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CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
SDG: 06C238

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** - Not Requested



LABORATORIES, INC.

1835 W. 205th Street

Torrance, CA 90501

Tel: (310) 618-8889

Fax: (310) 618-0818

Date: 04-13-2006

EMAX Batch No.: 06C238

Attn: Linda Geddes

MWH

750 Royal Oaks Dr, Suite 100

Monrovia CA 91016-3629

Subject: Laboratory Report

Project: Upgradient Investigation, Tronox

Enclosed is the Laboratory report for samples received on 03/25/06.

The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
M120-0.5R	C238-01	03/24/06	SOIL	METHANOL & ETHANOL
M121-0.5R	C238-02	03/24/06	SOIL	METHANOL & ETHANOL
M118-0.5R	C238-03	03/24/06	SOIL	METHANOL & ETHANOL
M117-0.5R	C238-04	03/24/06	SOIL	METHANOL & ETHANOL
M116-0.5R	C238-05	03/24/06	SOIL	METHANOL & ETHANOL
TRIP BLANK	C238-06	03/24/06	WATER	METHANOL & ETHANOL

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.

Laboratory Director

EMAX Laboratories
 Ye Myint (310) 618-8889 X121
 1835 West 205th Street
 Torrance, CA 90501 SITE Henderson DATE 3/12

ANALYTICAL LAB: C12
6-1-2024

ENSR International
1220 Avenida Acaso
Camarillo, CA 93012-8738
Phone (805) 388-3775
Fax (805) 388-3577

ENSR[®]
INTERNATIONAL[illegible]

MATRIX S - Soil TYPE: W - Water O - Other	CONTAINER G - Glass Bottle P - Plastic O - Other	PRESERVATIVES: All samples are preserved on ice. Water samples are preserved as indicated on the sample labels.		T-3.6°C		TEMPERATURE BLANK EACH COOLER	☐ NO ☒ YES
RELINQUISHED BY: Brown Ho	SIGNATURE <i>Brown Ho</i>	ENSR International	DATE 3/24/86	TIME 15:00	TOTAL NUMBER OF CONTAINERS:		
RECEIVED BY: Federal Express	SIGNATURE <i>[Signature]</i>	COMPANY	DATE 3/24/86	TIME 15:00	METHOD OF SHIPMENT Federal Express		
RELINQUISHED BY:	SIGNATURE <i>[Signature]</i>	COMPANY ENSA	DATE 3-28-86	TIME 10:45	SPECIAL SHIMENT/HANDLING/STORAGE REQUIREMENTS:		
RECEIVED BY:	SIGNATURE <i>[Signature]</i>	COMPANY	DATE	TIME			

DISTRIBUTION: White and Canary = Laboratory Pink = ENSR International

Serial No. 5166

FedEx US Airbill[®]
Express

87
8562 4152 9941

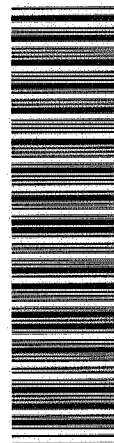
FedEx Tracking Number

1 From
Date 3/24/06
Sender's Name Brian Ho
Company ENSR
Address 1220 Avenida Acoso
City Camarillo State CA ZIP 93012
Phone 805 795-3334

2 Your Internal Billing Reference 04020-023-150

3 To
Recipient's Name Ye Myint
Company EMAX Labs
Address 1835 West 205th Street
City Torrance State CA ZIP 90501
Phone 310 618-8889

4 Recipient's Address
Address 1835 West 205th Street
City Torrance State CA ZIP 90501
Phone 310 618-8889



8562 4152 9941

0200

Recipients Copy +

4a Express Package Service
☒ FedEx Priority Overnight
Next business morning.
Shipment will be delivered on Monday unless SATURDAY Delivery is selected.
☐ FedEx Standard Overnight
Next business afternoon.
Saturday Delivery NOT available.
☐ FedEx Express Saver
Third business day.
Saturday Delivery NOT available.
FedEx Overnight and FedEx Saver are not available. Minimum charge: One-pound rate.

4b Express Freight Service
☐ FedEx 2Day
Second business day.
Shipment will be delivered on Monday unless SATURDAY Delivery is selected.
☐ FedEx 3Day Freight
Third business day.
Saturday Delivery NOT available.
Shipment will be delivered on Monday unless SATURDAY Delivery is selected.

5 Packaging
☐ FedEx Envelope*
☐ FedEx Pak*
Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
☐ FedEx Box
☒ FedEx Tube
☐ Other

6 Special Handling
☒ SATURDAY Delivery
Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx 2Day, or FedEx 3Day Freight.
☐ HOLD Weekday at FedEx Location
Not available for FedEx First Overnight, FedEx 2Day, or FedEx 3Day Freight.
☐ HOLD Saturday at FedEx Location
Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

7 Payment Bill to:
☒ Sender
Account No. _____
☐ Recipient
Account No. _____
☐ Third Party
Account No. _____
☐ Credit Card
Card No. _____
☐ Cash/Check
Check No. _____

Does this shipment contain dangerous goods?
☒ No
☐ Yes
One box must be checked.
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.
☐ Dry Ice
Dry Ice UN 1845
☐ Cargo Aircraft Only

Total Packages 1
Total Weight 39
Total Declared Value \$400.00

8 NEW Residential Delivery Signature Options
If you require a signature, check Direct or Indirect.
☐ No Signature
☐ Direct Signature
Signature required for delivery.
☐ Indirect Signature
Signature required for delivery.
If you require a signature, check Direct or Indirect.

Rev. Date 8/05-Prior 4/03/05-01/04-2005 FedEx-PRINTED IN U.S.A. SIF

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

ENSR

UPGRADIENT INVESTIGATION, TRONOX

METHOD M8015
ALCOHOLS BY GC

SDG#: 06C238

CASE NARRATIVE

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
SDG: 06C238

METHOD M8015 ALCOHOLS BY GC

One (1) water and five (5) soil samples were received on 03/25/06 for Alcohols by GC analysis by Method M8015 in accordance with USEPA SW846, 3rd Ed.

1. Holding Time

Analytical holding time was met. Water sample was preserved and adjusted to pH 7 prior to analysis.

2. Calibration

Initial calibration was five points. %RSDs were within 20%. Continuing calibrations were carried out within 10-sample interval. All recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

5. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

Soil samples were leached with organic free water at a ratio of 1:1 (w:v).

LAB CHRONICLE
ALCOHOLS BY GC

SDG NO. : 06C238
Instrument ID : GCT043

Client : ENSR
Project : UPGRADE INVESTIGATION, TRONOX

SOIL									
Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	MED001SB	1	NA	04/04/0614:55	04/04/0614:00	DD04003A	DD04002A	MED001S	Method Blank
LCS1S	MED001SL	1	NA	04/04/0615:12	04/04/0614:00	DD04004A	DD04002A	MED001S	Lab Control Sample (LCS)
LCD1S	MED001SC	1	NA	04/04/0615:28	04/04/0614:00	DD04005A	DD04002A	MED001S	LCS Duplicate
M120-0.5R	C238-01	1	6.7	04/04/0615:44	04/04/0614:00	DD04006A	DD04002A	MED001S	Field Sample
M121-0.5R	C238-02	1	7.5	04/04/0616:00	04/04/0614:00	DD04007A	DD04002A	MED001S	Field Sample
M118-0.5R	C238-03	1	11.9	04/04/0616:16	04/04/0614:00	DD04008A	DD04002A	MED001S	Field Sample
M117-0.5R	C238-04	1	7.2	04/04/0616:32	04/04/0614:00	DD04009A	DD04002A	MED001S	Field Sample
M116-0.5R	C238-05	1	12.4	04/04/0616:50	04/04/0614:00	DD04010A	DD04002A	MED001S	Field Sample

WATER									
Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	MEC013WB	1	NA	03/27/0613:25	03/27/0613:25	DC27003A	DC27002A	MEC013W	Method Blank
LCS1W	MEC013WL	1	NA	03/27/0613:45	03/27/0613:45	DC27004A	DC27002A	MEC013W	Lab Control Sample (LCS)
LCD1W	MEC013WC	1	NA	03/27/0614:03	03/27/0614:03	DC27005A	DC27002A	MEC013W	LCS Duplicate
TRIP BLANK	C238-06	1	NA	03/27/0616:52	03/27/0616:52	DC27014A	DC27002A	MEC013W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD M8015
ALCOHOLS BY GC

```

=====
Client      : ENSR                      Date Collected: 03/24/06
Project     : UPGRADIENT INVESTIGATION, TRONOX Date Received: 03/25/06
Batch No.   : 06C238                   Date Extracted: 04/04/06 14:00
Sample ID   : M120-0.5R                 Date Analyzed: 04/04/06 15:44
Lab Samp ID : C238-01                   Dilution Factor: 1
Lab File ID : DD04006A                  Matrix       : SOIL
Ext Btch ID : MED001S                   % Moisture    : 6.7
Calib. Ref. : DD04002A                  Instrument ID : GCT043
=====
  
```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
METHANOL	ND	1.1	.54
ETHANOL	ND	1.1	.54

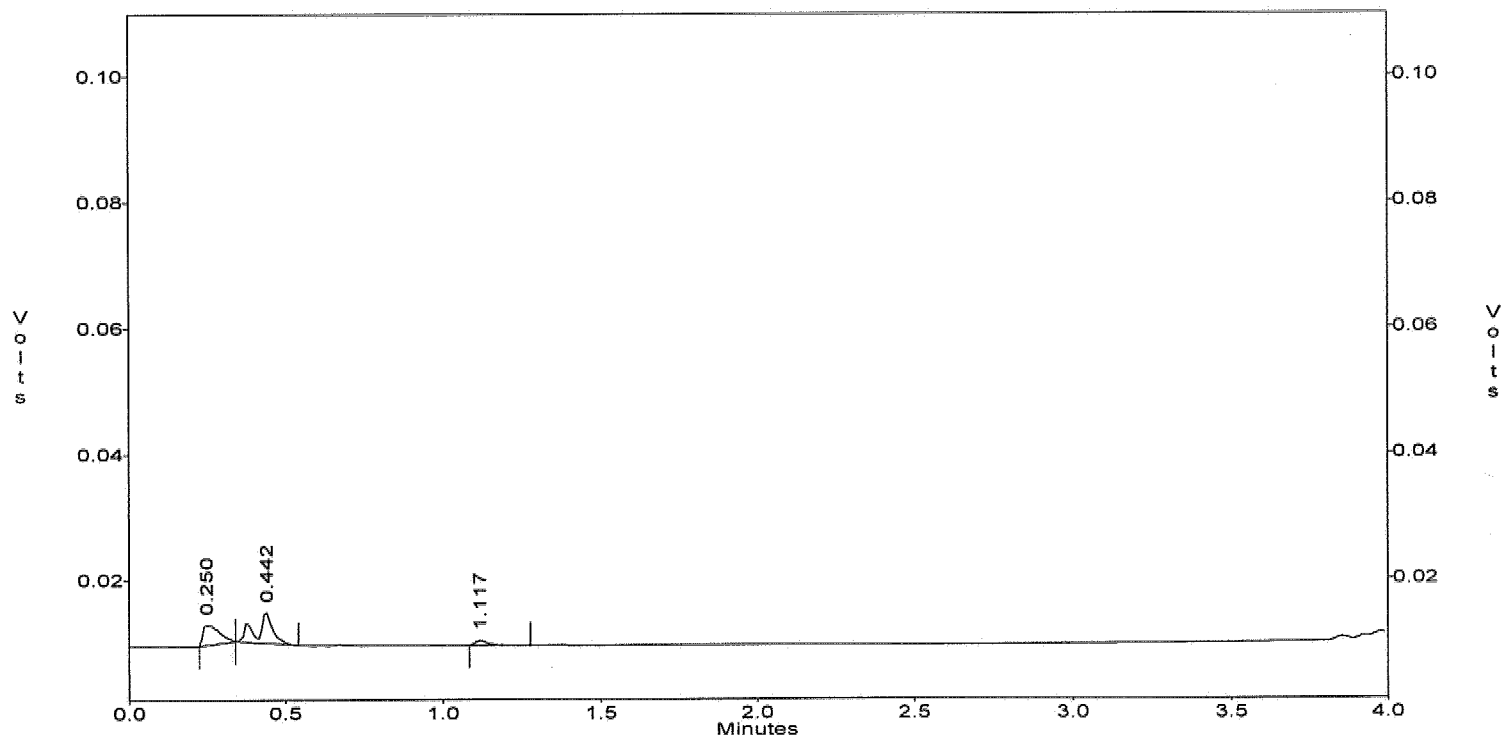
EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\Dd04\Dd04.006
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C238-01
Acquired : Apr 04, 2006 15:44:11
Printed : Apr 04, 2006 15:48:12
User : XUYEN

Channel A Results

#	Peak Name	Ret. Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
--	METHANOL	0.992	0	0.0	0.0
--	ETHANOL	1.192	0	0.0	0.0

c:\ezchrom\chrom\Dd04\Dd04.006 -- Channel A



METHOD M8015
ALCOHOLS BY GC

```

=====
Client      : ENSR                      Date Collected: 03/24/06
Project     : UPGRADIENT INVESTIGATION, TRONOX Date Received: 03/25/06
Batch No.   : 06C238                   Date Extracted: 04/04/06 14:00
Sample ID: M121-0.5R                   Date Analyzed: 04/04/06 16:00
Lab Samp ID: C238-02                   Dilution Factor: 1
Lab File ID: DD04007A                  Matrix      : SOIL
Ext Btch ID: MED001S                   % Moisture   : 7.5
Calib. Ref.: DD04002A                  Instrument ID : GCT043
=====

```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
-----	-----	-----	-----
METHANOL	ND	1.1	.54
ETHANOL	ND	1.1	.54

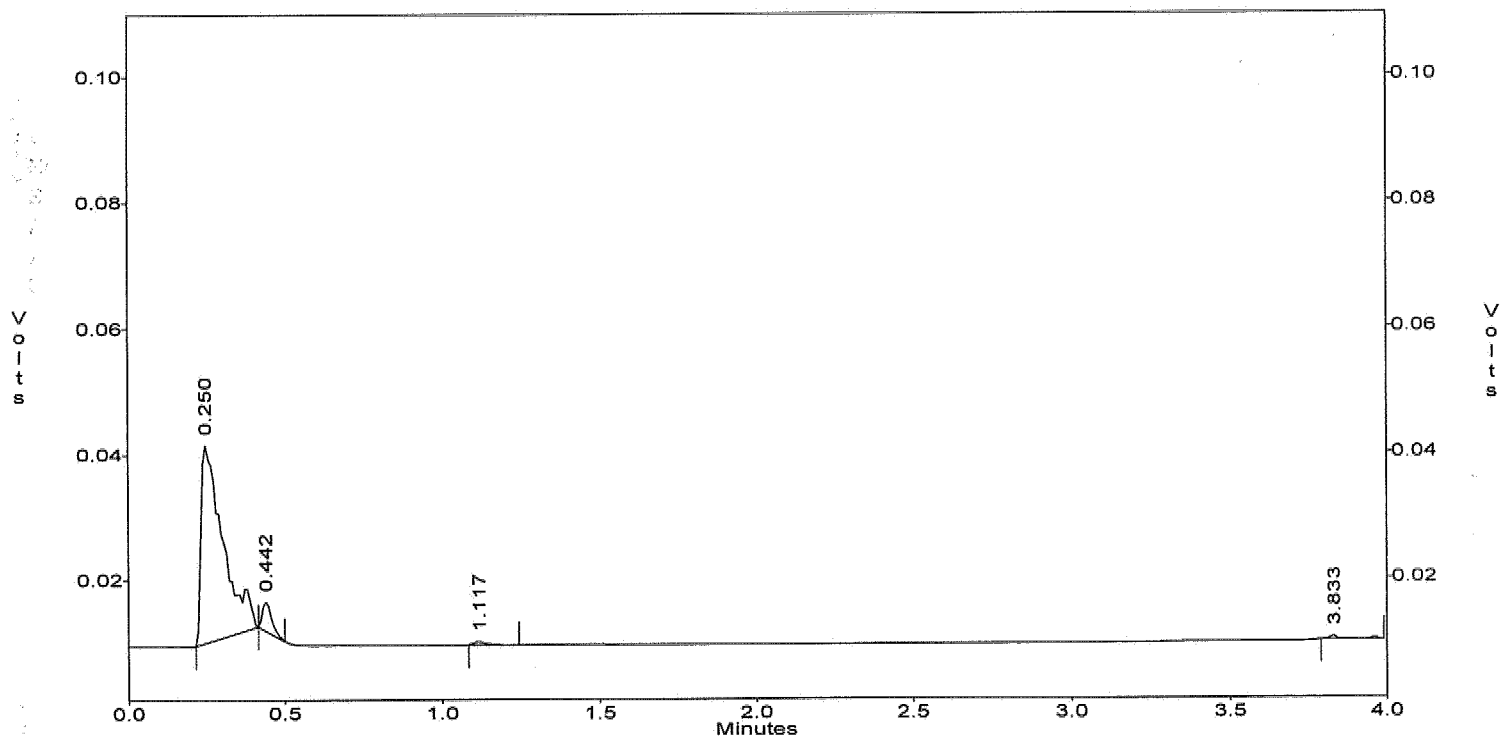
EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\Dd04\Dd04.007
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C238-02
Acquired : Apr 04, 2006 16:00:54
Printed : Apr 04, 2006 16:04:54
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
--	METHANOL	0.992	0	0.0	0.0
--	ETHANOL	1.192	0	0.0	0.0

c:\ezchrom\chrom\Dd04\Dd04.007 -- Channel A



METHOD M8015
ALCOHOLS BY GC

```
=====
Client      : ENSR                      Date Collected: 03/24/06
Project     : UPGRAIDENT INVESTIGATION, TRONOX Date Received: 03/25/06
Batch No.   : 06C238                   Date Extracted: 04/04/06 14:00
Sample ID: M118-0.5R                   Date Analyzed: 04/04/06 16:16
Lab Samp ID: C238-03                   Dilution Factor: 1
Lab File ID: DD04008A                  Matrix       : SOIL
Ext Btch ID: MED001S                   % Moisture    : 11.9
Calib. Ref.: DD04002A                  Instrument ID : GCT043
=====
```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
-----	-----	-----	-----
METHANOL	ND	1.1	.57
ETHANOL	ND	1.1	.57

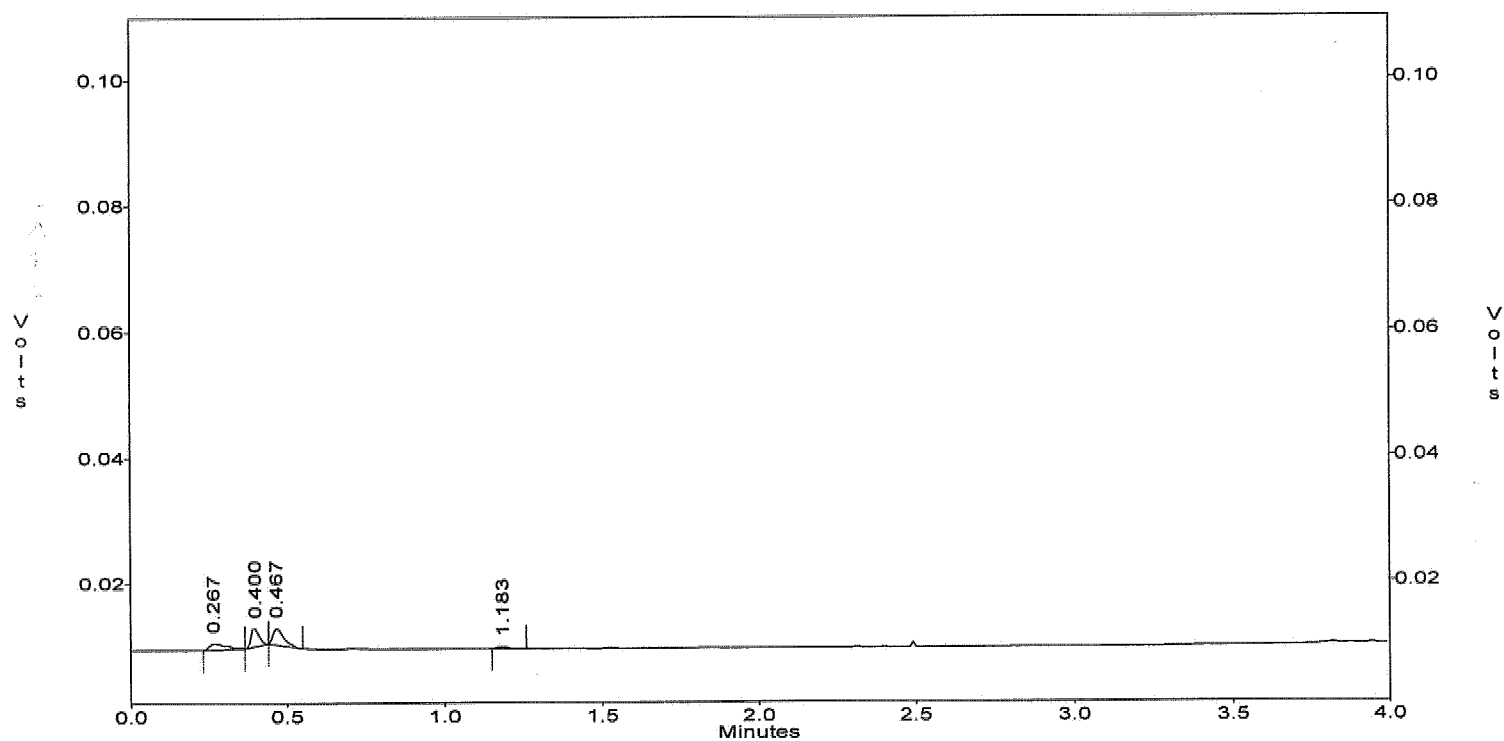
EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\Dd04\Dd04.008
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C238-03
Acquired : Apr 04, 2006 16:16:51
Printed : Apr 04, 2006 16:20:53
User : XUYEN

Channel A Results

#	Peak Name	Ret. Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
--	METHANOL	0.975	0	0.0	0.0
4	ETHANOL	1.183	648	16319.3	0.0

c:\ezchrom\chrom\Dd04\Dd04.008 -- Channel A



METHOD M8015
ALCOHOLS BY GC

```
=====
Client      : ENSR                      Date Collected: 03/24/06
Project     : UPGRADIENT INVESTIGATION, TRONOX Date Received: 03/25/06
Batch No.   : 06C238                   Date Extracted: 04/04/06 14:00
Sample ID: M117-0.5R                   Date Analyzed: 04/04/06 16:32
Lab Samp ID: C238-04                   Dilution Factor: 1
Lab File ID: DD04009A                  Matrix       : SOIL
Ext Btch ID: MED001S                   % Moisture    : 7.2
Calib. Ref.: DD04002A                  Instrument ID : GCT043
=====
```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
METHANOL	ND	1.1	.54
ETHANOL	ND	1.1	.54

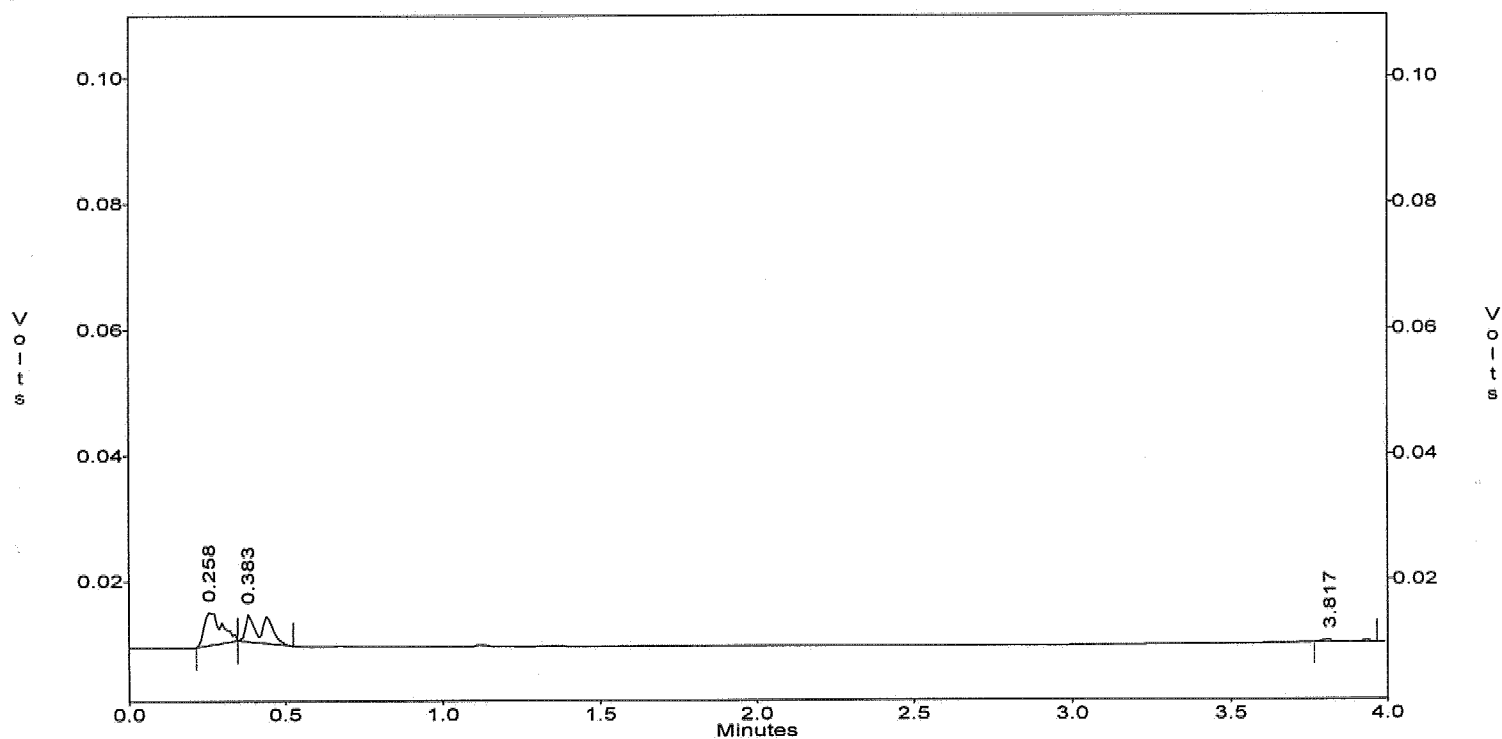
EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\Dd04\Dd04.009
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C238-04
Acquired : Apr 04, 2006 16:32:53
Printed : Apr 04, 2006 16:36:54
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
--	METHANOL	0.975	0	0.0	0.0
--	ETHANOL	1.167	0	0.0	0.0

c:\ezchrom\chrom\Dd04\Dd04.009 -- Channel A



METHOD M8015
ALCOHOLS BY GC

```

=====
Client      : ENSR                      Date Collected: 03/24/06
Project     : UPGRAIDENT INVESTIGATION, TRONOX Date Received: 03/25/06
Batch No.   : 06C238                   Date Extracted: 04/04/06 14:00
Sample ID: M116-0.5R                   Date Analyzed: 04/04/06 16:50
Lab Samp ID: C238-05                   Dilution Factor: 1
Lab File ID: DD04010A                  Matrix       : SOIL
Ext Btch ID: MED001S                   % Moisture    : 12.4
Calib. Ref.: DD04002A                  Instrument ID : GCT043
=====

```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
METHANOL	ND	1.1	.57
ETHANOL	ND	1.1	.57

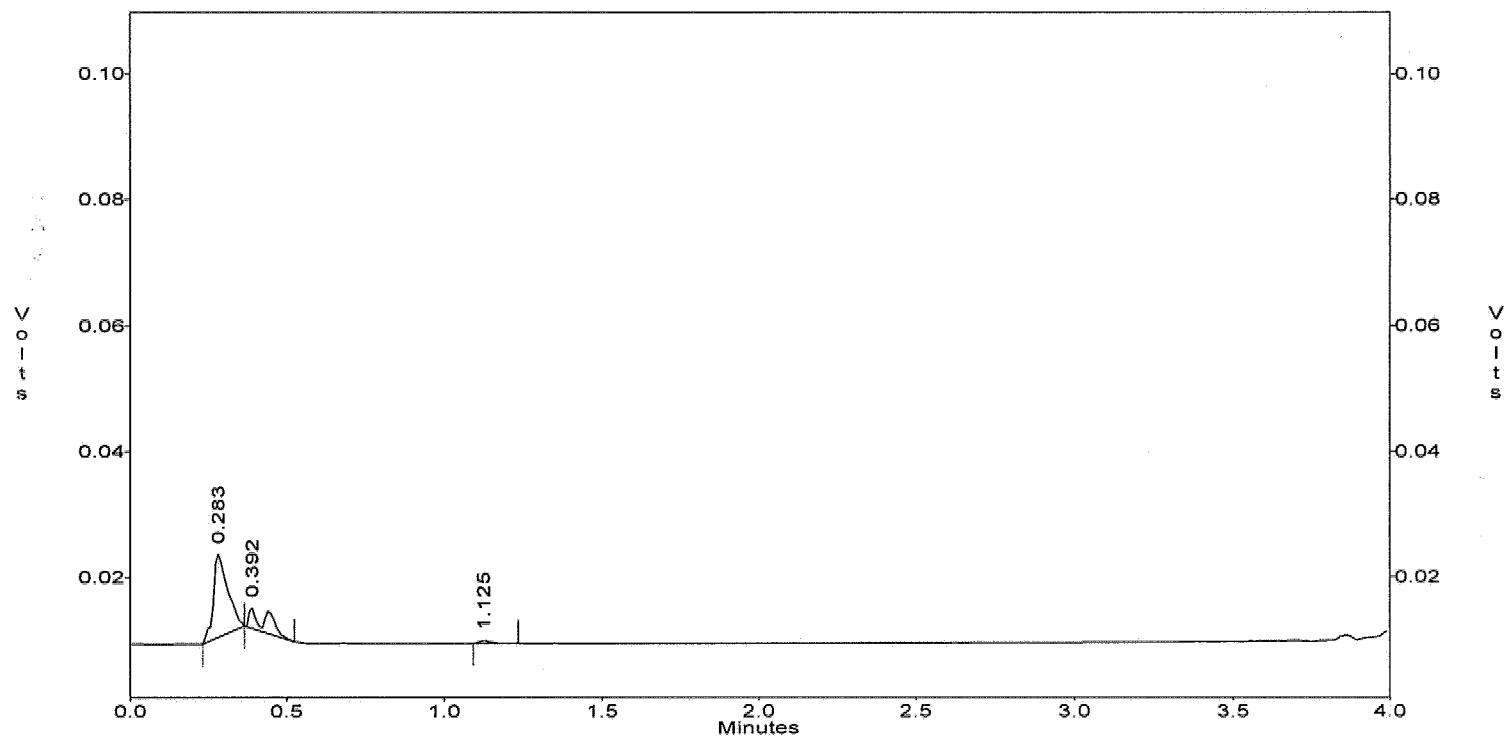
EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\Dd04\Dd04.010
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C238-05
Acquired : Apr 04, 2006 16:50:05
Printed : Apr 04, 2006 16:54:07
User : XUYEN

Channel A Results

#	Peak Name	Ret. Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
--	METHANOL	0.975	0	0.0	0.0
--	ETHANOL	1.167	0	0.0	0.0

c:\ezchrom\chrom\Dd04\Dd04.010 -- Channel A



METHOD M8015
ALCOHOLS BY GC

```

=====
Client      : ENSR                      Date Collected: 03/24/06
Project     : UPGRADIENT INVESTIGATION, TRONOX Date Received: 03/25/06
Batch No.   : 06C238                   Date Extracted: 03/27/06 16:52
Sample ID: TRIP BLANK                   Date Analyzed: 03/27/06 16:52
Lab Samp ID: C238-06                     Dilution Factor: 1
Lab File ID: DC27014A                     Matrix      : WATER
Ext Btch ID: MEC013W                       % Moisture   : NA
Calib. Ref.: DC27002A                     Instrument ID : GCT043
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
-----	-----	-----	-----
METHANOL	ND	1	.5
ETHANOL	ND	1	.5

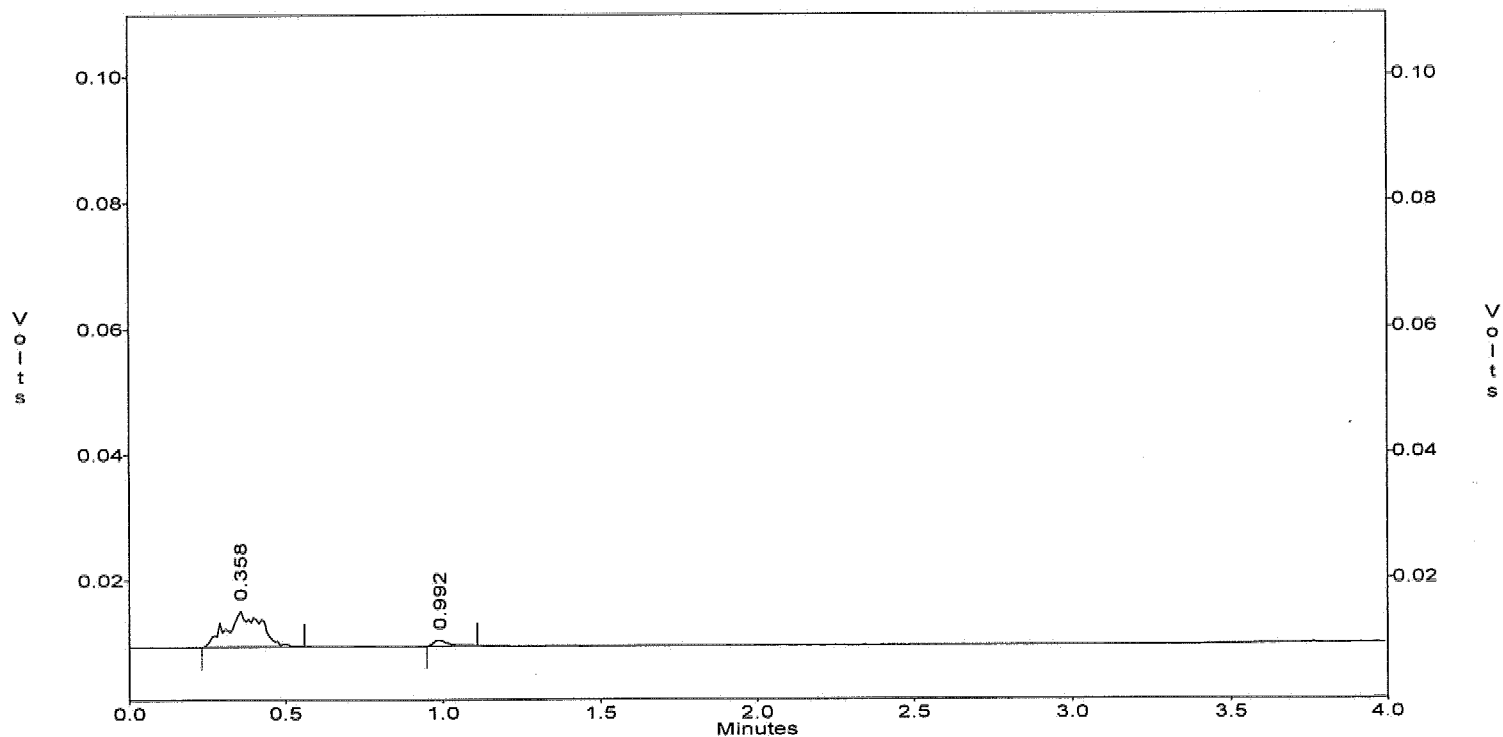
EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\Dc27.014
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C238-06
Acquired : Mar 27, 2006 16:52:37
Printed : Mar 27, 2006 16:56:39
User : LUCY

Channel A Results

#	Peak Name	Ret. Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
2	METHANOL	0.992	3062	9735.5	0.3
--	ETHANOL	1.192	0	0.0	0.0

c:\ezchrom\chrom\DC27\Dc27.014 -- Channel A



QC SUMMARIES

METHOD M8015
ALCOHOLS BY GC

```

=====
Client      : ENSR                      Date Collected: NA
Project     : UPGRADIENT INVESTIGATION, TRONOX Date Received: 03/27/06
Batch No.   : 06C238                   Date Extracted: 03/27/06 13:25
Sample ID   : MBLK1W                   Date Analyzed: 03/27/06 13:25
Lab Samp ID : MEC013WB                  Dilution Factor: 1
Lab File ID : DC27003A                  Matrix       : WATER ✓
Ext Btch ID : MEC013W                   % Moisture    : NA
Calib. Ref. : DC27002A                  Instrument ID : GCT043
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
-----	-----	-----	-----
METHANOL	ND	1	.5
ETHANOL	ND	1	.5

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADE INVESTIGATION, TRONOX
BATCH NO.: 06C238
METHOD: METHOD M8015

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: MEC013WB MEC013WL MEC013WC
LAB FILE ID: DC27003A DC27004A DC27005A
DATE EXTRACTED: 03/27/0613:25 03/27/0613:45 03/27/0614:03 DATE COLLECTED: NA
DATE ANALYZED: 03/27/0613:25 03/27/0613:45 03/27/0614:03 DATE RECEIVED: 03/27/06
PREP. BATCH: MEC013W MEC013W MEC013W
CALIB. REF: DC27002A DC27002A DC27002A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Methanol	ND	10	11.7	117	10	11.8	118	0	60-130	30
Ethanol	ND	10	10.3	103	10	10.3	103	0	60-130	30

METHOD M8015
ALCOHOLS BY GC

```

=====
Client      : ENSR                      Date Collected: NA
Project     : UPGRADIENT INVESTIGATION, TRONOX Date Received: 04/04/06
Batch No.   : 06C238                   Date Extracted: 04/04/06 14:00
Sample ID   : MBLK1S                    Date Analyzed: 04/04/06 14:55
Lab Samp ID: MED001SB                   Dilution Factor: 1
Lab File ID: DD04003A                   Matrix       : SOIL
Ext Btch ID: MED001S                     % Moisture    : NA
Calib. Ref.: DD04002A                   Instrument ID : GCT043
=====

```

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
-----	-----	-----	-----
METHANOL	ND	1	.5
ETHANOL	ND	1	.5

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C238
METHOD: METHOD M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: MED001SB MED001SL MED001SC
LAB FILE ID: DD04003A DD04004A DD04005A
DATE EXTRACTED: 04/04/0614:00 04/04/0614:00 04/04/0614:00 DATE COLLECTED: NA
DATE ANALYZED: 04/04/0614:55 04/04/0615:12 04/04/0615:28 DATE RECEIVED: 04/04/06
PREP. BATCH: MED001S MED001S MED001S
CALIB. REF: DD04002A DD04002A DD04002A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Methanol	ND	10	8.8	88	10	8.45	85	4	60-130	30
Ethanol	ND	10	8.78	88	10	8.8	88	0	60-130	30

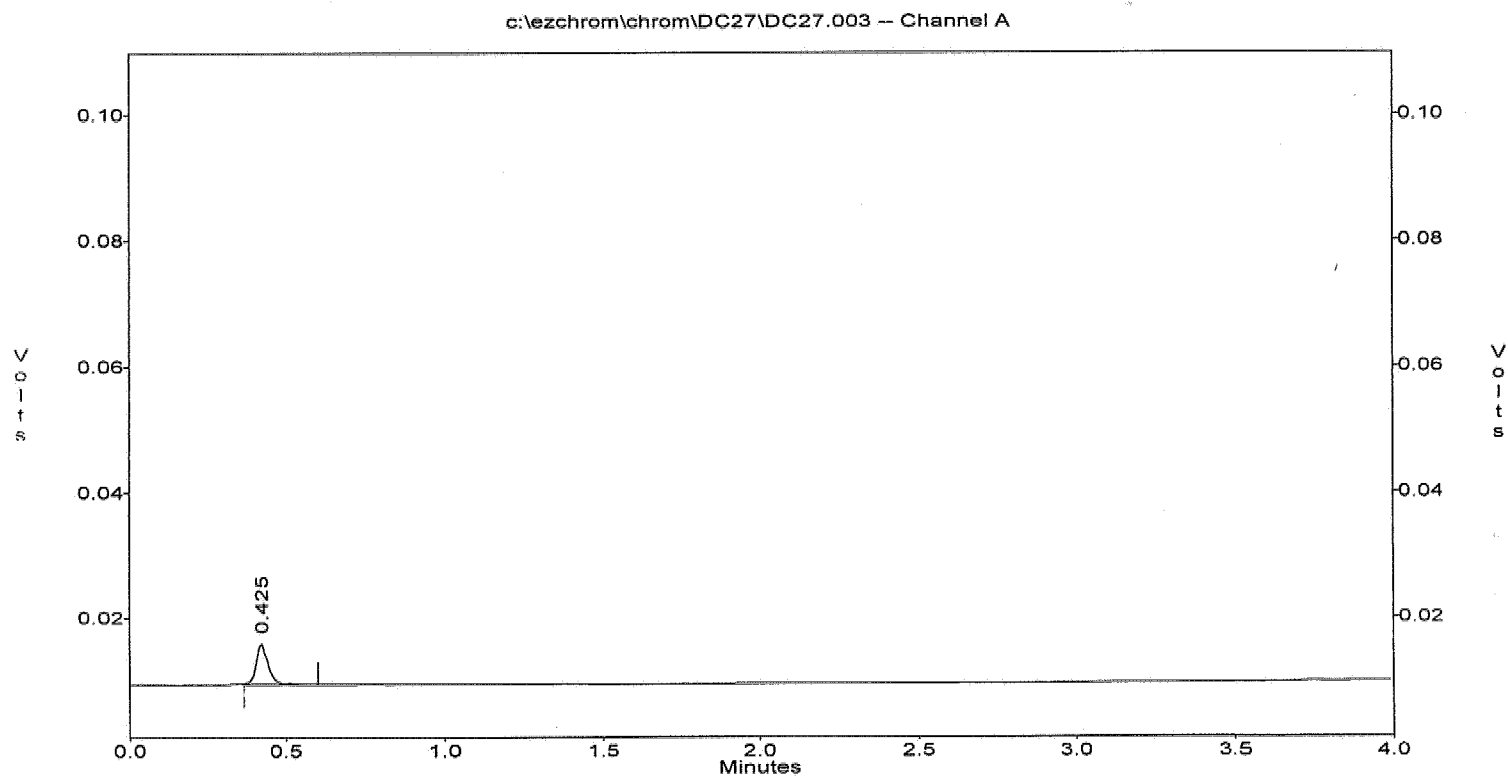
QC DATA

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\DC27.003
Method : c:\ezchrom\methods\me43c06.met
Sample ID : MEC013WB
Acquired : Mar 27, 2006 13:25:48
Printed : Mar 30, 2006 15:29:53
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	METHANOL	0.992	0	0.0	0.0
--	ETHANOL	1.192	0	0.0	0.0

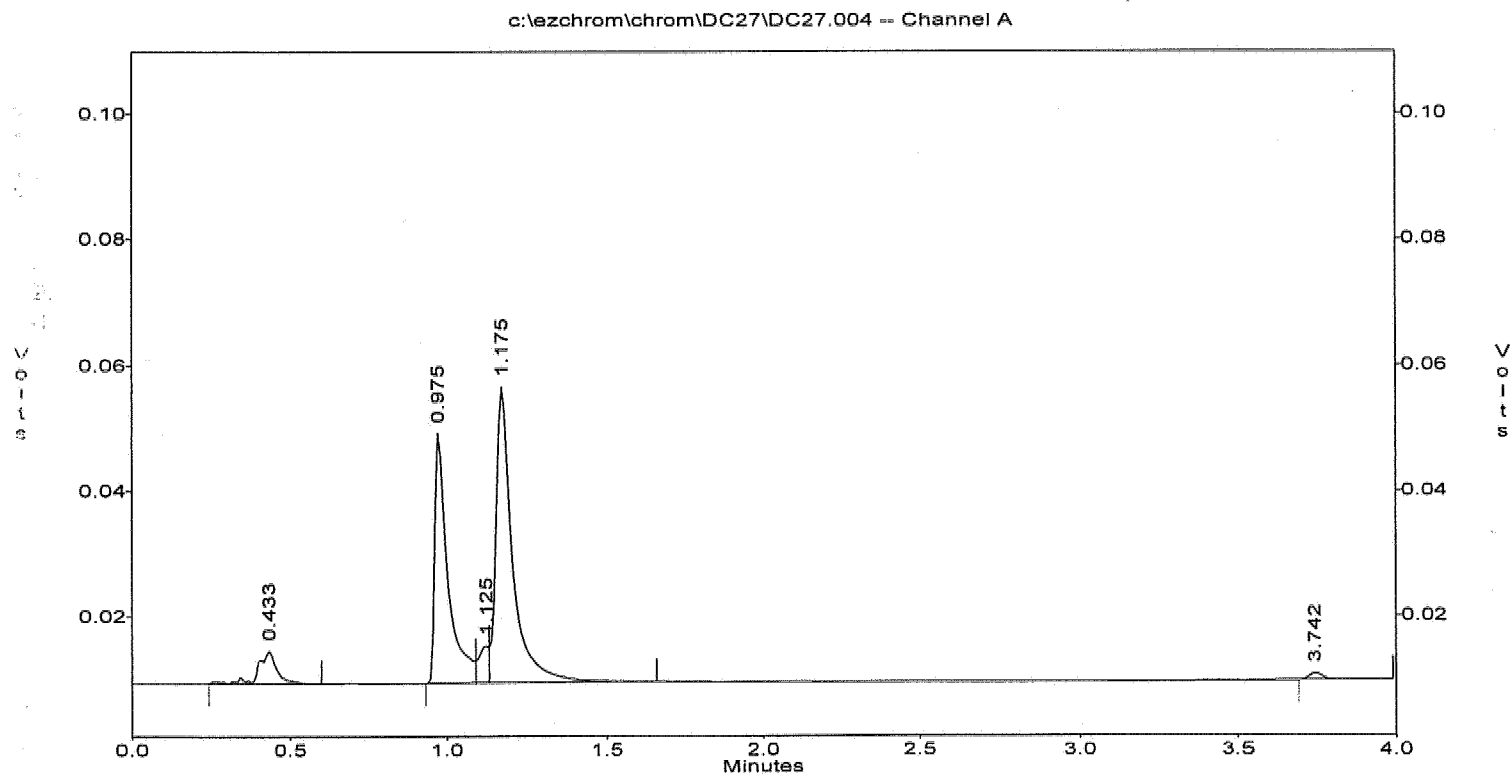


EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\DC27.004
Method : c:\ezchrom\methods\me43c06.met
Sample ID : MEC013WL
Acquired : Mar 27, 2006 13:45:29
Printed : Mar 30, 2006 15:29:54
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
2	METHANOL	0.975	114383	9735.5	11.7
4	ETHANOL	1.175	168013	16319.3	10.3

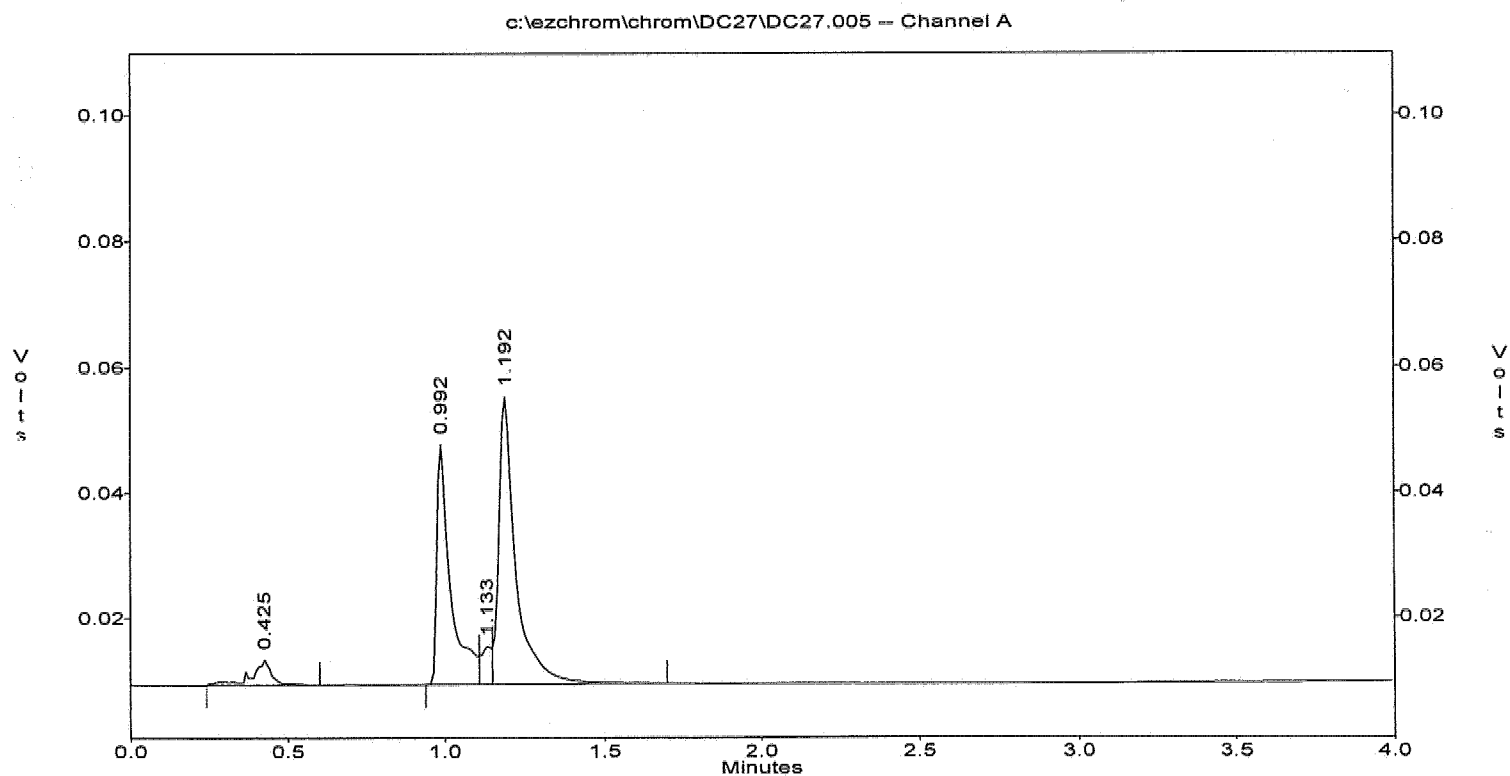


EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\DC27.005
Method : c:\ezchrom\methods\me43c06.met
Sample ID : MEC013WC
Acquired : Mar 27, 2006 14:03:06
Printed : Mar 30, 2006 15:29:55
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
2	METHANOL	0.992	114654	9735.5	11.8
4	ETHANOL	1.192	168449	16319.3	10.3



EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

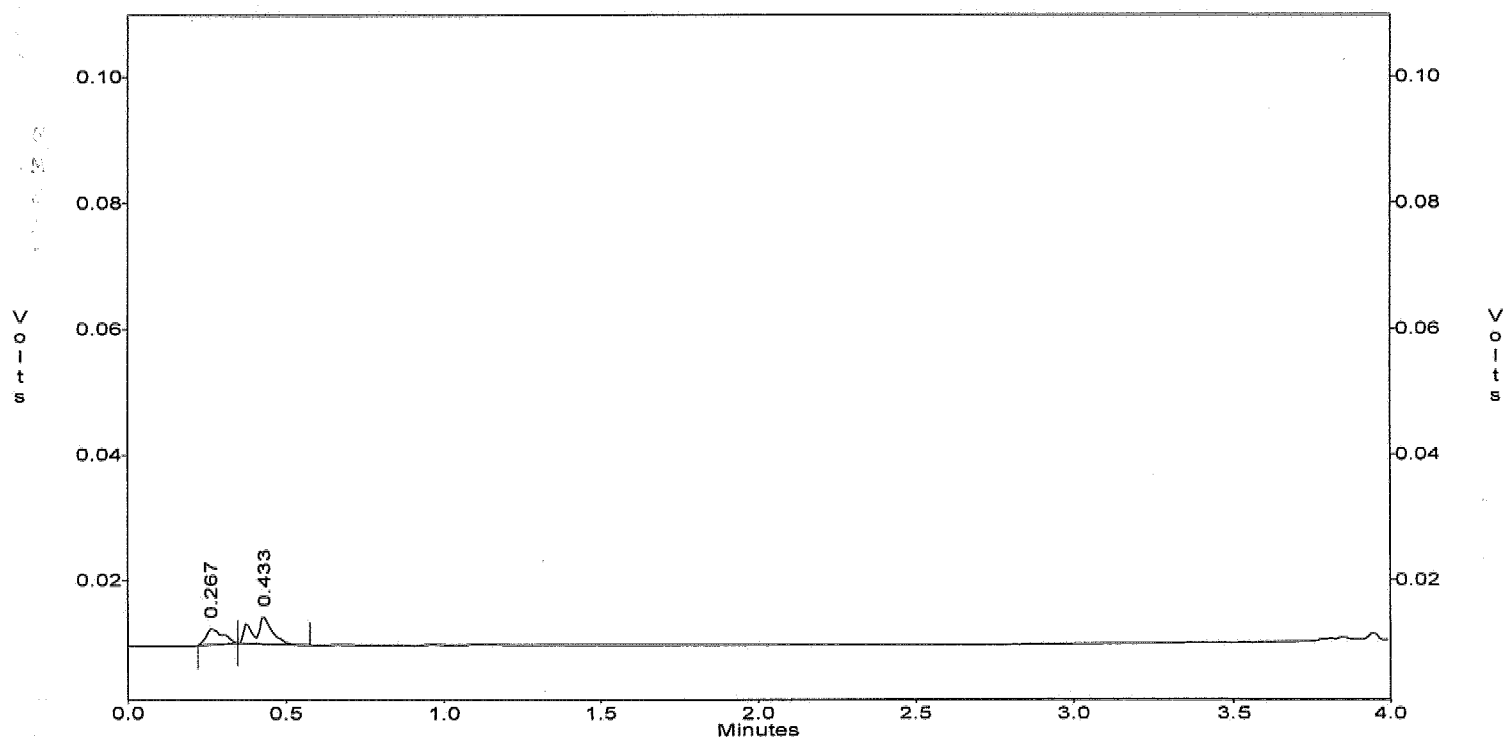
File : c:\ezchrom\chrom\Dd04\DD04.003
Method : c:\ezchrom\methods\me43c06.met
Sample ID : MED001SB
Acquired : Apr 04, 2006 14:55:02
Printed : Apr 04, 2006 15:05:19
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
--	METHANOL	0.992	0	0.0	0.0
--	ETHANOL	1.192	0	0.0	0.0

E
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I

c:\ezchrom\chrom\Dd04\DD04.003 -- Channel A

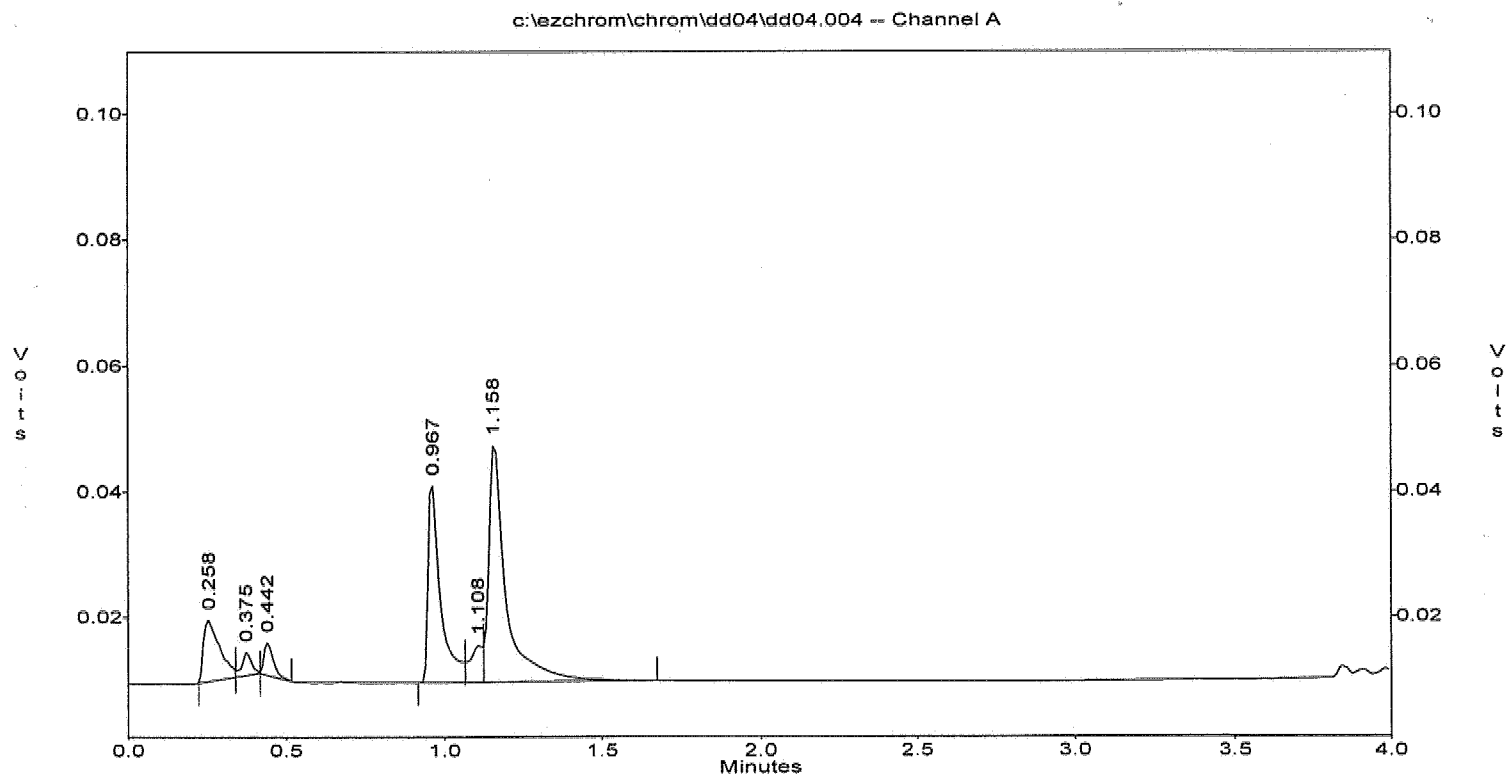


EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dd04\dd04.004
Method : c:\ezchrom\methods\me43c06.met
Sample ID : MED001SL
Acquired : Apr 04, 2006 15:12:28
Printed : Apr 04, 2006 15:20:35
User : XUYEN

Channel A Results

#	Peak Name	Ret. Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
4	METHANOL	0.967	85685	9735.5	8.8
6	ETHANOL	1.158	143290	16319.3	8.8

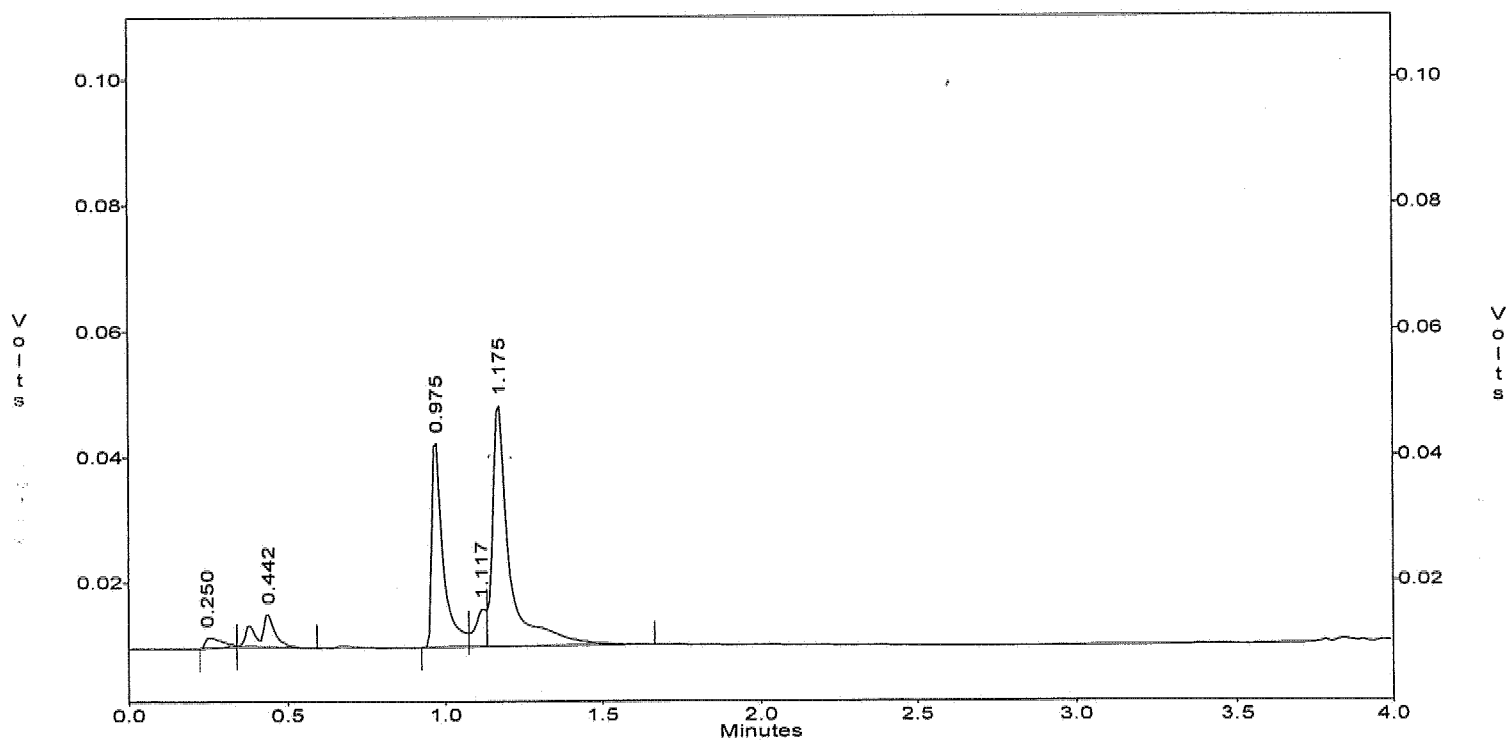


File : c:\ezchrom\chrom\Dd04\Dd04.005
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : MED001SC
Acquired : Apr 04, 2006 15:28:22
Printed : Apr 04, 2006 15:32:23
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
3	METHANOL	0.975	82285	9735.5	8.5
5	ETHANOL	1.175	143637	16319.3	8.8

c:\ezchrom\chrom\Dd04\Dd04.005 -- Channel A



INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT043
GC Column : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
LFID & Datetime: DC06002A 03/06/06 13:33 ✓
LFID & Datetime: DC06003A 03/06/06 13:53 ✓
LFID & Datetime: DC06004A 03/06/06 14:11 ✓
LFID & Datetime: DC06005A 03/06/06 14:29 ✓
LFID & Datetime: DC06006A 03/06/06 14:47 ✓
CONC UNIT: ppm

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT					MEAN	%RSD
		1.00X	5.00X	10.00X	15.00X	20.00X		
METHANOL	1.00	9358.00	9968.80	9945.50	9619.93	9785.45	9735.54	2.6
ETHANOL	1.00	14498	16802	17403	17481	15412	16319	8.0

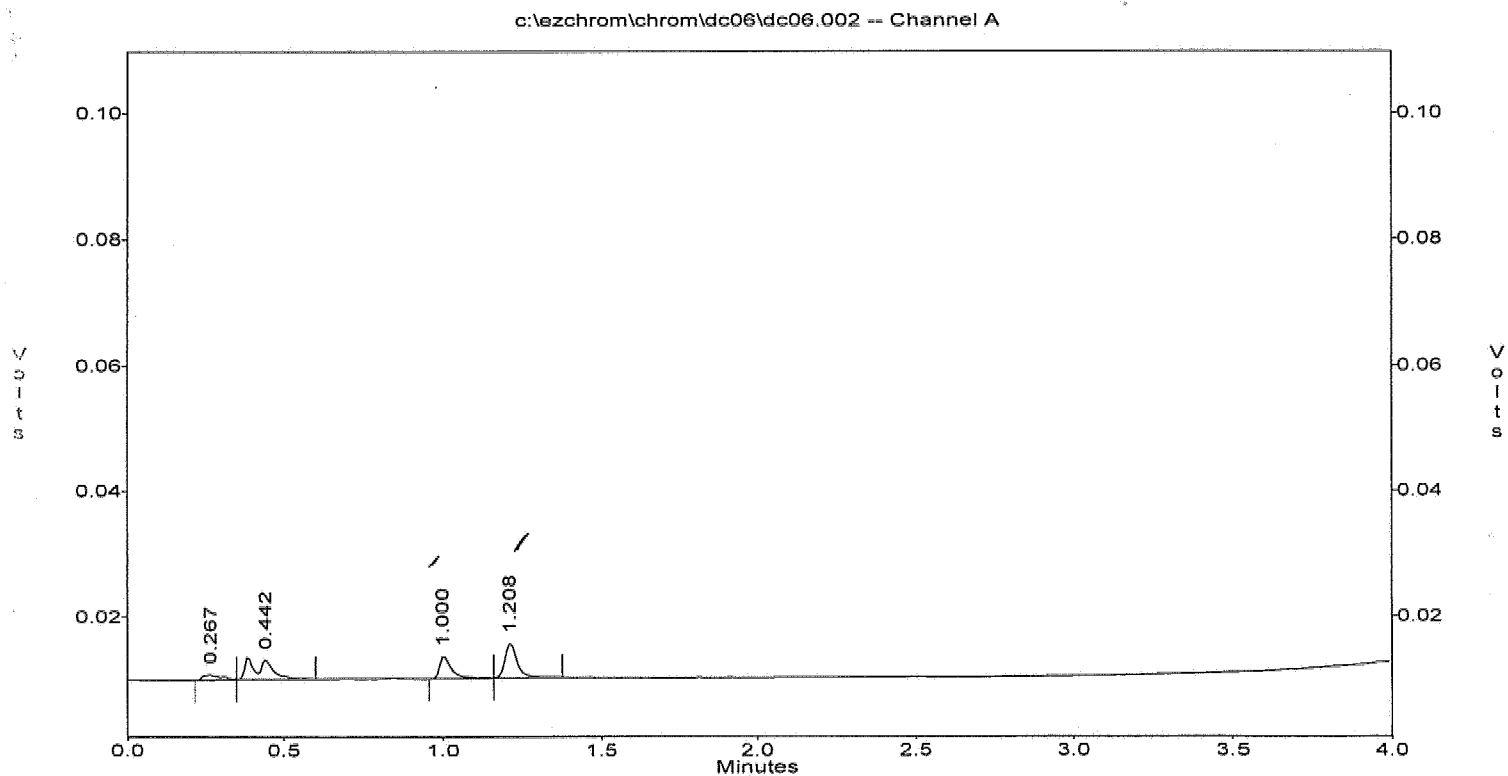
ME43C06.MET

RA
03/08/06

File : c:\ezchrom\chrom\dc06\dc06.002
Method : c:\ezchrom\methods\me43c06.met ✓
Sample ID : ME43C0601 1PPM
Acquired : Mar 06, 2006 13:33:28 ✓
Printed : Mar 06, 2006 15:11:10
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
3	METHANOL	1.000	9358	9735.5 ✓	1.0
4	ETHANOL	1.208	14498 ✓	16319.3 ✓	1.0



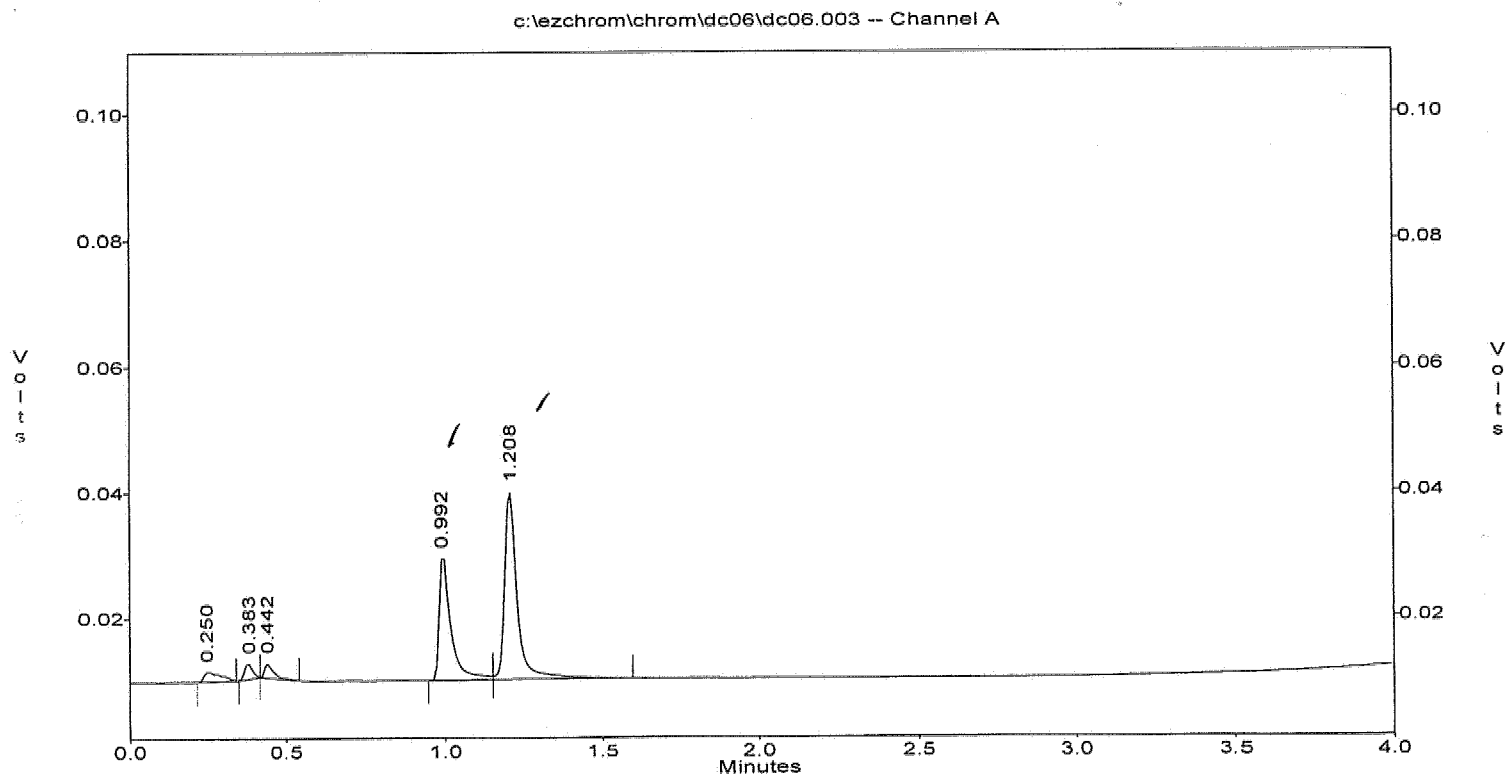
As
03/08/06
5030

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.003 ✓
Method : c:\ezchrom\methods\me43c06.met
Sample ID : ME43C0602 5PPM
Acquired : Mar 06, 2006 13:53:42 ✓
Printed : Mar 06, 2006 15:11:14
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
4	METHANOL	0.992	49844	9735.5	5.0
5	ETHANOL	1.208	84012 ✓	16319.3	5.0



MA
03/08/06
5031

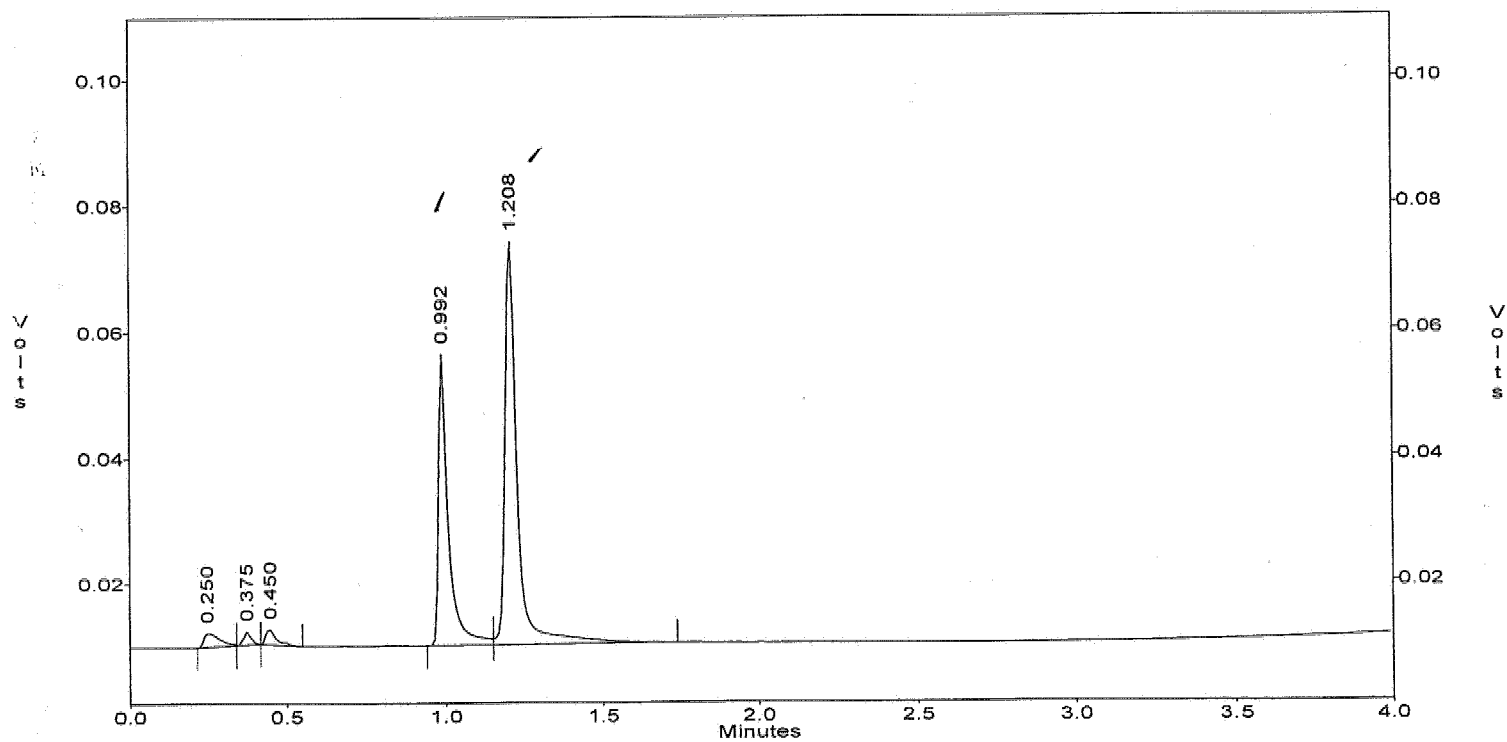
EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.004
Method : c:\ezchrom\methods\me43c06.met
Sample ID : ME43C0603 10PPM
Acquired : Mar 06, 2006 14:11:39
Printed : Mar 06, 2006 15:11:18
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
4	METHANOL	0.992	99455	9735.5	10.0
5	ETHANOL	1.208	174031	16319.3	10.0

c:\ezchrom\chrom\dc06\dc06.004 -- Channel A

RA
03/08/06

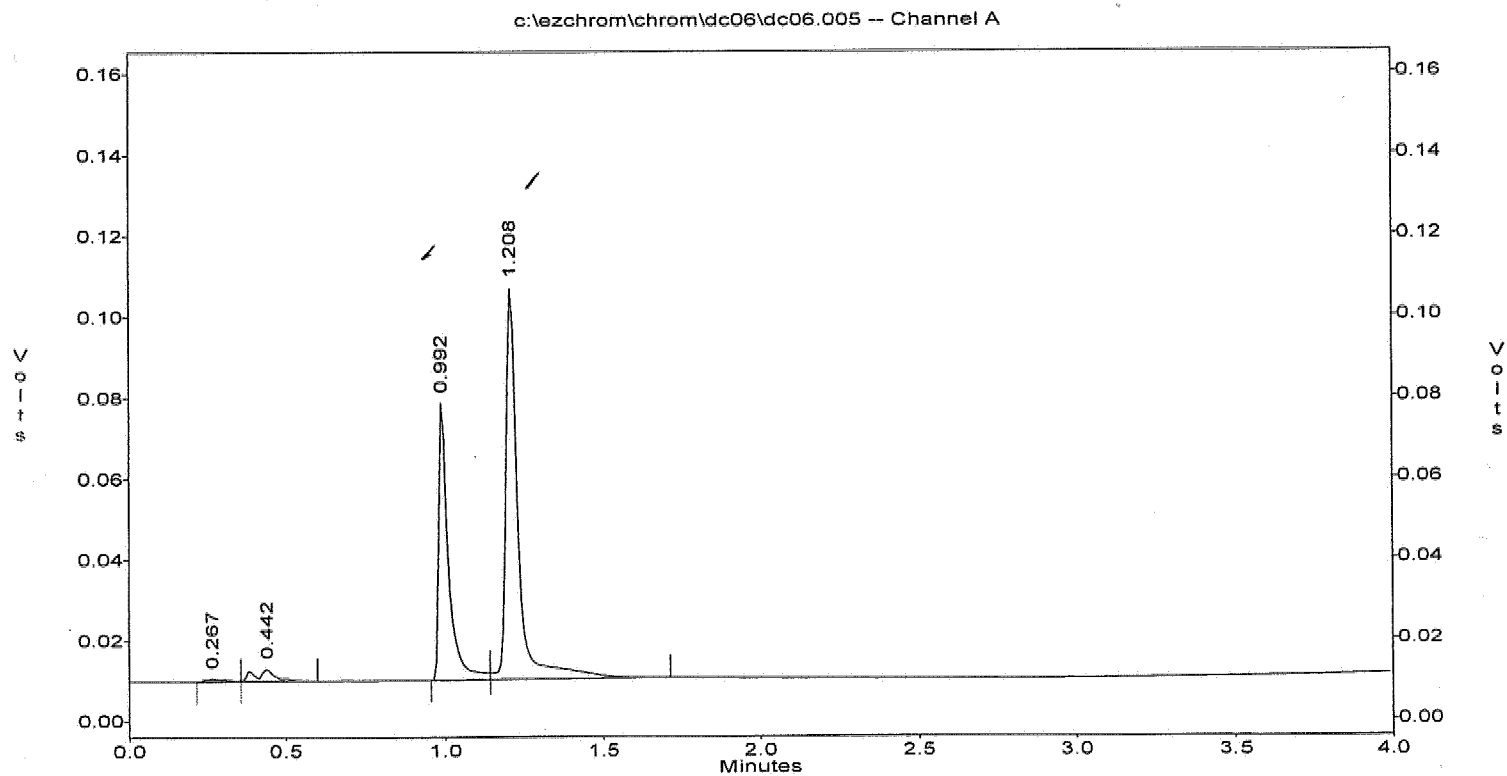
5032

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.005
Method : c:\ezchrom\methods\me43c06.met
Sample ID : ME43C0604 15PPM
Acquired : Mar 06, 2006 14:29:43
Printed : Mar 06, 2006 15:11:28
User : XUYEN

Channel A Results

#	Peak Name	Ret. Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
3	METHANOL	0.992	144299	9735.5	15.0
4	ETHANOL	1.208	262213	16319.3	15.0

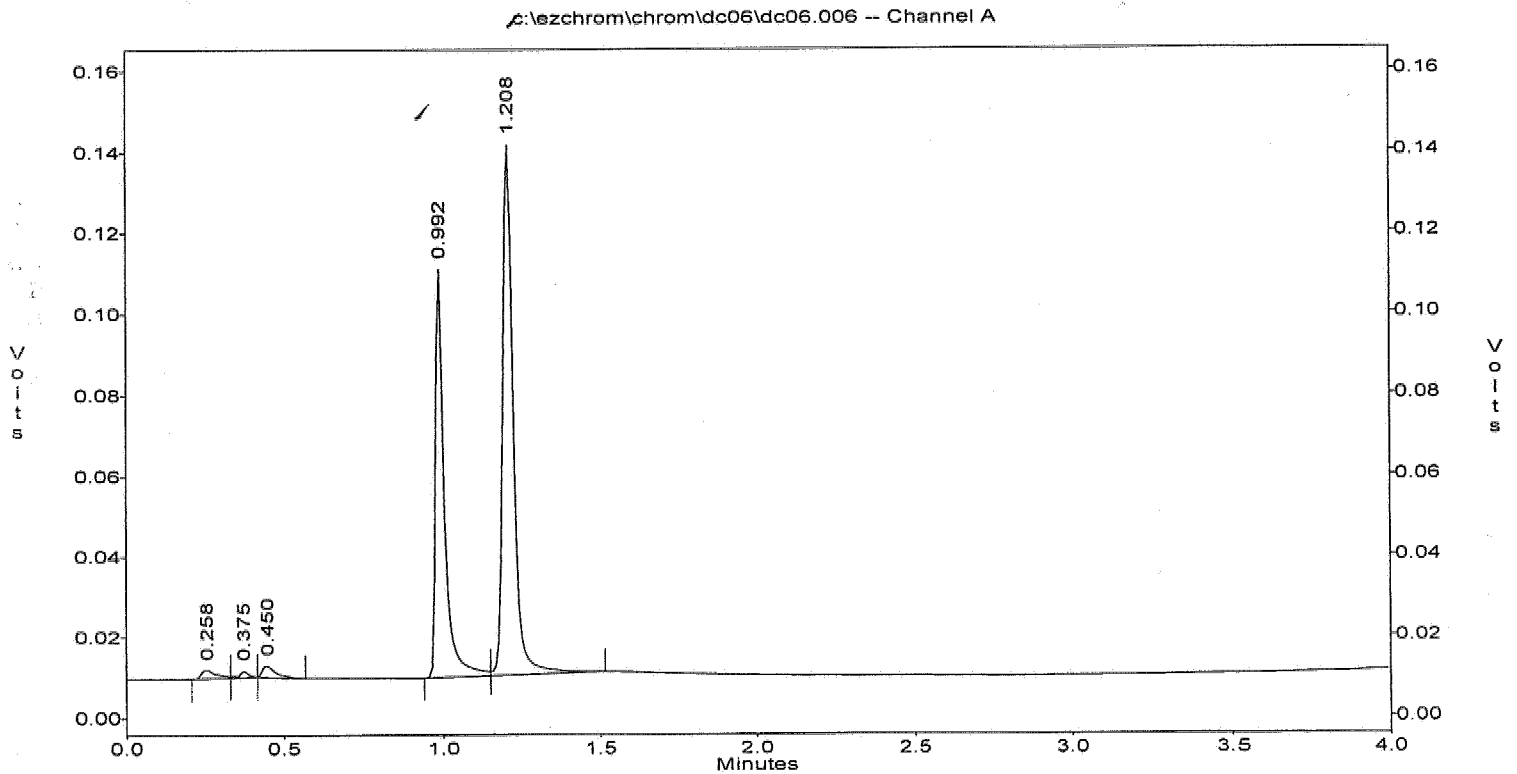


At
03/08/06
5033

File : c:\ezchrom\chrom\dc06\dc06.006
Method : c:\ezchrom\methods\me43c06.met
Sample ID : ME43C0605 20PPM
Acquired : Mar 06, 2006 14:47:41
Printed : Mar 06, 2006 15:11:33
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
4	METHANOL	0.992	195709	9735.5	20.0
5	ETHANOL	1.208	308245	16319.3	20.0



At
03/08/06
5034

SECOND SOURCE

INITIAL CALIBRATION VERIFICATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCT043
GC Column : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC06004A 03/06/2006 14:11
Conc Cont LFID & Datetime: DC06007A 03/06/2006 15:04
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
		FROM	TO			AREA	CONC			
METHANOL	1.008	0.982	1.034	10.0	9735.5	103117	10.59	6		15
ETHANOL	1.225	1.196	1.254	10.0	16319.3	164274	10.07	1		15

ME43C06.MET

03/08/07
5036

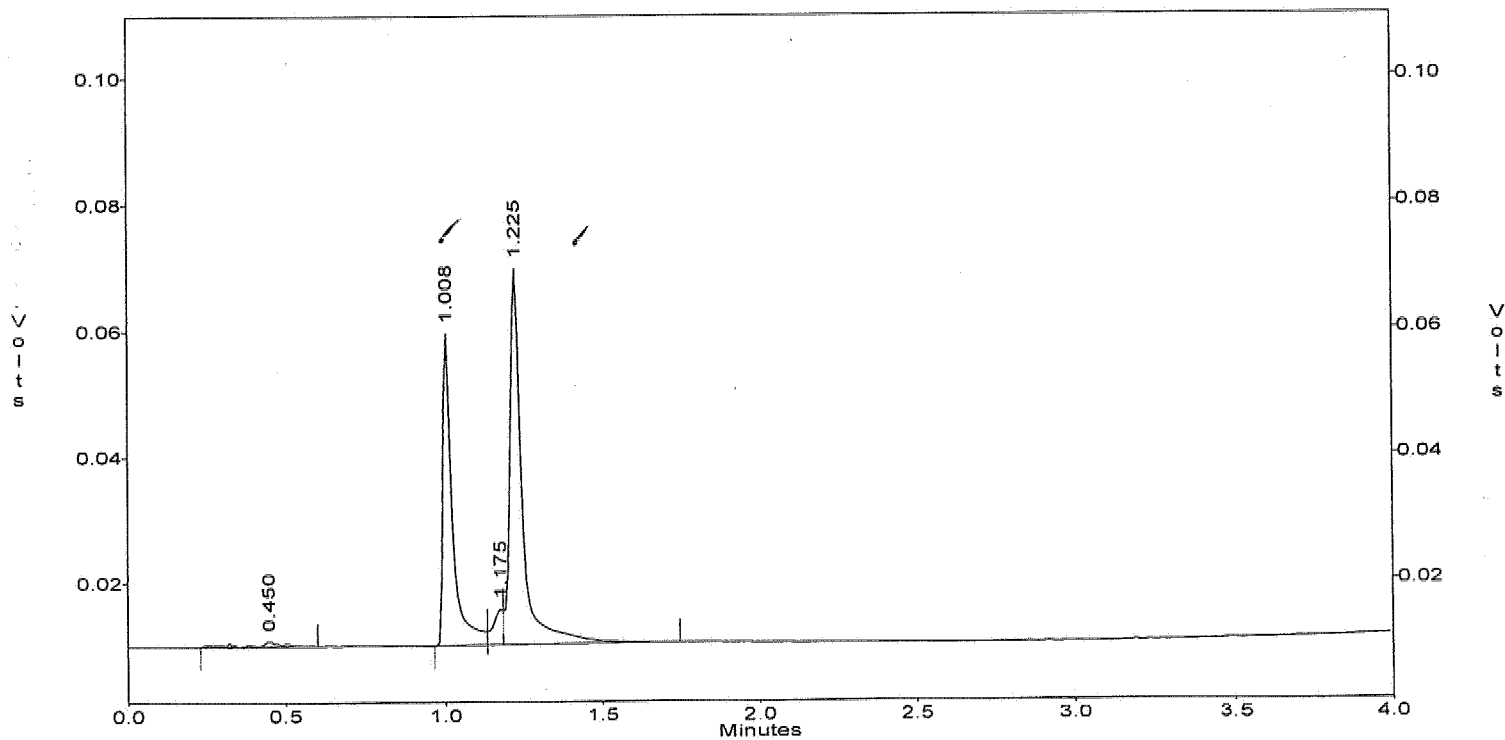
EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.007
Method : c:\ezchrom\methods\me43c06.met
Sample ID : IME43C0601 10PPM
Acquired : Mar 06, 2006 15:04:40
Printed : Mar 06, 2006 15:11:45
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
2	METHANOL	1.008	103117	9735.5	10.6
4	ETHANOL	1.225	164274	16319.3	10.1

c:\ezchrom\chrom\dc06\dc06.007 -- Channel A



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03/08/06
5037

DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCT043
GC Column : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC06004A 03/06/2006 14:11
Conc Cont LFID & Datetime: DC27002A 03/27/2006 13:05
CONC UNIT : ppm

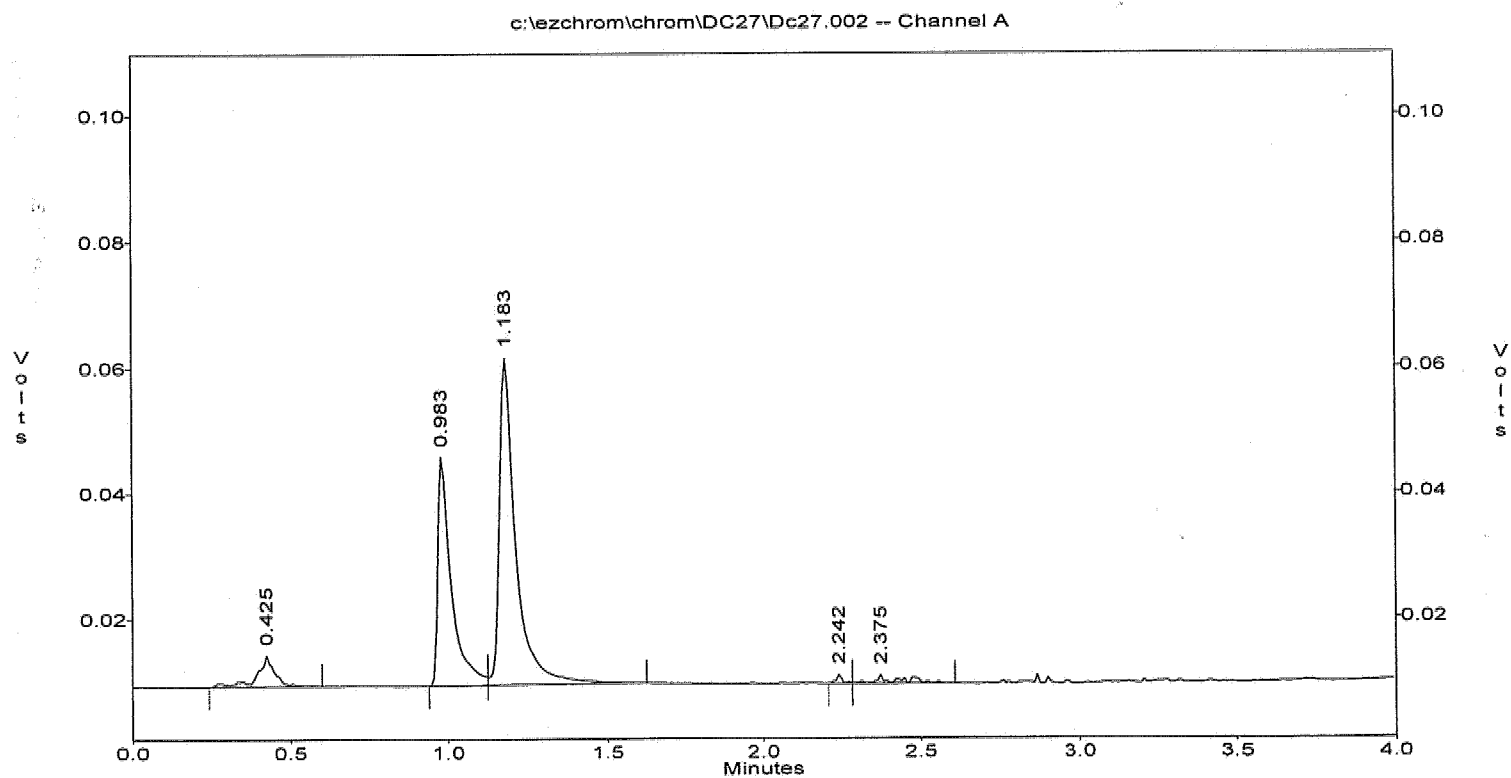
COMPOUND	RT MINUTES	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
		FROM	TO			AREA	CONC			
METHANOL	0.983	0.957	1.009	10.0	9735.5	106669	10.96	10		15
ETHANOL	1.183	1.154	1.212	10.0	16319.3	184262	11.29	13		15

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\Dc27.002
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : CME43C06057
Acquired : Mar 27, 2006 13:05:20
Printed : Mar 27, 2006 13:09:22
User : LUCY

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
2	METHANOL	0.983	106669	9735.5	11.0
3	ETHANOL	1.183	184262	16319.3	11.3



CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCT043
GC Column : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC06004A 03/06/2006 14:11
Conc Cont LFID & Datetime: DC27016A 03/27/2006 17:33
CONC UNIT : ppm

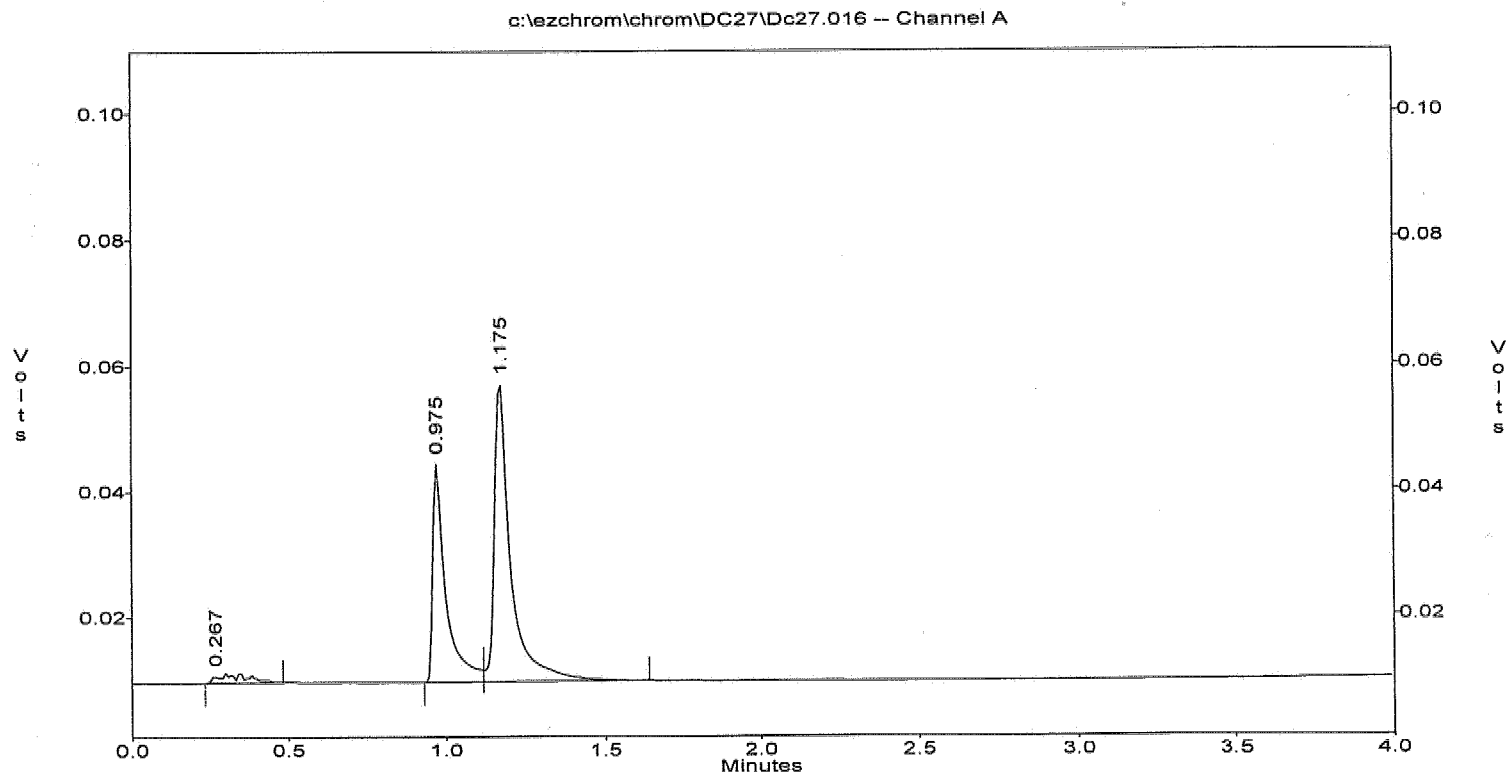
COMPOUND	RT MINUTES	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
		FROM	TO			AREA	CONC			
METHANOL	0.975	0.949	1.001	10.0	9735.5	96317	9.89	-1		15
ETHANOL	1.175	1.146	1.204	10.0	16319.3	169634	10.40	4		15

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\Dc27.016
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : CME43C06058
Acquired : Mar 27, 2006 17:33:39
Printed : Mar 27, 2006 17:37:41
User : LUCY

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
2	METHANOL	0.975	96317	9735.5	9.9
3	ETHANOL	1.175	169634	16319.3	10.4



CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCT043
GC Column : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC06004A 03/06/2006 14:11
Conc Cont LFID & Datetime: DD04002A 04/04/2006 14:34
CONC UNIT : ppm

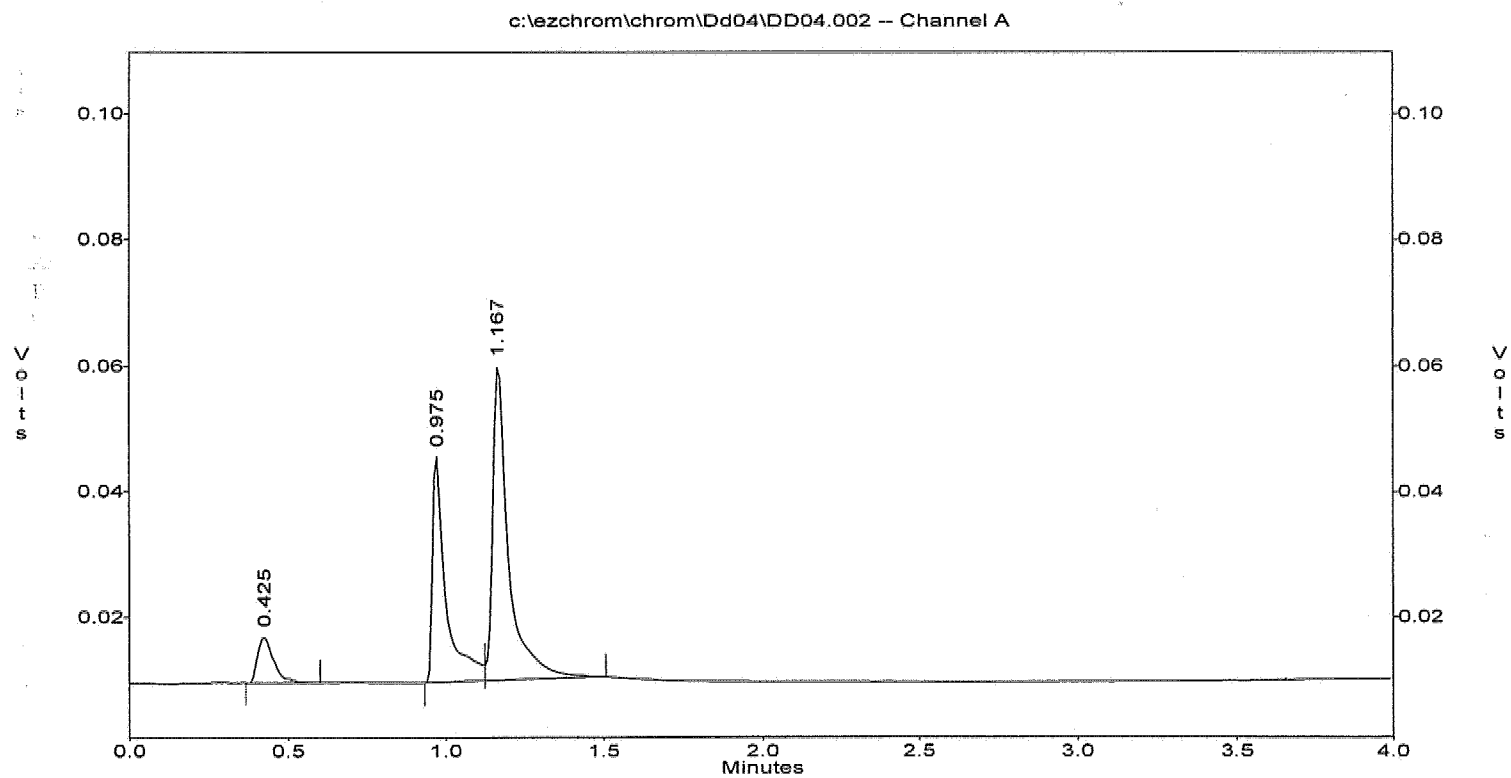
COMPOUND	RT MINUTES	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
		FROM	TO			AREA	CONC			
METHANOL	0.975	0.949	1.001	10.0	9735.5	105247	10.81	8		15
ETHANOL	1.167	1.138	1.196	10.0	16319.3	173754	10.65	6		15

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\Dd04\DD04.002
Method : c:\ezchrom\methods\me43c06.met
Sample ID : CME43C06061 10PPM
Acquired : Apr 04, 2006 14:34:46
Printed : Apr 04, 2006 17:55:16
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
2	METHANOL	0.975	105247	9735.5	10.8
3	ETHANOL	1.167	173754	16319.3	10.6



CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCT043
GC Column : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC06004A 03/06/2006 14:11
Conc Cont LFID & Datetime: DD04014A 04/04/2006 17:58
CONC UNIT : ppm

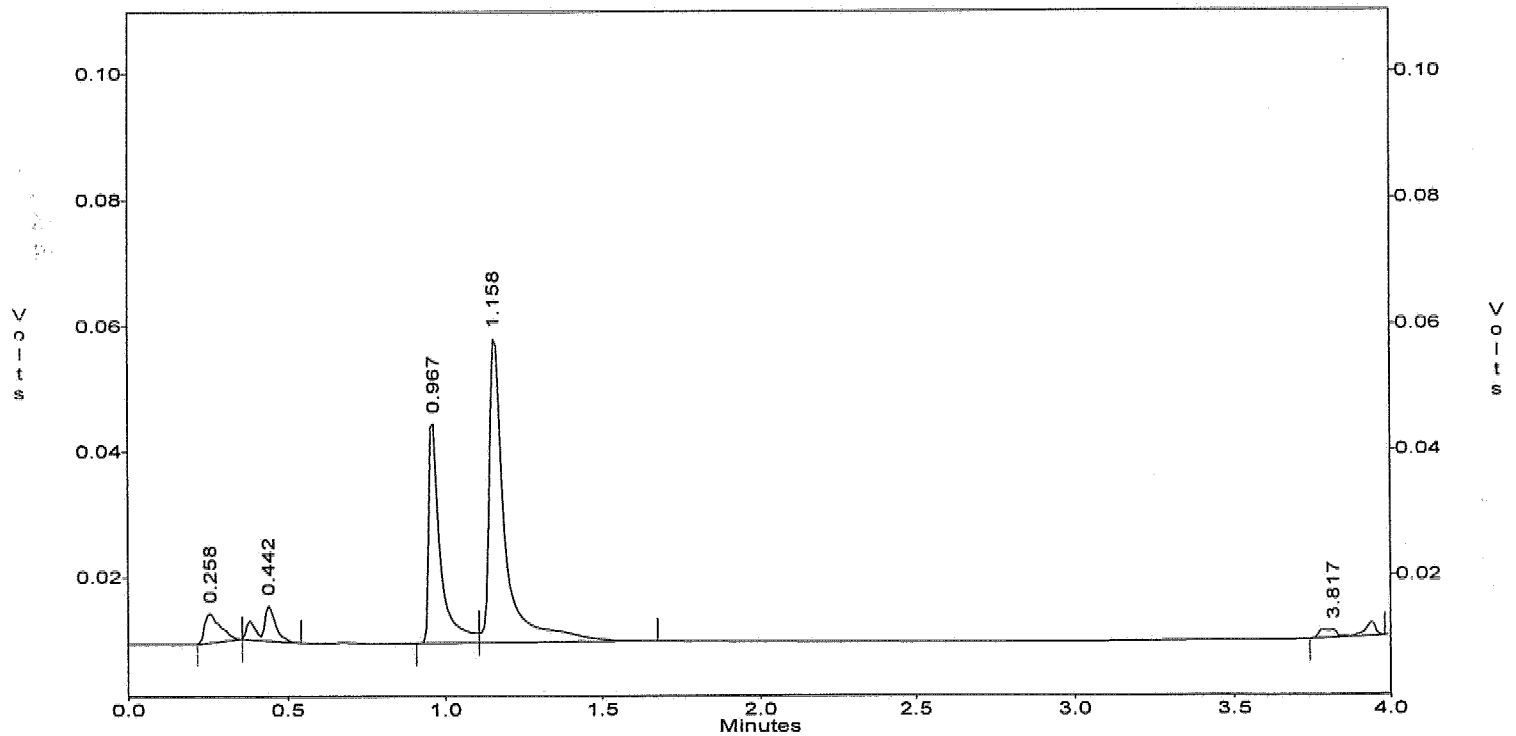
COMPOUND	RT MINUTES	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
		FROM	TO			AREA	CONC			
METHANOL	0.967	0.941	0.993	10.0	9735.5	89891	9.23	-8		15
ETHANOL	1.158	1.129	1.187	10.0	16319.3	168254	10.31	3		15

File : c:\ezchrom\chrom\Dd04\DD04.014
Method : c:\ezchrom\methods\me43c06.met
Sample ID : CME43C06062 10PPM
Acquired : Apr 04, 2006 17:58:42
Printed : Apr 04, 2006 18:04:59
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time (min)	Area	Ave. CF	ESTD Conc. (ppm)
3	METHANOL	0.967	89891	9735.5	9.2
4	ETHANOL	1.158	168254	16319.3	10.3

c:\ezchrom\chrom\Dd04\DD04.014 -- Channel A



ANALYTICAL LOGS

SOP ☐ EMAX-M8015D Revision No. 3 ☐ EMAX-LUFTE Revision No. 3 ☒ Alcohols

Book # A43-012

Time: 17141

Ending Date: 3/6/06

Time: 1313

3/6/03

[illegible]

Instrument No:		43	
INITIAL CALIBRATION REFERENCE			
	ID	Date	
Diesel			
Motor oil			
JP 5			
Alcohols	MEY 3 COT	3/6/07	
Standards			
Name	ID	Conc. (mg/L)	
CH ₂ Cl ₂		—	
BP 545 (06)		—	
BP 545 (06)	SS3C-07-11-1	1-200ppm	
LES-ICV	SS3C-07-11-2	10ppm	
DEC	SS3C-07-10-2	100	
UCS	SS3C-07-10-3	↓	
Electronic Data Archival			
Location		Date	
□ E2C 2 Diesel			
□			

Comments:

Analyzed By: xf

Disposed on: 3/6/06 By: XP

This page is checked during the data review process.

ANALYSIS RUN LOG FOR TPH

Book # A43-012

SOP □ EMAX-M8015D Revision No. 3 □ EMAX-LUFTE Revision No. 3

Methanol/Ethanol

Time: 17:58

Ending Date: 4/4/06

Starting Date: 4/4/06

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix		Notes
				S	W	
	DD04-001	I1843C061	2			
MED001S	2	CME43C06061	1	✓		10 ppm
	3	MED0015B				
	4	L				
	5	C				
	6	06C238-01				
	7	02				
	8	03				
	9	04				
	10	05				
	11	06D012-01				
	12	02				
	13	CONTROL SAND				
	14	CME43C06062	2			10 ppm
	15					

Instrument No: 43		INITIAL CALIBRATION REFERENCE	
Diesel	ID	Date	
Motor oil			
JP 5			
Alcohols	ME43C06	3/6/06	

Standards		Conc. (mg/L)
Name	ID	
CH ₂ Cl ₂		
DCC	9832C-07-10-2	100
LCS		
H ₂ O	organic free	

Electronic Data Archival		Date
Location		
□ E2C 2 Diesel		
□		

Comments:

Analyzed By: XP

Disposed on:

By:

This page is checked during the data review process.

ANALYTICAL BATCH DD04002

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

5050

EXTRACTION LOGS

EXTRACTION LOG FOR SPECIAL TEST

SOP ☐ EMAX-8015M ☒ Methanol/Ethanol XP 4/14/02 Book # EST-001

Matrix Soil 4/13/02 Start Date 4/13/02 Time 14:00 End Date 4/14/02 Time 14:00

Sample Prep ID	Lab Sample ID	Sample Amount, (g/ml)	Extract Volume, (ml)	pH	Notes	Standards	ID	Amount Added (ul)
01	ME43000	VOID				LCS/MS	953C-07-14-2	100
02	MED0015B	10	10	NA			(1000 ppm)	
03	L					Reagent	Lot# / ID	
04	C					H ₂ O	organic free	
05	06C238-01					Blank Sand	SWIA-03-133	
06	02							
07	03							
08	04							
09	05							
10	06D012-01							
11	02					SDG #	Extract Location	
12	CONTROL SAND							
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

Comments:

Prepared By: XP

Standard Added By: XP

PREPARATION BATCH * MED0015