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SITE INSPECTION

PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky
EPA ID № KYD985066042
WasteLAN № 04870

EPA Work Assignment Contract № 11
EPA Contract № 68-W9-0055

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Region IV

Prepared by
B&V Waste Science and Technology Corp
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Prepared by:	Reviewed by:	Approved by:
Bill Stafford	Scotti Thomas	Hubert Wieland
Bill Stafford Site Manager	Scotti Thomas Technical Reviewer	Hubert Wieland Project Manager

Site Inspection
PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky

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PRODUCERS WOOD PRESERVERS
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EXECUTIVE SUMMARY

The Producers Wood Preservers Company (PWP) site is located in Louisville, Jefferson County, Kentucky. PWP consists of an area of approximately 120 acres. For 12 years, 1922 through 1934, PWP was engaged in the preservative treatment of railroad ties with creosote.

Following the cessation of activities in 1934, the property was divided approximately in half. The western 60 acres were purchased by a neighboring company, which evolved into the present Carbon Graphite, Inc. Carbon Graphite established sludge ponds on their portion of the land. The Carbon Graphite property is presently covered with piles of dried sludge perhaps 25 feet high.

The remaining 60 acres ultimately came under the ownership of BF Goodrich Company. This portion remains relatively unchanged. Although wooded and grass-covered, there is still evidence of the former rail bed which served the drying yard.

The PWP site is located in the Knobs belt of the outer Blue Grass Physiographic Subdivision of North-Central Kentucky. Of the two hydraulically connected aquifers in the Blue Grass Region, the aquifer of concern is the sand and gravel glacial outwash interval, which lies 40 feet below land surface and is up to 140 feet thick.

The PWP site lies in the flood plain along the Ohio River. Overland runoff flows into a ditch which in turn flows into Paddy's Run, a perennially flowing drainage ditch which empties into the Ohio River approximately 0.5 mile from the site. Paddy's Run is not used for recreational activities, but the Ohio River is regularly used for such. There are also several endangered and threatened species found within four miles of the site.

Analytical results from the sampling investigation indicated the presence in the surface soil samples of elevated levels of inorganics directly attributable to wood preserving activities. These include copper, arsenic and chromium. Additionally, the organic results revealed high levels of polynuclear aromatic hydrocarbons (PAHs) which are also indicative of wood preserving activities, particularly those involving creosote.

While the surface soil is unquestionably contaminated, the groundwater sample gave no indication a release had occurred into the aquifer. Furthermore, Paddy's Run is

currently a receptacle for industrial wastes from several plants in the area, and attributing any contamination in this water body to an activity which ceased operation 58 years ago is unlikely.

Based on the results of this site inspection, no further action is recommended for the Producers Wood Preservers Company site.

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Site Inspection
PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky
EPA ID № KYD985066047

WasteLAN № 04870

1.0 Introduction

B&V Waste Science and Technology Corporation (BVWST) was tasked by the U.S. Environmental Protection Agency (EPA), Waste Management Division, Region IV to conduct a Site Inspection (SI) at the Producers Wood Preserver Company location in Louisville, Jefferson County, Kentucky. The inspection was performed under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The site inspection visit was conducted by BVWST the week of May 4, 1992.

1.1 Objectives

The objectives of this inspection were to determine the nature of contaminants present at the site and to determine if a release of these substances has occurred or may occur. Further, this inspection seeks to identify the possible pathways by which contamination could migrate from the site and the populations and environments it would potentially affect. Based on the findings of this investigation, a recommendation was made regarding future activities at the site.

1.2 Scope of Work

The scope of this investigation included the following activities:

- Obtain and review background materials relevant to HRS scoring of the site.
- Obtain aerial photographs and maps of the site.
- Obtain information on local water systems.
- Evaluate target populations associated with the groundwater, surface water, air, and soil exposure pathways.
- Determine the location and distance to the nearest potable well.
- Develop a site sketch.

- Collect environmental samples.

2.0 Site Description

2.1 Location

The Producers Wood Preservers (PWP) site is located adjacent to a heavy industrial area off Bells Lane in Louisville, Jefferson County, Kentucky (Ref. 1). The geographic coordinates of the site are 38° 13' 13" North latitude and 85° 49' 50" West longitude (Ref. 2). The site location and surrounding area are shown as Figure 1.

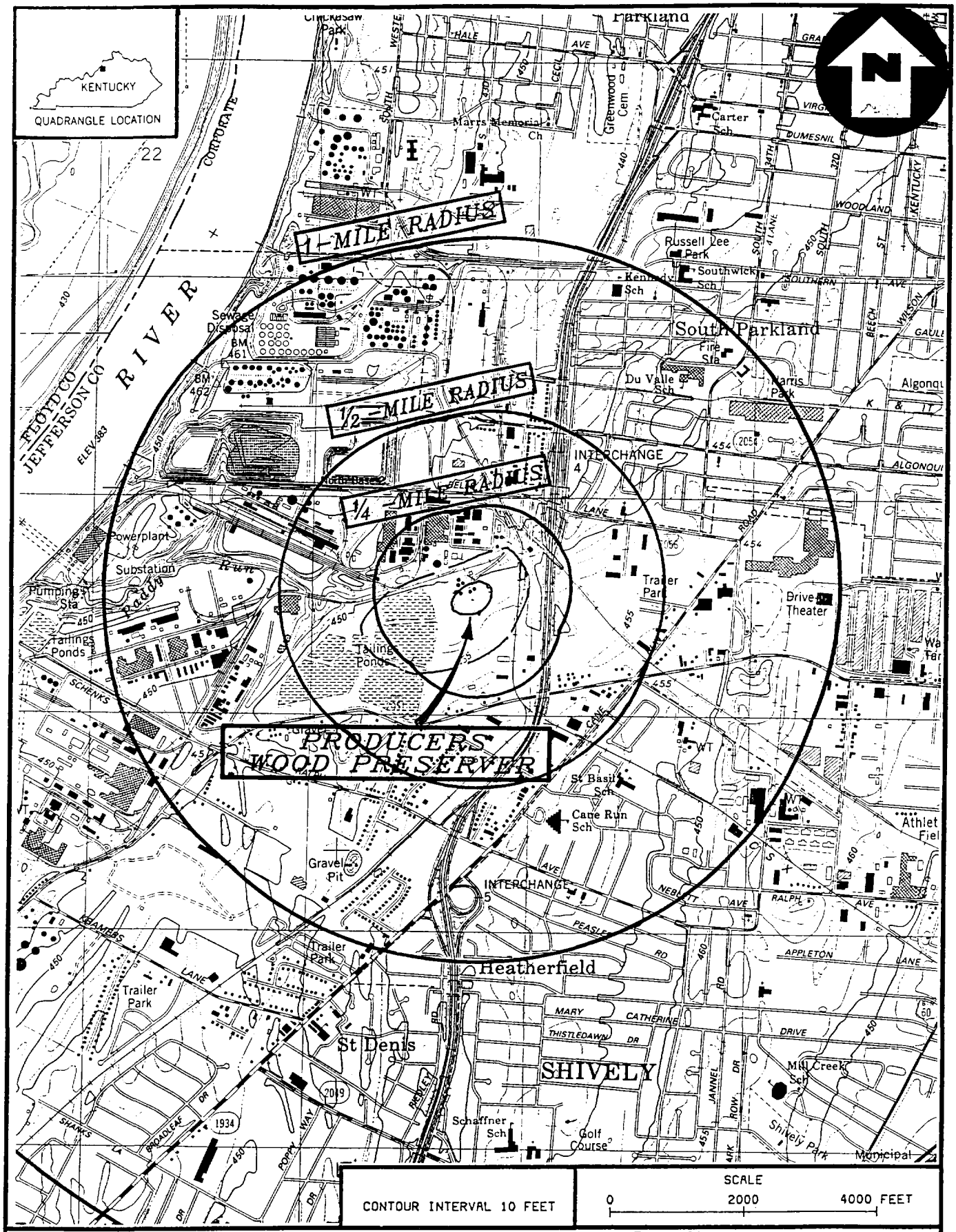
The climate of the Louisville area is generally temperate and humid. Temperatures usually range from 100 degrees Fahrenheit in the summer to 0 degrees Fahrenheit in the winter, with a mean annual temperature of 56.6 degrees Fahrenheit (Ref. 3, pp. 12-13). The average annual precipitation in this area is 42 inches with a mean annual lake pan evaporation of 35 inches, yielding a net annual precipitation of seven inches (Ref. 4, pp. 43, 63). The 2-year, 24-hour rainfall is approximately 3.2 inches (Ref. 5, p. 91).

2.2 Site Description

The Producers Wood Preservers site includes an area of approximately 120 acres. Originally owned by Lorn & Ayer Tie Company, ownership of the site has changed several times through the years resulting in two properties, each of which contains approximately 60 acres. Current owners of record of the two parcels are: B.F. Goodrich Company and Carbon Graphite. The portion of the site controlled by B.F. Goodrich is a well-maintained, park-like area of grass and mature trees enclosed by a padlocked chain-link fence. Carbon Graphite has not placed high emphasis on aesthetics, utilizing most of their acreage for drying ponds for the sludge ($CaOH/CaCO_3$) generated by the process used at Carbon Graphite in the production of acetylene. The balance of the Carbon Graphite property is covered in dense vegetation. There is no indication of distressed vegetation anywhere on either property with the notable exception of the piled, dried sludge ringing the drying ponds. The sludge is totally devoid of plant growth (Ref. 6). The site layout is shown as Figure 2.

2.3 Operational History and Waste Characteristics

Producers Wood Preserver Company operated a wood treating and preserving facility specializing in the production of railroad ties. The company was established on the



BASE MAP IS A PORTION OF THE USGS 7.5 MINUTE QUADRANGLE, LOUISVILLE WEST, KY-ID.

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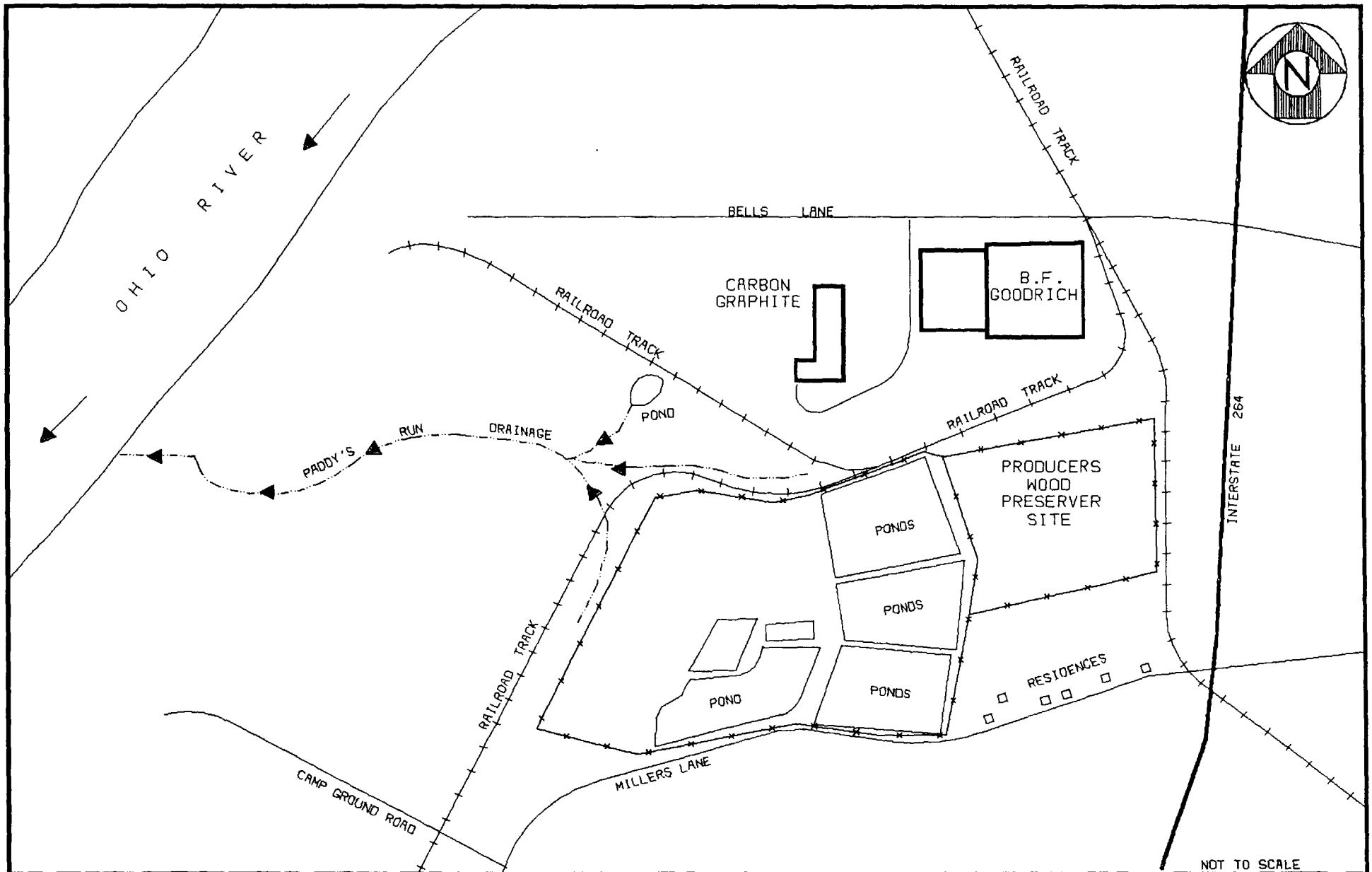
SITE LOCATION MAP
PRODUCERS WOOD PRESERVER
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY

FIGURE 1



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SITE LAYOUT MAP
PRODUCERS WOOD PRESERVER
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY

FIGURE 2

site in 1922. Operations ceased in 1934. During those 12 years it is estimated PWP treated approximately 393,500 cubic feet of railroad ties, using creosote as the preserving agent (Ref. 7).

The Sanborn Fire Insurance Map shows that in 1928 PWP was a wood treating complex with eight creosote storage tanks, one zinc chloride tank, three pressurized cylinders, several small chemical tanks, and eight buildings (Ref. 8). The grounds were covered with stacks of treated ties set out for drying and storage. Twelve or more rail spurs divided the stacks and facilitated loading and shipment. The freshly treated ties were stacked for air-drying around the site, dripping unabsorbed creosote onto the ground and into the soil (Ref. 7).

A Preliminary Assessment (PA) site visit was conducted by Kentucky Division of Waste Management (KDWM) PA/SI staff on October 1, 1991. The KDWM estimated that approximately 393,500 cubic feet of wood had been treated at the PWP site, requiring an extensive amount of creosote preservative. They determined that the method of wood preservation was conducive to soil and surface water releases and recommended a medium priority site screening inspection under CERCLA (Ref. 7).

3.0 Field Investigation

3.1 Sample Collection

A sampling investigation was conducted the week of May 4, 1992 by BVWST for the purpose of identifying and characterizing contaminants which may be present in the environment as a result of the PWP operation. Environmental samples consisting of surface soil, surface water and sediments were collected. Additionally, one existing on-site well was sampled to include groundwater data. Sample locations were determined using historical information, hydrogeological data for the region and site area, and direct observation by the field team at the time of the site investigation.

3.1.1 Sample Collection Methodology

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation were in accordance with the standard operating procedure as specified in Sections 3 and 4 of the Environmental Compliance Branch's Standard Operating Procedures and Quality Assurance Manual, United States Environmental Protection Agency, Region IV, Environmental Services Division, February 1, 1991,

and the Field Study Plan prepared by BVWST on April 28, 1992. Deviations from the study plan include the following: (1) surface soil samples WP-SS-09 and WP-SS-10 were deleted because residents south of the site were not home and access for sampling could not be obtained; (2) surface soil sample WP-SS-08 was not taken because the property boundary fence marking the southern perimeter of B.F. Goodrich property created a smaller sampling area than was originally anticipated; (3) surface water/sediment sampling locations WP-SW/SD-04 and WP-SW/SD-05 were eliminated because the intended sampling areas along the Ohio River, above and below the mouth of Paddy's Run, were industrial, controlled-access areas; and (4) a single groundwater sample WP-TW-01 was collected from an on-site well used by B.F. Goodrich as a source of production water (no human consumption) (Ref. 9).

3.1.2 Duplicate Samples

Duplicate samples were offered to Alice Simpson, Manager, Health, Safety and Environmental Services, B.F. Goodrich Corporation, Geon Vinyl division, Louisville, Kentucky, and to her counter-part, Dan Crompton, Manager, Safety and Health, Carbon Graphite Group, Incorporated, Louisville, Kentucky. Both parties accepted the offered duplicate samples and arranged for consultants to be present during sampling. Mr. Hollis Millard, Project Hydrogeologist, Fugro-McClelland (Environmental), Inc. represented B.F. Goodrich and Carbon Graphite selected GeoTrans, Inc. as their consultants, with Joseph C. Moffitt, CPG in attendance. B.F. Goodrich split all samples collected on PWP site. Carbon Graphite requested duplicates of only those samples collected on their premises, which consisted solely of the surface water/sediment samples. Receipt for sample forms are on file at BVWST.

3.1.3 Description of Samples and Sample Locations

The sampling investigation on the PWP site resulted in the collection of 14 environmental samples. This total was comprised of seven surface soil samples, three surface water and three sediment samples, and one groundwater sample taken from an on-site permanent well. Sample codes, descriptions, locations, and rationale are presented in Table 1. All sample locations are shown in Figures 3 and 4.

3.1.4 Field Measurements

Field measurements were performed on the groundwater sample (Table 2). Parameters measured included temperature, pH, and specific conductivity of the water sample at the time of collection. No field measurements were performed on the soil and/or sediment samples during this inspection.

3.2 Sample Analysis

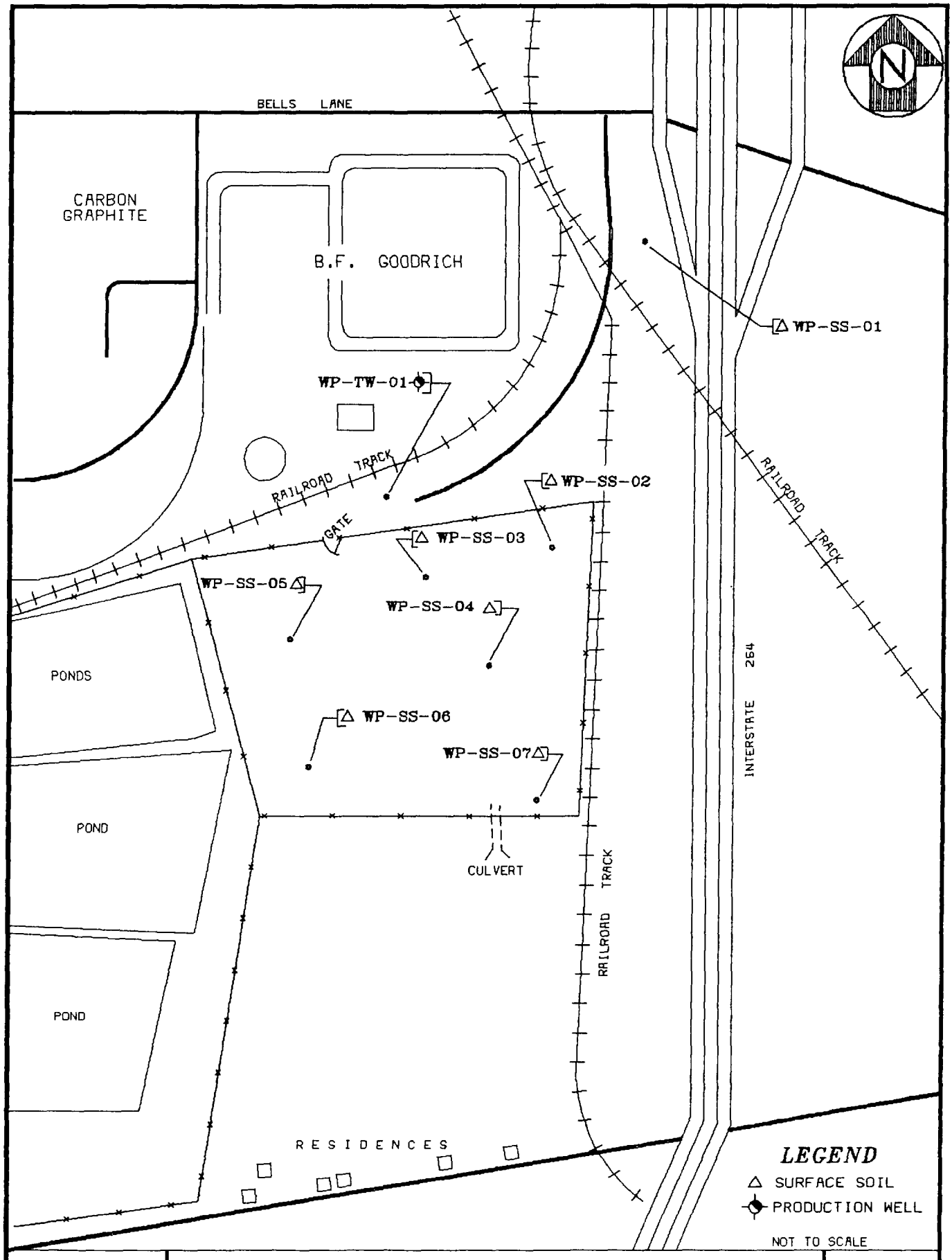
3.2.1 Analytical Support and Methodology

All samples collected were analyzed under the Contract Laboratory Program (CLP) and analyzed for all parameters listed in the Target Compound List (TCL) and the Target Analyte List (TAL). Organic analysis of soil and water samples was performed by Analytical Resources, Inc. of Seattle, Washington. Inorganic analysis of soil and water samples was performed by Skinner & Sherman, Inc. of Waltham, Massachusetts. All laboratory analyses and laboratory quality assurance procedures used during the investigation were in accordance with standard procedures and protocols as specified in the Laboratory Operations and Quality Control Manual, United States Environmental Protection Agency, Region IV, Environmental Services Division, issued October 24, 1990; or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the Contract Laboratory Program (CLP) Statement of Work (SOW), as applicable.

3.2.2 Analytical Data Quality and Data Qualifiers

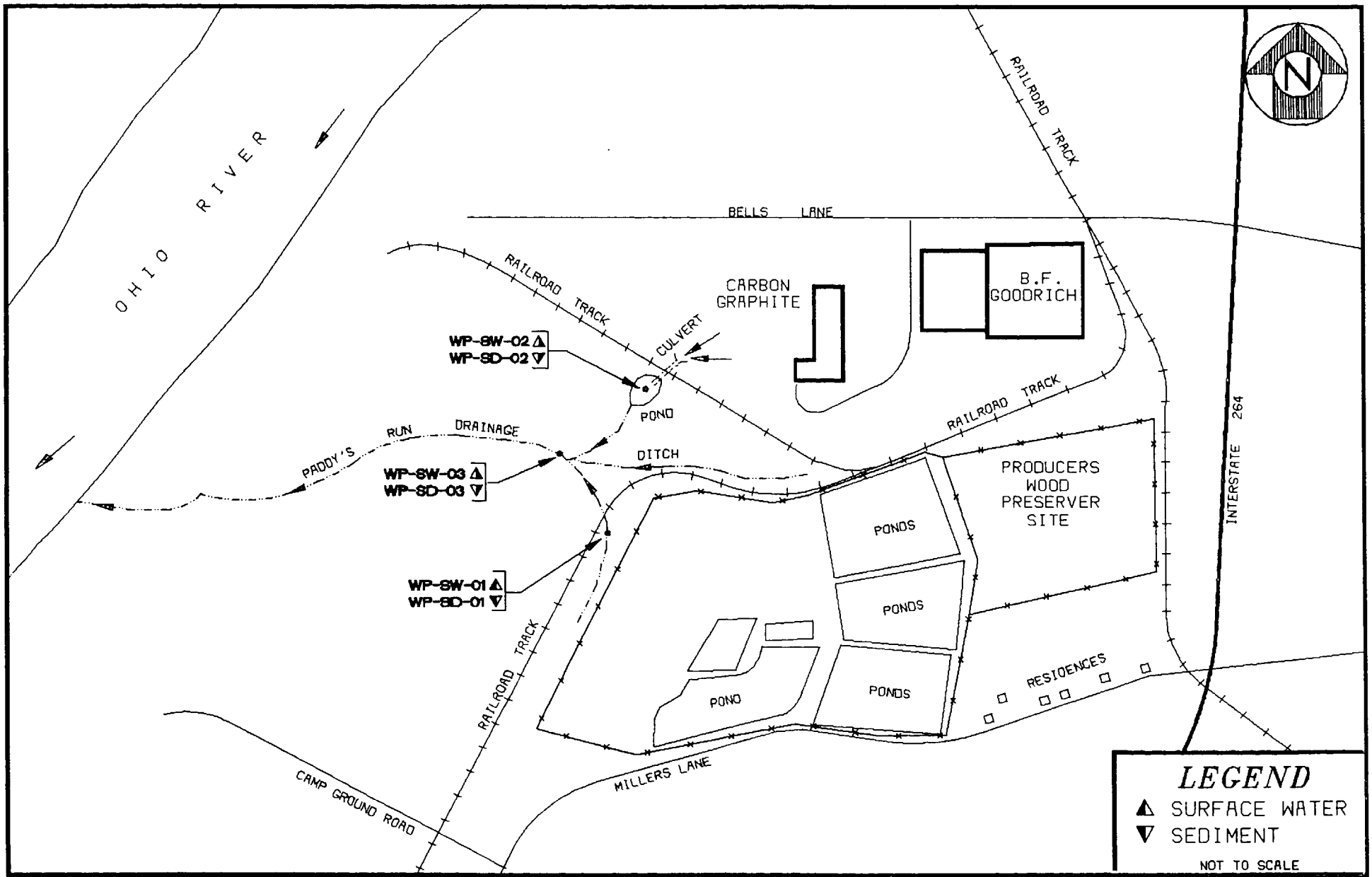
All analytical data were subjected to a quality assurance review as described in the EPA Environmental Services Division laboratory data evaluation guidelines. In the tables, some of the concentrations of the organic and inorganic parameters have been qualified with a "J". This indicates that the qualitative analysis was acceptable, but the quantitative value has been estimated. A few other compounds are qualified with an "N", indicating that they were detected based only on the presumptive evidence of their presence. This means that the compound was tentatively identified, and its detection cannot be used as a positive indication of its presence. Results for some background samples are reported with a "U" qualifier. This qualifier means that the material was analyzed for but not detected. The reported number is the laboratory-derived sample quantitation limit (SQL) for the compound or element in that sample. SQL's may vary from sample to sample for a given compound or element. At times, miscellaneous organic compounds that do not appear on the target compound list are reported with the data set. These compounds are qualified as "JN", indicating that they are tentatively identified at estimated quantities. Because these compounds are not routinely analyzed for or reported, background levels or SQL levels are not generally available for comparison. The complete analytical data sheets are presented in Appendix A.

Background samples have been designated for all surface soil samples. Values for background sample results are presented either as a measured value or as the sample



SURFACE SOIL AND GROUNDWATER SAMPLE LOCATION MAP
PRODUCERS WOOD PRESERVER
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY

FIGURE 3



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SURFACE WATER/SEDIMENT SAMPLE LOCATIONS MAP
PRODUCERS WOOD PRESERVER
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY

FIGURE 4

TABLE 1
Sample Locations and Rationale
PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky

SAMPLE CODE	SAMPLE TYPE	LOCATION	RATIONALE
WP-SS-01	Surface Soil	Northeast corner of property approximately 300' north of Bells Lane, and 200' West of I-264	To establish background levels
WP-SS-02	Surface Soil	NE corner of fenced, wooded area	To determine absence of presence of contaminants
WP-SS-03	Surface Soil	30 yards east of gate	To determine absence of presence of contaminants
WP-SS-04	Surface Soil	40 yards West of eastern boundary fence	To determine absence of presence of contaminants
WP-SS-05	Surface Soil	30 yards south of main gate	To determine absence of presence of contaminants
WP-SS-06	Surface Soil	SW corner of fenced, wooded area	To determine absence of presence of contaminants
WP-SS-07	Surface Soil	SE corner of fenced, wooded area	To determine absence of presence of contaminants
WP-SW-01	Surface Water	Upstream of Carbon Graphite mixing point	To establish background levels
WP-SD-01	Sediment	Upstream of Carbon Graphite mixing point	To establish background levels
WP-SW-02	Surface Water	At Carbon Graphite culvert discharge point	To determine absence of presence of contaminants
WP-SD-02	Sediment	At Carbon Graphite culvert discharge point	To determine absence of presence of contaminants
WP-SW-03	Surface Water	Approximately 15' from mixing point from Carbon Graphite into Paddy's Run	To determine absence of presence of contaminants
WP-SD-03	Sediment	Approximately 15' from mixing point from Carbon Graphite into Paddy's Run	To determine absence of presence of contaminants
WP-TW-01	Groundwater	Behind BF Goodrich 200' from gate to wooded area	To determine absence of presence of contaminants

TABLE 2
Field Measurements
PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky

SAMPLE CODE	pH	TEMPERATURE °C	CONDUCTIVITY umhos/cm
WP-TW-01	6.0	16.7°	868

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quantitation limit (SQL). Samples containing concentrations of contaminants greater than three times the background level, or equal to or greater than the SQL of these contaminants for the sample of concern are considered to be elevated. These samples are noted in the text and shaded in the tables.

4.0 Source Sampling

4.1 Sampling Locations

Historically, there were essentially two sources of potential contamination on the PWP site. The principal source was the treatment area containing storage tanks, pressure vats, pipelines, etc. The secondary source was the treated product, the saturated railroad ties which were stacked throughout the area for drying. The contaminated soil, which is the source of concern today, is a direct result of these historical sources. Many changes have taken place in the 58 years since PWP ceased operations, making precise location of the treatment facility impossible. Therefore, surface soil samples WP-SS-03 and WP-SS-05 were situated to best characterize the suspected location of the treatment facility. The remaining surface soil samples were collected in locations which appeared the least disturbed, i.e. taller trees, evidence of rail sidings, etc. Sample locations are shown in Figure 3. Sample codes and rationale are summarized in Table 1.

4.2 Analytical Results

This section presents a discussion and interpretation of the analytical results from the environmental samples collected in source areas during the investigation at Producers Wood Preservers. Results of organic and inorganic samples are presented in Tables 3 and 4.

4.2.1 Inorganic Source Samples

Several surface soil samples were collected to characterize the source of contaminated soil onsite. Sample WP-SS-02 contained a variety of elevated inorganics, including arsenic (100 mg/kg, 3 times background), barium (1,200 mg/kg, 11 times background), cadmium (6.9 mg/kg, 6 times background), copper (170 mg/kg, 8 times background), chromium (69 mg/kg, 5 times background), lead (330 mg/kg, 6 times background), silver (above SQL), zinc (1,300 mg/kg, 11 times background), cyanide (0.85 mg/kg, above SQL). Elevated inorganics in Sample WP-SS-04 were arsenic (180 mg/kg, 7 times background), lead (200 mg/kg, 3 times background), and silver (above SQL). Arsenic (250 mg/kg, 9 times background), copper (190 mg/kg, 9 times background),

silver (above SQL), and cyanide (0.59 mg/kg, above SQL) were detected in sample WP-SS-05. The only metal elevated in sample WP-SS-06 was silver (above SQL). Sample WP-SS-07 contained barium (550 mg/kg, 5 times background), cadmium (7.4 mg/kg, 7 times background), chromium (61 mg/kg, 4 times background), copper (160 mg/kg, 7 times background), lead (710 mg/kg, 12 times background), nickel (65 mg/kg, 3 times background), and cyanide (0.66 mg/kg, above SQL)(Table 3).

4.2.2 Organic Source Samples

All of the surface soil samples collected at Producers Wood Preservers, with the exception of WP-SS-03, were heavily contaminated with polynuclear aromatic hydrocarbons (PAHs). These compounds are indicative of wood storage and preservation activities, and particularly with creosote use.

Sample WP-SS-02 contained elevated levels of seventeen polynuclear aromatic hydrocarbons (PAHs), in a concentration range of 2,800 μg/kg to 550,000 μg/kg. This sample also contained ten miscellaneous PAHs at estimated concentrations of 20,000 μg/kg to 200,000 μg/kg. Sixteen PAHs were found in sample WP-SS-04, at concentrations of 1,100 μg/kg to 41,000 μg/kg, along with four miscellaneous PAHs. Fourteen PAHs were elevated in sample WP-SS-05, in a concentration range of 1,200 μg/kg to 48,000 μg/kg. Six miscellaneous PAHs were also found in this sample. Sample WP-SS-06 contained eleven PAHs (concentrations of 71 μg/kg to 1,500 μg/kg), and four miscellaneous PAHs. The most heavily contaminated soil sample was WP-SS-07. Eighteen PAHs were detected in a concentration range of 2,000 μg/kg to 150,000 μg/kg. Also, six miscellaneous PAHs were found in this sample. For further details of these organic results, see Table 4.

4.3 Conclusions

The elevated concentrations of PAHs found in the surface soil samples are a good indicator that creosote was used on this site. Several of the elevated inorganics at Producers Wood Preservers are directly attributable to wood preserving activities. These include copper, arsenic, and chromium, a strong indication of the usage of chromated copper arsenate, another wood preservative which was commonly used in conjunction with creosote during the time period PWP was in operation.

TABLE 3
Summary of Inorganic Analytical Results
Surface Soil Samples
PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky

PARAMETERS (mg/kg)	BACKGROUND	ONSITE					
	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	SS-07
Aluminum	9600	7200	8600	7000	6400	11,000	9500
Arsenic	27	100	10	180	230	12	6
Barium	110	1200	50	69	100	200	550
Beryllium	0.71	–	–	1.3	1.2	–	–
Cadmium	1.1J	6.9	–	1.4	–	–	7.4
Calcium	17,000	4100	27,000	8400	6000	950	26,000
Chromium	15	69	12	13	12	18	61
Cobalt	13	–	8.2	–	–	22	–
Copper	22	170	15	56	190	17	160
Iron	22,000	58,000	20,000	28,000	28,000	23,000	23,000
Lead	58	330	25	200	96	35	710
Magnesium	8100	1200	4800	700	2100	1300	9900
Manganese	1400J	690J	320J	250J	460J	2500J	360J
Mercury	9.6	0.94	1.5	–	0.72	0.11	0.92
Nickel	19	25	15	15	18	19	65
Potassium	1100	750	860	720	770	1100	850
Silver	3U	6.2	–	2.6J	2.9	2.7	–
Vanadium	23	26	18	34	30	24	43
Zinc	120J	1300J	56J	190J	120J	75J	75J
Cyanide	0.54U	0.85	–	–	0.59	–	0.66

J Estimated Value.

– Material analyzed for but not detected above sample quantitation limit.

U Material was analyzed for but not detected. Value given is the sample quantitation limit.

Shaded areas represent those values which are three times above background, or greater than sample quantitation limit.

ms/BS
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TABLE 4
Summary of Organic Analytical Results
Surface Soil Samples
PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky

PARAMETERS (ug/kg)	(BACKGROUND) WP-SS-01	WP-SS-02	WP-SS-03	WP-SS-04	WP-SS-05	WP-SS-06	WP-SS-07
MISCELLENOUS PURGEABLE ORGANICS							
Unidentified Compound/#						10J/1	
EXTRACTABLE ORGANICS (ug/kg)							
Naphthalene	41J	33,000	–	1900J	4200J	–	3200J
2-Methylnaphthalene	63J	16,000J	–	1100J	1500J	–	2000J
Phenanthrene	210J	78,000	51J	6300J	7700J	170J	130,000
Fluroanthene	290J	96,000	64J	18,000	28,000	890	150,000
Pyrene	250J	72,000	64J	18,000	20,000	800	73,000
Benzo(A)Anthracene	130J	–	41J	14,000	–	570	64,000
Chrysene	160J	160,000	62J	18,000	–	720	79,000
Benzo(B and/or K)Fluoranthene	360J	470,000	110J	41,000	48,000	1500	150,000
Acenaphthylene	320U	27,000	–	2000J	1200J	–	11,000J
Acenaphthene	320U	2800J	–	–	1200J	–	3000J
Dibenzofuran	320U	24,000J	–	1500J	2000J	–	6100J
Fluorene	320U	40,000	–	–	–	–	5800J
Anthracene	320U	550,000	–	3300J	3400J	71J	21,000
Carbazole	320U	190,000	–	1400J	–	–	24,000
Benzo(A)Pyrene	320U	160,000	48J	15,000	16,000	490	75,000
Indeno(1,2,3-CD)Pyrene	320U	130,000	–	15,000	8700J	170J	51,000
Dibenzo(A,H)Anthracene	320U	46,000	–	3900J	3300J	80J	16,000
Benzo(GHI)Perylene	320U	120,000	–	14,000	6900J	130J	40,000
MISCELLENOUS EXTRACTABLE COMPOUNDS (ug/kg):							
Petroleum Product	N	N					N
Hexadecanoic acid	500JN		200JN				
Pentachlorobiphenyl	300JN						
Methylpyrene		30,000JN					
Benzanthracenone		20,000JN				400JN	40,000JN
Benzonaphthothiophene		20,000JN				300JN	
Cyclopentapyrene		40,000JN			3000JN		
Benzocarbazole		70,000JN					
Methylchrysene		20,000JN					
Benzofluoranthene(Not B or K)(3 ISOMERS)		200,000JN		7000JN		1000JN	20,000JN
Diphenylcyclopropenone		50,000JN		3000JN			
Methylbenzaceanthrylene (2 ISOMERS)		50,000JN					
Dibenzochrysene		20,000JN					
Benzacephenanthrylene				3000JN			
Dihydrobenzoperylene				3000JN			
Cyclopentaphenanthrenone					3000JN		
Benzofluorene					3000JN		10,000JN
Benzopyrene(Not A)					2000JN		
Methylenefluorene					4000JN		
Benzochrysene					2000JN		20,000JN
Dihydrocyclopentapyrene						400JN	
Methyltriphenylene							20,000JN
Anthracenedione							20,000JN
Unidentified Compounds/#	4000J/8	300,000J/7	9000J/9	7000J/2	10,000J/3	10,000/14	200,000J/13
PESTICIDES/PCBs (ug/kg)							
Methoxychlor	20U	–	–	–	–	19	–
Endrin Ketone	15U	–	–	–	–	8.5	–
PCB-1254	300	–	–	–	–	–	–

J	Estimated Value.
U	Material was analyzed for but not detected. The value given is the sample quantitation limit.
SS	Surface Soil.
N	Presumptive evidence of presence of material.
WP	Wood Preservers.
–	Material analyzed for but not detected above sample quantitation limit.
	Represents those values which are 3 times above background, or greater than or equal to the sample quantitation limit.

5.0 Groundwater Pathway

5.1 Hydrogeologic Setting

Producers Wood Preserver is located in the Blue Grass Region of North-Central Kentucky. More specifically, the site is located in the Knobs belt of the outer Blue Grass Physiographic Subdivision. The Blue Grass region slopes gently to the southwest (Ref. 10). The knobs belt west of the Cincinnati Arch is generally continuous with the Outer Blue Grass Region where the relief is gently rolling with outcrops of Silurian and Devonian rocks (Ref. 11, pp. 4-6). Elevations in the area range from approximately 390 feet above mean sea level (amsl) near the Ohio River to 500 feet amsl with the PWP site lying approximately 450 feet amsl (Ref. 1).

The soil underlying the Producers Wood Preservers site is of the Wheeling Weinbach-Huntington association which consists of very broad, nearly level ridges with narrow side slopes running down to the bottoms along small river branches which are mostly parallel to the Ohio River. Most of the sloping areas are well drained, and the level or nearly level areas are moderately well drained to somewhat poorly drained (Ref. 12, p. 2, 11).

A specific soil description is not available for the site. The area is very diverse, consisting heavily of industries, and the soil has been reworked considerably (Ref. 13). Wheeling, Weinbach, and Huntington soils each cover about 25 percent of the association. Wheeling soils are deep, well drained soils on terraces. They usually consist of a surface layer of brown, friable silt loam and a subsurface layer of yellowish brown silty clay loam. Weinbach soils are moderately deep, somewhat poorly drained, and occur on terraces. These soils have a surface layer of grayish-brown silt loam and a subsoil of brown silty clay loam mottled with gray. Huntington soils are deep, well drained soils occurring on bottoms and generally consist of dark brown silt loam. All are underlain with stratified sand, silt, and clay, mixed with gravel in some places below a depth of 4 to 8 feet (Ref. 12, p. 2, sheet 15).

The site is underlain by Pleistocene glacial outwash, up to 140 feet in thickness, consisting of sand, gravel, silt, and clay (Refs. 14; 15, p. C14). The outwash layer lies above the Mississippian Age Borden Formation that is made up of four members: the Holtsclaw, Nancy, and Kenwood siltstones, and the New Providence Shale (Ref. 14). The Holtsclaw Siltstone is approximately 115 feet thick in the region and is composed of medium to medium-light gray siltstone and silty shale. The Nancy member lies beneath the Holtsclaw member and ranges in thickness from 30 to 120

feet in the region; it consists of medium to olive-gray silty shale and is clayey, locally calcareous, and unevenly fissile. The Kenwood Siltstone underlies the Nancy member in the northern portion of this region. It is approximately 25 to 65 feet thick and is made up of siltstone and interbedded shale. The basal part of the Nancy member interfingers with the New Providence Shale in the southwestern portion of the region. Olive-gray to grayish-green silty, clay shale and minor limestone comprise the New Providence Shale member. The thickness of this formation ranges from 125 to 220 feet in the region. The New Providence Shale contains scattered light-brown to dark-yellowish-brown ellipsoidal ironstone concretions. Thin limestone lenses exist in this formation 80 to 100 feet below the Kenwood Siltstone. New Albany Shale of Devonian Age underlies the Borden Formation; it consists of silty, carbonaceous shale, olive to grayish-black in color and approximately 95 to 104 feet in thickness (Ref. 14).

The aquifers in the Blue Grass Region correspond to surficial watersheds. Very little groundwater moves underground from one watershed to another and within the Blue Grass Region, groundwater occurs in two distinct, although hydraulically connected, environments; the unconsolidated sand and gravel of the glacial outwash, and the consolidated bedrock (Ref. 11, pp. 14, 20). The aquifer of concern for the PWP site is the sand and gravel glacial outwash interval. The glacial outwash layer is up to 140 feet thick with static water levels approximately 40 feet below land surface (bls) (Ref. 15). The hydraulic connection between the Ohio River and the glacial outwash ranges from poor to good (Ref. 15, plate 2). Estimated hydraulic conductivity of the outwash sediments ranges from 10^{-4} to 10^{-2} cm/sec (Ref. 16, p. 29). The normal hydraulic gradient in this area is toward the Ohio River, however heavy pumpage of local industrial wells can alter the hydraulic gradient within the Alluvial Aquifer (Ref. 17).

5.2 Groundwater Targets

Most of the residents in the area have access to municipal water systems that are supplied by surface water intakes drawing water from the Ohio River. These intakes are located several miles upstream of the surface water pathway for the site (Ref. 18). There are two communities located within four miles of the site, Lake Dreamland and Riverside Gardens, which are not supplied with municipal water. These communities obtain their water from private wells (Ref. 19). The total population of groundwater users within four miles of the site was estimated, using topographic maps and the U.S. Census average of 2.48 persons per household in Jefferson County, as 1,592 persons. That population is distributed as: 0 - 1 mile:

0 persons; 1 - 2 miles: 312 persons; 2 - 3 miles: 615 persons; and 3 - 4 miles: 665 persons (Refs. 1, 20). The nearest known private well is located approximately 1.5 miles southwest of the site (Ref. 2).

5.3 Groundwater Analytical Results

Only one groundwater sample, a production well, was collected at Producers Wood Preservers. No background or control sample was collected. A small amount of chromium (10 µg/L) was detected in sample WP-TW-01; however, this is well below the EPA's maximum contaminant level (MCL) for drinking water of 50 ug/l of chromium.

5.4 Groundwater Conclusions

There are a several private well users within a four-mile radius (Refs. 2, 19). However, there has been no documented release of contamination to groundwater.

Because there are a limited number groundwater users and there is no documentation of an observed release to the groundwater, the groundwater pathway is of minimal concern at this site.

6.0 Surface Water Pathway

6.1 Hydrologic Setting

Producers Wood Preserver is situated in a relatively flat flood plain which slopes gently to the southwest (Ref. 10). Paddy's Run, a perennially flowing ditch, bisects the site. Paddy's Run enters the site from the south, then turns west. The general slope of the land provides a natural overland flow of precipitation runoff from Interstate 264, located some 300 yards east of the site. Overland flow is westward across the site, into a ditch. The ditch flows to the west for approximately 200 feet and ultimately flows into Paddy's Run at the probable point of entry. Approximately 0.5 mile after exiting PWP, Paddy's Run empties into the Ohio River. The 15-mile surface water pathway expires along the Ohio River (Ref. 1).

Paddy's Run flows year-round due to the discharge of industrial waste from several companies, some by direct discharge and at least one by surface runoff across PWP. Average flow of Paddy's Run was roughly calculated by the sampling team using the following observation method: typical width 20 feet; depth 3 to 4 feet; floating objects moving less than 0.5 foot per second. With no documentation available on Paddy's

Run, this field estimation yielded a probable flow rate of 30 to 40 cubic feet per second (cfs) (Ref.6). Average flow of the Ohio River at Louisville is 113,900 cfs (Ref. 14, p. C5).

6.2 Targets

Louisville Water Company maintains three surface water intake locations in the Ohio River, all of which are situated upstream of the Paddy's Run outfall. No downstream intake points were identified by the Natural Resources and Environmental Protection Cabinet, Division of Water (Ref. 18). There are no wetlands along the 15-mile surface water pathway (Ref. 1). Several species currently listed by the Kentucky State Nature Preserves Commission as Endangered Species historically occurred in Louisville and Jefferson County. However, of those endangered species, only one, *Clonophis Kirtlandii* (Kirtland's snake), is documented within a four-mile radius of the site (Refs. 1, 21).

6.3 Surface Water and Sediment Sample Locations

Surface water and sediment samples were taken from Paddy's Run, the ditch which provides surface drainage to the Producers Wood Preservers (PWP) site. Sample WP-SW-01 and WP-SD-01 were designated as background samples for the surface water pathway. Samples WP-SW-02 and WP-SD-02 were collected from a pond near Carbon Graphite. These samples serve as a control for the effects of Carbon Graphite because runoff from the Carbon Graphite facility enters the pond. Sample codes and rationale are presented in Table 1. Sample locations are shown in Figure 4.

6.4 Surface Water Analytical Results

This section presents a discussion and interpretation of the analytical results for the environmental samples collected in the surface water pathway at Producers Wood Preservers. The results indicated that there were no observed releases of contaminants to the surface water pathway attributable to operations at PWP. Results of inorganic and organic samples are presented in Tables 5 and 6.

6.5 Surface Water Conclusions

Because there has not been an observed release to surface water and because there are few targets in this pathway, the surface water pathway is not of concern at the PWP site.

7.0 Soil Exposure and Air Pathways

7.1 Physical Conditions

The PWP site appears to be sufficiently secured. Both present owners keep their respective portions fenced and padlocked. The site supports wildlife ranging from rabbits to deer. Small fish were observed in Paddy's Run during sampling. There is, however, no fishing or hunting permitted on the site. Some slight evidence was found during sampling of the former existence of a railroad bed, i.e. tar encrusted gravel and a rotted tie (Ref. 6).

The sludge piles on the Carbon Graphite property do not sustain vegetation, but are encircled by dense, jungle-like vegetation. This seemingly impenetrable foliation extends to the perimeter fence, further discouraging trespassers (Ref. 6).

7.2 Soil and Air Targets

Producers Wood Preservers Company ceased all production in 1934, and except for occasional workers such as fencing crews, caretakers, maintenance of sludge ponds, etcetera, there has been no activity on the site since then (Ref. 6). The nearest residence is approximately 600 feet south of the site. The nearest school is St. Basil's school, situated slightly over one-half mile southeast from the site (Ref. 1). Population within four miles of the site is 158,998 persons as determined using the EPA Graphical Exposure Modeling System Database. Distribution of the population is as follows: 0-0.25 mile: 0 persons; 0.25-0.5 mile: 1055 persons; 0.5-1 mile: 2120 persons; 1-2 miles: 28,395 persons; 2-3 miles: 52,736 persons; 3-4 miles: 74,692 persons (Ref. 22).

There is one endangered species, *Clonophis Kirtlandii* (Kirtland's snake), found within a four-mile radius of the site (Refs. 1, 21). Habitats for this specie are found approximately 1.9 miles west-southwest, 2.5 miles northeast, and 4 miles east-northeast of the site (Refs. 1, 21).

7.3 Soil Sample Locations

Seven surface soil samples were collected from the Producers Wood Preservers (PWP) site during the investigation. Sample number WP-SS-01 was taken at a point believed to be upgradient of the original primary source location and upgradient of the storage/drying area as well. Samples WP-SS-03 and WP-SS-05 most closely correspond with the assumed location of treatment vats and creosote storage tank.

The remaining surface soil samples, WP-SS-02, WP-SS-04, WP-SS-06 and WP-SS-07 were taken in an attempt to characterize that portion of the storage/drying area to which access was available, more specifically, the southeastern quadrant of the PWP site. Sample locations and rationale for sampling are listed in Table 1. Surface soil sample locations are shown as Figure 3.

7.4 Analytical Results

The analytical results of the surface soil sampling were summarized in Section 4.2 and will not be repeated in this section.

7.5 Air Sample Locations

No formal air sampling program was conducted. Portable flame ionization detectors (OVA) were used for onsite air monitoring during sampling activities. No readings above background were detected.

7.6 Conclusions

The results of the surface soil analyses indicate the surface soil is contaminated with metals and polynuclear aromatic hydrocarbons (PAH's), many of which are consistent with wood treatment processes. However, access to the site is restricted and the general public is excluded.

8.0 Summary and Conclusions

The Producers Wood Preservers Company (PWP) SI attempted to gather information necessary to evaluate the site. To accomplish that objective, 14 environmental samples were collected and analyzed to identify the substances at the site and to determine possible routes of migration. Information was also collected regarding potential human and environmental targets.

The PWP site includes approximately 120 acres in a heavily industrialized area. PWP operated on the site for a period of 12 years, from 1922 to 1934. Since 1934 the railroad spurs have been removed and nearly half the property has been covered with sludge piles produced by Carbon Graphite as a by-product. B.F. Goodrich has not developed their portion of the site, and it is currently covered with grass and trees and surrounded by a fence.

TABLE 5
Summary of Inorganic Analytical Results
Surface Water, Sediment, and Groundwater Samples
PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky

PARAMETERS (ug/L) [SEDIMENT (mg/kg)]	PRES. BLANK	BACKGROUND	CONTROL		BACKGROUND	CONTROL		GROUNDWATER
	PB-01	SW-01	SW-02	SW-03	SD-01	SD-02	SD-03	TW-01*
Aluminum	–	30UJ	–	1100J	15,000	2600	1300	–
Arsenic	–	10	–	–	140	–	24	–
Barium	–	88	940	190	180	250	310	72
Cadmium	–	–	–	–	5	–	–	–
Calcium	–	130,000	370,000	170,000	77,000	220,000	330,000	140,000
Chromium	–	5U	33	–	17	99	7.2	10
Copper	–	–	–	–	220	54	19	–
Iron	–	1100	–	1500	59,000	3900	8100	1500
Lead	–	–	–	–	83	36	6.4	–
Magnesium	–	40,000	–	41,000	4200	29,000	4000	36,000
Manganese	–	1200J	–	1300J	21,000J	480J	3900J	1100J
Mercury	–	0.20U	2.1	–	–	–	–	–
Nickel	–	–	–	–	31	17	2.9	9
Potassium	–	8200	78,000	8800	800	530	140	2900
Sodium	–	35,000	45,000	36,000	240	270	420	11,000
Zinc	–	8UJ	28J	25J	360J	270J	41J	–
Cyanide	–	10U	16,000J	–	1.9U	21	–	–

J Estimated Value.

– Material analyzed for but not detected above sample quantitation limit.

U Material was analyzed for but not detected. Value given is the sample quantitation limit.

Shaded areas represent those values which are three times above background, or greater than sample quantitation limit.

* Production well inadvertantly mislabeled in the field as a temporary well.

ms/BS
October 30, 1992
A:\SEP92\PROD-WOO.TB6

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TABLE 6
Summary of Organic Analytic Results
Surface Water and Sediment Samples
PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky

CONTAMINANT	TRIP BLANK	(BACKGROUND) WP-SW-01	(CONTROL) WP-SW-02	WP-SW-03	(BACKGROUND) WP-SD-01	(CONTROL) WP-SD-02	WP-SD-03
PURGEABLE ORGANICS			(µg/L)				
Total Xylenes	--	4J	--	4J			
MISCELLANEOUS PURGEABLE ORGANICS			(µg/L)			(µg/kg)	
(Methylethyl)Benzene		30JN					
Ethylmethylbenzene		10JN		30JN			
Trimethylbenzene (2 isomers)		20JN					
Methanethiol			8JN				
Methylsulfide			30JN				
Trimethylcyclohexane					1000JN	--	--
Dimethylnonane					--	600JN	--
Ethylmethylheptane					--	2000JN	3000JN
Methylpropylnonane					--	1000JN	--
Trimethyldecane					--	3000JN	--
Dimethylundecane					--	1000JN	--
Methylundecane					--	6000JN	--
Ethyldecanol					--	--	7000JN
Unidentified Compounds/#					20,000J/9	10,000J/4	40,000J/8
EXTRACTABLE ORGANICS			(µg/L)			(µg/kg)	
Phenol	--	--	13	--	770U	260J	--
(3- and/or 4-)Methylphenol	--	--	2J	--			
Naphthalene	--	--	1J	--	770U	3200	--
2-Methylnaphthalene	--	--	1J	--	280J	6400	--
Phenanthrene	--	--	1J	--	660J	13,000	140J
Fluorene	--	--	--	--	79J	--	--
Fluoranthene	--	--	--	--	1100	12,000	140J
Pyrene	--	--	--	--	1500	13,000	150J
Bis(2-Eythyhexyl)Phthalate	--	--	--	--	2900	--	--
Benzo (B and/or K)Fluoranthene	--	--	--	--	850	9100	120J
Indeno(1,2,3-CD)Pyrene	--	--	--	--	310J	1800	46J
Benzo(GHI)Perylene	--	--	--	--	380J	1900	67J
Acenaphthalene	--	--	--	--	770U	1300	--
Anthracene	--	--	--	--	770U	2500	--
Benzo(A)Anthracene	--	--	--	--	770U	5600	--
Chrysene	--	--	--	--	770U	7100	130J
Benzo(A)Pyrene	--	--	--	--	770U	5200	--
Dibenzo(A,H)Anthracene	--	--	--	--	770U	1200	--
MISCELLANEOUS EXTRACTABLE COMPOUNDS			(µg/L)			(µg/kg)	
Heptanoic Acid			40JN				
Morpholineacetonitrile			40JN				
Benzoic Acid			70JN				
Benzothiazole			50JN				
Methylbenzoic Acid			20JN				
Benzeneacetic Acid			20JN				
Nonanoic Acid			20JN				
Decanoic Acid			20JN				
Hydroxymethoxybenzaldehyde			9JN				
Benzothiazolethione			20JN				
Dimethynaphthalene						20,000JN	
Petroleum Products					N	N	N
Unidentified Compounds/#			200J/8		100,000J/19	1,000,000J/19	20,000J/18

J	Estimated Value
U	Material was analyzed for but not detected. The number is the sample quantitation limit.
SD	Sediment.
N	Presumptive evidence of presence of material.
WP	Wood Preservers.
--	Material analyzed for but not detected above sample quantitation limit.
SW	Surface Water
	Shaded areas represent those values which are 3 times above background, or greater than or equal to the sample quantitation limit.

Analytical data and an analysis of potential targets show the following: (1) There is some evidence the wood treatment practices followed by PWP resulted in contamination of the surficial soil of the site. Some of those same contaminants were found to occur in the surface water and sediment samples; (2) the site is securely fenced and human encroachment is on an as-needed basis; (3) while there are no sensitive environments within 0.5 mile of the site, there are endangered and threatened aquatic species in the Ohio River; however, no documented sightings have occurred within the 15-mile surface water pathway; (4) although there are some groundwater users in the vicinity, there have been no observed releases to the groundwater. The onsite well is a production well, used for industrial purposes only.

Polynuclear aromatic hydrocarbons (PAH's) and metals common to creosote residue and wood preserving activities were detected in surface soil samples. There was no evidence of migration of these contaminants from the site at the time of the site inspection.

Based on the findings of this investigation, it is recommended that no further action be taken regarding the Producers Wood Preservers Company site.

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OVERSIZED

DOCUMENT

Ref. #2

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #1
WHEN USING CUSTOM RULER OR COORDINATOR (TM)

SITE: Producers Wood Preserver NUMBER: _____

AKA: _____ SSID: KYD

ADDRESS: South of Bells Lane

CITY: Louisville STATE: KY ZIP CODE: _____

SITE REFERENCE POINT: _____

TOPO MAP: Louisville West KY-IND TOWNSHIP: __ N/S RANGE: __ E/W

SCALE: 1:24,000 MAP DATE: 1983 SECTION: __1/4 __1/4 __1/4 __

MAP DATUM: 1927 1983 1929 MERIDIAN: _____

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP:

LONGITUDE: 85° 45' 00" LATITUDE: 38° 07' 30"

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' SUB-MAP:

LONGITUDE: __° __' __" LATITUDE: __° __' __"

CALCULATIONS: LATITUDE (7.5 MINUTE QUADRANGLE MAP)

A) ALIGN THE BOTTOM OF THE SCALE WITH BOTTOM OF GRID. ALIGN THE TOP OF OF THE SCALE WITH THE TOP OF GRID. POSITION EDGE OF RULER OVER SITE REFERENCE POINT WHILE KEEPING TOP AND BOTTOM ALIGNED.

B) READ TICS ON RULER AT 1 OR 0.5 SECOND INTERVALS. (INTERPOLATE IF POSSIBLE)

C) RECORD LATITUDE: 38° 13' 13.___" _____.___

CALCULATIONS: LONGITUDE (7.5 MINUTE QUADRANGLE MAP)

A) ALIGN THE BOTTOM OF THE SCALE WITH RIGHT SIDE OF GRID. ALIGN THE TOP OF THE SCALE WITH THE LEFT SIDE OF GRID. POSITION EDGE OF RULER OVER SITE REFERENCE POINT WHILE KEEPING TOP AND BOTTOM ALIGNED.

B) READ TICS ON RULER AT 1 SECOND INTERVALS. (INTERPOLATE IF POSSIBLE)

C) RECORD LONGITUDE: 85° 49' 50.___" _____.___

INVESTIGATOR: [signature] DATE: 6-4-92

DRAFT
JUN 10 1991

Ref.

#3

TEXT—Bell, Kellogg, and Kulp—GROUND-WATER RESOURCES, LOUISVILLE, KY., 1949–55—Geological Survey Water-Supply Paper 1579

Progress Report on the Ground-Water Resources of the Louisville Area Kentucky, 1949–55

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1579

Prepared in cooperation with the Commonwealth of Kentucky Department of Economic Development and the Kentucky Geological Survey, University of Kentucky

UNITED STATES DEPARTMENT OF THE INTERIOR

STEWART L. UDALL, *Secretary*

GEOLOGICAL SURVEY

Thomas B. Nolan, *Director*

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ILLUSTRATIONS

[All plates in separate volume]

PLATE 1. Map of the Louisville area, Kentucky, showing observation wells; wells from which water samples for chemical analysis were obtained, 1949–55; and wells inventoried, for which records were not published, 1945–55.

2. Map showing lines of equal thickness of saturated sand and gravel, December 1955.

DESCRIPTION OF AREA

GEOGRAPHY

The Louisville area, as described in this report, includes the area within the city limits and the adjacent areas of the Ohio River flood plain northeast of the city to Harrods Creek and southwest nearly to Kosmosdale. It ranges in width from half a mile to 6 miles, is about 30 miles long, and covers about 60 square miles.

The part of the area along the river northeast of Louisville is used chiefly for recreational purposes, whereas that southwest of the city, formerly cultivated for truck crops, is being developed as industrial, commercial, and residential sites. Most of the industrial sites are near the river.

GEOLOGY

The consolidated rocks underlying the Louisville area are limestones and shales of Silurian, Devonian, and Mississippian age. During Pleistocene time the Ohio River cut its valley into those rocks to a maximum depth of nearly 130 feet below the present flood plain. That valley, bounded on both sides by bedrock hills, was later filled to its present level with glacial-outwash sand and gravel and river deposits of Pleistocene and Recent age.

The bedrock formations in the Louisville area are of fairly uniform thickness and dip toward the west at about 40 feet per mile. Between Harrods Creek and Goose Creek the glacial-outwash deposit of sand and gravel is underlain chiefly by the Laurel dolomite and the Waldron shale of Silurian age. From Goose Creek southwestward to the west-central part of the city and to Shively, the deposit of sand and gravel is underlain by the Louisville limestone of Silurian age and by the Jeffersonville and Sellersburg limestones of Devonian age. In the northwestern part of the city, the deposit of sand and gravel is underlain by the New Albany shale of Devonian age; west and southwest of Shively it is underlain by the New Albany shale and by the New Providence shale of Mississippian age.

Deposits of Pleistocene age include the glacial-outwash sand and gravel ranging from 0 to 100 feet in thickness, overlain by a blanket of silt and clay as much as 40 feet thick. Very thin deposits of Recent clay and silt cover portions of the flood plain. The sand-and-gravel deposit is thinnest in the northwestern part of the city; the silt and clay is thickest near the river.

CLIMATE

The climate of the Louisville area is generally temperate and humid. The weather is quite changeable, but extreme conditions generally do not last long. The temperature rarely exceeds 100° F in summer and rarely falls below 0° F in winter; the mean annual temperature is 56.5° F. The frost-free period lasts, on the average, from early April until October. The normal annual precipitation at Louisville is 41.47 inches. All climatological data are from reports prepared by the U.S. Weather Bureau. Monthly precipitation for the period 1937–55 is shown graphically on plate 7.

OCCURRENCE OF GROUND WATER

Open joints and larger solution passages in solid rocks, spaces between grains of solid rock, and spaces between particles of unconsolidated rocks may contain water; if such openings are interconnected, the water moves in the direction of the hydraulic gradient. The amount of water stored within and the movement of water to and from a ground-water reservoir depend on hydrologic and geologic conditions.

Precipitation is the ultimate source of ground water. Some of the precipitation percolates downward to the ground-water body; some enters openings at rock outcrops and percolates laterally toward points of lower altitude; and some infiltrates the bed and banks of a surface-water body to reach an adjacent ground-water reservoir.

In the Louisville area the principal water-bearing formation is the glacial-outwash sand and gravel. It is recharged naturally by precipitation that penetrates the flood plain, by infiltration from the river, and by inflow from the bedrocks forming the sides and bottom of the containing valley. From areas of recharge, the ground water moves slowly toward points of lower water elevations and is discharged through wells in the area or to the river. The sand-and-gravel aquifer yields water to wells throughout the Louisville area except in the northwestern part of the city. The thickness of saturated sand and gravel in the Louisville area in December 1955 is shown in plate 2. In the sand-and-gravel aquifer, many of the wells discharge 100 to 500 gpm (gallons per minute), and a few wells discharge more than 1,000 gpm. A "collector" well discharges as much as 2,700 gpm.

A second water-bearing formation is the limestone underlying a part of the area of glacial-outwash sand and gravel. Most of the wells producing water from the bedrock formations are in the west-central part of the city. Yields of the bedrock wells range from 0 to 1,500 gpm.

Plate 2 is an isopach map of the saturated portion of the sand and gravel in the Louisville area drawn from data collected prior to December 31, 1955. Both isopach and contour maps represent conditions by a series of lines. The lines on an isopach map, however, instead of connecting points of equal elevation, as on a contour map, connect points of equal thickness. In plate 2 the isopach lines, or isopachs, connect points of equal thickness of the saturated portion

655212—62——2

of the sand and gravel. Isopachs represent differences in elevation between two surfaces. Therefore, a "low" on plate 2 may indicate either high bedrock, a low water table, or both.

The limestone bedrock that forms an aquifer in places probably is hydraulically connected with the sand and gravel. Large yields are obtained from wells in the limestone in a fairly well defined zone trending northeastward in the west-central part of the city. One well tapping the limestone in that area is reported to discharge 1,500 gpm.

USE OF GROUND WATER

In the Louisville area, ground water is used chiefly for industrial cooling and for air conditioning. In the southwestern part of the area, ground water is used for irrigation on truck farms and for domestic supplies. The Louisville Extension Water District started pumping ground water in 1948 and has steadily expanded its facilities to supply much of the southwestern part of the area, which formerly depended on individual wells for domestic and irrigation needs.

PUMPAGE

Most of the pumping of ground water in the Louisville area is concentrated in four smaller areas designated as the downtown subarea, south distillery subarea, Rubbertown subarea, and west-central subarea. Records of pumpage were collected annually from users withdrawing more than 100,000 gpd (gallons per day), and estimates of the remaining pumpage were made. The general pattern of the areal distribution of pumpage did not vary appreciably during the period 1949–55. Figure 1 shows the distribution of pumpage during 1954.

The estimated average pumpage for the years 1937 through 1955 by the various industries in the Louisville area is shown in table 2. If water, after being used, was returned to the ground, the amount returned was deducted from the total pumpage; thus the tabulations are net withdrawals. Not included in the table is the pumpage, estimated as about 1 mgd, for irrigation on truck farms, for domestic use, and for public supply in the southwestern part of the area. The pumpage of ground water by the Louisville Extension Water District is shown in figure 2.

From changes in water levels and an estimated coefficient of storage of 0.2, changes in storage within the heavily pumped industrial areas were computed for each year in the period 1943–55. The coefficient of storage of an aquifer is defined as the volume of water it releases from or takes into storage per unit surface area of the aquifer per unit change in the component of head normal to that surface. The annual net recharge to the area during this period also was computed by adding algebraically the sum of pumpage and the estimated changes in

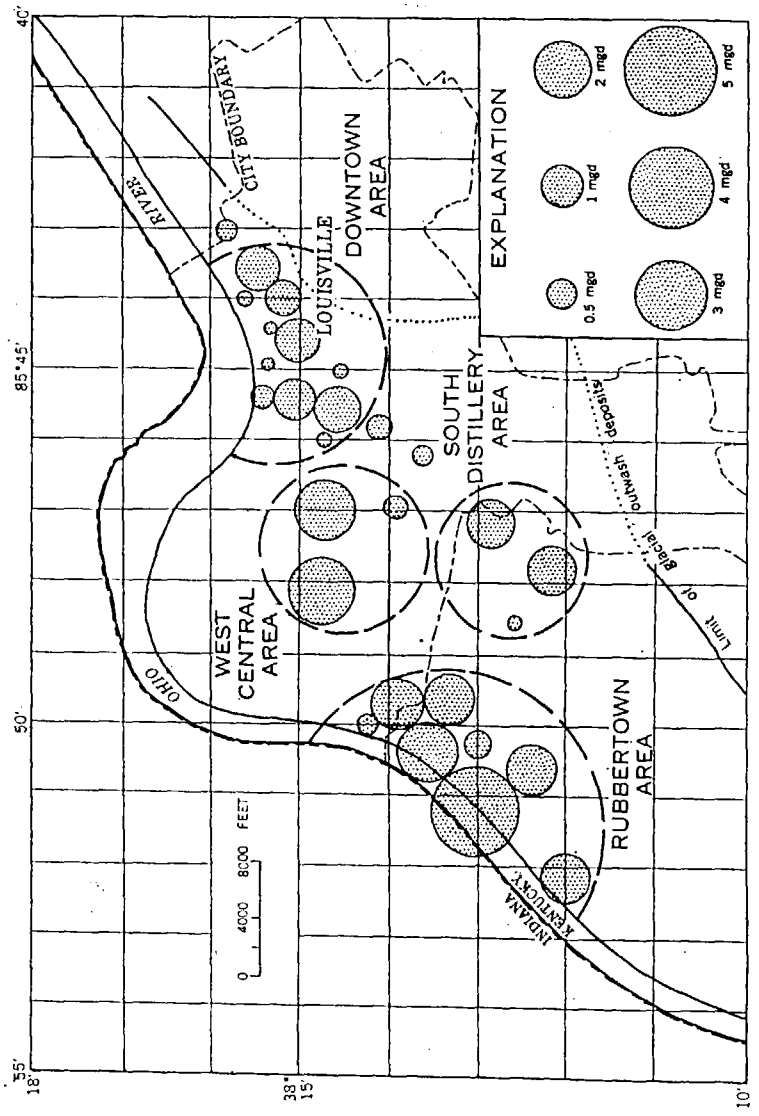


FIGURE 1.—Map showing distribution of pumpage of ground water in the Louisville area, Kentucky, 1954.

DEPARTMENT OF COMMERCE
Jesse H. Jones, Secretary

WEATHER BUREAU
F. W. Reichelderfer, Chief

TECHNICAL PAPER NO. 40

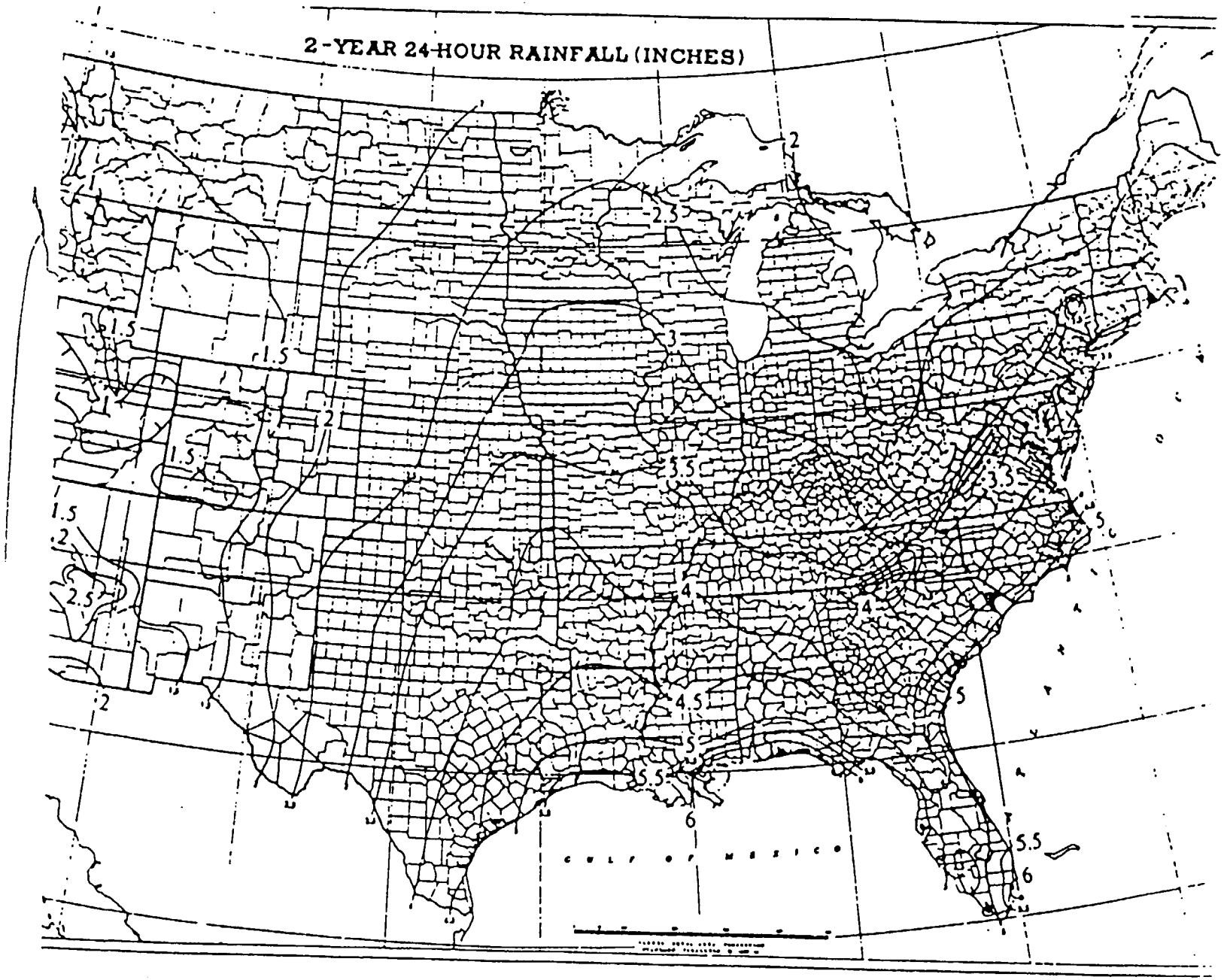
RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years

Prepared by
DAVID M. HERSHFIELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture

Ref. # 5

PROPERTY OF EPA
FIT IV


2-YEAR 24-HOUR RAINFALL (INCHES)
GULF OF MEXICO
2
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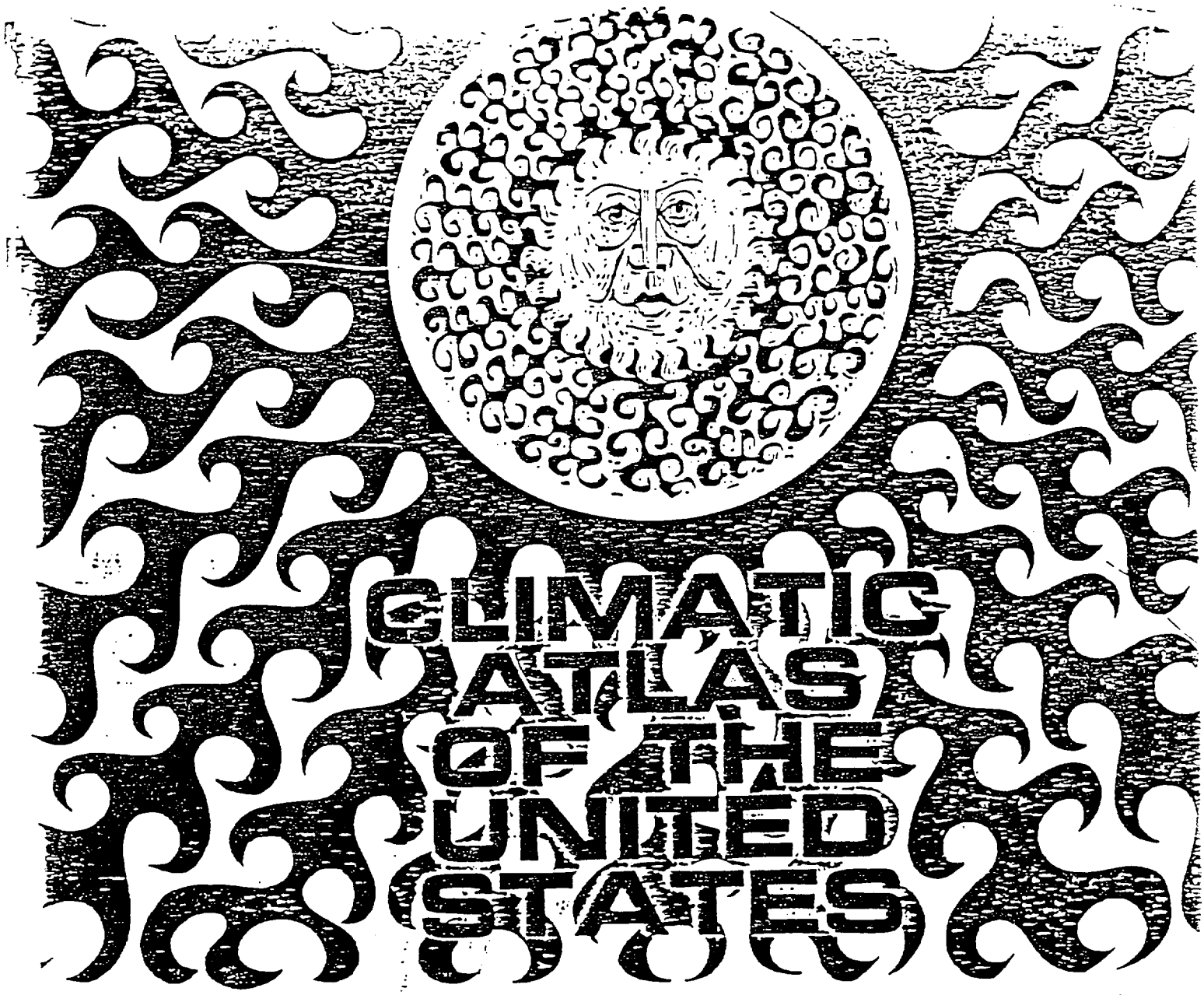
5
5.5
6
1.5
2

Ref.
#4



CLIMATIC ATLAS OF THE UNITED STATES

RCE . Environmental Science Services Administration . Environmental Data Service

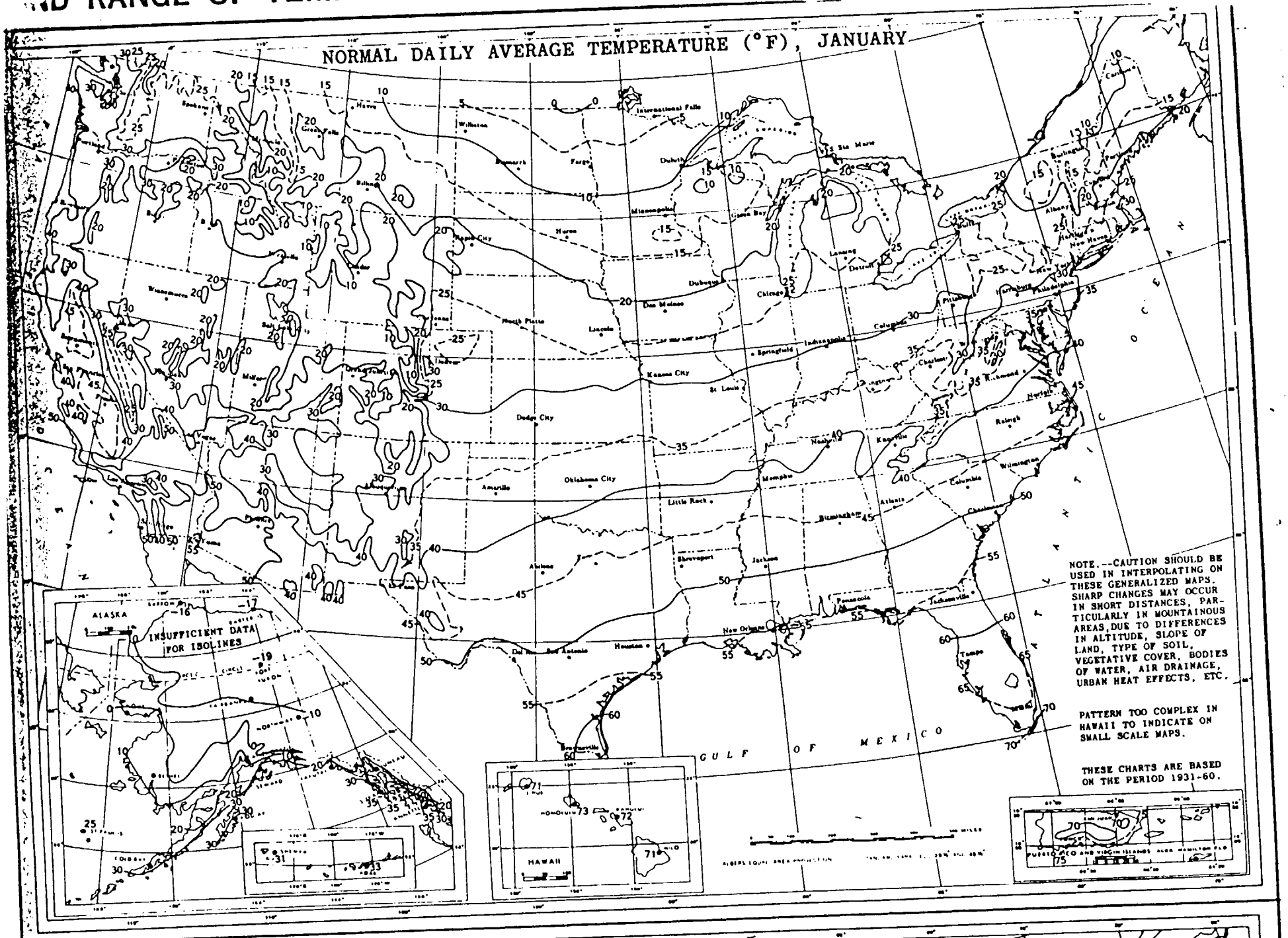
U.S. DEPARTMENT OF COMMERCE
C. R. Smith, Secretary

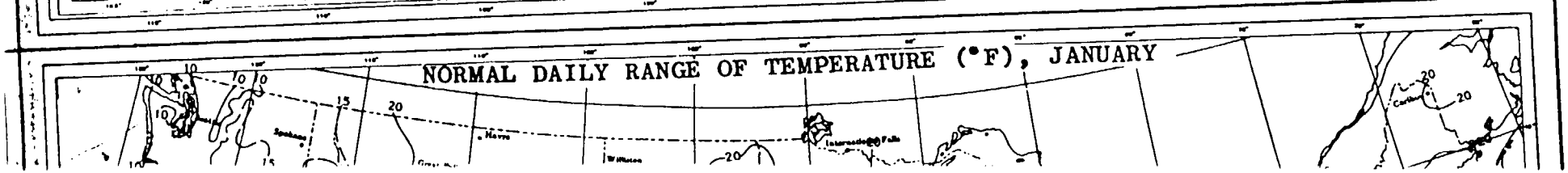
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
Robert M. White, Administrator

ENVIRONMENTAL DATA SERVICE
Woodrow C. Jacobs, Director

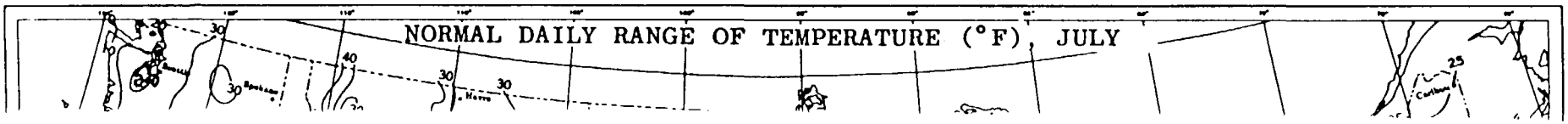
JUNE 1968

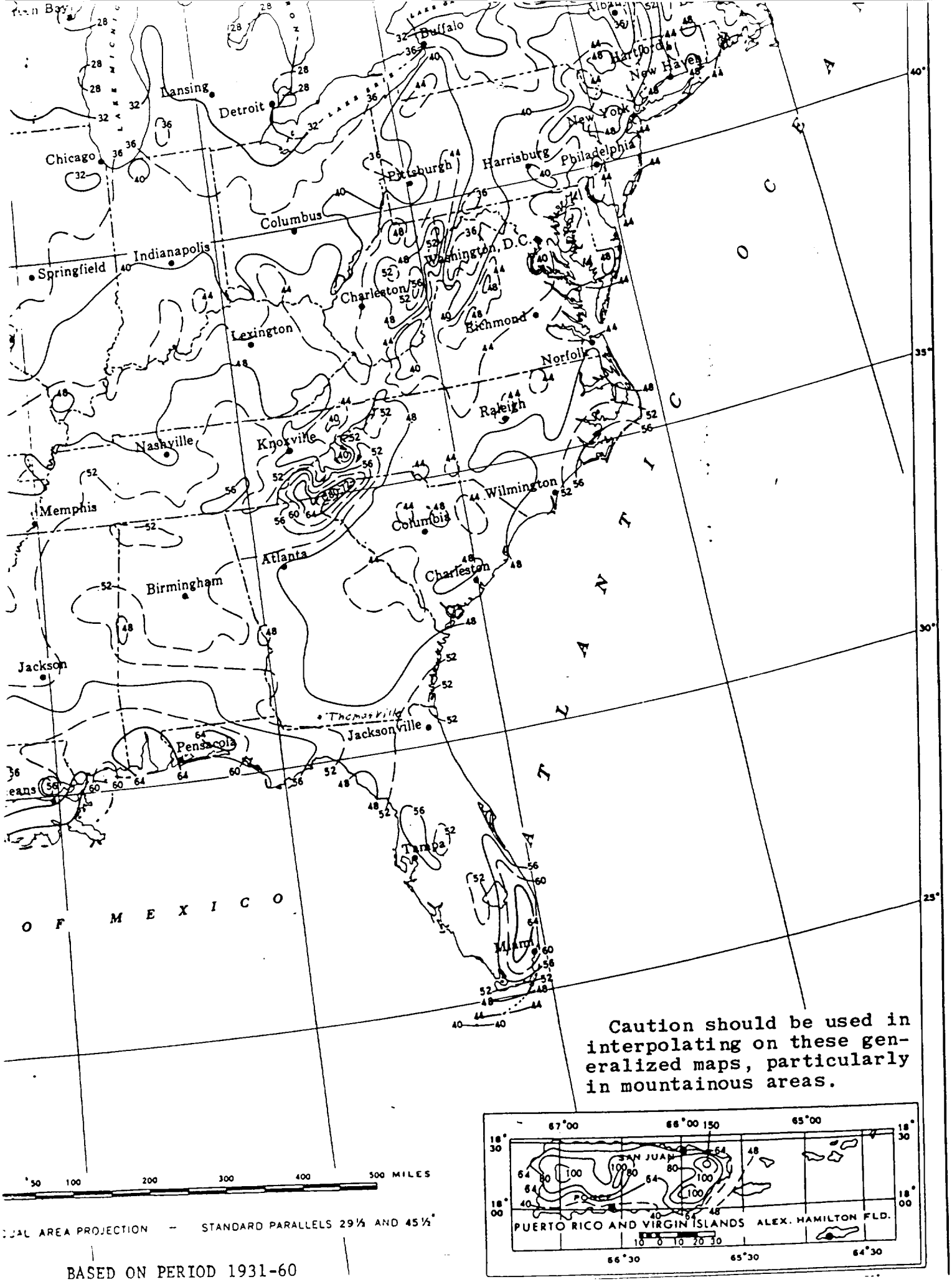
REPRINTED BY THE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
1983


NORMAL DAILY AVERAGE TEMPERATURE (°F), JANUARY
ALASKA
INSUFFICIENT DATA FOR ISOLINES
HAWAII
GULF OF MEXICO
NOTE.--CAUTION SHOULD BE USED IN INTERPOLATING ON THESE GENERALIZED MAPS. SHARP CHANGES MAY OCCUR IN SHORT DISTANCES, PARTICULARLY IN MOUNTAINOUS AREAS, DUE TO DIFFERENCES IN ALTITUDE, SLOPE OF LAND, TYPE OF SOIL, VEGETATIVE COVER, BODIES OF WATER, AIR DRAINAGE, URBAN HEAT EFFECTS, ETC.
PATTERN TOO COMPLEX IN HAWAII TO INDICATE ON SMALL SCALE MAPS.
THESE CHARTS ARE BASED ON THE PERIOD 1931-60.


NORMAL DAILY RANGE OF TEMPERATURE (°F), JANUARY

E, AND RANGE OF TEMPERATURE (°F), JULY





Caution should be used in interpolating on these generalized maps, particularly in mountainous areas.

BASED ON PERIOD 1931-60

AKE EVAPORATION

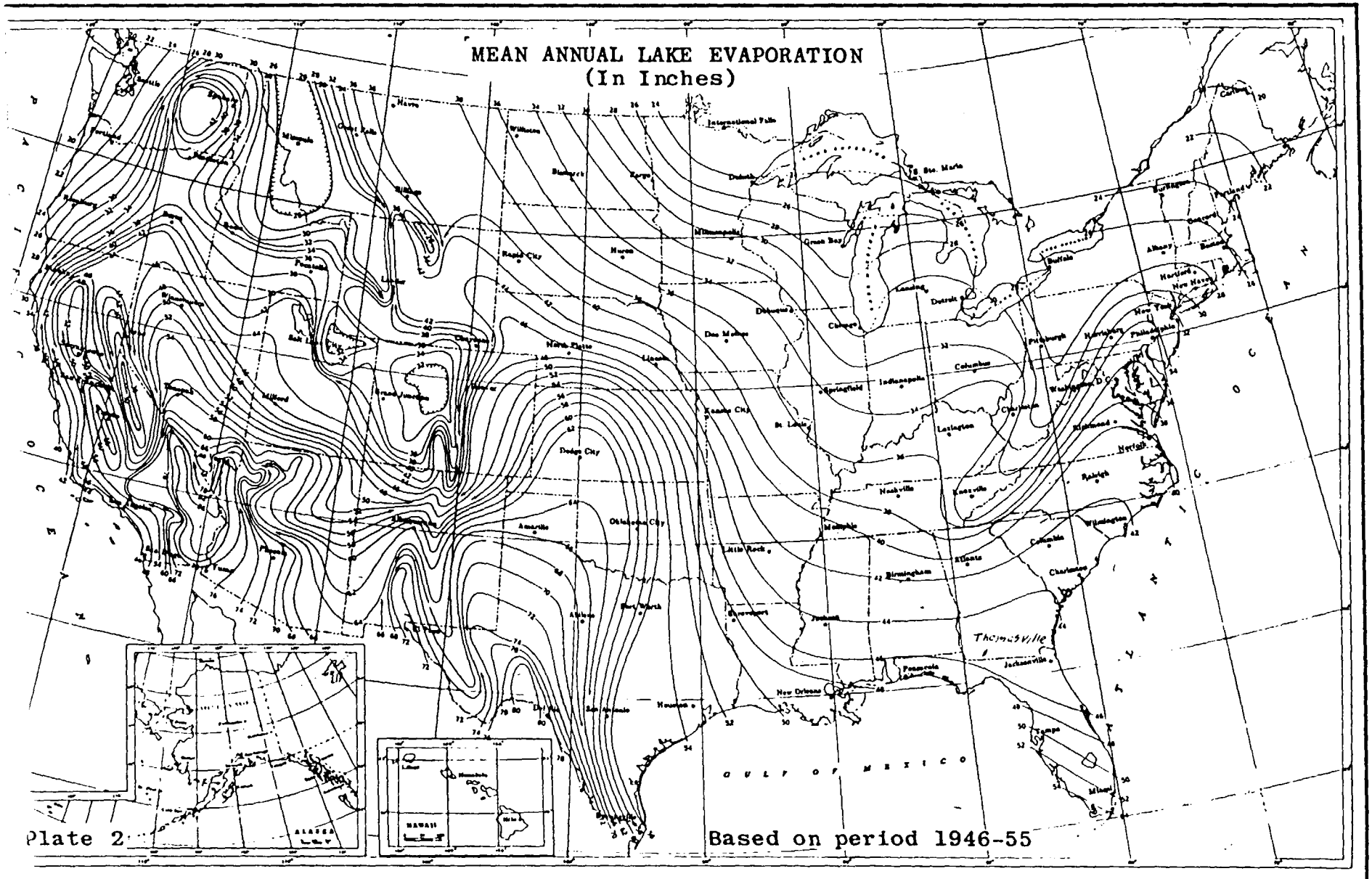
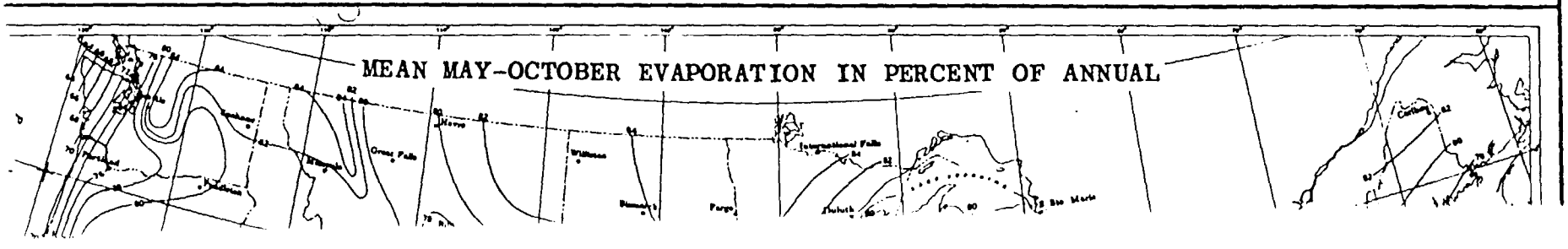


Plate 2



Ref. #6

Producers Wood Preserver

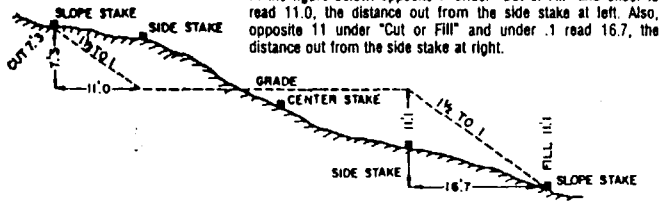
FIELD BOOK

FB 802

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake										
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

Log Book for

Producers Wood Preserver
KYD 985066042

BVWST Project No.
52011.023

Field Manager:
Monica Ulrey

The paper in this book is made of 50% high grade rag stock with a WATER RESISTING surface sizing.

CONTENTS

PAGE NO.	REFERENCE	DATE

5-3-92 Sunday

1

- arrived 12:30 in Louisville.
- Rusty finished his job early. completed by end of Monday 5-4-92.

This could be a problem for PWP PRP's. They were not expecting us until Wednesday or Thursday

I will call B.F. Goodrich and Carbon Graphite tomorrow morning.

5-5-92 Tuesday

0805 Received a fax yesterday from ESD about comments on the PWP-FSP.

Called Roger Carlton with ESD. He accepted verbal confirmation about addressing his comments.

① Adding page number corrections in table of contents for figures.
② Sampling wells in area. B.F. Goodrich and one resident south of the property
③ Moving surface water/sediment samples 04 & 05 off the Ohio and into drainage release pt into the Ohio.
④ Ponds - check if lined they could be contributing to downgradient exposure.

5-5-92 Tuesday

Roger recommended future use of drillers to install grd water wells.

At process well take sample from faucet closest to pump and before any chlorination.

0815 Called Hubert Wieland P.M. at BVWST. Told him I discussed comments with Roger Carlton, ESD. Hubert wanted to remind me sampling is oriented to HRS and not include with considering ESD comments. He recommend discussing changes with Ramona Klein EPA RPM, who is in Louisville with us.

0825 Phoned Dan Crompton Carbon Graphite Plant Manager. 423-4400.

I told him of our change in schedule. The Shively Woods Product site finished ahead of time. Mr. Crompton would not be ready for us until Wednesday morning. Also, Carbon Graphite does not have any process wells. They are exclusively utilizing City Water.

0840 Discussed with Ramona the forementioned conversation with Hubert Wieland and Roger Carlton. Ramona said we would need an upgradient sample from drainage entry point

into the Ohio river for HRS requirements. Also, Ramona will call Hubert to discuss projects.

0900 Called B.F. Goodrich Spoke with Alice Simpson, Plant Manager. (772-5710) She was not in, left a message to call at the hotel.

0905 Called Mr. Crompton at Carbon Graphite. Told him tommorrow morning would be fine as long as B.F. Goodrich can arrange time. Ponds - no liner, 30 feet deep at so in areas. acetylene and CaOH are byproducts of plant operations Calcium carbide - main product of plant L&E has purchased CaOH Material (CaOH) dry now but a one pt. (20 or 30 yrs ago) more a slurry.

5-5-92 Tuesday

guard station on Bell Lane, rendez-vous point.

Fire lane and gravel road you can access to back property around drainage.

Meeting at 900 am.

Mr. Crompton said most likely they will only split samples on their property. I told him if B.F. Goodrich does not have an objection we will collect background today.

0930 We decided to wait until tomorrow to start PWP work until PRP's are ready. No sampling today

1300 Returned Ms. Simpson's call. B.F. Goodrich not prepared for work

MM

tommorrow. Their consultant will be ready Thursday morning. I explained if it's a sample contamin problem, we may have enough for them, but I'll check our count and she will check with consultant.

Hollis Millard with Fugro McClelland is the consultant for B.F. Goodrich.

1500 Mr. Millard called. He would like ELP analytical procedure numbers to arrange analyses. I told him I would call ESD for the information.

1505 Rich ~~Rabbold~~ Rabold consultant for Geotrans retained by Carbon Graphite would like

MM

a copy of the field study plan. I told him I would ask Ramona and if it was acceptable I would leave one at their guard station.

1520 Called US EPA ESD Athens and spoke with Gary Bennet. He said to tell consultants to follow CLP Statement of Work for inorganics and organics should suffice.

1600 Called Mr Millard and gave him the information about the laboratory. He would like a copy of the FSP. I would ask Ramona and get back with him.

1615 Spoke with Ramona

she said giving Carbon Graphite and B.F. Goodrich a FSP was alright.

1620 Phoned Mr. Simpson at B.F. Goodrich. Told her I would leave a copy with their ~~tomorrow~~ guard tomorrow.

No work is scheduled Wednesday on site. Both PRPs consultants are not ready to split. We will try to obtain other pertinent information from water Co, well in area, etc.

5-6-92 Wednesday

0745 No work on site today.

1000 Phoned Hollis Millard for message he had left. He needed information on CLP procedure

1030 Phoned ESD spoke with Gary Bennet. He said to follow Statement of Work for organics and inorganics

1045 Phoned office to tell Hubert we would not be onsite today and get messages.

1400 Called Hollis to rely information.

1430 Called Hollis about sample plan.

Monica Usrey

5-7-92 Thursday

0805 Onsite at B.F. Goodrich.
BVWST: Monica Usrey
Rusty Hazelton
Don Keck
Bill Stafford
EPA: Ramona Klein
Carbon Graphite: Dan Crompton
Geo Trans: Joe Moffett
B.F. Goodrich Alice Simpson

0815 Meeting with B.F. Goodrich and Carbon Graphite
Alice Simpson
Ken Willings
Monica Usrey
Ramona Klein
Dan Crompton
Joe Moffett
Hollis Millard

Went through FSP so all would understand field investigation objectives

Monica Usrey

5-7-92

0945 Ready to sample WP-SS-01. Offset from FSP to West side of 264.

Collected VOA, EXT, MET/CN⁻
Split with B.F. Goodrich
VOA, EXT, MET/CN⁻

1010 Completed SS-01.

1055 At sample point for SW/SD-03.
It is about 15 feet from fallout of culvert
Best we can do, because sediment is too soft to get out into stream

1120 Complete sampling. picking up equipment and moving to SW/SD 02. Reducing # of sample because of additional outfalls.

MM

1200 At SW/SD-02, at CG outfall. They have a rock wall to retain solids. We will sample inside pond.

1225 Completed sampling at SW/SD 02.
Glen Logan for CG replacing Dan Crompton

1255 Getting sample jars for SW/SD 31 MU. This is considered upstream from mixing pt from CG.

1345 Complete on SW/SD's at SD 01. Collected on south side of RR tracks before mixing point.

1400 Begin to locate and mobilize equipment for surface soil sampling

1700 62°F
868 cond
6 pH w/ paper

parameters at MW 116

Water withdrawn from this well for process water not potable source.

MW 116 only well operable on old PWP property.

Total samples collected.

7 surface soil sample
3 surface water
3 sediments
1 production well.

B.F. Goodrich split all samples
CG - only split SW/SD

Residents south of property were not home ~~at~~ to get permission to sample on their property.

A fence ran through the south end of B.F. Goodrich property, thus decreasing area for samples. Notice remnants of RR tracks in south property. There were ties still in ground and devegetated lanes of ground.

Completed tagging samples and loading vehicles at 1915, off site.

Packed samples until 2015 for shipment tomorrow.

[signature]

 7-31-92

Monica Usry releasing Producers Wood Preserver logbook to Bill Stafford.

Note: Soil samples, with the singular exception of WP-SS-01 were not recorded in this logbook. Sample information will be reconstructed from data recorded on Sampling Field Sheets by Ralph Hazleton. Samplers were Dan Keck and Bill Stafford.

Bill Stafford

7-31-92

1515 BS
~~1650~~ Having completed the collection of surface water and sediment samples on the Carbon Graphite property we move back to the BF Goodrich property to collect surface soils. WP SS-02 7 BS is collected first. In accordance with the Field Study Plan and EPA protocol, one 4 oz VOA and two 8 oz glass containers will be filled for each soil sample.
Monica observes and photographs a culvert coming under the perimeter fence which appears to drain the parking area of an adjoining trucking company directly on to the site. The trucking company could not be identified from the rear. We plan to drive that way upon leaving to obtain the name.
1540 We move to WP-SS-06. Monica has staked or marked the locations for Dan and Bill to sample and she is being questioned and/or

interviewed by the representatives of Carbon Graphite and B.F. Goodrich.
1600 Dan and Bill move on to WP-SS-05. Without consultants and PRP's the operation runs much smoother.
1615 On WP-SS-04 a Matrix duplicate is collected including a double volume for B.F. Goodrich. We are now in the area believed to be the location of the treating vats and storage tanks.
1630 WP-SS-03, still in treating area.
1650 We complete the collection of surface soil samples with WP-SS-02

GeoTrans, inc.
GROUNDWATER SPECIALISTS

JOSEPH C. MOFFITT, CPG
Geologist

4350 Brownsboro Road
Suite 307
Louisville, KY 40207
502•894•9392
502•893•0152 FAX

A Subsidiary of Tetra Tech, Inc.

WASTE SCIENCE AND TECHNOLOGY CORP.

MONICA J. USREY

1117 Perimeter Center West
Suite W-212
Atlanta, Georgia 30338
(404) 392-9227

FUGRO McClelland

Fugro-McClelland
(Environmental), Inc.
6100 Hillcroft
P.O. Box 740010
Houston, Texas 77274
Phone: (713) 772-3700
Fax: (713) 778-5560
1-800-44FMUSA

HOLLIS F. MILLARD, JR.
project hydrogeologist

BFGoodrich
Specialty Polymers & Chemicals Division

Kenneth J. Willings
Director
Health, Safety & Environmental

9911 Brecksville Road
Cleveland, Ohio 44141-3247

216-447-5636
FAX: 216-447-5720

BFGoodrich Geon Vinyl Division

4200 Bells Lane
P.O. Box 32950
Louisville, KY 40232

(502) 772-5710
Fax: (502) 772-5772

3
V
VINYL IT'S RECYCLABLE

Alice D. Simpson, Manager
Health, Safety And
Environmental Services

JOHN F. NICHOLS JR.
SECRETARY

WALLACE G. WILKINSON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
18 REILLY ROAD
FRANKFORT, KENTUCKY 40601

Ref # 7

October 30, 1991

Ms. Ramona Klein
U.S. Environmental Protection Agency
345 Courtland St., N.E.
Atlanta, GA 30365

RE: Preliminary Assessment Report
Producers Wood Preservers
Jefferson County, Ky.
EPA ID# KYD 985066042

Ms. Klein:

On October 1, 1991 the Kentucky Division of Waste Management (KDWM) PA/SI staff began work on a Preliminary Assessment Report on Producers Wood Preserves located in Louisville, Jefferson County, Kentucky. Review of KDWM files and available data reveals the following:

1. Producers Wood Preserves is currently a non-operational facility.

2. While in operation the facility had the capacity to treat approximately 393,500 cubic feet of wood. This would required an extensive amount of creosote preservative. This preservative breaks down in to a number of very toxic constituents.

3. The wood preserving process utilized at that time was conducive to a soil and surface water release.

4. The site location is serviced by a municipal water company whose supply is drawn from the Ohio River. There are only five ground water users in the area and these are drawn upon in the event of an emergency when municipal water is not available.

5. Access to the site is currently controlled by the present owners B.F. Goodrich and Carbon Graphite.

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Based on the aforementioned data it is the recommendation of the KDWM that the site be given a medium priority for Site Screening Investigation under CERCLA at this time.

Sincerely,

Carl Millanti

Carl Millanti, Manager
Uncontrolled Sites Branch

CM/MO/kb

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D - Kentucky Nature Preserves Commission Endangered Species file excerpts

Site History

Producers Wood Preservers Co. (PWPC); located south of Bells Lane in Jefferson county, Kentucky, operated a wood preserving company utilizing creosote as their primary preservative for lumber and railroad ties from approximately 1922-1934. While in operation, the facility had the capacity to treat an estimated 393,500 cubic feet of railroad ties and lumber. These materials were stacked and dried, requiring a great deal of land area for this process. During the drying procedure it was not unusual for the wood to be wet with creosote. Any unabsorbed preservative or creosote would drip off onto the ground causing surface water and soil contamination. Analysis of creosote indicates it breaks down into a number of toxic constituents including but not limited to phenolic compounds, phenanthrene, and anthracene. (Appendix A & B) Changing ownership a number of times over the years PWPC's 120 Acre site is currently owned by B.F. Goodrich Co. and Carbon Graphite; each owning approximately 60 acres. (Appendix A)

Environmental Setting

Located at 38°13'00" Longitude 85°49'45" in the City of Louisville, Jefferson Co., Ky.; the PWPC site is in the Wheeling-Weinbach-Huntington Soil Association. Each of these Soil Associations cover about 25% of this area with Newark and other minor soils covering 10% and 15% respectively. Wheeling soils are deep, well drained soil on terraces. Normally they have a brown, friable silt loam and a subsoil of yellowish-brown silty clay loam, Weinbach soils are moderately deep, somewhat poorly drained soils on terraces. Generally having a grayish-brown silt loam and a subsoil of brown silty clay loam motled with gray. Huntington soils are deep well drained soils on bottoms. Generally they have both a surface layer and subsoil of dark-brown silt loam. All the soils above developed in mixed alluvium that washed from the upper part of the Ohio River drainage basin. All are underlain by stratified sand, silt, and clay, in places mixed with gravel below a depth of 4 to 8 feet. Minor soils in this association are the moderately well drained Sciotoville soils on terraces, the poorly drained Ginat soils, also on terraces, and the moderately well drained to poorly drained Linoside, Newark and Melvin soils on bottoms. Also in this association is the very deep Lakin loamy fine sand, which is the principal sandy soil in the area. (Reference 1)

The PWPC site is in the Quaternary system, a member of the pleistocene and recent series. The basic formation being alluvium ranging from 0-130 feet in thickness. (Reference 1 & 3)

Groundwater

Groundwater wells in the vicinity range from 40-115' in depth. If properly constructed, drilled wells will produce several hundred gallons per minute (GPM) from alluvial material unless bedrock is encountered at shallow depths. The maximum reported yield is approximately 1400 GPM. Most drilled wells will produce enough water for a domestic supply with a power dump and pressure system (more than 500 gallons per day) at depth of less than 100 feet. The water of this area is hard or very hard but otherwise of good quality. (Reference 2)

Climate

In Jefferson County there is a wide range of temperature, rainfall, wind and humidity, but the range is within limits suitable for varied plant and animal life. The temperature rises to 90°F or higher on about 49 days in an average year. A temperature of about 100° is reached about once each year in June, July, August or September. Freezing temperatures occur on about 92 nights in an average winter, but except on about 15 days a year, the temperature rises above 32° during the daytime. Thus a daily freeze-thaw cycle is normal for cold weather. The temperature drops below 0° on an average of less than once each winter. The average yearly precipitation is 41." (Reference 1)

Target Analysis

The PWPC site is situated in an extremely busy industrial area adjacent to an ever-growing urban area. Access to the site is however, controlled by B.F. Goodrich Tire Co. and Carbon Graphite, the present owners. Bounded to the north by Bells Lane, on the east by U.S. 264, on the south by Ky 2051, and finally the west by and industrial access road PWPC sits in a very high traffic radius utilized by pedestrians, vehicles, and trains.

At this time Kentucky Division of Water and KDWM files indicate there are no groundwater users in the target radius. However there are 5 local hospitals in the area upgradient from the site with wells for emergency purposes only. The Louisville Municipal area is serviced by the Louisville Water Co. (Appendix C)

An investigation was conducted to determine if any critical habitat or sensitive environmental area exist in the vicinity of the site. According to the Kentucky Nature Preserves Commission there are no known federally-listed endangered or threatened species that occur within the target area. (Appendix E)

References

1. USDA, 1962 Soil Survey of Jefferson County, Kentucky

2. USGS, Availability of Ground Water in Bullitt, Jefferson and Oldham Counties, Ky., (Hydrologic Atlas #22)

3. USGS, Geologic Quadrangle Maps of Louisville West and Louisville Quadrangles, Jefferson County, Kentucky (Geologic Quadrangle #1202)

4. USGS Topographic Maps
   1950-83 Louisville West
   1937-82 New Albany
   1950-82 Jeffersonville
   1950-82 Louisville East

OVERSIZED

DOCUMENT

Ref. #9

Fax Message

The BFGoodrich Company
P. O. Box 32950
Louisville, KY 40232
FAX Number: (502) 772-5772

Date: 8/28/92

To: Lee Stafford - B&V

From: Alice Simpson

Number of pages, including this page: 2

Message:

If you experience any problems or need a re-transmit, please call Sylvia Morgan (502) 772-5151 or Phyllis Morris (502) 772-5701.

THE BFGOODRICH COMPANY IS A PARTNER IN

Responsible Care:® A Public Commitment

To: Bill Stafford B & V Waste Science and Technology

From: Alice Simpson BFGoodrich Louisville Plant

Subject: Requested Information

The information you requested regarding the well sampled during your May 7, 1992 site investigation of the Producers Wood Preservers site is as follows.

1. Depth and Diameter: 115' from grade
   16" I.D.
2. Production Capacity: 250 GPM
3. Average Annual Draw: Records specific to this well are not available.
4. Peak 24-hour draw: Records specific to this well are not available.
5. Uses of water/ Disposal: Once through non-contact cooling discharged to Ohio River via the Southwestern Outfall Sewer under KPDES permit #KY0001457
6. Any human consumption: No
7. Date of installation: 11/81

I will fax you the drawing you requested of the area later this afternoon.

(1)

KENTUCKY GEOLOGICAL SURVEY

UNIVERSITY OF KENTUCKY, LEXINGTON SERIES X, 1978

Wallace W. Hagan, Director and State Geologist

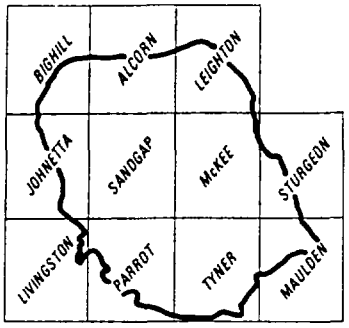
Ref. #10

TOPOGRAPHY OF KENTUCKY

Preston McGrain and James C. Currens

SPECIAL PUBLICATION 25

cliff-lined valleys. Elevations in excess of 1000 feet prevail over most of the county. Elevations less than 1000 feet are found only along a few of the larger streams.



The highest elevations are in the northwestern part of the county where several ridges and hills attain elevations of 1600 feet or more. The highest point, 1633 feet, is on a ridge near the Jackson-Rockcastle County line about 1 1/4 miles south of Morrill. Maximum local reliefs in this part of the county may exceed 600 feet. A few sinkholes are found in the bottoms of deeper valleys in this part of the county, modifying the normal valley profiles and drainage patterns.

Elevations decrease and the terrain is more subdued in the southeastern part of the county. Ridgetop elevations rarely exceed 1200 to 1300 feet, maximum local reliefs of 300 feet are common, and cliffs are less abundant.

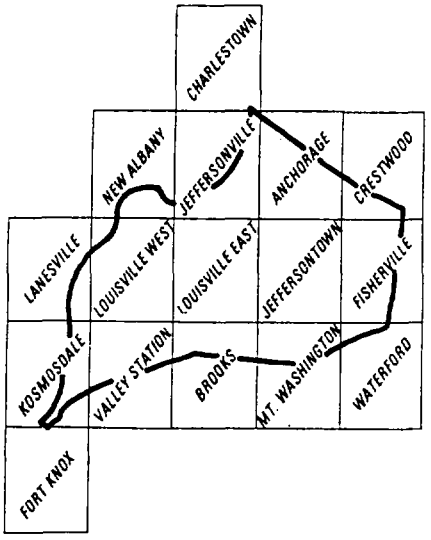
The lowest elevation in the county is approximately 650 feet, the point where Station Camp Creek flows northward out of the northeast corner of the county. In the southwest corner, Rockcastle River leaves the county at an elevation of approximately 870 feet.

The elevation of McKee, the county seat, is 1030 feet. Other elevations are Annville, 1094 feet; Morrill, 1500 feet; Parrott, 1280 feet; Sandgap, 1490 feet; and Tyner, 1182 feet.

JEFFERSON COUNTY

Jefferson County is on the Ohio River in north-central Kentucky, lying largely in the Outer Blue Grass region. The extreme eastern part of the county is rolling to hilly; the central and northern parts are a tableland of low relief except adjacent to principal drainage lines; and the southwestern corner is in the knobs area adjacent to Muldraugh Hill.

The tableland area occupies the largest part of Jefferson County. To the casual observer, the details of the topography are obscured by the extensive urban and suburban development. Although locally appearing flat, it is essentially a gently southwestward sloping surface from a high of 790 feet on the east to 500 feet at the foot of the knobs in the southwest part of the county. Floyds Fork and Harrods Creek have cut valleys as much as 150 to 200 feet below this surface in the east-central part of the county. Some sinkholes are present, but these karst features do not constitute an important part of the landscape.



The lowest elevations are found along the Ohio River. Upstream from downtown Louisville the flood plain is relatively narrow but widens appreciably to the south and southwest. Elevations along the flood plain are 430 to 440 feet; terraces 20 feet higher may be present in some areas. The lowest point in the county is 383 feet, the normal pool level of the Ohio River at the mouth of Salt River.

The highest elevations are in the Muldraugh Hill (Highland Rim) area. Here the escarpment rises abruptly 300 to 400 feet above the lowland to the north and east. South Park Hills is a complex of hills and ridges separated by erosion from the main upland to the west. The highest point in South Park Hills, and the highest point in Jefferson County, is 902 feet. Holsclaw Hill, 2 miles to the west, has elevations of 890 feet.

Selected elevations in Louisville are: the courthouse, 462 feet; Churchill Downs, 455 feet; highest elevation in Iroquois Park, 761 feet; terminal building at Standiford Field, 475 feet; main gate at Kentucky Fair and Exposition Center, 480 feet; and University of Louisville campus (South Third Street), 460 feet.

(2) Ref. # 11

Reconnaissance of Ground-Water Resources in the Blue Grass Region Kentucky

By W. N. PALMQUIST, JR., *and* F. R. HALL

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1533

Prepared in cooperation with the Commonwealth of Kentucky, Department of Economic Development and the Kentucky Geological Survey, University of Kentucky

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1961

Geologic mapping was restricted largely to part of Rowan County, where no geologic map was available. There the geologic boundaries were drawn on the basis of available well logs and a reconnaissance field study. Additional geologic mapping was done in several counties where the existing maps did not distinguish some of the more important water-bearing strata. Most of the geology shown on the maps, however, has been adapted from existing county geologic maps prepared by the Kentucky Geological Survey. The geologic maps are included in U.S. Geological Survey Hydrologic Investigations Atlases HA 15–25 (see Palmquist and Hall, 1960a–f; and Hall and Palmquist, 1960a–e). References to the original county maps appear in the atlases.

ACKNOWLEDGMENTS

The reconnaissance was aided greatly by the cooperation and interest of well owners, well drillers, county agents, and United States Soil Conservation Service employees in the region.

Dr. A. C. McFarlan, former director of the Kentucky Geological Survey, aided materially in the compilation of the stratigraphic correlation chart of the region.

GEOGRAPHY

The Blue Grass region proper consists of the Inner Blue Grass, Eden shale belt, and Outer Blue Grass physiographic subdivisions. However, for the purpose of this report it is defined to include also the Knobs and small parts of the Eastern Coal Field and Mississippian Plateau. Most of the region lies in the Lexington Plain section of the Interior Low Plateaus physiographic province (Fenneman, 1938). Figure 2 shows physiographic subdivisions and the outer limits of the area of this report as determined by county boundaries.

TOPOGRAPHY AND DRAINAGE

The central part of the Blue Grass region as shown in figure 2 coincides, for the most part, with what is known as the Inner Blue Grass and consists of the outcrop areas of the Cynthiana formation (Ordovician) and older Ordovician strata. The area is a gently rolling upland in which the Kentucky River and some of its tributaries are entrenched as much as 300 feet. Most of the rock underlying the area is limestone that has been subjected to considerable erosion by solution, both on and beneath the surface. As a result, much of the drainage is underground. In places the underground drainage comes to the surface to form springs. The area is dotted with sinkholes as much as 60 feet deep and 1 square mile in area.

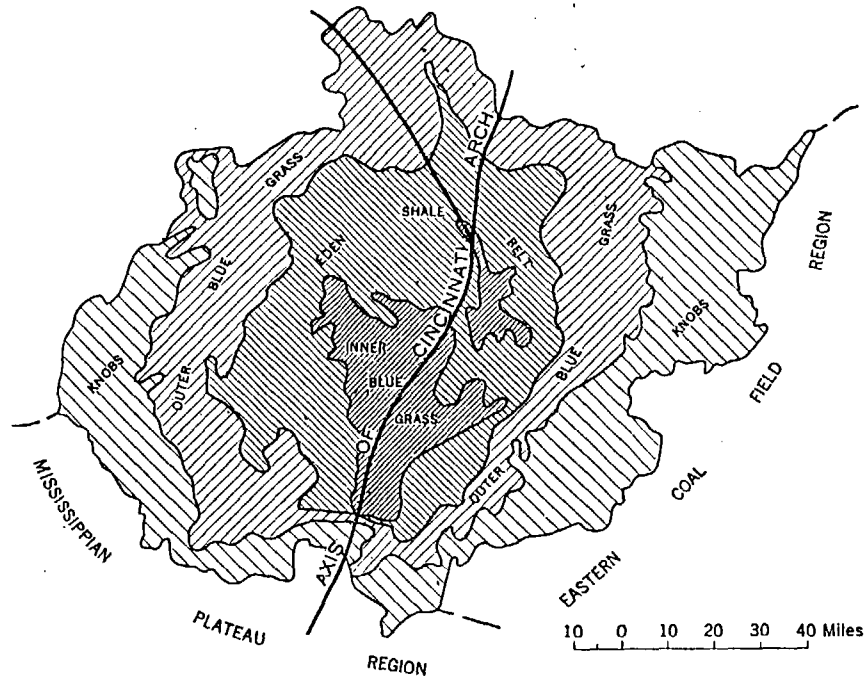


FIGURE 2.—Physiographic subdivisions of the Blue Grass region, Kentucky, and location of the Cincinnati arch.

The Inner Blue Grass is surrounded by a band of dissected, hilly country known as the Eden shale belt. The Eden shale belt consists of the outcrop area of the Eden group of Ordovician age, which is made up mainly of shale and interbedded thin layers of limestone and is characterized by sharp, irregular ridges and narrow valleys. Because of the steep slopes, runoff is rapid, and few perennial streams originate in the Eden shale belt.

The Outer Blue Grass surrounds the Eden shale belt. The Outer Blue Grass consists of the outcrop areas of the Richmond and Maysville groups of Ordovician age and part of the outcrop area of rocks of Silurian age. These rocks are chiefly limestone but include considerable interbedded shale. The topography is gently rolling except near major streams, where it is dissected and rugged. There has been some subsurface solution, and small sinkholes are fairly common, but most of the drainage is on the surface.

Bordering the Outer Blue Grass on the east, south, and west is a belt, known as the Knobs, which is underlain by rocks of Silurian, Devonian, and Early Mississippian ages. The outcrop of Silurian and Devonian rocks west of the Cincinnati arch is gently rolling and more or less continuous with the Outer Blue Grass. East of the arch,

rocks of Silurian and Middle Devonian age underlie long, wide valleys extending into the Knobs. Upper Devonian and Lower Mississippian rocks make up the hillsides and most of the hilltops of the rough, hilly belt of the Knobs proper.

Rocks of Late Mississippian age crop out in the Knobs along the west and south edges of the area. These rocks are outliers of the Mississippian Plateau. Rocks of Early Pennsylvanian age crop out in the Knobs along the east edge of the area, mainly on the tops of hills and ridges. These rocks are outliers of the Eastern Coal Field.

The alluvial terraces of the Ohio River valley lie along the entire north border of the Blue Grass region. The valley is cut about 350 feet below the general level of the adjacent area. The part of the Ohio River valley to be considered in the present report consists of the alluvial terraces on the Kentucky side of the Ohio River. The width of the terraces ranges from zero, where the river impinges on the valley walls, to a maximum of about 5 miles, near Louisville.

The entire Blue Grass region lies within the drainage basin of the Ohio River. The important tributaries of the Ohio that drain the region are the Kentucky, Licking, Salt, Cumberland, and Green Rivers. The Kentucky River drains an area of about 3,700 square miles, or 33 percent of the Blue Grass region as defined. It enters the region in the southeast in Estill County, flows westward to Jessamine County, and then northward to the Ohio River at Carrollton. The Kentucky River is incised as much as 300 feet below the general upland level and has cut a steep, narrow gorge where it crosses the Cincinnati arch. The Licking River enters the area in the east in Rowan County and flows northwestward to the Ohio River at Covington and Newport. It drains 2,900 square miles, or 25 percent of the Blue Grass region. It has cut a valley as much as 300 feet below the upland level, but it has a wider valley and flood plain than the Kentucky River and nowhere is entrenched in a steep, narrow valley. The Salt River heads in Boyle County, flows northward to Anderson County, and thence westward to the Ohio River at West Point, south of Louisville. The Salt River drains about 2,670 square miles, or 24 percent of the area. About 160 square miles in Lincoln County in the extreme southern part of the region is drained by the Cumberland and Green Rivers, which join the Ohio River in western Kentucky. A narrow strip of land along the Ohio River is drained by small directly tributary streams.

The subsurface drainage pattern is composed of many small independent units much like the surface drainage, which is made up of many small watersheds. In areas underlain by limestone, subsurface

drainage courses may deviate locally from the surface drainage. Such deviations usually are evident from discontinuities in the surface drainage pattern.

CLIMATE

The climate of the Blue Grass region is of the humid continental type, with sharp contrasts between the winter and summer. The mean annual temperature ranges from 53° to 57° F., 55° F. being about average for the region. The mean January temperature ranges from 32° to 37° F. and averages about 34° F. The mean July temperature ranges from 75° to 78° F. and averages about 76° F. The growing season is about 180 days. The mean annual precipitation ranges from 39 to 47 inches and averages about 43 inches. Precipitation is rather evenly distributed throughout the year, there being sufficient rain during the growing season in most years to cause crops to mature. The spring months sometimes have enough rain to produce floods; yet, in contrast, drought conditions occasionally prevail for several weeks during the summer.

Figure 3 consists of two graphs showing the monthly temperature and precipitation averaged for 10 stations in the Blue Grass region.

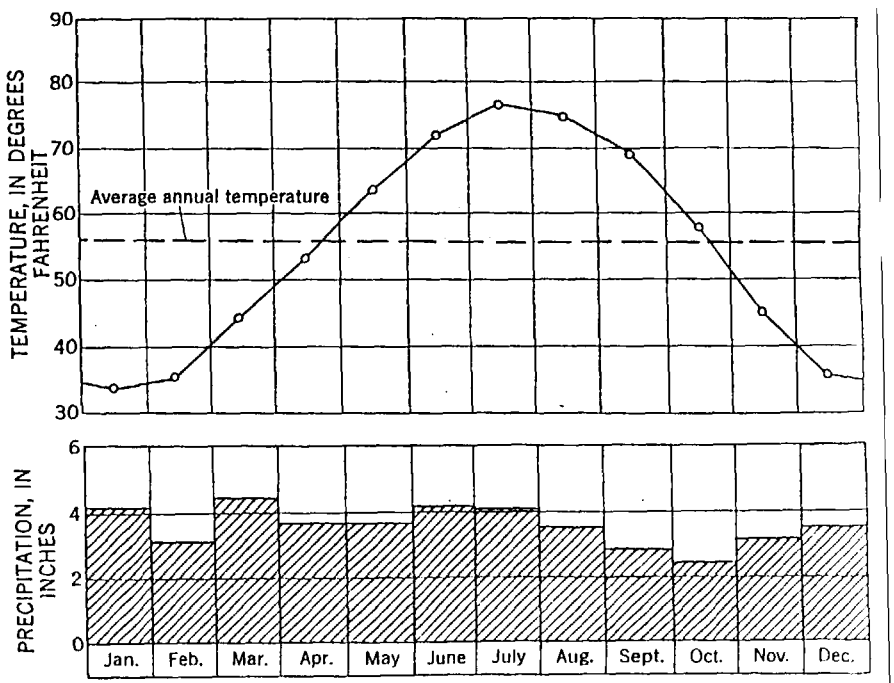


FIGURE 3.—Monthly temperature and precipitation averaged from normals for 10 stations in the Blue Grass region.

The hydrologic cycle is complex and in any specific area is controlled mainly by such factors as amount and rate of precipitation, temperature, type of soil and vegetation, topography, and geology. This report is concerned primarily with the recovery of water that is underground.

Most water of economic importance in the Blue Grass region comes from local precipitation. The precipitation falling on the ground evaporates, runs off in streams, or soaks into the soil. Part of the water that seeps downward into the soil is evaporated directly or is intercepted by plant roots and transpired. Part continues downward to the water table and becomes a part of the zone of saturation, moving slowly in that zone to points of lower elevation. Eventually, this water discharges through springs or seeps into surface-water bodies or is discharged by evapotranspiration. In dry weather the discharge of ground water is the principal source of streamflow (base flow).

The Blue Grass region is a self-contained (ground-water) hydrologic unit composed of many smaller self-contained units, each very much like the individual watersheds that comprise the surface drainage system; with few exceptions, each coincides with a watershed. The source of ground water at any point in the region is the precipitation that has fallen on the area upgradient. Very little water moves underground from one watershed to another.

If no net change occurs in the amount of water stored on the surface or in the soil and rocks under an area in a given period of time, the amount of stream runoff from the area plus the amount of water discharged by evapotranspiration will be equal to the amount of precipitation on the area in the same period of time. In the Blue Grass region, the average annual precipitation is about 43 inches, and the average annual runoff as measured at stream-gaging stations is about 15 inches. Therefore, the discharge of water by evapotranspiration for an average year is about 28 inches. This means that under present conditions only about a third of the water that falls on the area is even potentially available for development; only a part of that can be developed practicably, of course.

FLUCTUATION OF WATER LEVELS

In the preceding section, it was assumed that the amount of water stored underground remained constant, to permit estimating evapotranspiration on the basis of precipitation and runoff. In areas in the Blue Grass region where little water is withdrawn by pumping from wells, the amount of ground-water storage generally does not change greatly from year to year, but the seasonal variation in storage may be considerable. The amount of water stored underground is affected by the same variables that influence the hydrologic cycle and, therefore, is constantly increasing or decreasing.

The position of the water table is related directly to the amount of water in underground storage. Therefore, fluctuations of water levels in wells are a measure of changes in ground-water storage. The more common and easily observed causes of fluctuations of ground-water levels in the Blue Grass region are recharge from precipitation, reduction or cessation of such recharge as a result of soil-moisture deficiency during the growing season, atmospheric-pressure changes, changes in river stage, and pumping. Continuous records of the water levels in certain wells illustrate these influences.

Single measurements of water level were made in most of the wells tabulated in the present report. In a few wells, periodic water-level measurements were made at arbitrary intervals of time, and in 17 wells continuous measurements were made for extended periods by means of automatic water-level recorders. A graph showing fluctuations in the level of water in a well for a period of time is termed a hydrograph.

Figure 5 includes graphs showing water levels in the Ohio River and in a nearby well in the alluvium of the Ohio River at Covington, Ky. The observation well is about 300 feet from the river and within about 400 feet of 3 pumped wells. The rise and fall of the water level in the well is similar to, but not as pronounced as, that of the river stage. Pumping from nearby wells began in late June and lowered the water level in the observation well at an increased rate. When pumping of large quantities of water from the underground reservoir stopped in mid-September, there was a definite reversal of the downward trend of the water level in the well.

material, such as gravel, sand, and silt, the openings consist of spaces (pores) between individual particles or grains. The amount of open space (porosity) and the size and interconnection of the openings, which together determine permeability, are determined by the size, shape, and arrangement of the grains. In consolidated clastic rocks, such as sandstone, siltstone, or shale, openings also occur between the grains, but the porosity and permeability are reduced to a greater or lesser extent by cementing material. The amount of cementing material may range from almost nothing to enough to fill the openings completely. In carbonate rocks, such as limestone, the principal openings are usually secondary and exist as a result of solution along joints and bedding planes. These openings generally are larger and more numerous near the surface and decrease in size and number with depth. The size of the openings and the depth to which they extend are determined essentially by the relative solubility of the rock and by the amount of water that has been in contact with the rock. Solution openings are largest and extend to greatest depths in thick, relatively pure limestone; they are confined to shallower depths where layers of shale, bentonite, or impure limestone serve as effective barriers below which the process of solution is ineffective. Types of limestone that are relatively insoluble include those which contain significant amounts of impurities such as clay (argillaceous limestone), magnesium carbonate (dolomitic limestone), or silica (siliceous limestone).

In the Blue Grass region ground water occurs in two distinct environments. One includes unconsolidated sand and gravel in the valleys of the Ohio River and the larger tributaries; the other consists of the consolidated bedrock that underlies the entire region.

Although the unconsolidated alluvial deposits cover only a small part of the region (Walker, 1957), they are not only the source of much of the ground water presently pumped, but they also are the greatest potential source of ground water for future municipal and industrial development. Almost everywhere the alluvium of the Ohio Valley will yield sufficient water for domestic and farm use, and in many places it will yield several hundred to 1,000 gpm (gallons per minute) and in a few places more than 1,000 gpm. The largest known yield is 1,400 gpm to a well near Louisville. Specially designed wells or collectors may be able to produce several thousand gallons per minute from the alluvium. One such collector, downriver from the Blue Grass region, has been pumped at a rate of 9,000 gpm (Maxwell, 1954). Such large quantities are replenished largely by induced infiltration from the river. Alluvium in the valleys of the larger

tributaries yields, in some places, several hundred gallons of water per minute, as well as adequate supplies for domestic needs in most places. Alluvium in the smaller tributaries is generally thin and mostly silt and clay. Small amounts of water may be obtained from the thin deposits of alluvium, but few wells are known that obtain water from this source.

The only wells in bedrock that produce more than 100 gpm are those that penetrate rocks of Middle Ordovician age in the Inner Blue Grass area and a few that penetrate younger rocks in the Ohio River valley. Otherwise in younger rocks, only 2 wells produce more than 50 gpm and only 7 more than 25 gpm.

Of the 608 inventoried wells drilled in bedrock, 238 are known to produce enough water for modern domestic use with a power-pump and pressure system. About half the 284 wells equipped with hand pumps might furnish enough water for a power-pump and pressure system. Therefore, roughly 375, or three-fifths, of the wells in bedrock that were inventoried are thought to be capable of providing a modern domestic supply. The writers were told of many "dry holes" but did not inventory these, and no doubt many more have been abandoned and forgotten. Less than a quarter of the wells in bedrock that were inventoried are reported to go dry on occasion or are of such small yield as to be inadequate for any purpose. Nevertheless, considering the dry holes that were not inventoried, it is estimated that less than half the attempts to obtain adequate domestic water supplies from wells drilled in bedrock have been successful.

Locally, as much as 300 gpm is obtained from a few wells in bedrock. The specific capacity of 17 wells in alluvium and 23 wells in bedrock was determined and is shown in table 1. Table 2 shows the measured discharge of 13 springs.

Thick beds of pure limestone underlie parts of the Blue Grass region at depths greater than about 100 feet below the land surface. However, they are covered by essentially impermeable rock in most places. As a result, circulation of ground water in those areas has been restricted to a zone above the impermeable rock units, extending little more than 100 feet beneath the land surface. Solution openings at greater depths are so small that they have little or no effect on the occurrence of ground water.

The availability of ground water in a part of the Inner Blue Grass is closely related to topography and drainage (Hamilton, 1950). Other things being equal, more water is available from rocks beneath valleys than from rocks beneath hills. This relation is apparent not only in the remainder of the Inner Blue Grass where similar topographic and geologic conditions exist, but also in the entire Blue Grass under a wide range of geologic and topographic conditions.

Ref. # 12

Series 1962, No. 11 Issued June 1966

SOIL SURVEY

Jefferson County Kentucky

OUR SOIL OUR STRENGTH

All programs and services of the Soil Conservation Service are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
In cooperation with
KENTUCKY AGRICULTURAL EXPERIMENT STATION

of soils occur in such an intricate pattern and in individual areas so small in size that they cannot be shown separately on the soil map. Therefore, such areas are shown as one mapping unit and are called a complex. Ordinarily, a complex is named for the major kinds of soil in it, for example, Westmoreland-Litz-Muskingum complex. Also, on most soil maps, areas are shown that are so rocky, so shallow, so frequently worked by wind and water, or so disturbed by man that they are not identifiable as soils. These areas are given descriptive names, such as Gullied land or Rock land. This kind of mapping unit is called a land type.

While a soil survey is in progress, samples of soils are taken, as needed, for laboratory measurements and for engineering tests. Laboratory data from the same kinds of soils in other places are assembled. Data on yields of crops under defined practices are assembled from farm records and from field or plot experiments on the same kinds of soils. Yields under defined management are estimated for all the soils.

But only part of a soil survey is done when the soils have been named, described, and delineated on the map, and the laboratory data and yield data have been assembled. The mass of detailed information then needs to be organized in such a way that it is readily useful to different groups of readers, among them farmers, managers of woodland, engineers, and homeowners. Grouping soils that are similar in suitability for each specified use is the method of organization commonly used in soil survey reports. On basis of the yield and practice tables and other data, the soil scientists set up trial groups, and test them by further study and by consultation with farmers, agronomists, engineers, and others. Then, the scientists adjust the groups according to the results of their studies and consultation. Thus, the groups that are finally evolved reflect up-to-date knowledge of soils and their behavior under present methods of use and management.

General Soil Map

Obvious differences in the landscape can be seen as one travels across the county. One notes that the steepness of slopes varies from place to place, as does the width of ridges and of valleys. Also, one sees related differences in the proportions of cultivated crops, pasture, and woodland.

After observing and studying these differences in the landscape, it is possible to make a general soil map that shows several patterns of soils, or soil associations. A group of geographically related soils that form a fairly definite pattern is called a soil association. Thus, the general soil map shows, not the kind of soil at any particular place, but patterns consisting of several different kinds of soil. Each soil association, as a rule, contains a few major soils and several minor soils. It is named for the major soils. The major soils of one association may be present in other associations, but in a different pattern.

The two or three major soils in any one association are likely to differ from each other in slope, depth, stoniness, natural drainage, or in other respects. For example, in the Beasley-Fairmount-Russellville association of this county, the Beasley soils are deep and generally occur on moderately wide, gently sloping ridges; the Fairmount soils are shallow and occur on the adjacent steeper side slopes; and the Russellville soils are shallow and are on gently sloping or sloping ridges.

The general soil map is useful to people who want general information of the soils in the county, who want to compare different parts of the county, or who want to locate large areas suitable for a certain kind of farming or other land use.

Described in the pages following, and shown on the colored map at the back of this report, are the seven soil associations in Jefferson County.

1. *Wheeling-Weinbach-Huntington association*

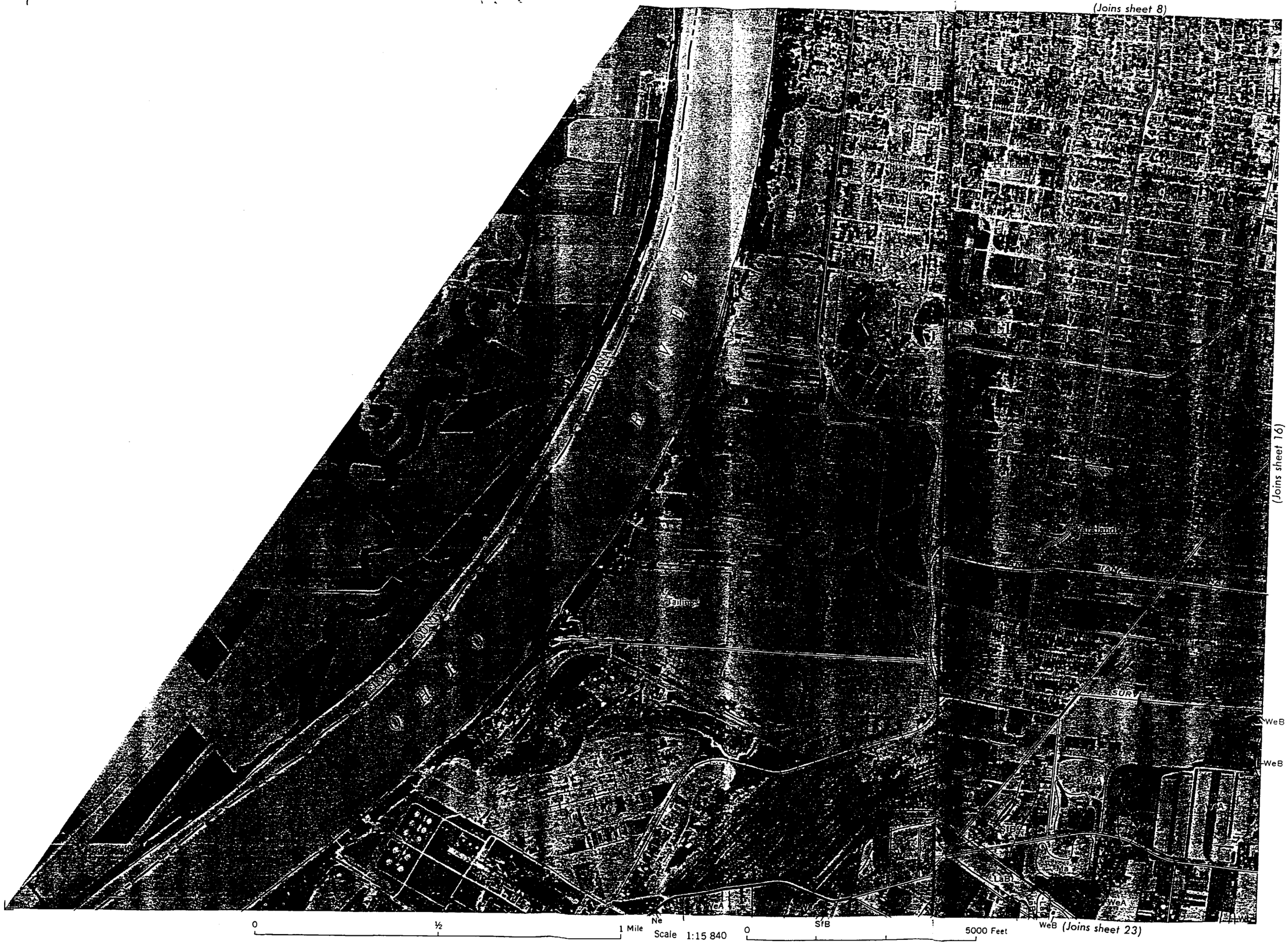
Level to sloping soils on terraces and bottoms along the Ohio River

This association is in the Ohio Valley. It consists of very broad, nearly level ridges that have narrow side slopes running down to the bottoms along small branches. These branches are mostly parallel to the Ohio River and form a dominant drainage pattern. This association thus consists of long narrow strips that are parallel to the drainage system. Most of the gently sloping or sloping areas are well drained, and the level or nearly level areas are mostly moderately well drained or somewhat poorly drained. This association ranges from half a mile wide along the northern edge of the county to more than 4 miles wide on the western side. The total acreage is about 14 percent of the county.

Wheeling, Weinbach, and Huntington soils each cover about 25 percent of this association. Newark soils cover 10 percent, and the other minor soils about 15 percent. Wheeling soils are deep, well-drained soils on terraces. Normally they have a surface layer of brown, friable silt loam and a subsoil of yellowish-brown silty clay loam. Weinbach soils are moderately deep, somewhat poorly drained soils on terraces. Generally they have a surface layer of grayish-brown silt loam and a subsoil of brown silty clay loam mottled with gray. Huntington soils are deep, well-drained soils on bottoms. Generally they have both a surface layer and a subsoil of dark-brown silt loam. All of these soils developed in mixed alluvium that washed from the upper part of the Ohio River drainage basin. All are underlain by stratified sand, silt, and clay, in places mixed with gravel below a depth of 4 to 8 feet.

Minor soils in this association are the moderately well drained Sciotoville soils on terraces, the poorly drained Ginat soils, also on terraces, and the moderately well drained to poorly drained Lindside, Newark, and Melvin soils on bottoms. Also in this association is the very deep Lakin loamy fine sand, which is the principal sandy soil in the area. This soil occurs mainly in hummocky places near the base of hills on the eastern edge of the valley.

Much of this association is productive cropland (fig. 2). There are a few small woodlots, mostly on the poorly drained soils. Dairy farms include considerable pasture. Suburban developments are rapidly spreading in this association. Already, subdivisions made up of a few hundred to several hundred houses are scattered throughout this area. Idle fields are intermingled with the subdivisions. These fields are farmed occasionally, but for the most part they are overgrown with weeds and are held by investors.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Ref. #13

B&V WASTE SCIENCE AND TECHNOLOGY CORP.

TELEPHONE MEMORANDUM

Bond Brothers Wood Preserving Site
Soil Classification at Bond Brothers
Wood Preserving Site

BVWST Project 52011.025
January 19, 1989
9:15 a.m.

To: Project File

Recorded by: Robert Keiser

I contacted Kurt Mason of the Jefferson County Soil Conservation Office, 502-499-1900, in regards to the soil classification at the Bond Brothers Site. In the Soil Survey of Jefferson County Issued in June, 1966, the area in question was outside the limits of detailed soil survey.

I explained to Mr. Mason where the area was, and he proceeded to explain that the area was excluded for two main reasons. One, the area was by nature highly diverse and, two, over the years the area had been heavily worked by man.

He asked about the current condition. I told him the entire area was covered with gravel. He said it would be difficult to classify as site specific because they had probably graded the area before putting down gravel, but he would try if it were needed.

ms

Ref. # 14

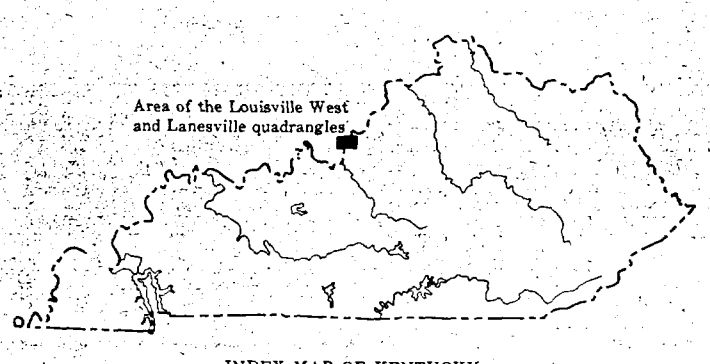
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH
THE COMMONWEALTH OF KENTUCKY
UNIVERSITY OF KENTUCKY
KENTUCKY GEOLOGICAL SURVEY
WALLACE W. HAGAN, DIRECTOR AND
STATE GEOLOGIST

GEOLOGIC QUADRANGLE MAPS OF THE UNITED STATES

GEOLOGIC MAP OF PARTS OF THE LOUISVILLE WEST AND LANESVILLE QUADRANGLES, JEFFERSON COUNTY, KENTUCKY

By
Roy C. Kepferle

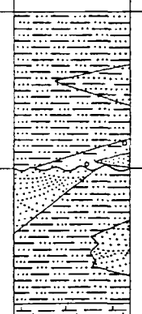
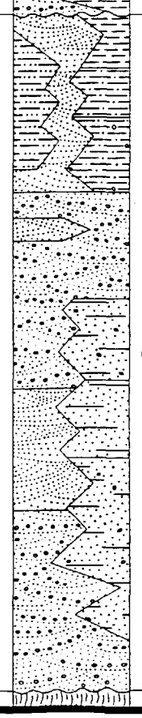


INDEX MAP OF KENTUCKY

PUBLISHED BY THE U.S. GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

KEPFERLE—LOUISVILLE WEST AND LANESVILLE, KY. 1:24,000 MAP GQ-1202

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
V. E. McKELVEY, DIRECTOR

NOMENCLATURE OF EARLIER WORKERS	SYSTEM	SERIES	GLACIATION	FORMATION AND MEMBER	LITHOLOGY	THICKNESS, IN FEET	DESCRIPTION
Stockdale (1939) except where noted	QUATERNARY	Holocene		Alluvium		0-30±	Silt, clay, sand, and gravel, grayish-brown to moderate-yellowish-brown. Silt, clay and sand as a 10- to 30-foot-thick veneer along the Ohio River; silt, sand, and gravel of local origin along smaller streams; gravel chiefly pebbles of chert and iron-cemented siltstone; siltstone cobbles abundant in alluvium of streams that drain knobs of Mississippian bedrock. Soils developed on this unit include Huntington, Newark, Melvin, and Lindside Series (Zimmerman, 1966).
		Pleistocene	Wisconsin	Lacustrine deposits		0-50±	Clay, silt, sand, and gravel: Fresh exposures of clay and silt are gray, bluish green, olive gray, calcareous; weathered surface is dark yellowish orange to moderate yellowish brown, noncalcareous; locally contain abundant plant remains. Unit deposited in valleys ponded by glacial outwash that filled Ohio River valley to elevations between 450 and 460 feet. Surface of unit is accordant with altitude of outwash surface. A thickness greater than 30 feet is indicated by a bore hole near southeast corner of area; thicknesses of 47 feet and 72 feet have been penetrated in holes within half a mile of quadrangle in adjacent areas to east and south, respectively. Unit interfingers headward in tributary valleys with alluvium and colluvium and near the outwash plain with eolian sand, loess, and outwash. Soils developed on unit are Zipp, McGary, and Robertsville Series (Zimmerman, 1966).
				Outwash		0-130±	Sand, gravel, silt, and clay: Sand, very fine to coarse, and gravel are light brownish gray to light reddish brown, well to poorly sorted, subangular to well rounded, commonly crossbedded. Gravel includes pebbles and cobbles mostly less than 0.3 foot in diameter of limestone, siltstone, dolomite, quartz, chert, quartzite, granite, gneiss, schist, and finely crystalline igneous and metamorphic rocks. Clay and silt are yellowish brown above water table, gray to olive gray below water table, weather yellowish gray. Unit deposited as alluvium by river of low gradient following release of glacial meltwater. Logs of water wells (U.S. Geol. Survey, 1945; Price, 1964a, b) indicate that clay and silt mantle sand and gravel deposits commonly 50 to 100 feet thick and are locally interbedded and intermixed with these deposits. Bottom of old deep channel of Ohio River is lowest in southern part of area; an elevation of 318 feet is indicated by resistivity test at west end of Greenwood Road (Price, 1964a). Unit locally includes sand deposits that rise 5 to 15 feet above elevation of outwash plain; sand probably deposited as dunes, bars or levees. Soils on unit commonly show hardpan development and include Wheeling, Weinbach, and Sciotoville Series; Lakin and Sequatchie Series are developed on sandy deposits (Zimmerman, 1966).
							Silt and minor sand, light-olive-gray, calcareous where fresh; weathers yellowish brown to grayish brown, light brown to medium yellowish orange, noncalcareous; small irregular calcareous concretions locally abundant near base. Exposures below elevation of 500 feet locally include interbeds of quartzose, silty, crossbedded fluvial and eolian sand; grains are very fine to fine, subangular to subrounded. Loess mantles most of upland area, is thickest near base of slopes bordering Ohio River valley, particularly at mouth of Big Run valley and on some east-facing slopes, indicating deposition mainly by westerly wind. Erosion on many steep slopes has exposed small patches of bedrock that were not mapped; where bedrock patches are numerous, loess was not mapped. Areas mantled by thick loess coincide generally with distribution of Memphis and Loring soils as shown on the soils map of Jefferson County (Zimmerman, 1966); in areas underlain by Memphis and Loring soils, loess is 42 inches thick or more (Zimmerman, 1966, p. 24, 28). The loess mantle of the Waverly Hills area is continuous with the loess section at Johnsontown immediately south of the map area; conifer(?) wood from beneath the loess sheet at the Johnsontown site yields a radiocarbon age of 19,450± 700 years (Meyer Rubin, written communication, 1974, sample W-2907), and indicates that the overlying loess is entirely Wisconsin in age. Unit elsewhere in quadrangle may be partly pre-Wisconsin in age on the basis of a loess section about 4.5 miles south of Johnsontown at Medora, where Ray (1957, p. 543) identified loess of both Wisconsin (Tazewell and Farmdale) and Illinoian (Loveland) age.
							Silt, clay, sand, and gravel, along valleys tributary to the Ohio River; dark to yellowish brown; of mixed

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_____1972a, Geologic map of the Valley Station quadrangle and part of the Kosmosdale quadrangle, north-central Kentucky: U.S. Geol. Survey Geol. Quad. Map GQ-962.

_____1972b, Stratigraphy, petrology, and depositional environment of the Kenwood Siltstone Member, Borden Formation (Mississippian), Kentucky and Indiana: U.S. Geol. Survey open-file report, 233 p.

_____1972c, Geologic map of the Brooks quadrangle, Bullitt and Jefferson Counties, Kentucky: U.S. Geol. Survey Geol. Quad. Map GQ-961.

_____1974a, Geologic map of parts of the Jeffersonville, New Albany, and Charlestown quadrangles, Kentucky-Indiana: U.S. Geol. Survey Geol. Quad. Map GQ-1211.

_____1974b, Geologic map of the Louisville East quadrangle, Jefferson County, Kentucky: U.S. Geol. Survey. Geol. Quad. Map GQ-1203.

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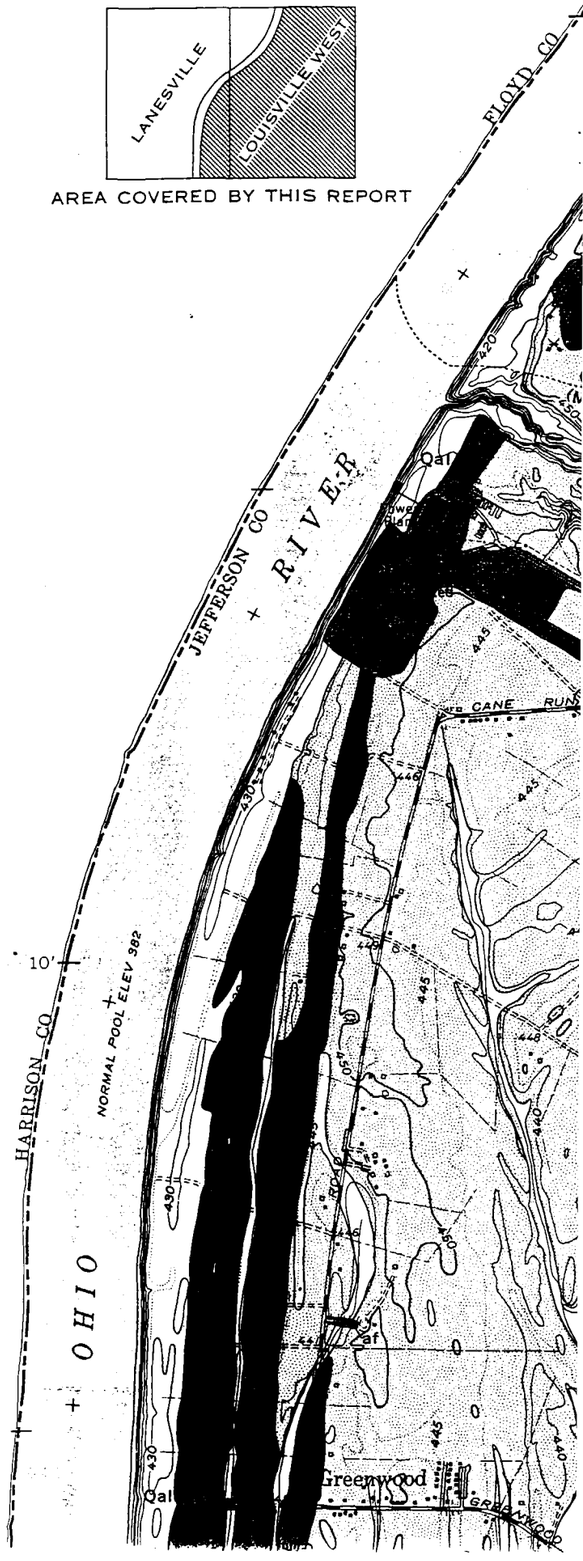
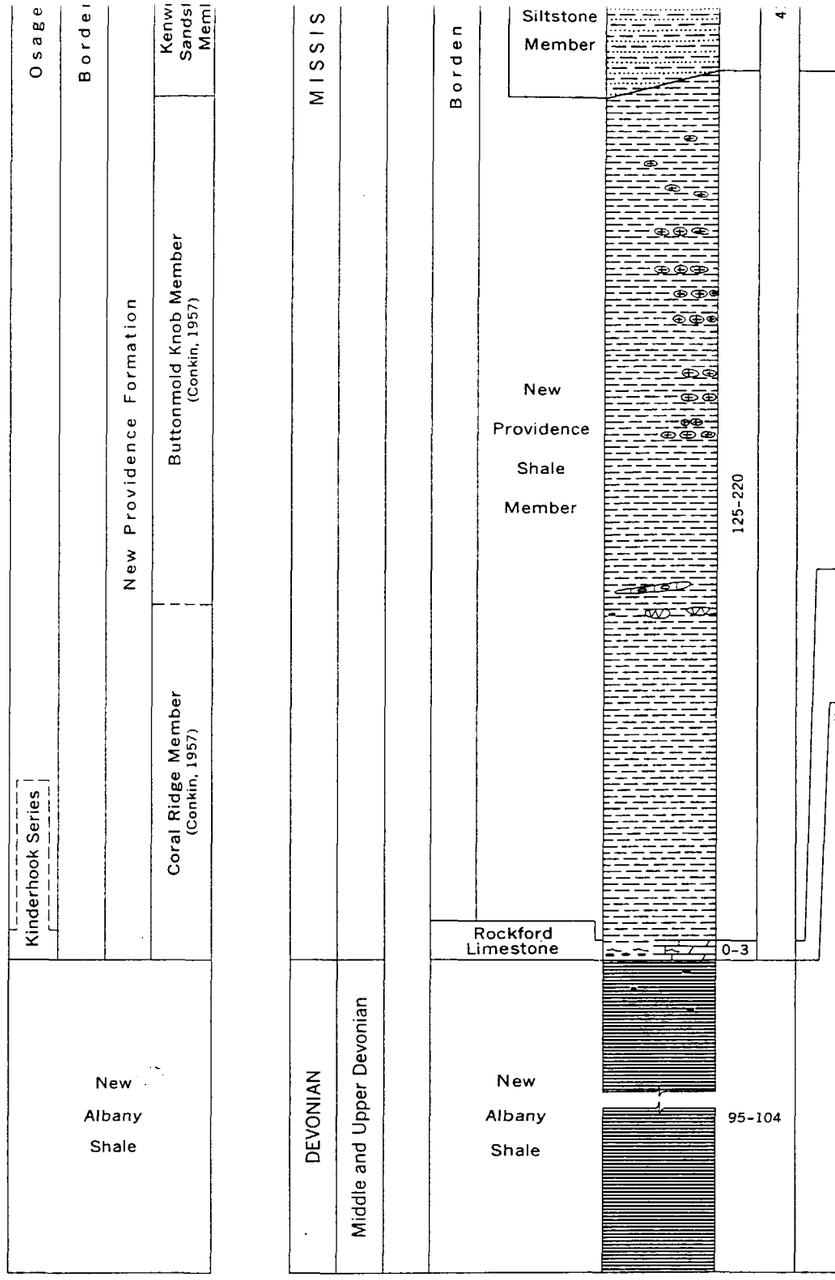
				pre-Wisconsin and Wisconsin	Loess and eolian sand		0–30±	commonly contains granules and pebbles of iron-cemented siltstone in a clayey silt matrix. Exposure in bottom of tributary east of abandoned loess pit south of Big Run is greenish-gray, clayey, very fine to fine sand and carbonaceous plant fragments. The radiocarbon age of carbonized plant fragments from near the loess pit has been determined as 18,530 ±500 years (Rubin and Alexander, 1960, p. 147, sample W-520). Surfaces with accordant levels near 500 feet elevation may represent surface of pre-Wisconsin glacial ponding, inasmuch as Browne and McDonald (1960, p. 168–170) have identified "till(?)" of "Illinoian and/or older stages" at the Medora section in the Valley Station quadrangle adjacent to the south. They erroneously credit the identification and dating of this "till(?)" to Ray (1957), who states (L. L. Ray, written communication, 1972) that he has no evidence to support their findings. Unit may be partly Wisconsin in age. Soils of Captina, Taft, and Tyler Series commonly developed on terrace deposits. Mapped distribution, in general, coincides with distribution of these soils as mapped by Zimmerman (1966).
					Terrace deposits		0–20±	
Osage Series	Borden Group	Brodhead Formation	Holtsclaw Sandstone (Butts, 1915)	MISSISSIPPIAN	Borden Formation	Holtsclaw Siltstone Member	115+	Siltstone and silty shale, medium- to medium-light-gray, weather light gray to yellowish gray; clayey, calcareous, and pyritic in part; in uneven, indistinct laminae; contain iron-stained medium-dark-gray calcareous concretions. Siltstone forms smooth-weathering massive faces that grade laterally to slopes littered with elongate prisms ¼ to 1 inch thick. Trace fossils on bedding planes include *Scalarituba missouriensis* Weller and smaller features Stockdale (1939) called "curly worm marks", resembling *Cosmorhaphe* sp. In quadrangle to south (Kepferle, 1972a), basal part of member intergrades with underlying unit within an interval of as much as 40 feet. Member covered by loess, rarely exposed. Position of basal contact in most areas placed at change from steeper slopes on Holtsclaw Siltstone Member to gentler slopes caused by decrease in silt content of underlying Nancy Member.
			Rosewood Shale (Butts, 1915)			Nancy Member	30–120+	Silty shale, medium- to olive-gray, weathers yellowish gray to light olive gray; clayey, locally calcareous, unevenly fissile. Forms steeper slopes and shows less tendency to slump than does clay shale of underlying unit. Basal part intergrades with New Providence Shale Member within interval of as much as 30 feet; contact generally obscured by loess mantle, placed at break in slope resulting in part from increase in clay content of underlying unit. In northernmost exposures lies directly on Kenwood Siltstone Member (relation illustrated by Kepferle, 1972a). Contact mapped at highest continuous siltstone bed of Kenwood.
		Vidence Formation	Kenwood Sandstone Member			Kenwood Siltstone Member	25–65+	Siltstone and interbedded shale: Siltstone, clayey, sandy, light- to medium-light-gray, weathers yellowish gray; limonite stained on bedding surfaces and joints; bedding obscurely graded; planar laminae common throughout, crosslaminae less common. Member comprises as many as 13 individual siltstone beds ranging in thickness from 0.1 foot to more than 13.5 feet separated by thick interbeds of clay shale similar to that of underlying unit. Within member, ratio of siltstone to clay shale decreases from 13 to 1 in the east to 1 to 6 in the west. The member is directly overlain by Nancy Member in northernmost exposures; southwestward from these exposures, member descends stratigraphically at 5 to 20 feet per mile, and a southwestward-thickening upper tongue of New Providence Shale Member separates the Kenwood from the Nancy. Sole marks of groove, brush, and prod casts are common. The average bearing of 178 readings (one reading per bed per locality) of sole-mark lineations is S.78° W. As indicated by sole-mark trends, graded bedding, and internal lamination, the sediments were deposited by southwestward-flowing turbidity currents (Kepferle, 1968, 1972b). Member was named by Butts (1915, p. 148) from type locality on Kenwood Hill. Basal contact placed at base of lowest persistent siltstone bed.
			Buttonmold Knob Member (Conkin, 1957)			New Providence Shale Member	–220	Clay shale and minor limestone: Clay shale, silty, olive-gray to grayish-green, weathers yellowish gray to light greenish gray; locally iron stained; contains scattered light-brown to dark-yellowish-brown ellipsoidal ironstone concretions, commonly 4 inches across and as much as one foot long, particularly abundant along bedding planes within 70 feet below Kenwood Siltstone Member. Unit micaceous, illitic, plastic when wet. Clay-filled worm(?) trails common, resemble *Scalarituba missouriensis* Weller (Conkin and Conkin, 1968). Crinoids, brachiopods, corals, pelecypods, gastropods, bryozoans, trilobites, and cephalopods rare to abundant in scattered thin limestone lenses 80 to 100 feet below the Kenwood. Limestone commonly underlain by persistent bed of concretionary siderite with double cone-in-cone structure; concretions are pale to grayish brown in middle with a dark-yellowish-orange rind; bed exposed on lower northwestern part of Kenwood Hill nearly due west of north end of hilltop (Conkin, 1957, p. 118–119). An upper tongue 0 to 55 feet thick is separated from main unit by the Kenwood in southwestern part of area. Base of unit distinct; where exposed, base is marked by persistent zone of brownish-gray phosphatic nodules and scattered glauconite, except at two localities where underlain by Rockford Limestone.
							415+	

AREA COVERED BY THIS REPORT





(Kepferle, 1968, 1972b). Member was named by Butts (1915, p. 148) from type locality on Kenwood Hill. Basal contact placed at base of lowest persistent siltstone bed.

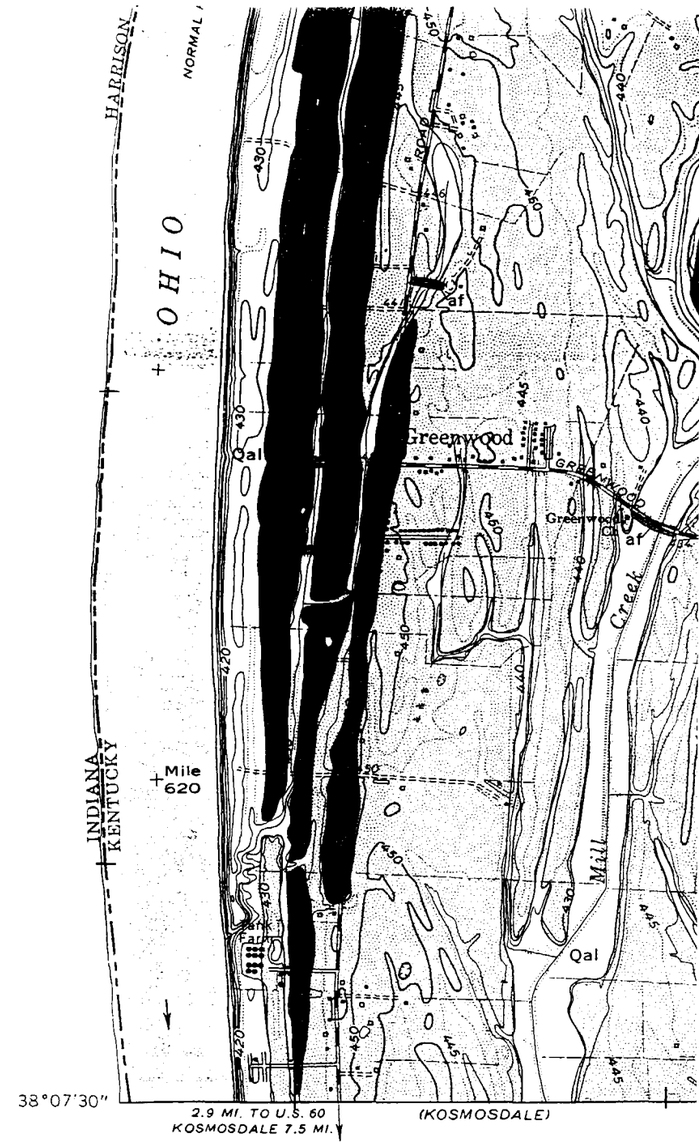
Clay shale and minor limestone: Clay shale, silty, olive-gray to grayish-green, weathers yellowish gray to light greenish gray; locally iron stained; contains scattered light-brown to dark-yellowish-brown ellipsoidal ironstone concretions, commonly 4 inches across and as much as one foot long, particularly abundant along bedding planes within 70 feet below Kenwood Siltstone Member. Unit micaceous, illitic, plastic when wet. Clay-filled worm(?) trails common, resemble *Scalarituba missouriensis* Weller (Conkin and Conkin, 1968). Crinoids, brachiopods, corals, pelecypods, gastropods, bryozoans, trilobites, and cephalopods rare to abundant in scattered thin limestone lenses 80 to 100 feet below the Kenwood. Limestone commonly underlain by persistent bed of concretionary siderite with double cone-in-cone structure; concretions are pale to grayish brown in middle with a dark-yellowish-orange rind; bed exposed on lower northwestern part of Kenwood Hill nearly due west of north end of hilltop (Conkin, 1957, p. 118–119). An upper tongue 0 to 55 feet thick is separated from main unit by the Kenwood in southwestern part of area. Base of unit distinct; where exposed, base is marked by persistent zone of brownish-gray phosphatic nodules and scattered glauconite, except at two localities where underlain by Rockford Limestone.

Dolomite, calcareous, silty, ferruginous, yellowish-gray to light-olive-gray; iron stained where weathered. Observed only in borrow pit north of Gagel Avenue and in storm sewer excavation on west side of Finley Hill; both exposures have subsequently been filled. In Gagel Avenue exposure, unit ranges from 0 to 2.8 feet in thickness but is generally 0.9 to 1.3 feet thick; crinoidal in part, weathers moderate to dusky brown. In Finley Hill exposure, unit is less than 2 feet thick, weathers dark yellowish brown, is earthy and concretionary, and contains scattered crinoid stem plates; basal 0.2 foot contains abundant limonite, phosphate, and glauconite.

Shale, silty, carbonaceous, olive- to grayish-black, weathers pale yellowish brown to very light gray; appears massive where fresh, weathers to thin brittle chips; abundant disseminated blebs of pyrite weather to iron oxides and sulfates, stain outcrops brown and yellow. Upper 10 feet contains scattered phosphate nodules as much as 2 inches in diameter. Upper few feet of unit best exposed in borrow pit (subsequently covered) north of Gagel Avenue, along Slate Run, in road and railroad cuts in vicinity of Finley Hill, and in scarp above outwash plain on grounds of Hazelwood Sanatorium. Top of New Albany Shale in most exposures is placed beneath thin layer of greenish-gray shale containing abundant phosphate nodules of the New Providence Shale Member; at the two places in this map area where Rockford Limestone is known to be present, contact coincides with base of Rockford Limestone following current Indiana definition (Lineback, 1968, fig. 7). Base of unit not exposed; thickness based on drill-hole data. Mapped distribution of unit beneath outwash is a modification of Hamilton (1944).

In the Gagel Avenue borrow pit a section at the top of the main body of the New Albany and beneath the Rockford consists of 0.2 foot greenish-gray glauconitic shale containing phosphate nodules, overlain by 1.5 feet black shale, in turn overlain by 0.4 foot gray shale. On the basis of a comparison of stratigraphic position, thickness, and lithologic composition, these three units may correlate with the Underwood and Falling Run beds, the Henryville bed, and the Jacobs Chapel bed, respectively, of the Clegg Creek Member of the New Albany Shale as defined in Indiana by Lineback (1968, p. 1300). In the Finley Hill cuts, Rockford is separated from underlying brownish-black shale, possibly equivalent to the Henryville bed, by 0.4 foot greenish-gray shale that is possibly equivalent to Jacobs Chapel bed as used by Lineback (1968). According to Lineback (1968, p. 1301), "The Underwood, Henryville, and Jacobs Chapel beds contain a conodont fauna similar to that of the Hannibal Shale (Kinderhookian) [Lower Mississippian] of western Illinois." Thus the Falling Run bed and its possible equivalent, the bed bearing phosphate nodules at the base of the New Providence where the Rockford is absent, may both be Early Mississippian in age. Therefore, where the Rockford is absent, the entire section of the underlying New Albany may be Devonian in age as in the adjacent Brooks quadrangle (Kepferle, 1972c); where the Rockford is present the uppermost part of the New Albany may be Early Mississippian in age.

Underlying Sellersburg and Jeffersonville Limestones (Devonian) and Louisville Limestone (Silurian) were encountered subjacent to outwash in wells in northeastern part of map area; they crop out in quadrangles adjacent to north and east (Kepferle, 1974a and b).



Base from U.S. Geological Survey, 1960 and 1965. Modified 1974

The Carter Coordinate System letters and numbers used to designate five-minute divisions of latitude and longitude are shown along the margins; tick marks indicate one-minute divisions

Ref.
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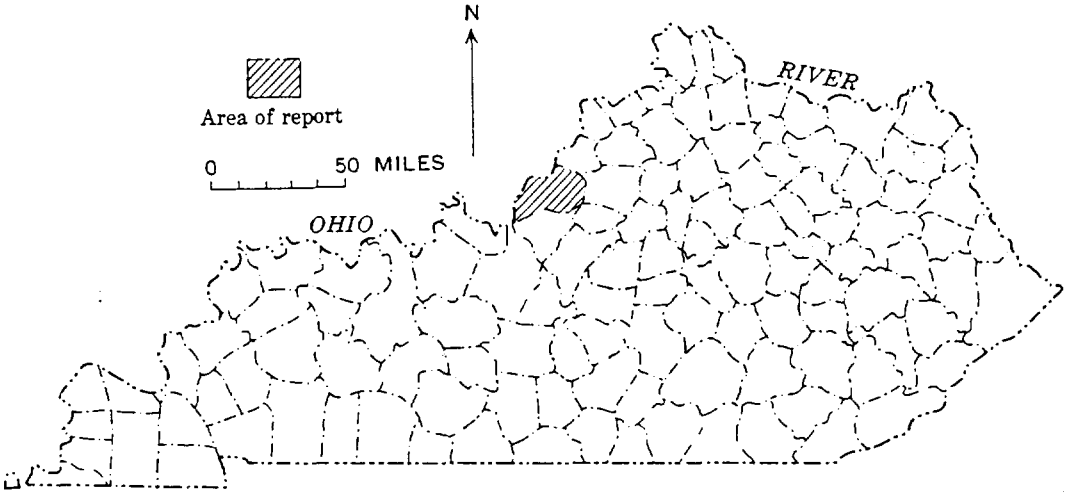

FIGURE 1.—Area covered by this report.

nishes water suitable for all local uses, provides a navigation avenue for 80 million tons of freight annually (1959–61), and provides recreational areas. The average discharge of the river at Louisville is so large—113,900 cfs (cubic feet per second), or more than 73 billion gallons per day—that a water shortage seems inconceivable. Despite the abundance of water, its chemical and biological quality is affected by contamination from untreated domestic sewage and industrial wastes discharged into the river upstream from Louisville.

The smaller streams in the Louisville area, which all flow directly or indirectly into the Ohio River, are relatively unimportant as sources of water because their flows in dry years become very low or cease entirely.

The part of local precipitation that does not become surface runoff or is not evaporated enters the ground and replenishes soil moisture or seeps further downward to the zone of saturation and recharges the ground-water reservoirs. Ground water in the area is discharged through wells and springs or moves generally westward and northwestward where it seeps into the river or leaves the area as subsurface underflow. Figure 2 is a generalized diagram showing the occurrence and direction of movement of waters in the Louisville area.

GEOLOGIC FRAMEWORK

The geologic framework that controls the availability of water in the Louisville area is illustrated by the block diagram (pl. 1). The upland areas are underlain by shale and limestone of Silurian, Devonian, and Mississippian ages. These rocks dip to the southwest at about 40 feet per mile. The present valley of the Ohio River along the western and northwestern part of the area was cut into the shale and

irrigation, but their flows are not adequate for dependable supplies. During the late summer and fall, the flow of these streams usually recedes to a very low quantity, sometimes going dry for periods of a few days to several weeks. In recent years, however, the flow of Pond Creek has been augmented by inflow diverted by manufacturing plants from the Louisville public water supply.

Ponds for stock are necessary on most farmlands in Jefferson County. As more land is developed for housing, the stock ponds are gradually disappearing and are becoming less important in the general water regimen. In contrast, artificial lakes formed by stream impoundments are becoming more important as recreational areas for fishing and water sports.

GROUND WATER IN ALLUVIUM

The occurrence and availability of water in the Louisville area are described by Rorabaugh and others (1953), by MacCary (1956), and by Bell and others (1963).

The alluvium in the Ohio River flood plain is the second most important source of water. It comprises outwash sand and gravel of Pleistocene age ranging from 0 to 100 feet in thickness, overlain by a blanket of silt and clay as much as 40 feet thick. Very thin deposits of clay and silt of Recent age cover parts of the flood plain. The permeability of the top clay and silt is low and impedes vertical seepage of water from the surface. Nevertheless, the glacial deposit of sand and gravel is a good, permeable water-bearing formation, and the entire thickness is considered a single hydrologic unit. The thickness of the saturated sand and gravel varies considerably (pl. 2) because of the shape of the underlying bedrock surface and because of the lowered water table in heavily pumped areas (pl. 3).

The alluvium northeast of downtown Louisville between the Ohio River and the rock bluffs is mostly saturated. Along the reach northeast of Zorn Avenue, the alluvium ranges in thickness from about 120 feet near Goose Creek to about 90 feet at Zorn Avenue and averages about 100 feet in thickness (pl. 2). The water in the alluvium along the reach is connected hydraulically with the river, and changes in the river stage are reflected rapidly by corresponding changes in ground-water storage.

Southwest of Zorn Avenue the hydraulic gradient generally slopes toward downtown Louisville where water levels have been lowered by pumping for air conditioning (pl. 3). From downtown Louisville the gradient steepens progressively toward the heavily pumped industrial center southwest of the city. The average thickness of the alluvium within the city limits is greater than in the reach along the

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but the thickness of
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so great as that north
from the river along i
Bell (1962, p. 17) e
developed in the allu
area without depletio
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the Ohio River would
tion galleries or high
of the river where it i
The river is connec
varying degrees of eff
Louisville area (pl. 2)
greatest potential infil
is along the reach nor
tion between the river
downstream toward M
northwestern part bet
a small area of low pe
is poor. The infiltrati
A large amount of w
River flood plain is a r
in emergencies. Bell
gallons are stored in t
of the Louisville area.

NATURA

Natural recharge, w
ishing ground-water s
rain falling in areas v
out, fills the crevices a
the limestone into the a
of local rainfall throug

river northeast of Zorn Avenue, but the thickness of saturated sand and gravel is less because of the lowered water table.

Southwest of downtown Louisville ground water flows northwestward toward the heavily pumped industrial center and westward toward the Ohio River. A large quantity of ground water is available, but the thickness of saturated sand and gravel varies considerably because of several domes in the underlying bedrock.

Southward from Bells Lane to Lees Lane the gradient is from the river toward heavily pumped centers where the water level has been drawn down below river level. South of Lees Lane the gradient is toward the river, except during floods. Although the potential is not so great as that northeast of the city, much infiltration can be induced from the river along its reach south of Lees Lane.

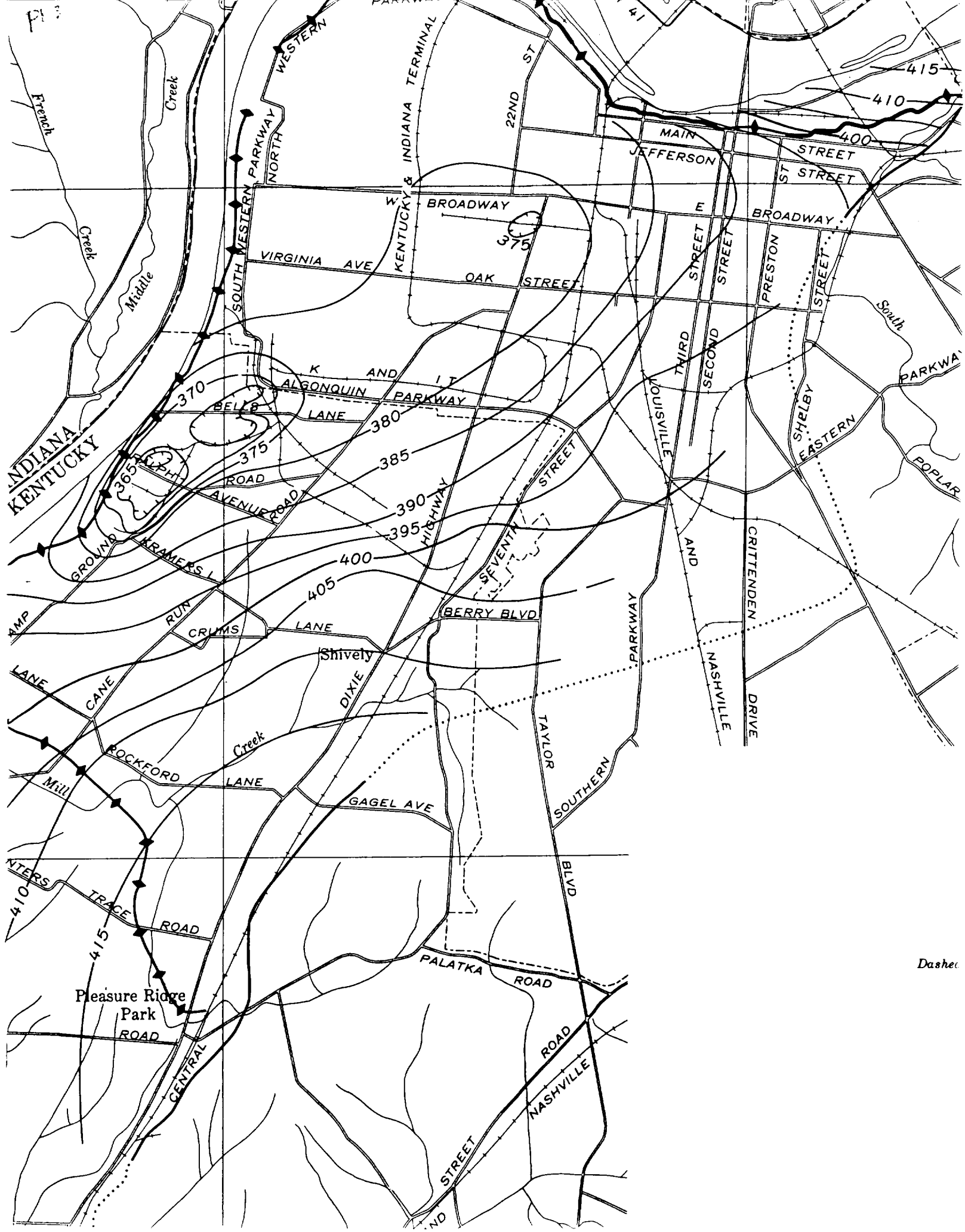
Bell (1962, p. 17) estimated that the maximum supply that could be developed in the alluvial aquifer of the flood plain in the Louisville area without depletion of storage is about 370 mgd (million gallons per day). However, to attain that supply, maximum infiltration from the Ohio River would have to be induced. This would require infiltration galleries or high-capacity wells virtually along the entire reach of the river where it is connected hydraulically with the aquifers.

The river is connected hydraulically with the alluvial aquifer, in varying degrees of effectiveness, along most of its distance within the Louisville area (pl. 2). The most effective connection—and hence the greatest potential infiltration that could be induced from the river—is along the reach northeast of Zorn Avenue. The hydraulic connection between the river and aquifer becomes progressively less effective downstream toward McAlpine Dam because of clay barriers. In the northwestern part between McAlpine Dam and Bells Lane, except in a small area of low permeability opposite Sand Island, the connection is poor. The infiltration potential is large southward from Bells Lane.

A large amount of water stored in the alluvium underlying the Ohio River flood plain is a reserve ground-water supply that could be drawn in emergencies. Bell (1962, p. 22) estimated that nearly 100 billion gallons are stored in the alluvium within the Ohio River flood plain of the Louisville area.

NATURAL RECHARGE TO THE ALLUVIUM

Natural recharge, which is nature's way of maintaining or replenishing ground-water supplies, is derived from precipitation. Some rain falling in areas where permeable rock, chiefly limestone, crops out, fills the crevices and voids of the rock and flows by gravity from the limestone into the alluvium. Elsewhere, direct downward seepage of local rainfall through the permeable alluvium adds to the ground-



Pl 3
French
Creek
Middle
Creek
WESTERN
NORTH
SOUTH WESTERN PARKWAY
KENTUCKY & INDIANA TERMINAL
22ND ST
MAIN
JEFFERSON
STREET
ST STREET
W BROADWAY
E BROADWAY
375
VIRGINIA AVE
OAK STREET
THIRD STREET
SECOND STREET
PRESTON
STREET
South
PARKWAY
K AND I T
ALGONQUIN PARKWAY
BELLS LANE
370
380
375
385
365
RALPH ROAD
AVENUE ROAD
390
395
400
405
HIGHWAY
SEVENTH STREET
LOUISVILLE
AND
NASHVILLE
CRITTENDEN
DRIVE
SHELBY
EASTERN
POPLAR
INDIANA
KENTUCKY
GROUND
KRAMERS L
RUN
CRUMS LANE
BERRY BLVD
PARKWAY
Shively
LANE
CANE
DIXIE
Creek
ROCKFORD LANE
Mill
GAGEL AVE
TAYLOR
SOUTHERN
BLVD
NTERS
TRACE ROAD
410
415
PALATKA ROAD
Pleasure Ridge
Park
ROAD
CENTRAL
ROAD
NASHVILLE
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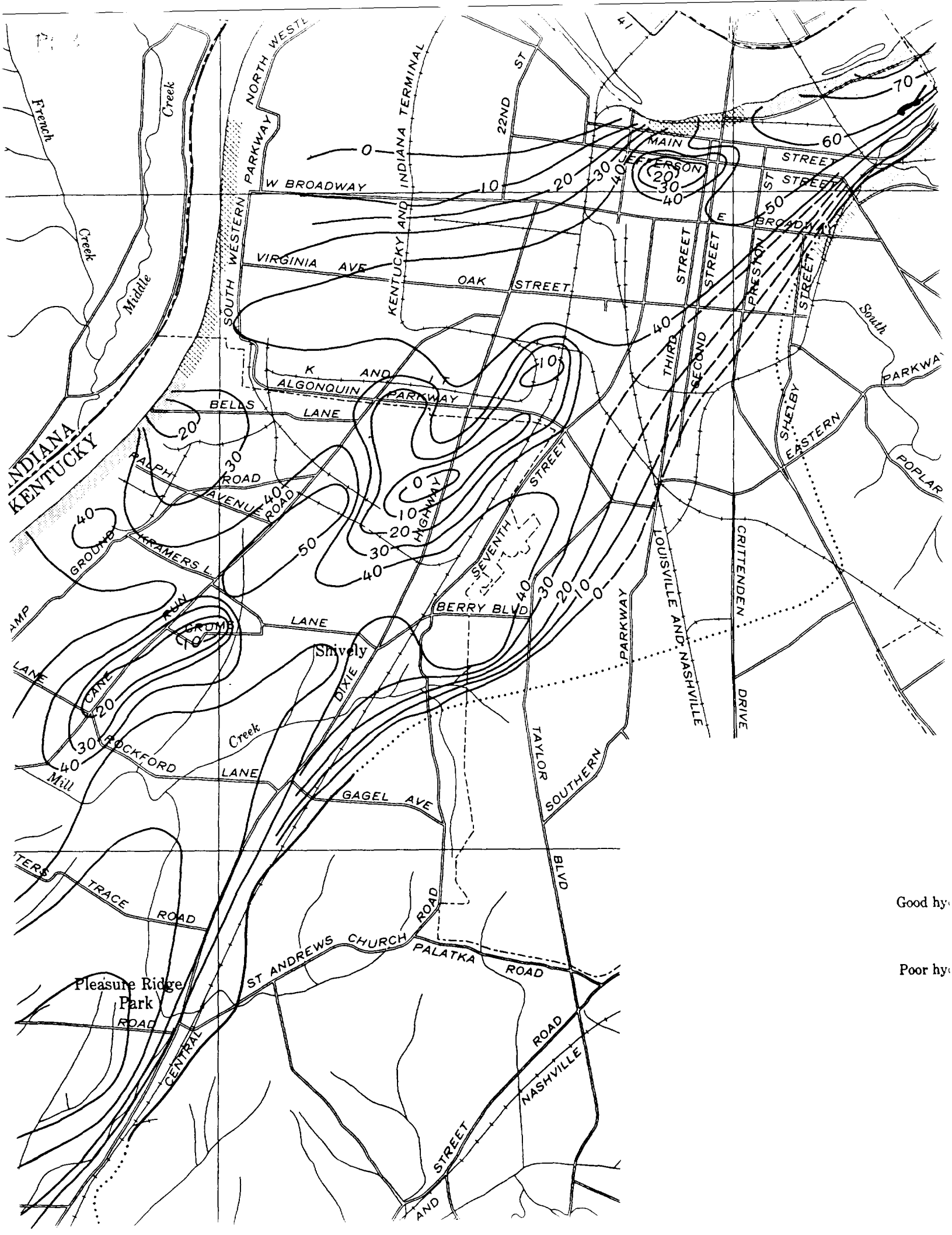

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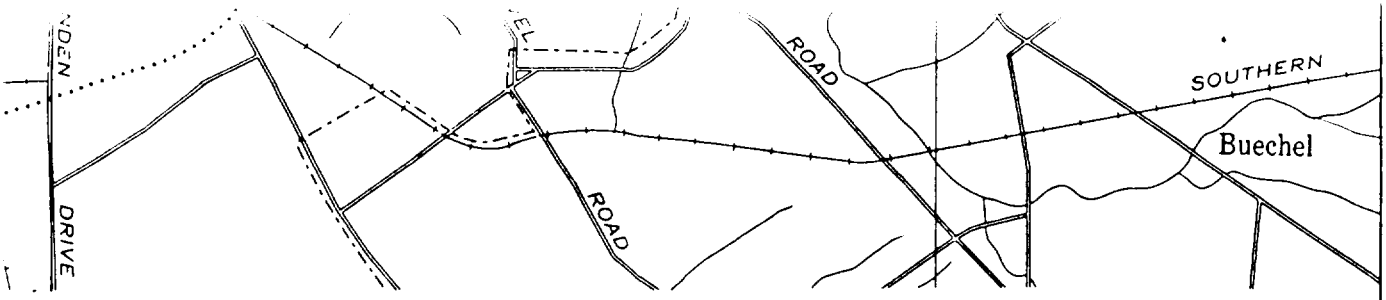
Poor hy



EXPLANATION

Good hydraulic connection between river and alluvium

Poor hydraulic connection between river and alluvium

Little or no hydraulic connection between river and alluvium

Zone of ground-water flow from limestone bedrock into alluvium

—70— — —

Isopach

Dashed where approximately located; contour interval 10 feet

Limit of glacial outwash deposits

Dotted where approximately located

1°

TRUE NORTH

MAGNETIC NORTH

APPROXIMATE MEAN DECLINATION, 1966

10′

45′

40′

38°05′

85°37′30″

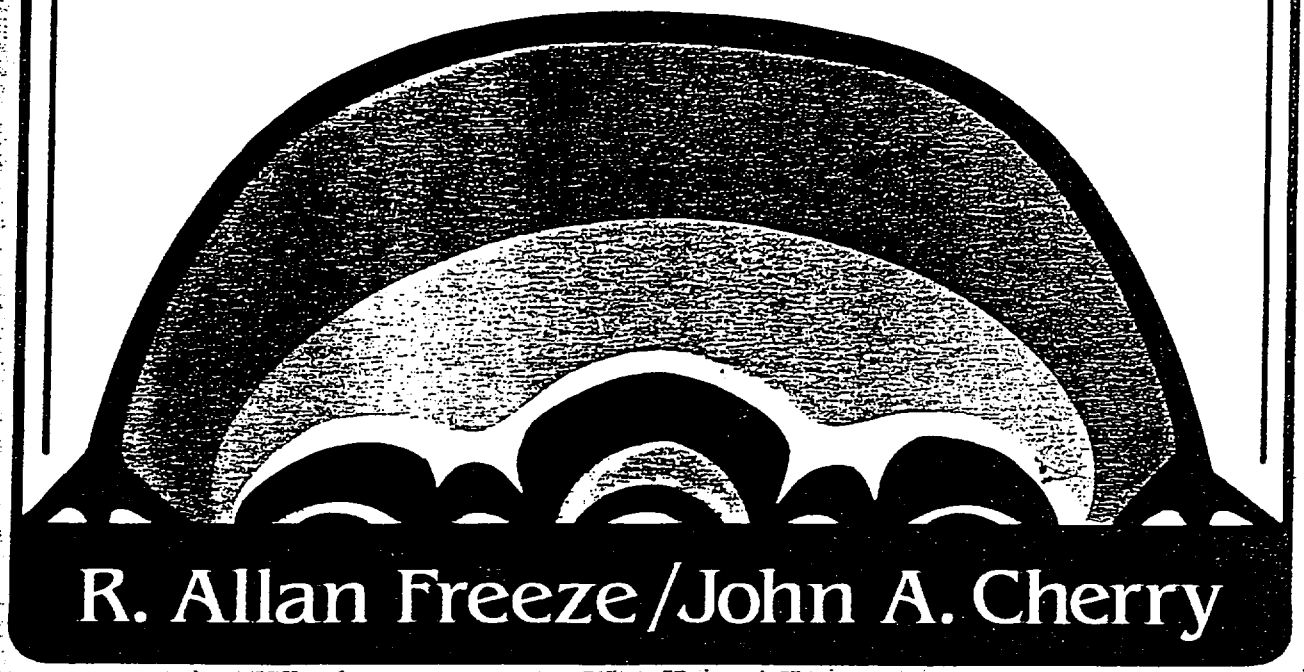
Hydrology by E. A. Bell, 1962

RAVEL BENEATH THE FLOOD PLAIN
CKY, DECEMBER 1962, AND DEGREE
E RIVER AND AQUIFER

INDIANA
KENTUCKY
French Creek
Middle Creek
Pleasure Ridge Park
GREENWOOD ROAD
LOWER HUNTERS TRACE ROAD
LEES LANE
CAMP GROUND
CANE RUN
ROCKFORD LANE
Mill Creek
KRAMERS L
RALPH AVENUE ROAD
BELLS LANE
SOUTH WESTERN PARKWAY
NORTH WESTERN
VIRGINIA AVE
W BROADWAY
K AND I
ALGONQUIN PARKWAY
KENTUCKY AND INDIANA TERMINAL
OAK STREET
22ND ST
CENTRAL
ST ANDREWS CHURCH ROAD
PALATKA ROAD
GAGEL AVE
DIXIE
Shively
LANE
HIGHWAY
BERRY BLVD
SEVENTH STREET
STREET
NASHVILLE ROAD
TAYLOR BLVD
SOUTHERN PARKWAY
LOUISVILLE AND NASHVILLE
THIRD STREET
SECOND STREET
JEFFERSON
MAIN
CRITTENDEN DRIVE
PRESTON
SHELBY STREET
EASTERN
BROADWAY
ST STREET
STREET

Ref. # 16

GROUNDWATER



R. Allan Freeze/John A. Cherry

R. Allan Freeze

Department of Geological Sciences
University of British Columbia
Vancouver, British Columbia

John A. Cherry

Department of Earth Sciences
University of Waterloo
Waterloo, Ontario

GROUNDWATER

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Table 2.2 Range of Values of Hydraulic Conductivity and Permeability

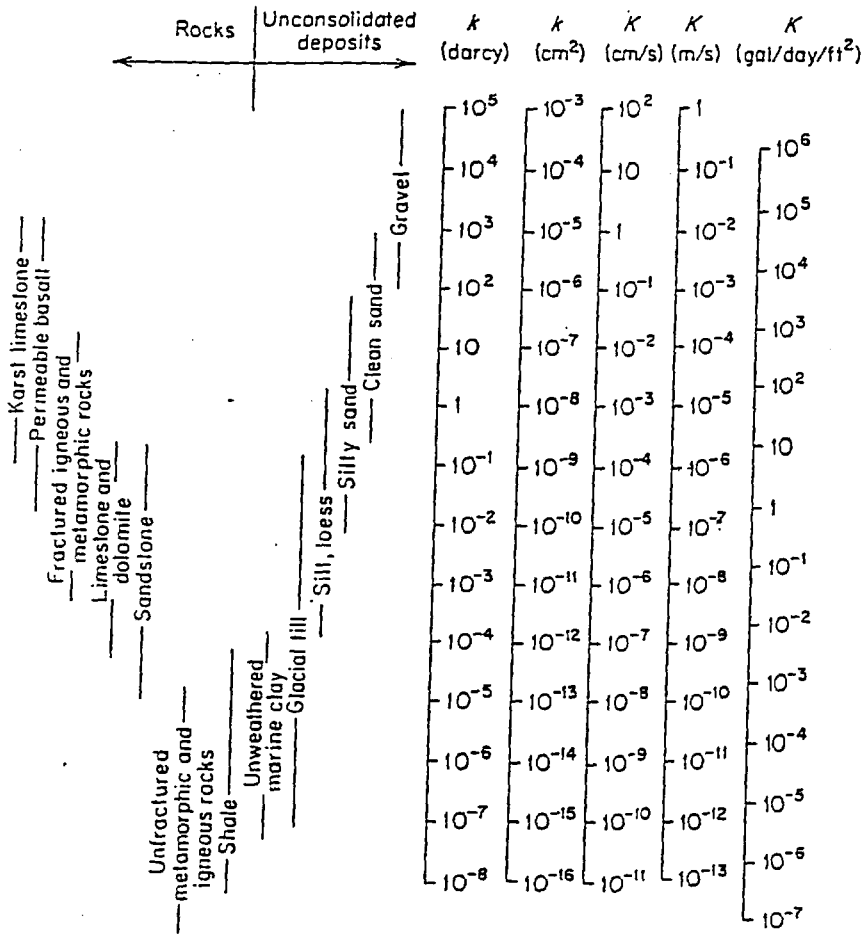

Table 2.3 Conversion Factors for Permeability and Hydraulic Conductivity Units

	Permeability, k*			Hydraulic conductivity, K		
	cm²	ft²	darcy	m/s	ft/s	gal/day/ft²
cm²	1	1.08×10^{-3}	1.01×10^{8}	9.80×10^{2}	3.22×10^{3}	1.85×10^{9}
ft²	9.29×10^{2}	1	9.42×10^{10}	9.11×10^{5}	2.99×10^{6}	1.71×10^{12}
darcy	9.87×10^{-9}	1.06×10^{-11}	1	9.66×10^{-6}	3.17×10^{-5}	1.82×10^{1}
m/s	1.02×10^{-3}	1.10×10^{-6}	1.04×10^{5}	1	3.28	2.12×10^{6}
ft/s	3.11×10^{-4}	3.35×10^{-7}	3.15×10^{4}	3.05×10^{-1}	1	5.74×10^{5}
gal/day/ft²	5.42×10^{-10}	5.83×10^{-13}	5.49×10^{-2}	4.72×10^{-7}	1.74×10^{-6}	1

*To obtain k in ft², multiply k in cm² by 1.08×10^{-3}.

B&V WASTE SCIENCE AND TECHNOLOGY CORP.

Ref. # 17

TELEPHONE MEMORANDUM

US EPA
Bond Brothers
Groundwater and Wells In Area

BVWST Project 52011.025
BVWST File
April 14, 1992
2:40 p.m.

To: Doug Zettwock
Company: Kentucky Geological Survey
Phone No.: 502-582-5241

Recorded by: Scotti Holcombe

I contacted Mr. Zettwock to determine if there were wells located on the Bond Brothers site. He told me that the one well that had been located there was destroyed two to three years ago. He told me that there is a well located on the SE corner of the intersection of the Algonquin Parkway and I-264. He also told me that the normal groundwater flow is toward the river. However, when there is heavy pumping in the area, the gradient shifts toward the pumpage. In either case, the well he identified is up-gradient of the site. He also pointed out that there were industrial pumping wells at BF Goodrich and AIRCO. The water table is located at 40 feet bls at the well at the corner of Algonquin Parkway and I-264. He recommended that I order a copy of the WATER RESOURCES DATA FOR KENTUCKY WATER, YEAR 1990 from Lexington: 606-257-3896.

He also told me that he used to sample an irrigation well at the home of Henry Bramer on Campground Road. He stated that all of the houses in the area are on municipal water.

ms

T FACILITY NAME/ADDRESS:

LOUISVILLE FALL FOUNTAIN/LOUISVILLE
435 SOUTH THIRD STREET
LOUISVILLE, KY 40202

T PERSON: GEORGE M. JEFFRIES (502) 569-3600

PERMIT INFORMATION:

DATE ISSUED: 05/30/89 COUNTY: JEFFERSON
LAST REVISED: . DISTRICT: 03 LOUISVILLE
STATUS: ACTIVE PWS ID: 4001064
INACTIVATED: . SIC CODE: 0781
CONDITIONS: NONE
CROSS REFERENCE:

USE INFORMATION:

E: SURFACE LATITUDE: 0381542 MEASURING METHOD: E
BASIN: 08 OHIO/MAIN STEM LONGITUDE: 0854536 MEASURING DEVICE:
ATEGORY: COMMERCIAL TOPO MAP NO: 1534

PTION: A FLOATING FOUNTAIN MOORED AT MILE POINT 604.0BP (RMI 377.5) ON THE OHIO RIVER

AVERAGE MONTHLY WATER WITHDRAWALS IN MILLION GALLONS PER DAY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG	MAX MONTH
1989	0.000	0.000	0.000	0.924	2.033	7.606	10.086	10.086	10.086	10.086	10.086	0.000	5.083	10.086
1990	.	.	.	.	.	.	0.010	0.010	0.010	0.010	0.008	0.000	0.008	0.010
TED AWAL	0.000	0.000	0.000	0.576	8.638	8.638	8.638	8.638	8.638	8.638	8.638	0.000		

S:

Ref. # 18

PERMIT INFORMATION:

[illegible]ISSUED: 06/03/76 COUNTY: JEFFERSON
[illegible] DISTRICT: [illegible]

NATURAL RESOURCES [illegible] PROTECTION CABINET
[illegible] WATER

DIVISION OF WATER
WATER WITHDRAWAL PERMIT FILE

T FACILITY NAME/ADDRESS:

LOUISVILLE WATER COMPANY
435 SOUTH THIRD STREET
LOUISVILLE,KY 40202

T PERSON: GEORGE M. JEFFRIES (502) 569-3600

PERMIT INFORMATION:

DATE ISSUED: 06/23/66 COUNTY: JEFFERSON
LAST REVISED: 04/17/79 DISTRICT: 03 LOUISVILLE
STATUS: ACTIVE PWS ID: 0560258
INACTIVATED: SIC CODE: 4941
CONDITIONS: NONE
CROSS REFERENCE: 0786: 0829

'SE INFORMATION:

E: SURFACE LATITUDE: 0381659 MEASURING METHOD: METER
BASIN: 08 OHIO/MAIN STEM LONGITUDE: 0854217 MEASURING DEVICE: UNKNOWN
ATEGORY: WATER SUPPLIER TOPO MAP NO: 1535

TION: WITHDRAWAL FROM OHIO RIVER OPPOSITE MILE 360.81 (600.0 UP), JEFFERSON CO.

AVERAGE MONTHLY WATER WITHDRAWALS IN MILLION GALLONS PER DAY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG	MAX MONTH
1980	100.421	106.986	106.811	106.811	108.888	114.670	127.700	122.300	113.300	107.800	102.100	99.000	109.732	127.700
1981	104.300	103.100	98.600	97.400	96.700	110.300	116.600	110.800	101.500	100.600	93.200	90.300	101.950	116.600
1982	102.630	99.200	92.640	95.830	105.020	119.640	110.900	107.100	102.000	98.400	90.800	87.100	100.938	119.640
1983	93.200	92.800	91.500	87.800	89.200	103.400	124.400	126.700	112.500	98.700	95.500	97.600	101.108	126.700
1984	106.800	96.900	90.900	89.900	98.600	122.700	115.200	106.900	94.700	93.000	84.900	87.700	99.017	122.700
1985	95.400	95.800	87.300	92.500	98.900	102.800	106.100	103.900	109.600	95.800	89.100	87.500	97.058	109.600
1986	92.600	82.700	84.100	104.400	107.900	118.400	121.040	111.050	98.050	107.010	98.060	91.090	101.367	121.040
1987	98.536	86.492	82.180	87.278	101.957	105.236	103.169	115.812	110.588	103.280	97.074	88.637	98.353	115.812
1988	95.977	92.382	92.048	95.612	112.270	152.827	129.035	109.172	99.633	97.392	89.656	94.275	105.023	152.827
1989	92.953	96.219	95.130	96.596	102.069	108.569	99.786	104.375	97.861	92.464	89.392	100.443	97.988	108.569
1990	96.923	88.565	87.826	95.488	96.615	107.790	118.062	111.781	107.612	114.687	100.133	96.295	101.815	118.062
ED WAL	160.000	165.000	165.000	165.000	175.000	165.000	185.000	190.000	180.000	170.000	170.000	165.000		

S:

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET

WATER WITHDRAWAL PERMIT FILE

FACILITY NAME/ADDRESS:

LOUISVILLE WATER CO.
435 SOUTH THIRD STREET
LOUISVILLE, KY. 40202

PERMIT INFORMATION:

DATE ISSUED: 06/03/76
LAST REVISED: 10/16/78
STATUS: ACTIVE
INACTIVATED:
CONDITIONS: NONE
CROSS REFERENCE: 0100 :0829

COUNTY: JEFFERSON
DISTRICT: 03 LOUISVILLE
PWS ID: 0560258
SIC CODE: 4941

PERSON: GEORGE [illegible]. JEFFRIES (502) 569-3[illegible]

SE INFORMATION:

SURFACE
BASIN: 08 OHIO/MAIN STEM
TEGORY: WATER SUPPLIER

LATITUDE: 0382052
LONGITUDE: 0853745
TOPO MAP NO: 1535

MEASURING METHOD: METER
MEASURING DEVICE:

TION: WITHDRAWAL FROM OHIO RIVER OPPOSITE MILE 366.70 ([illegible] MP), JEFFERSON CO.

AVERAGE MONTHLY WATER WITHDRAWALS IN MILLION GALLONS PER DAY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG	MAX MONTH
1980	13.569	14.457	13.720	14.446	15.541	17.134	17.600	16.300	14.200	14.900	13.900	14.900	15.060	17.600
1981	16.700	16.400	17.100	17.600	18.700	20.000	19.800	19.800	17.900	17.700	17.100	17.600	18.033	20.000
1982	18.900	22.350	23.540	45.030	24.200	22.610	22.700	22.700	20.500	19.500	19.000	18.900	23.327	45.030
1983	19.400	19.300	19.600	20.400	22.400	21.600	26.800	25.200	23.300	20.900	20.000	21.700	21.717	26.800
1984	22.600	20.400	19.400	20.500	20.900	24.800	22.100	20.000	17.000	18.900	18.900	19.400	20.525	24.800
1985	19.900	20.300	20.100	21.400	22.300	22.200	23.200	21.500	20.800	18.500	16.000	18.300	20.417	23.200
1986	19.100	20.200	19.500	10.800	11.300	17.000	15.000	14.020	15.040	4.020	6.030	7.030	13.253	20.200
1987	10.630	13.358	14.879	13.694	23.835	22.200	22.499	24.456	24.557	20.319	16.191	16.265	18.579	24.557
1988	15.276	16.209	16.189	16.083	20.352	28.087	27.323	27.094	21.986	16.402	16.433	16.196	20.052	28.087
1989	14.621	13.150	13.131	14.126	14.224	14.445	24.975	24.411	22.224	22.367	21.027	21.889	18.382	24.975
1990	20.104	19.620	20.983	20.328	19.615	24.049	27.392	26.201	20.062	7.289	16.501	16.723	19.906	27.392
ED AL	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000		

NATURAL RESOURCES [illegible] ENVIRONMENTAL PROTECTION [illegible]

Ref. # 19

B&V WASTE SCIENCE AND TECHNOLOGY CORP.

TELEPHONE MEMORANDUM

U.S. EPA Region IV
Shively Wood Products
Water Distribution System

BVWST Project 52011.022
BVWST File
July 30, 1992
10:30 a.m.

To: Barbara Crow
Company: Louisville Water Company
Phone No.: 502/569-3321

Recorded by: Eric Holder

Louisville Water Company serves the entire area of Jefferson County (most of the four-mile radius). However, there are pockets within Jefferson County that are not hooked up to the system. The exact number and location of these areas wasn't available. It is known that both the Lake Dreamland and Riverside Gardens communities are not hooked up. The Parkwood Community is also not serviced by Louisville Water Company. Areas not hooked up typically obtain water by buying bottled water from Louisville Water Company or from private wells. The Louisville Water Company obtains its water from two intakes on the Ohio River; the Zorn Avenue intake and the B&E intake. Both of these intakes are located upstream from the site.

Ref. #20

Table 6. Household, Family, and Group Quarters Characteristics: 1990

[For definitions of terms and meanings of symbols, see text]

State / County / Place and [In Selected States] County Subdivision	Persons in households	All households	Family households: Total	Family households: Married-couple family	Family households: Female householder, no husband present	Nonfamily households: Total	Householder living alone: Total	Householder living alone, 65 years and over: Total	Householder living alone, 65 years and over: Female	Persons per: Household	Persons per: Family	Persons in group quarters: Total	Persons in group quarters: Institutionalized persons	Persons in group quarters: Other persons in group quarters
The State	3 584 120	1 379 782	1 015 998	818 732	159 680	363 784	321 347	142 048	112 832	2.60	3.08	101 176	47 809	53 367
COUNTY														
Adair County	14 925	5 800	4 414	3 707	549	1 386	1 301	771	593	2.57	3.01	435	181	254
Allen County	14 478	5 595	4 270	3 542	480	1 325	1 237	730	564	2.58	3.02	150	150	-
Anderson County	14 446	5 429	4 229	3 589	490	1 200	1 085	544	453	2.66	3.06	122	122	-
Ballard County	7 795	3 191	2 324	2 004	243	867	804	462	372	2.44	2.91	107	104	3
Barren County	33 348	13 136	9 901	8 348	1 254	3 235	3 028	1 645	1 344	2.54	2.98	653	619	34
Bath County	9 564	3 660	2 791	2 298	371	869	808	464	344	2.61	3.06	128	128	-
Bell County	30 881	11 512	8 798	6 570	1 799	2 714	2 532	1 329	1 042	2.68	3.16	515	497	18
Boone County	57 177	20 127	15 722	13 224	1 909	4 405	3 700	1 407	1 150	2.84	3.25	412	372	40
Bourbon County	19 070	7 250	5 497	4 308	865	1 753	1 540	808	665	2.63	3.06	164	164	-
Boyd County	49 053	19 876	14 736	12 123	2 171	5 140	4 772	2 448	2 030	2.50	2.96	1 497	1 436	61
Boyle County	23 646	9 483	6 974	5 604	1 074	2 509	2 314	1 145	935	2.49	2.97	1 905	1 101	804
Bracken County	7 684	2 872	2 179	1 783	290	693	625	385	302	2.68	3.12	82	82	-
Breathitt County	15 446	5 565	4 395	3 434	741	1 170	1 088	601	379	2.78	3.20	257	117	140
Breckinridge County	16 196	6 189	4 689	3 922	542	1 490	1 403	734	529	2.63	3.09	116	116	-
Bullitt County	47 475	15 965	13 453	11 448	1 473	2 512	2 156	808	607	2.97	3.26	92	90	2
Butler County	11 029	4 180	3 206	2 700	354	974	896	474	360	2.64	3.07	216	216	-
Caldwell County	12 985	5 274	3 843	3 191	539	1 431	1 350	785	643	2.46	2.98	247	247	-
Calloway County	27 218	11 607	7 936	6 633	906	3 671	3 143	1 503	1 223	2.34	2.86	3 517	310	3 207
Campbell County	82 873	31 168	22 237	17 618	3 861	8 932	7 671	3 489	2 798	2.66	3.22	993	614	379
Carlisle County	5 238	2 106	1 546	1 317	177	560	528	332	267	2.49	2.97	-	-	-
Carroll County	9 147	3 506	2 537	1 998	420	969	854	416	315	2.61	3.10	145	103	42
Carter County	23 857	8 679	6 884	5 702	922	1 795	1 666	899	670	2.75	3.15	483	149	334
Casey County	14 091	5 436	4 172	3 463	529	1 264	1 189	640	485	2.59	3.03	120	50	70
Christian County	58 080	21 636	16 651	13 337	2 783	4 985	4 408	1 983	1 547	2.73	3.17	9 861	1 404	8 457
Clark County	29 218	10 873	8 406	7 000	1 208	2 477	2 201	1 079	900	2.66	3.07	278	278	-
Clay County	21 580	7 387	6 101	4 920	922	1 286	1 191	579	446	2.83	3.28	166	164	2
Clinton County	9 056	3 581	2 673	2 173	384	918	867	460	365	2.52	2.99	79	79	-
Crittenden County	9 036	3 646	2 687	2 264	300	959	893	568	440	2.48	2.98	160	160	-
Cumberland County	6 701	2 714	2 013	1 561	345	701	651	380	287	2.47	2.90	83	83	-
Daviess County	85 271	33 038	23 980	19 339	3 809	9 058	8 140	3 633	2 874	2.58	3.10	1 918	1 282	636
Edmonson County	10 157	3 843	3 089	2 643	354	754	714	385	305	2.64	3.00	200	25	175
Elliott County	6 452	2 324	1 839	1 445	278	485	449	238	182	2.78	3.18	3	3	-
Estill County	14 498	5 357	4 185	3 334	690	1 172	1 087	628	514	2.71	3.13	116	113	3
Fayette County	212 953	89 520	56 412	43 236	10 880	33 117	26 073	6 964	5 740	2.38	2.96	12 413	5 089	7 324
Fleming County	12 143	4 626	3 510	2 937	417	1 116	1 044	585	444	2.62	3.07	149	149	-
Floyd County	43 199	15 654	12 406	10 038	1 903	3 258	3 063	1 445	1 138	2.76	3.18	387	221	166
Franklin County	42 407	17 385	12 087	9 537	2 085	5 298	4 698	1 764	1 418	2.44	2.97	1 374	993	381
Fulton County	8 166	3 378	2 316	1 736	490	1 062	994	625	533	2.42	3.00	105	97	8
Gallatin County	5 344	1 941	1 493	1 240	187	448	402	217	159	2.75	3.18	48	48	-
Garrard County	11 471	4 436	3 459	2 901	434	977	894	482	381	2.59	2.97	108	108	-
Grant County	15 520	5 585	4 395	3 675	531	1 190	1 087	569	437	2.78	3.18	217	163	54
Graves County	33 031	13 377	9 851	8 403	1 173	3 526	3 334	1 921	1 567	2.47	2.94	519	466	53
Grayson County	20 834	7 991	6 114	5 174	708	1 877	1 722	878	633	2.61	3.03	216	214	2
Green County	10 201	4 089	3 124	2 705	320	965	914	542	420	2.49	2.91	170	170	-
Greenup County	36 332	13 414	10 808	9 289	1 221	2 606	2 429	1 154	900	2.71	3.07	440	410	30
Hancock County	7 786	2 786	2 267	1 960	220	529	492	230	173	2.79	3.15	79	79	-
Hardin County	81 720	29 358	23 141	19 424	2 993	6 217	5 467	1 926	1 534	2.78	3.18	7 520	754	6 766
Harlan County	36 325	13 289	10 187	8 003	1 764	3 072	2 807	1 519	1 217	2.74	3.22	249	249	-
Harrison County	15 940	6 086	4 574	3 783	632	1 512	1 371	795	610	2.62	3.08	308	289	19
Hart County	14 631	5 740	4 334	3 591	568	1 406	1 309	731	562	2.54	3.04	59	48	11
Henderson County	42 467	16 555	12 205	9 806	1 884	4 350	3 809	1 727	1 386	2.56	3.04	577	509	68
Henry County	12 758	4 896	3 702	3 028	481	1 194	1 085	575	446	2.61	3.03	65	64	1
Hickman County	5 413	2 188	1 629	1 356	212	559	520	316	240	2.47	2.93	153	153	-
Hopkins County	45 422	17 780	13 356	10 830	1 974	4 424	4 086	2 080	1 640	2.56	3.02	704	704	-
Jackson County	11 881	4 381	3 457	2 855	464	924	883	482	341	2.71	3.13	74	68	6
Jefferson County	653 772	264 138	179 671	133 342	38 319	84 467	72 646	27 724	22 274	2.48	3.04	11 165	7 715	3 450
Jessamine County	29 345	10 801	8 474	7 094	1 086	2 127	1 759	806	599	2.77	3.12	1 163	199	964
Johnson County	22 928	8 480	6 820	5 468	823	1 840	1 740	852	664	2.71	3.14	319	319	-
Kenton County	140 146	52 860	37 424	29 327	6 403	15 256	13 386	5 305	4 264	2.65	3.23	1 883	1 540	343
Knott County	17 434	6 086	4 905	3 804	785	1 181	1 108	487	372	2.86	3.28	472	149	323
Knox County	29 130	10 718	8 330	6 388	1 564	2 388	2 240	1 187	949	2.72	3.15	546	297	249
Larue County	11 539	4 503	3 424	2 865	405	1 079	1 007	558	439	2.56	2.99	140	137	3
Laurel County	42 910	15 585	12 567	10 380	1 739	3 018	2 758	1 328	1 036	2.75	3.11	528	411	117
Lawrence County	13 867	5 007	3 937	3 280	519	1 070	1 010	589	415	2.77	3.21	111	111	-
Lee County	7 313	2 760	2 128	1 702	334	632	600	320	246	2.65	3.07	109	109	-
Leslie County	13 554	4 711	3 892	3 133	596	819	752	321	242	2.88	3.21	86	84	2
Letcher County	26 854	9 731	7 701	6 252	1 146	2 030	1 913	966	784	2.76	3.18	146	146	-
Lewis County	12 901	4 713	3 690	3 071	455	1 023	927	515	379	2.74	3.14	128	128	-
Lincoln County	19 851	7 431	5 786	4 623	719	1 645	1 500	836	643	2.67	3.08	184	184	-
Livingston County	8 980	3 593	2 711	2 353	270	882	817	396	303	2.49	2.93	102	100	2
Logan County	24 173	9 302	6 992	5 784	917	2 310	2 140	1 181	945	2.60	3.06	243	232	11
Lyon County	5 441	2 355	1 682	1 456	171	673	641	365	271	2.31	2.79	1 183	1 164	19
McCracken County	61 881	25 625	18 088	14 487	2 993	7 537	6 910	3 307	2 806	2.41	2.93	998	830	168
McCreary County	15 343	5 479	4 305	3 337	784	1 174	1 106	563	441	2.80	3.23	260	56	204
McLean County	9 504	3 672	2 802	2 408	301	870	794	451	365	2.59	3.02	124	124	-
Madison County	51 248	20 012	14 569	11 933	2 128	5 443	4 389	1 737	1 379	2.56	3.01	6 260	457	5 803
Magoffin County	12 861	4 440	3 651	3 062	468	789	747	390	294	2.90	3.26	196	196	-
Marion County	15 733	5 680	4 356	3 434	722	1 332	1 216	611	480	2.77	3.24	766	629	137
Marshall County	26 764	10 799	8 297	7 327	744	2 482	2 325	1 252	977	2.48	2.88	441	371	70
Martin County	12 516	4 300	3 539	2 879	525	781	775	358	258	2.91	3.28	10	-	10
Mason County	16 490	6 537	4 746	3 805	753	1 791	1 652	895	683	2.52	3.02	176	161	15
Meade County	24 075	8 080	6 736	5 854	641	1 344	1 161	458	333	2.98	3.31	95	86	9
Menifee County	4 931	1 842	1 448	1 215	177	394	365	181	140	2.68	3.07	161	20	141
Mercer County	19 011	7 413	5 625	4 680	736	1 788	1 626	857	682	2.56	3.00	137	135	2
Metcalfe County	8 836	3 433	2 627	2 211	337	806	756	429	336	2.57	3.00	128	128	-
Monroe County	11 274	4 506	3 369	2 786	457	1 137	1 079	596	465	2.50	2.98	127	127	-
Montgomery County	19 290	7 312	5 639	4 657	789	1 673	1 531	749	612	2.64	3.06	271	271	-
Morgan County	11 219	4 089	3 240	2 729	385	849	800	436	322	2.74	3.15	429	429	-
Muhlenberg County	30 624	11 683	8 983	7 528	1 155	2 700	2 515	1 472	1 191	2.62	3.06	694	376	318
Nelson County	28 146	10 417	8 103	6 804	1 230	2 314	2 061	800	609	2.80	3.23	564	428	136

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NOTE: The population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.

RICHARD R. HANNAN
DIRECTOR

BRERETON C. JONES
GOVERNOR

Ref. #21

COMMONWEALTH OF KENTUCKY
KENTUCKY STATE NATURE PRESERVES COMMISSION
407 BROADWAY
FRANKFORT, KENTUCKY 40601
(502) 564-2886

May 12, 1992

Ms. Laura Morrison
B & V Waste Science & Technology Corporation
1117 Perimeter Center West, Suite W-212
Atlanta, Georgia 30338

Re: Environmental Review 276

Dear Ms. Morrison:

This letter is in response to your request of April 3, 1992 for environmental review of sixteen (16) separate sites scattered throughout central and western Kentucky. We have reviewed our Natural Heritage Database to determine if any of the endangered, threatened, or special concern species or sensitive natural areas monitored by the Kentucky State Nature Preserves Commission (KSNPC) occur near each of the sixteen project areas. Based on our most current information, we have marked known locations of rare species and sensitive natural areas on the photocopies of United States Geological Survey Topographic Quadrangle maps provided with your request. Enclosed with this letter is a copy of the most current KSNPC list of rare species, which should provide you with supplementary material on those species for which locations have been provided. If the information provided is insufficient for your purposes, or if you have any further questions concerning your request, please feel free to call Mr. Brainard Palmer-Ball, Jr. of my staff.

Please note that the quantity and quality of data collected by the Kentucky Natural Heritage Program are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Kentucky have never been thoroughly surveyed, and new species of plants and animals are still being discovered. For these reasons, the Kentucky Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Kentucky. Heritage reports summarize the existing information known to the Kentucky Natural Heritage Program at the time of the

request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

An invoice for the foregoing environmental review service is enclosed. If you have any questions or I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Richard R. Hannan
Director

RRH/BPB

Endangered, Threatened, and Special Concern Plant and Animal Species of Kentucky

Kentucky State Nature Preserves Commission
March, 1991

	STATUS KSNPC	US
PLANTS		
Acer spicatum Mountain Maple	T	
Aconitum uncinatum Blue Monkshood	T	
Adiantum capillus-veneris Southern Maidenhair-fern	T	
Adlumia fungosa Climbing Fumatory	E	
Agalinis decemloba Blue Ridge False Foxglove	E	
Agalinis skinneriana Pale False Foxglove	T	C2
Agrimonia gryposepala Tall Hairy Groovebur	S	
Allium burdickii Narrow-leaved Wild Leek	E	
Amelanchier stolonifera Running Serviceberry	E	
Amianthium muscaetoxicum Fly Poison	T	
Angelica triquinata Filmy Angelica	E	
Apios priceana Price's Potato-bean	E	LT
Arabis glabra Tower-mustard	E	
Arabis missouriensis Missouri Rock Cress	E	
Arabis perstellata var. *perstellata* Braun's Rock Cress	E	C1
Arenaria cumberlandensis Cumberland Sandwort	E	LE
Arenaria fontinalis Water Stitchwort	E	C1
Armoracia lacustris Lake Cress	T	C2
Aster concolor Eastern Silvery Aster	E	
Aster pilosus var. *priceae* White Heath Aster	S	
Aster saxicastellii Rockcastle Aster	T	
Aster sericeus Western Silky Aster	T	
Aster texanus Texas Aster	E	
Aureolaria patula Spreading False Foxglove	E	C1
Baptisia leucophaea Cream Wild Indigo	S	
Baptisia tinctoria Yellow Wild Indigo	E	
Bartonia virginica Yellow Screwstem	E	
Berchemia scandens Supple-jack	E	
Botrychium matricariifolium Matricary Grape-fern	E	
Botrychium oneidense Blunt-lobe Grape-fern	E	
Bouteloua curtipendula Side-oats Grama	S	
Boykinia aconitifolia Brook Saxifrage	E	
Cabomba caroliniana Carolina Fanwort	S	
Calamagrostis canadensis Blue-joint Reedgrass	E	
Calamagrostis cinnoides Nuttall's Small Reedgrass	S	
Calamagrostis porteri Porter's Reedgrass	E	
Calopogon tuberosus Grass Pink	E	
Caltha palustris Marsh Marigold	E	
Calycanthus floridus Sweet-shrub	T	
Calylophus serrulatus Yellow Evening Primrose	E	
Carex austrina Southern Sedge	E	

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Carex buxbaumii Brown Bog Sedge	E	
Carex crawei Crawe's Sedge	S	
Carex decomposita Epiphytic Sedge	T	
Carex gigantea Large Sedge	T	
Carex hystericina Porcupine Sedge	E	
Carex joorii Cypress-swamp Sedge	E	
Carex lanuginosa Woolly Sedge	S	
Carex leptalea Bristly-stalk Sedge	S	
Carex leptonervia Finely-nerved Sedge	E	
Carex socialis Social Sedge	S	
Carex stricta Tussock Sedge	E	
Carex tenera Slender Sedge	S	
Carex triangularis Fox Sedge	S	
Carya aquatica Water Hickory	S	
Castanea pumila Allegheny Chinkapin	E	
Castilleja coccinea Scarlet Indian Paintbrush	E	
Cayaponia grandifolia Southern Cayaponia	E	
Ceanothus herbaceus Prairie Redroot	E	
Cheilanthes alabamensis Alabama Lipfern	E	
Cheilanthes feei Fee's Lipfern	E	
Chelone obliqua var. *obliqua* Red Turtlehead	T	
Chelone obliqua var. *speciosa* Rose Turtlehead	S	
Chrysogonum virginianum Green-and-gold	E	
Chrysosplenium americanum American Golden-saxifrage	E	
Cicuta bulbifera Bulb-bearing Water-hemlock	E	
Cimicifuga rubifolia Appalachian Bugbane	T	C2
Circaea alpina Small Enchanter's Nightshade	T	
Cleistes divaricata Spreading Pogonia	S	
Clematis crispa Blue Jasmine Leather-flower	T	
Clematis glaucophylla White-leaved Leather-flower	S	
Clematis viorna var. *flaccida* Flaccid Leather-flower	E	
Comptonia peregrina Sweet Fern	E	
Conradina verticillata Cumberland Rosemary	E	PT
Convallaria montana American Lily-of-the-valley	E	
Corallorhiza maculata Spotted Coralroot	E	
Coreopsis pubescens Star Tickseed	S	
Corydalis sempervirens Pale Corydalis	T	
Crotonopsis linearis Narrowleaf Rushfoil	E	
Cymophyllus fraseri Fraser's Sedge	E	
Cyperus retrorsus Retrorse Flatsedge	S	
Cypripedium candidum Small White Lady's-slipper	E	
Cypripedium kentuckiense Kentucky Lady's-slipper	S	C2
Cypripedium parviflorum Small Yellow Lady's-slipper	E	
Cypripedium reginae Showy Lady's-slipper	E	

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Decodon verticillatus Hairy Swamp Loosestrife	T	
Delphinium carolinianum Carolina Larkspur	T	
Deschampsia flexuosa Crinkled Hairgrass	T	
Dichanthelium boreale Northern Witchgrass	S	
Didiplis diandra Water-purslane	S	
Dodecatheon frenchii French's Shooting Star	S	
Draba aprica Open-ground Whitlow-grass	E	
Draba cuneifolia Wedge-leaf Whitlow-grass	E	
Drosera brevifolia Dwarf Sundew	E	
Drosera intermedia Spoon-leaved Sundew	E	
Dryopteris ludoviciana Southern Shield Wood Fern	E	
Dryopteris spinulosa Spinulose Wood Fern	S	
Echinodorus rostratus Burhead	T	
Echinodorus tenellus Dwarf Burhead	E	
Elymus svensonii Svenson's Wild Rye	T	C2
Eriogonum longifolium var. *harperi* Harper's Umbrella-plant	E	C1
Eryngium integrifolium Blue-flower Coyote-thistle	E	
Erythronium rostratum Golden Star	E	
Eupatorium luciae-brauniae Lucy Braun's White Snakeroot	T	C2
Eupatorium maculatum Spotted Joe-pye Weed	E	
Euphorbia mercurialina Mercury Spurge	E	
Fimbristylis puberula Hairy Fimbristylis	E	
Floerkea proserpinacoides False Mermaid-weed	S	
Forestiera ligustrina Upland Privet	T	
Gentiana alba Yellow Gentian	E	
Gentiana decora Showy Gentian	T	
Gentiana puberulenta Prairie Gentian	E	
Glyceria acutiflora Sharp-scaled Manna Grass	E	
Glyceria melicaria Slender Manna Grass	S	
Gratiola pilosa Shaggy Hedge Hyssop	E	
Gratiola viscidula Short's Hedge Hyssop	T	
Gymnopogon ambiguus Beardgrass	S	
Gymnopogon brevifolius Beardgrass	E	
Halesia carolina Carolina Silverbell	T	
Hedeoma hispidum Rough Pennyroyal	E	
Hedyotis michauxii Michaux's Bluets	E	
Hedyotis uniflora Clustered Bluets	E	
Helianthus eggertii Eggert's Sunflower	E	C2
Helianthus silphioides Silphium Sunflower	T	
Heracleum lanatum Cow-parsnip	E	
Heteranthera dubia Grassleaf Mud-plantain	T	
Heteranthera limosa Blue Mud-plantain	T	
Heterotheca latifolia Broad-leaf Golden-aster	S	
Hexastylis contracta Southern Heartleaf	E	C2

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Hexastylis heterophylla Variable-leaved Heartleaf	T	
Hieracium longipilum Hairy Hawkweed	E	
Hierochloe odorata Holy Grass	E	
Hydrocotyle americana American Water-pennywort	E	
Hydrolea ovata Ovate Fiddleleaf	E	
Hydrophyllum virginianum Virginia Waterleaf	S	
Hypericum adpressum Creeping St. John's-wort	E	
Hypericum crux-andreae St. Peter's-wort	E	
Hypericum dolabriforme Glade St. John's-wort	S	C2
Iris fulva Copper Iris	E	
Isoetes butleri Butler's Quillwort	E	
Isoetes melanopoda Blackfoot Quillwort	E	
Juglans cinerea White Walnut	S	C2
Juncus articulatus Jointed Rush	S	
Juncus elliottii Bog Rush	E	
Juncus longistylis Long-styled Rush	E	
Juniperus communis Ground Juniper	E	
Koeleria cristata Junegrass	E	
Lathyrus palustris Vetchling Peavine	S	
Lathyrus venosus Smooth Veiny Peavine	T	
Leavenworthia exigua var. *laciniata* Glade Cress	T	C1
Leavenworthia torulosa Necklace Glade Cress	E	
Leiophyllum buxifolium Sand-myrtle	E	
Lesquerella globosa Lesquereux's Bladder-pod	E	C2
Lesquerella lescurii Lescur's Bladder-pod	E	
Leucothoe recurva Fetterbush	E	
Liatris cylindracea Slender Blazing-star	S	
Lilium philadelphicum Wood Lily	T	
Lilium superbum Turk's Cap Lily	E	
Limnobium spongia American Frog's-bit	T	
Linum sulcatum Grooved Yellow Flax	S	
Liparis loeselii Loesel's Twayblade	S	
Listera australis Southern Twayblade	E	
Listera smallii Kidney-leaf Twayblade	E	
Lobelia appendiculata var. *gattingeri* Gattinger's Lobelia	E	C2
Lobelia nuttallii Nuttall's Lobelia	E	
Lonicera prolifera Grape Honeysuckle	E	
Ludwigia hirtella Hairy Ludwigia	E	
Lycopodium appressum Southern Bog Clubmoss	E	
Lysimachia fraseri Fraser's Loosestrife	E	C2
Lysimachia radicans Trailing Loosestrife	E	
Lysimachia terrestris Swamp Candles	E	
Maianthemum canadense Wild Lily-of-the-valley	T	
Malus angustifolia Southern Crabapple	S	

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Malus ioensis Iowa Crabapple	S	
Malvastrum hispidum Hispid Falsemallow	T	C2
Marshallia grandiflora Barbara's Buttons	E	C2
Matelea carolinensis Carolina Anglepod	E	
Mecardonia acuminata Purple Mecardonia	T	
Melampyrum lineare American Cow-wheat	E	
Melanthium virginicum Virginia Bunchflower	E	
Minuartia glabra Appalachian Sandwort	E	
Mirabilis albida Pale Umbrella-wort	E	
Monarda punctata Spotted Bee-balm	E	
Monotropsis odorata Sweet Pinesap	T	
Muhlenbergia bushii Bush's Muhly	S	
Muhlenbergia cuspidata Plains Muhly	E	
Muhlenbergia expansa Cut-over Muhly	E	
Muhlenbergia glabriflora Hair Grass	S	
Myriophyllum heterophyllum Broadleaf Water-milfoil	S	
Myriophyllum pinnatum Cutleaf Water-milfoil	S	
Najas gracillima Thread-like Naiad	S	
Nemophila aphylla Small-flowered Baby-blue-eyes	S	
Oenothera linifolia Thread-leaf Sundrops	T	
Oenothera perennis Small Sundrops	E	
Oenothera triloba Stemless Evening-primrose	T	
Onosmodium hispidissimum Hairy False Gromwell	E	
Onosmodium molle ssp. *molle* Soft False Gromwell	E	
Onosmodium molle ssp. *occidentale* Western False Gromwell	E	
Orontium aquaticum Golden Club	T	
Oryzopsis racemosa Black-fruit Mountain-ricegrass	T	
Oxalis priceae Price's Yellow Wood Sorrel	E	
Pachistima canbyi Canby's Mountain-lover	T	C2
Parnassia asarifolia Kidneyleaf Grass-of-parnassus	E	
Parnassia grandifolia Large-flowered Grass-of-parnassus	E	
Paronychia argyrocoma Silverling	E	
Paspalum boscianum Bull Paspalum	S	
Pedicularis lanceolata Swamp Lousewort	E	
Perideridia americana Eastern Eulophus	T	
Phacelia ranunculacea Blue Scorpion-weed	S	
Philadelphus inodorus Mock Orange	E	
Philadelphus pubescens Hoary Mock Orange	E	
Phlox bifida ssp. *stellaria* Starry Cleft Phlox	T	C2
Physostegia intermedia Slender Dragon-head	E	
Plantago cordata Heart-leaved Plantain	E	
Platanthera cristata Yellow-crested Orchid	E	
Platanthera integrilabia White Fringeless Orchid	E	C2
Platanthera psycodes Small Purple-fringed Orchid	E	

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Poa languida Drooping Bluegrass	E	
Podostemum ceratophyllum Threadfoot	T	
Pogonia ophioglossoides Rose Pogonia	E	
Polygala cruciata Crossleaf Milkwort	E	
Polygala nuttallii Nuttall's Milkwort	E	
Polygala polygama Racemed Milkwort	E	
Polymnia laevigata Tennessee Leafcup	E	
Pontederia cordata Pickerel Weed	E	
Potamogeton praelongus White-stem Pondweed	E	
Potamogeton pulcher Spotted Pondweed	E	
Prenanthes alba White Rattlesnake-root	E	
Prenanthes aspera Rough Rattlesnake-root	E	
Prenanthes barbata Barbed Rattlesnake-root	E	C2
Prenanthes crepidinea Nodding Rattlesnake-root	S	
Psoralea stipulata Stipuled Scurf-pea	E	C1*
Psoralea tenuiflora Few-flowered Scurf-pea	E	
Ptilimnium capillaceum Mock Bishop-weed	T	
Ptilimnium nuttallii Nuttall's Mock Bishop-weed	E	
Pycnanthemum albescens White-leaved Mountain Mint	E	
Pyrola americana American Wintergreen	E	
Ranunculus allegheniensis Allegheny Mountain Crowfoot	S	
Ranunculus ambigens Water-plantain	S	
Rhododendron canescens Hoary Azalea	E	
Rhynchosia tomentosa Hairy Snoutbean	E	
Rhynchospora globularis Globe Beaked-rush	T	
Rhynchospora macrostachya Tall Beaked-rush	E	
Rubus whartoniae Wharton's Dewberry	T	C2
Rudbeckia subtomentosa Sweet Coneflower	T	
Sabatia campanulata Slender Marsh Pink	E	
Sagittaria brevirostra Short-beaked Arrowhead	S	
Sagittaria graminea Grassleaf Arrowhead	T	
Salvia urticifolia Nettle-leaf Sage	E	
Sambucus racemosa European Red Elder	T	
Sanguisorba canadensis Canada Burnet	E	
Saxifraga michauxii Michaux's Saxifrage	E	
Saxifraga micranthidifolia Lettuce-leaf Saxifrage	E	
Schisandra coccinea Schisandra	E	
Schizachne purpurascens Purple Oat	T	
Schwalbea americana Chaffseed	E	C1
Scirpus expansus Woodland Beakrush	S	
Scirpus fluviatilis River Bulrush	T	
Scirpus hallii Hall's Bulrush	E	C2
Scirpus heterochaetus Slender Bulrush	E	
Scirpus microcarpus Small-fruit Bulrush	E	

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	STATUS US
Scleria ciliata Fringed Nutrush	E	
Scutellaria saxatilis Rock Skullcap	T	C2
Sedum telephioides Allegheny Stonecrop	T	
Sida hermaphrodita Virginia Mallow	T	
Silene ovata Ovate Catchfly	T	C2
Silene regia Royal Catchfly	E	C2
Silphium laciniatum Compass Plant	T	
Silphium terebinthinaceum var. *lucy-brauniae* Lucy Braun's Prairie Dock	S	
Smilacina stellata Starflower False Solomon's-seal	E	
Solidago albopilosa White-haired Goldenrod	T	LT
Solidago buckleyi Buckley's Goldenrod	S	
Solidago curtisii Curtis' Goldenrod	S	
Solidago puberula Downy Goldenrod	T	
Solidago radula Western Rough Goldenrod	E	
Solidago roanensis Roan Mountain Goldenrod	T	
Solidago shortii Short's Goldenrod	E	LE
Solidago spathulata Sticky Goldenrod	S	
Solidago squarrosa Squarrose Goldenrod	E	
Sparganium eurycarpum Large Bur-reed	E	
Sphenopholis pensylvanica Swamp Wedgescale	E	
Spiraea alba Narrow-leaved Meadow-sweet	E	
Spiraea virginiana Virginia Spiraea	E	LT
Spiranthes lucida Shining Ladies'-Tresses	T	
Spiranthes magnicamporum Great Plains Ladies'-Tresses	E	
Spiranthes odorata Sweetscent Ladies'-Tresses	E	
Sporobolus clandestinus Rough Dropseed	E	
Sporobolus heterolepis Northern Dropseed	E	
Stachys eplingii Epling's Hedgenettle	S	
Stellaria longifolia Longleaf Stitchwort	S	
Streptopus roseus Rosy Twisted-stalk	E	
Styrax grandifolius Bigleaf Snowbell	T	
Sullivantia sullivantii Sullivantia	E	
Symphoricarpos albus Snowberry	E	
Talinum calcaricum Limestone Fameflower	E	C2
Talinum teretifolium Roundleaf Fameflower	T	
Taxus canadensis Canadian Yew	S	
Tephrosia spicata Spiked Hoary-pea	E	
Thalictrum coriaceum Leatherleaf Meadow-rue	E	
Thalictrum mirabile Little Mountain Meadow-rue	S	
Thaspium pinnatifidum Cutleaf Meadow-parsnip	S	
Thermopsis mollis Soft-haired Thermopsis	E	
Thuja occidentalis Northern White Cedar	T	
Torreyochloa pallida Pale Manna Grass	E	

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Tragia urticifolia Nettle-leaf Noseburn	E	
Trepocarpus aethusae Trepocarpus	E	
Trichomanes boschianum Filmy Fern	S	
Trichostema setaceum Narrow-leaved Blue Curls	E	
Trientalis borealis Northern Starflower	E	
Trifolium reflexum Buffalo Clover	E	
Trifolium stoloniferum Running Buffalo Clover	E	LE
Trillium nivale Snow Trillium	E	
Trillium pusillum var. *ozarkanum* Ozark Least Trillium	E	C2
Trillium pusillum var. *pusillum* Least Trillium	E	C2
Trillium undulatum Painted Trillium	T	
Ulmus serotina September Elm	S	
Utricularia vulgaris Greater Bladderwort	E	
Vallisneria americana Eel-grass	S	
Veratrum parviflorum Small-flowered False Hellebore	T	
Veratrum woodii False Hellebore	T	
Vernonia noveboracensis New York Ironweed	E	
Viburnum lentago Nannyberry	E	
Viburnum nudum Possum Haw Viburnum	E	
Viola egglestonii Eggleston's Violet	S	
Viola walteri Walter's Violet	E	
Vitis rupestris Sand Grape	T	
Woodsia scopulina Rocky Mountain Woodsia	E	
Xerophyllum asphodeloides Eastern Turkeybeard	E	
Zizania aquatica Indian Wild Rice	E	
Zizaniopsis miliacea Southern Wild Rice	E	
ANIMALS		
Gastropods		
Glyphyalinia rhoadsi Sculpted glyph	T	
Mesomphix rugeli Wrinkled button	T	
Pilsbryna sp. A snail (undescribed)	E	
Triodopsis dentifera Big-tooth whitelip	T	
Vertigo bollesiana Delicate vertigo	T	
Vertigo clappi Cupped vertigo	E	
Vitrizonites latissimus Glassy grapeskin	E	
Unionids (Mussels)		
Alasmidonta atropurpurea Cumberland elktoe	E	C2
Alasmidonta marginata Elktoe	T	
Cumberlandia monodonta Spectaclecase	E	C2
Cyprogenia stegaria Fanshell	E	LE
Epioblasma brevidens Cumberlandian combshell	E	C2
Epioblasma capsaeformis Oyster mussel	E	C2
Epioblasma florentina walkeri Tan riffleshell	E	LE

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	STATUS US
Epioblasma obliquata obliquata Catspaw	E	LE
Epioblasma torulosa rangiana Northern riffleshell	E	C2
Epioblasma triquetra Snuffbox	S	
Fusconaia subrotunda subrotunda Long-solid	T	
Hemistena lata Cracking pearlymussel	E	LE
Lampsilis abrupta Pink mucket	E	LE
Lampsilis ovata Pocketbook	E	
Lasmigona compressa Creek heelsplitter	E	
Lasmigona subviridis Green floater	E	
Leptodea leptodon Scaleshell	E	C2
Lexingtonia dolabelloides Slabside pearlymussel	E	C2
Obovaria retusa Ring pink	E	LE
Pegias fabula Little-wing pearlymussel	E	LE
Plethobasus cooperianus Orange-foot pimpleback	E	LE
Plethobasus cyphyus Sheepnose	S	
Pleurobema clava Clubshell	E-	C2
Pleurobema oviforme Tennessee clubshell	E	C2
Pleurobema plenum Rough pigtoe	E	LE
Pleurobema pyramidatum Pyramid pigtoe	E	3B
Potamilus capax Fat pocketbook	E	LE
Potamilus purpuratus Bleufer	E	
Ptychobranchus subtentum Fluted kidneyshell	T	
Quadrula cylindrica cylindrica Rabbitsfoot	T	
Quadrula fragosa Winged mapleleaf	E	PE
Simpsonaias ambigua Salamander mussel	T	C2
Toxolasma lividus Purple lilliput	E	C2
Toxolasma texasensis Texas lilliput	S	
Villosa fabalis Rayed bean	E	C2
Villosa lienosa Little spectaclecase	S	
Villosa ortmanni Kentucky creekshell	E	C2
Villosa trabalis Cumberland bean	E	LE
Villosa vanuxemensis Mountain creekshell	T	
Crustaceans		
Barbicambarus cornutus Bottlebrush crayfish	S	
Caecidotea barri Clifton cave isopod	E	C2
Cambarellus puer A dwarf crayfish	E	
Cambarellus shufeldtii Cajun dwarf crayfish	S	
Cambarus ornatus A crayfish	S	
Cambarus parvoculus A crayfish	E	
Gammarus bousfieldi Bousfield's amphipod	E	C2
Macrobranchium ohione Ohio shrimp	E	
Orconectes australis A crayfish	T	
Orconectes bisectus Crittenden crayfish	T	
Orconectes inermis A crayfish	T	

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Orconectes jeffersoni Louisville crayfish	E	C2
Orconectes lancifer A crayfish	E	
Orconectes palmeri A crayfish	E	
Orconectes pellucidus Eyeless crayfish	S	
Palaemonias ganteri Kentucky cave shrimp	E	LE
Procambarus viaeviridis A crayfish	T	
Stygobromus vitreus An amphipod	S	
Insects		
Madeophylax sp. A caddisfly (undescribed)	T	
Fishes		
Acipenser fulvescens Lake sturgeon	E	C2
Alosa alabamae Alabama shad	E	
Amblyopsis spelaea Northern cavefish	S	C2
Ammocrypta asprella Crystal darter	E	C2
Ammocrypta clara Western sand darter	E	
Ammocrypta pellucida Eastern sand darter	S	C2
Ammocrypta vivax Scaly sand darter	E	
Clinostomus elongatus Redside dace	S	
Clinostomus funduloides Rosyside dace	S	
Erimyzon sucetta Lake chubsucker	T	
Esox niger Chain pickerel	S	
Etheostoma cinereum Ashy darter	T	
Etheostoma fusiforme Swamp darter	E	
Etheostoma maculatum Spotted darter	T	
Etheostoma microlepidum Smallscale darter	E	
Etheostoma microperca Least darter	E	
Etheostoma nigrum susanae Cumberland johnny darter	E	C2
Etheostoma parvipinne Goldstripe darter	S	
Etheostoma proeliare Cypress darter	T	
Etheostoma sagitta spilotum Arrow darter	S	
Etheostoma sp. Firebelly darter (undescribed)	S	
Etheostoma swaini Gulf darter	S	
Etheostoma tippecanoe Tippecanoe darter	S	
Etheostoma zonale lynceum Banded darter	S	
Fundulus chrysotus Golden topminnow	E	
Fundulus notti Starhead topminnow	E	
Hemitremia flammea Flame chub	E	
Hybognathus hayi Cypress minnow	E	
Hybognathus placitus Plains minnow	S	
Hybopsis gelida Sturgeon chub	S	C2
Hybopsis gracilis Flathead chub	S	
Hybopsis insignis Blotched chub	E	
Hybopsis meeki Sicklefin chub	S	C2

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Hybopsis x-punctata Gravel chub	E	
Ichthyomyzon castaneus Chestnut lamprey	S	
Ichthyomyzon fossor Northern brook lamprey	T	
Ichthyomyzon gagei Southern brook lamprey	E	
Ichthyomyzon greeleyi Mountain brook lamprey	T	
Ictiobus niger Black buffalo	S	
Lampetra appendix American brook lamprey	T	
Lepisosteus spatula Alligator gar	E	
Lepomis marginatus Dollar sunfish	E	
Lepomis punctatus Spotted sunfish	T	
Lota lota Burbot	S	
Menidia beryllina Inland silverside	T	
Moxostoma atripinne Blackfin sucker	S	
Moxostoma poecilurum Blacktail redhorse	S	
Nocomis biguttatus Hornyhead chub	S	
Notropis amnis Pallid shiner	E	
Notropis camurus Bluntface shiner	S	
Notropis hudsonius Spottail shiner	S	
Notropis maculatus Taillight shiner	T	
Notropis venustus Blacktail shiner	S	
Notropis sp. Palezone shiner (undescribed)	E	C2
Notropis sp. Sawfin shiner (undescribed)	E	
Noturus exilis Slender madtom	E	
Noturus hildebrandi Least madtom	S	
Noturus phaeus Brown madtom	S	
Noturus stigmosus Northern madtom	S	
Percina burtoni Blotchside darter	E	
Percina evides Gilt darter	S	
Percina macrocephala Longhead darter	T	C2
Percina squamata Olive darter	E	C2
Percopsis omiscomaycus Trout-perch	S	
Phenacobius uranops Stargazing minnow	S	
Phoxinus cumberlandensis Blackside dace	E	LT
Rhinichthys cataractae Longnose dace	E	
Scaphirhynchus albus Pallid sturgeon	E	LE
Typhlichthys subterraneus Southern cavefish	S	
Umbra limi Central Mudminnow	T	
Amphibians		
Amphiuma tridactylum Three-toed Amphiuma	E	
Eurycea guttolineata Three-lined Salamander	T	
Hyla avivoca Bird-voiced Treefrog	T	
Hyla cinerea Green Treefrog	S	
Hyla gratiosa Barking Treefrog	S	
Hyla versicolor Gray Treefrog	S	

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Plethodon cinereus Redback Salamander	S	
Plethodon wehrlei Wehrle's Salamander	E	
Rana areolata circulosa Northern Crawfish Frog	S	
Rana pipiens Northern Leopard Frog	S	
Reptiles		
Apalone mutica mutica Midland Smooth Softshell	S	
Chrysemys picta dorsalis Southern Painted Turtle	S	
Clonophis kirtlandii Kirtland's Snake	E	C2
Elaphe guttata guttata Corn Snake	S	
Eumeces anthracinus anthracinus Northern Coal Skink	T	
Eumeces anthracinus pluvialis Southern Coal Skink	E	
Eumeces inexpectatus Southeastern Five-lined Skink	S	
Farancia abacura reinwardtii Western Mud Snake	S	
Lampropeltis triangulum elapsoides Scarlet Kingsnake	S	
Macroclemys temminckii Alligator Snapping Turtle	T	C2
Nerodia cyclopion Mississippi Green Water Snake	E	
Nerodia erythrogaster neglecta Copperbelly Water Snake	S	C2
Nerodia fasciata confluens Broad-banded Water Snake	E	
Ophisaurus attenuatus longicaudus Eastern Slender Glass Lizard	T	
Pituophis melanoleucus melanoleucus Northern Pine Snake	T	
Sistrurus miliarius streckeri Western Pigmy Rattlesnake	T	
Thamnophis proximus proximus Western Ribbon Snake	T	
Thamnophis sauritus sauritus Eastern Ribbon Snake	S	
Birds		
Accipiter striatus Sharp-shinned Hawk	S	
Actitis macularia Spotted Sandpiper	E	
Aimophila aestivalis Bachman's Sparrow	E	C2
Ammodramus henslowii Henslow's Sparrow	S	
Anas discors Blue-winged Teal	E	
Ardea herodias Great Blue Heron	S	
Asio flammeus Short-eared Owl	E	
Bartramia longicauda Upland Sandpiper	E	
Botaurus lentiginosus American Bittern	E	
Bubulcus ibis Cattle Egret	S	
Casmerodius albus Great Egret	E	
Certhia americana Brown Creeper	E	
Chondestes grammacus Lark Sparrow	T	
Circus cyaneus Northern Harrier	T	
Cistothorus platensis Sedge Wren	S	
Corvus corax Common Raven	E	
Corvus ossifragus Fish Crow	S	
Dendroica fusca Blackburnian Warbler	T	
Dolichonyx oryzivorus Bobolink	S	
Egretta caerulea Little Blue Heron	E	

Kentucky Endangered, Threatened, and Special Concern Species (March, 1991) (continued)

	STATUS KSNPC	US
Empidonax minimus Least Flycatcher	T	
Fulica americana American Coot	E	
Gallinula chloropus Common Moorhen	T	
Haliaeetus leucocephalus Bald Eagle	E	LE
Ictinia mississippiensis Mississippi Kite	S	
Ixobrychus exilis Least Bittern	T	
Junco hyemalis Dark-eyed Junco	S	
Lophodytes cucullatus Hooded Merganser	E	
Nyctanassa violacea Yellow-crowned Night-Heron	T	
Nycticorax nycticorax Black-crowned Night-Heron	E	
Pandion haliaetus Osprey	T	
Passerculus sandwichensis Savannah Sparrow	S	
Phalacrocorax auritus Double-crested Cormorant	E	
Pheucticus ludovicianus Rose-breasted Grosbeak	S	
Picoides borealis Red-cockaded Woodpecker	E	LE
Podilymbus podiceps Pied-billed Grebe	E	
Pooecetes gramineus Vesper Sparrow	E	
Rallus elegans King Rail	E	
Riparia riparia Bank Swallow	S	
Sterna antillarum athalassos Interior Least Tern	E	LE
Thryomanes bewickii Bewick's Wren	S	
Tyto alba Barn Owl	S	
Vermivora chrysoptera Golden-winged Warbler	T	
Vireo bellii Bell's Vireo	S	
Wilsonia canadensis Canada Warbler	S	
Mammals		
Clethrionomys gapperi maurus Kentucky Red-backed Vole	S	C2
Mustela nivalis Least Weasel	S	
Myotis austroriparius Southeastern Myotis	E	C2
Myotis grisescens Gray Myotis	E	LE
Myotis leibii Eastern Small-footed Myotis	E	C2
Myotis septentrionalis Northern Long-eared Myotis	S	
Myotis sodalis Indiana Myotis	E	LE
Nycticeius humeralis Evening Bat	T	
Peromyscus gossypinus Cotton Mouse	T	
Plecotus rafinesquii Rafinesque's Big-eared Bat	T	C2
Plecotus townsendii virginianus Virginia Big-eared Bat	E	LE
Sorex cinereus Masked Shrew	S	
Sorex dispar Long-tailed Shrew	E	C2
Spilogale putorius Eastern Spotted Skunk	S	
Sylvilagus transitionalis New England Cottontail	E	C2
Ursus americanus Black Bear	S	

Key to Status Categories

(KSNPC) Kentucky State Nature Preserves Commission

E: Endangered. A species in danger of extirpation and/or extinction throughout all or a significant part of its range in Kentucky.

T: Threatened. A species likely to become endangered within the foreseeable future throughout all or a significant part of its range in Kentucky.

S: Special Concern. A species that should be monitored because (a) it exists in a limited geographic area, (b) it may become threatened or endangered due to modification or destruction of habitat, (c) certain characteristics or requirements make it especially vulnerable to specific pressures, (d) experienced researchers have identified other factors that may jeopardize it, or (e) it is thought to be rare or declining but insufficient information exists for assignment to the threatened or endangered status categories.

(US) Endangered Species Act of 1973
For status category definitions see United States Fish and Wildlife Service (1988. The Endangered Species Act of 1973 as amended through the 100th Congress. United States Government Printing Office, Washington, District of Columbia; 1990. Endangered and threatened wildlife and plants; review of plant taxa for listing as endangered or threatened species; notice of review. Federal Register 55:6184-6229).

US statuses were taken from United States Fish and Wildlife Service (1989. Endangered and threatened wildlife and plants; animal notice of review. Federal Register 54:554-579; 1990. Endangered and threatened wildlife and plants. United States Government Printing Office, Washington, District of Columbia; 1990. Endangered and threatened wildlife and plants; review of plant taxa for listing as endangered or threatened species; notice of review. Federal Register 55:6184-6229) and subsequent updates.

LE: Listed Endangered
PE: Proposed Endangered
LT: Listed Threatened
PT: Proposed Threatened
C1: Status Review (* indicates likelihood of extinction)
C2: Status Review
3B: Not a species under the Endangered Species Act

i

Ref. #22

producers wood preserver
LATITUDE 38:13:13 LONGITUDE 85:49:50 1983 POPULATION

KM	0.00-.400	.400-.810	.810-1.60	1.60-3.20	3.20-4.80	4.80-6.40	SECTOR TOTALS
S 1	0	0	0	3758	5087	10823	19668
S 2	0	0	1396	9686	15785	15129	41996
S 3	0	0	724	4288	9914	14586	29512
S 4	0	0	0	3453	9862	15282	28597
S 5	0	1055	0	4474	10040	18287	33856
S 6	0	0	0	2736	2048	585	5369
S 7	0	0	0	0	0	0	0
S 8	0	0	0	0	0	0	0
RING TOTALS	0	1055	2120	28395	52736	74692	158998

press RETURN to continue
MENU: Geodata Handling Data List procedures
Inte[illegible]name (in parentheses) ([illegible])
or a command: HELP, HELP option, BACK, CLEAR, EXIT, TUTOR
GEMS> next

[ERR-039]

Type YES to confirm the EXIT command; type NO to restart GEMS
GEMS> yes
$ logout
HTW logged out at 21-MAY-1992 16:24:46.63
Itemized resource charges, for this session, follow:

NODE: VAXTM1
ACCT: 9040
PROJ: GEMS0001
USER: HTW
UIC: [000710,000012]
BAUD:

START TIME: 21-MAY-1992 16:21:07.95
FINISH TIME: 21-MAY-1992 16:24:46.63
BILLING PERIOD: 920501
WEEKDAY: THURSDAY
TERMINAL PORT: VTA1476

DESCRIPTION OF CHARGE		QUANTITY	EXPENDITURE
ALL CHARGE LEVELS			
300 baud	(Seconds)	219	0.0000
CPU TIME	(Seconds)	9	0.5000
TOTAL FOR THIS SESSION			$ 0.5000

** Note: This total reflects the charges for this process only, subprocesses created during this session are accounted for separately
Enter selection:

CONFIDENTIAL
Hazard Ranking System Preliminary Score
PRODUCERS WOOD PRESERVERS
Louisville, Jefferson County, Kentucky
EPA ID № KYD985066042
WasteLAN № 04870

The preliminary score for the Producers Wood Preservers (PWP) site was calculated using the June 18, 1992 draft SI scoresheets. Pathways evaluated include groundwater, surface water, soil exposure, and air. Contaminants found is source samples and used to score the site include: anthracene, arsenic, barium, benzo(a)anthracene, benzo(a)pyrene, cadmium, chromium, copper, cyanide, lead, and zinc. A hazardous quantity of 10 was calculated for the site, using an area of contaminated soil approximately 15 acres in size.

The groundwater pathway was of minimal concern at this site. There were no observed releases found in the production well sampled at the site. There are approximately 1,592 groundwater users within four miles of the site, but the nearest well is over one mile away.

The surface water pathway is also of minimal concern at the PWP site. There were no observed releases to surface water attributable to the activities at PWP, and there are few targets in the surface water pathway.

Surface soil samples indicate surficial contamination of the soil. The site is fenced, limiting access to the public. There are a few maintenance workers who could be affected by the site; however, the number of persons potentially exposed is low. This pathway is off minimal concern.

There is a large population located within four miles of the site. The nature of the contaminants found at the site in the surface soil samples greatly decreases the possibility of migration via the air pathway. For that reason, the air pathway is of little concern at PWP.

Based on the findings of this inspection, no further action is recommended for the PWP site.

S_{gw}	=	0.77
S_{sw}	=	0.54
S_{so}	=	0.63
S_{air}	=	0.72
OVERALL SCORE	**=**	**1.49**

Site Name: Producers Wood Preservers

Location: Louisville, Jefferson County, Kentucky

GROUND WATER MIGRATION PATHWAY SCORESHEET

FACTOR CATEGORIES AND FACTORS

Likelihood of Release to an Aquifer	Maximum Value	Value Assigned	
1. Observed Release	550	0	
2. Potential to Release			
2a. Containment	10	--	
2b. Net Precipitation	10	--	
2c. Depth to Aquifer	5	--	
2d. Travel Time	35	--	
2e. Potential to Release [lines 2a x (2b + 2c + 2d)]	500	500	
Likelihood of Release (higher of lines 1 and 2e)	550		500
Waste Characteristics			
4. Toxicity/Mobility	a	10^4	
5. Hazardous Waste Quantity	a	10	
6. Waste Characteristics	100		18
Targets			
7. Nearest Well	50	5	
8. Population			
8a. Level I Concentrations	b	0	
8b. Level II Concentrations	b	0	
8c. Potential Contamination	b	20.4	
8d. Population (lines 8a + 8b + 8c)	b	20.4	
9. Resources	5	0	
10. Wellhead Protection Area	20	0	
11. Targets (lines 7 + 8d + 9 + 10)	b		25.4
Ground Water Migration Score for an Aquifer			
12. Aquifer Score [(lines 3 x 6 x 11)/82,500][c]	100		2.77
Ground Water Migration Pathway Score			
13. Pathway Score (S_{gw}), (highest value from line 12 for all aquifers evaluated)[c]	100		2.77

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.

Site Name: Producers Wood Preservers

Location: Louisville, Jefferson County, Kentucky

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

Factor Categories and Factors	Maximum Value	Value Assigned	
DRINKING WATER THREAT			
Likelihood of Release			
1. Observed Release	550	0	
2. Potential Release by Overland Flow			
2a. Containment	10	--	
2b. Runoff	25	--	
2c. Distance to Surface Water	25	--	
2d. Potential to Release by Overland Flow [lines 2a x (2b + 2c)]	500	--	
3. Potential to Release by Flood			
3a. Containment (Flood)	10	--	
3b. Flood Frequency	50	--	
3c. Potential to Release by Flood (lines 3a x 3b)	500	--	
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	500	
5. Likelihood of Release (higher of lines 1 and 4)	550		500
Waste Characteristics			
6. Toxicity/Presistence	a	10^4	
7. Hazardous Waste Quantity	a	10	
8. Waste Characteristics	100		18
Targets			
9. Nearest Intake	50	0	
10. Population			
10a. Level I Concentrations	b	0	
10b. Level II Concentrations	b		
10c. Potential Contamination	b	0	
10d. Population (lines 10a + 10b + 10c)	b	0	
11. Resources	5	5	
12. Targets (lines 9 + 10d + 11)	b		5
Drinking Water Threat Score			
13. Drinking Water Threat Score [(lines 5 x 8 x 12)/82,500, subject to a maximum of 100)	100		0.54

Site Name: Producers Wood Preservers

Location: Louisville, Jefferson County, Kentucky

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
(continued)

Factor Categories and Factors	Maximum Value	Value Assigned	
HUMAN FOOD CHAIN THREAT			
Likelihood of Release			
14. Likelihood of Release (same value as line 5)	550		500
Waste Characteristics			
15. Toxicity/Persistence/Bioaccumulation	a	5×10^8	
16. Hazardous Waste Quantity	a	10	
17. Waste Characteristics	1,000		180
Targets			
18. Food Chain Individual	50	0	
19. Population			
19a. Level I Concentrations	b	0	
19b. Level II Concentrations	b	0	
19c. Potential Human Food Chain Contamination	b	0	
19d. Population (lines 19a + 19b + 19c)	b	0	
20. Targets (lines 18 + 19d)			0
Human Food Chain Threat Score			
21. Human Food Chain Threat Score [(lines 14 x 17 x 20)/82,5000, subject to a maximum of 100)	100		0
ENVIRONMENTAL THREAT			
Likelihood of Release			
22. Likelihood of Release (same value as line 5)	550		500

Site Name: Producers Wood Preservers

Location: Louisville, Jefferson County, Kentucky

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
(continued)

Factor Categories and Factors	Maximum Value	Value Assigned	
ENVIRONMENTAL THREAT, (concluded)			
Waste Characteristics			
23. Ecosystem Toxicity/Persistence/Bioaccumulation	a	5×10^8	
24. Hazardous Waste Quantity	a	10	
25. Waste Characteristics	1,000		180
26. Sensitive Environments			
26a. Level I Concentrations	b	0	
26b. Level II Concentrations	b	0	
26c. Potential Contamination	b	0	
26d. Sensitive Environments (lines 26a + 26b + 26c)	b	0	
Targets			
27. Targets (value from line 26d)			0
Environmental Threat Score			
28. Environmental Threat Score [(lines 22 x 25 x 27)/82,500, subject to a maximum of 60]	60		0
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE FOR A WATERSHED			
29. Watershed Score[c] (lines 13 + 21 + 28, subject to a miximum of 100)	100		0.54
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE			
30. Component Score (S_{OF})[c] (highest score from line 29 for all watersheds evaluated, subject to a maximum of 100)	100		0.54

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.

Site Name: Producers Wood Preservers

Location: Louisville, Jefferson County, Kentucky

SOIL EXPOSURE PATHWAY SCORESHEET

Factor Categories and Factors	Maximum Value	Value Assigned	
RESIDENT POPULATION THREAT			
Likelihood of Exposure			
1. Likelihood of Exposure	550		550
Waste Characteristics			
2. Toxicity	a	10^4	
3. Hazardous Waste Quantity	a	10	
4. Waste Characteristics	100		18
Targets			
5. Resident Individual	50	0	
6. Resident Population			
6a. Level I Concentrations	b	0	
6b. Level II Concentrations	b	0	
6c. Resident Population (lines 6a + 6b)	b	0	
7. Workers	15	5	
8. Resources	5	0	
9. Terrestrial Sensitive Environments	c	0	
10. Targets (lines 5 + 6c + 7 + 8 + 9)	b		5
Resident Population Threat Score			
11. Resident Population Threat (lines 1 x 4 x 10)/82,500	b		0.60
NEARBY POPULATION THREAT			
Likelihood of Exposure			
12. Attractiveness/Accessibility	100	5	
13. Area of Contamination	100	100	
14. Likelihood of Exposure	500		50
Waste Characteristics			
15. Toxicity	a	10^4	
16. Hazardous Waste Quantity	a	10	
17. Waste Characteristics	100		18

Site Name: Producers Wood Preservers

Location: Louisville, Jefferson County, Kentucky

SOIL EXPOSURE PATHWAY SCORESHEET
(contiued)

Factor Categories and Factors	Maximum Value	Value Assigned	
NEARBY POPULATION THREAT, (continued)			
Targets			
18. Nearby Individual	1	0	
19. Population Within 1 Mile	b	3.0	
20. Targets (lines 18 + 19)	b		3.0
Nearby Population Threat Score			
21. Nearby Population Threat (lines 14 x 17 x 20)	b		0.03
SOIL EXPOSURE PATHWAY SCORE		Nearby Population Threat: (Default Value)	2
22. Soil Exposure Pathway Score[d] (S_s), (lines [11 + 21] subject to a maximum of 100)	100		0.63

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] No specific maximum value applies to factor. However pathway score based solely on sensitive environments is limited to maximum of 60.
[d] Do not round to nearest integer.

Site Name: Producers Wood Preservers

Location: Louisville, Jefferson County, Kentucky

AIR MIGRATION PATHWAY SCORESHEET

FACTOR CATEGORIES AND FACTORS

	Likelihood of Release	Maximum Value	Value Assigned	
1.	Observed Release	550	0	
2.	Potential to Release			
	2a. Gas Potential to Release	500	--	
	2b. Particulate Potential to Release	500	--	
	2c. Potential to Release (higher of lines 2a and 2b)	500	500	
3.	Likelihood of Release (higher of lines 1 and 2c)	a		500
	Waste Characteristics			
4.	Toxicity/Mobility	a	2	
5.	Hazardous Waste Quantity	a	10	
6.	Waste Characteristics	100		2
	Targets			
7.	Nearest Individual	50	20	
8.	Population			
	8a. Level I Concentrations	b	0	
	8b. Level II Concentrations	b	0	
	8c. Potential Contamination	b	39.4	
	8d. Population (lines 8a + 8b + 8c)	b	39.4	
9.	Resources	5	0	
10.	Sensitive Environments			
	10a. Actual Contamination	c	0	
	10b. Potential Contamination	c	0.04	
	10c. Sensitive Environments (lines 10a + 10b)	c	0.04	
11.	Targets (lines 7 + 8d + 9 + 10c)	b		59.44
	Air Migration Pathway Score			
12.	Pathway Score (S_a) [(lines 3 x 6 x 11)/82,500][d]	100		0.72

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] No specific maximum value applies to factor. However pathway score based solely on sensitive environments is limited to maximum of 60.
[d] Do not round to nearest integer.

APPENDIX A

ORGANIC DATA QUALIFIER REPORT

Case Number 18102 Project Number 92-0499 SAS Number
Site ID. Producers Wood Preserve, Louisville, KY.

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
67928,67930	xylenes	J	<quantitation limit
67942	1,2-dichloroethane	J	<quantitation limit
67937	4-methyl-2-pentanone	J	ISTD recovery low
	2-hexanone,toluene	J	ISTD recovery low
	tetrachloroethene	J	ISTD recovery low
	1,1,2,2-tetrachloroethane	J	ISTD recovery low
	chlorobenzene	J	ISTD recovery low
	ethylbenzene	J	ISTD recovery low
	styrene, xylenes	J	ISTD recovery low
Extractables			
67924,67932	all positives	J	<quantitation limit
67926	phenol	J	<quantitation limit
67929	4-methylphenol	J	<quantitation limit
67929,67937,67938 67940	naphthalene	J	<quantitation limit
67925,67929,67931 67937,67938,67940	2-methylnaphthalene	J	<quantitation limit
67937,67938,67940	acenaphthylene	J	<quantitation limit
67931,67938,67940	acenaphthene	J	<quantitation limit
67931,67937,67938 67940	dibenzofuran	J	<quantitation limit
67925,67940	fluorene	J	<quantitation limit
67925,67927,67929 67937-67939	phenanthrene	J	<quantitation limit
67937-67939	anthracene	J	<quantitation limit
67937	carbazole	J	<quantitation limit
67927	fluoranthene	J	<quantitation limit
67927	pyrene	J	<quantitation limit
67927	chrysene	J	<quantitation limit
67927	benzo(b/k)fluoranthene	J	<quantitation limit
67925,67927,67938 67939	indeno(1,2,3-cd)pyrene	J	<quantitation limit
67937-67939	dibenz(a,h)anthracene	J	<quantitation limit
67925,67927,67938 67939	benzo(g,h,i)perylene	J	<quantitation limit
Pesticides			
67931,67940	all pesticides	J	excessive holding time
67937	methoxychlor	R	conflicting information from all the analyses of this sample cannot be resolved

INORGANIC DATA QUALIFIERS REPORT

Case Number: 18102
Project Number: 92-0499
Site: Producers Wood Pres., Louisville, KY

Element	Flag	Samples Affected	Reason
A. Water			
As, Cd, Cr, Co, Cu, Mn, Ag, V, Zn	U	All positives > IDL, but < CRDL	Baseline instability
Al, Ca, Fe, Mg, Na	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Ag	J	All with Al or Fe concentrations in solution > 105,000 ug/L	Suspected over correction as noted in the contractor ICS
Al	J	All	Matrix spike recovery = 129.9% Matrix duplicate RPD = 158.8%
Se	J	All	Matrix spike recovery = 49.2%
Ag	J	All	Matrix spike recovery = 69.9%
Tl	J	All	Matrix spike recovery = 53.3%
Zn	J	All	Matrix duplicate RPD = 106%
Mn	J	All positives	Blind spike recovery = 177%
Hg	J	MDDA39	Technical holding time exceeded
CN	J	MDDA39 & MDDA45	Technical holding time exceeded
B. Soil			
As, Cd, Cr, Co, Cu, Fe, Ag, V	U	All positives > IDL, but < CRDL	Baseline instability
Ca, Mg, Na, Zn	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Mn	J	All	Matrix spike recovery = 57.5% Blind spike recovery = 177%
Se	J R	All positives All negatives	Matrix spike recovery = 0%
Tl	J R	All positives All negatives	Matrix spike recovery = 0.6%
Zn	J	All	Matrix spike recovery = 50.5% Serial dilution percent difference = 17%
Cd	J	MDDA38	% RSD > 20% for ICP multiple exposures
Ag	J	MDDA47	% RSD > 20% for ICP multiple exposures

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67941 SAMPLE TYPE: GROUNDWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: TW-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1715 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA53

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
10U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
1J	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
10U	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT — 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67941 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: TW-01 COLLECTION START: 05/07/92 1715 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA53

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
10U	PHENOL	25U	3-NITROANILINE
10U	BIS(2-CHLOROETHYL) ETHER	10U	ACENAPHTHENE
10U	2-CHLOROPHENOL	25U	2,4-DINITROPHENOL
10U	1,3-DICHLOROBENZENE	25U	4-NITROPHENOL
10U	1,4-DICHLOROBENZENE	10U	DIBENZOFURAN
10U	1,2-DICHLOROBENZENE	10U	2,4-DINITROTOLUENE
10U	2-METHYLPHENOL	10U	DIETHYL PHTHALATE
10U	2,2'-CHLOROISOPROPYLETHER	10U	4-CHLOROPHENYL PHENYL ETHER
10U	(3-AND/OR 4-)METHYLPHENOL	10U	FLUORENE
10U	N-NITROSODI-N-PROPYLAMINE	25U	4-NITROANILINE
10U	HEXACHLOROETHANE	25U	2-METHYL-4,6-DINITROPHENOL
10U	NITROBENZENE	10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	ISOPHORONE	10U	4-BROMOPHENYL PHENYL ETHER
10U	2-NITROPHENOL	10U	HEXACHLOROBENZENE (HCB)
10U	2,4-DIMETHYLPHENOL	25U	PENTACHLOROPHENOL
10U	BIS(2-CHLOROETHOXY) METHANE	10U	PHENANTHRENE
10U	2,4-DICHLOROPHENOL	10U	ANTHRACENE
10U	1,2,4-TRICHLOROBENZENE	10U	CARBAZOLE
10U	NAPHTHALENE	10U	DI-N-BUTYLPHTHALATE
10U	4-CHLOROANILINE	10U	FLUORANTHENE
10U	HEXACHLOROBUTADIENE	10U	PYRENE
10U	4-CHLORO-3-METHYLPHENOL	10U	BENZYL BUTYL PHTHALATE
10U	2-METHYLNAPHTHALENE	10U	3,3'-DICHLOROBENZIDINE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)	10U	BENZO(A)ANTHRACENE
10U	2,4,6-TRICHLOROPHENOL	10U	CHRYSENE
25U	2,4,5-TRICHLOROPHENOL	10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	2-CHLORONAPHTHALENE	10U	DI-N-OCTYLPHTHALATE
25U	2-NITROANILINE	10U	BENZO(B AND/OR K)FLUORANTHENE
10U	DIMETHYL PHTHALATE	10U	BENZO-A-PYRENE
10U	ACENAPHTHYLENE	10U	INDENO (1,2,3-CD) PYRENE
10U	2,6-DINITROTOLUENE	10U	DIBENZO(A,H)ANTHRACENE
		10U	BENZO(GHI)PERYLENE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67941 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: TW-01 COLLECTION START: 05/07/92 1715 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: D. NUMBER: DA53

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

FOOTNOTES
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*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67943 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: TB-01 COLLECTION START: 05/05/92 0900 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA39

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
10U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
10U	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
10U	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67943 SAMPLE TYPE: GROUNDWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: TB-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/05/92 0900 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA39

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
10U	PHENOL	25U	3-NITROANILINE
10U	BIS(2-CHLOROETHYL) ETHER	10U	ACENAPHTHENE
10U	2-CHLOROPHENOL	25U	2,4-DINITROPHENOL
10U	1,3-DICHLOROBENZENE	25U	4-NITROPHENOL
10U	1,4-DICHLOROBENZENE	10U	DIBENZOFURAN
10U	1,2-DICHLOROBENZENE	10U	2,4-DINITROTOLUENE
10U	2-METHYLPHENOL	10U	DIETHYL PHTHALATE
10U	2,2'-CHLOROISOPROPYLETHER	10U	4-CHLOROPHENYL PHENYL ETHER
10U	(3-AND/OR 4-)METHYLPHENOL	10U	FLUORENE
10U	N-NITROSODI-N-PROPYLAMINE	25U	4-NITROANILINE
10U	HEXACHLOROETHANE	25U	2-METHYL-4,6-DINITROPHENOL
10U	NITROBENZENE	10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	ISOPHORONE	10U	4-BROMOPHENYL PHENYL ETHER
10U	2-NITROPHENOL	10U	HEXACHLOROBENZENE (HCB)
10U	2,4-DIMETHYLPHENOL	25U	PENTACHLOROPHENOL
10U	BIS(2-CHLOROETHOXY) METHANE	10U	PHENANTHRENE
10U	2,4-DICHLOROPHENOL	10U	ANTHRACENE
10U	1,2,4-TRICHLOROBENZENE	10U	CARBAZOLE
10U	NAPHTHALENE	10U	DI-N-BUTYLPHTHALATE
10U	4-CHLOROANILINE	10U	FLUORANTHENE
10U	HEXACHLOROBUTADIENE	10U	PYRENE
10U	4-CHLORO-3-METHYLPHENOL	10U	BENZYL BUTYL PHTHALATE
10U	2-METHYLNAPHTHALENE	10U	3,3'-DICHLOROBENZIDINE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)	10U	BENZO(A)ANTHRACENE
10U	2,4,6-TRICHLOROPHENOL	10U	CHRYSENE
25U	2,4,5-TRICHLOROPHENOL	10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	2-CHLORONAPHTHALENE	10U	DI-N-OCTYLPHTHALATE
25U	2-NITROANILINE	10U	BENZO(B AND/OR K)FLUORANTHENE
10U	DIMETHYL PHTHALATE	10U	BENZO-A-PYRENE
10U	ACENAPHTHYLENE	10U	INDENO (1,2,3-CD) PYRENE
10U	2,6-DINITROTOLUENE	10U	DIBENZO(A,H)ANTHRACENE
		10U	BENZO(GHI)PERYLENE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 ' SAMPLE NO. 67943 SAMPLE TYPE: GROUNDWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: TB-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/05/92 0900 STOP: 00/00/00
D. NUMBER: DA39

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

FOOTNOTES
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*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67924 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 0945 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA38

UG/KG	ANALYTICAL RESULTS
320U	PHENOL
320U	BIS(2-CHLOROETHYL) ETHER
320U	2-CHLOROPHENOL
320U	1,3-DICHLOROBENZENE
320U	1,4-DICHLOROBENZENE
320U	1,2-DICHLOROBENZENE
320U	2-METHYLPHENOL
320U	2,2'-CHLOROISOPROPYLETHER
320U	(3-AND/OR 4-)METHYLPHENOL
320U	N-NITROSODI-N-PROPYLAMINE
320U	HEXACHLOROETHANE
320U	NITROBENZENE
320U	ISOPHORONE
320U	2-NITROPHENOL
320U	2,4-DIMETHYLPHENOL
320U	BIS(2-CHLOROETHOXY) METHANE
320U	2,4-DICHLOROPHENOL
320U	1,2,4-TRICHLOROBENZENE
41J	NAPHTHALENE
320U	4-CHLOROANILINE
320U	HEXACHLOROBUTADIENE
320U	4-CHLORO-3-METHYLPHENOL
63J	2-METHYLNAPHTHALENE
320U	HEXACHLOROCYCLOPENTADIENE (HCCP)
320U	2,4,6-TRICHLOROPHENOL
760U	2,4,5-TRICHLOROPHENOL
320U	2-CHLORONAPHTHALENE
760U	2-NITROANILINE
320U	DIMETHYL PHTHALATE
320U	ACENAPHTHYLENE
320U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
760U	3-NITROANILINE
320U	ACENAPHTHENE
760U	2,4-DINITROPHENOL
760U	4-NITROPHENOL
320U	DIBENZOFURAN
320U	2,4-DINITROTOLUENE
320U	DIETHYL PHTHALATE
320U	4-CHLOROPHENYL PHENYL ETHER
320U	FLUORENE
760U	4-NITROANILINE
760U	2-METHYL-4,6-DINITROPHENOL
320U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
320U	4-BROMOPHENYL PHENYL ETHER
320U	HEXACHLOROBENZENE (HCB)
760U	PENTACHLOROPHENOL
210J	PHENANTHRENE
320U	ANTHRACENE
320U	CARBAZOLE
320U	DI-N-BUTYLPHTHALATE
290J	FLUORANTHENE
250J	PYRENE
320U	BENZYL BUTYL PHTHALATE
320U	3,3'-DICHLOROBENZIDINE
130J	BENZO(A)ANTHRACENE
160J	CHRYSENE
1100	BIS(2-ETHYLHEXYL) PHTHALATE
320U	DI-N-OCTYLPHTHALATE
360J	BENZO(B AND/OR K)FLUORANTHENE
320U	BENZO-A-PYRENE
320U	INDENO (1,2,3-CD) PYRENE
320U	DIBENZO(A,H)ANTHRACENE
320U	BENZO(GHI)PERYLENE
10	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

** PROJECT NO. 92-0499 SAMPLE NO. 67931 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-02 COLLECTION START: 05/07/92 1650 STOP: 00/00/00 **
**
** CASE NO.: 18102 SAS NO.: D. NO.: DA51 **

UG/KG	ANALYTICAL RESULTS
24000U	PHENOL
24000U	BIS(2-CHLOROETHYL) ETHER
24000U	2-CHLOROPHENOL
24000U	1,3-DICHLOROBENZENE
24000U	1,4-DICHLOROBENZENE
24000U	1,2-DICHLOROBENZENE
24000U	2-METHYLPHENOL
24000U	2,2'-CHLOROISOPROPYLETHER
24000U	(3-AND/OR 4-)METHYLPHENOL
24000U	N-NITROSODI-N-PROPYLAMINE
24000U	HEXACHLOROETHANE
24000U	NITROBENZENE
24000U	ISOPHORONE
24000U	2-NITROPHENOL
24000U	2,4-DIMETHYLPHENOL
24000U	BIS(2-CHLOROETHOXY) METHANE
24000U	2,4-DICHLOROPHENOL
24000U	1,2,4-TRICHLOROBENZENE
33000	NAPHTHALENE
24000U	4-CHLOROANILINE
24000U	HEXACHLOROBUTADIENE
24000U	4-CHLORO-3-METHYLPHENOL
16000J	2-METHYLNAPHTHALENE
24000U	HEXACHLOROCYCLOPENTADIENE (HCCP)
24000U	2,4,6-TRICHLOROPHENOL
60000U	2,4,5-TRICHLOROPHENOL
24000U	2-CHLORONAPHTHALENE
60000U	2-NITROANILINE
24000U	DIMETHYL PHTHALATE
27000	ACENAPHTHYLENE
24000U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
60000U	3-NITROANILINE
2800J	ACENAPHTHENE
60000U	2,4-DINITROPHENOL
60000U	4-NITROPHENOL
24000J	DIBENZOFURAN
24000U	2,4-DINITROTOLUENE
24000U	DIETHYL PHTHALATE
24000U	4-CHLOROPHENYL PHENYL ETHER
40000	FLUORENE
60000U	4-NITROANILINE
60000U	2-METHYL-4,6-DINITROPHENOL
24000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
24000U	4-BROMOPHENYL PHENYL ETHER
24000U	HEXACHLOROBENZENE (HCB)
60000U	PENTACHLOROPHENOL
78000	PHENANTHRENE
550000	ANTHRACENE
190000	CARBAZOLE
24000U	DI-N-BUTYLPHTHALATE
96000	FLUORANTHENE
72000	PYRENE
24000U	BENZYL BUTYL PHTHALATE
24000U	3,3'-DICHLOROBENZIDINE
120000U	BENZO(A)ANTHRACENE
160000	CHRYSENE
24000U	BIS(2-ETHYLHEXYL) PHTHALATE
24000U	DI-N-OCTYLPHTHALATE
470000	BENZO(B AND/OR K)FLUORANTHENE
160000	BENZO-A-PYRENE
130000	INDENO(1,2,3-CD)-PYRENE
46000	DIBENZO(A,H)ANTHRACENE
120000	BENZO(GHI)PERYLENE
17	PERCENT MOISTURE

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1630 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA52

UG/KG	ANALYTICAL RESULTS
300U	PHENOL
300U	BIS(2-CHLOROETHYL) ETHER
300U	2-CHLOROPHENOL
300U	1,3-DICHLOROBENZENE
300U	1,4-DICHLOROBENZENE
300U	1,2-DICHLOROBENZENE
300U	2-METHYLPHENOL
300U	2,2'-CHLOROISOPROPYLETHER
300U	(3-AND/OR 4-)METHYLPHENOL
300U	N-NITROSODI-N-PROPYLAMINE
300U	HEXACHLOROETHANE
300U	NITROBENZENE
300U	ISOPHORONE
300U	2-NITROPHENOL
300U	2,4-DIMETHYLPHENOL
300U	BIS(2-CHLOROETHOXY) METHANE
300U	2,4-DICHLOROPHENOL
300U	1,2,4-TRICHLOROBENZENE
300U	NAPHTHALENE
300U	4-CHLOROANILINE
300U	HEXACHLOROBUTADIENE
300U	4-CHLORO-3-METHYLPHENOL
300U	2-METHYLNAPHTHALENE
300U	HEXACHLOROCYCLOPENTADIENE (HCCP)
300U	2,4,6-TRICHLOROPHENOL
720U	2,4,5-TRICHLOROPHENOL
300U	2-CHLORONAPHTHALENE
720U	2-NITROANILINE
300U	DIMETHYL PHTHALATE
300U	ACENAPHTHYLENE
300U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
720U	3-NITROANILINE
300U	ACENAPHTHENE
720U	2,4-DINITROPHENOL
720U	4-NITROPHENOL
300U	DIBENZOFURAN
300U	2,4-DINITROTOLUENE
300U	DIETHYL PHTHALATE
300U	4-CHLOROPHENYL PHENYL ETHER
300U	FLUORENE
720U	4-NITROANILINE
720U	2-METHYL-4,6-DINITROPHENOL
300U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
300U	4-BROMOPHENYL PHENYL ETHER
300U	HEXACHLOROBENZENE (HCB)
720U	PENTACHLOROPHENOL
51J	PHENANTHRENE
300U	ANTHRACENE
300U	CARBAZOLE
300U	DI-N-BUTYLPHTHALATE
64J	FLUORANTHENE
64J	PYRENE
300U	BENZYL BUTYL PHTHALATE
300U	3,3'-DICHLOROBENZIDINE
41J	BENZO(A)ANTHRACENE
62J	CHRYSENE
300U	BIS(2-ETHYLHEXYL) PHTHALATE
300U	DI-N-OCTYLPHTHALATE
110J	BENZO(B AND/OR K)FLUORANTHENE
48J	BENZO-A-PYRENE
300U	INDENO (1,2,3-CD) PYRENE
300U	DIBENZO(A,H)ANTHRACENE
300U	BENZO(GHI)PERYLENE
13	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-04

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1615 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA47

UG/KG	ANALYTICAL RESULTS
11000U	PHENOL
11000U	BIS(2-CHLOROETHYL) ETHER
11000U	2-CHLOROPHENOL
11000U	1,3-DICHLOROBENZENE
11000U	1,4-DICHLOROBENZENE
11000U	1,2-DICHLOROBENZENE
11000U	2-METHYLPHENOL
11000U	2,2'-CHLOROISOPROPYLETHER
11000U	(3-AND/OR 4-)METHYLPHENOL
11000U	N-NITROSODI-N-PROPYLAMINE
11000U	HEXACHLOROETHANE
11000U	NITROBENZENE
11000U	ISOPHORONE
11000U	2-NITROPHENOL
11000U	2,4-DIMETHYLPHENOL
11000U	BIS(2-CHLOROETHOXY) METHANE
11000U	2,4-DICHLOROPHENOL
11000U	1,2,4-TRICHLOROBENZENE
1900J	NAPHTHALENE
11000U	4-CHLOROANILINE
11000U	HEXACHLOROBUTADIENE
11000U	4-CHLORO-3-METHYLPHENOL
1100J	2-METHYLNAPHTHALENE
11000U	HEXACHLOROCYCLOPENTADIENE (HCCP)
11000U	2,4,6-TRICHLOROPHENOL
28000U	2,4,5-TRICHLOROPHENOL
11000U	2-CHLORONAPHTHALENE
28000U	2-NITROANILINE
11000U	DIMETHYL PHTHALATE
2000J	ACENAPHTHYLENE
11000U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
28000U	3-NITROANILINE
11000U	ACENAPHTHENE
28000U	2,4-DINITROPHENOL
28000U	4-NITROPHENOL
1500J	DIBENZOFURAN
11000U	2,4-DINITROTOLUENE
11000U	DIETHYL PHTHALATE
11000U	4-CHLOROPHENYL PHENYL ETHER
11000U	FLUORENE
28000U	4-NITROANILINE
28000U	2-METHYL-4,6-DINITROPHENOL
11000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
11000U	4-BROMOPHENYL PHENYL ETHER
11000U	HEXACHLOROBENZENE (HCB)
28000U	PENTACHLOROPHENOL
6300J	PHENANTHRENE
3300J	ANTHRACENE
1400J	CARBAZOLE
11000U	DI-N-BUTYLPHTHALATE
18000	FLUORANTHENE
18000	PYRENE
11000U	BENZYL BUTYL PHTHALATE
11000U	3,3'-DICHLOROBENZIDINE
14000	BENZO(A)ANTHRACENE
18000	CHRYSENE
11000U	BIS(2-ETHYLHEXYL) PHTHALATE
11000U	DI-N-OCTYLPHTHALATE
41000	BENZO(B AND/OR K)FLUORANTHENE
15000	BENZO-A-PYRENE
15000	INDENO (1,2,3-CD) PYRENE
3900J	DIBENZO(A,H)ANTHRACENE
14000	BENZO(GHI)PERYLENE
12	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SS-05 COLLECTION START: 05/07/92 1600 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA48

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
12000U	PHENOL	30000U	3-NITROANILINE
12000U	BIS(2-CHLOROETHYL) ETHER	1200J	ACENAPHTHENE
12000U	2-CHLOROPHENOL	30000U	2,4-DINITROPHENOL
12000U	1,3-DICHLOROBENZENE	30000U	4-NITROPHENOL
12000U	1,4-DICHLOROBENZENE	2000J	DIBENZOFURAN
12000U	1,2-DICHLOROBENZENE	12000U	2,4-DINITROTOLUENE
12000U	2-METHYLPHENOL	12000U	DIETHYL PHTHALATE
12000U	2,2'-CHLOROISOPROPYLETHER	12000U	4-CHLOROPHENYL PHENYL ETHER
12000U	(3-AND/OR 4-)METHYLPHENOL	12000U	FLUORENE
12000U	N-NITROSODI-N-PROPYLAMINE	30000U	4-NITROANILINE
12000U	HEXACHLOROETHANE	30000U	2-METHYL-4,6-DINITROPHENOL
12000U	NITROBENZENE	12000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
12000U	ISOPHORONE	12000U	4-BROMOPHENYL PHENYL ETHER
12000U	2-NITROPHENOL	12000U	HEXACHLOROBENZENE (HCB)
12000U	2,4-DIMETHYLPHENOL	30000U	PENTACHLOROPHENOL
12000U	BIS(2-CHLOROETHOXY) METHANE	7700J	PHENANTHRENE
12000U	2,4-DICHLOROPHENOL	3400J	ANTHRACENE
12000U	1,2,4-TRICHLOROBENZENE	12000U	CARBAZOLE
4200J	NAPHTHALENE	12000U	DI-N-BUTYLPHTHALATE
12000U	4-CHLOROANILINE	28000	FLUORANTHENE
12000U	HEXACHLOROBUTADIENE	20000	PYRENE
12000U	4-CHLORO-3-METHYLPHENOL	12000U	BENZYL BUTYL PHTHALATE
1500J	2-METHYLNAPHTHALENE	12000U	3,3'-DICHLOROBENZIDINE
12000U	HEXACHLOROCYCLOPENTADIENE (HCCP)	14000U	BENZO(A)ANTHRACENE
12000U	2,4,6-TRICHLOROPHENOL	14000U	CHRYSENE
30000U	2,4,5-TRICHLOROPHENOL	12000U	BIS(2-ETHYLHEXYL) PHTHALATE
12000U	2-CHLORONAPHTHALENE	12000U	DI-N-OCTYLPHTHALATE
30000U	2-NITROANILINE	48000	BENZO(B AND/OR K)FLUORANTHENE
12000U	DIMETHYL PHTHALATE	16000	BENZO-A-PYRENE
1200J	ACENAPHTHYLENE	8700J	INDENO (1,2,3-CD) PYRENE
12000U	2,6-DINITROTOLUENE	3300J	DIBENZO(A,H)ANTHRACENE
		6900J	BENZO(GHI)PERYLENE
		16]	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA49

UG/KG	ANALYTICAL RESULTS
340U	PHENOL
340U	BIS(2-CHLOROETHYL) ETHER
340U	2-CHLOROPHENOL
340U	1,3-DICHLOROBENZENE
340U	1,4-DICHLOROBENZENE
340U	1,2-DICHLOROBENZENE
340U	2-METHYLPHENOL
340U	2,2'-CHLOROISOPROPYLETHER
340U	(3-AND/OR 4-)METHYLPHENOL
340U	N-NITROSODI-N-PROPYLAMINE
340U	HEXACHLOROETHANE
340U	NITROBENZENE
340U	ISOPHORONE
340U	2-NITROPHENOL
340U	2,4-DIMETHYLPHENOL
340U	BIS(2-CHLOROETHOXY) METHANE
340U	2,4-DICHLOROPHENOL
340U	1,2,4-TRICHLOROBENZENE
340U	NAPHTHALENE
340U	4-CHLOROANILINE
340U	HEXACHLOROBUTADIENE
340U	4-CHLORO-3-METHYLPHENOL
340U	2-METHYLNAPHTHALENE
340U	HEXACHLOROCYCLOPENTADIENE (HCCP)
340U	2,4,6-TRICHLOROPHENOL
820U	2,4,5-TRICHLOROPHENOL
340U	2-CHLORONAPHTHALENE
820U	2-NITROANILINE
340U	DIMETHYL PHTHALATE
340U	ACENAPHTHYLENE
340U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
820U	3-NITROANILINE
340U	ACENAPHTHENE
820U	2,4-DINITROPHENOL
820U	4-NITROPHENOL
340U	DIBENZOFURAN
340U	2,4-DINITROTOLUENE
340U	DIETHYL PHTHALATE
340U	4-CHLOROPHENYL PHENYL ETHER
340U	FLUORENE
820U	4-NITROANILINE
820U	2-METHYL-4,6-DINITROPHENOL
340U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
340U	4-BROMOPHENYL PHENYL ETHER
340U	HEXACHLOROBENZENE (HCB)
820U	PENTACHLOROPHENOL
170J	PHENANTHRENE
71J	ANTHRACENE
340U	CARBAZOLE
340U	DI-N-BUTYLPHTHALATE
890	FLUORANTHENE
800	PYRENE
340U	BENZYL BUTYL PHTHALATE
340U	3,3'-DICHLOROBENZIDINE
570	BENZO(A)ANTHRACENE
720	CHRYSENE
340U	BIS(2-ETHYLHEXYL) PHTHALATE
340U	DI-N-OCTYLPHTHALATE
1500	BENZO(B AND/OR K)FLUORANTHENE
490	BENZO-A-PYRENE
170J	INDENO (1,2,3-CD) PYRENE
80J	DIBENZO(A,H)ANTHRACENE
130J	BENZO(GHI)PERYLENE
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

** PROJECT NO. 92-0499 SAMPLE NO. 67940 SAMPLE TYPE: SOIL
** SOURCE: PRODUCERS WOOD PRES
** STATION ID: SS-07
**
** CASE NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1515 STOP: 00/00/00

D. NO.: DA50

UG/KG	ANALYTICAL RESULTS
14000U	PHENOL
14000U	BIS(2-CHLOROETHYL) ETHER
14000U	2-CHLOROPHENOL
14000U	1,3-DICHLOROBENZENE
14000U	1,4-DICHLOROBENZENE
14000U	1,2-DICHLOROBENZENE
14000U	2-METHYLPHENOL
14000U	2,2'-CHLOROISOPROPYLETHER
14000U	(3-AND/OR 4-)METHYLPHENOL
14000U	N-NITROSODI-N-PROPYLAMINE
14000U	HEXACHLOROETHANE
14000U	NITROBENZENE
14000U	ISOPHORONE
14000U	2-NITROPHENOL
14000U	2,4-DIMETHYLPHENOL
14000U	BIS(2-CHLOROETHOXY) METHANE
14000U	2,4-DICHLOROPHENOL
14000U	1,2,4-TRICHLOROBENZENE
3200J	NAPHTHALENE
14000U	4-CHLOROANILINE
14000U	HEXACHLOROBUTADIENE
14000U	4-CHLORO-3-METHYLPHENOL
2000J	2-METHYLNAPHTHALENE
14000U	HEXACHLOROCYCLOPENTADIENE (HCCP)
14000U	2,4,6-TRICHLOROPHENOL
34000U	2,4,5-TRICHLOROPHENOL
14000U	2-CHLORONAPHTHALENE
34000U	2-NITROANILINE
14000U	DIMETHYL PHTHALATE
11000J	ACENAPHTHYLENE
14000U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
34000U	3-NITROANILINE
3000J	ACENAPHTHENE
34000U	2,4-DINITROPHENOL
34000U	4-NITROPHENOL
6100J	DIBENZOFURAN
14000U	2,4-DINITROTOLUENE
14000U	DIETHYL PHTHALATE
14000U	4-CHLOROPHENYL PHENYL ETHER
5800J	FLUORENE
34000U	4-NITROANILINE
34000U	2-METHYL-4,6-DINITROPHENOL
14000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
14000U	4-BROMOPHENYL PHENYL ETHER
14000U	HEXACHLOROBENZENE (HCB)
34000U	PENTACHLOROPHENOL
130000	PHENANTHRENE
21000	ANTHRACENE
24000	CARBAZOLE
14000U	DI-N-BUTYLPHTHALATE
150000	FLUORANTHENE
73000	PYRENE
14000U	BENZYL BUTYL PHTHALATE
14000U	3,3'-DICHLOROBENZIDINE
64000	BENZO(A)ANTHRACENE
79000	CHRYSENE
15000U	BIS(2-ETHYLHEXYL) PHTHALATE
14000U	DI-N-OCTYLPHTHALATE
150000	BENZO(B AND/OR K)FLUORANTHENE
75000	BENZO-A-PYRENE
51000	INDENO (1,2,3-CD) PYRENE
15000	DIBENZO(A,H)ANTHRACENE
40000	BENZO(GHI)PERYLENE
27	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67924 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES
CITY: LOUISVILLE ST: KY
STATION ID: SS-01
COLLECTION START: 05/07/92 0945 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.:
D. NO.: DA38 MD NO: DA38

ANALYTICAL RESULTS UG/KG

N	PETROLEUM PRODUCT
500JN	HEXADECANOIC ACID
300JN	PENTACHLOROBIPHENYL
4000J	8 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67931 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SS-02 COLLECTION START: 05/07/92 1650 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.: D. NO.: DA51 MD NO: DA51

ANALYTICAL RESULTS UG/KG

N	PETROLEUM PRODUCT
30000JN	METHYLPYRENE
20000JN	BENZANTHRACENONE
20000JN	BENZONAPHTHOTHIOPHENE
40000JN	CYCLOPENTAPYRENE
70000JN	BENZOCARBAZOLE
20000JN	METHYLCHRYSENE
200000JN	BENZOFLUORANTHENE (NOT BOOR K) (3 ISOMERS)
50000JN	DIPHENYLCYCLOPROPENONE
50000JN	METHYLBENZACEANTHRYLENE (2 ISOMERS)
20000JN	DIBENZOCHRYSENE
300000J	7 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-03
CASE.NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1630 STOP: 00/00/00
D. NO.: DA52 MD NO: DA52

ANALYTICAL RESULTS UG/KG

9000J	9 UNIDENTIFIED COMPOUNDS
200JN	HEXADECANOIC ACID

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-04 COLLECTION START: 05/07/92 1615 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA47 MD NO: DA47 **
** **
*** ***

ANALYTICAL RESULTS UG/KG.

7000J	2 UNIDENTIFIED COMPOUNDS
7000JN	BENZOFLUORANTHENE (NOT B OR K)
3000JN	DIPHENYLCYCLOPROPENONE
3000JN	BENZACEPHENANTHRYLENE
3000JN	DIHYDROBENZOPERYLENE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-05 COLLECTION START: 05/07/92 1600 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA48 MD NO: DA48 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

3000JN	CYCLOPENTAPHENANTHRENONE
3000JN	BENZOFLUORENE
3000JN	CYCLOPENTAPYRENE
2000JN	BENZOPYRENE (NOT A)
4000JN	METHYLENEFLUORENE
2000JN	BENZOCHRYSENE
10000J	3 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.
07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06
CASE.NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00
D. NO.: DA49 MD NO: DA49

ANALYTICAL RESULTS UG/KG

10000J	14 UNIDENTIFIED COMPOUNDS
400JN	BENZANTHRACENONE
300JN	BENZONAPHTHOTHIOPHENE
400JN	DIHYDROCYCLOPENTAPYRENE
1000JN	BENZOFLUORANTHENE (NOT B OR K)

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67940 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-07 COLLECTION START: 05/07/92 1515 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA50 MD NO: DA50 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

20000JN	ANTHRACENEDIONE
10000JN	BENZOFLUORENE
40000JN	BENZANTHRACENONE (2 ISOMERS)
20000JN	METHYLTRIPHENYLENE
20000JN	BENZOFLUORANTHENE (NOT B OR K)
20000JN	BENZOCHRYSENE
200000J	13 UNIDENTIFIED COMPOUNDS
N	PETROLEUM PRODUCT

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67924 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 0945 STOP: 00/00/00
D. NUMBER: DA38

UG/KG	ANALYTICAL RESULTS
1.5U	ALPHA-BHC
1.5U	BETA-BHC
2.0U	DELTA-BHC
1.5U	GAMMA-BHC (LINDANE)
1.5U	HEPTACHLOR
1.5U	ALDRIN
1.5U	HEPTACHLOR EPOXIDE
1.5U	ENDOSULFAN I (ALPHA)
3.0U	DIELDRIN
9.0U	4,4'-DDE (P,P'-DDE)
8.0U	ENDRIN
10U	ENDOSULFAN II (BETA)
3.0U	4,4'-DDD (P,P'-DDD)
3.0U	ENDOSULFAN SULFATE
13U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
20U	METHOXYCHLOR
15U	ENDRIN KETONE
3.0U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
15U	GAMMA-CHLORDANE /2
5.0U	ALPHA-CHLORDANE /2
150U	TOXAPHENE
30U	PCB-1016 (AROCLOR 1016)
61U	PCB-1221 (AROCLOR 1221)
30U	PCB-1232 (AROCLOR 1232)
30U	PCB-1242 (AROCLOR 1242)
30U	PCB-1248 (AROCLOR 1248)
30O	PCB-1254 (AROCLOR 1254)
250U	PCB-1260 (AROCLOR 1260)
10	PERCENT MOISTURE

REMARKS ***REMARKS***

FOOTNOTES
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*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67931 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-02
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1650 STOP: 00/00/00
D. NUMBER: DA51

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
12UJ	ALPHA-BHC	400UJ	METHOXYCHLOR
12UJ	BETA-BHC	220UJ	ENDRIN KETONE
40UJ	DELTA-BHC	60UJ	ENDRIN ALDEHYDE
12UJ	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
12UJ	HEPTACHLOR	12UJ	GAMMA-CHLORDANE /2
12UJ	ALDRIN	12UJ	ALPHA-CHLORDANE /2
12UJ	HEPTACHLOR EPOXIDE	1200UJ	TOXAPHENE
12UJ	ENDOSULFAN I (ALPHA)	240UJ	PCB-1016 (AROCLOR 1016)
90UJ	DIELDRIN	490UJ	PCB-1221 (AROCLOR 1221)
24UJ	4,4'-DDE (P,P'-DDE)	240UJ	PCB-1232 (AROCLOR 1232)
25UJ	ENDRIN	240UJ	PCB-1242 (AROCLOR 1242)
24UJ	ENDOSULFAN II (BETA)	240UJ	PCB-1248 (AROCLOR 1248)
24UJ	4,4'-DDD (P,P'-DDD)	240UJ	PCB-1254 (AROCLOR 1254)
24UJ	ENDOSULFAN SULFATE	1300UJ	PCB-1260 (AROCLOR 1260)
120UJ	4,4'-DDT (P,P'-DDT)	17	PERCENT MOISTURE

REMARKS
EXCESSIVE HOLDING TIME

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-03
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1630 STOP: 00/00/00
D. NUMBER: DA52

UG/KG	ANALYTICAL RESULTS
1.9U	ALPHA-BHC
1.9U	BETA-BHC
1.9U	DELTA-BHC
1.9U	GAMMA-BHC (LINDANE)
1.9U	HEPTACHLOR
1.9U	ALDRIN
1.9U	HEPTACHLOR EPOXIDE
1.9U	ENDOSULFAN I (ALPHA)
3.7U	DIELDRIN
3.7U	4,4'-DDE (P,P'-DDE)
3.7U	ENDRIN
3.7U	ENDOSULFAN II (BETA)
3.7U	4,4'-DDD (P,P'-DDD)
3.7U	ENDOSULFAN SULFATE
3.7U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
19U	METHOXYCHLOR
3.7U	ENDRIN KETONE
3.7U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
1.9U	GAMMA-CHLORDANE /2
1.9U	ALPHA-CHLORDANE /2
190U	TOXAPHENE
37U	PCB-1016 (AROCLOR 1016)
75U	PCB-1221 (AROCLOR 1221)
37U	PCB-1232 (AROCLOR 1232)
37U	PCB-1242 (AROCLOR 1242)
37U	PCB-1248 (AROCLOR 1248)
37U	PCB-1254 (AROCLOR 1254)
37U	PCB-1260 (AROCLOR 1260)
13	PERCENT MOISTURE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.
*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-04
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1615 STOP: 00/00/00
D. NUMBER: DA47

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
1.9U	ALPHA-BHC	R	METHOXYCHLOR
1.9U	BETA-BHC	120U	ENDRIN KETONE
5.0U	DELTA-BHC	3.7U	ENDRIN ALDEHYDE
1.9U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
4.0U	HEPTACHLOR	15U	GAMMA-CHLORDANE /2
1.9U	ALDRIN	1.9U	ALPHA-CHLORDANE /2
1.9U	HEPTACHLOR EPOXIDE	190U	TOXAPHENE
15U	ENDOSULFAN I (ALPHA)	37U	PCB-1016 (AROCLOR 1016)
55U	DIELDRIN	76U	PCB-1221 (AROCLOR 1221)
3.7U	4,4'-DDE (P,P'-DDE)	37U	PCB-1232 (AROCLOR 1232)
70U	ENDRIN	37U	PCB-1242 (AROCLOR 1242)
5.0U	ENDOSULFAN II (BETA)	37U	PCB-1248 (AROCLOR 1248)
11U	4,4'-DDD (P,P'-DDD)	100U	PCB-1254 (AROCLOR 1254)
3.7U	ENDOSULFAN SULFATE	1000U	PCB-1260 (AROCLOR 1260)
70U	4,4'-DDT (P,P'-DDT)	12	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-05
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1600 STOP: 00/00/00
D. NUMBER: DA48

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
1.7U	ALPHA-BHC	400U	METHOXYCHLOR
1.7U	BETA-BHC	130U	ENDRIN KETONE
10U	DELTA-BHC	3.2U	ENDRIN ALDEHYDE
1.7U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
4.0U	HEPTACHLOR	15U	GAMMA-CHLORDANE /2
1.7U	ALDRIN	10U	ALPHA-CHLORDANE /2
1.7U	HEPTACHLOR EPOXIDE	400U	TOXAPHENE
1.7U	ENDOSULFAN I (ALPHA)	32U	PCB-1016 (AROCLOR 1016)
130U	DIELDRIN	66U	PCB-1221 (AROCLOR 1221)
3.2U	4,4'-DDE (P,P'-DDE)	32U	PCB-1232 (AROCLOR 1232)
75U	ENDRIN	32U	PCB-1242 (AROCLOR 1242)
20U	ENDOSULFAN II (BETA)	32U	PCB-1248 (AROCLOR 1248)
20U	4,4'-DDD (P,P'-DDD)	100U	PCB-1254 (AROCLOR 1254)
3.2U	ENDOSULFAN SULFATE	1500U	PCB-1260 (AROCLOR 1260)
120U	4,4'-DDT (P,P'-DDT)	16	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00
D. NUMBER: DA49

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
1.7U	ALPHA-BHC	19	METHOXYCHLOR
1.7U	BETA-BHC	8.5	ENDRIN KETONE
2.0U	DELTA-BHC	3.2U	ENDRIN ALDEHYDE
1.7U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
1.7U	HEPTACHLOR	1.7U	GAMMA-CHLORDANE /2
1.7U	ALDRIN	1.7U	ALPHA-CHLORDANE /2
1.7U	HEPTACHLOR EPOXIDE	170U	TOXAPHENE
1.7U	ENDOSULFAN I (ALPHA)	32U	PCB-1016 (AROCLOR 1016)
4.0U	DIELDRIN	65U	PCB-1221 (AROCLOR 1221)
3.2U	4,4'-DDE (P,P'-DDE)	32U	PCB-1232 (AROCLOR 1232)
3.2U	ENDRIN	32U	PCB-1242 (AROCLOR 1242)
3.2U	ENDOSULFAN II (BETA)	32U	PCB-1248 (AROCLOR 1248)
3.2U	4,4'-DDD (P,P'-DDD)	32U	PCB-1254 (AROCLOR 1254)
3.2U	ENDOSULFAN SULFATE	100U	PCB-1260 (AROCLOR 1260)
3.2U	4,4'-DDT (P,P'-DDT)	18	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67940 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-07
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1515 STOP: 00/00/00
D. NUMBER: DA50

UG/KG	ANALYTICAL RESULTS
2.0UJ	ALPHA-BHC
2.0UJ	BETA-BHC
2.0UJ	DELTA-BHC
7.5UJ	GAMMA-BHC (LINDANE)
25UJ	HEPTACHLOR
2.0UJ	ALDRIN
2.0UJ	HEPTACHLOR EPOXIDE
2.0UJ	ENDOSULFAN I (ALPHA)
3.9UJ	DIELDRIN
200UJ	4,4'-DDE (P,P'-DDE)
50UJ	ENDRIN
200UJ	ENDOSULFAN II (BETA)
50UJ	4,4'-DDD (P,P'-DDD)
75UJ	ENDOSULFAN SULFATE
60UJ	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
600UJ	METHOXYCHLOR
500UJ	ENDRIN KETONE
200UJ	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
300UJ	GAMMA-CHLORDANE /2
200UJ	ALPHA-CHLORDANE /2
200UJ	TOXAPHENE
39UJ	PCB-1016 (AROCLOR 1016)
79UJ	PCB-1221 (AROCLOR 1221)
39UJ	PCB-1232 (AROCLOR 1232)
39UJ	PCB-1242 (AROCLOR 1242)
39UJ	PCB-1248 (AROCLOR 1248)
2900UJ	PCB-1254 (AROCLOR 1254)
3200UJ	PCB-1260 (AROCLOR 1260)
27	PERCENT MOISTURE

REMARKS
EXCESSIVE HOLDING TIME

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

** PROJECT NO. 92-0499 SAMPLE NO. 67924 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-01 COLLECTION START: 05/07/92 0945 STOP: 00/00/00 **
**
** CASE NO.: 18102 SAS NO.: D. NO.: DA38 **

UG/KG	ANALYTICAL RESULTS
11U	CHLOROMETHANE
11U	BROMOMETHANE
11U	VINYL CHLORIDE
11U	CHLOROETHANE
11U	METHYLENE CHLORIDE
11U	ACETONE
11U	CARBON DISULFIDE
11U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
11U	1,1-DICHLOROETHANE
11U	1,2-DICHLOROETHENE (TOTAL)
11U	CHLOROFORM
11U	1,2-DICHLOROETHANE
11U	METHYL ETHYL KETONE
11U	1,1,1-TRICHLOROETHANE
11U	CARBON TETRACHLORIDE
11U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
11U	1,2-DICHLOROPROPANE
11U	CIS-1,3-DICHLOROPROPENE
11U	TRICHLOROETHENE(TRICHLOROETHYLENE)
11U	DIBROMOCHLOROMETHANE
11U	1,1,2-TRICHLOROETHANE
11U	BENZENE
11U	TRANS-1,3-DICHLOROPROPENE
11U	BROMOFORM
11U	METHYL ISOBUTYL KETONE
11U	METHYL BUTYL KETONE
11U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
11U	1,1,2,2-TETRACHLOROETHANE
11U	TOLUENE
11U	CHLOROBENZENE
11U	ETHYL BENZENE
11U	STYRENE
11U	TOTAL XYLENES
10	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1630 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA52

UG/KG	ANALYTICAL RESULTS
12U	CHLOROMETHANE
12U	BROMOMETHANE
12U	VINYL CHLORIDE
12U	CHLOROETHANE
12U	METHYLENE CHLORIDE
12U	ACETONE
12U	CARBON DISULFIDE
12U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
12U	1,1-DICHLOROETHANE
12U	1,2-DICHLOROETHENE (TOTAL)
12U	CHLOROFORM
12U	1,2-DICHLOROETHANE
12U	METHYL ETHYL KETONE
12U	1,1,1-TRICHLOROETHANE
12U	CARBON TETRACHLORIDE
12U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
12U	1,2-DICHLOROPROPANE
12U	CIS-1,3-DICHLOROPROPENE
12U	TRICHLOROETHENE(TRICHLOROETHYLENE)
12U	DIBROMOCHLOROMETHANE
12U	1,1,2-TRICHLOROETHANE
12U	BENZENE
12U	TRANS-1,3-DICHLOROPROPENE
12U	BROMOFORM
12U	METHYL ISOBUTYL KETONE
12U	METHYL BUTYL KETONE
12U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
12U	1,1,2,2-TETRACHLOROETHANE
12U	TOLUENE
12U	CHLOROBENZENE
12U	ETHYL BENZENE
12U	STYRENE
12U	TOTAL XYLENES
15	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-04

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1615 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA47

UG/KG	ANALYTICAL RESULTS
12U	CHLOROMETHANE
12U	BROMOMETHANE
12U	VINYL CHLORIDE
12U	CHLOROETHANE
12U	METHYLENE CHLORIDE
12U	ACETONE
12U	CARBON DISULFIDE
12U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
12U	1,1-DICHLOROETHANE
12U	1,2-DICHLOROETHENE (TOTAL)
12U	CHLOROFORM
12U	1,2-DICHLORCETHANE
12U	METHYL ETHYL KETONE
12U	1,1,1-TRICHLOROETHANE
12U	CARBON TETRACHLORIDE
12U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
12U	1,2-DICHLOROPROPANE
12U	CIS-1,3-DICHLOROPROPENE
12U	TRICHLOROETHENE(TRICHLOROETHYLENE)
12U	DIBROMOCHLOROMETHANE
12U	1,1,2-TRICHLOROETHANE
12U	BENZENE
12U	TRANS-1,3-DICHLOROPROPENE
12U	BROMOFORM
12UJ	METHYL ISOBUTYL KETONE
12UJ	METHYL BUTYL KETONE
12UJ	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
12UJ	1,1,2,2-TETRACHLOROETHANE
12UJ	TOLUENE
12UJ	CHLOROBENZENE
12UJ	ETHYL BENZENE
12UJ	STYRENE
12UJ	TOTAL XYLENES
15	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-05

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1600 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA48

UG/KG	ANALYTICAL RESULTS
11U	CHLOROMETHANE
11U	BROMOMETHANE
11U	VINYL CHLORIDE
11U	CHLOROETHANE
20U	METHYLENE CHLORIDE
11U	ACETONE
11U	CARBON DISULFIDE
11U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
11U	1,1-DICHLOROETHANE
11U	1,2-DICHLOROETHENE (TOTAL)
11U	CHLOROFORM
11U	1,2-DICHLOROETHANE
11U	METHYL ETHYL KETONE
11U	1,1,1-TRICHLOROETHANE
11U	CARBON TETRACHLORIDE
11U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
11U	1,2-DICHLOROPROPANE
11U	CIS-1,3-DICHLOROPROPENE
11U	TRICHLOROETHENE(TRICHLOROETHYLENE)
11U	DIBROMOCHLOROMETHANE
11U	1,1,2-TRICHLOROETHANE
11U	BENZENE
11U	TRANS-1,3-DICHLOROPROPENE
11U	BROMOFORM
11U	METHYL ISOBUTYL KETONE
11U	METHYL BUTYL KETONE
11U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
11U	1,1,2,2-TETRACHLOROETHANE
11U	TOLUENE
11U	CHLOROBENZENE
11U	ETHYL BENZENE
11U	STYRENE
11U	TOTAL XYLENES
12	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA49

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13U	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
13U	METHYLENE CHLORIDE
13U	ACETONE
13U	CARBON DISULFIDE
13U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
13U	1,1-DICHLOROETHANE
13U	1,2-DICHLOROETHENE (TOTAL)
13U	CHLOROFORM
13U	1,2-DICHLOROETHANE
13U	METHYL ETHYL KETONE
13U	1,1,1-TRICHLOROETHANE
13U	CARBON TETRACHLORIDE
13U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
13U	1,2-DICHLOROPROPANE
13U	CIS-1,3-DICHLOROPROPENE
13U	TRICHLOROETHENE(TRICHLOROETHYLENE)
13U	DIBROMOCHLOROMETHANE
13U	1,1,2-TRICHLOROETHANE
13U	BENZENE
13U	TRANS-1,3-DICHLOROPROPENE
13U	BROMOFORM
13U	METHYL ISOBUTYL KETONE
13U	METHYL BUTYL KETONE
13U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
13U	1,1,2,2-TETRACHLOROETHANE
13U	TOLUENE
13U	CHLOROBENZENE
13U	ETHYL BENZENE
13U	STYRENE
13U	TOTAL XYLENES
21	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

** PROJECT NO. 92-0499 SAMPLE NO. 67940 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-07 COLLECTION START: 05/07/92 1515 STOP: 00/00/00 **
**
** CASE NO.: 18102 SAS NO.: D. NO.: DA50 **

UG/KG	ANALYTICAL RESULTS
37U	CHLOROMETHANE
37U	BROMOMETHANE
37U	VINYL CHLORIDE
37U	CHLOROETHANE
37U	METHYLENE CHLORIDE
37U	ACETONE
37U	CARBON DISULFIDE
37U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
37U	1,1-DICHLOROETHANE
37U	1,2-DICHLOROETHENE (TOTAL)
37U	CHLOROFORM
37U	1,2-DICHLOROETHANE
37U	METHYL ETHYL KETONE
37U	1,1,1-TRICHLOROETHANE
37U	CARBON TETRACHLORIDE
37U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
37U	1,2-DICHLOROPROPANE
37U	CIS-1,3-DICHLOROPROPENE
37U	TRICHLOROETHENE(TRICHLOROETHYLENE)
37U	DIBROMOCHLOROMETHANE
37U	1,1,2-TRICHLOROETHANE
37U	BENZENE
37U	TRANS-1,3-DICHLOROPROPENE
37U	BROMOFORM
37U	METHYL ISOBUTYL KETONE
37U	METHYL BUTYL KETONE
37U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
37U	1,1,2,2-TETRACHLOROETHANE
37U	TOLUENE
37U	CHLOROBENZENE
37U	ETHYL BENZENE
37U	STYRENE
37U	TOTAL XYLENES
33	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES	CITY: LOUISVILLE ST: KY
STATION ID: SS-06	COLLECTION START: 05/07/92 1540 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.:	D. NO.: DA49 MD NO: DA49

ANALYTICAL RESULTS UG/KG

10J 1 UNIDENTIFIED COMPOUND

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA40

UG/KG	ANALYTICAL RESULTS
770U	PHENOL
770U	BIS(2-CHLOROETHYL) ETHER
770U	2-CHLOROPHENOL
770U	1,3-DICHLOROBENZENE
770U	1,4-DICHLOROBENZENE
770U	1,2-DICHLOROBENZENE
770U	2-METHYLPHENOL
770U	2,2'-CHLOROISOPROPYLETHER
770U	(3-AND/OR 4-)METHYLPHENOL
770U	N-NITROSODI-N-PROPYLAMINE
770U	HEXACHLOROETHANE
770U	NITROBENZENE
770U	ISOPHORONE
770U	2-NITROPHENOL
770U	2,4-DIMETHYLPHENOL
770U	BIS(2-CHLOROETHOXY) METHANE
770U	2,4-DICHLOROPHENOL
770U	1,2,4-TRICHLOROBENZENE
770U	NAPHTHALENE
770U	4-CHLOROANILINE
770U	HEXACHLOROBUTADIENE
770U	4-CHLORO-3-METHYLPHENOL
280J	2-METHYLNAPHTHALENE
770U	HEXACHLOROCYCLOPENTADIENE (HCCP)
770U	2,4,6-TRICHLOROPHENOL
1900U	2,4,5-TRICHLOROPHENOL
770U	2-CHLORONAPHTHALENE
1900U	2-NITROANILINE
770U	DIMETHYL PHTHALATE
770U	ACENAPHTHYLENE
770U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
1900U	3-NITROANILINE
770U	ACENAPHTHENE
1900U	2,4-DINITROPHENOL
1900U	4-NITROPHENOL
770U	DIBENZOFURAN
770U	2,4-DINITROTOLUENE
770U	DIETHYL PHTHALATE
770U	4-CHLOROPHENYL PHENYL ETHER
79J	FLUORENE
1900U	4-NITROANILINE
1900U	2-METHYL-4,6-DINITROPHENOL
770U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
770U	4-BROMOPHENYL PHENYL ETHER
770U	HEXACHLOROBENZENE (HCB)
1900U	PENTACHLOROPHENOL
660J	PHENANTHRENE
770U	ANTHRACENE
770U	CARBAZOLE
770U	DI-N-BUTYLPHTHALATE
1100	FLUORANTHENE
1500	PYRENE
770U	BENZYL BUTYL PHTHALATE
770U	3,3'-DICHLOROBENZIDINE
770U	BENZO(A)ANTHRACENE
770U	CHRYSENE
2900	BIS(2-ETHYLHEXYL) PHTHALATE
770U	DI-N-OCTYLPHTHALATE
850	BENZO(B AND/OR K)FLUORANTHENE
770U	BENZO-A-PYRENE
310J	INDENO (1,2,3-CD) PYRENE
770U	DIBENZO(A,H)ANTHRACENE
380J	BENZO(GHI)PERYLENE
68	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-02

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1220 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA41

UG/KG	ANALYTICAL RESULTS
260J	PHENOL
740U	BIS(2-CHLOROETHYL) ETHER
740U	2-CHLOROPHENOL
740U	1,3-DICHLOROBENZENE
740U	1,4-DICHLOROBENZENE
740U	1,2-DICHLOROBENZENE
740U	2-METHYLPHENOL
740U	2,2'-CHLOROISOPROPYLETHER
740U	(3-AND/OR 4-)METHYLPHENOL
740U	N-NITROSODI-N-PROPYLAMINE
740U	HEXACHLOROETHANE
740U	NITROBENZENE
740U	ISOPHORONE
740U	2-NITROPHENOL
740U	2,4-DIMETHYLPHENOL
740U	BIS(2-CHLOROETHOXY) METHANE
740U	2,4-DICHLOROPHENOL
740U	1,2,4-TRICHLOROBENZENE
3200	NAPHTHALENE
740U	4-CHLOROANILINE
740U	HEXACHLOROBUTADIENE
740U	4-CHLORO-3-METHYLPHENOL
6400	2-METHYLNAPHTHALENE
740U	HEXACHLOROCYCLOPENTADIENE (HCCP)
740U	2,4,6-TRICHLOROPHENOL
1800U	2,4,5-TRICHLOROPHENOL
740U	2-CHLORONAPHTHALENE
1800U	2-NITROANILINE
740U	DIMETHYL PHTHALATE
1300	ACENAPHTHYLENE
740U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
1800U	3-NITROANILINE
740U	ACENAPHTHENE
1800U	2,4-DINITROPHENOL
1800U	4-NITROPHENOL
800U	DIBENZOFURAN
740U	2,4-DINITROTOLUENE
740U	DIETHYL PHTHALATE
740U	4-CHLOROPHENYL PHENYL ETHER
1600U	FLUORENE
1800U	4-NITROANILINE
1800U	2-METHYL-4,6-DINITROPHENOL
740U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
740U	4-BROMOPHENYL PHENYL ETHER
740U	HEXACHLOROBENZENE (HCB)
1800U	PENTACHLOROPHENOL
13000	PHENANTHRENE
2500	ANTHRACENE
1200U	CARBAZOLE
740U	DI-N-BUTYLPHTHALATE
12000	FLUORANTHENE
13000	PYRENE
740U	BENZYL BUTYL PHTHALATE
740U	3,3'-DICHLOROBENZIDINE
5600	BENZO(A)ANTHRACENE
7100	CHRYSENE
1900U	BIS(2-ETHYLHEXYL) PHTHALATE
750U	DI-N-OCTYLPHTHALATE
9100	BENZO(B AND/OR K)FLUORANTHENE
5200	BENZO-A-PYRENE
1800	INDENO (1,2,3-CD) PYRENE
1200	DIBENZO(A,H)ANTHRACENE
1900	BENZO(GHI)PERYLENE
63	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1100 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA42

UG/KG	ANALYTICAL RESULTS
390U	PHENOL
390U	BIS(2-CHLOROETHYL) ETHER
390U	2-CHLOROPHENOL
390U	1,3-DICHLOROBENZENE
390U	1,4-DICHLOROBENZENE
390U	1,2-DICHLOROBENZENE
390U	2-METHYLPHENOL
390U	2,2'-CHLOROISOPROPYLETHER
390U	(3-AND/OR 4-)METHYLPHENOL
390U	N-NITROSODI-N-PROPYLAMINE
390U	HEXACHLOROETHANE
390U	NITROBENZENE
390U	ISOPHORONE
390U	2-NITROPHENOL
390U	2,4-DIMETHYLPHENOL
390U	BIS(2-CHLOROETHOXY) METHANE
390U	2,4-DICHLOROPHENOL
390U	1,2,4-TRICHLOROBENZENE
390U	NAPHTHALENE
390U	4-CHLOROANILINE
390U	HEXACHLOROBUTADIENE
390U	4-CHLORO-3-METHYLPHENOL
390U	2-METHYLNAPHTHALENE
390U	HEXACHLOROCYCLOPENTADIENE (HCCP)
390U	2,4,6-TRICHLOROPHENOL
960U	2,4,5-TRICHLOROPHENOL
390U	2-CHLORONAPHTHALENE
960U	2-NITROANILINE
390U	DIMETHYL PHTHALATE
390U	ACENAPHTHYLENE
390U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
960U	3-NITROANILINE
390U	ACENAPHTHENE
960U	2,4-DINITROPHENOL
960U	4-NITROPHENOL
390U	DIBENZOFURAN
390U	2,4-DINITROTOLUENE
390U	DIETHYL PHTHALATE
390U	4-CHLOROPHENYL PHENYL ETHER
390U	FLUORENE
960U	4-NITROANILINE
960U	2-METHYL-4,6-DINITROPHENOL
390U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
390U	4-BROMOPHENYL PHENYL ETHER
390U	HEXACHLOROBENZENE (HCB)
960U	PENTACHLOROPHENOL
140J	PHENANTHRENE
390U	ANTHRACENE
390U	CARBAZOLE
390U	DI-N-BUTYLPHTHALATE
140J	FLUORANTHENE
150J	PYRENE
390U	BENZYL BUTYL PHTHALATE
390U	3,3'-DICHLOROBENZIDINE
390U	BENZO(A)ANTHRACENE
130J	CHRYSENE
390U	BIS(2-ETHYLHEXYL) PHTHALATE
390U	DI-N-OCTYLPHTHALATE
120J	BENZO(B AND/OR K)FLUORANTHENE
390U	BENZO-A-PYRENE
46J	INDENO (1,2,3-CD) PYRENE
390U	DIBENZO(A,H)ANTHRACENE
67J	BENZO(GHI)PERYLENE
37	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA40

UG/KG	ANALYTICAL RESULTS
57U	CHLOROMETHANE
57U	BROMOMETHANE
57U	VINYL CHLORIDE
57U	CHLOROETHANE
57U	METHYLENE CHLORIDE
57U	ACETONE
57U	CARBON DISULFIDE
57U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
57U	1,1-DICHLOROETHANE
57U	1,2-DICHLOROETHENE (TOTAL)
57U	CHLOROFORM
57U	1,2-DICHLOROETHANE
57U	METHYL ETHYL KETONE
57U	1,1,1-TRICHLOROETHANE
57U	CARBON TETRACHLORIDE
57U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
57U	1,2-DICHLOROPROPANE
57U	CIS-1,3-DICHLOROPROPENE
57U	TRICHLOROETHENE(TRICHLOROETHYLENE)
57U	DIBROMOCHLOROMETHANE
57U	1,1,2-TRICHLOROETHANE
57U	BENZENE
57U	TRANS-1,3-DICHLOROPROPENE
57U	BROMOFORM
57U	METHYL ISOBUTYL KETONE
57U	METHYL BUTYL KETONE
57U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
57U	1,1,2,2-TETRACHLOROETHANE
57U	TOLUENE
57U	CHLOROBENZENE
57U	ETHYL BENZENE
57U	STYRENE
57U	TOTAL XYLENES
83	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-02

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1220 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA41

UG/KG	ANALYTICAL RESULTS
3OU	CHLOROMETHANE
3OU	BROMOMETHANE
3OU	VINYL CHLORIDE
3OU	CHLOROETHANE
3OU	METHYLENE CHLORIDE
6OU	ACETONE
3OU	CARBON DISULFIDE
3OU	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
3OU	1,1-DICHLOROETHANE
3OU	1,2-DICHLOROETHENE (TOTAL)
3OU	CHLOROFORM
3OU	1,2-DICHLOROETHANE
3OU	METHYL ETHYL KETONE
3OU	1,1,1-TRICHLOROETHANE
3OU	CARBON TETRACHLORIDE
3OU	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
3OU	1,2-DICHLOROPROPANE
3OU	CIS-1,3-DICHLOROPROPENE
3OU	TRICHLOROETHENE(TRICHLOROETHYLENE)
3OU	DIBROMOCHLOROMETHANE
3OU	1,1,2-TRICHLOROETHANE
3OU	BENZENE
3OU	TRANS-1,3-DICHLOROPROPENE
3OU	BROMOFORM
3OU	METHYL ISOBUTYL KETONE
3OU	METHYL BUTYL KETONE
3OU	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
3OU	1,1,2,2-TETRACHLOROETHANE
3OU	TOLUENE
3OU	CHLOROBENZENE
3OU	ETHYL BENZENE
3OU	STYRENE
3OU	TOTAL XYLENES
7O	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1100 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA42

UG/KG	ANALYTICAL RESULTS
33U	CHLOROMETHANE
33U	BROMOMETHANE
33U	VINYL CHLORIDE
33U	CHLOROETHANE
33U	METHYLENE CHLORIDE
60U	ACETONE
33U	CARBON DISULFIDE
33U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
33U	1,1-DICHLOROETHANE
33U	1,2-DICHLOROETHENE (TOTAL)
33U	CHLOROFORM
33U	1,2-DICHLOROETHANE
33U	METHYL ETHYL KETONE
33U	1,1,1-TRICHLOROETHANE
33U	CARBON TETRACHLORIDE
33U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
33U	1,2-DICHLOROPROPANE
33U	CIS-1,3-DICHLOROPROPENE
33U	TRICHLOROETHENE(TRICHLOROETHYLENE)
33U	DIBROMOCHLOROMETHANE
33U	1,1,2-TRICHLOROETHANE
33U	BENZENE
33U	TRANS-1,3-DICHLOROPROPENE
33U	BROMOFORM
33U	METHYL ISOBUTYL KETONE
33U	METHYL BUTYL KETONE
33U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
33U	1,1,2,2-TETRACHLOROETHANE
33U	TOLUENE
33U	CHLOROBENZENE
33U	ETHYL BENZENE
33U	STYRENE
33U	TOTAL XYLENES
75	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-01
CASE.NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00
D. NO.: DA40 MD NO: DA40

ANALYTICAL RESULTS UG/KG

1000JN	TRIMETHYLCYCLOHEXANE
20000J	9 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES
CITY: LOUISVILLE ST: KY
STATION ID: SD-02
COLLECTION START: 05/07/92 1220 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.:
D. NO.: DA41 MD NO: DA41

ANALYTICAL RESULTS UG/KG

10000J	4 UNIDENTIFIED COMPOUNDS
600JN	DIMETHYLNONANE
2000JN	ETHYLMETHYLHEPTANE
1000JN	METHYLPROPYLNONANE
3000JN	TRIMETHYLDECANE
1000JN	DIMETHYLUNDECANE
6000JN	METHYLUNDECANE

FOOTNOTES
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MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES
CITY: LOUISVILLE ST: KY
STATION ID: SD-03
COLLECTION START: 05/07/92 1100 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.:
D. NO.: DA42 MD NO: DA42

ANALYTICAL RESULTS UG/KG

3000JN	ETHYLMETHYLHEPTANE
7000JN	ETHYLDECANOL
40000J	8 UNIDENTIFIED COMPOUNDS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00
D. NUMBER: DA40

UG/KG	ANALYTICAL RESULTS
4.2U	ALPHA-BHC
4.2U	BETA-BHC
4.2U	DELTA-BHC
4.2U	GAMMA-BHC (LINDANE)
4.2U	HEPTACHLOR
4.2U	ALDRIN
4.2U	HEPTACHLOR EPOXIDE
4.2U	ENDOSULFAN I (ALPHA)
8.1U	DIELDRIN
8.1U	4,4'-DDE (P,P'-DDE)
8.1U	ENDRIN
10U	ENDOSULFAN II (BETA)
8.1U	4,4'-DDD (P,P'-DDD)
8.1U	ENDOSULFAN SULFATE
8.1U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
42U	METHOXYCHLOR
20U	ENDRIN KETONE
8.1U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
4.2U	GAMMA-CHLORDANE /2
8.0U	ALPHA-CHLORDANE /2
420U	TOXAPHENE
81U	PCB-1016 (AROCLOR 1016)
160U	PCB-1221 (AROCLOR 1221)
81U	PCB-1232 (AROCLOR 1232)
81U	PCB-1242 (AROCLOR 1242)
81U	PCB-1248 (AROCLOR 1248)
81U	PCB-1254 (AROCLOR 1254)
340U	PCB-1260 (AROCLOR 1260)
68	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-02
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1220 STOP: 00/00/00
D. NUMBER: DA41

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
3.4U	ALPHA-BHC	40U	METHOXYCHLOR
3.4U	BETA-BHC	25U	ENDRIN KETONE
3.4U	DELTA-BHC	6.7U	ENDRIN ALDEHYDE
3.4U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
4.5U	HEPTACHLOR	3.4U	GAMMA-CHLORDANE /2
15U	ALDRIN	3.4U	ALPHA-CHLORDANE /2
3.4U	HEPTACHLOR EPOXIDE	340U	TOXAPHENE
3.4U	ENDOSULFAN I (ALPHA)	67U	PCB-1016 (AROCLOR 1016)
6.7U	DIELDRIN	140U	PCB-1221 (AROCLOR 1221)
6.7U	4,4'-DDE (P,P'-DDE)	67U	PCB-1232 (AROCLOR 1232)
6.7U	ENDRIN	67U	PCB-1242 (AROCLOR 1242)
6.7U	ENDOSULFAN II (BETA)	67U	PCB-1248 (AROCLOR 1248)
6.7U	4,4'-DDD (P,P'-DDD)	67U	PCB-1254 (AROCLOR 1254)
6.7U	ENDOSULFAN SULFATE	250U	PCB-1260 (AROCLOR 1260)
6.7U	4,4'-DDT (P,P'-DDT)	63	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-03
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1100 STOP: 00/00/00
D. NUMBER: DA42

UG/KG	ANALYTICAL RESULTS
2.1U	ALPHA-BHC
2.1U	BETA-BHC
2.1U	DELTA-BHC
2.1U	GAMMA-BHC (LINDANE)
2.1U	HEPTACHLOR
2.1U	ALDRIN
2.1U	HEPTACHLOR EPOXIDE
2.1U	ENDOSULFAN I (ALPHA)
4.0U	DIELDRIN
4.0U	4,4'-DDE (P,P'-DDE)
4.0U	ENDRIN
4.0U	ENDOSULFAN II (BETA)
4.0U	4,4'-DDD (P,P'-DDD)
4.0U	ENDOSULFAN SULFATE
4.0U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
21U	METHOXYCHLOR
4.0U	ENDRIN KETONE
4.0U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
2.1U	GAMMA-CHLORDANE /2
2.1U	ALPHA-CHLORDANE /2
210U	TOXAPHENE
40U	PCB-1016 (AROCLOR 1016)
81U	PCB-1221 (AROCLOR 1221)
40U	PCB-1232 (AROCLOR 1232)
40U	PCB-1242 (AROCLOR 1242)
40U	PCB-1248 (AROCLOR 1248)
40U	PCB-1254 (AROCLOR 1254)
40U	PCB-1260 (AROCLOR 1260)
37	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67925  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY              **
**   SOURCE: PRODUCERS WOOD PRES                                      CITY: LOUISVILLE             ST: KY                 **
**   STATION ID: SD-01                                                COLLECTION START: 05/07/92  1345  STOP: 00/00/00   **
**   CASE.NO.: 18102          SAS NO.:                                D. NO.: DA40                MD NO: DA40             **
**                                                                                                                        **
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ANALYTICAL RESULTS UG/KG

100000J	19 UNIDENTIFIED COMPOUNDS
N	PETROLEUM PRODUCT

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES
CITY: LOUISVILLE ST: KY
STATION ID: SD-02
COLLECTION START: 05/07/92 1220 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.:
D. NO.: DA41 MD NO: DA41

ANALYTICAL RESULTS UG/KG

N	PETROLEUM PRODUCT
20000JN	DIMETHYNAPHTHALENE
1000000J	19 UNIDENTIFIED COMPOUNDS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SD-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA42 MD NO: DA42 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

20000J	18 UNIDENTIFIED COMPOUNDS
N	PETROLEUM PRODUCT

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: SW-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA44

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
10U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
10U	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
4J	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA45

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
40U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
10U	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
10U	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: SW-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1100 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA46

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
10U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
10U	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
4J	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SW-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA44 MD NO: DA44 **
** **
*** ***

ANALYTICAL RESULTS UG/L

30JN	(METHYLETHYL)BENZENE
10JN	ETHYLMETHYLBENZENE
20JN	TRIMETHYLBENZENE (2 ISOMERS)

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.: D. NO.: DA45 MD NO: DA45

ANALYTICAL RESULTS UG/L

8JN	METHANETHIOL
30JN	METHYLSULFIDE

FOOTNOTES
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MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SW-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA46 MD NO: DA46 **
** **
*** ***

ANALYTICAL RESULTS UG/L

30JN ETHYLMETHYLBENZENE (2 ISOMERS)

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA44

UG/L	ANALYTICAL RESULTS
10U	PHENOL
10U	BIS(2-CHLOROETHYL) ETHER
10U	2-CHLOROPHENOL
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	1,2-DICHLOROBENZENE
10U	2-METHYLPHENOL
10U	2,2'-CHLOROISOPROPYLETHER
10U	(3-AND/OR 4-)METHYLPHENOL
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
10U	BIS(2-CHLOROETHOXY) METHANE
10U	2,4-DICHLOROPHENOL
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	4-CHLORO-3-METHYLPHENOL
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2,4,6-TRICHLOROPHENOL
25U	2,4,5-TRICHLOROPHENOL
10U	2-CHLORONAPHTHALENE
25U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE

UG/L	ANALYTICAL RESULTS
25U	3-NITROANILINE
10U	ACENAPHTHENE
25U	2,4-DINITROPHENOL
25U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
25U	4-NITROANILINE
25U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
25U	PENTACHLOROPHENOL
10U	PHENANTHRENE
10U	ANTHRACENE
10U	CARBAZOLE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: SW-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00
D. NUMBER: DA44

UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC
0.050U	BETA-BHC
0.050U	DELTA-BHC
0.050U	GAMMA-BHC (LINDANE)
0.050U	HEPTACHLOR
0.050U	ALDRIN
0.050U	HEPTACHLOR EPOXIDE
0.050U	ENDOSULFAN I (ALPHA)
0.10U	DIELDRIN
0.10U	4,4'-DDE (P,P'-DDE)
0.10U	ENDRIN
0.10U	ENDOSULFAN II (BETA)
0.10U	4,4'-DDD (P,P'-DDD)
0.10U	ENDOSULFAN SULFATE
0.10U	4,4'-DDT (P,P'-DDT)

UG/L	ANALYTICAL RESULTS
0.50U	METHOXYCHLOR
0.10U	ENDRIN KETONE
0.10U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
0.050U	GAMMA-CHLORDANE /2
0.050U	ALPHA-CHLORDANE /2
5.0U	TOXAPHENE
1.0U	PCB-1016 (AROCLOR 1016)
2.0U	PCB-1221 (AROCLOR 1221)
1.0U	PCB-1232 (AROCLOR 1232)
1.0U	PCB-1242 (AROCLOR 1242)
1.0U	PCB-1248 (AROCLOR 1248)
1.0U	PCB-1254 (AROCLOR 1254)
1.0U	PCB-1260 (AROCLOR 1260)

REMARKS

REMARKS

FOOTNOTES
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*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67929  SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: M USREY                                **
**   SOURCE: PRODUCERS WOOD PRES                                     CITY: LOUISVILLE          ST: KY                                     **
**   STATION ID: SW-02                                               COLLECTION START: 05/07/92  1220   STOP: 00/00/00                    **
**   CASE.NO.: 18102          SAS NO.:                               D. NO.: DA45              MD NO: DA45                                **
**                                                                                                                                           **
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ANALYTICAL RESULTS UG/L

40JN	HEPTANOIC ACID
40JN	MORPHOLINEACETONITRILE
70JN	BENZOIC ACID
50JN	BENZOTHIAZOLE
20JN	METHYLBENZOIC ACID (2 ISOMERS)
20JN	BENZENEACETIC ACID
20JN	NONANOIC ACID
20JN	DECANOIC ACID
9JN	HYDROXYMETHOXYBENZALDEHYDE
20JN	BENZOTHIAZOLETHIONE
200J	8 UNIDENTIFIED COMPOUNDS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT — 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: SW-02
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1220 STOP: 00/00/00
D. NUMBER: DA45

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA46

UG/L	ANALYTICAL RESULTS
10U	PHENOL
10U	BIS(2-CHLOROETHYL) ETHER
10U	2-CHLOROPHENOL
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	1,2-DICHLOROBENZENE
10U	2-METHYLPHENOL
10U	2,2'-CHLOROISOPROPYLETHER
10U	(3-AND/OR 4-)METHYLPHENOL
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
10U	BIS(2-CHLOROETHOXY) METHANE
10U	2,4-DICHLOROPHENOL
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	4-CHLORO-3-METHYLPHENOL
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2,4,6-TRICHLOROPHENOL
25U	2,4,5-TRICHLOROPHENOL
10U	2-CHLORONAPHTHALENE
25U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE

UG/L	ANALYTICAL RESULTS
25U	3-NITROANILINE
10U	ACENAPHTHENE
25U	2,4-DINITROPHENOL
25U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
25U	4-NITROANILINE
25U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
25U	PENTACHLOROPHENOL
10U	PHENANTHRENE
10U	ANTHRACENE
10U	CARBAZOLE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: D. NUMBER: DA46

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00
MD NUMBER: DA40

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
15000	ALUMINUM	21000J	MANGANESE
20U	ANTIMONY	0.37U	MERCURY
140	ARSENIC	31	NICKEL
180	BARIUM	800	POTASSIUM
0.76U	BERYLLIUM	3.1UR	SELENIUM
5	CADMIUM	6U	SILVER
77000	CALCIUM	240	SODIUM
17	CHROMIUM	2UJ	THALLIUM
40U	COBALT	NA	TIN
220	COPPER	20U	VANADIUM
59000	IRON	360J	ZINC
83	LEAD	75	PERCENT MOISTURE
4200	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-01
CASE.NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00
D. NO.: DA40 MD NO: DA40

RESULTS	UNITS	PARAMETER
1.9U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SD-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA41

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
2600	ALUMINUM	480J	MANGANESE
9U	ANTIMONY	0.28U	MERCURY
5U	ARSENIC	17	NICKEL
250	BARIUM	530	POTASSIUM
0.56U	BERYLLIUM	2.3UR	SELENIUM
2U	CADMIUM	1.1U	SILVER
220000	CALCIUM	270	SODIUM
99	CHROMIUM	0.57UR	THALLIUM
3U	COBALT	NA	TIN
54	COPPER	20U	VANADIUM
3900	IRON	270J	ZINC
36	LEAD	67	PERCENT MOISTURE
29000	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67926   SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY                   **
**   SOURCE: PRODUCERS WOOD PRES                                        CITY: LOUISVILLE              ST: KY                     **
**   STATION ID: SD-02                                                  COLLECTION START: 05/07/92  1220   STOP: 00/00/00        **
**   CASE.NO.: 18102            SAS NO.:                                D. NO.: DA41                 MD NO: DA41                 **
**                                                                                                                               **
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RESULTS	UNITS	PARAMETER
21	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

** PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SD-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00 **
** CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA42 **

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
1300	ALUMINUM	3900J	MANGANESE
5.3U	ANTIMONY	0.16U	MERCURY
24	ARSENIC	2.9	NICKEL
310	BARIUM	140	POTASSIUM
0.33U	BERYLLIUM	7UR	SELENIUM
0.66U	CADMIUM	0.66U	SILVER
330000	CALCIUM	420	SODIUM
7.2	CHROMIUM	0.35UR	THALLIUM
4U	COBALT	NA	TIN
19	COPPER	2U	VANADIUM
8100	IRON	41J	ZINC
6.4	LEAD	45	PERCENT MOISTURE
4000	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67927  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY               **
**   SOURCE: PRODUCERS WOOD PRES                                     CITY: LOUISVILLE              ST: KY                    **
**   STATION ID: SD-03                                               COLLECTION START: 05/07/92  1100   STOP: 00/00/00      **
**   CASE.NO.: 18102          SAS NO.:                               D. NO.: DA42               MD NO: DA42                **
**                                                                                                                             **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.86U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67923 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: PB-01 COLLECTION START: 05/05/92 0900 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA39

ANALYTICAL RESULTS

UG/L		UG/L	
30UJ	ALUMINUM	1U	MANGANESE
11U	ANTIMONY	0.20UJ	MERCURY
2U	ARSENIC	5U	NICKEL
5U	BARIUM	200U	POTASSIUM
1U	BERYLLIUM	4UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
60U	CALCIUM	200U	SODIUM
5U	CHROMIUM	2UJ	THALLIUM
2U	COBALT	NA	TIN
4U	COPPER	3U	VANADIUM
25U	IRON	10UJ	ZINC
1U	LEAD		
70U	MAGNESIUM		

No hits on preservative blank

REMARKS
RECOMMENDED HOLDING TIME EXCEEDED-HG

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67923 SAMPLE TYPE: GROUNDWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: PB-01
CASE.NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/05/92 0900 STOP: 00/00/00
D. NO.: MD NO: DA39

RESULTS	UNITS	PARAMETER
10UJ	UG/L	CYANIDE

REMARKS
HOLDING TIME EXCEEDED-CN

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67941 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: TW-01 COLLECTION START: 05/07/92 1715 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA53

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
270UJ	ALUMINUM	1100J	MANGANESE
11U	ANTIMONY	0.20U	MERCURY
4U	ARSENIC	9	NICKEL
72	BARIUM	2900	POTASSIUM
1U	BERYLLIUM	4UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
140000	CALCIUM	11000	SODIUM
10	CHROMIUM	2UJ	THALLIUM
3U	COBALT	NA	TIN
30U	COPPER	2U	VANADIUM
1500	IRON	20UJ	ZINC
1U	LEAD		
36000	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67941  SAMPLE TYPE: GROUNDWA     PROG ELEM: NSF   COLLECTED BY: M USREY                **
**   SOURCE: PRODUCERS WOOD PRES                                       CITY: LOUISVILLE              ST: KY                  **
**   STATION ID: TW-01                                                 COLLECTION START: 05/07/92  1715   STOP: 00/00/00     **
**   CASE.NO.: 18102          SAS NO.:                                 D. NO.: DA53                  MD NO: DA53             **
**                                                                                                                           **
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RESULTS	UNITS	PARAMETER
10U	UG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

METALS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA44

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
30UJ	ALUMINUM	1200J	MANGANESE
11U	ANTIMONY	0.20U	MERCURY
10	ARSENIC	5U	NICKEL
88	BARIUM	8200	POTASSIUM
1U	BERYLLIUM	5UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
130000	CALCIUM	35000	SODIUM
5U	CHROMIUM	2UJ	THALLIUM
2U	COBALT	NA	TIN
4U	COPPER	2U	VANADIUM
1100	IRON	8UJ	ZINC
1U	LEAD		
40000	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA45

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
40UJ	ALUMINUM	3UJ	MANGANESE
11U	ANTIMONY	2.1	MERCURY
3U	ARSENIC	5U	NICKEL
940	BARIUM	78000	POTASSIUM
1U	BERYLLIUM	4UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
370000	CALCIUM	45000	SODIUM
33	CHROMIUM	10UJ	THALLIUM
4U	COBALT	NA	TIN
4U	COPPER	2U	VANADIUM
40U	IRON	28J	ZINC
1U	LEAD		
230U	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA46

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
1100J	ALUMINUM	1300J	MANGANESE
11U	ANTIMONY	0.20U	MERCURY
10U	ARSENIC	5U	NICKEL
190	BARIUM	8800	POTASSIUM
1U	BERYLLIUM	4UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
170000	CALCIUM	36000	SODIUM
5U	CHROMIUM	2UJ	THALLIUM
3U	COBALT	NA	TIN
5U	COPPER	2U	VANADIUM
1500	IRON	25J	ZINC
1U	LEAD		
41000	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.: D. NO.: DA44 MD NO: DA44

RESULTS	UNITS	PARAMETER
10U	UG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SW-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA45 MD NO: DA45 **
** **
*** ***

RESULTS	UNITS	PARAMETER
16000J	UG/L	CYANIDE

REMARKS
HOLDING TIME EXCEEDED-CN

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.: D. NO.: DA46 MD NO: DA46

RESULTS	UNITS	PARAMETER
10U	UG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67924 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 0945 STOP: 00/00/00
MD NUMBER: DA38

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
9600	ALUMINUM	1400J	MANGANESE
3.4U	ANTIMONY	9.6	MERCURY
27	ARSENIC	19	NICKEL
110	BARIUM	1100	POTASSIUM
0.71	BERYLLIUM	0.84UR	SELENIUM
1.1J	CADMIUM	3U	SILVER
17000	CALCIUM	60U	SODIUM
15	CHROMIUM	1UJ	THALLIUM
13	COBALT	NA	TIN
22	COPPER	23	VANADIUM
22000	IRON	120J	ZINC
58	LEAD	09	PERCENT MOISTURE
8100	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67924 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-01 COLLECTION START: 05/07/92 0945 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA38 MD NO: DA38 **
** **
*** ***

RESULTS	UNITS	PARAMETER
0.54U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67931 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-02
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1650 STOP: 00/00/00
MD NUMBER: DA51

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
7200	ALUMINUM	690J	MANGANESE
3.8U	ANTIMONY	0.94	MERCURY
100	ARSENIC	25	NICKEL
1200	BARIUM	750	POTASSIUM
1U	BERYLLIUM	0.96UR	SELENIUM
6.9	CADMIUM	6.2	SILVER
4100	CALCIUM	890U	SODIUM
69	CHROMIUM	2UJ	THALLIUM
20U	COBALT	NA	TIN
170	COPPER	26	VANADIUM
58000	IRON	1300J	ZINC
330	LEAD	21	PERCENT MOISTURE
1200	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67931 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-02
CASE.NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1650 STOP: 00/00/00
D. NO.: DA51 MD NO: DA51

RESULTS	UNITS	PARAMETER
0.85	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-03
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1630 STOP: 00/00/00
MD NUMBER: DA52

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
8600	ALUMINUM	320J	MANGANESE
3.2U	ANTIMONY	1.5	MERCURY
10	ARSENIC	15	NICKEL
50	BARIUM	860	POTASSIUM
1U	BERYLLIUM	0.77UR	SELENIUM
1U	CADMIUM	2U	SILVER
27000	CALCIUM	50U	SODIUM
12	CHROMIUM	0.19UR	THALLIUM
8.2	COBALT	NA	TIN
15	COPPER	18	VANADIUM
20000	IRON	56J	ZINC
25	LEAD	05	PERCENT MOISTURE
4800	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES	CITY: LOUISVILLE ST: KY
STATION ID: SS-03	COLLECTION START: 05/07/92 1630 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.:	D. NO.: DA52 MD NO: DA52

RESULTS	UNITS	PARAMETER
0.48U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-04
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1615 STOP: 00/00/00
MD NUMBER: DA47

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
7000	ALUMINUM	250J	MANGANESE
3.6U	ANTIMONY	0.11U	MERCURY
180	ARSENIC	15	NICKEL
69	BARIUM	720	POTASSIUM
1.3	BERYLLIUM	0.86UR	SELENIUM
1.4	CADMIUM	2.6J	SILVER
8400	CALCIUM	180U	SODIUM
13	CHROMIUM	1UJ	THALLIUM
6U	COBALT	NA	TIN
56	COPPER	34	VANADIUM
28000	IRON	190J	ZINC
200	LEAD	15	PERCENT MOISTURE
700	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67937  SAMPLE TYPE: SOIL       PROG ELEM: NSF   COLLECTED BY: M USREY            **
**   SOURCE: PRODUCERS WOOD PRES                                     CITY: LOUISVILLE            ST: KY                **
**   STATION ID: SS-04                                               COLLECTION START: 05/07/92  1615   STOP: 00/00/00 **
**   CASE.NO.: 18102          SAS NO.:                               D. NO.: DA47                MD NO: DA47           **
**                                                                                                                     **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.56U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-05
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1600 STOP: 00/00/00
MD NUMBER: DA48

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
6400	ALUMINUM	460J	MANGANESE
3.5U	ANTIMONY	0.72	MERCURY
230	ARSENIC	18	NICKEL
100	BARIUM	770	POTASSIUM
1.2	BERYLLIUM	0.90UR	SELENIUM
1U	CADMIUM	2.9	SILVER
6000	CALCIUM	100U	SODIUM
12	CHROMIUM	2UJ	THALLIUM
9U	COBALT	NA	TIN
190	COPPER	30	VANADIUM
28000	IRON	120J	ZINC
96	LEAD	15	PERCENT MOISTURE
2100	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-05 COLLECTION START: 05/07/92 1600 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA48 MD NO: DA48 **
** **
*** ***

RESULTS	UNITS	PARAMETER
0.59	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00
MD NUMBER: DA49

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
11000	ALUMINUM	2500J	MANGANESE
3.7U	ANTIMONY	0.11	MERCURY
12.	ARSENIC	19	NICKEL
200	BARIUM	1100	POTASSIUM
2U	BERYLLIUM	0.96UR	SELENIUM
1U	CADMIUM	2.7	SILVER
950	CALCIUM	30U	SODIUM
18	CHROMIUM	1UJ	THALLIUM
22	COBALT	NA	TIN
17	COPPER	24.	VANADIUM
23000	IRON	75J	ZINC
35	LEAD	19	PERCENT MOISTURE
1300	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06
CASE.NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00
D. NO.: DA49 MD NO: DA49

RESULTS	UNITS	PARAMETER
0.62U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67940 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-07
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1515 STOP: 00/00/00
MD NUMBER: DA50

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
9500	ALUMINUM	360J	MANGANESE
4U	ANTIMONY	0.92	MERCURY
6	ARSENIC	65	NICKEL
550	BARIUM	850	POTASSIUM
1U	BERYLLIUM	0.95UR	SELENIUM
7.4	CADMIUM	3U	SILVER
26000	CALCIUM	240U	SODIUM
61	CHROMIUM	1UJ	THALLIUM
10U	COBALT	NA	TIN
160	COPPER	43	VANADIUM
23000	IRON	75J	ZINC
710	LEAD	22	PERCENT MOISTURE
9900	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67940   SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY                   **
**   SOURCE: PRODUCERS WOOD PRES                                       CITY: LOUISVILLE            ST: KY                      **
**   STATION ID: SS-07                                                 COLLECTION START: 05/07/92  1515   STOP: 00/00/00       **
**   CASE.NO.: 18102          SAS NO.:                                 D. NO.: DA50                MD NO: DA50                 **
**                                                                                                                             **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.66	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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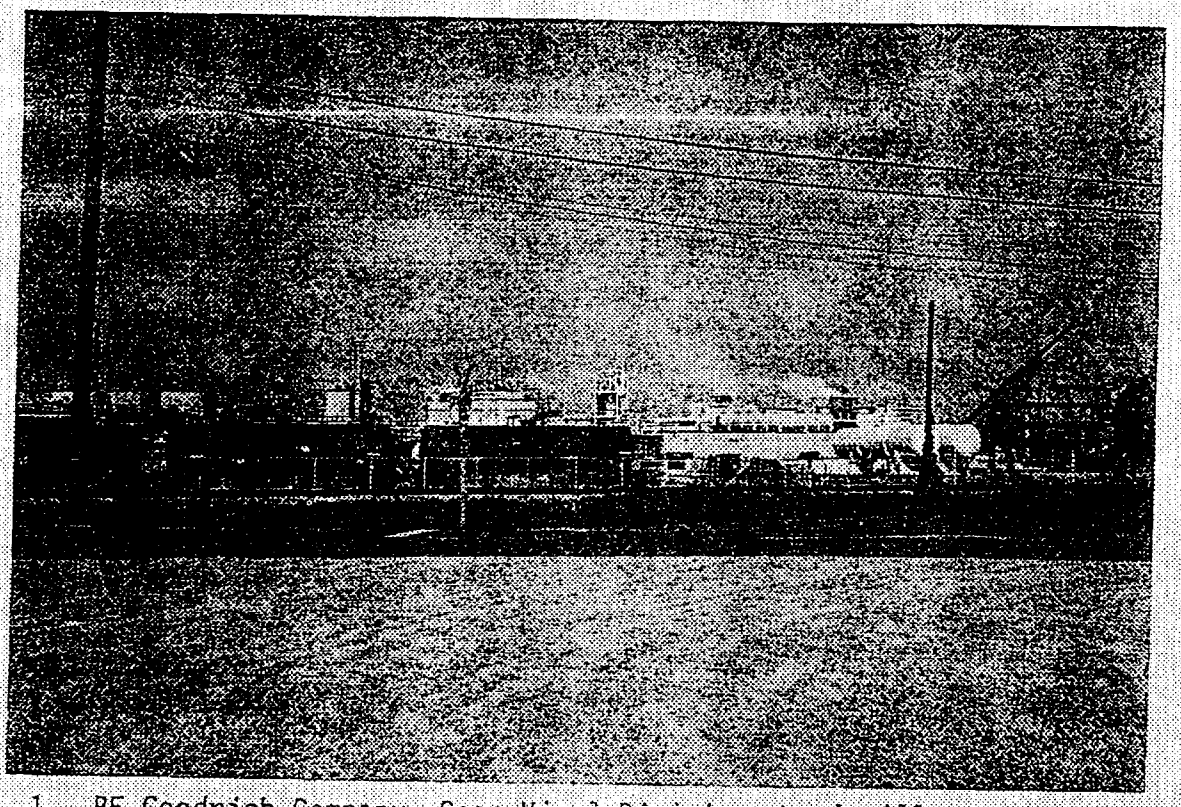
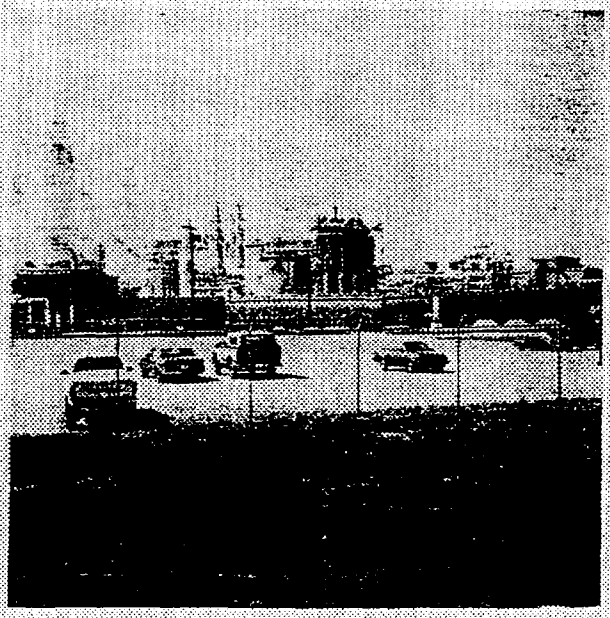
APPENDIX B



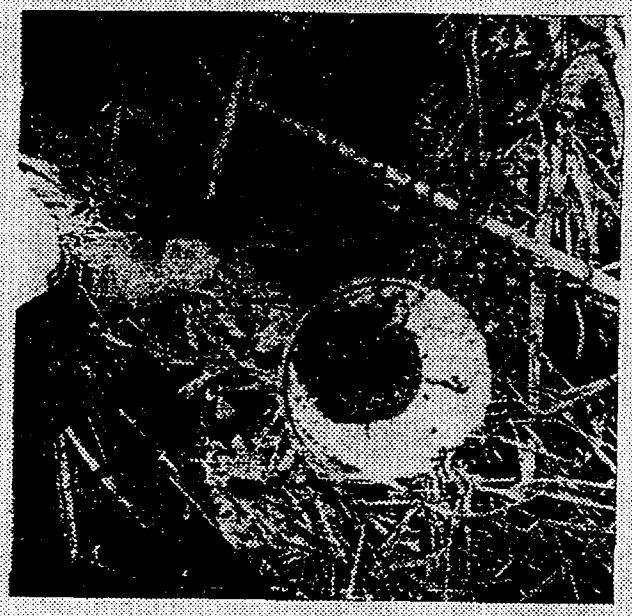
1. BF Goodrich Company, Geon Vinyl Division, Louisville, Kentucky. View from staging area facing west.

2. Collection of background surface soil sample WP-SS-01. Looking east from staging area, I-264 in background.



< 3. BF Goodrich plant as seen from WP-SS-03. Note chain-link security fence.

4. Selecting suitable sampling point for WP-SW/SD-01. Looking upstream on Paddy's Run. >



< 5. Sediment collected at WP-SD-01. Deep black color, tarry consistency.

< 6. Sample collection at WP-SW/SD-01. Representatives of EPA, BF Goodrich, Carbon Graphite, and consulting companies observing.

7. Rock wall (dam) forming sedimentation pond. Sample WP-SW/SD-02 collected at center of dam. >

< 8. View of sedimentation pond and Paddy's Run tributary beyond.

< 9. Sedimentation pond source-culvert (arrow) delivering production water from Carbon Graphite.

10. Consultant group waits between samples while sampling team gathers equipment and containers for next location. >

< 11. Looking downstream on Paddy's Run from point of sample WP-SW/SD-03.

< 12. View from railroad tracks toward sampling point WP-SW/SD-03. Actual point behind brush at left. Note tributary from sedimentation pond entering from upper right.

13. Dan Keck removing grass for WP-SS-02. Staging area hidden behind large tree in center background. >

< 14. Remnants of rail spur. Ties (arrows) in bed of tar-encrusted gravel. Near WP-SS-05.

< 15. Site of WP-SS-07. Security fence denotes southern boundary of BF Goodrich property.

16. Culvert draining parking area of unidentified trucking company onto site. Overland runoff into Paddy's Run. >

< 17. Production well from which WP-TW-01 was collected. For well details, see Reference #6 in text.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

RECEIVED
JUL 14 1992
EPA - REGION IV
ATLANTA, GA

*****MEMORANDUM******

DATE: 07/08/92

SUBJECT: Results of Purgeable Organic Analysis;
92-0499 PRODUCERS WOOD PRES
LOUISVILLE KY
CASE NO: 18102

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: JOE SLYKERMAN

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

ORGANIC DATA QUALIFIER REPORT

Case Number 18102 Project Number 92-0499 SAS Number
Site ID. Producers Wood Preserve, Louisville, KY.

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
67928,67930	xylenes	J	<quantitation limit
67942	1,2-dichloroethane	J	<quantitation limit
67937	4-methyl-2-pentanone	J	ISTD recovery low
	2-hexanone,toluene	J	ISTD recovery low
	tetrachloroethene	J	ISTD recovery low
	1,1,2,2-tetrachloroethane	J	ISTD recovery low
	chlorobenzene	J	ISTD recovery low
	ethylbenzene	J	ISTD recovery low
	styrene, xylenes	J	ISTD recovery low
Extractables			
67924,67932	all positives	J	<quantitation limit
67926	phenol	J	<quantitation limit
67929	4-methylphenol	J	<quantitation limit
67929,67937,67938			
67940	naphthalene	J	<quantitation limit
67925,67929,67931			
67937,67938,67940	2-methylnaphthalene	J	<quantitation limit
67937,67938,67940	acenaphthylene	J	<quantitation limit
67931,67938,67940	acenaphthene	J	<quantitation limit
67931,67937,67938			
67940	dibenzofuran	J	<quantitation limit
67925,67940	fluorene	J	<quantitation limit
67925,67927,67929			
67937-67939	phenanthrene	J	<quantitation limit
67937-67939	anthracene	J	<quantitation limit
67937	carbazole	J	<quantitation limit
67927	fluoranthene	J	<quantitation limit
67927	pyrene	J	<quantitation limit
67927	chrysene	J	<quantitation limit
67927	benzo(b/k)fluoranthene	J	<quantitation limit
67925,67927,67938			
67939	indeno(1,2,3-cd)pyrene	J	<quantitation limit
67937-67939	dibenz(a,h)anthracene	J	<quantitation limit
67925,67927,67938			
67939	benzo(g,h,i)perylene	J	<quantitation limit
Pesticides			
67931,67940	all pesticides	J	excessive holding time
67937	methoxychlor	R	conflicting information from all the analyses of this sample cannot be resolved

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV FSD, ATHENS, GA.

07/07/92

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67924 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 0945 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA38

UG/KG	ANALYTICAL RESULTS
11U	CHLOROMETHANE
11U	BROMOMETHANE
11U	VINYL CHLORIDE
11U	CHLOROETHANE
11U	METHYLENE CHLORIDE
11U	ACETONE
11U	CARBON DISULFIDE
11U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
11U	1,1-DICHLOROETHANE
11U	1,2-DICHLOROETHENE (TOTAL)
11U	CHLOROFORM
11U	1,2-DICHLOROETHANE
11U	METHYL ETHYL KETONE
11U	1,1,1-TRICHLOROETHANE
11U	CARBON TETRACHLORIDE
11U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
11U	1,2-DICHLOROPROPANE
11U	CIS-1,3-DICHLOROPROPENE
11U	TRICHLOROETHENE(TRICHLOROETHYLENE)
11U	DIBROMOCHLOROMETHANE
11U	1,1,2-TRICHLOROETHANE
11U	BENZENE
11U	TRANS-1,3-DICHLOROPROPENE
11U	BROMOFORM
11U	METHYL ISOBUTYL KETONE
11U	METHYL BUTYL KETONE
11U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
11U	1,1,2,2-TETRACHLOROETHANE
11U	TOLUENE
11U	CHLOROBENZENE
11U	ETHYL BENZENE
11U	STYRENE
11U	TOTAL XYLENES
10	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA40

UG/KG	ANALYTICAL RESULTS
57U	CHLOROMETHANE
57U	BROMOMETHANE
57U	VINYL CHLORIDE
57U	CHLOROETHANE
57U	METHYLENE CHLORIDE
57U	ACETONE
57U	CARBON DISULFIDE
57U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
57U	1,1-DICHLOROETHANE
57U	1,2-DICHLOROETHENE (TOTAL)
57U	CHLOROFORM
57U	1,2-DICHLOROETHANE
57U	METHYL ETHYL KETONE
57U	1,1,1-TRICHLOROETHANE
57U	CARBON TETRACHLORIDE
57U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
57U	1,2-DICHLOROPROPANE
57U	CIS-1,3-DICHLOROPROPENE
57U	TRICHLOROETHENE(TRICHLOROETHYLENE)
57U	DIBROMOCHLOROMETHANE
57U	1,1,2-TRICHLOROETHANE
57U	BENZENE
57U	TRANS-1,3-DICHLOROPROPENE
57U	BROMOFORM
57U	METHYL ISOBUTYL KETONE
57U	METHYL BUTYL KETONE
57U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
57U	1,1,2,2-TETRACHLOROETHANE
57U	TOLUENE
57U	CHLOROBENZENE
57U	ETHYL BENZENE
57U	STYRENE
57U	TOTAL XYLENES
83	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-02

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1220 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA41

UG/KG	ANALYTICAL RESULTS
30U	CHLOROMETHANE
30U	BROMOMETHANE
30U	VINYL CHLORIDE
30U	CHLOROETHANE
30U	METHYLENE CHLORIDE
60U	ACETONE
30U	CARBON DISULFIDE
30U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
30U	1,1-DICHLOROETHANE
30U	1,2-DICHLOROETHENE (TOTAL)
30U	CHLOROFORM
30U	1,2-DICHLOROETHANE
30U	METHYL ETHYL KETONE
30U	1,1,1-TRICHLOROETHANE
30U	CARBON TETRACHLORIDE
30U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
30U	1,2-DICHLOROPROPANE
30U	CIS-1,3-DICHLOROPROPENE
30U	TRICHLOROETHENE(TRICHLOROETHYLENE)
30U	DIBROMOCHLOROMETHANE
30U	1,1,2-TRICHLOROETHANE
30U	BENZENE
30U	TRANS-1,3-DICHLOROPROPENE
30U	BROMOFORM
30U	METHYL ISOBUTYL KETONE
30U	METHYL BUTYL KETONE
30U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
30U	1,1,2,2-TETRACHLOROETHANE
30U	TOLUENE
30U	CHLOROBENZENE
30U	ETHYL BENZENE
30U	STYRENE
30U	TOTAL XYLENES
70	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1100 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA42

UG/KG	ANALYTICAL RESULTS
33U	CHLOROMETHANE
33U	BROMOMETHANE
33U	VINYL CHLORIDE
33U	CHLOROETHANE
33U	METHYLENE CHLORIDE
60U	ACETONE
33U	CARBON DISULFIDE
33U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
33U	1,1-DICHLOROETHANE
33U	1,2-DICHLOROETHENE (TOTAL)
33U	CHLOROFORM
33U	1,2-DICHLOROETHANE
33U	METHYL ETHYL KETONE
33U	1,1,1-TRICHLOROETHANE
33U	CARBON TETRACHLORIDE
33U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
33U	1,2-DICHLOROPROPANE
33U	CIS-1,3-DICHLOROPROPENE
33U	TRICHLOROETHENE(TRICHLOROETHYLENE)
33U	DIBROMOCHLOROMETHANE
33U	1,1,2-TRICHLOROETHANE
33U	BENZENE
33U	TRANS-1,3-DICHLOROPROPENE
33U	BROMOFORM
33U	METHYL ISOBUTYL KETONE
33U	METHYL BUTYL KETONE
33U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
33U	1,1,2,2-TETRACHLOROETHANE
33U	TOLUENE
33U	CHLOROBENZENE
33U	ETHYL BENZENE
33U	STYRENE
33U	TOTAL XYLENES
75	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: SW-01
CASE NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00
D. NO.: DA44

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
10U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
10U	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
4J	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA45

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
40U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
10U	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
10U	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA46

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
10U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
10U	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
4J	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67931 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-02

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1650 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA51

UG/KG	ANALYTICAL RESULTS
30U	CHLOROMETHANE
30U	BROMOMETHANE
30U	VINYL CHLORIDE
30U	CHLOROETHANE
30U	METHYLENE CHLORIDE
30U	ACETONE
30U	CARBON DISULFIDE
30U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
30U	1,1-DICHLOROETHANE
30U	1,2-DICHLOROETHENE (TOTAL)
30U	CHLOROFORM
30U	1,2-DICHLOROETHANE
30U	METHYL ETHYL KETONE
30U	1,1,1-TRICHLOROETHANE
30U	CARBON TETRACHLORIDE
30U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
30U	1,2-DICHLOROPROPANE
30U	CIS-1,3-DICHLOROPROPENE
30U	TRICHLOROETHENE(TRICHLOROETHYLENE)
30U	DIBROMOCHLOROMETHANE
30U	1,1,2-TRICHLOROETHANE
30U	BENZENE
30U	TRANS-1,3-DICHLOROPROPENE
30U	BROMOFORM
30U	METHYL ISOBUTYL KETONE
30U	METHYL BUTYL KETONE
30U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
30U	1,1,2,2-TETRACHLOROETHANE
30U	TOLUENE
30U	CHLOROBENZENE
30U	ETHYL BENZENE
30U	STYRENE
30U	TOTAL XYLENES
17	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1630 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA52

UG/KG	ANALYTICAL RESULTS
12U	CHLOROMETHANE
12U	BROMOMETHANE
12U	VINYL CHLORIDE
12U	CHLOROETHANE
12U	METHYLENE CHLORIDE
12U	ACETONE
12U	CARBON DISULFIDE
12U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
12U	1,1-DICHLOROETHANE
12U	1,2-DICHLOROETHENE (TOTAL)
12U	CHLOROFORM
12U	1,2-DICHLOROETHANE
12U	METHYL ETHYL KETONE
12U	1,1,1-TRICHLOROETHANE
12U	CARBON TETRACHLORIDE
12U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
12U	1,2-DICHLOROPROPANE
12U	CIS-1,3-DICHLOROPROPENE
12U	TRICHLOROETHENE(TRICHLOROETHYLENE)
12U	DIBROMOCHLOROMETHANE
12U	1,1,2-TRICHLOROETHANE
12U	BENZENE
12U	TRANS-1,3-DICHLOROPROPENE
12U	BROMOFORM
12U	METHYL ISOBUTYL KETONE
12U	METHYL BUTYL KETONE
12U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
12U	1,1,2,2-TETRACHLOROETHANE
12U	TOLUENE
12U	CHLOROBENZENE
12U	ETHYL BENZENE
12U	STYRENE
12U	TOTAL XYLENES
15	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-04

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1615 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA47

UG/KG	ANALYTICAL RESULTS
12U	CHLOROMETHANE
12U	BROMOMETHANE
12U	VINYL CHLORIDE
12U	CHLOROETHANE
12U	METHYLENE CHLORIDE
12U	ACETONE
12U	CARBON DISULFIDE
12U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
12U	1,1-DICHLOROETHANE
12U	1,2-DICHLOROETHENE (TOTAL)
12U	CHLOROFORM
12U	1,2-DICHLOROETHANE
12U	METHYL ETHYL KETONE
12U	1,1,1-TRICHLOROETHANE
12U	CARBON TETRACHLORIDE
12U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
12U	1,2-DICHLOROPROPANE
12U	CIS-1,3-DICHLOROPROPENE
12U	TRICHLOROETHENE(TRICHLOROETHYLENE)
12U	DIBROMOCHLOROMETHANE
12U	1,1,2-TRICHLOROETHANE
12U	BENZENE
12U	TRANS-1,3-DICHLOROPROPENE
12U	BROMOFORM
12UJ	METHYL ISOBUTYL KETONE
12UJ	METHYL BUTYL KETONE
12UJ	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
12UJ	1,1,2,2-TETRACHLOROETHANE
12UJ	TOLUENE
12UJ	CHLOROBENZENE
12UJ	ETHYL BENZENE
12UJ	STYRENE
12UJ	TOTAL XYLENES
15	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-05

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1600 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA48

UG/KG	ANALYTICAL RESULTS
11U	CHLOROMETHANE
11U	BROMOMETHANE
11U	VINYL CHLORIDE
11U	CHLOROETHANE
20U	METHYLENE CHLORIDE
11U	ACETONE
11U	CARBON DISULFIDE
11U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
11U	1,1-DICHLOROETHANE
11U	1,2-DICHLOROETHENE (TOTAL)
11U	CHLOROFORM
11U	1,2-DICHLOROETHANE
11U	METHYL ETHYL KETONE
11U	1,1,1-TRICHLOROETHANE
11U	CARBON TETRACHLORIDE
11U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
11U	1,2-DICHLOROPROPANE
11U	CIS-1,3-DICHLOROPROPENE
11U	TRICHLOROETHENE(TRICHLOROETHYLENE)
11U	DIBROMOCHLOROMETHANE
11U	1,1,2-TRICHLOROETHANE
11U	BENZENE
11U	TRANS-1,3-DICHLOROPROPENE
11U	BROMOFORM
11U	METHYL ISOBUTYL KETONE
11U	METHYL BUTYL KETONE
11U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
11U	1,1,2,2-TETRACHLOROETHANE
11U	TOLUENE
11U	CHLOROBENZENE
11U	ETHYL BENZENE
11U	STYRENE
11U	TOTAL XYLENES
12	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA49

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13U	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
13U	METHYLENE CHLORIDE
13U	ACETONE
13U	CARBON DISULFIDE
13U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
13U	1,1-DICHLOROETHANE
13U	1,2-DICHLOROETHENE (TOTAL)
13U	CHLOROFORM
13U	1,2-DICHLOROETHANE
13U	METHYL ETHYL KETONE
13U	1,1,1-TRICHLOROETHANE
13U	CARBON TETRACHLORIDE
13U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
13U	1,2-DICHLOROPROPANE
13U	CIS-1,3-DICHLOROPROPENE
13U	TRICHLOROETHENE(TRICHLOROETHYLENE)
13U	DIBROMOCHLOROMETHANE
13U	1,1,2-TRICHLOROETHANE
13U	BENZENE
13U	TRANS-1,3-DICHLOROPROPENE
13U	BROMOFORM
13U	METHYL ISOBUTYL KETONE
13U	METHYL BUTYL KETONE
13U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
13U	1,1,2,2-TETRACHLOROETHANE
13U	TOLUENE
13U	CHLOROBENZENE
13U	ETHYL BENZENE
13U	STYRENE
13U	TOTAL XYLENES
21	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67940 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-07

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1515 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA50

UG/KG	ANALYTICAL RESULTS
37U	CHLOROMETHANE
37U	BROMOMETHANE
37U	VINYL CHLORIDE
37U	CHLOROETHANE
37U	METHYLENE CHLORIDE
37U	ACETONE
37U	CARBON DISULFIDE
37U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
37U	1,1-DICHLOROETHANE
37U	1,2-DICHLOROETHENE (TOTAL)
37U	CHLOROFORM
37U	1,2-DICHLOROETHANE
37U	METHYL ETHYL KETONE
37U	1,1,1-TRICHLOROETHANE
37U	CARBON TETRACHLORIDE
37U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
37U	1,2-DICHLOROPROPANE
37U	CIS-1,3-DICHLOROPROPENE
37U	TRICHLOROETHENE(TRICHLOROETHYLENE)
37U	DIBROMOCHLOROMETHANE
37U	1,1,2-TRICHLOROETHANE
37U	BENZENE
37U	TRANS-1,3-DICHLOROPROPENE
37U	BROMOFORM
37U	METHYL ISOBUTYL KETONE
37U	METHYL BUTYL KETONE
37U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
37U	1,1,2,2-TETRACHLOROETHANE
37U	TOLUENE
37U	CHLOROBENZENE
37U	ETHYL BENZENE
37U	STYRENE
37U	TOTAL XYLENES
33	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67941 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: TW-01 COLLECTION START: 05/07/92 1715 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA53

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
10U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
1J	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
10U	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS. GA.

PURGEABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67943 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: TB-01 COLLECTION START: 05/05/92 0900 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA39

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
10U	METHYLENE CHLORIDE
10U	ACETONE
10U	CARBON DISULFIDE
10U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	1,1-DICHLOROETHANE
10U	1,2-DICHLOROETHENE (TOTAL)
10U	CHLOROFORM
10U	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
10U	1,1,1-TRICHLOROETHANE
10U	CARBON TETRACHLORIDE
10U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
10U	1,2-DICHLOROPROPANE
10U	CIS-1,3-DICHLOROPROPENE
10U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	DIBROMOCHLOROMETHANE
10U	1,1,2-TRICHLOROETHANE
10U	BENZENE
10U	TRANS-1,3-DICHLOROPROPENE
10U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
10U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	1,1,2,2-TETRACHLOROETHANE
10U	TOLUENE
10U	CHLOROBENZENE
10U	ETHYL BENZENE
10U	STYRENE
10U	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES
CITY: LOUISVILLE ST: KY
STATION ID: SD-01
COLLECTION START: 05/07/92 1345 STOP: 00/00/00
CASE NO.: 18102 SAS NO.:
D. NO.: DA40 MD NO: DA40

ANALYTICAL RESULTS UG/KG

1000JN	TRIMETHYLCYCLOHEXANE
20000J	9 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67926  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY                   **
**   SOURCE: PRODUCERS WOOD PRES                                       CITY: LOUISVILLE              ST: KY                     **
**   STATION ID: SD-02                                                 COLLECTION START: 05/07/92  1220   STOP: 00/00/00        **
**   CASE.NO.: 18102           SAS NO.:                                D. NO.: DA41                 MD NO: DA41                **
**                                                                                                                              **
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ANALYTICAL RESULTS UG/KG

10000J	4 UNIDENTIFIED COMPOUNDS
600JN	DIMETHYLNONANE
2000JN	ETHYLMETHYLHEPTANE
1000JN	METHYLPROPYLNONANE
3000JN	TRIMETHYLDECANE
1000JN	DIMETHYLUNDECANE
6000JN	METHYLUNDECANE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SD-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00 **
** CASE NO.: 18102 SAS NO.: D. NO.: DA42 MD NO: DA42 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

3000JN	ETHYLMETHYLHEPTANE
7000JN	ETHYLDECANOL
40000J	8 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SW-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA44 MD NO: DA44 **
** **
*** ***

ANALYTICAL RESULTS UG/L

30JN	(METHYLETHYL)BENZENE
10JN	ETHYLMETHYLBENZENE
20JN	TRIMETHYLBENZENE (2 ISOMERS)

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67929  SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: M USREY                      **
**   SOURCE: PRODUCERS WOOD PRES                                     CITY: LOUISVILLE              ST: KY                          **
**   STATION ID: SW-02                                               COLLECTION START: 05/07/92  1220   STOP: 00/00/00             **
**   CASE.NO.: 18102          SAS NO.:                               D. NO.: DA45                 MD NO: DA45                      **
**                                                                                                                                 **
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ANALYTICAL RESULTS UG/L

8JN	METHANETHIOL
30JN	METHYLSULFIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67930  SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: M USREY              **
**   SOURCE: PRODUCERS WOOD PRES                                      CITY: LOUISVILLE            ST: KY                   **
**   STATION ID: SW-03                                                COLLECTION START: 05/07/92  1100   STOP: 00/00/00    **
**   CASE.NO.: 18102          SAS NO.:                                D. NO.: DA46                MD NO: DA46              **
**                                                                                                                         **
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ANALYTICAL RESULTS UG/L

30JN ETHYLMETHYLBENZENE (2 ISOMERS)

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67939  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY          **
**   SOURCE: PRODUCERS WOOD PRES                                       CITY: LOUISVILLE           ST: KY               **
**   STATION ID: SS-06                                                 COLLECTION START: 05/07/92  1540   STOP: 00/00/00  **
**   CASE.NO.: 18102          SAS NO.:                                 D. NO.: DA49              MD NO: DA49          **
**                                                                                                                      **
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ANALYTICAL RESULTS UG/KG

10J   1 UNIDENTIFIED COMPOUND

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

JUL 14 1992

*****MEMORANDUM******

DATE: 07/08/92

SUBJECT: Results of Extractable Organic Analysis;
92-0499 PRODUCERS WOOD PRES
LOUISVILLE KY
CASE NO: 18102

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: JOE SLYKERMAN

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

ORGANIC DATA QUALIFIER REPORT

Case Number 18102 Project Number 92-0499 SAS Number
Site ID. Producers Wood Preserve, Louisville, KY.

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
67928,67930	xylenes	J	<quantitation limit
67942	1,2-dichloroethane	J	<quantitation limit
67937	4-methyl-2-pentanone	J	ISTD recovery low
	2-hexanone,toluene	J	ISTD recovery low
	tetrachloroethene	J	ISTD recovery low
	1,1,2,2-tetrachloroethane	J	ISTD recovery low
	chlorobenzene	J	ISTD recovery low
	ethylbenzene	J	ISTD recovery low
	styrene, xylenes	J	ISTD recovery low
Extractables			
67924,67932	all positives	J	<quantitation limit
67926	phenol	J	<quantitation limit
67929	4-methylphenol	J	<quantitation limit
67929,67937,67938			
67940	naphthalene	J	<quantitation limit
67925,67929,67931			
67937,67938,67940	2-methylnaphthalene	J	<quantitation limit
67937,67938,67940	acenaphthylene	J	<quantitation limit
67931,67938,67940	acenaphthene	J	<quantitation limit
67931,67937,67938			
67940	dibenzofuran	J	<quantitation limit
67925,67940	fluorene	J	<quantitation limit
67925,67927,67929			
67937-67939	phenanthrene	J	<quantitation limit
67937-67939	anthracene	J	<quantitation limit
67937	carbazole	J	<quantitation limit
67927	fluoranthene	J	<quantitation limit
67927	pyrene	J	<quantitation limit
67927	chrysene	J	<quantitation limit
67927	benzo(b/k)fluoranthene	J	<quantitation limit
67925,67927,67938			
67939	indeno(1,2,3-cd)pyrene	J	<quantitation limit
67937-67939	dibenz(a,h)anthracene	J	<quantitation limit
67925,67927,67938			
67939	benzo(g,h,i)perylene	J	<quantitation limit
Pesticides			
67931,67940	all pesticides	J	excessive holding time
67937	methoxychlor	R	conflicting information from all the analyses of this sample cannot be resolved

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67924 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 0945 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA38

UG/KG	ANALYTICAL RESULTS
320U	PHENOL
320U	BIS(2-CHLOROETHYL) ETHER
320U	2-CHLOROPHENOL
320U	1,3-DICHLOROBENZENE
320U	1,4-DICHLOROBENZENE
320U	1,2-DICHLOROBENZENE
320U	2-METHYLPHENOL
320U	2,2'-CHLOROISOPROPYLETHER
320U	(3-AND/OR 4-)METHYLPHENOL
320U	N-NITROSODI-N-PROPYLAMINE
320U	HEXACHLOROETHANE
320U	NITROBENZENE
320U	ISOPHORONE
320U	2-NITROPHENOL
320U	2,4-DIMETHYLPHENOL
320U	BIS(2-CHLOROETHOXY) METHANE
320U	2,4-DICHLOROPHENOL
320U	1,2,4-TRICHLOROBENZENE
41J	NAPHTHALENE
320U	4-CHLOROANILINE
320U	HEXACHLOROBUTADIENE
320U	4-CHLORO-3-METHYLPHENOL
63J	2-METHYLNAPHTHALENE
320U	HEXACHLOROCYCLOPENTADIENE (HCCP)
320U	2,4,6-TRICHLOROPHENOL
760U	2,4,5-TRICHLOROPHENOL
320U	2-CHLORONAPHTHALENE
760U	2-NITROANILINE
320U	DIMETHYL PHTHALATE
320U	ACENAPHTHYLENE
320U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
760U	3-NITROANILINE
320U	ACENAPHTHENE
760U	2,4-DINITROPHENOL
760U	4-NITROPHENOL
320U	DIBENZOFURAN
320U	2,4-DINITROTOLUENE
320U	DIETHYL PHTHALATE
320U	4-CHLOROPHENYL PHENYL ETHER
320U	FLUORENE
760U	4-NITROANILINE
760U	2-METHYL-4,6-DINITROPHENOL
320U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
320U	4-BROMOPHENYL PHENYL ETHER
320U	HEXACHLOROBENZENE (HCB)
760U	PENTACHLOROPHENOL
210J	PHENANTHRENE
320U	ANTHRACENE
320U	CARBAZOLE
320U	DI-N-BUTYLPHTHALATE
290J	FLUORANTHENE
250J	PYRENE
320U	BENZYL BUTYL PHTHALATE
320U	3,3'-DICHLOROBENZIDINE
130J	BENZO(A)ANTHRACENE
160J	CHRYSENE
1100	BIS(2-ETHYLHEXYL) PHTHALATE
320U	DI-N-OCTYLPHTHALATE
360J	BENZO(B AND/OR K)FLUORANTHENE
320U	BENZO-A-PYRENE
320U	INDENO (1,2,3-CD) PYRENE
320U	DIBENZO(A,H)ANTHRACENE
320U	BENZO(GHI)PERYLENE
10	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA40

UG/KG	ANALYTICAL RESULTS
770U	PHENOL
770U	BIS(2-CHLOROETHYL) ETHER
770U	2-CHLOROPHENOL
770U	1,3-DICHLOROBENZENE
770U	1,4-DICHLOROBENZENE
770U	1,2-DICHLOROBENZENE
770U	2-METHYLPHENOL
770U	2,2'-CHLOROISOPROPYLETHER
770U	(3-AND/OR 4-)METHYLPHENOL
770U	N-NITROSODI-N-PROPYLAMINE
770U	HEXACHLOROETHANE
770U	NITROBENZENE
770U	ISOPHORONE
770U	2-NITROPHENOL
770U	2,4-DIMETHYLPHENOL
770U	BIS(2-CHLOROETHOXY) METHANE
770U	2,4-DICHLOROPHENOL
770U	1,2,4-TRICHLOROBENZENE
770U	NAPHTHALENE
770U	4-CHLOROANILINE
770U	HEXACHLOROBUTADIENE
770U	4-CHLORO-3-METHYLPHENOL
280J	2-METHYLNAPHTHALENE
770U	HEXACHLOROCYCLOPENTADIENE (HCCP)
770U	2,4,6-TRICHLOROPHENOL
1900U	2,4,5-TRICHLOROPHENOL
770U	2-CHLORONAPHTHALENE
1900U	2-NITROANILINE
770U	DIMETHYL PHTHALATE
770U	ACENAPHTHYLENE
770U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
1900U	3-NITROANILINE
770U	ACENAPHTHENE
1900U	2,4-DINITROPHENOL
1900U	4-NITROPHENOL
770U	DIBENZOFURAN
770U	2,4-DINITROTOLUENE
770U	DIETHYL PHTHALATE
770U	4-CHLOROPHENYL PHENYL ETHER
79J	FLUORENE
1900U	4-NITROANILINE
1900U	2-METHYL-4,6-DINITROPHENOL
770U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
770U	4-BROMOPHENYL PHENYL ETHER
770U	HEXACHLOROBENZENE (HCB)
1900U	PENTACHLOROPHENOL
660J	PHENANTHRENE
770U	ANTHRACENE
770U	CARBAZOLE
770U	DI-N-BUTYLPHTHALATE
1100	FLUORANTHENE
1500	PYRENE
770U	BENZYL BUTYL PHTHALATE
770U	3,3'-DICHLOROBENZIDINE
770U	BENZO(A)ANTHRACENE
770U	CHRYSENE
2900	BIS(2-ETHYLHEXYL) PHTHALATE
770U	DI-N-OCTYLPHTHALATE
850	BENZO(B AND/OR K)FLUORANTHENE
770U	BENZO-A-PYRENE
310J	INDENO (1,2,3-CD) PYRENE
770U	DIBENZO(A,H)ANTHRACENE
380J	BENZO(GHI)PERYLENE
68	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS. GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-02

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1220 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA41

UG/KG	ANALYTICAL RESULTS
260J	PHENOL
740U	BIS(2-CHLOROETHYL) ETHER
740U	2-CHLOROPHENOL
740U	1,3-DICHLOROBENZENE
740U	1,4-DICHLOROBENZENE
740U	1,2-DICHLOROBENZENE
740U	2-METHYLPHENOL
740U	2,2'-CHLOROISOPROPYLETHER
740U	(3-AND/OR 4-)METHYLPHENOL
740U	N-NITROSODI-N-PROPYLAMINE
740U	HEXACHLOROETHANE
740U	NITROBENZENE
740U	ISOPHORONE
740U	2-NITROPHENOL
740U	2,4-DIMETHYLPHENOL
740U	BIS(2-CHLOROETHOXY) METHANE
740U	2,4-DICHLOROPHENOL
740U	1,2,4-TRICHLOROBENZENE
3200	NAPHTHALENE
740U	4-CHLOROANILINE
740U	HEXACHLOROBUTADIENE
740U	4-CHLORO-3-METHYLPHENOL
6400	2-METHYLNAPHTHALENE
740U	HEXACHLOROCYCLOPENTADIENE (HCCP)
740U	2,4,6-TRICHLOROPHENOL
1800U	2,4,5-TRICHLOROPHENOL
740U	2-CHLORONAPHTHALENE
1800U	2-NITROANILINE
740U	DIMETHYL PHTHALATE
1300	ACENAPHTHYLENE
740U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
1800U	3-NITROANILINE
740U	ACENAPHTHENE
1800U	2,4-DINITROPHENOL
1800U	4-NITROPHENOL
800U	DIBENZOFURAN
740U	2,4-DINITROTOLUENE
740U	DIETHYL PHTHALATE
740U	4-CHLOROPHENYL PHENYL ETHER
1600U	FLUORENE
1800U	4-NITROANILINE
1800U	2-METHYL-4,6-DINITROPHENOL
740U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
740U	4-BROMOPHENYL PHENYL ETHER
740U	HEXACHLOROBENZENE (HCB)
1800U	PENTACHLOROPHENOL
13000	PHENANTHRENE
2500	ANTHRACENE
1200U	CARBAZOLE
740U	DI-N-BUTYLPHTHALATE
12000	FLUORANTHENE
13000	PYRENE
740U	BENZYL BUTYL PHTHALATE
740U	3,3'-DICHLOROBENZIDINE
5600	BENZO(A)ANTHRACENE
7100	CHRYSENE
1900U	BIS(2-ETHYLHEXYL) PHTHALATE
750U	DI-N-OCTYLPHTHALATE
9100	BENZO(B AND/OR K)FLUORANTHENE
5200	BENZO-A-PYRENE
1800	INDENO (1,2,3-CD) PYRENE
1200	DIBENZO(A,H)ANTHRACENE
1900	BENZO(GHI)PERYLENE
63	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1100 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA42

UG/KG	ANALYTICAL RESULTS
390U	PHENOL
390U	BIS(2-CHLOROETHYL) ETHER
390U	2-CHLOROPHENOL
390U	1,3-DICHLOROBENZENE
390U	1,4-DICHLOROBENZENE
390U	1,2-DICHLOROBENZENE
390U	2-METHYLPHENOL
390U	2,2'-CHLOROISOPROPYLETHER
390U	(3-AND/OR 4-)METHYLPHENOL
390U	N-NITROSODI-N-PROPYLAMINE
390U	HEXACHLOROETHANE
390U	NITROBENZENE
390U	ISOPHORONE
390U	2-NITROPHENOL
390U	2,4-DIMETHYLPHENOL
390U	BIS(2-CHLOROETHOXY) METHANE
390U	2,4-DICHLOROPHENOL
390U	1,2,4-TRICHLOROBENZENE
390U	NAPHTHALENE
390U	4-CHLOROANILINE
390U	HEXACHLOROBUTADIENE
390U	4-CHLORO-3-METHYLPHENOL
390U	2-METHYLNAPHTHALENE
390U	HEXACHLOROCYCLOPENTADIENE (HCCP)
390U	2,4,6-TRICHLOROPHENOL
960U	2,4,5-TRICHLOROPHENOL
390U	2-CHLORONAPHTHALENE
960U	2-NITROANILINE
390U	DIMETHYL PHTHALATE
390U	ACENAPHTHYLENE
390U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
960U	3-NITROANILINE
390U	ACENAPHTHENE
960U	2,4-DINITROPHENOL
960U	4-NITROPHENOL
390U	DIBENZOFURAN
390U	2,4-DINITROTOLUENE
390U	DIETHYL PHTHALATE
390U	4-CHLOROPHENYL PHENYL ETHER
390U	FLUORENE
960U	4-NITROANILINE
960U	2-METHYL-4,6-DINITROPHENOL
390U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
390U	4-BROMOPHENYL PHENYL ETHER
390U	HEXACHLOROBENZENE (HCB)
960U	PENTACHLOROPHENOL
140J	PHENANTHRENE
390U	ANTHRACENE
390U	CARBAZOLE
390U	DI-N-BUTYLPHTHALATE
140J	FLUORANTHENE
150J	PYRENE
390U	BENZYL BUTYL PHTHALATE
390U	3,3'-DICHLOROBENZIDINE
390U	BENZO(A)ANTHRACENE
130J	CHRYSENE
390U	BIS(2-ETHYLHEXYL) PHTHALATE
390U	DI-N-OCTYLPHTHALATE
120J	BENZO(B AND/OR K)FLUORANTHENE
390U	BENZO-A-PYRENE
46J	INDENO (1,2,3-CD) PYRENE
390U	DIBENZO(A,H)ANTHRACENE
67J	BENZO(GHI)PERYLENE
37	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA44

UG/L	ANALYTICAL RESULTS
10U	PHENOL
10U	BIS(2-CHLOROETHYL) ETHER
10U	2-CHLOROPHENOL
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	1,2-DICHLOROBENZENE
10U	2-METHYLPHENOL
10U	2,2'-CHLOROISOPROPYLETHER
10U	(3-AND/OR 4-)METHYLPHENOL
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
10U	BIS(2-CHLOROETHOXY) METHANE
10U	2,4-DICHLOROPHENOL
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	4-CHLORO-3-METHYLPHENOL
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2,4,6-TRICHLOROPHENOL
25U	2,4,5-TRICHLOROPHENOL
10U	2-CHLORONAPHTHALENE
25U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE

UG/L	ANALYTICAL RESULTS
25U	3-NITROANILINE
10U	ACENAPHTHENE
25U	2,4-DINITROPHENOL
25U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
25U	4-NITROANILINE
25U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
25U	PENTACHLOROPHENOL
10U	PHENANTHRENE
10U	ANTHRACENE
10U	CARBAZOLE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA45

UG/L	ANALYTICAL RESULTS
13	PHENOL
10U	BIS(2-CHLOROETHYL) ETHER
10U	2-CHLOROPHENOL
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	1,2-DICHLOROBENZENE
10U	2-METHYLPHENOL
10U	2,2'-CHLOROISOPROPYLETHER
2J	(3-AND/OR 4-)METHYLPHENOL
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
10U	BIS(2-CHLOROETHOXY) METHANE
10U	2,4-DICHLOROPHENOL
10U	1,2,4-TRICHLOROBENZENE
1J	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	4-CHLORO-3-METHYLPHENOL
1J	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2,4,6-TRICHLOROPHENOL
25U	2,4,5-TRICHLOROPHENOL
10U	2-CHLORONAPHTHALENE
25U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE

UG/L	ANALYTICAL RESULTS
25U	3-NITROANILINE
10U	ACENAPHTHENE
25U	2,4-DINITROPHENOL
25U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
25U	4-NITROANILINE
25U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
25U	PENTACHLOROPHENOL
1J	PHENANTHRENE
10U	ANTHRACENE
10U	CARBAZOLE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

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*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: SW-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1100 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA46

UG/L	ANALYTICAL RESULTS
10U	PHENOL
10U	BIS(2-CHLOROETHYL) ETHER
10U	2-CHLOROPHENOL
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	1,2-DICHLOROBENZENE
10U	2-METHYLPHENOL
10U	2,2'-CHLOROISOPROPYLETHER
10U	(3-AND/OR 4-)METHYLPHENOL
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
10U	BIS(2-CHLOROETHOXY) METHANE
10U	2,4-DICHLOROPHENOL
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	4-CHLORO-3-METHYLPHENOL
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2,4,6-TRICHLOROPHENOL
25U	2,4,5-TRICHLOROPHENOL
10U	2-CHLORONAPHTHALENE
25U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE

UG/L	ANALYTICAL RESULTS
25U	3-NITROANILINE
10U	ACENAPHTHENE
25U	2,4-DINITROPHENOL
25U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
25U	4-NITROANILINE
25U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
25U	PENTACHLOROPHENOL
10U	PHENANTHRENE
10U	ANTHRACENE
10U	CARBAZOLE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499   SAMPLE NO. 67931   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES   CITY: LOUISVILLE   ST: KY
STATION ID: SS-02   COLLECTION START: 05/07/92 1650   STOP: 00/00/00

CASE NO.: 18102   SAS NO.:   D. NO.: DA51

UG/KG	ANALYTICAL RESULTS
24000U	PHENOL
24000U	BIS(2-CHLOROETHYL) ETHER
24000U	2-CHLOROPHENOL
24000U	1,3-DICHLOROBENZENE
24000U	1,4-DICHLOROBENZENE
24000U	1,2-DICHLOROBENZENE
24000U	2-METHYLPHENOL
24000U	2,2'-CHLOROISOPROPYLETHER
24000U	(3-AND/OR 4-)METHYLPHENOL
24000U	N-NITROSODI-N-PROPYLAMINE
24000U	HEXACHLOROETHANE
24000U	NITROBENZENE
24000U	ISOPHORONE
24000U	2-NITROPHENOL
24000U	2,4-DIMETHYLPHENOL
24000U	BIS(2-CHLOROETHOXY) METHANE
24000U	2,4-DICHLOROPHENOL
24000U	1,2,4-TRICHLOROBENZENE
33000	NAPHTHALENE
24000U	4-CHLOROANILINE
24000U	HEXACHLOROBUTADIENE
24000U	4-CHLORO-3-METHYLPHENOL
16000J	2-METHYLNAPHTHALENE
24000U	HEXACHLOROCYCLOPENTADIENE (HCCP)
24000U	2,4,6-TRICHLOROPHENOL
60000U	2,4,5-TRICHLOROPHENOL
24000U	2-CHLORONAPHTHALENE
60000U	2-NITROANILINE
24000U	DIMETHYL PHTHALATE
27000	ACENAPHTHYLENE
24000U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
60000U	3-NITROANILINE
2800J	ACENAPHTHENE
60000U	2,4-DINITROPHENOL
60000U	4-NITROPHENOL
24000J	DIBENZOFURAN
24000U	2,4-DINITROTOLUENE
24000U	DIETHYL PHTHALATE
24000U	4-CHLOROPHENYL PHENYL ETHER
40000	FLUORENE
60000U	4-NITROANILINE
60000U	2-METHYL-4,6-DINITROPHENOL
24000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
24000U	4-BROMOPHENYL PHENYL ETHER
24000U	HEXACHLOROBENZENE (HCB)
60000U	PENTACHLOROPHENOL
78000	PHENANTHRENE
550000	ANTHRACENE
190000	CARBAZOLE
24000U	DI-N-BUTYLPHTHALATE
96000	FLUORANTHENE
72000	PYRENE
24000U	BENZYL BUTYL PHTHALATE
24000U	3,3'-DICHLOROBENZIDINE
120000U	BENZO(A)ANTHRACENE
160000	CHRYSENE
24000U	BIS(2-ETHYLHEXYL) PHTHALATE
24000U	DI-N-OCTYLPHTHALATE
470000	BENZO(B AND/OR K)FLUORANTHENE
160000	BENZO-A-PYRENE
130000	INDENO (1,2,3-CD) PYRENE
46000	DIBENZO(A,H)ANTHRACENE
120000	BENZO(GHI)PERYLENE
17	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS. GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-03

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1630 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA52

UG/KG	ANALYTICAL RESULTS
300U	PHENOL
300U	BIS(2-CHLOROETHYL) ETHER
300U	2-CHLOROPHENOL
300U	1,3-DICHLOROBENZENE
300U	1,4-DICHLOROBENZENE
300U	1,2-DICHLOROBENZENE
300U	2-METHYLPHENOL
300U	2,2'-CHLOROISOPROPYLETHER
300U	(3-AND/OR 4-)METHYLPHENOL
300U	N-NITROSODI-N-PROPYLAMINE
300U	HEXACHLOROETHANE
300U	NITROBENZENE
300U	ISOPHORONE
300U	2-NITROPHENOL
300U	2,4-DIMETHYLPHENOL
300U	BIS(2-CHLOROETHOXY) METHANE
300U	2,4-DICHLOROPHENOL
300U	1,2,4-TRICHLOROBENZENE
300U	NAPHTHALENE
300U	4-CHLOROANILINE
300U	HEXACHLOROBUTADIENE
300U	4-CHLORO-3-METHYLPHENOL
300U	2-METHYLNAPHTHALENE
300U	HEXACHLOROCYCLOPENTADIENE (HCCP)
300U	2,4,6-TRICHLOROPHENOL
720U	2,4,5-TRICHLOROPHENOL
300U	2-CHLORONAPHTHALENE
720U	2-NITROANILINE
300U	DIMETHYL PHTHALATE
300U	ACENAPHTHYLENE
300U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
720U	3-NITROANILINE
300U	ACENAPHTHENE
720U	2,4-DINITROPHENOL
720U	4-NITROPHENOL
300U	DIBENZOFURAN
300U	2,4-DINITROTOLUENE
300U	DIETHYL PHTHALATE
300U	4-CHLOROPHENYL PHENYL ETHER
300U	FLUORENE
720U	4-NITROANILINE
720U	2-METHYL-4,6-DINITROPHENOL
300U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
300U	4-BROMOPHENYL PHENYL ETHER
300U	HEXACHLOROBENZENE (HCB)
720U	PENTACHLOROPHENOL
51J	PHENANTHRENE
300U	ANTHRACENE
300U	CARBAZOLE
300U	DI-N-BUTYLPHTHALATE
64J	FLUORANTHENE
64J	PYRENE
300U	BENZYL BUTYL PHTHALATE
300U	3,3'-DICHLOROBENZIDINE
41J	BENZO(A)ANTHRACENE
62J	CHRYSENE
300U	BIS(2-ETHYLHEXYL) PHTHALATE
300U	DI-N-OCTYLPHTHALATE
110J	BENZO(B AND/OR K)FLUORANTHENE
48J	BENZO-A-PYRENE
300U	INDENO (1,2,3-CD) PYRENE
300U	DIBENZO(A,H)ANTHRACENE
300U	BENZO(GHI)PERYLENE
13	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-04

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1615 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA47

UG/KG	ANALYTICAL RESULTS
11000U	PHENOL
11000U	BIS(2-CHLOROETHYL) ETHER
11000U	2-CHLOROPHENOL
11000U	1,3-DICHLOROBENZENE
11000U	1,4-DICHLOROBENZENE
11000U	1,2-DICHLOROBENZENE
11000U	2-METHYLPHENOL
11000U	2,2'-CHLOROISOPROPYLETHER
11000U	(3-AND/OR 4-)METHYLPHENOL
11000U	N-NITROSODI-N-PROPYLAMINE
11000U	HEXACHLOROETHANE
11000U	NITROBENZENE
11000U	ISOPHORONE
11000U	2-NITROPHENOL
11000U	2,4-DIMETHYLPHENOL
11000U	BIS(2-CHLOROETHOXY) METHANE
11000U	2,4-DICHLOROPHENOL
11000U	1,2,4-TRICHLOROBENZENE
1900J	NAPHTHALENE
11000U	4-CHLOROANILINE
11000U	HEXACHLOROBUTADIENE
11000U	4-CHLORO-3-METHYLPHENOL
1100J	2-METHYLNAPHTHALENE
11000U	HEXACHLOROCYCLOPENTADIENE (HCCP)
11000U	2,4,6-TRICHLOROPHENOL
28000U	2,4,5-TRICHLOROPHENOL
11000U	2-CHLORONAPHTHALENE
28000U	2-NITROANILINE
11000U	DIMETHYL PHTHALATE
2000J	ACENAPHTHYLENE
11000U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
28000U	3-NITROANILINE
11000U	ACENAPHTHENE
28000U	2,4-DINITROPHENOL
28000U	4-NITROPHENOL
1500J	DIBENZOFURAN
11000U	2,4-DINITROTOLUENE
11000U	DIETHYL PHTHALATE
11000U	4-CHLOROPHENYL PHENYL ETHER
11000U	FLUORENE
28000U	4-NITROANILINE
28000U	2-METHYL-4,6-DINITROPHENOL
11000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
11000U	4-BROMOPHENYL PHENYL ETHER
11000U	HEXACHLOROBENZENE (HCB)
28000U	PENTACHLOROPHENOL
6300J	PHENANTHRENE
3300J	ANTHRACENE
1400J	CARBAZOLE
11000U	DI-N-BUTYLPHTHALATE
18000	FLUORANTHENE
18000	PYRENE
11000U	BENZYL BUTYL PHTHALATE
11000U	3,3'-DICHLOROBENZIDINE
14000	BENZO(A)ANTHRACENE
18000	CHRYSENE
11000U	BIS(2-ETHYLHEXYL) PHTHALATE
11000U	DI-N-OCTYLPHTHALATE
41000	BENZO(B AND/OR K)FLUORANTHENE
15000	BENZO-A-PYRENE
15000	INDENO (1,2,3-CD) PYRENE
3900J	DIBENZO(A,H)ANTHRACENE
14000	BENZO(GHI)PERYLENE
12	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-05

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1600 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA48

UG/KG	ANALYTICAL RESULTS
12000U	PHENOL
12000U	BIS(2-CHLOROETHYL) ETHER
12000U	2-CHLOROPHENOL
12000U	1,3-DICHLOROBENZENE
12000U	1,4-DICHLOROBENZENE
12000U	1,2-DICHLOROBENZENE
12000U	2-METHYLPHENOL
12000U	2,2'-CHLOROISOPROPYLETHER
12000U	(3-AND/OR 4-)METHYLPHENOL
12000U	N-NITROSODI-N-PROPYLAMINE
12000U	HEXACHLOROETHANE
12000U	NITROBENZENE
12000U	ISOPHORONE
12000U	2-NITROPHENOL
12000U	2,4-DIMETHYLPHENOL
12000U	BIS(2-CHLOROETHOXY) METHANE
12000U	2,4-DICHLOROPHENOL
12000U	1,2,4-TRICHLOROBENZENE
4200J	NAPHTHALENE
12000U	4-CHLOROANILINE
12000U	HEXACHLOROBUTADIENE
12000U	4-CHLORO-3-METHYLPHENOL
1500J	2-METHYLNAPHTHALENE
12000U	HEXACHLOROCYCLOPENTADIENE (HCCP)
12000U	2,4,6-TRICHLOROPHENOL
30000U	2,4,5-TRICHLOROPHENOL
12000U	2-CHLORONAPHTHALENE
30000U	2-NITROANILINE
12000U	DIMETHYL PHTHALATE
1200J	ACENAPHTHYLENE
12000U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
30000U	3-NITROANILINE
1200J	ACENAPHTHENE
30000U	2,4-DINITROPHENOL
30000U	4-NITROPHENOL
2000J	DIBENZOFURAN
12000U	2,4-DINITROTOLUENE
12000U	DIETHYL PHTHALATE
12000U	4-CHLOROPHENYL PHENYL ETHER
12000U	FLUORENE
30000U	4-NITROANILINE
30000U	2-METHYL-4,6-DINITROPHENOL
12000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
12000U	4-BROMOPHENYL PHENYL ETHER
12000U	HEXACHLOROBENZENE (HCB)
30000U	PENTACHLOROPHENOL
7700J	PHENANTHRENE
3400J	ANTHRACENE
12000U	CARBAZOLE
12000U	DI-N-BUTYLPHTHALATE
28000	FLUORANTHENE
20000	PYRENE
12000U	BENZYL BUTYL PHTHALATE
12000U	3,3'-DICHLOROBENZIDINE
14000U	BENZO(A)ANTHRACENE
14000U	CHRYSENE
12000U	BIS(2-ETHYLHEXYL) PHTHALATE
12000U	DI-N-OCTYLPHTHALATE
48000	BENZO(B AND/OR K)FLUORANTHENE
16000	BENZO-A-PYRENE
8700J	INDENO (1,2,3-CD) PYRENE
3300J	DIBENZO(A,H)ANTHRACENE
6900J	BENZO(GHI)PERYLENE
16]	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA49

UG/KG	ANALYTICAL RESULTS
340U	PHENOL
340U	BIS(2-CHLOROETHYL) ETHER
340U	2-CHLOROPHENOL
340U	1,3-DICHLOROBENZENE
340U	1,4-DICHLOROBENZENE
340U	1,2-DICHLOROBENZENE
340U	2-METHYLPHENOL
340U	2,2'-CHLOROISOPROPYLETHER
340U	(3-AND/OR 4-)METHYLPHENOL
340U	N-NITROSODI-N-PROPYLAMINE
340U	HEXACHLOROETHANE
340U	NITROBENZENE
340U	ISOPHORONE
340U	2-NITROPHENOL
340U	2,4-DIMETHYLPHENOL
340U	BIS(2-CHLOROETHOXY) METHANE
340U	2,4-DICHLOROPHENOL
340U	1,2,4-TRICHLOROBENZENE
340U	NAPHTHALENE
340U	4-CHLOROANILINE
340U	HEXACHLOROBUTADIENE
340U	4-CHLORO-3-METHYLPHENOL
340U	2-METHYLNAPHTHALENE
340U	HEXACHLOROCYCLOPENTADIENE (HCCP)
340U	2,4,6-TRICHLOROPHENOL
820U	2,4,5-TRICHLOROPHENOL
340U	2-CHLORONAPHTHALENE
820U	2-NITROANILINE
340U	DIMETHYL PHTHALATE
340U	ACENAPHTHYLENE
340U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
820U	3-NITROANILINE
340U	ACENAPHTHENE
820U	2,4-DINITROPHENOL
820U	4-NITROPHENOL
340U	DIBENZOFURAN
340U	2,4-DINITROTOLUENE
340U	DIETHYL PHTHALATE
340U	4-CHLOROPHENYL PHENYL ETHER
340U	FLUORENE
820U	4-NITROANILINE
820U	2-METHYL-4,6-DINITROPHENOL
340U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
340U	4-BROMOPHENYL PHENYL ETHER
340U	HEXACHLOROBENZENE (HCB)
820U	PENTACHLOROPHENOL
170J	PHENANTHRENE
71J	ANTHRACENE
340U	CARBAZOLE
340U	DI-N-BUTYLPHTHALATE
890	FLUORANTHENE
800	PYRENE
340U	BENZYL BUTYL PHTHALATE
340U	3,3'-DICHLOROBENZIDINE
570	BENZO(A)ANTHRACENE
720	CHRYSENE
340U	BIS(2-ETHYLHEXYL) PHTHALATE
340U	DI-N-OCTYLPHTHALATE
1500	BENZO(B AND/OR K)FLUORANTHENE
490	BENZO-A-PYRENE
170J	INDENO (1,2,3-CD) PYRENE
80J	DIBENZO(A,H)ANTHRACENE
130J	BENZO(GHI)PERYLENE
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67940 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-07

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1515 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA50

UG/KG	ANALYTICAL RESULTS
14000U	PHENOL
14000U	BIS(2-CHLOROETHYL) ETHER
14000U	2-CHLOROPHENOL
14000U	1,3-DICHLOROBENZENE
14000U	1,4-DICHLOROBENZENE
14000U	1,2-DICHLOROBENZENE
14000U	2-METHYLPHENOL
14000U	2,2'-CHLOROISOPROPYLETHER
14000U	(3-AND/OR 4-)METHYLPHENOL
14000U	N-NITROSODI-N-PROPYLAMINE
14000U	HEXACHLOROETHANE
14000U	NITROBENZENE
14000U	ISOPHORONE
14000U	2-NITROPHENOL
14000U	2,4-DIMETHYLPHENOL
14000U	BIS(2-CHLOROETHOXY) METHANE
14000U	2,4-DICHLOROPHENOL
14000U	1,2,4-TRICHLOROBENZENE
3200J	NAPHTHALENE
14000U	4-CHLOROANILINE
14000U	HEXACHLOROBUTADIENE
14000U	4-CHLORO-3-METHYLPHENOL
2000J	2-METHYLNAPHTHALENE
14000U	HEXACHLOROCYCLOPENTADIENE (HCCP)
14000U	2,4,6-TRICHLOROPHENOL
34000U	2,4,5-TRICHLOROPHENOL
14000U	2-CHLORONAPHTHALENE
34000U	2-NITROANILINE
14000U	DIMETHYL PHTHALATE
11000J	ACENAPHTHYLENE
14000U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
34000U	3-NITROANILINE
3000J	ACENAPHTHENE
34000U	2,4-DINITROPHENOL
34000U	4-NITROPHENOL
6100J	DIBENZOFURAN
14000U	2,4-DINITROTOLUENE
14000U	DIETHYL PHTHALATE
14000U	4-CHLOROPHENYL PHENYL ETHER
5800J	FLUORENE
34000U	4-NITROANILINE
34000U	2-METHYL-4,6-DINITROPHENOL
14000U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
14000U	4-BROMOPHENYL PHENYL ETHER
14000U	HEXACHLOROBENZENE (HCB)
34000U	PENTACHLOROPHENOL
130000	PHENANTHRENE
21000	ANTHRACENE
24000	CARBAZOLE
14000U	DI-N-BUTYLPHTHALATE
150000	FLUORANTHENE
73000	PYRENE
14000U	BENZYL BUTYL PHTHALATE
14000U	3,3'-DICHLOROBENZIDINE
64000	BENZO(A)ANTHRACENE
79000	CHRYSENE
15000U	BIS(2-ETHYLHEXYL) PHTHALATE
14000U	DI-N-OCTYLPHTHALATE
150000	BENZO(B AND/OR K)FLUORANTHENE
75000	BENZO-A-PYRENE
51000	INDENO (1,2,3-CD) PYRENE
15000	DIBENZO(A,H)ANTHRACENE
40000	BENZO(GHI)PERYLENE
27	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67941 SAMPLE TYPE: GROUNDWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: TW-01

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1715 STOP: 00/00/00

CASE NO.: 18102 SAS NO.: D. NO.: DA53

UG/L	ANALYTICAL RESULTS
10U	PHENOL
10U	BIS(2-CHLOROETHYL) ETHER
10U	2-CHLOROPHENOL
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	1,2-DICHLOROBENZENE
10U	2-METHYLPHENOL
10U	2,2'-CHLOROISOPROPYLETHER
10U	(3-AND/OR 4-)METHYLPHENOL
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
10U	BIS(2-CHLOROETHOXY) METHANE
10U	2,4-DICHLOROPHENOL
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	4-CHLORO-3-METHYLPHENOL
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2,4,6-TRICHLOROPHENOL
25U	2,4,5-TRICHLOROPHENOL
10U	2-CHLORONAPHTHALENE
25U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE

UG/L	ANALYTICAL RESULTS
25U	3-NITROANILINE
10U	ACENAPHTHENE
25U	2,4-DINITROPHENOL
25U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
25U	4-NITROANILINE
25U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
25U	PENTACHLOROPHENOL
10U	PHENANTHRENE
10U	ANTHRACENE
10U	CARBAZOLE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 07/07/92

** PROJECT NO. 92-0499 SAMPLE NO. 67943 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: TB-01 COLLECTION START: 05/05/92 0900 STOP: 00/00/00 **
**
** CASE NO.: 18102 SAS NO.: D. NO.: DA39 **

UG/L	ANALYTICAL RESULTS
10U	PHENOL
10U	BIS(2-CHLOROETHYL) ETHER
10U	2-CHLOROPHENOL
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	1,2-DICHLOROBENZENE
10U	2-METHYLPHENOL
10U	2,2'-CHLOROISOPROPYLETHER
10U	(3-AND/OR 4-)METHYLPHENOL
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
10U	BIS(2-CHLOROETHOXY) METHANE
10U	2,4-DICHLOROPHENOL
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	4-CHLORO-3-METHYLPHENOL
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2,4,6-TRICHLOROPHENOL
25U	2,4,5-TRICHLOROPHENOL
10U	2-CHLORONAPHTHALENE
25U	2-NITROANILINE
10U	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE

UG/L	ANALYTICAL RESULTS
25U	3-NITROANILINE
10U	ACENAPHTHENE
25U	2,4-DINITROPHENOL
25U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
25U	4-NITROANILINE
25U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
25U	PENTACHLOROPHENOL
10U	PHENANTHRENE
10U	ANTHRACENE
10U	CARBAZOLE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
10U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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** PROJECT NO. 92-0499   SAMPLE NO. 67924  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY          **
** SOURCE: PRODUCERS WOOD PRES                                      CITY: LOUISVILLE          ST: KY               **
** STATION ID: SS-01                                                COLLECTION START: 05/07/92  0945   STOP: 00/00/00 **
** CASE.NO.: 18102          SAS NO.:                                D. NO.: DA38              MD NO: DA38          **
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ANALYTICAL RESULTS UG/KG

N	PETROLEUM PRODUCT
500JN	HEXADECANOIC ACID
300JN	PENTACHLOROBIPHENYL
4000J	8 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***

** PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SD-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA40 MD NO: DA40 **

*** ***

ANALYTICAL RESULTS UG/KG

100000J	19 UNIDENTIFIED COMPOUNDS
N	PETROLEUM PRODUCT

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SD-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA41 MD NO: DA41 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

N	PETROLEUM PRODUCT
20000JN	DIMETHYNAPHTHALENE
1000000J	19 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SD-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA42 MD NO: DA42 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

20000J	18 UNIDENTIFIED COMPOUNDS
N	PETROLEUM PRODUCT

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.   07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67929  SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: M USREY          **
**   SOURCE: PRODUCERS WOOD PRES                                      CITY: LOUISVILLE           ST: KY               **
**   STATION ID: SW-02                                                COLLECTION START: 05/07/92  1220  STOP: 00/00/00 **
**   CASE.NO.: 18102          SAS NO.:                                D. NO.: DA45               MD NO: DA45          **
**                                                                                                                    **
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ANALYTICAL RESULTS UG/L

40JN	HEPTANOIC ACID
40JN	MORPHOLINEACETONITRILE
70JN	BENZOIC ACID
50JN	BENZOTHIAZOLE
20JN	METHYLBENZOIC ACID (2 ISOMERS)
20JN	BENZENEACETIC ACID
20JN	NONANOIC ACID
20JN	DECANOIC ACID
9JN	HYDROXYMETHOXYBENZALDEHYDE
20JN	BENZOTHIAZOLETHIONE
200J	8 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67931   SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY              **
**   SOURCE: PRODUCERS WOOD PRES                                       CITY: LOUISVILLE              ST: KY                 **
**   STATION ID: SS-02                                                 COLLECTION START: 05/07/92  1650   STOP: 00/00/00    **
**   CASE.NO.: 18102         SAS NO.:                                  D. NO.: DA51                  MD NO: DA51            **
**                                                                                                                          **
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ANALYTICAL RESULTS UG/KG

N	PETROLEUM PRODUCT
30000JN	METHYLPYRENE
20000JN	BENZANTHRACENONE
20000JN	BENZONAPHTHOTHIOPHENE
40000JN	CYCLOPENTAPYRENE
70000JN	BENZOCARBAZOLE
20000JN	METHYLCHRYSENE
200000JN	BENZOFLUORANTHENE (NOT BOOR K) (3 ISOMERS)
50000JN	DIPHENYLCYCLOPROPENONE
50000JN	METHYLBENZACEANTHRYLENE (2 ISOMERS)
20000JN	DIBENZOCHRYSENE
300000J	7 UNIDENTIFIED COMPOUNDS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67932  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY                 **
**   SOURCE: PRODUCERS WOOD PRES                                      CITY: LOUISVILLE              ST: KY                   **
**   STATION ID: SS-03                                                COLLECTION START: 05/07/92  1630   STOP: 00/00/00      **
**   CASE.NO.: 18102          SAS NO.:                                D. NO.: DA52                MD NO: DA52                **
**                                                                                                                           **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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ANALYTICAL RESULTS UG/KG

9000J	9 UNIDENTIFIED COMPOUNDS
200JN	HEXADECANOIC ACID

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES	CITY: LOUISVILLE ST: KY
STATION ID: SS-04	COLLECTION START: 05/07/92 1615 STOP: 00/00/00
CASE NO.: 18102 SAS NO.:	D. NO.: DA47 MD NO: DA47

ANALYTICAL RESULTS UG/KG

7000J	2 UNIDENTIFIED COMPOUNDS
7000JN	BENZOFLUORANTHENE (NOT B OR K)
3000JN	DIPHENYLCYCLOPROPENONE
3000JN	BENZACEPHENANTHRYLENE
3000JN	DIHYDROBENZOPERYLENE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-05 COLLECTION START: 05/07/92 1600 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA48 MD NO: DA48 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

3000JN	CYCLOPENTAPHENANTHRENONE
3000JN	BENZOFLUORENE
3000JN	CYCLOPENTAPYRENE
2000JN	BENZOPYRENE (NOT A)
4000JN	METHYLENEFLUORENE
2000JN	BENZOCHRYSENE
10000J	3 UNIDENTIFIED COMPOUNDS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06
CASE.NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00
D. NO.: DA49 MD NO: DA49

ANALYTICAL RESULTS UG/KG

10000J	14 UNIDENTIFIED COMPOUNDS
400JN	BENZANTHRACENONE
300JN	BENZONAPHTHOTHIOPHENE
400JN	DIHYDROCYCLOPENTAPYRENE
1000JN	BENZOFLUORANTHENE (NOT B OR K)

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67940 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-07
CASE.NO.: 18102 SAS NO.:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1515 STOP: 00/00/00
D. NO.: DA50 MD NO: DA50

ANALYTICAL RESULTS UG/KG

20000JN	ANTHRACENEDIONE
10000JN	BENZOFLUORENE
40000JN	BENZANTHRACENONE (2 ISOMERS)
20000JN	METHYLTRIPHENYLENE
20000JN	BENZOFLUORANTHENE (NOT B OR K)
20000JN	BENZOCHRYSENE
200000J	13 UNIDENTIFIED COMPOUNDS
N	PETROLEUM PRODUCT

FOOTNOTES
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

WPB/SAS
RECEIVED
JUL 14 1992
EPA - REGION IV
ATLANTA, GA

*****MEMORANDUM******

DATE: 07/08/92

SUBJECT: Results of Pesticide/PCB Analysis;
92-0499 PRODUCERS WOOD PRES
LOUISVILLE KY
CASE NO: 18102

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: JOE SLYKERMAN

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

CC:

ORGANIC DATA QUALIFIER REPORT

Case Number 18102 Project Number 92-0499 SAS Number
Site ID. Producers Wood Preserve, Louisville, KY.

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
67928,67930	xylenes	J	<quantitation limit
67942	1,2-dichloroethane	J	<quantitation limit
67937	4-methyl-2-pentanone	J	ISTD recovery low
	2-hexanone,toluene	J	ISTD recovery low
	tetrachloroethene	J	ISTD recovery low
	1,1,2,2-tetrachloroethane	J	ISTD recovery low
	chlorobenzene	J	ISTD recovery low
	ethylbenzene	J	ISTD recovery low
	styrene, xylenes	J	ISTD recovery low
Extractables			
67924,67932	all positives	J	<quantitation limit
67926	phenol	J	<quantitation limit
67929	4-methylphenol	J	<quantitation limit
67929,67937,67938			
67940	naphthalene	J	<quantitation limit
67925,67929,67931			
67937,67938,67940	2-methylnaphthalene	J	<quantitation limit
67937,67938,67940	acenaphthylene	J	<quantitation limit
67931,67938,67940	acenaphthene	J	<quantitation limit
67931,67937,67938			
67940	dibenzofuran	J	<quantitation limit
67925,67940	fluorene	J	<quantitation limit
67925,67927,67929			
67937-67939	phenanthrene	J	<quantitation limit
67937-67939	anthracene	J	<quantitation limit
67937	carbazole	J	<quantitation limit
67927	fluoranthene	J	<quantitation limit
67927	pyrene	J	<quantitation limit
67927	chrysene	J	<quantitation limit
67927	benzo(b/k)fluoranthene	J	<quantitation limit
67925,67927,67938			
67939	indeno(1,2,3-cd)pyrene	J	<quantitation limit
67937-67939	dibenz(a,h)anthracene	J	<quantitation limit
67925,67927,67938			
67939	benzo(g,h,i)perylene	J	<quantitation limit
Pesticides			
67931,67940	all pesticides	J	excessive holding time
67937	methoxychlor	R	conflicting information from all the analyses of this sample cannot be resolved

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67924 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 0945 STOP: 00/00/00
D. NUMBER: DA38

UG/KG	ANALYTICAL RESULTS
1.5U	ALPHA-BHC
1.5U	BETA-BHC
2.0U	DELTA-BHC
1.5U	GAMMA-BHC (LINDANE)
1.5U	HEPTACHLOR
1.5U	ALDRIN
1.5U	HEPTACHLOR EPOXIDE
1.5U	ENDOSULFAN I (ALPHA)
3.0U	DIELDRIN
9.0U	4,4'-DDE (P,P'-DDE)
8.0U	ENDRIN
10U	ENDOSULFAN II (BETA)
3.0U	4,4'-DDD (P,P'-DDD)
3.0U	ENDOSULFAN SULFATE
13U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
20U	METHOXYCHLOR
15U	ENDRIN KETONE
3.0U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
15U	GAMMA-CHLORDANE /2
5.0U	ALPHA-CHLORDANE /2
150U	TOXAPHENE
30U	PCB-1016 (AROCLOR 1016)
61U	PCB-1221 (AROCLOR 1221)
30U	PCB-1232 (AROCLOR 1232)
30U	PCB-1242 (AROCLOR 1242)
30U	PCB-1248 (AROCLOR 1248)
30O	PCB-1254 (AROCLOR 1254)
250U	PCB-1260 (AROCLOR 1260)
1O	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1345 STOP: 00/00/00
D. NUMBER: DA40

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
4.2U	ALPHA-BHC	42U	METHOXYCHLOR
4.2U	BETA-BHC	20U	ENDRIN KETONE
4.2U	DELTA-BHC	8.1U	ENDRIN ALDEHYDE
4.2U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
4.2U	HEPTACHLOR	4.2U	GAMMA-CHLORDANE /2
4.2U	ALDRIN	8.0U	ALPHA-CHLORDANE /2
4.2U	HEPTACHLOR EPOXIDE	420U	TOXAPHENE
4.2U	ENDOSULFAN I (ALPHA)	81U	PCB-1016 (AROCLOR 1016)
8.1U	DIELDRIN	160U	PCB-1221 (AROCLOR 1221)
8.1U	4,4'-DDE (P,P'-DDE)	81U	PCB-1232 (AROCLOR 1232)
8.1U	ENDRIN	81U	PCB-1242 (AROCLOR 1242)
10U	ENDOSULFAN II (BETA)	81U	PCB-1248 (AROCLOR 1248)
8.1U	4,4'-DDD (P,P'-DDD)	81U	PCB-1254 (AROCLOR 1254)
8.1U	ENDOSULFAN SULFATE	340U	PCB-1260 (AROCLOR 1260)
8.1U	4,4'-DDT (P,P'-DDT)	68	PERCENT MOISTURE

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/07/92

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-02
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1220 STOP: 00/00/00
D. NUMBER: DA41

UG/KG	ANALYTICAL RESULTS
3.4U	ALPHA-BHC
3.4U	BETA-BHC
3.4U	DELTA-BHC
3.4U	GAMMA-BHC (LINDANE)
4.5U	HEPTACHLOR
15U	ALDRIN
3.4U	HEPTACHLOR EPOXIDE
3.4U	ENDOSULFAN I (ALPHA)
6.7U	DIELDRIN
6.7U	4,4'-DDE (P,P'-DDE)
6.7U	ENDRIN
6.7U	ENDOSULFAN II (BETA)
6.7U	4,4'-DDD (P,P'-DDD)
6.7U	ENDOSULFAN SULFATE
6.7U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
40U	METHOXYCHLOR
25U	ENDRIN KETONE
6.7U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
3.4U	GAMMA-CHLORDANE /2
3.4U	ALPHA-CHLORDANE /2
340U	TOXAPHENE
67U	PCB-1016 (AROCLOR 1016)
140U	PCB-1221 (AROCLOR 1221)
67U	PCB-1232 (AROCLOR 1232)
67U	PCB-1242 (AROCLOR 1242)
67U	PCB-1248 (AROCLOR 1248)
67U	PCB-1254 (AROCLOR 1254)
250U	PCB-1260 (AROCLOR 1260)
63	PERCENT MOISTURE

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 07/07/92

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**   PROJECT NO. 92-0499   SAMPLE NO. 67927  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY                                **
**   SOURCE: PRODUCERS WOOD PRES                                     CITY: LOUISVILLE            ST: KY                                   **
**   STATION ID: SD-03                                               COLLECTION START: 05/07/92  1100   STOP: 00/00/00                   **
**   CASE NUMBER: 18102          SAS NUMBER:                          D. NUMBER: DA42                                                     **
**                                                                                                                                          **
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    UG/KG                ANALYTICAL RESULTS                          UG/KG                ANALYTICAL RESULTS

    2.1U  ALPHA-BHC                                                   21U  METHOXYCHLOR
    2.1U  BETA-BHC                                                   4.0U  ENDRIN KETONE
    2.1U  DELTA-BHC                                                  4.0U  ENDRIN ALDEHYDE
    2.1U  GAMMA-BHC (LINDANE)                                   --         CHLORDANE (TECH. MIXTURE)  /1
    2.1U  HEPTACHLOR                                                 2.1U  GAMMA-CHLORDANE   /2
    2.1U  ALDRIN                                                     2.1U  ALPHA-CHLORDANE   /2
    2.1U  HEPTACHLOR EPOXIDE                                        210U  TOXAPHENE
    2.1U  ENDOSULFAN I (ALPHA)                                       40U  PCB-1016 (AROCLOR 1016)
    4.0U  DIELDRIN                                                   81U  PCB-1221 (AROCLOR 1221)
    4.0U  4,4'-DDE (P,P'-DDE)                                        40U  PCB-1232 (AROCLOR 1232)
    4.0U  ENDRIN                                                     40U  PCB-1242 (AROCLOR 1242)
    4.0U  ENDOSULFAN II (BETA)                                       40U  PCB-1248 (AROCLOR 1248)
    4.0U  4,4'-DDD (P,P'-DDD)                                        40U  PCB-1254 (AROCLOR 1254)
    4.0U  ENDOSULFAN SULFATE                                         40U  PCB-1260 (AROCLOR 1260)
    4.0U  4,4'-DDT (P,P'-DDT)                                         37  PERCENT MOISTURE
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REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: D. NUMBER: DA44

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: SW-02
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1220 STOP: 00/00/00
D. NUMBER: DA45

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.
*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: SW-03
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1100 STOP: 00/00/00
D. NUMBER: DA46

UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC
0.050U	BETA-BHC
0.050U	DELTA-BHC
0.050U	GAMMA-BHC (LINDANE)
0.050U	HEPTACHLOR
0.050U	ALDRIN
0.050U	HEPTACHLOR EPOXIDE
0.050U	ENDOSULFAN I (ALPHA)
0.10U	DIELDRIN
0.10U	4,4'-DDE (P,P'-DDE)
0.10U	ENDRIN
0.10U	ENDOSULFAN II (BETA)
0.10U	4,4'-DDD (P,P'-DDD)
0.10U	ENDOSULFAN SULFATE
0.10U	4,4'-DDT (P,P'-DDT)

UG/L	ANALYTICAL RESULTS
0.50U	METHOXYCHLOR
0.10U	ENDRIN KETONE
0.10U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
0.050U	GAMMA-CHLORDANE /2
0.050U	ALPHA-CHLORDANE /2
5.0U	TOXAPHENE
1.0U	PCB-1016 (AROCLOR 1016)
2.0U	PCB-1221 (AROCLOR 1221)
1.0U	PCB-1232 (AROCLOR 1232)
1.0U	PCB-1242 (AROCLOR 1242)
1.0U	PCB-1248 (AROCLOR 1248)
1.0U	PCB-1254 (AROCLOR 1254)
1.0U	PCB-1260 (AROCLOR 1260)

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS. GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67931 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-02
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1650 STOP: 00/00/00
D. NUMBER: DA51

UG/KG	ANALYTICAL RESULTS
12UJ	ALPHA-BHC
12UJ	BETA-BHC
40UJ	DELTA-BHC
12UJ	GAMMA-BHC (LINDANE)
12UJ	HEPTACHLOR
12UJ	ALDRIN
12UJ	HEPTACHLOR EPOXIDE
12UJ	ENDOSULFAN I (ALPHA)
90UJ	DIELDRIN
24UJ	4,4'-DDE (P,P'-DDE)
25UJ	ENDRIN
24UJ	ENDOSULFAN II (BETA)
24UJ	4,4'-DDD (P,P'-DDD)
24UJ	ENDOSULFAN SULFATE
120UJ	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
400UJ	METHOXYCHLOR
220UJ	ENDRIN KETONE
60UJ	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
12UJ	GAMMA-CHLORDANE /2
12UJ	ALPHA-CHLORDANE /2
1200UJ	TOXAPHENE
240UJ	PCB-1016 (AROCLOR 1016)
490UJ	PCB-1221 (AROCLOR 1221)
240UJ	PCB-1232 (AROCLOR 1232)
240UJ	PCB-1242 (AROCLOR 1242)
240UJ	PCB-1248 (AROCLOR 1248)
240UJ	PCB-1254 (AROCLOR 1254)
1300UJ	PCB-1260 (AROCLOR 1260)
17	PERCENT MOISTURE

REMARKS
EXCESSIVE HOLDING TIME

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-03
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1630 STOP: 00/00/00
D. NUMBER: DA52

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
1.9U	ALPHA-BHC	19U	METHOXYCHLOR
1.9U	BETA-BHC	3.7U	ENDRIN KETONE
1.9U	DELTA-BHC	3.7U	ENDRIN ALDEHYDE
1.9U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
1.9U	HEPTACHLOR	1.9U	GAMMA-CHLORDANE /2
1.9U	ALDRIN	1.9U	ALPHA-CHLORDANE /2
1.9U	HEPTACHLOR EPOXIDE	190U	TOXAPHENE
1.9U	ENDOSULFAN I (ALPHA)	37U	PCB-1016 (AROCLOR 1016)
3.7U	DIELDRIN	75U	PCB-1221 (AROCLOR 1221)
3.7U	4,4'-DDE (P,P'-DDE)	37U	PCB-1232 (AROCLOR 1232)
3.7U	ENDRIN	37U	PCB-1242 (AROCLOR 1242)
3.7U	ENDOSULFAN II (BETA)	37U	PCB-1248 (AROCLOR 1248)
3.7U	4,4'-DDD (P,P'-DDD)	37U	PCB-1254 (AROCLOR 1254)
3.7U	ENDOSULFAN SULFATE	37U	PCB-1260 (AROCLOR 1260)
3.7U	4,4'-DDT (P,P'-DDT)	13	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499   SAMPLE NO. 67937   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES   CITY: LOUISVILLE   ST: KY
STATION ID: SS-04   COLLECTION START: 05/07/92 1615   STOP: 00/00/00
CASE NUMBER: 18102   SAS NUMBER: D. NUMBER: DA47

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
1.9U	ALPHA-BHC	R	METHOXYCHLOR
1.9U	BETA-BHC	120U	ENDRIN KETONE
5.0U	DELTA-BHC	3.7U	ENDRIN ALDEHYDE
1.9U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
4.0U	HEPTACHLOR	15U	GAMMA-CHLORDANE /2
1.9U	ALDRIN	1.9U	ALPHA-CHLORDANE /2
1.9U	HEPTACHLOR EPOXIDE	190U	TOXAPHENE
15U	ENDOSULFAN I (ALPHA)	37U	PCB-1016 (AROCLOR 1016)
55U	DIELDRIN	76U	PCB-1221 (AROCLOR 1221)
3.7U	4,4'-DDE (P,P'-DDE)	37U	PCB-1232 (AROCLOR 1232)
70U	ENDRIN	37U	PCB-1242 (AROCLOR 1242)
5.0U	ENDOSULFAN II (BETA)	37U	PCB-1248 (AROCLOR 1248)
11U	4,4'-DDD (P,P'-DDD)	100U	PCB-1254 (AROCLOR 1254)
3.7U	ENDOSULFAN SULFATE	1000U	PCB-1260 (AROCLOR 1260)
70U	4,4'-DDT (P,P'-DDT)	12	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-05
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1600 STOP: 00/00/00
D. NUMBER: DA48

UG/KG	ANALYTICAL RESULTS
1.7U	ALPHA-BHC
1.7U	BETA-BHC
10U	DELTA-BHC
1.7U	GAMMA-BHC (LINDANE)
4.0U	HEPTACHLOR
1.7U	ALDRIN
1.7U	HEPTACHLOR EPOXIDE
1.7U	ENDOSULFAN I (ALPHA)
130U	DIELDRIN
3.2U	4,4'-DDE (P,P'-DDE)
75U	ENDRIN
20U	ENDOSULFAN II (BETA)
20U	4,4'-DDD (P,P'-DDD)
3.2U	ENDOSULFAN SULFATE
120U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
400U	METHOXYCHLOR
130U	ENDRIN KETONE
3.2U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
15U	GAMMA-CHLORDANE /2
10U	ALPHA-CHLORDANE /2
400U	TOXAPHENE
32U	PCB-1016 (AROCLOR 1016)
66U	PCB-1221 (AROCLOR 1221)
32U	PCB-1232 (AROCLOR 1232)
32U	PCB-1242 (AROCLOR 1242)
32U	PCB-1248 (AROCLOR 1248)
100U	PCB-1254 (AROCLOR 1254)
1500U	PCB-1260 (AROCLOR 1260)
16	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00
D. NUMBER: DA49

UG/KG	ANALYTICAL RESULTS
1.7U	ALPHA-BHC
1.7U	BETA-BHC
2.0U	DELTA-BHC
1.7U	GAMMA-BHC (LINDANE)
1.7U	HEPTACHLOR
1.7U	ALDRIN
1.7U	HEPTACHLOR EPOXIDE
1.7U	ENDOSULFAN I (ALPHA)
4.0U	DIELDRIN
3.2U	4,4'-DDE (P,P'-DDE)
3.2U	ENDRIN
3.2U	ENDOSULFAN II (BETA)
3.2U	4,4'-DDD (P,P'-DDD)
3.2U	ENDOSULFAN SULFATE
3.2U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
19	METHOXYCHLOR
8.5	ENDRIN KETONE
3.2U	ENDRIN ALDEHYDE
--	CHLORDANE (TECH. MIXTURE) /1
1.7U	GAMMA-CHLORDANE /2
1.7U	ALPHA-CHLORDANE /2
170U	TOXAPHENE
32U	PCB-1016 (AROCLOR 1016)
65U	PCB-1221 (AROCLOR 1221)
32U	PCB-1232 (AROCLOR 1232)
32U	PCB-1242 (AROCLOR 1242)
32U	PCB-1248 (AROCLOR 1248)
32U	PCB-1254 (AROCLOR 1254)
100U	PCB-1260 (AROCLOR 1260)
18	PERCENT MOISTURE

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499   SAMPLE NO. 67940   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES   CITY: LOUISVILLE   ST: KY
STATION ID: SS-07   COLLECTION START: 05/07/92 1515   STOP: 00/00/00
CASE NUMBER: 18102   SAS NUMBER: D. NUMBER: DA50

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
2.0UJ	ALPHA-BHC	600UJ	METHOXYCHLOR
2.0UJ	BETA-BHC	500UJ	ENDRIN KETONE
2.0UJ	DELTA-BHC	200UJ	ENDRIN ALDEHYDE
7.5UJ	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
25UJ	HEPTACHLOR	300UJ	GAMMA-CHLORDANE /2
2.0UJ	ALDRIN	200UJ	ALPHA-CHLORDANE /2
2.0UJ	HEPTACHLOR EPOXIDE	200UJ	TOXAPHENE
2.0UJ	ENDOSULFAN I (ALPHA)	39UJ	PCB-1016 (AROCLOR 1016)
3.9UJ	DIELDRIN	79UJ	PCB-1221 (AROCLOR 1221)
200UJ	4,4'-DDE (P,P'-DDE)	39UJ	PCB-1232 (AROCLOR 1232)
50UJ	ENDRIN	39UJ	PCB-1242 (AROCLOR 1242)
200UJ	ENDOSULFAN II (BETA)	39UJ	PCB-1248 (AROCLOR 1248)
50UJ	4,4'-DDD (P,P'-DDD)	2900UJ	PCB-1254 (AROCLOR 1254)
75UJ	ENDOSULFAN SULFATE	3200UJ	PCB-1260 (AROCLOR 1260)
60UJ	4,4'-DDT (P,P'-DDT)	27	PERCENT MOISTURE

REMARKS
EXCESSIVE HOLDING TIME

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67941 SAMPLE TYPE: GROUNDWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: TW-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1715 STOP: 00/00/00
D. NUMBER: DA53

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

07/07/92

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67943 SAMPLE TYPE: GROUNDWA
SOURCE: PRODUCERS WOOD PRES
STATION ID: TB-01
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/05/92 0900 STOP: 00/00/00
D. NUMBER: DA39

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

FOOTNOTES
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM******

DATE: 06/19/92

SUBJECT: Results of Metals Analysis;
92-0499 PRODUCERS WOOD PRES
LOUISVILLE KY
CASE NO: 18102

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: JOE SLYKERMAN

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

INORGANIC DATA QUALIFIERS REPORT

Case Number: 18102
Project Number: 92-0499
Site: Producers Wood Pres., Louisville, KY

Element	Flag	Samples Affected	Reason
A. Water			
As, Cd, Cr, Co, Cu, Mn, Ag, V, Zn	U	All positives > IDL, but < CRDL	Baseline instability
Al, Ca, Fe, Mg, Na	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Ag	J	All with Al or Fe concentrations in solution > 105,000 ug/L	Suspected over correction as noted in the contractor ICS
Al	J	All	Matrix spike recovery = 129.9% Matrix duplicate RPD = 158.8%
Se	J	All	Matrix spike recovery = 49.2%
Ag	J	All	Matrix spike recovery = 69.9%
Tl	J	All	Matrix spike recovery = 53.3%
Zn	J	All	Matrix duplicate RPD = 106%
Mn	J	All positives	Blind spike recovery = 177%
Hg	J	MDDA39	Technical holding time exceeded
CN	J	MDDA39 & MDDA45	Technical holding time exceeded
B. Soil			
As, Cd, Cr, Co, Cu, Fe, Ag, V	U	All positives > IDL, but < CRDL	Baseline instability
Ca, Mg, Na, Zn	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Mn	J	All	Matrix spike recovery = 57.5% Blind spike recovery = 177%
Se	J R	All positives All negatives	Matrix spike recovery = 0%
Tl	J R	All positives All negatives	Matrix spike recovery = 0.6%
Zn	J	All	Matrix spike recovery = 50.5% Serial dilution percent difference = 17%
Cd	J	MDDA38	% RSD > 20% for ICP multiple exposures
Ag	J	MDDA47	% RSD > 20% for ICP multiple exposures

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

METALS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67923 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: PB-01 COLLECTION START: 05/05/92 0900 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA39

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
30UJ	ALUMINUM	1U	MANGANESE
11U	ANTIMONY	0.20UJ	MERCURY
2U	ARSENIC	5U	NICKEL
5U	BARIUM	200U	POTASSIUM
1U	BERYLLIUM	4UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
60U	CALCIUM	200U	SODIUM
5U	CHROMIUM	2UJ	THALLIUM
2U	COBALT	NA	TIN
4U	COPPER	3U	VANADIUM
25U	IRON	10UJ	ZINC
1U	LEAD		
70U	MAGNESIUM		

REMARKS
RECOMMENDED HOLDING TIME EXCEEDED-HG

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA. 06/18/92

METALS DATA REPORT

** PROJECT NO. 92-0499   SAMPLE NO. 67924   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES   CITY: LOUISVILLE   ST: KY **
** STATION ID: SS-01   COLLECTION START: 05/07/92 0945   STOP: 00/00/00 **
** CASE NUMBER: 18102   SAS NUMBER: MD NUMBER: DA38 **

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
9600	ALUMINUM	1400J	MANGANESE
3.4U	ANTIMONY	9.6	MERCURY
27	ARSENIC	19	NICKEL
110	BARIUM	1100	POTASSIUM
0.71	BERYLLIUM	0.84UR	SELENIUM
1.1J	CADMIUM	3U	SILVER
17000	CALCIUM	60U	SODIUM
15	CHROMIUM	1UJ	THALLIUM
13	COBALT	NA	TIN
22	COPPER	23	VANADIUM
22000	IRON	120J	ZINC
58	LEAD	09	PERCENT MOISTURE
8100	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA. 06/18/92

METALS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67925 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SD-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00 **
** CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA40 **
** **
*** ***

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
15000	ALUMINUM	21000J	MANGANESE
20U	ANTIMONY	0.37U	MERCURY
140	ARSENIC	31	NICKEL
180	BARIUM	800	POTASSIUM
0.76U	BERYLLIUM	3.1UR	SELENIUM
5	CADMIUM	6U	SILVER
77000	CALCIUM	240	SODIUM
17	CHROMIUM	2UJ	THALLIUM
40U	COBALT	NA	TIN
220	COPPER	20U	VANADIUM
59000	IRON	360J	ZINC
83	LEAD	75	PERCENT MOISTURE
4200	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

** PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SD-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00 **
** CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA41 **

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
2600	ALUMINUM	480J	MANGANESE
9U	ANTIMONY	0.28U	MERCURY
5U	ARSENIC	17	NICKEL
250	BARIUM	530	POTASSIUM
0.56U	BERYLLIUM	2.3UR	SELENIUM
2U	CADMIUM	1.1U	SILVER
220000	CALCIUM	270	SODIUM
99	CHROMIUM	0.57UR	THALLIUM
3U	COBALT	NA	TIN
54	COPPER	20U	VANADIUM
3900	IRON	270J	ZINC
36	LEAD	67	PERCENT MOISTURE
29000	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SD-03
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1100 STOP: 00/00/00
MD NUMBER: DA42

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
1300	ALUMINUM	3900J	MANGANESE
5.3U	ANTIMONY	0.16U	MERCURY
24	ARSENIC	2.9	NICKEL
310	BARIUM	140	POTASSIUM
0.33U	BERYLLIUM	7UR	SELENIUM
0.66U	CADMIUM	0.66U	SILVER
330000	CALCIUM	420	SODIUM
7.2	CHROMIUM	0.35UR	THALLIUM
4U	COBALT	NA	TIN
19	COPPER	2U	VANADIUM
8100	IRON	41J	ZINC
6.4	LEAD	45	PERCENT MOISTURE
4000	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA44

ANALYTICAL RESULTS

UG/L		UG/L	
30UJ	ALUMINUM	1200J	MANGANESE
11U	ANTIMONY	0.20U	MERCURY
10	ARSENIC	5U	NICKEL
88	BARIUM	8200	POTASSIUM
1U	BERYLLIUM	5UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
130000	CALCIUM	35000	SODIUM
5U	CHROMIUM	2UJ	THALLIUM
2U	COBALT	NA	TIN
4U	COPPER	2U	VANADIUM
1100	IRON	8UJ	ZINC
1U	LEAD		
40000	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA45

ANALYTICAL RESULTS

UG/L		UG/L	
40UJ	ALUMINUM	3UJ	MANGANESE
11U	ANTIMONY	2.1	MERCURY
3U	ARSENIC	5U	NICKEL
940	BARIUM	78000	POTASSIUM
1U	BERYLLIUM	4UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
370000	CALCIUM	45000	SODIUM
33	CHROMIUM	10UJ	THALLIUM
4U	COBALT	NA	TIN
4U	COPPER	2U	VANADIUM
40U	IRON	28J	ZINC
1U	LEAD		
230U	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

METALS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA46

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
1100J	ALUMINUM	1300J	MANGANESE
11U	ANTIMONY	0.20U	MERCURY
10U	ARSENIC	5U	NICKEL
190	BARIUM	8800	POTASSIUM
1U	BERYLLIUM	4UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
170000	CALCIUM	36000	SODIUM
5U	CHROMIUM	2UJ	THALLIUM
3U	COBALT	NA	TIN
5U	COPPER	2U	VANADIUM
1500	IRON	25J	ZINC
1U	LEAD		
41000	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67931 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-02
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1650 STOP: 00/00/00
MD NUMBER: DA51

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
7200	ALUMINUM	690J	MANGANESE
3.8U	ANTIMONY	0.94	MERCURY
100	ARSENIC	25	NICKEL
1200	BARIUM	750	POTASSIUM
1U	BERYLLIUM	0.96UR	SELENIUM
6.9	CADMIUM	6.2	SILVER
4100	CALCIUM	890U	SODIUM
69	CHROMIUM	2UJ	THALLIUM
20U	COBALT	NA	TIN
170	COPPER	26	VANADIUM
58000	IRON	1300J	ZINC
330	LEAD	21	PERCENT MOISTURE
1200	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

METALS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SS-03 COLLECTION START: 05/07/92 1630 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA52

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
8600	ALUMINUM	320J	MANGANESE
3.2U	ANTIMONY	1.5	MERCURY
10	ARSENIC	15	NICKEL
50	BARIUM	860	POTASSIUM
1U	BERYLLIUM	0.77UR	SELENIUM
1U	CADMIUM	2U	SILVER
27000	CALCIUM	50U	SODIUM
12	CHROMIUM	0.19UR	THALLIUM
8.2	COBALT	NA	TIN
15	COPPER	18	VANADIUM
20000	IRON	56J	ZINC
25	LEAD	05	PERCENT MOISTURE
4800	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

** PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-04 COLLECTION START: 05/07/92 1615 STOP: 00/00/00 **
** CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA47 **

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
7000	ALUMINUM	250J	MANGANESE
3.6U	ANTIMONY	0.11U	MERCURY
180	ARSENIC	15	NICKEL
69	BARIUM	720	POTASSIUM
1.3	BERYLLIUM	0.86UR	SELENIUM
1.4	CADMIUM	2.6J	SILVER
8400	CALCIUM	180U	SODIUM
13	CHROMIUM	1UJ	THALLIUM
6U	COBALT	NA	TIN
56	COPPER	34	VANADIUM
28000	IRON	190J	ZINC
200	LEAD	15	PERCENT MOISTURE
700	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-05
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1600 STOP: 00/00/00
MD NUMBER: DA48

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
6400	ALUMINUM	460J	MANGANESE
3.5U	ANTIMONY	0.72	MERCURY
230	ARSENIC	18	NICKEL
100	BARIUM	770	POTASSIUM
1.2	BERYLLIUM	0.90UR	SELENIUM
1U	CADMIUM	2.9	SILVER
6000	CALCIUM	100U	SODIUM
12	CHROMIUM	2UJ	THALLIUM
9U	COBALT	NA	TIN
190	COPPER	30	VANADIUM
28000	IRON	120J	ZINC
96	LEAD	15	PERCENT MOISTURE
2100	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS, GA.

06/18/92

METALS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67939 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-06
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1540 STOP: 00/00/00
MD NUMBER: DA49

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
11000	ALUMINUM	2500J	MANGANESE
3.7U	ANTIMONY	0.11	MERCURY
12	ARSENIC	19	NICKEL
200	BARIUM	1100	POTASSIUM
2U	BERYLLIUM	0.96UR	SELENIUM
1U	CADMIUM	2.7	SILVER
950	CALCIUM	30U	SODIUM
18	CHROMIUM	1UJ	THALLIUM
22	COBALT	NA	TIN
17	COPPER	24	VANADIUM
23000	IRON	75J	ZINC
35	LEAD	19	PERCENT MOISTURE
1300	MAGNESIUM		

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67940 SAMPLE TYPE: SOIL
SOURCE: PRODUCERS WOOD PRES
STATION ID: SS-07
CASE NUMBER: 18102 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: M USREY
CITY: LOUISVILLE ST: KY
COLLECTION START: 05/07/92 1515 STOP: 00/00/00
MD NUMBER: DA50

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
9500	ALUMINUM	360J	MANGANESE
4U	ANTIMONY	0.92	MERCURY
6	ARSENIC	65	NICKEL
550	BARIUM	850	POTASSIUM
1U	BERYLLIUM	0.95UR	SELENIUM
7.4	CADMIUM	3U	SILVER
26000	CALCIUM	240U	SODIUM
61	CHROMIUM	1UJ	THALLIUM
10U	COBALT	NA	TIN
160	COPPER	43	VANADIUM
23000	IRON	75J	ZINC
710	LEAD	22	PERCENT MOISTURE
9900	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD. ATHENS, GA.

METALS DATA REPORT 06/18/92

PROJECT NO. 92-0499 SAMPLE NO. 67941 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: TW-01 COLLECTION START: 05/07/92 1715 STOP: 00/00/00
CASE NUMBER: 18102 SAS NUMBER: MD NUMBER: DA53

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
270UJ	ALUMINUM	1100J	MANGANESE
11U	ANTIMONY	0.20U	MERCURY
4U	ARSENIC	9	NICKEL
72	BARIUM	2900	POTASSIUM
1U	BERYLLIUM	4UJ	SELENIUM
1U	CADMIUM	3UJ	SILVER
140000	CALCIUM	11000	SODIUM
10	CHROMIUM	2UJ	THALLIUM
3U	COBALT	NA	TIN
30U	COPPER	2U	VANADIUM
1500	IRON	20UJ	ZINC
1U	LEAD		
36000	MAGNESIUM		

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM******

DATE: 06/19/92

SUBJECT: Results of Specified Analysis;
92-0499 PRODUCERS WOOD PRES
LOUISVILLE KY
CASE NO: 18102

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: JOE SLYKERMAN

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

CC

INORGANIC DATA QUALIFIERS REPORT

Case Number: 18102
Project Number: 92-0499
Site: Producers Wood Pres., Louisville, KY

Element	Flag	Samples Affected	Reason
A. Water			
As, Cd, Cr, Co, Cu, Mn, Ag, V, Zn	U	All positives > IDL, but < CRDL	Baseline instability
Al, Ca, Fe, Mg, Na	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Ag	J	All with Al or Fe concentrations in solution > 105,000 ug/L	Suspected over correction as noted in the contractor ICS
Al	J	All	Matrix spike recovery = 129.9% Matrix duplicate RPD = 158.8%
Se	J	All	Matrix spike recovery = 49.2%
Ag	J	All	Matrix spike recovery = 69.9%
Tl	J	All	Matrix spike recovery = 53.3%
Zn	J	All	Matrix duplicate RPD = 106%
Mn	J	All positives	Blind spike recovery = 177%
Hg	J	MDDA39	Technical holding time exceeded
CN	J	MDDA39 & MDDA45	Technical holding time exceeded
B. Soil			
As, Cd, Cr, Co, Cu, Fe, Ag, V	U	All positives > IDL, but < CRDL	Baseline instability
Ca, Mg, Na, Zn	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Mn	J	All	Matrix spike recovery = 57.5% Blind spike recovery = 177%
Se	J R	All positives All negatives	Matrix spike recovery = 0%
Tl	J R	All positives All negatives	Matrix spike recovery = 0.6%
Zn	J	All	Matrix spike recovery = 50.5% Serial dilution percent difference = 17%
Cd	J	MDDA38	% RSD > 20% for ICP multiple exposures
Ag	J	MDDA47	% RSD > 20% for ICP multiple exposures

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67923 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: PB-01 COLLECTION START: 05/05/92 0900 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: MD NO: DA39 **
** **
*** ***

RESULTS	UNITS	PARAMETER
10UJ	UG/L	CYANIDE

REMARKS
HOLDING TIME EXCEEDED-CN

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA. 06/18/92

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67924  SAMPLE TYPE: SOIL       PROG ELEM: NSF   COLLECTED BY: M USREY                  **
**   SOURCE: PRODUCERS WOOD PRES                                     CITY: LOUISVILLE                ST: KY                  **
**   STATION ID: SS-01                                               COLLECTION START: 05/07/92  0945   STOP: 00/00/00       **
**   CASE.NO.: 18102          SAS NO.:                               D. NO.: DA38                MD NO: DA38                 **
**                                                                                                                           **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.54U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67925  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY              **
**   SOURCE: PRODUCERS WOOD PRES                                      CITY: LOUISVILLE              ST: KY                  **
**   STATION ID: SD-01                                                COLLECTION START: 05/07/92  1345   STOP: 00/00/00   **
**   CASE.NO.: 18102         SAS NO.:                                 D. NO.: DA40                MD NO: DA40             **
**                                                                                                                        **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
1.9U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67926 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES	CITY: LOUISVILLE ST: KY
STATION ID: SD-02	COLLECTION START: 05/07/92 1220 STOP: 00/00/00
CASE NO.: 18102 SAS NO.:	D. NO.: DA41 MD NO: DA41

RESULTS	UNITS	PARAMETER
21	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67927 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SD-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA42 MD NO: DA42 **
** **
*** ***

RESULTS	UNITS	PARAMETER
0.86U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.
06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67928 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SW-01 COLLECTION START: 05/07/92 1345 STOP: 00/00/00 **
** CASE NO.: 18102 SAS NO.: D. NO.: DA44 MD NO: DA44 **
** **
*** ***

RESULTS	UNITS	PARAMETER
10U	UG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67929 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SW-02 COLLECTION START: 05/07/92 1220 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.: D. NO.: DA45 MD NO: DA45

RESULTS	UNITS	PARAMETER
16000J	UG/L	CYANIDE

REMARKS
HOLDING TIME EXCEEDED-CN

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67930 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SW-03 COLLECTION START: 05/07/92 1100 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA46 MD NO: DA46 **
** **
*** ***

RESULTS	UNITS	PARAMETER
10U	UG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67931 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-02 COLLECTION START: 05/07/92 1650 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA51 MD NO: DA51 **
** **
*** ***

RESULTS	UNITS	PARAMETER
0.85	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67932 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-03 COLLECTION START: 05/07/92 1630 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA52 MD NO: DA52 **
** **
*** ***

RESULTS	UNITS	PARAMETER
0.48U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 92-0499 SAMPLE NO. 67937 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY
SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY
STATION ID: SS-04 COLLECTION START: 05/07/92 1615 STOP: 00/00/00
CASE.NO.: 18102 SAS NO.: D. NO.: DA47 MD NO: DA47

RESULTS	UNITS	PARAMETER
0.56U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67938 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: SS-05 COLLECTION START: 05/07/92 1600 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA48 MD NO: DA48 **
** **
*** ***

RESULTS	UNITS	PARAMETER
0.59	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67939  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY          **
**   SOURCE: PRODUCERS WOOD PRES                                      CITY: LOUISVILLE              ST: KY             **
**   STATION ID: SS-06                                                COLLECTION START: 05/07/92  1540   STOP: 00/00/00 **
**   CASE.NO.: 18102          SAS NO.:                                D. NO.: DA49                 MD NO: DA49         **
**                                                                                                                    **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.62U	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 92-0499   SAMPLE NO. 67940  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: M USREY           **
**   SOURCE: PRODUCERS WOOD PRES                                      CITY: LOUISVILLE          ST: KY                  **
**   STATION ID: SS-07                                                COLLECTION START: 05/07/92  1515   STOP: 00/00/00 **
**   CASE.NO.: 18102          SAS NO.:                                D. NO.: DA50               MD NO: DA50            **
**                                                                                                                      **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
0.66	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/18/92

SPECIFIED ANALYSIS DATA REPORT

*** ***
** PROJECT NO. 92-0499 SAMPLE NO. 67941 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: M USREY **
** SOURCE: PRODUCERS WOOD PRES CITY: LOUISVILLE ST: KY **
** STATION ID: TW-01 COLLECTION START: 05/07/92 1715 STOP: 00/00/00 **
** CASE.NO.: 18102 SAS NO.: D. NO.: DA53 MD NO: DA53 **
** **
*** ***

RESULTS	UNITS	PARAMETER
10U	UG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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U. S. ENVIRONMENTAL PROTECTION AGENCY
REGION IV, ATHENS, GEORGIA

MEMORANDUM

MAY 11 1992

WPB/SAS
MAY 12 1992
EPA REGION IV
ATLANTA, GA

SUBJECT: Site Inspection Study Plan,
Producers Wood Preserver,
Louisville, Jefferson County, Kentucky,
EPA ID No. **KYD985066042,**
ESD Project No. 92E-410

FROM: Roger E. Carlton, Environmental Engineer
Hazardous Waste Section
Environmental Compliance Branch
Environmental Services Division

TO: Al Hanke, Chief
Site Assessment Section
Waste Programs Branch
Waste Management Division

THRU: William R. Bokey, Chief
Hazardous Waste Section
Environmental Compliance Branch
Environmental Services Division

ESD has reviewed the Site Inspection Study Plan, Producers Wood Preserver, Louisville, Jackson County, Kentucky, and the following comments are for your consideration:

1. General Comments:

   a. The pages of the "Table of Contents" do not agree with the locations of the tables and figures in the text. The figures and tables follow the corresponding pages.

   b. Based on the following comments and the list of references, it is apparent that a field reconnaissance was either not preformed or done improperly.

2. Section 1.7, Regional Hydrogeology, Page 5:

   "Well inventories indicate that ground water is available at a depth of approximately 40 feet below land surface (bls). ... The normal hydraulic gradient in this area is toward the Ohio River except in instances of heavy pumpage by local industries when it shifts toward the pumpage. B.F. Goodrich and Airco are companies in the area operating industrial pumping wells at 40 feet bls."

And goes on to say, Section 2.0 Sampling Investigation, Page 5:

> "... private ground water wells may be present in the area though their number and locations are not documented. Therefore, no ground water samples will be collected."

Comment: There appears to be some discrepancy with this logic. There should be at least two ground water samples collected from the two facilities, B.F. Goodrich and Airco, which are having a definite impact on the flow direction of ground water in the area. It should also be noted whether or not the facilities are using the ground water for industrial processes (e.g., non-contact cooling waters) or drinking water supplies.

Allowances should also have been made to collect ground water samples from "private wells" that may exist in the area. The site reconnaissance should have located any private wells in the area (3 mile radius).

Due to the distance to the surficial aquifer, 40 feet bls, temporary wells would not be feasible if installed manually; however, any wells (private or industrial) that are present should be sampled.

3. Sediment and Surface Water Sampling (Figure 4).

Comment: ESD recommends eliminating Samples WP-SW-04 and -05 and WP-SD-04 and -05. These samples were going to be collected from the Ohio River. Due to the velocity of the Ohio River, the results of these samples would probably be useless. However, collecting a surface water and sediment sample at the point where the drainage ditch (Paddy's Run Drainage) and the Ohio River intersect may prove more prudent.

4. Figure 2, 3, and 4. "Ponds"

Comment: It is not apparent, due to the lack of discussion in the text, as to whether or not samples should be collected from these locations. If the ponds are/were used in processes associated with the facility (present or past), this should be noted in the text.

If you have any question, call me at Commercial or FTS (706) 546-3351.

cc: Bokey/Hall
Knight
Kline

ACCESS INFORMATION SHEET

Site Name: Producers Wood Preserver
Site Address: South of Bells Lane
Jefferson County
Louisville, KY

EPA ID #: KYD985 066 042

FIT Project Manager: Hubert Wieland
FIT State Coordinator: Monica Usiey
EPA Contact: Ramona Klein
Field Date: April 20, 1992

TDD Number: S2011.023

	File Information	Verification
Facility Owner/Operator Address Phone No. Principal Contact	Carbon Graphite 502-423-4400 Sue Carney - direct line - 502 775 4150 B.F. Goodrich 502-772-5703 FAX 502 772-5772	ATTN Sue Carney, Plant Mgr PO Box 3727 Louisville KY 40201 Dan Crompton, Safety + Environ. Granted access via phone 3/25/92 ATTN ~~Hans Hansklettke~~, PM. Louisville Plant 4200 Bells Lane PO Box 32950 Louisville KY 40232
Landowner Address Phone No. Principal Contact (If different from above)		Granted access via phone 3/23/92 Mr. Hans Kletke
Date of Information		

Date Access Required (3 weeks prior to field date) March 30, 1992

Date Information Submitted to EPA March 17, 1992

Comments:

AUTHORITY TO MANAGE IDW

EPA views IDW management as an inherent part of the site investigation process authorized under CERCLA Section 104 (e) (4). Should a site owner refuse to provide access, EPA has the authority to issue an administrative order, or seek a court order, to gain site access for environmental sampling. Non-compliance with such an order may result in imposing the sanctions authorized under CERCLA Section 104 (e) (5), including penalties.

EPA believes the approach contained in this guidance to be reasonable and protective of human health and the environment. The limited scope and purpose of the SI activity is not intended to address contamination at a particular site (other than to gather information about it). Generally, SI activities that leave conditions essentially unchanged (e.g., returning soil cuttings to the location from which they were taken) will comply with ARARs. The SM should seek to obtain the appropriate management approach for IDW outlined in this guidance when negotiating site access agreements.

MAR 27 1992
4WD-WPB

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Sue Carney
Carbon Graphite
P.O. Box 3727
Louisville, Kentucky 40201

RE: Producers Wood Preservers
Louisville, Jefferson County, Kentucky
KYD985066042

Dear Ms. Carney:

The United States Environmental Protection Agency (EPA), pursuant to the authority and requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act (SARA), Public Law 99-499, is planning to conduct an investigation of the above-referenced site. The Producers Wood Preservers site is located in Louisville, Jefferson County, Kentucky. EPA has reason to believe that there may be a release or threat of a release of hazardous substances from the site into the surrounding environment. The purpose of the investigation is to determine the nature and extent of contamination at the site and to determine what, if any, further response action would be appropriate.

As per your telephone conversation with me on March 25, 1992, EPA was granted permission for access to your property beginning on or about April 20, 1992, and continuing through the completion of the investigation on or about April 24, 1992. Activities to be conducted during the investigation may include:

1. Inspect, sketch, and photograph the site;

2. Collect surface and subsurface soil samples;

3. Collect groundwater and subsurface water samples;

4. Collect sediment samples;

5. Conduct air monitoring;

P 326 509 016

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

U.S.G.P.O. 1989-234-555

Sent to Sue Carney	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date MAR 27 1992	

PS Form 3800, June 1985

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Ms. Sue Carney
Carbon Graphite
P.O. Box 3727
Louisville, Kentucky 40201

4a. Article Number

4b. Service Type
☐ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
4 2 1992

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 ★U.S. GPO: 1991—287-066 **DOMESTIC RETURN RECEIPT**

6. Transport equipment onto and about the site as necessary to accomplish the activities above, including trucks and sampling equipment.

The above sampling activity will be conducted by personnel from EPA Region IV's Field Investigation Team (FIT). Monica Usrey of FIT will contact you prior to the actual site visit to make final arrangements and note any changes.

Split samples will be made available if requested. However, you will be required to furnish your own containers as well as your own laboratory analyses.

If you have any questions, please contact me at (404) 347-5065. Your cooperation in this matter is appreciated.

Sincerely yours,

Ramona J. Klein
Environmental Scientist

cc: Carl Millanti, KDEP
Monica Usrey, B&V

RK:m:03/26/92x5065 Disk: Klein.wp Doc: a30

RJK SD
KLEIN DEIHL
3/26/92 3/26

P 326 509 015

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

U.S.G.P.O. 1989-234-555

Sent to Hans Hanskletke	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date MAR 27 1992	

PS Form 3800, June 1985

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space *does not permit.*
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Hans Hanskletke, P.M.
B.F. Goodrich
Louisville Plant
4200 Bells Lane
P.O. Box 32950
Louisville, Kentucky 40232

LOUISVILLE, KY REG. SECT. TOUR 2 APR 21 1992 USPS

4a. Article Number

4b. Service Type
☐ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form 3811, November 1990 ☆U.S. GPO: 1991—287-066 **DOMESTIC RETURN RECEIPT**

Klein
11-25-91 SSI(4)

JOHN E. NICHOLS JR.
SECRETARY

WALLACE G. WILKINSON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
18 REILLY ROAD
FRANKFORT, KENTUCKY 40601

October 30, 1991

Ms. Ramona Klein
U.S. Environmental Protection Agency
345 Courtland St., N.E.
Atlanta, GA 30365

RE: Preliminary Assessment Report
Producers Wood Preservers
Jefferson County, Ky.
EPA ID# KYD 985066042

Ms. Klein:

On October 1, 1991 the Kentucky Division of Waste Management (KDWM) PA/SI staff began work on a Preliminary Assessment Report on Producers Wood Preserves located in Louisville, Jefferson County, Kentucky. Review of KDWM files and available data reveals the following:

1. Producers Wood Preservers is currently a non-operational facility.

2. While in operation the facility had the capacity to treat approximately 393,500 cubic feet of wood. This would required an extensive amount of creosote preservative. This preservative breaks down in to a number of very toxic constituents.

3. The wood preserving process utilized at that time was conducive to a soil and surface water release.

4. The site location is serviced by a municipal water company whose supply is drawn from the Ohio River. There are only five ground water users in the area and these are drawn upon in the event of an emergency when municipal water is not available.

5. Access to the site is currently controlled by the present owners B.F. Goodrich and Carbon Graphite.

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Based on the aforementioned data it is the recommendation of the KDWM that the site be given a medium priority for Site Screening Investigation under CERCLA at this time.

Sincerely,

Carl Millanti

Carl Millanti, Manager
Uncontrolled Sites Branch

CM/MO/kb

TABLE OF CONTENTS

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APPENDICES

A - Site Maps

B - Kentucky Division of Waste Management file excerpts

C - Kentucky Division of Water withdrawal permit file excerpts

D - Kentucky Nature Preserves Commission Endangered Species file excerpts

Site History

Producers Wood Preservers Co. (PWPC); located south of Bells Lane in Jefferson county, Kentucky, operated a wood preserving company utilizing creosote as their primary preservative for lumber and railroad ties from approximately 1922-1934. While in operation, the facility had the capacity to treat an estimated 393,500 cubic feet of railroad ties and lumber. These materials were stacked and dried, requiring a great deal of land area for this process. During the drying procedure it was not unusual for the wood to be wet with creosote. Any unabsorbed preservative or creosote would drip off onto the ground causing surface water and soil contamination. Analysis of creosote indicates it breaks down into a number of toxic constituents including but not limited to phenolic compounds, phenanthrene, and anthracene. (Appendix A & B) Changing ownership a number of times over the years PWPC's 120 Acre site is currently owned by B.F. Goodrich Co. and Carbon Graphite; each owning approximately 60 acres. (Appendix A)

Environmental Setting

Located at 38°13'00" Longitude 85°49'45" in the City of Louisville, Jefferson Co., Ky.; the PWPC site is in the Wheeling-Weinbach-Huntington Soil Association. Each of these Soil Associations cover about 25% of this area with Newark and other minor soils covering 10% and 15% respectively. Wheeling soils are deep, well drained soil on terraces. Normally they have a brown, friable silt loam and a subsoil of yellowish-brown silty clay loam, Weinbach soils are moderately deep, somewhat poorly drained soils on terraces. Generally having a grayish-brown silt loam and a subsoil of brown silty clay loam motled with gray. Huntington soils are deep well drained soils on bottoms. Generally they have both a surface layer and subsoil of dark-brown silt loam. All the soils above developed in mixed alluvium that washed from the upper part of the Ohio River drainage basin. All are underlain by stratified sand, silt, and clay, in places mixed with gravel below a depth of 4 to 8 feet. Minor soils in this association are the moderately well drained Sciotoville soils on terraces, the poorly drained Ginat soils, also on terraces, and the moderately well drained to poorly drained Linoside, Newark and Melvin soils on bottoms. Also in this association is the very deep Lakin loamy fine sand, which is the principal sandy soil in the area. (Reference 1)

The PWPC site is in the Quaternary system, a member of the pleistocene and recent series. The basic formation being alluvium ranging from 0-130 feet in thickness. (Reference 1 & 3)

Groundwater

Groundwater wells in the vicinity range from 40-115' in depth. If properly constructed, drilled wells will produce several hundred gallons per minute (GPM) from alluvial material unless bedrock is encountered at shallow depths. The maximum reported yield is approximately 1400 GPM. Most drilled wells will produce enough water for a domestic supply with a power dump and pressure system (more than 500 gallons per day) at depth of less than 100 feet. The water of this area is hard or very hard but otherwise of good quality. (Reference 2)

Climate

In Jefferson County there is a wide range of temperature, rainfall, wind and humidity, but the range is within limits suitable for varied plant and animal life. The temperature rises to 90°F or higher on about 49 days in an average year. A temperature of about 100° is reached about once each year in June, July, August or September. Freezing temperatures occur on about 92 nights in an average winter, but except on about 15 days a year, the temperature rises above 32° during the daytime. Thus a daily freeze-thaw cycle is normal for cold weather. The temperature drops below 0° on an average of less than once each winter. The average yearly precipitation is 41." (Reference 1)

Target Analysis

The PWPC site is situated in an extremely busy industrial area adjacent to an ever-growing urban area. Access to the site is however, controlled by B.F. Goodrich Tire Co. and Carbon Graphite, the present owners. Bounded to the north by Bells Lane, on the east by U.S. 264, on the south by Ky 2051, and finally the west by and industrial access road PWPC sits in a very high traffic radius utilized by pedestrians, vehicles, and trains.

At this time Kentucky Division of Water and KDWM files indicate there are no groundwater users in the target radius. However there are 5 local hospitals in the area upgradient from the site with wells for emergency purposes only. The Louisville Municipal area is serviced by the Louisville Water Co. (Appendix C)

An investigation was conducted to determine if any critical habitat or sensitive environmental area exist in the vicinity of the site. According to the Kentucky Nature Preserves Commission there are no known federally-listed endangered or threatened species that occur within the target area. (Appendix E)

References

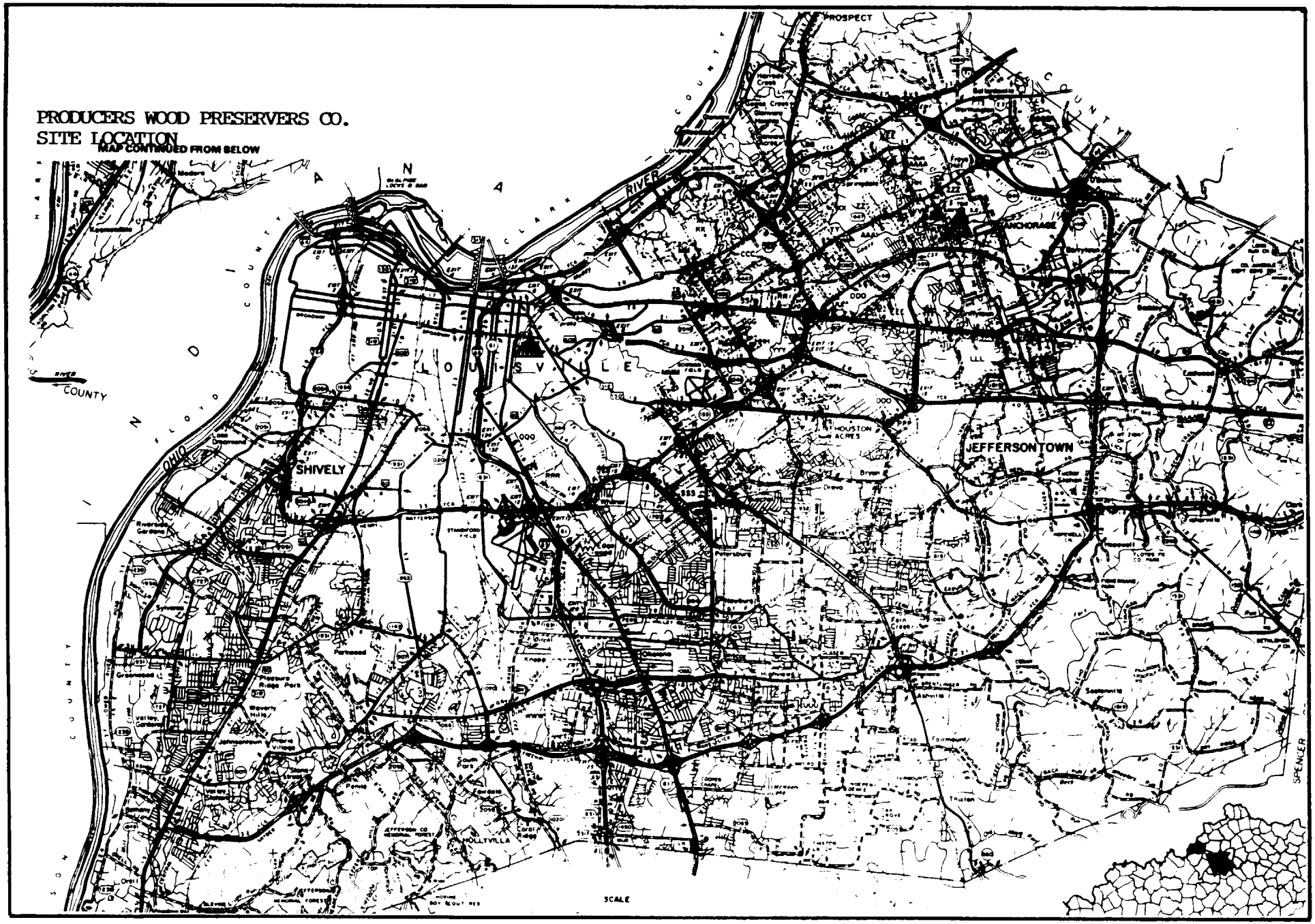
1. USDA, 1962 Soil Survey of Jefferson County, Kentucky

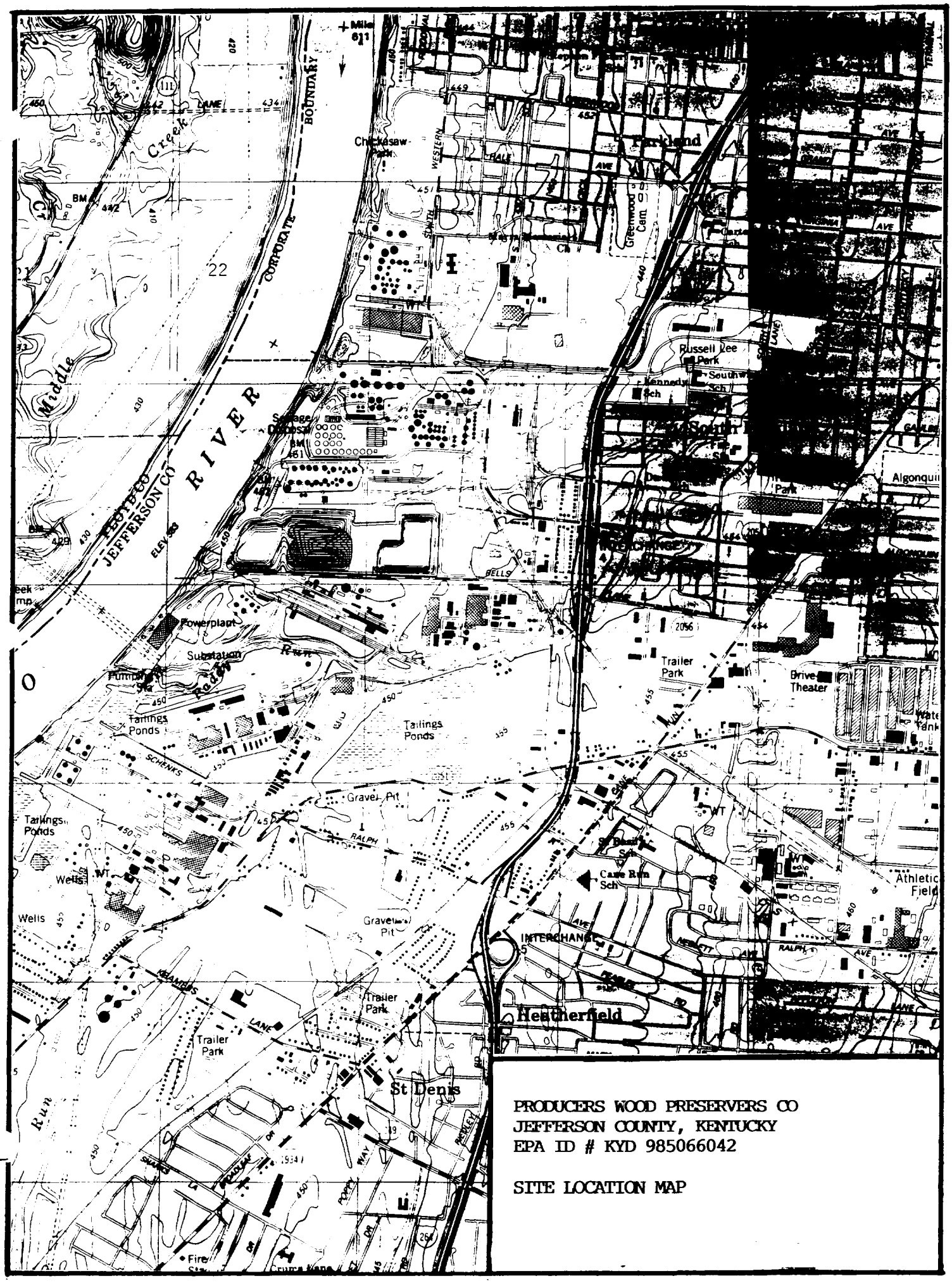
2. USGS, Availability of Ground Water in Bullitt, Jefferson and Oldham Counties, Ky., (Hydrologic Atlas #22)

3. USGS, Geologic Quadrangle Maps of Louisville West and Louisville Quadrangles, Jefferson County, Kentucky (Geologic Quadrangle #1202)

4. USGS Topographic Maps
   1950-83 Louisville West
   1937-82 New Albany
   1950-82 Jeffersonville
   1950-82 Louisville East

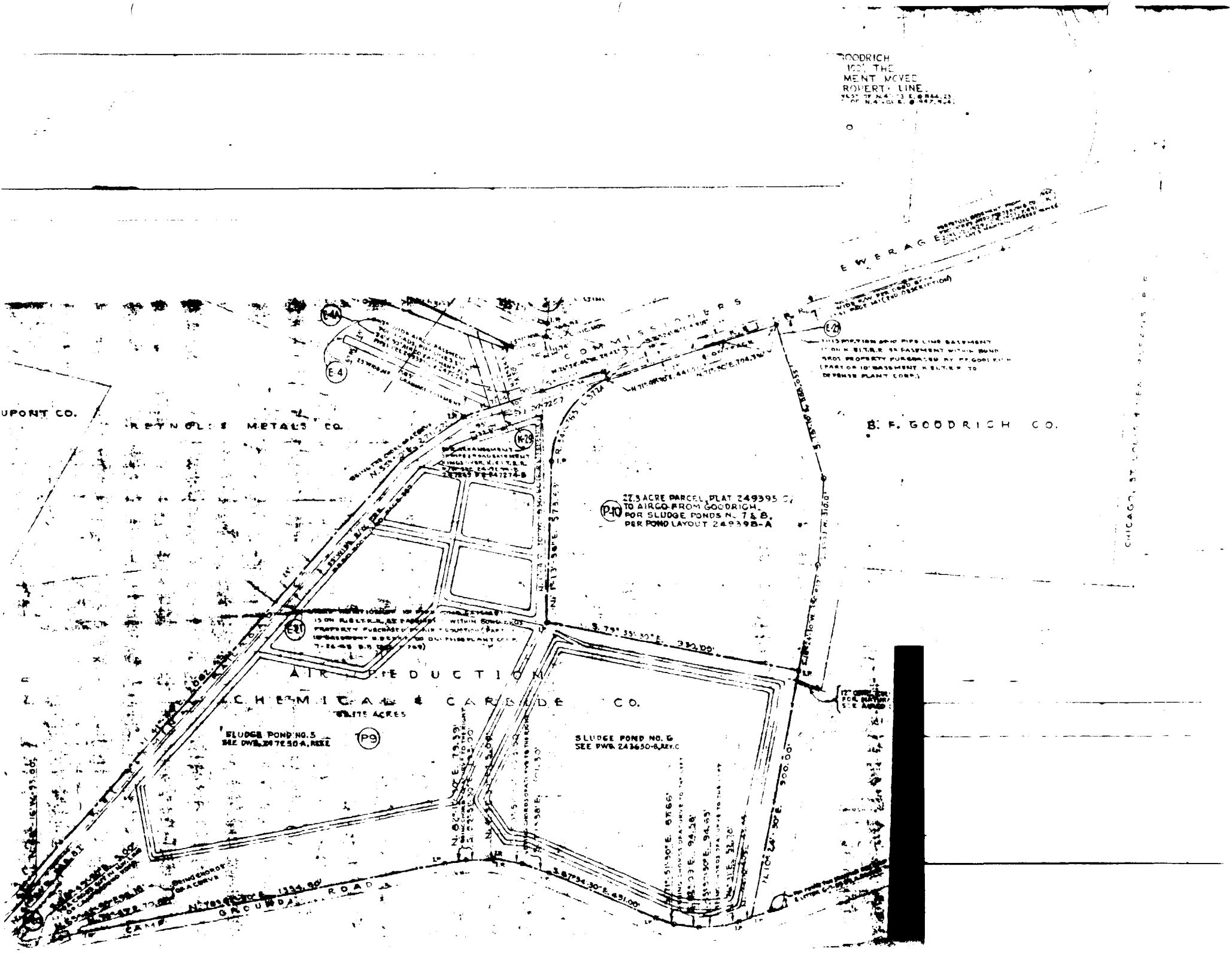
PRODUCERS WOOD PRESERVERS CO.
SITE LOCATION





PRODUCERS WOOD PRESERVERS CO
JEFFERSON COUNTY, KENTUCKY
EPA ID # KYD 985066042

SITE LOCATION MAP



GOODRICH
THE
MENT MOVED
ROPERTY LINE.
EWERAGE
COMMISSIONERS
UPONT CO.
REYNOLDS METALS CO.
B. F. GOODRICH CO.
CHICAGO, ST. LOUIS
22.3 ACRE PARCEL, PLAT 249395 C
TO AIRCO FROM GOODRICH.
FOR SLUDGE PONDS NO. 7 & 8.
PER POND LAYOUT 249398-A
P-10
E-4
E-4A
E-21
E-22
K-29
AIR REDUCTION
CHEMICAL & CARBIDE CO.
SLUDGE POND NO. 5
SEE DWG. 247250-A, REV.E
P9
SLUDGE POND NO. 6
SEE DWG. 243650-8, REV.C
S. 79° 35' 30" E. 930.00'
900.00'
S. 87° 54' 30" E. 451.00'
GROUND ROAD
CAMP

SITE DISCOVERY FORM

Part 1: Information necessary to add a site to CERCLIS

I...: A

ID: _____

E NAME: Producers Wood Preserving Company _____ SOURCE: _ (R=EPA, T=STATE)

EET: South of Bells Lane _____ CONG DIST: __ (optional)

V: Louisville _____ ZIP: 40232 - ____

Y NAME: Jefferson _____ CNTY CODE: 111 (optional)

ITUDE: 38° / 13' / 13" LONGITUDE: 85° / 49' / 50" (optional)

ENTORY IND: Y REMEDIAL IND: Y REMOVAL IND: N FED FAC IND: N

NAME: _____ RPM PHONE: ___ - ___ - ____ (EPA Project Officer

E DESCRIPTION: (optional)

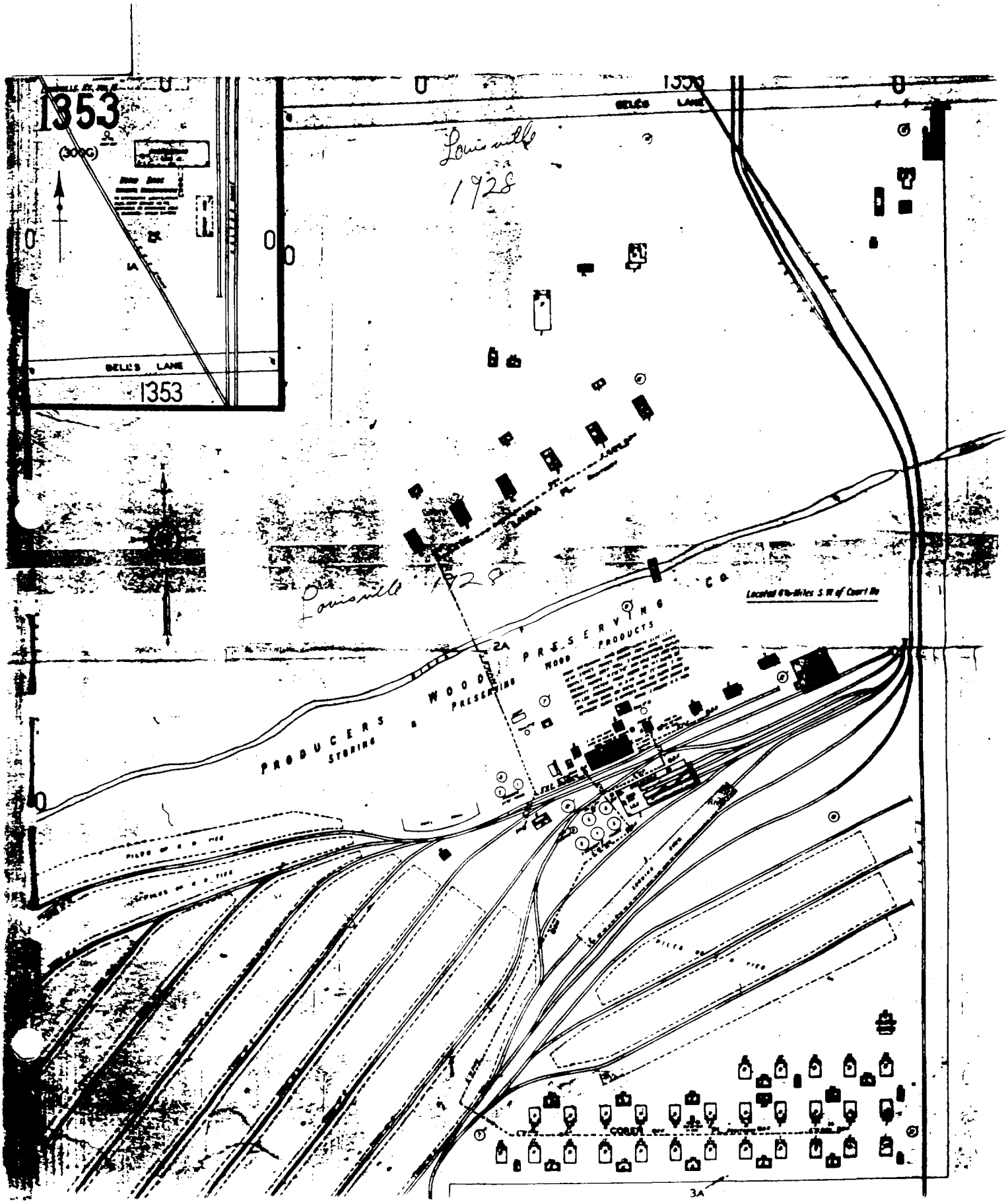
Site was occupied by this wood processing company until 1934. Site is in general vicinity of land now occupied by other companies. See attached map showing site location

Part 2: Other site information

E SITE FIRST
PORTED: __ / __ / __ REPORTED BY: _____

SON FOR LISTING: _____

Producers Wood Preserving Company had the capability to produce an estimated 393,500 cubic feet of pressure treated wood from 1922-1934. The wood preservative used was creosote. Creosote contains many contaminants including phenolic compounds, phenanthrene, anthracene and many other persistent and toxic compounds.


1353
(300G)
BELL'S LANE
1353
BELL'S LANE
Louisville
1928
Louisville 1928
PRODUCERS WOOD PRESERVING CO.
STORING & PRESERVING WOOD PRODUCTS
Located 4½ Miles S.W. of Court Ho
2A
3A

MARY HELEN MILLER
SECRETARY

MARTHA LAYNE COLLINS
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
18 REILLY ROAD
FRANKFORT, KENTUCKY 40601

MEMORANDUM(

TO: Shelby Jett, Chief
Solid Waste Review Section

THRU: Barry Burrus, Chief
Uncontrolled Site Section

FROM: John Wilson
Uncontrolled Site Section

DATE: July 13, 1987

SUBJECT: Site Discovery of Hazardous Wastes at Wood Preserving Plants

The Site Discovery Program is currently reviewing data on Kentucky wood preserving plants to determine the extent of hazardous constituents of their by-products that continue to remain in the soil today. These by-products include either coal tar constituents (some of which are known carcinogens) or hazardous metal contaminants. The presence of either may possibly qualify the plant area as an uncontrolled site.

A listing of potential sites is included for your review. The listing includes the company name, the site location and the total volume of wood treated during the years of operation. The last bit of data is a relative indicator of the degree of possible contamination of the surrounding soil. Please advise if either site is currently under your jurisdiction and therefore should no longer be given consideration under Uncontrolled Sites. Any additional data known which would have any bearing on the decision would also be appreciated. For your information an Uncontrolled Site is defined as any location that either actually or potentially contains released hazardous substances and is not regulated by the RCRA Hazardous Waste Program or the KPDES Water Program or lacks a responsible party to comply with RCRA.

JW/lm

Enclosure

SITE DISCOVERY PROGRAM

WOOD PRESERVING PLANTS

SITE LOCATION	ACTIVE/ INACTIVE	SITE OWNER	YEAR OF RECORD	NO. AND SIZE (in.xft.) CYLINDERS	PRESERVATIVES
White Plains	Inactive	Scott Brothers Lumber Company	1957	(1) 58 x 36 (1) 48 x 36	Water-Borne
			1974	(1) 48 x 44	Water-Borne
Louisville	Active	Treated Wood Products Company	1966 1968 1970	(2) 84 x 55 (1) 60 x 58 (2) 84 x 55 (1) 60 x 28 (1) 60 X 26¼	Creosotes Oil-Borne Water-Borne Fire Retardant
Madisonville	Inactive	Island Creek Coal Company	1974	(1) 72 x 34	Water-Borne
Crestview	Active	Kentucky Lumber Company	1974	(1) 72 x 34	Water-Borne Fire Retardant
Louisville (					
Crestview		Kentucky Lumber Company	1975	(1) 72 x 34	Water-Borne Fire Retardant
Mayfield	Active	Easterday Tie and Timber Co.	1980	(2) 72 x 135	Creosotes
Mayfield	Active	Easterday Tie and Timber Co. (Non-Pressurized)	1980	(2) 10 x 18¼ (3) 10 x 37	Creosotes
White Plains	Active	Appalachian Timber Services	1982	(1) 72 x 60	Creosotes Water-Borne
~~Guthrie~~	~~Active~~	~~Louisville and Nashville Railroad~~	~~1913~~	~~(2) 84 x 33~~ ERRORS	
				~~(2) 11 x 11~~	
		~~Bond Brothers~~	~~1924~~	~~(1) 72 x 115~~	~~Creosotes~~
		~~Koppers Co. Wood Preserving Div.~~	~~1959~~	~~(2) 84 x 180~~	~~Creosotes~~
Louisville	Inactive	Producers Wood Preserving Co. (Co-owned by Lorn & Ayer Tie Co.)	1922	(2) 90 x 131 (1) 40 x 131	Creosotes

SITE DISCOVERY PROGRAM

WOOD PRESERVING PLANTS

SITE LOCATION	ACTIVE/ INACTIVE	SITE OWNER	YEAR OF RECORD	NO. AND SIZE (in.xft.) CYLINDERS	PRESERVATIVES
Louisville		Bond Brothers	1959	(1) 40 x 131(1924)	Creosotes
Russell	Inactive	American Creosoting Co.,Inc.	1915	(1) 84 x 134	Creosotes
	Inactive	Koppers Co. Wood Preserving Co.	1948	(1)84 x 87 (1) 96 x 133 (1949)	Water-Borne
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Stanton	Inactive	Kentucky Edison Company	1946	(1) 60 x 45	Creosotes
		Kentucky Creosoting Company	1948	(1) 60 x 45	Creosotes
		Burke-Parsons-Bowlby Corporation	1973	(1) 60 x 45 (10 60 x 40 (1976)	
Harlan	Inactive	Gaines Wood Preserving Company (Non-Pressure Process)	1945	(1) 6½ x 26 x 6½	
Winchester	Inactive	Codell Brothers	1957	(1) 48 x 38	Water-Borne
		kentucky Wood Preserving, Inc.	1966	(1) 48 x 38	Water-Borne

WATER WITHDRAWAL PERMIT FILE

T FACILITY NAME/ADDRESS:

LOUISVILLE WATER CO.
435 SOUTH THIRD STREET
LOUISVILLE, KY. 40202

PERMIT INFORMATION:

DATE ISSUED: 06/03/76
LAST REVISED: 10/16/78
STATUS: ACTIVE
INACTIVATED:
CONDITIONS: NONE
CROSS REFERENCE: 0100 :0829

COUNTY: JEFFERSON
DISTRICT: 03 LOUISVILLE
PWS ID: 0560258
SIC CODE: 4941

T PERSON: GEORGE M. JEFFRIES (502) 569-3600

USE INFORMATION:

: SURFACE
BASIN: 08 OHIO/MAIN STEM
ATEGORY: WATER SUPPLIER

LATITUDE: 0382052
LONGITUDE: 0853745
TOPO MAP NO: 1535

EASURING METHOD: METER
EASURING DEVICE:

TION: WITHDRAWAL FROM [illegible] RIVER OPPOSITE MILE 366.7L (594.[illegible] MP), JEFFERSON CO.

AVERAGE MONTHLY WATER WITHDRAWALS IN MILLION GALLONS PER DAY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG	MAX MONTH
1980	13.569	14.459	13.720	14.446	15.541	17.134	17.600	16.300	14.200	14.900	13.900	14.900	15.060	17.600
1981	16.700	16.400	17.100	17.600	18.700	20.000	19.800	19.800	17.900	17.700	17.100	17.600	18.033	20.000
1982	18.900	22.350	23.540	45.030	24.200	22.610	22.700	22.700	20.500	19.500	19.000	18.900	23.327	45.030
1983	19.400	19.300	19.600	20.400	22.400	21.600	26.800	25.200	23.300	20.900	20.000	21.700	21.717	26.800
1984	22.000	20.400	19.400	20.500	20.900	24.800	22.100	20.000	19.000	18.900	18.900	19.400	20.525	24.800
1985	19.900	20.800	20.100	21.400	22.300	22.200	23.200	21.500	20.300	18.500	16.000	18.300	20.417	23.200
1986	19.100	20.200	19.500	10.800	11.300	17.000	15.000	14.020	15.040	4.020	6.030	7.030	13.253	20.200
1987	10.630	13.358	14.879	13.694	23.835	22.260	22.499	24.456	24.557	20.319	16.191	16.265	18.579	24.557
1988	15.276	16.209	16.189	16.083	20.352	28.087	27.323	27.094	21.986	16.402	16.433	16.196	20.052	28.087
1989	14.621	13.150	13.131	14.126	14.224	14.445	24.975	24.411	22.224	22.367	21.027	21.889	18.382	24.975
1990	20.104	19.620	20.983	20.328	19.615	24.049	27.392	26.201	20.062	7.289	16.501	16.723	19.906	27.392
TED AL	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000		

:

NATURAL RESOURCES [illegible] ENVIRONMENTAL PROTECTION [illegible]

DIVISION OF WATER
WATER WITHDRAWAL PE IT FILE

T FACILITY NAME/ADDRESS:

LOUISVILLE WATER COMPANY
435 SOUTH THIRD STREET
LOUISVILLE,KY 40202

T PERSON: GEORGE M. JEFFRIES (502) 569-3600

PERMIT INFORMATION:

DATE ISSUED: 06/23/66
LAST REVISED: 04/17/79
STATUS: ACTIVE
INACTIVATED:
CONDITIONS: NONE
CROSS REFERENCE: 0786: 0829

COUNTY: JEFFERSON
DISTRICT: 03 LOUISVILLE
PWS ID: 0560258
SIC CODE: 4941

SE INFORMATION:

E: SURFACE
BASIN: 08 OHIO/MAIN STEM
TEGORY: WATER SUPPLIER

LATITUDE: 0381659
LONGITUDE: 0854217
TOPO MAP NO: 1535

MEASURING METHOD: METER
MEASURING DEVICE: UNKNOWN

TION: WITHDRAWAL FROM OHIO RIVER OPPOSITE MILE 380.8(600.6 SP), JEFFERSON CO.

AVERAGE MONTHLY WATER WITHDRAWALS IN MILLION GALLONS PER DAY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG	MAX MONTH
1980	100.421	106.986	106.811	106.811	108.888	114.670	127.700	122.300	113.300	107.800	102.100	99.000	109.732	127.700
1981	104.300	103.100	98.600	97.400	96.700	110.300	116.600	110.800	101.500	100.600	93.200	90.300	101.950	116.600
1982	102.630	99.200	92.640	95.830	105.020	119.640	110.900	107.100	102.000	98.400	90.800	87.100	100.938	119.640
1983	93.200	92.800	91.500	87.800	89.200	103.400	124.400	126.700	112.500	98.700	95.500	97.600	101.108	126.700
1984	106.800	96.900	90.900	89.900	98.600	122.700	115.200	106.900	94.700	93.000	84.900	87.700	99.017	122.700
1985	95.400	95.800	87.300	92.500	98.900	102.800	106.100	103.900	109.600	95.800	89.100	87.500	97.058	109.600
1986	92.600	82.700	84.100	104.400	107.900	118.400	121.040	111.050	98.050	107.010	98.060	91.090	101.367	121.040
1987	98.536	86.492	82.180	87.278	101.957	105.236	103.169	115.812	110.588	103.280	97.074	88.637	98.353	115.812
1988	95.977	92.382	92.048	95.612	112.270	152.827	129.035	109.172	99.633	97.392	89.656	94.275	105.023	152.827
1989	92.953	96.219	95.130	96.596	102.069	108.569	99.786	104.375	97.861	92.464	89.392	100.443	97.988	108.569
1990	96.923	88.565	87.826	95.488	96.615	107.790	118.062	111.781	107.612	114.687	100.133	96.295	101.815	118.062
TED WAL	160.000	165.000	165.000	165.000	175.000	165.000	185.000	190.000	180.000	170.000	170.000	165.000		

S:

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DIVISION OF WATER
WATER WITHDRAWAL PERMIT FILE

15:18 MONDAY, JUNE 3, 1991 291

PERMIT INFORMATION:

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET

:T FACILITY NAME/ADDRESS:

LOUISVILLE FALL FOUNTAIN/LOUISVILLE
435 SOUTH THIRD STREET
LOUISVILLE, KY 40202

:CT PERSON: GEORGE M. JEFFRIES (502) 569-3600

PERMIT INFORMATION:

DATE ISSUED: 05/30/89 COUNTY: JEFFERSON
LAST REVISED: . DISTRICT: 03 LOUISVILLE
STATUS: ACTIVE PWS ID: 4001064
INACTIVATED: . SIC CODE: 0781
CONDITIONS: NONE
CROSS REFERENCE:

USE INFORMATION:

:E: SURFACE LATITUDE: 0381542 MEASURING METHOD: E
BASIN: 08 OHIO/MAIN STEM LONGITUDE: 0854536 MEASURING DEVICE:
ATEGORY: COMMERCIAL TOPO MAP NO: 1534

:PTION: A FLOATING FOUNTAIN MOORED AT MILE POINT 604.08P (RMI 377.5) ON THE OHIO RIVER

AVERAGE MONTHLY WATER WITHDRAWALS IN MILLION GALLONS PER DAY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG	MAX MONTH
1989	0.000	0.000	0.000	0.924	2.033	7.606	10.086	10.086	10.086	10.086	10.086	0.000	5.083	10.086
1990	.	.	.	.	.	.	0.010	0.010	0.010	0.010	0.008	0.000	0.008	0.010
:TED :AWAL	0.000	0.000	0.000	0.576	8.638	8.638	8.638	8.638	8.638	8.638	8.638	0.000		

S:

PERMIT INFORMATION:

ISSUED: 06/03/76 COUNTY: JEFFERSON
/78 DISTRICT: 03 LOUIS

NATURAL RESOURCES

PWS ID	PUBLIC WATER SYSTEM NAME	NAME LINE 2:	STREET ADDRESS:	CITY/STATE/ZIP/PHONE		OWNER TYPE	POPULATION	SOURCE ID		INFORMATION: SOURCE NAME:	AVAIL
0560258	LOUISVILLE WATER COMPANY	FRANK CAMPBELL-VICE PRESIDENT	435 SOUTH THIRD STREET	LOUISVILLE KY 40202	502/569-3601	M	732,550	01	S	OHIO RIVER	P
0560496	KENTUCKY BUBBLING SPRING INC	S W PALMER BALL	PO BOX 7155	LOUISVILLE KY 40207	502/893-3668	P	100	01	S	SPRING	P
0560503	CRYSTAL CLEAR WATER COMPANY	WILLIAM HAYNES	3899 PRODUCE ROAD	LOUISVILLE KY 40218	502/969-7000	P	250	01	P	LOUISVILLE W	P
0560516	CRYSTAL CLEAR SPRING WATER CO	WILLIAM F HAYNES, OWNER	3899 PRODUCE ROAD PO BOX 33142	LOUISVILLE KY 40218	502/967-7000	P	250	01	S	ELKHORN VALLEY	P
0560634	ARMORED ACRES MHP	ALVIN STRANGE	15811 DIXIE HWY	WEST POINT KY 40177	502/922-4510	P	105	01	G	WELLS	P
0562405	LIMESTONE BAY CLUB	GLENN ROEDERER	PO BOX 709 5801 UPPER RIVER RD	HARRODS CREEK KY 40027	502/228-0146	P	25	01	G	WELL	P
0562410	CEDAR RIDGE PRESBYTERIAN CAMP	GARY LOESER	4010 ROUTT ROAD	LOUISVILLE KY 40299	502/267-5848	P	60	01	S	LAKE	P
0562916	CAPTAIN'S QUARTERS	GREG MASTERSON	6222 GUTHRIE BEACH ROAD	HARRODS CREEK KY 40027	502/228-1651	P	700	01	G	WELL	P
COUNTY: [redacted]											
0570010	WILMORE WATER WORKS	STEVE BASHAM	LENDEN ST	WILMORE KY 40390	606/858-4411	M	4,215	01	S	KENTUCKY RIVER	P
0570214	JESSAMINE CO WATER DIST #1	BO WARD	200 WEST MAPLE STREET	NICHOLASVILLE KY 40356	606/885-9314	W	1,940	01	P	NICHOLASVILLE	P
0570249	SOUTH ELKHORN WATER DISTRICT	ELEANOR BLAKEMAN	200 WEST MAPLE ST	NICHOLASVILLE KY 40356	606/885-9314	W	3,415	01	P	KY AMERICAN	P
0570315	NICHOLASVILLE WATER DEPARTMENT	GARY ABSHER	595 WATER WORKS RD	NICHOLASVILLE KY 40356	606/885-6974	M	16,071	01	S	KENTUCKY RIVER	P
0570414	SPEARS WATER CO INC	ELIZABETH UNDERWOOD	104 WEST MAPLE ST	NICHOLASVILLE KY 40356	606/885-5958	P	6,257	01	P	NICHOLASVILLE	P
								02	P	KY AMERICAN	P
0570495	HIGHBRIDGE SPRING WATER CO	LINDA GRIFFIN	ROUTE 1 HWY 48	WILMORE KY 40390	606/858-4407	P	2,000	01	S	SPRING	P
0570531	ICEBURG PURE WATER	HARVEY HOFFMASTER	HWY #27 NICHOLASVILLE RD	LEXINGTON KY 40583	606/885-9501	P	150	01	P	JESSAMINE W D I	P
0570588	ICEBURG SPRING WATER	HARVEY HOFFMASTER	NICHOLASVILLE RD	LEXINGTON KY 40583	606/885-9501	P	150	01	S	SPRING	P
COUNTY: [redacted]											
0580340	PAINTSVILLE MUN WATER WORKS	SID GARLAND	CITY HALL	PAINTSVILLE KY 41240	606/789-3361	M	14,490	01	S	LEVISA FK	P
0580947	RAMEY TRAILER PARK	BILL RAMEY	140 MAIN STREET	PAINTSVILLE KY 41240	606/297-1966	P	25	01	G	WELL	P

.. MARGNUM	PREC	EORANK	LASTOBS	EOCODE.....	SNAME.....	LAT..	LONG....
30	G	H	0000-00	IMBIV16130*004	EPIOBLASMA TRIQUETRA	381622N	0854556W
31	G	H	1966-06	IMBIV35250*041	PLEUROBEMA PYRAMIDATUM	381622N	0854556W
32	G	H	1966-06	IMBIV17122*066	FUSCONAIA SUBROTUNDA SUBROTUNDA	381622N	0854556W
33	G	H	1966-06	IMBIV35060*034	PLEUROBEMA CLAVA	381622N	0854556W
34	G	H	1966-06	IMBIV21110*028	LAMPSILIS ABRUPTA	381622N	0854556W
35	G	H	1966-06	IMBIV10020*055	CYPROGENIA STEGARIA	381622N	0854556W
36	M	H	0000-00	IMBIV20010*015	HEMISTENA LATA	381622N	0854556W
37	G	H	0000-00	IMBIV39041*039	QUADRULA CYLINDRICA CYLINDRICA	381622N	0854556W
39	M	H	0000-00	IMBIV34020*042	PLETHOBASUS COOPERIANUS	381658N	0854845W

.. MARGNUM	PREC	EORANK	LASTOBS	EOCODE.....	SNAME.....	LAT:...	LONG:...
1	S	DC	0000-00	ARADB06010*008	CLONOPHIS KIRTLANDII	300040N	0855301W

.. MARGNUM	PREC	EORANK	LASTOBS	EOCODE.....	SNAME.....	LAT: ..	LONG:..
1	M	DO	1954-04	ARADB06010*003	CLONOPHIS KIRTLANDII	380912N	0854641W
3	M	DO	1953-05	ARADB06010*002	CLONOPHIS KIRTLANDII	381305N	0854515W
4	M	H	1932-07	PDROS13070*001	MALUS IOENSIS	380945N	0854704W
5	M	DC	1981-00	ARADB06010*009	CLONOPHIS KIRTLANDII	381233N	0855130W
6	M	H	1934-00	ARADB06010*012	CLONOPHIS KIRTLANDII	381432N	0854740W
7	M	DC	0000-00	ARADB06010*014	CLONOPHIS KIRTLANDII	381000N	0854610W

Kentucky Natural Heritage Program
Managed Area Basic Record
SHAWNEE PARK

MACODE: M.USKYHP * 423
MANAME: SHAWNEE PARK
MAALIAS:

MAJORMA: MAJORMANAME:
OWNERCODE: LCL OLDMACODE:
SITECODE: . SITENAME:

COUNTYCODE: COUNTYNAME:
KYJEFF Jefferson

QUADNAME: QUADCODE: MARGNUM:
NEW ALBANY, IND.-KY. 3808537

LAT: 381530N S: 381502N E: 0854927W
LONG: 0854945W N: 381559N W: 0855001W

DESCRIPTION:

TOTACRES: 397.00 STACRES: 397.00
MULTISTATE: N BOUNDARIES: Y
CONTIG: Y TNCINVOLVE: N

COMMENTS:

ESTABDATE: 1892-00-00 PROTSTAT: 3

MANAGER: BRUCE NICKERSON MGRINST.TYPE: L
MGRINST: METRO PARKS MATYPE: PK
MGRADDR1: P.O. BOX 37280
MGRADDR2:
MGRCITY: LOUISVILLE MGRSTATE: KY MGRZIP: 40233

MGRPHONE: (502) 625-2821 PUBACCESS: O

COOPINSTS:

MGMTCOM:

Element Occurrence Information:

EOCODE:	SNAME:	SCOMNAME:	EORANK	GRANK	SRANK	USESA	SPROT
ARADB06010*010*KY	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE	C	G2	S1	C2	E

Kentucky Natural Heritage Program
Managed Area Basic Record
FALLS OF THE OHIO NATIONAL WILDLIFE CONSERV AREA

CODE: M.USKYHP * 201
NAME: FALLS OF THE OHIO NATIONAL WILDLIFE CONSERV AREA
MAALIAS:

MAJORMA: M.USKYHP*201 MAJORMANAME: FALLS OF THE OHIO NATIONAL WILDLIFE
OWNERCODE: FDA OLDMACODE: FDAWCFALL1KYUS
SITECODE: SITENAME:
S.USKYHP*327 FALLS OF THE OHIO

COUNTYCODE: COUNTYNAME:
KYJEFF Jefferson

QUADNAME: QUADCODE: MARGNUM:
NEW ALBANY, IND.-KY. 3808537

LAT: 381645N S: 381534N E: 0854531W
LONG: 0854700W N: 381720N W: 0854808W

DESCRIPTION:

TOTACRES: 1365.00 STACRES: 1215.00
MULTISTATE: BOUNDARIES: Y
CONTIG: Y TNCINVOLVE: N

COMMENTS: AT LEAST TWENTY ELEMENTS KNOWN FROM AREA. ACREAGE INCLUDES TRACTS BEING ACQUIRED.

ESTABDATE: 1981-12-00 PROTSTAT: 2

MANAGER: LARRY MARTIN MGRINST.TYPE: F
MGRINST: ARMY CORPS OF ENGINEERS MATYPE: WC
MGRADDR1: BOX 59
MGRADDR2:
MGRCITY: LOUISVILLE MGRSTATE: KY MGRZIP: 40202

MGRPHONE: 502 582-5660 PUBACCESS: O

COOPINSTS: INDIANA DNR

MGMTCOM:

Element Occurrence Information:

EOCODE:	SNAME:	SCOMNAME:	EORANK	GRANK	SRANK	USESA	SPROT
ABNGA06040*002*KY	EGRETTA CAERULEA	LITTLE BLUE HERON	C	G5	S1		E
ABNGA07010*003*KY	BUBULCUS IBIS	CATTLE EGRET	C	G5	S3		S
ABNGA11010*002*KY	NYCTICORAX NYCTICORAX	BLACK-CROWNED NIGHT-HERON	X	G5	S1S2		E
ABNGA11010*003*KY	NYCTICORAX NYCTICORAX	BLACK-CROWNED NIGHT-HERON	X	G5	S1S2		E
ABNGA11010*004*KY	NYCTICORAX NYCTICORAX	BLACK-CROWNED NIGHT-HERON	A	G5	S1S2		E
ABNGA13010*005*KY	NYCTANASSA VIOLACEA	YELLOW-CROWNED NIGHT-HERON	B	G5	S2S3		T
GA13010*006*KY	NYCTANASSA VIOLACEA	YELLOW-CROWNED NIGHT-HERON	B	G5	S2S3		T
310130*004*KY	ANAS DISCORS	BLUE-WINGED TEAL	H	G5	S1		E
ABNME05020*006*KY	RALLUS ELEGANS	KING RAIL	O	G4Q	S1S2		E
ABNNF04020*001*KY	ACTITIS MACULARIA	SPOTTED SANDPIPER	CB	G5	S1		E
ABNNN08102*001*KY	STERNA ANTILLARUM ATHALASSOS	INTERIOR LEAST TERN	C	G4T2	S1S2	LE	E

Kentucky Natural Heritage Program
Managed Area Basic Record
SIX MILE ISLAND STATE NATURE PRESERVE

CODE: M.USKYHP * 41
MANAME: SIX MILE ISLAND STATE NATURE PRESERVE
MAALIAS:

MAJORMA: M.USKYHP*41 MAJORMANAME: SIX MILE ISLAND STATE NATURE PRESER
OWNERCODE: SKN OLDMACODE: SKNPRSIXM1KYUS
SITECODE: SITENAME:
S.USKYHP*284 SIX MILE ISLAND STATE NATURE PRESERVE

COUNTYCODE: COUNTYNAME:
KYJEFF Jefferson

QUADNAME: QUADCODE: MARGNUM:
JEFFERSONVILLE, IND. 3808536

LAT: 381840N S: 381903N E: 0853935W
LONG: 0853955W N: 381809N W: 0854021W

DESCRIPTION: ISLAND NOTED VARIETY OF WATERFOWL.

TOTACRES: 66.00 STACRES: 66.00
MULTISTATE: BOUNDARIES: Y
CONTIG: Y TNCINVOLVE: N

MENTS:

ESTABDATE: 1979-06-24 PROTSTAT: 1

MANAGER: JOYCE BENDER MGRINST.TYPE: S
MGRINST: KENTUCKY STATE NATURE PRESERVES COMMISSI MATYPE: PR
MGRADDR1: 407 BROADWAY
MGRADDR2:
MGRCITY: FRANKFORT MGRSTATE: KY MGRZIP: 40601

MGRPHONE: 502 564-2886 PUBACCESS: O

COOPINSTS:

MGMTCOM:

Element Occurrence Information:

EOCODE:	SNAME:	SCOMNAME:	EORANK	GRANK	SRANK	USESA	SPROT
ABNGA11010*001*KY	NYCTICORAX NYCTICORAX	BLACK-CROWNED NIGHT-HERON	X	G5	S1S2		E
ABPAU08010*002*KY	RIPARIA RIPARIA	BANK SWALLOW	X	G5	S3S4		S
PMHYD0A010*003*KY	VALLISNERIA AMERICANA	EEL-GRASS	C	G5	S2S3		S

Kentucky Natural Heritage Program
Managed Area Basic Record
UNITED STATES NAVAL ORDNANCE PLANT AND RESERVE CENTER

MACODE: M.USKYHP * 417
MANAME: UNITED STATES NAVAL ORDNANCE PLANT AND RESERVE CENTER
MAALIAS:

MAJORMA: MAJORMANAME:
OWNERCODE: FDN OLDMACODE:
SITECODE: SITENAME:

COUNTYCODE: COUNTYNAME:
KYJEFF Jefferson

QUADNAME: QUADCODE: MARGNUM:
LOUISVILLE WEST, KY. 3808527

LAT: 381005N S: 380942N E: 0854505W
LONG: 0854530W N: 381031N W: 0854553W

DESCRIPTION: THIS IS A MANUFACTURING PLANT, NOT A MILITARY RESERVATION.

TOTACRES: 147.00 STACRES: 147.00
MULTISTATE: N BOUNDARIES: Y
CONTIG: Y TNCINVOLVE: N

COMMENTS: THE RESERVE CENTER IS A 5.0 ACRE TRACT THAT LIES WITHIN THE U.S. NAVAL ORDNANCE PLANT BOUNDARY.

ESTABDATE: 1941-10-01 PROTSTAT: 3

MANAGER: CAPT. RICHARD W. DILBERT MGRINST.TYPE: F
MGRINST: DEPARTMENT OF THE NAVY MATYPE: MF
MGRADDR1: 5403 SOUTHSIDE DRIVE
MGRADDR2:
MGRCITY: LOUISVILLE MGRSTATE: KY MGRZIP: 40214

MGRPHONE: (502) 364-5456 PUBACCESS: C

COOPINSTS:

MGMTCOM: MGRPHONE IS PUBLIC RELATIONS DEPARTMENT.

Element Occurrence Information:

EOCODE:	SNAME:	SCOMNAME:	EORANK	GRANK	SRANK	USESA	SPROT

Kentucky Natural Heritage Program
Managed Area Basic Record
IROQUOIS PARK

IACODE: M.USKYHP * 425
MANAME: IROQUOIS PARK
MAALIAS:

MAJORMA: MAJORMANAME:
OWNERCODE: LCL OLDMACODE:
SITECODE: SITENAME:

COUNTYCODE: COUNTYNAME:
KYJEFF Jefferson

QUADNAME: QUADCODE: MARGNUM:
LOUISVILLE WEST, KY. 3808527

LAT: 380945N S: 380907N E: 0854640W
LONG: 0854715W N: 381018N W: 0854756W

DESCRIPTION:

TOTACRES: 739.00 STACRES: 739.00
MULTISTATE: N BOUNDARIES: Y
CONTIG: Y TNCINVOLVE: N

COMMENTS:

ESTABDATE: 1888-00-00 PROTSTAT: 3

MANAGER: BOB DOUGLASS MGRINST.TYPE: L
MGRINST: METRO PARKS MATYPE: PK
MGRADDR1: P.O. BOX 37280
MGRADDR2:
MGRCITY: LOUSIVILLE MGRSTATE: KY MGRZIP: 40233

MGRPHONE: (502) 456-8185 PUBACCESS: O

COOPINSTS:

MGMTCOM:

Element Occurrence Information:

EOCODE:	SNAME:	SCOMNAME:	EORANK	GRANK	SRANK	USESA	SPROT
ARADB06010*003*KY	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE	D	G2	S1	C2	E
PDROS13072*001*KY	MALUS IOENSIS	IOWA CRABAPPLE	H	G435	S2S3		E

Kentucky Natural Heritage Program
Managed Area Basic Record
CHICKASAW PARK

MACODE: M.USKYHP * 424
MANAME: CHICKASAW PARK
MAALIAS:

MAJORMA: MAJORMANAME:
OWNERCODE: LCL OLDMACODE:
SITECODE: SITENAME:

COUNTYCODE: COUNTYNAME:
KYJEFF Jefferson

QUADNAME: QUADCODE: MARGNUM:
LOUISVILLE WEST, KY. 3808527

LAT: 381430N S: 381443N E: 0854912W
LONG: 0854953W N: 381429N W: 0855007W

DESCRIPTION:

TOTACRES: 61.00 STACRES: 61.00
MULTISTATE: N BOUNDARIES: Y
CONTIG: Y TNCINVOLVE: N

COMMENTS:

ESTABDATE: 1921-00-00 PROTSTAT: 3

MANAGER: BRUCE NICKERSON MGRINST.TYPE: L
MGRINST: METRO PARKS MATYPE: PK
MGRADDR1: P.O. BOX 37280
MGRADDR2:
MGRCITY: LOUISVILLE MGRSTATE: KY MGRZIP: 40233

MGRPHONE: (502) 625-2821 PUBACCESS: O

COOPINSTS:

MGMTCOM:

Element Occurrence Information:

EOCCODE:	SNAME:	SCOMNAME:	EORANK	GRANK	SRANK	USESA	SPROT

4WD-WPB

MAR 27 1992

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Hans Hanskletke, P.M.
B.F. Goodrich
Louisville Plant
4200 Bells Lane
P.O. Box 32950
Louisville, Kentucky 40232

RE: Producers Wood Preservers
Louisville, Jefferson County, Kentucky
KYD985066042

Dear Mr. Hanskletke:

The United States Environmental Protection Agency (EPA), pursuant to the authority and requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act (SARA), Public Law 99-499, is planning to conduct an investigation of the above-referenced site. The Producers Wood Preservers site is located in Louisville, Jefferson County, Kentucky. EPA has reason to believe that there may be a release or threat of a release of hazardous substances from the site into the surrounding environment. The purpose of the investigation is to determine the nature and extent of contamination at the site and to determine what, if any, further response action would be appropriate.

As per your telephone conversation with me on March 23, 1992, EPA was granted permission for access to your property beginning on or about April 20, 1992, and continuing through the completion of the investigation on or about April 24, 1992. Activities to be conducted during the investigation may include:

1. Inspect, sketch, and photograph the site;

2. Collect surface and subsurface soil samples;

3. Collect groundwater and subsurface water samples;

4. Collect sediment samples;

5. Conduct air monitoring;

6. Transport equipment onto and about the site as necessary to accomplish the activities above, including trucks and sampling equipment.

The above sampling activity will be conducted by personnel from EPA Region IV's Field Investigation Team (FIT). Monica Usrey of FIT will contact you prior to the actual site visit to make final arrangements and note any changes.

Split samples will be made available if requested. However, you will be required to furnish your own containers as well as your own laboratory analyses.

If you have any questions, please contact me at (404) 347-5065. Your cooperation in this matter is appreciated.

Sincerely yours,

Ramona J. Klein
Environmental Scientist

cc: Carl Millanti, KDEP
Monica Usrey, B&V

RK:m:03/24/92x5065 Disk: Klein.wp Doc a27

KLEIN DETHL
3/24/92 3/26

B & V WASTE SCIENCE & TECHNOLOGY CORP.

1117 PERIMETER CENTER WEST
SUITE W-212
ATLANTA, GEORGIA 30338
TEL. (404) 392-9227
FAX: (404) 392-9289

WPB/SAS
RECEIVED
APR 28 1992
EPA - REGION IV
ATLANTA, GA

US EPA Region IV
Producers Wood Preserver
Work Assignment № 11

BVWST Projects 52011/023
BVWST Files M/1
April 28, 1992

Mr. A. R. Hanke
Waste Programs Branch
Waste Management Division
U.S. Environmental Protection Agency
Atlanta, Georgia 30365

Subject: Site Inspection Study Plan

Dear Mr. Hanke:

Please find attached the Site Inspection Study Plan for the Producers Wood Preserver facility located in Louisville, Jackson County, Kentucky. A date is scheduled for May 4, 1992, to perform a sampling investigation.

If you have any questions concerning this Site Inspection Study Plan, please call me.

Very truly yours,

B&V WASTE SCIENCE AND TECHNOLOGY CORP

Monica Usrey

Monica J. Usrey
Scientist

mju
Enclosures

cc: Charles Swan, EPA PO, w/ enclosure
Keith Mills, EPA Contracting Specialist, w/ enclosure
Hubert Wieland, w/o enclosure

FIELD STUDY PLAN
SITE INSPECTION
Producers Wood Preserver
Louisville, Jefferson County, Kentucky

EPA ID No. KYD985066042

Prepared Under

CONTRACT NO.68-W9-0055

FOR THE

WASTE MANAGEMENT DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

April 28, 1992

Prepared by
Monica J. Usrey

B&V WASTE SCIENCE AND TECHNOLOGY CORP

Project No. 52011.023

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1.5 Permits and Authorization Requirements 2
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STUDY PLAN
SITE INSPECTION
Producers Wood Preserver
Louisville, Jefferson County, Kentucky
EPA ID No. KYD985066042

1.0 INTRODUCTION

B & V Waste Science & Technology has been tasked by the U. S. Environmental Protection Agency (EPA), to conduct a Site Inspection (SI) at the Producers Wood Preserver Site in Louisville, Jefferson County, Kentucky. The inspection will be performed under the authority of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA).

1.1 Objectives

The objectives of this site inspection will be to determine the nature of contaminants present at the site and to determine if a release of these substances has occurred or may occur. Further, this inspection will seek to determine the possible pathways by which contamination could migrate from the site and the populations and environments it would potentially affect. Upon completion of these objectives, a recommendation will be made regarding future activities at the site.

Specific elements are:

- Obtain information to prepare a site-specific preliminary Hazard Ranking Score (HRS)
- Provide EPA the necessary information to make decisions on any other actions warranted at the site.

1.2 Scope of Work

The scope of this investigation will include the following activities:

- Obtain and review background materials relevant to HRS scoring of site
- Obtain aerial photographs and maps of site, if possible
- Obtain information on local water systems

- Evaluate target populations associated with the groundwater, surface water, air and onsite exposure pathways
- Determine location and distance to nearest potable well
- Develop a site sketch
- Collect environmental samples

1.3 Schedule

Field work for the Producers Wood Preserver Site is scheduled for the week of May 4, 1992.

1.4 Personnel

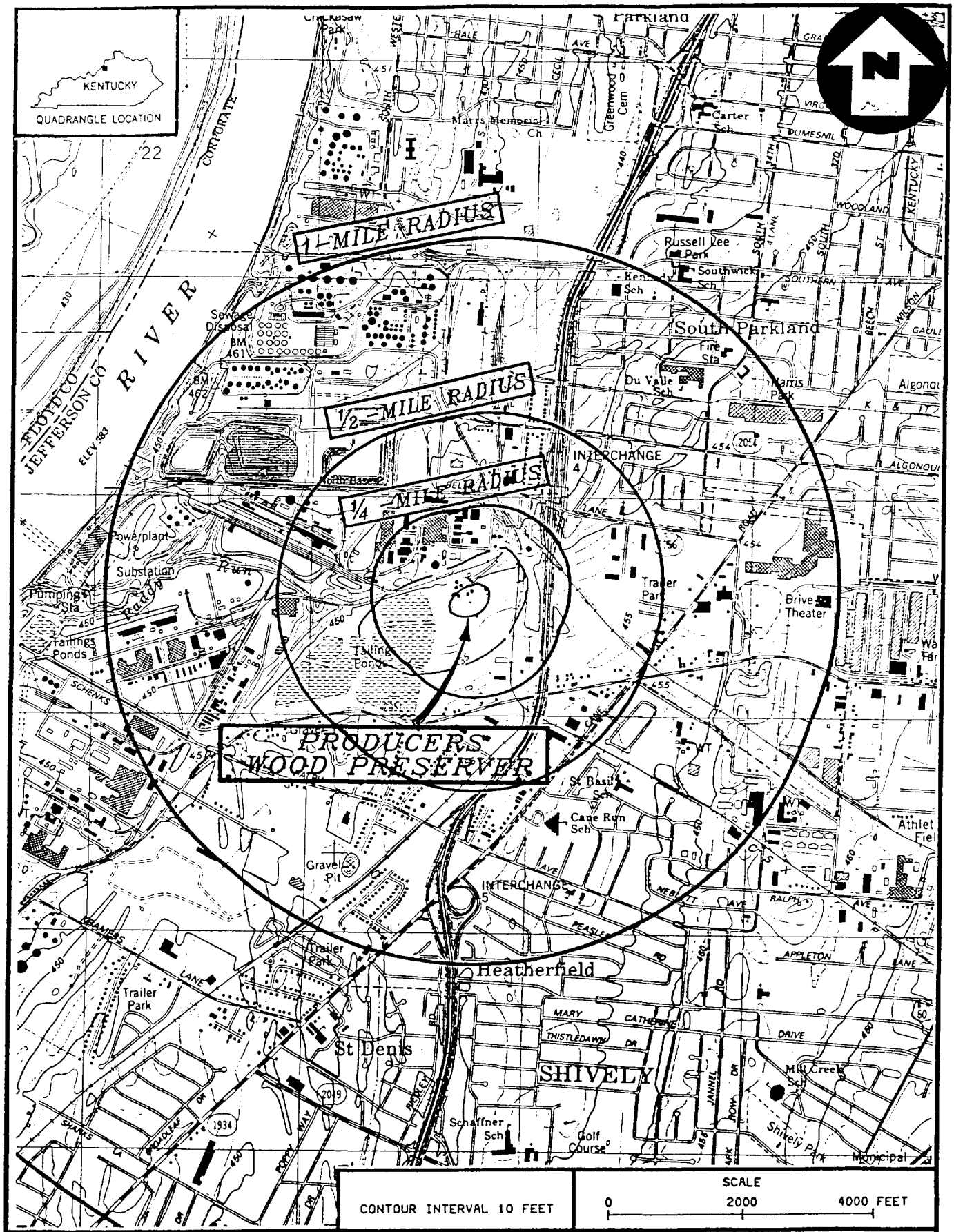
Site Manager: Monica Usrey
Site Safety Coordinator: Ralph Hazelton
Sampling Officer: Bill Stafford
Sampler: Dan Keck

1.5 Permits and Authorization Requirements

EPA is responsible for obtaining access to the site, permission to take photographs of site, and permission to return investigation derived wastes to the property. In addition, EPA is responsible for all permits which may be required to accomplish this task.

1.6 Site History and Description

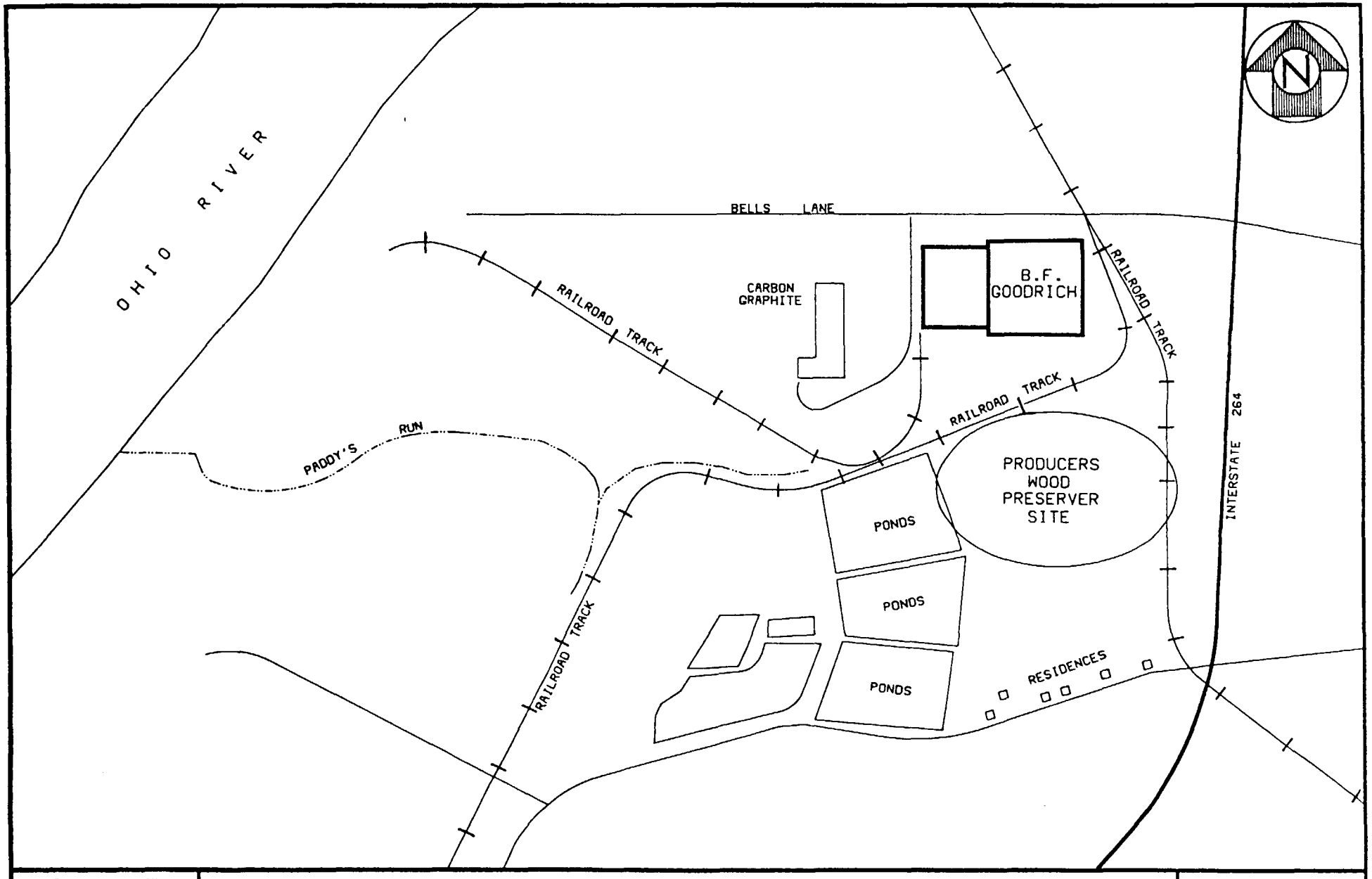
Producers Wood Preservers (PWP) is located southwest of the intersection of Bells Lane and Interstate 264 in Louisville, Jefferson County, Kentucky. PWP operated a wood and railroad tie preserving facility from 1922-1934 (Figure 1,2). The former PWP facility was approximately 120 acres in size. Throughout its operation, the facility treated an estimated 393,500 cubic feet of railroad ties and lumber with creosote (Ref. 1, p.1). These materials were stacked and dried, requiring a great deal of land area for this process. During the drying procedure it was not unusual for the wood to be wet with creosote. Any unabsorbed preservative or creosote could drip off onto the ground causing surface water and soil contamination. Analysis of creosote indicates it breaks down into a number of toxic constituents including, but not limited to, phenolic compounds, phenanthrene, and anthracene (Ref. 1). Changing ownership a number of times over the years, PWP's 120 Acre site is



BASE MAP IS A PORTION OF THE USGS 7.5 MINUTE QUADRANGLE, LOUISVILLE WEST, KY-ID.

SITE LOCATION MAP
PRODUCERS WOOD PRESERVER
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY

FIGURE 1



SITE LAYOUT MAP
PRODUCERS WOOD PRESERVER
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY

FIGURE 2

currently owned by B.F. Goodrich Co. and Carbon Graphite, each owning approximately 60 acres (Ref. 1, p.2)

A Preliminary Assessment (PA) site visit was conducted by Kentucky Division of Waste Management PA/SI staff on October 1, 1991 (Ref. 1). The PA report recommended the PWP site be given a medium priority. Currently, the site is controlled by the present owners B. F. Goodrich and Carbon Graphite.

1.7 Regional Hydrogeology

Producers Wood Preserver is located in the Blue Grass Region of north-central Kentucky. More specifically, the site is located in the Knobs belt of the Outer Blue Grass Physiographic subdivision. The Knobs belt west of the Cincinnati arch is more or less continuous with the Outer Blue Grass region. The relief is gently rolling with outcrops of Silurian and Devonian rocks (Ref. 2, pp. 4-6). The climate of the Louisville area is generally temperate and humid. Temperatures usually range from 100°F in the summer to 0°F in the winter with a mean annual temperature of 56.5°F (Ref. 3, pp. 12-13). The average annual precipitation in this area is 42 inches with mean annual lake pan evaporation of 35 inches, yielding a net annual rainfall of 7 inches (Ref. 4, pp. 43, 63). The 2-year, 24-hour rainfall is approximately 3.2 inches (Ref. 5, p. 91).

Elevations in the area range from approximately 390 feet above mean sea level (amsl) near the Ohio River to 500 feet amsl. The elevation of the PWP site is approximately 450 feet amsl (Ref. 6). The region slopes gently to the northwest (Ref. 7). The geologic map of the area indicates that the site is underlain with glacial outwash of the Pleistocene Age. The outwash consists of sand, gravel, silt, and clay. The sand ranges from very fine to coarse grained and is light brownish gray to light reddish brown in color. Clay and silt are yellowish brown above the water table and olive gray below (Ref. 8). The outwash layer is up to 130 feet thick. Approximately 35 feet of saturated sand and gravel exist below the PWP site (Ref. 9, plate 2).

The soil in the area of the Producers Wood Preserver site is of the Wheeling-Weinbach-Huntington association. This association consists of very broad, nearly level ridges with narrow side slopes running down to the bottoms along small branches which are mostly parallel to the Ohio River. Most of the sloping areas are

well drained, and the level or nearly level areas are mostly moderately well drained or somewhat poorly drained.

A specific soil description is not available for the site. The area is very diverse, is heavily industrial, and has been reworked considerably (Ref. 10). Wheeling, Weinbach, and Huntington soils each cover about 25 percent of the association. Wheeling soils are deep, well drained soils on terraces. They usually consist of a surface layer of brown, friable silt loam and a subsurface layer of yellowish brown silty clay loam. Weinbach soils are moderately deep, somewhat poorly drained soils on terraces. They have a surface layer of grayish-brown silt loam and a subsoil of brown silty clay loam mottled with gray. Huntington soils are deep, well-drained soils on bottoms. Generally they consist of dark-brown silt loam. All are underlain by stratified sand, silt, and clay, mixed with gravel in some places below a depth of 4 to 8 feet (Ref. 11).

The Borden Formation of Mississippian Age underlies the glacial outwash and consists of the Holtsclaw Siltstone, the Nancy, the Kenwood Siltstone, and the New Providence Shale Members. The Holtsclaw Siltstone is approximately 115 feet thick and is composed of medium to medium-light gray siltstone and silty shale. The Nancy Member lies beneath the Holtsclaw Siltstone and ranges in thickness from 30 to 120 feet. It consists of medium- to olive-gray silty shale and is clayey, locally calcareous, and unevenly fissile. The Kenwood Siltstone underlies the Nancy Member in the northern portion of this region. It is approximately 25 to 65 feet thick and is made up of siltstone and interbedded shale. The basal part of the Nancy Member intergrades with the New Providence Shale for as much as 30 feet in the southwest portion of the region. Olive-gray to grayish-green silty, clay shale and minor limestone comprise the New Providence Shale Member. The thickness of this formation ranges from 125 to 220 feet. The New Providence Shale contains scattered light-brown to dark-yellowish-brown ellipsoidal ironstone concretions. Thin limestone lenses exist in this formation 80 to 100 feet below the Kenwood Siltstone. New Albany Shale of Devonian Age underlies the Borden Formation. It consists of silty, carbonaceous shale, olive- to grayish-black in color and approximately 95 to 104 feet in thickness (Ref. 8).

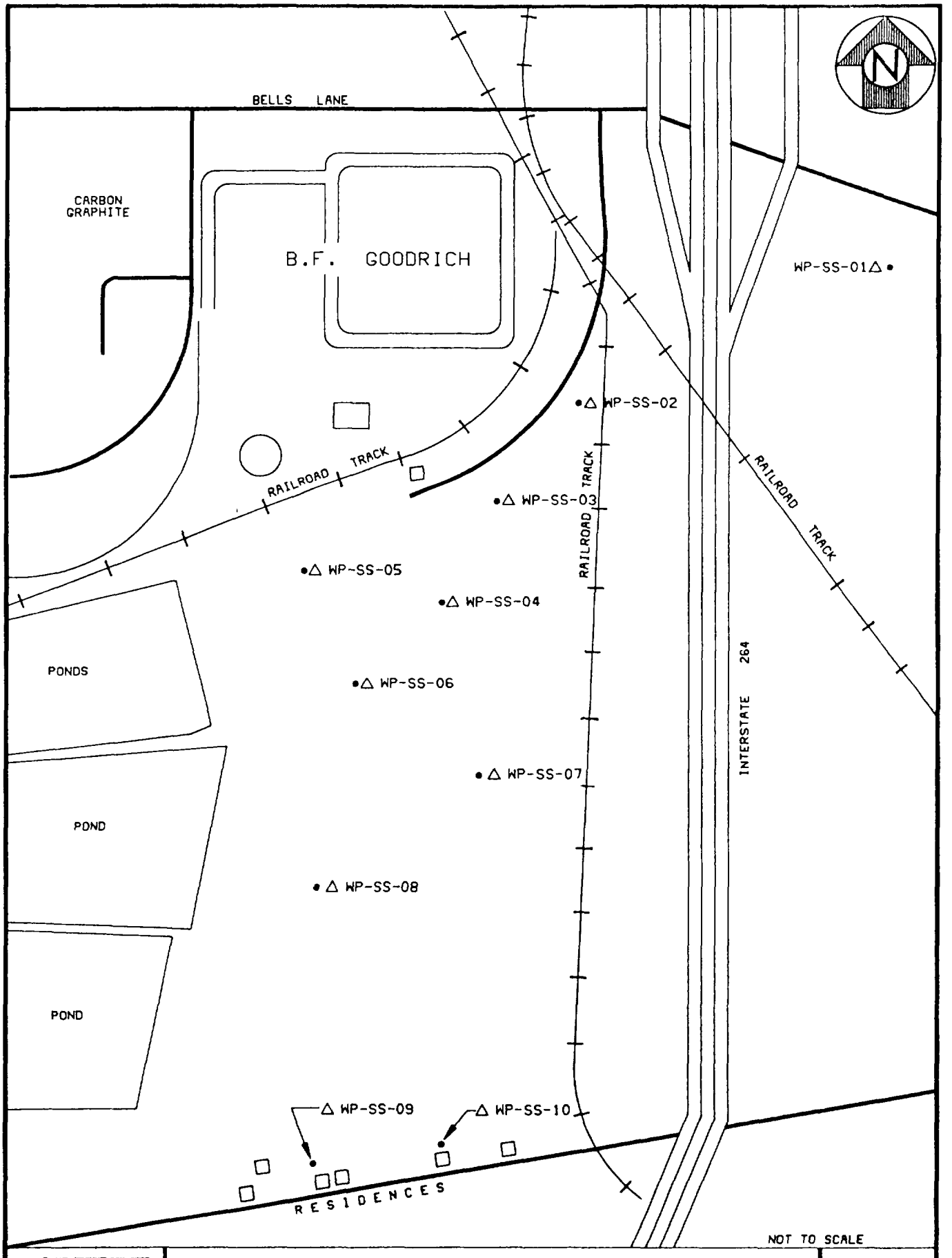
POOR LEGIBILITY

PORTIONS OF THIS DOCUMENT MAY BE UNREADABLE, DUE TO THE QUALITY OF THE ORIGINAL

TABLE 1
SAMPLE LOCATIONS AND RATIONALE
Producers Wood Preserver
Louisville, Jefferson County, Kentucky

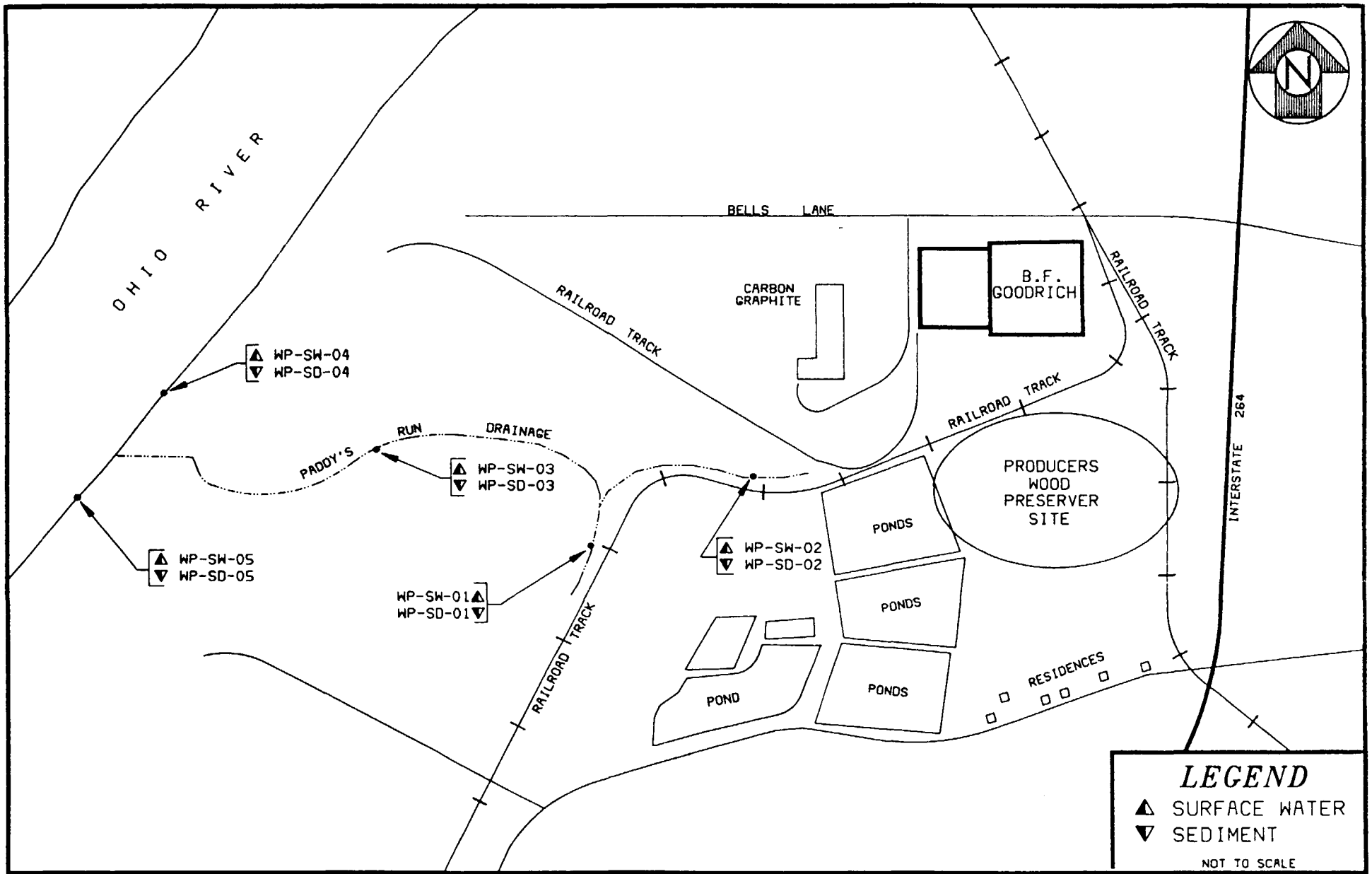
Sample Code	Sample Type	Location	Rationale
WP-SS-01	Surface Soil	Northeast, offsite	To establish background levels
WP-SS-02	Surface Soil	Northeastern corner of the property	To determine the absence or presence of contaminants
WP-SS-03	Surface Soil	Northeastern corner of the property	To determine the absence or presence of contaminants
WP-SS-04	Surface Soil	North central of the property	To determine the absence or presence of contaminants
WP-SS-05	Surface Soil	Northeast corner of the property	To determine the absence or presence of contaminants
WP-SS-06	Surface Soil	South central portion of the property	To determine the absence or presence of contaminants
WP-SS-07	Surface Soil	south central of the site	To determine the absence or presence of contaminants
WP-SS-08	Surface Soil	south central of the site	To determine the absence or presence of contaminants
WP-SS-09	Surface Soil	Southwestern corner of the property, at residence	To determine the absence or presence of contaminants
WP-SS-10	Surface Soil	Southeastern corner of the property, at residence	To determine the absence or presence of contaminants
WP-SW-01	Surface Water	South-central portion of drainage.	To establish background parameters
WP-SD-01	Sediment	South-central portion of drainage	To establish background parameters
WP-SW-02	Surface Water	Northeastern portion of the drainage	To determine the absence presence of contaminants
WP-SD-02	Sediment	Northeastern portion of the drainage	To determine the absence presence of contaminants
WP-SW-03	Surface Water	Southwest portion of drainage	To determine the absence or presence of contaminants
WP-SD-03	Sediment	Southwest portion of drainage	To determine the absence or presence of contaminants
WP-SW-04	Surface Water	Upgradient of drainage entry into the Ohio River	To determine the absence or presence of contaminants
WP-SD-04	Sediment	Upgradient of drainage entry into the Ohio River	To determine the absence or presence of contaminants
WP-SW-05	Surface Water	Downgradient of drainage entry into the Ohio River	To determine the absence or presence of contaminants
WP-SD-05	Sediment	Downgradient of drainage entry into the Ohio River	To determine the absence or presence of contaminants

WP - Producers Wood Preserver
SS - Surface Soil
SD - Sediment
SW - Surface Water



SURFACE SOIL SAMPLE LOCATION MAP
PRODUCERS WOOD PRESERVER
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY

FIGURE 3



SURFACE WATER/SEDIMENT SAMPLE LOCATIONS MAP
PRODUCERS WOOD PRESERVER
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY

FIGURE 4

Analyses	Container	Preservatives **
Extractable Organics, Water	1 gal., amber glass *	None
Volatile Organics, Water	2-40 ml., glass vial *	4 drops conc. HCL to pH <2
Metals, Water	1 liter, plastic	50% HNO_3 to pH <2
Cyanide, Water	1 liter, plastic	NaOH to pH >12
Extractable Organics Soil/Sediment	8 oz., glass *	None
Volatile Organics Soil/Sediment	2 oz. (60 ml VOA Vial)	None
Inorganics Soil/Sediment	8 oz., glass *	None

* Sample container lids are lined with teflon

** All samples will be iced to 4°C upon collection

2.4 Methodology

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation will be in accordance with the standard operating procedures as specified in Section 3 and 4 of the Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, February 1, 1991.

Surface soil and sediment samples will be collected using a stainless steel spoon and a 2 or 4 quart glass bowl. Containers being analyzed for volatile organic compounds (VOC), will be collected first and directly into the appropriate containers. The remainder of the sample will be collected into the glass bowl, mixed thoroughly, then

distributed to the proper containers. Surface soil samples will be collected from a depth of 6 to 12 inches below land surface (bls).

Surface water samples will be collected facing upstream prior to the collection of sediments. VOA samples will be collected directly into a prepreserved VOA container. The remainder of the samples will be collected in the 1 gallon amber glass container and then sequentially transferred to the proper sample containers.

All laboratory analyses and laboratory quality assurance procedures used during this investigation will be in accordance with standard procedures and protocols as specified in the Analytical Support Branch's Laboratory Operations and Quality Control Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, October 1990; or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.

2.5 Investigation Derived Waste

Investigation derived wastes in the form of soils and sludges will be returned to the boreholes from which they were collected. Aqueous wastes such as purged waters from temporary wells will be dispersed at a distance of 5 to 15 feet downgradient of the collection point. Potentially contaminated personal protective clothing will be collected and removed from the site for disposal at a later date. Decontamination rinse and wash water will be dispersed onsite when feasible, or drummed and removed for disposal at a later date if conditions warrant. All IDW will be handled in accordance with the EPA guidance document Management of Investigation-Derived Wastes During Site Inspections, May 1991.

REFERENCES

1. Potential Hazardous Waste Site Preliminary Assessment--Site Information and Assessment for Producers Wood Preserver. Filed by Carl Millanti, Uncontrolled Sites Branch, Kentucky Department of Environmental Protection, October, 1, 1991.

2. U.S. Geological Survey, Reconnaissance of Ground-Water Resources in the Blue Grass Region Kentucky, Water-Supply Paper 1533, Washington, D.C.: GPO, 1961.

3. U.S. Geological Survey, Progress Report on the Ground-Water Resources of the Louisville Area Kentucky, 1949-55, Water-Supply Paper 1579, Washington, D.C.: GPO, 1963.

4. U.S. Department of Commerce, Climatic Atlas of the United States, Washington, D.C.: GPO, June, 1968, Reprint: 1983, National Oceanic and Atmospheric Administration.

5. U.S. Department of Commerce, Rainfall Frequency Atlas of the United States, Technical Paper No. 40, Washington, D.C.: GPO, 1961.

6. U.S. Geological Survey 7.5 Minute Series Topographic Quadrangle Maps: Georgetown, Ind., 1968, PR, 1980; Louisville West, Ky-Ind., 1983, PR 1987; Lanesville, Ind.-Ky., 1982, PR 1987; New Albany, Ind.-Ky., 1982, PR 1987; scale 1:24,000.

7. Kentucky Geological Survey, Topography of Kentucky, Special Publication 25, 1978.

8. U.S. Geological Survey, Geologic Map of Parts of the Louisville West and Lanesville Quadrangles, 1974, scale 1:24,000.

9. U.S. Geological Survey, Summary of Hydrologic Conditions of the Louisville Area Kentucky, Water-Supply Paper 1819-C, Washington, D.C.: GPO, 1966.

10. Kurt Mason, Jefferson County Soil Conservation Office, telephone conversation with Robert Keiser, KDEP, January 19, 1989. Subject: Soil Classification at neighboring Bond Brothers Wood Preserving site.

11. U.S. Department of Agriculture, Soil Conservation Service, Soil Survey, Jefferson County Kentucky, June 1966.

12. U.S. Geological Survey, Availability of Ground Water in Bullitt, Jefferson, and Oldham Counties, Kentucky, Hydrologic Investigations Atlas, HA-22, 1960.

13. Doug Zettwock, Kentucky Geological Survey, Louisville Office, telephone conversation with Scotti Holcombe, BVWST, April 14, 1992. Subject: groundwater and wells in area.

14. R. Allan Freeze and John A. Cherry, Groundwater, 1979, Prentice-Hall, Inc., Englewood Cliffs, N. J.

15. Louisville (KY) Water Company, Water Distribution System Map, 1988.

U.S. Environmental Protection Agency
Region IV

Waste Management Division
Waste Programs Branch
Site Assessment Section
345 Courtland St., NE
Atlanta, GA 30365
Fax (404) 347-4862
Phone (404) 347-5065

No. of Pages to Follow: 0

Please Deliver To: Ms. Monica Usrey
Company: B+V
Phone:
Fax: 392-9289
Date: 5-2-92

Message: I've recieved the revisions you sent re the FSP for Producers Wood Preservers. Please finalize the study plan.

From: Ramona Klein

OVERSIZED

DOCUMENT

PA Scoresheets

PRODUCERS WOOD PRESERVERS CO.
JEFFERSON COUNTY KENTUCKY
EPA ID# KYD 985066042

PRELIMINARY ASSESSMENT

CERCLIS IDENTIFICATION NUMBER	
STATE: Ky	SITE NUMBER: KYD 985066042

SITE LOCATION			
SITE NAME: Legal, common or descriptive name of site: PRODUCERS WOOD PRESERVERS CO.			
STREET ADDRESS, ROUTE or SPECIFIC LOCATION IDENTIFIER			
CITY: LOUISVILLE,	STATE: Ky	ZIP CODE	TELEPHONE ( )
COORDINATES: LATITUDE and LONGITUDE	TOWNSHIP, RANGE, and SECTION		

OWNER/OPERATOR IDENTIFICATION					
OWNER: B.F. GOODRICH			OPERATOR		
OWNER ADDRESS			OPERATOR ADDRESS		
CITY: LOUISVILLE			CITY		
STATE: Ky	ZIP CODE	TELEPHONE ( )	STATE	ZIP CODE	TELEPHONE ( )

TYPE OF OWNERSHIP	OWNER/OPERATOR NOTIFICATION ON FILE
☐ PRIVATE ☐ FEDERAL: Agency name _____ ☐ STATE ☐ COUNTY ☐ MUNICIPAL ☐ OTHER: _____ ☑ NOT SPECIFIED	☑ NONE ☐ CERCLA 103 C, UNCONTROLLED WASTE SITE DATE: _____ ☐ RCRA 3001 DATE: _____

SITE STATUS	YEARS OF OPERATION	APPROXIMATE SIZE OF SITE
☐ ACTIVE ☑ INACTIVE ☐ UNKNOWN	BEGINNING YEAR: 1922 ENDING YEAR: 1934 ☐ UNKNOWN	UNKNOWN

SITE EVALUATION
AGENCY / ORGANIZATION
INVESTIGATOR
CONTACT
ADDRESS
TELEPHONE ( )
DATE

DRAFT

INSTRUCTIONS FOR SCORESHEETS

Introduction

These scoresheets require you to record information collected during the PA, indicate references used, select values ("scores") for factors, calculate pathway scores and a site score, and conclude with a site recommendation. You are encouraged to write notes on the scoresheets and especially on the Criteria Lists. On pages with a reference column, indicate a number corresponding to attached sources of information or pages containing rationale for hypotheses; attach to the scoresheets a numbered list of these references. Evaluate all four pathways. Complete and submit all Criteria Lists, scoresheets, and tables. Show calculations, as appropriate. Do not enter values or scores in shaded areas of the scoresheets.

General Information

Site Description and Operational History: Provide a brief description of the site and its operating history. State the site name, owner/operator, type of facility and operations, size of property, active or nonactive status, and years of waste generation. Summarize waste treatment, storage, or disposal activities that have or may have occurred at the site; note also if these activities are documented or alleged. Identify probable source types and prior spills. Summarize highlights of previous investigations.

Probable Contaminants of Concern: List hazardous substances you think may have been stored, handled, or disposed of at this site, based on your knowledge of site operations. The purpose of identifying probable substances of concern is to consider the mobility of wastes to hypothesize whether a release has occurred. Identify the sources to which the substances may be related. Summarize any analytical data that may exist concerning contamination detected onsite or impacting targets, as a result of previous investigations performed on the site.

DRAFT

NOV 06 1990

Site Name:
Date:

GENERAL INFORMATION

Site Description and Operational History:

PLEASE SEE ATTACHED P.A. REPORT

Probable Contaminants of Concern:

(Previous investigations; analytical data)

PLEASE SEE ATTACHED P.A. REPORT

DRAFT

NOV 06 1990

Site Sketch: Prepare a sketch of the site. Indicate all pertinent features of the site and nearby environs, including: sources of wastes, areas of visible and buried wastes, buildings, residences, access roads, parking areas, drainage patterns, water bodies, vegetation, wells, sensitive environments, etc.

DRAFT

NOV 06 1990

Site Name:
Date:

GENERAL INFORMATION (continued)

Site Sketch:
(Show all pertinent features; indicate sources and closest targets)

PLEASE SEE ATTACHED P.A. REPORT

DRAFT

NOV 06 1990

Source Descriptions: Identify and describe all sources (for example, surface impoundments, landfills, underground tanks, drums, piles, areas of contaminated soil, etc.) at the site. Provide source dimensions and the best available waste quantity information. Indicate if there are any containment structures present (are the sources poorly contained?).

SOURCE TYPE DEFINITIONS

Landfill: a man-made (by excavation or construction) or natural hole in the ground into which wastes have come to be disposed by backfilling, or by contemporaneous soil deposition with waste disposal.

Surface Impoundment: a natural topographic depression, man-made excavation, or diked area, primarily formed from earthen materials (lined or unlined) which was designed to hold an accumulation of liquid wastes, wastes containing free liquids, or sludges that were not backfilled or otherwise covered; depression may be wet with exposed liquid, or dry if deposited liquid has evaporated, volatilized or leached; structures that may be more specifically described as lagoon pond, aeration pit, settling pond, tailings pond, sludge pit, etc. A surface impoundment that has been covered with soil after the final deposition of waste materials (i.e., buried or backfilled) is also considered a surface impoundment.

Drums: a portable container, designed to hold a standard 55-gallon volume of wastes.

Tanks and Non-Drum Containers: any device other than drums, designed to contain an accumulation of waste, that provides structural support and is constructed primarily of fabricated materials (such as wood, concrete, steel, or plastic); any portable or mobile device in which waste is stored or otherwise handled.

Contaminated Soil: an area or volume of soil onto which hazardous substances are suspected to have been spilled, spread, disposed, or deposited.

Pile: any non-containerized accumulation above the ground surface of solid, non-flowing wastes; includes open dumps. Some types of waste piles are: Chemical Waste Pile: a pile consisting primarily of discarded chemical products, by-products, radioactive wastes, or used or unused feedstocks; Scrap Metal or Junk Pile: a pile consisting primarily of scrap metal or discarded durable goods such as appliances, automobiles, auto parts, batteries, etc., composed of materials suspected to contain or have contained hazardous substances; Tailings Pile: a pile consisting primarily of any combination of overburden from a mining operation and tailings from a mineral mining, beneficiation, or processing operation; and Trash Pile: a pile consisting primarily of paper, garbage, or discarded non-durable goods which are suspected to contain or have contained hazardous substances.

Land Treatment: landfarming or other land treatment method of waste management in which liquid wastes or sludges are spread over land and tilled, or liquids are injected at shallow depths into soils.

Waste Characteristics: Evaluate hazardous waste quantity for all sources at the site to determine the Waste Characteristics factor category score (WC).

Use PA Table 1a (page 5) to determine the WC score for sites with only one source. If more than one source is present, you will need to calculate an intermediate waste quantity value (WQ) for each source using a divisor, then sum the WQ values to determine the total WQ for the site (see instructions opposite Table 1, page 5). Use PA Table 1b (page 5) to determine the WC score.

DRAFT

NOV 08 1990

Site Name:
Date:

GENERAL INFORMATION (continued)

Source Descriptions:

PLEASE SEE ATTACHED P.A. REPORT

Waste Characteristics (WC) Calculations:

(See PA Table 1, page 5)

/

WC = 32

DRAFT

NOV 06 1990

Determining the Waste Characteristics (WC) Score: WC, based on waste quantity, may be determined by one or all of four measures called "tiers": constituent quantity, wastestream quantity, source volume, and source area. PA Table 1a (page 5) is structured according to these tiers. The amount and level of detail of information available to you determine which tier(s) you can use for each source. For each source, evaluate waste quantity for as many of the tiers as you have information to support, and select the result that gives you the highest WC score. For any one source or for all sources at a site, if no information is available regarding waste quantity, assign a WC score of 18 (minimum).

PA Table 1a has 6 columns: column 1 indicates the quantity tier; column 2 lists source types for the four tiers; columns 3, 4, and 5 provide ranges of waste amount for sites with only one source, which correspond to WC scores at the tops of the columns (18, 32, or 100); column 6 provides formulas to obtain source waste quantity (WQ) values at sites with multiple sources.

To determine WC for sites with only one source:

1. *Identify source type (see definitions).*
2. *Examine all waste quantity data available.*
3. *Estimate the mass and/or dimensions of each source.*
4. *Determine which quantity tiers you can use based on available source information.*
5. *Convert source measurements to appropriate units for each tier you can evaluate for the source.*
6. *Identify the range into which the total quantity falls for each tier evaluated (PA Table 1a).*
7. *Determine the highest WC score obtained for any tier (18, 32, or 100, at top of PA Table 1a columns 3, 4, and 5, respectively).*
8. *Use this WC score for all pathways.* *

To determine WC for sites with multiple sources:

1. *Identify each source type (see definitions).*
2. *Examine all waste quantity data available for each source.*
3. *Estimate the mass and/or dimensions of each source.*
4. *Determine which quantity tiers you can use for each source based on the available information.*
5. *Convert the measurements to the appropriate units for each tier you can evaluate for each source.*
6. *For each source, use the formulas in column 6 of PA Table 1a to determine the WQ value for each tier that can be evaluated. The highest WQ value obtained for any tier is the WQ value for the source.*
7. *Sum the WQ values for all sources to get the site WQ total.*
8. *Use the site WQ total from step 7 to assign the WC score from PA Table 1b.*
9. *Use this WC score for all pathways.* *

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* The WC score is considered in all four pathways. However, if there are primary targets for ground water, surface water, or air migration pathways, assign the determined WC or a score of 32, whichever is greater, as the WC score for that pathway.

PA TABLE 1: WASTE CHARACTERISTICS (WC) SCORES

PA Table 1a: WC Scores for Single Source Sites and Formulas for Multiple Source Sites

TIER	SOURCE TYPE	SINGLE SOURCE SITES (assigned WC scores)			MULTIPLE SOURCE SITES
		WC = 18	*WC = 32*	*WC = 100*	Formula for Assigning Source WQ Values
CONSTITUENT	N/A	≤100 lbs	>100 to 10,000 lbs	>10,000 lbs	*lbs ÷ 1*
WASTESTREAM	N/A	≤500,000 lbs	>500,000 to 50 million lbs	>50 million lbs	*lbs ÷ 5,000*
VOLUME	Landfill	≤6.75 million ft^3 ≤250,000 yd^3	>6.75 million ft^3 to 675 million ft^3 >250,000 to 25 million yd^3	>675 million ft^3 >25 million yd^3	*ft^3 ÷ 67,500* *yd^3 ÷ 2,500*
	Surface impoundment	≤6,750 ft^3 ≤250 yd^3	>6,750 ft^3 to 675,000 ft^3 >250 to 25,000 yd^3	>675,000 ft^3 >25,000 yd^3	*ft^3 ÷ 67.5* *yd^3 ÷ 2.5*
	Drums	≤1,000 drums	>1,000 to 100,000 drums	>100,000 drums	*drums ÷ 10*
	Tanks and non-drum containers	≤50,000 gallons	>50,000 to 5 million gallons	>5 million gallons	*gallons ÷ 500*
	Contaminated soil	≤6.75 million ft^3 ≤250,000 yd^3	>6.75 million ft^3 to 675 million ft^3 >250,000 to 25 million yd^3	>675 million ft^3 >25 million yd^3	*ft^3 ÷ 67,500* *yd^3 ÷ 2,500*
	Pile	≤6,750 ft^3 ≤250 yd^3	>6,750 ft^3 to 675,000 ft^3 >250 to 25,000 yd^3	>675,000 ft^3 >25,000 yd^3	*ft^3 ÷ 67.5* *yd^3 ÷ 2.5*
AREA	Landfill	≤340,000 ft^2 ≤7.8 acres	>340,000 to 34 million ft^2 >7.8 to 780 acres	>34 million ft^2 >780 acres	*ft^2 ÷ 3,400* *acres ÷ 0.078*
	Surface impoundment	≤1,300 ft^2 ≤0.029 acres	>1,300 to 130,000 ft^2 >0.029 to 2.9 acres	>130,000 ft^2 >2.9 acres	*ft^2 ÷ 13* *acres ÷ 0.00029*
	Contaminated soil	≤3.4 million ft^2 ≤78 acres	>3.4 million to 340 million ft^2 >78 to 7,800 acres	>340 million ft^2 >7,800 acres	*ft^2 ÷ 34,000* *acres ÷ 0.78*
	Pile*	≤1,300 ft^2 ≤0.029 acres	>1,300 to 130,000 ft^2 >0.029 to 2.9 acres	>130,000 ft^2 >2.9 acres	*ft^2 ÷ 13* *acres ÷ 0.00029*
	Land treatment	≤27,000 ft^2 ≤0.62 acres	>27,000 to 2.7 million ft^2 >0.62 to 62 acres	>2.7 million ft^2 >62 acres	*ft^2 ÷ 270* *acres ÷ 0.0062*

1 ton = 2,000 lbs = 1 yd^3 = 4 drums = 200 gallons

* Use area of land surface under pile, not surface area of pile.

PA Table 1b: WC Scores for Multiple Source Sites

WQ Total	*WC Score*
>0 to 100	18
>100 to 10,000	32
>10,000	100

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GROUND WATER PATHWAY

Ground Water Use Description: Provide information on ground water use in the vicinity. Present the general stratigraphy, aquifers used, and distribution of private and municipal wells.

Calculations of Ground Water Drinking Water Populations: Provide populations from private wells and municipal supply systems in each distance ring. Show apportionment calculations for blended supply systems.

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Site Name:
Date:

GROUND WATER PATHWAY
GROUND WATER USE DESCRIPTION

Describe Ground Water Use Within 4-miles of the Site:
(Provide generalized stratigraphy; information on aquifers, municipal, and or private wells)

PLEASE SEE ATTACHED P.A. REPORT

Show calculations of ground water drinking water populations:

PLEASE SEE ATTACHED P.A. REPORT

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GROUND WATER PATHWAY CRITERIA LIST

Site Name:
Date:

This chart provides guidelines to assist you in hypothesizing the presence of a suspected release and identifying primary targets. It is expected that not all of this information will be available during the PA. Also, these criteria are not all-inclusive; list any other criteria you use to hypothesize a suspected release or to identify primary targets. This chart will record your professional judgment in evaluating these factors.

The "Suspected Release" section of the chart guides you through evaluation of some site, source, and pathway conditions to help hypothesize whether a release from the site is likely. If a release is suspected, use the "Primary Targets" section to guide you through evaluation of some conditions that will help identify targets likely to be exposed to hazardous substances. You may use this section of the chart more than once, depending on the number of targets you feel may be considered "primary." In the "Primary Targets" section on this sheet, record the responses for the well that you feel has the highest probability of being exposed to hazardous substances.

Check the boxes to indicate a "yes", "no", or "unknown" answer to each question. If you check the "Suspected Release" box as "yes", make sure that you assign a Likelihood of Release value of 550 for the pathway.

GROUND WATER PATHWAY

SUSPECTED RELEASE

Yes	No	Unknown	
☑	☐	☐	Are sources poorly contained?
☑	☐	☐	Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)?
☑	☐	☐	Is waste quantity particularly large?
☐	☐	☑	Is precipitation heavy and infiltration rate high?
☐	☑	☐	Is the site located in an area of karst terrain?
☐	☐	☑	Is the subsurface highly permeable or conductive?
☐	☑	☐	Is drinking water drawn from a shallow aquifer?
☑	☐	☐	Are suspected contaminants highly mobile in ground water?
☐	☐	☑	Does any circumstantial evidence of ground water or drinking water contamination exist?
☐	☐		Other criteria? _____
☑	☐		**SUSPECTED RELEASE?**

PRIMARY TARGETS

Yes	No	Unknown	
☐	☐	☐	Is any drinking-water well nearby?
☐	☐	☐	Is any nearby drinking-water well closed?
☐	☐	☐	Has foul-tasting or foul-smelling water been reported by any nearby drinking-water users?
☐	☐	☐	Do any nearby wells have a large drawdown or high production rate?
☐	☐	☐	Are drinking-water wells located between the site and other wells that are suspected to be exposed to hazardous substances?
☐	☐	☐	Does any circumstantial evidence of ground water or drinking water contamination exist?
☐	☐	☐	Does any drinking-water well warrant sampling?
☐	☐		Other criteria? _____
☐	☐		**PRIMARY TARGET(S) IDENTIFIED?**

Summarize the rationale for suspected release (attach an additional page if necessary):

PLEASE SEE ATTACHED P.A. REPORT

Summarize the rationale for Primary Targets (attach an additional page if necessary):

PLEASE SEE ATTACHED P.A. REPORT

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GROUND WATER PATHWAY

Pathway Characteristics
Answer the questions at the top of the page. Refer to the Ground Water Pathway Criteria List (page 7) to hypothesize whether you suspect that hazardous substances associated with the site have been released to ground water (GW). Record the depth to the aquifer (in feet): the difference between the deepest depth of waste deposited and the shallowest depth of the top of the aquifer at or as near as possible to the site. Note whether the site is in karst terrain (characterized by abrupt ridges, sink holes, caverns, springs, disappearing streams). State the distance (in feet) from any source to the nearest well used for drinking water.

Likelihood of Release (LR)

1. **Suspected Release:** Hypothesize based on professional judgment guided by the Ground Water Pathway Criteria List (page 7). Remember to use only Column A for this pathway if you score a suspected release to ground water, and do not evaluate factor 2.

2. **No Suspected Release:** If you do not suspect a release, determine the GW LR score based on depth to aquifer or whether the site is in an area of karst terrain. If you do not suspect a release to ground water, remember to use only Column B to score this pathway.

Targets (T)

Evaluates the threat to populations who obtain their drinking water from GW supplies. To apportion populations served by blended drinking-water supply systems, determine the percentage of population served by each well within the 4-mile target distance limit based on its production.

3. **Primary Target Population:** Populations served by any drinking-water wells that you suspect have been exposed to hazardous substances released from the site. Use professional judgment guided by the Ground Water Pathway Criteria List (page 7) to make this determination. In the space provided, enter the population served by any wells you suspect have been exposed to hazardous substances from the site. If only the number of residences is known, use the average county residents per household (rounded to the next integer) to determine population served. Multiply the population by 10 to determine the Primary Target Population score. Note that if you do not suspect a release, there is no Primary Target Population.

4. **Secondary Target Population:** Populations served by any drinking-water wells within four miles of the site that you do not suspect have been exposed to hazardous substances should be evaluated on PA Table 2a or 2b (used for wells drawing from karst aquifers) (page 9). Circle the assigned value for the population in each distance ring and enter it in the column on the far right side of the table. Sum the far right column and enter the total as the Secondary Target Population factor score.

5. **Nearest Well** represents the threat posed to the well that is most likely to be exposed to hazardous substances. If you have identified a Primary Target Population, enter 50. Otherwise, obtain the Nearest Well value from PA Table 2a or 2b for the closest distance category with a drinking-water well population.

6. **Wellhead Protection Area (WHPA):** WHPAs are special areas designated by States for protection under Section 1428 of the Safe Drinking Water Act. Local/State and EPA Regional water officials can provide information regarding the location of WHPAs.

7. **Resources:** Score automatically assigned. Do not override; do not investigate resources.

Target Scoring Instructions: Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release). Note that if there are no drinking-water wells within the target distance limit, the total targets score for either Column A or Column B will be 5 (automatically assigned for resources).

Waste Characteristics (WC)

8. **Waste Characteristics** score is assigned from page 4. However, if any Primary Target has been identified for GW, assign the higher of the score calculated on page 4 or a score of 32.

Ground Water Pathway Score: Multiply the scores for LR, T, and WC. Divide the product by 82,500. Round the result to the nearest integer. If the result is greater than 100, assign 100.

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Site Name:
Date:

GROUND WATER PATHWAY SCORESHEET

Pathway Characteristics		
Do you suspect a release (see Ground Water Pathway Criteria List, page 7)?	Yes ✓	No ___
Is the site located in karst terrain?	Yes ___	No ✓
Depth to aquifer:	___ ft	
Distance to the nearest drinking-water well:	___ ft	

LIKELIHOOD OF RELEASE	A *Suspected Release*	B *No Suspected Release*	*References*
1. SUSPECTED RELEASE: If you suspect a release to ground water (see page 7), assign a score of 550, and use only column A for this pathway.	(550) 550		
2. NO SUSPECTED RELEASE: If you do not suspect a release to ground water, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Use only column B for this pathway.		(500 or 340)	
LR =	550		

TARGETS			
3. PRIMARY TARGET POPULATION: Determine the number of people served by drinking water from wells that you suspect have been exposed to hazardous substances from the site (see Ground Water Pathway Criteria List, page 7). ___ people x 10 =	Ø		
4. SECONDARY TARGET POPULATION: Determine the number of people served by drinking water from wells that you do NOT suspect have been exposed to hazardous substances from the site, and assign the total population score from PA Table 2. Are any wells part of a blended system? Yes ___ No ___ If yes, attach a page to show apportionment calculations.	Ø		
5. NEAREST WELL: If you have identified any Primary Targets for ground water, assign a score of 50; otherwise, assign the highest Nearest Well score from PA Table 2. If no drinking-water wells exist within 4 miles, assign a score of zero.	(50, 20, 18, 9, 5, 3, 2, or 0) Ø	(20, 18, 9, 5, 3, 2, or 0)	
6. WELLHEAD PROTECTION AREA (WHPA): Assign a score of 20 if any portion of a designated WHPA is within ¼ mile of the site; assign 5 if from ¼ to 4 miles.	(20, 5, or 0) Ø	(20, 5, or 0)	
7. RESOURCES: A score of 5 is assigned.	(5) 5	(5) 5	
T =	5		

WASTE CHARACTERISTICS			
8. A. If you have identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	(100 or 32) 32		
B. If you have NOT identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4.	(100, 32, or 18) Ø	(100, 32, or 18)	
WC =	32		

GROUND WATER PATHWAY SCORE: $\frac{LR \times T \times WC}{82{,}500}$ (subject to a maximum of 100) 1.066

Site Name:
Date:

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PA TABLE 2: VALUES FOR SECONDARY GROUND WATER TARGET POPULATIONS

PA Table 2a: Non-Karst Aquifers

Distance from Site	Population	Nearest Well (choose highest)	Population Served by Wells Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	
0 to ¼ mile	_____	20	1	2	5	16	52	163	521	1,633	5,214	16,325	_____
> ¼ to ½ mile	_____	18	1	1	3	10	32	101	323	1,012	3,233	10,121	_____
> ½ to 1 mile	_____	9	1	1	2	5	17	52	167	522	1,668	5,224	_____
> 1 to 2 miles	_____	5	1	1	1	3	9	29	94	294	939	2,938	_____
> 2 to 3 miles	_____	3	1	1	1	2	7	21	68	212	678	2,122	_____
> 3 to 4 miles	_____	2	1	1	1	1	4	13	42	131	417	1,306	_____

Nearest Well = [ ] Score = [ ]

PA Table 2b: Karst Aquifers

Distance from Site	Population	Nearest Well (use 20 for karst)	Population Served by Wells Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	
0 to ¼ mile	_____	20	1	2	5	16	52	163	521	1,633	5,214	16,325	_____
> ¼ to ½ mile	_____	20	1	1	3	10	32	101	323	1,012	3,233	10,121	_____
> ½ to 1 mile	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
> 1 to 2 miles	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
> 2 to 3 miles	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
> 3 to 4 miles	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____

Nearest Well = [ ] Score = [ ]

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SURFACE WATER PATHWAY

Migration Route Sketch: Sketch the surface water migration pathway illustrating the drainage route and identifying water bodies, the probable point of entry, flows, and targets.

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Site Name:
Date:

SURFACE WATER PATHWAY
MIGRATION ROUTE SKETCH

Provide a Sketch of the Surface Water Migration Route:
(include runoff route, probable point of entry, 15-mile target distance limit, intakes, fisheries, and sensitive environments)

PLEASE SEE ATTACHED P.A. REPORT.

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SURFACE WATER PATHWAY CRITERIA LIST

Site Name:
Date:

This chart provides guidelines to assist you in hypothesizing the presence of a suspected release and identifying primary targets. It is expected that *not all of this information will be available during the PA. Also, these criteria are not all-inclusive; list any other criteria* you use to hypothesize a suspected release or to identify primary targets. This chart will record your professional judgment in evaluating these factors.

The "Suspected Release" section of the chart guides you through evaluation of some site, source, and pathway conditions to help hypothesize whether a release from the site is likely. If a release is suspected, use the "Primary Targets" section to guide you through evaluation of some conditions that will help identify targets likely to be exposed to hazardous substances. You may use this section of the chart more than once, depending on the number of targets you feel may be considered "primary." In the "Primary Targets" section on this sheet, record the responses for the target that you feel has the highest probability of being exposed to hazardous substances.

Check the boxes to indicate a "yes", "no", or "unknown" answer to each question. If you check the "Suspected Release" box as "yes", make sure that you assign a Likelihood of Release value of 550 for the pathway.

SURFACE WATER PATHWAY

SUSPECTED RELEASE

Yes	No	Unknown	
☑	☐	☐	Is surface water nearby?
☑	☐	☐	Is waste quantity particularly large?
☑	☐	☐	Is the drainage area large?
☐	☐	☑	Is precipitation heavy or infiltration rate low?
☑	☐	☐	Are sources poorly contained or prone to runoff or flooding?
☑	☐	☐	Is a runoff route well defined (e.g., ditch or channel leading to surface water)?
☑	☐	☐	Is vegetation stressed along the probable runoff path?
☐	☐	☑	Are suspected contaminants highly persistent in surface water?
☐	☐	☑	Are sediments/water unnaturally discolored?
☐	☐	☑	Is wildlife unnaturally absent?
☐	☐	☑	Has deposition of waste into surface water been observed?
☑	☐	☐	Is ground water discharge to surface water likely?
☑	☐	☐	Is there any circumstantial evidence of surface water contamination?
☐	☐		Other criteria? _____
☑	☐		**SUSPECTED RELEASE?**

PRIMARY TARGETS

Yes	No	Unknown	
☐	☑	☐	Is any target nearby? If yes:
			☐ Drinking-water intake
			☐ Fishery
			☐ Sensitive environment
☐	☑	☐	Has an intake, fishery, or recreational area been closed?
☐	☐	☑	Is there any circumstantial evidence of surface water contamination at or downstream of a target?
☐	☐	☑	Does any target warrant sampling? If yes:
			☐ Drinking-water intake
			☐ Fishery
			☐ Sensitive environment
☐	☐		Other criteria? _____
☑	☐		**PRIMARY INTAKE(S) IDENTIFIED?**
☐	☑		**PRIMARY FISHERY IDENTIFIED?**
☑	☐		**PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED?**

Summarize the rationale for suspected release (attach an additional page if necessary):

PLEASE SEE P.A. REPORT.

Summarize the rationale for Primary Targets (attach an additional page if necessary):

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SURFACE WATER PATHWAY

Pathway Characteristics

The surface water pathway includes three threats: Drinking Water Threat, Human Food Chain Threat, and Environmental Threat. Answer the questions at the top of the page. Refer to the Surface Water Pathway Criteria List (page 11) to hypothesize whether you suspect hazardous substances have been released to surface water. Enter the distance to surface water (the shortest overland drainage distance from a source to a surface water body). State the floodplain in which the site is located (e.g., 100-yr, 200-yr). If the site is located in more than one floodplain, use the most frequent flooding event. Identify surface water uses for the 15-mile surface water migration path.

Likelihood of Release (LR)

1. **Suspected Release:** Hypothesize based on professional judgment guided by the Surface Water Pathway Criteria List (page 11). Remember to use only Column A for this pathway if you score a suspected release to surface water, and do not evaluate factor 2.

2. **No Suspected Release:** Determine score based on the shortest overland drainage distance from a source to a surface water body. If distance to surface water is greater than 2,500 feet, determine this score based on flood frequency. Remember to use only Column B to score this pathway if you do not suspect that hazardous substances have been released.

Drinking Water Threat Targets (T)

3. List all drinking-water intakes on downstream surface water bodies within the 15-mile target distance limit. Provide the intake name, the type of water body on which the intake is located, the flow of the water body, and the number of people served by the intake (apportion the population if part of a blended system).

4. **Primary Target Population:** Evaluate any populations served by drinking-water intakes that you suspect have been exposed to hazardous substances released from the site. Use professional judgment guided by the Surface Water Pathway Criteria List (page 11) to make this determination. In the space provided, enter the population served by all intakes you suspect have been exposed to hazardous substances, and multiply by 10 to derive the Primary Target Population score. Remember, if you do not suspect a release, there is no Primary Target Population.

5. **Secondary Target Population:** On PA Table 3 (page 13), evaluate any populations served by drinking-water intakes that you do not suspect have been exposed to hazardous substances. Enter the population served by intakes for each flow category. Circle the assigned population value and enter it in the far right column. Sum the population values and enter the total as the Secondary Target Population score.

Gauging station data for most surface water bodies should be available from USGS or other sources. In the absence of gauging station data, see PA Table 4 (page 13) for a listing of surface water body types and associated flow categories. The flow for lakes is determined by the sum of flows of streams entering or leaving the lake. Note that the flow category "mixing zone of quiet flowing rivers" can be used for rivers with flows of at least 10 cfs, but only for intakes within 3 miles of the probable point of entry.

6. **Nearest Intake** score represents the threat posed to the drinking-water intake that is most likely to be exposed to hazardous substances. If you have identified a Primary Target Population, assign a score of 50. Otherwise assign the score determined from PA Table 3 (page 13) for the lowest-flowing water body on which there is an intake.

7. **Resources:** Score automatically assigned. **Do not override**; do not investigate resources.

Target Scoring Instructions: Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release).

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Site Name:
Date:

SURFACE WATER PATHWAY
LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Surface Water Pathway Criteria List, page 11)?	Yes ✓ No ___
Distance to surface water:	15 ft
Flood Frequency:	___ yrs
What is the downstream distance to the nearest drinking-water intake? ___ miles	
nearest fishery? <1 miles nearest sensitive environment? <1 miles	

LIKELIHOOD OF RELEASE

	A *Suspected Release*	B *No Suspected Release*	*References*
1. SUSPECTED RELEASE: If you suspect a release to surface water (see page 11), assign a score of 550, and use only column A for this pathway.	(550) 550		
2. NO SUSPECTED RELEASE: If you do not suspect a release to surface water, and the distance to surface water is 2,500 feet or less, assign a score of 500; otherwise, assign a score from the table below. Use only column B for this pathway.		(500,400,300 or 100)	
LR =	(550) 550	(500 400 300 or 100)	

Floodplain	*Score*
Site in annual or 10-yr floodplain	500
Site in 100-yr floodplain	400
Site in 500-yr floodplain	300
Site outside 500-yr floodplain	100

DRINKING WATER THREAT TARGETS

3. Determine the water body types, flows (if applicable), and number of people served by all drinking-water intakes within the 15-mile target distance limit. If there are no drinking-water intakes within the target distance limit, assign a total Targets score of 5 at the bottom of this page (Resources only) and proceed to page 14.			
4. PRIMARY TARGET POPULATION: If you suspect any drinking-water intake listed above has been exposed to hazardous substances from the site (see Surface Water Pathway Criteria List, page 11), list the intake name(s) and calculate the factor score based on the number of people served. ___, ___, ___ people x 10 =	Ø		
5. SECONDARY TARGET POPULATION: Determine the Secondary Target Population score from PA Table 3 based on the populations using drinking-water from intakes that you do NOT suspect have been exposed to hazardous substances from the site. Are any intakes part of a blended system? Yes ___ No ___ If yes, attach a page to show apportionment calculations.	Ø		
6. NEAREST INTAKE: If you have identified any Primary Targets for the drinking water threat (Factor 4), assign a score of 50; otherwise, assign the Nearest Intake score from PA Table 3. If no drinking-water intake exists within the 15-mile target distance limit, assign a score of zero.	(50,20,10,2,1, or 0) Ø	(20,10,2,1, or 0)	
7. RESOURCES: A score of 5 is assigned.	(5) 5	(5) 5	
T =	5		

Site Name:
Date:

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PA TABLE 3: VALUES FOR SECONDARY SURFACE WATER TARGET POPULATIONS

Surface Water Body Flow Characteristics (see PA Table 4)	*Population*	*Nearest Intake (choose highest)*	*Population Served by Intakes Within Flow Category*											*Population Value*
			1 to 30	*31 to 100*	*101 to 300*	*301 to 1,000*	*1,001 to 3,000*	*3,001 to 10,000*	*10,001 to 30,000*	*30,001 to 100,000*	*100,001 to 300,000*	*300,001 to 1,000,000*	*1,000,001 to 3,000,000*	
< 10 cfs	_____	20	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,246	_____
10 to 100 cfs	_____	2	1	1	2	5	16	52	163	521	1,633	5,214	16,325	_____
> 100 to 1,000 cfs	_____	1	0	0	1	1	2	5	16	52	163	521	1,633	_____
> 1,000 to 10,000 cfs	_____	0	0	0	0	0	1	1	2	5	16	52	163	_____
> 10,000 cfs or Great Lakes		0	0	0	0	0	0	0	1	1	2	5	16	_____
3-mile Mixing Zone	_____	10	1	3	8	26	82	261	816	2,607	8,162	26,068	81,663	_____

Nearest Intake = [ ] **Score =** [ ]

PA TABLE 4: SURFACE WATER TYPE / FLOW CHARACTERISTICS WITH DILUTION WEIGHTS FOR SECONDARY SURFACE WATER SENSITIVE ENVIRONMENTS

Type of Surface Water Body			*Dilution Weight*
Water Body Type	*OR*	*Flow Characteristics*	
minimal stream		flow less than 10 cfs	*1*
small to moderate stream		flow 10 to 100 cfs	*0.1*
moderate to large stream		flow greater than 100 to 1,000 cfs	*N/A*
large stream to river		flow greater than 1,000 to 10,000 cfs	*N/A*
large river		flow greater than 10,000 cfs	*N/A*
3-mile mixing zone of quiet flowing streams or rivers		flow 10 cfs or greater	*N/A*
coastal tidal water (harbors, sounds, bays, etc.), ocean, or Great Lakes		N/A	*N/A*

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SURFACE WATER PATHWAY HUMAN FOOD CHAIN THREAT

Likelihood of Release (LR)

LR is the same for all threats in the Surface Water Pathway. Enter the LR score determined on page 12.

Human Food Chain Threat Targets (T)

8. The only human food chain targets are fisheries. A fishery is "any area of a surface water body from which food chain species are taken or could be taken for human consumption on a subsistence, sporting, or commercial basis." Food chain organisms include fish, shellfish, crustaceans, amphibians, and amphibious reptiles. Fisheries are delineated by changes in surface water body type (i.e., streams and rivers, lakes, coastal tidal waters, and oceans/Great Lakes) and whenever the flow characteristics of a stream or river change. In the space provided, identify all fisheries within the 15-mile target distance limit. Indicate the surface water body type and stream flow for each fishery. Gauging station data should be available for most surface water bodies from USGS or other sources. In the absence of gauging station data, see PA Table 4 (page 13) for a listing of surface water body types and associated flow categories. The flow for lakes is determined by the sum of flows of streams entering or leaving the lake. Note that, if there are no fisheries within the 15-mile target distance limit, the Human Food Chain Threat Targets score is zero; and you should proceed to the Environmental Threat evaluation.

9. **Primary Fisheries** are any fisheries within the 15-mile target distance limit that you suspect have been exposed to hazardous substances released from the site. Use professional judgment guided by the Surface Water Pathway Criteria List (page 11) to make this determination. If you identify any Primary Fisheries, enter 300 as the Primary Fisheries factor score, and do not evaluate Secondary Fisheries. Note that if you do not suspect a release, there are no Primary Fisheries.

10. **Secondary Fisheries:** Evaluate fisheries that you do not suspect have been exposed to hazardous substances. Determine the lowest flow for which you have identified a Secondary Fishery. Use this flow to select the Secondary Fisheries score from the table. Enter the score into either Column A or Column B.

Target Scoring Instructions: Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release).

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Site Name:
Date:

SURFACE WATER PATHWAY (continued)
HUMAN FOOD CHAIN THREAT SCORESHEET

LIKELIHOOD OF RELEASE		A Suspected Release	B No Suspected Release	References
Enter the Surface Water Likelihood of Release score from page 12.	LR =	(550) 550	(500,400,300 or 100)	

HUMAN FOOD CHAIN THREAT TARGETS

8. Determine the water body types and flows (if applicable) for all fisheries within the 15-mile target distance limit. If there are no fisheries within the target distance limit, assign a Targets score of 0 at the bottom of this page and proceed to page 15.

Fishery Name	Water Body Type	Flow
OHIO RIVER	RIVER	10,000 cfs
		cfs
		cfs
		cfs
		cfs

9. PRIMARY FISHERIES: If you suspect any fishery listed above has been exposed to hazardous substances from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 10. List the Primary Fisheries:
OHIO RIVER, _____,
_____, _____.

(300 or 0) 300

10. SECONDARY FISHERIES: If you have not identified any Primary Fisheries, assign a Secondary Fisheries score from the table below using the LOWEST flow at any fishery within the 15-mile target distance limit.

Lowest Flow	Secondary Fisheries Score
< 10 cfs	210
10 to 100 cfs	30
> 100 cfs, coastal tidal waters, oceans, or Great Lakes	12

(210,30,12 or 0) Ø

T =	(300,210,30,12 or 0) 300	(210,30,12 or 0)	

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SURFACE WATER PATHWAY ENVIRONMENTAL THREAT

Likelihood of Release (LR)

LR is the same for all threats in the Surface Water Pathway. Enter the LR score determined on page 12.

Environmental Threat Targets (T)

11. There are many different types of Environmental Targets. Refer to PA Table 5 (page 16) for a listing of sensitive environments that are evaluated for the Surface Water Pathway Environmental Threat. In the space provided, identify all sensitive environments located within the 15-mile target distance limit. Indicate the surface water body type and flow at each sensitive environment. Gauging station data for most surface water bodies should be available from USGS or other sources. In the absence of gauging station data, see PA Table 4 (page 13) for a listing of surface water body types and associated flow categories. The flow for lakes is determined by the sum of flows of streams entering or leaving the lake. Note that, if there are no sensitive environments within the 15-mile target distance limit, the Environmental Targets score is zero; and you should proceed to the Waste Characteristics evaluation.

12. **Primary Sensitive Environments** are surface water sensitive environments within the 15-mile target distance limit that you suspect have been exposed to hazardous substances released from the site. Use professional judgment guided by the Surface Water Pathway Criteria List (page 11) to make this determination. If you identify any Primary Sensitive Environments, enter 300 as the Primary Sensitive Environments factor score, and do not evaluate Secondary Sensitive Environments. Note that if you do not suspect a release, there are no Primary Sensitive Environments.

13. **Secondary Sensitive Environments** are surface water sensitive environments that you do not suspect have been exposed to hazardous substances. If you have identified Secondary Sensitive Environments, evaluate them based on flow by the following process: if there are any Secondary Sensitive Environments on surface water bodies with flows of 100 cfs or less, list them in the table. Use PA Table 4 (page 13) to determine the appropriate dilution weight(s).

Use PA Tables 5 and 6 (page 16) to determine the appropriate value for sensitive environment type. When measuring length of wetlands that are located on both sides of a surface water body, sum the frontage areas. For sensitive environments that fall into more than one of the categories listed in PA Table 5, sum the values for each type to determine the environment value. For example, a wetland of 1.5 miles total length (value of 50) that is also a critical habitat for a Federally endangered species (value of 100) would receive an environment value of 150.

For e[illegible] sensitive environment, multiply the dilution weight by the environment type/length of wetlands value and record the product in the far right column. Sum the values in the far right column and enter the total as the Secondary Sensitive Environments score. Do not evaluate any other Secondary Sensitive Environments. However, if **all** Secondary Sensitive Environments are on surface water bodies with flows of greater than 100 cfs, assign a Secondary Sensitive Environments score of 10.

Target Scoring Instructions: Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release).

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Site Name:
Date:

SURFACE WATER PATHWAY (continued)
ENVIRONMENTAL THREAT SCORESHEET

LIKELIHOOD OF RELEASE		A Suspected Release	B No Suspected Release	References
Enter the Surface Water Likelihood of Release score from page 12.	LR =	(550) 550	(500, 400, 300 or 100)	

ENVIRONMENTAL THREAT TARGETS

11. Determine the water body types and flows (if applicable) for all surface water sensitive environments within the 15-mile target distance limit (see PA Tables 4 and 5). If there are no sensitive environments within the 15-mile target distance limit, assign a Targets score of 0 at the bottom of this page, and proceed to page 17.

Environment Name	Water Body Type	Flow
OHIO RIVER	LARGE RIVER	10,000 cfs
		cfs
		cfs
		cfs
		cfs

12. PRIMARY SENSITIVE ENVIRONMENTS: If you suspect any sensitive environment listed above has been exposed to hazardous substances from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 13. List the Primary Sensitive Environments:

Ohio River, _____, _____, _____.

(300 or 0): 300

13. SECONDARY SENSITIVE ENVIRONMENTS:

A. For Secondary Sensitive Environments on surface water bodies with flows of 100 cfs or less, assign scores as follows, and do not evaluate part B of this factor:

Flow	Dilution Weight (PA Table 4)	Environment Type and Value (PA Tables 5 and 6)	Total
cfs	x	=	
cfs	x	=	
cfs	x	=	
cfs	x	=	
cfs	x	=	

Sum = 0

B. If NO Secondary Sensitive Environments are located on surface water bodies with flows of 100 cfs or less, assign a score of 10.

(10 or 0): 0 | (10 or 0):

T = 300

PA TABLE 5: SURFACE WATER AND AIR SENSITIVE ENVIRONMENTS VALUES

Sensitive Environment	*Assigned Value*
Critical habitat for Federally designated endangered or threatened species	100
Marine Sanctuary	
National Park	
Designated Federal Wilderness Area	
Ecologically important areas identified under the Coastal Zone Wilderness Act	
Sensitive Areas identified under the National Estuary Program or Near Coastal Water Program of the Clean Water Act	
Critical Areas Identified under the Clean Lakes Program of the Clean Water Act (subareas in lakes or entire small lakes)	
National Monument	
National Seashore Recreation Area	
National Lakeshore Recreation Area	
Habitat known to be used by Federally designated or proposed endangered or threatened species	75
National Preserve	
National or State Wildlife Refuge	
Unit of Coastal Barrier Resources System	
Federal land designated for the protection of natural ecosystems	
Administratively Proposed Federal Wilderness Area	
Spawning areas critical for the maintenance of fish/shellfish species within a river system, bay or estuary	
Migratory pathways and feeding areas critical for the maintenance of anadromous fish species in a river system	
Terrestrial areas utilized by large or dense aggregations of vertebrate animals (semi-aquatic foragers) for breeding	
National river reach designated as recreational	
Habitat known to be used by State designated endangered or threatened species	50
Habitat known to be used by a species under review as to its Federal endangered or threatened status	
Coastal Barrier (partially developed)	
Federally designated Scenic or Wild River	
State land designated for wildlife or game management	25
State designated Scenic or Wild River	
State designated Natural Area	
Particular areas, relatively small in size, important to maintenance of unique biotic communities	
State designated areas for the protection/maintenance of aquatic life under the Clean Water Act	5
Wetlands	See PA Table 6 (Surface Water Pathway) or PA Table 9 (Air Pathway)

PA TABLE 6: SURFACE WATER WETLANDS FRONTAGE VALUES

Total Length of Wetlands	*Assigned Value*
Less than 0.1 mile	0
0.1 to 1 mile	25
Greater than 1 to 2 miles	50
Greater than 2 to 3 miles	75
Greater than 3 to 4 miles	100
Greater than 4 to 8 miles	150
Greater than 8 to 12 miles	250
Greater than 12 to 16 miles	350
Greater than 16 to 20 miles	450
Greater than 20 miles	500

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SURFACE WATER PATHWAY WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE

Waste Characteristics (WC)

14. **Waste Characteristics** score is assigned from page 4. However, if any Primary Target has been identified for any surface water threat, assign the higher of the score calculated on page 4 or a score of 32.

Surface Water Pathway Threat Scores

Fill in the matrix with the appropriate scores from the previous pages. To calculate the score for each threat: multiply the scores for LR, T and WC, divide the product by 82,500, and round the result to the nearest integer. The Drinking Water Threat and Human Food Chain Threat are subject to a maximum of 100. The Environmental Threat is subject to a maximum of 60. Enter the rounded threat scores into the right side of the table.

Surface Water Pathway Score

Sum the individual threat scores to determine the Surface Water Pathway Score. If the sum is greater than 100, assign 100.

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Site Name:
Date:

SURFACE WATER PATHWAY (concluded)
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY

WASTE CHARACTERISTICS	A Suspected Release	B No Suspected Release
14. A. If you have identified ANY Primary Targets for surface water (pages 12, 14, or 15), assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	(100 or 32) 32	
B. If you have NOT identified any Primary Targets for surface water, assign the waste characteristics score calculated on page 4.	(100,32, or 18) ϕ	(100,32, or 18)
WC =	32	

SURFACE WATER PATHWAY THREAT SCORES

Threat	Likelihood of Release (LR) Score (from page 12)	Targets (T) Score	Pathway Waste Characteristics (WC) Score (determined above)	Threat Score LR x T x WC / 82,500
Drinking Water	550	5	32	(subject to a maximum of 100) 1.066
Human Food Chain	550	300	32	(subject to a maximum of 100) 64.0
Environmental	550	300	32	(subject to a maximum of 60) 64.0

SURFACE WATER PATHWAY SCORE
(Drinking Water Threat + Human Food Chain Threat + Environmental Threat)

(subject to a maximum of 100) 129.066

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SOIL EXPOSURE PATHWAY CRITERIA LIST

Site Name:
Date:

This chart provides guidelines to assist you in hypothesizing the presence of a resident population. It is expected that not all of this information will be available during the PA. Also, these criteria are not all-inclusive; list any other criteria you use to hypothesize resident populations. This chart will record your professional judgment in evaluating this factor.

Use the resident population section to guide you through evaluation of some site and source conditions that will help identify targets likely to be exposed to hazardous substances. You may use this section of the chart more than once, depending on the number of nearby people you feel may be considered part of a resident population. Record the responses for the resident population target that you feel has the highest probability of being exposed to hazardous substances.

Check the boxes to indicate a "yes", "no", or "unknown" answer to each question.

SOIL EXPOSURE PATHWAY				
SUSPECTED CONTAMINATION	***RESIDENT POPULATION***			
	Yes	No	Unknown	
Surficial contamination is assumed.	☐	☑	☐	Are there residences, schools, or day care facilities on or within 200 feet of areas of suspected contamination?
	☐	☑	☐	Are residences, schools, or day care facilities located on adjacent land previously owned or leased by the site owner/operator?
	☐	☐	☑	Is there an overland migration route that might spread hazardous substances near residences, schools, or day care facilities?
	☐	☑	☐	Are there any reports of adverse health effects from onsite or adjacent residents or students, exclusive of apparent drinking water or air contamination problems?
	☐	☐	☑	Does any offsite property warrant sampling?
	☐	☑		Other criteria? _____
	☑	☐		**RESIDENT POPULATION IDENTIFIED?**

Summarize the rationale for resident population (attach an additional page if necessary):

PLEASE SEE ATTACHED P.A. REPORT.

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SOIL EXPOSURE PATHWAY

Pathway Characteristics

Answer the questions at the top of the page. Identify people who are most likely to be regularly exposed to contamination at the site because they work at the facility or reside or attend school or day care on or within 200 feet of an area of suspected contamination. If the site is active, estimate the number of full or part-time workers at this facility. Note that evaluation of targets is based on current site conditions.

Likelihood of Exposure (LE)

1. **Suspected Contamination:** The PA always assumes that surficial contamination exists. **Do not override this assumption.** Surficial contamination often exists even if wastes have been "removed" or are believed to be buried below the surface. A 550 is automatically assigned for this factor; only Column A can be scored for this pathway.

Resident Population Threat Targets (T)

2. **Resident Population** corresponds to "primary targets" for the migration pathways. Determine if there are people living or attending school or day care on or within 200 feet of areas of suspected contamination. Use professional judgment guided by the Soil Exposure Pathway Criteria List (page 18) to make this determination. Record the number of people identified as Resident Population. Multiply this population by 10 to determine the Resident Population factor score.

3. **Resident Individual:** If you have identified a Resident Population, assign a score of 50. Otherwise, assign a score of 0.

4. **Workers:** Estimate the number of full and part-time workers regularly present at this facility and other facilities where contamination is suspected. Assign a score for the workers factor from the table.

5. **Terrestrial Sensitive Environments:** In the table provided, list each Terrestrial Sensitive Environment located on areas of suspected contamination. Use PA Table 7 (page 20) to assign a value for each sensitive environment. Sum the values of all the terrestrial sensitive environments and assign the total as the factor score.

6. **Resources:** Score automatically assigned. Do not **override**; do not investigate resources.

Target Scoring Instructions: Sum the target scores in Column A.

Waste Characteristics (WC)

7. Enter the WC score determined on page 4. There is no exception for this pathway.

Soil Exposure Pathway Score: Calculate the **Resident Population Threat Score** by multiplying the scores for LE, T, and WC, and dividing the product by 82,500. Round the threat score to the nearest integer. If the result is greater than 100, assign 100. The **Nearby Population Threat Score** is always 2 for the PA; do not override this score. Add these 2 points to the calculated **Resident Population Threat Score** to determine the Soil **Exposure Pathway Score**, subject to a maximum of 100.

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Site Name:
Date:

SOIL EXPOSURE PATHWAY SCORESHEET

Pathway Characteristics		
Do any people live on or within 200 ft of areas of suspected contamination?	Yes ___	No ✓
Do any people attend school or day care on or within 200 ft of areas of suspected contamination?	Yes ___	No ✓
Is the facility active? Yes ___ No ✓ If yes, estimate the number of workers: ___		

		A *Suspected Contamination*	B *No Suspected Contamination*	*References*
LIKELIHOOD OF EXPOSURE				
1. SUSPECTED CONTAMINATION: Surficial contamination is assumed. A score of 550 is assigned.	LE =	(550) 550		
RESIDENT POPULATION THREAT TARGETS				
2. RESIDENT POPULATION: Determine the number of people occupying residences or attending school or day care on or within 200 feet of areas of suspected contamination (see Soil Exposure Pathway Criteria List, page 18). ___ people x 10 =		Ø		
3. RESIDENT INDIVIDUAL: If you have identified any Resident Population (Factor 2), assign a score of 50; otherwise, assign a score of 0.		(50 or 0) Ø		
4. WORKERS: Assign a score from the following table based on the total number of workers at the facility and nearby facilities with suspected contamination:		(15, 10, 5, or 0) Ø		
5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Assign a value from PA Table 7 for each terrestrial sensitive environment that is located on an area of suspected contamination:	Sum =	Ø		
6. RESOURCES: A score of 5 is assigned.		(5) 5		
	T =	5		
WASTE CHARACTERISTICS				
7. Assign the waste characteristics score calculated on page 4.	WC =	(100, 32, or 18) 32		

Number of Workers	Score
0	0
1 to 100	5
101 to 1,000	10
> 1,000	15

Terrestrial Sensitive Environment Type	Value

RESIDENT POPULATION THREAT SCORE: $\frac{\text{LE x T x WC}}{82{,}500}$ (subject to a maximum of 100) 1.066

NEARBY POPULATION THREAT SCORE: 2
Assign a score of 2

SOIL EXPOSURE PATHWAY SCORE: (subject to a maximum of 100) 3.066
Resident Population Threat + Nearby Population Threat

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Site Name:
Date:

PA TABLE 7: SOIL EXPOSURE PATHWAY TERRESTRIAL SENSITIVE ENVIRONMENT VALUES

Terrestrial Sensitive Environment	*Assigned Value*
Terrestrial critical habitat for Federally designated endangered or threatened species	100
National Park	
Designated Federal Wilderness Area	
National Monument	
Terrestrial habitat known to be used by Federally designated or proposed threatened or endangered species	75
National Preserve (terrestrial)	
National or State terrestrial Wildlife Refuge	
Federal land designated for protection of natural ecosystems	
Administratively proposed Federal Wilderness Area	
Terrestrial areas utilized by large or dense aggregations of animals (vertebrate species) for breeding	
Terrestrial habitat used by State designated endangered or threatened species	50
Terrestrial habitat used by species under review for Federally designated endangered or threatened status	
State lands designated for wildlife or game management	25
State designated Natural Areas	
Particular areas, relatively small in size, important to maintenance of unique biotic communities	

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AIR PATHWAY CRITERIA LIST

Site Name:
Date:

This chart provides guidelines to assist you in hypothesizing the presence of a suspected release. It is expected that not all of this information will be available during the PA. Also, these criteria are not all-inclusive; list any other criteria you use to hypothesize a suspected release. This chart will record your professional judgment in evaluating this factor.

The "Suspected Release" section of the chart guides you through evaluation of some conditions to help hypothesize whether a release from the site is likely. For the Air Pathway, if a release is suspected, "Primary Targets" are any residents, workers, students, or sensitive environments within ¼ mile of the site.

Check the boxes to indicate a "yes", "no", or "unknown" answer to each question. If you check the "Suspected Release" box as "yes", make sure that you assign a Likelihood of Release value of 550 for the pathway.

AIR PATHWAY				
SUSPECTED RELEASE				*PRIMARY TARGETS*
Yes	No	Unknown		
☐	☐	☑	Have odors been reported?	*If you suspect a release to air, evaluate all populations and sensitive environments within ¼ mile (including those onsite) as Primary Targets.*
☐	☑	☐	Has a release of hazardous substances to the air been directly observed?	
☐	☑	☐	Are there any reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air?	
☑	☐	☐	Is there any circumstantial evidence of an air release?	
☐	☐		Other criteria? _____	
☑	☐		**SUSPECTED RELEASE?**	

Summarize the rationale for suspected release (attach an additional page if necessary):

PLEASE SEE ATTACHED P.A. REPORT.

Pathway Characteristics

Answer the questions at the top of the page. Refer to the Air Pathway Criteria List (page 21) to hypothesize whether you suspect hazardous substances have been released from the site to the air. Due to dispersion, releases to air are not as persistent as releases to water migration pathways and are much more difficult to detect. Develop hypotheses concerning the release of hazardous substances to air based on "real time" considerations. Record the distance (in feet) from any source to the nearest regularly occupied building.

Likelihood of Release (LR)

1. **Suspected Release:** Hypothesize based on professional judgment guided by the Air Pathway Criteria List (page 21). Remember to use only Column A for this pathway if you score a Suspected Release, and proceed to the target evaluation section.

2. **No Suspected Release:** If you do not score a Suspected Release, enter 500. Remember to use only Column B to score this pathway if you do not suspect hazardous substances are being released.

Targets (T)

3. **Primary Target Population** are those people subject to exposure from a suspected air release of hazardous substances from the site. Use professional judgment, guided by the Air Pathway Criteria List (page 21), to make this determination. Note that if you do not suspect a release, there are no primary population targets. If you score a Suspected Release, record the residential, student, and worker population located on or within ¼-mile of the site. Multiply this number of people by 10; enter the factor score in Column A.

4. **Secondary Target Population** are those people in distance categories not suspected to be subject to exposure from airborne hazardous substances. Determine the number of residents, students, and workers, and enter the summed population in PA Table 8 (page 23) for each distance category. Circle the population value for the distance category and record the value in the far right column of the table. Sum these values and enter the total as the factor score.

5. **Nearest Individual** represents the threat posed to the person most likely to be exposed to hazardous substances released from the site. If you have identified any Primary Population, enter 50. Otherwise, assign the score from the "Nearest Individual" column of PA Table 8 (page 23), for the nearest distance ring in which you have identified a Secondary Population.

6. **Primary Sensitive Environments:** List the sensitive environments (on or within ¼ mile of the site) subject to exposure from a suspected air release of hazardous substances from the site. Assign values for sensitive environment type (from PA Table 5, page 16) and/or wetland acreage (from PA Table 9, page 23). Sum the values and enter the total as the factor score.

7. **Secondary Sensitive Environments:** On PA Table 10 (page 23), list the sensitive environments that are in distance categories within ½ mile not suspected to be subject to exposure from airborne hazardous substances. Assign a value for each environment (PA Tables 5 and 9). Record the value for each Secondary Sensitive Environment on PA Table 10 (page 23), and multiply by the distance weight for that distance category. Sum the products, and enter the total as the factor score.

8. **Resources:** Score automatically assigned. Do not override; do not investigate resources.

Target Scoring Instructions: Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release).

Waste Characteristics (WC)

9. **Waste Characteristics** score is assigned from page 4. However, if any Primary Target has been identified for the air pathway, assign the higher of the score calculated on page 4 or a score of 32.

Air Pathway Score: Multiply the scores for LR, T, and WC. Divide the product by 82,500. Round the result to the nearest integer. If the result is greater than 100, assign 100.

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Site Name:
Date:

AIR PATHWAY SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Air Pathway Criteria List, page 21)?	Yes ✓ No ___
Distance to the nearest individual:	___ ft

LIKELIHOOD OF RELEASE	A *Suspected Release*	B *No Suspected Release*	*References*
1. SUSPECTED RELEASE: If you suspect a release to air (see page 21), assign a score of 550, and use only column A for this pathway.	(550) 550		
2. NO SUSPECTED RELEASE: If you do not suspect a release to air, assign a score of 500, and use only column B for this pathway.		(500)	
LR =	550		

TARGETS			
3. PRIMARY TARGET POPULATION: Determine the number of people subject to exposure from a release of hazardous substances through the air (see Air Pathway Criteria List, page 21). ___ people x 10 =	Ø		
4. SECONDARY TARGET POPULATION: Determine the number of people within the 4-mile target distance limit, and assign the total population score from PA Table 8.	Ø		
5. NEAREST INDIVIDUAL: If you have identified any Primary Targets for the air pathway, assign a score of 50; otherwise, assign the highest Nearest Individual score from PA Table 8.	(50,20,7,2,1, or 0) Ø	(20,7,2,1, or 0)	
6. PRIMARY SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (PA Table 5) and wetland acreage values (PA Table 9) for environments subject to exposure from air hazardous substances (see Air Pathway Criteria List, page 21). *Sum* =	Ø		
7. SECONDARY SENSITIVE ENVIRONMENTS: Use PA Table 10 to determine the score for secondary sensitive environments.	Ø		
8. RESOURCES: A score of 5 is assigned.	(5) 5	(5) 5	
T =	5		

Sensitive Environment Type	*Value*

WASTE CHARACTERISTICS			
9. A. If you have identified any Primary Targets for the air pathway, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	(100 or 32) 32		
B. If you have NOT identified any Primary Targets for the air pathway, assign the waste characteristics score calculated on page 4.	(100,32, or 18) Ø	(100,32, or 18)	
WC =	32		

AIR PATHWAY SCORE: $\frac{LR \times T \times WC}{82{,}500}$ (subject to a maximum of 100) 1.066

Site Name:
Date:

PA TABLE 8: VALUES FOR SECONDARY AIR TARGET POPULATIONS

Distance from Site	Population	Nearest Individual (choose highest)	Population Within Distance Category												Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,001 to 3,000,000	
Onsite	_____	20	1	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,246	_____
>0 to ¼ mile	_____	20	1	1	1	4	13	41	130	408	1,303	4,081	13,034	40,811	_____
> ¼ to ½ mile	_____	2	0	0	1	1	3	9	28	88	282	882	2,815	8,815	_____
> ½ to 1 mile	_____	1	0	0	0	1	1	3	8	26	83	261	834	2,612	_____
>1 to 2 miles	_____	0	0	0	0	0	1	1	3	8	27	83	266	833	_____
>2 to 3 miles	_____	0	0	0	0	0	1	1	1	4	12	38	120	376	_____
>3 to 4 miles	_____	0	0	0	0	0	0	1	1	2	7	23	73	229	_____

Nearest Individual = [ ]

Score = [ ]

PA TABLE 9: AIR PATHWAY VALUES FOR WETLAND AREA

Wetland Area	Assigned Value
Less than 1 acre	0
1 to 50 acres	25
Greater than 50 to 100 acres	75
Greater than 100 to 150 acres	125
Greater than 150 to 200 acres	175
Greater than 200 to 300 acres	250
Greater than 300 to 400 acres	350
Greater than 400 to 500 acres	450
Greater than 500 acres	500

PA TABLE 10: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY SECONDARY SENSITIVE ENVIRONMENTS

Distance	Distance Weight	Sensitive Environment Type and Value (from PA Table 5 or 9)	Product
Onsite	0.10	x	
		x	
0-1/4 mi	0.025	x	
		x	
		x	
1/4-1/2mi	0.0054	x	
		x	
		x	
		x	

Total Environments Score = [ ]

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SITE SCORE CALCULATION

In the column labeled S, record the Ground Water Pathway score, the Surface Water Pathway score, the Soil Exposure Pathway score, and the Air Pathway score. Square each pathway score and record the result in the S^2 column. Sum the squared pathway scores. Divide the sum by 4, and take the square root of the result to obtain the **Site Score**.

Recommendation

Provide a recommendation for site disposition in accordance with EPA guidelines.

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Site Name:
Date:

SITE SCORE CALCULATION

	S	S^2
GROUND WATER PATHWAY SCORE (S_{gw}):	1.066	1.136
SURFACE WATER PATHWAY SCORE (S_{sw}):	129.066	16658.032
SOIL EXPOSURE PATHWAY SCORE (S_{se}):	3.066	9.400
AIR PATHWAY SCORE (S_a):	1.066	[illegible]
SITE SCORE:	$\sqrt{\frac{S_{gw}^2+S_{sw}^2+S_{se}^2+S_a^2}{4}}$ =	64.556

RECOMMENDATION

SUMMARY

	YES	NO
1. Is there a high possibility of a threat to nearby drinking water wells by migration of hazardous substances in ground water?	☐	☑
A. If yes, identify the wells recommended for sampling during the SI.		
B. If yes, how many people are served by these threatened wells?		
2. Are any of the following suspected to have been exposed to hazardous substances through surface water migration from the site?		
A. Drinking water intake	☐	☑
B. Fishery	☐	☑
C. Sensitive environment: wetland, critical habitat, others	☐	☑
D. If yes, identify the targets recommended for sampling during the SI.		
3. Do people reside or attend school or day care on or within 200 ft of any area of suspected contamination?	☐	☑
4. Are there public health concerns at this site that are not addressed by PA scoring considerations? If yes, explain:	☐	☑

SITE DISCOVERY FORM

Part 1: Information necessary to add a site to CERCLIS

ACTION: A

EPA I.D. # KYD985066042

SITE NAME: Producers Wood Preserver SOURCE: (R-EPA,T-STATE)

STREET: South of Bells Lane CONG DIST: (OPTIONAL)

CITY: Louisville ZIP: 40232

COUNTY NAME: Jefferson COUNTY CODE: 111 (OPTIONAL)

LATITUDE: 38°/13'/13" LONGITUDE: 85°/49'/50" (OPTIONAL)

INVENTORY IND: Y REMEDIAL IND: Y REMOVAL IND: N FED FAC IND: N

RPM NAME: RPM PHONE: ___-___-____ (EPA Project Officer)

SITE DESCRIPTION: (OPTIONAL)

This site was occupied by a wood processing company until 1934 an is now occupied by other companies. See attached map showing site location.

PART 2: OTHER SITE INFORMATION

DATE SITE FIRST REPORTED: REPORTED BY:

REASON FOR LISTING:

Producers Wood Preserving Company had the capability to produce an estimated 393,500 cubic feet of pressure treated wood from 1922-1934. The wood preservative used was creosote which contains many contaminants including phenolic compounds, phenanthrene, anthracene and many other persistent and toxic compounds.