REVIEWED
By Melissa (Nikka) Bradley at 10:56 am, Mar 29, 2022
MB

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):** 3/25/22

Calibration Date: *(if different)*

Worklist #: 5710

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Jul-23	1907006	0.0764	0.0688-0.0840	0.0739 g/100cc
					0.0778 g/100cc
					g/100cc
Level 2	Jul-23	1907007	0.2170	0.1953-0.2387	0.2146 g/100cc
					g/100cc
					g/100cc

Multi-Component mixture:	**Exp:**	**22-Jul**	**Lot #**	FN07101701		ok
Curve Fit:		**Column 1**	0.99991		**Column2**	0.99995

Ethanol Calibration Reference Material

Calibrator level	Target Value	Acceptable Range	Column 1	Column 2	Precision	Mean
50	0.050	0.045 - 0.055	0.0518	0.0508	0.001	0.0513
100	0.100	0.090 - 0.110	0.0995	0.0995	0	0.0995
200	0.200	0.180 - 0.220	0.1973	0.1983	0.001	0.1978
300	0.300	0.270 - 0.330	0.3006	0.3013	0.0007	0.3009
400	0.400	0.360 - 0.440	N/A	N/A	########	#DIV/0!
500	0.500	0.450 - 0.550	0.5005	0.4998	0.0007	0.5001

Internal Standard	Average	(-) 20%	(+) 20%
N-Propanol:	211816.6	169453.3	254179.9

Aqueous Controls

Control level	Target Value	Acceptable Range	Overall Results
80	0.080	0.076 - 0.084	0.082 g/100cc

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

Internal Standard Monitoring Worksheet

Worklist #: 5710 **Run Date(s):** 3/25/22

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

Sample Name	Column 1 Value	Column 2 Value	Average
QC1-1-A	200962	189424	195193
QC1-1-B	200973	189444	195208.5
0.08-1-A	196339	185505	190922
0.08-1-B	193691	182829	188260
QC2-1-A	221980	209583	215781.5
QC2-1-B	218538	206135	212336.5
QC1-2-A	256528	241266	248897
QC1-2-B	255610	240258	247934
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!

Combined Average	(-)20%	(+)20%
211816.6	169453.3	254179.9

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

Final blank (INT STD BLK) in vial #49 had internal standard outside of the mean recovery value acceptability on FID1. However, this is a qualitative test for the presence of ethanol and internal standard is not a factor in determining the presence of ethanol. The blank successfully passed the requirement of "no ethanol present." In addition, the requirements set out in the Blood Alcohol Analytical Method AM#1 4.2.2.3.1 only requires that a single blank is run, and this requirement is met by the INT STD BLK 1 run at the beginning of the run in Vial #1.

3/29/22 JC

Sample vial M2022-1207-1A (Vial #29) and M2022-1221-1B (Vial #38) also were outside of the mean recovery value acceptability. The samples will be re-extracted and re-run with the next blood run.

3/29/22
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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

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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:

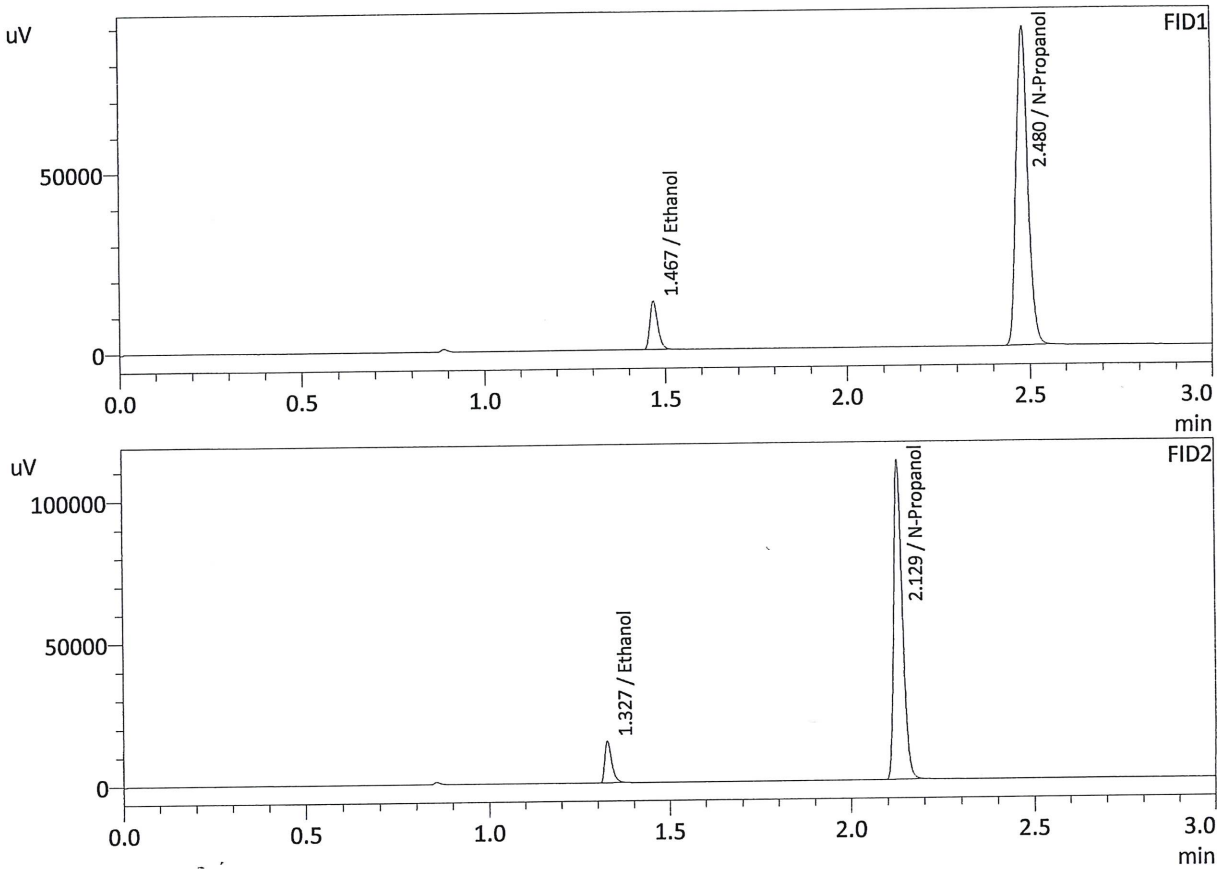
Approver: Jeremy Foshee Date: 1/21/22
Title: Discipline Lead

Quality Review

Quality Approver:
Title:
Date:

JF

Sample Name : 0.050
Laboratory : Meridian
Injection Date : 3/25/2022 11:49:03 AM
Vial # : 1
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0518	20455	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	196215	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0508	19607	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	185539	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

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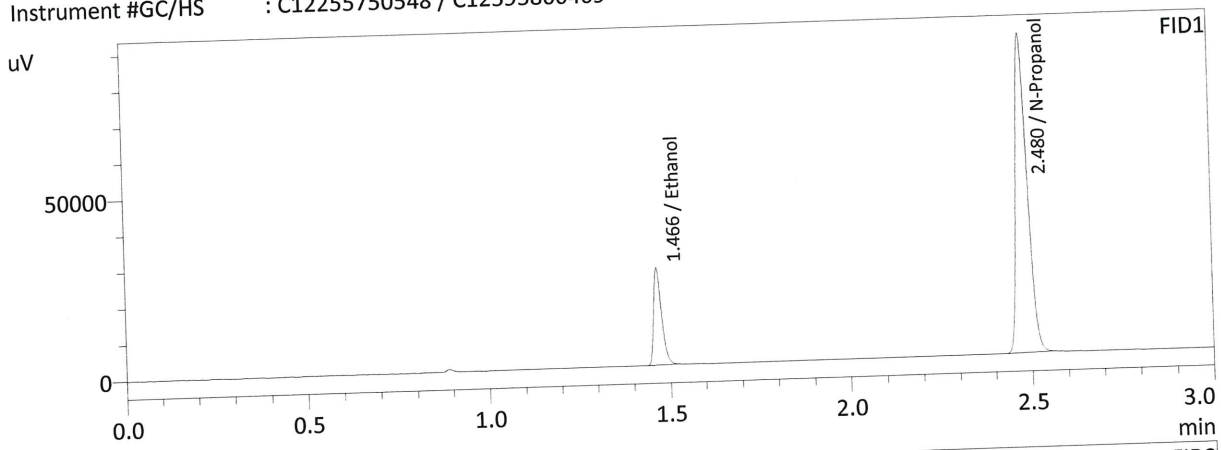
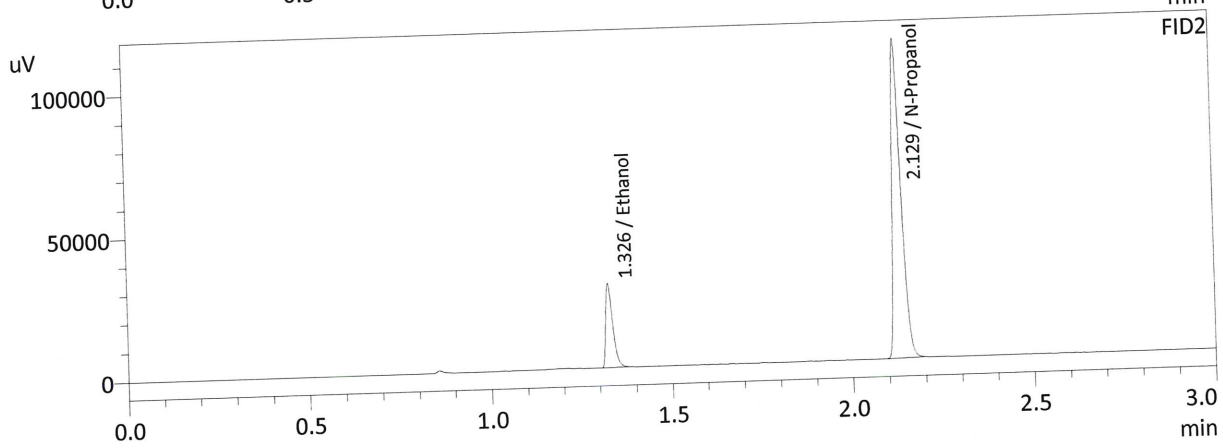
Sample Name : 0.100
Laboratory : Meridian
Injection Date : 3/25/2022 11:56:24 AM
Vial # : 2
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

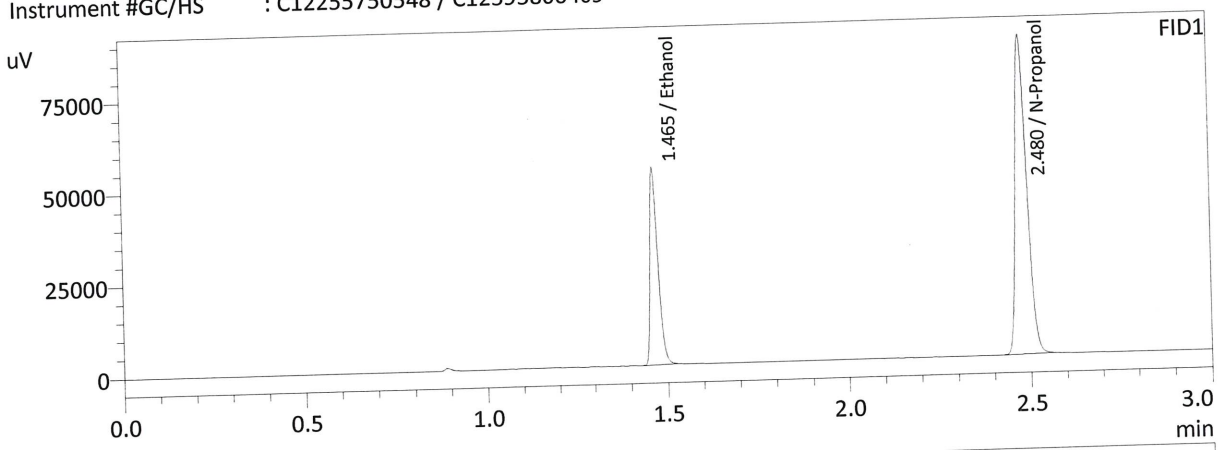
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0995	41065	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	196116	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

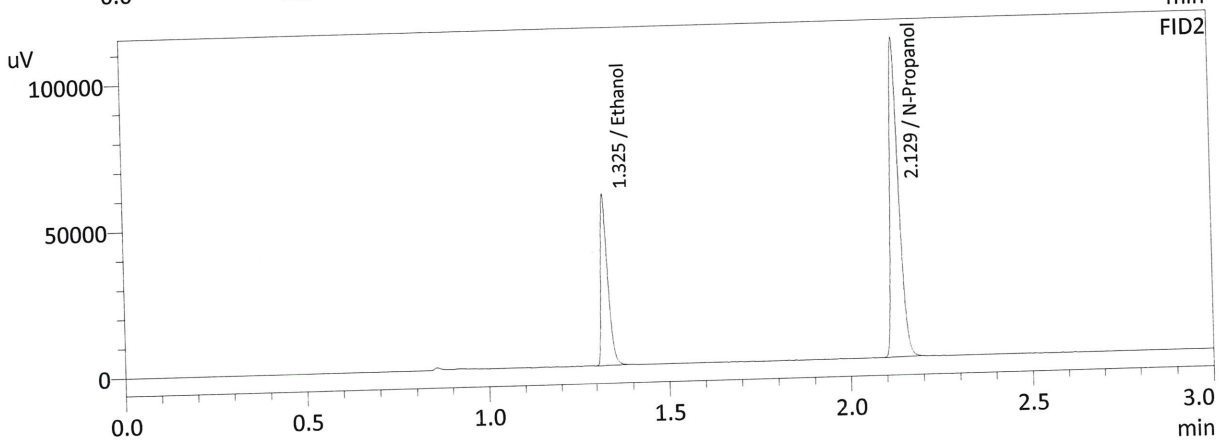
FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0995	39203	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	185281	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

J6

Sample Name : 0.200
Laboratory : Meridian
Injection Date : 3/25/2022 12:04:00 PM
Vial # : 3
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1973	81547	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	191844	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1983	77140	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	180902	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

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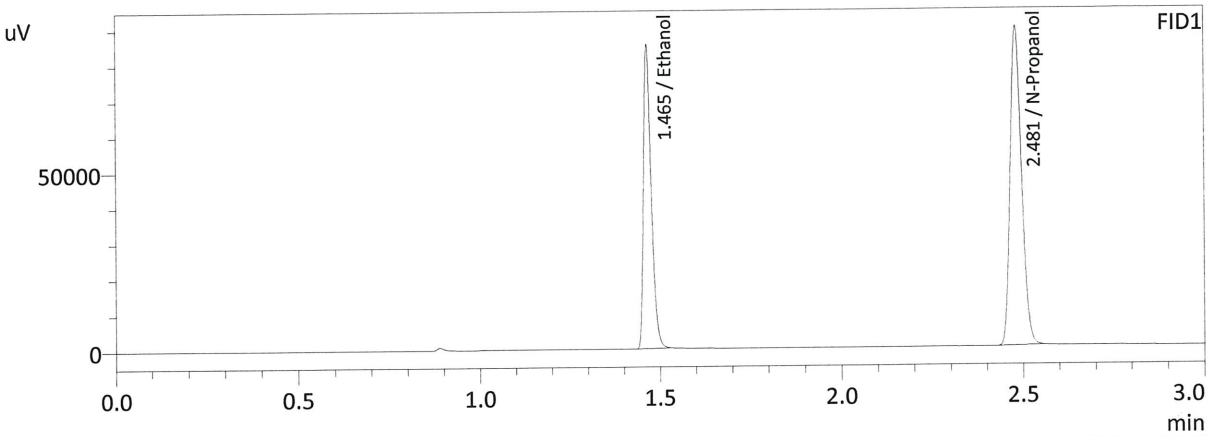
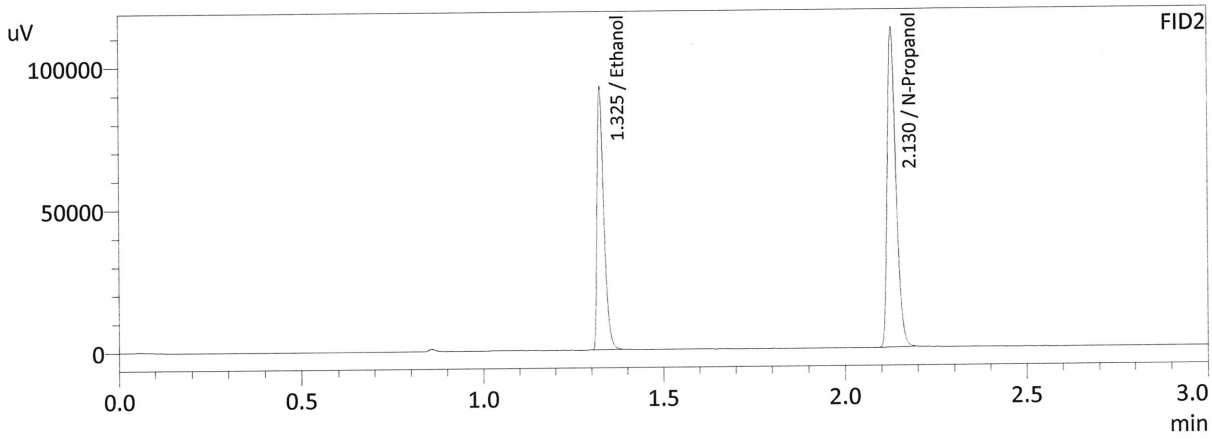
Sample Name : 0.300
Laboratory : Meridian
Injection Date : 3/25/2022 12:12:30 PM
Vial # : 4
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.3006	129226	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	197925	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.3013	121267	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	186457	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

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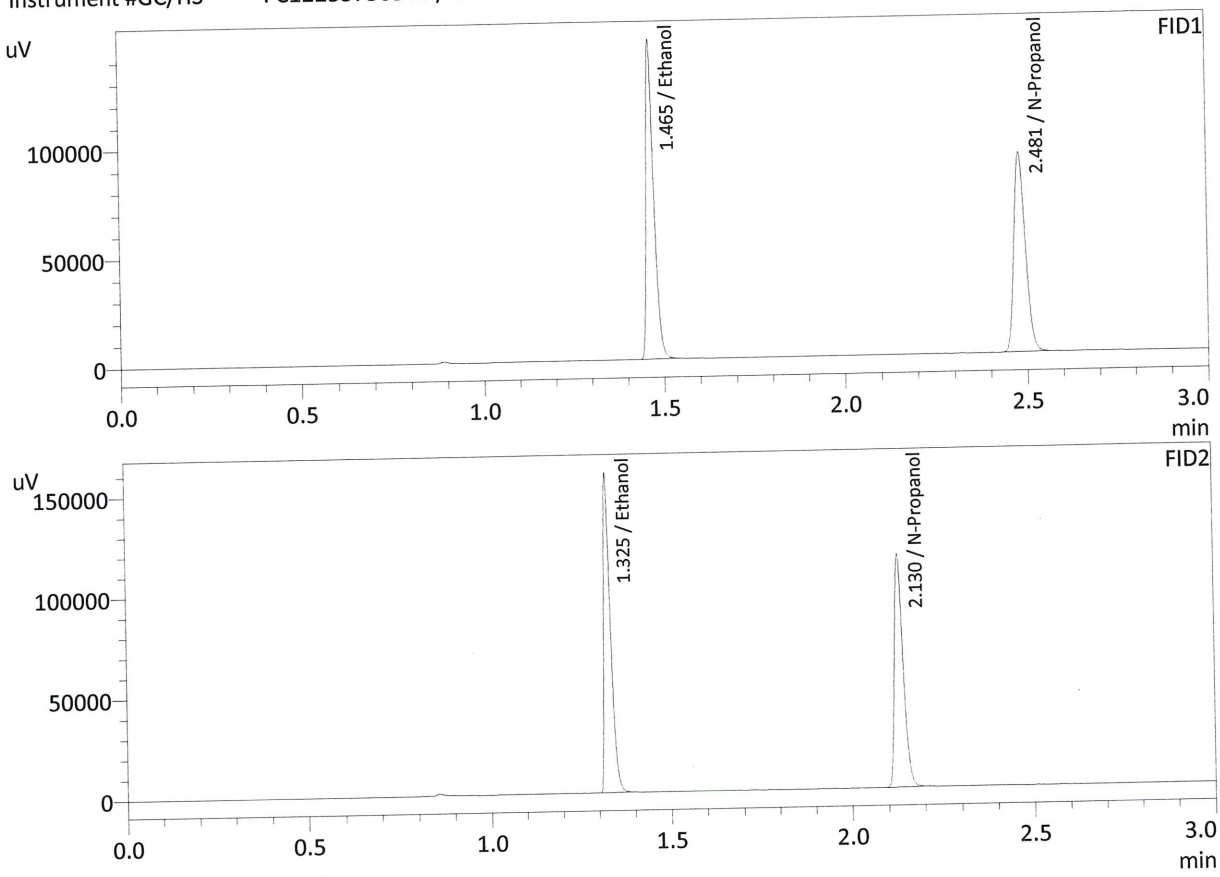
Sample Name : 0.500
Laboratory : Meridian
Injection Date : 3/25/2022 12:20:09 PM
Vial # : 5
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.5005	221769	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	202765	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.4998	206632	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	190968	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

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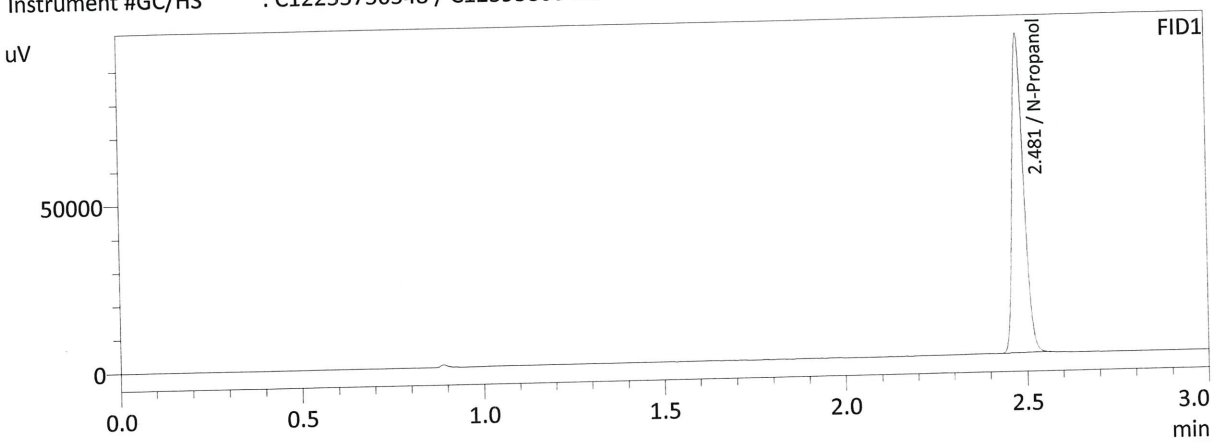
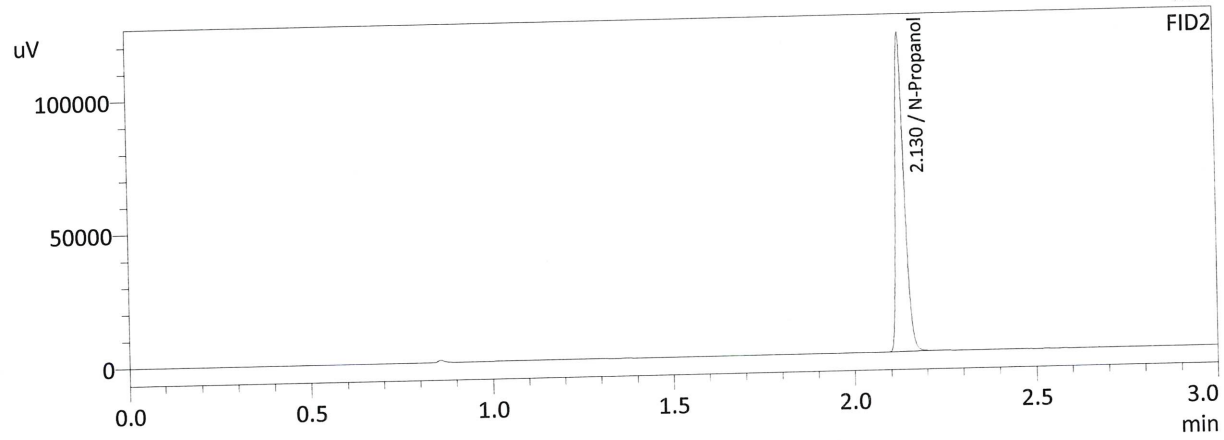
Sample Name : INT STD BLK
Laboratory : Meridian
Injection Date : 3/25/2022 12:28:57 PM
Vial # : 6
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	209960	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	198402	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

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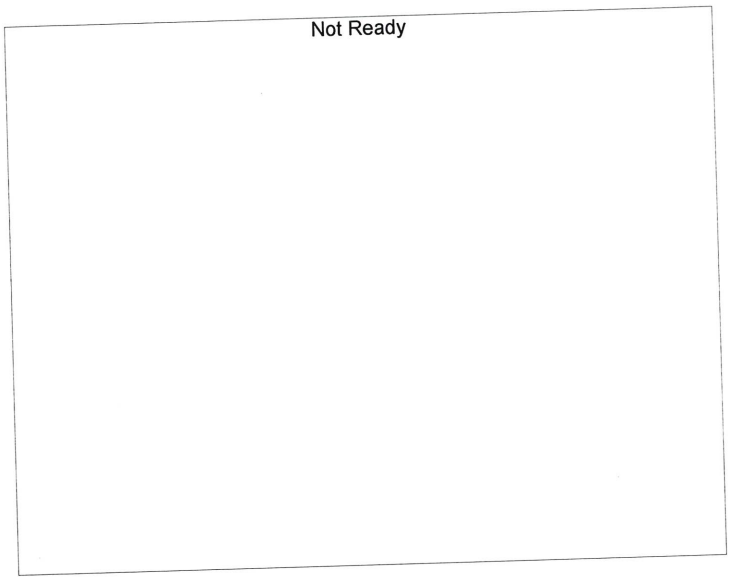
Calibration Table

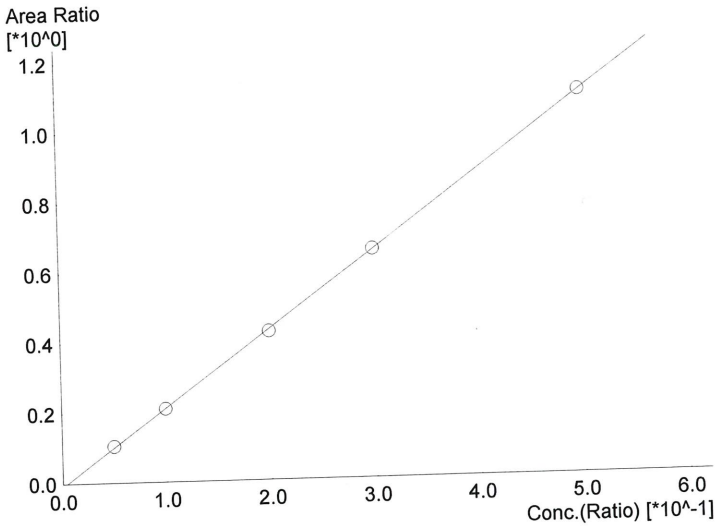
Laboratory : MERIDIAN
Instrument Name : GC-HS
Instrument Serial # : C12595800409 / C12255750548

<<Data File>>
Method File :C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Batch File :C:\LabSolutions\Data\220325\CALIBRATION\CALCURVE_TEMPLATE.gcb
Date Acquired :3/25/2022 12:20:09 PM
Date Created :3/25/2022 12:15:37 PM
Date Modified :3/25/2022 12:23:10 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)=2.20525*x-0.0101403
R^2 value= 0.9999103
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.
1	0.050	20455	0.0518
2	0.100	41065	0.0995
3	0.200	81547	0.1973
4	0.300	129226	0.3006
5	0.500	221769	0.5005

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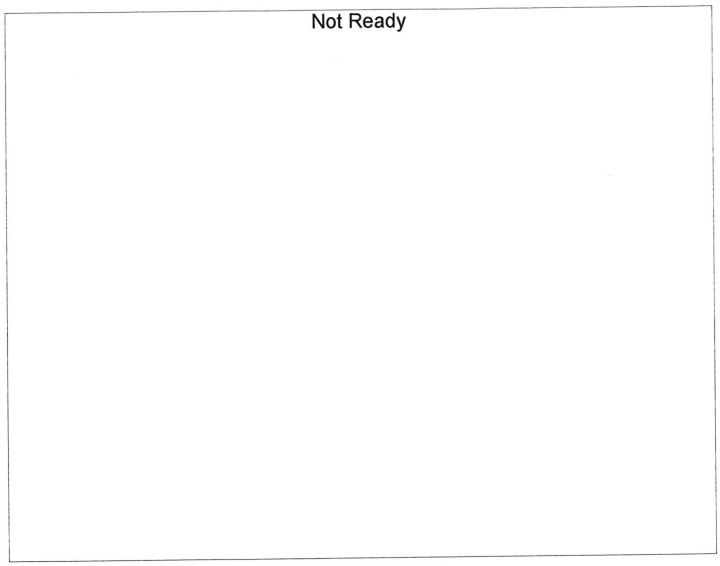
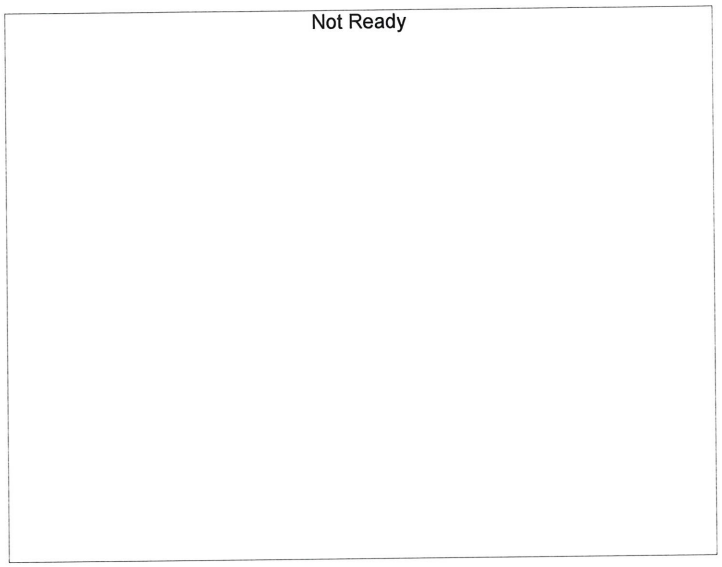


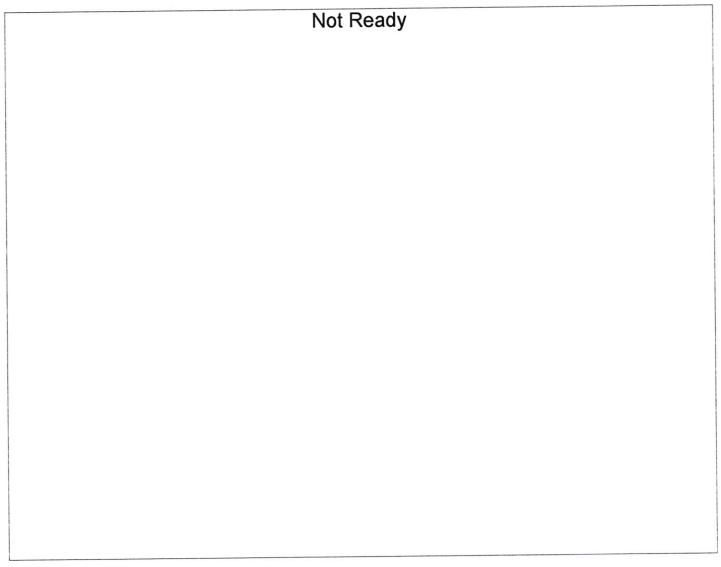
Name : Isopropyl Alcohol
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	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.

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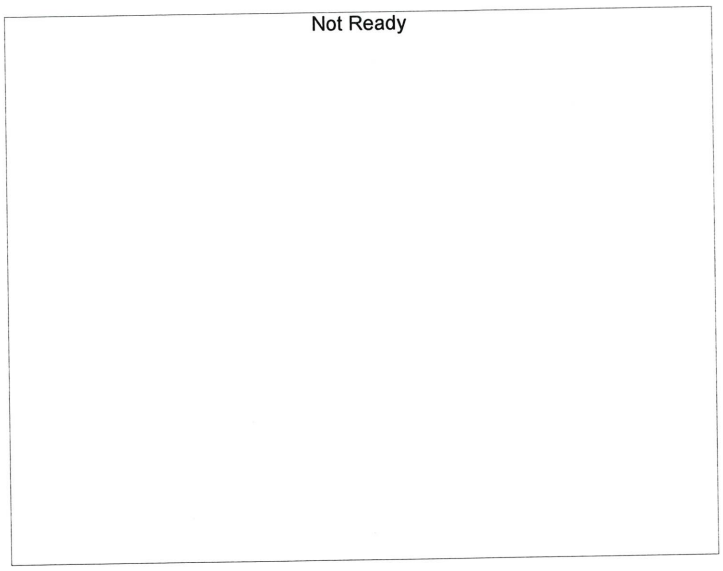
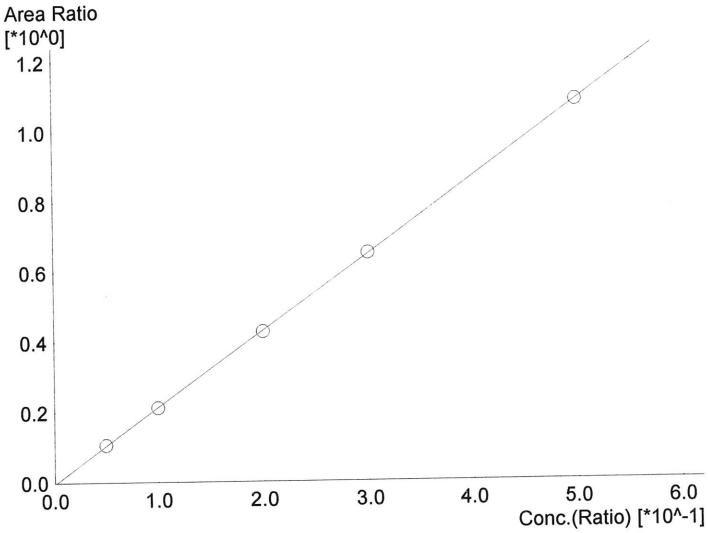


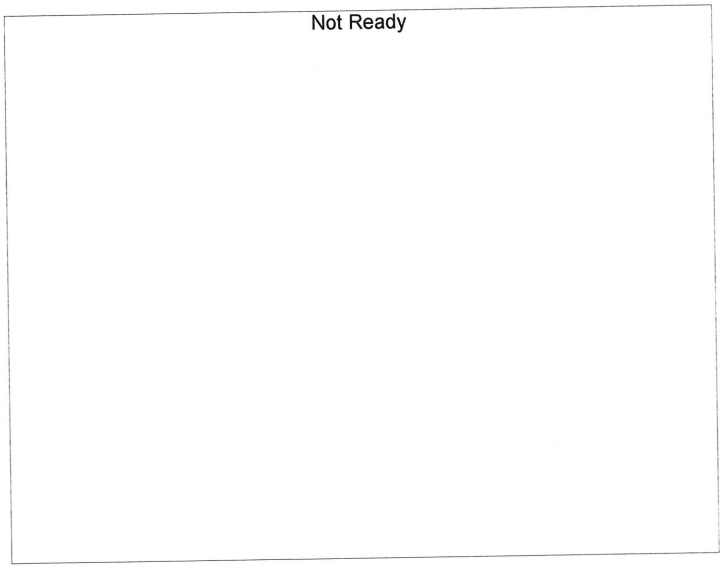
Name : Methanol
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



Name : Ethanol
Detector Name: FID2
Function : f(x)=2.17463*x-0.00494743
R^2 value= 0.9999574
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.
1	0.050	19607	0.0508
2	0.100	39203	0.0995
3	0.200	77140	0.1983
4	0.300	121267	0.3013
5	0.500	206632	0.4998



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

#	Conc.	Area	Std. Conc.

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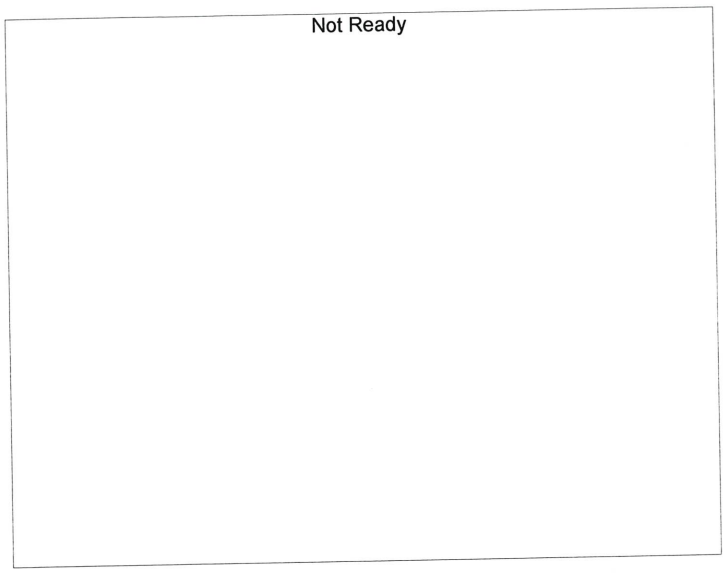
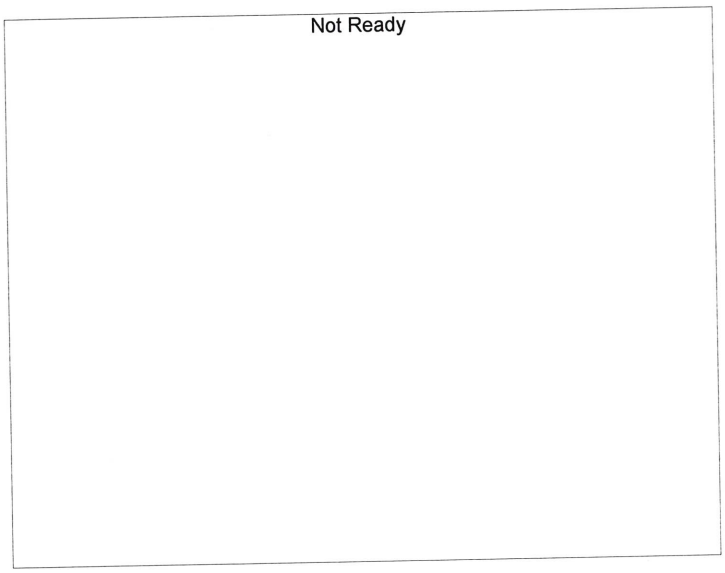


Name : Isopropyl Alcohol
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	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.

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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

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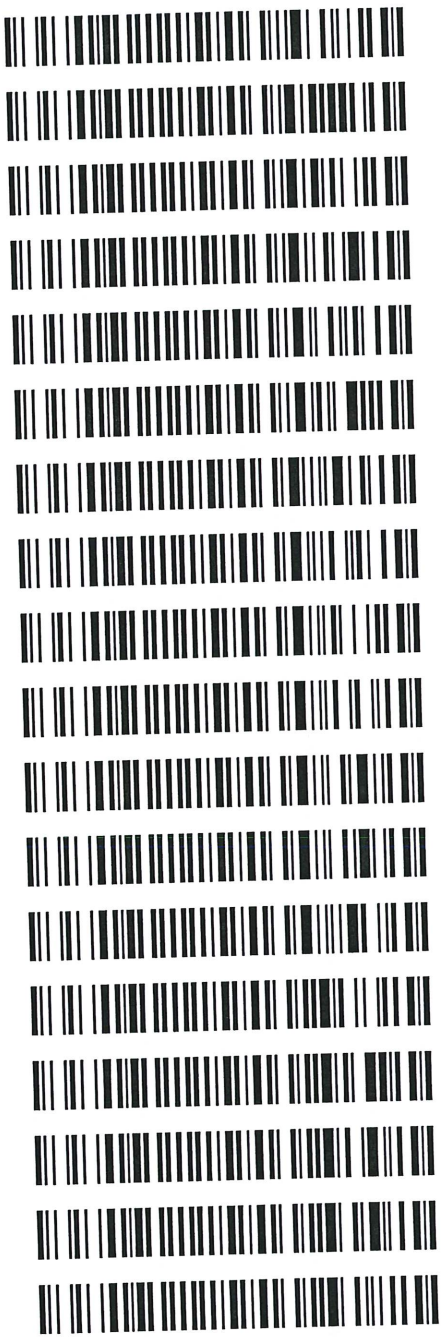
3/28/2022

Worklist: 5710

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
M2022-1155	1	BCK	Alcohol Analysis
M2022-1156	1	BCK	Alcohol Analysis
M2022-1156	2	BCK	Alcohol Analysis
M2022-1159	1	BCK	Alcohol Analysis
M2022-1182	1	BCK	Alcohol Analysis
M2022-1183	1	BCK	Alcohol Analysis
M2022-1191	1	BCK	Alcohol Analysis
M2022-1198	1	BCK	Alcohol Analysis
M2022-1205	1	BCK	Alcohol Analysis
M2022-1206	1	BCK	Alcohol Analysis
M2022-1207	1	BCK	Alcohol Analysis
M2022-1208	1	BCK	Alcohol Analysis
M2022-1215	1	BCK	Alcohol Analysis
M2022-1220	1	BCK	Alcohol Analysis
M2022-1221	1	BCK	Alcohol Analysis
M2022-1222	1	BCK	Alcohol Analysis
M2022-1223	1	BCK	Alcohol Analysis
M2022-1224	1	BCK	Alcohol Analysis



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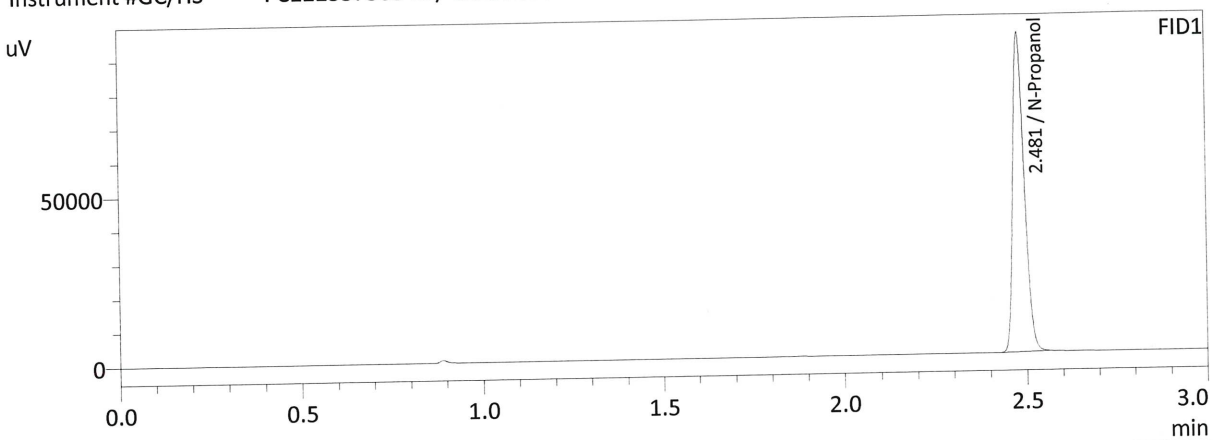
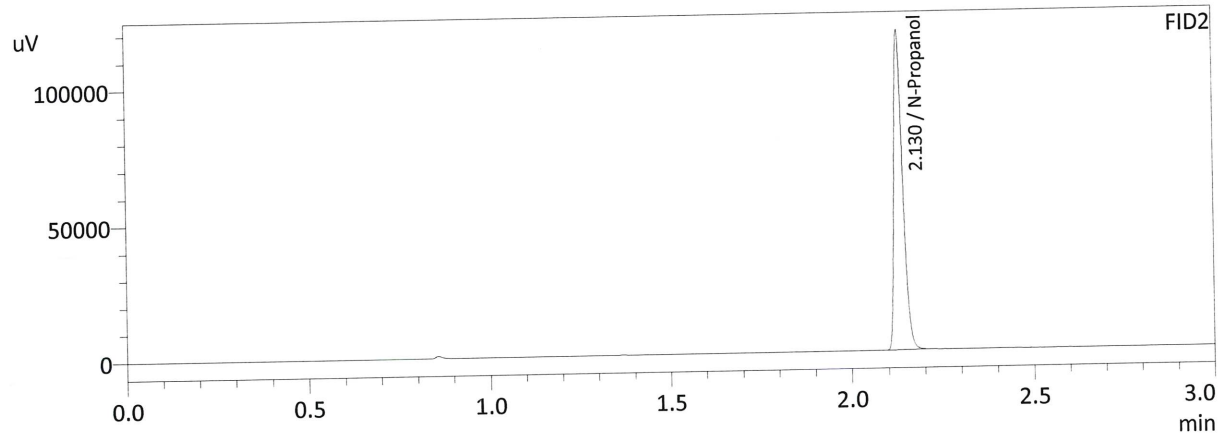
Sample Name : INT STD BLK 1
Laboratory : Meridian
Injection Date : 3/25/2022 1:36:17 PM
Vial # : 1
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

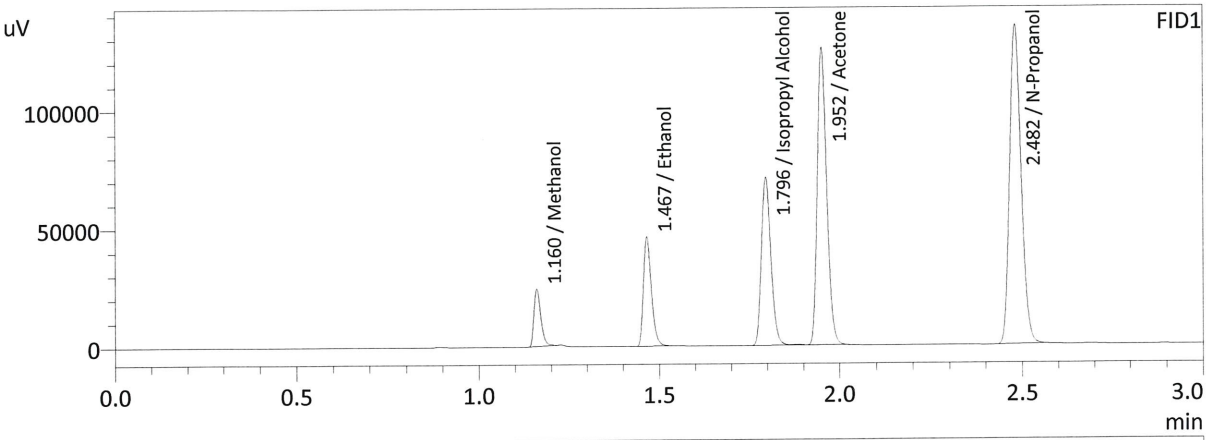
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	207154	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

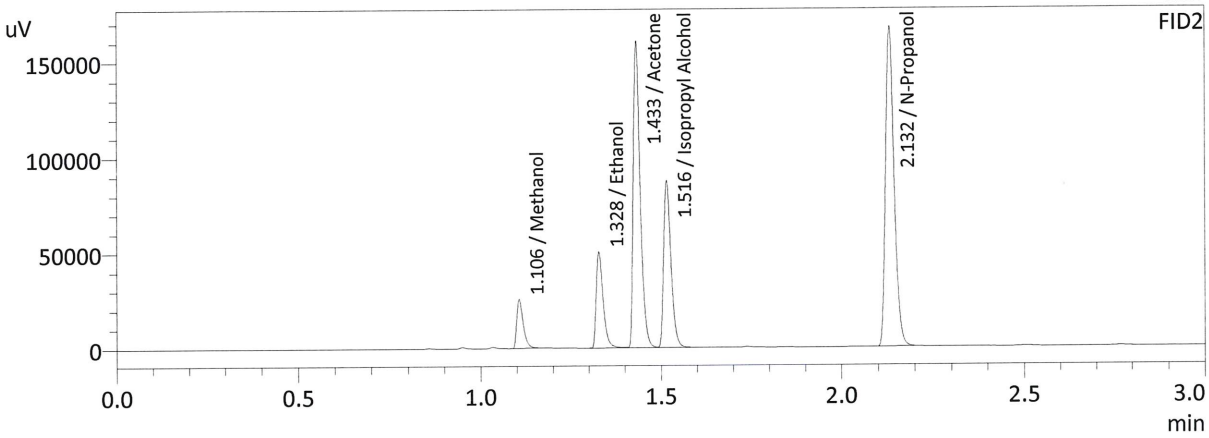
FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	195547	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

Sample Name : MIXED VOLATILES FN 07101701
Laboratory : Meridian
Injection Date : 3/25/2022 1:43:39 PM
Vial # : 2
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	0.0000	32616	g/100cc
Ethanol	0.1125	70405	g/100cc
Isopropyl Alcohol	0.0000	130715	g/100cc
Acetone	0.0000	231320	g/100cc
N-Propanol	0.0000	295680	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	0.0000	32069	g/100cc
Ethanol	0.1146	67547	g/100cc
Acetone	0.0000	215555	g/100cc
Isopropyl Alcohol	0.0000	122536	g/100cc
N-Propanol	0.0000	276410	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-1 **Item #** **Analysis Date(s): 3/25/22**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0738	0.0734	0.0004	0.0736	0.0006	0.0739
(g/100cc)	0.0744	0.0740	0.0004	0.0742		

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%**

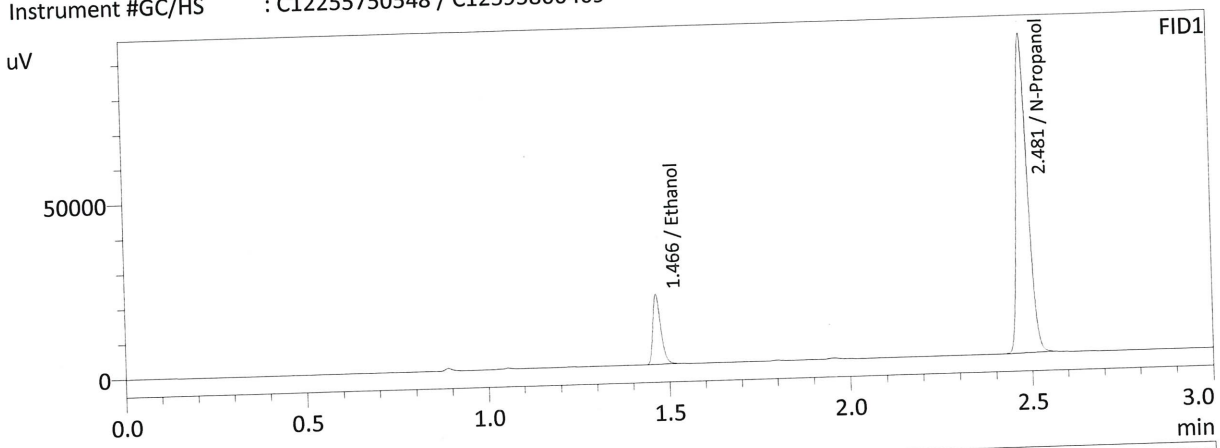
Overall Mean (g/100cc)	Low	High	5% of Mean
0.073	0.069	0.077	0.004

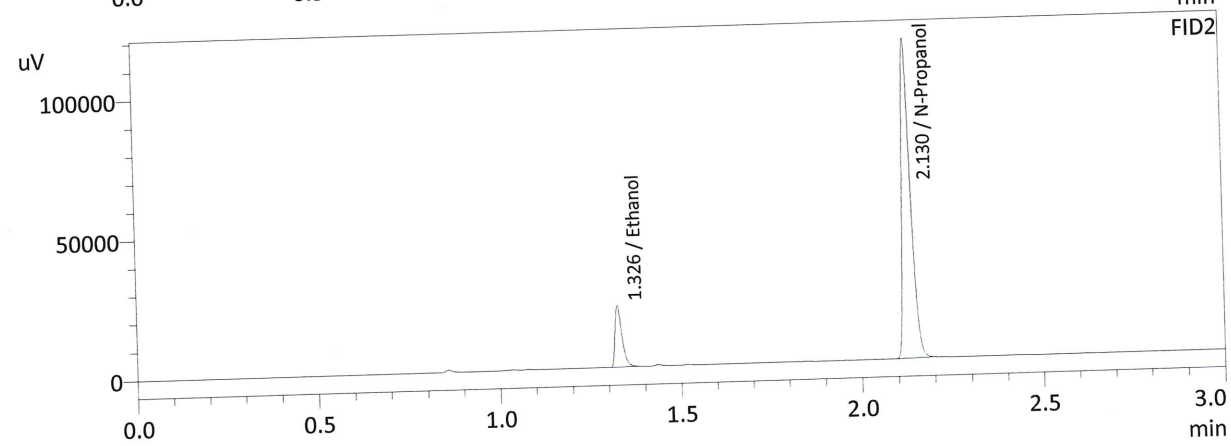
	Reported Result	
	0.073	

Calibration and control data are stored centrally.

JC

Sample Name : QC-1-1-A
Laboratory : Meridian
Injection Date : 3/25/2022 1:51:07 PM
Vial # : 3
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

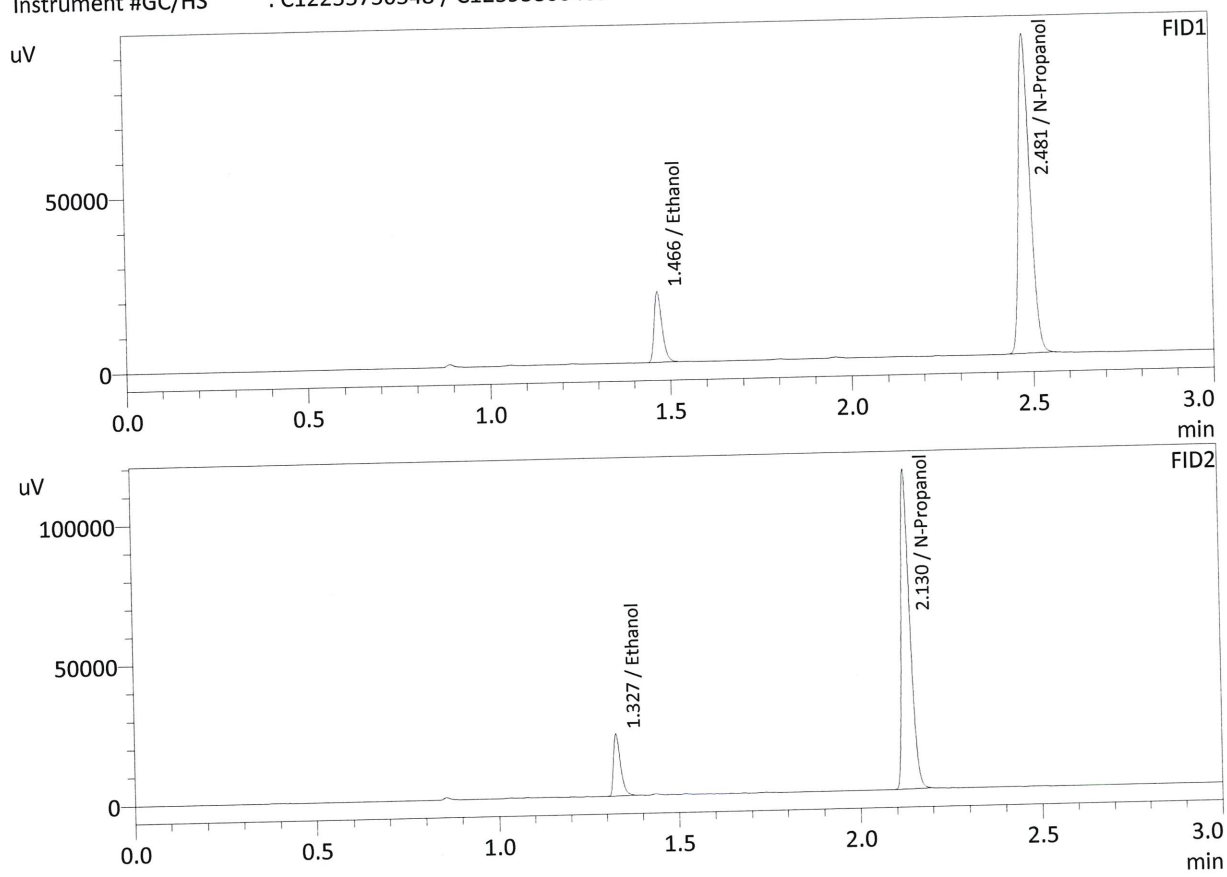
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0738	30688	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	200962	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0734	29299	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	189424	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

Sample Name : QC-1-1-B
Laboratory : Meridian
Injection Date : 3/25/2022 1:59:56 PM
Vial # : 4
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0744	30956	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	200973	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0740	29572	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	189444	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: 0.08 QA **Item #** **Analysis Date(s): 3/25/22**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0824	0.0820	0.0004	0.0822	0.0001	0.0821
(g/100cc)	0.0823	0.0820	0.0003	0.0821		

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%**

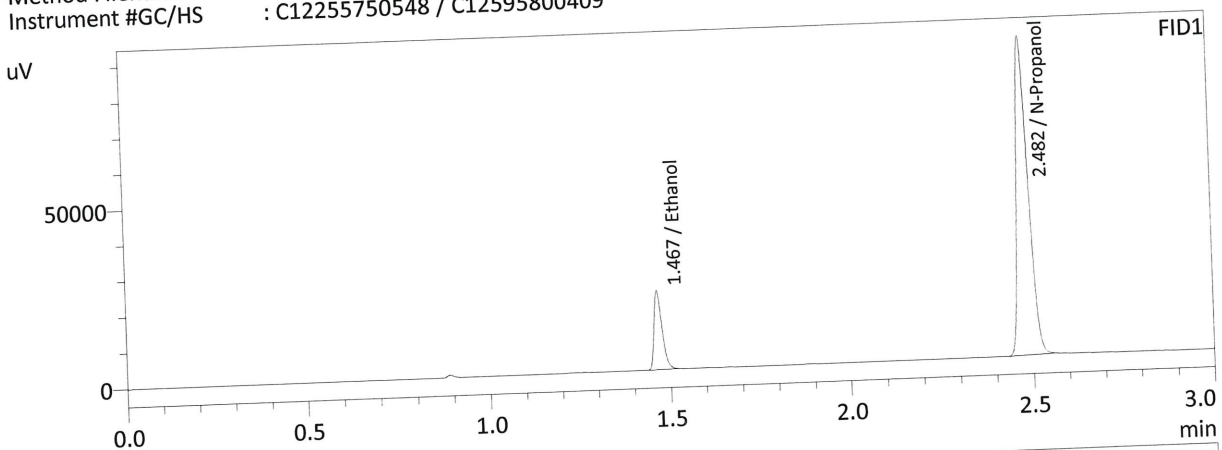
Overall Mean (g/100cc)	Low	High	5% of Mean
0.082	0.077	0.087	0.005

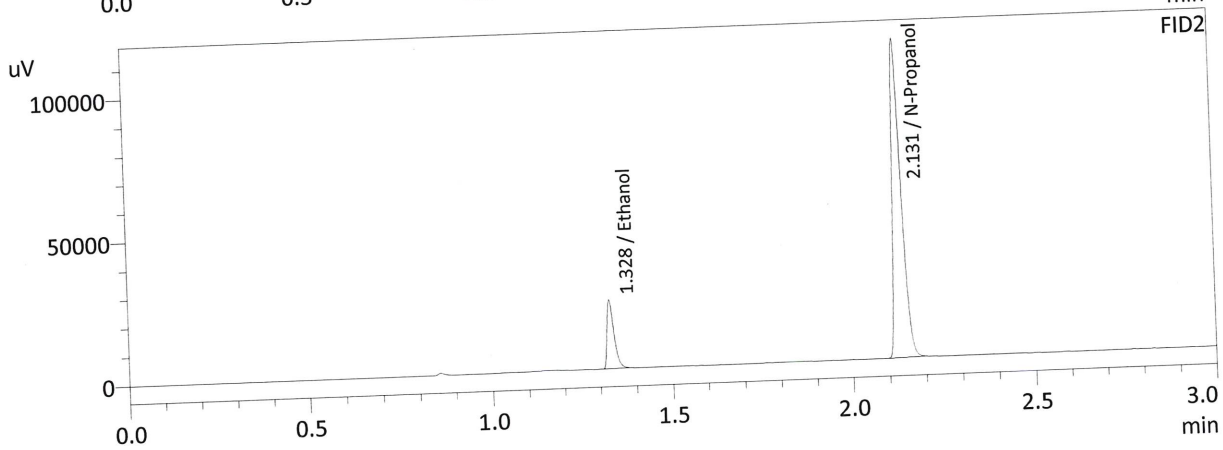
	Reported Result	
	0.082	

Calibration and control data are stored centrally.

JC

Sample Name : 0.08 QA-A
Laboratory : Meridian
Injection Date : 3/25/2022 2:07:19 PM
Vial # : 5
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

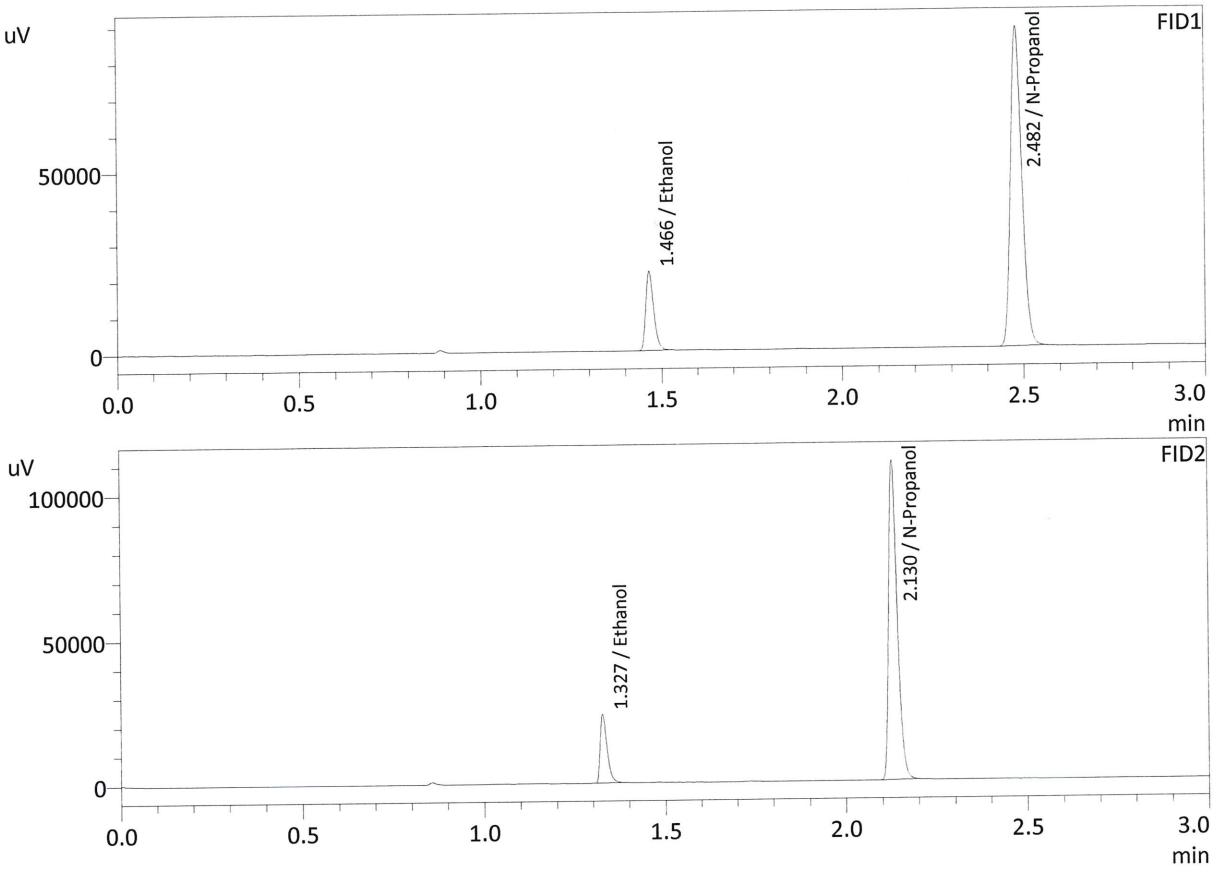
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0824	33689	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	196339	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0820	32189	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	185505	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

Sample Name : 0.08 QA-B
Laboratory : Meridian
Injection Date : 3/25/2022 2:15:51 PM
Vial # : 6
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0823	33208	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	193691	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0820	31702	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	182829	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC2-1 **Item #** **Analysis Date(s): 3/25/22**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.2170	0.2181	0.0011	0.2175	0.0059	0.2146
(g/100cc)	0.2111	0.2122	0.0011	0.2116		

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%**

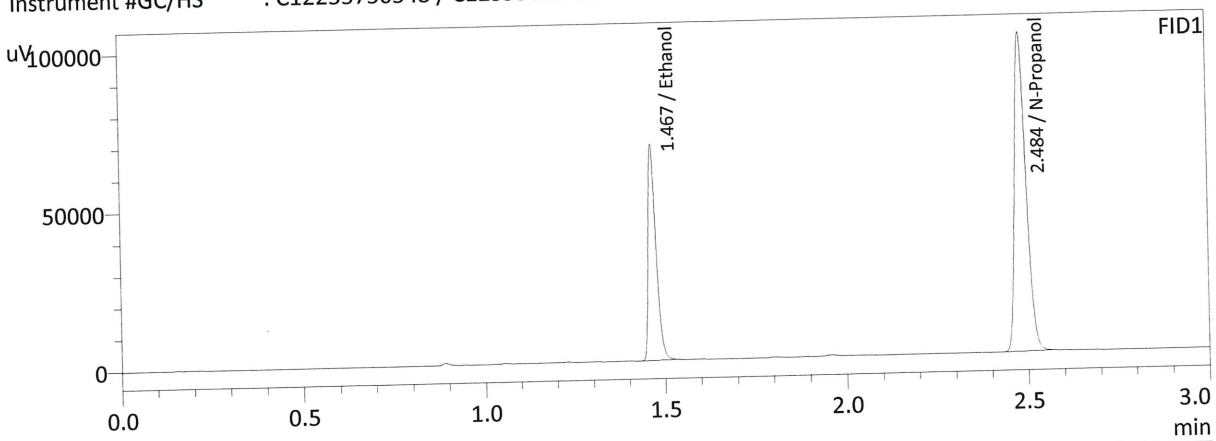
Overall Mean (g/100cc)	Low	High	5% of Mean
0.214	0.203	0.225	0.011

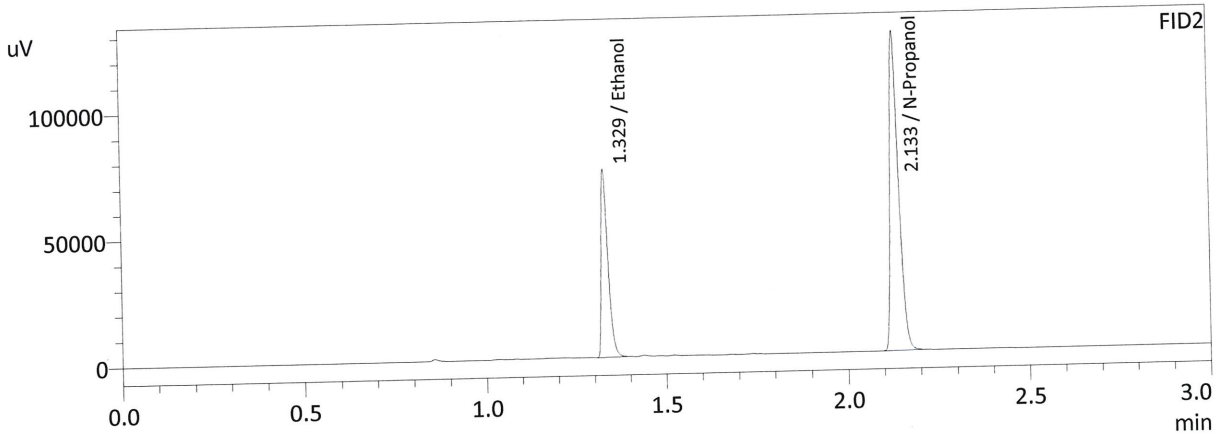
	Reported Result	
	0.214	

Calibration and control data are stored centrally.

JL

Sample Name : QC-2-1-A
Laboratory : Meridian
Injection Date : 3/25/2022 4:48:20 PM
Vial # : 25
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

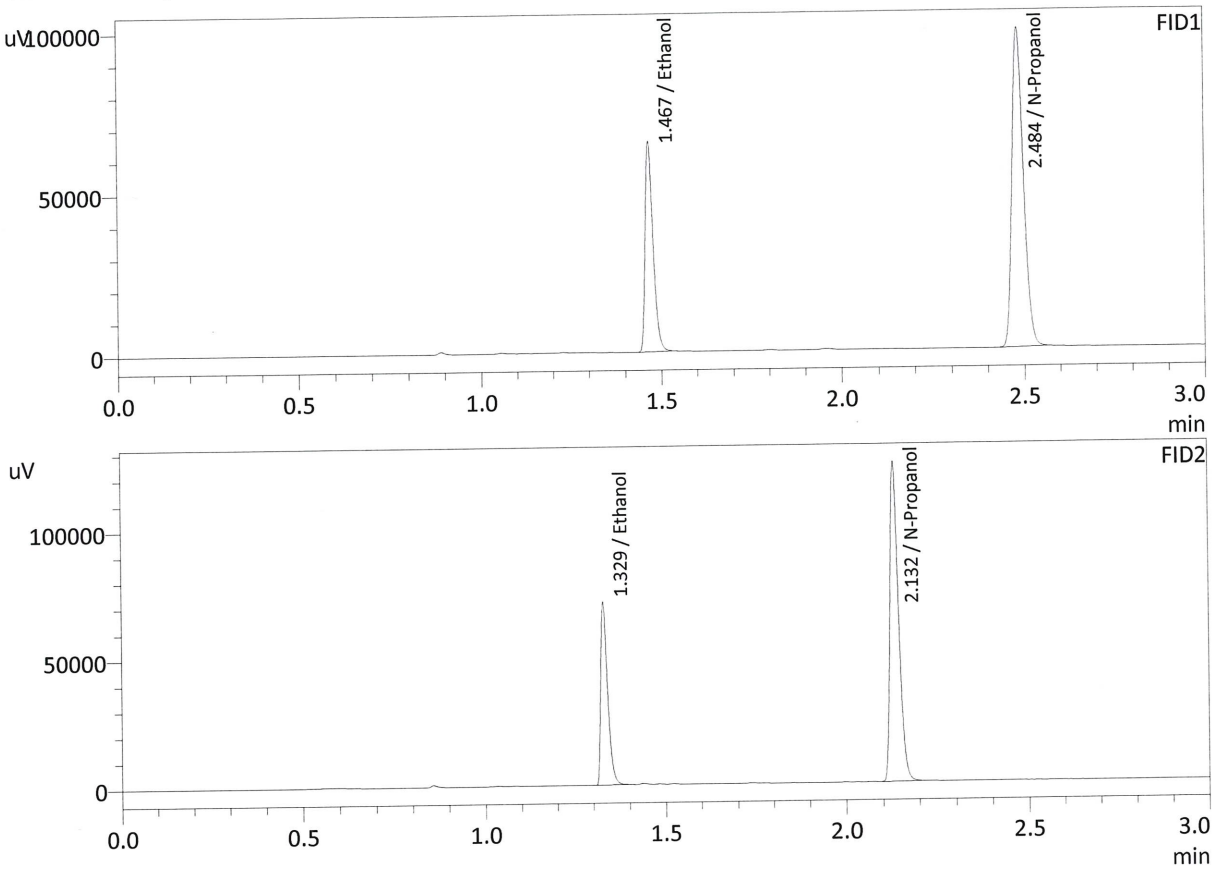
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2170	103987	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	221980	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2181	98390	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	209583	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

Sample Name : QC-2-1-B
Laboratory : Meridian
Injection Date : 3/25/2022 4:56:17 PM
Vial # : 26
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2111	99533	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	218538	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2122	94133	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	206135	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-2 **Item #** **Analysis Date(s): 3/25/22**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0780	0.0779	0.0001	0.0779	0.0002	0.0778
(g/100cc)	0.0777	0.0778	0.0001	0.0777		

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%**

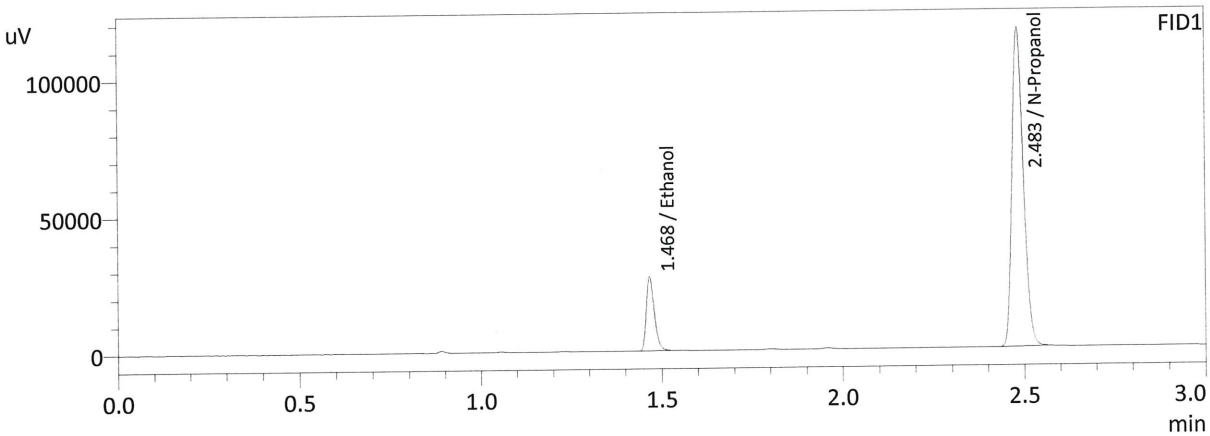
Overall Mean (g/100cc)	Low	High	5% of Mean
0.077	0.073	0.081	0.004

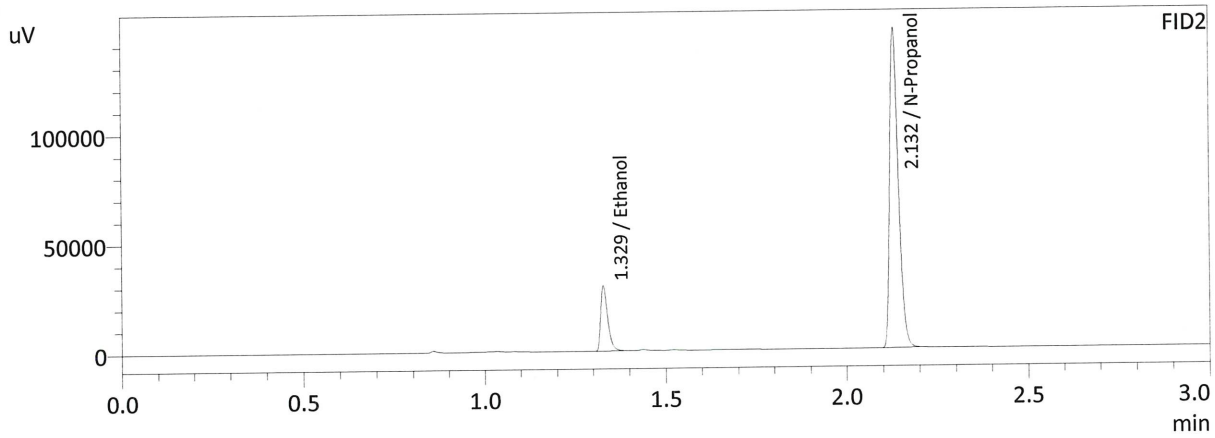
	Reported Result	
	0.077	

Calibration and control data are stored centrally.

JL

Sample Name : QC1-2-A
Laboratory : Meridian
Injection Date : 3/25/2022 7:44:36 PM
Vial # : 47
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

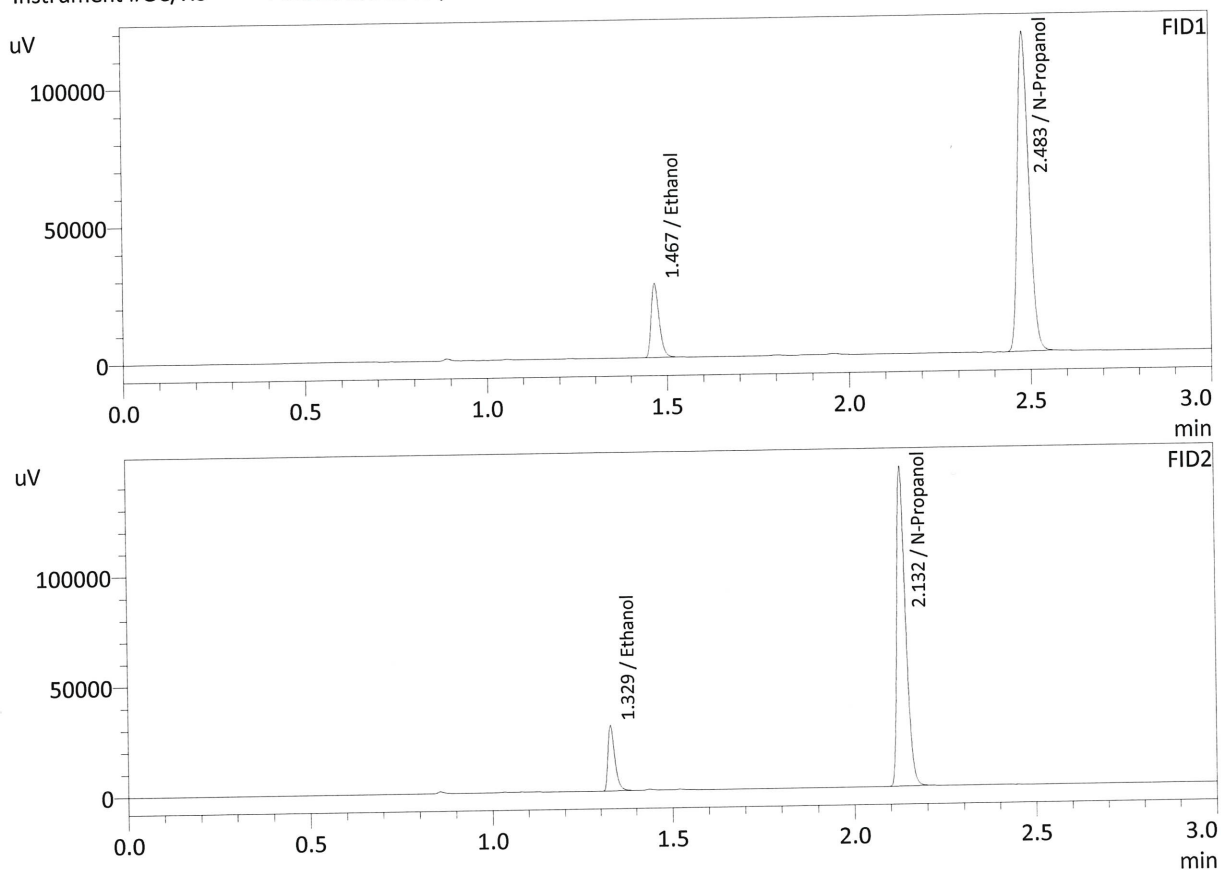
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0780	41550	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	256528	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0779	39720	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	241266	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

Sample Name : QC1-2-B
Laboratory : Meridian
Injection Date : 3/25/2022 7:53:57 PM
Vial # : 48
Method Filename : C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

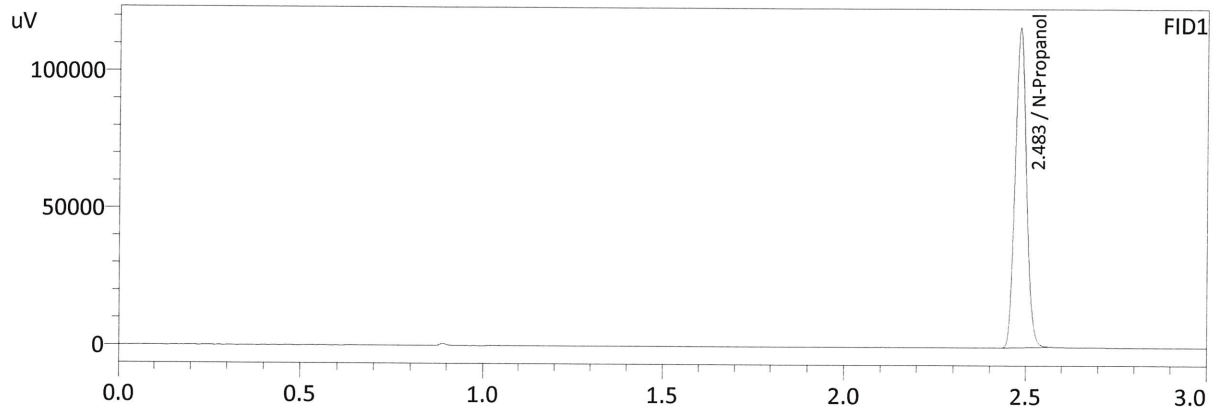
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0777	41239	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	255610	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

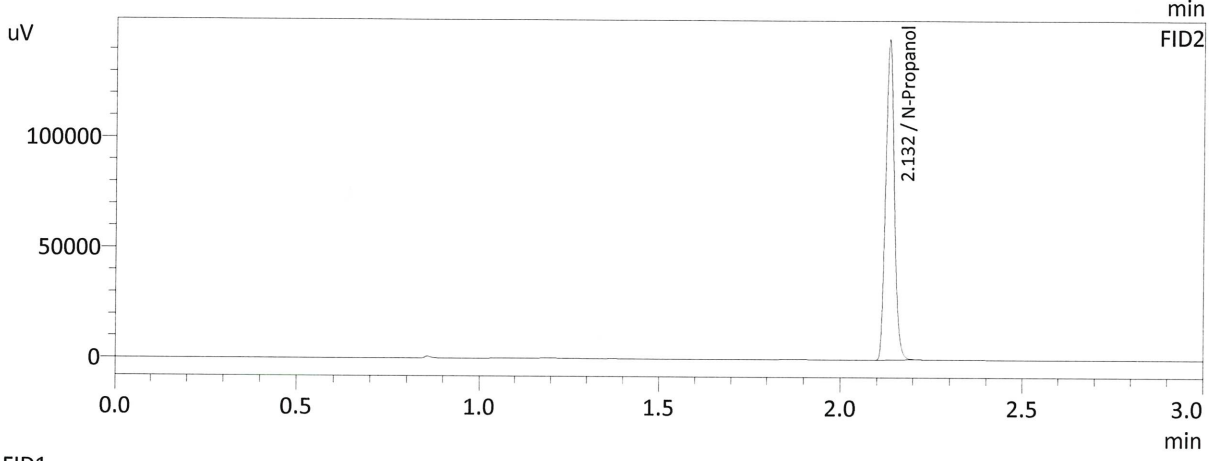
FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0778	39507	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	240258	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JC

Sample Name : INT STD BLK
Laboratory : Meridian
Injection Date : 3/25/2022 8:01:19 PM
Vial # : 49
Method Filename : C:\LabSolutions\Data\220325\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	255879	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

Outside acceptability, see note
JG 3/29/22

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	240683	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

JG

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\220325\CALIBRATION\ALCOHOL.GCM
2	ED VOLATILES FN 0710	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
3	QC-1-1-A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
4	QC-1-1-B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
5	0.08 QA-A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
6	0.08 QA-B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
7	M2022-1155-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
8	M2022-1155-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
9	M2022-1156-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
10	M2022-1156-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
11	M2022-1156-2A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
12	M2022-1156-2B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
13	M2022-1159-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
14	M2022-1159-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
15	M2022-1182-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
16	M2022-1182-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
17	M2022-1183-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
18	M2022-1183-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
19	M2022-1191-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
20	M2022-1191-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
21	M2022-1198-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
22	M2022-1198-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
23	M2022-1205-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
24	M2022-1205-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
25	QC-2-1-A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
26	QC-2-1-B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
27	M2022-1206-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
28	M2022-1206-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
29	M2022-1207-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
30	M2022-1207-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
31	M2022-1208-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
32	M2022-1208-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
33	M2022-1215-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
34	M2022-1215-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
35	M2022-1220-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
36	M2022-1220-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
37	M2022-1221-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
38	M2022-1221-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
39	M2022-1222-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
40	M2022-1222-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
41	M2022-1223-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
42	M2022-1223-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
43	M2022-1224-1A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
44	M2022-1224-1B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
45	AUTH 2101199 QC1 A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
46	AUTH 2101199 QC1 B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
47	QC1-2-A	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
48	QC1-2-B	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM
49	INT STD BLK	C:\LabSolutions\Data\220325\CALIBRATION\ALCOHOL.GCM

Outside IS acceptability. Will be Rerun in next batch.
JC 3/29/22

JC