US EPA RECORDS CENTER REGION 5
498835

# FOCUSED SITE INSPECTION PRIORITIZATION SITE EVALUATION REPORT

D-2
9/28/95

## JANSON LANDFILL
## ALIAS: BARTONVILLE DISPOSAL
## KICKAPOO CREEK ROAD
## BARTONVILLE, PEORIA COUNTY, ILLINOIS

**CERCLIS ID NO.: ILD981100423**

Prepared for:

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**SITE ASSESSMENT SECTION**
77 West Jackson Boulevard
Chicago, Illinois 60604

| | |
|---|---|
| Date Prepared: | September 28, 1995 |
| U.S. EPA Region: | 5 |
| Contract No.: | 68-W0-0037 |
| Technical Direction Document No.: | T05-9506-213 |
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# 1. INTRODUCTION

The Ecology and Environment, Inc. (E & E), Technical Assistance Team (TAT) was assigned by the United States Environmental Protection Agency (U.S. EPA), under Contract No. 68-W0-0037, Technical Direction Document (TDD) No. T05-9503-213, to evaluate the Janson Landfill site, Alias: Bartonville Disposal, in Bartonville, Peoria County, Illinois. Currently, the site location is listed in the Comprehensive Environmental Response, Compensation and Liability Information System as being located in the city of Peoria; this has been corrected for this report. E & E performed Focused Site Inspection Prioritization (FSIP) activities to determine whether, or to what extent, the site poses a threat to human health and the environment. This FSIP report presents the results of E & E's evaluation and summarizes the site conditions and targets pertinent to the migration and exposure pathways associated with the site. Background information was obtained from the U.S. EPA site file, Illinois Environmental Protection Agency (IEPA) files, conversations with IEPA personnel, and sediment samples collected near the site. See Appendix A for a copy of site reconnaissance photographs.

This report is organized into seven sections, including this introduction. Section 2 describes the site and provides a brief site history. Section 3 provides information about previous investigations conducted at the site. Section 4 provides a summary of the site reconnaissance, samples collected and analytical results. Section 5 provides information about the four migration and exposure pathways (groundwater migration, surface water migration, soil exposure, and air migration). Section 6 is a summary of the FSIP. References used in the preparation of this report are listed in Section 7.



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## 2. SITE DESCRIPTION AND HISTORY

The Janson Landfill site is located off of Kickapoo Creek Road, in Bartonville, Peoria County, Illinois (Sec. 13, T. 8 N., R. 7 E.). Coordinates for the site are latitude 40°40'24.5" North and longitude 89°39'15" West (E & E 1988). See Figure 2-1 for site location. The 12-acre site includes the former landfill area, and a wooded area (see Figure 2 for site features). The site is bordered to the west by a rail line and a small unnamed stream which drains the rail line, and to the north, east, and south by Kickapoo Creek (E & E 1988; 1995).

The site is located at the toe of a limestone bluff on a small lobe of alluvial deposits near a meander in Kickapoo Creek. The site has a high-point at the bluff which slopes sharply east toward the creek; and slopes gradually south toward the former landfill areas. Fill materials were buried in two areas which are currently covered with soil, weeds, and grass (E & E 1988; USGS 1967). The fill area is separated from the creek by a small wooded area on the east and south sides; the south side appears to be a depositional area for sediments carried by the creek (E & E 1995).

The site is owned by Charles Janson and was an active landfill between 1961 and approximately 1982; it was formerly known as the Bartonville Disposal Landfill. The nature of the material disposed at the site is reported by the site owner as largely comprised of construction debris consisting of brick, concrete, wood, and other building material. An unknown quantity of general municipal waste is also reported to have been disposed on site. The site has never been reported to accept hazardous waste. Prior use and ownership of the site is unknown (E & E 1988).

An application for operation of the landfill was submitted in 1974 (Beck 1974); however, the operating permit was never issued by IEPA. The site was closed in approximately 1982 without an IEPA approved closure plan (Jones 1995). Information available indicates that a berm was constructed along the west, south, and east sides of landfill



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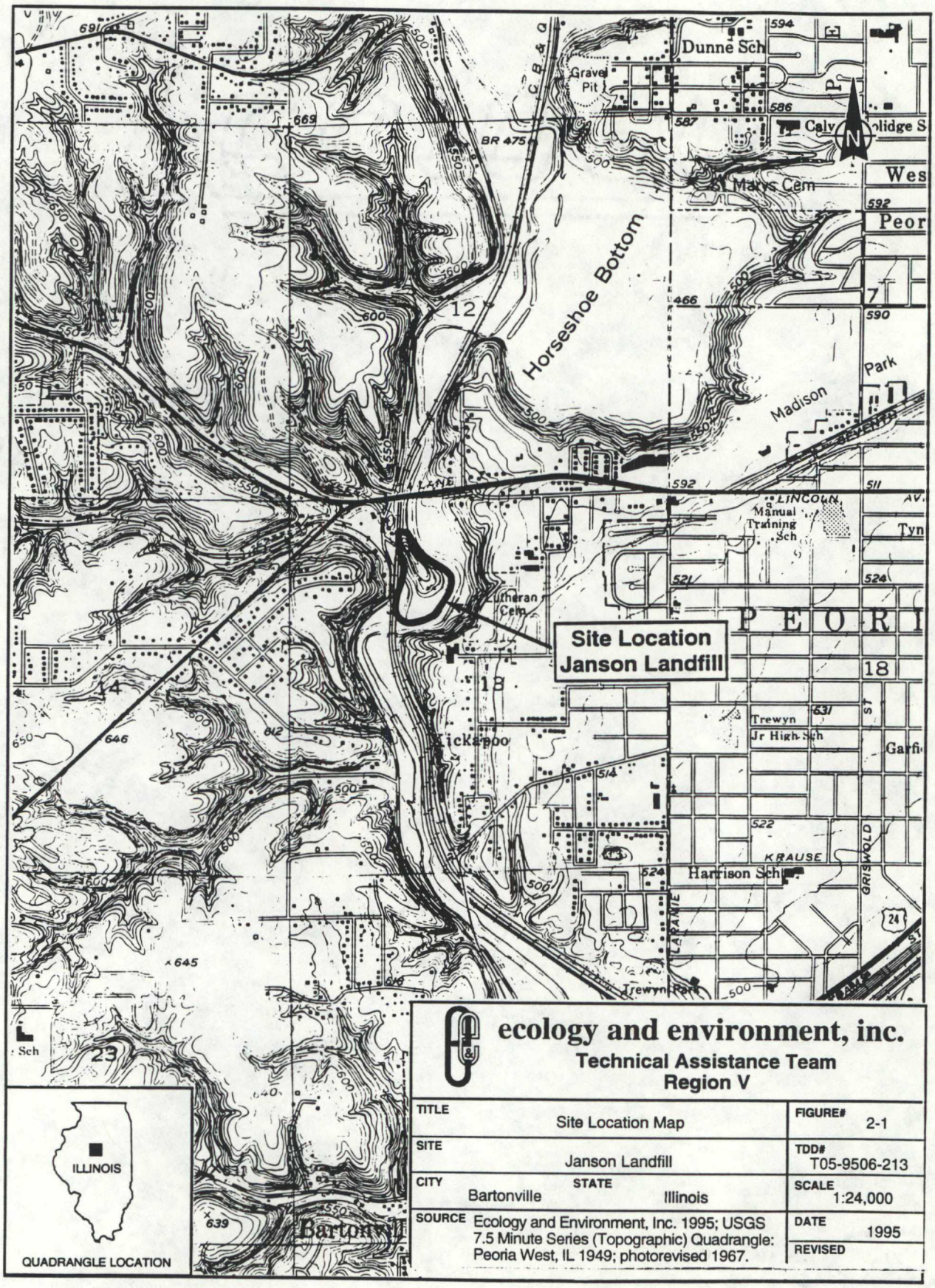
during closure to contain the fill areas (Steele 1982). Details of the final closure construction methods and materials used are not available. In general, closure of construction debris landfill includes placement of clean soil over the fill material, grading to promote runoff, and establishment of a vegetation over the covered area (Jones 1995). According to information available, the closure of the site was not approved by IEPA. No liner or leachate collection systems exist on site and no monitoring wells or gas vents have been installed (E & E 1988; Jones 1995).

IEPA has cited numerous violations at the site, beginning in 1970 and continuing past site closure to the present time. The violations have been related to unpermitted use of the site as a landfill (E & E 1988; Jones 1995). In 1980, an underground fire occurred at the site which burned for several months (IEPA 1980). Several court orders from the State of Illinois have been issued to Mr. Janson to cease operations at the landfill (E & E 1988). The site file contains a number of citizen complaints related to landfill operations and the 1980 fire.

The site is located in a sparsely populated area just outside of the city of Peoria. The nearest residence is located 0.2 miles north of the former landfill. Other homes are located in upland areas west of the site. The site has a small gate to restrict vehicle access, but is not fenced (E & E 1995). Residents of Peoria and Bartonville receive drinking water from the Illinois American Water Company (IAW) which maintains several wells and a surface water intake on the Illinois River. The nearest IAW well is located approximately 1.3 miles east of the site (Gregory 1995).

Runoff from the site enters Kickapoo Creek which meets the Illinois River approximately 3.5 miles downstream (USGS 1967). Both the creek and river are recreational fisheries (Newman 1995). The IAW intake is located upstream of the confluence with Kickapoo Creek (Gregory 1995).


Site Location
Janson Landfill
Dunne Sch
Gravel Pit
Horseshoe Bottom
St Marys Cem
Madison Park
Lincoln Manual Training Sch
Lutheran Cem
Trewyn Jr High Sch
Harrison Sch
Trewyn Park
Bartonville
ILLINOIS
QUADRANGLE LOCATION
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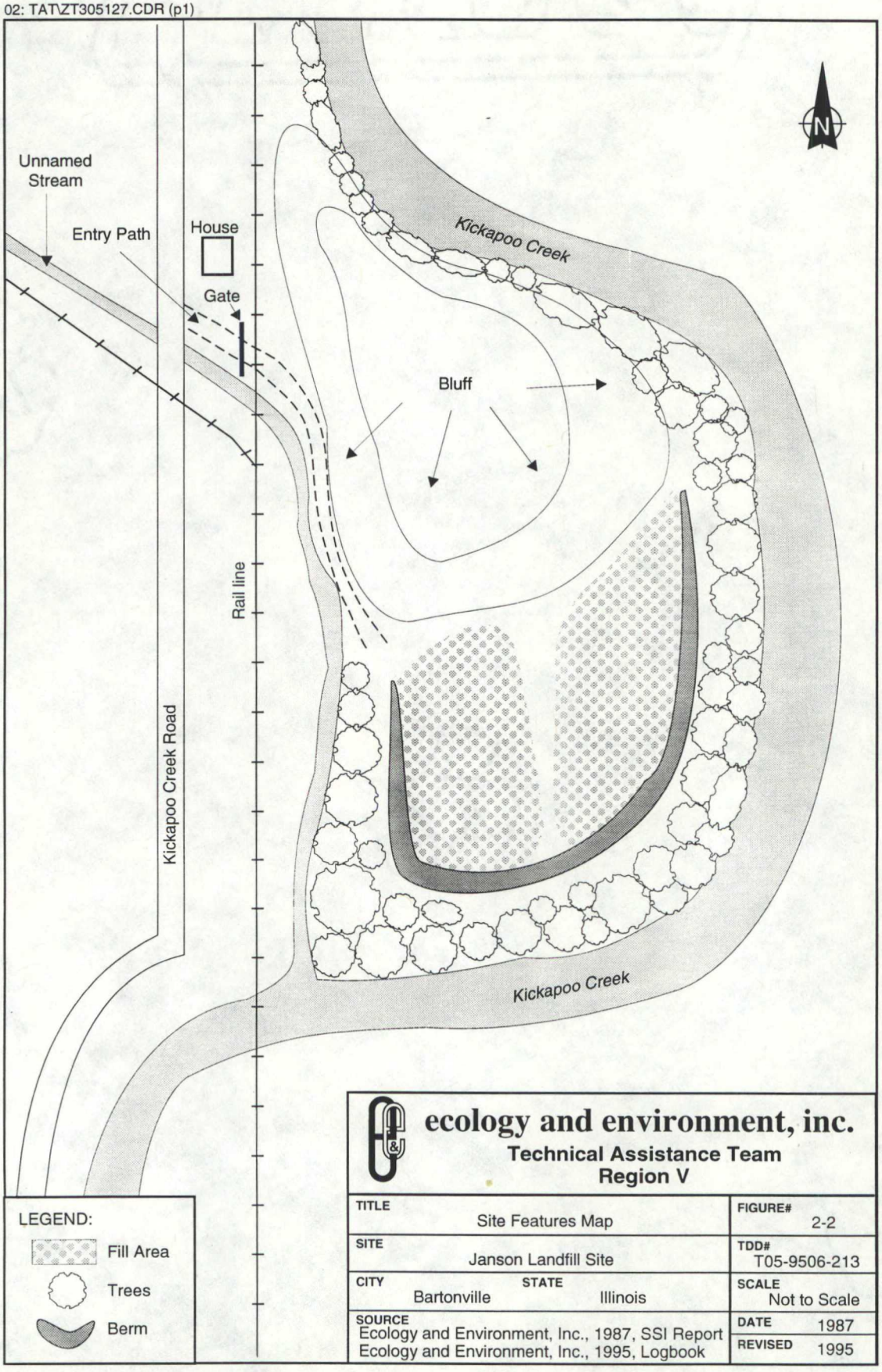
Region V
TITLE Site Location Map
FIGURE# 2-1
SITE Janson Landfill
TDD# T05-9506-213
CITY Bartonville
STATE Illinois
SCALE 1:24,000
SOURCE Ecology and Environment, Inc. 1995; USGS 7.5 Minute Series (Topographic) Quadrangle: Peoria West, IL 1949; photorevised 1967.
DATE 1995
REVISED

02: TAT\ZT305127.CDR (p1)

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**Technical Assistance Team**
**Region V**

| | |
|---|---|
| TITLE: Site Features Map | FIGURE#: 2-2 |
| SITE: Janson Landfill Site | TDD#: T05-9506-213 |
| CITY: Bartonville STATE: Illinois | SCALE: Not to Scale |
| SOURCE: Ecology and Environment, Inc., 1987, SSI Report<br>Ecology and Environment, Inc., 1995, Logbook | DATE: 1987<br>REVISED: 1995 |

## 3. PREVIOUS INVESTIGATIONS

On October 10, 1985, IEPA completed a Preliminary Assessment (PA) for the site. The PA was based on IEPA file information and did not include a site reconnaissance or sampling. The PA indicated that the site posed a threat to nearby surface water bodies, based on the location of the site, and local air resources, based on the earlier reports of fires at the site (IEPA 1985).

On January 25, 1988, E & E completed a Screening Site Inspection (SSI) for the site. The SSI included collection of three on-site surface soil samples, and one background soil sample collected in an unused area northwest of the site. Analytical results indicated that Target Analyte List and Target Compound List (TAL/TCL) chemicals were detected above background including cadmium at 37,000 micrograms per kilogram ($\mu$g/kg) in sample S2, mercury at 230 $\mu$g/kg in S3, and PCBs (Aroclor 1254) at 1,700 $\mu$g/kg in S2. Sediment and groundwater samples were not collected for the SSI (E & E 1988). Site file information indicates that the extent of surficial contamination at the site is unknown.

In March 1994, IEPA conducted an inspection and cited the owners for violations related to open dumping and allowing litter to accumulate on the site property. These violations were not related to the former landfill, which remains closed. These violations have not yet been corrected (Jones 1995).



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# 4. SITE RECONNAISSANCE AND SAMPLING

## 4.1 RECONNAISSANCE OBSERVATIONS

On July 13, 1995, Charles Duffy of E & E conducted an off-site reconnaissance of the Janson Landfill Site and surrounding area. The purpose of the reconnaissance was to determine the need for further sampling at the site and to establish sample locations if necessary. Mr. Duffy made the following observations:

- A chain was hung across the access path and a sign marked "No Trespassing" was posted. The remainder of the site was unfenced.
- A wooded area was present along the areas of the site along the bank of the Kickapoo Creek and appeared to be between 30 and 50 feet wide.
- No leachate seeps could be seen from off-site areas, no monitoring wells were identified.
- A residential home was located near the access path.

## 4.2 SAMPLE COLLECTION AND DESCRIPTION

On August 2, 1995 Donovan Robin and Cathy Sullivan of E & E returned to the site to collect sediment samples from Kickapoo Creek and the unnamed stream to determine if a release of TAL/TCL chemicals from the site had occurred. E & E collected four sediment samples from three discreet locations. Refer to Figure 4-1 for sample locations.

The samples were collected using a dedicated stainless steel trowel or spoon and stainless steel mixing bowl for each discrete location. The sampling method is described as follows: a dedicated stainless steel spoon or trowel was used to collect material from a depth of 0 to 6 inches below ground surface (BGS); the VOC containers were filled first; the material was homogenized; then the base neutral acid, the pesticide/PCB, and the



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metals/cyanide containers were filled, in that order. Following is a description of the sample locations and material collected.

- Sample SD1 was an upstream sediment sample from the unnamed tributary. The sample was collected at 1130 from a depositional area approximately 20 feet upstream of the Kickapoo Creek Road Overpass. The material contained sand, silt, and pebbles, was medium brown in color, with little organic material. No unusual colors of odors were noticed.

- Sample SD2 was an upstream sediment sample from Kickapoo Creek. The sample was collected at 1200 from a depositional area approximately 50 feet south of the Lincoln Avenue Bridge. The material was similar in texture and color to SD1. No unusual colors or odors were noticed.

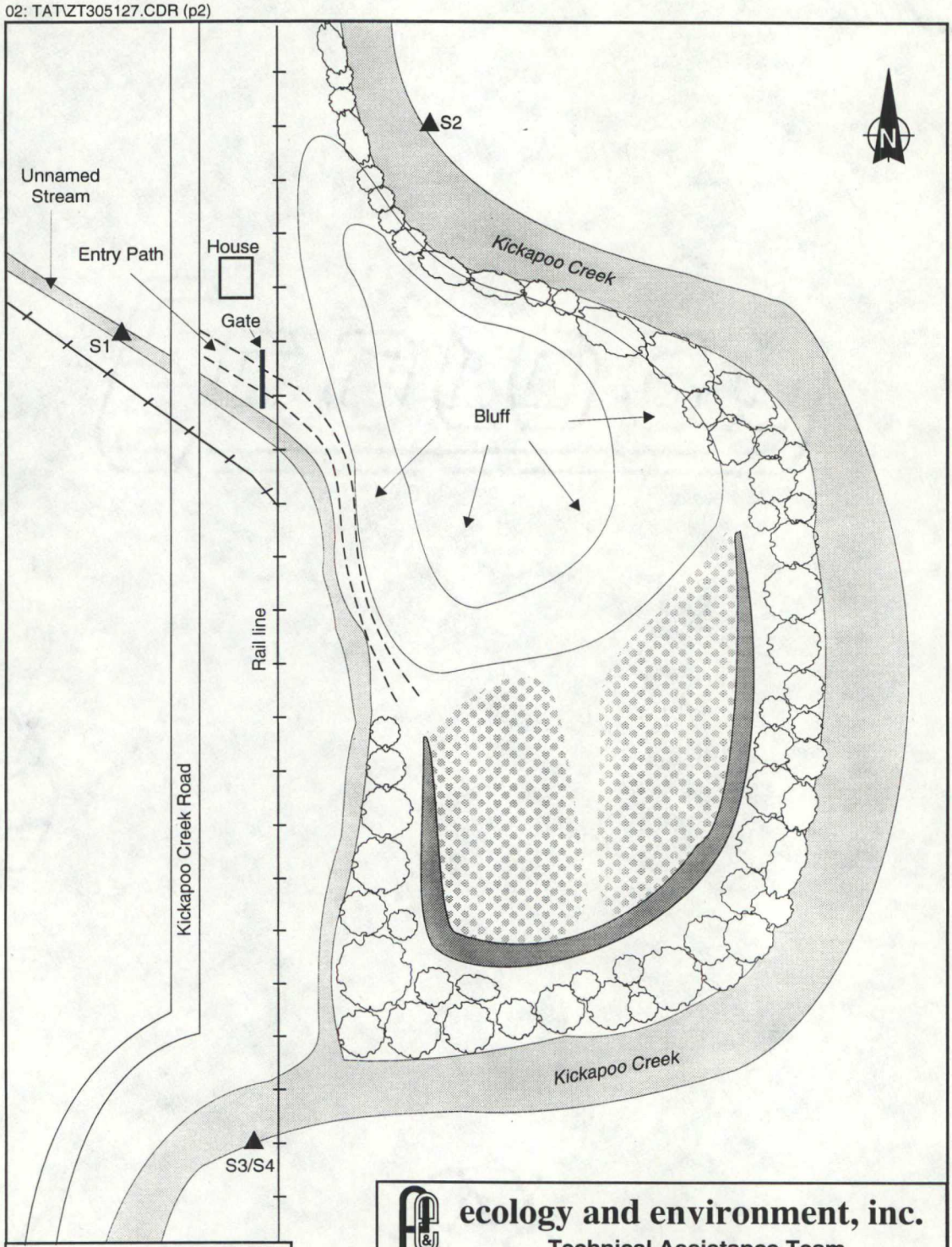
- Sample SD3 was a downstream sediment sample from Kickapoo Creek. The sample was collected at 1110 form a sandbar directly beneath the railroad trestle over the Creek, and midway between the banks of the Creek. The material collected was similar in texture to the upstream samples. No unusual odors or colors were observed.

- Sample SD4 was a duplicate sample of SD3.

## 4.3 ANALYTICAL RESULTS

TAL/TCL chemicals were not detected in downstream sediment samples from Kickapoo Creek at levels greater than three times the levels detected in upstream samples. Analytical results are summarized in table 4-1 and a complete data package is provided in Appendix C.

02: TAT\ZT305127.CDR (p2)




LEGEND:

- Fill Area
- Trees
- Berm
- Sample Location

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**Region V**

| | |
|---|---|
| TITLE: Sample Locations Map | FIGURE#: 4-1 |
| SITE: Janson Landfill Site | TDD#: T05-9506-213 |
| CITY: Bartonville STATE: Illinois | SCALE: Not to Scale |
| SOURCE: Ecology and Environment, Inc., 1987, SSI Report; Ecology and Environment, Inc., 1995, Logbook | DATE: 1987 REVISED: 1995 |

# Janson Landfill Analytical Data



**SURFACE SEDIMENT SAMPLES**
**Volatile Organic Compounds (UG/KG)**

| | Sample Number | S1 | | S2 | | S3 | | S4 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | | Q | | Q | | Q | | Q | | Q | | Q |
| | CLP OTR # | EAFL3 | U | EAFL0 | U | EAFL1 | U | EAFL2 | U | | U | | U | | U | | U | | U | | U |
| | | | A | | A | | A | | A | | A | | A | | A | | A | | A | | A |
| | | | L | | L | | L | | L | | L | | L | | L | | L | | L | | L |
| QL | VOC | | | | | | | | | | | | | | | | | | | | |
| 10 | Chloromethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Bromomethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Vinyl chloride | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Chloroethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Methylene chloride | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Acetone | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Carbon disulfide | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 1,1-Dichloroethene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 1,1-Dichloroethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 1,2-Dichloroethene (total) | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Chloroform | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 1,2-Dichloroethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 2-Butanone | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 1,1,1-Trichloroethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Carbon Tetrachloride | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Bromodichloromethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 1,2-Dichloropropane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | cis-1,3-dichloropropene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Trichloroethene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Dibromochloromethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 1,1,2-Trichloroethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Benzene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | trans-1,3-dichloropropene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Bromoform | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 4-Methyl-2-pentanone | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 2-Hexanone | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Tetrachloroethene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Toluene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | 1,1,2,2-Tetrachloroethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Chlorobenzene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Ethylbenzene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Styrene | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Total xylenes | | U | | U | | U | | U | | | | | | | | | | | | |

QL - Quantitation Limits are base values, see complete data package for sample specific quantitation limits.

U - Not Detected

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# Janson Landfill Analytical Data

SURFACE SEDIMENT SAMPLES
Semivolatiles (UG/KG)



| | Sample Number | S1 | | S2 | | S3 | | S4 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | | Q | | Q | | Q | | Q | | Q | | Q |
| | CLP OTR# | EAFL3 | U | EAFL0 | U | EAFL1 | U | EAFL2 | U | | U | | U | | U | | U | | U | | U |
| | | | A | | A | | A | | A | | A | | A | | A | | A | | A | | A |
| | | | L | | L | | L | | L | | L | | L | | L | | L | | L | | L |
| QL | BNAs | | | | | | | | | | | | | | | | | | | | |
| 330 | Phenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Bis(2-Chloroethyl)ether | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2-Chlorophenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 1,3-Dichlorobenzene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 1,4-Dichlorobenzene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 1,2-Dichlorobenzene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2-Methylphenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2,2'-oxybis(1-Chloropropane) | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 4-Methylphenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | N-Nitroso-di-n-propylamine | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Hexachloroethane | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Nitrobenzene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Isophorone | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2-Nitrophenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2,4-Diemethylphenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Bis(2-Chloroethoxy)methane | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2,4-Dichlorophenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 1,2,4-Trichlorobenzene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Naphthalene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 4-Chloroaniline | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Hexachlorobutadiene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 4-Chloro-3-methylphenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2-Methylnaphthalene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Hexachlorocyclopentadiene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2,4,6-Trichlorophenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 1700 | 2,4,5-Trichlorophenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2-Chloronaphthalene | | U | | U | | U | | U | | | | | | | | | | | | |
| 1700 | 2-Nitroaniline | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Diemethylphthalate | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Acenaphthylene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2,6-Dinitrotoluene | | U | | U | | U | | U | | | | | | | | | | | | |
| 1700 | 3-Nitroaniline | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Acenaphthene | | U | | U | | U | | U | | | | | | | | | | | | |
| 1700 | 2,4-Dinitrophenol | | U | | U | | U | | U | | | | | | | | | | | | |

# Janson Landfill Analytical Data

SURFACE SEDIMENT SAMPLES
Semivolatiles (UG/KG)



| | Sample Number | S1 | | S2 | | S3 | | S4 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | | Q | | Q | | Q | | Q | | Q | | Q |
| | CLP OTR# | EAFL3 | U | EAFL0 | U | EAFL1 | U | EAFL2 | U | | U | | U | | U | | U | | U | | U |
| | | | A | | A | | A | | A | | A | | A | | A | | A | | A | | A |
| | | | L | | L | | L | | L | | L | | L | | L | | L | | L | | L |
| QL | BNAs | | | | | | | | | | | | | | | | | | | | |
| 1700 | 4-Nitrophenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Dibenzofuran | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 2,4-Dinitrotoluene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Diethylphthalate | 38 | J | 21 | J | | U | | U | | | | | | | | | | | | |
| 330 | 4-Chlorophenyl-phenyl ether | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Fluorene | | U | | U | | U | | U | | | | | | | | | | | | |
| 1700 | 4-Nitroaniline | | U | | U | | U | | U | | | | | | | | | | | | |
| 1700 | 4,6-Dinitro-2-methylphenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | N-Nitrosodiphenylamine | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 4-Bromophenyl-phenyl ether | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Hexachlorobenzene | | U | | U | | U | | U | | | | | | | | | | | | |
| 1700 | Pentachlorophenol | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Phenanthrene | 44 | J | 21 | J | | U | 28 | J | | | | | | | | | | | | |
| 330 | Anthracene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Carbazole | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Di-n-butylphthalate | | U | 49 | J | 33 | J | 32 | J | | | | | | | | | | | | |
| 330 | Fluoranthene | 31 | J | 36 | J | 21 | J | 70 | J | | | | | | | | | | | | |
| 330 | Pyrene | 44 | J | 36 | J | 36 | J | 60 | J | | | | | | | | | | | | |
| 330 | Butylbenzylphthalate | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | 3,3'Dichlorobenzidine | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Benzo(a)anthracene | | U | 24 | J | | U | 21 | J | | | | | | | | | | | | |
| 330 | Chrysene | 27 | J | 26 | J | 25 | J | 36 | J | | | | | | | | | | | | |
| 330 | Bis(2-ethylhexyl)phthalate | 42 | J | 42 | J | 26 | J | 31 | J | | | | | | | | | | | | |
| 330 | Di-n-octylphthalate | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Benzo(b)fluoranthene | 33 | J | 31 | J | | U | 33 | J | | | | | | | | | | | | |
| 330 | Benzo(k)fluoranthene | | U | 20 | J | | U | 27 | J | | | | | | | | | | | | |
| 330 | Benzo(a)pyrene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Indeno(1,2,3-cd)pyrene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Dibenzo(a,h)anthracene | | U | | U | | U | | U | | | | | | | | | | | | |
| 330 | Benzo(ghi)perylene | | U | | U | | U | | U | | | | | | | | | | | | |

QL - Quantitation Limits are base values, see complete data package for sample specific quantitation limits.

U - Not Detected
J - Estimated Value

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# Janson Landfill Analytical Data



SURFACE SEDIMENT SAMPLES
Pesticides/PCBs (UG/KG)

| | Sample Number | S1 | | S2 | | S3 | | S4 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | | Q | | Q | | Q | | Q | | Q | | Q |
| | CLP OTR # | EAFL3 | U | EAFL0 | U | EAFL1 | U | EAFL2 | U | | U | | U | | U | | U | | U | | U |
| | | | A | | A | | A | | A | | A | | A | | A | | A | | A | | A |
| | | | L | | L | | L | | L | | L | | L | | L | | L | | L | | L |
| QL | Pesticides/PCBs | | | | | | | | | | | | | | | | | | | | |
| 1.7 | alpha-BHC | | U | | U | | U | | U | | | | | | | | | | | | |
| 1.7 | beta-BHC | | U | | U | | U | | U | | | | | | | | | | | | |
| 1.7 | delta-BHC | | U | | U | | U | | U | | | | | | | | | | | | |
| 1.7 | gamma-BHC (Lindane) | | U | | U | | U | | U | | | | | | | | | | | | |
| 1.7 | Heptachlor | 0.65 | JP | | U | | U | | U | | | | | | | | | | | | |
| 1.7 | Aldrin | | U | | U | | U | | U | | | | | | | | | | | | |
| 1.7 | Heptachlor epoxide | 0.4 | JP | | U | | U | | U | | | | | | | | | | | | |
| 1.7 | Endosulfan I | | U | | U | | U | | U | | | | | | | | | | | | |
| 3.3 | Dieldrin | 0.86 | JP | 0.57 | JP | 0.89 | JP | 0.61 | JP | | | | | | | | | | | | |
| 3.3 | 4,4'-DDE | 1.4 | J | | U | | U | | U | | | | | | | | | | | | |
| 3.3 | Endrin | | U | | U | | U | | U | | | | | | | | | | | | |
| 3.3 | Endosulfan II | | U | | U | | U | | U | | | | | | | | | | | | |
| 3.3 | 4,4'-DDD | | U | | U | | U | | U | | | | | | | | | | | | |
| 3.3 | Endosulfan sulfate | | U | | U | | U | | U | | | | | | | | | | | | |
| 3.3 | 4,4'-DDT | 3.7 | J | | U | | U | | U | | | | | | | | | | | | |
| 17 | Methoxychlor | | U | | U | | U | | U | | | | | | | | | | | | |
| 3.3 | Endrin Ketone | | U | | U | | U | | U | | | | | | | | | | | | |
| 3.3 | Endrin Aldehyde | | U | | U | | U | | U | | | | | | | | | | | | |
| 1.7 | Alpha-Chlordane | 0.49 | JP | | U | | U | | U | | | | | | | | | | | | |
| 1.7 | Gamma-Chlordane | 0.72 | J | | U | | U | | U | | | | | | | | | | | | |
| 170 | Toxaphene | | U | | U | | U | | U | | | | | | | | | | | | |
| 33 | Aroclor-1016 | | U | | U | | U | | U | | | | | | | | | | | | |
| 67 | Aroclor-1221 | | U | | U | | U | | U | | | | | | | | | | | | |
| 33 | Aroclor-1232 | | U | | U | | U | | U | | | | | | | | | | | | |
| 33 | Aroclor-1242 | | U | | U | | U | | U | | | | | | | | | | | | |
| 33 | Aroclor-1248 | | U | | U | | U | | U | | | | | | | | | | | | |
| 33 | Aroclor-1254 | | U | | U | | U | | U | | | | | | | | | | | | |
| 33 | Aroclor-1260 | | U | | U | | U | | U | | | | | | | | | | | | |

QL - Quantitation Limits are base values, see complete data package for sample specific quantitation limits

U - Not Detected
P - Indicates a target analyte when there is greater than 25% difference for the detected concentration between two GC columns. The lower result is reported.

# Janson Landfill Analytical Data

SURFACE SEDIMENT SAMPLES
**Total Metals (MG/KG)**



| QL | Metals | Sample Number | S1 | | S2 | | S3 | | S4 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Date Collected | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | 8/2/95 | Q | | Q | | Q | | Q | | Q | | Q | | Q |
| | | CRL ITR# | MEHF79 | U | MEHF80 | U | MEHF81 | U | MEHF82 | U | | U | | U | | U | | U | | U | | U |
| | | | | A | | A | | A | | A | | A | | A | | A | | A | | A | | A |
| | | | | L | | L | | L | | L | | L | | L | | L | | L | | L | | L |
| 200 | Aluminum | | 8020 | | 1740 | | 3180 | | 2560 | | | | | | | | | | | | | |
| 60 | Antimony | | | U | | U | | U | | U | | | | | | | | | | | | |
| 10 | Arsenic | | 18 | J | 4.7 | J | 7.5 | J | 11.2 | J | | | | | | | | | | | | |
| 200 | Barium | | 122 | | 37.7 | | 43.3 | | 58.4 | | | | | | | | | | | | | |
| 5 | Beryllium | | 1 | | 0.23 | | 0.31 | | 0.36 | | | | | | | | | | | | | |
| 5 | Cadmium | | 2.2 | | 0.28 | | 0.38 | | 0.69 | | | | | | | | | | | | | |
| 5000 | Calcium | | 35600 | J | 36800 | J | 38900 | J | 36800 | J | | | | | | | | | | | | |
| 10 | Chromium | | 67.2 | | 4.2 | | 9.2 | | 31.7 | | | | | | | | | | | | | |
| 50 | Cobalt | | 15.3 | | 3.8 | | 6.3 | | 7.1 | | | | | | | | | | | | | |
| 25 | Copper | | 28.5 | | 7 | | 5.7 | | 8.5 | | | | | | | | | | | | | |
| 100 | Iron | | 43800 | | 8060 | | 12400 | | 29000 | | | | | | | | | | | | | |
| 3 | Lead | | 27.9 | J | 7.2 | J | 6.3 | J | 10.5 | J | | | | | | | | | | | | |
| 5000 | Magnesium | | 8740 | J | 17200 | J | 18100 | J | 17800 | J | | | | | | | | | | | | |
| 15 | Manganese | | 1520 | J | 460 | J | 550 | J | 1260 | J | | | | | | | | | | | | |
| 0.2 | Mercury | | | U | | U | | U | | U | | | | | | | | | | | | |
| 40 | Nickel | | 33.9 | | 7.4 | | 11.2 | | 12.2 | | | | | | | | | | | | | |
| 5000 | Potassium | | 1600 | | 382 | | 759 | | 672 | | | | | | | | | | | | | |
| 5 | Selenium | | 1.2 | | | U | | U | | U | | | | | | | | | | | | |
| 10 | Silver | | | U | | U | | U | | U | | | | | | | | | | | | |
| 5000 | Sodium | | 266 | | 145 | | 77.2 | | 85.7 | | | | | | | | | | | | | |
| 10 | Thallium | | | U | | U | | U | | U | | | | | | | | | | | | |
| 50 | Vanadium | | 31 | | 7.4 | | 12.8 | | 17.8 | | | | | | | | | | | | | |
| 20 | Zinc | | 236 | | 25.2 | | 36.2 | | 54.3 | | | | | | | | | | | | | |
| 10 | Cyanide | | | U | | U | | U | | U | | | | | | | | | | | | |

QL - Quantitation Limits are base values, see complete data package for sample quantitation limits.

U - Not Detected
J - Estimated Value

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# 5. MIGRATION AND EXPOSURE PATHWAYS

This section describes the four migration and exposure pathways associated with the Janson Landfill site. Section 5.1 discusses the groundwater migration pathway; Section 5.2 discusses the surface water migration pathway; Section 5.3 discusses the soil exposure pathway; and Section 5.4 discusses the air migration pathway.

## 5.1 GROUNDWATER MIGRATION PATHWAY

This section discusses regional geology soils, groundwater releases, and targets associated with the groundwater migration pathway at the site.

### 5.1.1 Geology and Soils

Records of soil borings taken on site indicate that the site is underlain by unconsolidated alluvial deposits and glacial till comprised of sandy clay loam and shaley black clay extending to between 7.5 feet and 13 feet BGS. The borings were taken by Testing Engineers, Inc. (TEI) in 1974. Refer to Appendix D for a copy of the boring records (TEI 1974). This material is characteristic of the Radnor member of the Glasford Formation which consists of gray compacted silty till with little sand and gravel content. This till member is predominant in upland areas west of the site (ISGS 1979). Depth to groundwater in the unconsolidated deposits has not been determined, but is expected to be within ten feet of the surface based on the proximity of Kickapoo Creek. The direction of groundwater movement is expected to mirror surface topography and discharge to Kickapoo Creek (USGS 1967).

Areas east of the site are generally underlain by unconsolidated glacial outwash deposits of the Mackinaw member of the Henry Formation. This material consists of well sorted beds of sand and gravel (ISGS 1979). Drilling records for nearby wells indicate that these deposits extend up to 125 feet BGS in some areas and serve as a highly productive aquifer. Refer to Appendix E for copies of nearby well logs.



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The site is located on the border between the Modesto Formation and the Carbondale Formation. The Modesto Formation overlies the Carbondale Formation creating bluffs and cliffs which can reach up to 100 feet in the site vicinity (ISGS 1967; USGS 1967). The Bluff on the north side of the site is of the Modesto Formation, which is the upper bedrock formation in the upland area west of the site (Cartwright 1969; ISGS 1967). Bedrock beneath the remainder of the site is black shale of the Carbondale Formation, which is the predominant bedrock in the Illinois River Floodplain east of the site (ISGS 1967; TEI 1974). The Modesto and Carbondale formations are comprised of similar stratigraphy. Both include beds of gray shale, limestone, black shale, and coal (ISGS 1967). Area well logs indicate that the bedrock systems are not widely developed as sources of groundwater for drinking or industrial use.

### 5.1.2 Groundwater Releases

A release of TAL/TCL chemicals to groundwater is not likely. Hazardous waste is not reported to have been disposed at the site and groundwater has been a focus of prior investigations according to information available. According to information available, the landfill does not have a constructed clay liner, leachate collection system, or impermeable cap. No monitoring wells have been installed at the site (E & E 1988; Jones 1995).

### 5.1.3 Targets

The IAW serves approximately 143,000 residents of Peoria and surrounding communities including Bartonville. IAW obtains approximately 10 million gallons of water per day (MGD) from an intake located on the Illinois River approximately six miles upstream of the confluence with Kickapoo Creek. IAW also obtains approximately 12 MGD from wells located within the four-mile radius study area and 6 MGD from wells located outside the four-mile radius study area. Water obtained from these sources is not mixed prior to distribution (Gregory 1995; USGS 1967).

Three municipal wells are located at the intersection of Dodge and Washington Streets, 1.8 mile east-southeast of the site. These wells are finished between 118 and 122 feet BGS and provide a combined total of 8 MGD. Two municipal wells are located near the intersection of Lincoln and Griswald Streets, 1.3 miles east of the site; both wells are finished 162 feet BGS and provide a combined total of 4 MGD. IAW has not recently exceeded Safe

Drinking Water Act limits in samples collected from the nearby wells (Gregory 1995). File information does not indicate the presence of private residential wells in the site vicinity.

## 5.2 SURFACE WATER MIGRATION PATHWAY

Sediment samples collected by E & E for the FSIP indicate that a release to surface water has not occurred. Kickapoo Creek receives runoff from the site. The creek has a mean discharge of approximately 100 cubic feet per second (cfs) and drains agricultural, residential, and formerly strip mined areas, then empties into the Illinois River approximately 3.5 miles downstream from the site. The unnamed stream on the west side of the site is a perennial stream which begins approximately 1 mile northwest of the site and drains the rail line and residential areas before joining with Kickapoo Creek on the southwest side of the site (E & E 1995; USGS 1967); discharge of this stream is unknown. The Illinois River drains an urban and agricultural areas north of the site and has an average discharge of 20,000 cfs at Peoria (USGS 1967; 1992).

The United States Department of the Interior Wetlands Inventory map for the area identifies palustrine forested wetlands occurring along a 0.8 mile segment of the Kickapoo Creek downgradient of the site. E & E observations indicate that the wooded area on site could potentially be considered a wetland. Also, a significant wetland area occurs at the confluence of Kickapoo Creek and the Illinois River and continues over one mile south along the west bank of the Illinois River. These wetlands are generally classified as impounded palustrine forested wetlands with broad-leafed deciduous vegetation. Water levels in the wetlands are affected by the Peoria lock and dam (USDI 1988).

Both the Illinois River and Kickapoo Creek are used extensively for recreational fishing according to IEPA (Newman 1995). A report made by the Illinois State Geological Survey (ISGS) in 1969 indicates that flooding may occur on the south side of the site (ISGS 1969).



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## 5.3 SOIL EXPOSURE PATHWAY

Analytical results of surface soil sample collected during the 1988 SSI indicated that TAL/TCL chemical were detected at levels above background including cadmium at 37,000 micrograms per kilogram ($\mu$g/kg) in sample S2, mercury at 230 $\mu$g/kg in S3, and PCBs (Aroclor 1254) at 1,700 $\mu$g/kg in S2 (E & E 1988). The extent of soil contamination at the site is unknown. Sediment samples collected by E & E in 1995 for the FSIP do not indicate that TAL/TCL chemicals have migrated off-site.

The site is not completely fenced. The nearest residence is located approximately 0.2 miles north of the former fill area. No schools or day-care centers are located within 200 feet of the site (E & E 1995; USGS 1967).

## 5.4 AIR MIGRATION PATHWAY

Fires have occurred at the landfill in 1976 and 1979 and resulted in numerous complaints from local citizens and court orders to cease operations at the site (E & E 1988). Air samples were not collected at the SSI. IEPA inspectors report that no fires have recently occurred (Janson 1995). Future fires could result in a release of TAL analytes/TCL compounds detected in surface soils samples collected on site by E & E in 1988 including cadmium, mercury and PCBs; however, no evidence of an on-going release has been observed or reported.

# 6. SUMMARY

E & E has evaluated the Janson Landfill site using existing U.S. EPA and IEPA file information, analytical information from E & E sampling conducted in 1995, and conversations with IEPA representatives.

The Janson Landfill site is a 12-acre closed landfill located in Bartonville, Illinois, on the west bank of the Kickapoo Creek. The landfill was active from approximately 1961 and 1982. The landfill accepted construction debris and general municipal refuse, hazardous waste has not been reported to be disposed at the site. The landfill owners never received an permit for landfill operations and a closure plan has not been developed. The owners have been cited for violations related to operating a landfill without a permit and allowing open dumping and litter on the site property. Landfill fires have occurred at the site in the past. The landfill is unlined and no leachate collection systems or monitoring wells have been installed.

Runoff from the site enters Kickapoo Creek. Cadmium, mercury, and PCBs were detected above background levels in surface soil samples collected on site by E & E in 1988. These chemicals were not detected above background in sediment samples collected from Kickapoo Creek by E & E in 1995.

The site is underlain by clayey glacial till extending to approximately 13 feet BGS to a shale bedrock formation, these formations are not developed as aquifers in the site vicinity. The area east of the site is underlain by glacial outwash extending to approximately 125 feet BGS, this outwash formation is a source of drinking and industrial water supply in the site vicinity.

The site is located 0.2 miles west of Peoria, Illinois. The site is not fenced and the nearest residence is located 0.2 miles north of the former landfill. Urban developments in Peoria dominate the area east of the site, while the area east is less developed.



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Residents of Peoria, Bartonville and other nearby areas receive drinking water from a community distribution system which uses groundwater wells and a surface water intake on the Illinois River. The nearest well is located 1.3 miles east of the site, and the surface water intake is located upgradient of the confluence with Kickapoo Creek. Kickapoo Creek and the Illinois River are recreational fisheries and provide wetland habitat.

## 7. REFERENCES

References not included in Appendix F of the report: documents that are currently available within U.S. EPA files; copyrighted documents that are currently available in E & E's library; maps produced by either the United States Geologic Survey or the Illinois State Geologic Survey (ISGS); and documents that are created by the various state agencies for public use.


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# APPENDIX A

# SITE RECONNAISSANCE PHOTOGRAPHS



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Photo: 1 Photographer: D. Robin
Date: 8-2-95 Time: 1120 Dir.: East
Site Name: Janson Landfill
Comments: Entrance path to landfill and nearest residence. Note chain across path.

Photo: 2 Photographer: D. Robin
Date: 8-2-95 Time: 1115 Dir.: East
Site Name: Janson Landfill
Comments: Sample S3/S4 location collected beneath th railroad bridge. The site is in the background on the north bank of the creek

Photo: 3 Photographer: C. Duffy
Date: 7-13-95 Time: 1120 Dir.: East
Site Name: Janson Landfill
Comments: Confluence of Unnamed Stream and Kickapoo Creek.

Photo: 4 Photographer: D. Robin
Date: 8-2-95 Time: 1200 Dir.: North
Site Name: Janson Landfill
Comments: Sample S2 location collected south of the Lincoln Avenue bridge over Kickapoo Creek.

# APPENDIX B

# 1988 E & E SSI SAMPLE LOCATIONS AND ANALYTICAL RESULTS



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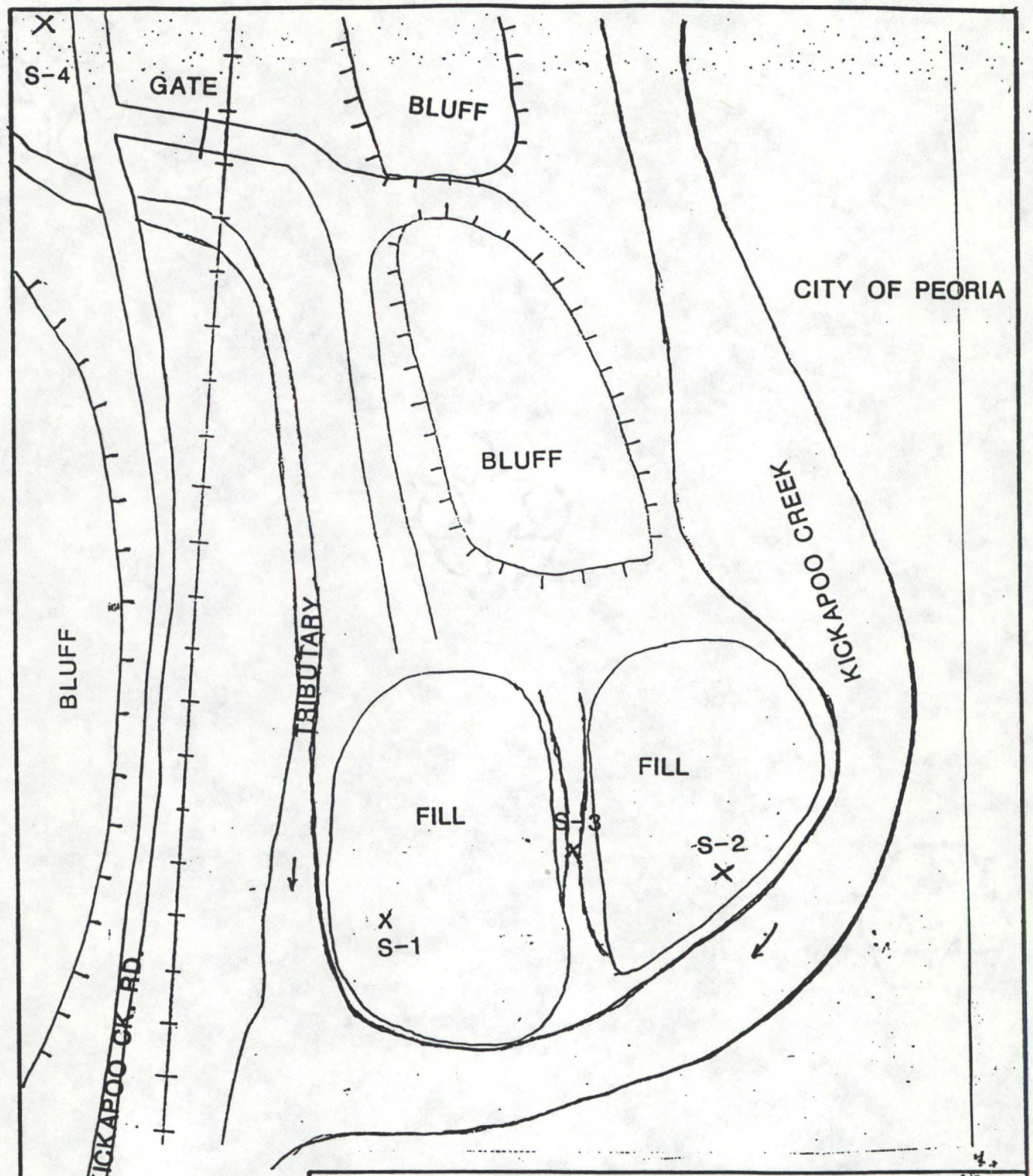


**ecology and environment, inc.**

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9416

| | |
|---|---|
| TITLE: SITE SAMPLE LOCATIONS | FIGURE #: 2 |
| SITE: JANSON LANDFILL | SCALE: N.T.S. |
| CITY: PEORIA STATE: ILLINOIS | TDD #: FO5-8707-024 |
| SOURCE: ON-SITE INSPECTION | DATE: 1987 |
| | REVISED: NA |

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| COMPOUND | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITC | MEP 445 | MEP 446 | MEP 447 | MEP 448 | | | | | | | |
| OTC | EP 100 | EP 401 | EP 402 | EP 403 | | | | | | | |
| SAMPLE | S-1 | S-2 | S-3 | S-4 BX6 | | | | | | | |
| pentachlorophenol | | | | | | | | | | | |
| phenanthrene | 170 J | 2800 | 110 J | 1300 | | | | | | | |
| anthracene | 30 J | 690 | | 270 J | | | | | | | |
| di-n-butylphthalate | 370 B | 710 B | 210 BJ | 860 B | | | | | | | |
| fluoranthene | 360 | 4200 | 120 J | 2600 | | | | | | | |
| benzidine | - | | | | | | | | | | |
| pyrene | 340 J | 5900 | 120 J | 2200 | | | | | | | |
| butylbenzylphthalate | | 3600 | | | | | | | | | |
| 3,3'-dichlorobenzidine | | | | | | | | | | | |
| benzo(a)anthracene | 150 J | 2100 | 47 J | 990 | | | | | | | |
| bis(2-ethylhexyl)phthalate | 38 J | 2800 | 58 J | | | | | | | | |
| chrysene | 180 J | 2300 | 49 J | 1100 | | | | | | | |
| di-n-octylphthalate | 170 BJ | 510 B | 100 BJ | | | | | | | | |
| benzo(b&k)fluoranthene | 190 J | 2300 | 41 J | 1100 | | | | | | | |
| benzo(a)pyrene | 150 J | 1700 | 36 J | 930 | | | | | | | |
| indeno(1,2,3-cd)pyrene | 76 J | 740 | | 430 | | | | | | | |
| dibenzo(a,h)anthracene | | | | 72 J | | | | | | | |
| benzo(g,h,i)perylene | 58 J | 510 | | 280 J | | | | | | | |
| alpha-BHC | | | | | | | | | | | |
| beta-BHC | | | | | | | | | | | |
| delta-BHC | | | | | | | | | | | |
| gamma-BHC(lindane) | | | | | | | | | | | |
| heptachlor | | | | | | | | | | | |
| aldrin | | | | | | | | | | | |
| heptachlor epoxide | | | | | | | | | | | |
| endosulfan I | | | | | | | | | | | |
| dieldrin | | | | | | | | | | | |
| 4,4'-DDE | | | | | | | | | | | |
| endrin | | | | | | | | | | | |
| endosulfan II | | | | | | | | | | | |
| 4,4'-DDD | | | | | | | | | | | |
| endrin aldehyde | | | | | | | | | | | |
| endosulfan sulfate | | | | | | | | | | | |
| 4,4'-DDT | | | | | | | | | | | |
| methoxychlor | | | | | | | | | | | |
| endrin ketone | | | | | | | | | | | |
| chlordane | | | | | | | | | | | |
| toxaphene | | | | | | | | | | | |
| Aroclor-1016 | | | | | | | | | | | |
| Aroclor-1221 | | | | | | | | | | | |
| Aroclor-1232 | | | | | | | | | | | |
| Aroclor-1242 | | | | | | | | | | | |
| Aroclor-1248 | | | | | | | | | | | |
| Aroclor-1254 | | 1700 | | | | | | | | | |
| Aroclor-1260 | | | | | | | | | | | |
| ELEMENT mg/Kg | | | | | | | | | | | |
| aluminum | 3300 | 7180 | 7030 | 11300 | | | | | | | |
| antimony | | | | | | | | | | | |
| arsenic | | 6.0 | | 8.8 | | | | | | | |
| barium | [56] | 244 | [64] | [75] | | | | | | | |
| beryllium | | [0.66] | [0.74] | [0.98] | | | | | | | |
| cadmium | | 3.7 | | | | | | | | | |
| calcium | 36900 | 17700 | 32500 | 20000 | | | | | | | |
| chromium | 8.5 | 22 | 20 | 20 | | | | | | | |
| cobalt | [4.9] | [12] | [16] | [9.4] | | | | | | | |
| copper | [13] | 111 | 58 | 41 | | | | | | | |
| iron | 23300 | 23000 | 13000 | 21400 | | | | | | | |
| lead | 36.5 | 467 | 35.5 | 106 | | | | | | | |
| magnesium | 28100 | 3390 | 4780 | 7610 | | | | | | | |
| manganese | 749 | 488 | 637 | 638 | | | | | | | |
| mercury | | 0.23 | 0.23 | | | | | | | | |
| nickel | [16] | 46 | 58 | 25 | | | | | | | |
| potassium | | | | | | | | | | | |
| selenium | | | | | | | | | | | |
| silver | | | | | | | | | | | |
| sodium | | | | | | | | | | | |
| thallium | | | | | | | | | | | |
| tin | | | | | | | | | | | |
| vanadium | [16] | [18] | [23] | [26] | | | | | | | |
| zinc | 66 | 604 | 54 | 348 | | | | | | | |
| cyanide CHECK IF ANALYZED ( ) | | | | | | | | | | | |
| TENTATIVELY IDENTIFIED ORGANICS | | | | | | | | | | | |

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STATE ILLINOIS SITE JANSON LANDFILL TDD F05-8707-024 PAGE 2 OF 2, SET # 1

ug/Kg

| SITE | MEP 445 | MEP 446 | MEP 447 | MEP 448 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DTC | EP 100 | EP 401 | EP 402 | EP 403 | | | | | | | |
| SAMPLE | S-1 | S-2 | S-3 | S-4 BKG | | | | | | | |
| COMPOUND | | | | | | | | | | | |
| chloromethane | | | | | | | | | | | |
| bromomethane | | | | | | | | | | | |
| vinyl chloride | | | | | | | | | | | |
| chloroethane | | | | | | | | | | | |
| methylene chloride | 16 B | 6 B | 16 B | 14 B | | | | | | | |
| acetone | 28 B | 16 B | 67 B | 15 B | | | | | | | |
| carbon disulfide | | | | | | | | | | | |
| 1,1-dichloroethene | | | | | | | | | | | |
| 1,1-dichloroethane | | | | | | | | | | | |
| trans-1,2,-dichloroethene | | | | | | | | | | | |
| chloroform | | | | | | | | | | | |
| 1,2-dichloroethane | | | | | | | | | | | |
| 2-butanone | | | | | | | | | | | |
| 1,1,1-trichloroethane | | | | | | | | | | | |
| carbon tetrachloride | | | | | | | | | | | |
| vinyl acetate | | | | | | | | | | | |
| bromodichloromethane | | | | | | | | | | | |
| 1,1,2,2-tetrachloroethane | | | | | | | | | | | |
| 1,2-dichloropropane | | | | | | | | | | | |
| trans-1,3-dichloropropene | | | | | | | | | | | |
| trichloroethene | | | | | | | | | | | |
| dibromochloromethane | | | | | | | | | | | |
| 1,1,2-trichloroethane | | | | | | | | | | | |
| benzene | | | | | | | | | | | |
| cis-1,3-dichloropropene | | | | | | | | | | | |
| 2-chloroethylvinylether | | | | | | | | | | | |
| bromoform | | | | | | | | | | | |
| 2-hexanone | | | | | | | | | | | |
| 4-methyl-2-pentanone | | | | | | | | | | | |
| tetrachloroethene | | | | | | | | | | | |
| toluene | | | 2 J | 4 J | | | | | | | |
| chlorobenzene | | | | | | | | | | | |
| ethylbenzene | | | | | | | | | | | |
| styrene | | | | | | | | | | | |
| total xylenes | | | | | | | | | | | |
| N-nitrosodimethylamine | | | | | | | | | | | |
| phenol | | | | | | | | | | | |
| aniline | | | | | | | | | | | |
| bis(2-chloroethyl)ether | | | | | | | | | | | |
| 2-chlorophenol | | | | | | | | | | | |
| 1,3-dichlorobenzene | | | | | | | | | | | |
| 1,4-dichlorobenzene | | | | | | | | | | | |
| benzyl alcohol | | | | | | | | | | | |
| 1,2-dichlorobenzene | | | | | | | | | | | |
| 2-methylphenol | | | | | | | | | | | |
| bis(2-chloroisopropyl)ether | | | | | | | | | | | |
| 4-methylphenol | | | | | | | | | | | |
| N-nitroso-di-n-propylamine | | | | | | | | | | | |
| hexachloroethane | | | | | | | | | | | |
| nitrobenzene | | | | | | | | | | | |
| isophorone | | | | | | | | | | | |
| 2-nitrophenol | | | | | | | | | | | |
| 2,4-dimethylphenol | | | | | | | | | | | |
| benzoic acid | | | | | | | | | | | |
| bis(2-chloroethoxy)methane | | | | | | | | | | | |
| 2,4-dichlorophenol | | | | | | | | | | | |
| 1,2,4-trichlorobenzene | | | | | | | | | | | |
| napthalene | | 16 J | | | | | | | | | |
| 4-chloroaniline | | | | | | | | | | | |
| hexachlorobutadiene | | | | | | | | | | | |
| 4-chloro-3-methylphenol | | | | | | | | | | | |
| 2-methylnapthalene | | 31 J | | | | | | | | | |
| hexachlorocyclopentadiene | | | | | | | | | | | |
| 2,4,6-trichlorophenol | | | | | | | | | | | |
| 2,4,5-trichlorophenol | | | | | | | | | | | |
| 2-chloronaphthalene | | | | | | | | | | | |
| 2-nitroaniline | | | | | | | | | | | |
| dimethyl phthalate | | | | | | | | | | | |
| acenapthylene | | 15 J | | | | | | | | | |
| 3-nitroaniline | | | | | | | | | | | |
| acenaphthene | | 120 J | | 97 J | | | | | | | |
| 2,4-dinitrophenol | | | | | | | | | | | |
| 4-nitrophenol | | | | | | | | | | | |
| dibenzofuran | | 74 J | | 27 J | | | | | | | |
| 2,4-dinitrotoluene | | | | | | | | | | | |
| 2,6-dinitrotoluene | | | | | | | | | | | |
| diethylphthalate | | | | | | | | | | | |
| 4-chlorophenyl-phenylether | | | | | | | | | | | |
| fluorene | | 170 J | | 90 J | | | | | | | |
| 4-nitroaniline | | | | | | | | | | | |
| 4,6-dinitro-2-methylphenol | | | | | | | | | | | |
| N-nitrosodiphenylamine | | | | | | | | | | | |
| 4-bromophenyl-phenylether | | | | | | | | | | | |
| hexachlorobenzene | | | | | | | | | | | |

STATE ILLINOIS SITE JANSON LANDFILL TDD F05-8707-024 PAGE 1 OF 2, SET # 1

ug/Kg

| COMPOUND | ITC | MEP445 | MEP 446 | MEP 447 | MEP 448 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | OTC | EP 100 | EP 401 | EP 402 | EP 403 | | | | | | |
| | SAMPLE | S-1 | S-2 | S-3 | S-4 BKG | | | | | | |
| chloromethane | | | | | | | | | | | |
| bromomethane | | | | | | | | | | | |
| vinyl chloride | | | | | | | | | | | |
| chloroethane | | | | | | | | | | | |
| methylene chloride | | 16 B | 6 B | 16 B | 14 B | | | | | | |
| acetone | | 28 B | 16 B | 67 B | 15 B | | | | | | |
| carbon disulfide | | | | | | | | | | | |
| 1,1-dichloroethene | | | | | | | | | | | |
| 1,1-dichloroethane | | | | | | | | | | | |
| trans-1,2,-dichloroethene | | | | | | | | | | | |
| chloroform | | | | | | | | | | | |
| 1,2-dichloroethane | | | | | | | | | | | |
| 2-butanone | | | | | | | | | | | |
| 1,1,1-trichloroethane | | | | | | | | | | | |
| carbon tetrachloride | | | | | | | | | | | |
| vinyl acetate | | | | | | | | | | | |
| bromodichloromethane | | | | | | | | | | | |
| 1,1,2,2-tetrachloroethane | | | | | | | | | | | |
| 1,2-dichloropropane | | | | | | | | | | | |
| trans-1,3-dichloropropene | | | | | | | | | | | |
| trichloroethene | | | | | | | | | | | |
| dibromochloromethane | | | | | | | | | | | |
| 1,1,2-trichloroethane | | | | | | | | | | | |
| benzene | | | | | | | | | | | |
| cis-1,3-dichloropropene | | | | | | | | | | | |
| 2-chloroethylvinylether | | | | | | | | | | | |
| bromoform | | | | | | | | | | | |
| 2-hexanone | | | | | | | | | | | |
| 4-methyl-2-pentanone | | | | | | | | | | | |
| tetrachloroethene | | | | | | | | | | | |
| toluene | | | | 2 J | 4 J | | | | | | |
| chlorobenzene | | | | | | | | | | | |
| ethylbenzene | | | | | | | | | | | |
| styrene | | | | | | | | | | | |
| total xylenes | | | | | | | | | | | |
| N-nitrosodimethylamine | | | | | | | | | | | |
| phenol | | | | | | | | | | | |
| aniline | | | | | | | | | | | |
| bis(2-chloroethyl)ether | | | | | | | | | | | |
| 2-chlorophenol | | | | | | | | | | | |
| 1,3-dichlorobenzene | | | | | | | | | | | |
| 1,4-dichlorobenzene | | | | | | | | | | | |
| benzyl alcohol | | | | | | | | | | | |
| 1,2-dichlorobenzene | | | | | | | | | | | |
| 2-methylphenol | | | | | | | | | | | |
| bis(2-chloroisopropyl)ether | | | | | | | | | | | |
| 4-methylphenol | | | | | | | | | | | |
| N-nitroso-di-n-propylamine | | | | | | | | | | | |
| hexachloroethane | | | | | | | | | | | |
| nitrobenzene | | | | | | | | | | | |
| isophrone | | | | | | | | | | | |
| 2-nitrophenol | | | | | | | | | | | |
| 2,4-dimethylphenol | | | | | | | | | | | |
| benzoic acid | | | | | | | | | | | |
| bis(2-chloroethoxy)methane | | | | | | | | | | | |
| 2,4-dichlorophenol | | | | | | | | | | | |
| 1,2,4-trichlorobenzene | | | | | | | | | | | |
| napthalene | | | 16 J | | | | | | | | |
| 4-chloroaniline | | | | | | | | | | | |
| hexachlorobutadiene | | | | | | | | | | | |
| 4-chloro-3-methylphenol | | | | | | | | | | | |
| 2-methylnapthalene | | | 31 J | | | | | | | | |
| hexachlorocyclopentadiene | | | | | | | | | | | |
| 2,4,6-trichlorophenol | | | | | | | | | | | |
| 2,4,5-trichlorophenol | | | | | | | | | | | |
| 2-chloronaphthalene | | | | | | | | | | | |
| 2-nitroaniline | | | | | | | | | | | |
| dimethyl phthalate | | | | | | | | | | | |
| acenapthylene | | | 15 J | | | | | | | | |
| 3-nitroaniline | | | | | | | | | | | |
| acenaphthene | | | 120 J | | 97 J | | | | | | |
| 2,4-dinitrophenol | | | | | | | | | | | |
| 4-nitrophenol | | | | | | | | | | | |
| dibenzofuran | | | 74 J | | 27 J | | | | | | |
| 2,4-dinitrotoluene | | | | | | | | | | | |
| 2,6-dinitrotoluene | | | | | | | | | | | |
| diethylphthalate | | | | | | | | | | | |
| 4-chlorophenyl-phenylether | | | | | | | | | | | |
| fluorene | | | 170 J | | 90 J | | | | | | |
| 4-nitroaniline | | | | | | | | | | | |
| 4,6-dinitro-2-methylphenol | | | | | | | | | | | |
| N-nitrosodiphenylamine | | | | | | | | | | | |
| 4-bromophenyl-phenylether | | | | | | | | | | | |
| hexachlorobenzene | | | | | | | | | | | |

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STATE ILLINOIS SITE JANSON LANDFILL TDD F05-8707-024 PAGE 1 OF 2, SET # 1

| COMPOUND | | | | |
|---|---|---|---|---|
| ITC | MEP 445 | MEP 446 | MEP 447 | MEP 448 |
| OTC | EP 100 | EP 401 | EP 402 | EP 403 |
| SAMPLE | S-1 | S-2 | S-3 | S-4 BX6 |
| pentachlorophenol | | | | |
| phenanthrene | 170 J | 2800 | 110 J | 1300 |
| anthracene | 30 J | 690 | | 270 J |
| di-n-butylphthalate | 370 B | 710 B | 210 BJ | 860 B |
| fluoranthene | 360 | 4200 | 120 J | 2600 |
| benzidine | - | | | |
| pyrene | 340 J | 5900 | 120 J | 2200 |
| butylbenzylphthalate | | 3600 | | |
| 3,3'-dichlorobenzidine | | | | |
| benzo(a)anthracene | 150 J | 2100 | 47 J | 990 |
| bis(2-ethylhexyl)phthalate | 38 J | 2800 | 58 J | |
| chrysene | 180 J | 2300 | 49 J | 1100 |
| di-n-octylphthalate | 170 BJ | 510 B | 100 BJ | |
| benzo(b&k)fluoranthene | 190 J | 2300 | 41 J | 1100 |
| benzo(a)pyrene | 150 J | 1700 | 36 J | 930 |
| indeno(1,2,3-cd)pyrene | 76 J | 740 | | 430 |
| dibenzo(a,h)anthracene | | | | 72 J |
| benzo(g,h,i)perylene | 58 J | 510 | | 280 J |
| alpha-BHC | | | | |
| beta-BHC | | | | |
| delta-BHC | | | | |
| gamma-BHC(lindane) | | | | |
| heptachlor | | | | |
| aldrin | | | | |
| heptachlor epoxide | | | | |
| endosulfan I | | | | |
| dieldrin | | | | |
| 4,4'-DDE | | | | |
| endrin | | | | |
| endosulfan II | | | | |
| 4,4'-DDD | | | | |
| endrin aldehyde | | | | |
| endosulfan sulfate | | | | |
| 4,4'-DDT | | | | |
| methoxychlor | | | | |
| endrin ketone | | | | |
| chlordane | | | | |
| toxaphene | | | | |
| Aroclor-1016 | | | | |
| Aroclor-1221 | | | | |
| Aroclor-1232 | | | | |
| Aroclor-1242 | | | | |
| Aroclor-1248 | | | | |
| Aroclor-1254 | | 1700 | | |
| Aroclor-1260 | | | | |
| ELEMENT mg/Kg | | | | |
| aluminum | 3300 | 7180 | 7030 | 11300 |
| antimony | | | | |
| arsenic | | 6.0 | | 8.8 |
| barium | [5.6] | 244 | [64] | [75] |
| beryllium | | [0.66] | [0.74] | [0.98] |
| cadmium | | 3.7 | | |
| calcium | 56900 | 17700 | 32500 | 20000 |
| chromium | 8.5 | 22 | 20 | 20 |
| cobalt | [4.9] | [12] | [16] | [9.4] |
| copper | [13] | 111 | 52 | 41 |
| iron | 23300 | 23000 | 13000 | 21400 |
| lead | 36 S | 467 | 35 S | 106 |
| magnesium | 28100 | 3390 | 4780 | 7610 |
| manganese | 749 | 488 | 637 | 638 |
| mercury | | 0.23 | 0.23 | |
| nickel | [16] | 46 | 58 | 25 |
| potassium | | | | |
| selenium | | | | |
| silver | | | | |
| sodium | | | | |
| thallium | | | | |
| tin | | | | |
| vanadium | [16] | [18] | [23] | [26] |
| zinc | 66 | 604 | 54 | 348 |
| cyanide CHECK IF ANALYZED ( ) | | | | |
| TENTATIVELY IDENTIFIED ORGANICS | | | | |

STATE ILLINOIS SITE JANSON LANDFILL TDD F05-8707-024 PAGE 2 OF 2, SET # 1

SURVEY OF THE ANALYTICAL RESULTS FOR SAMPLES WHICH WERE TAKEN DURING FIELD ACTIVITIES CAN BE FOUND IN THE FOLLOWING ABLES. ONLY DETECTABLE CONCENTRATIONS ARE REPORTED. HOWEVER, IF THE COMPOUND HAS A FOOTNOTE FOLLOWING THE VALUE, ONSULT THE DEFINITION OF THE FOOTNOTE PROVIDED BELOW. ADDITIONAL QA/QC INFORMATION IS PROVIDED IN THE ATTACHED ATA SHEETS.

REPORTING UNITS

A. Organics

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - ug/kg or ppb (parts per billion)

B. Metals

1. Water Samples - ug/L or ppb
2. Soils or Sediments - mg/kg or ppm

II. DEFINITION OF FOOTNOTES TO ANALYTICAL DATA

A. Organics

| FOOTNOTE | DEFINITION | INTERPRETATION |
|---|---|---|
| UJ | Detection Limit (DL) is estimated because of a Quality Control (QC) protocol. DL is possibly above or below Contract Required Detection Limit (CRDL). | Compound was not detected |
| UB | Compound found in laboratory blank. No value above CRDL. | Compound was not detected |
| UJB | Compound found in laboratory blank, but not detected in sample. CRDL is estimated because of a QC protocol. | Compound was not detected |
| B | Compound found in blank. Two interpretations are possible: | |
| | a. If sample value is equivalent to DL to 5x blank concentration; | Compound value is semi-quantitative |
| | b. If sample value is greater than 5x the blank concentration. | Compound value is quantitative |
| JB | Compound found in blank, value is estimated because of QC protocol. | Compound value is semi-quantitative |
| R | Do Not Use Value. Major Violation of QC Protocol. | Compound value is not usable |
| C | Value adjusted for blank (an unacceptable procedure). | Compound value is semi-quantitative |
| J | Value is above CRDL and is an estimated value because of a QC protocol. | Compound value is semi-quantitative |
| Q | No Analytical Result. | Compound was not detected |
| N | Presumptive evidence for the presence of a compound as used for a Tentatively Identified Compound (TIC). | Compound value is semi-quantitative |

B. Metals

| FOOTNOTE | DEFINITION | INTERPRETATION |
|---|---|---|
| E | Estimated or not reported due to interference. See laboratory narrative. | Compound or element was not detected or value is semi-quantitative |
| s | Analysis by Method of Standard Additions (Look for a "+" footnote). | Value is quantitative |
| R | Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low See spike results and laboratory narrative. | Value may be quantitative or semi-quantitative |
| * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value is semi-quantitative |
| + | Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative. | Data value is biased |
| [ ] | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semi-quantitative |
| UJ | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected |
| J | Value is above CRDL and is an estimated value because of a QC Protocol. | Value is semi-quantitative |

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# APPENDIX C

# 1995 FSIP SAMPLING ANALYTICAL DATA PACKAGE



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CADRE

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION V**

**DATE:**

**SUBJECT:** Review of Region V CLP Data Received for Review on 8-17-95

**FROM:** Dennis Wesolowski, Chief (SQC-14J) Contract Analytical Services Section BHF for DJW 9/6/95

**TO:** Data User: E & E

**We have reviewed the data for the following case:**

**SITE NAME:** Janson Landfill (IL)

**CASE NUMBER:** 23856 **SDG NUMBER:** MEHF79

**Number and Type of Samples:** 4 - Soils

**Sample Numbers:** MEHF79 - 82

**Laboratory:** IEA **Hrs. for Review:** 6.0+1.0 +.5

**Following are our findings:**

Arsenic, Pb, Ca, Mg and Mn data are estimated due to poor precision among duplicates. However, the data are acceptable for use with qualification. See attached CADRE data review narrative for detail.

BH Freeman
9/6/95

**cc: Regional TPO**

# NARRATIVE

SITE: JANSON LANDFILL CASE: 23856
LABORATORY: IEA SDG: MEHF79

The laboratory's portion of case 23856 contains 4 low level soil samples assayed for total metals and total cyanide. This is a CADRE review.

**EVIDENTIAL AUDIT:** All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. The original Hg raw data (pp. 158-191) and original CN raw data (pp. 207-210) are with SDG: MFFZ18. The laboratory does not state the case number where the original raw data can be found on the photocopies. The originals that are present are sample tags, Federal Express airbill, chain of custody forms and Form DC-1. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

**CADRE REVIEW:**

Duplicate Criteria

DC-256: The following inorganic samples are associated with duplicate results which did not meet relative percent difference (RPD) criteria.
All data are qualified "J".

Calcium
MEHF79, MEHF80, MEHF81, MEHF82

Lead
MEHF79, MEHF80, MEHF81, MEHF82

Magnesium
MEHF79, MEHF80, MEHF81, MEHF82

Manganese
MEHF79, MEHF80, MEHF81, MEHF82

Reviewed by: James Redlin
James Redlin
Lockheed ESAT
Date: 8/24/95

ESAT-5-041.1

DC-330: The following inorganic samples are associated with duplicate results which did not meet absolute difference criteria.
All data are qualified "J".

Arsenic
MEHF79, MEHF80, MEHF81, MEHF82

The duplicate audit for zinc was flagged by the laboratory. The duplicate difference does not exceed the technical criterion (35%) for soil samples. The zinc data are not qualified on this basis.

Reviewed by: James Redlin
James Redlin
Lockheed ESAT

Date: 8/24/95

## DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

U Indicates the material was analyzed, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J Indicates the associated value is an estimated quantity.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

UJ Indicates the material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

E Indicates the reported value is estimated because of the presence of interferences. An explanatory note shall be included under Comments on the Cover Page (if the problem applies to all samples) or on the specific FORM I-IN (if it is an isolated problem).

M Indicates duplicate injection precision is not met.

N Indictaes the spike sample recovery is not within control limits.

S Indicates the reported value was determined by the Method of Standard Addition (MSA).

W Indicates the post-digestion spike for furnace AA analysis is out of control limits (85%-115%), while sample absorbance is less than 50% of the spike absorbance.

+ Indicates the correlation coefficient for the MSA is less than 0.995.

* Indicates the duplicate analysis is not within control limits.

Note: Entering "S", "W" or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

ESAT-5-087.1

TAL QUALIFIED SPREADSHEET

Case No: 23856
SDG No: MEHF79

Site:
Laboratory: INDUSTRIAL & ENV ANALYSTS, INC

| EPA SAMPLE NUMBER: | MEHF79 | | MEHF80 | | MEHF80D | | MEHF80S | | MEHF81 | |
|---|---|---|---|---|---|---|---|---|---|---|
| REGIONAL SAMPLE NUMBER: | MEHF79 | | MEHF80 | | | | | | MEHF81 | |
| SAMPLE LOCATION: | S1 | | S2 | | | | | | S3 | |
| SAMPLE TYPE: | Routine Sample | | Routine Sample | | Duplicate Sample | | Matrix Spike | | Routine Sample | |
| MATRIX/ANALYSIS: | Soil/Low | | Soil/Low | | Soil/Low | | Soil/Low | | Soil/Low | |
| DILUTION FACTOR: | | | | | | | | | | |
| PERCENT SOLID: | 78.3 | | 83.3 | | 83.3 | | 83.3 | | 84.1 | |
| INORG | | | | | | | | | | |
| Aluminum | 8020 | | 1740 | | 2100 | | | | 3180 | |
| Antimony | 0.43 | U | 0.35 | U | 0.43 | U | 94.9 | | 0.35 | U |
| Arsenic | 18.0 | J | 4.7 | J | 8.5 | | 448 | J | 7.5 | J |
| Barium | 122 | | 37.7 | | 48.2 | | 494 | | 43.3 | |
| Beryllium | 1.0 | | 0.23 | | 0.33 | | 10.6 | | 0.31 | |
| Cadmium | 2.2 | | 0.28 | | 0.34 | | 10.7 | | 0.38 | |
| Calcium | 35600 | J | 36800 | J | 58800 | | | | 38900 | J |
| Chromium | 67.2 | | 4.2 | | 5.4 | | 49.5 | | 9.2 | |
| Cobalt | 15.3 | | 3.8 | | 5.4 | | 108 | | 6.3 | |
| Copper | 28.5 | | 7.0 | | 11.2 | | 57.9 | | 5.7 | |
| Iron | 43800 | | 8060 | | 9700 | | | | 12400 | |
| Lead | 27.9 | J | 7.2 | J | 14.1 | | 116 | J | 6.3 | J |
| Magnesium | 8740 | J | 17200 | J | 30200 | | | | 18100 | J |
| Manganese | 1520 | J | 460 | J | 679 | | 666 | J | 550 | J |
| Mercury | 0.12 | U | 0.11 | U | 0.10 | U | 0.49 | | 0.11 | U |
| Nickel | 33.9 | | 7.4 | | 8.0 | | 113 | | 11.2 | |
| Potassium | 1600 | | 382 | | 719 | | | | 759 | |
| Selenium | 1.2 | | 0.35 | U | 0.43 | U | 451 | | 0.35 | U |
| Silver | 0.22 | U | 0.18 | U | 0.22 | U | 10.6 | | 0.18 | U |
| Sodium | 266 | | 145 | | 109 | | | | 77.2 | |
| Thallium | 0.65 | U | 0.53 | U | 0.98 | | 438 | | 0.53 | U |
| Vanadium | 31.0 | | 7.4 | | 10.2 | | 116 | | 12.8 | |
| Zinc | 236 | | 25.2 | | 32.0 | | 134 | | 36.2 | |
| Cyanide | 0.37 | U | 0.44 | U | 0.45 | U | 4.9 | | 0.42 | U |

FILE NAME: MEHF79 DATE: 08/22/95 TIME: 14:05 CADRE 2.2P PAGE: 1

Water units are reported in ug/L.
Soil units are reported in mg/Kg.

TAL QUALIFIED SPREADSHEET

Case No: 23856
SDG No: MEHF79

Site:
Laboratory: INDUSTRIAL & ENV ANALYSTS, INC

| | | | | | | |
|---|---|---|---|---|---|---|
| EPA SAMPLE NUMBER: | MEHF82 | | | | | |
| REGIONAL SAMPLE NUMBER: | MEHF82 | | | | | |
| SAMPLE LOCATION: | S4 | | | | | |
| SAMPLE TYPE: | Routine Sample | | | | | |
| MATRIX/ANALYSIS: | Soil/Low | | | | | |
| DILUTION FACTOR: | | | | | | |
| PERCENT SOLID: | 82.5 | | | | | |
| INORG | | | | | | |
| Aluminum | 2560 | | | | | |
| Antimony | 0.48 | U | | | | |
| Arsenic | 11.2 | J | | | | |
| Barium | 58.4 | | | | | |
| Beryllium | 0.36 | | | | | |
| Cadmium | 0.69 | | | | | |
| Calcium | 36800 | J | | | | |
| Chromium | 31.7 | | | | | |
| Cobalt | 7.1 | | | | | |
| Copper | 8.5 | | | | | |
| Iron | 29000 | | | | | |
| Lead | 10.5 | J | | | | |
| Magnesium | 17800 | J | | | | |
| Manganese | 1260 | J | | | | |
| Mercury | 0.10 | U | | | | |
| Nickel | 12.2 | | | | | |
| Potassium | 672 | | | | | |
| Selenium | 0.48 | U | | | | |
| Silver | 0.24 | U | | | | |
| Sodium | 85.7 | | | | | |
| Thallium | 0.71 | U | | | | |
| Vanadium | 17.8 | | | | | |
| Zinc | 54.3 | | | | | |
| Cyanide | 0.59 | U | | | | |

FILE NAME: MEHF79 DATE: 08/22/95 TIME: 14:05 CADRE 2.2P



Water units are reported in ug/L.
Soil units ar

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEHF80S

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA___ Case No.: 23856_ SAS No.: _____ SDG No.: MEHF79

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _83.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | 75-125 | 94.8934 | | 0.3505 | U | 113.25 | 83.8 | | P |
| Arsenic | 75-125 | 447.6588 | | 4.6729 | | 453.01 | 97.8 | | P |
| Barium | 75-125 | 493.6313 | | 37.7187 | | 453.01 | 100.6 | | P |
| Beryllium | 75-125 | 10.5749 | | 0.2305 | B | 11.33 | 91.3 | | P |
| Cadmium | 75-125 | 10.6981 | | 0.2753 | B | 11.33 | 92.0 | | P |
| Calcium | | | | | | | | | NR |
| Chromium | 75-125 | 49.5166 | | 4.2054 | | 45.30 | 100.0 | | P |
| Cobalt | 75-125 | 108.5182 | | 3.8540 | B | 113.25 | 92.4 | | P |
| Copper | 75-125 | 57.9012 | | 7.0148 | | 56.63 | 89.9 | | P |
| Iron | | | | | | | | | NR |
| Lead | 75-125 | 116.1555 | | 7.1619 | | 113.25 | 96.2 | | P |
| Magnesium | | | | | | | | | NR |
| Manganese | | 666.5553 | | 459.8463 | | 113.25 | 182.5 | | P |
| Mercury | 75-125 | 0.4893 | | 0.1143 | U | 0.57 | 85.8 | | CV |
| Nickel | 75-125 | 113.4812 | | 7.4531 | | 113.25 | 93.6 | | P |
| Potassium | | | | | | | | | NR |
| Selenium | 75-125 | 450.7158 | | 0.3505 | U | 453.01 | 99.5 | | P |
| Silver | 75-125 | 10.6245 | | 0.1753 | U | 11.33 | 93.8 | | P |
| Sodium | | | | | | | | | NR |
| Thallium | 75-125 | 437.6851 | | 0.5258 | U | 453.01 | 96.6 | | P |
| Vanadium | 75-125 | 115.5657 | | 7.4333 | B | 113.25 | 95.5 | | P |
| Zinc | 75-125 | 133.6173 | | 25.2455 | | 113.25 | 95.7 | | P |
| Cyanide | 75-125 | 4.9405 | | 0.4446 | U | 4.80 | 102.9 | | CA |

Comments:



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6
DUPLICATES

EPA SAMPLE NO.

MEHF80D

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA___ Case No.: 23856_ SAS No.: _____ SDG No.: MEHF79

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _83.3 % Solids for Duplicate: __86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 1743.4455 | | 2100.4981 | | 18.6 | | P |
| Antimony | | 0.3505 | U | 0.4326 | U | | | P |
| Arsenic | 1.8 | 4.6729 | | 8.4767 | | 57.9 | * | P |
| Barium | 35.1 | 37.7187 | | 48.2210 | | 24.4 | | P |
| Beryllium | | 0.2305 | B | 0.3316 | B | 36.0 | | P |
| Cadmium | | 0.2753 | B | 0.3387 | B | 20.7 | | P |
| Calcium | | 36839.8207 | | 58790.7055 | | 45.9 | * | P |
| Chromium | 1.8 | 4.2054 | | 5.4294 | | 25.4 | | P |
| Cobalt | | 3.8540 | B | 5.4476 | B | 34.3 | | P |
| Copper | 4.4 | 7.0148 | | 11.1671 | | 45.7 | | P |
| Iron | | 8059.4453 | | 9702.4122 | | 18.5 | | P |
| Lead | | 7.1619 | | 14.0874 | | 65.2 | * | P |
| Magnesium | | 17254.4958 | | 30164.6468 | | 54.5 | * | P |
| Manganese | | 459.8463 | | 679.4908 | | 38.6 | * | P |
| Mercury | | 0.1143 | U | 0.1044 | U | | | CV |
| Nickel | 7.0 | 7.4531 | | 8.0166 | B | 7.3 | | P |
| Potassium | | 381.9798 | B | 719.2150 | B | 61.2 | | P |
| Selenium | | 0.3505 | U | 0.4326 | U | | | P |
| Silver | | 0.1753 | U | 0.2163 | U | | | P |
| Sodium | | 145.2514 | B | 109.4221 | B | 28.1 | | P |
| Thallium | | 0.5258 | U | 0.9766 | B | 200.0 | | P |
| Vanadium | 8.8 | 7.4333 | B | 10.2147 | B | 31.5 | | P |
| Zinc | | 25.2455 | | 32.0065 | | 23.6 | * | P |
| Cyanide | | 0.4446 | U | 0.4479 | U | | | CA |

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION V**

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: ILD981100423

Case No: 23856 Site Name Location: Janson Landfil

Contractor or EPA Lab: IEA Data User: E & E

No. of Samples: 4 Date Sampled or Data Received: 8-17-95

Have Chain-of-Custody records been received? Yes ✓ No____
Have traffic reports or packing lists been received? Yes ✓ No____
If no, are traffic report or packing list numbers written on the chair of-custody record? Yes ____ No____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____

_____ _____ _____ _____

Are basic data forms in? Yes ✓ No____
No of samples claimed: 4 No. of samples received: 4

Received by: A. C. Harvey Date: 8-17-95

Received by LSSS: A. C. Harvey Date: 8-21-95

Review started: 8/21/95 Reviewer Signature: J. Redlin

Total time spent on review: 6.0+1.0 +.5 8/22/95 Date review completed: 8/22/95

Copied by: _____ Date: _____

Mailed to user by: _____ Date: _____

**DATA USER:**
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if C
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if C
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if C
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if C

**PROBLEMS:** Please indicate reasons why data are not suitable for you uses.

_____

_____

Received by Data Mgmt. Coordinator for Files. Data: _____

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on 8-17-95

FROM: Dennis Wesolowski, Chief (SQC-14J)
Contract Analytical Services Section

TO: Data User: E & E Patricia J Scott for D. Wesolowski 09/08/95

We have reviewed the data for the following case:

SITE NAME: Janson Landfill (IL)

CASE NUMBER: 23856 SDG NUMBER: EAFL0

Number and Type of Samples: 4 - Soils

Sample Numbers: EAFL0 - 3

Laboratory: RECMD Hrs. for Review: 8.0 95

Following are our findings:

The data are acceptable and usable with the qualifications described in the attached narrative.

Patricia J Scott

cc: Regional TPO

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**NARRATIVE**

| | | | |
|---|---|---|---|
| LABORATORY: | RECRA | CASE: | 23856 |
| SITE: | Janson LF | SDG: | EAFL0 |

Four (4) soil samples numbered EAFL0-3 were collected August 2, 1995. RECRA Environmental of Columbia, MD received the samples on August 3, 1995 in good condition. All samples were analyzed for the full list of organic analytes per CLP SOW OLM03.1.

Sample EAFL0 was used as the low level spike for all fractions of the samples.

Sample EAFL2 was identified as a field duplicate of EAFL1.

VOA samples were analyzed within the fourteen (14) day holding time for soil samples; therefore, the results are acceptable.

All SVOA and pesticide extractions were completed within the fourteen (14) days holding time and the extracts were analyzed within 40 days; therefore, the results are acceptable.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
Date: August 28, 1995

**NARRATIVE**

| | | | |
|---|---|---|---|
| LABORATORY: | RECRA | CASE: | 23856 |
| SITE: | Janson LF | SDG: | EAFL0 |

Below is a summary of the out-of-control audits and the possible effect on the data for this case.

**1. HOLDING TIME.**

Four (4) soil samples numbered EAFL0-3 were collected August 2, 1995. RECRA Environmental of Columbia, MD received the samples on August 3, 1995 in good condition. All samples were analyzed for the full list of organic analytes per CLP SOW OLM03.1.

VOA samples were analyzed within the fourteen (14) day holding time for soil samples; therefore, the results are acceptable.

All SVOA and pesticide extractions were completed within the fourteen (14) days holding time and the extracts were analyzed within 40 days; therefore, the results are acceptable.

**2. GC/MS TUNING AND GC PERFORMANCE.**

GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP. All samples were analyzed within the twelve (12) hour periods for BFB and DFTPP instrument performance checks as well; therefore, the results are acceptable.
GC Resolution Check Mixtures met the 60% resoultion criteria. Endrin and DDT degradation checks using PEM Mix on the DB-608 and RTX-1701 columns were <20%; therefore, the results are acceptable. The Florisil Cartridge Check and the GPC check met the QC criteria; therefore, the results are acceptable

**3. CALIBRATION.**

Initial and continuing calibration of VOA, SVOA and pest/PCB standards were evaluated for the Target Compounds List (TCLs) and outliers were recorded on the outlier forms included as a part of this narrative.

**4. METHOD BLANK.**

VBLK33 is the low level VOA method blank. VBLK33 reported Methylene Chloride a common laboratory contaminant, Carbon Disulfide and 1 TIC; therefore, the presence of Methylene Chloride in any of the samples associated with VBLK33 should be qualified as non-detected (U) when the concentration is less than

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
Date: August 28, 1995

**NARRATIVE**

LABORATORY: RECRA CASE: 23856
SITE: Janson LF SDG: EAFL0

(<) ten (10) times the blank results. The presence of Carbon Disulfide or the TIC in any of the samples associated with VBLK33 should be qualified as non-detected (U) when the concentration is less than (<) five (5) times the blank results. The VOA method blank summary (FORM IV VOA) lists the samples associated with each blank.

SBLK1 is the low level SVOA method blank. SBLK1 reported Benzo(a)Pyrene, Indeno(1,2,3-cd)Pyrene, Benzo(g,h,i)Perylene and 4 TICs therefore, the presence of the compounds or TICs mentioned above in any of the samples associated with SBLK1 should be qualified as non-detected (U) when the concentration is less than (<) five (5) times the blank results. Please refer to the SVOA method blank summary (FORM IV SV) for a list of samples associated with each blank.

PBLK1 is the low level pesticide blank and was free of any TCLs or TICs. The pesticide method blank summary (FORM IV PEST) lists the samples associated with each blank.

**5. SYSTEM MONITORING COMPOUND (SMC) AND SURROGATE RECOVERY.**

The surrogate recoveries (System Monitoring Compounds) for the VOA fraction were all within the required QC limits; therefore, the results are acceptable.

The surrogate recoveries for the SVOA fraction were within the required QC limits; therefore, the results are acceptable.

The surrogate recoveries for the pesticide fraction were within the required QC limits; therefore, the results are acceptable.

**6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE.**

Sample EAFL0 was used as the low level spike for all fractions of the samples.

For the VOA fraction the MS and MSD % recoveries and RPDs were all within the QC limits; therefore, the results are acceptable.

For the SVOA fraction sample EAFL0 reported MS and MSD % recoveries for 4-Nitrophenol above the QC limits; therefore, positive results for 4-Nitrophenol in the unspiked sample should

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
Date: August 28, 1995

**NARRATIVE**

LABORATORY: RECRA CASE: 23856
SITE: Janson LF SDG: EAFL0

be qualified estimated (J) and non detects need no qualification. Also, the MSD % recovery for 2,4-Dinitrotoluene was above the QC limits but less than 100%; therefore, no qualification is needed.

For the pesticide fraction the MS and MSD % recoveries and RPDs were all within the QC limits; therefore, the results are acceptable.

**7. FIELD BLANK AND FIELD DUPLICATE.**

Sample EAFL2 was identified as a field duplicate of EAFL1.

For the VOA fraction both samples are free of any TCLs or TICs.

For the SVOA fraction EAFL2 reported 9 TCLs and 7 TICs, sample EAFL1 reported 5 TCLs and 6 TICs.

For the pesticide fraction EAFL2 reported 1 TCL and sample EAFL1 reported 1 TCL.

**8. INTERNAL STANDARDS.**

In the VOA fraction the area counts and retention times for the Internal Standards were within the required QC limits; therefore, the results are acceptable.

In the SVOA fraction the area counts and retention times for the Internal Standards were within the required QC limits; therefore, the results are acceptable.

**9. COMPOUND IDENTIFICATION.**

Target compounds and TICs were correctly identified by "best fit" library search method.

**10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS.**

VOA, SVOA and pest/PCB Target Compounds (TCLs) and Tentatively Identified Compounds (TICs) were properly quantitated; therefore, the results are acceptable.

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
Date: August 28, 1995

**NARRATIVE**

| | | | |
|---|---|---|---|
| LABORATORY: | RECRA | CASE: | 23856 |
| SITE: | Janson LF | SDG: | EAFL0 |

**11. SYSTEM PERFORMANCE.**

GC/MS baseline indicated acceptable performance. The GC baseline for the pesticide analysis was acceptable.

**12. ADDITIONAL INFORMATION.**

NONE

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
Date: August 28, 1995

# CALIBRATION OUTLIERS
## VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 23856
COLUMN: DB624
HEATED PURGE (Y/N): Y

LABORATORY: Recra
SITE NAME: Jansen LF

7/24/95 1152

| Instrument# 70055 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | ~~8/9/95 1305~~ | | | 8/9/95 1305 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Chloromethane | 0.01 | | | | | | | | | | | | | | | |
| Bromomethane | 0.10 | | | | | | | | | | | | | | | |
| Vinyl chloride | 0.10 | | | | | | | | | | | | | | | |
| Chloroethane | 0.01 | | | | | | | | | | | | | | | |
| Methylene chloride | 0.01 | 2.054 | 32.2 | J | 1.514 | 26.3 | J | | | | | | | | | |
| Acetone | 0.01 | 0.423 | 73.6 | | | | | | | | | | | | | |
| Carbon disulfide | 0.01 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 0.10 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | | | | | |
| Chloroform | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 0.10 | | | | | | | | | | | | | | | |
| 2-Butanone | 0.01 | 0.068 | 34.3 | J | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Carbon tetrachloride | 0.10 | | | | | | | | | | | | | | | |
| Bromodichloromethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | 0.20 | | | | | | | | | | | | | | | |
| Trichloroethene | 0.30 | | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.10 | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Benzene | 0.50 | | | | | | | | | | | | | | | |
| tran-1,3-Dichloropropene | 0.10 | | | | | | | | | | | | | | | |
| Bromoform | 0.10 | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 0.01 | | | | | | | | | | | | | | | |
| 2-Hexanone | 0.01 | | | | | | | | | | | | | | | |
| Tetrachloroethene | 0.20 | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.50 | | | | | | | | | | | | | | | |
| Toluene | 0.40 | | | | | | | | | | | | | | | |
| Chlorobenzene | 0.50 | | | | | | | | | | | | | | | |
| Ethylbenzene | 0.10 | | | | | | | | | | | | | | | |
| Styrene | 0.30 | | | | | | | | | | | | | | | |
| Xylene (total) | 0.30 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | | | | | |
| Bromofluorobenzene | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | | | | | |

Samples affected:

VBLK 3.3
EAFLO-3
EAFLOMS & MSD

Reviewer's Init/Date: JBC 8-28-95

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

* = These flags should be applied to the analytes on the sample data sheets.
\# = Minimum Relative Response Factor

ESAT-5-055.4 1/95

# CALIBRATION OUTLIER
## SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 23856
COLUMN:

LABORATORY: Recra
SITE NAME: Janson LF

| Instrument# 700202 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 7/27/95 1221 | | | 8/1/95 1824 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Phenol | 0.80 | | | | | | | | | | | | | | | |
| bis(2-chloroethyl) Ether | 0.70 | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 0.70 | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 0.70 | | | | | | | | | | | | | | | |
| 2,2'-Oxybis(1-chl-propane) | 0.01 | | | | | | | | | | | | | | | |
| 4-Methylphenol | 0.60 | | | | | | | | | | | | | | | |
| N-nitroso-di-n-propylamine | 0.50 | | | | | | | | | | | | | | | |
| Hexachloroethane | 0.30 | | | | | | | | | | | | | | | |
| Nitrobenzene | 0.20 | | | | | | | | | | | | | | | |
| Isophorone | 0.40 | | | | | | | | | | | | | | | |
| 2-Nitrophenol | 0.10 | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 0.20 | | | | | | | | | | | | | | | |
| bis-(2-chloroethoxyl)methane | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.20 | | | | | | | | | | | | | | | |
| Naphthalene | 0.70 | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 0.01 | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 0.01 | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 0.40 | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.01 | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 0.80 | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Dimethyl phthlate | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthylene | 1.30 | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |
| 3-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthene | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 0.01 | 0.124 | | | 0.075 | 39.5 | + | | | | | | | | | |
| 4-Nitrophenol | 0.01 | | | | | | | | | | | | | | | |
| Dibenzofuran | 0.80 | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |

Affected samples:

SBLK1
EAFL0-3
EAFOMS+MSD

Reviewer's Init/Date: JAC 8-28-95

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

* = These flags should be applied to the analytes on the sample data sheets.
# = Minimum Relative Response Factor

# CALIBRATION OUTLIER
## SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 23856
COLUMN:

LABORATORY: Recra
SITE NAME: Jackson LF

| Instrument# 700202 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 7/27/95 1221 | | | 8/9/95 1824 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Diethylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenylether | 0.40 | | | | | | | | | | | | | | | |
| Fluorene | 0.90 | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 0.01 | 0.247 | | | 0.141 | 43.4 | J | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 0.01 | | | | | | | | | | | | | | | |
| N-nitrosodiphenylamine | 0.01 | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 0.10 | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.10 | | | | | | | | | | | | | | | |
| Pentachlorophenol | 0.05 | | | | | | | | | | | | | | | |
| Phenanthrene | 0.70 | | | | | | | | | | | | | | | |
| Anthracene | 0.70 | | | | | | | | | | | | | | | |
| Carbazole | | | | | | | | | | | | | | | | |
| Di-n-butylphthalate | 0.01 | | | | | | | | | | | | | | | |
| Fluoranthene | 0.60 | | | | | | | | | | | | | | | |
| Pyrene | 0.60 | | | | | | | | | | | | | | | |
| Butylbenzylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 3,3'-Dichlorobenzidine | 0.01 | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 0.80 | | | | | | | | | | | | | | | |
| Chrysene | 0.70 | | | | | | | | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | 0.01 | 1.406 | | | 1.015 | 27.8 | J | | | | | | | | | |
| Di-n-octyl phthalate | 0.01 | 3.093 | | | 2.263 | 25.1 | J | | | | | | | | | |
| Benzo(b)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 0.70 | 1.231 | | | 1.540 | 25.1 | J | | | | | | | | | |
| Benzo(a)pyrene | 0.70 | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.50 | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthrancene | 0.40 | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | 0.50 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Nitrobenzene-d5 | 0.01 | | | | | | | | | | | | | | | |
| 2-Fluorobiphenyl | 0.70 | | | | | | | | | | | | | | | |
| Terphenyl-d14 | 0.50 | | | | | | | | | | | | | | | |
| Phenol-d5 | 0.80 | | | | | | | | | | | | | | | |
| 2-Fluorophenol | 0.60 | | | | | | | | | | | | | | | |
| 2,4,6-Tribromophenol | 0.01 | | | | | | | | | | | | | | | |
| 2-Chlorophenol-d4 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene-d4 | | | | | | | | | | | | | | | | |

Reviewer's Init/Date: JAC 8-28-95

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

* = These flags should be applied to the analytes on the sample data sheets.
# = Minimum Relative Response Factor

ESAT-5-023.3 1/95

# CALIBRATION OUTLIER
## PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)

SE\SAS#: 23856
LUMN: DB1701

LABORATORY: Recra
SITE NAME: ~~Hugarbush~~ Janson LF
JAC

| rument# GC-4170 JAC | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| e/Time: | | 8/14/95 1604 | | | 8/15/95 0813 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| a-BHC | 0.01 | | | | | | | | | | | | | | | |
| -BHC | 0.40 | | | | | | | | | | | | | | | |
| a-BHC | 0.90 | | | | | | | | | | | | | | | |
| ma-BHC | 0.01 | | | | | | | | | | | | | | | |
| tachlor | 0.01 | | | | | | | | | | | | | | | |
| rin | 0.01 | | | | | | | | | | | | | | | |
| tachlor epoxide | 0.10 | | | | | | | | | | | | | | | |
| dosulfan I | 0.10 | | | | | | | | | | | | | | | |
| ldrin | 0.05 | | | | | | | | | | | | | | | |
| 4'-DDE | 0.70 | | | | | | | | | | | | | | | |
| drin | 0.70 | | | | | | | | | | | | | | | |
| dosulfan II | 0.01 | | | | | | | | | | | | | | | |
| 4'-DDD | 0.60 | | | | | | | | | | | | | | | |
| dosulfan sulfate | 0.60 | | | | | | | | | | | | | | | |
| 4'-DDT | 0.01 | | | | | | | | | | | | | | | |
| ethoxychlor | 0.01 | | | | | | | | | | | | | | | |
| drin ketone | 0.80 | | | | | | | | | | | | | | | |
| drin aldehyde | 0.70 | | | | | | | | | | | | | | | |
| pha chlordane | 0.01 | | | | | | | | | | | | | | | |
| mma chlordane | 0.01 | | | | | | | | | | | | | | | |
| rochlor 1016 | | | | | | | | | | | | | | | | |
| rochlor 1221 | | | | | | | | | | | | | | | | |
| rochlor 1232 | | | | | | | | | | | | | | | | |
| rochlor 1242 | | | | | | | | | | | | | | | | |
| rochlor 1248 | | | | | | | | | | | | | | | | |
| rochlor 1254 | | | | | | | | | | | | | | | | |
| rochlor 1260 | | | | | | | | | | | | | | | | |

ffected samples:

EAFLO-3
EAFLOMS + MSD
PBLK1

Reviewer's Init/Date: JAC 8-28-95

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

# CALIBRATION OUTLIER
## PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)

E\SAS#: 23856
'N: DB60Y

LABORATORY: Pecra
SITE NAME: Jackson LF

| ument# GC 42 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| /Time: | | 8/14/95 1604 | | | 8/15/95 0813 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| a-BHC | 0.01 | | | | | | | | | | | | | | | |
| -BHC | 0.40 | | | | | | | | | | | | | | | |
| -BHC | 0.90 | | | | | | | | | | | | | | | |
| ma-BHC | 0.01 | | | | | | | | | | | | | | | |
| achlor | 0.01 | | | | | | | | | | | | | | | |
| rin | 0.01 | | | | | | | | | | | | | | | |
| achlor epoxide | 0.10 | | | | | | | | | | | | | | | |
| osulfan I | 0.10 | | | | | | | | | | | | | | | |
| drin | 0.05 | | | | | | | | | | | | | | | |
| '-DDE | 0.70 | | | | | | | | | | | | | | | |
| drin | 0.70 | | | | | | | | | | | | | | | |
| dosulfan II | 0.01 | | | | | | | | | | | | | | | |
| '-DDD | 0.60 | | | | | | | | | | | | | | | |
| dosulfan sulfate | 0.60 | | | | | | | | | | | | | | | |
| '-DDT | 0.01 | | | | | | | | | | | | | | | |
| thoxychlor | 0.01 | | | | | | | | | | | | | | | |
| drin ketone | 0.80 | | | | | | | | | | | | | | | |
| drin aldehyde | 0.70 | | | | | | | | | | | | | | | |
| ha chlordane | 0.01 | | | | | | | | | | | | | | | |
| nma chlordane | 0.01 | | | | | | | | | | | | | | | |
| pchlor 1016 | | | | | | | | | | | | | | | | |
| or 1221 | | | | | | | | | | | | | | | | |
| or 1232 | | | | | | | | | | | | | | | | |
| pchlor 1242 | | | | | | | | | | | | | | | | |
| pchlor 1248 | | | | | | | | | | | | | | | | |
| pchlor 1254 | | | | | | | | | | | | | | | | |
| pchlor 1260 | | | | | | | | | | | | | | | | |

Tected samples:

PBLK1
EAFL 0-3
EAFL 0 MS & MSD

Reviewer's Init/Date: JAC 8-28-95

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

## ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound but the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X, Y, Z are reserved for laboratory defined flags.

ESAT-5-025.3

**EPA** United States Environmental Protection Agency
Contract Laboratory Program

# Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable): NA
Case No.: 23856

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify in Column A)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. Other (Specify in Column D) N. Not preserved

2. Region No.: V
Sampling Co.: E&E TAT
4. Date Shipped: 8/2/95
Carrier: Fed Ex
6. Date Received -- Received by: 8/3/95 ABCantar

Sampler (Name): CATHY SULLIVAN
Airbill Number: 5185783890
Laboratory Contract Number: 68D5-0010
Unit Price:

Sampler Signature: Cathy Sullivan
5. Ship To: RECMD
8320 Guilford Road, BLDG F
Columbia, MD 21046
ATTN: Linda Shafernich
7. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

3. Purpose*: Lead: [X] SF [ ] PRP [ ] ST [ ] FED
Early Action: [ ] CLEM [ ] PA [ ] REM [ ] RI [X] SI FSIP [ ] ESI
Long-Term Action: [ ] FS [ ] RD [ ] RA [ ] O&M [ ] NPLD

| CLP Sample Numbers (from labels) | A Matrix (from Box 1) Other: | B Conc.: Low Med High | C Sample Type: Comp./Grab | D Preservative (from Box 2) Other: | E RAS Analysis: VOA | BNA | Pest/PCB | High only ARO/TOX | F Regional Specific Tracking Number or Tag Numbers | G Station Location Identifier | H Mo/Day/Year/Time Sample Collection | I Corresponding CLP Inorganic Sample No. | J Sampler Initials | K High Phases: Solids | Water-Miscible Liq. | Water-Immis. Liq. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SLT 8/8/95 ~~FIRST~~ EAFL3 | 5 | L | G | 5 | X | X | X | | 073563-65 | S1 | 8/2/95 1130 | MEHF 79 | CS | | | |
| First EAFLØ | 5 | L | G | 5 | X | X | X | | 073567-69 | S2 | 8/2/95 1200 | MEHF 80 | CS | | | |
| EAFL1 | 5 | L | G | 5 | X | X | X | | 073571-73 | S3 | 8/2/95 1110 | MEHF 81 | CS | | | |
| Last EAFL2 | 5 | L | G | 5 | X | X | X | | 073575-77 | S4 | 8/2/95 1110 | MEHF 82 | CS | | | |

Shipment for Case Complete? (Y/N): Y
Page: 1 of 1
Sample(s) to be Used for Laboratory QC: EAFLØ
Additional Sampler Signatures:
Chain of Custody Seal Number(s): 45696-97

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Cathy Sullivan | 8/2/95 1230 | | | | |
| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) EAFLØ ~~RD T68~~ ABC 8/3/95 | Date / Time | Received by: (Signature) |
| Relinquished by: (Signature) | Date / Time | Received for Laboratory by: (Signature) ABCantar | Date / Time 8/3/95 1000 | Remarks Is custody seal intact? Y/N/none: No temp. blank, ice intact | |

A21-012-4 REV. 3/93

DISTRIBUTION: Blue - Region Copy; White - Lab Copy for Return to Region; Pink - SMO Copy; Yellow - Lab Copy for Return to SMO

EPA Form 9110-2

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

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ecology and environment
000009

CASE/SDG: 23856 EAFLO

SAMPLE INFORMATION: EAFL0
EAFL0MS
EAFL0MSD
EAFL1
EAFL2
EAFL3

RECEIVED
AUG 17 1995
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Recra Environmental, Inc. of Columbia, Maryland received the above referenced samples from the USEPA on May 25, 1995. This sample delivery group contains 4 soils for Organic analyses. These analyses were performed according to instructions in the IFB document for this contract.

VOLATILE DATA

There were no deviations from protocol observed during these analyses.

SEMIVOLATILE DATA

Samples EAFL0MS and EAFLOMSD exhibited increased recoveries of 4-Nitrophenol. EABB4MSD exhibited an increased recovery of 2,4-Dinitrotoluene. The relative percent differences between the matrix spike and matrix spike duplicate were within criteria limits for all compounds.

PESTICIDE/PCB DATA

There were no deviations from protocol observed during these analyses.

Please accept forms PEST 6H,I,and J. The Statement of Work requires these forms to be printed in chronological order with both analytical columns on one form. The software utilized is incapable of producing the forms in this fashion. The resolution has been reported in chronological order with one column per form. Please note that the laboratory is working closely with the vendor to resolve this issue.

I certify that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and the computer-readable data submitted on diskette has been authorized by the Laboratory Manager, or his designee, as verified by the following signature.

Susan L. Tinsmith
Susan L. Tinsmith
Laboratory Manager

8/16/95
Date

# APPENDIX D

# 1974 DRILLING RECORDS



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ecology and environment

testing engineers, inc.

FOUNDATION BORINGS AND REPORTS
MATERIAL TESTING AND REPORTS
SOIL SURVEYS AND ANALYSIS

RT. 52 SOUTH, P.O. BOX 548 DIXON, ILLINOIS 61021 PHONE (815) 288-1489
57 AIRPORT DRIVE ROCKFORD, ILLINOIS 61109 PHONE (815) 964-8030

August 26, 1974

James Douglas Andrews, P. E.
Environmental Engineering
300 Iles Park Place
Springfield, Illinois 62703

Re: Peoria County/Janson Landfill
Soil Borings

Gentlemen:

Transmitted herewith are three copies each of the logs of three (3) borings which we have recently completed at the subject landfill site, per your request.

Briefly, the soils at the three boring locations consisted of from 5 to 7.5 feet of very clayey glacial till overlying a brown to gray clay shale. The glacial till is probably Illinoisan in age, resembling the Liman Substage tills of Western Illinois. The shale is the Carbondale Formation of the Des Moinesian Series, Pennsylvanian System. The texture of the glacial till varies from a slightly sandy silty clay to a very fat plastic clay. The shale was found to be quite dry and hard, becoming quite brittle with depth.

In the unweathered state the glacial till probably has a coefficient of permeability on the order of 10-8 to 10-9 centimeters per second. The dry condition and tightly packed lamination of the shale indicates that it is practically impermeable. If a coefficient of permeability could be determined for the material, it would probably be less than 10-9 centimeters per second.

If you have any comments or questions on any of this material or if we may be of assistance in any other way, please do not hesitate to contact us.

Respectfully submitted,

TESTING ENGINEERS, INC.

By Robert N. Leslie
Robert N. Leslie

RNL:bb

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ROBERT HOFMANN
PRESIDENT
MANAGING DIRECTOR

ROBERT N. LESLIE
VICE PRESIDENT, TREASURER
CHIEF SOILS ENGINEER

B. W. KNETSCH
VICE PRESIDENT

M. W. HURDLE
SECRETARY

FRANK J. HIRSCH
CHIEF GEOLOGIST

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

ıb Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 . SAS No.: SDG No.: EAFL0

Level:(low/med) LOW

| | EPA SAMPLE NO. | SMC1 (TOL)# | SMC2 (BFB)# | SMC3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | EAFL0 | 101 | 101 | 105 | 0 | 0 |
| 02 | EAFL1 | 102 | 102 | 102 | 0 | 0 |
| 03 | EAFL2 | 105 | 101 | 104 | 0 | 0 |
| 04 | EAFL3 | 102 | 99 | 99 | 0 | 0 |
| 05 | EAFL0MS | 104 | 102 | 106 | 0 | 0 |
| 06 | EAFL0MSD | 102 | 102 | 105 | 0 | 0 |
| 07 | VBLK33 | 100 | 98 | 101 | 0 | 0 |

| | | QC LIMITS |
|---|---|---|
| SMC1 (TOL) | = Toluene-d8 | ( 84-138) |
| SMC2 (BFB) | = Bromofluorobenzene | ( 59-113) |
| SMC3 (DCE) | = 1,2-Dichloroethane-d4 | ( 70-121) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits



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3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix Spike - EPA Sample No.: EAFL0 Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 58.80 | 0 | 69.39 | 118 | 59-172 |
| Trichloroethene | 58.80 | 0 | 55.69 | 95 | 62-137 |
| Benzene | 58.80 | 0 | 57.34 | 98 | 66-142 |
| Toluene | 58.80 | 0 | 59.36 | 101 | 59-139 |
| Chlorobenzene | 58.80 | 0 | 56.63 | 96 | 60-133 |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 58.80 | 59.69 | 102 | 15 | 22 | 59-172 |
| Trichloroethene | 58.80 | 49.03 | 83 | 13 | 24 | 62-137 |
| Benzene | 58.80 | 52.21 | 89 | 10 | 21 | 66-142 |
| Toluene | 58.80 | 51.95 | 88 | 14 | 21 | 59-139 |
| Chlorobenzene | 58.80 | 48.61 | 83 | 15 | 21 | 60-133 |

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

* Values outside of QC limits

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

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK33

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Lab File ID: FQ680 Lab Sample ID: BM001493

Date Analyzed: 08/09/95 Time Analyzed: 1358

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) Y

Instrument ID: 70055

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | EAFL0 | B5018902 | FQ683 | 1550 |
| 02 | EAFL1 | B5018903 | FQ686 | 1721 |
| 03 | EAFL2 | B5018904 | FQ687 | 1751 |
| 04 | EAFL3 | B5018901 | FQ682 | 1520 |
| 05 | EAFL0MS | B5018902MS | FQ684 | 1621 |
| 06 | EAFL0MSD | B5018902SD | FQ685 | 1651 |

COMMENTS:



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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL0
52

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018902

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ683

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: not dec. 15 Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 12 | U |
| 74-83-9 | Bromomethane | 12 | U |
| 75-01-4 | Vinyl Chloride | 12 | U |
| 75-00-3 | Chloroethane | 12 | U |
| 75-09-2 | Methylene Chloride | 25 | BU |
| 67-64-1 | Acetone | 12 | U |
| 75-15-0 | Carbon Disulfide | 12 | U |
| 75-35-4 | 1,1-Dichloroethene | 12 | U |
| 75-34-3 | 1,1-Dichloroethane | 12 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 12 | U |
| 67-66-3 | Chloroform | 12 | U |
| 107-06-2 | 1,2-Dichloroethane | 12 | U |
| 78-93-3 | 2-Butanone | 12 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 12 | U |
| 56-23-5 | Carbon Tetrachloride | 12 | U |
| 75-27-4 | Bromodichloromethane | 12 | U |
| 78-87-5 | 1,2-Dichloropropane | 12 | U |
| 10061-02-6 | cis-1,3-Dichloropropene | 12 | U |
| 79-01-6 | Trichloroethene | 12 | U |
| 124-48-1 | Dibromochloromethane | 12 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 12 | U |
| 71-43-2 | Benzene | 12 | U |
| 10061-01-5 | trans-1,3-Dichloropropene | 12 | U |
| 75-25-2 | Bromoform | 12 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 12 | U |
| 591-78-6 | 2-Hexanone | 12 | U |
| 127-18-4 | Tetrachloroethene | 12 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 12 | U |
| 108-88-3 | Toluene | 12 | U |
| 108-90-7 | Chlorobenzene | 12 | U |
| 100-41-4 | Ethylbenzene | 12 | U |
| 100-42-5 | Styrene | 12 | U |
| 1330-20-7 | Xylene (total) | 12 | U |

jac 8-5-95

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL0

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018902

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ683

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: not dec. 15 Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN COLUMN BLEED | 15.73 | 13 | BJ✓ |

fac 8-25-95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL1
53

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018903

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ686

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: not dec. 16 Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 12 | U |
| 74-83-9 | Bromomethane | 12 | U |
| 75-01-4 | Vinyl Chloride | 12 | U |
| 75-00-3 | Chloroethane | 12 | U |
| 75-09-2 | Methylene Chloride | 25 | B U |
| 67-64-1 | Acetone | 12 | U |
| 75-15-0 | Carbon Disulfide | 12 | U |
| 75-35-4 | 1,1-Dichloroethene | 12 | U |
| 75-34-3 | 1,1-Dichloroethane | 12 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 12 | U |
| 67-66-3 | Chloroform | 12 | U |
| 107-06-2 | 1,2-Dichloroethane | 12 | U |
| 78-93-3 | 2-Butanone | 12 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 12 | U |
| 56-23-5 | Carbon Tetrachloride | 12 | U |
| 75-27-4 | Bromodichloromethane | 12 | U |
| 78-87-5 | 1,2-Dichloropropane | 12 | U |
| 10061-02-6 | cis-1,3-Dichloropropene | 12 | U |
| 79-01-6 | Trichloroethene | 12 | U |
| 124-48-1 | Dibromochloromethane | 12 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 12 | U |
| 71-43-2 | Benzene | 12 | U |
| 10061-01-5 | trans-1,3-Dichloropropene | 12 | U |
| 75-25-2 | Bromoform | 12 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 12 | U |
| 591-78-6 | 2-Hexanone | 12 | U |
| 127-18-4 | Tetrachloroethene | 12 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 12 | U |
| 108-88-3 | Toluene | 12 | U |
| 108-90-7 | Chlorobenzene | 12 | U |
| 100-41-4 | Ethylbenzene | 12 | U |
| 100-42-5 | Styrene | 12 | U |
| 1330-20-7 | Xylene (total) | 12 | U |

DOC 8-25-9

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL1

Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018903

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ686

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: not dec. 16 Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

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

Number TICs found: 1

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN COLUMN BLEED | 15.73 | 13 | BJU |

JAC 8-25-95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL2
S4

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018904

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ687

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: not dec. 16 Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 12 | U |
| 74-83-9 | Bromomethane | 12 | U |
| 75-01-4 | Vinyl Chloride | 12 | U |
| 75-00-3 | Chloroethane | 12 | U |
| 75-09-2 | Methylene Chloride | 20 | B U |
| 67-64-1 | Acetone | 12 | U |
| 75-15-0 | Carbon Disulfide | 12 | U |
| 75-35-4 | 1,1-Dichloroethene | 12 | U |
| 75-34-3 | 1,1-Dichloroethane | 12 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 12 | U |
| 67-66-3 | Chloroform | 12 | U |
| 107-06-2 | 1,2-Dichloroethane | 12 | U |
| 78-93-3 | 2-Butanone | 12 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 12 | U |
| 56-23-5 | Carbon Tetrachloride | 12 | U |
| 75-27-4 | Bromodichloromethane | 12 | U |
| 78-87-5 | 1,2-Dichloropropane | 12 | U |
| 10061-02-6 | cis-1,3-Dichloropropene | 12 | U |
| 79-01-6 | Trichloroethene | 12 | U |
| 124-48-1 | Dibromochloromethane | 12 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 12 | U |
| 71-43-2 | Benzene | 12 | U |
| 10061-01-5 | trans-1,3-Dichloropropene | 12 | U |
| 75-25-2 | Bromoform | 12 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 12 | U |
| 591-78-6 | 2-Hexanone | 12 | U |
| 127-18-4 | Tetrachloroethene | 12 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 12 | U |
| 108-88-3 | Toluene | 12 | U |
| 108-90-7 | Chlorobenzene | 12 | U |
| 100-41-4 | Ethylbenzene | 12 | U |
| 100-42-5 | Styrene | 12 | U |
| 1330-20-7 | Xylene (total) | 12 | U |

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL2

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018904

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ687

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: not dec. 16 Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN COLUMN BLEED | 15.72 | 25 | BJU |

gac 8-25-95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL3
51

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018901

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ682

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: not dec. 22 Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 13 | U |
| 74-83-9 | Bromomethane | 13 | U |
| 75-01-4 | Vinyl Chloride | 13 | U |
| 75-00-3 | Chloroethane | 13 | U |
| 75-09-2 | Methylene Chloride | 20 | B U |
| 67-64-1 | Acetone | 13 | U |
| 75-15-0 | Carbon Disulfide | 13 | U |
| 75-35-4 | 1,1-Dichloroethene | 13 | U |
| 75-34-3 | 1,1-Dichloroethane | 13 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 13 | U |
| 67-66-3 | Chloroform | 13 | U |
| 107-06-2 | 1,2-Dichloroethane | 13 | U |
| 78-93-3 | 2-Butanone | 13 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 13 | U |
| 56-23-5 | Carbon Tetrachloride | 13 | U |
| 75-27-4 | Bromodichloromethane | 13 | U |
| 78-87-5 | 1,2-Dichloropropane | 13 | U |
| 10061-02-6 | cis-1,3-Dichloropropene | 13 | U |
| 79-01-6 | Trichloroethene | 13 | U |
| 124-48-1 | Dibromochloromethane | 13 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 13 | U |
| 71-43-2 | Benzene | 13 | U |
| 10061-01-5 | trans-1,3-Dichloropropene | 13 | U |
| 75-25-2 | Bromoform | 13 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 13 | U |
| 591-78-6 | 2-Hexanone | 13 | U |
| 127-18-4 | Tetrachloroethene | 13 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 13 | U |
| 108-88-3 | Toluene | 13 | U |
| 108-90-7 | Chlorobenzene | 13 | U |
| 100-41-4 | Ethylbenzene | 13 | U |
| 100-42-5 | Styrene | 13 | U |
| 1330-20-7 | Xylene (total) | 13 | U |

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL3

Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018901

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ682

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: not dec. 22 Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN COLUMN BLEED | 15.73 | 10 | BJ |

JGC 8-25-95



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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK33

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: BM001493

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ680

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 6 | J |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 1 | J |
| 75-35-4 | 1,1-Dichloroethene | 10 | U |
| 75-34-3 | 1,1-Dichloroethane | 10 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10 | U |
| 67-66-3 | Chloroform | 10 | U |
| 107-06-2 | 1,2-Dichloroethane | 10 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10 | U |
| 56-23-5 | Carbon Tetrachloride | 10 | U |
| 75-27-4 | Bromodichloromethane | 10 | U |
| 78-87-5 | 1,2-Dichloropropane | 10 | U |
| 10061-02-6 | cis-1,3-Dichloropropene | 10 | U |
| 79-01-6 | Trichloroethene | 10 | U |
| 124-48-1 | Dibromochloromethane | 10 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10 | U |
| 71-43-2 | Benzene | 10 | U |
| 10061-01-5 | trans-1,3-Dichloropropene | 10 | U |
| 75-25-2 | Bromoform | 10 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 10 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10 | U |
| 108-88-3 | Toluene | 10 | U |
| 108-90-7 | Chlorobenzene | 10 | U |
| 100-41-4 | Ethylbenzene | 10 | U |
| 100-42-5 | Styrene | 10 | U |
| 1330-20-7 | Xylene (total) | 10 | U |

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK33

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: BM001493

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FQ680

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 08/09/95

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN COLUMN BLEED | 15.72 | 9 | J |

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Level:(low/med) LOW

| | EPA SAMPLE NO. | S1 (NBZ)# | S2 (FBP)# | S3 (TPH)# | S4 (PHL)# | S5 (2FP)# | S6 (TBP)# | S7 (2CP)# | S8 (DCB)# | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|
| 01 | EAFL0 | 72 | 72 | 107 | 70 | 66 | 110 | 73 | 66 | 0 |
| 02 | EAFL1 | 70 | 71 | 93 | 75 | 63 | 97 | 67 | 67 | 0 |
| 03 | EAFL2 | 72 | 71 | 101 | 73 | 72 | 116 | 67 | 66 | 0 |
| 04 | EAFL3 | 76 | 78 | 130 | 83 | 79 | 117 | 79 | 74 | 0 |
| 05 | EAFL0MS | 74 | 77 | 103 | 78 | 71 | 109 | 70 | 76 | 0 |
| 06 | EAFL0MSD | 71 | 76 | 103 | 76 | 79 | 115 | 70 | 71 | 0 |
| 07 | SBLK1 | 80 | 81 | 90 | 77 | 70 | 62 | 71 | 74 | 0 |

| | | QC LIMITS | |
|---|---|---|---|
| S1 (NBZ) | = Nitrobenzene-d5 | ( 23-120) | |
| S2 (FBP) | = 2-Fluorobiphenyl | ( 30-115) | |
| S3 (TPH) | = Terphenyl-d14 | ( 18-137) | |
| S4 (PHL) | = Phenol-d5 | ( 24-113) | |
| S5 (2FP) | = 2-Fluorophenol | ( 25-121) | |
| S6 (TBP) | = 2,4,6-Tribromophenol | ( 19-122) | |
| S7 (2CP) | = 2-Chlorophenol-d4 | ( 20-130) | (advisory) |
| S8 (DCB) | = 1,2-Dichlorobenzene-d4 | ( 20-130) | (advisory) |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ᵇ Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix Spike - EPA Sample No.: EAFL0 Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 2940 | 0 | 2273 | 77 | 26- 90 |
| 2-Chlorophenol | 2940 | 0 | 2155 | 73 | 25-102 |
| 1,4-Dichlorobenzene | 1960 | 0 | 1442 | 74 | 28-104 |
| N-Nitroso-di-n-prop.(1) | 1960 | 0 | 1562 | 80 | 41-126 |
| 1,2,4-Trichlorobenzene | 1960 | 0 | 1345 | 69 | 38-107 |
| 4-Chloro-3-methylphenol | 2940 | 0 | 2246 | 76 | 26-103 |
| Acenaphthene | 1960 | 0 | 1493 | 76 | 31-137 |
| 4-Nitrophenol | 2940 | 0 | 3887 | 132 * | 11-114 |
| 2,4-Dinitrotoluene | 1960 | 0 | 1740 | 89 | 28- 89 |
| Pentachlorophenol | 2940 | 0 | 1843 | 63 | 17-109 |
| Pyrene | 1960 | 35.91 | 1799 | 90 | 35-142 |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 2940 | 1921 | 65 | 17 | 35 | 26- 90 |
| 2-Chlorophenol | 2940 | 2108 | 72 | 1 | 50 | 25-102 |
| 1,4-Dichlorobenzene | 1960 | 1354 | 69 | 7 | 27 | 28-104 |
| N-Nitroso-di-n-prop.(1) | 1960 | 1436 | 73 | 9 | 38 | 41-126 |
| 1,2,4-Trichlorobenzene | 1960 | 1263 | 64 | 8 | 23 | 38-107 |
| 4-Chloro-3-methylphenol | 2940 | 2171 | 74 | 3 | 33 | 26-103 |
| Acenaphthene | 1960 | 1508 | 77 | 1 | 19 | 31-137 |
| 4-Nitrophenol | 2940 | 3875 | 132 * | 0 | 50 | 11-114 |
| 2,4-Dinitrotoluene | 1960 | 1771 | 90 * | 1 | 47 | 28- 89 |
| Pentachlorophenol | 2940 | 2006 | 68 | 8 | 47 | 17-109 |
| Pyrene | 1960 | 1853 | 93 | 3 | 36 | 35-142 |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 3 out of 22 outside limits

ᴼMMENTS:



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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK1

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Lab File ID: BO171 Lab Sample ID: B5B0031401

Instrument ID: 700202 Date Extracted: 08/04/95

Matrix: (soil/water) SOIL Date Analyzed: 08/09/95

Level:(low/med) LOW Time Analyzed: 1937

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | EAFL0 | B5018902 | BO175 | 08/09/95 |
| 02 | EAFL1 | B5018903 | BO173 | 08/09/95 |
| 03 | EAFL2 | B5018904 | BO174 | 08/09/95 |
| 04 | EAFL3 | B5018901 | BO178 | 08/10/95 |
| 05 | EAFL0MS | B5018902MS | BO176 | 08/10/95 |
| 06 | EAFL0MSD | B5018902SD | BO177 | 08/10/95 |

COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL0
S2

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018902

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO175

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 390 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 390 | U |
| 95-57-8 | 2-Chlorophenol | 390 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 390 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 390 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 390 | U |
| 95-48-7 | 2-Methylphenol | 390 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 390 | U |
| 106-44-5 | 4-Methylphenol | 390 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 390 | U |
| 67-72-1 | Hexachloroethane | 390 | U |
| 98-95-3 | Nitrobenzene | 390 | U |
| 78-59-1 | Isophorone | 390 | U |
| 88-75-5 | 2-Nitrophenol | 390 | U |
| 105-67-9 | 2,4-Dimethylphenol | 390 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 390 | U |
| 120-83-2 | 2,4-Dichlorophenol | 390 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 390 | U |
| 91-20-3 | Naphthalene | 390 | U |
| 106-47-8 | 4-Chloroaniline | 390 | U |
| 87-68-3 | Hexachlorobutadiene | 390 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 390 | U |
| 91-57-6 | 2-Methylnaphthalene | 390 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 390 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 390 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 980 | U |
| 91-58-7 | 2-Chloronaphthalene | 390 | U |
| 88-74-4 | 2-Nitroaniline | 980 | U |
| 131-11-3 | Dimethyl Phthalate | 390 | U |
| 208-96-8 | Acenaphthylene | 390 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 390 | U |
| 99-09-2 | 3-Nitroaniline | 980 | U |
| 83-32-9 | Acenaphthene | 390 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL0 S2

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018902

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO175

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 980 | U |
| 100-02-7 | 4-Nitrophenol | 980 | U |
| 132-64-9 | Dibenzofuran | 390 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 390 | U |
| 84-66-2 | Diethylphthalate | 21 | J |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 390 | U |
| 86-73-7 | Fluorene | 390 | U |
| 100-01-6 | 4-Nitroaniline | 980 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 980 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 390 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 390 | U |
| 118-74-1 | Hexachlorobenzene | 390 | U |
| 87-86-5 | Pentachlorophenol | 980 | U |
| 85-01-8 | Phenanthrene | 21 | J |
| 120-12-7 | Anthracene | 390 | U |
| 86-74-8 | Carbazole | 390 | U |
| 84-74-2 | Di-n-Butylphthalate | 49 | J |
| 206-44-0 | Fluoranthene | 36 | J |
| 129-00-0 | Pyrene | 36 | J |
| 85-68-7 | Butylbenzylphthalate | 390 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 390 | U |
| 56-55-3 | Benzo(a)Anthracene | 24 | J |
| 218-01-9 | Chrysene | 26 | J |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 42 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 390 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 31 | J |
| 207-08-9 | Benzo(k)Fluoranthene | 20 | J |
| 50-32-8 | Benzo(a)Pyrene | 390 ~~20~~ | BJ U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 390 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 390 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 390 ~~33~~ | BJ U |

gac 8-25-95

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL0

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018902

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO175

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 15 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

Number TICs found: 8

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 12.35 | 150 | J |
| 2. | UNKNOWN | 12.55 | 290 | BJ ✓ |
| 3. | UNKNOWN | 12.81 | 1300 | J |
| 4. | UNKNOWN | 14.68 | 3400 | J |
| 5. | UNKNOWN | 18.00 | 460 | BJ ✓ |
| 6. | UNKNOWN ACID | 21.61 | 190 | J |
| 7. 57103 | Hexadecanoic acid | 32.67 | 130 | JN |
| 8. | UNKNOWN | 39.80 | 160 | J |

gac 8-25-5

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL1
S3

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018903

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO173

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 16 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 390 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 390 | U |
| 95-57-8 | 2-Chlorophenol | 390 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 390 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 390 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 390 | U |
| 95-48-7 | 2-Methylphenol | 390 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 390 | U |
| 106-44-5 | 4-Methylphenol | 390 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 390 | U |
| 67-72-1 | Hexachloroethane | 390 | U |
| 98-95-3 | Nitrobenzene | 390 | U |
| 78-59-1 | Isophorone | 390 | U |
| 88-75-5 | 2-Nitrophenol | 390 | U |
| 105-67-9 | 2,4-Dimethylphenol | 390 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 390 | U |
| 120-83-2 | 2,4-Dichlorophenol | 390 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 390 | U |
| 91-20-3 | Naphthalene | 390 | U |
| 106-47-8 | 4-Chloroaniline | 390 | U |
| 87-68-3 | Hexachlorobutadiene | 390 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 390 | U |
| 91-57-6 | 2-Methylnaphthalene | 390 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 390 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 390 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 990 | U |
| 91-58-7 | 2-Chloronaphthalene | 390 | U |
| 88-74-4 | 2-Nitroaniline | 990 | U |
| 131-11-3 | Dimethyl Phthalate | 390 | U |
| 208-96-8 | Acenaphthylene | 390 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 390 | U |
| 99-09-2 | 3-Nitroaniline | 990 | U |
| 83-32-9 | Acenaphthene | 390 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL1
S3

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018903

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO173

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 16 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 990 | U |
| 100-02-7 | 4-Nitrophenol | 990 | U |
| 132-64-9 | Dibenzofuran | 390 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 390 | U |
| 84-66-2 | Diethylphthalate | 390 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 390 | U |
| 86-73-7 | Fluorene | 390 | U |
| 100-01-6 | 4-Nitroaniline | 990 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 990 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 390 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 390 | U |
| 118-74-1 | Hexachlorobenzene | 390 | U |
| 87-86-5 | Pentachlorophenol | 990 | U |
| 85-01-8 | Phenanthrene | 390 | U |
| 120-12-7 | Anthracene | 390 | U |
| 86-74-8 | Carbazole | 390 | U |
| 84-74-2 | Di-n-Butylphthalate | 33 | J |
| 206-44-0 | Fluoranthene | 21 | J |
| 129-00-0 | Pyrene | 36 | J |
| 85-68-7 | Butylbenzylphthalate | 390 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 390 | U |
| 56-55-3 | Benzo(a)Anthracene | 390 | U |
| 218-01-9 | Chrysene | 25 | J |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 26 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 390 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 390 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 390 | U |
| 50-32-8 | Benzo(a)Pyrene | 390 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 390 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 390 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 390 | U |

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL1

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018903

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO173

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 16 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

Number TICs found: 9

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 12.39 | 140 | J |
| 2. | UNKNOWN | 12.55 | 270 | BJ |
| 3. | UNKNOWN | 12.81 | 920 | J |
| 4. | UNKNOWN | 13.26 | 140 | BJ |
| 5. | UNKNOWN | 14.64 | 2600 | J |
| 6. | UNKNOWN | 18.03 | 430 | BJ |
| 7. | UNKNOWN ACID | 21.61 | 120 | J |
| 8. 57103 | Hexadecanoic acid | 32.67 | 92 | JN |
| 9. | UNKNOWN | 39.83 | 98 | J |

8-25-

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL2
S4

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018904

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO174

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 400 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 400 | U |
| 95-57-8 | 2-Chlorophenol | 400 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 400 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 400 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 400 | U |
| 95-48-7 | 2-Methylphenol | 400 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 400 | U |
| 106-44-5 | 4-Methylphenol | 400 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 400 | U |
| 67-72-1 | Hexachloroethane | 400 | U |
| 98-95-3 | Nitrobenzene | 400 | U |
| 78-59-1 | Isophorone | 400 | U |
| 88-75-5 | 2-Nitrophenol | 400 | U |
| 105-67-9 | 2,4-Dimethylphenol | 400 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 400 | U |
| 120-83-2 | 2,4-Dichlorophenol | 400 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 400 | U |
| 91-20-3 | Naphthalene | 400 | U |
| 106-47-8 | 4-Chloroaniline | 400 | U |
| 87-68-3 | Hexachlorobutadiene | 400 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 400 | U |
| 91-57-6 | 2-Methylnaphthalene | 400 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 400 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 400 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 1000 | U |
| 91-58-7 | 2-Chloronaphthalene | 400 | U |
| 88-74-4 | 2-Nitroaniline | 1000 | U |
| 131-11-3 | Dimethyl Phthalate | 400 | U |
| 208-96-8 | Acenaphthylene | 400 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 400 | U |
| 99-09-2 | 3-Nitroaniline | 1000 | U |
| 83-32-9 | Acenaphthene | 400 | U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL2
S4

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018904

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO174

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 1000 | U |
| 100-02-7 | 4-Nitrophenol | 1000 | U |
| 132-64-9 | Dibenzofuran | 400 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 400 | U |
| 84-66-2 | Diethylphthalate | 400 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 400 | U |
| 86-73-7 | Fluorene | 400 | U |
| 100-01-6 | 4-Nitroaniline | 1000 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 1000 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 400 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 400 | U |
| 118-74-1 | Hexachlorobenzene | 400 | U |
| 87-86-5 | Pentachlorophenol | 1000 | U |
| 85-01-8 | Phenanthrene | 28 | J |
| 120-12-7 | Anthracene | 400 | U |
| 86-74-8 | Carbazole | 400 | U |
| 84-74-2 | Di-n-Butylphthalate | 32 | J |
| 206-44-0 | Fluoranthene | 70 | J |
| 129-00-0 | Pyrene | 60 | J |
| 85-68-7 | Butylbenzylphthalate | 400 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 400 | U |
| 56-55-3 | Benzo(a)Anthracene | 21 | J |
| 218-01-9 | Chrysene | 36 | J |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 31 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 400 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 33 | J |
| 207-08-9 | Benzo(k)Fluoranthene | 27 | J |
| 50-32-8 | Benzo(a)Pyrene | 400 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 400 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 400 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 400 ~~21~~ | BJU |

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 OLM03.0

000206

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL2

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018904

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO174

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 10

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 12.39 | 200 | J |
| 2. | UNKNOWN | 12.55 | 470 | BJ |
| 3. | UNKNOWN | 12.84 | 740 | J |
| 4. | UNKNOWN | 13.26 | 170 | BJ |
| 5. | UNKNOWN | 13.68 | 140 | J |
| 6. | UNKNOWN | 14.71 | 5000 | J |
| 7. | UNKNOWN | 18.00 | 580 | BJ |
| 8. | UNKNOWN ACID | 21.61 | 120 | J |
| 9. 57103 | Hexadecanoic acid | 32.67 | 130 | JN |
| 10. | UNKNOWN | 39.80 | 120 | J |

JAC 8-25



recycled paper ecology and environment

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL3
S1

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018901

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO178

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/10/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 420 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 420 | U |
| 95-57-8 | 2-Chlorophenol | 420 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 420 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 420 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 420 | U |
| 95-48-7 | 2-Methylphenol | 420 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 420 | U |
| 106-44-5 | 4-Methylphenol | 420 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 420 | U |
| 67-72-1 | Hexachloroethane | 420 | U |
| 98-95-3 | Nitrobenzene | 420 | U |
| 78-59-1 | Isophorone | 420 | U |
| 88-75-5 | 2-Nitrophenol | 420 | U |
| 105-67-9 | 2,4-Dimethylphenol | 420 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 420 | U |
| 120-83-2 | 2,4-Dichlorophenol | 420 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 420 | U |
| 91-20-3 | Naphthalene | 420 | U |
| 106-47-8 | 4-Chloroaniline | 420 | U |
| 87-68-3 | Hexachlorobutadiene | 420 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 420 | U |
| 91-57-6 | 2-Methylnaphthalene | 420 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 420 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 420 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 1100 | U |
| 91-58-7 | 2-Chloronaphthalene | 420 | U |
| 88-74-4 | 2-Nitroaniline | 1100 | U |
| 131-11-3 | Dimethyl Phthalate | 420 | U |
| 208-96-8 | Acenaphthylene | 420 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 420 | U |
| 99-09-2 | 3-Nitroaniline | 1100 | U |
| 83-32-9 | Acenaphthene | 420 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL3 S1

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018901

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO178

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/10/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 1100 | U |
| 100-02-7 | 4-Nitrophenol | 1100 | U |
| 132-64-9 | Dibenzofuran | 420 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 420 | U |
| 84-66-2 | Diethylphthalate | 38 | J |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 420 | U |
| 86-73-7 | Fluorene | 420 | U |
| 100-01-6 | 4-Nitroaniline | 1100 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 1100 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 420 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 420 | U |
| 118-74-1 | Hexachlorobenzene | 420 | U |
| 87-86-5 | Pentachlorophenol | 1100 | U |
| 85-01-8 | Phenanthrene | 44 | J |
| 120-12-7 | Anthracene | 420 | U |
| 86-74-8 | Carbazole | 420 | U |
| 84-74-2 | Di-n-Butylphthalate | 420 | U |
| 206-44-0 | Fluoranthene | 31 | J |
| 129-00-0 | Pyrene | 44 | J |
| 85-68-7 | Butylbenzylphthalate | 420 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 420 | U |
| 56-55-3 | Benzo(a)Anthracene | 420 | U |
| 218-01-9 | Chrysene | 27 | J |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 42 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 420 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 33 | J |
| 207-08-9 | Benzo(k)Fluoranthene | 420 | U |
| 50-32-8 | Benzo(a)Pyrene | 420 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 420 ~~27~~ | BJU |
| 53-70-3 | Dibenz(a,h)Anthracene | 420 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 420 ~~32~~ | BJU |

OGI 8-25-95

(1) - Cannot be separated from Diphenylamine



recycled paper ecology and environment

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAFL3

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018901

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO178

Level: (low/med) LOW Date Received: 08/03/95

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/10/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

Number TICs found: 9

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 12.35 | 240 | J |
| 2. | UNKNOWN | 12.55 | 440 | BJ |
| 3. | UNKNOWN | 12.84 | 2000 | J |
| 4. | UNKNOWN | 13.64 | 120 | J |
| 5. | UNKNOWN | 14.68 | 4000 | J |
| 6. | UNKNOWN | 18.00 | 560 | BJ |
| 7. | UNKNOWN ACID | 21.61 | 160 | J |
| 8. 57103 | Hexadecanoic acid | 32.67 | 180 | JN |
| 9. | UNKNOWN | 39.80 | 230 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5B0031401

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO171

Level: (low/med) LOW Date Received:

% Moisture: decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 330 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 330 | U |
| 95-57-8 | 2-Chlorophenol | 330 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 330 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 330 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 330 | U |
| 95-48-7 | 2-Methylphenol | 330 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 330 | U |
| 106-44-5 | 4-Methylphenol | 330 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 330 | U |
| 67-72-1 | Hexachloroethane | 330 | U |
| 98-95-3 | Nitrobenzene | 330 | U |
| 78-59-1 | Isophorone | 330 | U |
| 88-75-5 | 2-Nitrophenol | 330 | U |
| 105-67-9 | 2,4-Dimethylphenol | 330 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 330 | U |
| 120-83-2 | 2,4-Dichlorophenol | 330 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 330 | U |
| 91-20-3 | Naphthalene | 330 | U |
| 106-47-8 | 4-Chloroaniline | 330 | U |
| 87-68-3 | Hexachlorobutadiene | 330 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 330 | U |
| 91-57-6 | 2-Methylnaphthalene | 330 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 330 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 330 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 830 | U |
| 91-58-7 | 2-Chloronaphthalene | 330 | U |
| 88-74-4 | 2-Nitroaniline | 830 | U |
| 131-11-3 | Dimethyl Phthalate | 330 | U |
| 208-96-8 | Acenaphthylene | 330 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 330 | U |
| 99-09-2 | 3-Nitroaniline | 830 | U |
| 83-32-9 | Acenaphthene | 330 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5B0031401

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO171

Level: (low/med) LOW Date Received:

% Moisture: decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 830 | U |
| 100-02-7 | 4-Nitrophenol | 830 | U |
| 132-64-9 | Dibenzofuran | 330 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 330 | U |
| 84-66-2 | Diethylphthalate | 330 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 330 | U |
| 86-73-7 | Fluorene | 330 | U |
| 100-01-6 | 4-Nitroaniline | 830 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 830 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 330 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 330 | U |
| 118-74-1 | Hexachlorobenzene | 330 | U |
| 87-86-5 | Pentachlorophenol | 830 | U |
| 85-01-8 | Phenanthrene | 330 | U |
| 120-12-7 | Anthracene | 330 | U |
| 86-74-8 | Carbazole | 330 | U |
| 84-74-2 | Di-n-Butylphthalate | 330 | U |
| 206-44-0 | Fluoranthene | 330 | U |
| 129-00-0 | Pyrene | 330 | U |
| 85-68-7 | Butylbenzylphthalate | 330 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 330 | U |
| 56-55-3 | Benzo(a)Anthracene | 330 | U |
| 218-01-9 | Chrysene | 330 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 330 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 330 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 330 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 330 | U |
| 50-32-8 | Benzo(a)Pyrene | 17 | J |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 22 | J |
| 53-70-3 | Dibenz(a,h)Anthracene | 330 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 24 | J |

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5B0031401

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BO171

Level: (low/med) LOW Date Received:

% Moisture: decanted: (Y/N) N Date Extracted: 08/04/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/09/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 4

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 12.58 | 120 | J |
| 2. | UNKNOWN | 13.35 | 120 | J |
| 3. | UNKNOWN | 17.29 | 75 | J |
| 4. | UNKNOWN | 18.00 | 490 | J |

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

GC Column(1): DB-1701 ID: 0.53(mm) GC Column(2): DB-608 ID: 0.53(mm)

| | EPA SAMPLE NO. | TCX 1 %REC # | TCX 2 %REC # | DCB 1 %REC # | DCB 2 %REC # | OTHER (1) | OTHER (2) | TOT OUT |
|---|---|---|---|---|---|---|---|---|
| 01 | PBLK1 | 92 | 91 | 98 | 98 | | | 0 |
| 02 | EAFL0 | 84 | 79 | 90 | 86 | | | 0 |
| 03 | EAFL1 | 83 | 78 | 90 | 80 | | | 0 |
| 04 | EAFL2 | 80 | 81 | 89 | 84 | | | 0 |
| 05 | EAFL3 | 83 | 80 | 88 | 79 | | | 0 |
| 06 | EAFL0MS | 81 | 79 | 93 | 85 | | | 0 |
| 07 | EAFL0MSD | 80 | 79 | 88 | 84 | | | 0 |

QC LIMITS

TCX = Tetrachloro-m-xylene ( 30-150)
DCB = Decachlorobiphenyl ( 30-150)

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

000448

3F

# SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix Spike - EPA Sample No.: EAFL0

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| gamma-BHC (Lindane) | 19.600 | 0 | 16.1 | 82 | 46-127 |
| Heptachlor | 19.600 | 0 | 16.5 | 84 | 35-130 |
| Aldrin | 19.600 | 0 | 17.2 | 88 | 34-132 |
| Dieldrin | 39.200 | 0.570 | 37.2 | 93 | 31-134 |
| Endrin | 39.200 | 0 | 36.5 | 93 | 42-139 |
| 4,4'-DDT | 39.200 | 0 | 35.0 | 89 | 23-134 |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| gamma-BHC (Lindane) | 19.600 | 16.1 | 82 | 0 | 50 | 46-127 |
| Heptachlor | 19.600 | 16.3 | 83 | 1 | 31 | 35-130 |
| Aldrin | 19.600 | 17.1 | 87 | 1 | 43 | 34-132 |
| Dieldrin | 39.200 | 36.7 | 92 | 1 | 38 | 31-134 |
| Endrin | 39.200 | 36.4 | 93 | 0 | 45 | 42-139 |
| 4,4'-DDT | 39.200 | 35.3 | 90 | 1 | 50 | 23-134 |

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

000449

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK1

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Lab Sample ID: B5B0031301 Lab File ID:

Matrix:(soil/water) SOIL Extraction:(SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 08/04/95

Date Analyzed (1): 08/14/95 Date Analyzed (2): 08/14/95

Time Analyzed (1): 2208 Time Analyzed (2): 2208

Instrument ID (1): GC-41 Instrument ID (2): GC-42

GC Column (1): DB-1701 ID: 0.53 (mm) GC Column (2): DB-608 ID: 0.53 (mm)

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

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|---|
| 01 | EAFL0 | B5018902 | 08/15/95 | 08/15/95 |
| 02 | EAFL1 | B5018903 | 08/15/95 | 08/15/95 |
| 03 | EAFL2 | B5018904 | 08/15/95 | 08/15/95 |
| 04 | EAFL3 | B5018901 | 08/15/95 | 08/15/95 |
| 05 | EAFL0MS | B5018902MS | 08/15/95 | 08/15/95 |
| 06 | EAFL0MSD | B5018902SD | 08/15/95 | 08/15/95 |

COMMENTS:

000450

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL0
S2

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018902

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 08/03/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/04/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/15/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.0 | U |
| 319-85-7 | beta-BHC | 2.0 | U |
| 319-86-8 | delta-BHC | 2.0 | U |
| 58-89-9 | gamma-BHC (Lindane) | 2.0 | U |
| 76-44-8 | Heptachlor | 2.0 | U |
| 309-00-2 | Aldrin | 2.0 | U |
| 1024-57-3 | Heptachlor epoxide | 2.0 | U |
| 959-98-8 | Endosulfan I | 2.0 | U |
| 60-57-1 | Dieldrin | 0.57 | JP |
| 72-55-9 | 4,4'-DDE | 3.9 | U |
| 72-20-8 | Endrin | 3.9 | U |
| 33213-65-9 | Endosulfan II | 3.9 | U |
| 72-54-8 | 4,4'-DDD | 3.9 | U |
| 1031-07-8 | Endosulfan sulfate | 3.9 | U |
| 50-29-3 | 4,4'-DDT | 3.9 | U |
| 72-43-5 | Methoxychlor | 20 | U |
| 53494-70-5 | Endrin ketone | 3.9 | U |
| 7421-93-4 | Endrin aldehyde | 3.9 | U |
| 5103-71-9 | alpha-Chlordane | 2.0 | U |
| 5103-74-2 | gamma-Chlordane | 2.0 | U |
| 8001-35-2 | Toxaphene | 200 | U |
| 12674-11-2 | Aroclor-1016 | 39 | U |
| 11104-28-2 | Aroclor-1221 | 79 | U |
| 11141-16-5 | Aroclor-1232 | 39 | U |
| 53469-21-9 | Aroclor-1242 | 39 | U |
| 12672-29-6 | Aroclor-1248 | 39 | U |
| 11097-69-1 | Aroclor-1254 | 39 | U |
| 11096-82-5 | Aroclor-1260 | 39 | U |

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL1
53

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018903

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 16 decanted: (Y/N) N Date Received: 08/03/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/04/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/15/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.0 | U |
| 319-85-7 | beta-BHC | 2.0 | U |
| 319-86-8 | delta-BHC | 2.0 | U |
| 58-89-9 | gamma-BHC (Lindane) | 2.0 | U |
| 76-44-8 | Heptachlor | 2.0 | U |
| 309-00-2 | Aldrin | 2.0 | U |
| 1024-57-3 | Heptachlor epoxide | 2.0 | U |
| 959-98-8 | Endosulfan I | 2.0 | U |
| 60-57-1 | Dieldrin | 0.89 | JP |
| 72-55-9 | 4,4'-DDE | 3.9 | U |
| 72-20-8 | Endrin | 3.9 | U |
| 33213-65-9 | Endosulfan II | 3.9 | U |
| 72-54-8 | 4,4'-DDD | 3.9 | U |
| 1031-07-8 | Endosulfan sulfate | 3.9 | U |
| 50-29-3 | 4,4'-DDT | 3.9 | U |
| 72-43-5 | Methoxychlor | 20 | U |
| 53494-70-5 | Endrin ketone | 3.9 | U |
| 7421-93-4 | Endrin aldehyde | 3.9 | U |
| 5103-71-9 | alpha-Chlordane | 2.0 | U |
| 5103-74-2 | gamma-Chlordane | 2.0 | U |
| 8001-35-2 | Toxaphene | 200 | U |
| 12674-11-2 | Aroclor-1016 | 39 | U |
| 11104-28-2 | Aroclor-1221 | 80 | U |
| 11141-16-5 | Aroclor-1232 | 39 | U |
| 53469-21-9 | Aroclor-1242 | 39 | U |
| 12672-29-6 | Aroclor-1248 | 39 | U |
| 11097-69-1 | Aroclor-1254 | 39 | U |
| 11096-82-5 | Aroclor-1260 | 39 | U |

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL2
S4

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018904

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 17 decanted: (Y/N) N Date Received: 08/03/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/04/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/15/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6 Sulfur Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.0 | U |
| 319-85-7 | beta-BHC | 2.0 | U |
| 319-86-8 | delta-BHC | 2.0 | U |
| 58-89-9 | gamma-BHC (Lindane) | 2.0 | U |
| 76-44-8 | Heptachlor | 2.0 | U |
| 309-00-2 | Aldrin | 2.0 | U |
| 1024-57-3 | Heptachlor epoxide | 2.0 | U |
| 959-98-8 | Endosulfan I | 2.0 | U |
| 60-57-1 | Dieldrin | 0.61 | JP |
| 72-55-9 | 4,4'-DDE | 4.0 | U |
| 72-20-8 | Endrin | 4.0 | U |
| 33213-65-9 | Endosulfan II | 4.0 | U |
| 72-54-8 | 4,4'-DDD | 4.0 | U |
| 1031-07-8 | Endosulfan sulfate | 4.0 | U |
| 50-29-3 | 4,4'-DDT | 4.0 | U |
| 72-43-5 | Methoxychlor | 20 | U |
| 53494-70-5 | Endrin ketone | 4.0 | U |
| 7421-93-4 | Endrin aldehyde | 4.0 | U |
| 5103-71-9 | alpha-Chlordane | 2.0 | U |
| 5103-74-2 | gamma-Chlordane | 2.0 | U |
| 8001-35-2 | Toxaphene | 200 | U |
| 12674-11-2 | Aroclor-1016 | 40 | U |
| 11104-28-2 | Aroclor-1221 | 81 | U |
| 11141-16-5 | Aroclor-1232 | 40 | U |
| 53469-21-9 | Aroclor-1242 | 40 | U |
| 12672-29-6 | Aroclor-1248 | 40 | U |
| 11097-69-1 | Aroclor-1254 | 40 | U |
| 11096-82-5 | Aroclor-1260 | 40 | U |

000464

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAFL3
S1

Lab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5018901

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 22 decanted: (Y/N) N Date Received: 08/03/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/04/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/15/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9 Sulfur Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.2 | U |
| 319-85-7 | beta-BHC | 2.2 | U |
| 319-86-8 | delta-BHC | 2.2 | U |
| 58-89-9 | gamma-BHC (Lindane) | 2.2 | U |
| 76-44-8 | Heptachlor | 0.65 | JP |
| 309-00-2 | Aldrin | 2.2 | U |
| 1024-57-3 | Heptachlor epoxide | 0.40 | JP |
| 959-98-8 | Endosulfan I | 2.2 | U |
| 60-57-1 | Dieldrin | 0.86 | JP |
| 72-55-9 | 4,4'-DDE | 1.4 | J |
| 72-20-8 | Endrin | 4.2 | U |
| 33213-65-9 | Endosulfan II | 4.2 | U |
| 72-54-8 | 4,4'-DDD | 4.2 | U |
| 1031-07-8 | Endosulfan sulfate | 4.2 | U |
| 50-29-3 | 4,4'-DDT | 3.7 | J |
| 72-43-5 | Methoxychlor | 22 | U |
| 53494-70-5 | Endrin ketone | 4.2 | U |
| 7421-93-4 | Endrin aldehyde | 4.2 | U |
| 5103-71-9 | alpha-Chlordane | 0.49 | JP |
| 5103-74-2 | gamma-Chlordane | 0.72 | J |
| 8001-35-2 | Toxaphene | 220 | U |
| 12674-11-2 | Aroclor-1016 | 42 | U |
| 11104-28-2 | Aroclor-1221 | 86 | U |
| 11141-16-5 | Aroclor-1232 | 42 | U |
| 53469-21-9 | Aroclor-1242 | 42 | U |
| 12672-29-6 | Aroclor-1248 | 42 | U |
| 11097-69-1 | Aroclor-1254 | 42 | U |
| 11096-82-5 | Aroclor-1260 | 42 | U |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

ab Name: RECRA ENVIRON Contract: 68D50010

Lab Code: RECMD Case No.: 23856 SAS No.: SDG No.: EAFL0

Matrix: (soil/water) SOIL Lab Sample ID: B5B0031301

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

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

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/04/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/14/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 1.7 | U |
| 319-85-7 | beta-BHC | 1.7 | U |
| 319-86-8 | delta-BHC | 1.7 | U |
| 58-89-9 | gamma-BHC (Lindane) | 1.7 | U |
| 76-44-8 | Heptachlor | 1.7 | U |
| 309-00-2 | Aldrin | 1.7 | U |
| 1024-57-3 | Heptachlor epoxide | 1.7 | U |
| 959-98-8 | Endosulfan I | 1.7 | U |
| 60-57-1 | Dieldrin | 3.3 | U |
| 72-55-9 | 4,4'-DDE | 3.3 | U |
| 72-20-8 | Endrin | 3.3 | U |
| 33213-65-9 | Endosulfan II | 3.3 | U |
| 72-54-8 | 4,4'-DDD | 3.3 | U |
| 1031-07-8 | Endosulfan sulfate | 3.3 | U |
| 50-29-3 | 4,4'-DDT | 3.3 | U |
| 72-43-5 | Methoxychlor | 17 | U |
| 53494-70-5 | Endrin ketone | 3.3 | U |
| 7421-93-4 | Endrin aldehyde | 3.3 | U |
| 5103-71-9 | alpha-Chlordane | 1.7 | U |
| 5103-74-2 | gamma-Chlordane | 1.7 | U |
| 8001-35-2 | Toxaphene | 170 | U |
| 12674-11-2 | Aroclor-1016 | 33 | U |
| 11104-28-2 | Aroclor-1221 | 67 | U |
| 11141-16-5 | Aroclor-1232 | 33 | U |
| 53469-21-9 | Aroclor-1242 | 33 | U |
| 12672-29-6 | Aroclor-1248 | 33 | U |
| 11097-69-1 | Aroclor-1254 | 33 | U |
| 11096-82-5 | Aroclor-1260 | 33 | U |

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION V**

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: ILD981100423

Case No: 23856 Site Name Location: Janson Landfill

Contractor or EPA Lab: RECMD Data User: E & E

No. of Samples: 4 Date Sampled or Data Received: 8-17-95

Have Chain-of-Custody records been received? Yes ✓ No ____
Have traffic reports or packing lists been received? Yes ✓ No ____
If no, are traffic report or packing list numbers written on the chain of-custody record? Yes ____ No ____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____

_____ _____ _____ _____

Are basic data forms in? Yes ✓ No ____
No of samples claimed: 4 No. of samples received: 4

Received by: A. C. Harvey Date: 8-17-95

Received by LSSS: A. C. Harvey Date: 8-21-95

Review started: 8-25-95 Reviewer Signature: Jeffrey A Clark

Total time spent on review: 8.0 Date review completed: 8-28-95

Copied by: [illegible] Date: [illegible]

Mailed to user by: _____ Date: _____

**DATA USER:**
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if O
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if O
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if O
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if O

**PROBLEMS:** Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files. Date: _____

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TEI-2

TESTING ENGINEERS, INC.
ROUTE 52 SOUTH
DIXON, ILLINOIS 61021

# LOG OF BORING NO. B1

PROJECT PEORIA COUNTY/JANSON LANDFILL JOB NO. 857

OWNER CHARLES JANSON ORDER NO.

ARCHITECT-ENGINEER JAMES DOUGLAS ANDREWS, P. E.

LOCATION NW 1/4, SEC. 13, T. 8 N., R. 7E., 4th P.M.,
PEORIA COUNTY, ILLINOIS

DATUM

| ELEV. | SOIL DESCRIPTION | DEPTH | SAMPLE NO. | SAMPLE TYPE | DIST. | REC. | N | γ | $Q_u$ | w% |
|---|---|---|---|---|---|---|---|---|---|---|
| | Medium dark brown SANDY CLAY LOAM | 0.0 | | | | | | | | |
| | | 3.0 | | | | | | | | |
| | Stiff greenish gray-brown SILTY CLAY LOAM | 5 | 1 | SS | X | X | 8 | | | |
| | | 7.0 | | | | | | | | |
| | Hard dark gray CLAY | 10 | 2 | SS | X | X | 23 | | | |
| | | 13.0 | | | | | | | | |
| | Light gray calcareous SHALE | 15 | 3 | SS | X | X | 15/6" 60/1" | | | |
| | | 20.7 | 4 | SS | X | X | 14/6" 60/2" | | | |
| | END OF BORING | | | | | | | | | |

Drilled By RJW Checked RNL
Inspector D. Beck
Boring Started 8/13/74
Boring Completed 8/13/74

WATER LEVELS
While Drilling NONE
On Completion NONE
After Hours

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TEI-2

TESTING ENGINEERS, INC.
ROUTE 52 SOUTH
DIXON, ILLINOIS 61021

# LOG OF BORING NO. B2

PROJECT PEORIA COUNTY/JANSON LANDFILL JOB NO. 857

OWNER CHARLES JANSON ORDER NO.

ARCHITECT-ENGINEER JAMES DOUGLAS ANDREWS, P. E.

LOCATION NW 1/4, SEC. 13, T. 8 N., R. 7E., 4th P.M.,
PEORIA COUNTY, ILLINOIS

DATUM

| ELEV. | SOIL DESCRIPTION | DEPTH | SAMPLE NO. | SAMPLE TYPE | DIST. | REC. | N | γ | $Q_u$ | w% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.0 | | | | | | | | |
| | Hard gray SILTY CLAY LOAM | | | | | | | | | |
| | | 5.5 | 1 | SS | X | X | 32 | | | |
| | Hard gray weathered SHALEY CLAY | | | | | | | | | |
| | | 11.0 | 2 | SS | X | | 44/12" 60/3" | | | |
| | Gray SHALE | | | | | | | | | |
| | | 15 | 3 | SS | X | X | 9/6" 60/3" | | | |
| | | 18.7 | 4 | SS | X | X | 21/6" 60/2" | | | |
| | END OF BORING | | | | | | | | | |

Drilled By RJW Checked RNL
Inspector D. Beck
Boring Started 8/13/74
Boring Completed 8/13/74

WATER LEVELS
While Drilling NONE
On Completion NONE

TEI-2

TESTING ENGINEERS, INC.
ROUTE 52 SOUTH
DIXON, ILLINOIS 61021

# LOG OF BORING NO. B3

PROJECT PEORIA COUNTY/JANSON LANDFILL JOB NO. 857

OWNER CHARLES JANSON ORDER NO.

ARCHITECT-ENGINEER JAMES DOUGLAS ANDREWS, P. E.

LOCATION NW 1/4, SEC. 13, T. 8 N., R. 7E., 4th P.M.,
PEORIA COUNTY, ILLINOIS

DATUM

| ELEV. | SOIL DESCRIPTION | DEPTH | SAMPLE NO. | SAMPLE TYPE | DIST. | REC. | N | γ | $Q_u$ | w% |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dark brown SANDY CLAY LOAM | 0.0 | | | | | | | | |
| | Medium brown SILTY CLAY LOAM | 2.0 | | | | | | | | |
| | Stiff dark gray CLAY | 5.0 | 1 | SS | X | X | 6 | | | |
| | | 7.5 | | | | | | | | |
| | | 10 | 2 | SS | X | X | 26 | | | |
| | Light brown and gray very calcareous SHALE changing to olive gray SHALE- Very dry, brittle | 15 | 3 | SS | X | X | 29/12" 60/3" | | | |
| | | 20 | 4 | SS | X | X | 10/6" 60/4" | | | |
| | | 25 | 5 | SS | X | X | 5/6" 60/5" | | | |
| | END OF BORING | 25.9 | | | | | | | | |

Drilled By RJW Checked RNL
Inspector D. Beck
Boring Started 8/13/74
Boring Completed 8/13/74

WATER LEVELS
While Drilling NONE
On Completion NONE

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testing engineers, inc.

FOUNDATION BORINGS AND REPORTS
TERIAL TESTING AND REPORTS
IL SURVEYS AND ANALYSIS

RT. 52 SOUTH, P.O. BOX 548 DIXON, ILLINOIS 61021 PHONE (815) 288-1489
57 AIRPORT DRIVE ROCKFORD, ILLINOIS 61109 PHONE (815) 964-8030

October 4, 1974

James Douglas Andrews, P.E.
Environmental Engineering
300 Iles Park Place
Springfield, Illinois 62703

Re: Peoria County/Janson Landfill
Laboratory Tests

Gentlemen:

We are transmitting herewith the laboratory grain-size curves for samples 1 and 2, boring B1 made at the subject site August 13, 1974.

We visually classified the glacial till as a silty clay loam. These tests indicate that it should be classified as a gravelly clay on the U. S. D. A. system.

If you have any comments or questions or if we may be of further service, please contact us.

Respectfully submitted,

TESTING ENGINEERS, INC.

By Robert N. Leslie
Robert N. Leslie

RNL:bb

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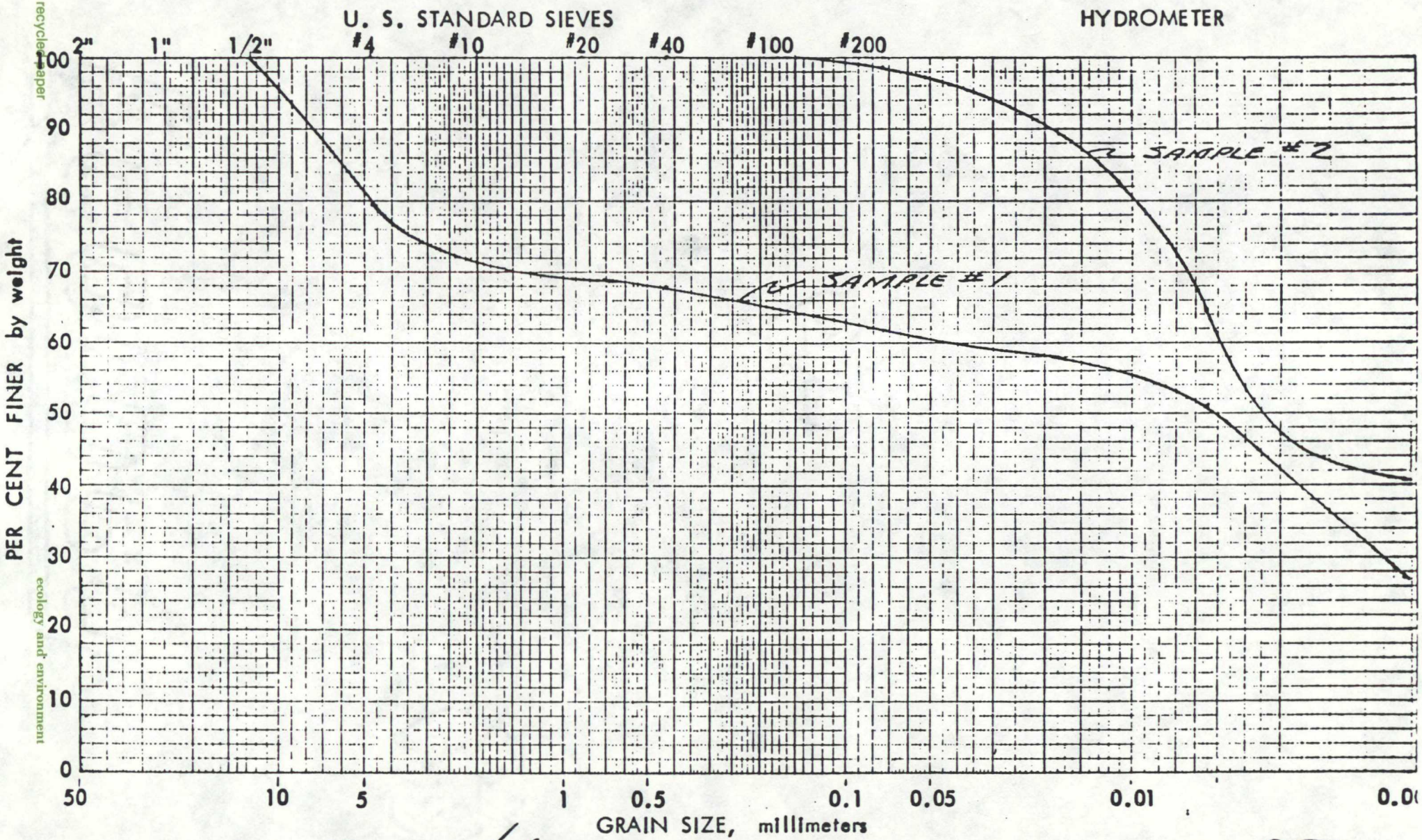
ROBERT HOFMANN PRESIDENT
ROBERT N. LESLIE VICE PRESIDENT, TREASURER
S. W. KNETSCH VICE PRESIDENT
M. W. MURDLE SECRETARY
FRANK J. HIRSCH CHIEF GEOLOGIST

# TESTING ENGINEERS, INC.
## DIXON, ILLINOIS

## GRAIN SIZE DISTRIBUTION




PROJECT PEORIA COUNTY / JANSON LANDFILL JOB NO. 857

| Boring | Sample | Depth | Classification | Nat. w% | LL | PL | PI | δ max | $w_{cpt}$ |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 6.5' | GRAVELLY CLAY * | | 46 | 22 | 24 | | |

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# APPENDIX E

# AREA WELL LOGS



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TOWN Peoria TOWNSHIP Peoria R. 8E

COMPANY Forest Eberr NO. T. SEC.

FARM Peoria Water Works Co. NO. 2 8N 17 SW

DATE DRILLED March 1944

AUTHORITY Forest Eberr

COLLECTOR ELEVATION 473.8-Co.

| No. Co. # 769 Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|
| Lot 4 & 5, block 25, Frink & Sanger's Add. extended. | | | | |
| Enclosed blueprint shows exact location | | | | |
| Sandy loam | 5 | | 5 | |
| Sand | 10 | | 15 | |
| Gravel | 20 | | 35 | |
| Gravel, some sand | 5 | | 40 | |
| Gravel, shale | 2 | | 42 | |
| Gravel, some sand | 18 | | 60 | |
| Clay | 1 | | 61 | |
| Gravel, some large rocks | 38 | | 99 | |
| Gravel, sand | 3 | | 102 | |
| Coarse sand | 10 | | 112 | |
| Coarse gravel | 10½ | | 122½ | |
| Shale | | | 122½ | |
| Finished in gravel at 112' to 122½' | | | | |
| 6" casing | | | | |
| Static level from surface 61' | | | | |
| Screen--5" pipe; drilled holes | | | | |
| Construction: Temporary steel casing: | | | | |
| 58" to 20' 46" to 95' | | | | |
| 54" to 60' 42" to 99' | | | | |
| 50" to 75' 38" to 118.5 | | | | |
| Set concrete screen and casing - gravel-packed - pulled temporary casing. | | | | |

COUNTY Peoria 17-8N-8E

SAMPLE SET NO. 11, 007

(84107—20M—6-45) 2

ILLINOIS GEOLOGICAL SURVEY, URBANA

TOWN TOWNSHIP R. 8E

COMPANY Kelly Well Company NO. T. SEC.

FARM Peoria Water Works NO. 12 8N 17?

DATE DRILLED 1941

AUTHORITY Kelly Well Company

COLLECTOR ELEVATION

| No. Co. # 771 Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|
| Clay | | | 0-34 | |
| Sand, clay | | | 36 | |
| Clay | | | 58 | |
| Packed sandy clay | | | 81 | |
| Packed gravel | | | 88 | |
| Gravel-stones | | | 90 | |
| Gravel | | | 107 | |
| Sand | | | 109½ | |
| Sand, gravel | | | 118 | |
| Sand- | | | 122 | |
| Gravel stones | | | 124½ | |
| Top of casing 1'6" above groundsurface. | | | | |
| Plain casing 85'10" | | | | |
| Screen section 39' | | | | |
| Plug 8" | | | | |
| Gravel filter | | | | |
| Effective diam. 38" | | | | |
| Static level 62'9" | | | | |
| 1810 gp.m. | | | | |
| Drawdown 14'6" | | | | |

COUNTY Peoria 17?-8N-8E

SAMPLE SET NO.

(84107—20M—6-45) 2

ILLINOIS GEOLOGICAL SURVEY, URBANA

(2840—50M—12-64)

ILLINOIS GEOLOGICAL SURVEY, URBANA

| | Thickness | Top | Bottom |
|---|---|---|---|

June 6, 1950

ATE DEPARTMENT OF MINES AND MINERALS:
ease issue an authorization to drill a water well on the pr
rty of PEORIA WATER WORKS COMPANY, whose address is 109 So.
nroe Street Peoria, Illinois; said well to be located as
llows; ___ feet (East-West) and ___ feet (North-South) of
Corner of the SW ¼ of Section 17 Township 8 (Nor
uth) Range 8 (East-West), Peoria County. Or other
se located as follows: 250 ft. South West of the Sout
East Corner of Greenlawn Ave and S. Washington St City of
ction ___ Peoria Township, County of Peoria, State of Il
ois. Said well is to be drilled with an Oscar Peel to a
pth of approximately 125 feet, with an anticipated yield
[illegible] gals. per minute; drilling will begin on or after rece
authorization.

PEORIA WATER WORKS COMPANY
BY Kelly O'Connor — 109 S. Monroe — Peor
Signature of Driller — Address — Cit
Driller Supt. Peoria Water Wks. Co.

Permit only

| | |
|---|---|
| OMPANY | Peoria Water Works Co. |
| ARM | Peoria Water Works Co. NO. |
| ATE DRILLED | COUNTY NO. |
| UTHORITY | |
| LEVATION | |
| OCATION | |
| OUNTY | PEORIA |

17-8N-8E

TOWN TOWNSHIP R. 8E
COMPANY Kelly Well Company NO. T. SEC.
FARM Peoria Water Works NO. 13 8N 17?
DATE DRILLED 1942
AUTHORITY Kelly Well Company
COLLECTOR ELEVATION

| No. | C. # 772 Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Top soil | | | 0-6 | |
| | Hard clay | | | 45 | |
| | Sand, gravel | | | 47 | |
| | Clay | | | 84 | |
| | Sand, gravel, stones — Stones egg size up to 8" and 10" diam. predominating, the interstices in the stones were filled with sand, and gravel, fine sand, predominating. | | | 110 | 2 |
| | Top of casing 1'6" above ground surface. | | | | |
| | Plain casing 85'6" | | | | |
| | Screen 24' | | | | |
| | Plug 8" | | | | |
| | Gravel filter, clay backfill | | | | |
| | Effective diam. 38" | | | | |
| | Static level 53'5" | | | | |
| | 1050 g.p.m. | | | | |
| | Drawdown 20'6" | | | | |

COUNTY Peoria
SAMPLE SET NO. 17?-8N-[illegible]
(84107—20M—6-45)

ILLINOIS GEOLOGICAL [illegible], URBANA

Town Peoria Township Peoria Map No.
Company M. Ebert Co. No. R. 8E
Farm Armour & Co. No. T. Sec.
Authority Summary Sample Study 17
Elevation 456.6 level 8 N
Collector
Confidential Date Drilled 1941

| No. | Co. # 758 Strata Studied by K.O.Emery, Nov. 1941 | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Water Survey Observation Well | | | | |
| | PLEISTOCENE SYSTEM | | | | |
| | No samples | 11 | | 11 | |
| | Sand, clayey, pebbly, brown | 11 | | 22 | |
| | Gravel, clean, to ½" | 18 | | 40 | |
| | Gravel, to 1½", sandy | 18 | | 58 | |
| | Sand, coarse, pebbly | 1 | | 59 | |
| | No sample | 3 | | 62 | |
| | PENNSYLVANIAN SYSTEM | | | | |
| | Shale, dark blue gray | | | at 62 | |

COUNTY Peoria INDEX NO.
DRILL RECORD 17-8N-8E
Summary Sample Set #6745
(12880—20M) ILLINOIS GEOLOGICAL SURVEY, URBANA (12-41)

TOWN TOWNSHIP
COMPANY Kelly Well Company R. 8E
FARM Peoria Water Works NO. 11 T. 8N SEC. 17?
DATE DRILLED 1941
AUTHORITY Kelly Well Company
COLLECTOR ELEVATION

| No. | Co. # 770 Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Clay | | | 0-30 | |
| | Sandy clay | | | 65 | |
| | Packed fine sand, gravel | | | 97 | |
| | Muddy sand, gray | | | 100 | |
| | Sand, gravel, stones, clay balls | | | 140 | |
| | Top of casing 5" below ground surface. | | | | |
| | Plain casing 99'11" | | | | |
| | Screen section 39' | | | | |
| | Plug 8" | | | | |
| | (33 screen - 3 spac.) | | | | |
| | Gravel filter | | | | |
| | Effective diam. 38" | | | | |
| | Static level 76' | | | | |
| | 1700 g.p.m. | | | | |
| | Drawdown 14' 4" | | | | |

COUNTY Peoria 17?-8N-8E
SAMPLE SET NO.
(84107—20M—6-45) ILLINOIS GEOLOGICAL SURVEY, URBANA

ecology and environment

STATE OFFICE BUILDING, SPRINGFIELD,
/WATER SURVEYS SECTION. BE SURE TO

# GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 9-23-69

10. Property owner A. Miller & Co. Well No. 1
Well Address Ft. of West Clarke, Peoria, Ill.
Driller Chris Ebert Co. License No. 92-499
11. Permit No. NF 06419 Date 6/17/69
12. Water from Gravel (Formation) 13. County Peoria
at depth 69 to 73 ft. Sec. 19
14. Screen: Diam. 5 3/4 in. Twp. 8N
Length: 4 ft. Slot 50 Rge. 8E
Elev.

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|---|---|---|---|
| 6 | Standard Black | 4 | 69 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
SW/4 NW SW
(permit)

16. Size Hole below casing: - - in.
17. Static level 29 ft. below casing top which is one ft. above ground level. Pumping level 29'3" ft. when pumping at 75 gpm for 1 hours.

| 18. FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM. |
|---|---|---|
| ill | 2 | 2 |
| lack sandy dirt | 6 | 8 |
| oft brown mud | 4 | 12 |
| andy brown mud | 13 | 25 |
| ed. dry brown sand | 3 | 28 |
| ed. brown sand | 24 | 52 |
| ine brown sand-some pebbles & rocks | 4 | 56 |
| rown gravel-fine to coarse-a little fine (sand) | 6 | 62 |
| ine to coarse sand & fine gravel | 4 | 66 |
| ine to coarse gravel-trace of fine sand | 7 | 73 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Robert H. Ebert DATE Nov. 7, 1969

COUNTY No. 1477

PEORIA 19-8N-8E

Town Peoria Township Peoria Map No.
Company W. S. Hofstetter No. R. 8E
Farm Parker, J. W. No. T. Sec.
Authority W. S. Hofstetter, Peoria 8 19
Elevation 460± TM N
Collector
Confidential Date Drilled 1941
3500 S. Adams St.

| No. | G.# 797 Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Cinders | 5 | | 5 | |
| | Sand and clay, yellow | 15 | | 20 | |
| | Gravel | 10 | | 30 | |
| | Sand, dry | 60 | | 90 | |
| | Sand, little water | 10 | | 100 | |
| | Sand, little coarser | 5 | | 105 | |
| | Sand, finer | 5 | | 110 | |
| | Sand, coarser | 20 | | 130 | |
| | Sand, coarse | 1 | | 131 | |
| | Shale | | at | 131 | |

Static level 61'1" from top of casing
Drawdown 10" at 12 g.p.m.
4" well
Screen 6', .016 slot, Johnson silicon brass.

SS# 6660

NO ENVELOPE

COUNTY Peoria
DRILL RECORD
INDEX NO. 19-8N-8E

(12880—20M) ILLINOIS GEOLOGICAL SURVEY, URBANA (12

Town BBartonville Township Peoria Map No. 17
Company M. Ebert Co. No. R. 8E
Farm Keystone Steel & Wire Co No. T. 8N Sec. 30
Authority
Elevation
Collector K. O. Emery
Confidential Date Drilled 1938

| No. | Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Well #1 SW SW SW Co # 809 | | | | |
| | Elev. 445 T. M. | | | | |
| | 46' W. of Spray Pond Pump House outside wall and 4' S. of outside of N. wall | | | | |
| | Fill and mud | 9 | | 9 | |
| | Sand and gravel, very dirty | 39 | | 48 | |
| | Fine sand, very dirty | 14 | | 62 | |
| | Mud | 26 | | 88 | |
| | Sand, very dirty | 2 | | 90 | |
| | Cemented sand and gravel | 3 | | 93 | |
| | Shale | | | | |
| | 4" well | | | | |
| | Well #2 SW SW SW Co # 810 | | | | |
| | Elev. 445 T. M. | | | | |
| | 44' N. of center line of N. building columns of O.H. building and 12' E. of center line of W. building columns. | | | | |
| | 4" well | | | | |
| | Fill | 5 | | 5 | |
| | Earth, black | 6 | | 11 | |
| | Clay, yellow | 7 | | 18 | |
| | Mud, blue | 18 | | 36 | |
| | Gravel and sand | 8 | | 44 | |
| | Sand | 2 | | 46 | |
| | Sand and gravel | 16 | | 62 | |
| | Mud | 15 | | 77 | |
| | Sand, dirty | 6 | | 83 | |
| | Blue mud and some gravel | 11 | | 94 | |
| | Gravel | 6 | | 100 | |

COUNTY Peoria INDEX NO. 1730
DRILL RECORD 30-8N-8E
(12880—20M) ILLINOIS GEOLOGICAL SURVEY, URBANA (12-41)

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves Patented. FORM 408993

SHEET 3 T. 8N R. 8E S. 30
COMPANY M. Ebert Co. HOLE NO.
FARM Keystone Steel & Wire Co. HOLE NO.

| No. | Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Sand, muddy, coarse | 10 | | 86 | |
| | Sand, fine, muddy | 9 | | 95 | |
| | Sand, clean, fine | 22 | | 117 | |
| | Shale | | | | |
| | Well #8 NW NW NW NW Co # 813 | | | | |
| | NW cor. of 40 acres, 40' E. of group of three sycamore trees | | | | |
| | Screen used | | | | |
| | Elev. 445 T. M. | | | | |
| | Dirt | 34 | | 34 | |
| | Sand and gravel | 63 | | 97 | |

COUNTY Peoria INDEX NO. 1730
DRILL RECORD 30-8N-8E
(3733—20M—7-41) ILLINOIS GEOLOGICAL SURVEY, URBANA

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1906. 386790

TOWN Peoria TOWNSHIP Peoria Map No. 17
COMPANY Johnson, Bloomington, No.
FARM Peoria Sanitary Dist. No. R. 8 E
AUTHORITY J.R.Langley, Eng. T. 8 N Sec. 20
ELEVATION 455 S.W.S.
COLLECTOR DATE DRILLED
CONFIDENTIAL
950' N. 750' E of SW Cor. NW4 Sec 20

| No. | C.# 803 STRATA | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Clay | 15 | | 15 | |
| | Sand and gravel | 85 | | 100 | |
| | Clay | 100 | | 200 | |

Present well drilled 102 feet deep 15' away from above test well. Cased 95 ft. with 5-ft. strainer in bottom. 32' static

"For log of well, as shown by blueprint made at time well was drilled, see file 20-B-25", (State Water Survey)

Information from report by M.A.Churchill, State Water Survey, Aug. 30, 1933.

County Peoria Index No. 1720
T.—DRILL RECORD
46244—10M—11-35 Illinois Geological Survey, Urbana 29-8N-8E

Town Bartonville Township Peoria Map No.
Company John Bolliger & Sons No. R. 8E
Farm T. P. & W. R. R. No. 1 T. 8 N Sec. 29
Authority Summary Sample Study
Elevation 443 level
Collector
Confidential Date Drilled 1941
300' N. line, 600' W. line of NE NW

| No. | C.# 808 Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Studied by K.O. Emery, Feb. 1942 | | | | |
| | PLEISTOCENE SYSTEM | | | | |
| | "Clay, brown" | 20 | | 20 | |
| | "Clay, yellow" | 15 | | 35 | |
| | "Clay, gray, soft" | 8 | | 43 | |
| | Sand, calcareous, very coarse, brown, angular | 5 | | 48 | |
| | "Sand; gravel" | 5 | | 53 | |
| | "Sand; clay; gray" | 7 | | 60 | |
| | Sand, coarse; gravel, fine, calcareous, silty, brown, grains dirty, angular | 4 | | 64 | |
| | "Clay, gray" | 9 | | 73 | |
| | Sand, coarse; gravel, fine, calcareous, brown, grains dirty, angular | 5 | | 78 | |
| | Sand, medium, calcareous, pebbly, gray, well rounded, very slightly dirty near top, rest clean | 14 | | 92 | |
| | "Clay" | | 6 | 92 | 6 |
| | Sand, calcareous, medium, gray, clean, sub-rounded, mostly quartz, not polished | 3 | 6 | 96 | |
| | Gravel, calcareous, fine to ½", rounded, iron stained | 1 | | 97 | |
| | PENNSYLVANIAN SYSTEM | | | | |
| | "Shale" | | | at 97 | |

COUNTY Peoria INDEX NO.
DRILL RECORD 29-8N-8E
Summary Sample Set #7085
(12880—20M) ILLINOIS GEOLOGICAL SURVEY, URBANA

TOWN Peoria TOWNSHIP Peoria R. 8E
COMPANY Layne-Western Company NO. T. SEC.
FARM Commercial Solvents Corp. TH 37 19
DATE DRILLED 1945 8
AUTHORITY Summary Sample Study N
COLLECTOR ELEVATION 455 top. map
860' N and 1290' E of center

| No. | Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Co. # 792 | | | | |
| | Studied by C. L. Horberg, May 1946 | | | | |
| | PLEISTOCENE SYSTEM | | | | |
| | Wisconsin stage | | | | |
| | Soil, silty, leached, oxidized, dark brown | 5 | | 5 | |
| | Sand, silty, calcareous, oxidized, brown | 5 | | 10 | |
| | Gravel, granular, sandy, silty, calcareous, buff, sand, of mixed types | 10 | | 20 | |
| | Sand, fine to coarse, silty, some granular gravel, greyish-brown | 5 | | 25 | |
| | Same, gravelly | 5 | | 30 | |
| | Gravel, up to 1/4" and sand, slightly silty | 15 | | 45 | |
| | ?Pre-Kansan stage - Sankoty sand | | | | |
| | Sand, coarse, and granular gravel, largely rounded polished grains but with some more locally derived | 5 | | 50 | |
| | Same, silty | 5 | | 55 | |
| | Gravel, up to 1/4", very silty, sandy | 5 | | 60 | |
| | Same, clean | 5 | | 65 | |
| | Pre-Kansan stage - Sankoty sand | | | | |
| | Sand, medium to fine, numerous pink grains, largely angular, well-sorted, probably Sankoty | 10 | | 75 | |
| | Gravel, up to 3/4", with sand as above, clean | 5 | | 80 | |

COUNTY Peoria 19-8N-8E
SAMPLE SET NO. 14,728
(84107—20M—6-45) 2
ILLINOIS GEOLOGICAL SURVEY, URBA

SHEET 2 T. 8N R. 8E S. 19
COMPANY Layne-Western Company NO.
FARM Commerical Solvents Copr. TH NO. 37

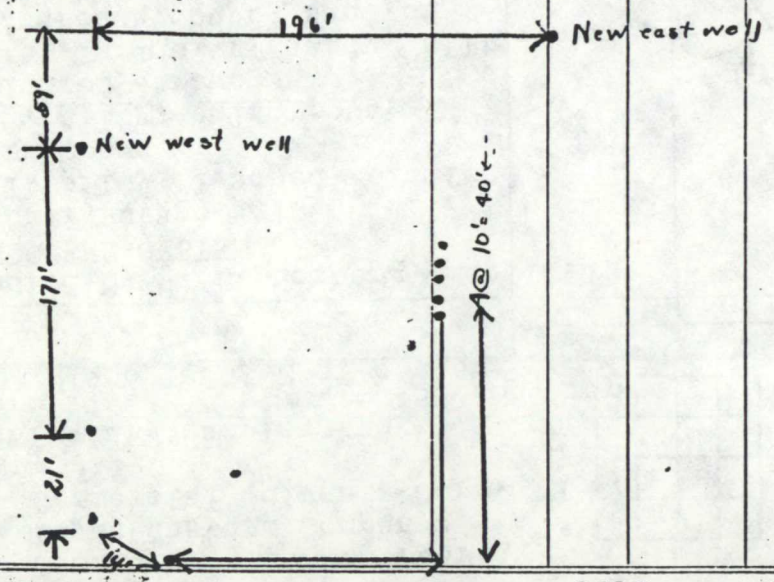
| No. | Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Gravel, up to 1" | 15 | | 95 | |
| | Gravel, up to 1-1/2" | 5 | | 100 | |
| | Gravel, up to 1" | 15 | | 115 | |
| | PENNSYLVANIAN SYSTEM | | | | |
| | Shale, calcareous, carbonaceous, grey | 5 | | 120 | |

COUNTY Peoria 19-8N-8E
SAMPLE SET NO. 14,728
(84107—20M—6-45) 2
ILLINOIS GEOLOGICAL SURVEY, URBA

John C. Moore Corporation, Rochester, N.Y. Binder and holes in leaves, each Patented 1906. 386790

TOWN Peoria TOWNSHIP Peoria Map No. 17
COMPANY No. R 8 E
FARM Pa., Md. & Ind. Alcohol Co. T. 8 N Sec. 19
AUTHORITY
ELEVATION
COLLECTOR Workman DATE DRILLED
CONFIDENTIAL

| No. | C. # 798 STRATA | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Two groups of four and five wells each and 2 new wells. Group of 4 wells located approximately 650' south, 50' east of center Sec. 19. No. 1 - 8" diameter, 62'4" deep; No. 2- 10" diam., 56'11" deep; No. 3 - 8" diam., 52'9" deep.; No. 4 - 10" diam., 56'5" deep. Group of 5 wells are all 10" diam.; from north to south they are 69, 64, 62'6", 61 and 63.7 ft. deep. New west well is 30" diam., 90' deep, 60' casing, and 18' screen. Static level 18' Drilled 1933 by C.I. Strand, Aurora Pump Co. 21 ft. screen. | | | | |




County PEORIA Index No. 1719
T.—DRILL RECORD 19-8N-8E
46244—10M—11-35 Illinois Geological Survey, Urbana

Town Peoria Township Peoria Map No.
Company Layne-Western Co. No. R. 8E
Farm Commercial Solvents Corp. T. 8 N Sec. 19
Authority Summary Sample Study
Elevation 455 T. M. 445 CLH.
Collector
Confidential Date Drilled 1941

| No. | C. # 785 Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Studied by K.O.Emery, Oct. 1941 | | | | |
| | Samples studied in field | | | | |
| | PLEISTOCENE SYSTEM | | | | |
| | Sand, pebbly, brown | 15 | | 15 | |
| | Sand, medium, light gray to yellow | 5 | | 20 | |
| | Gravel and sand | 40 | | 60 | |
| | Gravel, fine | 5 | | 65 | |
| | Sand, very coarse | 5 | | 70 | |
| | Sand, coarse; gravel | 40 | | 110 | |
| | Sand, pink, polished | 5 | | 115 | |
| | Driller's log: | | | | |
| | Sand, pebbly brown | 15 | | 15 | |
| | Sand, medium, light gray to yellow | 5 | | 20 | |
| | Gravel and sand to 2" | 5 | | 25 | |
| | Sand, yellow and pebbles | 5 | | 30 | |
| | Sand, granular and gravel, fine | 5 | | 35 | |
| | Sand, coarse and gravel to 2½" | 15 | | 50 | |
| | Sand and some pebbles | 10 | | 60 | |
| | Gravel, fine | 5 | | 65 | |
| | Sand, very coarse | 5 | | 70 | |
| | Sand, coarse and gravel | 5 | | 75 | |
| | Gravel, sandy, clean | 5 | | 80 | |
| | Gravel, fine | 5 | | 85 | |
| | Gravel, sandy | 5 | | 90 | |
| | Sand, coarse and gravel to 2" | 5 | | 95 | |
| | Gravel, sandy, medium | 10 | | 105 | |
| | Gravel, sandy, medium; pink sand | 5 | | 110 | |
| | Sand, pink, "San Koty type" | 5 | | 115 | |

COUNTY Peoria INDEX NO. 19-8N-8E
DRILL RECORD
(12880—30M) ILLINOIS GEOLOGICAL SURVEY, URBANA

Town Peoria Township Peoria Map No.
Company M. Ebert Co. No. R. 8E
Farm Peoria Packing Co. No. T. Sec.
Authority Summary Sample Study 17
Elevation 470 T. M. 8
Collector N
Confidential Date Drilled 1941

| No. | Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | C. # 767 Studied by K.O.Emery, Oct. 1947 | | | | |
| | Union Stock Yards | | | | |
| | PLEISTOCENE SYSTEM | | | | |
| | Clay, sandy, silty, buff, (fill ?) | 5 | | 5 | |
| | Silt, clayey, brown, soil fragments | 5 | | 10 | |
| | Gravel to 3/4", clean, angular to round; includes shale boulder at 53' | 60 | | 70 | |
| | PENNSYLVANIAN SYSTEM | | | | |
| | Shale, dark gray | 5 | | 75 | |

COUNTY Peoria INDEX NO.
DRILL RECORD 17-8N-8E
Summary Sample Set #6534
(12880—20M) ILLINOIS GEOLOGICAL SURVEY, URBANA (12-41)

Town Peoria Township Peoria Map No.
Company W. S. Hofstetter No. R. 8E
Farm Shehan Packing Co. No. T. Sec.
Authority W. S. Hofstetter, Peoria, Ill. 17
Elevation 495 T. M. 8
Collector N
Confidential Date Drilled 1941

| No. | Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | C. # 773 | | | | |
| | Part of Lot 12 2301 S. Washington St. | | | | |
| | Cinders | 5 | | 5 | |
| | Clay, yellow | 15 | | 20 | |
| | Gravel and clay | 5 | | 25 | |
| | Gravel | 25 | | 50 | |
| | Clay, yellow | 3 | 6 | 53 | 6 |
| | Gravel | 4 | 6 | 58 | |
| | Clay, blue (no sample obtained) | 1 | | 59 | |
| | Sand | 4 | 6 | 63 | 6 |
| | Clay, yellow | 9 | 6 | 73 | |
| | Sand | 20 | | 93 | |
| | Sand, coarser | 3 | 6 | 96 | 6 |
| | Sand, finer | 1 | 6 | 98 | |
| | Sand | 4 | | 102 | |
| | Shale | | | | |
| | Static level 65' Drawdown 10" at 20 g.p.m. 6' Johnson screen, .025 slot, 6" diameter | | | | |

COUNTY Peoria INDEX NO.
DRILL RECORD 17-8N-8E
(12880—20M) ILLINOIS GEOLOGICAL SURVEY, URBANA (12-41)

ecology and environment

Town Peoria Township Peoria Map No.
Company W. S. Hofstetter No. R. 8E
Farm Madison Park No. T. Sec. 7
Authority Summary Sample Study
Elevation 464 level 8 N
Collector
Confidential Date Drilled 1941
1200' S. line, 120' W. line

| No. | Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | C.# 728 Studied by K.O.Emery, Nov. 1941 | | | | |
| | Water Survey Observation Well | | | | |
| | PLEISTOCENE SYSTEM | | | | |
| | Clay, dark brown, grading to light brown | 15 | | 15 | |
| | Sand, very clayey, brown | 15 | | 30 | |
| | Sand, coarse, pebbly, gray to brown | 5 | | 35 | |
| | Sand, coarse, brown | 12 | | 47 | |
| | Sand, fine to medium, brown | 20 | | 67 | |
| | Sand, medium, brown to pink, some polished | 10 | | 77 | |
| | Sand, coarse, gray to brown | 14 | | 91 | |
| | Sand, medium to coarse, pink | 5 | | 96 | |
| | Sand, fine to medium, brown | 5 | | 101 | |
| | Sand, pink | 5 | | 106 | |
| | Sand, brown | 4 | | 110 | |
| | No sample | 1 | | 111 | |
| | PENNSYLVANIAN SYSTEM | | | | |
| | "Shale" | | at 111 | | |

COUNTY Peoria INDEX NO.
DRILL RECORD 7-8N-8E
(12880—20M) Summary Sample Set #6748 (12-41)
ILLINOIS GEOLOGICAL SURVEY, URBANA

QUESTED AND MAIL ORIGINAL TO STATE
UMER HEALTH PROTECTION, 535 WEST
1. DO NOT DETACH GEOLOGICAL/WATER
PROPER WELL LOCATION

# GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 12-28-76

10. Property owner Interstate Brands Corp Well No.
Address 1511 W. Lincoln Avenue, Peoria, Illinois
Driller J. A. Knierim License No. 102-27
11. Permit No. 54581 Date
12. Water from Gravel (Formation) 13. County Peoria
at depth 143 to 144 ft. Sec. 8
14. Screen: Diam. 4 in. Twp. 8N
Length: 10 ft. Slot 16/25 Rge. 8E
Elev.

SHOW LOCATION IN SECTION PLAT
SE SW SW
(permit)

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|---|---|---|---|
| 8" | Steel | 0 | 124 |
| | | | |
| | | | |

16. Size Hole below casing: in.
17. Static level 85 ft. below casing top which is ft. above ground level. Pumping level ft. when pumping at 180 gpm for hours. Sub. pump set at 95' TOP

| 18. FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---|---|---|
| Top Soil | 0 | 15 |
| Muddy Sand | 15 | 45 |
| Sand Gravel | 45 | 80 |
| Gravel (Pea) | 80 | 130 |
| Sand | 130 | 143 |
| Shale | 143 | 144 |
| | | |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED DATE

PEORIA 8-8N-8E

TOWN Peoria TOWNSHIP Peoria MAP No. 17
COMPANY M. Ebert Co. No. R 8E
FARM Brooks, Arthur N. No. T. 8 N SEC. 6 NE
AUTHORITY M. Ebert Co.
ELEVATION
COLLECTOR
CONFIDENTIAL DATE DRILLED 1937

| No. C. # 726 STRATA | THICKNESS FEET | THICKNESS IN. | DEPTH FEET | DEPTH IN. |
|---|---|---|---|---|
| Loam, brown | 4 | | 4 | |
| Clay, yellow | 23 | | 27 | |
| Sand, fine | 80 | | 107 | |
| Gravel | 7 | | 114 | |
| 4" casing to 110' | | | | |
| Water level 86' from surface | | | | |
| Capacity tested to 10 g.p.m. | | | | |
| 3' of 4" 20-slot screen | | | | |

COUNTY Peoria DRILL RECORD INDEX No. 1706 6-8N-8E -85

ILLINOIS GEOLOGICAL SURVEY, URBANA

(73801 10M 1-69)

ATE OFFICE BUILDING, SPRINGFIELD,
WATER SURVEYS SECTION. BE SURE TO

# GEOLOGICAL AND WATER SURVEYS WELL RECORD

Clark Oil Completed 5-18-70

10. Property owner Refining Corporation Well No. I
Address 2908 Farmington Rd --- Peoria
Driller W. S. Hofstetter License No. 92-8
11. Permit No. NF 08019 Date April 10, 1970
12. Water from Sand Formation at depth 10 to 75 ft.
13. County Peoria
Sec. 6 Twp. 8N Rge. 8E Elev. 488±
14. Screen: Diam. 4 in. Length: 2 ft. Slot .030

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|---|---|---|---|
| 4 | 11 Lb per Ft. | 0 | 73 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
150'SL, 100' WL of SE SW NW (Permit)

16. Size Hole below casing: _____ in.
17. Static level 43'6" below casing top which is 8" ft. above ground level. Pumping level 49'5" ft. when pumping at 25 gpm for 5 hours.

| 18. FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---|---|---|
| Clay (yellow) | 10 | 10 |
| Sand (brown-fine) | 25 | 35 |
| Sand (coarse-brown) | 40 | 75 |
| Not on Shale | | |

COUNTY No. 1518

* Commercial - Owens Service Station

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED R.W. Hofstetter DATE _____

R.W. Hofstetter
2108 N. Sheridan Rd. Ph682-1092
Peoria, Illinois 61604

S.S. # 61337 (0 - 75')

PEORIA 6-8N-8E

QUESTED AND MAIL ORIGINAL TO STATE
UMER HEALTH PROTECTION, 535 WEST
I. DO NOT DETACH GEOLOGICAL/WATER
PROPER LOCATI

# GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 10-21-78

10. Property owner JAMES BRIDGES Well No. 1
Address R.R. PEORIA
Driller ROBERT SCHERE License No. 092-03425
11. Permit No. 27788 Date 9-21-78
12. Water from GRAVEL (Formation) 13. County PEORIA
at depth 22 to 24 ft. Sec. 35
14. Screen: Diam. ____ in. Twp. 8N
Length: ____ ft. Slot ____ Rge. 7E
Elev. ____

SHOW LOCATION IN SECTION PLAT
SE NW SW
(permit)

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|---|---|---|---|
| 24" | Concrete | 12 | 38 |
| | | | |
| | | | |

16. Size Hole below casing: ____ in.
17. Static level 11 ft. below casing top which is 1 ft. above ground level. Pumping level ____ ft. when pumping at ____ gpm for ____ hours. Sub. pump set at 36'

| 18. FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---|---|---|
| YELLOW CLAY | 18 | 18 |
| WOOD DRIFT | 2 | 20 |
| BLUE CLAY | 2 | 22 |
| GRAVEL | 2 | 24 |
| BLUE CLAY | 14 | 38 |
| | | |
| | | |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Robert W Schef DATE 11-10-78

COUNTY No. 22249

PEORIA 35-8N-7E

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1908. 370534

TOWN Bartonville TOWNSHIP Map No. 16
COMPANY No. R. 7 E.
FARM Peoria State Hospital No. 1 Test Sec. 36
AUTHORITY 8 N.
ELEVATION 430
COLLECTOR DATE DRILLED 1931
CONFIDENTIAL
Sample Set #1137

Studied by Blair, 1931

| No. | COUNTY No. 234 STRATA | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| 1 | Shale, silty, sandy, yellow, brown | 5 | | 5 | |
| 2 | Same, black spots and micaceous flakes | 5 | | 10 | |
| 3 | Coal; shale, brown, smooth, plastic, caved | | 4 | 10 | 4 |
| 4 | Sandstone, argillaceous, yellow brown, very fine | 2 | 8 | 13 | |
| 5 | Shale, silty, sandy, grayish buff | 6 | 4 | 19 | 4 |
| 6 | Shale, silty, sandy, gray, plastic | 2 | 8 | 22 | |
| 7 | Sandstone, yellowish brown, fine, micaceous, with limonite cement; and limestone, argillaceous, gray, fine, compact; and dolomite, gray, very finely crystalline | 1 | 6 | 23 | 6 |
| 8 | Coal | 5 | 3 | 28 | 9 |
| 9 | Shale, calcareous, gray, smooth, firm (fireclay) | 3 | | 31 | 9 |
| 10 | Shale, calcareous, silty, sandy, gray, firm, pyritic; few fragments dolomite, gray, very fine and coal caved from 23'6" | 7 | 6 | 39 | 3 |
| 11 | Shale, calcareous, silty, sandy, dark gray, pyritic, firm; few fragments lime- | | | | |

County PEORIA Index No. 16 36
T.—DRILL RECORD Sample Set #1137
54095—5M—3-31) 7 Illinois Geological Survey, Urbana. 36- 7E

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1908. 36736

SHEET 2 T. 8 N. R. 7 E. S. 36

COMPANY HOLE NO.

FARM Peoria State Hospital HOLE NO. Test Well 1

| No. | STRATA | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | stone, argillaceous, micaceous, gray, and coal caved | 1 | 3 | 40 | 6 |
| 12 | Shale, calcareous, silty, finely sandy, gray, pyritic, weak | 3 | 1 | 43 | 7 |
| 13 | Shale, light greenish gray, flaky, weak; piece of coal caved; few fragments limestone, gray, fine caved (?) | 9 | | 52 | 7 |
| 14 | Sandstone, argillaceous, silty, gray, fine, compact; and shale, silty, finely sandy; and limestone, argillaceous, silty, gray, cherty, pyritic | 5 | | 57 | 7 |
| 15 | Mostly sandstone, as above, micaceous, carbonaceous; a little limestone, silty, gray, caved, and a few fragments shale; gray, weak | 5 | | 62 | 7 |
| 16 | Same | 2 | | 64 | 7 |

No copy

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ecology and environment

County PEORIA

T.—DRILL RECORD Sample set #1137

(43937—(M—9-30)

Index No. 1635

36-8N-7E

STATE OFFICE BUILDING, SPRINGFIELD,
/WATER SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Meister Bros. Heating
10 Property owner & Air Conditioning Well No. 1
Address 913 S. Laramie**Peoria, Illinois
Driller W. S. Hofstetter License No. 92-8
11. Permit No. 14475 Date Sept.15,1971
12. Water from _____ Formation 13. County Peoria
at depth ____ to ____ ft. Sec. 13
14. Screen: Diam. ____ in. Twp. 8N
Length: ____ ft. Slot _____ Rge. 7E
Elev. ____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
200'NL,200'EL of NW NW (Permit)

16. Size Hole below casing: ____ in.
17. Static level ____ ft. below casing top which is ____ ft. above ground level. Pumping level ____ ft. when pumping at ____ gpm for ____ hours.

| 18. FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---|---|---|
| Clay (yellow) | 10 | 10 |
| Clay (blue) | 5 | 15 |
| Shale (gray) | 15 | 30 |
| Shale (dark gray) | 15 | 45 |
| Shale (gray) | 25 | 70 |
| Shale (black) | 4 | 74 |
| NO WATER | | |
| | | |
| | | |
| * Commercial operation | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED R. W. Hofstetter DATE

R. W. Hofstetter
2108 N. Sheridan Rd.
Peoria, Ilinois

COUNTY No. 1654

S.S. #61336
(0 - 74')

PEORIA

13-8N-7E

Town Peoria Township Limestone Map No. 16
Company W. S. Hofstetter No. R. 7E
Farm Menke, F. T. No. T. Sec.
Authority W. S. Hofstetter, Peoria. 8 14
Elevation 680 TM CAH N
Collector
Confidential Date Drilled April 1940
250' S. line, 350' W. line of NE

| No. | Strata | Thickness Feet | Thickness In. | Depth Feet | Depth In. |
|---|---|---|---|---|---|
| | Part of Lot 2 in Swords & Evans Subd. | | | | |
| | Yellow clay | 17 | | 17 | |
| | Sandstone | 7 | | 24 | |
| | Black shale | 11 | | 35 | |
| | Light shale | 5 | | 40 | |
| | 4" diameter | | | | |
| | Static level 24'2" | | | | |
| | 7½ g.p.m. 10' drawdown | | | | |

NO ENVELOPE

COUNTY Peoria INDEX NO. 1614
DRILL RECORD

12187—20M) ILLINOIS GEOLOGICAL SURVEY, URBANA 14-8 (10-4

# APPENDIX F

# REFERENCE DOCUMENTS



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ecology and environment

ECOLOGY AND ENVIRONMENT INC. TELECON MEMO

| | |
|---|---|
| Date: Sept. 8 1995 | With: James Jones Phone: 309-693-5460 |
| Time: 1130 | Of: IEPA |
| By: Donovan Robin | E & E Project #: ZT3051 |
| cc: file | Site Name: Janson Landfill |
| | File Location: telecon |

I asked Mr. Jones several questions about present conditions and past occurrences at the Janson landfill. Mr. Jones has inspected the site several times beginning in March 94. The landfill never received an operating permit, the landfill closed in the early 80's, prior to the time IEPA began requiring formal closure plans. Closure of construction landfills prior to 1985 generally consisted of a soil cover, final grading and vegetation. The site owner reported that only construction debris and some general, municipal waste has been disposed on site. Recent inspections, beginning in March 94, have resulted in violations related to open dumping and littering on the property. These violations have not yet been corrected to his knowledge. He has not observed leachate seeps, or fires at the site and the landfill cover has not been excavated or opened, no wells are on site. The landfill has not been cut by the Kickapoo Creek as ND #1 had been.

Donovan Robin

recycled paper ecology and environment

| ECOLOGY AND ENVIRONMENT INC. | TELECON MEMO |
|---|---|
| Date: August 9, 1995<br>Time: 1130 | With: Ken Newman Phone: 309-693-5460<br>Of: IEPA |
| By: Donovan Robin<br>cc: File | E & E Project #: 273051<br>Site Name: ND#1 / Janson L.F.<br>File Location: Telecon |

Mr. Newman informed me that both the Illinois River and Kickapoo Creek are used for recreational fishing in the area of Peoria. In fact, the Illinois River is used for Bass fishing competitions

Donovan Robin

**ECOLOGY AND ENVIRONMENT INC.** **TELECON MEMO**

Date: 6-29-95
Time: 1400
By: DONOVAN Robin
cc: File

With: Brent Gregory
Phone: 309-671-3700
Of: Illinois American Water Co. - WATER QUALITY SPECIALIST
E & E Project #: 273051
Site Name: National Disposal #1/ Janson L.F.
File Location:

IAW serves approx 143,000 in Peoria and the surrounding area including Dr Barton-ville. Sources of water are as follows

| Source | Location | Quantity | Depth |
|---|---|---|---|
| Surface Water Intake | IL. River | 10 mgd | - |
| Well 1 | Dodge + Washington | 2 mgd | 118' |
| Well 3 | " | 2 mgd | 118' |
| Well 4 | " | 4 mgd | 122' |
| Well 1 | Lincoln + Griswold | 2 mgd | 162' |
| Well 2 | " | 2 mgd | 162' |
| Seven wells outside study area | | 4-6 mgd | |

Water from these sources is not mixed. And the company has not had problems with SDWA limits.

ecology and environment, inc.

International Specialists in the Environment

Job Number ZT3051

Janson Landfill
Peoria, Illinois
T05-9506-213
EIL0449VAA
ILD981100423
FSIP.

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E & E Job Number 2T3051

Telephone Code Number –

Site Name Janson L.F.
Kickapoo Creek Rd.

City/State Peoria, Illinois

TDD T05-9506-217

PAN E1L0449UAA

SSID –

Start/Finish Date 7-13-95

Book 1 of _____

E & E Emergency Response Center: (716) 684-8940
E & E Corporate Center: (716) 684-8060
MEDTOX Hotline: (501) 370-8263
E & E Safety Director (Home): (716) 655-1260

7/13/95

0600 - Duffy leaves home for Peoria to conduct Re-con at Janson Landfill.

0830 - Duffy arrives in Peoria + attempts to find Janson Landfill property.

0845 - After finding property Duffy determines that access will be difficult. A chain w/ No Trespassing is posted at the entrance on the west side of the property. Kickapoo Creek is a fair size stream + would not be easily crossed. Duffy will attempt to obtain photos of the area to help in further sample location efforts.

0920 - First attempt to reach Janson Landfill was denied. Kickapoo Creek does not have much of a bank. Video was taken to show possible flood levels + size of creek.

1015 - Duffy finishes w/ recon of south + half way up the east edge of the south + east sides of the Janson Landfill. The property is surrounded by a good stand of trees that appears to be ~~from~~ at least 30-50 ft deep. There are some erosion areas on the south bend of the Kickapoo Creek. Along the edges of the Landfill side of the creek there were some areas w/ debris, bricks, cinder blocks, metal debris etc. I was unable to tell wether they had come from the

Landfill or been left there during a flood. Duffy was unable to follow the creek to the north end of the property but he will attempt to gain access on the east side of the creek further north.

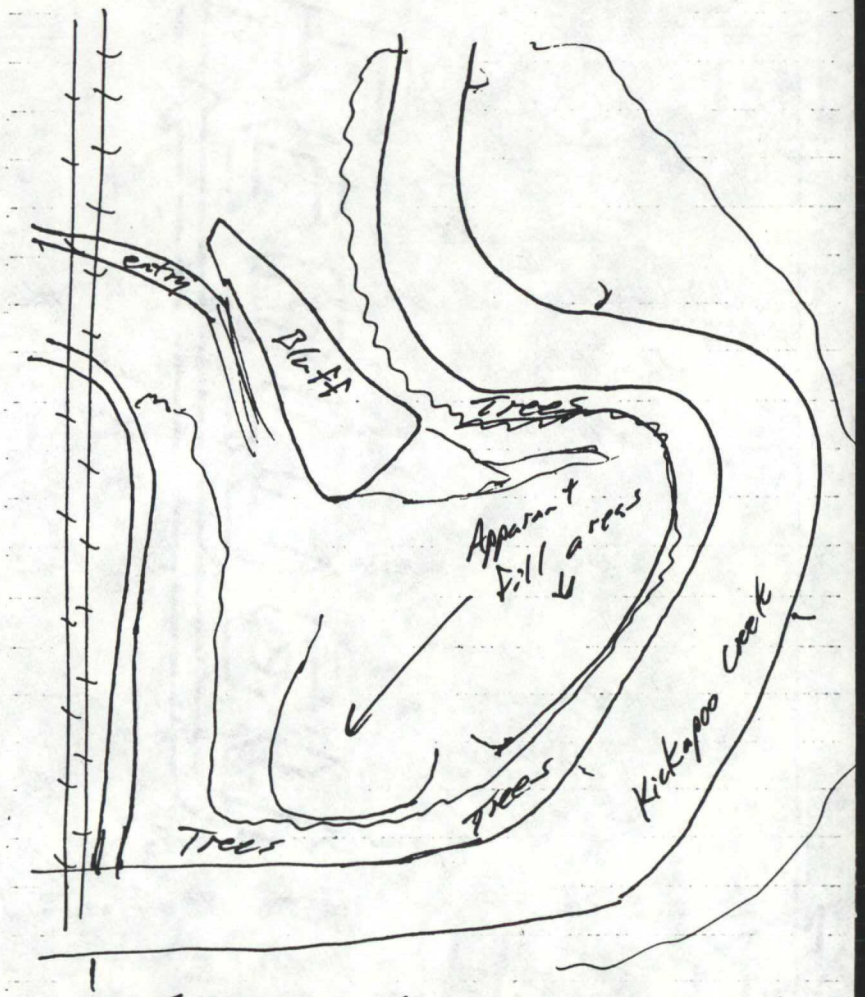
1050 - Duffy arrives in county Bldg. to look up tax records on Janson property. The taxes have been paid for the last two years including this year.

Owner: Jeremy Daniel Janson
Jeffery Mark Janson
(Tax Address) 613 Terminal Rd
East Peoria IL 61611
Paid 5/10/95

Topo was taken in 1990 shows activity at dump site along CNW ROW. Most activity is along West side of bluff on the North end of the property

1105 - Duffy may try to access area from the east one more time to gain access to the North edge of the Janson Property

~~Copy a~~ sketch of topo




The tree stand on the north end appeared to be ~~slightly less~~ shallower than to the south.

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1120 - Duffy calls office to speak to Donovan gives update. Final decision is to only recon the two Peoria sites.

1215 - Duffy finishes recon of Janson Landfill by walking the east side of the Kickapoo creek along the north end of the property. There is no evidence of the creek cutting into the landfill anywhere. There is a significant tree stand around the entire dump area. Visual inspection of the landfill beyond the tree line was not possible due to the thick tree line & the gated "No trespassing" posted entrance to the property. There was no activity in the area during this visit.



...log for Janson Landfill

Description

Sand & debris deposited by flood

Tributary entering Kickapoo Creek

Areas of trash along cut

"

Erosional area on bend of Kickapoo

" "

Deposition area on north side of bend of Kickapoo Creek

Tributary entering Kickapoo Creek

Gate w/ No trespassing sign on west side of property

Trailer on west side driveway

Kickapoo creek bend & trees on north end of property.

"

East along creek on south edge of [illegible]

Date 7/13/95

Photo Log for Jackson Landfill

| Photo | Direction | Time | Description |
|---|---|---|---|
| 27 | southeast | 0917 | Sand + debris deposited by the |
| 26 | NE | 0930 | Tributary entering Kickapoo C. |
| 25 | west | 0945 | Areas of trash along cut |
| 24 | west | 0945 | " |
| 22 ~~23~~ | North | 0958 | Erosional area on bank of Kick. |
| 21 ~~22~~ | east | 0959 | " " |
| 23 ~~24~~ | West | 1000 | Deposition area on north side of bend of Kickapoo Creek |
| 20 | North | 1005 | Tributary entering Kickapoo Crea |
| 19 | east | 1020 | Gate w/ No trespassing sign on west side of property |
| 18 | east | 1020 | Trailer on west side driveway |
| 17 | south | 1230 | Kickapoo creek bend + trees on north end of property. |
| 16 | south | 1235 | " |
| 15 | east | 1300 | East along creek on south edge of National Disposal #I. |
| 14 | southeast | 1310 | attempted view from the north of the National Disposal #I. |
| 13 | southeast | 1310 | " |

8-2-94

0630 - DR departs home, mobilized yesterday

0700 - DR meets with Cathy Sullivan, departs for site

weather: predicted High 82°F Rainy, humid, no wind.

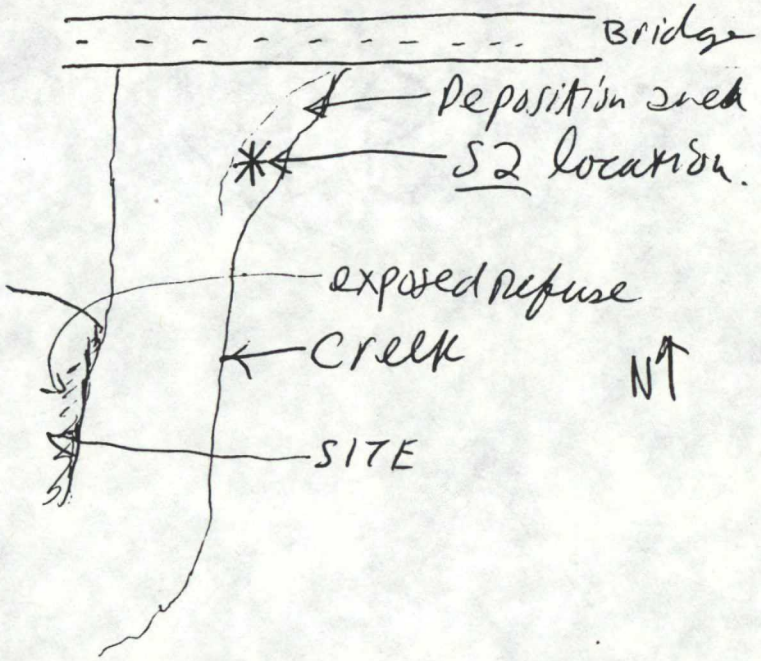
1030 - Arrive in Peoria, having trouble finding site

1100 - find site and parking area on K.C. Road,

1110 - collect samples S3/S4 from a sandbar beneath the RR. bridge south of the site. Material: sand with pebbles + stones, dk lt. brown, no off colors or odors, some silt. Two tires buried near by. few organics ← no organic matter

1115 - locate sample. Photo 1 facing West is of sample location, Photo 2 facing East is also. Photo 3 was an accident. sample is directly beneath RR. Trussle, between the rails

8-2-95 Janson Landfill
1145 - proceed to sample S2 location,
150 - set up at end of coal road
1200 - collect sample S2 Approx 50' south of Highway bridge And up gradient of hill on east side of Creek, on A sand bar,

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8-2-95 Janson Landfill.
1200 (cont) sample texture is
similar to S3/S4, take
photo 6 of location, facing
north, can see exposed
refuse at site, on west
side of RPR 8-2 - Creek.
1230 - Depart Site; ice samples
will send from fed-ex in
Chesage

Donovan Robin