WASHINGTON STATE PATROL - TOXICOLOGY LABORATORY DIVISION
2203 Airport Way S, Suite 360 SEATTLE, WA 98134

AN ASCLD/LAB-International ACCREDITED LABORATORY
SINCE 11/16/2009

QUALITY ASSURANCE PROCEDURE SOLUTION TEST REPORT

BATCH REPORT: 11051

CUSTOMER INFORMATION
Washington State Patrol – Breath Test Program
811 East Roanoke SEATTLE, WA 98102

TESTING PROCEDURE USED: TLD Technical Manual, Chapter 4.0 Certification of Simulator Solutions; Headspace-Gas Chromatography.

TESTING ITEM INFORMATION
TARGET VAPOR CONCENTRATION: 0.10 g/210L
DATE PREPARED: 11/04/2011
BATCH UNITS: g/100mL

IDENTITY: QAP Solution
PREPARED BY: Dawn Cox

	DC	NN	RF
1	0.127	0.127	0.127
2	0.128	0.128	0.127
3	0.128	0.127	0.127
4	0.128	0.127	0.127
5	0.128	0.129	0.128
C	0.103	0.103	0.103

ETHANOL CONTROL INFORMATION
LOT NUMBER: A075806 EXPIRATION: 11/2014 CONCENTRATION: 0.10 g/100mL

RESULTS OF TESTING
AVERAGE SOLUTION CONCENTRATION: 0.1275 g/100mL
STANDARD DEVIATION: 0.00064
PRECISION CV (%): 0.50
NUMBER OF TESTS: 15

EQUIVALENT VAPOR CONCENTRATION: **0.1037 g/210L**
COMBINED STANDARD UNCERTAINTY: ± 0.0011 (k=1, 68% confidence interval)

WASHINGTON STATE PATROL – TOXICOLOGY LABORATORY DIVISION

Melissa Pemberton FS-5
Melissa Pemberton Forensic Scientist Supervisor

11.18.2011
DATE REPORT ISSUED

THIS TESTING WAS PERFORMED BY:

ANALYST	NAME	SIGNATURE	DATE TESTED
DC	Dawn Cox	Dawn Cox	11/04/2011
NN	Naziha Nuwayhid	Naziha Nuwayhid	11/07/2011
RF	Rebecca Flaherty	Rebecca Flaherty	11/08/2011

This report applies only to the item being tested and shall not be reproduced except in full, without the written approval of the WSP Toxicology Laboratory Division.

Washington State Patrol - Toxicology Laboratory Division
QAP Test Report Calculation Record

QAP Solution Batch #: 11051 **Date Prepared:** 11/4/2011

Analyst:	DC	NN	RF
Date Tested:	11/4/2011	11/7/2011	11/8/2011
Instrument:	HS#1	HS#1	HS#1
1	0.127	0.127	0.127
2	0.128	0.128	0.127
3	0.128	0.127	0.127
4	0.128	0.127	0.127
5	0.128	0.129	0.128
C	0.103	0.103	0.103

CV^2_{COA}	$CV^2_{QAP\ Solution}$	$CV^2_{Control}$	$CV^2_{Part\ Coef}$
0.0000084100	0.0000016786	0.0000000000	0.0001016326

Ethanol Control Lot #: A075806
Control Uncertainty (%): 0.29

Average Solution Concentration: 0.1275 g/100mL
Standard Deviation: 0.00064 g/100mL
Precision CV (%): 0.50
Equivalent Vapor Concentration: 0.1037 g/210L
Combined Standard Uncertainty (±): 0.0011 g/210L

Calculations performed by: Melissa L. Pemberton [signature] 11.9.2011
Name Signature Date

Calculations verified by: Jason Skleros [signature] 11-16-11
Name Signature Date

Method: Hand Calculator

Tech. review performed by: Melissa L. Pemberton [signature] 11.10.11
Name Signature Date

Washington State Patrol Toxicology Laboratory Division

SIMULATOR SOLUTION DATA ENTRY REVIEW

Reviewer/s: JASON SKLOEROV **Date:** 11-16-11

Location: WSP-FLS13, SEATTLE, WA **Solution Batch Number:** 61051

	YES	NO	N/A
Analysis dates do not precede preparation date:	☒	☐	☐
Declarations signed and properly dated:	☒	☐	☐
Data entry corresponds to all chromatograms:	☒	☐	☐
All signatures present on Test Report:	☒	☐	☐
Average solution concentration correct:	☒	☐	☐
Standard deviation correct:	☒	☐	☐
CV (%) correct:	☒	☐	☐
Equivalent vapor concentration correct:	☒	☐	☐
All chromatograms and sequences included in file:	☒	☐	☐
Ethanol control information present: (lot # present & used within expiration)	☒	☐	☐
Complies with accuracy and precision requirements established by the State Toxicologist:	☒	☐	☐

Comments:

Reviewer Signature: (SKLOEROV) **Date:** 11-16-11

Reviewer Signature: N/A (DMS) 11-16-11 **Date:**

Washington State Patrol Toxicology Laboratory Division

SOLUTION CERTIFICATE REVIEW

Please check that the data on your chromatograms is the data entered into the Test Report, that the date to the right of your name is the date that you tested the solution, and then sign the Test Report.

Please initial and date below to affirm that you have:

1) Checked your data
2) Checked the date to the right of your name on the Test Report
3) Signed the Test Report

	Initials	Date
Amanda Black		
Asa Louis		
Brian Capron		
Brianna Peterson		
Brianne O'Reilly		
Brittany Ball		
Christie Mitchell		
Christopher Johnston		
Dawn Cox	DC	11.9.11
Justin Knoy		
Lisa Noble		
Melissa Pemberton		
Naziha Nuwayhid	NN	11/9/11
Rebecca Flaherty	RF	11.10.11
Sarah Swenson		

Batch # 11051

CHRISTINE O. GREGOIRE
Governor

JOHN R. BATISTE
Chief

STATE OF WASHINGTON
WASHINGTON STATE PATROL
WASHINGTON STATE TOXICOLOGY LABORATORY
2203 Airport Way South, Suite 360 • Seattle, Washington 98134-2927 • (206) 262-6100 • FAX (206) 262-6145

DATAMASTER 0.10 QAP SOLUTION CERTIFICATION FOR LOT 11051

I, Dawn Cox, do certify under penalty of perjury that:

I am employed by the Washington State Toxicology Laboratory, and a part of my responsibilities includes preparing and testing the alcohol solutions for the DataMaster breath test instrument.

I possess the following qualifications: BS in Forensic Chemistry.

The qap solution, Lot Number 11051, was prepared in the Washington State Toxicology Laboratory on 11/4/2011. I examined and tested this solution. It was found to conform to those standards established by the state toxicologist for the certification of simulator solution. It shall not be used to perform a quality assurance procedure after 11/4/2012.

Seattle, WA

Dawn Cox 11.9.11

Dawn Cox Date

Forensic Toxicologist

CHRISTINE O. GREGOIRE
Governor

JOHN R. BATISTE
Chief

STATE OF WASHINGTON
WASHINGTON STATE PATROL
WASHINGTON STATE TOXICOLOGY LABORATORY
2203 Airport Way South, Suite 360 • Seattle, Washington 98134-2927 • (206) 262-6100 • FAX (206) 262-6145

DATAMASTER 0.10 QAP SOLUTION CERTIFICATION FOR LOT 11051

I, Naziha Nuwayhid, do certify under penalty of perjury that:

I am employed by the Washington State Toxicology Laboratory, and a part of my responsibilities includes preparing and testing the alcohol solutions for the DataMaster breath test instrument.

I possess the following qualifications: Bachelor and Masters Degrees in Biology, Ph.D. degree in Basic Medical Science, ten years experience in clinical laboratory sciences, one year in clinical toxicology and more than ten years in forensic toxicology. I am also board certified by the American Board of Clinical Chemistry.

The qap solution, Lot Number 11051, was prepared in the Washington State Toxicology Laboratory on 11/4/2011. I examined and tested this solution. It was found to conform to those standards established by the state toxicologist for the certification of simulator solution. It shall not be used to perform a quality assurance procedure after 11/4/2012.

Seattle, WA

Naziha Nuwayhid NOV 9-2011

Naziha Nuwayhid Date

Forensic Toxicologist

CHRISTINE O. GREGOIRE
Governor

JOHN R. BATISTE
Chief

STATE OF WASHINGTON
WASHINGTON STATE PATROL
WASHINGTON STATE TOXICOLOGY LABORATORY
2203 Airport Way South, Suite 360 • Seattle, Washington 98134-2927 • (206) 262-6100 • FAX (206) 262-6145

DATAMASTER 0.10 QAP SOLUTION CERTIFICATION FOR LOT 11051

I, Rebecca Flaherty, do certify under penalty of perjury that:

I am employed by the Washington State Toxicology Laboratory, and a part of my responsibilities includes preparing and testing the alcohol solutions for the DataMaster breath test instrument.

I possess the following qualifications: BS degrees in Biochemistry and Psychobiology and MS degree in Forensic Science.

The qap solution, Lot Number 11051, was prepared in the Washington State Toxicology Laboratory on 11/4/2011. I examined and tested this solution. It was found to conform to those standards established by the state toxicologist for the certification of simulator solution. It shall not be used to perform a quality assurance procedure after 11/4/2012.

Seattle, WA

11·10·11

Rebecca Flaherty — Date

Forensic Toxicologist

Sequence Parameters:

Operator:	Dawn Cox
Data File Naming:	Prefix/Counter
Signal 1 Prefix:	SIG1
Counter:	0001
Signal 2 Prefix:	SIG2
Counter:	0001
Data Directory:	C:\HPCHEM\1\DATA\
Data Subdirectory:	111104DC
Part of Methods to run:	According to Runtime Checklist
Barcode Reader:	not used
Shutdown Cmd/Macro:	none

Sequence Comment:
Cal 1 Lot# E0911-01
Cal 2 Lot# E0911-02
Cal 3 Lot# E0911-03

0.04 Control - Lot # A075264 - exp 10/2014
0.10 Control - Lot # A075806 - exp 11/2014
0.20 Control - Lot # A076521 - exp 12/2014

Sequence Table (Front Injector):

Sample Information Part:

Line	Location	Sample Information
1	Vial 1	
2	Vial 2	Lot# E0911-01
3	Vial 3	Lot# E0911-02
4	Vial 4	Lot# E0911-03
5	Vial 5	
6	Vial 6	Lot# A075264
7	Vial 7	Lot# A075806
8	Vial 8	Lot# A076521
9	Vial 9	
10	Vial 10	
11	Vial 11	
12	Vial 12	
13	Vial 13	
14	Vial 14	

~~110~~ 11.9.11
11051

DC

Sequence: C:\HPCHEM\1\SEQUENCE\DCQAP2.S

Line	Location	Sample Information
15	Vial 15	Lot# A075806
16	Vial 16	

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	BLANK	SIMALC1	1	Sample		
2	Vial 2	0.079 CAL 1	SIMALC1	1	Calib		
3	Vial 3	0.158 CAL 2	SIMALC1	1	Calib		
4	Vial 4	0.316 CAL 3	SIMALC1	1	Calib		
5	Vial 5	NEG CTRL - DC	SIMALC1	1	Ctrl Samp		
6	Vial 6	0.04 CTRL - DC	SIMALC1	1	Ctrl Samp		
7	Vial 7	0.10 CTRL - DC	SIMALC1	1	Ctrl Samp		
8	Vial 8	0.20 CTRL -DC	SIMALC1	1	Ctrl Samp		
9	Vial 9	NEG CTRL - DC	SIMALC1	1	Ctrl Samp		
10	Vial 10	11051 #1	SIMALC1	1	Sample		
11	Vial 11	11051 #2	SIMALC1	1	Sample		
12	Vial 12	11051 #3	SIMALC1	1	Sample		
13	Vial 13	11051 #4	SIMALC1	1	Sample		
14	Vial 14	11051 #5	SIMALC1	1	Sample		
15	Vial 15	0.10 CTRL - DC	SIMALC1	1	Ctrl Samp		
16	Vial 16	NEG CTRL - DC	SIMALC1	1	Ctrl Samp		

Calibration Part:

Line	Location	SampleName	Method	CalLev	Update RF	Update RT	Interval
2	Vial 2	0.079 CAL 1	SIMALC1	1	Replace	Replace	
3	Vial 3	0.158 CAL 2	SIMALC1	2	Replace	Replace	
4	Vial 4	0.316 CAL 3	SIMALC1	3	Replace	Replace	

Sequence Table (Back Injector):

No entries - empty table!

11051

DC

Calibration Table

Calib. Data Modified : Friday, November 04, 2011 9:48:09 AM

Calculate : Internal Standard
Based on : Peak Area

Rel. Reference Window : 5.000 %
Abs. Reference Window : 0.050 min
Rel. Non-ref. Window : 5.000 %
Abs. Non-ref. Window : 0.050 min
Use Multiplier & Dilution Factor with ISTDs
Uncalibrated Peaks : not reported
Partial Calibration : No recalibration if peaks missing

Curve Type : Linear
Origin : Included
Weight : Equal

Recalibration Settings:
Average Response : No Update
Average Retention Time: No Update

Calibration Report Options :
Printout of recalibrations within a sequence:
Normal Report after Recalibration

Default Sample ISTD Information (if not set in sample table):

ISTD #	ISTD Amount [g/100mL]	Name
1	1.00000	n-Propanol

Signal 1: FID1 A,

RetTime [min]	Lvl Sig		Amount [g/100mL]	Area	Amt/Area	Ref	Grp	Name
1.045	1	1	8.12800e-2	943.43262	8.61535e-5	1		Ethanol
		2	1.60090e-1	1874.17871	8.54187e-5			
		3	3.22750e-1	3740.84058	8.62774e-5			
1.710	1	1	1.00000	2493.89990	4.00978e-4	I1		n-Propanol
		2	1.00000	2518.99438	3.96984e-4			
		3	1.00000	2535.23267	3.94441e-4			

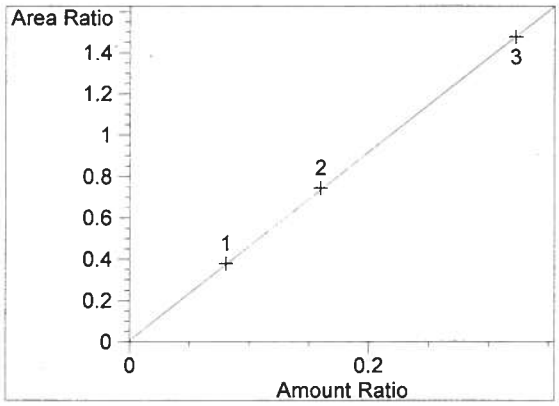
Peak Sum Table

No Entries in table

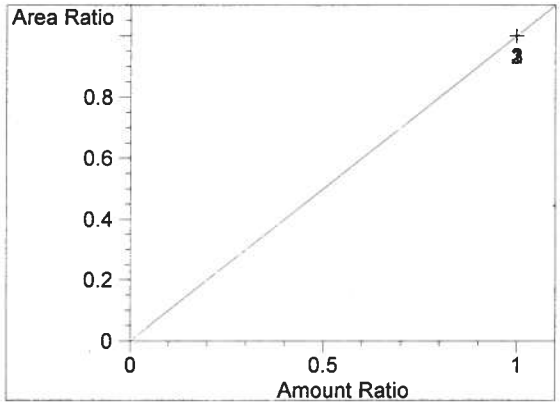
11051

DC

Calibration Curves



Ethanol at exp. RT: 1.045
FID1 A,
Correlation: 0.99996
Residual Std. Dev.: 0.00717
Formula: y = mx + b
m: 4.56880
b: 5.12641e-3
x: Amount Ratio
y: Area Ratio



n-Propanol at exp. RT: 1.710
FID1 A,
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 1.00000
b: 0.00000
x: Amount Ratio
y: Area Ratio

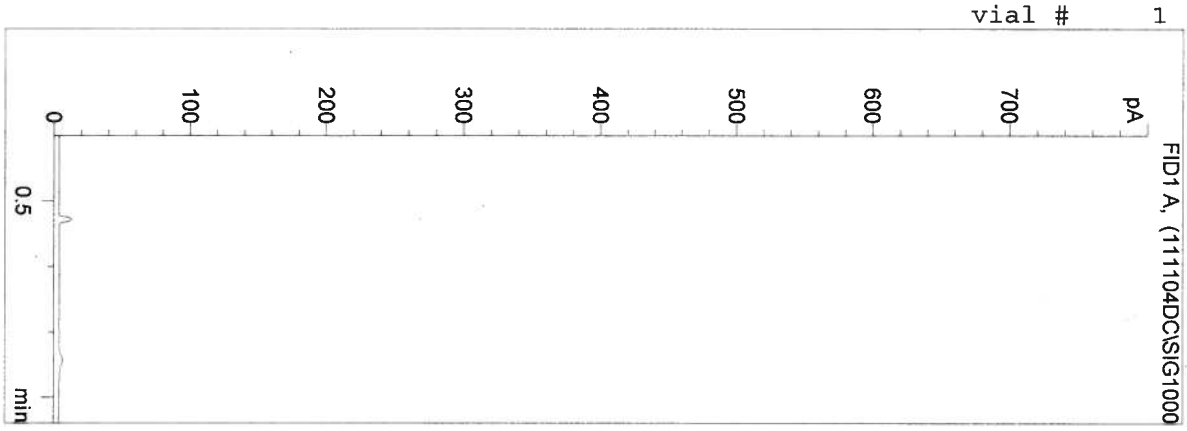
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

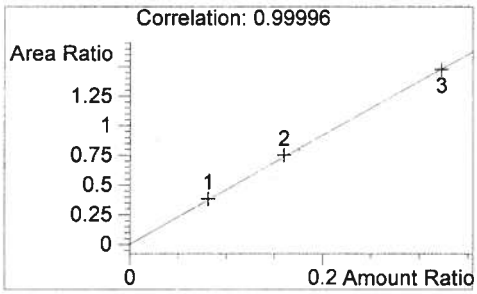
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 9:36:42 AM
Instrument 1
DB-ALC1

BLANK
Dawn Cox

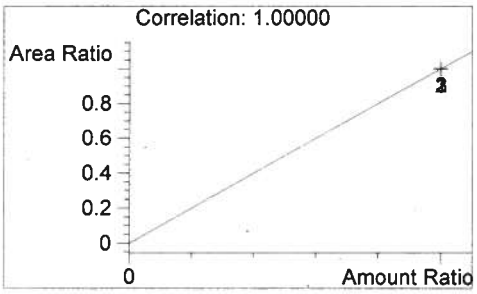
vial # 1



#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	0	0.000
Tot			



Ethanol 0.000 g/100 mL



n-Propanol 0.000 g/100 mL

11051

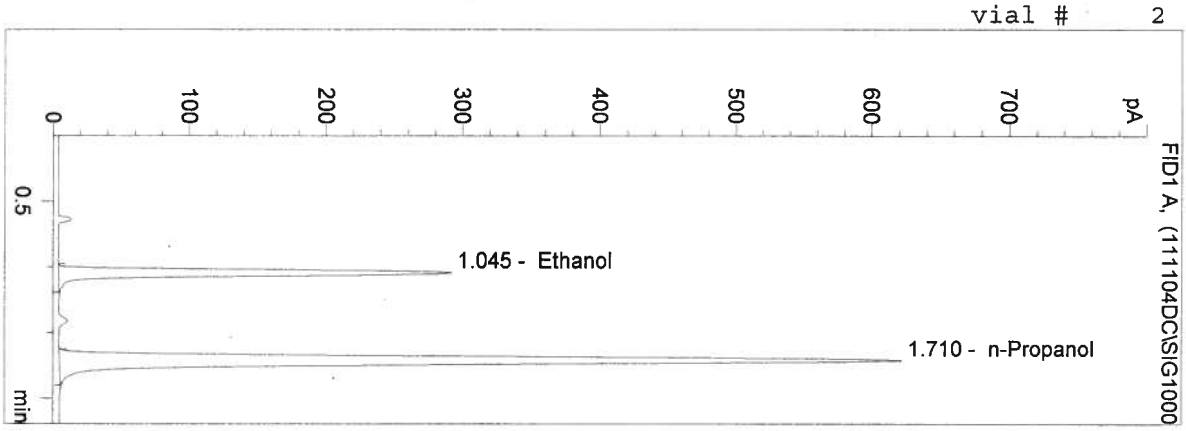
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

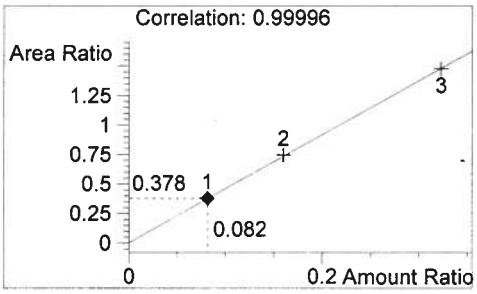
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 9:39:46 AM
Instrument 1
DB-ALC1

0.079 CAL 1
Dawn Cox

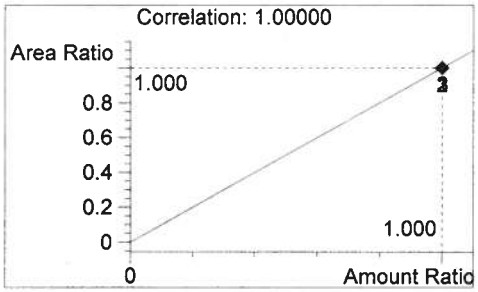
vial # 2



#	Compound	Area	RT
1	Ethanol	943	1.045
2	n-Propanol	2494	1.710
Tot			



Ethanol 0.082 g/100 mL



n-Propanol 1.000 g/100 mL

11051

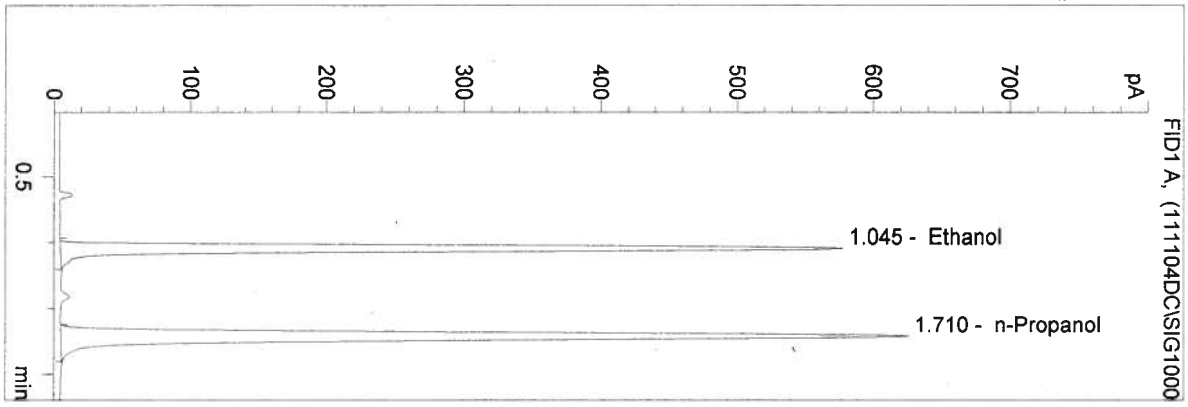
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

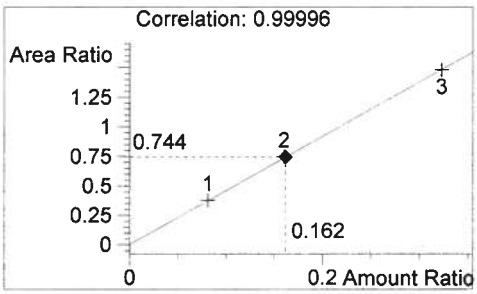
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 9:42:51 AM
Instrument 1
DB-ALC1

0.158 CAL 2
Dawn Cox

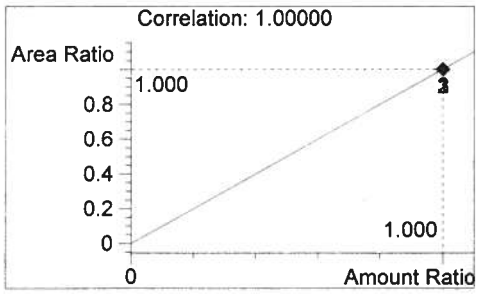
vial # 3



#	Compound	Area	RT
1	Ethanol	1874	1.045
2	n-Propanol	2519	1.710
Tot			



Ethanol 0.162 g/100 mL



n-Propanol 1.000 g/100 mL

11051

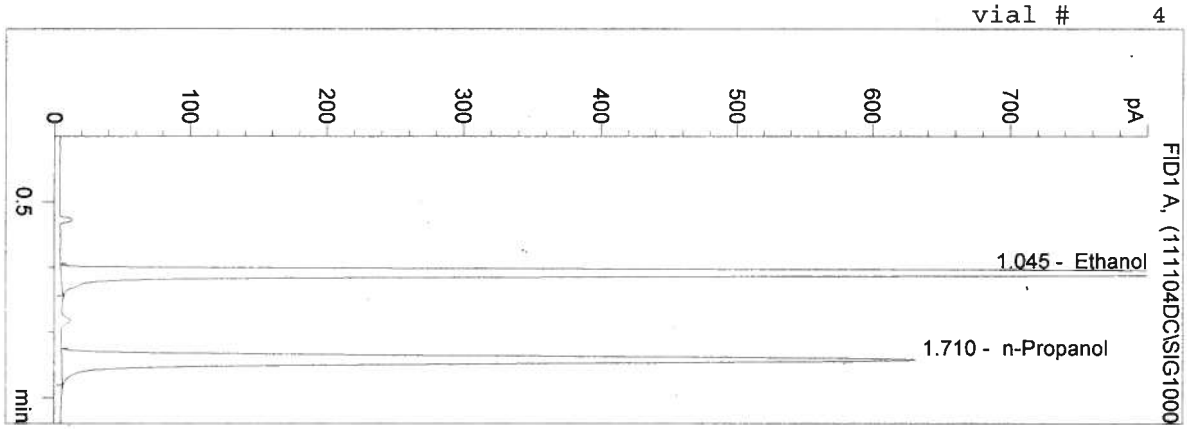
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

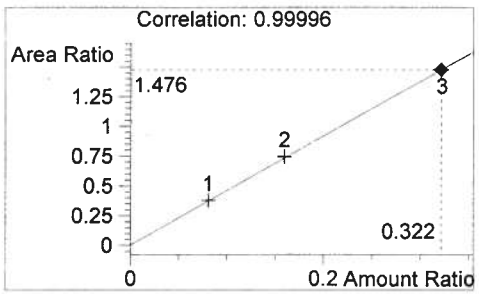
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 9:45:56 AM
Instrument 1
DB-ALC1

0.316 CAL 3
Dawn Cox

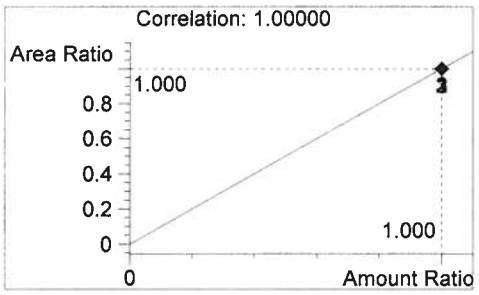
vial # 4



#	Compound	Area	RT
1	Ethanol	3741	1.045
2	n-Propanol	2535	1.710
Tot			



Ethanol 0.322 g/100 mL



n-Propanol 1.000 g/100 mL

11051

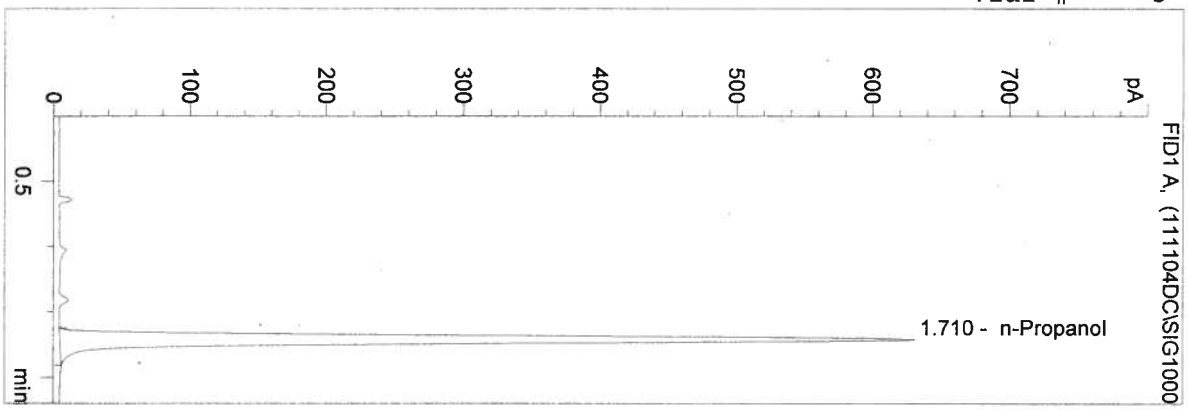
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

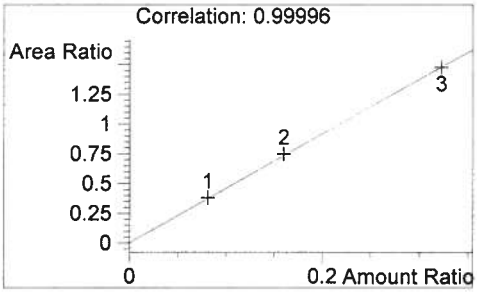
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 9:49:00 AM
Instrument 1
DB-ALC1

NEG CTRL - DC
Dawn Cox

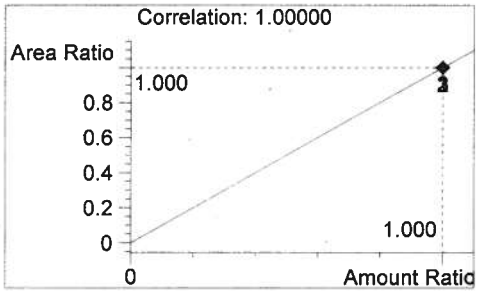
vial # 5



#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	2535	1.710
Tot			



Ethanol 0.000 g/100 mL



n-Propanol 1.000 g/100 mL

11051

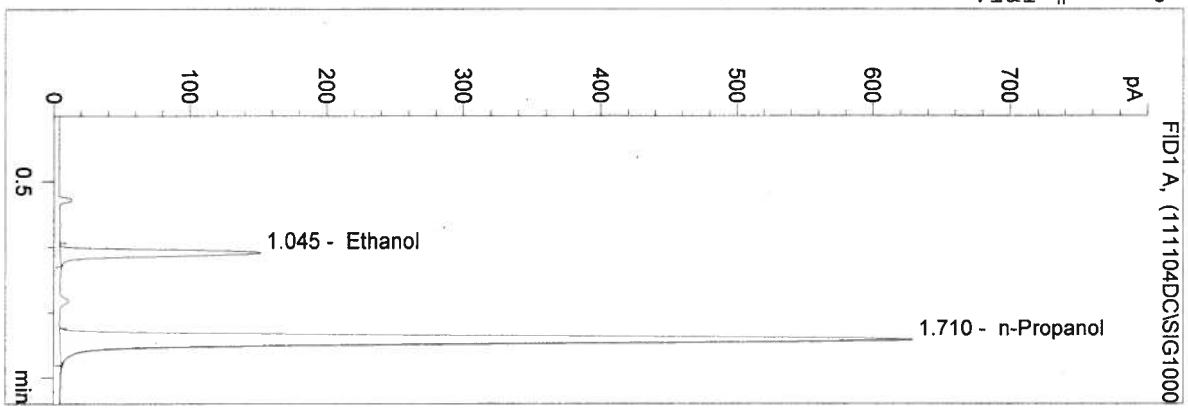
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

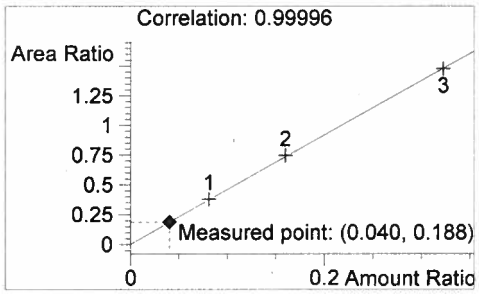
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 9:52:05 AM
Instrument 1
DB-ALC1

0.04 CTRL - DC
Dawn Cox

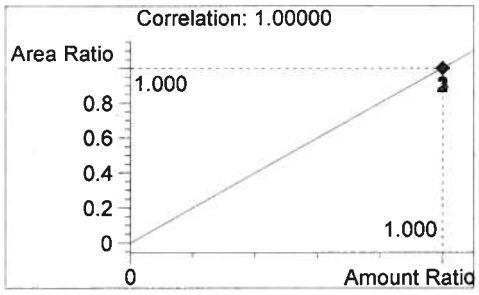
vial # 6



#	Compound	Area	RT
1	Ethanol	478	1.045
2	n-Propanol	2535	1.710
Tot			



Ethanol 0.040 g/100 mL



n-Propanol 1.000 g/100 mL

11051

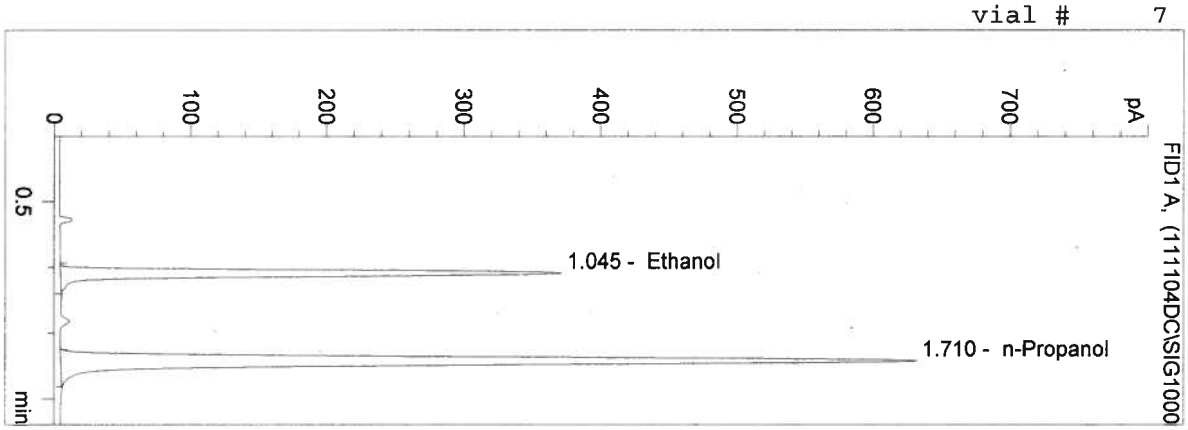
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

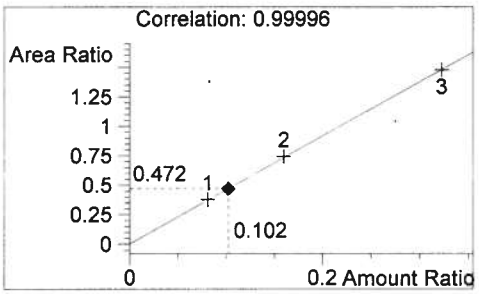
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 9:55:10 AM
Instrument 1
DB-ALC1

0.10 CTRL - DC
Dawn Cox

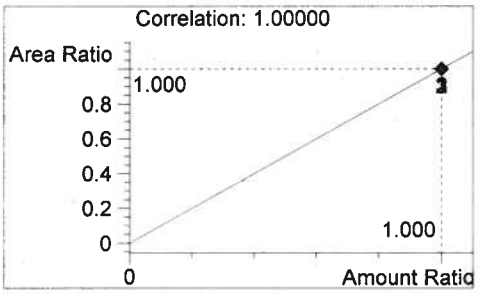
vial # 7



#	Compound	Area	RT
1	Ethanol	1201	1.045
2	n-Propanol	2547	1.710
Tot			



Ethanol 0.102 g/100 mL



n-Propanol 1.000 g/100 mL

11051

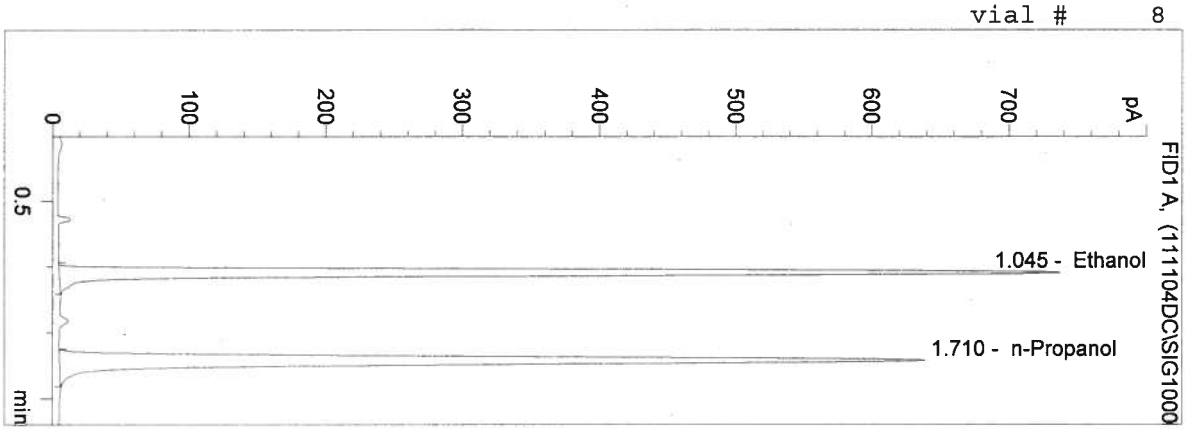
TOL

WASHINGTON STATE TOXICOLOGY LABORATORY

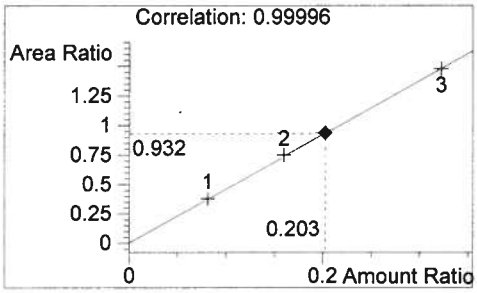
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 9:58:15 AM
Instrument 1
DB-ALC1

0.20 CTRL -DC
Dawn Cox

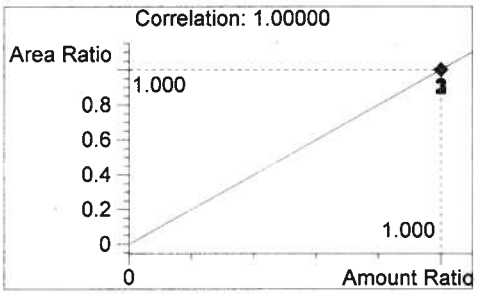
vial # 8



#	Compound	Area	RT
1	Ethanol	2389	1.045
2	n-Propanol	2564	1.710
Tot			



Ethanol 0.203 g/100 mL



n-Propanol 1.000 g/100 mL

11051

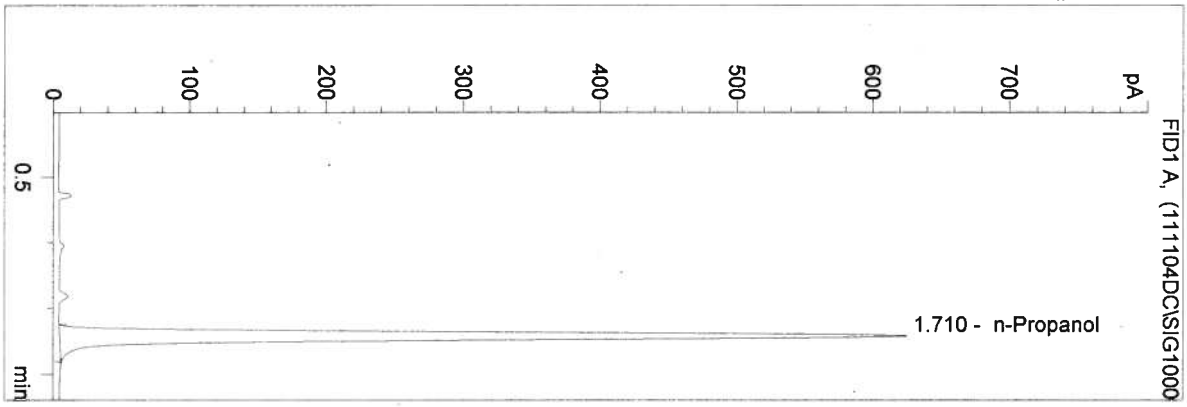
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

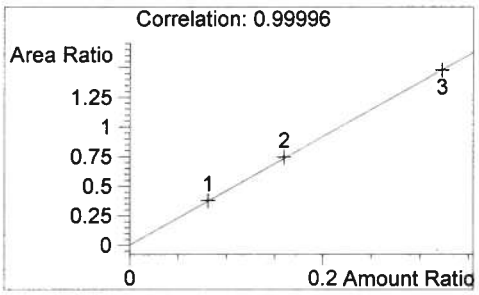
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 10:01:19 AM
Instrument 1
DB-ALC1

NEG CTRL - DC
Dawn Cox

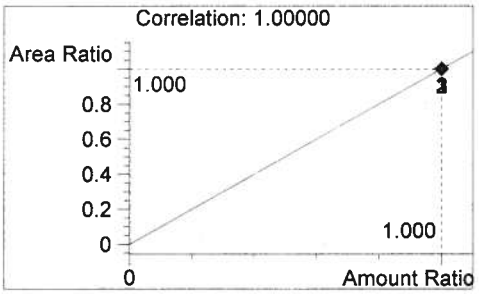
vial # 9



#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	2518	1.710
Tot			



Ethanol 0.000 g/100 mL



n-Propanol 1.000 g/100 mL

11051

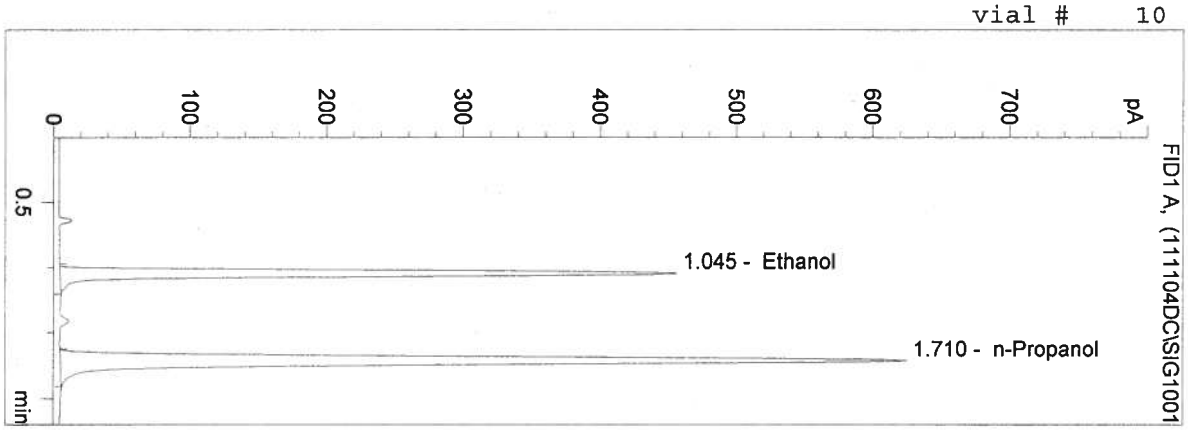
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

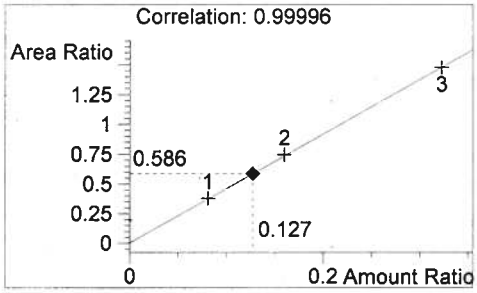
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 10:04:24 AM
Instrument 1
DB-ALC1

11051 #1
Dawn Cox

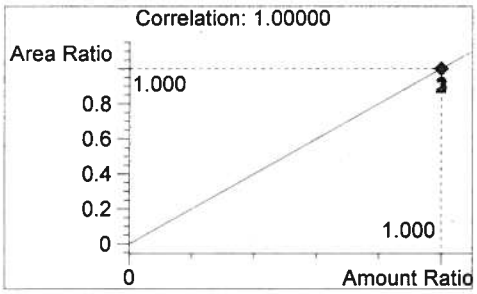
vial # 10



#	Compound	Area	RT
1	Ethanol	1475	1.045
2	n-Propanol	2517	1.710
Tot			



Ethanol 0.127 g/100 mL



n-Propanol 1.000 g/100 mL

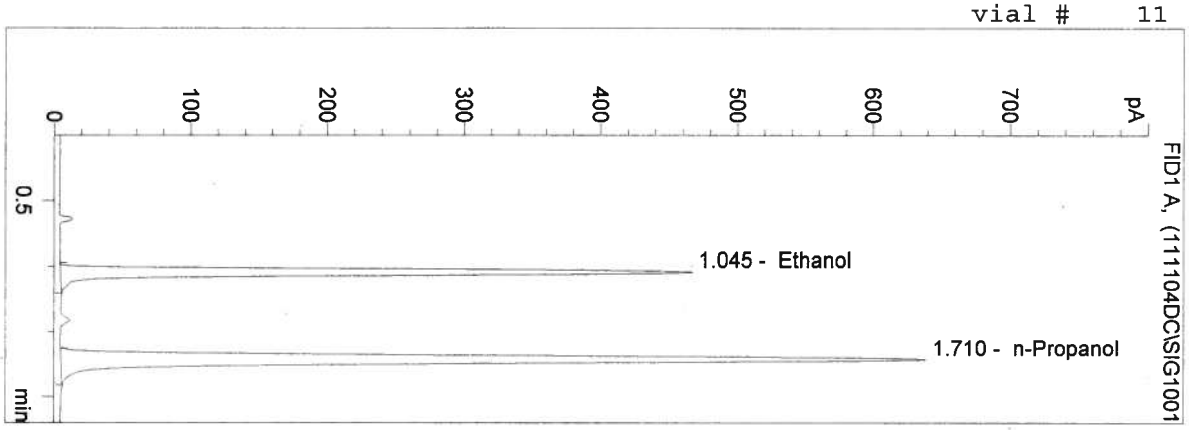
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

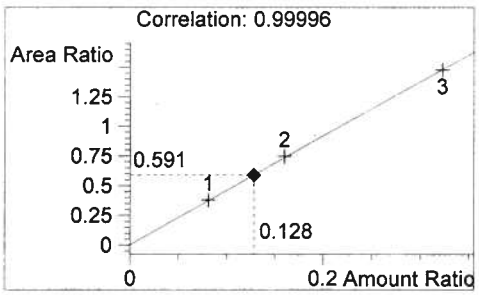
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 10:07:29 AM
Instrument 1
DB-ALC1

11051 #2
Dawn Cox

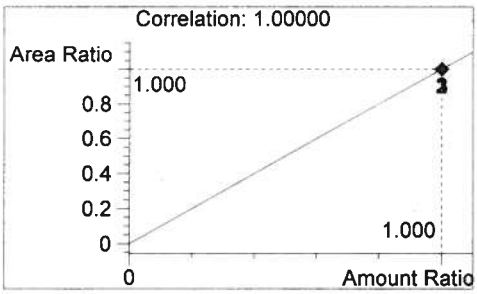
vial # 11



#	Compound	Area	RT
1	Ethanol	1519	1.045
2	n-Propanol	2572	1.710
Tot			



Ethanol 0.128 g/100 mL



n-Propanol 1.000 g/100 mL

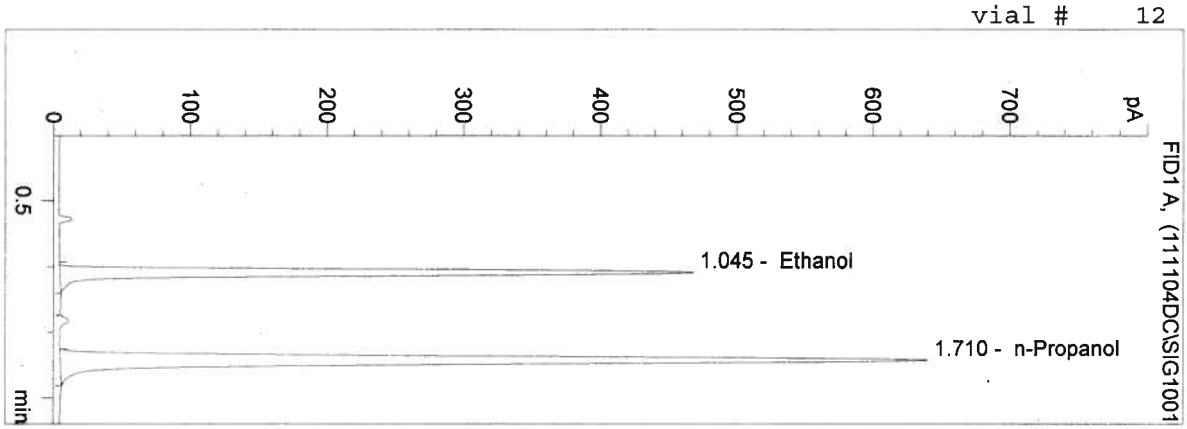
DL

WASHINGTON STATE TOXICOLOGY LABORATORY

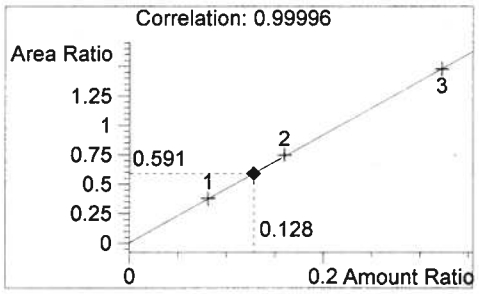
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 10:10:33 AM
Instrument 1
DB-ALC1

11051 #3
Dawn Cox

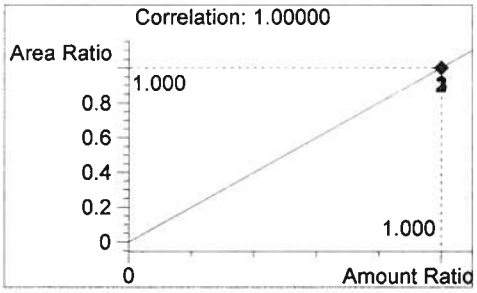
vial # 12



#	Compound	Area	RT
1	Ethanol	1521	1.045
2	n-Propanol	2573	1.710
Tot			



Ethanol 0.128 g/100 mL



n-Propanol 1.000 g/100 mL

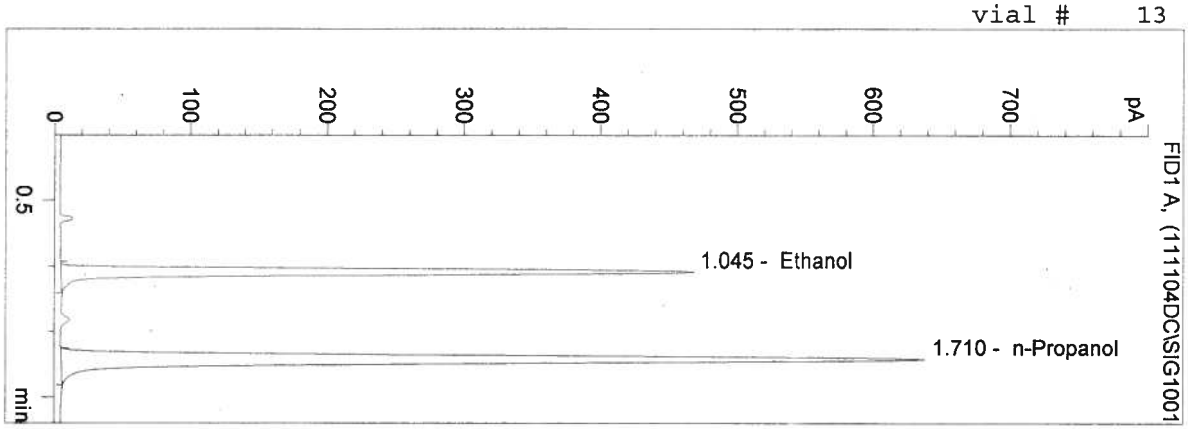
AC

WASHINGTON STATE TOXICOLOGY LABORATORY

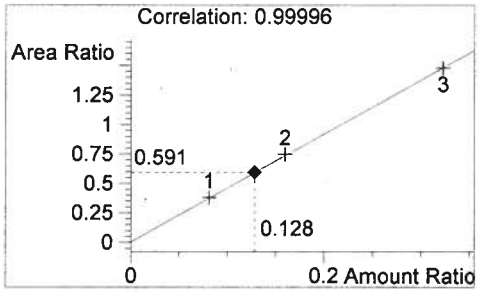
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 10:13:38 AM
Instrument 1
DB-ALC1

11051 #4
Dawn Cox

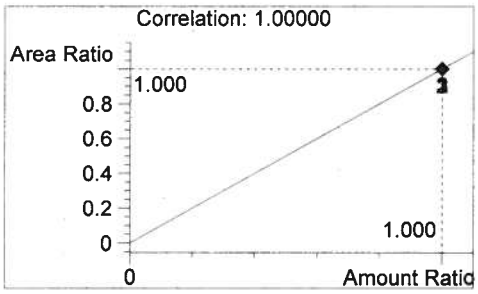
vial # 13



#	Compound	Area	RT
1	Ethanol	1516	1.045
2	n-Propanol	2564	1.710
Tot			



Ethanol 0.128 g/100 mL



n-Propanol 1.000 g/100 mL

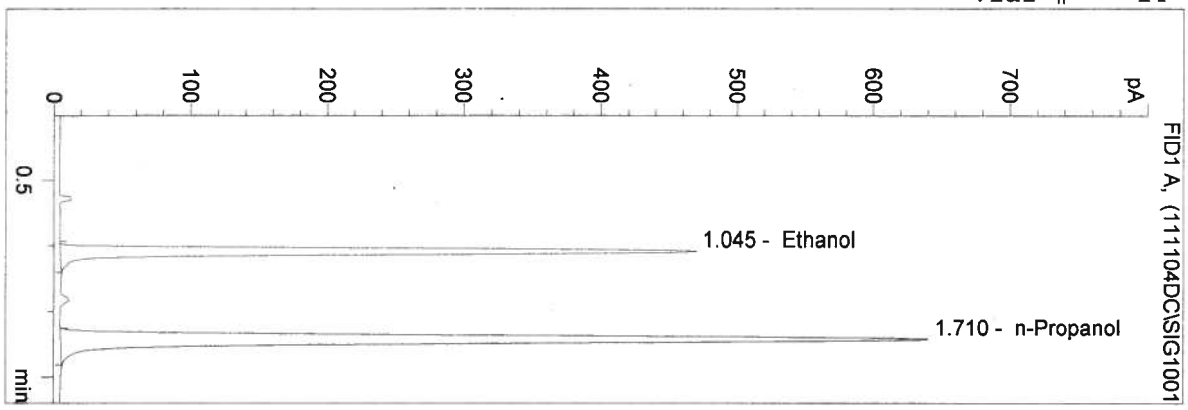
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

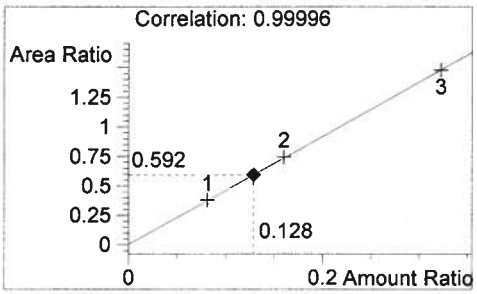
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 10:16:43 AM
Instrument 1
DB-ALC1

11051 #5
Dawn Cox

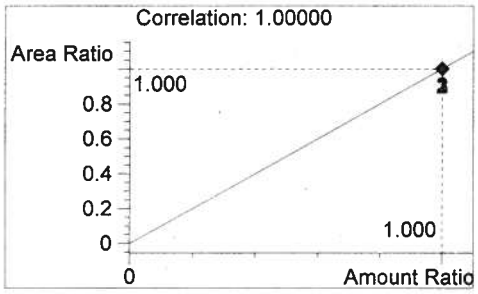
vial # 14



#	Compound	Area	RT
1	Ethanol	1525	1.045
2	n-Propanol	2576	1.710
Tot			



Ethanol 0.128 g/100 mL



n-Propanol 1.000 g/100 mL

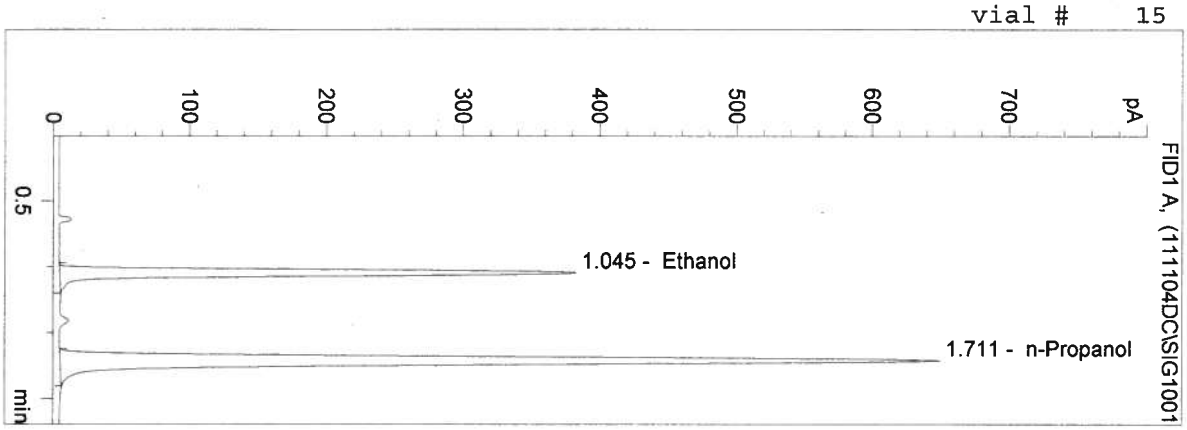
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

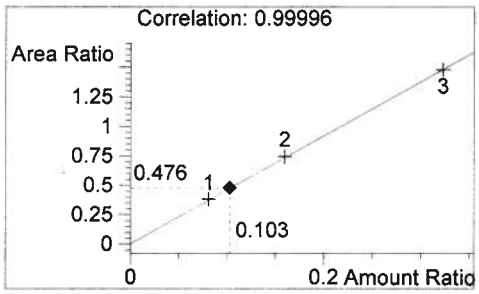
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 10:19:48 AM
Instrument 1
DB-ALC1

0.10 CTRL - DC
Dawn Cox

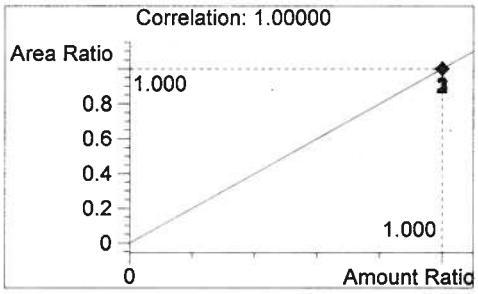
vial # 15



#	Compound	Area	RT
1	Ethanol	1246	1.045
2	n-Propanol	2619	1.711
Tot			



Ethanol 0.103 g/100 mL



n-Propanol 1.000 g/100 mL

11051

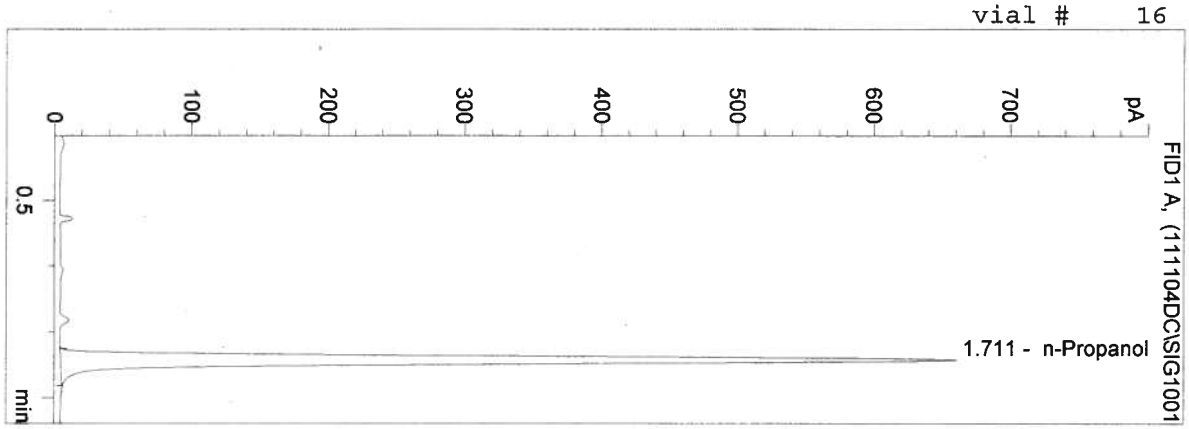
DC

WASHINGTON STATE TOXICOLOGY LABORATORY

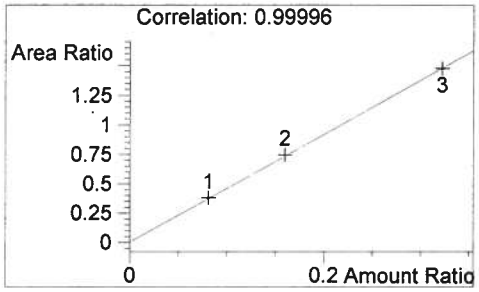
C:\HPCHEM\1\METHODS\SIMALC1.M
11/4/2011 10:22:52 AM
Instrument 1
DB-ALC1

NEG CTRL - DC
Dawn Cox

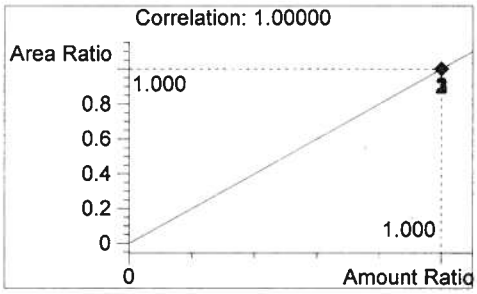
vial # 16



#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	2662	1.711
Tot			



Ethanol 0.000 g/100 mL



n-Propanol 1.000 g/100 mL

11051

DC

Sequence Parameters:

Operator:	Naziha Nuwayhid, PhD
Data File Naming:	Prefix/Counter
Signal 1 Prefix:	SIG1
Counter:	0001
Signal 2 Prefix:	SIG2
Counter:	0001
Data Directory:	C:\HPCHEM\1\DATA\
Data Subdirectory:	111107NN
Part of Methods to run:	According to Runtime Checklist
Barcode Reader:	not used
Shutdown Cmd/Macro:	none

Sequence Comment:
Cal 1 Lot# E0911-01 - exp 12/05/2011
Cal 2 Lot# E0911-02 - exp 12/05/2011
Cal 3 Lot# E0911-03 - exp 12/05/2011

0.04 Control - Lot # A075264 - exp 10/2014
0.10 Control - Lot # A075806 - exp 11/2014
0.20 Control - Lot # A076521 - exp 12/2014

Sequence Table (Front Injector):

Sample Information Part:

Line	Location	Sample Information
1	Vial 1	
2	Vial 2	Lot# E0911-01
3	Vial 3	Lot# E0911-02
4	Vial 4	Lot# E0911-03
5	Vial 5	
6	Vial 6	Lot# A075264
7	Vial 7	Lot# A075806
8	Vial 8	Lot# A076521
9	Vial 9	
10	Vial 10	
11	Vial 11	
12	Vial 12	
13	Vial 13	
14	Vial 14	

11051

NN

Sequence: C:\HPCHEM\1\SEQUENCE\NNQAP1.S

Line	Location	Sample Information
15	Vial 15	Lot# A075806
16	Vial 16	

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	BLANK	SIMALC1	1	Sample		
2	Vial 2	0.079 CAL 1	SIMALC1	1	Calib		
3	Vial 3	0.158 CAL 2	SIMALC1	1	Calib		
4	Vial 4	0.316 CAL 3	SIMALC1	1	Calib		
5	Vial 5	NEG CTRL - NN	SIMALC1	1	Ctrl Samp		
6	Vial 6	0.04 CTRL - NN	SIMALC1	1	Ctrl Samp		
7	Vial 7	0.10 CTRL - NN	SIMALC1	1	Ctrl Samp		
8	Vial 8	0.20 CTRL -NN	SIMALC1	1	Ctrl Samp		
9	Vial 9	NEG CTRL - NN	SIMALC1	1	Ctrl Samp		
10	Vial 10	QAP 11051-1	SIMALC1	1	Sample		
11	Vial 11	QAP 11051-2	SIMALC1	1	Sample		
12	Vial 12	QAP 11051-3	SIMALC1	1	Sample		
13	Vial 13	QAP 11051-4	SIMALC1	1	Sample		
14	Vial 14	QAP 11051-5	SIMALC1	1	Sample		
15	Vial 15	0.10 CTRL - NN	SIMALC1	1	Ctrl Samp		
16	Vial 16	NEG CTRL - NN	SIMALC1	1	Ctrl Samp		

Calibration Part:

Line	Location	SampleName	Method	CalLev	Update RF	Update RT	Interval
2	Vial 2	0.079 CAL 1	SIMALC1	1	Replace	Replace	
3	Vial 3	0.158 CAL 2	SIMALC1	2	Replace	Replace	
4	Vial 4	0.316 CAL 3	SIMALC1	3	Replace	Replace	

Sequence Table (Back Injector):

No entries - empty table!

11051

NN

Calibration Table

Calib. Data Modified : Monday, November 07, 2011 4:28:21 PM

Calculate : Internal Standard
Based on : Peak Area

Rel. Reference Window : 5.000 %
Abs. Reference Window : 0.050 min
Rel. Non-ref. Window : 5.000 %
Abs. Non-ref. Window : 0.050 min
Use Multiplier & Dilution Factor with ISTDs
Uncalibrated Peaks : not reported
Partial Calibration : No recalibration if peaks missing

Curve Type : Linear
Origin : Included
Weight : Equal

Recalibration Settings:
Average Response : No Update
Average Retention Time: No Update

Calibration Report Options :
Printout of recalibrations within a sequence:
Normal Report after Recalibration

Default Sample ISTD Information (if not set in sample table):

ISTD #	ISTD Amount [g/100mL]	Name
1	1.00000	n-Propanol

Signal 1: FID1 A,

RetTime [min]	Sig	Lvl	Amount [g/100mL]	Area	Amt/Area	Ref	Grp	Name
1.046	1	1	8.12800e-2	948.95734	8.56519e-5	1		Ethanol
		2	1.60090e-1	1988.44849	8.05100e-5			
		3	3.22750e-1	3840.17163	8.40457e-5			
1.711	1	1	1.00000	2501.41211	3.99774e-4	I1		n-Propanol
		2	1.00000	2685.62598	3.72353e-4			
		3	1.00000	2580.04590	3.87590e-4			

Peak Sum Table

No Entries in table

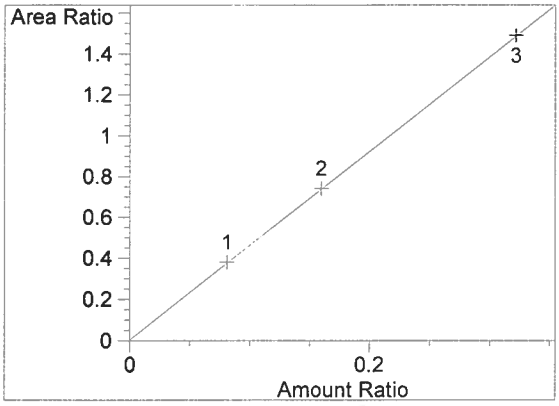
11051

NN

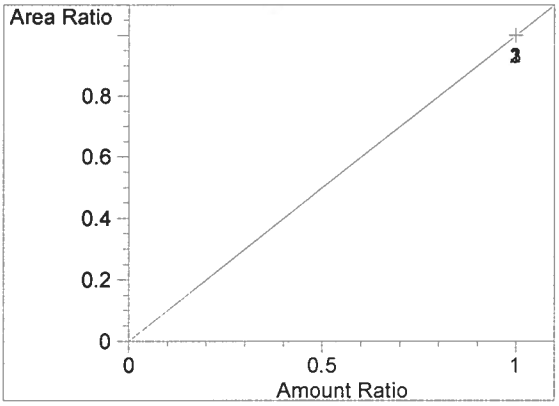
==========

Calibration Curves

==========



Ethanol at exp. RT: 1.046
FID1 A,
Correlation: 0.99999
Residual Std. Dev.: 0.00255
Formula: y = mx + b
m: 4.60760
b: 2.23586e-3
x: Amount Ratio
y: Area Ratio



n-Propanol at exp. RT: 1.711
FID1 A,
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 1.00000
b: 0.00000
x: Amount Ratio
y: Area Ratio

==========

11051

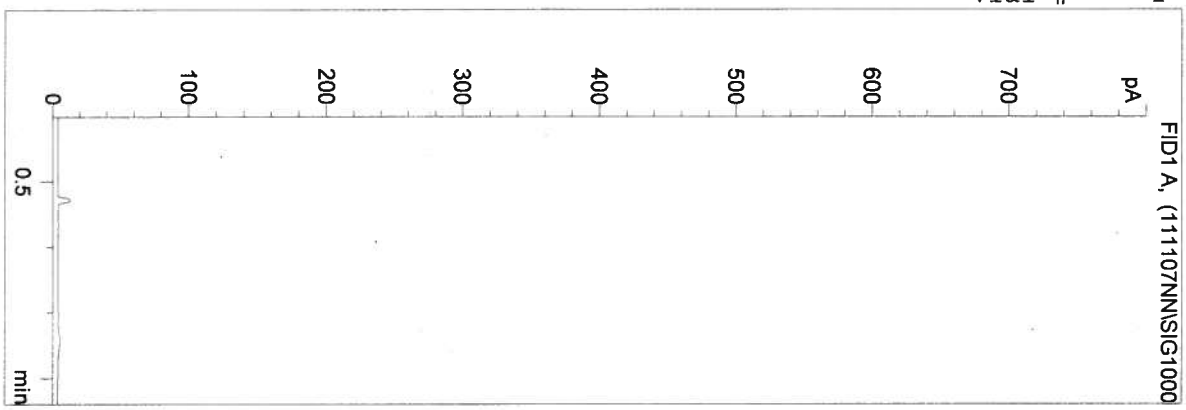
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

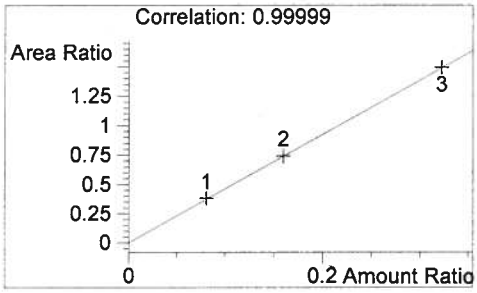
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:16:54 PM
Instrument 1
DB-ALC1

BLANK
Naziha Nuwayhid, PhD

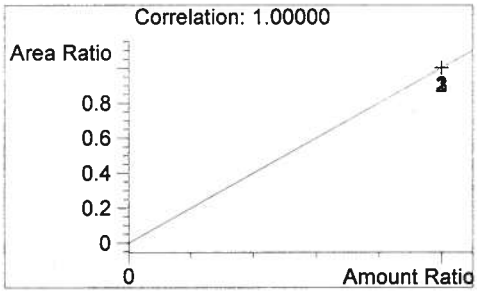
vial # 1



#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	0	0.000
Tot			



Ethanol 0.000 g/100 mL



n-Propanol 0.000 g/100 mL

11051

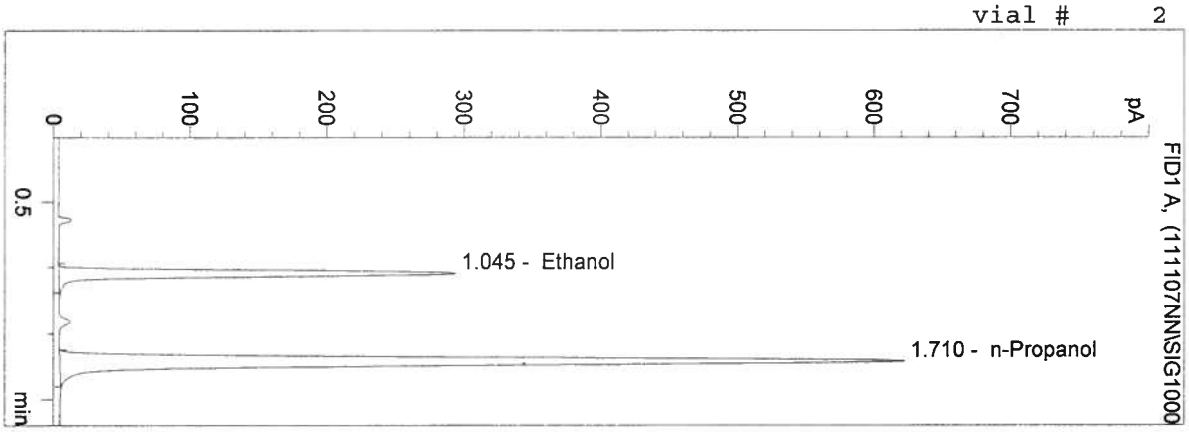
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

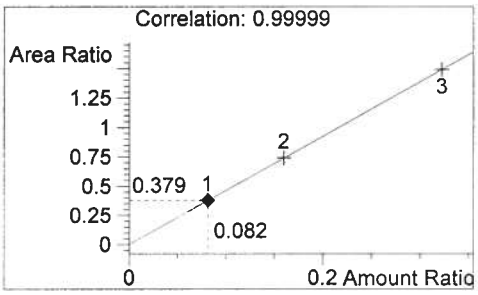
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:19:59 PM
Instrument 1
DB-ALC1

0.079 CAL 1
Naziha Nuwayhid, PhD

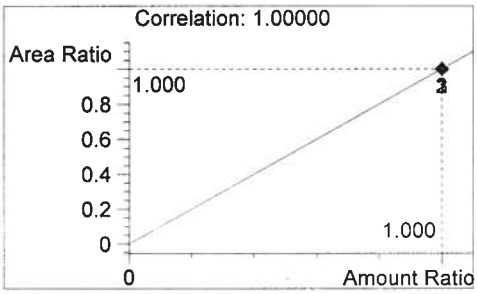
vial # 2



#	Compound	Area	RT
1	Ethanol	949	1.045
2	n-Propanol	2501	1.710
Tot			



Ethanol 0.082 g/100 mL



n-Propanol 1.000 g/100 mL

11051

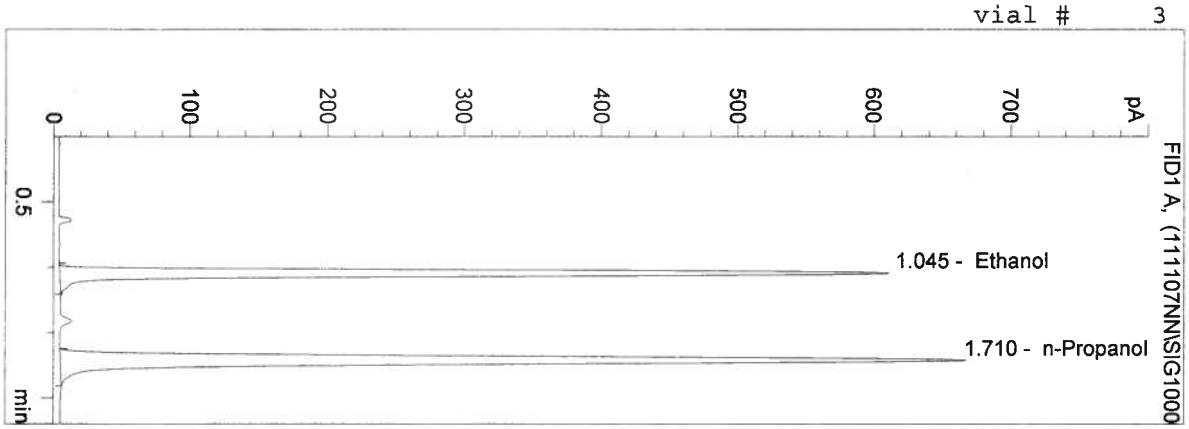
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

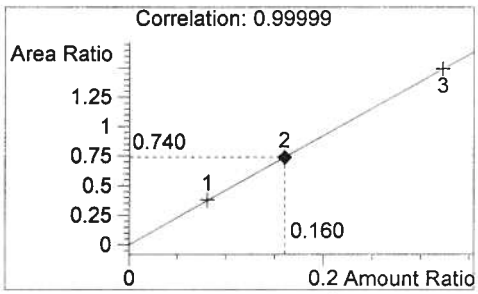
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:23:04 PM
Instrument 1
DB-ALC1

0.158 CAL 2
Naziha Nuwayhid, PhD

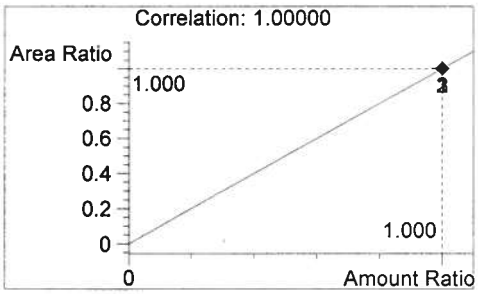
vial # 3



#	Compound	Area	RT
1	Ethanol	1988	1.045
2	n-Propanol	2686	1.710
Tot			



Ethanol 0.160 g/100 mL



n-Propanol 1.000 g/100 mL

11051

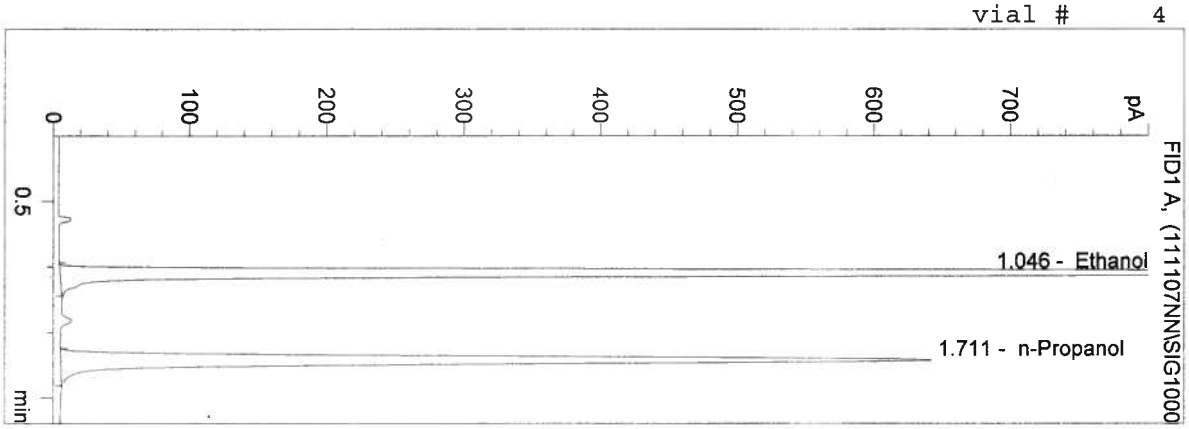
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

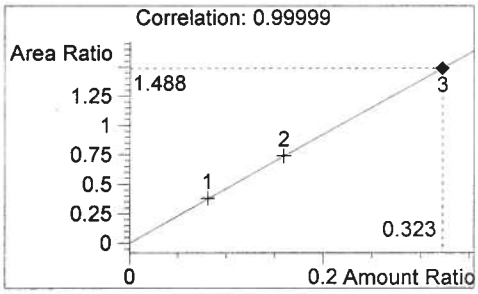
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:26:08 PM
Instrument 1
DB-ALC1

0.316 CAL 3
Naziha Nuwayhid, PhD

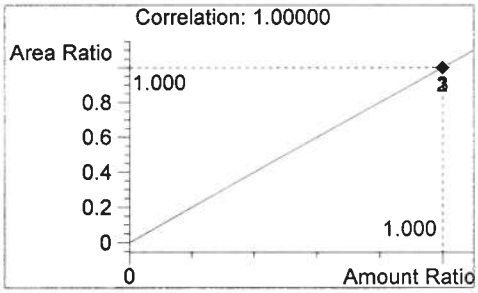
vial # 4



#	Compound	Area	RT
1	Ethanol	3840	1.046
2	n-Propanol	2580	1.711
Tot			



Ethanol 0.323 g/100 mL



n-Propanol 1.000 g/100 mL

11051

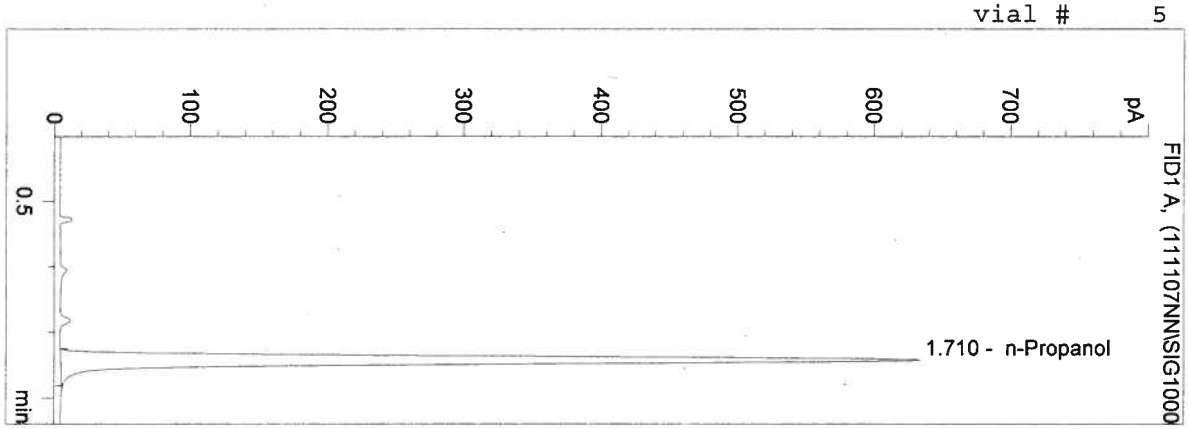
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

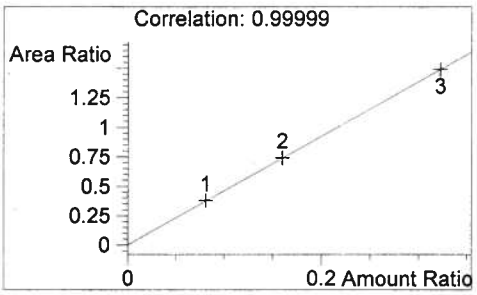
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:29:13 PM
Instrument 1
DB-ALC1

NEG CTRL - NN
Naziha Nuwayhid, PhD

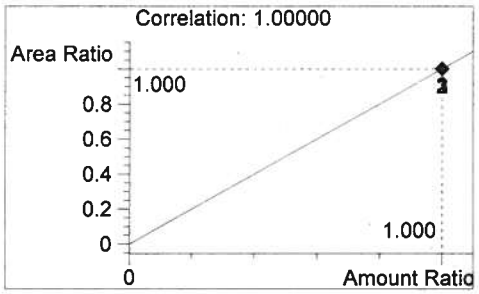
vial # 5



#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	2550	1.710
Tot			



Ethanol 0.000 g/100 mL



n-Propanol 1.000 g/100 mL

11051

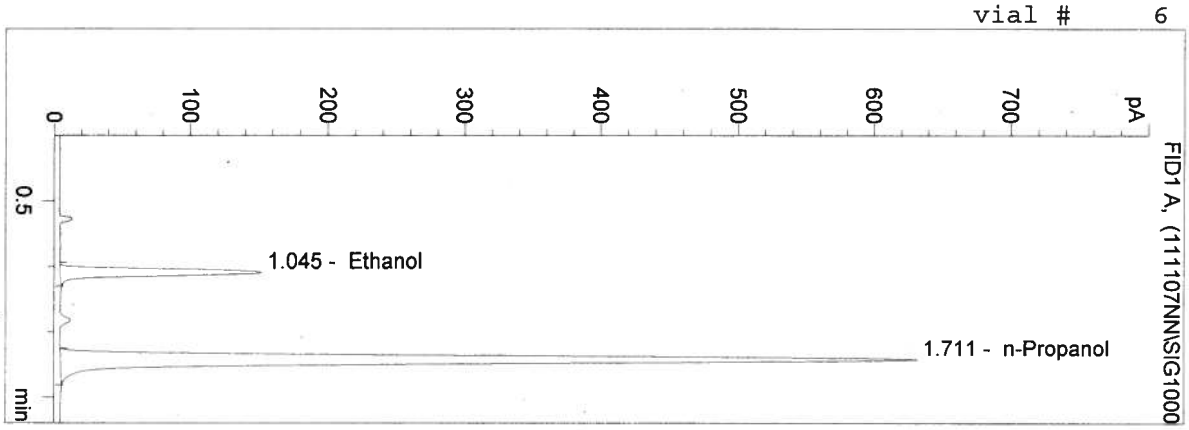
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

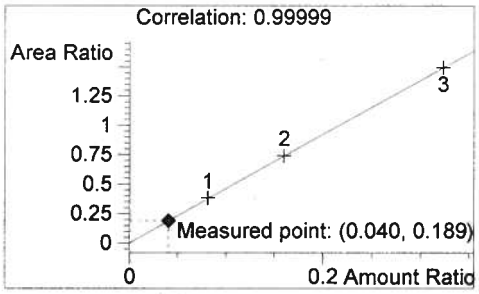
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:32:18 PM
Instrument 1
DB-ALC1

0.04 CTRL - NN
Naziha Nuwayhid, PhD

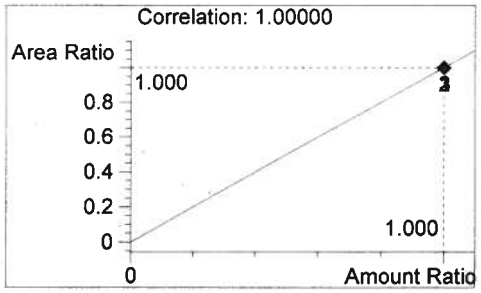
vial # 6



#	Compound	Area	RT
1	Ethanol	481	1.045
2	n-Propanol	2547	1.711
Tot			



Ethanol 0.040 g/100 mL



n-Propanol 1.000 g/100 mL

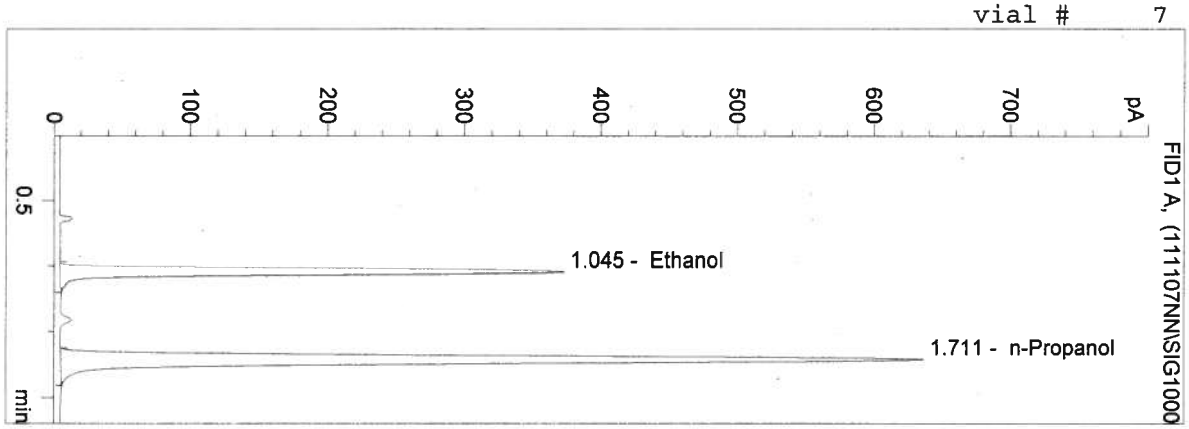
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

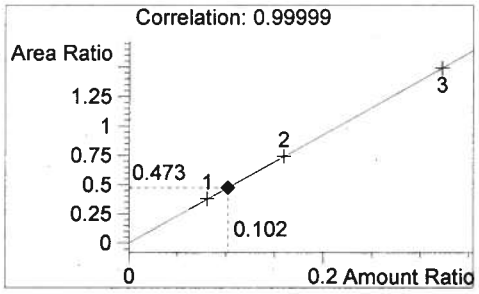
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:35:22 PM
Instrument 1
DB-ALC1

0.10 CTRL - NN
Naziha Nuwayhid, PhD

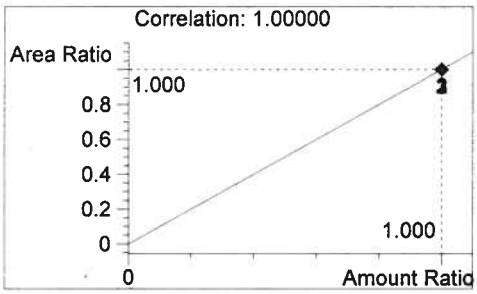
vial # 7



#	Compound	Area	RT
1	Ethanol	1212	1.045
2	n-Propanol	2561	1.711
Tot			



Ethanol 0.102 g/100 mL



n-Propanol 1.000 g/100 mL

11051

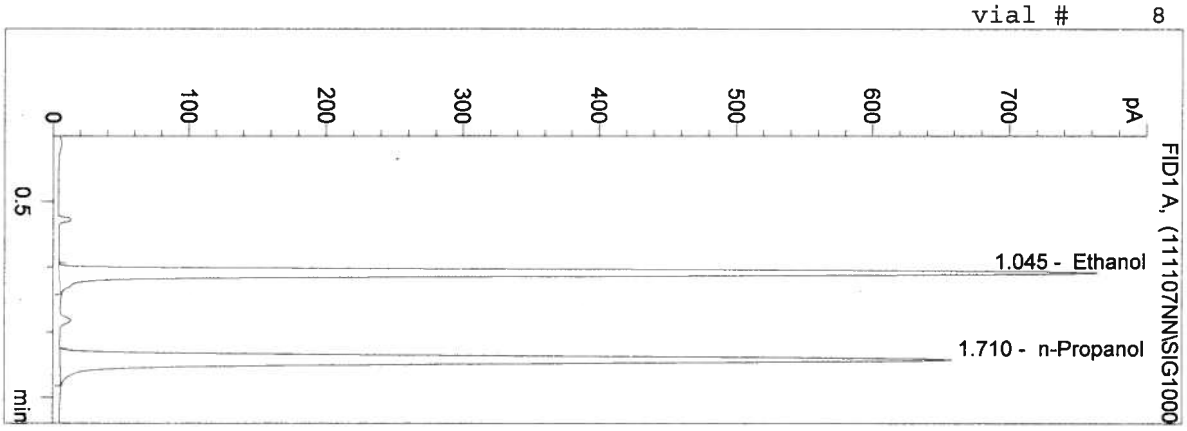
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

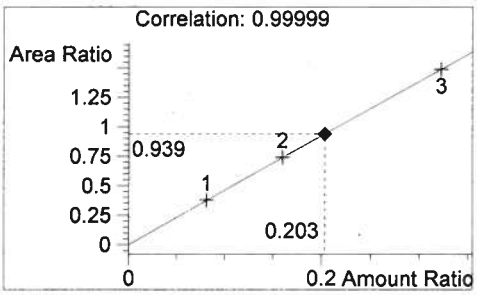
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:38:27 PM
Instrument 1
DB-ALC1

0.20 CTRL -NN
Naziha Nuwayhid, PhD

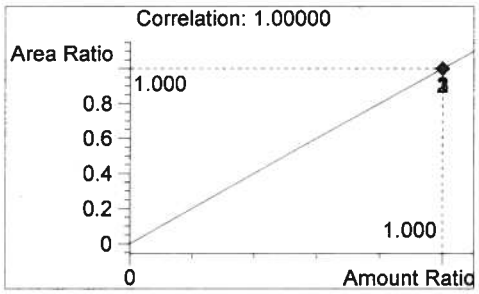
vial # 8



#	Compound	Area	RT
1	Ethanol	2487	1.045
2	n-Propanol	2647	1.710
Tot			



Ethanol 0.203 g/100 mL



n-Propanol 1.000 g/100 mL

11051

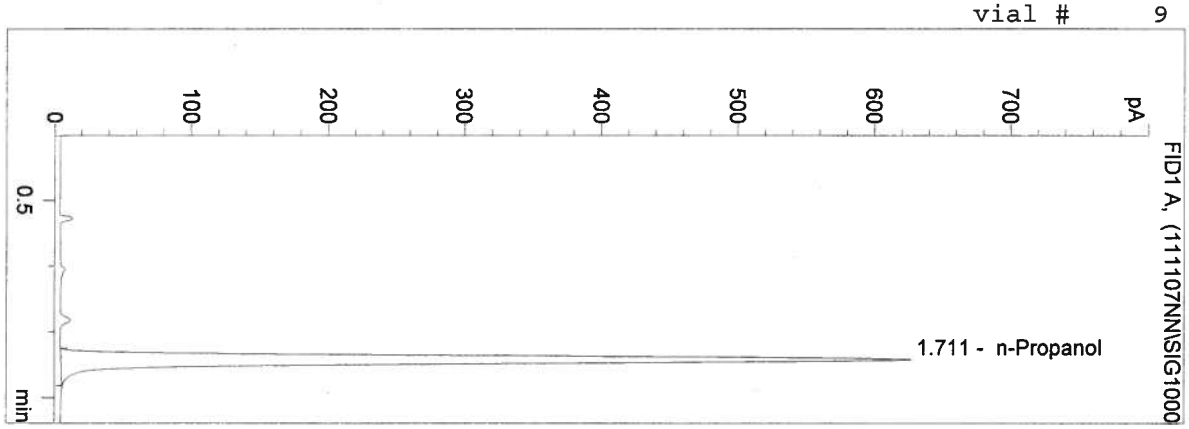
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

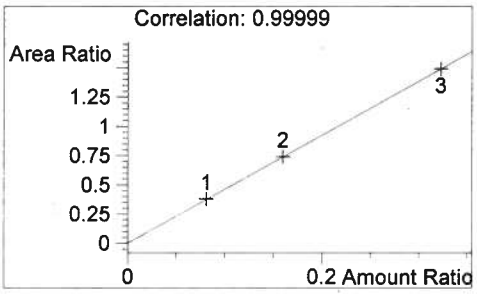
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:41:32 PM
Instrument 1
DB-ALC1

NEG CTRL - NN
Naziha Nuwayhid, PhD

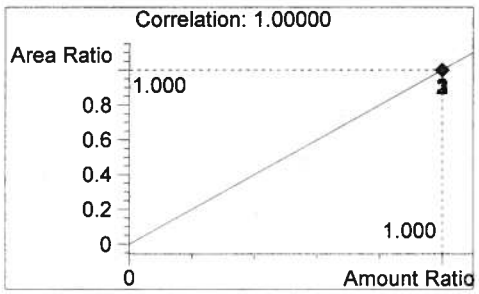
vial # 9



#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	2522	1.711
Tot			



Ethanol 0.000 g/100 mL



n-Propanol 1.000 g/100 mL

11051

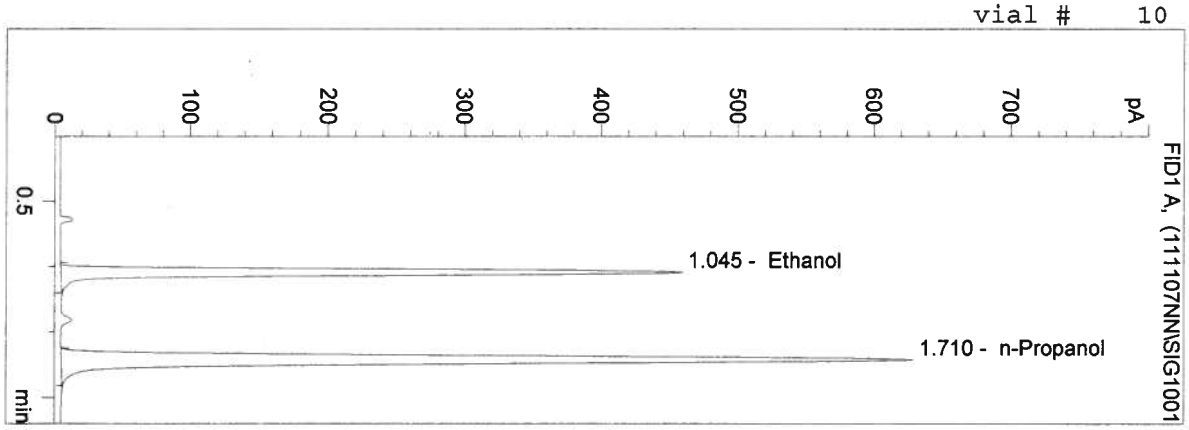
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

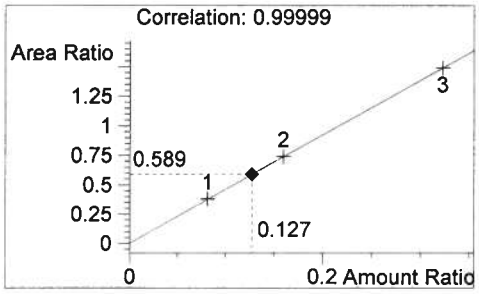
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:44:36 PM
Instrument 1
DB-ALC1

QAP 11051-1
Naziha Nuwayhid, PhD

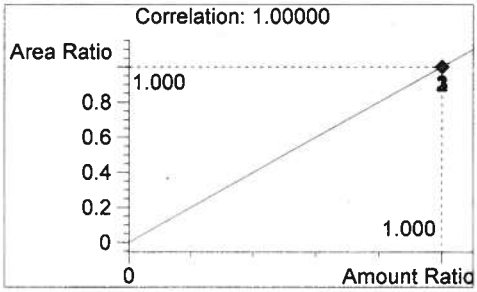
vial # 10



#	Compound	Area	RT
1	Ethanol	1491	1.045
2	n-Propanol	2531	1.710
Tot			



Ethanol 0.127 g/100 mL



n-Propanol 1.000 g/100 mL

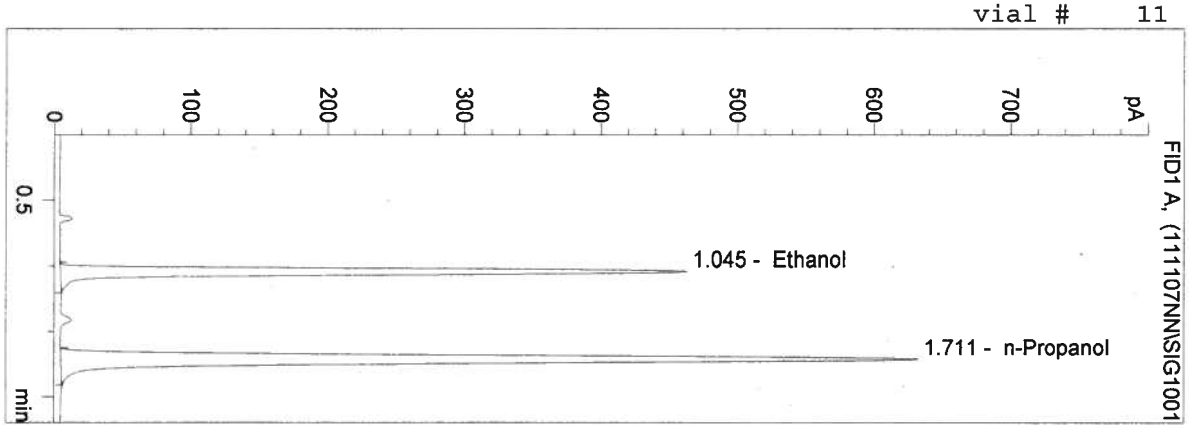
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

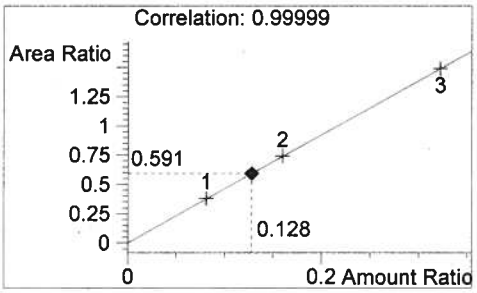
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:47:41 PM
Instrument 1
DB-ALC1

QAP 11051-2
Naziha Nuwayhid, PhD

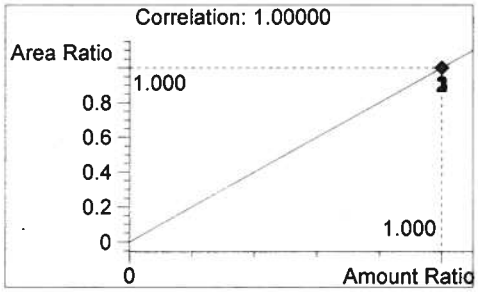
vial # 11



#	Compound	Area	RT
1	Ethanol	1506	1.045
2	n-Propanol	2547	1.711
Tot			



Ethanol 0.128 g/100 mL



n-Propanol 1.000 g/100 mL

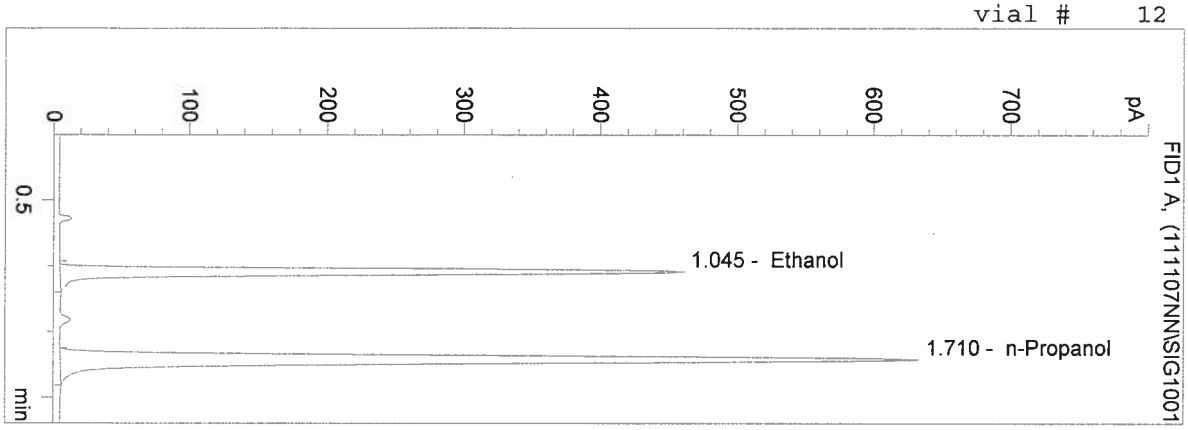
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

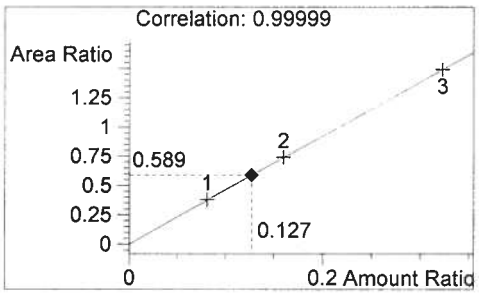
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:50:46 PM
Instrument 1
DB-ALC1

QAP 11051-3
Naziha Nuwayhid, PhD

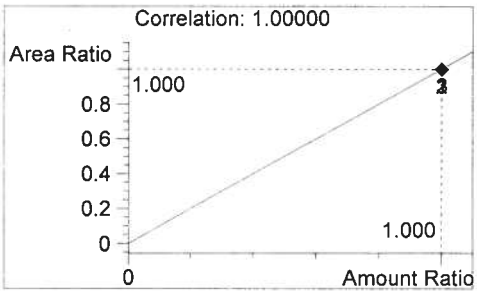
vial # 12



#	Compound	Area	RT
1	Ethanol	1500	1.045
2	n-Propanol	2549	1.710
Tot			



Ethanol 0.127 g/100 mL



n-Propanol 1.000 g/100 mL

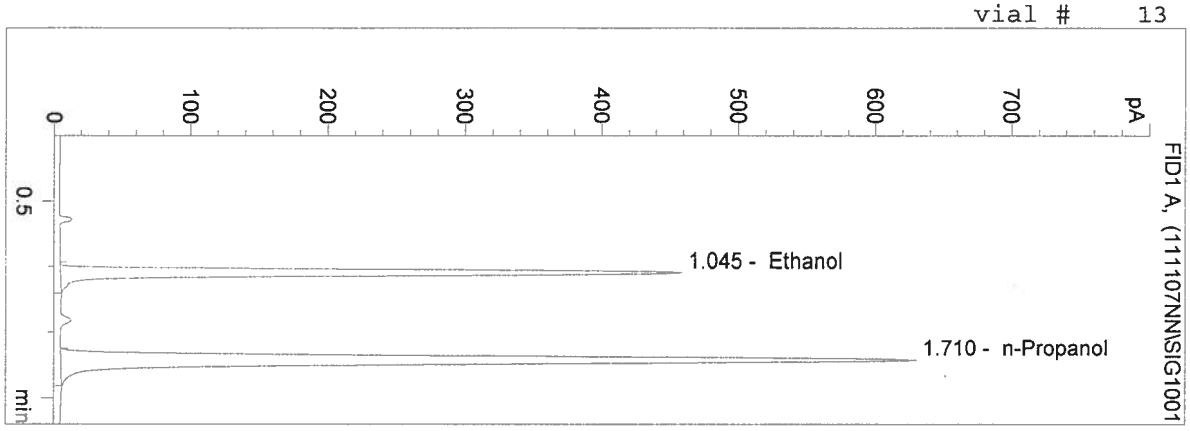
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

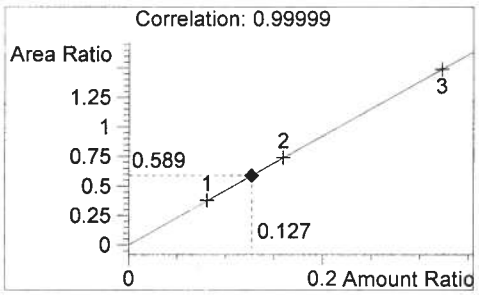
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:53:50 PM
Instrument 1
DB-ALC1

QAP 11051-4
Naziha Nuwayhid, PhD

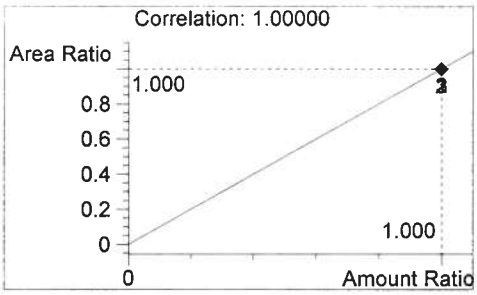
vial # 13



#	Compound	Area	RT
1	Ethanol	1496	1.045
2	n-Propanol	2539	1.710
Tot			



Ethanol 0.127 g/100 mL



n-Propanol 1.000 g/100 mL

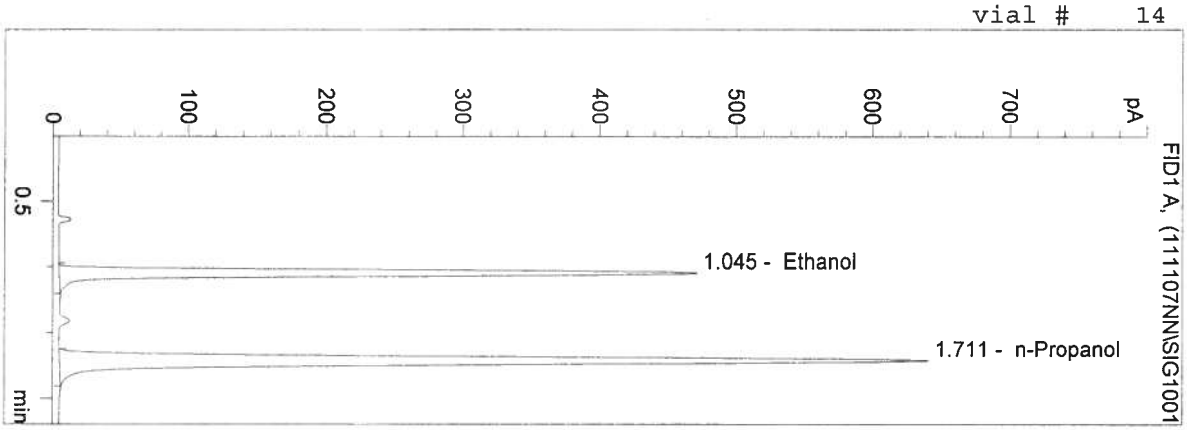
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

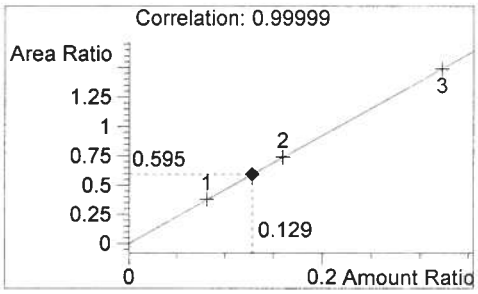
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 4:56:55 PM
Instrument 1
DB-ALC1

QAP 11051-5
Naziha Nuwayhid, PhD

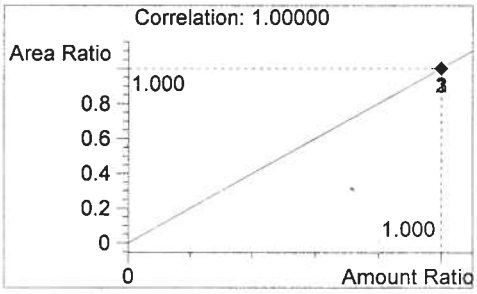
vial # 14



#	Compound	Area	RT
1	Ethanol	1535	1.045
2	n-Propanol	2581	1.711
Tot			



Ethanol 0.129 g/100 mL



n-Propanol 1.000 g/100 mL

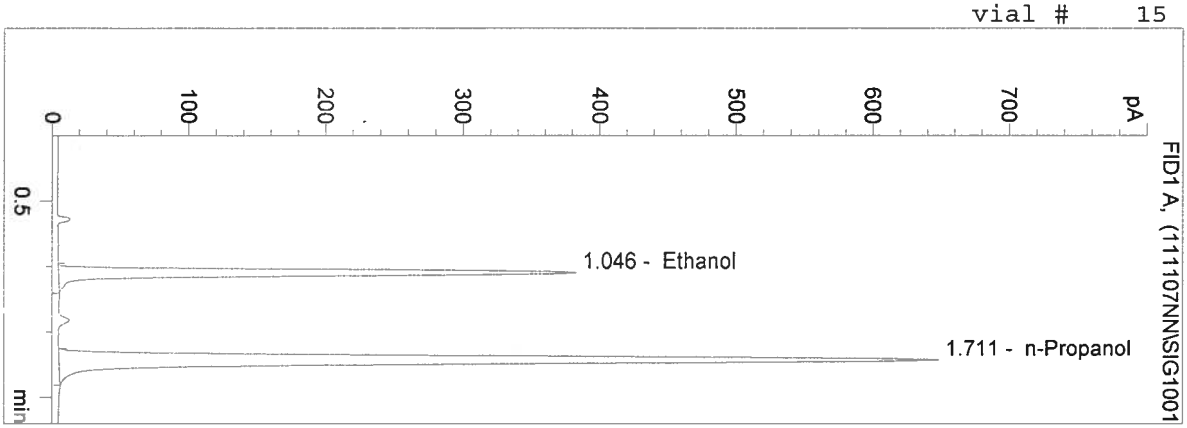
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

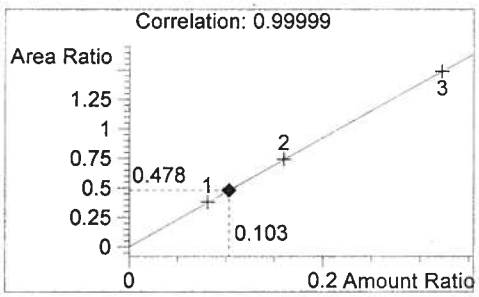
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 5:00:00 PM
Instrument 1
DB-ALC1

0.10 CTRL - NN
Naziha Nuwayhid, PhD

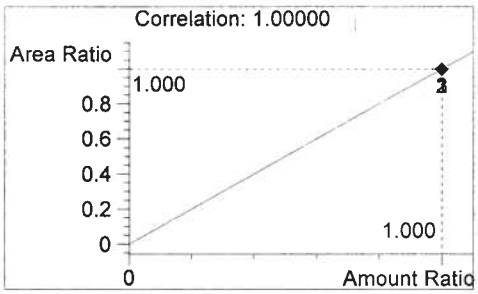
vial # 15



#	Compound	Area	RT
1	Ethanol	1251	1.046
2	n-Propanol	2616	1.711
Tot			



Ethanol 0.103 g/100 mL



n-Propanol 1.000 g/100 mL

11051

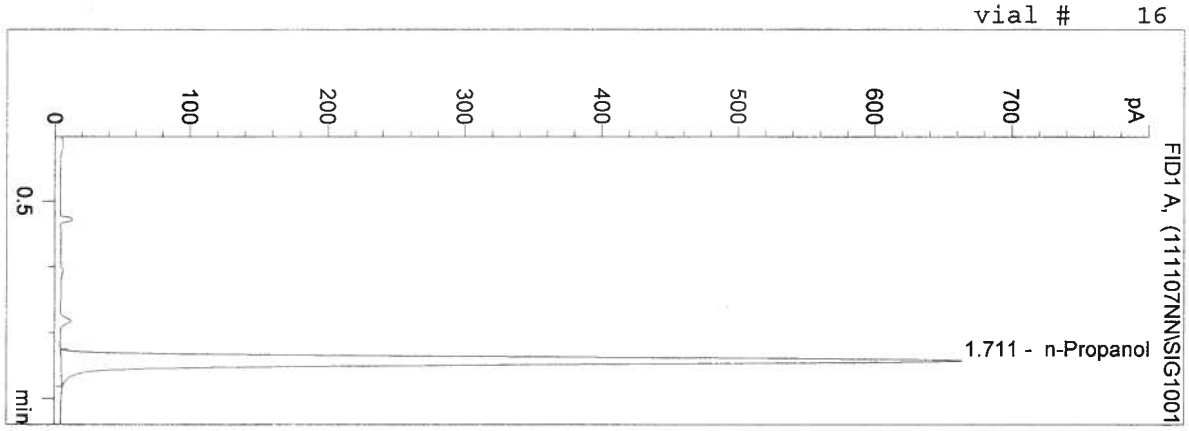
NN

WASHINGTON STATE TOXICOLOGY LABORATORY

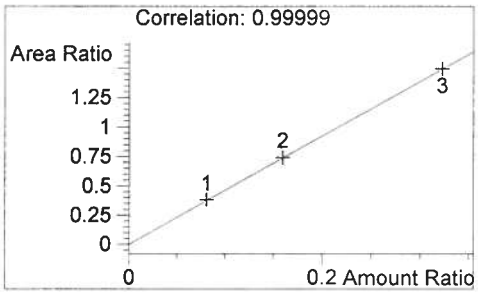
C:\HPCHEM\1\METHODS\SIMALC1.M
11/7/2011 5:03:05 PM
Instrument 1
DB-ALC1

NEG CTRL - NN
Naziha Nuwayhid, PhD

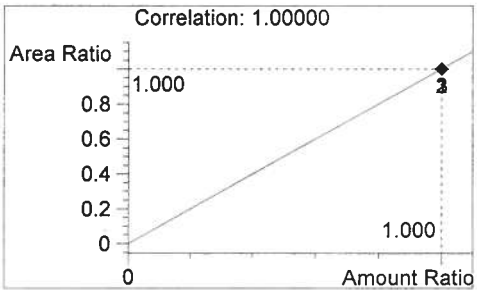
vial # 16



#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	2675	1.711
Tot			



Ethanol 0.000 g/100 mL



n-Propanol 1.000 g/100 mL

11051

NN

Sequence Parameters:

Operator:	Rebecca Flaherty
Data File Naming:	Prefix/Counter
Signal 1 Prefix:	SIG1
Counter:	0001
Signal 2 Prefix:	SIG2
Counter:	0001
Data Directory:	C:\HPCHEM\1\DATA\
Data Subdirectory:	111108RF
Part of Methods to run:	According to Runtime Checklist
Barcode Reader:	not used
Shutdown Cmd/Macro:	none

Sequence Comment:
Ethanol Calibrator 1, E0911-01 - Exp. 12/05/11
Ethanol Calibrator 2, E0911-02 - Exp. 12/05/11
Ethanol Calibrator 3, E0911-03 - Exp. 12/05/11

0.04 Control - Lot #A075264 - Exp. 10/2014
0.10 Control - Lot #A075806 - Exp. 11/2014
0.20 Control - Lot #A076521 - Exp. 12/2014

RP

Sequence Table (Front Injector):

Sample Information Part:

Line	Location	Sample Information
1	Vial 1	
2	Vial 2	E0911-01
3	Vial 3	E0911-02
4	Vial 4	E0911-03
5	Vial 5	
6	Vial 6	
7	Vial 7	
8	Vial 8	
9	Vial 9	
10	Vial 10	
11	Vial 11	
12	Vial 12	
13	Vial 13	
14	Vial 14	

11051

Sequence: C:\HPCHEM\1\SEQUENCE\RFQAP1.S

Line	Location	Sample Information
15	Vial 15	
16	Vial 16	

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	BLANK	SIMALC1	1	Sample		
2	Vial 2	0.079 CAL 1	SIMALC1	1	Calib		
3	Vial 3	0.158 CAL 2	SIMALC1	1	Calib		
4	Vial 4	0.316 CAL 3	SIMALC1	1	Calib		
5	Vial 5	NEG CONTROL-RF	SIMALC1	1	Ctrl Samp		
6	Vial 6	0.04 CONTROL-RF	SIMALC1	1	Ctrl Samp		
7	Vial 7	0.10 CONTROL-RF	SIMALC1	1	Ctrl Samp		
8	Vial 8	0.20 CONTROL-RF	SIMALC1	1	Ctrl Samp		
9	Vial 9	NEG CONTROL-RF	SIMALC1	1	Ctrl Samp		
10	Vial 10	QAP0.10 11051 #1	SIMALC1	1	Sample		
11	Vial 11	QAP0.10 11051 #2	SIMALC1	1	Sample		
12	Vial 12	QAP0.10 11051 #3	SIMALC1	1	Sample		
13	Vial 13	QAP0.10 11051 #4	SIMALC1	1	Sample		
14	Vial 14	QAP0.10 11051 #5	SIMALC1	1	Sample		
15	Vial 15	0.10 CONTROL-RF	SIMALC1	1	Ctrl Samp		
16	Vial 16	NEG CONTROL-RF	SIMALC1	1	Ctrl Samp		

RF

Calibration Part:

Line	Location	SampleName	Method	CalLev	Update RF	Update RT	Interval
2	Vial 2	0.079 CAL 1	SIMALC1	1	Replace	Replace	
3	Vial 3	0.158 CAL 2	SIMALC1	2	Replace	Replace	
4	Vial 4	0.316 CAL 3	SIMALC1	3	Replace	Replace	

Sequence Table (Back Injector):

No entries - empty table!

11051

Calibration Table

Calib. Data Modified : Tuesday, November 08, 2011 2:31:04 PM

Calculate : Internal Standard
Based on : Peak Area

Rel. Reference Window : 5.000 %
Abs. Reference Window : 0.050 min
Rel. Non-ref. Window : 5.000 %
Abs. Non-ref. Window : 0.050 min
Use Multiplier & Dilution Factor with ISTDs
Uncalibrated Peaks : not reported
Partial Calibration : No recalibration if peaks missing

Curve Type : Linear
Origin : Included
Weight : Equal

Recalibration Settings:
Average Response : No Update
Average Retention Time: No Update

RF

Calibration Report Options :
Printout of recalibrations within a sequence:
Normal Report after Recalibration

Default Sample ISTD Information (if not set in sample table):

ISTD #	ISTD Amount [g/100mL]	Name
1	1.00000	n-Propanol

Signal 1: FID1 A,

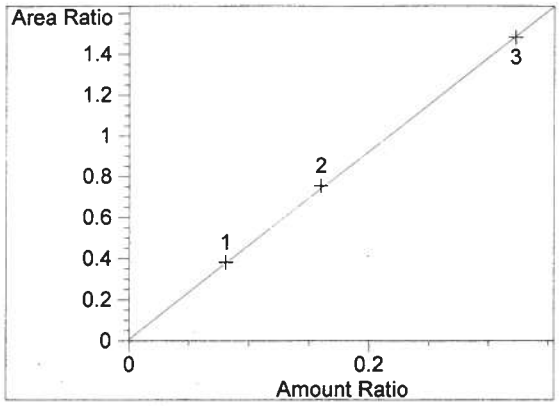
RetTime [min]	Sig	Lvl	Amount [g/100mL]	Area	Amt/Area	Ref	Grp	Name
1.045	1	1	8.12800e-2	944.73944	8.60343e-5	1		Ethanol
		2	1.60090e-1	1910.23315	8.38065e-5			
		3	3.22750e-1	3752.71729	8.60043e-5			
1.710	1	1	1.00000	2490.21533	4.01572e-4	I1		n-Propanol
		2	1.00000	2540.65015	3.93600e-4			
		3	1.00000	2530.12891	3.95237e-4			

Peak Sum Table

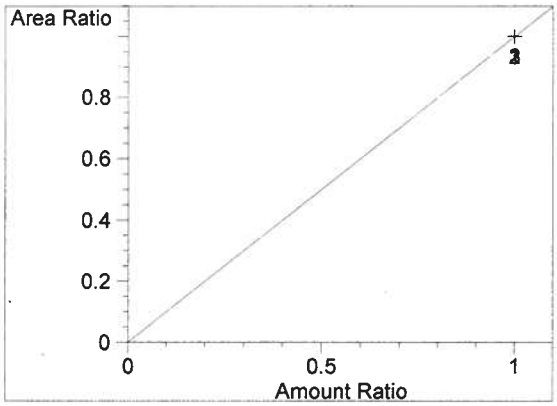
No Entries in table

11051

Calibration Curves



Ethanol at exp. RT: 1.045
FID1 A,
Correlation: 0.99993
Residual Std. Dev.: 0.00934
Formula: y = mx + b
m: 4.59481
b: 5.60889e-3
x: Amount Ratio
y: Area Ratio



n-Propanol at exp. RT: 1.710
FID1 A,
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
m: 1.00000
b: 0.00000
x: Amount Ratio
y: Area Ratio

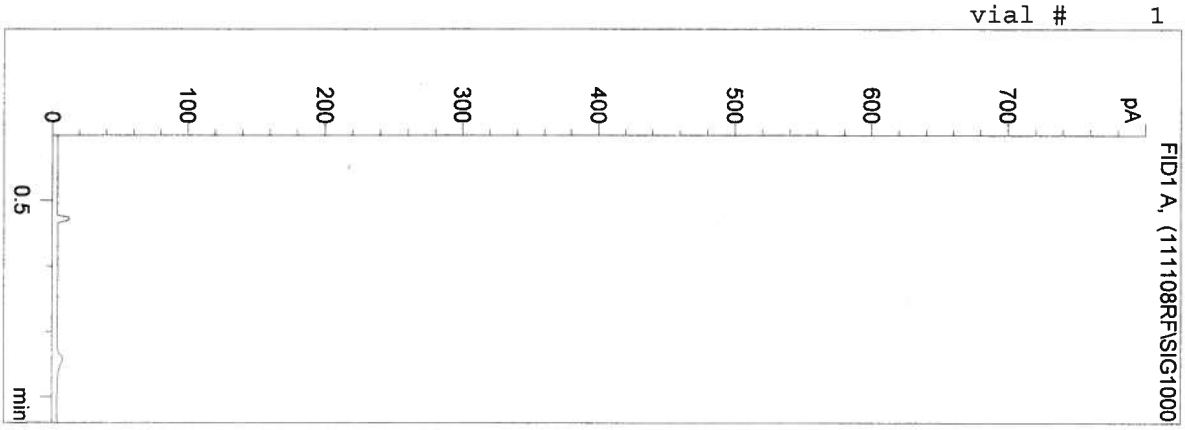
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:19:37 PM
Instrument 1
DB-ALC1

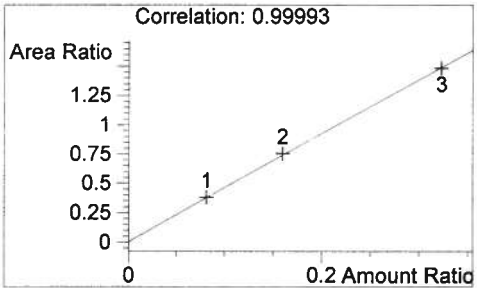
BLANK
Rebecca Flaherty

vial # 1

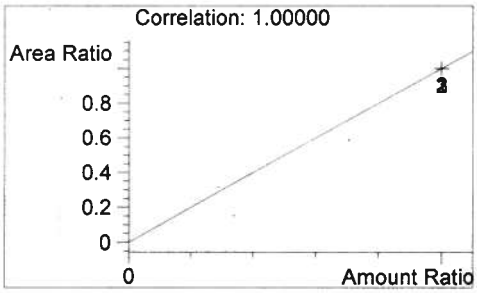


#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	0	0.000
Tot			

RF



Ethanol 0.000 g/100 mL



n-Propanol 0.000 g/100 mL

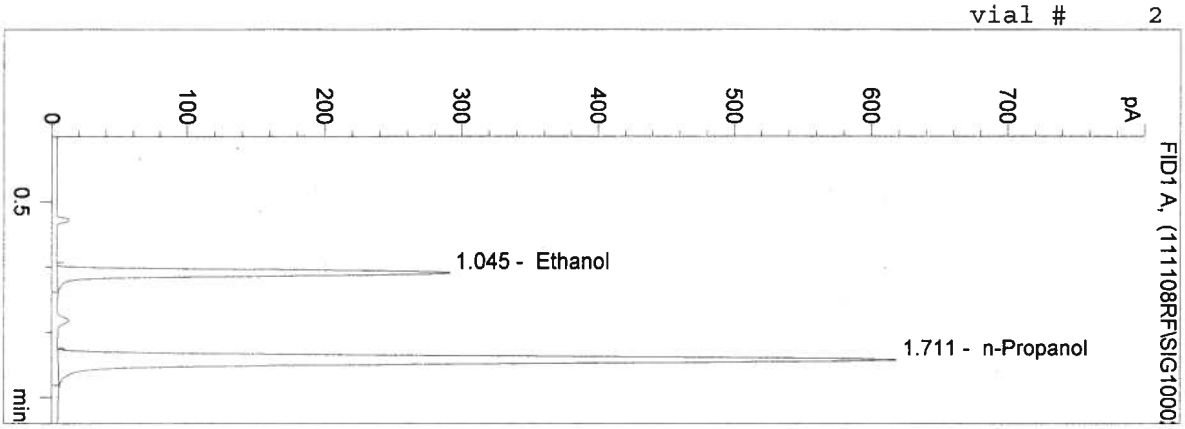
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:22:42 PM
Instrument 1
DB-ALC1

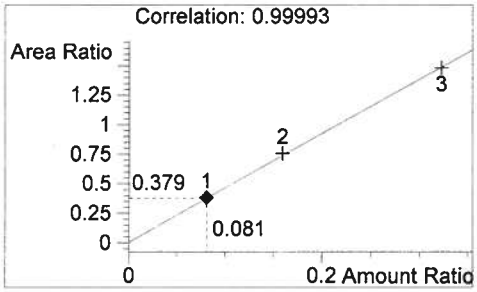
0.079 CAL 1
Rebecca Flaherty

vial # 2

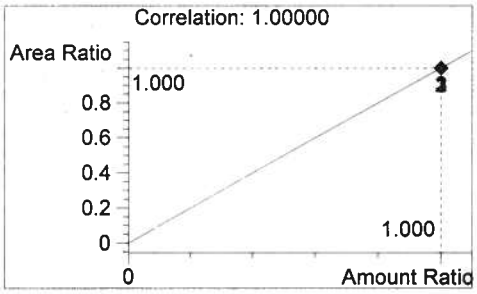


#	Compound	Area	RT
1	Ethanol	945	1.045
2	n-Propanol	2490	1.711
Tot			

RK



Ethanol 0.081 g/100 mL



n-Propanol 1.000 g/100 mL

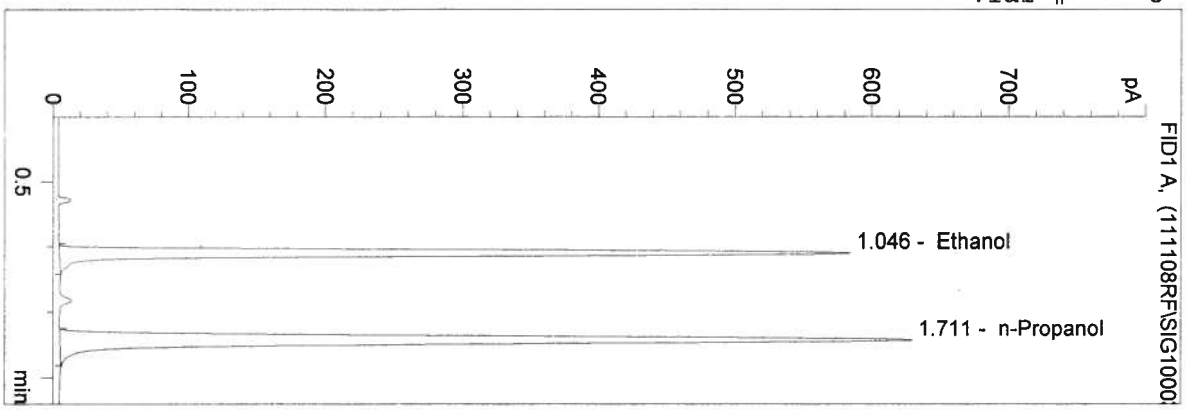
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:25:47 PM
Instrument 1
DB-ALC1

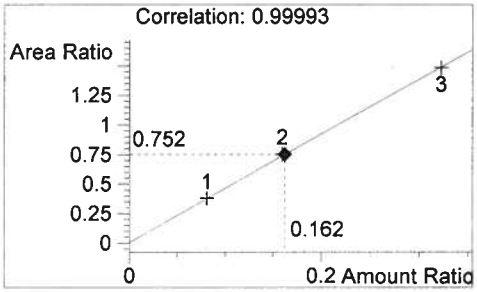
0.158 CAL 2
Rebecca Flaherty

vial # 3

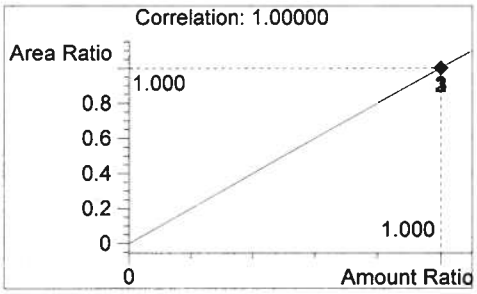


#	Compound	Area	RT
1	Ethanol	1910	1.046
2	n-Propanol	2541	1.711
Tot			

RF



Ethanol 0.162 g/100 mL



n-Propanol 1.000 g/100 mL

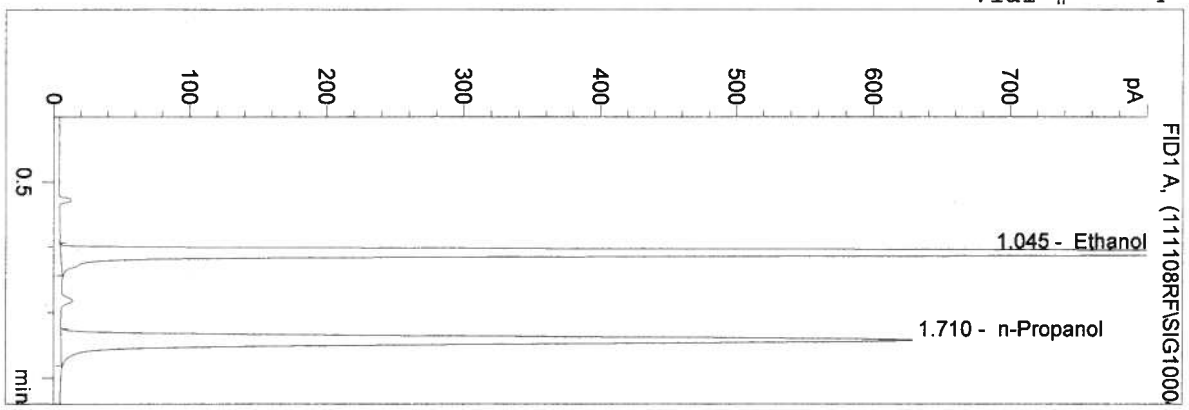
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:28:51 PM
Instrument 1
DB-ALC1

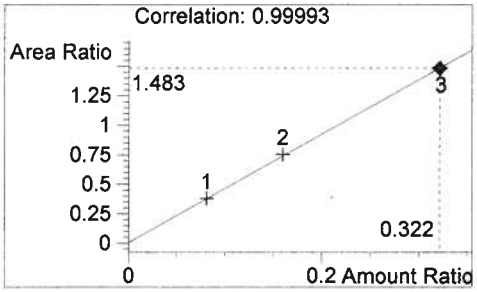
0.316 CAL 3
Rebecca Flaherty

vial # 4

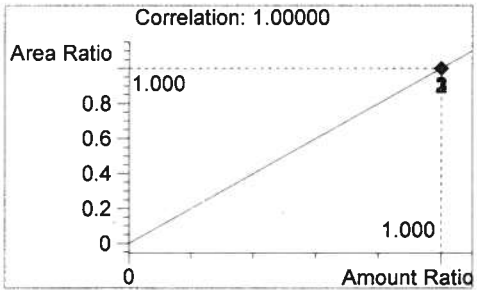


#	Compound	Area	RT
1	Ethanol	3753	1.045
2	n-Propanol	2530	1.710
Tot			

RF



Ethanol 0.322 g/100 mL



n-Propanol 1.000 g/100 mL

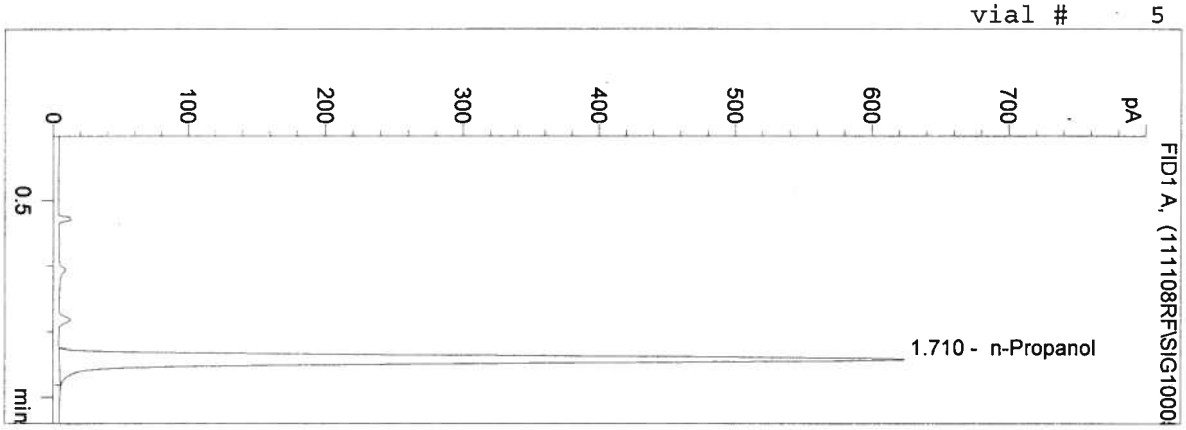
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:31:56 PM
Instrument 1
DB-ALC1

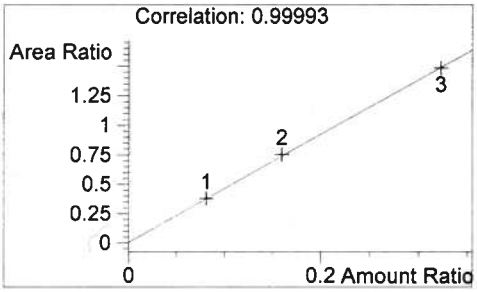
NEG CONTROL-RF
Rebecca Flaherty

vial # 5

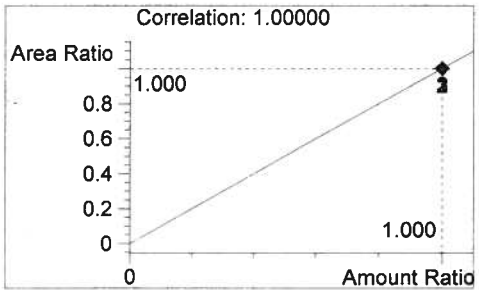


#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	2514	1.710
Tot			

RF



Ethanol 0.000 g/100 mL



n-Propanol 1.000 g/100 mL

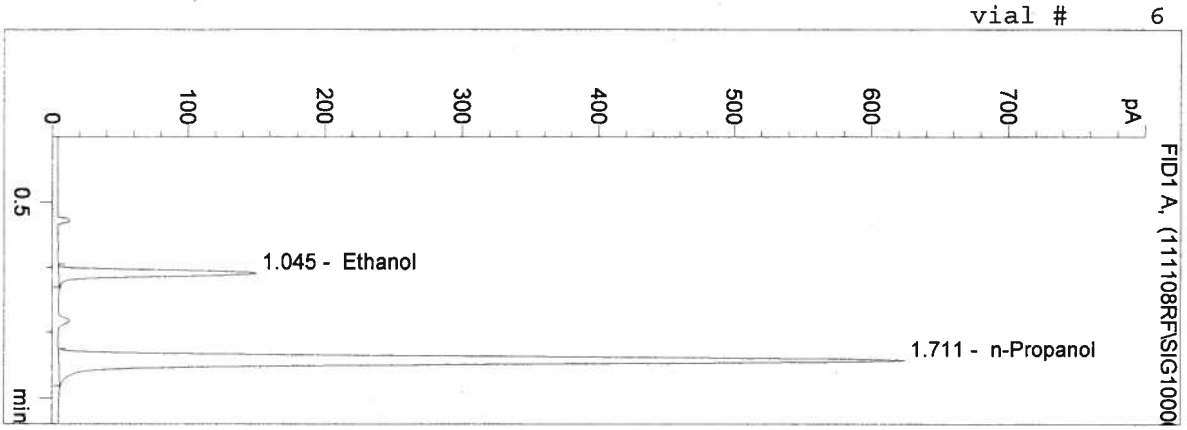
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:35:01 PM
Instrument 1
DB-ALC1

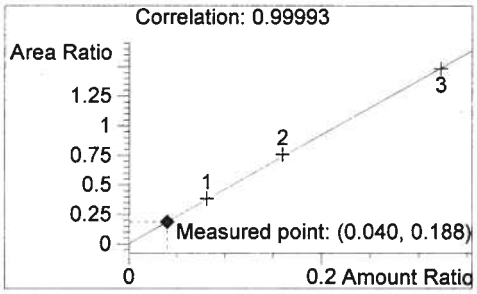
0.04 CONTROL-RF
Rebecca Flaherty

vial # 6

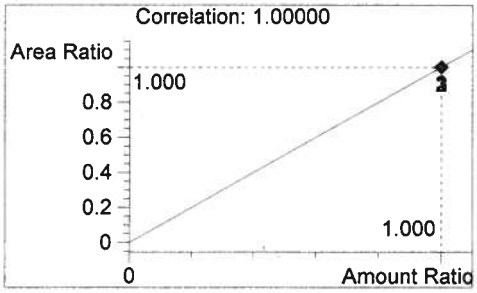


#	Compound	Area	RT
1	Ethanol	475	1.045
2	n-Propanol	2522	1.711
Tot			

RF



Ethanol 0.040 g/100 mL



n-Propanol 1.000 g/100 mL

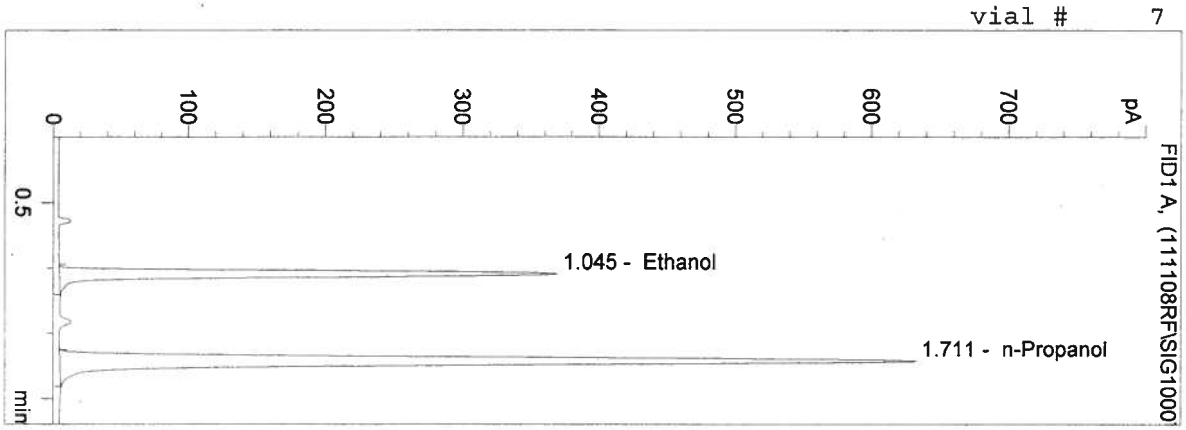
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:38:05 PM
Instrument 1
DB-ALC1

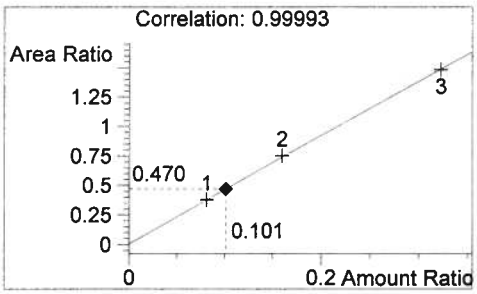
0.10 CONTROL-RF
Rebecca Flaherty

vial # 7

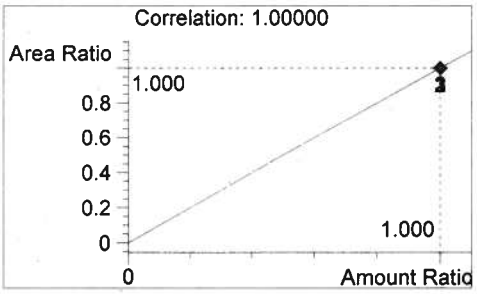


#	Compound	Area	RT
1	Ethanol	1199	1.045
2	n-Propanol	2551	1.711
Tot			

RF



Ethanol 0.101 g/100 mL



n-Propanol 1.000 g/100 mL

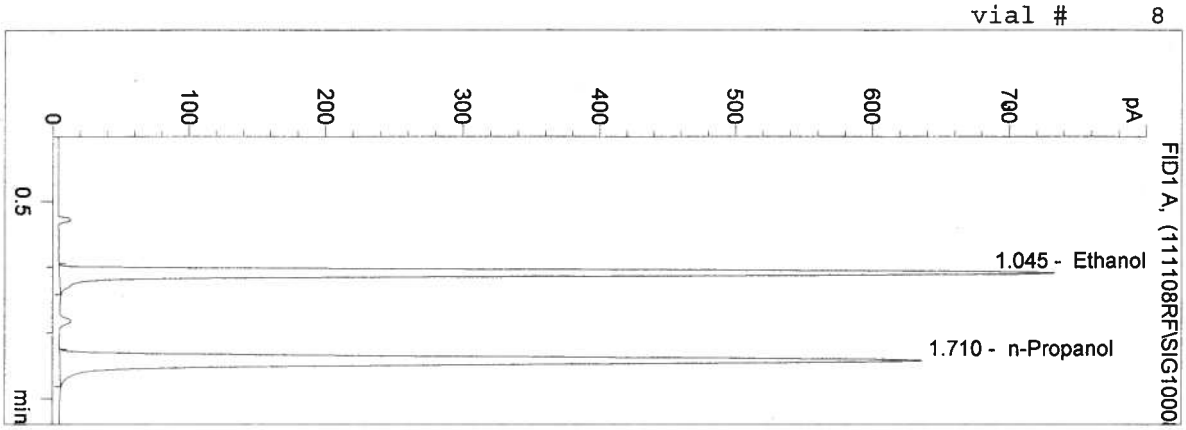
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:41:10 PM
Instrument 1
DB-ALC1

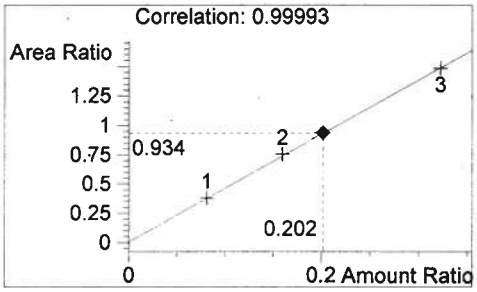
0.20 CONTROL-RF
Rebecca Flaherty

vial # 8

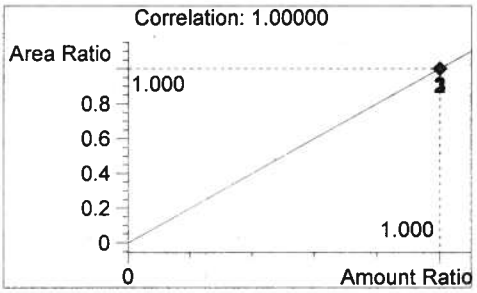


#	Compound	Area	RT
1	Ethanol	2392	1.045
2	n-Propanol	2560	1.710
Tot			

RF



Ethanol 0.202 g/100 mL



n-Propanol 1.000 g/100 mL

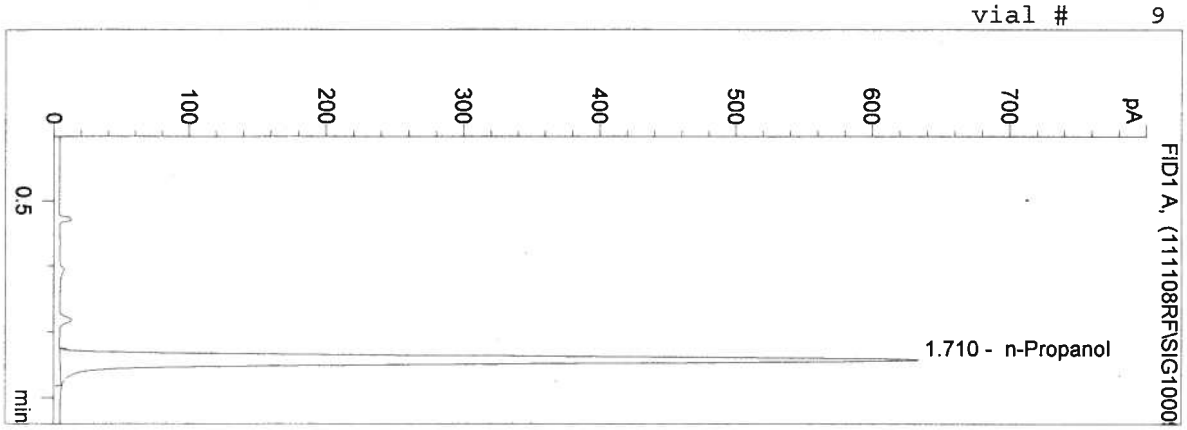
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:44:15 PM
Instrument 1
DB-ALC1

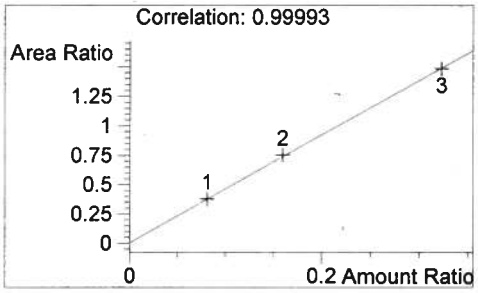
NEG CONTROL-RF
Rebecca Flaherty

vial # 9

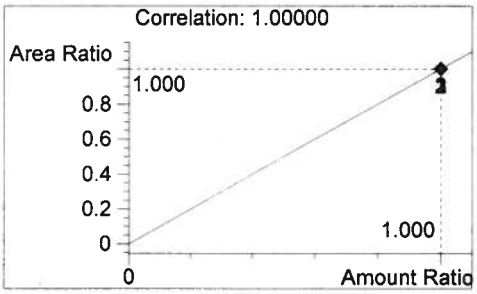


#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	2556	1.710
Tot			

RF



Ethanol 0.000 g/100 mL



n-Propanol 1.000 g/100 mL

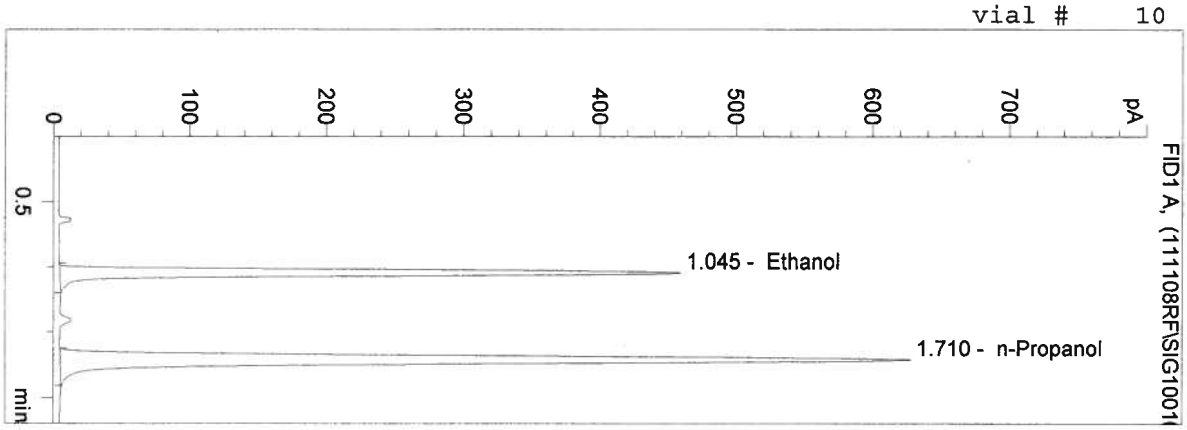
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:47:19 PM
Instrument 1
DB-ALC1

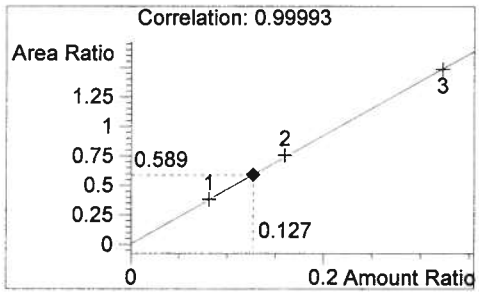
QAP0.10 11051 #1
Rebecca Flaherty

vial # 10

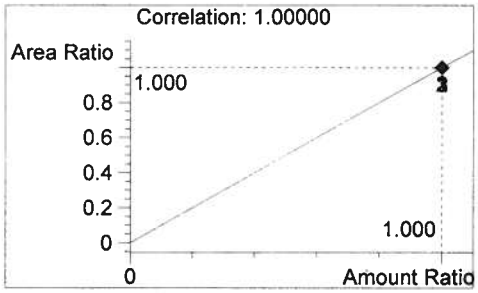


#	Compound	Area	RT
1	Ethanol	1489	1.045
2	n-Propanol	2530	1.710
Tot			

RF



Ethanol 0.127 g/100 mL



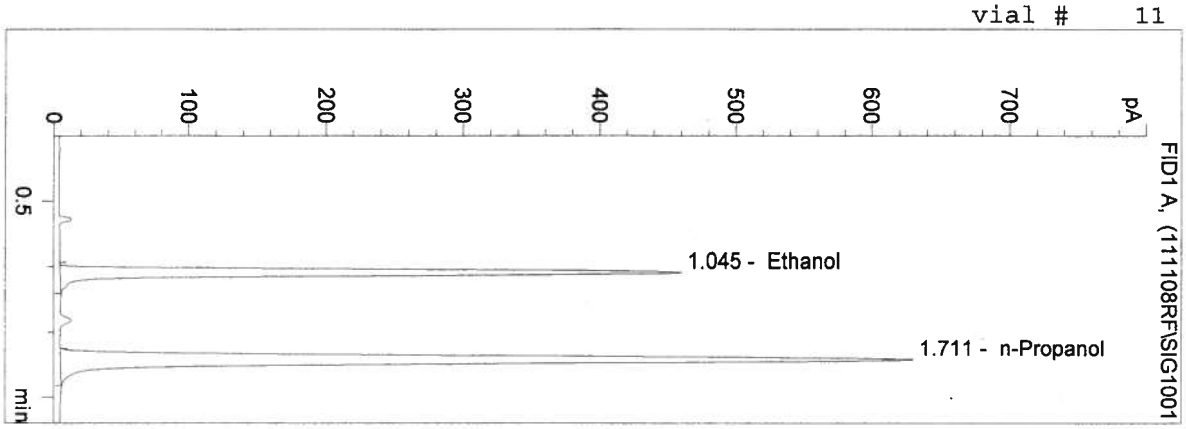
n-Propanol 1.000 g/100 mL

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:50:24 PM
Instrument 1
DB-ALC1

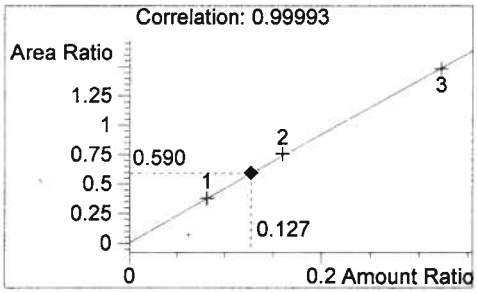
QAP0.10 11051 #2
Rebecca Flaherty

vial # 11

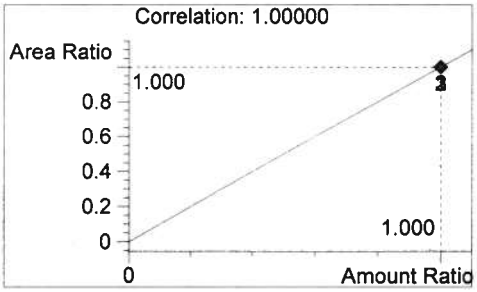


#	Compound	Area	RT
1	Ethanol	1500	1.045
2	n-Propanol	2541	1.711
Tot			

RF



Ethanol 0.127 g/100 mL



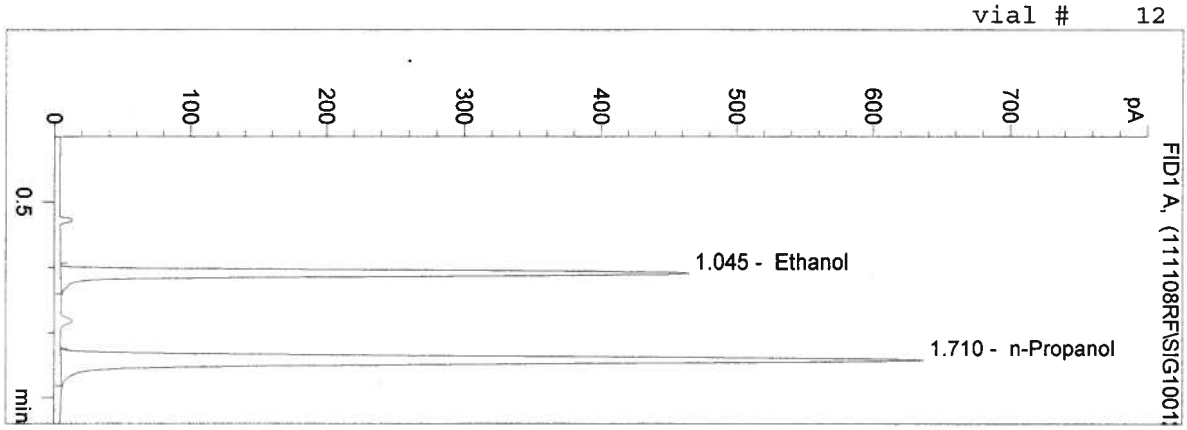
n-Propanol 1.000 g/100 mL

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:53:29 PM
Instrument 1
DB-ALC1

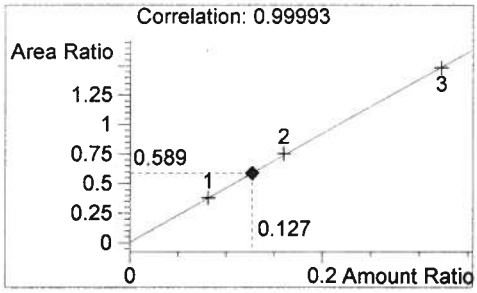
QAP0.10 11051 #3
Rebecca Flaherty

vial # 12

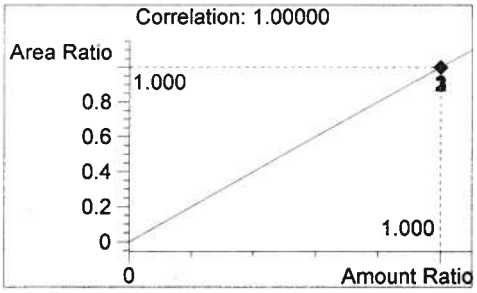


#	Compound	Area	RT
1	Ethanol	1511	1.045
2	n-Propanol	2567	1.710
Tot			

RF



Ethanol 0.127 g/100 mL



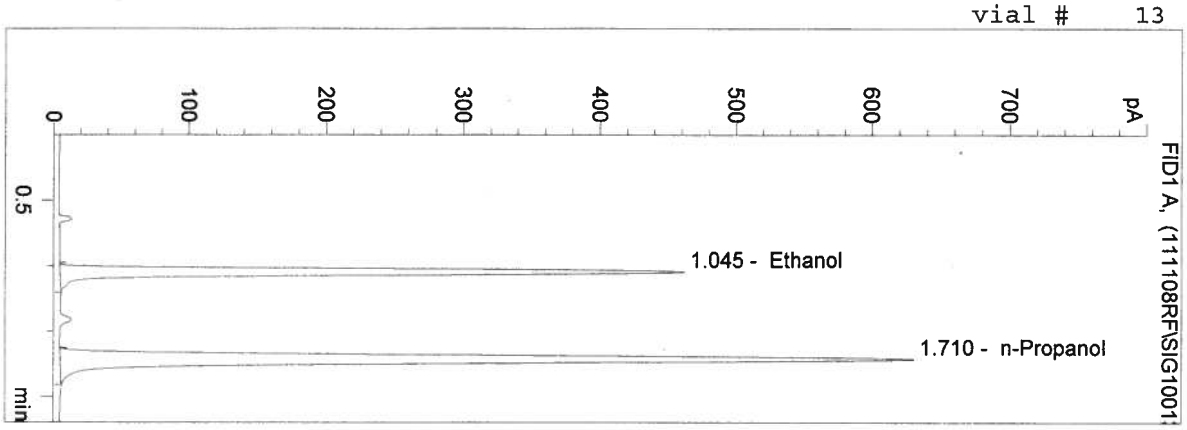
n-Propanol 1.000 g/100 mL

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:56:33 PM
Instrument 1
DB-ALC1

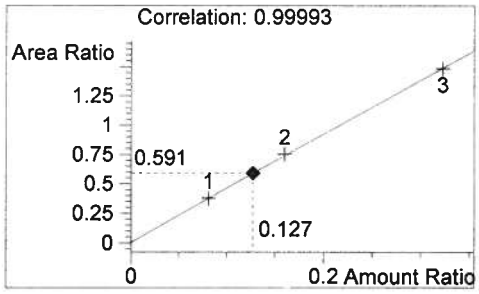
QAP0.10 11051 #4
Rebecca Flaherty

vial # 13

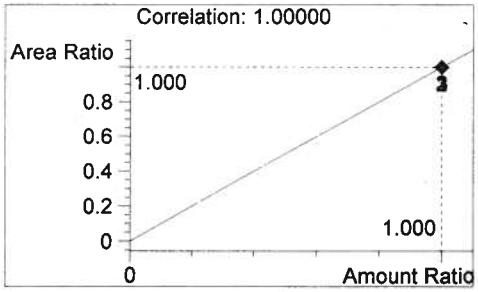


#	Compound	Area	RT
1	Ethanol	1499	1.045
2	n-Propanol	2538	1.710
Tot			

RF



Ethanol 0.127 g/100 mL



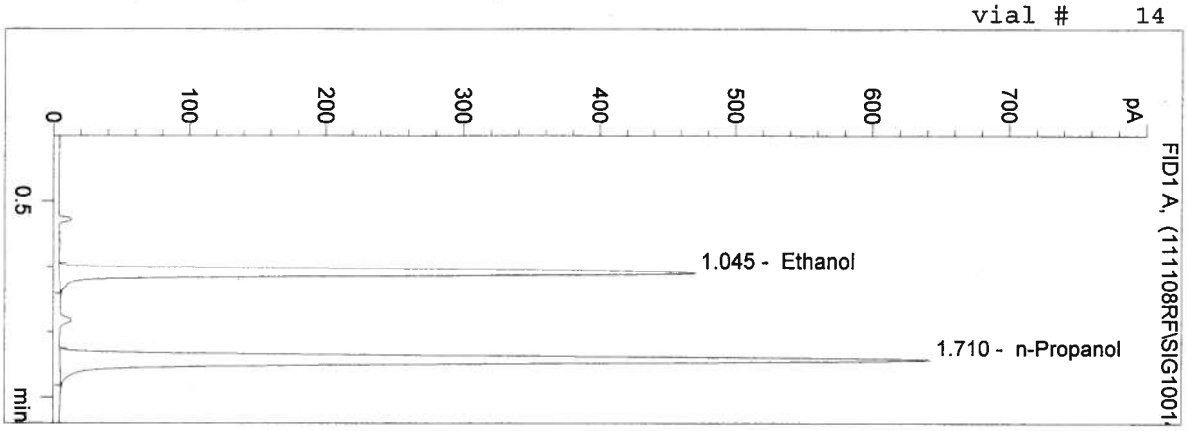
n-Propanol 1.000 g/100 mL

WASHINGTON STATE TOXICOLOGY LABORATORY

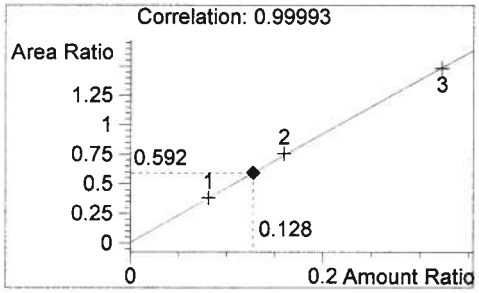
C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 2:59:38 PM
Instrument 1
DB-ALC1

QAP0.10 11051 #5
Rebecca Flaherty

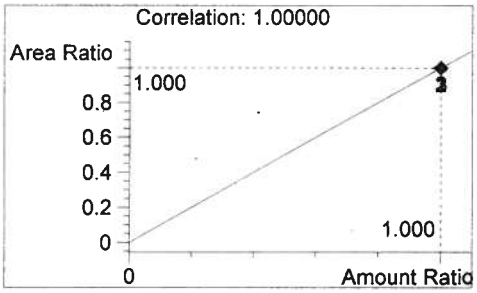
vial # 14



#	Compound	Area	RT
1	Ethanol	1529	1.045
2	n-Propanol	2583	1.710
Tot			



Ethanol 0.128 g/100 mL



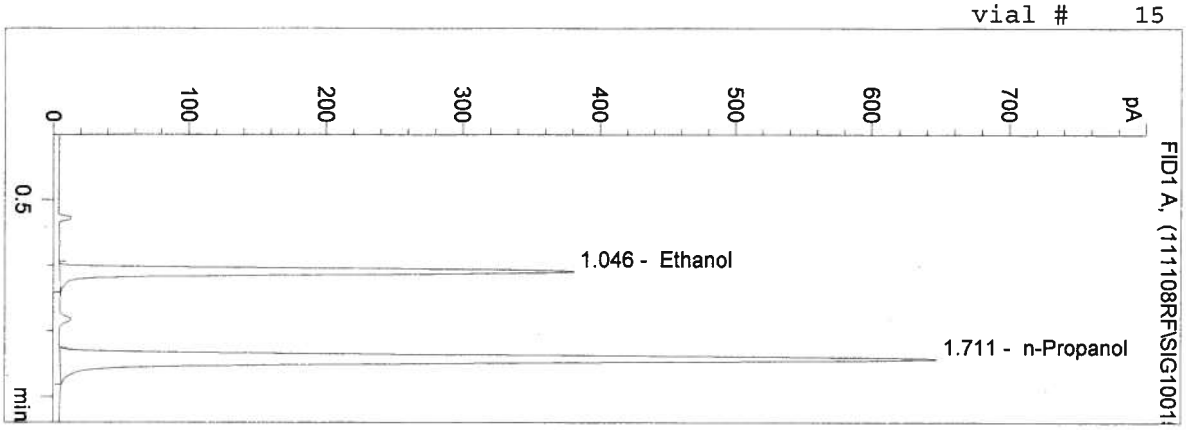
n-Propanol 1.000 g/100 mL

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 3:02:43 PM
Instrument 1
DB-ALC1

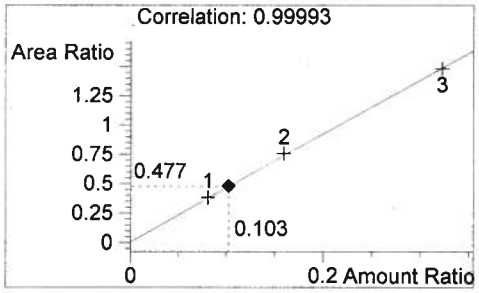
0.10 CONTROL-RF
Rebecca Flaherty

vial # 15

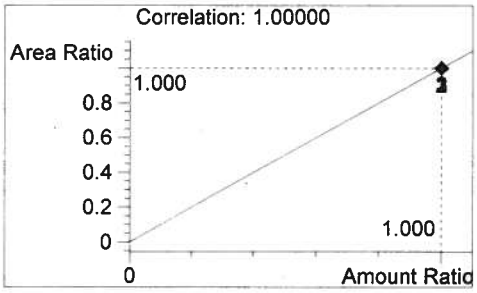


#	Compound	Area	RT
1	Ethanol	1245	1.046
2	n-Propanol	2609	1.711
Tot			

RF



Ethanol 0.103 g/100 mL



n-Propanol 1.000 g/100 mL

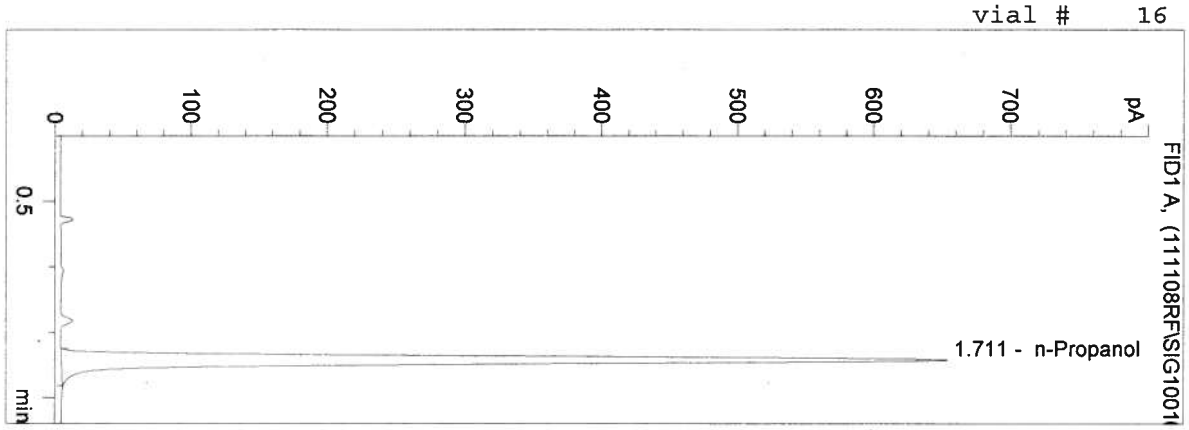
11051

WASHINGTON STATE TOXICOLOGY LABORATORY

C:\HPCHEM\1\METHODS\SIMALC1.M
11/8/2011 3:05:47 PM
Instrument 1
DB-ALC1

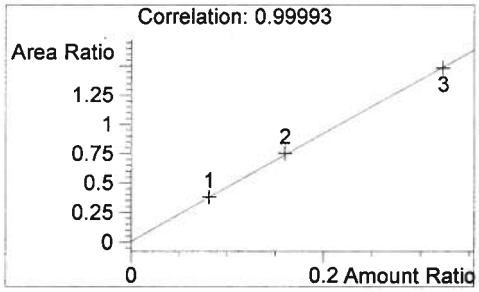
NEG CONTROL-RF
Rebecca Flaherty

vial # 16

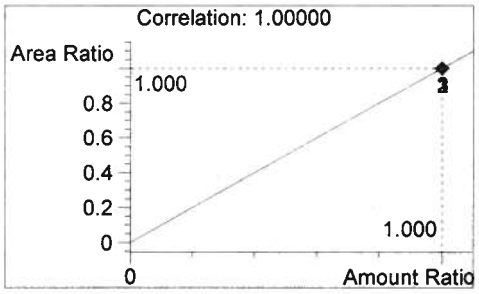


#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	2642	1.711
Tot			

RF



Ethanol 0.000 g/100 mL



n-Propanol 1.000 g/100 mL

11051

WSP-TLD **COMBINED SIMULATOR SOLUTION PREPARATION WORKSHEET**

FILE A COPY IN THE BATCH FILE FOR EACH SOLUTION LISTED ON THE WORKSHEET

Preparation Date: 11.4.11 Initials of Preparer: DC

Expiration Date: 11.4.12

Lot # of 200-proof Ethanol used in preparation: ZW0039

Date the 200-proof Ethanol bottle was opened: 10.13.11

After opening, each bottle of 200-proof Ethanol is approved for use for 6 months unless an extension is approved by the State Toxicologist. This timeframe applies to the 200-proof Ethanol only, not to simulator solutions which have a 1 year expiration.

Simulator Solution	Volume of Ethanol (mL)	Volume of Deionized Water (L)		Batch Number
QAP 0.04	11.2	18	☐	
QAP 0.08	22.4	18	☐	
QAP 0.10	28.1	18	☑	11051
QAP 0.15	42.0	18	☐	
ESS	66.5	52	☐	

Stir bar is rotating ☑

Stirred for minimum 30 minutes; 2 hours for ESS ☑

Spigot purged ☑

Aliquot taken ☑

Batch labeled, packaged and sealed ☑ 11.4.11 Date

If different ethanol lot numbers are used in the preparation of solutions, record them and the corresponding solution batch numbers in the comments section.

Comments:

Analyst Signature 11.4.11 Date