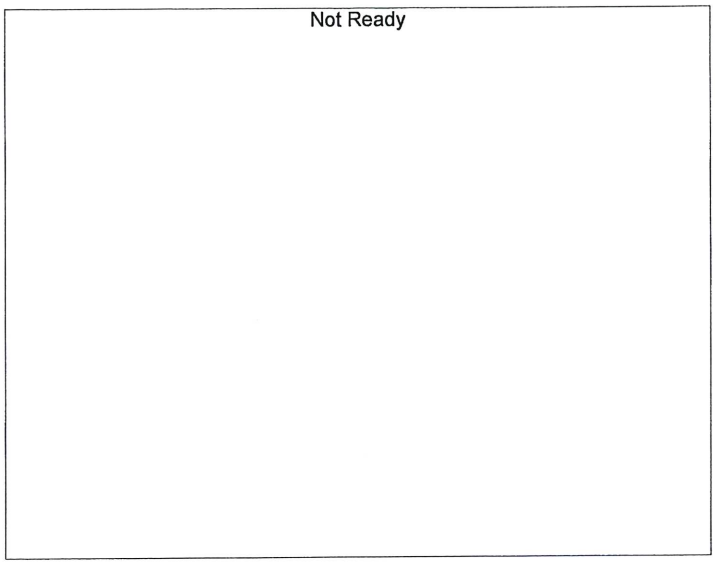
Name : Ethanol
Detector Name: FID2
Function : f(x)=2.20138*x-0.00592054
R^2 value= 0.9999687
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.
1	0.050	20481	0.0514
2	0.100	38535	0.0990
3	0.200	79089	0.1990
4	0.300	117488	0.3001
5	0.500	206973	0.5003



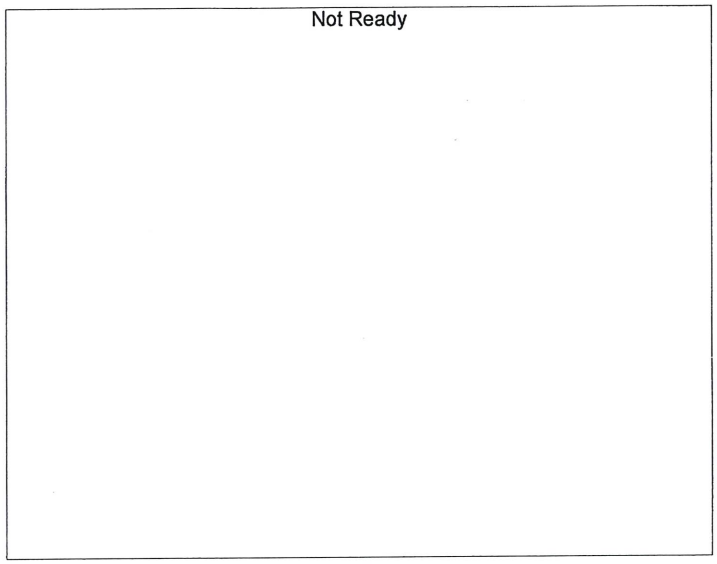
Name : Acetone
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



Name : Isopropyl Alcohol
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



Name : Fluor. Hydrocarbon(s)
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

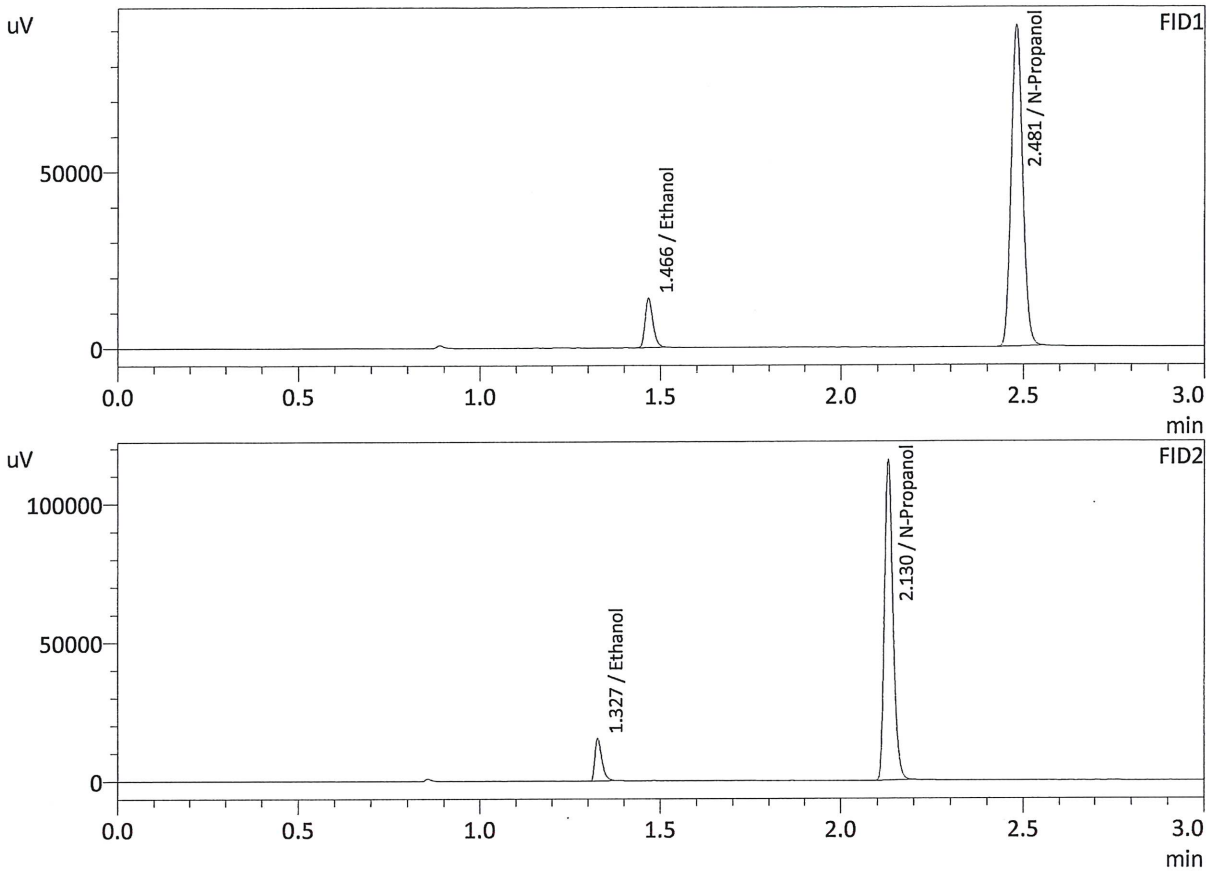
#	Conc.	Area	Std. Conc.

Meridian Blood Alcohol Analysis Batch Table

Shimadzu GC-2030 Serial #C12255750548
Shimadzu HS-20 Serial #C12595800409
Lab Solutions Software Ver. 5.99

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

Sample Name : 0.050
Laboratory : Meridian
Injection Date : 3/9/2022 11:10:05 AM
Vial # : 1
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



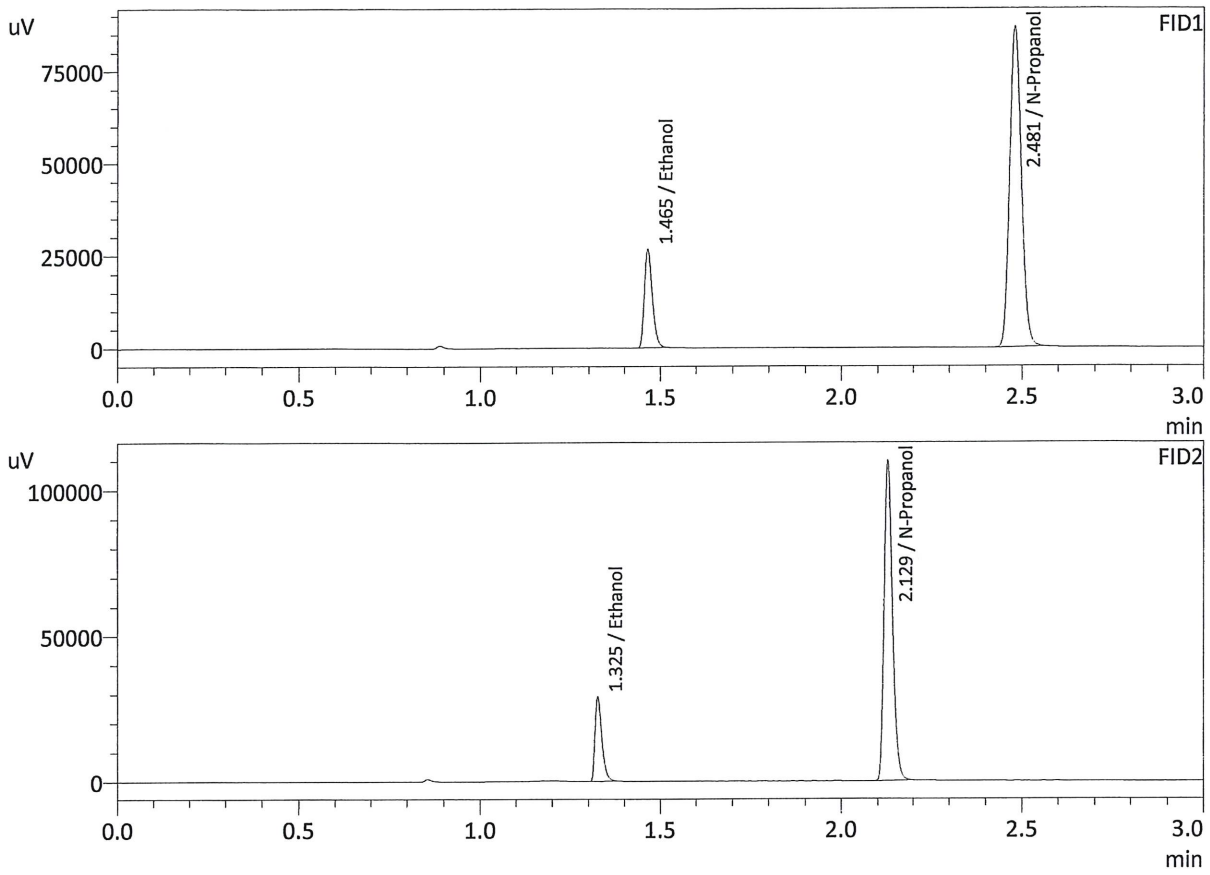
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0522	21377	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	201998	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0514	20481	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	190907	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 0.100
Laboratory : Meridian
Injection Date : 3/9/2022 11:17:25 AM
Vial # : 2
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

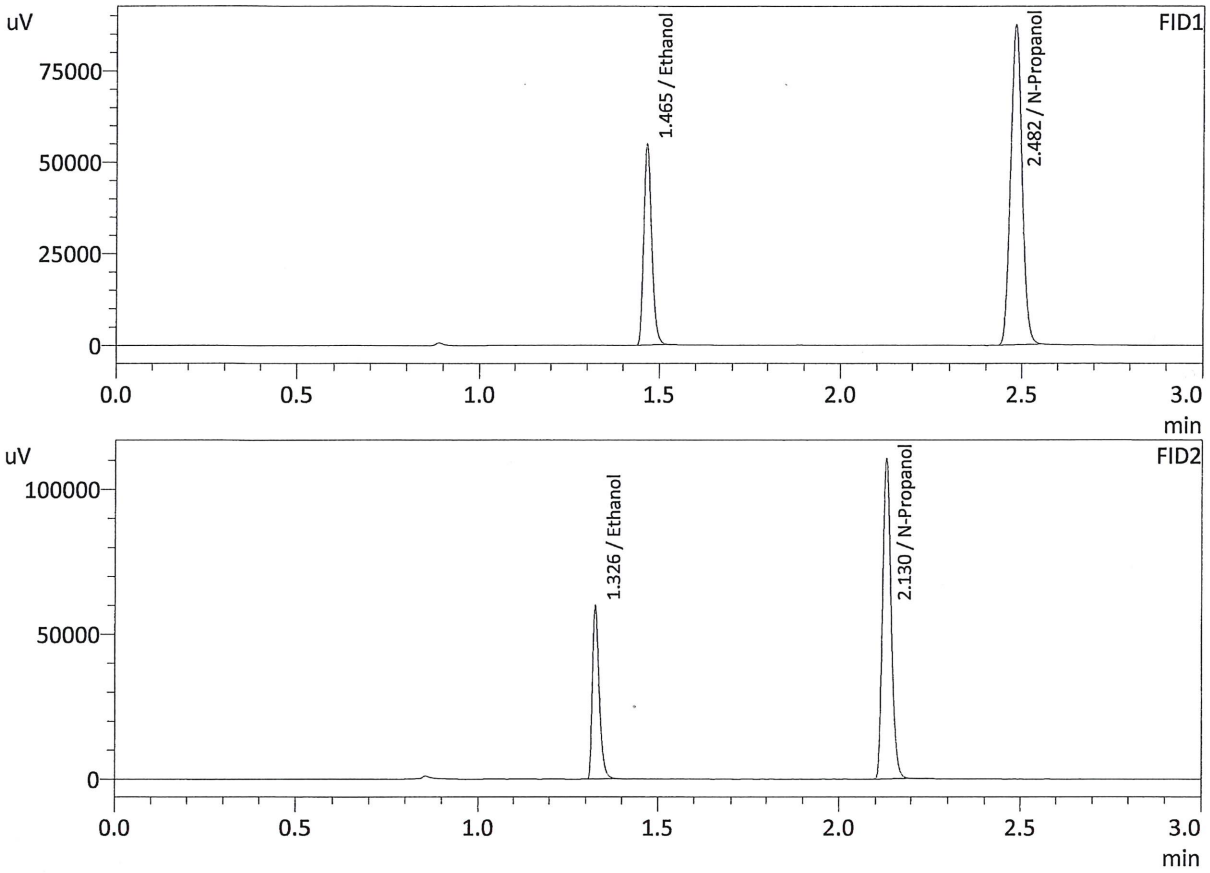
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0990	40442	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	192559	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0990	38535	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	181754	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

W

Sample Name : 0.200
Laboratory : Meridian
Injection Date : 3/9/2022 11:25:05 AM
Vial # : 3
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



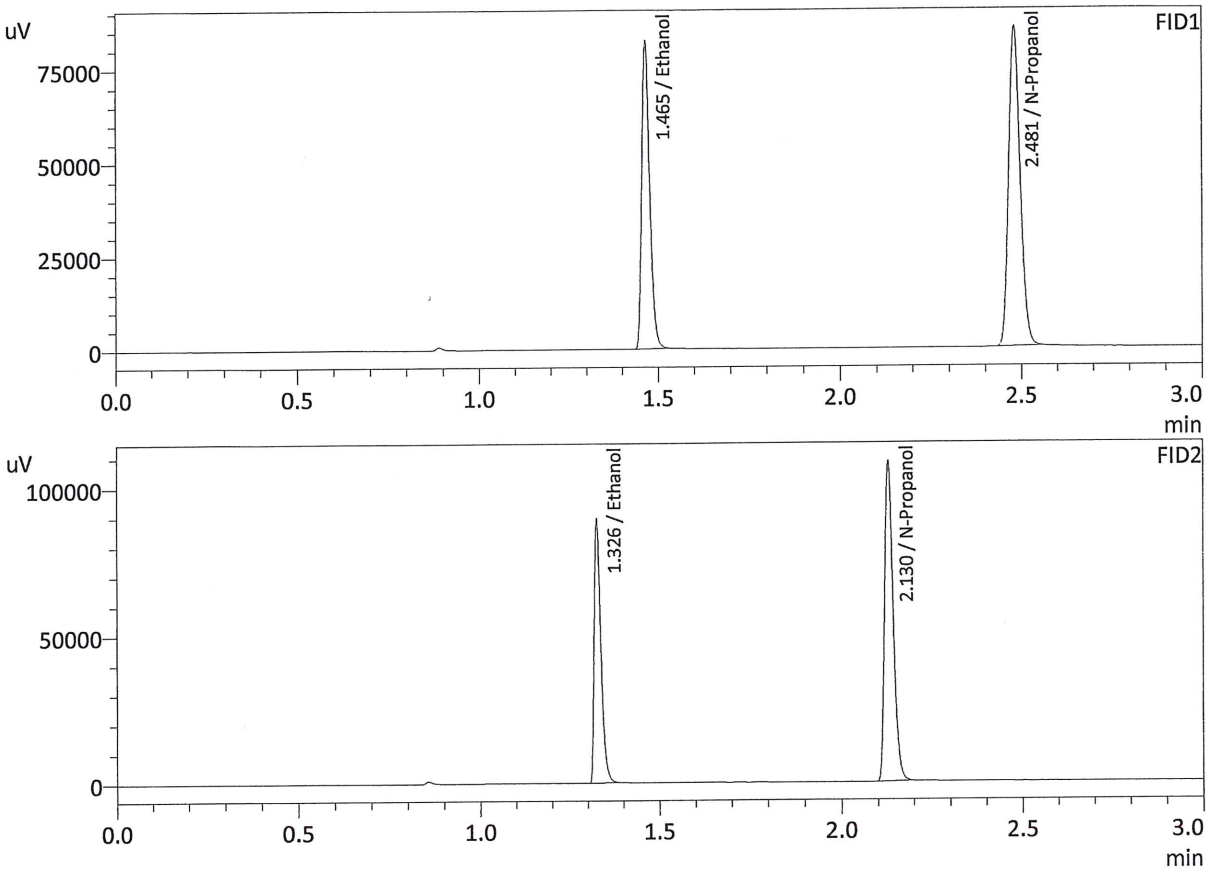
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1983	83552	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	193779	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1990	79089	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	182937	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 0.300
Laboratory : Meridian
Injection Date : 3/9/2022 11:33:44 AM
Vial # : 4
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

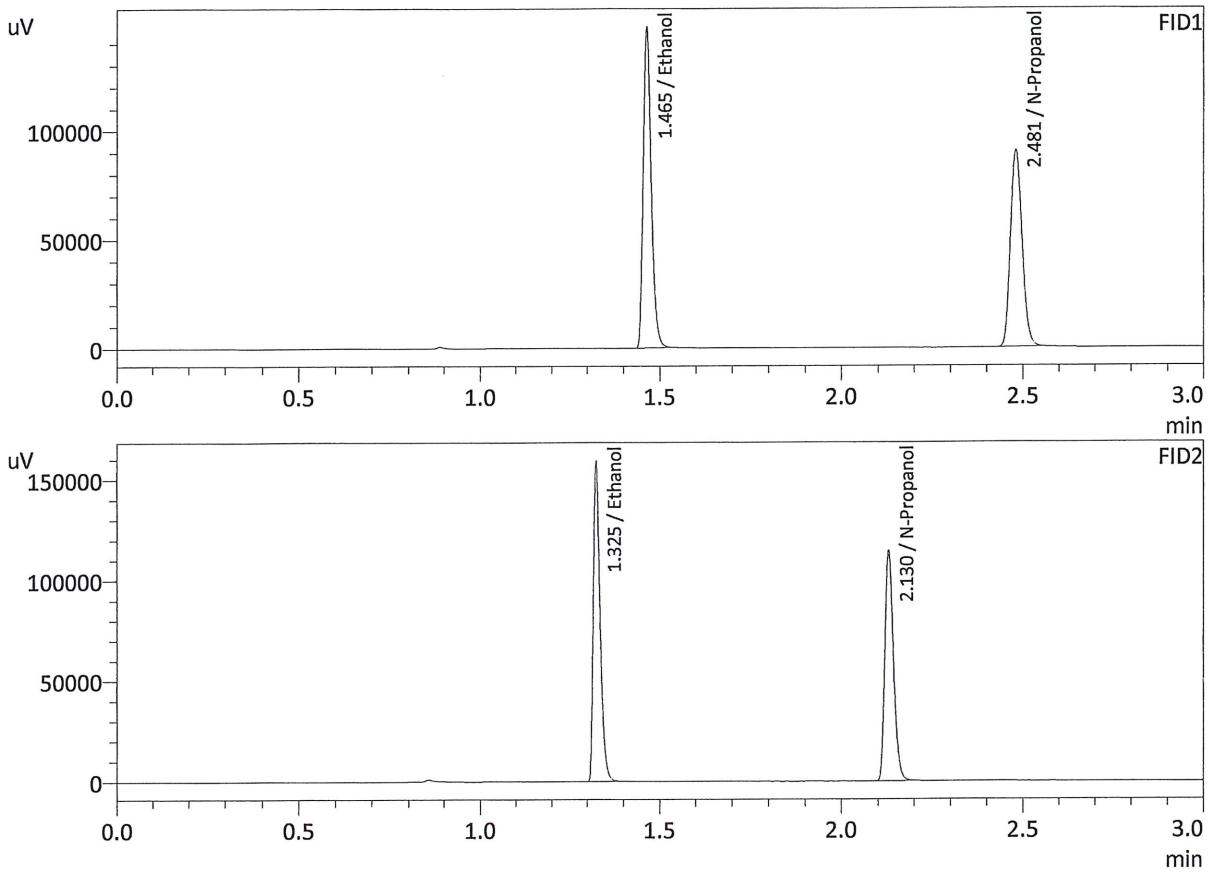
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2994	124861	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	190249	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.3001	117488	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	179406	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

W

Sample Name : 0.500
Laboratory : Meridian
Injection Date : 3/9/2022 11:41:25 AM
Vial # : 5
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

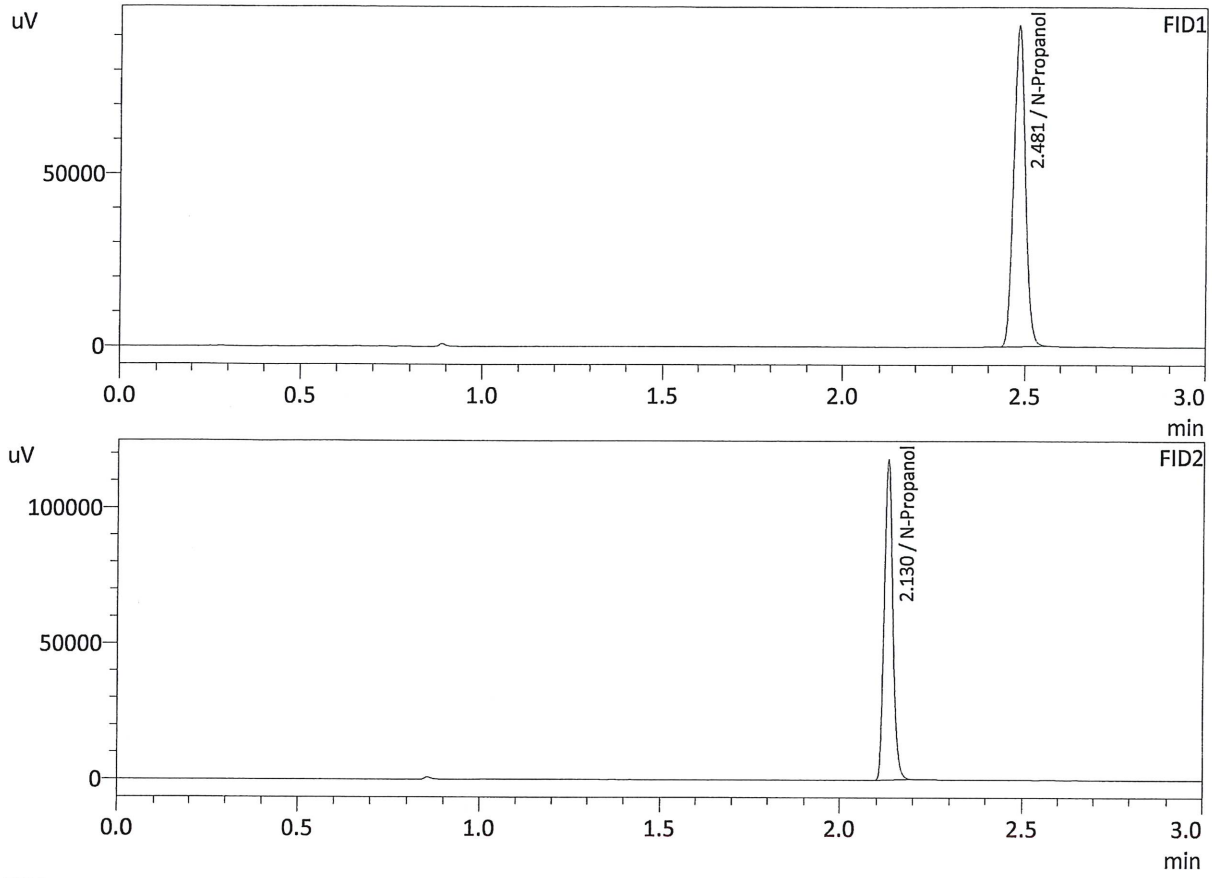
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.5009	222002	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	200928	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.5003	206973	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	188934	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

W

Sample Name : INT STD BLK
Laboratory : Meridian
Injection Date : 3/9/2022 11:50:06 AM
Vial # : 6
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	206379	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	195043	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

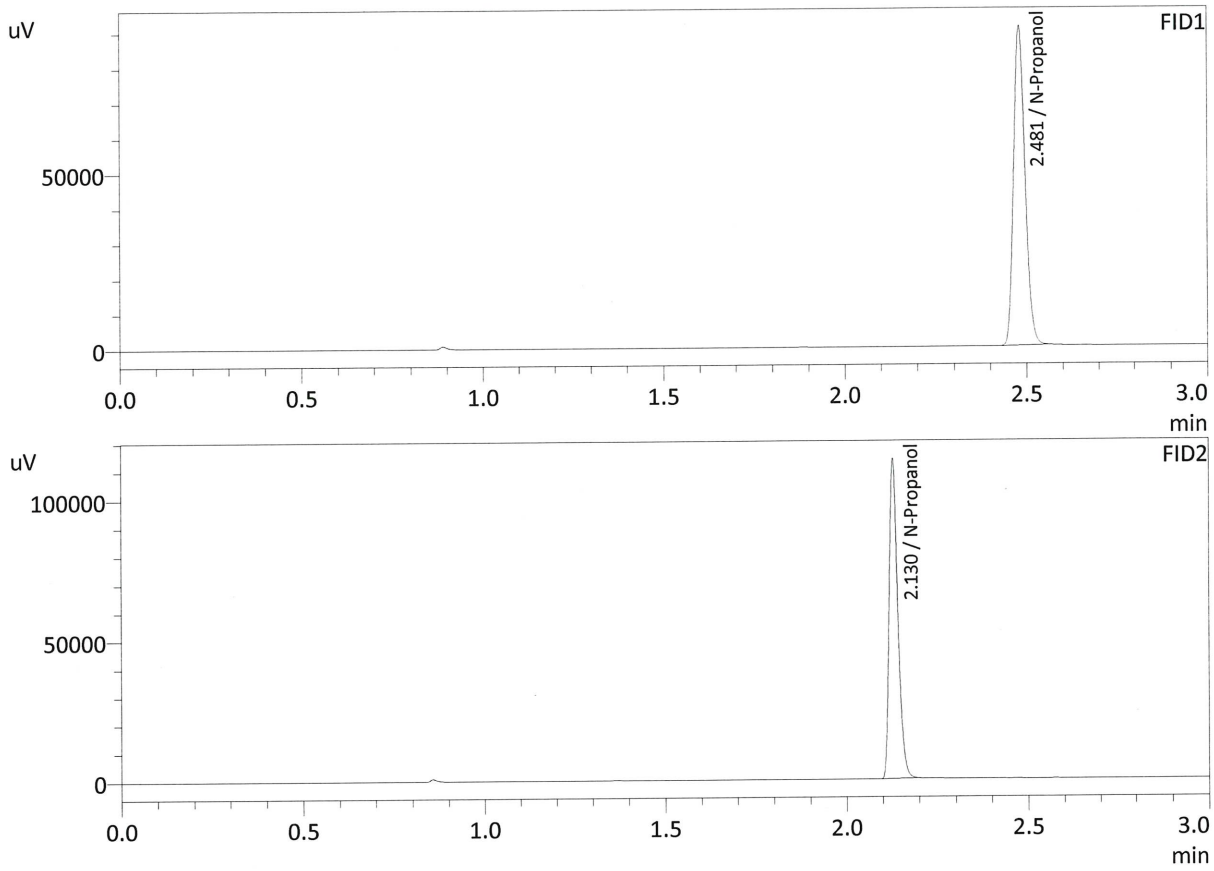
W

Meridian Blood Alcohol Analysis Batch Table

Shimadzu GC-2030 Serial #C12255750548
Shimadzu HS-20 Serial #C12595800409
Lab Solutions Software Ver. 5.99

Vial#	Sample Name	Method File
1	INT STD BLK 1	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
2	ED VOLATILES FN 0710	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
3	QC-1-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
4	QC-1-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
5	0.08 QA-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
6	0.08 QA-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
7	M2022-1001-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
8	M2022-1001-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
9	M2022-1002-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
10	M2022-1002-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
11	M2022-1003-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
12	M2022-1003-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
13	M2022-1004-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
14	M2022-1004-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
15	M2022-1022-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
16	M2022-1022-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
17	M2022-1025-2-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
18	M2022-1025-2-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
19	M2022-1026-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
20	M2022-1026-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
21	M2022-1027-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
22	M2022-1027-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
23	M2022-1071-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
24	M2022-1071-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
25	QC-2-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
26	QC-2-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
27	M2022-1072-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
28	M2022-1072-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
29	M2022-1073-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
30	M2022-1073-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
31	M2022-1074-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
32	M2022-1074-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
33	M2022-1081-3-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
34	M2022-1081-3-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
35	M2022-1105-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
36	M2022-1105-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
37	M2022-1116-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
38	M2022-1116-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
39	M2022-1121-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
40	M2022-1121-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
41	M2022-1129-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
42	M2022-1129-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
43	M2022-1132-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
44	M2022-1132-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
45	M2022-1133-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
46	M2022-1133-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
47	QC1-2-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
48	QC1-2-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
49	M2022-1134-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
50	M2022-1134-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
51	P2022-0716-1-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
52	P2022-0716-1-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
53	QC2-2-A	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
54	QC2-2-B	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
55	INT STD BLK2	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
56	DFE 1119140M	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
57	INT STD BLK3	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
58	TFE 111914	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
59	INT STD BLK	C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM

Sample Name : INT STD BLK 1
Laboratory : Meridian
Injection Date : 3/17/2022 12:14:38 PM
Vial # : 1
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



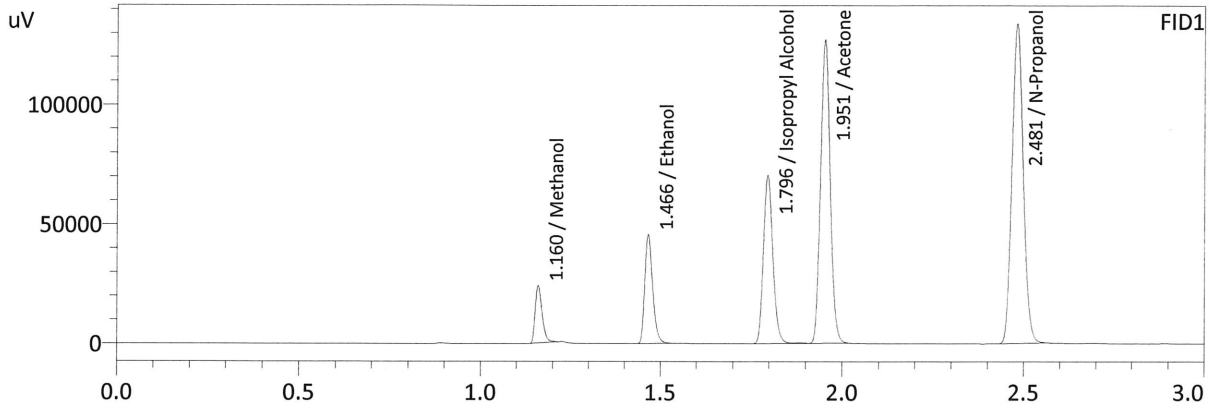
FID1

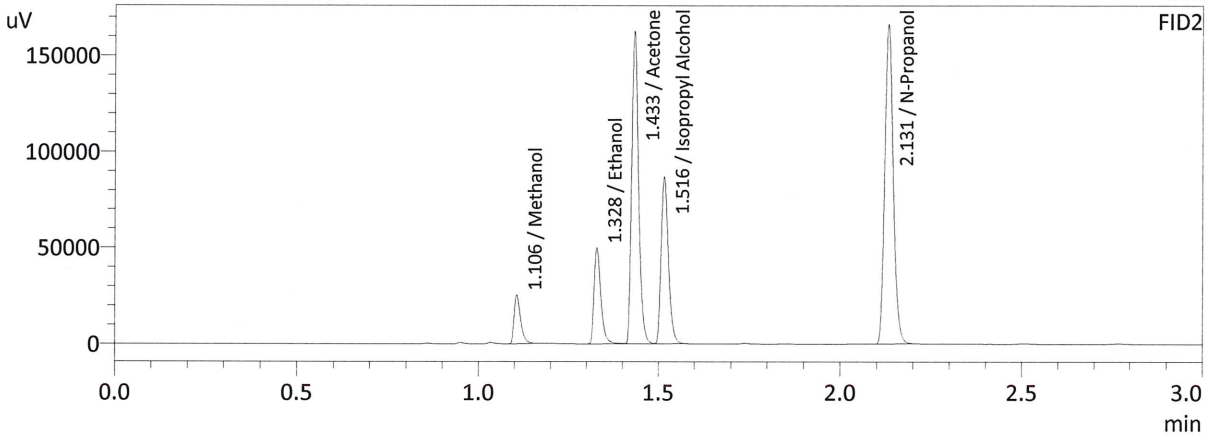
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	199698	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	188674	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

Sample Name : MIXED VOLATILES FN 07101701
Laboratory : Meridian
Injection Date : 3/17/2022 12:21:59 PM
Vial # : 2
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	0.0000	32167	g/100cc
Ethanol	0.1113	69672	g/100cc
Isopropyl Alcohol	0.0000	129795	g/100cc
Acetone	0.0000	233930	g/100cc
N-Propanol	0.0000	293391	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	0.0000	31560	g/100cc
Ethanol	0.1132	66842	g/100cc
Acetone	0.0000	218447	g/100cc
Isopropyl Alcohol	0.0000	121732	g/100cc
N-Propanol	0.0000	274618	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

W

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QA 0.08 **Item #** **Analysis Date(s): 3/17/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0800	0.0798	0.0002	0.0799	0.0016	0.0807
(g/100cc)	0.0817	0.0813	0.0004	0.0815		

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

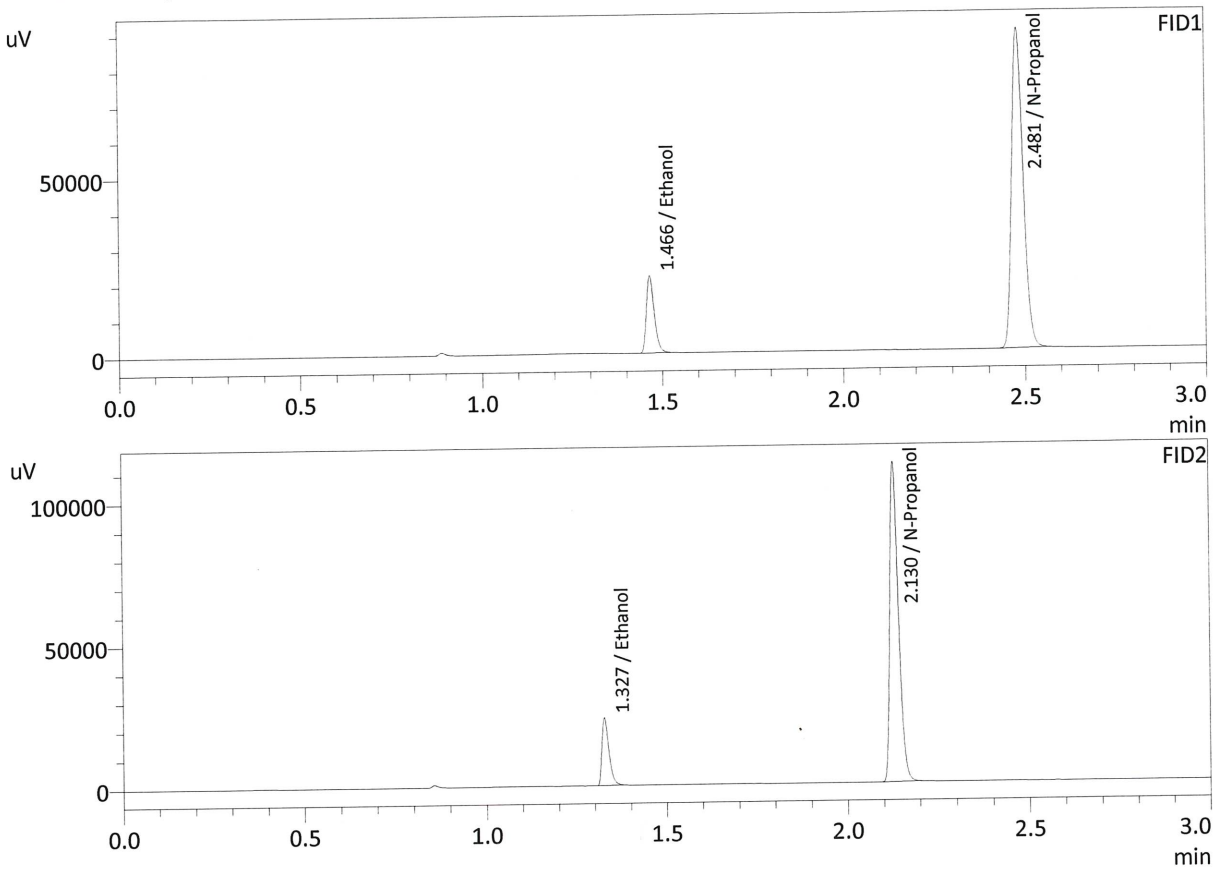
Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

Overall Mean (g/100cc)	Low	High	5% of Mean
0.080	0.076	0.084	0.004

	Reported Result	
	0.080	

Calibration and control data are stored centrally.

Sample Name : 0.08 QA-A
Laboratory : Meridian
Injection Date : 3/17/2022 12:46:51 PM
Vial # : 5
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

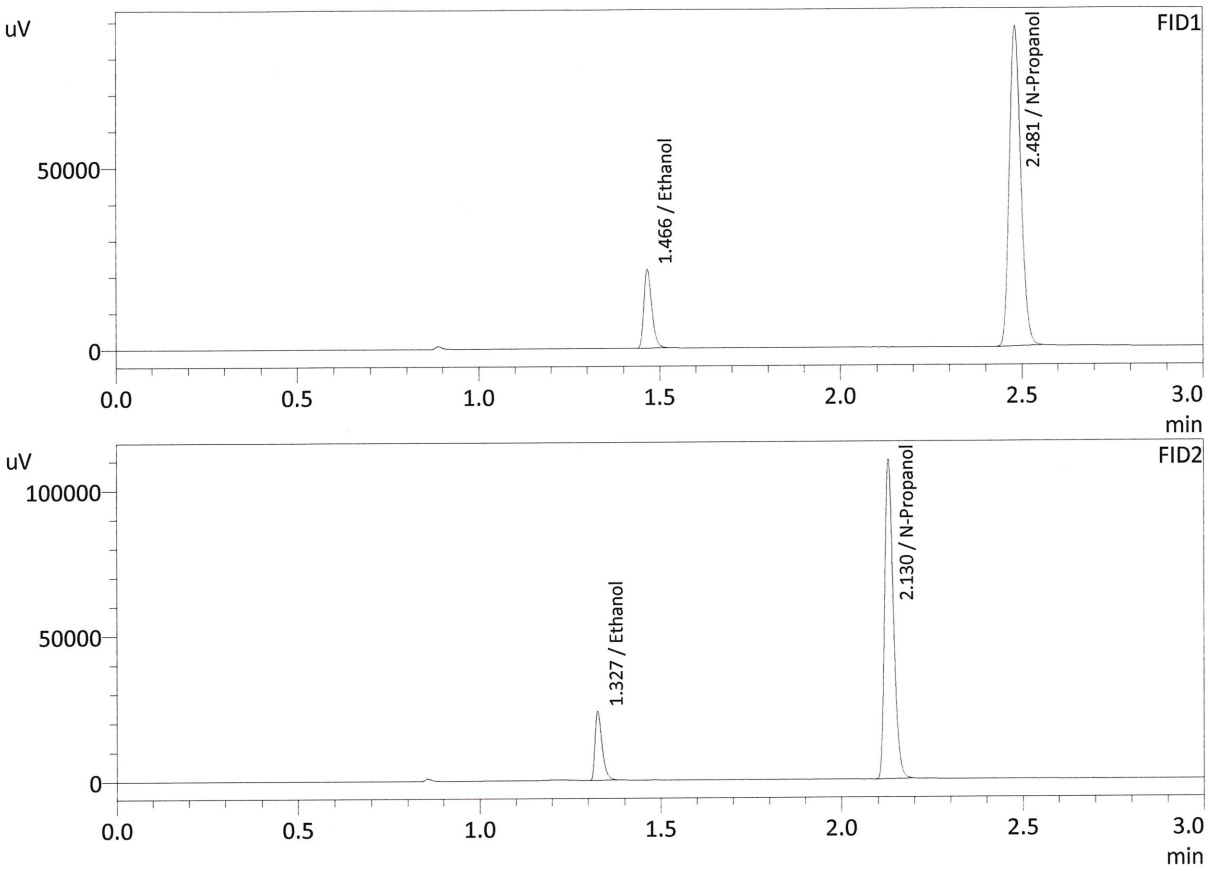
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0800	33039	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	196997	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0798	31563	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	185714	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

W

Sample Name : 0.08 QA-B
Laboratory : Meridian
Injection Date : 3/17/2022 12:54:11 PM
Vial # : 6
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0817	33193	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	193431	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0813	31619	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	182585	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-1 **Item #** **Analysis Date(s): 3/17/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0736	0.0732	0.0004	0.0734	0.0016	0.0742
(g/100cc)	0.0752	0.0749	0.0003	0.0750		

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

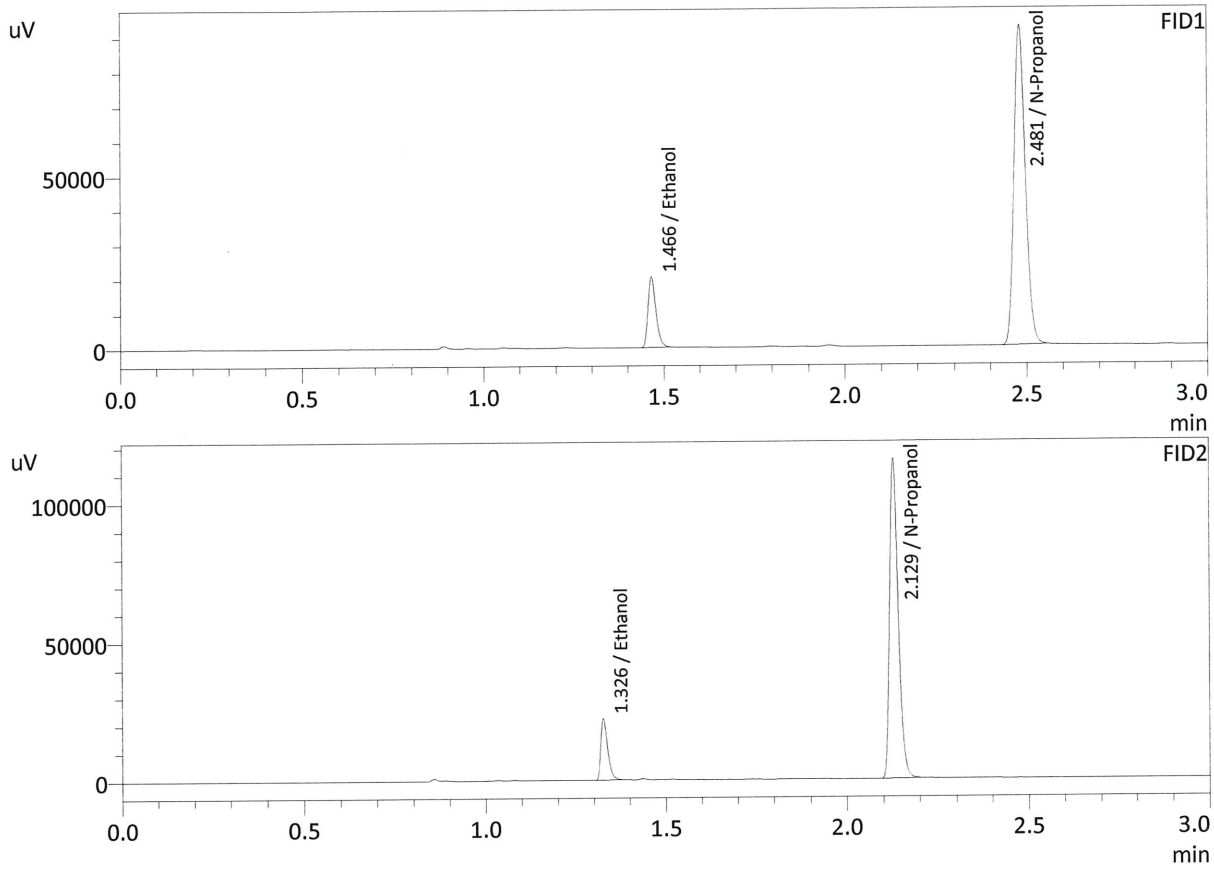
Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

Overall Mean (g/100cc)	Low	High	5% of Mean
0.074	0.070	0.078	0.004

	Reported Result	
	0.074	

Calibration and control data are stored centrally.

Sample Name : QC-1-1-A
Laboratory : Meridian
Injection Date : 3/17/2022 12:29:19 PM
Vial # : 3
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



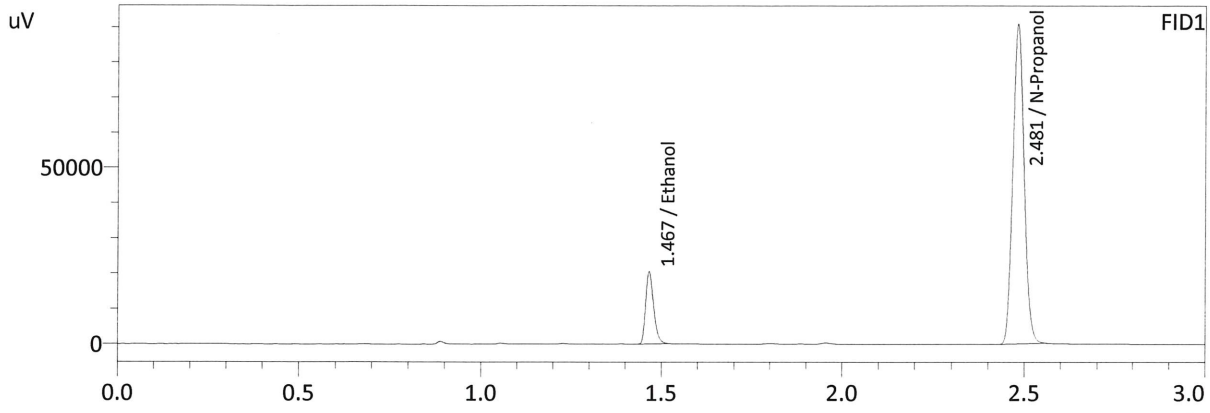
FID1

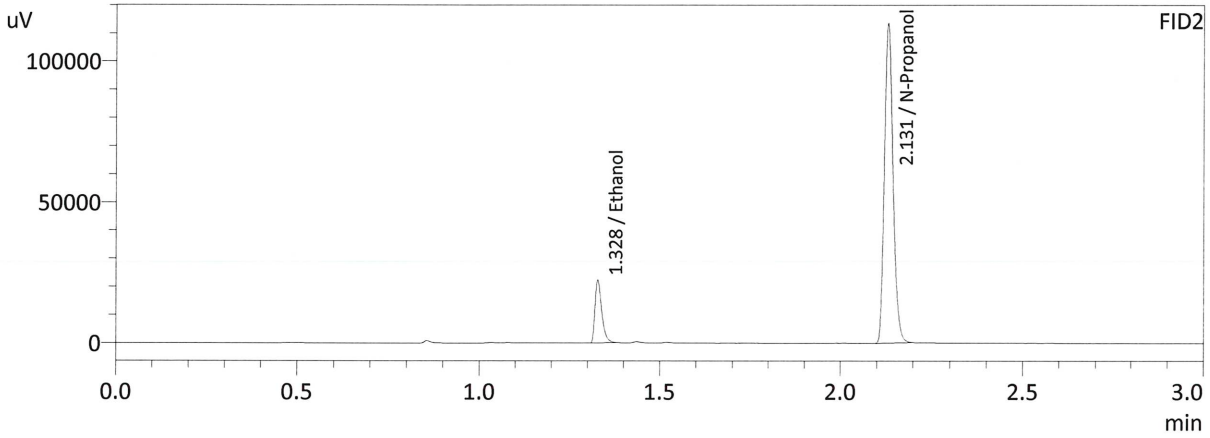
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0736	31179	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	202977	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0732	29733	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	191327	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

Sample Name : QC-1-1-B
Laboratory : Meridian
Injection Date : 3/17/2022 12:38:02 PM
Vial # : 4
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0752	31327	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	199458	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0749	29942	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	188302	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC 1-2 **Item #** **Analysis Date(s): 3/17/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0777	0.0780	0.0003	0.0778	0.0001	0.0779
(g/100cc)	0.0778	0.0781	0.0003	0.0779		

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

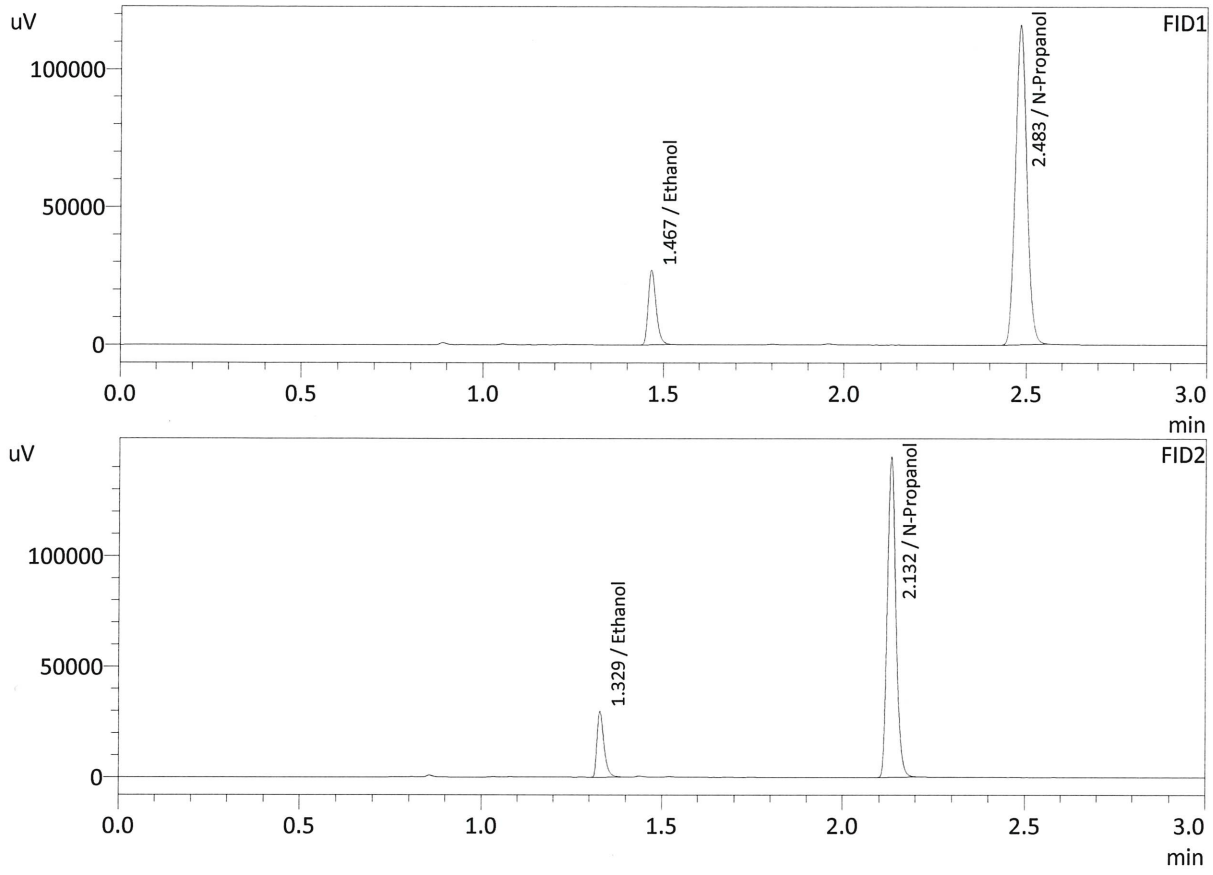
Uncertainty of Measurement (UM%): 5.00%

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.

Sample Name : QC1-2-A
Laboratory : Meridian
Injection Date : 3/17/2022 6:24:20 PM
Vial # : 47
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



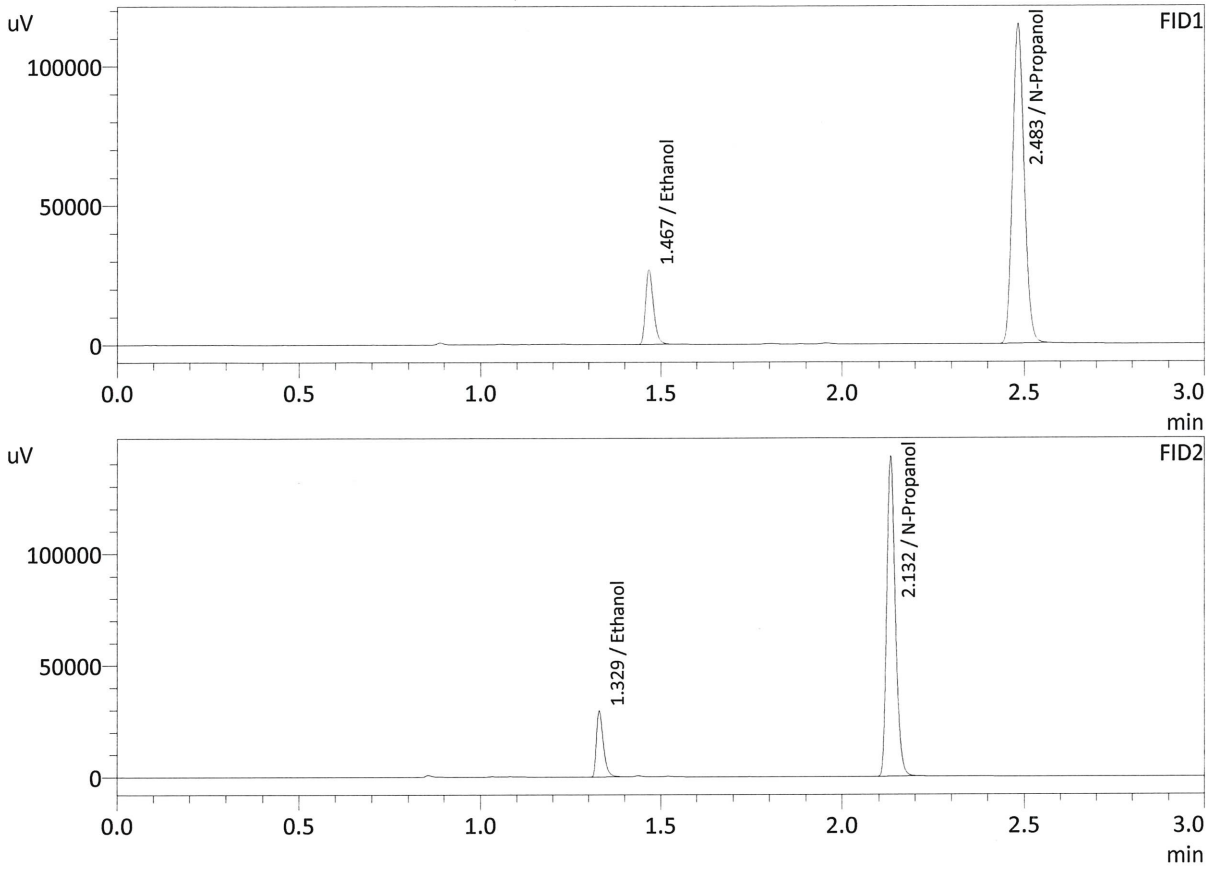
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0777	41480	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	255048	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0780	39774	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	239845	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

Sample Name : QC1-2-B
Laboratory : Meridian
Injection Date : 3/17/2022 6:34:14 PM
Vial # : 48
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0778	41114	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	252264	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0781	39432	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	237360	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

W

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC 2-1 **Item #** **Analysis Date(s): 3/17/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.2147	0.2159	0.0012	0.2153	0.0018	0.2144
(g/100cc)	0.2129	0.2141	0.0012	0.2135		

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
0.214	0.203	0.225	0.011

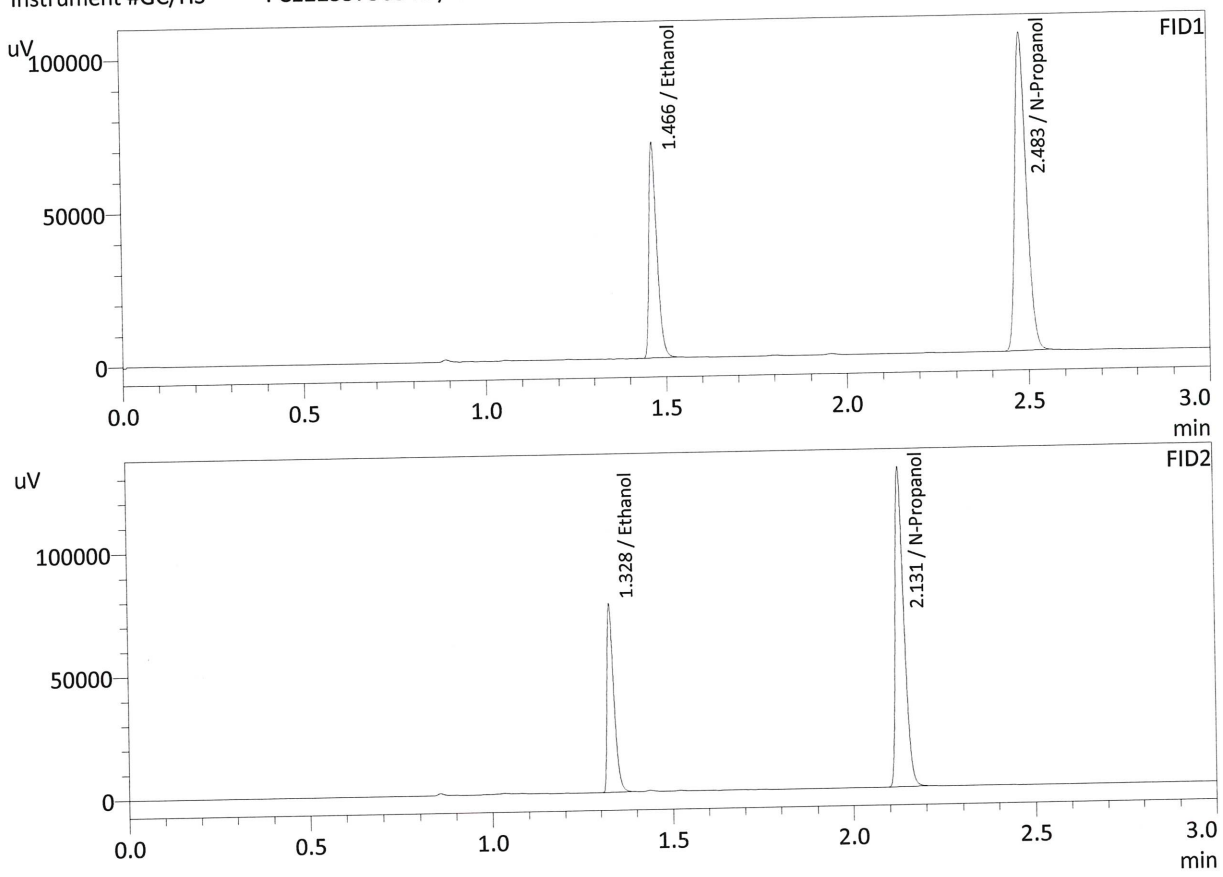
Reported Result

0.214

Calibration and control data are stored centrally.

W

Sample Name : QC-2-1-A
Laboratory : Meridian
Injection Date : 3/17/2022 3:27:25 PM
Vial # : 25
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

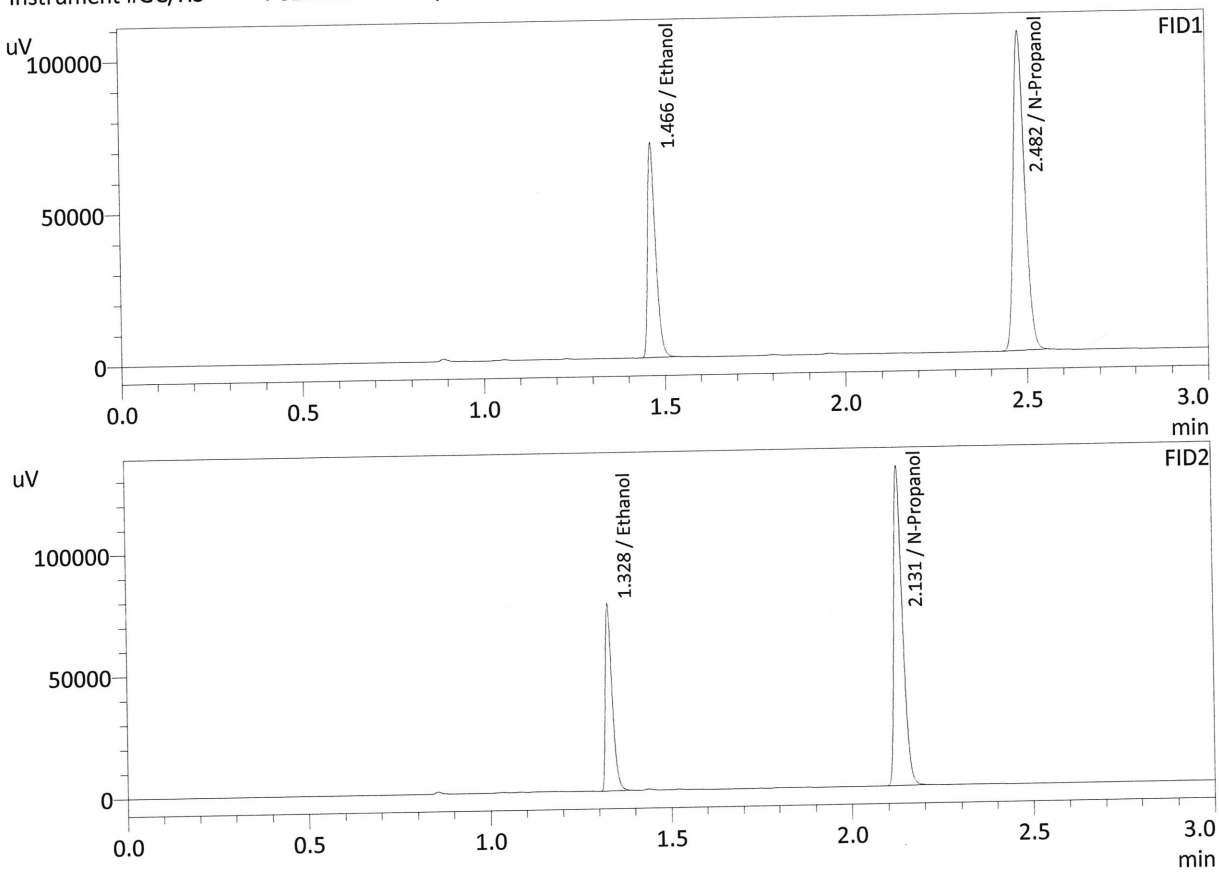
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2147	106900	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	228556	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2159	101166	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	215471	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

W

Sample Name : QC-2-1-B
Laboratory : Meridian
Injection Date : 3/17/2022 3:34:48 PM
Vial # : 26
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2129	107200	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	231150	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2141	101367	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	217760	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC 2-2 **Item #** **Analysis Date(s): 3/17/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.2185	0.2193	0.0008	0.2189	0.0013	0.2195
(g/100cc)	0.2194	0.2210	0.0016	0.2202		

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%**

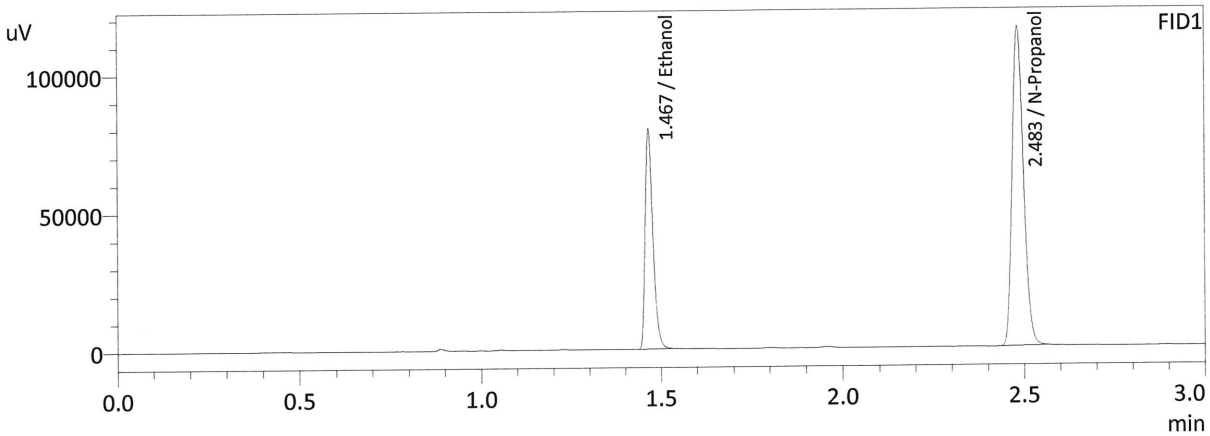
Overall Mean (g/100cc)	Low	High	5% of Mean
0.219	0.208	0.230	0.011

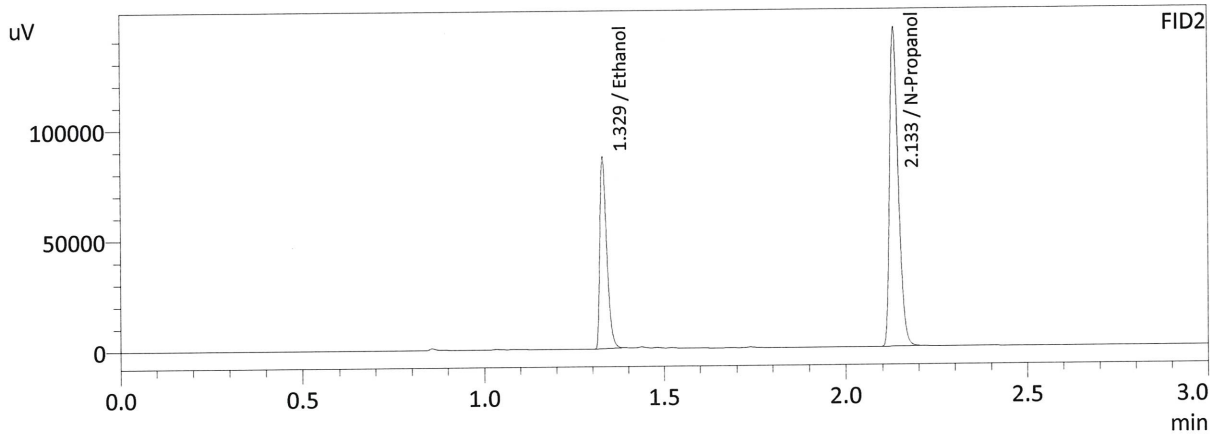
Reported Result

0.219

Calibration and control data are stored centrally.

Sample Name : QC2-2-A
Laboratory : Meridian
Injection Date : 3/17/2022 7:12:47 PM
Vial # : 53
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

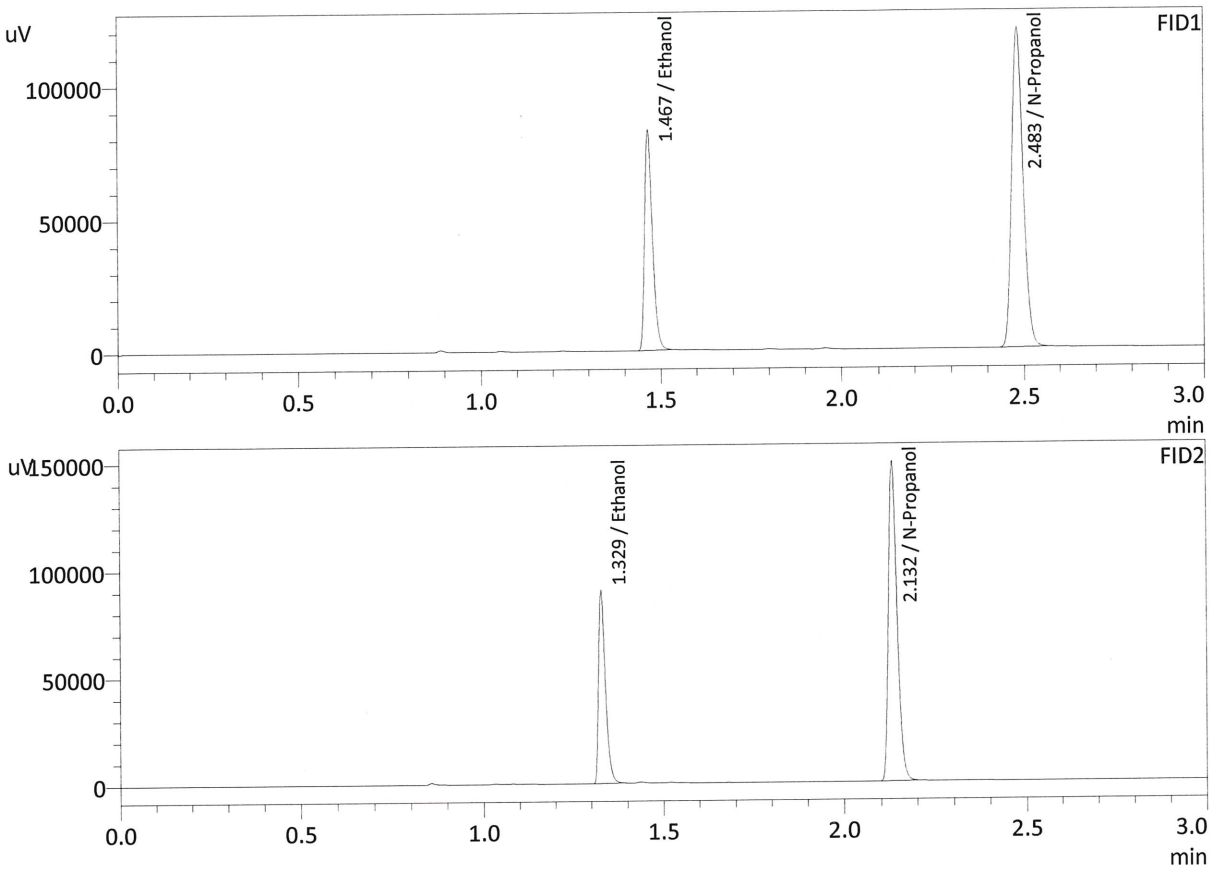
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2185	121141	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	254416	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2193	114140	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	239304	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

W

Sample Name : QC2-2-B
Laboratory : Meridian
Injection Date : 3/17/2022 7:22:53 PM
Vial # : 54
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



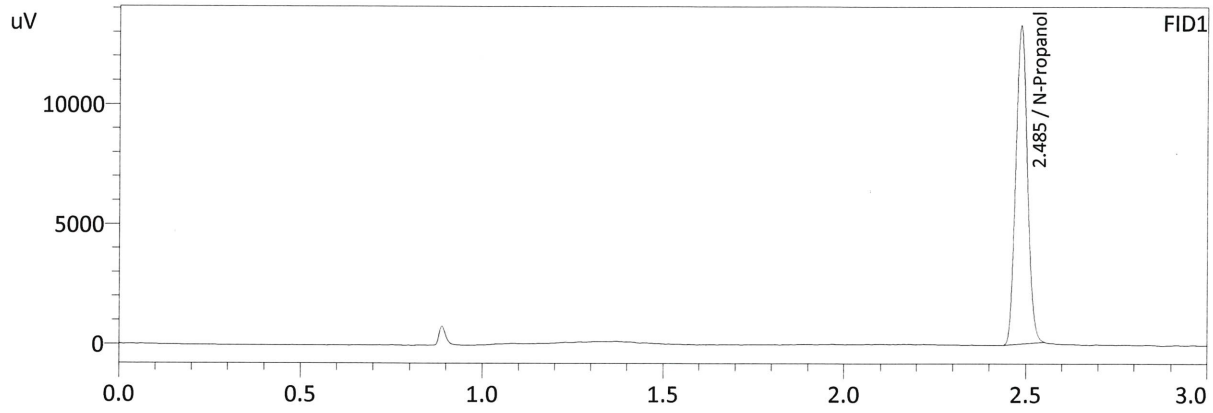
FID1

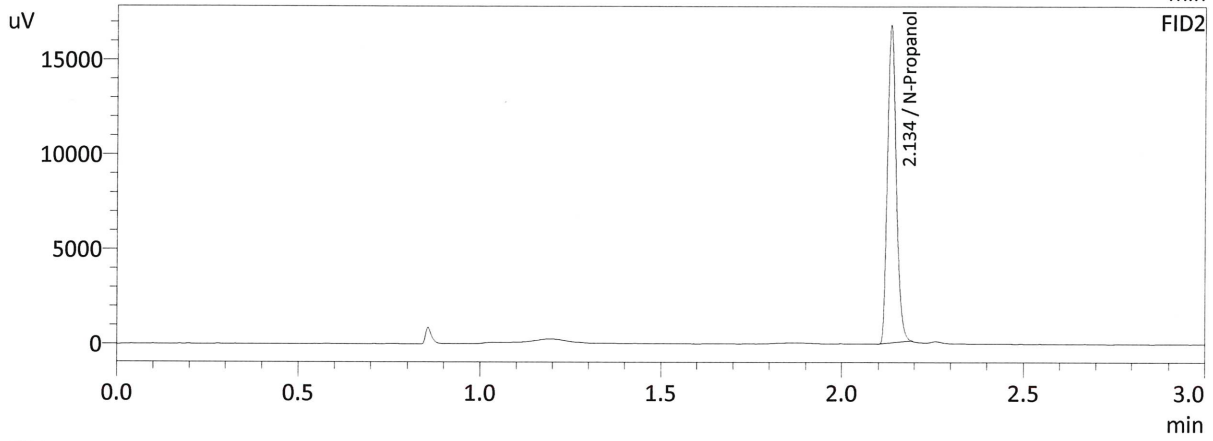
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2194	125772	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	263053	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2210	118761	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	247042	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

Sample Name : INT STD BLK2
Laboratory : Meridian
Injection Date : 3/17/2022 7:30:14 PM
Vial # : 55
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





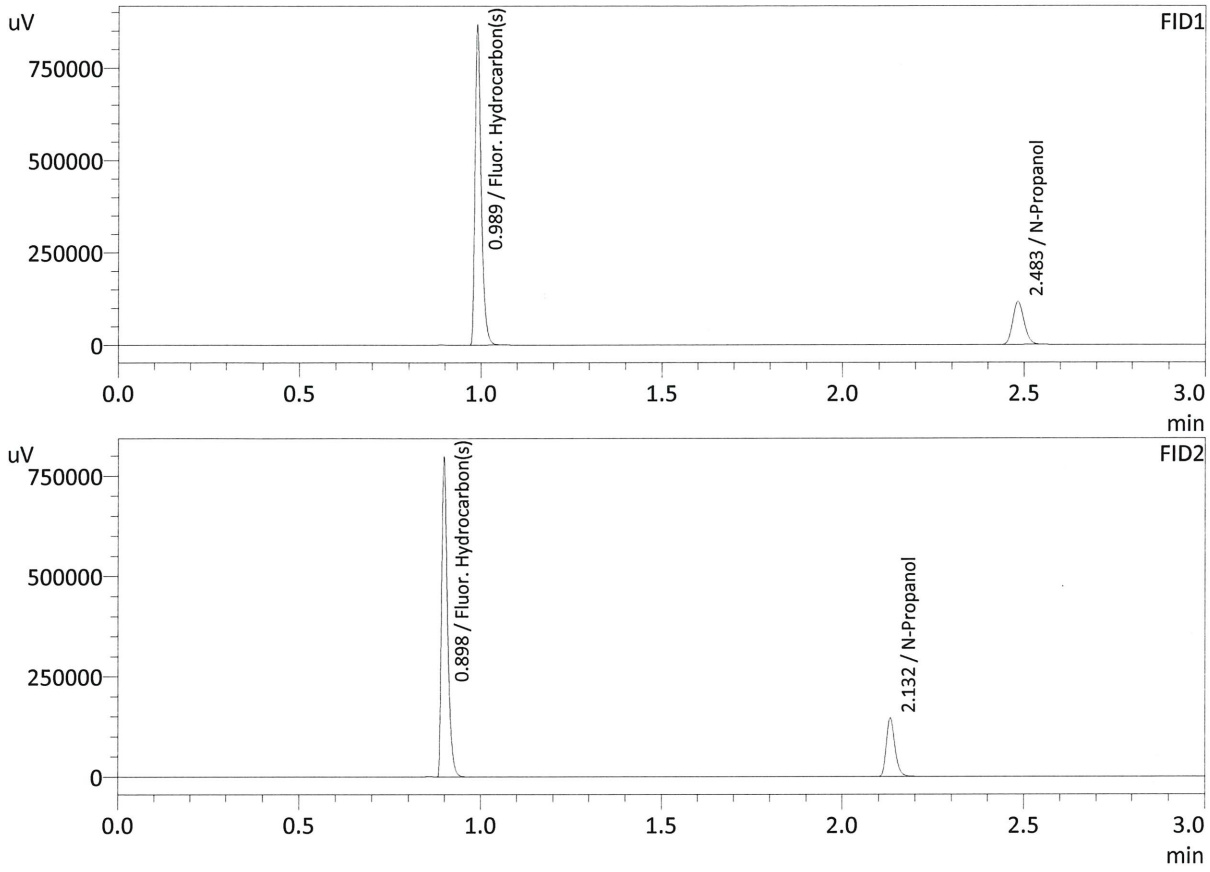
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	29388	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	28406	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

Sample Name : DFE 1119140M
Laboratory : Meridian
Injection Date : 3/17/2022 7:37:37 PM
Vial # : 56
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



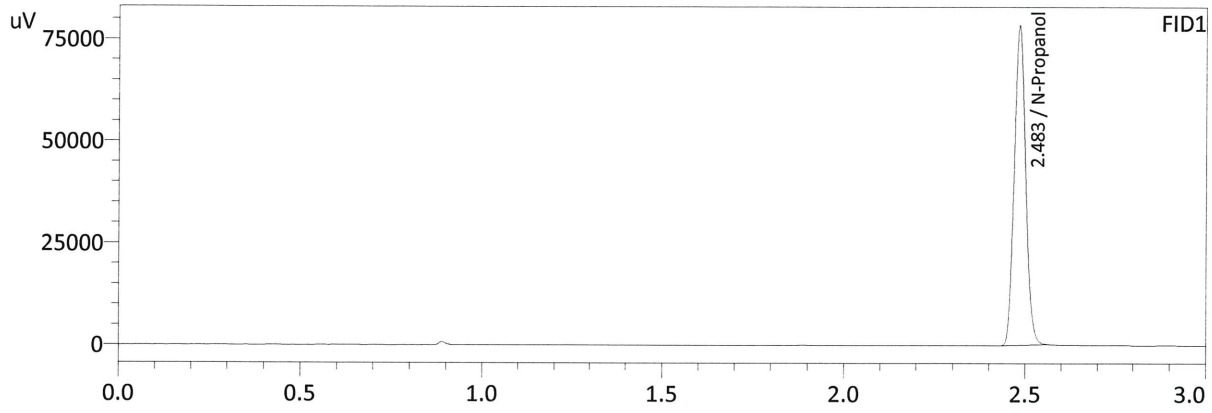
FID1

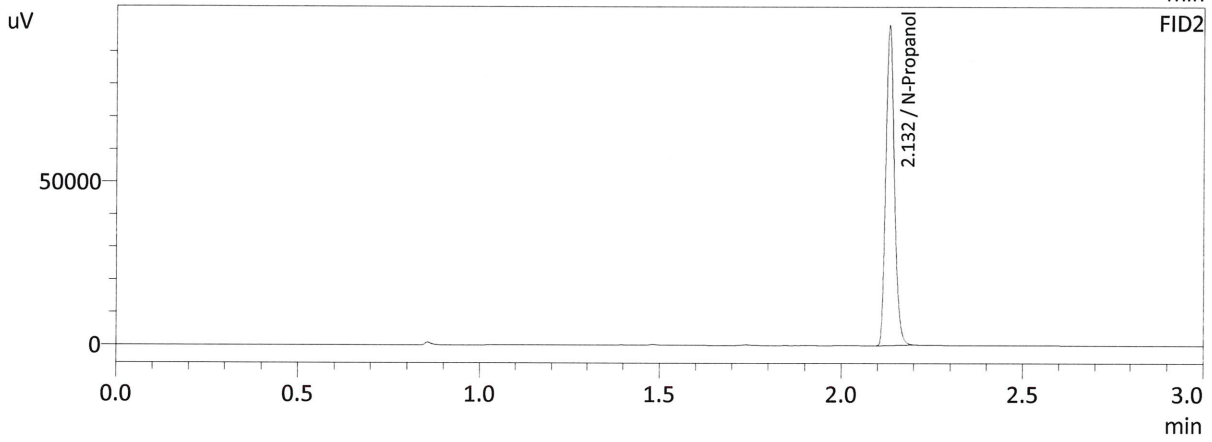
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	257025	g/100cc
Fluor. Hydrocarbon(s)	0.0000	1028811	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	242019	g/100cc
Fluor. Hydrocarbon(s)	0.0000	918158	g/100cc

Sample Name : INT STD BLK3
Laboratory : Meridian
Injection Date : 3/17/2022 7:47:00 PM
Vial # : 57
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





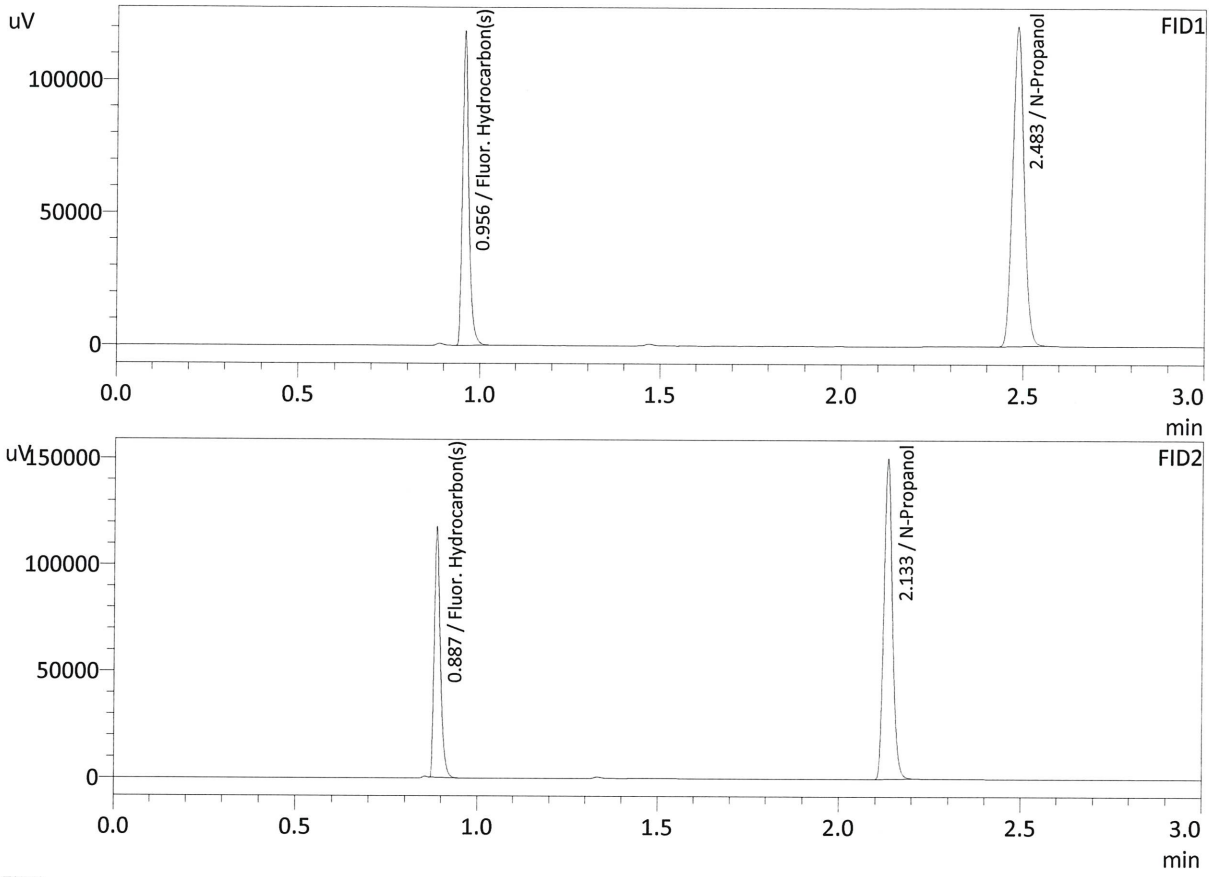
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	172322	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	163235	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

Sample Name : TFE 111914
Laboratory : Meridian
Injection Date : 3/17/2022 7:54:03 PM
Vial # : 58
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



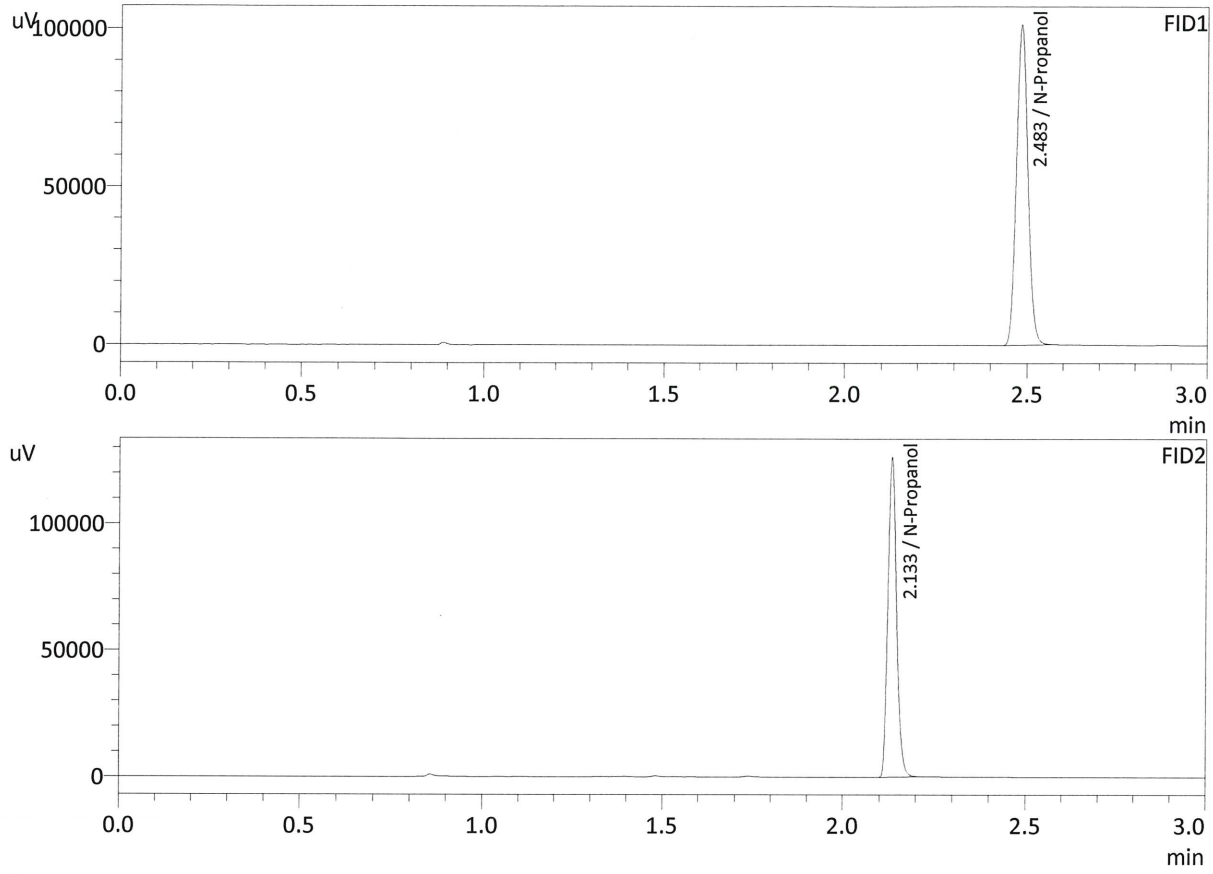
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	264408	g/100cc
Fluor. Hydrocarbon(s)	0.0000	143899	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	248930	g/100cc
Fluor. Hydrocarbon(s)	0.0000	135519	g/100cc

Sample Name : INT STD BLK
Laboratory : Meridian
Injection Date : 3/17/2022 8:01:43 PM
Vial # : 59
Method Filename : C:\LabSolutions\Data\220309\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	222486	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	210055	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc