Violation and Elimination - Three County Volkswagon, 701 Riverside Ave., Lyndhurst, N.J.
April 3 - May 1, 1972 (F. Cupo)

Mr. Steve Roemer, a Colgate pre-med student, living in Summit, New Jersey, decided to test several outlets which discharged to the Passaic River. With a La Motte field test kit, he checked several sources on April 3, 1972.

He contacted Mr. Goldberg on the afternoon of April 7, and reported the following pollutions:

1. Lawyer's Ditch in Newark at the Essex Public Service Generating Station.
2. Volkswagon dealer in Lyndhurst.
3. Storm sewer at East Rutherford.
4. Ciba Pharmaceuticals in Summit.

Mr. Goldberg referred him to the State Department of Environmental Protection for item 4 and contacted Mr. Cuccinello to check and sample the other three. No pollution was detected in items 1 and 3, however, when the inspector checked item 2 (although no flow was discharging at the time) he noted that the macadam had the appearance of recent work on the 8" line that extended to the river. A Mr. Kaluza informed Mr. Cupo that the line had

854570001

Violation and Elimination - Three County Volkswagon continued

recently been repaired and referred Mr. Cupo to Mr. Robert Senior, the President of Three County Volkswagon.

Mr. Cupo explained the reason for his visit and Mr. Senior denied putting any polluting material into this line. Mr. Senior showed Mr. Cupo into the garage where cosmoline was washed from the cars. According to Mr. Senior, the liquid went to a separating tank and only water flowed to the 8" line. Mr. Cupo informed him that this "water" may be polluting and he would take a sample. Mr. Senior volunteered to help Mr. Cupo anytime he wished to sample.

On April 11 at 1:00 P.M.,Mr. Cupo made another inspection of the line and this time a milky flow was eminating from the pipe. A sample was taken and Mr. Kaluza, Service Manager was informed this was polluting and should be halted at once.

Analysis showed a C.O.D. of 6772, a B.O.D. of 210, total solids of 1597 and pH of 9.3.

On April 13, Mr. Lubetkin wrote to Three County Volkswagon, informing them that the discharge was illegal and directing them to halt the pollution at once. They were informed that they should seal the 8" outlet and if they connect to the local sanitary sewer, they should go through a proper oil and grease trap and the oil and grease should be disposed of by another legal method. They were directed to reply to the letter at once telling the Commissioners what they would do to halt the pollution, together with a time table.

No reply was received, however, the inspector reported that on April 19, Mr. Senior informed him that he was contacting a contractor to make the proper connections to halt the pollution.

On April 21, Inspector Cupo met with Mr. H. Kaluza and Mr. Lombardi, Plumbing Contractor of Lyndhurst, concerning this work.

On April 26, Mr. Cupo was informed that a contract had been signed and the work would begin Monday, May 1, 1972.

Violation and Elimination - Three County Volkswagon continued

On May 3, Mr. Senior informed the Commissioners by letter that all work was completed and the discharge which the Commissioners found objectionable had been connected to the sanitary sewer, work being completed by Mr. Lombardi, Plumbing Contractor, May 1, 1972.

This was confirmed by the Inspector.

854570003

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

SEP 15 2003

GENERAL NOTICE LETTER
CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Robert Senior, President
Three County Volkswagen
701 Riverside Ave.
Lyndhurst, New Jersey 07071

RE: Diamond Alkali Superfund Site
Notice of Potential Liability for
Response Actions in the Lower Passaic River, New Jersey

Dear Mr. Senior:

The United States Environmental Protection Agency ("EPA") is charged with responding to the release and/or threatened release of hazardous substances, pollutants, and contaminants into the environment and with enforcement responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §9601 et seq. Accordingly, EPA is seeking your cooperation in an innovative approach to environmental remediation and restoration activities for the Lower Passaic River.

EPA has documented the release or threatened release of hazardous substances, pollutants and contaminants into the six-mile stretch of the river, known as the Passaic River Study Area, which is part of the Diamond Alkali Superfund Site ("Site") located in Newark, New Jersey. Based on the results of previous CERCLA remedial investigation activities and other environmental studies, including a reconnaissance study of the Passaic River conducted by the United States Army Corps of Engineers ("USACE"), EPA has further determined that contaminated sediments and other potential sources of hazardous substances exist along the entire 17-mile tidal reach of the Lower Passaic River. Thus, EPA has decided to expand the Study to include the areal extent of contamination to which hazardous substances from the six-mile stretch were transported; and those sources from which hazardous substances outside the six-mile stretch have come to be located within the expanded Study Area.

By this letter, EPA is notifying Three County Volkswagen ("Three County") of its potential liability relating to the Site pursuant to Section 107(a) of CERCLA, 42 U.S.C. §9607(a). Under CERCLA, potentially responsible parties ("PRPs") include current and past owners of a facility, as well as persons who arranged for the disposal or treatment of hazardous substances at the Site, or the transport of hazardous substances to the Site.

851950001

In recognition of our complementary roles, EPA has formed a partnership with USACE and the New Jersey Department of Transportation-Office of Maritime Resources ("OMR") ["the governmental partnership"] to identify and to address water quality improvement, remediation, and restoration opportunities in the 17-mile Lower Passaic River. This governmental partnership is consistent with a national Memorandum of Understanding ("MOU") executed on July 2, 2002 between EPA and USACE. This MOU calls for the two agencies to cooperate, where appropriate, on environmental remediation and restoration of degraded urban rivers and related resources. In agreeing to implement the MOU, the EPA and USACE will use their existing statutory and regulatory authorities in a coordinated manner. These authorities for EPA include CERCLA, the Clean Water Act, and the Resource Conservation and Recovery Act. The USACE's authority stems from the Water Resources Development Act ("WRDA"). WRDA allows for the use of some federal funds to pay for a portion of the USACE's approved projects related to ecosystem restoration.

For the first phase of the Lower Passaic River Project, the governmental partners are proceeding with an integrated five- to seven-year study to determine an appropriate remediation and restoration plan for the river. The study will involve investigation of environmental impacts and pollution sources, as well as evaluation of alternative actions, leading to recommendations of environmental remediation and restoration activities. This study is being conducted by EPA under the authority of CERCLA and by USACE and OMR, as local sponsor, under WRDA. EPA, USACE, and OMR are coordinating with the New Jersey Department of Environmental Protection and the Federal and State Natural Resource Trustee agencies. EPA, USACE, and OMR estimate that the study will cost approximately $20 million, with the WRDA and CERCLA shares being about $10 million each. EPA will be seeking its share of the costs of the study from PRPs.

Based on information that EPA evaluated during the course of its investigation of the Site, EPA believes that hazardous substances were being released from Three County's facility located at 701 Riverside Avenue in Lyndhurst, New Jersey, into the Lower Passaic River. Hazardous substances, pollutants and contaminants released from the facility into the river present a risk to the environment and the humans who may ingest contaminated fish and shellfish. Therefore, Three County may be potentially liable for response costs which the government may incur relating to the study of the Lower Passaic River. In addition, responsible parties may be required to pay damages for injury to, destruction of, or loss of natural resources, including the cost of assessing such damages.

Enclosed is a list of the other PRPs who have received Notice letters. This list represents EPA's findings on the identities of PRPs to date. We are continuing efforts to locate additional PRPs who have released hazardous substances, directly or indirectly, into the Passaic River. Inclusion on, or exclusion from, the list does not constitute a final determination by EPA concerning the liability of any party for the release or threat of release of hazardous substances at the Site. Be advised that notice of your potential liability at the Site is being forwarded to all parties on this list.

We request that you consider becoming a "cooperating party" for the Lower Passaic River

Project. As a cooperating party, you, along with many other such parties, will be expected to fund EPA's share of the study costs. Upon completion of the study, it is expected that CERCLA and WRDA processes will be used to identify the required remediation and restoration programs, as well as the assignment of remediation and restoration costs. At this time, the commitments of the cooperating parties will apply only to the study. For those who choose not to cooperate, EPA may apply the CERCLA enforcement process, pursuant to Sections 106 (a) and 107(a) of CERCLA, 42 U.S.C. §9606(a) and §9607(a) and other laws.

Pursuant to CERCLA Section 113(k), EPA must establish an administrative record that contains documents that form the basis of EPA's decision on the selection of a response action for a site. The administrative record files, which contain the documents related to the response action selected for this Site are located at EPA's Region 2 office (290 Broadway, New York) on the 18th floor. You may call the Records Center at (212) 637-4308 to make an appointment to view the administrative record for the Lower Passaic River Project.

EPA will be holding a meeting with all PRPs on October 29, 2003 at 10:00 AM in Conference Room 27A at the Region 2 office. At that meeting, EPA will provide information about the actions taken to date in the Lower Passaic River, as well as plans for future activities. After the presentation, PRPs will be given the opportunity to caucus, and EPA will return to answer any questions that might be generated during the private session. Please be advised that due to increased security measures, all visitors need to be registered with the security desk in the lobby in order to gain entry to the office. In order to ensure a smooth arrival, you will need to provide EPA with a list of attendees no later than October 15, 2003.

EPA recommends that the cooperating parties select a steering committee to represent the group's interest as soon as possible, since EPA expects a funding commitment for the financing of the CERCLA share of the $20 million study by mid-November 2003. If you wish to discuss this further, please contact Ms. Alice Yeh, Remedial Project Manager, at (212) 637-4427 or Ms. Kedari Reddy, Assistant Regional Counsel, at (212) 637-3106. Please note that all communications from attorneys should be directed to Ms. Reddy.

Sincerely yours,

George Pavlou, Director
Emergency and Remedial Response Division

Enclosure

cc: Robert DiLascio, Esq.

851950003

PRPs in Receipt of Notice Letters:

PRP	Legal Counsel
J. Roger Hirl President and Chairman of the Board Occidental Chemical Co. Occidental Tower 5005 LBJ Freeway Dallas, Texas 75244	Paul W. Herring, Esq. Andrews & Kurth L.L.P. 1717 Main Street, Suite 3700 Dallas, Texas 75201
Joseph Gabriel Vice President of Operations 360 North Pastoria Environmental Corp. 1100 Ridgeway Avenue Rochester, New York 14652-6280	Philip Sellinger, Esq. Sills Cummis Zuckerman One Riverfront Plaza Newark, NJ 07102
Robert Ball, President Alcan Aluminum Corporation 100 Erieview Plaza, 29th Floor Cleveland, Ohio 44114	Lawrence Salibra, Esq. Alcan Aluminum Corporation 6060 Parkland Blvd. Mayfield Hts., OH 44124
Mark Epstein, President Alden Leeds Inc. 55 Jacobus Ave. Kearny, New Jersey 07032	Eric Aronson, Esq. Whitman Breed Abbott & Morgan One Gateway Center Newark, NJ 07102
Alan Bendelius, President Alliance Chemical, Inc. Linden Avenue Ridgefield, New Jersey 07657	Fredi L. Pearlmutter, Esq. Cooper, Rose & English, LLP 480 Morris Avenue Summit, New Jersey 07901-1527
William Gentner, President The Andrew Jergens Co. 2535 Spring Grove Ave. Cincinnati, Ohio 45214	A. Christian Worrell III, Esq. Head & Ritchey, LLP 1900 Fifth Third Center 511 Walnut Street Cincinnati, OH 45202
Gary Cappeline, President Ashland Specialty Chemical Co. 5200 Blazer Parkway Dublin, Ohio 43017	Stephen Leermakers, Esq. Ashland Specialty Chemical Co. 5200 Blazer Parkway Dublin, OH 43017
Klaus Peter Loebbe, President BASF Corporation 3000 Continental Drive North Mount Olive, New Jersey 07828	Nan Bernardo, Esq. and Nancy Lake Martin, Esq. BASF Corporation 3000 Continental Drive North Mount Olive, NJ 07828

Joseph Akers, Vice President Bayer Corporation 100 Bayer Road Pittsburgh, Pennsylvania 15205-9741	Gerard Hickel, Esq. Bayer Corporation 100 Bayer Road Pittsburgh, PA 15205-9741
Yvan Dupay, President Benjamin Moore & Co. 51 Chestnut Ridge Road Montvale, New Jersey 07645	Arthur Schulz, Esq. Environmental Counsel 4910 Massachusetts Ave., N.W. Suite 221 Washington, DC 20016
Alberto Celleri, President Chemical Compounds Inc. 10 Baldwin Court Roseland, New Jersey 07086	Jim Giannotti Chemical Compounds Inc. 29-75 Riverside Avenue Newark, NJ 07104
President Chris-Craft Industries, Inc. 767 Fifth Avenue, 46th Floor New York, New York 10153	Brian Kelly, Esq. Chris-Craft Industries, Inc. 767 Fifth Avenue, 46th Floor New York, NY 10153
John Guffey, President Coltec Industries, Inc. 3 Coliseum Centre 2550 West Tyvola Road Charlotte, North Carolina 28217	John R. Mayo, Esq. Coltec Industries, Inc. 430 Park Avenue New York, NY 10022
Roger Marcus, President Congoleum Corporation 3705 Quakerbridge Road Mercerville, New Jersey 08619	Russell Hewit, Esq. Dughi & Hewit 340 North Avenue Cranford, NJ 07016
Martin Benante, Chairman Curtiss-Wright Corp. 4 Becker Farm Road Roseland, New Jersey 07068	James Maher, Esq. Curtiss-Wright Corp. 4 Becker Farm Road Roseland, NJ 07068
Antonio Perez, President Eastman Kodak Company 343 State Street Rochester, New York 14650	Elliot Stern, Esq. Eastman Kodak Company 343 State Street Rochester, NY 14650
Edgar Woolard, Chairman E.I. du Pont de Nemours & Co. 1007 Market Street Wilmington, Delaware 19898	Bernard J. Reilly, Esq. Corporate Counsel E.I. du Pont de Nemours & Co. 1007 Market Street Wilmington, DE 19898

851950005

David Weisman, CEO Elan Chemical Company 268 Doremus Ave. Newark, New Jersey 07105	Jeffrey Schwartz, Esq. Sarber Schlesinger Satz & Goldstein One Gateway Center Newark, NJ 07102
Al Reisch, President E M Sergeant Pulp & Chemical Co. Inc. 6 Chelsea Road Clifton, New Jersey 07102	None
Mark Tucker, Esq. Essex Chemical Corp. 2030 WMDC Midland, Michigan 48674	Kenneth Mack, Esq. Fox, Rothschild, O'Brien & Frankel Princeton Pike Corp.Center 997 Lenox Drive, Building 3 Lawrenceville, NJ 08648
Todd Walker, President Fairmount Chemical Co. Inc. 117 Blanchard St. Newark, New Jersey 07105	John Ix, Esq. Porzio Bromberg & Newman 163 Madison Ave. Morristown, NJ 07962
Bradley Buechler, President Franklin-Burlington Plastics Inc. 113 Passaic Ave. Kearny, New Jersey 07032	Robert M. Becker, Esq. Kraemer, Burns, Mytelka & Lovell, P.A. 675 Morris Ave. Springfield, NJ 07081
Henry Benz, President Hoescht Celanese Chemicals, Inc. Route 202-206 P.O.Box 2500 Somerville, New Jersey 08876	Anne Conley-Pitchell, Esq. Hoescht Celanese Corp. Route 202-206 P.O.Box 2500 Somerville, NJ 08876
Francine Rothschild, President Kearny Smelting & Refining 936 Harrison Ave #5 Kearny, New Jersey 07032	None
Henry Schact, CEO Lucent Technologies, Inc. 600 Mountain Avenue Murray Hill, New Jersey 07974	Ralph McMurry, Esq. Hill, Betts & Nash LLP 1 Riverfront Plaza, Suite 327 Newark, NJ 07102-5401
Richard Meelia, President Mallinckrodt, Inc. 675 McDonnell Blvd. Hazelwood, Missouri 63042	Patricia Duft, Esq. Mallinckrodt, Inc. 675 McDonnell Blvd. Hazelwood, MO 63042

851950006

Richard Mahoney, CEO Monsanto Company 800 N. Lindbergh Blvd. St. Louis, Missouri 63167	L. William Higley, Esq. Monsanto Company 800 N. Lindbergh Blvd. St. Louis, MO 63167
Joseph Galli, President Newell Rubbermaid, Inc. 29 E. Stephenson St. Freeport, Illinois 61032	Peter Schultz, Director Environmental Affairs Newell Co. 4000 Auburn St. Rockford, IL 61101
Jean-Pierre van Rooy, President Otis Elevator Company North American Operations 10 Farm Springs Road Farmington, Connecticut 06032	Sarah Hurley, Esq. Robinson & Cole LLP 695 East Main Street Stamford, CT 06904-2305
Richard Ablon, President Ogden Corporation Two Pennsylvania Plaza, 25th Floor New York, New York 10121	J.L. Effinger, Esq. Ogden Corporation Two Pennsylvania Plaza, 25th Floor New York, NY 10121
Henry McKinnell, Chairman Pfizer Inc. 235 E. 42nd St. New York, New York 10017	Michael McThomas, Esq. Pfizer Inc. 235 E. 42nd St. New York, NY 10017
Raymond LeBoeuf, President PPG Industries, Inc. One PPG Place Pittsburgh, Pennsylvania 15272	Joseph Karas, Esq. PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272
Lawrence Codey, President PSE&G Co. P.O. Box 570 Newark, New Jersey 07101-0570	Hugh Mahoney, Esq. PSE&G Co. P.O. Box 570 Newark, NJ 07101
Phillip D. Ashkettle, President Reichhold Chemicals, Inc. P.O. Box 13582 Research Triangle Park, North Carolina 27709	Adam S. Walters, Esq. Phillips, Lytle, Hitchcock, Blaine & Huber 3400 Marine Midland Center Buffalo, NY 14203
Robert McNeeley, President Reilly Industries, Inc. 1510 Market Square Center 151 North Delaware Street Indianapolis, Indiana 46204	Paul Rivers, Director Corporate Environmental Affairs Reilly Industries, Inc. 1500 S. Tibbs Avenue Indianapolis, IN 46242

851950007

Robert Finn, President RSR Corporation 2777 Stemmons Freeway, Suite 1800 Dallas, Texas 75207	Howard Myers, Esq. RSR Corporation 2777 Stemmons Freeway, Suite 1800 Dallas, TX 75207
Christopher Connor, CEO The Sherwin-Williams Company 101 Prospect Avenue, N.W. Cleveland, Ohio 44115-1075	Donald McConnell, Esq. The Sherwin-Williams Co. 101 Prospect Ave., N.W. Cleveland, OH 44115
George Barrett, President Teva Pharmaceuticals USA Inc. 1090 Horsham Road North Wales, Pennsylvania 19454	Kirsten E. Bauer, Esq. Teva North America 1090 Horsham Road North Wales, PA 19454
Robert Senior, President Three County Volkswagen 701 Riverside Ave. Lyndhurst, New Jersey 07071	Robert DiLascio, Esq. 30 Park Avenue, Suite 101 Lyndhurst, NJ 07071
Michael Jordan, President Westinghouse Electric Corp. 11 Stanwix Street Pittsburgh, Pennsylvania 15222	Roger Willis, Esq. Westinghouse Electric Corp. 11 Stanwix Street Pittsburgh, PA 15222
Isaac Weinberger, President Wiggins Plastics Inc. 547 Maitland Ave. Teaneck, New Jersey 07666	None

851950008

TOWNLEY
LABORATORIES, INC.
ENVIRONMENTAL TESTING SERVICES
SINCE 1960

ANALYTICAL DATA REPORT PACKAGE
FOR
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS SITE MITIGATION ADMINISTRATION

CN-029
TRENTON, NJ 08625

CASE NAME	FIELD SAMPLE #	LAB SAMPLE #	SAMPLE LOCATION	DATE & TIME OF COLLECTION
NJ Lubrication	1-A	6928	701 River Corp.	
	1-B	6928	701 River Corp.	
	1-C	6930	701 River Corp.	
	2-A	6931	701 River Corp.	
	2-B	6932	701 River Corp.	
	2-C	6933	701 River Corp.	
	3-A	6934	701 River Corp.	
	3-B	6935	701 River Corp.	
	3-C	6936	701 River Corp.	
	F.Blank	6937	701 River Corp.	

BAA000008

SUPERVISOR/MANAGER SIGNATURE: Sharon Ercoliani

NAME: Sharon Ercoliani

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

TOWNLEY
LABORATORIES, INC.

NARRATIVE

The samples represented by this package were not originally requested by NJ Lubrication to be performed as a TIER II submittal. Therefore this package is incomplete in some areas. Every effort has been made to meet the TIER II Requirements.

0001A

TOWNLEY LABORATORIES, INC.
ENVIRONMENTAL TESTING SERVICES
SINCE 1980
1750 W. Front Street, Plainfield, N.J. 07063 • (908) 757-1137 • Fax (908) 757-0335

6928 6937

CHAIN OF CUSTODY

Company Name						No. of containers	TESTS							
N.J. LUBRICATION EQUIP CO.														
Proj. No.	Project Name													
	TCI RIVER CORP													
Samplers: (Signature)														
Ted Lynch														
Sta. No.	Date	Time	Comp.	Grab	Station Location									Remarks

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by (Signature)
Ted Lynch	6-13 94 8:30	B. Brigham			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

0001

TOWNLEY
LABORATORIES, INC

LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. Attachment 2 of the Draft ECRA Sampling Plan Guide (ESPG) provides further details to be followed. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

		Check if Complete
I.	Cover Page, Format, and Labbratory Certification (Include Cross Refrence table of Field ID # and Laboratory ID #)	X
II.	Chain of Custody	X
III.	Summary Sheets listing analytical results Including QA Data Information (see Attached Form and ESPG Attachment 2.B.2.C.)	X
IV.	Laboratory Chronicle and Methodology Summary Including Holding Time Check	X
V.	Initial Calibration and Continuing Calibration	X
VI.	Tune Summary (MS)	X
VII.	Blanks (Method, Field, Trip)	X
VIII.	Surrogate Recovery Summary	X
IX.	Chromatographs Labelled/Compound Identification	X
X.	Minimum Detection Limits (Lower than Action Level if Clean Zone Sample - and consistent with method guidelines)	X
XI.	Non-Conformance Summary	X

Sharon Procaccini
Laboratory Manager or Environmental Consultant's Signature

8/9/93
Date

0002

TOWNLEY
LABORATORIES, INC.

LABORATORY CHRONICLE

	DATE
RECEIPT/REFRIGERATION	6/13/92
ORGANICS EXTRACTION	
1. Acids	
2. Base/Neutrals	6/22/92
3. Pesticides/PCB's	6/17/92
4. Dioxin	
ANALYSIS	
1. Volatiles	See Attached
2. Acids	
3. Base/Neutrals	6/24/92
4. Pesticides/PCB's	6/17/92
5. Dioxin	
INORGANICS	
1. Metals	6/19-23/92
2. Cyanide	
3. Phenol	
4. Petroluem Hydrocarbons	6/17/92

Section Supervisor Review & Approval — Thomas Schwab

Section Supervisor Review & Approval — Paula Sorce

Section Supervisor Review & Approval — Ivette Ocasio

Operations Manager Review & Approval — Sharon Ercoliani

0003

TOWNLEY LABORATORIES, INC.

METHODOLOGY SUMMARY

(Include only fractions analysed)

Volatile Organics		See Attached
Acid Extractables		
Base/Neutral Extractables		SW846 Method 8270
PCB's		SW846 Method 8080
Metals	Arsenic	SW846 Method 7060
	Barium	SW846 Method 7080
	Cadmium	SW846 Method 7130
	Chromium	SW846 Method 7190
	Lead	SW846 Method 7420
	Mercury	SW846 Method 7471
	Selenium	SW846 Method 7741
	Silver	SW846 Method 7760
Total Cyanide		
Total Phenol		
Other	Petroluem Hydrocarbons	USEPA Method 418.1 with ECRA Modif.

0004

TOWNLEY
LABORATORIES, INC.
ENVIRONMENTAL TESTING SERVICES
SINCE 1960

June 29, 1992

Mr. Ted Tompkins
N.J. Lubrication Equipment Co.
228 Lawrence Ave.
North Plainfield, NJ 07060

Re: 701 River Corp.

Gentlemen:

Herewith our findings for the analysis of 9 samples of soil & 1 sample of water, received here 6/13:

Results in ppm	Sample No:	6928	6929	6930
	Source:	1-A	1-B	1-C
Petroleum Hydrocarbons,		<1.0 nd	451	34

	Sample No:	6931	6932	6933
	Source:	2-A	2-B	2-C
Petroleum Hydrocarbons		113	<1.0 nd	144

	Sample No:	6934	6935	6936
	Source:	3-A	3-B	3-C
Petroleum Hydrocarbons		<1.0 nd	<1.0 nd	<1.0 nd

	Sample No:	6937
	Source:	Field Blank *
Petroleum Hydrocarbons		<0.05 nd

Note: nd = none detected
*Water Sample

0005

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

TOWNLEY
LABORATORIES, INC

N.J. Lubrication Equipment Co.
June 29, 1992

Results in ppm	Sample No: 6929	6933
	Source: 1-B	2-C
Arsenic	5.19	2.96
Barium	50	35
Cadmium	0.50	<0.5 nd
Chromium	13.5	12
Lead	12.5	21
Mercury	<0.02 nd	0.096
Selenium	<0.03 nd	<0.03 nd
Silver	<0.5 nd	<0.5 nd
Base/Neutrals by GC/MS & Library Search	/---See Attached---\	
Volatile Organics by GC/MS & Library Search	/---See Attached---\	
PCB's	<0.083 nd	0.090, PCB 1260

Note: nd = none detected

Very truly yours,

Sharon Ercoliani

Sharon Ercoliani
Lab Manager

QC Check:
SE/df

0006

TOWNLEY
LABORATORIES INC

SEMIVOLATILE ORGANICS DATA SHEET BASE/NEUTRALS SW846 METHOD 8270

Sample No: 6929
Source: 1-B

Matrix: Soil

Level: Low
Spl Size: 30 g
Date Smpl: 6/12
Units: ug/kg

Extraction: Sonicator
% Solids: N/A
Date Extr: 6/22

pH: N/A
Dil. Factor: 33.3
Date Anal: 6/26

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acenaphthene	82.6	U	1,4-Dichlorobenzene	40.6	U
Acenaphtylene	34.6	U	3,3'-Dichlorobenzidine	5.3	U
Aniline	37.0	U	Diethyl phthalate	449.6	U
Anthracene	43.0	U	Dimethyl phthalate	632.7	U
Azobenzene	33.3	U	2,4-Dinitrotoluene	10.3	U
Benzidine	61.6	U	2,6-Dinitrotoluene	44.0	U
Benzo(a)anthracene	20.0	U	Di-n-octyl phthalate	81.6	U
Benzo(b)fluoranthene	28.3	U	Fluoranthene	17.6	U
Benzo(k)fluoranthene	39.6	U	Fluorene	35.6	U
Benzoic Acid	11.7	U	Hexachlorobenzene	21.0	U
Benzo(a)pyrene	29.3	U	Hexachlorobutadiene	31.3	U
Benzo(ghi)perylene	18.6	U	Hexachlorocyclopentadiene	12.7	U
Benzyl Alcohol	45.3	U	Hexachloroethane	36.6	U
Bis(2-chloroethyl)ether	27.3	U	Indeno(1,2,3-cd)pyrene	5.3	U
Bis(2-chloroethoxy)methane	31.3	U	Isophorone	34.6	U
Bis(2-chloroisopropyl)ether	27.3	U	2-Methylnaphthalene	37.6	U
Bis(2-ethylhexyl)phthalate	28.3	366.7B	Napthalene	35.6	U
4-Bromophenylphenylether	15.7	U	2-Nitroaniline	29.3	U
Butylbenzylphthalate	33.3	U	3-Nitroaniline	20.6	U
2-Chloronaphthalene	25.0	U	4-Nitroaniline	3.7	U
4-Chlorophenylphenylether	28.3	U	Nitrobenzene	23.0	U
Chrysene	21.0	U	N-nitrosodimethylamine	6.3	U
Dibenzo(a,h)anthracene	8.3	U	N-nitrosodiphenylamine	29.3	U
Dibenzofuran	37.6	U	N-nitrosodi-n-propylamine	29.3	U
Di-n-butylphthalate	75.3	80.3	Phenanthrene	26.0	U
1,2-Dichlorobenzene	24.0	U	Pyrene	32.3	U
1,3-Dichlorobenzene	29.3	U	1,2,4-Trichlorobenzene	29.3	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

0007

TOWNLEY
LABORATORIES INC

Sample No: 6929

SEMIVOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

RET TIME	AREA	AMT(ug/L)	QUALITY	LIBRARY	LIB ENTRY
Hydroperoxide, 1,1-dimethyleth			CAS #: 75-91-2		
5.99	4862975000	14157.75	43	NBS49K.1	847
Cyclododecanecarbonitrile			CAS #: 69300-13-6		
25.27	509336200	368.28	25	NBS49K.1	17174
Cyclobutaneethanol, 1-methyl-2			CAS #: 26532-22-9		
26.13	630061600	455.57	30	NBS49K.1	9214
2,8-Bornanediol, stereoisomer			CAS #: 13429-50-0		
26.45	475642600	343.92	38	NBS49K.1	12731
Hexanedioic acid, dioctyl este			CAS #: 123-79-5		
26.61	614008100	443.96	70	NBS49K.1	40566
UNKNOWN			CAS #:		
26.92	495922600	358.58	0		0
Methane, dibromofluoro-			CAS #: 1868-53-7		
27.12	812644400	587.59	9	NBS49K.1	16491
2H-Quinolizin-1-ol, octahydro-			CAS #: 10447-20-8		
27.32	453507700	327.91	27	NBS49K.1	9426
1-Hexanol, 2-ethyl-2-propyl-			CAS #: 54461-00-6		
28.38	719303100	520.10	43	NBS49K.1	13165
Cyclohexene, 4-chloro-			CAS #: 930-65-4		
28.72	479005800	346.35	35	NBS49K.1	2836
Ethanol, 2-(tetradecyloxy)-			CAS #: 2136-70-1		
28.99	901219300	651.63	38	NBS49K.1	28390
2H-Pyrido[2,1-b][1,3]oxazinium			CAS #: 70611-31-3		
29.64	527612400	381.49	10	NBS49K.1	27560
3a,6-Epoxy-3aH-isoindole, 1,2,			CAS #: 71840-22-7		
30.27	529698500	383.00	10	NBS49K.1	28203
Dodecanamide			CAS #: 1120-16-7		
30.68	592929200	2531.37	49	NBS49K.1	18467
1-Naphthalenepropanol, .alpha.			CAS #: 72401-52-6		
31.36	493374500	2106.35	22	NBS49K.1	34834

0008

TOWNLEY
LABORATORIES INC

SEMIVOLATILE ORGANICS DATA SHEET BASE/NEUTRALS SW846 METHOD 8270

Sample No: 6933 Matrix: Soil
Source: 2-C

Level:	Low	Extraction:	Sonicator	pH:	N/A
Spl Size:	30 g	% Solids:	N/A	Dil. Factor:	33.3
Date Smpl:	6/12	Date Extr:	6/22	Date Anal:	6/26
Units:	ug/kg				

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acenaphthene	82.6	U	1,4-Dichlorobenzene	40.6	U
Acenaphtylene	34.6	U	3,3'-Dichlorobenzidine	5.3	U
Aniline	37.0	U	Diethyl phthalate	449.6	U
Anthracene	43.0	U	Dimethyl phthalate	632.7	U
Azobenzene	33.3	U	2,4-Dinitrotoluene	10.3	U
Benzidine	61.6	U	2,6-Dinitrotoluene	44.0	U
Benzo(a)anthracene	20.0	U	Di-n-octyl phthalate	81.6	U
Benzo(b)fluoranthene	28.3	U	Fluoranthene	17.6	U
Benzo(k)fluoranthene	39.6	U	Fluorene	35.6	U
Benzoic Acid	11.7	U	Hexachlorobenzene	21.0	U
Benzo(a)pyrene	29.3	U	Hexachlorobutadiene	31.3	U
Benzo(ghi)perylene	18.6	U	Hexachlorocyclopentadiene	12.7	U
Benzyl Alcohol	45.3	U	Hexachloroethane	36.6	U
Bis(2-chloroethyl)ether	27.3	U	Indeno(1,2,3-cd)pyrene	5.3	U
Bis(2-chloroethoxy)methane	31.3	U	Isophorone	34.6	U
Bis(2-chloroisopropyl)ether	27.3	U	2-Methylnaphthalene	37.6	U
Bis(2-ethylhexyl)phthalate	28.3	682B	Napthalene	35.6	U
4-Bromophenylphenylether	15.7	U	2-Nitroaniline	29.3	U
Butylbenzylphthalate	33.3	U	3-Nitroaniline	20.6	U
2-Chloronaphthalene	25.0	U	4-Nitroaniline	3.7	U
4-Chlorophenylphenylether	28.3	U	Nitrobenzene	23.0	U
Chrysene	21.0	U	N-nitrosodimethylamine	6.3	U
Dibenzo(a,h)anthracene	8.3	U	N-nitrosodiphenylamine	29.3	U
Dibenzofuran	37.6	U	N-nitrosodi-n-propylamine	29.3	U
Di-n-butylphthalate	75.3	89.7	Phenanthrene	26.0	U
1,2-Dichlorobenzene	24.0	U	Pyrene	32.3	U
1,3-Dichlorobenzene	29.3	U	1,2,4-Trichlorobenzene	29.3	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

0009

TOWNLEY
LABORATORIES INC

Sample No: 6933

SEMIVOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

RET TIME	AREA	AMT(ug/L)	QUALITY	LIBRARY	LIB ENTRY
3-Hydroxy-2-pentanone			CAS #: 3142-66-3		
5.98	5361893000	23044.35	37	NBS49K.1	1515
Iron, tricarbonyl[N-(phenyl-2-			CAS #: 74764-11-7		
23.86	324632400	661.10	83	NBS49K.1	42337
BICYCLO(3.3.1)NON-2-ENE			CAS #: 6671-66-5		
27.12	368825800	389.64	53	NBS49K.1	3480
Heptadecane, 9-octyl-			CAS #: 7225-64-1		
28.36	499744600	527.94	94	NBS49K.1	39131
Phenol, 4-[2-[2-(chloromethyl)			CAS #: 55255-66-8		
28.56	545379000	576.15	36	NBS49K.1	31816
1H-Indene, 5-butyl-6-hexylocta			CAS #: 55044-36-5		
29.20	312839800	330.49	47	NBS49K.1	29255
Eicosane			CAS #: 112-95-8		
29.45	538651200	569.04	87	NBS49K.1	31654
17-Octadecen-14-ynoic acid, me			CAS #: 18202-19-2		
29.61	384146200	405.82	46	NBS49K.1	32945
Butane, 2-iodo-2-methyl-			CAS #: 594-38-7		
29.83	496561600	524.58	47	NBS49K.1	18079
ISOBUTYL PENTYL DISULPHIDE			CAS #: 75023-14-2		
30.24	451147900	476.60	15	NBS49K.1	16897
Cholest-4-ene-3,6-dione			CAS #: 984-84-9		
30.53	381739200	4240.67	6	NBS49K.1	42390
Docosane			CAS #: 629-97-0		
30.73	507878200	5641.93	91	NBS49K.1	35051
21-Isorefractine			CAS #: 7013-66-3		
31.16	389525300	4327.17	12	NBS49K.1	42244
1H-Pyrrole, 1-butyl-			CAS #: 589-33-3		
31.35	335468500	3726.66	38	NBS49K.1	3550
[2,6'-Bi-2H-1-benzopyran]-4(3H			CAS #: 62498-98-0		
31.98	496704800	5517.80	33	NBS49K.1	41423

0010

TOWNLEY
LABORATORIES, INC

WET CHEMISTRY QA/QC SUMMARY

0011

TOWNLEY
LABORATORIES INC

PHC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

		No	Yes
1.	Blank Contamination - If yes, list the sample and the corresponding conc. in each blank	X	
2.	Matrix Spike/Matrix Dupe Recoveries meet criteria If not met, list the sample and the corresponding recovery which falls outside the acceptable range		X
3.	IR Spectra submitted for all standards, blanks and samples	X	
4.	Chromatograms submitted for all standards, blanks and samples if GC fingerprinting was conducted	X	
5.	Extraction Holding Time Met If not met, list # of days exceeded for each sample		X
6.	Analysis Holding Time Met If not met, list # of days exceeded for each sample		X

Additional Comments: _____

Laboratory Manager Sharon Croliani Date 8/9/93

0012

TOWNLEY
LABORATORIES INC

WET CHEMISTRY QA/QC SUMMARY

Petroleum Hydrocarbons

Method Detection Limit: 1.0 ppm

Method Blank (DI Water): <1.0 ppm nd

Duplicate and Spike: Sample 6928 was analyzed in duplicate yielding duplicate results of <1.0 ppm nd. Sample 6928 was spiked with 10 ppm Petroleum Hydrocarbons. Recovery was 85%.

0013

TOWNLEY
LABORATORIES, INC.

METALS QA/QC SUMMARY

TOWNLEY
LABORATORIES, INC

METALS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

		No	Yes
1.	Calibration Summary Meet Criteria	___	X
2.	Serial Dilution Summary Submitted (if applicable)/Meet Criteria	X	___
3.	Laboratory Control Sample Summary Submitted (if applicable)/Meet Criteria	___	X
4.	Blank Contamination - If yes list compounds and concentration in each blank:	X	___
5.	Matrix Spike/Matrix Dupe Recoveries - Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range	___	X
6.	Extraction Holding Time Met If not met, list # of days exceeded for each sample	___	X
7.	Analysis Holding Time Met If not met, list # of days exceeded for each sample	___	X

Additional Comments: _____

Laboratory Manager Sharon Criollai Date 8/9/93

001

TOWNLEY
LABORATORIES, INC

METALS QA/QC SUMMARY

Arsenic

Method Detection Limit: 0.250 ppm

Method Blank (DI Water): <0.250 ppm nd

Duplicate and Spike: Sample 1340 was analyzed in duplicate yielding results of 18 ppm and 18.5 ppm. Sample 1340 was spiked with 25 ppm Arsenic. Recovery was 86%.

Barium

Method Detection Limit: 5.0 ppm

Method Blank (DI Water): <5.0 ppm nd

Duplicate and Spike: Sample 7837 was analyzed in duplicate yielding results of 6.0 ppm and 6.0 ppm. Sample 7837 was spiked with 10 ppm Barium. Recovery was 118%.

Cadmium

Method Detection Limit: 0.5 ppm

Method Blank (DI Water): <0.5 ppm nd

Duplicate and Spike: Sample 3958 was analyzed in duplicate yielding results of 0.5 ppm and 0.5 ppm. Sample 3958 was spiked with 100 ppm Cadmium. Recovery was 92%.

Chromium

Method Detection Limit: 0.50 ppm

Method Blank (DI Water): <0.50 ppm nd

Duplicate and Spike: Sample 1245 was analyzed in duplicate yielding duplicate results of 6.0 ppm. Sample 1245 was spiked with 100 ppm Chromium. Recovery was 90%.

0016

Lead

Method Detection Limit: 5.0 ppm

Method Blank (DI Water): <5.0 ppm nd

Duplicate and Spike: Sample 3958 was analyzed in duplicate yielding results of 50.0 ppm and 50.5 ppm. Sample 3958 was spiked with 250 ppm Lead. Recovery was 81%.

Mercury

Method Detection Limit: 0.020 ppm

Method Blank (DI Water): <0.020 ppm nd

Duplicate and Spike: Sample 1340 was analyzed in duplicate yielding results of 0.079 ppm and 0.072 ppm. Sample 1340 was spiked with 2.0 ppm Mercury. Recovery was 85%.

Selenium

Method Detection Limit: 0.030 ppm

Method Blank (DI Water): <0.030 ppm nd

Duplicate and Spike: Sample 8961 was analyzed in duplicate yielding duplicate results of 0.014 ppm. Sample 8961 was spiked with 0.300 ppm Selenium. Recovery was 116%.

Silver

Method Detection Limit: 0.50 ppm

Method Blank (DI Water): <0.50 ppm nd

Duplicate and Spike: Sample 8961 was analyzed in duplicate yielding results of 18.0 ppm and 18.5 ppm. Sample 1340 was spiked with 25 ppm Silver. Recovery was 86%.

TOWNLEY
LABORATORIES, INC.

GC QA/QC SUMMARY

TOWNLEY
LABORATORIES INC

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)	___	X
2. Standards Summary Submitted	___	X
3. Calibration - Initial Calibration performed. Continuing calibration performed within 24 hours prior to sample analysis	___	X
4. Blank Contamination - If yes list compounds and concentration in each blank:		
a. VOA Fraction_____		
b. B/N Fraction_____		
c. Acid Fraction_____		
d. Pest/PCBs_____		
e. Other_____	X	___
5. Surrogate Recoveries - Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range (if applicable)		
a. VOA Fraction_____		
b. B/N Fraction_____		
c. Acid Fraction_____		
d. Pest/PCBs_____		
e. Other_____	___	X
6. Matrix Spike/Matrix Dupe Recoveries - Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range (if applicable)		
a. VOA Fraction_____		
b. B/N Fraction_____		
c. Acid Fraction_____		
d. Pest/PCBs_____		
e. Other_____	___	X
7. Retention Time Shift - Meet Criteria (if applicable)	___	X
8. Extraction Holding Time Met If not met, list # of days exceeded for each sample _____	___	X
9. Analysis Holding Time Met If not met, list # of days exceeded for each sample _____	___	X

Additional Comments: _____

Laboratory Manager Sharon Ercolani Date 8/9/93

0019

TOWNLEY
LABORATORIES, INC

PCBs QA/QC SUMMARY

Method Detection Limit: 0.01 ppm

Method Blank: < 0.01 ppm ND

Matrix Spike/Matrix Spike Duplicate: Sample 6371 was spiked with 0.37 ppm PCB 1254. Recoveries were 104% and 106% with an RPD of 6.8.

Surrogate Recovery:

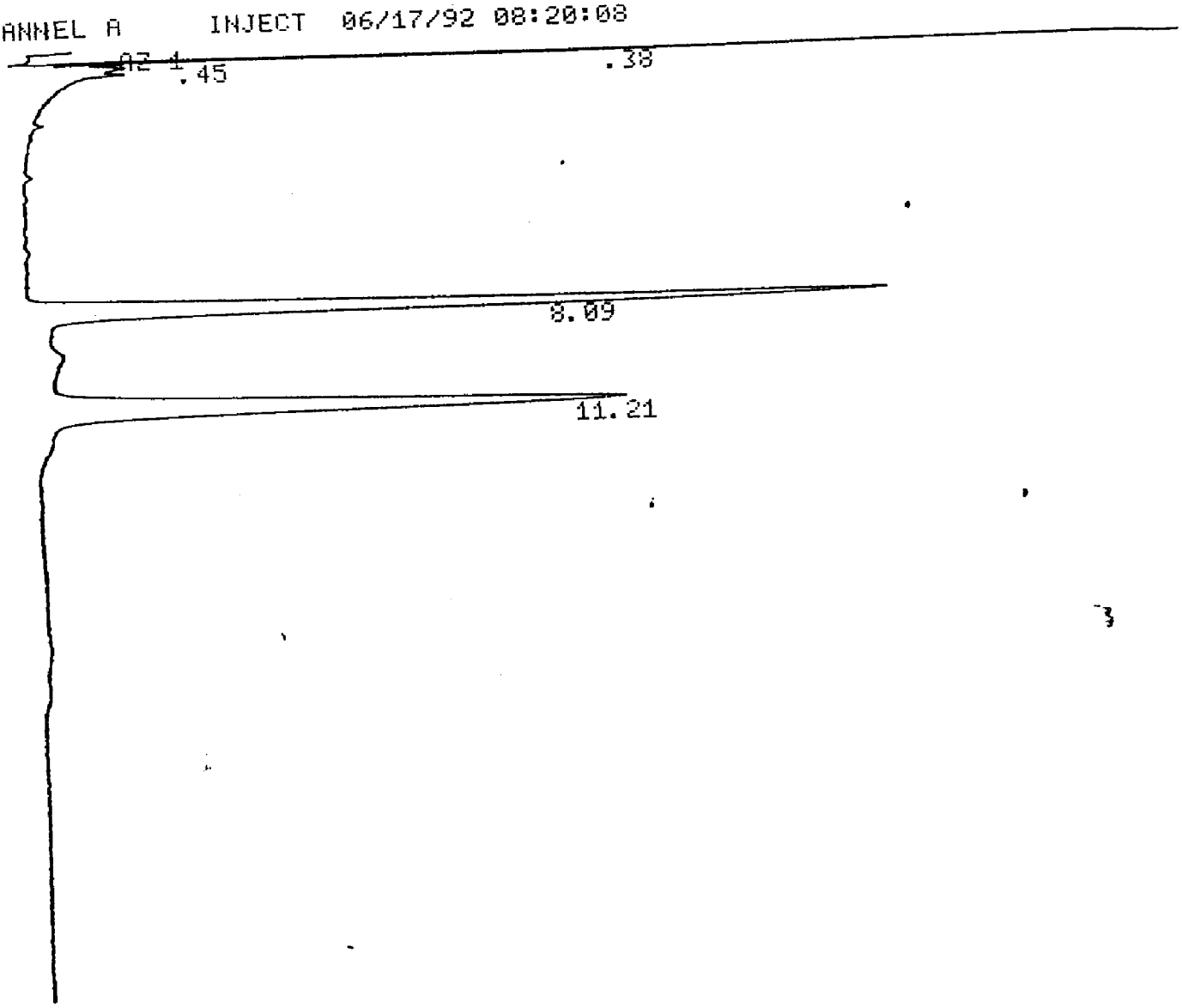
Sample No.	NCBP % Rec.	DBC % Rec.
6929	88	41
6933	91	38
6371S	88	53
36.67 76	89	56

Note: D = Diluted Out

0026

Endrin 9 051

CHANNEL A INJECT 06/17/92 08:20:08



DETECTOR A 06/17/92 08:20:08 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 85 INDEX 85

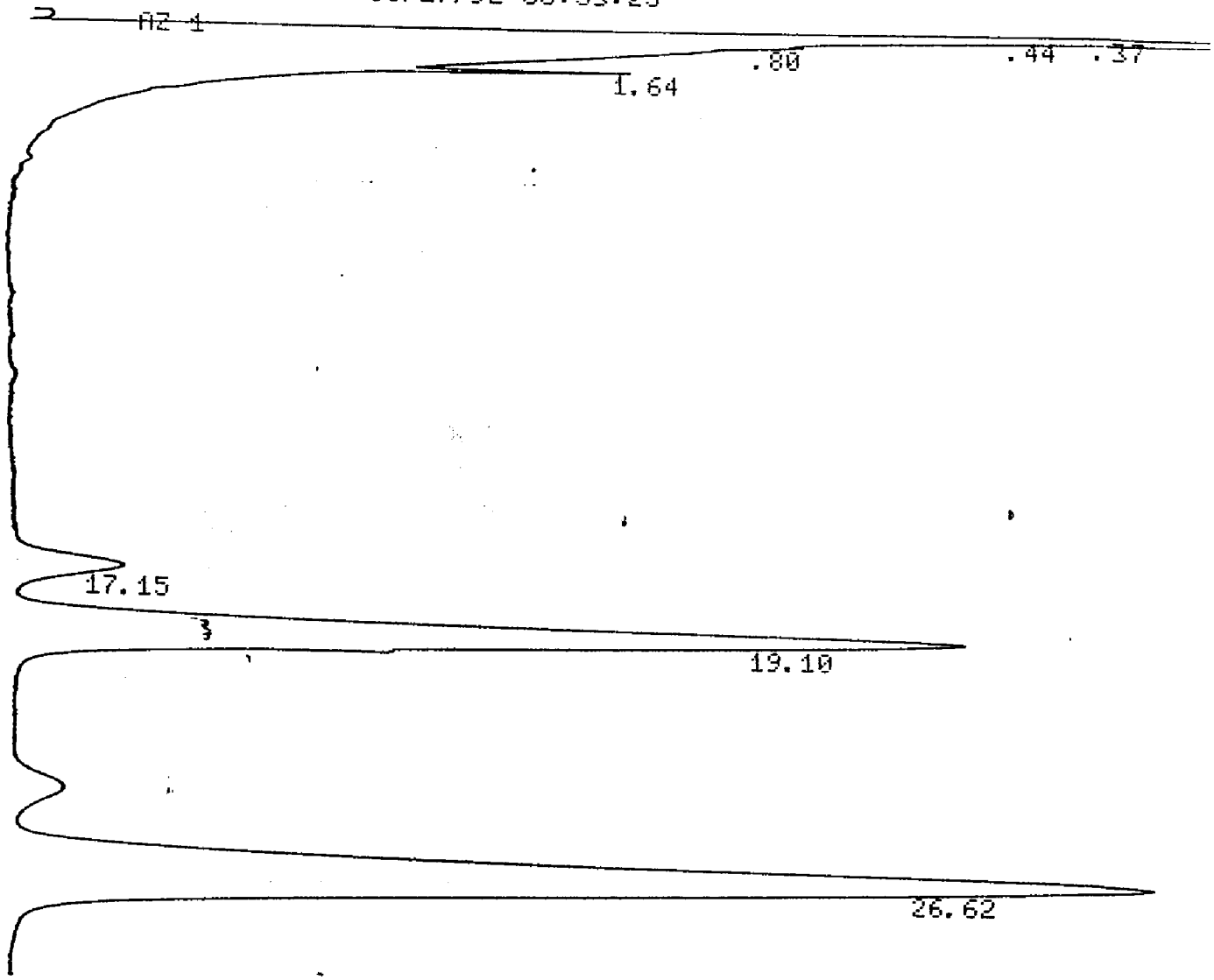
ANALYST: REKHA/ONGERA

PEAK#	HT%	RT	PK HT	BC
1	87.987	0.38	148899	02
2	0.263	0.45	445	03
3	7.032	8.09	11899	01
4	4.718	11.21	7984	01

0021

TOTAL 100. 169227 DOC 6 NC

CHANNEL A INJECT 06/17/92 08:53:25



DETECTOR A 06/17/92 08:53:25 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 86 INDEX 86

ANALYST: REKHA/ONGERA

PEAK#	HT%	RT	PK HT BC
1	73.455	0.37	227381 02
2	11.937	0.44	36952 02
3	2.985	0.8	9240 02
4	1.856	1.64	5744 03
5	0.467	17.15	1445 02
6	4.229	19.1	13092 03
7	5.071	26.62	15697 01

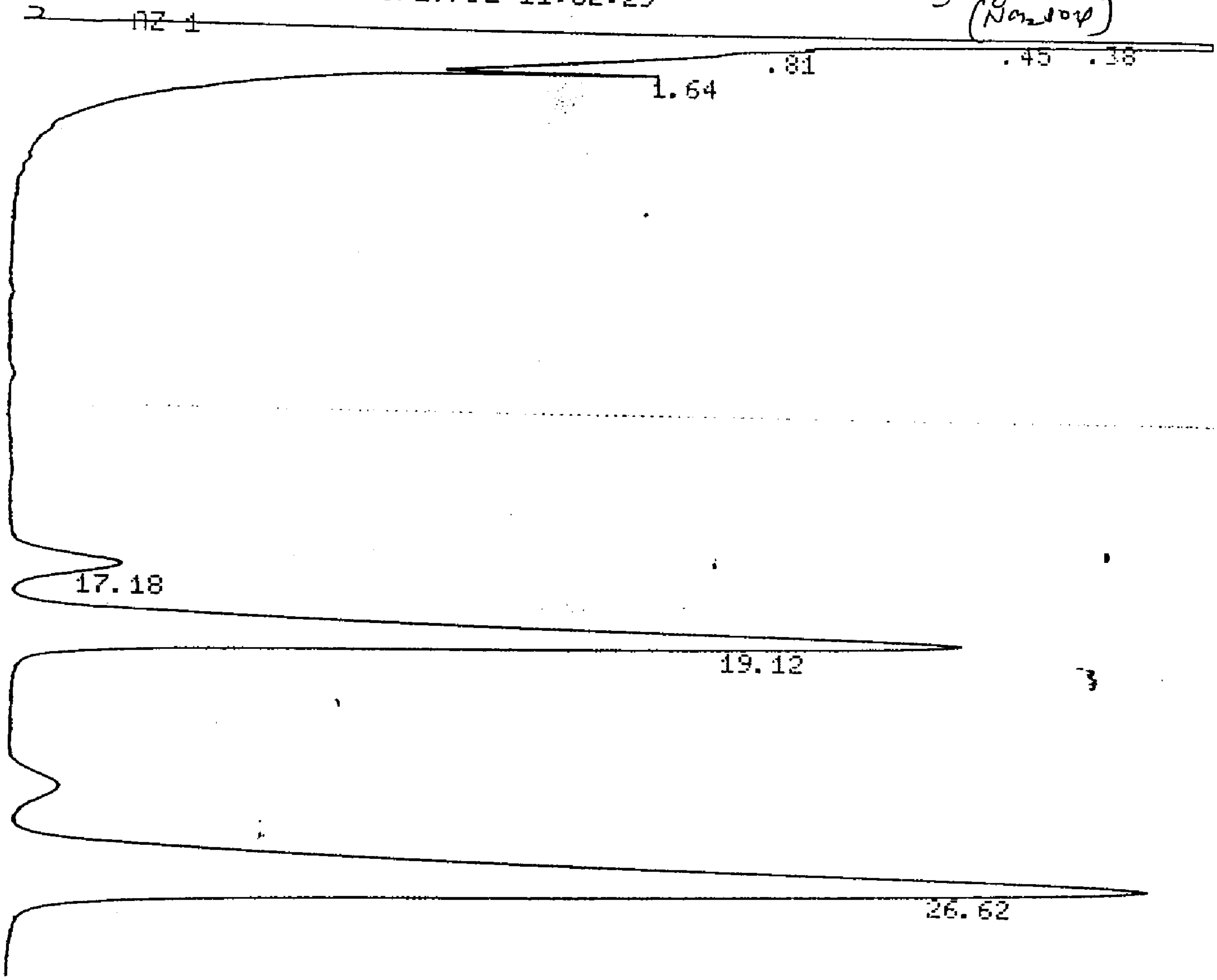
0022

6	4.229	19.1	[illegible] 03
7	5.071	26.62	[illegible] 01

TOTAL 100. 309551

Method blank + ~~ABC & HCBP~~ 30g [illegible] 10ml (Na...)

CHANNEL A INJECT 06/17/92 11:02:29



057

TECTOR A 06/17/92 11:02:29 CH= "A" PS= 1.

LE 1. METHOD 0. RUN 87 INDEX 87

ALYST: REKHA/ONGERA

AK#	HT%	RT	PK HT	BC
1	74.007	0.38	229115	02
2	11.285	0.45	34936	02
3	3.003	0.81	9296	02
4	1.978	1.64	6123	03
5	0.47	17.18	1454	02
6	4.214	19.12	13045	03
7	5.045	26.62	15619	01

0023

DETECTOR A 06/17/92 08:20:08 CH= "A" PS= 1.

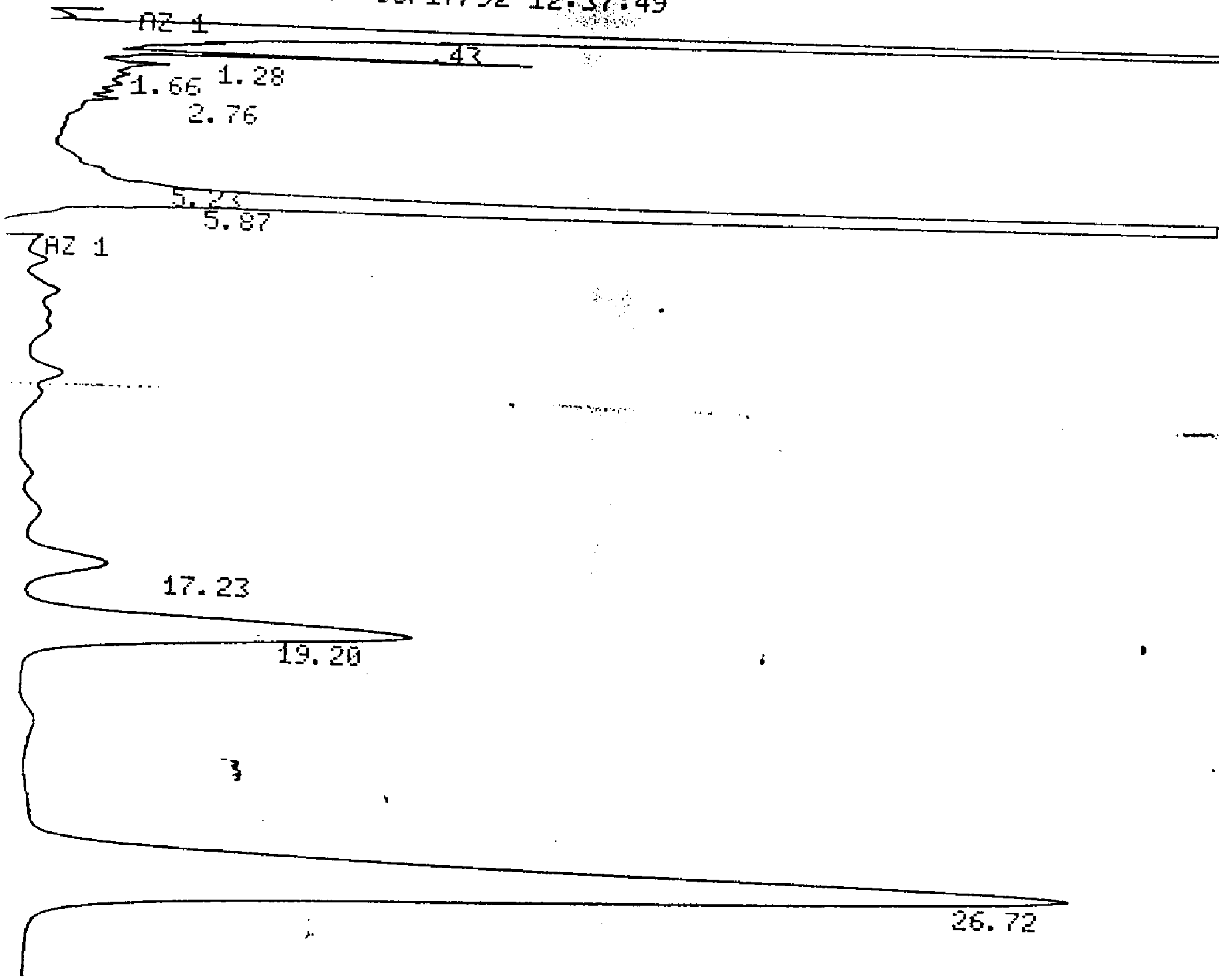
FILE 1. METHOD 0. RUN 85 INDEX 85

OTAL 100.

24906

6929

HANNEL A INJECT 06/17/92 12:37:49



090

ECTOR A 06/17/92 12:37:49 CH= "A" PS= 1.

E 1. METHOD 0. RUN 90 INDEX 90

LYST: REKHA/ONGERA

PCB 1260 ND

K#	HT%	RT	PK HT	BC
1	46.249	0.43	130518	02
2	1.636	1.28	4617	02
3	0.265	1.66	748	03
4	0.149	2.76	420	01
5	0.23	5.23	649	02
6	44.173	5.87	124660	03
7	0.391	17.23	1104	01
8	1.876	19.2	5295	01
9	5.03	26.72	14196	01
AL	100.		282207	

$< 0.5 \times 0.5\,ppm \times \frac{10\,ml}{30g} \times \frac{10\,ml}{10\,ml} \times 1000\,\frac{ppb}{ppm}$

$= < 83.33$ ppb ND

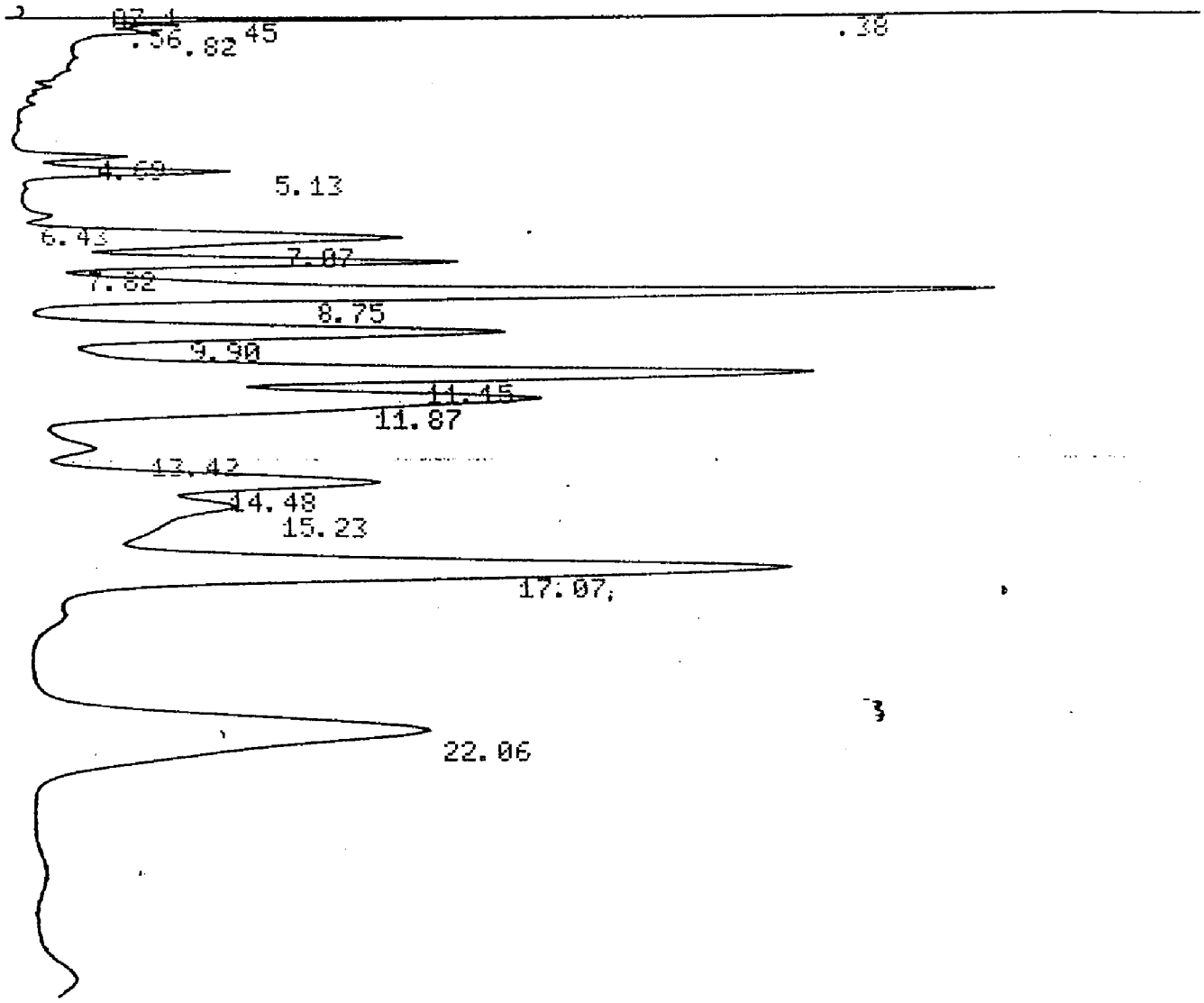
DBC destroyed by acid (41%)

$NCBP = \frac{14196 \times 100}{15619} = 91\%$

0024

TOTAL 100. 313586

CHANNEL A INJECT 06/17/92 12:05:09



DETECTOR A 06/17/92 12:05:09 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 89 INDEX 89

ANALYST: REKHA/ONGERA

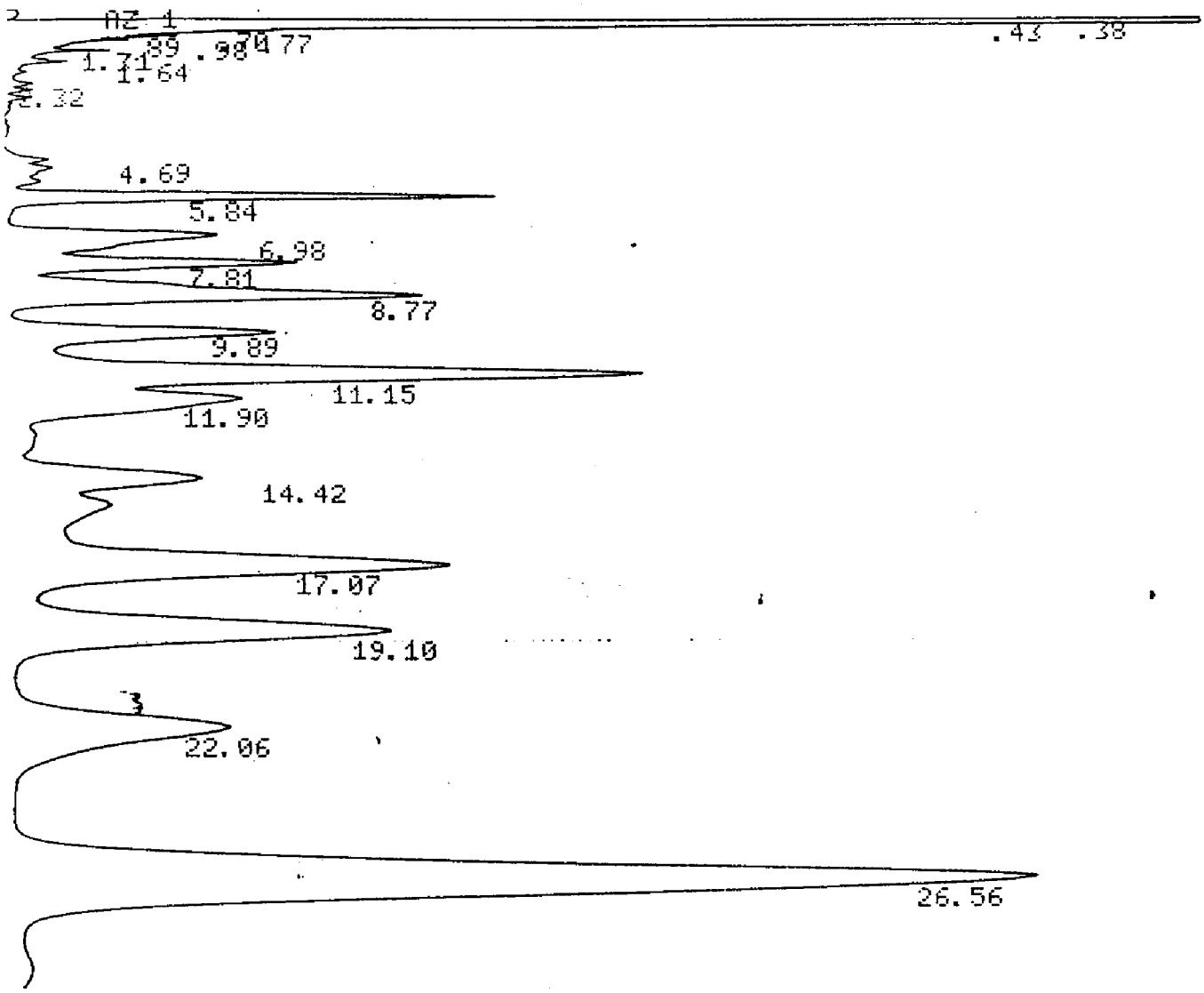
PEAK#	HT%	RT	PK HT	BC
1	67.913	0.38	169149	02
2	1.67	0.45	4160	03
3	0.374	0.56	931	02
4	0.332	0.82	827	03
5	0.555	4.69	1383	02
6	1.107	5.13	2756	03
7	0.139	6.43	347	02
8	2.016	7.07	5020	02
9	2.299	7.82	5727	02
10	5.169	8.75	12875	02
11	2.527	9.9	6294	02
12	4.181	11.15	10413	02

5.045 26.62 15619

AL 100. 309587

6933 H_2SO_4 | H_2O
30g 5g 10ml 5g 10ml

NNEL A INJECT 06/17/92 11:33:45



058

TECTOR A 06/17/92 11:33:45 CH= "A" PS= 1.

LE 1. METHOD 0. RUN 88 INDEX 88

ALYST: REKHA/ONGERA

PCB 1260

PK#	HT%	RT	PK HT	BC
1	36.222	0.38	113587	02
2	43.015	0.43	134888	08
3	0.138	0.7	432	05
4	0.004	0.77	13	05
5	0.258	0.89	808	06
6	0.157	0.98	493	07
7	0.268	1.31	840	01
8	0.134	1.64	420	01
9	0.092	2.32	288	01
10	0.154	4.69	483	02
11	2.091	5.84	6558	03
12	0.888	6.98	2784	02
13	1.270	7.81	3967	02

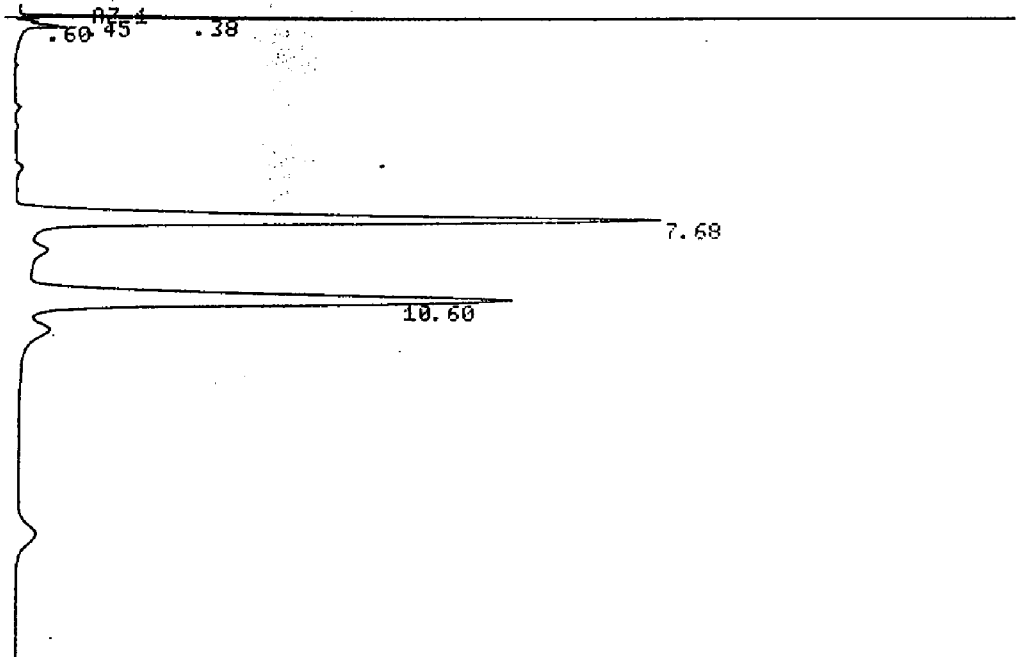
$\frac{24781}{46070} \times 0.5\text{ppm} \times \frac{10\text{ml}}{30\text{g}} \times \frac{10\text{ml}}{10\text{ml}} \times \frac{1000\text{ppb}}{\text{ppm}} =$

89.650ppb found

0026

Analysis not

CHANNEL A , INJECT 06/16/92 08:08:57 STORED TO BIN # 64



DATA SAVED TO BIN # 64

DETECTOR B 06/16/92 08:08:57 CH= "A" PS= 1.

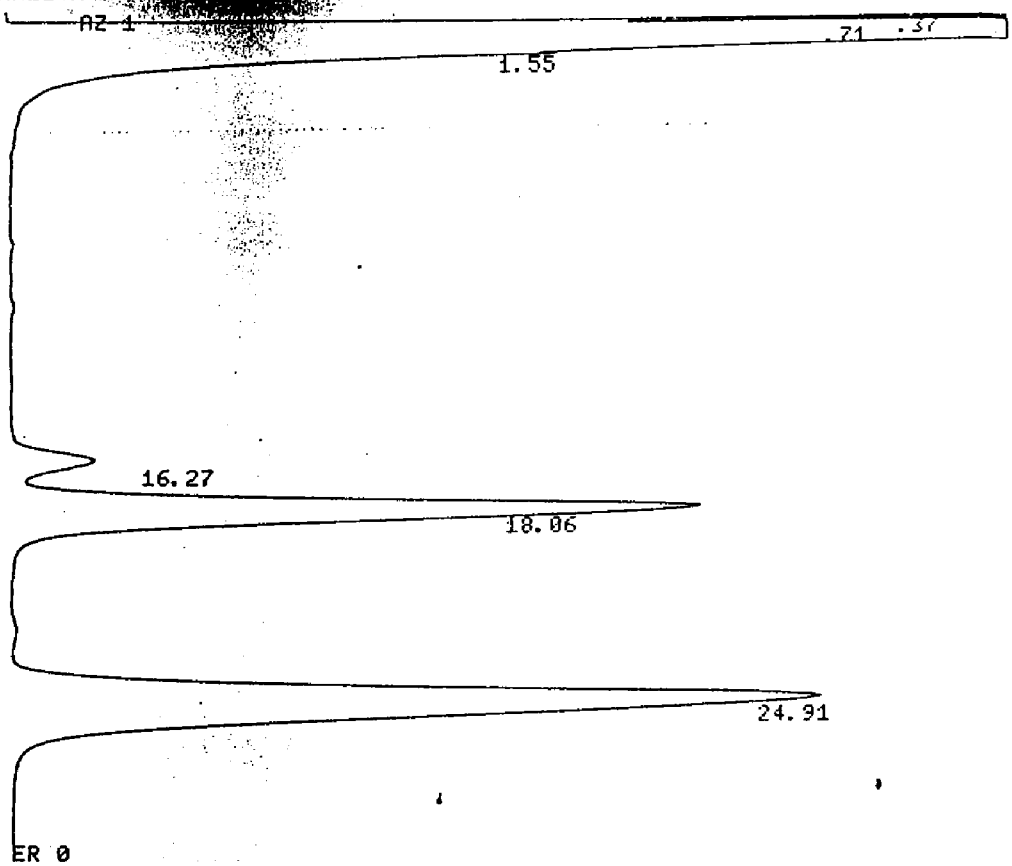
FILE 1. METHOD 0. RUN 64 INDEX 64 BIN 64

ANALYST: REKHA/ONGERA

PEAK#	HT%	RT	PK HT	BC
1	84.293	0.38	100528	02
2	0.402	0.45	480	03
3	0.254	0.6	303	01
4	8.573	7.68	10224	01
5	6.478	10.6	7725	01
TOTAL	100.		119260	

DBC & NCBP

CHANNEL A [illegible] 06/16/92 08:34:17 STORED TO BIN # 66



020

ER 0
DATA SAVED TO BIN # 66

DETECTOR B 06/16/92 08:34:17 CH= "A" PS= 1.

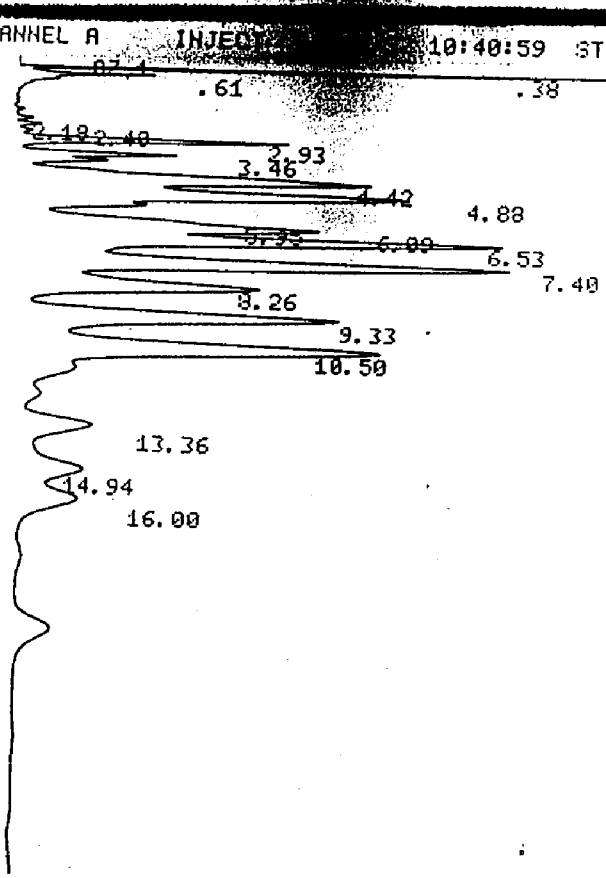
FILE 1. METHOD 0. RUN 65 INDEX 65 BIN 66

ANALYST: REKHA/ONGERA

PEAK#	HT%	RT	PK HT	BC
1	78.576	0.37	287603	02
2	12.408	0.71	45416	02
3	2.089	1.55	7645	03
4	0.348	16.27	1273	02
5	3.027	18.06	11079	03
6	3.552	24.91	13000	01
TOTAL	100.		366017	

WARNING - MEMORY AT 10. K - UNPROTECTED CHROMATOGRAMS WILL BE REPLACED

0028



DATA SAVED TO BIN # 68

DETECTOR B 06/16/92 10:40:59 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 67 INDEX 67 BIN 68

ANALYST: REKHA/ONGERA

PEAK#	HT%	RT	PK HT	BC
1	62.669	0.38	93891	01
2	1.121	0.61	1680	01
3	0.176	2.18	264	02
4	0.202	2.4	302	03
5	2.823	2.93	4229	01
6	1.607	3.46	2408	02
7	3.613	4.42	5413	02
8	3.934	4.88	5893	02
9	1.807	5.95	2707	02
10	2.629	6.09	3939	02
11	4.396	6.53	6587	03
12	4.486	7.4	6721	02
13	2.217	8.26	3321	03
14	3.165	9.33	4741	02
15	3.363	10.5	5039	03
16	0.671	13.36	1006	01
17	0.543	14.94	814	02
18	0.577	16.	865	03
TOTAL	100.		149820	

33882

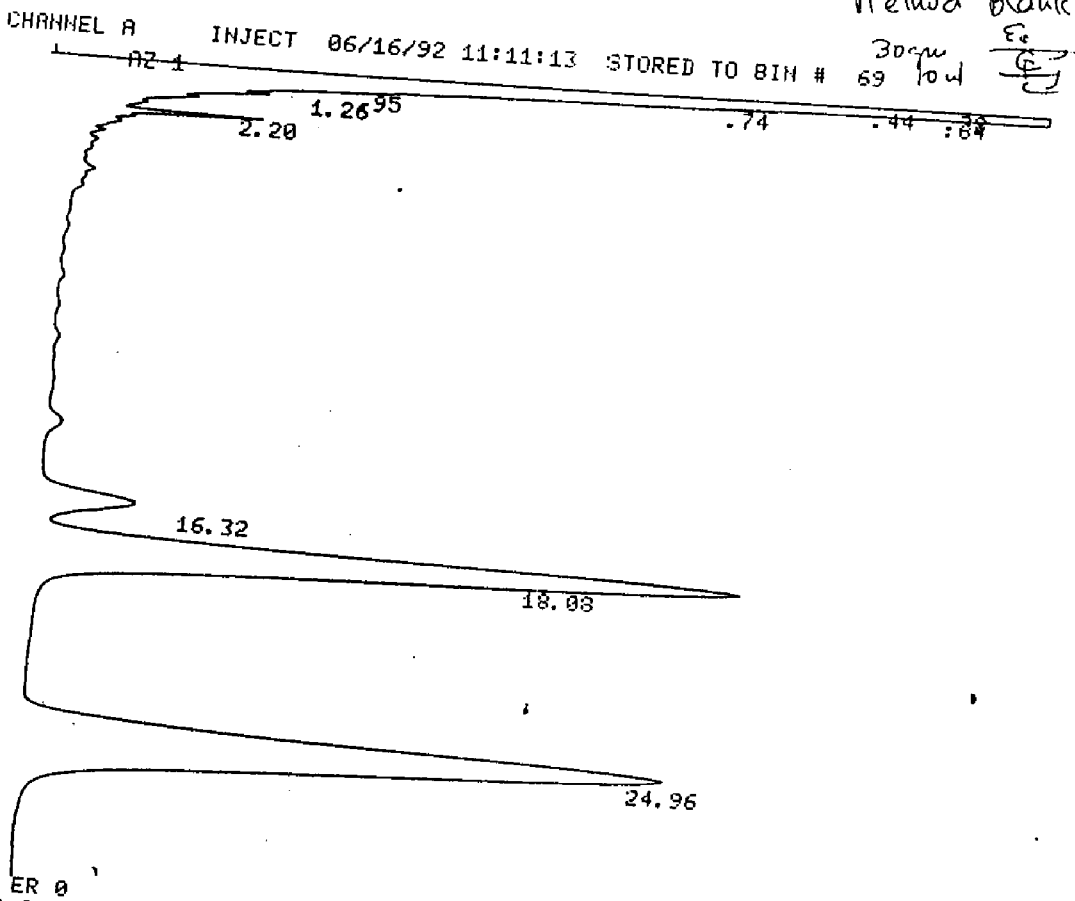
WARNING - MEMORY AT 7. K - UNPROTECTED CHROMATOGRAMS WILL BE REPLACED

TOTAL 100. 119260

0029

TIERRA-B-010673

Method Blank



ER 0
DATA SAVED TO BIN # 69

DETECTOR B

FILE 1. METHOD 0. 06/16/92 11:11:13 CH= "A" PS= 1.

ANALYST: REKHA/ONGERA RUN 68 INDEX 68 BIN 69

PEAK#	HT%	RT	PK HT BC
1	13.785	0.38	84581 02
2	80.713	0.44	495232 08
3	0.895	0.64	5493 05
4	0.371	0.74	2275 05
5	0.006	0.95	35 05
6	0.126	1.26	776 05
7	0.348	2.2	2133 01
8	0.243	16.32	1491 02
9	1.841	18.08	11294 03
10	1.673	24.96	10262 01
TOTAL	100.		613573

Pb 1254 ND

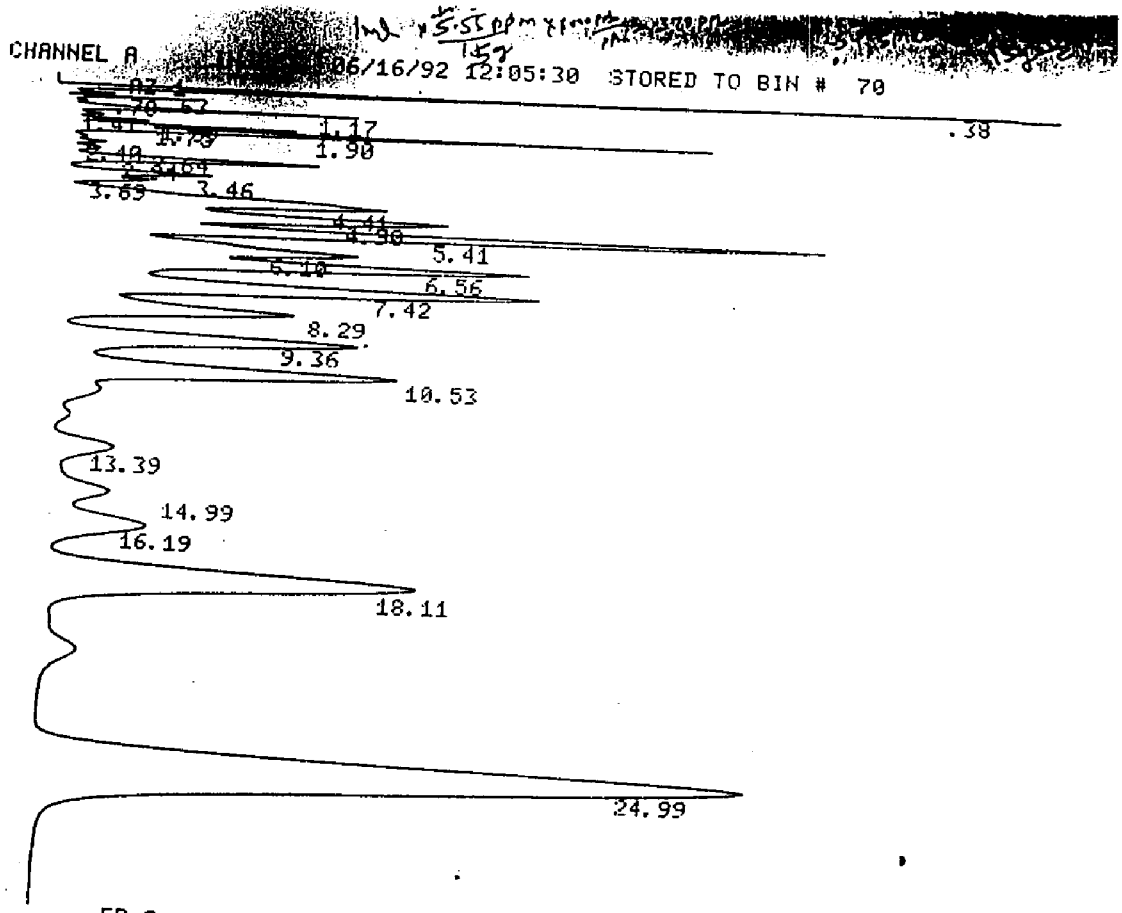
$< 0.1 \times 0.05 \text{ ppm} \times \frac{1000 \text{ ml}}{1 \text{ kg}} \times 1000 \frac{\text{ppb}}{\text{ppm}} = < 18.5 \text{ ppb}$ ND

$DBC = \frac{11294}{11077} \times 100 = 102\%$

$NCBP = \frac{10262}{13060} \times 100 = 78.6\%$

024

0030



ER 0
DATA SAVED TO BIN # 70

DETECTOR B

06/16/92 12:05:30 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 69 INDEX 69 BIN 70

ANALYST: REKHA/ONGERA

PCB 1254 STD.

$\frac{35156}{33852} \times 0.5 \text{ ppm} \times \frac{10\text{ml}}{1\text{g}} \times \frac{1000\text{ppb}}{\text{ppm}} = 383.91$ ppb

Added = 370 ppb

% Rec = $\frac{383.91}{370} \times 100 = 104\%$

PEAK#	HT%	RT	PK HT BC
1	52.631	0.38	119645 01
2	0.292	0.63	664 02
3	0.896	0.78	2037 03
4	1.972	1.17	4483 01
5	0.147	1.41	333 02
6	0.507	1.59	1153 02
7	1.548	1.75	3519 02
8	4.525	1.9	10287 03
9	0.187	2.4	424 01
10	0.16	2.64	365 02
11	1.738	2.94	3950 02
12	1.02	3.46	2319 02
13	0.567	3.69	1289 02
14	2.229	4.41	5068 02
15	2.695	4.9	6127 02
16	5.407	5.41	12292 02
17	2.053	6.1	4666 02
18	3.288	6.56	7475 02
19	3.352	7.42	7620 02
20	1.609	8.29	3659 02
21	2.009	9.36	4567 02
22	2.163	10.53	4916 03
23	0.401	13.39	911 01
24	0.345	14.99	783 02
25	0.659	16.19	1499 02
26	2.59	18.11	5888 03
27	5.01	24.99	11388 01
TOTAL	100.		227327

35156

DBC = $\frac{5888}{11070} \times 100 = 53\%$ (Due to 4,50 ϕ)

NCBI = $\frac{113.88}{130.00} \times 100 = 88\%$

1	78.576	0.71	7645 03
2	12.408	1.55	1273 02
3	2.089	16.27	11079 03
	0.348		

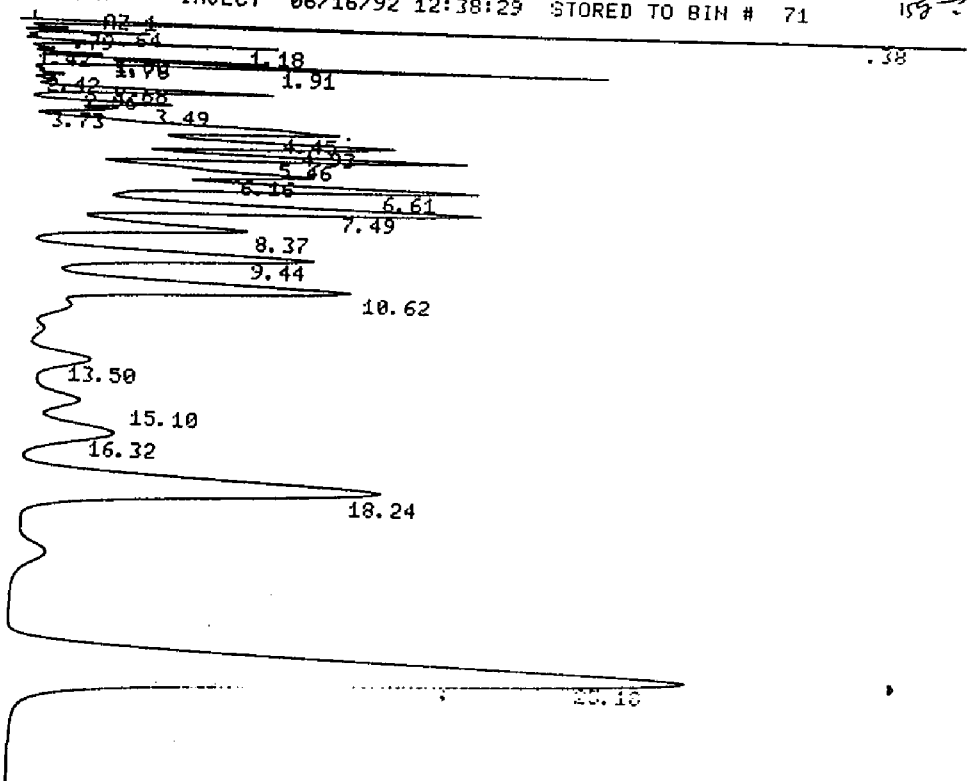
0031

TOTAL 100.

WARNING - MEMORY AT 6. K - UNPROTECTED CHROMATOGRAMS WILL BE REPLACED

1ml X 555/15g x 1000ppb/ppm = 3701ppb Surr Spike PCB 1254 6371 15g 5g 10ml

CHANNEL A INJECT 06/16/92 12:38:29 STORED TO BIN # 71



ER 0
DATA SAVED TO BIN # 71

026

DETECTOR B 06/16/92 12:38:29 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN 70 INDEX 70 BIN 71

ANALYST: REKHA/ONGERA

PCB 1254 Spike Surr

PEAK#	HT%	RT	PK HT BC	
1	53.866	0.38	121880 01	
2	0.284	0.64	643 02	
3	0.94	0.79	2128 03	
4	1.9.	1.18	4299 01	
5	0.134	1.42	303 02	
6	0.501	1.6	1135 02	
7	1.736	1.76	3928 02	
8	4.38	1.91	9911 03	
9	0.197	2.42	445 01	
10	0.152	2.68	343 02	
11	1.814	2.96	4105 02	—
12	1.058	3.49	2395 02	
13	0.601	3.73	1361 02	
14	2.319	4.45	5246 02	—
15	2.755	4.93	6233 02	—
16	3.288	5.46	7441 02	
17	2.127	6.16	4812 02	
18	3.387	6.61	7663 02	—
19	3.403	7.49	7700 02	—
20	1.612	8.37	3647 02	
21	2.05	9.44	4639 02	
22	2.186	10.62	4947 03	—
23	0.434	13.5	982 01	
24	0.337	15.1	762 02	
25	0.666	16.32	1506 02	
26	2.737	18.24	6193 03	
27	5.136	25.18	11621 01	
TOTAL	100.		226266	

35594 / 3388 x 0.555ppm x 1ml/15g x 1000ppb/ppm = 391.77ppb from Added = 370ppb

% Rec = 391.77/370 x100 = 106%

35594

Dec = 6193/11077 x100 = 56% (100 - 44%)

NCBP = 11621/13010 x100 = 89%

0032

WARNING - MEMORY AT 10. K - UNPROTECTED CHROMATOGRAMS WILL

TOWNLEY
LABORATORIES, INC

GC/MS QA/QC SUMMARY

0033

TOWNLEY
LABORATORIES INC

GC/MS CONFORMANCE/NON-CONFORMANCE SUMMARY

	No	Yes
1. GC/MS Tune Specifications		
a. BFB passes	___	N/A
b. DFTPP passes	___	X
2. GC/MS Tuning Frequency - Performed every 12 hours	___	X
3. GC/MS Calibration - Initial Calibration performed. Continuing calibration performed within 24 hours prior to sample analysis	___	X
4. GC/MS Calibration Requirements		
a. Calibration Check Compounds within specs	___	X
b. System Performance Check Compounds within specs	___	X
5. Blank Contamination		
a. VO Fraction N/A		
b. B/N Fraction NONE		
c. Acid Fraction N/A		
6. Surrogate Recoveries Meet Criteria	___	X
(List those which fall out of acceptable range		
a. VO Fraction		
b. B/N Fraction		
c. Acid Fraction		
7. Extraction Holding Time Met	___	X
8. Analysis Holding Time Met	___	X

Comments: _____

Comments: _____

Additional Comments: _____

Laboratory Manager Sharon Drolian Date 8/9/93

0034

TOWNLEY
LABORATORIES INC

SEMIVOLATILE ORGANICS DATA SHEET BASE/NEUTRALS USEPA METHOD 625

Sample No: 6929 Matrix:
Source: Method Blank

Level: Low Extraction: Sonication
Spl Size: 30 g % Solids: N/A Dil. Factor: 33
Date Smpl: 06/12/93 Date Extr: 06/22/93 Date Anal: 06/26/93
Units: ug/l

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acenaphthene	83	U	1,4-Dichlorobenzene	41	U
Acenaphtylene	35	U	3,3'-Dichlorobenzidine	5	U
Aniline	33	U	Diethyl phthalate	450	U
Anthracene	43	U	Dimethyl phthalate	633	U
Azobenzene	33	U	2,4-Dinitrotoluene	10	U
Benzidine	62	U	2,6-Dinitrotoluene	44	U
Benzo(a)anthracene	20	U	Di-n-octyl phthalate	82	U
Benzo(b)fluoranthene	28	U	Fluoranthene	18	U
Benzo(k)fluoranthene	40	U	Fluorene	36	U
Benzoic Acid	33	U	Hexachlorobenzene	21	U
Benzo(a)pyrene	29	U	Hexachlorobutadiene	31	U
Benzo(ghi)perylene	19	U	Hexachlorocyclopentadiene	13	U
Benzyl Alcohol	33	U	Hexachloroethane	37	U
Bis(2-chloroethyl)ether	27	U	Indeno(1,2,3-cd)pyrene	5	U
Bis(2-chloroethoxy)methane	31	U	Isophorone	35	U
Bis(2-chloroisopropyl)ether	27	U	2-Methylnaphthalene	33	U
Bis(2-ethylhexyl)phthalate	28	367	Napthalene	36	U
4-Bromophenylphenylether	16	U	2-Nitroaniline	33	U
Butylbenzylphthalate	33	U	3-Nitroaniline	33	U
2-Chloronaphthalene	25	U	3-Nitroaniline	33	U
4-Chlorophenylphenylether	28	U	Nitrobenzene	23	U
Chrysene	21	U	N-nitrosodimethylamine	6	U
Dibenzo(a,h)anthracene	8	U	N-nitrosodiphenylamine	29	U
Dibenzofuran	33	U	N-nitrosodi-n-propylamine	29	U
Di-n-butylphthalate	75	80	Phenanthrene	26	U
1,2-Dichlorobenzene	24	U	Pyrene	32	U
1,3-Dichlorobenzene	29	U	1,2,4-Trichlorobenzene	29	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

0035

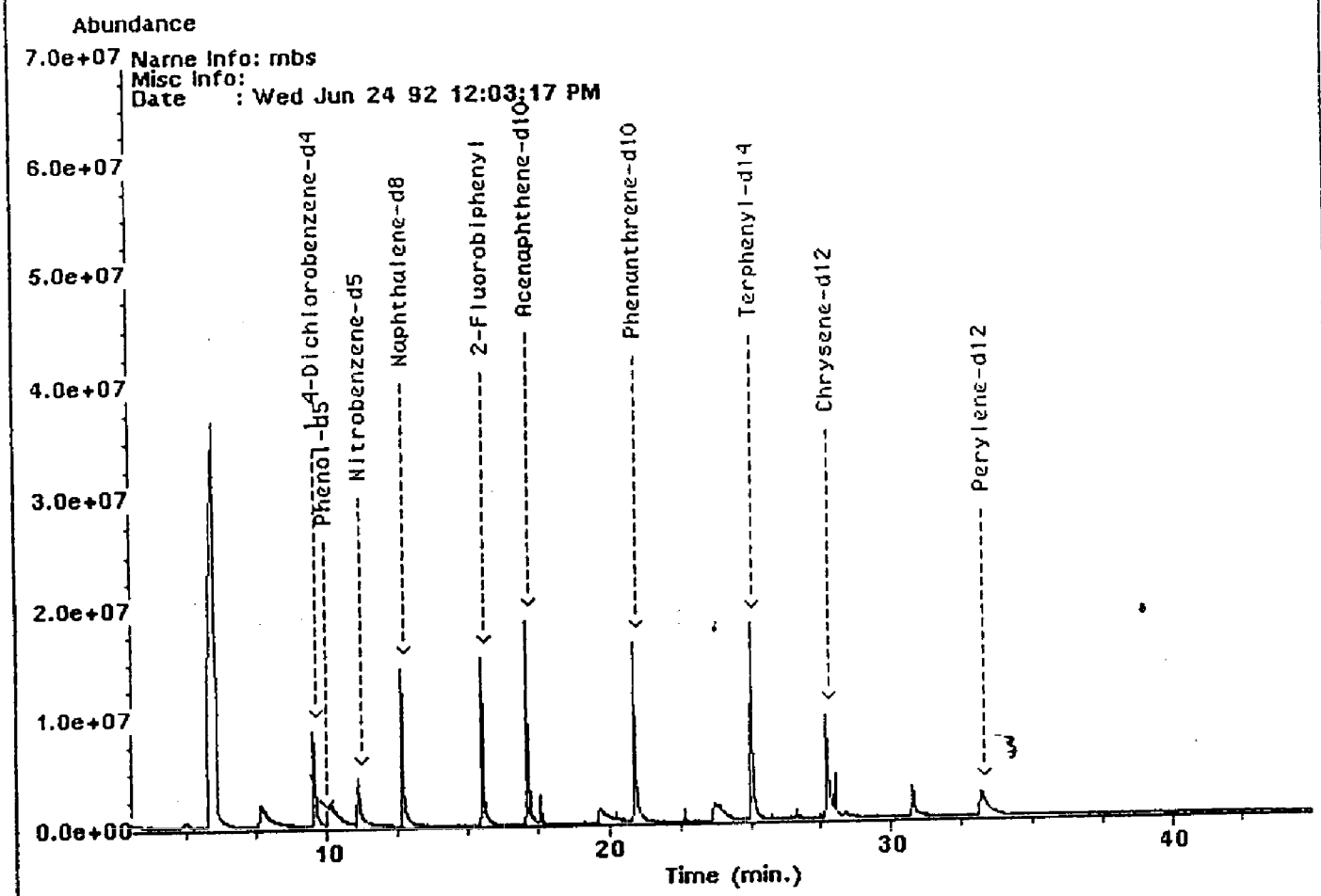
TOWNLEY
LABORATORIES, INC.

Sample No: Method
Blank-Soil-6/22

SEMIVOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

NONE FOUND

Total Ion Chromatogram



0037

TOWNLEY

ORGANIC EXTRACTION DATA SHEET

Sample No: MB

Date Sampled: 6/22 Date Extracted: 6/22/92

Type Sample: [ ] Aqueous - Clear [ ] Aqueous - Dirty

[ ] Sludge [✓] Soil [ ] Oil

[ ] TCLP Extract [ ] Other: _____

Analysis Requested: [ ] Acids [✓] B/N [✓] Library Search

Initial Extraction Volume/Wt: 30g (ml) mg

Final Volume of Extract: 1 (ml)

Type of Extraction: [ ] Sep Funnel [ ] Soxhlet [✓] Sonicator

Emulsion Formation/Description: _____

Surrogate	Amount ug/l	Spike	Amount	Spike Dup Amount
B/N	50	B/N	_____	_____
Acids	100	Acids	_____	_____

pH

Initial _____ B/N Extraction _____

Acid Extraction _____

Name: S. Romer Date: 6/22/92

0030

TOWNLEY

SEMIVOLATILE ORGANICS DATA SHEET BASE/NEUTRALS SW846 METHOD 8270

Sample No: 6929 Matrix: Soil
Source: 1-B

Level: Low Extraction: Sonicator pH: N/A
Spl Size: 30 g % Solids: N/A Dil. Factor: 33.3
Date Smpl: 6/12 Date Extr: 6/22 Date Anal: 6/26
Units: ug/kg

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acenaphthene	82.6	U	1,4-Dichlorobenzene	40.6	U
Acenaphtylene	34.6	U	3,3'-Dichlorobenzidine	5.3	U
Aniline	37.0	U	Diethyl phthalate	449.6	U
Anthracene	43.0	U	Dimethyl phthalate	632.7	U
Azobenzene	33.3	U	2,4-Dinitrotoluene	10.3	U
Benzidine	61.6	U	2,6-Dinitrotoluene	44.0	U
Benzo(a)anthracene	20.0	U	Di-n-octyl phthalate	81.6	U
Benzo(b)fluoranthene	28.3	U	Fluoranthene	17.6	U
Benzo(k)fluoranthene	39.6	U	Fluorene	35.6	U
Benzoic Acid	11.7	U	Hexachlorobenzene	21.0	U
Benzo(a)pyrene	29.3	U	Hexachlorobutadiene	31.3	U
Benzo(ghi)perylene	18.6	U	Hexachlorocyclopentadiene	12.7	U
Benzyl Alcohol	45.3	U	Hexachloroethane	36.6	U
Bis(2-chloroethyl)ether	27.3	U	Indeno(1,2,3-cd)pyrene	5.3	U
Bis(2-chloroethoxy)methane	31.3	U	Isophorone	34.6	U
Bis(2-chloroisopropyl)ether	27.3	U	2-Methylnaphthalene	37.6	U
Bis(2-ethylhexyl)phthalate	28.3	366.7B	Napthalene	35.6	U
4-Bromophenylphenylether	15.7	U	2-Nitroaniline	29.3	U
Butylbenzylphthalate	33.3	U	3-Nitroaniline	20.6	U
2-Chloronaphthalene	25.0	U	4-Nitroaniline	3.7	U
4-Chlorophenylphenylether	28.3	U	Nitrobenzene	23.0	U
Chrysene	21.0	U	N-nitrosodimethylamine	6.3	U
Dibenzo(a,h)anthracene	8.3	U	N-nitrosodiphenylamine	29.3	U
Dibenzofuran	37.6	U	N-nitrosodi-n-propylamine	29.3	U
Di-n-butylphthalate	75.3	80.3	Phenanthrene	26.0	U
1,2-Dichlorobenzene	24.0	U	Pyrene	32.3	U
1,3-Dichlorobenzene	29.3	U	1,2,4-Trichlorobenzene	29.3	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

0039

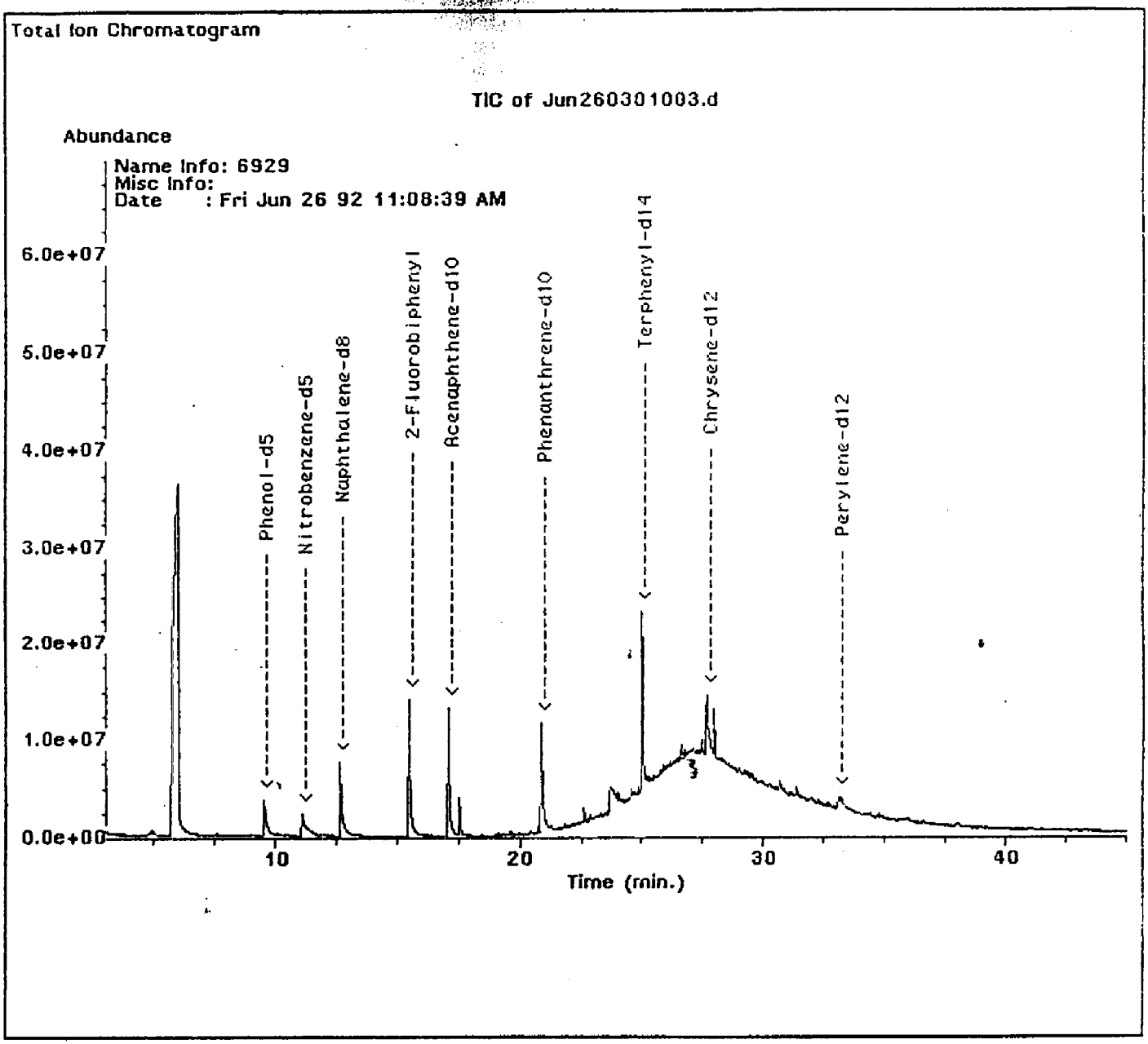
TOWNLEY LABORATORIES INC

Sample No: 6929

SEMIVOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

RET TIME	AREA	AMT(ug/L)	QUALITY	LIBRARY	LIB ENTRY
Hydroperoxide, 1,1-dimethyleth			CAS #: 75-91-2		
5.99	4862975000	14157.75	43	NBS49K.1	847
Cyclododecanecarbonitrile			CAS #: 69300-13-6		
25.27	509336200	368.28	25	NBS49K.1	17174
Cyclobutaneethanol, 1-methyl-2			CAS #: 26532-22-9		
26.13	630061600	455.57	30	NBS49K.1	9214
2,8-Bornanediol, stereoisomer			CAS #: 13429-50-0		
26.45	475642600	343.92	38	NBS49K.1	12731
Hexanedioic acid, dioctyl este			CAS #: 123-79-5		
26.61	614008100	443.96	70	NBS49K.1	40566
UNKNOWN			CAS #:		
26.92	495922600	358.58	0		0
Methane, dibromofluoro-			CAS #: 1868-53-7		
27.12	812644400	587.59	9	NBS49K.1	16491
2H-Quinolizin-1-ol, octahydro-			CAS #: 10447-20-8		
27.32	453507700	327.91	27	NBS49K.1	9426
1-Hexanol, 2-ethyl-2-propyl-			CAS #: 54461-00-6		
28.38	719303100	520.10	43	NBS49K.1	13165
Cyclohexene, 4-chloro-			CAS #: 930-65-4		
28.72	479005800	346.35	35	NBS49K.1	2836
Ethanol, 2-(tetradecyloxy)-			CAS #: 2136-70-1		
28.99	901219300	651.63	38	NBS49K.1	28390
2H-Pyrido[2,1-b][1,3]oxazinium			CAS #: 70611-31-3		
29.64	527612400	381.49	10	NBS49K.1	27560
3a,6-Epoxy-3aH-isoindole, 1,2,			CAS #: 71840-22-7		
30.27	529698500	383.00	10	NBS49K.1	28203
Dodecanamide			CAS #: 1120-16-7		
30.68	592929200	2531.37	49	NBS49K.1	18467
1-Naphthalenepropanol, .alpha.			CAS #: 72401-52-6		
31.36	493374500	2106.35	22	NBS49K.1	34834

004


Total Ion Chromatogram
TIC of Jun260301003.d
Abundance
Name Info: 6929
Misc Info:
Date : Fri Jun 26 92 11:08:39 AM
6.0e+07
5.0e+07
4.0e+07
3.0e+07
2.0e+07
1.0e+07
0.0e+00
Phenol-d5
Nitrobenzene-d5
Naphthalene-d8
2-Fluorobiphenyl
Acenaphthene-d10
Phenanthrene-d10
Terphenyl-d14
Chrysene-d12
Perylene-d12
10
20
30
40
Time (min.)

0041

TOWNLEY

ORGANIC EXTRACTION DATA SHEET

Sample No: 6929

Date Sampled: 6/15/92 Date Extracted: 6/22/92

Type Sample: [ ] Aqueous - Clear [ ] Aqueous - Dirty

[ ] Sludge [✓] Soil [ ] Oil

[ ] TCLP Extract [ ] Other: _____

Analysis Requested: [ ] Acids [✓] B/N [✓] Library Search

Initial Extraction Volume/Wt: 30g ~~ml~~ ~~mg~~

Final Volume of Extract: 1.0 (ml)

Type of Extraction: [ ] Sep Funnel [ ] Soxhlet [✓] Sonicator

Emulsion Formation/Description: _____

Surrogate	Amount (ug/l)	Spike	Amount	Spike Dup Amount
B/N	50	B/N	_____	_____
Acids	----	Acids	_____	_____

pH

Initial _____ B/N Extraction _____

Acid Extraction _____

Name: S. Romer Date: 6/22/92

0042

TOWNLEY
LABORATORIES INC

SEMIVOLATILE ORGANICS DATA SHEET BASE/NEUTRALS SW846 METHOD 8270

Sample No: 6933 Matrix: Soil
Source: 2-C

Level:	Low	Extraction:	Sonicator	pH:	N/A
Spl Size:	30 g	% Solids:	N/A	Dil. Factor:	33.3
Date Smpl:	6/12	Date Extr:	6/22	Date Anal:	6/26
Units:	ug/kg				

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acenaphthene	82.6	U	1,4-Dichlorobenzene	40.6	U
Acenaphtylene	34.6	U	3,3'-Dichlorobenzidine	5.3	U
Aniline	37.0	U	Diethyl phthalate	449.6	U
Anthracene	43.0	U	Dimethyl phthalate	632.7	U
Azobenzene	33.3	U	2,4-Dinitrotoluene	10.3	U
Benzidine	61.6	U	2,6-Dinitrotoluene	44.0	U
Benzo(a)anthracene	20.0	U	Di-n-octyl phthalate	81.6	U
Benzo(b)fluoranthene	28.3	U	Fluoranthene	17.6	U
Benzo(k)fluoranthene	39.6	U	Fluorene	35.6	U
Benzoic Acid	11.7	U	Hexachlorobenzene	21.0	U
Benzo(a)pyrene	29.3	U	Hexachlorobutadiene	31.3	U
Benzo(ghi)perylene	18.6	U	Hexachlorocyclopentadiene	12.7	U
Benzyl Alcohol	45.3	U	Hexachloroethane	36.6	U
Bis(2-chloroethyl)ether	27.3	U	Indeno(1,2,3-cd)pyrene	5.3	U
Bis(2-chloroethoxy)methane	31.3	U	Isophorone	34.6	U
Bis(2-chloroisopropyl)ether	27.3	U	2-Methylnaphthalene	37.6	U
Bis(2-ethylhexyl)phthalate	28.3	682B	Napthalene	35.6	U
4-Bromophenylphenylether	15.7	U	2-Nitroaniline	29.3	U
Butylbenzylphthalate	33.3	U	3-Nitroaniline	20.6	U
2-Chloronaphthalene	25.0	U	4-Nitroaniline	3.7	U
4-Chlorophenylphenylether	28.3	U	Nitrobenzene	23.0	U
Chrysene	21.0	U	N-nitrosodimethylamine	6.3	U
Dibenzo(a,h)anthracene	8.3	U	N-nitrosodiphenylamine	29.3	U
Dibenzofuran	37.6	U	N-nitrosodi-n-propylamine	29.3	U
Di-n-butylphthalate	75.3	89.7	Phenanthrene	26.0	U
1,2-Dichlorobenzene	24.0	U	Pyrene	32.3	U
1,3-Dichlorobenzene	29.3	U	1,2,4-Trichlorobenzene	29.3	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

0043

TOWNLEY LABORATORIES INC

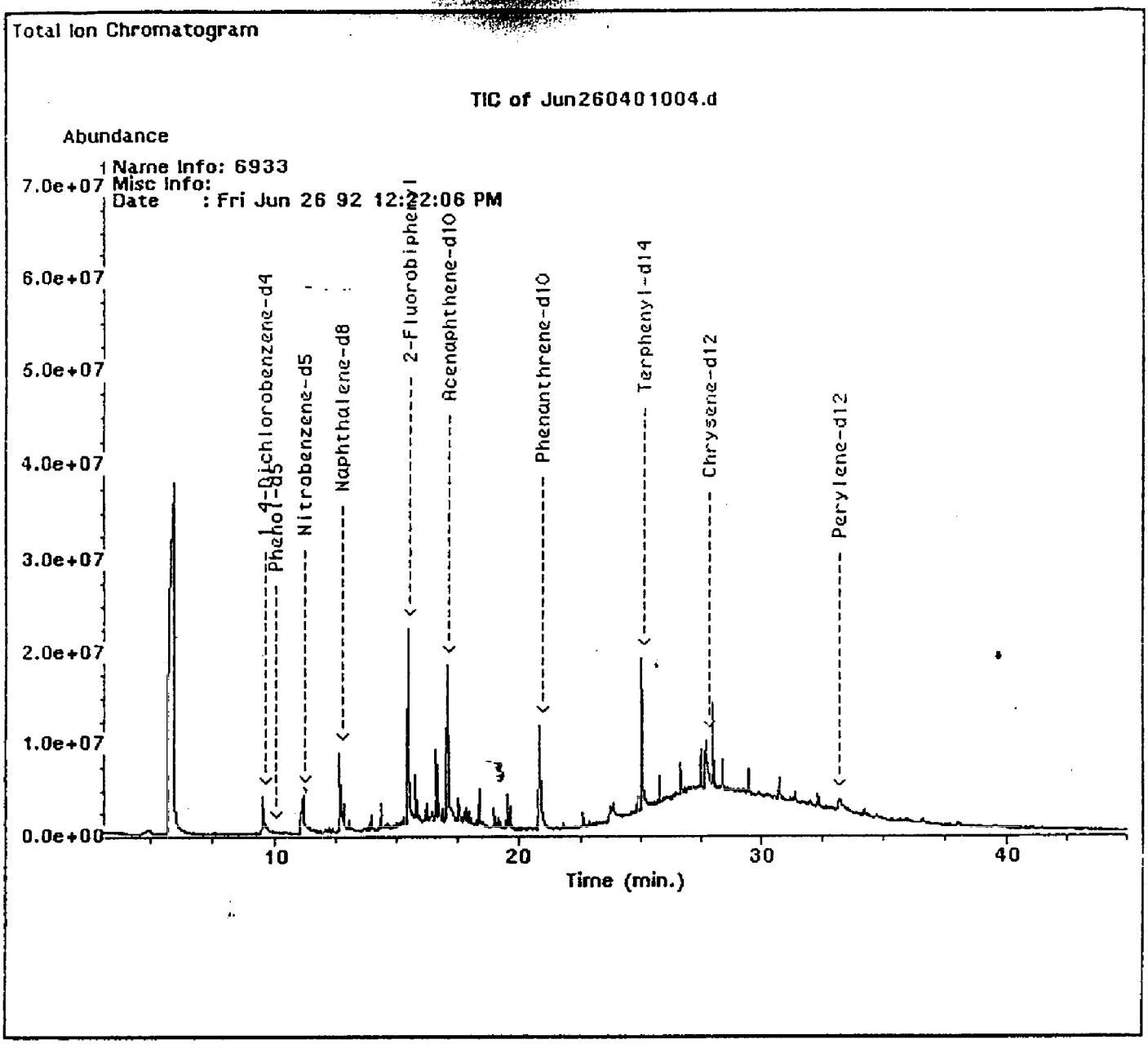
Sample No: 6933

SEMIVOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

RET TIME	AREA	AMT(ug/L)	QUALITY	LIBRARY	LIB ENTRY
3-Hydroxy-2-pentanone			CAS #: 3142-66-3		
5.98	5361893000	23044.35	37	NBS49K.1	1515
Iron, tricarbonyl[N-(phenyl-2-			CAS #: 74764-11-7		
23.86	324632400	661.10	83	NBS49K.1	42337
BICYCLO(3.3.1)NON-2-ENE			CAS #: 6671-66-5		
27.12	368825800	389.64	53	NBS49K.1	3480
Heptadecane, 9-octyl-			CAS #: 7225-64-1		
28.36	499744600	527.94	94	NBS49K.1	39131
Phenol, 4-[2-[2-(chloromethyl)			CAS #: 55255-66-8		
28.56	545379000	576.15	36	NBS49K.1	31816
1H-Indene, 5-butyl-6-hexylocta			CAS #: 55044-36-5		
29.20	312839800	330.49	47	NBS49K.1	29255
Eicosane			CAS #: 112-95-8		
29.45	538651200	569.04	87	NBS49K.1	31654
17-Octadecen-14-ynoic acid, me			CAS #: 18202-19-2		
29.61	384146200	405.82	46	NBS49K.1	32945
Butane, 2-iodo-2-methyl-			CAS #: 594-38-7		
29.83	496561600	524.58	47	NBS49K.1	18079
ISOBUTYL PENTYL DISULPHIDE			CAS #: 75023-14-2		
30.24	451147900	476.60	15	NBS49K.1	16897
Cholest-4-ene-3,6-dione			CAS #: 984-84-9		
30.53	381739200	4240.67	6	NBS49K.1	42390
Docosane			CAS #: 629-97-0		
30.73	507878200	5641.93	91	NBS49K.1	35051
21-Isorefractine			CAS #: 7013-66-3		
31.16	389525300	4327.17	12	NBS49K.1	42244
1H-Pyrrole, 1-butyl-			CAS #: 589-33-3		
31.35	335468500	3726.66	38	NBS49K.1	3550
[2,6'-Bi-2H-1-benzopyran]-4(3H			CAS #: 62498-98-0		
31.98	496704800	5517.80	33	NBS49K.1	41423

004

Total Ion Chromatogram



0045

TOWNLEY

ORGANIC EXTRACTION DATA SHEET

Sample No: 6933

Date Sampled: 6/15/92 Date Extracted: 6/22/92

Type Sample: [ ] Aqueous - Clear [ ] Aqueous - Dirty

[ ] Sludge [✓] Soil [ ] Oil

[ ] TCLP Extract [ ] Other: _____

Analysis Requested: [ ] Acids [✓] B/N [✓] Library Search

Initial Extraction Volume/Wt: 30g ~~ml~~ ~~mg~~

Final Volume of Extract: 1 (ml)

Type of Extraction: [ ] Sep Funnel [ ] Soxhlet [✓] Sonicator

Emulsion Formation/Description: _____

Surrogate	Amount ug/l	Spike	Amount	Spike Dup Amount
B/N	50	B/N	_____	_____
Acids	---	Acids	_____	_____

pH

Initial _____ B/N Extraction _____

Acid Extraction _____

Name: S. Romer Date: 6/22/92

0046

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TOWNLEY LABORATORIES, INC Contract: _____

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

Lab File ID: Jun240101001.d DFTPP Injection Date: 06/24/92

Instrument ID: msd DFTPP Injection Time: 09:12

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.3
68	Less than 2.0% of mass 69	(0.0)1
69	Mass 69 relative abundance	59.1
70	Less than 2.0% of mass 69	(0.0)1
127	40.0 - 60.0% of mass 198	41.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	20.4
365	Greater than 1.00% of mass 198	1.23
441	Present, but less than mass 443	8.5
442	Greater than 40.0% of mass 198	48.9
443	17.0 - 23.0% of mass 442	(21.7)2

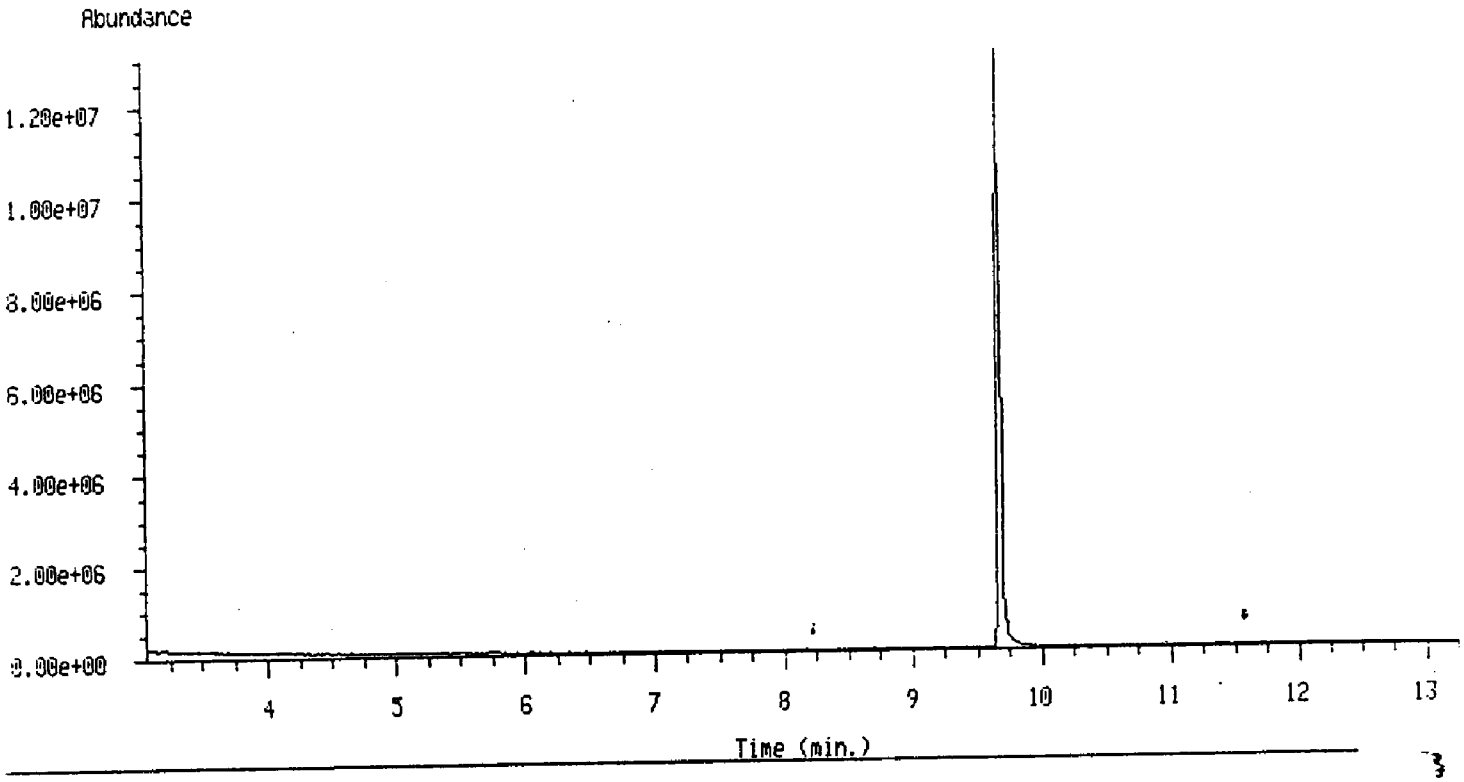
1-Value is % mass 69 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

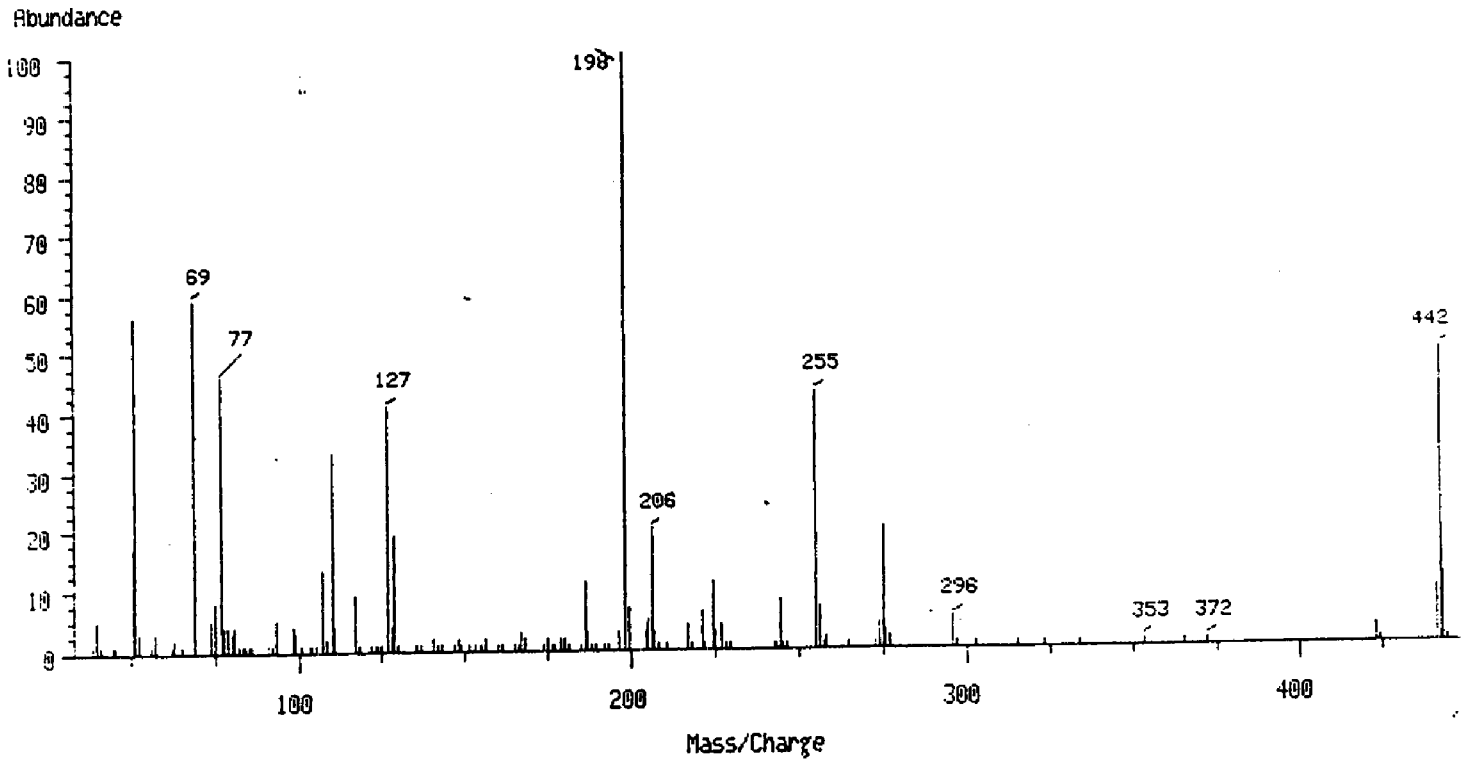
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		Calck624	Jun240201002	6/24/92	09:40
02		mbs	Jun240401004	6/24/93	12:03
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

Name Info: dftpp624
Misc Info:
Date : Wed Jun 24 92 09:12:36 AM

TIC of Jun240101001.d



Scan 591 (9.654 min) of Jun240101001.d SCALED



0048

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TOWNLEY LABORATORIES, INC Contract: _____

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

Lab File ID: Jun260101001.d DFTPP Injection Date: 06/26/92

Instrument ID: msd DFTPP Injection Time: 09:06

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.8
68	Less than 2.0% of mass 69	(0.0)1
69	Mass 69 relative abundance	58.0
70	Less than 2.0% of mass 69	(0.8)1
127	40.0 - 60.0% of mass 198	45.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	21.0
365	Greater than 1.00% of mass 198	1.49
441	Present, but less than mass 443	7.0
442	Greater than 40.0% of mass 198	45.1
443	17.0 - 23.0% of mass 442	(18.6)2

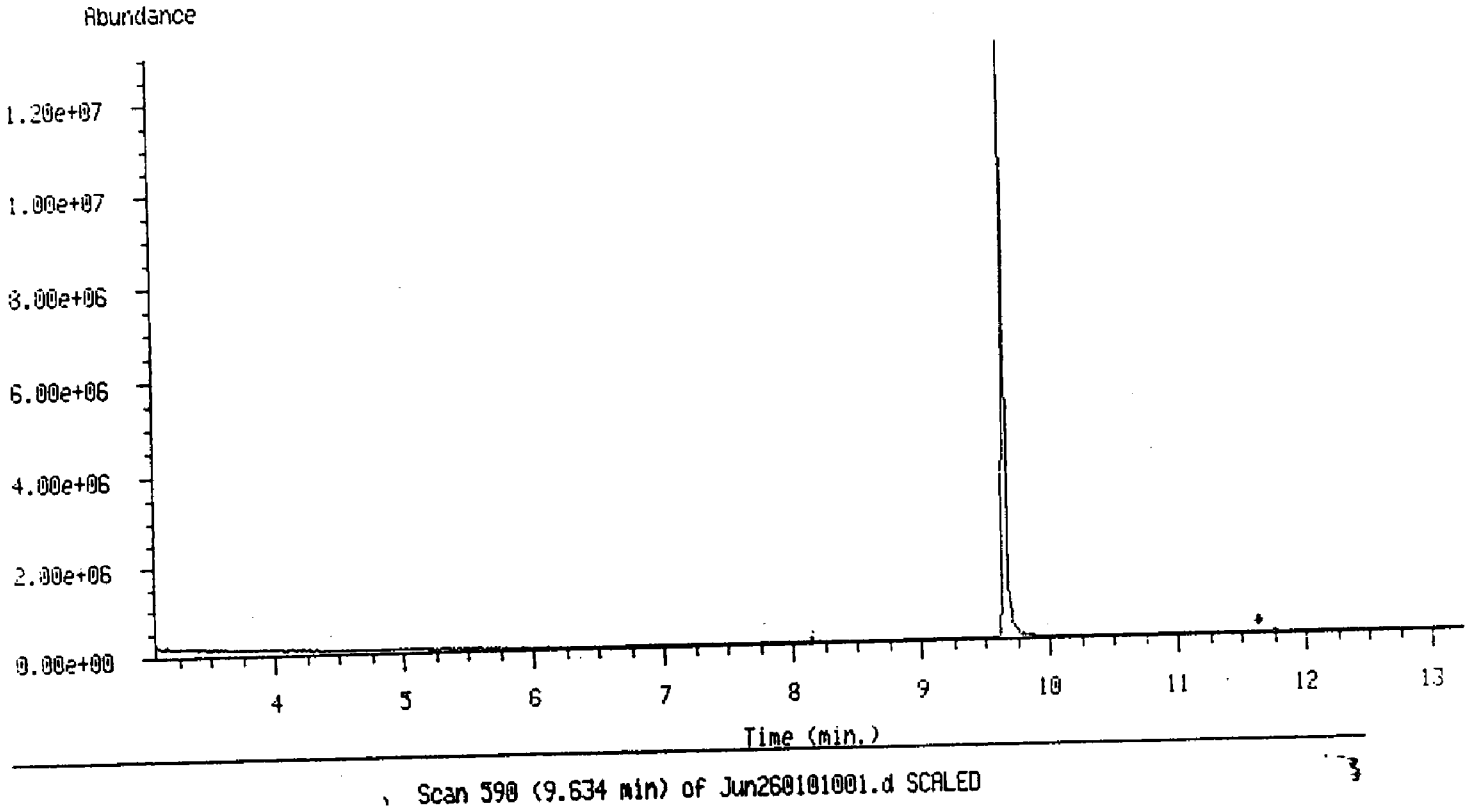
1-Value is % mass 69 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

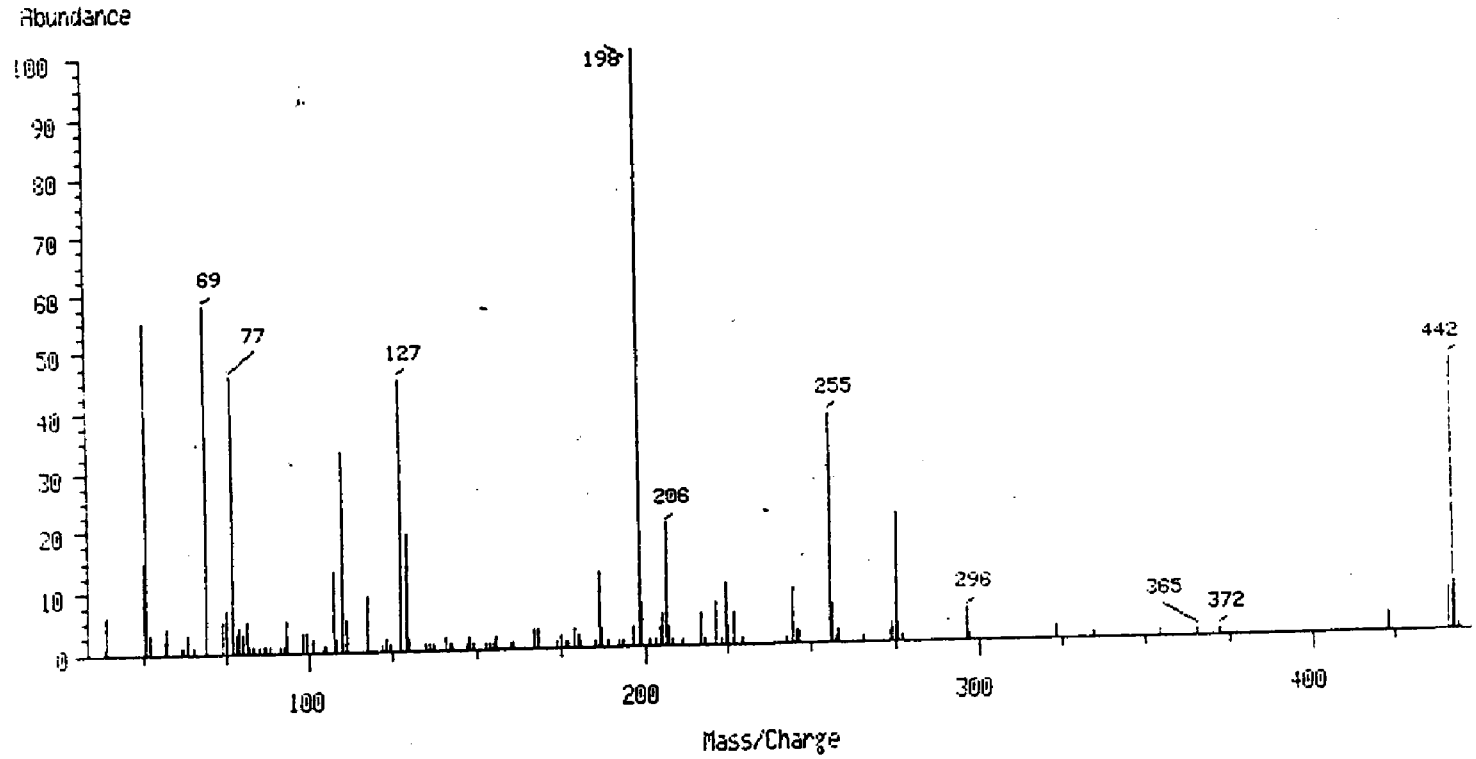
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		calck626	Jun260201002	6/26/92	09:26
02		6929	Jun260301003	6/26/92	11:08
03		6933	Jun260401004	6/26/92	12:22
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

Name Info: dftpp626
Misc Info:
Date : Fri Jun 26 92 09:06:40 AM

TIC of Jun260101001.d



Scan 590 (9.634 min) of Jun260101001.d SCALED



0050

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TOWNLEY LABORATORIES, INC Contract: _____

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

Lab File ID: Aug060101001.d DFTPP Injection Date: 08/06/92

Instrument ID: msd DFTPP Injection Time: 11:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.5
68	Less than 2.0% of mass 69	(0.0)1
69	Mass 69 relative abundance	53.9
70	Less than 2.0% of mass 69	(0.4)1
127	40.0 - 60.0% of mass 198	41.0
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	25.7
365	Greater than 1.00% of mass 198	2.72
441	Present, but less than mass 443	13.3
442	Greater than 40.0% of mass 198	79.9
443	17.0 - 23.0% of mass 442	(20.2)2

1-Value is % mass 69

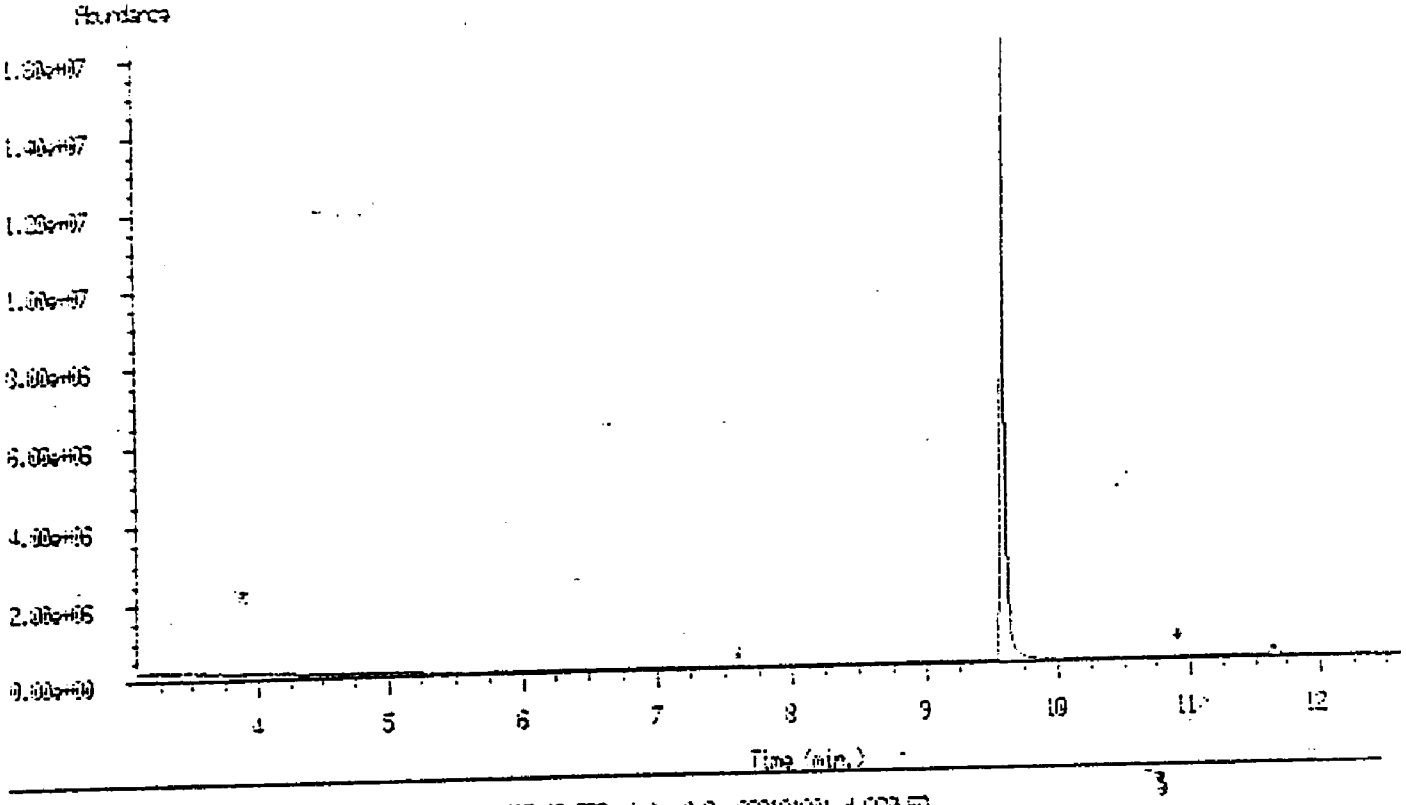
2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

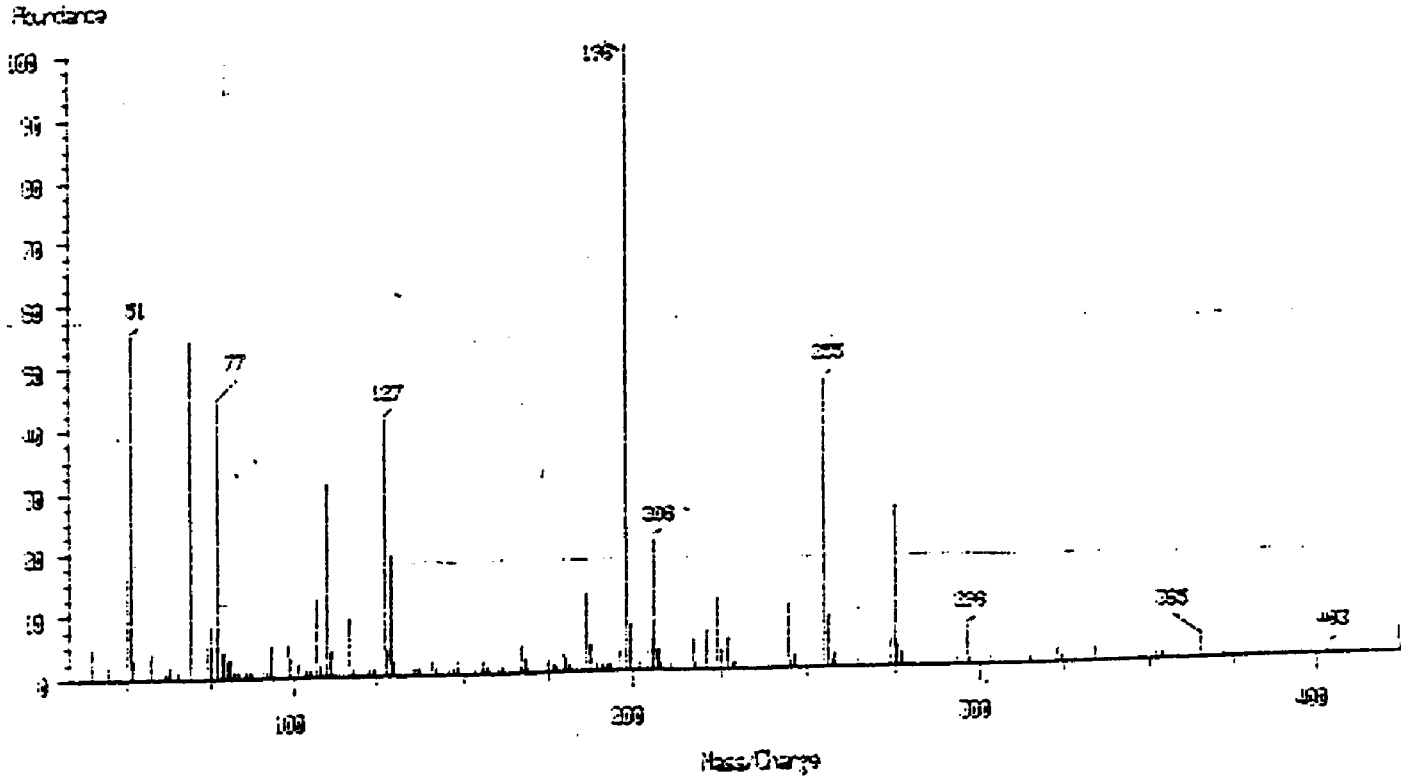
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		Calck806	Aug060201002	8/06/92	11:56
02		mbs	Aug060601006	8/06/92	16:56
03		8961	Aug060701007	8/06/92	18:01
04		8961 MS	Aug060801008	8/06/92	19:22
05		8961 MSD	Aug060901009	8/06/92	20:44
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

Name Info: dftpp806
Misc Info:
Date : Thu Aug 06 92 11:35:23 AM

TIC of Aug9201001.d



Scan 933 (9.566 min) of Aug9201001.d (SCAN)



0052

INITIAL CALIBRATION DATA

Calibration Date : 19 May 92 09:14 chemist
Report Date : 19 May 92 09:35
Quantitation by : Area
Calib Method : Internal Standard
Response Factor : Averaged
Include Origin : No

Calibration File Names:
Level1: /chem/msd.i/c20-1.d Level2: /chem/msd.i/c50-1.d
Level3: /chem/msd.i/c80-1.d Level4: /chem/msd.i/c120-1.d
Level5: /msd.i/calib160.b/calib160.d Level6:

	Compound	Level 1 RF	Level 2 RF	Level 3 RF	Level 4 RF	Level 5 RF	Averaged RF	%RSD
*	8 1 4-Dichlorobenzene-d4	4.039E-06	1.002E-06	5.078E-06	5.075E-06	1.466E-05	5.97L-006	86.02
$	1 2-Fluorophenol	0.84201	1.05619	0.95902	1.07256	0.98178	0.98231	9.36
	2 Aniline	0.20878	0.21880	0.20339	0.19759	0.17880	0.20147	7.39
	3 Phenol	1.64900	1.70395	1.58235	1.60960	1.56870	1.62272	3.38
	4 N-Nitrosodimethylamine	0.66910	0.82512	0.76046	0.78524	0.68623	0.74523	8.87
	5 bis(-2-Chloroethyl)Ether	1.92478	1.08389	1.94834	1.89893	1.92495	1.75618	21.42
	6 2-Chlorophenol	1.37589	1.16439	1.24327	1.25910	1.31152	1.27083	6.21
	7 1 3-Dichlorobenzene	1.72843	1.46919	1.50452	1.58321	1.48395	1.55386	6.89
	9 1 4-Dichlorobenzene	1.78702	1.33003	1.50951	1.55147	1.48959	1.53352	10.74
$	10 Phenol-d5	1.42804	1.73620	1.54806	1.59789	1.60819	1.58368	7.03
	11 1 2-Dichlorobenzene	1.81146	1.50097	1.48237	1.52444	1.42798	1.54944	9.73
	12 Benzyl Alcohol	0.39007	0.38141	0.38114	0.37236	0.36848	0.37969	2.24
	13 Pyridine	0.31140	0.28775	0.28435	0.27383	0.28302	0.28807	4.87
	14 2-Methylphenol	0.52320	0.51746	0.46709	0.44493	0.42140	0.47482	9.40
	15 bis(2-chloroisopropyl)ether	0.30279	0.31663	0.29343	0.29623	0.29510	0.30084	3.16
	16 Hexachloroethane	0.78919	0.71664	0.71232	0.74243	0.70732	0.73358	4.62
	17 N-nitroso-Di-n-propylamine	1.14184	1.05409	1.32693	1.28172	1.24562	1.21004	9.15
	18 4-Methylphenol	0.58307	0.63538	0.53515	0.52512	0.50116	0.55597	9.61
*	27 Naphthalene-d8	1.023E-06	2.551E-07	1.239E-06	1.334E-06	3.877E-06	1.55L-006	88.66
$	19 Nitrobenzene-d5	0.19220	0.16812	0.21310	0.19517	0.21040	0.19580	9.18
	20 Nitrobenzene	0.46480	0.38237	0.47725	0.43767	0.48755	0.44993	9.36
	21 Isophorone	0.92542	0.74141	0.81466	0.80901	0.81509	0.82112	8.05
	22 2-Nitrophenol	0.23674	0.22568	0.22881	0.25199	0.24061	0.23677	4.39
	23 2 4-Dimethyphenol	0.30258	0.34508	0.30523	0.32784	0.31874	0.31989	5.44
	24 bis(-2-Chloroethoxy)Methane	0.57225	0.38948	0.53246	0.56601	0.55901	0.52384	14.63
	25 2 4-Dichlorophenol	0.43117	0.29812	0.36171	0.37758	0.35797	0.36531	13.04
	26 1 2 4-Trichlorobenzene	0.45511	0.39472	0.42257	0.45669	0.42990	0.43180	5.93
	28 Benzoic Acid	0.12467	0.13375	0.11197	0.10390	0.15495	0.12585	15.82
	29 Naphthalene	1.15966	0.81803	0.96761	1.01545	1.03939	1.00003	12.39
	30 4-Chloroaniline	0.34751	0.34098	0.30614	0.27885	0.25460	0.30561	13.01
	31 Hexachlorobutadiene	0.36705	0.26937	0.33764	0.35814	0.34789	0.33602	11.56
	32 4-Chloro-3-Methylphenol	0.41564	0.32447	0.36249	0.38757	0.38098	0.37423	9.02
	33 2-Methylnaphthalene	0.47994	0.42003	0.38867	0.33013	0.28898	0.38155	19.62
*	45 Acenaphthene-d10	1.483E-06	3.590E-07	2.069E-06	2.318E-06	6.867E-06	2.62L-006	95.14
	34 Hexachlorocyclopentadiene	0.51400	0.26848	0.44603	0.53529	0.53389	0.45954	24.55
	35 2 4 5-Trichlorophenol	0.21369	0.21839	0.21192	0.19142	0.18173	0.20343	7.84
	36 2 4 6-Trichlorophenol	0.61289	0.39537	0.51289	0.55398	0.50530	0.51609	15.47
$	37 2-Fluorobiphenyl	1.42100	1.02884	1.35870	1.39940	1.43590	1.32877	12.81
	38 2-Chloronaphthalene	1.49060	0.93515	1.22120	1.29620	1.26857	1.24235	16.10
	39 2-Nitroaniline	0.25140	0.21248	0.25135	0.25170	0.24310	0.24201	6.98
	40 Acenaphthylene	1.88374	1.37891	1.52920	1.58095	1.67813	1.61019	11.63
	41 Dimethyl Phthalate	1.27000	1.24934	1.14953	1.29745	1.25739	1.24474	4.52
	42 2 6-Dinitrotoluene	0.44974	0.36513	0.35201	0.39151	0.38283	0.38821	9.70
	44 Acenaphthene	0.66062	0.45099	0.54592	0.58065	0.59439	0.56651	13.56
	45 2 4-Dinitrophenol	0.21000	0.18214	0.19025	0.20777	0.20980	0.19999	6.47

0053

46 3-Nitroaniline	0.12620	0.15144	0.14900	0.18883	0.18358	0.15981	16.33
47 Dibenzofuran	0.82060	0.63768	0.52145	0.48400	0.46090	0.58493	25.35
48 2 4-Dinitrotoluene	0.57160	0.51360	0.44765	0.55124	0.53640	0.52410	9.10
49 4-Nitrophenol	0.36000	0.32941	0.35490	0.38113	0.38428	0.36194	6.15
50 Fluorene	1.28725	1.21757	1.04654	1.17579	1.13298	1.17203	7.71
51 Diethylphthalate	1.06000	1.26880	0.98065	1.00394	0.98418	1.05951	11.44
52 4-Chlorophenyl-phenylether	0.77700	0.61904	0.71783	0.70685	0.75561	0.71527	8.50
56 4-Nitroaniline	0.13440	0.16744	0.18090	0.20350	0.18280	0.17381	14.69
$ 57 2 4 6-Tribromophenol	0.41540	0.45944	0.38010	0.41700	0.40460	0.41531	6.92
* 65 Phenanthrene-d10	9.674E-07	2.823E-07	1.413E-06	1.382E-06	3.014E-06	1.41L-006	71.20
53 4 6-Dinitro-2-methylphenol	0.16254	0.18132	0.16561	0.17806	0.17687	0.17288	4.79
54 N-nitrosodiphenylamine	0.55600	0.61982	0.56682	0.51355	0.50160	0.55156	8.53
55 Azobenzene	0.92103	0.91064	0.84161	0.90417	0.89077	0.89364	3.48
58 4-Bromophenyl-phenylether	0.42000	0.40648	0.41109	0.40307	0.39182	0.40649	3.55
60 Hexachlorobenzene	0.49460	0.52619	0.41670	0.41703	0.48045	0.46699	10.42
63 Phenanthrene	1.05954	1.17368	0.92848	0.99982	1.00522	1.03335	8.83
66 Anthracene	1.03524	1.17639	0.87008	0.93537	0.96162	0.99574	11.75
67 Pentachlorophenol	0.30120	0.23092	0.26225	0.29870	0.29235	0.27708	10.88
69 Di-n-Butylphthalate	1.02000	1.33948	0.95720	1.03501	1.04031	1.07840	13.88
73 Fluoranthene	0.95223	1.09617	0.91930	1.01985	1.04031	1.00557	7.02
* 91 Chrysene-d12	1.817E-06	6.474E-07	3.034E-06	1.761E-06	1.221E-05	3.89L-006	121.35
71 Benzidine	0.10095	0.10200	0.10600	0.11086	0.10125	0.10421	4.06
74 Pyrene	1.83107	2.00040	1.97565	2.14653	2.19616	2.02996	7.16
$ 76 Terphenyl-d14	1.69955	2.07948	2.04296	2.09850	2.06581	1.99726	8.39
83 Butylbenzylphthalate	1.08000	1.03080	1.07395	1.10600	1.12083	1.08231	3.19
87 Benzo(a)Anthracene	1.20000	1.24170	1.13392	1.22551	1.22150	1.20453	3.50
88 3 3'-Dichlorobenzidine	0.63400	0.50134	0.63210	0.65668	0.74870	0.63456	13.93
89 Chrysene	1.16114	1.33718	1.13899	1.21534	1.18692	1.20791	6.43
92 bis(2-ethylhexyl)Phthalate	0.80000	0.79760	0.83215	0.80140	0.76920	0.80007	2.79
* 97 Perylene-d12	3.422E-06	7.621E-07	6.140E-06	1.695E-06	1.985E-05	6.37L-006	122.48
93 Di-n-octyl Phthalate	1.27340	1.33921	1.35565	1.36483	1.36940	1.34050	2.93
94 Benzo(b)fluoranthene	1.29001	1.36103	1.19122	1.29733	1.34200	1.29632	5.08
95 Benzo(k)fluoranthene	1.55577	1.36103	1.41590	1.29932	1.34230	1.39486	7.11
96 Benzo(a)pyrene	1.14000	1.19350	1.06219	1.16487	1.13593	1.13930	4.29
98 Indeno(1 2 3-cd)pyrene	0.81400	0.90571	0.89395	0.82045	0.83377	0.85358	5.04
99 Dibenzo(a h)anthracene	0.82420	0.91863	0.82505	0.93150	0.87325	0.87455	5.77
100 Benzo(g h i)perylene	0.93960	1.00220	0.85345	0.92765	0.97522	0.93963	6.01

INITIAL CALIBRATION DATA

Calibration Date : 31 Jul 92 14:06 chemist
Report Date : 7 Aug 92 11:27
Quantitation by : Area
Calib Method : Internal Standard
Response Factor : Averaged
Include Origin : No

Calibration File Names:
Level1: /chem/msd.i/c20-1.d Level2: /chem/msd.i/c50-1.d
Level3: /chem/msd.i/c80-1.d Level4: /chem/msd.i/c120-1.d
Level5: /msd.i/calib160.b/calib160.d Level6:

	Compound	Level 1 RF	Level 2 RF	Level 3 RF	Level 4 RF	Level 5 RF	Averaged RF	%RSD
*	8 1 4-Dichlorobenzene-d4	4.039E-06	1.002E-06	5.078E-06	5.075E-06	1.466E-05	5.97L-006	86.02
$	1 2-Fluorophenol	0.84201	1.05619	0.95902	1.07256	0.78178	0.98231	9.56
	2 Aniline	0.20878	0.21880	0.20339	0.19759	0.17880	0.20147	7.39
	3 Phenol	1.64900	1.70395	1.58235	1.60960	1.56870	1.62272	3.38
	4 N-Nitrosodimethylamine	0.66910	0.82512	0.76046	0.78524	0.68623	0.74525	8.37
	5 bis(-2-Chloroethyl)Ether	1.92478	1.08389	1.94834	1.89993	1.92495	1.75618	21.42
	6 2-Chlorophenol	1.37589	1.16439	1.24327	1.25910	1.31152	1.27083	6.21
	7 1 3-Dichlorobenzene	1.72843	1.46919	1.50452	1.58321	1.48395	1.55386	6.39
	9 1 4-Dichlorobenzene	1.78702	1.33003	1.50951	1.55147	1.48959	1.53352	10.74
$	10 Phenol-d5	1.42804	1.73620	1.54806	1.59789	1.60819	1.58368	7.03
	11 1 2-Dichlorobenzene	1.31146	1.50097	1.48237	1.52444	1.42798	1.54944	9.73
	12 Pyridine	0.31140	0.28775	0.28435	0.27383	0.28502	0.28807	4.87
	13 Benzyl Alcohol	0.39007	0.38141	0.38114	0.37236	0.36848	0.37869	2.24
	14 bis(-2-chloroisopropyl)ether	0.30279	0.31663	0.29543	0.29623	0.29510	0.30084	3.16
	15 Hexachloroethane	0.78919	0.71664	0.71232	0.74243	0.70732	0.73358	4.62
	16 N-nitroso-Di-n-propylamine	1.14184	1.05409	1.32693	1.28172	1.24562	1.21004	9.15
	18 2-Methylphenol	0.52320	0.51746	0.46709	0.44493	0.42140	0.47482	9.40
	20 4-Methylphenol	0.58307	0.63538	0.53515	0.52512	0.50116	0.55597	9.61
*	27 Naphthalene-d8	1.023E-06	2.551E-07	1.239E-06	1.334E-06	3.877E-06	1.55L-006	88.66
$	17 Nitrobenzene-d5	0.19220	0.16812	0.21310	0.19517	0.21040	0.19580	9.18
	19 Nitrobenzene	0.46480	0.38237	0.47725	0.45767	0.48755	0.44993	9.36
	21 Isophorone	0.92542	0.74141	0.81466	0.80901	0.81509	0.82112	8.05
	22 2-Nitrophenol	0.23674	0.22568	0.22981	0.25199	0.24061	0.23677	4.39
	23 2 4-Dimethyphenol	0.30258	0.34508	0.30523	0.32784	0.31874	0.31989	5.44
	24 bis(-2-Chloroethoxy)Methane	0.57225	0.38948	0.53246	0.56601	0.55901	0.52384	14.63
	25 2 4-Dichlorophenol	0.43117	0.29812	0.36171	0.37758	0.35797	0.36531	13.04
	26 1 2 4-Trichlorobenzene	0.45511	0.39472	0.42257	0.45669	0.42990	0.43180	5.93
	28 Benzoic Acid	0.12467	0.13375	0.11197	0.10390	0.15495	0.12585	15.82
	29 Naphthalene	1.15966	0.81803	0.96761	1.01545	1.03939	1.00003	12.39
	30 4-Chloroaniline	0.34751	0.34098	0.30614	0.27885	0.25460	0.30561	13.91
	31 Hexachlorobutadiene	0.36705	0.26937	0.33764	0.35814	0.34789	0.33602	11.56
	32 4-Chloro-3-Methylphenol	0.41564	0.32447	0.36249	0.38757	0.38098	0.37423	9.02
	33 2-Methylnaphthalene	0.47994	0.42003	0.38867	0.33013	0.28898	0.38155	19.62
*	43 Acenaphthene-d10	1.483E-06	3.590E-07	2.069E-06	2.318E-06	6.367E-06	2.62L-006	95.14
	34 Hexachlorocyclopentadiene	0.51400	0.26848	0.44603	0.33529	0.33389	0.45954	24.55
	35 2 4 5-Trichlorophenol	0.21369	0.21839	0.21192	0.19142	0.18173	0.20343	7.34
	36 2 4 6-Trichlorophenol	0.61289	0.39537	0.51289	0.55398	0.50530	0.51609	15.47
$	37 2-Fluorobiphenyl	1.42100	1.02884	1.35870	1.39940	1.43590	1.32877	12.31
	38 2-Chloronaphthalene	1.49060	0.93515	1.22120	1.29620	1.26857	1.24235	16.10
	39 2-Nitroaniline	0.25140	0.21248	0.25135	0.25170	0.24310	0.24201	6.98
	40 Acenaphthylene	1.38374	1.37891	1.52920	1.58095	1.67813	1.61019	11.63
	41 Dimethyl Phthalate	1.27000	1.24934	1.14953	1.29745	1.25739	1.24474	4.52
	42 2 6-Dinitrotoluene	0.34974	0.36513	0.35201	0.39131	0.38283	0.38821	9.30
	44 Acenaphthene	0.66062	0.45099	0.54592	0.58065	0.59439	0.56651	13.96
	45 2 4-Dinitrophenol	0.21000	0.18214	0.19025	0.20777	0.20980	0.19999	6.47

0055

45 2 4-Dinitrophenol	0.21000	0.18214	0.19025	0.20777	0.20980	0.19999	6.47
47 Dibenzofuran	0.82060	0.63768	0.52145	0.48400	0.46090	0.58495	25.35
48 4-Nitrophenol	0.36000	0.32941	0.35490	0.38113	0.38428	0.36194	6.15
49 2 4-Dinitrotoluene	0.57160	0.56568	0.44765	0.55124	0.53640	0.53451	9.44
50 Fluorene	1.28725	1.28419	1.04654	1.17579	1.13298	1.18535	8.67
51 Diethylphthalate	1.06000	1.28743	0.98065	1.00394	0.98418	1.06324	12.16
52 4-Chlorophenyl-phenylether	0.77700	0.79066	0.71783	0.70685	0.75561	0.74959	4.86
53 4-Nitroaniline	0.13440	0.16744	0.18090	0.20350	0.18280	0.17381	14.69
§ 57 2 4 6-Tribromophenol	0.41540	0.45944	0.38010	0.41700	0.40460	0.41531	6.92
* 64 Phenanthrene-d10	9.674E-07	2.823E-07	1.413E-06	1.382E-06	3.014E-06	1.41L-006	71.20
54 4 6-Dinitro-2-methylphenol	0.16254	0.19012	0.16561	0.17806	0.17687	0.17464	6.30
55 N-nitrosodiphenylamine	0.55600	0.64282	0.56682	0.51355	0.50160	0.55616	10.02
56 Azobenzene	0.92103	0.91064	0.84161	0.90417	0.89077	0.89364	3.48
58 4-Bromophenyl-phenylether	0.42000	0.47589	0.41109	0.40307	0.39182	0.42037	7.78
60 Hexachlorobenzene	0.49460	0.42160	0.41670	0.41703	0.48045	0.44608	8.57
62 Pentachlorophenol	0.30120	0.28632	0.26225	0.29870	0.29235	0.28816	5.41
65 Phenanthrene	1.05954	1.07141	0.92848	0.99982	1.00522	1.01289	5.62
66 Anthracene	1.03524	1.04649	0.87008	0.93537	0.96162	0.96976	7.54
69 Di-n-Butylphthalate	1.02000	1.08007	0.95720	1.03501	1.04031	1.02652	4.35
72 Fluoranthene	0.95223	1.09617	0.91930	1.01985	1.04031	1.00557	7.07
* 91 Chrysene-d12	1.817E-06	6.474E-07	3.034E-06	1.761E-06	1.221E-05	3.89L-006	121.35
73 Benzidine	0.10095	0.10200	0.10600	0.11086	0.10125	0.10421	4.06
74 Pyrene	1.83107	2.00040	1.97565	2.14653	2.19616	2.02996	7.16
§ 77 Terphenyl-d14	1.69955	2.07948	2.04296	2.09850	2.06581	1.99726	8.39
83 Butylbenzylphthalate	1.08000	1.03080	1.07395	1.10600	1.12083	1.08231	3.19
87 Benzo(a)Anthracene	1.20000	1.24170	1.13392	1.22551	1.22150	1.20453	3.50
88 3 3'-Dichlorobenzidine	0.63400	0.50134	0.63210	0.65668	0.74870	0.63456	13.93
90 Chrysene	1.16114	1.33718	1.13899	1.21534	1.18692	1.20791	6.43
92 bis(2-ethylhexyl)Phthalate	0.80000	0.79760	0.83215	0.90140	0.76920	0.80007	2.79
* 97 Perylene-d12	3.422E-06	7.621E-07	6.140E-06	1.695E-06	1.985E-05	6.37L-006	122.48
93 Di-n-octyl Phthalate	1.27340	1.33921	1.35565	1.36483	1.36940	1.34050	2.93
94 Benzo(b)fluoranthene	1.29001	1.36103	1.19122	1.29733	1.34200	1.29632	5.08
95 Benzo(k)fluoranthene	1.55577	1.36103	1.41590	1.29932	1.34230	1.39486	7.11
96 Benzo(a)pyrene	1.14000	1.19350	1.06219	1.16487	1.13593	1.13930	4.29
98 Indeno(1 2 3-cd)pyrene	0.81400	0.90571	0.89395	0.82045	0.83377	0.85358	5.04
99 Dibenzo(a h)anthracene	0.82420	0.91863	0.82505	0.93150	0.87325	0.87453	5.77
100 Benzo(g h i)perylene	0.93960	1.00220	0.85345	0.92765	0.97522	0.93963	6.01

TOWNLEY LABORATORIES, INC.

DAILY/CONTINUING CALIBRATION

Lab File: /chem/msd.i/Jun240201002.d
Analysis Method: /target/msd.i/625h.m
Sample ID: Calck624
Dilution Factor: 1.00

Date Analyzed: 06/24/92
Date Reported: 08/03/93

COMPOUND	RRF	RRF50	%D
Pyridine	0.288	0.225	21.8
Aniline	0.201	0.182	9.5
N-Nitrosodimethylamine	0.745	0.701	5.9
bis(-2-Chloroethyl)Ether	1.756	1.357	22.7
1 3-Dichlorobenzene	1.554	1.177	24.2
2-Chlorophenol	1.271	0.919	27.7
1 4-Dichlorobenzene	1.534	1.337	12.8
Phenol	1.623	1.282	21.0
1 2-Dichlorobenzene	1.549	1.279	17.5
Benzyl Alcohol	0.379	0.436	-15.0
bis(-2-chloroisopropyl)ether	0.301	0.376	-25.0
Hexachloroethane	0.734	0.568	22.6
N-nitroso-Di-n-propylamine	1.210	1.164	3.8
2-Methylphenol	0.475	0.402	15.4
Nitrobenzene	0.450	0.517	-14.9
4-Methylphenol	0.556	0.512	7.9
Isophorone	0.821	0.805	1.9
2-Nitrophenol	0.237	0.201	15.2
2 4-Dimethyphenol	0.320	0.300	6.3
bis(-2-Chloroethoxy)Methane	0.524	0.504	3.7
2 4-Dichlorophenol	0.365	0.410	-12.3
1 2 4-Trichlorobenzene	0.432	0.372	13.9
Benzoic Acid	0.126	0.163	-29.4
Naphthalene	1.000	0.843	15.7
4-Chloroaniline	0.306	0.288	5.9
Hexachlorobutadiene	0.336	0.255	24.1
4-Chloro-3-Methylphenol	0.374	0.339	9.4
2-Methylnaphthalene	0.382	0.346	9.4
Hexachlorocyclopentadiene	0.460	0.402	12.6
2 4 6-Trichlorophenol	0.516	0.559	-8.3
2-Chloronaphthalene	1.242	1.059	14.8
2 4 5-Trichlorophenol	0.203	0.154	24.5
2-Nitroaniline	0.242	0.211	12.8
Acenaphthylene	1.610	1.174	27.1
Dimethyl Phthalate	1.245	1.015	18.4
2 6-Dinitrotoluene	0.388	0.313	19.3
Acenaphthene	0.567	0.437	22.9

0057

TOWNLEY LABORATORIES, INC.

DAILY/CONTINUING CALIBRATION

Lab File: /chem/msd.i/Jun240201002.d
Analysis Method: /target/msd.i/625h.m
Sample ID: Calck624
Dilution Factor: 1.00

Date Analyzed: 06/24/92
Date Reported: 08/03/93

COMPOUND	RRF	RRF50	%D
2 4-Dinitrophenol	0.200	0.180	10.0
3-Nitroaniline	0.160	0.121	24.4
Dibenzofuran	0.585	0.612	-4.6
2 4-Dinitrotoluene	0.524	0.421	19.8
4-Nitrophenol	0.362	0.002	99.5
Fluorene	1.172	1.018	13.2
Diethylphthalate	1.060	0.936	11.7
4-Chlorophenyl-phenylether	0.715	0.660	7.7
4 6-Dinitro-2-methylphenol	0.173	0.218	-26.0
N-nitrosodiphenylamine	0.552	0.586	-6.2
Azobenzene	0.894	0.836	6.5
4-Nitroaniline	0.174	0.214	-23.0
4-Bromophenyl-phenylether	0.406	0.379	6.7
Hexachlorobenzene	0.467	0.419	10.3
Phenanthrene	1.033	0.912	11.7
Anthracene	0.996	1.224	-22.9
Pentachlorophenol	0.277	0.310	-11.9
Di-n-Butylphthalate	1.078	0.910	15.6
Benzidine	0.104	0.125	-20.2
Fluoranthene	1.006	0.935	7.1
Pyrene	2.030	1.980	2.5
Butylbenzylphthalate	1.082	0.901	16.7

0058

TOWNLEY LABORATORIES, INC.

DAILY/CONTINUING CALIBRATIONT

Lab File: /chem/msd.i/Jun240201002.d
Analysis Method: /target/msd.i/625h.m
Sample ID: Calck624
Dilution Factor: 1.00

Date Analyzed: 06/24/92
Date Reported: 08/03/93

COMPOUND	RRF	RRF50	%D
Benzo(a)Anthracene	1.205	1.471	-22.1
3 3'-Dichlorobenzidine	0.635	0.675	-6.3
Chrysene	1.208	0.997	17.5
bis(2-ethylhexyl)Phthalate	0.800	0.779	2.6
Di-n-octyl Phthalate	1.340	1.203	10.2
Benzo(b)fluoranthene	1.296	0.920	29.0
Benzo(k)fluoranthene	1.395	1.001	28.2
Benzo(a)pyrene	1.139	0.901	20.9
Indeno(1 2 3-cd)pyrene	0.854	0.800	6.3
Dibenzo(a h)anthracene	0.875	0.812	7.2
Benzo(g h i)perylene	0.940	0.890	5.3

0059

DAILY/CONTINUING CALIBRATION - 6/24/13
(Date)

CALIBRATION CHECK COMPOUNDS

Base/Neutral Compounds

Acenaphthene
1,4-Dichlorobenzene
Hexachlorobutadiene
N-Nitrosodiphenylamine
Di-n-octylphthtalate
Fluoroanthene
Benzo(a)pyrene

% D ≤ 30% X Yes ___ No

Acid Compounds

4-Chloro-3-methylphenol
2,4-Dichlorophenol
2-Nitrophenol
Phenol
Pentachlorophenol
2,4,6-Trichlorophenol

% D ≤ 30% X Yes ___ No

SYSTEM PERFORMANCE CHECK COMPOUNDS

N-nitroso-di-n-propylamine
Hexachlorocyclopentadiene

$\overline{RRF}$ min. 0.05 X Yes ___ No

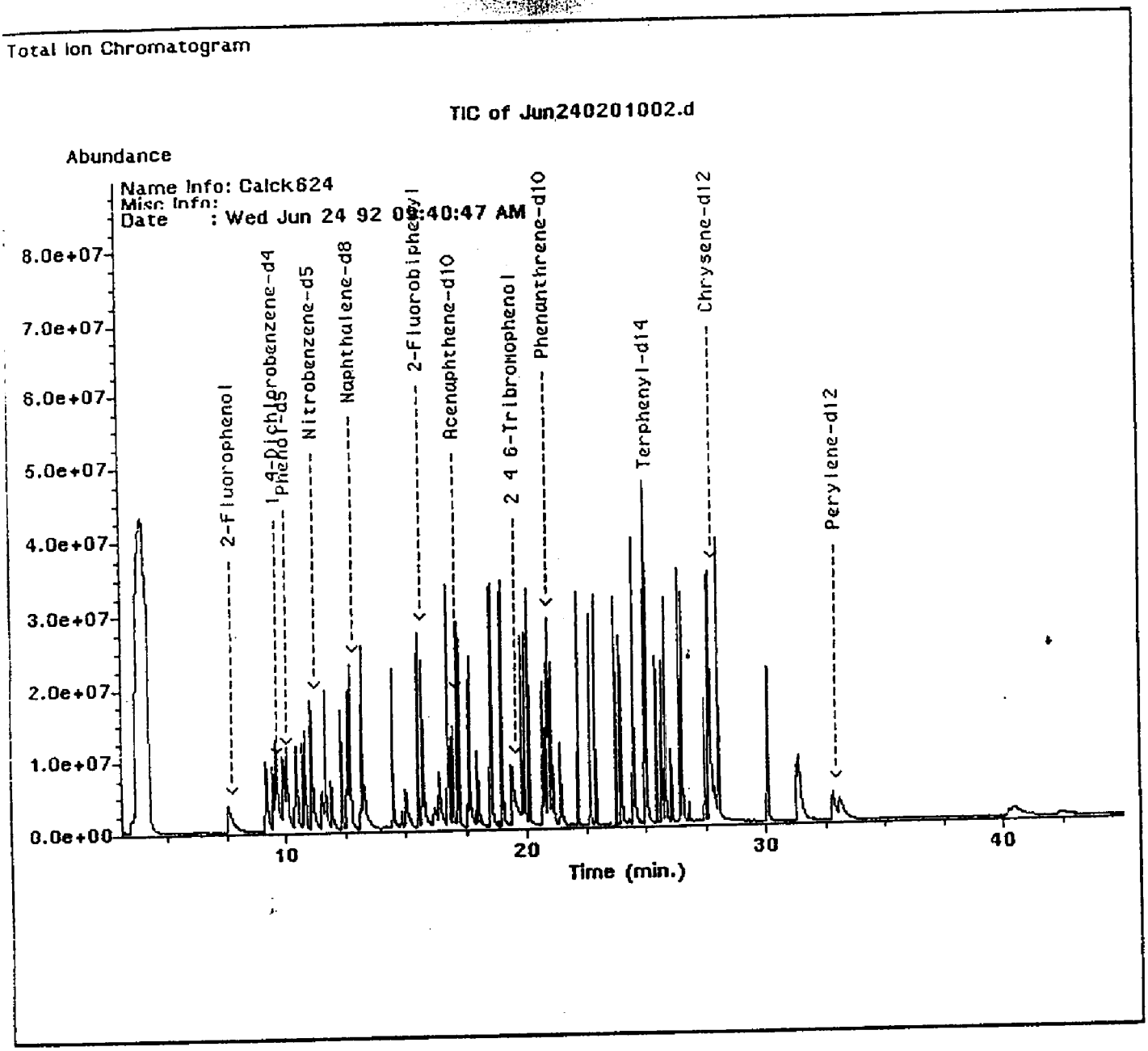
2,4-dinitrophenol
4-Nitrophenol

RRF min. 0.05 X Yes ___ No

ANALYST Hung S. Tran

0066

Total Ion Chromatogram



TOWNLEY LABORATORIES, INC.

DAILY/CONTINUING CALIBRATION

Lab File: /chem/msd.i/Jun260201002.d
Analysis Method: /target/msd.i/625h.m
Sample ID: Calck626
Dilution Factor: 1.00

Date Analyzed: 06/26/92
Date Reported: 07/30/92

COMPOUND	RRF	RRF50	%D
Pyridine	0.288	0.236	18.1
Aniline	0.201	0.179	10.9
N-Nitrosodimethylamine	0.745	0.690	7.4
bis(-2-Chloroethyl)Ether	1.756	1.546	11.9
1 3-Dichlorobenzene	1.554	1.246	19.8
2-Chlorophenol	1.271	0.938	26.2
1 4-Dichlorobenzene	1.534	1.404	8.4
Phenol	1.623	1.312	19.1
1 2-Dichlorobenzene	1.549	1.293	16.5
Benzyl Alcohol	0.379	0.448	-18.2
bis(-2-chloroisopropyl)ether	0.301	0.379	-26.1
Hexachloroethane	0.734	0.579	21.1
N-nitroso-Di-n-propylamine	1.210	1.114	8.0
2-Methylphenol	0.475	0.503	5.9
Nitrobenzene	0.450	0.538	-19.6
4-Methylphenol	0.556	0.598	-7.6
Isophorone	0.821	0.816	0.6
2-Nitrophenol	0.237	0.200	15.6
2 4-Dimethyphenol	0.320	0.300	6.3
bis(-2-Chloroethoxy)Methane	0.524	0.505	3.6
2 4-Dichlorophenol	0.365	0.301	17.5
1 2 4-Trichlorobenzene	0.432	0.386	10.6
Benzoic Acid	0.126	0.110	12.7
Naphthalene	1.000	0.854	14.6
4-Chloroaniline	0.306	0.380	-24.2
Hexachlorobutadiene	0.336	0.248	26.2
4-Chloro-3-Methylphenol	0.374	0.400	-6.9
2-Methylnaphthalene	0.382	0.474	-24.1
Hexachlorocyclopentadiene	0.460	0.400	13.0
2 4 6-Trichlorophenol	0.516	0.479	7.2
2-Chloronaphthalene	1.242	0.910	26.7
2 4 5-Trichlorophenol	0.203	0.247	-21.7
2-Nitroaniline	0.242	0.212	12.4
Acenaphthylene	1.610	1.255	22.0
Dimethyl Phthalate	1.245	0.945	24.1
2 6-Dinitrotoluene	0.388	0.414	-6.7
Acenaphthene	0.567	0.411	27.4

0062

TOWNLEY LABORATORIES, INC.

DAILY/CONTINUING CALIBRATION

Lab File: /chem/msd.i/Jun260201002.d
Analysis Method: /target/msd.i/625h.m
Sample ID: Calck626
Dilution Factor: 1.00

Date Analyzed: 06/26/92
Date Reported: 07/30/93

COMPOUND	RRF	RRF50	%D
2 4-Dinitrophenol	0.200	0.182	9.0
3-Nitroaniline	0.160	0.203	-26.9
Dibenzofuran	0.585	0.619	5.8
2 4-Dinitrotoluene	0.524	0.428	18.3
4-Nitrophenol	0.362	0.321	11.3
Fluorene	1.172	0.985	16.0
Diethylphthalate	1.060	0.930	12.3
4-Chlorophenyl-phenylether	0.715	0.601	15.9
4 6-Dinitro-2-methylphenol	0.173	0.219	-26.6
N-nitrosodiphenylamine	0.552	0.440	20.3
Azobenzene	0.894	0.864	3.4
4-Nitroaniline	0.174	0.201	-15.5
4-Bromophenyl-phenylether	0.406	0.380	6.4
Hexachlorobenzene	0.467	0.433	7.3
Phenanthrene	1.033	1.342	-29.9
Anthracene	0.996	0.976	2.0
Pentachlorophenol	0.277	0.310	-11.9
Di-n-Butylphthalate	1.078	0.921	14.6
Benzidine	0.104	0.123	-18.3
Fluoranthene	1.006	1.188	-18.1
Pyrene	2.030	1.966	3.2
Butylbenzylphthalate	1.082	0.889	17.8

0063

TOWNLEY LABORATORIES, INC.

DAILY/CONTINUING CALIBRATION

Lab File: /chem/msd.i/Jun260201002.d
Analysis Method: /target/msd.i/625h.m
Sample ID: Calck626
Dilution Factor: 1.00

Date Analyzed: 06/26/92
Date Reported: 07/30/93

COMPOUND	RRF	RRF50	%D
Benzo(a)Anthracene	1.205	0.966	19.8
3 3'-Dichlorobenzidine	0.635	0.604	4.8
Chrysene	1.208	0.880	27.2
bis(2-ethylhexyl)Phthalate	0.800	0.845	-5.6
Di-n-octyl Phthalate	1.340	1.106	17.5
Benzo(b)fluoranthene	1.296	1.005	22.5
Benzo(k)fluoranthene	1.395	1.099	21.2
Benzo(a)pyrene	1.139	0.985	13.5
Indeno(1 2 3-cd)pyrene	0.854	0.786	7.9
Dibenzo(a h)anthracene	0.875	0.916	-4.7
Benzo(g h i)perylene	0.940	0.901	4.1

DAILY/CONTINUING CALIBRATION - 6/26/92
(Date)

CALIBRATION CHECK COMPOUNDS

Base/Neutral Compounds

Acenaphthene
1,4-Dichlorobenzene
Hexachlorobutadiene
N-Nitrosodiphenylamine
Di-n-octylphthtalate
Fluoroanthene
Benzo(a)pyrene

% D ≤ 30% X Yes ___ No

Acid Compounds

4-Chloro-3-methylphenol
2,4-Dichlorophenol
2-Nitrophenol
Phenol
Pentachlorophenol
2,4,6-Trichlorophenol

% D ≤ 30% X Yes ___ No

SYSTEM PERFORMANCE CHECK COMPOUNDS

N-nitroso-di-n-propylamine
Hexachlorocyclopentadiene

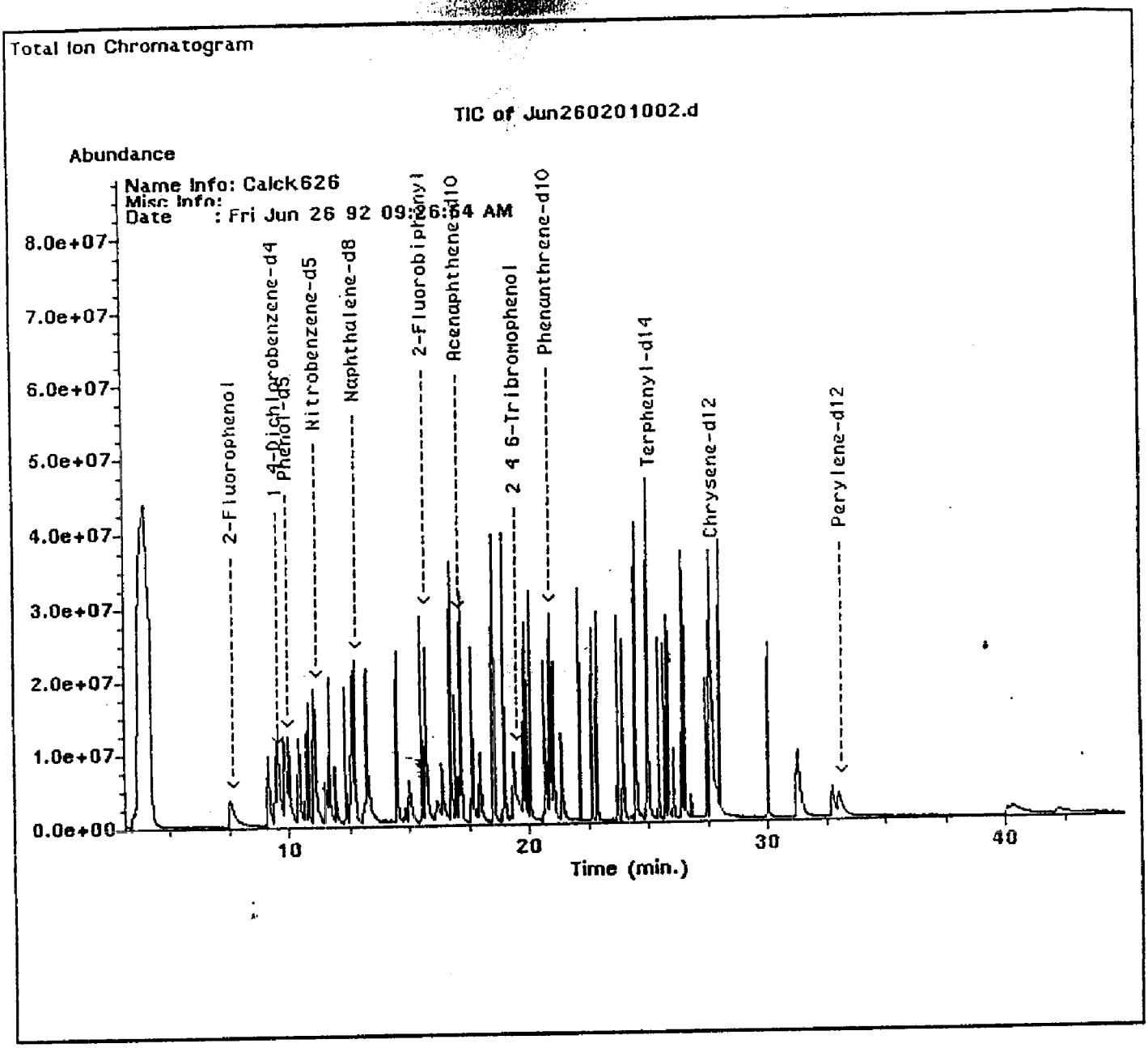
$\overline{RRF}$ min. 0.05 X Yes ___ No

2,4-dinitrophenol
4-Nitrophenol

RRF min. 0.05 X Yes ___ No

ANALYST Hung T. Tran

0065


Total Ion Chromatogram
TIC of Jun260201002.d
Abundance
Name Info: Calck626
Misc Info:
Date : Fri Jun 26 92 09:06:54 AM
8.0e+07
7.0e+07
6.0e+07
5.0e+07
4.0e+07
3.0e+07
2.0e+07
1.0e+07
0.0e+00
2-Fluorophenol
1 4-Dichlorobenzene-d4
Phenol-d5
Nitrobenzene-d5
Naphthalene-d8
2-Fluorobiphenyl
Acenaphthene-d10
2 4 6-Tribromophenol
Phenanthrene-d10
Terphenyl-d14
Chrysene-d12
Perylene-d12
10
20
30
40
Time (min.)

0066

TOWNLEY LABORATORIES, INC.

DAILY/CONTINUING CALIBRATION

Lab File: /chem/msd.i/Aug060201002.d
Analysis Method: /target/msd.i/625h.m
Sample ID: Calck806
Dilution Factor: 1.00

Date Analyzed: 08/06/92
Date Reported: 08/10/92

COMPOUND	$\overline{RRF}$	RRF50	%D
Aniline	0.201	0.182	9.4
Phenol	1.623	1.328	18.2
N-Nitrosodimethylamine	0.745	0.801	-7.5
bis(-2-Chloroethyl)Ether	1.756	1.427	18.7
2-Chlorophenol	1.271	1.013	20.3
1 3-Dichlorobenzene	1.554	1.345	13.4
1 4-Dichlorobenzene	1.534	1.105	27.9
1 2-Dichlorobenzene	1.549	1.085	30.0
Pyridine	0.288	0.247	14.2
Benzyl Alcohol	0.379	0.393	-3.7
bis(-2-chloroisopropyl)ether	0.301	0.358	-18.9
Hexachloroethane	0.734	0.536	26.9
N-nitroso-Di-n-propylamine	1.210	1.137	6.0
2-Methylphenol	0.475	0.587	-23.6
Nitrobenzene	0.450	0.552	-22.7
4-Methylphenol	0.556	0.452	18.7
Isophorone	0.821	1.012	-23.2
2-Nitrophenol	0.237	0.269	-13.4
2 4-Dimethyphenol	0.320	0.292	8.8
bis(-2-Chloroethoxy)Methane	0.524	0.587	-12.1
2 4-Dichlorophenol	0.365	0.400	-9.6
1 2 4-Trichlorobenzene	0.432	0.400	7.4
Benzoic Acid	0.126	0.113	10.3
Naphthalene	1.000	0.756	24.4
4-Chloroaniline	0.306	0.289	5.6
Hexachlorobutadiene	0.336	0.272	19.2
4-Chloro-3-Methylphenol	0.374	0.403	-7.8
2-Methylnaphthalene	0.382	0.478	-25.1
Hexachlorocyclopentadiene	0.460	0.509	-10.6
2 4 5-Trichlorophenol	0.203	0.189	6.9
2 4 6-Trichlorophenol	0.516	0.418	19.0
2-Chloronaphthalene	1.242	0.959	22.8
2-Nitroaniline	0.242	0.255	-5.4
Acenaphthylene	1.610	1.402	12.9
Dimethyl Phthalate	1.245	0.883	29.0
2 6-Dinitrotoluene	0.388	0.377	2.9
Acenaphthene	0.567	0.437	22.9

0067

TOWNLEY LABORATORIES, INC.

Lab File: /chem/msd.i/Aug060201002.d
Analysis Method: /target/msd.i/625h.m
Sample ID: Calck806
Dilution Factor: 1.00

Date Analyzed: 08/06/92
Date Reported: 08/10/92

COMPOUND	$\overline{RRF}$	RRF50	%D
2 4-Dinitrophenol	0.200	0.179	10.5
3-Nitroaniline	0.160	0.189	-18.0
Dibenzofuran	0.585	0.683	-16.8
4-Nitrophenol	0.362	0.349	3.6
2 4-Dinitrotoluene	0.524	0.533	-1.7
Fluorene	1.172	0.910	22.4
Diethylphthalate	1.060	0.877	17.3
4-Chlorophenyl-phenylether	0.715	0.556	22.3
4 6-Dinitro-2-methylphenol	0.173	0.155	10.4
N-nitrosodiphenylamine	0.552	0.549	0.4
Azobenzene	0.894	0.699	21.7
4-Nitroaniline	0.174	0.151	13.2
4-Bromophenyl-phenylether	0.406	0.370	9.0
Hexachlorobenzene	0.467	0.451	3.5
Pentachlorophenol	0.277	0.243	12.3
Phenanthrene	1.033	0.803	22.3
Anthracene	0.996	1.075	-8.0
Di-n-Butylphthalate	1.078	0.781	27.6
Benzidine	0.104	0.089	14.4
Fluoranthene	1.006	1.055	-4.9
Pyrene	2.030	1.883	7.2
Dieldrin	0.248	0.221	10.9
Butylbenzylphthalate	1.082	0.981	9.3

0068

Lab File: /chem/msd.i/Aug060201002.d
Analysis Method: /target/msd.i/625h.m
Sample ID: Calck806
Dilution Factor: 1.00

Date Analyzed: 08/06/
Date Reported: 08/10/

COMPOUND	$\overline{RRF}$	RRF50	%D
Benzo(a)Anthracene	1.205	0.991	17.8
3 3'-Dichlorobenzidine	0.635	0.605	4.7
Chrysene	1.208	0.993	17.8
bis(2-ethylhexyl)Phthalate	0.800	0.578	27.7
Di-n-octyl Phthalate	1.340	1.207	9.9
Benzo(b)fluoranthene	1.296	1.105	14.7
Benzo(k)fluoranthene	1.395	1.205	13.6
Benzo(a)pyrene	1.139	0.987	13.4
Indeno(1 2 3-cd)pyrene	0.854	0.903	-5.7
Dibenzo(a h)anthracene	0.875	0.901	-3.0
Benzo(g h i)perylene	0.940	0.914	2.8

DAILY/CONTINUING CALIBRATION - 8/6/92
(Date)

CALIBRATION CHECK COMPOUNDS

Base/Neutral Compounds

Acenaphthene
1,4-Dichlorobenzene
Hexachlorobutadiene
N-Nitrosodiphenylamine
Di-n-octylphthtalate
Fluoroanthene
Benzo(a)pyrene

% D ≤ 30% X Yes ___ No

Acid Compounds

4-Chloro-3-methylphenol
2,4-Dichlorophenol
2-Nitrophenol
Phenol
Pentachlorophenol
2,4,6-Trichlorophenol

% D ≤ 30% X Yes ___ No

SYSTEM PERFORMANCE CHECK COMPOUNDS

N-nitroso-di-n-propylamine
Hexachlorocyclopentadiene

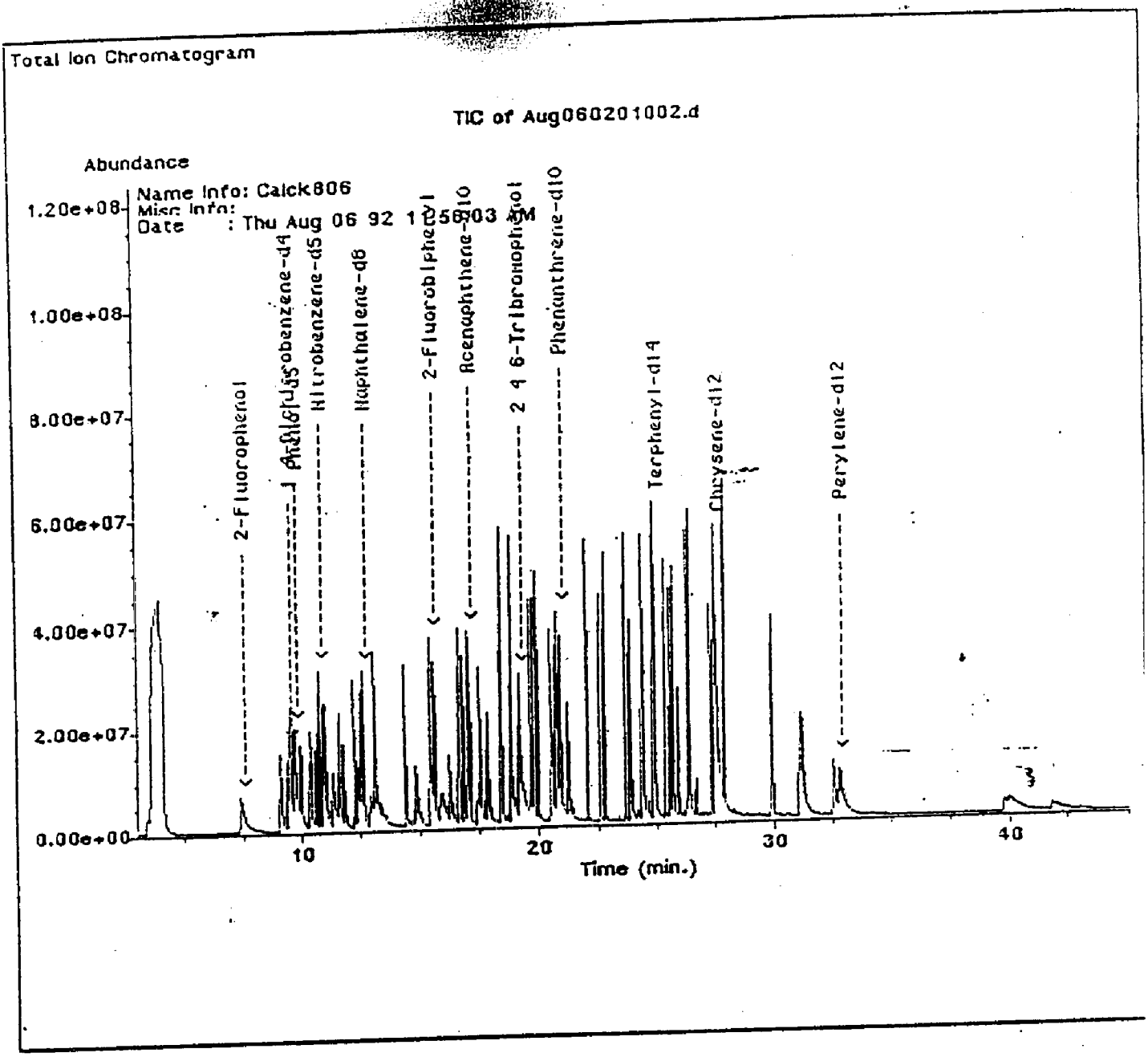
RRF min. 0.05 X Yes ___ No

2,4-dinitrophenol
4-Nitrophenol

RRF min. 0.05 X Yes ___ No

ANALYST J C Schwab

0070


Total Ion Chromatogram
TIC of Aug060201002.d
Abundance
Name Info: Calck806
Misc Info:
Date : Thu Aug 06 92 1
1.20e+08
1.00e+08
8.00e+07
6.00e+07
4.00e+07
2.00e+07
0.00e+00
2-Fluorophenol
Nitrobenzene-d5
Naphthalene-d8
2-Fluorobiphenyl
Acenaphthene-d10
2 4 6-Tribromophenol
Phenanthrene-d10
Terphenyl-d14
Chrysene-d12
Perylene-d12
10
20
30
40
Time (min.)

0071

TOWNLEY
LABORATORIES, INC

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Townley Laboratories Client: NJ Lubrication

NJDEP Certification # 20071 MS/MSD Sample: 8961

Compound	Spike Added (ug/l)	Initial Conc. (ug/l)	MS Conc. (ug/l)	MS % REC	QC REC. LIMITS
Phenol	100				12-89
2-Chlorophenol	100				27-123
1,4-Dichlorobenzene	50	0	45	90	36-97
N-nitroso-di-n-propylamine	50	0	46	92	41-116
1,2,4-Trichlorobenzene	50	0	46	92	39-98
4-Chloro-3-methylphenol	100				23-97
Acenapthene	50	0	35	70	46-118
4-Nitrophenol	100				10-80
2,4-Dinitrotoluene	50	0	28	56	24-96
Pentachlorophenol	100				9-103
Pyrene	50	3168	52	104	26-127

Compound	Spike Added (ug/l)	MSD Conc. (ug/l)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Phenol	100				42	12-89
2-Chlorophenol	100				40	27-123
1,4-Dichlorobenzene	50	48	96	6	28	36-97
N-nitroso-di-n-propylamine	50	41	82	11	38	41-116
1,2,4-Trichlorobenzene	50	49	98	6	28	39-98
4-Chloro-3-methylphenol	100				42	23-97
Acenapthene	50	38	76	8	31	46-118
4-Nitrophenol	100				50	10-80
2,4-Dinitrotoluene	50	28	56	0	38	24-96
Pentachlorophenol	100				50	9-103
Pyrene	50	32	64	38	51	26-127

*Values outside of qc limits

RPD: 0 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits

COMMENTS: _____

_____

0072

TOWNLEY

SEMIVOLATILE ORGANICS DATA SHEET BASE/NEUTRALS SW846 METHOD 8270

Sample No: MB
Source:

Matrix: Soil

Level: Low
Spl Size: 30.0 g
Date Smpl: 8/6
Units: ug/kg dry

Extraction: Sonicator
% Solids: 80.0
Date Extr: 8/6

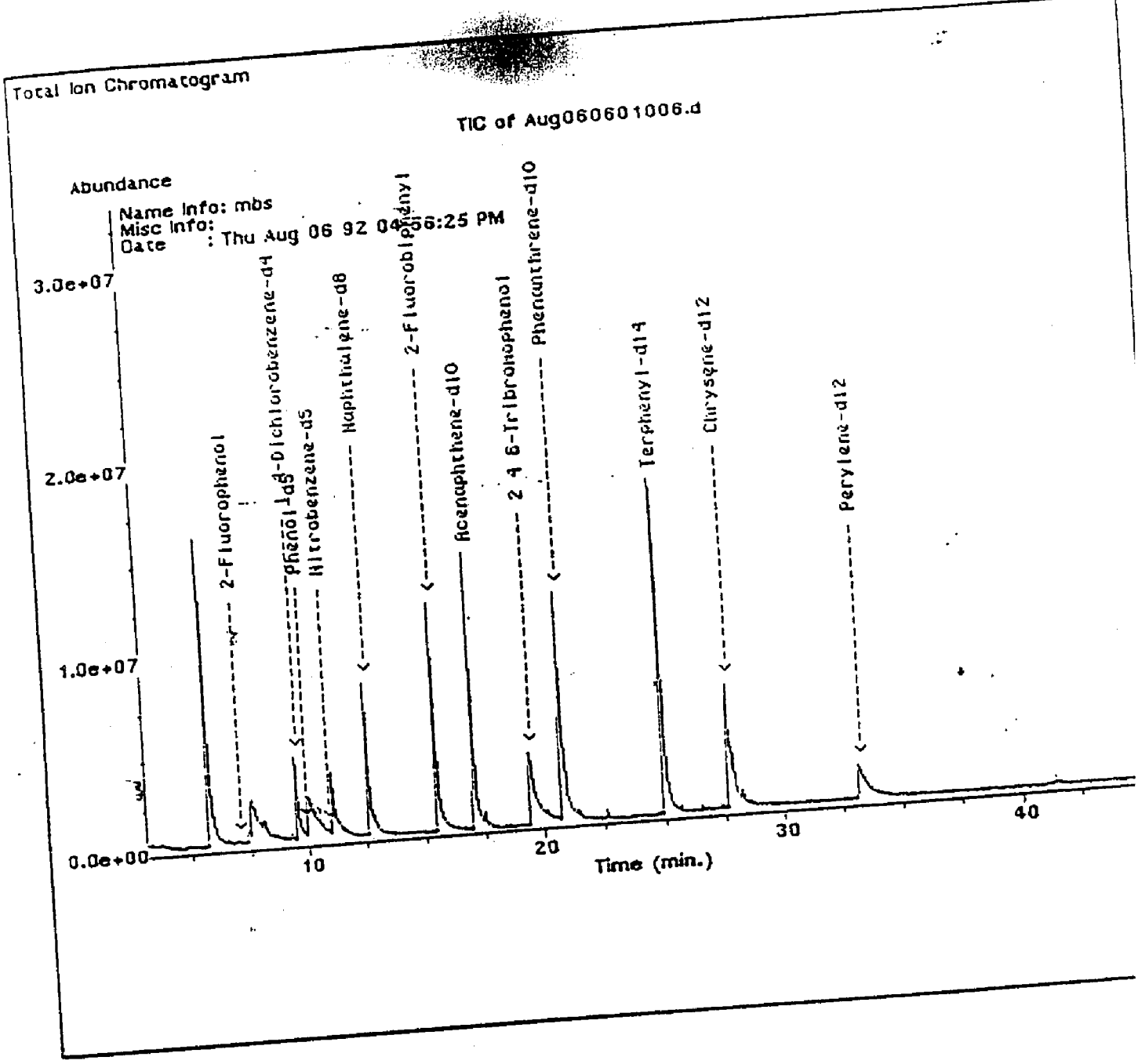
pH: NA
Dil. Factor: 33.3
Date Anal: 8/6

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acenaphthene	103.2	U	1,4-Dichlorobenzene	50.8	U
Acenaphtylene	43.3	U	3,3'-Dichlorobenzidine	6.7	U
Aniline	41.6	U	Diethyl phthalate	561.9	U
Anthracene	53.7	U	Dimethyl phthalate	790.9	U
Azobenzene	41.6	U	2,4-Dinitrotoluene	12.9	U
Benzidine	77.0	U	2,6-Dinitrotoluene	54.9	U
Benzo(a)anthracene	25.0	U	Di-n-octyl phthalate	102.0	U
Benzo(b)fluoranthene	35.4	U	Fluoranthene	22.1	U
Benzo(k)fluoranthene	49.5	U	Fluorene	44.5	U
Benzoic Acid	41.6	U	Hexachlorobenzene	26.2	U
Benzo(a)pyrene	36.6	U	Hexachlorobutadiene	39.1	U
Benzo(ghi)perylene	23.3	U	Hexachlorocyclopentadiene	15.8	U
Benzyl Alcohol	41.6	U	Hexachloroethane	45.8	U
Bis(2-chloroethyl)ether	34.1	U	Indeno(1,2,3-cd)pyrene	6.7	U
Bis(2-chloroethoxy)methane	39.1	U	Isophorone	43.3	U
Bis(2-chloroisopropyl)ether	34.1	U	2-Methylnaphthalene	41.6	U
Bis(2-ethylhexyl)phthalate	35.4	U	Napthalene	44.5	U
4-Bromophenylphenylether	19.6	U	2-Nitroaniline	41.6	U
Butylbenzylphthalate	41.6	U	3-Nitroaniline	41.6	U
2-Chloronaphthalene	31.2	U	4-Nitroaniline	41.6	U
4-Chlorophenylphenylether	35.4	U	Nitrobenzene	28.7	U
Chrysene	26.2	U	N-nitrosodimethylamine	7.9	U
Dibenzo(a,h)anthracene	10.4	U	N-nitrosodiphenylamine	36.6	U
Dibenzofuran	41.6	U	N-nitrosodi-n-propylamine	36.6	U
Di-n-butylphthalate	94.1	U	Phenanthrene	32.5	U
1,2-Dichlorobenzene	30.0	U	Pyrene	40.4	U
1,3-Dichlorobenzene	36.6	U	1,2,4-Trichlorobenzene	36.6	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

0073


Total Ion Chromatogram
TIC of Aug060601006.d
Abundance
Name Info: mbs
Misc Info:
Date : Thu Aug 06 92 04:56:25 PM
3.0e+07
2.0e+07
1.0e+07
0.0e+00
2-Fluorophenol
Phenol-d5
2-Chlorobenzene-d4
Nitrobenzene-d5
Naphthalene-d8
2-Fluorobiphenyl
Acenaphthene-d10
2,4,6-Tribromophenol
Phenanthrene-d10
Terphenyl-d14
Chrysene-d12
Perylene-d12
10
20
30
40
Time (min.)

TOWNLEY

ORGANIC EXTRACTION DATA SHEET

Sample No: MB

Date Sampled: 8/6/92 Date Extracted: 8/6/92

Type Sample: [ ] Aqueous - Clear [ ] Aqueous - Dirty

[ ] Sludge [✓] Soil [ ] Oil

[ ] TCLP Extract [ ] Other: _____

Analysis Requested: [✓] Acids [✓] B/N [ ] Library Search

Initial Extraction Volume/Wt: 30g ~~ml~~ ~~mg~~

Final Volume of Extract: 1.0 (ml)

Type of Extraction: [ ] Sep Funnel [ ] Soxhlet [✓] Sonicator

Emulsion Formation/Description: _____

Surrogate	Amount (ug/l)	Spike	Amount	Spike Dup Amount
B/N	50	B/N	_____	_____
Acids	100	Acids	_____	_____

pH

Initial _____ B/N Extraction _____

Acid Extraction _____

Name: S. Romero Date: 8/6/92

0075

TOWNLEY

SEMIVOLATILE ORGANICS DATA SHEET BASE/NEUTRALS SW846 METHOD 8270

Sample No: 8961 MS Matrix: Soil
Source:

Level: Low Extraction: Sonicator pH: NA
Spl Size: 30.0 g % Solids: 80.0 Dil. Factor: 200
Date Smpl: 8/5 Date Extr: 8/6 Date Anal: 8/6
Units: ug/kg dry

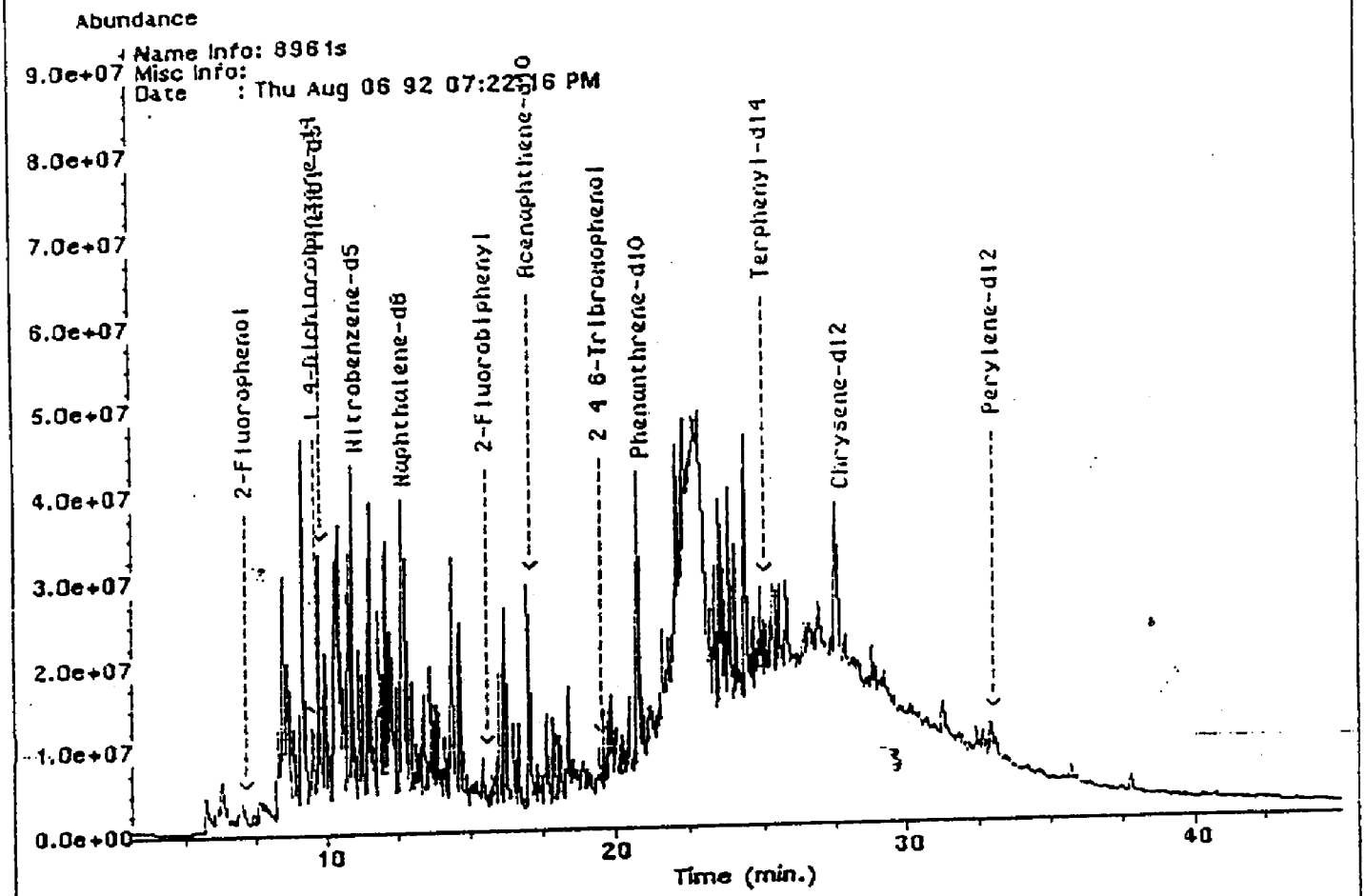
COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acenaphthene	620	35	1,4-Dichlorobenzene	305	45
Acenaphtylene	260	2081	3,3'-Dichlorobenzidine	40	U
Aniline	250	U	Diethyl phthalate	3375	U
Anthracene	323	U	Dimethyl phthalate	4750	U
Azobenzene	250	U	2,4-Dinitrotoluene	78	28
Benzidine	463	U	2,6-Dinitrotoluene	330	U
Benzo(a)anthracene	150	3241	Di-n-octyl phthalate	613	U
Benzo(b)fluoranthene	213	U	Fluoranthene	133	8231
Benzo(k)fluoranthene	298	U	Fluorene	268	4560
Benzoic Acid	250	U	Hexachlorobenzene	158	U
Benzo(a)pyrene	220	U	Hexachlorobutadiene	235	U
Benzo(ghi)perylene	140	U	Hexachlorocyclopentadiene	95	U
Benzyl Alcohol	250	U	Hexachloroethane	275	U
Bis(2-chloroethyl)ether	205	U	Indeno(1,2,3-cd)pyrene	40	U
Bis(2-chloroethoxy)methane	235	U	Isophorone	260	U
Bis(2-chloroisopropyl)ether	205	U	2-Methylnaphthalene	250	29943
Bis(2-ethylhexyl)phthalate	213	U	Napthalene	268	12903
4-Bromophenylphenylether	118	U	2-Nitroaniline	250	U
Butylbenzylphthalate	250	U	3-Nitroaniline	250	U
2-Chloronaphthalene	188	U	4-Nitroaniline	250	U
4-Chlorophenylphenylether	213	U	Nitrobenzene	173	U
Chrysene	158	U	N-nitrosodimethylamine	48	U
Dibenzo(a,h)anthracene	63	U	N-nitrosodiphenylamine	220	U
Dibenzofuran	250	U	N-nitrosodi-n-propylamine	220	46
Di-n-butylphthalate	565	U	Phenanthrene	195	10347
1,2-Dichlorobenzene	180	U	Pyrene	243	4896
1,3-Dichlorobenzene	220	U	1,2,4-Trichlorobenzene	220	46

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

0076

Total Ion Chromatogram



0077

TOWNLEY

ORGANIC EXTRACTION DATA SHEET

Sample No: 8961 (5)

Date Sampled: 8/5/92 Date Extracted: 8/6/92

Type Sample: [ ] Aqueous - Clear [ ] Aqueous - Dirty

[ ] Sludge [✓] Soil [ ] Oil

[ ] TCLP Extract [ ] Other: _____

Analysis Requested: [✓] Acids [✓] B/N [✓] Library Search

Initial Extraction Volume/Wt: 30g ~~ml~~ ~~mg~~

Final Volume of Extract: 3.0 ml

Type of Extraction: [ ] Sep Funnel [ ] Soxhlet [✓] Sonicator

Emulsion Formation/Description: _____

Surrogate	Amount (ug/l)	Spike	Amount (ug/l)	Spike Dup Amount
B/N	50	B/N	50	_____
Acids	100	Acids	100	_____

pH

Initial _____ B/N Extraction _____

Acid Extraction _____

Name: S. Romer Date: 8/6/92

0078

TOWNLEY

SEMIVOLATILE ORGANICS DATA SHEET BASE/NEUTRALS SW846 METHOD 8270

Sample No: 8961 MSD Matrix: Soil
Source:

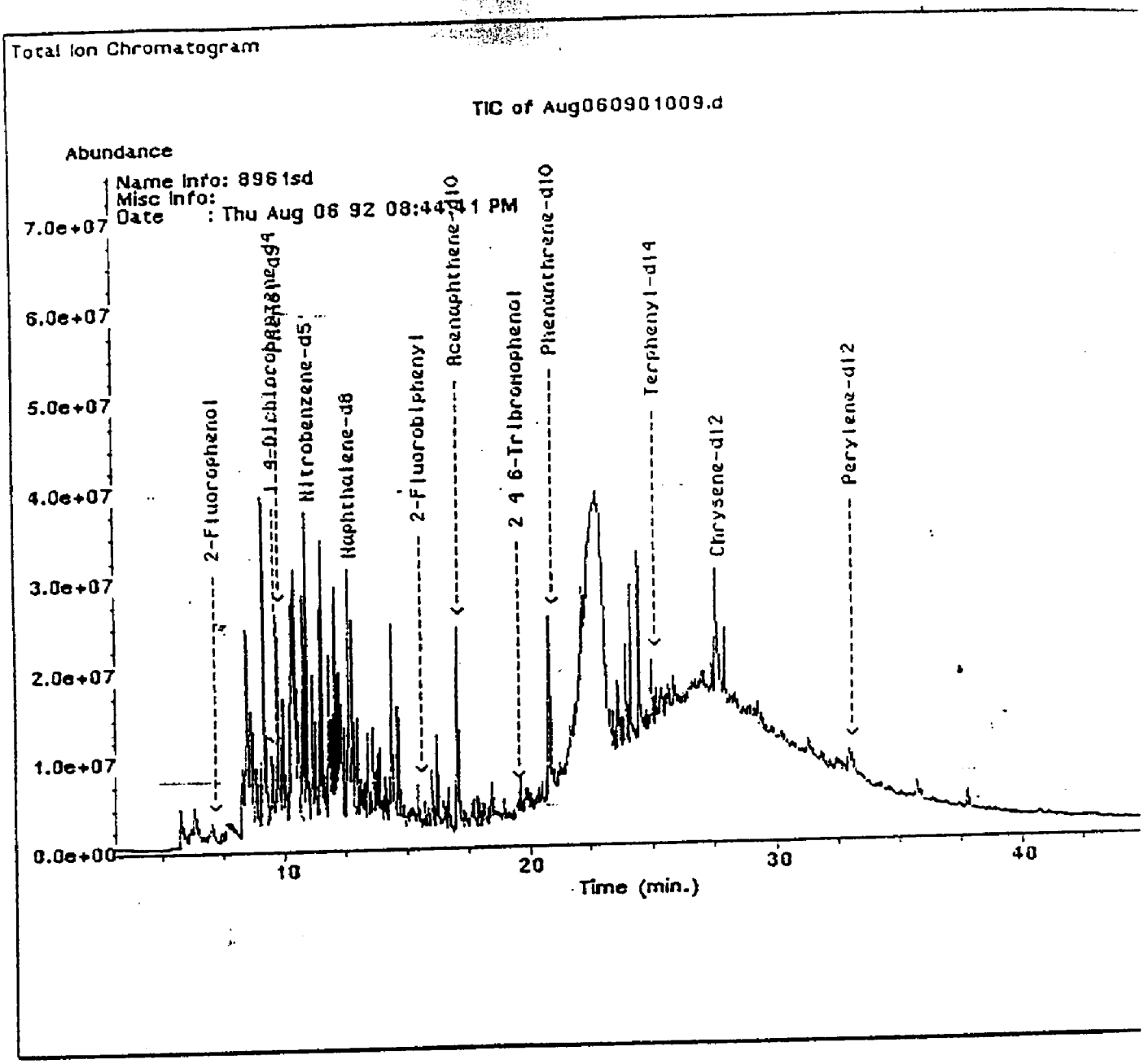
Level: Low Extraction: Sonicator pH: NA
Spl Size: 30.0 g % Solids: 80.0 Dil. Factor: 200
Date Smpl: 8/5 Date Extr: 8/6 Date Anal: 8/6
Units: ug/kg dry

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acenaphthene	620	38	1,4-Dichlorobenzene	305	48
Acenaphtylene	260	985	3,3'-Dichlorobenzidine	40	U
Aniline	250	U	Diethyl phthalate	3375	U
Anthracene	323	U	Dimethyl phthalate	4750	U
Azobenzene	250	U	2,4-Dinitrotoluene	78	28
Benzidine	463	U	2,6-Dinitrotoluene	330	U
Benzo(a)anthracene	150	1066	Di-n-octyl phthalate	613	U
Benzo(b)fluoranthene	213	U	Fluoranthene	133	4019
Benzo(k)fluoranthene	298	U	Fluorene	268	1829
Benzoic Acid	250	U	Hexachlorobenzene	158	U
Benzo(a)pyrene	220	U	Hexachlorobutadiene	235	U
Benzo(ghi)perylene	140	U	Hexachlorocyclopentadiene	95	U
Benzyl Alcohol	250	U	Hexachloroethane	275	U
Bis(2-chloroethyl)ether	205	U	Indeno(1,2,3-cd)pyrene	40	U
Bis(2-chloroethoxy)methane	235	U	Isophorone	260	U
Bis(2-chloroisopropyl)ether	205	U	2-Methylnaphthalene	250	2360
Bis(2-ethylhexyl)phthalate	213	1368	Napthalene	268	1035
4-Bromophenylphenylether	118	U	2-Nitroaniline	250	U
Butylbenzylphthalate	250	U	3-Nitroaniline	250	U
2-Chloronaphthalene	188	U	4-Nitroaniline	250	U
4-Chlorophenylphenylether	213	U	Nitrobenzene	173	U
Chrysene	158	U	N-nitrosodimethylamine	48	U
Dibenzo(a,h)anthracene	63	U	N-nitrosodiphenylamine	220	U
Dibenzofuran	250	U	N-nitrosodi-n-propylamine	220	4
Di-n-butylphthalate	565	U	Phenanthrene	195	557
1,2-Dichlorobenzene	180	U	Pyrene	243	422
1,3-Dichlorobenzene	220	U	1,2,4-Trichlorobenzene	220	4

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

0079


Total Ion Chromatogram
TIC of Aug060901009.d
Abundance
Name Info: 8961sd
Misc Info:
Date : Thu Aug 06 92 08:44:41 PM
7.0e+07
6.0e+07
5.0e+07
4.0e+07
3.0e+07
2.0e+07
1.0e+07
0.0e+00
2-Fluorophenol
1,4-Dichlorobenzene-d4
Nitrobenzene-d5
Naphthalene-d8
2-Fluorobiphenyl
Acenaphthene-d10
2,4,6-Tribromophenol
Phenanthrene-d10
Terphenyl-d14
Chrysene-d12
Perylene-d12
10
20
30
40
Time (min.)

0080

TOWNLEY

ORGANIC EXTRACTION DATA SHEET

Sample No: 89615D

Date Sampled: 8/5/92 Date Extracted: 8/6/92

Type Sample: [ ] Aqueous - Clear [ ] Aqueous - Dirty

[ ] Sludge [✓] Soil [ ] Oil

[ ] TCLP Extract [ ] Other: _____

Analysis Requested: [✓] Acids [✓] B/N [✓] Library Search

Initial Extraction Volume/Wt: 30g ~~ml~~ ~~mg~~

Final Volume of Extract: 3.0 ml

Type of Extraction: [ ] Sep Funnel [ ] Soxhlet [✓] Sonicator

Emulsion Formation/Description: _____

Surrogate	Amount (ug/l)	Spike	Amount	Spike Dup Amount
B/N	50	B/N	_____	50
Acids	100	Acids	_____	100

pH

Initial _____ B/N Extraction _____

Acid Extraction _____

Name: S. Romero Date: 8/6/92

0081

TOWNLEY
LABORATORIES INC

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Townley Laboratories Client: NJ Lubrication

NJDEP Certification # 20071

SAMPLE NO	S1	S2	S3	S4	S5	S6	Other	Total Out
Method Blank	46	75	69					0
8961MS	69	100	69					0
8961MSD	52	103	72					0

	QC Limits
S1 = Nitrobenzene-d5	(35-114)
S2 = 2-Fluorobiphenyl	(43-116)
S3 = Terphenyl-d14	(33-141)
S4 = Phenol-d5	(10-94)
S5 = 2-Fluorophenol	(21-100)
S6 = 2,4,6-Tribromophenol	(10-123)

* Values outside of QC limits
D Values outside of QC limits due to dilution of sample

TOWNLEY
LABORATORIES, INC

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Townley Laboratories Client: NJ Lubrication

NJDEP Certification # 20071

SAMPLE NO	S1	S2	S3	S4	S5	S6	Other	Total Out
Method Blank	46	67	50					0
6929	36	89	72					0
6933	42	87	82					0

	QC Limits
S1 = Nitrobenzene-d5	(35-114)
S2 = 2-Fluorobiphenyl	(43-116)
S3 = Terphenyl-d14	(33-141)
S4 = Phenol-d5	(10-94)
S5 = 2-Fluorophenol	(21-100)
S6 = 2,4,6-Tribromophenol	(10-123)

* Values outside of QC limits
D Values outside of QC limits due to dilution of sample

Bridgeport Environmental Inc.

P.O. Box 247
510 Heron Drive Suite 107
Bridgeport, NJ 08014-0247

609-467-0380

TOWNLEY LABORATORIES, INC

ANALYSIS NO:	CLIENT ID:
G6063	6929
G6064	6933

DATE RECEIVED: JUNE 17, 1992

BRIDGEPORT ENVIRONMENTAL, INC

Richard W Lynch

RICHARD W. LYNCH
LABORATORY MANAGER

TOWNLEY LABORATORIES, INC.
ENVIRONMENTAL TESTING SERVICES
SINCE 1980

1750 W. Front Street, Plainfield, N.J. 07063 • (908) 757-1137 • Fax (908) 757-0335

DIVISION/DISTRICT/DEPARTMENT	LOCATION	CASE NUMBER (IF A
PROPERTY RECEIVED FROM	LOCATION OF PROPERTY	
PURPOSE FOR OBTAINING PROPERTY	Transfer to Bridgeport	

ITEM NO.	QUANTITY	DESCRIPTION OF ARTICLES (INCLUDE MODEL, SERIAL NUMBER, IDENTIFYING MARKS)
1	2 mls vials	≡6929 ≡6933 for VO by GC/MS +LS

Sample Date: 6/15/92.

Report Due: 6/29/92.

CHAIN OF CUSTODY

ITEM NO.	DATE	RELINQUISHED BY	RECEIVED BY
1	6/17/92	PRINT NAME, TITLE: Sharon Ercoliani, Lab Mgr SIGNATURE: Sharon Ercoliani PURPOSE OF CHANGE OF CUSTODY	PRINT NAME, TITLE: J. Berres, VP SIGNATURE: J. Berres
		PRINT NAME, TITLE SIGNATURE PURPOSE OF CHANGE OF CUSTODY	PRINT NAME, TITLE SIGNATURE
		PRINT NAME, TITLE SIGNATURE PURPOSE OF CHANGE OF CUSTODY	PRINT NAME, TITLE SIGNATURE
		PRINT NAME, TITLE SIGNATURE PURPOSE OF CHANGE OF CUSTODY	PRINT NAME, TITLE SIGNATURE

METHODOLOGY SUMMARY

PURGEABLES

U.S.E.P.A. Method 624 - This is a purge and trap Gas Chromatograph/Mass Spectrometer (GC/MS) method applicable to the determination of the compounds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

An HP5996 GC/MS was used with a capillary column.

Method detection limits are as stated.

Soil samples are prepared for analysis as prescribed in Method 8240 from SW846.

ACID EXTRACTABLES
BASE NEUTRALS

U.S.E.P.A. Method 625 - This method covers the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. This is a gas chromatography/mass spectrometer (GC/MS) method applicable to the determination of the compounds listed in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

A HP5970 was used with a DB-5 FSCC.

Method detection limits are as stated.

Soil samples were prepared for analysis as prescribed in Method 3550 and analyzed as prescribed in Method 8270 from SW846.

PESTICIDES/PCB'S

U.S.E.P.A. Method 608 - This method covers the determination of pesticides and PCB'S in samples by extraction/concentraction with organic solvents and subsequent qualification/quantification by Gas Chromatography. The gas chromatograph utalized an electron capture detector (ECD) which is applicable for the determination of the compounds listed for the method in the U.S.E.P.A. Manual entitled "Test Procedures for the Analysis of Organic Pollutants".

Soil samples were prepared as prescribed in Method 3550 and analyzed as prescribed in Method 8080 from SW846.

LABORATORY CHRONICLE

RECEIPT/REFRIGERATION 6/17/92

ORGANICS
EXTRACTION

1. Acids NA
2. Base/Neutrals NA
3. Pesticides/PCB's/Herbicides NA
4. Petroleum Hydrocarbons NA

ANALYSIS

1. Volatiles 6/23/92
2. Acids NA
3. Base/Neutrals NA
4. Pesticides/PCB's/Herbicides NA
5. Petroleum Hydrocarbons NA
6. Total Organic Carbon NA

Section Supervisor
Review & Approval Paul Sarais

INORGANICS

1. Metals NA
2. Cyanides NA
3. Phenols NA

OTHER ANALYTES

Section Supervisor
Review & Approval NA

Quality Control Supervisor
Review & Approval

Laboratory Director
Review & Approval

If fractions are re-extracted and re-analyzed because initial endeavors did not meet quality control acceptance criteria, include dates for both.

RESULT SUMMARY

[redacted]

VOLATILE ORGANIC [redacted]

[redacted]		[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]		[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]

COMPOUND	UG/KG	MDL
Acrolein	ND	63
Acrylonitrile	ND	63
Chloromethane	ND	13
Bromomethane	ND	13
Vinyl Chloride	ND	13
Chloroethane	ND	13
Acetone	ND	13
1,1-Dichloroethene	ND	6
Carbon Disulfide	ND	13
Methylene Chloride	5.5 JB	6
1,2-Dichloroethene(trans)	ND	6
1,1-Dichloroethane	ND	6
Vinyl Acetate	ND	6
2-Butanone	ND	13
Chloroform	ND	6
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
1,2-Dichloroethane	ND	6
Benzene	ND	6
Trichloroethene	ND	6
1,2-Dichloropropane	ND	6
Bromodichloromethane	ND	6

COMPOUND	UG/KG	MDL
2-Chloroethylvinylether	ND	13
2-Hexanone	ND	13
trans-1,3-Dichloropropene	ND	6
Toluene	ND	6
cis-1,3-Dichloropropene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
1,1,2-Trichloroethane	ND	6
4-Methyl-2-pentanone	ND	13
Tetrachloroethene	ND	6
Dibromochloromethane	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
m&p-Xylenes	ND	6
o-Xylene	ND	6
Styrene	ND	6
Bromoform	ND	6
m-Dichlorobenzene	ND	6
p-Dichlorobenzene	ND	6
o-Dichlorobenzene	ND	6
Tertiary Butyl Alcohol	ND	120
Methyl Tertiary Butyl Ether	ND	13

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	102	70 - 121	OK
Toluene-d8	100	81 - 117	OK
Bromofluorobenzene	96.9	74 - 121	OK

Percent Solid of 80.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

Bridgeport Environmental
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	[illegible]
SAMPLE NUMBER	[illegible]	DILUTION FACTOR	
CLIENT ID		QA BATCH	
DATA FILE	[illegible]	DATE ANALYZED	[illegible]

COMPOUND	UG/KG	MDL
Acrolein	ND	54
Acrylonitrile	ND	54
Chloromethane	ND	11
Bromomethane	ND	11
Vinyl Chloride	ND	11
Chloroethane	ND	11
Acetone	ND	11
1,1-Dichloroethene	ND	5
Carbon Disulfide	ND	11
Methylene Chloride	4.0 JB	5
1,2-Dichloroethene(trans)	ND	5
1,1-Dichloroethane	ND	5
Vinyl Acetate	ND	5
2-Butanone	ND	11
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
1,2-Dichloroethane	ND	5
Benzene	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Bromodichloromethane	ND	5

COMPOUND	UG/KG	MDL
2-Chloroethylvinylether	ND	11
2-Hexanone	ND	11
trans-1,3-Dichloropropene	ND	5
Toluene	ND	5
cis-1,3-Dichloropropene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,1,2-Trichloroethane	ND	5
4-Methyl-2-pentanone	ND	11
Tetrachloroethene	ND	5
Dibromochloromethane	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
m&p-Xylenes	ND	5
o-Xylene	ND	5
Styrene	ND	5
Bromoform	ND	5
m-Dichlorobenzene	ND	5
p-Dichlorobenzene	ND	5
o-Dichlorobenzene	ND	5
Tertiary Butyl Alcohol	ND	110
Methyl Tertiary Butyl Ether	ND	11

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.5	70 - 121	OK
Toluene-d8	98.9	81 - 117	OK
Bromofluorobenzene	100	74 - 121	OK

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Matrix: (soil/water) SOIL

Lab Sample ID: G6054

Sample wt/vol: 9 (g/mL) G

Lab File ID: V8693F

Level: LOW

Date Received: 06/17/92

% Moisture: 7

Date Analyzed: 06/23/92

Column: DB-624

Dilution Factor: 1

Number TICs Found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	No Unknowns		

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

Lab Name: Bridgeport Environmental, Contract: N/A

Lab Code: NJ 08555 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: 66063

Sample wt/vol: 5 (g/mL) G Lab File ID: H5652

Level: (low/med) LOW Date Received: 6/17/92

% Moisture: 20 Date Analyzed: 6/23/92

Column: DB-624 Dilution Factor: 1

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

DATA PACKAGE

Bridgeport Environmental
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Soil
SAMPLE NUMBER	G6063	DILUTION FACTOR	1.00
CLIENT ID		QA BATCH	
DATA FILE	>A5652	DATE ANALYZED	06/23/92

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	63	2-Chloroethylvinylether	ND	13
Acrylonitrile	ND	63	2-Hexanone	ND	13
Chloromethane	ND	13	trans-1,3-Dichloropropene	ND	6
Bromomethane	ND	13	Toluene	ND	6
Vinyl Chloride	ND	13	cis-1,3-Dichloropropene	ND	6
Chloroethane	ND	13	1,1,2,2-Tetrachloroethane	ND	6
Acetone	ND	13	1,1,2-Trichloroethane	ND	6
1,1-Dichloroethene	ND	6	4-Methyl-2-pentanone	ND	13
Carbon Disulfide	ND	13	Tetrachloroethene	ND	6
Methylene Chloride	5.5 JB	6	Dibromochloromethane	ND	6
1,2-Dichloroethene(trans)	ND	6	Chlorobenzene	ND	6
1,1-Dichloroethane	ND	6	Ethylbenzene	ND	6
Vinyl Acetate	ND	6	m&p-Xylenes	ND	6
2-Butanone	ND	13	o-Xylene	ND	6
Chloroform	ND	6	Styrene	ND	6
1,1,1-Trichloroethane	ND	6	Bromoform	ND	6
Carbon Tetrachloride	ND	6	m-Dichlorobenzene	ND	6
1,2-Dichloroethane	ND	6	p-Dichlorobenzene	ND	6
Benzene	ND	6	o-Dichlorobenzene	ND	6
Trichloroethene	ND	6	Tertiary Butyl Alcohol	ND	120
1,2-Dichloropropane	ND	6	Methyl Tertiary Butyl Ether	ND	13
Bromodichloromethane	ND	6			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	102	70 - 121	OK
Toluene-d8	100	81 - 117	OK
Bromofluorobenzene	96.9	74 - 121	OK

Percent Solid of 80.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

G6063

Lab Name: Bridgeport Environmental, Contract: N/A

Lab Code: NJ 08555 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: G6063

Sample wt/vol: 5 (g/mL) G Lab File ID: >A5652

Level: (low/med) LOW Date Received: 6/17/92

% Moisture: 20 Date Analyzed: 6/23/92

Column: DB-624 Dilution Factor: 1

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

QUANT REPORT

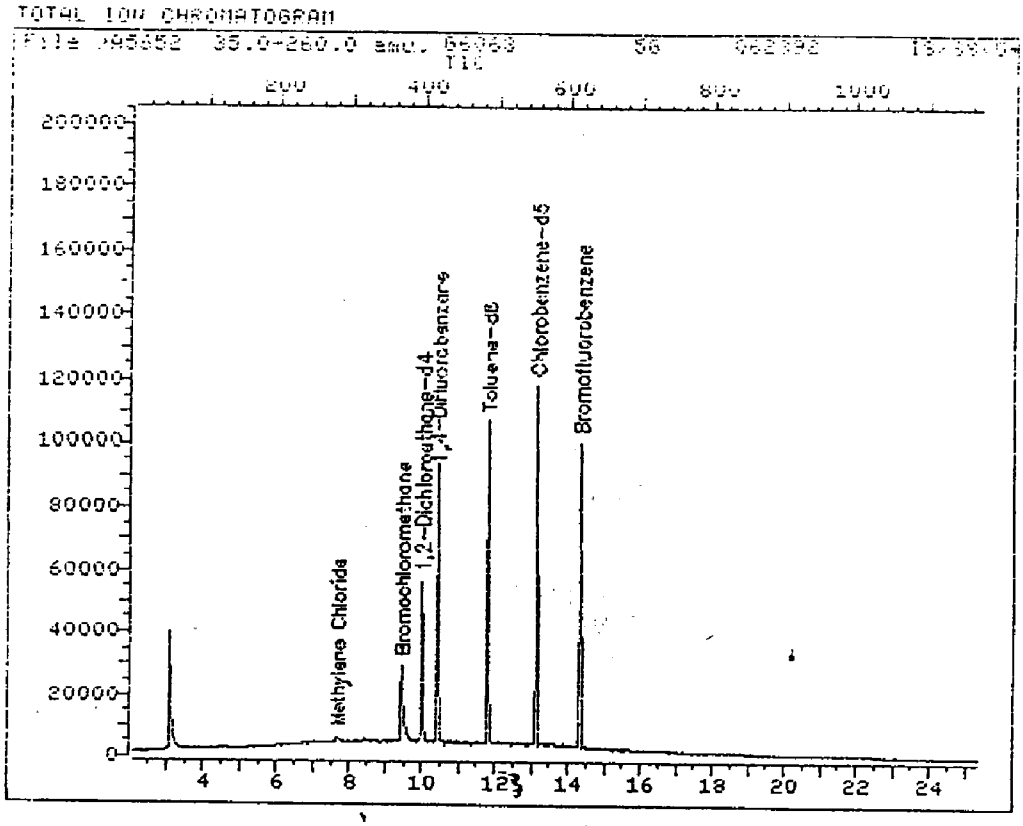
Operator ID: MANAGER
Output File: >A5692::D4
Data File: >A5692::D2
Name: C6063 5G
Misc: 062392 IS/SS(5+5uL),E=1750,A/D=8,T=40,DB-624

Quant Rev: e Quant Time: 920623 17:04
Injected at: 920623 16:41
Dilution Factor: 1.00000

ID File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920623 15:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.46	371	16611	50.00	UG/KG100	
11)	Methylene Chloride	7.69	282	4429	4.41	UG/KG 74	
19)	1,2-Dichloroethane-d4	10.01	399	59228	51.10	UG/KG100	
20)	*1,4-Difluorobenzene	10.43	420	97086	50.00	UG/KG100	
29)	Toluene-d8	11.80	489	102764	50.09	UG/KG100	
31)	*Chlorobenzene-d5	13.13	556	84421	50.00	UG/KG 92	
44)	Bromofluorobenzene	14.33	616	66516	48.45	UG/KG100	

* Compound is ISTD



Data File: >A5652::D2 Quant Output File: ^A5652::D4
Name: G6063 5G
Misc: 062392 IS/SS(5+5uL),E=1750,A/D=8,T=60,DB-624

Id File: IDVOL1::M1
Title: HSL VOLATILES 5C SX 5PT CALIBRATION
Last Calibration: 920623 15:37

Operator ID: MANAGER
Quant Time: 920623 17:06
Injected at: 920623 16:41

Bridgeport Environmental
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	SOIL
SAMPLE NUMBER	[illegible]	DILUTION FACTOR	1
CLIENT ID		QA BATCH	
DATA FILE	JA5683	DATE ANALYZED	06/23/92

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	54	2-Chloroethylvinylether	ND	11
Acrylonitrile	ND	54	2-Hexanone	ND	11
Chloromethane	ND	11	trans-1,3-Dichloropropene	ND	5
Bromomethane	ND	11	Toluene	ND	5
Vinyl Chloride	ND	11	cis-1,3-Dichloropropene	ND	5
Chloroethane	ND	11	1,1,2,2-Tetrachloroethane	ND	5
Acetone	ND	11	1,1,2-Trichloroethane	ND	5
1,1-Dichloroethene	ND	5	4-Methyl-2-pentanone	ND	11
Carbon Disulfide	ND	11	Tetrachloroethene	ND	5
Methylene Chloride	4.0 JB	5	Dibromochloromethane	ND	5
1,2-Dichloroethene(trans)	ND	5	Chlorobenzene	ND	5
1,1-Dichloroethane	ND	5	Ethylbenzene	ND	5
Vinyl Acetate	ND	5	m&p-Xylenes	ND	5
2-Butanone	ND	11	o-Xylene	ND	5
Chloroform	ND	5	Styrene	ND	5
1,1,1-Trichloroethane	ND	5	Bromoform	ND	5
Carbon Tetrachloride	ND	5	m-Dichlorobenzene	ND	5
1,2-Dichloroethane	ND	5	p-Dichlorobenzene	ND	5
Benzene	ND	5	o-Dichlorobenzene	ND	5
Trichloroethene	ND	5	Tertiary Butyl Alcohol	ND	110
1,2-Dichloropropane	ND	5	Methyl Tertiary Butyl Ether	ND	11
Bromodichloromethane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	99.5	70 - 121	OK
Toluene-d8	98.9	81 - 117	OK
Bromofluorobenzene	100	74 - 121	OK

Percent Solid of 93.0 is used for all Target compounds.

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

Matrix: (soil/water) SOIL

Lab Sample ID: 66064

Sample wt/vol: 5 (g/mL) G

Lab File ID: >A5653#

Level: LOW

Date Received: 06/17/92

% Moisture: 7

Date Analyzed: 06/23/92

Column: DB-624

Dilution Factor: 1

Number TICs Found 0

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

CAS NUMBER	COMPOUND NAME	RT	EST CONC
	No Unknowns		

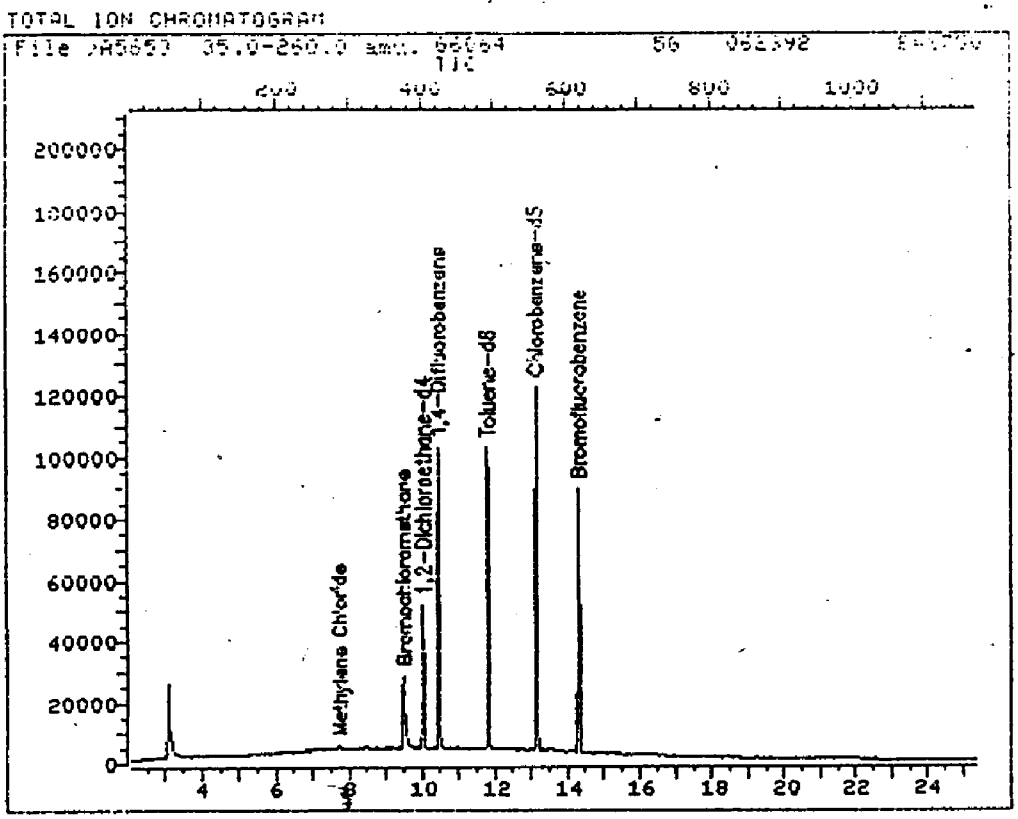
QUANT REPORT

Operator ID: CLEIN Quant Rev: e Quant Time: 920623 17:54
Output File: ^A5653::D4 Injected at: 920623 17:20
Data File: >A5653::D2 Dilution Factor: 1.00000
Name: C6064 5G
Misc: 062392 E=1750

ID File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920623 15:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.48	374	16397	50.00	UG/KG	100
11)	Methylene Chloride	7.71	285	3662	3.69	UG/KG	72
19)	1,2-Dichloroethane-d4	10.04	402	56951	49.77	UG/KG	100
20)	*1,4-Difluorobenzene	10.46	423	92272	50.00	UG/KG	100
29)	Toluene-d8	11.81	491	96462	49.47	UG/KG	100
31)	*Chlorobenzene-d5	13.14	558	78805	50.00	UG/KG	95
44)	Bromofluorobenzene	14.32	617	64265	50.14	UG/KG	100

* Compound is ISTD



Data File: >A5653::D2 Quant Output File: ^A5653::D4
Name: G6064 5G
Misc: 062392 E=1750

Id File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920623 15:37

Operator ID: GLENN
Quant Time: 920623 17:54
Injected at: 920623 17:20

Q C RESULTS

[illegible]

SAMPLE NO.	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	TOT OUT
BLANK	98	101	99	0
G6063	102	100	97	0
G6064	100	99	100	0
G6226MS	98	101	89	0
G6226MSD	103	102	100	0

	QC LIMITS
S1 (DCE) = 1,2-Dichloroethane-d4	70-121
S2 (TOL) = Toluene-d8	81-117
S3 (BFB) = Bromofluorobenzene	74-121

Column used to flag surrogate recovery values

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Bridgeport Environmental, Contract: N/A

Lab Code: NJ 08595 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix Spike - EPA Sample No.: G6226 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	#	QC LIMITS REC.
1,1-Dichloroethene	50.0	ND	66.4	133		59-172
Trichloroethene	50.0	ND	39.8	79		62-137
Benzene	50.0	ND	49.4	99		66-142
Toluene	50.0	ND	48.2	96		59-139
Chlorobenzene	50.0	ND	47.3	95		60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	79.5	159		18		22	59-172
Trichloroethene	50.00	49.3	99		23		24	62-137
Benzene	50.00	57.3	115		15		21	66-142
Toluene	50.00	56.1	112		15		21	59-139
Chlorobenzene	50.00	54.3	109		11		21	60-133

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

* Values outside of qc limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

QUANT REPORT

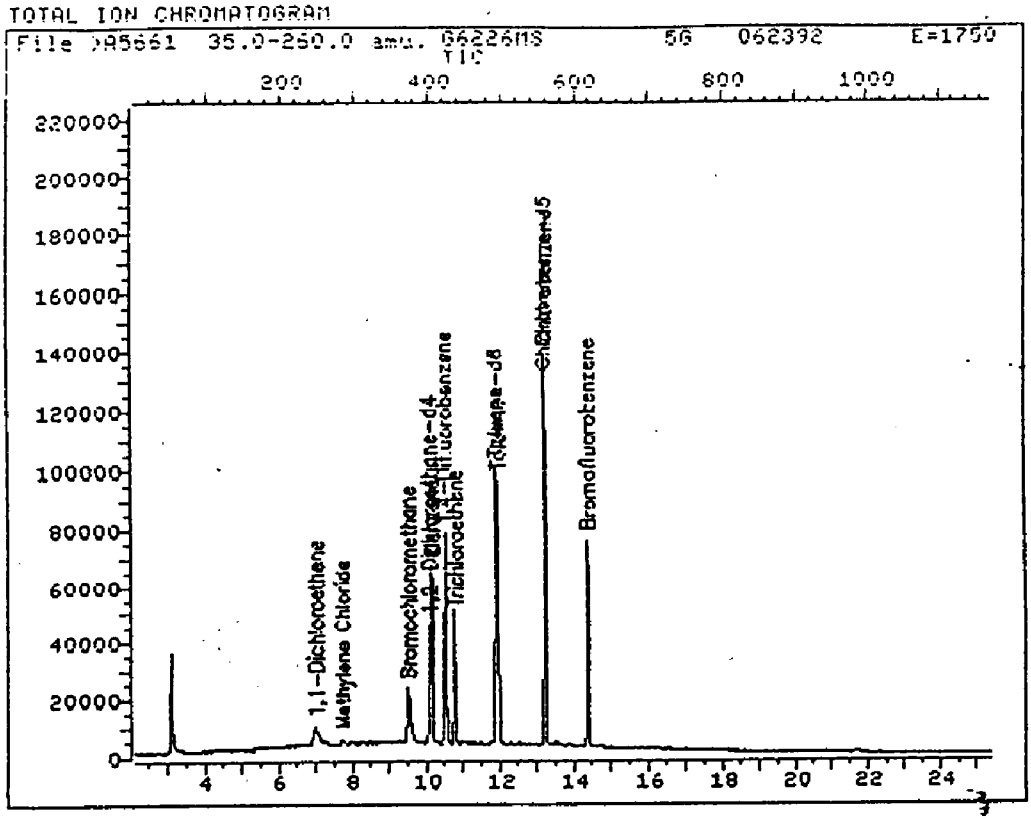
Operator ID: GLENN Quant Rev: 6 Quant Time: 920624 08:52
Output File: ^A5661::D3 Injected at: 920623 22:31
Data File: >A5661::D1 Dilution Factor: 1.00000
Name: G6226MS 5G
Misc: 062392 E=1750

ID File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920623 15:37

	Compound	R.T.	Scan#	Area	Conc		Units	q
1)	*Bromochloromethane	9.51	372	14002	50.00		UG/KG	100
8)	1,1-Dichloroethene	6.99	245	32480	66.40		UG/KG	100
11)	Methylene Chloride	7.72	282	3753	4.43		UG/KG	67
19)	1,2-Dichloroethane-d4	10.09	401	48057	49.18		UG/KG	100
20)	*1,4-Difluorobenzene	10.51	422	81790	50.00		UG/KG	100
22)	Benzene	10.15	404	72544	49.37		UG/KG	100
23)	Trichloroethene	10.78	436	25132	39.82	*	UG/KG	86
29)	Toluene-d8	11.90	492	87333	50.53		UG/KG	100
30)	Toluene	11.96	495	84706	48.17		UG/KG	96
31)	*Chlorobenzene-d5	13.21	558	70837	50.00		UG/KG	98
38)	Chlorobenzene	13.23	559	57445	47.27		UG/KG	95
44)	Bromofluorobenzene	14.38	617	51495	44.70		UG/KG	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A5661::D1 Quant Output File: ^A5661::D3
Name: G6226MS 5G
Misc: 062392 E=1750

Id File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920623 15:37

Operator ID: GLENN
Quant Time: 920624 08:52
Injected at: 920623 22:31

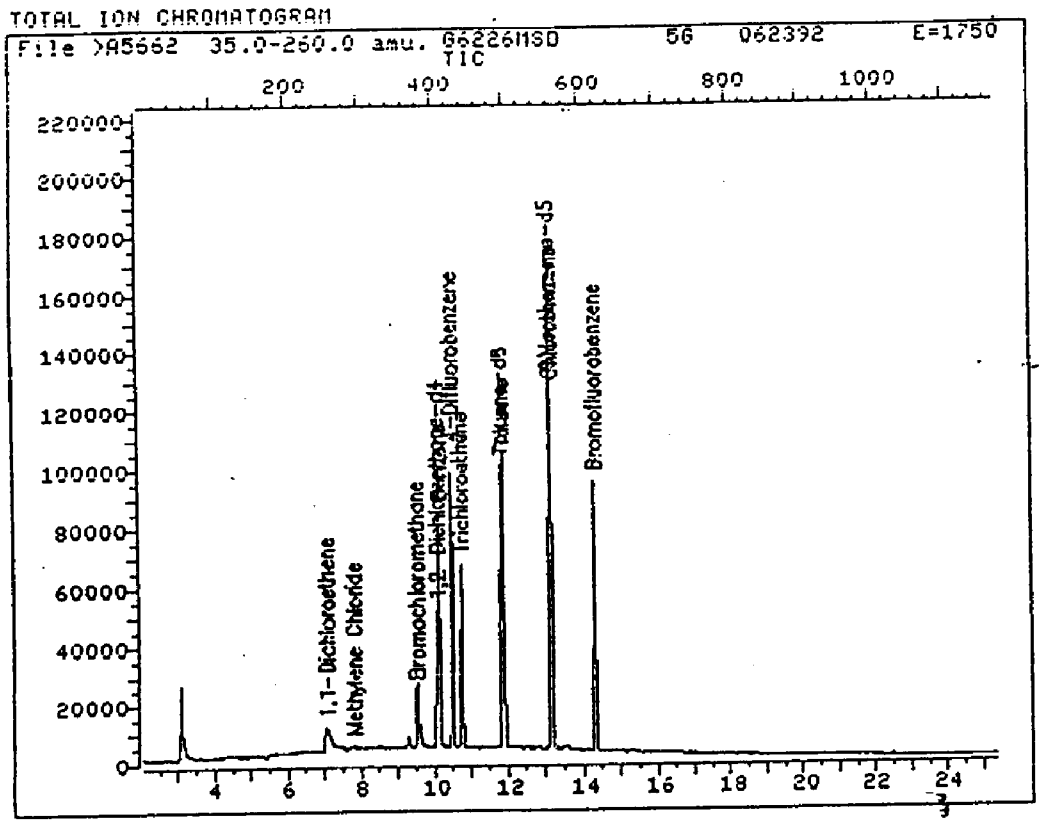
QUANT REPORT

Operator ID: GLENN - Quant Rev: 6 Quant Time: 920624 08:55
Output File: ^A5662::D3 Injected at: 920623 23:10
Data File: >A5662::D1 Dilution Factor: 1.00000
Name: G6226MSD 5G
Misc: 062392 E=1750

ID File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920623 15:37

	Compound	R.T.	Scan#	Area	Conc		Units	q
1)	*Bromochloromethane	9.52	376	14777	50.00		UG/KG	100
8)	1,1-Dichloroethene	7.06	252	41054	79.53		UG/KG	100
11)	Methylene Chloride	7.79	289	3761	4.21		UG/KG	69
19)	1,2-Dichloroethane-d4	10.08	404	53237	51.63		UG/KG	100
20)	*1,4-Difluorobenzene	10.50	425	89646	50.00		UG/KG	100
22)	Benzene	10.14	407	92309	57.31		UG/KG	100
23)	Trichloroethene	10.74	437	34104	49.30	*	UG/KG	93
29)	Toluene-d8	11.83	492	96370	50.87		UG/KG	100
30)	Toluene	11.89	495	108051	56.06		UG/KG	99
31)	*Chlorobenzene-d5	13.14	558	76994	50.00		UG/KG	94
38)	Chlorobenzene	13.18	560	71713	54.29		UG/KG	96
44)	Bromofluorobenzene	14.32	617	62815	50.16		UG/KG	100

* Compound is ISTD



Data File: >A5662::D1 Quant Output File: ^A5662::D3
Name: G6226MSD 5G
Misc: 062392 E=1750

Id File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920623 15:37

Operator ID: GLENN
Quant Time: 920624 08:55
Injected at: 920623 23:10

BRIDGEPORT ENVIRONMENTAL INC.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

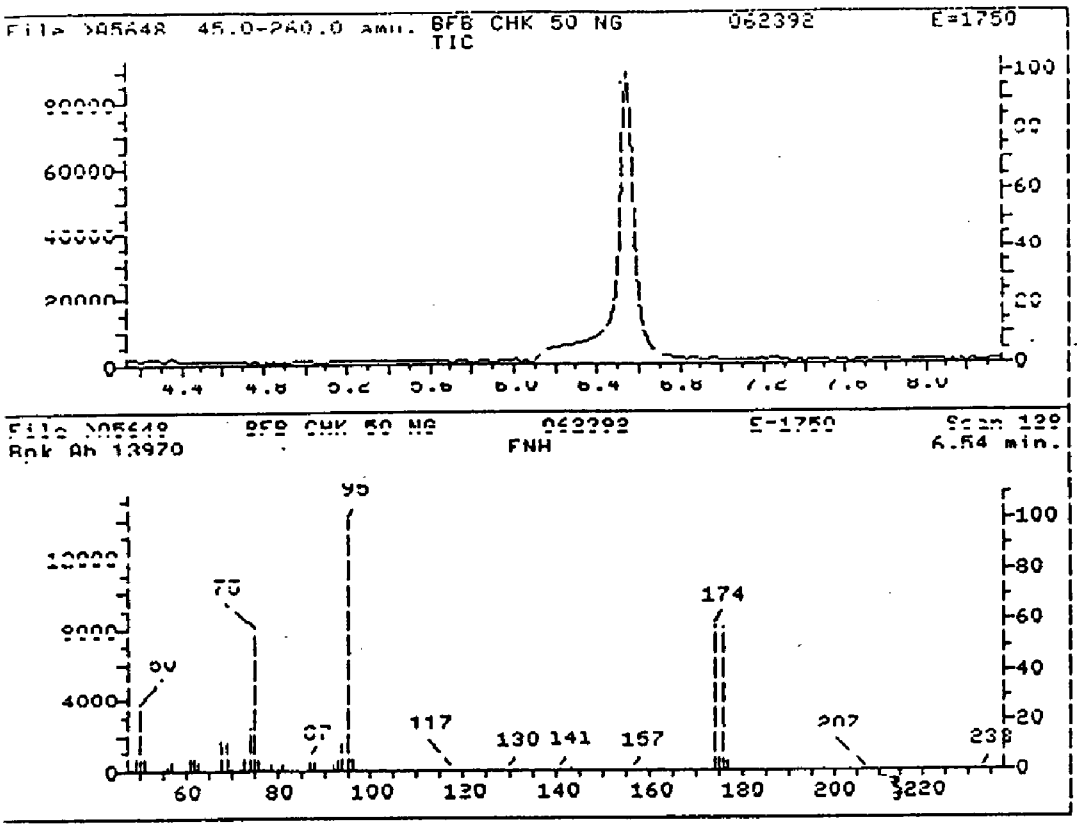
DATE AND TIME OF INJECTION: 6/23/92 13:42
INSTRUMENT ID: 5995

DATA RELEASE AUTHORIZED BY Richard W Symonds

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	25.25	25.25	Ok
75	30-60% of mass 95	55.65	55.65	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.83	6.83	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	57.73	57.73	Ok
175	5-9% of mass 174	4.90	8.49	Ok
176	95-101% of mass 174	56.91	98.58	Ok
177	5-9% of mass 176	3.78	6.65	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID		LAB ID			DATE	TIME
>A5648::D2		BFB CHK 50 NG			6/23/92	13:42
>A5649::D2		HSL CAL CHK 50 PPB			6/23/92	14:30
>A5650::D2		BLANK	5ML		6/23/92	15:22
>A5651::D2		G6201	5G		6/23/92	16:01
>A5652::D2		G6063	5G		6/23/92	16:41
>A5653::D2		G6064	5G		6/23/92	17:20
>A5654::D2		G6221	5G		6/23/92	17:59
>A5655::D2		G6222	5G		6/23/92	18:38
>A5656::D2		G6223	5G		6/23/92	19:17
>A5657::D2		G6224	5G		6/23/92	19:56
>A5658::D2		G6225	5G		6/23/92	20:35
>A5659::D2		G6226	5G		6/23/92	21:14
>A5660::D3		MTBE/TBA	5ML		6/23/92	21:53
>A5661::D1		G6226MS	5G		6/23/92	22:31
>A5662::D1		G6226MSD	5G		6/23/92	23:10
>A5663::D1		G5846	1G		6/23/92	23:49



>A5648 BFB CHK 50 NG 062392 E=1750
128 NRM ENH

File: >A5648 Scan #: 128 Retn. time: 6.54

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
47.10	127.54	68.00	1226.49	85.10	3.72	111.10	6.01	145.50	3.01
48.05	80.74	69.00	1189.98	86.95	344.13	115.00	9.88	145.90	6.44
48.95	595.35	70.00	74.44	87.95	321.08	115.90	34.64	148.00	12.45
50.05	2524.98	71.00	21.62	91.05	41.94	117.00	42.37	153.20	4.44
51.05	710.87	72.10	69.86	92.05	268.97	118.10	25.34	154.30	6.44
52.05	15.46	73.00	505.31	93.05	393.66	119.00	39.37	155.00	17.18
55.05	60.69	74.10	1710.47	94.05	1065.02	128.95	14.89	157.00	18.75
56.05	198.97	75.00	5564.42	95.05	9999.00	130.05	30.35	171.95	23.48
57.05	341.12	76.10	444.04	96.05	683.10	135.05	17.03	174.05	5771.99
58.05	17.89	77.00	71.14	97.15	21.76	137.05	11.45	175.05	490.14
58.95	3.86	78.10	37.93	102.55	3.15	141.05	64.99	176.05	5689.96
60.05	115.66	78.90	282.29	103.95	43.09	142.00	7.30	177.05	378.20
61.05	546.39	80.00	82.74	105.00	30.63	142.40	3.58	206.95	3.58
62.05	548.25	81.00	295.17	105.90	19.32	143.00	62.41	233.00	2.15
63.05	369.46	82.00	42.66	107.00	8.73	145.20	3.01	237.65	2.29
64.05	30.20	83.00	4.29						

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 06/23/92

Contractor: Bridgeport Env., Inc Time: 14:30

Contract No: Laboratory ID: >A5649

Instrument ID: 5995.A Initial Calibration Date: 06/01/92

Minimum RF for SPCC is 0.30 Maximum % Diff for CCC is 25%

Compound	RF	RF	%Diff	CCC	SPCC	
Chloromethane	1.61836	1.32380	18.20		**	
Bromomethane	.25832	.21775	15.71			
Vinyl Chloride	1.02491	.92962	9.30	*		
Chloroethane	.42480	.49494	16.51			
Acrolein	.16102	.14111	12.36			(Conc=100.00)
Acetone	2.35583	2.36311	.31			
1,1-Dichloroethene	2.08309	1.74663	16.15	*		
Carbon Disulfide	6.55171	4.60441	29.72			
Methylene Chloride	2.76849	3.02512	9.27			
Acrylonitrile	.52796	.55311	4.76			(Conc=100.00)
1,2-Dichloroethene(trans)	2.58201	2.61756	1.38			
1,1-Dichloroethane	3.15168	3.06600	2.72		**	
Vinyl Acetate	8.48956	4.55465	46.35			
2-Butanone	2.82620	2.81577	.37			
Chloroform	3.53475	4.15316	17.50	*		
1,1,1-Trichloroethane	2.81043	3.37756	20.18			
Carbon Tetrachloride	2.34558	2.74874	17.19			
1,2-Dichloroethane-d4	2.89313	3.48915	20.60			
Benzene	.94875	.89834	5.31			
1,2-Dichloroethane	.57508	.59121	2.81			
Trichloroethene	.37453	.38587	3.03			
1,2-Dichloropropane	.39435	.35558	9.83	*		
Bromodichloromethane	.59863	.59956	.15			
2-Chloroethylvinylether	.06847	.08107	18.39			(Conc=100.00)
2-Hexanone	.99482	.90869	8.66			
trans-1,3-Dichloropropene	.45859	.45329	1.15			
Toluene-d8	1.06968	1.05664	1.22			
Toluene	1.06665	1.07495	.78	*		
1,1,2-Trichloroethane	.37280	.34206	8.25			
cis-1,3-Dichloropropene	.74027	.64465	12.92			
4-Methyl-2-pentanone	1.12841	.88594	21.49			
Tetrachloroethene	.40694	.37916	6.82			

RF - Response Factor from daily standard file at 50.00 UG/KG

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No:

Calibration Date: 06/23/92

Contractor: Bridgeport Env., Inc

Time: 14:30

Contract No:

Laboratory ID: >A5649

Instrument ID: 5995.A

Initial Calibration Date: 06/01/92

Minimum RF for SPCC is 0.30

Maximum % Diff for CCC is 25%

Compound	RF	RF	%Diff	CCC	SPCC	
Dibromochloromethane	.55140	.52044	5.62			
Chlorobenzene	.90725	.85784	5.45		**	
Ethylbenzene	1.77269	1.70415	3.87	*		
m&p-Xylenes	2.11818	2.16961	2.43			(Conc=50.00)
Styrene	1.58066	1.80694	14.32			
o-Xylene	1.15677	1.29624	12.06			
Bromoform	.37339	.33419	10.50		**	
Bromofluorobenzene	.81437	.81319	.15			
1,1,2,2-Tetrachloroethane	.64840	.58380	9.96		**	
m-Dichlorobenzene	.80549	.72773	9.65			
p-Dichlorobenzene	.82222	.75849	7.75			
o-Dichlorobenzene	.77957	.68673	11.91			
Trichlorotrifluoroethane	-	-	-			

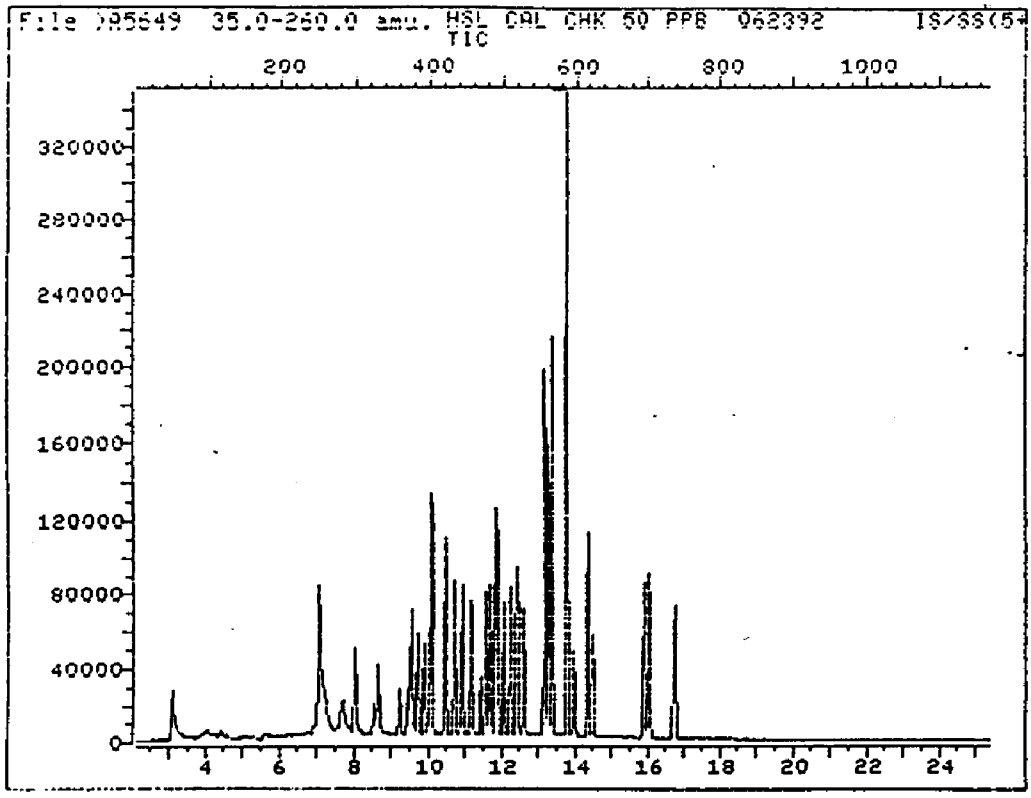
RF - Response Factor from daily standard file at 50.00 UG/KG

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

TOTAL ION CHROMATOGRAM



Data File: >A5649::D2 Quant Output File: ^A5649::D4
Name: HSL CAL CHK 50 PPB
Misc: 062392 IS/SS(5+5uL),E=1750,A/D=8,T=60,DB-624

Id File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920622 14:10

Operator ID: MANAGER
Quant Time: 920623 15:04
Injected at: 920623 14:30

BRIDGEPORT ENVIRONMENTAL INC.

GC/MS STANDARD p-BROMOFLUOROBENZENE (BFB) TUNE
CRITERIA FOR VOLATILES 50ng

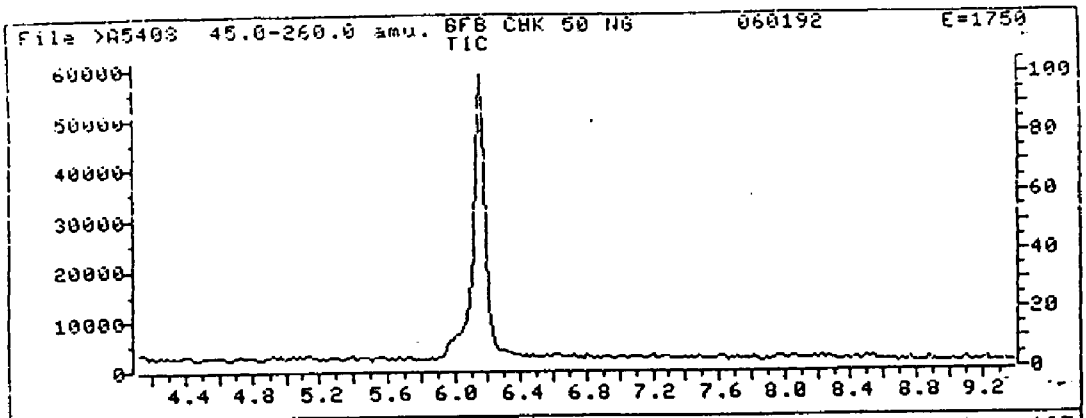
DATE AND TIME OF INJECTION: 6/01/92 12:12
INSTRUMENT ID: 5995

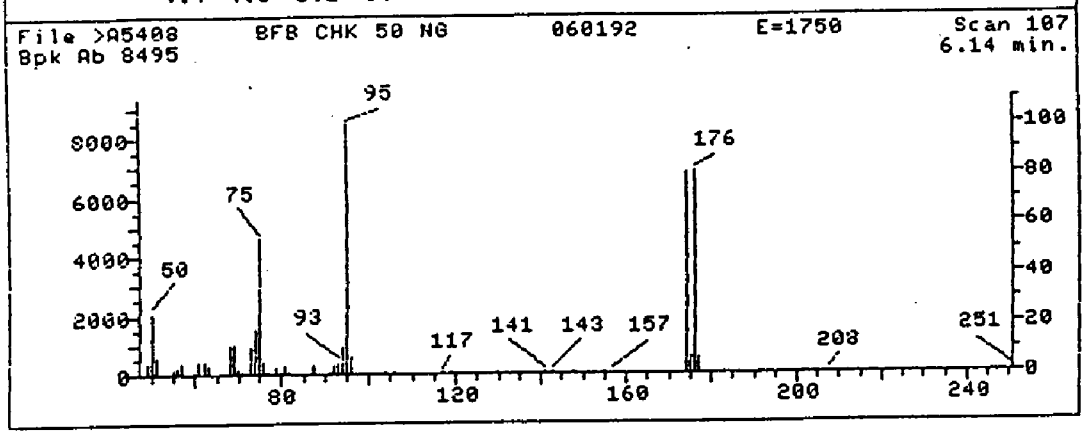
DATA RELEASE AUTHORIZED BY Richard W Symes

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	24.89	24.89	Ok
75	30-60% of mass 95	54.34	54.34	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.75	6.75	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	80.27	80.27	Ok
175	5-9% of mass 174	7.06	8.80	Ok
176	95-101% of mass 174	80.85	100.72	Ok
177	5-9% of mass 176	5.60	6.93	Ok

THIS PERFORMANCE AFFECTS ALL SAMPLES
STANDARDS AND BLANKS LISTED BELOW

SAMPLE ID	LAB ID		DATE TIME
>A5408::D2	BFB CHK 50 NG		6/01/92 12:12
>A5409::D2	HSL CAL CHK 50 PPB		6/01/92 13:06
>A5410::D2	HSL CAL STD 200PPB		6/01/92 13:45
>A5411::D2	HSL CAL STD 20 PPB		6/01/92 14:31
>A5412::D2	HSL CAL STD 150PPB		6/01/92 15:30
>A5413::D2	HSL CAL STD 100PPB		6/01/92 16:08
>A5414::D2	BLANK	5ML	6/01/92 16:49
>A5415::D2	BLANK MEOH	.04G	6/01/92 17:28
>A5416::D2	G5238	.04G	6/01/92 18:07
>A5417::D2	G5372	.02G	6/01/92 18:46
>A5417::D2	G5372	.02G	6/01/92 18:46
>A5417::D2	G5372	.02G	6/01/92 18:46
>A5417::D2	G5372	.02G	6/01/92 18:46
>A5417::D2	G5372	.02G	6/01/92 18:46





>A5408 BFB CHK 50 NG 060192 E=1750
107 NRM

File: >A5408 Scan #: 107 Retn. time: 6.14

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
46.90	78.86	65.95	35.31	81.80	58.85	118.40	40.02	154.05	25.89
49.00	516.72	66.45	20.01	87.00	366.06	118.60	45.90	154.75	52.97
50.00	2488.27	68.05	1126.43	87.90	356.64	118.90	60.03	154.95	54.14
51.00	695.63	69.05	1204.12	91.05	78.86	123.15	25.89	156.95	35.31
52.00	48.26	69.95	136.54	91.95	328.40	123.45	23.54	166.85	25.89
53.80	25.89	71.15	50.61	92.95	450.81	127.05	40.02	171.30	34.13
55.00	150.66	72.05	85.92	94.05	1122.90	127.95	40.02	171.50	35.31
56.00	242.47	73.00	1053.46	94.95	9999.00	128.35	40.02	171.80	34.13
56.95	455.52	74.00	1815.00	95.95	674.45	129.85	61.21	173.90	8026.27
57.85	24.72	75.00	5433.24	97.05	41.20	133.05	28.25	175.00	706.23
58.65	17.66	76.00	469.64	99.35	31.78	136.20	24.72	175.90	8083.95
60.05	97.69	76.90	87.10	102.25	21.19	140.90	82.39	177.00	560.27
60.95	522.61	78.90	281.31	103.95	63.56	142.90	81.22	207.90	41.20
62.05	477.88	79.90	76.51	105.90	76.51	145.90	36.49	249.95	18.83
63.05	335.46	80.90	313.09	116.80	81.22	147.80	55.32	250.85	30.60

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: 5995,A

Contractor: Bridgeport Env., Inc Calibration Date: 06/01/92

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.30 Maximum % RSD for CCC is 30%

Laboratory ID:	>A5411	>A5409	>A5413	>A5412	>A5410					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Chloromethane	1.44858	1.43519	1.79013	1.71089	1.70702	.416	1.61836	10.168		**
Bromomethane	.14758	.29285	.26489	.28034	.30594	.528	.25832	24.675		
Vinyl Chloride	.50753	.99129	1.22304	1.21070	1.19201	.449	1.02491	29.695	*	
Chloroethane	.30141	.62341	.44790	.36563	.38565	.565	.42480	28.888		
Acrolein	.14618	.13703	.17196	.17293	.17702	.709	.16102	11.252		(Conc=40.0,100.0,2(
Acetone	2.47175	2.45555	2.26106	2.25539	2.33541	.742	2.35583	4.394		
1,1-Dichloroethene	1.71222	2.06842	2.10289	2.28245	2.24947	.725	2.08309	10.883	*	
Carbon Disulfide	5.71347	6.33052	6.58812	7.22394	6.90252	.754	6.55171	8.794		
Methylene Chloride	3.58480	2.43664	2.58593	2.57604	2.65901	.809	2.76849	16.737		
Acrylonitrile	.58258	.43636	.53857	.53530	.54700	.843	.52796	10.333		(Conc=40.0,100.0,2(
1,2-Dichloroethene(trans)	2.37452	2.43500	2.68179	2.67349	2.74526	.845	2.58201	6.412		
1,1-Dichloroethane	2.84681	2.91221	3.32483	3.30694	3.36759	.901	3.15168	7.948		**
Vinyl Acetate	8.40776	6.73740	8.98021	9.13419	9.18823	.912	8.48956	12.100		
2-Butanone	2.98199	2.59441	2.86979	2.84177	2.84303	.975	2.82620	5.017		
Chloroform	3.36898	3.49692	3.63969	3.49373	3.67440	1.009	3.53475	3.497	*	
1,1,1-Trichloroethane	2.61010	2.84368	2.87816	2.78657	2.93361	1.027	2.81043	4.414		
Carbon Tetrachloride	2.11478	2.37231	2.43246	2.32608	2.48229	1.046	2.34558	6.052		
1,2-Dichloroethane-d4	2.80564	2.90874	2.93142	2.87055	2.94931	1.060	2.89313	1.973		(Conc=50.0,50.0,50.
Benzene	.97057	.93328	.97199	.95865	.90928	.965	.94875	2.843		
1,2-Dichloroethane	.62955	.58518	.55497	.56406	.54163	.966	.57508	5.969		
Trichloroethene	.39157	.37566	.37438	.37086	.36020	1.025	.37453	3.017		
1,2-Dichloropropane	.40829	.36259	.39583	.41266	.39237	1.044	.39435	4.982	*	
Bromodichloromethane	.60424	.59326	.59462	.60822	.59281	1.069	.59863	1.188		
2-Chloroethylvinylether	.07335	.05205	.07265	.06993	.07438	1.094	.06847	13.623		(Conc=40.0,100.0,2
2-Hexanone	1.26634	.86304	.92263	1.01603	.92607	1.121	.99482	15.163		
trans-1,3-Dichloropropene	.45707	.43185	.45754	.48502	.46145	1.156	.45859	4.116		
Toluene-d8	1.08458	1.07323	1.06150	1.08110	1.04798	1.133	1.06968	1.404		(Conc=50.0,50.0,50
Toluene	1.11361	1.05217	1.08172	1.07721	1.00857	1.139	1.06665	3.669	*	
1,1,2-Trichloroethane	.39109	.34340	.36808	.38331	.37811	.930	.37280	4.945		
cis-1,3-Dichloropropene	.71091	.66774	.75091	.79073	.78106	.878	.74027	6.903		

RF - Response Factor (Subscript is amount in UG/KG)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: 5995,A

Contractor: Bridgeport Env., Inc Calibration Date: 06/01/92

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.30 Maximum % RSD for CCC is 30%

Laboratory ID:	>A5411	>A5409	>A5413	>A5412	>A5410					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
4-Methyl-2-pentanone	1.28472	1.02234	1.05970	1.13264	1.14267	.946	1.12841	8.931		
Tetrachloroethene	.41345	.41380	.40278	.40798	.39667	.942	.40694	1.794		
Dibromochloromethane	.57338	.53204	.53258	.57044	.54857	.958	.55140	3.607		
Chlorobenzene	.95110	.89663	.89175	.91938	.87738	1.002	.90725	3.173		**
Ethylbenzene	1.82475	1.73844	1.76666	1.81057	1.72301	1.010	1.77269	2.495	*	
m&p-Xylenes	2.36064	2.21054	2.16029	2.02585	1.83357	1.018	2.11818	9.401		
Styrene	2.11024	1.81975	1.54212	1.36557	1.06561	1.048	1.58066	25.515		
o-Xylene	1.48317	1.29617	1.12036	1.01660	.86758	1.047	1.15677	20.755		*
Bromoform	.40042	.35008	.35787	.38074	.37784	1.063	.37339	5.338		**
Bromofluorobenzene	.77885	.77659	.80623	.86755	.84263	1.091	.81437	4.905		(Conc=50.0,50.0,50.
1,1,2,2-Tetrachloroethane	.73970	.54946	.61149	.67667	.66471	1.101	.64840	11.055		**
m-Dichlorobenzene	.85624	.76940	.80515	.81099	.78569	1.205	.80549	4.071		
p-Dichlorobenzene	.91224	.80310	.82138	.79791	.77646	1.216	.82222	6.423		
o-Dichlorobenzene	.86589	.73163	.75178	.77937	.76915	1.267	.77957	6.613		
Trichlorotrifluoroethane	-	-	-	-	-	-	-	-		

RF - Response Factor (Subscript is amount in UG/KG)

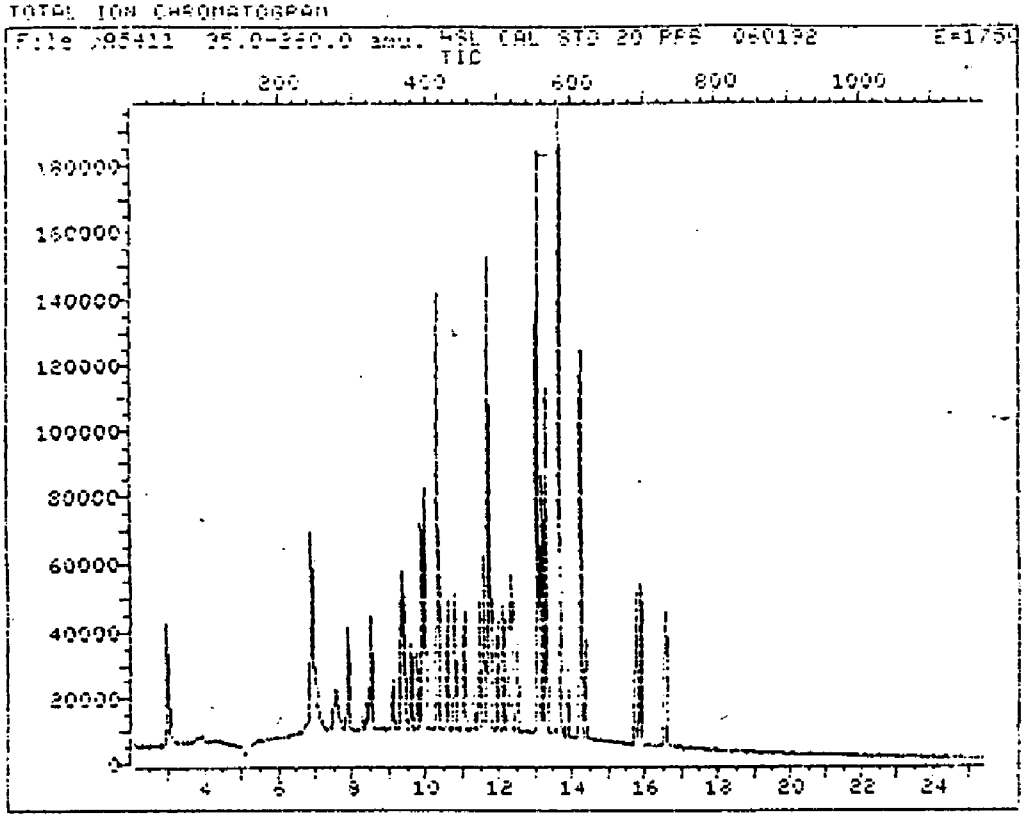
$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

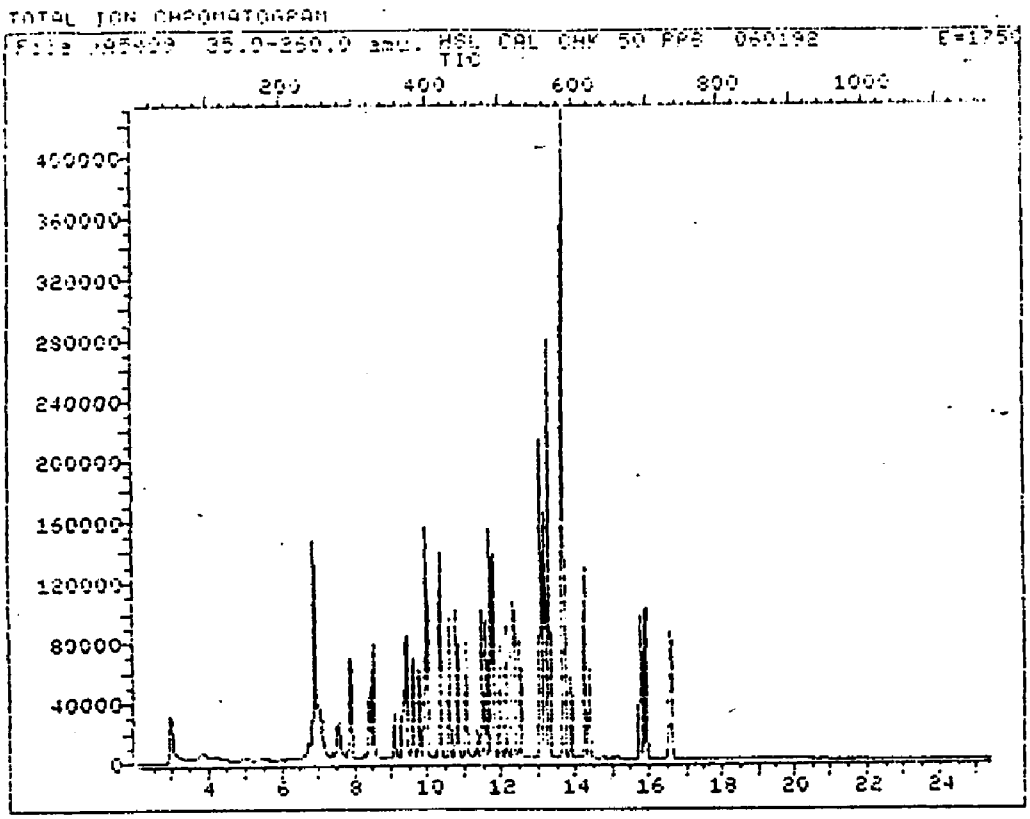
TOTAL ION CHROMATOGRAM



Data File: >A5411::D2 Quant Output File: >A5411::D4
Name: HSL CAL STD 20 PPB
Misc: 060192 E=1750

Id File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920601 14:32

Operator ID: GLENN
Quant Time: 920601 15:34
Injected at: 920601 14:31

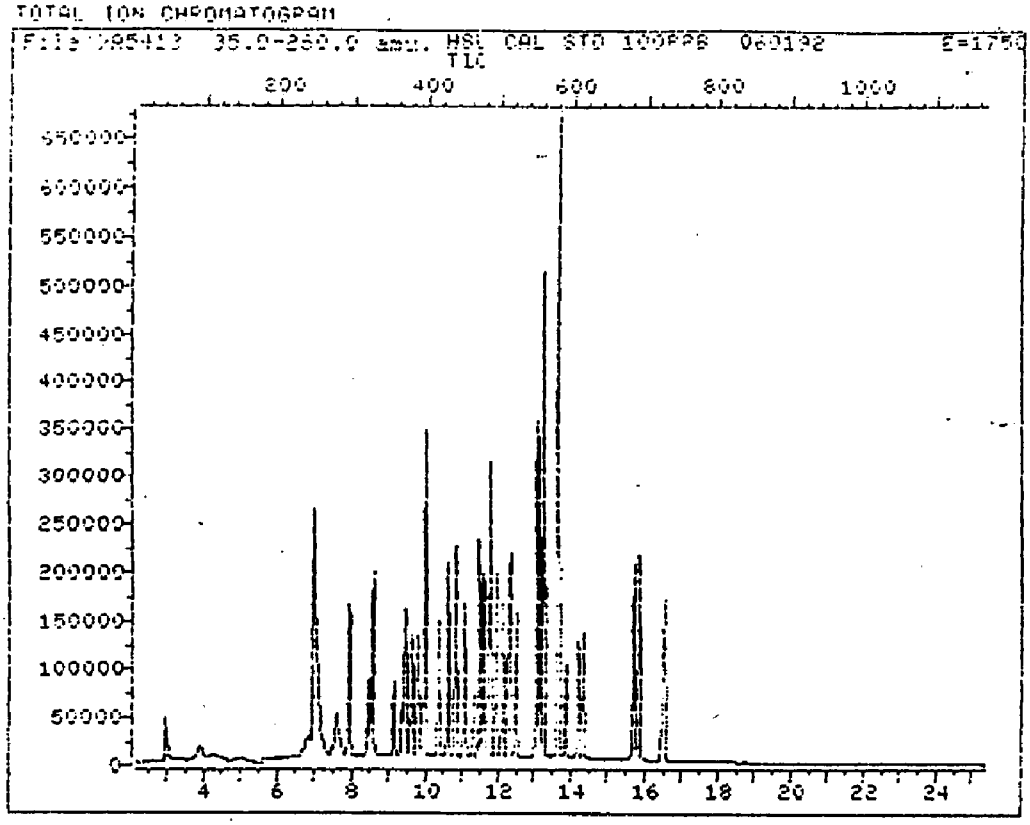


Data File: >A5409::D2 Quant Output File: ^A5409::D4
Name: HSL CAL CHK 50 PPB
Misc: 060192 E=1750

Id File: [DUCL1::M1
Title: HSL VOLATILES 5C SX 5PT CALIBRATION
Last Calibration: 920530 16:11

Operator ID: GLENN
Quant Time: 920601 13:40
Injected at: 920601 13:06

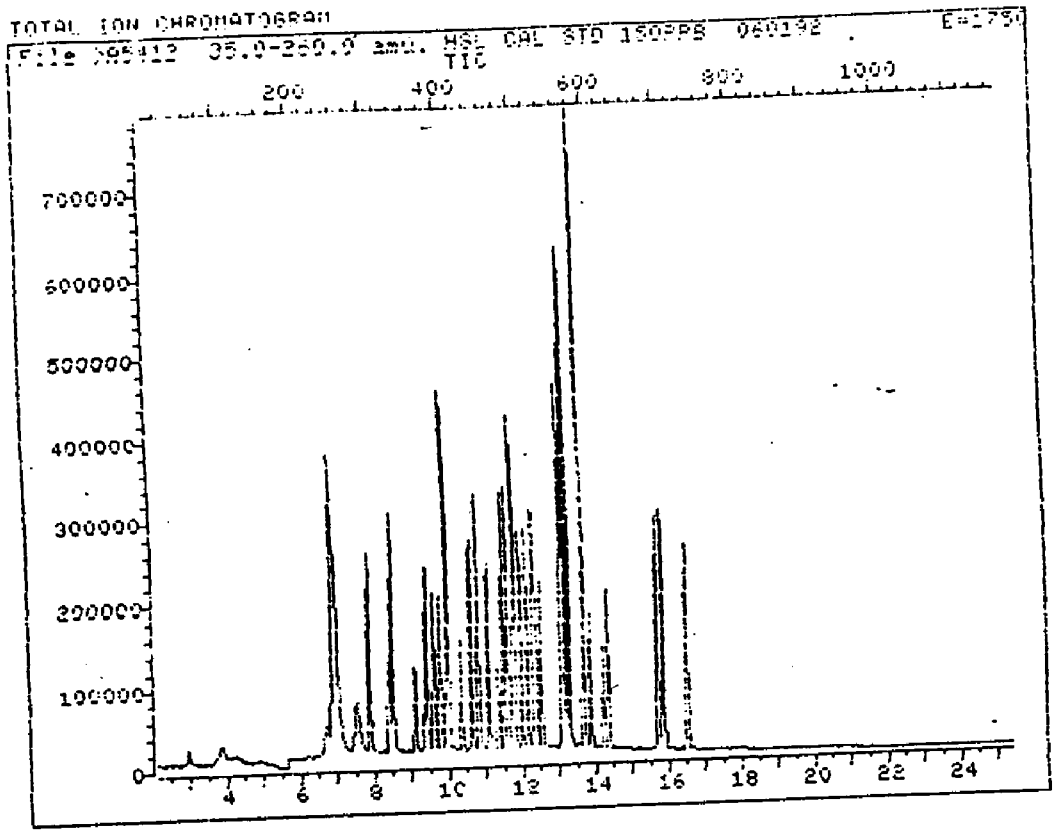
TOTAL ION CHROMATOGRAM



Data File: >A5413::D2 Quant Output File: ^A5413::D4
Name: HSL CAL STD 100PPB
Misc: 060192 E=1750

Id File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920601 14:32

Operator ID: GLENN
Quant Time: 920601 16:37
Injected at: 920601 16:08

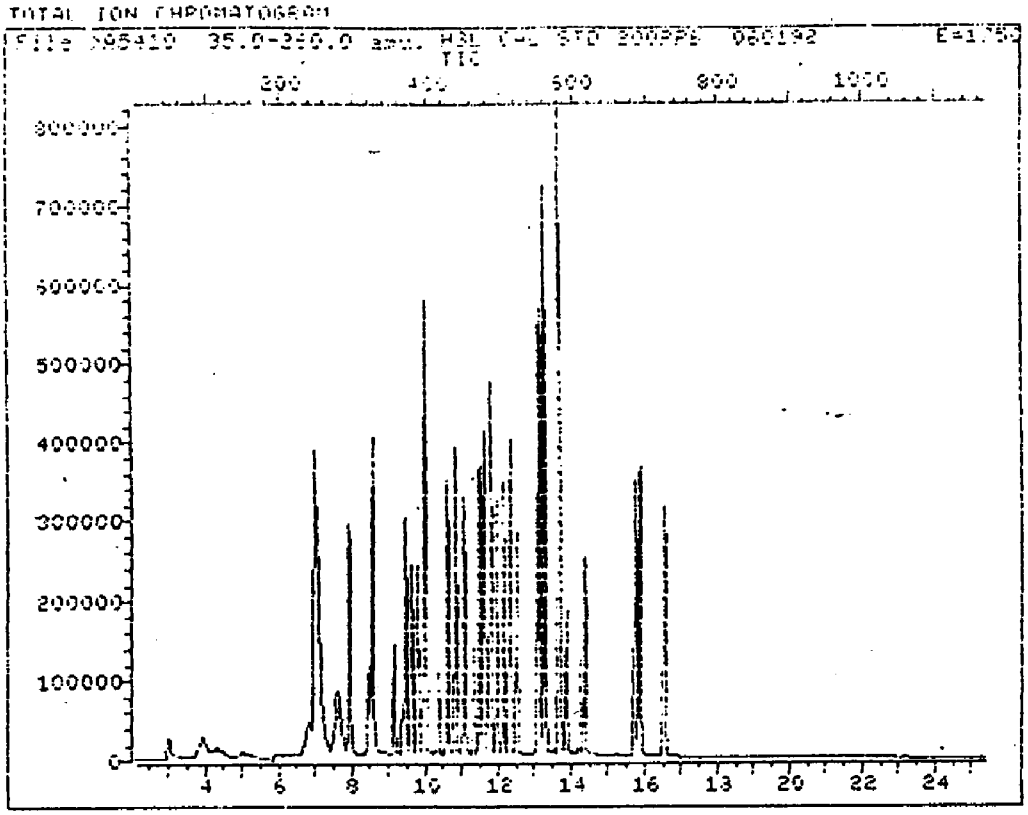


Data File: >A5412::D2
Name: HSL CAL STD 150PPB
Misc: 060192 E=1750

Quant Output File: ^A5412::D4

Id File: IDUOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920601 14:32

Operator ID: GLENN
Quant Time: 920601 16:01
Injected at: 920601 15:30



Data File: >A5410::D2 Quant Output File: ^A5410::D4
Name: HSL CAL STD 200PPB
Misc: 060192 E=1750

Id File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920601 14:32

Operator ID: GLENN
Quant Time: 920601 14:44
Injected at: 920601 13:45

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: BRIDGEPORT ENVIRONMENTAL, INC. Contract No.: N/A

Lab Code: N/A Case No: N/A SAS No.: N/A SDG No.: N/A

LAB ID FILE (BLANK): >A5650 DATE ANALYZED: 06/23/92

INSTRUMENT ID: A TIME ANALYZED: 15:22

Matrix: SOIL Level:(low/med) LOW Column:(pack/cap)

Sample ID: BLANK

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	G6281	>A5651	06/23/92	16:01
2	G6063	>A5652	06/23/92	16:41
3	G6064	>A5653	06/23/92	17:20
4	G6221	>A5654	06/23/92	17:59
5	G6222	>A5655	06/23/92	18:38
6	G6223	>A5656	06/23/92	19:17
7	G6224	>A5657	06/23/92	19:56
8	G6225	>A5658	06/23/92	20:35
9	G6226	>A5659	06/23/92	21:14
10	MTBE/TBA	>A5660	06/23/92	21:53
11	G6226MS	>A5661	06/23/92	22:31
12	G6226MSD	>A5662	06/23/92	23:10
13	G5846	>A5663	06/23/92	23:49
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS: _____

_____

FORM IV VOA

Bridgeport Environmental
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	BLANK	DILUTION FACTOR	1.00
CLIENT ID		QA BATCH	
DATA FILE	>A5650	DATE ANALYZED	06/23/92

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloromethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	ND	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichlorpethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	9.4	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m&p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	98.2	76 - 114	OK
Toluene-d8	101	88 - 110	OK
Bromofluorobenzene	99.5	86 - 115	OK

(J) Indicates detected below MDL
(B) Indicates also present in blank
(ND) Indicates compound not detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SCANS

Lab Name: Bridgeport Environmental, Contract: N/A

Lab Code: NJ 08555 Case No.: N/A SAS No.: N/A SDG No.: N/A

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

Sample wt/vol: 5 (g/mL) ML Lab File ID: >A5650

Level: (low/med) LOW Date Received: 6/23/92

% Moisture: NA Date Analyzed: 6/23/92

Column: DB-624 Dilution Factor: 1

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	No Unknowns			

FORM I VOA-TIC 1/87 Rev.

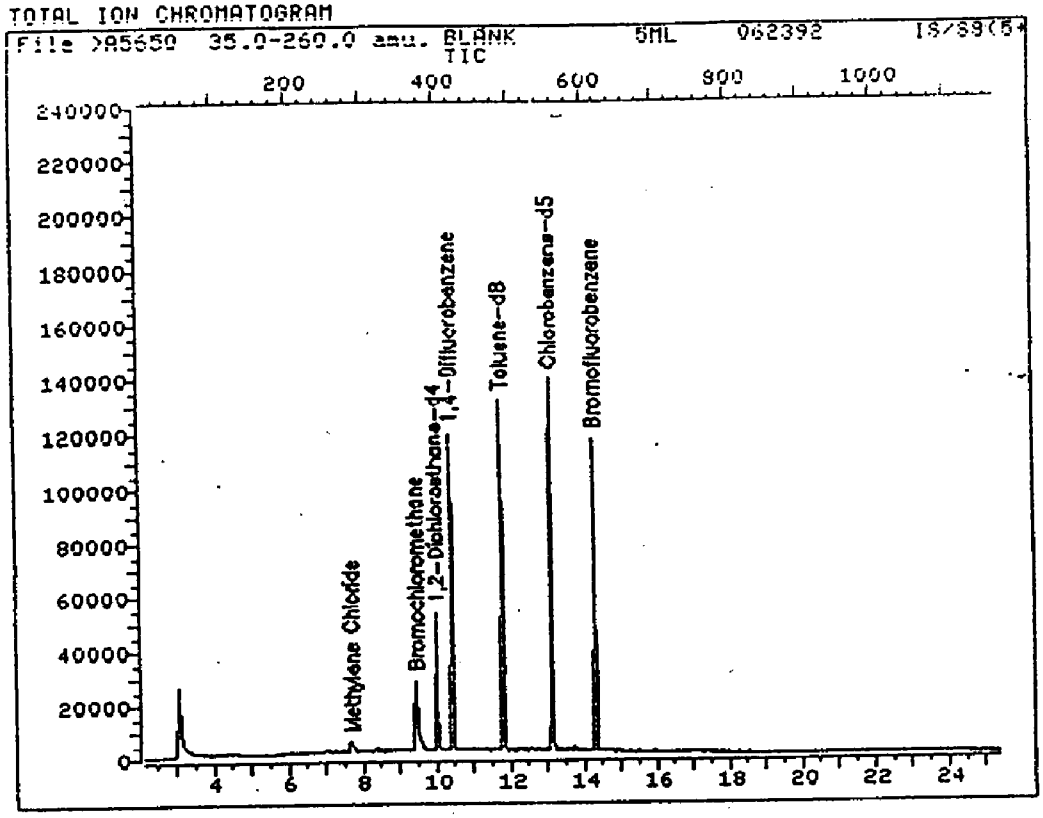
QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 920623 15:56
Output File: ^A5650::D4 Injected at: 920623 15:22
Data File: >A5650::D2 Dilution Factor: 1.00000
Name: BLANK 5ML
Misc: 062392 IS/SS(5+5uL),E=1750,A/D=8,T=60,DB-624

ID File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920623 15:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.45	369	18400	50.00	UG/KG	100
11)	Methylene Chloride	7.68	280	10493	9.43	UG/KG	72
19)	1,2-Dichloroethane-d4	10.01	397	63052	49.11	UG/KG	100
20)	*1,4-Difluorobenzene	10.43	418	110590	50.00	UG/KG	100
29)	Toluene-d8	11.80	487	117505	50.28	UG/KG	100
31)	*Chlorobenzene-d5	13.13	554	97199	50.00	UG/KG	96
44)	Bromofluorobenzene	14.31	613	78618	49.73	UG/KG	100

* Compound is ISTD



Data File: >A5650::D2 Quant Output File: ^A5650::D4
Name: BLANK 5ML
Misc: 062392 IS/SS(5+5uL),E=1750,A/D=8,T=60,DB-624

Id File: IDVOL1::M1
Title: HSL VOLATILES 5G SX 5PT CALIBRATION
Last Calibration: 920623 15:37

Operator ID: MANAGER
Quant Time: 920623 15:56
Injected at: 920623 15:22