VERMONT FORENSIC LABORATORY

SIMULATOR SOLUTION REVIEW CHECKLIST

SOLUTION TYPE AND VOLUME: 0.10 EXTERNAL STANDARD, 20 L

LOT NUMBER#: 16-15-100 **ANALYST:** [signature]

TECHNICAL REVIEWER: [signature] **DATE:** 7/25/16

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

Comments:

ADMINISTRATIVE REVIEWER: [signature] **DATE:** 7/26/2016

- [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

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 7/20/2016, an ethanol solution was prepared by ~~Amanda Bolduc~~ DAVID PATLAK 7/25/16 for use as a DataMaster External Standard solution. The solution was prepared per standard laboratory practice and assigned the lot number 16-15-100 and an expiration date of 7/20/2017.

On 7/21/2016 and 7/22/2016, the solution was analyzed against calibration VFL07212016.CAL and VFL07222016.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 0.100 g/210L simulated breath ethanol concentration and approved for use as a DataMaster External Standard solution.

Dated at Waterbury, Vermont this 26TH day of July, 2016.

~~Amanda Bolduc~~ DAVID PATLAK 8/25/16

DMT External Standard Solution
Lot # 16-15-100 EtOHaq Conc: 0.100
Range: 0.095 - 0.105
Preparation Date: 7/20/2016 Expires: 7/20/2017

OPENED:

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OPENED:

VERMONT FORENSIC LABORATORY
Simulator Solution Worksheet

0.100 External Standard Solution 20L
Lot # 16-15-100
Prepared 7/20/2016 by DJP
Exp 7/20/2017

DJP Cal VFL07212016.cal
DJP/JSD Vials
Analyzed on 7/21/2016

0.0992	DJP
0.0991	
0.0989	
0.0999	
0.0992	
0.1001	
0.0987	
0.0997	JSD
0.0981	
0.0997	
0.0984	
0.1000	
0.0979	
0.0997	

Ave. =	0.0992
Std Dev. =	0.0007
Min. =	0.0979
Max. =	0.1001

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-06272016
TMX Lot #	TMX-08142015
BLMX Lot #	BL-06062016

DJP Cal VFL07222016.cal
DJP/JSD Vials
Analyzed on 7/22/2016

0.1004	DJP
0.1020	
0.1002	
0.1001	
0.1002	
0.1012	
0.1003	
0.1005	JSD
0.0999	
0.1008	
0.0990	
0.1011	
0.1002	
0.1004	

Ave. =	0.1005
Std Dev. =	0.0007
Min. =	0.0990
Max. =	0.1020

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-06272016
TMX Lot #	TMX-08142015
BLMX Lot #	BL-06062016

7/22/16

Total Values from Both Runs

Average	Mean
0.0992	0.0979
0.0991	0.0981
0.0989	0.0984
0.0999	0.0987
0.0992	0.0989
0.1001	0.0990
0.0987	0.0991
0.0997	0.0992
0.0981	
0.0997	0.0997
0.0984	
0.1000	
0.0979	0.0999
0.0997	
0.1004	0.1000
0.1020	0.1001
0.1002	
0.1001	0.1002
0.1002	
0.1012	
0.1003	0.1003
0.1005	0.1004
0.0999	
0.1008	0.1005
0.0990	0.1008
0.1011	0.1011
0.1002	0.1012
0.1004	0.1020

Ave. =	0.0998
Avg Std Dev. =	0.0009
Mean =	0.0998
Mean Std Dev. =	0.0011
Min. =	0.0979
Max =	0.1020
RPD =	4.11%

File Name = C:\Alcohol Data\VFL07212016\VFL07212016.SEQ
Version = 2
File Date = 7/21/2016 10:30:15 AM

Entry #	Raw File Name	Method File Name	Sample Name	Sample Wt.	Int. Std. Amount
1	VFL07212016.0001.raw	Blood Alc temp VFL.MET	BLANK	1.00	1.00
2	VFL07212016.0002.raw	Blood Alc temp VFL.MET	TMX	1.00	1.00
3	VFL07212016.0003.raw	Blood Alc temp VFL.MET	STD A	1.00	1.00
4	VFL07212016.0004.raw	Blood Alc temp VFL.MET	STD B	1.00	1.00
5	VFL07212016.0005.raw	Blood Alc temp VFL.MET	STD C	1.00	1.00
6	VFL07212016.0006.raw	Blood Alc temp VFL.MET	STD D	1.00	1.00
7	VFL07212016.0007.raw	Blood Alc temp VFL.MET	STD E	1.00	1.00
8	VFL07212016.0008.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
9	VFL07212016.0009.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
10	VFL07212016.0010.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
11	VFL07212016.0011.raw	Blood Alc temp VFL.MET	CCS 7/25/16	1.00	1.00
12	VFL07212016.0012.raw	simsoln.met	16-14-100 DP	1.00	1.00
13	VFL07212016.0013.raw	simsoln.met	16-14-100 DP	1.00	1.00
14	VFL07212016.0014.raw	simsoln.met	16-14-100 DP	1.00	1.00
15	VFL07212016.0015.raw	simsoln.met	16-14-100 DP	1.00	1.00
16	VFL07212016.0016.raw	simsoln.met	16-14-100 DP	1.00	1.00
17	VFL07212016.0017.raw	simsoln.met	16-14-100 DP	1.00	1.00
18	VFL07212016.0018.raw	simsoln.met	16-14-100 DP	1.00	1.00
19	VFL07212016.0019.raw	Blood Alc temp VFL.MET	CCS 15	1.00	1.00
20	VFL07212016.0020.raw	Blood Alc temp VFL.MET	CCS 7/25/16	1.00	1.00
21	VFL07212016.0021.raw	simsoln.met	16-14-100 JD	1.00	1.00
22	VFL07212016.0022.raw	simsoln.met	16-14-100 JD	1.00	1.00
23	VFL07212016.0023.raw	simsoln.met	16-14-100 JD	1.00	1.00
24	VFL07212016.0024.raw	simsoln.met	16-14-100 JD	1.00	1.00
25	VFL07212016.0025.raw	simsoln.met	16-14-100 JD	1.00	1.00
26	VFL07212016.0026.raw	simsoln.met	16-14-100 JD	1.00	1.00
27	VFL07212016.0027.raw	simsoln.met	16-14-100 JD	1.00	1.00
28	VFL07212016.0028.raw	Blood Alc temp VFL.MET	CCS 15	1.00	1.00
29	VFL07212016.0029.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00

SOLUTION LOT #: 16-15-100
ON ALL PALLETS
7/25/16

16-15-100

2

File Name: C:\Methods\VFL07212016.CAL
Version: 7

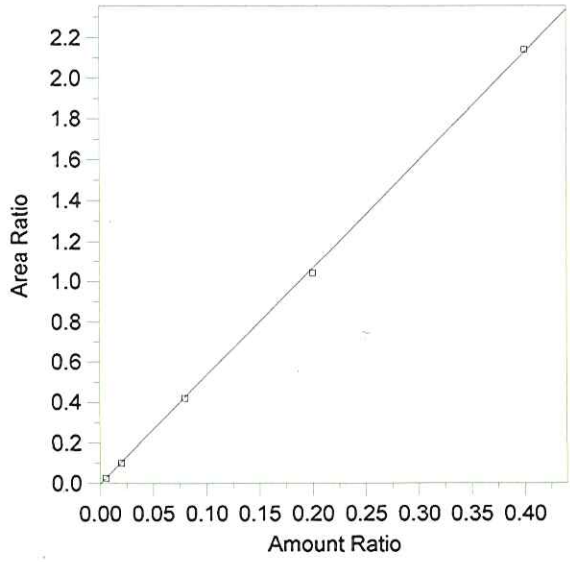
Creator:
Description:
Reason for change:

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 = 5.317866 X + 0

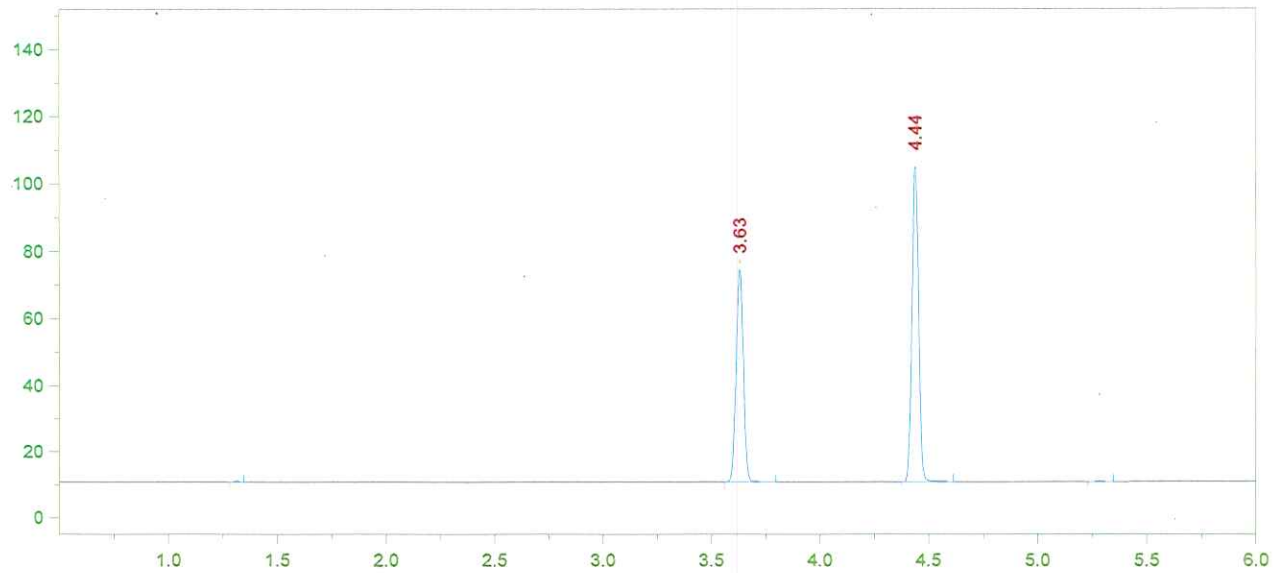
Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9997628
Average error:	2.065%
Average CF:	5.255765
RSD:	2.504%

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	4743.112	948622.4	1.649	0.005	2.702782E-02	C:\Alcohol Data\VFL07212016\VFL07212016.0003.BND	7/21/2016 11:40:02 AM
3	0.02	20543.36	1027168	-4.706	0.02	0.1013518	C:\Alcohol Data\VFL07212016\VFL07212016.0004.BND	7/21/2016 11:56:31 AM
4	0.08	79708.38	996354.8	-1.243	0.08	0.4201405	C:\Alcohol Data\VFL07212016\VFL07212016.0005.BND	7/21/2016 12:10:43 PM
5	0.2	206898.9	1034495	-2.133	0.2	1.040887	C:\Alcohol Data\VFL07212016\VFL07212016.0006.BND	7/21/2016 12:27:54 PM
6	0.4	359312.4	898281	0.594	0.4	2.139792	C:\Alcohol Data\VFL07212016\VFL07212016.0007.BND	7/21/2016 12:42:54 PM

16-15-100

3



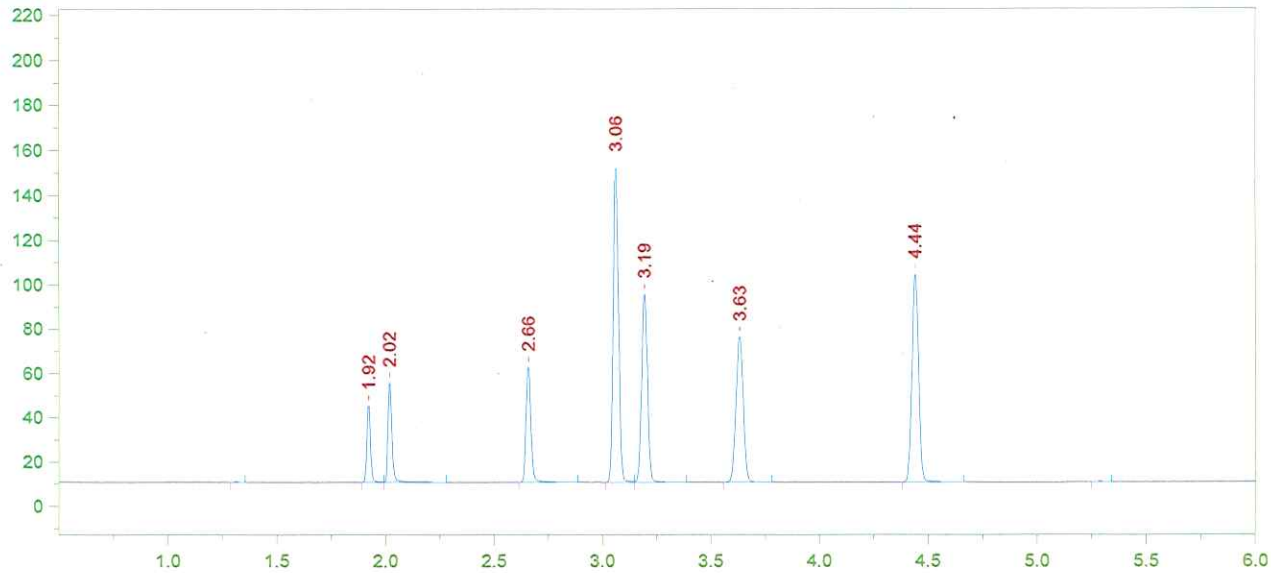
Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 8:15:56 AM
Bound File Name = VFL07212016.0001.RAW
Sample Name = BLANK
Date Taken = 7/21/2016 11:07:34 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	3.63	t-Butanol	147918	0.9814
3	4.44	n-Propanol	199270	1.0000

16-15-100

4



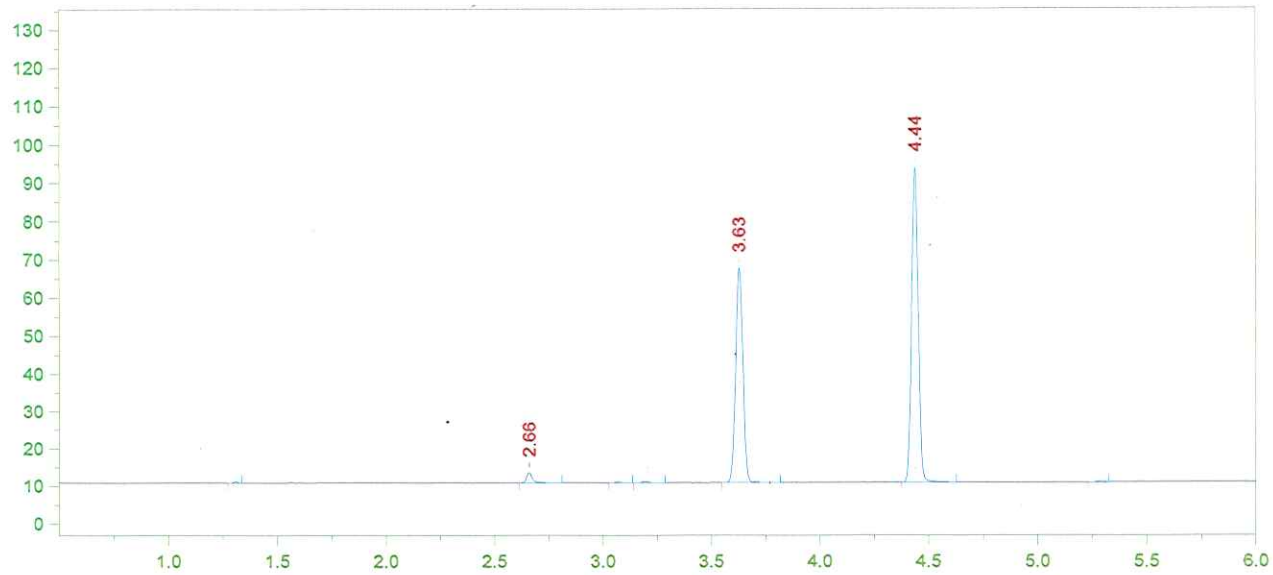
Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 8:16:04 AM
Bound File Name = VFL07212016.0002.RAW
Sample Name = TMX
Date Taken = 7/21/2016 11:24:58 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	1.92	Acetaldehyde	41329	0.0686
3	2.02	Methanol	57553	0.1169
4	2.66	Ethanol	80613	0.0768
5	3.06	Acetone	242467	0.0612
6	3.19	Isopropanol	158301	0.0780
7	3.63	t-Butanol	151237	1.0130
8	4.44	n-Propanol	197385	1.0000

16-15-100

5



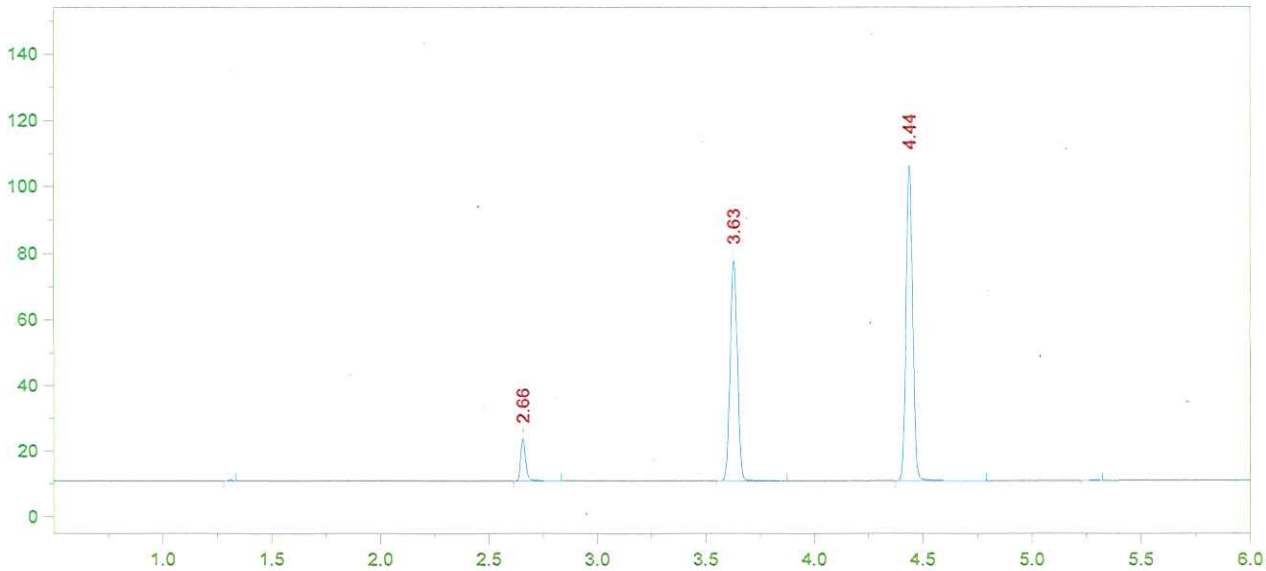
Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 8:16:10 AM
Bound File Name = VFL07212016.0003.RAW
Sample Name = STD A
Date Taken = 7/21/2016 11:39:51 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	04743	0.0051
5	3.63	t-Butanol	131575	0.9913
6	4.44	n-Propanol	175490	1.0000

16-15-100

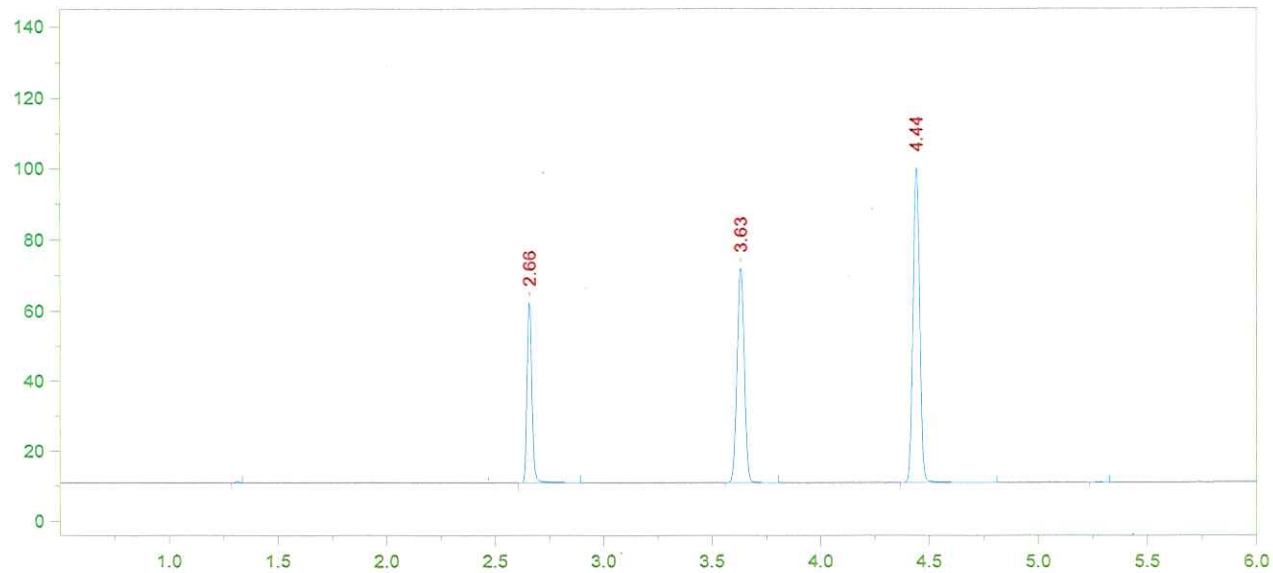
G



Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 8:16:17 AM
Bound File Name = VFL07212016.0004.RAW
Sample Name = STD B
Date Taken = 7/21/2016 11:56:23 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	20543	0.0191
3	3.63	t-Butanol	154939	1.0106
4	4.44	n-Propanol	202694	1.0000



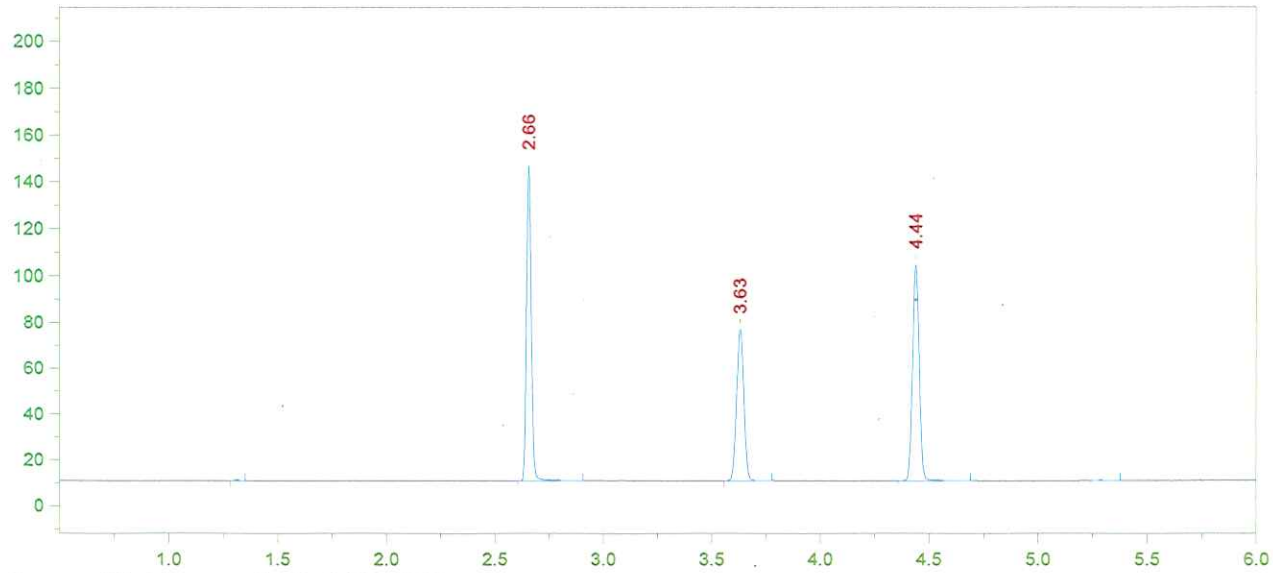
Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 8:16:25 AM
Bound File Name = VFL07212016.0005.RAW
Sample Name = STD C
Date Taken = 7/21/2016 12:10:33 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	79708	0.0790
3	3.63	t-Butanol	141395	0.9853
4	4.44	n-Propanol	189718	1.0000

16-15-100

8



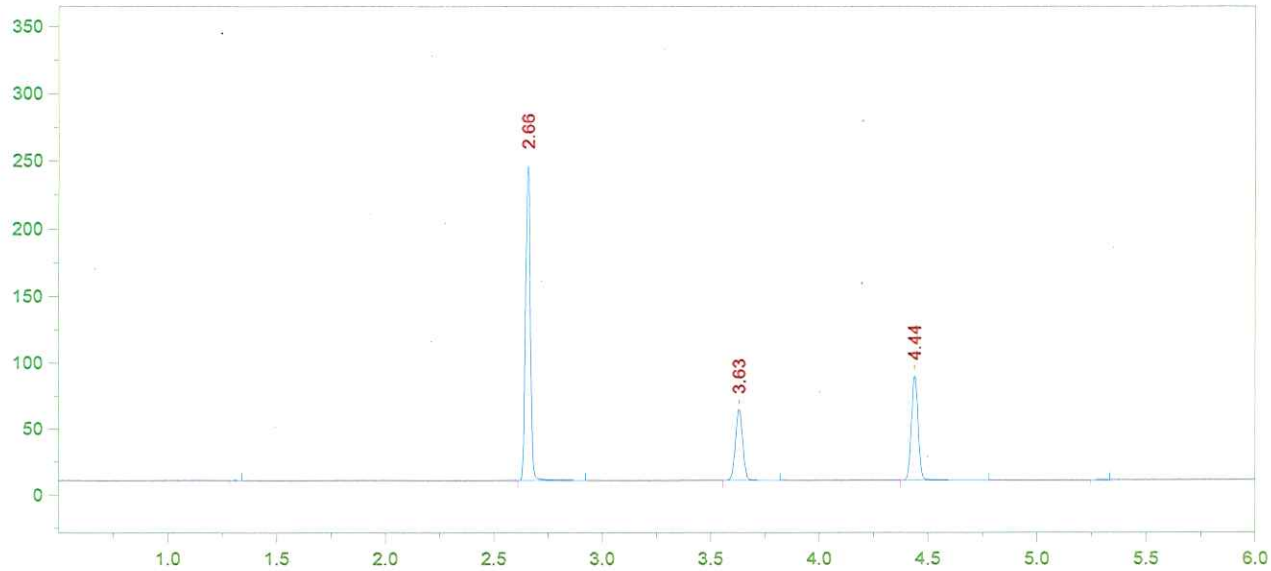
Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 8:16:31 AM
Bound File Name = VFL07212016.0006.RAW
Sample Name = STD D
Date Taken = 7/21/2016 12:27:50 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	206899	0.1957
3	3.63	t-Butanol	153109	1.0184
4	4.44	n-Propanol	198772	1.0000

16-15-100

9



Format File Name = AlcoholVFL.FMT

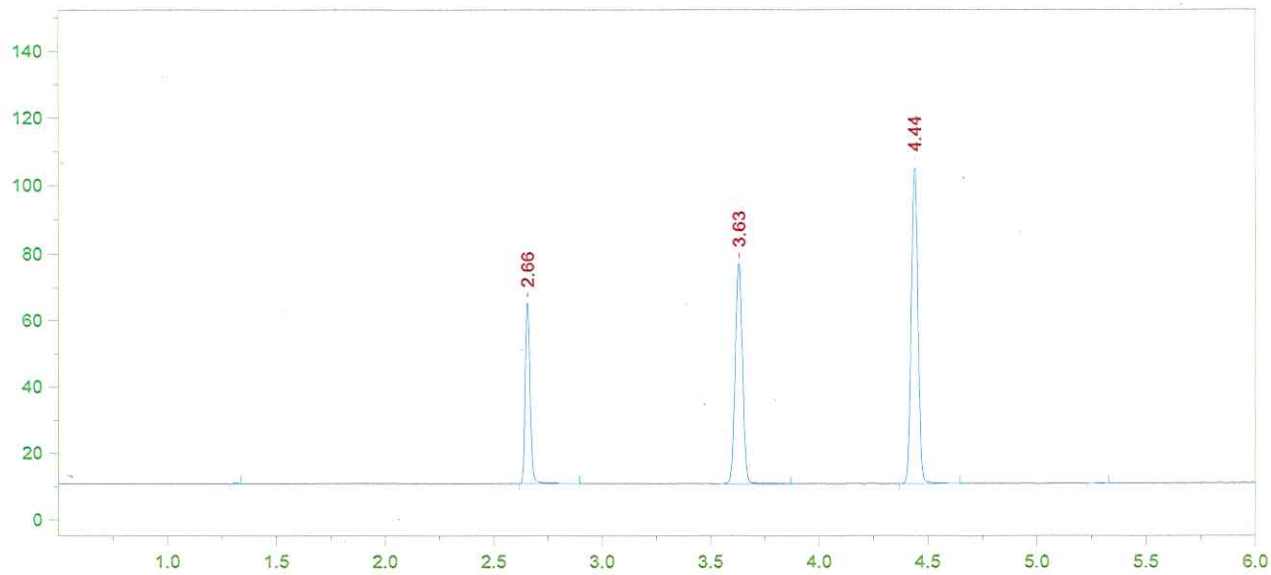
Today's Date = 7/22/2016
Today's Time = 8:16:38 AM
Bound File Name = VFL07212016.0007.RAW
Sample Name = STD E
Date Taken = 7/21/2016 12:42:45 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	359312	0.4024
3	3.63	t-Butanol	124651	0.9814
4	4.44	n-Propanol	167919	1.0000

16-15-100

DG

10



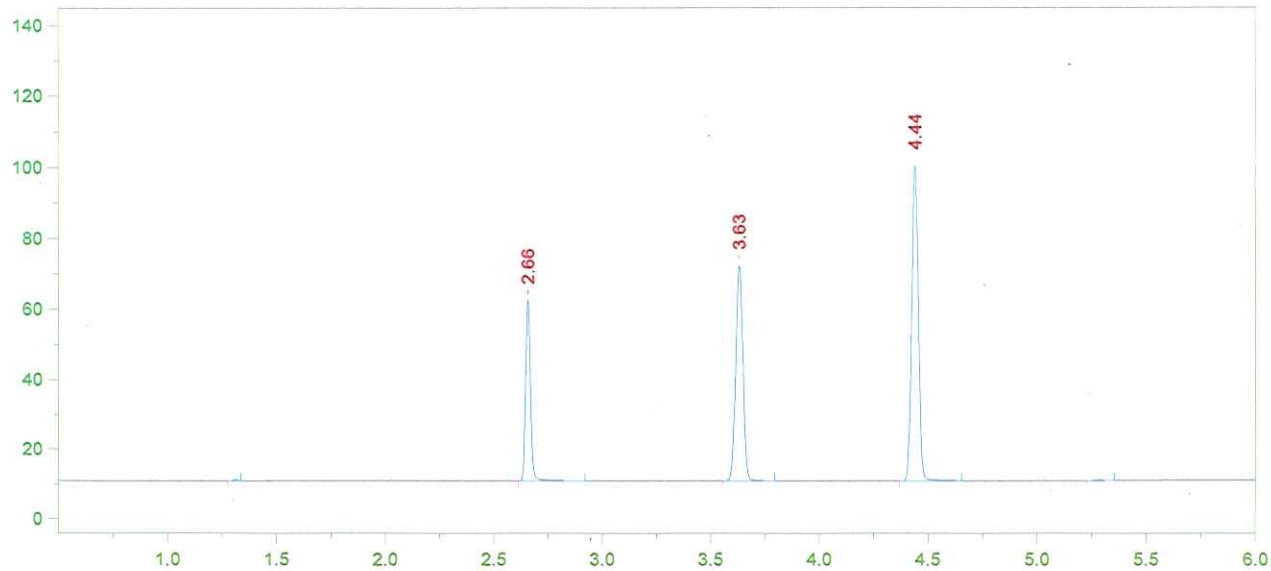
Format File Name = AlcoholVFL.FMT

Today's Date = 7/21/2016
Today's Time = 12:59:23 PM
Bound File Name = VFL07212016.0008.RAW
Sample Name = AQ
Date Taken = 7/21/2016 12:59:14 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	84269	0.0789
3	3.63	t-Butanol	153103	1.0080
4	4.44	n-Propanol	200814	1.0000

16-15-100

11



Format File Name = AlcoholVFL.FMT

Today's Date = 7/21/2016
Today's Time = 1:13:32 PM
Bound File Name = VFL07212016.0009.RAW
Sample Name = AQ
Date Taken = 7/21/2016 1:13:24 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	80037	0.0794
3	3.63	t-Butanol	141914	0.9903
4	4.44	n-Propanol	189470	1.0000

AQ meth : 0.0791

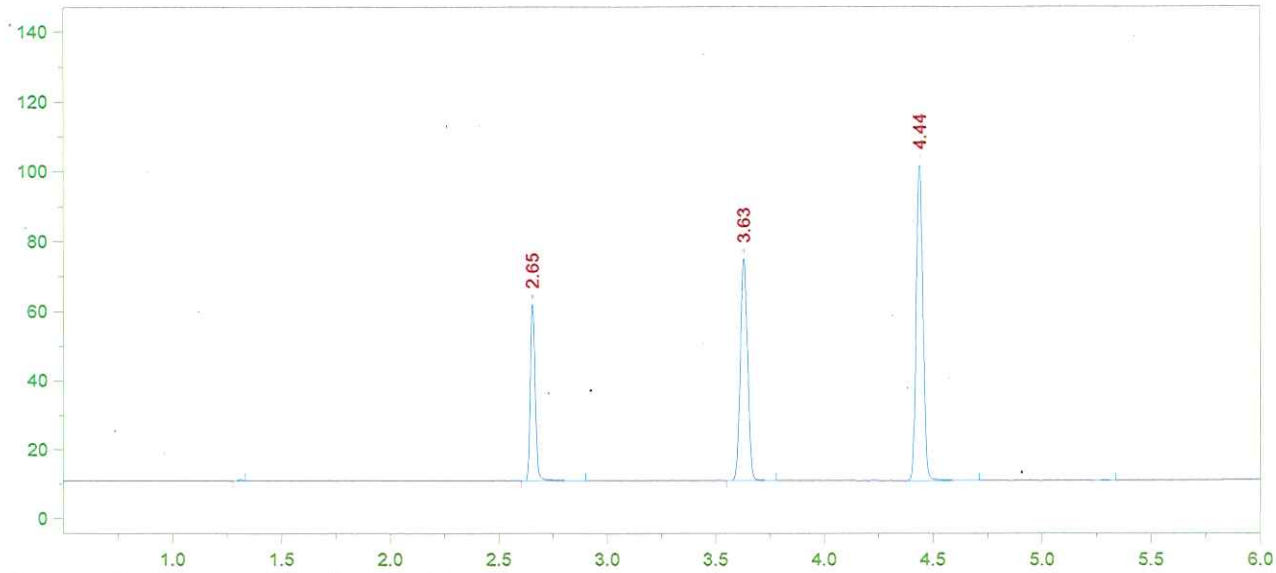
±5% : 0.0751 – 0.0830

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

7/25/16

16-15-100

12



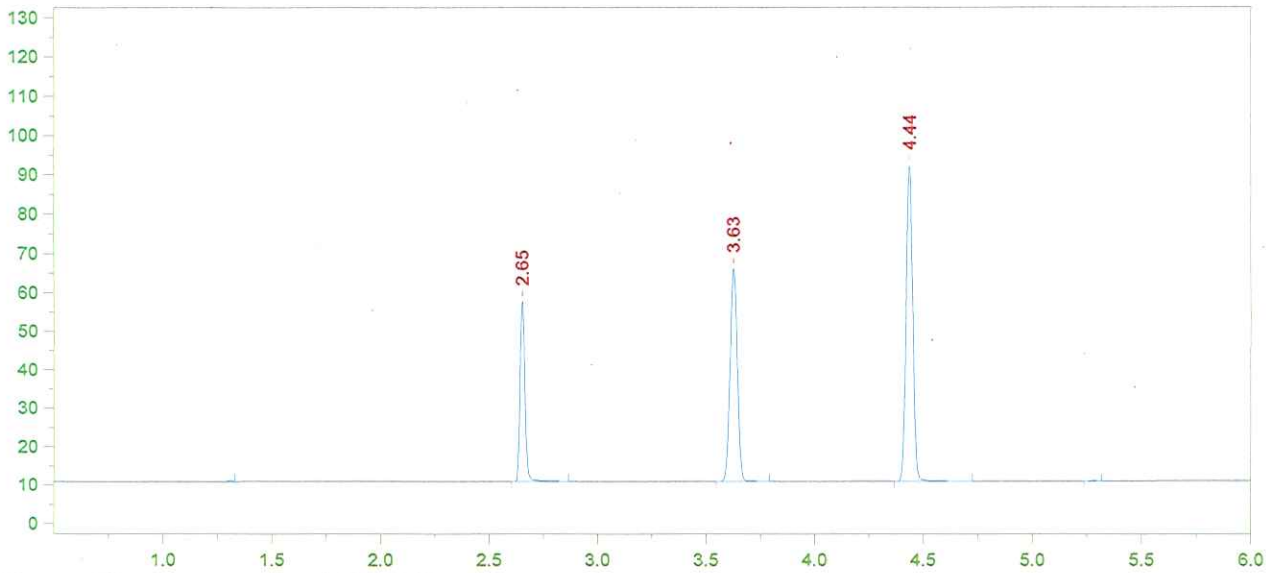
Format File Name = AlcoholVFL.FMT

Today's Date = 7/21/2016
Today's Time = 1:30:42 PM
Bound File Name = VFL07212016.0010.RAW
Sample Name = CCS
Date Taken = 7/21/2016 1:30:38 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	79693	0.0773
3	3.63	t-Butanol	147667	1.0071
4	4.44	n-Propanol	193863	1.0000

16-15-100

13



Format File Name = AlcoholVFL.FMT

Today's Date = 7/21/2016
Today's Time = 1:45:44 PM
Bound File Name = VFL07212016.0011.RAW
Sample Name = CCS
Date Taken = 7/21/2016 1:45:34 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	72606	0.0792
3	3.63	t-Butanol	127437	0.9771
4	4.44	n-Propanol	172432	1.0000

CCS MEAN: 0.0782

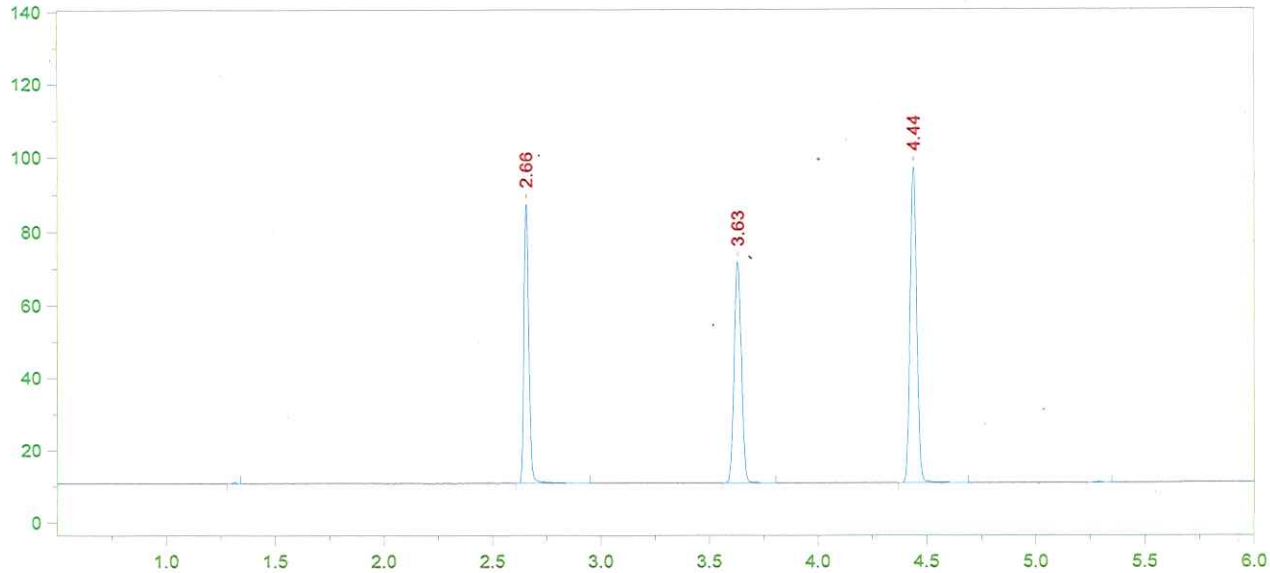
± 5% - 0.0743 - 0.0821

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

7/25/16

16-15-100

K



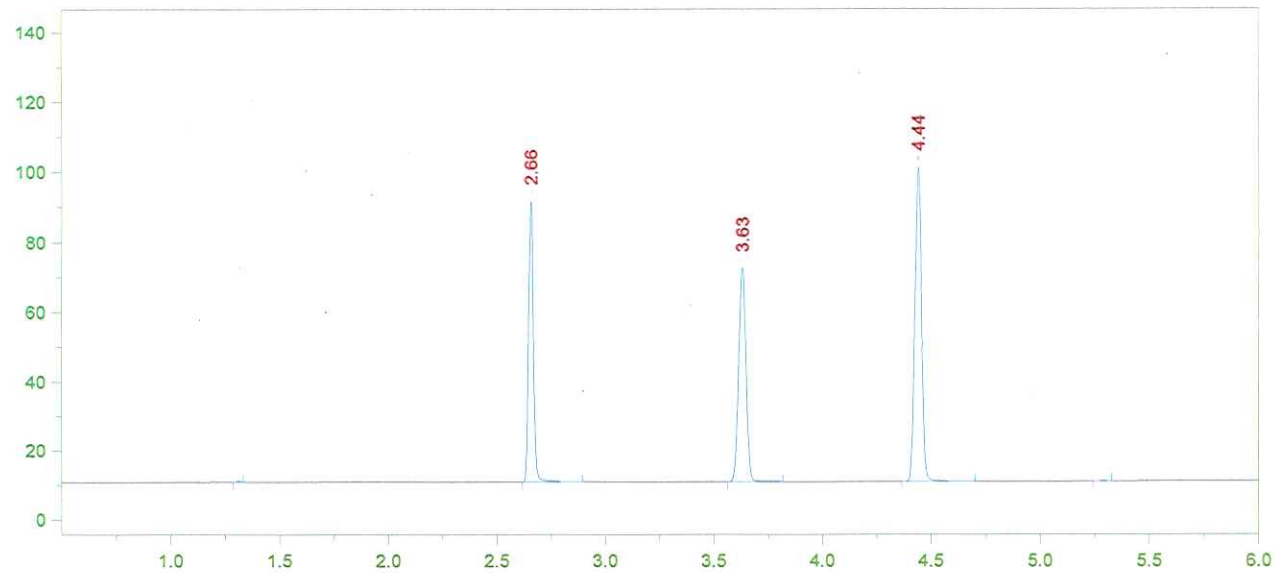
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 2:02:09 PM
Bound File Name = VFL07212016.0012.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/21/2016 2:02:00 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	118672	0.1215	0.0992
3	3.63	t-Butanol	140706	1.0132	0.8270
4	4.44	n-Propanol	183604	1.0000	0.8162

16-15-100

15



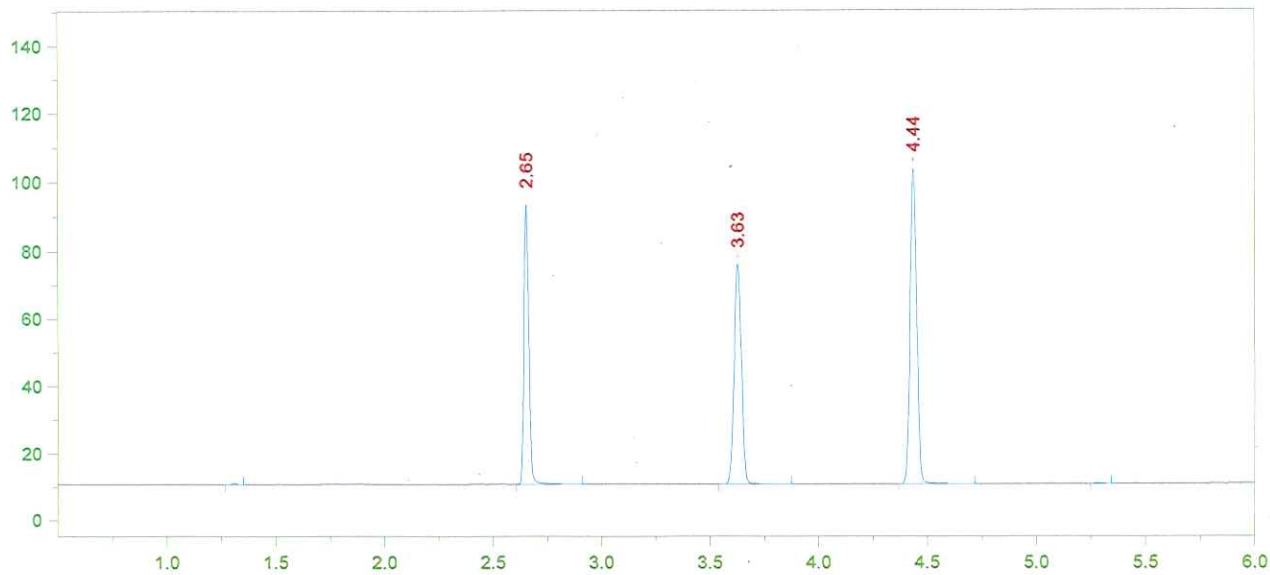
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 2:15:23 PM
Bound File Name = VFL07212016.0013.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/21/2016 2:15:18 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	123885	0.1214	0.0991
3	3.63	t-Butanol	143101	0.9862	0.8050
4	4.44	n-Propanol	191836	1.0000	0.8162

16-15-100

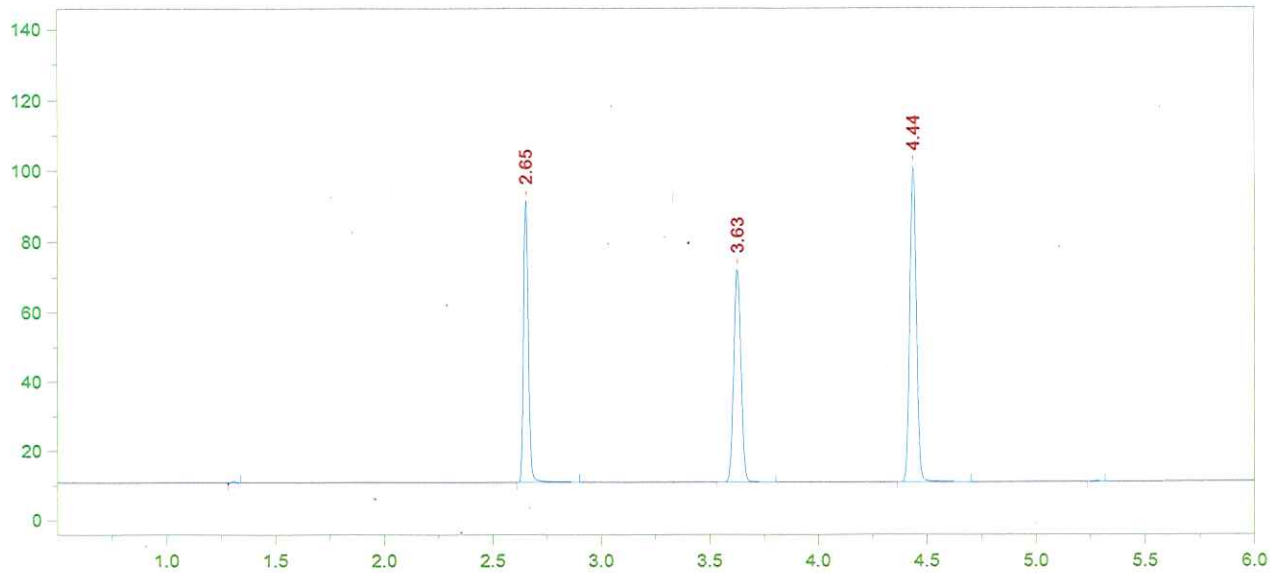
16



Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 2:33:34 PM
Bound File Name = VFL07212016.0014.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/21/2016 2:33:25 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

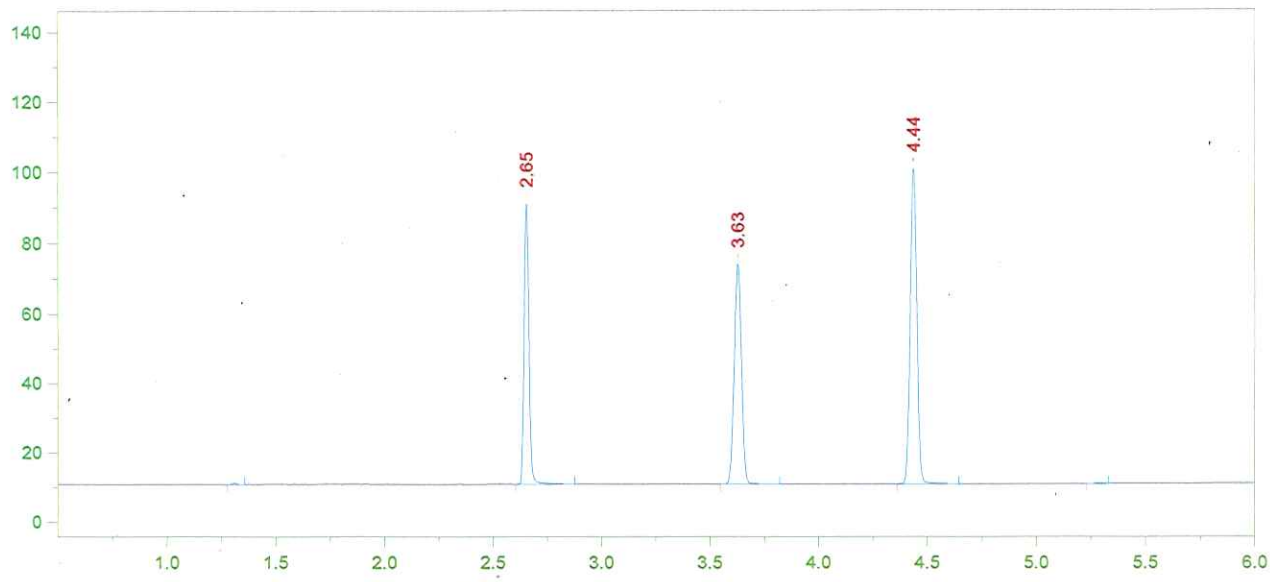
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	127098	0.1212	0.0989
3	3.63	t-Butanol	151796	1.0176	0.8306
4	4.44	n-Propanol	197219	1.0000	0.8162



Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 2:47:40 PM
Bound File Name = VFL07212016.0015.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/21/2016 2:47:35 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	124035	0.1223	0.0999
3	3.63	t-Butanol	141493	0.9813	0.8009
4	4.44	n-Propanol	190639	1.0000	0.8162



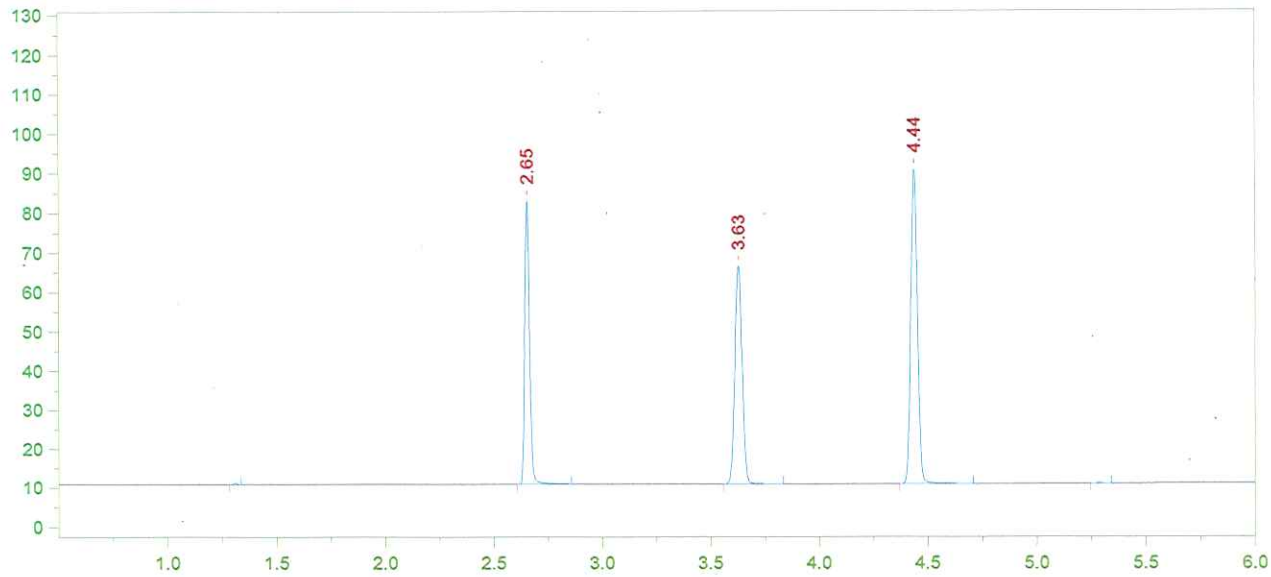
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 3:04:58 PM
Bound File Name = VFL07212016.0016.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/21/2016 3:04:49 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	123261	0.1216	0.0992
3	3.63	t-Butanol	146377	1.0150	0.8284
4	4.44	n-Propanol	190669	1.0000	0.8162

16-15-100

19



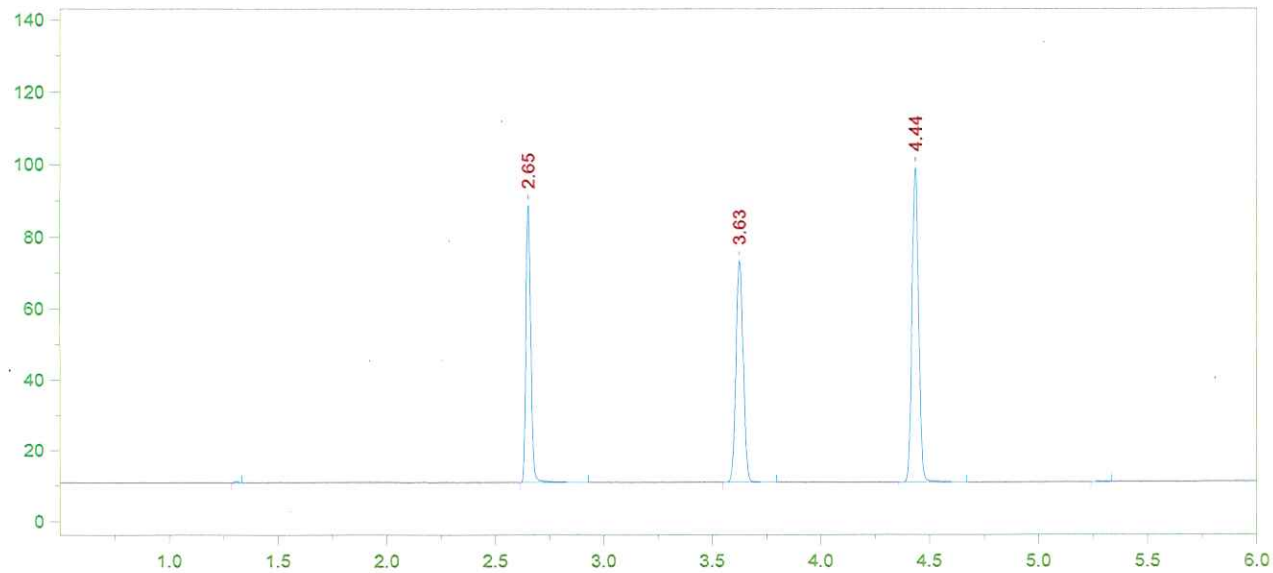
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 3:19:55 PM
Bound File Name = VFL07212016.0017.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/21/2016 3:19:44 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	110814	0.1227	0.1001
3	3.63	t-Butanol	129108	1.0047	0.8200
4	4.44	n-Propanol	169894	1.0000	0.8162

16-15-100

20



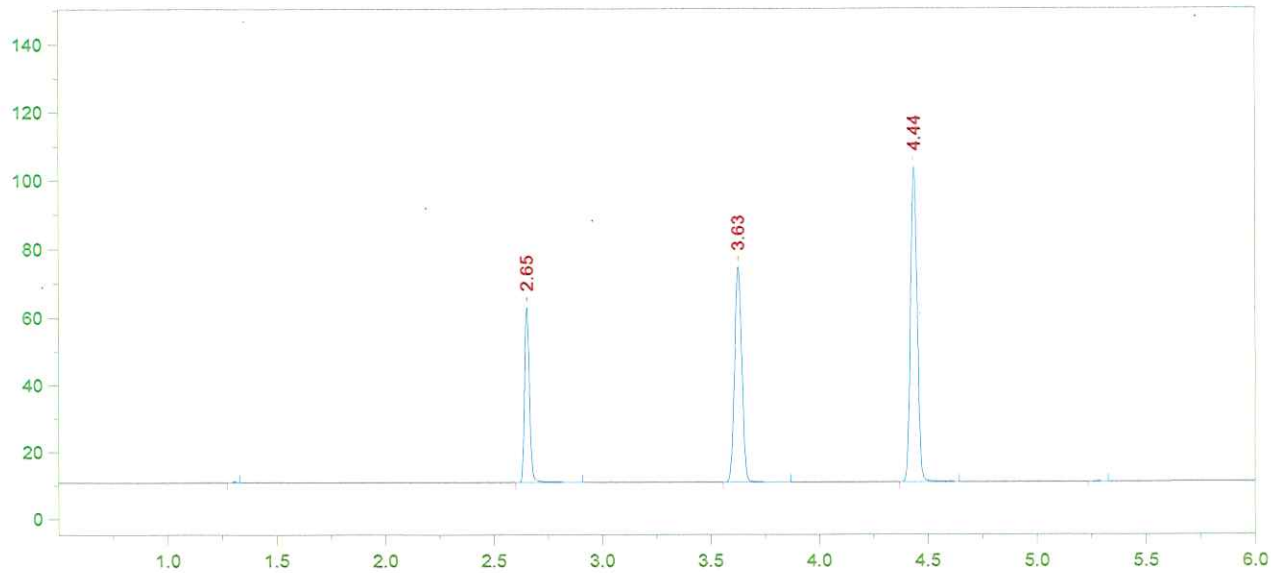
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 3:36:23 PM
Bound File Name = VFL07212016.0018.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/21/2016 3:36:16 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
3	2.65	Ethanol	120198	0.1210	0.0987
4	3.63	t-Butanol	144134	1.0197	0.8323
5	4.44	n-Propanol	186871	1.0000	0.8162

16-15-100

21



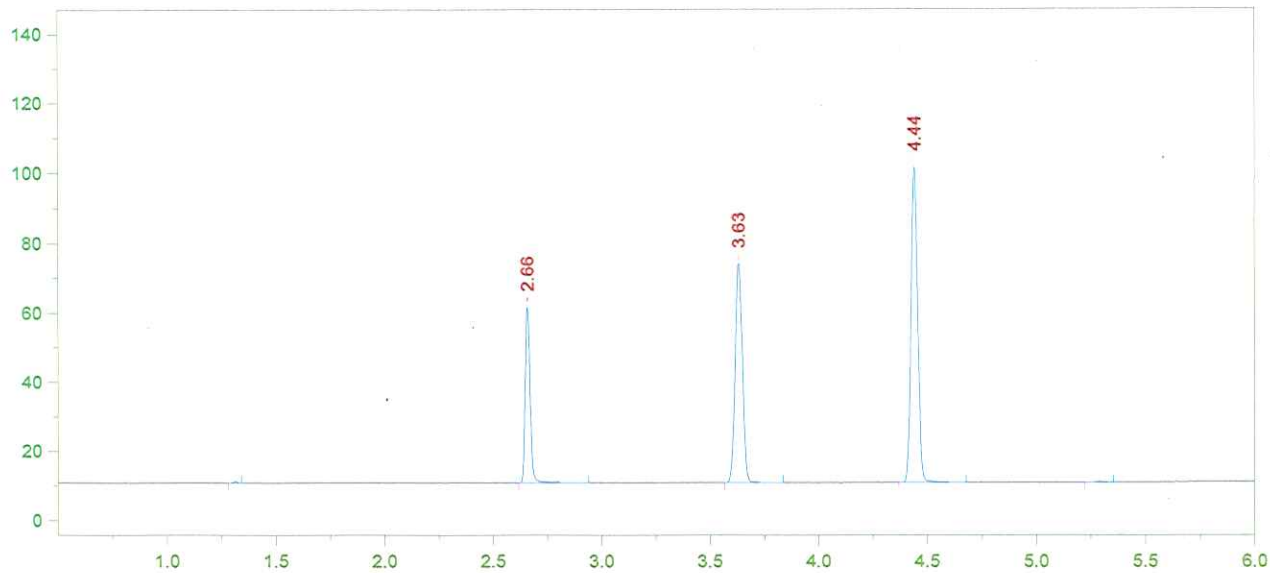
Format File Name = AlcoholVFL.FMT

Today's Date = 7/21/2016
Today's Time = 3:50:16 PM
Bound File Name = VFL07212016.0019.RAW
Sample Name = CCS
Date Taken = 7/21/2016 3:50:09 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	81263	0.0774
3	3.63	t-Butanol	147394	0.9876
4	4.44	n-Propanol	197311	1.0000

16-15-100

22



Format File Name = AlcoholVFL.FMT

Today's Date = 7/21/2016
Today's Time = 4:07:46 PM
Bound File Name = VFL07212016.0020.RAW
Sample Name = CCS
Date Taken = 7/21/2016 4:07:40 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	78906	0.0773
3	3.63	t-Butanol	146359	1.0076
4	4.44	n-Propanol	192037	1.0000

CCS MRW: 0.0773

±5% ~~CCS MRW:~~ 0.0734 - 0.0811

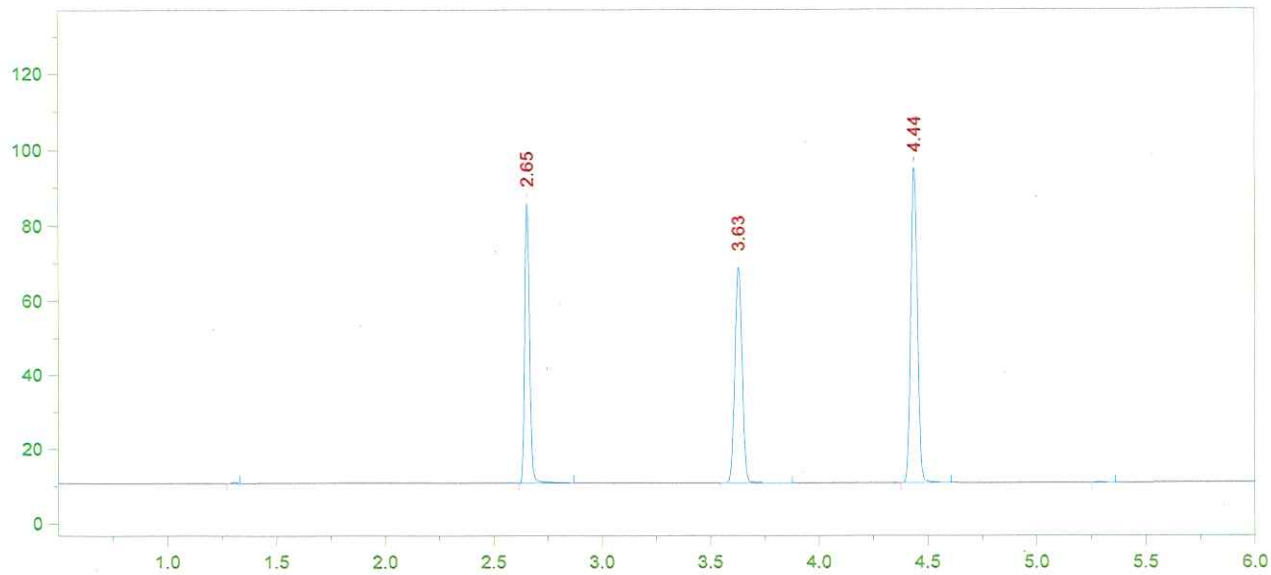
7/25/16

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

7/25/16

16-15-100

23



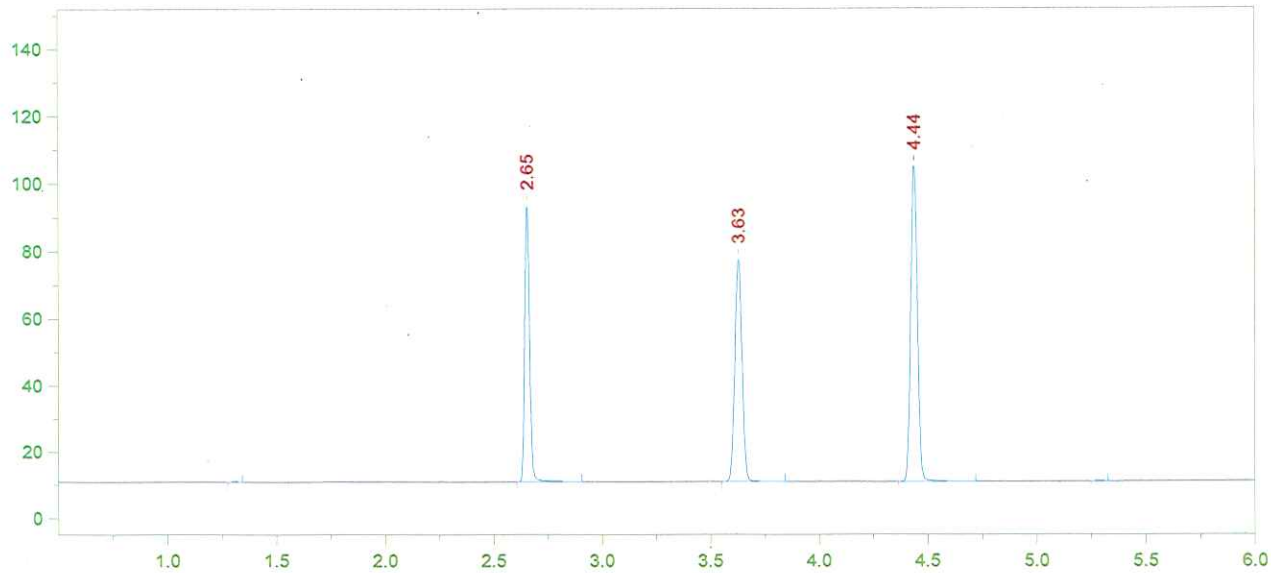
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 4:21:57 PM
Bound File Name = VFL07212016.0021.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/21/2016 4:21:51 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	115816	0.1221	0.0997
3	3.63	t-Butanol	134267	0.9951	0.8122
4	4.44	n-Propanol	178381	1.0000	0.8162

16-15-100

24



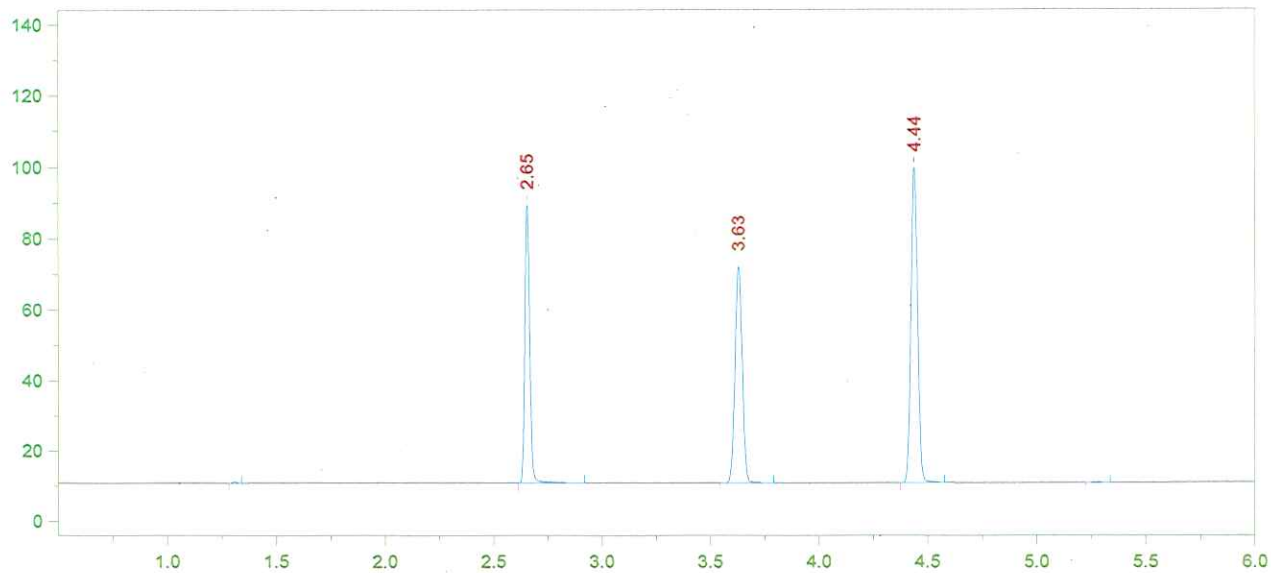
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 4:39:09 PM
Bound File Name = VFL07212016.0022.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/21/2016 4:39:02 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	127751	0.1202	0.0981
3	3.63	t-Butanol	153813	1.0173	0.8303
4	4.44	n-Propanol	199891	1.0000	0.8162

16-15-100

25



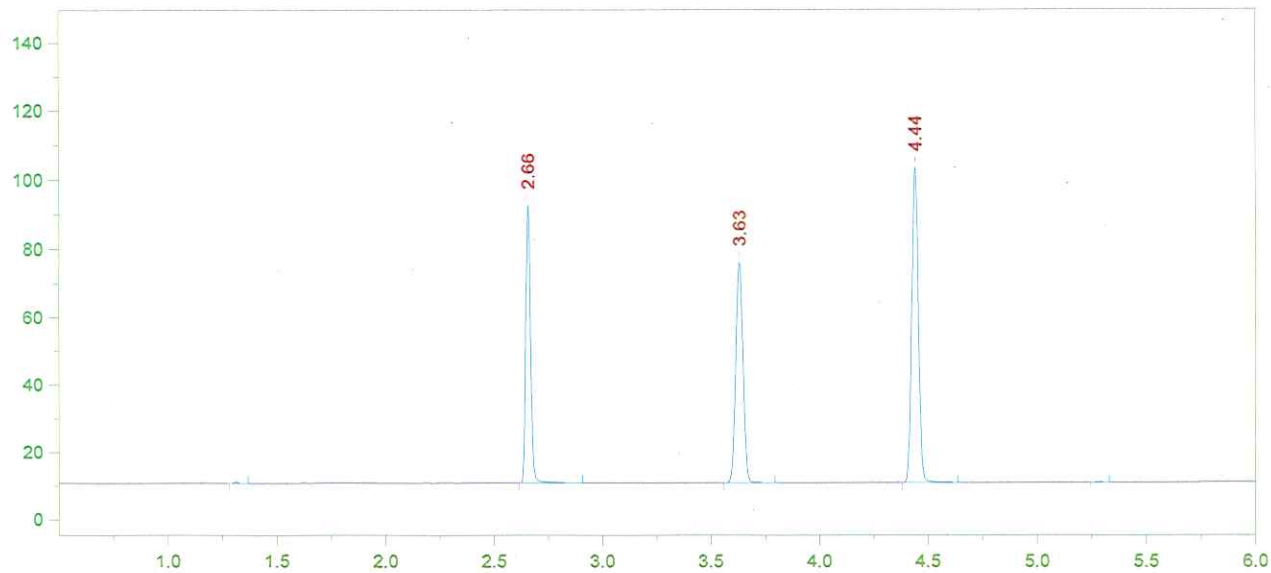
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 4:53:07 PM
Bound File Name = VFL07212016.0023.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/21/2016 4:53:02 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	122231	0.1222	0.0997
3	3.63	t-Butanol	141158	0.9918	0.8095
4	4.44	n-Propanol	188168	1.0000	0.8162

16-15-100

26



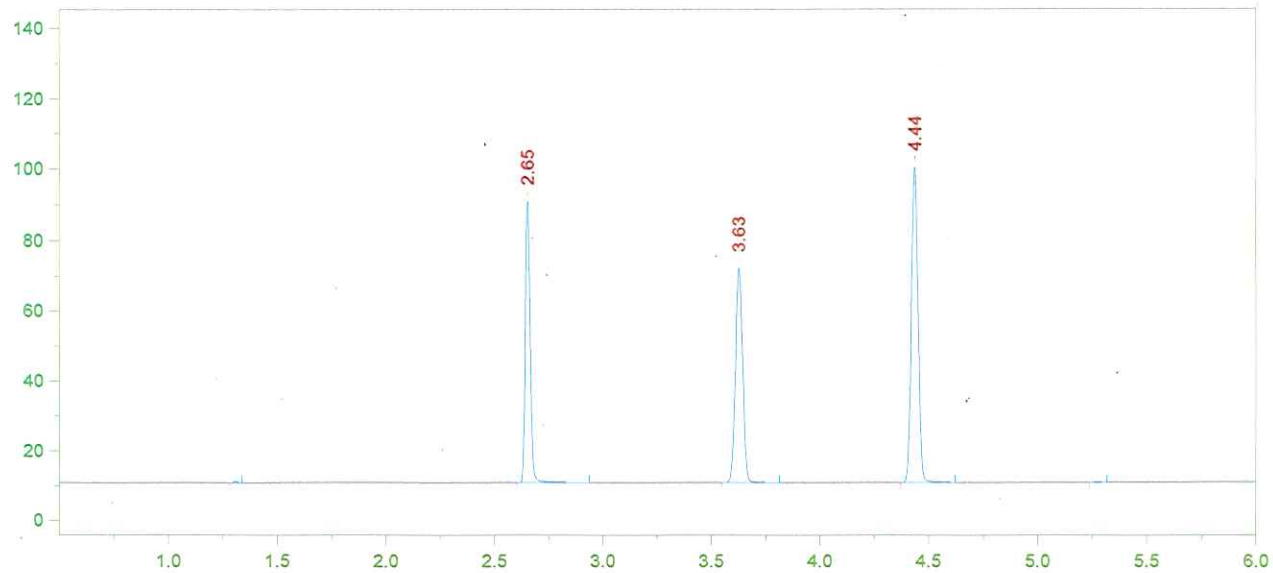
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 5:10:31 PM
Bound File Name = VFL07212016.0024.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/21/2016 5:10:26 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	125272	0.1205	0.0984
3	3.63	t-Butanol	150931	1.0209	0.8332
4	4.44	n-Propanol	195464	1.0000	0.8162

16-15-100

27



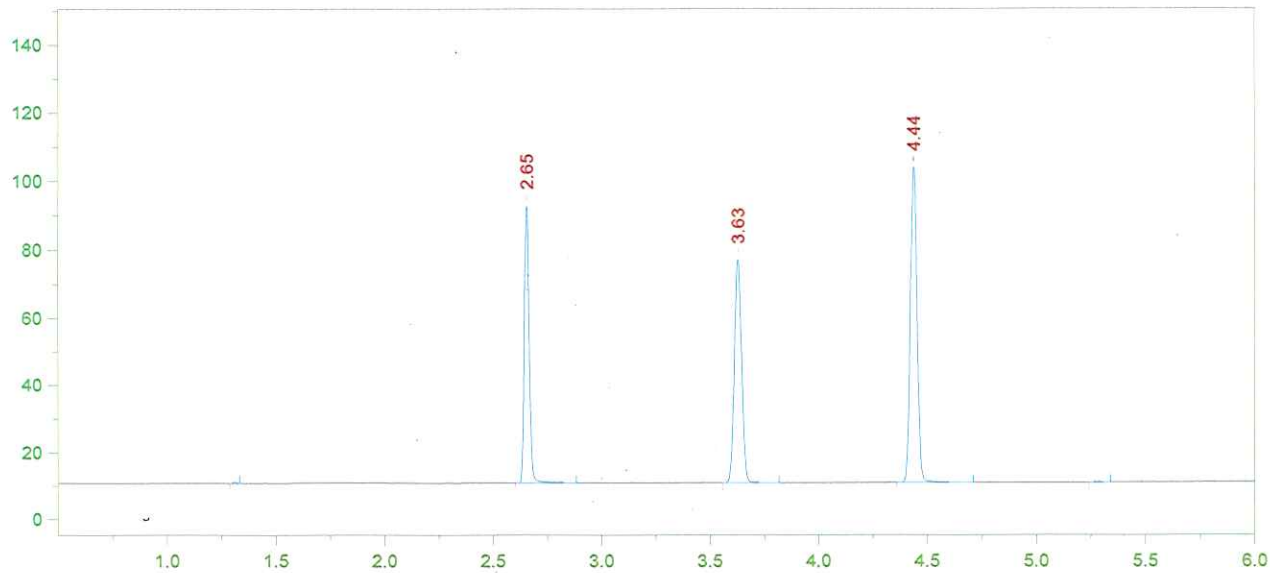
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 5:25:10 PM
Bound File Name = VFL07212016.0025.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/21/2016 5:25:05 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	123948	0.1225	0.1000
3	3.63	t-Butanol	141427	0.9829	0.8022
4	4.44	n-Propanol	190239	1.0000	0.8162

16-15-100

28



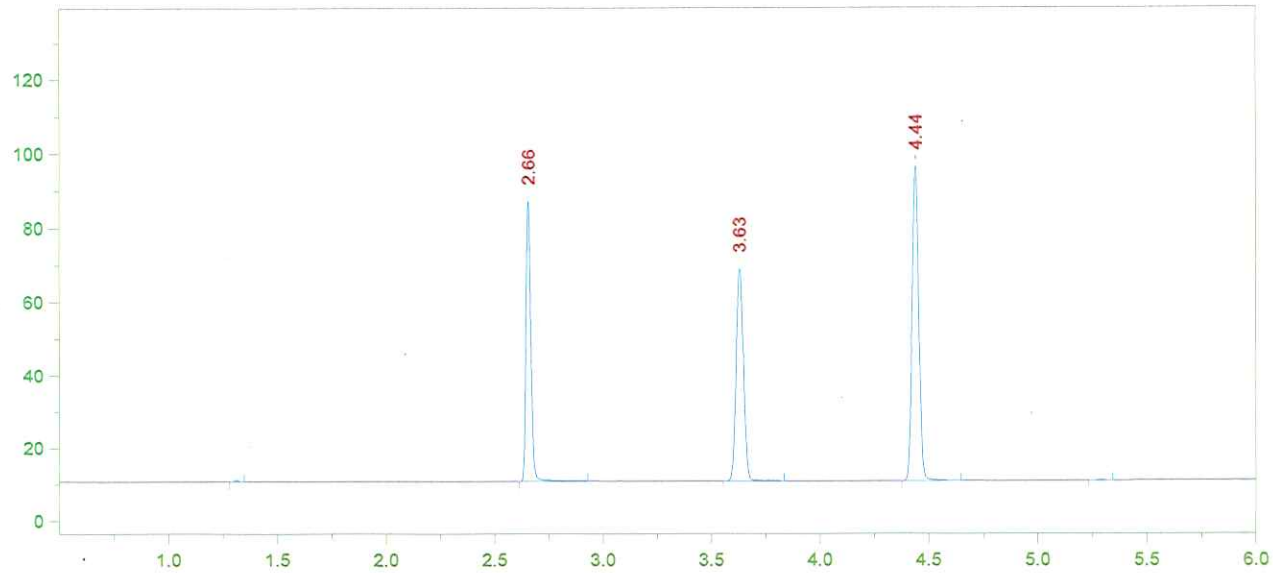
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 5:41:57 PM
Bound File Name = VFL07212016.0026.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/21/2016 5:41:51 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	126925	0.1200	0.0979
3	3.63	t-Butanol	153273	1.0186	0.8314
4	4.44	n-Propanol	198941	1.0000	0.8162

16-15-100

29



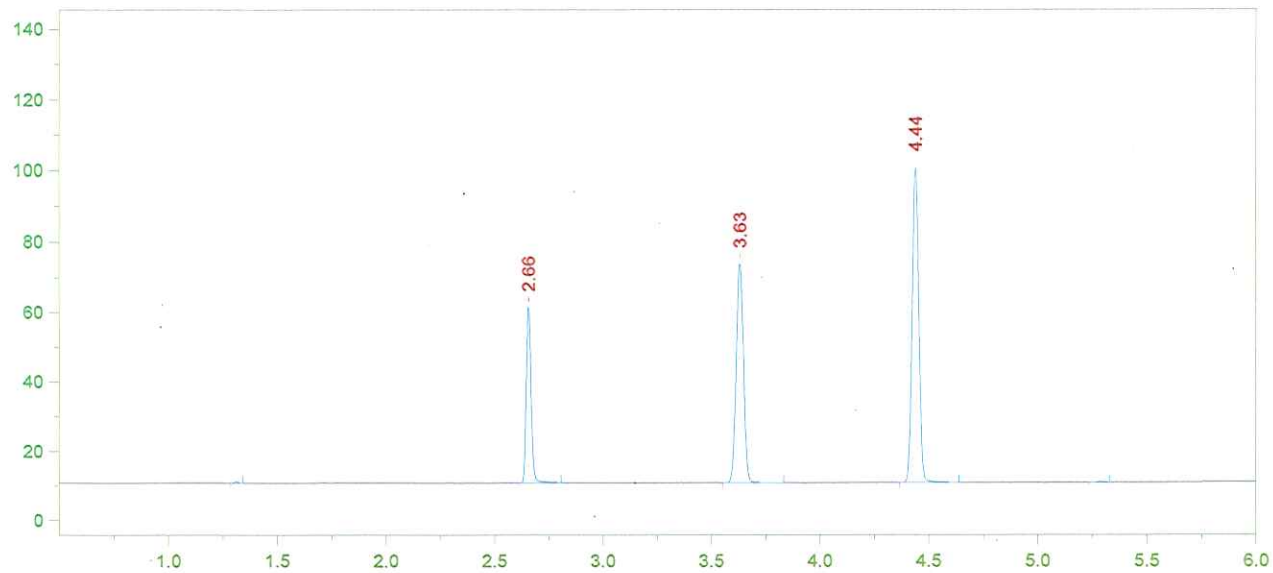
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/21/2016
Today's Time = 5:55:12 PM
Bound File Name = VFL07212016.0027.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/21/2016 5:55:03 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	118029	0.1221	0.0997
3	3.63	t-Butanol	134701	0.9798	0.7997
4	4.44	n-Propanol	181753	1.0000	0.8162

16-15-100

30



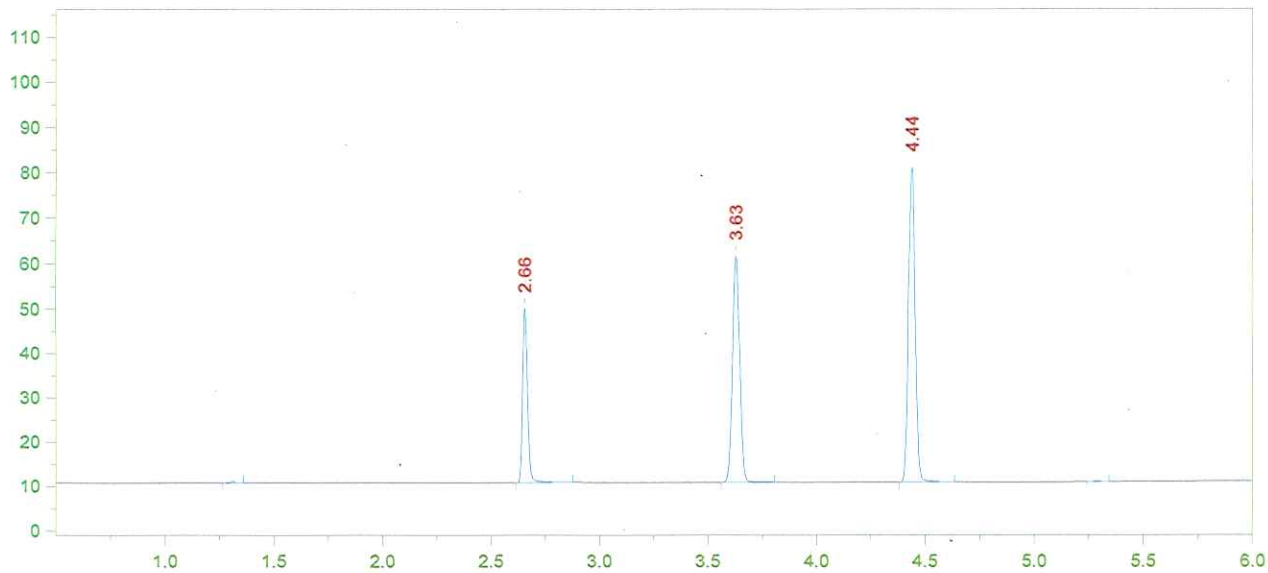
Format File Name = AlcoholVFL.FMT

Today's Date = 7/21/2016
Today's Time = 6:13:22 PM
Bound File Name = VFL07212016.0028.RAW
Sample Name = CCS
Date Taken = 7/21/2016 6:13:15 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.66	Ethanol	77608	0.0767
4	3.63	t-Butanol	145816	1.0134
5	4.44	n-Propanol	190231	1.0000

16-15-160

31



Format File Name = AlcoholVFL.FMT

Today's Date = 7/21/2016
Today's Time = 6:28:13 PM
Bound File Name = VFL07212016.0029.RAW
Sample Name = CCS
Date Taken = 7/21/2016 6:28:08 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07212016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	61230	0.0770
3	3.63	t-Butanol	116958	1.0340
4	4.44	n-Propanol	149541	1.0000

CCS MEAN: 0.0768

±5%: 0.0729 - 0.0806

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

7/25/16

16-15-100

32

File Name = C:\Alcohol Data\VFL07222016\VFL07222016.SEQ
Version = 1
File Date = 7/22/2016 2:46:15 PM

Entry #	Raw File Name	Method File Name	Sample Name	Sample Wt.	Int. Std. Amount
1	VFL07222016.0001.raw	Blood Alc temp VFL.MET	BLANK	1.00	1.00
2	VFL07222016.0002.raw	Blood Alc temp VFL.MET	TMX	1.00	1.00
3	VFL07222016.0003.raw	Blood Alc temp VFL.MET	STD A	1.00	1.00
4	VFL07222016.0004.raw	Blood Alc temp VFL.MET	STD B	1.00	1.00
5	VFL07222016.0005.raw	Blood Alc temp VFL.MET	STD C	1.00	1.00
6	VFL07222016.0006.raw	Blood Alc temp VFL.MET	STD D	1.00	1.00
7	VFL07222016.0007.raw	Blood Alc temp VFL.MET	STD E	1.00	1.00
8	VFL07222016.0008.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
9	VFL07222016.0009.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
10	VFL07222016.0010.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
11	VFL07222016.0011.raw	Blood Alc temp VFL.MET	CCS 07/22/16	1.00	1.00
12	VFL07222016.0012.raw	simsoln.met	16-14-100 DP	1.00	1.00
13	VFL07222016.0013.raw	simsoln.met	16-14-100 DP	1.00	1.00
14	VFL07222016.0014.raw	simsoln.met	16-14-100 DP	1.00	1.00
15	VFL07222016.0015.raw	simsoln.met	16-14-100 DP	1.00	1.00
16	VFL07222016.0016.raw	simsoln.met	16-14-100 DP	1.00	1.00
17	VFL07222016.0017.raw	simsoln.met	16-14-100 DP	1.00	1.00
18	VFL07222016.0018.raw	simsoln.met	16-14-100 DP	1.00	1.00
19	VFL07222016.0019.raw	Blood Alc temp VFL.MET	CCS 15	1.00	1.00
20	VFL07222016.0020.raw	Blood Alc temp VFL.MET	CCS 07/22/16	1.00	1.00
21	VFL07222016.0021.raw	simsoln.met	16-14-100 JD	1.00	1.00
22	VFL07222016.0022.raw	simsoln.met	16-14-100 JD	1.00	1.00
23	VFL07222016.0023.raw	simsoln.met	16-14-100 JD	1.00	1.00
24	VFL07222016.0024.raw	simsoln.met	16-14-100 JD	1.00	1.00
25	VFL07222016.0025.raw	simsoln.met	16-14-100 JD	1.00	1.00
26	VFL07222016.0026.raw	simsoln.met	16-14-100 JD	1.00	1.00
27	VFL07222016.0027.raw	simsoln.met	16-14-100 JD	1.00	1.00
28	VFL07222016.0028.raw	Blood Alc temp VFL.MET	CCS 15	1.00	1.00
29	VFL07222016.0029.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00

Solution Lot # : 16-15-100
ON ALL PAGES
07/22/16

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File Name: C:\Methods\VFL07222016.CAL
Version: 7

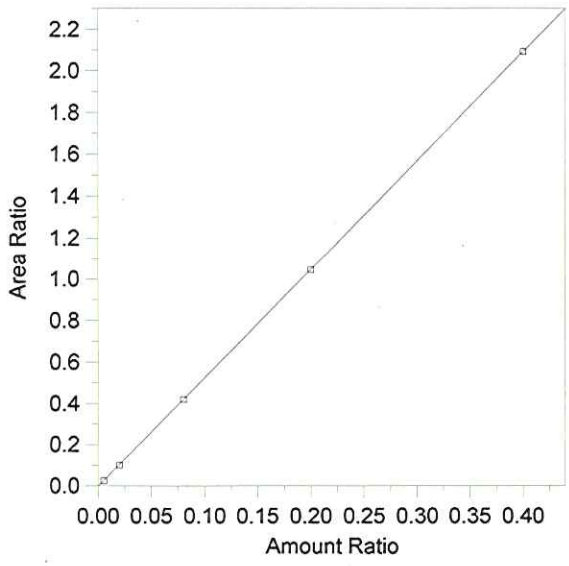
Creator:
Description:
Reason for change:

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 = 5.228313 X + 0

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999959
Average error: 0.542%
Average CF: 5.201319
RSD: 0.947%

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	5108.612	1021722	-0.032	0.005	2.613309E-02	C:\Alcohol Data\VFL07222016\VFL07222016.0003.BND	7/22/2016 3:58:01 PM
3	0.02	19908.11	995405.5	-2.189	0.02	0.1022776	C:\Alcohol Data\VFL07222016\VFL07222016.0004.BND	7/22/2016 4:15:24 PM
4	0.08	79787.56	997344.6	-0.228	0.08	0.4173101	C:\Alcohol Data\VFL07222016\VFL07222016.0005.BND	7/22/2016 4:29:14 PM
5	0.2	201250.1	1006250	-0.196	0.2	1.043617	C:\Alcohol Data\VFL07222016\VFL07222016.0006.BND	7/22/2016 4:46:43 PM
6	0.4	377101.6	942754	0.064	0.4	2.092654	C:\Alcohol Data\VFL07222016\VFL07222016.0007.BND	7/22/2016 5:01:35 PM

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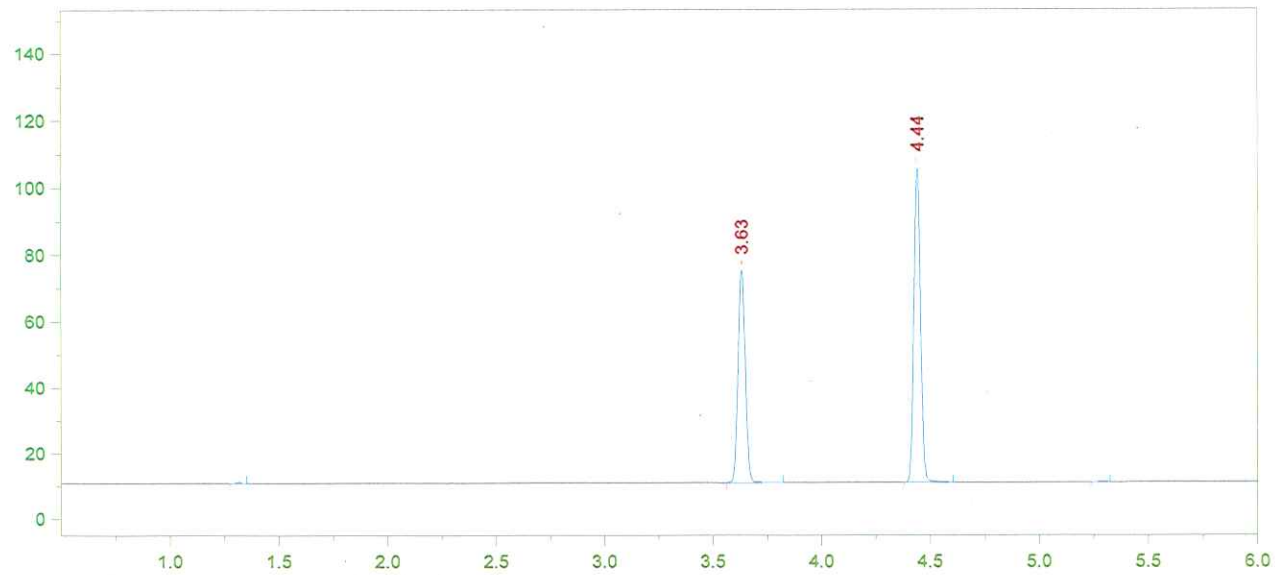
34



Format File Name = AlcoholVFL.FMT

Today's Date = 7/25/2016
Today's Time = 8:05:46 AM
Bound File Name = VFL07222016.0001.RAW
Sample Name = BLANK
Date Taken = 7/22/2016 3:26:36 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	3.63	t-Butanol	148945	0.9738
3	4.44	n-Propanol	201458	1.0000

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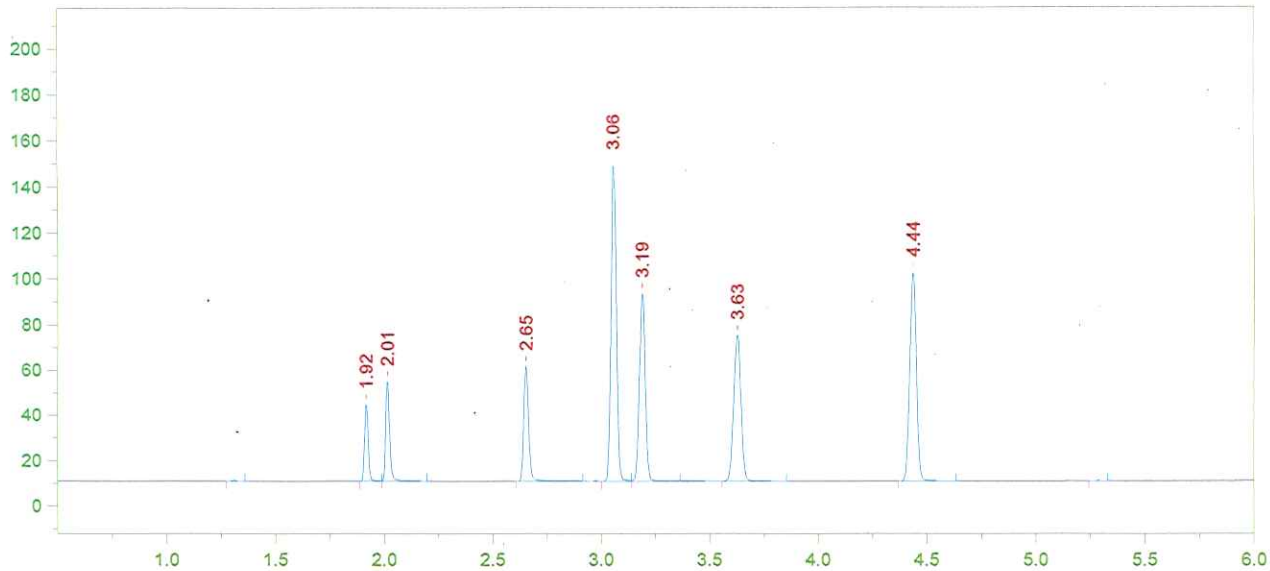
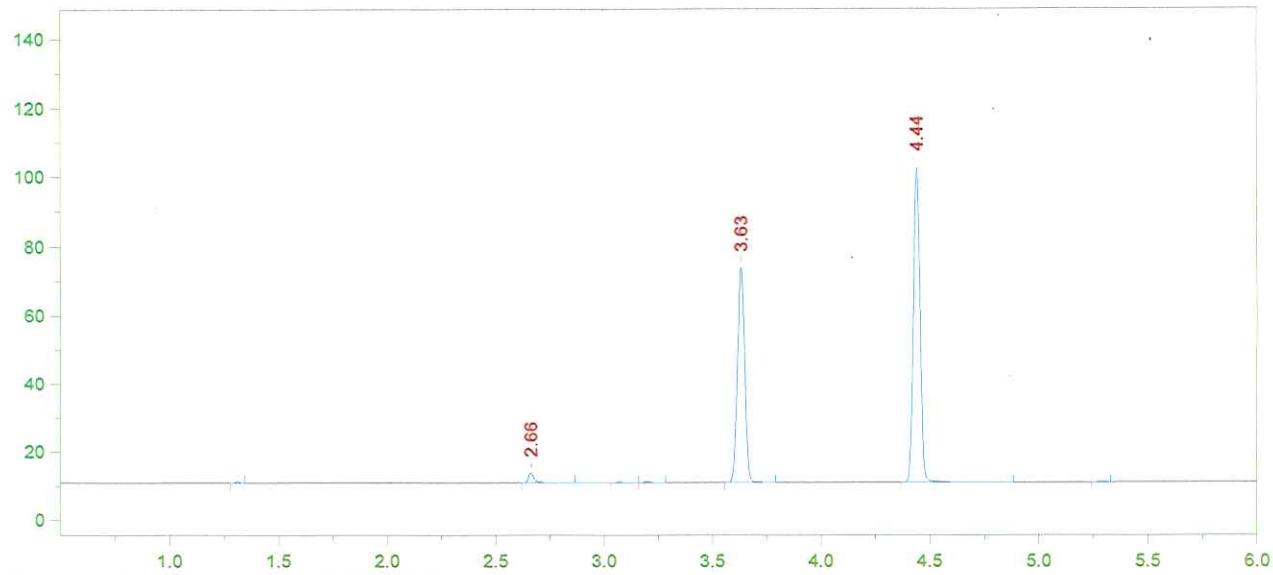


Format File Name = AlcoholVFL.FMT

Today's Date = 7/25/2016
Today's Time = 8:05:52 AM
Bound File Name = VFL07222016.0002.RAW
Sample Name = TMX
Date Taken = 7/22/2016 3:43:50 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

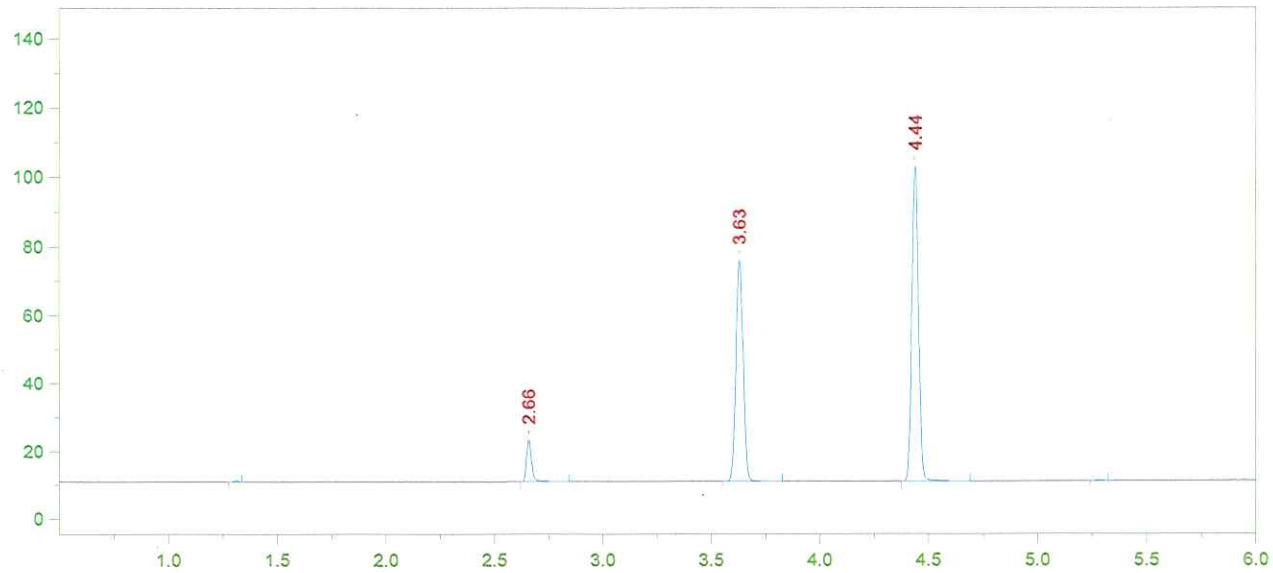
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	1.92	Acetaldehyde	40396	0.0686
3	2.01	Methanol	56443	0.1169
4	2.65	Ethanol	79181	0.0780
5	3.06	Acetone	237550	0.0612
6	3.19	Isopropanol	155026	0.0780
7	3.63	t-Butanol	149658	1.0156
8	4.44	n-Propanol	194095	1.0000



Format File Name = AlcoholVFL.FMT

Today's Date = 7/25/2016
Today's Time = 8:05:58 AM
Bound File Name = VFL07222016.0003.RAW
Sample Name = STD A
Date Taken = 7/22/2016 3:57:50 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	05109	0.0050
5	3.63	t-Butanol	145697	0.9817
6	4.44	n-Propanol	195484	1.0000



Format File Name = AlcoholVFL.FMT

Today's Date = 7/25/2016
Today's Time = 8:06:04 AM
Bound File Name = VFL07222016.0004.RAW
Sample Name = STD B
Date Taken = 7/22/2016 4:15:14 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	19908	0.0196
3	3.63	t-Butanol	150172	1.0162
4	4.44	n-Propanol	194648	1.0000

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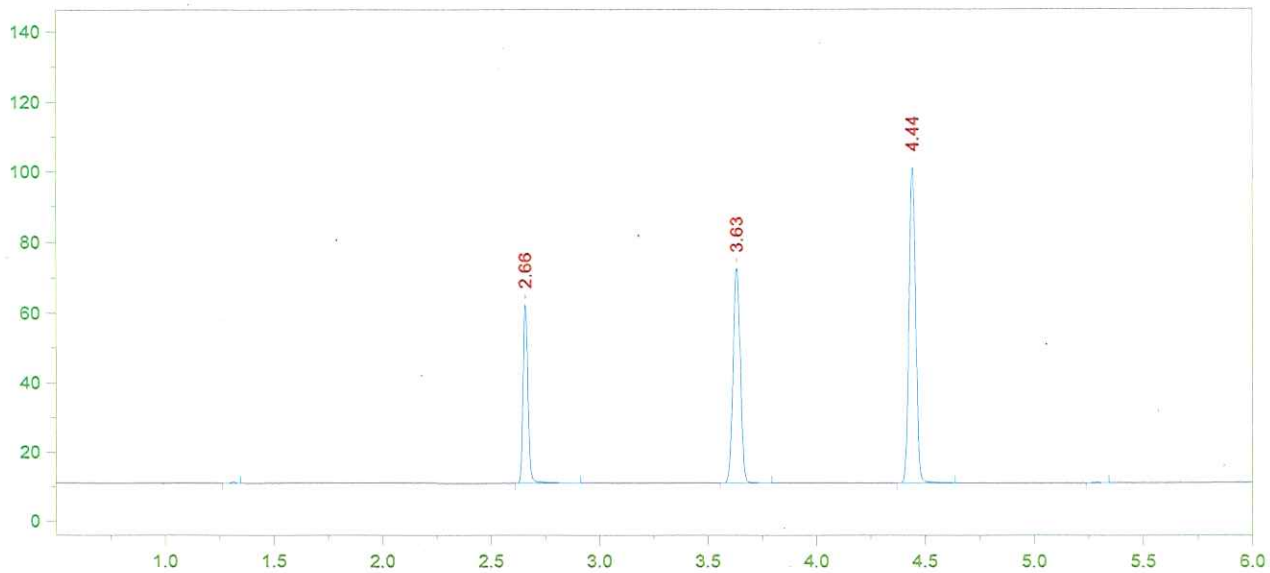
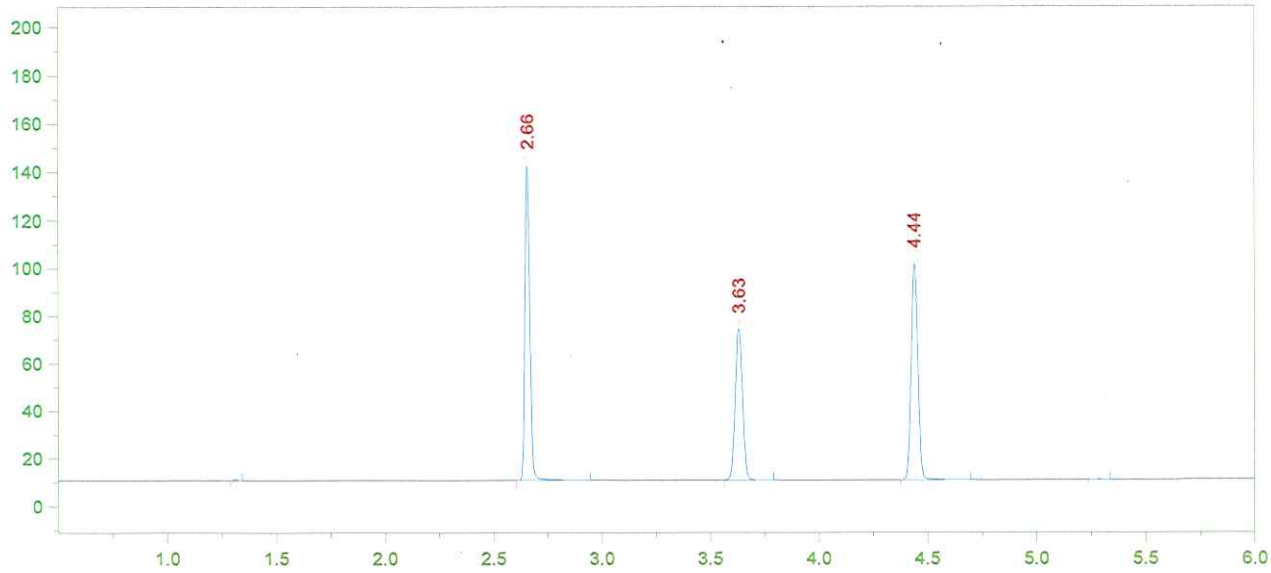


Format File Name = AlcoholVFL.FMT

Today's Date = 7/25/2016
Today's Time = 8:06:10 AM
Bound File Name = VFL07222016.0005.RAW
Sample Name = STD C
Date Taken = 7/22/2016 4:29:09 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	79788	0.0798
3	3.63	t-Butanol	142771	0.9835
4	4.44	n-Propanol	191195	1.0000



Format File Name = AlcoholVFL.FMT

Today's Date = 7/25/2016
Today's Time = 8:06:15 AM
Bound File Name = VFL07222016.0006.RAW
Sample Name = STD D
Date Taken = 7/22/2016 4:46:35 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	201250	0.1996
3	3.63	t-Butanol	146986	1.0039
4	4.44	n-Propanol	192839	1.0000

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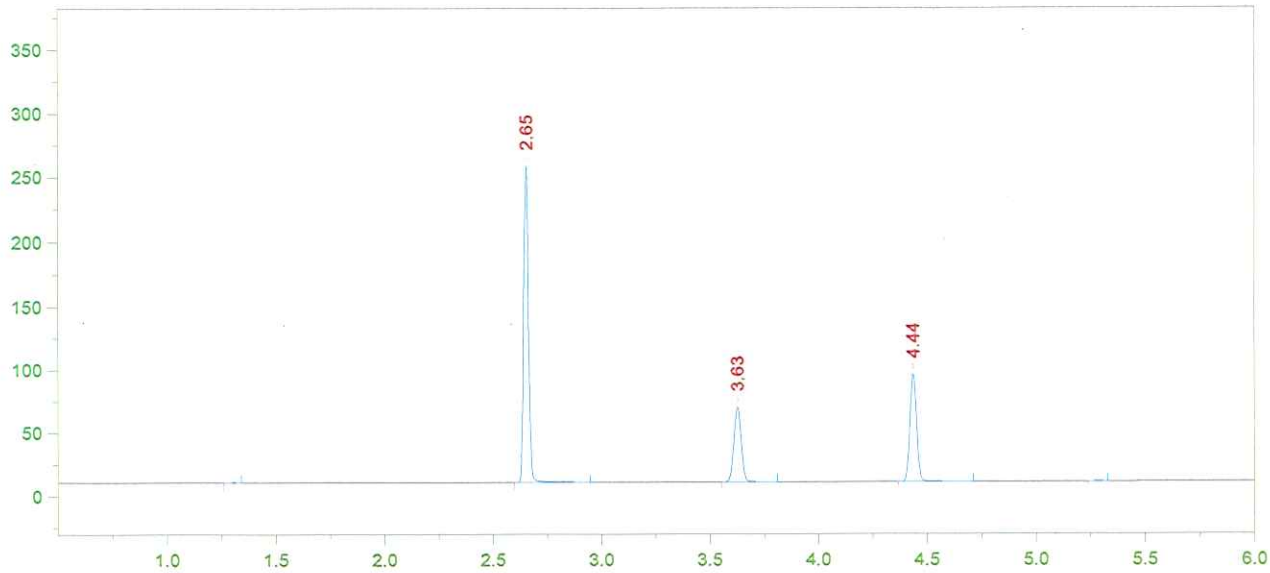

Format File Name = AlcoholVFL.FMT

Today's Date = 7/25/2016
Today's Time = 8:06:21 AM
Bound File Name = VFL07222016.0007.RAW
Sample Name = STD E
Date Taken = 7/22/2016 5:01:29 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.65	Ethanol	377102	0.4003
4	3.63	t-Butanol	136703	0.9992
5	4.44	n-Propanol	180203	1.0000

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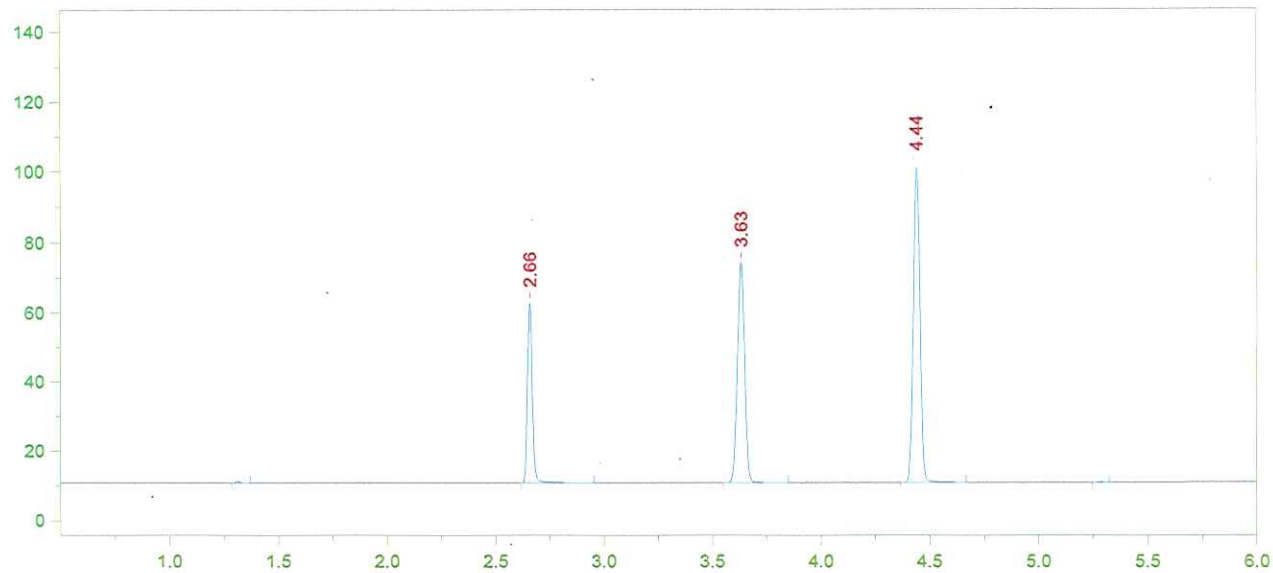
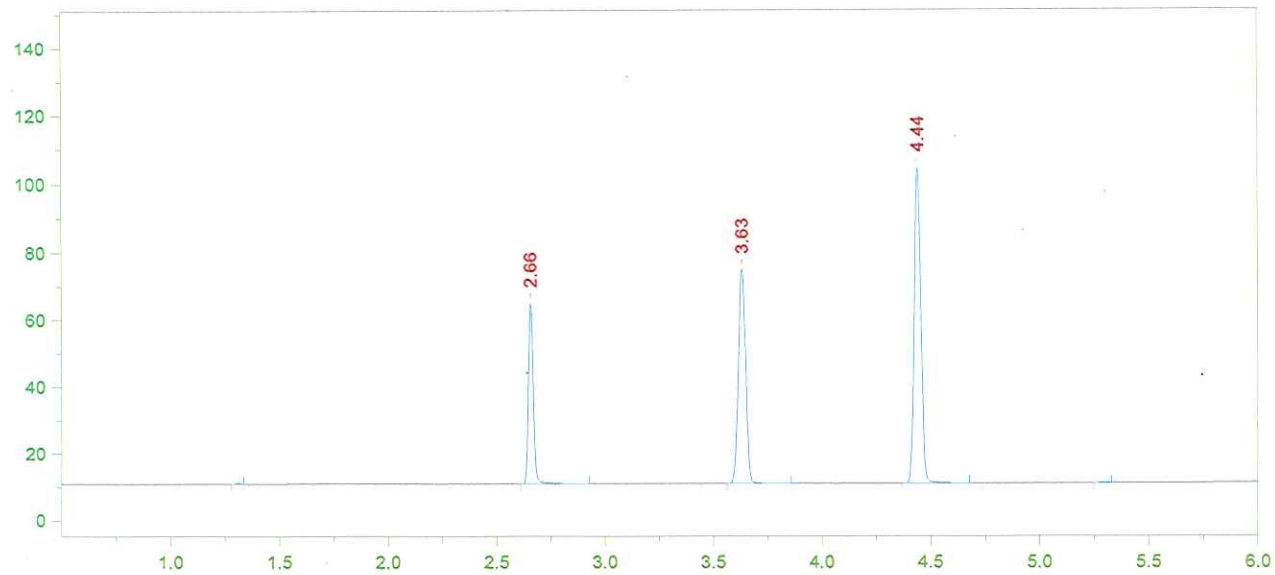


Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 5:18:09 PM
Bound File Name = VFL07222016.0008.RAW
Sample Name = AQ
Date Taken = 7/22/2016 5:18:02 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	80426	0.0805
3	3.63	t-Butanol	146617	1.0108
4	4.44	n-Propanol	191048	1.0000

42



Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 5:32:02 PM
Bound File Name = VFL07222016.0009.RAW
Sample Name = AQ
Date Taken = 7/22/2016 5:31:58 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	83375	0.0801
3	3.63	t-Butanol	148440	0.9822
4	4.44	n-Propanol	199049	1.0000

AQ MEAN: ~~0.08012~~ 0.0803 7/22/16

±5%: 0.0763 - 0.0843

Recovery: $\frac{0.080}{0.080}$ = 100%

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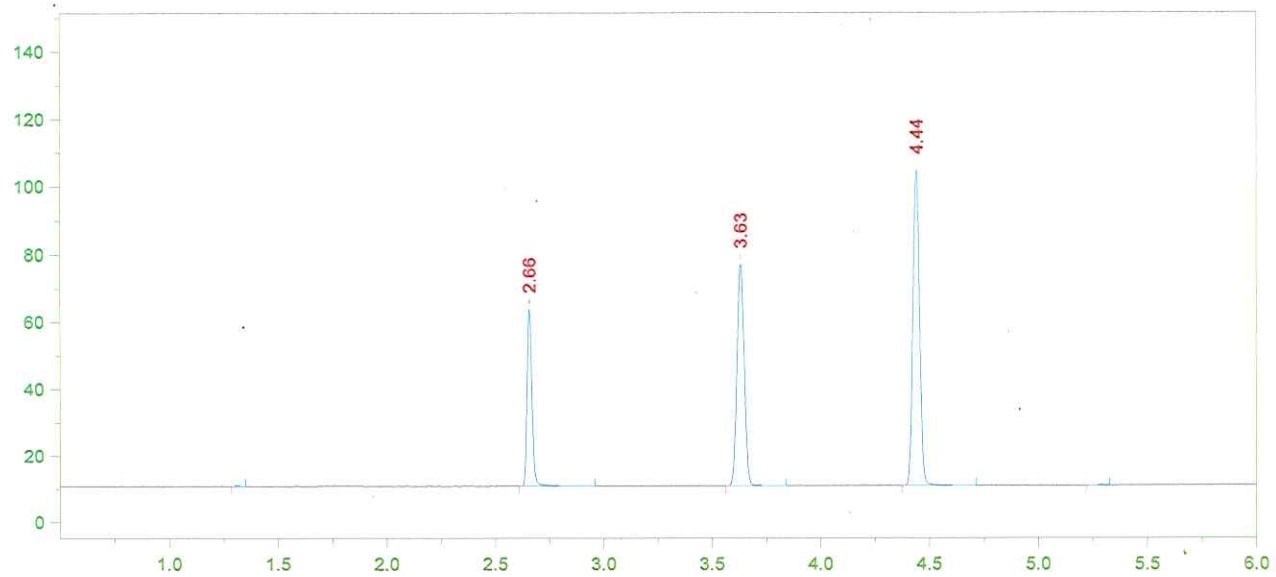

Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 5:49:34 PM
Bound File Name = VFL07222016.0010.RAW
Sample Name = CCS
Date Taken = 7/22/2016 5:49:27 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	82622	0.0791
3	3.63	t-Butanol	153271	1.0102
4	4.44	n-Propanol	199830	1.0000

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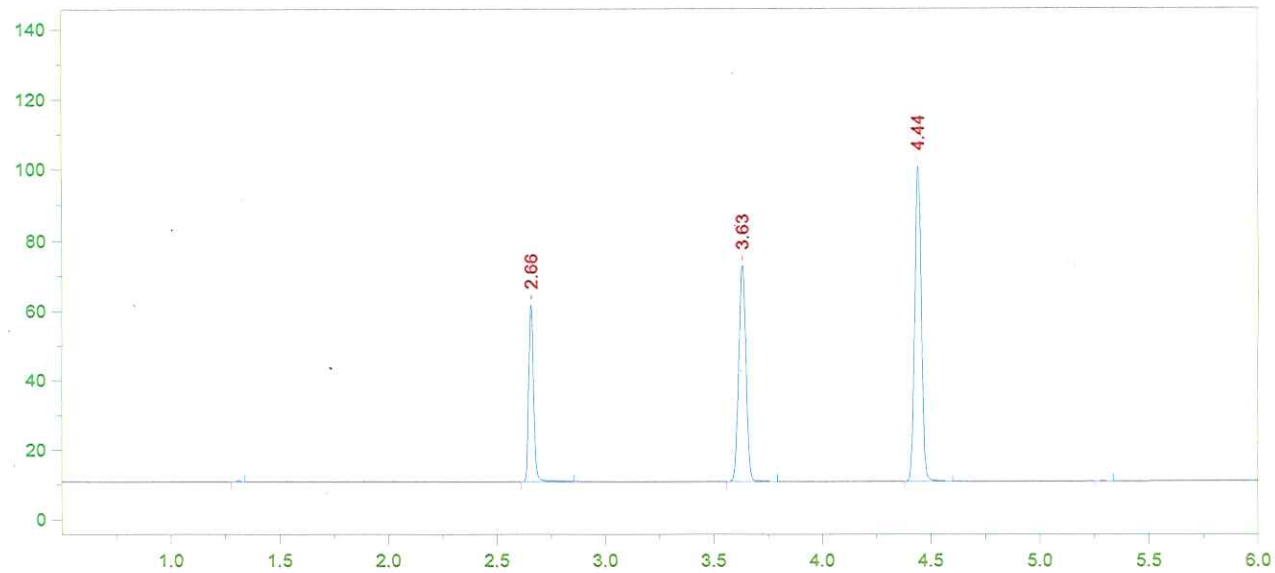

Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 6:02:52 PM
Bound File Name = VFL07222016.0011.RAW
Sample Name = CCS
Date Taken = 7/22/2016 6:02:42 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	78807	0.0789
3	3.63	t-Butanol	143679	0.9905
4	4.44	n-Propanol	191064	1.0000

CCS MEAN: 0.0790

±5%: 0.0750 - 0.0829

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

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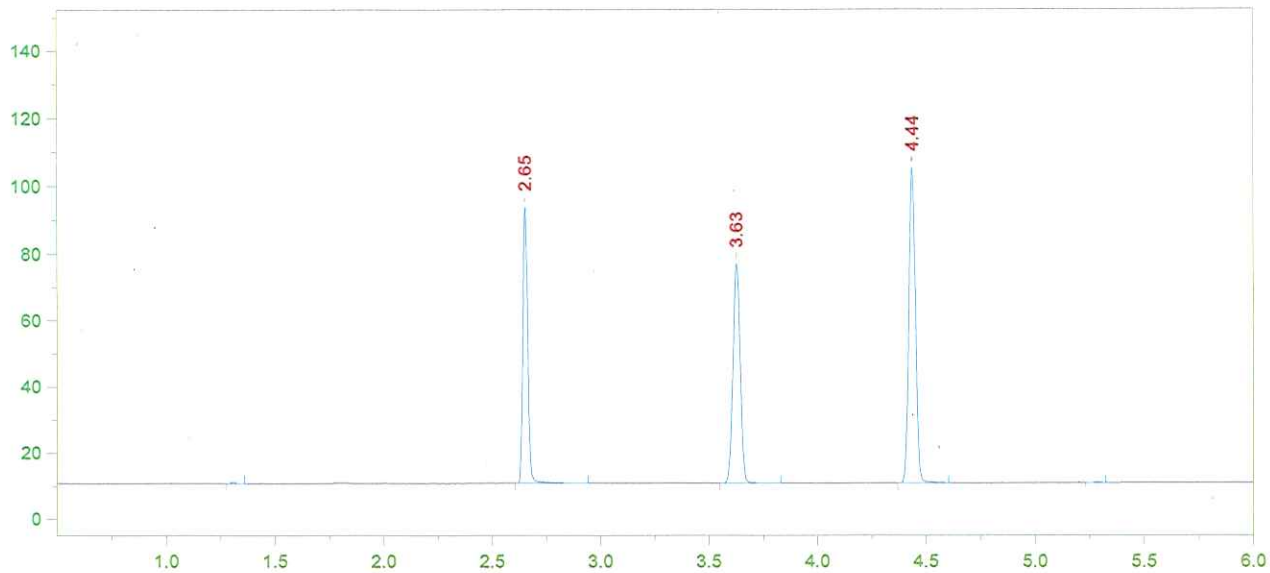

Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 6:20:58 PM
Bound File Name = VFL07222016.0012.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/22/2016 6:20:52 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	128039	0.1230	0.1004
3	3.63	t-Butanol	152784	1.0109	0.8251
4	4.44	n-Propanol	199072	1.0000	0.8162

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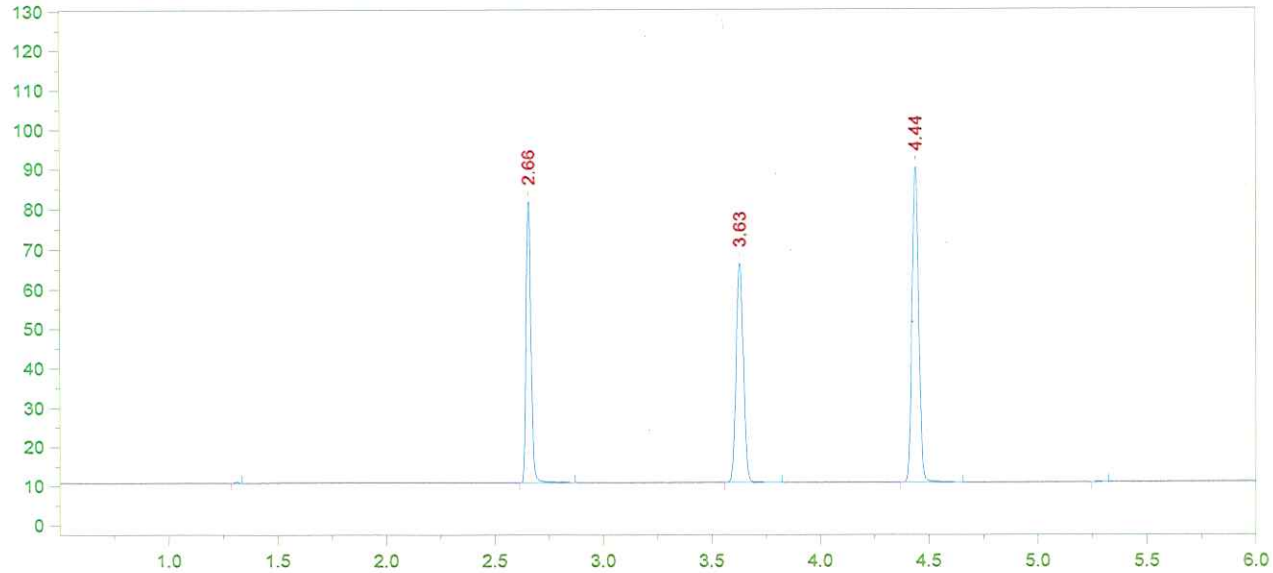

Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 6:35:55 PM
Bound File Name = VFL07222016.0013.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/22/2016 6:35:47 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	110584	0.1249	0.1020
3	3.63	t-Butanol	128552	0.9999	0.8161
4	4.44	n-Propanol	169328	1.0000	0.8162

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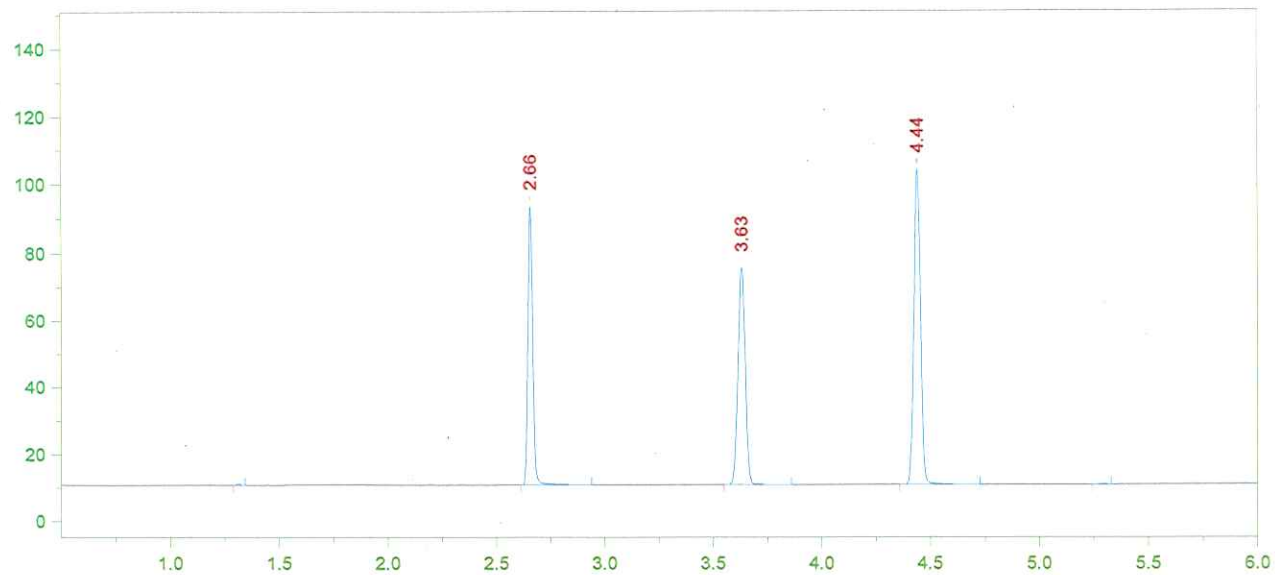

Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 6:52:25 PM
Bound File Name = VFL07222016.0014.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/22/2016 6:52:16 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	127238	0.1227	0.1002
3	3.63	t-Butanol	150513	0.9997	0.8159
4	4.44	n-Propanol	198307	1.0000	0.8162

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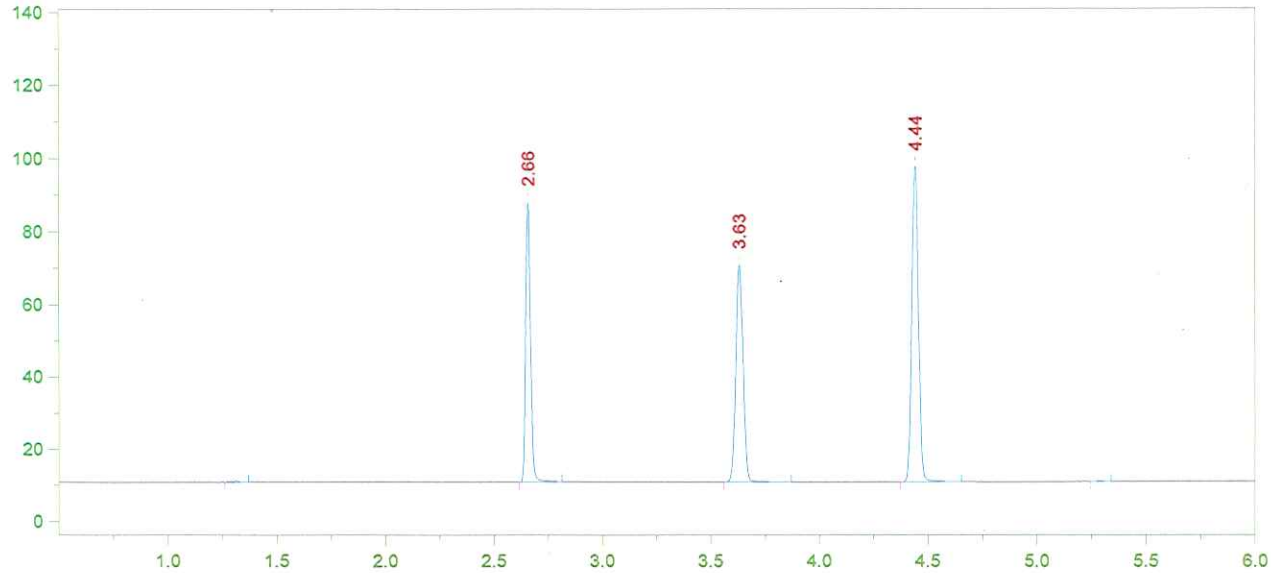
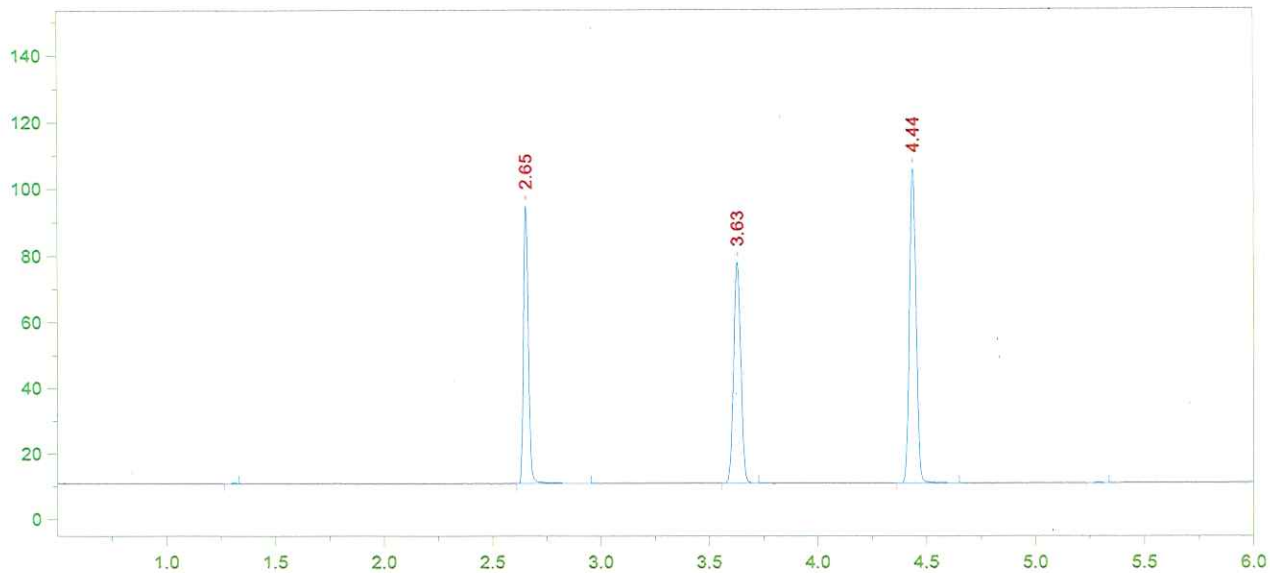


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 7:05:41 PM
Bound File Name = VFL07222016.0015.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/22/2016 7:05:31 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
3	2.66	Ethanol	118198	0.1226	0.1001
4	3.63	t-Butanol	138478	0.9890	0.8072
5	4.44	n-Propanol	184416	1.0000	0.8162



Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 7:23:46 PM
Bound File Name = VFL07222016.0016.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/22/2016 7:23:40 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	129610	0.1227	0.1002
3	3.63	t-Butanol	154433	1.0069	0.8218
4	4.44	n-Propanol	202016	1.0000	0.8162

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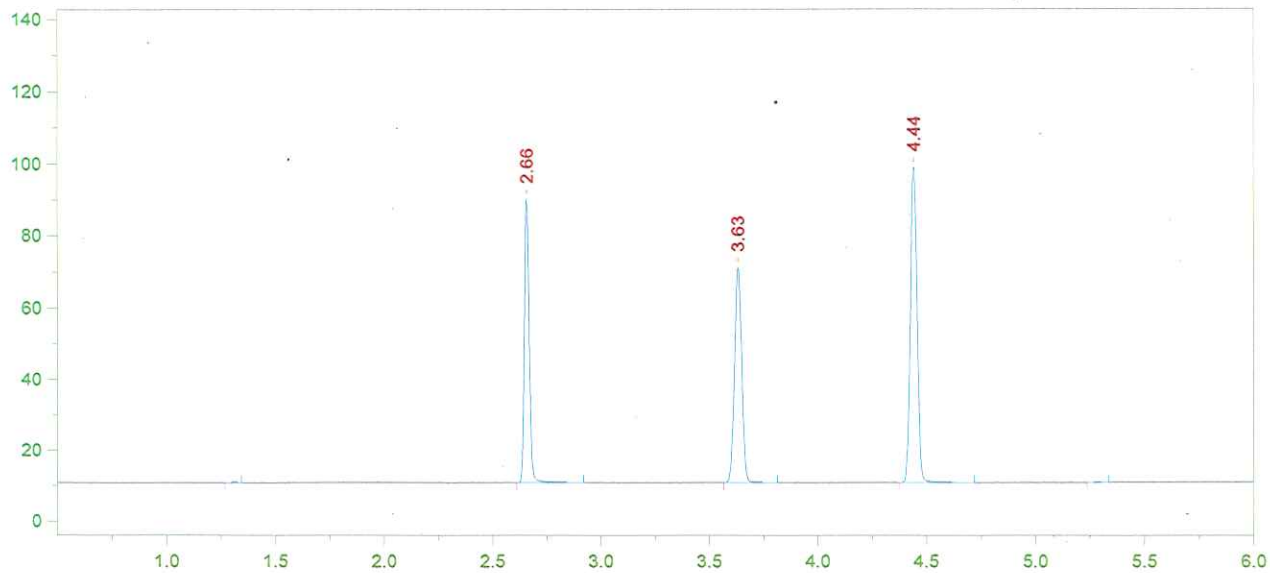
8 50



Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 7:37:38 PM
Bound File Name = VFL07222016.0017.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/22/2016 7:37:32 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	121749	0.1240	0.1012
3	3.63	t-Butanol	139297	0.9771	0.7975
4	4.44	n-Propanol	187768	1.0000	0.8162

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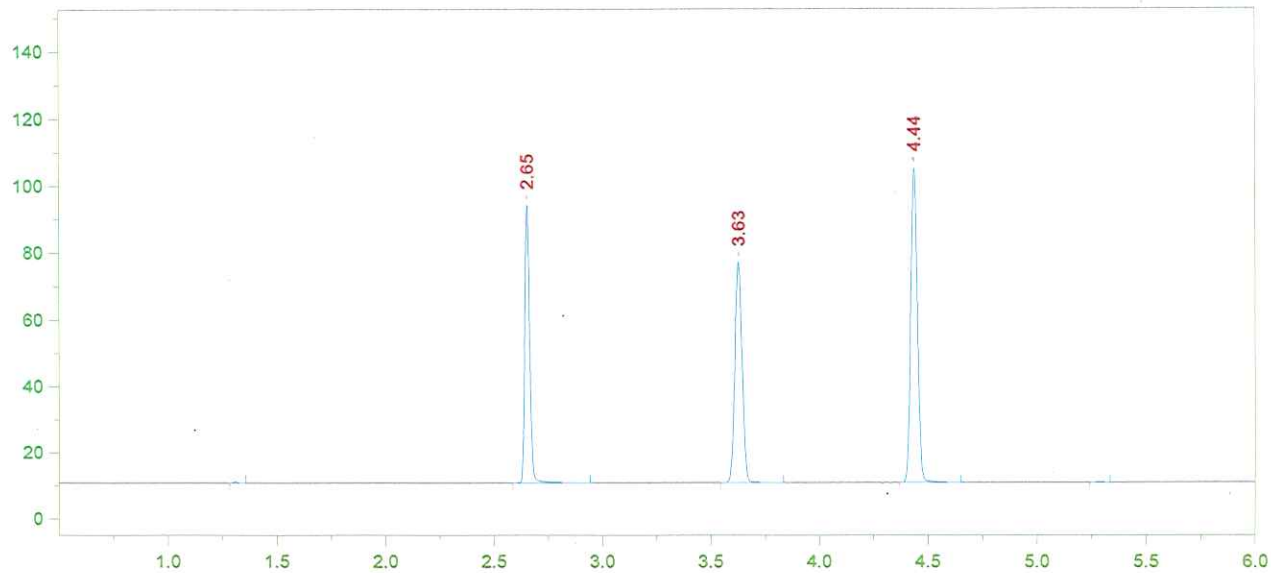

Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 7:55:16 PM
Bound File Name = VFL07222016.0018.RAW
Sample Name = 16-14-100 DP
Date Taken = 7/22/2016 7:55:09 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	128394	0.1228	0.1003
3	3.63	t-Butanol	153356	1.0104	0.8247
4	4.44	n-Propanol	199905	1.0000	0.8162

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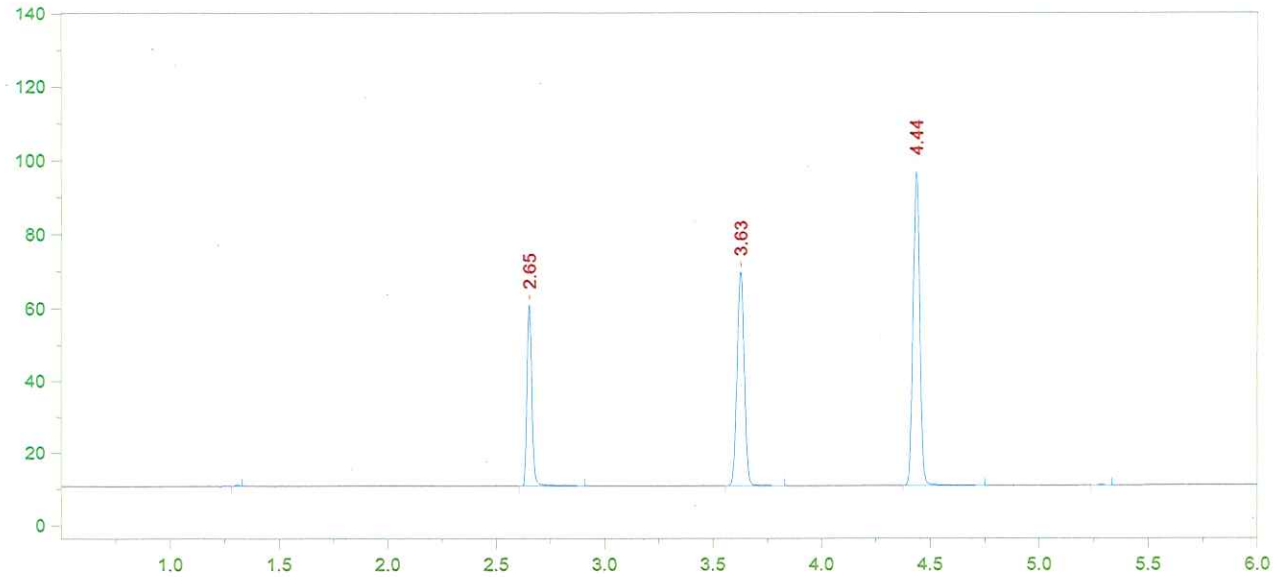

Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 8:08:28 PM
Bound File Name = VFL07222016.0019.RAW
Sample Name = CCS
Date Taken = 7/22/2016 8:08:18 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.65	Ethanol	77593	0.0809
4	3.63	t-Butanol	136686	0.9815
5	4.44	n-Propanol	183418	1.0000

7/22/16
16 ~~15~~ 10 -100

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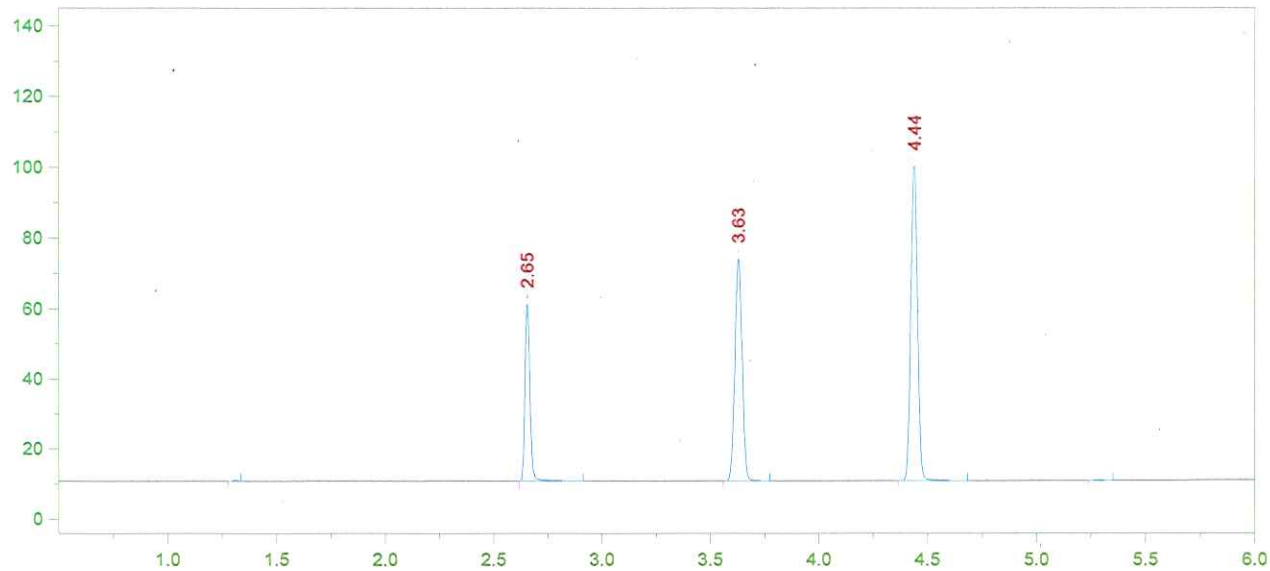


Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 8:26:43 PM
Bound File Name = VFL07222016.0020.RAW
Sample Name = CCS
Date Taken = 7/22/2016 8:26:33 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	78956	0.0792
3	3.63	t-Butanol	145867	1.0075
4	4.44	n-Propanol	190683	1.0000

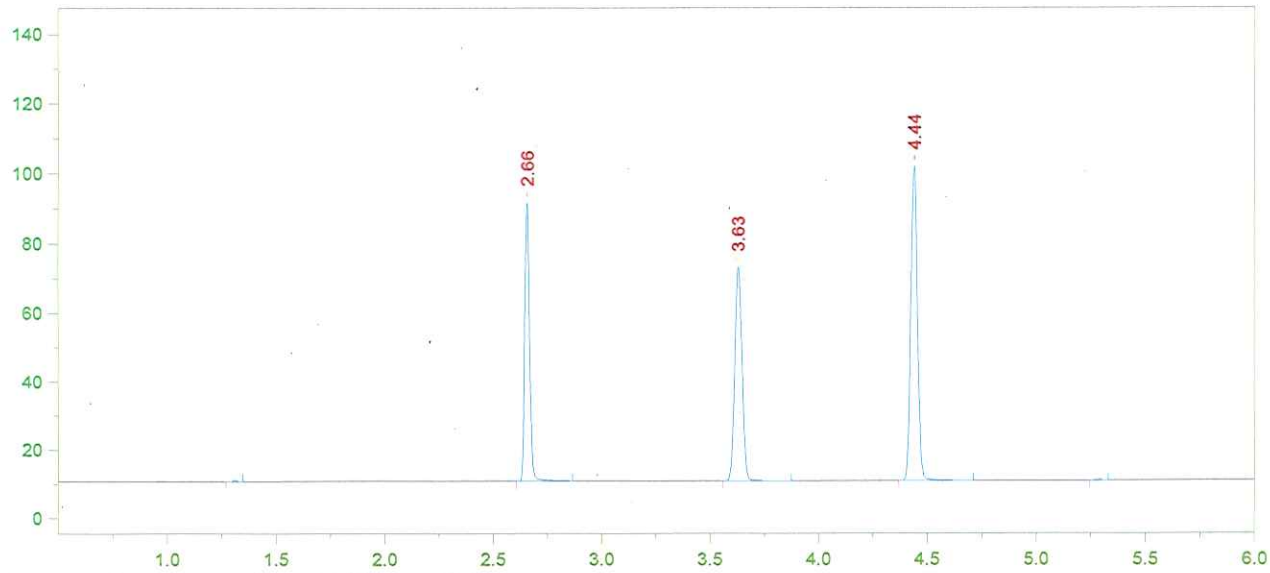
CCS mean: 0.0800

±5%: 0.0760 - 0.0840

Recovery: $\frac{0.080}{0.080}$ = 100%

16-15-100

54



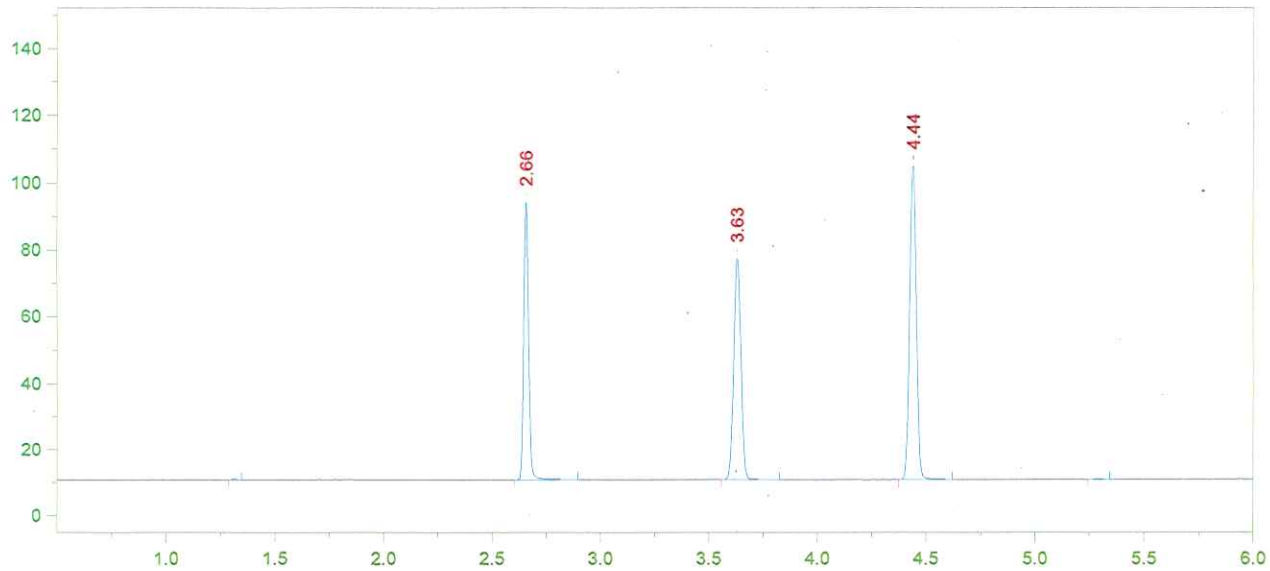
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 8:40:31 PM
Bound File Name = VFL07222016.0021.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/22/2016 8:40:24 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	124355	0.1231	0.1005
3	3.63	t-Butanol	144219	0.9835	0.8027
4	4.44	n-Propanol	193139	1.0000	0.8162

16-14-100

65

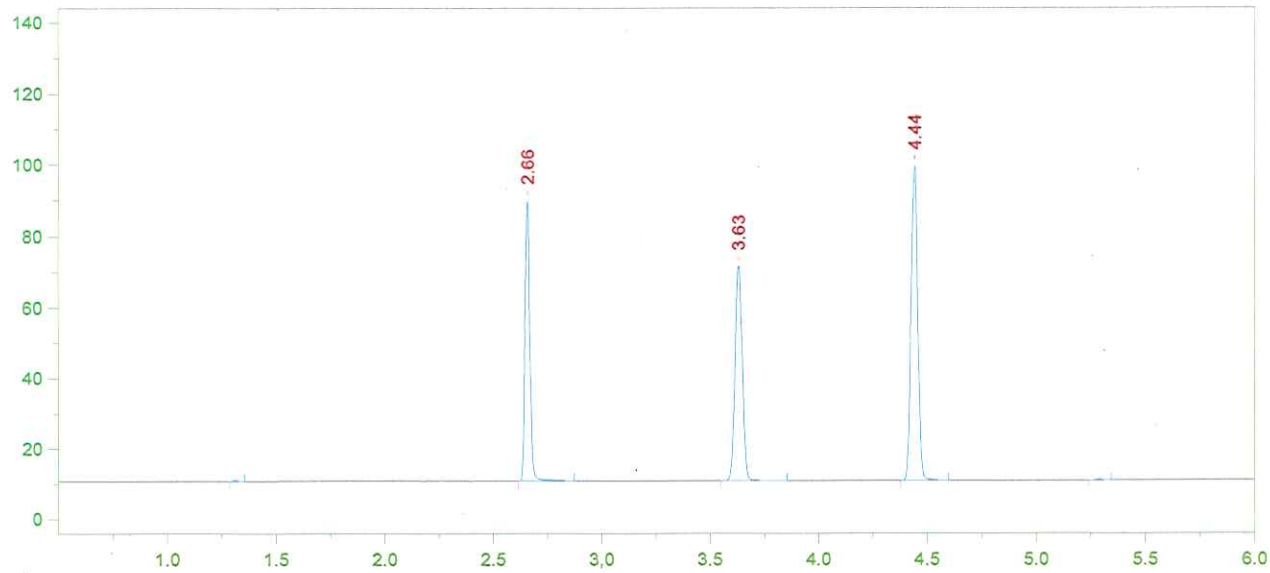


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 8:58:06 PM
Bound File Name = VFL07222016.0022.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/22/2016 8:57:58 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	128288	0.1224	0.0999
3	3.63	t-Butanol	154421	1.0146	0.8281
4	4.44	n-Propanol	200465	1.0000	0.8162

DS 06



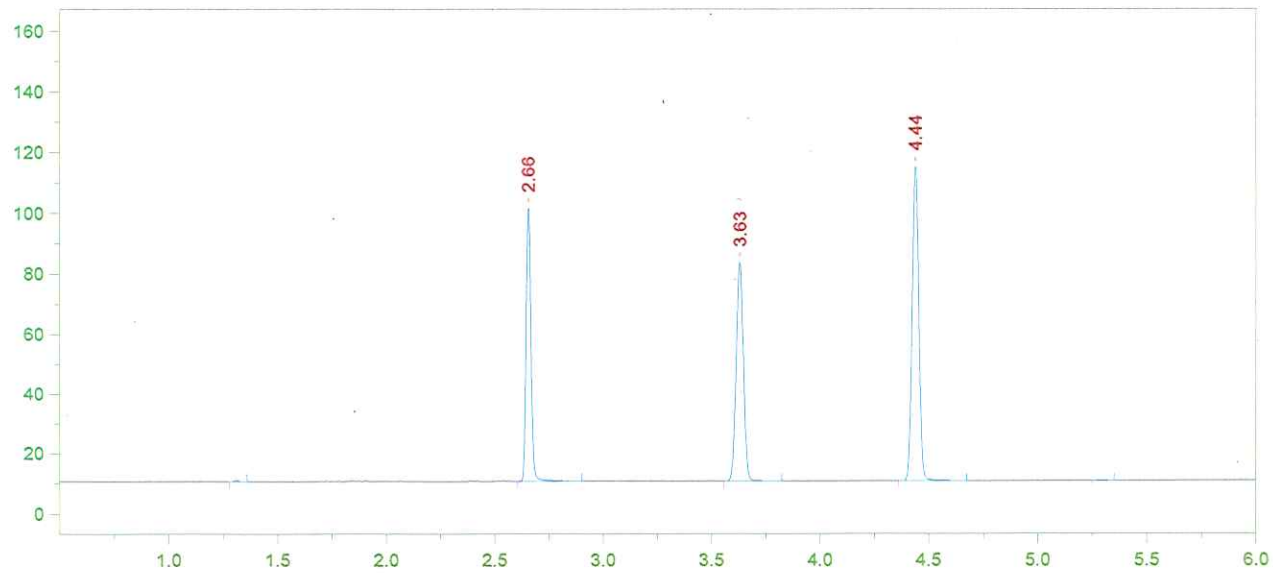
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 9:12:04 PM
Bound File Name = VFL07222016.0023.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/22/2016 9:11:53 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	121244	0.1235	0.1008
3	3.63	t-Butanol	141404	0.9917	0.8094
4	4.44	n-Propanol	187804	1.0000	0.8162

16-15-100

57



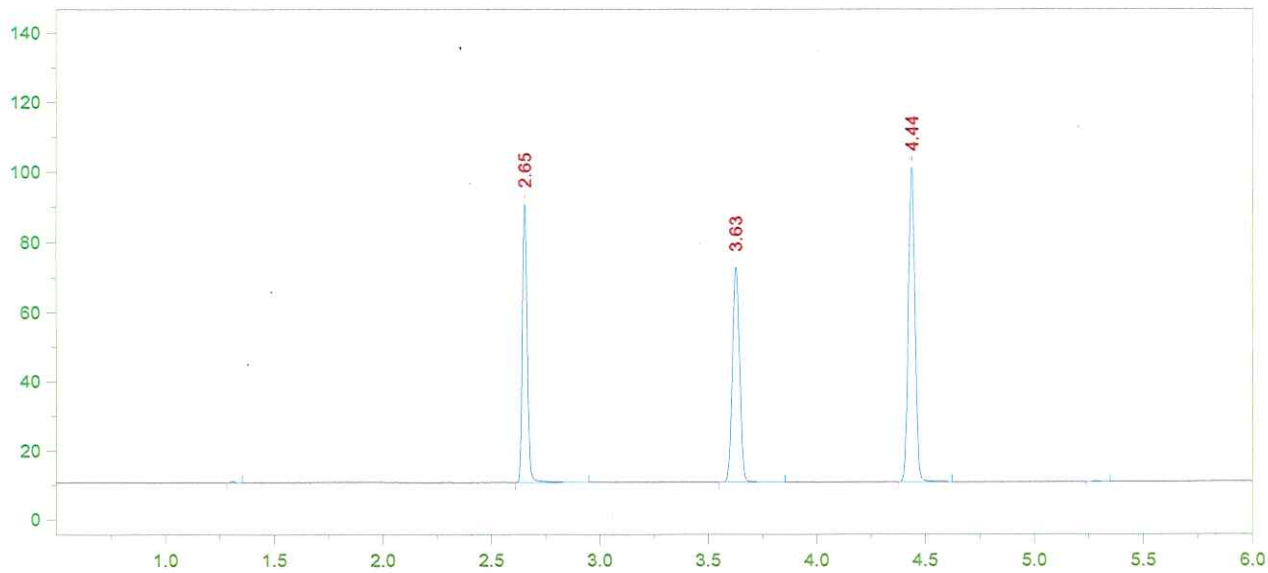
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 9:27:45 PM
Bound File Name = VFL07222016.0024.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/22/2016 9:27:40 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	140588	0.1213	0.0990
3	3.63	t-Butanol	167853	0.9975	0.8142
4	4.44	n-Propanol	221637	1.0000	0.8162

16-15-100

58



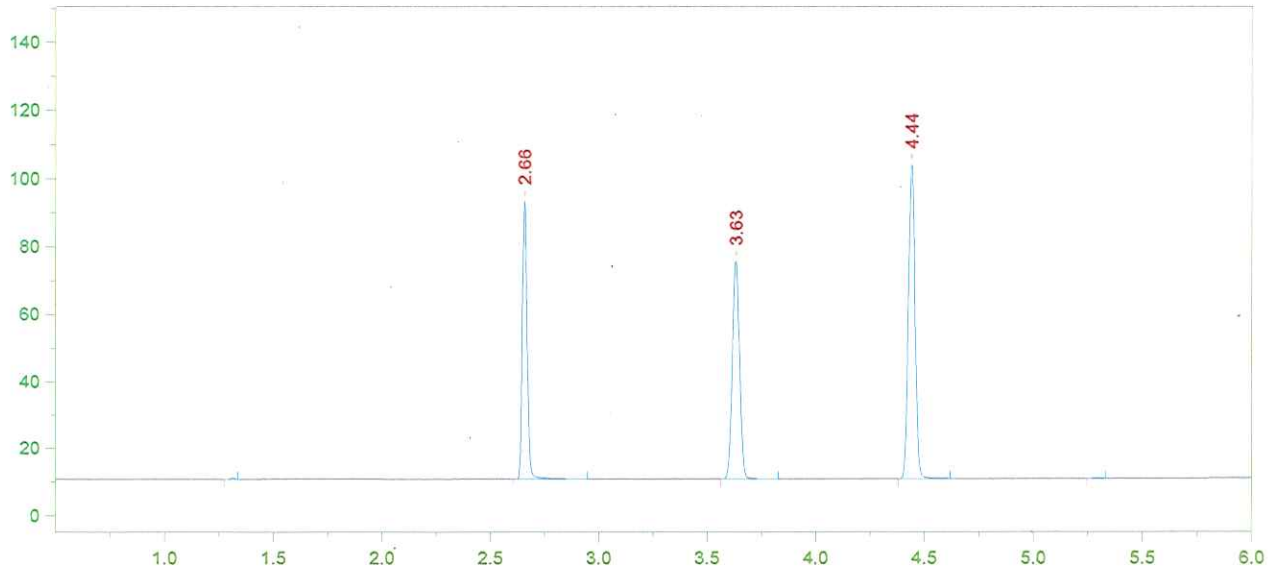
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 9:43:19 PM
Bound File Name = VFL07222016.0025.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/22/2016 9:43:13 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	123548	0.1238	0.1011
3	3.63	t-Butanol	143648	0.9913	0.8091
4	4.44	n-Propanol	190868	1.0000	0.8162

16-15-100
DS 7/25/16

DS 59



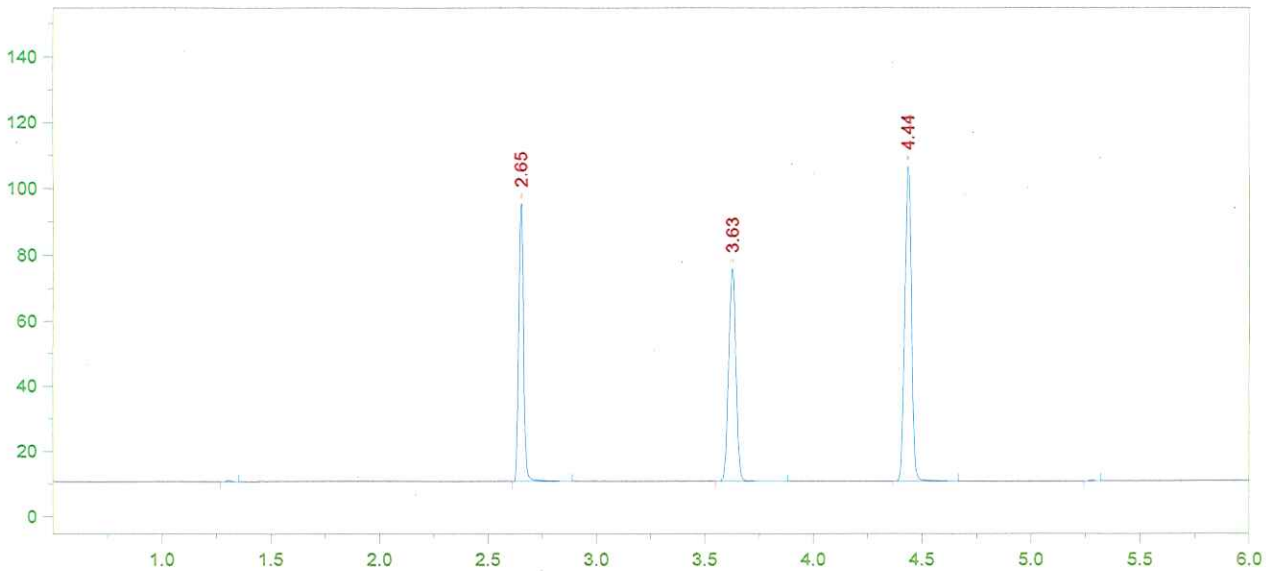
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 9:59:20 PM
Bound File Name = VFL07222016.0026.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/22/2016 9:59:14 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	127217	0.1228	0.1002
3	3.63	t-Butanol	150523	1.0005	0.8166
4	4.44	n-Propanol	198147	1.0000	0.8162

16-15-100

60



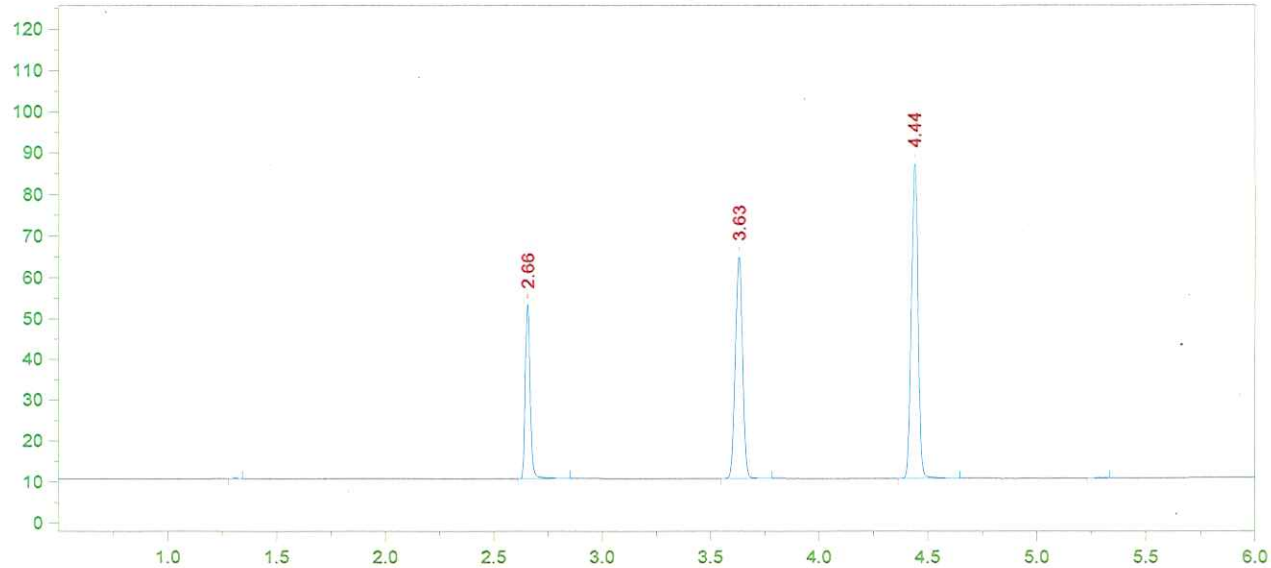
Format File Name = simsolnVFL.met.FMT

Today's Date = 7/22/2016
Today's Time = 10:13:50 PM
Bound File Name = VFL07222016.0027.RAW
Sample Name = 16-14-100 JD
Date Taken = 7/22/2016 10:13:43 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	131055	0.1230	0.1004
3	3.63	t-Butanol	150225	0.9706	0.7922
4	4.44	n-Propanol	203852	1.0000	0.8162

16-15-100

G1



Format File Name = AlcoholVFL.FMT

Today's Date = 7/22/2016
Today's Time = 10:43:59 PM
Bound File Name = VFL07222016.0029.RAW
Sample Name = CCS
Date Taken = 7/22/2016 10:43:51 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07222016.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	66447	0.0783
3	3.63	t-Butanol	125109	1.0150
4	4.44	n-Propanol	162351	1.0000

CCS MEAN: 0.0780

±2σ: 0.0741 - 0.0819

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

7/25/16

16-15-100

63