**WASHINGTON STATE TOXICOLOGY LABORATORY**
FORENSIC LABORATORY SERVICES BUREAU
WASHINGTON STATE PATROL
2203 AIRPORT WAY S, SUITE 360
SEATTLE, WASHINGTON 98134-2027
(206) 464-5435 FAX (206) 389-2738

Preparation and certification of **0.04** g/210L **Quality Assurance solution**

Batch number **03010** Date: 4/21/2003

Preparation: 11.1 mL of absolute ethyl alcohol diluted to 18 Liters with water

Concentration of ethanol (g/100mL) measured by gas chromatography:

| | Anal 1 | Anal 2 | Anal 3 | Anal 4 | Anal 5 | Anal 6 | Anal 7 | Anal 8 | Anal 9 | Anal10 | Anal 11 | Anal 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.048 | 0.048 | 0.048 | 0.048 | | | | | | | | |
| 2 | 0.048 | 0.048 | 0.048 | 0.048 | | | | | | | | |
| 3 | 0.048 | 0.048 | 0.048 | 0.048 | | | | | | | | |
| 4 | 0.048 | 0.048 | 0.048 | 0.048 | | | | | | | | |
| 5 | 0.048 | 0.048 | 0.048 | 0.048 | | | | | | | | |
| Ctrl | 0.098 | 0.099 | 0.099 | 0.099 | | | | | | | | |

**External Control:**

Lot #: A022167 Exp date: 01/05

Target concentration: 0.10 g/100mL

**Statistics:**

Avg. solution concent.: 0.0480 g/100 mL

SD: ?

Range (3xSD): 0.0480 to 0.0480

Precision CV (%): 0.0000 %

**Equivalent vapor concent.:** 0.0390 g/210L

| Analyst | Name | Signature | Date |
|---|---|---|---|
| 1 | Jayne E. Thatcher | Jayne E. Thatcher | 04/21/03 |
| 2 | Eugene Schwilke | Eugene Schwilke | 04/22/03 |
| 3 | Melissa Pemberton | Melissa Pemberton | 04/25/03 |
| 4 | William P Marshall | William P Marshall | 04/24/03 |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |

Prepared by: Jayne E. Thatcher according to the approved protocol

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# BAC VERIFIER DATAMASTER QUALITY ASSURANCE SOLUTION CERTIFICATION

I, Jayne E. Thatcher, do certify under penalty of perjury as follows:

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

I possess the following qualifications: B.S. degree in Cell and Molecular Biology and two years experience in the Washington State Toxicology Laboratory.

The quality assurance solution, Lot Number 03010, was prepared in the Washington State Toxicology Laboratory. I examined and tested this solution. The mean concentration of the alcohol was 0.0480 grams per 100ml.

Dated: 4/29/03
Seattle, WA

Jayne E. Thatcher
Forensic Toxicologist

JET/bf
JTQA

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# BAC VERIFIER DATAMASTER QUALITY ASSURANCE SOLUTION CERTIFICATION

I, Eugene W. Schwilke, 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 BAC Verifier Data Master breath testing instrument.

I possess the following qualifications: BS degree in Biology, Board Certification from the American Board of Forensic Toxicology, and six years of experience in the Washington State Toxicology Laboratory.

The quality assurance solution, Lot Number 03010 was prepared in the Washington State Toxicology Laboratory. I examined and tested this solution. The mean concentration of the alcohol was 0.0480 grams per 100ml.

Dated: 4/29/03
Seattle, WA

Eugene W. Schwilke, A.B.F.T.
Forensic Toxicologist

GS/bf
GSQA

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# BAC VERIFIER DATAMASTER QUALITY ASSURANCE SOLUTION CERTIFICATION

I, Melissa L. Pemberton, 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 BAC Verifier Data Master breath testing instrument.

I possess the following qualifications: Bachelors degree in Microbiology and ten years of experience as a forensic toxicologist.

The quality assurance solution, Lot Number 03010 was prepared in the Washington State Toxicology Laboratory. I examined and tested this solution. The mean concentration of the alcohol was 0.0480 grams per 100ml.

Dated: 4/29/03
Seattle, WA

Melissa L. Pemberton
Forensic Toxicologist

MP/bf
MPQA

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# BAC VERIFIER DATAMASTER QUALITY ASSURANCE SOLUTION CERTIFICATION

I, William P. Marshall, 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 BAC Verifier Data Master breath testing instrument.

I possess the following qualifications: BS degree in Chemistry and twenty-nine years of analytical laboratory experience including thirteen years of toxicology experience.

The quality assurance solution, Lot Number 03010 was prepared in the Washington State Toxicology Laboratory. I examined and tested this solution. The mean concentration of the alcohol was 0.0480 grams per 100ml.

Dated: 4/29/03
Seattle, WA

William P. Marshall
Forensic Toxicologist

WM/bf
WMQA

Sequence Parameters:

| | |
|---|---|
| Operator: | Jayne E. Thatcher |
| Data File Naming: | Auto |
| Data Directory: | C:\HPCHEM\1\DATA\ |
| Data Subdirectory: | 042103J |
| Part of Methods to run: | According to Runtime Checklist |
| Barcode Reader: | not used |
| Shutdown Cmd/Macro: | none |
| Sequence Comment: | |

SPMWBMJS IN 032454

Sequence Table (Front Injector):

Method and Injection Info Part:

| Line | Vial | SampleName | Method | Inj | SampleType | InjVolume | DataFile |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 03010 QA soln | BLDALCO | 1 | Sample | | |
| 2 | 2 | 03010 QA soln | BLDALCO | 1 | Sample | | |
| 3 | 3 | 03010 QA soln | BLDALCO | 1 | Sample | | |
| 4 | 4 | 03010 QA soln | BLDALCO | 1 | Sample | | |
| 5 | 5 | 03010 QA soln | BLDALCO | 1 | Sample | | |
| 6 | 6 | 0.10 control | BLDALCO | 1 | Ctrl Samp | | |
| 7 | 7 | blank | BLDALCO | 1 | Sample | | |

Sequence Table (Back Injector):

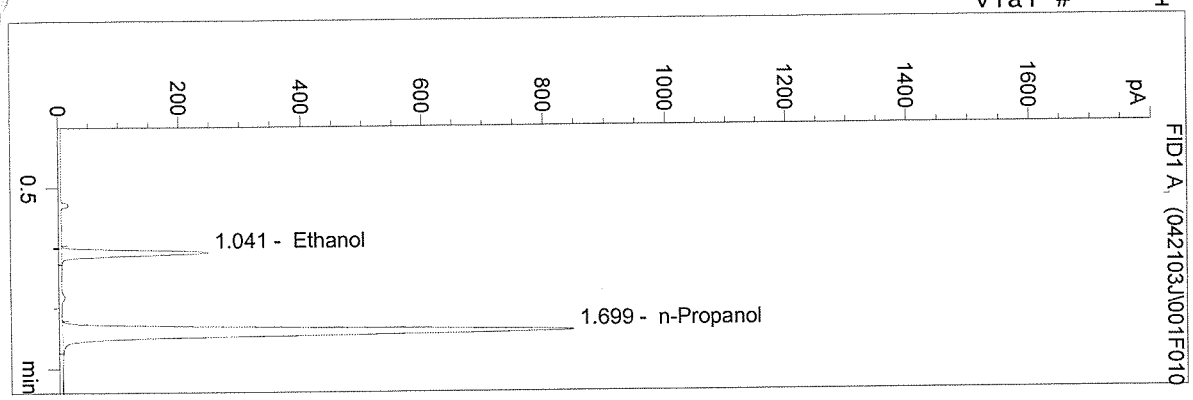
No entries - empty table!

WASHINGTON STATE TOXICOLOGY LABORATORY

\HPCHEM\1\METHODS\BLDALCO.M
21/03 2:08:55 PM
strument 1
\ALC1

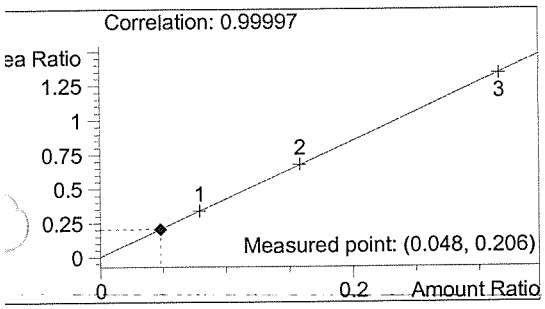
03010 QA soln
Jayne E. Thatcher

vial # 1

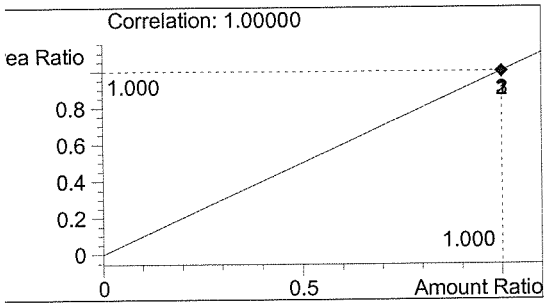



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 729 | 1.041 |
| 2 | n-Propanol | 3530 | 1.699 |

Totals:




Ethanol 0.048 g/100ml



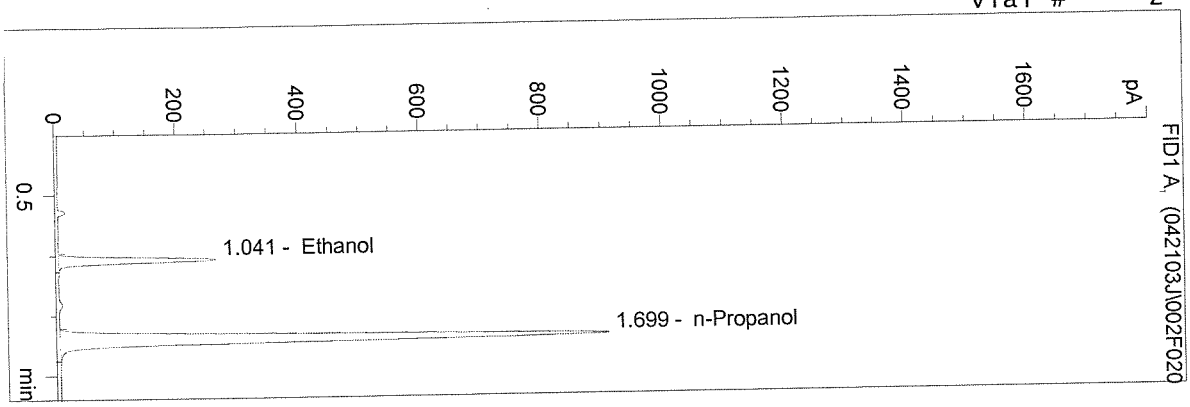

n-Propanol 1.000 g/100ml

WASHINGTON STATE TOXICOLOGY LABORATORY

HPCHEM\1\METHODS\BLDALCO.M
1/03 2:11:57 PM
trument 1
ALC1

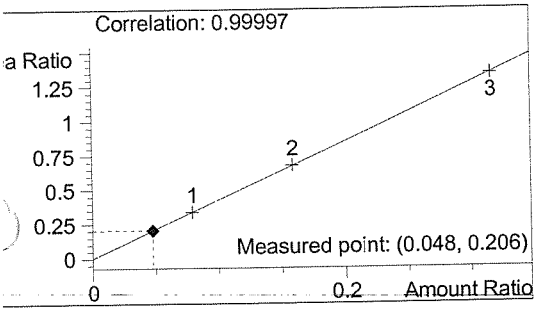
03010 QA soln
Jayne E. Thatcher

vial # 2

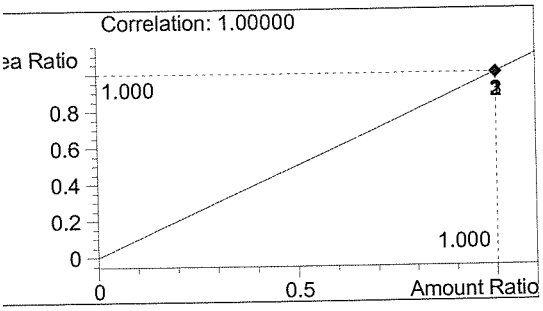



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 780 | 1.041 |
| 2 | n-Propanol | 3793 | 1.699 |

Totals:




Ethanol 0.048 g/100ml




n-Propanol 1.000 g/100ml

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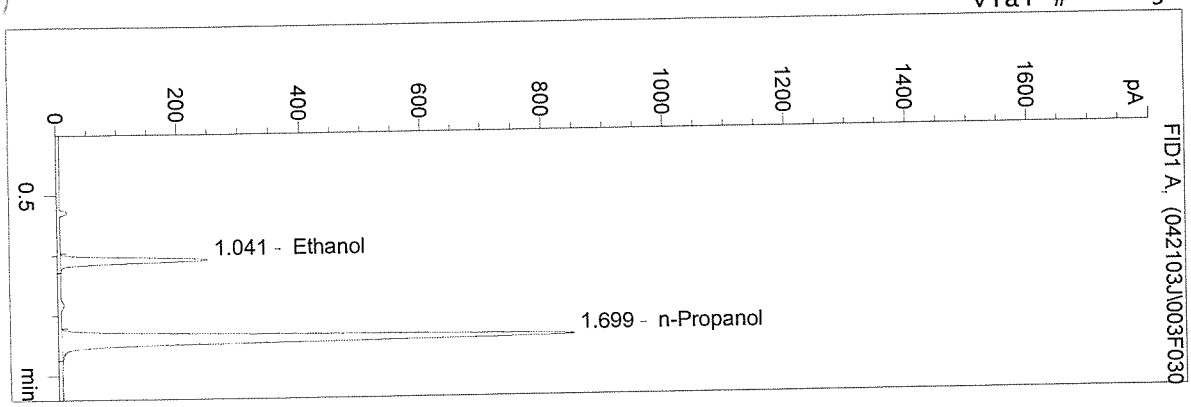
HPCHEM\1\METHODS\BLDALCO.M
1/03 2:14:58 PM
trument 1
ALC1

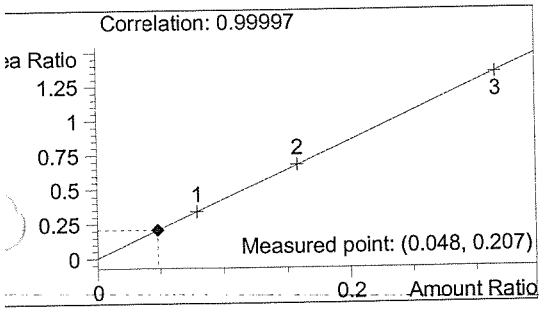
03010 QA soln
Jayne E. Thatcher

vial # 3

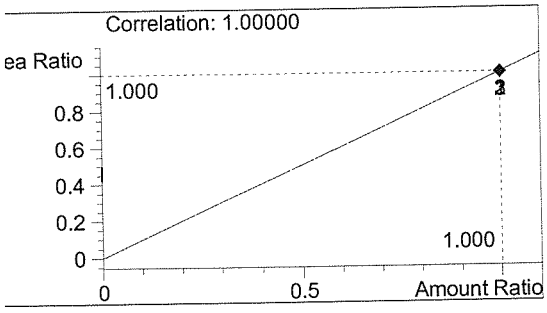



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 732 | 1.041 |
| 2 | n-Propanol | 3536 | 1.699 |

Totals:




Ethanol 0.048 g/100ml




n-Propanol 1.000 g/100ml

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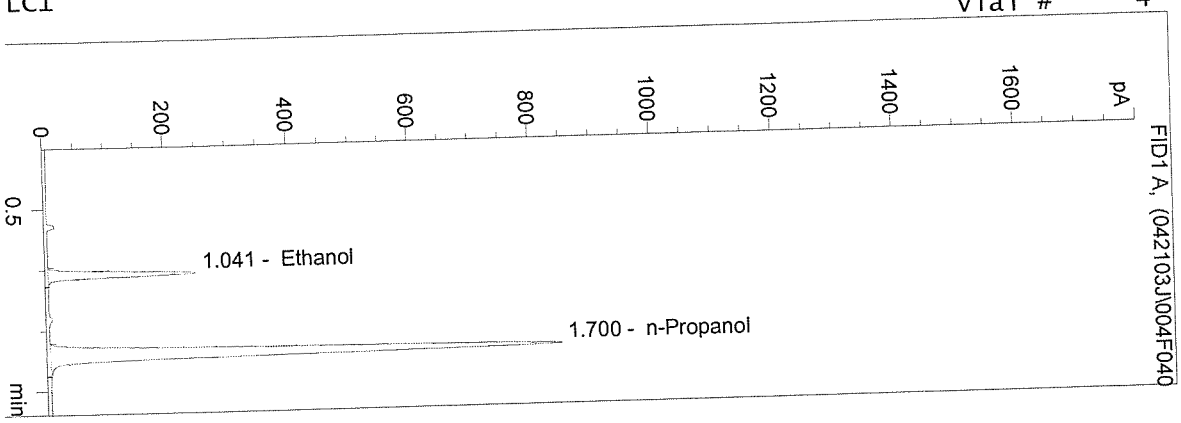
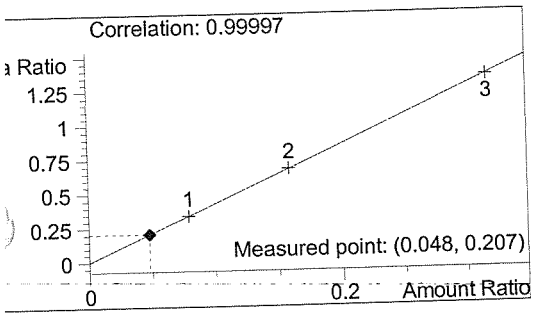
PCHEM\1\METHODS\BLDALCO.M
/03 2:18:00 PM
rument 1
LC1

03010 QA soln
Jayne E. Thatcher
vial # 4

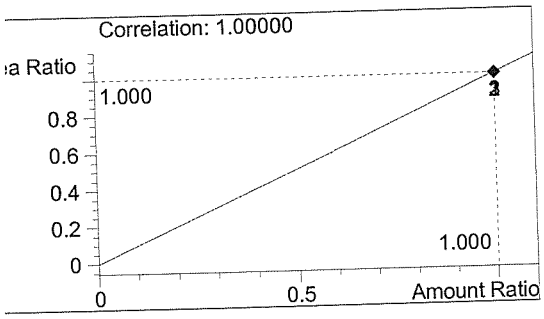



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 730 | 1.041 |
| 2 | n-Propanol | 3530 | 1.700 |

Totals:




Ethanol 0.048 g/100ml




n-Propanol 1.000 g/100ml

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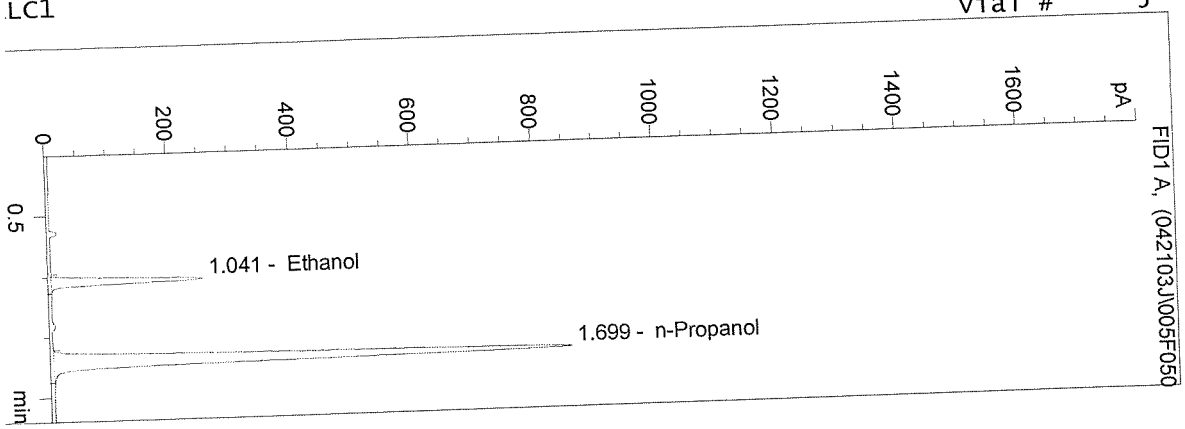
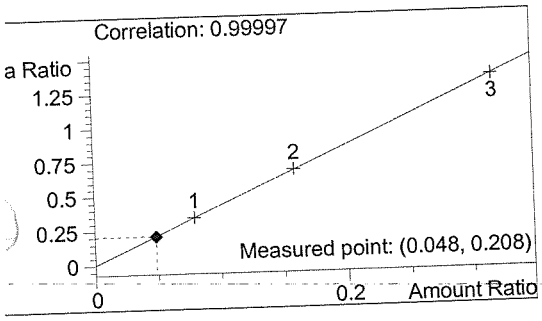
PCHEM\1\METHODS\BLDALCO.M
/03 2:21:38 PM
rument 1
LC1

03010 QA soln
Jayne E. Thatcher
vial # 5

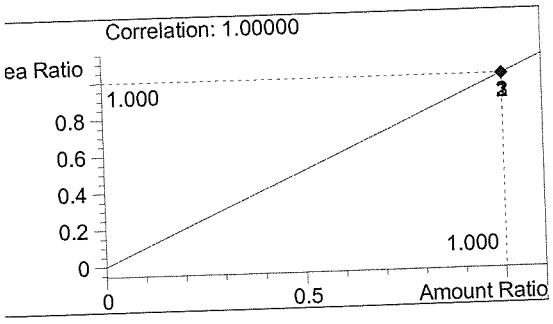



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 745 | 1.041 |
| 2 | n-Propanol | 3572 | 1.699 |

Totals:




Ethanol 0.048 g/100ml




n-Propanol 1.000 g/100ml

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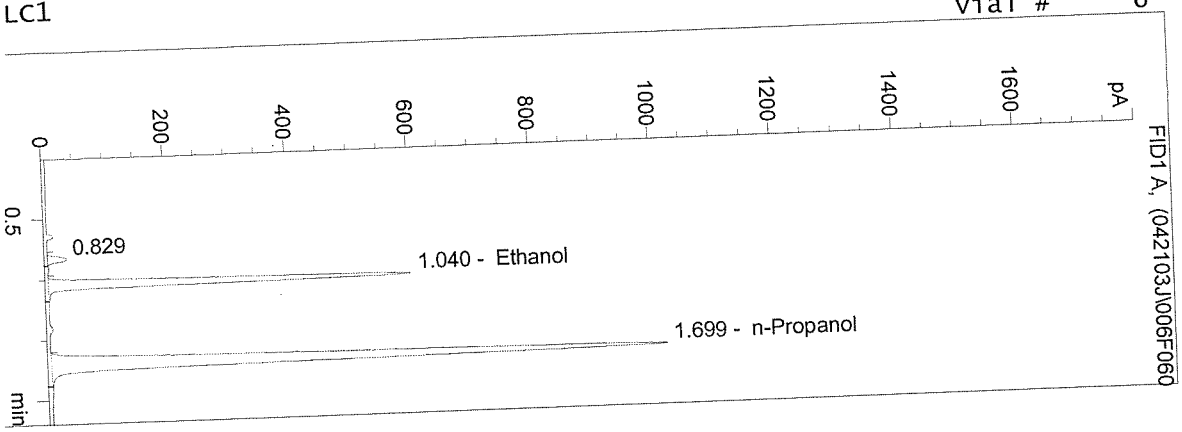
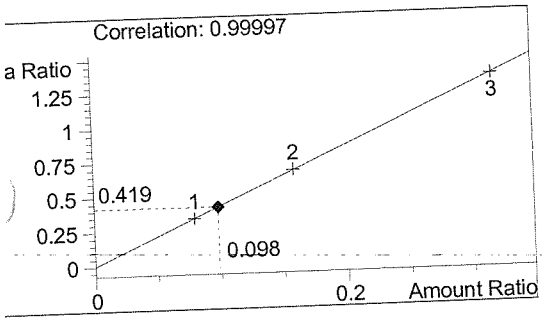
PCHEM\1\METHODS\BLDALCO.M
/03 2:24:39 PM
rument 1
LC1

0.10 control
Jayne E. Thatcher
vial # 6

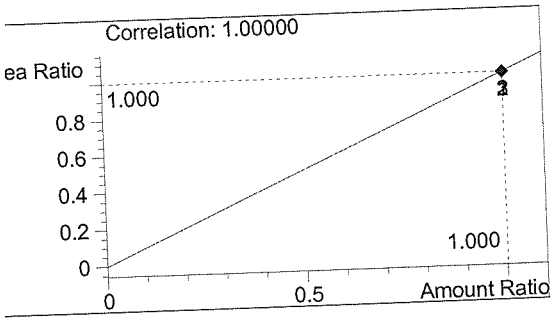



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | | 94 | 0.829 |
| 2 | Ethanol | 1781 | 1.040 |
| 3 | n-Propanol | 4253 | 1.699 |

Totals:




Ethanol 0.098 g/100ml




n-Propanol 1.000 g/100ml

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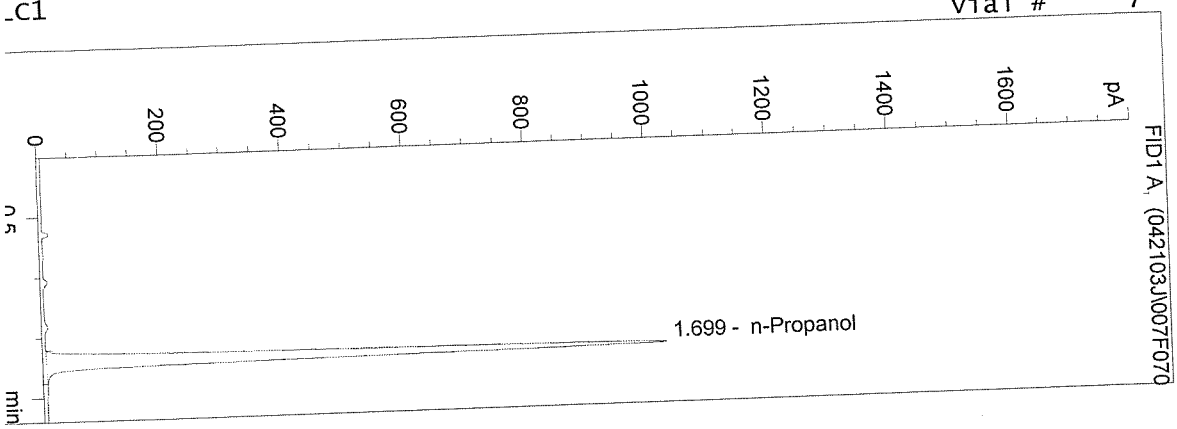
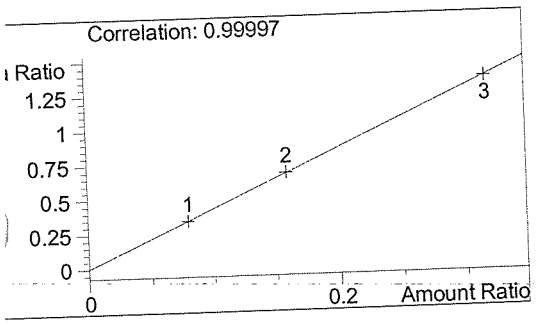
>CHEM\1\METHODS\BLDALCO.M
/03 2:27:41 PM
rument 1
_C1

blank
Jayne E. Thatcher
vial # 7

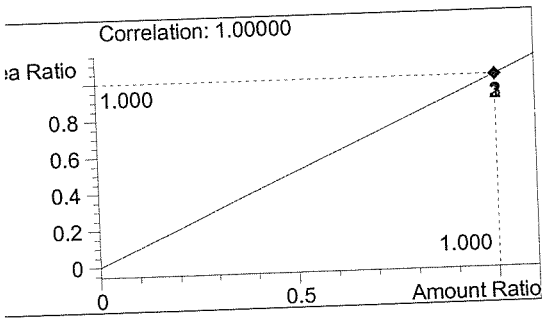



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 0 | 0.000 |
| 2 | n-Propanol | 4268 | 1.699 |

Totals:




Ethanol 0.000 g/100ml




n-Propanol 1.000 g/100ml

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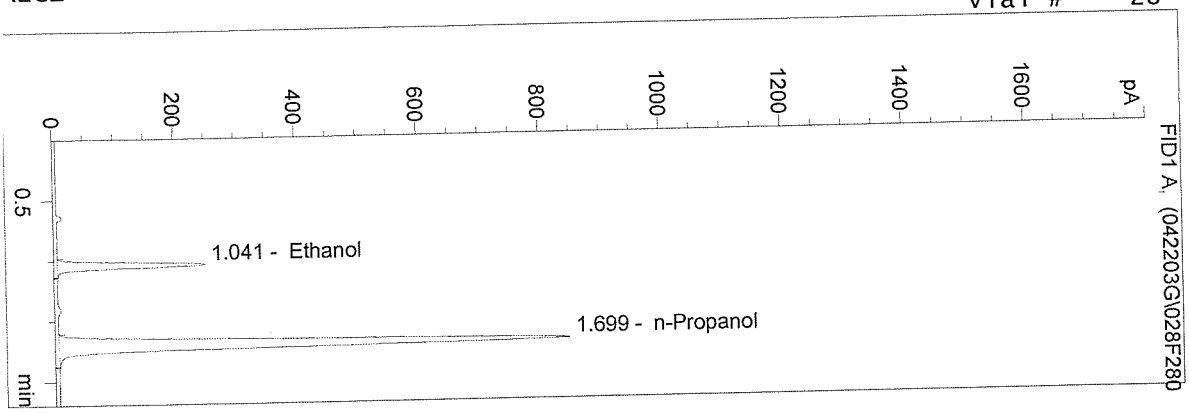
STDS
032485

HPCHEM\1\METHODS\BLDALCO.M
2/03 1:43:16 PM
trument 1
ALC1

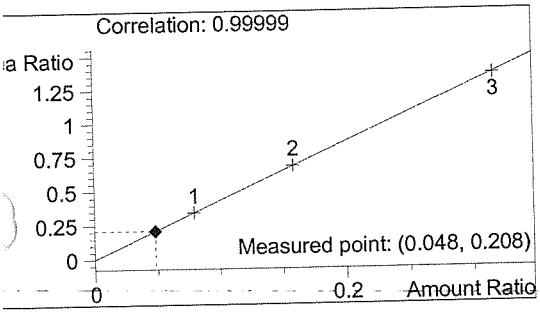
0.04 QASOL 03010
Gene Schwilke

vial # 28

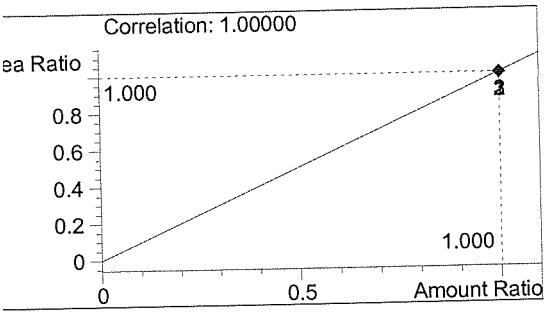



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 737 | 1.041 |
| 2 | n-Propanol | 3535 | 1.699 |

Totals:




Ethanol 0.048 g/100ml




n-Propanol 1.000 g/100ml

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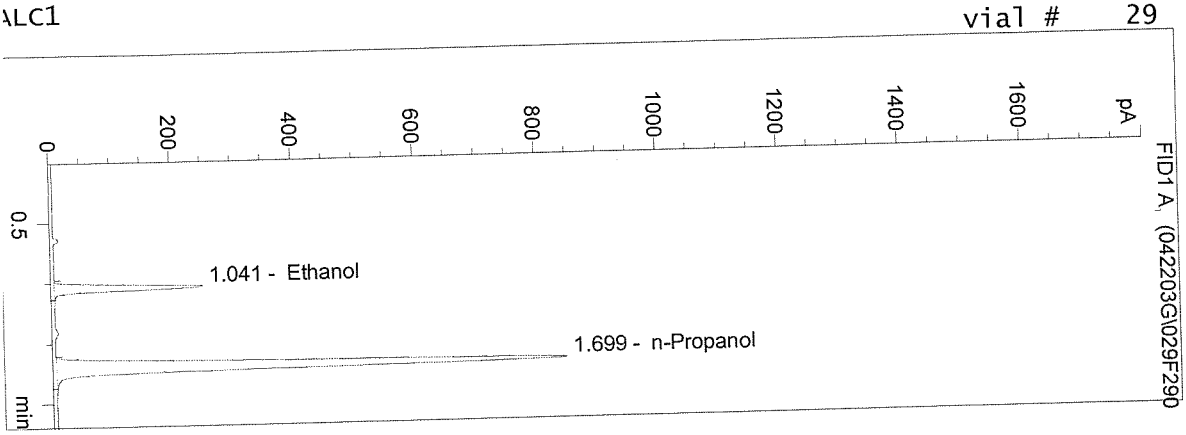
HPCHEM\1\METHODS\BLDALCO.M
2/03 1:46:18 PM
Instrument 1
ALC1

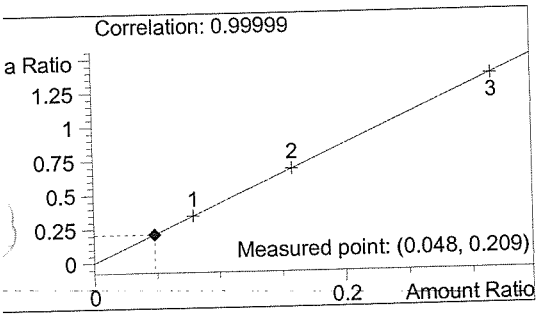
0.04 QASOL 03010
Gene Schwilke

vial # 29

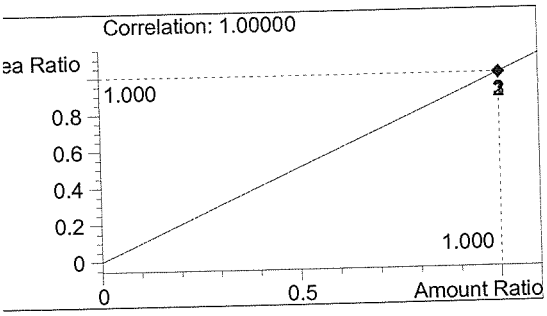



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 739 | 1.041 |
| 2 | n-Propanol | 3532 | 1.699 |

Totals:




Ethanol 0.048 g/100ml




n-Propanol 1.000 g/100ml

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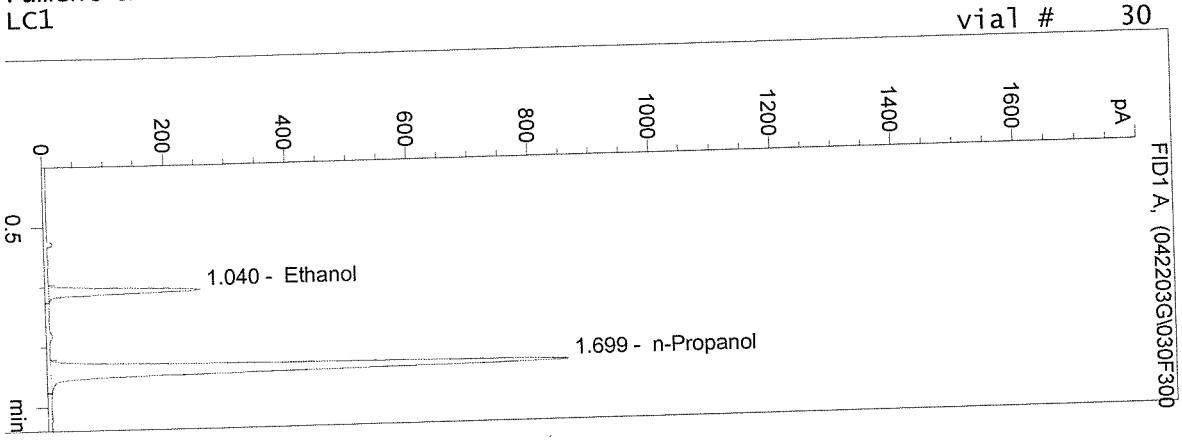
PCHEM\1\METHODS\BLDALCO.M
/03 1:49:20 PM
rument 1
LC1

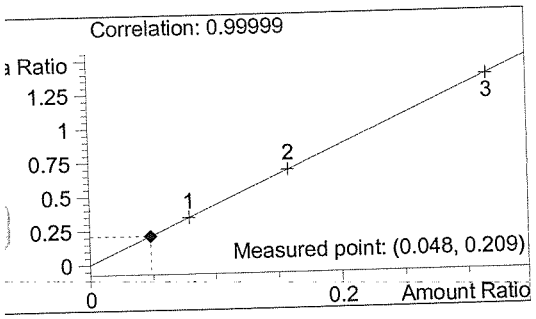
0.04 QASOL 03010
Gene Schwilke

vial # 30

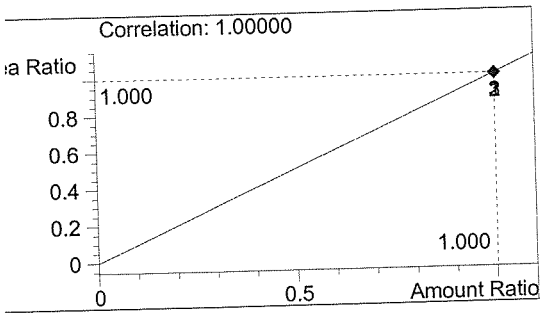



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 748 | 1.040 |
| 2 | n-Propanol | 3578 | 1.699 |

Totals:




Ethanol 0.048 g/100ml



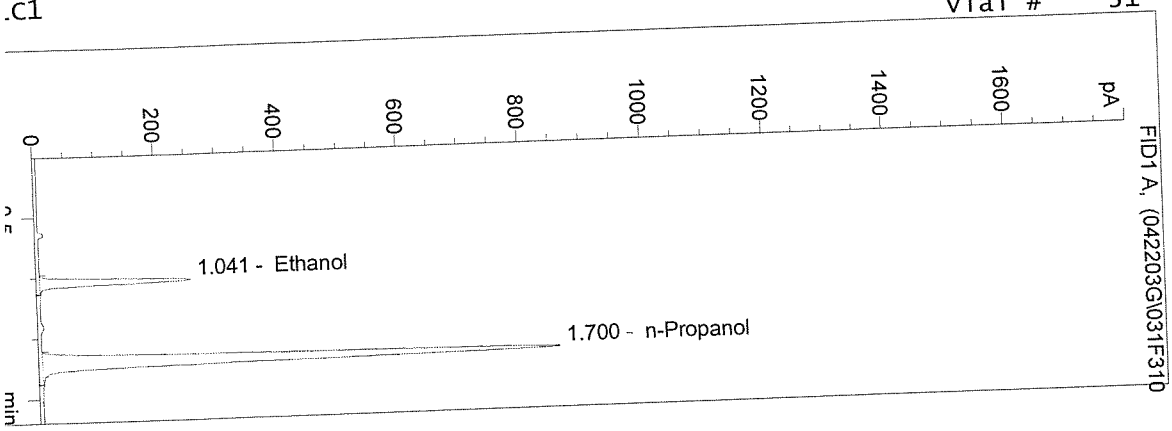

n-Propanol 1.000 g/100ml

WASHINGTON STATE TOXICOLOGY LABORATORY

CHEM\1\METHODS\BLDALCO.M
03 1:52:22 PM
ument 1
.C1

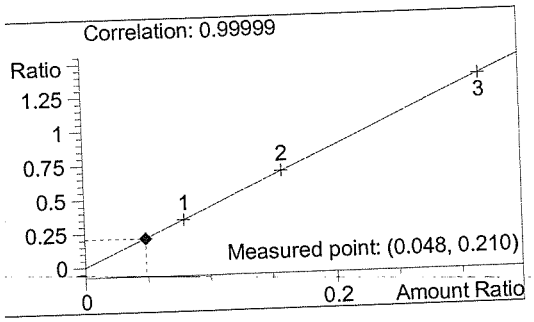
0.04 QASOL 03010
Gene Schwilke

vial # 31

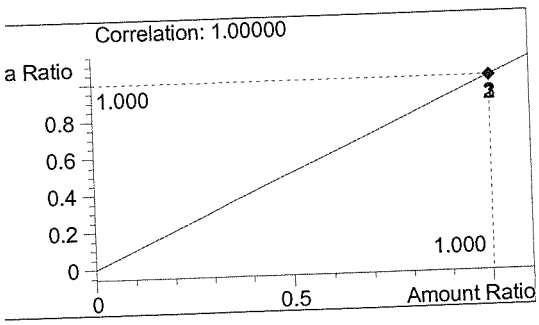



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 752 | 1.041 |
| 2 | n-Propanol | 3583 | 1.700 |

Totals:




Ethanol 0.048 g/100ml



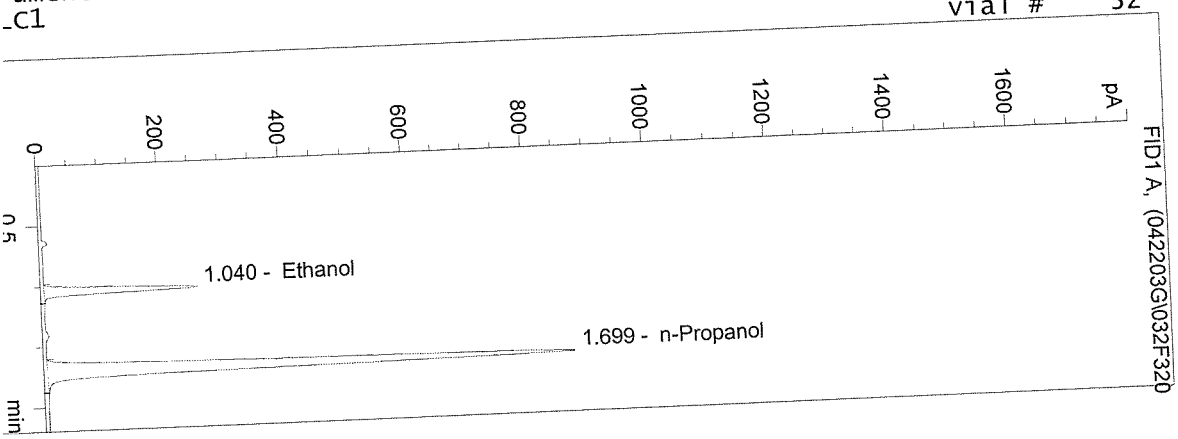

n-Propanol 1.000 g/100ml

WASHINGTON STATE TOXICOLOGY LABORATORY

>CHEM\1\METHODS\BLDALCO.M
/03 1:55:24 PM
rument 1
_C1

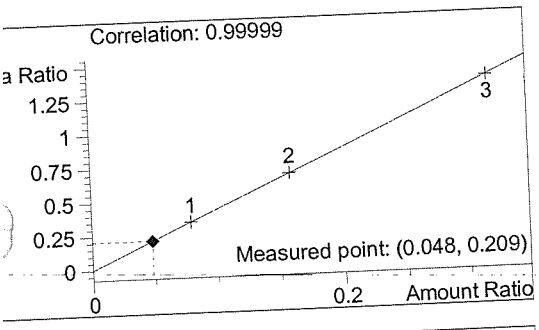
0.04 QASOL 03010
Gene Schwilke

vial # 32

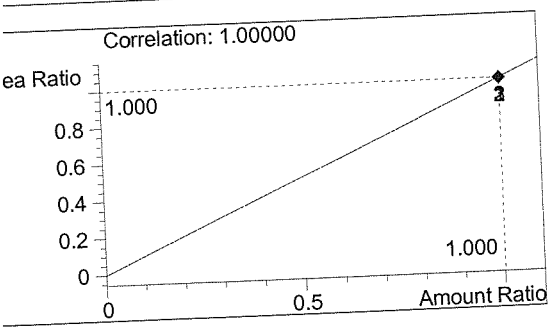



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 764 | 1.040 |
| 2 | n-Propanol | 3650 | 1.699 |

Totals:




Ethanol 0.048 g/100ml



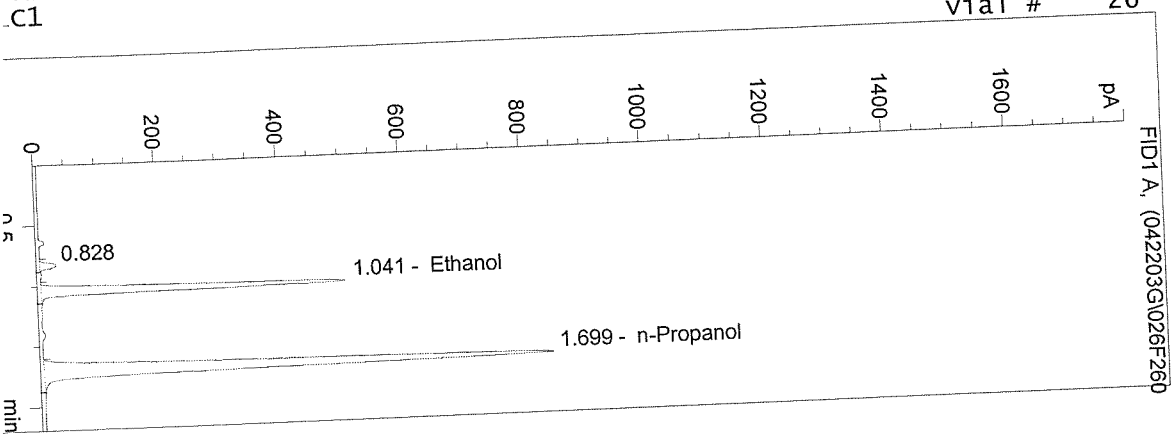

n-Propanol 1.000 g/100ml

WASHINGTON STATE TOXICOLOGY LABORATORY

'CHEM\1\METHODS\BLDALCO.M
'03 1:37:13 PM
·ument 1
_C1

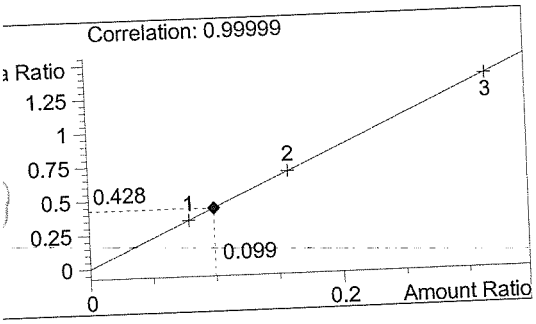
CAP 0.100
Gene Schwilke

vial # 26

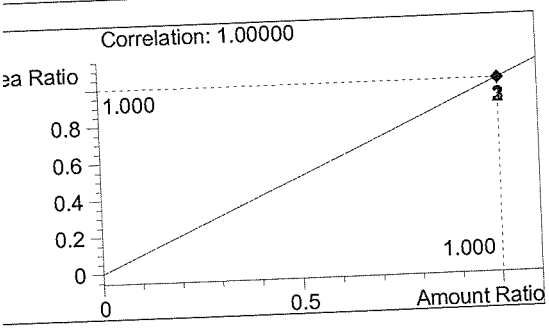



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | | 80 | 0.828 |
| 2 | Ethanol | 1509 | 1.041 |
| 3 | n-Propanol | 3528 | 1.699 |

Totals:




Ethanol 0.099 g/100ml



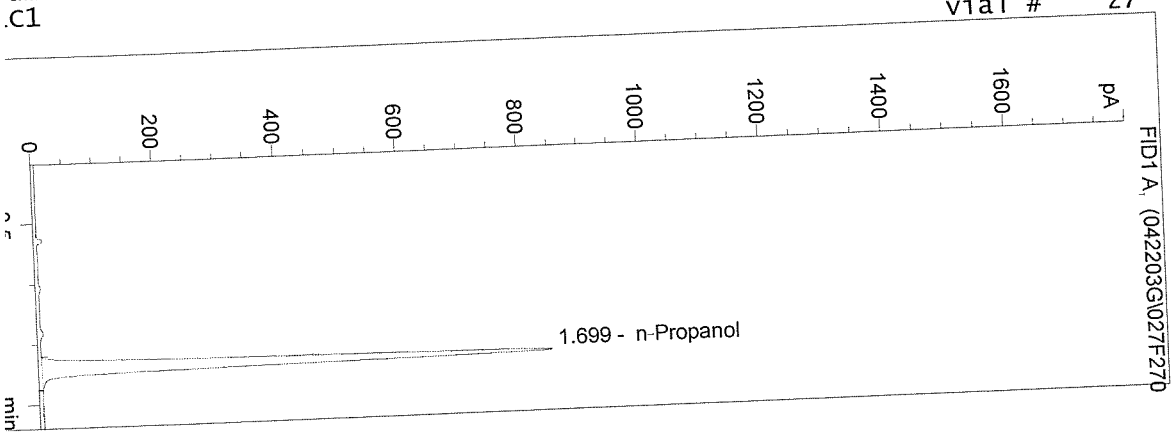

n-Propanol 1.000 g/100ml

WASHINGTON STATE TOXICOLOGY LABORATORY

CHEM\1\METHODS\BLDALCO.M
03 1:40:15 PM
ument 1
.C1

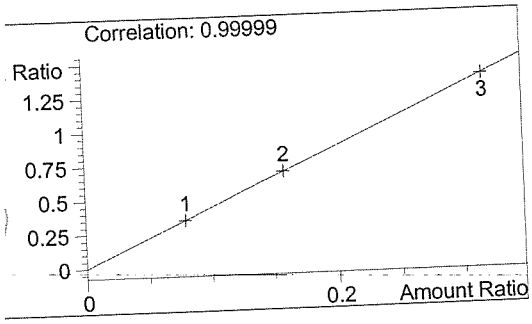
BLANK
Gene Schwilke

vial # 27

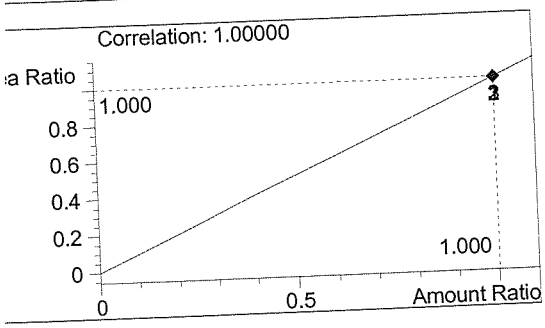



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | Ethanol | 0 | 0.000 |
| 2 | n-Propanol | 3538 | 1.699 |

Totals:




Ethanol 0.000 g/100ml



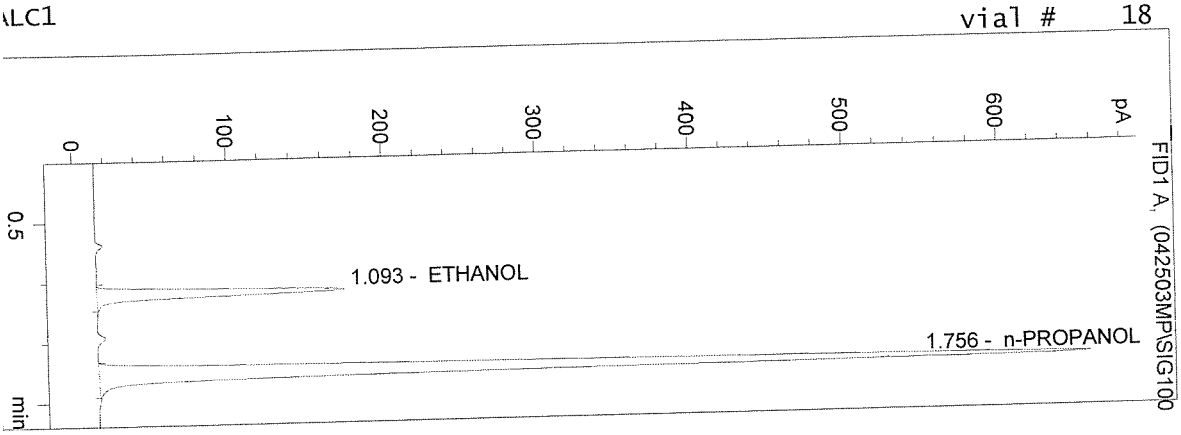

n-Propanol 1.000 g/100ml

WASHINGTON STATE TOXICOLOGY LABORATORY

IPCHEM\1\METHODS\BLDALCO3.M
;/03 9:02:21 AM
:rument 3
\LC1

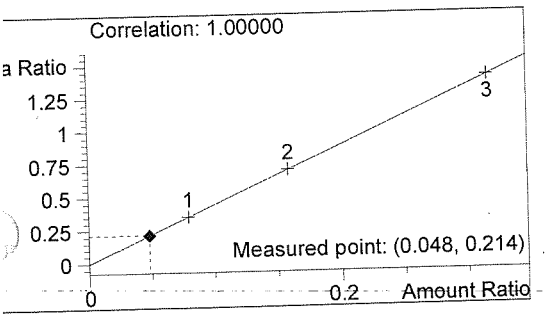
03010 0.04QA
M PEMBERTON

vial # 18

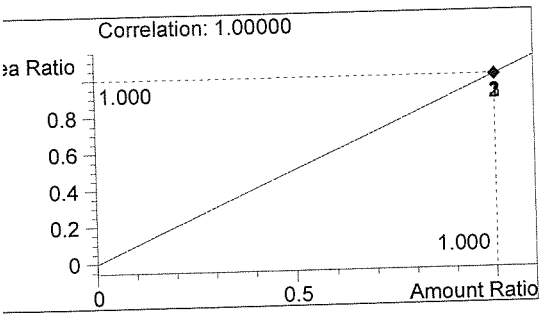



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 628 | 1.093 |
| 2 | n-PROPANOL | 2935 | 1.756 |

Totals:




ETHANOL 0.048 g/100mL



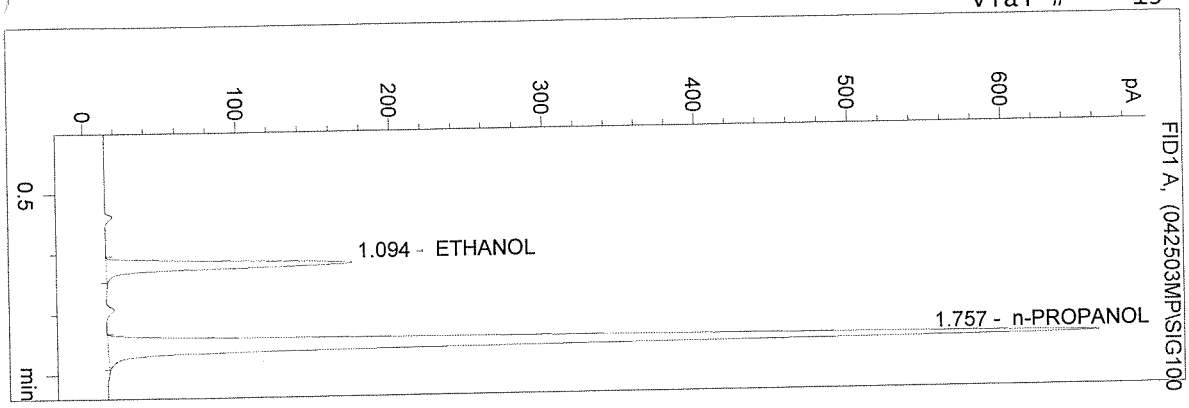

n-PROPANOL 1.000 g/100mL

WASHINGTON STATE TOXICOLOGY LABORATORY

HPCHEM\1\METHODS\BLDALCO3.M
5/03 9:05:43 AM
trument 3
ALC1

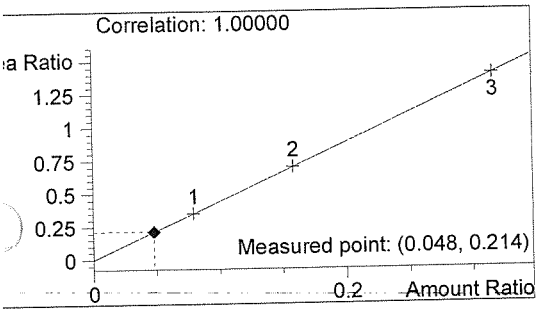
03010 0.04 QA
M PEMBERTON

vial # 19

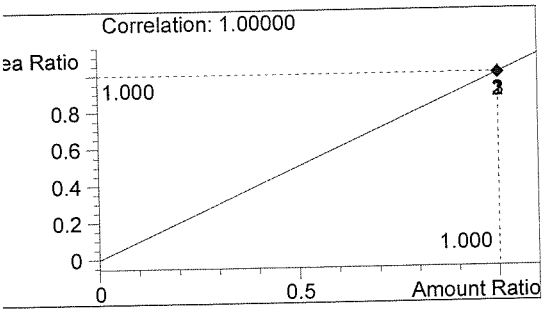



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 631 | 1.094 |
| 2 | n-PROPANOL | 2954 | 1.757 |

Totals:




ETHANOL 0.048 g/100mL

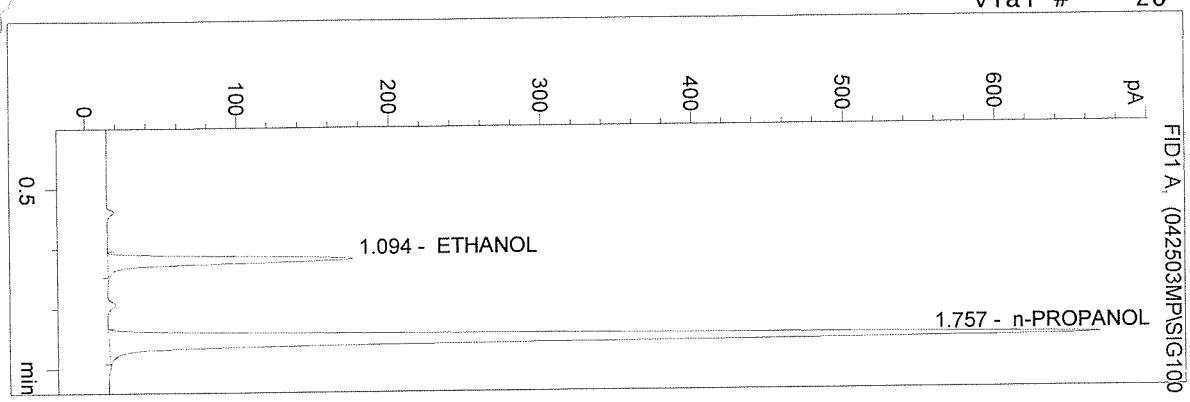



n-PROPANOL 1.000 g/100mL

\HPCHEM\1\METHODS\BLDALCO3.M
25/03 9:09:06 AM
strument 3
ALC1

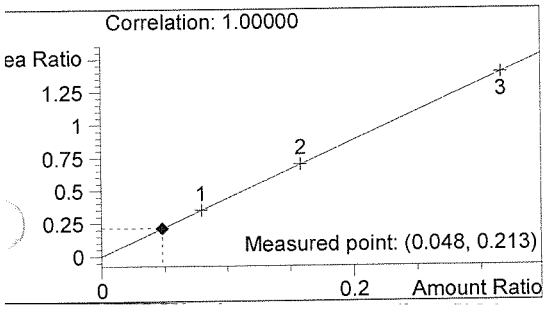
03010 0.04 QA
M PEMBERTON

vial # 20

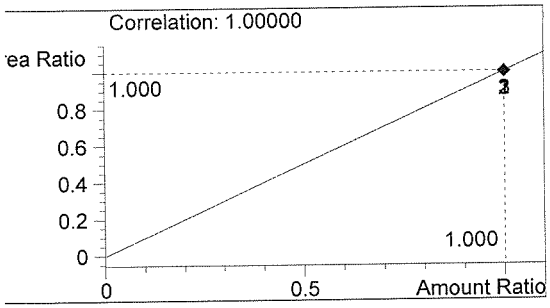



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 635 | 1.094 |
| 2 | n-PROPANOL | 2975 | 1.757 |

Totals:




ETHANOL 0.048 g/100mL

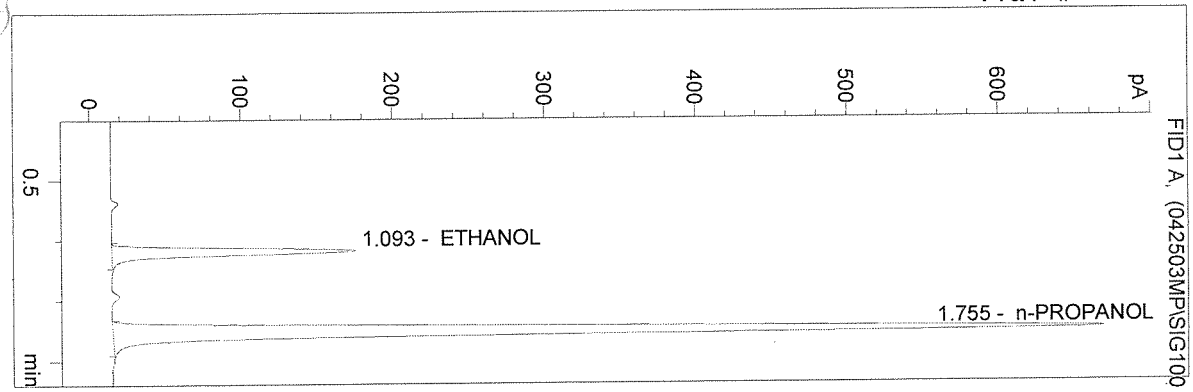



n-PROPANOL 1.000 g/100mL

\HPCHEM\1\METHODS\BLDALCO3.M
25/03 9:12:30 AM
strument 3
ALC1

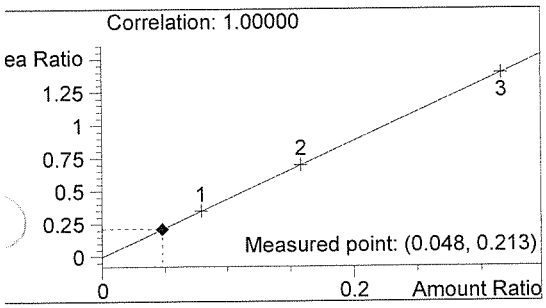
03010 0.04QA
M PEMBERTON

vial # 21

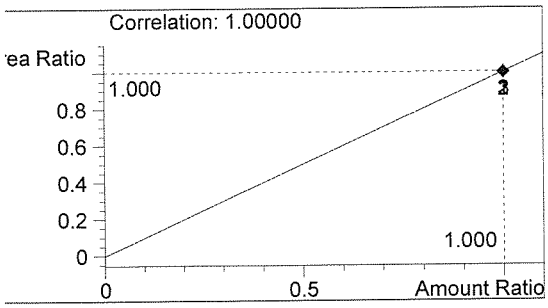



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 627 | 1.093 |
| 2 | n-PROPANOL | 2946 | 1.755 |

Totals:




ETHANOL 0.048 g/100mL

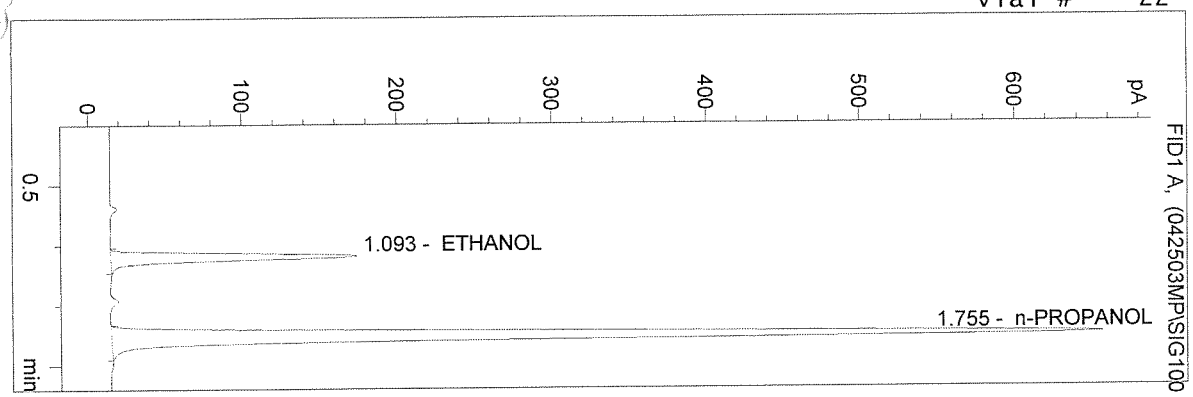



n-PROPANOL 1.000 g/100mL

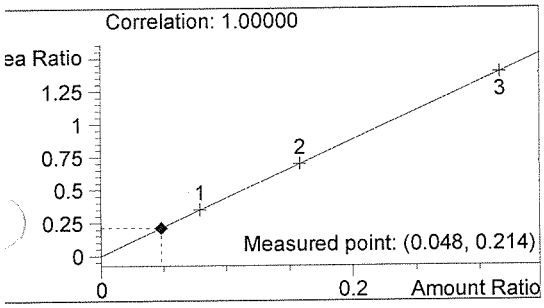
\HPCHEM\1\METHODS\BLDALCO3.M
25/03 9:15:53 AM
strument 3
ALC1

03010 0.04QA
M PEMBERTON

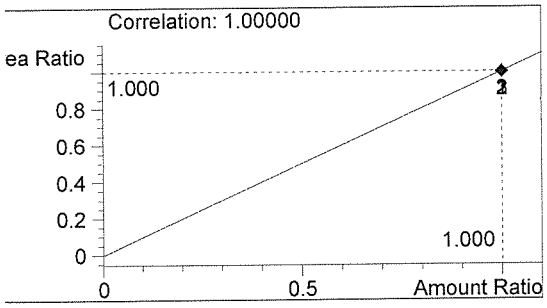
vial # 22




| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 621 | 1.093 |
| 2 | n-PROPANOL | 2905 | 1.755 |
| Totals: | | | |




ETHANOL 0.048 g/100mL



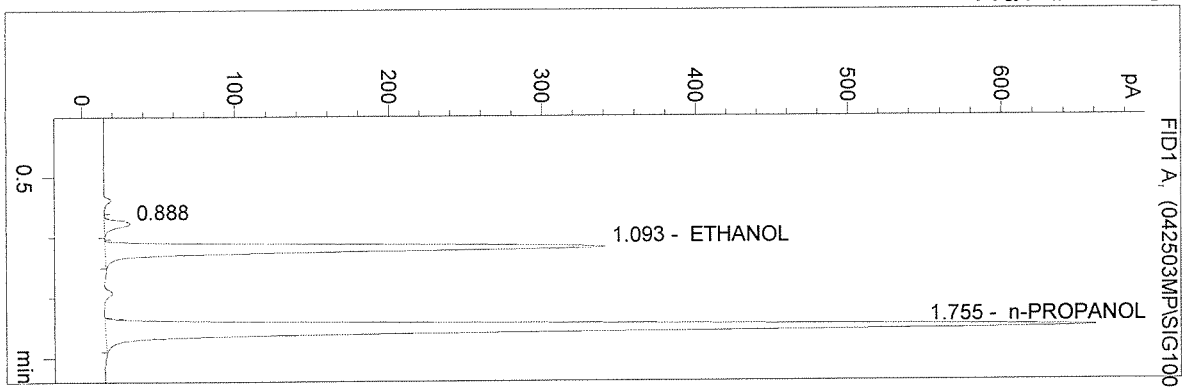

n-PROPANOL 1.000 g/100mL

WASHINGTON STATE TOXICOLOGY LABORATORY

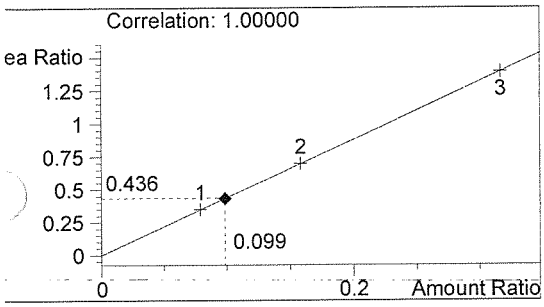
\HPCHEM\1\METHODS\BLDALCO3.M
25/03 9:19:16 AM
strument 3
)ALC1

0.10 CONTROL
M PEMBERTON

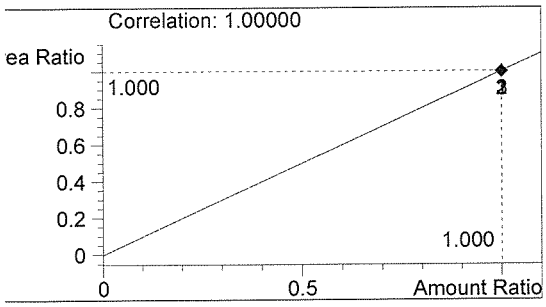
vial # 23




| # | Compound | Area | RT |
|---|---|---|---|
| 1 | | 68 | 0.888 |
| 2 | ETHANOL | 1286 | 1.093 |
| 3 | n-PROPANOL | 2948 | 1.755 |
| Totals: | | | |




ETHANOL 0.099 g/100mL



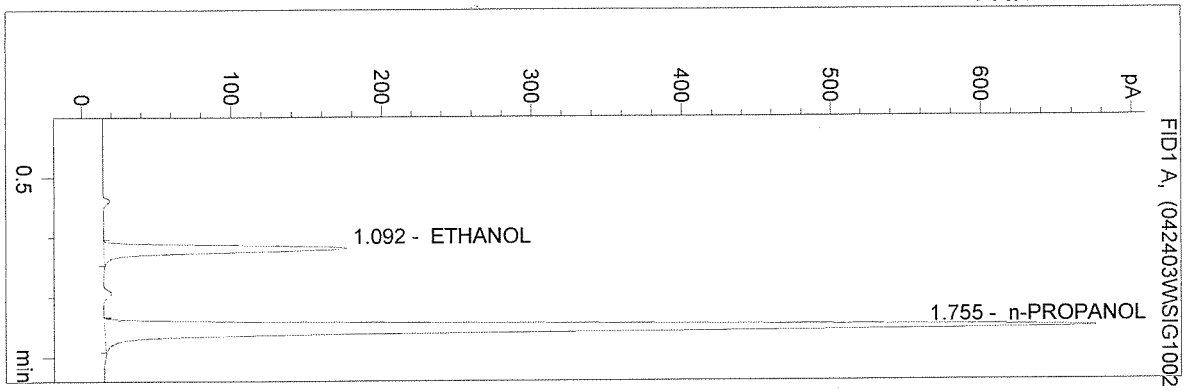

n-PROPANOL 1.000 g/100mL

WASHINGTON STATE TOXICOLOGY LABORATORY

\HPCHEM\1\METHODS\BLDALCO3.M
24/03 11:04:53 AM
strument 3
ALC1

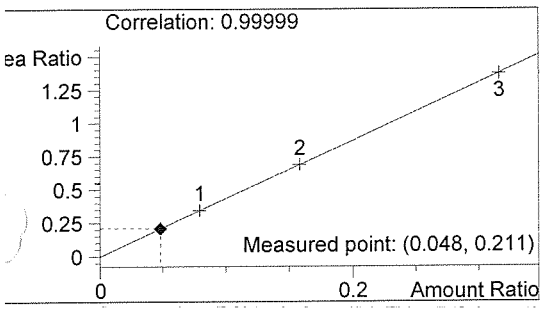
QA 03010
WP MARSHALL

vial # 22

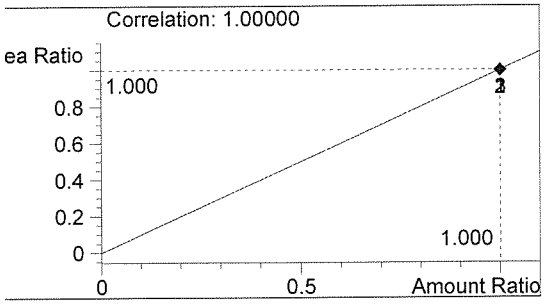



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 633 | 1.092 |
| 2 | n-PROPANOL | 2993 | 1.755 |

Totals:




ETHANOL 0.048 g/100mL



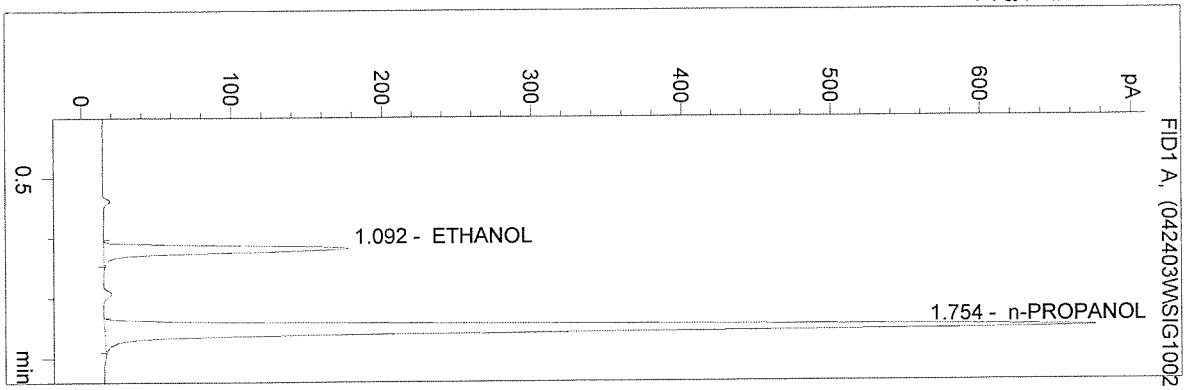

n-PROPANOL 1.000 g/100mL

STDS C
SIM 03008

\HPCHEM\1\METHODS\BLDALCO3.M
24/03 11:08:16 AM
strument 3
ALC1

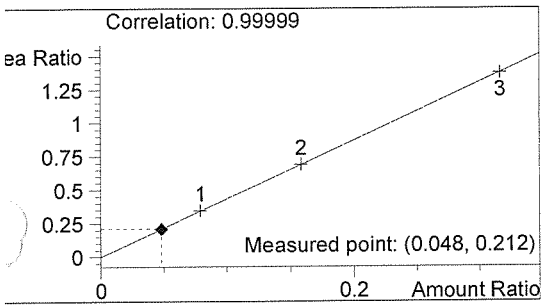
QA 03010
WP MARSHALL

vial # 23

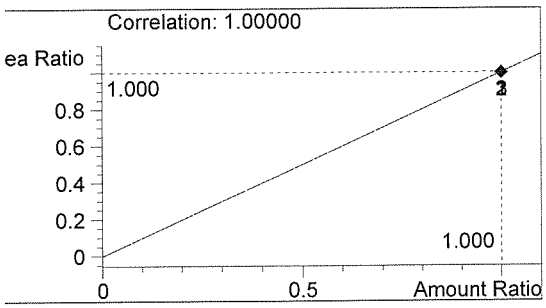



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 634 | 1.092 |
| 2 | n-PROPANOL | 2986 | 1.754 |

Totals:




ETHANOL 0.048 g/100mL




n-PROPANOL 1.000 g/100mL

\HPCHEM\1\METHODS\BLDALCO3.M
24/03 11:11:38 AM
strument 3
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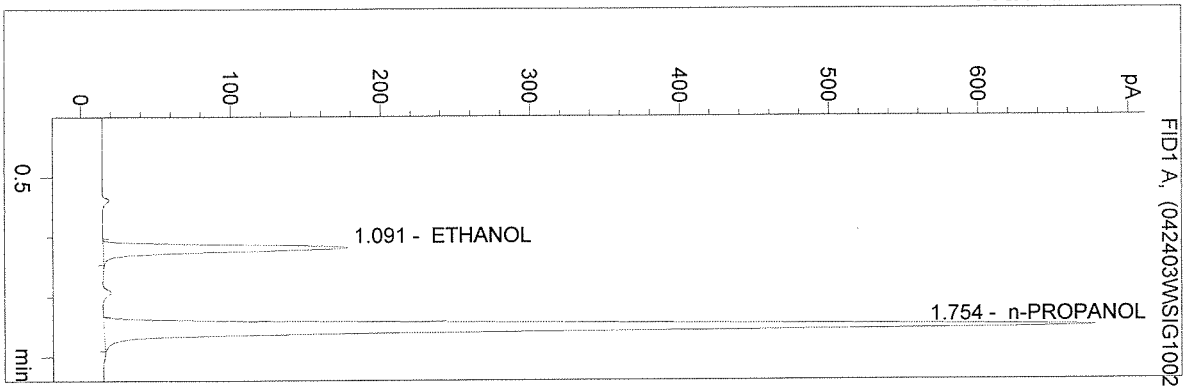
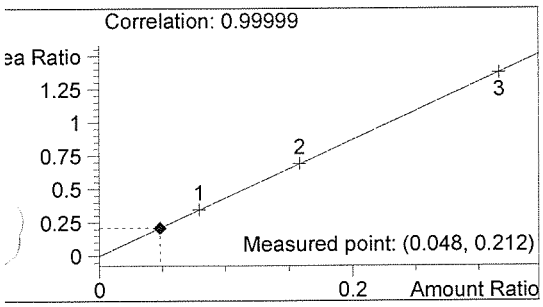
QA 03010
WP MARSHALL

vial # 24

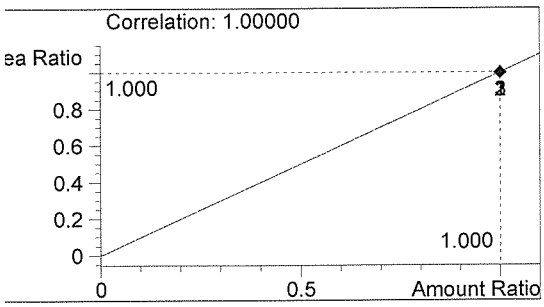



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 640 | 1.091 |
| 2 | n-PROPANOL | 3019 | 1.754 |

Totals:




ETHANOL 0.048 g/100mL




n-PROPANOL 1.000 g/100mL

\HPCHEM\1\METHODS\BLDALCO3.M
24/03 11:15:01 AM
strument 3
ALC1

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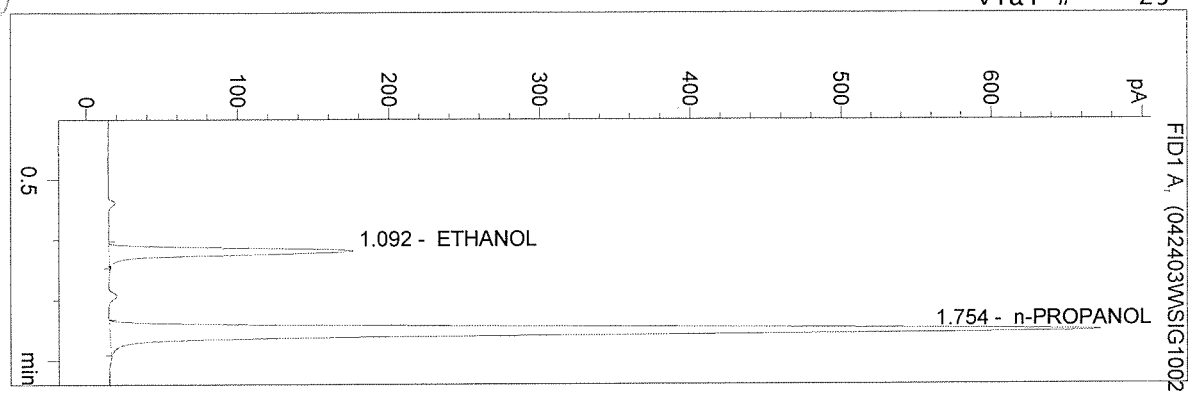
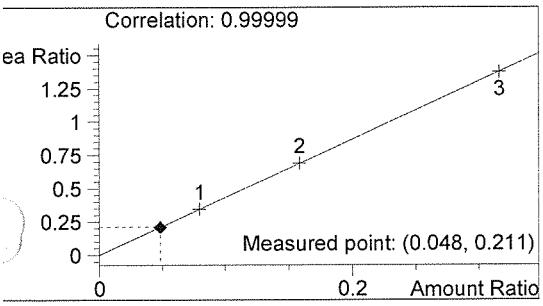
WP MARSHALL

vial # 25

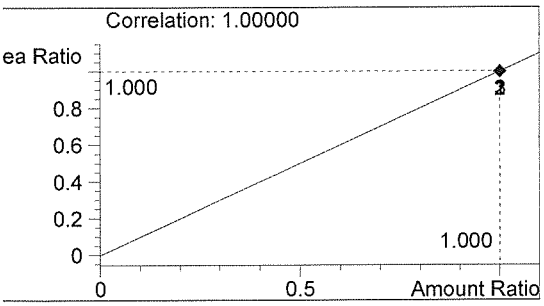



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 627 | 1.092 |
| 2 | n-PROPANOL | 2967 | 1.754 |

Totals:




ETHANOL 0.048 g/100mL

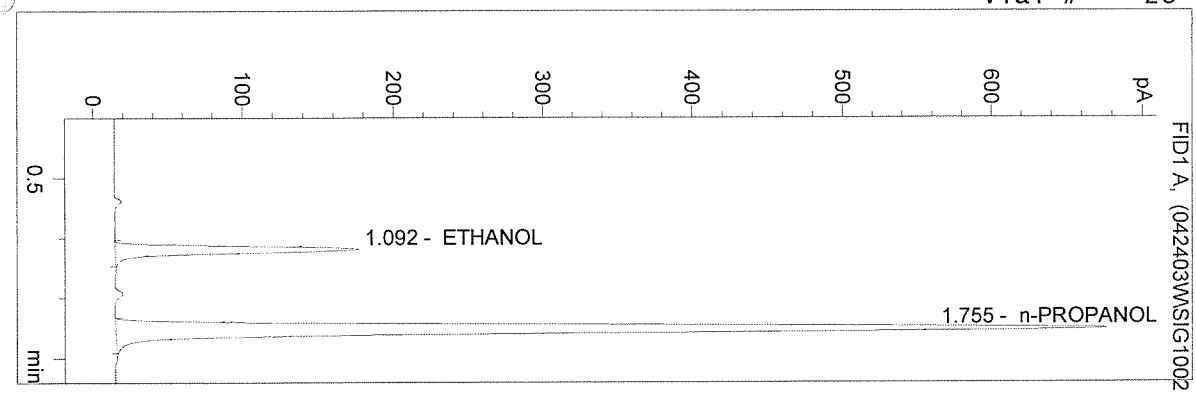



n-PROPANOL 1.000 g/100mL

\HPCHEM\1\METHODS\BLDALCO3.M
'24/03 11:18:25 AM
ıstrument 3
ALC1

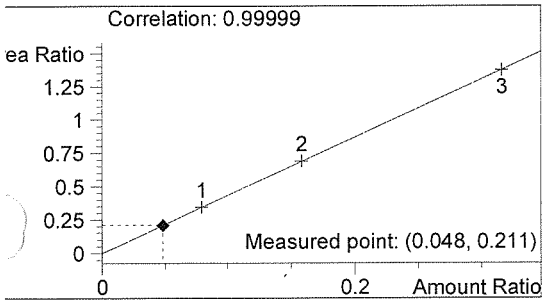
QA 03010
WP MARSHALL

vial # 26

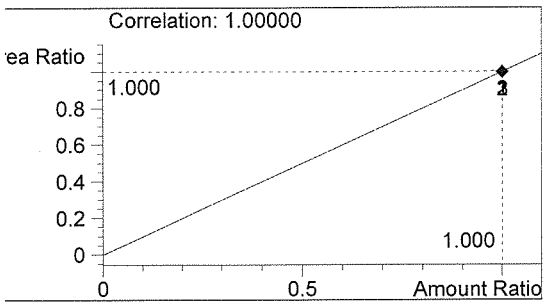



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 630 | 1.092 |
| 2 | n-PROPANOL | 2980 | 1.755 |

Totals:




ETHANOL 0.048 g/100mL

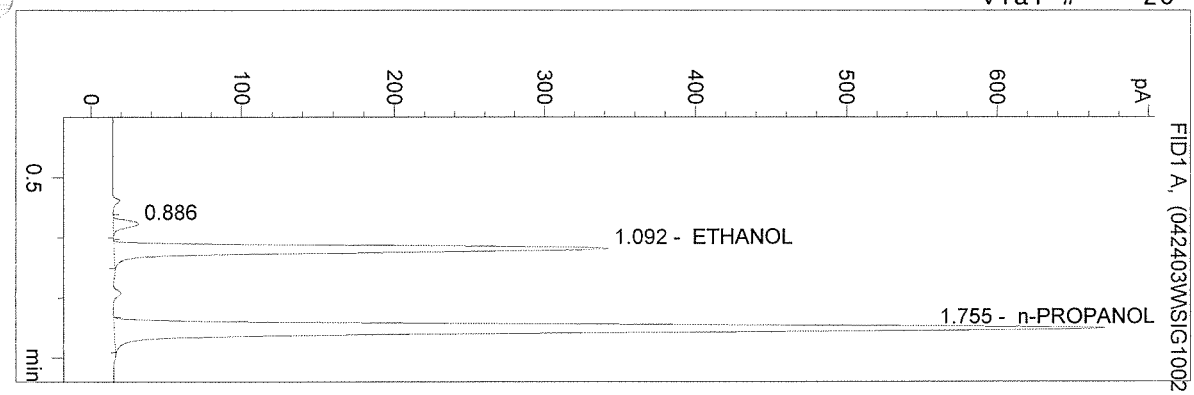



n-PROPANOL 1.000 g/100mL

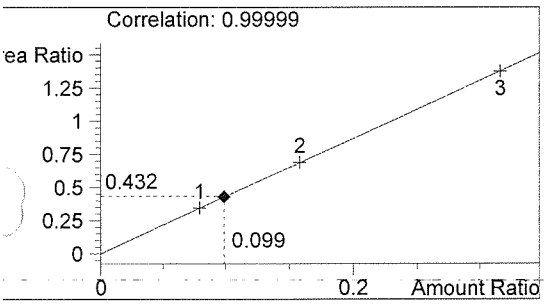
\HPCHEM\1\METHODS\BLDALCO3.M
'24/03 10:58:07 AM
ıstrument 3
ALC1

0.100 CONTROL
WP MARSHALL

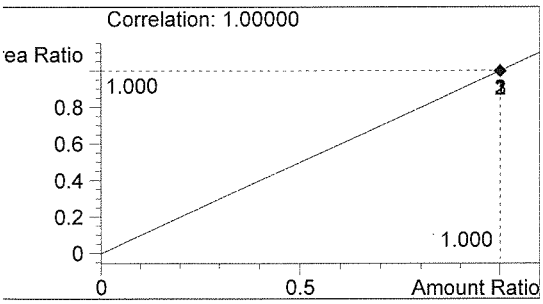
vial # 20




| # | Compound | Area | RT |
|---|---|---|---|
| 1 | | 67 | 0.886 |
| 2 | ETHANOL | 1287 | 1.092 |
| 3 | n-PROPANOL | 2981 | 1.755 |
| Totals: | | | |



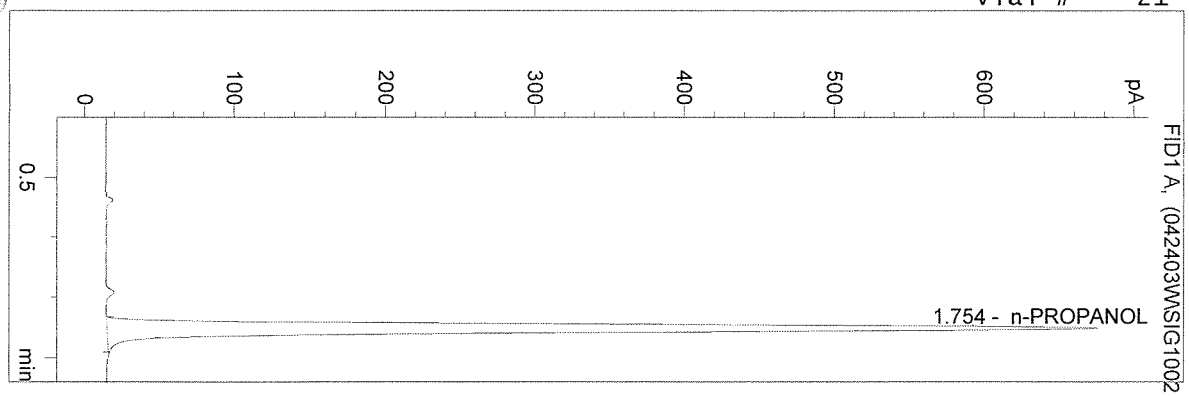

ETHANOL 0.099 g/100mL




n-PROPANOL 1.000 g/100mL

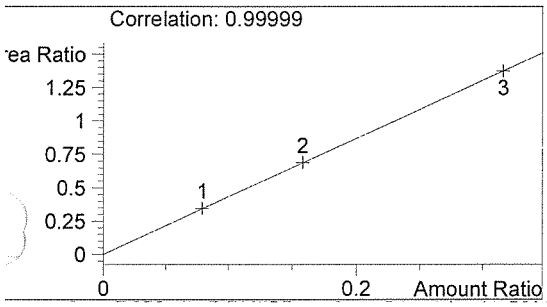
:\HPCHEM\1\METHODS\BLDALCO3.M
/24/03 11:01:30 AM
nstrument 3
ALC1

BLANK
WP MARSHALL
vial # 21

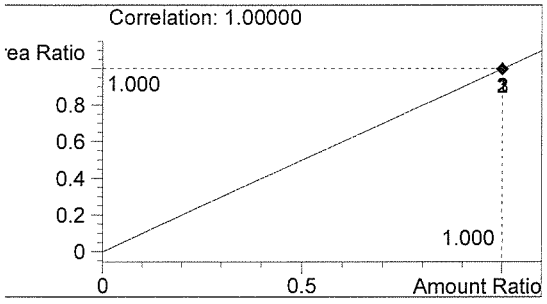



| # | Compound | Area | RT |
|---|---|---|---|
| 1 | ETHANOL | 0 | 0.000 |
| 2 | n-PROPANOL | 2967 | 1.754 |

Totals:




ETHANOL 0.000 g/100mL




n-PROPANOL 1.000 g/100mL