VERMONT FORENSIC LABORATORY

103 South Main Street
PO BOX 47
WATERBURY, VERMONT 05676-0047
TEL: 802-244-8788
FAX: 802-241-5557
http://vfl.vermont.gov

Certificate of Analysis of DataMaster External Standard Solution

On 4/19/2016, an ethanol solution was prepared by ~~Amanda Bolduc~~ David Patuak 5/2/16 for use as a DataMaster External Standard solution. The solution was prepared per standard laboratory practice and assigned the lot number 16-05-100 and an expiration date of 4/19/2017.

On 4/20/2016 and 4/28/2016, the solution was analyzed against calibration VFL04202016.CAL and VFL04282016.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 0.099 g/210L simulated breath ethanol concentration and approved for use as a DataMaster External Standard solution.

Dated at Waterbury, Vermont this 5TH day of May, 2016.

~~Amanda Bolduc~~
David Patuak 5/2/16

DataMaster External Standard Solution
Lot # 16-05-100 EtOHaq Conc: 0.099
Range: 0.094 - 0.104
Preparation Date: 4/19/2016 Expires: 4/19/2017

OPENED:

DataMaster External Standard Solution
Lot # 16-05-100 EtOHaq Conc: 0.099
Range: 0.094 - 0.104
Preparation Date: 4/19/2016 Expires: 4/19/2017

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DataMaster External Standard Solution
Lot # 16-05-100 EtOHaq Conc: 0.099
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VERMONT FORENSIC LABORATORY

SIMULATOR SOLUTION REVIEW CHECKLIST

SOLUTION TYPE AND VOLUME: 0.100 EXTERNAL STANDARD 20L

LOT NUMBER#: 16-05-~~100~~ 100 5/4/16 **ANALYST:** DS

TECHNICAL REVIEWER: [signature] **DATE:** 5/4/16

- [✓] 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:** 5/5/2016

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

Comments:

Check Mark or X = pass, NA= Not Applicable

VERMONT FORENSIC LABORATORY
Simulator Solution Worksheet

0.100 External Standard Solution 20L
Lot # 16-05-100
Prepared 4/19/2016 by DJP
Exp 4/19/2017

DJP Cal VFL04202016.cal
ALB/DJP Vials
Analyzed on 4/20/2016

0.0957	DJP
0.0989	
0.0992	
0.0983	
0.0984	
0.0993	
0.0981	
0.1000	ALB
0.0995	
0.0989	
0.0984	
0.0992	
0.0989	
0.0981	

Ave. =	0.0986
Std Dev. =	0.0010
Min. =	0.0957
Max. =	0.1000

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-04132016
TMX Lot #	TMX-08142015
BLANK LOT #	~~TMX~~ BL-12302015

DJP Cal VFL04282016.cal
ALB/DJP Vials
Analyzed on 4/28/2016

0.0980	DJP
0.0990	
0.0987	
0.0998	
0.0988	
0.0991	
0.0987	
0.0971	ALB
0.0995	
0.1010	
0.1002	
0.1011	
0.0986	
0.1015	

Ave. =	0.0994
Std Dev. =	0.0012
Min. =	0.0971
Max. =	0.1015

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-04132016
TMX Lot #	TMX-08142015
BLANK LOT #	BL-12302015

Total Values from Both Runs

Average	Mean
0.0957	0.0957
0.0989	0.0971
0.0992	0.0980
0.0983	0.0981
0.0984	
0.0993	0.0983
0.0981	0.0984
0.1000	
0.0995	0.0986
0.0989	0.0987
0.0984	
0.0992	0.0988
0.0989	0.0989
0.0981	
0.0980	
0.0990	0.0990
0.0987	0.0991
0.0998	0.0992
0.0988	
0.0991	0.0993
0.0987	0.0995
0.0971	
0.0995	0.0998
0.1010	0.1000
0.1002	0.1002
0.1011	0.1010
0.0986	0.1011
0.1015	0.1015

Ave. =	0.0990
Avg Std Dev. =	0.0012
Mean =	0.0991
Mean Std Dev. =	0.0013
Min. =	0.0957
Max =	0.1015
RPD =	5.86%

File Name: C:\Methods\VFL04202016.CAL
Version: 7

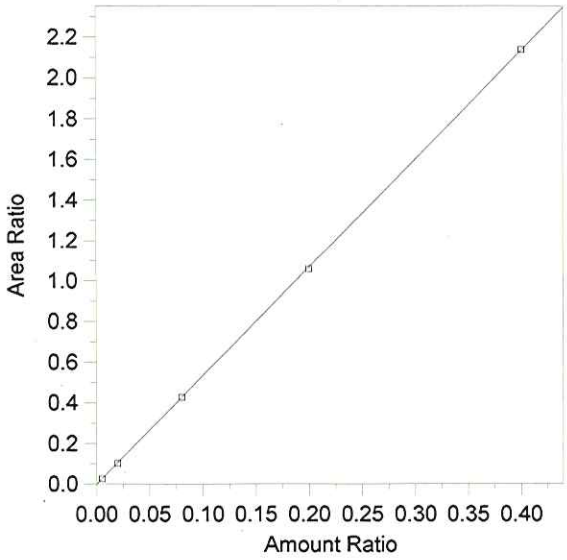
Creator:
Description:
Reason for change:

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:	2.657 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

$Y = 5.332688 X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999644
Average error:	1.383%
Average CF:	5.315376
RSD:	2.121%

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	5592.974	1118595	2.401	0.005	2.730352E-02	C:\Alcohol Data\VFL04202016\VFL04202016.0003.BND	4/20/2016 3:23:22 PM
3	0.02	22712.43	1135622	-3.455	0.02	0.1029685	C:\Alcohol Data\VFL04202016\VFL04202016.0004.BND	4/20/2016 3:39:09 PM
4	0.08	86458.96	1080737	0.034	0.08	0.4267602	C:\Alcohol Data\VFL04202016\VFL04202016.0005.BND	4/20/2016 3:54:41 PM
5	0.2	218199.7	1090999	-0.813	0.2	1.057872	C:\Alcohol Data\VFL04202016\VFL04202016.0006.BND	4/20/2016 4:10:40 PM
6	0.4	429413.3	1073533	0.210	0.4	2.137555	C:\Alcohol Data\VFL04202016\VFL04202016.0007.BND	4/20/2016 4:25:15 PM

16-05-100

DS 2

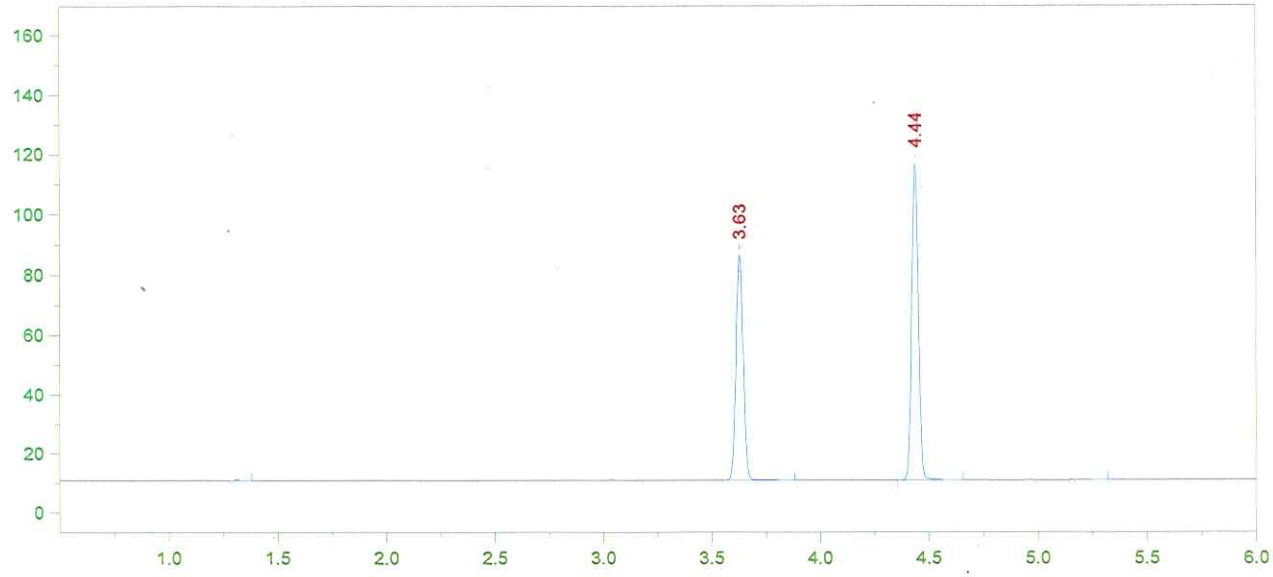
File Name = C:\Alcohol Data\VFL04202016\VFL04202016.SEQ
Version = 2
File Date = 4/20/2016 2:12:56 PM

Entry #	Raw File Name	Method File Name	Sample Name	Sample Wt.	Int. Std. Amount
1	VFL04202016.0001.raw	Blood Alc temp VFL.MET	BLANK	1.00	1.00
2	VFL04202016.0002.raw	Blood Alc temp VFL.MET	TMX	1.00	1.00
3	VFL04202016.0003.raw	Blood Alc temp VFL.MET	STD A	1.00	1.00
4	VFL04202016.0004.raw	Blood Alc temp VFL.MET	STD B	1.00	1.00
5	VFL04202016.0005.raw	Blood Alc temp VFL.MET	STD C	1.00	1.00
6	VFL04202016.0006.raw	Blood Alc temp VFL.MET	STD D	1.00	1.00
7	VFL04202016.0007.raw	Blood Alc temp VFL.MET	STD E	1.00	1.00
8	VFL04202016.0008.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
9	VFL04202016.0009.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
10	VFL04202016.0010.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
11	VFL04202016.0011.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
12	VFL04202016.0012.raw	simsoln.met	0.1 DP	1.00	1.00
13	VFL04202016.0013.raw	simsoln.met	0.1 DP	1.00	1.00
14	VFL04202016.0014.raw	simsoln.met	0.1 DP	1.00	1.00
15	VFL04202016.0015.raw	simsoln.met	0.1 DP	1.00	1.00
16	VFL04202016.0016.raw	simsoln.met	0.1 DP	1.00	1.00
17	VFL04202016.0017.raw	simsoln.met	0.1 DP	1.00	1.00
18	VFL04202016.0018.raw	simsoln.met	0.1 DP	1.00	1.00
19	VFL04202016.0019.raw	simsoln.met	0.1 AB	1.00	1.00
20	VFL04202016.0020.raw	simsoln.met	0.1 AB	1.00	1.00
21	VFL04202016.0021.raw	simsoln.met	0.1 AB	1.00	1.00
22	VFL04202016.0022.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
23	VFL04202016.0023.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
24	VFL04202016.0024.raw	simsoln.met	0.1 AB	1.00	1.00
25	VFL04202016.0025.raw	simsoln.met	0.1 AB	1.00	1.00
26	VFL04202016.0026.raw	simsoln.met	0.1 AB	1.00	1.00
27	VFL04202016.0027.raw	simsoln.met	0.1 AB	1.00	1.00
28	VFL04202016.0028.raw	simsoln.met	16-03-100 DP	1.00	1.00
29	VFL04202016.0029.raw	simsoln.met	16-03-100 DP	1.00	1.00
30	VFL04202016.0030.raw	simsoln.met	16-03-100 DP	1.00	1.00
31	VFL04202016.0031.raw	simsoln.met	16-03-100 DP	1.00	1.00
32	VFL04202016.0032.raw	simsoln.met	16-03-100 DP	1.00	1.00
33	VFL04202016.0033.raw	simsoln.met	16-03-100 DP	1.00	1.00
34	VFL04202016.0034.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
35	VFL04202016.0035.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
36	VFL04202016.0036.raw	simsoln.met	16-03-100 DP	1.00	1.00
37	VFL04202016.0037.raw	simsoln.met	16-03-100 AB	1.00	1.00
38	VFL04202016.0038.raw	simsoln.met	16-03-100 AB	1.00	1.00
39	VFL04202016.0039.raw	simsoln.met	16-03-100 AB	1.00	1.00
40	VFL04202016.0040.raw	simsoln.met	16-03-100 AB	1.00	1.00
41	VFL04202016.0041.raw	simsoln.met	16-03-100 AB	1.00	1.00
42	VFL04202016.0042.raw	simsoln.met	16-03-100 AB	1.00	1.00
43	VFL04202016.0043.raw	simsoln.met	16-03-100 AB	1.00	1.00
44	VFL04202016.0044.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
45	VFL04202016.0045.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00

SAMPLES NOT INCLUDED 05/2/16

16-05-100

88 3



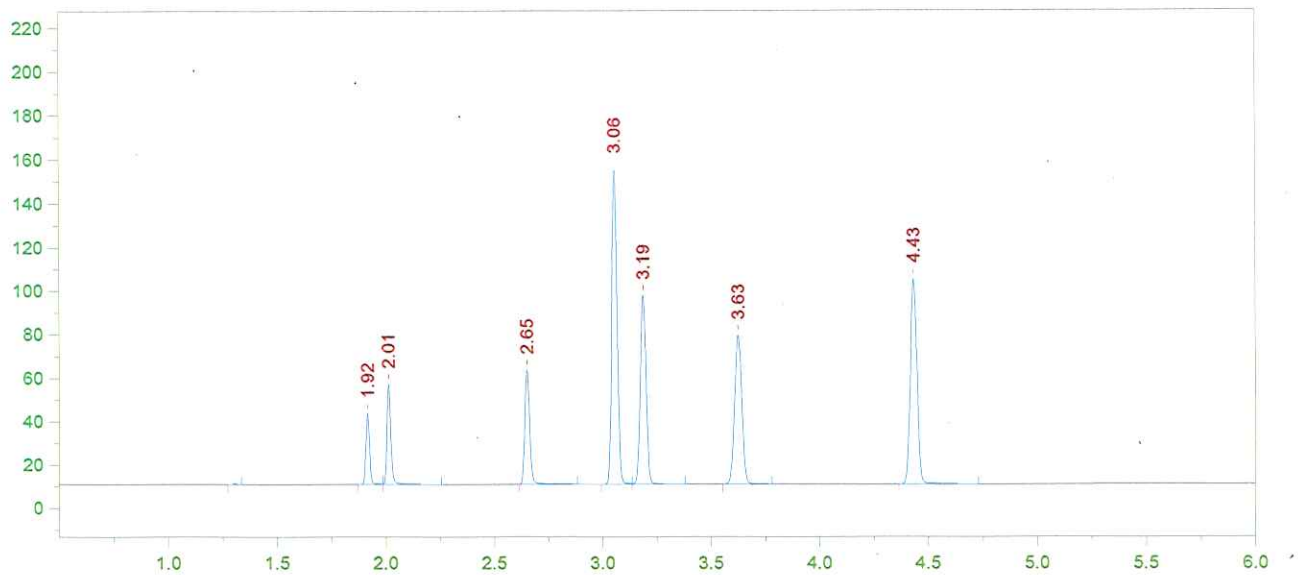
Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 8:04:37 AM
Bound File Name = VFL04202016.0001.RAW
Sample Name = BLANK
Date Taken = 4/20/2016 2:51:12 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	3.63	t-Butanol	174481	1.0039
3	4.44	n-Propanol	223407	1.0000

16-05-100

Ok 4

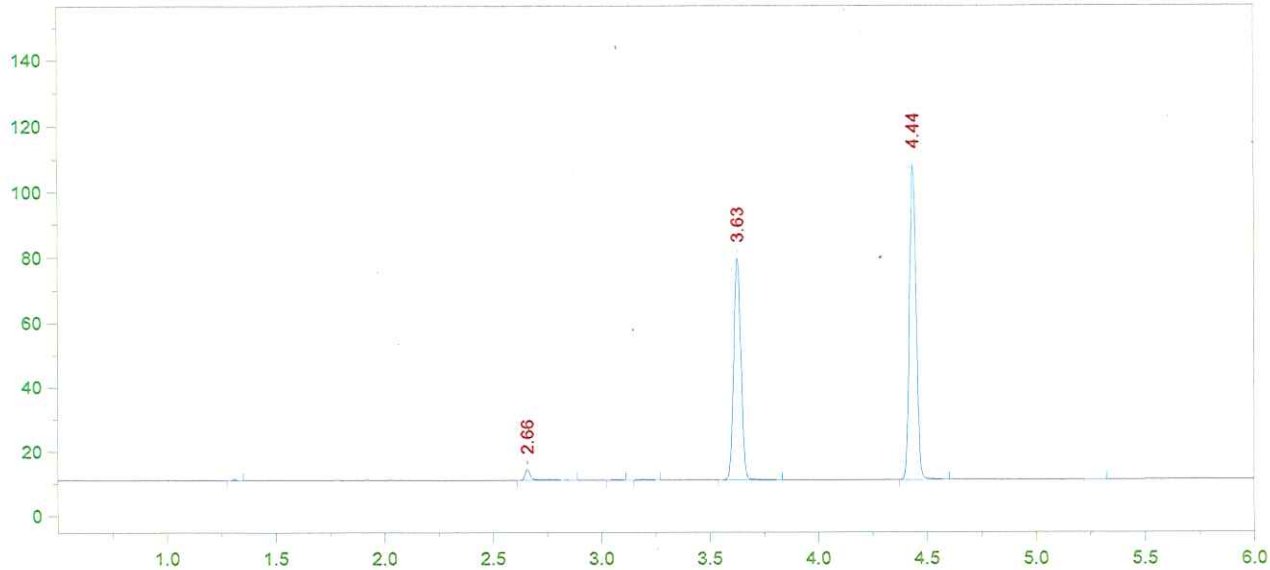


Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 8:04:46 AM
Bound File Name = VFL04202016.0002.RAW
Sample Name = TMX
Date Taken = 4/20/2016 3:09:16 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	1.92	Acetaldehyde	38339	0.0686
3	2.01	Methanol	58217	0.1169
4	2.65	Ethanol	82110	0.0767
5	3.06	Acetone	247889	0.0612
6	3.19	Isopropanol	162485	0.0780
7	3.63	t-Butanol	158711	1.0163
8	4.43	n-Propanol	200740	1.0000

16-05-100 Ds 5



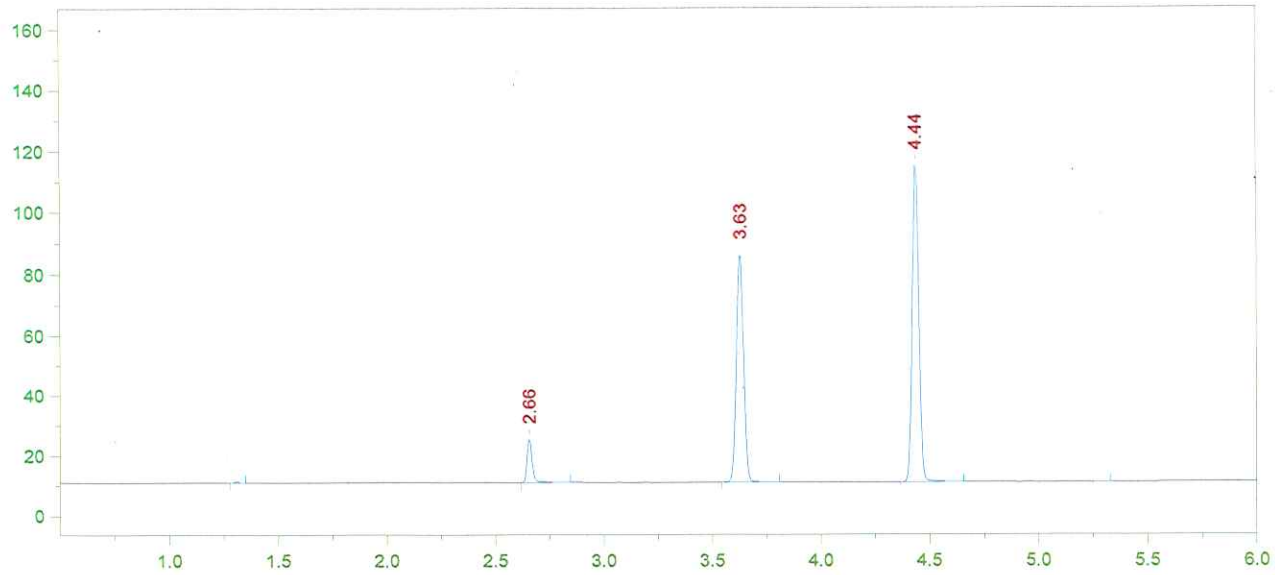
Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 8:04:51 AM
Bound File Name = VFL04202016.0003.RAW
Sample Name = STD A
Date Taken = 4/20/2016 3:23:17 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	05593	0.0051
5	3.63	t-Butanol	159144	0.9986
6	4.44	n-Propanol	204844	1.0000

16-05-100

C



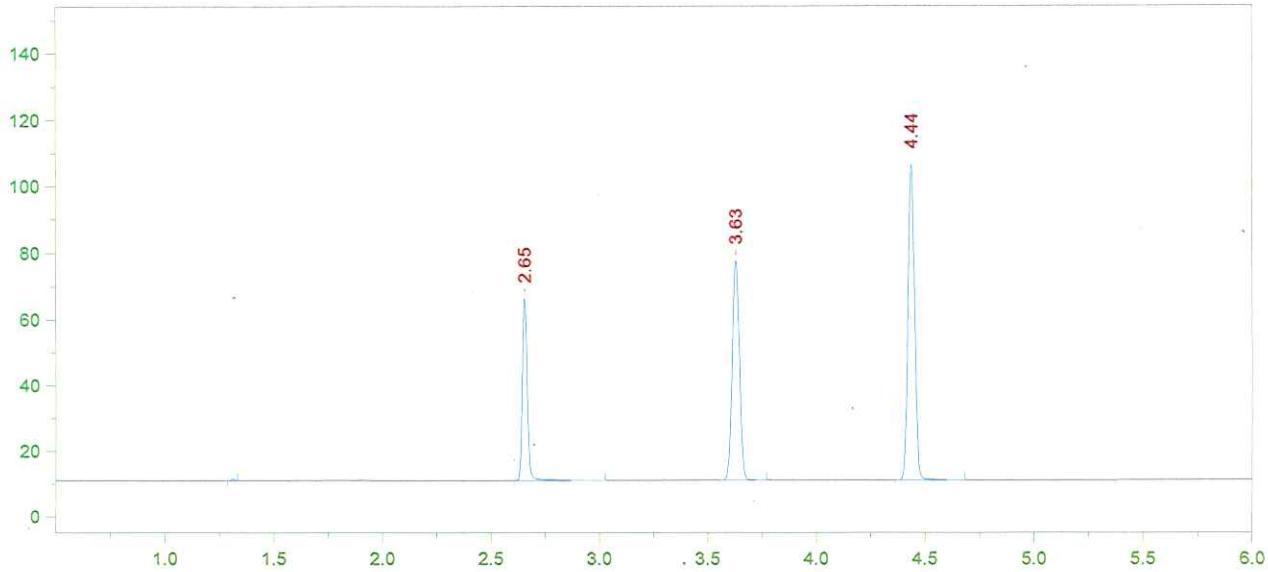
Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 8:04:57 AM
Bound File Name = VFL04202016.0004.RAW
Sample Name = STD B
Date Taken = 4/20/2016 3:39:00 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	22712	0.0193
3	3.63	t-Butanol	172933	1.0077
4	4.44	n-Propanol	220577	1.0000

16-05-100

Ds 7



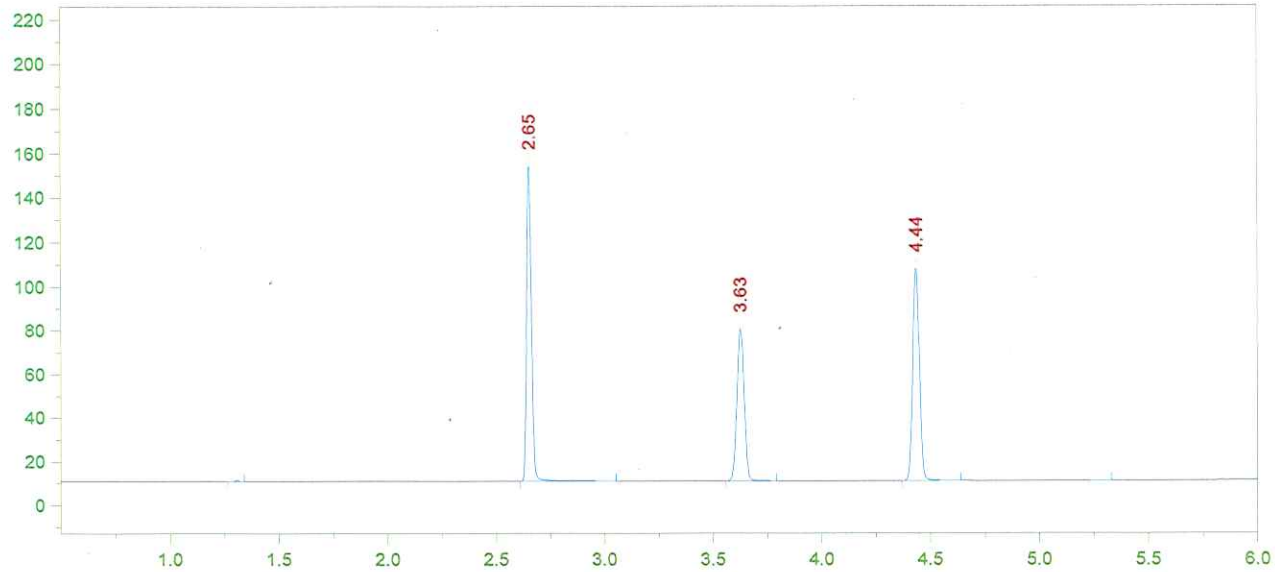
Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 8:05:03 AM
Bound File Name = VFL04202016.0005.RAW
Sample Name = STD C
Date Taken = 4/20/2016 3:54:36 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	86459	0.0800
3	3.63	t-Butanol	154446	0.9799
4	4.44	n-Propanol	202594	1.0000

16-05-100

8

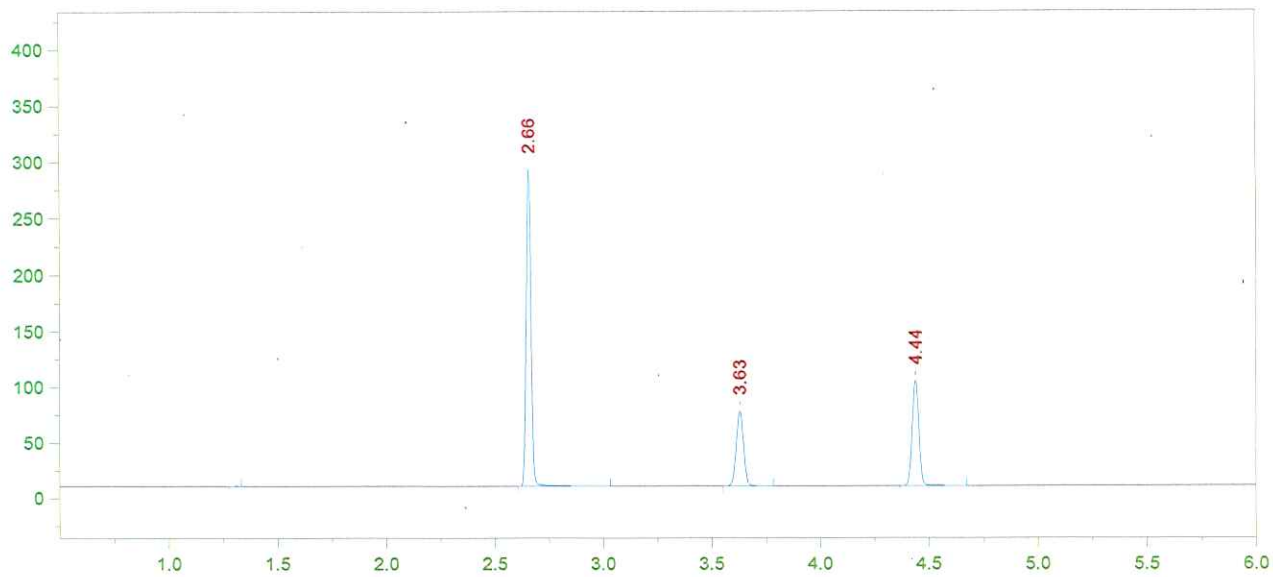


Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 8:05:10 AM
Bound File Name = VFL04202016.0006.RAW
Sample Name = STD D
Date Taken = 4/20/2016 4:10:29 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	218200	0.1984
3	3.63	t-Butanol	160978	1.0032
4	4.44	n-Propanol	206263	1.0000

16-05-100 9

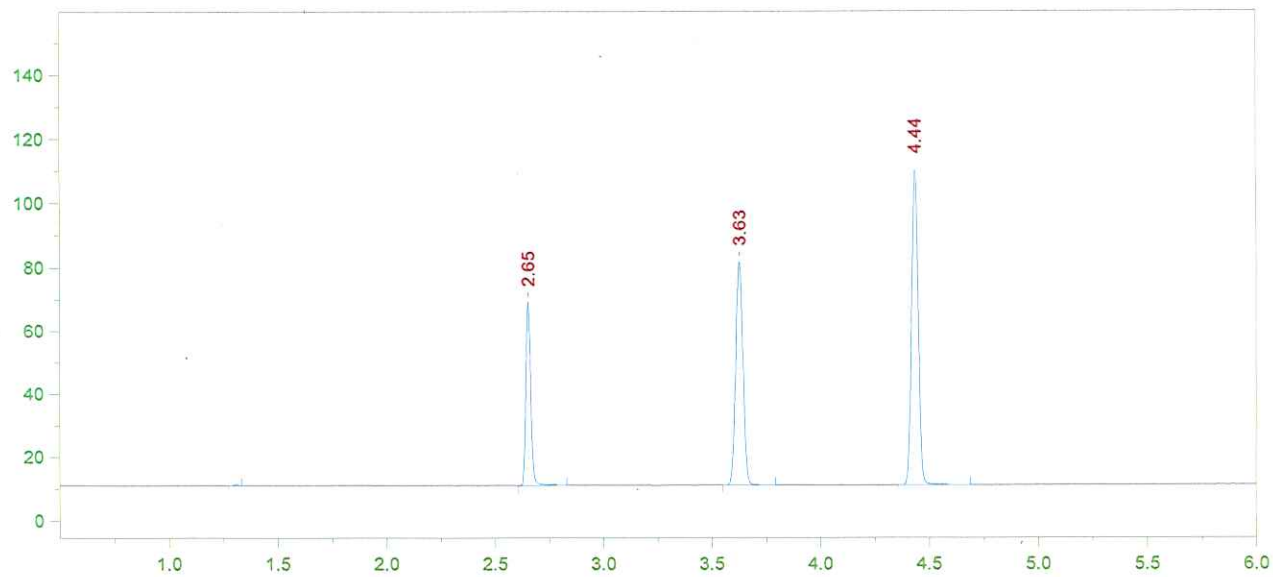


Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 8:05:16 AM
Bound File Name = VFL04202016.0007.RAW
Sample Name = STD E
Date Taken = 4/20/2016 4:25:10 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	429413	0.4008
3	3.63	t-Butanol	155399	0.9943
4	4.44	n-Propanol	200890	1.0000

16-05-100 Qs 10

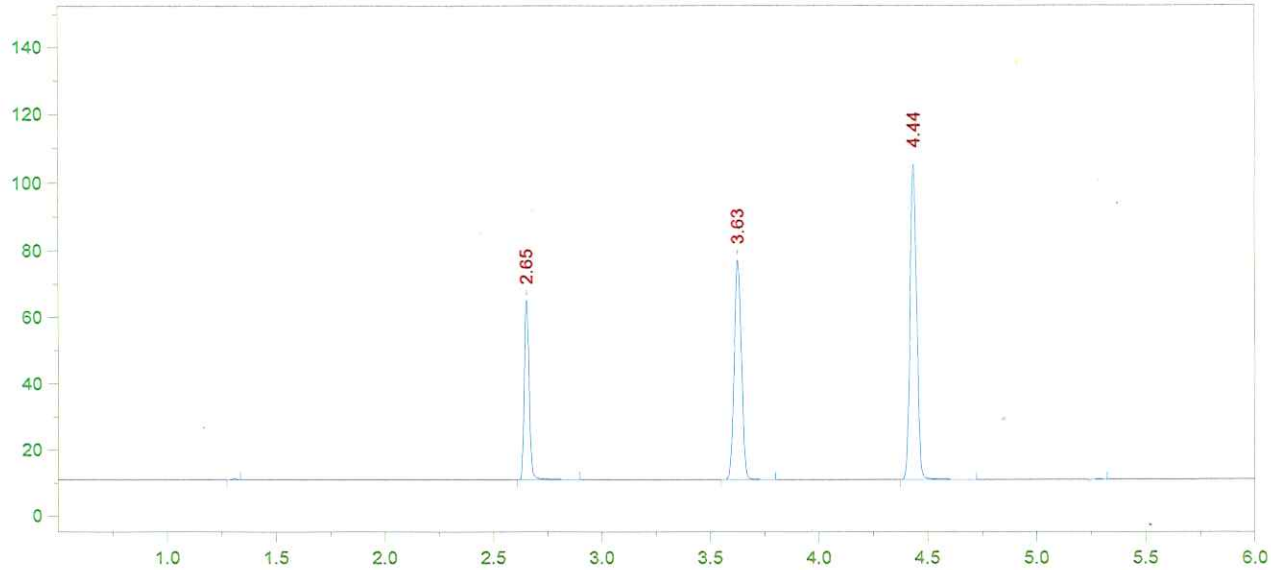


Format File Name = AlcoholVFL.FMT

Today's Date = 4/20/2016
Today's Time = 4:41:59 PM
Bound File Name = VFL04202016.0008.RAW
Sample Name = AQ
Date Taken = 4/20/2016 4:41:54 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	88904	0.0794
3	3.63	t-Butanol	163568	1.0011
4	4.44	n-Propanol	210026	1.0000

16-05-100 Qs 11



Format File Name = AlcoholVFL.FMT

Today's Date = 4/20/2016
Today's Time = 4:55:50 PM
Bound File Name = VFL04202016.0009.RAW
Sample Name = AQ
Date Taken = 4/20/2016 4:55:44 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	83911	0.0788
3	3.63	t-Butanol	152485	0.9817
4	4.44	n-Propanol	199646	1.0000

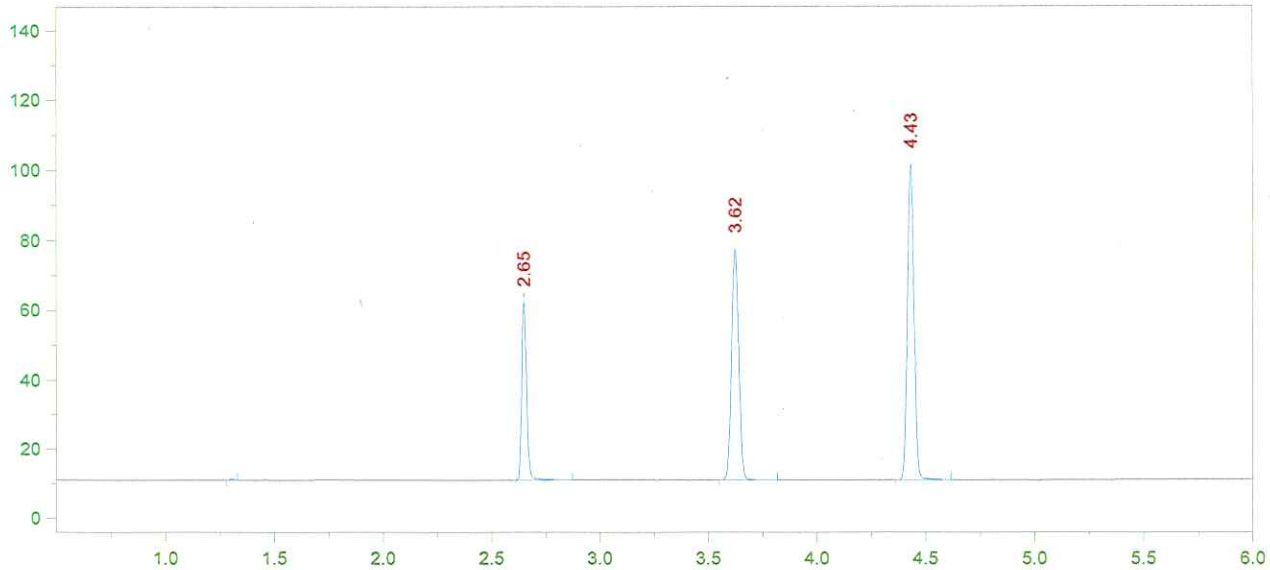
AQ mg/dl: 0.0791

±5%: 0.0751 - 0.0830

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

DG 4/21/16

16-05-100 DG 12



Format File Name = AlcoholVFL.FMT

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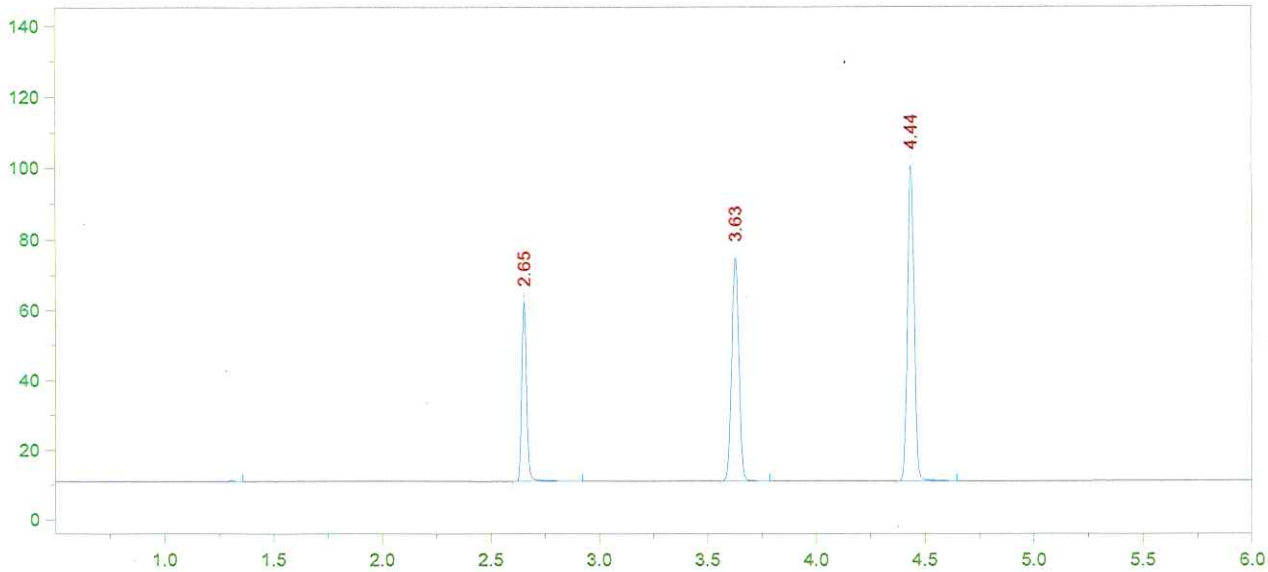
Today's Time = 5:13:29 PM
Bound File Name = VFL04202016.0010.RAW
Sample Name = CCS
Date Taken = 4/20/2016 5:13:21 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	79013	0.0775
3	3.62	t-Butanol	153508	1.0327
4	4.43	n-Propanol	191062	1.0000

16-05-100 86 13



Format File Name = AlcoholVFL.FMT

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Today's Time = 5:27:39 PM
Bound File Name = VFL04202016.0011.RAW
Sample Name = CCS
Date Taken = 4/20/2016 5:27:34 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	79165	0.0783
3	3.63	t-Butanol	147715	1.0013
4	4.44	n-Propanol	189624	1.0000

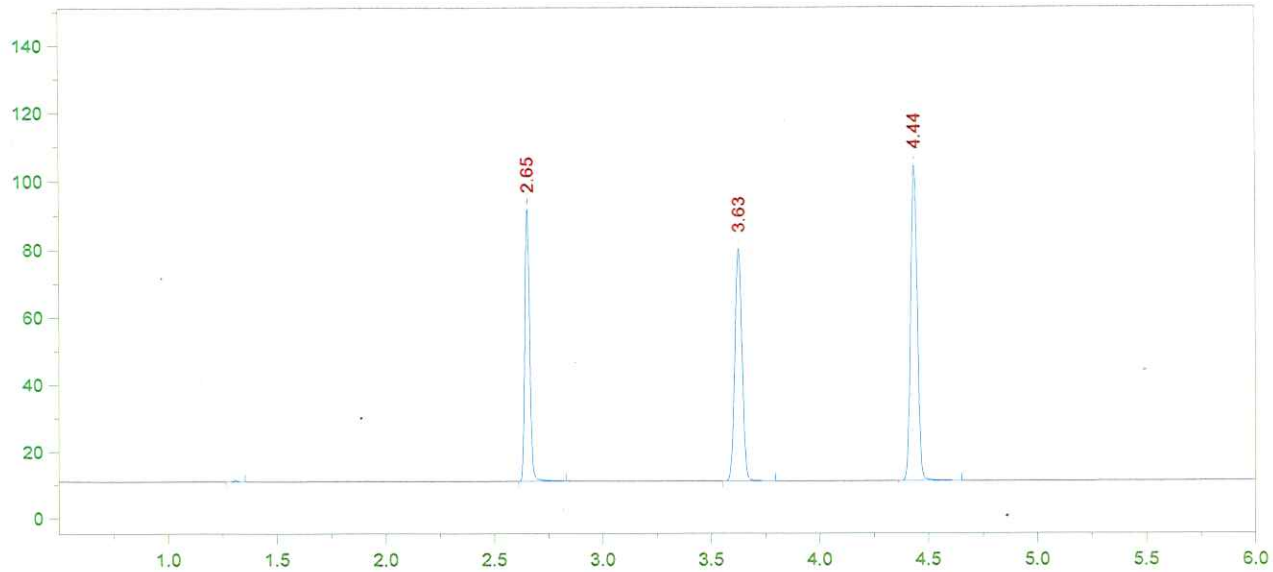
CCS mean: 0.0779

±5%: 0.0740 - 0.0818

Recovery: $\frac{0.078}{0.080}$ = ~~0.782~~ 97.5% 05/4/16

4/21/16

16-05-100 14

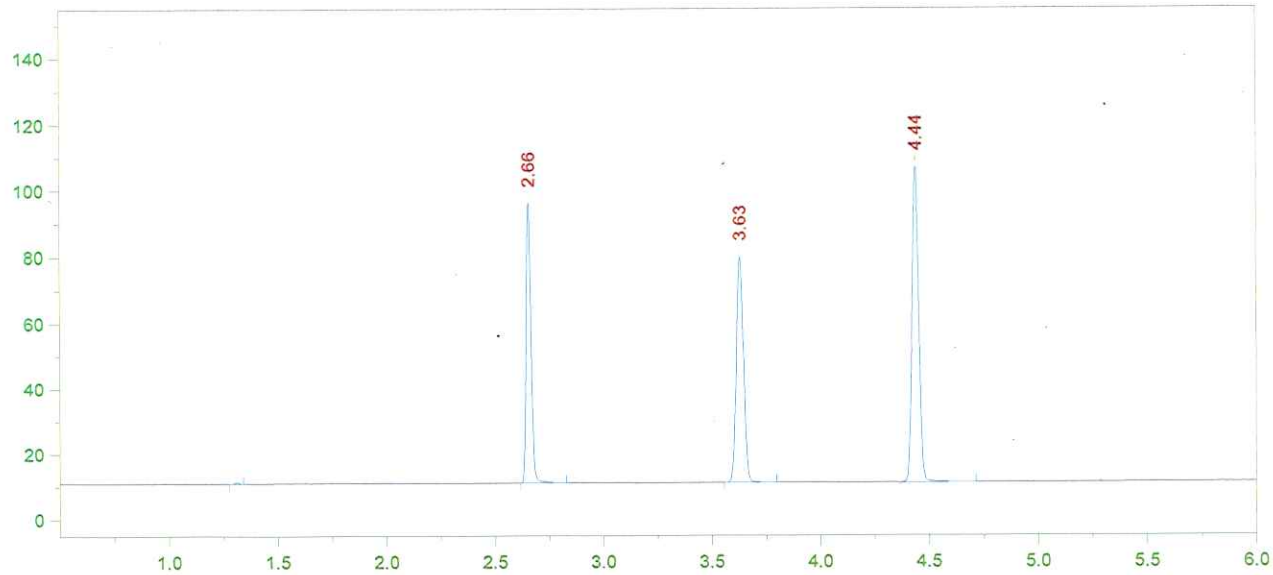


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/20/2016
Today's Time = 5:44:50 PM
Bound File Name = VFL04202016.0012.RAW
Sample Name = 0.1 DP
Date Taken = 4/20/2016 5:44:45 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	123548	0.1172	0.0957
3	3.63	t-Butanol	159795	1.0390	0.8480
4	4.44	n-Propanol	197690	1.0000	0.8162

16-05-100 Dr 15



Format File Name = simsolnVFL.met.FMT

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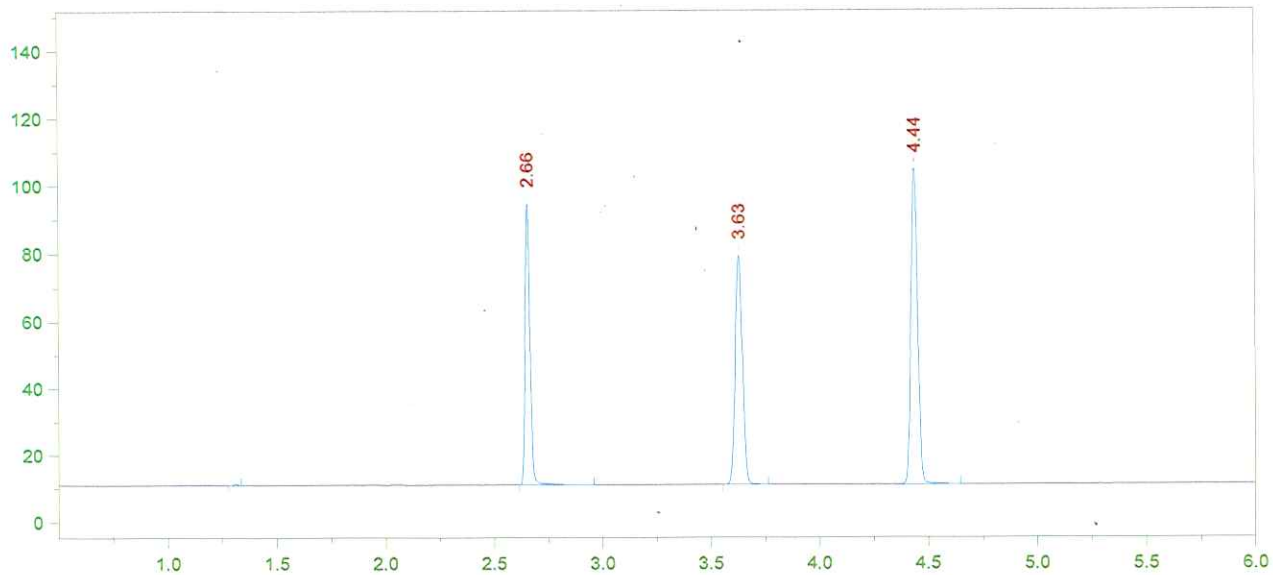
Today's Time = 5:59:42 PM
Bound File Name = VFL04202016.0013.RAW
Sample Name = 0.1 DP
Date Taken = 4/20/2016 5:59:38 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	131705	0.1212	0.0989
3	3.63	t-Butanol	157917	0.9963	0.8132
4	4.44	n-Propanol	203741	1.0000	0.8162

16-05-100 16

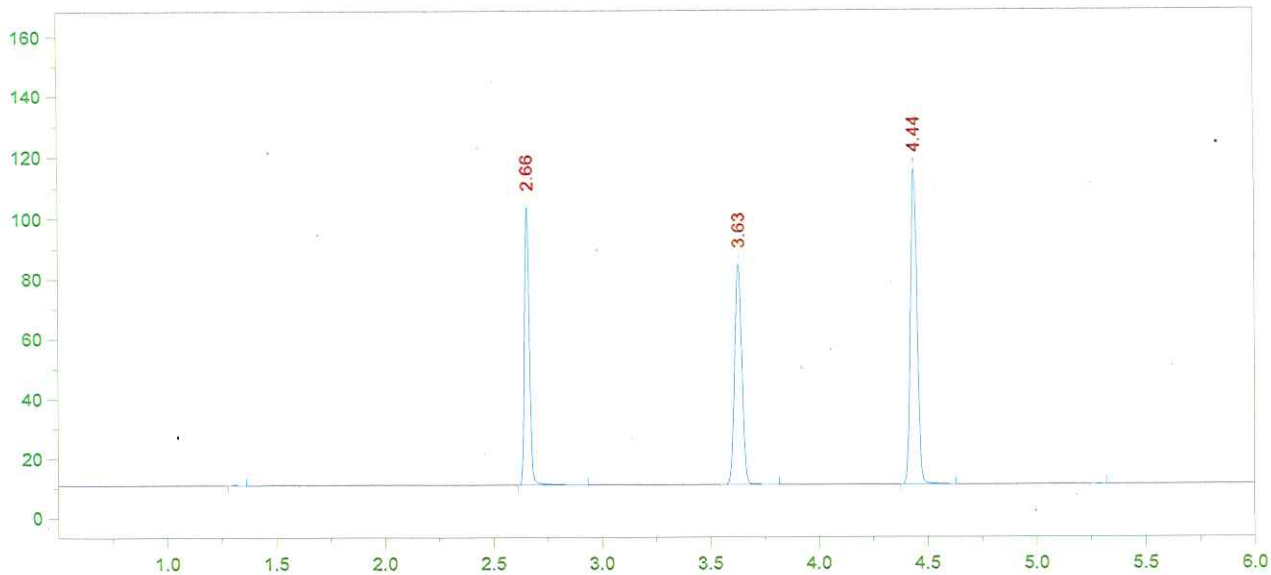


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/20/2016
Today's Time = 6:16:19 PM
Bound File Name = VFL04202016.0014.RAW
Sample Name = 0.1 DP
Date Taken = 4/20/2016 6:16:09 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	129234	0.1215	0.0992
3	3.63	t-Butanol	157446	1.0145	0.8281
4	4.44	n-Propanol	199479	1.0000	0.8162

16-05-100 dr 17



Format File Name = simsolnVFL.met.FMT

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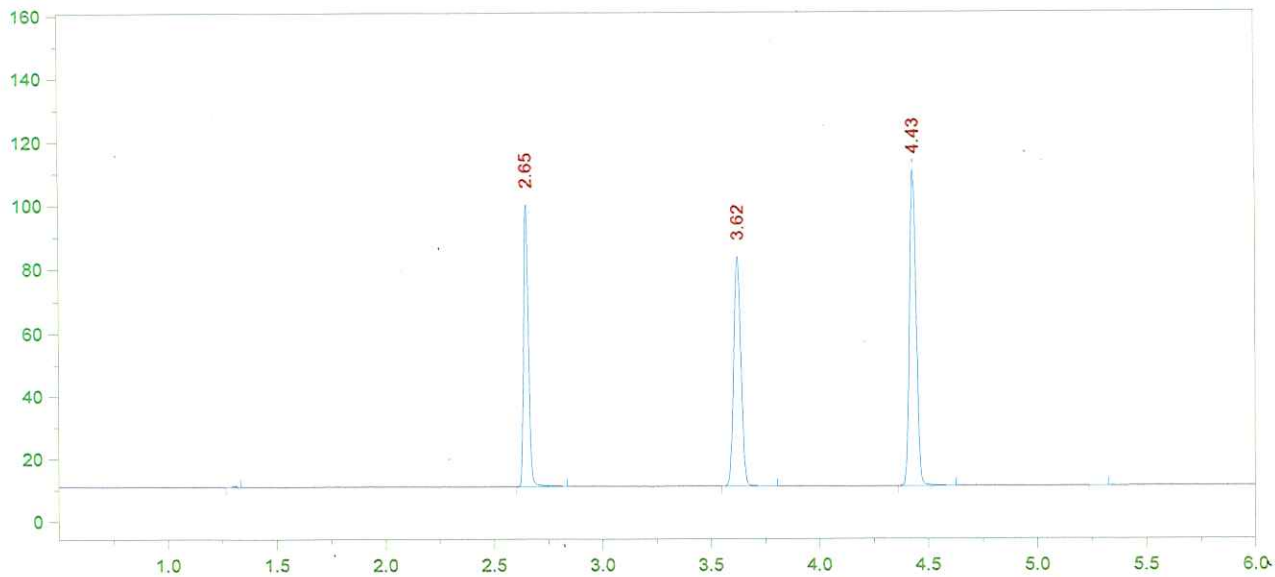
Bound File Name = VFL04202016.0015.RAW
Sample Name = 0.1 DP
Date Taken = 4/20/2016 6:29:27 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	142269	0.1205	0.0983
3	3.63	t-Butanol	170093	0.9874	0.8059
4	4.44	n-Propanol	221429	1.0000	0.8162

16-05-100 28 18



Format File Name = simsolnVFL.met.FMT

Today's Date = 4/20/2016
Today's Time = 6:47:42 PM
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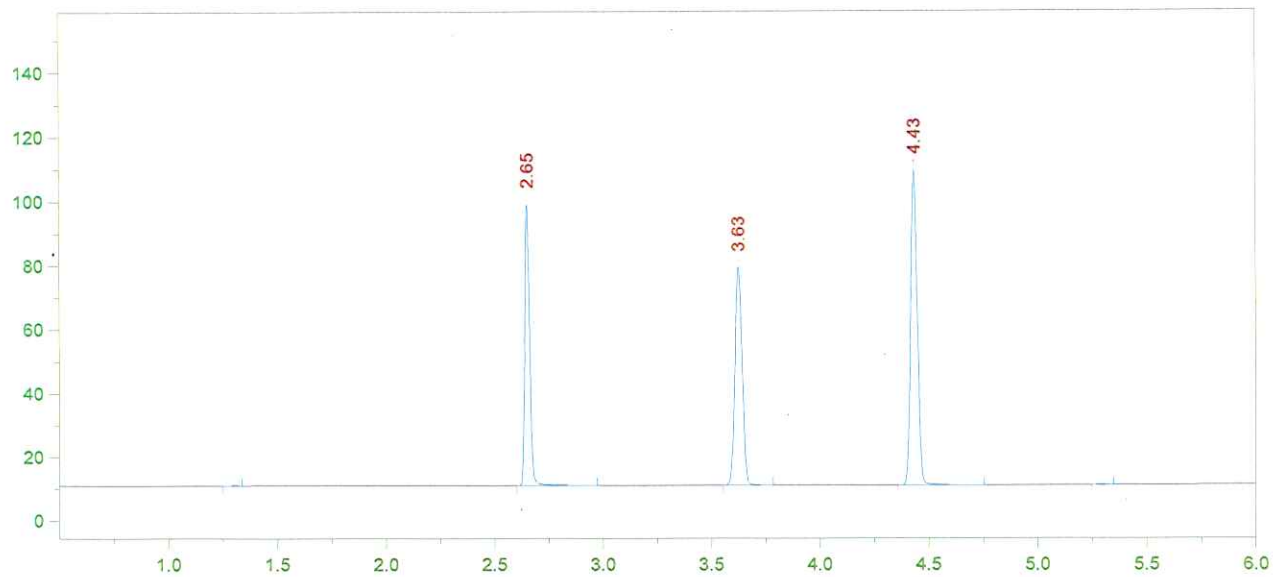
Sample Name = 0.1 DP
Date Taken = 4/20/2016 6:47:34 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	136690	0.1205	0.0984
3	3.62	t-Butanol	168214	1.0167	0.8298
4	4.43	n-Propanol	212677	1.0000	0.8162

16-05-100 JS 19



Format File Name = simsolnVFL.met.FMT

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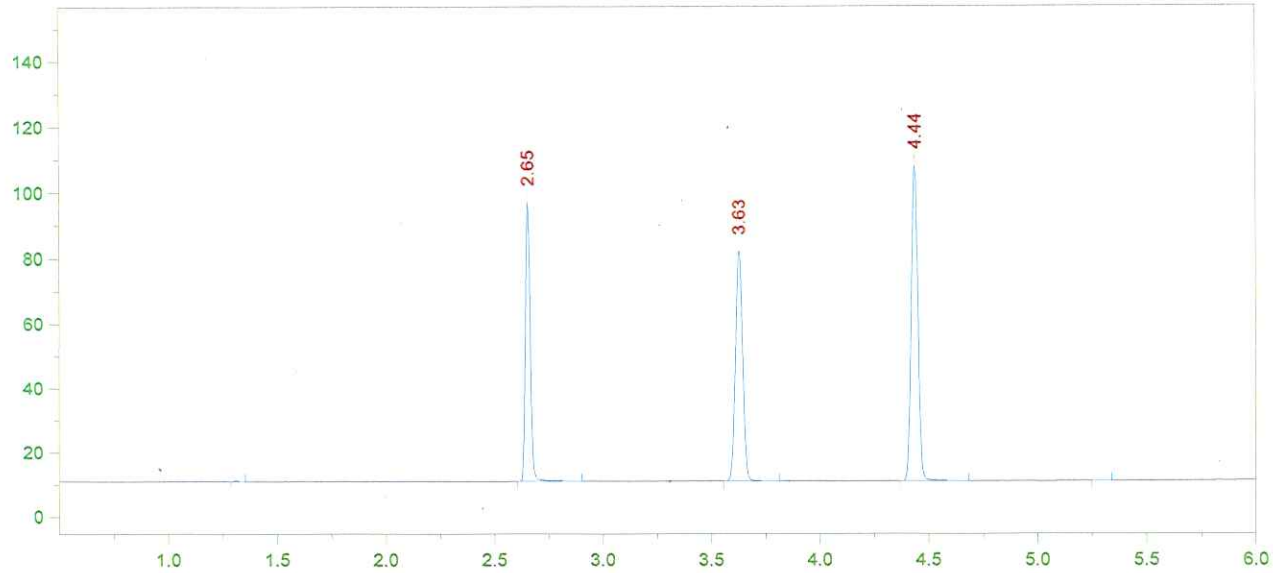
Sample Name = 0.1 DP
Date Taken = 4/20/2016 7:01:22 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	135435	0.1216	0.0993
3	3.63	t-Butanol	158475	0.9755	0.7962
4	4.43	n-Propanol	208814	1.0000	0.8162

16-05-100 20



Format File Name = simsolnVFL.met.FMT

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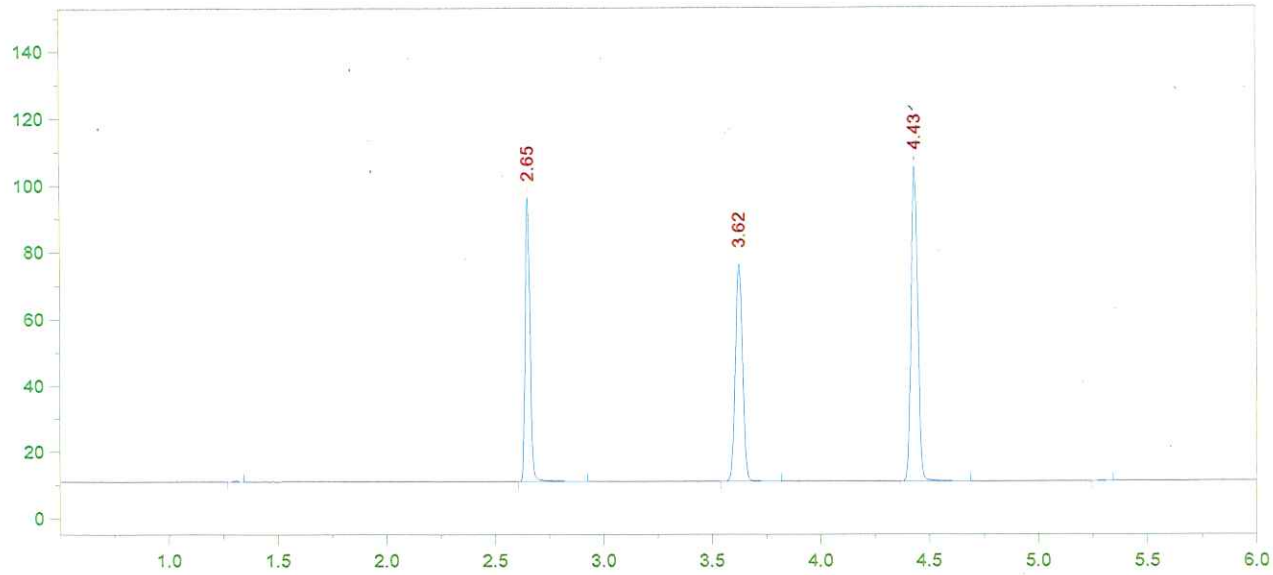
Bound File Name = VFL04202016.0018.RAW
Sample Name = 0.1 DP
Date Taken = 4/20/2016 7:19:00 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	132226	0.1202	0.0981
3	3.63	t-Butanol	164710	1.0265	0.8378
4	4.44	n-Propanol	206247	1.0000	0.8162

16-05-100 21

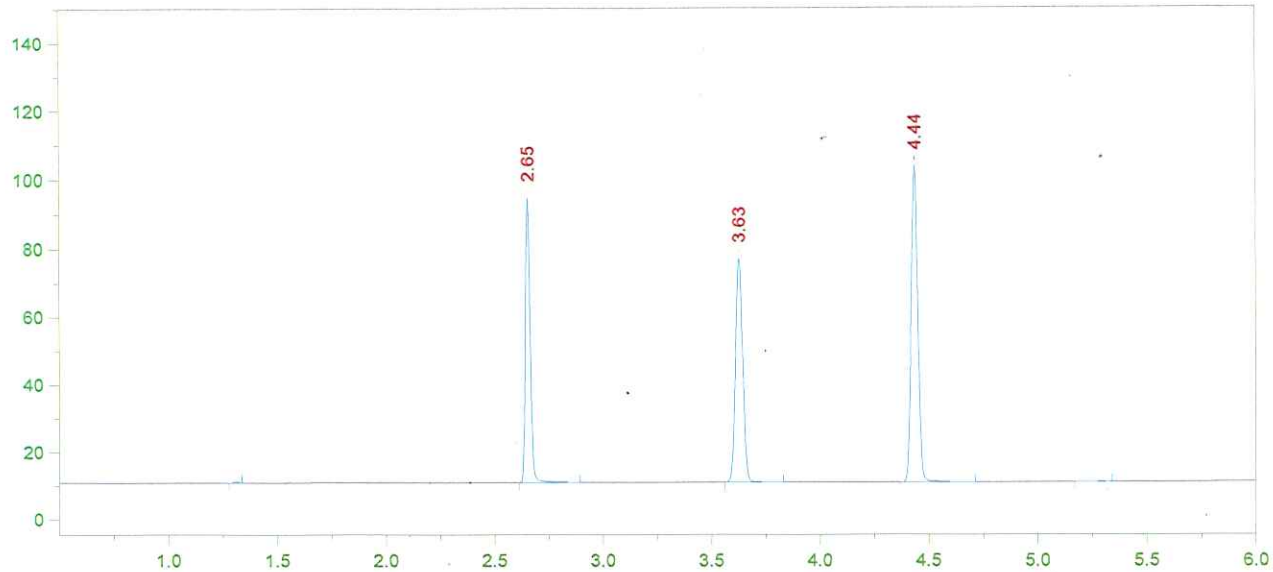


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/20/2016
Today's Time = 7:33:22 PM
Bound File Name = VFL04202016.0019.RAW
Sample Name = 0.1 AB
Date Taken = 4/20/2016 7:33:14 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	130856	0.1225	0.1000
3	3.62	t-Butanol	151552	0.9726	0.7938
4	4.43	n-Propanol	200298	1.0000	0.8162

16-05-100 Dc 22



Format File Name = simsolnVFL.met.FMT

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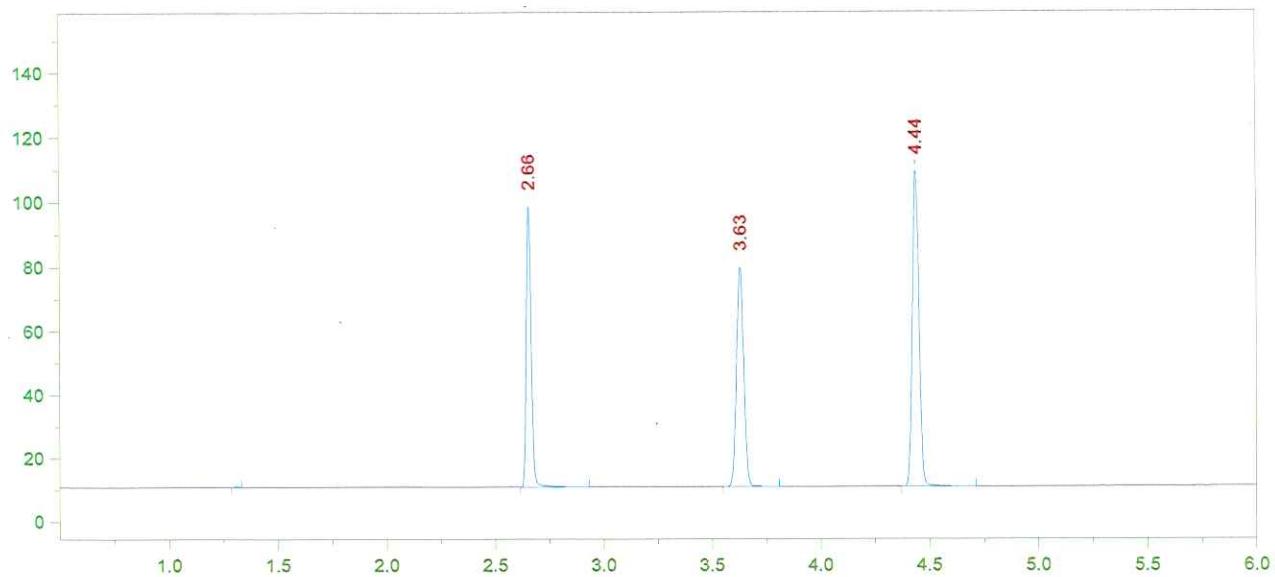
Today's Time = 7:50:33 PM
Bound File Name = VFL04202016.0020.RAW
Sample Name = 0.1 AB
Date Taken = 4/20/2016 7:50:25 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	128113	0.1220	0.0995
3	3.63	t-Butanol	152914	0.9978	0.8144
4	4.44	n-Propanol	196987	1.0000	0.8162

16-05-600 23



Format File Name = simsolnVFL.met.FMT

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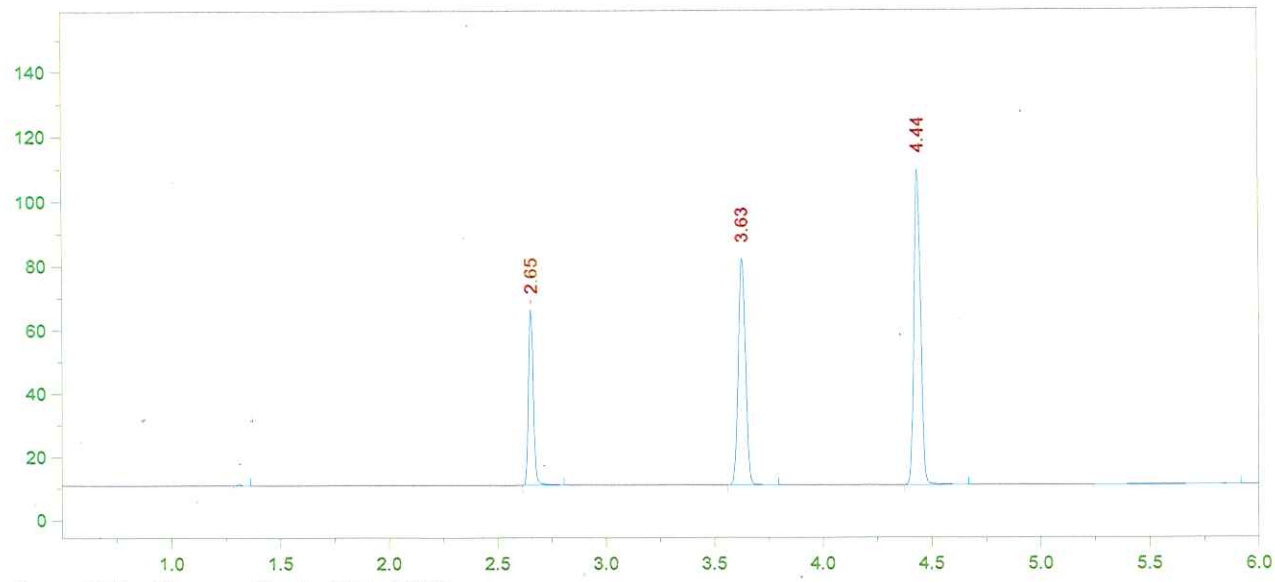
Today's Time = 8:04:26 PM
Bound File Name = VFL04202016.0021.RAW
Sample Name = 0.1 AB
Date Taken = 4/20/2016 8:04:15 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	134775	0.1211	0.0989
3	3.63	t-Butanol	159233	0.9809	0.8006
4	4.44	n-Propanol	208659	1.0000	0.8162

16-05-100 28 24

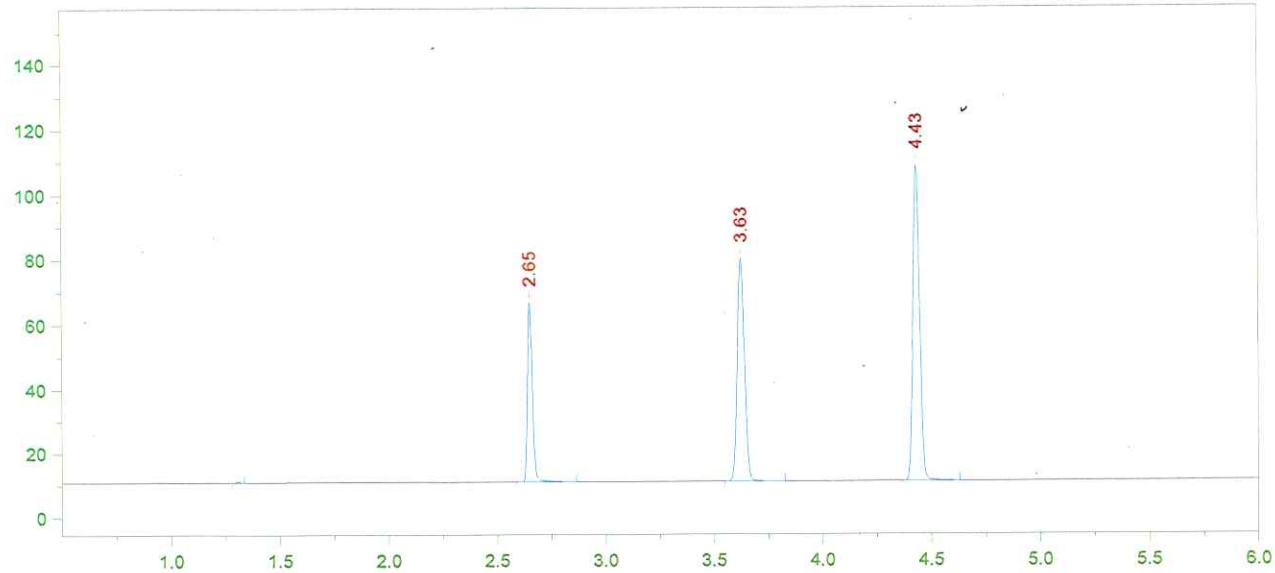


Format File Name = AlcoholVFL.FMT

Today's Date = 4/20/2016
Today's Time = 8:21:56 PM
Bound File Name = VFL04202016.0022.RAW
Sample Name = CCS
Date Taken = 4/20/2016 8:21:49 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	85328	0.0768
3	3.63	t-Butanol	164834	1.0164
4	4.44	n-Propanol	208455	1.0000

16-05-100 Ds 25



Format File Name = AlcoholVFL.FMT

Today's Date = 4/20/2016
Today's Time = 8:36:49 PM
Bound File Name = VFL04202016.0023.RAW
Sample Name = CCS
Date Taken = 4/20/2016 8:36:45 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

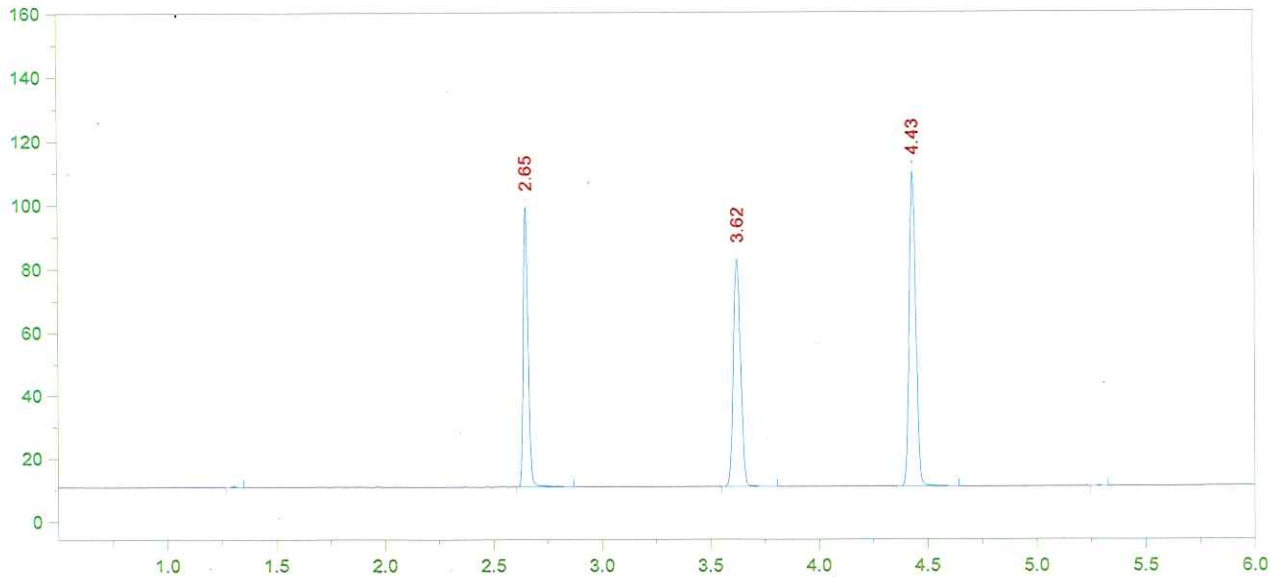
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	86141	0.0779
3	3.63	t-Butanol	160163	0.9928
4	4.43	n-Propanol	207366	1.0000

CCS MEAN: 0.0773

±5%: 0.0734 - 0.0811

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

16-05-100 26



Format File Name = simsolnVFL.met.FMT

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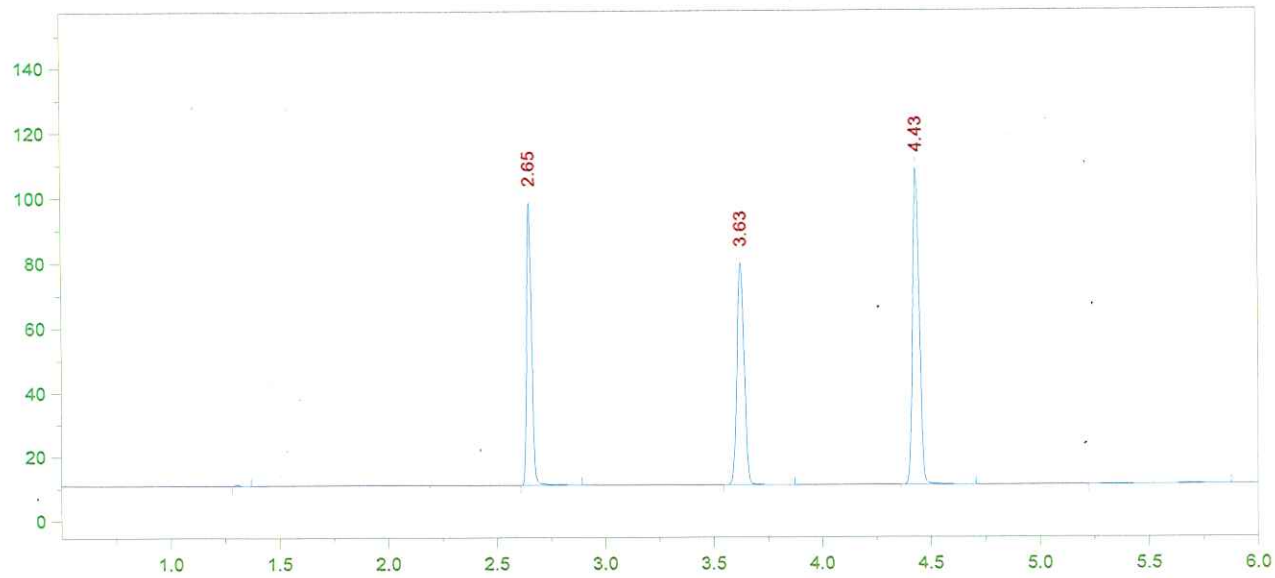
Today's Time = 8:53:19 PM
Bound File Name = VFL04202016.0024.RAW
Sample Name = 0.1 AB
Date Taken = 4/20/2016 8:53:14 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	135129	0.1205	0.0984
3	3.62	t-Butanol	166600	1.0187	0.8315
4	4.43	n-Propanol	210214	1.0000	0.8162

16-05-100 26 27



Format File Name = simsolnVFL.met.FMT

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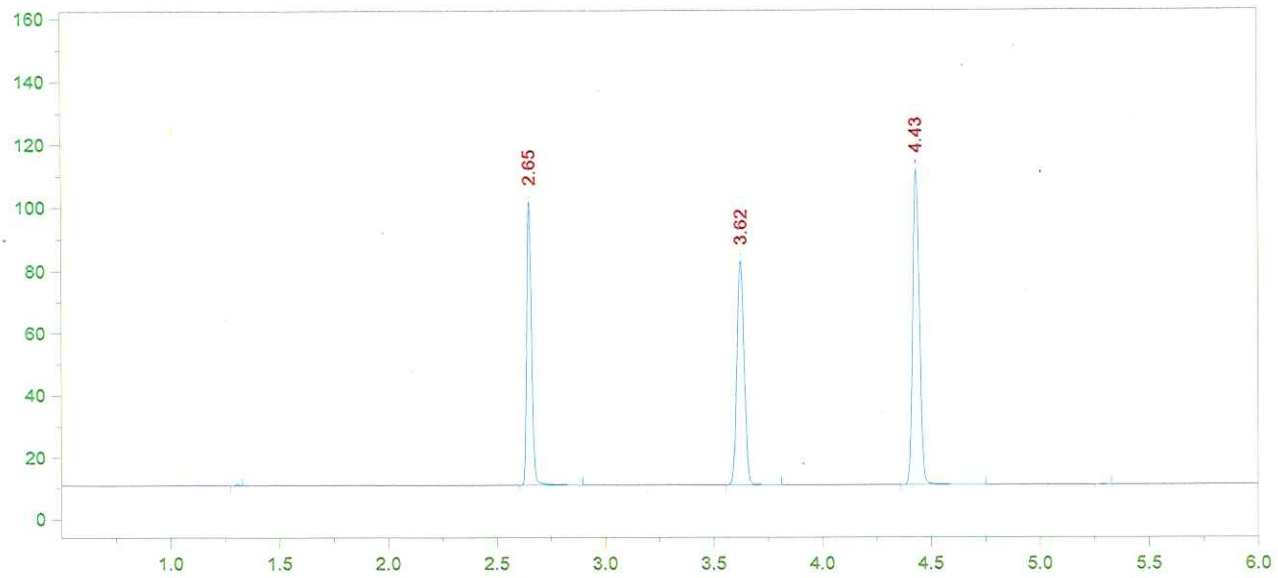
Today's Time = 9:07:18 PM
Bound File Name = VFL04202016.0025.RAW
Sample Name = 0.1 AB
Date Taken = 4/20/2016 9:07:09 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	134641	0.1215	0.0992
3	3.63	t-Butanol	158971	0.9834	0.8026
4	4.43	n-Propanol	207796	1.0000	0.8162

16-05-100 Dg 28



Format File Name = simsolnVFL.met.FMT

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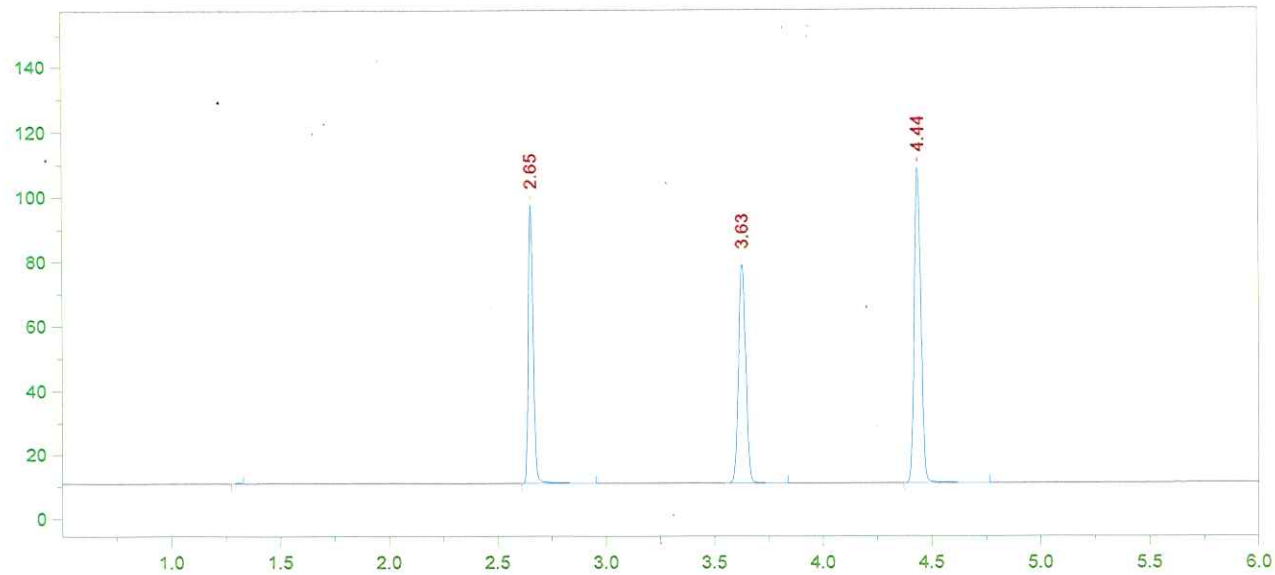
Today's Time = 9:24:46 PM
Bound File Name = VFL04202016.0026.RAW
Sample Name = 0.1 AB
Date Taken = 4/20/2016 9:24:38 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	138849	0.1211	0.0989
3	3.62	t-Butanol	167060	0.9990	0.8154
4	4.43	n-Propanol	214959	1.0000	0.8162

16-05-100 29

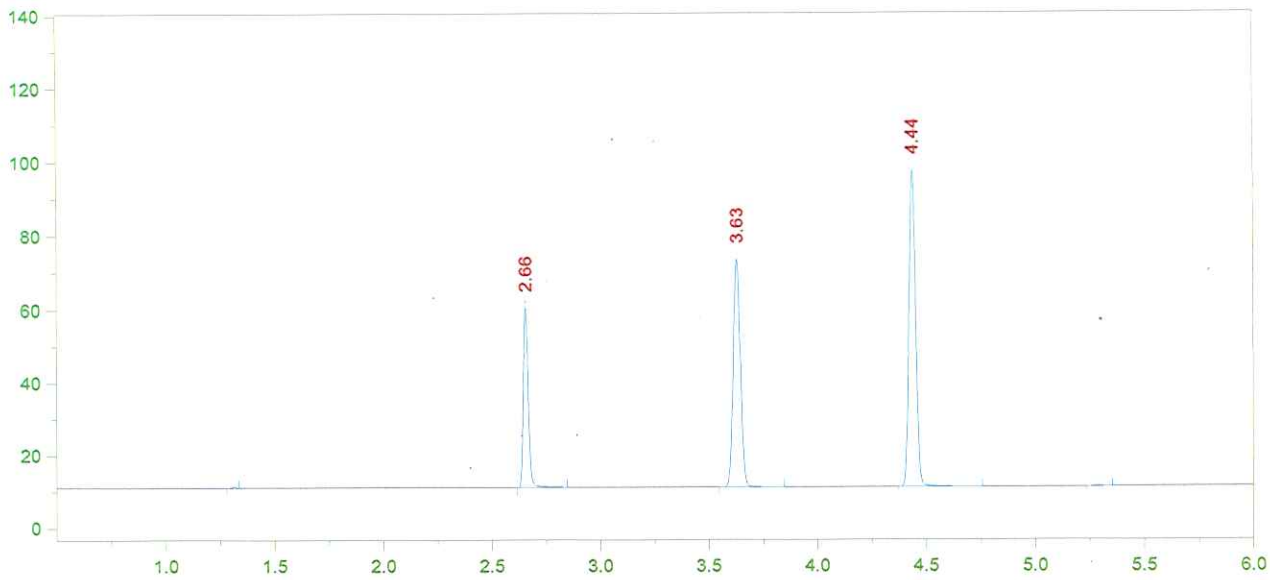


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/20/2016
Today's Time = 9:38:39 PM
Bound File Name = VFL04202016.0027.RAW
Sample Name = 0.1 AB
Date Taken = 4/20/2016 9:38:29 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	132889	0.1202	0.0981
3	3.63	t-Butanol	157693	0.9777	0.7980
4	4.44	n-Propanol	207328	1.0000	0.8162

16-09-100 30

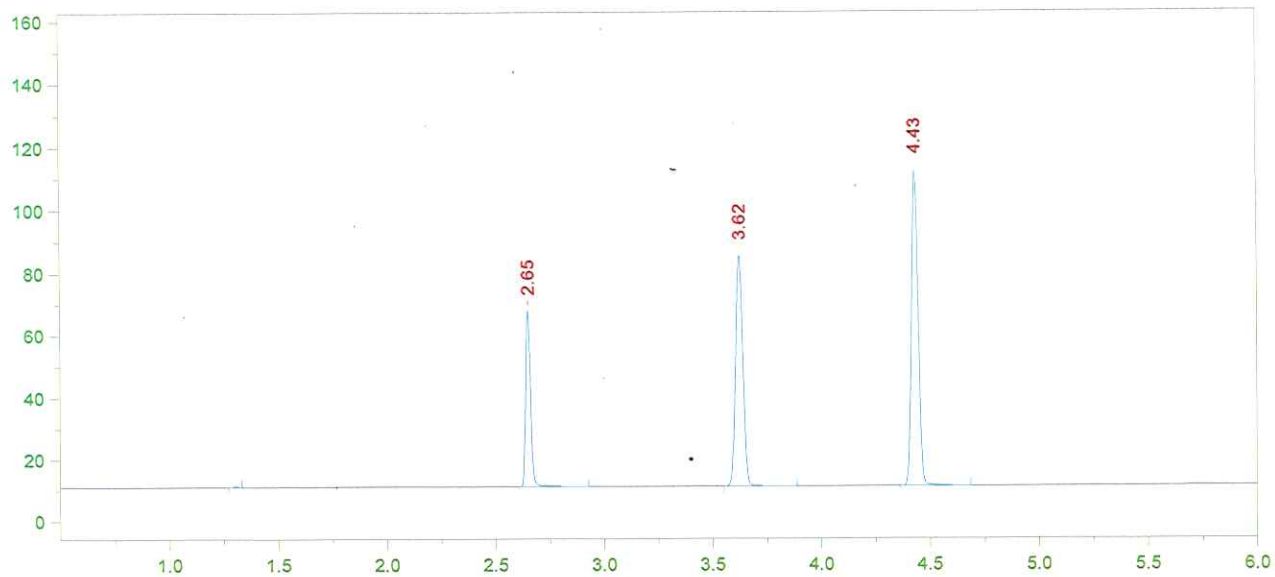


Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 9:40:48 AM
Bound File Name = VFL04202016.0034.RAW
Sample Name = CCS
Date Taken = 4/21/2016 9:40:44 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	76525	0.0782
3	3.63	t-Butanol	143920	1.0078
4	4.44	n-Propanol	183556	1.0000

16-05-100 Ds 31



Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 9:55:29 AM
Bound File Name = VFL04202016.0035.RAW
Sample Name = CCS
Date Taken = 4/21/2016 9:55:25 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	87457	0.0765
3	3.62	t-Butanol	172201	1.0324
4	4.43	n-Propanol	214396	1.0000

CCS MEAN: 0.0773

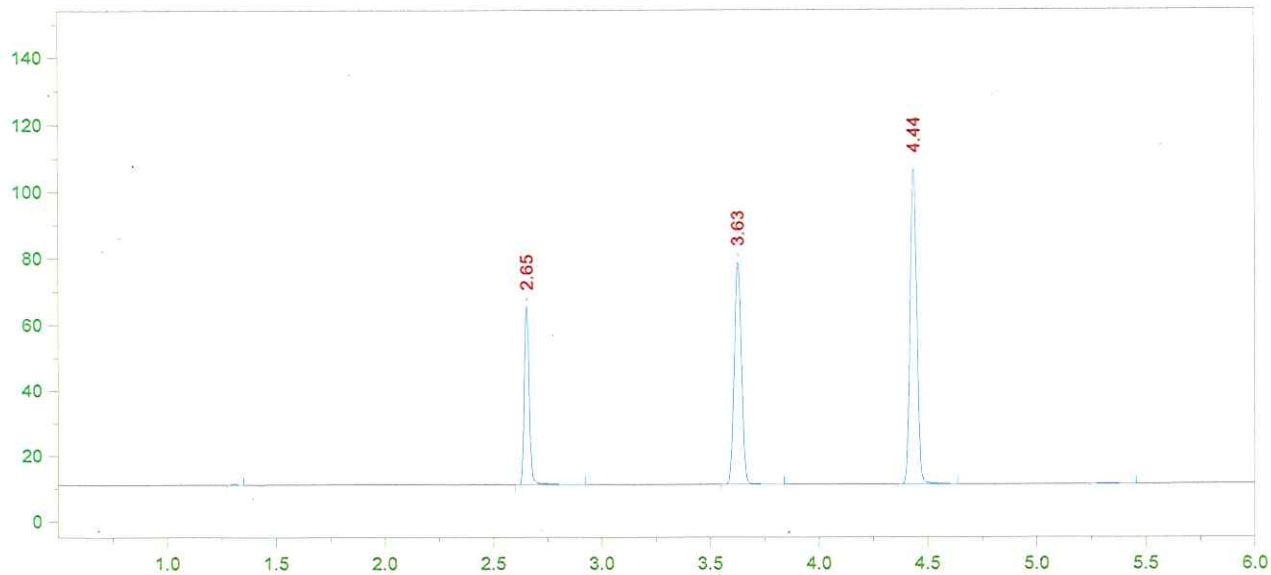
±5%: 0.0734 - 0.0811

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

4/21/16

16-05-100

32

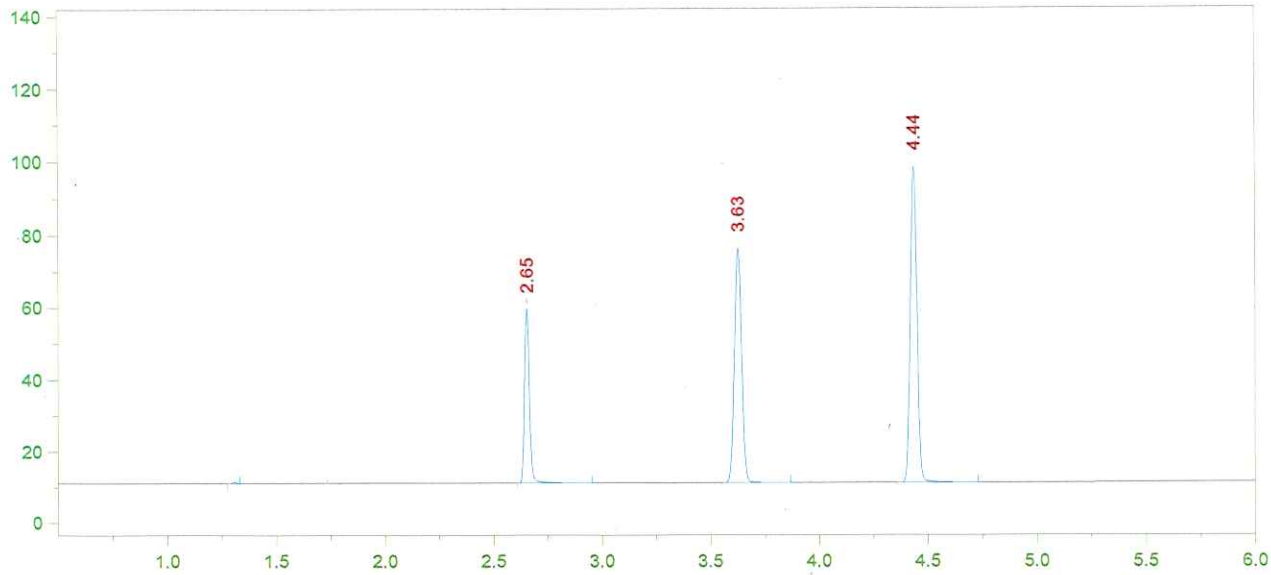


Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 12:13:53 PM
Bound File Name = VFL04202016.0044.RAW
Sample Name = CCS
Date Taken = 4/21/2016 12:13:45 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	84227	0.0778
3	3.63	t-Butanol	156183	0.9885
4	4.44	n-Propanol	203095	1.0000

16-05-100 33



Format File Name = AlcoholVFL.FMT

Today's Date = 4/21/2016
Today's Time = 12:29:52 PM
Bound File Name = VFL04202016.0045.RAW
Sample Name = CCS
Date Taken = 4/21/2016 12:29:44 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04202016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	75266	0.0759
3	3.63	t-Butanol	150913	1.0434
4	4.44	n-Propanol	185910	1.0000

CCS mean: 0.0768

±5%: 0.0729-0.0806

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

4/21/16

16-05-100

34

File Name: C:\Methods\VFL04282016.CAL
Version: 7

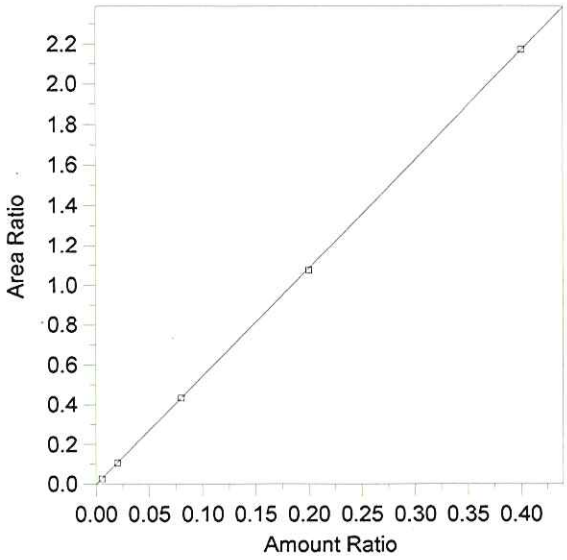
Creator:
Description:
Reason for change:

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:	2.651 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 = 5.416939 X + 0

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999718
Average error:	0.869%
Average CF:	5.374124
RSD:	0.859%

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	4961.744	992348.9	-1.653	0.005	2.663695E-02	C:\Alcohol Data\VFL04282016\VFL04282016.0003.BND	4/28/2016 3:45:53 PM
3	0.02	20737.15	1036858	-1.634	0.02	0.1065682	C:\Alcohol Data\VFL04282016\VFL04282016.0004.BND	4/28/2016 4:04:10 PM
4	0.08	75047.4	938092.5	-0.106	0.08	0.4328977	C:\Alcohol Data\VFL04282016\VFL04282016.0005.BND	4/28/2016 4:19:06 PM
5	0.2	206080.8	1030404	-0.757	0.2	1.07519	C:\Alcohol Data\VFL04282016\VFL04282016.0006.BND	4/28/2016 4:35:37 PM
6	0.4	403487.8	1008720	0.198	0.4	2.17106	C:\Alcohol Data\VFL04282016\VFL04282016.0007.BND	4/28/2016 4:49:32 PM

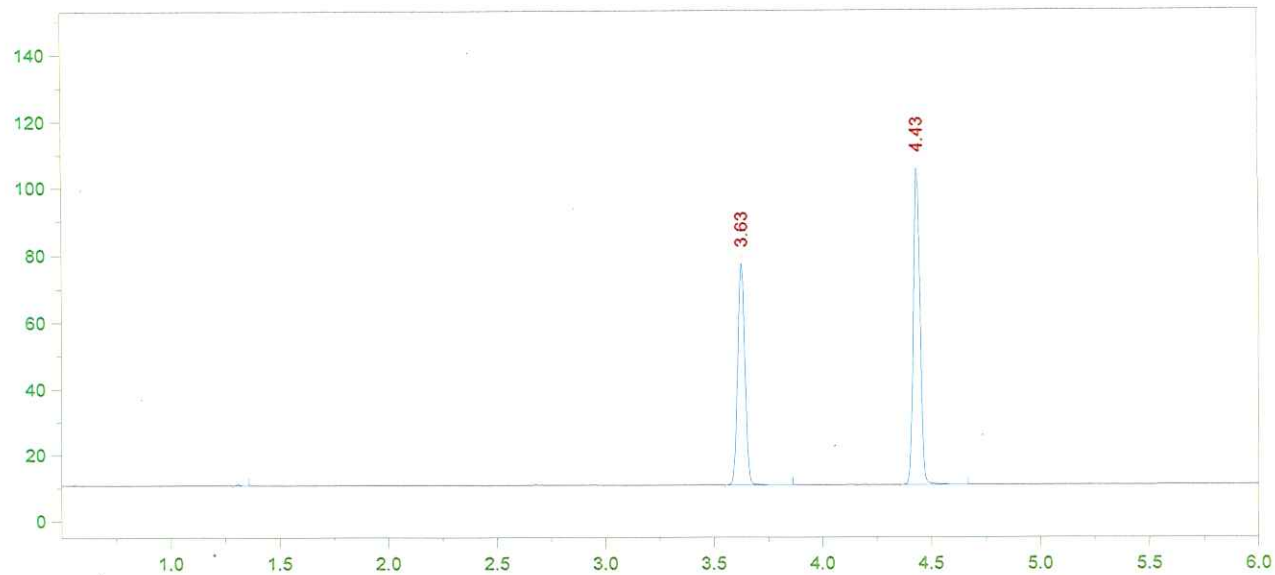
16-05-100 35

File Name = C:\Alcohol Data\VFL04282016\VFL04282016.SEQ
Version = 2
File Date = 4/28/2016 2:36:15 PM

Entry #	Raw File Name	Method File Name	Sample Name	Sample Wt.	Int. Std. Amount
1	VFL04282016.0001.raw	Blood Alc temp VFL.MET	BLANK	1.00	1.00
2	VFL04282016.0002.raw	Blood Alc temp VFL.MET	TMX	1.00	1.00
3	VFL04282016.0003.raw	Blood Alc temp VFL.MET	STD A	1.00	1.00
4	VFL04282016.0004.raw	Blood Alc temp VFL.MET	STD B	1.00	1.00
5	VFL04282016.0005.raw	Blood Alc temp VFL.MET	STD C	1.00	1.00
6	VFL04282016.0006.raw	Blood Alc temp VFL.MET	STD D	1.00	1.00
7	VFL04282016.0007.raw	Blood Alc temp VFL.MET	STD E	1.00	1.00
8	VFL04282016.0008.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
9	VFL04282016.0009.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
10	VFL04282016.0010.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
11	VFL04282016.0011.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
12	VFL04282016.0012.raw	simsoln.met	0.1 DP	1.00	1.00
13	VFL04282016.0013.raw	simsoln.met	0.1 DP	1.00	1.00
14	VFL04282016.0014.raw	simsoln.met	0.1 DP	1.00	1.00
15	VFL04282016.0015.raw	simsoln.met	0.1 DP	1.00	1.00
16	VFL04282016.0016.raw	simsoln.met	0.1 DP	1.00	1.00
17	VFL04282016.0017.raw	simsoln.met	0.1 DP	1.00	1.00
18	VFL04282016.0018.raw	simsoln.met	0.1 DP	1.00	1.00
19	VFL04282016.0019.raw	simsoln.met	0.1 AB	1.00	1.00
20	VFL04282016.0020.raw	simsoln.met	0.1 AB	1.00	1.00
21	VFL04282016.0021.raw	simsoln.met	0.1 AB	1.00	1.00
22	VFL04282016.0022.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
23	VFL04282016.0023.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
24	VFL04282016.0024.raw	simsoln.met	0.1 AB	1.00	1.00
25	VFL04282016.0025.raw	simsoln.met	0.1 AB	1.00	1.00
26	VFL04282016.0026.raw	simsoln.met	0.1 AB	1.00	1.00
27	VFL04282016.0027.raw	simsoln.met	0.1 AB	1.00	1.00
28	VFL04282016.0028.raw	simsoln.met	16-03-100 DP	1.00	1.00
29	VFL04282016.0029.raw	simsoln.met	16-03-100 DP	1.00	1.00
30	VFL04282016.0030.raw	simsoln.met	16-03-100 DP	1.00	1.00
31	VFL04282016.0031.raw	simsoln.met	16-03-100 DP	1.00	1.00
32	VFL04282016.0032.raw	simsoln.met	16-03-100 DP	1.00	1.00
33	VFL04282016.0033.raw	simsoln.met	16-03-100 DP	1.00	1.00
34	VFL04282016.0034.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
35	VFL04282016.0035.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
36	VFL04282016.0036.raw	simsoln.met	16-03-100 DP	1.00	1.00
37	VFL04282016.0037.raw	simsoln.met	16-03-100 AB	1.00	1.00
38	VFL04282016.0038.raw	simsoln.met	16-03-100 AB	1.00	1.00
39	VFL04282016.0039.raw	simsoln.met	16-03-100 AB	1.00	1.00
40	VFL04282016.0040.raw	simsoln.met	16-03-100 AB	1.00	1.00
41	VFL04282016.0041.raw	simsoln.met	16-03-100 AB	1.00	1.00
42	VFL04282016.0042.raw	simsoln.met	16-03-100 AB	1.00	1.00
43	VFL04282016.0043.raw	simsoln.met	16-03-100 AB	1.00	1.00
44	VFL04282016.0044.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
45	VFL04282016.0045.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00

Sample lot
inclusion
DS 5/2/16

16-05-100 DS 36

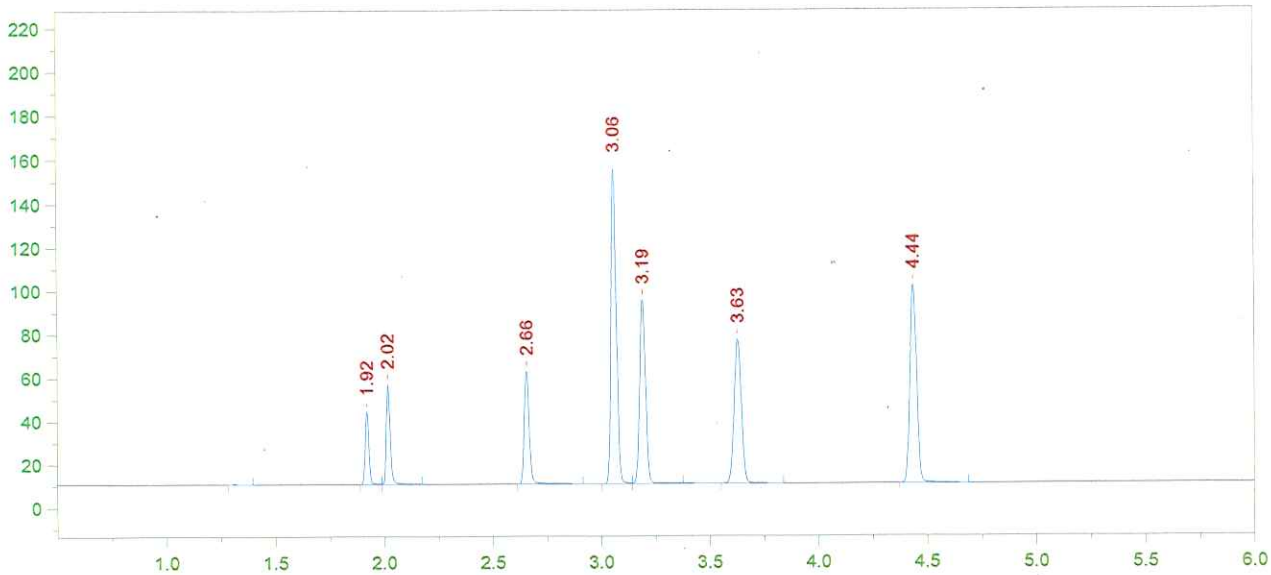


Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 11:08:40 AM
Bound File Name = VFL04282016.0001.RAW
Sample Name = BLANK
Date Taken = 4/28/2016 3:14:33 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	3.63	t-Butanol	153632	0.9755
3	4.43	n-Propanol	201122	1.0000

16-05-100 DS 37

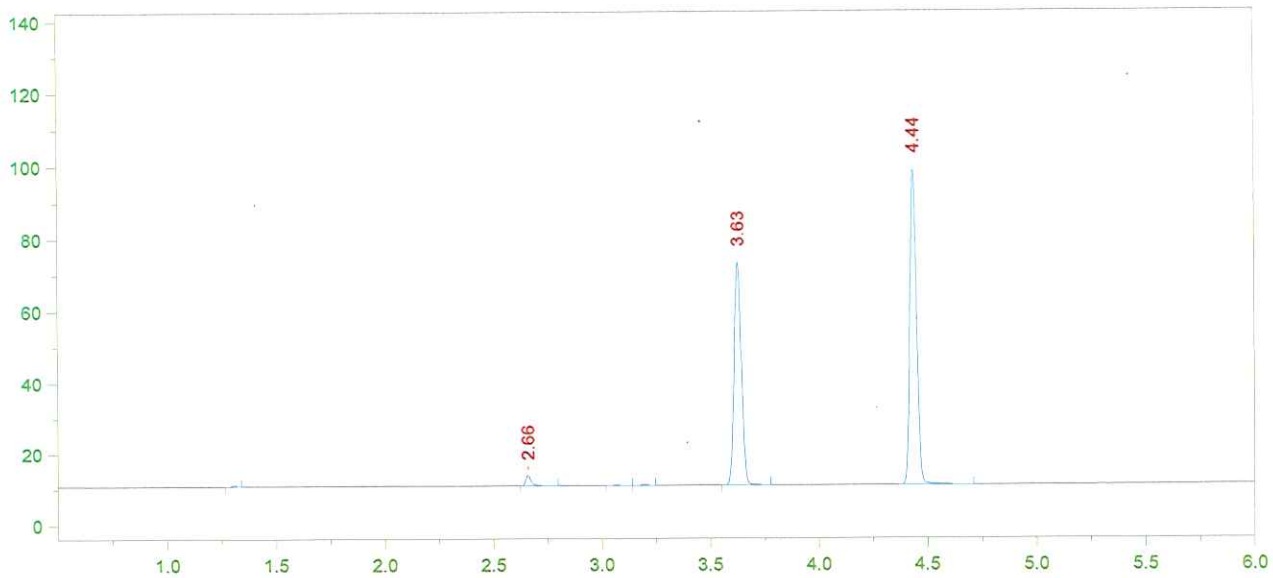


Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 11:08:48 AM
Bound File Name = VFL04282016.0002.RAW
Sample Name = TMX
Date Taken = 4/28/2016 3:32:35 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	1.92	Acetaldehyde	39387	0.0686
3	2.02	Methanol	57475	0.1169
4	2.66	Ethanol	81030	0.0772
5	3.06	Acetone	246864	0.0612
6	3.19	Isopropanol	159407	0.0780
7	3.63	t-Butanol	153241	1.0104
8	4.44	n-Propanol	193681	1.0000

16-05-600 38

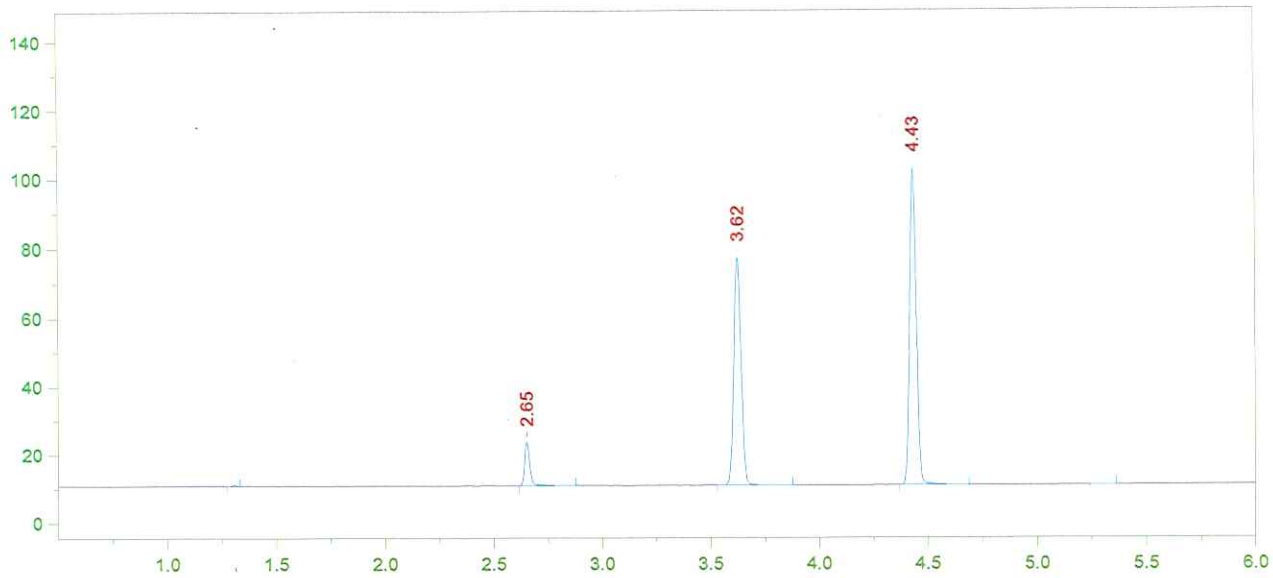


Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 11:08:55 AM
Bound File Name = VFL04282016.0003.RAW
Sample Name = STD A
Date Taken = 4/28/2016 3:45:48 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	04962	0.0049
5	3.63	t-Butanol	143947	0.9869
6	4.44	n-Propanol	186273	1.0000

16-05-100 39

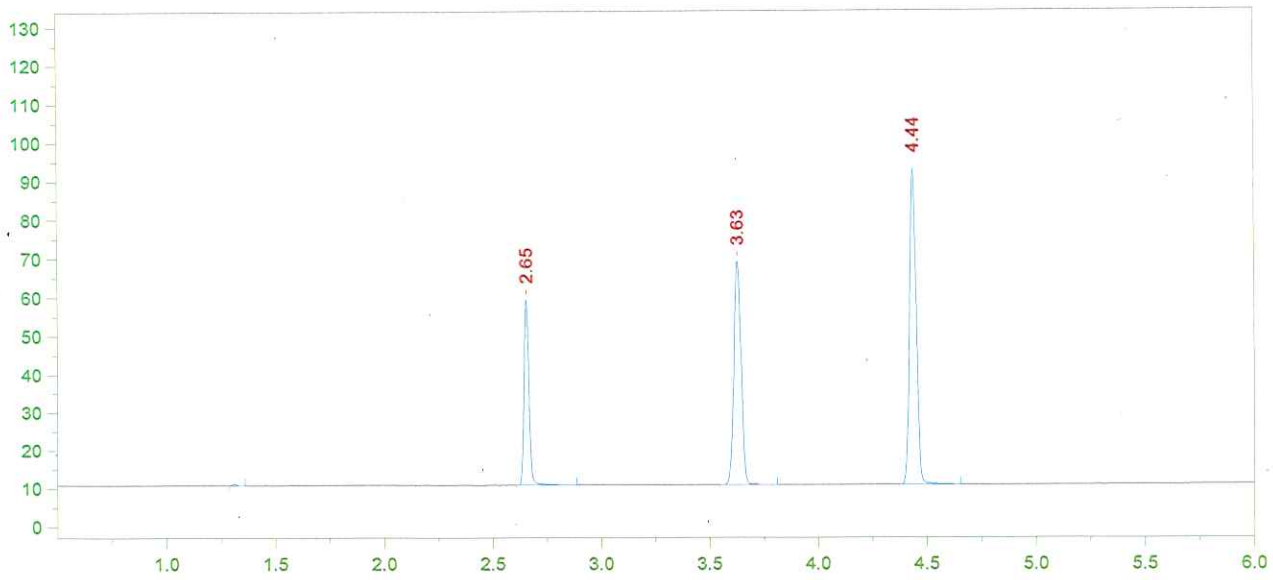


Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 11:09:01 AM
Bound File Name = VFL04282016.0004.RAW
Sample Name = STD B
Date Taken = 4/28/2016 4:04:01 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	20737	0.0197
3	3.62	t-Butanol	154119	1.0114
4	4.43	n-Propanol	194590	1.0000

16-05-100 40

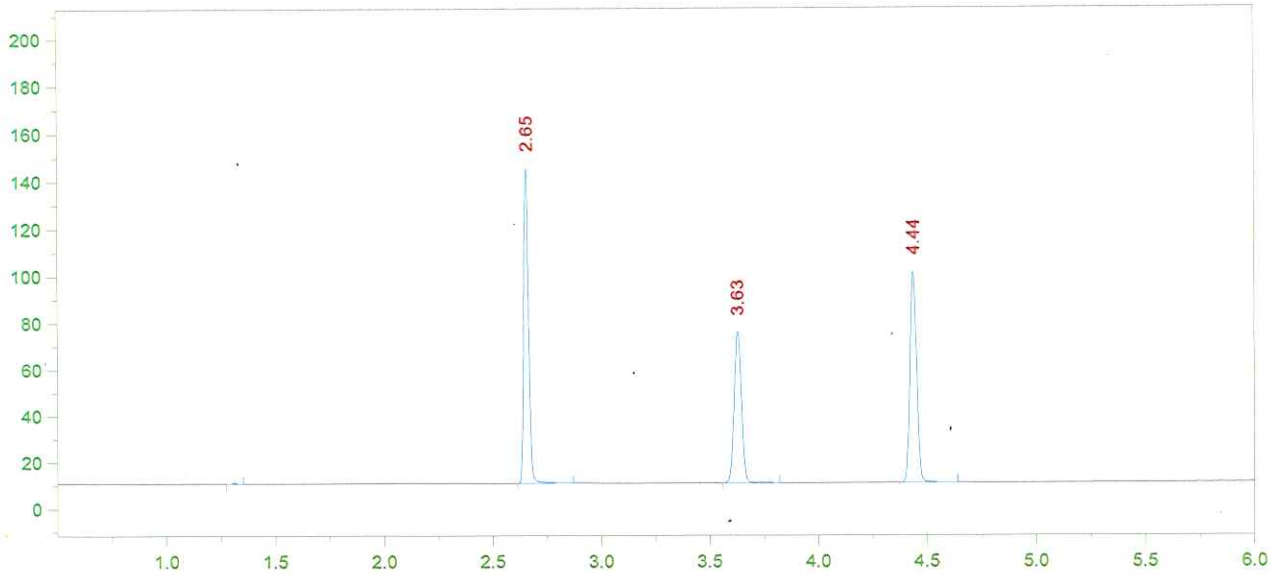


Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 11:09:07 AM
Bound File Name = VFL04282016.0005.RAW
Sample Name = STD C
Date Taken = 4/28/2016 4:18:57 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	75047	0.0799
3	3.63	t-Butanol	135040	0.9948
4	4.44	n-Propanol	173361	1.0000

16-05-100 DS 41

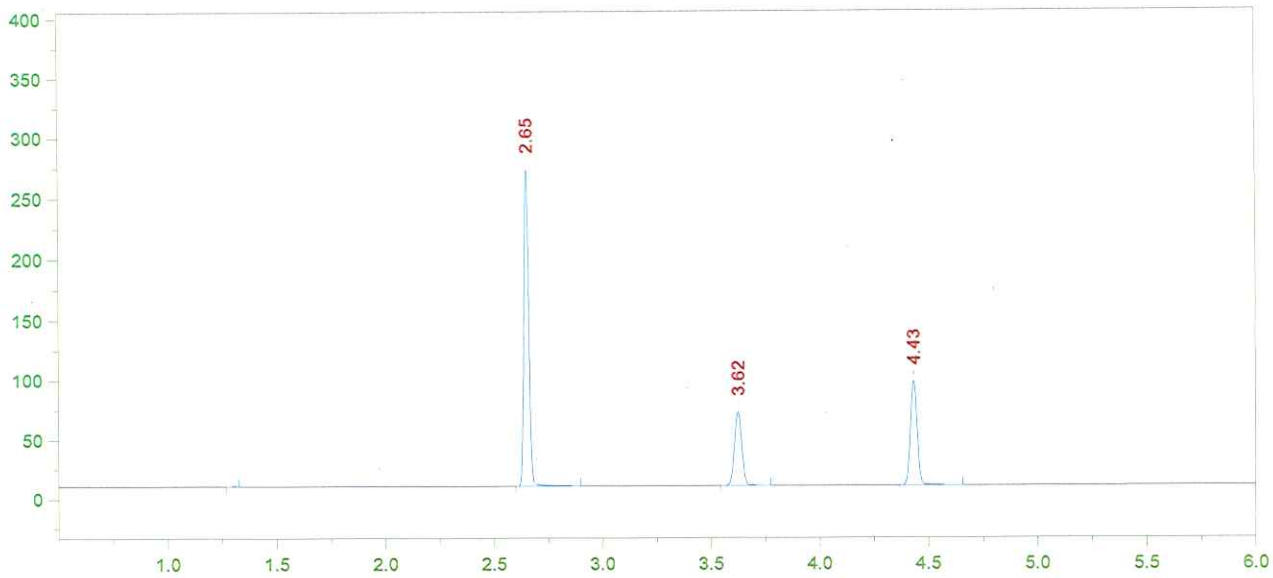


Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 11:09:12 AM
Bound File Name = VFL04282016.0006.RAW
Sample Name = STD D
Date Taken = 4/28/2016 4:35:28 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	206081	0.1985
3	3.63	t-Butanol	151274	1.0079
4	4.44	n-Propanol	191669	1.0000

16-05-100 Os 42

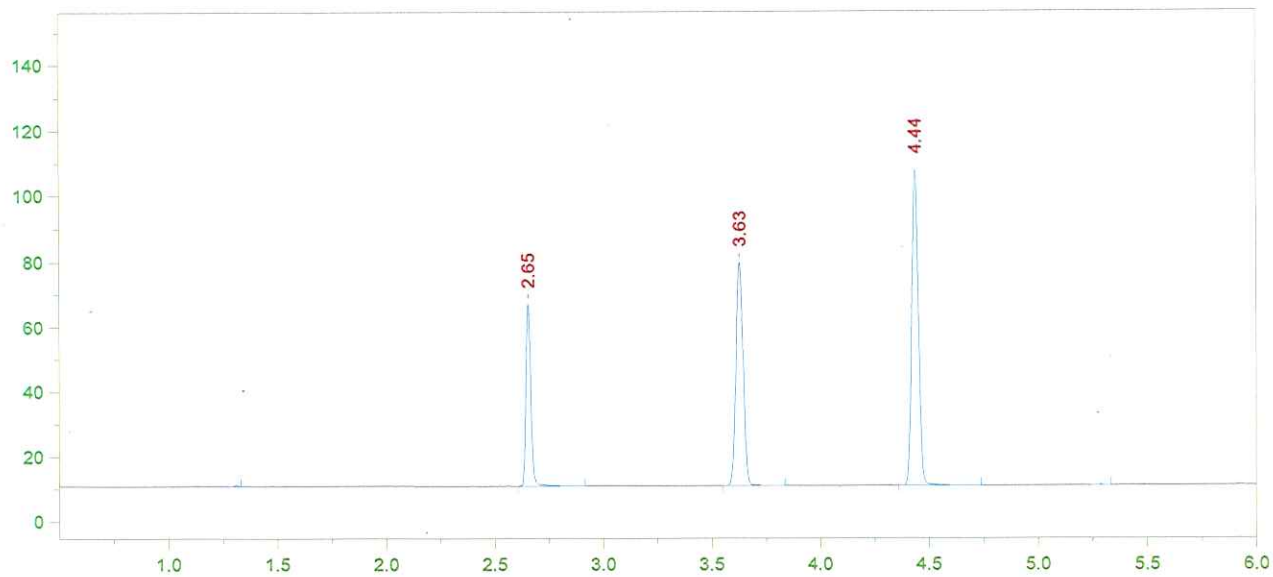


Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 11:09:19 AM
Bound File Name = VFL04282016.0007.RAW
Sample Name = STD E
Date Taken = 4/28/2016 4:49:24 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.65	Ethanol	403488	0.4008
4	3.62	t-Butanol	143878	0.9886
5	4.43	n-Propanol	185848	1.0000

16-05-100 43

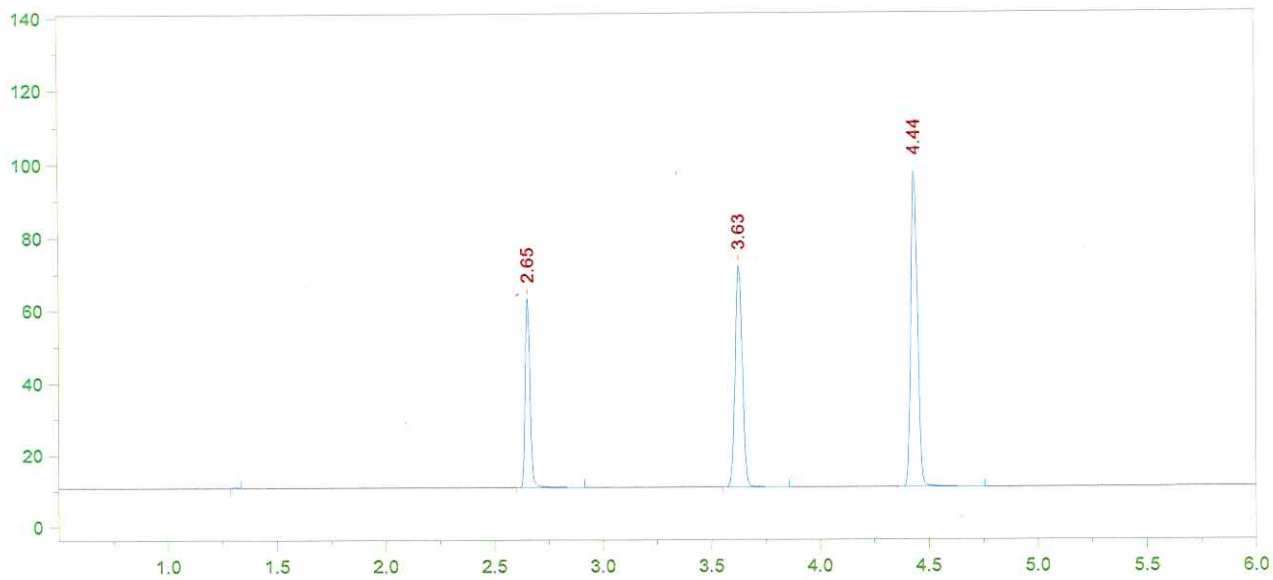


Format File Name = AlcoholVFL.FMT

Today's Date = 4/28/2016
Today's Time = 5:05:19 PM
Bound File Name = VFL04282016.0008.RAW
Sample Name = AQ
Date Taken = 4/28/2016 5:05:12 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	87174	0.0786
3	3.63	t-Butanol	159061	0.9916
4	4.44	n-Propanol	204854	1.0000

16-05-100 Jo 44



Format File Name = AlcoholVFL.FMT

Today's Date = 4/28/2016
Today's Time = 5:21:15 PM
Bound File Name = VFL04282016.0009.RAW
Sample Name = AQ
Date Taken = 4/28/2016 5:21:11 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

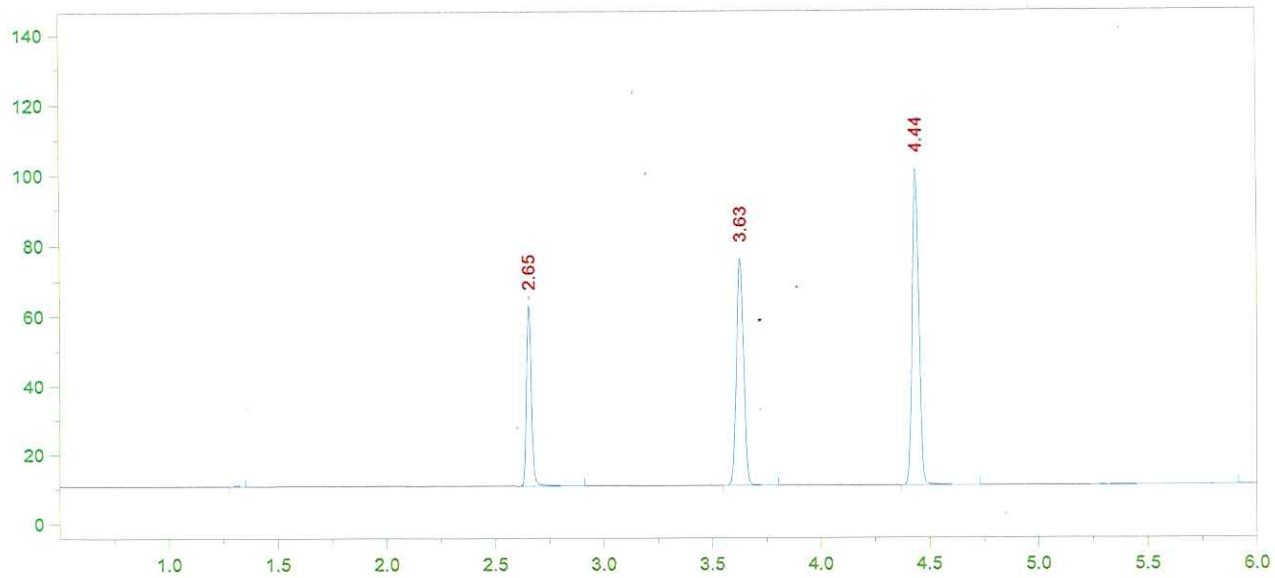
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	80750	0.0807
3	3.63	t-Butanol	141408	0.9773
4	4.44	n-Propanol	184780	1.0000

AQ mean: 0.0796

±5%: 0.0756 - 0.0836

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

16-05-100 45

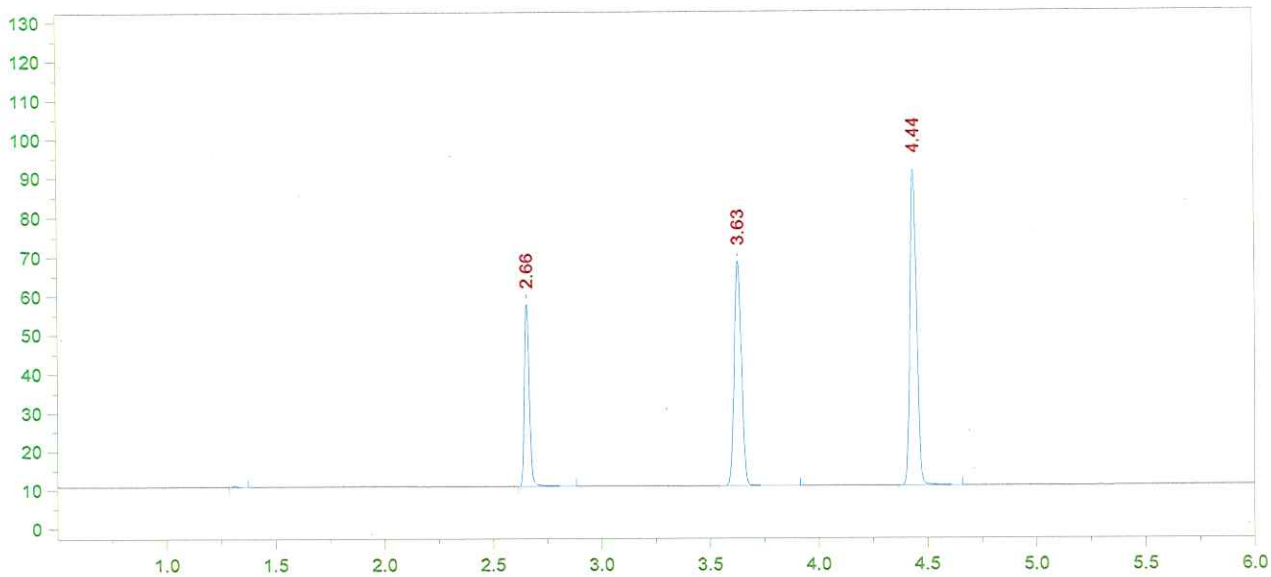


Format File Name = AlcoholVFL.FMT

Today's Date = 4/28/2016
Today's Time = 5:36:50 PM
Bound File Name = VFL04282016.0010.RAW
Sample Name = CCS
Date Taken = 4/28/2016 5:36:44 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	80797	0.0776
3	3.63	t-Butanol	150908	1.0026
4	4.44	n-Propanol	192219	1.0000

16-05-100 46



Format File Name = AlcoholVFL.FMT

Today's Date = 4/28/2016
Today's Time = 5:52:43 PM
Bound File Name = VFL04282016.0011.RAW
Sample Name = CCS
Date Taken = 4/28/2016 5:52:37 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	73273	0.0791
3	3.63	t-Butanol	133643	0.9974
4	4.44	n-Propanol	171105	1.0000

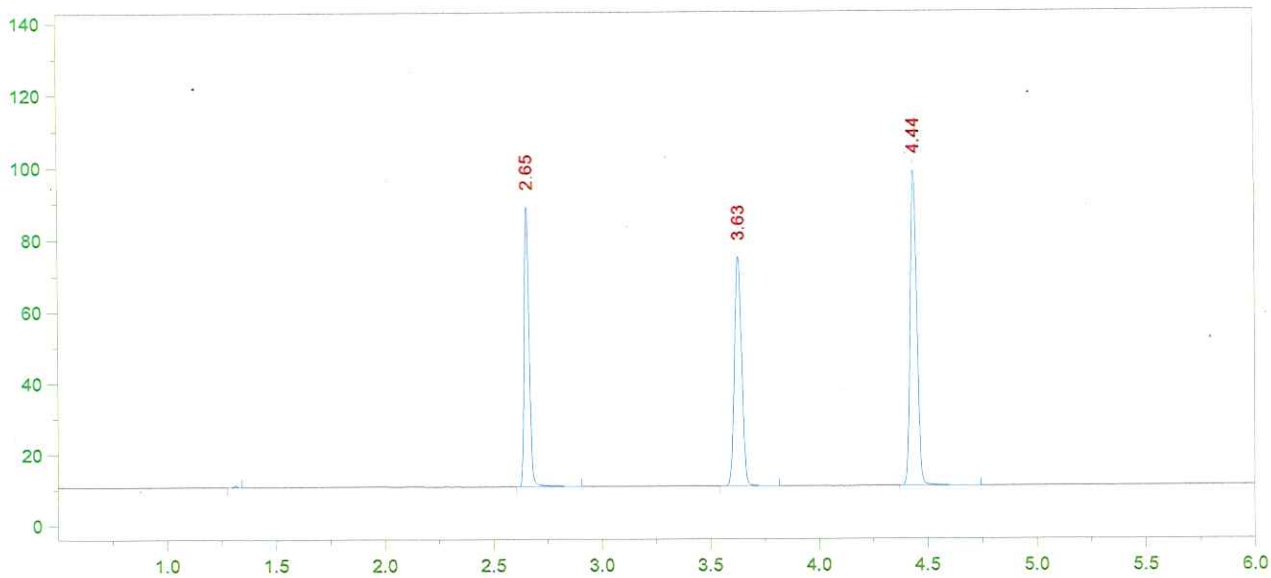
CCS MEAN: 0.0783

±5% - 0.0744 - 0.0822

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

DGS 2/16

16-05-100 DS 47

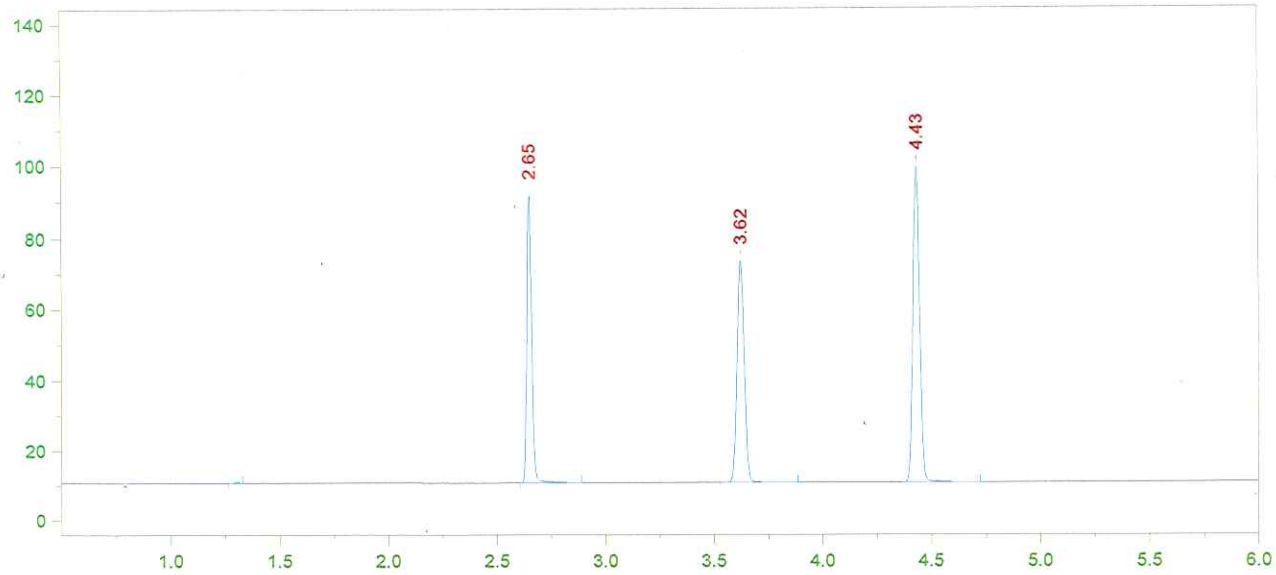


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 6:08:19 PM
Bound File Name = VFL04282016.0012.RAW
Sample Name = 0.1 DP
Date Taken = 4/28/2016 6:08:09 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	121286	0.1200	0.0980
3	3.63	t-Butanol	148270	1.0152	0.8286
4	4.44	n-Propanol	186519	1.0000	0.8162

16-05-100 48

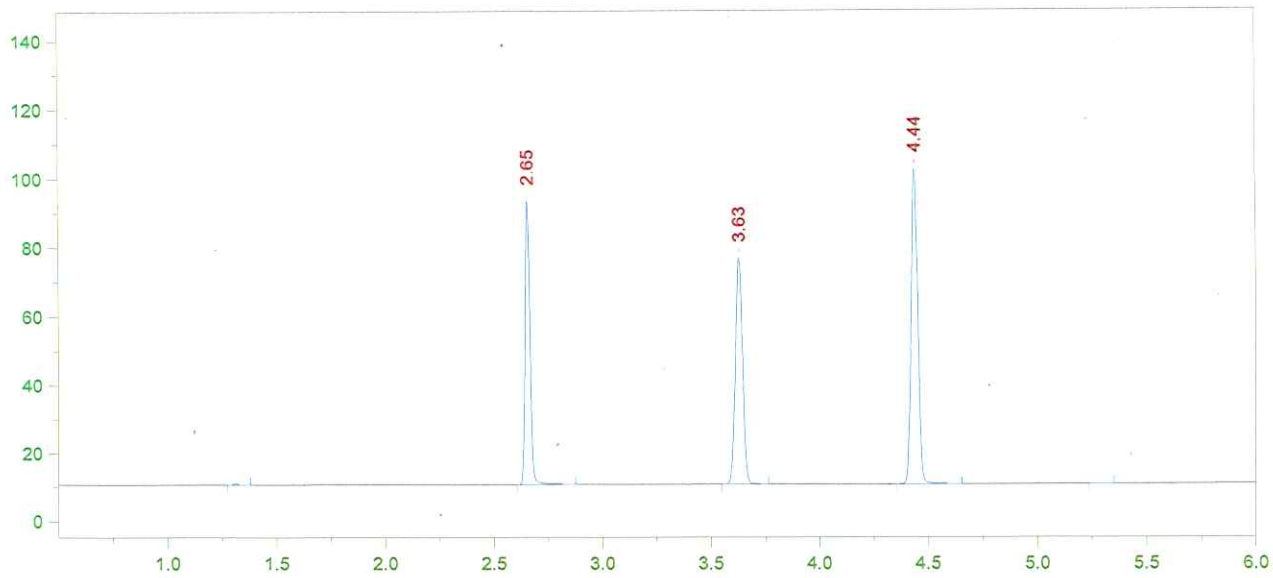


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 6:22:24 PM
Bound File Name = VFL04282016.0013.RAW
Sample Name = 0.1 DP
Date Taken = 4/28/2016 6:22:19 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	124144	0.1213	0.0990
3	3.62	t-Butanol	145217	0.9814	0.8010
4	4.43	n-Propanol	188963	1.0000	0.8162

16-05-100 Dr 49

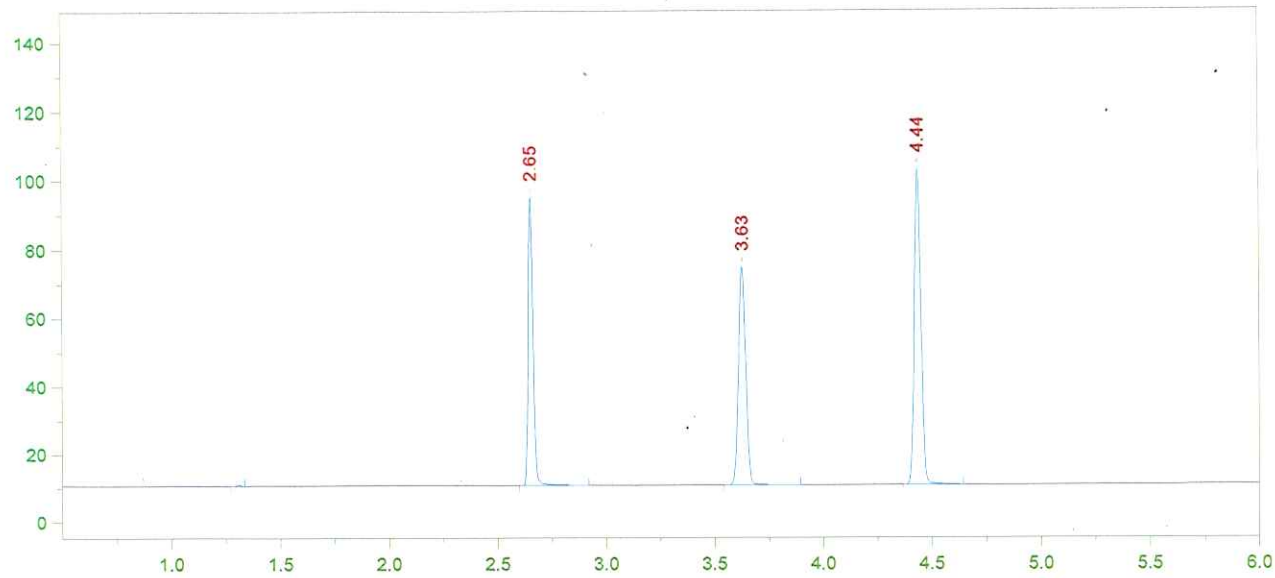


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 6:39:47 PM
Bound File Name = VFL04282016.0014.RAW
Sample Name = 0.1 DP
Date Taken = 4/28/2016 6:39:38 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	127642	0.1210	0.0987
3	3.63	t-Butanol	152744	1.0014	0.8173
4	4.44	n-Propanol	194789	1.0000	0.8162

16-05-100 50

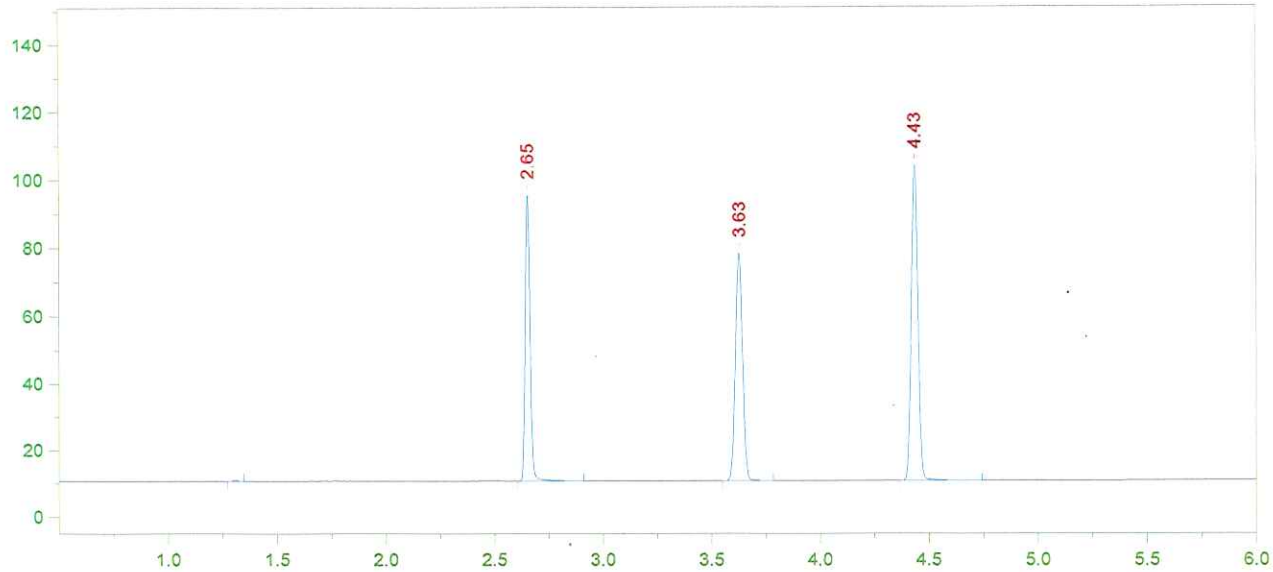


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 6:53:24 PM
Bound File Name = VFL04282016.0015.RAW
Sample Name = 0.1 DP
Date Taken = 4/28/2016 6:53:21 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	129316	0.1222	0.0998
3	3.63	t-Butanol	148296	0.9697	0.7915
4	4.44	n-Propanol	195299	1.0000	0.8162

16-05-100 Ds 51

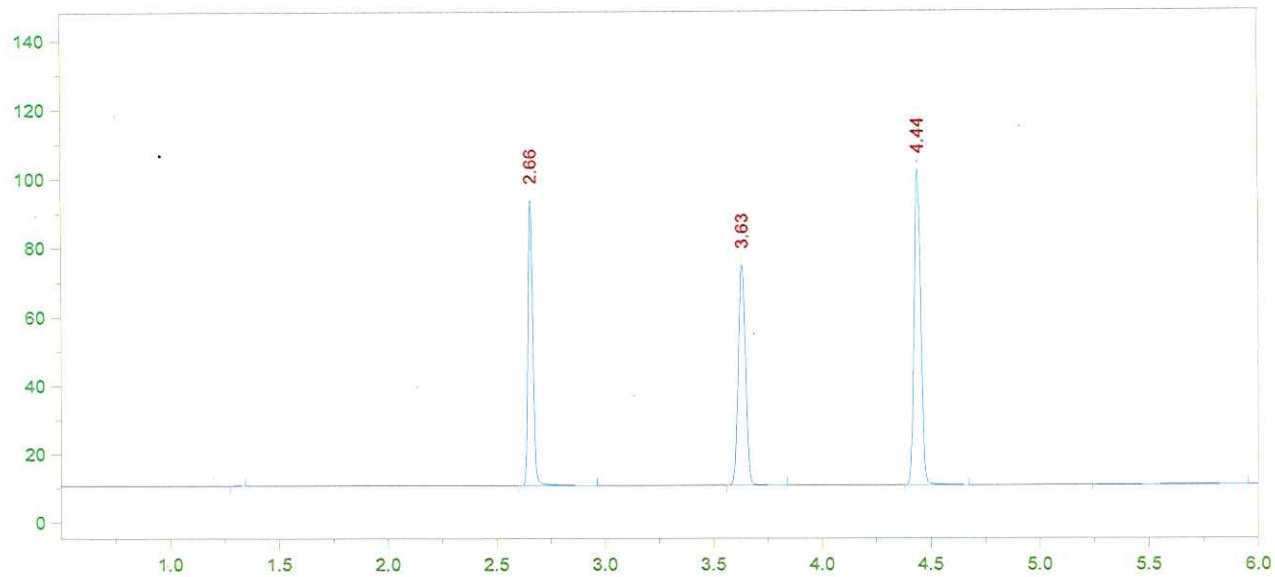


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 7:11:06 PM
Bound File Name = VFL04282016.0016.RAW
Sample Name = 0.1 DP
Date Taken = 4/28/2016 7:11:02 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	130480	0.1211	0.0988
3	3.63	t-Butanol	155788	0.9999	0.8162
4	4.43	n-Propanol	198958	1.0000	0.8162

16-05-100 JS 52

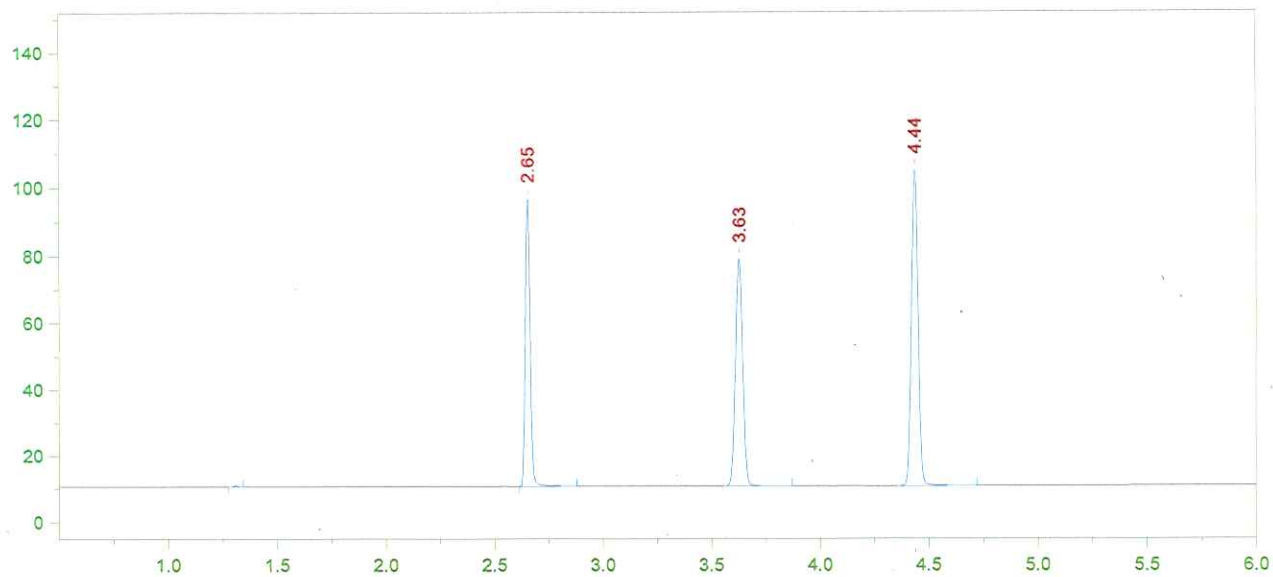


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 7:24:21 PM
Bound File Name = VFL04282016.0017.RAW
Sample Name = 0.1 DP
Date Taken = 4/28/2016 7:24:17 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	127789	0.1215	0.0991
3	3.63	t-Butanol	148684	0.9777	0.7980
4	4.44	n-Propanol	194203	1.0000	0.8162

16-05-60 53

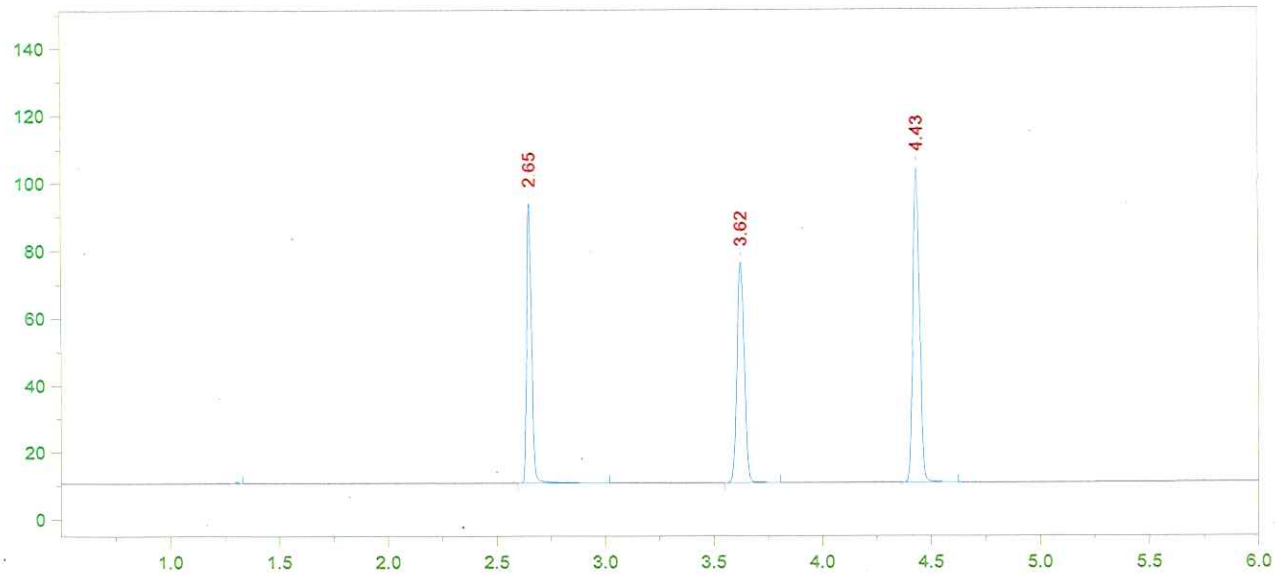


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 7:42:33 PM
Bound File Name = VFL04282016.0018.RAW
Sample Name = 0.1 DP
Date Taken = 4/28/2016 7:42:29 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	131641	0.1210	0.0987
3	3.63	t-Butanol	157677	1.0022	0.8180
4	4.44	n-Propanol	200921	1.0000	0.8162

16-05-100 Ds 54

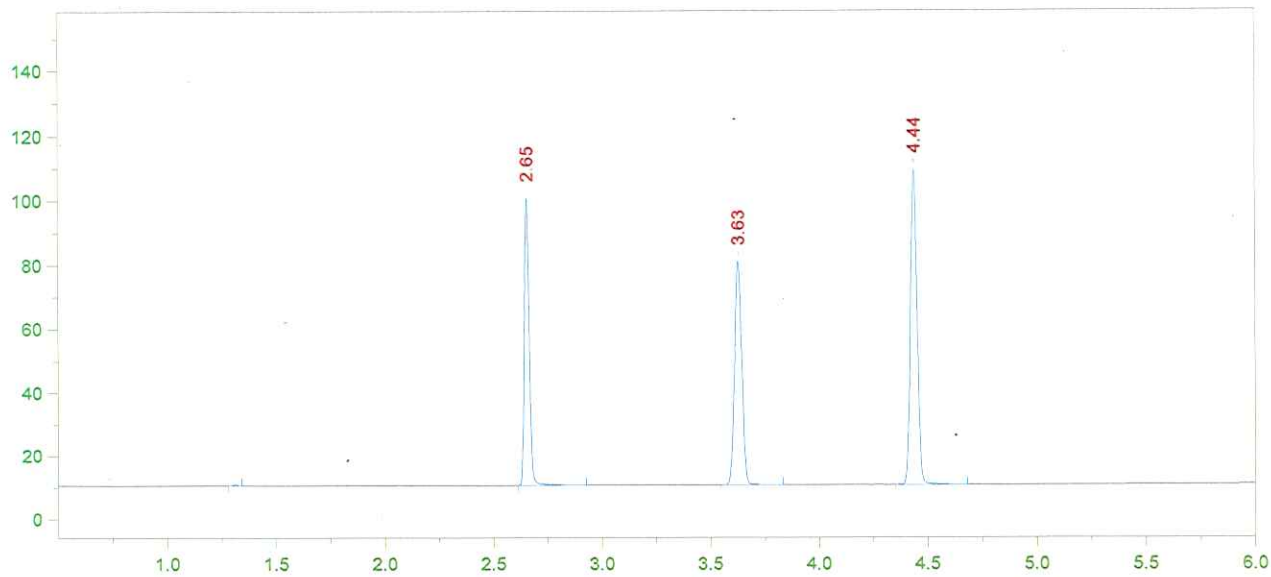


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 7:55:46 PM
Bound File Name = VFL04282016.0019.RAW
Sample Name = 0.1 AB
Date Taken = 4/28/2016 7:55:42 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	127955	0.1189	0.0971
3	3.62	t-Butanol	152568	0.9811	0.8008
4	4.43	n-Propanol	198592	1.0000	0.8162

16-05-100 55

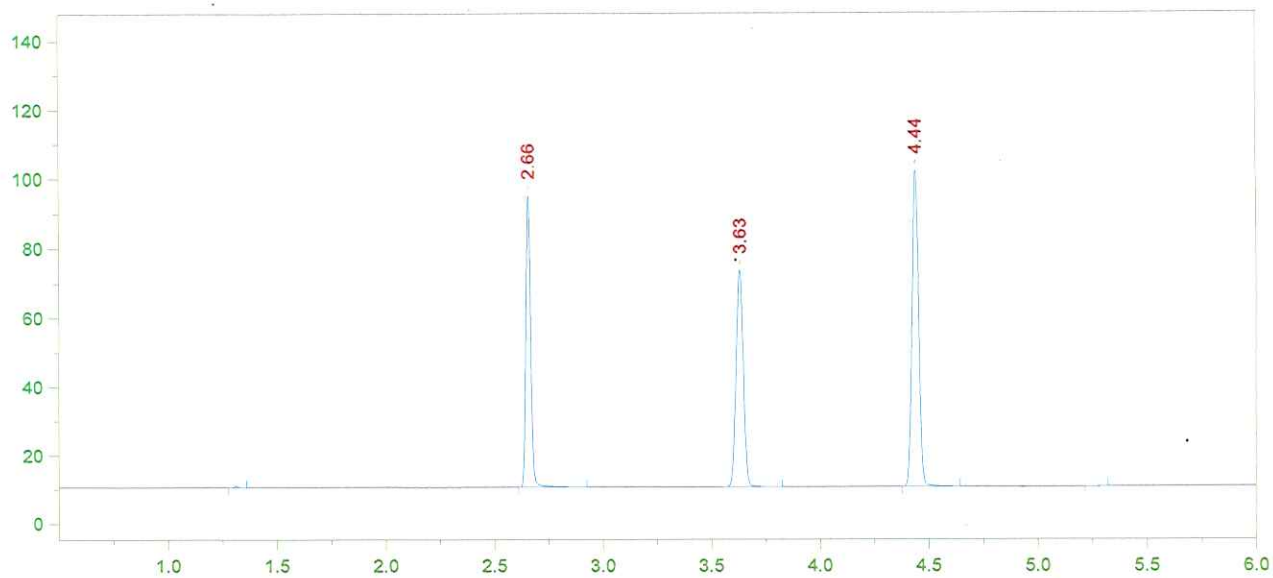


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 8:13:59 PM
Bound File Name = VFL04282016.0020.RAW
Sample Name = 0.1 AB
Date Taken = 4/28/2016 8:13:51 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	138184	0.1219	0.0995
3	3.63	t-Butanol	162292	0.9906	0.8086
4	4.44	n-Propanol	209213	1.0000	0.8162

16-05-100 Dg 56

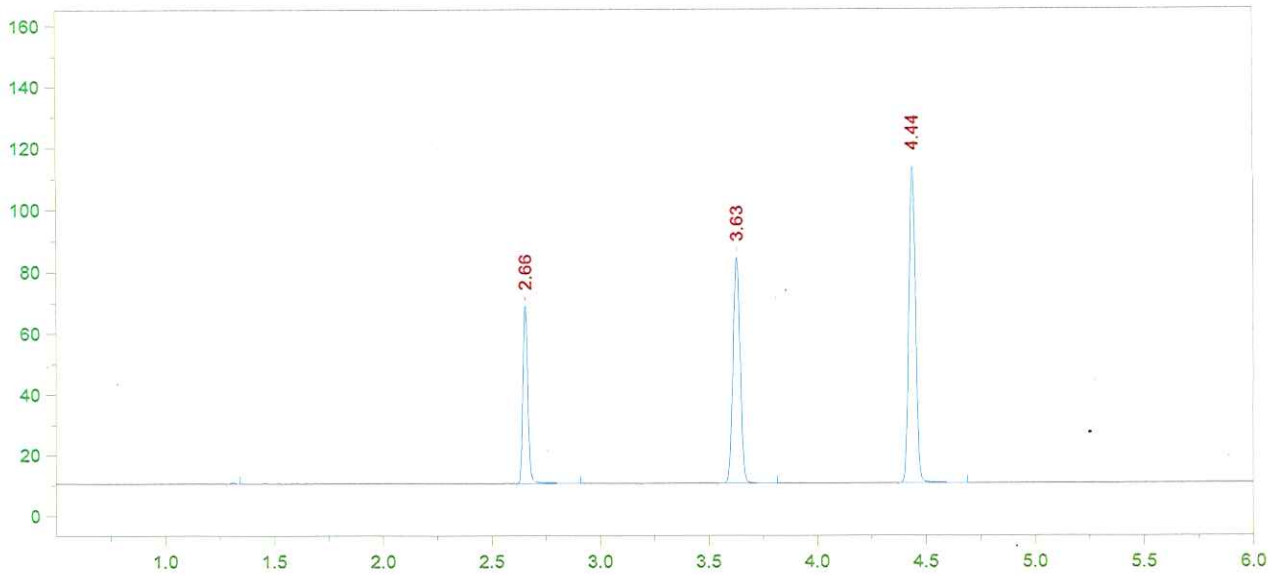


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 8:28:09 PM
Bound File Name = VFL04282016.0021.RAW
Sample Name = 0.1 AB
Date Taken = 4/28/2016 8:28:04 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	129789	0.1238	0.1010
3	3.63	t-Butanol	145741	0.9616	0.7849
4	4.44	n-Propanol	193550	1.0000	0.8162

16-05-100 57

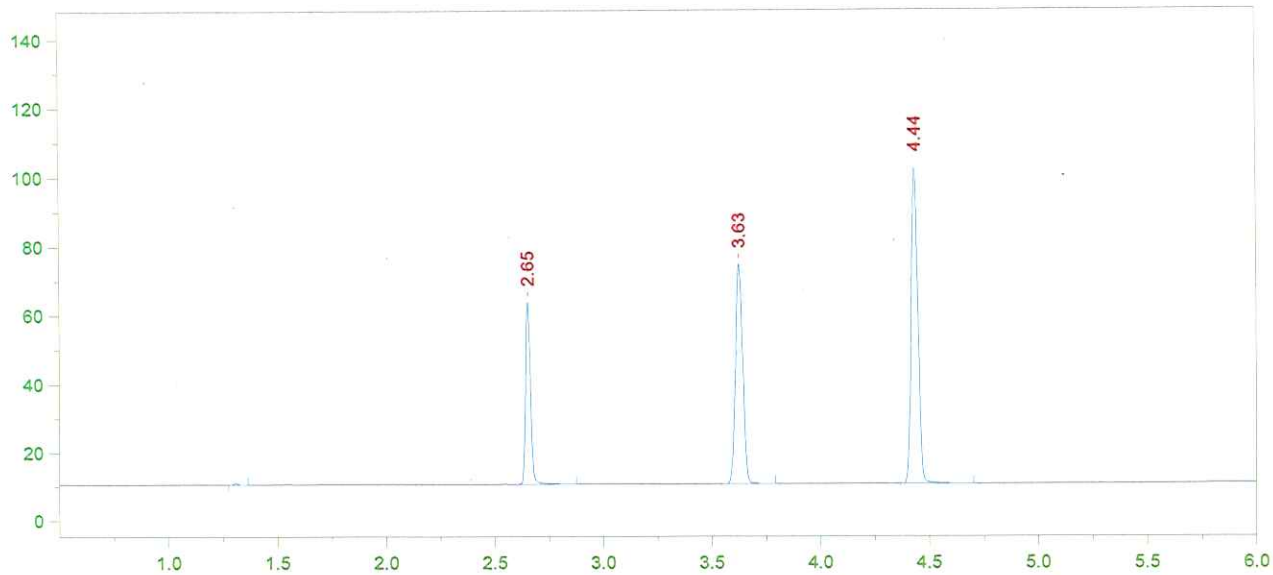


Format File Name = AlcoholVFL.FMT

Today's Date = 4/28/2016
Today's Time = 8:43:42 PM
Bound File Name = VFL04282016.0022.RAW
Sample Name = CCS
Date Taken = 4/28/2016 8:43:38 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	91234	0.0768
3	3.63	t-Butanol	170167	0.9906
4	4.44	n-Propanol	219363	1.0000

16-05-100 98 58



Format File Name = AlcoholVFL.FMT

Today's Date = 4/28/2016
Today's Time = 8:59:15 PM
Bound File Name = VFL04282016.0023.RAW
Sample Name = CCS
Date Taken = 4/28/2016 8:59:11 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	82375	0.0777
3	3.63	t-Butanol	148058	0.9664
4	4.44	n-Propanol	195660	1.0000

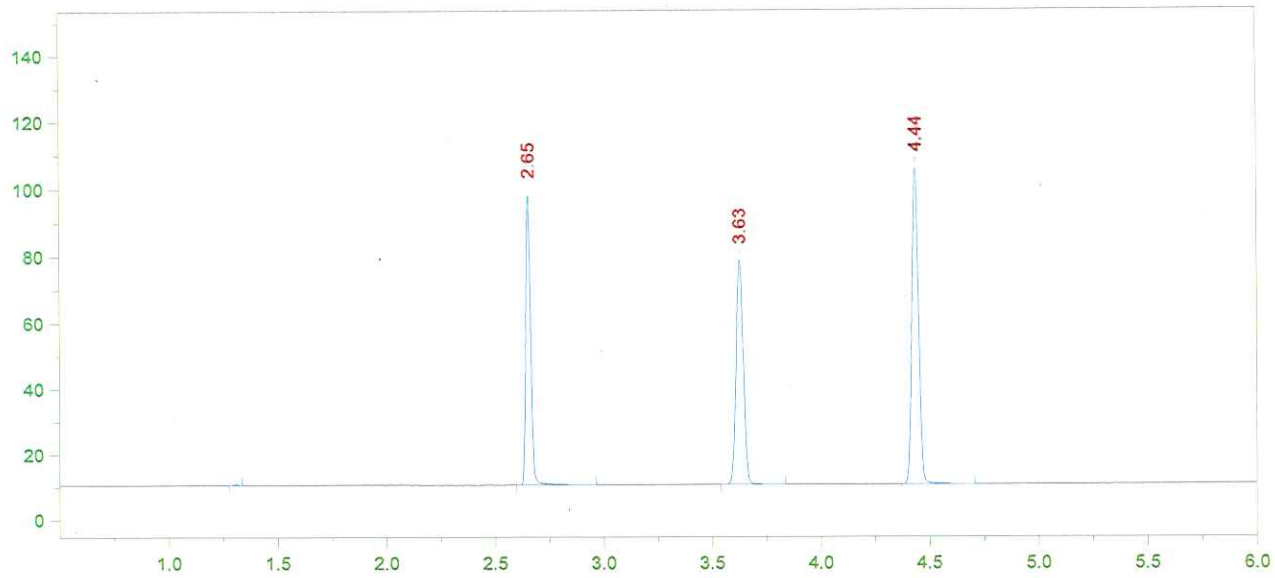
CCS MEAN: 0.0772

±5%: 0.0733 - 0.0810

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

DG 5/2/16

16-05-100 DG 59

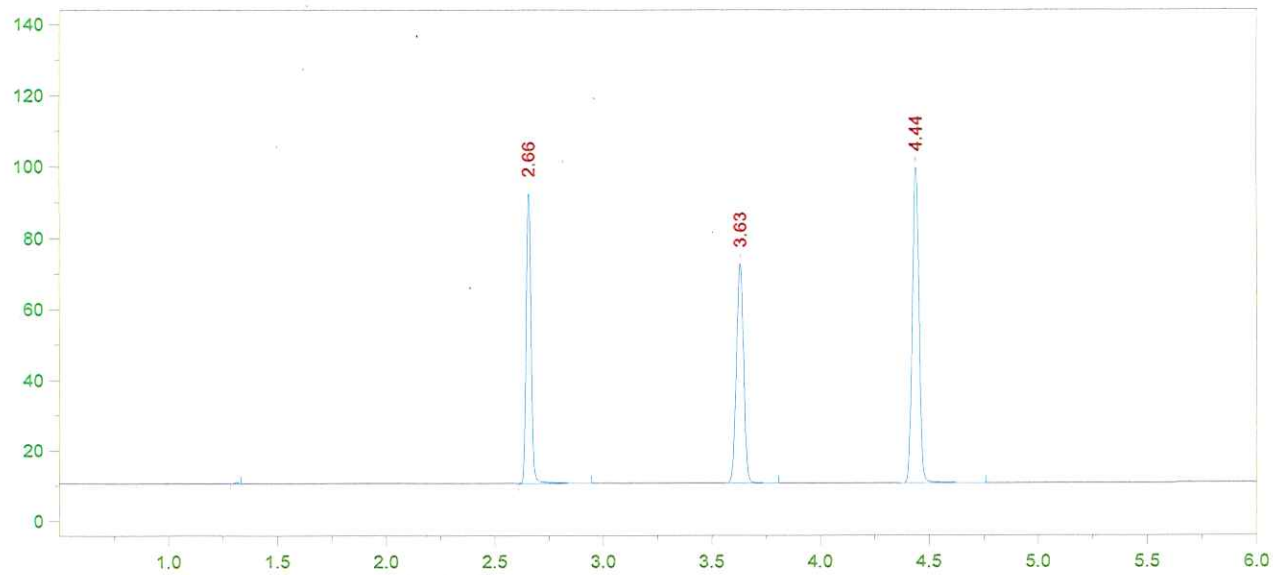


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 9:15:15 PM
Bound File Name = VFL04282016.0024.RAW
Sample Name = 0.1 AB
Date Taken = 4/28/2016 9:15:09 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	134930	0.1227	0.1002
3	3.63	t-Butanol	157355	0.9899	0.8080
4	4.44	n-Propanol	202997	1.0000	0.8162

16-05-100 Ds 60

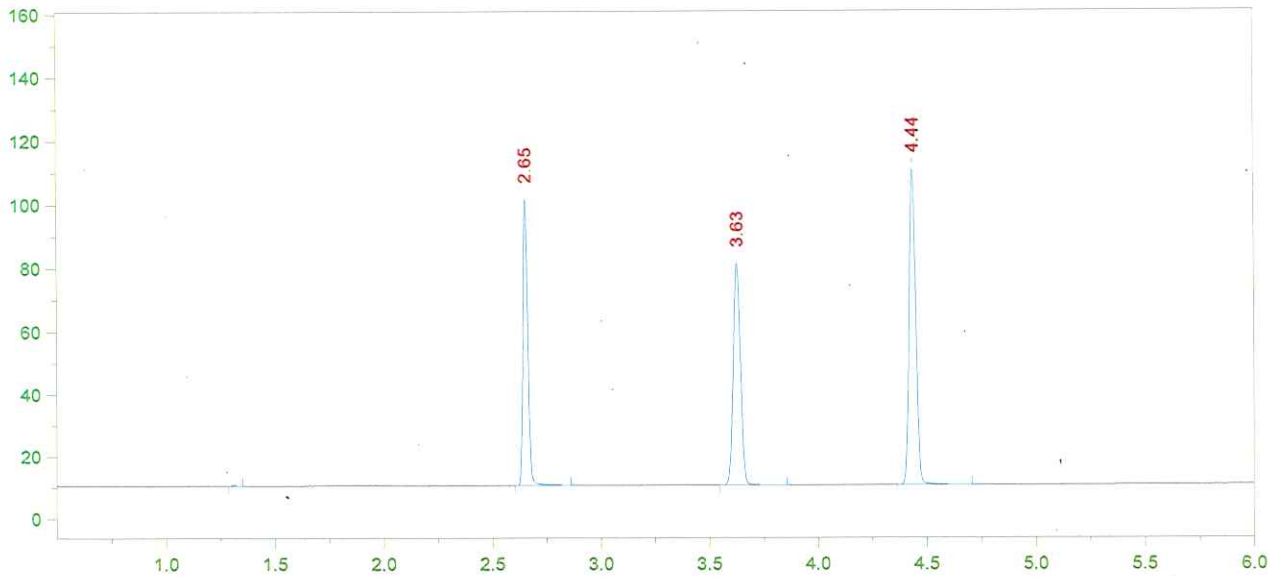


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 9:29:30 PM
Bound File Name = VFL04282016.0025.RAW
Sample Name = 0.1 AB
Date Taken = 4/28/2016 9:29:23 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	126887	0.1238	0.1011
3	3.63	t-Butanol	143343	0.9676	0.7898
4	4.44	n-Propanol	189184	1.0000	0.8162

16-05-100 JS 61

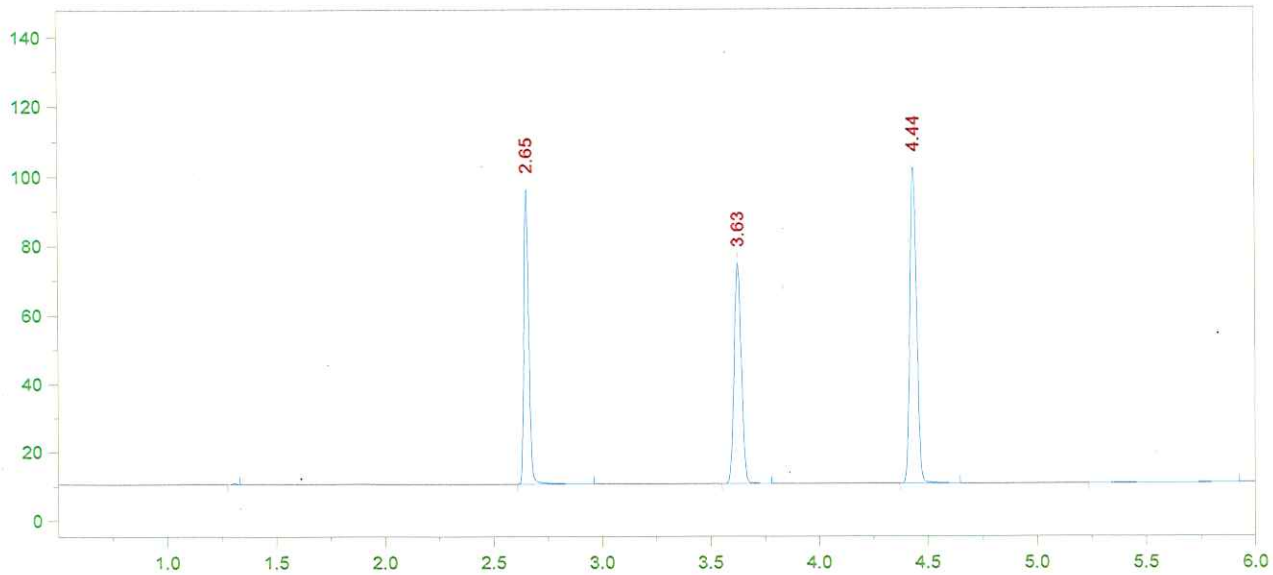


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 9:45:03 PM
Bound File Name = VFL04282016.0026.RAW
Sample Name = 0.1 AB
Date Taken = 4/28/2016 9:44:56 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	138864	0.1208	0.0986
3	3.63	t-Butanol	163719	0.9849	0.8039
4	4.44	n-Propanol	212278	1.0000	0.8162

16-05-100 62

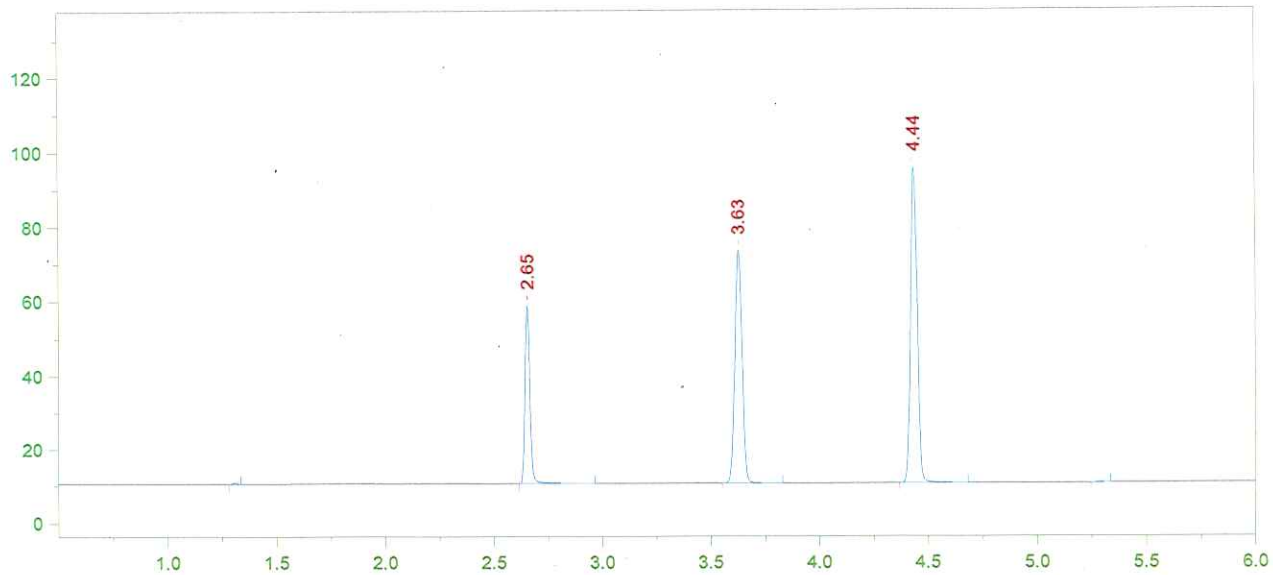


Format File Name = simsolnVFL.met.FMT

Today's Date = 4/28/2016
Today's Time = 10:00:35 PM
Bound File Name = VFL04282016.0027.RAW
Sample Name = 0.1 AB
Date Taken = 4/28/2016 10:00:27 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	131689	0.1244	0.1015
3	3.63	t-Butanol	147971	0.9667	0.7890
4	4.44	n-Propanol	195483	1.0000	0.8162

16-05-100 63

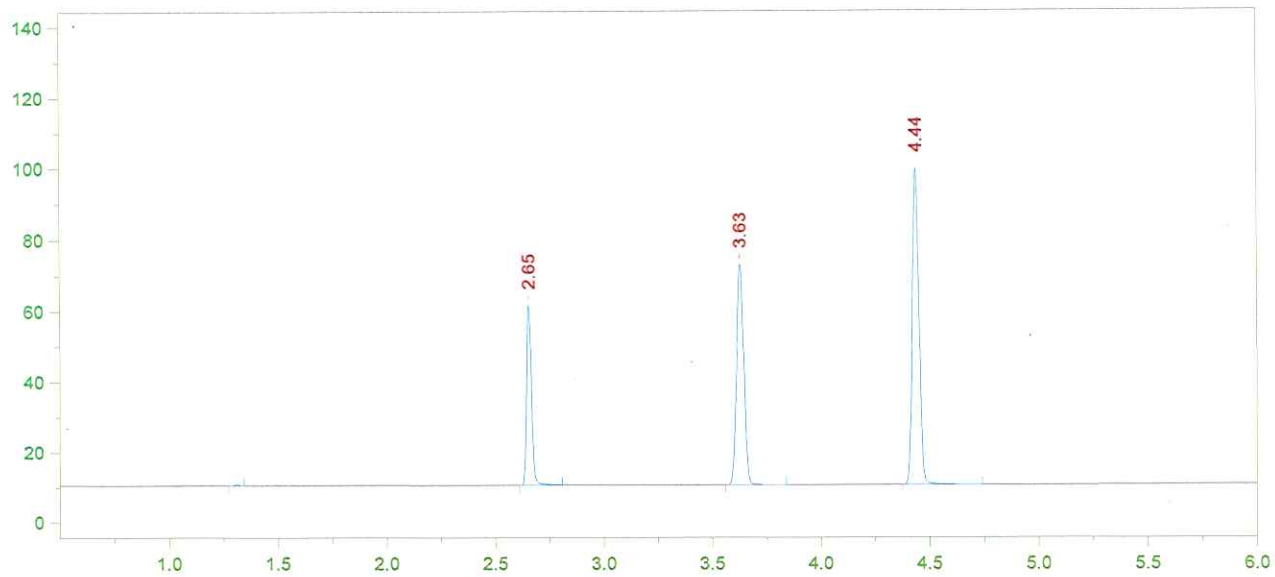


Format File Name = AlcoholVFL.FMT

Today's Date = 4/28/2016
Today's Time = 11:50:48 PM
Bound File Name = VFL04282016.0034.RAW
Sample Name = CCS
Date Taken = 4/28/2016 11:50:38 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	75055	0.0765
3	3.63	t-Butanol	145768	1.0282
4	4.44	n-Propanol	181047	1.0000

16-05-100 64



Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 12:04:37 AM
Bound File Name = VFL04282016.0035.RAW
Sample Name = CCS
Date Taken = 4/29/2016 12:04:32 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	78920	0.0771
3	3.63	t-Butanol	144657	0.9775
4	4.44	n-Propanol	188987	1.0000

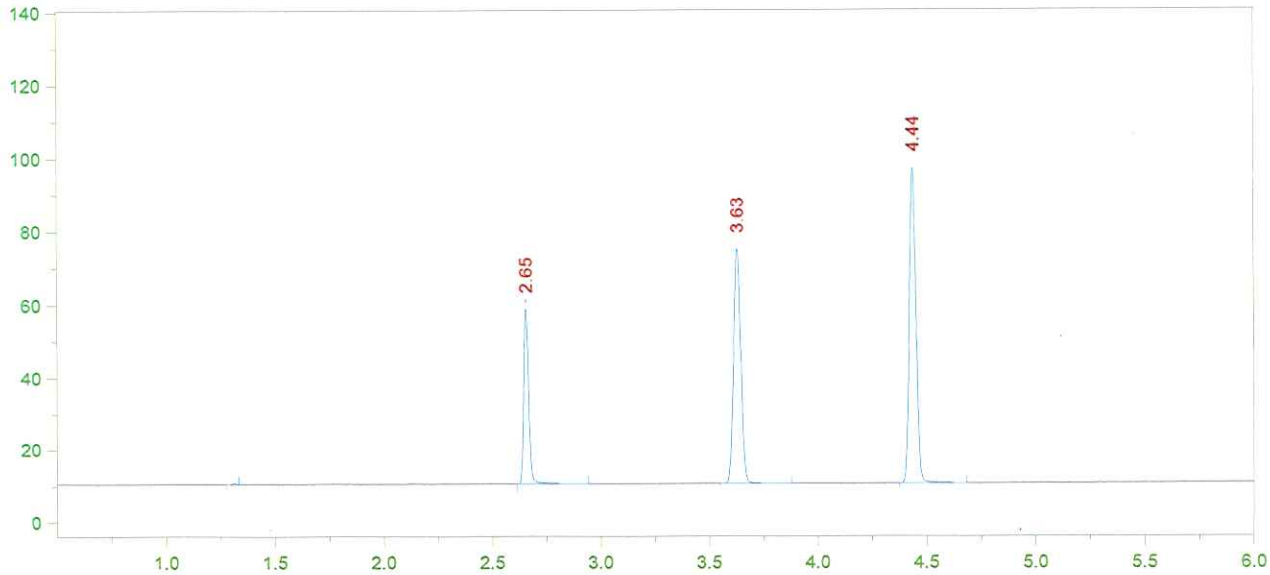
CCS MEAN: 0.0768

±5%: 0.0729 - 0.0806

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

[illegible] 5/2/16

16-09-100 [illegible] 65

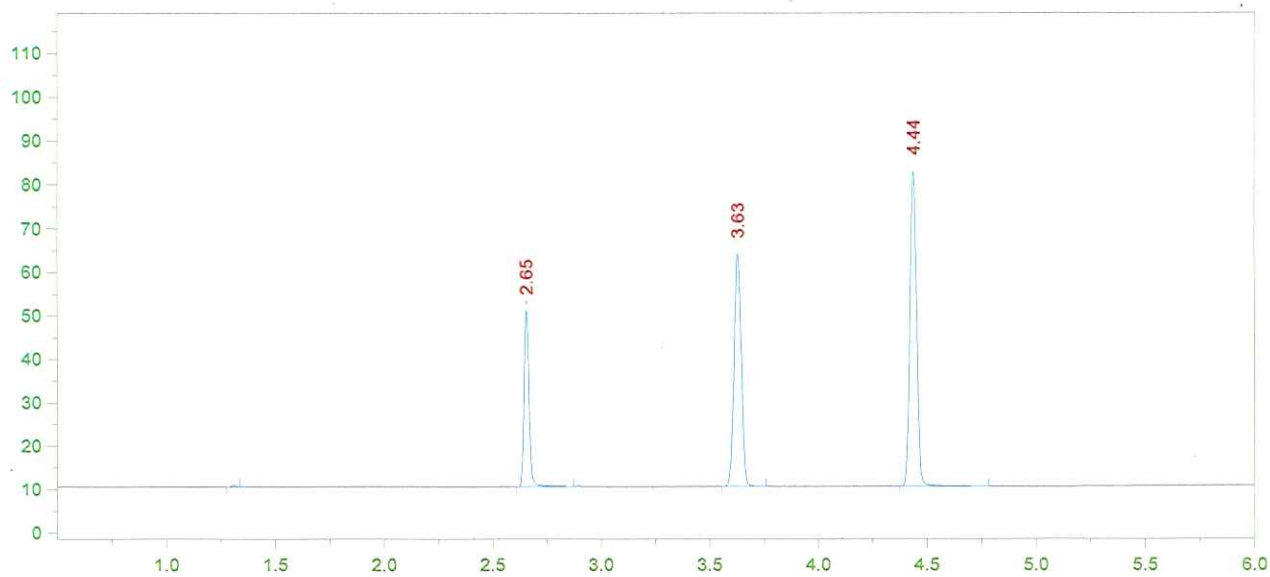


Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 2:26:17 AM
Bound File Name = VFL04282016.0044.RAW
Sample Name = CCS
Date Taken = 4/29/2016 2:26:10 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	75554	0.0761
3	3.63	t-Butanol	149365	1.0408
4	4.44	n-Propanol	183270	1.0000

16-05-100 66



Format File Name = AlcoholVFL.FMT

Today's Date = 4/29/2016
Today's Time = 2:40:20 AM
Bound File Name = VFL04282016.0045.RAW
Sample Name = CCS
Date Taken = 4/29/2016 2:40:10 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL04282016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	63481	0.0763
3	3.63	t-Butanol	123486	1.0266
4	4.44	n-Propanol	153603	1.0000

CCS MEAN: 0.0762

±5%: 0.0724 - 0.0800

Recovery: $\frac{0.076}{0.080}$ = 95.0%

5/2/16

16-05-100 67