FILE COPY

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Type I Data Package

Prepared for:

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

CHECKED FOR COMPLETENESS OF PARAMETERS ORDERED BY:
4/29/2011

Project: Olin Wilmington, MA Superfund Site/6107090016
Water Samples
Collected on 12/01/10-12/03/10

SDG# OLN50

GROUP	SAMPLE NUMBERS
1223807	6155345-6155355
1223900	6155978-6155980

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Luz C Torres
Luz C Torres
Group Leader

Date 12/30/10

Any questions or concerns you might have regarding this data package should be directed to your client representative, Nicole Maljovec at Ext. 1537.

Total Number of Pages 228

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Sample Reference List for SDG Number OLN50 with a Data Package Type of I

12670 - Olin Corporation

Project: Olin Wilmington, MA Superfund Site/6107090016

Lab Sample Number	Lab Sample Code	Client Sample Description
6155345	MSD11	OC-SW-MMB-SW/SD-11-XXX Grab Water
6155346	MSD8A	OC-SW-MMB-SW/SD-8A-XXX Grab Water
6155347	MSD10	OC-SW-MMB-SW/SD-10-XXX Grab Water
6155348	MSD01	OC-SW-MMB-SW/SD-1-XXX Grab Water
6155349	MSD04	OC-SW-MMB-SW/SD-4-XXX Grab Water
6155350	MSD05	OC-SW-MMB-SW/SD-5-XXX Grab Water
6155351	MSD8D	OC-SW-MMB-SW/SD-8-DUP Grab Water
6155352	MSD08	OC-SW-MMB-SW/SD-8-XXX Grab Water
6155353	MSD08	OC-SW-MMB-SW/SD-8-XMS Grab Water
6155354	MSD08	OC-SW-MMB-SW/SD-8-MSD Grab Water
6155355	MSD09	OC-SW-MMB-SW/SD-9-XXX Grab Water
6155978	SW-2-	OC-SW-MMB-SW/SD-2-XXX Grab Water
6155979	SW-3-	OC-SW-MMB-SW/SD-3-XXX Grab Water
6155980	SW-6-	OC-SW-MMB-SW/SD-6-XXX Grab Water

Thursday Shipment — Lancaster Surface water — Page 1 of 3

Client:	Olin Corporation	Client Project #:	6107090016
Address:	3855 North Ocoee St. Suite 200 Cleveland, TN 37312	Work Site ID:	Wilmington, MA
		Reports Sent To:	Steve Morrow
Phone:	423-336-4511	Fax:	423-336-1466
Email	SGMorrow@olin.com	Email Rpt:	

Requested Turnaround Time (SPECIFY): Standard ____ Rush ____ (Lab Approval Required)

Regulatory Programs: MADEP MCP ____ Superfund ____

Report Requirements: Level IV Package ____ Level II Package ____

EDD Requirements: MACTEC EQUIS EZ EDD ____

INVOICE INFO — Shaded Areas for office use only

Company Name: Olin Corp 12670 1223807 6155345-55

Company Contact: ERG Accounts Payable

Address: Same as Client

Phone: Email

Job # ____ Quote # ____

Lab SDG # ____ PO # ____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	NDMA/NDPA (Mod 521) - AG	Alkylphenols (WS-MS-0010)* - SA AG	Cr+6 (3060A / 7199) - G	DMF (Mod 8033 - GC/NPD) - V	Phthalic Anhydride (acid) (Mod 8000 - HPLC)* - AG	Formaldehyde/Acetaldehyde (SW-846 8315A)* - AG	Opex / Kempore (8000B - HPLC) - P V	Perchlorate (6850) - V	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) - Zn AV	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD) - G	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) - AG				
OC-SW-MMB-SW/SD-11-XXX	12/2/2010 3:30:00 PM	T	FS	SW	G	2									X							
OC-SW-MMB-SW/SD-8A-XXX	12/2/2010 3:00:00 PM	T	FS	SW	G	2									X							

<--Preservative Type (4)
<--Bottle Type (5)

Comments (Special Instructions)

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved S = SPLP C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product O = Oil

4.) Preservation Type: HA = Hydrochloric Acid NI = Nitric Acid, SA = Sulfuric Acid SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cr+6 = 24 hour hold time

Formaldehyde = 3 day hold time

Relinquished: [signature] Date: 12/2/10 Time: 1700 Received: ____ Date: __/__/__ Time: ____

Relinquished: ____ Date: __/__/__ Time: ____ Received: [signature] Date: 12/3/10 Time: 910

Cooler Y N — MADEP Requirement: Samples Iced? Y / N

Temp @ receipt: 4.5 Deg C

Preservation / pH checked? Y / N

By: ____ Date: ____

Thursday shipment Dec 2 Lancaster Surface Water

Client: Olin Corporation
Address: 3855 North Ocoee St. Suite 200
Cleveland, TN 37312
Phone: 423-336-4511 Fax: 423-336-1466 Email SGMorrow@olin.com Email Rpt:

Client Project #: 6107090016
Work Site ID: Wilmington, MA
Reports Sent To: Steve Morrow

Requested Turnaround Time (SPECIFY): Standard_____ Rush_____ (Lab Approval Required)

Regulatory Programs: MADEP MCP____ Superfund ____
Report Requirements Level IV Package ____ Level II Package ____
EDD Requirements: MACTEC EQUIS EZ EDD _____

INVOICE INFO — Shaded Areas for office use only
Company Name: Olin Corp 12670 1223807 6155345-55
Company Contact: ERG Accounts Payable
Address: Same as Client
Phone: Email
Job # _____ Quote # _____
Lab SDG # _____ PO # _____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	NDMA/NDPA (Mod 521) - AG	Alkylphenols (WS-MS-0010)* SA AG	Cr+6 (3060A / 7199) - G	DMF (Mod 8033 - GC/NPD) - V	Phthalic Anhydride (acid) (Mod 8000 - HPLC)* - AG	Formaldehyde/Acetaldehyde (SW-846 8315A)* - AG	Dpex / Kempore (8000B - HPLC) - P	Perchlorate (6850) - V	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) - V AV	Cr+6 (7199) - G	DMF (Mod 8033 - GC/NPD) - G	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) - AG	Comments (Special Instructions)
OC-SW-MMB-SW/SD-10-XXX	12/2/2010 9:00:00 AM	T	FS	SW	G	2									X				
OC-SW-MMB-SW/SD-1-XXX	12/1/2010 2:40:00 PM	T	FS	SW	G	2									X				
OC-SW-MMB-SW/SD-4-XXX	12/2/2010 10:00:00	T	FS	SW	G	2									X				
OC-SW-MMB-SW/SD-5-XXX	12/2/2010 1:15:00 PM	T	FS	SW	G	4								X	X				
OC-SW-MMB-SW/SD-8-DUP	12/2/2010 1:00:00 PM	T	FD	SW	G	2									X				
OC-SW-MMB-SW/SD-8-MSD	12/2/2010 1:00:00 PM	T	MSD	SW	G	2									X				Matrix Spike Duplicate
OC-SW-MMB-SW/SD-8-XMS	12/2/2010 1:00:00 PM	T	MS	SW	G	2									X				Matrix Spike

<--Preservative Type (4)
<--Bottle Type (5)

Special Instructions For Lab

Notes:
1.) Fraction T = Total D = Dissolved, S = SPLP, C = TCLP N = Not Applicable
2.) QC Codes FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank
3.) Sample Matrix GW = Groundwater, SW = Surface Water DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water NAL = Non-Aqueous Liquid, PR = Product O = Oil
4.) Preservation Type HA = Hydrochloric Acid NI = Nitric Acid SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water
5.) Bottle Type G = Glass, P = Plastic, V = 40mL VOA Glass Vial AG = Amber Glass, AV = 40mL VOA Amber Glass Vial.

Cr+6 = 24 hour hold time
Formaldehyde = 3 day hold time

Cooler ? Y N MADEP Requirement Samples Iced? Y / N
Temp @ receipt: 4.5 Deg C
Preservation / pH checked? Y / N
By: _____ Date: _____

Relinquished: [signature] Date: 12/2/10 Time: 1700 Received: _____ Date: __/__/__ Time: _____
Relinquished: _____ Date: __/__/__ Time: _____ Received: [signature] Date: 12/3/10 Time: _____

Thursday Shipment

Lancaster Surface water

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	NDMA/NDPA (Mod 521) AG	Alkylphenols (WS-MS-0010)* SA AG	Cr+6 (3060A / 7199) G	DMF (Mod 8033 - GC/NPD) V	Phthalic Anhydride (acid) (Mod 8000 - HPLC)* AG	Formaldehyde/Acetaldehyde (SW-846 8315A)* AG	Perchlorate (6850) P V	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) V Zn AV	Cr+6 (7199) G	DMF (Mod 8033 - GC/NPD)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) AG				<--Preservative Type (4) <--Bottle Type (5) Comments (Special Instructions)
OC-SW-MMB-SW/SD-8-XXX	12/2/2010 1:00:00 PM	T	FS	SW	G	2								X							12670 1223807 6155345-55
OC-SW-MMB-SW/SD-9-XXX	12/1/2010 12:15:00	T	FS	SW	G	2								X							

Special Instructions For Lab

Notes:

1.) Fraction T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS - Field Sample, TB = Trip Blank FD = Field Duplicate, EB = Equipment Blank MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment BW = Blank Water NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass AV = 40ml VOA Amber Glass Vial

Cr+6 = 24 hour hold time

Formaldehyde = 3 day hold time

Relinquished: [signature] Date: 12/2/10 Time: 1700 Received: _____ Date: __/__/__ Time: _____

Relinquished: _____ Date: __/__/__ Time: _____ Received: [signature] Date: 12/3/10 Time: 910

Cooler ? (Y) N

MADEP Requirement

Samples Iced? Y / N

Temp @ receipt: 4.5 Deg C

Preservation / pH checked? Y / N

By: _____ Date: _____

Lancaster Laboratories

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Dino Corp

Date of Receipt: 12/3/10

Time of Receipt: 910

Source Code: 50-1

Unpacker Emp. No.: 2316

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	9493	4.5°C	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
MM	12/3/10	955	Unpacking
Annelise H. Owen	12/3/10	1015	Place in Storage or Entry
			Entry
			Entry

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2174.05

Lancaster SW page 1 of 3

Client:	Olin Corporation	Client Project #:	6107090016
Address:	3855 North Ocoee St. Suite 200	Work Site ID:	Wilmington, MA
	Cleveland, TN 37312	Reports Sent To:	Steve Morrow
Phone:	423-336-4511	Fax:	423-336-1466
Email	SGMorrow@olin.com	Email Rpt:	

Requested Turnaround Time (SPECIFY): Standard_____ Rush_____ (Lab Approval Required)

Regulatory Programs: MADEP MCP____ Superfund _____

Report Requirements Level IV Package ____ Level II Package _____

EDD Requirements: MACTEC EQUIS EZ EDD _____

INVOICE INFO — Shaded Areas for office use only

Company Name: Olin Corp 12670/1223900/6155978-80

Company Contact: ERG Accounts Payable

Address: Same as Client

Phone: Email

Job # _____ Quote # _____

Lab SDG # _____ PO # _____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	NDMA/NDPA (Mod 521) - AG	Alkylphenols (WS-MS-0010)* SA AG	Cr+6 (3060A / 7199) - G	DMF (Mod 8033 - GC/NPD) - V	Phthalic Anhydride (acid) (Mod 8000 - HPLC)* - AG	Formaldehyde/Acetaldehyde (SW-846 8315A)* - AG	Opex / Kempore (8000B - HPLC) - P	Perchlorate (6850) - V	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) Zn AV	Cr+6 (7199) - G	DMF (Mod 8033 - GC/NPD) - G	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) - AG	Comments (Special Instructions)
OC-SW-MMB-SW/SD-2-XXX	12/3/2010 10:00:00	T	FS	SW	G	4								X	X				
OC-SW-MMB-SW/SD-3-XXX	12/3/2010 9:00:00 AM	T	FS	SW	G	2									X				
OC-SW-MMB-SW/SD-6-XXX	12/3/2010 12:00:00	T	FS	SW	G	2									X				

<--Preservative Type (4)
<--Bottle Type (5)

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N – Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cr+6 = 24 hour hold time

Formaldehyde = 3 day hold time

Relinquished: [signature] Date: 12/3/10 Time: 1700 Received: FedEx Date: 12/3/10 Time: 1700

Relinquished: _____ Date: __/__/__ Time: ____ Received: [signature] Date: 12/4/10 Time: 1000

Cooler ? Y / N: Y | MADEP Requirement: Samples Iced? (Y) N

Temp @ receipt: 4.2 Deg C

Preservation / pH checked? Y / N (N/A)

By: [signature] Date: 12/4/10

048/390
12/29/10

Lancaster Laboratories

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Mactec

Date of Receipt: 12-4-10

Time of Receipt: 1000

Source Code: 5C-1

Unpacker Emp. No.: 2719

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	9493	4.2°C	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody Ø

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
[illegible]	12-4-10	10:53	Unpacking to Storage
[illegible]	12-4-10	11:00	Place in Storage or Entry
			Entry
			Entry

Issued by Dept. 6042 Management
2174.05

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.lancasterlabs.com

02726 Opex in Water

Water samples are pH adjusted to 9 with hydroxide solution. Filtration is performed followed by HPLC analysis. Separation is accomplished using a C18 column and ACN/phosphate buffer mobile phase. A UV detector at 230 nm is used for quantitation.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8000B, December 1996.

02727 Kempore in Water

Water samples are analyzed using a solid phase cleanup procedure followed by filtration and HPLC analysis. Separation is accomplished using a C18 column and phosphate buffer mobile phase. A UV detector at 230 nm is used for quantitation.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8000B, December 1996.

10342 Hydrazines in Water

An aliquot of the sample is derivatized and directly analyzed by HPLC/MS/MS.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8315A modified, December 1996.

Lancaster Laboratories

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

December 14, 2010

Project: Olin Wilmington, MA Superfund Site/6107090016

Submittal Date: 12/03/2010
Group Number: 1223807
SDG: OLN50
PO Number: REWI0012
Release Number: ERRE9813
State of Sample Origin: MA

Client Sample Description	Lancaster Labs (LLI) #
OC-SW-MMB-SW/SD-11-XXX Grab Water	6155345
OC-SW-MMB-SW/SD-8A-XXX Grab Water	6155346
OC-SW-MMB-SW/SD-10-XXX Grab Water	6155347
OC-SW-MMB-SW/SD-1-XXX Grab Water	6155348
OC-SW-MMB-SW/SD-4-XXX Grab Water	6155349
OC-SW-MMB-SW/SD-5-XXX Grab Water	6155350
OC-SW-MMB-SW/SD-8-DUP Grab Water	6155351
OC-SW-MMB-SW/SD-8-XXX Grab Water	6155352
OC-SW-MMB-SW/SD-8-XMS Grab Water	6155353
OC-SW-MMB-SW/SD-8-MSD Grab Water	6155354
OC-SW-MMB-SW/SD-9-XXX Grab Water	6155355

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Olin Chemicals	Attn: Steve Morrow
ELECTRONIC COPY TO	MACTEC	Attn: Kelly Chatterton
ELECTRONIC COPY TO	MACTEC	Attn: Chris Ricardi
1 COPY TO	Data Package Group	

OLN50 0009

Lancaster Laboratories, Inc
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,

Valerie L. Tomayko
Group Leader

01N50 0018

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-11-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155345
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/02/2010 15:30

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD11 SDG#: OLN50-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 01:38	Meng Yu	1

OLN50 0012

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-8A-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155346
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/02/2010 15:00

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD8A SDG#: OLN50-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 01:58	Meng Yu	1

OLN50 2013

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-10-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155347
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/02/2010 09:00

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD10 SDG#: OLN50-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 02:19	Meng Yu	1

OLN50 0014

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-1-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155348
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/01/2010 14:40

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD01 SDG#: OLN50-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 02:59	Meng Yu	1

OLN50 0015

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-4-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155349
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/02/2010 10:00

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD04 SDG#: OLN50-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 03:20	Meng Yu	1

OLN50 0016

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-5-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155350
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/02/2010 13:15

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD05 SDG#: OLN50-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
HPLC Organics	**SW-846 8000B**		ug/l	ug/l	ug/l	
02727	Kempore in Water	123-77-3	N.D.	1,000	230	1
02726	Opex in Water	101-25-7	N.D.	100	20	1
Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02727	Kempore in Water	SW-846 8000B	1	103420013A	12/08/2010 20:19	James H Place	1
02726	Opex in Water	SW-846 8000B	1	103410021A	12/07/2010 20:38	James H Place	1
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 03:40	Meng Yu	1

OLN50 0017

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-8-DUP Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155351
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/02/2010 13:00

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD8D SDG#: OLN50-07FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 04:00	Meng Yu	1

OLN50 0010

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-8-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155352
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/02/2010 13:00

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD08 SDG#: OLN50-08BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/06/2010 21:55	Meng Yu	1

OLN50 0019

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

Analysis Report

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-8-XMS Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155353
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/02/2010 13:00

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD08 SDG#: OLN50-08MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	55	0.50	0.25	1
10342	Hydrazine	302-01-2	13	0.10	0.050	1
10342	Methylhydrazine	60-34-4	53	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/06/2010 23:16	Meng Yu	1

OLN50 0020

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-8-MSD Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155354
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/02/2010 13:00

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD08 SDG#: OLN50-08MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	50	0.50	0.25	1
10342	Hydrazine	302-01-2	10	0.10	0.050	1
10342	Methylhydrazine	60-34-4	51	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/06/2010 23:37	Meng Yu	1

OLN50 0021

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-9-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155355
LLI Group # 1223807
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/01/2010 12:15

Submitted: 12/03/2010 09:10
Reported: 12/14/2010 12:42

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

MSD09 SDG#: OLN50-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 04:20	Meng Yu	1

OLN50 0022

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

December 14, 2010

Project: Olin Wilmington, MA Superfund Site/6107090016

Submittal Date: 12/04/2010
Group Number: 1223900
SDG: OLN50
PO Number: REWI0012
Release Number: ERRE9813
State of Sample Origin: MA

Client Sample Description	Lancaster Labs (LLI) #
OC-SW-MMB-SW/SD-2-XXX Grab Water	6155978
OC-SW-MMB-SW/SD-3-XXX Grab Water	6155979
OC-SW-MMB-SW/SD-6-XXX Grab Water	6155980

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Olin Chemicals	Attn: Steve Morrow
ELECTRONIC COPY TO	MACTEC	Attn: Kelly Chatterton
ELECTRONIC COPY TO	MACTEC	Attn: Chris Ricardi
1 COPY TO	Data Package Group	

OLN50 0023

Lancaster Laboratories, Inc
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted.

Valerie L. Tomayko
Group Leader

OLN58 20824

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-2-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155978
LLI Group # 1223900
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/03/2010 10:00

Submitted: 12/04/2010 10:00
Reported: 12/14/2010 12:40

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

SW-2- SDG#: OLN50-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
HPLC Organics	**SW-846 8000B**		ug/l	ug/l	ug/l	
02727	Kempore in Water	123-77-3	N.D.	1,000	230	1
02726	Opex in Water	101-25-7	N.D.	100	20	1
Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02727	Kempore in Water	SW-846 8000B	1	103420013A	12/08/2010 20:37	James H Place	1
02726	Opex in Water	SW-846 8000B	1	103410021A	12/07/2010 20:55	James H Place	1
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 04:41	Meng Yu	1

OLN50 3826

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-3-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155979
LLI Group # 1223900
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/03/2010 09:00

Submitted: 12/04/2010 10:00
Reported: 12/14/2010 12:40

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

SW-3- SDG#: OLN50-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 05:01	Meng Yu	1

OLN50 0027

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-6-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6155980
LLI Group # 1223900
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 12/03/2010 12:00

Submitted: 12/04/2010 10:00
Reported: 12/14/2010 12:40

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

SW-6- SDG#: OLN50-12*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	SW-846 8315A modified		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	10340001	12/07/2010 05:21	Meng Yu	1

OLN50 0020

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Kempore Data

OLN50 8829

Case Narrative Conformance/Nonconformance Summary

Lancaster Laboratories

CLIENT: Olin Corporation
SDG: OLN50

LANCASTER LABORATORIES

Kempore

		MATRIX		
LLI SAMPLE #	**SAMPLE CODE**	**WATER**	**SOLID**	**COMMENT**
BLANKA 12/8/10	PBLK13342	X		Method Blank
LCSA	LCS13342	X		Lab Control Spike
LCSDA	LCSD13342	X		Lab Control Spike Dup
6155350	MSD05	X		Unspiked
6155978	SW-2-RE	X		
LAB SUBMITTED QC:				
6155350MS	MSD05MS	X		Matrix Spike
6155350MSD	MSD05MSD	X		Matrix Spike Dup

A. Sample Preparation:

No problems were encountered with the preparation of the samples.

B. Analysis:

No problems were encountered.

All continuing calibration data meet the method specification.

C. Quality Control:

Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD.

For preparation/method blank results >LOQ, corrective action is not required if the sample result is >10 times the blank concentration, unless otherwise specified in the method or by the client.

All QC data are within specifications.

D. Data Interpretation:

No further interpretation is needed.

Data codes:

Data that indicates that manual integration was required would include the following codes:
1 = missed peak and 2 = improper baseline. The peaks that have been manually changed are indicated with an "M" on the raw data.

Lancaster Laboratories, Inc. • 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Narrative reviewed and approved by:

Dana Kauffman, Manager Data Deliverables Date 12/29/10

01M58 8832

Quality Control and Calibration Summary Forms

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
PBLK13342

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: BLANKA

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1K11342.11R

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/8/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/8/2010

Injection Volume: 30 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	230	U

OLN50 10834

FORM I

3E

Water Lab Control Spike/Lab Control Spike Duplicate Recovery

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Laboratory Control Spike - Sample Code No.: LCS13342

Compound	Spike Added (ug/l)	LCS Concen (ug/l)	LCSD Concen (ug/l)	LCS % Rec #	LCSD % Rec #	LCS-LCSD % REC Limits	% RPD #	% RPD Lim
Kempore	9800	8600	8100	88	83	(70 - 130)	6	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

Comments: Results calculated on as-received basis.

Sample No.: LCSA Batch: 103420013A

OLM59 0035

3E
Water Matrix Spike/Matrix Spike Duplicate Recovery

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Matrix Spike - Sample Code No.: MSD05

Compound	Spike Added (ug/l)	Sample Concen (ug/l)	MS Concen (ug/l)	MSD Concen (ug/l)	MS % Rec #	MSD % Rec #	MS-MSD % REC Limits	% RPD #	% RPD Lim
Kempore	9800	0	20000	18000	204*	184*	(70 - 130)	11	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 2 out of 2 outside limits

Comments: Results calculated on as-received basis.

Sample No.: 6155350 Batch: 103420013A

4C

METHOD BLANK SUMMARY

SAMPLE CODE NO.
PBLK13342

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Lab Sample ID BLANKA Batch 103420013A Lab File ID: 1K11342.11R 1K11342B.11R

Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) Direct Injection

Sulfur Cleanup: (Y/N) N Date Extracted: 12/8/2010

Date Analyzed (1): 12/8/2010 Date Analyzed (2): 12/8/2010

Time Analyzed (1): 20:02:20 Time Analyzed (2): 20:02:20

Instrument ID (1): K3593A Instrument ID (2): K3593B

GC Column: SUP-PAH ID: 4.6 (mm) GC Column: CAPCELL-CN ID: 4.6 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD

	SAMPLE CODE NO.	LAB SAMPLEID	DATE ANALYZED 1	DATE ANALYZED 2
01	MSD05~~RE~~	6155350	12/8/2010	12/8/2010
02	MSD05MS	6155350MS	12/8/2010	12/8/2010
03	MSD05MSD	6155350MSD	12/8/2010	12/8/2010
04	SW-2-RE	6155978	12/8/2010	12/8/2010
05	PBLK13342~~RE~~	BLANKA	12/8/2010	12/8/2010
06	LCS13342~~RE~~	LCSA	12/8/2010	12/8/2010
07	LCSD13342~~RE~~	LCSDA	12/8/2010	12/8/2010

[illegible]
12/20/10

OLN50 0037

COMMENTS:

FORM IV

6D

INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Calibration File: 1K11342

GC Column (1) : SUP-PAH ID: 4.6 (mm) Update File:

Date(s) Analyzed: 12/8/2010 12/8/2010

COMPOUND	RT OF STANDARDS LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	~~MIDPOINT~~ RT Level 1	RT WINDOW FROM	TO
Kempore	2.87	2.82	2.83	2.82	2.81	2.87	2.77	2.97

12/9/10

01M58 3033

FORM VI-1

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Calibration File: 1K11342

GC Column (1) : SUP-PAH ID: 4.6 (mm) Date(s) Analyzed: 12/8/2010 12/8/2010

COMPOUND	CALIBRATION FACTORS						%RSD
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	
Kempore	2.78E-01	1.96E-01	1.85E-01	6.99E-01	8.81E-01	4.48E-01	71.7

– Linear

Average % RSD: 71.7

12/9/10

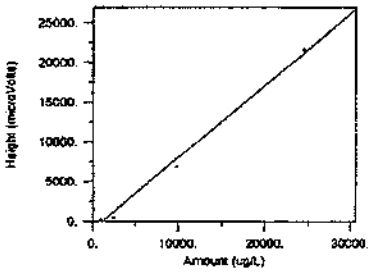
OLN58 0030

FORM VI-2

Calibration File Name: **C:\CPWIN\DATA1\1K11342.CAL** Version = 13
External standard calibration
Standard injection volume = 1
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 500
Amount units = ug/L
1 components with 5 levels each

1 Kempore
Retention time = 2.872 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	195.940	54.4	0.2778303	1K11342.10A	12/9/2010 5:16:1
2	979.700	191.7	0.1956776	1K11342.05A	12/9/2010 5:14:2
3	2449.250	454.1	0.1853918	1K11342.06A	12/9/2010 5:14:4
4	9797.000	6847.1	0.6989022	1K11342.07A	12/9/2010 5:15:0
5	24492.500	21573.7	0.88083	1K11342.08A	12/9/2010 5:15:3



Calibration formula: Y = 0.905 X + -1039.449
Fit type = Linear with equal weighting
Coefficient of determination = 0.9923, Average error = 25.36%
Average CF = 0.4477 with RSD = 71.67%

0LN50 0848

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Init. Calib Date(s): 12/08/10 12/08/10

GC Column (1) : SUP-PAH ID: 4.6 (mm) Date Analyzed: 12/08/10

Lab File ID: 1K11342.18R Time Analyzed: 20:43

Lab Standard ID: KEMP3DZ Initial Calibration: 1K11342

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Kempore	2.78	2.77	2.97	8460.07	9797.00	-13.6

Average of %D: 13.6

OLN50 0041

FORM VII

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593B Init. Calib Date(s): 12/08/10 12/08/10

GC Column (2) : CAPCELL-CN ID: 4.6 (mm) Date Analyzed: 12/08/10

Lab File ID: 1K11342B.18R Time Analyzed: 20:43

Lab Standard ID: KEMP3DZ Initial Calibration: 1K11342B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Kempore	3.83	3.68	3.88	8657.76	9797.00	-11.6

Average of %D: 11.6

01.N56 0042

FORM VII

8D
ANALYTICAL SEQUENCE

Sequence: 1K11342 Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: SUP-PAH ID: 4.6

Instrument: K3593A

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	12/08/2010	19:03:48	1K11342
002		CONDITIONER	12/08/2010	19:09:39	1K11342
003		CONDITIONER	12/08/2010	19:15:31	1K11342
004		CONDITIONER	12/08/2010	19:21:22	1K11342
005	KEMP1AA	KEMP11024C	12/08/2010	19:27:13	1K11342
006	KEMP2AA	KEMP21024C	12/08/2010	19:33:04	1K11342
007	KEMP3AA	KEMP31024C	12/08/2010	19:38:55	1K11342
008	KEMP4AA	KEMP41024C	12/08/2010	19:44:46	1K11342
009	KEMP5AA	KEMP51024C	12/08/2010	19:50:37	1K11342
010	MDKRXAA	MDKRX1024C	12/08/2010	19:56:28	1K11342
011	PBLK13342	BLANKA	12/08/2010	20:02:20	1K11342
012	LCS13342	LCSA	12/08/2010	20:08:12	1K11342
013	LCSD13342	LCSDA	12/08/2010	20:14:03	1K11342
014	MSD05	6155350	12/08/2010	20:19:55	1K11342
015	MSD05MS	6155350	12/08/2010	20:25:47	1K11342
016	MSD05MSD	6155350	12/08/2010	20:31:38	1K11342
017	SW-2-	6155978	12/08/2010	20:37:30	1K11342
018	KEMP3DZ	KEMP31024C	12/08/2010	20:43:22	1K11342

8D
ANALYTICAL SEQUENCE

Sequence: 1K11342B Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: CAPCELL-CN ID: 4.6

Instrument: K3593B

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	12/08/2010	19:03:48	1K11342B
002		CONDITIONER	12/08/2010	19:09:39	1K11342B
003		CONDITIONER	12/08/2010	19:15:31	1K11342B
004		CONDITIONER	12/08/2010	19:21:22	1K11342B
005	KEMP1AA	KEMP11024C	12/08/2010	19:27:13	1K11342B
006	KEMP2AA	KEMP21024C	12/08/2010	19:33:04	1K11342B
007	KEMP3AA	KEMP31024C	12/08/2010	19:38:55	1K11342B
008	KEMP4AA	KEMP41024C	12/08/2010	19:44:46	1K11342B
009	KEMP5AA	KEMP51024C	12/08/2010	19:50:37	1K11342B
010	MDKRXAA	MDKRX1024C	12/08/2010	19:56:28	1K11342B
011	PBLK13342	BLANKA	12/08/2010	20:02:20	1K11342B
012	LCS13342	LCSA	12/08/2010	20:08:12	1K11342B
013	LCSD13342	LCSDA	12/08/2010	20:14:03	1K11342B
014	MSD05	6155350	12/08/2010	20:19:55	1K11342B
015	MSD05MS	6155350	12/08/2010	20:25:47	1K11342B
016	MSD05MSD	6155350	12/08/2010	20:31:38	1K11342B
017	SW-2-	6155978	12/08/2010	20:37:30	1K11342B
018	KEMP3DZ	KEMP31024C	12/08/2010	20:43:22	1K11342B

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.
REMSD05MS

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Lab Sample ID: 6155350 Date(s) Analyzed: 12/8/2010 12/8/2010

Instrument ID (1): K3593A Instrument ID (2): K3593B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Kempore	1	2.81	2.77	2.97	20000	
	2	3.79	3.68	3.88	20000	0.0

OLN50 0045

FORM X PEST - 1

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.
REMSD05MSD

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 103420013A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN50

Lab Sample ID: 6155350 **Date(s) Analyzed:** 12/8/2010 12/8/2010

Instrument ID (1): K3593A **Instrument ID (2):** K3593B

GC Column (1): **ID:** **(mm)** **GC Column (2):** **ID:** **(mm)**

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Kempore	1	2.79	2.77	2.97	18000	
	2	3.81	3.68	3.88	18000	0.0

OLN50 0046

FORM X PEST - 1

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.
LCS13342RE

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.:

Lab Sample ID: LCSA Date(s) Analyzed: 12/8/2010 12/8/2010

Instrument ID (1): K3593A Instrument ID (2): K3593B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Kempore	1	2.80	2.77	2.97	8600	
	2	3.80	3.68	3.88	8600	0.0

CLN58 0047

FORM X PEST - 1

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCSD13342RE

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.:

Lab Sample ID: LCSDA Date(s) Analyzed: 12/8/2010 12/8/2010

Instrument ID (1): K3593A Instrument ID (2): K3593B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Kempore	1	2.82	2.77	2.97	8100	
	2	3.78	3.68	3.88	8200	1.2

01N58 8848

FORM X PEST - 1

Sample Data

Lancaster Laboratories

LOQ and MDL by Analysis Number

COMPONENT NAME	MDL	LOQ	DEFAULT UNITS
02727: Kempore in Water			
Kempore in Water	230	1,000	ug/l

01LN50 0050

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
REMSD05

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Matrix: (soil/water) WATER Lab Sample ID: 6155350

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1K11342.14R

% Moisture: Decanted: (Y/N) Date Received: 12/3/2010

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/8/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/8/2010

Injection Volume: 30 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	230	U

OLN50 0851

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6155350R MSD05 Sample ID: AA **Batchnumber: 103420013A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN50 State: MA
Analyses: 02726 02727

Analysis Report (A)

Injected on	: DEC 08, 2010 20:19:55
Instrument	: CP09--K3593A
Result file	: 1K11342.14R
Calibration file	: 1K11342.CAL
Method file	: KEMP.MET

Analysis Report (B)

Injected on	: DEC 08, 2010 20:19:55
Instrument	: CP09--K3593B
Result file	: 1K11342B.14R
Calibration file	: 1K11342B.CAL
Method file	: KEMPB.MET

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	A		<1000	<230			

Units: ug/l

Reviewed by: [signature] Date: 12/9/10
Verified by: [signature] Date:

DEC 14 2010

Sarah Snyder
Senior Specialist

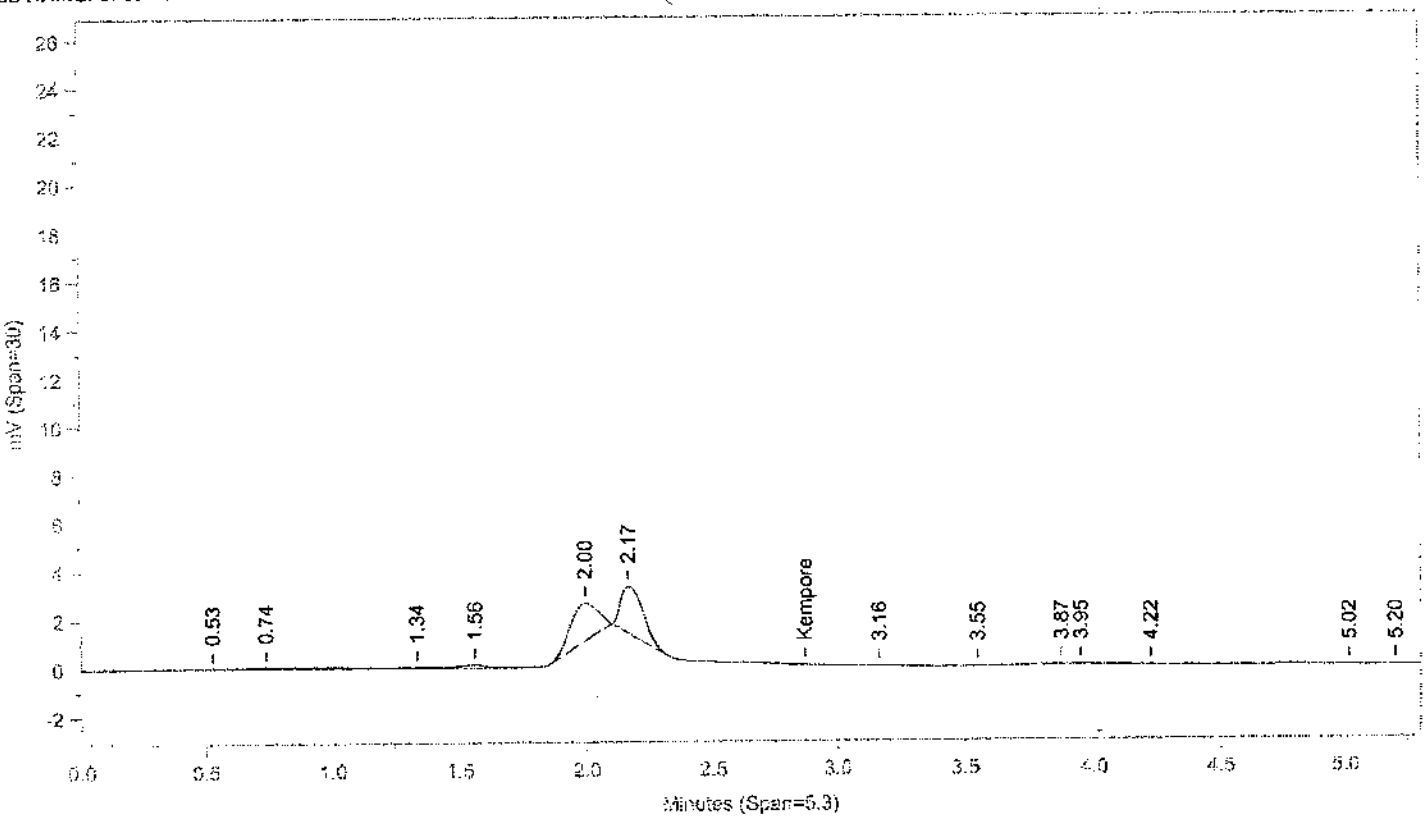
%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

OLN50 0852

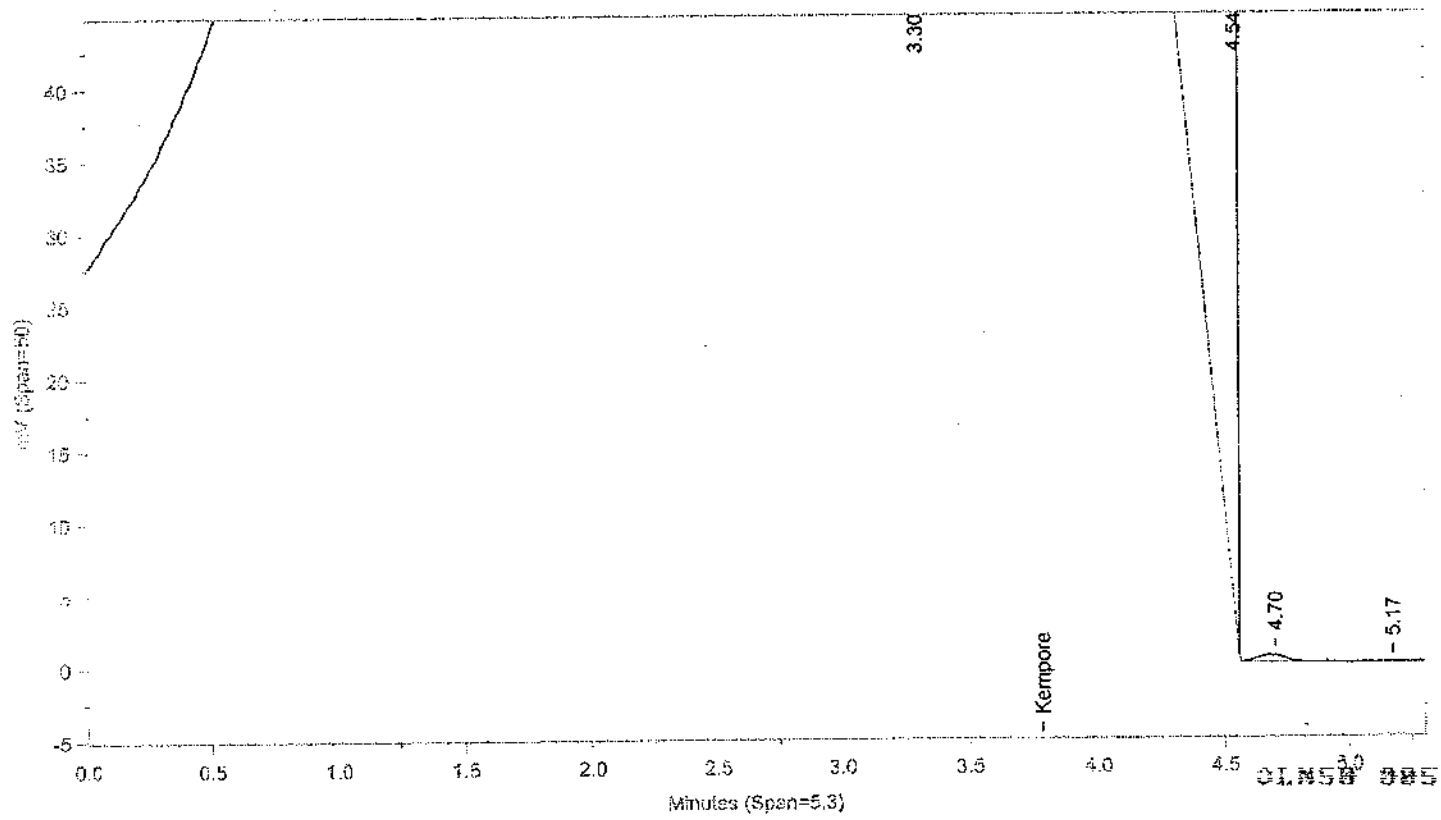
* Recovery outside QC Limits

Printed on: 12/9/10 17:29:15

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11342.14R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 8:19:54 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 8:19:54 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B

Files:
Area File: C:\CPWIN\DATA1\1K11342.14A
Area File: C:\CPWIN\DATA1\1K11342B.14A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:22:28 PM
File Reported On: 12/9/2010 at 5:22:37 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
SW-2-RE

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Matrix: (soil/water) WATER Lab Sample ID: 6155978

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1K11342.17R

% Moisture: Decanted: (Y/N) Date Received: 12/4/2010

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/8/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/8/2010

Injection Volume: 30 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	1	230U

OLN50 0855

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6155978R SW-2- Sample ID: AA **Batchnumber: 103420013A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN50 State: MA
Analyses: 02726 02727

Analysis Report (A)

Injected on	: DEC 08, 2010 20:37:30
Instrument	: CP09--K3593A
Result file	: 1K11342.17R
Calibration file	: 1K11342.CAL
Method file	: KEMP.MET

Analysis Report (B)

Injected on	: DEC 08, 2010 20:37:30
Instrument	: CP09--K3593B
Result file	: 1K11342B.17R
Calibration file	: 1K11342B.CAL
Method file	: KEMPB.MET

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	A		<1000	<230			

Units: ug/l

Reviewed by: [signature] Date: 12/9/10
Verified by: [signature] Date:

DEC 14 2010

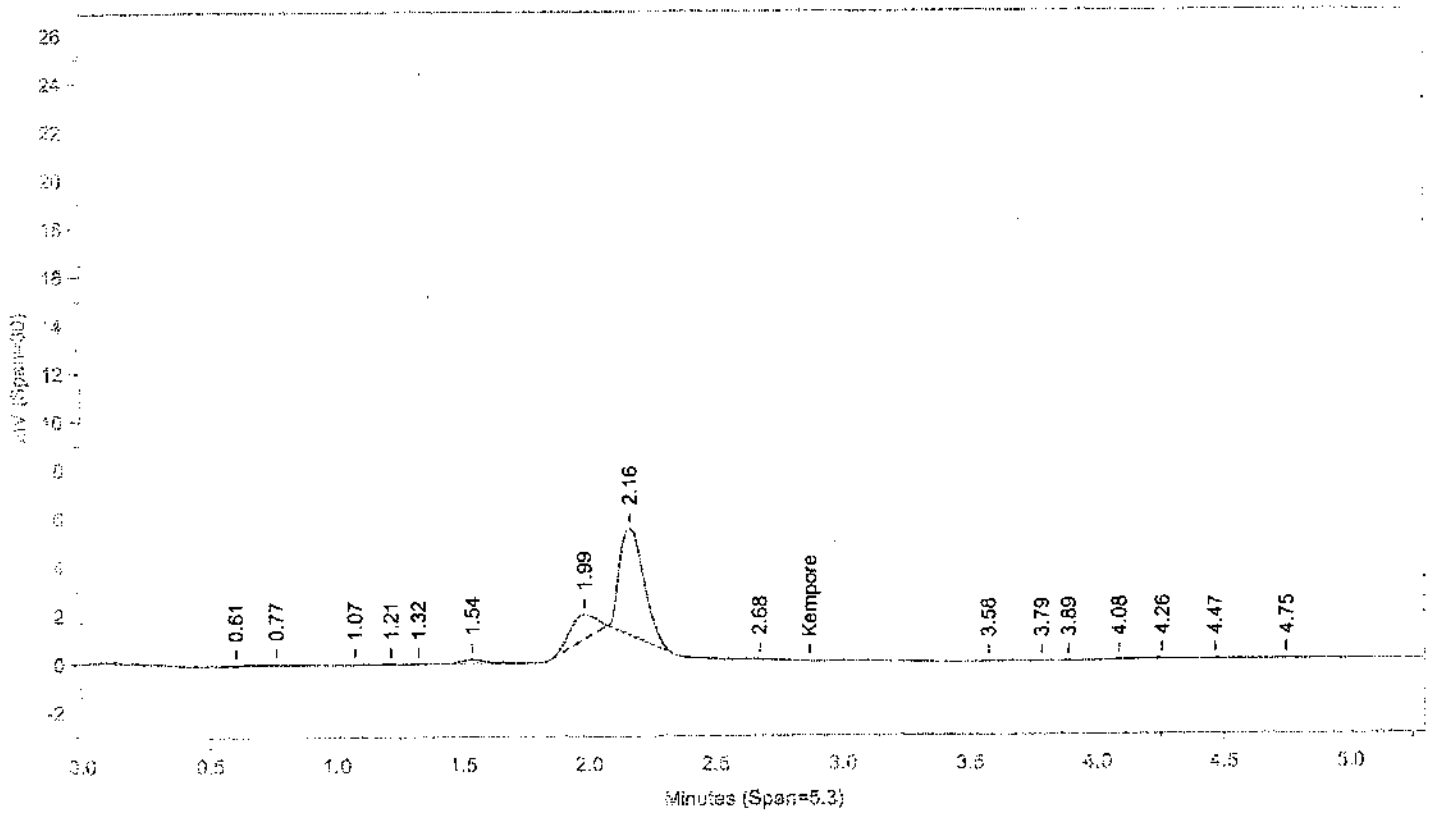
Sarah Snyder
Senior Specialist

%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

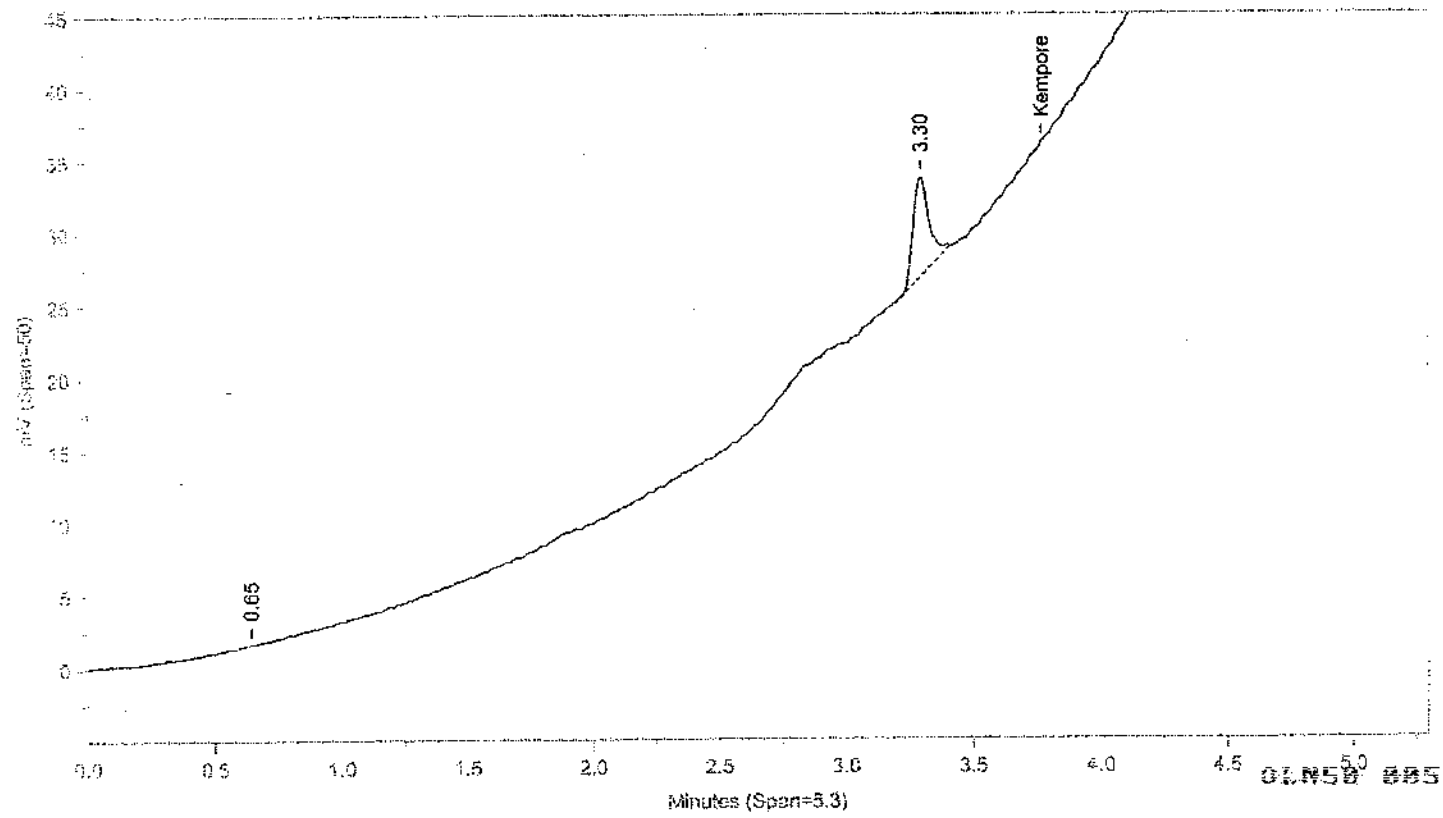
* Recovery outside QC Limits

Printed on: 12/9/10 17:30:16

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\K11342.17R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 8:37:29 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 8:37:29 PM Column ID: Capcell CN, 250mmX4.6mmX5um

01N58 8857

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B

Files:
Area File: C:\CPWIN\DATA1\IK11342.17A
Area File: C:\CPWIN\DATA1\IK11342B.17A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\IK11342.CAL
Calibration File B: C:\CPWIN\DATA1\IK11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:23:30 PM
File Reported On: 12/9/2010 at 5:23:39 PM

Standards Data

OLN58 0059

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\cp9\C-Drive\CPWIN\DATA1\1K11342.seq

Chromatography Directory: \\cp9\C-Drive\CPWIN\data1

Method Directory: \\cp9\C-Drive\CPWIN\data1

Number of Entries: 18

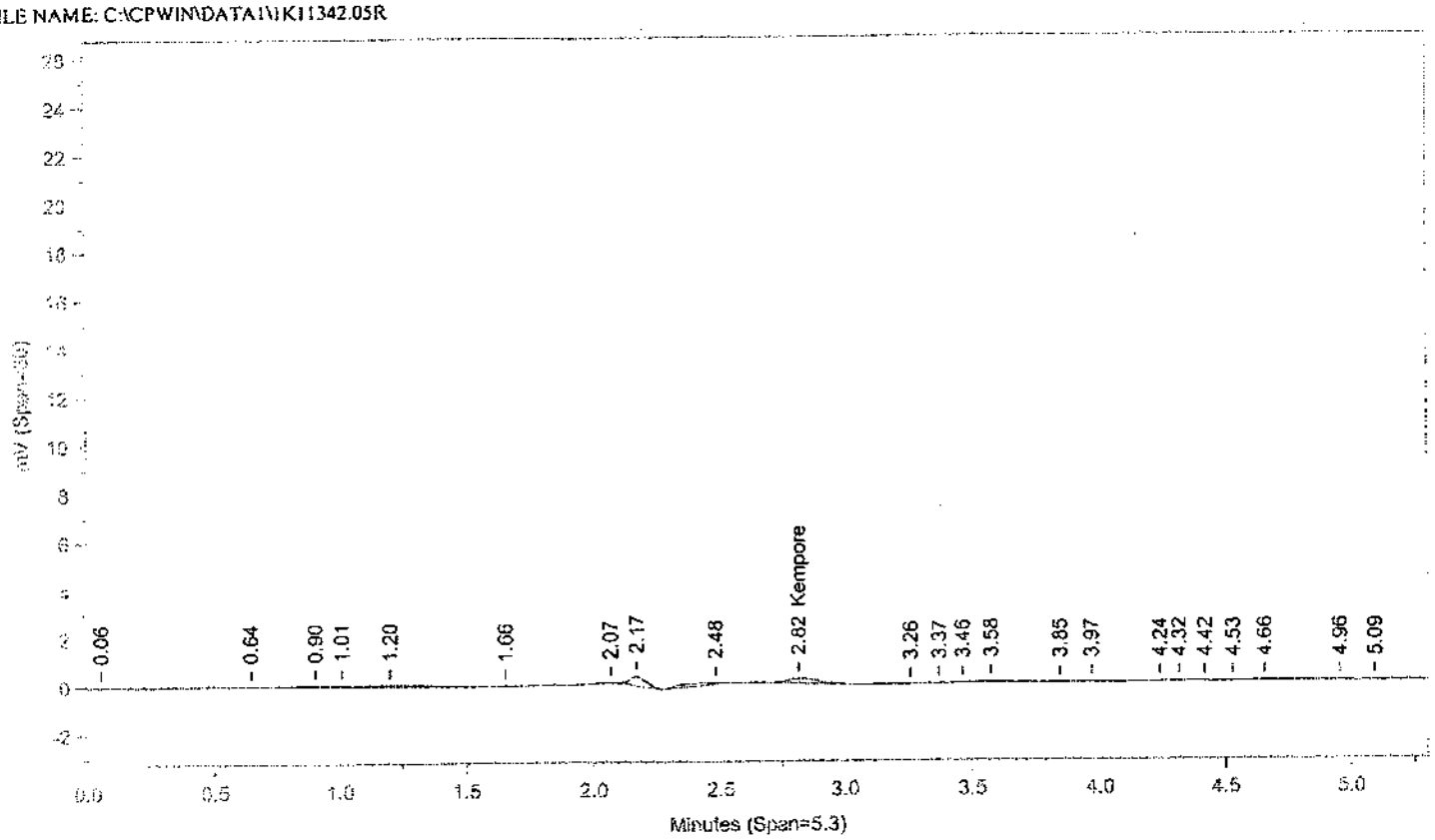
	Samplename	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	MISC	AA	1K11342.01R	KEMP.MET	1	1	1	0	1034199999	
2	CONDITIONER	MISC	AA	1K11342.02R	KEMP.MET	1	1	1	0	1034199999	
3	CONDITIONER	MISC	AA	1K11342.03R	KEMP.MET	1	1	1	0	1034199999	
4	CONDITIONER	MISC	AA	1K11342.04R	KEMP.MET	1	1	1	0	1034199999	
5	KEMP11024C	ICAL	AA	1K11342.05R	KEMP.MET	1	1	1	2	1034199999	
6	KEMP21024C	ICAL	AA	1K11342.06R	KEMP.MET	1	1	1	3	1034199999	
7	KEMP31024C	ICAL	AA	1K11342.07R	KEMP.MET	1	1	1	4	1034199999	
8	KEMP41024C	ICAL	AA	1K11342.08R	KEMP.MET	1	1	1	5	1034199999	
9	KEMP51024C	ICAL	AA	1K11342.09R	KEMP.MET	1	1	1	0	1034199999	
10	MDKRX1024C	ICAL	AA	1K11342.10R	KEMP.MET	1	1	1	1	1034199999	
11	BLANKA 12/8/10	BLK	AA	1K11342.11R	KEMP.MET	10	10	1	0	103420013A	02726
12	LCSA 12/8/10	LCS	AA	1K11342.12R	KEMP.MET	10	10	1	0	103420013A	02726
13	LCSDA 12/8/10	LCSD	AA	1K11342.13R	KEMP.MET	10	10	1	0	103420013A	02726
14	6155350R	T	AA	1K11342.14R	KEMP.MET	10	10	1	0	103420013A	02726
15	6155350RMS	MS	AA	1K11342.15R	KEMP.MET	10	10	1	0	103420013A	02726
16	6155350RMSD	MSD	AA	1K11342.16R	KEMP.MET	10	10	1	0	103420013A	02726
17	6155978R	T	AA	1K11342.17R	KEMP.MET	10	10	1	0	103420013A	02726
18	KEMP31024C	CCAL	DZ	1K11342.18R	KEMP.MET	1	1	1	0	1034199999	

OLN56 8868

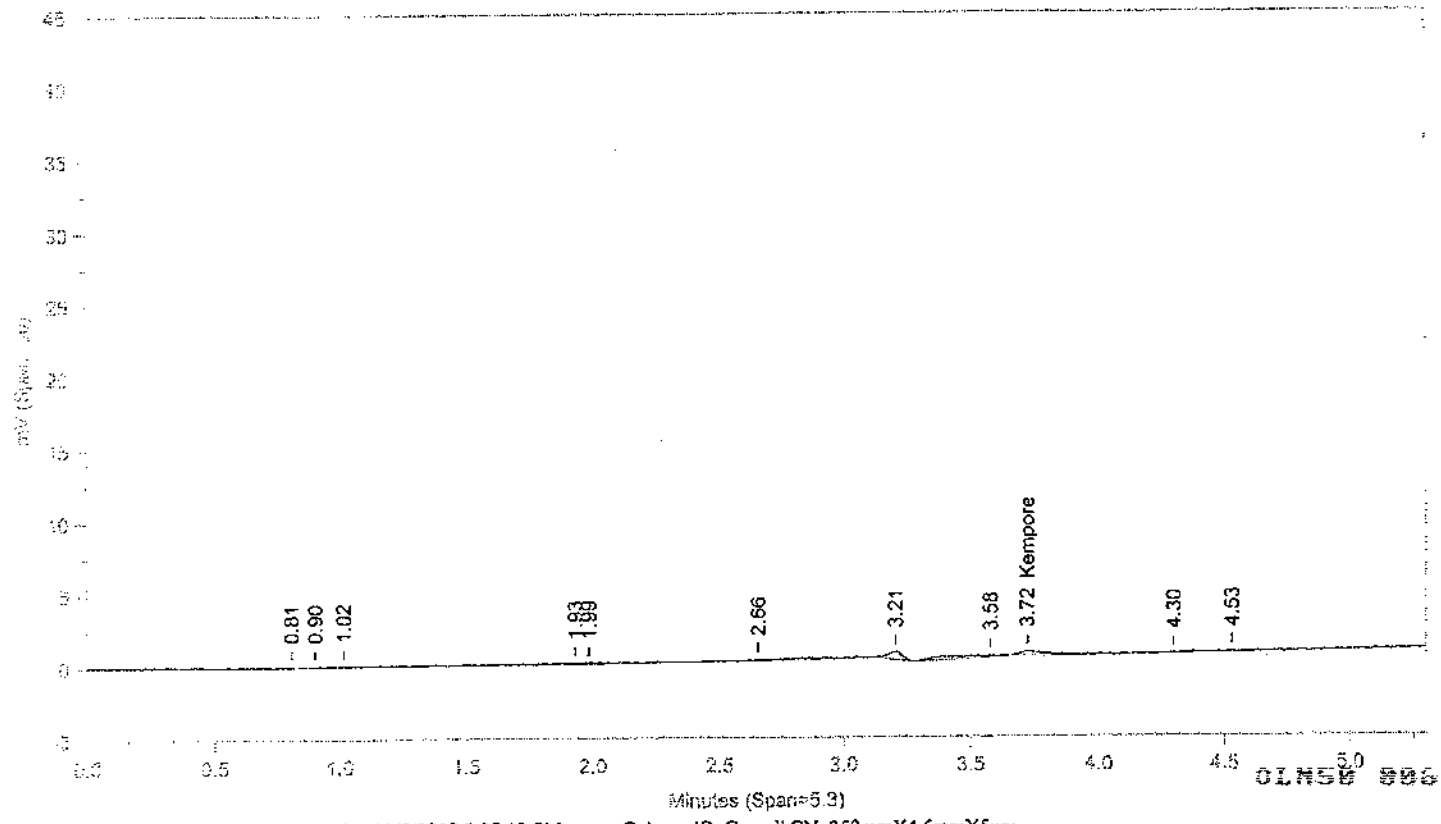
Set-up by: [signature] Date: 12/9/10

12/9/2010

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11342.05R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 7:27:12 PM Column ID: SupelcosIl PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 7:27:12 PM Column ID: Capcell CN, 250mmX4.6mmX5um

OLM5.0 9061

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

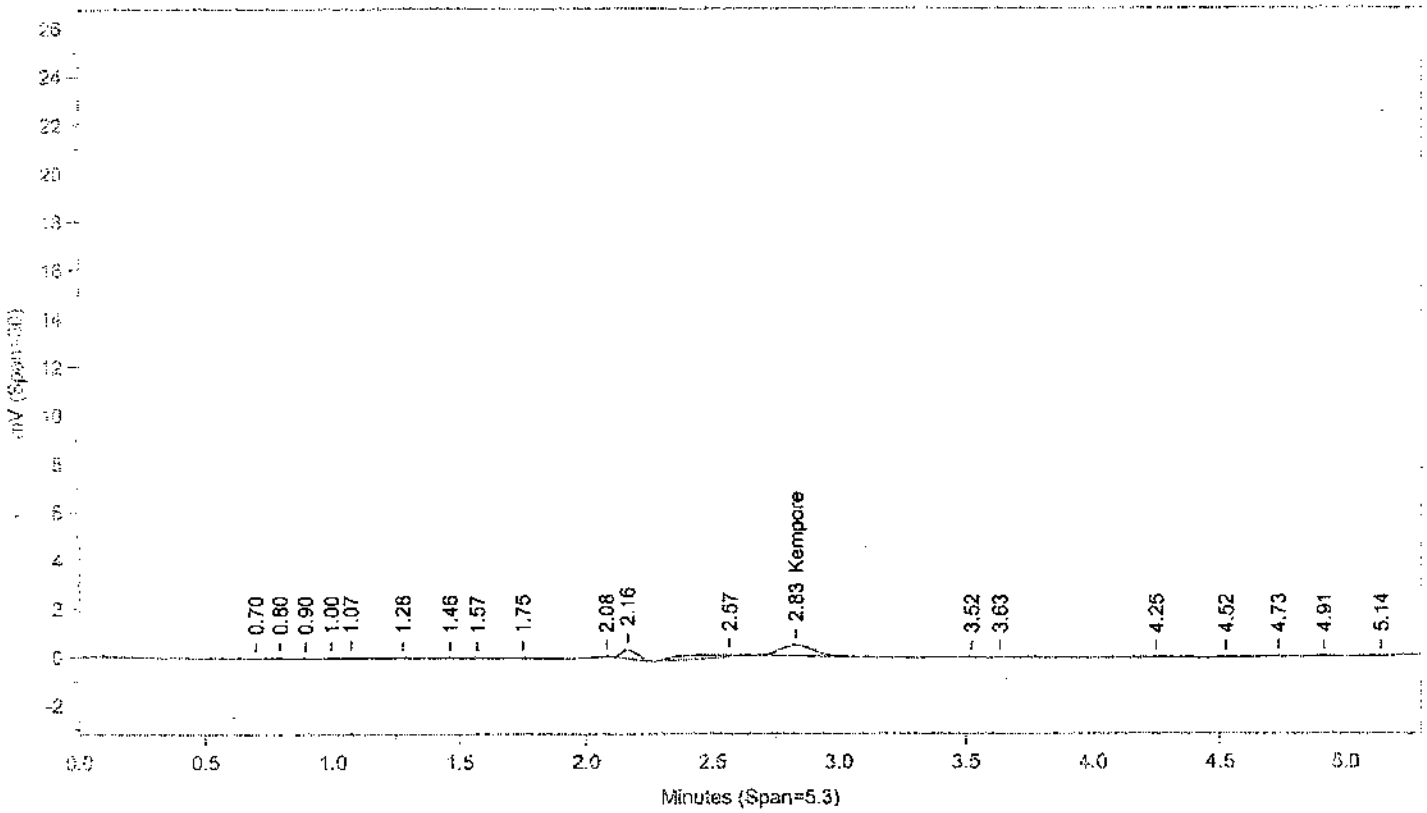
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

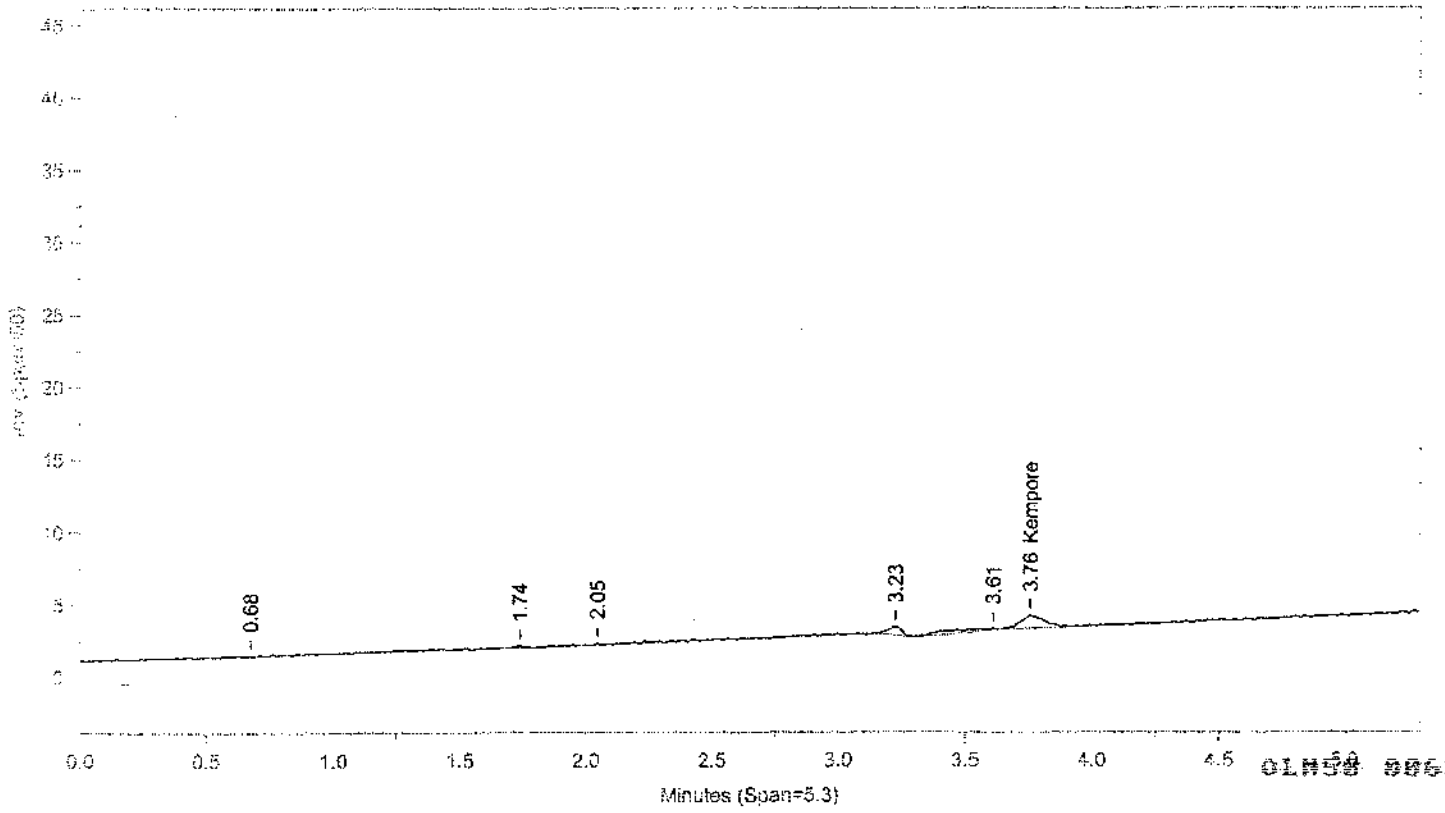
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.817	192	1410.256	Kempore	3.724	332	-294.575	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.05A
Area File: C:\CPWIN\DATA1\1K11342B.05A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:14:20 PM
File Reported On: 12/9/2010 at 5:14:31 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\K11342.06R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 7:33:03 PM Column ID: SupelcosIl PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 7:33:03 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

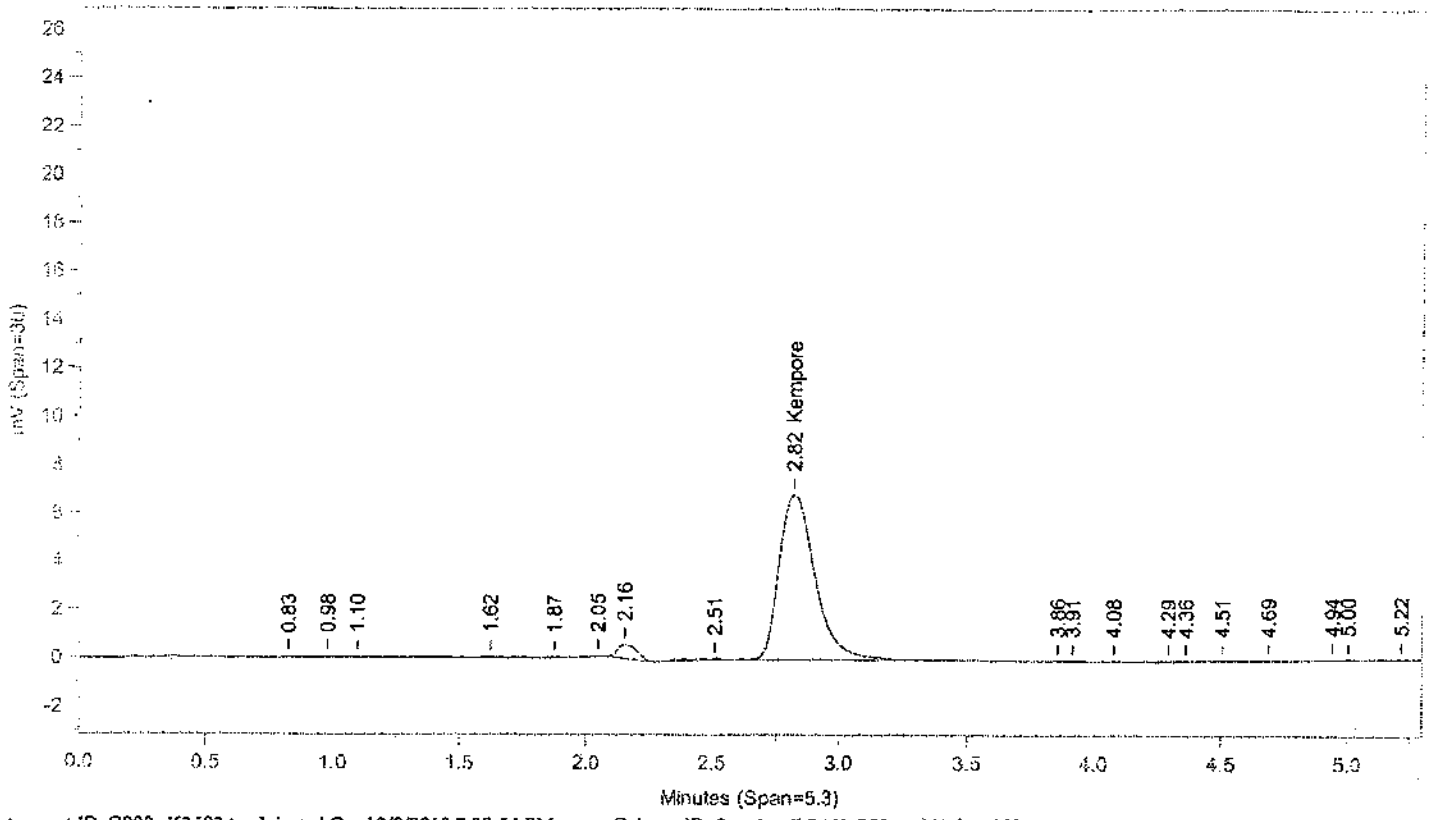
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

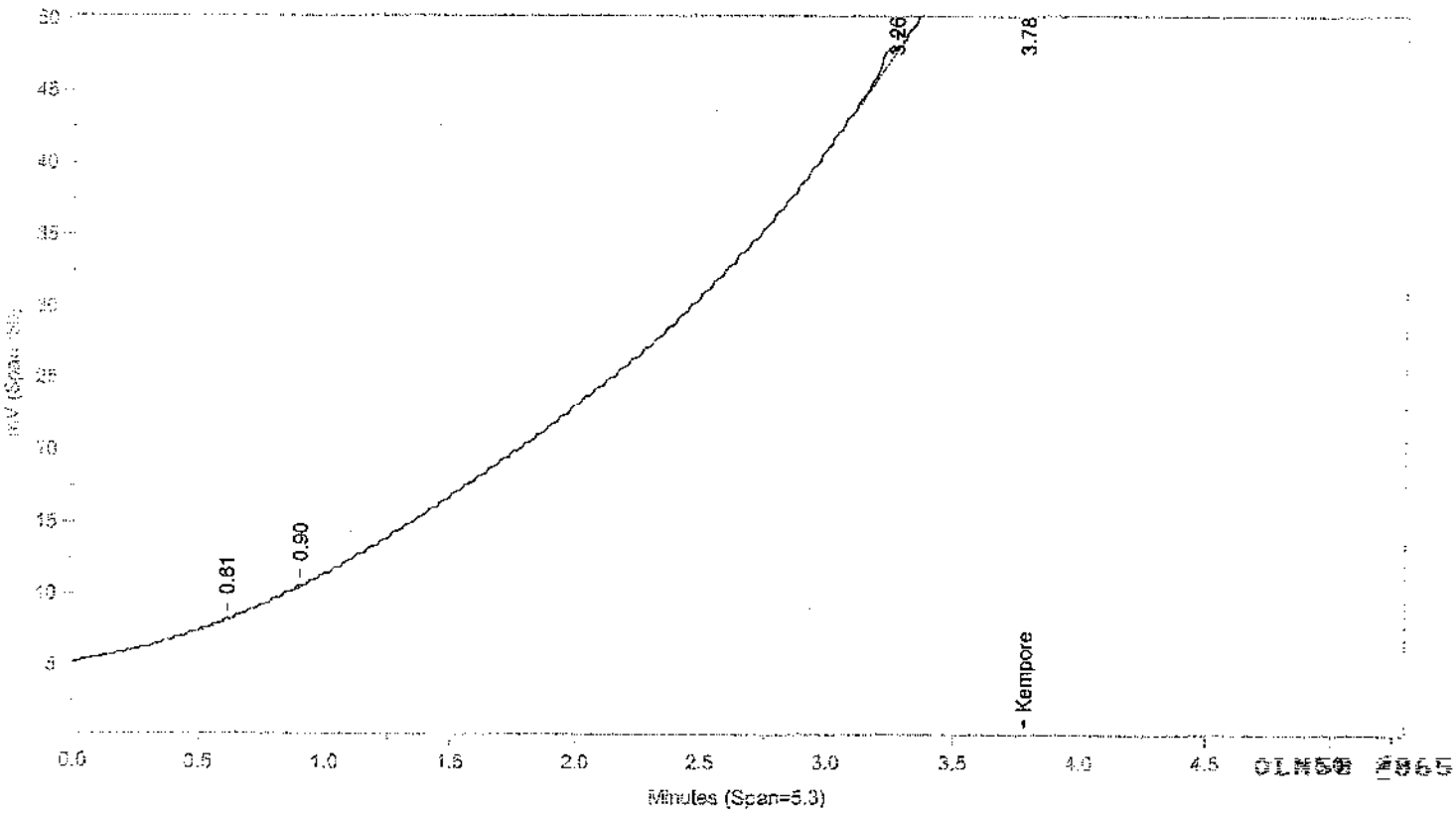
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.83	454	1648.519	Kempore	3.756	902	278.957	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.06A
Area File: C:\CPWIN\DATA1\1K11342B.06A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:14:44 PM
File Reported On: 12/9/2010 at 5:14:54 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11342.07R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 7:38:54 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 7:38:54 PM Column ID: Capcell CN, 250mmX4.6mmX5um

OLM59 #865

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

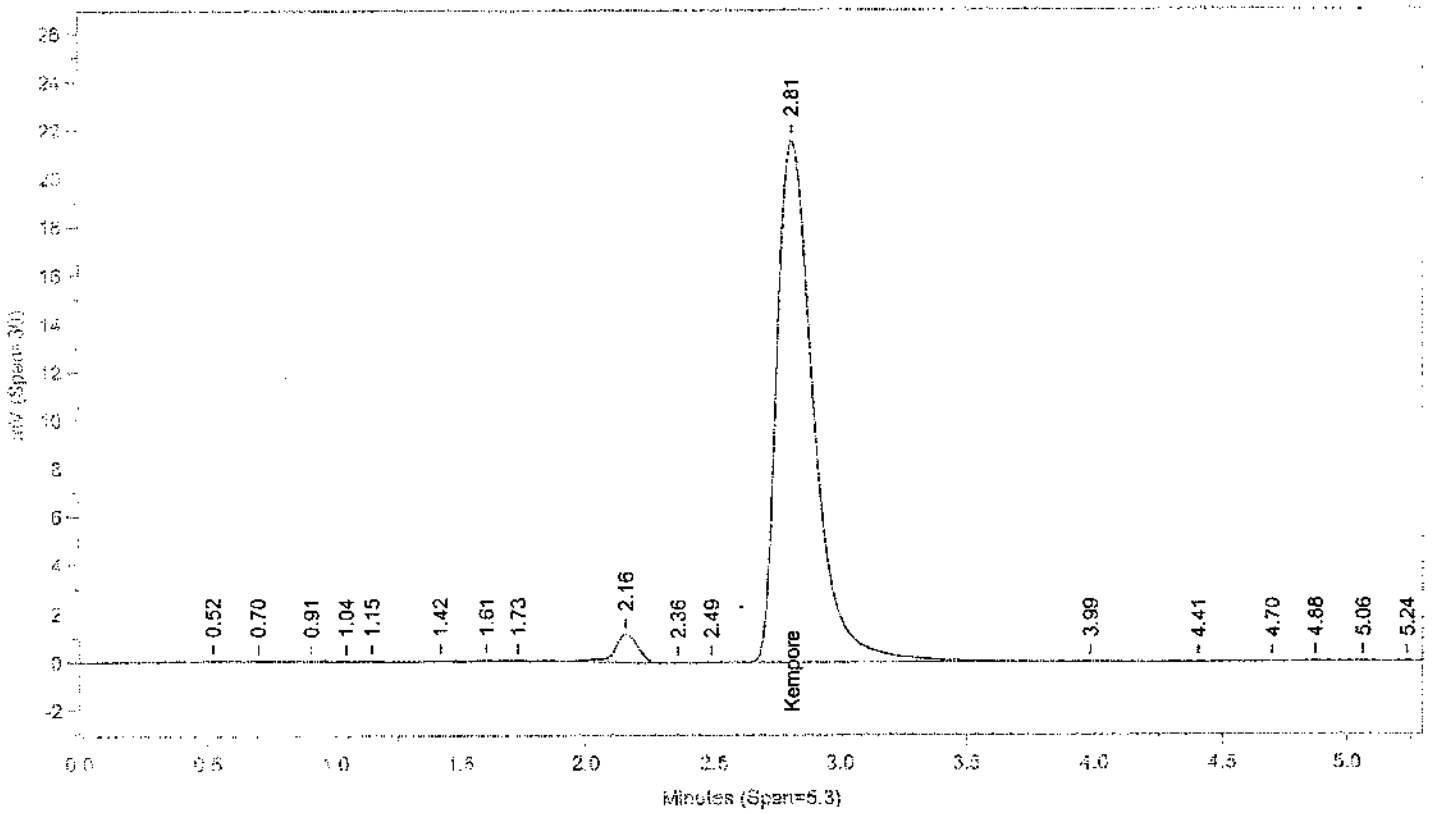
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

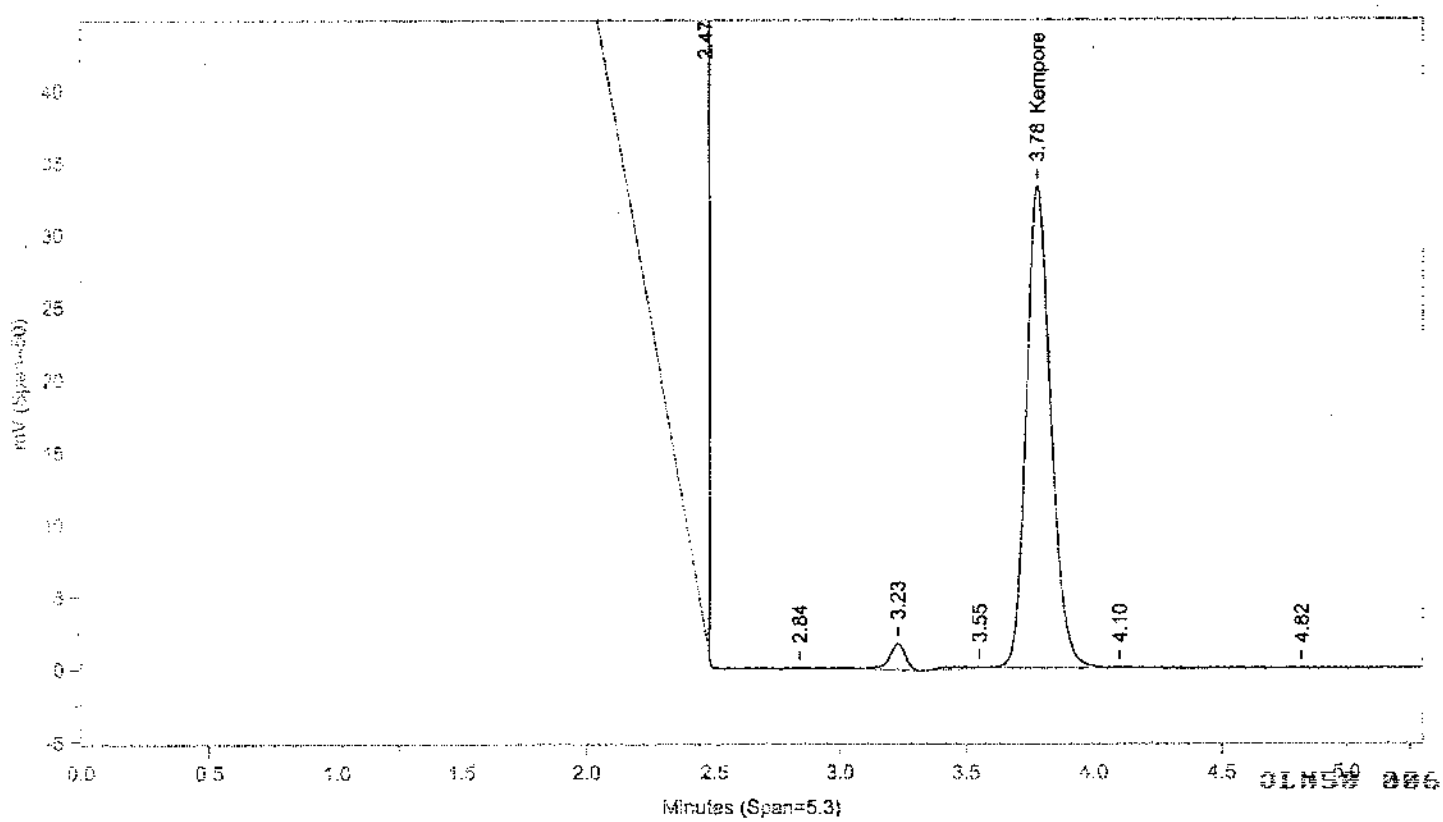
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.819	6847	7818.708	Kempore	3.781	10288	9718.304	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.07A
Area File: C:\CPWIN\DATA1\1K11342B.07A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:15:06 PM
File Reported On: 12/9/2010 at 5:15:17 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\K11342.08R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 7:44:45 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 7:44:45 PM Column ID: Capcell CN, 250mmX4.6mmX5um

01N59 0067

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

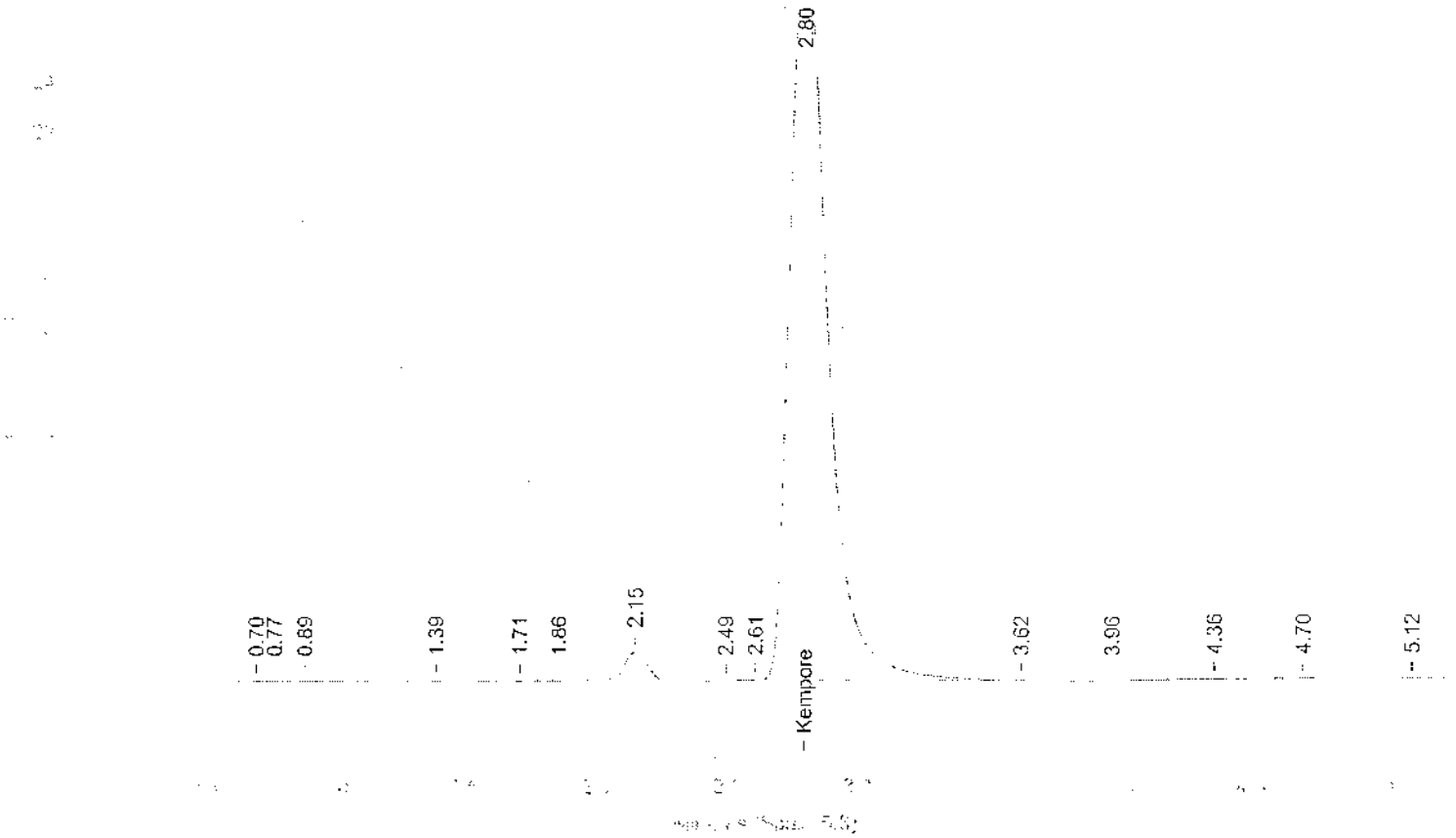
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

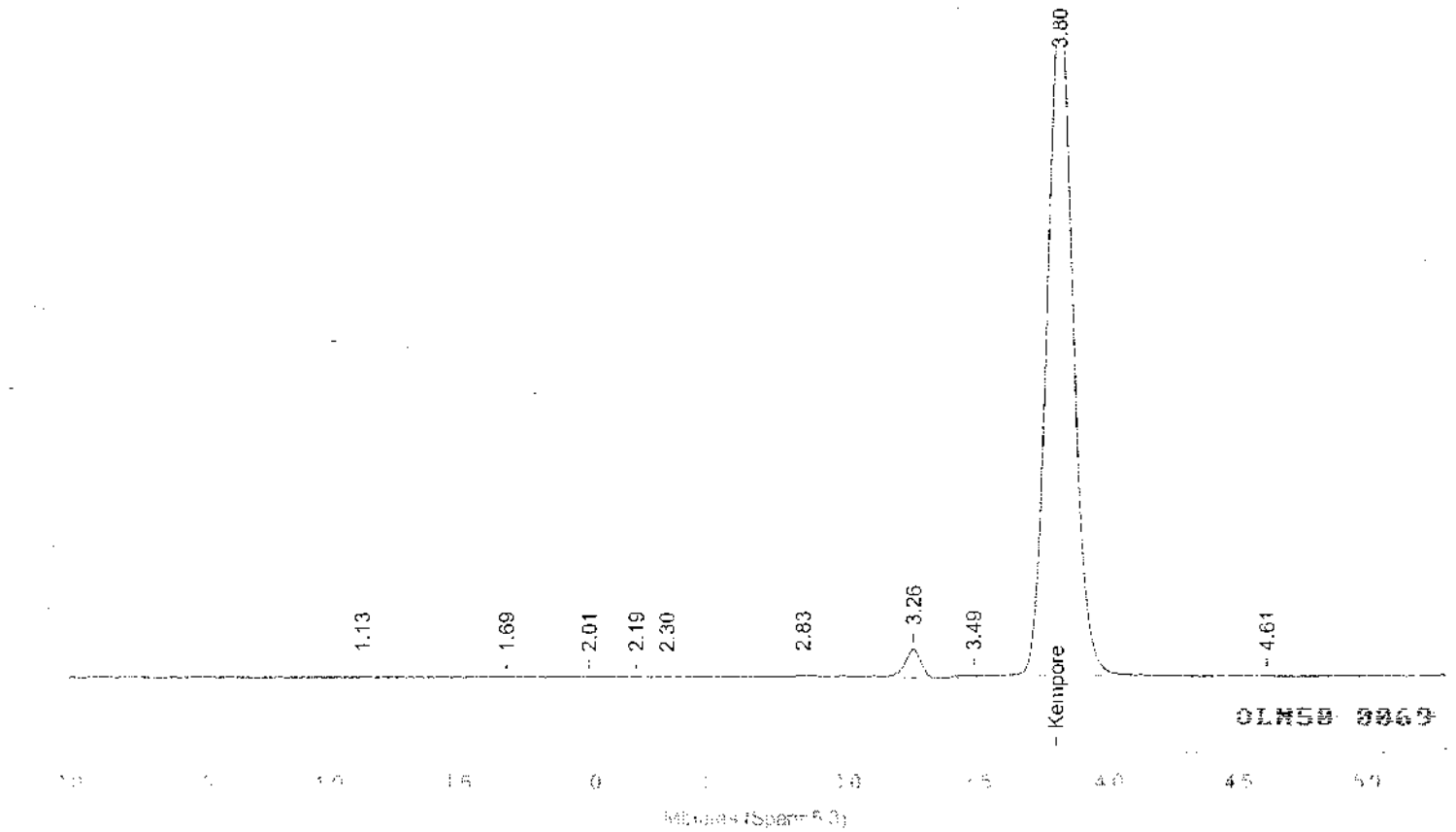
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.81	21574	26638.78	Kempore	3.778	33321	32881.45	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.08A
Area File: C:\CPWIN\DATA1\1K11342B.08A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:15:30 PM
File Reported On: 12/9/2010 at 5:15:40 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA\MKI342.09R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 7:50:36 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 7:50:36 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 1
Analyst: 1566

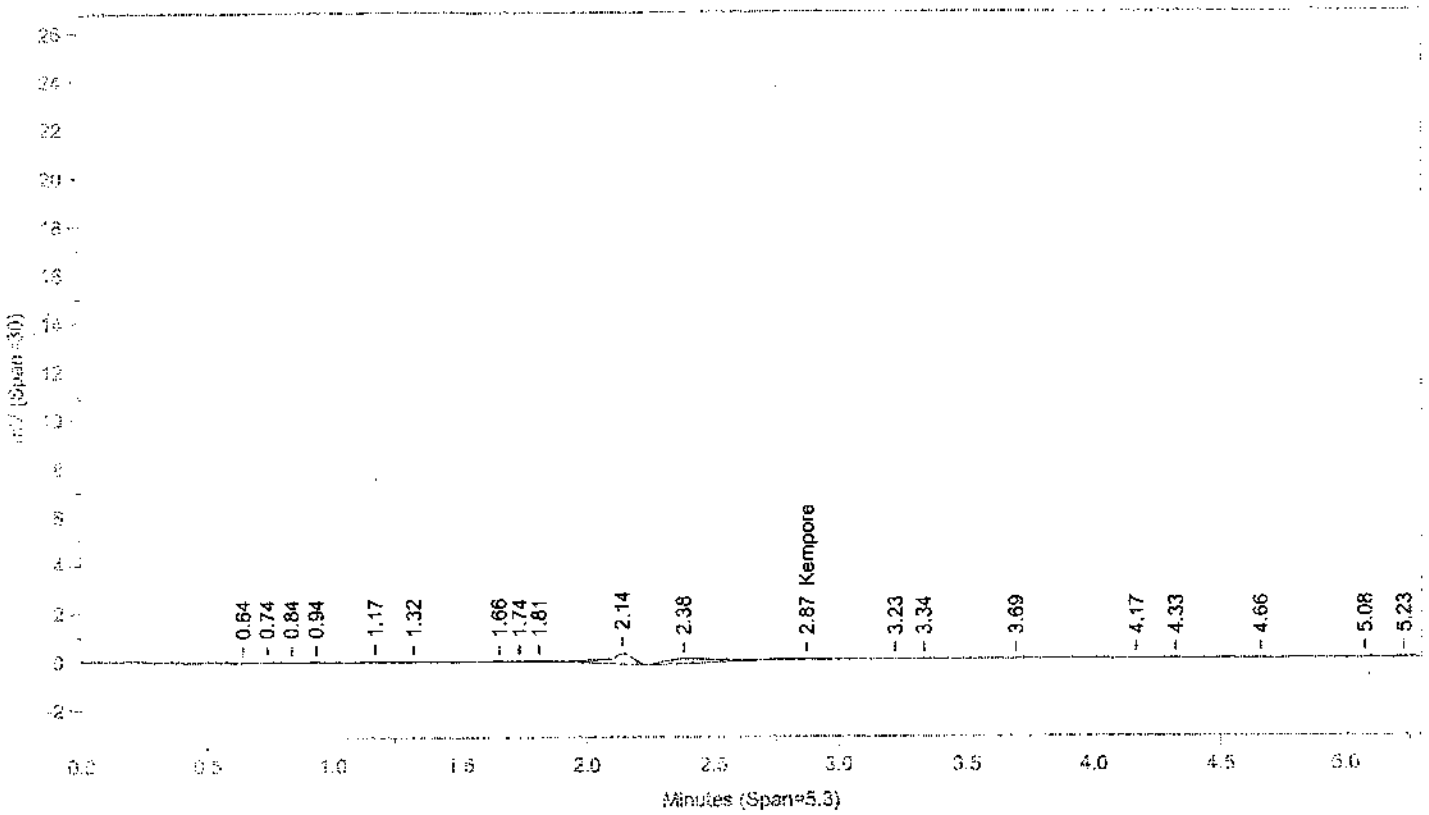
Dilution Factor: 1

RT A	Height A	Amount A	Compound A
2.798	29472	47355.57	Kempore

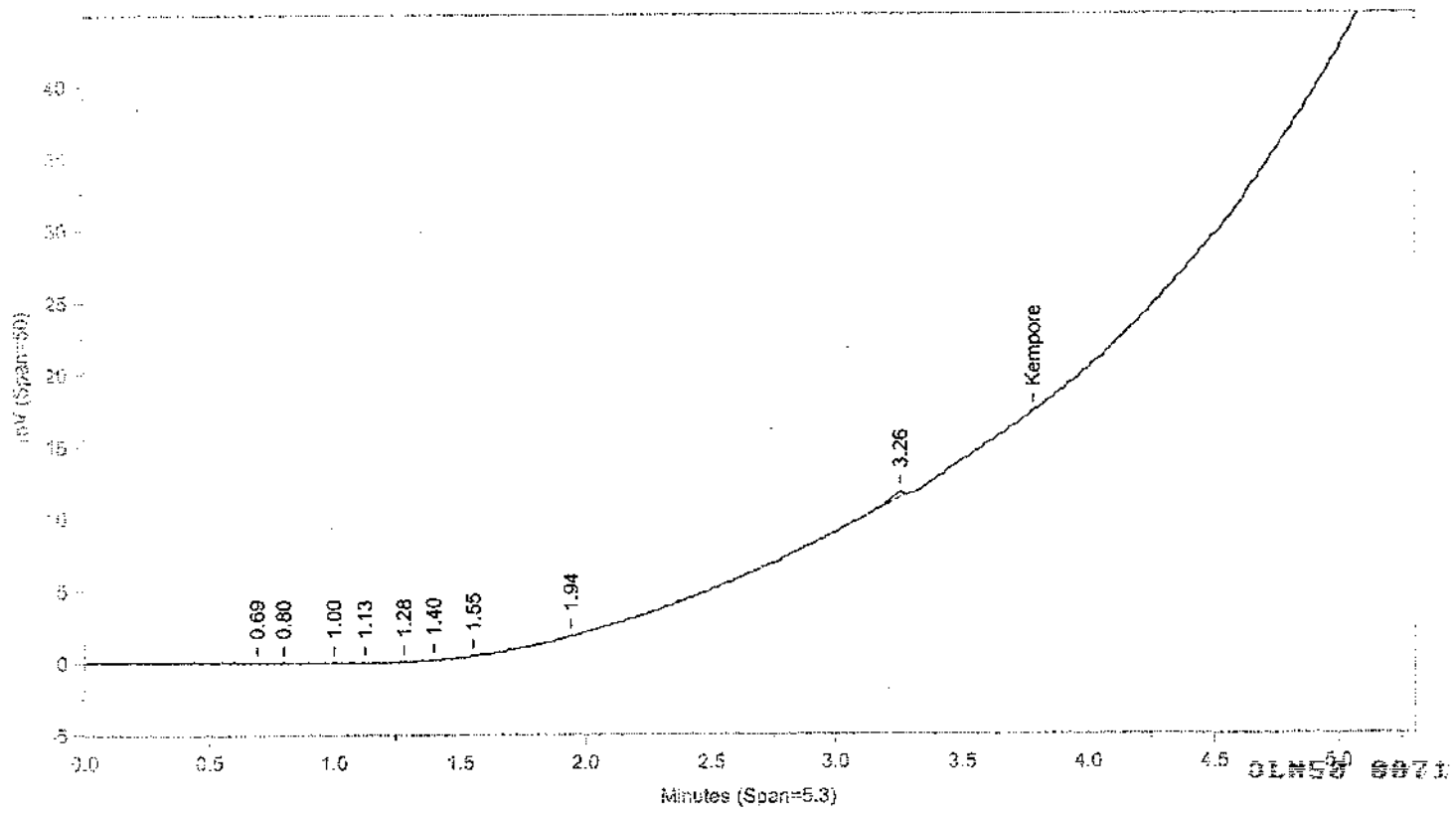
RT B	Height B	Amount B	Compound B
3.801	45315	44943.9	Kempore

Files:
Area File: C:\CPWIN\DATA1\IK11342.09A
Area File: C:\CPWIN\DATA1\IK11342B.09A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\IK11342.CAL
Calibration File B: C:\CPWIN\DATA1\IK11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:15:52 PM
File Reported On: 12/9/2010 at 5:16:01 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11342.10R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 7:56:27 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 7:56:27 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

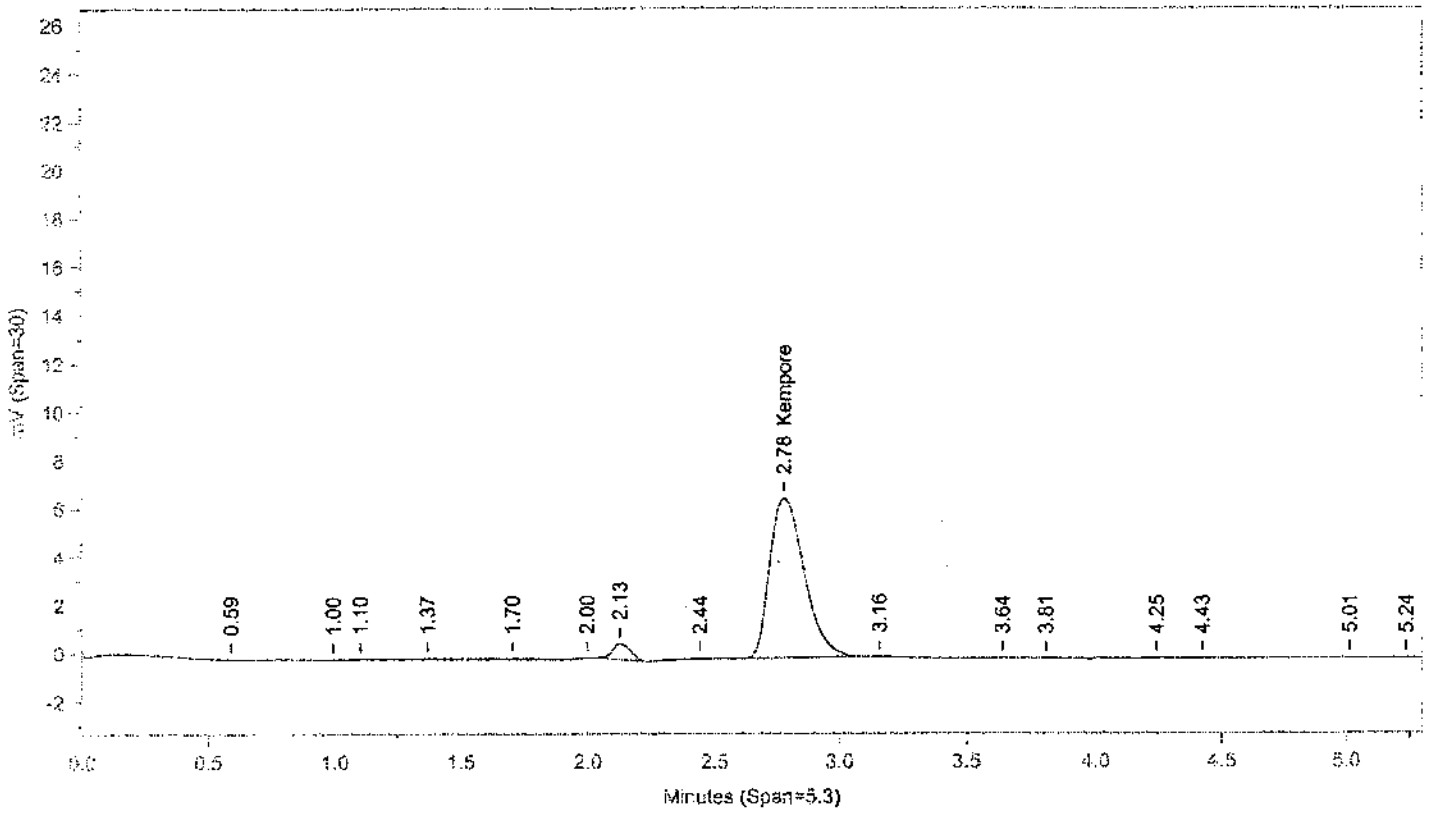
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

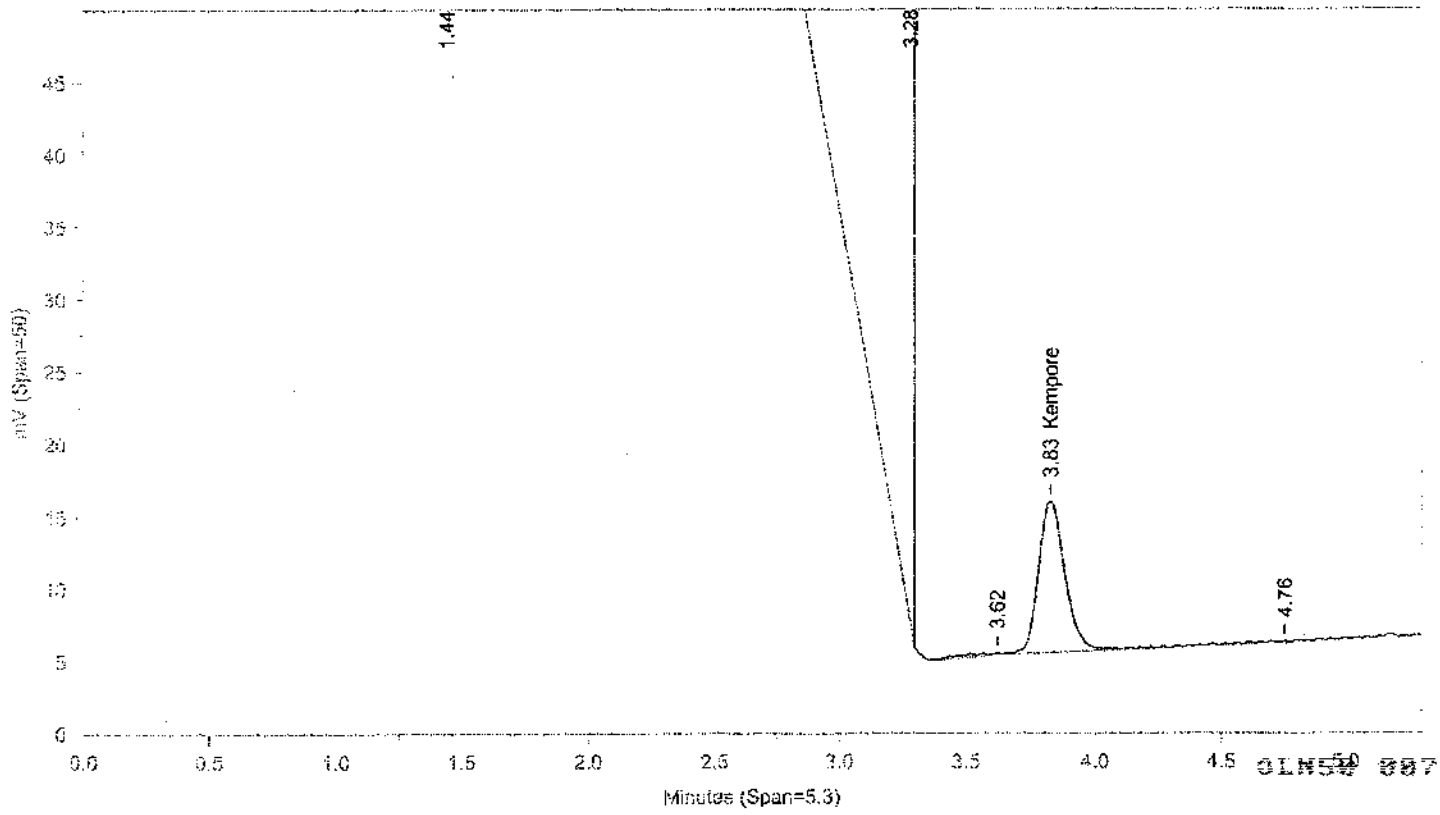
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.872	54	1286.015	Kempore	.	0	.	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.10A
Area File: C:\CPWIN\DATA1\1K11342B.10A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:16:12 PM
File Reported On: 12/9/2010 at 5:16:22 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11342.18R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 8:43:21 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 8:43:21 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.781	6618	8460.072	Kempore	3.829	10468	8657.76	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.18A
Area File: C:\CPWIN\DATA1\1K11342B.18A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:23:50 PM
File Reported On: 12/9/2010 at 5:24:00 PM

Raw QC Data

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
PBLK13342RE

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 103420013A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Matrix: (soil/water) WATER **Lab Sample ID:** BLANKA

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1K11342.11R

% Moisture: **Decanted: (Y/N)** **Date Received:**

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 12/8/2010

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 12/8/2010

Injection Volume: 30 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	230	U

OLN58 8076

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: BLANKA 12/8/10 PBLK13342 Sample ID: AA **Batchnumber: 103420013A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02726 02727

Analysis Report (A)

Injected on	: DEC 08, 2010 20:02:20
Instrument	: CP09--K3593A
Result file	: 1K11342.11R
Calibration file	: 1K11342.CAL
Method file	: KEMP.MET

Analysis Report (B)

Injected on	: DEC 08, 2010 20:02:20
Instrument	: CP09--K3593B
Result file	: 1K11342B.11R
Calibration file	: 1K11342B.CAL
Method file	: KEMPB.MET

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	A		<1000	<230			

Units: ug/l

Reviewed by: [signature] Date: 12/9/10
Verified by: [signature] Date:

DEC 14 2010

Sarah Snyder
Senior Specialist

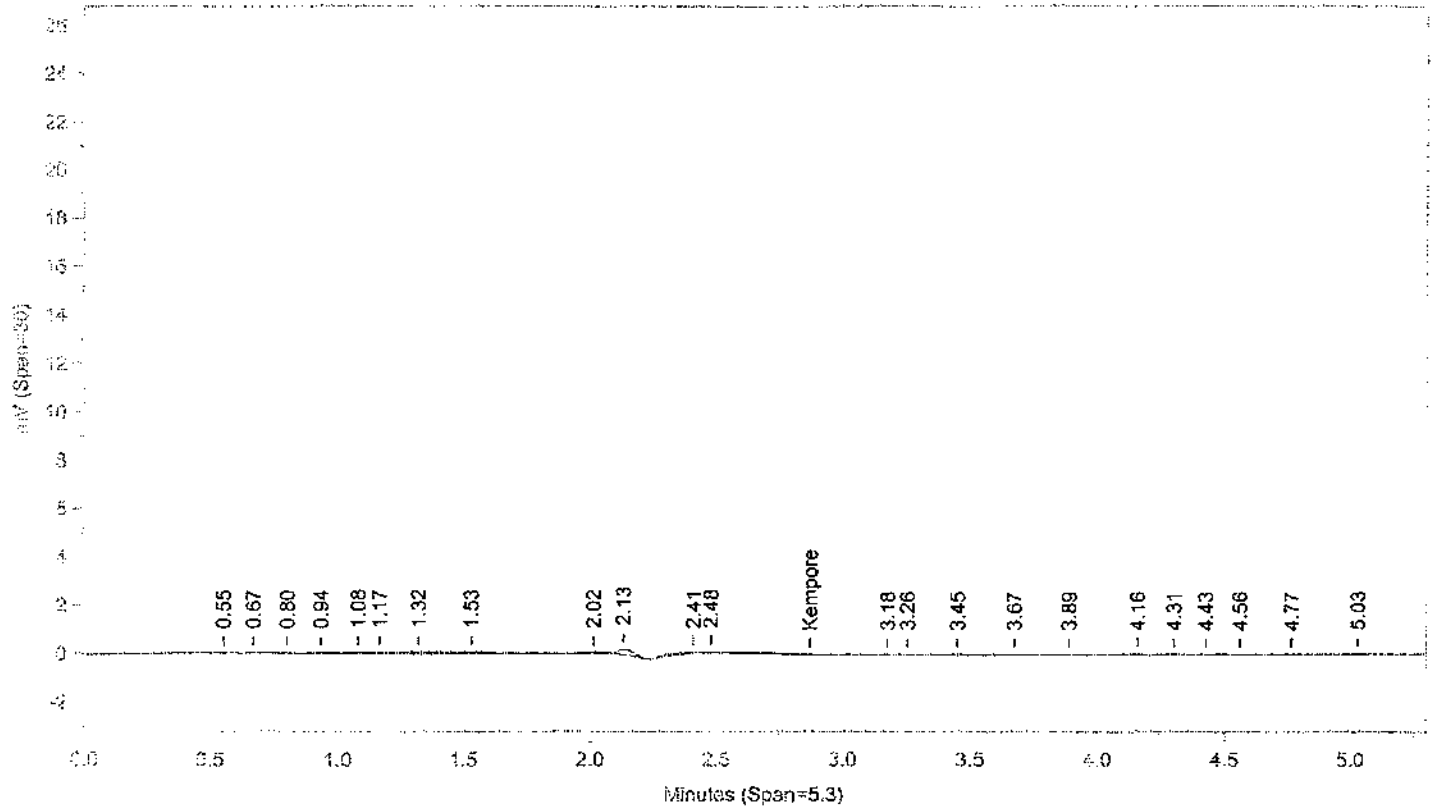
%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

01N50 8877

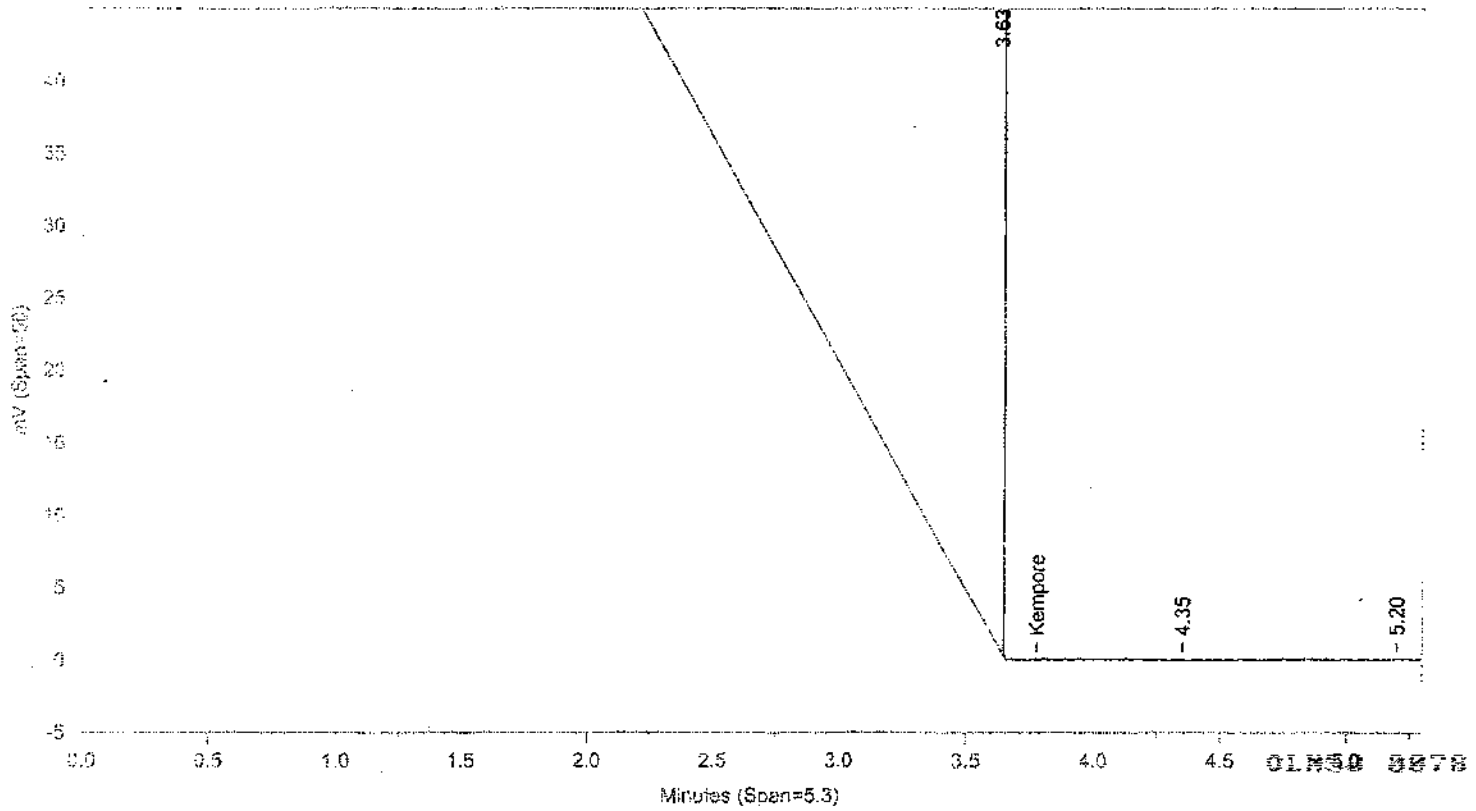
* Recovery outside QC Limits

Printed on: 12/9/10 17:28:22

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11342.11R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 8:02:19 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 8:02:19 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1 Area Reject: 0
Calibration Type: External Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1 Area Reject: 0
Calibration Type: External Quantiation: Height

Sample Weight: 10 Dilution Factor: 10
Analyst: 1566

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B

Files:
Area File: C:\CPWIN\DATA1\1K11342.11A
Area File: C:\CPWIN\DATA1\1K11342B.11A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:21:26 PM
File Reported On: 12/9/2010 at 5:21:37 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
LCS13342RE

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: LCSA

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1K11342.12R

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/8/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/8/2010

Injection Volume: 30 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	8600	

OLM59: 0000

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: **LCSA** 12/8/10 LCS13342 Sample ID: AA **Batchnumber: 103420013A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02726 02727

Analysis Report (A)

Injected on : DEC 08, 2010 20:08:12
Instrument : CP09--K3593A
Result file : 1K11342.12R
Calibration file : 1K11342.CAL
Method file : KEMP.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	2.77	2.80	2.97	6741	8595.677734

Analysis Report (B)

Injected on : DEC 08, 2010 20:08:12
Instrument : CP09--K3593B
Result file : 1K11342B.12R
Calibration file : 1K11342B.CAL
Method file : KEMPB.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	3.68	3.80	3.88	10420	8623.101563

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	~~B~~ A	~~8623.101563~~ 8595.677734	1000	230		0.32	

Units: ug/l

Reviewed by: [signature] Date: 12/9/10
Verified by: [signature] Date:

DEC 14 2010

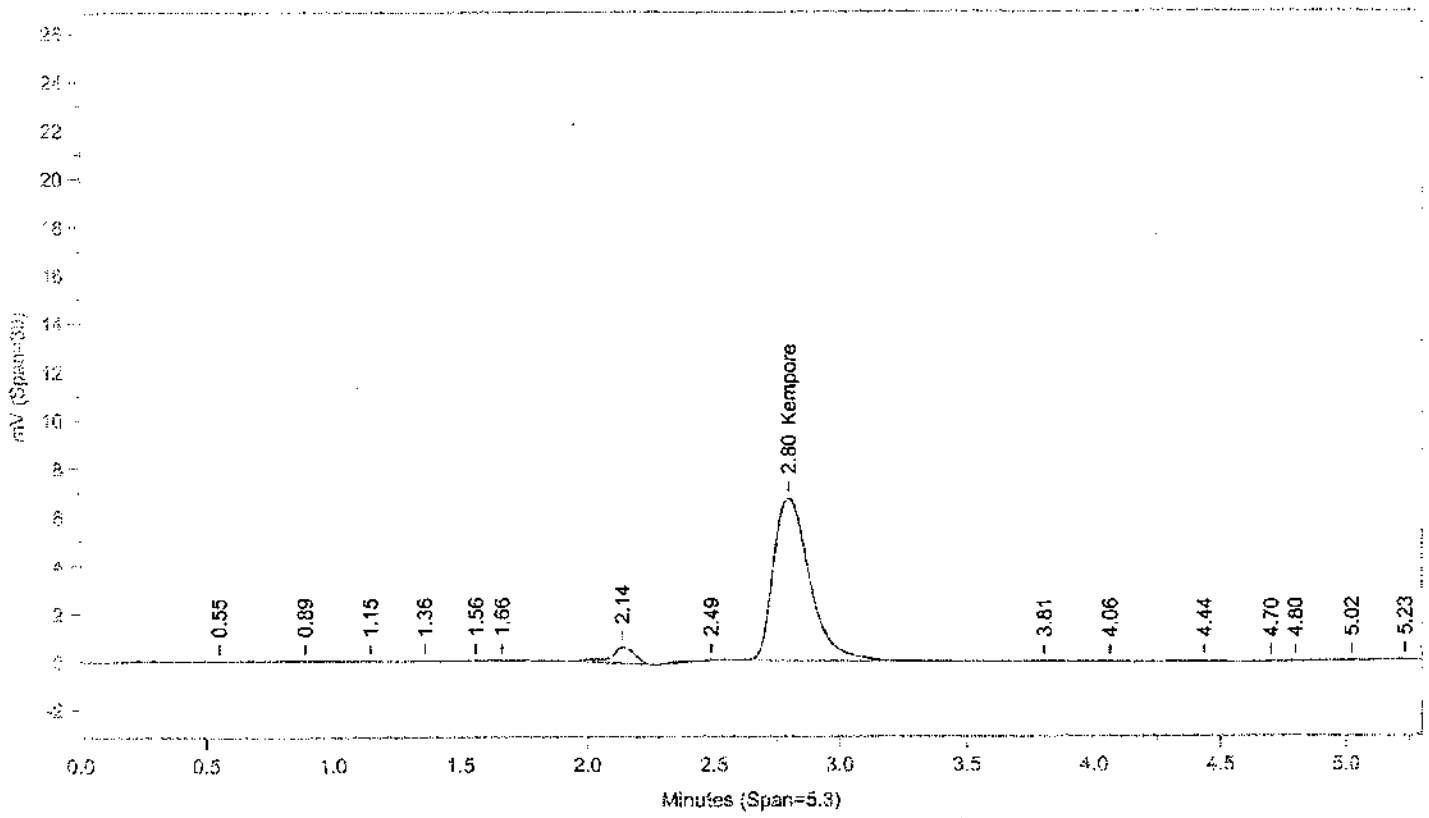
Sarah Snyder
Senior Specialist

%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

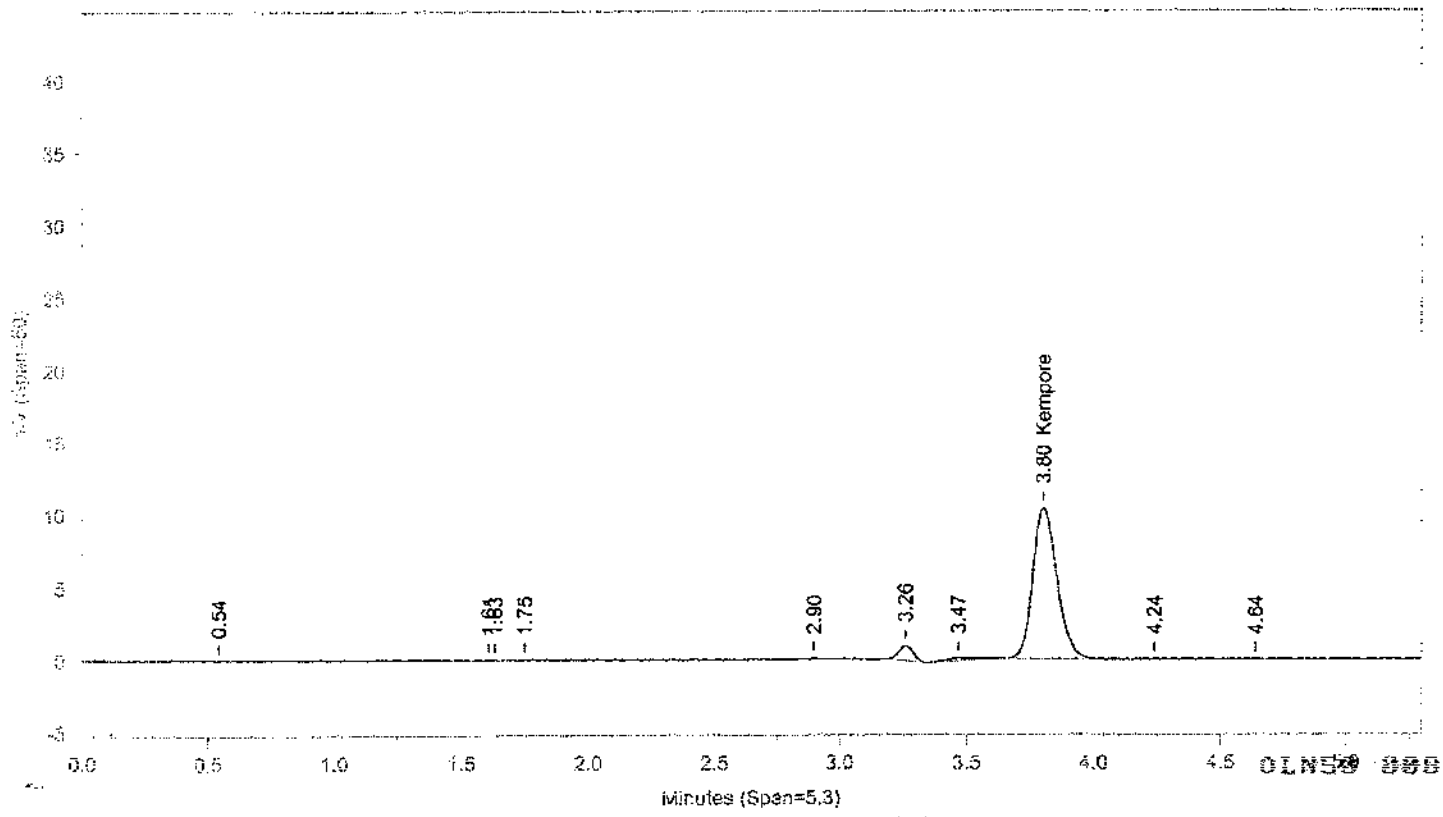
* Recovery outside QC Limits

Printed on: 12/9/10 17:28:40

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\K11342.12R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 8:08:11 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 8:08:11 PM Column ID: Capcell CN, 250mmX4.6mmX5um

OLN59 0052

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.796	6741	8595.678	Kempore	3.804	10420	8623.102	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.12A
Area File: C:\CPWIN\DATA1\1K11342B.12A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:21:48 PM
File Reported On: 12/9/2010 at 5:21:57 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
LCSD13342RE

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) WATER

Lab Sample ID: LCSDA

Sample wt/vol: 10 (g/ml) ml

Lab File ID: 1K11342.13R

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 12/8/2010

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 12/8/2010

Injection Volume: 30 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	8100	

OLM59 0004

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: LCSDA 12/8/10 LCSD13342 Sample ID: AA **Batchnumber: 103420013A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02726 02727

Analysis Report (A)

Injected on : DEC 08, 2010 20:14:03
Instrument : CP09--K3593A
Result file : 1K11342.13R
Calibration file : 1K11342.CAL
Method file : KEMP.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	2.77	2.82	2.97	6251	8054.768555

Analysis Report (B)

Injected on : DEC 08, 2010 20:14:03
Instrument : CP09--K3593B
Result file : 1K11342B.13R
Calibration file : 1K11342B.CAL
Method file : KEMPB.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	3.68	3.78	3.88	9868	8227.959961

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	~~B~~ A	~~8227.959961~~ 8054.768555	1000	230		2.13	

Units: ug/l

Reviewed by: [signature] Date: 12/9/10
Verified by: [signature] Date:

DEC 14 2010

Sarah Snyder
Senior Specialist

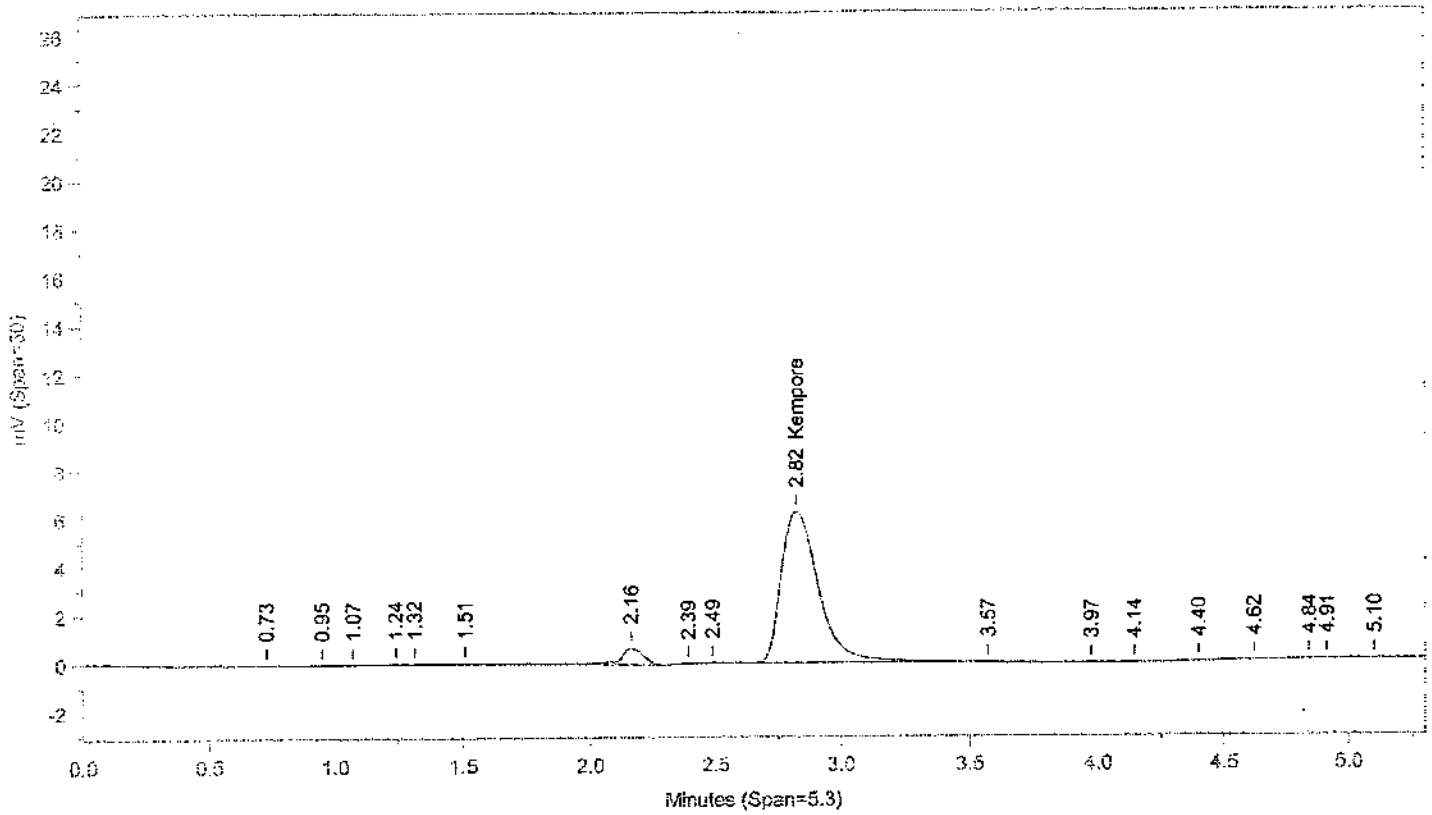
%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

QLN59 0085

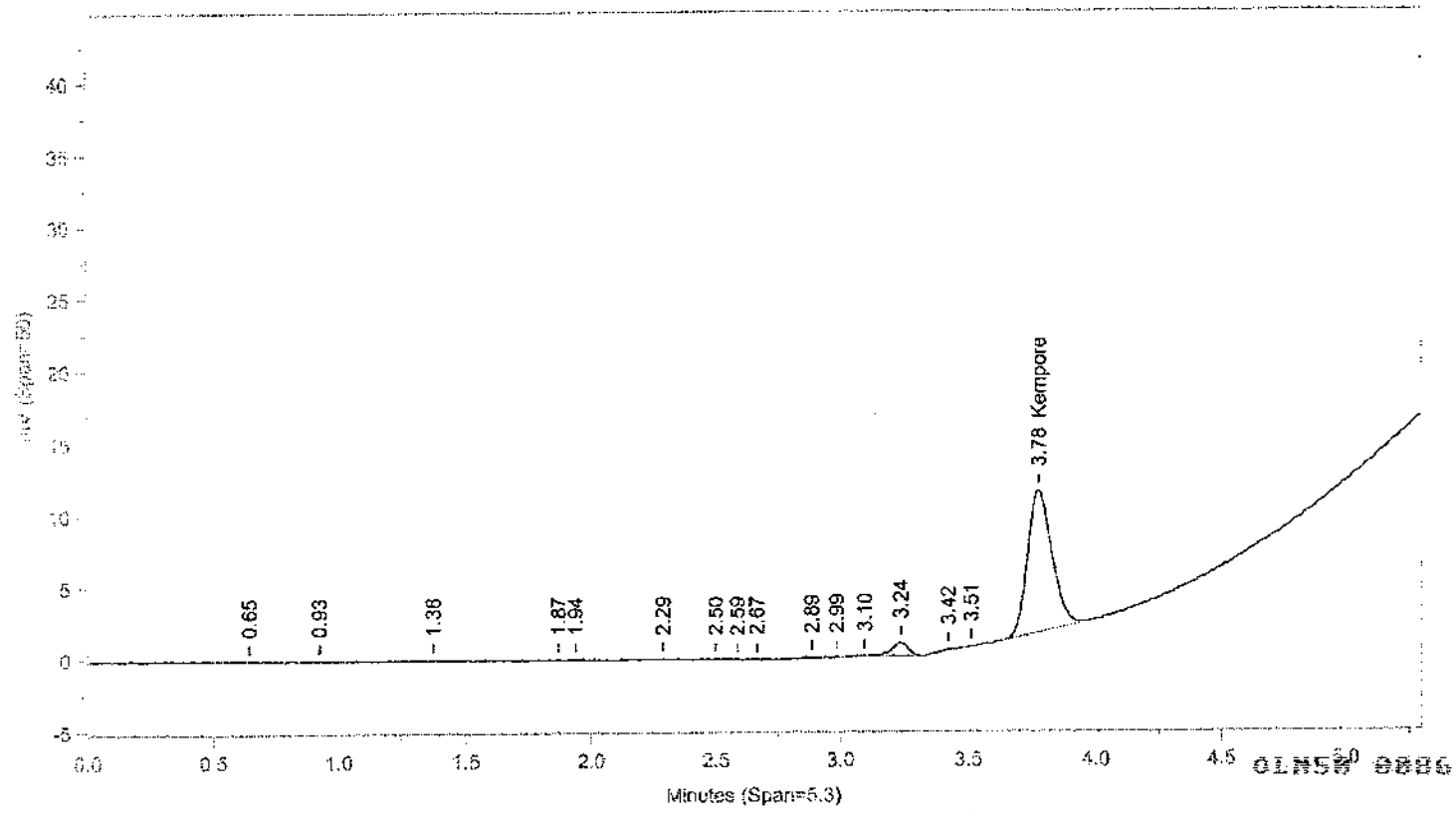
* Recovery outside QC Limits

Printed on: 12/9/10 17:28:59

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11342.13R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 8:14:02 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 8:14:02 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.824	6251	8054.769	Kempore	3.778	9868	8227.96	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.13A
Area File: C:\CPWIN\DATA1\1K11342B.13A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:22:08 PM
File Reported On: 12/9/2010 at 5:22:18 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
REMSD05MS

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Matrix: (soil/water) WATER Lab Sample ID: 6155350

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1K11342.15R

% Moisture: Decanted: (Y/N) Date Received: 12/3/2010

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/8/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/8/2010

Injection Volume: 30 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	20000	

OLN50 0003

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6155350R MS MSD05MS Sample ID: AA **Batchnumber: 103420013A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN50 State: MA
Analyses: 02726 02727

Analysis Report (A)

Injected on : DEC 08, 2010 20:25:47
Instrument : CP09--K3593A
Result file : 1K11342.15R
Calibration file : 1K11342.CAL
Method file : KEMP.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	2.77	2.81	2.97	16912	19832.265625

Analysis Report (B)

Injected on : DEC 08, 2010 20:25:47
Instrument : CP09--K3593B
Result file : 1K11342B.15R
Calibration file : 1K11342B.CAL
Method file : KEMPB.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	3.68	3.79	3.88	26569	20200.275391

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	~~B~~ A	~~20200.275391~~ 19832.265625	1000	230		1.84	

Units: ug/l

Reviewed by: 1566 Date: 12/9/10
Verified by: Date:

DEC 14 2010

Sarah Snyder
Senior Specialist

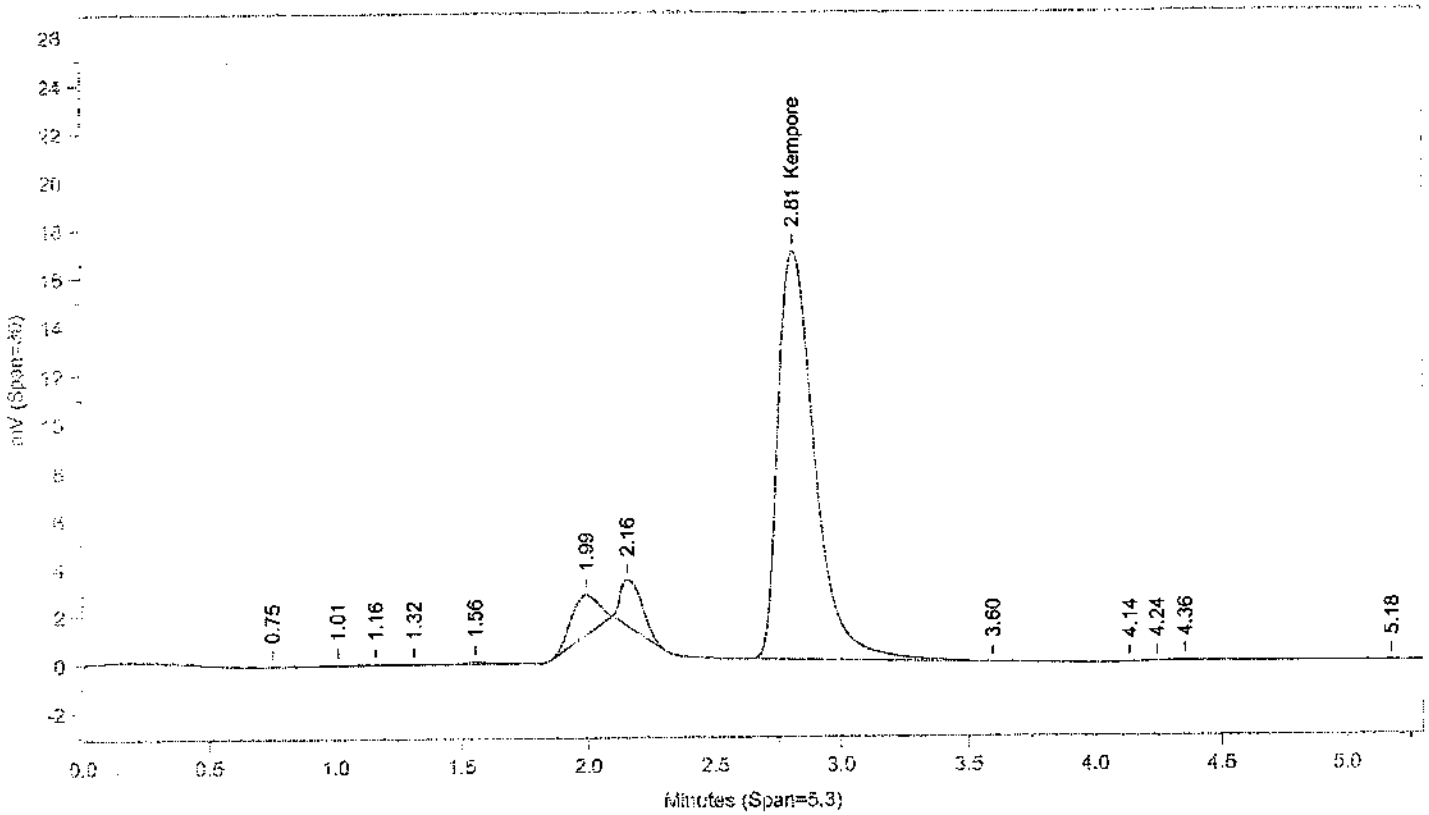
%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

OLN50 0009

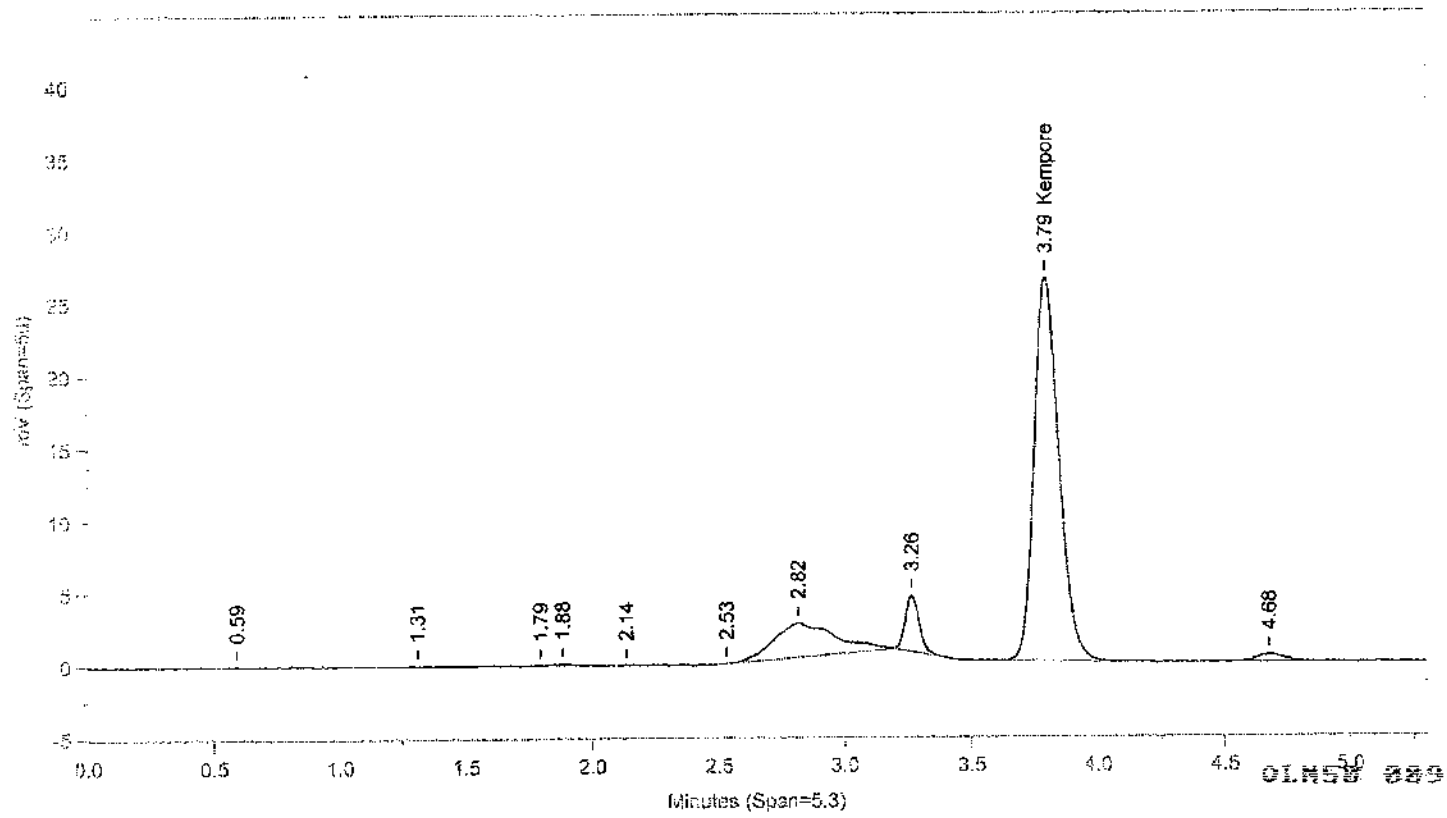
* Recovery outside QC Limits

Printed on: 12/9/10 17:29:36

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11342.15R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 8:25:46 PM Column ID: SupelcosIl PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 8:25:46 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.814	16912	19832.27	Kempore	3.792	26569	20200.28	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.15A
Area File: C:\CPWIN\DATA1\1K11342B.15A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:22:48 PM
File Reported On: 12/9/2010 at 5:22:57 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
REMSD05MSD

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103420013A

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Matrix: (soil/water) WATER Lab Sample ID: 6155350

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1K11342.16R

% Moisture: Decanted: (Y/N) Date Received: 12/3/2010

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/8/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/8/2010

Injection Volume: 30 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	18000	

OLN50 0092

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6155350R MSD MSD05MSDSample ID: AA **Batchnumber: 103420013A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN50 State: MA
Analyses: 02726 02727

Analysis Report (A)

Injected on : DEC 08, 2010 20:31:38
Instrument : CP09--K3593A
Result file : 1K11342.16R
Calibration file : 1K11342.CAL
Method file : KEMP.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	2.77	2.79	2.97	15392	18152.730469

Analysis Report (B)

Injected on : DEC 08, 2010 20:31:38
Instrument : CP09--K3593B
Result file : 1K11342B.16R
Calibration file : 1K11342B.CAL
Method file : KEMP8.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	3.68	3.81	3.88	24012	18367.074219

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	~~B~~ A	~~18367.074219~~ 18152.730469	1000	230		1.17	

Units: ug/l

Reviewed by: 1566 Date: 12/9/10
Verified by: Sarah Snyder Date:

DEC 14 2010

Sarah Snyder
Senior Specialist

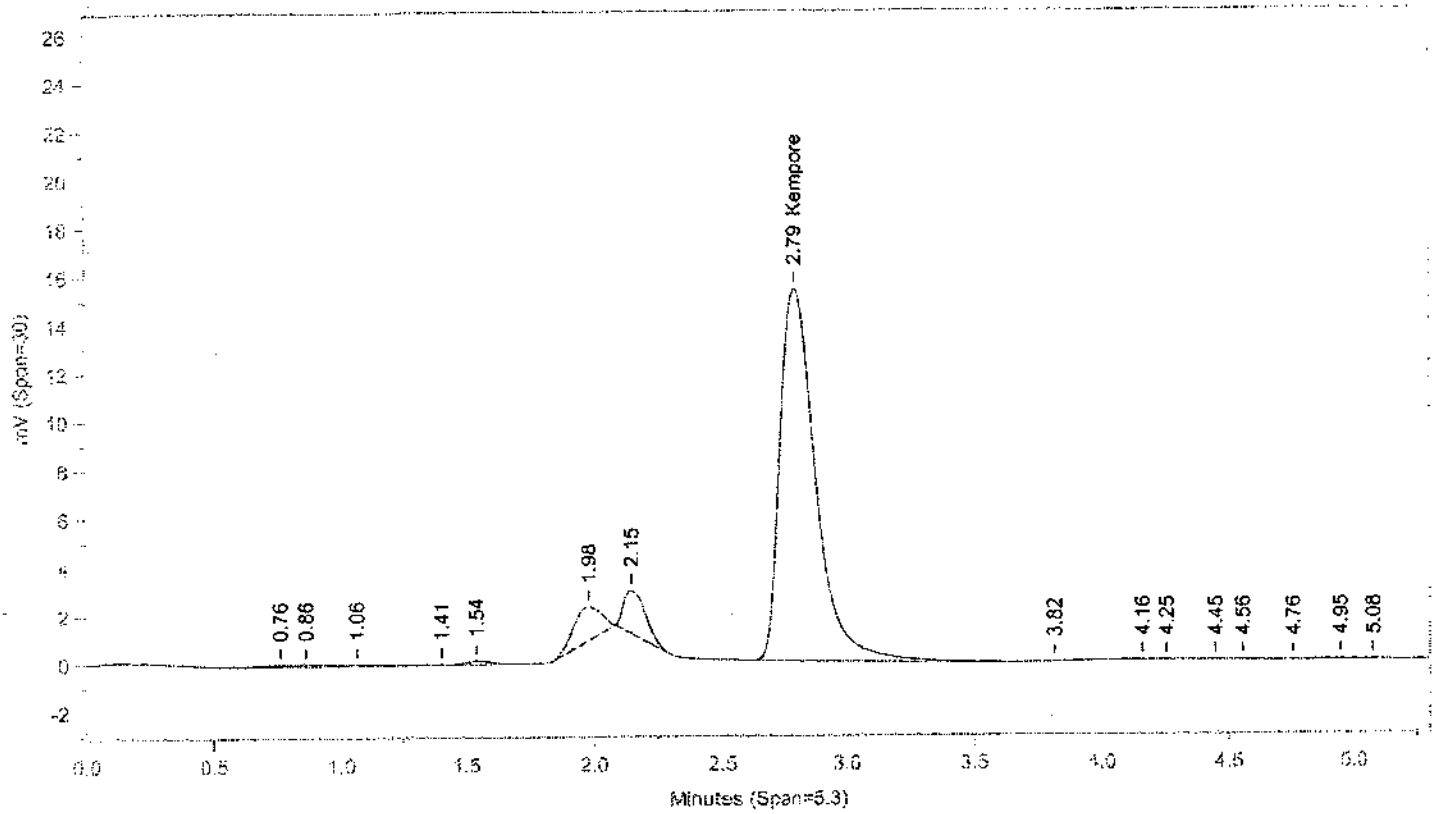
%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

01H58 0093

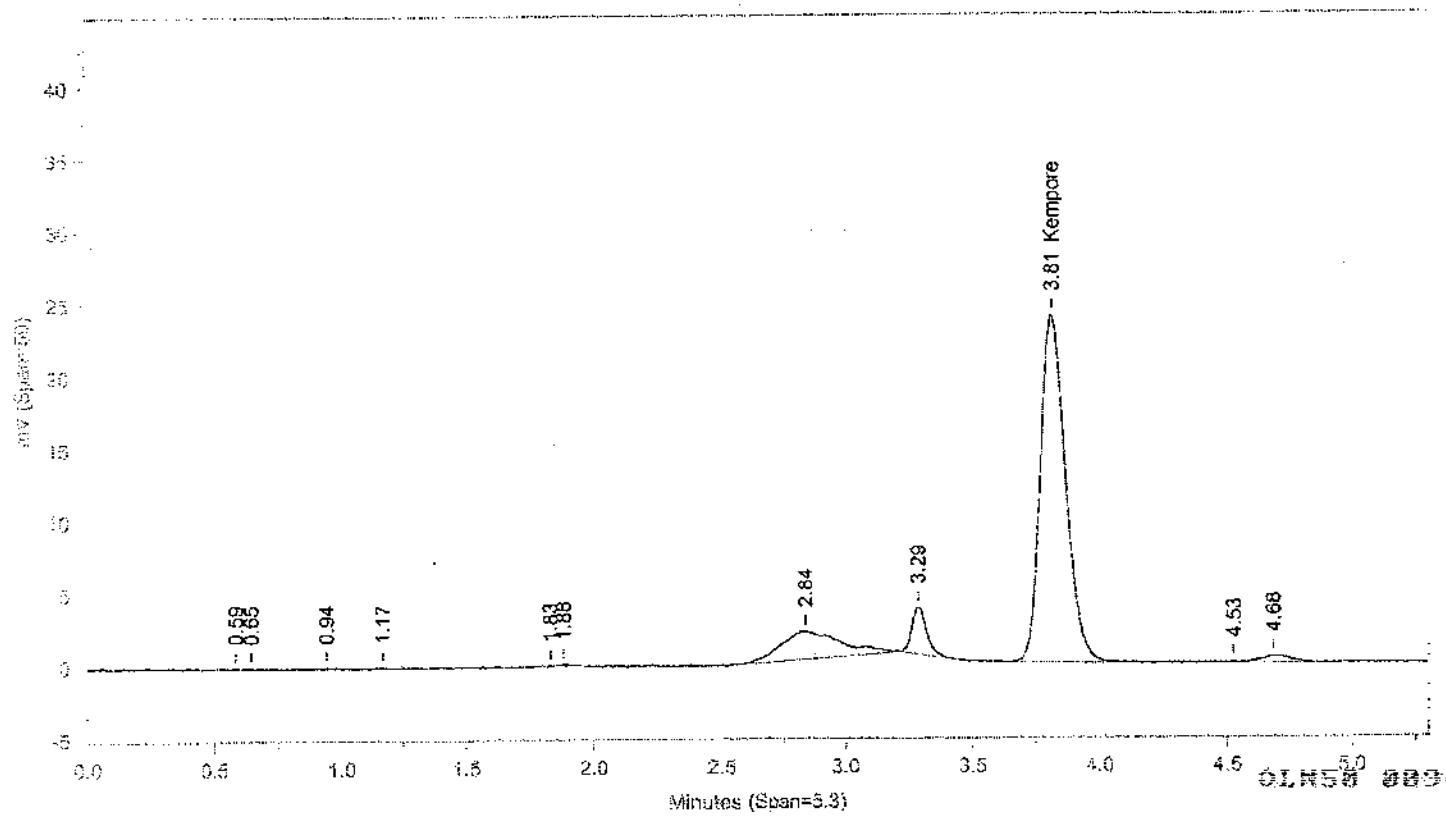
* Recovery outside QC Limits

Printed on: 12/9/10 17:29:55

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11342.16R



Instrument ID: CP09--K3593A Injected On: 12/8/2010 8:31:37 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 12/8/2010 8:31:37 PM Column ID: Capcell CN, 250mmX4.6mmX5um

OLN50 0894

Oven Parameters: 100% PHOSPHATE buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.791	15392	18152.73	Kempore	3.814	24012	18367.07	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11342.16A
Area File: C:\CPWIN\DATA1\1K11342B.16A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11342.CAL
Calibration File B: C:\CPWIN\DATA1\1K11342B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/9/2010 5:23:08 PM
File Reported On: 12/9/2010 at 5:23:18 PM

Extraction/Distillation/Digestion Logs

Organic Extraction Batchlog Assigned to: 1566 James Place

Reviewed by: [illegible] Start Date: 12/8/10 Start time: 5:00pm

103420013A

Tech 1: [illegible] Tech 2:

Dept: 24 Prep Analysis: 00000 Kempore in Water

QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
6155350MSD	MSD05MSD	1.0			ST10327 24B	1.0	1.0	—	—	55A	
	MSD05MSD										
6155350MS	MSD05MS	1.0			ST10327 24B	1.0	1.0	—	—	55A	
	MSD05MS										
BLANKA	PBLK13342	1.0			—	—	1.0	—	—	N/C	
	PBLK13342										
LCSA	LCS13342	1.0			ST10327 24B	1.0	1.0	—	—	N/C	
	LCS13342										
LCSDA	LCSD13342	1.0			ST10327 24B	1.0	1.0	—	—	N/C	
	LCSD13342										

ST10327 24B-Kempore Stock

Sample #			Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6155350	R	MSD05	1.0			1.0	—	—	55A		02726 02727	12/15/2010	P
2	6155978	R	SW-2-	1.0			1.0	—	—	55A		02726 02727	12/16/2010	P

Rack ID:		Work Station	
Internal Standard		Balance #	

S-bath ID	C	S-bath ID	C	N-Evap	C	M-vap	C	103420013A

Documented temps are NIST corrected.

DF = Dilution Factor FV = Final Volume

Opex Data

01N58 8898

Case Narrative Conformance/Nonconformance Summary

01N58 8899

Lancaster Laboratories

CLIENT: Olin Corporation
SDG: OLN50

LANCASTER LABORATORIES

Opex

LLI SAMPLE #	SAMPLE CODE	MATRIX WATER	MATRIX SOLID	COMMENT
BLANKA 12/7/10	PBLK21341	X		Method Blank
LCSA	LCS21341	X		Lab Control Spike
LCSDA	LCSD21341	X		Lab Control Spike Dup
6155350	MSD05	X		Unspiked
6155978	SW-2-	X		
LAB SUBMITTED QC:				
6155350MS	MSD05MS	X		Matrix Spike
6155350MSD	MSD05MSD	X		Matrix Spike Dup

A. Sample Preparation:

No problems were encountered with the preparation of the samples.

B. Analysis:

No problems were encountered.

All continuing calibration data meet the method specification.

C. Quality Control:

Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD.

For preparation/method blank results >LOQ, corrective action is not required if the sample result is >10 times the blank concentration, unless otherwise specified in the method or by the client.

All QC data are within specifications.

D. Data Interpretation:

No further interpretation is needed.

Data codes:

Data that indicates that manual integration was required would include the following codes:
1 = missed peak and 2 = improper baseline. The peaks that have been manually changed are indicated with an "M" on the raw data.

Lancaster Laboratories, Inc. • 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Narrative reviewed and approved by:

Dana Kauffman, Manager Data Deliverables **Date** 12/28/10

01N58 0101

Quality Control and Calibration Summary Forms

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
PBLK21341

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103410021A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: BLANKA

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1X11341.11R

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/7/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/7/2010

Injection Volume: 35 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	20	U

01N50 0103

FORM I

3E

Water Lab Control Spike/Lab Control Spike Duplicate Recovery

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Laboratory Control Spike - Sample Code No.: LCS21341

Compound	Spike Added (ug/l)	LCS Concen (ug/l)	LCSD Concen (ug/l)	LCS % Rec #	LCSD % Rec #	LCS-LCSD % REC Limits	% RPD #	% RPD Lim
Opex	750	830	710	111	95	(70 - 130)	16	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

Comments: Results calculated on as-received basis.

Sample No.: LCSA Batch: 103410021A

OLM58 #184

3E

Water Matrix Spike/Matrix Spike Duplicate Recovery

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Matrix Spike - Sample Code No.: MSD05

Compound	Spike Added (ug/l)	Sample Concen (ug/l)	MS Concen (ug/l)	MSD Concen (ug/l)	MS % Rec #	MSD % Rec #	MS-MSD % REC Limits	% RPD #	% RPD Lim
Opex	750	0	680	690	91	92	(70 - 130)	1	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

Comments: Results calculated on as-received basis.

Sample No.: 6155350 Batch: 103410021A

OLM58 5185

4C

METHOD BLANK SUMMARY

SAMPLE CODE NO.
PBLK21341

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Lab Sample ID BLANKA Batch 103410021A Lab File ID: 1X11341.11R 1X11341B.11R

Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) Direct Injection

Sulfur Cleanup: (Y/N) N Date Extracted: 12/7/2010

Date Analyzed (1): 12/7/2010 Date Analyzed (2): 12/7/2010

Time Analyzed (1): 20:14:47 Time Analyzed (2): 20:14:47

Instrument ID (1): X3593A Instrument ID (2): X3593B

GC Column: SUP PAH ID: 250 (mm) GC Column: CapCell CN ID: 250 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD

	SAMPLE CODE NO.	LAB SAMPLEID	DATE ANALYZED 1	DATE ANALYZED 2
01	MSD05	6155350	12/7/2010	12/7/2010
02	MSD05MS	6155350MS	12/7/2010	12/7/2010
03	MSD05MSD	6155350MSD	12/7/2010	12/7/2010
04	SW-2-	6155978	12/7/2010	12/7/2010
05	PBLK21341	BLANKA	12/7/2010	12/7/2010
06	LCS21341	LCSA	12/7/2010	12/7/2010
07	LCSD21341	LCSDA	12/7/2010	12/7/2010

OLM5B 8106

COMMENTS:

FORM IV

6D

INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: X3593A Calibration File: 1X11341

GC Column (1) : SUP PAH ID: 250 (mm) Update File:

Date(s) Analyzed: 12/7/2010 12/7/2010

COMPOUND	RT OF STANDARDS LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	~~MIDPOINT~~ RT Level 5	RT WINDOW FROM	TO
Opex	2.75	2.78	2.77	2.75	2.75	2.75	2.65	2.85

KSW 12/7/10

01N50 8187

FORM VI-1

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: X3593A Calibration File: 1X11341

GC Column (1) : SUP PAH ID: 250 (mm) Date(s) Analyzed: 12/7/2010 12/7/2010

COMPOUND	CALIBRATION FACTORS						%RSD
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	
Opex	7.24E+00	8.22E+00	8.01E+00	8.09E+00	9.36E+00	8.18E+00	9.3

Average % RSD: 9.3

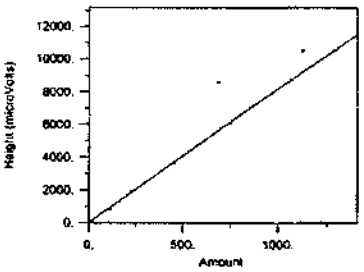
01H59 0188

FORM VI-2

Calibration File Name: **C:\CPWIN\DATA1\1X11341.CAL** Version = 11
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units =
1 components with 5 levels each

1 Opex
Retention time = 2.748 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	112.500	814.1	7.23666	1X11341.05A	12/7/2010 8:12:5
2	225.000	1849.0	8.217982	1X11341.06A	12/7/2010 8:13:1
3	450.000	3606.5	8.014453	1X11341.07A	12/7/2010 8:13:4
4	750.000	6066.0	8.087971	1X11341.08A	12/7/2010 8:14:0
5	1125.000	10527.3	9.357618	1X11341.09A	12/7/2010 8:14:3



Calibration formula: Y = 8.183 X
Fit type = Avg CF with equal weighting, forced to origin
Coefficient of determination = 0.9706, Average error = 5.91%
Average CF = 8.1829 with RSD = 9.29%

01H58 0189

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories
Contract:
Lab Code:
Case No.:
SAS No.:
SDG No.:
Instrument: X3593A
Init. Calib Date(s): 12/07/10 12/07/10
GC Column (1) : SUP PAH ID: 250 (mm)
Date Analyzed: 12/07/10
Lab File ID: 1X11341.19R
Time Analyzed: 21:01
Lab Standard ID: OPEX3DC
Initial Calibration: 1X11341

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	2.83	2.65	2.85	423.50	450.00	-5.9

Average of %D: 5.9

01N58 0110

FORM VII

8D
ANALYTICAL SEQUENCE

Sequence: 1X11341 Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: SUP PAH ID: 250

Instrument: X3593A

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	12/07/2010	19:16:16	1X11341
002		CONDITIONER	12/07/2010	19:22:07	1X11341
003		CONDITIONER	12/07/2010	19:27:58	1X11341
004		CONDITIONER	12/07/2010	19:33:49	1X11341
005	OPEX1AA	OPEX11024C	12/07/2010	19:39:40	1X11341
006	OPEX2AA	OPEX21024C	12/07/2010	19:45:31	1X11341
007	OPEX3AA	OPEX31024C	12/07/2010	19:51:22	1X11341
008	OPEX4AA	OPEX41024C	12/07/2010	19:57:13	1X11341
009	OPEX5AA	OPEX51024C	12/07/2010	20:03:05	1X11341
010	AA	MDOXX10	12/07/2010	20:08:55	1X11341
011	PBLK21341	BLANKA	12/07/2010	20:14:47	1X11341
012	LCS21341	LCSA	12/07/2010	20:20:39	1X11341
013	LCSD21341	LCSDA	12/07/2010	20:26:30	1X11341
014	11347	6151794	12/07/2010	20:32:22	1X11341
015	MSD05	6155350	12/07/2010	20:38:14	1X11341
016	MSD05MS	6155350	12/07/2010	20:44:05	1X11341
017	MSD05MSD	6155350	12/07/2010	20:49:57	1X11341
018	SW-2-	6155978	12/07/2010	20:55:49	1X11341
019	OPEX3DC	OPEX31024C	12/07/2010	21:01:40	1X11341

8D
ANALYTICAL SEQUENCE

Sequence: 1X11341B Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: CapCell CN ID: 250

Instrument: X3593B

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	12/07/2010	19:16:16	1X11341B
002		CONDITIONER	12/07/2010	19:22:07	1X11341B
003		CONDITIONER	12/07/2010	19:27:58	1X11341B
004		CONDITIONER	12/07/2010	19:33:49	1X11341B
005	OPEX1AA	OPEX11024C	12/07/2010	19:39:40	1X11341B
006	OPEX2AA	OPEX21024C	12/07/2010	19:45:31	1X11341B
007	OPEX3AA	OPEX31024C	12/07/2010	19:51:22	1X11341B
008	OPEX4AA	OPEX41024C	12/07/2010	19:57:13	1X11341B
009	OPEX5AA	OPEX51024C	12/07/2010	20:03:05	1X11341B
010	AA	MDOXX10	12/07/2010	20:08:55	1X11341B
011	PBLK21341	BLANKA	12/07/2010	20:14:47	1X11341B
012	LCS21341	LCSA	12/07/2010	20:20:39	1X11341B
013	LCSD21341	LCSDA	12/07/2010	20:26:30	1X11341B
014	11347	6151794	12/07/2010	20:32:22	1X11341B
015	MSD05	6155350	12/07/2010	20:38:14	1X11341B
016	MSD05MS	6155350	12/07/2010	20:44:05	1X11341B
017	MSD05MSD	6155350	12/07/2010	20:49:57	1X11341B
018	SW-2-	6155978	12/07/2010	20:55:49	1X11341B
019	OPEX3DC	OPEX31024C	12/07/2010	21:01:40	1X11341B

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

MSD05MS

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 103410021A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN50

Lab Sample ID: 6155350 **Date(s) Analyzed:** 12/7/2010 12/7/2010

Instrument ID (1): X3593A **Instrument ID (2):** X3593B

GC Column (1): **ID:** (mm) **GC Column (2):** **ID:** (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Opex	1	2.83	2.65	2.85	680	
	2	4.09	4.08	4.28	83	156.5

OLN50 0113

FORM X PEST - 1

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.
MSD05MSD

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103410021A

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Lab Sample ID: 6155350 Date(s) Analyzed: 12/7/2010 12/7/2010

Instrument ID (1): X3593A Instrument ID (2): X3593B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Opex	1	2.83	2.65	2.85	690	
	2	4.16	4.08	4.28	320	73.3

OLN50 0114

FORM X PEST - 1

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS21341

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 103410021A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Lab Sample ID: LCSA **Date(s) Analyzed:** 12/7/2010 12/7/2010

Instrument ID (1): X3593A **Instrument ID (2):** X3593B

GC Column (1): **ID:** **(mm)** **GC Column (2):** **ID:** **(mm)**

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Opex	1	2.84	2.65	2.85	830	
	2	4.11	4.08	4.28	13	193.8

OLM59 9815

FORM X PEST - 1

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.
LCSD21341

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 103410021A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Lab Sample ID: LCSDA **Date(s) Analyzed:** 12/7/2010 12/7/2010

Instrument ID (1): X3593A **Instrument ID (2):** X3593B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Opex	1	2.82	2.65	2.85	710	
	2		4.08	4.28	0	

OLM59 8116

FORM X PEST - 1

Sample Data

Lancaster Laboratories

LOQ and MDL by Analysis Number

COMPONENT NAME	MDL	LOQ	DEFAULT UNITS
02726: Opex in Water			
Opex in Water	20	100	ug/l

OLN50 8110

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
MSD05

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103410021A

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Matrix: (soil/water) WATER Lab Sample ID: 6155350

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1X11341.15R

% Moisture: Decanted: (Y/N) Date Received: 12/3/2010

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/7/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/7/2010

Injection Volume: 35 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex		20U

OLN50 0119

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6155350 MSD05 Sample ID: AA **Batchnumber: 103410021A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN50 State: MA
Analyses: 02726 02727

Analysis Report (A)

Injected on : DEC 07, 2010 20:38:14
Instrument : CP09--X3593A
Result file : 1X11341.15R
Calibration file : 1X11341.CAL
Method file : OPEX.MET

Analysis Report (B)

Injected on : DEC 07, 2010 20:38:14
Instrument : CP09--X3593B
Result file : 1X11341B.15R
Calibration file : 1X11341B.CAL
Method file : OPEXB.MET

Peak name	Min	R.T.	Max	Height	Amount
Opex	2.65	2.81	2.85	51	6.177283

Peak name	Min	R.T.	Max	Height	Amount
Opex	4.08	4.20	4.28	45694	220.881683

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex	A		<100	<20			

Units: ug/l

Reviewed by: [signature] Date: 12/7/10
Verified by: [signature] Date:

DEC 08 2010

Sarah Snyder
Senior Specialist

%Difference = High - Low Amount divided by the Average times 100

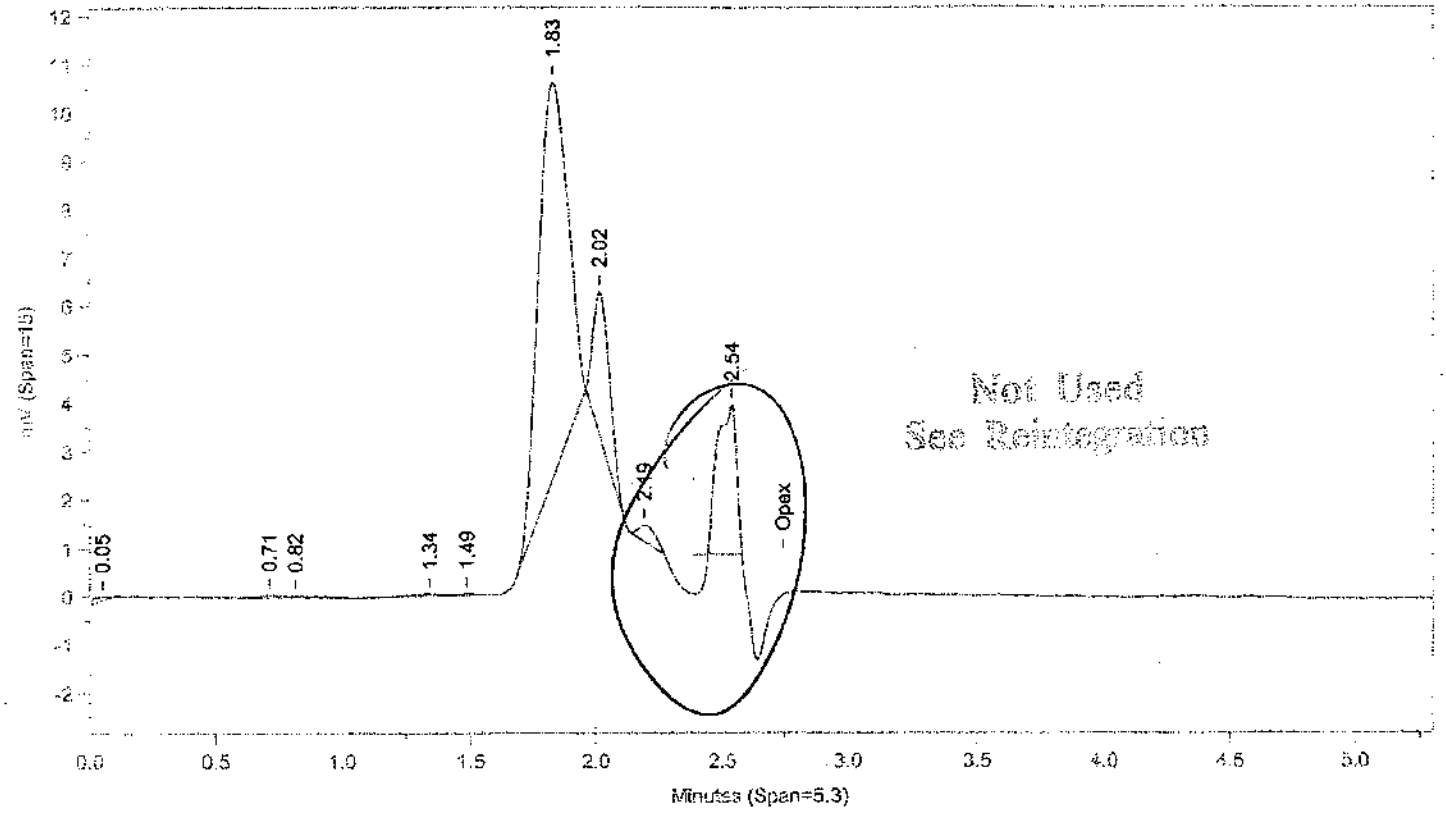
Higher Amount Found

OLN50 8129

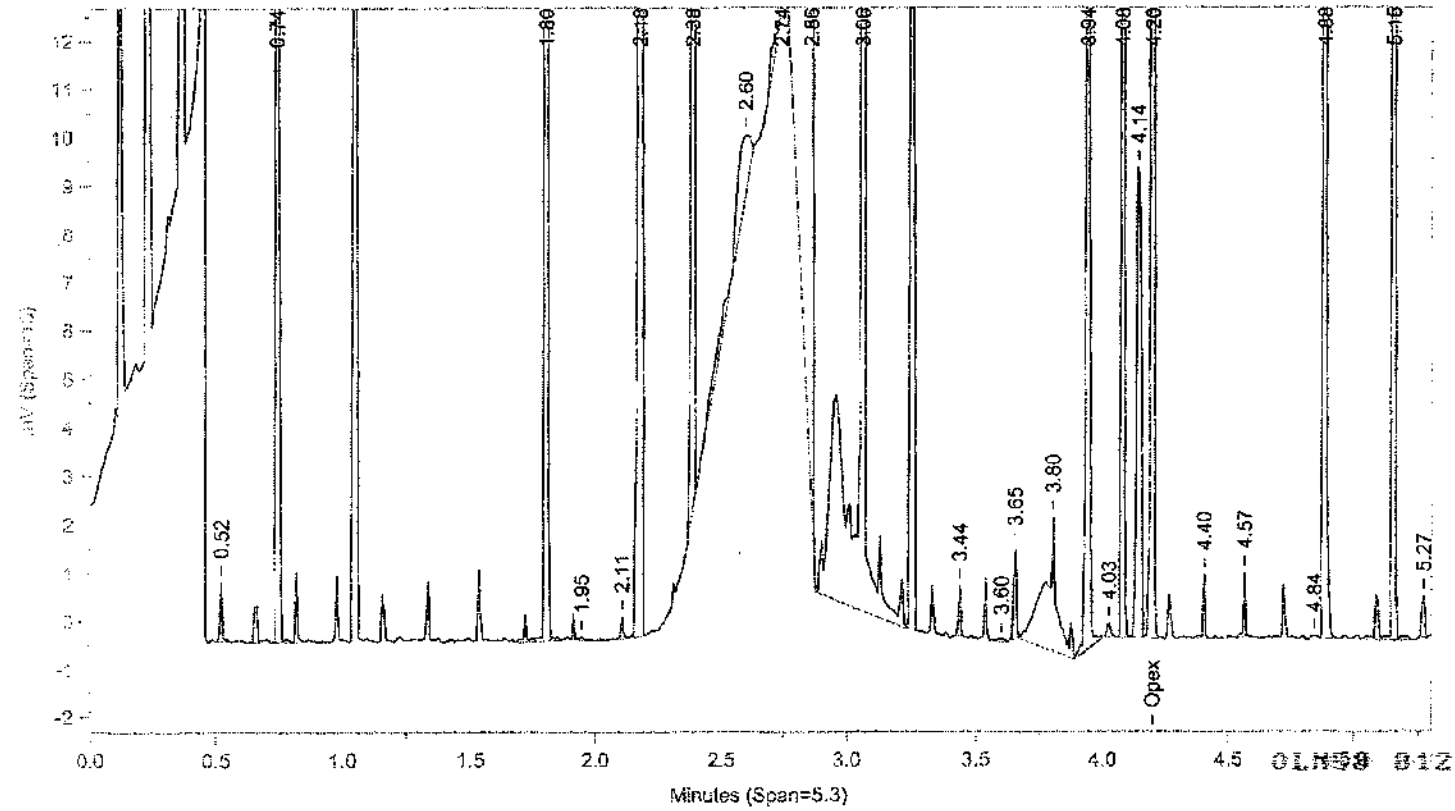
* Recovery outside QC Limits

Printed on: 12/7/10 21:23:29

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.15R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:38:13 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:38:13 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1 Area Reject: 100
Calibration Type: External Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1 Area Reject: 100
Calibration Type: External Quantiation: Height

Sample Weight: 10 Dilution Factor: 10
Analyst: 1566

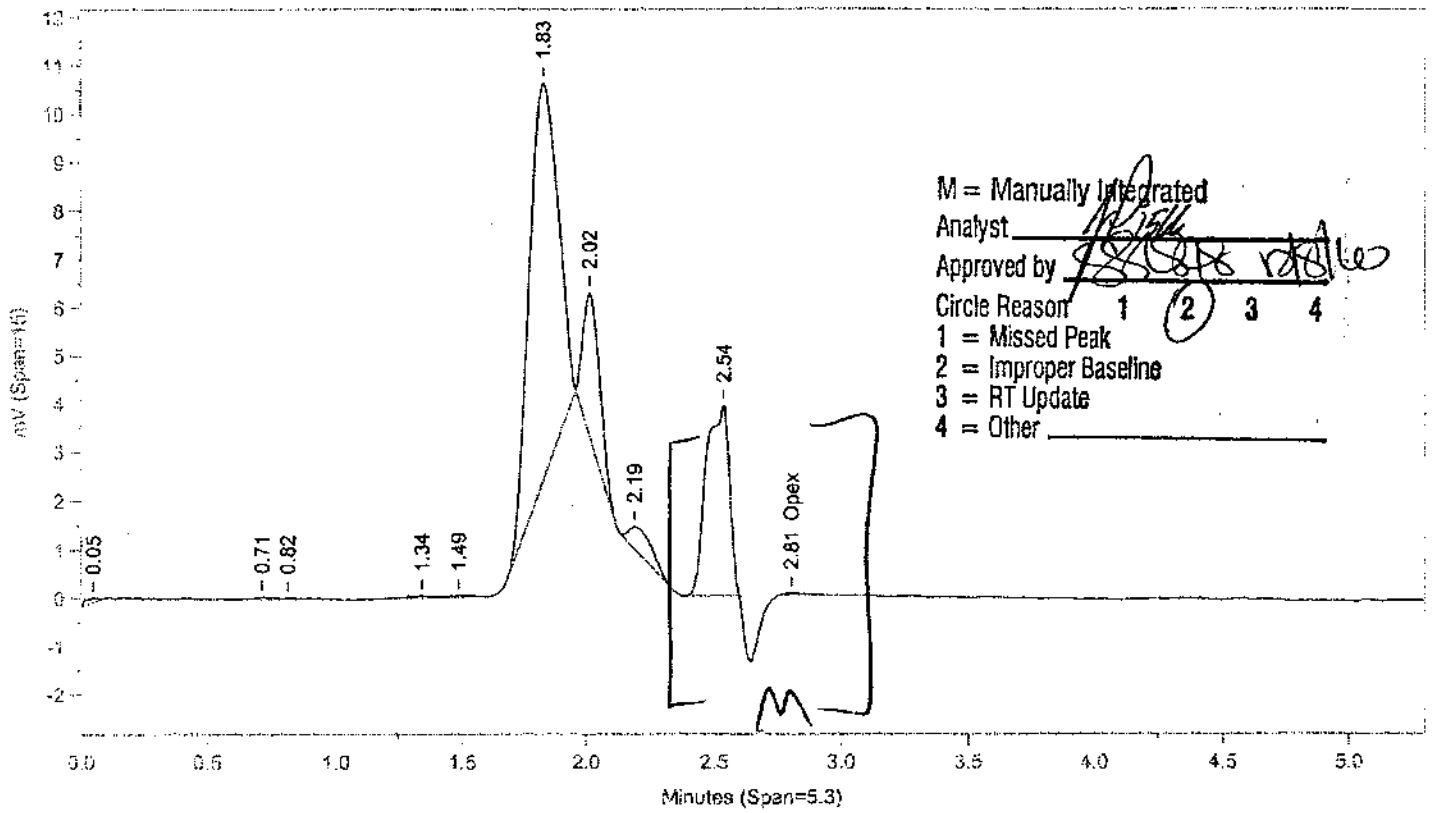
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
	0		Opex	4.198	45694	220.882	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11341.15A
Area File: C:\CPWIN\DATA1\1X11341B.15A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:43:38 PM
File Reported On: 12/7/2010 at 8:43:46 PM

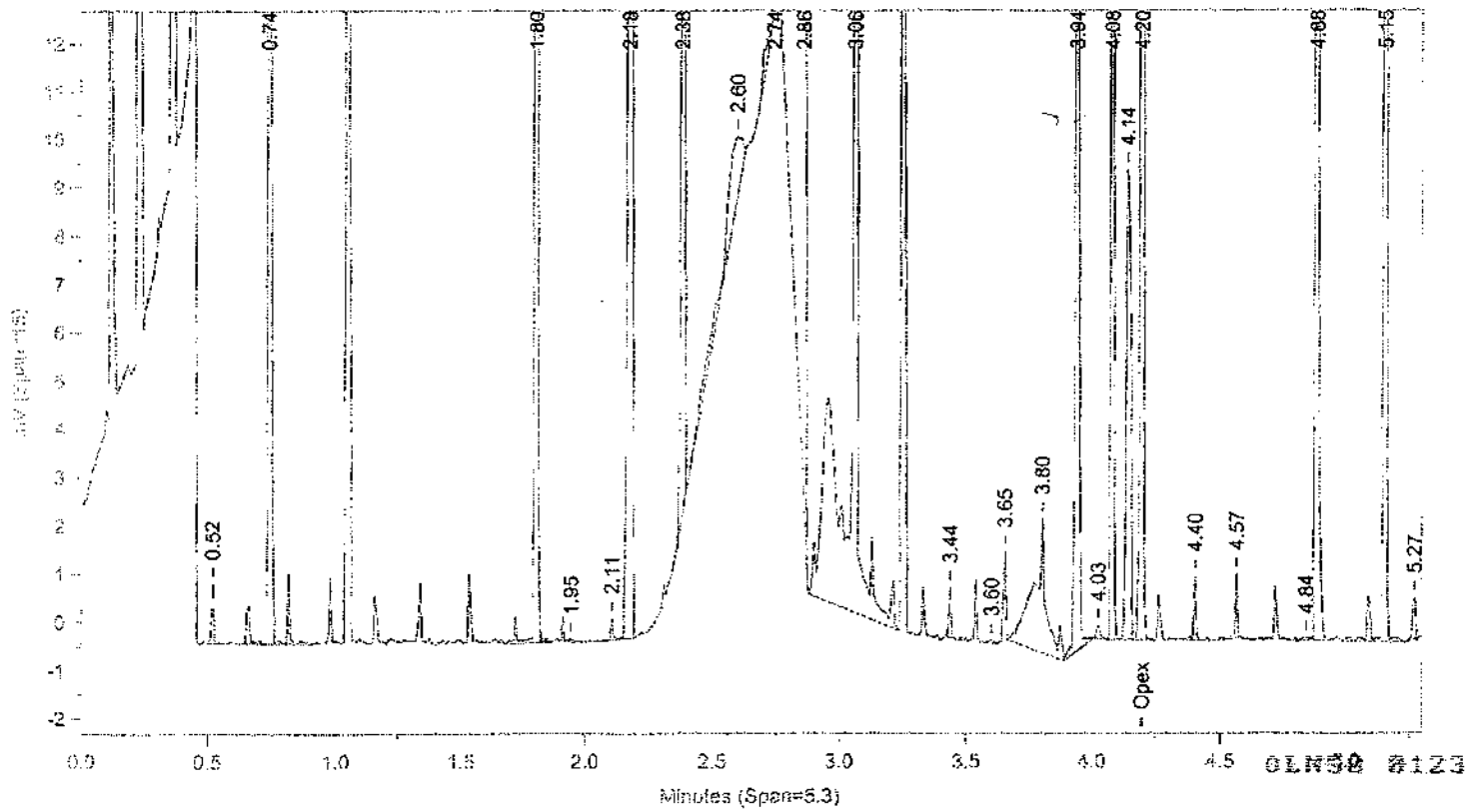
Not Used
See Reintegration

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1X11341.15R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:38:13 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:38:13 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1 Area Reject: 100
Calibration Type: External Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1 Area Reject: 100
Calibration Type: External Quantiation: Height

Sample Weight: 10

Dilution Factor: 10

Analyst: 1566

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.805	51	6.177	Opex	4.198	45694	220.882	Opex

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 9:14:06 PM
File Reported On: 12/7/2010 at 9:14:05 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
SW-2-

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 103410021A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN50

Matrix: (soil/water) WATER **Lab Sample ID:** 6155978

Sample wt/vol: 10 **(g/ml)** ml **Lab File ID:** 1X11341.18R

% Moisture: **Decanted: (Y/N)** **Date Received:** 12/4/2010

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 12/7/2010

Concentrated Extract Volume: 10000 **(uL)** **Date Analyzed:** 12/7/2010

Injection Volume: 35 **(uL)** **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	20	U

OLN50 #125

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6155978 SW-2- Sample ID: AA **Batchnumber: 103410021A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN50 State: MA
Analyses: 02726 02727

Analysis Report (A)

Injected on	: DEC 07, 2010 20:55:49
Instrument	: CP09--X3593A
Result file	: 1X11341.18R
Calibration file	: 1X11341.CAL
Method file	: OPEX.MET

Analysis Report (B)

Injected on	: DEC 07, 2010 20:55:49
Instrument	: CP09--X3593B
Result file	: 1X11341B.18R
Calibration file	: 1X11341B.CAL
Method file	: OPEXB.MET

Peak name	Min	R.T.	Max	Height	Amount
Opex	4.08	4.09	4.28	15384	74.364464

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex	A		<100	<20			

Units: ug/l

Reviewed by: Date: 12/7/10
Verified by: Date:

DEC 08 2010

Sarah Snyder
Senior Specialist

%Difference = High - Low Amount divided by the Average times 100

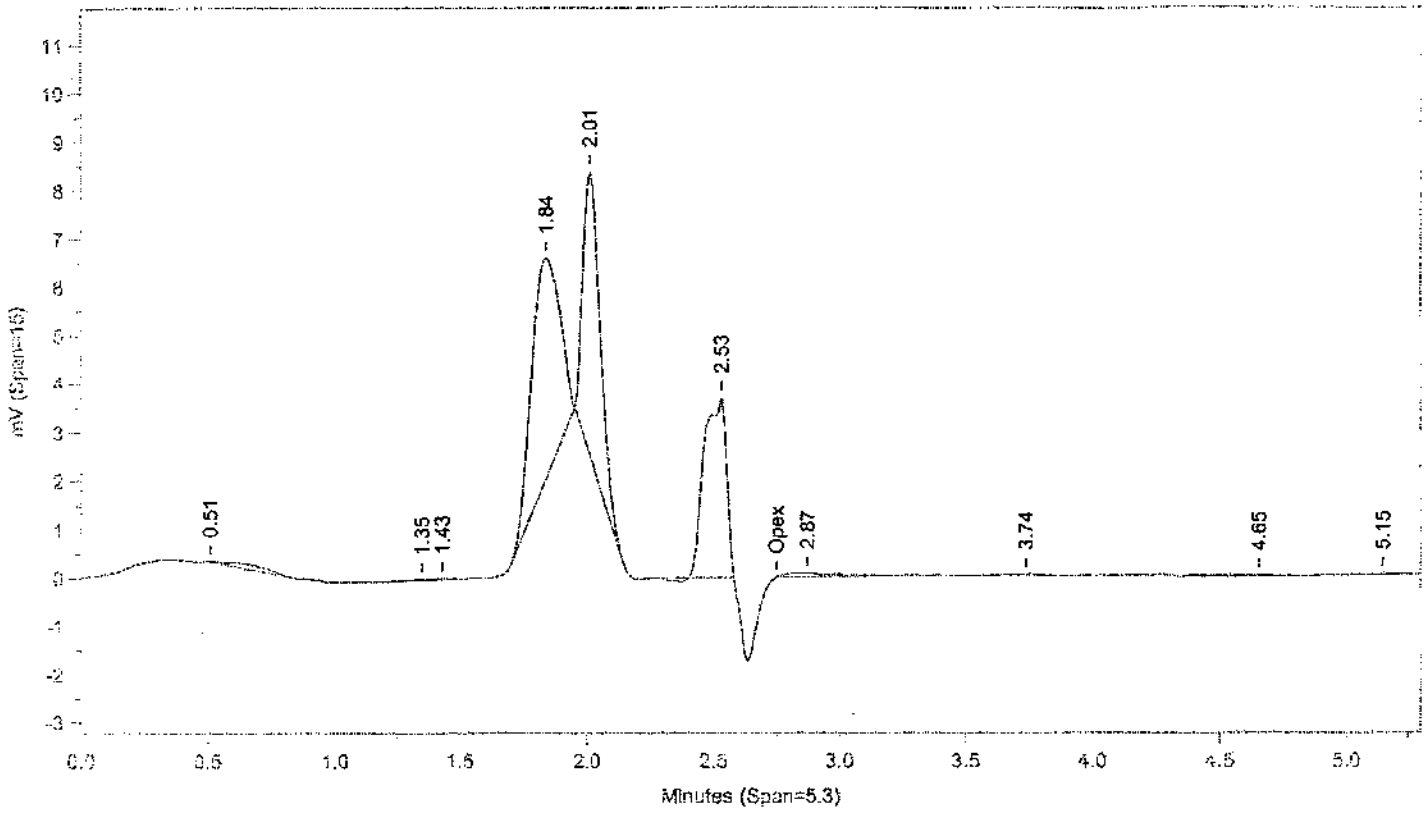
Higher Amount Found

OLN50 0126

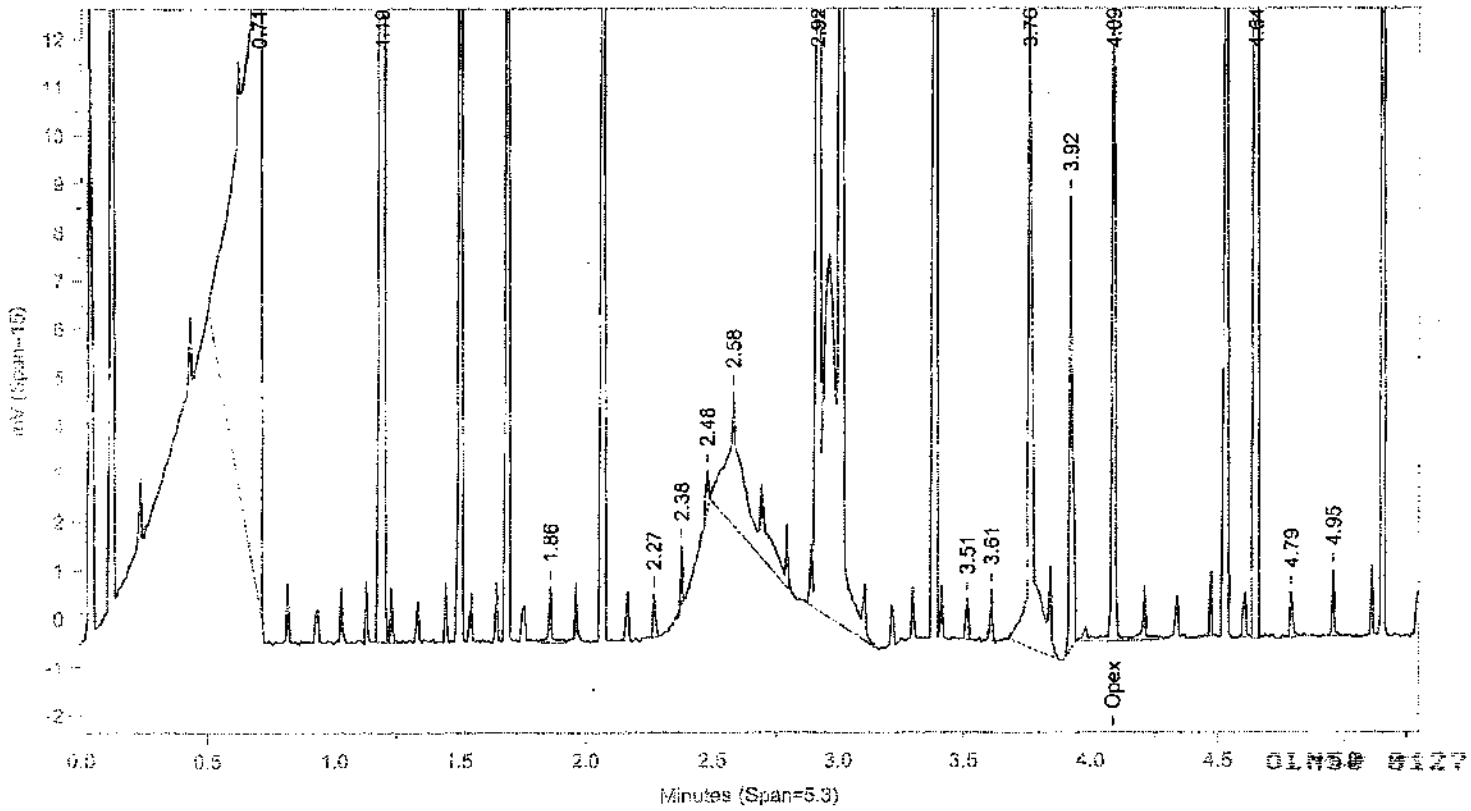
* Recovery outside QC Limits

Printed on: 12/7/10 21:24:27

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.18R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:55:48 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:55:48 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
	0		Opex	4.086	15384	74.364	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11341.18A
Area File: C:\CPWIN\DATA1\1X11341B.18A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 9:01:14 PM
File Reported On: 12/7/2010 at 9:01:22 PM

Standards Data

OLN58 0129

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\cp9\C-Drive\CPWIN\data1\1X11341.seq

Chromatography Directory: \\cp9\C-Drive\CPWIN\data1

Method Directory: \\cp9\C-Drive\CPWIN\data1

Number of Entries: 19

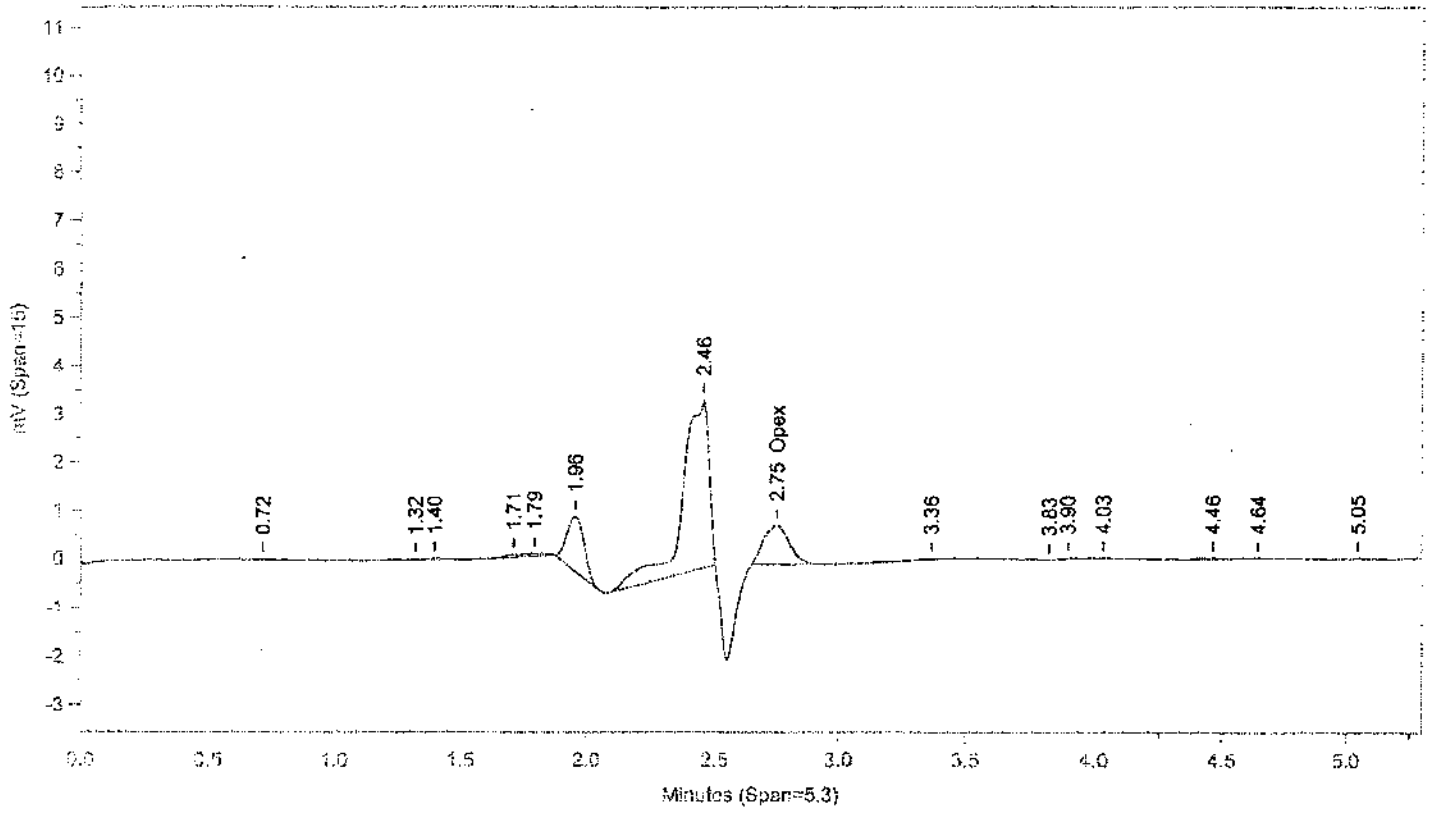
	Samplename	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	MISC	AA	1X11341.01R	OPEX.MET	1	1	1	0	1034099999	
2	CONDITIONER	MISC	AA	1X11341.02R	OPEX.MET	1	1	1	0	1034099999	
3	CONDITIONER	MISC	AA	1X11341.03R	OPEX.MET	1	1	1	0	1034099999	
4	CONDITIONER	MISC	AA	1X11341.04R	OPEX.MET	1	1	1	0	1034099999	
5	OPEX11024C	ICAL	AA	1X11341.05R	OPEX.MET	1	1	1	1	1034099999	
6	OPEX21024C	ICAL	AA	1X11341.06R	OPEX.MET	1	1	1	2	1034099999	
7	OPEX31024C	ICAL	AA	1X11341.07R	OPEX.MET	1	1	1	3	1034099999	
8	OPEX41024C	ICAL	AA	1X11341.08R	OPEX.MET	1	1	1	4	1034099999	
9	OPEX51024C	ICAL	AA	1X11341.09R	OPEX.MET	1	1	1	5	1034099999	
10	MDOXX1024C	MDL	AA	1X11341.10R	OPEX.MET	1	1	1	0	1034099999	
11	BLANKA 12/7/10	BLK	AA	1X11341.11R	OPEX.MET	10	10	1	0	103410021A	02726
12	LCSA 12/7/10	LCS	AA	1X11341.12R	OPEX.MET	10	10	1	0	103410021A	02726
13	LCSDA 12/7/10	LCSD	AA	1X11341.13R	OPEX.MET	10	10	1	0	103410021A	02726
14	6151794	T	AA	1X11341.14R	OPEX.MET	10	10	1	0	103410021A	02726
15	6155350	T	AA	1X11341.15R	OPEX.MET	10	10	1	0	103410021A	02726
16	6155350MS	MS	AA	1X11341.16R	OPEX.MET	10	10	1	0	103410021A	02726
17	6155350MSD	MSD	AA	1X11341.17R	OPEX.MET	10	10	1	0	103410021A	02726
18	6155978	T	AA	1X11341.18R	OPEX.MET	10	10	1	0	103410021A	02726
19	OPEX31024C	CCAL	DC	1X11341.19R	OPEX.MET	1	1	1	0	1034099999	

OLN50 0130

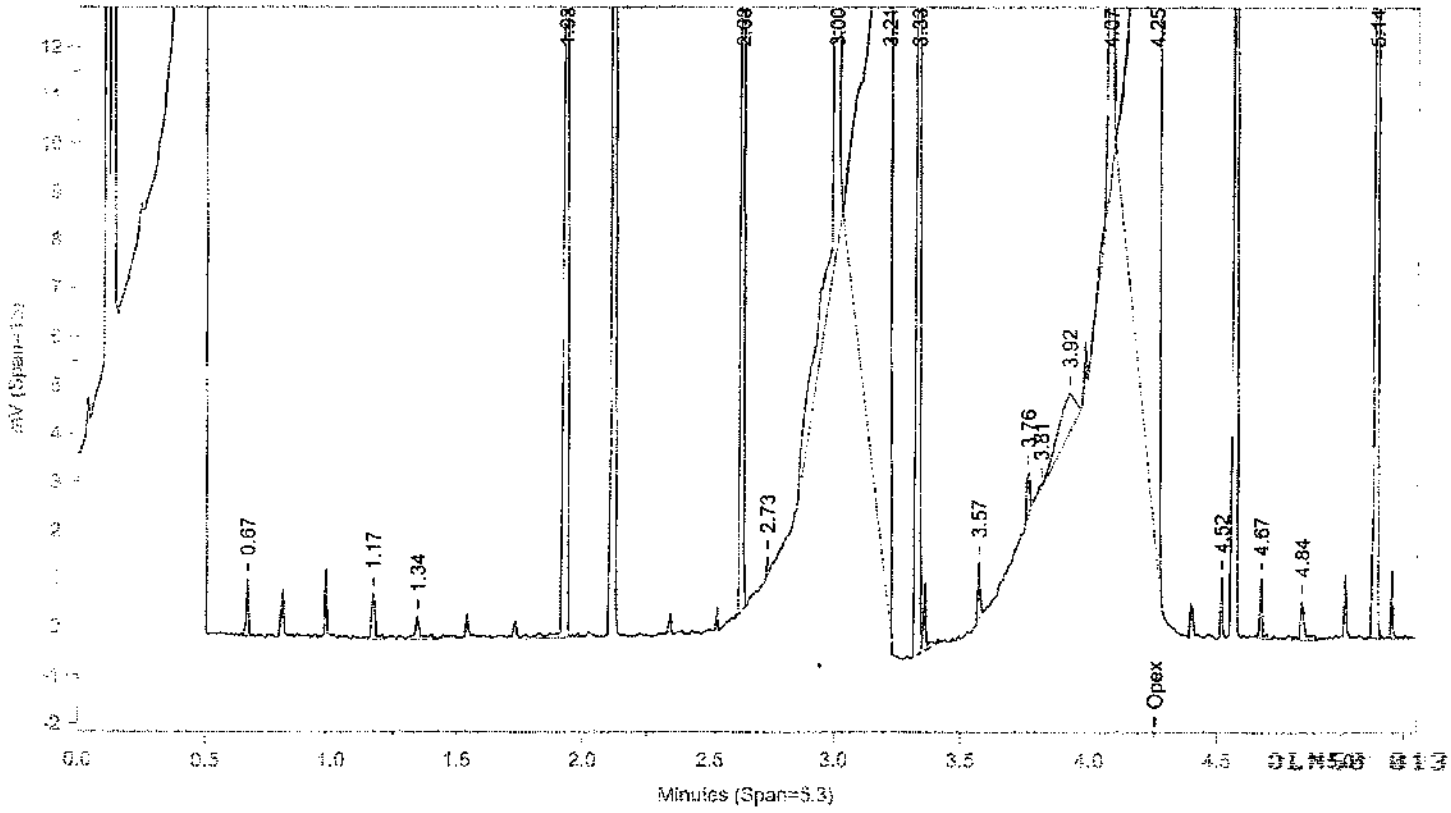
Set-up by: _____ Date: 12/7/10

12/7/2010

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.05R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 7:39:39 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 7:39:39 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

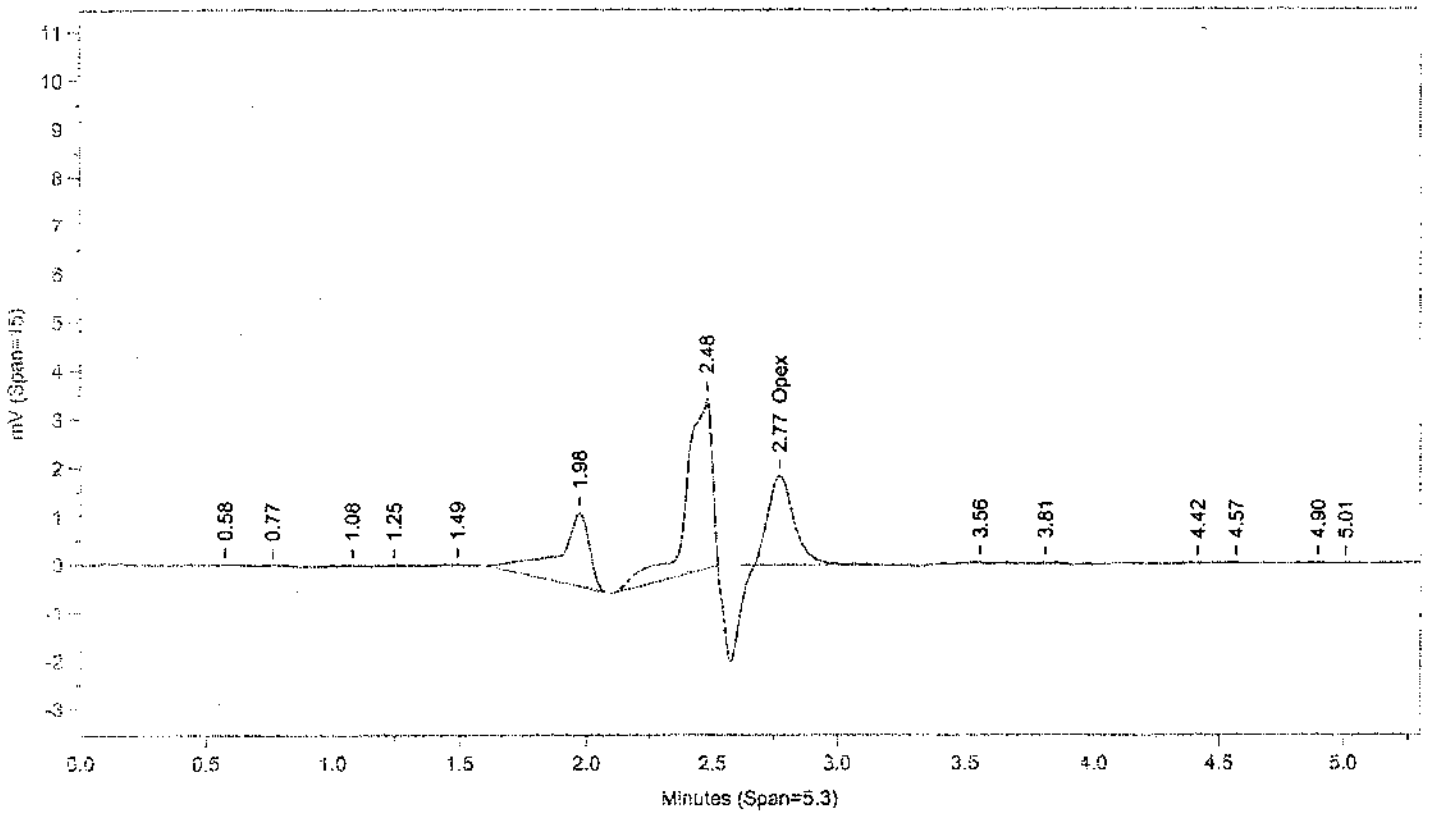
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

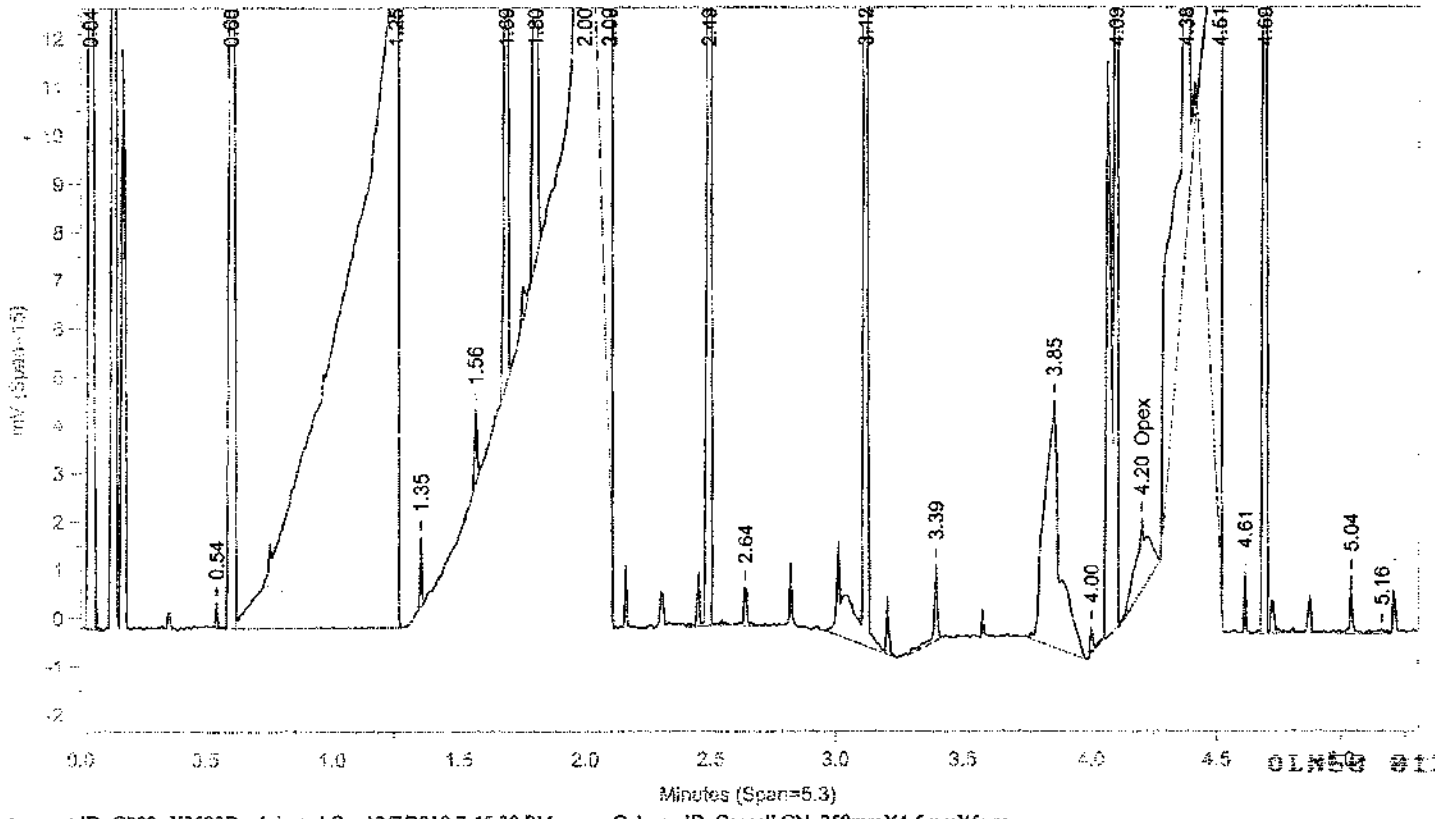
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.751	814	64.761	Opex	4.253	110305	533.211	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11341.05A
Area File: C:\CPWIN\DATA1\1X11341B.05A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:12:56 PM
File Reported On: 12/7/2010 at 8:13:05 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.06R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 7:45:30 PM Column ID: SupelcosIl PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 7:45:30 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

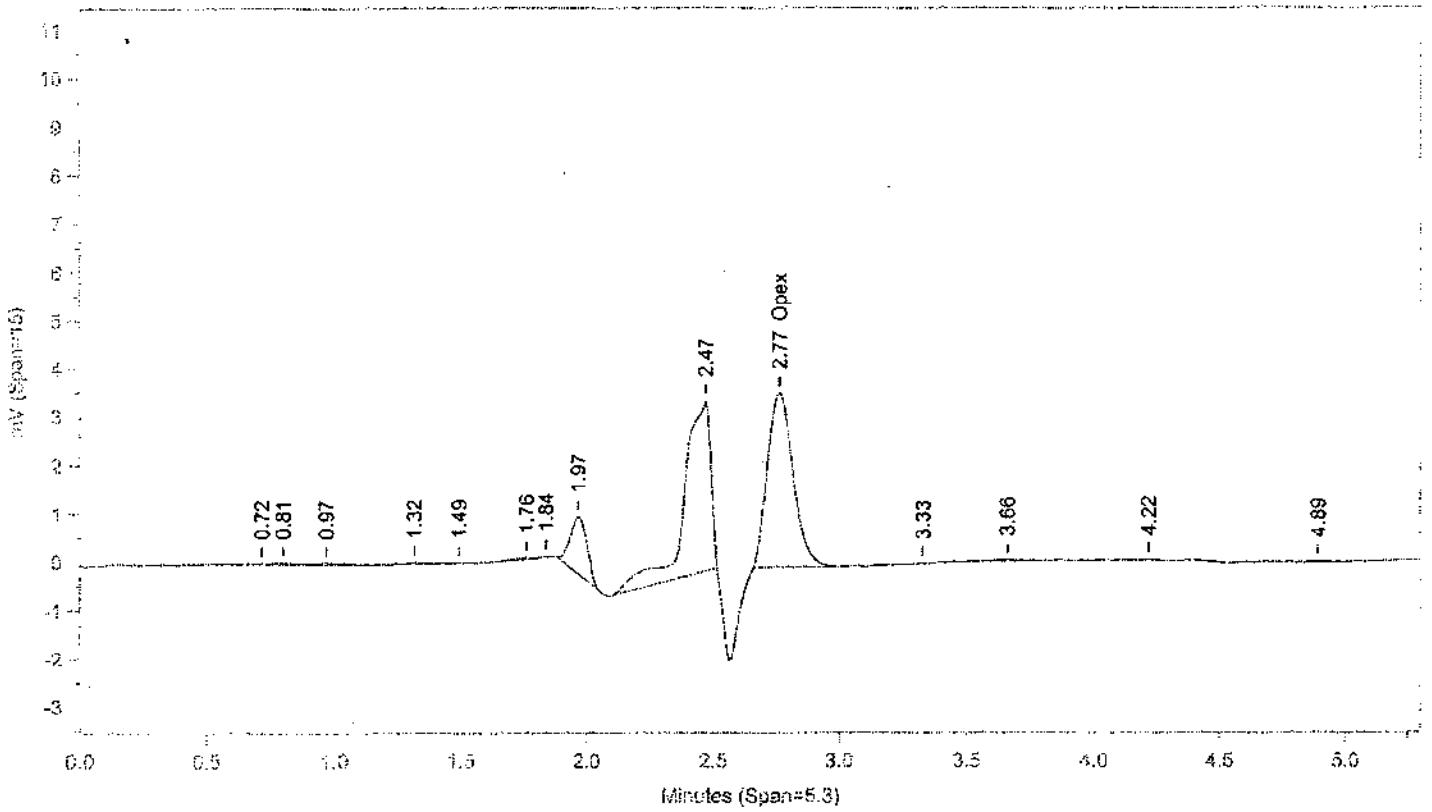
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

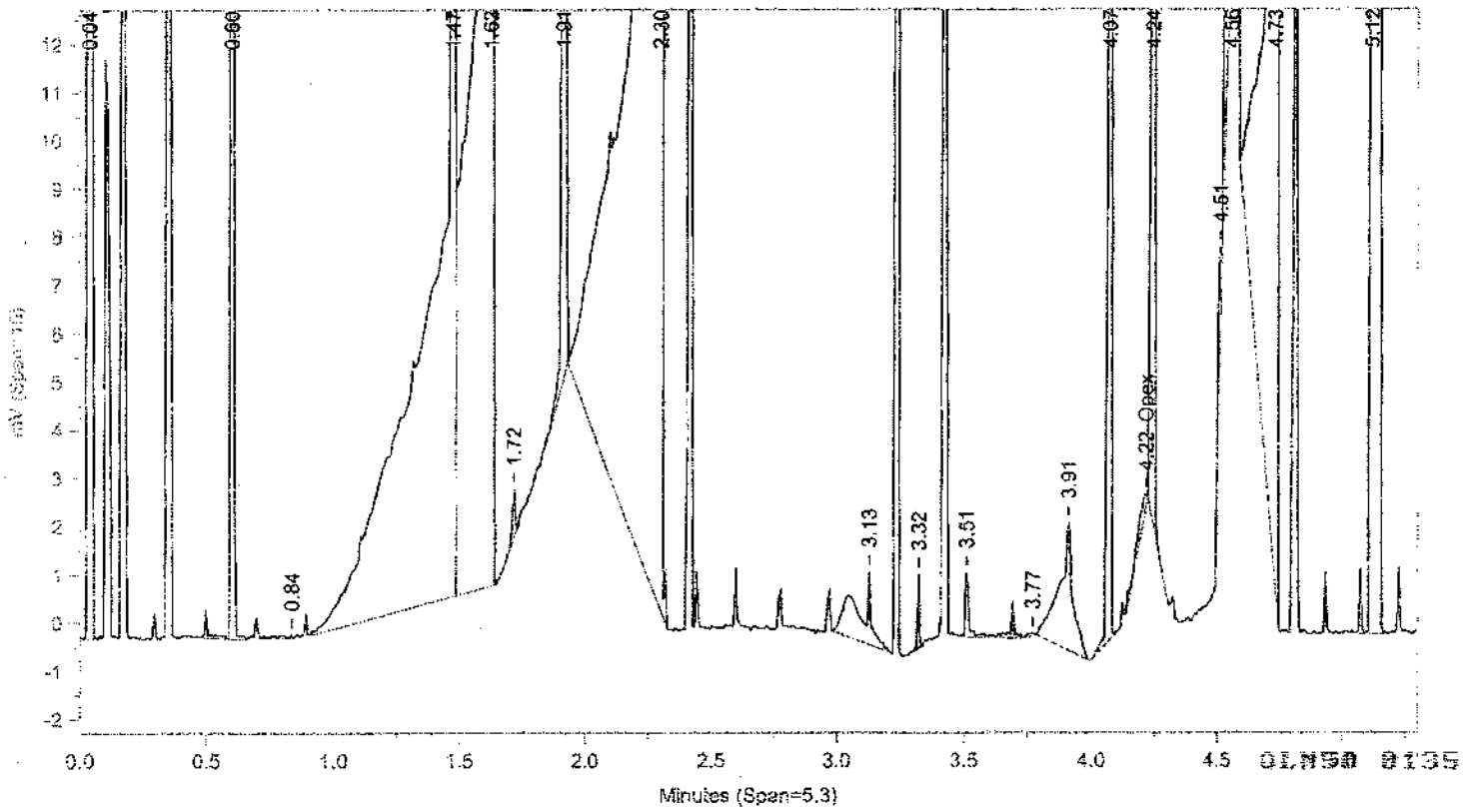
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.775	1849	173.721	Opex	4.201	1488	7.193	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11341.06A
Area File: C:\CPWIN\DATA1\1X11341B.06A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:13:18 PM
File Reported On: 12/7/2010 at 8:13:29 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.07R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 7:51:21 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 7:51:21 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

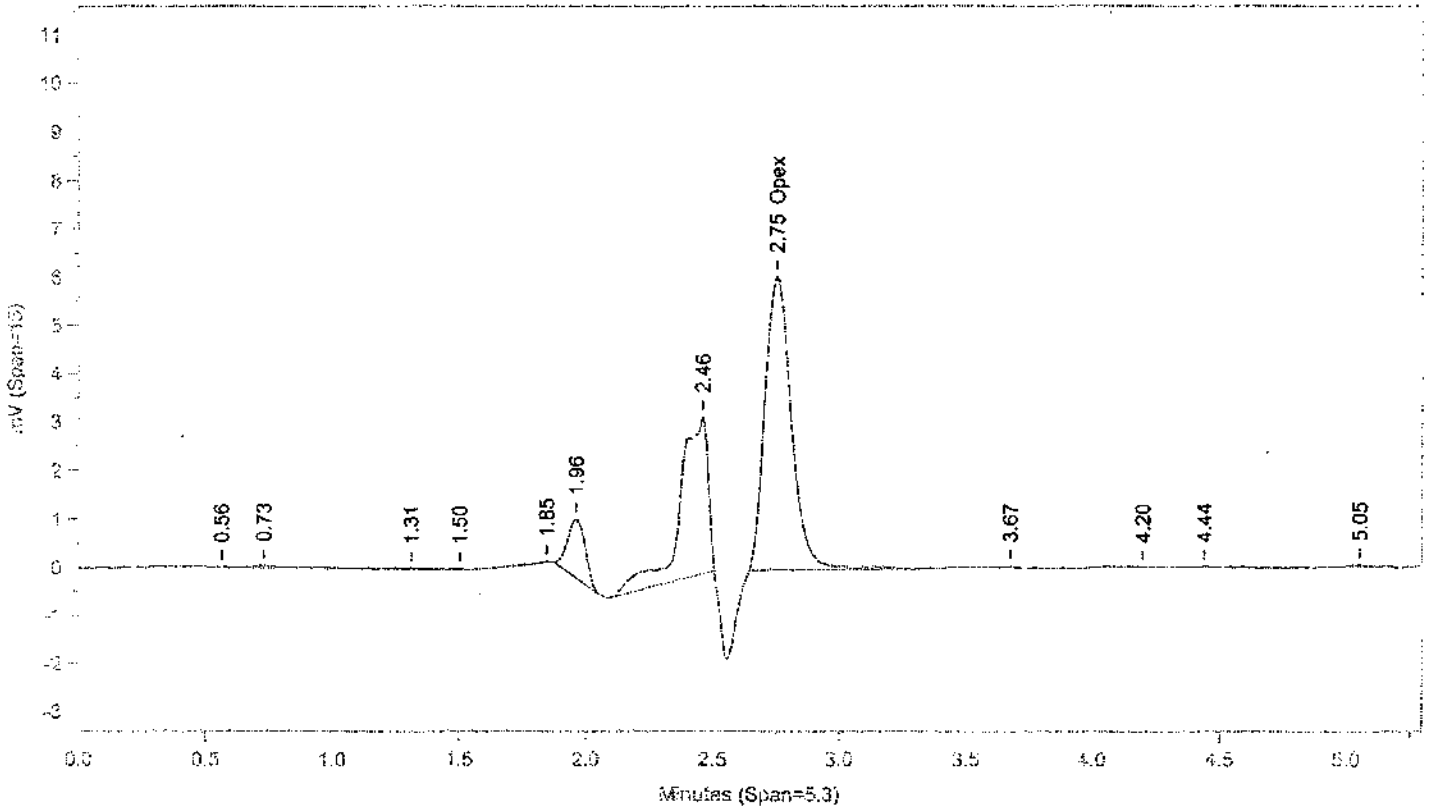
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

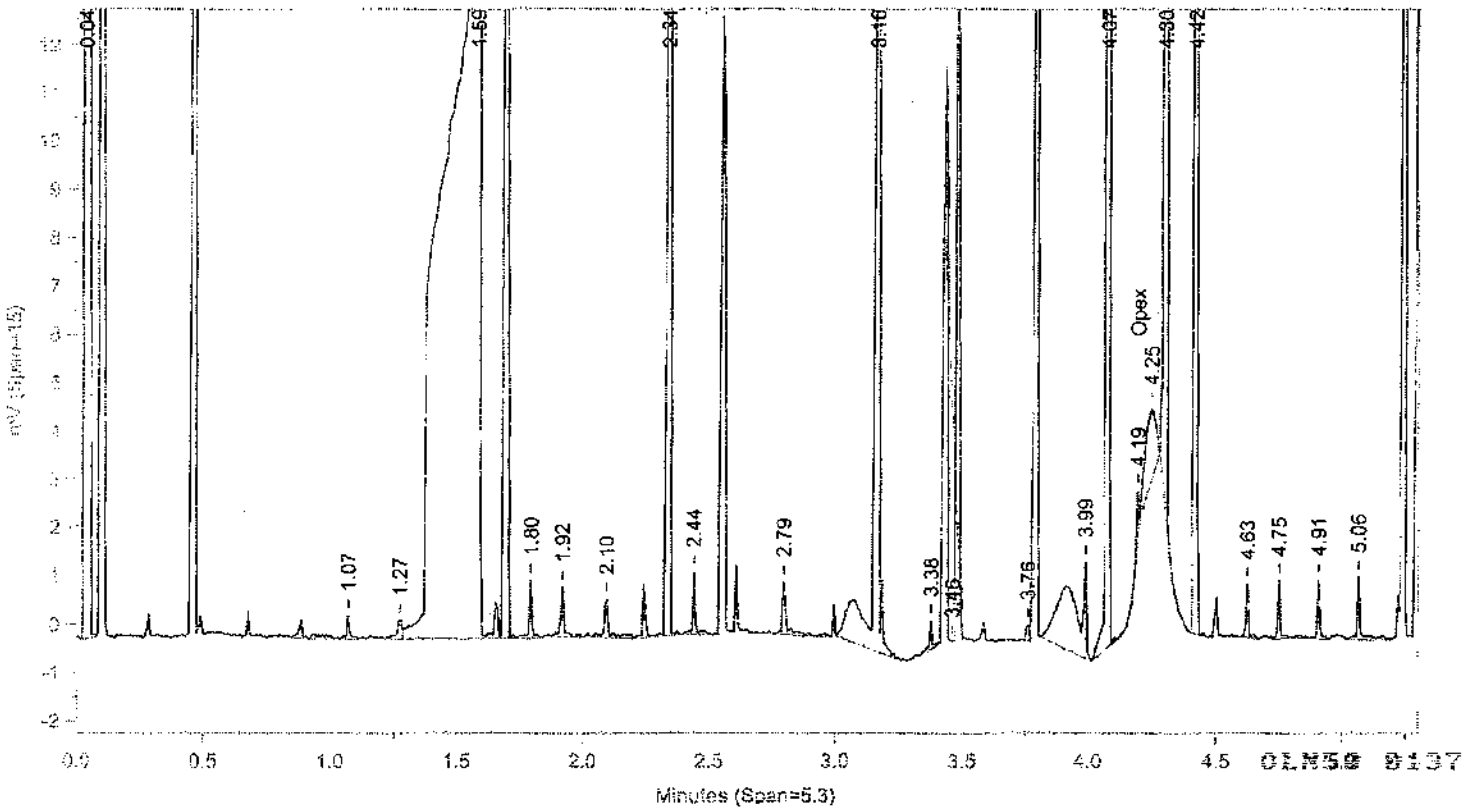
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.765	3607	387.758	Opex	4.216	284	1.375	Opex

Files:
Area File: C:\CPWIN\DATA1\IX11341.07A
Area File: C:\CPWIN\DATA1\IX11341B.07A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\IX11341.CAL
Calibration File B: C:\CPWIN\DATA1\IX11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:13:42 PM
File Reported On: 12/7/2010 at 8:13:52 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.08R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 7:57:12 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 7:57:12 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

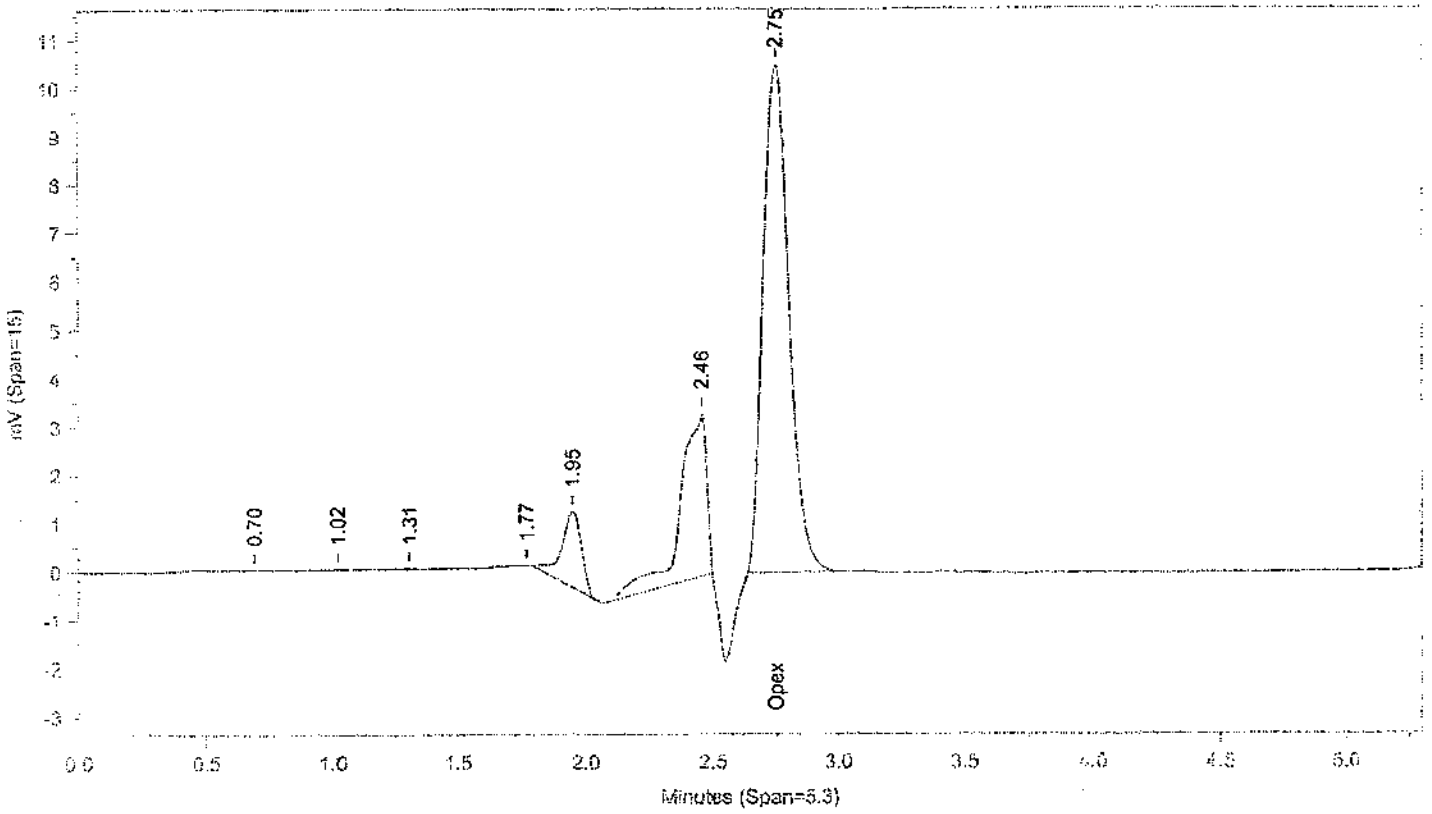
Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.753	6066	692.316	Opex	4.194	1106	5.346	Opex

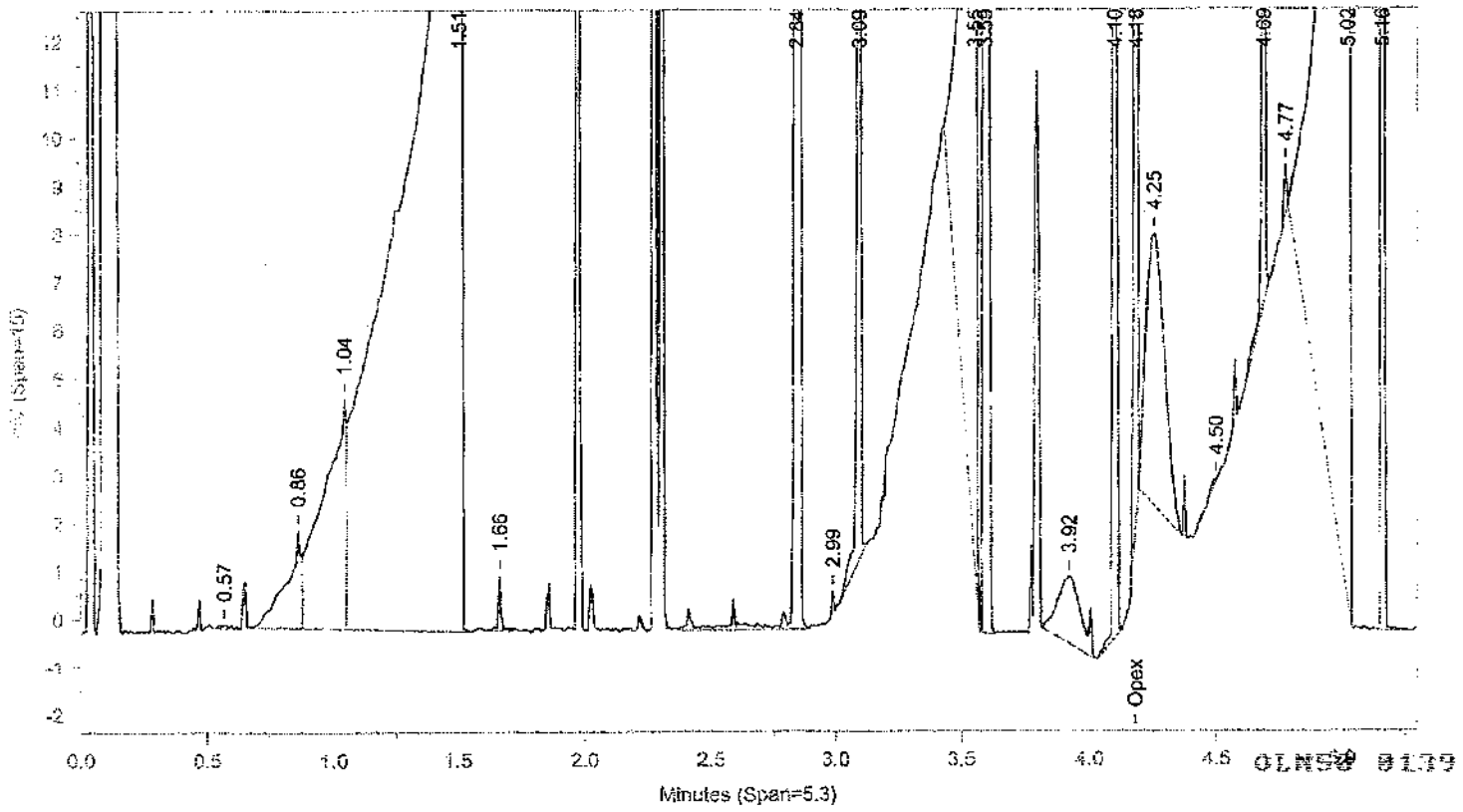
Files:
Area File: C:\CPWIN\DATA1\1X11341.08A
Area File: C:\CPWIN\DATA1\1X11341B.08A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:14:06 PM
File Reported On: 12/7/2010 at 8:14:16 PM

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA\1X11341.09R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:03:04 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:03:04 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

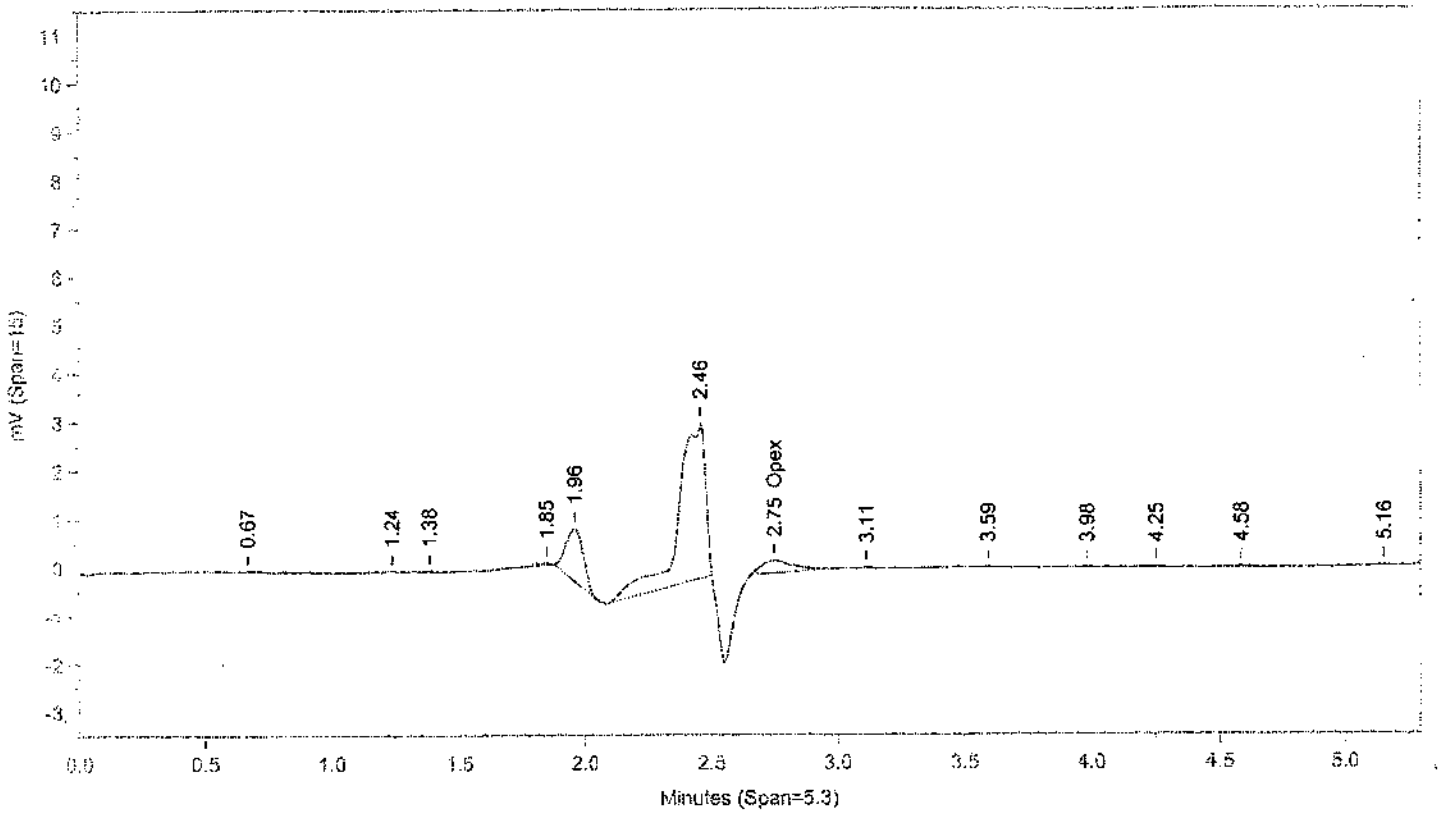
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

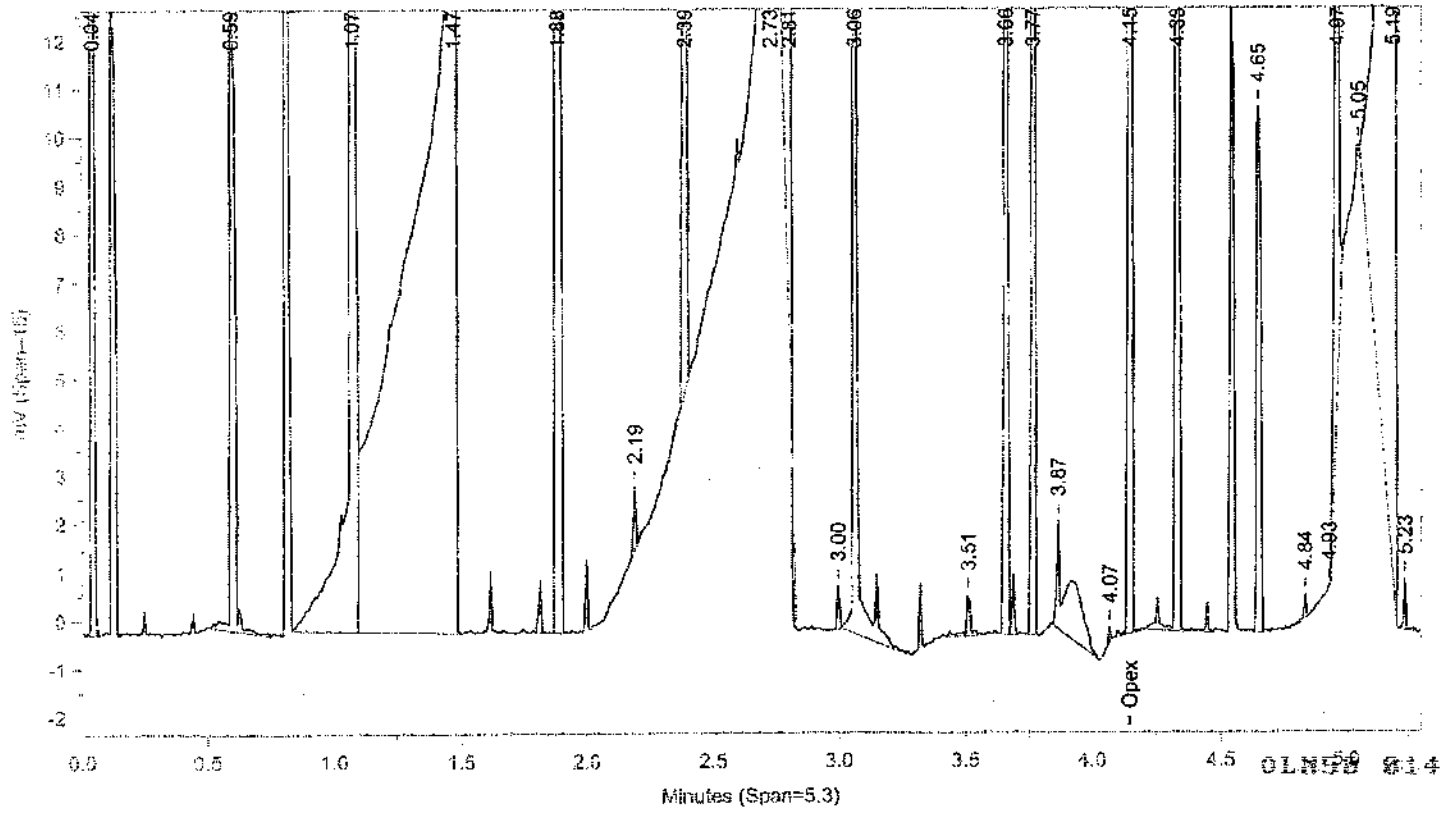
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.748	10527	1255.979	Opex	4.18	50780	245.47	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11341.09A
Area File: C:\CPWIN\DATA1\1X11341B.09A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:14:30 PM
File Reported On: 12/7/2010 at 8:14:40 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\IX11341.10R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:08:54 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:08:54 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1 Area Reject: 100
Calibration Type: External Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1 Area Reject: 100
Calibration Type: External Quantiation: Height

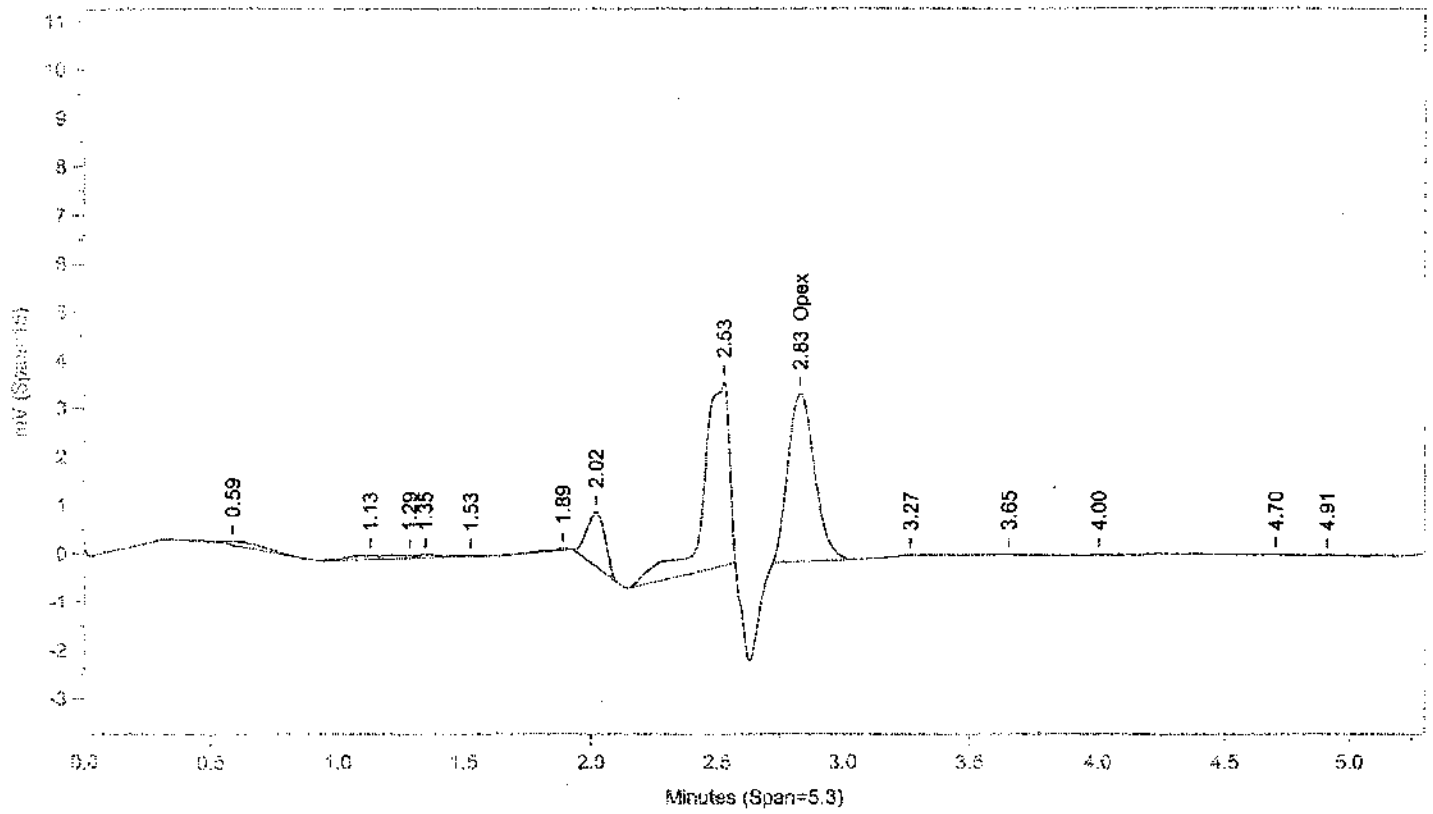
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

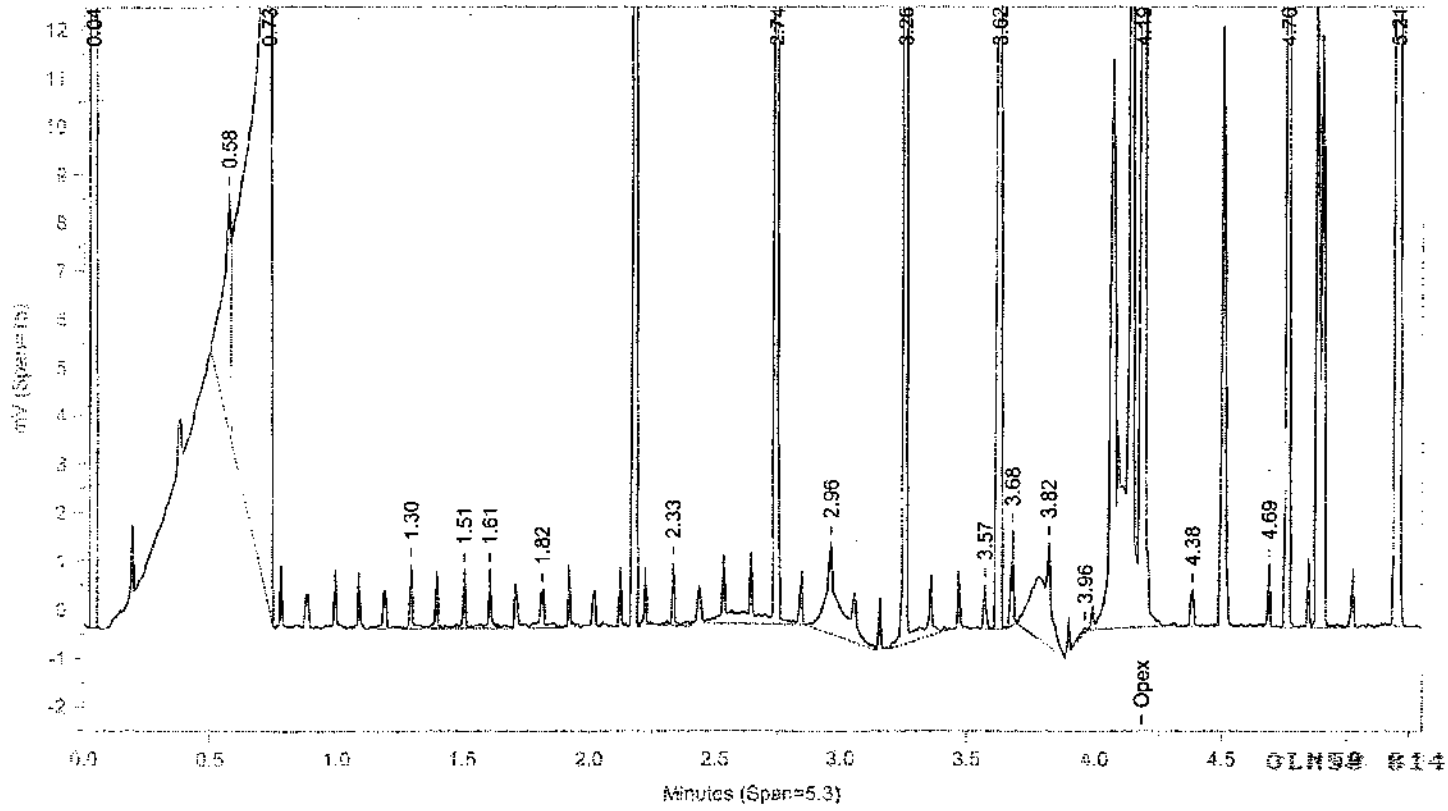
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.749	259	31.701	Opex	4.147	56870	274.909	Opex

Files:
Area File: C:\CPWIN\DATA1\IX11341.10A
Area File: C:\CPWIN\DATA1\IX11341B.10A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\IX11341.CAL
Calibration File B: C:\CPWIN\DATA1\IX11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:14:54 PM
File Reported On: 12/7/2010 at 8:15:02 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.19R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 9:01:39 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 9:01:39 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.833	3465	423.501	Opex	4.185	53945	260.768	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11341.19A
Area File: C:\CPWIN\DATA1\1X11341B.19A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 9:07:04 PM
File Reported On: 12/7/2010 at 9:07:14 PM

Raw QC Data

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
PBLK21341

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103410021A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: BLANKA

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1X11341.11R

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/7/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/7/2010

Injection Volume: 35 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex		20U

OLM58 0146

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: BLANKA 12/7/10 PBLK21341 Sample ID: AA **Batchnumber: 103410021A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02726 02727

Analysis Report (A)

Injected on	: DEC 07, 2010 20:14:47
Instrument	: CP09--X3593A
Result file	: 1X11341.11R
Calibration file	: 1X11341.CAL
Method file	: OPEX.MET

Analysis Report (B)

Injected on	: DEC 07, 2010 20:14:47
Instrument	: CP09--X3593B
Result file	: 1X11341B.11R
Calibration file	: 1X11341B.CAL
Method file	: OPEXB.MET

Peak name	Min	R.T.	Max	Height	Amount
Opex	4.08	4.15	4.28	1008	4.872841

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex	A		<100	<20			

Units: ug/l

Reviewed by: Date: 12/7/10
Verified by: Date:

DEC 08 2010

Sarah Snyder
Senior Specialist

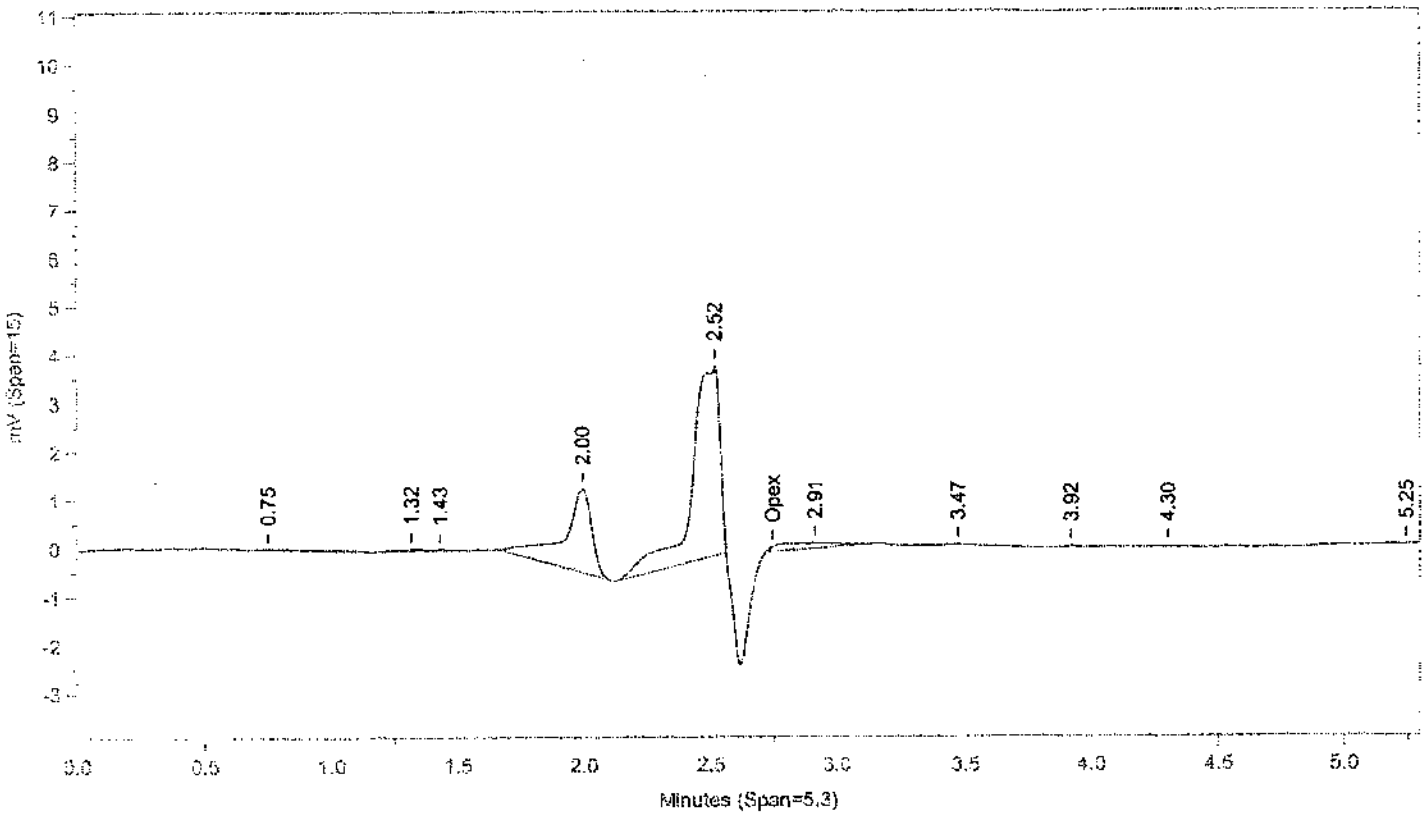
%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

01N58 8747

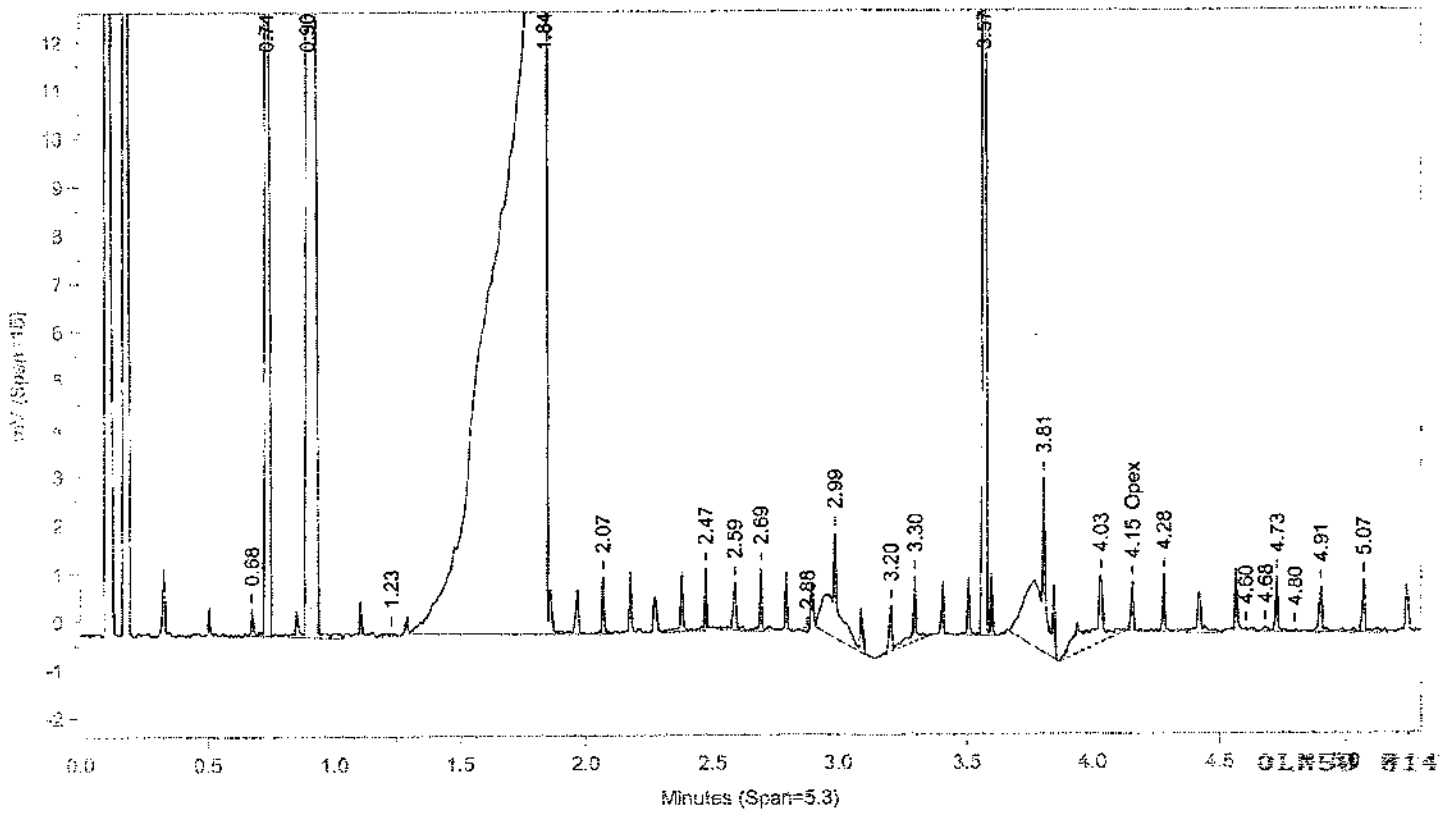
* Recovery outside QC Limits

Printed on: 12/7/10 20:22:02

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\X11341.11R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:14:46 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:14:46 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
	0		Opex	4.153	1008	4.873	Opex

Files:
Area File: C:\CPWIN\DATA1\IX11341.11A
Area File: C:\CPWIN\DATA1\IX11341B.11A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\IX11341.CAL
Calibration File B: C:\CPWIN\DATA1\IX11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:20:14 PM
File Reported On: 12/7/2010 at 8:20:25 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
LCS21341

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103410021A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: LCSA

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1X11341.12R

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/7/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/7/2010

Injection Volume: 35 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex		830P

01N50 0150

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: **LCSA** 12/7/10 LCS21341 Sample ID: AA **Batchnumber: 103410021A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02726 02727

Analysis Report (A)

Injected on	: DEC 07, 2010 20:20:39
Instrument	: CP09--X3593A
Result file	: 1X11341.12R
Calibration file	: 1X11341.CAL
Method file	: OPEX.MET
%SSR(Opex)	:

Peak name	Min	R.T.	Max	Height	Amount
Opex	2.65	2.84	2.85	6809	832.121094

Analysis Report (B)

Injected on	: DEC 07, 2010 20:20:39
Instrument	: CP09--X3593B
Result file	: 1X11341B.12R
Calibration file	: 1X11341B.CAL
Method file	: OPEXB.MET
%SSR(Opex)	:

Peak name	Min	R.T.	Max	Height	Amount
Opex	4.08	4.11	4.28	2646	12.790534

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex	A	832.121094	<100	<20			

Units: ug/l

Reviewed by: Date: 12/7/10
Verified by: Date:

DEC 08 2010

Sarah Snyder
Senior Specialist

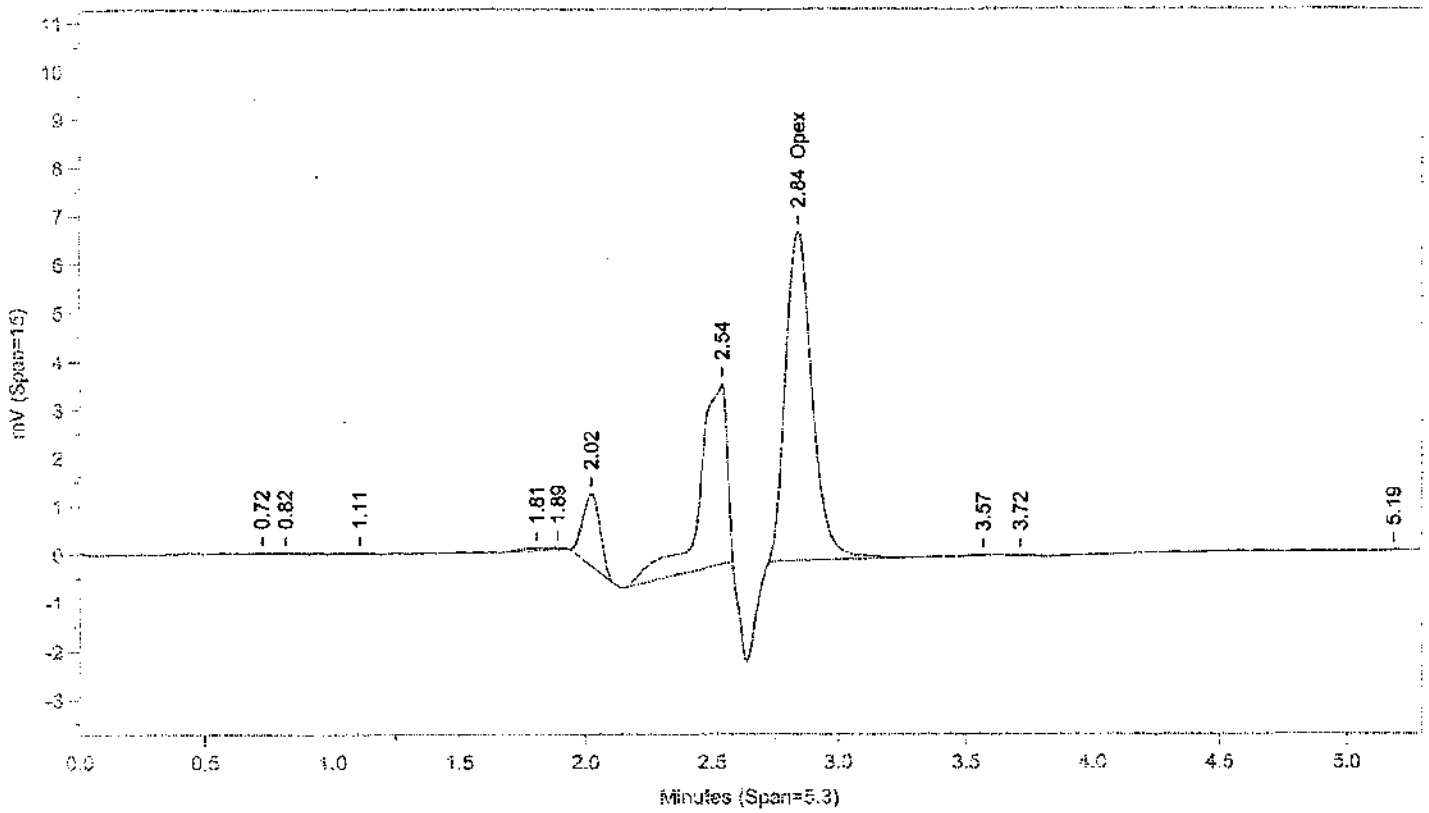
01N58 0151

%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

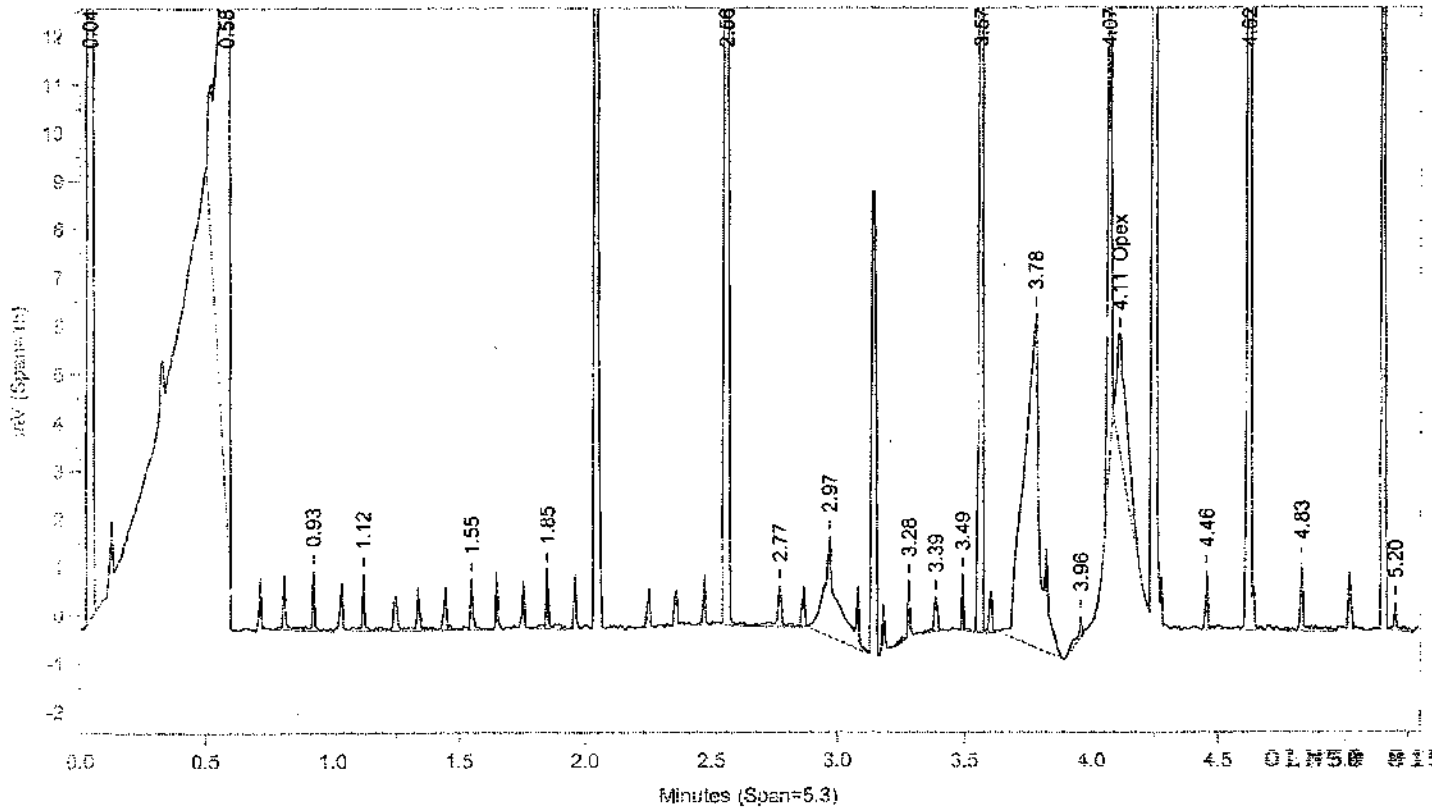
* Recovery outside QC Limits

Printed on: 12/7/10 20:33:26

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.12R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:20:38 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:20:38 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.84	6809	832.121	Opcx	4.111	2646	12.791	Opcx

Files:
Area File: C:\CPWIN\DATA1\1X11341.12A
Area File: C:\CPWIN\DATA1\1X11341B.12A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:26:04 PM
File Reported On: 12/7/2010 at 8:26:15 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
LCSD21341

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103410021A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: LCSDA

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1X11341.13R

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/7/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/7/2010

Injection Volume: 35 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	710	P

OLN58 0154

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: LCSDA 12/7/10 LCSD21341 Sample ID: AA **Batchnumber: 103410021A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02726 02727

Analysis Report (A)

Injected on	: DEC 07, 2010 20:26:30
Instrument	: CP09--X3593A
Result file	: 1X11341.13R
Calibration file	: 1X11341.CAL
Method file	: OPEX.MET
%SSR(Opex)	:

Analysis Report (B)

Injected on	: DEC 07, 2010 20:26:30
Instrument	: CP09--X3593B
Result file	: 1X11341B.13R
Calibration file	: 1X11341B.CAL
Method file	: OPEXB.MET
%SSR(Opex)	:

Peak name	Min	R.T.	Max	Height	Amount
Opex	2.65	2.82	2.85	5785	706.908875

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex	A	706.908875	<100	<20			

Units: ug/l

Reviewed by: Date: 12/7/10
Verified by: Date:

DEC 08 2010

Sarah Snyder
Senior Specialist

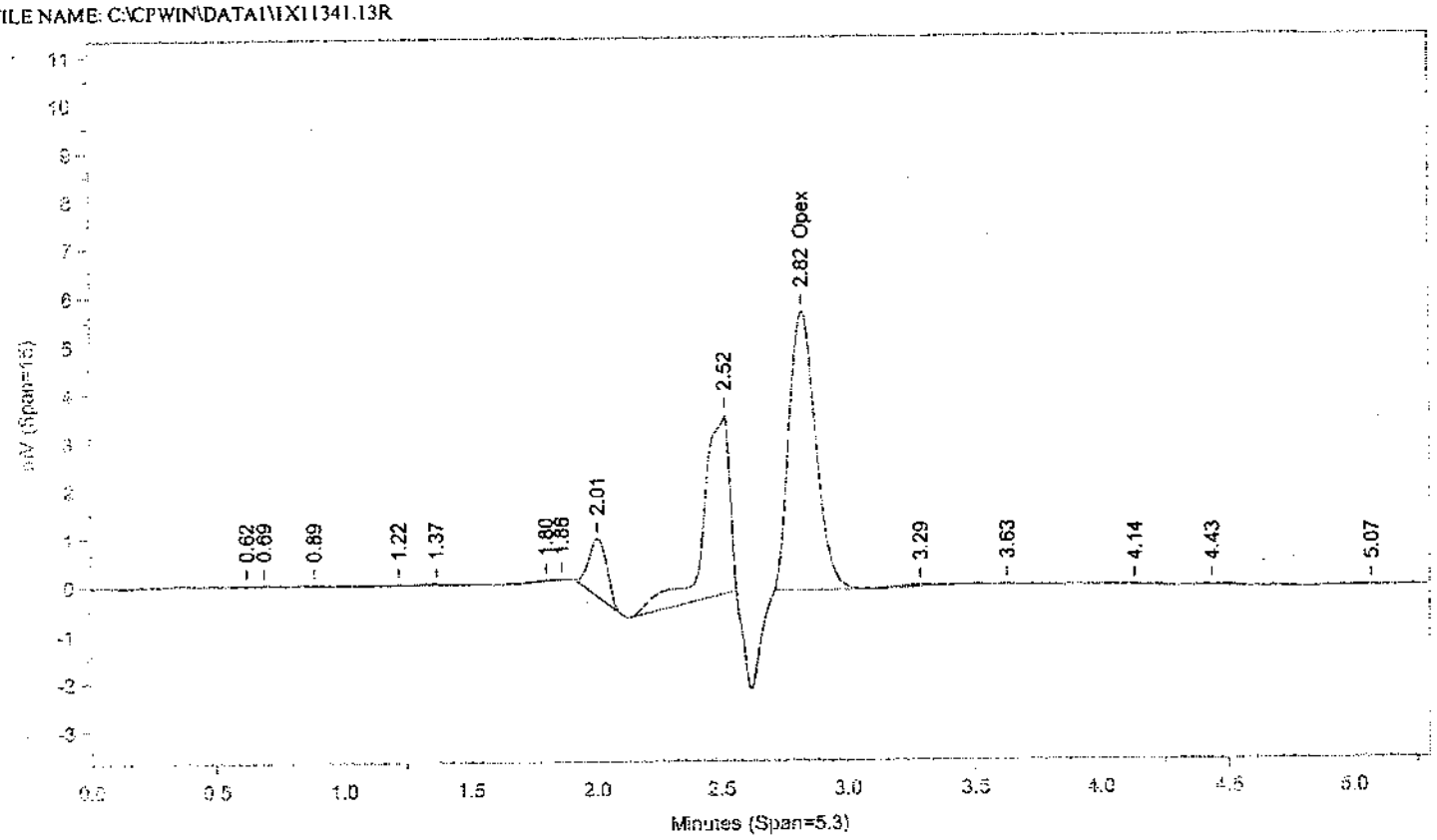
%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

OLN59 0155

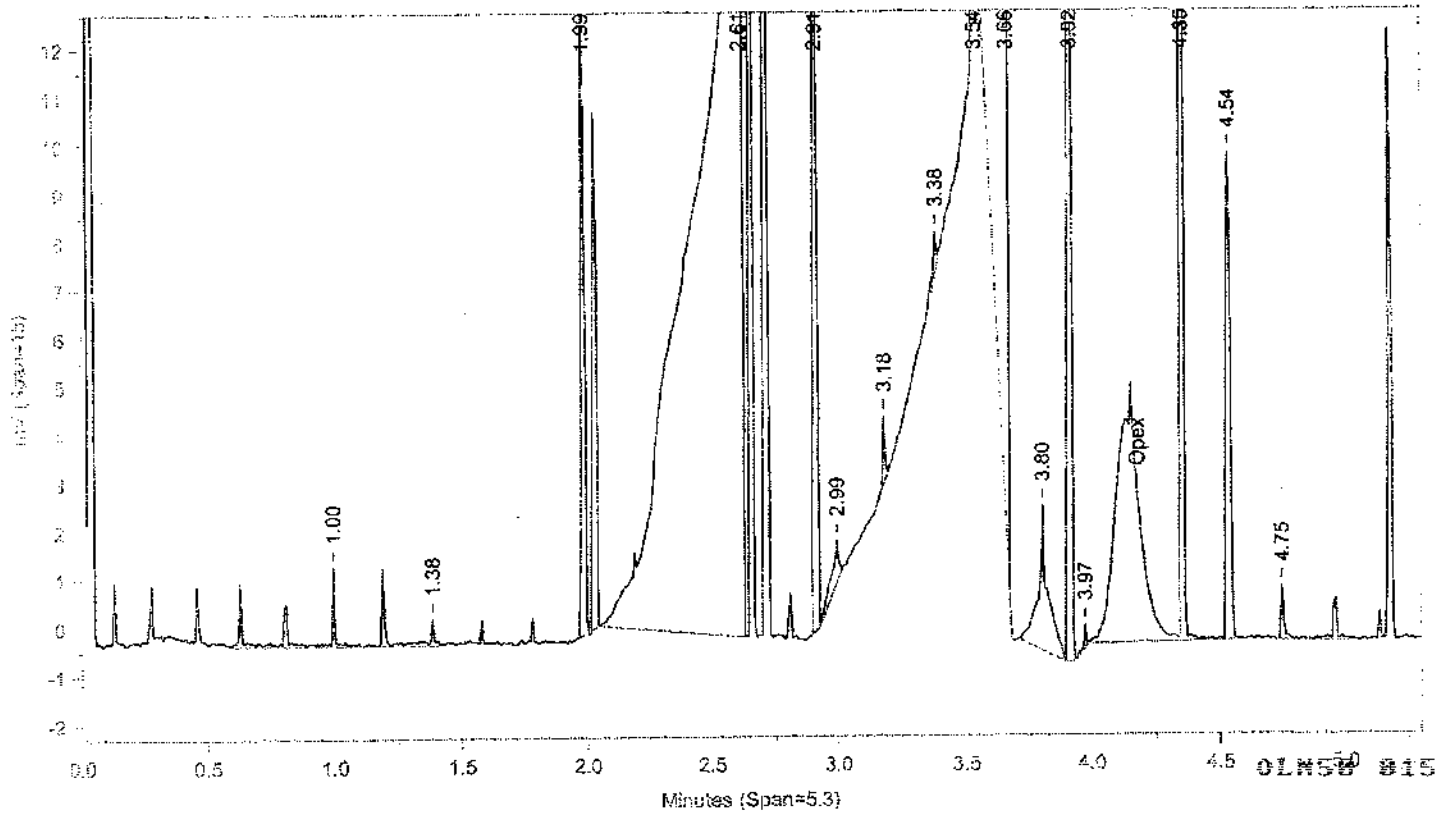
* Recovery outside QC Limits

Printed on: 12/7/10 20:33:45

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\IX11341.13R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:26:29 PM Column ID: SupelcosIl PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:26:29 PM Column ID: Capcell CN, 250mmX4.6mmX5um

OLM5.0 8156

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.821	5785	706.909	Opex			0	Opex

Files:
Area File: C:\CPWIN\DATA1\IX11341.13A
Area File: C:\CPWIN\DATA1\IX11341B.13A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\IX11341.CAL
Calibration File B: C:\CPWIN\DATA1\IX11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:31:54 PM
File Reported On: 12/7/2010 at 8:32:04 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
MSD05MS

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103410021A

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Matrix: (soil/water) WATER Lab Sample ID: 6155350

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1X11341.16R

% Moisture: Decanted: (Y/N) Date Received: 12/3/2010

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/7/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/7/2010

Injection Volume: 35 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	1	680P

OLN50 0158

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6155350 MS MSD05MS Sample ID: AA **Batchnumber: 103410021A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN50 State: MA
Analyses: 02726 02727

Analysis Report (A)

Injected on	: DEC 07, 2010 20:44:05
Instrument	: CP09--X3593A
Result file	: 1X11341.16R
Calibration file	: 1X11341.CAL
Method file	: OPEX.MET
%SSR(Opex)	:

Peak name	Min	R.T.	Max	Height	Amount
Opex	2.65	2.83	2.85	5533	676.197693

Analysis Report (B)

Injected on	: DEC 07, 2010 20:44:05
Instrument	: CP09--X3593B
Result file	: 1X11341B.16R
Calibration file	: 1X11341B.CAL
Method file	: OPEXB.MET
%SSR(Opex)	:

Peak name	Min	R.T.	Max	Height	Amount
Opex	4.08	4.09	4.28	17117	82.743332

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex	A	676.197693	100	20		156.39	

Units: ug/l

Reviewed by: _____ Date: 12/7/10
Verified by: _____ Date: _____

DEC 08 2010

Sarah Snyder
Senior Specialist

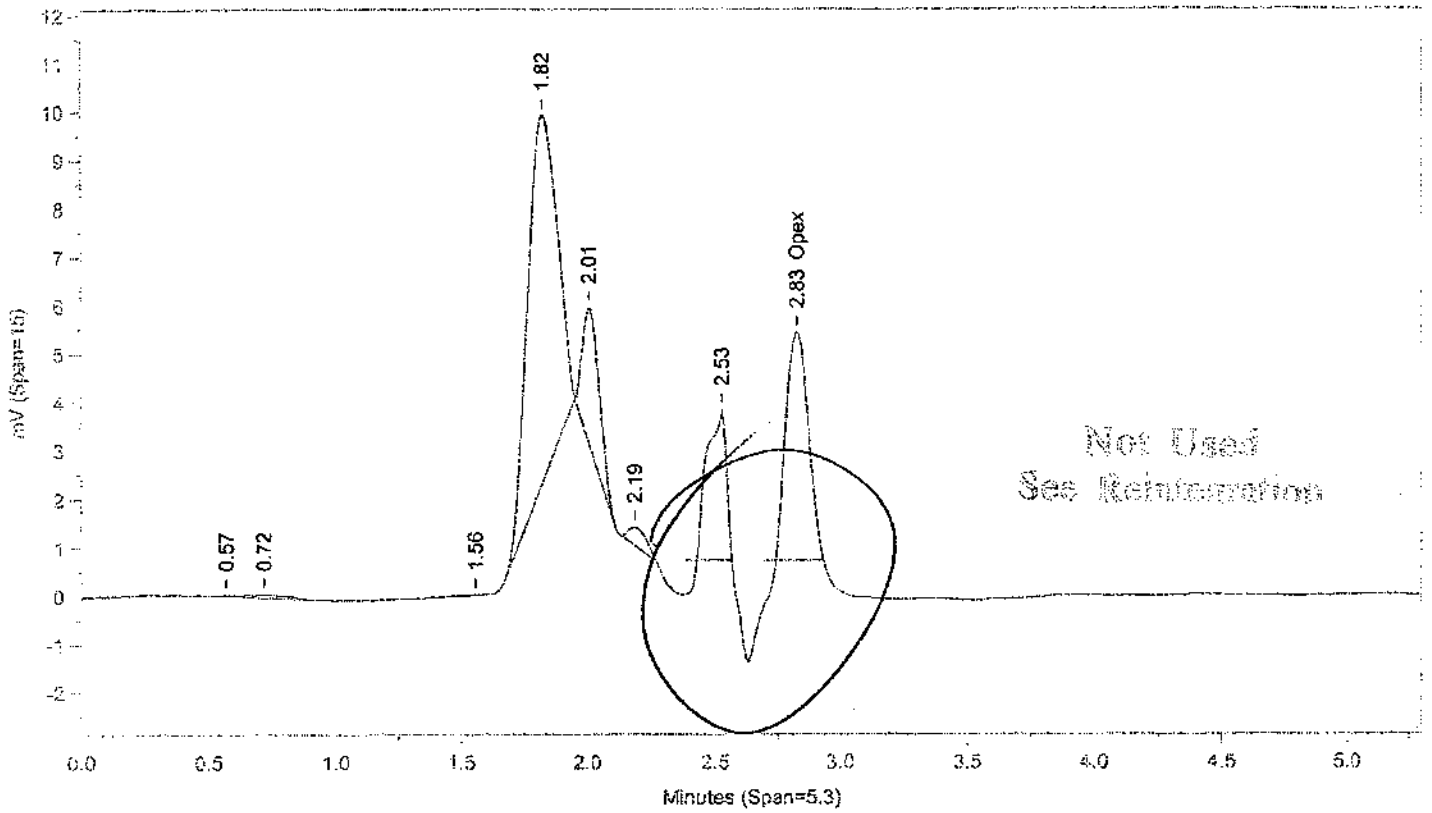
%Difference = High - Low Amount divided by the Average times 100 Higher Amount Found

OLN50 0159

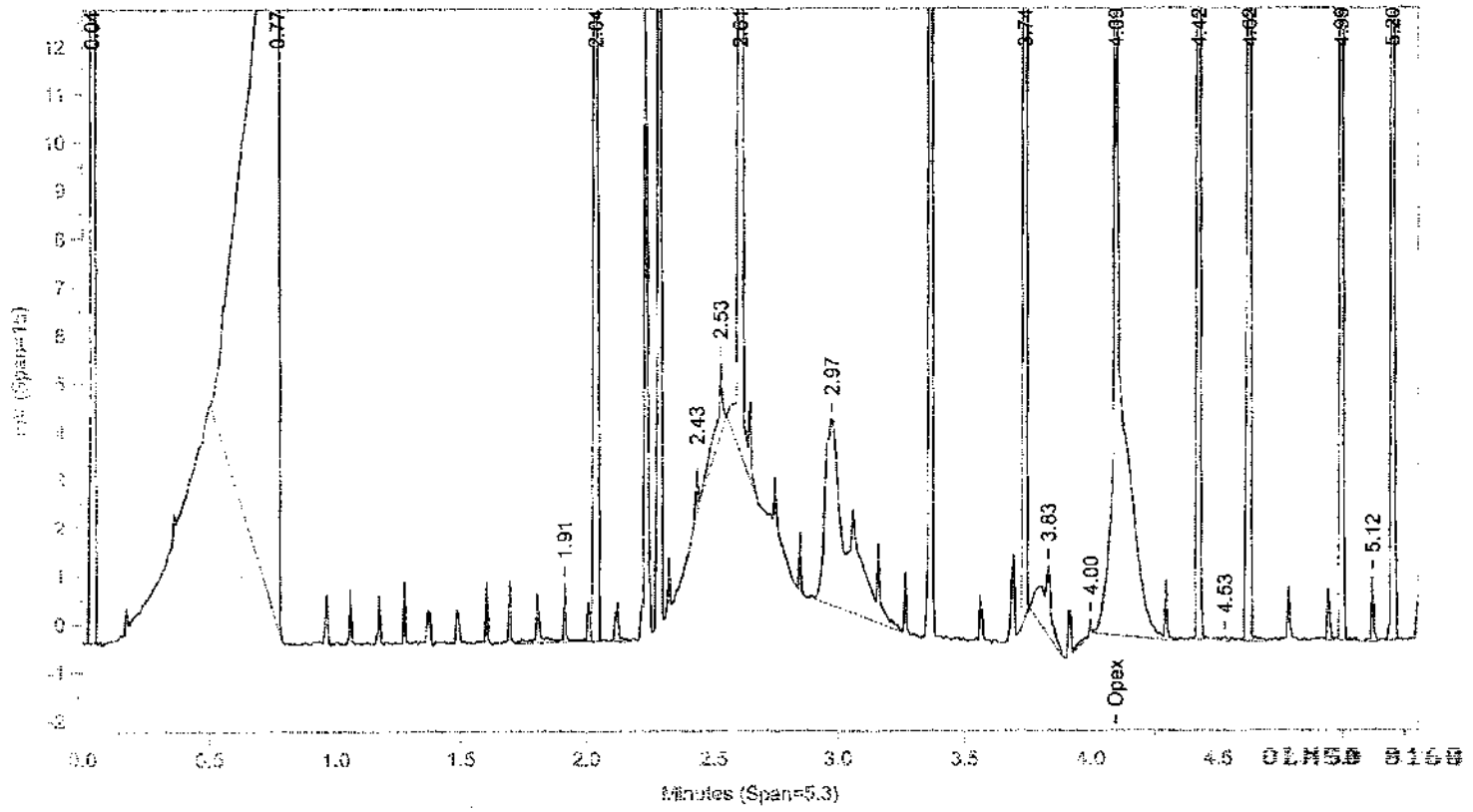
* Recovery outside QC Limits

Printed on: 12/7/10 21:23:49

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.16R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:44:04 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:44:04 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

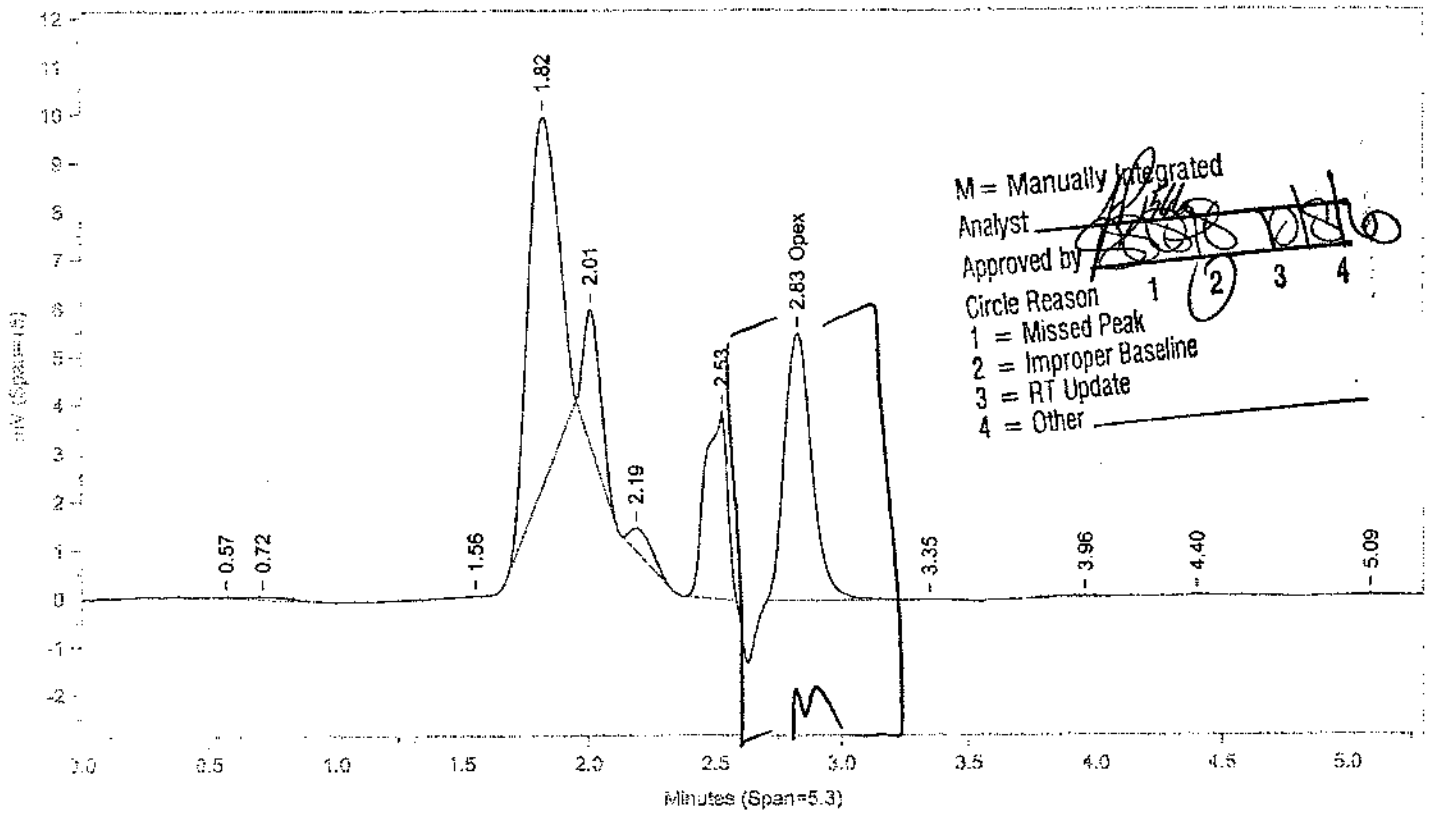
Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.828	4722	577.008	Opex	4.094	17117	82.743	Opex

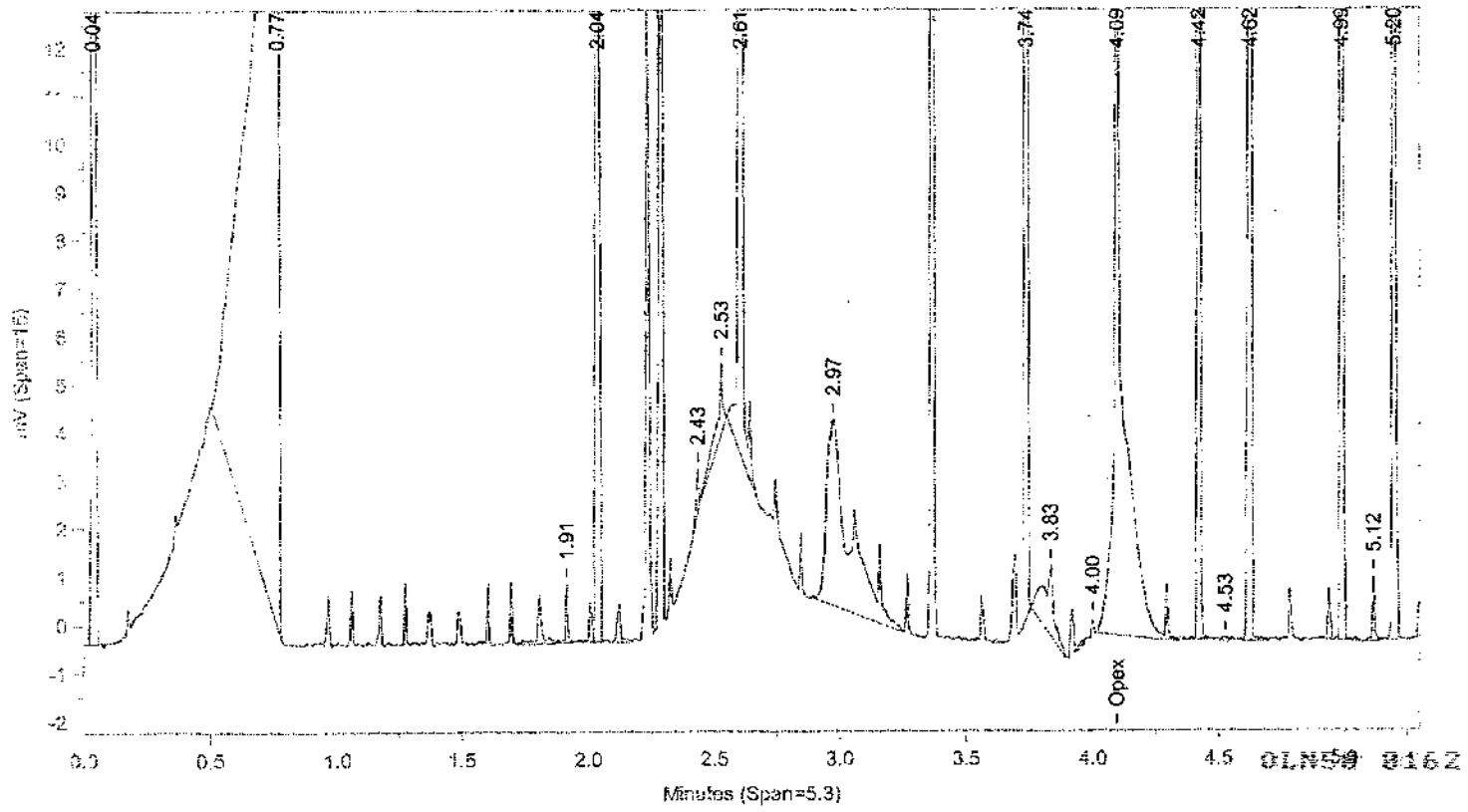
Files:
Area File: C:\CPWIN\DATA1\IX11341.16A
Area File: C:\CPWIN\DATA1\IX11341B.16A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\IX11341.CAL
Calibration File B: C:\CPWIN\DATA1\IX11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:49:30 PM
File Reported On: 12/7/2010 at 8:49:38 PM

Not Used
See Reintegration

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\X11341.16R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:44:04 PM Column ID: SupelcosII PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:44:04 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.828	5533	676.198	Opex	4.094	17117	82.743	Opex

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 9:16:18 PM
File Reported On: 12/7/2010 at 9:16:18 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.
MSD05MSD

Lab Name: Lancaster Laboratories Contract: Batchnumber: 103410021A

Lab Code: Case No.: SAS No.: SDG No.: OLN50

Matrix: (soil/water) WATER Lab Sample ID: 6155350

Sample wt/vol: 10 (g/ml) ml Lab File ID: 1X11341.17R

% Moisture: Decanted: (Y/N) Date Received: 12/3/2010

Extraction: (SepF/Cont/Sonc) Direct Injection Date Extracted: 12/7/2010

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/7/2010

Injection Volume: 35 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	1	690P

OLN50 8164

FORM I

Lancaster Laboratories-Single Component Data Summary

Sample Name: **6155350** MSD MSD05MSD Sample ID: AA **Batchnumber: 103410021A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN50 State: MA
Analyses: 02726 02727

Analysis Report (A)

Injected on : DEC 07, 2010 20:49:57
Instrument : CP09--X3593A
Result file : 1X11341.17R
Calibration file : 1X11341.CAL
Method file : OPEX.MET
%SSR(Opex) :

Peak name	Min	R.T.	Max	Height	Amount
Opex	2.65	2.83	2.85	5642	689.471619

Analysis Report (B)

Injected on : DEC 07, 2010 20:49:57
Instrument : CP09--X3593B
Result file : 1X11341B.17R
Calibration file : 1X11341B.CAL
Method file : OPEXB.MET
%SSR(Opex) :

Peak name	Min	R.T.	Max	Height	Amount
Opex	4.08	4.16	4.28	66197 E	319.992310

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex	A	689.471619	100	20		73.20	

Units: ug/l

Reviewed by: Date: 12/7/10
Verified by: Date:

DEC 08 2010

Sarah Snyder
Senior Specialist

%Difference = High - Low Amount divided by the Average times 100

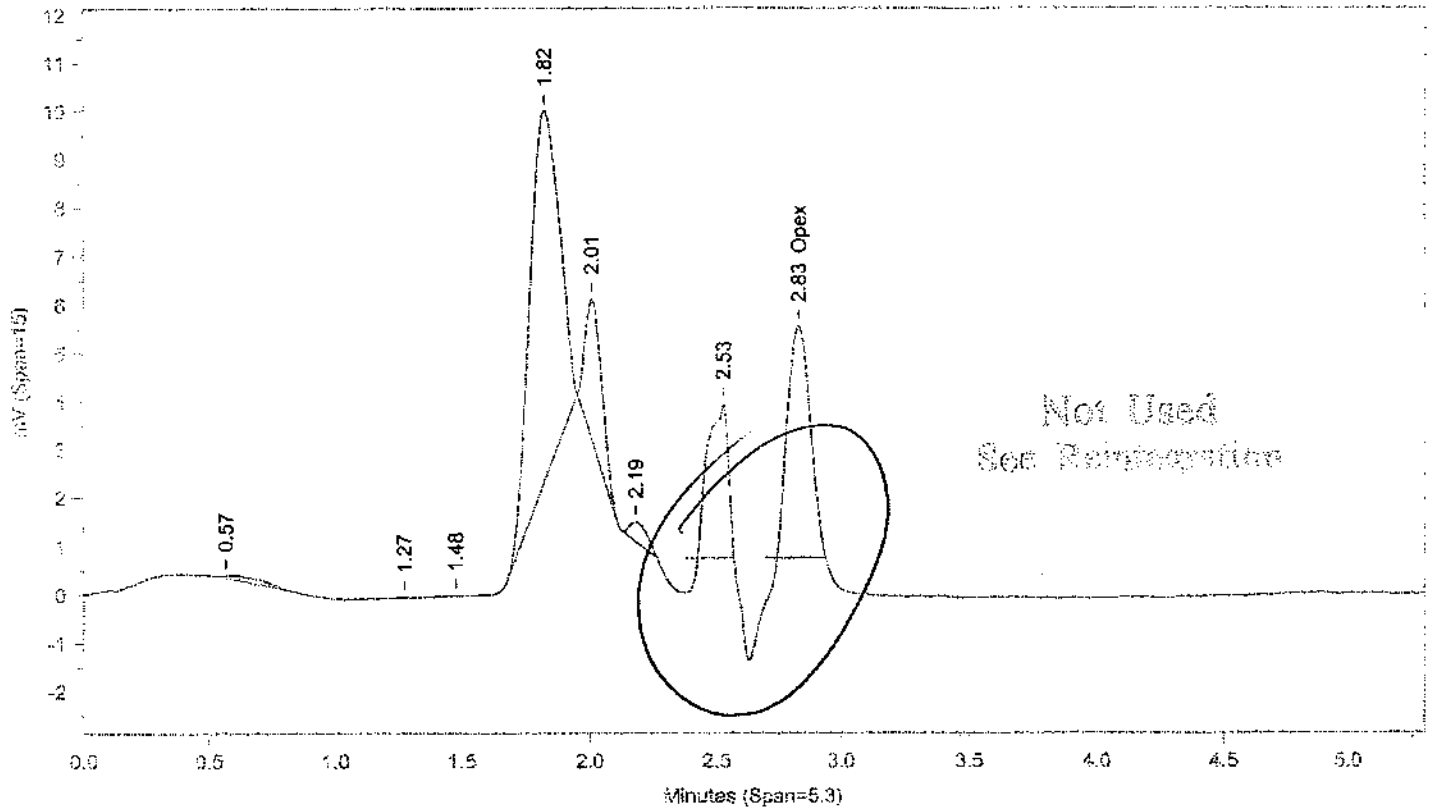
Higher Amount Found

01859 0165

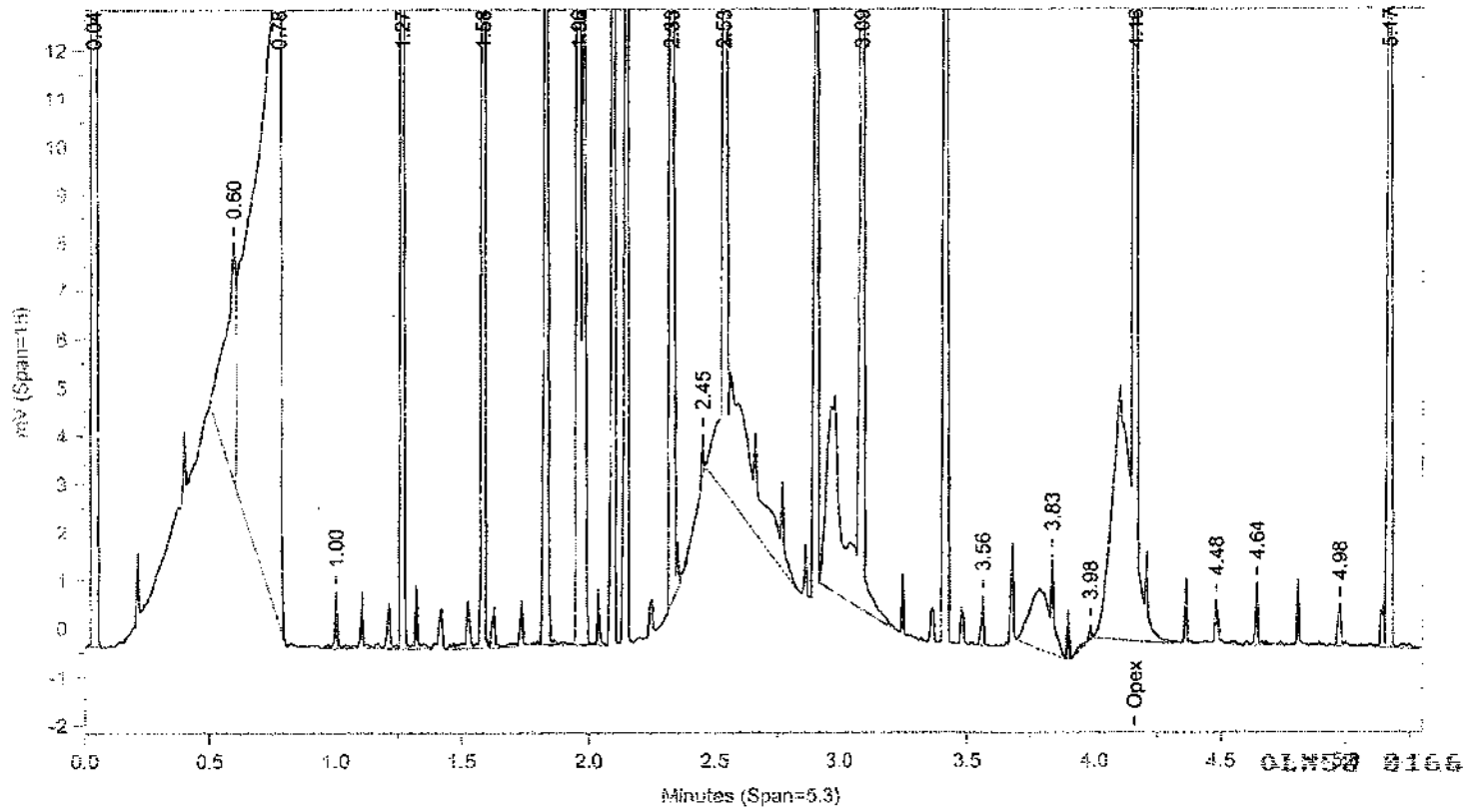
* Recovery outside QC Limits

Printed on: 12/7/10 21:24:08

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\\X11341.17R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:49:56 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:49:56 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

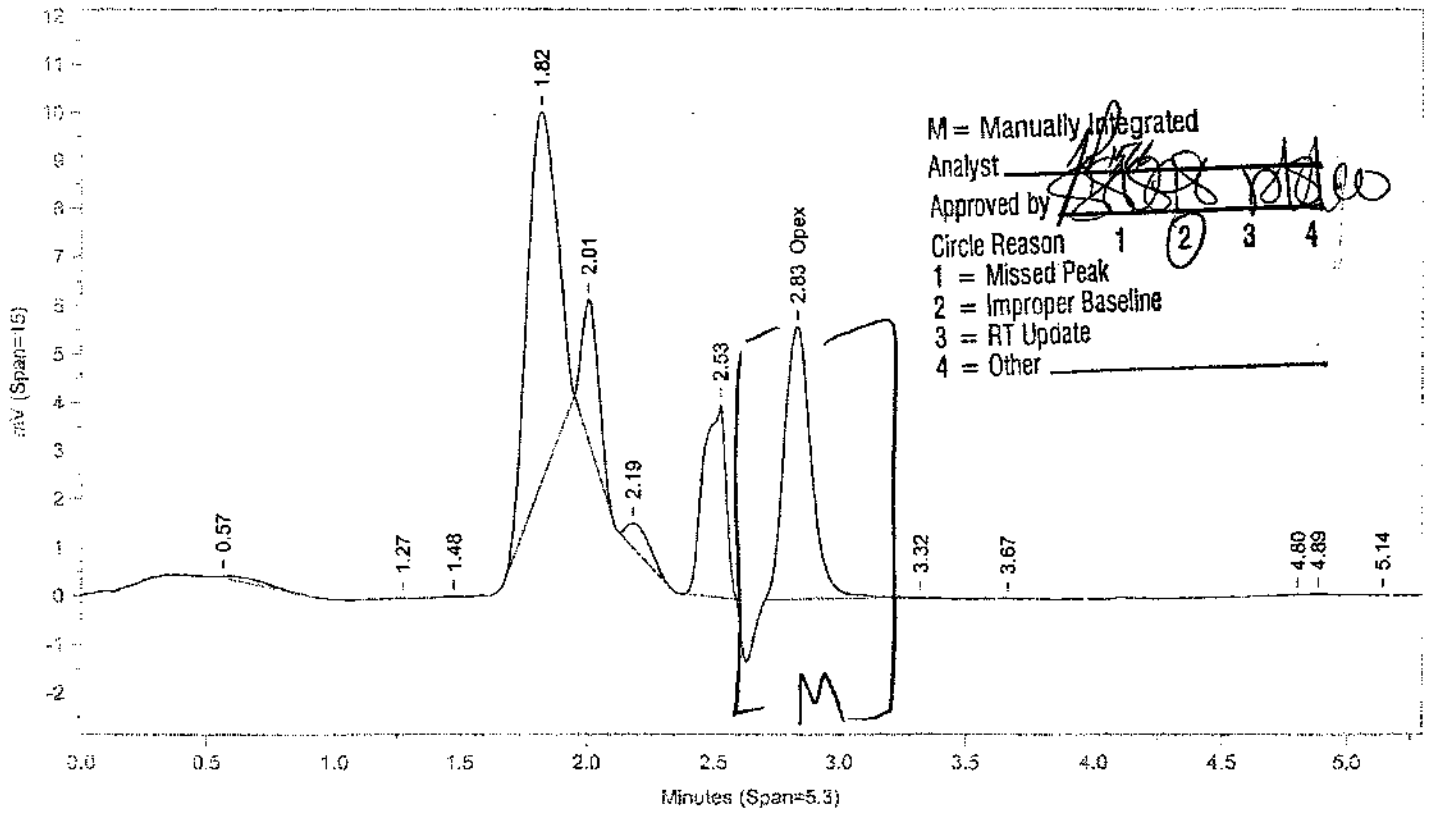
Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.827	4811	587.949	Opex	4.16	66197	319.992	Opex

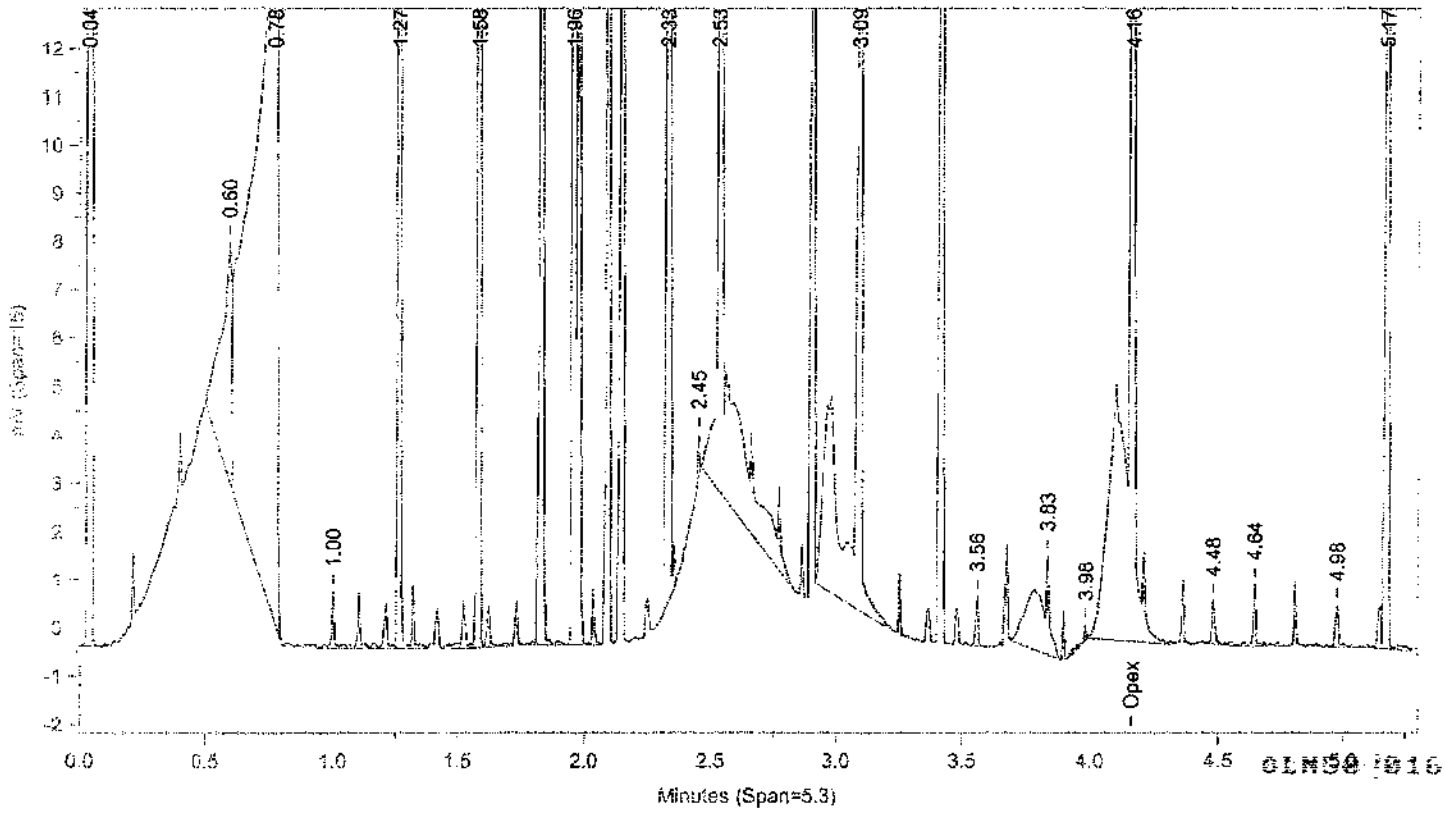
Files:
Area File: C:\CPWIN\DATA1\1X11341.17A
Area File: C:\CPWIN\DATA1\1X11341B.17A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 8:55:22 PM
File Reported On: 12/7/2010 at 8:55:31 PM

Not Used
See Reintegration

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11341.17R



Instrument ID: CP09--X3593A Injected On: 12/7/2010 8:49:56 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 12/7/2010 8:49:56 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% PHOSPHATE buffer: 25%ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.827	5642	689.472	Opex	4.16	66197	319.992	Opex

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11341.CAL
Calibration File B: C:\CPWIN\DATA1\1X11341B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 12/7/2010 9:17:52 PM
File Reported On: 12/7/2010 at 9:17:51 PM

Extraction/Distillation/Digestion Logs

Organic Extraction Batchlog Assigned to: 1566 James Place

Reviewed by: [illegible] Start Date: 12/7/10 Start time: 7:00pm

103410021A

Tech 1: [illegible] 1566 Tech 2:

Dept: 24 Prep Analysis: 00000 Opex ~~Kempore in~~ Water

QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
6155350MSD	MSD05MSD	10			ST1032624C	0.1	10	6.98	9.69	55A	
	MSD05MSD										
6155350MS	MSD05MS	10			ST1032624C	0.1	10	6.98	9.69	55A	
	MSD05MS										
BLANKA	PBLK21341	10					10	–	9	N/C	
	PBLK21341										
LCSA	LCS21341	10			ST1032624C	0.1	10	–	9	N/C	
	LCS21341										
LCSDA	LCSD21341	10				0.1	10	–	9	N/C	
	LCSD21341				ST1032624C						

ST1032624C-Opex Stock

	Sample #	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6151794	11347	10			10	7.34	9.66	178A		02726	12/09/2010	N
2	6155350	MSD05	10			10	6.98	9.69	55A		02726 ~~02727~~	12/15/2010	P
3	6155978	SW-2-	10			10	6.72	9.35	55A		02726 ~~02727~~	12/16/2010	P

Rack ID:		Work Station	
Internal Standard		Balance #	

S-bath ID	C	S-bath ID	C	N-Evap	C	M-vap	C	103410021A

Documented temps are NIST corrected.

DF = Dilution Factor FV = Final Volume

Miscellaneous Organics Data

Case Narrative Conformance/Nonconformance Summary

Lancaster Laboratories
Where quality is a science.

CASE NARRATIVE
Client: Olin Corporation
SDG #: OLN50

LANCASTER LABORATORIES
MISCELLANEOUS ORGANICS DATA

SAMPLE NUMBER(S) :

LL #'s	Sample Code	Matrix Soil	Matrix Water	Comments
6155345	MSD11		X	
6155346	MSD8A		X	
6155347	MSD10		X	
6155348	MSD01		X	
6155349	MSD04		X	
6155350	MSD05		X	
6155351	MSD8D		X	
6155352	MSD08		X	Unspiked
6155353MS	MSD08MS		X	Matrix Spike
6155354MSD	MSD08MSD		X	Matrix Spike Dup
6155355	MSD09		X	
6155978	SW-2-		X	
6155979	SW-3-		X	
6155980	SW-6-		X	

LABORATORY SUBMITTED QC:

BLANK	X	Method Blank
LCS	X	Lab Control Sample
LCSD	X	Lab Control Sample Dup

SAMPLE PREPARATION:

Samples were derivatized with benzaldehyde prior to analysis.

Case Narrative (continued)
SDG: OLN50

ANALYSIS:

No problems were encountered during the analysis of these samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC was within specifications.

DATA INTERPRETATION:

Method blank forms could not be generated. None of the reported compounds were detected in the method blank.

The LCS serves as the ICV second source check.

Abbreviation Key

NC = Not calculated
NF = Not found

Case Narrative Reviewed and Approved by:

Dana M. Kauffman
Manager, Data Deliverables

Date: 12/16/10

OLN50 8175

QC Summary

01N58 8976

Lancaster Laboratories

Hydrazine by LCMSMS QC Data

Date: 7-Dec-10
Batch: **10340001**
Chemist: MY2628
Conc Unit: µg/L
Instrument: TQU01408

Sample Prep Date: 6-Dec-10

QC ID:	**BLK(reagent)**	**ICV/LCS**	**ICV/LCSD**
Injection Time:	12/06/10 2135	12/06/10 2236	12/06/10 2256
	BKG(6155352)	**MS(6155353)**	**MSD (6155354)**
	12/06/10 2155	12/06/10 2316	12/06/10 2337

Compound Name	*LCS*		*LCSD*						
	Conc.	% REC	*Conc.*	% REC	Mean	Spk Level	Ave.% REC	Std. Dev.	%RPD
Monomethyl Hydrazine	52.090	86.8	51.789	86.3	51.940	60	87%	0.213	0.6
1,1Dimethyl Hydrazine	55.292	92.2	52.110	86.9	53.701	60	90%	2.250	5.9
Hydrazine	12.953	107.9	12.144	101.2	12.549	12	105%	0.572	6.4

Compound Name	*MS*		*MSD*						
	Conc.	% REC	*Conc.*	% REC	Mean	Spk Level	Ave.% REC	Std. Dev.	%RPD
Monomethyl Hydrazine	53.326	88.9	51.195	85.3	52.261	60	87%	1.507	4.1
1,1Dimethyl Hydrazine	54.738	91.2	50.416	84.0	52.577	60	88%	3.056	8.2
Hydrazine	12.900	107.5	10.203	85.0	11.552	12	96%	1.907	23.3

Compound Name	BKG
	Conc.
Monomethyl Hydrazine	0.000
1,1Dimethyl Hydrazine	0.000
Hydrazine	0.000

Note:

Recovery limits: 70-130 %
%RPD: 25
These are advisory limits

Sample Data

Lancaster Laboratories

LOQ and MDL by Analysis Number

COMPONENT NAME	MDL	LOQ	DEFAULT UNITS
10342: Hydrazines in Water			
Hydrazine	0.050	0.10	ug/l
1,1-Dimethylhydrazine	0.25	0.50	ug/l
Methylhydrazine	0.25	0.50	ug/l

OLN58 8179

Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Component Name: **Monomethylhydrazine**

Summary of Quan Results

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
Conditioner	A10340001_01	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conditioner	A10340001_02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MDL	A10340001_03	7257.61	N/A	7257.606	N/A	0.40172ug/L	N/A	N/A
CAL1	A10340001_04	12979.79	N/A	12979.787	0.5	0.58058ug/L	16.12	N/A
CAL2	A10340001_05	25339.10	N/A	25339.098	1	0.96690ug/L	-3.31	N/A
CAL3	A10340001_06	70979.80	N/A	70979.802	2.5	2.39351ug/L	-4.26	N/A
CAL4	A10340001_07	142260.60	N/A	142260.596	5	4.62157ug/L	-7.57	N/A
CAL5	A10340001_08	809756.49	N/A	809756.488	25	25.48580ug/L	1.94	N/A
CAL6	A10340001_09	1482920.85	N/A	1482920.847	50	46.52722ug/L	-6.95	N/A
CAL7	A10340001_10	3399342.53	N/A	3399342.526	100	106.42972ug/L	6.43	N/A
CAL8	A10340001_11	3897302.81	N/A	3897302.808	125	121.99470ug/L	-2.40	N/A
Conditioner	A10340001_12	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conditioner	A10340001_13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLK reagent	A10340001_14	N/A	N/A	N/A	0	N/A	N/A	N/A
6155352 (BKG)	A10340001_15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV1	A10340001_16	69515.68	N/A	69515.676	2.5	2.34775ug/L	-6.09	N/A
ICV/LCS	A10340001_17	1660893.79	N/A	1660893.788	N/A	52.09021ug/L	N/A	N/A
ICV/LCSD	A10340001_18	1651249.79	N/A	1651249.794	N/A	51.78876ug/L	N/A	N/A
6155353 (MS)	A10340001_19	1700430.54	N/A	1700430.539	N/A	53.32602ug/L	N/A	N/A
6155354 (MSD)	A10340001_20	1632249.64	N/A	1632249.641	N/A	51.19486ug/L	N/A	N/A
CCV2	A10340001_21	148438.36	N/A	148438.363	5	4.81467ug/L	-3.71	N/A
6153697	A10340001_22	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155281	A10340001_23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6156283	A10340001_24	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155285	A10340001_25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155345	A10340001_26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155346	A10340001_27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155347	A10340001_28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV3	A10340001_29	856314.27	N/A	856314.274	25	26.94108ug/L	7.76	N/A
6155348	A10340001_30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155349	A10340001_31	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155350	A10340001_32	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155351	A10340001_33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155355	A10340001_34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155978	A10340001_35	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155979	A10340001_36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155980	A10340001_37	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
CCV4	A10340001_38	1496054.25	N/A	1496054.247	50	46.93774ug/L	-6.12	N/A

Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Component Name: **1,1-Dimethylhydrazine**

Summary of Quan Results

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
Conditioner	A10340001_01	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conditioner	A10340001_02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MDL	A10340001_03	2143.51	N/A	2143.512	N/A	0.36379ug/L	N/A	N/A
CAL1	A10340001_04	4289.16	N/A	4289.162	0.5	0.53905ug/L	7.81	N/A
CAL2	A10340001_05	7833.09	N/A	7833.089	1	0.82851ug/L	-17.15	N/A
CAL3	A10340001_06	30588.11	N/A	30588.108	2.5	2.68712ug/L	7.48	N/A
CAL4	A10340001_07	58546.88	N/A	58546.879	5	4.97076ug/L	-0.58	N/A
CAL5	A10340001_08	318628.41	N/A	318628.406	25	26.21394ug/L	4.86	N/A
CAL6	A10340001_09	596186.64	N/A	596186.636	50	48.88461ug/L	-2.23	N/A
CAL7	A10340001_10	1216666.33	N/A	1216666.325	100	99.56473ug/L	-0.44	N/A
CAL8	A10340001_11	1531882.81	N/A	1531882.810	125	125.31128ug/L	0.25	N/A
Conditioner	A10340001_12	498.39	N/A	498.389	N/A	0.22942ug/L	N/A	N/A
Conditioner	A10340001_13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLK reagent	A10340001_14	N/A	N/A	N/A	0	N/A	N/A	N/A
6155352 (BKG)	A10340001_15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV1	A10340001_16	27560.39	N/A	27560.389	2.5	2.43982ug/L	-2.41	N/A
ICV/LCS	A10340001_17	674635.56	N/A	674635.557	N/A	55.29223ug/L	N/A	N/A
ICV/LCSD	A10340001_18	635672.64	N/A	635672.644	N/A	52.10978ug/L	N/A	N/A
6155353 (MS)	A10340001_19	667853.57	N/A	667853.574	N/A	54.73829ug/L	N/A	N/A
6155354 (MSD)	A10340001_20	614934.23	N/A	614934.234	N/A	50.41589ug/L	N/A	N/A
CCV2	A10340001_21	62029.48	N/A	62029.478	5	5.25522ug/L	5.10	N/A
6153697	A10340001_22	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155281	A10340001_23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6156283	A10340001_24	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155285	A10340001_25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155345	A10340001_26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155346	A10340001_27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155347	A10340001_28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV3	A10340001_29	353036.47	N/A	353036.472	25	29.02436ug/L	16.10	N/A
6155348	A10340001_30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155349	A10340001_31	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155350	A10340001_32	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155351	A10340001_33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155355	A10340001_34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155978	A10340001_35	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155979	A10340001_36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155980	A10340001_37	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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LCMSMS ANALYSIS REPORT

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
CCV4	A10340001_38	595478.20	N/A	595478.201	50	48.82674ug/L	-2.35	N/A

Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Component Name: **Hydrazine**

Summary of Quan Results

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
Conditioner	A10340001_01	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conditioner	A10340001_02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MDL	A10340001_03	926.93	N/A	926.927	N/A	0.03693ug/L	N/A	N/A
CAL1	A10340001_04	2693.19	N/A	2693.195	0.1	0.10367ug/L	3.67	N/A
CAL2	A10340001_05	5119.95	N/A	5119.949	0.2	0.19538ug/L	-2.31	N/A
CAL3	A10340001_06	13409.36	N/A	13409.361	0.5	0.50862ug/L	1.72	N/A
CAL4	A10340001_07	24927.18	N/A	24927.177	1	0.94387ug/L	-5.61	N/A
CAL5	A10340001_08	137990.73	N/A	137990.731	5	5.21640ug/L	4.33	N/A
CAL6	A10340001_09	262397.63	N/A	262397.633	10	9.91757ug/L	-0.82	N/A
CAL7	A10340001_10	512404.85	N/A	512404.845	20	19.36503ug/L	-3.17	N/A
CAL8	A10340001_11	676063.01	N/A	676063.015	25	25.54946ug/L	2.20	N/A
Conditioner	A10340001_12	802.63	N/A	802.626	N/A	0.03223ug/L	N/A	N/A
Conditioner	A10340001_13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLK reagent	A10340001_14	N/A	N/A	N/A	0	N/A	N/A	N/A
6155352 (BKG)	A10340001_15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV1	A10340001_16	11715.12	N/A	11715.117	0.5	0.44460ug/L	-11.08	N/A
ICV/LCS	A10340001_17	342725.83	N/A	342725.832	N/A	12.95307ug/L	N/A	N/A
ICV/LCSD	A10340001_18	321325.08	N/A	321325.082	N/A	12.14437ug/L	N/A	N/A
6155353 (MS)	A10340001_19	341334.04	N/A	341334.038	N/A	12.90048ug/L	N/A	N/A
6155354 (MSD)	A10340001_20	269951.72	N/A	269951.718	N/A	10.20303ug/L	N/A	N/A
CCV2	A10340001_21	29512.03	N/A	29512.032	1	1.11712ug/L	11.71	N/A
6153697	A10340001_22	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155281	A10340001_23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6156283	A10340001_24	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155285	A10340001_25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155345	A10340001_26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155346	A10340001_27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155347	A10340001_28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV3	A10340001_29	152152.28	N/A	152152.284	5	5.75154ug/L	15.03	N/A
6155348	A10340001_30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155349	A10340001_31	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155350	A10340001_32	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155351	A10340001_33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155355	A10340001_34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155978	A10340001_35	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155979	A10340001_36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6155980	A10340001_37	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
CCV4	A10340001_38	257524.59	N/A	257524.593	10	9.73343ug/L	-2.67	N/A

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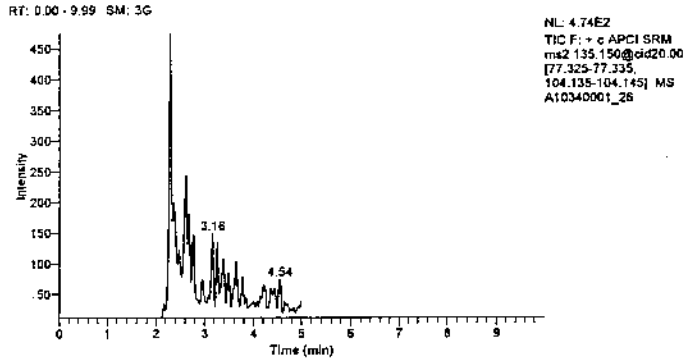
LCMSMS ANALYSIS REPORT

Sample Name:	6155345		
Data File:	A10340001_26	Acquisition Date:	12/07/10 01:38:40 AM
Sample Type:	Unknown	Sample ID:	6155345
Run Time(min):	9.99	Vial:	A:21
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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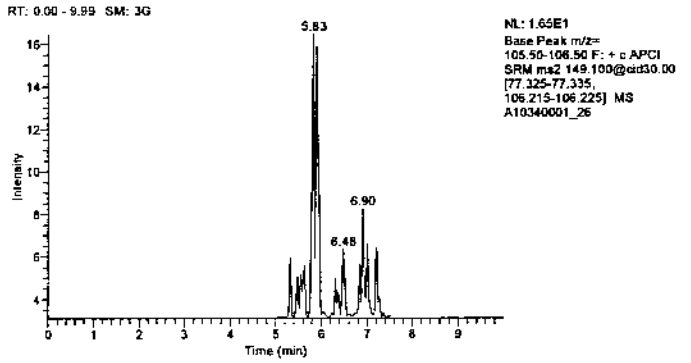

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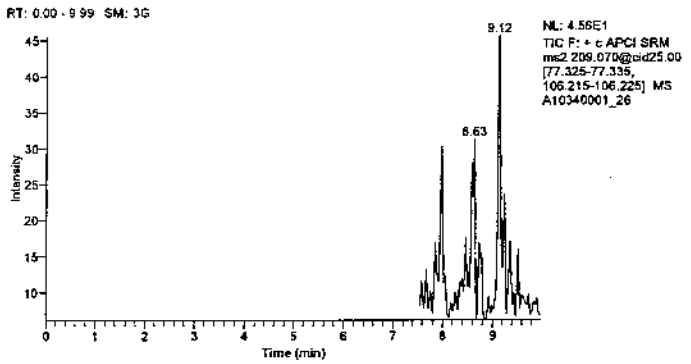

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Tuesday, December 07, 2010, 10:36:37

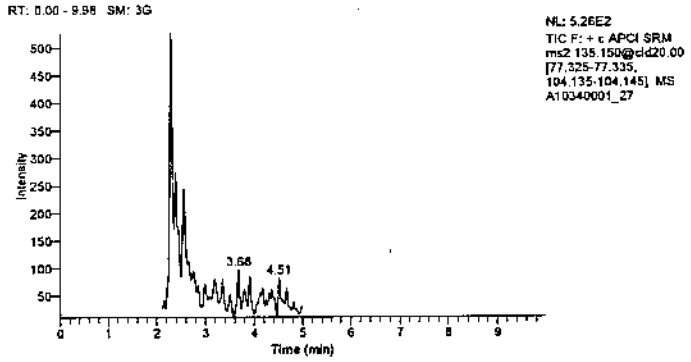
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155346		
Data File:	A10340001_27	Acquisition Date:	12/07/10 01:58:54 AM
Sample Type:	Unknown	Sample ID:	6155346
Run Time(min):	9.98	Vial:	A:22
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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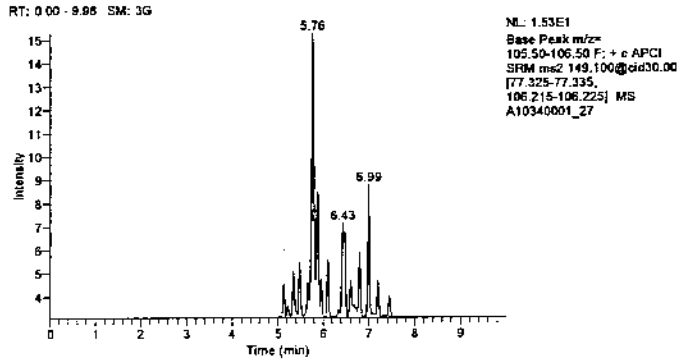

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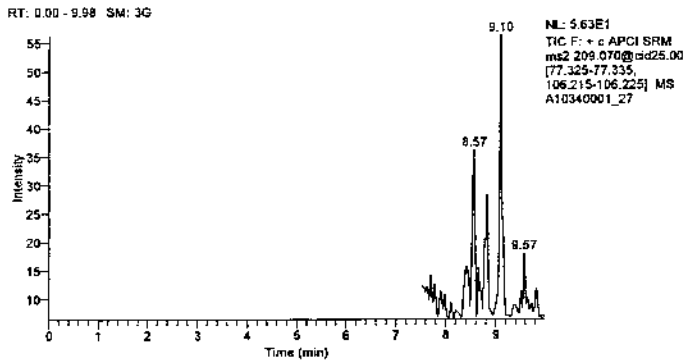

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01N50 50197

Tuesday, December 07, 2010, 10:36:38

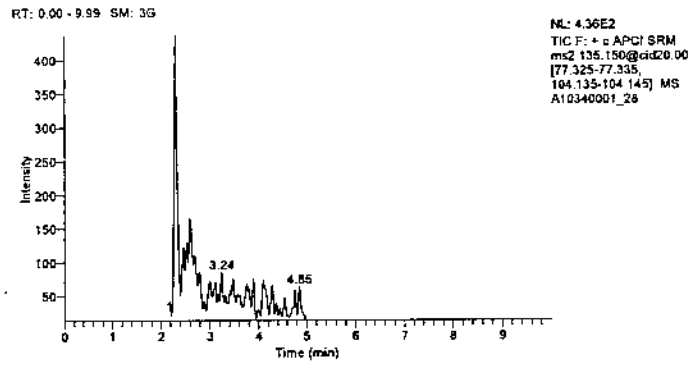
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155347		
Data File:	A10340001_28	Acquisition Date:	12/07/10 02:19:11 AM
Sample Type:	Unknown	Sample ID:	6155347
Run Time(min):	9.99	Vial:	A:23
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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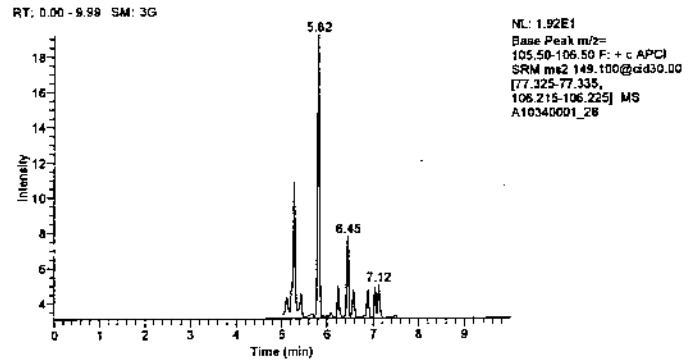

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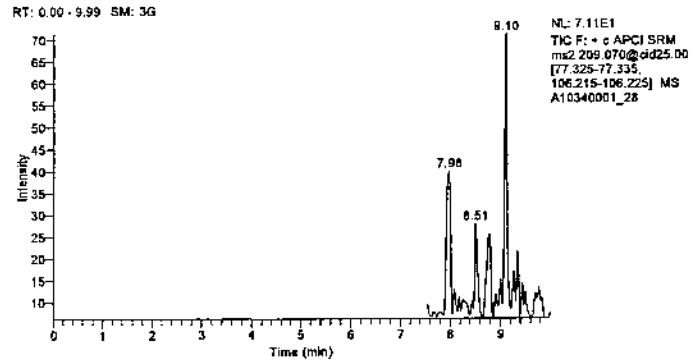

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OLM58 8100

Tuesday, December 07, 2010, 10:36:39

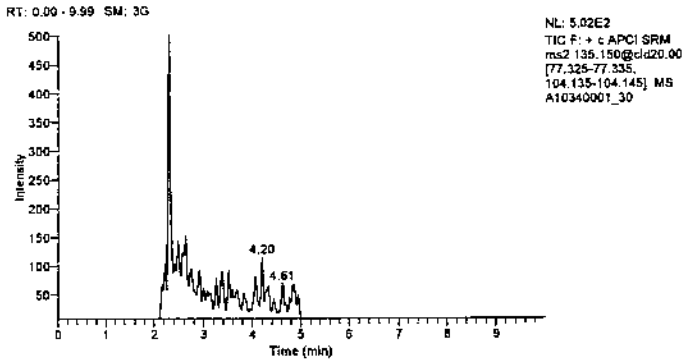
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155348		
Data File:	A10340001_30	Acquisition Date:	12/07/10 02:59:45 AM
Sample Type:	Unknown	Sample ID:	6155348
Run Time(min):	9.99	Vial:	A:24
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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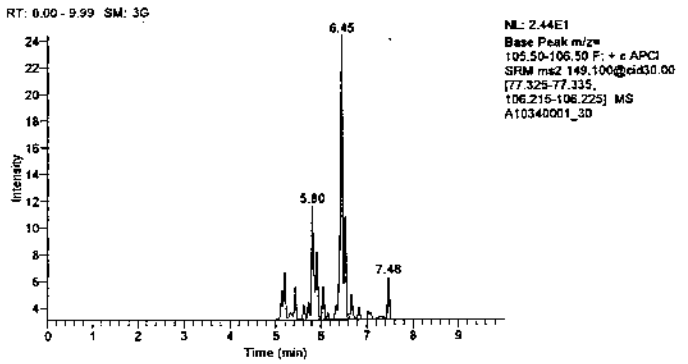

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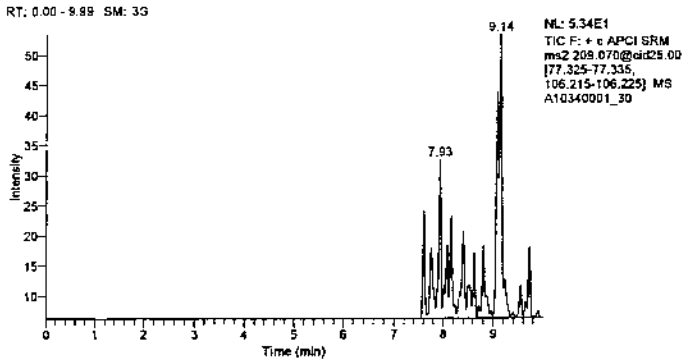


There's no data available to display this graphic object.

Tuesday, December 07, 2010, 10:36:40

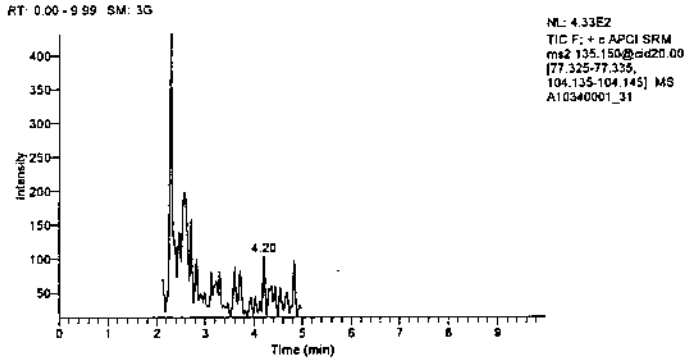
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155349		
Data File:	A10340001_31	Acquisition Date:	12/07/10 03:20:01 AM
Sample Type:	Unknown	Sample ID:	6155349
Run Time(min):	9.99	Vial:	A:25
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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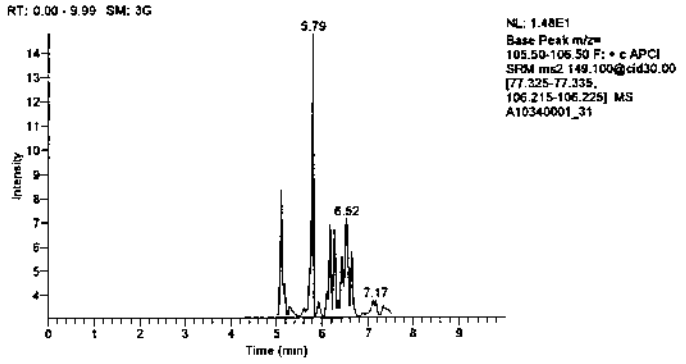

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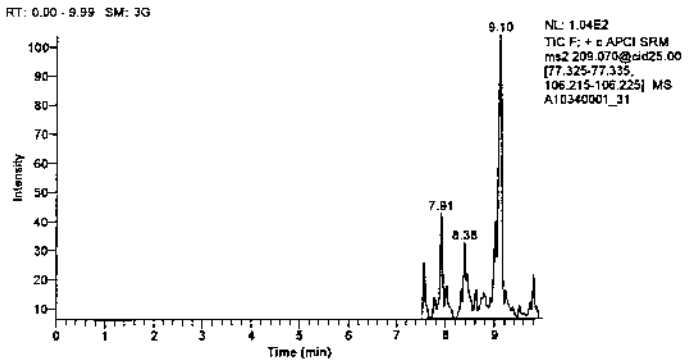

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01N58 5139

Tuesday, December 07, 2010, 10:36:40

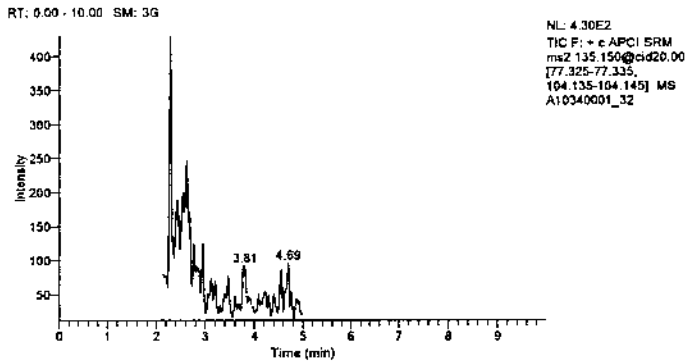
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155350		
Data File:	A10340001_32	Acquisition Date:	12/07/10 03:40:18 AM
Sample Type:	Unknown	Sample ID:	6155350
Run Time(min):	9.99	Vial:	A:26
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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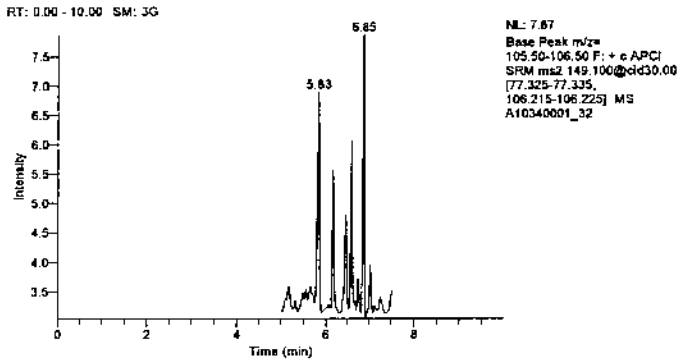

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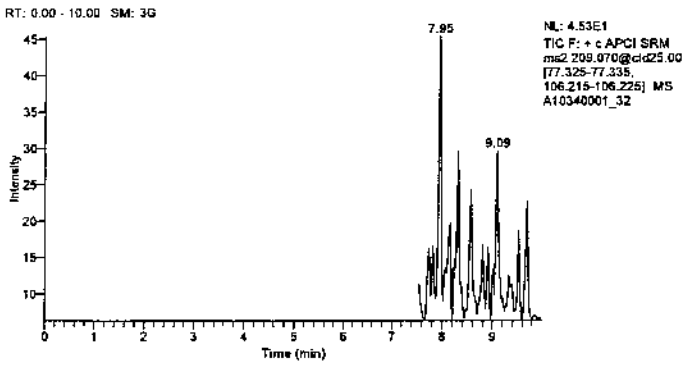

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01H58 0191

Tuesday, December 07, 2010, 10:36:41

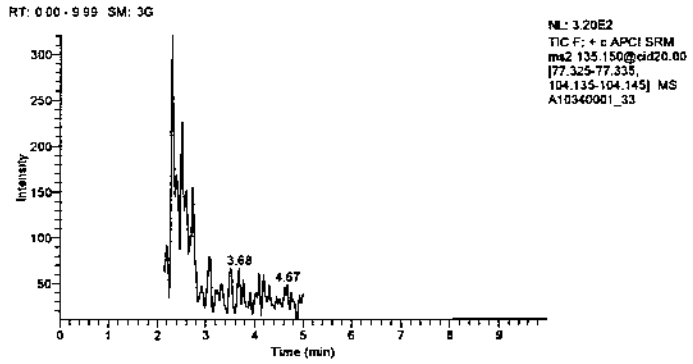
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155351		
Data File:	A10340001_33	Acquisition Date:	12/07/10 04:00:35 AM
Sample Type:	Unknown	Sample ID:	6155351
Run Time(min):	9.98	Vial:	A:27
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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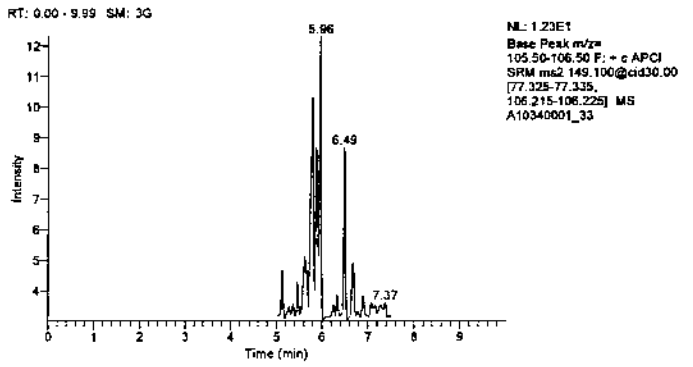

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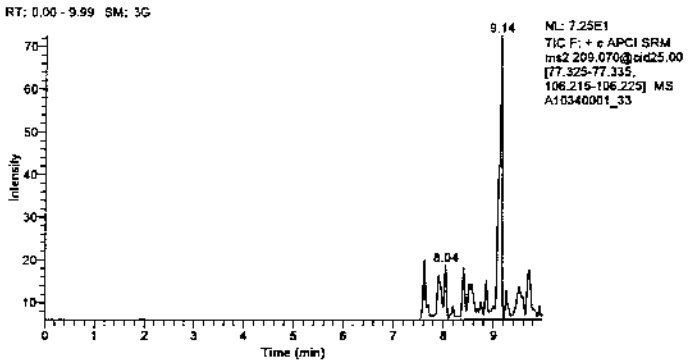


There's no data available to display this graphic object.

OLMSB 8192

Tuesday, December 07, 2010, 10:36:42

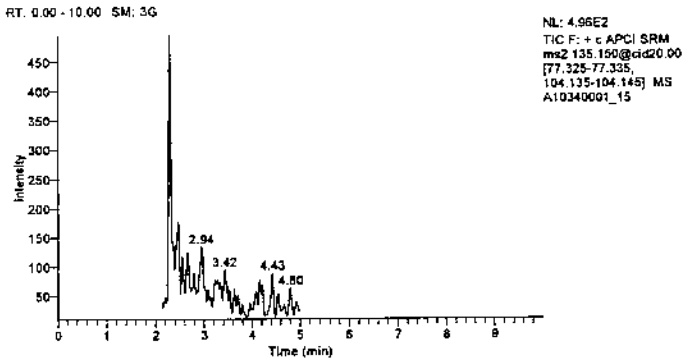
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155352 (BKG)		
Data File:	A10340001_15	Acquisition Date:	12/06/10 09:55:43 PM
Sample Type:	Unknown	Sample ID:	6155352 (BKG)
Run Time(min):	9.99	Vial:	A:14
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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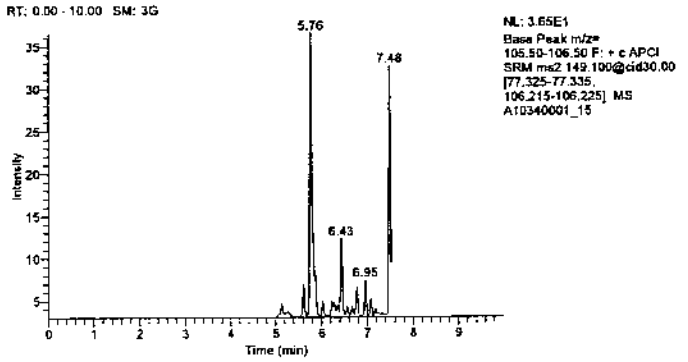

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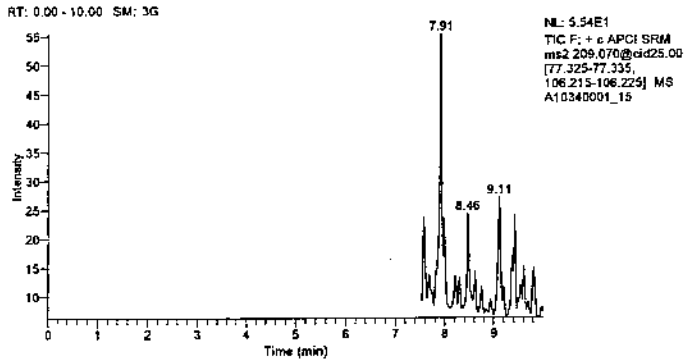

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01H58 8193

Tuesday, December 07, 2010, 10:36:29

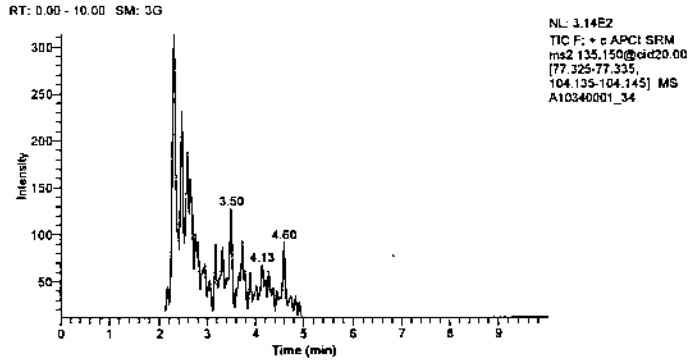
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155355		
Data File:	A10340001_34	Acquisition Date:	12/07/10 04:20:52 AM
Sample Type:	Unknown	Sample ID:	6155355
Run Time(min):	9.99	Vial:	A:28
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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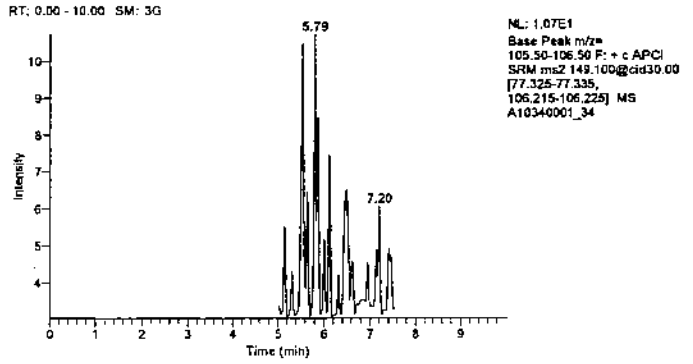

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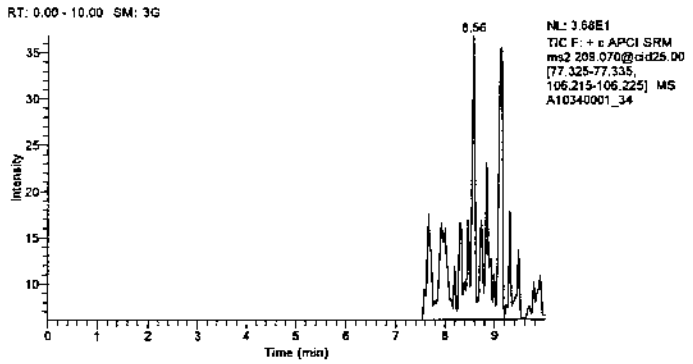

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01N58 0194

Tuesday, December 07, 2010, 10:36:43

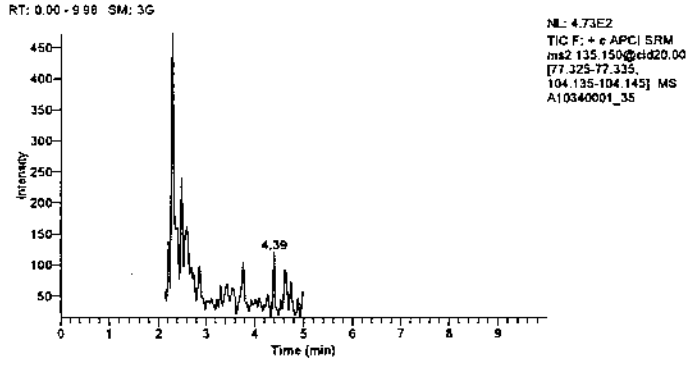
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155978		
Data File:	A10340001_35	Acquisition Date:	12/07/10 04:41:04 AM
Sample Type:	Unknown	Sample ID:	6155978
Run Time(min):	9.98	Vial:	A:29
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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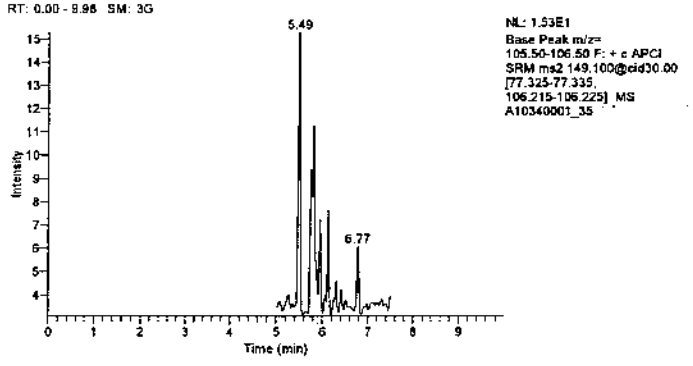

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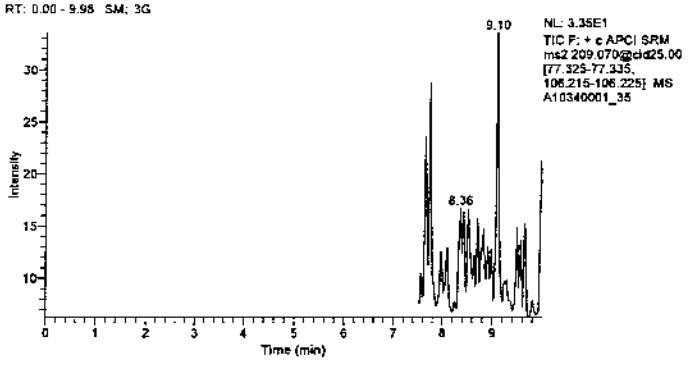

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01N58 8195

Tuesday, December 07, 2010, 10:36:44

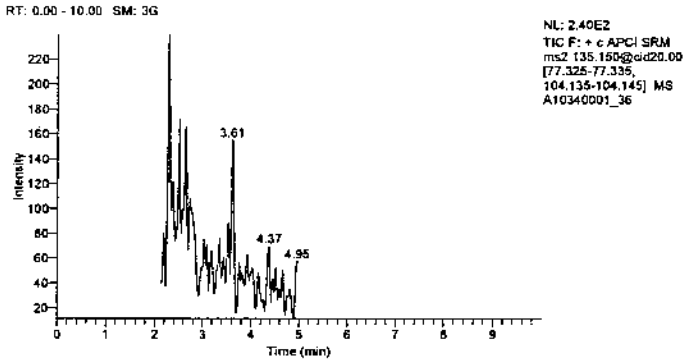
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155979		
Data File:	A10340001_36	Acquisition Date:	12/07/10 05:01:17 AM
Sample Type:	Unknown	Sample ID:	6155979
Run Time(min):	9.99	Vial:	A:30
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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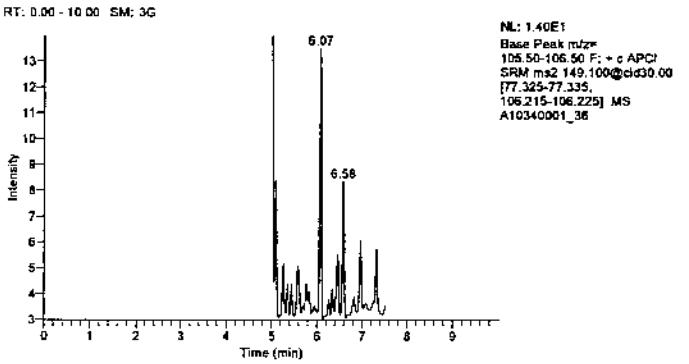

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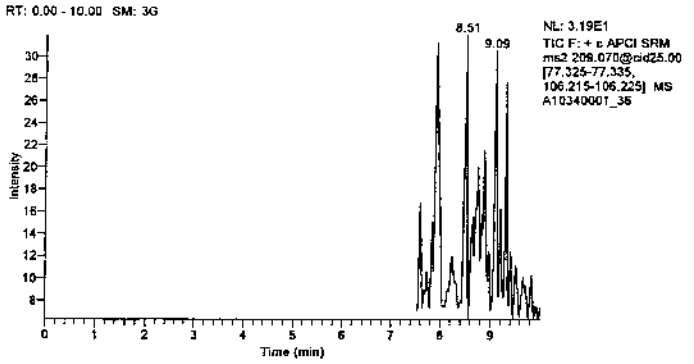

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01H58 8136

Tuesday, December 07, 2010, 10:36:45

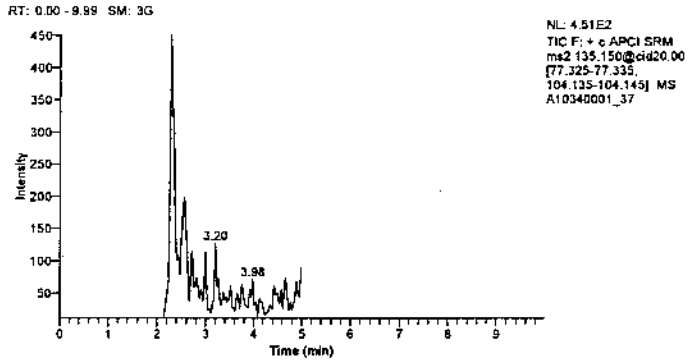
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6155980		
Data File:	A10340001_37	Acquisition Date:	12/07/10 05:21:34 AM
Sample Type:	Unknown	Sample ID:	6155980
Run Time(min):	9.99	Vial:	A:31
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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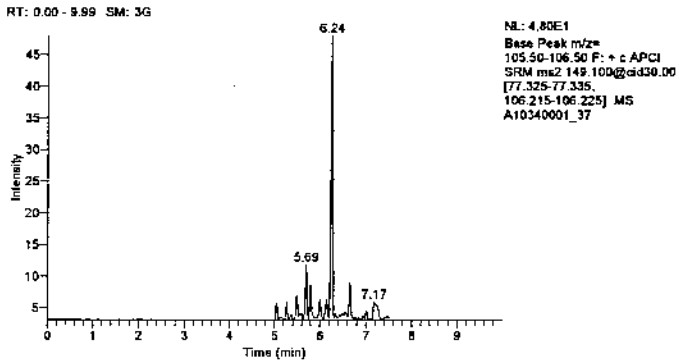

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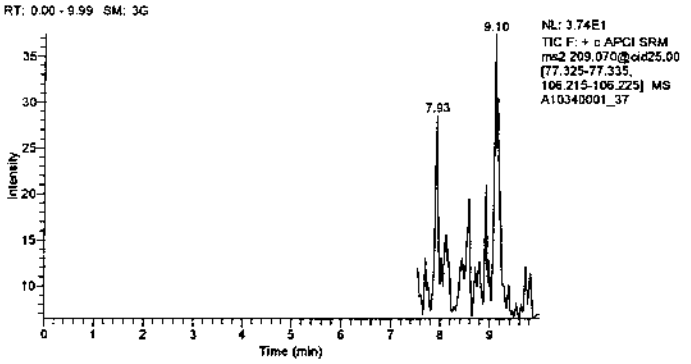

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01N58 8197

Tuesday, December 07, 2010, 10:36:46

Standards Data

OLN58 0198

Lancaster Laboratories

Sequence Table

File Name	Sample ID	Sample Type	Level	Vial	Inj Vol	Dil Factor	Path	Inst Method	Proc Method
A10340001_01	Conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_02	Conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_03	MDL	Unknown	N/A	A:2	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_04	CAL1	Std Bracket	1	A:3	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_05	CAL2	Std Bracket	2	A:4	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_06	CAL3	Std Bracket	3	A:5	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_07	CAL4	Std Bracket	4	A:6	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_08	CAL5	Std Bracket	5	A:7	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_09	CAL6	Std Bracket	6	A:8	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_10	CAL7	Std Bracket	7	A:9	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_11	CAL8	Std Bracket	8	A:10	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_12	Conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_13	Conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_14	BLK reagent	Blank	N/A	A:11	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_15	6155352 (BKG)	Unknown	N/A	A:14	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_16	CCV1	QC	1	a:5	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_17	ICV/LCS	Unknown	N/A	A:12	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_18	ICV/LCSD	Unknown	N/A	A:13	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_19	6155353 (MS)	Unknown	N/A	A:15	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_20	6155354 (MSD)	Unknown	N/A	A:16	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_21	CCV2	QC	2	a:6	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_22	6153697	Unknown	N/A	A:17	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz

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File Name	Sample ID	Sample Type	Level	Vial	Inj Vol	Dil Factor	Path	Inst Method	Proc Method
A10340001_23	6155281	Unknown	N/A	A:18	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_24	6156283	Unknown	N/A	A:19	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_25	6155285	Unknown	N/A	A:20	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_26	6155345	Unknown	N/A	A:21	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_27	6155346	Unknown	N/A	A:22	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_28	6155347	Unknown	N/A	A:23	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_29	CCV3	QC	3	a:7	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_30	6155348	Unknown	N/A	A:24	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_31	6155349	Unknown	N/A	A:25	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_32	6155350	Unknown	N/A	A:26	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_33	6155351	Unknown	N/A	A:27	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_34	6155355	Unknown	N/A	A:28	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_35	6155978	Unknown	N/A	A:29	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_36	6155979	Unknown	N/A	A:30	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_37	6155980	Unknown	N/A	A:31	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A10340001_38	CCV4	QC	4	a:8	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2010Dec	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz

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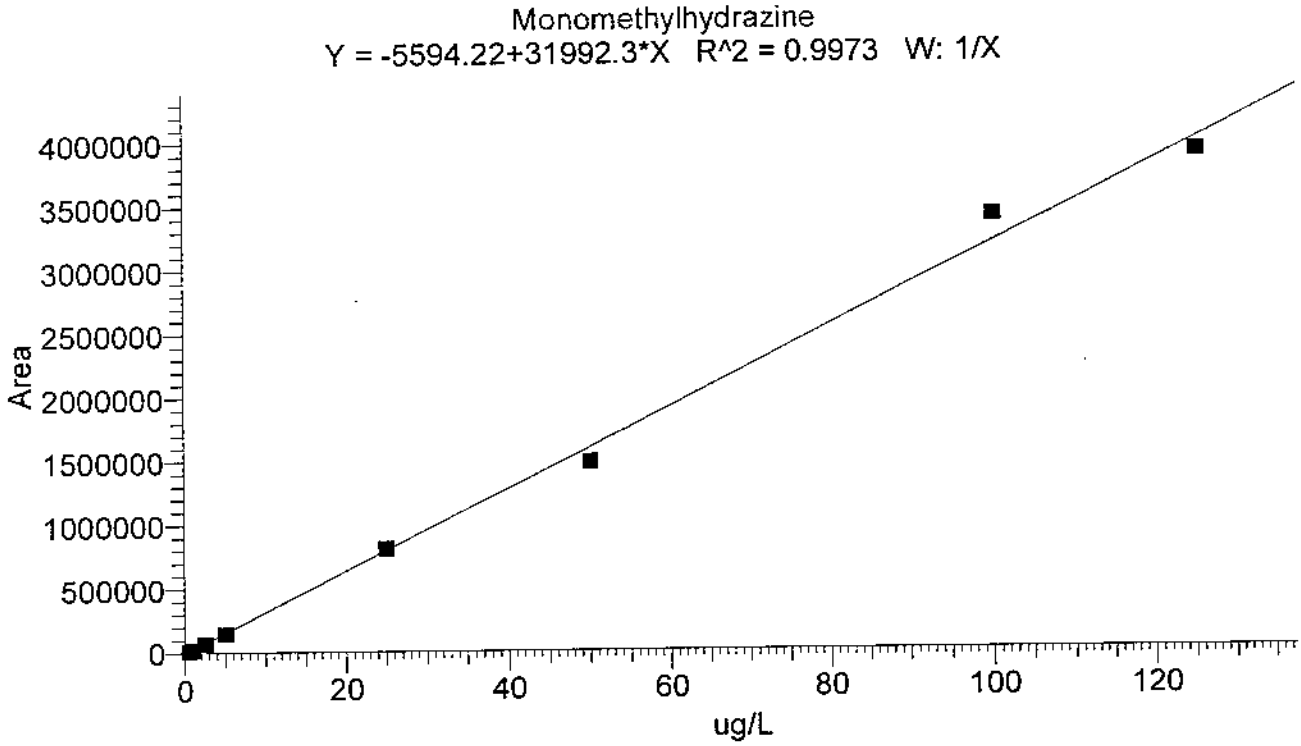
LCMSMS ANALYSIS REPORT

Component Name: **Monomethylhydrazine**



Identification	
Filter:	+ c APCI SRM ms2 135.15@cid20.00 [77.33-77.33, 104.14-104.15]
2nd Trace Type:	N/A
Mass Range 2 (m/z):	
Base Peak(BP):	
Retention Time	
Window (sec):	30.00000
RT Reference:	No
Adjust Using:	N/A
Detection Options	
ICIS Smoothing Points:	3
Area Noise Factor:	5
ICIS Constrain Peak Width:	No
ICIS Tailing Factor:	N/A
ICIS Peak Detection	
ICIS Minimum Peak Height (S/N):	50.0
ICIS Window %:	N/A
ICIS Forward:	N/A
ICIS Match:	N/A
ICIS Advanced Parameters	
Minimum Peak Width:	3
Area Tail Extension:	5
Component Type:	Target Compound
ISTD Amount:	N/A
ISTD:	
Origin:	IgnoreOrigin
Calibration Curve:	Linear
Number of Cal. Levels:	8
Scan Threshold (mAU):	N/A
Limit ScanRange (nm):	N/A

Component Name:	Monomethylhydrazine
1st Trace Type:	TIC
Mass Range 1 (m/z):	
Wavelength Range 2 (nm):	N/A
Expected RT (min):	3.50000
View Width (min):	2.50000
Adjust Expected RT:	No
Peak Detection Algorithm:	ICIS
ICIS Peak Integration	
Baseline Window:	75
Peak Noise Factor:	10
ICIS Peak Height (%):	N/A
ICIS Identify By:	Nearest RT
ICIS Ion Ratio Confirmation:	N/A
ICIS Qualifier Ion Coelution (min):	N/A
ICIS Spectrum Thresholds	
ICIS Reverse:	N/A
Noise Method:	Incos
Multiplet Resolution:	10
Area Scan Window:	0
Calibration	
%RSD Calculation Method:	Use calculated amounts
Internal Standard	
ISTD Units:	N/A
Target Compounds	
Weighting:	OneOverX
Response:	Area
Target Units:	ug/L
Number of QC Levels:	4
Peak Purity Options	
Peak Coverage (%):	N/A

OLN58 9281

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LCMSMS ANALYSIS REPORT

Component Cal Level Table

Cal Level	Amount
1	0.500
2	1.000
3	2.500
4	5.000
5	25.000
6	50.000
7	100.000
8	125.000

Component QC Level Table

QC Level	Amount
1	2.500
2	5.000
3	25.000
4	50.000

ICV & CCV Result Table

Sample ID	Data File Name	Calculated Amount	Area	% Diff
CAL1	A10340001_04	0.58058ug/L	12979.79	16.12
CAL2	A10340001_05	0.96690ug/L	25339.10	-3.31
CAL3	A10340001_06	2.39351ug/L	70979.80	-4.26
CAL4	A10340001_07	4.62157ug/L	142260.60	-7.57
CAL5	A10340001_08	25.48580ug/L	809756.49	1.94
CAL6	A10340001_09	46.52722ug/L	1482920.85	-6.95
CAL7	A10340001_10	106.42972ug/L	3399342.53	6.43
CAL8	A10340001_11	121.99470ug/L	3897302.81	-2.40
CCV1	A10340001_16	2.34775ug/L	69515.68	-6.09
CCV2	A10340001_21	4.81467ug/L	148438.36	-3.71
CCV3	A10340001_29	26.94108ug/L	856314.27	7.76
CCV4	A10340001_38	46.93774ug/L	1496054.25	-6.12

OLN50 0202

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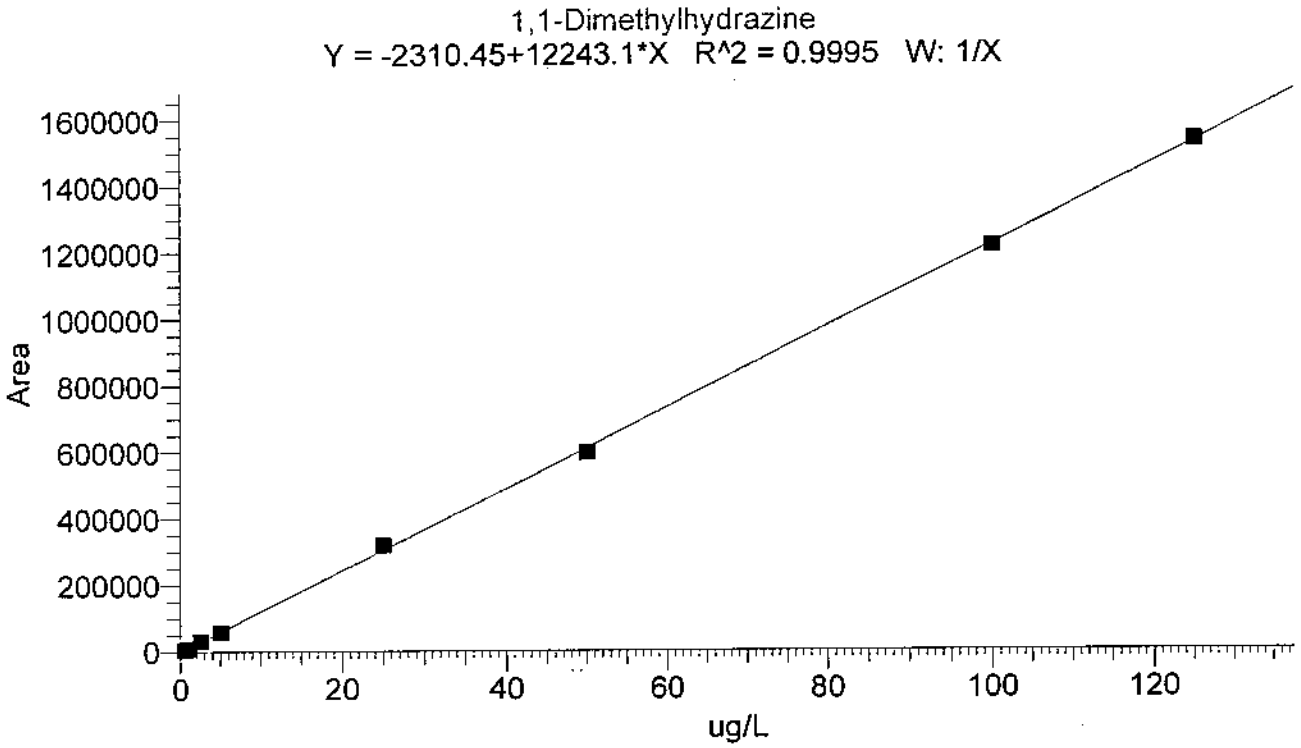
LCMSMS ANALYSIS REPORT

Component Name: **1,1-Dimethylhydrazine**



Identification		Component Name:	1,1-Dimethylhydrazine
Filter:	+ c APCI SRM ms2 149.10@cid30.00 [77.33-77.33, 106.22-106.22]	1st Trace Type:	Base Peak
2nd Trace Type:	N/A	Mass Range 1 (m/z):	
Mass Range 2 (m/z):		Wavelength Range 2 (nm):	N/A
Base Peak(BP):	106		
Retention Time		Expected RT (min):	6.50000
Window (sec):	30.00000	View Width (min):	2.50000
RT Reference:	No	Adjust Expected RT:	No
Adjust Using:	N/A		
Detection Options		Peak Detection Algorithm:	ICIS
		ICIS Peak Integration	
ICIS Smoothing Points:	3	Baseline Window:	75
Area Noise Factor:	5	Peak Noise Factor:	10
ICIS Constrain Peak Width:	No	ICIS Peak Height (%):	N/A
ICIS Tailing Factor:	N/A		
ICIS Peak Detection		ICIS Identify By:	Nearest RT
ICIS Minimum Peak Height (S/N):	50.0	ICIS Ion Ratio Confirmation:	N/A
ICIS Window %:	N/A	ICIS Qualifier Ion Coelution (min):	N/A
		ICIS Spectrum Thresholds	
ICIS Forward:	N/A	ICIS Reverse:	N/A
ICIS Match:	N/A		
ICIS Advanced Parameters		Noise Method:	Incos
Minimum Peak Width:	3	Multiplet Resolution:	10
Area Tail Extension:	5	Area Scan Window:	0
		Calibration	
Component Type:	Target Compound	%RSD Calculation Method:	Use calculated amounts
		Internal Standard	
ISTD Amount:	N/A	ISTD Units:	N/A
		Target Compounds	
ISTD:		Weighting:	OneOverX
Origin:	IgnoreOrigin	Response:	Area
Calibration Curve:	Linear	Target Units:	ug/L
Number of Cal. Levels:	8	Number of QC Levels:	4
		Peak Purity Options	
Scan Threshold (mAU):	N/A	Peak Coverage (%):	N/A
Limit ScanRange (nm):	N/A		

OLM58 B293

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LCMSMS ANALYSIS REPORT

Component Cal Level Table

Cal Level	Amount
1	0.500
2	1.000
3	2.500
4	5.000
5	25.000
6	50.000
7	100.000
8	125.000

Component QC Level Table

QC Level	Amount
1	2.500
2	5.000
3	25.000
4	50.000

ICV & CCV Result Table

Sample ID	Data File Name	Calculated Amount	Area	% Diff
CAL1	A10340001_04	0.53905ug/L	4289.16	7.81
CAL2	A10340001_05	0.82851ug/L	7833.09	-17.15
CAL3	A10340001_06	2.68712ug/L	30588.11	7.48
CAL4	A10340001_07	4.97076ug/L	58546.88	-0.58
CAL5	A10340001_08	26.21394ug/L	318628.41	4.86
CAL6	A10340001_09	48.88461ug/L	596186.64	-2.23
CAL7	A10340001_10	99.56473ug/L	1216666.33	-0.44
CAL8	A10340001_11	125.31128ug/L	1531882.81	0.25
CCV1	A10340001_16	2.43982ug/L	27560.39	-2.41
CCV2	A10340001_21	5.25522ug/L	62029.48	5.10
CCV3	A10340001_29	29.02436ug/L	353036.47	16.10
CCV4	A10340001_38	48.82674ug/L	595478.20	-2.35

OLN50 0284

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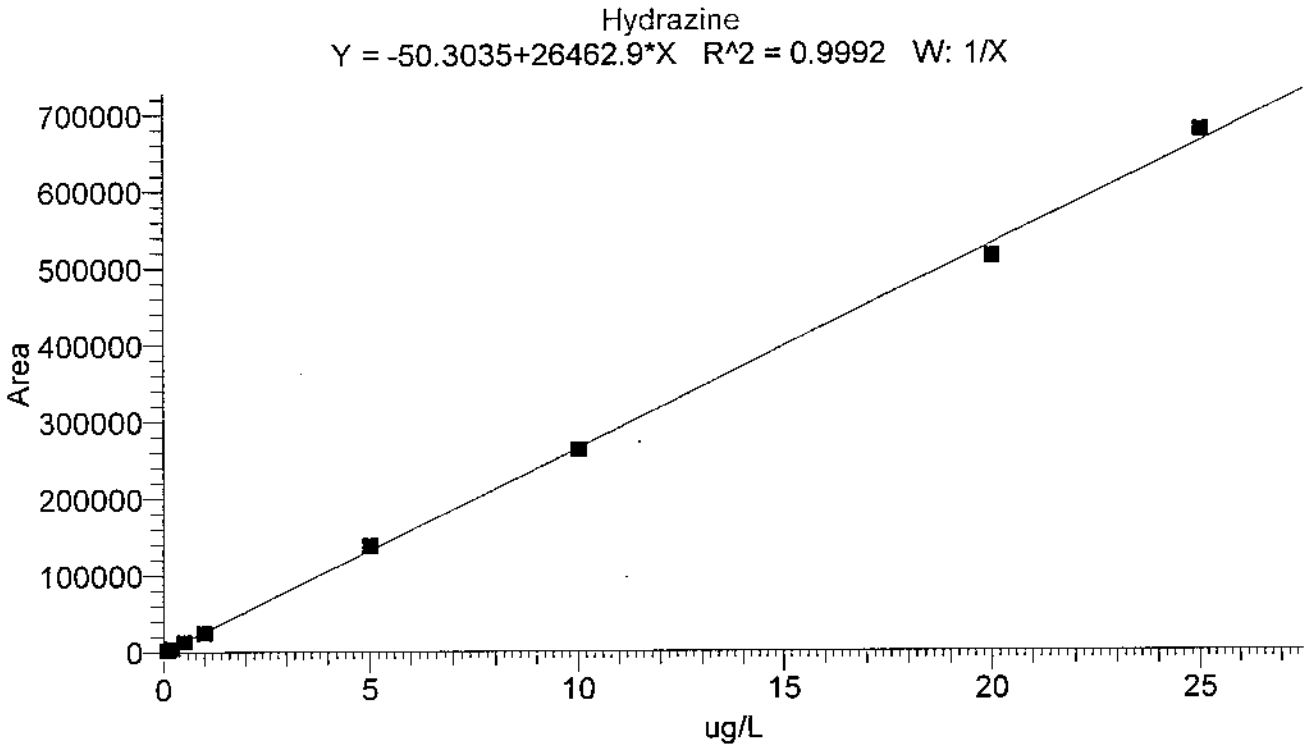
LCMSMS ANALYSIS REPORT

Component Name: **Hydrazine**



Identification		Component Name:	Hydrazine
Filter:	+ c APCI SRM ms2 209.07@cid25.00 [77.33-77.33, 106.22-106.22]	1st Trace Type:	TIC
2nd Trace Type:	N/A	Mass Range 1 (m/z):	
Mass Range 2 (m/z):		Wavelength Range 2 (nm):	N/A
Base Peak(BP):			
Retention Time		Expected RT (min):	9.11000
Window (sec):	30.00000	View Width (min):	2.00000
RT Reference:	No	Adjust Expected RT:	No
Adjust Using:	N/A		
Detection Options		Peak Detection Algorithm:	ICIS
		ICIS Peak Integration	
ICIS Smoothing Points:	3	Baseline Window:	75
Area Noise Factor:	5	Peak Noise Factor:	10
ICIS Constrain Peak Width:	No	ICIS Peak Height (%):	N/A
ICIS Tailing Factor:	N/A		
ICIS Peak Detection		ICIS Identify By:	Nearest RT
ICIS Minimum Peak Height (S/N):	35.0	ICIS Ion Ratio Confirmation:	N/A
ICIS Window %:	N/A	ICIS Qualifier Ion Coelution (min):	N/A
		ICIS Spectrum Thresholds	
ICIS Forward:	N/A	ICIS Reverse:	N/A
ICIS Match:	N/A		
ICIS Advanced Parameters		Noise Method:	Incos
Minimum Peak Width:	3	Multiplet Resolution:	10
Area Tail Extension:	5	Area Scan Window:	0
		Calibration	
Component Type:	Target Compound	%RSD Calculation Method:	Use calculated amounts
		Internal Standard	
ISTD Amount:	N/A	ISTD Units:	N/A
		Target Compounds	
ISTD:		Weighting:	OneOverX
Origin:	IgnoreOrigin	Response:	Area
Calibration Curve:	Linear	Target Units:	ug/L
Number of Cal. Levels:	8	Number of QC Levels:	4
		Peak Purity Options	
Scan Threshold (mAU):	N/A	Peak Coverage (%):	N/A
Limit ScanRange (nm):	N/A		

OLM50 0205

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LCMSMS ANALYSIS REPORT

Component Cal Level Table

Cal Level	Amount
1	0.100
2	0.200
3	0.500
4	1.000
5	5.000
6	10.000
7	20.000
8	25.000

Component QC Level Table

QC Level	Amount
1	0.500
2	1.000
3	5.000
4	10.000

ICV & CCV Result Table

Sample ID	Data File Name	Calculated Amount	Area	% Diff
CAL1	A10340001_04	0.10367ug/L	2693.19	3.67
CAL2	A10340001_05	0.19538ug/L	5119.95	-2.31
CAL3	A10340001_06	0.50862ug/L	13409.36	1.72
CAL4	A10340001_07	0.94387ug/L	24927.18	-5.61
CAL5	A10340001_08	5.21640ug/L	137990.73	4.33
CAL6	A10340001_09	9.91757ug/L	262397.63	-0.82
CAL7	A10340001_10	19.36503ug/L	512404.85	-3.17
CAL8	A10340001_11	25.54946ug/L	676063.01	2.20
CCV1	A10340001_16	0.44460ug/L	11715.12	-11.08
CCV2	A10340001_21	1.11712ug/L	29512.03	11.71
CCV3	A10340001_29	5.75154ug/L	152152.28	15.03
CCV4	A10340001_38	9.73343ug/L	257524.59	-2.67

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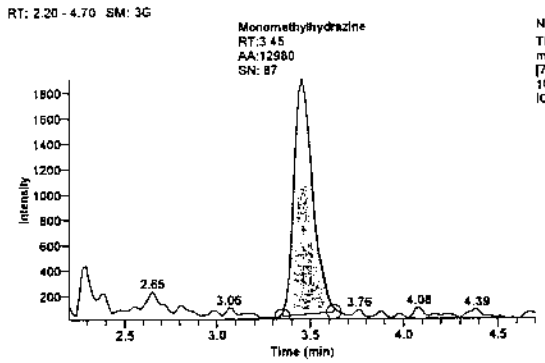
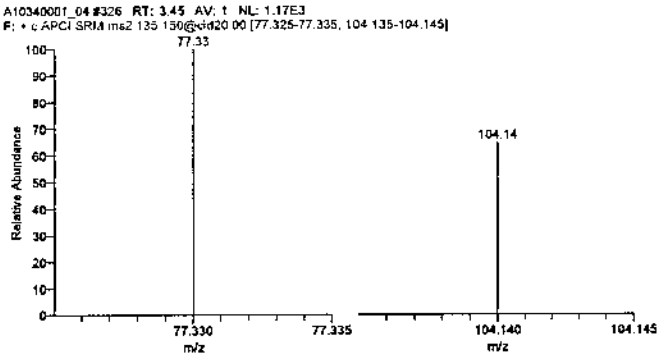
LCMSMS ANALYSIS REPORT

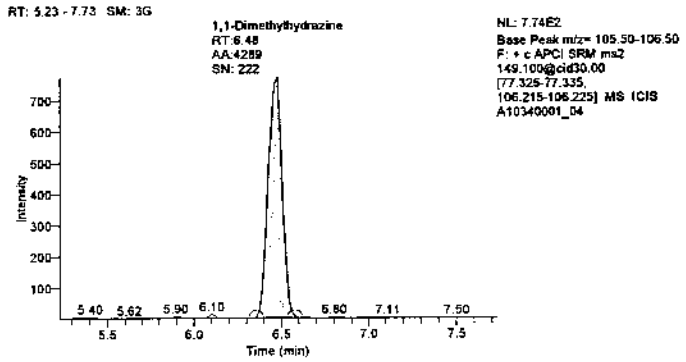
Sample Name:	CAL1		
Data File:	A10340001_04	Acquisition Date:	12/06/10 06:13:02 PM
Sample Type:	Std Bracket	Sample ID:	CAL1
Run Time(min):	9.99	Vial:	A:3
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

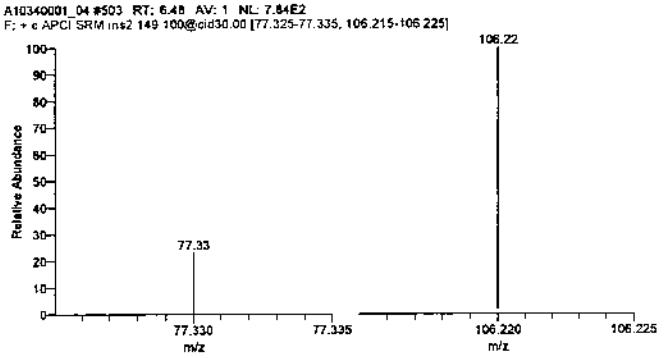
Quan Peak Table

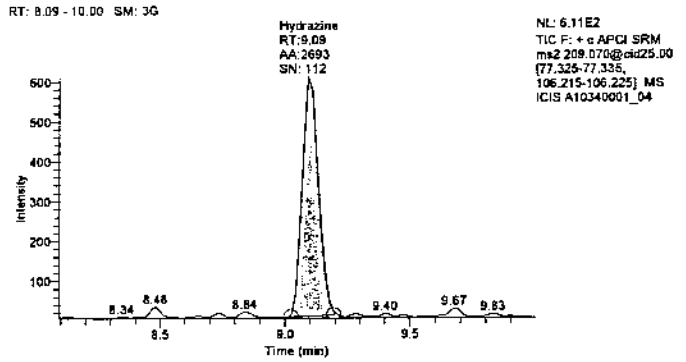
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	0.581	ug/L	12979.787	3.45
1,1-Dimethylhydrazine	0.539	ug/L	4289.162	6.48
Hydrazine	0.104	ug/L	2693.195	9.09

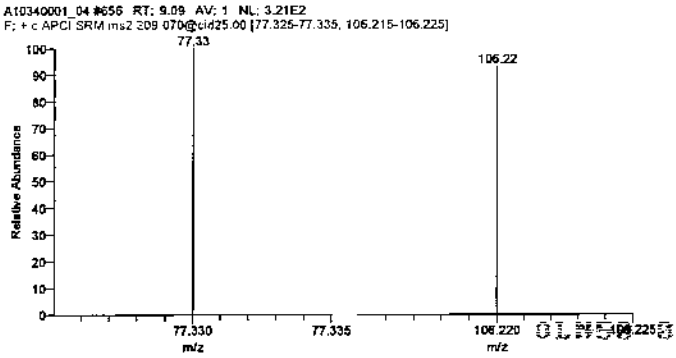












Tuesday, December 07, 2010, 10:36:17

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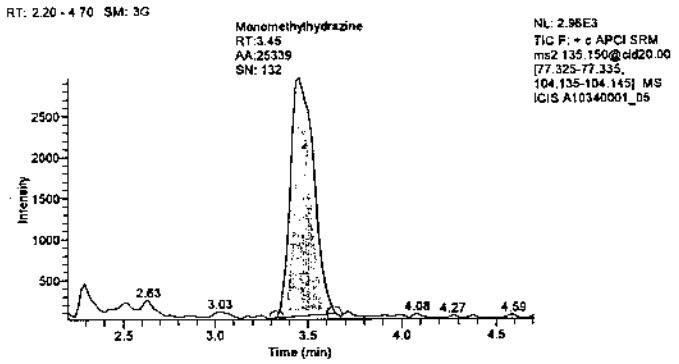
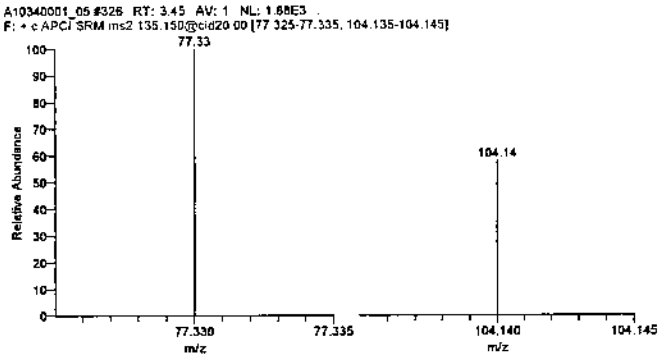
LCMSMS ANALYSIS REPORT

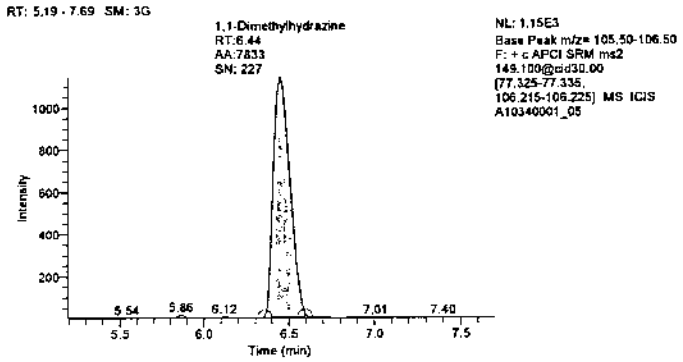
Sample Name:	CAL2		
Data File:	A10340001_05	Acquisition Date:	12/06/10 06:33:19 PM
Sample Type:	Std Bracket	Sample ID:	CAL2
Run Time(min):	9.99	Vial:	A:4
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

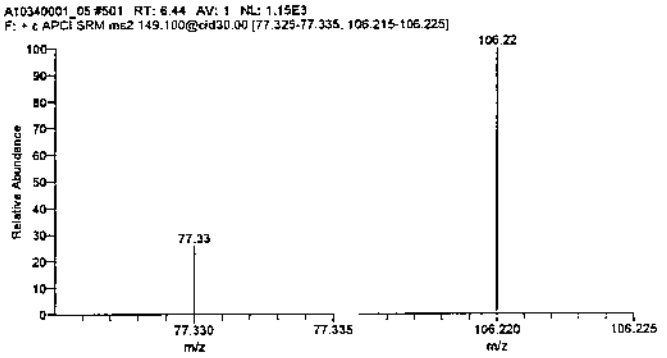
Quan Peak Table

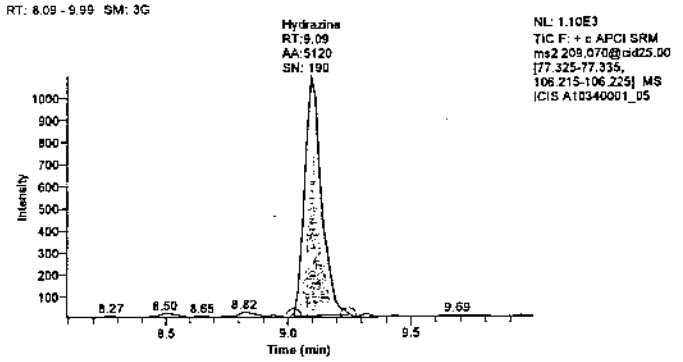
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	0.967	ug/L	25339.098	3.45
1,1-Dimethylhydrazine	0.829	ug/L	7833.089	6.44
Hydrazine	0.195	ug/L	5119.949	9.09

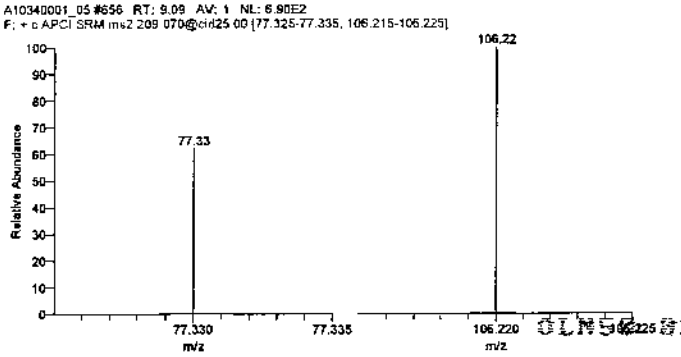












Tuesday, December 07, 2010, 10:40:06

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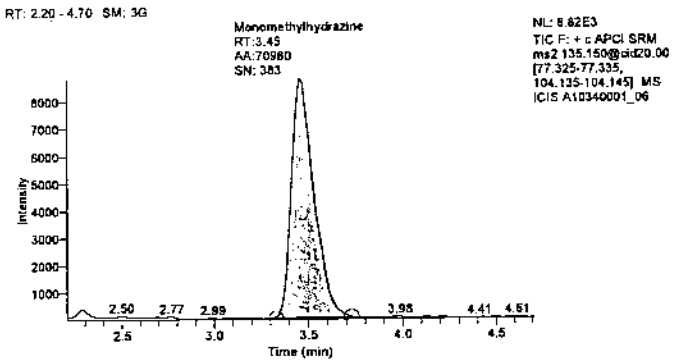
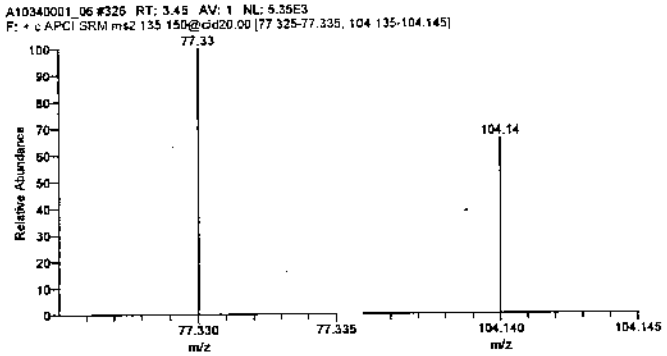
LCMSMS ANALYSIS REPORT

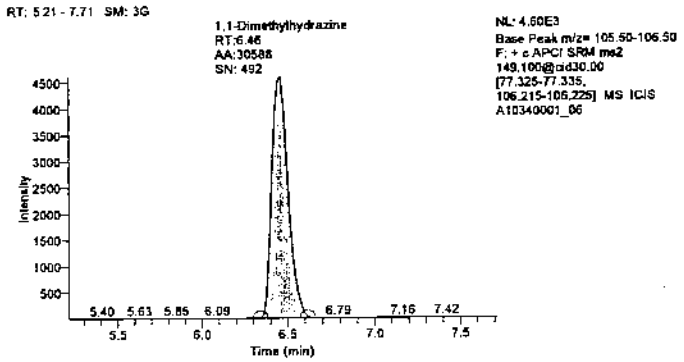
Sample Name:	CAL3		
Data File:	A10340001_06	Acquisition Date:	12/06/10 06:53:32 PM
Sample Type:	Std Bracket	Sample ID:	CAL3
Run Time(min):	9.98	Vial:	A:5
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

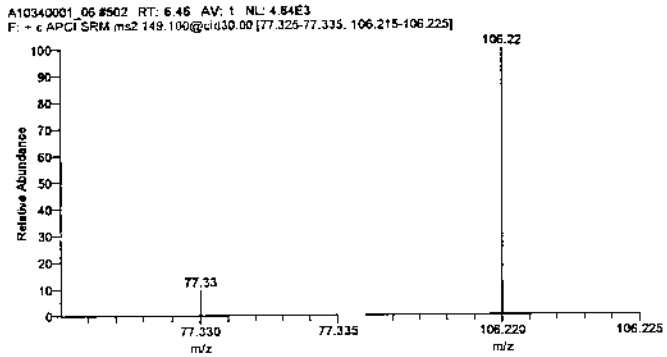
Quan Peak Table

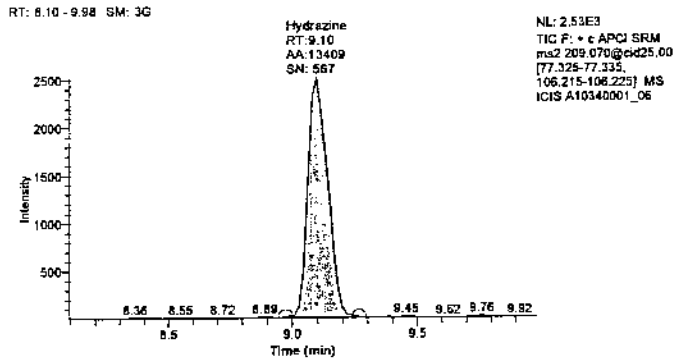
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	2.394	ug/L	70979.802	3.45
1,1-Dimethylhydrazine	2.687	ug/L	30588.108	6.46
Hydrazine	0.509	ug/L	13409.361	9.10

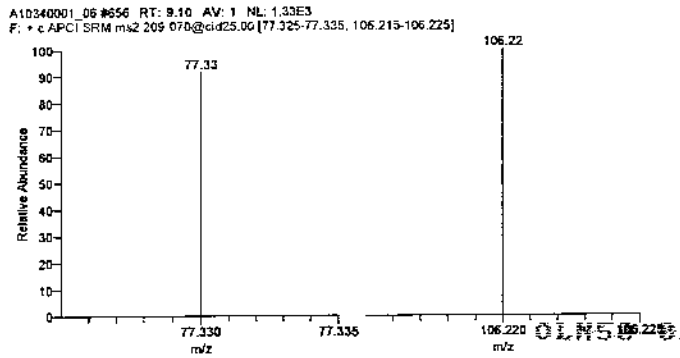












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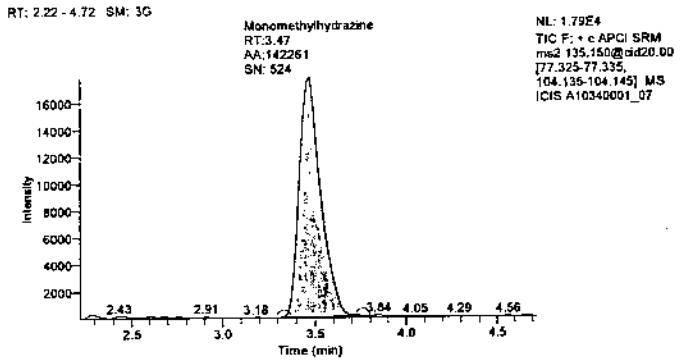
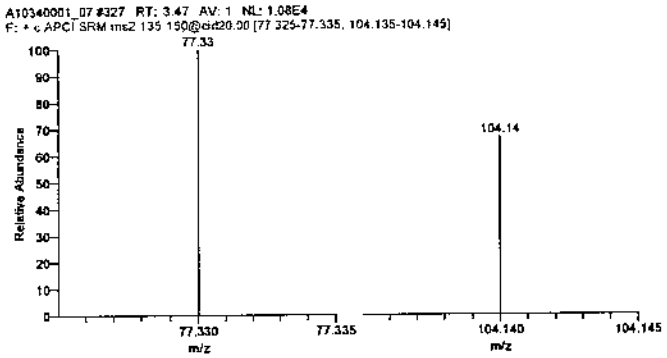
LCMSMS ANALYSIS REPORT

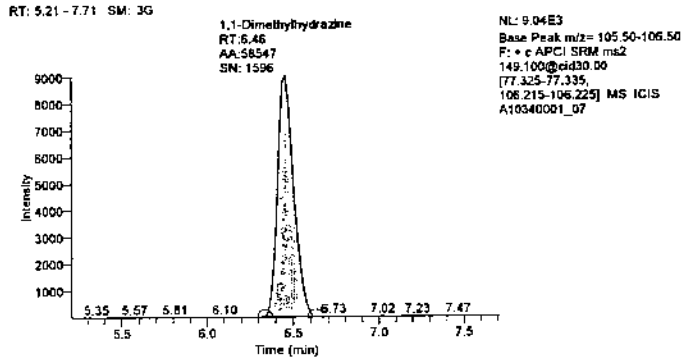
Sample Name:	CAL4		
Data File:	A10340001_07	Acquisition Date:	12/06/10 07:13:44 PM
Sample Type:	Std Bracket	Sample ID:	CAL4
Run Time(min):	9.99	Vial:	A:6
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

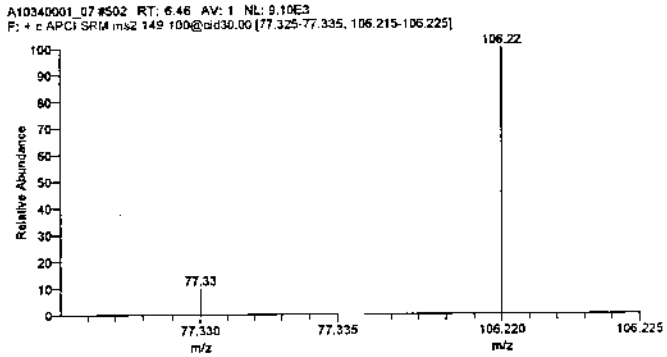
Quan Peak Table

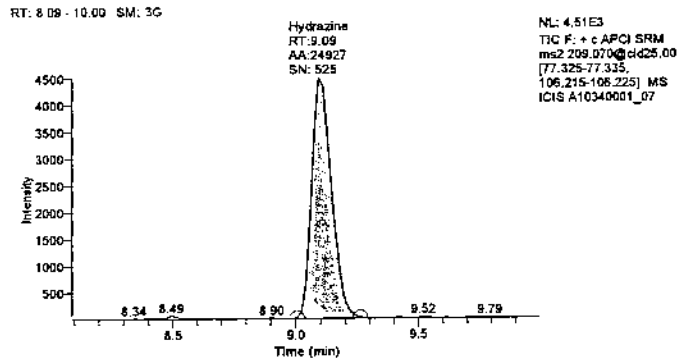
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	4.622	ug/L	142260.596	3.47
1,1-Dimethylhydrazine	4.971	ug/L	58546.879	6.46
Hydrazine	0.944	ug/L	24927.177	9.09

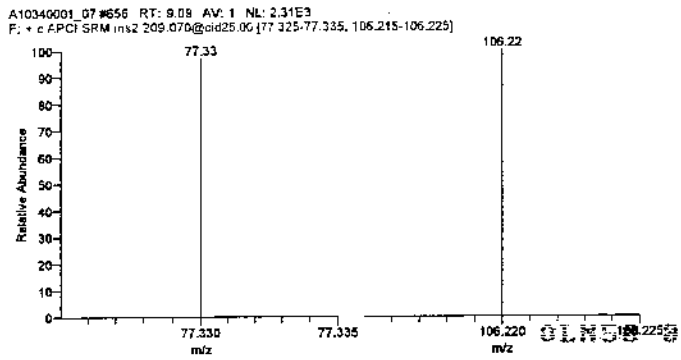












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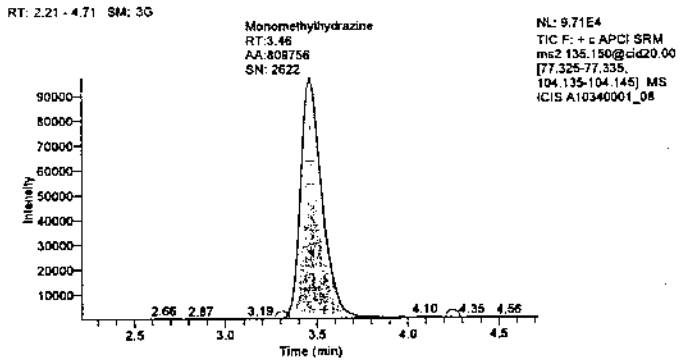
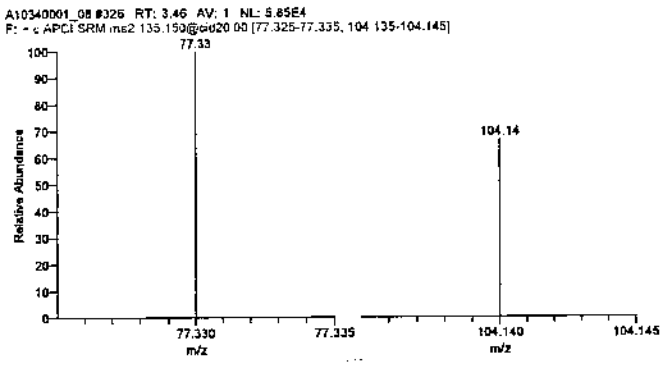
LCMSMS ANALYSIS REPORT

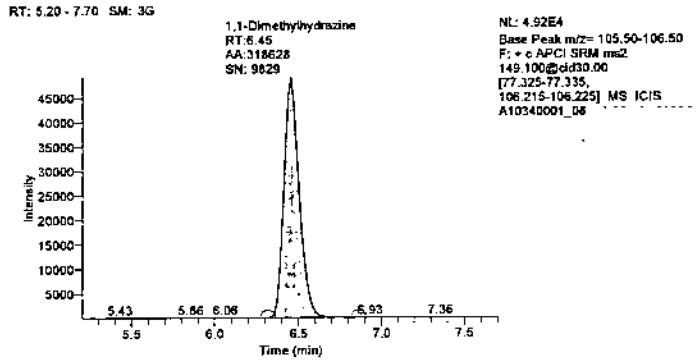
Sample Name:	CAL5		
Data File:	A10340001_08	Acquisition Date:	12/06/10 07:33:56 PM
Sample Type:	Std Bracket	Sample ID:	CAL5
Run Time(min):	9.98	Vial:	A:7
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

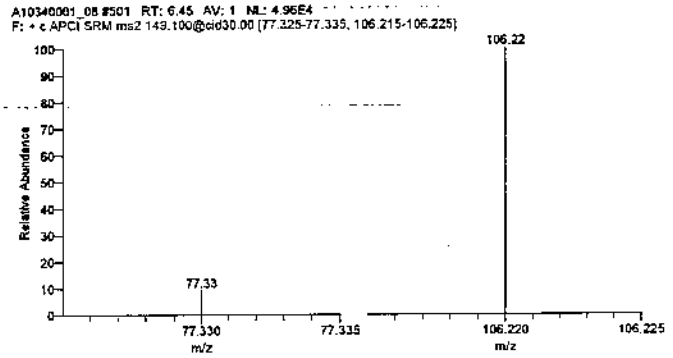
Quan Peak Table

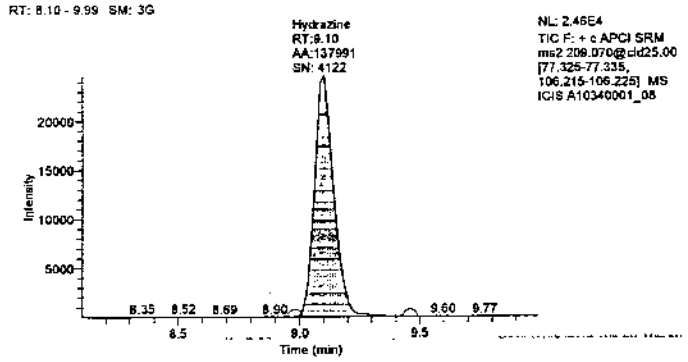
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	25.486	ug/L	809756.488	3.46
1,1-Dimethylhydrazine	26.214	ug/L	318628.406	6.45
Hydrazine	5.216	ug/L	137990.731	9.10

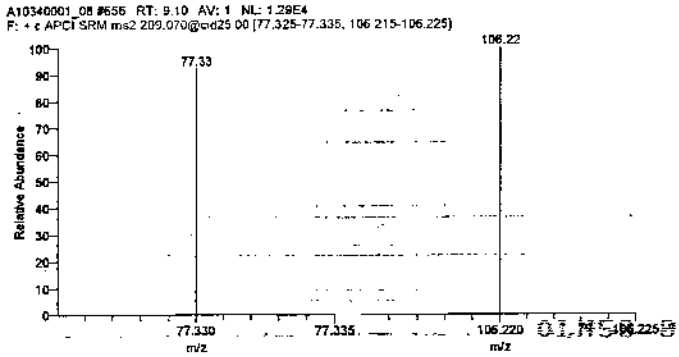












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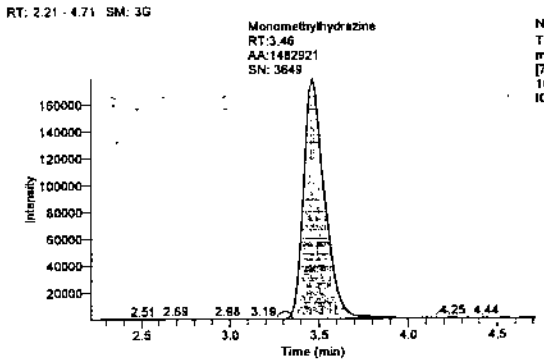
LCMSMS ANALYSIS REPORT

Sample Name: CAL6

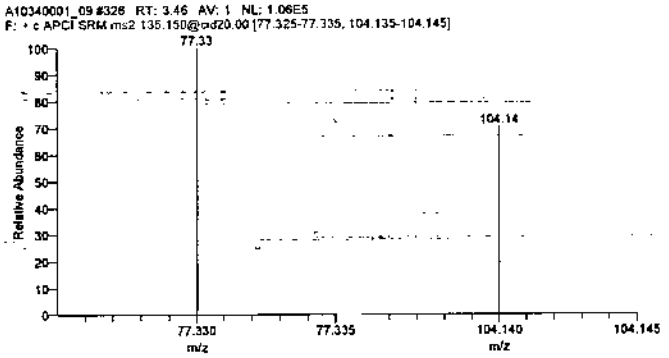
Data File:	A10340001_09	Acquisition Date:	12/06/10 07:54:11 PM
Sample Type:	Std Bracket	Sample ID:	CAL6
Run Time(min):	9.99	Vial:	A:8
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

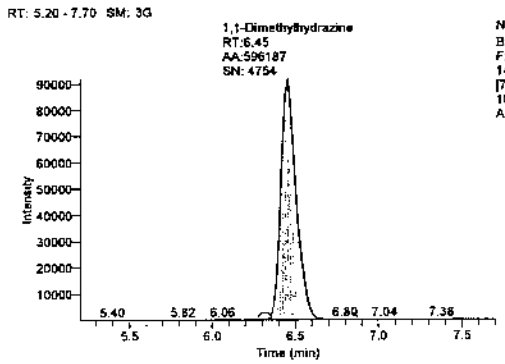
Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	46.527	ug/L	1482920.847	3.46
1,1-Dimethylhydrazine	48.885	ug/L	596186.636	6.45
Hydrazine	9.918	ug/L	262397.633	9.10

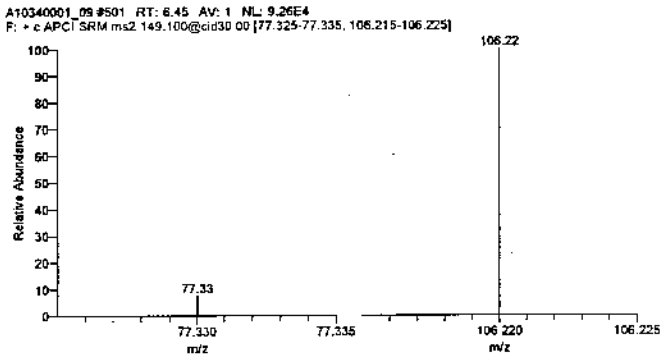


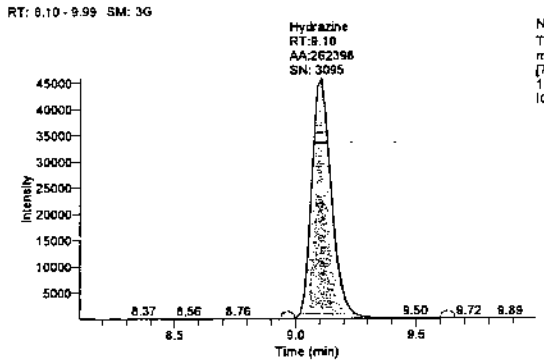
NL: 1.80E5
TIC F: + c APCI SRM ms2 135.150@cid20.00 [77.325-77.335, 104.135-104.145] MS ICIS A10340001_09



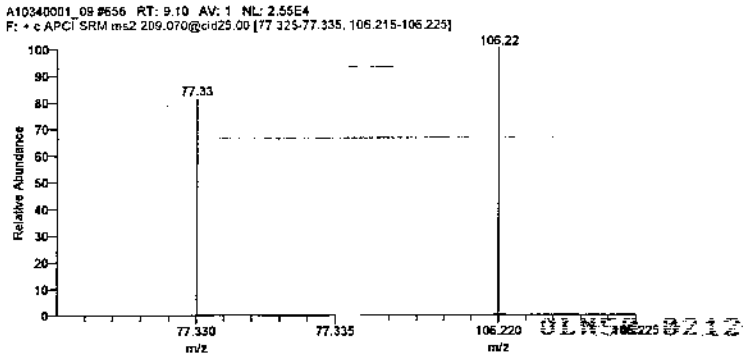


NL: 9.19E4
Base Peak m/z= 105.50-106.50 F: + c APCI SRM ms2 149.100@cid30.00 [77.325-77.335, 106.215-106.225] MS ICIS A10340001_09





NL: 4.59E4
TIC F: + c APCI SRM ms2 209.070@cid25.00 [77.325-77.335, 106.215-106.225] MS ICIS A10340001_09



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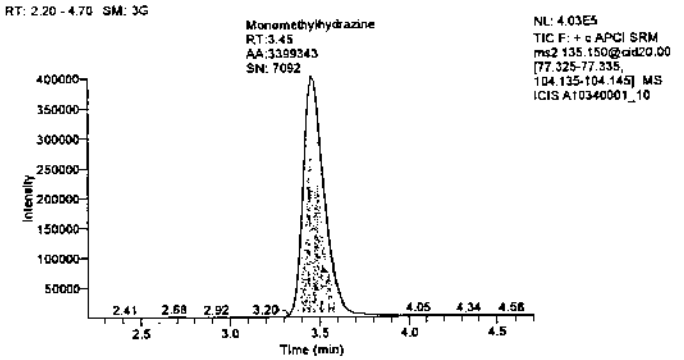
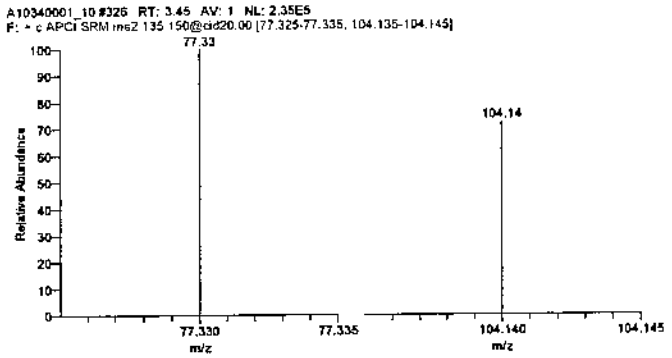
LCMSMS ANALYSIS REPORT

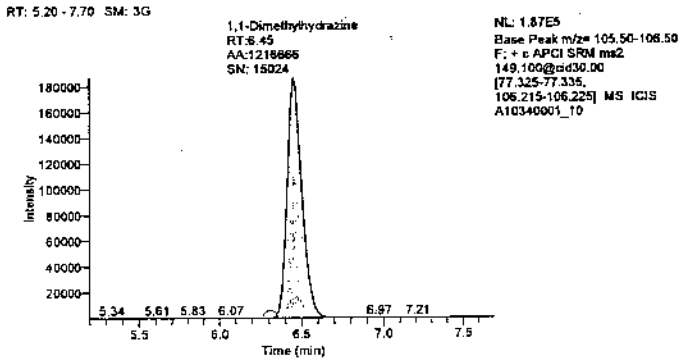
Sample Name:	CAL7		
Data File:	A10340001_10	Acquisition Date:	12/06/10 08:14:26 PM
Sample Type:	Std Bracket	Sample ID:	CAL7
Run Time(min):	9.98	Vial:	A:9
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

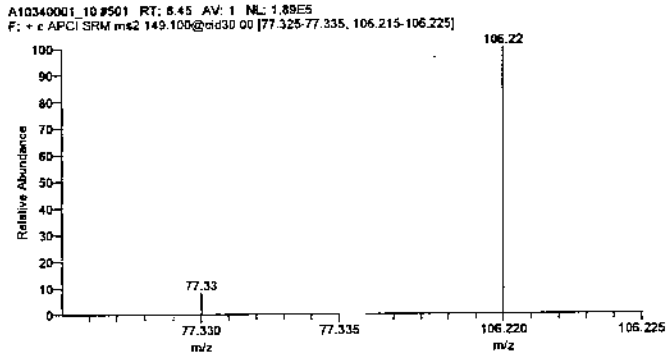
Quan Peak Table

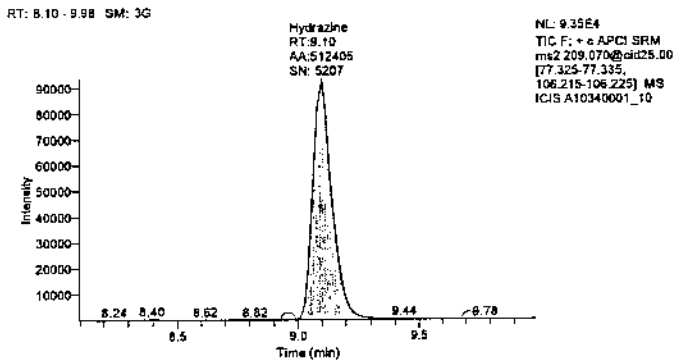
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	106.430	ug/L	3399342.526	3.45
1,1-Dimethylhydrazine	99.565	ug/L	1216666.325	6.45
Hydrazine	19.365	ug/L	512404.845	9.10

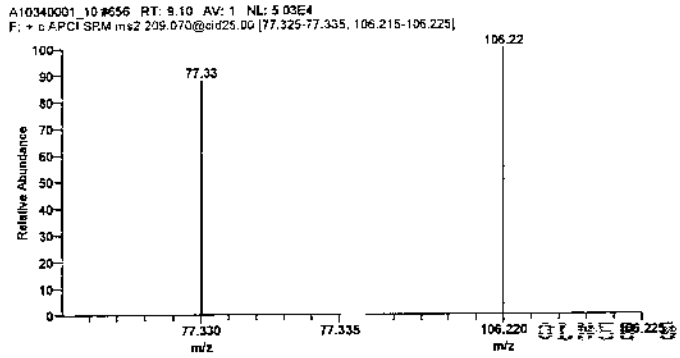












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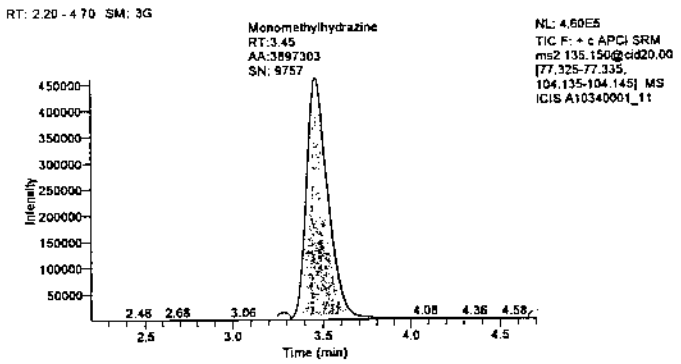
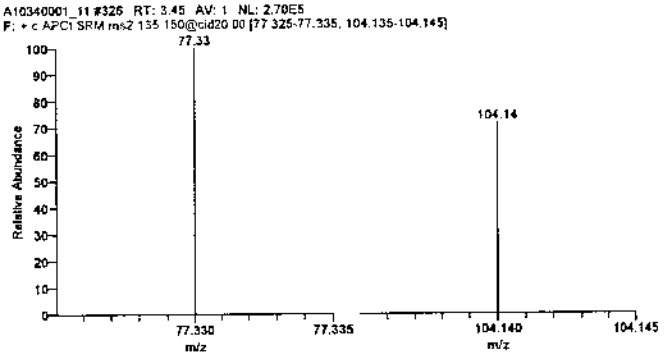
LCMSMS ANALYSIS REPORT

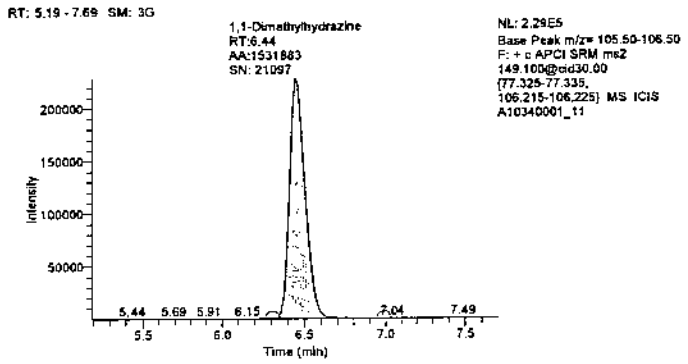
Sample Name:	CAL8		
Data File:	A10340001_11	Acquisition Date:	12/06/10 08:34:45 PM
Sample Type:	Std Bracket	Sample ID:	CAL8
Run Time(min):	9.99	Vial:	A:10
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

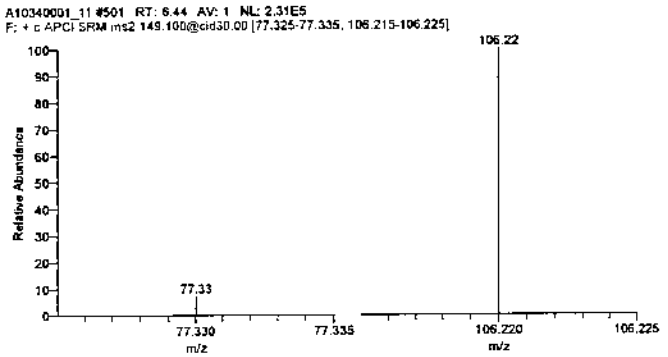
Quan Peak Table

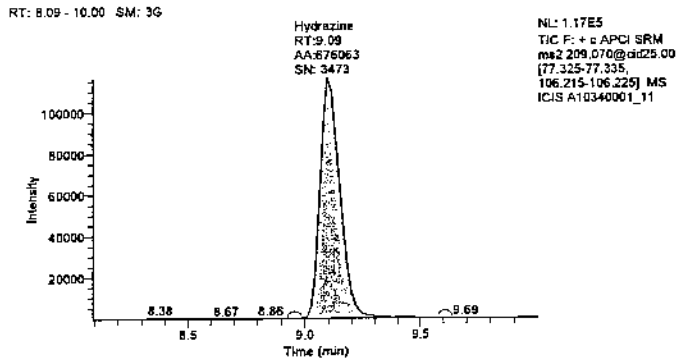
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	121.995	ug/L	3897302.808	3.45
1,1-Dimethylhydrazine	125.311	ug/L	1531882.810	6.44
Hydrazine	25.549	ug/L	676063.015	9.09

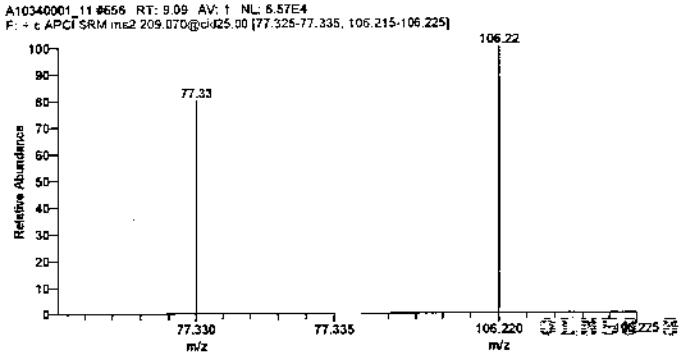












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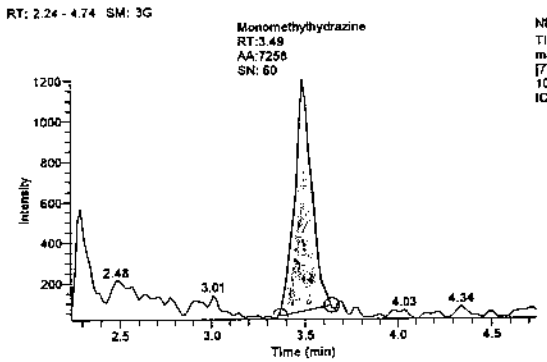
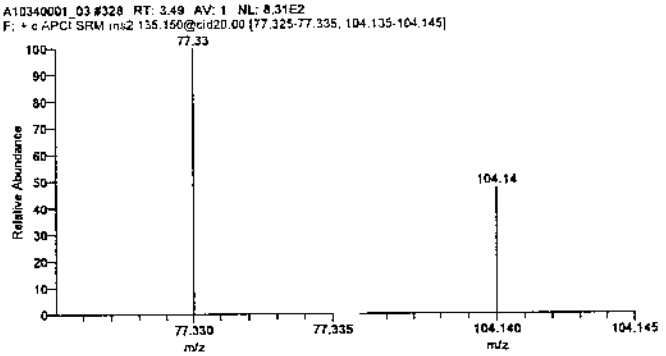
LCMSMS ANALYSIS REPORT

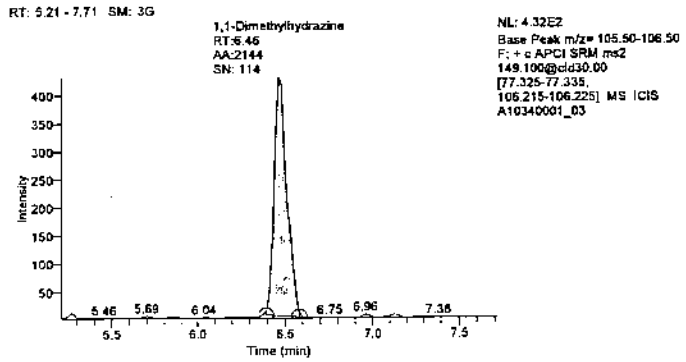
Sample Name:	MDL		
Data File:	A10340001_03	Acquisition Date:	12/06/10 05:50:34 PM
Sample Type:	Unknown	Sample ID:	MDL
Run Time(min):	9.98	Vial:	A:2
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

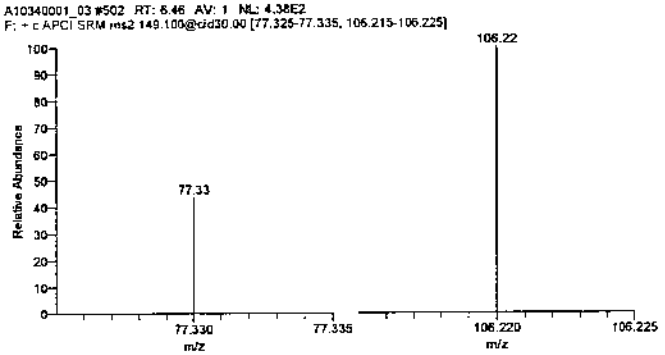
Quan Peak Table

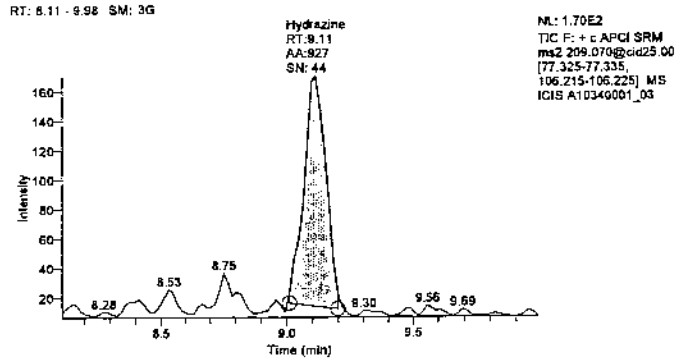
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	0.402	ug/L	7257.606	3.49
1,1-Dimethylhydrazine	0.364	ug/L	2143.512	6.46
Hydrazine	0.037	ug/L	926.927	9.11

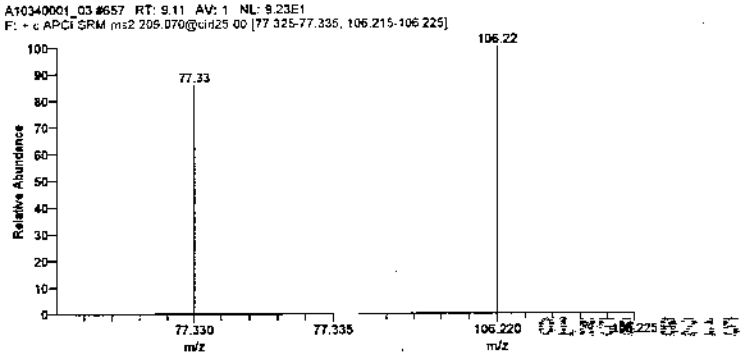












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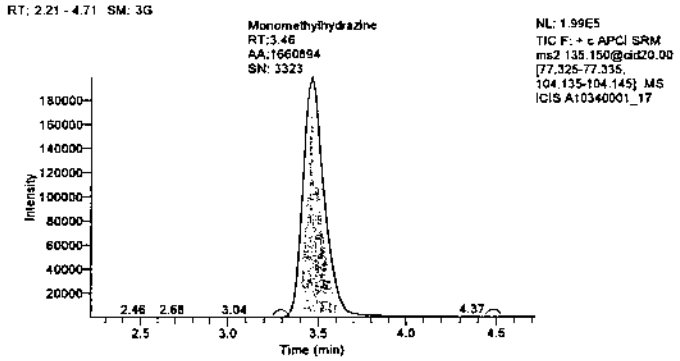
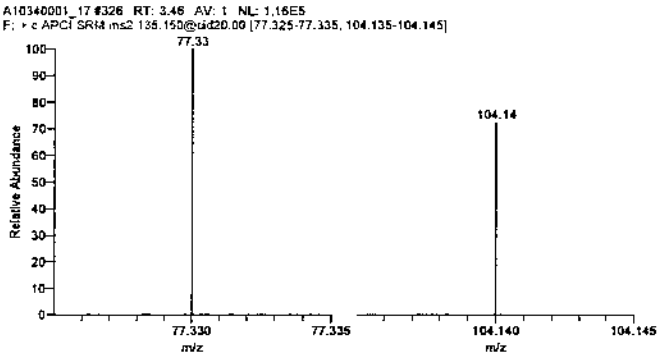
LCMSMS ANALYSIS REPORT

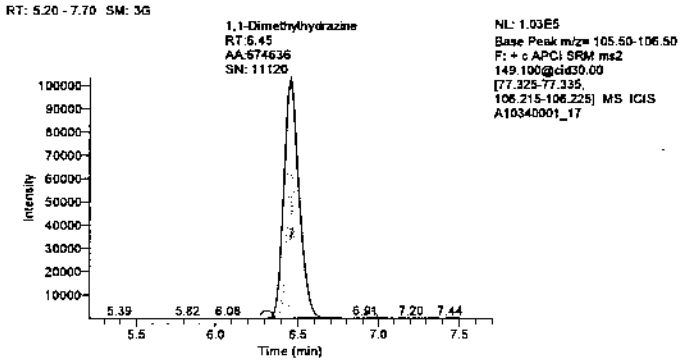
Sample Name:	ICV/LCS		
Data File:	A10340001_17	Acquisition Date:	12/06/10 10:36:18 PM
Sample Type:	Unknown	Sample ID:	ICV/LCS
Run Time(min):	9.99	Vial:	A:12
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

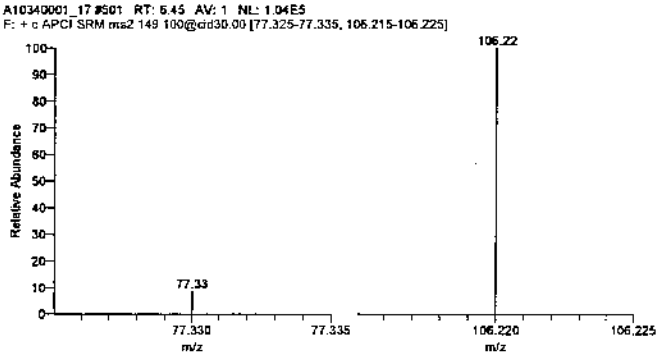
Quan Peak Table

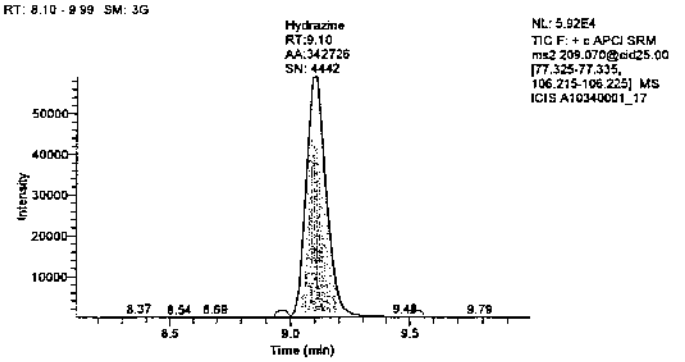
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	52.090	ug/L	1660893.788	3.46
1,1-Dimethylhydrazine	55.292	ug/L	674635.557	6.45
Hydrazine	12.953	ug/L	342725.832	9.10

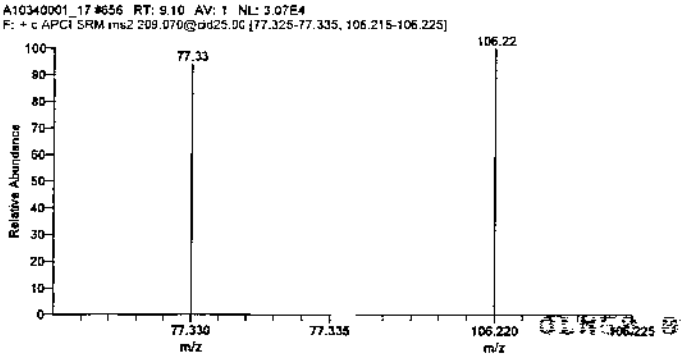












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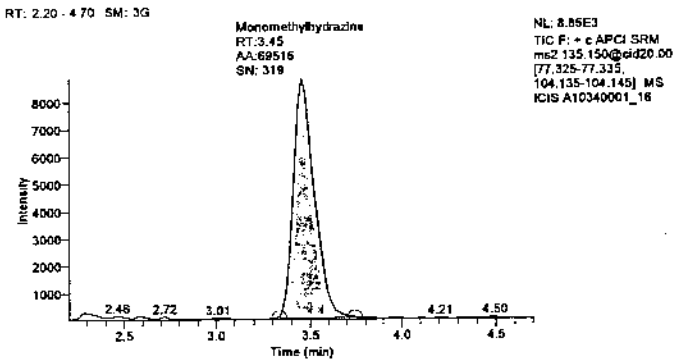
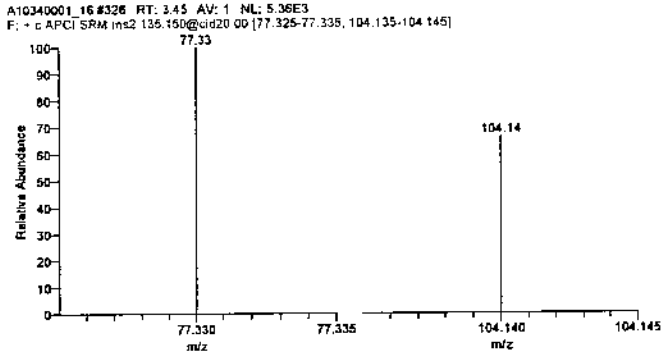
LCMSMS ANALYSIS REPORT

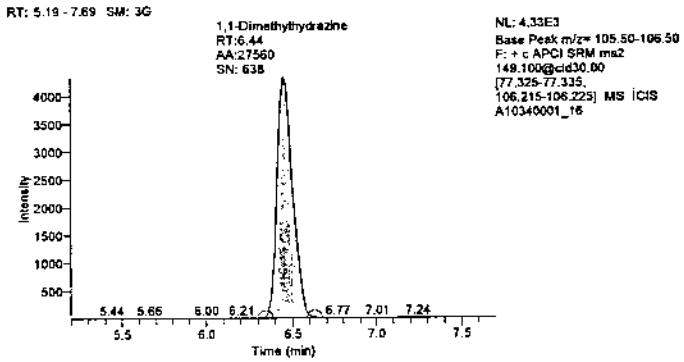
Sample Name:	CCV1		
Data File:	A10340001_16	Acquisition Date:	12/06/10 10:16:01 PM
Sample Type:	QC	Sample ID:	CCV1
Run Time(min):	9.99	Vial:	a:5
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

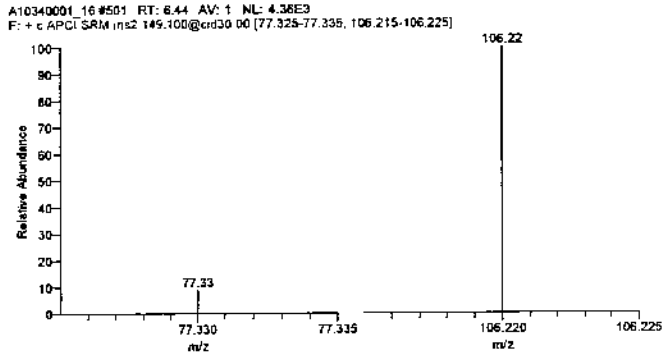
Quan Peak Table

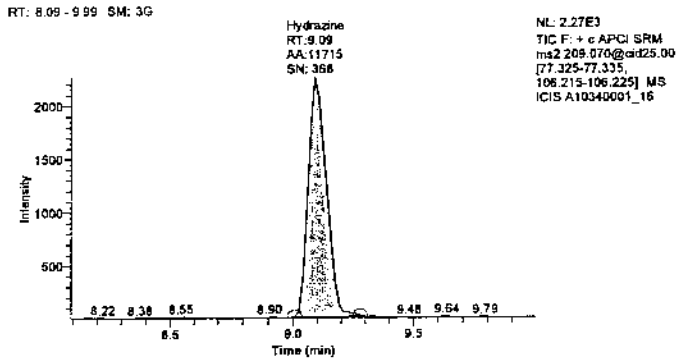
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	2.348	ug/L	69515.676	3.45
1,1-Dimethylhydrazine	2.440	ug/L	27560.389	6.44
Hydrazine	0.445	ug/L	11715.117	9.09

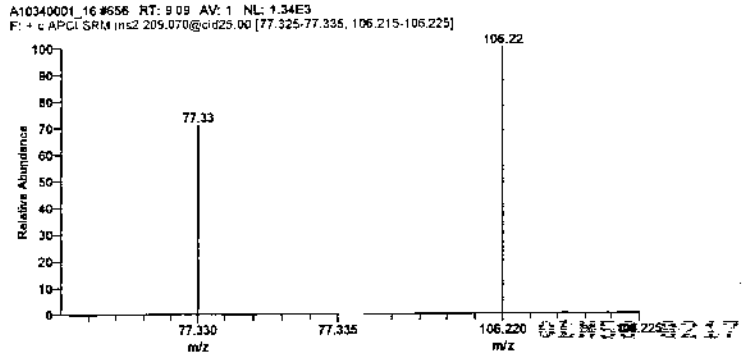












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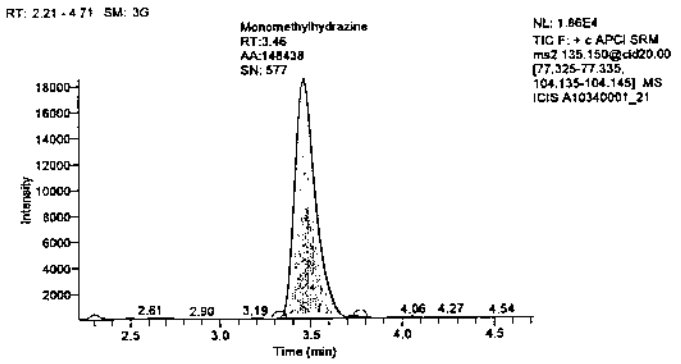
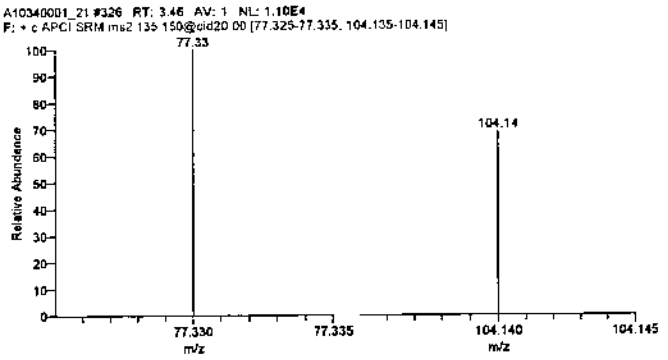
LCMSMS ANALYSIS REPORT

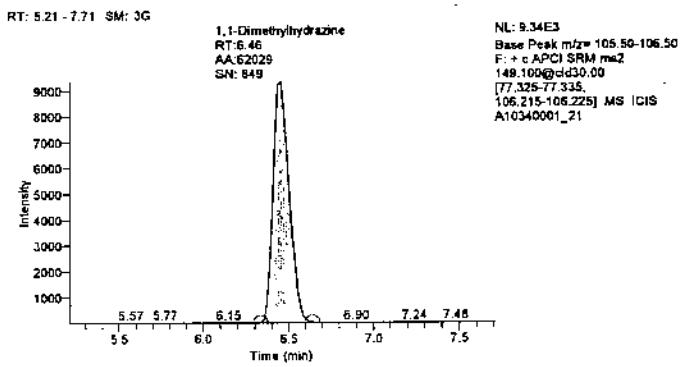
Sample Name:	CCV2		
Data File:	A10340001_21	Acquisition Date:	12/06/10 11:57:20 PM
Sample Type:	QC	Sample ID:	CCV2
Run Time(min):	9.99	Vial:	a:6
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

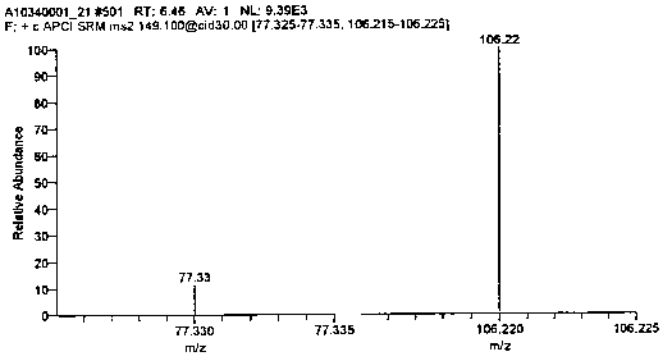
Quan Peak Table

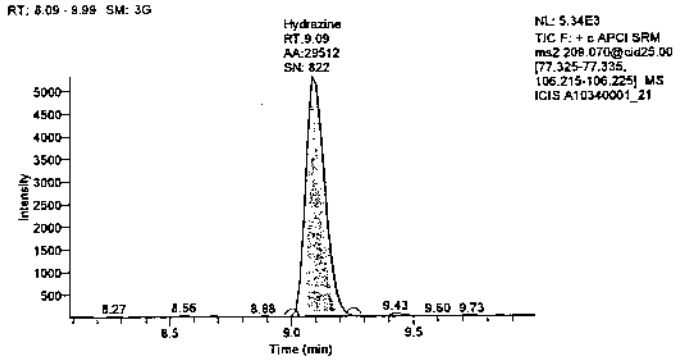
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	4.815	ug/L	148438.363	3.46
1,1-Dimethylhydrazine	5.255	ug/L	62029.478	6.46
Hydrazine	1.117	ug/L	29512.032	9.09

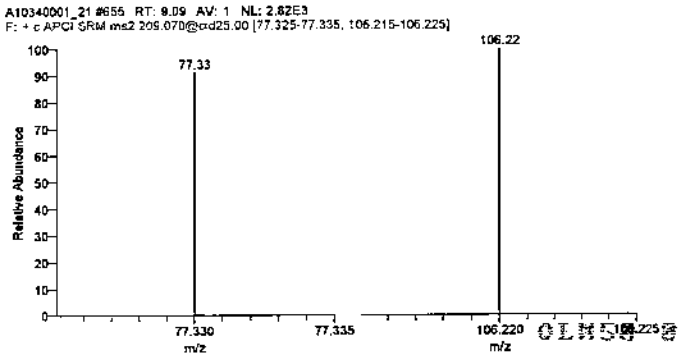












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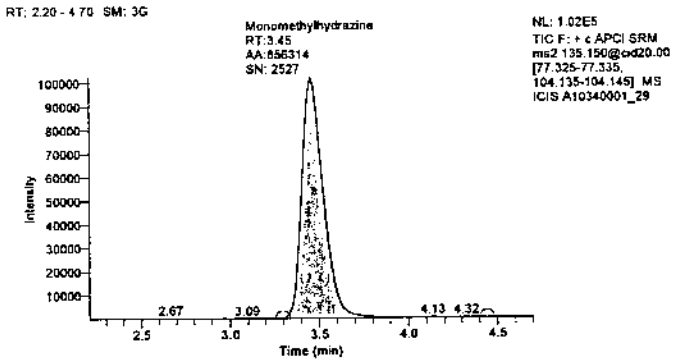
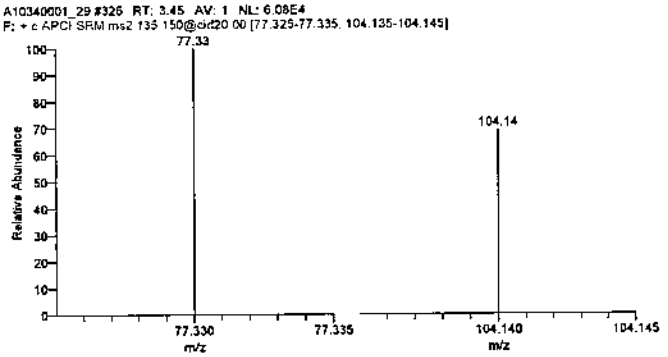
LCMSMS ANALYSIS REPORT

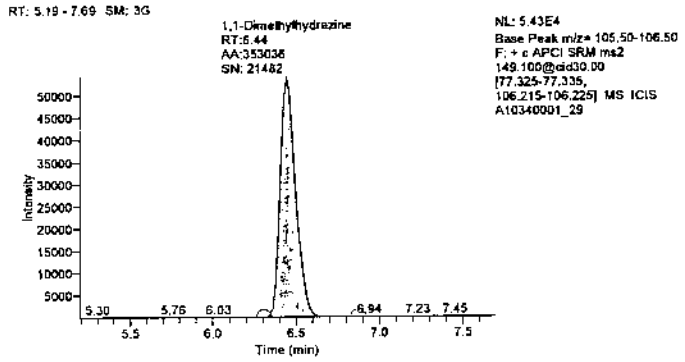
Sample Name:	CCV3		
Data File:	A10340001_29	Acquisition Date:	12/07/10 02:39:28 AM
Sample Type:	QC	Sample ID:	CCV3
Run Time(min):	9.99	Vial:	a:7
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

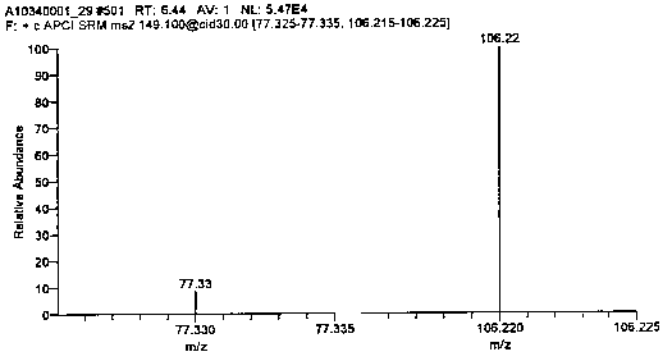
Quan Peak Table

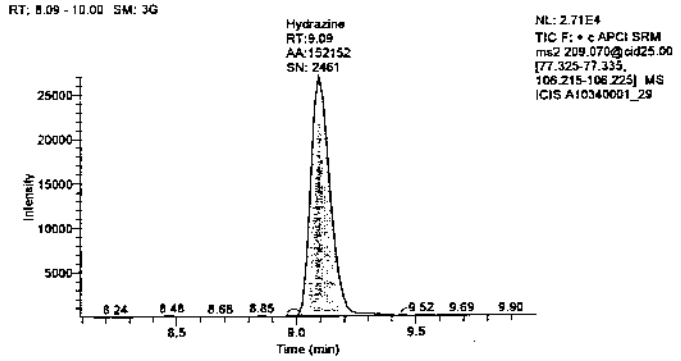
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	26.941	ug/L	856314.274	3.45
1,1-Dimethylhydrazine	29.024	ug/L	353036.472	6.44
Hydrazine	5.752	ug/L	152152.284	9.09

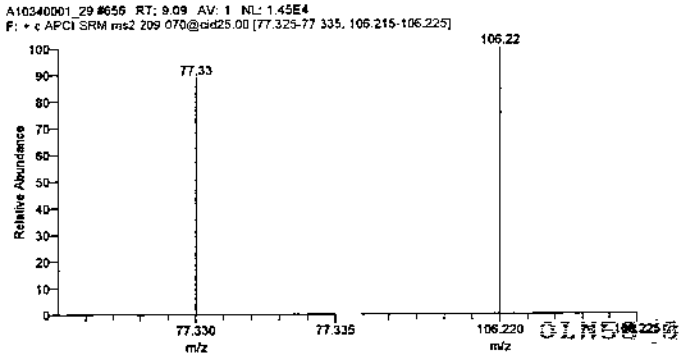












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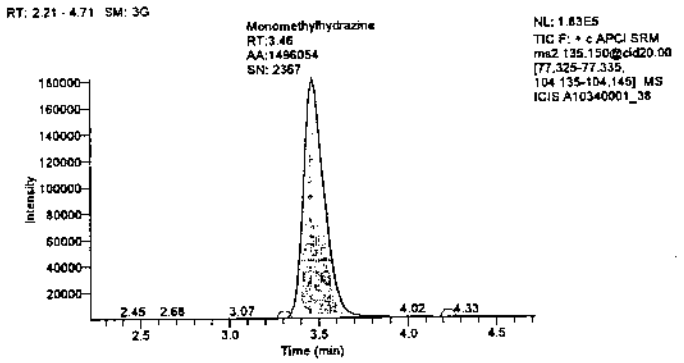
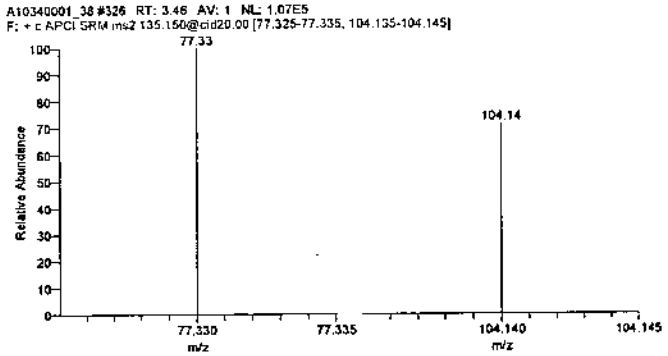
LCMSMS ANALYSIS REPORT

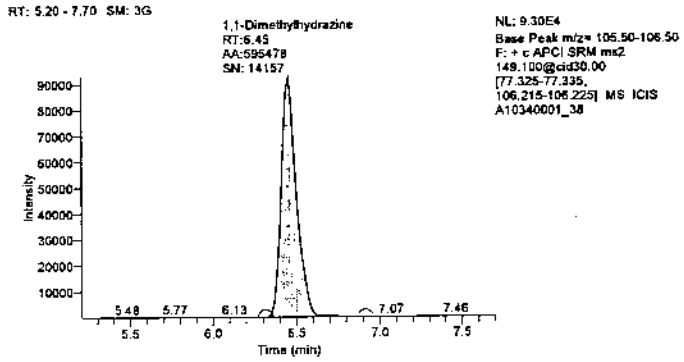
Sample Name:	CCV4		
Data File:	A10340001_38	Acquisition Date:	12/07/10 05:41:46 AM
Sample Type:	QC	Sample ID:	CCV4
Run Time(min):	9.99	Vial:	a:8
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

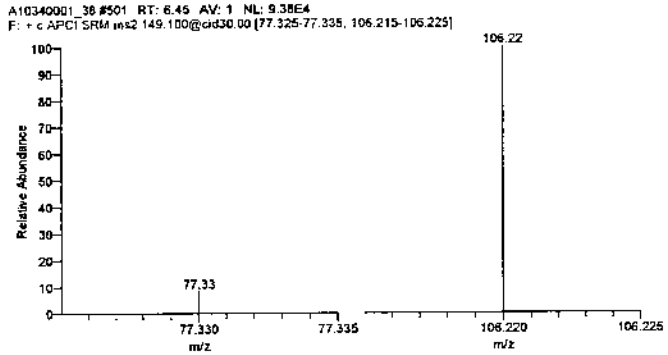
Quan Peak Table

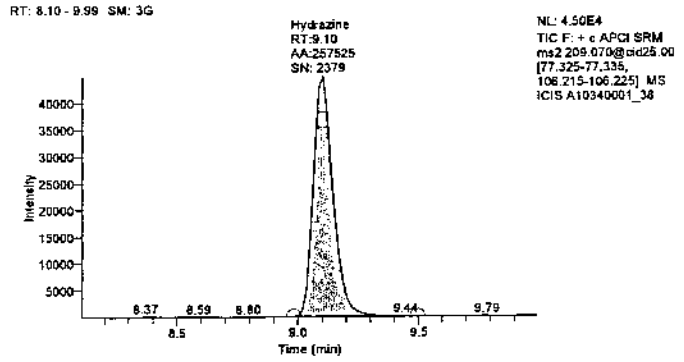
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	46.938	ug/L	1496054.247	3.46
1,1-Dimethylhydrazine	48.827	ug/L	595478.201	6.45
Hydrazine	9.733	ug/L	257524.593	9.10

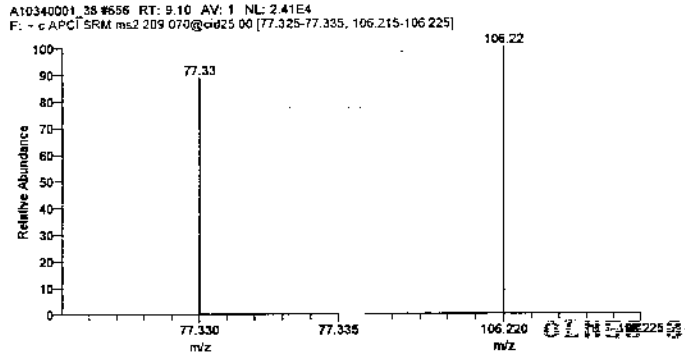












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Raw QC Data

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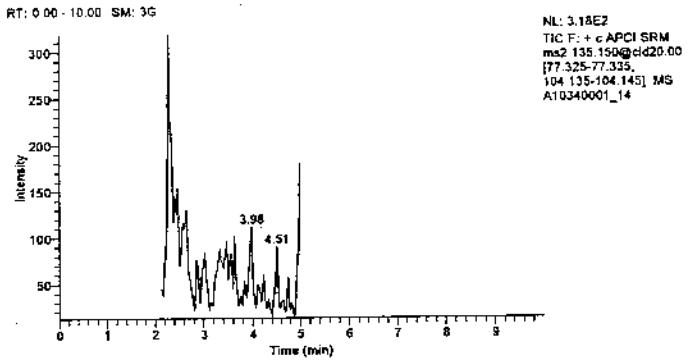
LCMSMS ANALYSIS REPORT

Sample Name:	BLK reagent		
Data File:	A10340001_14	Acquisition Date:	12/06/10 09:35:30 PM
Sample Type:	Blank	Sample ID:	BLK reagent
Run Time(min):	9.99	Vial:	A:11
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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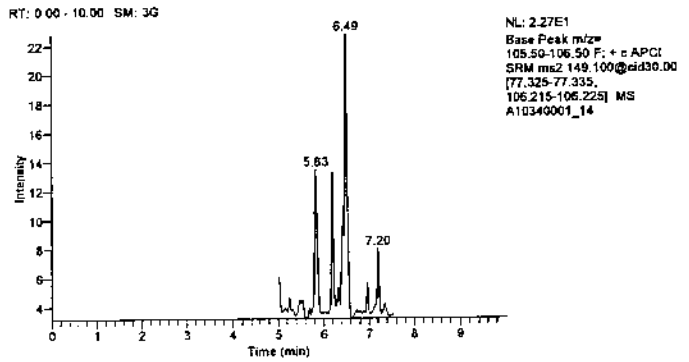

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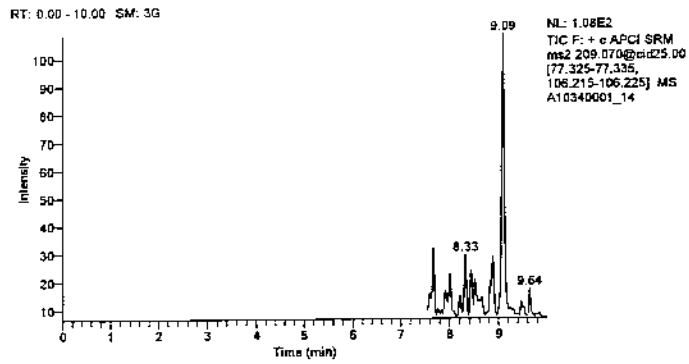

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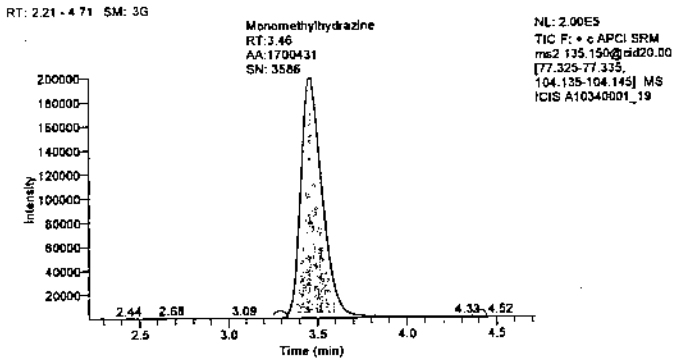
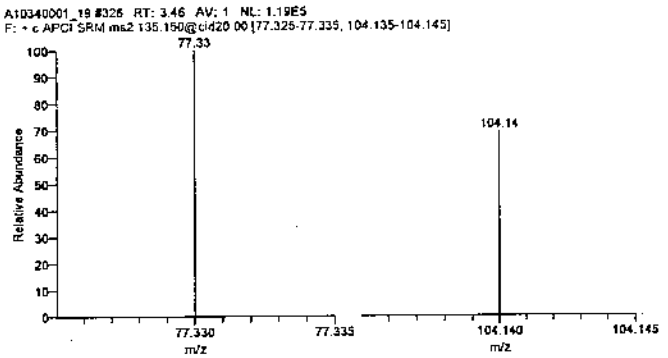
LCMSMS ANALYSIS REPORT

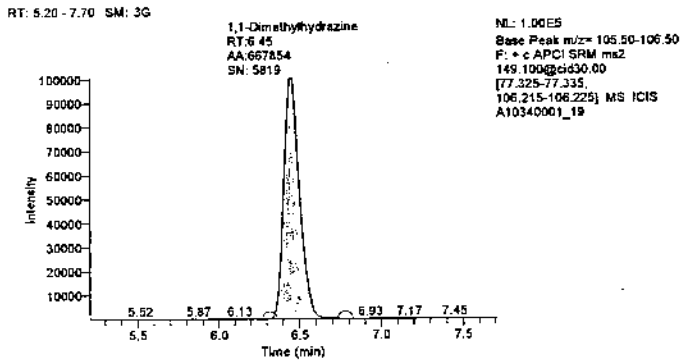
Sample Name:	6155353 (MS)		
Data File:	A10340001_19	Acquisition Date:	12/06/10 11:16:46 PM
Sample Type:	Unknown	Sample ID:	6155353 (MS)
Run Time(min):	9.99	Vial:	A:15
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

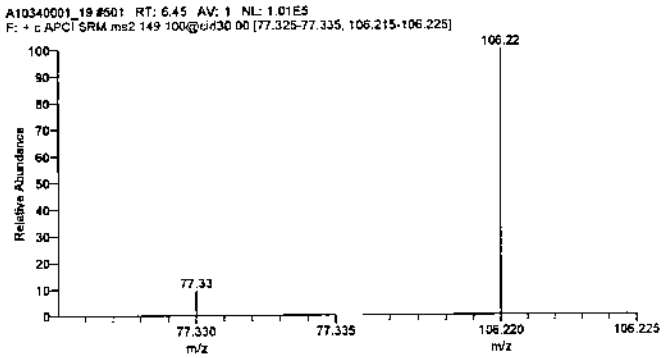
Quan Peak Table

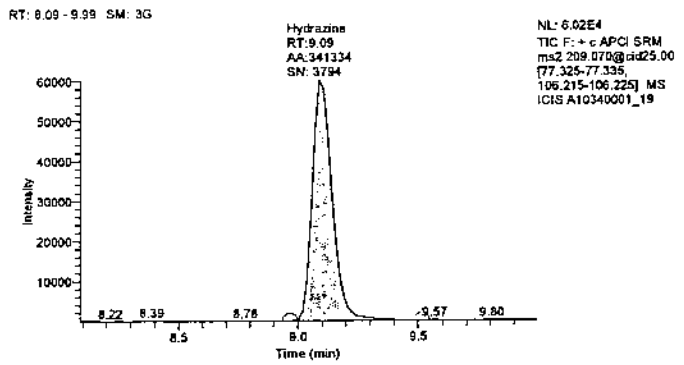
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	53.326	ug/L	1700430.539	3.46
1,1-Dimethylhydrazine	54.738	ug/L	667853.574	6.45
Hydrazine	12.900	ug/L	341334.038	9.09

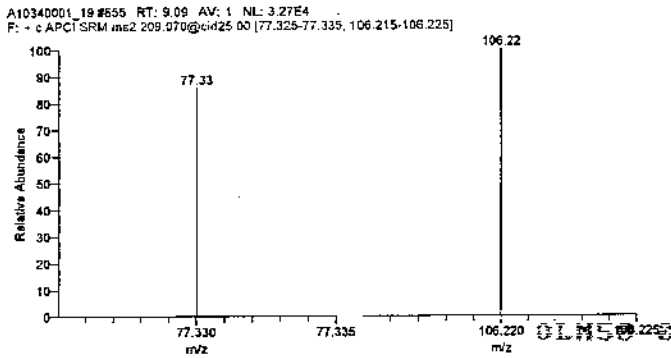












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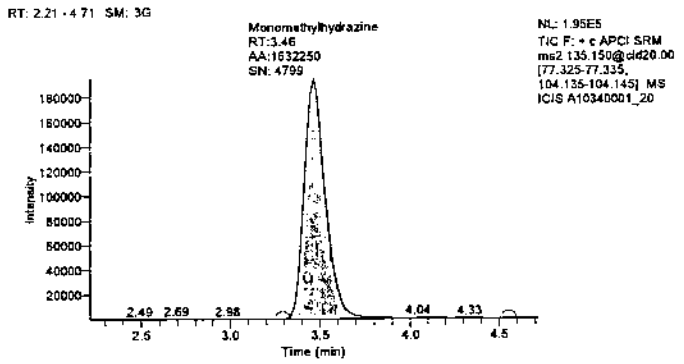
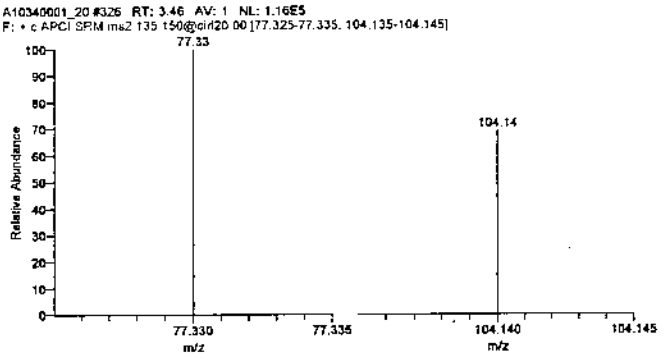
LCMSMS ANALYSIS REPORT

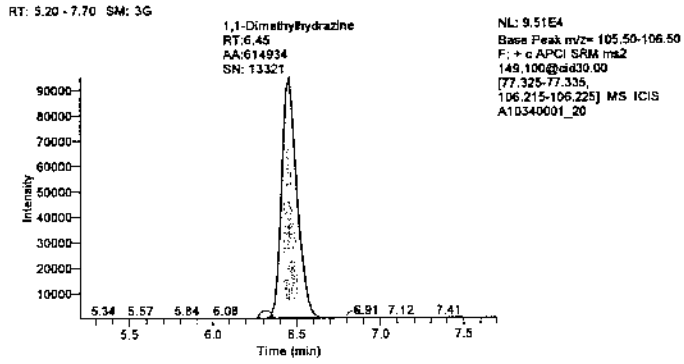
Sample Name:	6155354 (MSD)		
Data File:	A10340001_20	Acquisition Date:	12/06/10 11:37:03 PM
Sample Type:	Unknown	Sample ID:	6155354 (MSD)
Run Time(min):	9.99	Vial:	A:16
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

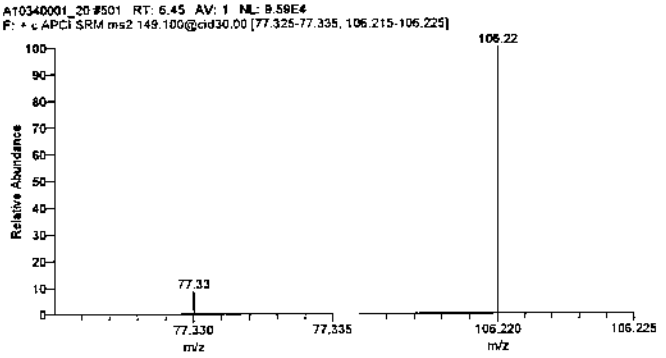
Quan Peak Table

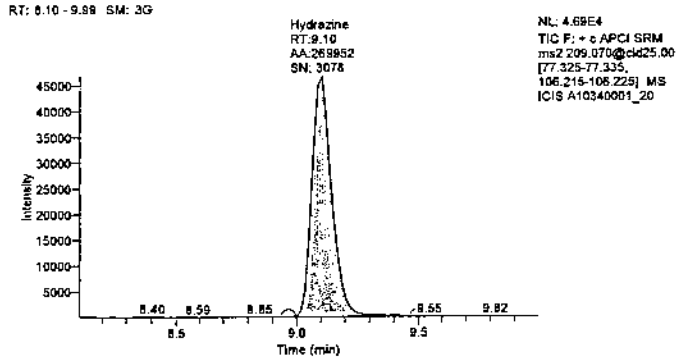
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	51.195	ug/L	1632249.641	3.46
1,1-Dimethylhydrazine	50.416	ug/L	614934.234	6.45
Hydrazine	10.203	ug/L	269951.718	9.10

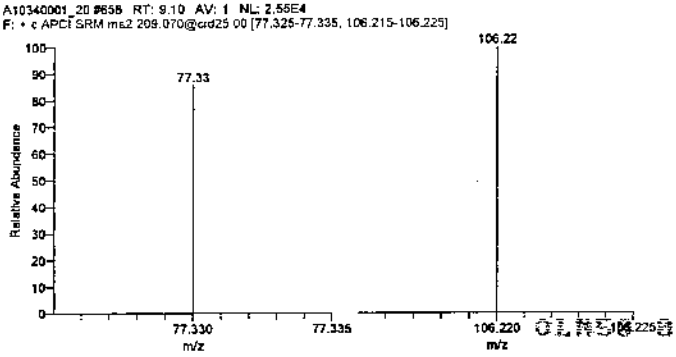












Tuesday, December 07, 2010, 10:36:33

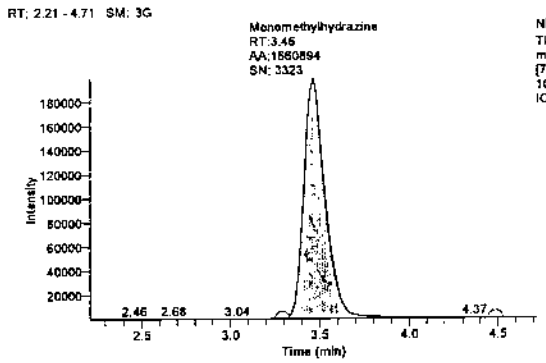
Lancaster Laboratories

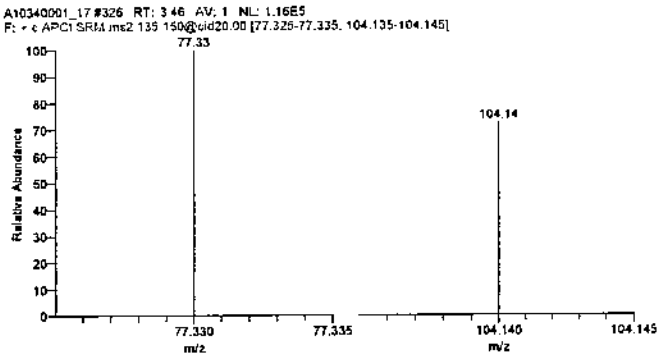
LCMSMS ANALYSIS REPORT

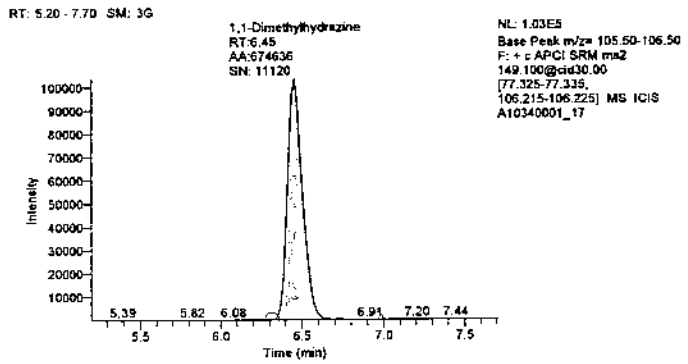
Sample Name:	ICV/LCS		
Data File:	A10340001_17	Acquisition Date:	12/06/10 10:36:18 PM
Sample Type:	Unknown	Sample ID:	ICV/LCS
Run Time(min):	9.99	Vial:	A:12
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

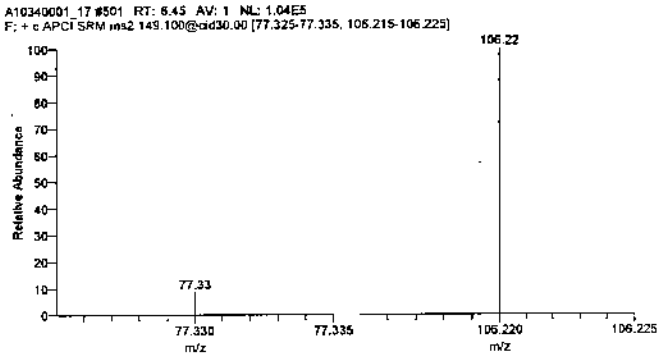
Quan Peak Table

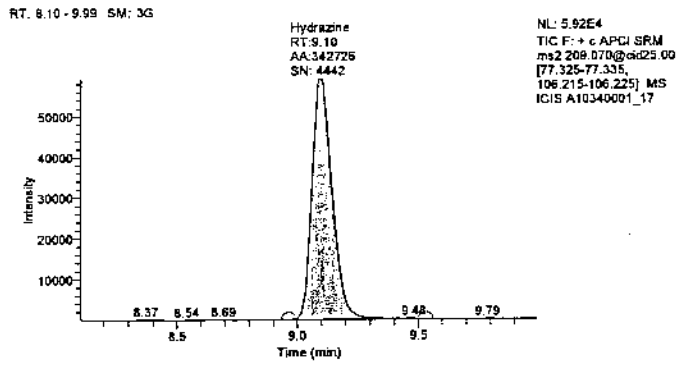
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	52.090	ug/L	1660893.788	3.46
1,1-Dimethylhydrazine	55.292	ug/L	674635.557	6.45
Hydrazine	12.953	ug/L	342725.832	9.10

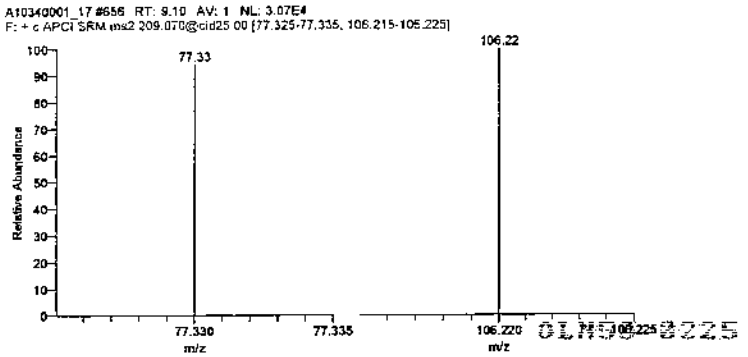












Tuesday, December 07, 2010, 10:36:30

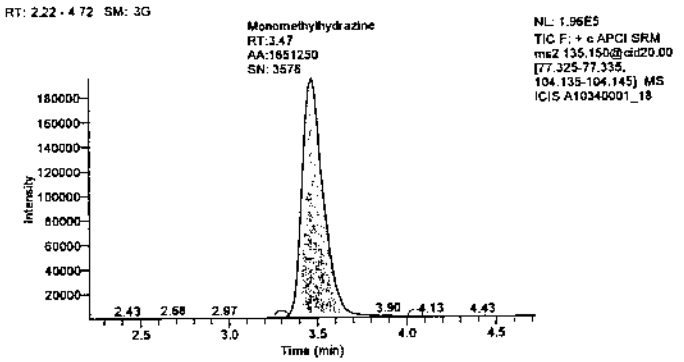
Lancaster Laboratories

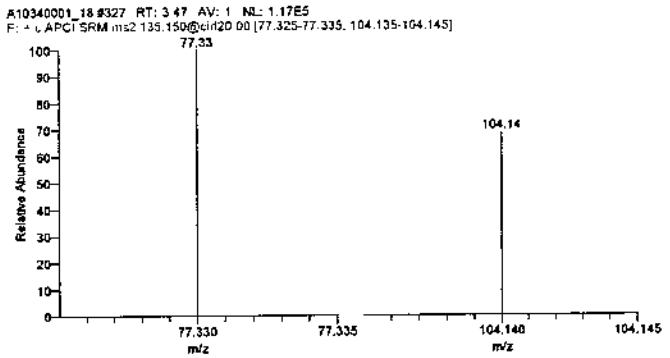
LCMSMS ANALYSIS REPORT

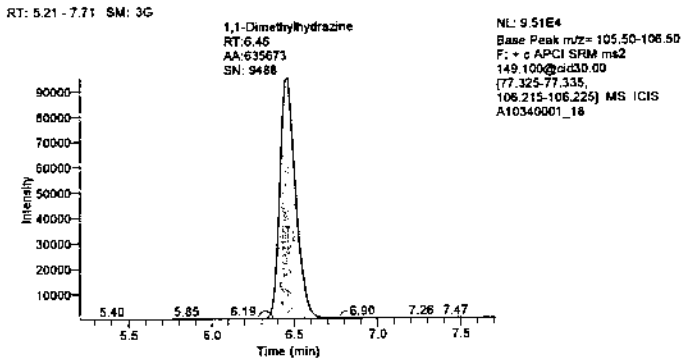
Sample Name:	ICV/LCSD		
Data File:	A10340001_18	Acquisition Date:	12/06/10 10:56:33 PM
Sample Type:	Unknown	Sample ID:	ICV/LCSD
Run Time(min):	9.99	Vial:	A:13
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_soil	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2010Dec
Operator:	Quantum		

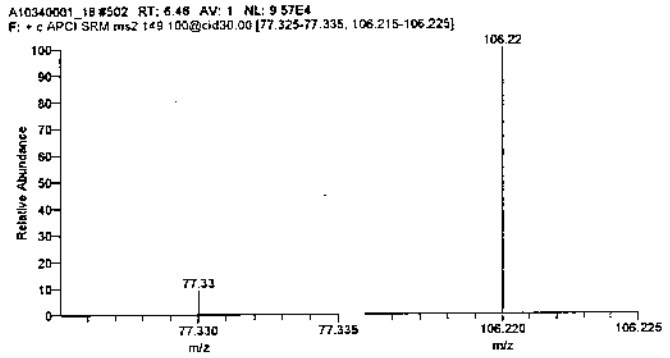
Quan Peak Table

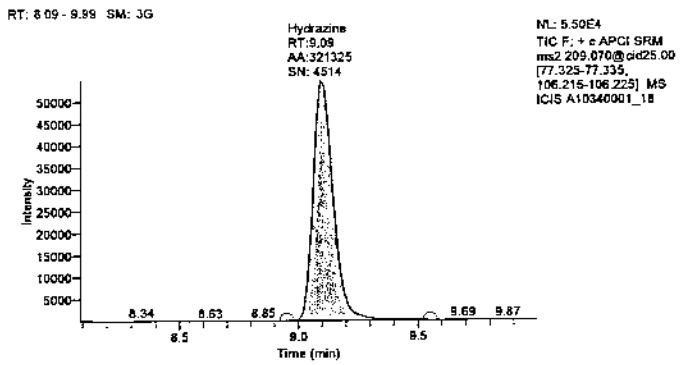
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	51.789	ug/L	1651249.794	3.47
1,1-Dimethylhydrazine	52.110	ug/L	635672.644	6.46
Hydrazine	12.144	ug/L	321325.082	9.09

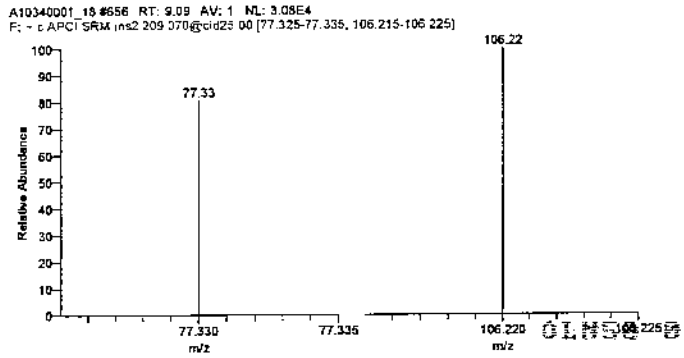












Tuesday, December 07, 2010, 10:36:31

Preparation Logs

Organic Extraction Batchlog Assigned to: 2628 Meng Yu

Reviewed by: [illegible] Start Date: 12/04/10 Start time: 1430

10340001

Tech 1: MY2628 Tech 2:

Dept: 37 Prep Analysis: 00000 Hydrazines in Water

QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments 0.1% Benz
6155353MS	MSD08	1	NA	NA	119647-39A	0.01	1.5	5		1492	0.5 mL
6155354MSD	MSD08										
BLANKA					NA	NA				NA	
LCSA											
LCSDA											

Sample #		Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments 0.1% Benz	Analyses	Due Date	Prio
1	6153697	EB-12	1.0	NA	NA	1.5	5		1492	0.5 mL	10342	12/16/2010	P
2	6155281	90752									10342	12/15/2010	N
3	6155283	11009									10342	12/15/2010	N
4	6155285	20748									10342	12/15/2010	N
5	6155345	MSD11									10342	12/15/2010	P
6	6155346	MSD8A									10342	12/15/2010	P
7	6155347	MSD10									10342	12/15/2010	P
8	6155348	MSD01									10342	12/15/2010	P
9	6155349	MSD04									10342	12/15/2010	P
10	6155350	MSD05									10342	12/15/2010	P
11	6155351	MSD8D									10342	12/15/2010	P
12	6155352BKG	MSD08									10342	12/15/2010	P
13	6155355	MSD09									10342	12/15/2010	P
14	6155978	SW-2-									10342	12/16/2010	P
15	6155979	SW-3-									10342	12/16/2010	P
16	6155980	SW-6-									10342	12/16/2010	P

Rack ID:		Work Station		S-bath ID	C	S-bath ID	C	N-Evap	C	M-vap	C	10340001
Internal Standard		Balance #										

Documented temps are NIST corrected.

DF = Dilution Factor FV = Final Volume