VERMONT FORENSIC LABORATORY

SIMULATOR SOLUTION REVIEW CHECKLIST

SOLUTION TYPE AND VOLUME: 0.080 Certification Solution, 5L

LOT NUMBER#: 15-22-080 **ANALYST:** DJ

TECHNICAL REVIEWER: [signature] **DATE:** 11/2/15

- ☑ QC done and complete?
- ☑ Pertinent standard lot numbers listed?
- ☑ Data package complete?
- ☑ Transcribed data and calculations verified?
- ☑ Calibration and control results all within ± 10% (± 20% for Std A) of the known values?
- ☑ Calibration line correlation factor at least 0.99xx?
- ☑ Average error for components of the calibration line less than 10%?
- ☑ Timing mix chromatogram demonstrates appropriate identification of components and separation from ethanol?
- ☑ Surrogate compound concentrations all within 0.900 to 1.100 range, inclusive?
- ☑ Statistical means of the continuing calibration check sample duplicate analysis all within +/- 10% of the known value?
- ☑ Calculated average within acceptable range of the target concentration for specific solution type?
- ☑ All individual readings within 3 standard deviations of the average for each run and for the total average?
- ☑ RPD <10%?

Comments:

ADMINISTRATIVE REVIEWER: [signature] **DATE:** 11/3/15

- ☑ Are all pages numbered and initialed on the Examination Documents?
- ☑ Solution lot number written on all pages?
- ☑ Is the Reagent Preparation Log filled out properly?
- ☑ Is the Certificate of Analysis filled out properly?
- ☑ Has a label sheet been created, and is it correct?

Comments:

Check Mark or X = pass, NA= Not Applicable

VERMONT FORENSIC LABORATORY

45 State Drive
PO BOX 47
WATERBURY, VERMONT 05676-1300
TEL: 802-244-8788
FAX: 802-241-5557
http://vfl.vermont.gov

Certificate of Analysis of DataMaster Certification Solution

On 10/26/2015, an ethanol solution was prepared by Jeffery Dukette for use as a DataMaster certification solution. The solution was prepared per standard laboratory practice and assigned the lot number 15-22-080 and an expiration date of 10/26/2016.

On 10/29/2015 and 10/30/2015, the solution was analyzed against calibration version VFL10292015.cal and VFL10302015.cal. Analysis of the solution was performed using headspace gas chromatography. The instrument was calibrated prior to analyses. It was found to have met required quality assurance performance specifications and was operating properly. Quality checks throughout the analytical process demonstrated that the instrument continued to operate properly.

This solution is certified as presenting 0.079 g/210 L simulated breath ethanol concentration and approved for use as a DataMaster certification solution.

Dated at Waterbury, Vermont this 3 day of November, 2015.

David Patlak

DataMaster Certification Solution
Lot # 15-22-080 EtOHaq Conc: 0.079 g/210L
Range: 0.075 - 0.083
Preparation Date: 10/26/15 Expires: 10/26/16

OPENED:

DataMaster Certification Solution
Lot # 15-22-080 EtOHaq Conc: 0.079 g/210L
Range: 0.075 - 0.083
Preparation Date: 10/26/15 Expires: 10/26/16

OPENED:

DataMaster Certification Solution
Lot # 15-22-080 EtOHaq Conc: 0.079 g/210L
Range: 0.075 - 0.083
Preparation Date: 10/26/15 Expires: 10/26/16

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Range: 0.075 - 0.083
Preparation Date: 10/26/15 Expires: 10/26/16

OPENED:

VERMONT FORENSIC LABORATORY
Simulator Solution Worksheet

0.080 Certification Solution 5L
Lot # 15-22-080
Prepared 10/26/2015 by JSD
Exp 10/26/2016

DJP Cal VFL10292015.cal
JSD/DJP Vials
Analyzed on 10/29/2015

0.0778	JSD
0.0796	
0.0781	
0.0802	
0.0783	
0.0794	
0.0780	
0.0773	DJP
0.0795	
0.0784	
0.0802	
0.0780	
0.0793	
0.0785	

Ave. =	0.0788
Std Dev. =	0.0009
Min. =	0.0773
Max. =	0.0802

AQ QC Manf.	Cerilliant
AQ QC Lot #	FN09051304
Cal Std A Lot #	FN01131401
Cal Std B Lot #	FN08101401
Cal Std C Lot #	FN05211402
Cal Std D Lot #	FN12011401
Cal Std E Lot #	FN11191402
Int Std Lot #	IS-09292015
TMX Lot #	TMX-08142015
Blank Lot #	BL-01162015

DJP Cal VFL10302015.cal
JSD/DJP Vials
Analyzed on 10/30/2015

0.0793	JSD
0.0807	
0.0791	
0.0810	
0.0790	
0.0806	
0.0794	
0.0794	DJP
0.0813	
0.0797	
0.0811	
0.0792	
0.0812	
0.0793	

Ave. =	0.0800
Std Dev. =	0.0009
Min. =	0.0790
Max. =	0.0813

AQ QC Manf.	Cerilliant
AQ QC Lot #	FN09051304
Cal Std A Lot #	FN01131401
Cal Std B Lot #	FN08101401
Cal Std C Lot #	FN05211402
Cal Std D Lot #	FN12011401
Cal Std E Lot #	FN11191402
Int Std Lot #	IS-09292015
TMX Lot #	TMX-08142015
Blank Lot #	BL-01162015

Total Values from Both Runs

Average	Mean
0.0778	0.0773
0.0796	0.0778
0.0781	0.0780
0.0802	
0.0783	0.0781
0.0794	0.0783
0.0780	0.0784
0.0773	0.0785
0.0795	0.0790
0.0784	0.0791
0.0802	0.0792
0.0780	0.0793
0.0793	
0.0785	
0.0793	0.0794
0.0807	
0.0791	
0.0810	0.0795
0.0790	0.0796
0.0806	0.0797
0.0794	0.0802
0.0794	
0.0813	0.0806
0.0797	0.0807
0.0811	0.0810
0.0792	0.0811
0.0812	0.0812
0.0793	0.0813

Ave. =	0.0794
Avg Std Dev. =	0.0011
Mean =	0.0794
Mean Std Dev. =	0.0012
Min. =	0.0773
Max =	0.0813
RPD =	5.04%

File Name = C:\Alcohol Data\VFL10292015\VFL10292015.SEQ
Version = 2
File Date = 10/29/2015 2:29:37 PM

Entry #	Raw File Name	Method File Name	Sample Name	Sample Wt.	Int. Std. Amount
1	VFL10292015.0001.raw	Blood Alc temp VFL.MET	BLANK	1.00	1.00
2	VFL10292015.0002.raw	Blood Alc temp VFL.MET	TMX	1.00	1.00
3	VFL10292015.0003.raw	Blood Alc temp VFL.MET	STD A	1.00	1.00
4	VFL10292015.0004.raw	Blood Alc temp VFL.MET	STD B	1.00	1.00
5	VFL10292015.0005.raw	Blood Alc temp VFL.MET	STD C	1.00	1.00
6	VFL10292015.0006.raw	Blood Alc temp VFL.MET	STD D	1.00	1.00
7	VFL10292015.0007.raw	Blood Alc temp VFL.MET	STD E	1.00	1.00
8	VFL10292015.0008.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
9	VFL10292015.0009.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
10	VFL10292015.0010.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
11	VFL10292015.0011.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
12	VFL10292015.0012.raw	simsoln.met	080 DP	1.00	1.00
13	VFL10292015.0013.raw	simsoln.met	080 DP	1.00	1.00
14	VFL10292015.0014.raw	simsoln.met	080 DP	1.00	1.00
15	VFL10292015.0015.raw	simsoln.met	080 DP	1.00	1.00
16	VFL10292015.0016.raw	simsoln.met	080 DP	1.00	1.00
17	VFL10292015.0017.raw	simsoln.met	080 DP	1.00	1.00
18	VFL10292015.0018.raw	simsoln.met	080 DP	1.00	1.00
19	VFL10292015.0019.raw	simsoln.met	100 DP	1.00	1.00
20	VFL10292015.0020.raw	simsoln.met	100 DP	1.00	1.00
21	VFL10292015.0021.raw	simsoln.met	100 DP	1.00	1.00
22	VFL10292015.0022.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
23	VFL10292015.0023.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
24	VFL10292015.0024.raw	simsoln.met	100 DP	1.00	1.00
25	VFL10292015.0025.raw	simsoln.met	100 DP	1.00	1.00
26	VFL10292015.0026.raw	simsoln.met	100 DP	1.00	1.00
27	VFL10292015.0027.raw	simsoln.met	100 DP	1.00	1.00
28	VFL10292015.0028.raw	simsoln.met	080 JD	1.00	1.00
29	VFL10292015.0029.raw	simsoln.met	080 JD	1.00	1.00
30	VFL10292015.0030.raw	simsoln.met	080 JD	1.00	1.00
31	VFL10292015.0031.raw	simsoln.met	080 JD	1.00	1.00
32	VFL10292015.0032.raw	simsoln.met	080 JD	1.00	1.00
33	VFL10292015.0033.raw	simsoln.met	080 JD	1.00	1.00
34	VFL10292015.0034.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
35	VFL10292015.0035.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
36	VFL10292015.0036.raw	simsoln.met	080 JD	1.00	1.00
37	VFL10292015.0037.raw	simsoln.met	100 JD	1.00	1.00
38	VFL10292015.0038.raw	simsoln.met	100 JD	1.00	1.00
39	VFL10292015.0039.raw	simsoln.met	100 JD	1.00	1.00
40	VFL10292015.0040.raw	simsoln.met	100 JD	1.00	1.00
41	VFL10292015.0041.raw	simsoln.met	100 JD	1.00	1.00
42	VFL10292015.0042.raw	simsoln.met	100 JD	1.00	1.00
43	VFL10292015.0043.raw	simsoln.met	100 JD	1.00	1.00
44	VFL10292015.0044.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
45	VFL10292015.0045.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00

15-22-080 20 2

File Name: C:\Methods\VFL10292015.CAL
Version: 7

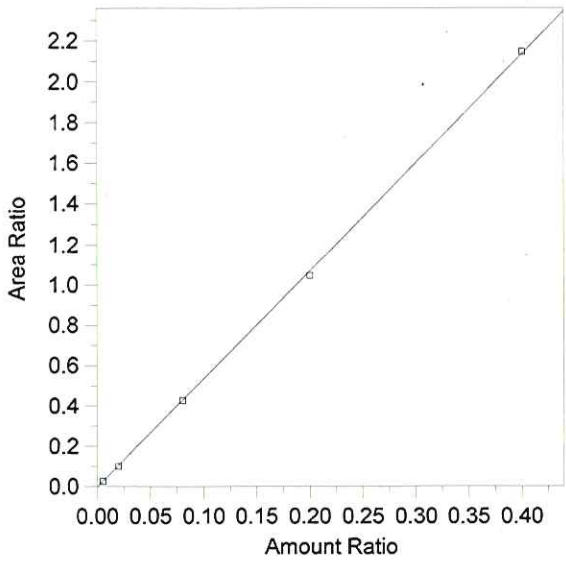
Creator:
Description:
Reason for change:

Internal standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 1500
Reference peak area reject threshold: 0
Amount units:
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

3 Ethanol



Expected retention time: 2.653 minutes
Search window: 0.1 minutes
Internal standard component: 7 (n-Propanol)
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by area

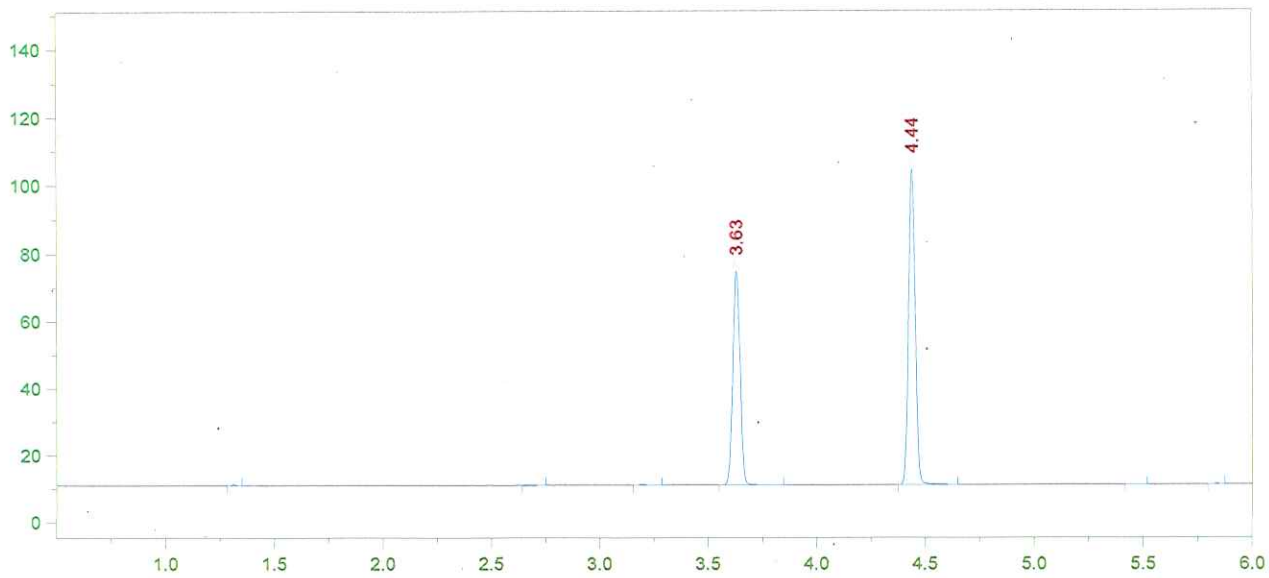
$Y = 5.334379 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9997783
Average error: 1.645%
Average CF: 5.272152
RSD: 2.218%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source	Date and time
1	(0.078)	(85146)	--	--	0.078	85146	Manual	8/18/2015 8:39:13 AM
2	0.005	4696.369	939273.9	0.639	0.005	2.684245E-02	C:\Alcohol Data\VFL10292015\VFL10292015.0003.BND	10/30/2015 7:54:35 AM
3	0.02	18454.31	922715.6	-4.543	0.02	0.1018407	C:\Alcohol Data\VFL10292015\VFL10292015.0004.BND	10/30/2015 7:54:37 AM
4	0.08	72183.23	902290.4	-0.358	0.08	0.4252225	C:\Alcohol Data\VFL10292015\VFL10292015.0005.BND	10/30/2015 7:54:40 AM
5	0.2	190695.1	953475.4	-2.129	0.2	1.044164	C:\Alcohol Data\VFL10292015\VFL10292015.0006.BND	10/30/2015 7:54:42 AM
6	0.4	370828.3	927070.8	0.558	0.4	2.145653	C:\Alcohol Data\VFL10292015\VFL10292015.0007.BND	10/30/2015 7:54:44 AM

15-22-080

3

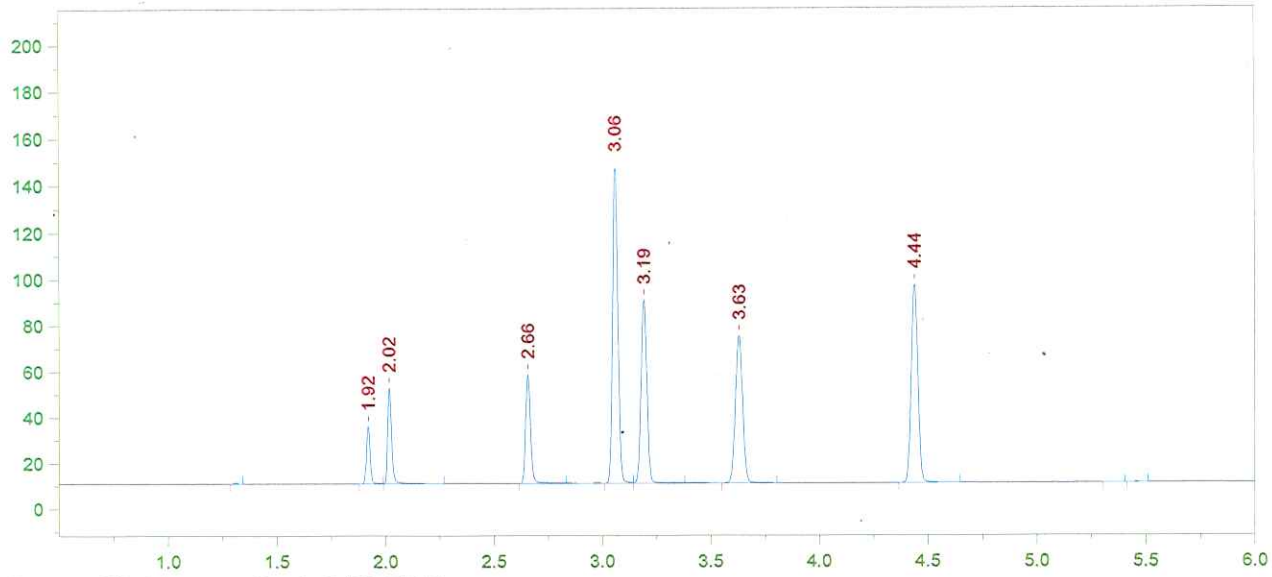


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:56:12 AM
Bound File Name = VFL10292015.0001.RAW
Sample Name = BLANK
Date Taken = 10/29/2015 3:14:09 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
4	3.63	t-Butanol	147159	0.9361
5	4.44	n-Propanol	199057	1.0000

15-22-080 8 4

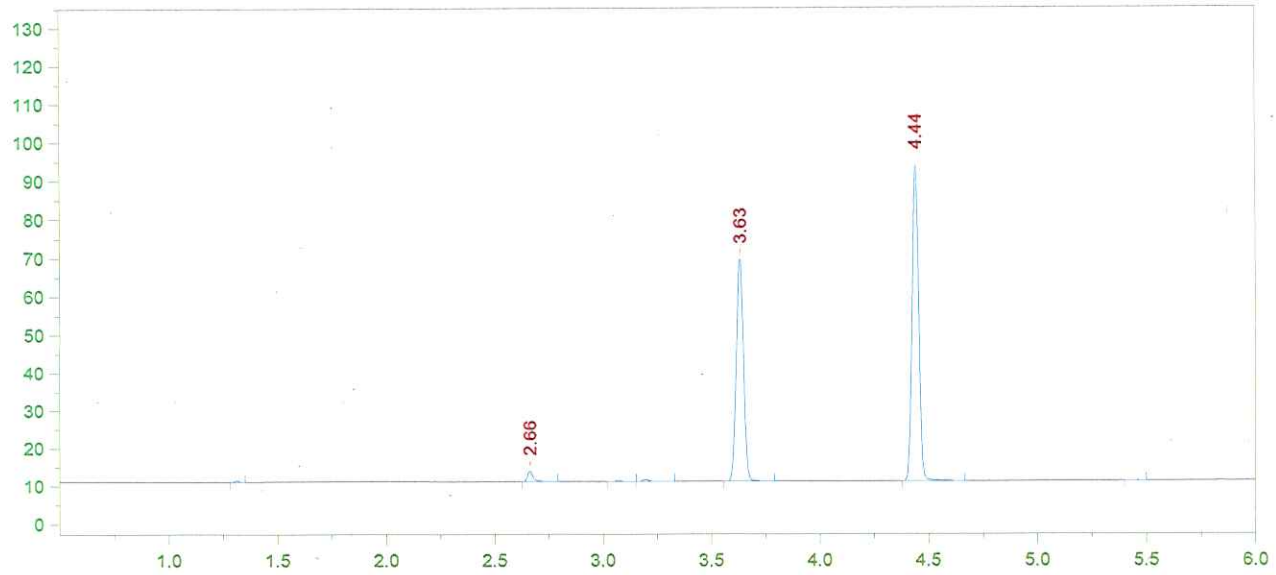


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:56:20 AM
Bound File Name = VFL10292015.0002.RAW
Sample Name = TMX
Date Taken = 10/29/2015 3:31:10 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	1.92	Acetaldehyde	29512	0.0686
3	2.02	Methanol	53145	0.1169
4	2.66	Ethanol	74246	0.0761
5	3.06	Acetone	232335	0.0612
6	3.19	Isopropanol	150120	0.0780
7	3.63	t-Butanol	148061	1.0245
8	4.44	n-Propanol	182997	1.0000

15-22-080

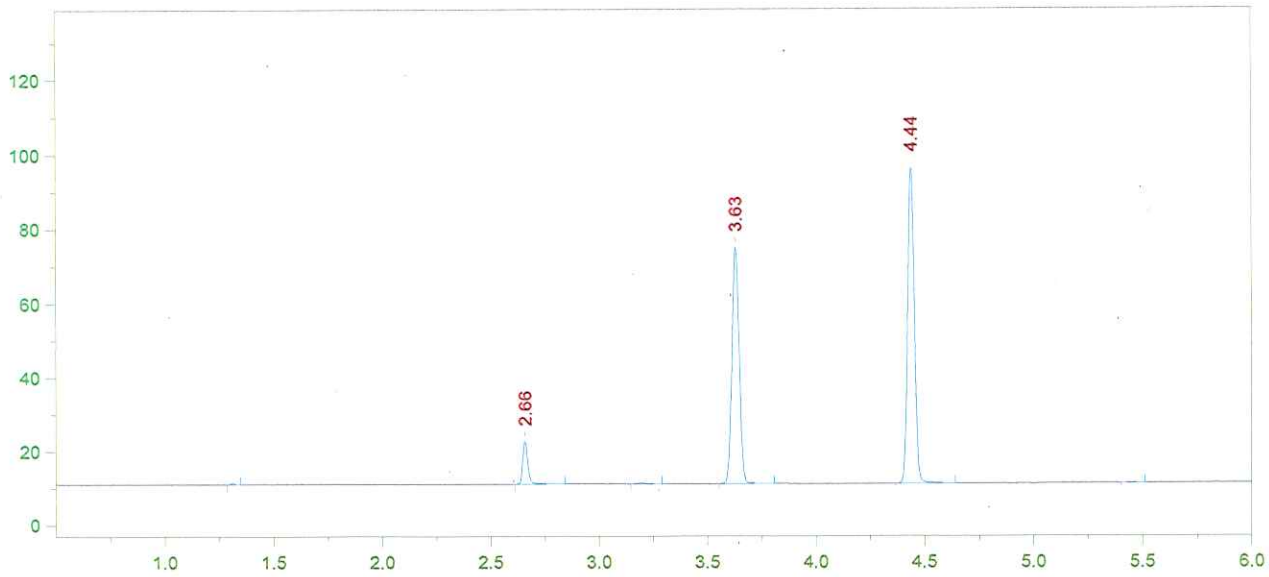


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:56:25 AM
Bound File Name = VFL10292015.0003.RAW
Sample Name = STD A
Date Taken = 10/29/2015 3:44:50 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	04696	0.0050
5	3.63	t-Butanol	135295	0.9792
6	4.44	n-Propanol	174961	1.0000

15-22-080 D 6

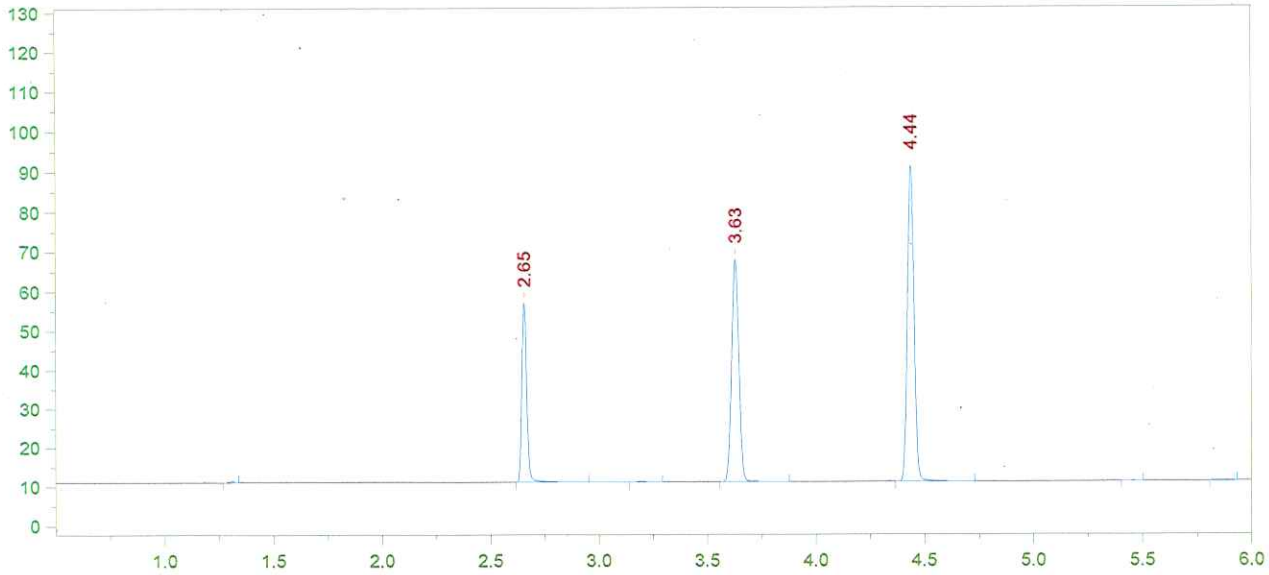


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:56:32 AM
Bound File Name = VFL10292015.0004.RAW
Sample Name = STD B
Date Taken = 10/29/2015 4:02:34 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	18454	0.0191
4	3.63	t-Butanol	147125	1.0281
5	4.44	n-Propanol	181208	1.0000

15-22-080 8g 7

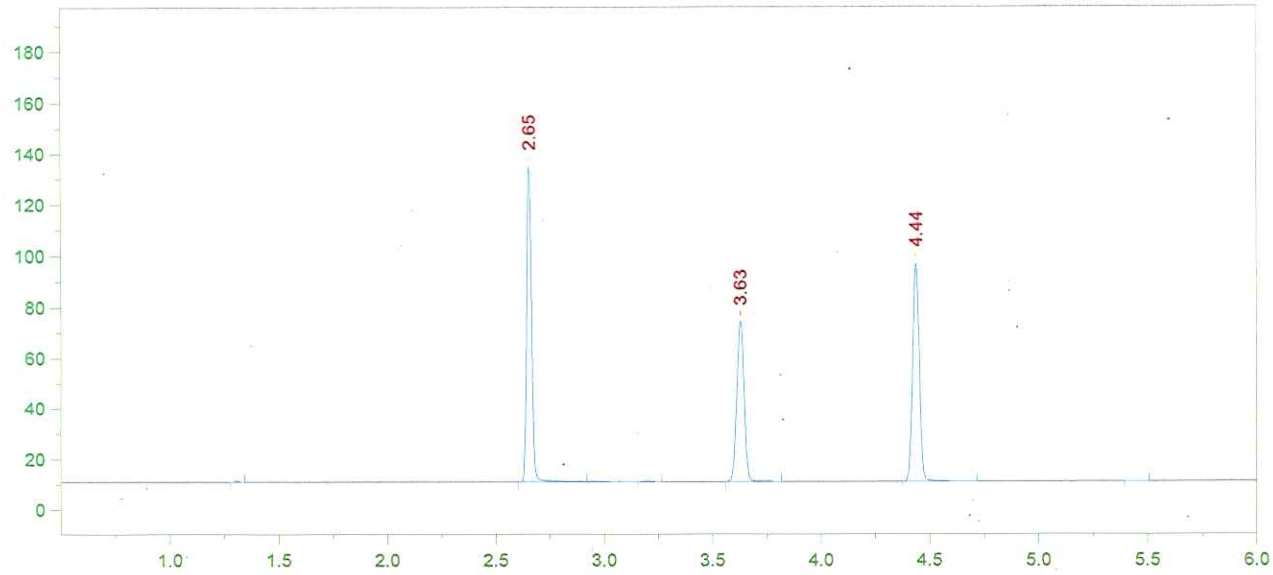


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:56:38 AM
Bound File Name = VFL10292015.0005.RAW
Sample Name = STD C
Date Taken = 10/29/2015 4:16:10 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	72183	0.0797
4	3.63	t-Butanol	131117	0.9781
5	4.44	n-Propanol	169754	1.0000

15-22-080 8 8



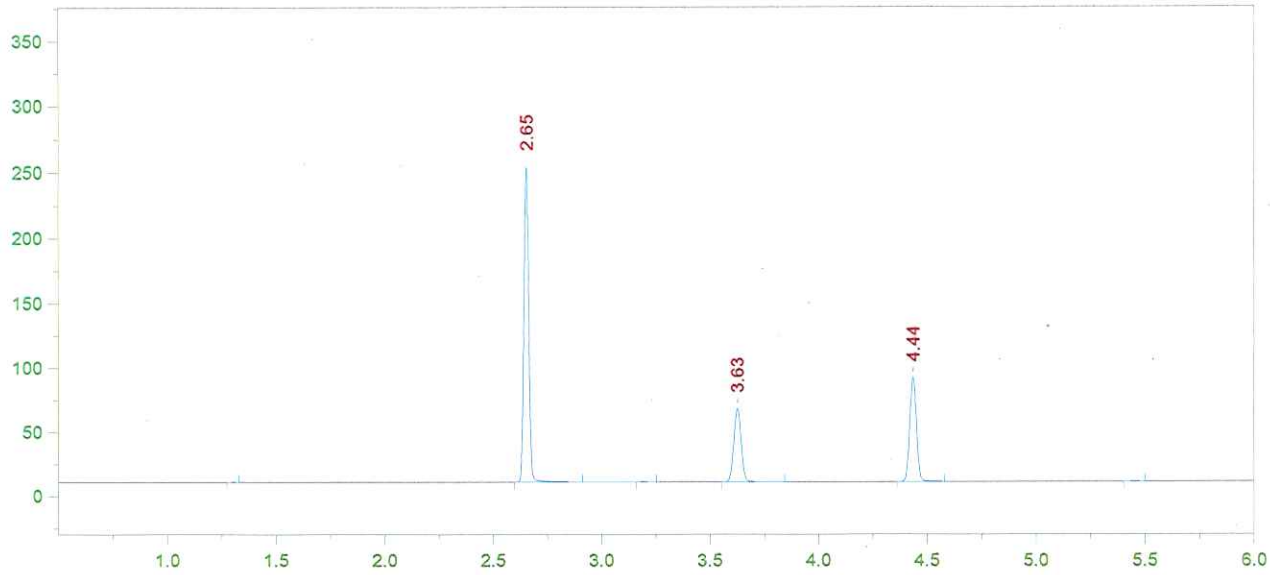
Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:56:44 AM
Bound File Name = VFL10292015.0006.RAW
Sample Name = STD D
Date Taken = 10/29/2015 4:34:01 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	190695	0.1957
4	3.63	t-Butanol	146723	1.0173
5	4.44	n-Propanol	182629	1.0000

15-22-080

9

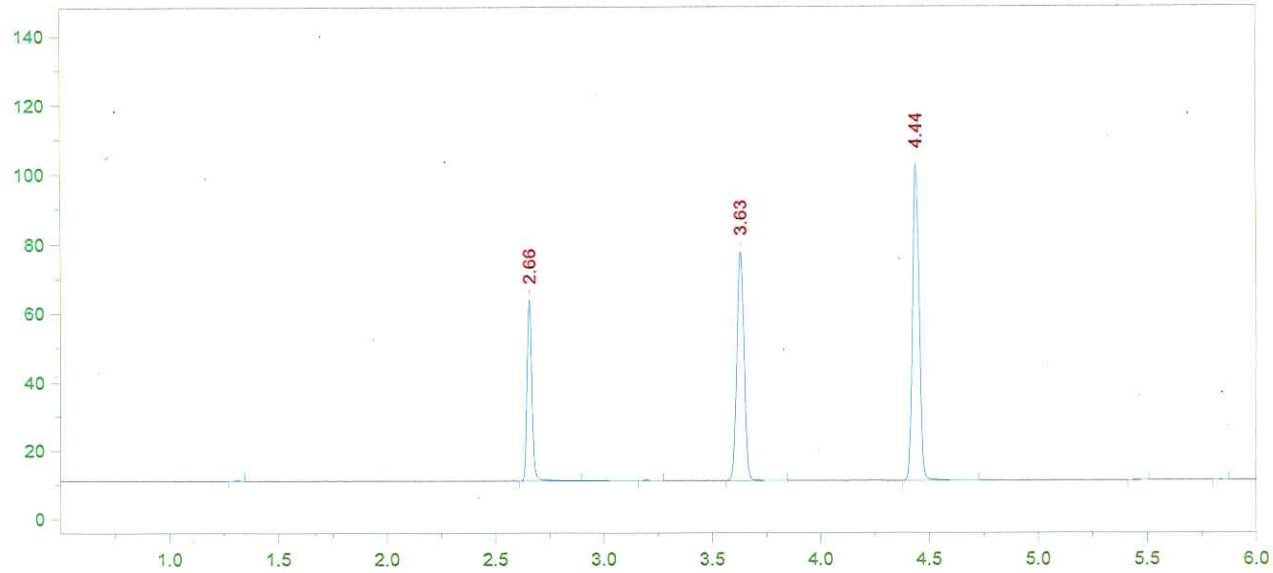


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:56:49 AM
Bound File Name = VFL10292015.0007.RAW
Sample Name = STD E
Date Taken = 10/29/2015 4:47:52 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	370828	0.4022
4	3.63	t-Butanol	132777	0.9728
5	4.44	n-Propanol	172828	1.0000

15-22-080 DS 10



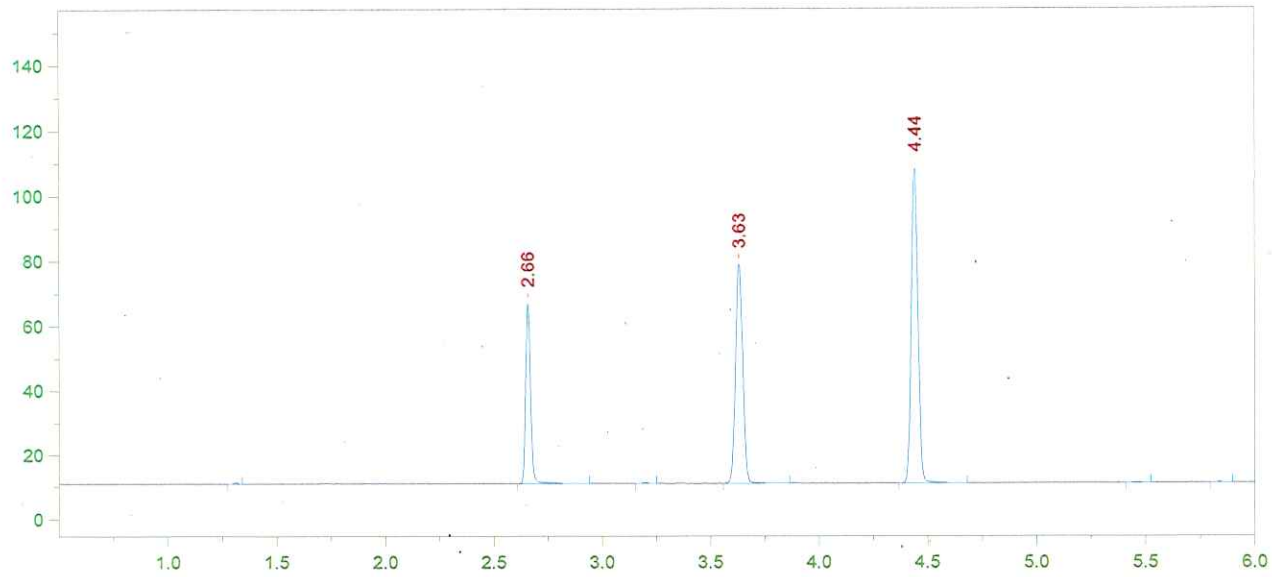
Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:56:56 AM
Bound File Name = VFL10292015.0008.RAW
Sample Name = AQ
Date Taken = 10/29/2015 5:05:26 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	81882	0.0792
4	3.63	t-Butanol	154239	1.0079
5	4.44	n-Propanol	193769	1.0000

10-22-080

11



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:57:02 AM
Bound File Name = VFL10292015.0009.RAW
Sample Name = AQ
Date Taken = 10/29/2015 5:19:13 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	86680	0.0788
4	3.63	t-Butanol	156720	0.9618
5	4.44	n-Propanol	206329	1.0000

AQ mean: 0.0790 g/100mL

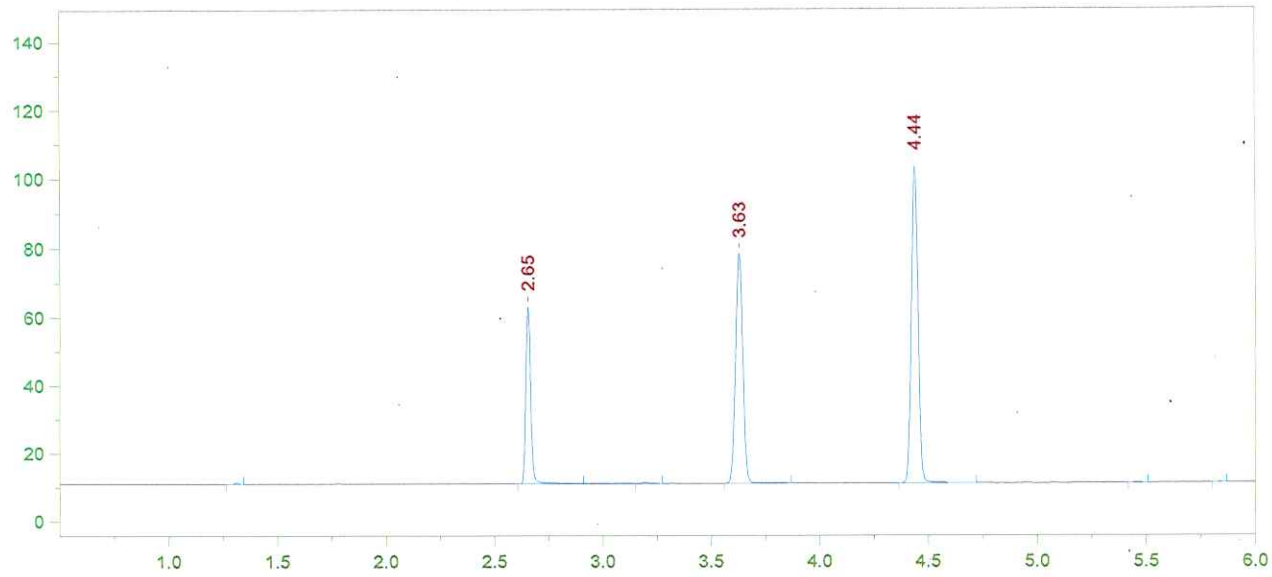
±5%: 0.0750 - 0.0829

Recovery: $\frac{0.079}{0.080}$ = 98.7%

10/30/15

15-22-080

12

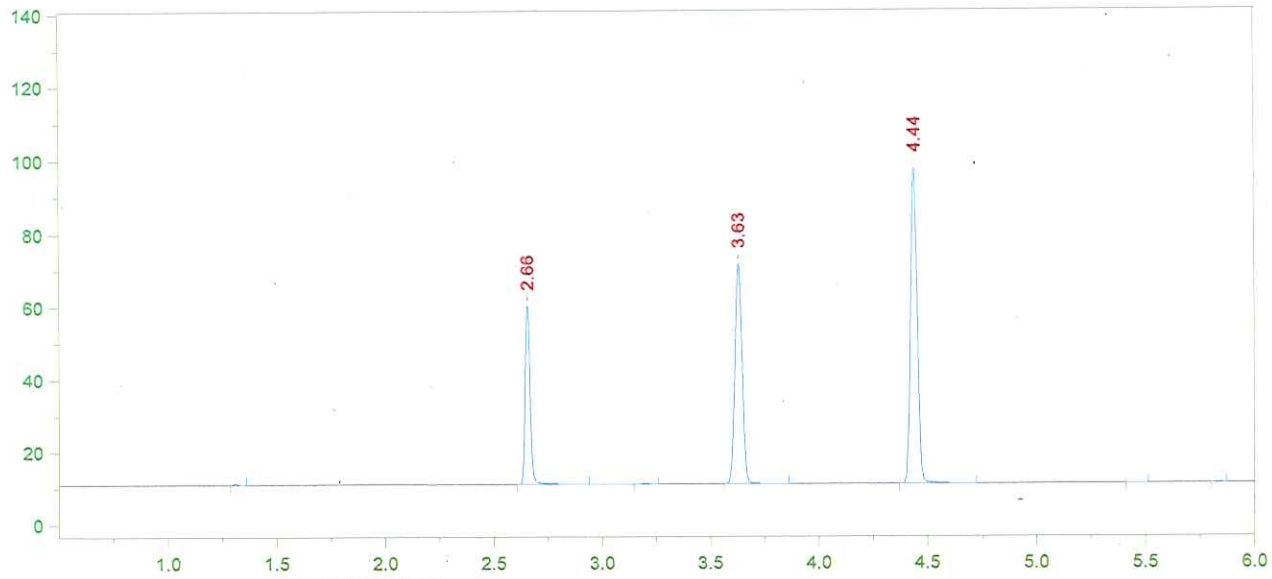


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:57:08 AM
Bound File Name = VFL10292015.0010.RAW
Sample Name = CCS
Date Taken = 10/29/2015 5:36:50 PM
VFL Headspace Alcohol
Method file = Blood Alc temp.VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	80982	0.0774
4	3.63	t-Butanol	155823	1.0063
5	4.44	n-Propanol	196075	1.0000

15-22-080 86 B



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Bound File Name = VFL10292015.0011.RAW
Sample Name = CCS
Date Taken = 10/29/2015 5:50:38 PM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL

Today's Time = 7:57:13 AM

VFL Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	77014	0.0786
4	3.63	t-Butanol	139737	0.9631
5	4.44	n-Propanol	183721	1.0000

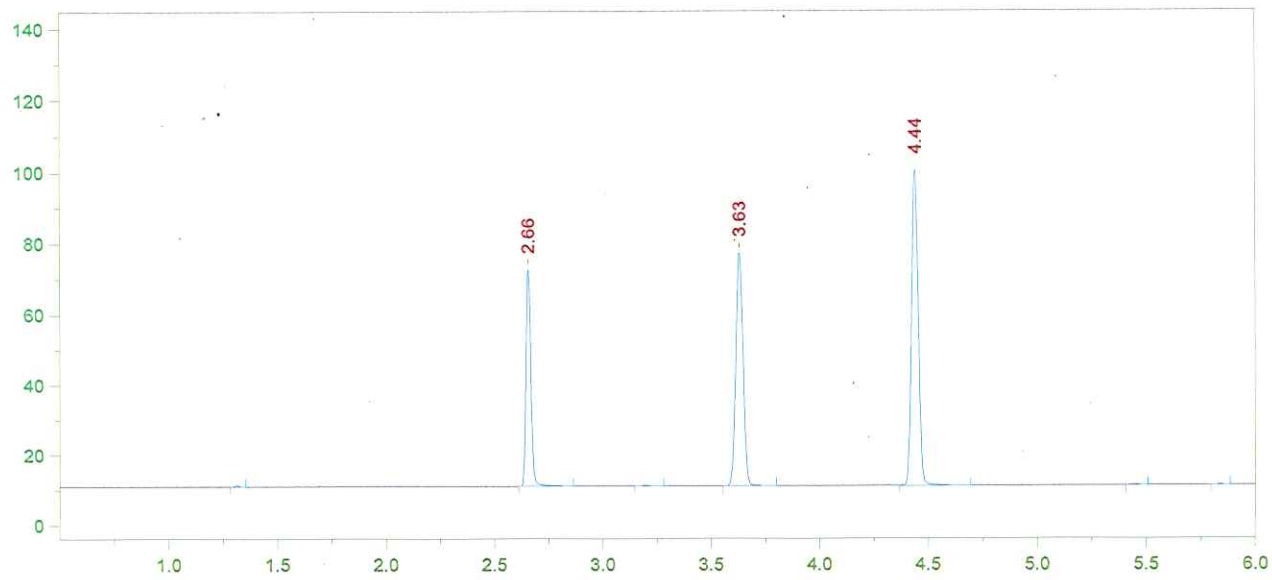
CCS mean: 0.0780 g/100 ml EtOH

±5%: 0.0741 - 0.0819

Recovery: $\frac{0.078}{0.080}$ = 97.5%

[signature]

15-22-080 [initials] 14

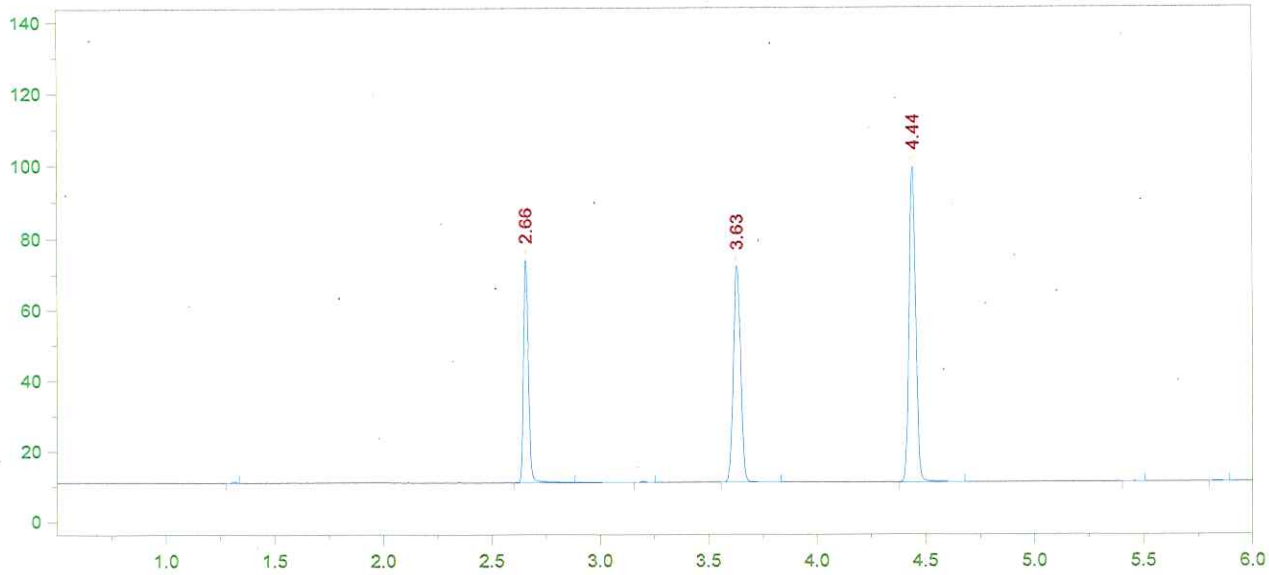


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:57:20 AM
Bound File Name = VFL10292015.0012.RAW
Sample Name = 080 DP
Date Taken = 10/29/2015 6:06:34 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	95918	0.0947	0.0773
4	3.63	t-Butanol	152852	1.0193	0.8319
5	4.44	n-Propanol	189894	1.0000	0.8162

15-22-080 15

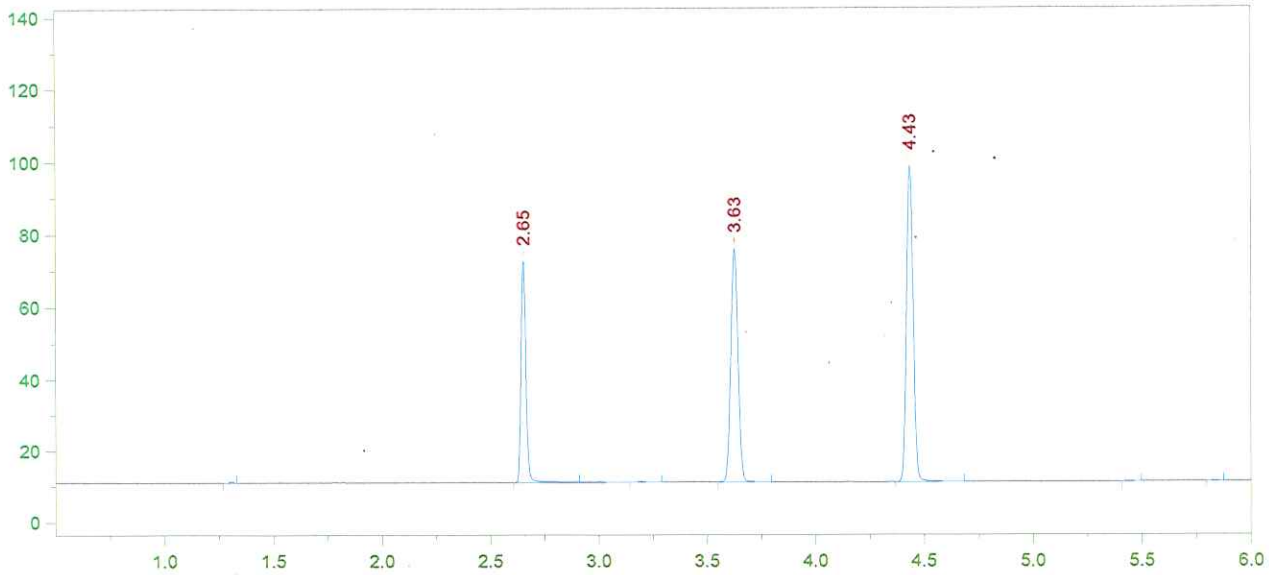


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015
Today's Time = 7:57:26 AM
Bound File Name = VFL10292015.0013.RAW
Sample Name = 080 DP
Date Taken = 10/29/2015 6:21:50 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	97242	0.0974	0.0795
4	3.63	t-Butanol	141641	0.9583	0.7822
5	4.44	n-Propanol	187157	1.0000	0.8162

15-22-080 88 16



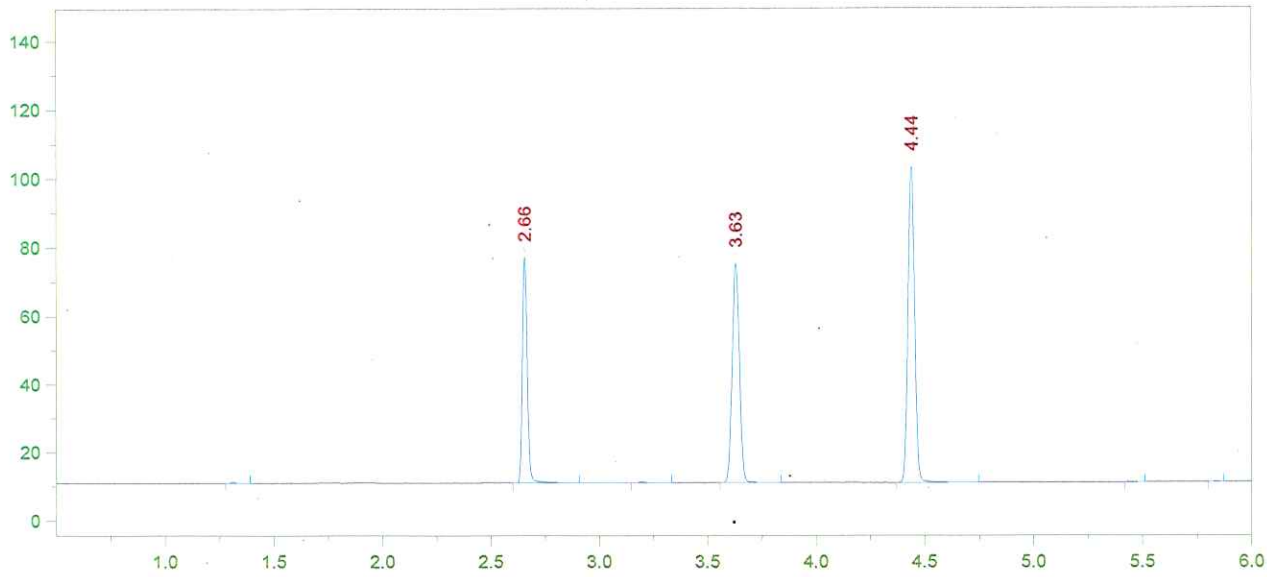
Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015
Today's Time = 7:57:32 AM
Bound File Name = VFL10292015.0014.RAW
Sample Name = 080 DP
Date Taken = 10/29/2015 6:38:06 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	95991	0.0960	0.0784
4	3.63	t-Butanol	149892	1.0126	0.8265
5	4.43	n-Propanol	187444	1.0000	0.8162

VS-22-080

17

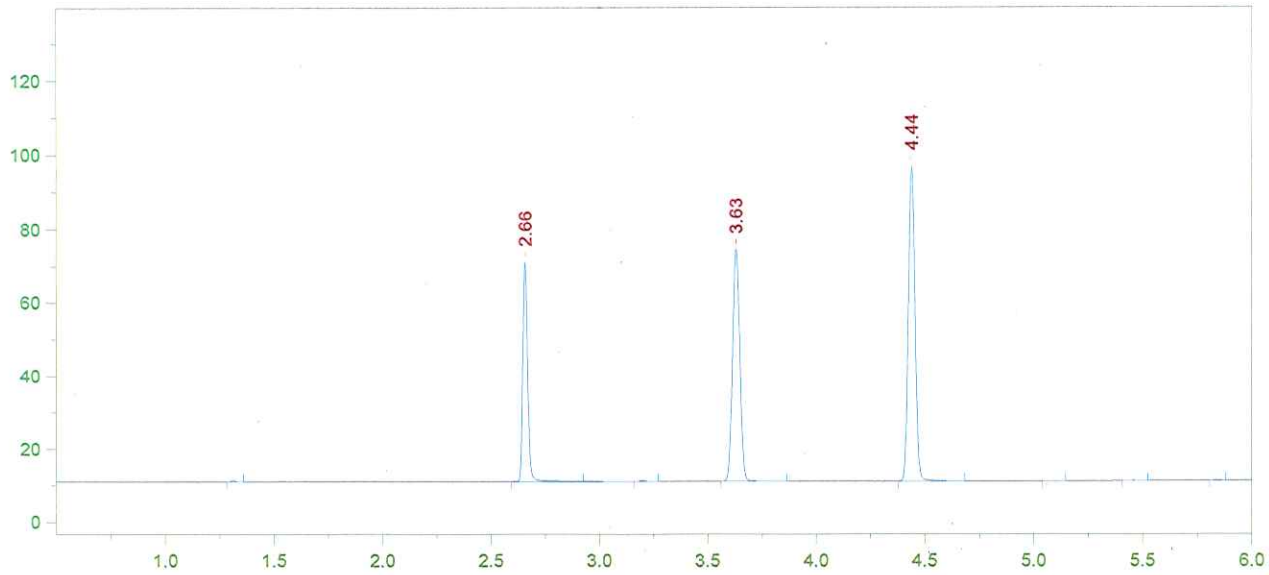


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:57:38 AM
Bound File Name = VFL10292015.0015.RAW
Sample Name = 080 DP
Date Taken = 10/29/2015 6:53:16 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	103061	0.0983	0.0802
4	3.63	t-Butanol	148414	0.9559	0.7802
5	4.44	n-Propanol	196598	1.0000	0.8162

15-22-080 18

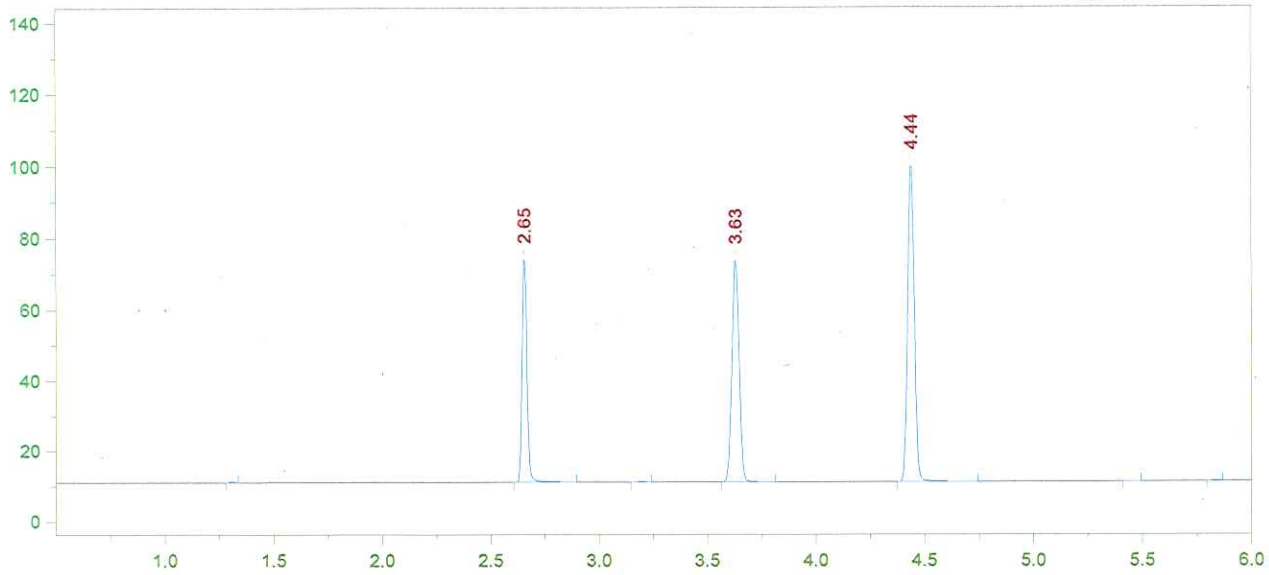


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:57:43 AM
Bound File Name = VFL10292015.0016.RAW
Sample Name = 080 DP
Date Taken = 10/29/2015 7:09:30 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	93002	0.0956	0.0780
4	3.63	t-Butanol	147401	1.0230	0.8350
5	4.44	n-Propanol	182450	1.0000	0.8162

15-22-080 28 19

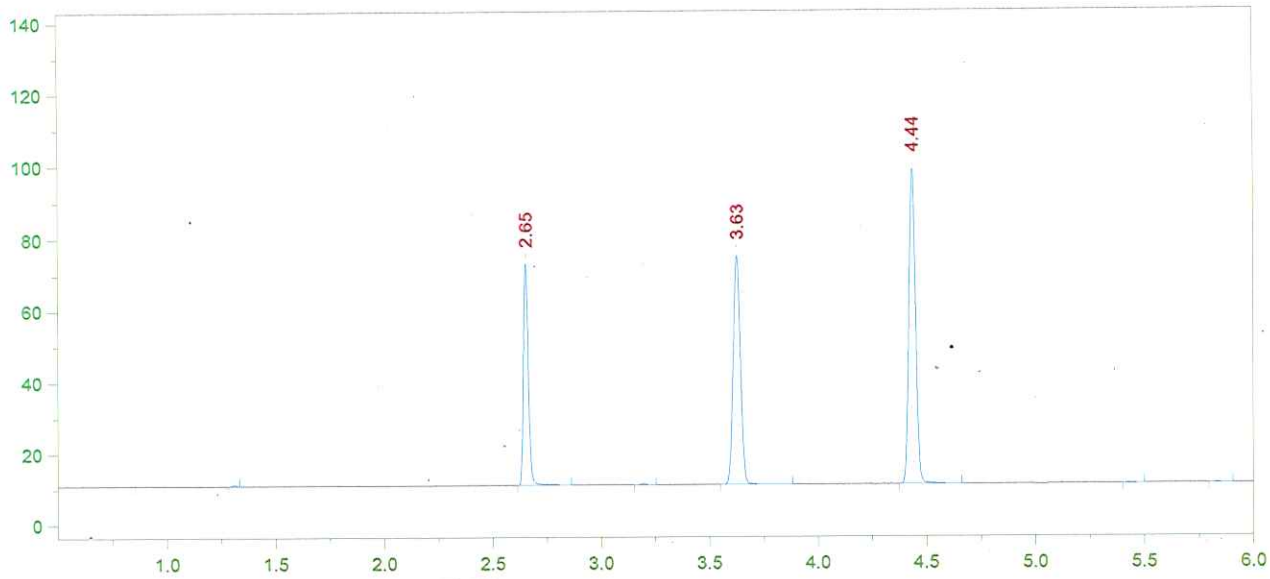


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:57:48 AM
Bound File Name = VFL10292015.0017.RAW
Sample Name = 080 DP
Date Taken = 10/29/2015 7:23:31 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	98291	0.0972	0.0793
4	3.63	t-Butanol	144374	0.9641	0.7869
5	4.44	n-Propanol	189620	1.0000	0.8162

15-22-080 8 20

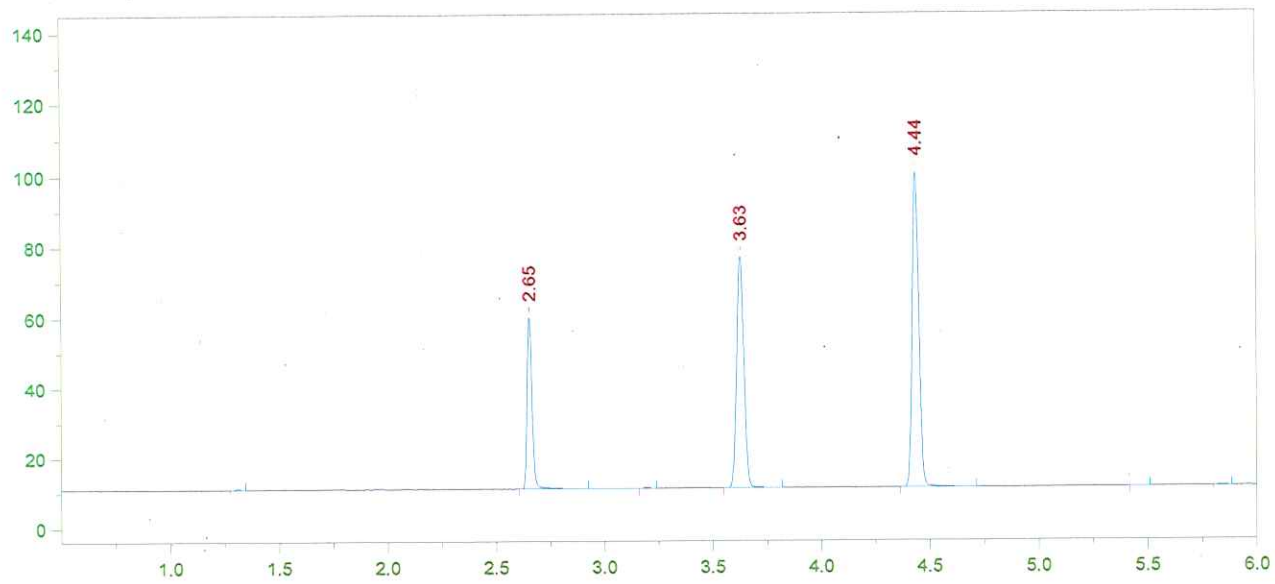


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015
Today's Time = 7:57:53 AM
Bound File Name = VFL10292015.0018.RAW
Sample Name = 080 DP
Date Taken = 10/29/2015 7:40:55 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	95840	0.0962	0.0785
4	3.63	t-Butanol	148268	1.0050	0.8203
5	4.44	n-Propanol	186805	1.0000	0.8162

15-22-080 21

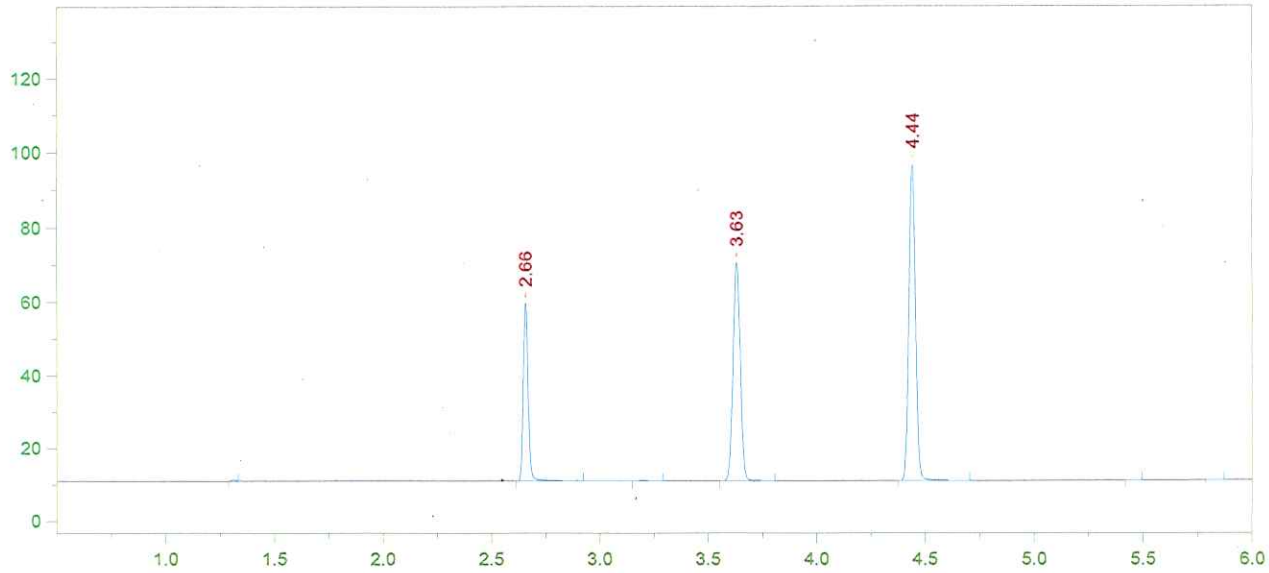


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:58:15 AM
Bound File Name = VFL10292015.0022.RAW
Sample Name = CCS
Date Taken = 10/29/2015 8:43:45 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	76961	0.0761
4	3.63	t-Butanol	152144	1.0156
5	4.44	n-Propanol	189692	1.0000

15-22-080 Ds 22



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:58:20 AM
Bound File Name = VFL10292015.0023.RAW
Sample Name = CCS
Date Taken = 10/29/2015 8:56:58 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

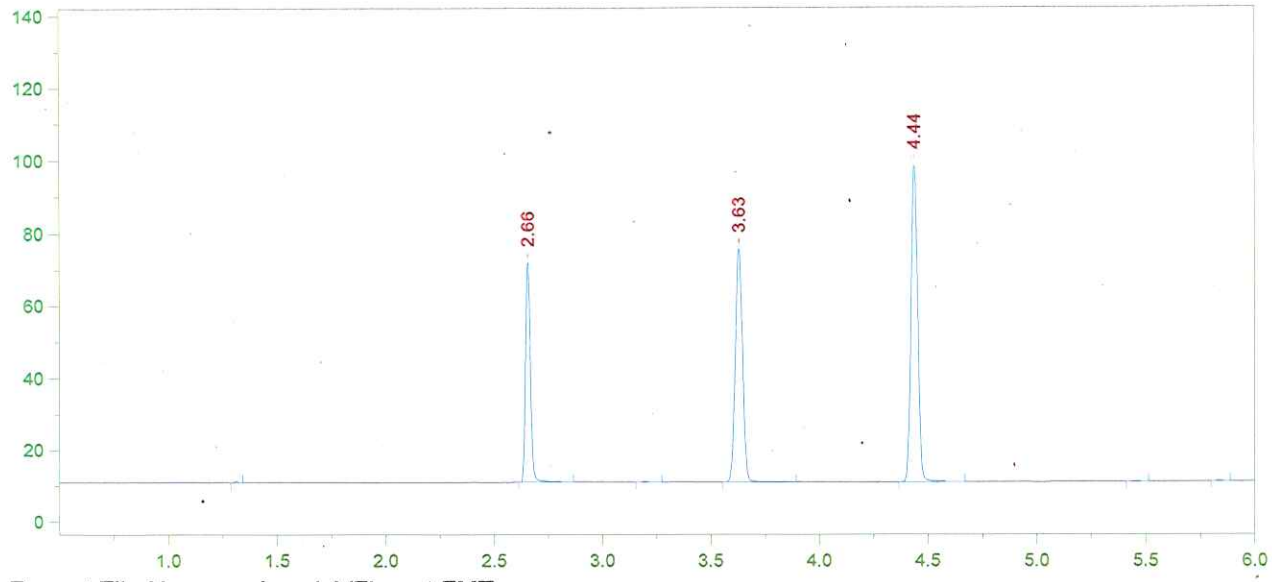
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	75858	0.0785
4	3.63	t-Butanol	137811	0.9636
5	4.44	n-Propanol	181094	1.0000

CCS MW: 0.0773 g/100 mL EtOH

±5%: 0.0734 - 0.081

Recovery: $\frac{0.077}{0.080} = 96.2\%$

5-22-080 23

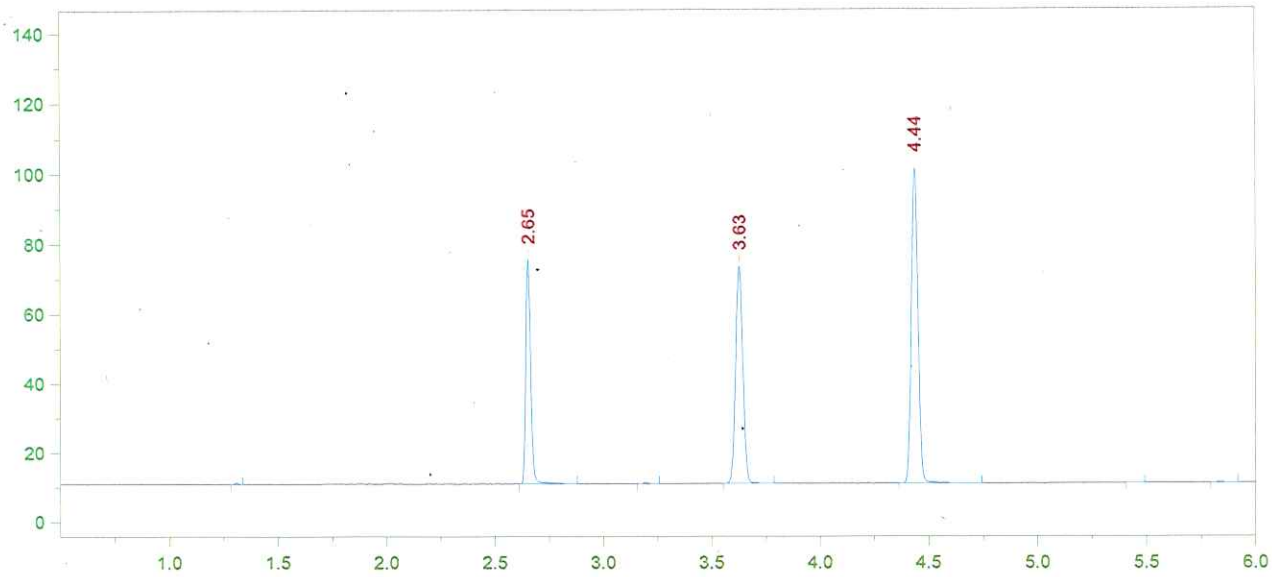


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:58:51 AM
Bound File Name = VFL10292015.0028.RAW
Sample Name = 080 JD
Date Taken = 10/29/2015 10:18:01 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	94715	0.0953	0.0778
4	3.63	t-Butanol	149545	1.0162	0.8294
5	4.44	n-Propanol	186346	1.0000	0.8162

15-22-080 8 24

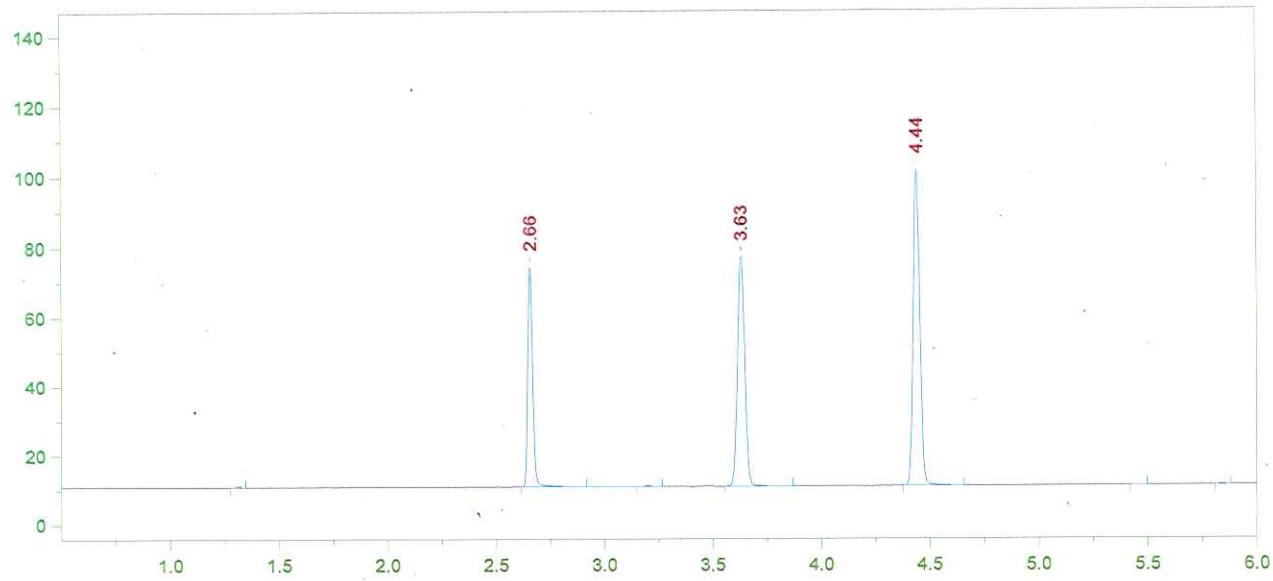


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:58:56 AM
Bound File Name = VFL10292015.0029.RAW
Sample Name = 080 JD
Date Taken = 10/29/2015 10:31:47 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	99736	0.0975	0.0796
4	3.63	t-Butanol	144540	0.9543	0.7789
5	4.44	n-Propanol	191789	1.0000	0.8162

15-22-080 25

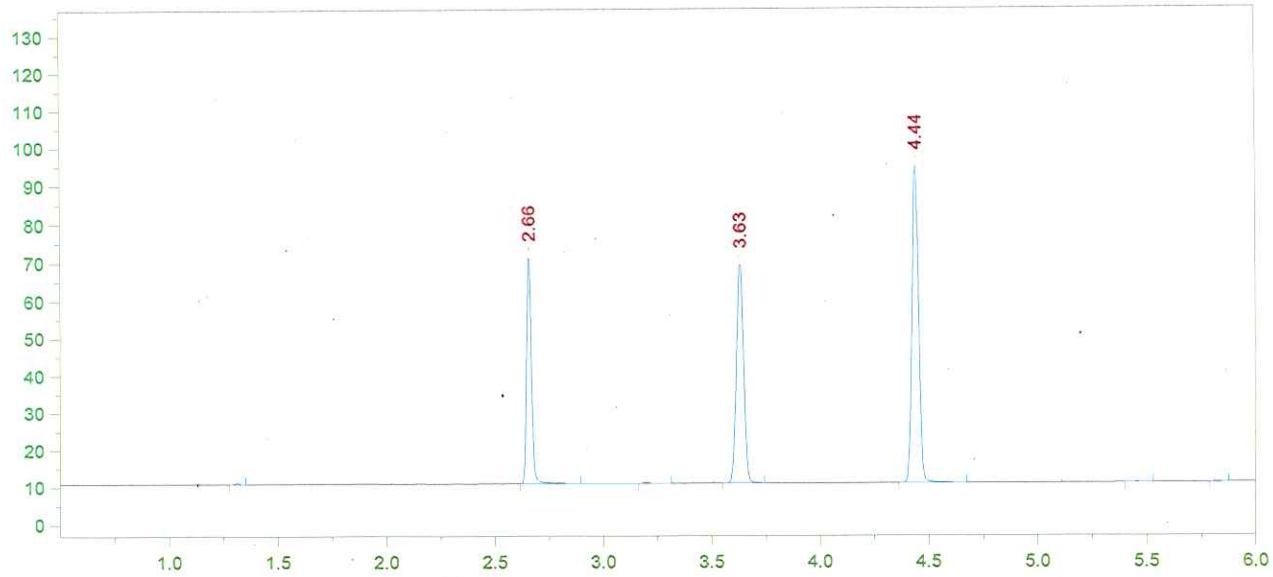


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:59:03 AM
Bound File Name = VFL10292015.0030.RAW
Sample Name = 080 JD
Date Taken = 10/29/2015 10:47:45 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	97891	0.0957	0.0781
4	3.63	t-Butanol	153302	1.0128	0.8267
5	4.44	n-Propanol	191662	1.0000	0.8162

15-22-080 98 20

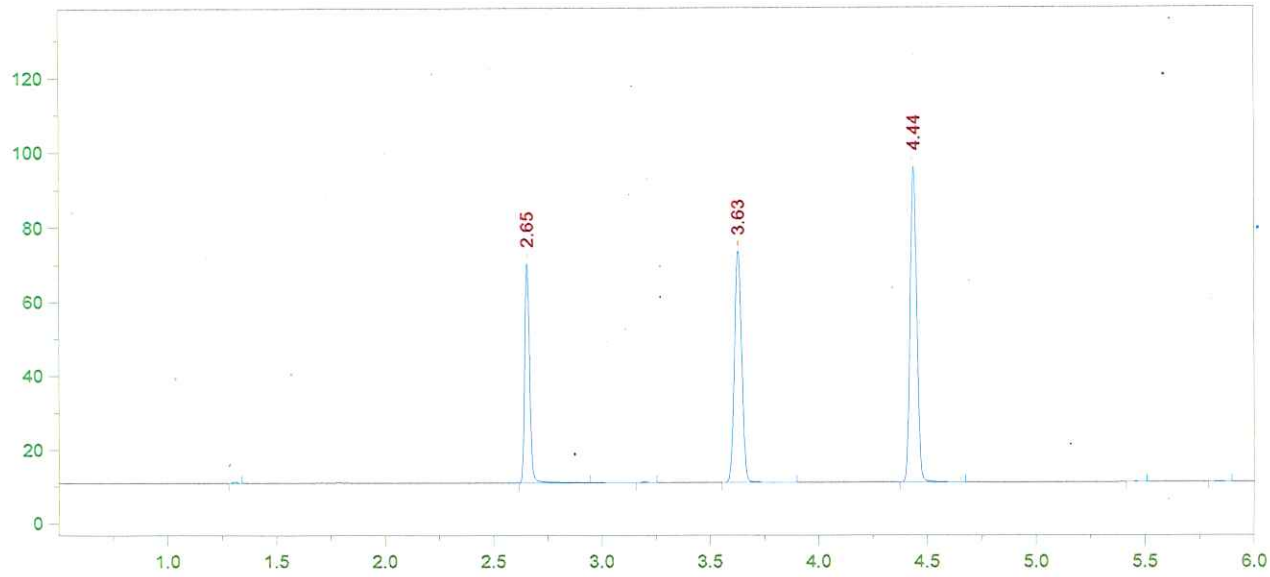


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:59:11 AM
Bound File Name = VFL10292015.0031.RAW
Sample Name = 080 JD
Date Taken = 10/29/2015 11:03:06 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	93315	0.0983	0.0802
4	3.63	t-Butanol	134857	0.9597	0.7833
5	4.44	n-Propanol	177928	1.0000	0.8162

15-22-080 JD 27

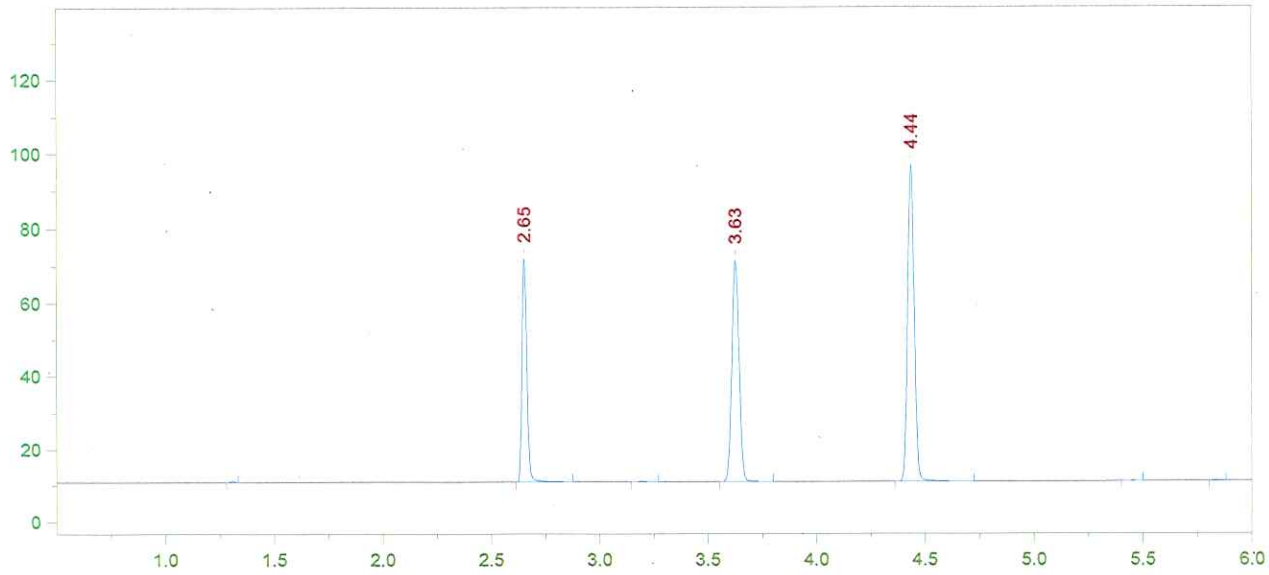


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:59:17 AM
Bound File Name = VFL10292015.0032.RAW
Sample Name = 080 JD
Date Taken = 10/29/2015 11:19:20 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	92112	0.0959	0.0783
4	3.63	t-Butanol	145473	1.0234	0.8353
5	4.44	n-Propanol	179997	1.0000	0.8162

15-22-080 8 28

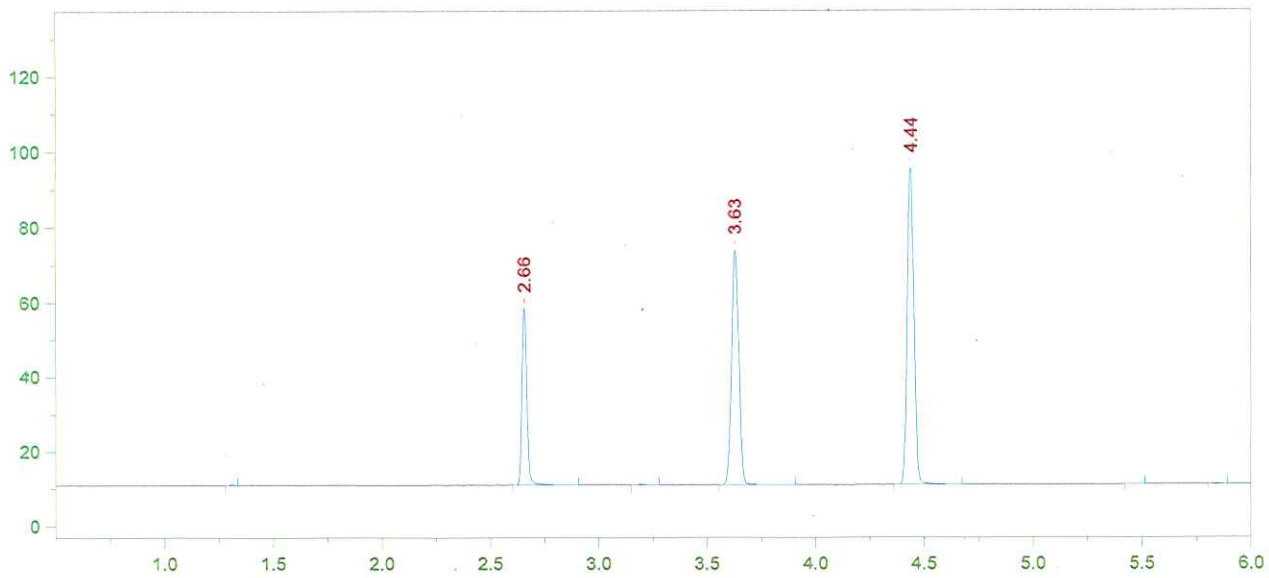


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:59:22 AM
Bound File Name = VFL10292015.0033.RAW
Sample Name = 080 JD
Date Taken = 10/29/2015 11:33:20 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	94647	0.0973	0.0794
4	3.63	t-Butanol	139573	0.9690	0.7909
5	4.44	n-Propanol	182388	1.0000	0.8162

15-22-080 JP 2Q

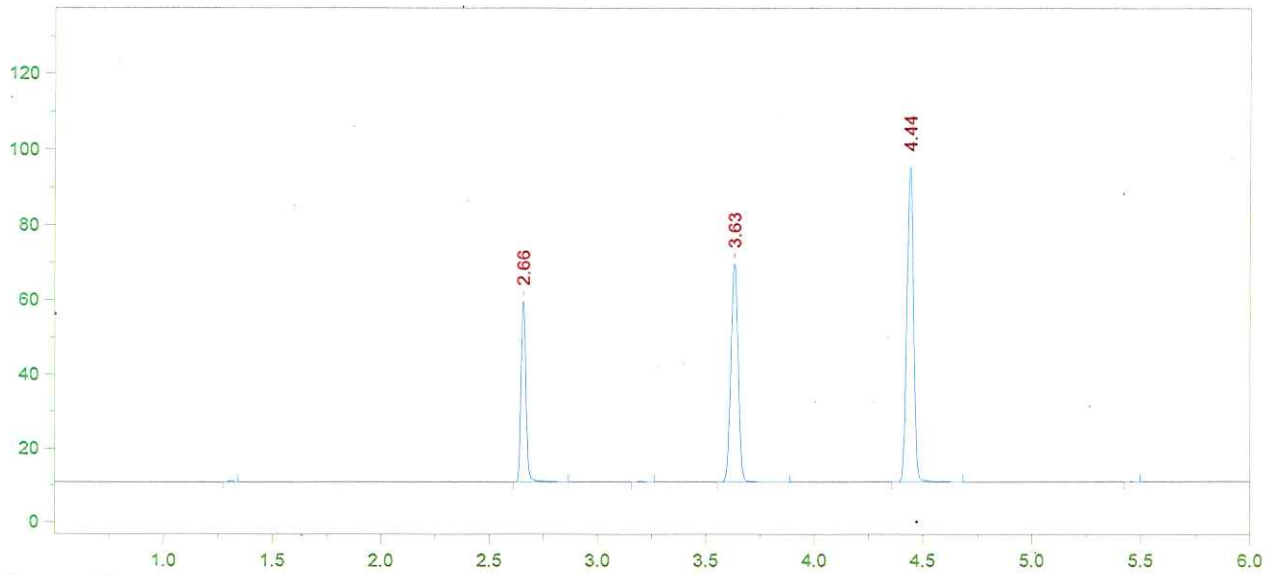


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:59:28 AM
Bound File Name = VFL10292015.0034.RAW
Sample Name = CCS
Date Taken = 10/29/2015 11:50:47 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	74166	0.0770
4	3.63	t-Butanol	145331	1.0194
5	4.44	n-Propanol	180527	1.0000

15-22-080 8 80



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:59:35 AM
Bound File Name = VFL10292015.0035.RAW
Sample Name = CCS
Date Taken = 10/30/2015 12:04:37 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	75527	0.0789
4	3.63	t-Butanol	136217	0.9612
5	4.44	n-Propanol	179459	1.0000

CCS mean: 0.0779 g/100mL EtOH

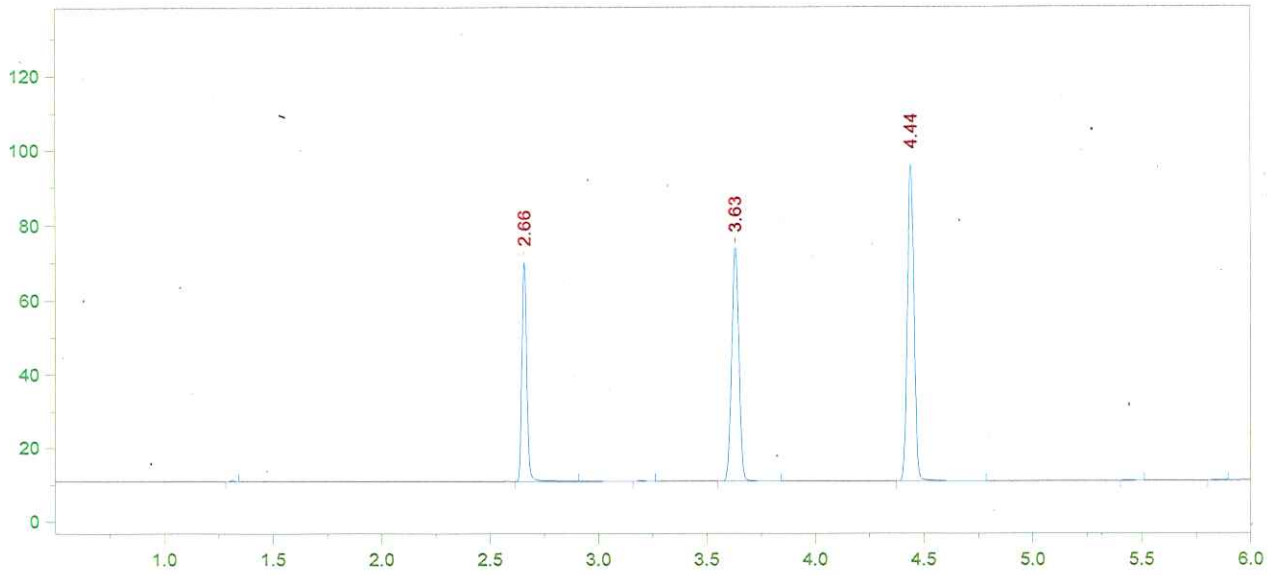
±5%: 0.0740 - 0.0818

Recovery: $\frac{0.078}{0.080} = 97.5\%$

DC 10/30/15

15-22-080

31

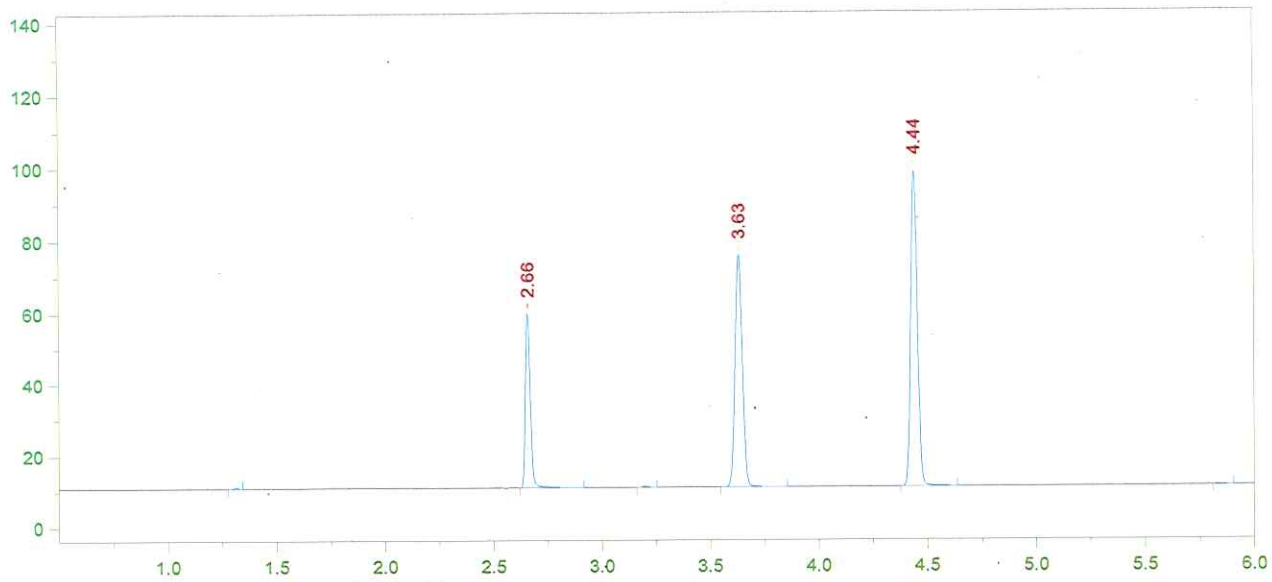


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:59:43 AM
Bound File Name = VFL10292015.0036.RAW
Sample Name = 080 JD
Date Taken = 10/30/2015 12:22:14 AM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	91845	0.0955	0.0780
4	3.63	t-Butanol	145905	1.0251	0.8367
5	4.44	n-Propanol	180225	1.0000	0.8162

15-22-080 26 32

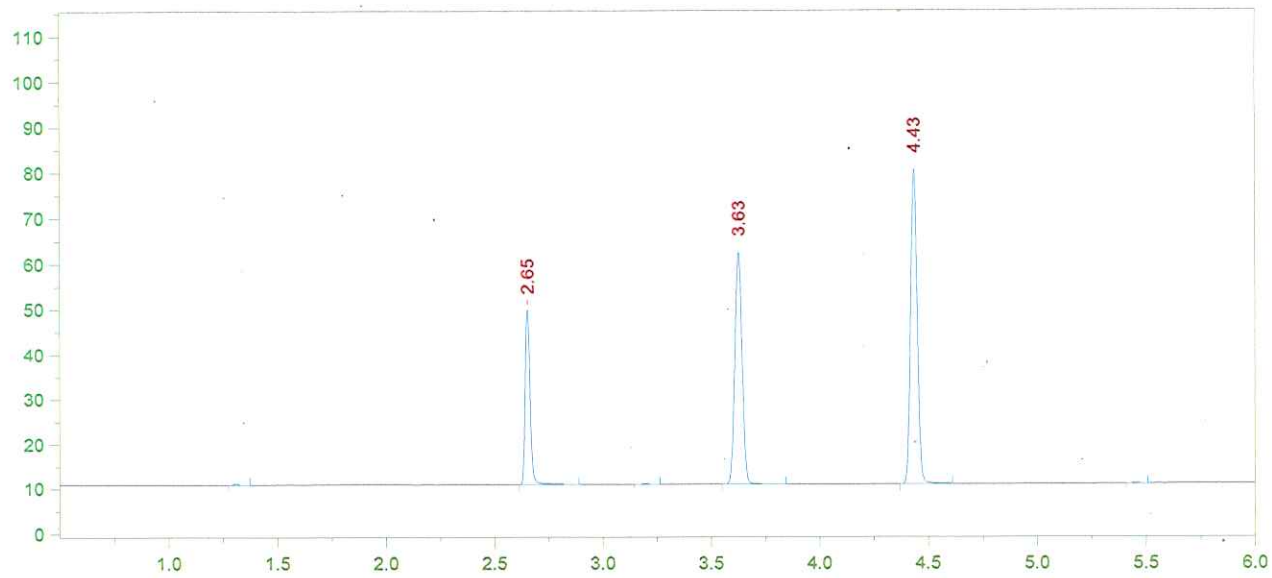


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 8:00:32 AM
Bound File Name = VFL10292015.0044.RAW
Sample Name = CCS
Date Taken = 10/30/2015 2:24:40 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	76190	0.0766
4	3.63	t-Butanol	150311	1.0213
5	4.44	n-Propanol	186373	1.0000

15-22-080 Q8 33



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 8:00:40 AM
Bound File Name = VFL10292015.0045.RAW
Sample Name = CCS
Date Taken = 10/30/2015 2:40:06 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	61253	0.0773
4	3.63	t-Butanol	119171	1.0164
5	4.43	n-Propanol	148471	1.0000

CCS MRW: 0.0769 g/100mL Etoh

80%: 0.0730 - 0.0807

Recovery: $\frac{0.077}{0.080} = 96.2\%$

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File Name = C:\Alcohol Data\VFL10302015\VFL10302015.SEQ
Version = 2
File Date = 10/30/2015 10:24:47 AM

Entry #	Raw File Name	Method File Name	Sample Name	Sample Wt.	Int. Std. Amount
1	VFL10302015.0001.raw	Blood Alc temp VFL.MET	BLANK	1.00	1.00
2	VFL10302015.0002.raw	Blood Alc temp VFL.MET	TMX	1.00	1.00
3	VFL10302015.0003.raw	Blood Alc temp VFL.MET	STD A	1.00	1.00
4	VFL10302015.0004.raw	Blood Alc temp VFL.MET	STD B	1.00	1.00
5	VFL10302015.0005.raw	Blood Alc temp VFL.MET	STD C	1.00	1.00
6	VFL10302015.0006.raw	Blood Alc temp VFL.MET	STD D	1.00	1.00
7	VFL10302015.0007.raw	Blood Alc temp VFL.MET	STD E	1.00	1.00
8	VFL10302015.0008.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
9	VFL10302015.0009.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
10	VFL10302015.0010.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
11	VFL10302015.0011.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
12	VFL10302015.0012.raw	simsoln.met	080 DP	1.00	1.00
13	VFL10302015.0013.raw	simsoln.met	080 DP	1.00	1.00
14	VFL10302015.0014.raw	simsoln.met	080 DP	1.00	1.00
15	VFL10302015.0015.raw	simsoln.met	080 DP	1.00	1.00
16	VFL10302015.0016.raw	simsoln.met	080 DP	1.00	1.00
17	VFL10302015.0017.raw	simsoln.met	080 DP	1.00	1.00
18	VFL10302015.0018.raw	simsoln.met	080 DP	1.00	1.00
19	VFL10302015.0019.raw	simsoln.met	100 DP	1.00	1.00
20	VFL10302015.0020.raw	simsoln.met	100 DP	1.00	1.00
21	VFL10302015.0021.raw	simsoln.met	100 DP	1.00	1.00
22	VFL10302015.0022.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
23	VFL10302015.0023.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
24	VFL10302015.0024.raw	simsoln.met	100 DP	1.00	1.00
25	VFL10302015.0025.raw	simsoln.met	100 DP	1.00	1.00
26	VFL10302015.0026.raw	simsoln.met	100 DP	1.00	1.00
27	VFL10302015.0027.raw	simsoln.met	100 DP	1.00	1.00
28	VFL10302015.0028.raw	simsoln.met	080 JD	1.00	1.00
29	VFL10302015.0029.raw	simsoln.met	080 JD	1.00	1.00
30	VFL10302015.0030.raw	simsoln.met	080 JD	1.00	1.00
31	VFL10302015.0031.raw	simsoln.met	080 JD	1.00	1.00
32	VFL10302015.0032.raw	simsoln.met	080 JD	1.00	1.00
33	VFL10302015.0033.raw	simsoln.met	080 JD	1.00	1.00
34	VFL10302015.0034.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
35	VFL10302015.0035.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
36	VFL10302015.0036.raw	simsoln.met	080 JD	1.00	1.00
37	VFL10302015.0037.raw	simsoln.met	100 JD	1.00	1.00
38	VFL10302015.0038.raw	simsoln.met	100 JD	1.00	1.00
39	VFL10302015.0039.raw	simsoln.met	100 JD	1.00	1.00
40	VFL10302015.0040.raw	simsoln.met	100 JD	1.00	1.00
41	VFL10302015.0041.raw	simsoln.met	100 JD	1.00	1.00
42	VFL10302015.0042.raw	simsoln.met	100 JD	1.00	1.00
43	VFL10302015.0043.raw	simsoln.met	100 JD	1.00	1.00
44	VFL10302015.0044.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
45	VFL10302015.0045.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00

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File Name: C:\Methods\VFL10302015.CAL
Version: 7

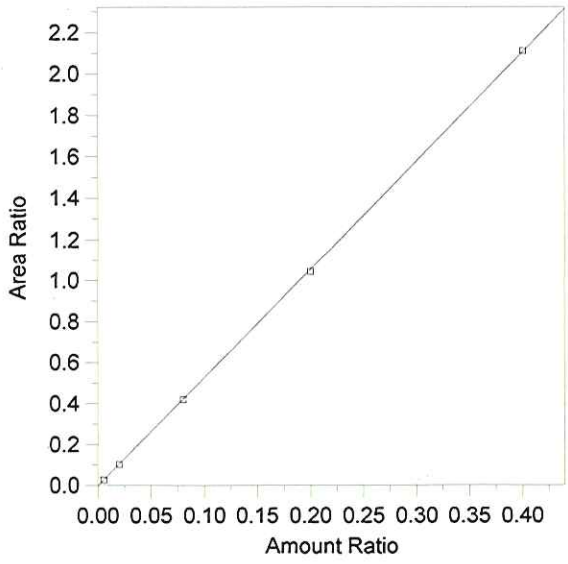
Creator:
Description:
Reason for change:

Internal standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 1500
Reference peak area reject threshold: 0
Amount units:
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

3 Ethanol



Expected retention time: 2.656 minutes
Search window: 0.1 minutes
Internal standard component: 7 (n-Propanol)
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

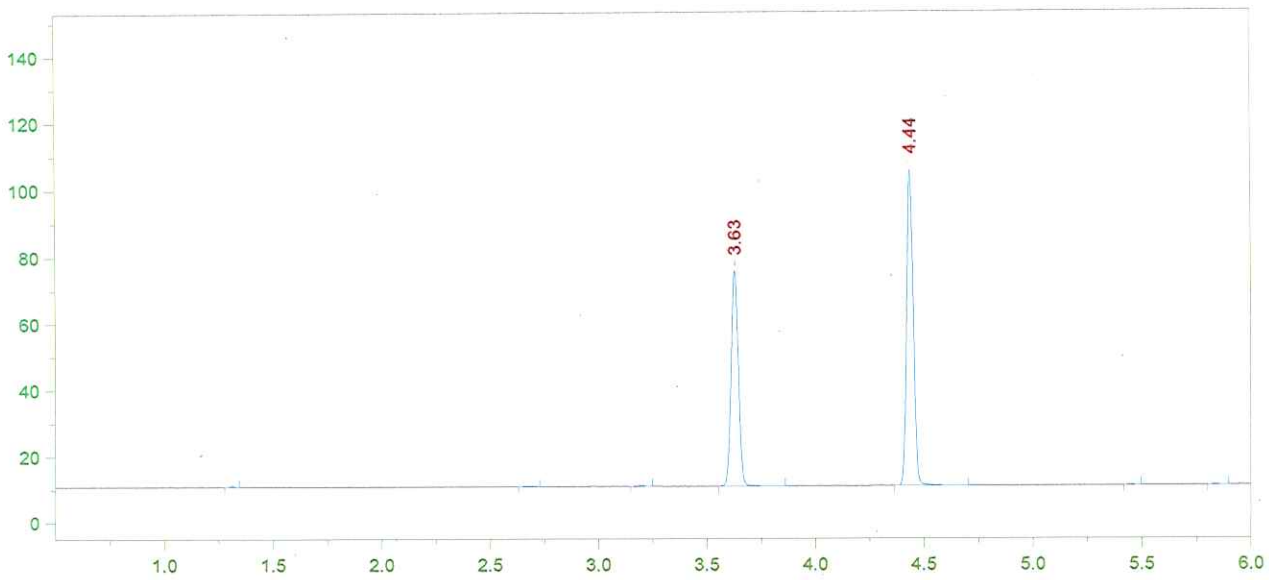
Single peak quantification by area

$Y = 5.263494 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999493
Average error: 1.687%
Average CF: 5.270586
RSD: 2.500%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source	Date and time
1	(0.078)	(85146)	--	--	0.078	85146	Manual	8/18/2015 8:39:13 AM
2	0.005	4879.527	975905.4	4.283	0.005	2.744452E-02	C:\Alcohol Data\VFL10302015\VFL10302015.0003.BND	10/30/2015 11:33:14 AM
3	0.02	19043.88	952194.1	-2.337	0.02	0.1028094	C:\Alcohol Data\VFL10302015\VFL10302015.0004.BND	10/30/2015 11:51:28 AM
4	0.08	75926.75	949084.4	-0.567	0.08	0.4186923	C:\Alcohol Data\VFL10302015\VFL10302015.0005.BND	10/30/2015 12:05:09 PM
5	0.2	204161.2	1020806	-0.977	0.2	1.042418	C:\Alcohol Data\VFL10302015\VFL10302015.0006.BND	10/30/2015 12:21:08 PM
6	0.4	398685.6	996714	0.272	0.4	2.111124	C:\Alcohol Data\VFL10302015\VFL10302015.0007.BND	10/30/2015 12:36:44 PM

i-5-22-080 36

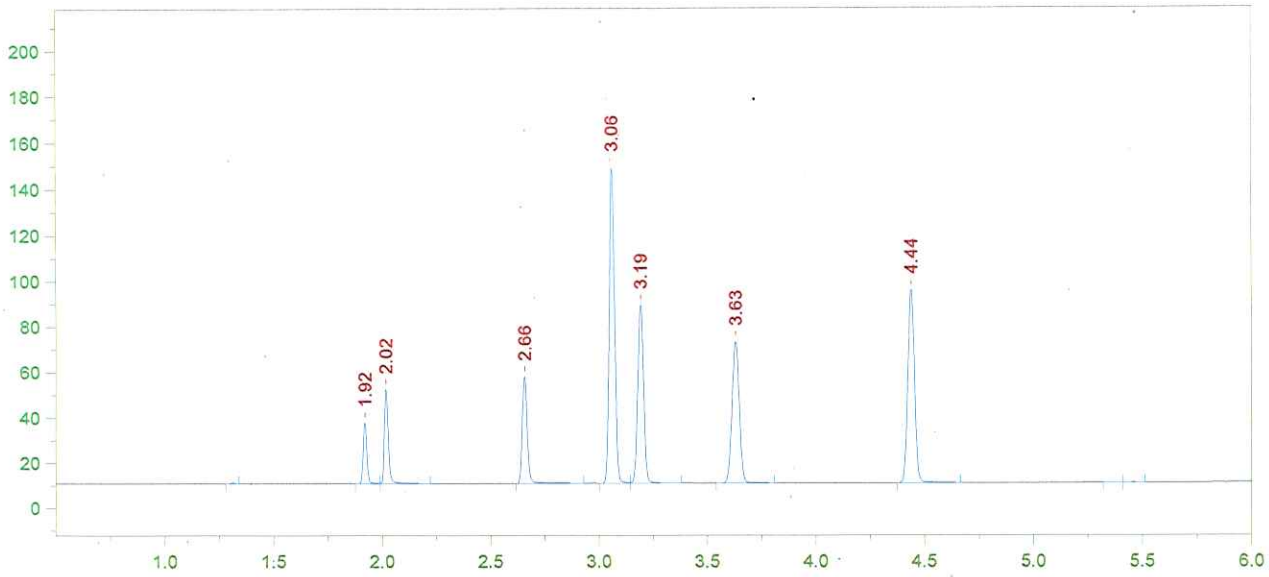


Format File Name = AlcoholVFL.FMT

Today's Date = 11/2/2015
Today's Time = 8:33:15 AM
Bound File Name = VFL10302015.0001.RAW
Sample Name = BLANK
Date Taken = 10/30/2015 11:02:36 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
4	3.63	t-Butanol	149875	0.9568
5	4.44	n-Propanol	200972	1.0000

15-22-080 dg 87



Format File Name = AlcoholVFL.FMT

Today's Date = 11/2/2015
Today's Time = 8:33:20 AM
Bound File Name = VFL10302015.0002.RAW
Sample Name = TMX
Date Taken = 10/30/2015 11:19:57 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	1.92	Acetaldehyde	31516	0.0686
3	2.02	Methanol	52668	0.1169
4	2.66	Ethanol	73774	0.0775
5	3.06	Acetone	235577	0.0612
6	3.19	Isopropanol	147224	0.0780
7	3.63	t-Butanol	144621	1.0255
8	4.44	n-Propanol	180933	1.0000

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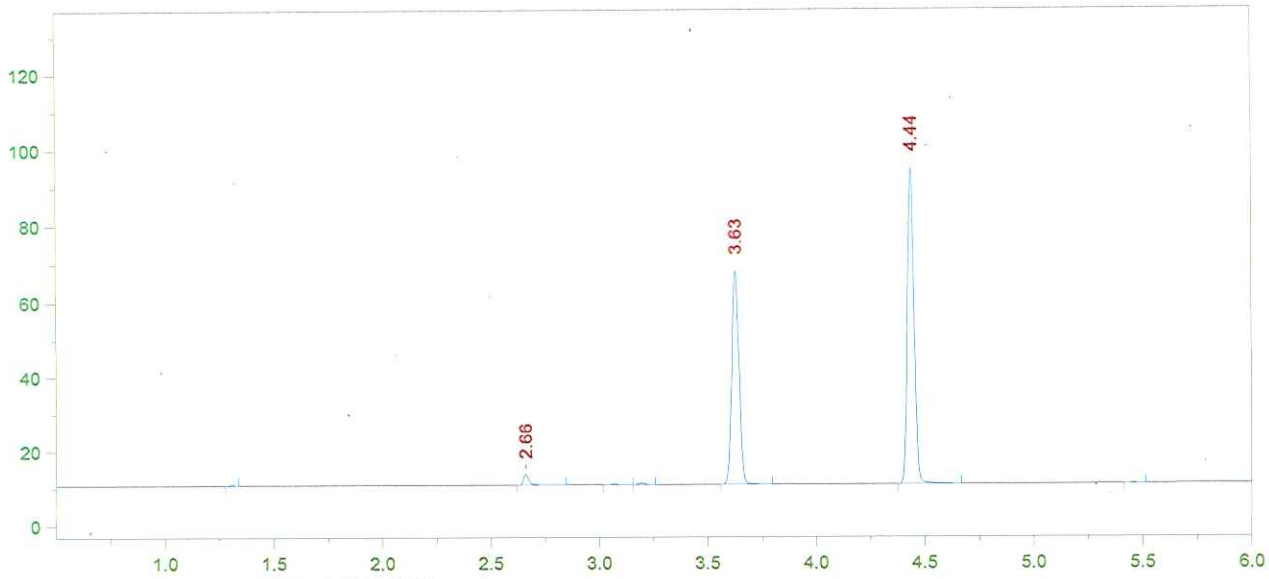
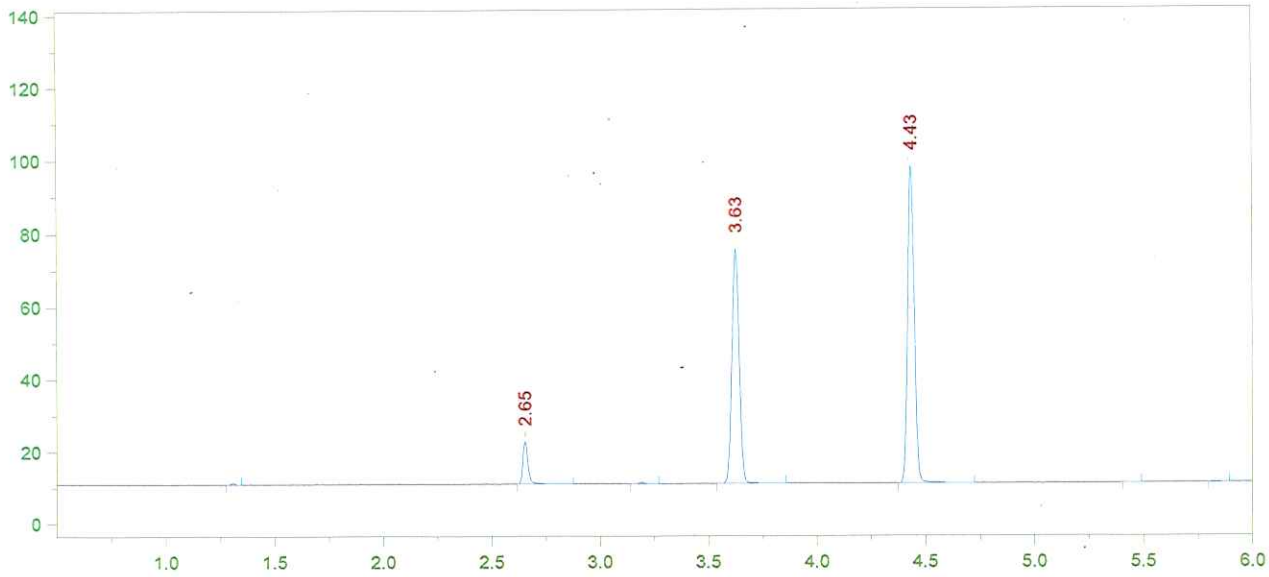


Format File Name = AlcoholVFL.FMT

Today's Date = 11/2/2015
Today's Time = 8:33:27 AM
Bound File Name = VFL10302015.0003.RAW
Sample Name = STD A
Date Taken = 10/30/2015 11:33:10 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	04880	0.0052
5	3.63	t-Butanol	132024	0.9527
6	4.44	n-Propanol	177796	1.0000

15-22080 dk 39



Format File Name = AlcoholVFL.FMT

Today's Date = 11/2/2015
Today's Time = 8:33:32 AM
Bound File Name = VFL10302015.0004.RAW
Sample Name = STD B
Date Taken = 10/30/2015 11:51:22 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	19044	0.0195
4	3.63	t-Butanol	149238	1.0337
5	4.43	n-Propanol	185235	1.0000

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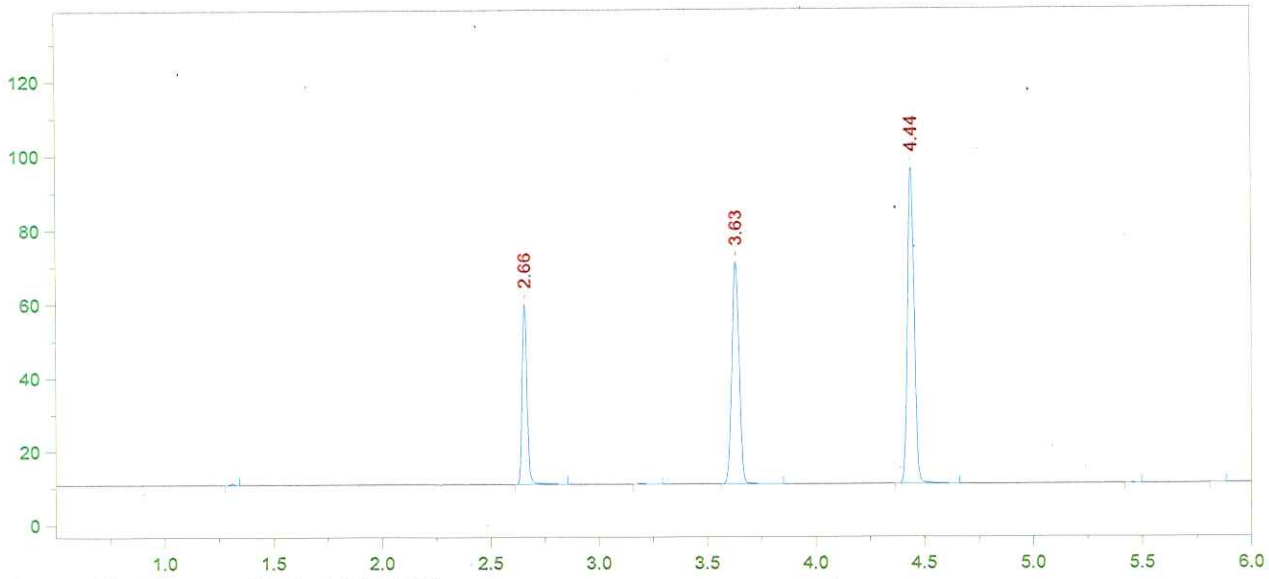

Format File Name = AlcoholVFL.FMT

Today's Date = 11/2/2015
Today's Time = 8:33:38 AM
Bound File Name = VFL10302015.0005.RAW
Sample Name = STD C
Date Taken = 10/30/2015 12:05:02 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	75927	0.0795
4	3.63	t-Butanol	139106	0.9842
5	4.44	n-Propanol	181343	1.0000

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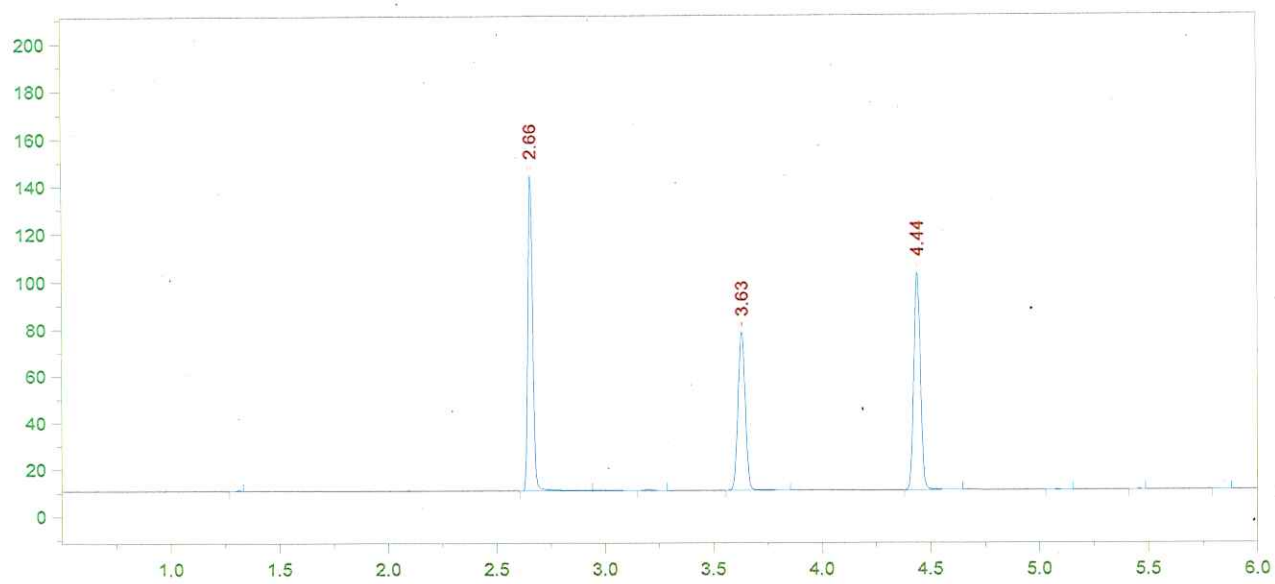

Format File Name = AlcoholVFL.FMT

Today's Date = 11/2/2015
Today's Time = 8:33:44 AM
Bound File Name = VFL10302015.0006.RAW
Sample Name = STD D
Date Taken = 10/30/2015 12:21:03 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	204161	0.1980
4	3.63	t-Butanol	155924	1.0214
5	4.44	n-Propanol	195853	1.0000

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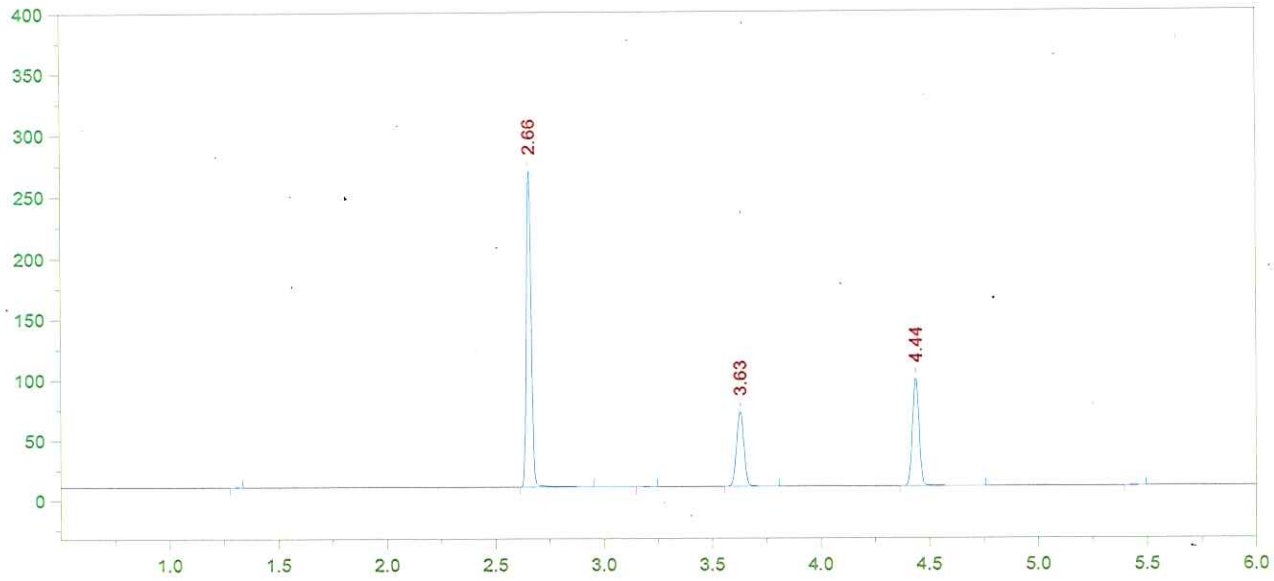
Chrom Perfect Chromatogram Report

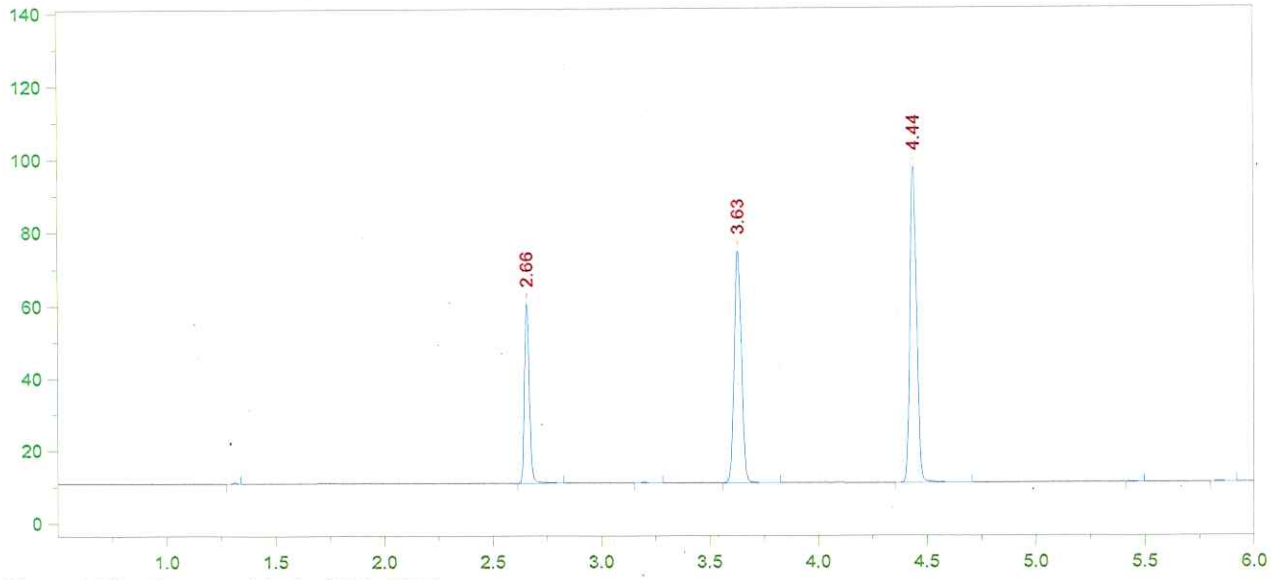


Format File Name = AlcoholVFL.FMT

Today's Date = 11/2/2015
Today's Time = 8:33:51 AM
Bound File Name = VFL10302015.0007.RAW
Sample Name = STD E
Date Taken = 10/30/2015 12:36:34 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	398686	0.4011
4	3.63	t-Butanol	144604	0.9824
5	4.44	n-Propanol	188850	1.0000

15-22-080 88 43



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 12:52:46 PM
Bound File Name = VFL10302015.0008.RAW
Sample Name = AQ
Date Taken = 10/30/2015 12:52:38 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	76610	0.0790
4	3.63	t-Butanol	147843	1.0301
5	4.44	n-Propanol	184143	1.0000

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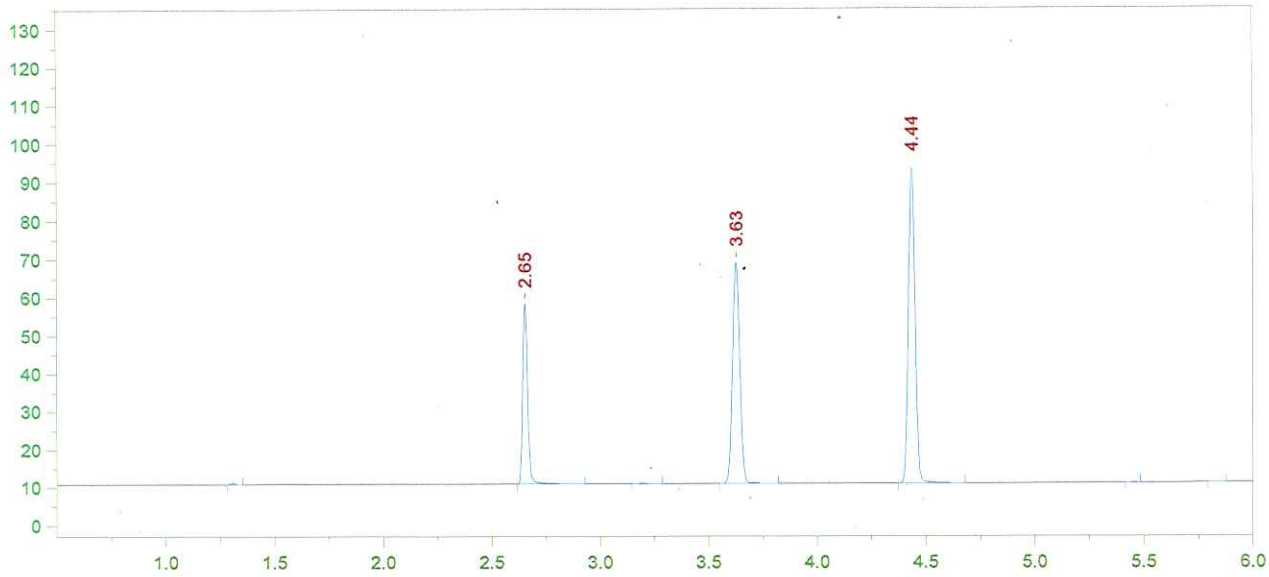

Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 1:06:24 PM
Bound File Name = VFL10302015.0009.RAW
Sample Name = AQ
Date Taken = 10/30/2015 1:06:18 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	73651	0.0796
4	3.63	t-Butanol	134526	0.9817
5	4.44	n-Propanol	175821	1.0000

AQ MEAN: 0.0793 g/100mL EtOH

±5% 0.0753 - 0.0832

Recovery: $\frac{0.079}{0.080} = 98.7\%$

11/2/15

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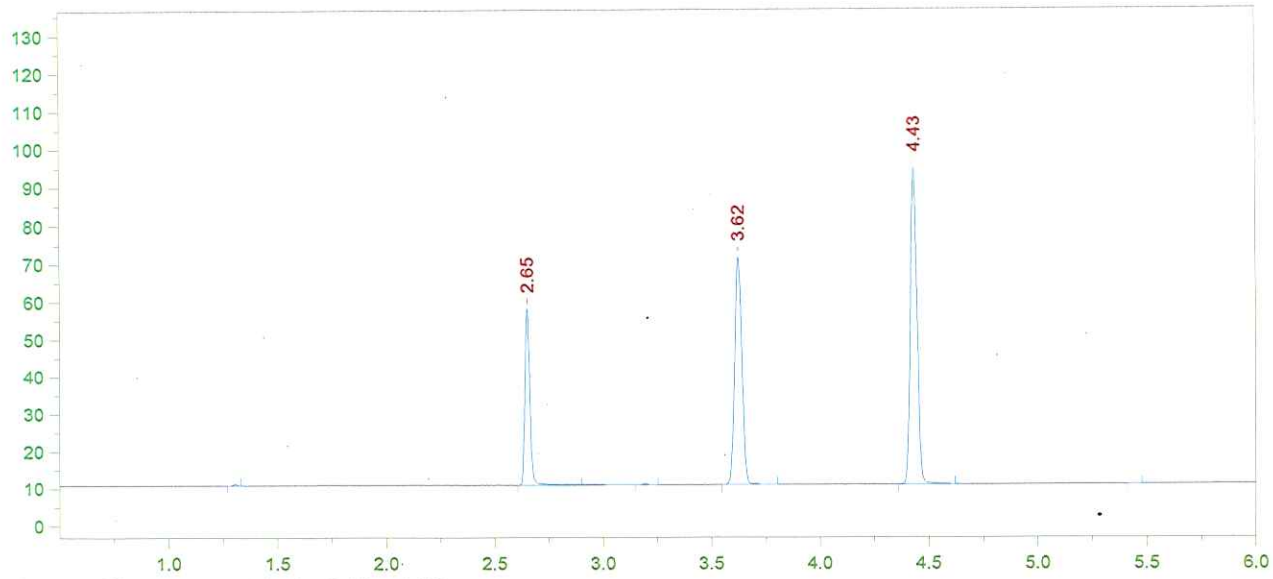

Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 1:24:07 PM
Bound File Name = VFL10302015.0010.RAW
Sample Name = CCS
Date Taken = 10/30/2015 1:24:02 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	73468	0.0787
4	3.62	t-Butanol	140098	1.0141
5	4.43	n-Propanol	177254	1.0000

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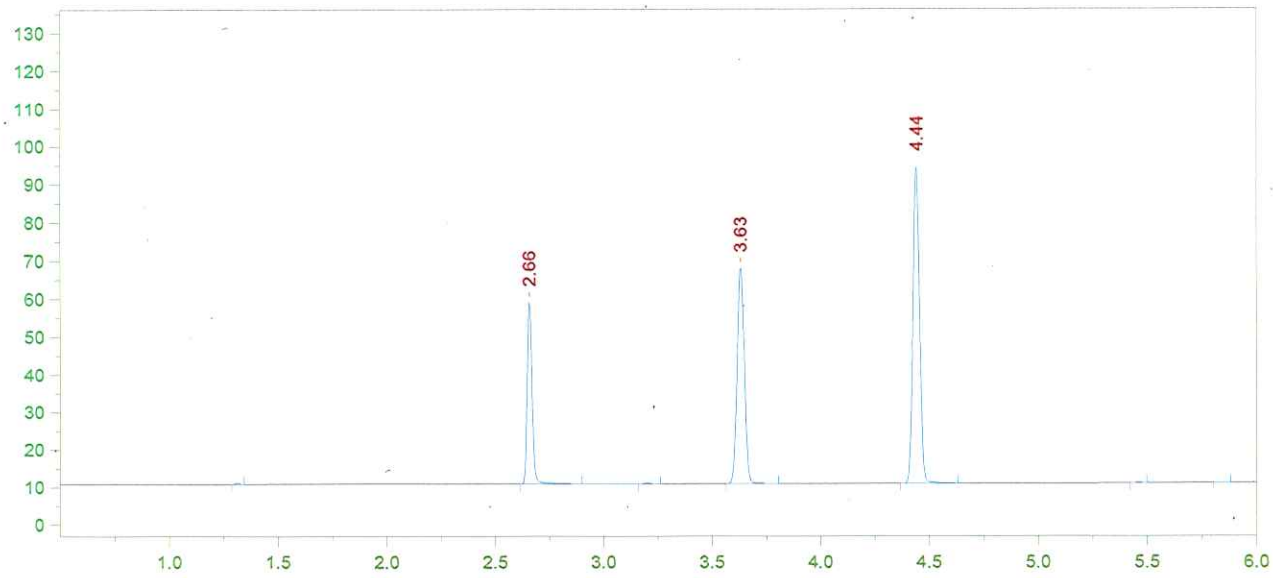

Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 1:37:58 PM
Bound File Name = VFL10302015.0011.RAW
Sample Name = CCS
Date Taken = 10/30/2015 1:37:52 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	74747	0.0805
4	3.63	t-Butanol	132003	0.9600
5	4.44	n-Propanol	176421	1.0000

CCS Value: 0.0796 g/100mL

±5%: 0.0756 - 0.0836

Recovery: $\frac{0.079}{0.080}$ = 98.7%

11/2/15

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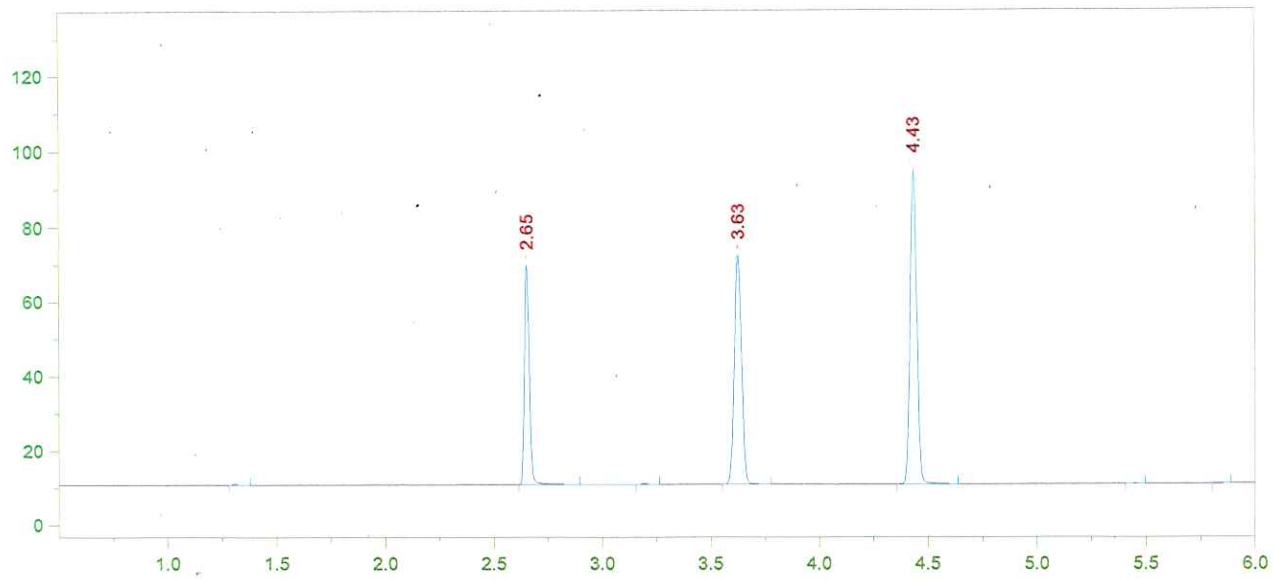

Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 1:55:34 PM
Bound File Name = VFL10302015.0012.RAW
Sample Name = 080 DP
Date Taken = 10/30/2015 1:55:26 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	91366	0.0973	0.0794
4	3.63	t-Butanol	142526	1.0251	0.8367
5	4.43	n-Propanol	178384	1.0000	0.8162

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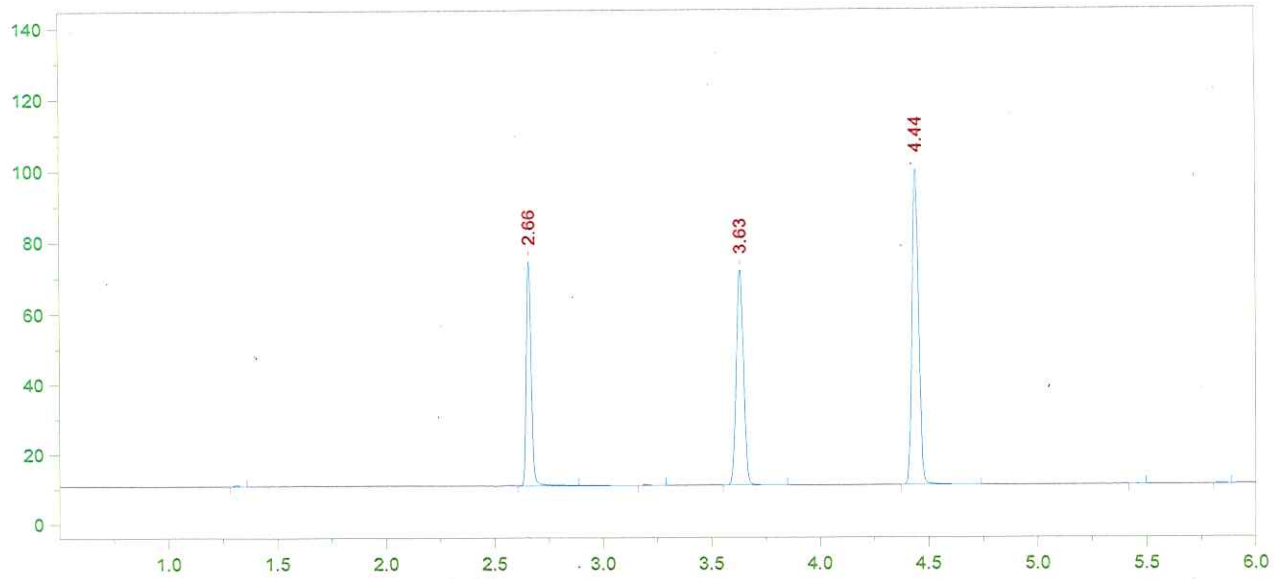
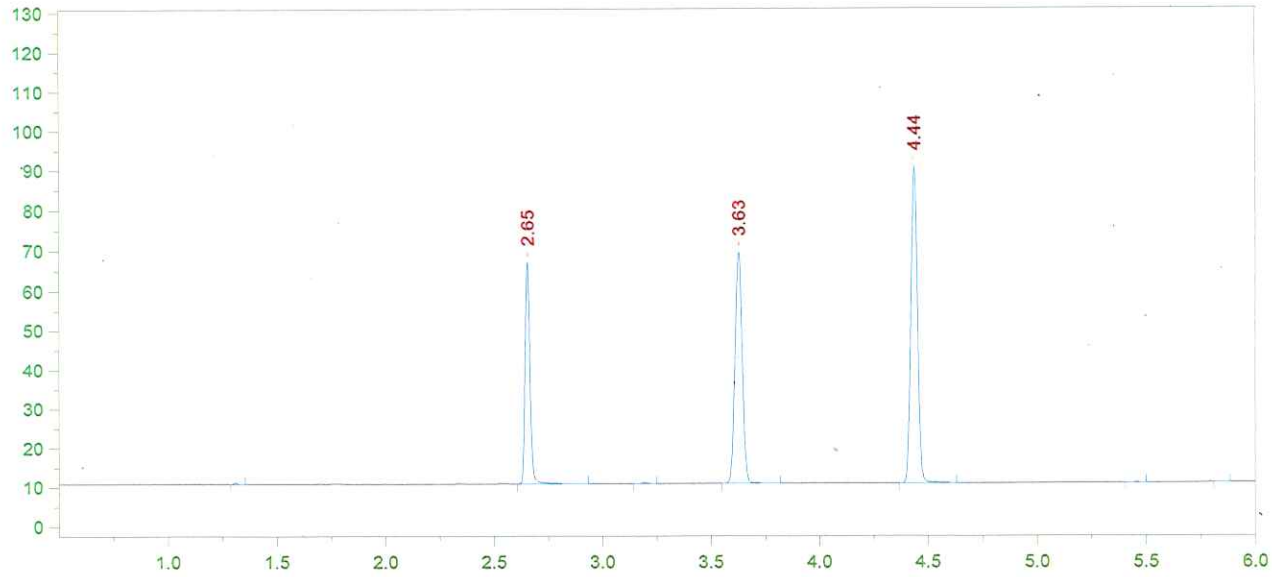


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 2:09:27 PM
Bound File Name = VFL10302015.0013.RAW
Sample Name = 080 DP
Date Taken = 10/30/2015 2:09:19 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	98857	0.0996	0.0813
4	3.63	t-Butanol	141445	0.9627	0.7857
5	4.44	n-Propanol	188510	1.0000	0.8162

10-22-080 DS 4S

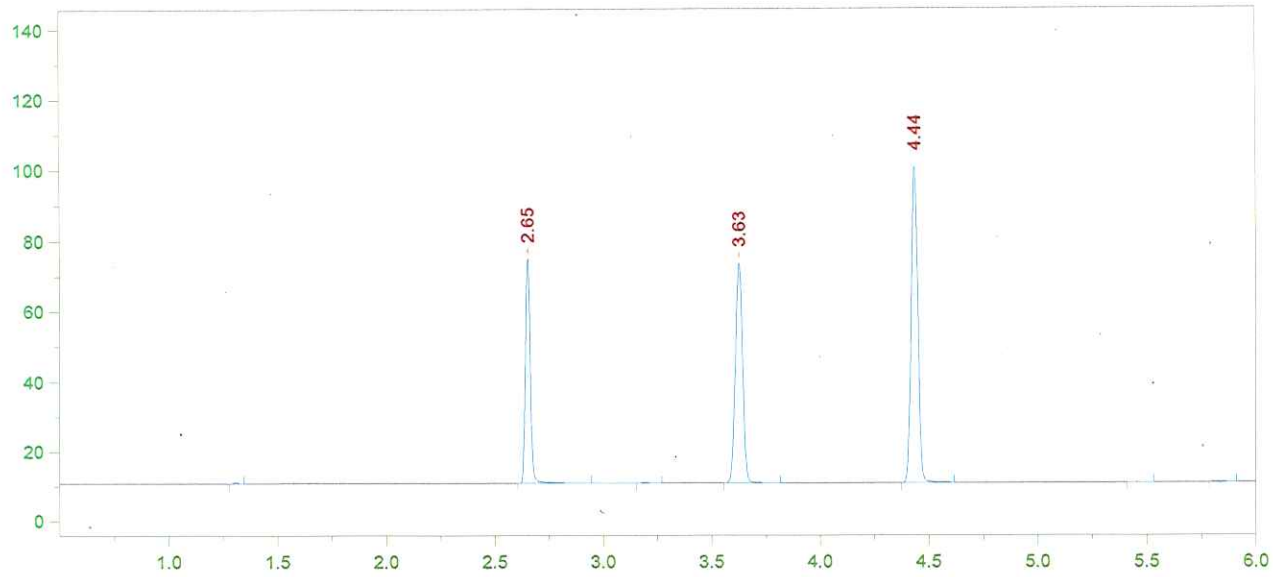


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 2:27:00 PM
Bound File Name = VFL10302015.0014.RAW
Sample Name = 080 DP
Date Taken = 10/30/2015 2:26:51 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	86947	0.0976	0.0797
4	3.63	t-Butanol	135761	1.0293	0.8401
5	4.44	n-Propanol	169226	1.0000	0.8162

15-22-080 80 50



Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 2:40:53 PM
Bound File Name = VFL10302015.0015.RAW
Sample Name = 080 DP
Date Taken = 10/30/2015 2:40:43 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	99517	0.0993	0.0811
4	3.63	t-Butanol	144854	0.9762	0.7967
5	4.44	n-Propanol	190390	1.0000	0.8162

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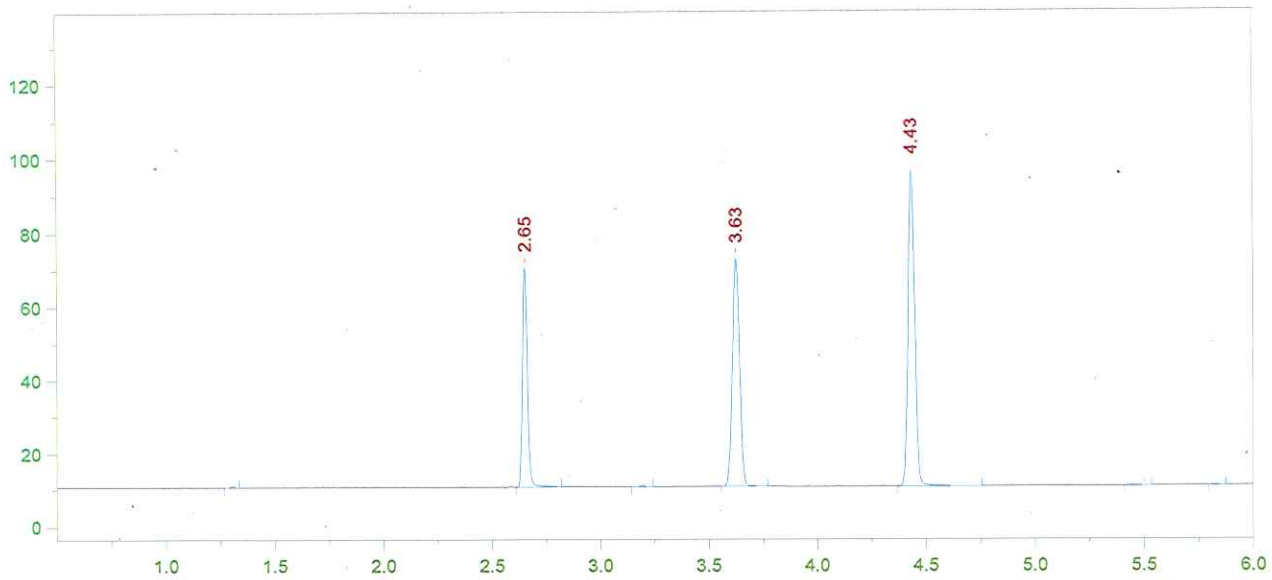
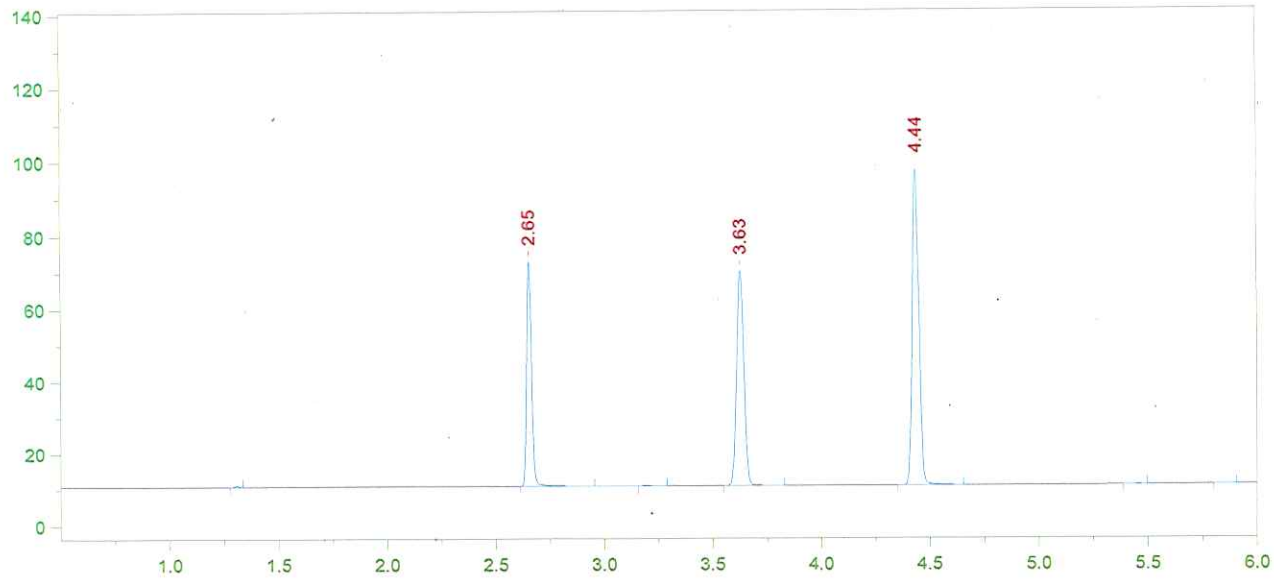


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 2:58:21 PM
Bound File Name = VFL10302015.0016.RAW
Sample Name = 080 DP
Date Taken = 10/30/2015 2:58:17 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	92468	0.0970	0.0792
4	3.63	t-Butanol	143332	1.0153	0.8287
5	4.43	n-Propanol	181124	1.0000	0.8162

15-22-080 52

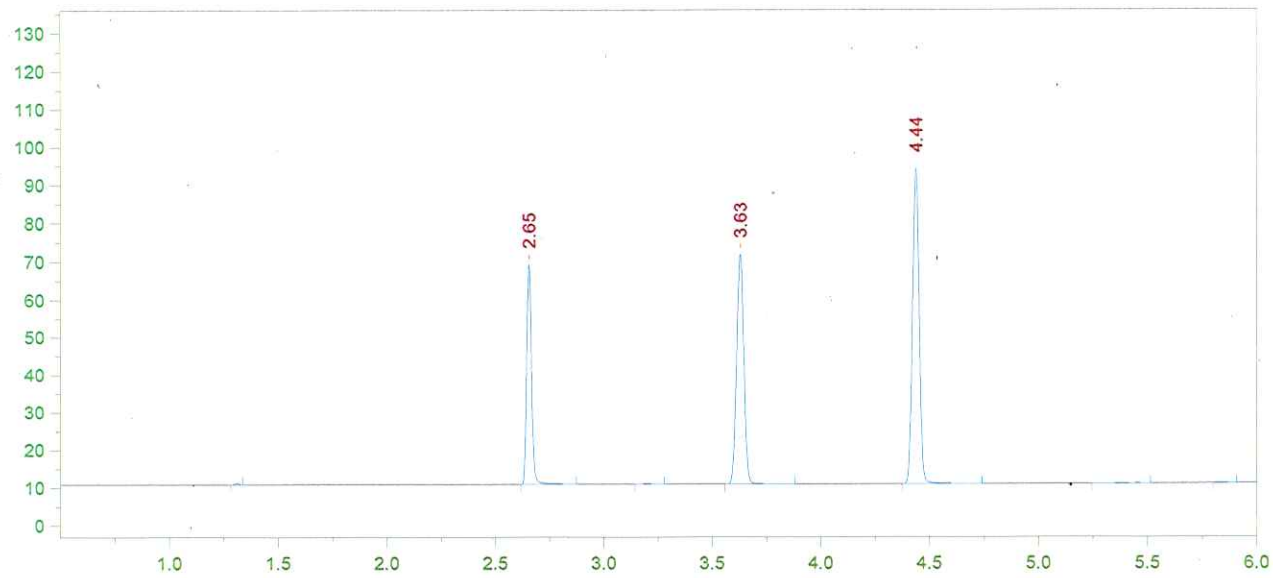


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 3:12:10 PM
Bound File Name = VFL10302015.0017.RAW
Sample Name = 080 DP
Date Taken = 10/30/2015 3:12:03 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	95944	0.0995	0.0812
4	3.63	t-Butanol	137340	0.9619	0.7851
5	4.44	n-Propanol	183197	1.0000	0.8162

16-22-080 28 03

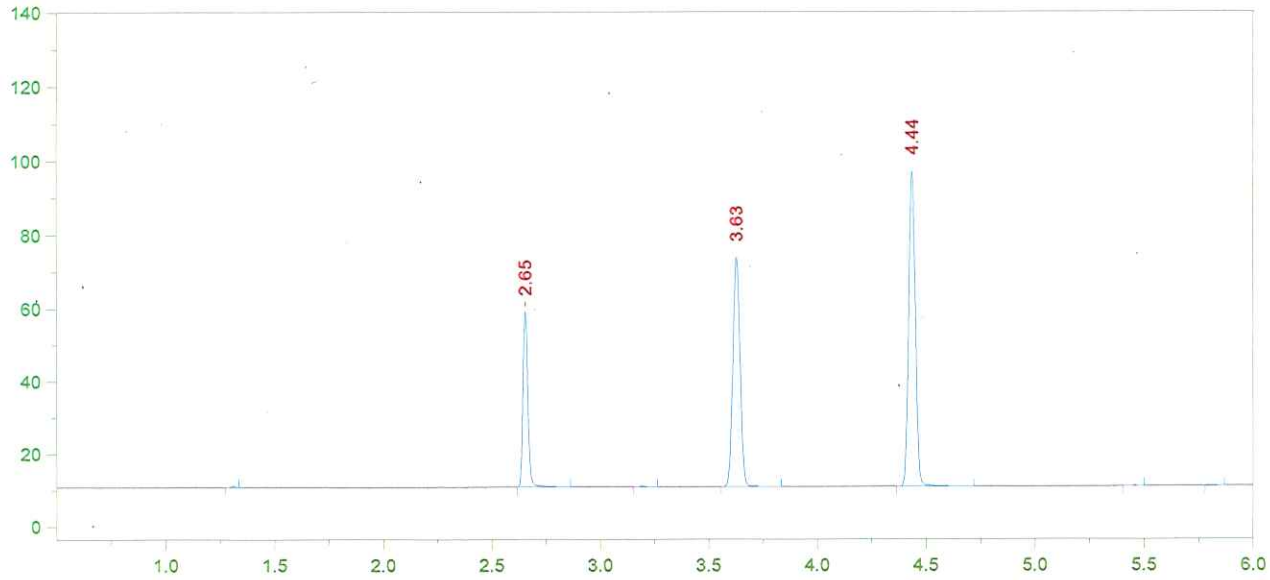


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 3:29:53 PM
Bound File Name = VFL10302015.0018.RAW
Sample Name = 080 DP
Date Taken = 10/30/2015 3:29:44 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
3	2.65	Ethanol	90443	0.0971	0.0793
5	3.63	t-Butanol	141070	1.0230	0.8350
6	4.44	n-Propanol	176923	1.0000	0.8162

15-22-080 54

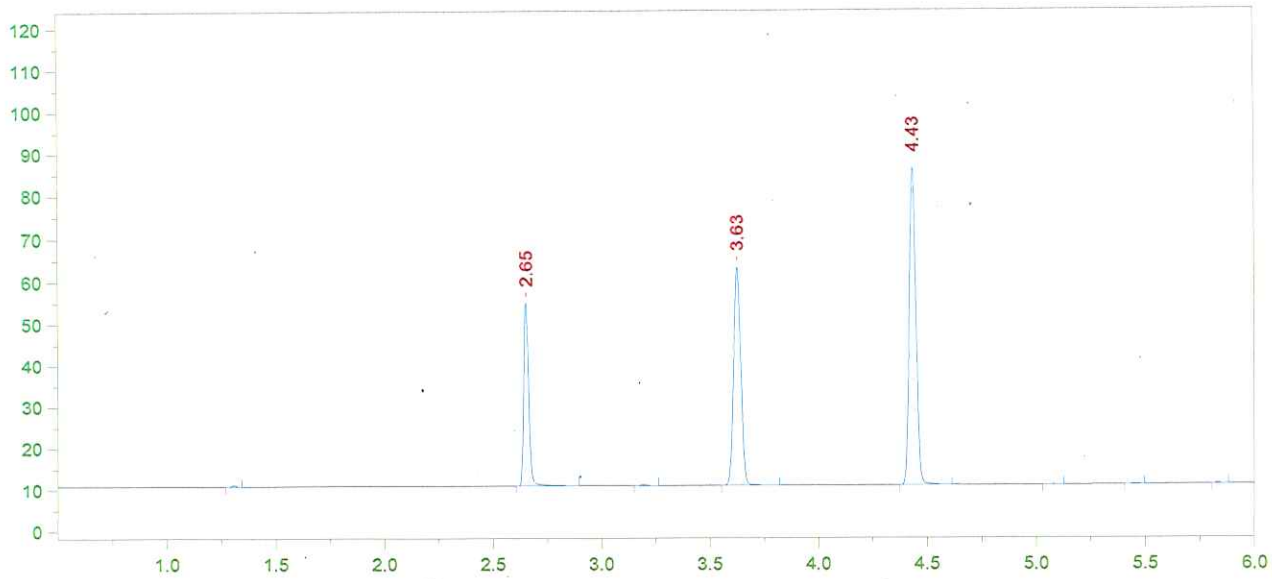


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 4:32:39 PM
Bound File Name = VFL10302015.0022.RAW
Sample Name = CCS
Date Taken = 10/30/2015 4:32:33 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	74692	0.0775
4	3.63	t-Butanol	145434	1.0195
5	4.44	n-Propanol	183017	1.0000

15-22-080 88 55



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Bound File Name = VFL10302015.0023.RAW
Sample Name = CCS
Date Taken = 10/30/2015 4:47:27 PM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL

Today's Time = 4:47:36 PM

VFL Headspace Alcohol

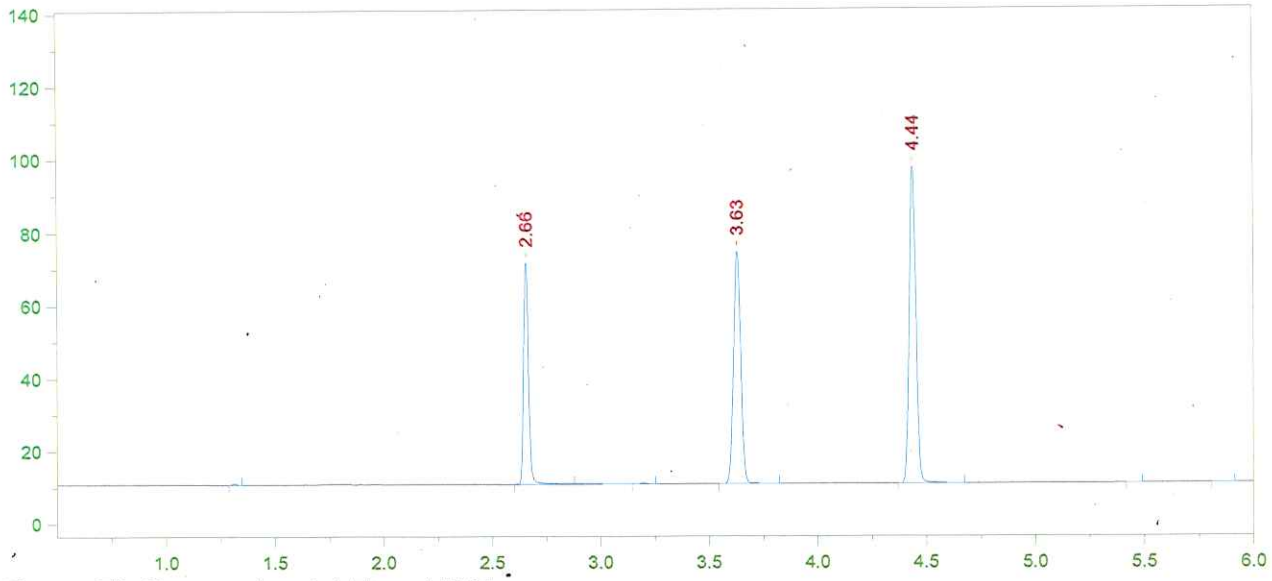
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	68716	0.0810
4	3.63	t-Butanol	120560	0.9597
5	4.43	n-Propanol	161182	1.0000

CCS MEAN: 0.0792 g/100 mm EtOH
±5%: 0.0752 - 0.0831
Recovery: $\frac{0.079}{0.080}$ = 98.7%

[signature] 11/2/15

15-22-080 [signature] 56

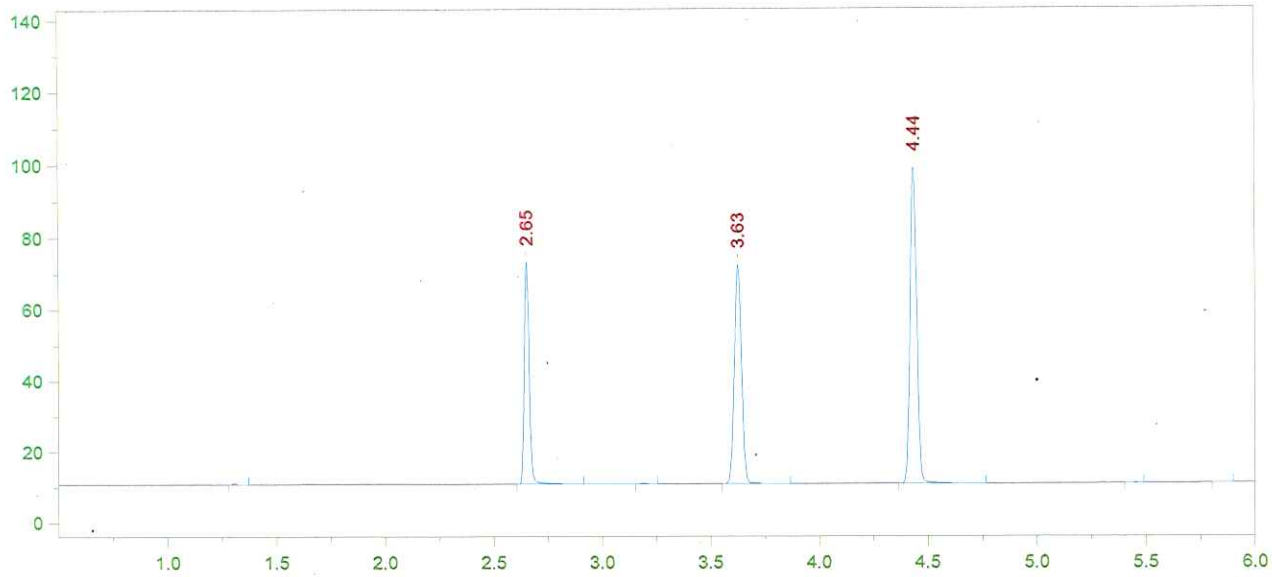


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 6:06:53 PM
Bound File Name = VFL10302015.0028.RAW
Sample Name = 080 JD
Date Taken = 10/30/2015 6:06:46 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	94283	0.0972	0.0793
4	3.63	t-Butanol	147167	1.0244	0.8361
5	4.44	n-Propanol	184314	1.0000	0.8162

15-22-080 8 67

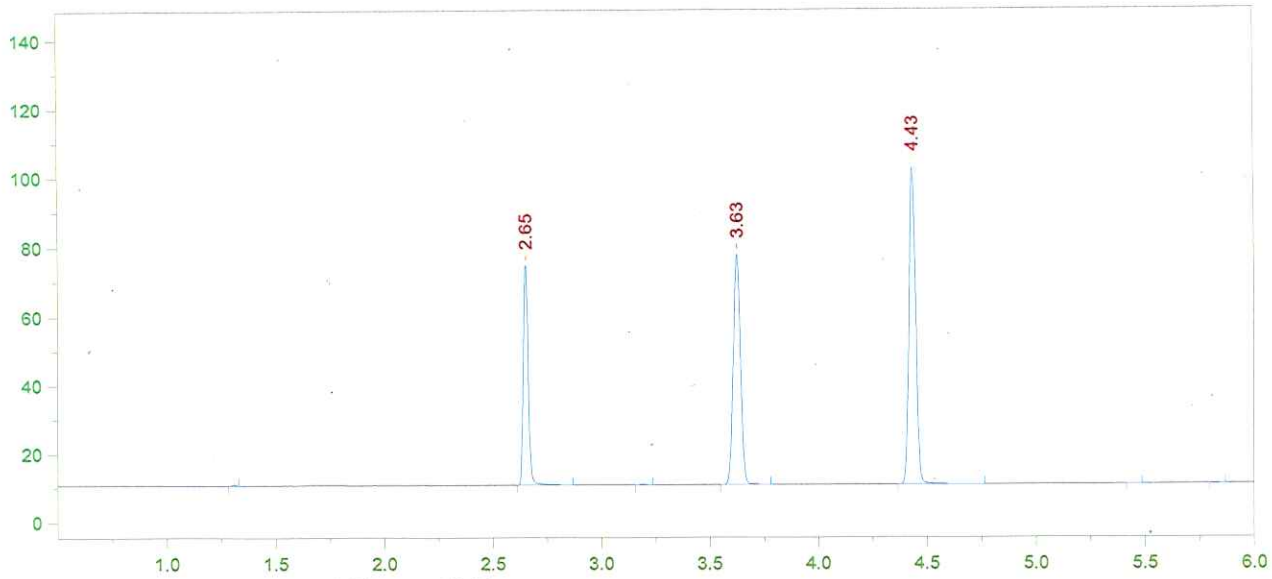


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 6:20:42 PM
Bound File Name = VFL10302015.0029.RAW
Sample Name = 080 JD
Date Taken = 10/30/2015 6:20:32 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	97143	0.0988	0.0807
4	3.63	t-Butanol	141724	0.9736	0.7946
5	4.44	n-Propanol	186771	1.0000	0.8162

15-22-080 58

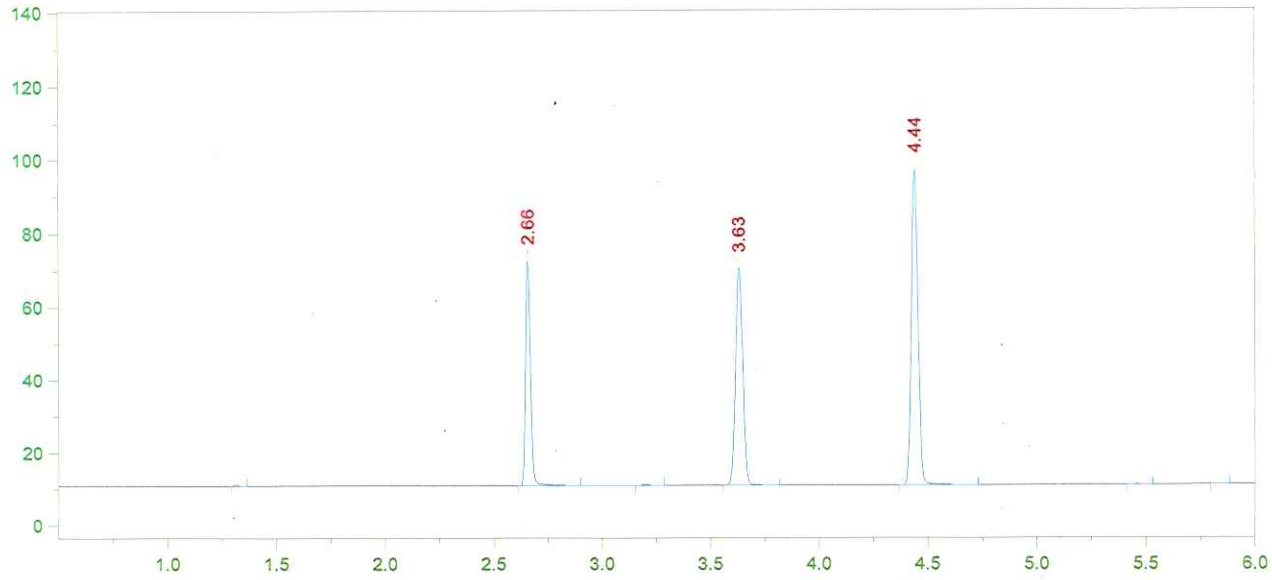


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015
Today's Time = 6:38:15 PM
Bound File Name = VFL10302015.0030.RAW
Sample Name = 080 JD
Date Taken = 10/30/2015 6:38:11 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	99598	0.0969	0.0791
4	3.63	t-Butanol	154685	1.0161	0.8293
5	4.43	n-Propanol	195319	1.0000	0.8162

5-22-080 JL 09

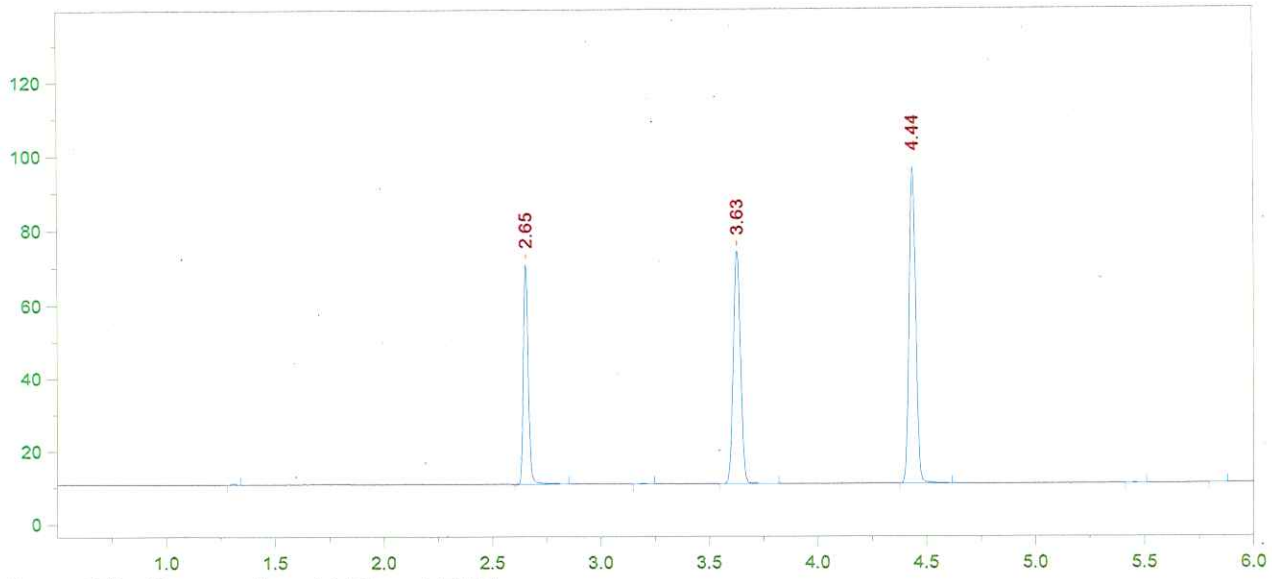


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 6:52:13 PM
Bound File Name = VFL10302015.0031.RAW
Sample Name = 080 JD
Date Taken = 10/30/2015 6:52:08 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	95611	0.0993	0.0810
4	3.63	t-Butanol	137993	0.9678	0.7899
5	4.44	n-Propanol	182932	1.0000	0.8162

15-22-080 DB 60

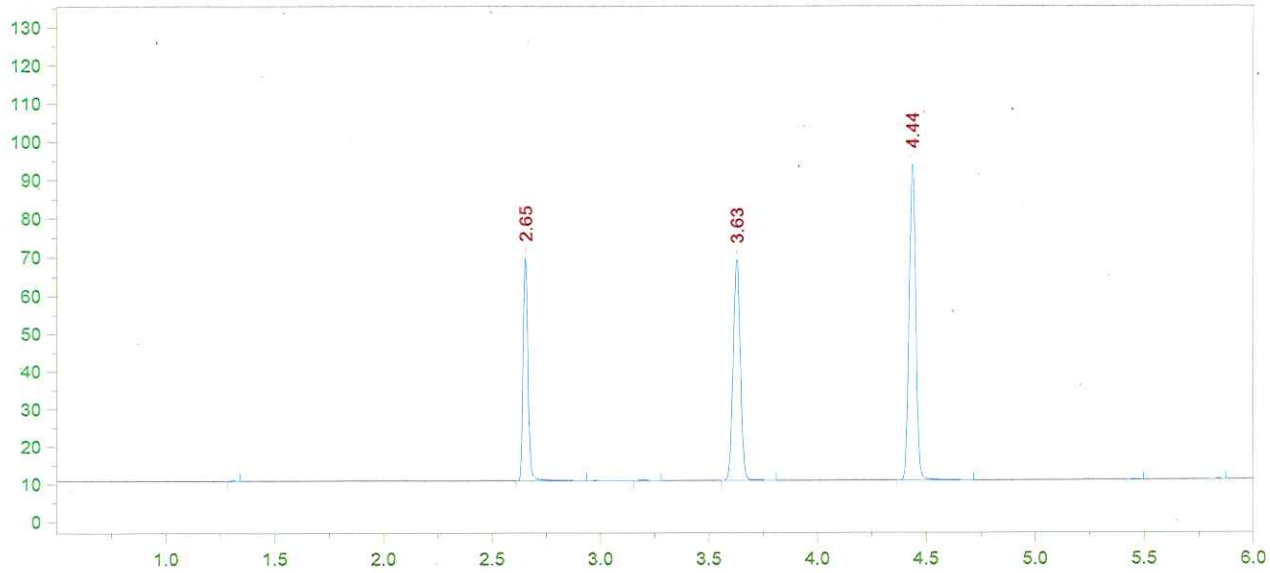


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:09:48 PM
Bound File Name = VFL10302015.0032.RAW
Sample Name = 080 JD
Date Taken = 10/30/2015 7:09:40 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	92393	0.0968	0.0790
4	3.63	t-Butanol	146839	1.0391	0.8482
5	4.44	n-Propanol	181300	1.0000	0.8162

15-22-080 61

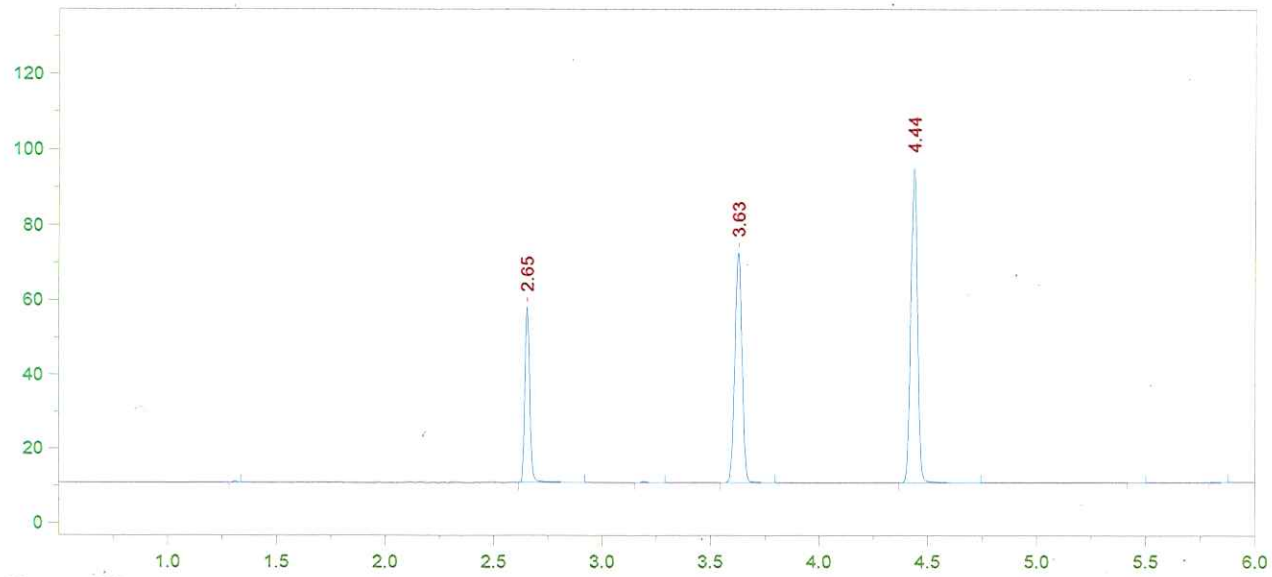


Format File Name = simsolnVFL.met.FMT

Today's Date = 10/30/2015 Today's Time = 7:22:59 PM
Bound File Name = VFL10302015.0033.RAW
Sample Name = 080 JD
Date Taken = 10/30/2015 7:22:50 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	91710	0.0988	0.0806
4	3.63	t-Butanol	135060	0.9826	0.8020
5	4.44	n-Propanol	176354	1.0000	0.8162

15-22-080 98 62

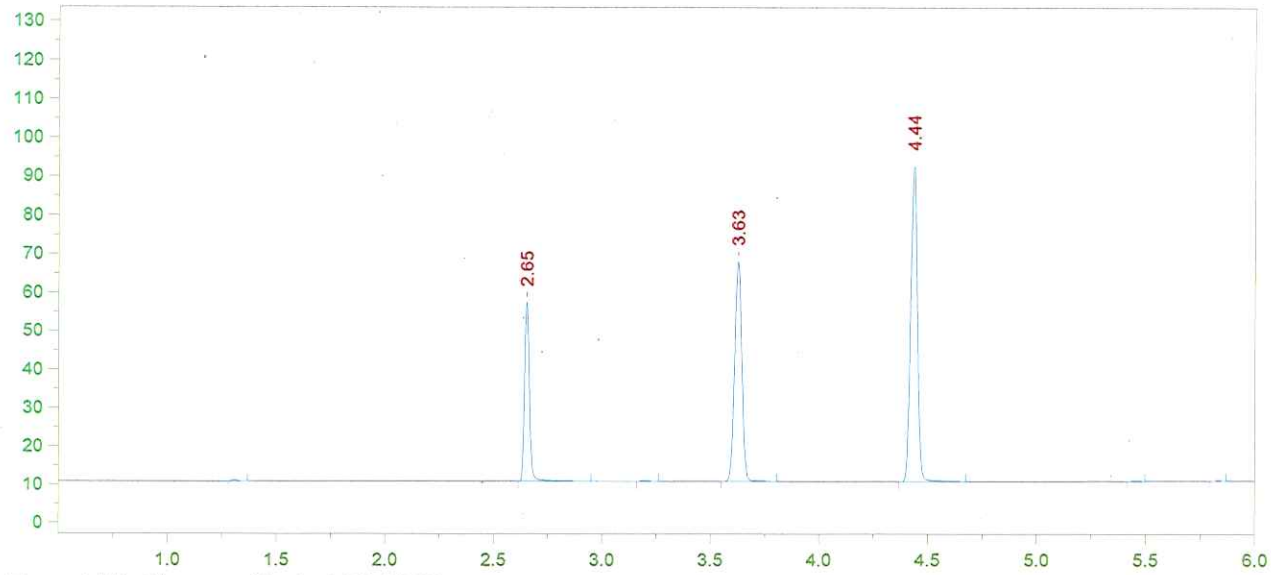


Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:41:13 PM
Bound File Name = VFL10302015.0034.RAW
Sample Name = CCS
Date Taken = 10/30/2015 7:41:04 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	73403	0.0780
4	3.63	t-Butanol	143001	1.0263
5	4.44	n-Propanol	178773	1.0000

15-22-080 88 62



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 7:54:26 PM
Bound File Name = VFL10302015.0035.RAW
Sample Name = CCS
Date Taken = 10/30/2015 7:54:22 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	72868	0.0796
4	3.63	t-Butanol	132450	0.9776
5	4.44	n-Propanol	173823	1.0000

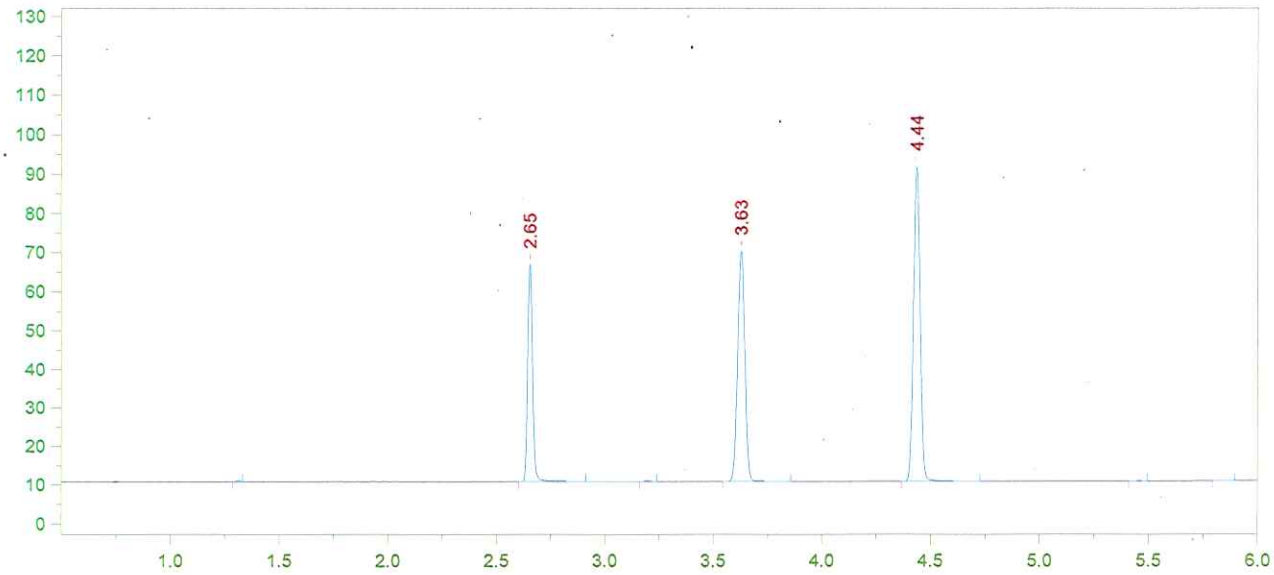
CCS MSAW: 0.0788 g/100 mL EtOH

±5%: 0.0748 - 0.0827

Recovery: $\frac{0.079}{0.080} = 98.7\%$

DS 11/2/15

15-22-080 8 64



Format File Name = simsolnVFL.met.FMT

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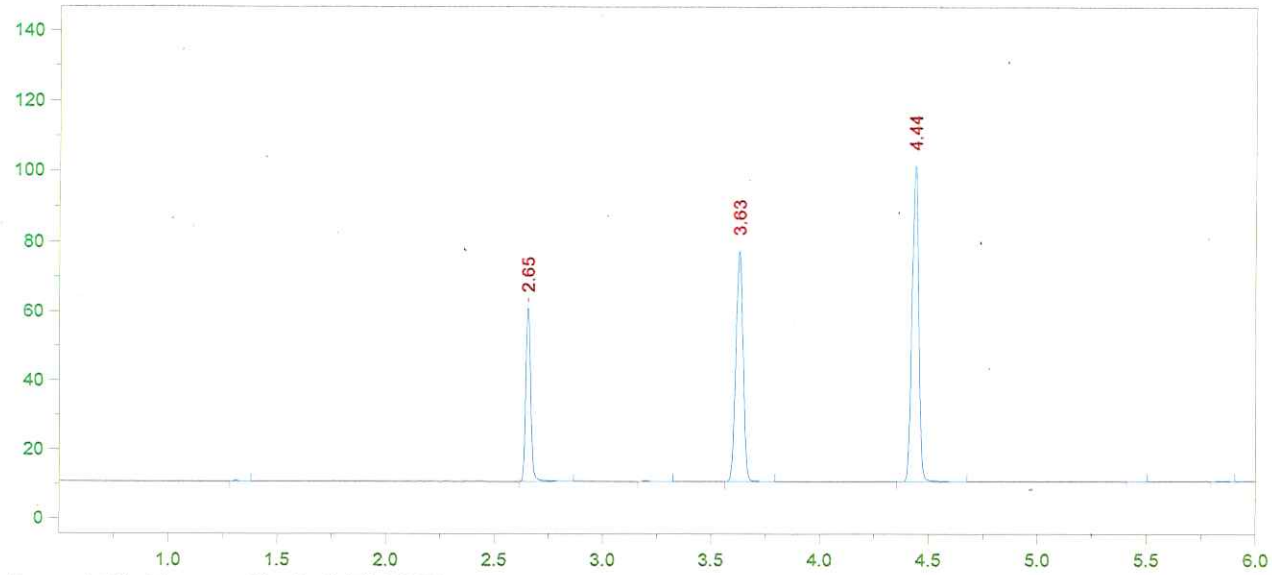
Bound File Name = VFL10302015.0036.RAW
Sample Name = 080 JD
Date Taken = 10/30/2015 8:12:31 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL10302015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	87876	0.0973	0.0794
4	3.63	t-Butanol	137419	1.0273	0.8385
5	4.44	n-Propanol	171618	1.0000	0.8162

15-22-080 DS 65



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 10:16:37 PM
Bound File Name = VFL10302015.0044.RAW
Sample Name = CCS
Date Taken = 10/30/2015 10:16:31 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	78482	0.0775
4	3.63	t-Butanol	153511	1.0240
5	4.44	n-Propanol	192345	1.0000

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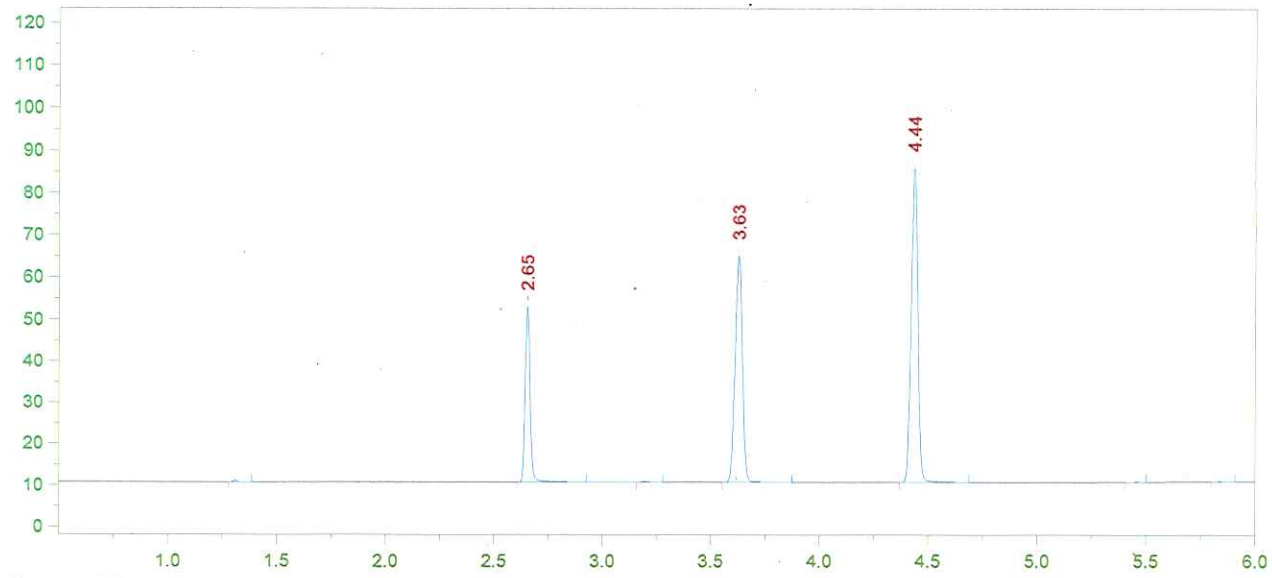
Chrom Perfect Chromatogram Report



Format File Name = AlcoholVFL.FMT

Today's Date = 10/30/2015
Today's Time = 10:32:25 PM
Bound File Name = VFL10302015.0045.RAW
Sample Name = CCS
Date Taken = 10/30/2015 10:32:16 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL10302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	66137	0.0787
4	3.63	t-Butanol	126064	1.0134
5	4.44	n-Propanol	159604	1.0000

CCS mean : 0.0781 g/100 mL EtOH

±5% : 0.0742 - 0.0820

Recovery: $\frac{0.078}{0.080} = 97.5\%$

11/2/15

11/2/15

Printed on 10/30/2015 10:32:25 PM

15-22-080

67 = 67