Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB Liquid Processor/Dilutor Serial Number: ML600GB9897

Volatiles Quality Assurance Controls **Run Date(s): 12/28/2020**

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Jan-22	1801036	0.0812	0.0731-0.0893	0.0831 g/100cc
					g/100cc
					g/100cc
Level 2	Mar-22	1803028	0.2035	0.1832-0.2238	0.2039 g/100cc
					g/100cc
					g/100cc

Multi-Component mixture:			**Lot #**	FN07101701	
Curve Fit:		**Column 1**	0.99981	**Column2**	0.99977

Ethanol Calibration Reference Material

Calibrator level	Target Value	Acceptable Range	Column 1	Column 2	Precision	Mean
50	0.050	0.045 - 0.055	0.0525	0.0529	0.0004	0.0527
100	0.100	0.090 - 0.110	0.1008	0.1008	0	0.1008
200	0.200	0.180 - 0.220	0.1983	0.1981	0.0002	0.1982
300	0.300	0.270 - 0.330	0.2949	0.2944	0.0005	0.2946
400	0.400	0.360 - 0.440			0	#DIV/0!
500	0.500	0.450 - 0.550	0.5032	0.5035	0.0003	0.5033

Aqueous Controls

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

REVIEWED
By Jeremy Johnston at 10:16 am, Dec 30, 2020

Revision: 2
Issue Date: 12/23/2019
Issuing Authority: Quality Manager

12/29/2020

Worklist: 4699

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
P2020-2699	1	BCK	BATS Proficiency Test

==== Shimadzu LabSolutions Batch Table====

[General]
Start from Continuing Row
[Folder]
Use Current Folder
[Data Filename]
Create filename automatically
Selected items
Sample Name
Batch Start Date
Prefix =
Auto-increment Format =001, 002, ...
[ASCII Conversion]
Not Output ASCII Files
[File Conversion]
Not Convert
[QA/QC]
Not Execute QA/QC
[Option Item]
Option 1 Title:
Option 2 Title:
Option 3 Title:
Option 4 Title:
Option 5 Title:
Option 6 Title:
Option 7 Title:
Option 8 Title:
Option 9 Title:
Option 10 Title:
[Bracket]
None
[Startup]
Startup Off
[Shutdown]
Shutdown Off
[Type]
Line1
Use Method Inj. Volume & Multi-Inj. Counts
[Comment]

Vial#	Sample Name	Sample ID	Sample Type	Method File	Data File	Level#	Report Format File
1	0.050		1:Standard:(I)	ALCOHOL.gcm	0.050_12282020_001.gcd	1	REPORT_correct.lsr
2	0.100		1:Standard:(R)	ALCOHOL.gcm	0.100_12282020_002.gcd	2	REPORT_correct.lsr
3	0.200		1:Standard:(R)	ALCOHOL.gcm	0.200_12282020_003.gcd	3	REPORT_correct.lsr
4	0.300		1:Standard:(R)	ALCOHOL.gcm	0.300_12282020_004.gcd	4	REPORT_correct.lsr
5	0.500		1:Standard:(R)	ALCOHOL.gcm	0.500_12282020_005.gcd	5	REPORT_correct.lsr
6	INT STD BLK 1		0:Unknown	ALCOHOL.gcm	T STD BLK 1_12282020_006.gcd	0	REPORT_correct.lsr
7	MULTI-COMP MIX		0:Unknown	ALCOHOL.gcm	I-COMP MIX_12282020_007.gcd	1	REPORT_correct.lsr

Shimadzu GC/HS: C12255850662

C:\LabSolutions\Data\VALIDATION MASTER\12-28-20 RC\12-28-20 BATCH.gcb

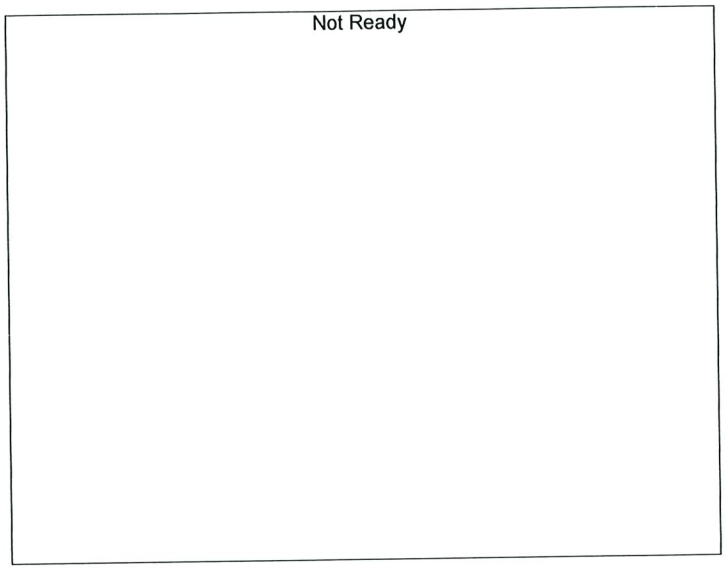
Vial#	Sample Name	Sample ID	Sample Type	Method File	Data File	Level#	Report Format File
8	INT STD BLK 2		0:Unknown	ALCOHOL.gcm	T STD BLK 2_12282020_008.gcd	0	REPORT_correct.lsr
9	QC-1-1-A		0:Unknown	ALCOHOL.gcm	QC-1-1-A_12282020_009.gcd	0	REPORT_correct.lsr
10	QC-1-1-B		0:Unknown	ALCOHOL.gcm	QC-1-1-B_12282020_010.gcd	0	REPORT_correct.lsr
11	0.08 QA - A		0:Unknown	ALCOHOL.gcm	0.08 QA - A_12282020_011.gcd	0	REPORT_correct.lsr
12	0.08 QA - B		0:Unknown	ALCOHOL.gcm	0.08 QA - B_12282020_012.gcd	0	REPORT_correct.lsr
13	P2020-2699-1-A		0:Unknown	ALCOHOL.gcm	20-2699-1-A_12282020_013.gcd	0	REPORT_correct.lsr
14	P2020-2699-1-B		0:Unknown	ALCOHOL.gcm	20-2699-1-B_12282020_014.gcd	0	REPORT_correct.lsr
15	P2020-2699-2-A		0:Unknown	ALCOHOL.gcm	20-2699-2-A_12282020_015.gcd	0	REPORT_correct.lsr
16	P2020-2699-2-B		0:Unknown	ALCOHOL.gcm	20-2699-2-B_12282020_016.gcd	0	REPORT_correct.lsr
17	P2020-2699-3-A		0:Unknown	ALCOHOL.gcm	20-2699-3-A_12282020_017.gcd	0	REPORT_correct.lsr
18	P2020-2699-3-B		0:Unknown	ALCOHOL.gcm	20-2699-3-B_12282020_018.gcd	0	REPORT_correct.lsr
19	P2020-2699-4-A		0:Unknown	ALCOHOL.gcm	20-2699-4-A_12282020_019.gcd	0	REPORT_correct.lsr
20	P2020-2699-4-B		0:Unknown	ALCOHOL.gcm	20-2699-4-B_12282020_020.gcd	0	REPORT_correct.lsr
21	QC-2-1-A		0:Unknown	ALCOHOL.gcm	QC-2-1-A_12282020_021.gcd	0	REPORT_correct.lsr
22	QC-2-1-B		0:Unknown	ALCOHOL.gcm	QC-2-1-B_12282020_022.gcd	0	REPORT_correct.lsr
23	INT STD BLK 3		0:Unknown	ALCOHOL.gcm	T STD BLK 3_12282020_023.gcd	0	REPORT_correct.lsr
24	0.050		0:Unknown	ALCOHOL.gcm	0.050_12282020_024.gcd	0	REPORT_correct.lsr
25	0.100		0:Unknown	ALCOHOL.gcm	0.100_12282020_025.gcd	0	REPORT_correct.lsr
26	0.200		0:Unknown	ALCOHOL.gcm	0.200_12282020_026.gcd	0	REPORT_correct.lsr
27	0.300		0:Unknown	ALCOHOL.gcm	0.300_12282020_027.gcd	0	REPORT_correct.lsr
28	0.500		0:Unknown	ALCOHOL.gcm	0.500_12282020_028.gcd	0	REPORT_correct.lsr
29	INT STD BLK 4		0:Unknown	ALCOHOL.gcm	T STD BLK 4_12282020_029.gcd	0	REPORT_correct.lsr

Calibration Table

Shimadzu GC/HS: C12255850662

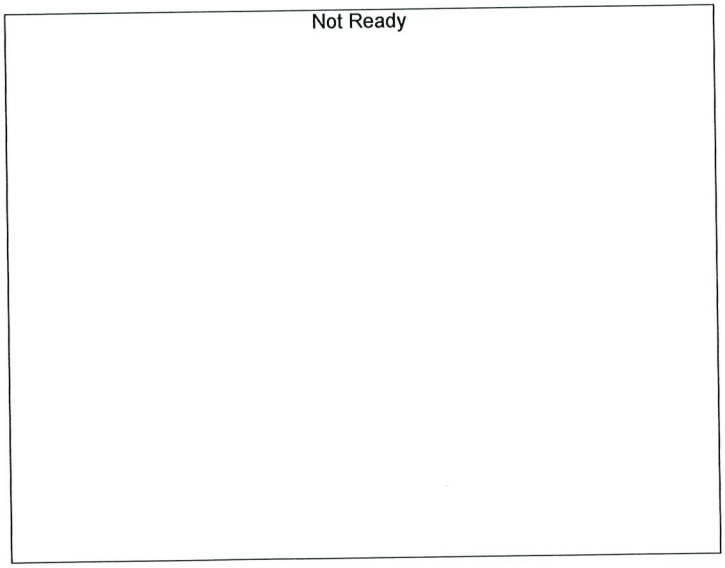
Laboratory: Pocatello
Instrument Name : GC2030-HS20

<<Data File>>
Method File :C:\LabSolutions\Data\VALIDATION MASTER\12-28-20 RC\ALCOHOL.gcm
Batch File :C:\LabSolutions\Data\VALIDATION MASTER\12-28-20 RC\12-28-20 POST RUN 1.gcb
Date Acquired :12/28/2020 6:10:30 PM
Date Created :12/28/2020 6:07:35 PM
Date Modified :12/29/2020 10:02:15 AM



Name : METHANOL
Detector Name: FID1
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

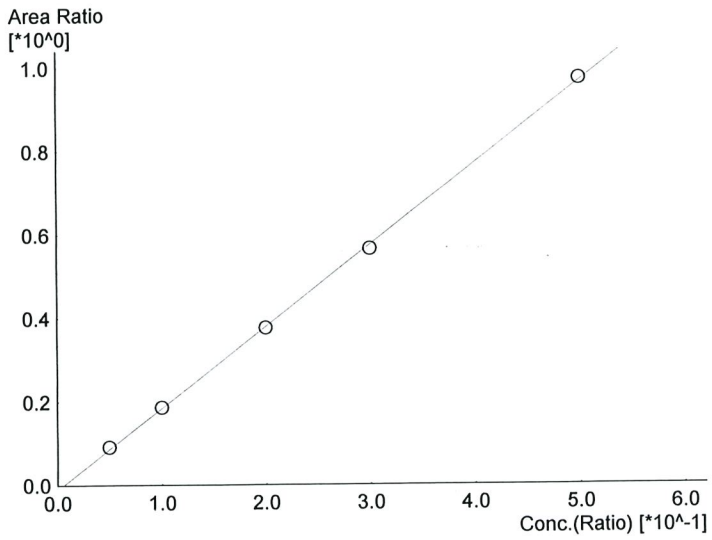
#	Conc.	Area	Std. Conc.



Name : ACETALDEHYDE
Detector Name: FID1
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.

RC



Name : ETHANOL
Detector Name: FID1
Function : f(x)=1.95297*x-0.0113344
Linearity=0.9998193
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.
1	0.050	14489	0.0525
2	0.100	29457	0.1008
3	0.200	59718	0.1983
4	0.300	89096	0.2949
5	0.500	157018	0.5032

Not Ready

Name : ISOPROPYL ALCOHOL
Detector Name: FID1
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

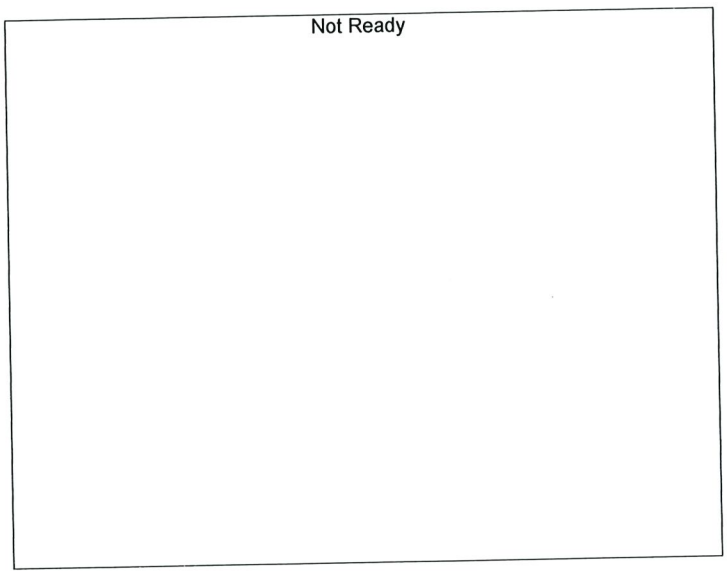
#	Conc.	Area	Std. Conc.

Not Ready

Name : ACETONE
Detector Name: FID1
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

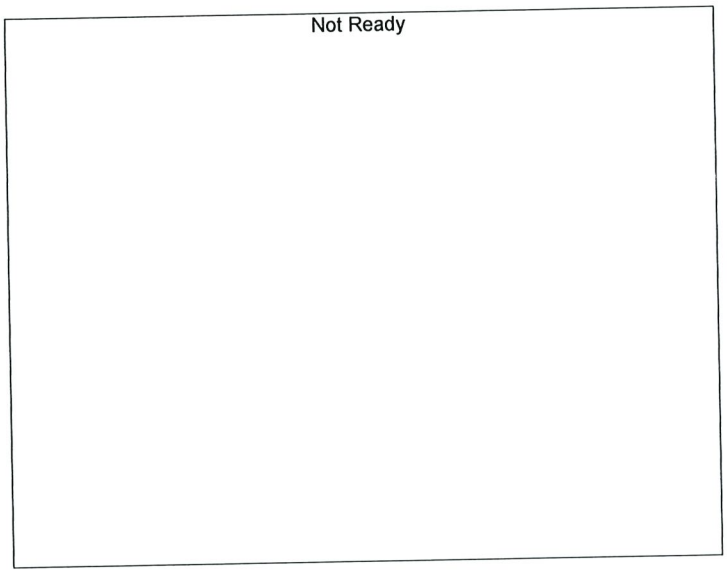
#	Conc.	Area	Std. Conc.

RC



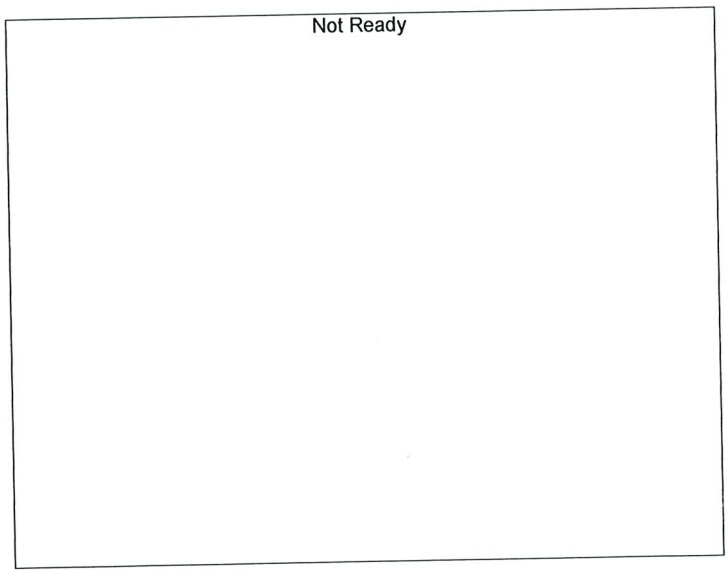
Name : DFE
Detector Name: FID1
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



Name : TFE
Detector Name: FID1
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

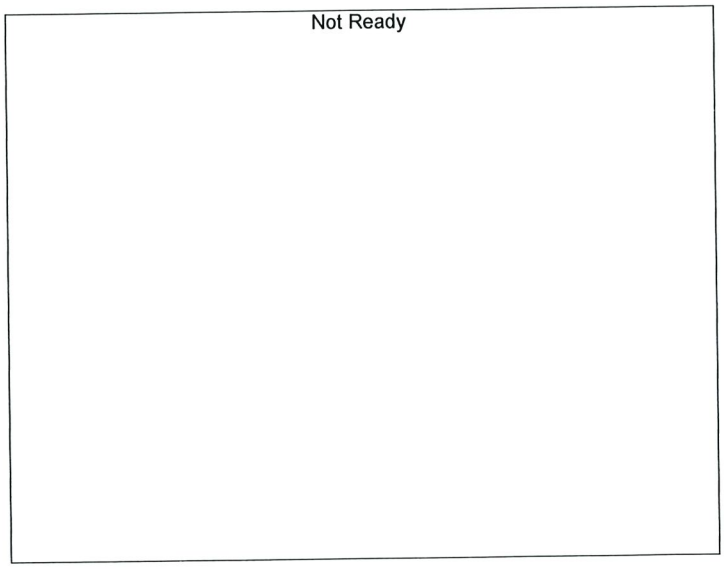
#	Conc.	Area	Std. Conc.



Name : ACETALDEHYDE
Detector Name: FID2
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

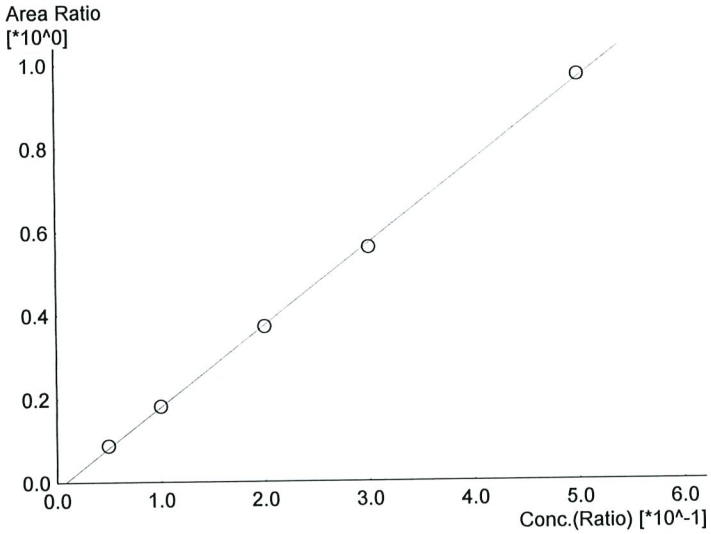
#	Conc.	Area	Std. Conc.

RC



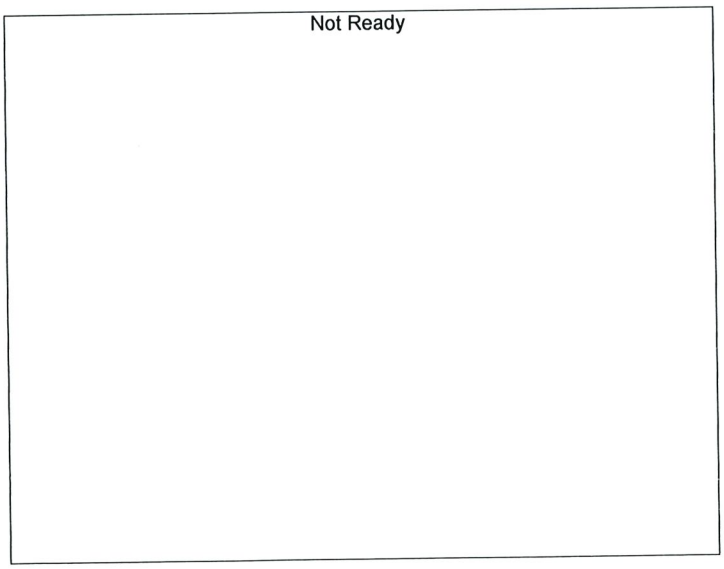
Name : METHANOL
Detector Name: FID2
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



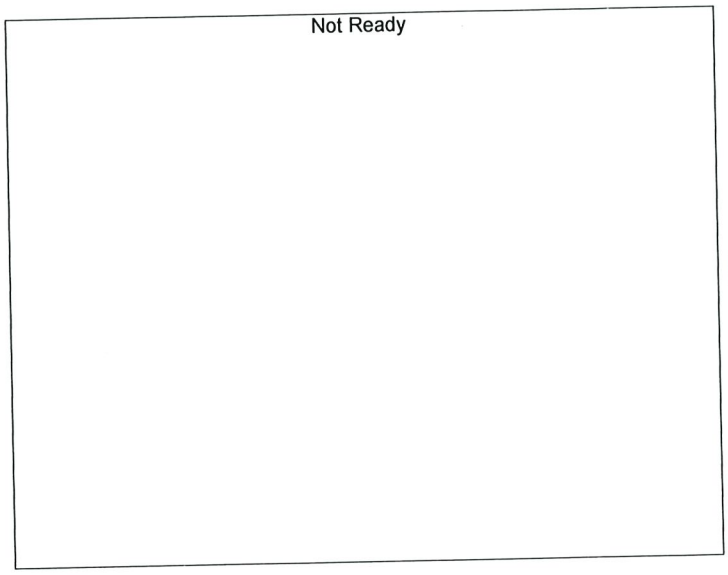
Name : ETHANOL
Detector Name: FID2
Function : f(x)=1.95942*x-0.0163601
Linearity=0.9997796
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.
1	0.050	14308	0.0529
2	0.100	29591	0.1008
3	0.200	60694	0.1981
4	0.300	91254	0.2944
5	0.500	162066	0.5035



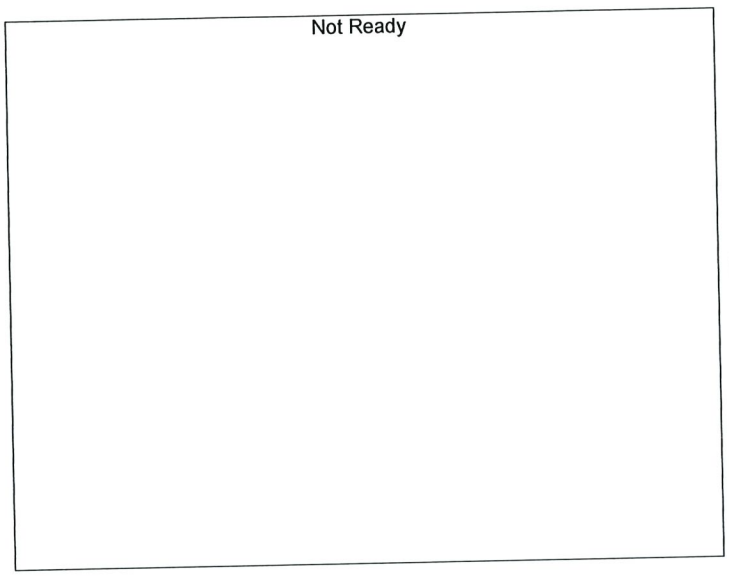
Name : ACETONE
Detector Name: FID2
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



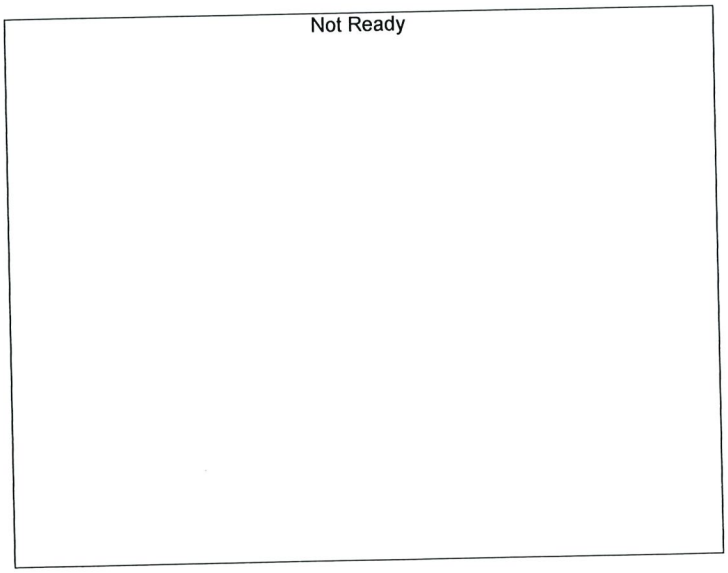
Name : ISOPROPYL ALCOHOL
Detector Name: FID2
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



Name : DFE
Detector Name: FID2
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

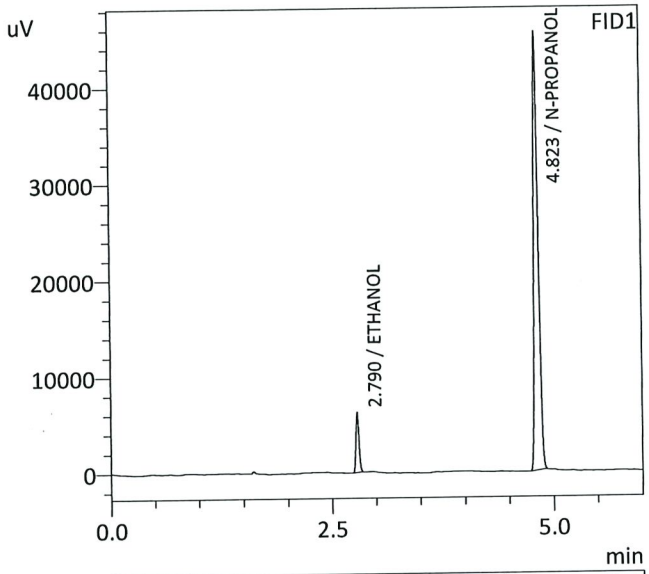
#	Conc.	Area	Std. Conc.



Name : TFE
Detector Name: FID2
Function : f(x)=0*x+0
Linearity=0
FitType: Linear
ZeroThrough: Not Through

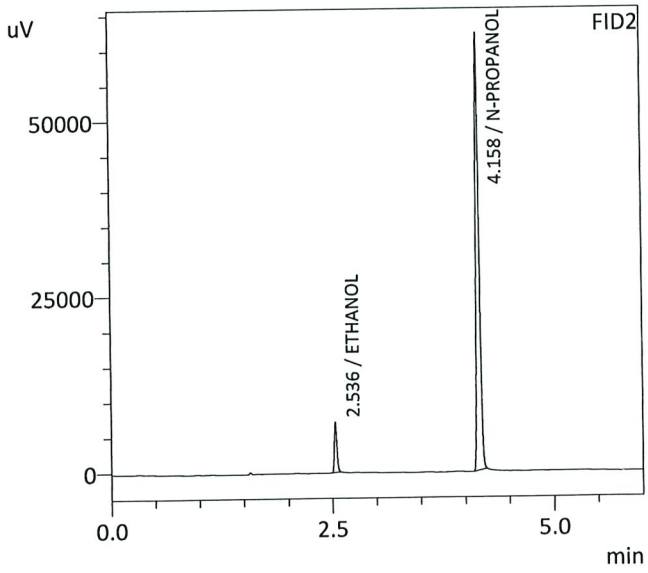
#	Conc.	Area	Std. Conc.

Sample Name : 0.050
Vial # : 1
Data Filename : 0.050_12282020_001.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 5:34:50 PM
Date Processed : 12/29/2020 10:02:11 AM



FID1

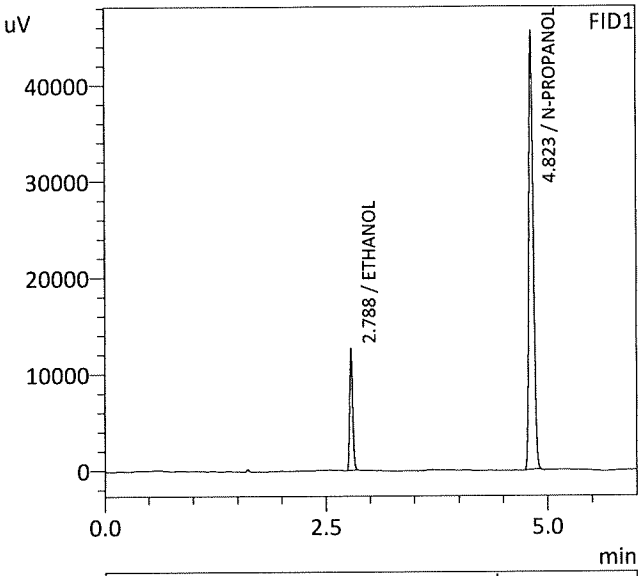
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.0525	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc



FID2

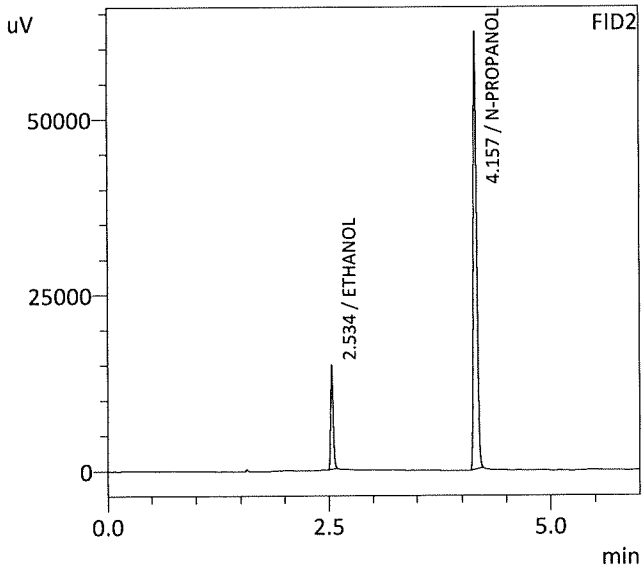
Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.0529	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : 0.100
Vial # : 2
Data Filename : 0.100_12282020_002.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 3.gcb
Date Acquired : 12/28/2020 5:43:39 PM
Date Processed : 12/29/2020 10:10:44 AM



FID1

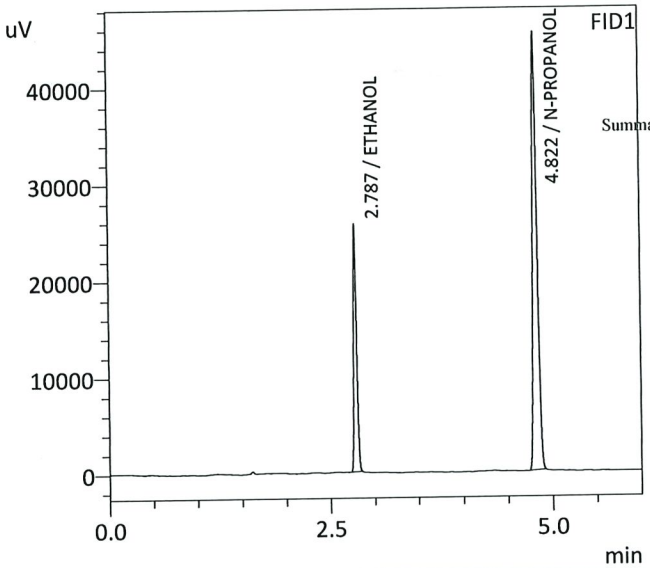
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.1008	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc



FID2

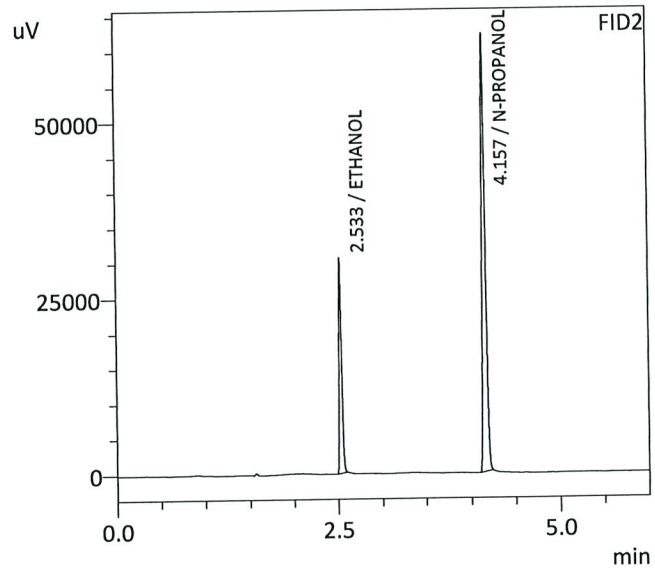
Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.1008	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : 0.200
Vial # : 3
Data Filename : 0.200_12282020_003.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 3.gcb
Date Acquired : 12/28/2020 5:52:49 PM
Date Processed : 12/29/2020 10:10:46 AM



FID1

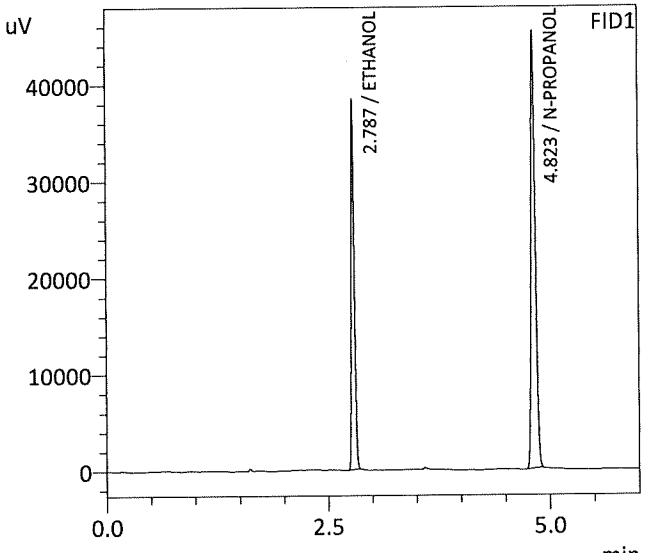
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.1983	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc



FID2

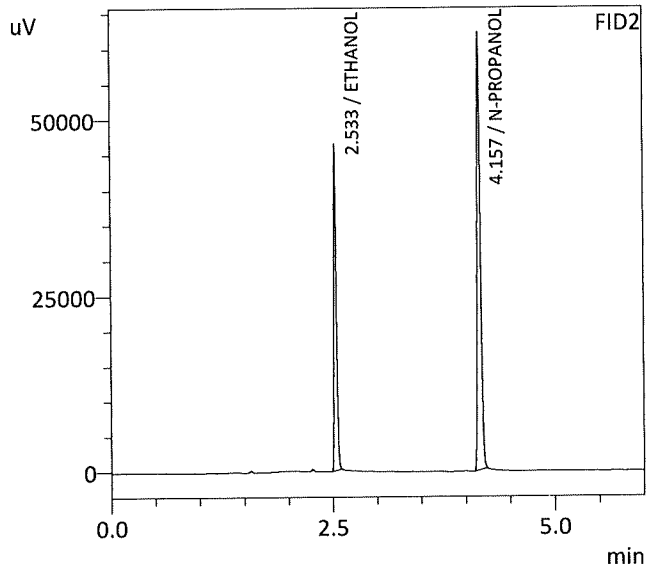
Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.1981	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : 0.300
Vial # : 4
Data Filename : 0.300_12282020_004.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 3.gcb
Date Acquired : 12/28/2020 6:01:32 PM
Date Processed : 12/29/2020 10:10:48 AM



FID1

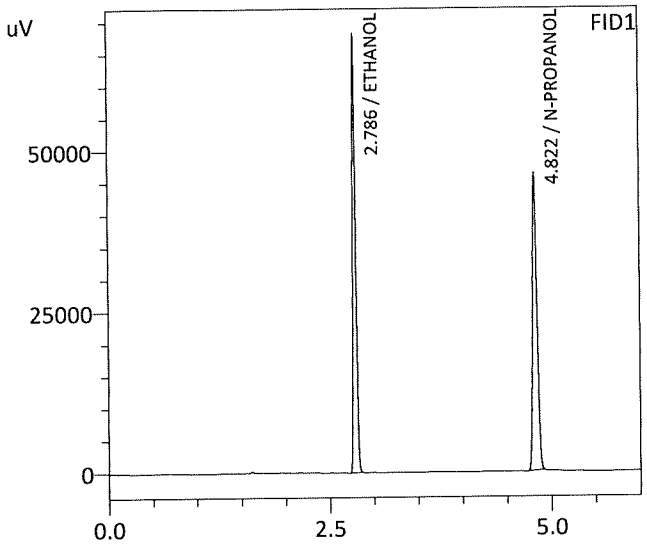
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.2949	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc



FID2

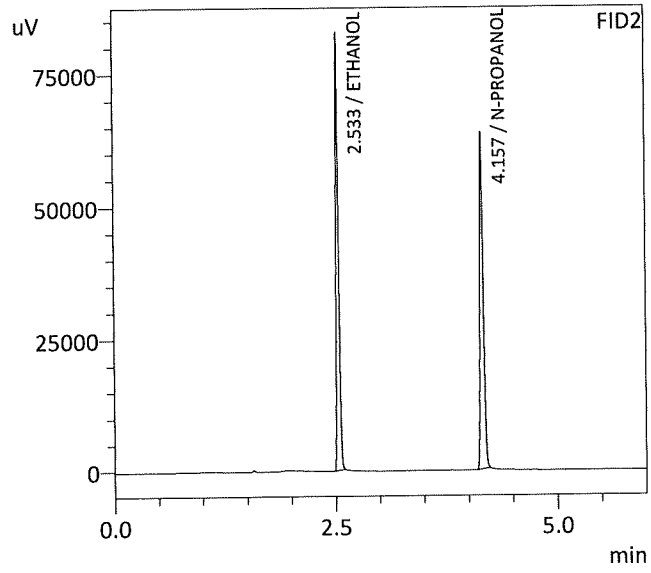
Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.2944	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : 0.500
Vial # : 5
Data Filename : 0.500_12282020_005.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 6:10:30 PM
Date Processed : 12/29/2020 10:02:15 AM



FID1

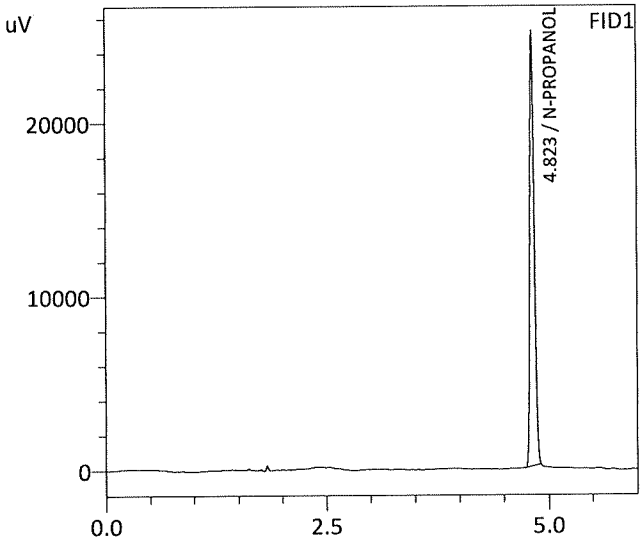
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.5032	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc



FID2

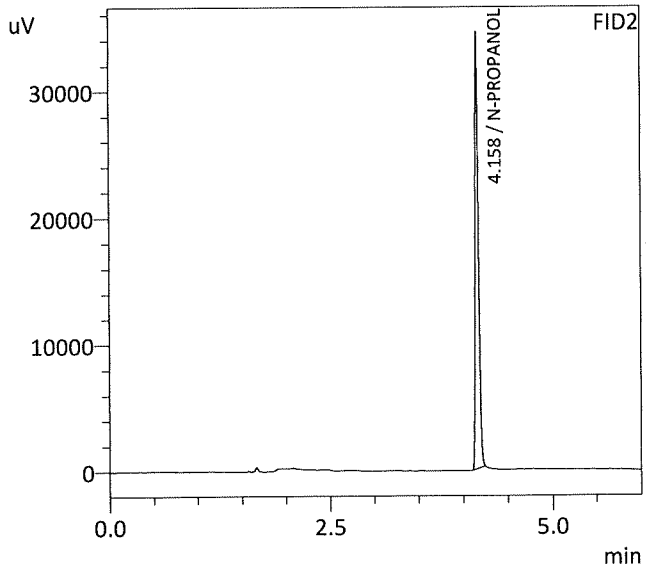
Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.5035	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : INT STD BLK 1
Vial # : 6
Data Filename : INT STD BLK 1_12282020_006.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 6:19:00 PM
Date Processed : 12/29/2020 10:02:21 AM



FID1

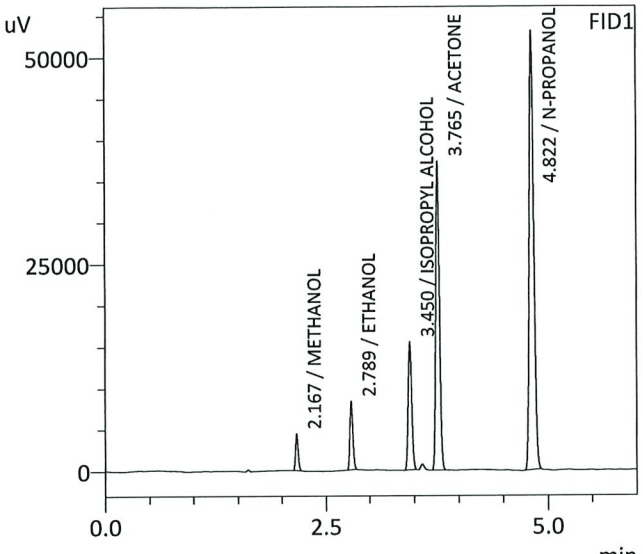
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc



FID2

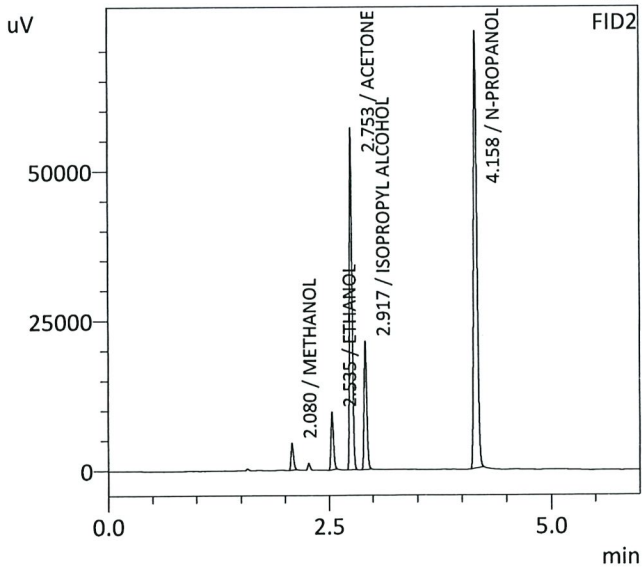
Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	--	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : MULTI-COMP MIX
Vial # : 7
Data Filename : MULTI-COMP MIX_12282020_007.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 6:27:51 PM
Date Processed : 12/29/2020 10:02:28 AM



FID1

Name	Conc.	Unit
METHANOL	0.0000	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.0590	g/100cc
ISOPROPYL ALCOHOL	0.0000	g/100cc
ACETONE	0.0000	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

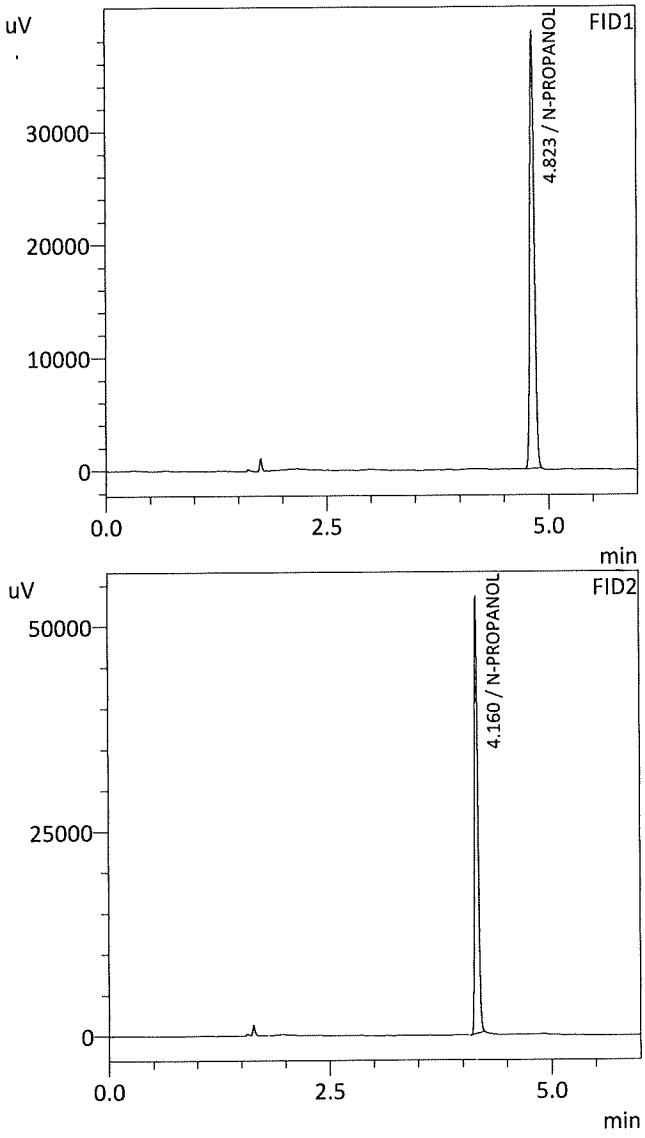


FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	0.0000	g/100cc
ETHANOL	0.0597	g/100cc
ACETONE	0.0000	g/100cc
ISOPROPYL ALCOHOL	0.0000	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

RC

Sample Name : INT STD BLK 2
Vial # : 8
Data Filename : INT STD BLK 2_12282020_008.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 6:36:50 PM
Date Processed : 12/29/2020 10:02:23 AM



FID1

Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	--	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC-1 **Analysis Date(s): 12/28/2020**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0833	0.0830	0.0003	0.0831	0.0000	0.0831
(g/100cc)	0.0832	0.0830	0.0002	0.0831		

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

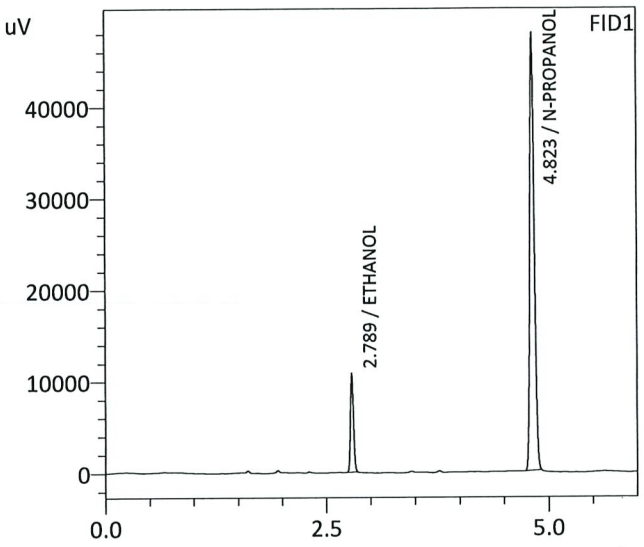
Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

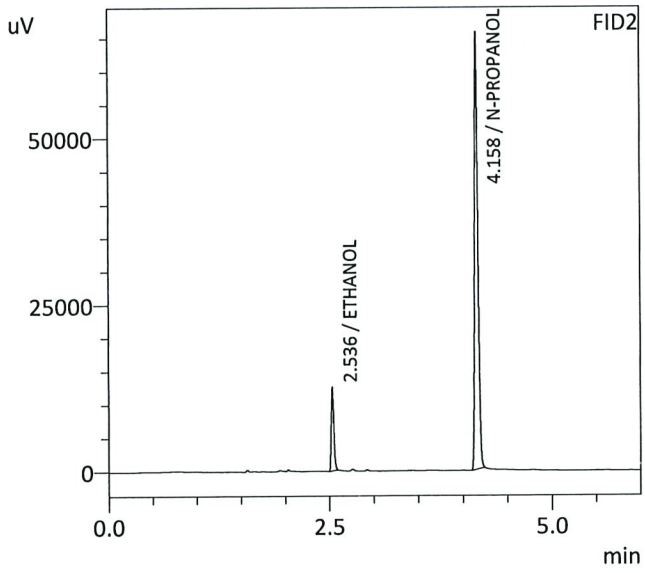
Overall Mean (g/100cc)	Low	High	5% of Mean
0.083	0.078	0.088	0.005

	Reported Result	
	0.083	

Calibration and control data are stored centrally.

Sample Name : QC-1-1-A
Vial # : 9
Data Filename : QC-1-1-A_12282020_009.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 6:45:47 PM
Date Processed : 12/29/2020 10:02:44 AM





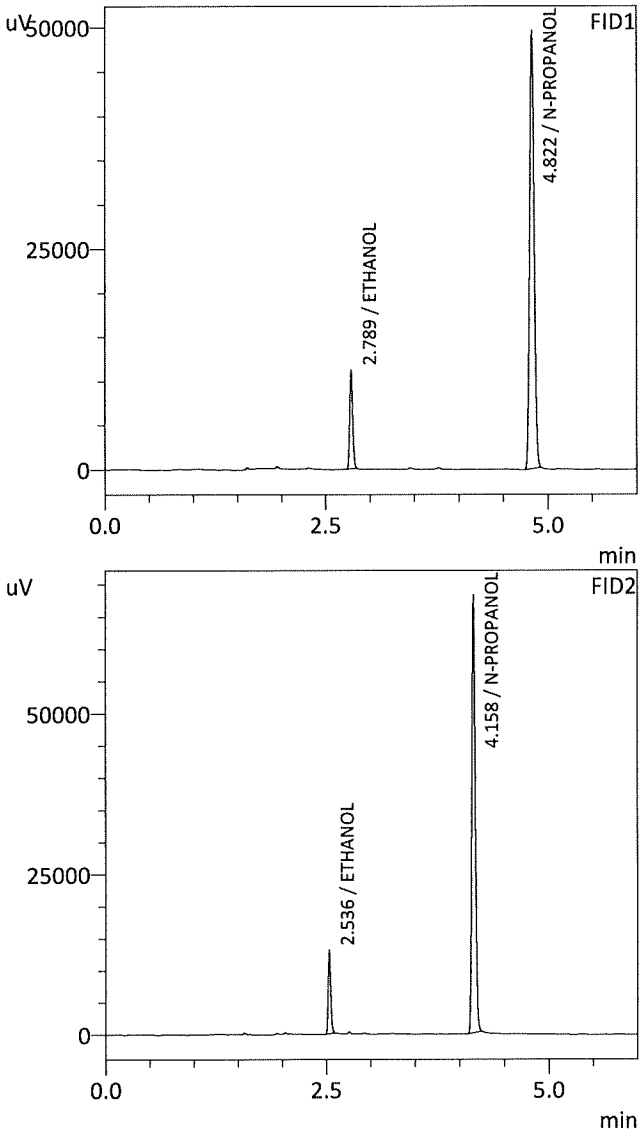
FID1

Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.0833	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.0830	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : QC-1-1-B
Vial # : 10
Data Filename : QC-1-1-B_12282020_010.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 6:54:37 PM
Date Processed : 12/29/2020 10:02:46 AM



FID1

Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.0832	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.0830	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

RC

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.080 QA **Analysis Date(s): 12/28/2020**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0819	0.0824	0.0005	0.0821	0.0000	0.0821
(g/100cc)	0.0821	0.0822	0.0001	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%**

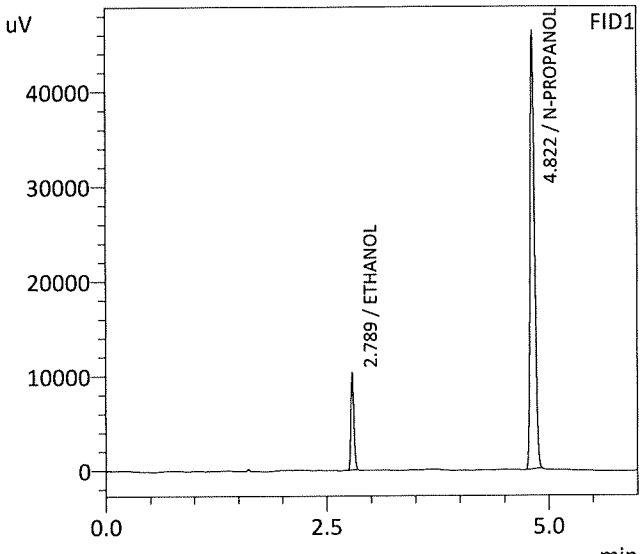
Overall Mean (g/100cc)	Low	High	5% of Mean
0.082	**0.077**	**0.087**	**0.005**

Reported Result

0.082

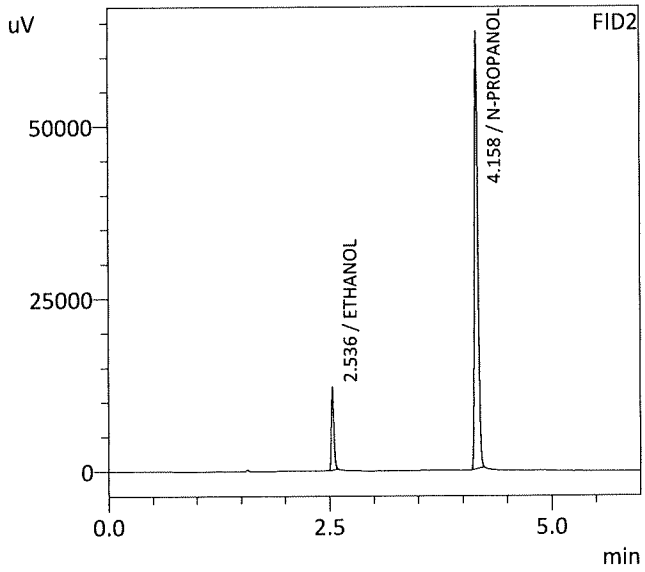
Calibration and control data are stored centrally.

Sample Name : 0.08 QA - A
Vial # : 11
Data Filename : 0.08 QA - A_12282020_011.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 7:03:28 PM
Date Processed : 12/29/2020 10:02:18 AM



FID1

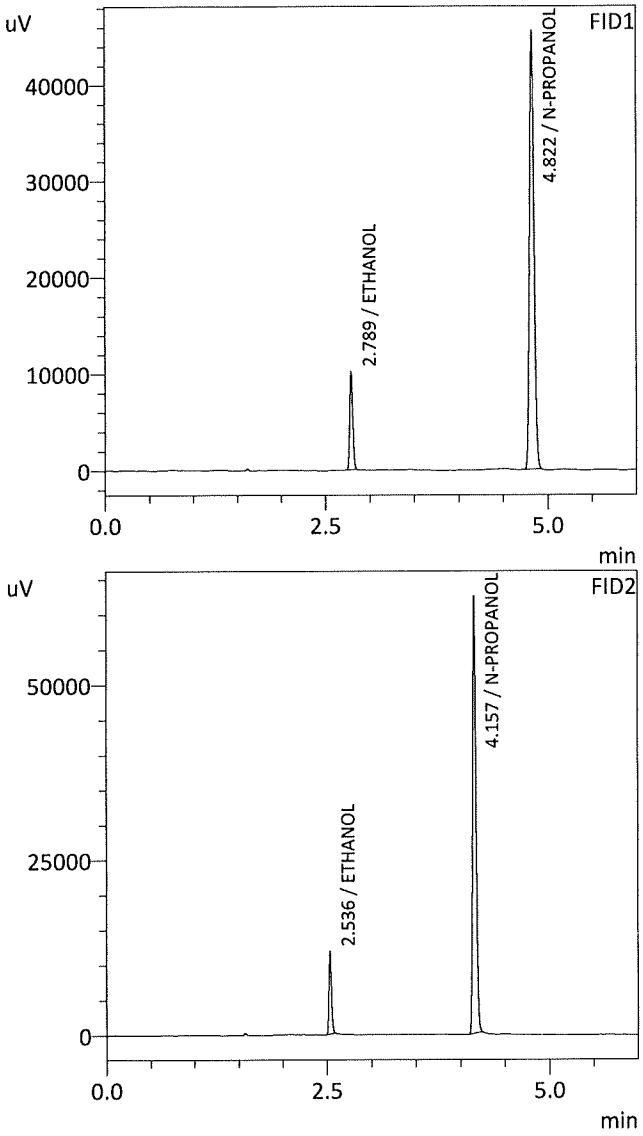
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.0819	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc



FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.0824	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : 0.08 QA - B
Vial # : 12
Data Filename : 0.08 QA - B_12282020_012.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 7:12:21 PM
Date Processed : 12/29/2020 10:02:19 AM



FID1

Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.0821	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.0822	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC-2 **Analysis Date(s): 12/28/2020**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results (g/100cc)	0.2043	0.2025	0.0018	0.2034	0.0011	0.2039
	0.2047	0.2043	0.0004	0.2045		

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%**

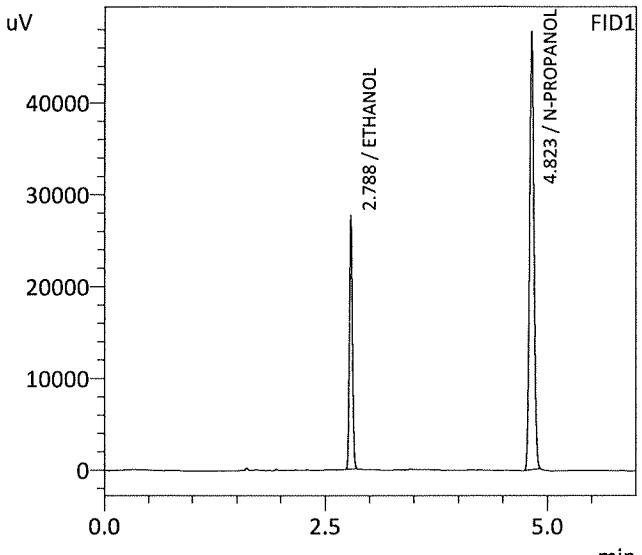
Overall Mean (g/100cc)	Low	High	5% of Mean
0.203	**0.192**	**0.214**	**0.011**

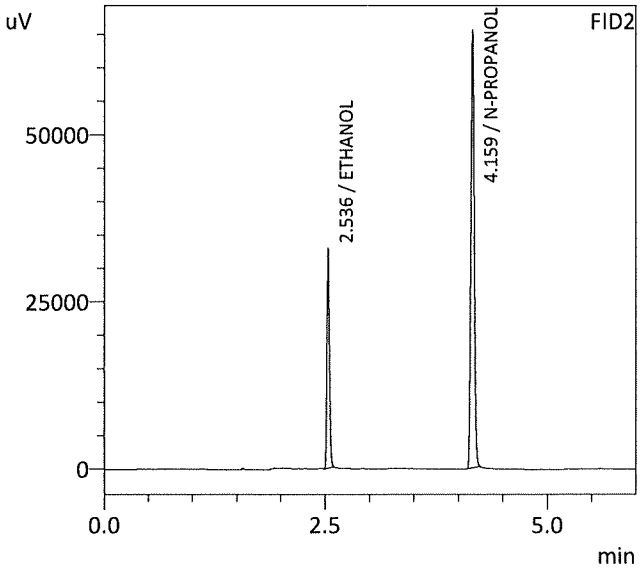
Reported Result

0.203

Calibration and control data are stored centrally.

Sample Name : QC-2-1-A
Vial # : 21
Data Filename : QC-2-1-A_12282020_021.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 8:31:42 PM
Date Processed : 12/29/2020 10:02:48 AM





FID1

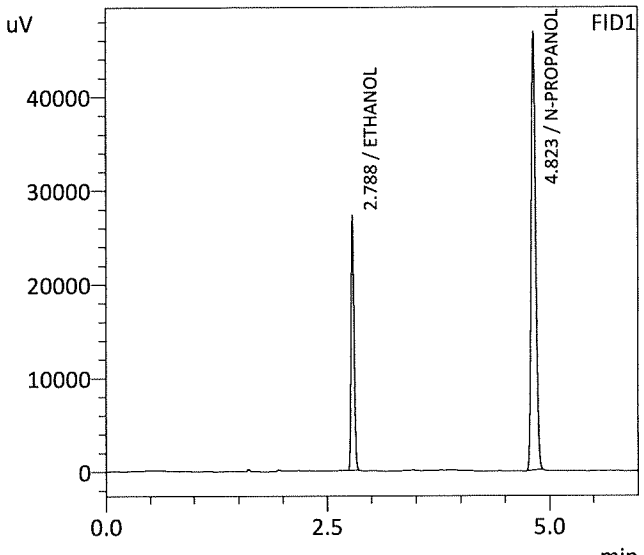
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.2043	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.2025	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

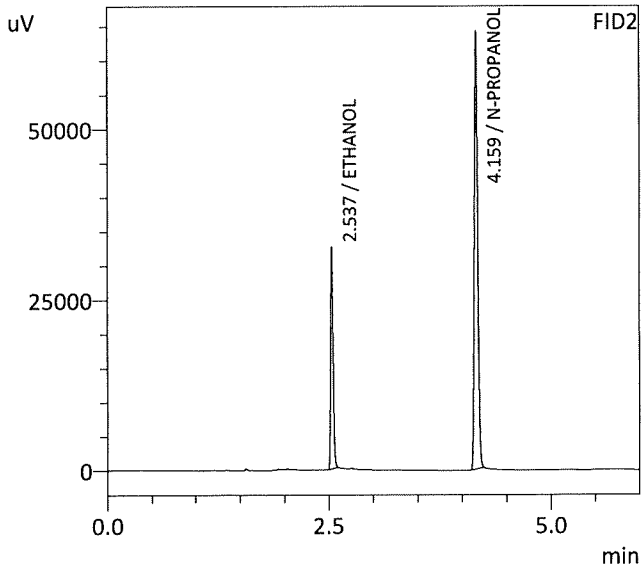
RC

Sample Name : QC-2-1-B
Vial # : 22
Data Filename : QC-2-1-B_12282020_022.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 8:40:29 PM
Date Processed : 12/29/2020 10:02:50 AM



FID1

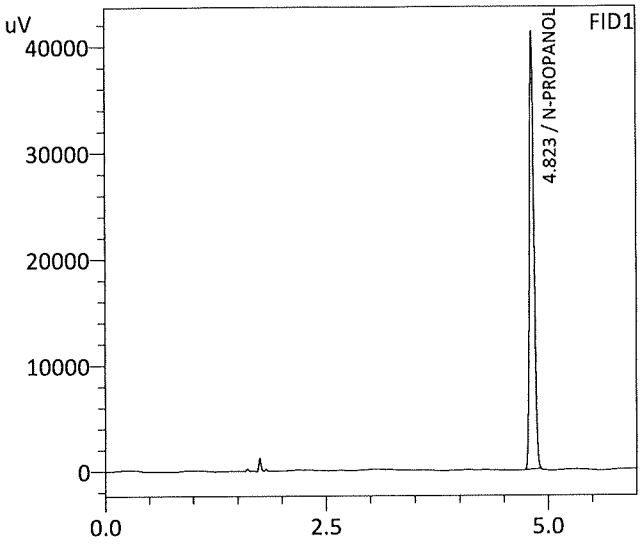
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.2047	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc



FID2

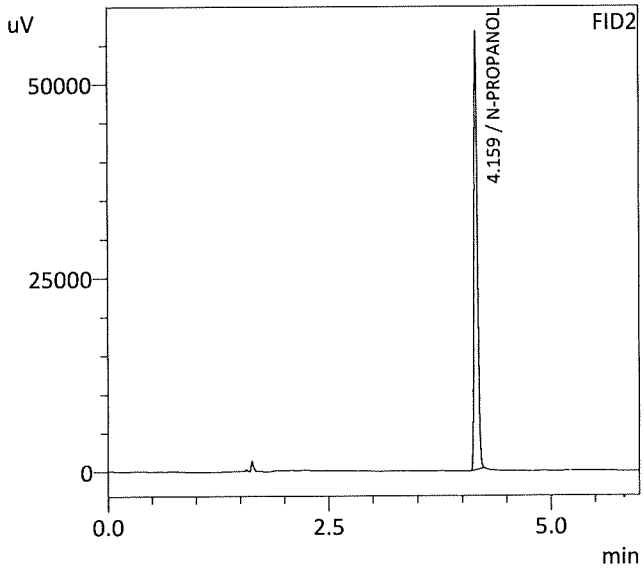
Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.2043	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : INT STD BLK 3
Vial # : 23
Data Filename : INT STD BLK 3_12282020_023.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 8:49:13 PM
Date Processed : 12/29/2020 10:02:25 AM



FID1

Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

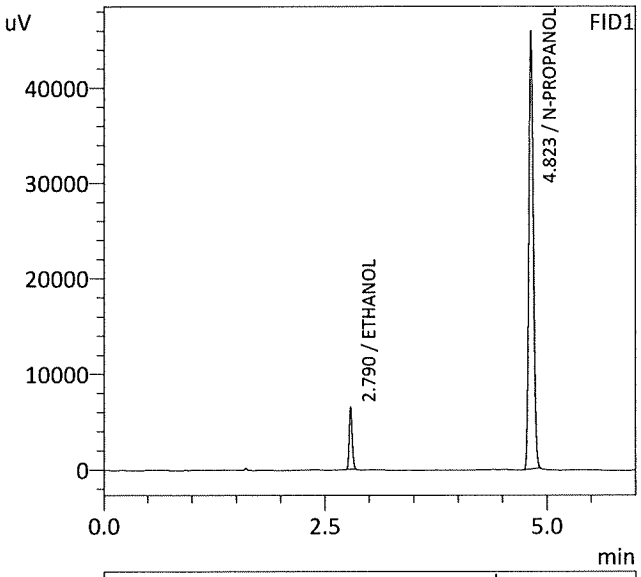


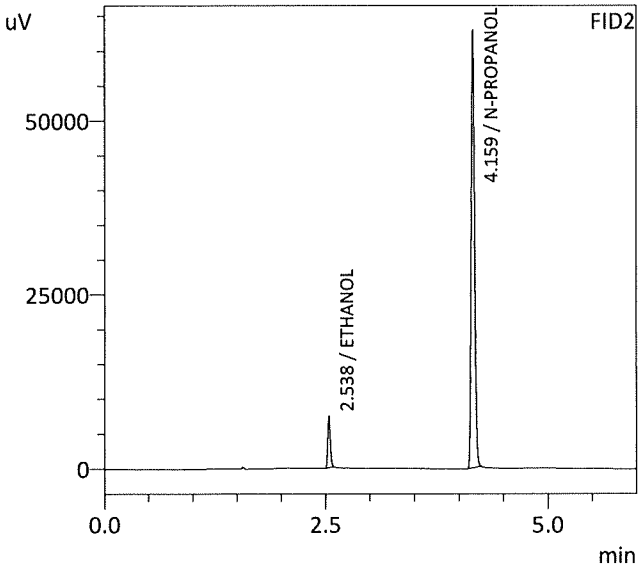
FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	--	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

RC

Sample Name : 0.050
Vial # : 24
Data Filename : 0.050_12282020_024.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 4.gcb
Date Acquired : 12/28/2020 8:58:22 PM
Date Processed : 12/29/2020 10:14:26 AM





FID1

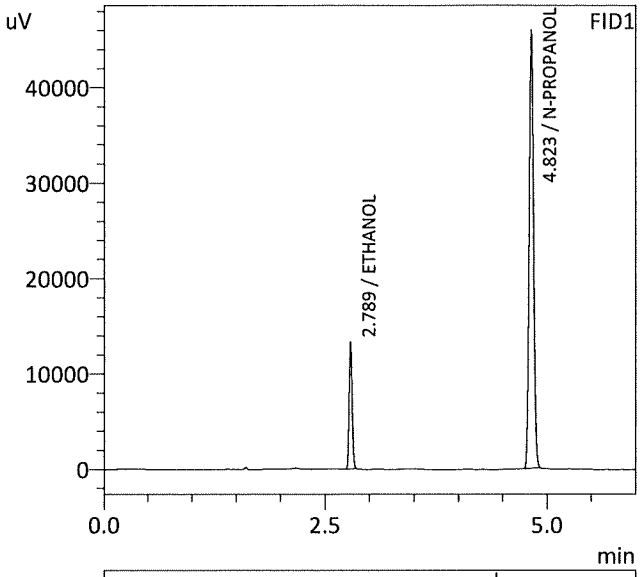
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.0545	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

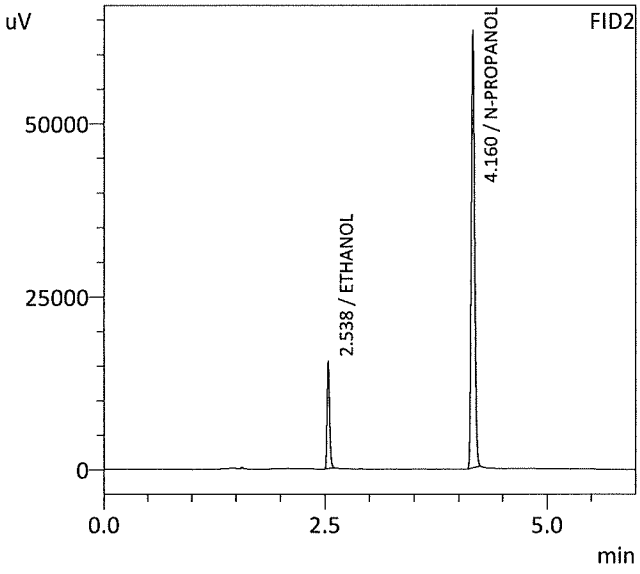
FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.0542	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

KC

Sample Name : 0.100
Vial # : 25
Data Filename : 0.100_12282020_025.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 4.gcb
Date Acquired : 12/28/2020 9:07:02 PM
Date Processed : 12/29/2020 10:14:28 AM





FID1

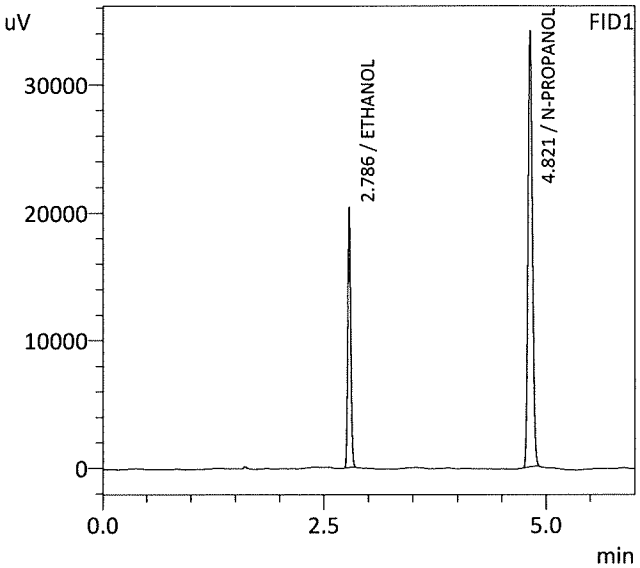
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.1050	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

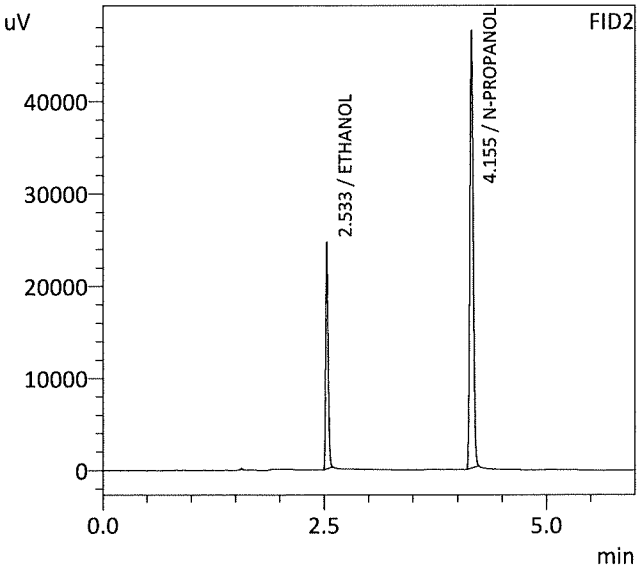
FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.1047	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

KC

Sample Name : 0.200
Vial # : 26
Data Filename : 0.200_12282020_026.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 4.gcb
Date Acquired : 12/28/2020 9:16:18 PM
Date Processed : 12/29/2020 10:14:30 AM





FID1

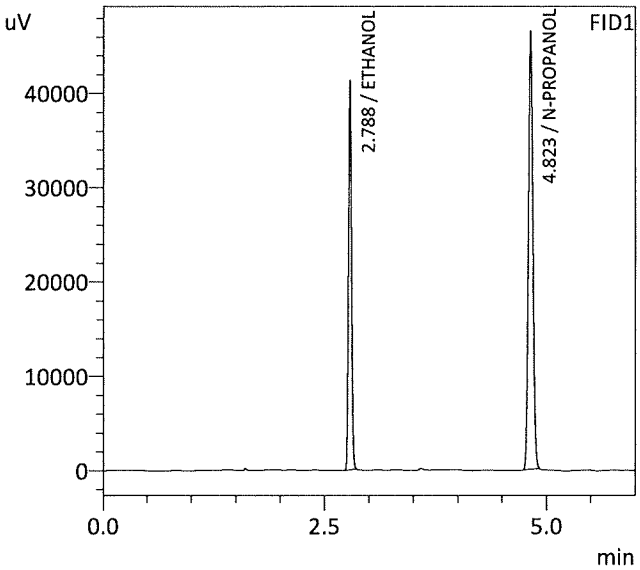
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.2065	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

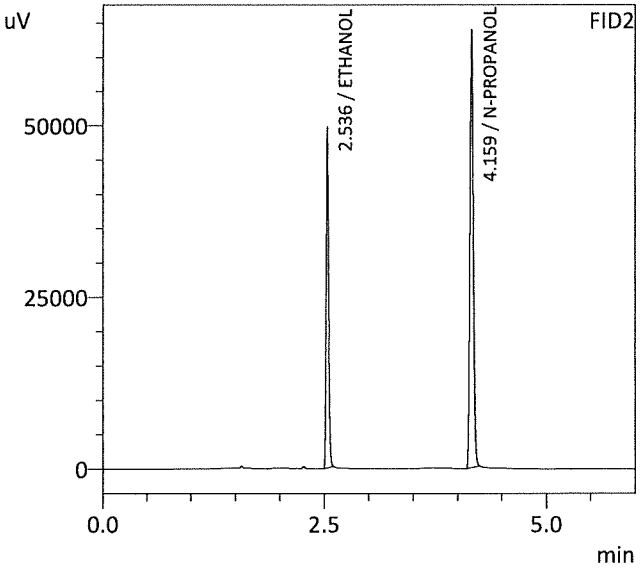
FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.2058	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

RC

Sample Name : 0.300
Vial # : 27
Data Filename : 0.300_12282020_027.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 4.gcb
Date Acquired : 12/28/2020 9:25:06 PM
Date Processed : 12/29/2020 10:14:32 AM





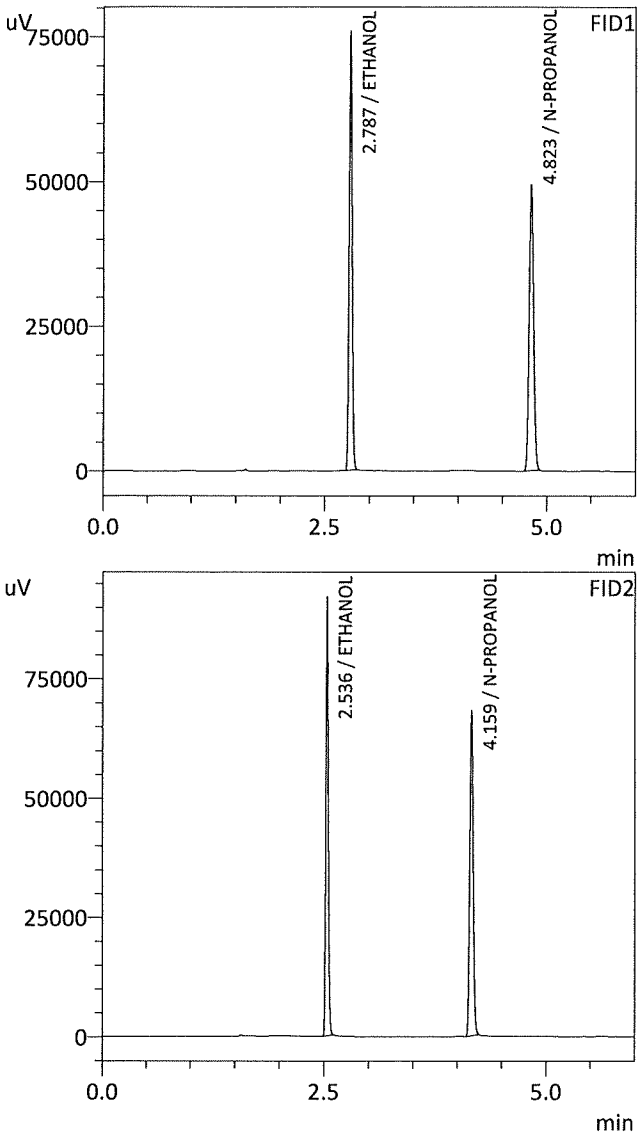
FID1

Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.3073	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.3067	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

Sample Name : 0.500
Vial # : 28
Data Filename : 0.500_12282020_028.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 4.gcb
Date Acquired : 12/28/2020 9:33:44 PM
Date Processed : 12/29/2020 10:14:34 AM



FID1

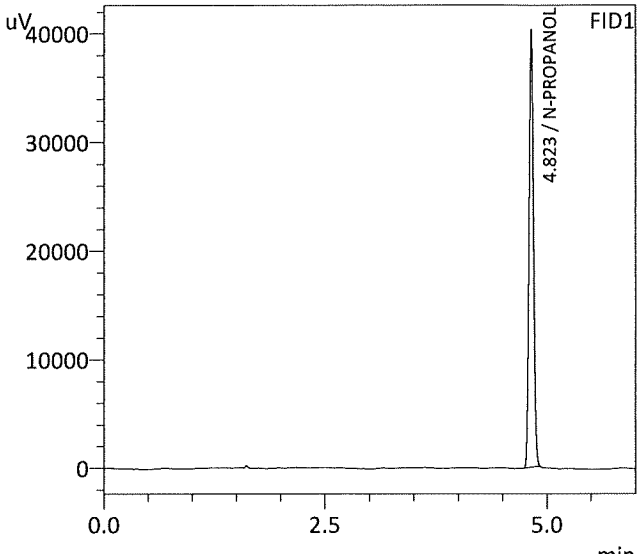
Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	0.5250	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	0.5245	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

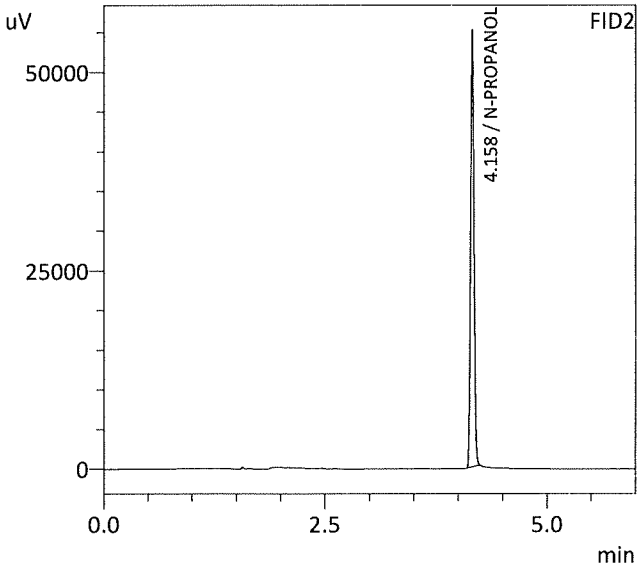
RC

Sample Name : INT STD BLK 4
Vial # : 29
Data Filename : INT STD BLK 4_12282020_029.gcd
Method Filename : ALCOHOL.gcm
Batch Filename : 12-28-20 POST RUN 1.gcb
Date Acquired : 12/28/2020 9:42:41 PM
Date Processed : 12/29/2020 10:02:26 AM



FID1

Name	Conc.	Unit
METHANOL	--	g/100cc
ACETALDEHYDE	--	g/100cc
ETHANOL	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
ACETONE	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc



FID2

Name	Conc.	Unit
ACETALDEHYDE	--	g/100cc
METHANOL	--	g/100cc
ETHANOL	--	g/100cc
ACETONE	--	g/100cc
ISOPROPYL ALCOHOL	--	g/100cc
N-PROPANOL	0.0000	g/100cc
DFE	--	g/100cc
TFE	--	g/100cc

RC