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**Report of Field Activities  
For The  
Soil Removal Program**

**Waite Road Site  
Clifton Park, New York**

Prepared For:

**The General Electric Company**

One River Road  
Schenectady, NY 12345

Prepared By:

**Woodward-Clyde Consultants**

201 Willowbrook Boulevard  
Wayne, NJ 07470

**June 1991**

**Project Number:**

**90C4217**

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**Project Number:  
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**Report of Field Activities  
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**Report of Field Activities  
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Waite Road Site  
Clifton Park, New York**

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## **INTRODUCTION**

This report contains a summary of the activities associated with the Soil Removal Program at the Waite Road Site in Clifton Park, New York. A site location map is provided as Figure 1. The removal program was performed under New York State Department of Law Consent Judgement Index No. 83 CV 1621. Excavation and transportation of contaminated soil began in December 1990 and ended in March 1991.

All field activities were performed in accordance with the submittals approved by New York State Department of Environmental Conservation (hereinafter "NYSDEC" or "Department") that were prepared by Woodward-Clyde Consultants (WCC) entitled "Contract Documents for the Waite Road Site, Clifton Park, New York" (August 1990) and "Response to Wetlands Permit Application Package, Waite Road Site" (29 October 1990). The locations of the borings and soil test results on which the removal program was based are shown as Figures 2 and 3.

A Notice to Proceed was given by NYSDEC to The General Electric Company (GE) on October 31, 1990.

## **REMOVAL PROGRAM**

Environmental Products and Services, Inc (EPS) of Schenectady, New York was awarded the soil excavation contract. As the prime contractor, EPS provided equipment and personnel necessary to complete the tasks as outlined in the Contract Documents. Waste Technology Services of Niagara Falls, New York was the contractor responsible for transporting the soil to the Model City Landfill in Model City, New York. WCC provided resident environmental services.

The Removal Program primarily involved the following activities:

- Surveying, including a pre-excavation topographic survey and delineation of locations for excavation;

- Implementation and maintenance of the approved Soil Erosion and Sediment Control Plan;
- Preparation of access roads and staging areas;
- Excavation of petroleum hydrocarbon-contaminated soils;
- Transportation of excavated material;
- Disposal of excavated material at the Model City Landfill (a total of 48 truckloads with a total weight of 1,185.8 tons left the site);
- Restoration (contour regarding, backfilling of selected areas) and revegetation of disturbed areas (scheduled for completion summer of 1991).

The contamination on the site had been characterized by WCC in a field investigation performed in 1987 and 1988, and described in the Final Report, Site Investigation, Waite Road Site (December 1988).

The findings of the Site Investigation were used to delineate five locations of concern, designated Locations A through E, as shown on Figure 4. EPS mobilized equipment and personnel to the Site on December 19, 1990. A staging area was prepared. Silt fences were erected and hay bales placed to control erosion and siltation caused by excavation activity. Excavated soil from the five locations was stockpiled at the southern side of the Site. Trucks were scheduled to haul away material every few days, as needed, to maintain the quantity of stockpiled soil at manageable levels.

Soils excavated from Locations A and B were wet. Groundwater at these locations was less than 6 inches below ground surface. Because of landfill restrictions on accepting "wet" soil, EPS brought 25 tons of cement kiln dust to mix in with the stockpiled soil to absorb excess water.

An on-site, aboveground tank containing an asphalt-like sludge was decommissioned by EPS. EPS removed all the sludge and put it in 55-gallon drums. The tank was then cleaned, cut up for scrap steel, and hauled off site to a scrap metal company, Nathan Kelman Inc of Cohoes, New York. A total of 18 drums of sludge and the residue from cleaning the tank was removed from the site by Hazmat Environmental Group, Inc and sent to the EnSCO, Inc incinerator in El Dorado, Arkansas.

In addition to the soil removal and the tank work, EPS also demolished an on-site shack. The demolition debris, along with various other debris, such as car body parts and old furniture, were hauled off site by EPS and delivered to Frank Santoro & Sons, Pangburn Road, Schenectady, New York. A concrete decontamination pad built by the New York State Department of Transportation (NYSDOT) was also demolished. The concrete rubble was used as fill in Location E.

### **POST-EXCAVATION SOIL SAMPLING - ROUND 1**

Post-excavation soil sampling occurred on January 4, 1991 in Locations A, B, D, E, the access road to Locations A and B, and parts of Location C. The remainder of the post-excavation samples were collected on January 8 and 9, 1991 from Location C, the stockpile area, and the loading zone (Figure 5). Excavation work at the Site was terminated on January 9, 1991, pending confirmation of the post-excavation soil sampling results.

Twenty-three post-excavation soil samples were collected and analyzed for Total Petroleum Hydrocarbons (TPH) and total PCBs. The results are tabulated on Table 1. Figure 5 shows these results and their respective locations. Two samples exceeded the cleanup objective of 10,000 ppm TPH as set forth in the Final Report (WCC, December 1988).

These locations were sample PS-C-S4 in Location C and PS-AR3 in the access road to Locations A and B. These two samples were also the only samples found to contain concentrations of total PCBs in excess of 1 ppm.

### **FEBRUARY 1991 SITE MEETING**

A site meeting was held on February 19, 1991 and was attended by representatives of GE, WCC, NYSDEC, and NYSDOH. The post-excavation sampling results were discussed. WCC and GE also proposed further action to be taken prior to the site restoration phase. GE and WCC proposed to continue the excavation work in Location C in the vicinity of sample locations PS-C-S4 and PS-C3. Additionally, the

access road from Location B to the stockpile area were to be scraped to remove the soils in the vicinity of sample locations PS-AR1 and PS-AR3. Post-excavation soil samples were to be collected to assess the effectiveness of soil removal.

### **ADDITIONAL SOIL REMOVAL**

EPS mobilized equipment to the site on February 25, 1991, to continue excavation work in the locations discussed with NYSDEC at the February 19, 1991 site meeting. Specifically, this included scraping the access road from Location B to the stockpile area, and continued excavation in Location C at the north end (sample location PS-C3) and the southwest corner (sample location PS-C-S4).

The access road from Location B to the stockpile area was scraped to a depth of 1.5 ft. The area scraped included the locations of sampling points PS-AR1 and PS-AR3. The dimensions of the excavation were approximately 70 ft long by 12 ft wide. The berm at Location B was not breached. A 2-ft-wide berm was left in place to prevent ponded water from Location B discharging along the new excavation. Three samples were collected in the excavation: PS-AR4 (new location), and PS-AR5 and PS-AR6, located directly below former sample locations PS-AR-1 and PS-AR3, respectively. For locations and results, refer to Figure 5.

In Location C, the excavation work continued in the vicinity of sample PS-C3. At PS-C3, an additional 1.5 ft of soil was removed. Sample PS-C4 was collected directly below former sample PS-C3.

At sample location PS-C-S4, the excavation work continued along the western and southern walls. An additional three side-wall samples were collected in this area, PS-C-S6, PS-C-S7, and PS-C-S8 (Figure 5).

### **POST-EXCAVATION SOIL SAMPLING - ROUND 2**

A total of seven soil samples were collected from the areas excavated on February 26, 1991. The test results are shown in Table 1 (Sampling Round 2) and on Figure 5. Two



samples, PS-C4 and PS-AR4, were found to exceed the 10,000 ppm TPH cleanup objective.

### **FURTHER SOIL REMOVAL**

Based on the Round 2 soil sampling results, further excavation work was performed in the vicinity of sample locations PS-AR4 (Access Road near Location B) and PS-C4 (northern end of Location C) on March 1, 1991.

At sampling location PS-AR4, the access road was excavated from Location B southeast to the approximate half-way point between sampling locations PS-AR4 and PS-AR5. The excavation extended an additional 1.5 ft to a total depth of 3 ft below grade. The berm at Location B was also removed. One sample, PS-AR7, was collected from directly below former sampling location PS-AR4 (Figure 5).

At location PS-C4, the excavation extended to a depth of approximately 6 ft with dimensions of 38 ft by 22 ft. Two samples, PS-C-S9 and PS-C-S10, were collected from the western and northern walls of the excavation (Figure 5).

### **POST-EXCAVATION SOIL SAMPLING - ROUND 3**

Three soil samples were collected from the areas excavated on March 1, 1991. PS-AR7 was collected in the Access Road below former sample location PS-AR4. Two side-wall samples were collected from the northern end of Location C. These locations are shown on Figure 5.

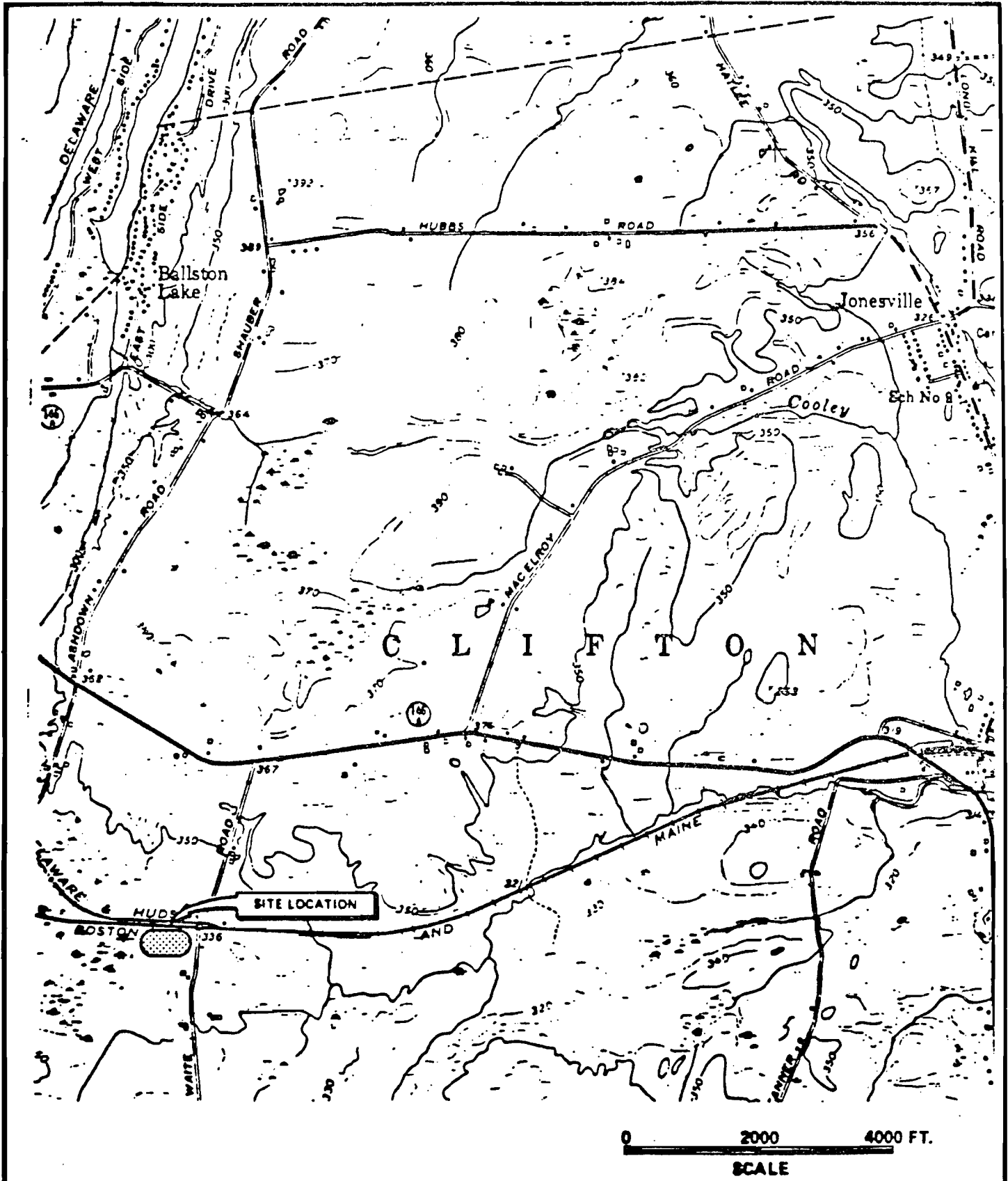
None of the three samples were found to contain TPH in excess of the 10,000 ppm cleanup objective.

### **BACKFILLING/SITE RESTORATION**

EPS contracted with a local gravel pit, Wm. L. Larned and Sons of Schenectady, New York, to supply clean backfill soil to the site. A total of 660 cubic yards of sandy

**Table**

**Figures**



SOURCE: ROUND LAKE QUADRANGLE

<b>LOCATION MAP WAITE ROAD SITE CLIFTON PARK, N.Y.</b>		
<b>WOODWARD—CLYDE CONSULTANTS</b> CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS WAYNE, NEW JERSEY		
DR. BY: TJD	SCALE: AS SHOWN	PROJ. NO.: 90C4217
CKD. BY: MN	DATE: 20 JUNE 1986	FIG. NO.: 1

**Appendix A**



A Full Service Environmental Laboratory

March 27, 1991

Mr. Chris Motta  
Woodward Clyde Consultants  
201 Willowbrook Blvd.  
Wayne, NJ 07470

Dear Mr. Motta:

The enclosed report contains analytical data pertaining to the GE - Waite Road site. The samples were collected on February 26 and March 1, 1991, shipped via Federal Express from the site, and received into the laboratory on the days following.

Ten soil samples were collected in batches of seven and three respectively. The analyses requested were total petroleum hydrocarbons by IR, and PCB's. Rush turnaround time was requested for the petroleum hydrocarbons. Analysis for PCB's was initiated upon review of the TPH results.

Additional reporting sections include laboratory QC data, an analytical chronology, methodology summaries and all the necessary documentation for an extended deliverables package. Please review this data package and contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads 'Virginia Murray'. The signature is written in dark ink and is positioned above the typed name.

Virginia Murray  
Laboratory Manager

VM/  
enc

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. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages may be returned or held without review until the data package is completed

	Check if Complete
I. Cover Page, Format, and Laboratory Certification (Include Cross Reference Table of Field I.D. # Laboratory I.D. #)	<u>  X  </u>
II. Chain of Custody	<u>  X  </u>
III. Summary Sheets Listing Analytical Results Including QA Data Information (see Attached Form and ESPG Attachment 2.B.2.C)	<u>  X  </u>
IV. Laboratory Chronicle and Methodology Summary including Sampling Holding Time Check	<u>  X  </u>
V. Initial Calibration and Continuing Calibration	<u>  X  </u>
VI. Tune Summary (MS)	<u>  NA  </u>
VII. Blanks (Method, Field, Trip)	<u>  X  </u>
VIII. Surrogate Recovery Summary	<u>  X  </u>
IX. Chromatographs Labelled/Compound Identification	<u>  X  </u>
X. Minimum Detection Limits	<u>  X  </u>
XI. Non-Conformance Summary	<u>  X  </u>

Virginia Murray  
Virginia Murray, Laboratory Manager

3/28/91  
Date

Analytical Data Package for:

Mr. Chris Motta  
Woodward Clyde Consultants  
201 Willowbrook Blvd.  
Wayne, NJ 07470

Project Name: GE - Waite Road, Clifton Park, NY  
Client Project #: 90C4217

<u>GTC #</u>	<u>Sample Location</u>	<u>Date and Time of Collection</u>
R91/0855-001	PS-C-S6	02/26/91 13:00
R91/0855-002	PS-C-S7	02/26/91 13:10
R91/0855-003	PS-C-S8	02/26/91 13:20
R91/0855-004	PS-C4	02/26/91 13:30
R91/0855-005	PS-AR4	02/26/91 14:00
R91/0855-006	PS-AR5	02/26/91 14:15
R91/0855-007	PS-AR6	02/26/91 14:30
R91/0936-001	PS-C-S1	03/01/91 09:30
R91/0936-002	PS-C-S2	03/01/91 13:20
R91/0936-003	PS-C-S3	03/01/91 13:30

GENERAL TESTING CORPORATION  
710 Exchange Street  
Rochester, New York 14608

Laboratory Certification # 73331

Manager: Michael K. Perry

Virginia Murray 3/28/91  
Authorized Signature



REPORT INDEX

SECTION A: ANALYTICAL DATA - INORGANICS

SECTION B: ANALYTICAL DATA - PCB'S

SECTION C: LABORATORY QUALITY CONTROL

SECTION D: LABORATORY ANALYTICAL CHRONOLOGY

SECTION E: FIELD DOCUMENTATION

SECTION F: LABORATORY SUPPORT DOCUMENTATION



SECTION A

ANALYTICAL DATA

INORGANICS

Presented in this section is analytical data for the parameters requested. The following references concerning units and analytical methodology apply to the data provided herein.

Units: ug/g dry weight

Analytical Methodology Obtained From:

( ) Federal Register, 40 CFR Part 136, Guidelines Establishing Test Procedures for the analyses of Pollutants under the Clean Water Act, 10/26/84.

( ) SW-846, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86.

(X) Other: EPA Method 418.1 Modified for Soils

ANALYSIS FOR  
TOTAL PETROLEUM HYDROCARBONS  
EPA METHOD 418.1  
(Modified for Soils)

METHODOLOGY SUMMARY

Samples are drained of excess water and debris such as pebbles and thoroughly mixed. A specified portion of sample (approximately 15 grams) is mixed with anhydrous sodium sulfate to remove any residual moisture. The sample is then extracted with 1,1,2 trichlorotrifluoroethane (freon) for a minimum of three (3) hours at 30 cycles per hour. The extract is then mixed with silica gel to remove any hydrocarbons of plant or animal origin. The remaining extract is then filtered, diluted to 100mls and analyzed on an infrared spectrophotometer at wavelenth = 2930/cm and read against a standard curve.



A Full Service Environmental Laboratory  
**LABORATORY REPORT**

Job No: R91/00855

Date: MAR. 21 1991

**Client:**

Paul Kareth  
 Woodward Clyde Consultants  
 201 Willowbrook Blvd.  
 Wayne, NJ 07470

**Sample(s) Reference:**

GE - Waite Rd.

Received

: 02/27/91

P.O. #: 90C4217

**ANALYTICAL UNITS - ug/g dry wt.**

Sample:	-001	-002	-003	-004	-005	-006	-007
Location:	PS-C-S6	PS-C-S7	PS-C-S8	PS-C4	PS-AR4	PS-AR5	PS-AR6
Date Collected:	02/26/91	02/26/91	02/26/91	02/26/91	02/26/91	02/26/91	02/26/91
Time Collected:	PQL 13:00	13:10	13:20	13:30	14:00	14:15	14:30
Solids, %	-- 57.7	85.5	81.2	77.1	60.8	72.6	73.6
Pet. Hydrocarbons, IR	13.3 8980	46.2 U	2090	15,000	28,400	898	5640
PCBs	-- **						**

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

- NY ID# in Rochester: 10145
- NJ ID# in Rochester: 73331
- NJ ID# in Hackensack: 02317
- NY ID# in Hackensack: 10801

Laboratory Director



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R91/00936

Date: MAR. 11 1991

Client:

Paul Kareth  
Woodward Clyde Consultants  
201 Willowbrook Blvd.  
Wayne, NJ 07470

Sample(s) Reference:

GE - Waite Rd.

Received

: 03/01/91

P.O. #: 90C4217

ANALYTICAL UNITS - ug/g dry wt.

Sample:		-001	-002	-003				
Location:		PS-AR7	PS-C-S9	PS-C-S10				
Date Collected:		03/01/91	03/01/91	03/01/91				
Time Collected:	PQL	09:30	13:20	13:30				
Solids, %	-	80.3	69.0	29.8				
Pet. Hydrocarbons, IR	13.3	96.5	1980	306				

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145

NJ ID# in Rochester: 73331

NJ ID# in Hackensack: 02317

NY ID# in Hackensack: 10801

Laboratory Director

000010

SECTION B

ANALYTICAL DATA

PCB'S

Presented in this section is analytical data for the parameters requested. The following references concerning units and analytical methodology apply to the data provided herein.

Units: ug/kg dry weight

Analytical Methodology Obtained From:

( ) Federal Register, 40 CFR Part 136, Guidelines Establishing Test Procedures for the analyses of Pollutants under the Clean Water Act, 10/26/84.

(X) SW-846, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86. Method 8080

( ) Other: EPA Method 418.1 Modified for Soils



ANALYSIS FOR  
ORGANOCHLORINE PESTICIDES AND PCB'S  
EPA METHOD 8080  
(SOILS & SEDIMENTS)

METHODOLOGY SUMMARY

Samples are drained of excess water and debris such as pebbles and thoroughly mixed. Thirty grams of a sample/ $\text{Na}_2\text{SO}_4$  mixture (ratio depends on water content of sample) is extracted with a 1:1 mixture of methylene chloride and acetone in a sonicator. The extract is dehydrated with  $\text{Na}_2\text{SO}_4$ , concentrated to 10mls, subjected to florisil partitioning, and desulfurized. Analysis is performed via gas chromatography using a packed column, (1 - 6ft x 1/4in ID glass, packed with 1.5% SP2250/1.95% SP2401 on 100/120 mesh supelcoport\*) and an electron capture detector.

\* Alternate column: 2 - 6ft x 1/4in ID glass packed with 3% SE 30 on 80/100 chromosorb WHP.

CASE NARRATIVE

R91/0855

WCC soil job R91/855 was analyzed for PCB's using method 8080 from SW846. This job was samples on 02/26/91 and extracted on 03/06/91.

The surrogate recovery for Dibutylchloroendate was outside of QC limits for sample R91/855-Blk due to suspected matrix interference (flag t). However, the second surrogate, Tetrachloro-m-xylene, was within QC limits for all samples. Due to the high levels of PCB's detected, samples R91/855-001 and 007 were quantitated using dilutions which subsequently raised the quantitation limits, and caused the spike to be diluted out (flag D) in the matrix spike and matrix spike duplicate (R91/855-007 MS and 007 MSD).

03/14/91



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R91/00855

Date: MAR. 21 1991

Client:

Paul Kareth  
Woodward Clyde Consultants  
201 Willowbrook Blvd.  
Wayne, NJ 07470

Sample(s) Reference

GE - Waite Rd.

Received

: 02/27/91

P.O. #: 90C4217

ANALYSIS * BY EPA METHOD 8080		ANALYTICAL RESULTS - ug/kg dry wt.				
Sample:		-001	-007	-008		
Location:		PS-C-S6	PS-AR6	Lab		
				Blank		
Date Collected:		02/26/91	02/26/91	--		
Time Collected:		PQL'S 13:00	14:30	--		
Date Extracted:		03/06/91	03/06/91	03/06/91		
Date Analyzed:		03/12/91	03/12/91	03/12/91		
PCB 1016	20.0	34.7 U	272 U	20.0 U		
PCB 1221	20.0	34.7 U	272 U	20.0 U		
PCB 1232	20.0	34.7 U	272 U	20.0 U		
PCB 1242	20.0	255	272 U	20.0 U		
PCB 1248	20.0	34.7 U	272 U	20.0 U		
PCB 1254	20.0	34.7 U	272 U	20.0 U		
PCB 1260	20.0	122	444	20.0 U		
Surrogate Standard Recovery						
-----						
Tetrachloro-meta-xylene		80%	68%	61%		
(Acceptance Limits: 31-141%)						
Dibutylchloroendate		63%	91%	433%		
(Acceptance Limits: 24-150%)						

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145  
NJ ID# in Rochester: 73331  
NJ ID# in Hackensack: 02317  
NY ID# in Hackensack: 10801

Laboratory Director



SECTION C

LABORATORY QUALITY CONTROL

Presented in this section is Quality Control associated with the data provided in Section A & B of this report.

Quality Control Explanations:

- 1) Run Quality Control - Selected QC data from the analytical run in which your sample(s) were involved.
- 2) Job Specific Quality Control - QC data specific to your set of samples.
- 3) Duplicates - Replicate analysis of a given sample used to monitor precision. Relative Percent Difference is calculated as the difference divided by the average x 100.
- 4) Matrix Spikes - Addition of a known amount of analyte to a sample. Recovery is calculated by subtracting original value attributable to the sample from the combined value. The difference is then divided by the amount added to calculate % recovery. Poor recoveries may indicate analytical interference due to the matrix of the sample. Any other samples of this same matrix may also have been affected, high or low as indicated by the % recovery.
- 5) Laboratory Blanks - Laboratory Deionized water used to monitor for contamination during analysis.
- 6) Blank Spikes - Same as #4 but analyte is added to laboratory deionized water. This indicates the accuracy of analysis.
- 7) Reference Check Sample - Samples from an outside source having a known concentration of analyte. Used as a measure of analytical accuracy.

When possible, all components of the above listed QC protocol are performed during an analytical run. The resulting data is compared to historical records when evaluating the quality of analytical runs. The data provided in your report has passed our Quality Assurance review.

Quality Control Notes:

INORGANICS CONFORMANCE/NON-CONFORMANCE SUMMARY

Woodward Clyde Consultants  
GTC # R91/0855, 0936

Within Specifications

	<u>No</u>	<u>Yes</u>
<u>Blank Contamination</u>		
a. Metals	___	<u>NA</u>
b. General Chemistry	___	<u>NA</u>
c. Petroleum Hydrocarbons	___	<u>x</u>
<u>Sample Holding Times</u>		
a. Metals	___	<u>NA</u>
b. General Chemistry	___	<u>NA</u>
c. Petroleum Hydrocarbons	___	<u>x</u>
<u>Minimum Detection Limits</u>		
a. Metals	___	<u>NA</u>
b. General Chemistry	___	<u>NA</u>
c. Petroleum Hydrocarbons	___	<u>x</u>

Additional Comments:

Laboratory Manager Virginia Murray

Date: 3/28/91

GTC LABORATORY QUALITY CONTROL REPORT

CUSTOMER: Woodward Clyde Consultant

JOB # : RP1/00855

UNITS: ug/g dry wt.

REPORT TYPE: Site

PARAMETER	SAMPLE	MS RESULT	MSD RESULT	% REL. ERROR	ACCEPT. LIMIT %	AVERAGE		SPIKE		PERCENT RECOVERY	ACCEPT. LIMIT %	METHOD BLANK	SPIKE ADDED	PERCENT RECOVERY	ACCEPT. LIMITS %	REFERENCE #	KNOWN PVAL	PERCENT RECOVERY	ACCEPT. LIMITS %	
						RESULT	%	ADDED	%											BLANK
* MATRIX SPIKING																				
* PRECISION																				
* BLANK SPIKES																				
REFERENCE STANDARD																				
Pet. Hydro.	-007	7940	7750	2.42	18.1	7940	7940	29,540	95.1	55.9-130	18.8 U	1746	113	61.1-123						

Analytical results previous to accounting for dilutions. \*\* Reference Check samples are not available for all analyses. ++ Outside of Quality Control Limits.

GTC LABORATORY QUALITY CONTROL REPORT

CUSTOMER: Woodward Clyde Consultant

JOB #: R91/00936

UNITS: ug/g dry wt.

REPORT TYPE: Run

PARAMETER	SAMPLE	MS RESULT	MSD RESULT	% REL. ERROR	ACCEPT. LIMIT %	AVERAGE RESULT	SPIKE ADDED	PERCENT RECOVERY	ACCEPT. LIMIT %	METHOD BLANK	SPIKE ADDED	PERCENT RECOVERY	ACCEPT. LIMITS %	REFERENCE #	KNOWN PHVAL	PERCENT RECOVERY	ACCEPT. LIMITS %
Pet. Hydro.	91/927-1	2390	2350	1.69	18.1	0.00	23,632	94.2	55.9-130	20.4 U	2049	97.4	61.1-123				

Analytical results previous to accounting for dilutions. \*\* Reference Check samples are not available for all analyses. +- Outside of Quality Control Limits.

000019



GC - GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

Woodward Clyde Consultants - GTC# R91/0855, 0936

	<u>No</u>	<u>Yes</u>
1. <u>GC/MS Tune Specifications</u>		
a. BFB passed	___	<u>NA</u>
b. DFTPP passed	___	<u>NA</u>
2. <u>GC/MS Tuning Frequency</u> - performed every 12 hours	___	<u>NA</u>
3. <u>GC-GC/MS Calibration</u> - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis	___	<u>X</u>
4. <u>GC/MS Calibration Requirements</u>		
a. Calibration Check Compounds	___	<u>NA</u>
b. System Performance Check Compounds	___	<u>NA</u>
5. <u>Blank Contamination</u> - List compounds for each fraction		
a. VOA Fraction _____		
b. B/N Fraction _____		
c. Acid Fraction _____		
d. PCB's _____		
6. <u>Surrogate Recoveries Meet Criteria</u>	<u>X</u>	___
(If not met, list those compounds and their recoveries which fall outside the acceptable range)		
a. VOA Fraction <u>NA</u> _____		
b. B/N Fraction <u>NA</u> _____		
c. Acid Fraction <u>NA</u> _____		
d. PCB's <u>Dibutylchlorendate</u> _____		
7. <u>Extraction Holding Time Met</u>	___	<u>X</u>
Comments: _____		
8. <u>Analysis Holding Time Met</u>	___	<u>X</u>
Comments: _____		

Additional Comments:

Laboratory Manager Virginia Murray Date: 3/28/91

3A - PCB's MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: General Testing Corp. Contract: \_\_\_\_\_

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

Matrix Spike - EPA Sample No. : R91/00855 -007

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENT. (ug/kg)	MS % REC #	QC LIMITS REC.
PCB 1254	133	200 U	200 U	D	39-150

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENT. (ug/kg)	MSD % REC #	% RPD #	QC LIMITS RPD	LIMITS REC.
PCB 1254	133	200 U	D		30	39-150

# Columns to be used to flag recovery and RPD values with an asterik

\* Values outside of QC limits

D: 0 out of 1 outside limits  
 Spike Recovery: 0 out of 2 outside limits

REMARKS: \_\_\_\_\_



SECTION D

ANALYTICAL CHRONOLOGY

Presented in this section is a Laboratory Chronology listing the dates of all preparations and analyses performed on the samples covered in this report. Holding times (the maximum times in which to analyze a sample) are derived from the referenced methodology.

Chronology Notes:



A Full Service Environmental Laboratory

**LABORATORY REPORT**

Job No. R91/00855

Date MAR. 11 1991

Client:

Sample(s) Reference

Woodward Clyde Consultants

GE - Waite Rd.

Date Received: 02/27/91

Date Sample Taken: 02/26/91

**LABORATORY CHRONICLE  
DATE ANALYZED**

-----

Sample:	-001	-002	-003	-004	-005	-006	-007	-008	
Location:	PS-C-S6	PS-C-S7	PS-C-S8	PS-C4	PS-AR4	PS-AR5	PS-AR6	Lab Meth.	
								Blank	
Solids, %	02/27/91	02/27/91	02/27/91	02/27/91	02/27/91	02/27/91	02/27/91		
TPH Date Extracted	02/27/91	02/27/91	02/27/91	02/27/91	02/27/91	02/27/91	02/27/91		
Pet. Hydrocarbons, IR	02/28/91	02/28/91	02/28/91	02/28/91	02/28/91	02/28/91	02/28/91		
PCBs - Date Extracted	03/06/91						03/06/91	03/06/91	
PCBs - Date Analyzed	03/12/91						03/12/91	03/12/91	



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No. R91/00936

Date MAR. 11 1991

Client:

Sample(s) Reference

Woodward Clyde Consultants

GE - Waite Rd.

Date Received: 03/01/91

Date Sample Taken: 03/01/91

LABORATORY CHRONICLE  
DATE ANALYZED

Sample: Location:	-001 PS-AR7	-002 PS-C-S9	-003 PS-C-S10						
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Solids, %	03/04/91	03/04/91	03/04/91						
TPH Date Extracted	03/04/91	03/04/91	03/04/91						
Pet. Hydrocarbons, IR	03/05/91	03/05/91	03/05/91						

**ANALYTICAL CHRONOLOGY VERIFICATION**

The preservation, preparation and analysis of these samples were conducted on the dates specified on the previous pages.

Laboratory Director: Michael K. Penn

Inorganics Manager: Douglas B. Dumbarton

Organics Manager: Mark P. Wike

Sample Receipt Manager: Ellen Schneiderbach

QA Officer: Nancy Mount





SECTION E

DOCUMENTATION FILE

Presented in this section is all support documentation requested.

Documentation Provided:

- Chain of Custody Forms
- Analytical Request Forms
- Shipping Receipts
- Laboratory Receipt Log
- Laboratory Support Documentation
- Other:

CLIENT

Client: WCC Requested by: Paul Karetz  
Street: 201 Willowbrook Blvd City: Wayne State: NJ Zip: 07470  
Reports to: same Copies to: \_\_\_\_\_  
Phone # ( 201 ) 785-0700 ext. 384 FAX # ( 201 ) 785-0875

PROJECT INFORMATION

Project Reference: GE - Waite Rd  
Estimated Start Date: 2/26/91 Est. Finish Date: 2/27/91 Phases: \_\_\_\_\_  
Est. Sample Arrival Dates: Rochester ≈ Est. Lot Sizes: \_\_\_\_\_  
Work Plan Available: Yes  No  Comments: \_\_\_\_\_  
Nature of Samples & Safety Concerns: 24-48 hr TAT on TPH's  
STD for PCB's - PCB's must have  
confirmatory chromatograms for positive hits.  
Client Consultant: \_\_\_\_\_  
TAT (Date Due): Verbal Report: S/T/D Rush Written: \_\_\_/\_\_\_/\_\_\_ Final Report: \_\_\_/\_\_\_/\_\_\_

ANALYTICAL

Summary of Analytical Requirements (see Form III for details)

Type	Matrix	#	Analyses Required
A	SOIL	10	TPH, % SOLIDS, PCB'S
B			
C			
D			

A: SOIL BORINGS B: \_\_\_\_\_  
C: \_\_\_\_\_ D: \_\_\_\_\_

Refer to Form II (reverse side) when specifying analytical protocol, field services & sample processing needs.

INVOICE

Invoice To: same Contact: \_\_\_\_\_  
Address (if different): \_\_\_\_\_  
Quotation #: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_ P.O.#: 9004217  
Cost Estimate Analytical \$ \_\_\_\_\_ (see Form III for details) Reportables \$ \_\_\_\_\_  
Field \$ \_\_\_\_\_ Shipping \$ \_\_\_\_\_ TAT \$ \_\_\_\_\_ Total \$ \_\_\_\_\_

Client Confirmation — (Please verify the above information and sign below.)

Comments: \_\_\_\_\_  
Client Signature: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

Sue

LABORATORY REQUEST  
Analytical Requirements — Form III, Page 3 of 4

Job#: R91/855  
Date of Order: 2/21/91  
Cl. Rep: VA

Customer: WCC Reference: GE-White Rd

# of Waters(W)= \_\_\_\_\_ # of Soils(S)= 5-7 Date Samples Expected: ~2/29/91 TAT: STD

Sample Type: A: SOIL BORINGS C: \_\_\_\_\_

(Source, Matrix or Location) B: \_\_\_\_\_ D: \_\_\_\_\_

	Test(s), Scan(s) Test Group(s) (Use Code f/ Back)	# of Samples by Sample Type				# of Analysis per Sample		Total # of Samples		Total # Analysis		Unit Analytical \$	Estimated COST \$
		A	B	C	D	W	S	W	S	W	S		
GEN. CHEM.													
	SH												
<input type="checkbox"/> 500 <input type="checkbox"/> 846 <input type="checkbox"/> 136 <input type="checkbox"/> CLP		TOTAL # OF GEN. CHEM. ANALYSES											
METALS													
		Hex Cr											
<input type="checkbox"/> 500 <input type="checkbox"/> 846 <input type="checkbox"/> 136 <input type="checkbox"/> CLP		TOTAL # OF METALS ANALYSES											
VOLATILES	GC												
	GC												
	TOTAL # OF GC VOLATILES												
MS	MS												
	MS												
<input type="checkbox"/> 500 <input type="checkbox"/> 846 <input type="checkbox"/> 136 <input type="checkbox"/> CLP		TOTAL # OF MS VOLATILES											
EXTRACTABLES	GC	GC 8080											
	GC	POB'S MUST HAVE CONFIRM. FOR ALL POSITIVE HITS				5-7		-	1	-	5-7	-	5-7
TOTAL # OF GC EXTRACTABLES													
MS	MS												
	MS												
<input type="checkbox"/> 500 <input type="checkbox"/> 846 <input type="checkbox"/> 136 <input type="checkbox"/> CLP		TOTAL # OF MS EXTRACTABLES											
OX													
TOC													

Exchange Street  
Haver, NY 14608  
(716) 454-3760  
FAX (716) 454-1245  
435 Lawrence Bell Drive  
Amherst, NY 14221-7077  
(716) 634-0454  
FAX (716) 634-9019

85 Trinity Place  
Hackensack, NJ 07601  
(201) 488-5242  
FAX (201) 488-6386

RUSH TAT Surcharge	Subtotal for Analytical
Reportables Surcharge	Discount @ _____ % -
QC Surcharge	Certification Fee +
Misc. Charges	Total Extra Charges +
Total Extra Charges	Total Analysis & Report

000030

## Memorandum

## Woodward-Clyde Consultants

PAGE 1 OF 1

To: Virginia Murray  
General Testing

From: Paul Kareth

Office: Wayne, NJ

Date: 2-21-91

Subject: Sampling at Waite Road 90C4217

I need the following delivered by Friday afternoon:

10 bottle sets for TPH and PCB's in soil.

turnaround time for TPH = 24-48 hours.

turnaround time for PCB's = normal turnaround.

Sampling is scheduled for Tuesday/Wednesday  
2/26 & 27/91.

I will need "blue ice" packs for Federal Express shipment.  
(ship from side)

I expect to collect about 5 to 7 samples. The extra  
bottle sets are backup in case I have to do a lot of  
excavation.

If you want the PCB's shipped directly to Rochester,  
I'll need 2 coolers, otherwise I can ship everything  
to Hackensack.

Call me to firm this up, Thanks

000031

Paul Kareth

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. R91/855  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

**Sample Origination & Shipping Information**

Collection Site WAITE ROAD  
 Address WAITE ROAD CLIFTON PARK NY  
Street City State Zip  
 Collector PAUL KARETH Paul Kareth  
Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:	Received by:	Date/Time
1. Sign <u>Paul Kareth</u> for	1. Sign <u>Federal Express</u> for	<u>1 / 1</u> :
2. Sign _____ for	2. Sign <u>H. M. Kelly</u> <u>GTC</u> for	<u>2/27/91</u> <u>9:30</u>
3. Sign _____ for	3. Sign _____ for	<u>1 / 1</u> :

Sample(s) Received in Laboratory by \_\_\_\_\_ @ \_\_\_\_\_

Client I.D.# Lab#	Sample Location Date/Time	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
				Preserved Y N	Filtered Y N			
1 PS-C-56 001	PS-C-56 2/26/91 1300	S	TPH, PCB	/ ice		/	2-pint glass	
2 PS-C-57 002	PS-C-57 2/26/91 1310	S	TPH, PCB	/ ice		/	2-pt glass	
3 PS-C-58 003	PS-C-58 2/26/91 1320	S	TPH, PCB	/ ice		/	2-pt glass	
4 PS-C4 004	PS-C4 2/26/91 1330	S	TPH, PCB	/		/	2-pt glass	
5 PS-AR4 005	<del>PS-AR4</del> PS-AR4 2/26/91 1400	S	TPH, PCB	/ ice		/	2 pt glass	

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		2									

Additional Analytes TPH - rush turnaround ; PCB's normal turnaround

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

\* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. K91/855  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

Sample Origination & Shipping Information

Collection Site WAITE ROAD  
 Address WAITE ROAD CLIFTON PARK NY  
Street City State  
 Collector PAUL KARETH Paul Kareth  
Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:	Received by:	Date/Time
1. Sign <u>Paul Kareth</u> for	1. Sign <u>Federal Express</u> for	<u>1 / 1</u> :
2. Sign _____ for	2. Sign <u>Kimply GTC</u> for	<u>2/27/91</u> <u>9:30</u>
3. Sign _____ for	3. Sign _____ for	<u>1 / 1</u> :

Sample(s) Received in Laboratory by \_\_\_\_\_ @ \_\_\_\_\_

Client I.D.# Lab#	Sample Location Date/Time	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
				Preserved Y N	Filtered Y N			
1 PS-AR5 006	PS-AR5 2/26/91 : 1415	5	TPH, PCB	/	/			2-pt glass ice
2 PS-AR6 007	PS-AR6 2/26/91 : 1430	5	TPH, PCB	/	/			2-pt glass ice
3	/ / :							
4	/ / :		PK					
5	/ / :							

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each											

Additional Analytes TPH - rush turnaround; PCB's normal turnaround

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

\* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).

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**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. 891/936  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

**Sample Origination & Shipping Information**

Collection Site WAITE ROAD  
 Address WAITE ROAD CLIFTON PARK NEW YORK  
Street City State Zip  
 Collector PAUL KARETH Paul Kareth  
Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:		Received by:		Date/Time
1. Sign	<u>Paul Kareth</u>	1. Sign	<u>K. Mully</u>	<u>3/1/91</u>
for		for	<u>GTC</u>	<u>17:25</u>
2. Sign		2. Sign		<u>/ /</u>
for		for		<u>:</u>
3. Sign		3. Sign		<u>/ /</u>
for		for		<u>:</u>

Sample(s) Received in Laboratory by \_\_\_\_\_ / / @ \_\_\_\_\_

Client I.D.# Lab#	Sample Location Date/Time	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
				Preserved Y N	Filtered Y N			
1 PS-AR7	PS-AR7 3/1/91 930	S	TPH, PCB	✓		✓	2 pt glass	
2 PS-C-59	PS-C-59 3/1/91 1320	S	TPH, PCB	✓		✓	2 pt glass	
3 PS-C-510	PS-C-510 3/1/91 1330	S	TPH, PCB	✓		✓	2 pt glass	
4	/ /							
5	/ /							

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		2									

Additional Analytes Hold PCB's

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.  
 \* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).





SECTION F

DOCUMENTATION FILE

Presented in this section is all support documentation requested.

Documentation Provided:

- Chain of Custody Forms
- Analytical Request Forms
- Shipping Receipts
- Laboratory Receipt Log
- Laboratory Support Documentation
- Other:

STANDARDS DOCUMENTATION SHEET

Analysis: PCB By 8080

Starting Date: 3/12/91

GC: HP5730A-A

Column: SP 2250/2401

Integrator: HP3392A

Temperature: 215 C

Included jobs: R91/0855

Initial Calibration

Date: 2/8/91

Time: 23:10

Continuing Calibration

Date: 3/12/91

Time: 09:22

Date: 3/12/91

Time: 21:06

Date:

Time:

Date:

Time:

Date:

Time:

Date:

Time:

Date:

Time:

Date:

Time:

Date:

Time:

Date:

Time:



Analyst

000037

General Testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: DAVE MASUCCI  
Date: 3/12/91  
Time: 21:06  
Run #: 12

PCB's (8080/608)  
CONTINUING CALIBRATION CHECK

Calibration Date: 2/8/91  
Column: 1.95% SP2401/1.5% SP2250

Instrument ID: HP 5730A-A  
Oven Temp: 210 C

Compound	Conc.	Retention Times	Area Units (x.0001)	New Response Factor	Initial Response Factor	%RSD
PCE 1250	500	12.67 14.19 15.96	228 167 219	0.814	0.911	11

  
-----  
Analyst

METHOD BLANK SUMMARY SHEET

Lab Name: General Testing corp.

Contract:

Lab Code: GTC

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SDG No.: \_\_\_\_\_

Lab Sample ID: R91/0855-B1k

Lab file ID: \_\_\_\_\_

Matrix: (soil/water) Soil

Level: (low/med): Low

Date Extracted: 3/6/91

Extraction: (Sepf/Cont) Soil:

Date Analyzed: (1): 3/12/91

Date Analyzed: (2): 3/13/91

Time Analyzed: (1): 11:15

Time Analyzed: (2): 17:33

Instrument ID: (1): HP5730A-A

Instrument ID: (2): HP5730A-A

GC Column ID: (1): 2250/2401

GC Column ID: (2): 2100

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

EPA SAMPLE NO.	LAB SAMPLE ID.	DATE ANALYZED 1	DATE ANALYZED 2
	0855-R.S.	2/12/91	2/13/91
	0855-1	2/12/91	2/13/91
	0855-7	2/12/91	2/13/91
	0855-7MS	2/12/91	2/13/91
	0855-7MSD	2/12/91	2/13/91

COMMENTS:

FORM IV

2E - SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: General Testing Corp. Contract: \_\_\_\_\_

Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.:

	EPA SAMPLE NO.	S1 (DBC) #	OTHER (TCMX) #
01	R91/0855-BLK	*	61
02	R91/0855-R.S.	78	74
03	R91/0855-1	63	80
04	R91/0855-7	91	68
05	R91/0855-7MS	114	96
06	R91/0855-7MSD	115	96
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

S1 (DBC) = Dibutylchloroendate  
 S2 (TCMX) = Tetrachloro-m-xylene  
 # Column used to flag recovery values  
 D Surrogates diluted out  
 \* = Surrogate out of Q.C. limits

ADVISORY  
 QC LIMITS  
 TCMX (31-141)  
 DBC (24-150)

- PCB EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shift for Dibutylchloride

Lab Name: General Testing Corp.

Contract: \_\_\_\_\_

Lab Code: GTC

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SOG No.: \_\_\_\_\_

Instrument ID: HP5730A-A

GC Column ID: 2250/2401

Dates of Analysis: 3/12/91 to 3/12/91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	DILUTIONS
01	AR 1254 STD3	PCB 1254 500	3/12/91	09:22	(27.40)	
02		0855-BLK	3/12/91	11:15	0.2	
03		0855-REF SPK	3/12/91	11:58	0.4	
04		0855-1	3/12/91	16:02	0.8	
05		0855-7	3/12/91	18:17	0.4	1/10
06		0855-7MS	3/12/91	19:17	0.4	1/10
07		0855-7MS0	3/12/91	09:22	0.3	1/10
08	AR 1660 STD3	PCB 1660 500	3/12/91	21:06	0.1	
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

\* Values outside of QC limits (2.0% for packed columns, 1.0% for capillary columns)

NYSDEC Sample No. \_\_\_\_\_

10 - PESTICIDE/PCB IDENTIFICATION

Lab Name: General Testing Corp. Contract: \_\_\_\_\_

Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

GC Column ID: (1): 2401/2250 GC Column ID: (2): 2100

Instrument ID (1): HP5730A-R Instrument ID (2): HP5730A-R

Lab Sample ID: R91/0855-1

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

	PESTICIDE/PCB	RETENTION TIME	RT WINDOW		QUANT?	GC/MS
			OF STANDARD	FROM TO		
01	PCB 1242	Column 1 3.80	3.76	3.84	Y	___
02		Column 2 3.19	3.16	3.22	N	___
03	PCB 1260	Column 1 12.83	12.77	12.89	Y	___
04		Column 2 12.97	12.95	12.99	N	___
05	_____	Column 1 _____	_____	_____	___	___
06		Column 2 _____	_____	_____	___	___
07	_____	Column 1 _____	_____	_____	___	___
08		Column 2 _____	_____	_____	___	___
09	_____	Column 1 _____	_____	_____	___	___
10		Column 2 _____	_____	_____	___	___
11	_____	Column 1 _____	_____	_____	___	___
12		Column 2 _____	_____	_____	___	___

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

YSDEC Sample No. \_\_\_\_\_

10 - PESTICIDE/PCB IDENTIFICATION

Lab Name: General Testing Corp.      Contract: \_\_\_\_\_

Lab Code: GTC      Case No.: \_\_\_\_\_      SAS No.: \_\_\_\_\_      SOG No.: \_\_\_\_\_

GC Column ID: (1): 2401/2250      GC Column ID: (2): 2100

Instrument ID (1): HP5730A-A      Instrument ID (2): HP5730A-A

Lab Sample ID: R91/0855-7

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

=====

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM TO	QUANT? (Y/N)	GC/MS (Y/N)
03 PCB 1260	Column 1 12.77	12.77 12.89	Y	---
04	Column 2 12.98	12.95 12.99	N	---
05 _____	Column 1 _____	_____	---	---
06 _____	Column 2 _____	_____	---	---
05 _____	Column 1 _____	_____	---	---
06 _____	Column 2 _____	_____	---	---
07 _____	Column 1 _____	_____	---	---
08 _____	Column 2 _____	_____	---	---
09 _____	Column 1 _____	_____	---	---
10 _____	Column 2 _____	_____	---	---
11 _____	Column 1 _____	_____	---	---
12 _____	Column 2 _____	_____	---	---

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_



GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y.  
 (716)454-3760

Analyst: D. Masucci  
 Date: 3/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 3/6/91

Client: WCC  
 Job#: R91/0855-7

PCB MATRIX SPIKE

Lab Name: General Testing Corp.  
 Lab Code:GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONC. (ug/kg)	MS CONC. (ug/kg)	MS % REC	(#)	QC LIMITS % REC.
PCB 1016	-----	200 U	200 U			50-114
PCB 1221	-----	200 U	200 U			15-178
PCB 1232	-----	200 U	200 U			10-215
PCB 1242	-----	200 U	200 U			39-150
PCB 1248	-----	200 U	200 U			38-158
PCB 1254Z	133	200 U	200 U		D	29-131
PCB 1260ZA	-----	326	548			8-127

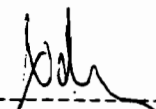
COMPOUND	SPIKE ADDED (ug/kg)	MSD CONC. (ug/kg)	MSD % REC.	(#)	RPD (#)	QC LIMITS %REC
PCB 1016	-----	200 U				30 50-114
PCB 1221	-----	200 U				30 15-187
PCB 1232	-----	200 U				30 10-215
PCB 1242	-----	200 U				30 39-150
PCB 1248	-----	200 U				30 38-158
PCB 1254	133	200 U		D		30 29-131
PCB 1260	-----	590				30 8-127

Spike Recovery: 0 out of 2 outside limits.

RPD: 0 out of 1 outside limits.

COMMENTS:

Page 1 of 1



Analyst's Signature

000044

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716) 454-3750

ANALYST: D. MASUCCI  
 Date: 3/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 3/6/91  
 Date Analyzed/Run #/Dil.  
 3/12/91 | 11 |

LABORATORY REPORT

Analysis: PCB'S by 8080

Client: WCC

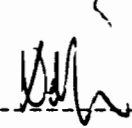
Job #: 891/0855-7MS

Cleanups: 5% + 15% FL / S=

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/l)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.01	10.0	200	U
PCB 1001			0.00	3.01	10.0	200	U
PCB 1032			0.00	3.01	10.0	200	U
PCB 1042			0.00	3.01	10.0	200	U
PCB 1048			0.00	3.01	10.0	200	U
PCB 1054			0.00	3.01	10.0	200	U
PCB 1060	SEE ATTACHED		165	3.01	10.0	548	

Burnogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.85	4.32	32.1	33.3	96	31-141	
Dibutylchlorononate	27.50	5.28	37.8	33.3	114	24-150	

  
 -----  
 Analyst

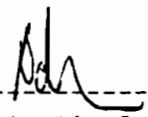
General Testing Corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 3/14/91  
Instrument: HP5730A-A  
Date Extracted: 3/6/91  
Client: WCC  
Job #: R91/0855-7MS

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	9.81	10.12	37.8	5.24	198	165
2	10.83	11.35	46.3	5.21 *	241	
3	12.19	12.75	60.9	2.43	148	
4	13.65	14.29	42.8	3.67	157	
5	15.34	16.03	70.6	3.15	222	
6	16.39	17.11	32.9	4.64	153	
7	19.77	20.62	21.9	7.86	172	
8	29.80	31.13	69.1	1.52	105	
9	39.44			13.4 *	0	
10	44.60			7.71 *	0	

\* = Values not used when calculating average conc.

  
-----  
Analyst's Signature

000046

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y.  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 3/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 3/6/91  
 Date Analyzed: Run # Dil.  
 3/12/91 | 11 |  
 | |

LABORATORY REPORT

Analysis: PCB'S by 8080

Client: WCC

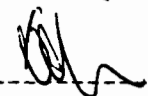
Job #: R91/0855-7MSD

Cleanups: 6% + 15% fL / S=

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/l)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.01	10.0	200	U
PCB 1221			0.00	3.01	10.0	200	U
PCB 1232			0.00	3.01	10.0	200	U
PCB 1242			0.00	3.01	10.0	200	U
PCB 1248			0.00	3.01	10.0	200	U
PCB 1254			0.00	3.01	10.0	200	U
PCB 1260	SEE ATTACHED		177	3.01	10.0	590	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.85	4.31	32.0	33.3	96	31-141	
Dibutylchloroendate	27.47	5.36	38.4	33.3	115	24-150	



Analyst

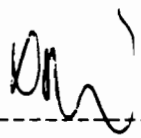
General Testing Corp.  
710 Exchange St., Rochester, N.Y.  
(716)454-3760

Analyst: D. Masucci  
Date: 3/14/91  
Instrument: HP5730A-A  
Date Extracted: 3/6/91  
Client: WCC  
Job #: R91/0855-7MSD

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	9.81	10.12	37.7	5.24	197	177
2	10.83	11.35	46.1	5.21	240	
3	12.19	12.75	60.9	2.43	148	
4	13.65	14.29	42.6	3.67	156	
5	15.34	16.03	70.8	3.15	223	
6	16.38	17.10	34.3	4.64	159	
7	19.77	20.62	22.0	7.86	173	
8	29.80	31.13	78.3	1.52	119	
9	33.44			13.4 *	0	
10	44.60			7.71 *	0	

\* = Values not used when calculating average conc.

  
-----  
Analyst's Signature

000048

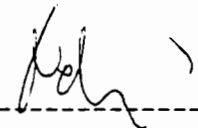
GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3780

Analyst: Dave Masucci  
 Date: 3/12/91  
 Date Extracted: 3/6/91  
 Client: WCC  
 Job #: R91/0855-BLK - 8

PCB Analysis - QC Summary  
 LAB BLANK & REFERENCE CHECK

Compound	Lab Blank Conc.	True Conc. (ug/kg)	Reference Spike	
			Percent Recovery	Acceptance Limit
PCB 1254	20.0 U	66.7	90	29-131

Surrogate Standards	Blank % Rec.	Amount Added	Percent Recovery	Acceptance Limit
Tetrachloro-m-xylene	61	33.3	74	31-141
Dibutylchloroendate	433	33.3	78	24-150

  
 -----  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y.  
 (716)454-3750

Analyst: D. MASUCCI  
 Date: 3/12/91  
 Instrument ID: HP 5890A-A  
 Date Extracted: 3/6/91  
 Date Analyzed: 3/12/91

LABORATORY REPORT #2

Analysis: PCB'S by 8080

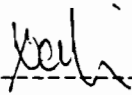
Cleanups: 5% + 15% fL / S=

Client: WCC  
 Job #: R91/0855-REF SPK  
 Run #: 4

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/l)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	1.0	20.0 U	
PCB 1221			0.00	3.00	1.0	20.0 U	
PCB 1232			0.00	3.00	1.0	20.0 U	
PCB 1242			0.00	3.00	1.0	20.0 U	
PCB 1243			0.00	3.00	1.0	20.0 U	
PCB 1254	SEE ATTACHED		181	3.00	1.0	60.3	
PCB 1250			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	% Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.84	33.2	24.7	33.3	74	31-141	
Dibutylchloride	27.51	36.1	25.9	33.3	78	24-150	

  
 Analyst

000050

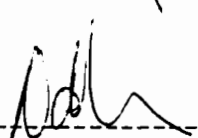
General Testing Corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 3/12/91  
Instrument: HP5730A-A  
Date Extracted: 3/6/91  
Client: WCC  
Job #: R91/0855-REF SPK

Analysis: PCB's By 8080

PCB 1254  
MULTI-PEAK RESPONSE WORKSHEET #2

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/kg)	Avg. CONC. (ug/kg)
1	4.37	4.59	21.4	9.85	211	181
2	5.13	5.39	6.42	26.6	170	
3	6.55	6.86	50.3	6.01	302	
4	7.23	7.58	34.5	5.50	190	
5	8.97	8.99	2.11	8.12 *	17	
6	9.62	10.07	32.4	4.62	150	
7	10.90	11.40	70.6	2.99	211	
8	12.17	12.74	25.1	4.82	121	
9	13.65	14.27	37.6	3.73	140	
10	15.35	16.08	42.4	3.14	133	

  
-----  
Analyst's Signature



GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 3/12/91  
 Instrument: HPS730A-A  
 Date Extracted: 3/6/91  
 Date Analyzed: Run # Dil.  
 3/12/91 | 12 |  
 | |

LABORATORY REPORT

Analysis: PCB'S by 8080

Client: WCC  
 Job #: R91/0855-BLK -7

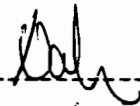
Cleanups: 6% + 15% fL / S=

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/l)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	1.0	20.0 U	
PCB 1221			0.00	3.00	1.0	20.0 U	
PCB 1232			0.00	3.00	1.0	20.0 U	
PCB 1242			0.00	3.00	1.0	20.0 U	
PCB 1248			0.00	3.00	1.0	20.0 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accept. Limits	Q
Tetrachloro-m-xylene	1.84	27.2	20.2	33.3	61	31-141	
Dibutylchloroendate	27.45	201	144	33.3	433	24-150	t

t = Surrogate matrix interference suspected.

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y.  
 (716)454-3750

ANALYST: D. MASUCCI  
 Date: 3/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 3/6/91  
 Date Analyzed/Run #/Dil.  
 3/12/91 | 7 |

LABORATORY REPORT

Analysis: PCB'S by 8080

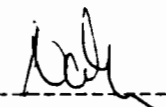
Client: WCC  
 Job #: R91/0855-1

Cleanups: 6% + 15% fL / S = x 3

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/l)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1216			0.00	3.00	1.0	20.0 U	
PCB 1221			0.00	3.00	1.0	20.0 U	
PCB 1232			0.00	3.00	1.0	20.0 U	
PCB 1242	SEE ATTACHED		434	3.00	1.0	147	
PCB 1246			0.00	3.00	1.0	20.0 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260	SEE ATTACHED		212	3.00	1.0	70.7	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.87	36.0	26.8	33.3	80	31-141	
Dibutylchlorodate	27.63	29.1	20.9	33.3	63	24-150	

  
 Analyst

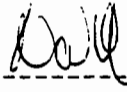
General Testing Corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 3/14/91  
Instrument: HP5730A-A  
Date Extracted: 3/6/91  
Client: WCC  
Job #: R91/0855-1

PCB 1242  
MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	2.27	2.48	37.6	11.5	423	434
2	2.83	3.00	48.2	8.73	421	
3	3.25	3.44	14.4	26.9	388	
4	3.59	3.80	80.9	4.53	366	
5	3.91	4.13	21.9	17.4	381	
6	4.42	4.67	35.3	12.5	439	
7	5.16	5.44	26.1	15.6	408	
8	5.49	5.79	17.8	24.1	429	
9	6.39	6.77	52.7	12.4	652	
10	7.45			7.5 *	0	
	9.64			39.5 *	0	
	10.90			20.2 *	0	

\* = Values not used when calculating average conc.

  
-----  
Analyst's Signature

000054

General Testing Corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 3/14/91  
Instrument: HPS730A-A  
Date Extracted: 3/6/91  
Client: WCC  
Job #: R91/0855-1

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	9.81	10.16	40.3	5.24	211	212
2	10.83	11.41	56.3	5.21	293	
3	12.19	12.83	62.6	2.43	152	
4	13.65	14.34	53.4	3.67	196	
5	15.34	16.14	64.8	3.15	204	
6	16.38	17.22	47.8	4.64	222	
7	19.77	20.78	26.8	7.86	211	
8	29.80	31.28	137	1.52	208	
9	39.44			13.4 *	0	
10	44.60			7.71 *	0	

\* = Values not used when calculating average conc.

  
-----  
Analyst's Signature

000055

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 3/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 3/6/91  
 Date Analyzed: Run # Dil.  
 3/12/91 | 9 |  
 | |

LABORATORY REPORT

Analysis: PCB'S by 8080

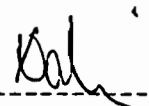
Client: WCC  
 Job #: R91/0855-7

Cleanups: 6% + 15% fL / S=

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/l)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.01	10	200 U	
PCB 1221			0.00	3.01	10	200 U	
PCB 1232			0.00	3.01	10	200 U	
PCB 1242			0.00	3.01	10	200 U	
PCB 1248			0.00	3.01	10	200 U	
PCB 1254			0.00	3.01	10	200 U	
PCB 1260	SEE ATTACHED		98	3.01	10	327	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.85	3.05	22.7	33.3	68	31-141	
Dibutylchloroendate	27.50	4.22	30.2	33.3	91	24-150	

  
 -----  
 Analyst

General Testing Corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 3/14/91  
Instrument: HP5730A-A  
Date Extracted: 3/6/91  
Client: WCC  
Job #: R91/0855-7

Analysis: PCB's By 8080

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	9.81	10.33	19.2	5.24	101	98
2	10.83	11.35	20.7	5.21	108	
3	12.19	12.77	37.6	2.43	91	
4	13.65	14.29	19.3	3.67	71	
5	15.34	16.04	35.9	3.15	113	
6	16.38	17.12	24.8	4.64	115	
7	19.77	20.66	13.6	7.86	107	
8	29.80	31.15	51.5	1.52	78	
9	39.44			13.4 *	0	
10	44.60			7.71 *	0	

\* values not used when calculating average conc.

  
-----  
Analyst's Signature

CLIENT: WCC      JOB #: R91/855      METHOD: PCB E.T.II      EXTRACTION: 3550

SAMPLE #	INITIAL WT. OF VOL	EXTRACT. FINAL VOL	APPEARANCE	SPIKE ADDED	CONC. DATE	PRIMARY CLEAN-UP	DATE	DILUTION & SECONDARY CLU.	DATE	COMMENTS	DATE DRYG
1	30.05g	WCC	Black soil	For 7ms, 7ms	3/11/91	11.5% H <sub>2</sub> O	3/11	S. CLU.	3/12		3/12
7	30.27g		Black Clay	1ml PCB 1254							
7ms	30.26g		"	Sample Spk							
7ms	30.03g		"	4.00ppm PCB 1254							
Blk	-		"	in MeOH p201							
Ref	-			2/27/91 104							
				For Ref Spk							
				1ml PCB 1254							
				Ref Spk							
				2.00ppm PCB 1254							
				2/22/91 p201							
				201 (U)							

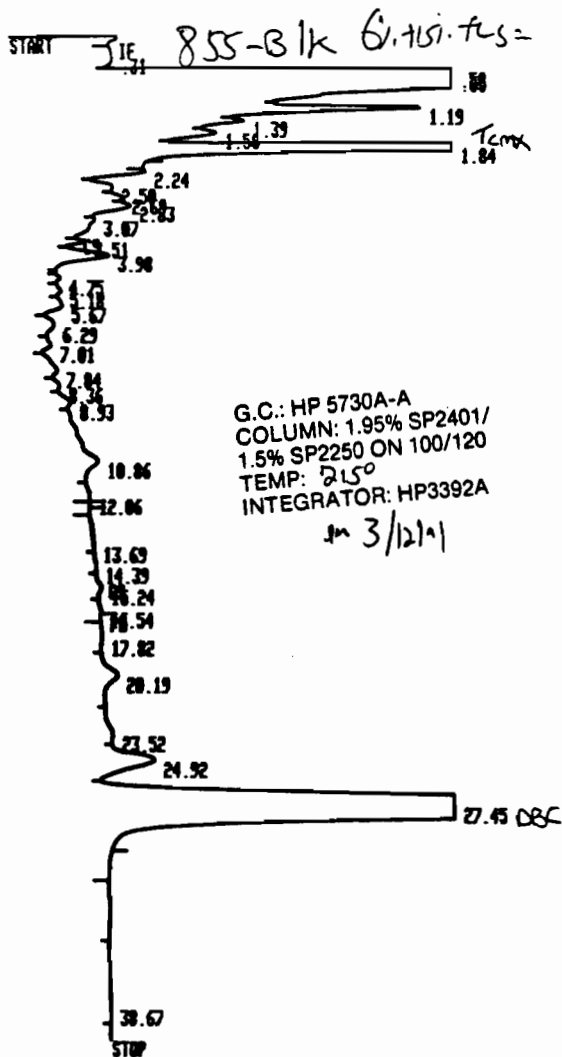
DATE EXTRACTED: 2/6/91      MISC: PCB 1254/1254

CLIENT: WCC R91/855      ANALYSIS: RB ET II      ANALYST: M. Liberty

METHOD SUMMARY:      Sonicate 30g Sample with 60g Me<sub>2</sub>SO<sub>4</sub> using 1:1 MeCl<sub>2</sub>      SUPROGATE: 1 ml Post/PCB Surf

acetone 3x's For 3min each time      in MeOH p202 ppm      M. Symbol 2/1/91

00058



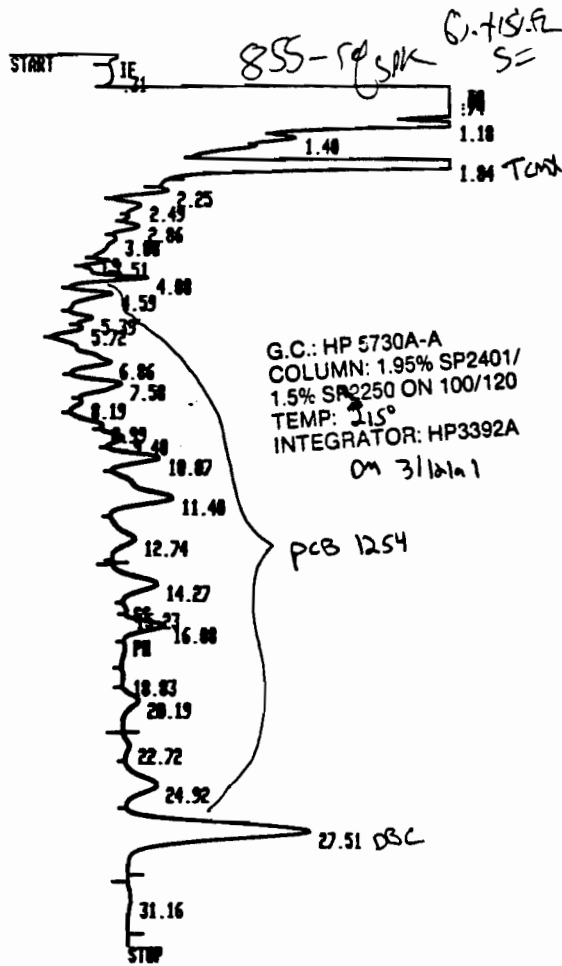
RUN # 3                      MAR/12/91 11:15:44  
WORKFILE ID: C  
WORKFILE NAME:

AREA#	RT	AREA	TYPE	AR/HT	AREA#
	0.31	31561	BB	0.269	0.112
	0.58	2506200	SPB	0.053	8.915
	1.19	307220	BB	0.099	1.093
	1.39	31588	BB	0.069	0.112
	1.58	52293	BB	0.105	0.186
	1.84	2717500	BB	0.104	9.667
	2.24	34834	BB	0.099	0.124
	2.50	22668	BB	0.125	0.081
	2.69	8680	BB	0.079	0.031
	2.83	45854	BB	0.124	0.163
	3.07	30931	BB	0.318	0.110
	3.51	40238	BB	0.144	0.143
	3.98	287570	BB	0.326	1.023
	4.75	12981	PB	0.146	0.046
	5.18	18793	BB	0.211	0.067
	5.67	78453	BB	0.357	0.279
	6.29	60352	BB	0.368	0.215
	7.01	37954	BB	0.281	0.135
	7.84	65890	BB	0.456	0.234
	8.36	15358	BB	0.239	0.055
	8.93	33762	BB	0.282	0.120
	10.06	262700	BB	0.798	0.935
	12.06	8488	BB	0.381	0.030
	13.69	16101	PB	1.137	0.057
	14.39	5174	BB	0.369	0.018
	15.24	41658	BB	0.485	0.148
	17.82	26246	BB	0.859	0.093
	20.19	252360	BB	0.904	0.890
	23.52	10703	BB	0.194	0.030
	24.92	870460	BB	0.966	3.125
	27.45	2.0129E+07	BB	1.230	71.605
	38.67	39655	PB	2.602	0.141

TOTAL AREA= 2.8111E+07  
MR FACTOR= 1.0000E+00

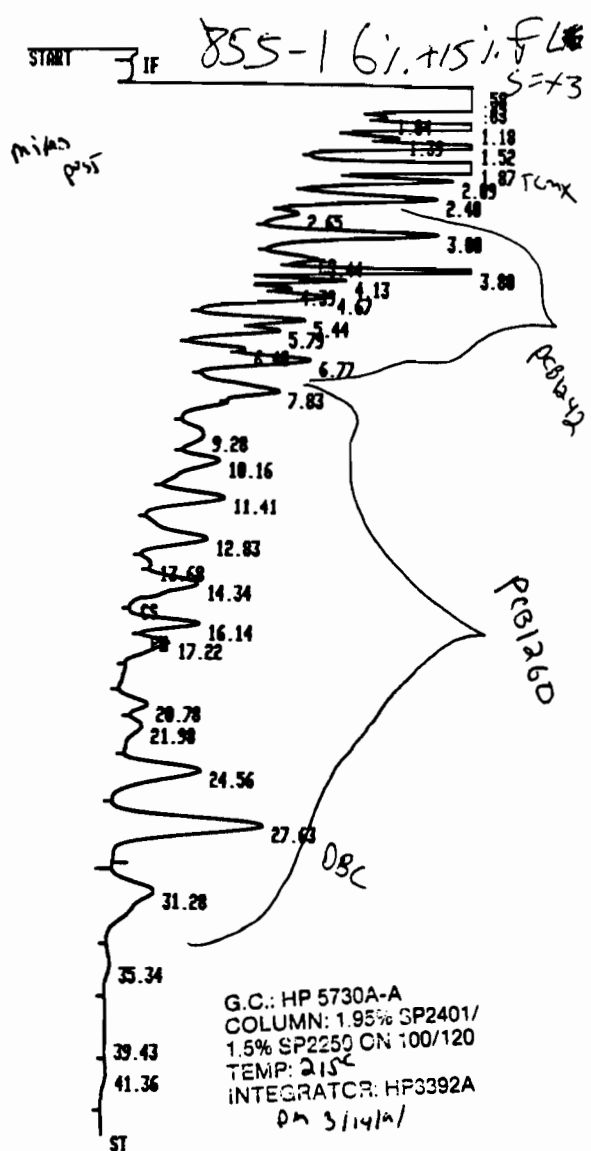
000059





RUN # 4 MAR/12/91 11:58:24  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.31	32152	BB	0.288	0.226
0.58	1471800	BB	0.848	10.348
0.65	442270	BB	0.834	3.189
1.18	356910	BB	0.886	2.589
1.40	45975	BB	0.882	0.323
1.84	3319600	PB	0.183	23.339
2.25	46640	BB	0.898	0.328
2.49	49893	BB	0.125	0.345
2.86	46981	VB	0.123	0.338
3.88	31410	BB	0.231	0.221
3.51	43476	BB	0.144	0.386
4.88	387380	BB	0.228	2.161
4.59	213760	BB	0.269	1.583
5.39	64169	BB	0.191	0.451
5.72	58421	BB	0.211	0.355
6.86	583158	BB	0.587	3.538
7.58	344760	BB	0.391	2.424
8.19	22141	BB	0.216	0.156
8.99	21870	BB	0.155	0.148
9.40	187100	BB	0.286	0.753
10.87	324460	BB	0.349	2.281
11.40	785860	BB	0.616	4.963
12.74	251410	BB	0.560	1.768
14.27	375520	PB	0.516	2.640
15.23	18288	BB	0.315	0.872
16.88	424810	BB	0.589	2.981
18.83	18580	PB	0.567	0.131
20.19	254180	BB	0.840	1.787
22.72	72478	PB	0.742	0.518
24.92	594590	BB	1.826	4.188
27.51	3689800	BB	1.862	25.374
31.16	62852	BB	1.856	0.442



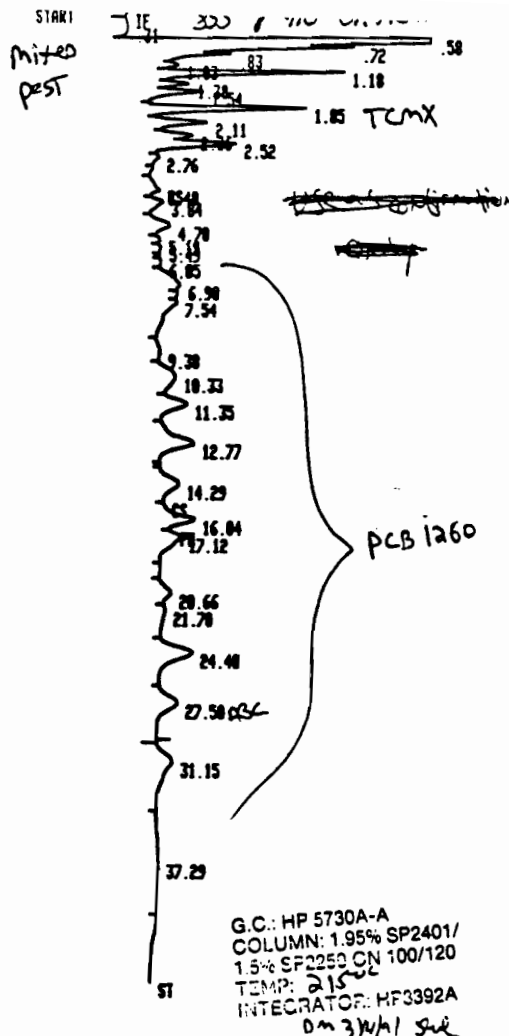
RUN # 7  
WORKFILE ID: C  
WORKFILE NAME:

MAR/12/91 16:02:58

AREA#	RT	AREA	TYPE	AR/HT	AREA#
	0.58	4992200	SPB	0.075	20.452
	0.73	788210	BB	0.049	3.229
	0.83	57937	BB	0.014	0.237
	1.04	12796	BB	0.055	0.052
	1.18	484190	BB	0.087	1.904
	1.39	35008	BB	0.059	0.143
	1.52	295150	BB	0.089	1.289
	1.87	3599300	BB	0.104	14.746
	2.09	228660	BB	0.102	0.937
	2.40	376440	BB	0.140	1.542
	2.65	45796	BB	0.109	0.188
	3.00	481750	BB	0.150	1.974
	3.44	143950	BB	0.194	0.590
	3.88	809300	BB	0.154	3.316
	4.13	219390	BB	0.142	0.899
	4.39	43560	BB	0.105	0.179
	4.67	353340	BB	0.257	1.448
	5.44	260000	BB	0.196	1.069
	5.79	177600	BB	0.200	0.728
	6.40	52145	BB	0.150	0.214
	6.77	526960	BB	0.329	2.159
	7.83	409010	BB	0.366	1.676
	9.28	220640	PB	0.500	0.937
	10.16	402660	BB	0.504	1.650
	11.41	563030	BB	0.446	2.307
	12.83	626100	BB	0.531	2.565
	13.60	22505	BB	0.273	0.093
	14.34	534200	BB	0.520	2.189
	16.14	647520	BB	0.562	2.653
	17.22	478520	BB	0.785	1.960
	20.78	268220	PB	0.665	1.099
	21.98	215100	BB	0.822	0.881
	24.56	1532000	BB	1.027	6.200
	27.63	2912300	BB	1.050	11.932
	31.28	1373200	BB	1.668	5.626
	35.34	109200	BB	1.275	0.447
	39.43	35329	BB	1.840	0.145
	41.36	65757	BB	1.219	0.269

TOTAL AREA= 2.4409E+07  
MUL FACTOR= 1.0000E+00

000061

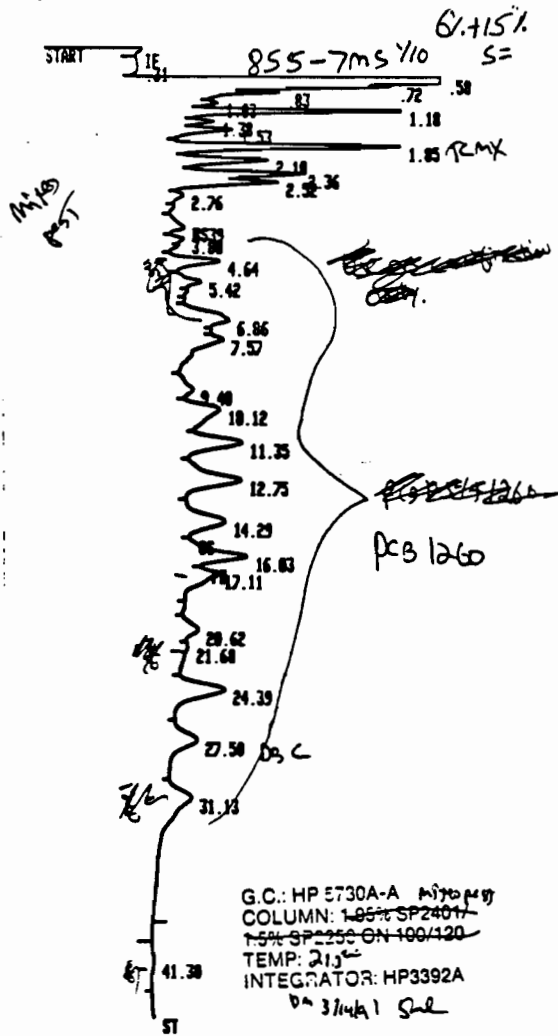


RUN # 9 MAR/12/91 18:17:04  
WORKFILE ID: C  
WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.31	28235	BB	0.285	0.448
0.58	1429100	BB	0.076	22.246
0.72	61406	BB	0.042	0.956
0.83	20003	BB	0.032	0.311
1.03	16124	BB	0.071	0.251
1.18	283710	BB	0.077	4.416
1.38	33966	BB	0.069	0.529
1.54	84003	BB	0.092	1.300
1.85	385370	BB	0.095	4.753
2.11	100890	BB	0.107	1.695
2.36	31243	BB	0.082	0.486
2.52	137610	BB	0.104	2.142
2.76	9735	BB	0.102	0.152
3.48	43205	PB	0.221	0.673
3.84	79894	BB	0.382	1.244
4.78	109940	BB	0.321	1.711
5.19	10949	BB	0.150	0.170
5.49	7114	BB	0.148	0.111
6.05	7439	PB	0.202	0.116
6.90	86866	BB	0.551	1.340
7.54	27076	VB	0.213	0.422
9.38	25365	BB	0.443	0.395
10.33	191930	BB	0.659	2.900
11.35	206620	BB	0.416	3.216
12.77	376130	BB	0.539	5.855
14.29	193000	PB	0.539	3.004
16.04	358730	BB	0.620	5.504
17.12	248470	BB	0.841	3.060
20.66	135750	PB	0.716	2.113
21.78	34409	BB	0.668	0.536
24.48	626600	BB	0.937	9.755
27.58	421900	BB	1.037	6.560
31.15	515240	BB	1.530	8.020
37.29	168960	BB	3.507	2.630

TOTAL AREA= 6424400  
MUL FACTOR= 1.0000E+00

000062

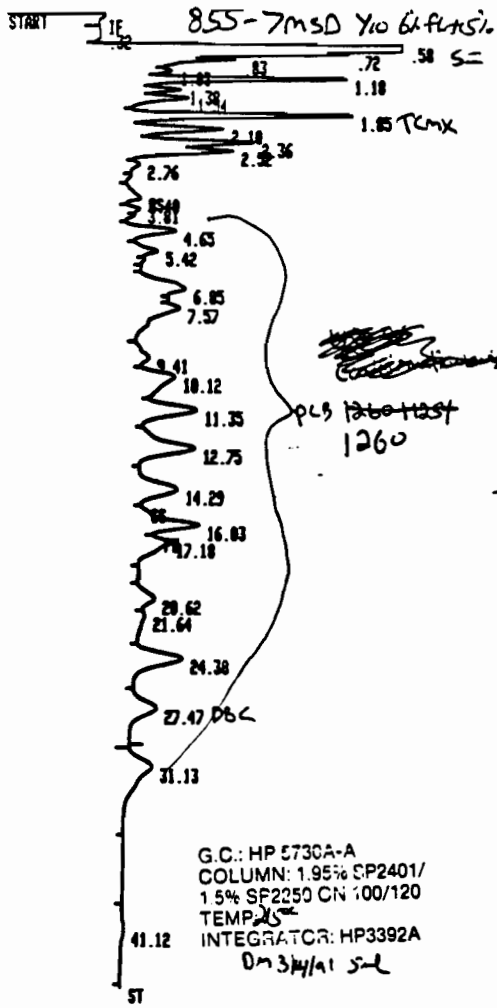


RUN # 10 MAR/12/91 19:17:27  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.31	26978	BB	0.282	0.269
0.58	2176988	BB	0.875	21.734
0.72	37642	BB	0.838	0.376
0.83	37652	BB	0.841	0.376
1.03	20132	BB	0.869	0.201
1.18	323010	BB	0.876	3.225
1.38	31186	BB	0.869	0.311
1.53	91384	BB	0.894	0.912
1.85	432348	BB	0.894	4.316
2.10	187768	BB	0.111	1.875
2.36	162688	BB	0.894	1.623
2.52	112618	BB	0.887	1.124
2.76	18895	BB	0.188	0.189
3.39	65187	PB	0.212	0.651
3.88	27591	BB	0.149	0.276
4.64	297938	PB	0.387	2.975
5.42	91985	BB	0.246	0.918
6.86	251678	PB	0.478	2.513
7.57	149748	VB	0.339	1.495
9.40	95778	BB	0.436	0.956
10.12	377618	BB	0.567	3.778
11.35	463868	BB	0.439	4.623
12.75	689848	BB	0.541	6.881
14.29	428438	BB	0.552	4.277
16.83	786158	BB	0.678	7.858
17.11	329448	BB	0.813	3.289
20.62	219548	PB	0.766	2.192
21.68	48485	BB	0.734	0.484
24.39	918888	BB	0.938	9.893
27.58	528468	BB	1.834	5.276
31.13	691388	BB	1.343	6.983
41.38	65889	BB	1.296	0.658

TOTAL AREA= 1.0016E+07  
 MUL FACTOR= 1.0008E+00

000063

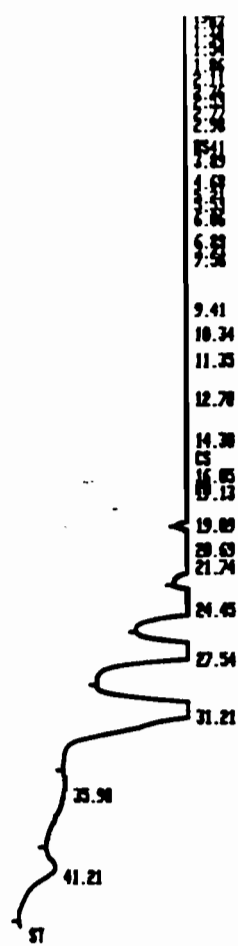


RUN # 11                      MAR/12/91 20:17:50  
WORKFILE ID: C  
WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.32	26178	BB	0.277	0.259
0.58	2164100	BB	0.076	21.391
0.72	38758	D BB	0.839	0.383
0.83	37014	BB	0.042	0.366
1.03	18290	BB	0.068	0.181
1.18	312900	BB	0.078	3.094
1.38	45265	BB	0.072	0.447
1.54	84812	BB	0.092	0.838
1.85	431200	BB	0.096	4.262
2.10	106220	BB	0.112	1.041
2.36	156810	BB	0.094	1.550
2.52	111810	BB	0.088	1.105
2.76	17532	BB	0.107	0.173
3.40	64597	PB	0.214	0.639
3.81	20419	BB	0.154	0.281
4.65	298870	PB	0.309	2.954
5.42	90217	BB	0.243	0.892
6.85	250410	PB	0.470	2.475
7.57	142250	VB	0.325	1.406
9.41	95636	BB	0.438	0.945
10.12	377090	BB	0.569	3.727
11.35	460810	BB	0.437	4.555
12.75	609100	BB	0.540	6.021
14.29	426550	BB	0.533	4.216
16.83	708160	BB	0.660	7.000
17.10	343310	BB	0.839	3.393
20.62	219000	PB	0.766	2.173
21.64	52505	BB	0.787	0.520
24.38	983900	BB	0.927	8.935
27.47	535510	BB	1.033	5.293
31.13	783290	BB	1.529	7.742
41.12	95339	VB	1.662	0.942

TOTAL AREA= 1.0117E+07  
MUL FACTOR= 1.0000E+00

000064

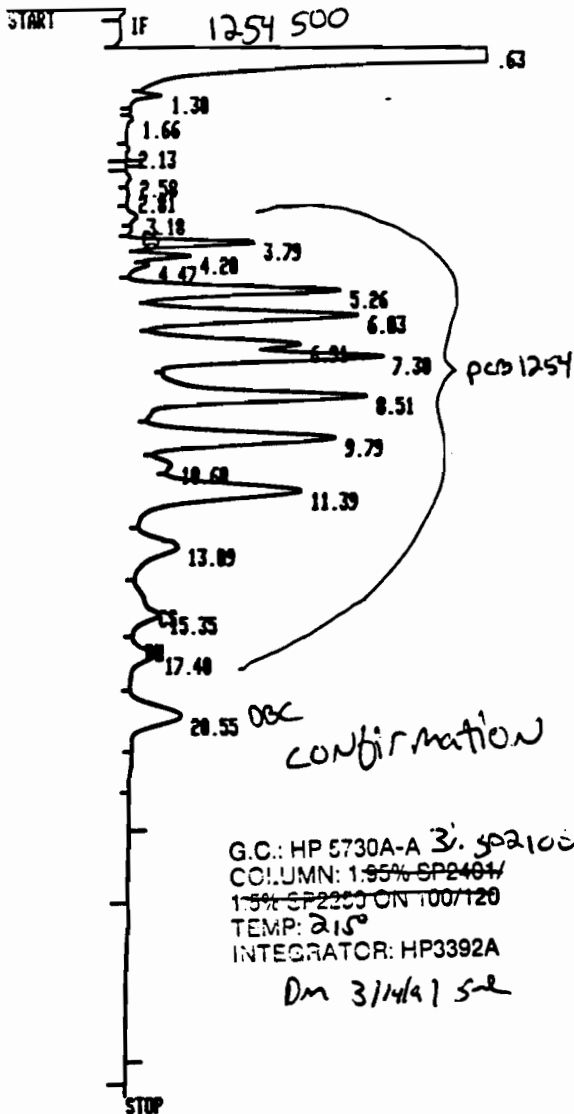


RUN # 6 MAR/12/91 13:34:31  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.32	26756	BB	0.283	0.055
0.59	4856388	BB	0.091	8.364
0.73	537298	BB	0.046	1.108
0.83	228878	BB	0.043	0.455
0.92	283748	BB	0.053	0.428
1.03	68148	BB	0.058	0.141
1.18	1268888	BB	0.079	2.598
1.39	484788	BB	0.076	0.835
1.54	687598	BB	0.086	1.253
1.86	3849888	BB	0.108	6.289
2.11	1848188	BB	0.109	2.161
2.36	436958	BB	0.086	0.981
2.53	1273188	BB	0.104	2.625
2.77	139918	BB	0.108	0.289
2.98	34345	BB	0.092	0.071
3.41	398868	BB	0.211	0.822
3.89	1139888	BB	0.279	2.349
4.68	992888	BB	0.382	2.046
5.21	36784	BB	0.138	0.076
5.53	167128	BB	0.254	0.345
6.06	183338	BB	0.197	0.213
6.89	729628	BB	0.519	1.585
7.23	58388	BB	0.177	0.184
9.41	214458	BB	0.449	0.442
10.34	1734788	BB	0.672	3.577
11.35	1828788	BB	0.419	3.771
12.78	3331288	BB	0.545	6.869
14.38	1848988	BB	0.536	3.812
16.05	3519288	BB	0.671	7.257
17.13	2177688	BB	0.844	4.498
19.09	178918	BB	0.649	0.352
20.69	1225488	BB	0.783	2.527
21.74	327888	BB	0.696	0.674
24.45	6881888	BB	0.964	12.376
27.54	3289288	BB	1.826	6.782
31.21	4965788	BB	1.515	10.239
35.98	349418	BB	2.786	0.721
41.21	528878	BB	1.397	1.889

TOTAL AREA= 4.8497E+07  
 MUL FACTOR= 1.8888E+08

000065



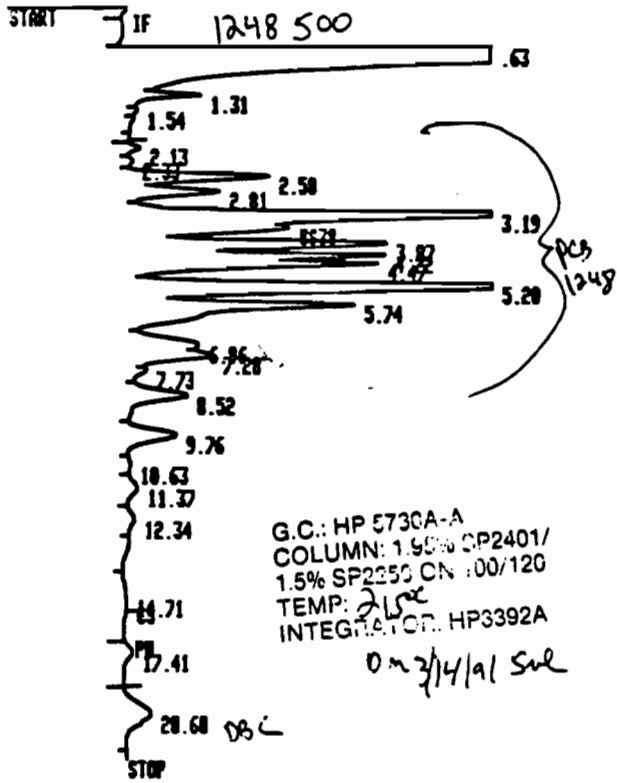
G.C.: HP 5730A-A 3i. 502100  
 COLUMN: 1.95% SP2404/  
 1.5% SP2200 ON T007120  
 TEMP: 215°  
 INTEGRATOR: HP3392A  
 On 3/14/91 SL

RUN # 2 MAR/13/91 09:40:45  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.63	4.5794E+07	1SPB	0.096	81.885
1.30	26543	BB	0.065	0.047
2.58	8818	PB	0.115	0.014
3.18	15336	BB	0.116	0.027
3.79	381970	PB	0.184	0.682
4.20	135910	BB	0.158	0.243
4.47	16497	BB	0.107	0.038
5.26	1852000	BB	0.304	1.879
6.03	1335400	BB	0.371	2.386
6.91	255850	BB	0.238	0.457
7.30	637590	BB	0.242	1.139
8.51	1461600	BB	0.401	2.611
9.79	1389600	BB	0.436	2.482
10.60	54368	BB	0.207	0.097
11.39	1247900	BB	0.501	2.229
13.09	441660	BB	0.621	0.789
15.35	423260	BB	0.933	0.756
17.40	317680	BB	0.783	0.568
20.55	984670	BB	1.127	1.759

TOTAL AREA= 5.5900E+07  
 MUL FACTOR= 1.0000E+00

000066



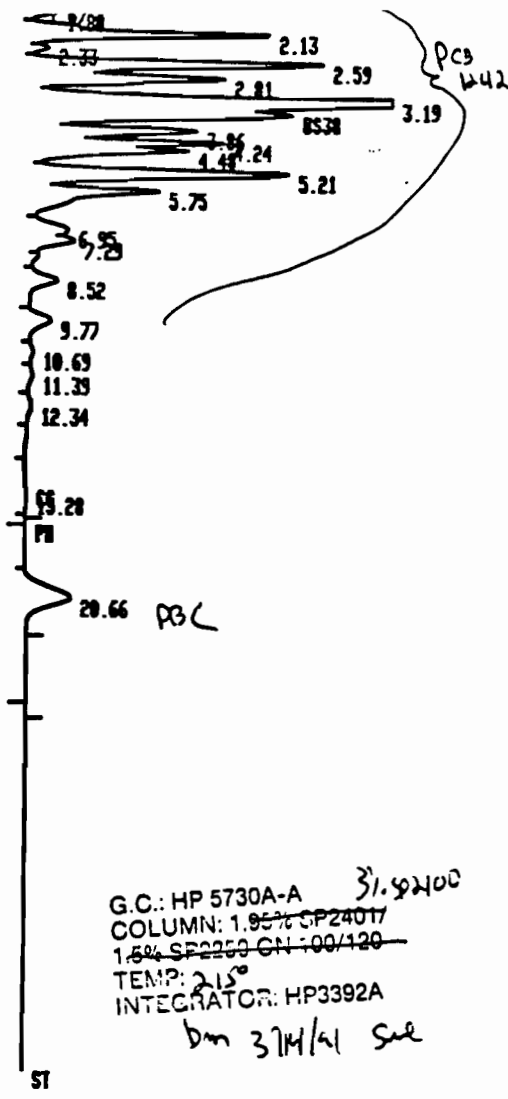
RUN # 3 MAR/13/91 10:22:10  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA2	RT	AREA	TYPE	AR/HT	AREA2
	0.63	5.4920E+07	↑SPB	0.115	88.019
	1.31	62692	BB	0.069	0.101
	2.13	18260	BB	0.093	0.029
	2.33	6570	BB	0.087	0.011
	2.58	246890	BB	0.115	0.396
	2.81	137910	BB	0.110	0.221
	3.19	772510	BB	0.128	1.238
	3.38	71659	BB	0.174	0.115
	3.87	753760	BB	0.240	1.288
	4.22	388430	BB	0.143	0.494
	4.47	311660	BB	0.144	0.580
	5.20	2870400	BB	0.298	3.318
	5.74	1838800	BB	0.322	1.652
	6.96	69823	BB	0.252	0.112
	7.28	144770	BB	0.233	0.232
	7.73	16349	BB	0.182	0.026
	8.52	359000	BB	0.377	0.575
	9.76	344070	BB	0.414	0.551
	10.63	10155	BB	0.292	0.016
	11.37	73623	BB	0.446	0.118
	12.34	48582	BB	0.429	0.078
	14.71	22440	PB	0.710	0.036
	17.41	90121	BB	0.649	0.144
	20.60	585500	BB	1.115	0.810

TOTAL AREA= 6.2396E+07  
 MUL FACTOR= 1.0000E+00

000067





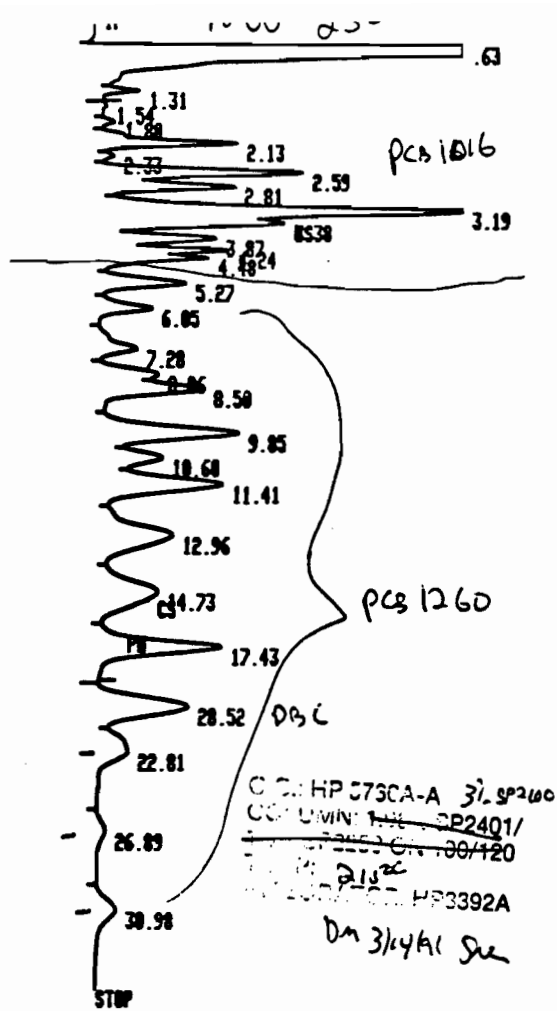
G.C.: HP 5730A-A 31.92100  
 COLUMN: 1.95% SP24017  
 1.5% SP2250 GN:00/120  
 TEMP: 215°  
 INTEGRATOR: HP3392A  
 dm 3/14/91 Sae

RUN # 4 MAR/13/91 10:46:16  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.64	4.8662E+07	TSPB	0.182	88.289
1.31	57418	BB	0.069	0.184
1.88	29484	BB	0.077	0.054
2.13	488138	BB	0.123	0.886
2.33	16957	BB	0.080	0.831
2.59	488438	BB	0.114	0.886
2.81	266878	BB	0.108	0.483
3.19	852888	BB	0.129	1.546
3.38	182938	BB	0.168	0.332
3.86	452988	BB	0.231	0.822
4.24	261878	BB	0.158	0.474
4.48	143888	BB	0.124	0.268
5.21	1181988	BB	0.292	2.144
5.75	557488	BB	0.389	1.012
6.95	47968	BB	0.247	0.887
7.29	79828	BB	0.231	0.145
8.52	176998	PB	0.385	0.321
9.77	158968	BB	0.423	0.288
10.69	19343	BB	0.337	0.835
11.39	24423	BB	0.381	0.844
12.34	29719	BB	0.443	0.854
15.28	37289	PB	1.256	0.868
20.66	982488	PB	1.168	1.637

TOTAL AREA= 5.5117E+07  
 MUL FACTOR= 1.0000E+00

000068

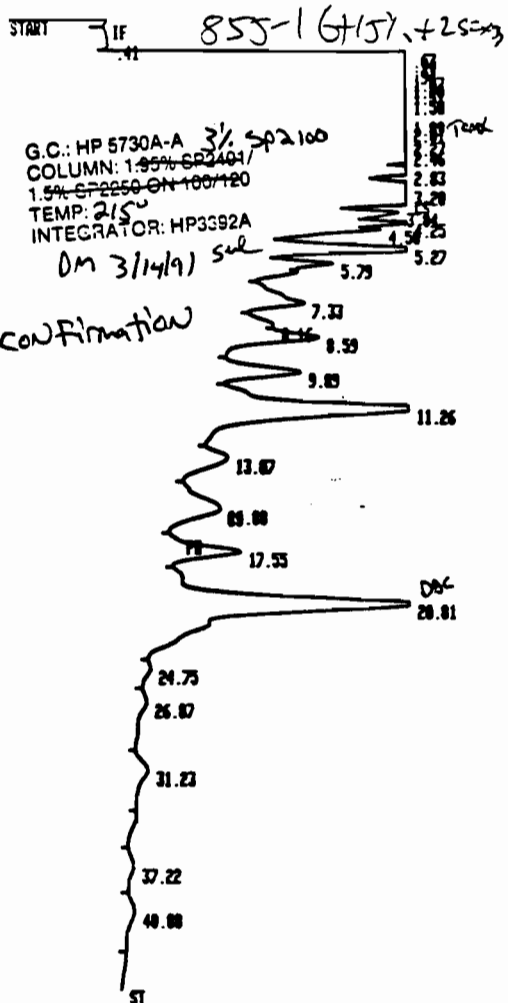


RUN # 5 MAR/13/91 11:42:02  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.63	3.4820E+07	TSPB	0.073	75.375
1.31	35348	BB	0.066	0.077
1.80	17895	BB	0.081	0.037
2.13	268690	BB	0.120	0.582
2.33	12180	BB	0.082	0.026
2.59	337850	BB	0.115	0.738
2.81	182890	BB	0.108	0.394
3.19	593200	BB	0.129	1.284
3.38	121420	BB	0.159	0.263
3.87	314690	BB	0.234	0.681
4.24	165550	BB	0.148	0.358
4.48	87683	BB	0.111	0.198
5.27	424900	BB	0.388	0.920
6.05	256260	BB	0.298	0.555
7.28	246580	BB	0.394	0.534
8.06	83585	BB	0.233	0.181
8.50	292720	BB	0.256	0.634
9.85	882880	BB	0.422	1.911
10.60	212210	BB	0.339	0.459
11.41	813200	BB	0.464	1.768
12.96	823850	BB	0.744	1.783
14.73	983340	BB	1.000	1.956
17.43	1689480	BB	0.820	3.657
20.52	1486000	PB	1.031	3.217
22.81	470110	BB	1.184	1.018
26.89	191890	BB	1.224	0.414
38.98	464870	BB	1.364	1.006

TOTAL AREA= 4.6196E+07  
 MUL FACTOR= 1.0000E+00

000069

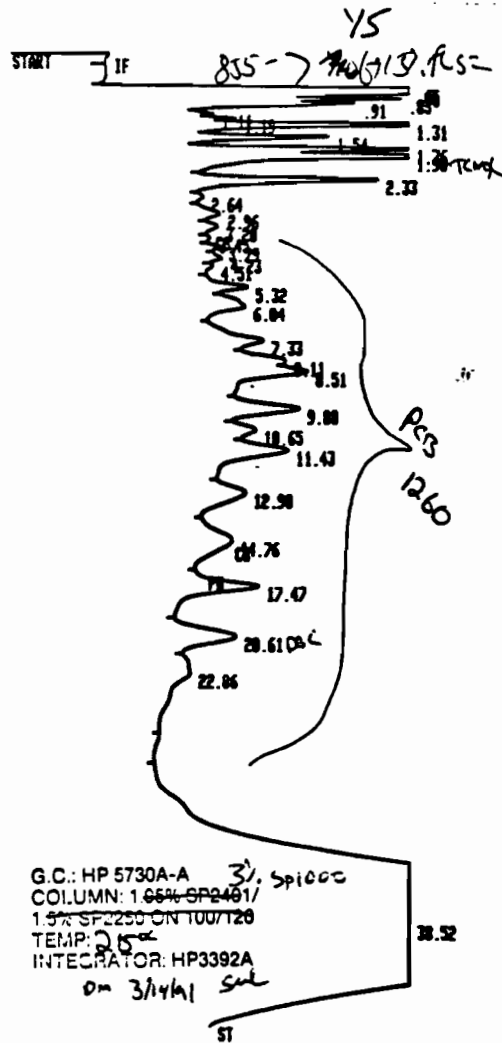


RUN # 9 MAR/13/91 13:44:06  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.41	25343	BB	0.290	0.074
0.63	1820000	BB	0.059	5.338
0.71	299760	BB	0.036	0.079
0.79	300340	D BB	0.140	0.081
0.94	169110	BB	0.057	0.496
1.07	130030	BB	0.059	0.381
1.20	100170	BB	0.046	0.317
1.31	595670	BB	0.068	1.746
1.50	3966300	BB	0.093	11.627
1.89	2790100	BB	0.120	8.179
2.01	445520	BB	0.032	1.306
2.27	27549	BB	0.056	0.081
2.46	1775600	BB	0.222	5.205
2.83	300960	BB	0.112	1.117
3.20	4180600	BB	0.215	12.256
3.84	196050	BB	0.215	0.575
4.25	166790	BB	0.151	0.489
4.50	105240	BB	0.156	0.389
5.27	1094300	BB	0.316	3.200
5.79	199420	BB	0.209	0.585
7.33	603230	PB	0.534	1.768
8.16	33044	BB	0.360	0.097
8.59	409640	BB	0.310	1.201
9.89	606570	BB	0.432	2.013
11.26	2092200	BB	0.654	8.479
13.07	420260	BB	0.661	1.232
14.88	900660	BB	1.015	2.664
17.55	1147200	BB	0.799	3.363
20.81	7272000	BB	1.346	21.310
24.75	75335	BB	0.792	0.221
26.87	145510	BB	1.176	0.427
31.23	355700	BB	1.400	1.043
37.22	154540	PB	1.317	0.453
48.00	230500	BB	1.546	0.676

TOTAL AREA= 3.4112E+07  
 MUL FACTOR= 1.0000E+00

000070

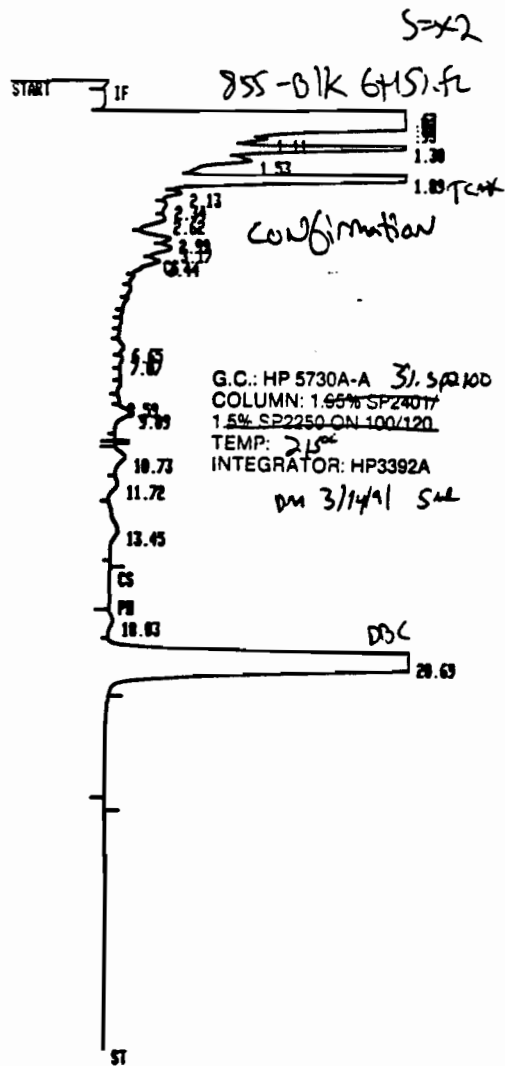


RUN 0 10 MAR/13/91 14:42:38  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.65	158840	PH	0.072	0.159
0.70	126410	BB	0.045	0.133
0.83	88820	BB	0.041	0.084
0.91	87164	BB	0.059	0.092
1.11	9465	BB	0.044	0.010
1.19	18885	BB	0.041	0.019
1.31	459380	BB	0.076	0.484
1.54	221170	BB	0.083	0.233
1.76	275690	BB	0.070	0.250
1.90	364880	BB	0.068	0.384
2.33	446280	BB	0.120	0.470
2.64	12771	BB	0.100	0.014
2.96	56265	BB	0.155	0.059
3.20	31663	BB	0.123	0.033
3.45	13841	BB	0.142	0.014
3.79	31681	BB	0.143	0.033
4.23	44651	BB	0.193	0.047
4.51	13175	BB	0.152	0.014
5.32	157380	BB	0.231	0.166
6.04	381340	BB	0.456	0.317
7.33	251200	BB	0.367	0.265
8.11	68641	BB	0.282	0.072
8.51	94234	BB	0.126	0.099
9.08	557830	BB	0.485	0.588
10.65	137870	BB	0.340	0.144
11.43	494100	BB	0.436	0.521
12.90	483580	BB	0.665	0.589
14.76	723520	BB	1.038	0.762
17.47	1181400	BB	0.792	1.244
20.61	1168900	BB	0.979	1.223
22.06	396220	BB	1.382	0.417
38.52	8.6487E+07	I PH	7.296	91.100

TOTAL AREA= 9.4936E+07  
 MUL FACTOR= 1.0000E+00

000071

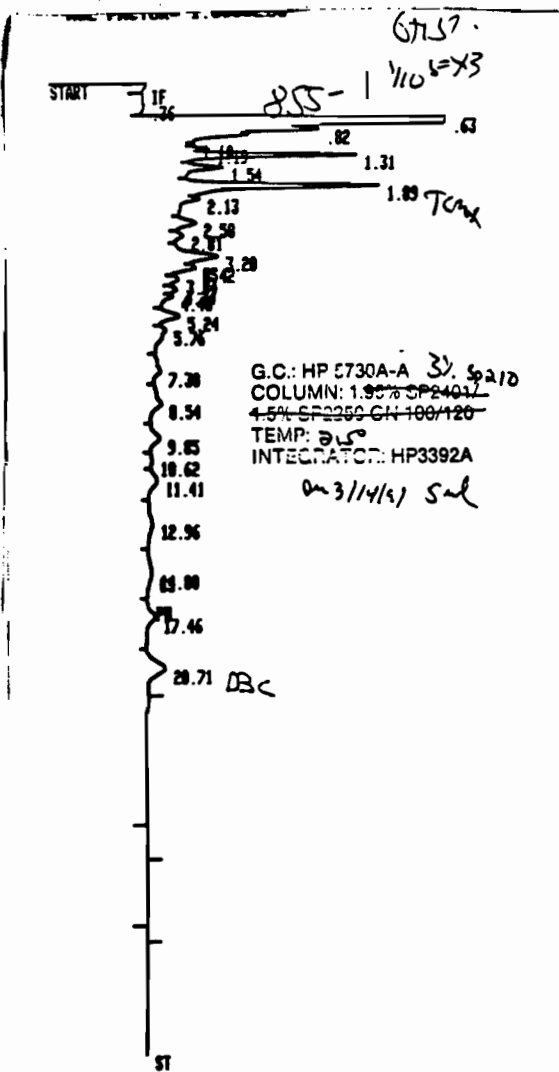


RUN # 13                      MAR/13/91 17:33:10  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.63	2118288	SP8	0.058	8.698
0.72	729968	88	0.055	2.995
0.82	222878	88	0.033	0.911
0.93	39573	88	0.019	0.162
1.11	13768	88	0.053	0.057
1.30	581988	88	0.076	2.387
1.53	47966	88	0.078	0.197
1.89	2688988	88	0.093	10.999
2.13	19997	88	0.078	0.082
2.34	8981	88	0.128	0.037
2.62	36186	88	0.156	0.149
2.99	35465	88	0.188	0.146
3.17	36813	88	0.119	0.151
3.44	62135	88	0.226	0.255
6.63	25339	FB	0.272	0.184
7.07	12774	88	0.238	0.052
9.09	186488	88	0.372	0.437
10.73	97186	88	0.447	0.399
11.72	53515	88	0.483	0.228
13.45	168928	88	0.886	0.693
18.63	77196	88	0.771	0.317
20.69	1.7199E+07	88	1.029	70.563

TOTAL AREA= 2.4374E+07  
 MUL FACTOR= 1.0000E+00

000072



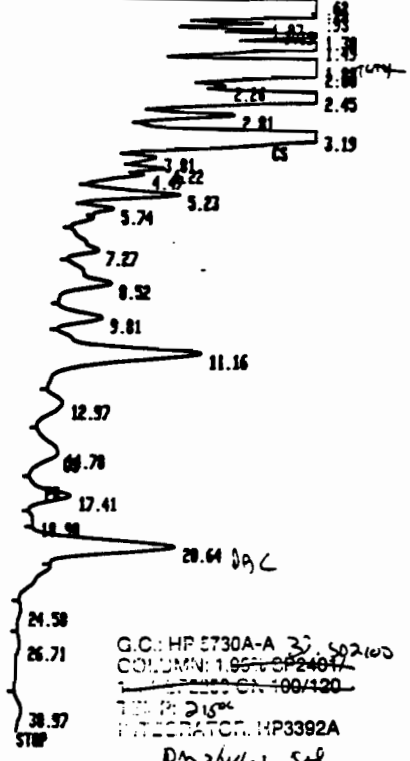
RUN # 14                      MAR/13/91 18:33:33  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.36	25874	BB	0.381	0.528
0.63	2534388	BB	0.688	53.375
0.82	53235	BB	0.858	1.121
1.19	18416	BB	0.845	0.219
1.31	241948	BB	0.872	5.896
1.54	66628	BB	0.891	1.483
1.89	399448	BB	0.101	8.412
2.58	47613	BB	0.126	1.883
2.81	16255	BB	0.182	0.342
3.20	83485	BB	0.125	1.758
3.42	32734	BB	0.161	0.689
3.84	31231	BB	0.215	0.658
4.24	28696	BB	0.158	0.436
5.24	113888	BB	0.269	2.397
5.76	58182	BB	0.412	1.225
7.30	62457	BB	0.479	1.315
8.54	185738	BB	0.545	2.227
9.85	85957	BB	0.442	1.818
10.62	9898	BB	0.298	0.288
11.41	76293	BB	0.496	1.687
12.96	68458	BB	0.734	1.442
14.80	91331	BB	0.999	1.924
17.46	146238	BB	0.828	3.888
20.71	366798	BB	0.967	7.725

TOTAL AREA= 4748288  
 MUL FACTOR= 1.8888E+08

000073

START IF 855-164152.fl S=3 VS

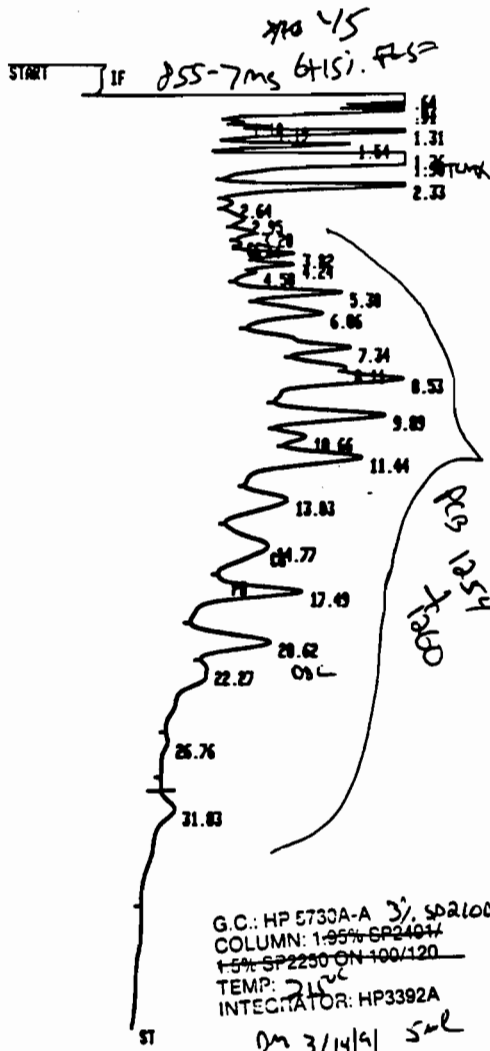


G.C.: HP 5730A-A 30.502100  
 COLUMN: 1.95% CP24017  
 1.00% CP100/120  
 THERMO 21504  
 INTEGRATOR: HP3392A  
 Dm 3/14/91 Sel

RUN # 15 MAR/14/91 08:16:51  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.62	1618800	PB	0.854	8.538
0.71	191150	BB	0.835	1.007
0.78	198900	D BB	0.109	1.006
0.93	92122	BB	0.857	0.485
1.07	88462	BB	0.860	0.466
1.19	59671	BB	0.846	0.314
1.30	373950	BB	0.868	1.970
1.49	2414900	BB	0.894	12.724
1.88	1689900	BB	0.123	8.904
2.00	320170	BB	0.837	1.687
2.26	21685	BB	0.858	0.114
2.45	1075000	BB	0.216	5.664
2.81	199570	BB	0.109	1.852
3.19	2144100	BB	0.227	11.297
3.81	117170	BB	0.205	0.617
4.22	90455	BB	0.152	0.519
4.47	60188	BB	0.152	0.317
5.23	620420	BB	0.313	3.269
5.74	100560	BB	0.203	0.572
7.27	324340	PB	0.518	1.709
8.52	591670	BB	0.579	3.118
9.81	396060	BB	0.424	2.007
11.16	1895500	BB	0.614	9.907
12.97	278330	BB	0.608	1.467
14.78	503110	BB	0.904	2.651
17.41	689900	BB	0.797	3.635
18.90	25274	BB	0.563	0.133
20.64	2440600	BB	0.892	12.060
24.58	45571	PB	0.809	0.240
26.71	91736	BB	1.241	0.483
30.97	211300	I BB	1.300	1.114

TOTAL AREA= 1.8979E+07  
 MUL FACTOR= 1.0000E+00



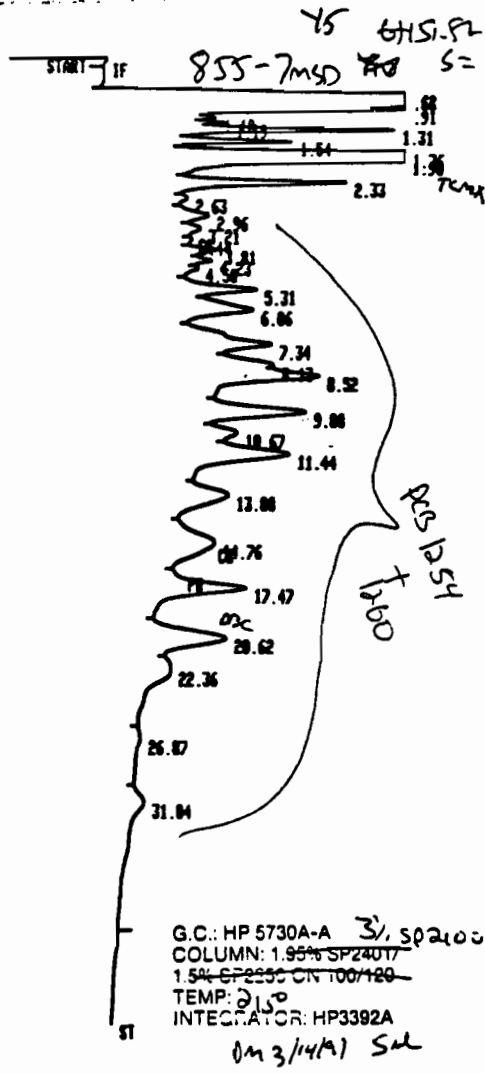
RUN # 11  
 WORKFILE ID: C  
 WORKFILE NAME:  
 MAR/13/91 15:32:24

RT	AREA	TYPE	AR/HT	AREA2
0.64	2372300	PB	0.102	15.668
0.83	56481	BB	0.839	0.373
0.91	133680	BB	0.061	0.883
1.10	11157	BB	0.044	0.074
1.19	22386	BB	0.042	0.147
1.31	424670	BB	0.076	2.005
1.54	222600	BB	0.085	1.470
1.76	641970	BB	0.074	4.240
1.90	295660	BB	0.047	1.953
2.33	529120	BB	0.121	3.495
2.64	17641	BB	0.100	0.117
2.95	51766	BB	0.172	0.342
3.20	49540	BB	0.123	0.327
3.44	6842	BB	0.096	0.045
3.82	200260	PB	0.202	1.323
4.24	136730	BB	0.162	0.903
4.50	21530	BB	0.132	0.142
5.30	518200	BB	0.265	3.423
6.06	623570	BB	0.420	4.118
7.34	674910	BB	0.450	4.457
8.11	58212	BB	0.252	0.385
8.53	374600	BB	0.232	2.475
9.89	944390	BB	0.416	6.237
10.66	178690	BB	0.335	1.100
11.44	828830	BB	0.440	5.469
13.83	712850	BB	0.681	4.700
14.77	1854400	BB	1.105	6.964
17.49	1538100	BB	0.704	10.159
20.62	1530000	BB	0.909	10.105
22.27	255790	BB	1.004	1.689
26.76	55649	BB	0.772	0.368
31.83	599420	BB	1.634	3.959

TOTAL AREA= 1.5141E+07  
 MUL FACTOR= 1.0000E+00

000075





RUN # 12                      MAR/13/91 16:32:47  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	AREA TYPE	AR/HT	AREA2
0.62	3382880	↑SP8	0.021	20.381
0.66	2385100	↑BB	0.033	14.718
0.91	56836	BB	0.039	0.346
1.10	11398	BB	0.045	0.070
1.19	19439	BB	0.042	0.120
1.31	388130	BB	0.077	1.901
1.54	182750	BB	0.082	1.120
1.76	1111100	BB	0.078	6.056
2.33	408310	BB	0.120	2.520
2.63	16244	BB	0.102	0.100
2.96	74754	BB	0.150	0.461
3.21	29693	BB	0.121	0.183
3.44	9479	BB	0.126	0.059
3.81	85370	BB	0.169	0.527
4.23	54756	BB	0.162	0.338
4.50	19100	BB	0.162	0.110
5.31	329250	BB	0.264	2.032
6.06	486850	BB	0.406	2.999
7.34	551720	BB	0.454	3.485
8.13	41135	BB	0.319	0.254
8.52	383800	BB	0.232	1.875
9.88	815200	BB	0.419	5.030
10.67	135700	BB	0.336	0.837
11.44	689100	BB	0.443	4.253
13.00	558390	BB	0.653	3.446
14.76	859400	BB	1.072	5.304
17.47	1368500	BB	0.809	8.395
20.62	1385600	BB	0.999	8.550
22.36	237830	BB	1.082	1.468
26.87	87064	BB	1.189	0.537
31.04	290100	BB	1.108	1.791

TOTAL AREA= 1.6206E+07  
 MUL FACTOR= 1.0000E+00

000076



## A Full Service Environmental Laboratory

710 Exchange Street  
Rochester, NY 14608  
(716) 454-3760  
FAX (716) 454-1245

85 Trinity Place  
Hackensack, NJ 07601  
(201) 488-5242  
FAX (201) 488-6386

435 Lawrence Bell Drive  
Amherst, NY 14221  
(716) 634-0454  
FAX (716) 634-9019

January 24, 1991

Mr. Chris Motta  
Woodward Clyde Consultants  
201 Willowbrook Blvd.  
Wayne, NJ 07470

Dear Mr. Rubin:

The enclosed report contains analytical data pertaining to the GE - Waite Road site. These samples were collected from January 4, 8 and 9 and received into the laboratory on January 4 and 9, 1991.

A total of twenty three soil samples were collected. The analyses requested were total petroleum hydrocarbons by IR, and PCB's. Rush turnaround time was requested.

Additional reporting sections include laboratory QC data, an analytical chronology, methodology summaries and all the necessary documentation for an extended deliverables package. Please review this data package and contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Virginia Murray".

Virginia Murray  
Laboratory Manager

VM/  
enc

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. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages may be returned or held without review until the data package is completed

	Check if Complete
I. Cover Page, Format, and Laboratory Certification (Include Cross Reference Table of Field I.D. # Laboratory I.D. #)	<u>  x  </u>
II. Chain of Custody	<u>  x  </u>
III. Summary Sheets Listing Analytical Results Including QA Data Information (see Attached Form and ESPG Attachment 2.B.2.C)	<u>  x  </u>
IV. Laboratory Chronicle and Methodology Summary including Sampling Holding Time Check	<u>  x  </u>
V. Initial Calibration and Continuing Calibration	<u>  x  </u>
VI. Tune Summary (MS)	<u>  NA  </u>
VII. Blanks (Method, Field, Trip)	<u>  x  </u>
VIII. Surrogate Recovery Summary	<u>  x  </u>
IX. Chromatographs Labelled/Compound Identification	<u>  x  </u>
X. Minimum Detection Limits	<u>  x  </u>
XI. Non-Conformance Summary	<u>  x  </u>

Virginia Murray  
Virginia Murray, Laboratory Manager

1/24/91  
Date



Analytical Data Package for:

Mr. Chris Motta  
Woodward Clyde Consultants  
201 Willowbrook Blvd.  
Wayne, NJ 07470

Project Name: GE - Waite Road, Clifton Park, NY  
Client Project #: 90C4217

GTC #	Sample Location	Date and Time of Collection
R90/5533-001	PS-A1	01/04/91 10:20
R90/5533-002	PS-B1	01/04/91 10:35
R90/5533-003	PS-B2	01/04/91 11:00
R90/5533-004	PS-B3	01/04/91 11:30
R90/5533-005	PS-B4	01/04/91 11:45
R90/5533-006	PS-E1	01/04/91 12:00
R90/5533-007	PS-E2	01/04/91 12:15
R90/5533-008	PS-AR1	01/04/91 12:30
R90/5533-009	PS-AR2	01/04/91 12:45
R90/5533-010	PS-AR3	01/04/91 13:00
R90/5533-011	PS-C-S1	01/04/91 13:15
R90/5533-012	PS-C-S2	01/04/91 13:30
R90/5533-013	PS-C-S3	01/04/91 13:45
R90/5533-014	PS-C1	01/04/91 14:00
R90/5533-015	PS-D1	01/04/91 14:10
R90/5533-016	PS-D2	01/04/91 14:20
R90/0129-001	PS-SA1	01/08/91 09:00
R90/0129-002	PS-SA2	01/08/91 09:15
R90/0129-003	PS-C2	01/08/91 14:10
R90/0129-004	PS-C-S4	01/08/91 14:20
R90/0129-005	PS-LZ1	01/09/91 12:00
R90/0129-006	PS-C-S5	01/09/91 13:00
R90/0129-007	PS-C3	01/09/91 13:15

GENERAL TESTING CORPORATION  
710 Exchange Street  
Rochester, New York 14608

Laboratory Certification # 73331

Manager: Michael K. Perry

*Virginia Murray* 1/24/91  
Authorized Signature

REPORT INDEX

- SECTION A: ANALYTICAL DATA - PETROLEUM HYDROCARBONS
- SECTION B: ANALYTICAL DATA - PCB'S
- SECTION C: LABORATORY QUALITY CONTROL DATA
- SECTION D: LABORATORY ANALYTICAL CHRONOLOGY
- SECTION E: FIELD DOCUMENTATION
- SECTION F: LABORATORY SUPPORT DOCUMENTATION

DATA QUALIFIERS

U - Indicates compound was analyzed for but was not observed at a quantifiable concentration.

J - Indicates an estimated value below the method detection limit.

J - Sub-Qualifiers - Indicates an estimated value due to failure of QA/QC requirements. (Used in conjunction with J and/or QC page or chronology):

S - Surrogate recoveries outside of control limits.

St - Surrogate recoveries outside of control limits; analysis repeated; same results obtained; matrix interferences suspected.

M - Matrix spike and/or matrix spike duplicate outside control limits.

Mt - Same as M. Organic reference spike acceptable; matrix interference suspected or inorganic repeat analysis still unacceptable.

r - Laboratory replicates outside of laboratory advisory limits.

h - Holding time exceeded for analysis.

t - Matrix interferences suspected.

p - Grab samples composited in laboratory.

B - Indicates that the analyte was found in the associated laboratory or field blank.

B - Qualifiers (Used in conjunction with B):

l - Contamination in lab or method blank.

e - Contamination in equipment blank.

t - Contamination in trip blank.

f - Contamination in field filtration blank.

d - Contamination level elevated by dilution factor

Additional QC and Data Qualifiers:

ND - Not detectable

NS - No sample

NA - Not analyzed

V - Spiked recovery cannot be determined; sample value >4 times spike concentration.

++ - Outside laboratory acceptance limits (Blank spikes, Ref. spikes).

\*+ - No limits currently established

\*\* - See attached data

I - Insufficient sample to re-analyze

D - Surrogate standard diluted out

R - Sample re-analyzed outside of holding time

UP - Unable to perform analysis due to sample matrix

RC - Results confirmed via repeat analysis



SECTION A

ANALYTICAL DATA

PETROLEUM HYDROCARBONS

Presented in this section is analytical data for the parameters requested. The following references concerning units and analytical methodology apply to the data provided herein.

Units: ug/g dry weight

Analytical Methodology Obtained From:

( ) Federal Register, 40 CFR Part 136, Guidelines Establishing Test Procedures for the analyses of Pollutants under the Clean Water Act, 10/26/84.

( ) SW-846, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86.

(X) Other: EPA Method 418.1 Modified for Soils



ANALYSIS FOR  
TOTAL PETROLEUM HYDROCARBONS  
EPA METHOD 418.1  
(Modified for Soils)

METHODOLOGY SUMMARY

Samples are drained of excess water and debris such as pebbles and thoroughly mixed. A specified portion of sample (approximately 15 grams) is mixed with anhydrous sodium sulfate to remove any residual moisture. The sample is then extracted with 1,1,2 trichlorotrifluoroethane (freon) for a minimum of three (3) hours at 30 cycles per hour. The extract is then mixed with silica gel to remove any hydrocarbons of plant or animal origin. The remaining extract is then filtered, diluted to 100mls and analyzed on an infrared spectrophotometer at wavelenth = 2930/cm and read against a standard curve.



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R90/05533

Date: JAN. 24 1991

Client:

Chris Motta  
 Woodward Clyde Corporation  
 201 Willowbrook Blvd.  
 Wayne, NJ 07470

Sample(s) Reference:

GE Plant  
 Waite Rd., Clifton

Received

: 01/07/91

P.O. #: 90C4217

ANALYTICAL UNITS - ug/g dry wt.

Sample:	-001	-002	-003	-004	-005	-006	-007
Location:	PS-A1	PS-B1	PS-B2	PS-B3	PS-B4	PS-E1	PS-E2
Date Collected:	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91
Time Collected:	PQL 10:20	10:35	11:00	11:30	11:45	12:00	12:15
Solids, %	- 74.3	75.4	74.8	73.6	78.1	74.0	69.1
Pet. Hydrocarbons, IR	13.3 103	1710	111	77.7	145	482	155

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145

NJ ID# in Rochester: 73331

NJ ID# in Hackensack: 02317

NY ID# in Hackensack: 10801

Laboratory Director



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R90/05533

Date: JAN. 24 1991

Client:

Chris Motta  
Woodward Clyde Corporation  
201 Willowbrook Blvd.  
Wayne, NJ 07470

Sample(s) Reference:

GE Plant  
Waite Rd., Clifton

Received

: 01/07/91

P.O. #: 90C4217

ANALYTICAL UNITS - ug/g dry wt.

Sample:	-008	-009	-010	-011	-012	-013	-014	
Location:	PS-AR1	PS-AR2	PS-AR3	PS-C-S1	PS-C-S2	PS-C-S3	PS-C1	
Date Collected:	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91	
Time Collected:	PQL 12:30	12:45	13:00	13:15	13:30	13:45	14:00	
Solids, %	-	65.5	55.1	65.1	36.0	59.5	44.3	80.5
Pet. Hydrocarbons, IR	13.3	5190	1850	15,500	123 U	67.0 U	166	122

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

- NY ID# in Rochester: 10145
- NJ ID# in Rochester: 73331
- NJ ID# in Hackensack: 02317
- NY ID# in Hackensack: 10801

*Michael K. Perry*  
Laboratory Director



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R90/05533

Date: JAN. 24 1991

Client:

Chris Motta  
 Woodward Clyde Corporation  
 201 Willowbrook Blvd.  
 Wayne, NJ 07470

Sample(s) Reference:

GE Plant  
 Waite Rd., Clifton

Received

: 01/07/91

P.O. #: 90C4217

ANALYTICAL UNITS - ug/g dry wt.

Sample:		-015	-016	-017				
Location:		PS-D1	PS-D2	Lab				
				Blank				
Date Collected:		01/04/91	01/04/91	--				
Time Collected:	PQL	14:10	14:20	--				
Solids, %	-	66.0	76.9					
Pet. Hydrocarbons, IR	13.3	77.6 U	56.0					

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145

NJ ID# in Rochester: 73331

NJ ID# in Hackensack: 02317

NY ID# in Hackensack: 10801

Laboratory Director



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R91/00129

Date: JAN. 24 1991

Client:

Chris Motta  
Woodward Clyde Consultants  
201 Willowbrook Blvd.  
Wayne, NJ 07470

Sample(s) Reference:

GE Plant  
Waite Rd., Clifton

Received

: 01/09/91

P.O. #: 90C4217

ANALYTICAL UNITS - ug/g dry wt.

Sample:	-001	-002	-003	-004	-005	-006	-007	
Location:	PS-SA1	PS-SA2	PS-C2	PS-C-S4	PS-LZ1	PS-C-S5	PS-C3	
Date Collected:	01/08/90	01/08/91	01/08/91	01/08/91	01/09/91	01/09/91	01/09/91	
Time Collected:	PQL 09:00	09:15	14:10	14:20	12:00	13:00	13:15	
Solids, %	-	84.0	69.7	74.0	80.2	69.5	29.6	83.1
Pet. Hydrocarbons, IR	13.3	59.0	988	1580	15,000	3420	153 U	6200

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145  
NJ ID# in Rochester: 73331  
NJ ID# in Hackensack: 02317  
NY ID# in Hackensack: 10801

*Michael K. Perry*  
\_\_\_\_\_  
Laboratory Director



SECTION B

ANALYTICAL DATA

PCB'S

Presented in this section is analytical data for the parameters requested. The following references concerning units and analytical methodology apply to the data provided herein.

Units: ug/kg dry weight

Analytical Methodology Obtained From:

( ) Federal Register, 40 CFR Part 136, Guidelines Establishing Test Procedures for the analyses of Pollutants under the Clean Water Act, 10/26/84.

(X) SW-846, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86. Method 8080

( ) Other: EPA Method 418.1 Modified for Soils

ANALYSIS FOR  
ORGANOCHLORINE PESTICIDES AND PCB's  
EPA METHOD 8080  
(SOILS & SEDIMENTS)

METHODOLOGY SUMMARY

Samples are drained of excess water and debris such as pebbles and thoroughly mixed. Thirty grams of a sample/Na<sub>2</sub>SO<sub>4</sub> mixture (ratio depends on water content of sample) is extracted with a 1:1 mixture of methylene chloride and acetone in a sonicator. The extract is dehydrated with Na<sub>2</sub>SO<sub>4</sub>, concentrated to 10mls, subjected to florisil partitioning, and desulfurized. Analysis is performed via gas chromatography using a packed column, (1 - 6ft x 1/4in ID glass, packed with 1.5% SP2250/1.95% SP2401 on 100/120 mesh supelcoport\*) and an electron capture detector.

\* Alternate column: 2 - 6ft x 1/4in ID glass packed with 3% SE 30 on 80/100 chromosorb WHP.



CASE NARRATIVE

R90/5533

Job # R90/5533 was analyzed for PCB's using method 8080 from SW846. This job was sampled on 1/4/91 and extracted on 1/10/91.

The surrogate recovery for Dibutylchlorendate was out of Q.C. Limits for samples R90/5533-001 and 002, due to suspected matrix interference. However, the recovery of the second surrogate, Tetrachloro-m-xylene, was within Q.C. limits for all samples. In addition, several samples were quantitated using higher detection limits because dilution were needed to remove interferences which were not removed by Alumina and sulfur clean up procedures.

CASE NARRATIVE

R91/0129

Job # R91/0129 was analyzed for PCB's using method 8080 from SW846.

This job was sampled on 1/8, 9/91 and extracted on 1/14/91. The % recovery for the surrogate Dibutylchlorendate was out of Q.C. limits for samples R91/0129-001MS, and 001MSD, 004 and 005 due to suspected matrix interference. However, % recovery for the second surrogate (Tetrachloro-m-xylene), was within Q.C. limits for all samples. In addition, Dibutylchlorendate retention time shift and surrogate recovery were impossible to calculate in the above samples due to this matrix interference.



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R90/05533

Date: JAN. 24 1991

Client:

Chris Motta  
 Woodward Clyde Corporation  
 201 Willowbrook Blvd.  
 Wayne, NJ 07470

Sample(s) Reference

GE Plant  
 Waite Rd., Clifton

Received

: 01/07/91

P.O. #: 90C4217

ANALYSIS * BY EPA METHOD 8080		ANALYTICAL RESULTS - ug/kg dry wt.						
Sample:		-001	-002	-003	-004	-005	-006	-007
Location:		PS-A1	PS-B1	PS-B2	PS-B3	PS-B4	PS-E1	PS-E2
Date Collected:		01/04/91	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91
Time Collected:	POL'S	10:20	10:35	11:00	11:30	11:45	12:00	12:15
Date Extracted:		01/10/91	01/10/91	01/10/91	01/10/91	01/10/91	01/10/91	01/10/91
Date Analyzed:		01/12,13/91	01/12/91	01/13/91	01/12,13/91	01/13/91	01/13/91	01/13/91
PCB 1016	20.0	269 U	265 U	26.7 U	272 U	25.6 U	270 U	28.9 U
PCB 1221	20.0	269 U	265 U	26.7 U	272 U	25.6 U	270 U	28.9 U
PCB 1232	20.0	269 U	265 U	26.7 U	272 U	25.6 U	270 U	28.9 U
PCB 1242	20.0	269 U	265 U	26.7 U	272 U	25.6 U	270 U	28.9 U
PCB 1248	20.0	269 U	265 U	26.7 U	272 U	25.6 U	270 U	28.9 U
PCB 1254	20.0	26.9 U	265 U	26.7 U	27.2 U	25.6 U	27.0 U	28.9 U
PCB 1260	20.0	26.9 U	265 U	26.7 U	27.2 U	25.6 U	90.5	28.9 U
Surrogate Standard Recovery								
Tetrachloro-meta-xylene (Acceptance Limits: 31-141%)		100%	117%	76%	96%	50%	73%	46%
Dibutylchloroendate (Acceptance Limits: 24-150%)		164%	164%	113%	131%	119%	113%	86%

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145  
 NJ ID# in Rochester: 73331  
 NJ ID# in Hackensack: 02317  
 NY ID# in Hackensack: 10801

Laboratory Director



LABORATORY REPORT

Job No: R90/05533

Date: JAN. 24 1991

Client:

Chris Motta  
 Woodward Clyde Corporation  
 201 Willowbrook Blvd.  
 Wayne, NJ 07470

Sample(s) Reference

GE Plant  
 Waite Rd., Clifton

Received

: 01/07/91

P.O. #: 90C4217

ANALYSIS * BY EPA METHOD 8080			ANALYTICAL RESULTS - ug/kg dry wt.					
Sample:		-008	-009	-010	-011	-012	-013	-014
Location:		PS-AR1	PS-AR2	PS-AR3	PS-C-S1	PS-C-S2	PS-C-S3	PS-C1
Date Collected:		01/04/91	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91	01/04/91
Time Collected:		PQL'S 12:30	12:45	13:00	13:15	13:30	13:45	14:00
Date Extracted:		01/10/91	01/10/91	01/10/91	01/10/91	01/10/91	01/10/91	01/10/91
Date Analyzed:		01/12/91	01/12/91	01/14/91	01/12/91	01/12,13/91	01/12/91	01/12,13/91
PCB 1016	20.0	305 U	363 U	1540 U	556 U	336 U	451 U	248 U
PCB 1221	20.0	305 U	363 U	1540 U	556 U	336 U	451 U	248 U
PCB 1232	20.0	305 U	363 U	1540 U	556 U	336 U	451 U	248 U
PCB 1242	20.0	305 U	363 U	1540 U	556 U	336 U	451 U	248 U
PCB 1248	20.0	305 U	363 U	1540 U	556 U	336 U	451 U	248 U
PCB 1254	20.0	305 U	363 U	1540 U	556 U	33.6 U	451 U	24.8 U
PCB 1260	20.0	824	739	1740	556 U	33.6 U	451 U	24.8 U
Surrogate Standard Recovery								
Tetrachloro-meta-xylene (Acceptance Limits: 31-141%)		93%	87%	73%	80%	70%	117%	67%
Dibutylchloroendate (Acceptance Limits: 24-150%)		148%	107%	75%	106%	88%	101%	76%

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145  
 NJ ID# in Rochester: 73331  
 NJ ID# in Hackensack: 02317  
 NY ID# in Hackensack: 10801

Laboratory Director



LABORATORY REPORT

Job No: R90/05533

Date: JAN. 24 1991

Client:

Chris Motta  
 Woodward Clyde Corporation  
 201 Willowbrook Blvd.  
 Wayne, NJ 07470

Sample(s) Reference

GE Plant  
 Waite Rd., Clifton

Received

: 01/07/91

P.O. #: 90C4217

ANALYSIS * BY EPA METHOD 8080		ANALYTICAL RESULTS - ug/kg dry wt.		
Sample:		-015	-016	-017
Location:		PS-D1	PS-D2	Lab
				Blank
Date Collected:	_____	01/04/91	01/04/91	--
Time Collected:	PGL'S	14:10	14:20	--
-----				
Date Extracted:		01/10/91	01/10/91	01/10/91
Date Analyzed:		01/12,13/91	01/12,13/91	01/13/91
PCB 1016	20.0	303 U	260 U	20.0 U
PCB 1221	20.0	303 U	260 U	20.0 U
PCB 1232	20.0	303 U	260 U	20.0 U
PCB 1242	20.0	303 U	260 U	20.0 U
PCB 1248	20.0	303 U	260 U	20.0 U
PCB 1254	20.0	30.3 U	26.0 U	20.0 U
PCB 1260	20.0	30.3 U	26.0 U	20.0 U
-----				
Surrogate Standard Recovery				
Tetrachloro-meta-xylene (Acceptance Limits: 31-141%)		74%	50%	68%
Dibutylchloroendate (Acceptance Limits: 24-150%)		80%	79%	104%

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145

NJ ID# in Rochester: 73331

NJ ID# in Hackensack: 02317

NY ID# in Hackensack: 10801

Laboratory Director



LABORATORY REPORT

Job No: R91/00129

Date: JAN. 24 1991

Client:

Chris Motta  
 Woodward Clyde Consultants  
 201 Willowbrook Blvd.  
 Wayne, NJ 07470

Sample(s) Reference

GE Plant  
 Waite Rd., Clifton

Received

: 01/09/91

P.O. #: 90C4217

ANALYSIS * BY EPA METHOD 8080			ANALYTICAL RESULTS - ug/kg dry wt.					
Sample:		-001	-002	-003	-004	-005	-006	-007
Location:		PS-SA1	PS-SA2	PS-C2	PS-C-S4	PS-L21	PS-C-S5	PS-C3
Date Collected:		01/08/90	01/08/91	01/08/91	01/08/91	01/09/91	01/09/91	01/09/91
Time Collected:	PQL'S	09:00	09:15	14:10	14:20	12:00	13:00	13:15
Date Extracted:		01/14/91	01/14/91	01/14/91	01/14/91	01/14/91	01/14/91	01/14/91
Date Analyzed:		01/16/91	01/16/91	01/16/91	01/16/91	01/16/91	01/16/91	01/16/91
PCB 1016	20.0	23.8 U	287 U	27.0 U	249 U	288 U	676 U	241 U
PCB 1221	20.0	23.8 U	287 U	27.0 U	249 U	288 U	676 U	241 U
PCB 1232	20.0	23.8 U	287 U	27.0 U	249 U	288 U	676 U	241 U
PCB 1242	20.0	23.8 U	287 U	27.0 U	723	288 U	676 U	241 U
PCB 1248	20.0	23.8 U	287 U	27.0 U	249 U	288 U	676 U	241 U
PCB 1254	20.0	23.8 U	287 U	27.0 U	249 U	288 U	67.6 U	241 U
PCB 1260	20.0	23.8 U	287 U	27.0 U	344	537	67.6 U	241 U
Surrogate Standard Recovery								
Tetrachloro-meta-xylene (Acceptance Limits: 31-141%)		81%	93%	73%	120%	108%	71%	73%
Dibutylchloroendate (Acceptance Limits: 24-150%)		134%	138%	124%	t	t	93%	124%

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145  
 NJ ID# in Rochester: 73331  
 NJ ID# in Hackensack: 02317  
 NY ID# in Hackensack: 10801

Laboratory Director



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R91/00129

Date: JAN. 24 1991

Client:

Chris Motta  
 Woodward Clyde Consultants  
 201 Willowbrook Blvd.  
 Wayne, NJ 07470

Sample(s) Reference

GE Plant  
 Waite Rd., Clifton

Received

: 01/09/91

P.O. #: 90C4217

ANALYSIS * BY EPA METHOD 8080			ANALYTICAL RESULTS - ug/kg dry wt.				
Sample:		-008					
Location:		Lab					
		Blank					
Date Collected:		--					
Time Collected:	PQL'S	--					
-----							
Date Extracted:		01/14/91					
Date Analyzed:		01/15/91					
PCB 1016	20.0	20.0 U					
PCB 1221	20.0	20.0 U					
PCB 1232	20.0	20.0 U					
PCB 1242	20.0	20.0 U					
PCB 1248	20.0	20.0 U					
PCB 1254	20.0	20.0 U					
PCB 1260	20.0	20.0 U					
-----							
Surrogate Standard Recovery							
-----							
Tetrachloro-meta-xylene		73%					
(Acceptance Limits: 31-141%)							
Dibutylchloroendate		141%					
(Acceptance Limits: 24-150%)							

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145  
 NJ ID# in Rochester: 73331  
 NJ ID# in Hackensack: 02317  
 NY ID# in Hackensack: 10801

Laboratory Director



SECTION C

LABORATORY QUALITY CONTROL

Presented in this section is Quality Control associated with the data provided in Section A & B of this report.

Quality Control Explanations:

- 1) Run Quality Control - Selected QC data from the analytical run in which your sample(s) were involved.
- 2) Job Specific Quality Control - QC data specific to your set of samples.
- 3) Duplicates - Replicate analysis of a given sample used to monitor precision. Relative Percent Difference is calculated as the difference divided by the average x 100.
- 4) Matrix Spikes - Addition of a known amount of analyte to a sample. Recovery is calculated by subtracting original value attributable to the sample from the combined value. The difference is then divided by the amount added to calculate % recovery. Poor recoveries may indicate analytical interference due to the matrix of the sample. Any other samples of this same matrix may also have been affected, high or low as indicated by the % recovery.
- 5) Laboratory Blanks - Laboratory Deionized water used to monitor for contamination during analysis.
- 6) Blank Spikes - Same as #4 but analyte is added to laboratory deionized water. This indicates the accuracy of analysis.
- 7) Reference Check Sample - Samples from an outside source having a known concentration of analyte. Used as a measure of analytical accuracy.

When possible, all components of the above listed QC protocol are performed during an analytical run. The resulting data is compared to historical records when evaluating the quality of analytical runs. The data provided in your report has passed our Quality Assurance review.

Quality Control Notes:



INORGANICS CONFORMANCE/NON-CONFORMANCE SUMMARY

Woodward Clyde Consultants  
GTC # R90/05533, 0129

Within Specifications

	<u>No</u>	<u>Yes</u>
<u>Blank Contamination</u>		
a. Metals	___	<u>NA</u>
b. General Chemistry	___	<u>NA</u>
c. Petroleum Hydrocarbons	___	<u>X</u>
<u>Sample Holding Times</u>		
a. Metals	___	<u>NA</u>
b. General Chemistry	___	<u>NA</u>
c. Petroleum Hydrocarbons	___	<u>X</u>
<u>Minimum Detection Limits</u>		
a. Metals	___	<u>NA</u>
b. General Chemistry	___	<u>NA</u>
c. Petroleum Hydrocarbons	___	<u>X</u>

Additional Comments:

Laboratory Manager Virginia Murray Date: 1/24/91

GTC LABORATORY QUALITY CONTROL REPORT

CUSTOMER: Woodward Clyde Corporati

JOB # : R90/05533

UNITS: ug/g wet weight

REPORT TYPE: Site

PARAMETER	SAMPLE	ORIGINAL RESULT	DUPLICATE RESULT	% REL. ERROR	ACCEPT. LIMIT %	AVERAGE RESULT	* MATRIX SPIKING			BLANK SPIKES			REFERENCE #	REFERENCE STANDARD	KNOWN PHVAL	PERCENT RECOVERY	ACCEPT. LIMITS %	
							SPIKE ADDED	PERCENT RECOVERY	ACCEPT. LIMIT %	METHOD BLANK	SPIKE ADDED	PERCENT RECOVERY						ACCEPT. LIMITS %
Pet. Hydro.	-009	1110	938	16.8	24.4	1024	35,900	97.4	62.7-129	17.9 U	1611	94.4	64.0-122					

\* Analytical results previous to accounting for dilutions. \*\* Reference Check samples are not available for all analyses. ++ Outside of Quality Control Limits.



GC - GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

Woodward Clyde Consultants - GTC# R90/05533, 0129

	<u>No</u>	<u>Yes</u>
1. <u>GC/MS Tune Specifications</u>		
a. BFB passed	___	<u>NA</u>
b. DFTPP passed	___	<u>NA</u>
2. <u>GC/MS Tuning Frequency</u> - performed every 12 hours	___	<u>NA</u>
3. <u>GC-GC/MS Calibration</u> - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis	___	<u>x</u>
4. <u>GC/MS Calibration Requirements</u>		
a. Calibration Check Compounds	___	<u>NA</u>
b. System Performance Check Compounds	___	<u>NA</u>
5. <u>Blank Contamination</u> - List compounds for each fraction		
a. VOA Fraction _____		
b. B/N Fraction _____		
c. Acid Fraction _____		
d. PCB's _____		
6. <u>Surrogate Recoveries Meet Criteria</u>	<u>x</u>	___
(If not met, list those compounds and their recoveries which fall outside the acceptable range)		
a. VOA Fraction _____		
b. B/N Fraction _____		
c. Acid Fraction _____		
d. PCB's _____ Dibutylchloroendate		
7. <u>Extraction Holding Time Met</u>	___	<u>x</u>
Comments: _____		
_____		
8. <u>Analysis Holding Time Met</u>	___	<u>x</u>
Comments: _____		
_____		

Additional Comments:

Laboratory Manager Virginia Murray Date: 1/24/91

PCB'S - SOIL SAMPLE

SOIL PCB'S MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: General Testing Corp.

Matrix Spike - Sample No. : R90/05533 -001

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENT. (ug/Kg)	MS % REC #	QC LIMITS REC.
PCB 1016					50-114
PCB 1221					15-178
PCB 1232					10-215
PCB 1242					39-150
PCB 1248					38-158
PCB 1254	2000	20.0 U	2210	110%	29-131
PCB 1260					8-127

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENT. (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
PCB 1016					30	50-114
PCB 1221					30	15-178
PCB 1232					30	10-215
PCB 1242					30	39-150
PCB 1248					30	38-158
PCB 1254	2000	2080	104%	6.1%	30	29-131
PCB 1260					30	8-127

# - Columns to be used to flag recovery and RPD values with ++.

++ - Values outside of QC limits

MS QC Limits = EPA Acceptance Criteria

RPD Limits = Internal Acceptance Criteria

RPD: 0 out of 1 outside limits  
 Spike Recovery: 0 out of 2 outside limits

COMMENTS: \_\_\_\_\_

PCB'S - SOIL SAMPLE

SOIL PCB'S MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: General Testing Corp.

Matrix Spike - Sample No. : R91/00129 -001

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENT. (ug/Kg)	MS % REC #	QC LIMITS REC.
PCB 1016					50-114
PCB 1221					15-178
PCB 1232					10-215
PCB 1242					39-150
PCB 1248					38-158
PCB 1254					29-131
PCB 1260	1670	20.0 U	1360	81%	8-127

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENT. (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
PCB 1016					30	50-114
PCB 1221					30	15-178
PCB 1232					30	10-215
PCB 1242					30	39-150
PCB 1248					30	38-158
PCB 1254					30	29-131
PCB 1260	1670	1480	89%	8.4%	30	8-127

# - Columns to be used to flag recovery and RPD values with ++.

++ - Values outside of QC limits

MS QC Limits = EPA Acceptance Criteria

RPD Limits = Internal Acceptance Criteria

RPD: 0 out of 1 outside limits  
 Spike Recovery: 0 out of 2 outside limits

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_



GTC REPORT # R90/5533  
R91/0129

SECTION D

ANALYTICAL CHRONOLOGY

Presented in this section is a Laboratory Chronology listing the dates of all preparations and analyses performed on the samples covered in this report. Holding times (the maximum times in which to analyze a sample) are derived from the referenced methodology.

Chronology Notes:







A Full Service Environmental Laboratory

**LABORATORY REPORT**

Job No. R90/05533

Date JAN. 24 1991

Client:

Woodward Clyde Corporation

Sample(s) Reference

GE Plant  
Waite Rd., Clifton

Date Received: 01/07/91

Date Sample Taken: 01/04/91

**LABORATORY CHRONICLE**  
**DATE ANALYZED**

Sample:	-010	-011	-012	-013	-014	-015	-016	-017
Location:	PS-AR3	PS-C-S1	PS-C-S2	PS-C-S3	PS-C1	PS-D1	PS-D2	Lab Blank
Solids, %	01/07/91	01/08/91	01/08/91	01/08/91	01/08/91	01/08/91	01/08/91	
Pet. Hydrocarbons, Extracted	01/07/91	01/08/91	01/08/91	01/08/91	01/08/91	01/08/91	01/08/91	
Pet. Hydrocarbons, IR	01/14/91	01/14/91	01/14/91	01/14/91	01/14/91	01/14/91	01/14/91	
PCB's, Date Extracted	01/10/91	01/10/91	01/10/91	01/10/91	01/10/91	01/10/91	01/10/91	01/10/91
PCB's, Date Analyzed	01/14/91	01/12/91	01/12, 13 /91	01/12/91	01/12, 13 /91	01/12, 13 /91	01/12, 13 /91	01/13/91



**ANALYTICAL CHRONOLOGY VERIFICATION**

The preservation, preparation and analysis of these samples were conducted on the dates specified on the previous pages.

Laboratory Director: Michael K. Penn  
Inorganics Manager: Douglas B. Dunham  
Organics Manager: Mark P. White  
Sample Receipt Manager: Ellen Schneiderbach  
QA Officer: Nancy Mount



SECTION E

DOCUMENTATION FILE

Presented in this section is all support documentation requested.

Documentation Provided:

- Chain of Custody Forms
- Analytical Request Forms
- Shipping Receipts
- Laboratory Receipt Log
- Laboratory Support Documentation
- Other:

**CLIENT**

Client: WCC Requested by: Chris Motta  
Street: 201 Willowbrook Blvd City: Wayne State: NJ Zip: 07470  
Reports to: Same Copies to: \_\_\_\_\_  
Phone # ( 201 ) 785 - 0700 ext. \_\_\_\_\_ FAX # ( 201 ) 785 - 0023

**PROJECT INFO**

Project Reference: GE Plant, Waite Rd site, Clifton Pk NY  
Estimated Start Date: 1 / 20 or 3 / 91 Est. Finish Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Phases: \_\_\_\_\_  
Est. Sample Arrival Dates: 1 / 3 or 4 / 91 Rock & NJ? Est. Lot Sizes: \_\_\_\_\_  
Work Plan Available: Yes  No  Comments: \_\_\_\_\_  
Nature of Samples & Safety Concerns: post excavation of waste oil recycling area  
\*needs TPHC results 1wk, PCB's 1 1/2 - 2 wks verbals  
Client Consultant: If PCB's are dirty & need to be cleaned up - approx. 10 or 11  
TAT (Date Due): Verbal Report: 1 / 30 or 4 / 91 Rush Written: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Final Report: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

**ANALYTICAL**

Summary of Analytical Requirements (see Form III for details)

Type	Matrix	#	Analyses Required
A	SOIL	20	PCB (8080) TPHC (418.1) % SOLIDS
B			
C			
D			

A: soil excavation B: \_\_\_\_\_  
C: \_\_\_\_\_ D: \_\_\_\_\_

Refer to Form II (reverse side) when specifying analytical protocol, field services & sample processing needs.

**INVOICE**

Invoice To: Same Contact: \_\_\_\_\_  
Address (if different): \_\_\_\_\_  
Quotation #: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ P.O.#: \_\_\_\_\_  
Cost Estimate Analytical \$ \_\_\_\_\_ (see Form III for details) Reportables \$ \_\_\_\_\_  
Field \$ \_\_\_\_\_ Shipping \$ \_\_\_\_\_ TAT \$ \_\_\_\_\_ Total \$ \_\_\_\_\_

Client Confirmation — (Please verify the above information and sign below.)

Comments: \_\_\_\_\_  
Client Signature: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Customer: WCC Reference: GE

# of Waters(W)= \_\_\_\_\_ # of Soils(S)= 20 Date Samples Expected: 1/30/91 TAT: 1 wk - 10 days

Sample Type: A: SOIL C: \_\_\_\_\_

(Source, Matrix or Location) B: \_\_\_\_\_ D: \_\_\_\_\_

	Test(s), Scan(s) Test Group(s) (Use Code f/ Back)	# of Samples by Sample Type				# of Analysis per Sample		Total # of Samples		Total # Analysis		Unit Analytical \$	Estimated COST \$	
		A	B	C	D	W	S	W	S	W	S			
GEN. CHEM.														
		SH												
<input type="checkbox"/> 500 <input type="checkbox"/> 846 <input type="checkbox"/> 136 <input type="checkbox"/> CLP		TOTAL # OF GEN. CHEM. ANALYSES												
METALS														
		Hex Cr												
<input type="checkbox"/> 500 <input type="checkbox"/> 846 <input type="checkbox"/> 136 <input type="checkbox"/> CLP		TOTAL # OF METALS ANALYSES												
GC														
		TOTAL # OF GC VOLATILES												
MS														
<input type="checkbox"/> 500 <input type="checkbox"/> 846 <input type="checkbox"/> 136 <input type="checkbox"/> CLP		TOTAL # OF MS VOLATILES												
GC														
		<u>8030 (PCB's)</u>	<u>20</u>					<u>-</u>	<u>1</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>20</u>	
		TOTAL # OF GC EXTRACTABLES												
MS														
<input type="checkbox"/> 500 <input type="checkbox"/> 846 <input type="checkbox"/> 136 <input type="checkbox"/> CLP		TOTAL # OF MS EXTRACTABLES												
OX														
OC														

Exchange Street  
Chester, NY 14608  
(616) 454-3760  
FAX (716) 454-1245

85 Trinity Place  
Hackensack, NJ 07601  
(201) 488-5242  
FAX (201) 488-6386

435 Lawrence Bell Drive  
Amherst, NY 14221-7077  
(716) 634-0454  
FAX (716) 634-9019

RUSH TAT Surcharge	Subtotal for Analytical
Reportables Surcharge	Discount @ _____ % -
QC Surcharge	Certification Fee +
Misc. Charges	Total Extra Charges +
Total Extra Charges	Total Analysis & Report



**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077

GTC Job No. R90/5533  
 Client Project No. \_\_\_\_\_  
9004217

**Sample Origination & Shipping Information**

Collection Site WAITE RD  
 Address WAITE Rd CLIFTON PARK NY  
 Street City State Zip  
 Collector PAUL KARETH Paul Kareth  
 Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:		Received by:		Date/Time
1. Sign	<u>Paul Kareth</u>	1. Sign	<u>U Murray</u>	<u>1/4/91</u>
for		for		<u>13:30</u>
2. Sign		2. Sign		
for		for		
3. Sign		3. Sign		
for		for		

Sample(s) Received in Laboratory by K. Mully 1/4/91 @ 9:00

Client I.D.#	Sample Location	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
				Preserved	Filtered	Y	N	
Lab#	Date/Time			Y	N	Y	N	
1 PS-A1 001	PS-A1 1/4/91 10:20	S	TPH			✓	✓	pint glass
2 PS-B1 002	PS-B1 1/4/91 10:35	S	TPH			✓	✓	pint glass
3 PS-B2 003	PS-B2 1/4/91 11:00	S	TPH			✓	✓	pint glass
4 PS-B3 004	PS-B3 1/4/91 11:30	S	TPH			✓	✓	pint glass
5 PS-B4 005	PS-B4 1/4/91 11:45	S	TPH			✓	✓	pint glass

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		1									

Additional Analytes 1 week turn

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

\* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. 290/5533  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

Sample Origination & Shipping Information

Collection Site WAITE Rd  
 Address WAITE RD CLIFTON PARK NY  
 Street City State Zip  
 Collector PAUL KARETH Paul Kareth  
 Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:		Received by:		Date/Time
1. Sign	<u>Paul Kareth</u>	1. Sign	<u>Umurray</u>	<u>1/4/91</u>
for		for		<u>18:30</u>
2. Sign		2. Sign		/ /
for		for		:
3. Sign		3. Sign		/ /
for		for		:

Sample(s) Received in Laboratory by h mully 1/7/91 @ 900

Client I.D.#	Sample Location	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
				Preserved	Filtered	Y	N	
Lab#	Date/Time			Y	N	Y	N	
1	<u>PS-E1</u> <u>006</u>	<u>PS-E1</u> <u>1/4/91 : 1200</u>	<u>S</u> <u>TPH</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<u>pt. glass</u>
2	<u>PS-E2</u> <u>007</u>	<u>PS-E2</u> <u>1/4/91 : 1215</u>	<u>S</u> <u>TPH</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<u>pt. glass</u>
3	<u>PS-AR1</u> <u>008</u>	<u>PS-AR1</u> <u>1/4/91 : 1230</u>	<u>S</u> <u>TPH</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<u>pt. glass</u>
4	<u>PS-AR2</u> <u>009</u>	<u>PS-AR2</u> <u>1/4/91 : 1245</u>	<u>S</u> <u>TPH</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<u>pt. glass</u>
5	<u>PS-AR3</u> <u>010</u>	<u>PS-AR3</u> <u>1/4/91 : 1300</u>	<u>S</u> <u>TPH</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<u>pt. glass</u>

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	<u>2</u>	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		<u>1</u>									

Additional Analytes 1 week turn

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

\* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. 690/5533  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

**Sample Origination & Shipping Information**

Collection Site WAITE RD  
 Address WAITE RD CLIFTON PARK NY  
Street City State  
 Collector PAUL KARETH Paul Kareth  
Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:		Received by:		Date/Time
1. Sign	<u>Paul Kareth</u>	1. Sign	<u>O Murray</u>	<u>11/4/91</u>
for		for		<u>13:30</u>
2. Sign		2. Sign		
for		for		
3. Sign		3. Sign		
for		for		

Sample(s) Received in Laboratory by K Milly 11/4/91 @ 9:00

	Client I.D.#	Sample Location	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
	Lab#	Date/Time			Preserved	Filtered	Y	N	
1.	<u>PS-C-51</u>	<u>PS-C-51</u>	<u>5</u>	<u>TPH</u>		<u>/</u>		<u>/</u>	<u>pint glass</u>
	<u>011</u>	<u>1/4/91 1315</u>							
2.	<u>PS-C-52</u>	<u>P-C-52</u>	<u>5</u>	<u>TPH</u>		<u>/</u>		<u>/</u>	<u>pint glass</u>
	<u>012</u>	<u>1/4/91 1330</u>							
3.	<u>PS-C-53</u>	<u>P-C-53</u>	<u>5</u>	<u>TPH</u>		<u>/</u>		<u>/</u>	<u>pint glass</u>
	<u>013</u>	<u>1/4/91 1345</u>							
4.	<u>PS-C1</u>	<u>PS-C1</u>	<u>5</u>	<u>TPH</u>		<u>/</u>		<u>/</u>	<u>pint glass</u>
	<u>014</u>	<u>1/4/91 1400</u>							
5.	<u>PS-D1</u>	<u>PS-D1</u>	<u>5</u>	<u>TPH</u>		<u>/</u>		<u>/</u>	<u>pint glass</u>
	<u>015</u>	<u>1/4/91 1410</u>							

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each											

Additional Analytes 1 week turn

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

\* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. A90/5533  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

**Sample Origination & Shipping Information**

Collection Site WAITE Rd  
 Address WAITE Rd CLIFTON PARK NY  
 Street City State Zip  
 Collector PAUL KARETH Paul Kareth  
 Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:		Received by:		Date/Time
1. Sign	<u>Paul Kareth</u>	1. Sign	<u>U murey</u>	<u>1/4/91</u>
for		for		<u>18:30</u>
2. Sign		2. Sign		<u>/ /</u>
for		for		<u>:</u>
3. Sign		3. Sign		<u>/ /</u>
for		for		<u>:</u>

Sample(s) Received in Laboratory by K Mully 1/4/91 @ 9:00

Client I.D.# Lab#	Sample Location Date/Time	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
				Preserved Y N	Filtered Y N			
<u>PS-D2</u> <u>D16</u>	<u>PS-D2</u> <u>1/4/91 1720</u>	<u>5</u>	<u>TPH</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>pint glass</u>
	<u>PK 1/4/91</u>	<u>5</u>	<u>TPH</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>pint glass</u>
	<u>1/4/91</u>	<u>5</u>	<u>TPH</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>pint glass</u>
	<u>1/4/91</u>	<u>5</u>	<u>TPH</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>pint glass</u>
	<u>1/4/91</u>	<u>5</u>	<u>TPH</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>pint glass</u>

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		<u>1</u>									

Additional Analytes 1 week turn

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

\* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_(X), \_\_\_\_\_(Y).

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. R90/5533  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

Sample Origination & Shipping Information

Collection Site WAITE RD  
 Address WAITE RD CLIFTON PARK NY  
Street City State  
 Collector PAUL KARETH Paul Kareth  
Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:	Received by:	Date/Time
1. Sign <u>Paul Kareth</u> for	1. Sign <u>J Murray</u> for	<u>1/4/91</u> <u>13:30</u>
2. Sign _____ for	2. Sign _____ for	_____ _____
3. Sign _____ for	3. Sign _____ for	_____ _____

Sample(s) Received in Laboratory by K. Mully 1/4/91 @ 9:00

	Client I.D.#	Sample Location	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
	Lab#	Date/Time			Preserved	Filtered	Y	N	
1	<u>PS-A1</u>	<u>PS-A1</u>	<u>5</u>	<u>PCB's</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1 pint glass</u>	
	<u>001</u>	<u>1/4/91 10:20</u>							
2	<u>PS-B1</u>	<u>PS-B1</u>	<u>5</u>	<u>PCB's</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>pint glass</u>	
	<u>002</u>	<u>1/4/91 10:35</u>							
3	<u>PS-B2</u>	<u>PS-B2</u>	<u>5</u>	<u>PCB's</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>pint glass</u>	
	<u>003</u>	<u>1/4/91 11:00</u>							
4	<u>PS-B3</u>	<u>PS-B3</u>	<u>5</u>	<u>PCB's</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>pint glass</u>	
	<u>004</u>	<u>1/4/91 11:30</u>							
5	<u>PS-B4</u>	<u>PS-B4</u>	<u>5</u>	<u>PCB's</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>pint glass</u>	
	<u>005</u>	<u>1/4/91 11:45</u>							

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		<u>1</u>									

Additional Analytes 2 week turn

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.  
 \* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_(X), \_\_\_\_\_(Y).

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. 990/5533  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

Sample Origination & Shipping Information

Collection Site WAITE RD  
 Address WAITE Rd CLIFTON PARK NY  
 Street City State Zip  
 Collector PAUL KARETH Paul Kareth  
 Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:	Received by:	Date/Time
1. Sign <u>Paul Kareth</u> for	1. Sign <u>O Murray</u> for	<u>1/4/91</u> <u>18:30</u>
2. Sign _____ for	2. Sign _____ for	: /
3. Sign _____ for	3. Sign _____ for	: /

Sample(s) Received in Laboratory by H Mullu 1/19/91 @ 9 00

Client I.D.#	Sample Location	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
				Preserved	Filtered	Y	N	
Lab#	Date/Time			Y	N	Y	N	
1 <u>PS-E1</u> <u>006</u>	<u>PS-E1</u> <u>1/4/91 1200</u>	<u>S</u>	<u>PCB's</u>			-		<u>pint glass</u>
2 <u>PS-E2</u> <u>007</u>	<u>PS-E2</u> <u>1/4/91 1215</u>	<u>S</u>	<u>PCB's</u>			-		<u>pint glass</u>
3 <u>PS-AR1</u> <u>008</u>	<u>PS-AR1</u> <u>1/4/91 1230</u>	<u>S</u>	<u>PCB's</u>			-		<u>pint glass</u>
4 <u>PS-AR2</u> <u>009</u>	<u>PS-AR2</u> <u>1/4/91 1245</u>	<u>S</u>	<u>PCB's</u>			-		<u>pint glass</u>
5 <u>PS-AR3</u> <u>010</u>	<u>PS-AR3</u> <u>1/4/91 1300</u>	<u>S</u>	<u>PCB's</u>			-		<u>pint glass</u>

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		<u>1</u>									

Additional Analytes 2 week turn

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.  
 \* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_(X), \_\_\_\_\_(Y).

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. 290/5533  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

90C4217

**Sample Origination & Shipping Information**

Collection Site WHITE RD  
 Address WHITE RD CLIFTON PARK NY  
Street City State  
 Collector PAUL KARETH Paul Kareth  
Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:	Received by:	Date/Time
1. Sign <u>Paul Kareth</u>	1. Sign <u>Murray</u>	<u>1/4/91</u>
for	for	<u>18:30</u>
2. Sign	2. Sign	/ /
for	for	:
3. Sign	3. Sign	/ /
for	for	:

Sample(s) Received in Laboratory by K. Mully 1/4/91 @ 9:00

Client I.D.#	Sample Location	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
				Preserved	Filtered	Y	N	
Lab#	Date/Time			Y	N	Y	N	
1	PS-C-51	5	PCB's		-	-		pint glass
	011							1/4/91 1315
2	PS-C-52	5	PCB's			-		pint glass
	012							1/4/91 1330
3	PS-C-53	5	PCB's			-		pint glass
	013							1/4/91 1345
4	PS-C1	5	PCB's			-		pint glass
	014							1/4/91 1400
5	PS-D1	5	PCB's			-		pint glass
	015							1/4/91 1410

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		1									

Additional Analytes 2 week turn

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

\* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).



**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. R90/5533  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_

Sample Origination & Shipping Information

Collection Site WATE RD  
 Address WATE RD CLIFTON PARK NY  
Street City State  
 Collector PAUL KARETH Paul Kareth  
Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:		Received by:		Date/Time
1. Sign	<u>Paul Kareth</u>	1. Sign	<u>Umurof</u>	<u>1/4/91</u>
for		for		<u>18:30</u>
2. Sign		2. Sign		<u>1/1</u>
for		for		<u>:</u>
3. Sign		3. Sign		<u>1/1</u>
for		for		<u>:</u>

Sample(s) Received in Laboratory by K Milly 1/4/91 @ 9:00

Client I.D.# Lab#	Sample Location Date/Time	* Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
			Preserved Y N	Filtered Y N			
1 FS-DZ 016	PS-DZ 1/4/91 1420	S PCBs		/	/		pint glass
2	PK 1/4/91 <del>1/4/91</del>	<del>S PCBs</del>	<del>/</del>	<del>/</del>	<del>/</del>	<del>/</del>	<del>pint glass</del>
3	<del>1/4/91</del>	<del>S PCBs</del>	<del>/</del>	<del>/</del>	<del>/</del>	<del>/</del>	<del>pint glass</del>
4	<del>1/4/91</del>	<del>S PCBs</del>	<del>/</del>	<del>/</del>	<del>/</del>	<del>/</del>	<del>pint glass</del>
5	<del>1/4/91</del>	<del>S PCBs</del>	<del>/</del>	<del>/</del>	<del>/</del>	<del>/</del>	<del>pint glass</del>

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		1									

Additional Analytes 2 week turn

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.  
 \* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_(X), \_\_\_\_\_(Y).



# GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD

710 Exchange Street    85 Trinity Place    435 Lawrence Bell Drive    GTC Job No. KA1/0129  
 Rochester, NY 14608    Hackensack, NJ 07601    Amherst, NY 14221-7077    Client Project No. \_\_\_\_\_  
 Sample Origination & Shipping Information    90C/217

Collection Site Walter Rd  
 Address Walter Rd    Clifton Park    NY  
 Street    City    State    Zip  
 Collector Paul Karath    Paul Karath  
 Print    Signature

Bottles Prepared by \_\_\_\_\_    Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_    Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_    Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:		Received by:		Date/Time
1. Sign	<u>Paul Karath</u>	1. Sign	<u>K. Mully</u> <u>GTC</u>	<u>1/9/91</u>
for		for		<u>14:25</u>
2. Sign		2. Sign		:
for		for		:
3. Sign		3. Sign		1/1
for		for		:

Sample(s) Received in Laboratory by \_\_\_\_\_ @ \_\_\_\_\_

Client I.D.# Lab#	Sample Location Date/Time	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)
				Preserved Y N	Filtered Y N			
1 <u>PS-542</u> 1	<u>PS-542</u> <u>1/8/91 9:00</u>	5	<u>TPH</u>					<u>pint glass</u>
2 <u>PS-542</u> 2	<u>PS-542</u> <u>1/8/91 9:15</u>	5	<u>TPH</u>					<u>pint glass</u>
3 <u>PS-L2</u> 3	<u>PS-C2</u> <u>1/8/91 14:10</u>	5	<u>TPH</u>					<u>pint glass</u>
4 <u>PS-C-54</u> 4	<u>PS-C-54</u> <u>1/2/91 14:20</u>	5	<u>TPH</u>					<u>pint glass</u>
5 <u>PS-LZ1</u> 5	<u>PS-LZ1</u> <u>1/9/91 12:00</u>	5	<u>TPH</u>					<u>pint glass</u>

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each		1									

Additional Analytes 1 week turnaround

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.  
 \* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).

# GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD

710 Exchange Street 85 Trinity Place  
 Rochester, NY 14608 Hackensack, NJ 07601

GTC Job No. R91/0129  
 Client Project No. \_\_\_\_\_  
9024217

**Sample Origination & Shipping Information**

Collection Site Waite Rd  
 Address Waite Rd Clifton Park NY  
Street City State  
 Collector Paul Karath Paul Karath Zip  
Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:	Received by:	Date/Time
1. Sign <u>Paul Karath</u>	1. Sign <u>K Mully</u>	<u>1/9/91</u>
for	for <u>GTC</u>	<u>17:25</u>
2. Sign	2. Sign	<u>1/1</u>
for	for	:
3. Sign	3. Sign	<u>1/1</u>
for	for	:

Sample(s) Received in Laboratory by \_\_\_\_\_ @ \_\_\_\_\_

Client I.D.# Lab#	Sample Location Date/Time	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)	Rec'd at GTC
				Preserved Y N	Filtered Y N				
<u>PS-C-55</u> <u>6</u>	<u>PS-C-55</u> <u>1/9/91 1300</u>	<u>5</u>	<u>TPH</u>				<u>1</u>	<u>pint glass</u>	
<u>PS-C3</u> <u>7</u>	<u>PS-C3</u> <u>1/9/91 1315</u>	<u>5</u>	<u>TPH</u>				<u>1</u>	<u>pint glass</u>	
	<u>1/1</u>								
	<u>1/1</u>								
	<u>1/1</u>								

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. PL	Gal. PL	Steril. PL		
# of each		<u>1</u>									

Additional Analytes nickel tungsten

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

\* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street 85 Trinity Place 435 Lawrence Bell Drive GTC Job No. KA110129  
 Rochester, NY 14608 Hackensack, NJ 07601 Amherst, NY 14221-7077 Client Project No. \_\_\_\_\_  
 # 9024217

Sample Origination & Shipping Information

Collection Site Waite Rd  
 Address Waite Rd Clifton Park NY  
 Street City State Zip  
 Collector Paul Karath Paul Karath  
 Print Signature

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:	Received by:	Date/Time
1. Sign <u>Paul Karath</u>	1. Sign <u>K. Miller</u> <u>GTC</u>	<u>1/9/91</u> <u>17:25</u> <u>KM</u>
for	for	
2. Sign _____	2. Sign _____	/ /
for	for	:
3. Sign _____	3. Sign _____	/ /
for	for	:

Sample(s) Received in Laboratory by \_\_\_\_\_ / / @ :

Client I.D.#	Sample Location	★	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep		Bottle Set(s) (see below)
				Preserved	Filtered	
Lab#	Date/Time			Y	N	
1	<u>PS-521</u>	<u>S</u>	<u>PCB's</u>		<u>✓</u>	<u>pint glass</u>
	<u>1</u> <u>1/9/91 : 905</u>					
2	<u>PS-522</u>	<u>S</u>	<u>PCB's</u>		<u>✓</u>	<u>pint glass</u>
	<u>2</u> <u>1/9/91 : 915</u>					
3	<u>PS-C2</u>	<u>S</u>	<u>PCB's</u>		<u>✓</u>	<u>pint glass</u>
	<u>3</u> <u>1/9/91 : 1410</u>					
4	<u>PS-C-54</u>	<u>S</u>	<u>PCB's</u>		<u>✓</u>	<u>pint glass</u>
	<u>4</u> <u>1/9/91 : 1420</u>					
5	<u>PS-LZ1</u>	<u>S</u>	<u>PCB's</u>		<u>✓</u>	<u>pint glass</u>
	<u>5</u> <u>1/9/91 : 1200</u>					

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.		
# of each											

Additional Analytes 2/2/226 to 2/2/226

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.  
 ★ Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).

**GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD**

710 Exchange Street 85 Trinity Place  
 Rochester, NY 14608 Hackensack, NJ 07601

GTC Job No. 691/0129  
 Client Project No. #90C4217

**Sample Origination & Shipping Information**

Collection Site Winta Rd  
 Address Winta Rd Clifton Park NY  
Street City State  
 Collector Paul Karath Paul Karath  
Print Signature  
 Zip \_\_\_\_\_

Bottles Prepared by \_\_\_\_\_ Rec'd by \_\_\_\_\_  
 Bottles Shipped to Client via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_  
 Samples Shipped via \_\_\_\_\_ Seal/Shipping # \_\_\_\_\_

Sample(s) Relinquished by:		Received by:		Date/Time
1. Sign	<u>Paul Karath</u>	1. Sign	<u>K Mully</u>	<u>1/9/91</u>
for		for	<u>GTC</u>	<u>15:25</u>
2. Sign		2. Sign		:
for		for		:
3. Sign		3. Sign		<u>1 1</u>
for		for		:

17:25  
K M

Sample(s) Received in Laboratory by \_\_\_\_\_ / / @ \_\_\_\_\_

Client I.D.#	Sample Location	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep				Bottle Set(s) (see below)	Rec'd at GTC
				Preserved	Filtered	Y	N		
Lab#	Date/Time			Y	N	Y	N		
1	<u>PS-C-55</u>	<u>PS-C-55</u>	<u>5</u>					<u>pint glass</u>	
	<u>6</u>	<u>1/9/91 1300</u>	<u>PCB's</u>						
2	<u>PS-C3</u>	<u>PS-C3</u>						<u>pint glass</u>	
	<u>9</u>	<u>1/9/91 1315</u>	<u>PCB's</u>						
3		<u>1 1 :</u>							
4		<u>1 1 :</u>							
5		<u>1 1 :</u>							

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt Pl.	Gal. Pl.	Steril. Pl.		
# of each		<u>1</u>									

Additional Analytes 2 week turnaround

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

\* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), \_\_\_\_\_ (X), \_\_\_\_\_ (Y).



SECTION F

DOCUMENTATION FILE

Presented in this section is all support documentation requested.

Documentation Provided:

- Chain of Custody Forms
- Analytical Request Forms
- Shipping Receipts
- Laboratory Receipt Log
- Laboratory Support Documentation
- Other:

R90/5533

GC 8080

PCB'S

SUPPORT DOCUMENTATION

Standards Documentation Sheet

Analysis: PCB Starting Date: 1-12-91  
GC: HP5730A-A Column: 2401/2250  
Integrator: HP3396A Temperature: 210°C  
Included Jobs: R90/5533  
Standards/RF sheets in ~~Standards File~~ dated: 1-7-91

Initial Calibration

Date: 1-7-91 Time: 14:17

Continuing Calibration

Date: <u>1-11-91</u>	Time: <u>23:13</u>
Date: <u>1-12-91</u>	Time: <u>11:18</u>
Date: <u>1-12-91</u>	Time: <u>23:22</u>
Date: <u>1-13-91</u>	Time: <u>11:27</u>
Date: <u>1-14-91</u>	Time: <u>07:39</u>
Date: <u>1-14-91</u>	Time: <u>20:44</u>

Analyst: *Kaelin*



General Testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3750


Analyst: DAVE MASUCCI  
Date: 1/15/91  
Time: 01:46  
Run #: 124

PCB's (8080/508)  
CONTINUING CALIBRATION CHECK

Calibration Date: 1/7/91  
Column: 1.95% SP2401/1.5% SP2250

Instrument ID: HP 5730A-A  
Oven Temp: 210 C

Compound	Conc.	Retention Times	Area Units (x.0001)	New Respons Factor	Initial Response Factor	%RSD
PCB 1248	500	3.22	117			
		5.75	111	1.37	1.33	2.7
		6.74	138			

  
-----  
Analyst



water and wastewater testing specialists

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Rochester, NY 14608  
(716) 454-3760

85 Trinity Place  
Hackensack, NJ 07601  
(201) 488-5242

4C - PESTICIDE METHOD BLANK SUMMARY

Lab Name: General Testing Corp. Contract: \_\_\_\_\_  
 Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Lab Sample ID: R90/5533 Lab File ID: \_\_\_\_\_  
 Matrix: (soil/water) soil Level: (low/med) Low  
 Date Extracted: 1-10-91 Extraction: (SepF/Cont/Sony) \_\_\_\_\_  
 Date Analyzed: (1): 1-13-91 Date Analyzed: (2): \_\_\_\_\_  
 Time Analyzed: (1): 00:22 Time Analyzed: (2): \_\_\_\_\_  
 Instrument ID (1): HP5730A-A Instrument ID (2): \_\_\_\_\_  
 GC Column ID (1): 2401/2250 GC Column ID (2): \_\_\_\_\_

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

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	R90/5533-Refsek	1-13-91	
02	-1msd	1-12;13-91	
03	-1ms	↓	
04	-1	1-12;13-91	
05	-2	1-12-91	
06	-3	1-13-91	
07	-4	1-12;13-91	
08	-5	1-13-91	
09	-6	1-13-91	
10	-7	↓	
11	-8	1-12-91	
12	-9	1-12;13-91	
13	-10	1-13;14-91	
14	-11	1-12;15-91	
15	-12	1-12;13-91	
16	-13	1-12;13-91	
17	-14	1-12;13-91	
18	-15	↓	
19	✓ -16	↓	
20			
21			
22			
23			
24			
25			
26			

COMMENTS: \_\_\_\_\_



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8E - PESTICIDE EVALUATION STANDARDS SUMMARY  
Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: General Testing Corp. Contract: \_\_\_\_\_  
 Lab Code: GTK Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Instrument ID: HP5730A-A GC Column ID: 2401/2250  
 Dates of Analyses: 1-11-91 to 1-15-91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	AR 1248 STD3	pcB1248 500ppb	1-11-91	23:15		(042)
02		R90/5533-11ms 1/10	1-12-91	02:14	0.7	
03		-1msD		03:15	0.7	
04		-1		04:15	0.8	
05		-2		05:15	0.7	
06		-4		07:16	0.5	
07	AR 1254 STD3	pcB 1254 500		11:18	0.6	
08		R90/5533-8 1/10		13:18	0.7	
09		-9		14:19	0.5	
10		-11		16:19	0.5	
11		-12		17:20	0.5	
12		-13		18:20	0.5	
13		-14		19:20	0.6	
14		-15		20:21	0.6	
15		-16		21:21	0.4	
16	AR 1260 STD4	pcB 1260 250ppb		23:22	0.7	
17		R90/5533-alk	1-13-91	00:22	0.5	
18		-reflex		01:23	0.5	
19		-1ms		02:23	0.6	
20		-1msD		03:23	0.7	
21		-1		04:24	0.8	
22		-3		06:25	0.7	
23		-4		07:25	0.8	
24		-5		08:25	1.1	
25		-6		09:26	0.7	
26	AR 1248 STD4	pcB 1248 250ppb		11:27	0.3	
27		R90/5533-7		12:27	0.4	
28		-9		14:28	0.3	
29		-10		15:28	0.2	
30		-12		17:29	0.1	
		-13		18:29	0.2	

\* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)



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85 Trinity Place  
Hackensack, NJ 07601  
(201) 488-5242

8E - PESTICIDE EVALUATION STANDARDS SUMMARY  
Evaluation of Retention Time Shift for Dibutylchlorodate

Lab Name: General Testing Corp. Contract: \_\_\_\_\_

Lab Code: gTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Instrument ID: HPS730A-A GC Column ID: \_\_\_\_\_ 2401/225

Dates of Analyses: 1-11-91 to 1-15-91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01		R90/5533-14	1-13-91	19:30	0.3	
02		↓ -15	↓	20:30	0.3	
03		↓ -16	↓	21:30	0.3	
04	AR 1251570 4	PC91251570 250ppB	1-14-91	07:38	0.4	*
05		R90/5533-10 Y50	↓	12:37	0.3	
06	AR 1248 STD3	PCB1248 500ppB	↓	01:46	0.4	*
07		R90/5533-11	1-15-90	02:46	0.3	
08	AR 1248 STD3	PCB1248 500ppB	↓	01:46	0.2	
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

\* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)



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Rochester, NY 14608  
(718) 454-3760

85 Trinity Place  
Hackensack, NJ 07601  
(201) 488-5242

2F - SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: General Testing Corp. Contract: \_\_\_\_\_

Lab Code: gTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

	EPA SAMPLE NO.	S1 (DBC) #	TCMX
01	R90/5533-01K	104	68
02	- RfcoK	146	83
03	- 1ms	137	84
04	- 1ms	139	90
05	- 1	164 †	100
06	- 2	164 †	117
07	- 3	113	76
08	- 4	131	96
09	- 5	119	50
10	- 6	113	73
11	- 7	86	46
12	- 8	148	93
13	- 9	107	87
14	- 10	75	73
15	- 11	106	80
16	- 12	88	70
17	- 13	117	101
18	- 14	76	67
19	- 15	80	74
20	✓ - 16	79	50
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

† Surrogates outside of Q.C. limits due to suspected matrix interference.  
 S1 (DBC) = Dibutylchloroendate  
 # Column used to flag recovery values  
 ++ Values outside of QC limits  
 D Surrogates diluted out

ADVISORY  
QC LIMITS  
(20-150)

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

Analyst: D. Masucci  
 Date: 1/15/91  
 Instrument: HPS730A-A  
 Date Extracted: 1/10/91

Client: WCC  
 Job#: R90/5533-1

PCB MATRIX SPIKE

Lab Name: General Testing Corp.  
 Lab Code:GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

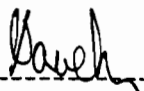
COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONC. (ug/kg)	MS CONC. (ug/kg)	MS % REC	MS (#)	QC LIMITS % REC.
PCB 1016	-----	200 U	200 U			50-114
PCB 1221	-----	200 U	200 U			15-178
PCB 1232	-----	200 U	200 U			10-215
PCB 1242	-----	200 U	200 U			39-150
PCB 1248	-----	200 U	200 U			38-158
PCB 1254	2000	20.0 U	2210	110		29-131
PCB 1260	-----	20.0 U	20.0 U			8-127

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONC. (ug/kg)	MSD % REC.	MSD (#)	RPD (#)	QC LIMITS %REC
PCB 1016	-----	200 U				30 50-114
PCB 1221	-----	200 U				30 15-187
PCB 1232	-----	200 U				30 10-215
PCB 1242	-----	200 U				30 39-150
PCB 1248	-----	200 U				30 38-158
PCB 1254	2000	2080	104		6.1	30 29-131
PCB 1260	-----	20.0 U				30 8-127

Spike Recovery: 0 out of 2 outside limits.

RPD: 0 out of 1 outside limits.

COMMENTS:

-----  
  
 Analyst's Signature

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/15/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-IMS  
 Run #: 58

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254	SEE ATTACHED		623	3.00	10	2080	
PCB 1260			0.00	3.00	10	200 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	37.6	30.0	33.3	90	31-141	
Dibutylchlorodate	24.12	56.5	46.3	33.3	139	24-150	

Surrogates calc. using straight.

  
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 Analyst

General testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

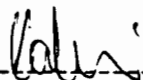
Analyst: D. Masucci  
Date: 1/15/91  
Instrument: HP5730A-A  
Date Extracted: 1/10/91  
Date Analyzed: 1/12/91  
Client: WCC  
Job #: R90/5533-IMS  
Run #: 58

Analysis: Priority Pollutant Data  
PCB's

PCB 1254

MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	3.88	3.93	92.6	7.47	692	623
2	4.58	4.63	38.3	18.6	714	
3	5.88	5.94	39.5	12.8	507	
4	6.45	6.54	167	3.61	603	
5	8.07	8.17	59.3	10.3	609	
6	8.66	8.77	187	3.21	601	
7	9.81	9.93	296	2.17	642	
8	10.96	11.10	176	3.37	593	
9	12.37	12.52	229	2.81	644	
10	13.93	14.11	274	2.30	631	
11	17.73	17.93	71.6	8.62	617	

  
-----  
Analyst's Signature



GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

Analyst: D. MASUCCI  
 Date: 1/15/91  
 Instrument ID: HP 5890A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12/91

LABORATORY REPORT #2

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU


Client: WCC  
 Job #: R90/5533-1MSD  
 Run #: 59

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254	SEE	ATTACHED	662	3.00	10	2210	
PCB 1260			0.00	3.00	10	200 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	% Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	35.2	28.0	33.3	84	31-141	
Dibutylchloroendate	24.10	55.6	45.6	33.3	137	24-150	

Surrogates calc. using straight.

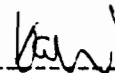
  
 \_\_\_\_\_  
 Analyst

General Testing Corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 1/15/91  
Instrument: HP5730A-A  
Date Extracted: 1/10/91  
Date Analyzed: 1/12/91  
Client: WCC  
Job #: R90/5533-1MSD  
Run #: 59

Analysis: Priority Pollutant Data  
PCB's  
PCB 1254  
MULTI-PEAK RESPONSE WORKSHEET #2

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/kg)	Avg. CONC. (ug/kg)
1	3.88	3.94	90.2	7.47	674	662
2	4.58	4.64	37.1	18.6	691	
3	5.88	5.95	38.4	12.8	493	
4	6.45	6.54	162	3.61	585	
5	8.07	8.17	119	10.3	1223	
6	8.66	8.77	181	3.21	582	
7	9.81	9.93	287	2.17	623	
8	10.96	11.09	170	3.37	573	
9	12.37	12.51	221	2.81	622	
10	13.93	14.10	266	2.30	613	
11	17.73	17.93	69.9	8.62	602	

  
-----  
Analyst's Signature


GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

Analyst: Dave Masucci  
 Date: 1/14/91  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/13/91  
 Client: WCC  
 Job #: R90/5533-BLK

PCB Analysis - QC Summary  
 LAB BLANK & REFERENCE CHECK

Compound	Reference Spike			
	Lab Blank Conc.	True Conc. (ug/kg)	Percent Recovery	Acceptance Limit
PCB 1016	20.0 U			50-114
PCB 1221	20.0 U			15-178
PCB 1232	20.0 U			10-215
PCB 1242	20.0 U			39-150
PCB 1248	20.0 U			38-158
PCB 1254	20.0 U	66.7	123	29-131
PCB 1260	20.0 U			8-127

Surrogate Standards	Blank % Rec.	Amount Added	Percent Recovery	Acceptance Limit
Tetrachloro-m-xylene	68	33.3	83	27-119
Dibutylchloroendate	104	33.3	146	24-154



Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

Analyst: D. MASUCCI  
 Date: 1/14/91  
 Instrument ID: HP 5890A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/13/91

LABORATORY REPORT #2

Analysis: Priority Pollutant Data  
 PCB's


Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-REF SPK  
 Run #: 81

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	1.0	0.00	
PCB 1221			0.00	3.00	1.0	0.00	
PCB 1232			0.00	3.00	1.0	0.00	
PCB 1242			0.00	3.00	1.0	0.00	
PCB 1248			0.00	3.00	1.0	0.00	
PCB 1254	SEE	ATTACHED	246	3.00	1.0	82.0	
PCB 1260			0.00	3.00	1.0	0.00	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	% Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	34.6	27.6	33.3	83	31-141	
Dibutylchloroendate	24.14	59.3	48.6	33.3	146	24-150	

  
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 Analyst

General Testing Corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 1/14/91  
Instrument: HP5730A-A  
Date Extracted: 1/10/91  
Date Analyzed: 1/13/91  
Client: WCC  
Job #: R90/5533-REF SPK  
Run #: 81

Analysis: Priority Pollutant Data  
PCB's

PCB 1254  
MULTI-PEAK RESPONSE WORKSHEET #2

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/kg)	Avg. CONC. (ug/kg)
1	3.88	3.96	24.1	7.47	180	246
2	4.58	4.64	7.12	18.6	133	
3	5.88	5.75	78.8	12.8 *	1011	
4	6.45	6.72	120	3.61	433	
5	8.07	8.20	20.9	10.3	215	
6	8.66	8.77	59.0	3.21	190	
7	9.81	9.94	185	2.17	401	
8	10.96	11.09	88.1	3.37	297	
9	12.37	12.58	28.6	2.81	80	
10	13.93	14.12	81.4	2.30	188	
11	17.73	17.90	40.4	8.62	348	

  
-----  
Analyst's Signature

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HPS730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-BLK  
 Run #: 80

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	1.0	20.0	U
PCB 1221			0.00	3.00	1.0	20.0	U
PCB 1232			0.00	3.00	1.0	20.0	U
PCB 1242			0.00	3.00	1.0	20.0	U
PCB 1248			0.00	3.00	1.0	20.0	U
PCB 1254			0.00	3.00	1.0	20.0	U
PCB 1260			0.00	3.00	1.0	20.0	U

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	28.3	22.5	33.3	68	31-141	
Dibutylchloroendate	24.15	42.1	34.5	33.3	104	24-150	

*D. Masucci*  
 -----  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12,13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

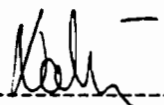
Client: WCC  
 Job #: R90/5533-1  
 Run #: 60,84

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.01	10	200 U	
PCB 1221			0.00	3.01	10	200 U	
PCB 1232			0.00	3.01	10	200 U	
PCB 1242			0.00	3.01	10	200 U	
PCB 1248			0.00	3.01	10	200 U	
PCB 1254			0.00	3.01	1.0	20.0 U	
PCB 1260			0.00	3.01	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	42.0	33.5	33.3	100	31-141	
Dibutylchloroendate	24.08	66.8	54.8	33.3	164	24-150	t

t = Suspected matrix interference.

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU


Client: WCC  
 Job #: R90/5533-2  
 Run #: 61

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.01	10	200 U	
PCB 1221			0.00	3.01	10	200 U	
PCB 1232			0.00	3.01	10	200 U	
PCB 1242			0.00	3.01	10	200 U	
PCB 1248			0.00	3.01	10	200 U	
PCB 1254			0.00	3.01	10	200 U	
PCB 1260			0.00	3.01	10	200 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	4.88	38.9	33.3	117	31-141	
Dibutylchloroendate	24.09	6.66	54.6	33.3	164	24-150	t

t = Suspected matrix interference.

  
 -----  
 Analyst



GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/13/91  
 Instrument: HPS730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

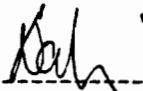
Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-3  
 Run #: 86

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	1.0	20.0 U	
PCB 1221			0.00	3.00	1.0	20.0 U	
PCB 1232			0.00	3.00	1.0	20.0 U	
PCB 1242			0.00	3.00	1.0	20.0 U	
PCB 1248			0.00	3.00	1.0	20.0 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	31.9	25.4	33.3	76	31-141	
Dibutylchloroendate	24.10	45.9	37.6	33.3	113	24-150	

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12,13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

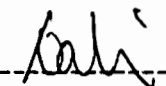
Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-4  
 Run #: 63,87

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	4.01	31.9	33.3	96	31-141	
Dibutylchloroendate	24.14	5.30	43.5	33.3	131	24-150	

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HPS730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's


Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-5  
 Run #: 88

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	1.0	20.0 U	
PCB 1221			0.00	3.00	1.0	20.0 U	
PCB 1232			0.00	3.00	1.0	20.0 U	
PCB 1242			0.00	3.00	1.0	20.0 U	
PCB 1248				3.00	1.0	20.0 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accept. Limits	Q
Tetrachloro-m-xylene	1.57	21.0	17	33.3	50	31-141	
Dibutylchloroendate	24.00	48.2	40	33.3	119	24-150	

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

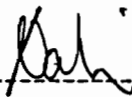
Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-6  
 Run #: 65,89

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260	SEE ATTACHED		201	3.00	1.0	67.0	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	30.6	24	33.3	73	31-141	
Dibutylchloroendate	24.09	46.0	38	33.3	113	24-150	

  
 Analyst

General testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 1/14/91  
Instrument: HPS730A-A  
Date Extracted: 1/10/91  
Date Analyzed: 1/13/91  
Client: WCC  
Job #: R90/5533-6  
Run #: 65,89

Analysis: Priority Pollutant Data  
PCB's

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	5.81			10.0 *	0	201
2	6.37			9.89 *	0	
3	8.75	8.76	71.4	3.61	258	
4	9.67	9.89	13.5	3.72 *	50	
5	10.85	11.08	85.6	1.89	162	
6	12.22	12.50	98.1	2.87	282	
7	13.76	14.07	105	2.22	233	
8	14.69	15.02	53.1	2.85	151	
9	17.87	18.16	40.7	4.96	202	
10	18.80	19.17	17.7	11.4	202	
11	21.17	21.57	133	1.29	171	
12	27.17	27.79	115	1.27	146	
13	36.32			12.4 *	0	
14	41.93			4.58 *	0	

  
-----  
Analyst's Signature

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

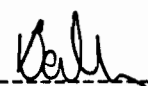
Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-7  
 Run #: 92

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.01	1.0	20.0 U	
PCB 1221			0.00	3.01	1.0	20.0 U	
PCB 1232			0.00	3.01	1.0	20.0 U	
PCB 1242			0.00	3.01	1.0	20.0 U	
PCB 1248			0.00	3.01	1.0	20.0 U	
PCB 1254			0.00	3.01	1.0	20.0 U	
PCB 1260			0.00	3.01	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accept. Limits	Q
Tetrachloro-m-xylene	1.57	19.2	15	33.3	46	31-141	
Dibutylchloroendate	24.17	34.9	29	33.3	86	24-150	

  
 -----  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

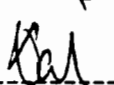
Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-8  
 Run #: 69

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	10	200 U	
PCB 1260	SEE ATTACHED		162	3.00	10	540	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	3.87	30.8	33.3	93	31-141	
Dibutylchloroendate	24.10	6.00	49.2	33.3	148	24-150	

  
 Analyst

General testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 1/14/91  
Instrument: HPS730A-A  
Date Extracted: 1/10/91  
Date Analyzed: 1/12/91  
Client: WCC  
Job #: R90/5533-8  
Run #: 69

Analysis: Priority Pollutant Data  
PCB's

PCB 1260

MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	5.81	5.97	17.6	10.0	176	162
2	6.37	6.52	5.38	9.89 *	53	
3	8.75	9.11	50.8	3.61	184	
4	9.67	9.95	65.3	3.72	243	
5	10.85	11.12	64.3	1.89	122	
6	12.22	12.52	51.4	2.87	148	
7	13.76	14.09	68.0	2.22	151	
8	14.69	15.04	49.2	2.85	140	
9	17.87	18.31	29.0	4.96	144	
10	18.80	19.25	7.48	11.4 *	85	
11	21.17	21.62	117	1.29	151	
12	27.17	27.86	110	1.27	140	
13	36.32	37.04	12.4	12.4	154	
14	41.93	41.97	42.5	4.58	195	

  
-----  
Analyst's Signature



GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HPS730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-9  
 Run #: 70

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	10	200 U	
PCB 1260	SEE ATTACHED		122	3.00	10	407	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	36.5	29.1	33.3	87	31-141	
Dibutylchloroendate	24.19	43.6	35.8	33.3	107	24-150	

Straight used to calc. surrogate.

  
 Analyst


General testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 1/14/91  
Instrument: HP5730A-A  
Date Extracted: 1/10/91  
Date Analyzed: 1/12/91  
Client: WCC  
Job #: R90/5533-9  
Run #: 70

Analysis: Priority Pollutant Data  
PCB's

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	5.81	5.98	16.8	10.0	168	122
2	6.37	6.54	8.06	9.89	80	
3	8.75	8.96	33.2	3.61	120	
4	9.67	9.90	32.6	3.72	121	
5	10.85	11.12	54.4	1.89	103	
6	12.22	12.51	38.0	2.87	109	
7	13.76	14.08	53.0	2.22	117	
8	14.69	15.04	45.0	2.85	128	
9	17.87	18.30	23.3	4.96	116	
10	18.80	19.27	8.53	11.4	97	
11	21.17	21.61	103	1.29	133	
12	27.17	27.85	97.4	1.27	124	
13	36.32	37.07	16.9	12.4	209	
14	41.93	42.03	38.3	4.58	176	

  
-----  
Analyst's Signature

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/14/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

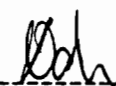
Client: WCC  
 Job #: R90/5533-10  
 Run #: 111

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	50	1000	U
PCB 1221			0.00	3.00	50	1000	U
PCB 1232			0.00	3.00	50	1000	U
PCB 1242			0.00	3.00	50	1000	U
PCB 1248			0.00	3.00	50	1000	U
PCB 1254			0.00	3.00	50	1000	U
PCB 1260	SEE ATTACHED		68.0	3.00	50	1130	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.65	30.6	24.4	33.3	73	31-141	
Dibutylchlorendate	24.21	30.4	24.9	33.3	75	24-150	

Straight used to calc. surrogate.

  
 -----  
 Analyst


General testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 1/14/91  
Instrument: HP5730A-A  
Date Extracted: 1/10/91  
Date Analyzed: 1/14/91  
Client: WCC  
Job #: R90/5533-10  
Run #: 111

Analysis: Priority Pollutant Data  
PCB's

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	5.81	5.98	14.2	10.0 *	142	68
2	6.37	6.55	4.71	9.89	47	
3	8.75	9.10	22.5	3.61	81	
4	9.67	9.96	27.2	3.72	101	
5	10.85	11.15	33.6	1.89	64	
6	12.22	12.56	22.1	2.87	63	
7	13.76	14.13	32.1	2.22	71	
8	14.69	15.09	24.2	2.85	69	
9	17.87	18.34	14.1	4.96	70	
10	18.80	19.33	4.25	11.4	48	
11	21.17	21.69	48.6	1.29	63	
12	27.17		97.4	1.27 *	124	
13	36.32		16.9	12.4 *	209	
14	41.93		38.3	4.58 *	176	

  
-----  
Analyst's Signature

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-11  
 Run #: 72

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	10	200 U	
PCB 1260			0.00	3.00	10	200 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	33.6	26.8	33.3	80	31-141	
Dibutylchloroendate	24.20	42.9	35.2	33.3	106	24-150	

Surrogates calc. using straight.

  
 -----  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12,13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-12  
 Run #: 73,97

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	29.1	23.2	33.3	70	31-141	
Dibutylchloroendate	24.25	35.8	29.4	33.3	88	24-150	

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HPS730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

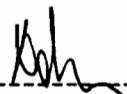
Client: WCC  
 Job #: R90/5533-13  
 Run #: 74

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	1.0	200 U	
PCB 1260			0.00	3.00	1.0	200 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	48.8	38.9	33.3	117	31-141	
Dibutylchloroendate	24.21	41.2	33.8	33.3	101	24-150	

Surrogates calc. using straight.

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12,13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

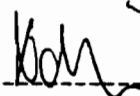
Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-14  
 Run #: 75,99

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	27.8	22.1	33.3	67	31-141	
Dibutylchloroendate	24.20	30.8	25.3	33.3	76	24-150	

  
 Analyst



GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12,13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

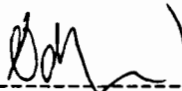
Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-15  
 Run #: 76,100

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	30.8	24.5	33.3	74	31-141	
Dibutylchloroendate	24.19	32.3	26.5	33.3	80	24-150	

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/14/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/10/91  
 Date Analyzed: 1/12,13/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

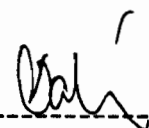
Clean-ups: ALU

Client: WCC  
 Job #: R90/5533-16  
 Run #: 77,101

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	20.9	16.7	33.3	50	31-141	
Dibutylchloroendate	24.19	32.0	26.2	33.3	79	24-150	

  
 Analyst

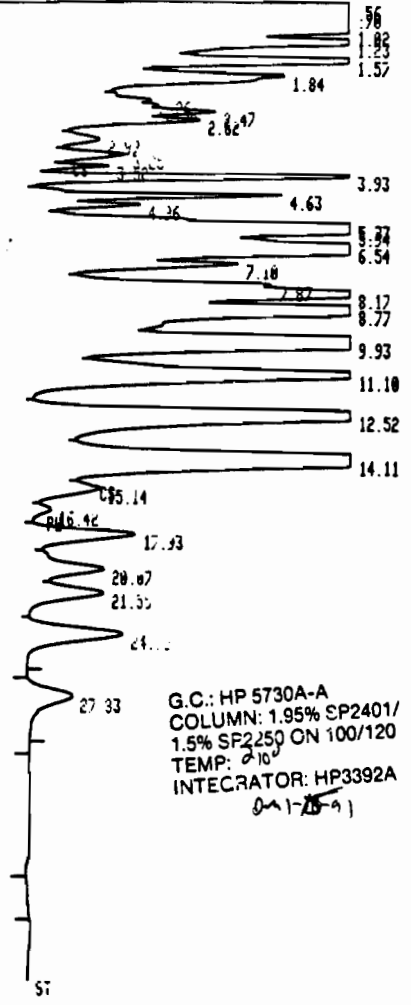
SAMPLE #	INITIAL WGT OF VIAL	EXTRACT. VOL	APPEARANCE	SPEX. ADDED	CONC. DATE	PRIMARY CLEAN-UP	DATE	DILUTION & SECONDARY CLU.	DATE	COMMENTS	DATE
1	✓ 30.06g	10ml	Brown soil	For lms, lmsd	1/11/74	A/C	1/11/74				11/1/74
1ms	30.05g			1ml PCB 1254							
1msd	30.045g			Stock .60 ppm in MeOH							
2	✓ 30.07g			PIB3							
3	✓ 30.045g			S 14 11/26/74							
4	✓ 30.014g		Brown muddy soil								
5	✓ 30.024gr		Brown muddy soil								
6	✓ 30.044gr		Gray muddy soil	For Ref spk							
7	✓ 30.054gr		Brown wet mud	1ml PCB 1254							
8	✓ 30.014gr		Brown soil	Ref spk 20 ppm in MeOH							
9	✓ 30.054gr		Dark Brown wet mud								
10	✓ 30.014gr		Dark Brown mud	P 166 pg 141 M							
11	✓ 30.004gr		Dark Brown soil	8/21/74 RDI							
12	✓ 30.014gr		Black wet clay	VI							
13	✓ 30.024gr		Dark Brown soil								
14	✓ 30.004gr		Brown soil								
15	✓ 30.054gr		Dark Brown								
16	✓ 30.054gr		Brown soil								
Blk	✓										
Ref spk	✓										

CLIENT: WCC  
 JOB #: P 90/5533  
 METHOD: PCB 4, SOX EXTRACTION: 3550

DATE EXTRACTED: 1/10/74  
 MISC.: TEB  
 CLIENT: WCC P 90/5533  
 ANALYSIS: PCB by 8080  
 ANALYST: A. Gymbal  
 SURROGATE: 1ml Pest/ReB succ  
 1.0 ppm DBC + TEMX in MeOH  
 186 ppt + M 12/24/74 PPH V(B)

METHOD SUMMARY:  
 Sonicate 30g sample, 60g MeOH  
 3x's w/ 100mls 1:1 MeCl<sub>2</sub>:  
 Acetone 3 min runs

START IF 5533-1ms #10/10

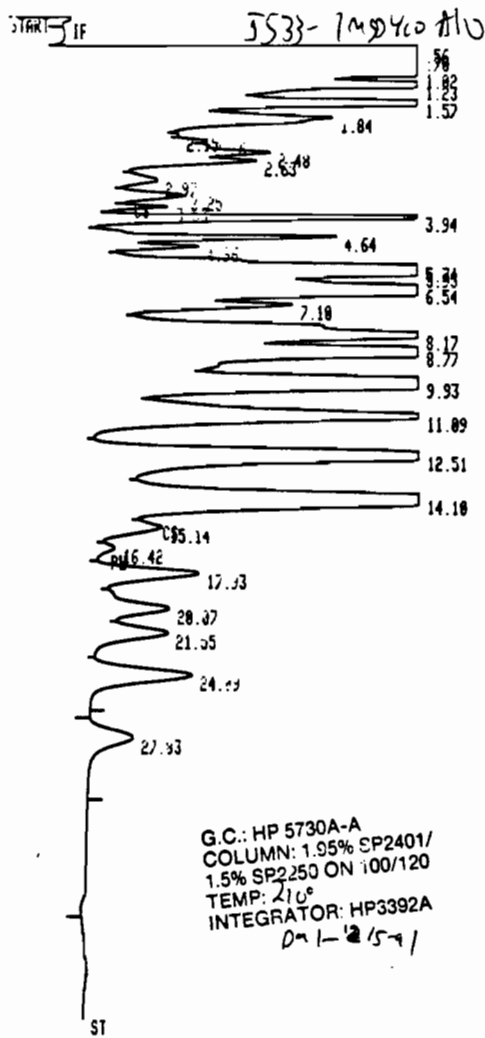


G.C.: HP 5730A-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 210°  
 INTEGRATOR: HP3392A  
 01-25-91

RUN # 53 JAN/12/91 02:14:38  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.56	1905900	PH	0.081	7.574
0.70	2335400	BB	0.069	9.281
1.02	89668	BB	0.061	0.356
1.23	333380	BB	0.104	1.325
1.57	671300	BB	0.084	2.668
1.84	272170	BB	0.182	1.082
2.47	46450	BB	0.000	0.185
2.62	54285	BB	0.000	0.216
2.97	53241	BB	0.155	0.212
3.25	86012	BB	0.139	0.342
3.52	73843	BB	0.140	0.294
3.93	925600	BB	0.195	3.679
4.63	383220	BB	0.178	1.523
4.96	184640	BB	0.156	0.416
5.94	395210	BB	0.172	1.571
6.54	1665800	BB	0.328	6.620
7.10	214130	BB	0.206	0.851
8.17	593100	BB	0.269	2.357
8.77	1865800	BB	0.315	7.415
9.93	2964600	BB	0.409	11.782
11.10	1765000	BB	0.487	7.014
12.52	2294100	BB	0.509	9.117
14.11	2741400	BB	0.557	10.895
15.14	209150	BB	0.610	0.831
16.42	69606	BB	0.486	0.277
17.93	715920	BB	0.727	2.845
20.07	428000	BB	0.738	1.701
21.55	472510	BB	0.764	1.878
24.18	987910	BB	0.954	3.688
27.83	525120	BB	1.152	2.087

TOTAL AREA= 2.5163E+07  
 MUL FACTOR= 1.0000E+00

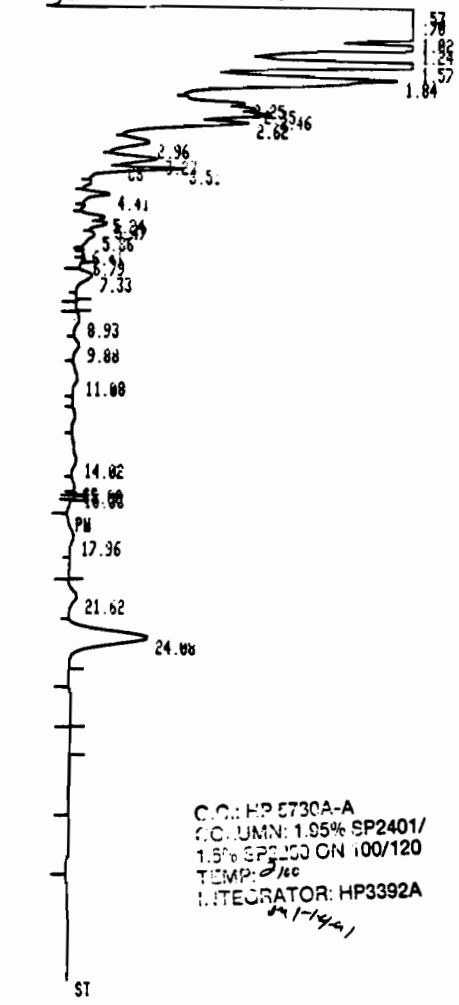


RUN # 59 JAN/12/91 03:15:01  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HI	AREA%
0.56	1654600	PB	0.082	6.693
0.70	2327300	BB	0.071	9.413
1.02	89440	BB	0.062	0.362
1.23	324500	BB	0.103	1.313
1.57	659560	BB	0.085	2.668
1.84	43246	BB	0.084	0.175
2.26	6589	BB	0.059	0.027
2.48	51170	BB	0.087	0.207
2.63	52112	BB	0.080	0.211
2.97	50463	BB	0.156	0.204
3.25	82996	BB	0.139	0.336
3.53	78928	BB	0.140	0.287
3.94	982340	BB	0.195	3.650
4.64	371030	BB	0.178	1.501
4.96	100490	BB	0.155	0.407
5.95	384010	BB	0.171	1.553
6.54	1618400	BB	0.328	6.546
7.10	204100	BB	0.203	0.826
8.17	1191200	BB	0.424	4.818
8.77	1807600	BB	0.314	7.311
9.93	2873100	BB	0.408	11.621
11.09	1704900	BB	0.487	6.896
12.51	2207700	BB	0.508	8.930
14.10	2659300	BB	0.557	10.756
15.14	200180	BB	0.604	0.810
16.42	66037	BB	0.478	0.267
17.33	699360	BB	0.726	2.828
20.07	413070	BB	0.736	1.671
21.55	454280	BB	0.762	1.837
24.09	945740	BB	0.959	3.825
27.83	508090	BB	1.147	2.055

TOTAL AREA= 2.4724E-07  
 MUL FACTOR= 1.0000E-00

5533-1 Y10 A10



C.O.: HP 5730A-A  
 C.O. COLUMN: 1.95% SP2401/  
 1.5% SP2100 ON 100/120  
 TEMP: 210C  
 INTEGRATOR: HP3392A  
 1/14/91

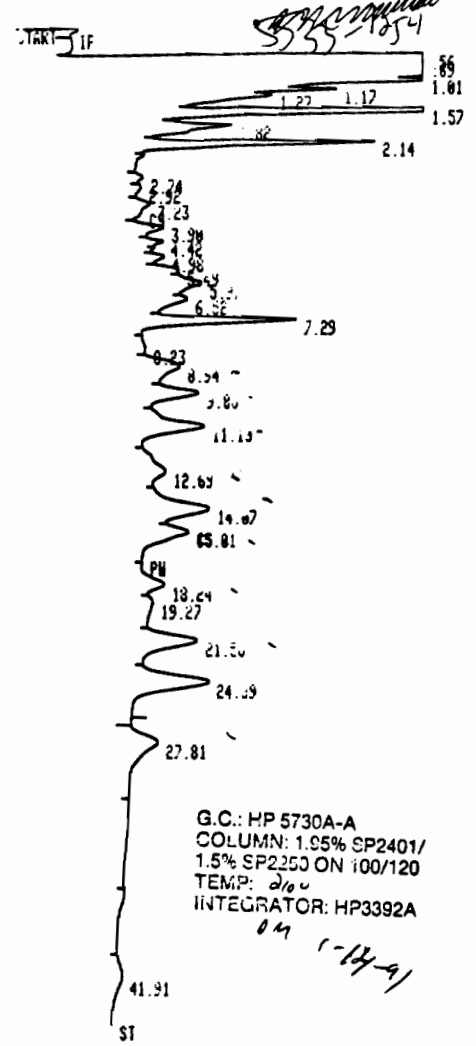
RUN # 00 JAN/12/91 04:15:24  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.53	4.5839E+07	SPB	0.098	94.581
1.02	27431	BB	0.039	0.057
1.24	284190	BB	0.090	0.586
1.57	578850	BB	0.087	1.194
1.84	317020	BB	0.170	0.654
2.35	5677	BB	0.052	0.012
2.46	28812	BB	0.075	0.060
2.62	43266	BB	0.071	0.089
2.96	49232	BB	0.151	0.182
3.27	49116	BB	0.116	0.101
3.51	91317	BB	0.131	0.188
4.41	49242	PB	0.184	0.182
5.24	14340	PB	0.128	0.030
5.47	17181	BB	0.153	0.036
5.86	20640	BB	0.306	0.043
7.33	51716	BB	0.357	0.187
8.93	17876	BB	0.489	0.037
9.88	22699	BB	0.397	0.047
11.00	26274	BB	0.545	0.054
14.02	36778	PB	0.748	0.076
15.00	13397	BB	0.447	0.028
17.96	51148	PB	1.005	0.186
21.62	70732	PB	0.862	0.146
24.00	759420	BB	0.957	1.567

TOTAL AREA= 4.3465E+07  
 MUL FACTOR= 1.0000E+00

5533-1 Y10 A10

SS332 VIALU

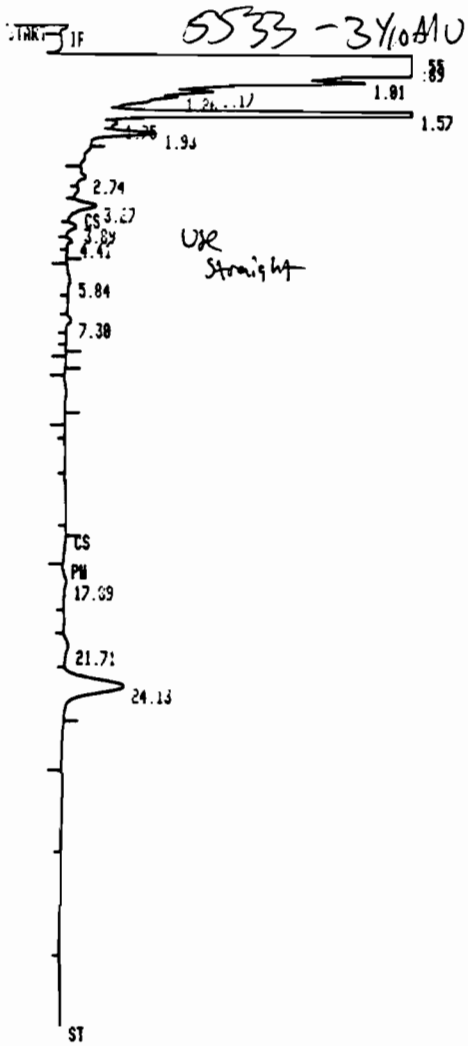


G.C.: HP 5730A-A  
 COLUMN: 1.05% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 210  
 INTEGRATOR: HP3392A

04  
 (-14-9)

RUN # 61                      JAN/12/91 05:15:47  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.56	1288700	PB	0.073	19.044
0.69	1081300	BB	0.068	15.980
1.01	40427	BB	0.041	0.597
1.17	27438	BB	0.043	0.406
1.27	20615	BB	0.092	0.385
1.57	487930	BB	0.077	7.211
1.82	32407	BB	0.134	1.366
2.14	220040	BB	0.096	3.252
2.74	6295	PB	0.093	0.093
2.92	5309	BB	0.124	0.080
3.23	35841	BB	0.241	0.530
3.90	61530	BB	0.254	0.909
4.42	16482	BB	0.138	0.244
4.98	24099	PB	0.202	0.368
5.49	16237	BB	0.204	0.240
5.97	73379	BB	0.315	1.084
6.52	35703	BB	0.253	0.528
7.29	336890	BB	0.230	4.979
8.23	5814	BB	0.306	0.086
8.94	145100	BB	0.517	2.144
9.88	155770	BB	0.359	2.302
11.10	284140	BB	0.485	4.199
12.69	103300	BB	0.620	1.528
14.07	254940	BB	0.525	3.768
15.01	172720	BB	0.608	2.553
18.24	111040	BB	0.601	1.641
19.27	49502	BB	0.800	0.732
21.58	428420	BB	0.817	6.331
24.09	666390	BB	0.937	9.848
27.81	375190	BB	1.328	5.545
41.91	142850	PP	1.775	2.111

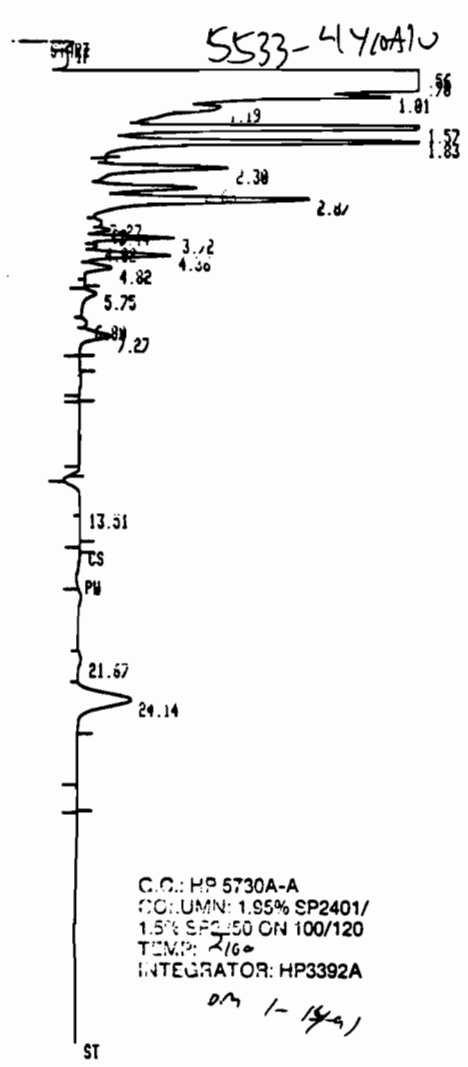


RUN # 62                      JAN/12/91 06:16:09  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.55	2010700	PB	0.001	44.827
0.69	1162300	BB	0.041	25.809
1.01	38898	BB	0.040	0.864
1.17	16583	BB	0.049	0.368
1.26	6011	BB	0.049	0.134
1.57	452340	BB	0.070	10.044
1.93	37242	BB	0.073	0.827
2.74	10178	BB	0.133	0.226
3.27	37063	PB	0.153	0.823
3.89	21044	BB	0.233	0.467
4.41	9435	BB	0.166	0.210
5.84	15642	BB	0.482	0.347
7.30	13656	VB	0.264	0.303
17.89	23909	PB	0.791	0.531
21.71	39330	PB	0.864	0.873
24.13	601040	BB	0.981	13.346

TOTAL AREA= 4503400  
 MUL FACTOR= 1.0000E+00



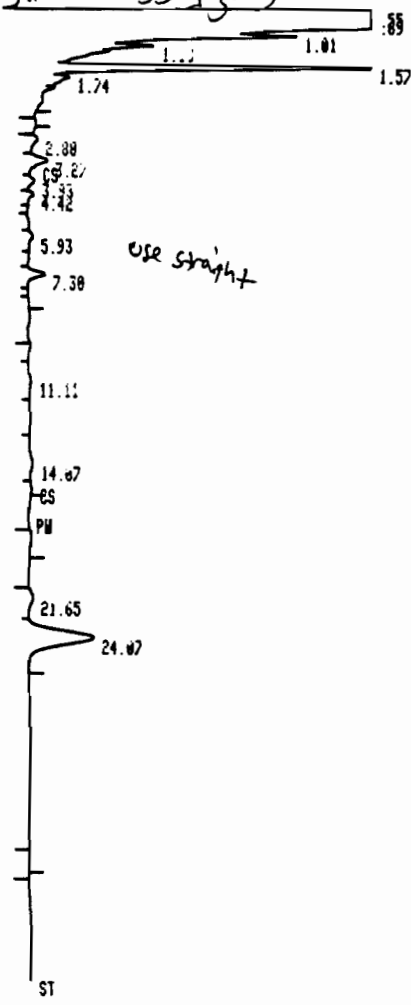


RUN # 63                      JAN/12/91 07:16:31  
WORKFILE ID: C  
WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.56	2221800	PB	0.083	41.081
0.70	864438	BB	0.050	15.983
1.01	35795	BB	0.042	0.662
1.19	44498	BB	0.140	0.823
1.57	401310	BB	0.078	7.420
1.83	284520	BB	0.091	5.261
2.30	136840	VB	0.108	2.530
2.66	86630	BB	0.098	1.602
2.87	254560	BB	0.127	4.707
3.44	14897	BB	0.115	0.275
3.72	114438	BB	0.142	2.116
4.36	154920	BB	0.193	2.864
4.82	53778	BB	0.211	0.994
5.75	38169	BB	0.244	0.558
6.80	6610	BB	0.182	0.122
7.27	74894	BB	0.277	1.385
13.51	65196	PB	2.447	1.205
21.67	33147	VB	0.904	0.613
24.14	529960	BB	0.968	9.799

TOTAL AREA= 5408100  
MUL FACTOR= 1.0000E+00

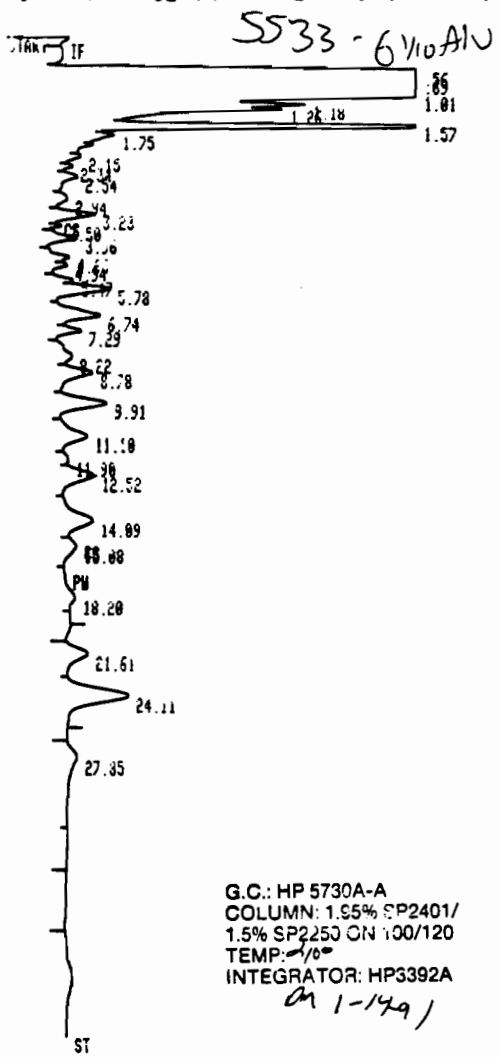
TAR IF 5533-5 1/10 AU



RUN # 04 JAN/12/91 08:16:53  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA#	RT	AREA	TYPE	AR/HT	AREA%
	0.55	2055400	PB	0.080	45.677
	0.69	1268400	BB	0.047	28.187
	1.01	37522	BB	0.045	0.834
	1.18	19012	BB	0.052	0.423
	1.57	278400	PB	0.078	6.189
	1.74	9763	BB	0.035	0.217
	2.88	7265	BB	0.136	0.162
	3.27	27374	BB	0.157	0.608
	3.93	15567	BB	0.270	0.346
	4.42	10532	BB	0.180	0.234
	5.93	12202	VB	0.289	0.271
	7.38	44481	PB	0.259	0.989
	11.11	14168	PB	0.493	0.315
	14.07	15385	PB	0.546	0.342
	21.65	37812	BB	0.820	0.840
	24.07	646400	BB	0.974	14.367

TOTAL AREA= 4499600  
 MUL FACTOR= 1.0000E+00

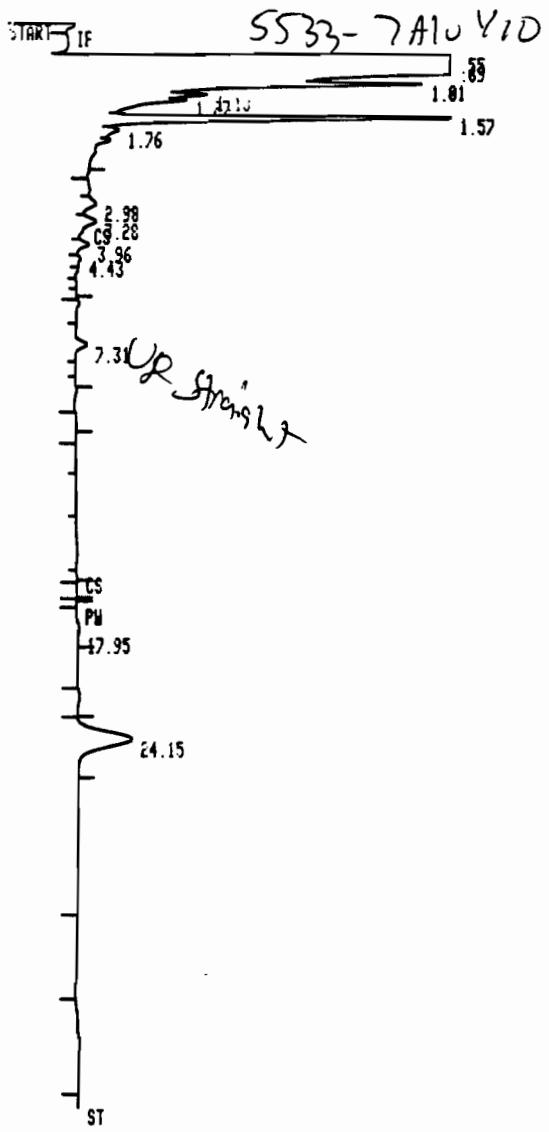


G.C.: HP 5730A-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 100  
 INTEGRATOR: HP3392A  
*on 1-149*

RUN # 65                      JAN/12/91 09:17:15  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.56	1837700	PB	0.079	20.588
0.69	4488100	BB	0.070	48.690
1.01	45957	BB	0.044	0.499
1.18	24838	BB	0.047	0.270
1.57	409910	BB	0.078	4.447
1.75	13903	BB	0.088	0.151
2.15	7787	PB	0.097	0.085
2.34	6259	BB	0.073	0.068
2.54	21530	BB	0.133	0.234
2.94	15335	BB	0.164	0.166
3.23	52738	BB	0.134	0.572
3.50	10625	BB	0.116	0.115
3.96	77968	BB	0.262	0.846
4.66	17028	BB	0.146	0.185
4.94	12009	BB	0.149	0.130
5.47	6033	BB	0.088	0.066
5.78	128880	BB	0.283	1.398
6.74	131190	BB	0.337	1.423
7.29	46759	BB	0.224	0.507
8.22	46134	BB	0.447	0.501
8.78	103270	BB	0.352	1.120
9.91	187590	BB	0.398	2.035
11.10	121520	BB	0.460	1.318
11.90	6516	BB	0.257	0.071
12.52	129880	BB	0.448	1.409
14.09	140690	BB	0.528	1.526
15.00	70775	BB	0.741	0.768
18.20	46607	BB	0.683	0.506
21.61	179810	PB	0.821	1.951
24.11	609200	BB	0.972	6.689
27.85	161150	BB	1.520	1.748

TOTAL AREA= 9217000



RUN # 68                      JAN/12/91 12:18:22  
 WORKFILE ID: C  
 WORKFILE NAME:

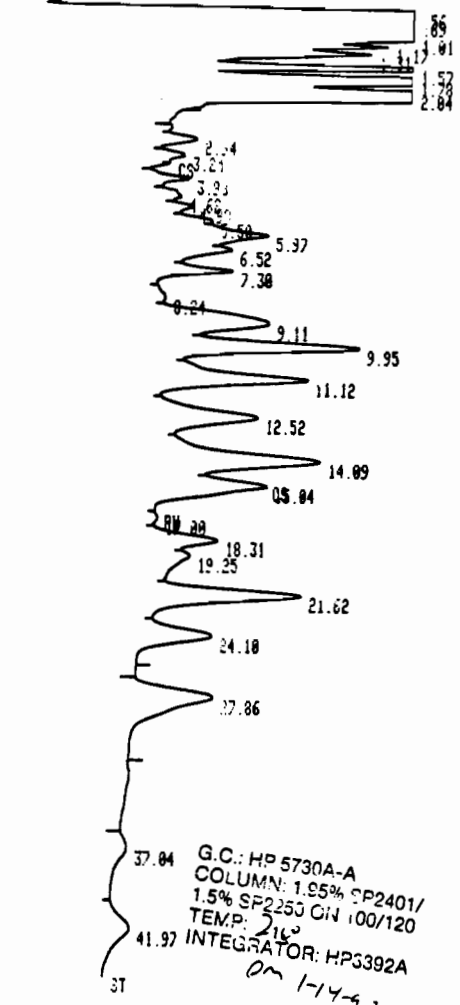
RT	AREA	TYPE	AR/HT	AREA%
0.55	1892400	PB	0.075	52.070
0.69	749400	BB	0.054	20.620
1.01	84291	BB	0.060	2.319
1.18	13022	BB	0.048	0.358
1.57	278600	BB	0.079	7.666
1.76	6835	BB	0.076	0.188
2.98	17567	VB	0.163	0.483
3.28	20126	BB	0.160	0.554
3.96	21203	BB	0.212	0.583
7.31	31699	PB	0.291	0.872
17.95	18979	PB	0.850	0.522
24.15	500230	PB	0.987	13.764

TOTAL AREA= 3634400  
 MUL FACTOR= 1.0000E+00

5533-8a10 Y10

002.

5533-8alu 4/10



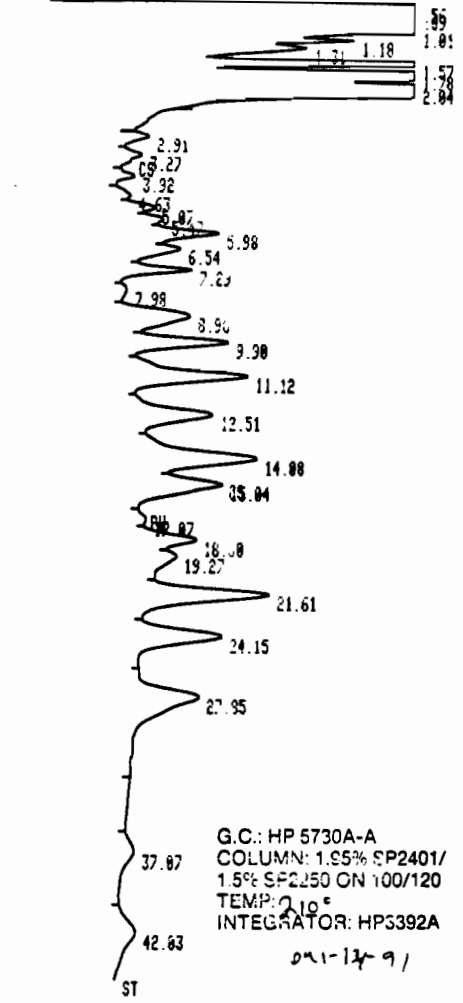
RUN # 69 JAN/12/91 13:18:43  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA%	RT	AREA	TYPE	HR/HT	AREA%
0.56	1691600	PS	0.074	8.757	
0.69	6742700	SP6	0.080	34.904	
1.01	38767	BB	0.036	0.201	
1.17	23670	BB	0.048	0.123	
1.31	79517	BB	0.037	0.412	
1.57	387420	BB	0.075	2.006	
1.78	710280	BB	0.107	3.677	
2.04	1713500	BB	0.122	8.070	
2.94	52763	VB	0.158	0.273	
3.24	24037	BB	0.121	0.124	
3.98	84029	PB	0.248	0.435	
4.62	39978	BB	0.327	0.207	
4.98	31141	BB	0.201	0.161	
5.50	15147	BB	0.198	0.078	
5.97	175600	BB	0.327	0.909	
6.52	53764	BB	0.235	0.270	
7.30	151620	BB	0.243	0.785	
8.24	13148	BB	0.327	0.068	
9.11	507530	BB	0.598	2.627	
9.95	653000	BB	0.387	3.380	
11.12	642740	BB	0.464	3.327	
12.52	513560	BB	0.569	2.659	
14.09	680250	BB	0.534	3.521	
15.04	491680	BB	0.661	2.545	
17.00	16732	BB	0.424	0.087	
18.31	290440	BB	0.614	1.504	
19.25	74746	BB	0.610	0.387	
21.62	1167200	BB	0.820	6.042	
24.10	600290	BB	0.910	3.107	
27.86	1101500	BB	1.375	5.702	
37.04	124290	BB	1.309	0.643	
41.97	425070	BP	1.875	2.200	

TOTAL AREA= 1.9318E+07  
 MUL FACTOR= 1.0000E+00

033

55339 A10V10



G.C.: HP 5730A-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 210°C  
 INTEGRATOR: HP3392A  
 01-12-91

RUN # 70                      JAN/12/91 14:19:05  
 WORKFILE ID: C  
 WORKFILE NAME:

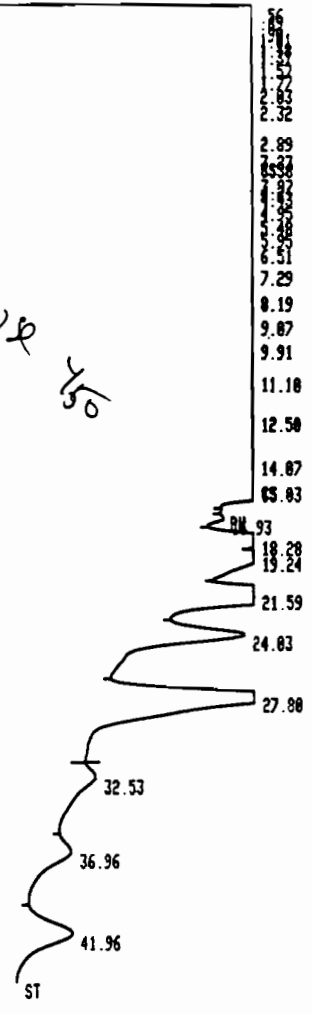
RT	AREA	TYPE	AR/HT	AREA%
0.56	1455900	FB	0.079	0.892
0.69	3708600	BB	0.070	22.650
1.01	47762	BB	0.041	0.292
1.18	27511	BB	0.050	0.168
1.31	49869	BB	0.110	0.305
1.57	641380	BB	0.076	3.917
1.78	1108600	BB	0.106	6.771
2.04	2492300	BB	0.120	15.222
2.91	25739	BB	0.139	0.157
3.27	38509	BB	0.204	0.235
3.92	39640	BB	0.242	0.242
4.63	14154	BB	0.236	0.087
5.07	41782	BB	0.254	0.255
5.47	24650	BB	0.210	0.151
5.98	167490	BB	0.283	1.023
6.54	80652	BB	0.309	0.493
7.29	156680	BB	0.254	0.957
7.98	22197	BB	0.376	0.136
8.96	332510	BB	0.556	2.031
9.90	326280	BB	0.360	1.993
11.12	543490	BB	0.477	3.319
12.51	379610	BB	0.527	2.319
14.08	529960	BB	0.543	3.237
15.04	449790	BB	0.721	2.747
17.07	19019	BB	0.443	0.116
18.30	232670	BB	0.604	1.421
19.27	85294	BB	0.640	0.521
21.61	1025900	BB	0.847	6.266
24.15	778060	BB	0.946	4.757
27.85	974530	BB	1.514	5.952
37.07	168970	VB	1.483	1.032
42.83	382950	BP	2.054	2.339

TOTAL AREA= 1.6377E+07

START 3 IF

5533 -10 A10410

UP 450

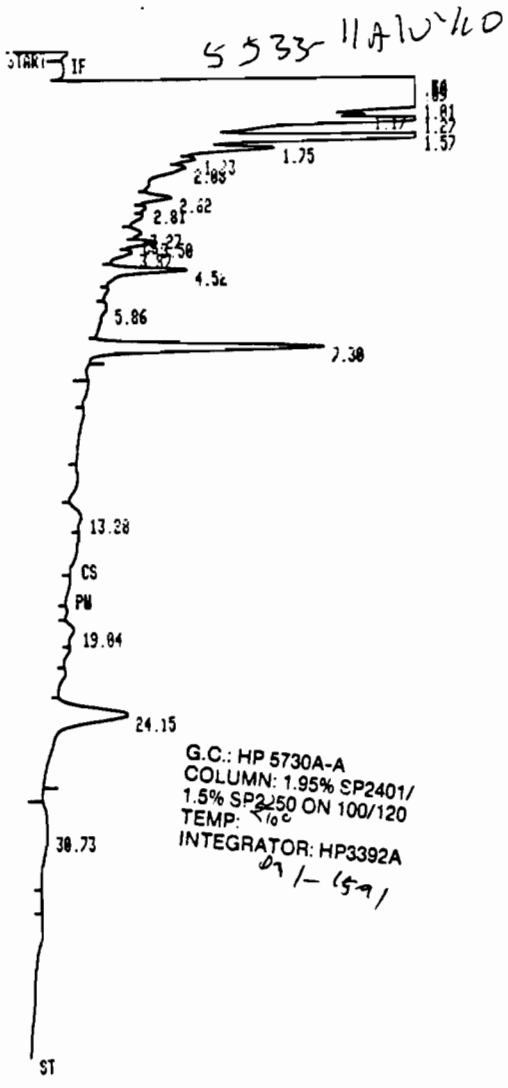


RUN # 71                      JAN/12/91 15:19:27  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA%	RT	AREA	TYPE	AR/HT	AREA%
0.56	0.56	1732700	PB	0.074	4.631
0.69	0.69	3672500	BB	0.082	9.816
0.90	0.90	29760	BB	0.047	0.080
1.01	1.01	308060	BB	0.054	0.823
1.18	1.18	194130	BB	0.055	0.519
1.31	1.31	225750	BB	0.079	0.603
1.57	1.57	537000	BB	0.071	1.435
1.77	1.77	1963000	BB	0.100	5.247
2.03	2.03	5716900	BB	0.113	15.280
2.89	2.89	149600	BB	0.234	0.400
3.23	3.23	48136	BB	0.102	0.129
3.38	3.38	29629	BB	0.153	0.079
3.97	3.97	268910	BB	0.286	0.719
4.43	4.43	101320	PB	0.274	0.271
4.95	4.95	53123	BB	0.159	0.142
5.48	5.48	16977	BB	0.113	0.045
5.95	5.95	378720	BB	0.314	1.012
6.51	6.51	285770	BB	0.245	0.558
7.29	7.29	4880700	BB	0.234	13.045
8.19	8.19	43741	BB	0.277	0.117
9.07	9.07	1142500	BB	0.588	3.054
9.91	9.91	1309700	BB	0.374	3.501
11.10	11.10	1703700	BB	0.464	4.554
12.50	12.50	1166900	BB	0.538	3.119
14.07	14.07	1693200	BB	0.536	4.526
15.03	15.03	1254900	BB	0.707	3.354
16.93	16.93	49368	VB	0.454	0.132
18.28	18.28	708680	BB	0.607	1.894
19.24	19.24	316000	BB	0.810	0.845
21.59	21.59	2754100	BB	0.805	7.361
24.03	24.03	751760	BB	0.816	2.009
27.00	27.00	2680300	BB	1.315	7.164
32.53	32.53	236160	BB	1.360	0.631
36.96	36.96	263900	BB	1.226	0.706
41.96	41.96	826310	BP	1.684	2.209

TOTAL AREA: 7.7444E+07

025

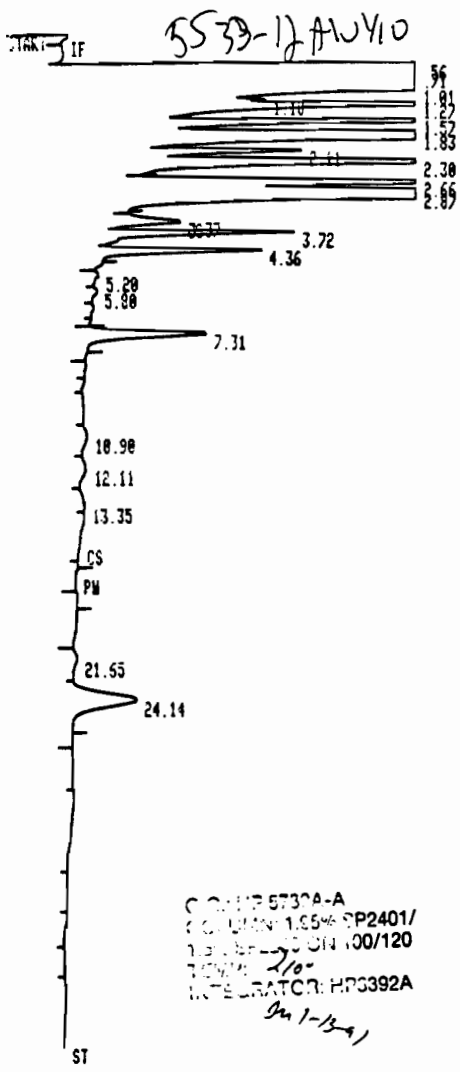


RUN # 72                      JAN/12/91 16:19:58  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.56	76248	PB	0.020	0.729
0.60	97561	BB	0.033	0.933
0.69	7439688	SPB	0.069	71.118
1.17	6976	BB	0.035	0.067
1.27	266700	BB	0.063	2.549
1.57	598030	BB	0.078	5.716
1.75	50139	BB	0.078	0.479
1.93	7999	BB	0.070	0.077
2.62	30203	BB	0.106	0.289
3.27	10331	PB	0.109	0.099
3.50	44897	BB	0.205	0.429
3.87	17678	BB	0.191	0.169
4.52	171298	BB	0.220	1.637
5.86	26845	PB	0.559	0.257
7.30	591090	BB	0.255	5.650
13.28	37925	PB	0.510	0.363
19.04	48968	PB	0.709	0.468
24.15	773998	PB	1.048	7.398
30.73	165690	BB	2.913	1.584

TOTAL AREA= 1.0462E+07

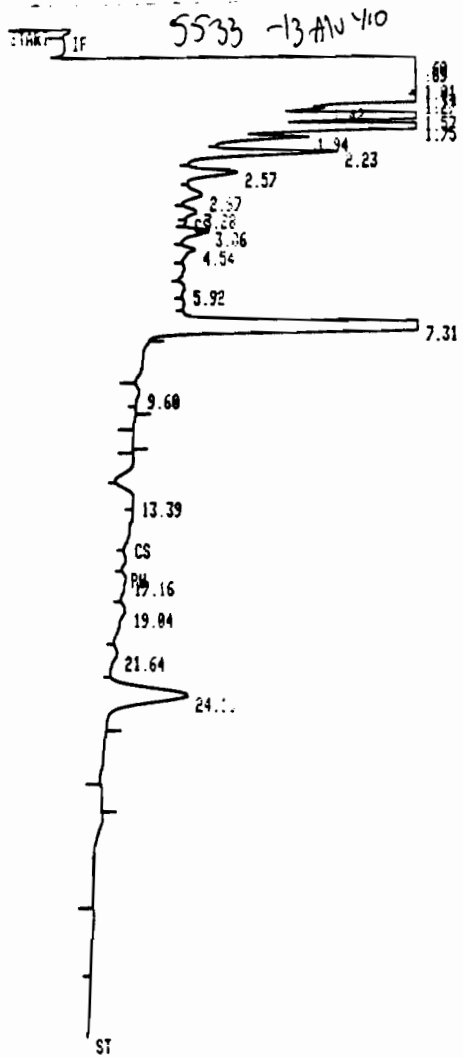




RUN # 73                      JAN/12/91 17:20:12  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.56	1468500	PB	0.081	11.723
0.71	632570	BB	0.047	5.050
1.01	28016	BB	0.034	0.230
1.27	446470	BB	0.069	3.564
1.57	455780	BB	0.076	3.638
1.83	4675300	BB	0.092	37.321
2.11	109330	BB	0.081	0.873
2.30	481120	BB	0.099	3.841
2.66	331000	PB	0.093	2.649
2.87	2195300	BB	0.118	17.524
3.37	87599	BB	0.149	0.699
3.72	292680	BB	0.161	2.336
4.36	276010	BB	0.175	2.203
5.20	11099	BB	0.266	0.089
5.80	11573	BB	0.241	0.092
7.31	307280	BB	0.263	2.453
10.90	29272	VB	0.579	0.234
12.11	30280	BB	0.555	0.242
13.35	8336	BB	0.539	0.067
21.65	34671	BB	0.788	0.277
24.14	613430	BB	0.954	4.897

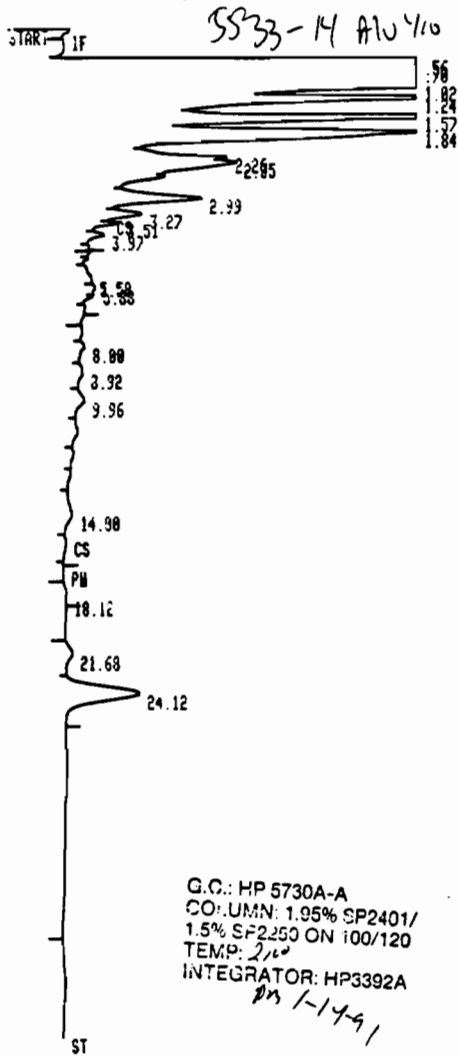
TOTAL AREA= 1.2527E+07  
 MUL FACTOR= 1.0000E+00



RUN # 74                      JAN/12/91 18:20:34  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA*
0.60	1442500	PB	0.104	6.617
0.69	1.2435E+07	SPB	0.081	57.040
1.01	5384	BB	0.005	0.025
1.27	692050	BB	0.068	3.175
1.42	6317	BB	0.047	0.029
1.57	923490	BB	0.081	4.236
1.75	547410	BB	0.085	2.511
1.94	48028	BB	0.074	0.224
2.23	134690	BB	0.101	0.618
2.57	60058	BB	0.122	0.276
2.97	28953	BB	0.168	0.133
3.28	16789	BB	0.129	0.077
3.86	64171	PB	0.266	0.294
4.54	34529	BB	0.257	0.158
5.92	15433	PB	0.320	0.071
7.31	4383300	VB	0.248	20.107
9.60	14197	PB	0.355	0.065
13.39	37477	PB	0.537	0.172
17.16	44616	PB	0.950	0.205
19.04	70305	BB	1.199	0.323
21.64	34976	BB	0.752	0.160
24.15	759790	BB	0.961	3.485

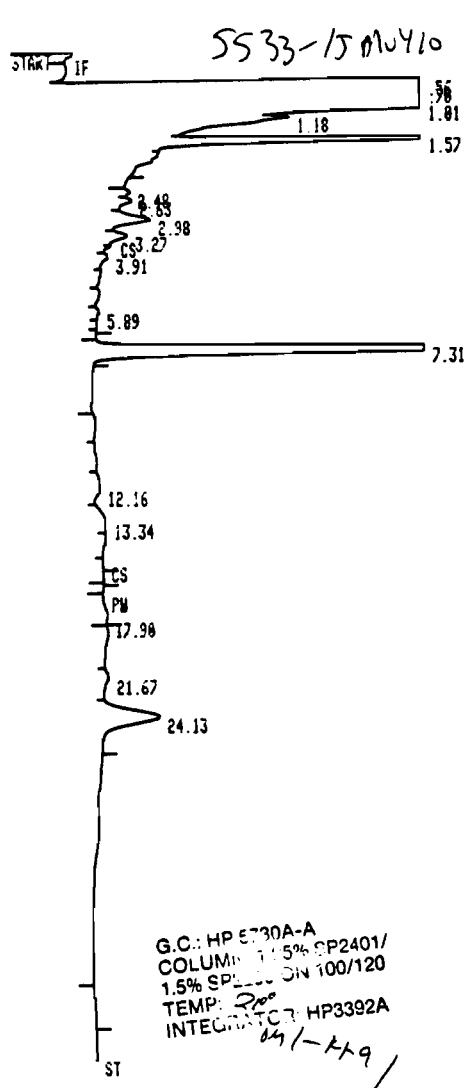
TOTAL AREA= 2.1800E+07  
 MUL FACTOR= 1.0000E+00



RUN # 75                      JAN/12/91 19:28:56  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.56	1888380	PB	0.084	33.293
0.78	938740	BB	0.064	17.283
1.82	388128	BB	0.081	5.526
1.84	249788	BB	0.182	4.597
1.57	487678	BB	0.086	8.979
1.84	481838	BB	0.178	8.871
2.35	32173	BB	0.111	0.592
2.99	125788	PB	0.148	2.314
3.27	37555	BB	0.119	0.691
3.51	18768	BB	0.112	0.346
3.97	26887	BB	0.192	0.488
5.58	6426	PB	0.538	0.118
5.88	5469	BB	0.174	0.181
8.80	15297	VB	0.318	0.282
8.92	28399	BB	0.442	0.376
9.96	35124	BB	0.452	0.647
14.98	45451	PB	0.711	0.837
18.12	13769	PB	0.778	0.254
21.68	58917	BB	0.841	1.085
24.12	724888	BB	0.969	13.338

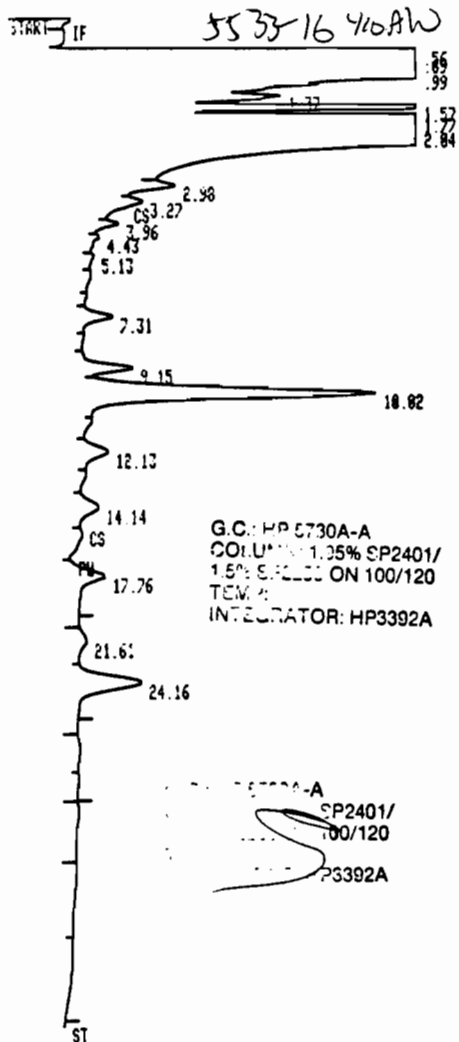
TOTAL AREA= 5431588  
 MUL FACTOR= 1.0000E+00



RUN # 76                      JAN/12/91 20:21:19  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.56	1907500	PB	0.080	28.071
0.70	1787000	BB	0.069	26.298
1.01	69809	BB	0.054	1.027
1.18	18721	BB	0.062	0.276
1.57	419720	BB	0.078	6.177
2.63	7655	BB	0.090	0.113
2.98	52354	BB	0.151	0.771
3.27	19013	BB	0.123	0.280
3.91	14165	PB	0.273	0.209
5.89	6428	PB	0.211	0.095
7.31	1024400	BB	0.244	26.848
12.16	45693	VB	0.817	0.672
13.34	24631	BB	0.562	0.363
17.90	14639	PB	0.610	0.215
21.67	35348	PB	0.809	0.520
24.13	548150	BB	0.962	8.067

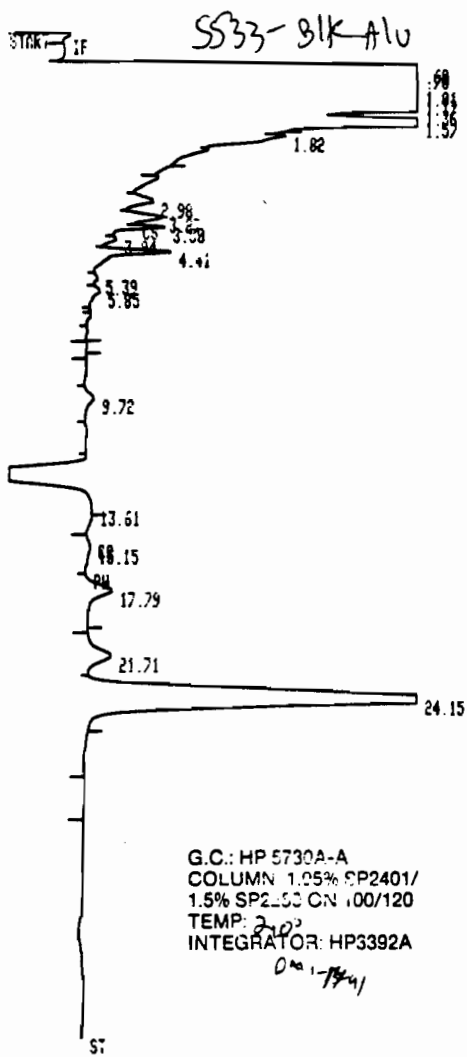
TOTAL AREA= 6795200  
 MUL FACTOR= 1.0000E+00



RUN # 77 JAN/12/91 21:21:41  
WORKFILE ID: C  
WORKFILE NAME:

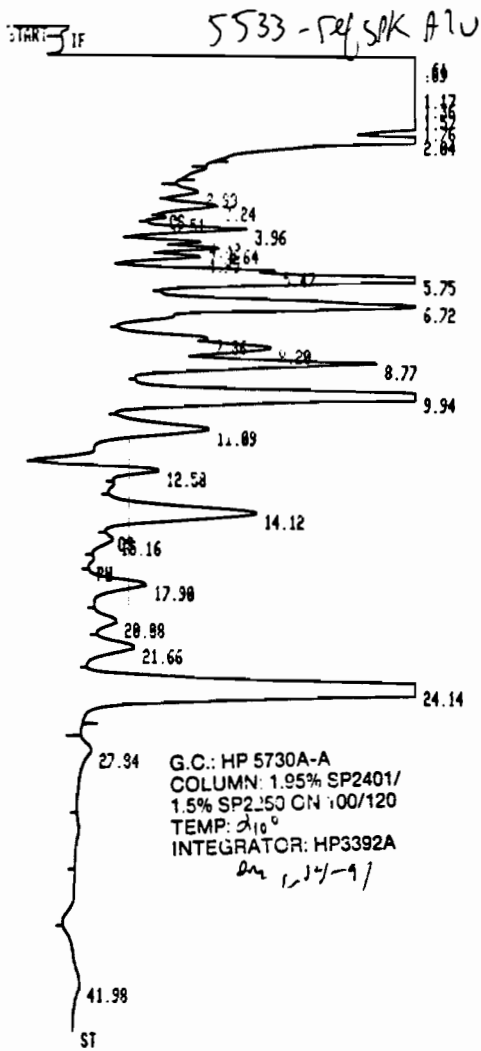
RT	AREA	TYPE	AR/HT	AREA%
0.56	1456800	PB	0.073	4.606
0.69	1.2790E+07	SPB	0.076	43.597
0.99	58634	BB	0.028	0.185
1.37	58227	PB	0.107	0.184
1.57	386130	BB	0.073	1.221
1.77	2759700	BB	0.103	8.725
2.04	1.0354E+07	BB	0.109	32.734
2.98	35557	BB	0.119	0.112
3.27	22706	BB	0.122	0.072
3.96	33818	BB	0.205	0.107
4.43	11272	BB	0.231	0.036
5.13	9522	BB	0.263	0.030
7.31	90309	PB	0.315	0.286
9.15	123010	PB	0.285	0.389
10.02	1200700	BB	0.422	3.796
12.13	106230	PB	0.458	0.336
14.14	98407	PB	0.527	0.311
17.76	341320	PB	1.04+	1.079
21.61	74615	BB	0.935	0.236
24.16	619430	BB	0.975	1.958

TOTAL AREA= 3.1630E+07  
MUL FACTOR= 1.0000E+00



RUN # 80                      JAN/13/91 08:22:49  
WORKFILE ID: C  
WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.60	2846000	PB	0.054	25.858
1.01	44436	BB	0.043	0.391
1.17	86033	BB	0.050	0.758
1.36	47972	BB	0.059	0.422
1.57	2828000	BB	0.079	24.899
1.82	31524	BB	0.169	0.278
2.98	32816	PB	0.142	0.289
3.27	34628	BB	0.116	0.305
3.50	38513	BB	0.107	0.339
3.94	15284	BB	0.216	0.135
4.41	152420	BB	0.219	1.342
5.39	8715	BB	0.228	0.077
5.85	23955	BB	0.317	0.211
9.72	43377	PB	0.472	0.382
13.61	420330	PB	1.702	3.701
15.15	43920	BB	1.073	0.387
17.79	241870	BB	0.916	2.130
21.71	212210	BB	0.901	1.968
24.15	4205800	BB	0.960	37.030



RUN # 81 JAN/13/91 01:23:12  
 WORKFILE ID: C  
 WORKFILE NAME:

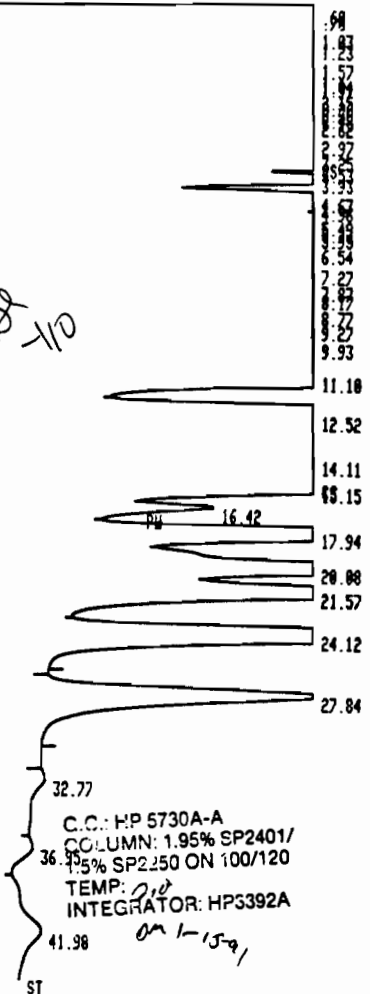
RT	AREA	TYPE	AR/HT	AREA%
0.61	3003600	SPB	0.043	13.723
1.17	123060	BB	0.045	0.562
1.36	100690	BB	0.060	0.460
1.57	3460700	BB	0.079	15.811
1.76	104930	BB	0.101	0.479
2.04	429530	BB	0.088	1.962
2.99	36313	BB	0.132	0.166
3.24	72981	BB	0.136	0.333
3.51	14393	BB	0.114	0.066
3.96	240950	BB	0.222	1.101
4.42	54989	BB	0.127	0.251
4.64	71243	BB	0.140	0.326
4.95	94515	BB	0.175	0.432
5.47	24766	BB	0.070	0.113
5.75	780060	BB	0.274	3.600
6.72	1195100	BB	0.400	5.460
8.20	209040	BB	0.295	0.955
8.77	590490	BB	0.290	2.698
9.94	1853300	BB	0.442	8.467
11.09	880990	BB	0.719	4.025
12.58	206220	BB	0.346	1.308
14.12	814520	PB	0.542	3.721
15.16	68053	BB	0.580	0.311
17.90	403460	PB	0.741	1.843
20.08	143480	BB	0.677	0.656
21.66	337550	BB	0.795	1.542
24.14	5931300	BB	0.963	27.098
27.84	150530	BB	1.305	0.688
41.98	403530	PP	3.467	1.844

TOTAL AREA= 2.1888E+07  
 MUL FACTOR= 1.0000E+00

START IF

SS3-ins JW

UX -110



C.C.: HP 5730A-A  
 COLUMN: 1.95% SP2401/  
 95% SP2250 ON 100/120  
 TEMP: 210  
 INTEGRATOR: HPS392A  
 on 1-15-91

RUN # 32                      JAN/13/91 02:23:35  
 WORKFILE ID: C  
 WORKFILE NAME:

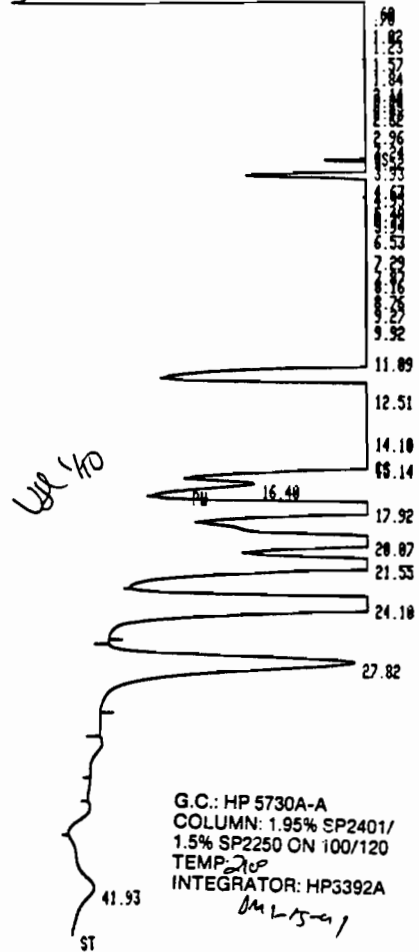
RT	AREA	TYPE	AR/HT	AREA%
0.60	3568100	PB	0.087	2.744
0.70	1.3781E+07	SPB	0.067	10.598
1.03	355270	BB	0.063	0.273
1.23	1763300	BB	0.103	1.356
1.57	3756500	BB	0.086	2.889
1.84	220730	BB	0.079	0.170
2.26	35100	BB	0.057	0.027
2.48	308510	BB	0.081	0.237
2.62	334330	BB	0.078	0.257
2.97	334240	BB	0.151	0.257
3.25	416960	BB	0.138	0.321
3.53	428730	BB	0.141	0.330
3.93	4653000	BB	0.194	3.578
4.63	1968500	BB	0.173	1.514
4.96	603260	BB	0.157	0.464
5.73	378950	BB	0.117	0.291
5.95	1931700	BB	0.169	1.486
6.54	8328300	BB	0.329	6.405
7.27	3060400	BB	0.299	2.354
7.87	160460	BB	0.164	0.123
8.17	3191500	BB	0.270	2.454
8.77	9390400	BB	0.310	7.221
9.27	41396	BB	0.150	0.032
9.93	1.4759E+07	BB	0.408	11.350
11.10	9272600	BB	0.495	7.131
12.52	1.1389E+07	BB	0.526	8.759
14.11	1.4401E+07	BB	0.559	11.075
15.15	1275300	BB	0.615	0.981
16.42	422090	BB	0.482	0.325
17.94	4138100	BB	0.731	3.182
20.08	2596700	BB	0.739	1.997
21.57	2845600	BB	0.757	2.108
24.12	5653000	BB	0.949	4.347
27.84	3234300	BB	1.148	2.487
32.77	24542	BB	0.385	0.019
36.95	123120	BB	1.147	0.095
41.98	889830	I BB	2.963	0.684

TOTAL AREA= 1.3004E+08  
 MUL FACTOR= 1.0000E+00



STAR-1F

5533-1msd ALU



G.C.: HP 5730A-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 70  
 INTEGRATOR: HP3392A

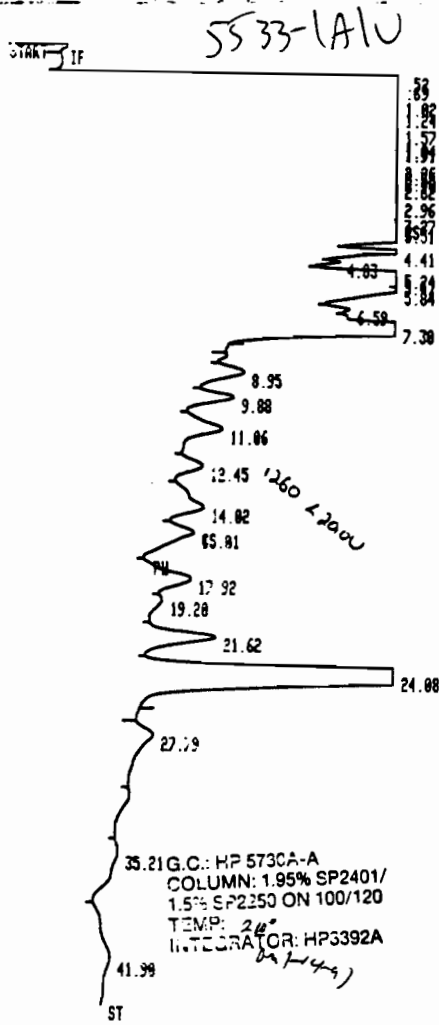
*Jan 13 1991*

RUN # 83 JAN/13/91 03:23:58  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.60	2109500	PB	0.059	1.699
0.70	1.3416E+07	SPB	0.067	10.803
1.02	316760	BB	0.062	0.255
1.23	1623800	BB	0.103	1.308
1.57	3524600	BB	0.086	2.838
1.84	217320	BB	0.081	0.175
2.26	34907	BB	0.058	0.028
2.47	289720	BB	0.081	0.233
2.62	311280	BB	0.078	0.251
2.96	309010	BB	0.151	0.249
3.24	388000	BB	0.137	0.313
3.52	399080	BB	0.141	0.321
3.93	4369300	BB	0.133	3.518
4.63	1837000	BB	0.172	1.479
4.95	558280	BB	0.156	0.450
5.73	335950	BB	0.115	0.271
5.94	1837400	BB	0.169	1.479
6.53	7864200	BB	0.328	6.332
7.29	5536000	BB	0.270	4.458
7.87	184130	BB	0.250	0.148
8.16	3017700	BB	0.270	2.430
8.76	8886900	BB	0.318	7.156
9.27	39218	BB	0.146	0.032
9.92	1.3966E+07	BB	0.407	11.245
11.09	8712100	BB	0.493	7.015
12.51	1.0875E+07	BB	0.524	8.756
14.10	1.3562E+07	BB	0.559	10.920
15.14	1178200	BB	0.611	0.949
16.40	389820	BB	0.483	0.314
17.92	3879400	BB	0.730	3.124
20.07	2413500	BB	0.739	1.943
21.55	2648200	BB	0.759	2.132
24.10	5561800	BB	0.951	4.470
27.82	2981500	BB	1.144	2.401
41.93	623360	PP	2.534	0.502

TOTAL AREA= 1.2420E+08  
 MUL FACTOR= 1.0000E+00

5533-1ALU



RUN # 84                      JAN/13/91 04:24:21  
 WORKFILE ID: C  
 WORKFILE NAME:

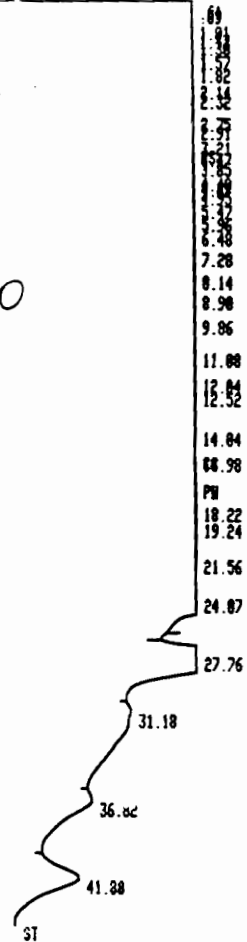
RT	AREA	TYPE	AR/HT	AREA%
0.52	4.7893E+07	SPB	0.119	63.651
1.02	302690	BB	0.052	0.402
1.24	1870300	BB	0.089	2.486
1.57	4201500	BB	0.090	5.584
1.84	372200	BB	0.077	0.495
2.36	22202	BB	0.051	0.030
2.46	200110	BB	0.079	0.372
2.62	316500	BB	0.066	0.421
2.96	373200	BB	0.143	0.496
3.27	254200	BB	0.116	0.338
3.51	401510	BB	0.082	0.534
4.41	242750	BB	0.189	0.323
4.83	23565	BB	0.128	0.031
5.24	114430	BB	0.120	0.152
5.47	165840	BB	0.155	0.220
5.84	80032	BB	0.291	0.106
6.59	25033	BB	0.167	0.033
7.30	8018900	BB	0.259	10.657
8.95	155870	PB	0.437	0.207
9.88	158700	BB	0.381	0.211
11.06	222300	BB	0.552	0.296
12.45	121340	BB	0.473	0.161
14.02	247490	BB	0.724	0.329
15.01	294850	BB	0.917	0.392
17.92	380160	BB	0.942	0.505
19.20	47461	BB	0.736	0.063
21.62	624100	BB	0.866	0.829
24.00	6679300	BB	0.964	8.877
27.79	276210	BB	1.371	0.367
35.21	350170	VB	2.987	0.465
41.90	727210	BH	3.365	0.967

TOTAL AREA= 7.5243E+07

STRA-IF

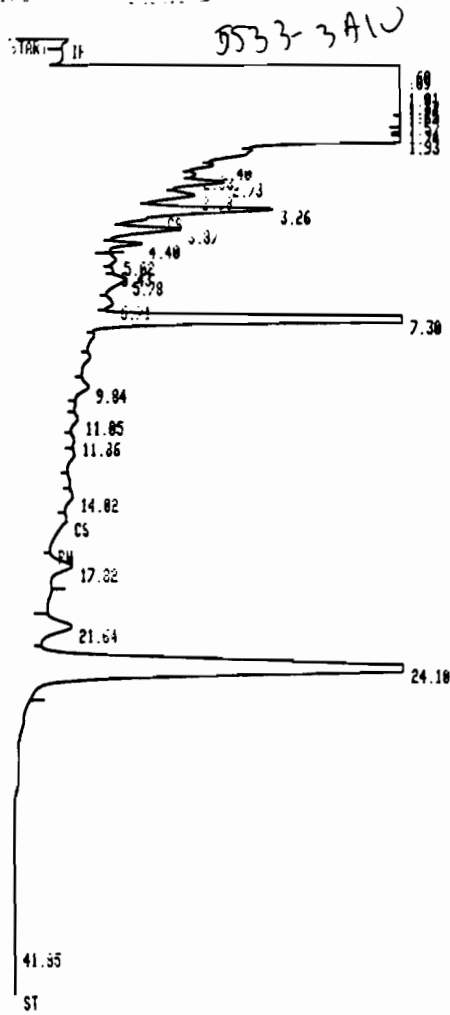
55332 AU

U2 410



RUN # 85                      JAN/13/91 05:24:44  
 WORKFILE ID: C  
 WORKFILE NAME:

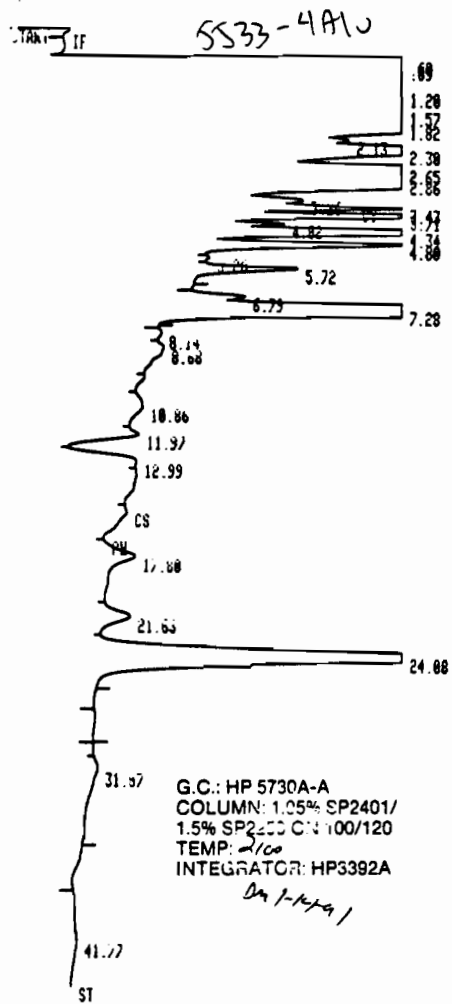
RT	AREA	TYPE	AR/HT	AREA%
0.61	756250	PB	0.074	1.028
0.69	7760800	SPB	0.074	10.552
1.01	180820	BB	0.046	0.246
1.17	187580	BB	0.047	0.255
1.30	154960	BB	0.087	0.211
1.57	3730000	BB	0.088	5.072
1.82	213840	BB	0.065	0.290
2.14	1518300	PB	0.092	2.065
2.32	31224	BB	0.076	0.043
2.75	9495	PB	0.051	0.013
2.91	85507	BB	0.155	0.116
3.21	70251	BB	0.116	0.096
3.47	216160	BB	0.133	0.294
3.85	371800	BB	0.252	0.506
4.40	64346	BB	0.150	0.088
4.61	18999	BB	0.121	0.026
4.95	141890	BB	0.183	0.192
5.47	102040	BB	0.205	0.139
5.96	379810	BB	0.304	0.516
6.48	98754	BB	0.180	0.134
7.28	3.9846E+07	BB	0.260	54.179
8.14	19653	BB	0.206	0.027
8.90	841410	BB	0.524	1.144
9.86	888390	BB	0.352	1.208
11.88	1667700	BB	0.476	2.268
12.04	19928	BB	0.227	0.027
12.52	330590	BB	0.455	0.450
14.04	1597800	BB	0.539	2.173
14.98	661040	BB	0.391	0.899
18.22	790610	BB	0.673	1.075
19.24	325320	BB	0.861	0.442
21.56	2693800	BB	0.797	3.663
24.07	4063900	BB	0.919	5.526
27.76	2283900	BB	1.264	3.105
31.18	416450	BB	3.814	0.566
36.82	141670	BB	0.945	0.193
41.88	865820	1 BP	1.723	1.177



RUN # 36                      JAN/13/91 06:25:07  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	HR/MI	AREA%
0.60	3111900	PB	0.062	14.010
0.69	7488300	SPB	0.041	33.714
1.01	188900	BB	0.057	0.851
1.17	125420	BB	0.050	0.565
1.26	28094	BB	0.043	0.127
1.35	13360	BB	0.027	0.060
1.57	3187200	BB	0.078	14.349
1.74	16368	BB	0.050	0.074
1.93	315010	VB	0.084	1.418
2.40	9157	PB	0.081	0.041
2.73	39969	BB	0.093	0.180
2.98	42060	BB	0.121	0.189
3.26	218910	BB	0.158	0.986
3.87	154768	BB	0.232	0.697
4.40	53998	BB	0.161	0.243
5.02	17122	BB	0.254	0.077
5.78	56135	BB	0.374	0.253
6.71	25937	BB	0.313	0.117
7.30	1952700	BB	0.257	8.792
9.84	43084	VB	0.407	0.194
11.05	22079	VB	0.385	0.099
11.86	8595	BB	0.389	0.039
14.82	33276	VB	0.504	0.150
17.82	164360	PB	0.730	0.740
21.64	230010	BB	0.794	1.036
24.18	4589600	BB	0.950	20.663
41.85	75098	BP	2.025	0.338

TOTAL AREA= 2.2211E+07  
 MUL FACTOR= 1.0000E+00

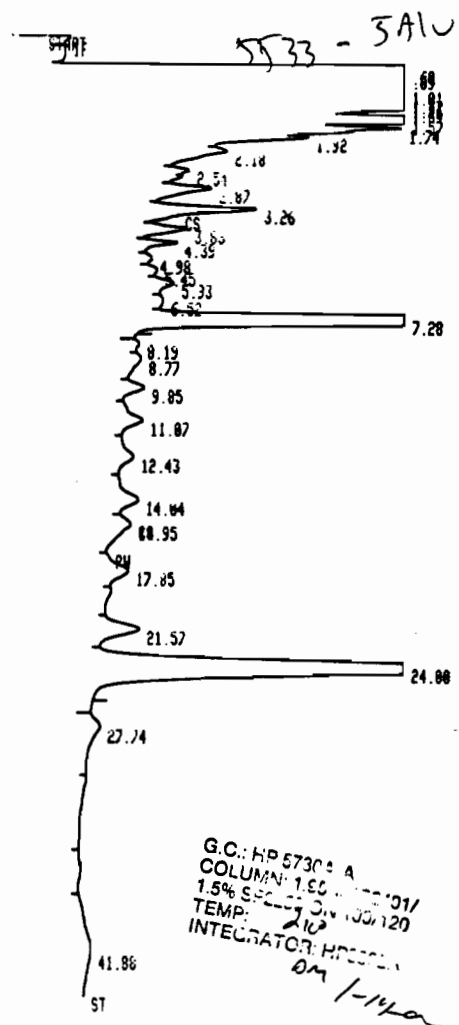


G.C.: HP 5730A-A  
 COLUMN: 1.25% SP2401/  
 1.5% SP2100 ON 100/120  
 TEMP: 2100  
 INTEGRATOR: HP3392A  
*On 1-14-91*

RUN # 87      JAN/13/91 07:25:30  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HI	AREA%
0.60	3742300	PB	0.071	10.124
0.69	5585600	SPB	0.031	15.110
1.20	359200	BB	0.147	0.972
1.57	2994300	BB	0.070	3.100
1.82	2314900	BB	0.091	6.262
2.30	1125700	BB	0.105	3.045
2.65	752190	BB	0.090	2.035
2.86	1943700	BB	0.120	5.250
3.26	18713	BB	0.000	0.051
3.43	154970	BB	0.119	0.419
3.71	917410	BB	0.143	2.402
4.02	33959	BB	0.090	0.092
4.34	1185000	BB	0.131	3.206
4.80	459660	BB	0.210	1.244
5.26	5250	BB	0.121	0.014
5.72	220200	BB	0.210	0.596
6.79	41787	PB	0.165	0.113
7.28	9520100	BB	0.264	25.754
8.14	11043	BB	0.250	0.030
8.68	63904	BB	0.639	0.173
10.86	68845	PB	0.636	0.196
11.97	143950	BB	0.369	0.389
12.99	92525	BB	0.455	0.250
17.80	367260	PB	1.101	0.994
21.63	236760	BB	0.818	0.641
24.88	4256100	BB	0.952	11.514
31.87	172620	PB	2.103	0.467
41.77	177850	BP	3.455	0.481

TOTAL AREA= 3.6966E+07



RUN # 88      JAN/13/91 08:25:54  
 WORKFILE ID: C  
 WORKFILE NAME:

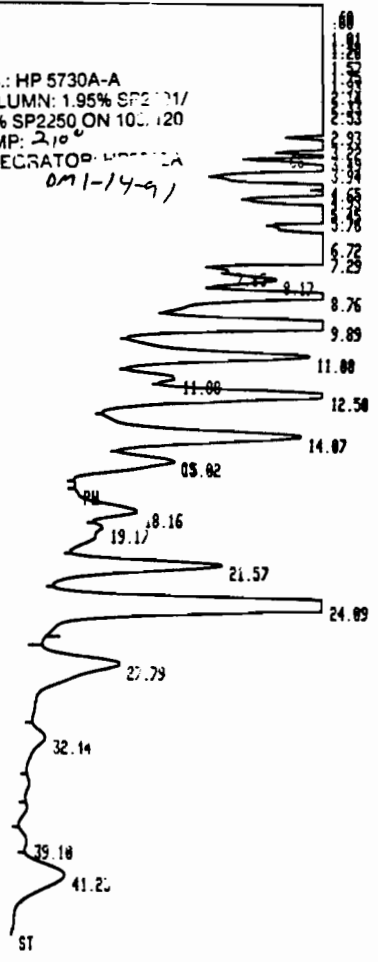
RT	AREA	TYPE	AR/HT	AREA%
0.60	3457000	PP	0.069	12.620
0.69	7441500	SPB	0.045	27.165
1.01	110670	BB	0.042	0.404
1.17	146010	BB	0.052	0.533
1.26	17169	BB	0.040	0.063
1.57	2099700	BB	0.076	7.665
1.74	32450	BB	0.053	0.119
1.92	8576	FB	0.026	0.031
2.18	37013	BB	0.143	0.135
2.54	9036	BB	0.074	0.033
2.87	71503	FB	0.140	0.261
3.26	176010	BB	0.166	0.643
3.86	110970	BB	0.269	0.405
4.39	66070	BB	0.191	0.241
4.98	14612	BB	0.244	0.053
5.45	16106	BB	0.262	0.059
5.93	52116	BB	0.200	0.190
6.52	12505	BB	0.326	0.046
7.28	7150500	BB	0.260	26.103
8.19	11736	BB	0.230	0.043
8.77	42372	BB	0.500	0.155
9.85	69044	BB	0.351	0.252
11.07	107010	BB	0.496	0.391
12.43	76356	BB	0.534	0.279
14.04	101590	BB	0.512	0.371
14.95	121250	BB	0.040	0.443
17.85	195230	BB	0.941	0.713
21.57	325040	FB	0.036	1.190
24.00	4818000	BB	0.970	17.591
27.74	144990	BB	1.291	0.529
41.86	350110	PP	3.270	1.270

TOTAL AREA= 2.7394E+07  
 MUL FACTOR= 1.0000E+00

STRT IF

5533-6A1U

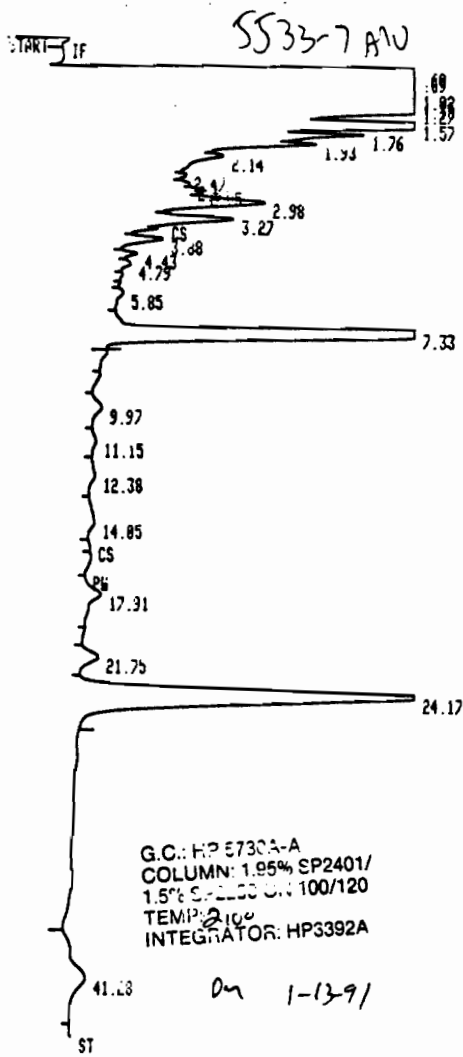
G.C.: HP 5730A-A  
COLUMN: 1.95% SP2250/1.5% SP2250 ON 100.120  
TEMP: 2.10  
INTEGRATOR: HP-MS-A  
01-14-91



RUN # 89                      JAN/13/91 09:26:18  
WORKFILE ID: C  
WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.60	2077200	PB	0.047	2.909
0.68	3.2428E+07	TSPB	0.081	45.409
1.01	244970	BB	0.054	0.343
1.18	255210	BB	0.049	0.357
1.57	3057300	BB	0.076	4.281
1.75	91516	BB	0.038	0.128
1.93	26944	BB	0.035	0.038
2.14	160050	BB	0.036	0.224
2.33	51680	BB	0.024	0.072
2.53	151750	BB	0.123	0.213
2.93	163260	PB	0.170	0.229
3.22	336590	BB	0.125	0.471
3.49	106980	BB	0.120	0.150
3.94	555980	BB	0.277	0.779
4.65	117980	BB	0.129	0.165
4.93	106940	BB	0.157	0.150
5.45	34038	BB	0.067	0.049
5.76	884160	BB	0.280	1.238
6.72	749070	BB	0.294	1.050
7.29	1.5333E+07	BB	0.259	21.470
7.85	8610	BB	0.138	0.012
8.17	165330	BB	0.282	0.232
8.76	713460	BB	0.346	0.999
9.89	1347400	BB	0.404	1.887
11.00	856350	BB	0.444	1.199
11.00	79013	BB	0.269	0.111
12.50	981230	BB	0.438	1.374
14.07	1052500	BB	0.529	1.474
15.02	530920	BB	0.734	0.744
18.16	406550	PB	0.700	0.569
19.17	177220	BB	1.213	0.240
21.57	1331100	BB	0.800	1.864
24.09	4597500	BB	0.961	6.438
27.79	1153000	BB	1.366	1.615
32.14	210220	BB	1.307	0.294
39.10	40405	PB	0.837	0.057
41.23	928670	i BP	1.771	1.160

TOTAL AREA= 7.1413E+07  
MUL FACTOR= 1.0000E+00



G.C.: HP 5730A-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP-2100 ON 100/120  
 TEMP: 2100  
 INTEGRATOR: HP3392A

On 1-13-91

RUN # 32                      JAN/13/91 12:27:27  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	HR/HT	AREA%
0.60	1834200	PB	0.069	9.837
0.69	5697700	SPB	0.060	30.557
1.02	217520	BB	0.070	1.167
1.18	103270	BB	0.040	0.554
1.27	28310	BB	0.022	0.152
1.57	1916700	BB	0.076	10.279
1.76	55526	BB	0.077	0.290
1.93	29361	BB	0.050	0.150
2.14	14993	BB	0.079	0.080
2.75	5376	BB	0.067	0.029
2.98	110740	BB	0.139	0.637
3.27	91760	BB	0.123	0.492
3.88	82119	PB	0.231	0.440
4.43	20729	BB	0.146	0.111
4.79	16898	BB	0.211	0.091
5.85	19303	PB	0.307	0.104
7.33	4061000	BB	0.250	21.784
9.97	48177	PB	0.409	0.250
11.15	19000	BB	0.467	0.102
12.38	20527	BB	0.596	0.153
14.05	51684	BB	0.774	0.277
17.91	158370	PB	0.961	0.849
21.75	130250	PB	0.774	0.742
24.17	3488000	BB	0.971	18.710
41.28	390940	PB	2.073	2.140

TOTAL AREA= 1.8646E+07  
 MIN FACTOR= 1.0000E-00



*0.02 710*

0.61  
0.69  
1.02  
1.18  
1.32  
1.58  
1.77  
2.03  
2.73  
2.93  
3.23  
3.43  
3.99  
4.65  
4.97  
5.50  
5.97  
6.52  
7.31  
8.16  
9.11  
9.91  
11.11  
12.51  
14.08  
15.03  
16.98  
18.31  
19.26  
21.63  
24.13  
27.87  
32.59  
37.87  
42.08  
ST

RUN # 93                      JAN/13/91 13:27:50  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA#	RT	AREA	TYPE	AR/HT	AREA%
	0.61	753110	PB	0.041	0.547
	0.69	4.2312E+07	TSPB	0.101	30.732
	1.02	332090	BB	0.050	0.241
	1.18	216580	BB	0.048	0.157
	1.32	505260	BB	0.088	0.367
	1.58	2801500	BB	0.073	2.035
	1.77	6751700	BB	0.095	4.904
	2.03	4849100	BB	0.075	3.522
	2.73	9599	PB	0.002	0.007
	2.93	506600	BB	0.157	0.368
	3.23	120030	BB	0.107	0.088
	3.43	194110	BB	0.158	0.141
	3.99	445140	BB	0.192	0.323
	4.65	166950	PB	0.269	0.121
	4.97	193930	BB	0.179	0.141
	5.50	30459	BB	0.132	0.022
	5.97	1131600	BB	0.348	0.822
	6.52	312900	BB	0.230	0.227
	7.31	2.9499E+07	BB	0.264	21.426
	8.16	94398	BB	0.294	0.069
	9.11	3355800	BB	0.542	2.437
	9.91	3219000	BB	0.360	2.339
	11.11	4147000	BB	0.470	3.012
	12.51	3461800	BB	0.595	2.514
	14.08	4414500	BB	0.547	3.206
	15.03	3471200	BB	0.706	2.521
	16.98	147120	PB	0.461	0.107
	18.31	1877400	BB	0.614	1.364
	19.26	501460	BB	0.600	0.364
	21.63	7621600	BB	0.805	5.536
	24.13	3502400	BB	0.875	2.544
	27.87	6798000	BB	1.305	4.938
	32.59	338100	BB	1.739	0.246
	37.87	926210	BB	1.423	0.673
	42.08	2670200	BP	1.823	1.939

TOTAL AREA= 1.3760E+08  
 MUL FACTOR= 1.0000E+00

START IF

5339 AU

0.61  
 0.69  
 1.01  
 1.18  
 1.31  
 1.57  
 1.76  
 2.02  
 2.90  
 3.23  
 3.45  
 3.97  
 4.59  
 5.03  
 5.44  
 5.97  
 6.54  
 7.30  
 7.95  
 8.97  
 9.88  
 11.12  
 12.51  
 14.08  
 15.05  
 17.05  
 18.31  
 19.28  
 21.63  
 24.19  
 26.36  
 27.87  
 37.09  
 42.04  
 ST

W2 7/10

RUN # 34                      JAN/13/91 14:28:12  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.61	632350	PB	0.025	0.605
0.69	2.1419E+07	SPB	0.061	20.481
1.01	278100	BB	0.051	0.266
1.18	198700	BB	0.048	0.190
1.31	308310	BB	0.110	0.295
1.57	3652000	BB	0.071	3.493
1.76	8649700	BB	0.093	8.271
2.02	1.1675E+07	BB	0.109	11.164
2.90	235890	BB	0.146	0.226
3.23	40343	BB	0.119	0.039
3.45	153250	BB	0.150	0.147
3.97	207230	BB	0.257	0.198
4.59	75409	BB	0.182	0.072
5.03	268330	BB	0.247	0.257
5.44	136400	BB	0.202	0.130
5.97	887860	BB	0.278	0.849
6.54	439930	BB	0.302	0.421
7.30	2.1696E+07	BB	0.265	20.746
7.95	102150	BB	0.341	0.090
8.97	1729600	BB	0.560	1.654
9.88	1648800	BB	0.345	1.577
11.12	2943200	BB	0.467	2.814
12.51	2137100	BB	0.532	2.044
14.08	3076000	BB	0.556	2.941
15.05	2587800	BB	0.721	2.474
17.05	152150	BB	0.458	0.146
18.31	1319900	BB	0.604	1.262
19.28	446220	BB	0.584	0.427
21.63	5651100	BB	0.804	5.404
24.19	4359800	BB	0.926	4.169
26.36	14852	BB	0.460	0.014
27.87	4607300	BB	1.317	4.406
37.09	907320	PB	1.444	0.868
42.04	1942800	BP	1.977	1.858

TOTAL AREA= 1.0458E+08  
 MUL FACTOR= 1.0000E+00

TAK-3 IF

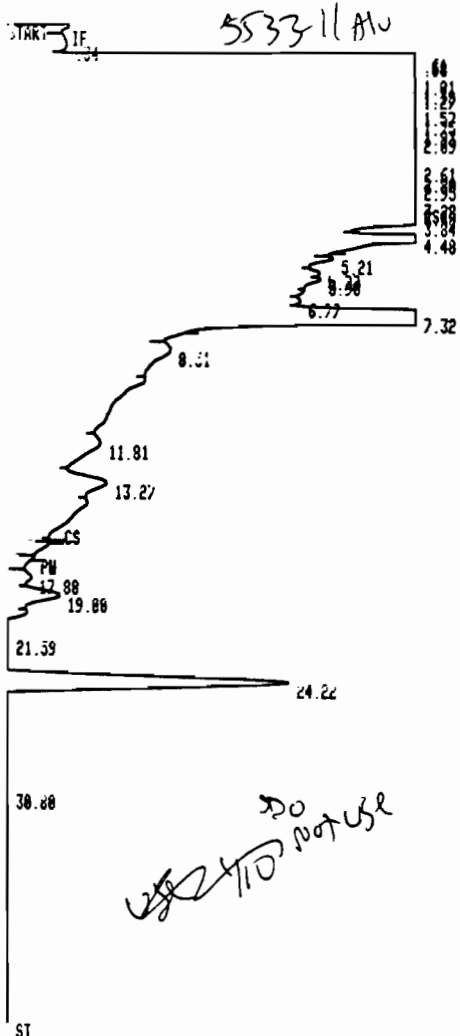
5533-10 AU

6.00  
 6.56  
 7.73  
 8.19  
 9.14  
 9.95  
 11.18  
 12.58  
 14.16  
 15.12  
 PB  
 18.39  
 19.34  
 21.74  
 24.21  
 27.97  
 32.56  
 37.17  
 42.26  
 ST

Ux  
 110

RUN # 95                      JAN/13/91 15:28:34  
 WORKFILE ID: C  
 WORKFILE NAME:

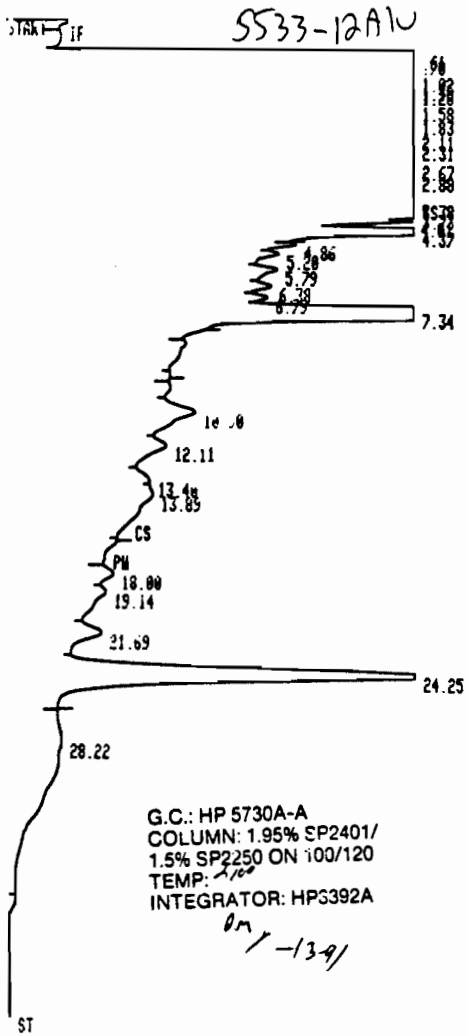
AREA#	RT	AREA	TYPE	AR/MT	AREA#
	0.61	1394400	PB	0.054	0.958
	0.70	2.0272E+07	SPB	0.078	13.921
	0.91	125350	SPB	0.048	0.086
	1.03	1366700	SPB	0.065	0.939
	1.19	1261000	BB	0.060	0.866
	1.33	1018400	BB	0.081	0.699
	1.65	3066000	BB	0.109	2.105
	1.78	8740800	BB	0.094	6.002
	2.04	2.3590E+07	SPB	0.111	16.199
	2.32	31249	SPB	0.019	0.022
	2.54	31010	SPB	0.075	0.021
	2.91	1076000	SPB	0.215	0.739
	3.24	169030	SPB	0.097	0.116
	3.50	1110300	SPB	0.146	0.763
	3.76	10542	SPB	0.057	0.007
	4.01	432800	SPB	0.159	0.297
	4.20	6077	SPB	0.079	0.004
	4.47	119920	SPB	0.140	0.082
	4.70	72324	SPB	0.134	0.050
	4.98	146870	SPB	0.147	0.101
	5.19	1984300	SPP	148.970	1.363
	6.00	2785200	SPB	0.499	1.913
	6.56	594940	SPB	0.217	0.409
	8.19	168790	BB	0.247	0.116
	9.14	5233000	BB	0.552	3.594
	9.95	4978000	BB	0.367	3.419
	11.18	7075100	BB	0.491	5.408
	12.58	5097600	BB	0.534	3.501
	14.16	7222600	BB	0.550	4.960
	15.12	5452000	BB	0.750	3.744
	18.39	3010900	PB	0.610	2.068
	19.34	1071600	BB	0.761	0.736
	21.74	1.3500E+07	BB	0.076	9.326
	24.21	3040900	BB	0.852	2.008
	27.97	1.2976E+07	BB	1.414	8.910
	32.56	1239900	BB	1.544	0.852
	37.17	1320700	BB	1.405	0.907
	42.26	3951000	BP	1.832	2.713



RUN # 96 JAN/13/91 16:28:57  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA#	RT	AREA	TYPE	AR/HT	AREA%
	0.34	14639	BB	0.226	0.024
	0.68	3.5477E+07	SPB	0.089	59.052
	1.01	57061	BB	0.024	0.095
	1.18	46787	BB	0.037	0.078
	1.27	935790	BB	0.058	1.558
	1.57	3029300	BB	0.076	5.042
	1.75	149460	BB	0.069	0.249
	1.93	52343	BB	0.070	0.087
	2.09	110870	BB	0.140	0.185
	2.61	180200	PB	0.100	0.300
	2.80	16763	BB	0.072	0.028
	2.95	81856	BB	0.118	0.136
	3.28	9518	BB	0.084	0.016
	3.48	415420	BB	0.193	0.692
	3.84	88716	BB	0.192	0.148
	4.48	957420	BB	0.194	1.594
	5.21	13709	BB	0.147	0.023
	5.77	8499	BB	0.156	0.014
	5.98	10563	BB	0.148	0.018
	6.77	6541	PB	0.159	0.011
	7.32	1.4079E+07	BB	0.269	23.435
	8.51	60467	BB	0.499	0.101
	11.81	103690	PB	0.729	0.173
	13.27	137460	BB	0.457	0.229
	17.88	30199	PB	0.481	0.050
	19.00	220790	BB	0.657	0.381
	21.59	110900	PB	0.600	0.185
	24.22	3618500	BB	1.012	6.023
	30.88	45900	PB	1.648	0.077

TOTAL AREA= 6.0077E+07  
 MUL FACTOR= 1.0000E+00

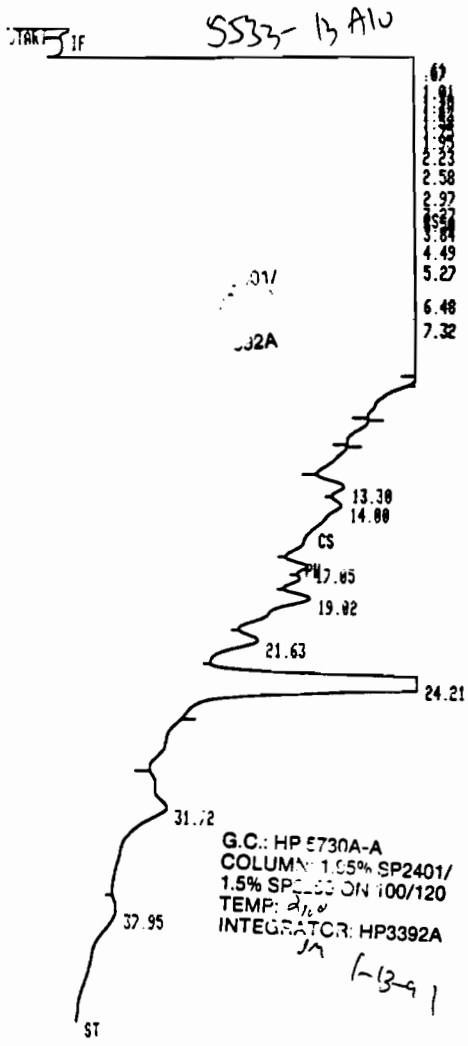


G.C.: HP 5730A-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 100  
 INTEGRATOR: HPS392A  
 0m / -13.9/

RUN # 97 JAN/13/91 17:29:19  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HI	AREA%
0.61	514040	PB	0.021	0.670
0.70	6001800	SPB	0.057	7.822
1.02	229050	BB	0.048	0.300
1.18	31099	BB	0.033	0.041
1.28	2595900	BB	0.067	3.383
1.58	2912000	BB	0.076	3.795
1.83	2.6151E+07	SPB	0.090	34.082
2.11	800510	BB	0.081	1.043
2.31	3160300	BB	0.097	4.119
2.67	2317200	PB	0.093	3.020
2.88	1.2813E+07	BB	0.119	16.699
3.38	535140	BB	0.144	0.697
3.73	1653200	BB	0.144	2.155
4.01	43581	BB	0.116	0.057
4.37	1774100	BB	0.172	2.312
4.86	19700	BB	0.141	0.026
5.20	25121	BB	0.166	0.033
5.79	56093	BB	0.254	0.073
6.38	37449	BB	0.213	0.049
6.79	26004	BB	0.174	0.034
7.34	1.0222E+07	BB	0.273	13.322
10.90	216350	VB	0.603	0.282
12.11	93169	BB	0.404	0.121
13.40	7648	BB	0.361	0.010
13.89	65937	BB	0.648	0.086
18.00	75444	BB	0.645	0.098
19.14	102050	BB	1.072	0.133
21.69	189050	BB	0.777	0.246
24.25	3581500	BB	0.935	4.668
28.22	479160	BB	3.909	0.625

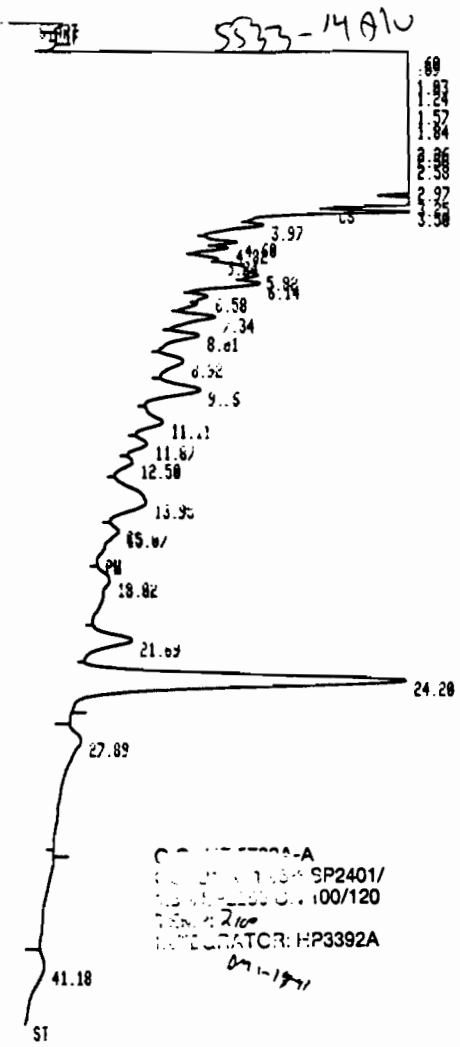
TOTAL AREA= 7.6728E+07



RUN # 98                      JAN/13/91 18:29:41  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.61	387060	PB	0.013	0.247
0.67	4.5092E+07	TSPB	0.117	28.740
1.01	51356	BB	0.040	0.033
1.18	27170	FB	0.032	0.017
1.27	2712300	BB	0.063	1.729
1.43	21407	BB	0.040	0.014
1.58	4878600	BB	0.095	3.109
1.75	1440700	BB	0.060	0.918
1.95	223040	BB	0.071	0.143
2.23	822940	BB	0.120	0.525
2.58	290560	BB	0.116	0.185
2.97	453490	BB	0.189	0.289
3.27	27325	BB	0.006	0.017
3.50	1119800	BB	0.140	0.714
3.84	176340	BB	0.156	0.112
4.49	503960	BB	0.260	0.321
7.32	9.3086E+07	BB	0.270	59.329
13.30	79269	PB	0.400	0.051
14.00	135920	BB	0.075	0.087
17.05	76677	BB	0.487	0.049
19.02	424840	VB	1.004	0.271
21.63	228770	BB	0.764	0.146
24.21	4121700	BB	0.950	2.627
31.72	454520	BB	1.536	0.290
37.95	62019	BP	0.704	0.040

TOTAL AREA= 1.5690E+08



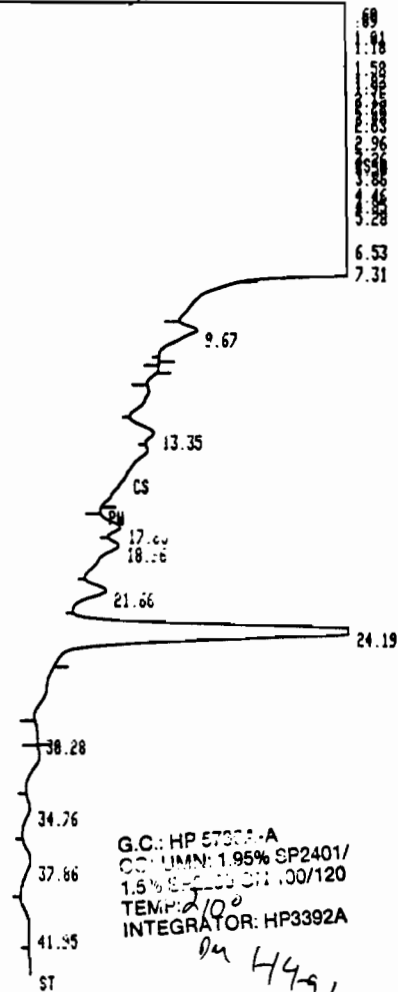
RUN # 39                      JAN/13/91 19:30:04  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HI	AREA%
0.60	2363400	PB	0.053	9.277
0.69	7199100	SPB	0.060	28.259
1.03	1435900	BB	0.081	5.636
1.24	1429500	BB	0.100	5.611
1.57	2777200	BB	0.082	10.901
1.84	3133300	BB	0.165	12.299
2.26	23802	BB	0.013	0.093
2.36	242030	BB	0.112	0.950
2.58	64454	BB	0.065	0.253
2.97	919470	BB	0.142	3.609
3.25	221790	BB	0.113	0.871
3.50	113820	BB	0.101	0.447
3.97	50200	BB	0.174	0.197
4.60	33701	BB	0.131	0.133
4.82	28763	BB	0.137	0.113
5.24	7107	BB	0.115	0.028
5.82	94107	BB	0.428	0.369
6.14	77333	BB	0.209	0.304
6.50	24533	BB	0.171	0.096
7.34	120200	PB	0.299	0.472
8.01	98235	BB	0.296	0.306
8.92	108930	BB	0.444	0.428
9.96	205940	BB	0.424	0.800
11.11	107690	BB	0.451	0.423
11.87	55462	BB	0.356	0.210
12.50	34800	BB	0.353	0.137
13.95	302720	BB	0.881	1.188
15.07	100700	BB	0.837	0.396
18.02	244350	BB	1.737	0.959
21.69	385660	BB	0.872	1.514
24.20	3083700	BB	0.938	12.105
27.09	228910	BB	1.587	0.899
41.18	158310	BP	2.061	0.621

TOTAL AREA= 2.5475E+07  
 MUL FACTOR= 1.0000E+00

STAN IF

5533-15010



G.C.: HP 57301-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP-2100 0.100/120  
 TEMP: 100  
 INTEGRATOR: HP3392A

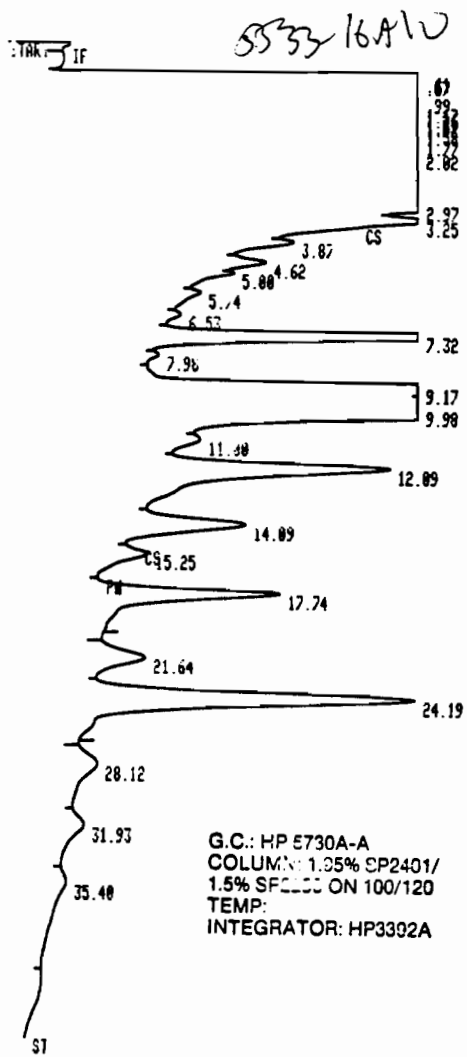
04 4491

RUN # 100                      JAN/13/91 20:30:26  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.60	1971800	PB	0.052	2.798
0.69	1.2020E+07	SPB	0.063	17.059
1.01	169480	BB	0.059	0.241
1.18	166240	BB	0.079	0.236
1.58	3080660	BB	0.088	4.372
1.83	10667	BB	0.048	0.015
1.92	9501	BB	0.048	0.014
2.15	25165	BB	0.098	0.036
2.48	30775	BB	0.079	0.044
2.63	46026	BB	0.087	0.065
2.96	528360	BB	0.149	0.750
3.26	58440	BB	0.100	0.083
3.58	571610	BB	0.140	0.011
3.86	11368	BB	0.101	0.016
4.46	43003	PB	0.198	0.061
5.28	11743	BB	0.204	0.017
7.31	4.7559E+07	BB	0.283	67.494
9.67	109930	BB	0.468	0.156
13.35	62935	PB	0.432	0.089
17.83	102890	PB	0.666	0.146
18.96	147070	BB	0.908	0.210
21.66	206240	BB	0.782	0.293
24.19	3230900	BB	0.951	4.585
30.28	15567	BB	0.937	0.022
34.76	66951	PB	1.185	0.095
37.86	156810	BB	1.710	0.223
41.95	49761	BB	1.460	0.071

TOTAL AREA= 7.0464E+07  
 MUL FACTOR= 1.0000E+00



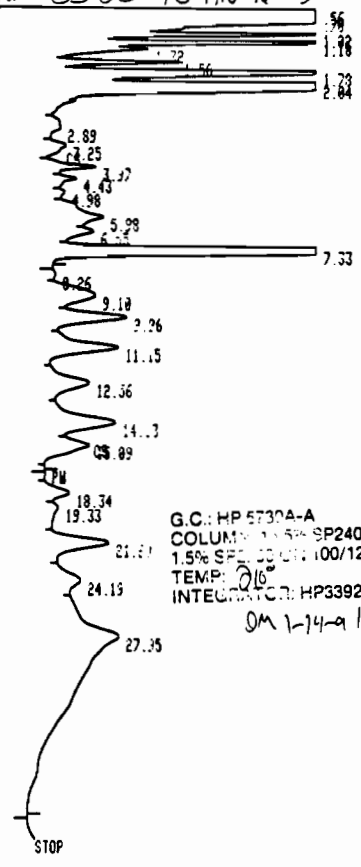


RUN # 101                      JAN/13/91 21:30:49  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.67	4.8735E+07	SPB	0.118	36.682
0.99	153520	BB	0.023	0.116
1.17	43195	BB	0.044	0.033
1.26	46715	BB	0.046	0.035
1.37	40894	BB	0.041	0.031
1.42	47484	BB	0.054	0.036
1.58	2094000	BB	0.072	1.576
1.77	2.1210E+07	SPB	0.096	15.964
2.02	4.4993E+07	SPB	0.101	33.866
2.97	256020	BB	0.119	0.193
3.25	90209	BB	0.114	0.068
3.87	64628	BB	0.247	0.049
4.62	99050	BB	0.281	0.075
5.00	9428	BB	0.080	0.007
5.74	46105	BB	0.305	0.035
6.53	21188	BB	0.219	0.016
7.32	1612400	BB	0.279	1.214
7.98	17244	BB	0.209	0.013
9.17	690930	BB	0.176	0.520
9.98	4592000	BB	0.402	3.456
11.00	51431	BB	0.343	0.039
12.09	1290900	BB	0.567	0.972
14.09	576870	BB	0.526	0.434
15.25	205920	BB	0.687	0.155
17.74	1536560	BB	0.852	1.157
21.64	447400	BB	0.965	0.337
24.19	3205400	BB	0.985	2.413
28.12	317510	BB	1.527	0.239
31.93	207900	BB	1.317	0.157
35.40	154650	BB	1.688	0.116

TOTAL AREA= 1.3286E+08  
 MUL FACTOR= 1.0000E+00

START IF 5533-10 AU 450



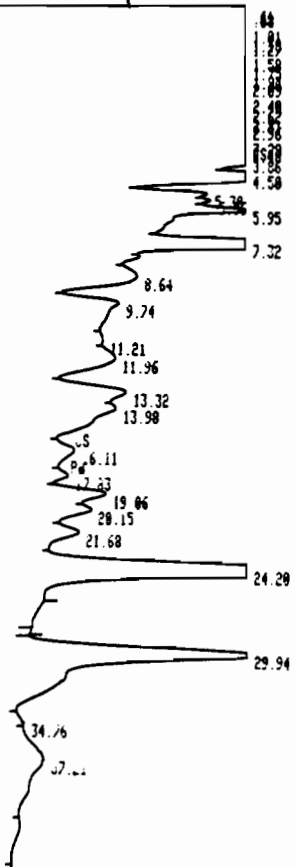
G.C.: HP 5730A-A  
 COLUMN: 1.5% SP2401/  
 1.5% SP2401 100/120  
 TEMP: 210  
 INTEGRATOR: HP3392A  
 DM 1-14-91

RUN # 111                      JAN/14/91 12:37:24  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.56	1199800	PB	0.070	10.484
0.70	530910	BB	0.076	4.640
1.02	145820	BB	0.057	1.274
1.18	226760	BB	0.061	1.982
1.32	25711	BB	0.063	0.225
1.58	91714	BB	0.075	0.802
1.78	379510	BB	0.110	3.317
2.04	1051500	BB	0.116	9.189
2.89	28440	PB	0.248	0.249
3.25	48476	BB	0.248	0.424
3.97	95920	BB	0.208	0.830
4.43	37251	BB	0.198	0.326
4.98	9990	BB	0.181	0.087
5.98	142350	BB	0.457	1.244
6.55	47071	BB	0.255	0.411
7.33	2144200	BB	0.247	18.737
8.26	6711	BB	0.242	0.059
9.10	224970	BB	0.566	1.966
9.96	272300	BB	0.375	2.380
11.15	335700	BB	0.462	2.934
12.56	220570	BB	0.543	1.928
14.13	320910	BB	0.530	2.804
15.09	242480	BB	0.720	2.119
18.34	141360	PB	0.641	1.235
19.33	42545	BB	0.666	0.372
21.69	485570	BB	0.798	4.243
24.19	153420	BB	0.866	1.341
27.95	2791300	BB	4.335	24.393

TOTAL AREA= 1.1443E+07  
 MUL FACTOR= 1.0000E+00

SS33-11 PCB #10



G.C.: HP 5730A-A  
 COLUMN: 1.85% SP2401/  
 1.5% SP2100 C. 100/120  
 TEMP: 311.0 (J-7)

RUN # 189 INTEGRATOR: HR80025/31 02:46:51  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	RR/HT	AREA%
0.68	3.3351E+07	SP0	0.097	63.756
1.01	18895	BB	0.010	0.031
1.18	49358	BB	0.036	0.082
1.27	1126500	BB	0.062	1.873
1.58	3354500	BB	0.079	5.577
1.75	213130	BB	0.080	0.354
1.94	54229	BB	0.069	0.090
2.09	156550	BB	0.143	0.260
2.40	16952	BB	0.093	0.028
2.62	180920	BB	0.101	0.381
2.81	22018	BB	0.073	0.037
2.96	55997	BB	0.140	0.093
3.29	30605	BB	0.101	0.051
3.48	338420	BB	0.220	0.563
3.86	124250	BB	0.220	0.207
4.50	1276000	BB	0.220	2.121
5.30	71013	BB	0.220	0.118
5.56	17052	BB	0.144	0.028
5.95	146920	BB	0.190	0.244
7.32	3620600	BB	0.240	6.019
8.64	374540	VB	0.779	0.623
9.74	372260	BB	0.712	0.619
11.21	7422	BB	0.315	0.012
11.96	276330	BB	0.705	0.459
13.32	197850	BB	0.477	0.329
13.98	110776	BB	0.601	0.184
16.11	156590	BB	0.065	0.277
17.83	77110	BB	0.547	0.128
19.06	289770	BB	0.679	0.482
20.15	119330	BB	0.609	0.198
21.68	192000	BB	0.716	0.319
24.20	4288300	BB	0.953	7.129
29.94	3839600	BB	1.429	6.383
37.21	616530	BB	2.460	1.025

TOTAL AREA= 6.0154E+07  
 MUL FACTOR= 1.0000E+00

R91/0129

GC 8080

PCB'S

SUPPORT DOCUMENTATION

STANDARDS DOCUMENTATION SHEET

Analysis: PCB by 8080

Starting Date: 1/15/91

GC: HP5730A-A

Column: 2401/2250

Integrator: HP3396A

Temperature: 210 C

Included jobs: R91/0129

Initial Calibration

Date: 1/7/91

Time: 14:17

Continuing calibration

Date: 1/15/91

Time: 21:10

Date: 1/16/91

Time: 09:03

Date: 1/16/91

Time: 16:55

Date:

Time:

Date:

Time:

Date:

Time:

Date:

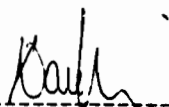
Time:

Date:

Time:

Date:

Time:



-----  
Analyst

General Testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760


Analyst: DAVE MASUCCI  
Date: 1/15/91  
Time: 21:10  
Run #: 138

PCB's (8080/608)  
CONTINUING CALIBRATION CHECK

Calibration Date: 1/7/91  
Column: 1.95% SP2401/1.5% SP2250

Instrument ID: HP 5730A-A  
Oven Temp: 210 C

Compound	Conc.	Retention Times	Area Units (x.0001)	New Respons Factor	Initial Response Factor	%RSD
PCB 1260	250	9.89	66.4	0.81	0.736	10
		11.10	131			
		14.07	110			

  
-----  
Analyst

METHOD BLANK SUMMARY SHEET

Lab Name: General Testing corp.

Contract:

Lab Code: GTC

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SDG No.: \_\_\_\_\_

Lab Sample ID: R90/0129

Lab file ID: \_\_\_\_\_

Matrix: (soil/water) Soil

Level: (low/med): Low

Date Extracted: 1/14/91

Extraction: (Sepf/Cont(Sonc)):

Date Analyzed: (1): 1/15/91

Date Analyzed: (2): \_\_\_\_\_

Time Analyzed: (1): 23:11

Time Analyzed: (2): \_\_\_\_\_

Instrument ID: (1): HP5730A-A

Instrument ID: (2): \_\_\_\_\_

GC Column ID: (1): 2401/2250

GC Column ID: (2): \_\_\_\_\_

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

	EPA SAMPLE NO.	LAB SAMPLE ID.	DATE ANALYZED 1	DATE ANALYZED 2
01		0129-Blk	1/15/91	
02		0129-R.S.	1/16/91	
03		0129-001MS	1/16/91	
04		0129-001MS	1/16/91	
05		0129-001	1/16/91	
06		0129-002	1/16/91	
07		0129-003	1/16/91	
08		0129-004	1/16/91	
09		0129-005	1/16/91	
10		0129-006	1/16/91	
11		0129-007	1/16/91	
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

8E - PCB EVALUATION STANDARDS SUMMARY  
 Evaluation of Retention Time Shift for Dibutylchloroendate

Lab Name: General Testing Corp. Contract: \_\_\_\_\_

Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Instrument ID: HPS730A-A GC Column ID: 2401/2250

Dates of Analysis: 1/14/91 to 1/15/91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D
01	AR 1250 STD 4	PCB 1260 250	1/15/91	21:10	(24.13)
02		R91/0129-BLK	1/15/91	23:11	0.2
03		R91/0129-REF	1/16/91	00:11	0.1
04		-1MS 1/10	1/16/91	01:11	7
05		-1MSD 1/10	1/16/91	02:12	7
06		-2 1/10	1/16/91	04:12	0.0
07		-3 1/10	1/16/91	05:12	0.2
08		-4 1/10	1/16/91	06:12	7
09		-5 1/10	1/16/91	07:12	7
10	AR 1254 STD 2	PCB 1254 750	1/16/91	09:12	0.0
11		0129-6 1/10	1/16/91	10:27	0.1
12		-7 1/10	1/16/91	11:26	0.1
13		R91/0129-1	1/16/91	12:15	0.1
14		R91/0129-3	1/16/91	13:49	0.2
15		R91/0129-6	1/16/91	15:48	0.4
16	AR 1248 STD 2	PCB 1248 750	1/16/91	16:55	0.4
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

\* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)



2E - SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: General Testing Corp. Contract: \_\_\_\_\_

Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.:

EPA SAMPLE NO.	S1 (DBC)#	OTHER (TCMX)#
01 R90/0129-BLK	141	73
02 R90/0129-REF SPK	94	63
03 R90/0129-1MS	t	94
04 R90/0129-1MSD	t	104
05 R90/0129-1	81	134
06 R90/0129-2	138	93
07 R90/0129-3	124	73
08 R90/0129-4	t	120
09 R90/0129-5	t	108
10 R90/0129-6	71	93
11 R90/0129-7	71	124
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

ADVISORY  
 S1 (DBC) = Dibutylchlorendate QC LIMITS  
 S2 (TCMX) = Tetrachloro-m-xylene TCMX (31-141)  
 # Column used to flag recovery values DBC (24-150)  
 ++ Values outside of QC limits  
 D Surrogates diluted out  
 t = surrogates out due to matrix interference.

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y.  
 (716)454-3760

Analyst: D. Masucci  
 Date: 1/16/91  
 Instrument: HPS730A-A  
 Date Extracted: 1/14/91

Client: WCC  
 Job#: R91/0129-1

PCB MATRIX SPIKE

Lab Name: General Testing Corp.  
 Lab Code: 6TC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONC. (ug/kg)	MS CONC. (ug/kg)	MS % REC	MS (#)	QC LIMITS % REC.
PCB 1016	-----	20.0 U	200 U			50-114
PCB 1221	-----	20.0 U	200 U			15-178
PCB 1232	-----	20.0 U	200 U			10-215
PCB 1242	-----	20.0 U	200 U			39-150
PCB 1248	-----	20.0 U	200 U			38-158
PCB 1254	-----	20.0 U	200 U			29-131
PCB 1260 <i>2a</i>	1670	20.0 U	1360	81		8-127

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONC. (ug/kg)	MSD % REC.	MSD (#)	RPD (#)	QC LIMITS % REC
PCB 1016	-----	200 U				30 50-114
PCB 1221	-----	200 U				30 15-187
PCB 1232	-----	200 U				30 10-215
PCB 1242	-----	200 U				30 39-150
PCB 1248	-----	200 U				30 38-158
PCB 1254	-----	200 U				30 29-131
PCB 1260	1670	1480	89		8.4	30 8-127

Spike Recovery: 0 out of 2 outside limits.

RPD: 0 out of 1 outside limits.

COMMENTS:

*D. Masucci*

Analyst's Signature

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/16/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT

Analysis: PCB's by 8080.

Client: WCC  
 Job #: R91/0129-1MS  
 Run #: 142

Clean-ups: ALU

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	10	200 U	
PCB 1260		SEE ATTACHED	409	3.00	10	1360	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	3.92	31.2	33.3	94	31-141	
Dibutylchloroendate				33.3		24-150	t

t = Surrogate matrix interference suspected.

  
 -----  
 Analyst

General testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760


Analyst: D. Masucci  
Date: 1/16/91  
Instrument: HPS730A-A

Analysis: Priority Pollutant Data  
0.00

Date Extracted: 1/14/91  
Date Analyzed: 1/16/91  
Client: WCC  
Job #: R91/0129-1MS  
Run #: 142

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/kg)	Avg. CONC. (ug/kg)
1	5.81	5.96	23.2	10.0 *	232	409
2	6.37	6.52	48.9	9.89	483	
3	8.75	8.92	119	3.61	430	
4	9.67	9.89	118	3.72	439	
5	10.85	11.10	226	1.89	427	
6	12.22	12.50	144	2.87	413	
7	13.76	14.08	198	2.22	439	
8	14.69	15.03	130	2.85	370	
9	17.87	18.26	78.6	4.96	390	
10	18.80	19.21	33.7	11.4	384	
11	21.17	21.57	291	1.29	375	
12	27.17	27.81	330	1.27	420	
13	36.32			12.4 *	0	
14	41.93	42.03	74.7	4.58	342	

  
-----  
Analyst's Signature

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

Analyst: D. MASUCCI  
 Date: 1/16/91  
 Instrument ID: HP 5890A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT #2

Analysis: PCB's

Clean-ups: ALU

Client: WCC  
 Job #: R91/0129-1MSD  
 Run #: 143

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	10	200 U	
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	10	200 U	
PCB 1260	SEE ATTACHED		445	3.00	10	1480	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	% Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	4.33	34.5	33.3	104	31-141	
Dibutylchloroendate				33.3		24-150	t

  
 Analyst

General Testing Corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 1/16/91  
Instrument: HP5730A-A  
Date Extracted: 1/14/91  
Date Analyzed: 1/16/91  
Client: WCC  
Job #: R91/0129-1MSD  
Run #: 143

Analysis: Priority Pollutant Data  
0.00

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET #2

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/kg)	Avg. CONC. (ug/kg)
1	5.81	5.96	27.0	10.0 *	270	445
2	6.37	6.53	51.6	9.89	510	
3	8.75	8.93	126	3.61	455	
4	9.67	9.91	124	3.72	461	
5	10.85	11.12	238	1.29	450	
6	12.22	12.52	152	2.87	436	
7	13.76	14.11	209	2.22	463	
8	14.69	15.06	138	2.85	393	
9	17.87	18.31	83.2	4.96	413	
10	18.80	19.26	36.6	11.4	417	
11	21.17	21.63	30.9	1.29 *	40	
12	27.17	27.86	34.6	1.27 *	44	
13	36.32	37.17	34.7	12.4	430	
14	41.93	42.06	102	4.58	468	

  
-----  
Analyst's Signature

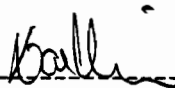
GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

Analyst: Dave Masucci  
 Date: 1/16/91  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/15/91  
 Client: WCC  
 Job #: R91/0129 - 8

PCB Analysis - QC Summary  
 LAB BLANK & REFERENCE CHECK

Compound	Lab Blank Conc.	Reference Spike		
		True Conc. (ug/kg)	Percent Recovery	Acceptance Limit
PCB 1016	20.0 U			50-114
PCB 1221	20.0 U			15-178
PCB 1232	20.0 U			10-215
PCB 1242	20.0 U			39-150
PCB 1248	20.0 U			38-158
PCB 1254	20.0 U	66.7	66	29-131
PCB 1260	20.0 U			8-127

Surrogate Standards	Blank % Rec.	Amount Added	Percent Recovery	Acceptance Limit
Tetrachloro-m-xylene	73	33.3	63	31-141
Dibutylchloroendate	141	33.3	94	24-150

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

Analyst: D. MASUCCI  
 Date: 1/16/91  
 Instrument ID: HP 5890A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT #2

Analysis: Priority Pollutant Data  
 0.00


Clean-ups: ALU

Client: WCC  
 Job #: R91/0129-REF SPK  
 Run #: 141

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	1.0	0.0	
PCB 1221			0.00	3.00	1.0	0.0	
PCB 1232			0.00	3.00	1.0	0.0	
PCB 1242			0.00	3.00	1.0	0.0	
PCB 1248			0.00	3.00	1.0	0.0	
PCB 1254			0.00	3.00	1.0	0.0	
PCB 1260	SEE ATTACHED		131	3.00	1.0	43.7	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	% Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.57	26.2	20.9	33.3	63	31-141	
Dibutylchloroendate	24.15	38.2	31.3	33.3	94	24-150	

  
 -----  
 Analyst



General Testing Corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 1/16/91  
Instrument: HP5730A-A  
Date Extracted: 1/14/91  
Date Analyzed: 1/15/91  
Client: WCC  
Job #: R91/0129-REF SPK  
Run #: 141

Analysis: Priority Pollutant Data  
0.00

PCB 1260  
MULTI-PEAK RESPONSE WORKSHEET #2

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/kg)	Avg. CONC. (ug/kg)
1	5.81	5.94	11.1	10.0	111	131
2	6.37	6.53	13.0	9.89	129	
3	8.75	8.95	34.5	3.61	125	
4	9.67	9.89	35.8	3.72	133	
5	10.85	11.11	69.4	1.89	131	
6	12.22	12.52	43.5	2.87	125	
7	13.76	14.10	58.4	2.22	129	
8	14.69	15.06	43.0	2.85	123	
9	17.87	18.23	43.5	4.96	216	
10	18.80	19.23	7.62	11.4	87	
11	21.17	21.63	112	1.29	144	
12	27.17	27.84	96.5	1.27	123	
13	36.32			12.4 *	0	
14	41.93	42.06	91.1	4.58 *	418	

  
-----  
Analyst's Signature

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/16/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/15/91

LABORATORY REPORT

Analysis: PCB's by 8080.

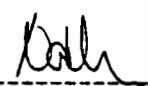
Client: WCC  
 Job #: R91/0129-BLK -8  
 Run #: 140

Clean-ups: ALU

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Q
PCB 1016			0.00	3.00	1.0	20.0 U	
PCB 1221			0.00	3.00	1.0	20.0 U	
PCB 1232			0.00	3.00	1.0	20.0 U	
PCB 1242			0.00	3.00	1.0	20.0 U	
PCB 1248			0.00	3.00	1.0	20.0 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	30.6	24.4	33.3	73	31-141	
Dibutylchloroendate	24.17	57.1	46.8	33.3	141	24-150	

  
 -----  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/16/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's


Clean-ups: ALU

Client: WCC  
 Job #: R91/0129-1  
 Run #: 154

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Dry weight (ug/kg)
PCB 1016			0.00	3.00	1.0	20.0 U	23.8 u ↓
PCB 1221			0.00	3.00	1.0	20.0 U	
PCB 1232			0.00	3.00	1.0	20.0 U	
PCB 1242			0.00	3.00	1.0	20.0 U	
PCB 1248			0.00	3.00	1.0	20.0 U	
PCB 1254			0.00	3.00	1.0	20.0 U	
PCB 1260			0.00	3.00	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	34.0	27.1	33.3	81	31-141	
Dibutylchlorodate	24.16	54.3	44.5	33.3	134	24-150	

  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/16/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

Client: WCC  
 Job #: R91/0129-2  
 Run #: 145

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Dry weight (ug/kg)
PCB 1016			0.00	3.00	10	200 U	287 u ↓
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	10	200 U	
PCB 1260			0.00	3.00	10	200 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	38 7	30.8	33.3	93	31-141	
Oibutylchlorendate	24.13	56 2	46.1	33.3	138	24-150	

*D. Masucci*  
 -----  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3750

ANALYST: D. MASUCCI  
 Date: 1/16/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's


Clean-ups: ALU

Client: WCC  
 Job #: R91/0129-3  
 Run #: 156

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Dry weight (ug/kg)
PCB 1016			0.00	3.01	1.0	20.0 U	27.0 u ↓
PCB 1221			0.00	3.01	1.0	20.0 U	
PCB 1232			0.00	3.01	1.0	20.0 U	
PCB 1242			0.00	3.01	1.0	20.0 U	
PCB 1248			0.00	3.01	1.0	20.0 U	
PCB 1254			0.00	3.01	1.0	20.0 U	
PCB 1260			0.00	3.01	1.0	20.0 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	30.4	24.2	33.3	73	31-141	
Dibutylchloroendate	24.18	50.4	41.3	33.3	124	24-150	

  
 -----  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/16/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

Client: WCC  
 Job #: R91/0129-4  
 Run #: 147

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Dry weight (ug/kg)
PCB 1016			0.00	3.00	10	200 U	249 u
PCB 1221			0.00	3.00	10	200 U	↓
PCB 1232			0.00	3.00	10	200 U	↓
PCB 1242	SEE ATTACHED		174	3.00	10	580	723
PCB 1248			0.00	3.00	10	200 U	249 u
PCB 1254			0.00	3.00	10	200 U	↓
PCB 1260	SEE ATTACHED		82.8	3.00	10	276	344

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	5.01	39.9	33.3	120	31-141	
Dibutylchloroendate				33.3		24-150	t

t = surrogate matrix interference suspected.

  
 -----  
 Analyst

# general testing corporation



water and wastewater testing specialists

710 Exchange Street  
Rochester, NY 14608  
(716) 454-3760

85 Trinity Place  
Hackensack, NJ 07601  
(201) 488-5242

## LABORATORY REPORT

Job No. R91/0129-4 Date 1/16-91

Client \_\_\_\_\_

Sample(s) Reference \_\_\_\_\_

Date Samples ( ) received ( ) collected by General Testing

PCB 1242/1260

P.O. # _____		ANALYTICAL RESULTS (mg/l unless stated otherwise)				
Sample Description	R.T.	area	ug/L	CONCN. OR. DILUTION	FINAL CONC. (ug/tube)	
Date(s) EXTRACTED:	2.55	20.2	144			
DATE(S) ANALYZED:	2.91	11.5	231			
<del>PCB 1016</del>	3.23	45.1	174	ave = 174		
<del>PCB 1221</del>	3.51	11.7	138			
<del>PCB 1232</del>	3.97	25.8	214			
<del>PCB 1242</del>	4.66	12.5	146			
<del>PCB 1248</del>	4.95	9.46	172			
<del>PCB 1254</del>	8.82	22.3	80.5			
<u>PCB 1260</u>	9.91	32.9	122			
	11.12	36.4	68.8			
	12.53	34.5	99.0			
	14.10	37.9	84.1	ave = 82.8		
	15.06	25.6	73.0			
	18.22	16.5	81.8			
	21.64	52.9	68.2			
	27.87	57.1	62.6			

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA. (<) Indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request. NY Laboratory Certification ID#: 10145 NJ ID#: 73331 in Rochester; ID#: 02317 in Hackensack.

*[Signature]*  
ANALYST

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/16/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

Clean-ups: ALU

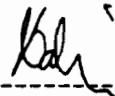
Client: WCC  
 Job #: R91/0129-5  
 Run #: 148

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Dry weight (ug/kg)
PCB 1016			0.00	3.00	10	200 U	288 u ↓ 537
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	10	200 U	
PCB 1260	SEE	ATTACHED	112	3.00	10	373	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	4.51	35.9	33.3	108	31-141	
Dibutylchloroendate				33.3		24-150	t

t = Surrogate matrix interference suspected.

  
 -----  
 Analyst



General testing corp.  
710 Exchange St., Rochester, N.Y  
(716)454-3760

Analyst: D. Masucci  
Date: 1/16/91  
Instrument: HPS730A-A  
Date Extracted: 1/14/91  
Date Analyzed: 1/16/91  
Client: WCC  
Job #: R91/0129-5  
Run #: 148

Analysis: Priority Pollutant Data  
PCB's

PCB 1260

MULTI-PEAK RESPONSE WORKSHEET

Pk. #	STD #1 R.T.	SAMPLE R.T.	SAMPLE AREA	R.F.	CONC. (ug/L)	Avg. CONC. (ug/L)
1	5.81	5.96	13.1	10.0	131	112
2	6.37	6.54	5.38	9.89	53	
3	8.75	9.02	35.2	3.61	127	
4	9.67	9.92	38.5	3.72	143	
5	10.85	11.12	52.7	1.89	100	
6	12.22	12.51	35.9	2.87	103	
7	13.76	14.09	54.2	2.22	120	
8	14.69	15.04	37.1	2.85	106	
9	17.87	18.30	20.3	4.96	101	
10	18.80	19.21	5.67	11.4	65	
11	21.17	21.61	6.14	1.29	8	
12	27.17	27.84	77.7	1.27	99	
13	36.32	37.40	22.9	12.4	283	
14	41.93	41.88	29.1	4.58	133	

  
-----  
Analyst's Signature

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/16/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

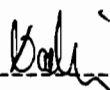
Clean-ups: ALU

Client: WCC  
 Job #: R91/0129-6  
 Run #: 152,158

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Dry Weight (ug/kg)
PCB 1016			0.00	3.00	10	200 U	676 U
PCB 1221			0.00	3.00	10	200 U	↓
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	1.0	20.0 U	67.6 U
PCB 1260			0.00	3.00	1.0	20.0 U	↓

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	29.5	23.5	33.3	71	31-141	
Dibutylchloroendate	24.23	37.7	30.9	33.3	93	24-150	

  
 -----  
 Analyst

GENERAL TESTING CORPORATION  
 710 Exchange St., Rochester, N.Y  
 (716)454-3760

ANALYST: D. MASUCCI  
 Date: 1/16/91  
 Instrument: HP5730A-A  
 Date Extracted: 1/14/91  
 Date Analyzed: 1/16/91

LABORATORY REPORT

Analysis: Priority Pollutant Data  
 PCB's

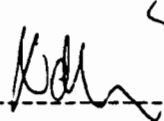
Clean-ups: ALU

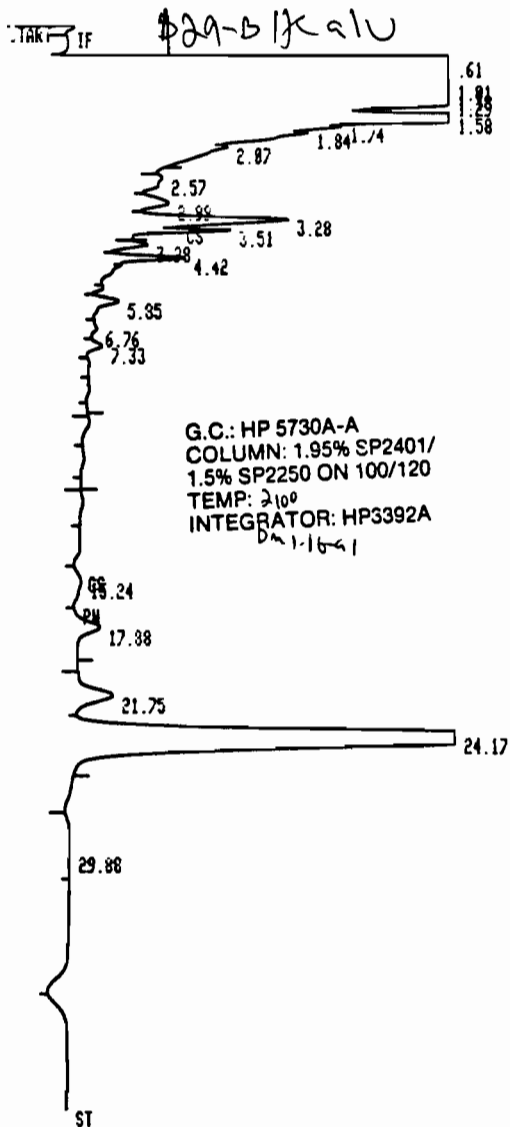
Client: WCC  
 Job #: R91/0129-7  
 Run #: 153

ANALYTICAL RESULTS

Compound	Reten. Time	Area Units	Initial Conc. (ug/kg)	Conc. Factor	Dil. Factor	Final Conc. (ug/kg)	Dry weight (ug/kg)
PCB 1016			0.00	3.00	10	200 U	241 u ↓
PCB 1221			0.00	3.00	10	200 U	
PCB 1232			0.00	3.00	10	200 U	
PCB 1242			0.00	3.00	10	200 U	
PCB 1248			0.00	3.00	10	200 U	
PCB 1254			0.00	3.00	10	200 U	
PCB 1260			0.00	3.00	10	200 U	

Surrogate Standards	Reten. Time	Area Units	Total Recovery	Amount Added	Percent Recovery	Accep. Limits	Q
Tetrachloro-m-xylene	1.58	4.65	24.2	33.3	73	31-141	
Dibutylchloroendate	24.18	6.26	41.3	33.3	124	24-150	

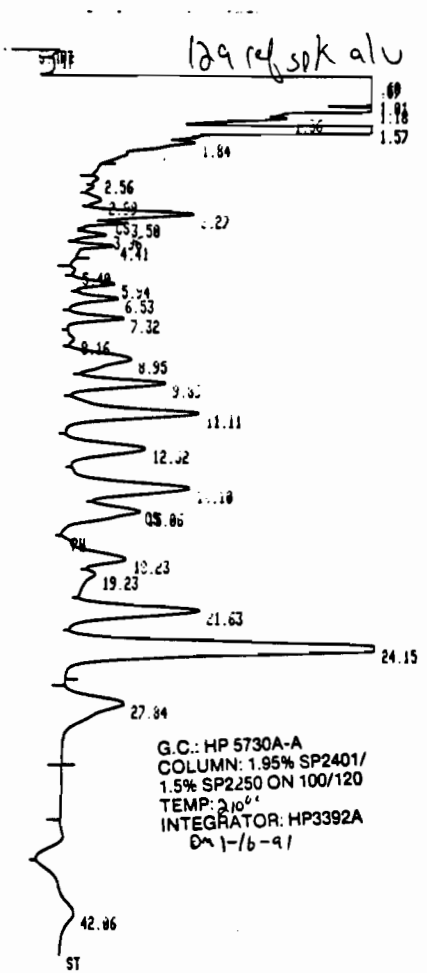
  
 Analyst



RUN # 140                    JAN/15/91 23:11:03  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.61	1.4662E+07	PB	0.162	58.788
1.01	93159	BB	0.044	0.333
1.18	145080	BB	0.056	0.582
1.29	40416	BB	0.072	0.162
1.58	3061100	BB	0.080	12.274
1.74	5593	BB	0.044	0.022
1.84	23812	BB	0.143	0.096
2.07	17385	BB	0.177	0.070
2.57	21846	BB	0.249	0.088
2.99	40455	BB	0.159	0.162
3.28	149130	BB	0.123	0.598
3.51	63617	BB	0.098	0.255
3.98	43967	BB	0.192	0.176
4.42	103200	BB	0.161	0.414
5.85	69369	PB	0.289	0.278
6.76	12306	BB	0.272	0.049
7.33	32681	BB	0.265	0.131
15.24	96806	PB	1.139	0.348
17.88	202880	BB	0.848	0.814
21.75	295960	BB	0.856	1.187
24.17	5709000	BB	0.961	22.891
29.88	70375	PB	1.975	0.282

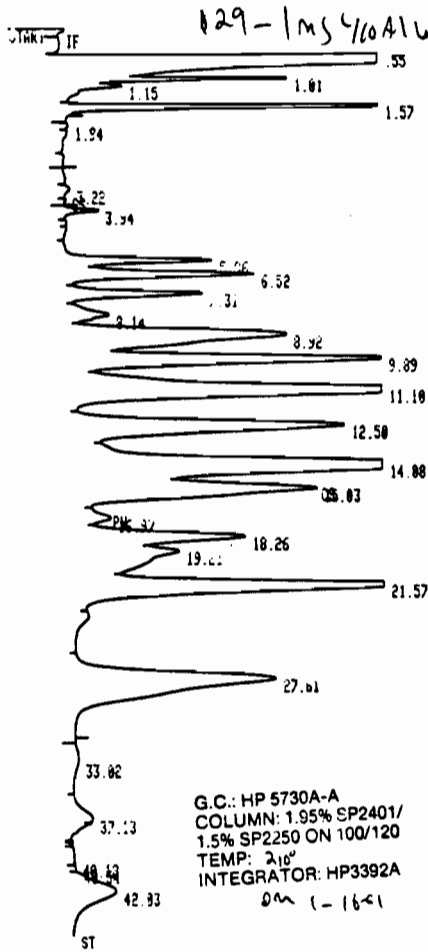
TOTAL AREA= 2.4940E+07  
 MUL FACTOR= 1.0000E+00



RUN # 141                      JAN/16/91 00:11:23  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.60	1237700	FB	0.048	8.094
1.01	211710	BB	0.058	1.385
1.18	236250	BB	0.062	1.545
1.36	26311	BB	0.072	0.172
1.57	2622500	BB	0.080	17.150
1.84	8295	FB	0.030	0.054
2.56	5090	BB	0.036	0.033
2.99	21792	FB	0.140	0.143
3.27	137820	BB	0.128	0.901
3.50	34069	BB	0.112	0.223
3.96	59663	FB	0.191	0.390
4.41	82136	BB	0.190	0.537
5.40	8514	BB	0.193	0.056
5.94	110590	FB	0.248	0.723
6.53	130360	BB	0.261	0.853
7.32	166630	BB	0.268	1.090
8.16	17163	BB	0.283	0.112
8.95	344580	BB	0.542	2.253
9.89	358030	BB	0.359	2.341
11.11	693510	BB	0.477	4.535
12.52	435250	BB	0.504	2.846
14.10	584330	BB	0.503	3.821
15.06	429970	BB	0.697	2.812
18.23	435120	BB	0.832	2.845
19.23	76218	BB	0.639	0.498
21.63	1119600	BB	0.807	7.322
24.15	3823200	BB	0.955	25.002
27.84	964600	BB	1.425	6.309
42.06	910720	PP	3.275	5.956

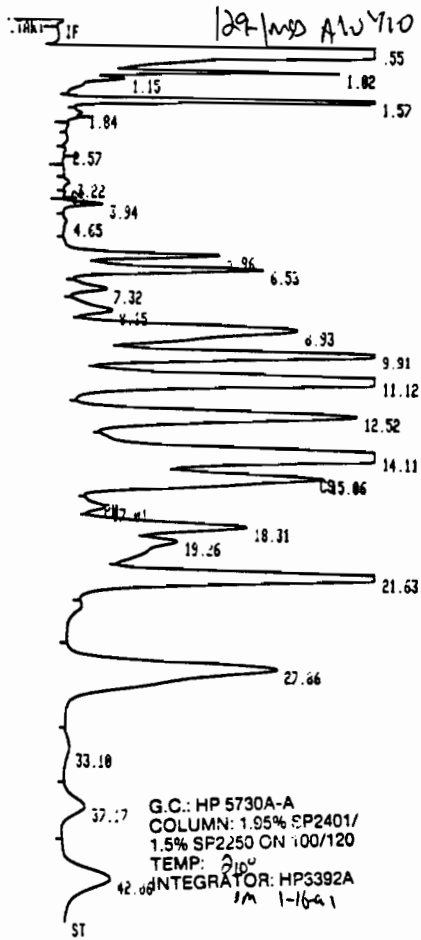
TOTAL AREA= 1.5292E+07  
 MUL FACTOR= 1.0000E+00



RUN # 142                    JAN/16/91 01:11:43  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HI	AREA%
0.55	3.0959E+07	SPB	0.078	61.430
1.01	102470	BB	0.037	0.203
1.57	391960	BB	0.078	0.778
3.22	9056	VB	0.137	0.018
3.94	60631	BB	0.177	0.136
5.96	231900	PB	0.168	0.468
6.52	488680	BB	0.260	0.970
7.31	381460	BB	0.265	0.757
8.14	126050	BB	0.337	0.250
8.92	1189900	BB	0.559	2.361
9.89	1174600	BB	0.363	2.331
11.10	2258200	BB	0.485	4.481
12.50	1437500	BB	0.505	2.852
14.08	1980500	BB	0.506	3.930
15.03	1302000	BB	0.717	2.585
16.97	109070	BB	0.520	0.216
18.26	706100	BB	0.602	1.560
19.21	336550	BB	0.860	0.668
21.57	2910200	BB	0.801	5.775
27.81	3301500	PB	1.480	6.551
33.02	72394	BB	1.435	0.144
40.12	32230	PB	1.100	0.064
42.03	746900	BP	1.538	1.482

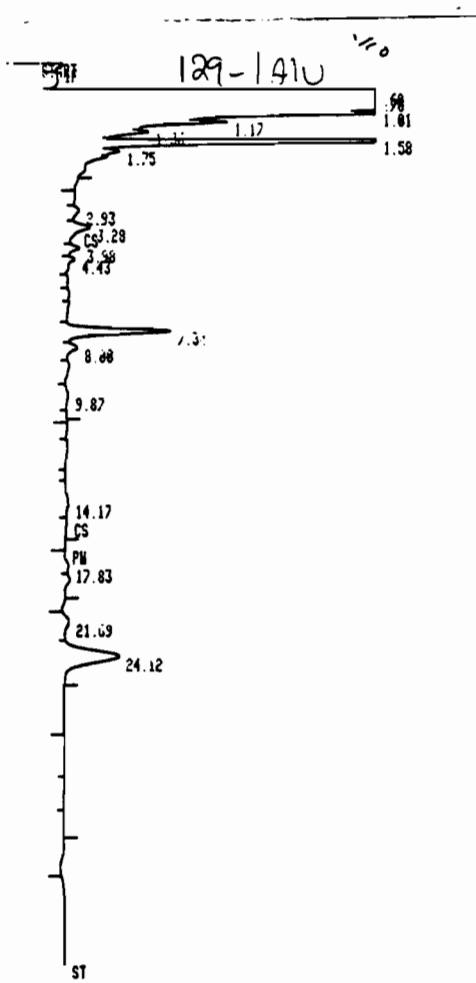
TOTAL AREA= 5.0398E+07  
 MUL FACTOR= 1.0000E-06



RUN # 143 JAN/16/81 02:12:04  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.55	1.0644E+07	SPB	0.001	33.720
1.02	144810	BB	0.058	0.459
1.15	5726	BB	0.021	0.018
1.57	432750	BB	0.077	1.371
3.22	9713	VB	0.136	0.031
3.94	75619	BB	0.175	0.240
4.65	13030	BB	0.322	0.041
5.96	270230	BB	0.184	0.856
6.53	516500	BB	0.260	1.637
7.32	113530	BB	0.207	0.360
8.15	143320	BB	0.352	0.454
8.93	1258500	BB	0.561	3.980
9.91	1239100	BB	0.364	3.926
11.12	2382100	BB	0.487	7.540
12.52	1523400	BB	0.507	4.827
14.11	2095300	BB	0.509	6.639
15.06	1384700	BB	0.722	4.300
17.01	115140	BB	0.521	0.365
18.31	831450	BB	0.602	2.635
19.26	366100	BB	0.075	1.160
21.63	3006600	BB	0.804	9.781
27.66	3464300	FB	1.470	10.970
33.10	76020	BB	1.430	0.241
37.17	346560	BB	1.381	1.098
42.06	1019000	BB	1.861	3.231

TOTAL AREA= 3.1558E+07  
 MUL FACTOR= 1.0000E+00



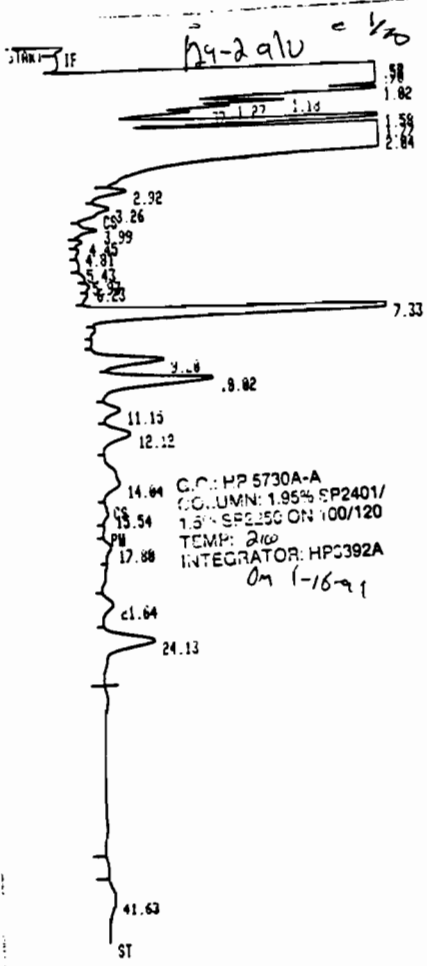
RUN # 144      JAN/16/91 03:12:26  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA#	RT	AREA	TYPE	AR/HI	AREA#
	0.60	1072500	PB	0.101	17.146
	0.70	3541000	BB	0.082	56.623
	1.01	60047	BB	0.046	0.973
	1.17	24236	BB	0.046	0.388
	1.36	14697	BB	0.070	0.235
	1.58	427270	BB	0.076	6.831
	1.75	8017	BB	0.065	0.128
	2.93	9267	VB	0.143	0.148
	3.28	32548	BB	0.165	0.520
	3.98	23395	BB	0.208	0.374
	4.43	18759	BB	0.268	0.300
	7.34	384050	PB	0.266	4.861
	8.00	28001	BB	0.268	0.448
	9.87	15323	PB	0.477	0.245
	14.17	15829	VB	0.563	0.253
	17.83	10004	PB	0.425	0.160
	21.69	55123	BB	0.826	0.881
	24.12	593450	BB	0.964	9.487

TOTAL AREA= 6255100  
 MUL FACTOR= 1.0000E-00

ST 144-1410 = 4/10

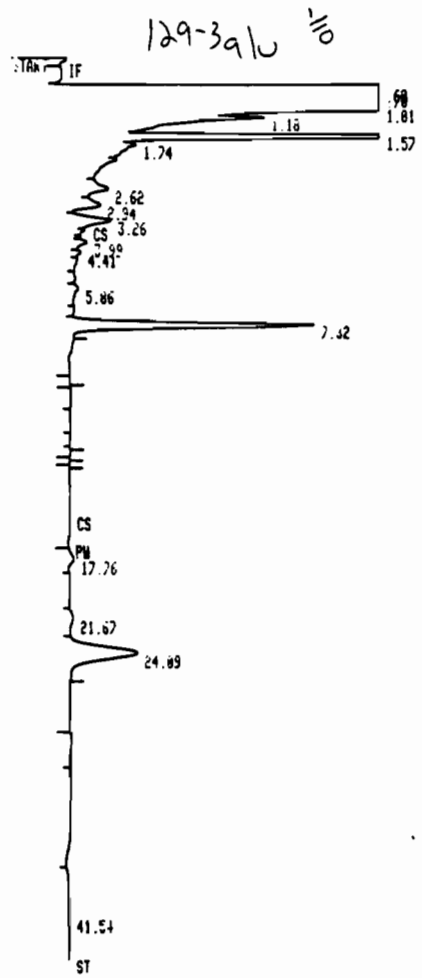




RUN # 145  
WORKFILE ID: C  
WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.57	71794	PB	0.032	0.338
0.59	69286	BB	0.043	0.326
0.70	5666400	SPB	0.071	26.681
1.02	99618	BB	0.054	0.469
1.18	43215	BB	0.051	0.204
1.27	18215	BB	0.049	0.086
1.37	28866	BB	0.063	0.098
1.58	386840	BB	0.076	1.022
1.77	3588900	BB	0.100	16.899
2.04	7570800	BB	0.104	35.640
2.92	29856	BB	0.114	0.141
3.26	53298	BB	0.230	0.251
3.99	50967	BB	0.227	0.240
4.45	11582	BB	0.156	0.055
4.81	7049	BB	0.212	0.033
5.43	7018	BB	0.300	0.033
6.23	8428	BB	0.193	0.040
7.33	1558900	PB	0.262	7.341
9.20	242660	PB	0.330	1.143
10.02	469346	BB	0.380	2.210
11.15	68906	BB	0.374	0.325
12.12	142640	BB	0.481	0.672
14.04	155320	BB	0.095	0.731
15.54	34426	BB	0.703	0.162
17.80	48748	PB	0.674	0.230
21.64	105960	PB	0.067	0.499
24.13	561940	BB	0.900	2.646
41.63	144660	BP	2.073	0.681

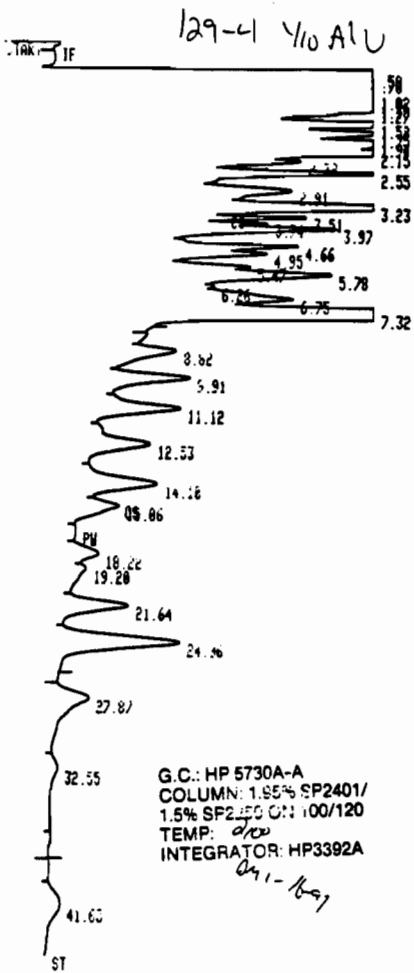
TOTAL AREA= 2.1238E+07



RUN # 146                      JAN/16/91 05:13:08  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA#	RT	AREA	TYPE	AR/HI	AREAZ
	0.60	998550	PB	0.102	13.643
	0.70	3975700	BB	0.079	54.319
	1.01	85494	BB	0.051	1.168
	1.18	27719	BB	0.047	0.379
	1.57	445550	BB	0.077	6.007
	1.74	12152	BB	0.127	0.166
	2.62	28912	PB	0.142	0.395
	2.94	34522	BB	0.146	0.472
	3.26	53460	BB	0.148	0.730
	3.99	18635	PB	0.195	0.255
	4.41	6040	BB	0.145	0.083
	5.86	16094	PB	0.308	0.220
	7.32	696440	PB	0.259	9.515
	17.76	45916	BB	0.712	0.627
	21.67	32574	PB	0.705	0.445
	24.09	726210	BB	0.963	9.922
	41.54	115210	PP	4.455	1.574

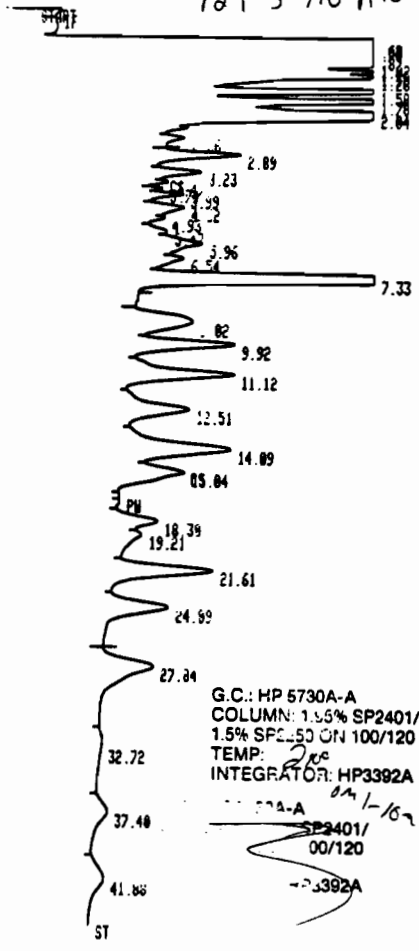
TOTAL AREA= 7315200  
 MIN FACTOR= 1.0000E+00



RUN # 147      JAN/16/91 06:13:30  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA#	RT	AREA	TYPE	AR/HI	AREA#
	0.59	941240	FB	0.098	3.862
	0.70	4661200	BB	0.071	19.127
	1.02	194570	BB	0.058	0.798
	1.18	480090	BB	0.054	1.970
	1.58	501370	BB	0.078	2.057
	1.75	99851	BB	0.083	0.410
	1.94	187260	BB	0.077	0.768
	2.15	264680	BB	0.083	1.006
	2.32	36730	BB	0.083	0.151
	2.55	282520	BB	0.108	0.831
	2.91	115160	BB	0.149	0.473
	3.23	451160	BB	0.126	1.051
	3.51	117400	BB	0.120	0.402
	3.74	36837	BB	0.093	0.151
	3.97	250330	BB	0.209	1.060
	4.66	125140	BB	0.141	0.514
	4.95	94508	BB	0.168	0.388
	5.47	36368	BB	0.127	0.149
	5.78	320260	BB	0.281	1.314
	6.75	198660	BB	0.291	0.815
	7.32	1.0167E+67	BB	0.254	41.720
	8.82	223480	VB	0.446	0.917
	9.91	329220	BB	0.396	1.351
	11.12	364330	BB	0.432	1.495
	12.53	345130	BB	0.537	1.416
	14.10	379180	BB	0.519	1.556
	15.06	256500	BB	0.730	1.053
	18.22	165040	FB	0.722	0.677
	19.20	66151	BB	0.804	0.272
	21.64	520710	BB	0.776	2.170
	24.06	1263300	BB	0.965	5.184
	27.87	540750	BB	1.443	2.219
	32.55	101090	BB	1.339	0.415
	41.63	316480	VP	2.071	1.299

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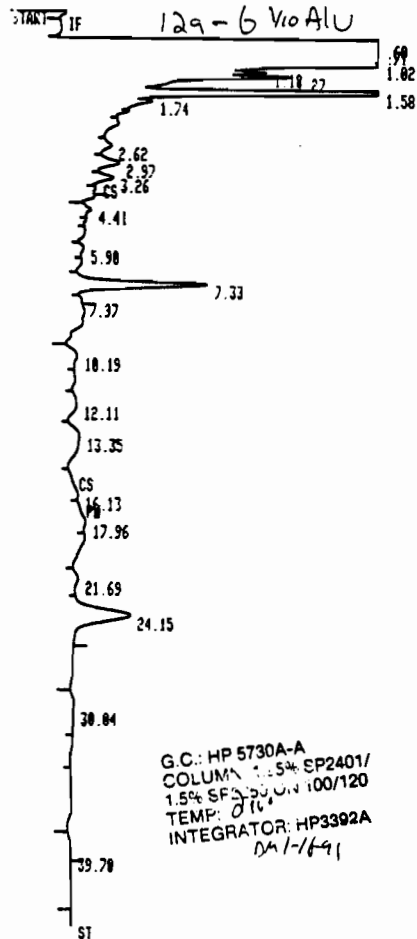


G.C.: HP 5730A-A  
 COLUMN: 1.5% SP2401/  
 1.5% SP2401 ON 100/120  
 TEMP: 200  
 INTEGRATOR: HP3392A  
 SP2401/  
 00/120  
 HP3392A

RUN # 148                      JAN 16 1991 07:13:51  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA*
0.62	651828	PB	0.042	4.227
0.70	2596800	BB	0.062	23.323
0.87	24544	BB	0.017	0.159
1.02	95635	BB	0.055	0.620
1.18	49415	BB	0.049	0.320
1.28	58594	BB	0.053	0.380
1.58	451000	BB	0.077	2.925
1.78	294220	BB	0.096	1.908
2.04	707950	BB	0.128	4.591
2.56	21022	PB	0.101	0.136
2.89	118700	BB	0.136	0.770
3.23	54555	BB	0.120	0.354
3.47	20896	BB	0.150	0.138
3.74	10575	BB	0.090	0.069
3.99	58684	BB	0.179	0.381
4.52	87092	BB	0.204	0.565
4.93	12073	BB	0.147	0.078
5.47	11180	BB	0.166	0.073
5.96	130660	BB	0.341	0.847
6.54	53051	BB	0.275	0.349
7.33	3204800	BB	0.258	21.300
9.02	351720	PB	0.609	2.281
9.92	384660	BB	0.366	2.494
11.12	527040	BB	0.455	3.418
12.51	359260	BB	0.536	2.330
14.09	541510	BB	0.533	3.511
15.04	370940	BB	0.719	2.405
18.30	203200	PB	0.625	1.318
19.21	56746	BB	0.590	0.360
21.61	839120	BB	0.794	5.441
24.09	613640	BB	0.934	3.979
27.84	777200	BB	1.361	5.040
32.72	84039	BB	1.868	0.545
37.40	228590	BB	1.584	1.482
41.88	290690	BP	1.895	1.885

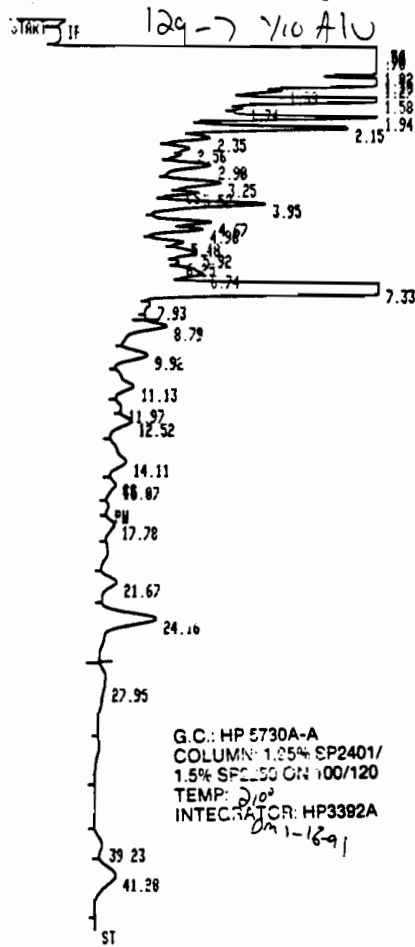
TOTAL AREA= 1.5422E+07  
 MUL FACTOR= 1.0000E+00



RUN # 152                      JAN/16/91 10:27:58  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.60	994820	PB	0.099	17.745
0.71	2447000	BB	0.082	43.644
1.02	77751	BB	0.053	1.387
1.18	13154	BB	0.043	0.235
1.27	23473	BB	0.031	0.419
1.58	486778	BB	0.077	8.682
1.74	10085	BB	0.073	0.180
2.62	14969	PB	0.145	0.267
2.97	33928	BB	0.149	0.605
3.26	25158	BB	0.127	0.449
4.41	17638	BB	0.230	0.315
5.90	14807	PB	0.284	0.264
7.33	408600	PB	0.283	7.288
10.19	40985	PB	0.508	0.731
12.11	60011	VB	0.760	1.070
13.35	146690	BB	1.099	2.616
16.13	29351	BB	1.312	0.524
17.96	38582	BB	0.885	0.688
21.69	36061	PB	0.737	0.643
24.15	625426	BB	0.986	11.155
30.04	40360	BB	1.219	0.720
39.70	21069	BB	1.254	0.376

TOTAL AREA= 5606700  
 MUL FACTOR= 1.0000E+00

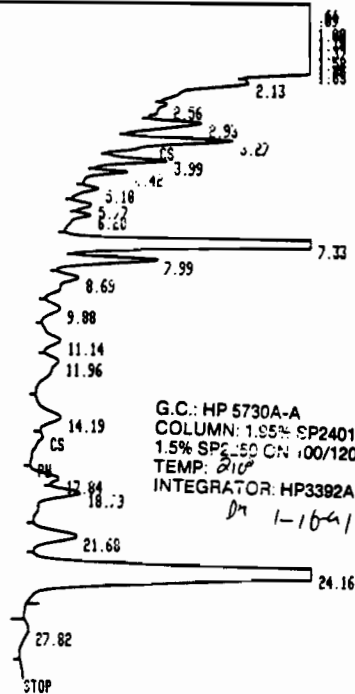


RUN # 153 JAN/16/91 11:26:09  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HL	AREA%
0.56	96700	FB	0.037	0.656
0.59	60493	BB	0.041	0.411
0.70	1627100	BB	0.078	11.045
1.02	107660	BB	0.060	0.731
1.18	207430	BB	0.053	1.400
1.27	53941	BB	0.047	0.366
1.39	9463	BB	0.035	0.064
1.58	464970	BB	0.077	3.156
1.94	166830	BB	0.086	1.133
2.15	160130	BB	0.094	1.007
2.35	29736	BB	0.095	0.202
2.56	14550	BB	0.083	0.099
2.90	65606	FB	0.137	0.445
3.25	69689	BB	0.129	0.473
3.52	39189	BB	0.141	0.266
3.95	288450	BB	0.243	1.958
4.67	65713	BB	0.151	0.446
4.96	57224	BB	0.162	0.388
5.48	33025	BB	0.156	0.224
5.92	66169	BB	0.273	0.449
6.74	90595	BB	0.323	0.615
7.33	9088700	BB	0.250	61.151
7.93	9223	BB	0.212	0.063
8.79	83631	BB	0.268	0.568
9.92	127930	BB	0.395	0.860
11.13	105370	BB	0.512	0.715
11.97	8955	BB	0.200	0.061
12.52	67195	BB	0.413	0.456
14.11	126790	BB	0.692	0.861
15.07	52411	BB	0.627	0.356
17.78	81021	FB	0.821	0.550
21.67	141940	FB	0.820	0.964
24.16	625770	BB	1.006	4.248
27.95	156340	BB	2.110	1.061
39.23	55492	FB	1.004	0.377
41.28	306460	BB	1.454	2.000

TOTAL AREA= 1.4732E+07  
 MUL FACTOR= 1.0000E+00

TAK-1F 129-1 AU



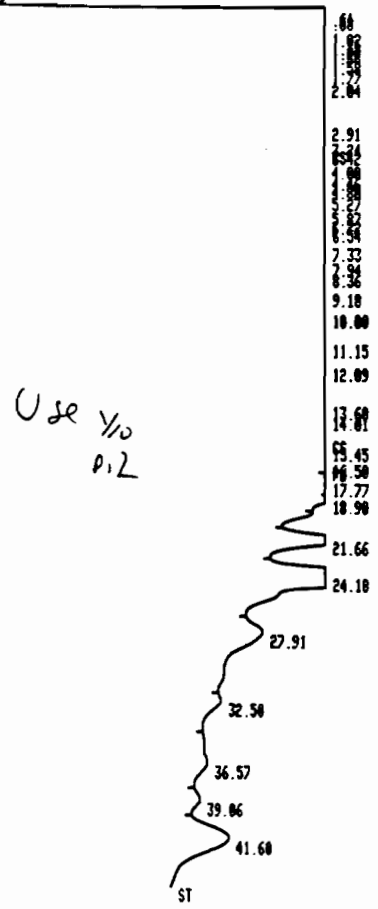
G.C.: HP 5730A-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP250 CN 100/120  
 TEMP: 210°  
 INTEGRATOR: HP3392A  
 Dr 1-16-91

RUN # 154 JAN/16/91 12:15:39  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.61	1734400	PB	0.043	4.061
0.69	2.5945E+07	SPB	0.071	60.753
1.00	383900	BB	0.050	0.099
1.18	253200	BB	0.058	0.593
1.37	162590	BB	0.076	0.301
1.58	3402000	BB	0.078	7.968
1.75	64072	BB	0.062	0.150
1.85	12226	BB	0.025	0.029
2.56	13450	BB	0.157	0.032
2.93	107970	BB	0.159	0.253
3.27	218650	BB	0.178	0.512
3.99	165560	BB	0.226	0.388
4.42	64605	BB	0.161	0.151
5.18	59738	BB	0.239	0.119
5.77	49647	BB	0.262	0.116
6.20	40151	BB	0.220	0.094
7.33	3610700	BB	0.262	7.050
7.99	272060	BB	0.270	0.639
8.69	133300	BB	0.471	0.312
9.88	83205	BB	0.442	0.195
11.14	91084	BB	0.468	0.213
11.96	136190	BB	0.733	0.319
14.19	134070	BB	0.539	0.314
17.84	72688	PB	0.464	0.170
18.79	204330	BB	0.542	0.479
21.68	304370	BB	0.796	0.900
24.16	5433600	BB	0.960	12.724
27.02	80313	BB	1.146	0.188

TOTAL AREA= 4.2705E+07  
 MUL FACTOR= 1.0000E+00

129-2 A10



Use 1/10  
0.2

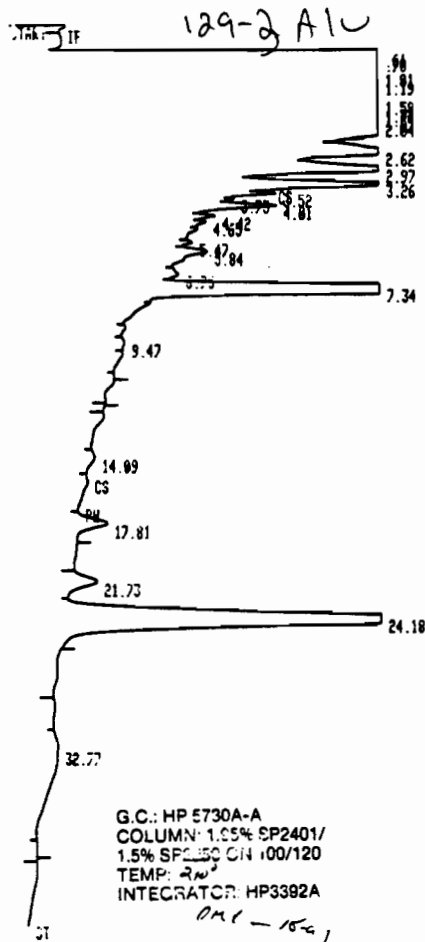
RUN # 155 JAN/16/91 12:48:48  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.61	1199100	PB	0.050	0.928
0.68	3.6825E+07	↑SPB	0.086	27.888
1.02	267090	BB	0.053	0.207
1.18	253310	BB	0.050	0.196
1.27	101770	BB	0.049	0.079
1.38	137770	BB	0.066	0.107
1.58	2549500	BB	0.076	1.974
1.77	2.7388E+07	SPB	0.096	21.202
2.04	3.4700E+07	↑SPB	0.080	26.063
2.91	247090	BB	0.119	0.192
3.24	75705	BB	0.111	0.059
3.42	71548	BB	0.160	0.055
4.00	320350	BB	0.230	0.248
4.46	47175	BB	0.141	0.037
4.80	57432	BB	0.243	0.045
5.27	24505	BB	0.226	0.019
5.87	23633	BB	0.210	0.018
6.22	70109	BB	0.206	0.054
6.54	35078	BB	0.205	0.020
7.33	1.2450E+07	BB	0.268	9.638
7.94	63770	BB	0.204	0.049
8.36	21922	BB	0.250	0.017
9.18	2041300	BB	0.344	1.500
10.00	2295100	BB	0.376	1.777
11.15	473570	BB	0.378	0.367
12.09	1206700	BB	0.478	0.934
13.60	114760	BB	0.342	0.089
14.01	96477	BB	0.324	0.075
15.45	220010	BB	0.744	0.177
16.50	54170	BB	0.421	0.042
17.77	229260	BB	0.647	0.170
18.90	50877	BB	0.538	0.039
21.66	711830	PB	0.853	0.551
24.18	3855200	BB	1.005	2.985
27.91	370220	BB	1.414	0.287
32.50	72958	BB	0.846	0.057
36.57	207700	BB	1.074	0.161
39.06	80357	BB	0.985	0.062
41.60	955860	1 BP	1.923	0.740

TOTAL AREA= 1.2918E+08  
 MUL FACTOR= 1.0000E+00

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RUN # 156                      JAN/16/91 13:49:07  
WORKFILE ID: C  
WORKFILE NAME:

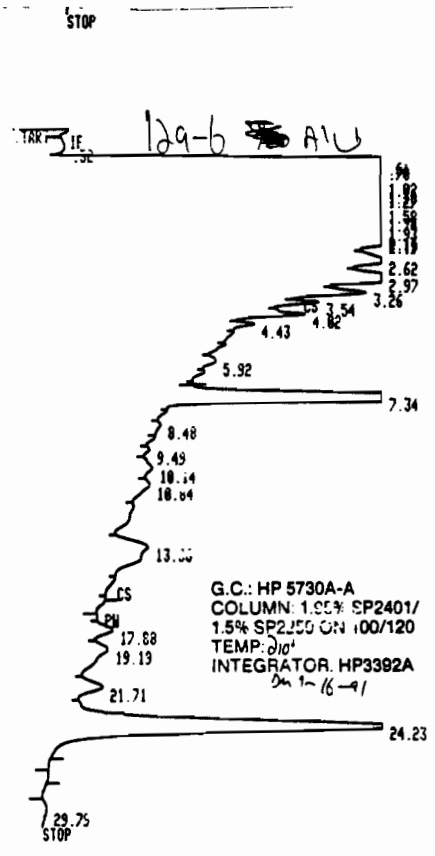
RT	AREA	TYPE	AR/HI	AREA%
0.61	1297500	PB	0.043	2.858
0.70	2.6513E+07	1SPB	0.064	58.397
1.01	114320	BB	0.041	0.252
1.19	362270	BB	0.080	0.798
1.58	3639100	PB	0.079	6.694
1.74	22317	BB	0.054	0.049
1.84	15199	BB	0.067	0.034
2.04	8422	BB	0.035	0.019
2.62	220590	BB	0.140	0.406
2.97	256040	BB	0.148	0.564
3.26	231360	BB	0.135	0.510
3.52	36628	BB	0.111	0.081
3.73	5202	BB	0.001	0.012
4.01	127360	BB	0.106	0.281
4.42	22864	BB	0.130	0.050
4.65	10479	BB	0.126	0.023
5.47	12206	PB	0.136	0.027
5.84	101460	BB	0.331	0.224
6.75	22274	BB	0.250	0.049
7.34	6829700	BB	0.262	15.043
9.47	8833	PB	0.267	0.020
14.09	31106	PB	0.505	0.069
17.81	246900	PB	0.731	0.544
21.73	227160	BB	0.775	0.500
24.18	5043100	BB	0.963	11.100
32.77	595420	VE	4.781	1.312

TOTAL AREA= 4.5401E+07  
MUL FACTOR= 1.0000E+00

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RUN # 157 JAN/16/91 14:48:36  
WORKFILE ID: C  
WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.61	762860	PB	0.033	0.654
0.78	1.3340E+07	SPB	0.072	11.436
1.03	487470	BB	0.060	0.418
1.19	1932000	BB	0.053	1.657
1.27	221050	BB	0.041	0.190
1.39	68689	BB	0.051	0.059
1.59	5330900	BB	0.105	4.570
1.83	8392	BB	0.033	0.007
1.94	833340	BB	0.070	0.714
2.16	1501000	BB	0.092	1.208
2.34	252620	BB	0.097	0.217
2.56	106170	BB	0.083	0.091
2.68	34573	BB	0.070	0.030
2.91	656500	BB	0.155	0.563
3.25	332370	BB	0.115	0.285
3.51	970250	BB	0.147	0.832
3.96	1742100	BB	0.242	1.494
4.67	457300	BB	0.159	0.392
4.97	307970	BB	0.161	0.333
5.49	195490	BB	0.164	0.168
5.93	391770	BB	0.262	0.336
6.24	20574	BB	0.116	0.018
6.78	307420	BB	0.286	0.264
7.34	7.1771E+07	BB	0.274	61.529
7.94	37260	BB	0.187	0.032
8.00	469700	BB	0.244	0.483
9.93	896400	BB	0.406	0.769
11.17	672570	BB	0.509	0.577
12.01	71947	BB	0.273	0.062
12.55	460600	BB	0.414	0.395
13.67	43422	BB	0.373	0.037
14.15	339100	BB	0.430	0.291
15.13	313720	BB	0.600	0.269
16.66	165120	BB	0.504	0.142
17.01	402790	BB	0.806	0.345
19.42	405040	BB	1.251	0.348
21.76	1119000	BB	0.840	0.960
24.28	4470400	BB	1.041	3.832
28.05	1067900	BB	1.040	0.916
32.54	372770	BB	1.364	0.320
35.99	156130	BB	1.632	0.134
39.33	450790	BB	1.009	0.307
41.45	2554300	BB	1.451	2.190
44.48	62071	BB	0.749	0.053



RUN # 158                      JAN/16/91 15:48:55  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA%
0.32	17459	BB	0.244	0.063
0.61	1241988	BB	0.048	4.484
0.70	1.3920E+07	SPB	0.068	50.262
1.02	307200	BB	0.054	1.109
1.18	103870	BB	0.044	0.375
1.27	35725	BB	0.013	0.129
1.58	2946480	BB	0.074	10.639
1.74	40488	BB	0.076	0.146
1.93	24659	BB	0.060	0.089
2.19	27088	BB	0.084	0.098
2.62	82601	BB	0.131	0.298
2.97	288340	BB	0.139	1.041
3.26	64778	BB	0.113	0.234
3.54	56908	BB	0.151	0.206
4.02	114420	BB	0.202	0.413
4.43	37684	BB	0.169	0.136
5.92	34500	PB	0.312	0.125
7.34	3551200	BB	0.269	12.023
8.48	11685	PB	0.279	0.042
9.49	9611	PB	0.208	0.035
10.14	33209	BB	0.305	0.120
10.84	46344	BB	0.409	0.167
13.36	336210	PB	0.929	1.214
17.88	126530	VB	0.659	0.457
19.19	218950	BB	1.167	0.791
21.71	189770	BB	0.743	0.685
24.23	3772000	BB	0.969	13.620
29.75	55130	BP	1.130	0.199

TOTAL AREA= 2.7634E+07  
 MUL FACTOR= 1.0000E+00

CLIENT: WCC  
 JOB #: R91/0129  
 METHOD: FEB 8080 EXTRACTION: 3550

SAMPLE #	INITIAL EXTRACTION VOLUME	APPEARANCE	SPIKE ADDED	DATE	PRIMARY CLEAN-UP	DATE	DILUTION & SECONDARY CLEAN	DATE	COMMENTS	DATE
1	30.03g	Dark Brown Soil	1MS + 1MSD	1/14/91	3ULC	1/14/91	1/10	1/14/91		1/14/91
1MS	30.03g	Dark Brown Soil	1ml of FEB							
1MSDV	30.03g	Dark Brown Soil	1260 50ppm							
2	30.01g	Brown Soil	P174 PPHM						3g Extra Na2SO4	
3	30.07g	Dark Brown Soil	1/14/91 @ 20H							
4	30.00g	Dark Brown Soil	in iso-octane							
5	30.00g	Brown Soil	Ref SPK							
6	30.04g	Dark Brown Soil	1ml of FEB							
7	30.00g	Dark Brown Soil	1260 20ppm						50g Extra Na2SO4	
B/K	—	clear, colorless	in MeOH							
Ref SPK	—	clear, colorless	P169 PPHM							
			9/14/90 ADH							

DATE EXTRACTED: 1/14/91 MISC. FEB 1/14/91  
 CLIENT: WCC R91/0129 ANALYSIS: FEB 8080 ANALYST: Phoenfeld  
 METHOD SUMMARY:  
 30.0g Sample, 60.0g Na2SO4, and 100ml 1:1 MeOH/ Acetone  
 Sonicated for 3mins. 3x's more for a total of 3.  
 SURROGATE: 1ml Feb/Feb Surrogate  
 1.00ppm TEXA and CBC in MeOH  
 P186. Refm 12/17/90 PPH 505

R90/5533

R91/0129

GC 8080

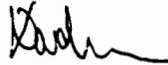
PCB

CONFIRMATORY

CHROMATOGRAMS

The jobs R90/5533, and R91/0129 were analyzed for PCB's using method 8080 from SW846. Samples R90/5533-006, -008, and -009 were confirmed on 2/7/91 using 3% SP2100 ~~7.5% SP2250~~. All other samples were confirmed on 2/1/91 using RTx-35. Positive hits were found confirming the presence of PCB's in all samples.

2/8/91

A handwritten signature in black ink, appearing to be "Koch", written below the date.

10 - PESTICIDE/PCB IDENTIFICATION

Lab Name: General Testing Corp. Contract: \_\_\_\_\_  
 Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID: (1): 2401/2250 GC Column ID: (2): 2100  
 Instrument ID (1): HP5730A-A Instrument ID (2): HP5730A-A  
 Lab Sample ID: R90/5533-6  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

	PESTICIDE/PCB	RETENTION TIME	RT WINDOW		QUANT? (Y/N)	
			OF STANDARD FROM	TO		
01	PCB 1260	Column 1	12.50	11.99	12.57	Y
02		Column 2	17.70	17.43	17.79	N
03	_____	Column 1	_____	_____	_____	_____
04		Column 2	_____	_____	_____	_____
05	_____	Column 1	_____	_____	_____	_____
06		Column 2	_____	_____	_____	_____
07	_____	Column 1	_____	_____	_____	_____
08		Column 2	_____	_____	_____	_____
09	_____	Column 1	_____	_____	_____	_____
10		Column 2	_____	_____	_____	_____
11	_____	Column 1	_____	_____	_____	_____
12		Column 2	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

10 - PESTICIDE/PCB IDENTIFICATION

Lab Name: General Testing Corp. Contract: \_\_\_\_\_  
 Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID: (1): 2401/2250 GC Column ID: (2): 2100  
 Instrument ID (1): HP5730A-A Instrument ID (2): HP5730A-A  
 Lab Sample ID: R90/5533-8 1/10  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

-----						
	PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD		QUANT? (Y/N)
				FROM	TO	
01	PCB 1260	Column 1	12.52	11.99	12.57	Y
02		Column 2	17.66	17.43	17.79	N
03	_____	Column 1	_____	_____	_____	_____
04		Column 2	_____	_____	_____	_____
05	_____	Column 1	_____	_____	_____	_____
06		Column 2	_____	_____	_____	_____
07	_____	Column 1	_____	_____	_____	_____
08		Column 2	_____	_____	_____	_____
09	_____	Column 1	_____	_____	_____	_____
10		Column 2	_____	_____	_____	_____
11	_____	Column 1	_____	_____	_____	_____
12		Column 2	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_



10 - PESTICIDE/PCB IDENTIFICATION

Lab Name: General Testing Corp. Contract: \_\_\_\_\_  
 Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID: (1): 2401/2250 GC Column ID: (2): 2100  
 Instrument ID (1): HP5730A-A Instrument ID (2): HP5730A-A  
 Lab Sample ID: R90/5533-9 1/10  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

	PESTICIDE/PCB	RETENTION TIME	RT WINDOW		QUANT? (Y/N)	
			OF STANDARD FROM	TO		
01	PCB 1260	Column 1	12.51	11.99	12.57	Y
02		Column 2	17.67	17.43	17.79	N
03	_____	Column 1	_____	_____	_____	_____
04		Column 2	_____	_____	_____	_____
05	_____	Column 1	_____	_____	_____	_____
06		Column 2	_____	_____	_____	_____
07	_____	Column 1	_____	_____	_____	_____
08		Column 2	_____	_____	_____	_____
09	_____	Column 1	_____	_____	_____	_____
10		Column 2	_____	_____	_____	_____
11	_____	Column 1	_____	_____	_____	_____
12		Column 2	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
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10 - PESTICIDE/PCB IDENTIFICATION

Lab Name: General Testing Corp. Contract: \_\_\_\_\_  
 Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID: (1): 2401/2250 GC Column ID: (2): RTx-35  
 Instrument ID (1): HP5730A-A Instrument ID (2): HP5890II-F  
 Lab Sample ID: R91/0129-4 1/10  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

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	PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD		QUANT? (Y/N)
				FROM	TO	
01	PCB 1260	Column 1	12.53	11.99	12.57	Y
02		Column 2	49.48	48.96	49.94	N
03	PCB 1242	Column 1	5.78	5.13	6.27	Y
04		Column 2	17.38	17.20	17.55	N
05	_____	Column 1	_____	_____	_____	_____
06		Column 2	_____	_____	_____	_____
07	_____	Column 1	_____	_____	_____	_____
08		Column 2	_____	_____	_____	_____
09	_____	Column 1	_____	_____	_____	_____
10		Column 2	_____	_____	_____	_____
11	_____	Column 1	_____	_____	_____	_____
12		Column 2	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

10 - PESTICIDE/PCB IDENTIFICATION

Lab Name: General Testing Corp. Contract: \_\_\_\_\_  
 Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID: (1): 2401/2250 GC Column ID: (2): RTx-35  
 Instrument ID (1): HP5730A-A Instrument ID (2): HP5890II-F  
 Lab Sample ID: R91/0129-5 1/10  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

	PESTICIDE/PCB	RETENTION TIME	RT WINDOW		QUANT? (Y/N)
			OF STANDARD FROM	TO	
01	PCB 1260	Column 1 12.51	11.99	12.57	Y
02		Column 2 49.43	48.96	49.94	N
03	_____	Column 1 _____	_____	_____	_____
04		Column 2 _____	_____	_____	_____
05	_____	Column 1 _____	_____	_____	_____
06		Column 2 _____	_____	_____	_____
07	_____	Column 1 _____	_____	_____	_____
08		Column 2 _____	_____	_____	_____
09	_____	Column 1 _____	_____	_____	_____
10		Column 2 _____	_____	_____	_____
11	_____	Column 1 _____	_____	_____	_____
12		Column 2 _____	_____	_____	_____

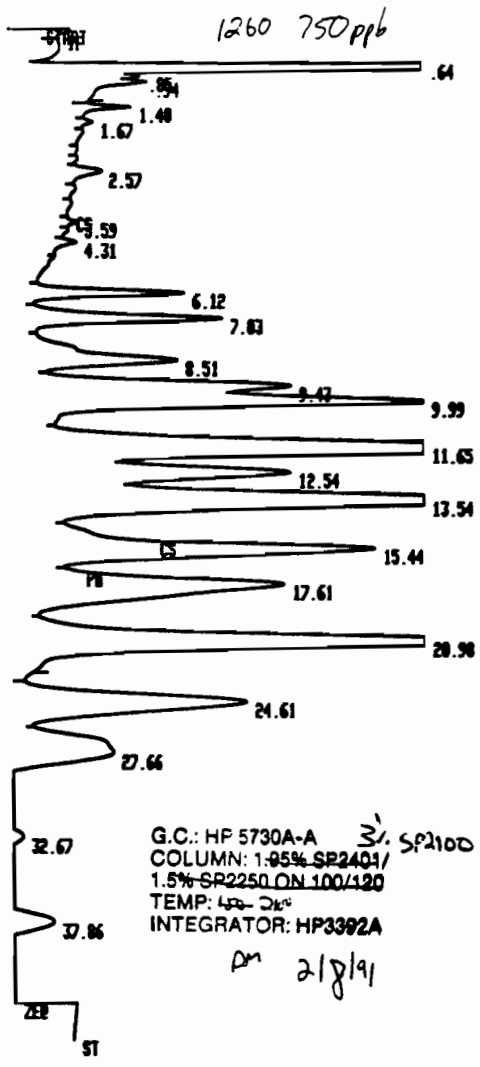
COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

10 - PESTICIDE/PCB IDENTIFICATION

Lab Name: General Testing Corp. Contract: \_\_\_\_\_  
 Lab Code: GTC Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID: (1): 2401/2250 GC Column ID: (2): RTx-35  
 Instrument ID (1): HP5730A-A Instrument ID (2): HP5890II-F  
 Lab Sample ID: R90/5533-10 1/50  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

	PESTICIDE/PCB	RETENTION TIME	RT WINDOW		QUANT? (Y/N)	
			OF STANDARD FROM	TO		
01	PCB 1260	Column 1	12.56	11.99	12.57	Y
02		Column 2	49.43	48.96	49.94	N
03	_____	Column 1	_____	_____	_____	_____
04		Column 2	_____	_____	_____	_____
05	_____	Column 1	_____	_____	_____	_____
06		Column 2	_____	_____	_____	_____
07	_____	Column 1	_____	_____	_____	_____
08		Column 2	_____	_____	_____	_____
09	_____	Column 1	_____	_____	_____	_____
10		Column 2	_____	_____	_____	_____
11	_____	Column 1	_____	_____	_____	_____
12		Column 2	_____	_____	_____	_____

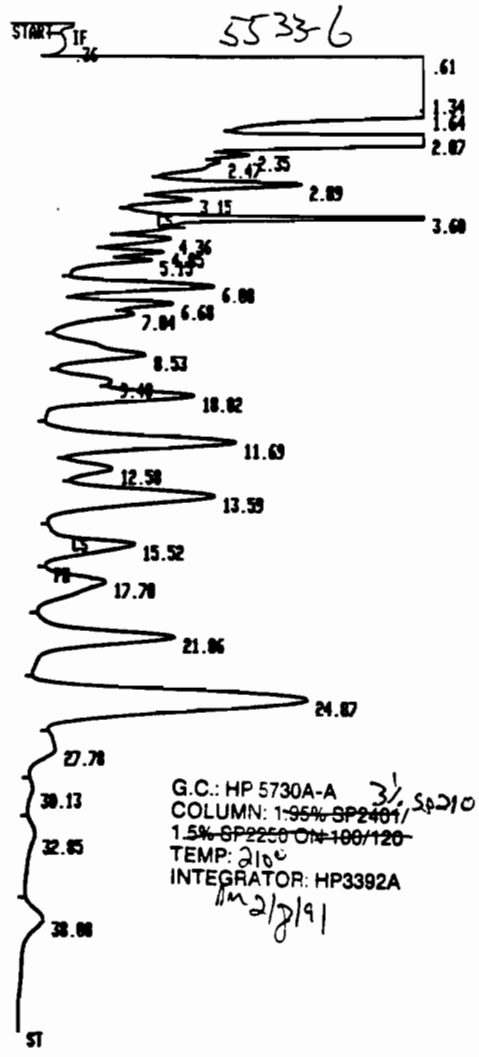
COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_



RUN # 2 FEB/07/91 13:00:01  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.64	2846300	SPB	0.059	10.325
1.40	33662	BB	0.076	0.122
1.67	8176	BB	0.079	0.038
2.57	38780	PB	0.136	0.141
3.59	13564	PB	0.150	0.049
4.31	33616	PB	0.197	0.122
6.12	394000	PB	0.266	1.430
7.03	629730	BB	0.339	2.204
8.51	640050	BB	0.470	2.325
9.43	360010	BB	0.305	1.309
9.99	677290	BB	0.274	2.457
11.65	2723000	BB	0.512	9.077
12.54	670630	BB	0.412	2.433
13.54	2300300	BB	0.560	8.634
15.44	2734000	BB	0.085	9.918
17.61	2759000	BB	1.200	10.011
20.98	4857000	BB	0.965	17.621
24.61	2574700	PB	1.107	9.340
27.66	1516200	BB	1.602	5.500
32.67	520900	BB	1.511	1.890
37.86	1153300	BB	1.602	4.104

TOTAL AREA= 2.7568E+07  
 MUL FACTOR= 1.0000E+00

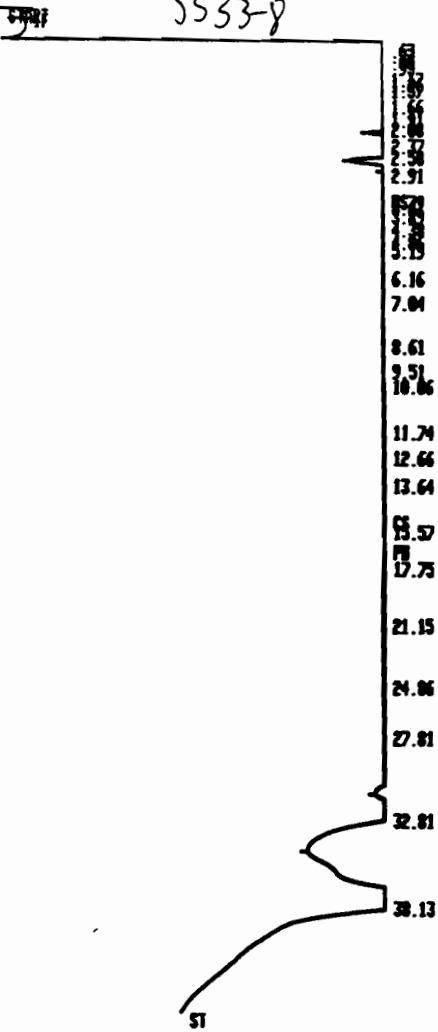


RUN # 3 FEB/07/91 14:00:19  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/MT	AREA2
0.36	33358	BB	0.299	0.025
0.61	1.1586E+08	1SPB	0.242	87.958
1.34	75772	BB	0.024	0.058
1.64	73889	BB	0.061	0.055
2.07	3587400	BB	0.104	2.663
2.35	21575	BB	0.068	0.016
2.47	34183	BB	0.222	0.026
2.89	210310	BB	0.143	0.160
3.15	51167	BB	0.103	0.039
3.60	544660	BB	0.185	0.414
4.36	137350	BB	0.260	0.104
4.85	86185	BB	0.171	0.065
5.15	45259	BB	0.107	0.034
6.08	474940	BB	0.335	0.361
6.68	168500	BB	0.236	0.128
7.04	25412	BB	0.110	0.019
8.53	499640	BB	0.550	0.379
9.48	44499	BB	0.276	0.034
10.82	345500	BB	0.329	0.262
11.69	922700	BB	0.510	0.701
12.58	178500	BB	0.390	0.136
13.59	904210	BB	0.509	0.687
15.52	790640	BB	0.892	0.600
17.70	763020	BB	1.190	0.579
21.06	1378700	BB	0.992	1.047
24.87	3793900	BB	1.422	2.000
27.78	205990	BB	1.202	0.156
30.13	42584	BB	0.991	0.032
32.85	155860	BB	1.854	0.118
38.00	346630	I BP	1.731	0.263

TOTAL AREA= 1.3172E+08  
 MUL FACTOR= 1.0000E+00

5533-8



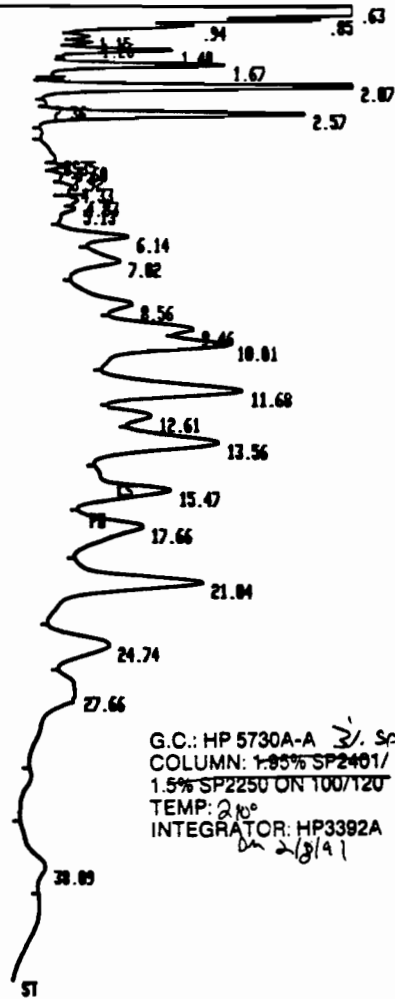
RUN 0 4 FEB/07/91 15:00:36  
 WORKFILE ID: C  
 WORKFILE NAME:

AREA2 RT	AREA	TYPE	AR/HT	AREA2
0.63	3276300	SPB	0.053	4.947
0.73	952610	SPB	0.044	1.438
0.85	469190	BB	0.044	0.788
0.95	239900	BB	0.062	0.362
1.17	36911	BB	0.048	0.056
1.26	189210	BB	0.051	0.165
1.37	114670	BB	0.087	0.173
1.66	666590	BB	0.091	1.007
2.08	3610700	BB	0.106	5.452
2.37	12306	BB	0.071	0.019
2.58	2670000	BB	0.121	4.042
2.91	17855	BB	0.097	0.027
3.39	59238	BB	0.358	0.089
3.61	201100	BB	0.145	0.304
3.89	24423	BB	0.128	0.037
4.38	37103	BB	0.088	0.056
4.86	108710	BB	0.185	0.164
5.19	114400	BB	0.177	0.173
6.16	1127000	BB	0.305	1.702
7.04	1297000	BB	0.459	1.959
8.61	1024500	BB	0.417	1.547
9.51	857090	BB	0.324	1.294
10.06	1281000	BB	0.270	1.934
11.74	4929100	BB	0.536	7.442
12.66	1020600	BB	0.406	1.541
13.64	4358300	BB	0.577	6.500
15.57	5600000	BB	0.893	8.467
17.75	6114300	BB	1.230	9.232
21.15	1.1428E+07	BB	1.043	17.254
24.86	6455700	BB	1.260	9.747
27.81	3847700	BB	1.551	4.602
32.81	732070	BB	1.223	1.105
38.13	4222400	I BP	2.428	6.375

TOTAL AREA= 6.6232E+07  
 MUL FACTOR= 1.0000E+00

START IF

SS 33-8410



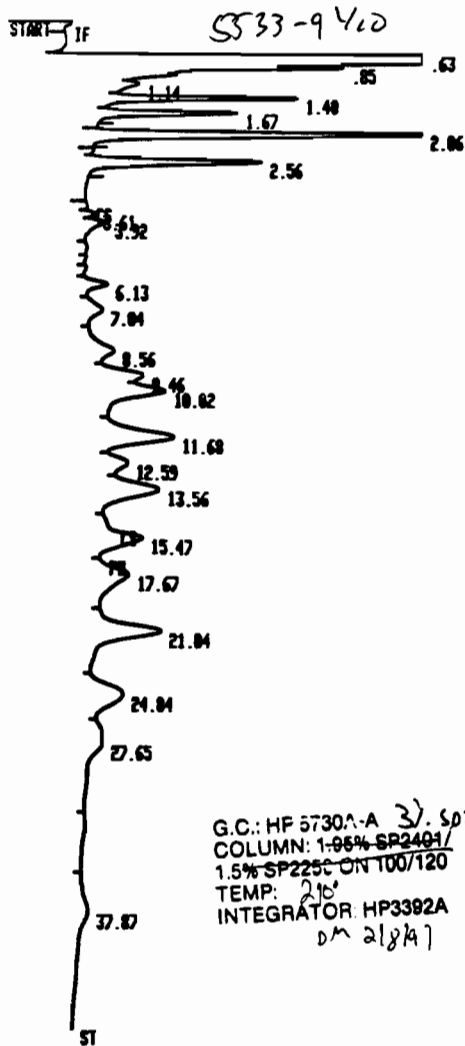
G.C.: HP 5730A-A *31* SP2100  
 COLUMN: 1.85% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 210°  
 INTEGRATOR: HP3392A  
*2/8/91*

RUN # 5 FEB/07/91 16:15:38  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/HT	AREA2
0.63	2867100	PB	0.087	27.506
0.85	48647	BB	0.043	0.467
0.94	32352	BB	0.068	0.310
1.15	12177	BB	0.065	0.117
1.26	11828	BB	0.049	0.106
1.40	77292	BB	0.073	0.742
1.67	147740	VB	0.089	1.417
2.07	488200	BB	0.100	3.916
2.57	299610	BB	0.115	2.874
3.35	13233	PB	0.240	0.127
3.60	19766	BB	0.134	0.190
3.92	11103	BB	0.171	0.107
4.33	17220	BB	0.195	0.165
4.83	14643	PB	0.183	0.141
6.14	157250	BB	0.299	1.509
7.02	188510	BB	0.456	1.889
8.56	137630	BB	0.397	1.320
9.46	129380	BB	0.316	1.241
10.01	195590	BB	0.267	1.876
11.68	782720	BB	0.515	6.742
12.61	134370	BB	0.390	1.289
13.56	595640	BB	0.562	5.714
15.47	737950	BB	0.872	7.000
17.66	804230	BB	1.203	7.716
21.04	1381200	BB	0.996	13.251
24.74	785130	BB	1.242	6.765
27.66	421230	BB	1.666	4.041
38.09	152590	PB	1.183	1.464

TOTAL AREA= 1.0424E+07  
 MUL FACTOR= 1.0000E+00

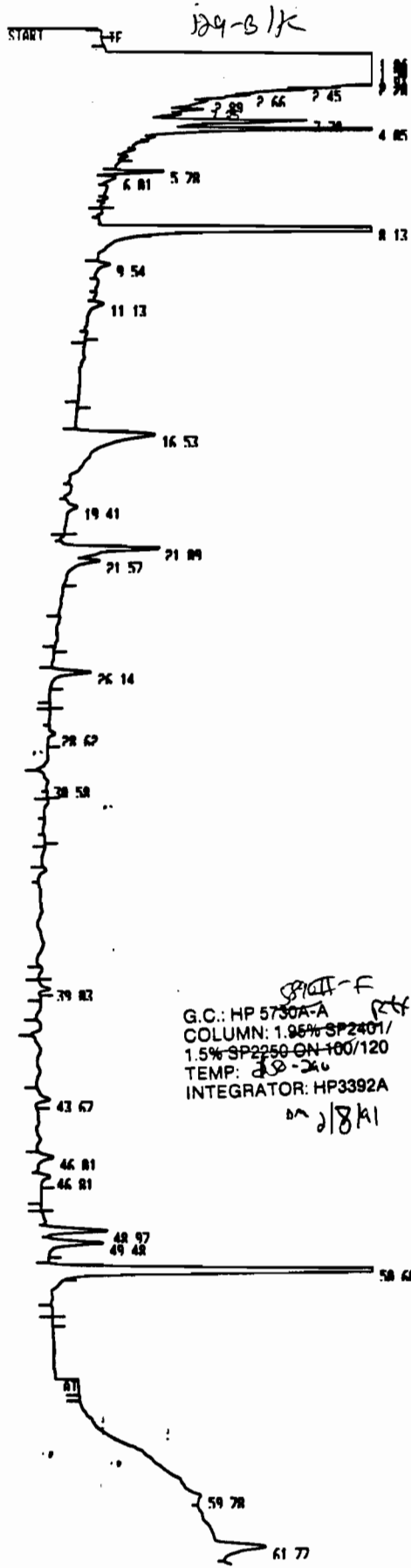




RUN # 6 FEB/07/91 17:15:56  
 WORKFILE ID: C  
 WORKFILE NAME:

RT	AREA	TYPE	AR/NT	AREA2
0.63	4225100	PB	0.091	50.618
0.85	38227	BB	0.035	0.362
1.14	12417	PB	0.097	0.149
1.40	138690	BB	0.076	1.661
1.67	116540	BB	0.087	1.396
2.06	362400	BB	0.097	4.341
2.56	195740	PB	0.115	2.345
3.61	8795	PB	0.144	0.105
3.92	46891	BB	0.270	0.562
6.13	59225	PB	0.268	0.709
7.04	70055	BB	0.469	0.839
8.56	67882	BB	0.408	0.813
9.46	57559	BB	0.310	0.690
10.02	120040	BB	0.319	1.438
11.68	343540	BB	0.525	4.115
12.59	64919	BB	0.397	0.778
13.56	271090	BB	0.550	3.247
15.47	369910	BB	0.896	4.431
17.67	336630	BB	1.146	4.032
21.04	644790	BB	0.995	7.724
24.04	483320	BB	1.356	4.831
27.65	131030	BB	1.386	1.570
37.87	271550	I VP	2.670	3.253

TOTAL AREA= 8348300  
 MUL FACTOR= 1.0000E+00



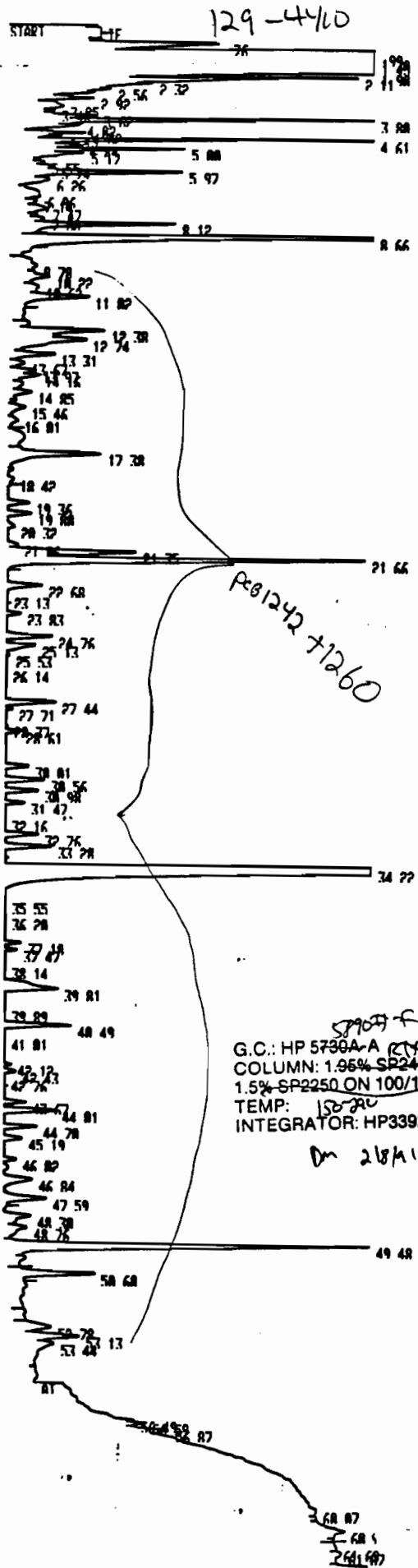
124-B/K

G.C.: HP 5730A-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 120-200  
 INTEGRATOR: HP3392A  
 1/8/91

RUN # 306 FFR/SP/91 01:15:30  
 WORKFILE ID: C  
 WORKFILE NAME:  
 SAMPLE # 6

AREA2	RT	AREA	TYPE	AR/HT	AREA2
1	06	7.2358E+07	15SR	A 201	RR 118
1	08	2.28590E	SPR	A 025	2 704
2	08	15325	RR	A 046	A 019
2	66	19200	RR	A 120	A 023
2	89	27222	RR	A 223	A 023
3	25	20302	RR	A 070	A 025
3	70	248210	PR	A 160	A 302
4	05	487460	RR	A 085	A 594
5	70	77200	RR	A 124	A 094
6	01	30549	RR	A 205	A 037
8	13	2426300	PR	A 110	2 955
9	54	31340	RR	A 205	A 020
11	13	47560	VR	A 206	A 050
16	53	579020	RR	A 636	A 706
19	41	57722	PR	A 305	A 070
21	09	210040	PR	A 212	A 256
21	57	11727	RR	A 025	A 014
26	14	99069	RR	A 223	A 121
28	62	17052	VR	A 219	A 022
30	50	25900	PR	A 401	A 032
39	03	24604	RR	A 203	A 030
43	67	36020	RR	A 256	A 045
46	01	40620	RR	A 260	A 050
46	01	30994	RR	A 235	A 030
48	97	129670	PR	A 107	A 150
49	40	139140	RR	A 222	A 170
50	60	2191000	PR	A 109	2 669
59	70	93209	PR	A 346	A 114
61	77	343010	RR	A 310	A 410

TOTAL AREA= 0.2114E+07  
 ME FACTOR= 1.0000E+00

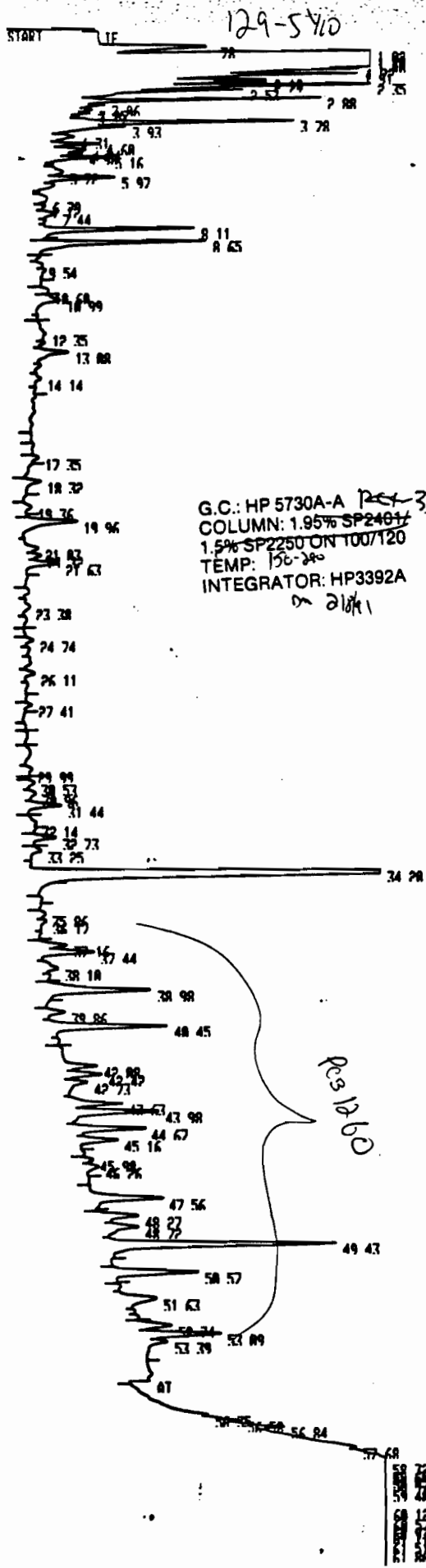


SP907 f  
 G.C.: HP 5730A-A (RT)  
 COLUMN: 1.95% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 150°C  
 INTEGRATOR: HP3392A  
 Dm 218/1

RUN # 387 FFR/02/91 00:26:25  
 METHOD: FID  
 SAMPLE # 7

RT	AREA	TYPE	AREA	AREA
0.76	282198	PR	0.167	0.158
0.99	91242+87	SPR	0.183	65.899
1.38	7288488	SPR	0.853	5.348
1.45	97841	RR	0.889	0.877
2.11	233688	RR	0.895	0.173
2.92	51618	PR	0.184	0.838
3.25	41858	RR	0.216	0.831
3.62	23181	RR	0.865	0.817
3.88	258538	RR	0.878	0.268
4.82	29749	RR	0.122	0.822
4.32	34799	RR	0.879	0.826
4.61	288638	RR	0.878	0.223
4.84	25144	RR	0.897	0.819
5.88	113978	RR	0.883	0.885
5.17	34415	RR	0.185	0.826
5.97	178668	RR	0.112	0.127
6.26	38778	RR	0.213	0.829
6.96	44865	RR	0.384	0.833
7.47	27692	RR	0.191	0.821
8.12	189838	RR	0.124	0.141
8.66	1738188	RR	0.127	1.289
9.28	26569	PR	0.287	0.828
10.22	39576	RR	0.188	0.829
10.62	13845	RR	0.165	0.818
11.80	182528	RR	0.159	0.877
12.38	78827	PR	0.118	0.859
12.74	96126	VR	0.193	0.821
13.31	68427	RR	0.158	0.851
13.67	17848	RR	0.157	0.813
13.97	16776	RR	0.118	0.812
14.16	19935	RR	0.121	0.815
14.85	32438	VR	0.168	0.824
15.46	32342	PR	0.281	0.824
16.81	15278	RR	0.184	0.811
17.38	288188	RR	0.214	0.154
18.40	13899	PR	0.178	0.818
19.36	55415	PR	0.187	0.841
19.88	49686	RR	0.163	0.827
20.30	23529	RR	0.214	0.818
21.66	178518	RR	0.154	0.126
21.66	564988	RR	0.155	0.419
22.68	93788	RR	0.286	0.828
23.83	62816	PR	0.213	0.846
24.76	126458	RR	0.288	0.824
25.13	85514	RR	0.211	0.863
25.53	25237	RR	0.263	0.819
26.14	22315	RR	0.189	0.817
27.44	182598	PR	0.169	0.888
28.37	18419	RR	0.899	0.888
28.61	58725	RR	0.288	0.838
30.81	91126	PR	0.287	0.868
30.56	111488	RR	0.187	0.823
30.98	95791	RR	0.184	0.821
31.47	64188	RR	0.171	0.848
32.16	28149	RR	0.228	0.821
32.76	87742	RR	0.179	0.865
33.28	115688	RR	0.192	0.886
34.22	27322+87	PR	0.174	28.261
35.55	23683	RR	0.173	0.818
36.28	38864	RR	0.161	0.823
37.18	48489	PR	0.147	0.836
37.47	45448	RR	0.155	0.834
38.14	33544	RR	0.286	0.825
39.01	313218	RR	0.369	0.232
39.89	45568	RR	0.284	0.834
40.49	181598	RR	0.193	0.125
41.81	23515	PR	0.198	0.817
42.12	24486	PR	0.134	0.818
42.43	42432	RR	0.188	0.832
42.76	15887	RR	0.134	0.811
43.67	63735	PR	0.191	0.847
44.81	119978	RR	0.182	0.889
44.78	83168	RR	0.174	0.862
45.19	49268	RR	0.181	0.827
46.80	27982	PR	0.154	0.821
46.84	85264	PR	0.255	0.863
47.59	92396	RR	0.199	0.869
48.38	54891	PR	0.281	0.848
48.76	37938	RR	0.225	0.828
49.48	839928	RR	0.195	0.623
50.68	149158	RR	0.179	0.111
52.78	49681	PR	0.288	0.827
53.13	79218	RR	0.166	0.859
53.44	26884	RR	0.192	0.828
56.59	21846	RR	0.874	0.816
56.87	36535	RR	0.878	0.827
60.87	1826188	RR	7.987	1.391
60.97	78889	PR	0.211	0.858
61.87	21844	RR	0.173	0.816

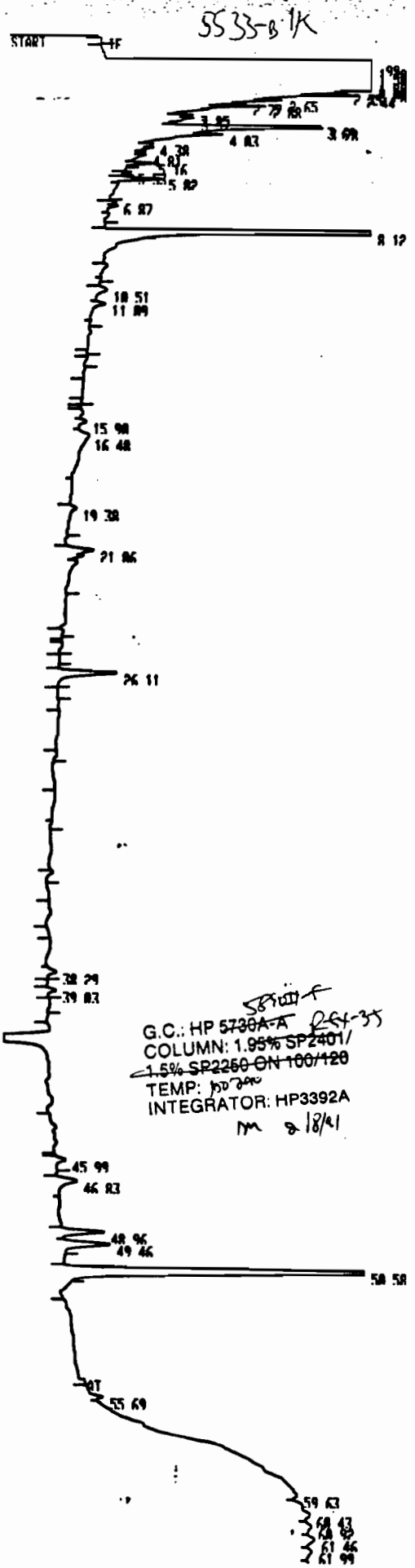
TOTAL AREA= 1.2485E+08  
 ME FACTOR= 1.0000E+08



RUN # 300 FFR/02/91 03:37:05  
 WORKFILE ID: C  
 WORKFILE NAME:  
 SAMPLE # A

RT	AREA	TYPE	AREA	AREA
0.78	119818	RR	0.119	0.315
1.82	4274F+07	SPR	0.006	37.764
1.22	2996100	SPR	0.025	7.065
1.38	16600+07	SPR	0.051	38.615
1.46	672200	RR	0.029	1.765
1.72	18800	RR	0.042	0.049
1.91	102760	RR	0.060	0.270
2.10	48500	RR	0.025	0.106
2.21	30200	RR	0.023	0.100
2.25	220600	RR	0.070	0.603
2.53	65130	RR	0.025	0.171
2.88	124160	RR	0.067	0.457
3.06	11326	RR	0.063	0.030
3.78	100500	RR	0.009	0.521
3.93	23293	RR	0.070	0.061
4.31	30004	RR	0.150	0.001
4.68	25004	RR	0.025	0.004
4.84	26252	RR	0.122	0.070
4.98	11904	RR	0.070	0.009
5.16	50546	RR	0.095	0.133
5.72	20612	RR	0.223	0.075
5.97	25265	RR	0.105	0.190
6.79	20031	RR	0.269	0.076
7.44	25540	RR	0.160	0.067
8.11	212700	RR	0.125	0.009
8.65	250060	RR	0.136	0.666
10.99	41004	RR	0.205	0.100
12.25	24130	RR	0.254	0.063
13.00	71010	RR	0.206	0.100
14.14	15952	RR	0.212	0.042
17.25	10046	RR	0.143	0.009
18.20	36965	RR	0.201	0.097
19.36	14519	RR	0.106	0.000
19.96	140470	RR	0.234	0.260
21.03	11447	RR	0.115	0.000
21.20	14406	RR	0.140	0.000
21.63	45963	RR	0.144	0.121
23.38	24000	RR	0.200	0.066
24.74	15702	RR	0.173	0.041
26.11	21690	RR	0.102	0.057
27.41	11200	RR	0.140	0.009
29.99	13142	RR	0.200	0.025
30.53	12751	RR	0.170	0.034
30.96	16904	RR	0.204	0.045
31.44	66073	RR	0.101	0.176
32.73	41610	RR	0.163	0.100
33.25	19370	RR	0.191	0.051
34.20	3171000	RR	0.166	0.206
35.06	11100	RR	0.176	0.009
36.17	10642	RR	0.165	0.000
37.16	30102	RR	0.144	0.070
37.44	040023	RR	0.164	0.221
38.10	25450	RR	0.243	0.003
38.00	260010	RR	0.220	0.693
39.06	20640	RR	0.170	0.004
40.45	240450	RR	0.193	0.022
42.00	46707	RR	0.149	0.123
42.42	54700	RR	0.150	0.144
42.73	30305	RR	0.193	0.101
43.63	04400	RR	0.104	0.240
43.90	164060	RR	0.103	0.423
44.67	125500	RR	0.174	0.256
45.16	71322	RR	0.173	0.102
45.00	11070	RR	0.131	0.009
46.26	21240	RR	0.176	0.056
47.56	167140	RR	0.210	0.420
48.27	72671	RR	0.100	0.101
48.72	60260	RR	0.200	0.170
49.43	500030	RR	0.200	1.236
50.57	170460	RR	0.100	0.460
51.63	02226	RR	0.260	0.242
52.74	65003	RR	0.106	0.171
53.00	120570	RR	0.160	0.251
56.50	22303	RR	0.000	0.050
56.04	25450	RR	0.114	0.100
58.20	42930	RR	0.052	0.113
58.65	16642	RR	0.100	0.044
60.93	12346	RR	0.175	0.025
61.11	21502	RR	0.025	0.057
61.51	27340	RR	0.100	0.072
61.06	19660	RR	0.100	0.052

TOTAL AREA= 3.0000E+07  
 MEAN FACTOR= 1.0000E+00

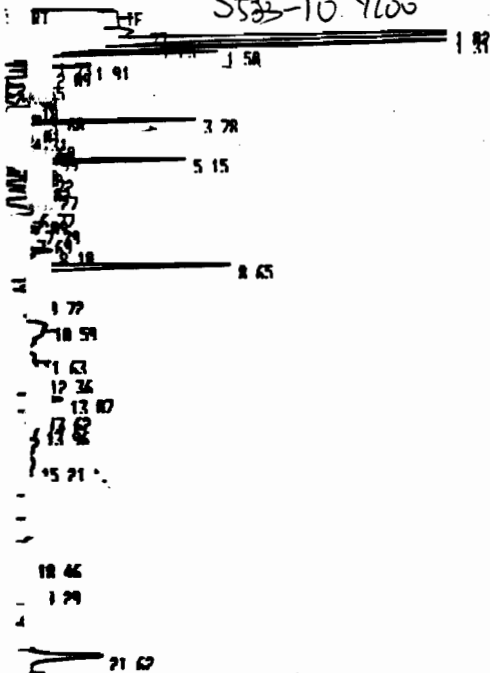


RUN 8 309 FFR/SP/91 04:47:51  
 METHOD: FID: C  
 METHOD NAME:  
 SAMPLE 8 9

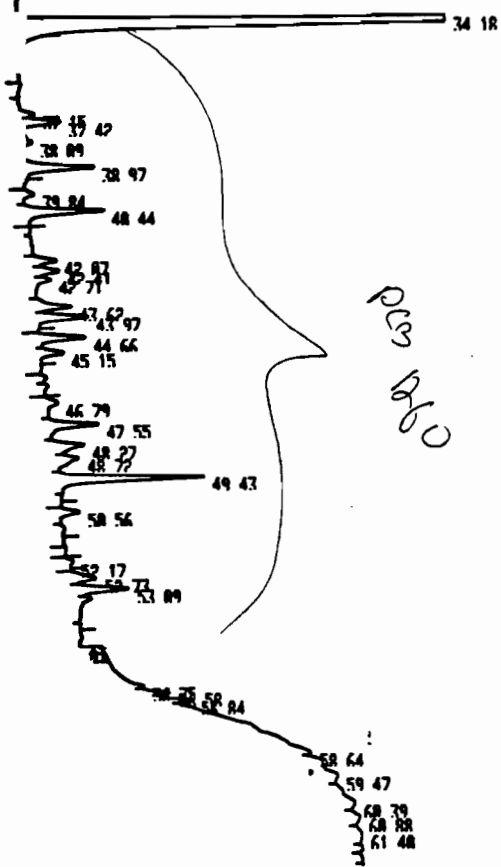
AREA	RT	AREA TYPE	AREA	AREA
0 99	1318F+07	15SR	0 898	79 825
1 38	5461688	SPR	0 837	12 562
2 07	18698	RR	0 856	0 825
2 28	28148	RR	0 875	0 825
2 35	14926	RR	0 868	0 828
2 44	37239	RR	0 852	0 828
2 65	16686	VR	0 858	0 828
2 77	18693	RR	0 856	0 825
2 88	32875	RR	0 855	0 826
3 37	15623	RR	0 188	0 826
3 69	19934	RR	0 838	0 846
4 03	36537	RR	0 892	0 884
4 81	18522	PR	0 111	0 824
5 16	24717	RR	0 893	0 857
5 82	51167	RR	0 185	0 118
8 12	2364588	PR	0 117	5 439
18 51	25418	RR	0 236	0 859
11 09	21223	RR	0 165	0 849
15 08	13254	VR	0 168	0 821
16 48	114858	RR	0 823	0 264
19 38	16554	RR	0 283	0 828
21 06	20991	PR	0 146	0 859
26 11	137868	RR	0 284	0 315
38 29	23948	PR	0 213	0 825
39 03	15888	RR	0 152	0 826
45 99	28197	RR	0 175	0 847
46 83	64284	RR	0 284	0 148
48 96	98551	PR	0 186	0 288
49 46	187788	RR	0 283	0 248
58 58	1626388	PR	0 186	3 764
59 63	12418	PR	0 863	0 828
59 83	1493788	RR	5 868	3 436
59 84	96363	RR	0 515	0 222
59 85	29529	RR	0 235	0 868
59 86	44622	RR	0 273	0 182
59 87	28878	RR	0 255	0 866

TOTAL AREA= 4 3477F+07  
 NB FACTOR= 1 8888F+08

5533-10.4600



*Spot f*  
 G.C.: HP 5790A-A  
 COLUMN: 1.95% SP2401/  
 1.5% SP2250 ON 100/120  
 TEMP: 150-270  
 INTEGRATOR: HP3392A  
*0-2/8/81*

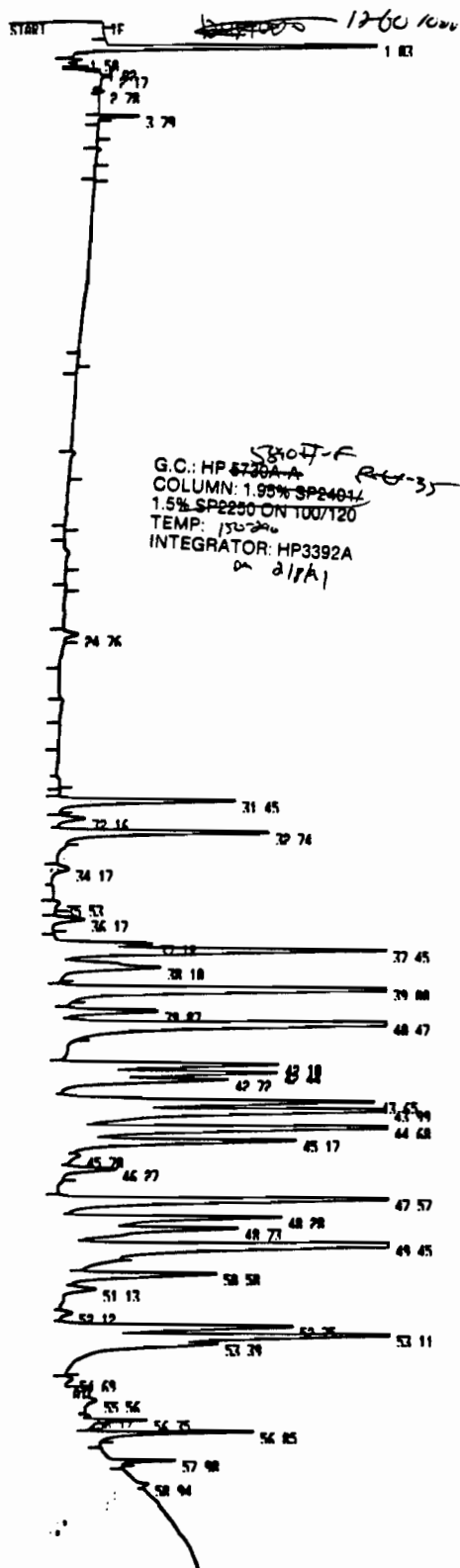


*Peak 1860*

RUN # 310 FFR/SP/91 RES:50:36  
 IDENTIF ID: C  
 IDENTIF NAME:  
 SAMPLE # 10

RT	AREA	TYPE	AD/NT	AREA2
0.77	13613	PR	0.149	0.894
1.02	4743298	RR	0.882	29.958
1.31	298878	RR	0.861	1.937
1.58	64832	RR	0.841	0.442
1.73	28892	VR	0.859	0.144
1.91	44818	RR	0.853	0.284
2.09	11392	RR	0.853	0.879
2.35	14428	RR	0.876	0.188
2.98	23454	PR	0.174	0.162
3.68	33984	PR	0.895	0.234
3.78	122188	RR	0.859	0.842
4.01	21841	RR	0.125	0.151
4.31	49769	RR	0.156	0.343
4.68	13962	RR	0.876	0.896
4.88	15317	RR	0.113	0.186
5.15	139918	RR	0.891	0.965
5.72	47865	RR	0.167	0.338
6.02	23285	RR	0.185	0.168
6.22	51177	RR	0.288	0.253
6.77	79258	RR	0.387	0.547
7.39	32844	RR	0.197	0.227
8.18	17719	PR	0.889	0.122
8.65	258818	PR	0.138	1.738
9.72	25162	PR	0.316	0.174
10.59	11224	PR	0.158	0.877
12.36	14717	PR	0.181	0.182
13.07	68758	RR	0.283	0.419
13.62	18241	RR	0.193	0.126
13.96	15522	RR	0.259	0.187
15.21	15921	PR	0.389	0.118
18.46	18851	PR	0.275	0.125
19.29	13897	PR	0.278	0.896
21.62	124428	RR	0.187	0.258
26.89	34177	RR	0.287	0.236
28.83	14544	PR	0.241	0.188
31.42	31361	PR	0.177	0.216
32.71	33818	PR	0.185	0.233
34.18	6443688	PR	0.171	44.434
37.42	56513	RR	0.172	0.398
38.89	38277	RR	0.385	0.264
38.97	143758	RR	0.218	0.991
39.84	18261	RR	0.188	0.126
48.44	144438	RR	0.196	0.996
42.87	29776	PR	0.161	0.285
42.41	29871	RR	0.159	0.281
42.71	14615	RR	0.134	0.181
43.62	55988	RR	0.188	0.286
43.97	78846	RR	0.175	0.538
44.66	77589	RR	0.177	0.525
45.15	38211	RR	0.179	0.264
46.79	28112	PR	0.258	0.194
47.55	98263	RR	0.212	0.681
48.27	56679	RR	0.217	0.291
48.72	48116	RR	0.242	0.277
49.43	259228	RR	0.194	1.788
58.56	33768	RR	0.188	0.233
52.73	48829	RR	0.285	0.276
53.89	73963	RR	0.169	0.518
56.58	26423	RR	0.888	0.182
56.84	28894	RR	0.888	0.281
58.64	388988	RR	1.993	2.875
59.47	98821	RR	0.578	0.626
68.39	52868	RR	0.337	0.365
68.88	32461	RR	0.253	0.224
61.48	22988	RR	0.315	0.159

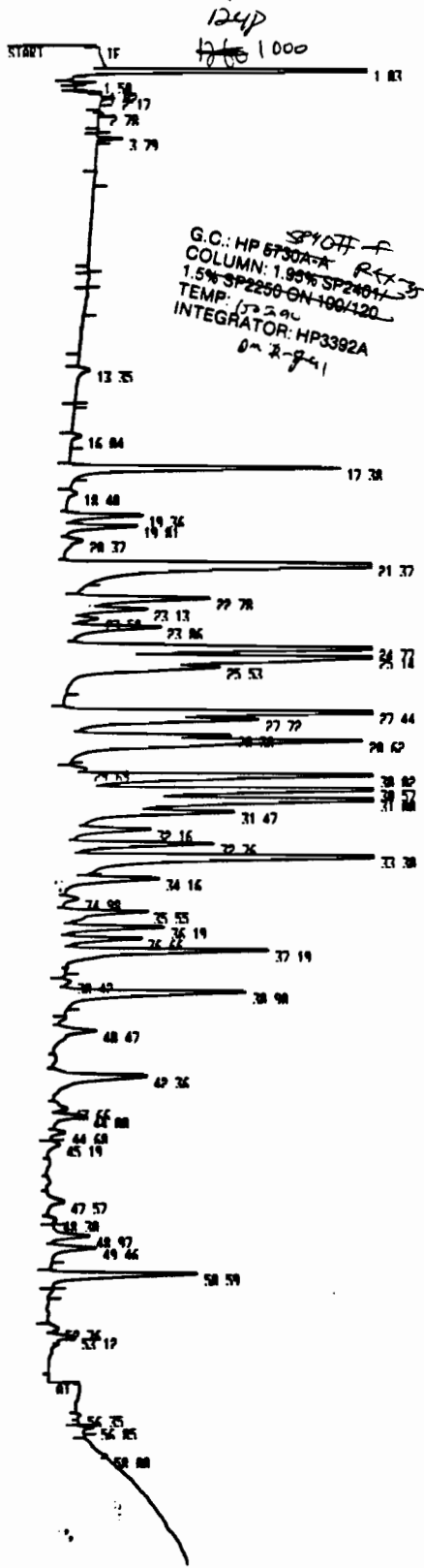
TOTAL AREA= 1.4581E+07



RUN # 7000 FFR/01/91 18:11:05  
 WORKFILE IN: C  
 WORKFILE NAME:  
 SAMPLE 0100

RT	AREA	TYPE	AREA	RT	AREA
1.03	3083100	RR	0.003	17.323	0.253
2.17	44136	RR	0.214	0.177	0.193
3.79	31735	PR	0.071	0.190	0.177
24.76	29762	PR	0.190	0.191	2.166
31.45	375460	PR	0.191	0.192	0.132
32.16	57521	RR	0.192	0.200	2.676
32.74	463960	RR	0.200	0.200	0.290
34.17	38184	RR	0.200	0.190	0.069
35.53	12903	RR	0.190	0.175	0.342
36.17	59240	RR	0.175	0.179	3.437
37.45	595910	RR	0.179	0.274	1.679
38.18	291810	RR	0.274	0.200	7.654
39.00	1227000	PR	0.200	0.184	1.061
39.07	183900	PR	0.184	0.221	9.285
40.47	1595700	RR	0.221	0.166	1.027
42.10	334070	PR	0.166	0.151	1.427
42.44	247440	RR	0.151	0.110	0.771
42.72	133570	RR	0.110	0.179	2.770
43.65	400220	RR	0.179	0.195	4.053
43.99	041720	RR	0.195	0.187	5.000
44.60	060240	RR	0.187	0.191	2.510
45.17	436500	RR	0.191	0.184	0.090
45.70	16904	RR	0.184	0.211	5.069
46.27	183760	RR	0.211	0.189	2.275
47.57	1017400	PR	0.211	0.200	1.639
48.20	394420	RR	0.200	0.210	11.201
48.73	294200	RR	0.200	0.196	1.763
49.45	1941000	RR	0.210	0.167	0.296
50.50	300230	RR	0.196	0.190	0.153
51.13	49501	RR	0.167	0.185	2.217
52.12	26312	RR	0.190	0.170	3.605
52.75	304310	RR	0.185	0.224	0.100
53.11	624000	RR	0.170	0.149	0.101
54.69	10960	RR	0.224	0.124	0.937
55.56	31407	RR	0.149	0.122	2.544
56.25	162400	RR	0.124	0.065	0.495
56.85	440990	PR	0.122		
57.98	05029	PR	0.065		

TOTAL AREA= 1.7336E+07  
 MS FACTOR= 1.0000E+00

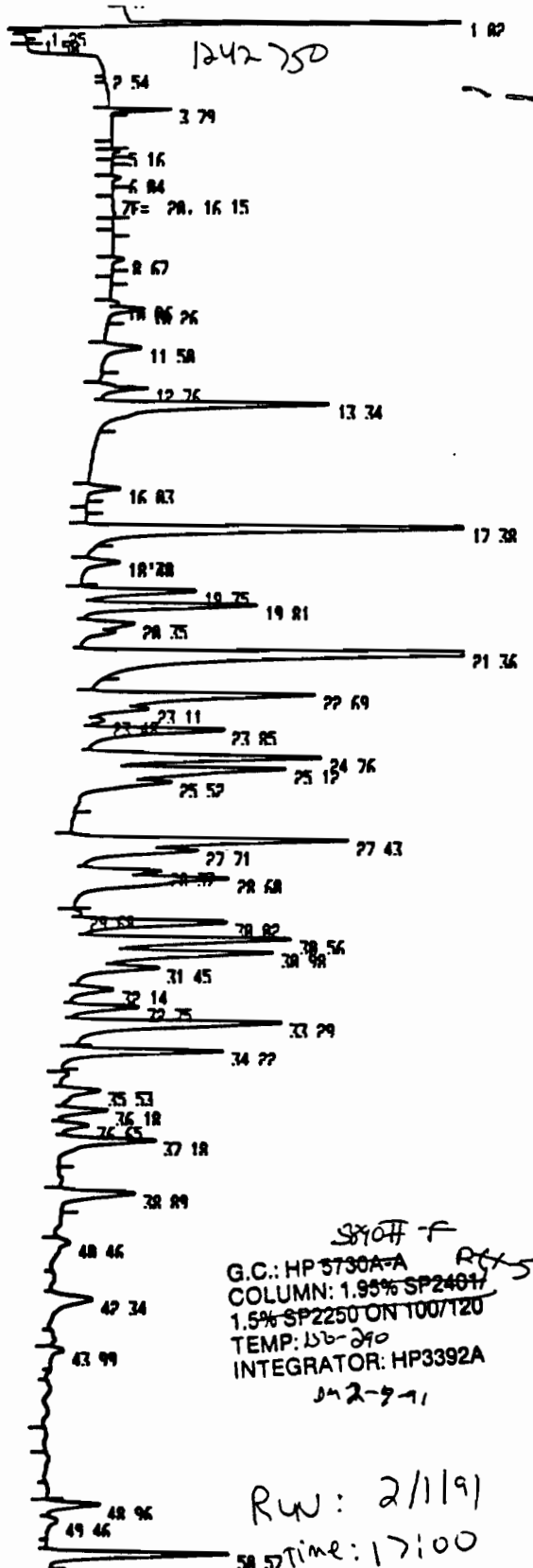


RUN # 381      FFR/R1/91 19:21:51  
 WORKFILE ID: C  
 WORKFILE NAME:  
 SAMPLE # 1

AREA2	RT	AREA	TYPE	OR/NT	AREA2
	1.53	2029298	RR	0.003	18.874
	1.58	13826	RR	0.046	0.025
	2.17	38298	RR	0.145	0.188
	3.29	19282	RR	0.059	0.122
	13.35	36717	RR	0.255	0.227
	16.84	28487	RR	0.129	0.126
	17.38	584228	RR	0.198	3.625
	18.48	16258	RR	0.125	0.182
	19.26	151168	RR	0.128	0.933
	19.81	138288	RR	0.128	0.853
	20.37	49667	RR	0.256	0.287
	21.37	1658488	RR	0.256	18.233
	22.28	268628	RR	0.193	1.628
	23.13	182528	RR	0.168	0.629
	23.58	32548	RR	0.147	0.281
	23.86	219588	RR	0.224	1.255
	24.77	299518	RR	0.195	4.933
	25.14	681818	RR	0.226	4.287
	27.44	674218	RR	0.157	4.168
	27.72	84298	RR	0.081	0.528
	28.28	88281	RR	0.185	0.547
	28.62	389168	RR	0.148	1.988
	29.69	11425	RR	0.123	0.071
	30.82	252128	RR	0.228	4.622
	30.57	828288	RR	0.191	5.861
	31.88	711498	RR	0.288	4.298
	31.47	166888	RR	0.141	1.824
	32.16	155268	RR	0.193	0.929
	32.26	384218	RR	0.195	1.888
	33.28	1191188	RR	0.228	7.258
	34.16	166128	RR	0.189	1.825
	34.98	33271	RR	0.288	0.288
	35.55	216288	RR	0.227	1.234
	36.19	282228	RR	0.184	1.254
	36.66	159418	RR	0.182	0.984
	37.19	524268	RR	0.228	3.225
	38.42	12862	RR	0.168	0.079
	38.98	512568	RR	0.251	3.182
	40.47	141218	RR	0.311	0.021
	42.26	355268	RR	0.228	2.195
	43.66	22926	RR	0.218	0.123
	44.88	62548	RR	0.283	0.428
	44.68	248228	RR	0.168	0.154
	45.19	24514	RR	0.222	0.213
	47.57	58848	RR	0.298	0.263
	48.28	18223	RR	0.155	0.064
	48.97	88822	RR	0.288	0.548
	49.46	118488	RR	0.216	0.682
	50.58	332268	RR	0.198	2.851
	52.26	19882	RR	0.212	0.123
	53.12	39292	RR	0.172	0.243
	56.25	32868	RR	0.186	0.198

TOTAL AREA= 1.6287E+07  
 ME FACTOR= 1.0000E+00





original chromatogram used as continuing calibration axis with filed calibration.