ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES INC

ROUX

THE HUNTINGTON ATRIUM
775 PARK AVENUE
SUITE 255
HUNTINGTON NEW YORK 11743 516 673-7200 FAX # 516 673-7216

November 21, 1991

Mr. Charles C. Lin
Director, Environmental Control
National Railroad Passenger Corporation
400 North Capitol Street, N.W.
Washington, DC 20001

Re: PCB Analytical Data from Metro Shop Area
Sunnyside Yard, Queens, New York

Dear Mr. Lin:

As you requested during recent telephone conversations, I am forwarding the analytical results of PCB analyses performed on separate phase petroleum and petroleum soaked absorbent pad samples collected by Roux Associates, Inc. from the Metro Shop area, Sunnyside Yard, Queens, New York. The following analytical results are enclosed:

- analytical results of petroleum samples collected on January 7, 1991 from MW-5 and MW-7 as part of the Remedial Investigation;
- analytical results of petroleum and water samples collected on January 7, 1991 from Recovery Tank Nos. 1 and 2 contents that were used to determine disposal parameters;
- analytical results of petroleum samples collected on July 9, 1991 from MW-5 and MW-7 as part of the Interim Remedial Measures (IRM) performance monitoring; and
- analytical results of petroleum-soaked absorbent pad composite sample collected on July 29, 1991 for disposal parameters.

The manifest for the disposal of the contents of Recovery Tank Nos. 1 and 2 was signed by Mr. John Kroll of Sunnyside Yard. A copy of the manifest should be obtained from him.

If you have questions or need additional information, please do not hesitate to call.

Sincerely,

Joseph D. Duminuco
Senior Hydrogeologist/
Project Manager

Enclosures

ORGANIC ANALYSIS DATA SHEET
Envirosystems, Inc.

CLIENT SAMPLE ID:	MW-31	REP-2	MW-5	MW-7	MW-16	MW-17
LAB SAMPLE ID:	91010060	91010061	91010064	91010065	91010066	91010067
SAMPLE DATE:	01/04/91	01/04/91	01/07/91	01/07/91	01/07/91	01/07/91
RECEIVED DATE:	01/05/91	01/05/91	01/08/91	01/08/91	01/08/91	01/08/91
EXTRACTION DATE:	01/09/91	01/09/91	01/11/91	01/11/91	01/11/91	01/11/91
ANALYSIS DATE :	02/04/91	02/04/91	01/11/91	01/11/91	01/11/91	01/11/91
MATRIX:	WATER	WATER	OIL	OIL	OIL	OIL
UNITS:	UG/L	UG/L	UG/KG	UG/KG	UG/KG	UG/KG

POLYCHLORINATED BIPHENYL COMPOUNDS

Arochlor-1016	0.5 U	0.5 U	80 U	800 U	800 U	80 U
Arochlor-1221	0.5 U	0.5 U	80 U	800 U	800 U	80 U
Arochlor-1232	0.5 U	0.5 U	80 U	800 U	800 U	80 U
Arochlor-1242	0.5 U	0.5 U	80 U	800 U	800 U	80 U
Arochlor-1248	0.5 U	0.5 U	80 U	800 U	800 U	80 U
Arochlor-1254	1.0 U	1.0 U	80 U	800 U	800 U	80 U
Arochlor-1260	1.0 U	1.0 U	27100	234686	122763	6716

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

ORGANIC ANALYSIS DATA SHEET
Envirosystems, Inc.

CLIENT SAMPLE ID:	MW-20	REC TANK #1	REC TANK #2	MW-22	REP-4
LAB SAMPLE ID:	91010068	91010069	91010070	91010072	91010074
SAMPLE DATE:	01/07/91	01/07/91	01/07/91	01/07/91	01/07/91
RECEIVED DATE:	01/08/91	01/08/91	01/08/91	01/08/91	01/08/91
EXTRACTION DATE:	01/11/91	01/11/91	01/09/91	01/09/91	01/09/91
ANALYSIS DATE :	01/11/91	01/11/91	01/14/91	02/04/91	02/04/91
MATRIX:	OIL	OIL	OIL	WATER	WATER
UNITS:	UG/KG	UG/KG	UG/KG	UG/L	UG/L

POLYCHLORINATED BIPHENYL COMPOUNDS

Arochlor-1016	80 U	80 U	80 U	0.5 U	0.5 U
Arochlor-1221	80 U	80 U	80 U	0.5 U	0.5 U
Arochlor-1232	80 U	80 U	80 U	0.5 U	0.5 U
Arochlor-1242	80 U	80 U	80 U	0.5 U	0.5 U
Arochlor-1248	80 U	80 U	80 U	0.5 U	0.5 U
Arochlor-1254	80 U	80 U	80 U	2.10	1.0 U
Arochlor-1260	7624	10055	1823	5.40	1.0 U

B - Detected in Lab Blank. U - Below Reported Quantitation Level. J - Estimated Value.

Kroll Signed disposal manifest ask him for report - we don't have it.

from RI for Tank disposal tank #1 oil - tank #2 water-oil mix

VI. ANALYTICAL RESULTS

- Polychlorinated Biphenyls

Parameter	Sample Designation 91L-2284*	Detection Limit*
Polychlorinated Biphenyls,		
. as Aroclor 1016	ND	1,800
. as Aroclor 1221	ND	1,800
. as Aroclor 1232	ND	1,800
. as Aroclor 1242	ND	1,800
. as Aroclor 1248	ND	1,800
. as Aroclor 1254	ND	3,700
. as Aroclor 1260	ND	3,700
Units	(ug/kg)	(ug/kg)

Parameter	Sample Designation Method Blank	Detection Limit
Polychlorinated Biphenyls,		
. as Aroclor 1016	ND	80
. as Aroclor 1221	ND	80
. as Aroclor 1232	ND	80
. as Aroclor 1242	ND	80
. as Aroclor 1248	ND	80
. as Aroclor 1254	ND	160
. as Aroclor 1260	ND	160
Units	(ug/kg)	(ug/kg)

ND: Not Detected.
*: Calculated on a dry weight basis.

VII. QUALITY ASSURANCE DATA

- PCB Surrogate Recoveries

Sample Designation	% Recovery Dibutylchlorendate
91L-2284	82
Method Blank	100
91L-2084-2S	*
91L-2084-2SD	*
Control	69
QC Limits	(20-166)

*: No surrogate recovery due to sample matrix interference.

- Matrix Spike and Matrix Spike Duplicate Recoveries

Parameter	Sample Spiked	Amount of Spike, ug	Initial % Recovery	Duplicate % Recovery	RPD	Control % Recovery
PCB	Control	10	---	---	---	64
TS	2471-1 Duplicate		97	---	---	---

Northeastern Analytical Corp.

ANALYTICAL REPORT

for

ROUX ASSOCIATES, INC.
775 Park Avenue
Suite 255
Huntington, New York 11743

Attention: Mr. Joseph Duminuco

TEST REPORT NO. NAC91L-1955

PROJECT: Amtrak/Sunnyside Yard
#05509Y

Client Designation	NAC Designation	Date Sampled	Time Sampled	Matrix
MW-5	91L-1955-1	07-09-91	14:30	Oil
MW-7	91L-1955-2	07-09-91	14:15	Oil
MW-8	91L-1955-3	07-09-91	14:50	Oil
MW-15	91L-1955-4	07-09-91	15:00	Oil

Laboratory Name: Northeastern Analytical Corp.

Certification No: 03117 (New Jersey)

Certification No: 11022 (New York)

Paul Painter

Name: Paul P. Painter

Title: Laboratory Director

June S. Baker

Name: June S. Baker

Title: Quality Assurance Manager

Date: July 31, 1991

NAC NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

B. TABLE OF CONTENTS

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

C. SAMPLE ANALYSIS REQUEST

- None Provided -

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

D. CHAIN OF CUSTODY DOCUMENTS

ROUX

911-1955

CHAIN OF CUSTODY

№ 00138

Ground-Water Consultants
ROUX ASSOCIATES INC

PAGE 1 OF 1

PROJECT NAME: Amtrak / Sunnyside Yd.
PROJECT NUMBER: 05509 Y
PROJECT LOCATION: Queens, N.Y.
SAMPLER(S): H. Gregory, J. Dominico

ANALYSES

SAMPLE DESIGNATION/LOCATION	DATE COLLECTED	TIME COLLECTED		SAMPLE MATRIX	40 ml Vial PCBs					TOTAL BOTTLES	PRESERVATION
MW-5-1	7/9/91	14:30	OIL	2						2	None
MW-7-2	7/9/91	14:15	OIL	2						2	"
MW-8-3	7/9/91	14:50	OIL	2						2	"
MW-15-4	7/9/91	15:00	OIL	2				1		2	"
										8 total	

RELINQUISHED BY: SAMPLER'S (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N
H. Gregory	Roux	7/9/91	1700	(Y) OR N		NAC	7/10/91	10:15	(Y) OR N
RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N
RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N

DELIVERY METHOD: Fed Ex.
ANALYTICAL LABORATORY: NAC

COMMENTS: 047456 9955 - Air Bill #

NORTHEASTERN ANALYTICAL CORPORATION

INTERNAL CHAIN OF CUSTODY

NAC NO. 91L-1955 PROJECT Roux Associates

SAMPLE/CONTAINERS 2-40ml vials PARAMETER(S) Method 8080-PCBs

per sample = 1-4

DATE	TIME	SAMPLE(S) RELINQUISHED BY	SAMPLE(S) RECEIVED BY	REASON FOR CHANGE OF CUSTODY
7/12/91	10:30	[signature]	Russell Cope	For Extraction 1-4 1 via each
7/12/91	11:15	Russell Cope	[signature]	
7/12/91	1630	x Russell Cope	x [signature]	Extract 1-4 For Analysis

NAC PRESERVATIVE CHECKLIST

TO BE COMPLETED UPON SAMPLE RECEIPT

INSTRUCTIONS:

1. Place an X in box if okay
2. Record actual pH if outside acceptable range
3. Record temperature of cooler blank or note Y/N if samples are cooled
4. Record corrective action in remarks.

SIGNATURE: [signature]

DATE PERFORMED: 7/10/91

pH ≤ 2											>9	≥12	°C	SAMPLES	
COD	NH_3	TKN	TOX	VOA*	PHENOL	TOC	PHC/O&G	METALS	HARD	TPO_4	SO_2	CYAN	TEMP	NAC #	REMARKS
													Y	1955-1	oil
														-2	↓
														-3	
													↓	-4	↓

*All VOA vials received with no headspace and septum was Teflon side down, except where noted.

SPECIAL INSTRUCTIONS/NONCOMPLIANCE NOTATIONS _____

_____

NORTHEASTERN ANALYTICAL CORPORATION

Test Report No. 91L-1955

Sample Preparation Chemist

	Parameter	Name (please print)	Signature	Date
1.	Base/Neutrals			
2.	Acids			
3.	Pesticides			
4.	Herbicides			
5.	PCB's	x Russel Confer	Russell Confer	7-12-91
6.	Metals			
7.				
8.				
9.				

Analyst

	Parameter	Name (please print)	Signature	Date
1.	Base/Neutrals			
2.	Acids			
3.	Pesticides			
4.	Herbicides			
5.	PCB's	x Kevin Wacaon	Kevin Wa	7-16-91
6.	Metals			
7.	Volatiles			
8.	TOC			
9.	TOX			
10.	Phenols (total)			
11.	Cyanide (total)			
12.				
13.				
14.				
15.				

E. METHODOLOGY REVIEW

- PCB's

Method 8080 - This method covers the determination of pesticides and polychlorinated biphenyls (PCB's) in samples by extraction/concentration with organic solvents and subsequent qualification/quantification by Gas Chromatography. The gas chromatograph utilizes an electron capture detector (ECD) which is applicable for the determination of the compounds listed for this method in Test Methods for Evaluating Solid Waste, SW846, 3rd Edition, November, 1986.

Soil samples were prepared as prescribed in Method 3550 from SW846.

NAC NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

F. DATA SUMMARY PACKAGE

1. Non-Conformance Summary Report

a. Due to sample matrix interference, the matrix spikes for PCB's were not recovered. However, the control sample demonstrated acceptable recovery.

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

F. DATA SUMMARY PACKAGE (Continued)

2. Quality Control Summary

a. Organics by GC/MS

1. Surrogate Recovery Summary

NAC NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

Polychlorinated Biphenyls Surrogate Recovery

Sample Designation	% Recovery Dibutylchlorendate
91L-1955-1	99
91L-1955-2	86
91L-1955-3	96
91L-1955-4	107
Method Blank	99
91L-1955-1S	69
91L-1955-1SD	64
Control	101

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

F. DATA SUMMARY PACKAGE (Continued)

2. Quality Control Summary (Continued)

a. Organics by GC/MS

2. Method Blank Summary

NAC NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

POLYCHLORINATED BIPHENYL METHOD BLANK SUMMARY SHEET

LAB SAMPLE ID: METHOD BLANK 7/12/91 OIL

LAB FILE ID: D:JLY1518

MATRIX: OIL

LEVEL: LOW

DATE ANALYZED: 7/16/91

TIME ANALYZED: 06:37

EXTRACTION METHOD: SONC

This method blank applies to the following Samples, MS and MSD

LAB SAMPLE ID	LAB FILE ID	INJECT DATE AND TIME
91L-1955-1	D:JLY1573	7/17/91 15:48
91L-1955-2	D:JLY1543	7/16/91 21:41
91L-1955-3	D:JLY1544	7/16/91 22:16
91L-1955-4	D:JLY1545	7/16/91 22:52

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

F. DATA SUMMARY PACKAGE (Continued)

2. Quality Control Summary (Continued)

a. Organics by GC/MS

3. Matrix Spike/Matrix Spike Duplicate Summary

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

Matrix Spike and Matrix Spike Duplicate Recoveries

Parameter	Sample Spiked	Amount of Spike, ug	Initial % Recovery	Duplicate % Recovery	RPD	Control % Recovery
PCB	Control	10	*	*	*	109

*: See Section F.1.a

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

F. DATA SUMMARY PACKAGE (Continued)

3. Sample Data Package

a. Organics by GC/MS

1. Sample Result Summary and Method Detection Limit

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE #: MW-5

Lab Name: NORTHEASTERN ANALYTICAL CORP Contract: _____

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

Matrix: (soil/water) OIL Lab Sample ID: 91L-1955-1

Sample wt/vol: 0.1gm (g/mL) ____ Lab File ID: D:JLY157E

Level: (low/med) MED Date Received: 7-10-91

% Moisture: not dec. _____ dec. _____ Date Extracted: 7-12-91

Extraction: (SepF/Cont/Sonc) SONC Dilution Date Date Analyzed: 7-17-91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: NONE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	C
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016	5000	U
11104-28-2	Aroclor-1221	5000	U
11141-16-5	Aroclor-1232	5000	U
53469-21-9	Aroclor-1242	5000	U
12672-29-6	Aroclor-1248	5000	U
11097-69-1	Aroclor-1254	58,000	
11096-82-5	Aroclor-1260	5000	U

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.: MW-5

Lab Name: NORTHEASTERN ANALYTICAL Corp Contract: _____

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

GC Column ID (1): 1.5% SP2250 / 1.95% 240 GC Column ID (2): 3% OV-1

Instrument ID (1): TRACOR 540 Dual ECD SN 871275 Instrument ID (2): TRACOR 540 Dual ECD SN 871275

Lab Sample ID: 91C-1955-1

Lab File ID: _____ (only if confirmed by GC/MS)

	PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD From	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01	A1254	Column 1	7.88	7.82	8.13	Y	N
02		Column 2	9.33	9.58	9.98	N	N
03		Column 1				-	-
		Column 2				-	-
05		Column 1				-	-
06		Column 2				-	-
07		Column 1				-	-
08		Column 2				-	-
09		Column 1				-	-
10		Column 2				-	-
11		Column 1				-	-
12		Column 2				-	-

Comments: _____

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE #: MW-7

Lab Name: NORTHEASTERN ANALYTICAL CORP Contract: _____

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

Matrix: (soil/water) Oil

Lab Sample ID: 911-1955-2

Sample wt/vol: 0.1gm (g/mL) g

Lab File ID: D:JLY1543

Level: (low/~~med~~) Med

Date Received: 7-10-91

% Moisture: not dec. _____ dec. _____

Date Extracted: 7-12-91

Extraction: (SepF/Cont/~~Sonc~~)6 Hr ~~Dilution Note~~

Date Analyzed: 7-16-91

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

Dilution Factor: 1:5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	C
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221	25000	U
11141-16-5	Aroclor-1232	25000	U
53469-21-9	Aroclor-1242	25000	U
12672-29-6	Aroclor-1248	25000	U
11097-69-1	Aroclor-1254	25,000	U
11096-82-5	Aroclor-1260 <101,000	84,000	D
		25,000	U

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.: MW-7

Lab Name: NORTHEASTERN ANALYTICAL CORP Contract: _____

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

GC Column ID (1): 1.5% SP2250 / 1.95% 240 GC Column ID (2): 30m DB-1

Instrument ID (1): TRACOR 540 Dual ECD SN 871275

Instrument ID (2): TRACOR 540 Dual ECD SN 871275

Lab Sample ID: 91C-1955-2

Lab File ID: _____ (only if confirmed by GC/MS)

	PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD From	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01	A1254	Column 1	7.85	7.82	8.13	Y	N
02		Column 2	9.80	9.58	9.98	N	N
03		Column 1				-	-
"		Column 2				-	-
05		Column 1				-	-
06		Column 2				-	-
07		Column 1				-	-
08		Column 2				-	-
09		Column 1				-	-
10		Column 2				-	-
11		Column 1				-	-
12		Column 2				-	-

Comments: _____

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N: MW-8

Lab Name: NORTHEASTERN ANALYTICAL CORP Contract: _____

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

Matrix: (soil/water) OIL Lab Sample ID: 911-1955-3

Sample wt/vol: 0.1 (g/mL) g Lab File ID: D:JLY1544

Level: (low/med) MED Date Received: 7-10-91

% Moisture: not dec. _____ dec. _____ Date Extracted: 7-12-91

Extraction: (SepF/Cont/Sonc) Sonc 7-11-91 Dilution Date Analyzed: 7-16-91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: NONE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	C
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016	5000	U
11104-28-2	Aroclor-1221	5000	U
11141-16-5	Aroclor-1232	5000	U
53469-21-9	Aroclor-1242	5000	U
12672-29-6	Aroclor-1248	5000	U
11097-69-1	Aroclor-1254	5000	U
11096-82-5	Aroclor-1260	28000	

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.: MW-8

Lab Name: NORTHEASTERN ANALYTICAL CORP Contract: _____

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

GC Column ID (1): 1.5% SP2250 / 1.95% 240 GC Column ID (2): 30m DB-1

Instrument ID (1): TRACOR 540 DUAL ECD SN 871275 Instrument ID (2): TRACOR 540 DUAL ECD SN 871275

Lab Sample ID: 91C-1955-3

Lab File ID: _____ (only if confirmed by GC/MS)

	PESTICIDE/PCB		RETENTION TIME	RT WINDOW OF STANDARD From	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01	A1260	Column 1	11.42	11.42	11.89	Y	N
02		Column 2	11.63	11.40	11.86	N	N
03		Column 1				-	-
"		Column 2				-	-
05		Column 1				-	-
06		Column 2				-	-
07		Column 1				-	-
08		Column 2				-	-
09		Column 1				-	-
10		Column 2				-	-
11		Column 1				-	-
12		Column 2				-	-

Comments: _____

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE #: MW-15

Lab Name: NORTHEASTERN ANALYTICAL CORP Contract: _____

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

Matrix: (soil/water) A.L Lab Sample ID: 911-1955-4

Sample wt/vol: 0.1 gm (g/mL) g Lab File ID: D:JLY154S

Level: (low/~~med~~) MED Date Received: 7-10-91

% Moisture: not dec. _____ dec. _____ Date Extracted: 7-12-91

Extraction: (SepF/Cont/~~Sonc~~) Dilution Done JB 7/16/91 Date Analyzed: 7/16-91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: NONE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016	5000	U
11104-28-2	Aroclor-1221	5000	U
11141-16-5	Aroclor-1232	5000	U
53469-21-9	Aroclor-1242	5000	U
12672-29-6	Aroclor-1248	5000	U
11097-69-1	Aroclor-1254	5000	U
11096-82-5	Aroclor-1260	5000	U

NAC NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

F. DATA SUMMARY PACKAGE (Continued)

3. Sample Data Package (Continued)

a. Organics by GC/MS

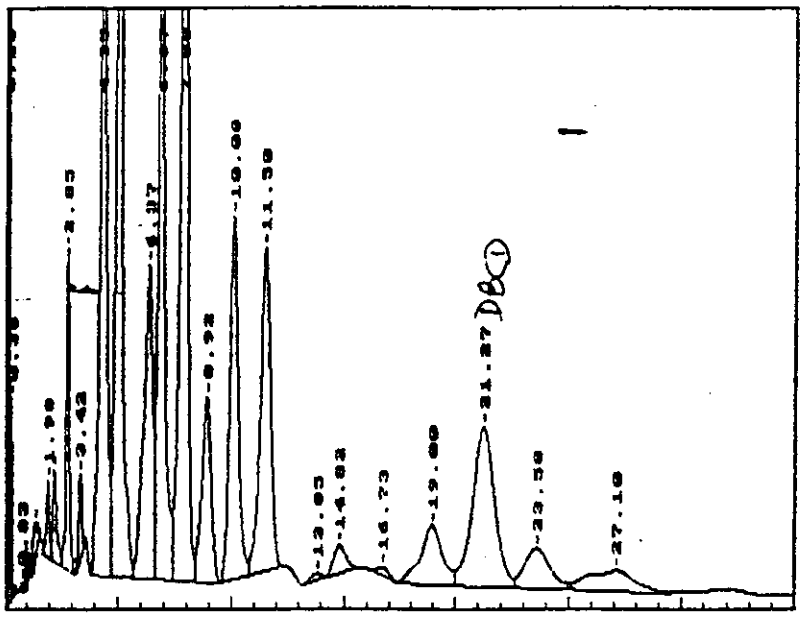
2. Sample Chromatograms, Quantitation Reports, Confirmatory Chromatograms and Confirmatory Quantitation Reports

******** AREA PERCENT REPORT ********

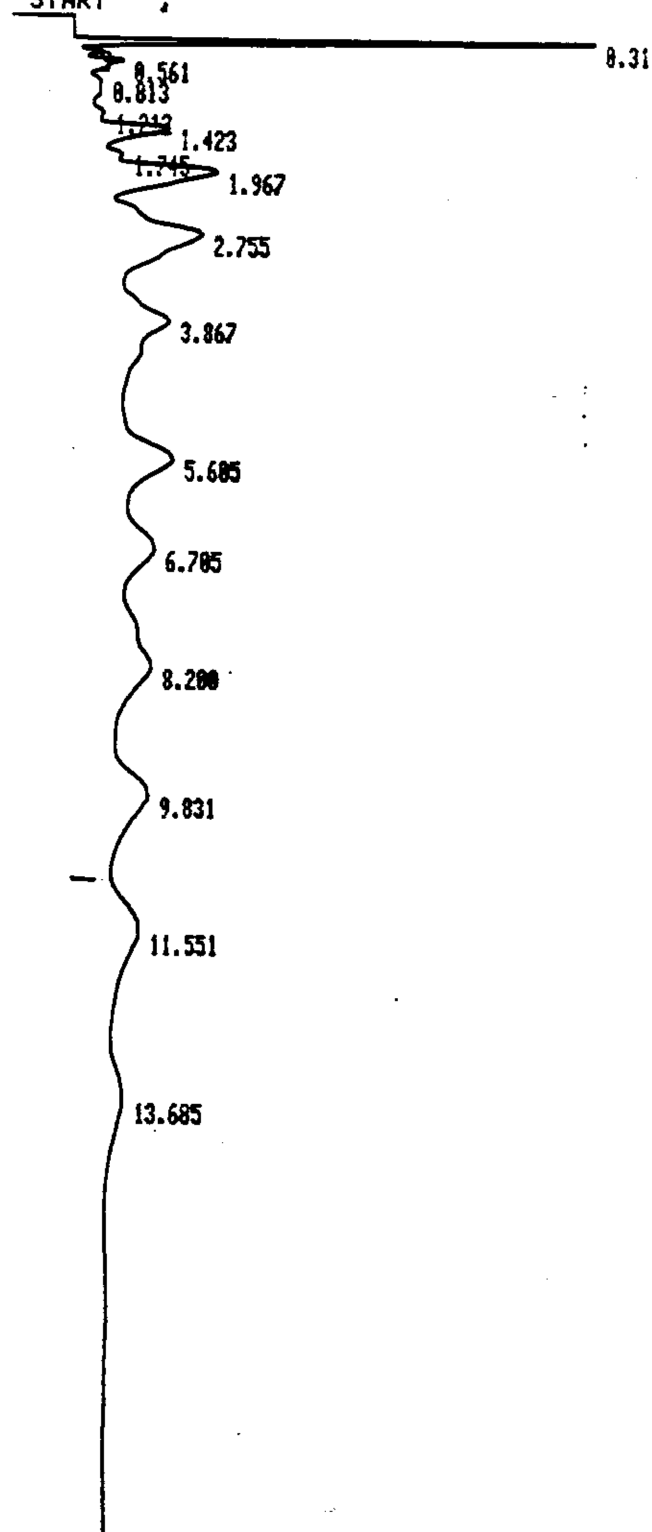
```
********** 07-17-1991 16:22:53 Version 5.1 **********
* Sample Name: 91L-1955-1                    Data File: D:JLY1573     *
* Date: 07-16-1991 19:48:40 Method: M608                              *
* Interface: 0   Cycle#:  73   Operator JMI Channel#: 0   Vial#: N.A.  *
* Starting Peak Width:  10   Threshold: .1  Area Threshold: 1000       *
*********************************************************************
* Instrument Type: TRACOR 540 SN 871275 Column Type: SP2250/SP2401 2MM ID *
*            Solvent Description:                                     *
* Conditions: ISOTHERMAL 200 C INJ. TEMP:200 C DETECTOR : 350 C       *
*          Detector 0: ECD                Detector 1: ECD             *
* Misc. Information: SAMPLE VOL 2UL-CARRIER GAS NITROGEN              *
*********************************************************************
Starting Delay:   0.00                      Run Time:   35.00
```

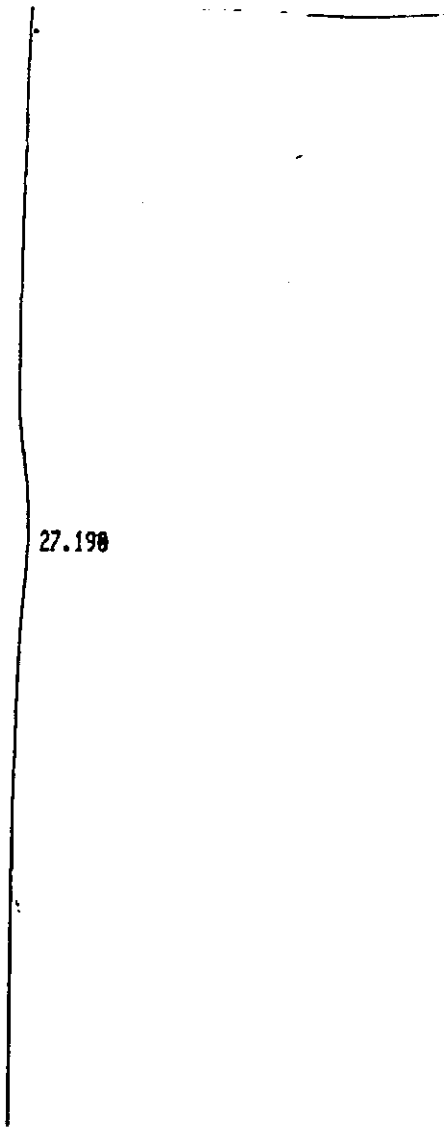
Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.233	420627	5.0803	2	168129	23.184	2.5
2	0.383	41105	0.4965	2	10708	2.266	3.8
3	0.833	2906	0.0351	1	460	0.160	6.3
4	1.033	6454	0.0779	1	1273	0.356	5.1
5	1.450	20138	0.2432	1	1586	1.110	12.7
6	1.983 A1254	35479	0.4285	2	4092	1.956	8.7
7	2.267	57731	0.6973	2	4869	3.182	11.9
8	2.850	167247	2.0200	2	17035	9.218	9.8
9	3.417	40657	0.4911	1	4517	2.241	9.0
10	4.350	795772	9.6112	2	42540	43.861	18.7
11	5.067	1162768	14.0438	2	84997	64.090	13.7
12	6.367	432450	5.2231	2	16649	23.836	26.0
13	6.867	787784	9.5148	2	45055	43.421	17.5
14	7.883	1814285	21.9127	2	120456	100.000	15.1
15	8.917	287559	3.4731	2	9804	15.850	29.3
16	10.083	497113	6.0041	2	19325	27.400	25.7
17	11.500	540905	6.5330	2	17171	29.814	31.5
18	13.850	11761	0.1420	2	366	0.648	32.2
19	14.817	53220	0.6428	2	1456	2.933	36.5
20	16.733	13436	0.1623	1	412	0.741	32.6
21	19.000	216296	2.6124	2	3129	11.922	69.1
22	21.267	565388	6.8287	2	8428	31.163	67.1
23	23.583 A1254	160851	1.9427	2	2108	8.866	76.3
24	27.100	147670	1.7835	2	1046	8.139	141.2

```
Total Area:      8279600   Area Reject:       100  One sample per   1.000 sec.

Areas, times, and heights stored in: D:JLY1573.ATB
Data File = D:JLY1573.PTS  Printed on 07-17-1991 at 16:23:20
Start time:     0.00 min.  Stop time:   35.00 min.     Offset:   0 mv.
Full Range:  32  millivolts
```



```
*  LIST: LIST
PEAK CAPACITY:  1244

ZERO    =  5, 1.183
ATT 2^ =  4
CHT SP =  1.0
AR REJ =  1000
THRSH  =  3
PK WD  =  0.16

*  RUN # 1126      JUL 12, 1991  22:37:46
START
```





TIMETABLE STOP

Closing signal file M:SIGNAL .BNC
Storing processed peaks to M:Q2EF63BB.PRO
DIRECTORY FULL

RUN# 1126 JUL 12, 1991 22:37:46

SIGNAL FILE: M:SIGNAL.BNC
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.310	827349	SBB	.037	8.92191
.561	68135	BP	.134	.73475
.813	9328	PB	.103	.10059
1.212	21423	BV	.132	.23102
1.423	197199	VV	.182	2.12654
1.745	57082	VV	.134	.61556
1.967	508083	VV	.286	5.47903
2.755	953577	VV	.609	10.28312
3.867	1003683	VV	.918	10.82259
5.685	903535	VV	.780	9.74348
6.785	745462	VV	.830	8.03886
8.200	1101334	VV	1.286	11.87649
9.831	864264	VV	1.061	9.31999
11.551	942132	VV	1.385	10.15970
13.685	707211	VV	1.581	7.62637
27.190	363513	I BP	2.245	3.92083

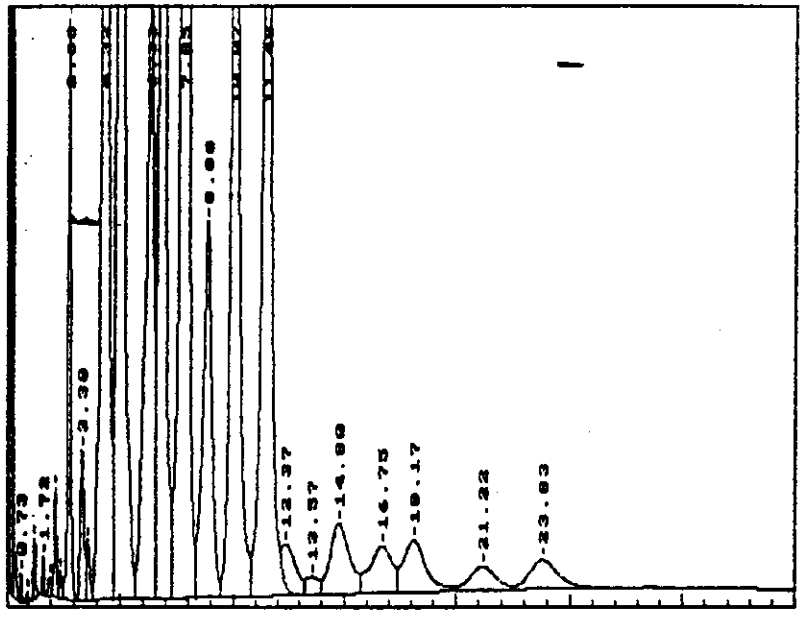
TOTAL AREA=9.2732E+06
MUL FACTOR=1.0000E+00

********** 07-16-1991 22:16:01 Version 5.1 **********
* Sample Name: 91L-1955-2 1:5 OIL Data File: D:JLY1543 *
* Date: 07-16-1991 21:41:25 Method: M608 *
* Interface: 0 Cycle#: 43 Operator JMI Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: .1 Area Threshold: 1000 *
****
* Instrument Type: TRACOR 540 SN 871275 Column Type: SP2250/SP2401 2MM ID *
* Solvent Description: *
* Conditions: ISOTHERMAL 200 C INJ. TEMP:200 C DETECTOR : 350 C *
* Detector 0: ECD Detector 1: ECD *
* Misc. Information: SAMPLE VOL 2UL-CARRIER GAS NITROGEN *
****
Starting Delay: 0.00 Run Time: 35.00

Pk No.	Ret Time		Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.233		298273	1.2769	2	101695	5.245	2.9
2	0.383		567355	2.4288	2	204935	9.977	2.8
3	0.733		6863	0.0294	1	1579	0.121	4.3
4	1.017		2593	0.0111	1	539	0.046	4.8
5	1.317		17507	0.0749	1	3261	0.308	5.4
6	1.717		10674	0.0457	2	2053	0.188	5.2
7	2.000	A1254	8830	0.0378	2	1006	0.155	8.8
8	2.233		41414	0.1773	2	5857	0.728	7.1
9	2.467		11533	0.0494	2	1446	0.203	8.0
10	2.833		256966	1.1000	2	31061	4.519	8.3
11	3.383		83314	0.3567	2	8106	1.465	10.3
12	3.633		38607	0.1653	2	3308	0.679	11.7
13	4.317		3138612	13.4360	2	195237	55.193	16.1
14	5.033		4106656	17.5801	2	248879	72.216	16.5
15	6.333		830479	3.5552	2	36959	14.604	22.5
16	6.833		3327025	14.2426	2	222855	58.506	14.9
17	7.850		5686659	24.3439	2	271160	100.000	21.0
18	8.883		564272	2.4156	2	19962	9.923	28.3
19	10.067		1768524	7.5708	2	113999	31.100	15.5
20	11.483		1620009	6.9351	3	75917	28.488	21.3
21	12.367		105549	0.4518	4	2303	1.856	45.8
22	13.567		39849	0.1706	4	957	0.701	41.7
23	14.800		228141	0.9766	2	3829	4.012	59.6
24	16.750		177464	0.7597	2	2532	3.121	70.1
25	18.167		194685	0.8334	2	2781	3.424	70.0
26	21.217	DSCD	98142	0.4201	2	1261	1.726	77.8
27	23.833	A1254	129698	0.5552	2	1548	2.281	83.8

Total Area: 23359692 Area Reject: 100 One sample per 1.000 sec.

Areas, times, and heights stored in: D:JLY1543.ATB
Data File = D:JLY1543.PTS Printed on 07-16-1991 at 22:16:07
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 32 millivolts

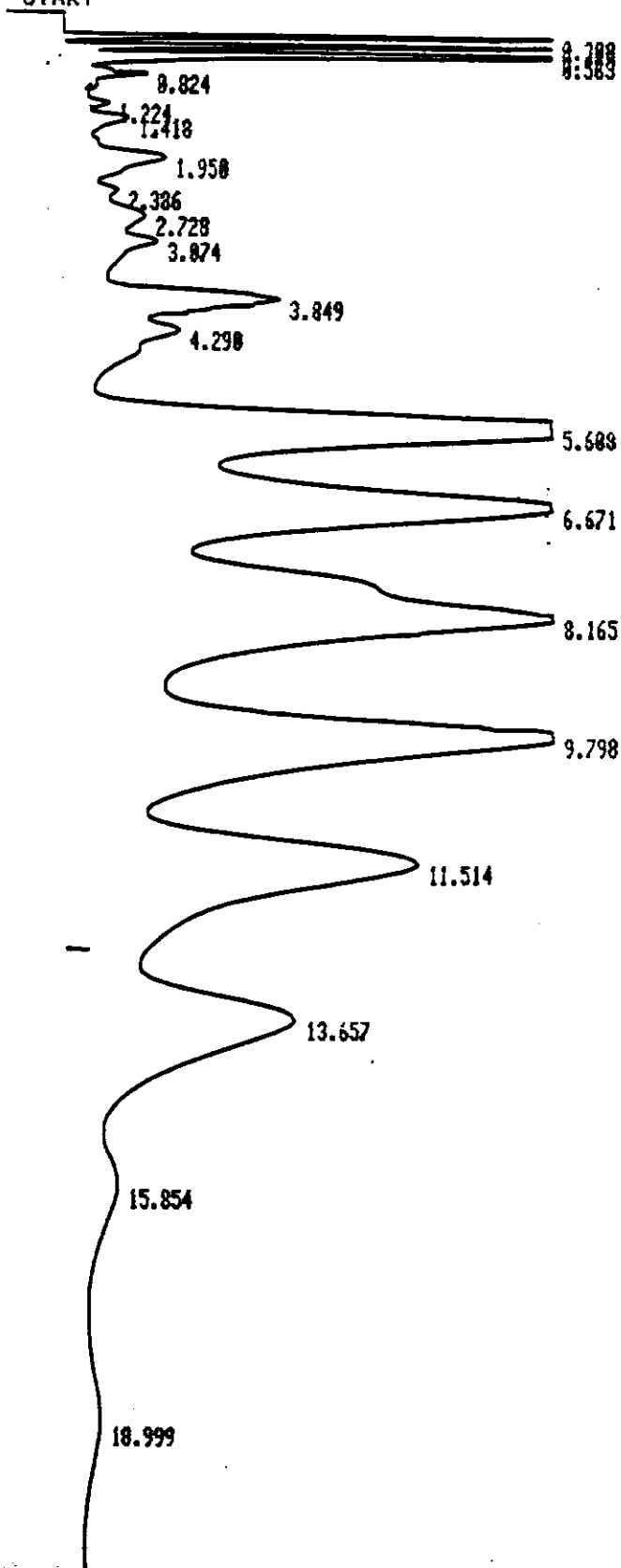


* LIST: LIST
PEAK CAPACITY: 1244

ZERO = 5, 0.231
ATT 2^ = 4
CHT SP = 1.0
AR REJ = 1000
THRSH = 3
PK WD = 0.16

911-1955-2 Oil
Loud Conf
Lubor

* RUN # 1131 JUL 15, 1991 16:24:19
START



TIMETABLE STOP

Closing signal file M:SIGNAL .BNC
Storing processed peaks to M:Q2F30083.PRO
DIRECTORY FULL

RUN# 1131 JUL 15, 1991 16:24:19

SIGNAL FILE: M:SIGNAL.BNC
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.308	512617	BB	.029	1.21606
.445	418746	PV	.045	.99337
.563	904705	VV	.064	2.14619
.824	153546	VV	.125	.36425
1.224	107079	VV	.167	.25402
1.418	209269	VV	.222	.49644
1.950	530865	VV	.354	1.25935
2.386	149166	VV	.192	.35386
2.728	431992	VV	.362	1.02480
3.074	565443	VV	.411	1.34138
3.849	1096708	VV	.344	2.60168
4.290	954287	VV	.562	2.26381
5.608	4466445	VV	.464	10.59556
6.671	4988067	VV	.669	11.83298
8.165	7214944	VV	.963	17.11570
9.798	6189130	VV	.819	14.68221
11.514	5499069	VV	1.850	13.04521
13.657	4051658	VV	1.206	9.61158
15.854	1124366	VV	1.596	2.66729
18.999	991083	VV	2.334	2.35110
22.882	726575	VV	2.269	1.72362
26.757	868193	VV	3.586	2.05958

TOTAL AREA=4.2154E+07
MUL FACTOR=1.0000E+00

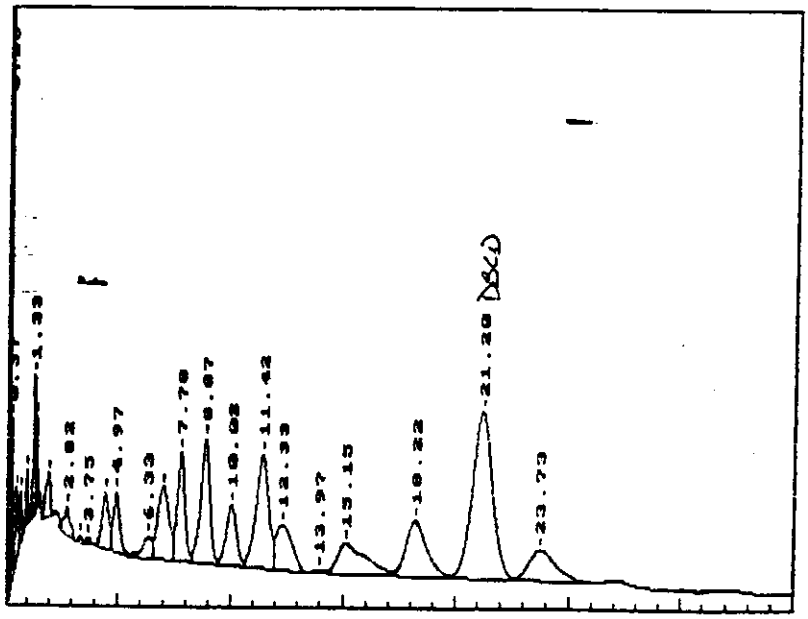
********** 07-16-1991 22:51:27 Version 5.1 **********
* Sample Name: 91L-1955-3 STRT OIL Data File: D:JLY1544 *
* Date: 07-16-1991 22:16:52 Method: M608 *
* Interface: 0 Cycle#: 44 Operator JMI Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: .1 Area Threshold: 1000 *
****
* Instrument Type: TRACOR 540 SN 871275 Column Type: SP2250/SP2401 2MM ID *
* Solvent Description: *
* Conditions: ISOTHERMAL 200 C INJ. TEMP:200 C DETECTOR : 350 C *
* Detector 0: ECD Detector 1: ECD *
* Misc. Information: SAMPLE VOL 2UL-CARRIER GAS NITROGEN *
****

Starting Delay: 0.00 Run Time: 35.00

Pk No.	Ret Time		Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.233		353926	13.1362	1	153696	64.737	2.3
2	0.367		28746	1.0669	2	8470	5.258	3.4
3	0.567		22818	0.8469	2	3729	4.174	6.1
4	0.750		14189	0.5266	2	2534	2.595	5.6
5	1.017		16287	0.6045	1	2926	2.979	5.6
6	1.333		37356	1.3865	2	7173	6.833	5.2
7	1.450		26675	0.9900	2	4664	4.879	5.7
8	2.000		32258	1.1973	1	2267	5.900	14.2
9	2.817		29016	1.0770	1	1553	5.307	18.7
10	3.417		4521	0.1678	2	404	0.827	11.2
11	3.750		3473	0.1289	2	388	0.635	8.9
12	4.483	A1260	64095	2.3789	2	3098	11.724	20.7
13	4.967		62199	2.3086	2	3223	11.377	19.3
14	6.333		33010	1.2252	2	1172	6.038	28.2
15	7.017		137356	5.0981	2	3896	25.124	35.3
16	7.783		139492	5.1774	2	5721	25.514	24.4
17	8.867		191120	7.0936	2	6525	34.958	29.3
18	10.017		103509	3.8418	2	3246	18.933	31.9
19	11.417		241456	8.9618	2	5999	44.165	40.2
20	12.333		127018	4.7144	2	2518	23.233	50.4
21	13.967		5952	0.2209	2	201	1.089	29.6
22	15.150		144367	5.3583	2	1655	26.406	87.2
23	18.217		196930	7.3092	2	3060	36.020	64.4
24	21.200	DSCD	546717	20.2918	2	8747	100.000	62.5
25	23.733	A1260	131790	4.8915	2	1648	24.106	80.0

Total Area: 2694275 Area Reject: 100 One sample per 1.000 sec.

Areas, times, and heights stored in: D:JLY1544.ATB
Data File = D:JLY1544.PTS Printed on 07-16-1991 at 22:51:33
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 32 millivolts

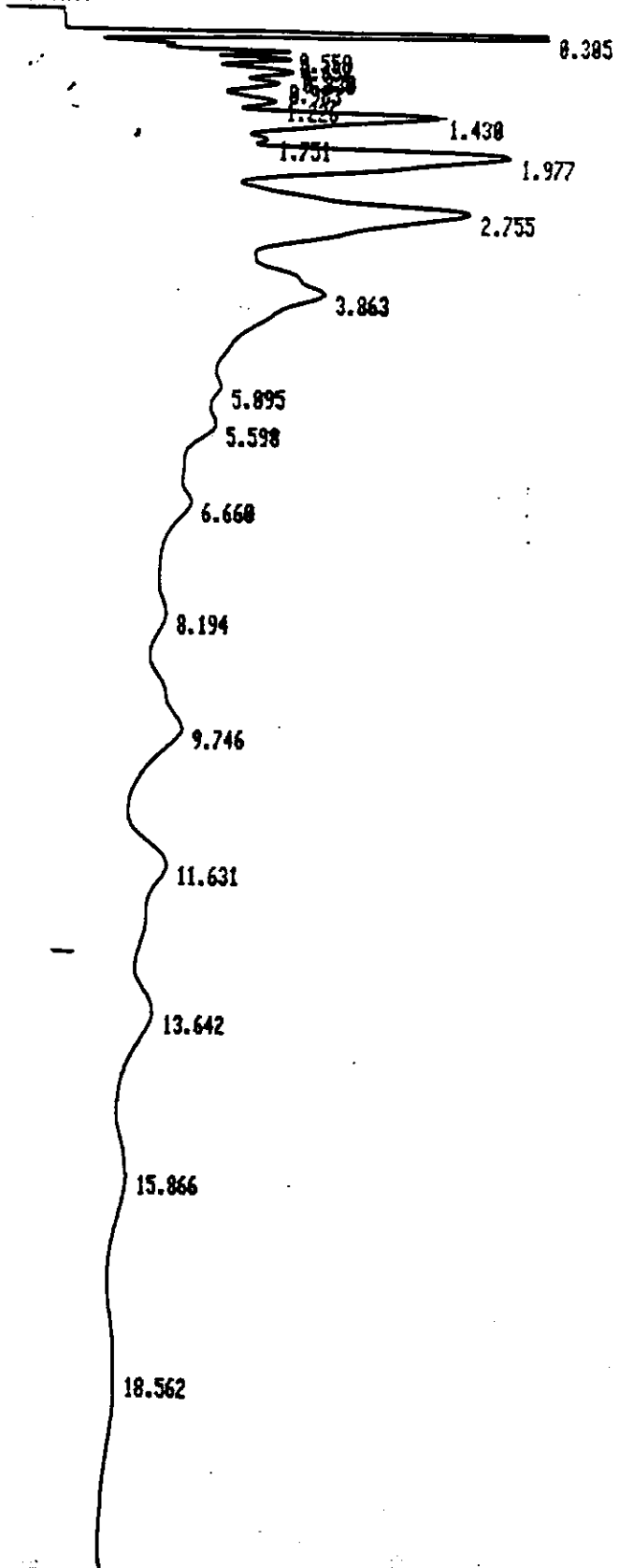


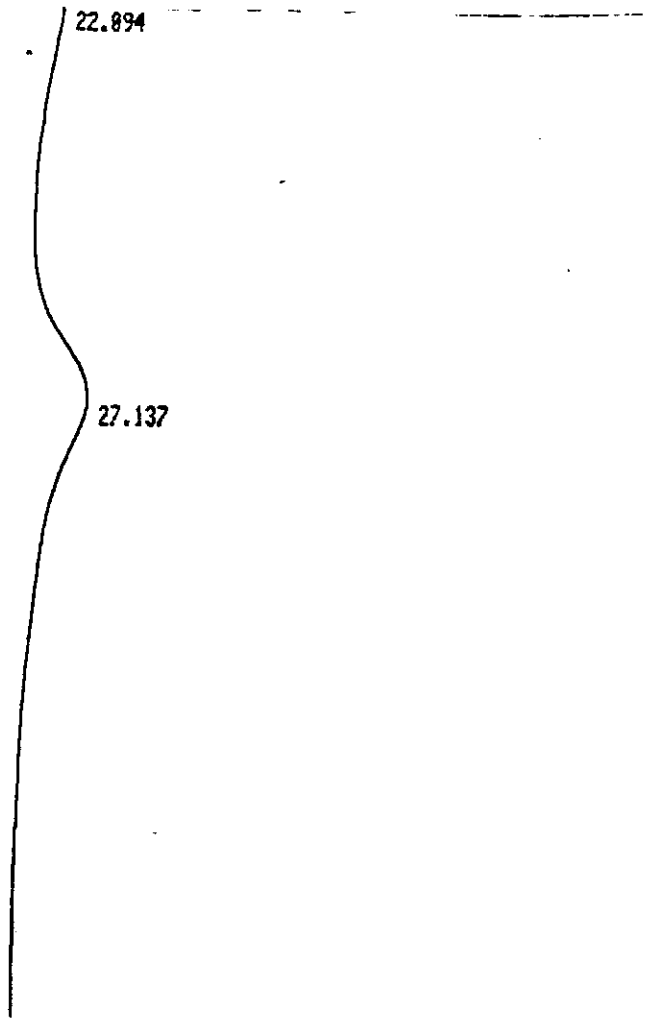
* LIST: LIST
PEAK CAPACITY: 1244

ZERO = 5, 0.785
ATT 2^ = 3
CHT SP = 1.0
AR REJ = 1000
THRSH = 2
PK WD = 0.16

9/L- 1955-3

* RUN # 1229 JUL 25, 1991 10:58:38
START





TIMETABLE STOP

Closing signal file M:SIGNAL .BNC
Storing processed peaks to M:Q2FFE35E.PRO
DIRECTORY FULL

RUN# 1229 JUL 25, 1991 10:58:38

SIGNAL FILE: M:SIGNAL.BNC
AREA%

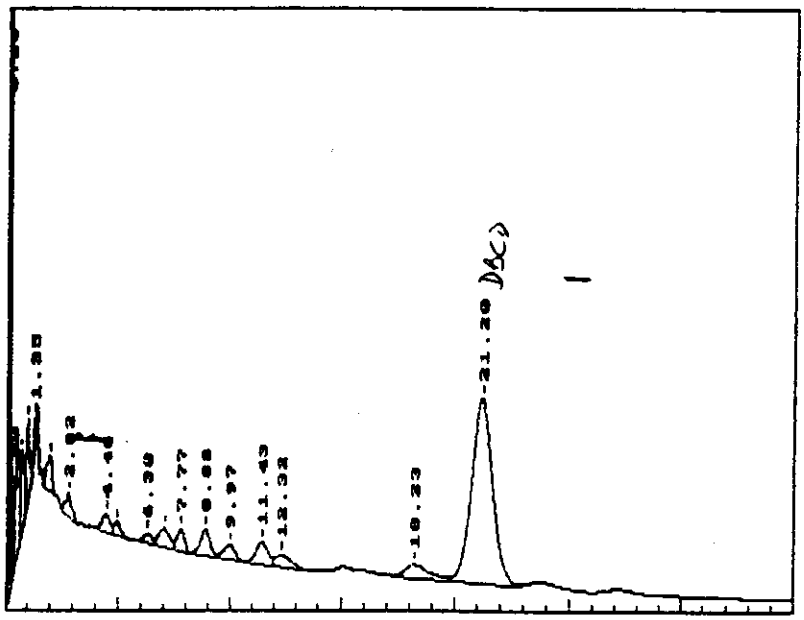
RT	AREA	TYPE	WIDTH	AREA%
.385	4297248	SBB	.107	20.83182
.558	173738	TBV	.111	.84223
.657	156820	TVV	.101	.76022
.830	252775	TVV	.161	1.22538
.983	233551	TVV	.159	1.13219
1.226	292300	TVV	.201	1.41699
1.430	684837	TVV	.256	3.31989
1.751	184391	TVV	.132	.89387
1.977	1193884	TVV	.372	5.78761
2.755	1893670	TVV	.649	9.17997
3.863	2192514	TVV	1.194	10.62867
5.095	493525	TVV	.467	2.39247
5.598	878103	TVV	.859	4.25679
6.660	927143	TVV	1.116	4.49452
8.194	628899	TVV	.986	3.04872
9.746	1191161	TVV	1.568	5.77448
11.631	1064016	TVV	1.642	5.15884
13.642	782181	TVV	1.459	3.79140
15.866	647171	TVV	1.934	3.13738
18.562	710845	TVV	2.835	3.44609
22.894	638198	TVV	2.497	3.09376
27.137	1112224	TVB	2.466	5.39174

TOTAL AREA=2.0628E+07

```
********** 07-16-1991 23:26:52 Version 5.1 **********
* Sample Name: 91L-1955-4 STRT OIL          Data File: D:JLY1545   *
* Date: 07-16-1991 22:52:18 Method: M608                           *
* Interface: 0   Cycle#:  45   Operator JMI Channel#: 0   Vial#: N.A.  *
* Starting Peak Width:  10   Threshold: .1  Area Threshold: 1000    *
*******************************************************************
* Instrument Type: TRACOR 540 SN 871275 Column Type: SP2250/SP2401 2MM ID *
*          Solvent Description:                                    *
* Conditions: ISOTHERMAL 200 C INJ. TEMP:200 C DETECTOR : 350 C    *
*          Detector 0: ECD              Detector 1: ECD            *
* Misc. Information: SAMPLE VOL 2UL-CARRIER GAS NITROGEN           *
*******************************************************************
Starting Delay:   0.00                    Run Time:   35.00
```

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.233	355986	23.7803	2	151761	58.474	2.3
2	0.400	22128	1.4782	2	3700	3.635	6.0
3	0.583	59977	4.0065	2	5423	9.852	11.1
4	0.750	50232	3.3556	2	4327	8.251	11.6
5	1.017	40729	2.7207	2	4250	6.690	9.6
6	1.350	5780	0.3861	1	1317	0.949	4.4
7	2.017	29935	1.9997	1	1958	4.917	15.3
8	2.817	23664	1.5808	1	1183	3.887	20.0
9	4.483	22046	1.4727	2	882	3.621	25.0
10	4.967	14698	0.9818	2	728	2.414	20.2
11	6.300	12978	0.8669	2	477	2.132	27.2
12	7.050	34134	2.2802	2	985	5.607	34.7
13	7.767	25604	1.7104	2	1102	4.206	23.2
14	8.883	40693	2.7183	2	1337	6.684	30.4
15	9.967	27928	1.8656	2	766	4.587	36.4
16	11.433	45285	3.0251	2	1157	7.439	39.1
17	12.317	31591	2.1103	2	618	5.189	51.1
18	18.233	44801	2.9928	2	649	7.359	69.0
19	21.200	608789	40.6679	2	9787	100.000	62.2

```
Total Area:      1496978   Area Reject:       100  One sample per  1.000 sec.

Areas, times, and heights stored in: D:JLY1545.ATB
Data File = D:JLY1545.PTS  Printed on 07-16-1991 at 23:26:58
Start time:    0.00 min.  Stop time:   35.00 min.     Offset:   0 mv.
Full Range:  32  millivolts
```



NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

G. STANDARDS DATA PACKAGE

1. Organics by GC/MS

a. Initial Calibration Data

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Northeastern Analytical Corp. Contract: _____

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

Instrument ID: Pacer 540 Dual ECD GC Column ID: 1.5% SP2250 / 1.95% SP2401

DATE(S) OF ANALYSIS FROM: 6-19-91 TO: 6-20-91
TIME(S) OF ANALYSIS FROM: 13:49:39 TO: 14:27:21

DATE OF ANALYSIS 7-16-91
TIME OF ANALYSIS 01:18:04
EPA SAMPLE NO. (STANDARD) A1260 0.5 to 1

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC								
Heptachlor								
Aldrin								
Hept. epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endo. sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
a. Chlordane								
g. Chlordane								
Toxaphene								
Aroclor-1016	3.46	3.39	3.52	125440				
Aroclor-1221	1.750	1.72	1.78	62284				
Aroclor-1232	2.90	2.84	2.96	292073				
Aroclor-1242	4.38	4.29	4.46	4138374				
Aroclor-1248	5.17	5.06	5.27	9459519				
Aroclor-1254	7.98	7.82	8.13	2401769				
Aroclor-1260	11.667	11.42	11.89	2537428	11.42	2500028	Y	1.43

Under QNT Y/N: enter Y if quantitation was performed, N if not performed. %D must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteri

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and %D. Identification of such analytes is based primarily on pattern recognition.

page __ of __

FORM IX PEST 8/87 Re

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

G. STANDARDS DATA PACKAGE (Continued)

1. Organics by GC/MS (Continued)

b. Continuing Calibration Data

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: NORTHEASTERN ANALYTICAL CORP Contract: _____

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

Instrument ID: TRACOR 540 DUAL ECD GC Column ID: 1.5% SP2250/1.95% SP24C

DATE(S) OF ANALYSIS FROM: _____ TO: _____

TIME(S) OF ANALYSIS FROM: _____ TO: _____

DATE OF ANALYSIS 7-16-91

TIME OF ANALYSIS 11:20:37

EPA SAMPLE NO. (STANDARD) A1254 0.5

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC								
Heptachlor								
Aldrin								
Hept. epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endo. sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
a. Chlordane								
g. Chlordane								
Toxaphene								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254	7.98	7.82	8.13	2401769	7.82	2296207	Y	4.4
Aroclor-1260								

Under QNT Y/N: enter Y if quantitation was performed, N if not performed. %D must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteri

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and %D. Identification of such analytes is based primarily on pattern recognition.

page __ of __

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

G. STANDARDS DATA PACKAGE (Continued)

1. Organics by GC/MS (Continued)

c. Method Blank Chromatogram and Quantitation Report

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: NORTHEASTERN Analytical Corp Contract: _____

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

Matrix: (soil/water) Na_2SO_4 Lab Sample ID: METHOD BLANK 71

Sample wt/vol: 0.1gm (g/mL) ____ Lab File ID: DJ JLY1518

Level: (low/med) MED Date Received: ~~7/12/91~~ N/A ~~KOO 7/15~~

% Moisture: not dec. _____ dec. _____ Date Extracted: 7/12/91

Extraction: (SepF/Cont/Sonc) ~~Sonc~~ Dilution TJB 7/16/91 Date Analyzed: 7/16/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: NONE

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		C
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016	5000	U
11104-28-2	Aroclor-1221	5000	U
11141-16-5	Aroclor-1232	5000	U
53469-21-9	Aroclor-1242	5000	U
12672-29-6	Aroclor-1248	5000	U
11097-69-1	Aroclor-1254	5000	U
11096-82-5	Aroclor-1260	5000	U

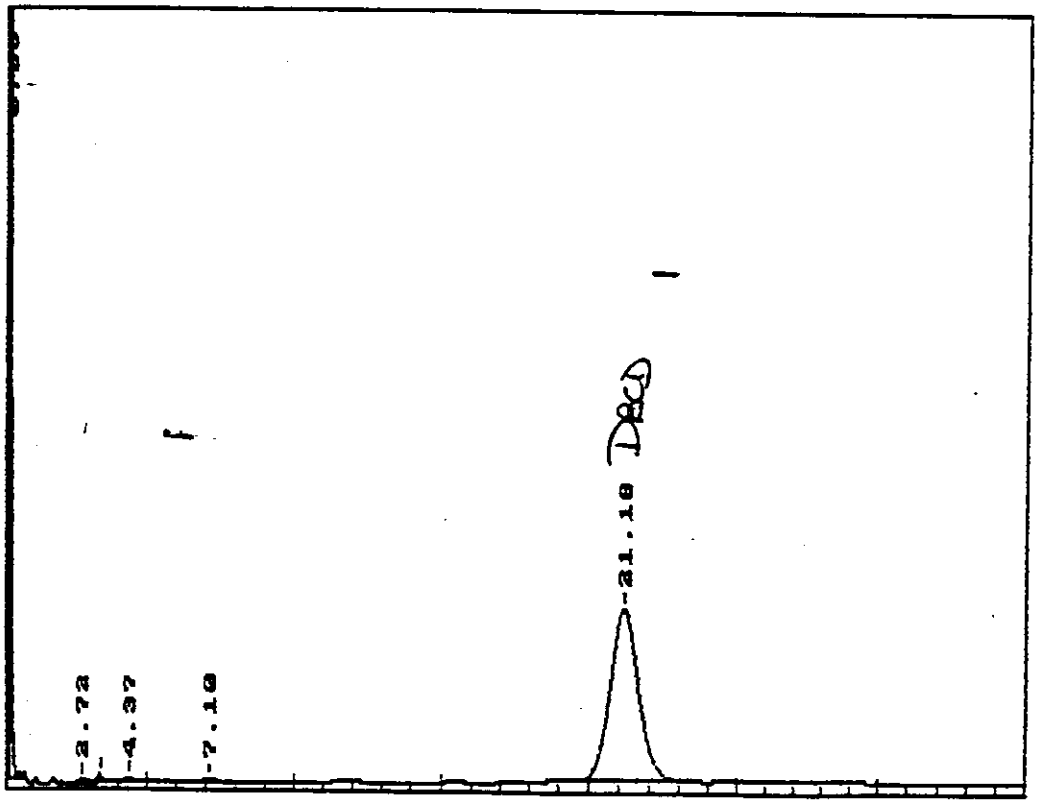
******** AREA PERCENT REPORT ********

```
********** 07-16-1991 07:26:26 Version 5.1 **********
* Sample Name: METHOD BLANK 7/12  OIL          Data File: D:JLY1518     *
* Date: 07-16-1991 06:37:04 Method: M608                                *
* Interface: 0   Cycle#:  18   Operator JMI Channel#: 0    Vial#: N.A.  *
* Starting Peak Width:  10   Threshold: .1  Area Threshold: 1000        *
*************************************************************************
* Instrument Type: TRACOR 540 SN 871275 Column Type: SP2250/SP2401 2MM ID *
*            Solvent Description:                                       *
* Conditions: ISOTHERMAL 200 C INJ. TEMP:200 C DETECTOR : 350 C         *
*          Detector 0: ECD                Detector 1: ECD               *
* Misc. Information: SAMPLE VOL 2UL-CARRIER GAS NITROGEN                *
*************************************************************************
Starting Delay:   0.00                        Run Time:   35.00
```

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.233	530779	53.6637	1	198738	100.000	2.7
2	2.717	2911	0.2943	1	138	0.548	21.1
3	3.383	3814	0.3856	1	343	0.719	11.1
4	4.367	2875	0.2906	1	120	0.542	24.0
5	7.100	2253	0.2278	1	70	0.424	32.2
6	21.183	446453	45.1380	1	6969	84.113	64.1

Total Area: 989085 Area Reject: 100 One sample per 1.000 sec.

Areas, times, and heights stored in: D:JLY1518.ATB
Data File = D:JLY1518.PTS Printed on 07-16-1991 at 07:26:31
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 32 millivolts



NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-1955
Certification No. 03117
July 31, 1991

H. EXTRACTION LOGS

1. Organics by GC/MS

SX	IV	EV	SS
			sonication
BLANK #1 0068	30.0g	10.0ml	1.0ml 1)BCT @ 1.0 ug/ml
91L1940-1	30.0	10.0	← flowed 7/15 R. Cofer
91L1937-1	30.0	10	
-2	30.0	10	
-3	30.0	10	
91L1892-1	30.0	10	
-2	30.0	10	
-3	30.0	10	
-4	30.0	10	
-5	30.0	10	
-6	30.0	10	
91L1940-6	30.0	10	← flowed 7-22-91 R. Cofer
91L1958-1	30.0	10	
-2	30.0	10	
-3	30.0	10	
-4	30.0	10	
BLANK #4	1000ml	10.0ml	1.0ml 1)BCT @ 1.0 ug/ml
54RS 0069	1.		
91L1940-7	1000ml	10.	
91L1942-1	1000ml	10.	
91L1975-1	1000ml	10.	
-2	1000ml	10.	
METHOD BLANK #1	.1g	10.0ml	Dilution (Oils) 1.0ml 1)BCT @ 1.0ug/ml
91L1955-1	.10	10	
-2	.10	10	
-3	.10	10	
-4	.10	10	
91L1984-1	.10	10	

John Kayat 7-10-91

John Kayat 7-12-91

John Kayat 7-12-91

Work continued from Page

QC for Q.L SYS

DX	IV	FV	SS
Blank 7/15/91	—	10.0 ml	1.0 ml DBCO a. Dilution (all)
91L-1955-1MS	0.1 gm Sx	10.0 ml	+ 1/2 ml A1248 at 20.0 µg/ml
91L-1955-1MSD	0.1 gm Sx	10.0 ml	
Control	—	10.0 ml	
			7% Water 7/15/91 —
Blank 1 0071	30.0	10 ml	
			1.0 ml DBCO @ 1.0 µg/ml
91L1976-3	30.0	10	
91L1996-1	30.0	10	7/15/91
91L2004-1	30.0	10	Q. Cofer
91L2005-4	30.0	10	— flowed 7-16-91
-5	30.0	10	
-6	30.0	10	— flowed 7-16-91
-7	30.0	10	
Blank 5 0069	1000 ml	10	1.0 ml DBCO @ 1.0 µg/ml
91L2005-1	1000	10	Kaupt
-2	1000	10	7-15-91 Dale F.
-3	1000	10	—
Blank #1 0072	300.0 ml	20	1.0 ml 24,5-T @ 5.14 µg/ml
91L2005-4	10.0g	20	2. ml HEXB ± SAME Soln @ 2.937µg/ml
-5	50.0g	20	
-6	10.0g	20	
-7	50.g	20	7-15-91
91L2005-7(5)	50 g	20	Dale Kaupt
-7(DC)	50g	20	
QC SOL 0072	300.ml	20	

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE