Idaho State Police Forensic Services

CERTIFICATE OF ANALYSIS/APPROVAL

The Idaho State Police Forensic Services (ISPFS) hereby certifies and approves Alcohol Simulator Solution **Lot Number 22050** (a product manufactured by Guth Laboratories, Inc.) to be used to conduct performance verification checks within the State of Idaho in accordance with the analytical methods, policies and/or procedures promulgated by the Department governing breath alcohol examinations. ISPFS also approves of the manufacturer of this solution (Guth Laboratories, Inc.) to provide Alcohol Simulator Solution **Lot Number 22050** in the State of Idaho. This lot has a target value of 0.200 with a range of 0.180 to 0.220 grams of ethyl alcohol/210 liters of vapor.

The expiration date for this lot number is on February 7th, 2024 at 11:59 PM.

2-10-23
Date

Volatiles Analysis Discipline Leader

STATE OF IDAHO)
) ss.
County of Kootenai)

On this 10th day of February, in the year 2023, before me, Julie Ann West, a notary public, Jeremy Johnston personally appeared, known to me to be the person whose name is subscribed to the within instrument as a Forensic Scientist for the Idaho State Police Forensic Services, and acknowledged to me that he executed the same as such Scientist.

Julie Ann West Notary Public

My Commission Expires: 01-04-2029

JULIE ANN WEST
COMMISSION #20230060
NOTARY PUBLIC
STATE OF IDAHO

Raw data from analysis: LOT #22050

Analyst:	Bottle #			Raw	Average
JJ	Bottle #377	sample #1	a	0.2443	0.2438
			b	0.2434	
		sample #2	a	0.2480	0.2475
			b	0.2471	
	Bottle #1124	sample #1	a	0.2463	0.2460
			b	0.2457	
		sample #2	a	0.2473	0.2466
			b	0.2460	

overall mean: 0.2460

Analyst:	Bottle #				
JG	Bottle #200	sample #1	a	0.2486	0.2487
			b	0.2488	
		sample #2	a	0.2544	0.2545
			b	0.2546	
	Bottle #200	sample #1	a	0.2484	0.2485
			b	0.2486	
		sample #2	a	0.2600	0.2599
			b	0.2598	

overall mean: 0.2529

average of all raw data:	**0.2495**

alcohol content conversion with 1.23:		**0.20281**
	with 1.21:	0.206162

Target value from provider:		
0.2437	+/- 3% range	0.251011
		0.236389
0.200	+/- 3% range	0.206
		0.194

GUTH LABORATORIES, INC.
590 NORTH 67th STREET • HARRISBURG, PA 17111- 4511 • TELEPHONE: 717-564-5470

CERTIFICATE OF ANALYSIS

Certified Alcohol Reference Solution for Simulator

Random Samples of Lot Number **22050** of Alcohol Reference Solution for Simulator were analyzed by gas chromatography on **February 9, 2022,** using a Perkin Elmer Gas Chromatograph Autosystem XL S/N: 610N9030209, and found to contain **0.2437%** (w/vol) ethyl alcohol. The expiration date for this lot number is **February 7, 2024** at 11:59 PM.

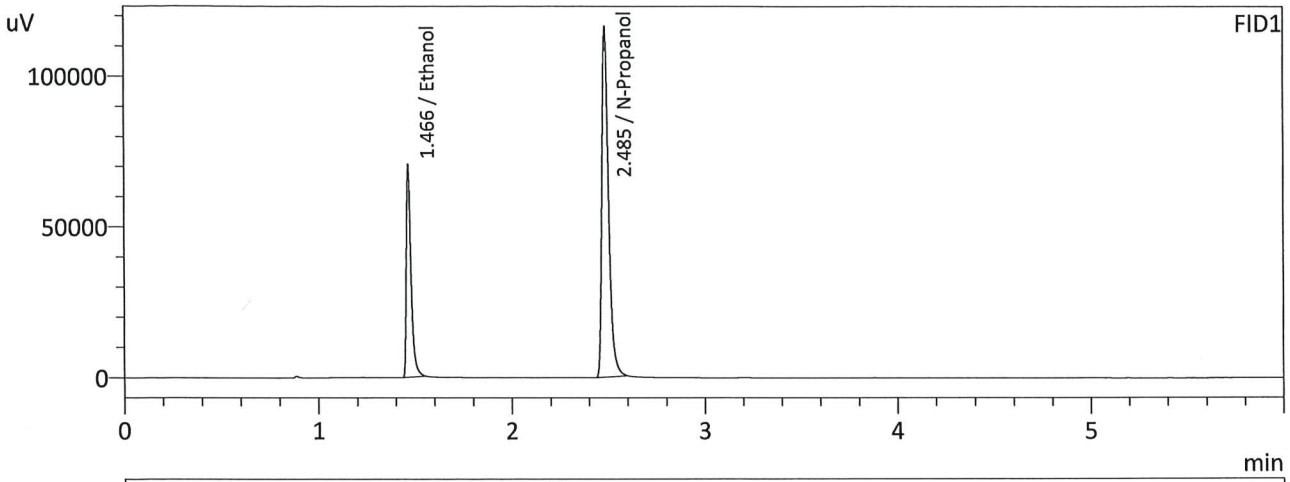
When used in a calibrated Simulator, operating at 34°C +/- .2°C, this solution will give a breath alcohol analysis instrument reading of **0.200 g/210L +/- 3%.**

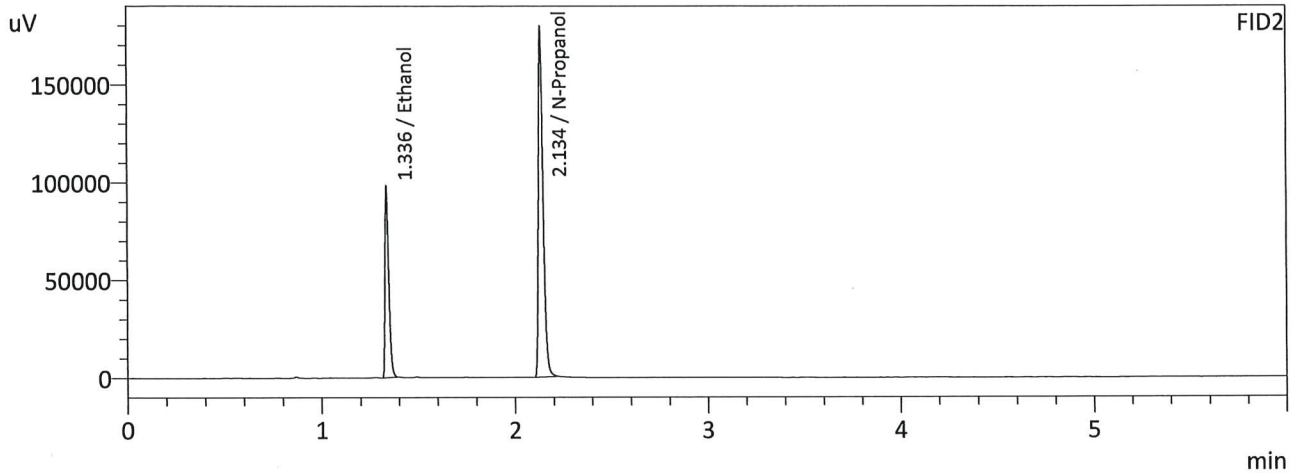
The alcohol and water used in this solution were free of test interfering substances.

Ted L. Pauley, President
GUTH LABORATORIES, INC.

NIST Traceability:
*Testing was conducted using Cerilliant Reference Standard lot number **FN06231703** whose values are traceable to NIST.*
All balances are calibrated annually by an outside agency using NIST traceable weights. Calibration verification is done prior to each use utilizing NIST traceable weights.

Sample Name : 22050-377-A
Laboratory : Coeur d' Alene Lab
Injection Date : 2/2/2023 6:49:19 PM
Vial # : 22
Method Filename : Default Project - ALCOHOL.gcm
Instrument #GC/HS : C12255850700 / C12595700181





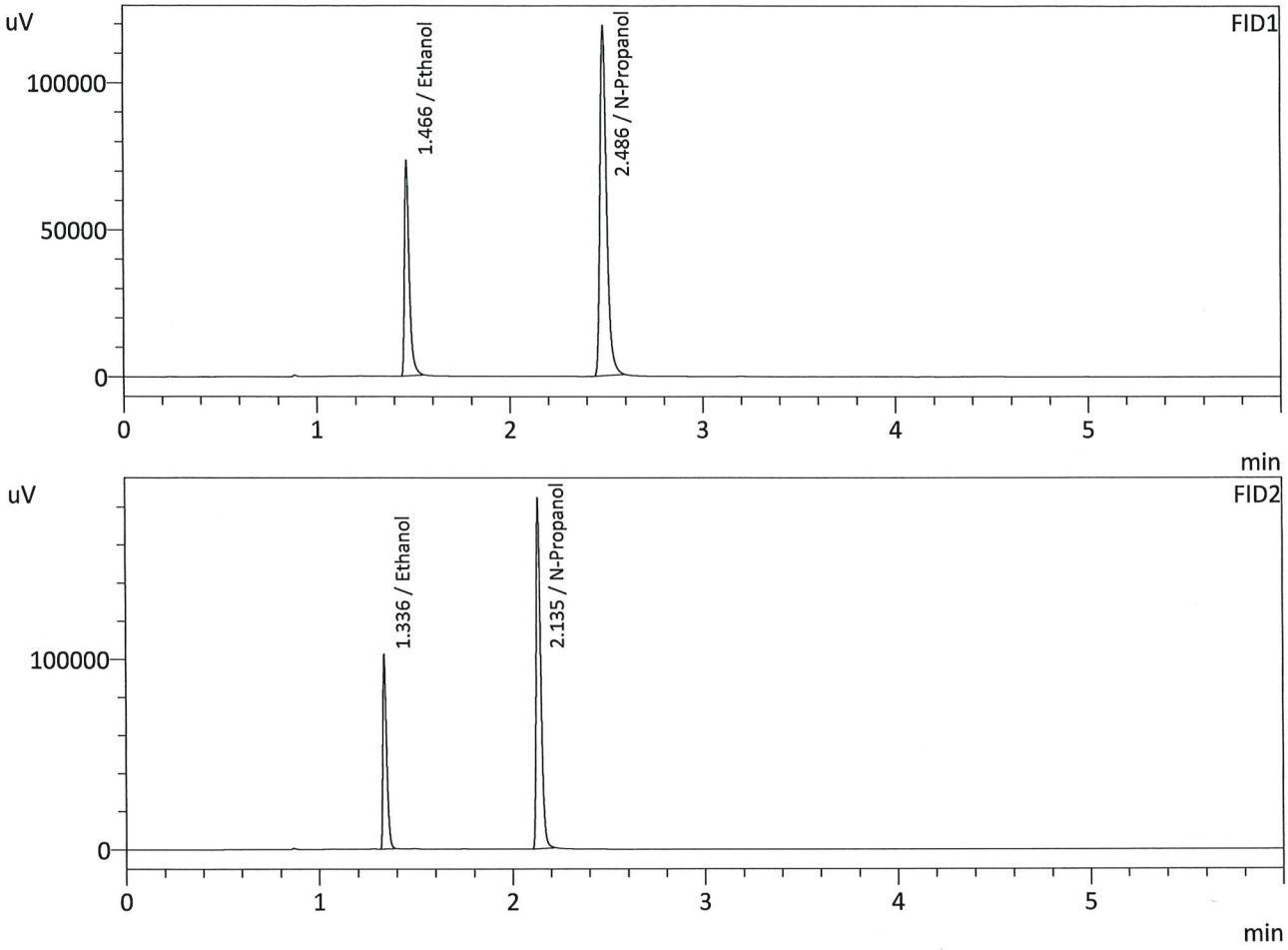
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2443	117624	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	277967	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2434	130338	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	303257	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22050-377-B
Laboratory : Coeur d' Alene Lab
Injection Date : 2/2/2023 7:00:04 PM
Vial # : 23
Method Filename : Default Project - ALCOHOL.gcm
Instrument #GC/HS : C12255850700 / C12595700181



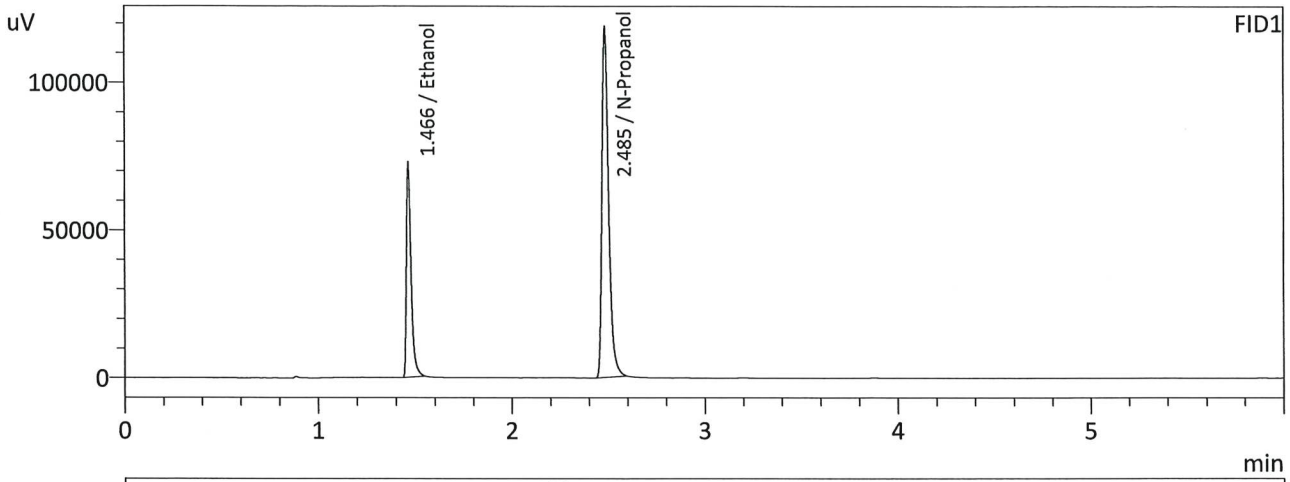
FID1

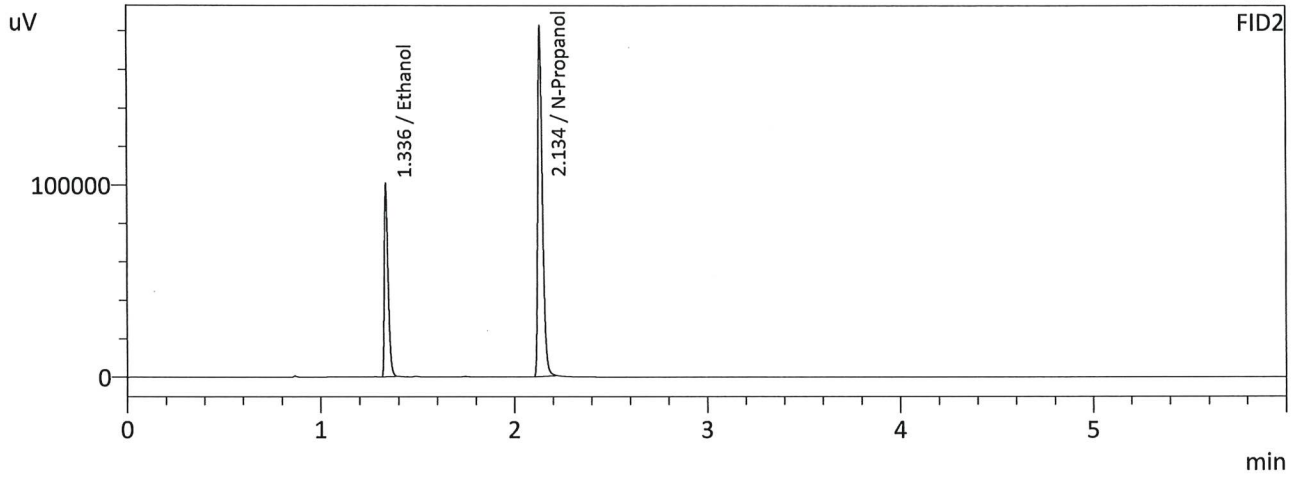
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2480	122576	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	285224	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2471	135818	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	311095	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22050-1124-A
Laboratory : Coeur d' Alene Lab
Injection Date : 2/2/2023 7:08:44 PM
Vial # : 24
Method Filename : Default Project - ALCOHOL.gcm
Instrument #GC/HS : C12255850700 / C12595700181





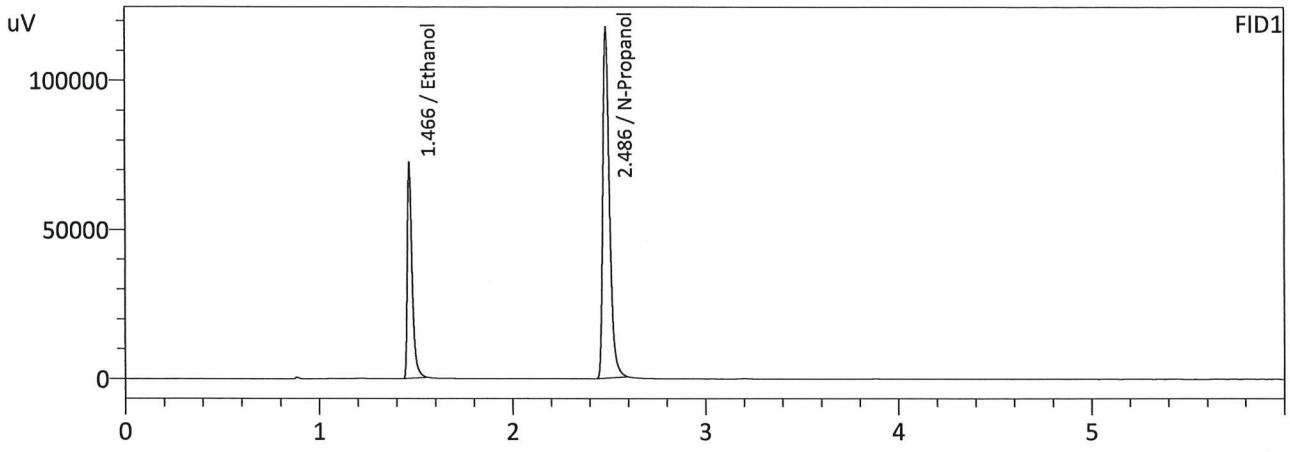
FID1

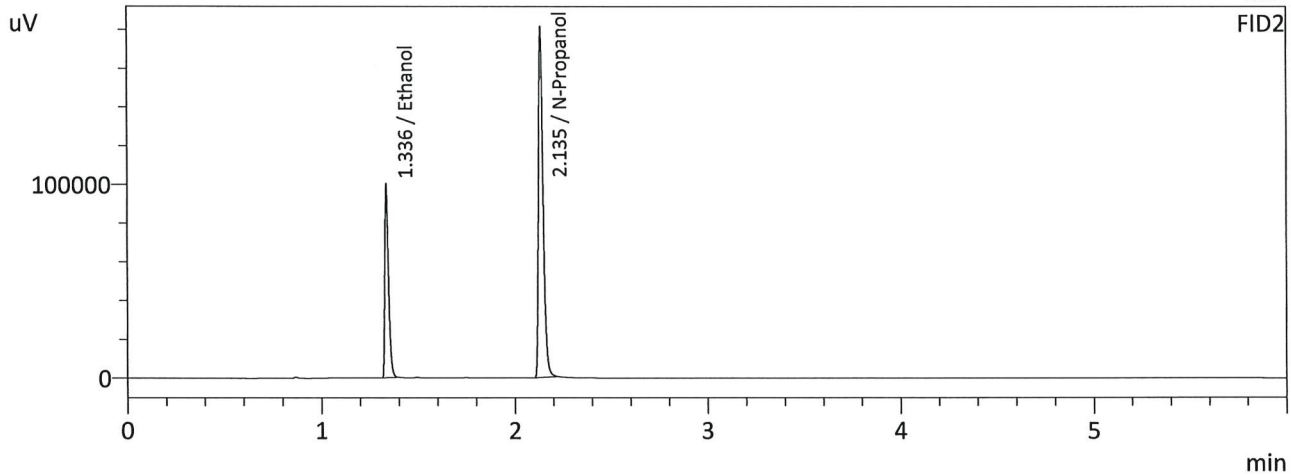
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2463	121201	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	284039	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2457	133735	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	308121	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22050-1124-B
Laboratory : Coeur d' Alene Lab
Injection Date : 2/2/2023 7:19:27 PM
Vial # : 25
Method Filename : Default Project - ALCOHOL.gcm
Instrument #GC/HS : C12255850700 / C12595700181





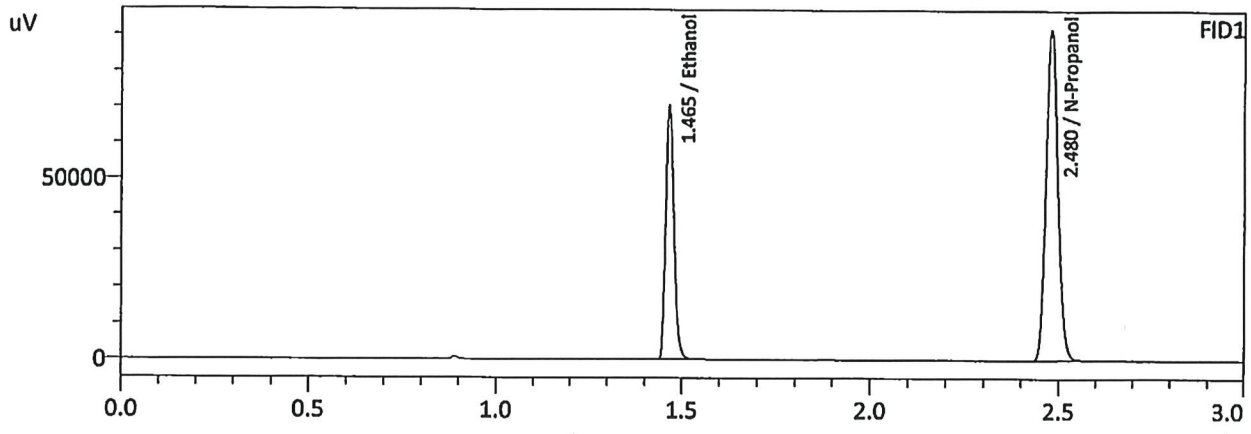
FID1

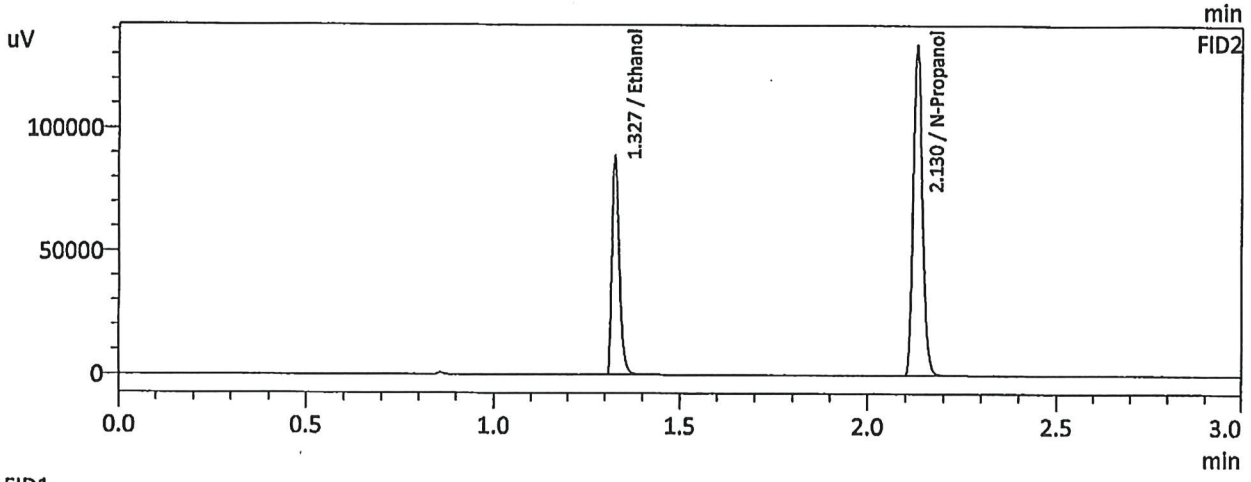
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2473	120917	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	282219	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2460	133104	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	306294	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22050-200-1-A
Laboratory : Meridian
Injection Date : 2/2/2023 12:06:07 PM
Vial # : 15
Method Filename : C:\LabSolutions\Data\230120\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





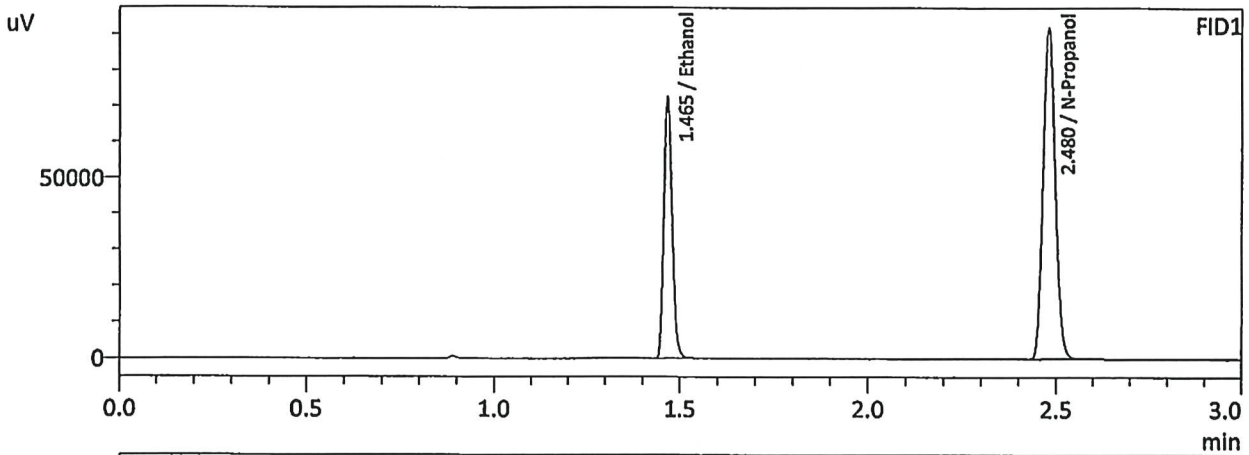
FID1

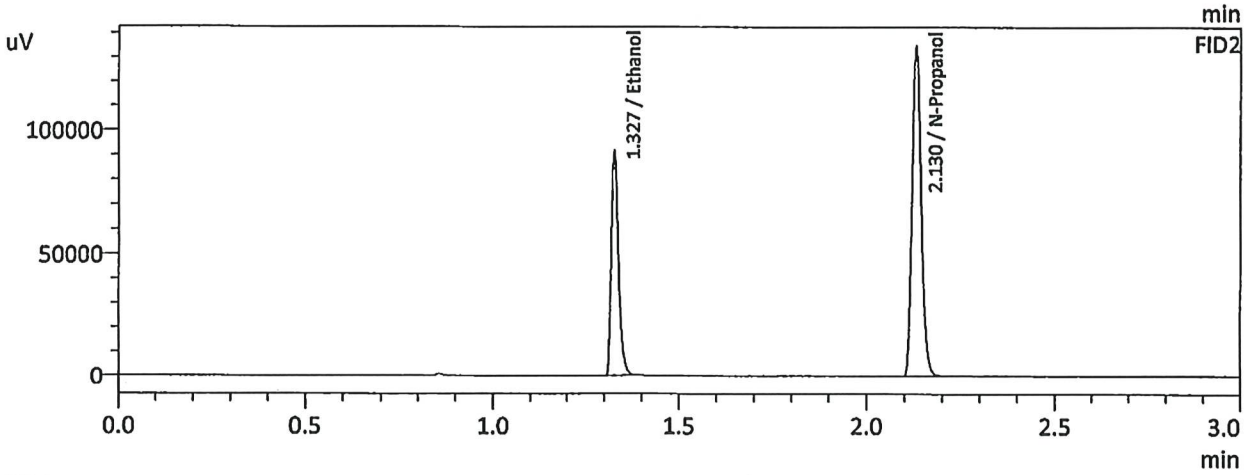
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2486	108003	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	203405	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2488	117238	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	220937	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22050-200-1-A
Laboratory : Meridian
Injection Date : 2/2/2023 12:13:41 PM
Vial # : 16
Method Filename : C:\LabSolutions\Data\230120\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





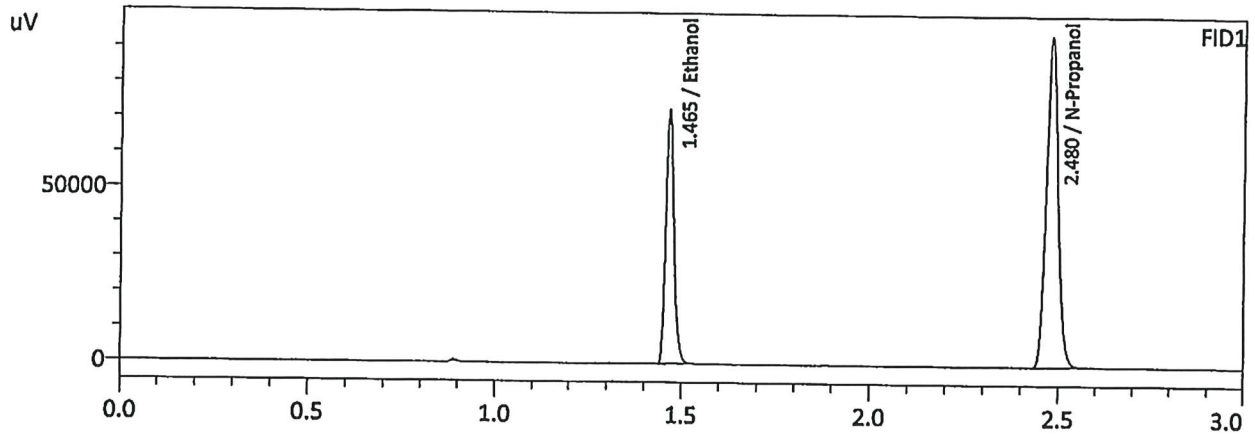
FID1

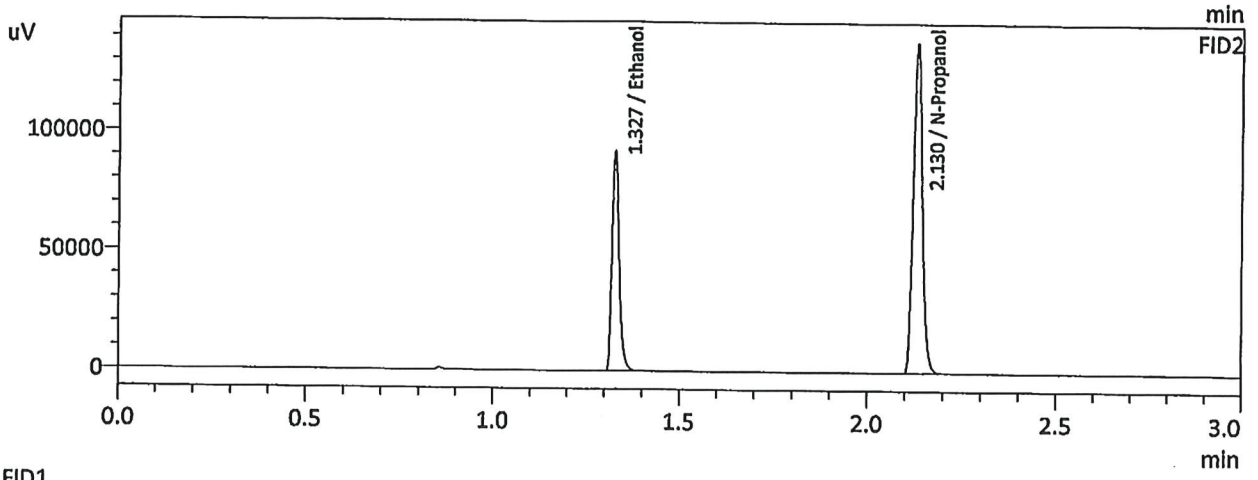
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2544	111081	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	204375	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2546	120534	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	221857	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22050-200-2-A
Laboratory : Meridian
Injection Date : 2/2/2023 12:21:54 PM
Vial # : 17
Method Filename : C:\LabSolutions\Data\230120\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





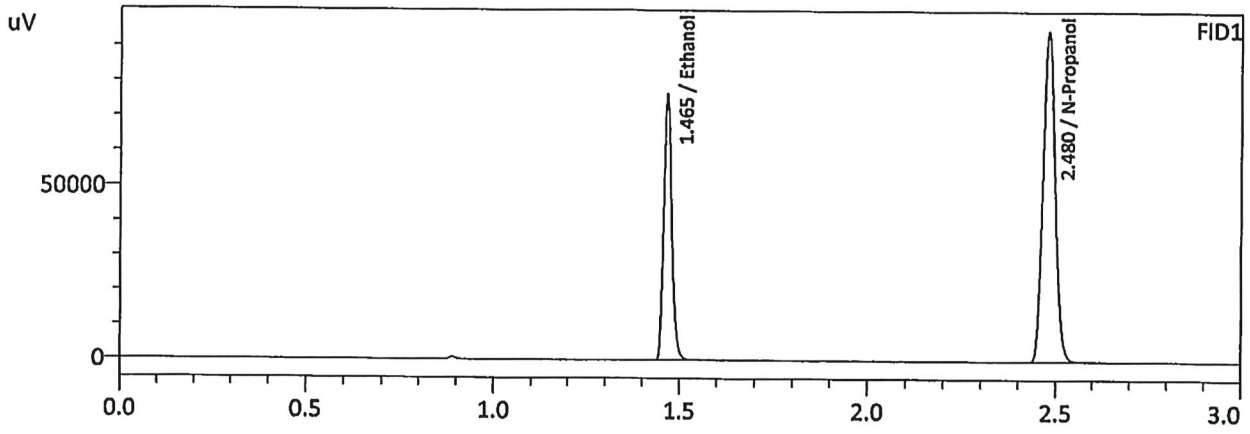
FID1

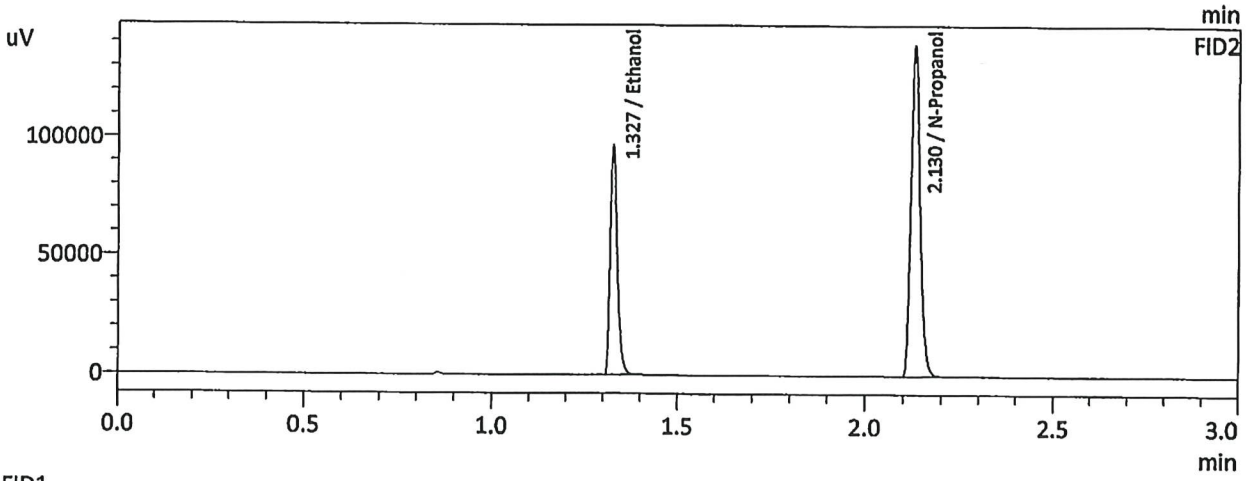
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2484	111663	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	210442	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2486	121196	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	228550	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22050-200-2-A
Laboratory : Meridian
Injection Date : 2/2/2023 12:30:56 PM
Vial # : 18
Method Filename : C:\LabSolutions\Data\230120\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2600	117316	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	211179	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2598	127184	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	229346	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc