Screening Site Inspection
Final Report

for

Decatur/Barding & Spawr Landfill
ILD 984 766 378
September 30, 1994

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1.0 Introduction

On August 7, 1991, B&V Waste Science and Technology Corp. was authorized, by approval of the work plan by the U.S. Environmental Protection Agency (USEPA) Region V, to conduct a screening site inspection (SSI) of the Decatur/Barding & Spawr Landfill (Barding & Spawr) site in Macon County, Illinois.

The site was initially placed on the Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) on April 8, 1988, as a result of a request for discovery action initiated by the Illinois Environmental Protection Agency (IEPA).

The facility received its Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) evaluation in the form of a preliminary assessment (PA) report completed by Gary Reside, IEPA, on February 3, 1990. The sampling portion of the SSI was conducted on February 15 and 16,1993, when a field team collected eight groundwater, four surface soil, and four sediment samples.

The purposes of the SSI have been stated by USEPA in a directive outlining pre-remedial program strategies. The directive states:

> All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS (Hazard Ranking System) score, 2) to establish priorities among sites most likely to qualify for the NPL (National Priorities List), and 3) to identify the most critical data requirements for the listing [expanded] SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP (no further remedial action planned) or carried forward as an NPL listing candidate. A listing [expanded] SI will not automatically be done on these sites. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA (Resource Conservation and Recovery Act).... Sites that are designated as NFRAP or deferred to other statutes are not candidates for a listing [expanded] SI.
>
> The listing [expanded] SI will address all data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to a higher authority will receive a listing [expanded] SI (USEPA 1988).

USEPA Region V requested B&V Waste Science and Technology Corp. to identify sites during the SSI that may require removal action to remediate an immediate human health or environmental threat.

2.0 Site Background

2.1 Introduction

This section includes information obtained during the SSI and from reports of previous site activities.

2.2 Site Description

The Barding & Spawr site is located on Wyckles Road, south of US Route 36, just west of Decatur, Illinois. Most of the site is in the northeast quarter of Section 24, Township 16 North, Range 1 East, in Macon County. Figure 2-1 is a United States Geological Survey (USGS) site location map; Figure 2-2 shows the site layout.

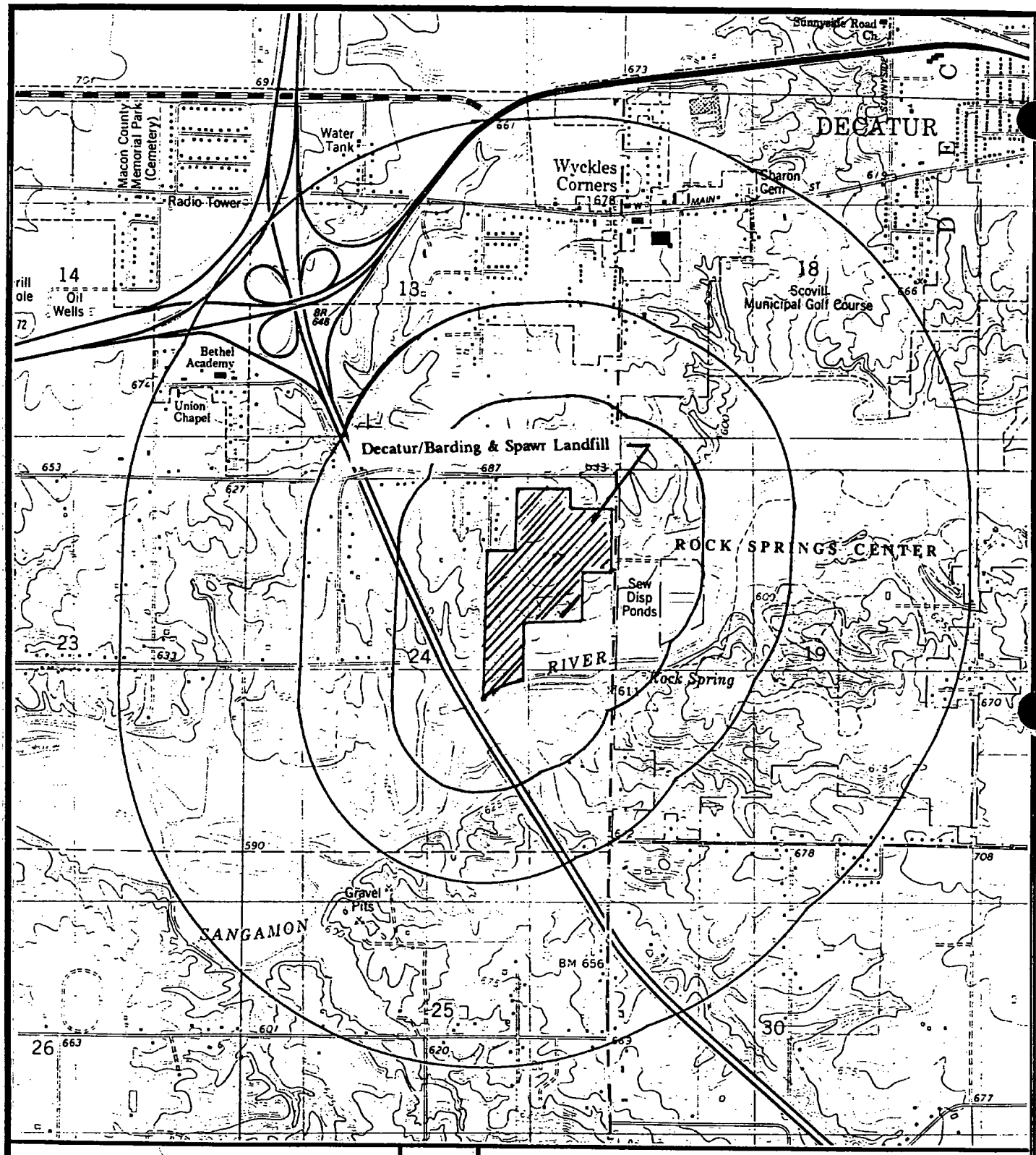
The topography of the 66-acre Barding & Spawr property is sloping and irregular, in part, because of landfilled wastes. The landfill appears to have a vegetated soil cover; however, dense vegetation and snow obscured the landfill surface during SSI inspections.

Site runoff drains south, into the Sangamon River. Runoff from the northeastern portion of the site drains south, onto the neighboring Sanitary District of Decatur Wyckles Road Sludge Lagoon Facility (Sanitary District). Three narrow channels carry rust colored leachate from the Barding & Spawr site onto Sanitary District property. Two of these channels join and drain into a catch basin; leachate from the third ponds near the Sangamon River before draining into it. The ditches that parallel both sides of Wyckles Road also drain into the Sangamon River.

A fence surrounds about two thirds of the Barding & Spawr site, with gates near the northeastern corner, at the office building, and near the northwestern corner of the property. The four-strand barbed wire fence is poorly maintained. The locked metal gate at the office building is at least four feet high. A similar gate at the northwestern corner of the site is unsecured. Pedestrians and vehicles can also access the property from locations south and west of the site.

The inactive landfill occupies most of the property. Standard Waste, a garbage hauling and recycling business, occupies a few acres in the northeastern corner of the site.

The landfill property is bordered on the north and west by residences, on the south by the Sangamon River and the Sanitary District, and on the east by Wyckles Road. Across Wyckles Road is the Macon County Conservation District Rock Springs Center for Environmental Discovery. Within four miles of the site, land use



Source: USGS 1967, 1982

Scale: 1 inch = 2,000 feet

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Figure 2-1
Site Location Map

Decatur/Barding & Spawr Landfill
Decatur, Illinois

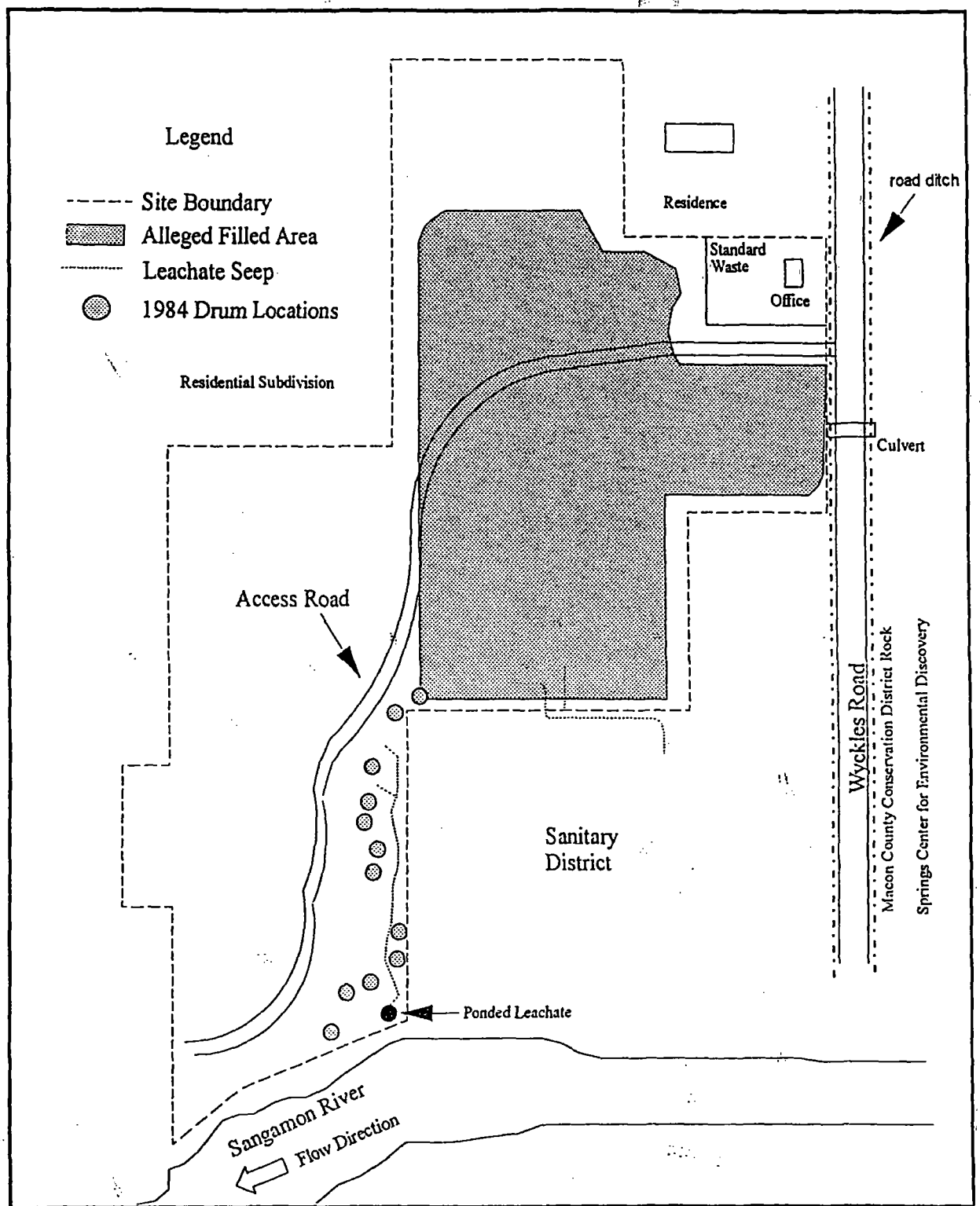

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Figure 2-2
Site Layout

Decatur/Barding & Spawr Landfill
Decatur, Illinois

is residential, agricultural, recreational, commercial, and industrial. Appendix A presents a 4 mile radius map and a 15 mile downstream map.

2.3 Site History

2.3.1 Operational History

Before landfilling operations, the use of the property is unknown. Junior Lewis Barding acquired the property in the 1950s, leasing it to the Macon County Landfill Corporation from the mid 1950s until the middle or late 1960s. This corporation, formed by several trash haulers, used the site for landfilling industrial and municipal wastes. Mr. Barding died in 1962, leaving his wife, Lavone, sole owner of all but two acres of the site. These two acres were bequeathed to Mr. Barding's sons, James Spawr and Junior Barding Jr.

During its active period, Barding & Spawr presumably operated as both an open dump and a landfill. A pit for disposing of liquid industrial waste was allegedly located onsite (IEPA 1989a); however, this allegation is denied by site representatives. No documentation indicates a liner is present. Past inspections deemed the landfill's vegetated soil cover as inadequate (IEPA 1989a).

From 1962 until 1980, James Spawr and Junior Barding Jr. operated a construction firm on the land they inherited from their father. Since 1980, the sons have operated Standard Waste on this property.

2.3.2 Summary of Onsite Environmental Work

IEPA was first involved with Barding & Spawr in 1984, when Decatur city officials reported drums on the Barding & Spawr property adjacent to the Sanitary District's western border. IEPA inspected the landfill and discovered 19 drums, some containing liquid. During a follow-up investigation in April 1987, IEPA learned about the alleged waste pit.

In October 1987, IEPA collected leachate samples and water samples from Sanitary District monitoring wells. The leachate contained benzene, chlorobenzene, and tetrachlorethylene in parts per billion ranges. The monitoring well water contained benzene, chlorobenzene, tetrahydrofuran, and benzothiazolone in parts per billion ranges.

Barding & Spawr was added to the CERCLIS list on April 4, 1988 (USEPA 1993). On January 12, 1989, an IEPA PA reconnaissance was conducted.

2.4 Applicability of Other Statutes

The RCRA list of Illinois notifiers does not list Barding & Spawr (ILD 984 766 378) in Decatur, Illinois (USEPA 1992).

3.0 Site Inspection Activities and Analytical Results

3.1 Introduction

This section outlines procedures used and observations made during the SSI conducted at Barding & Spawr. Sampling activities were conducted in accordance with the Quality Assurance Project Plan (QAPjP), dated September 27, 1991. Figure 3-1 shows each sample location; Table 3-1 summarizes sample descriptions and locations.

Appendix B presents the USEPA Potential Hazardous Waste Site Inspection Report (Form 2070-13).

Samples collected for this SSI were analyzed for organic and inorganic substances contained on the USEPA Target Compound List (TCL) and Target Analyte List (TAL) by USEPA Contract Laboratory Program (CLP) participant laboratories. Appendix C presents the TCL and TAL lists. Appendix D summarizes analytical data generated by SSI sampling. Appendix E contains photographs of the site and sample locations.

3.2 Site Reconnaissance

On August 26, 1992, a reconnaissance of the Barding & Spawr site was conducted. This visit included a visual site inspection to determine the facility's status, activities, and health or safety hazards, and to identify potential sampling locations.

3.3 Site Representative Interview

James Spawr met with the reconnaissance team during the August 1992 site visit. Mr. Harold Tenney, an attorney, and Ms. Norma Ann Hubert, a court reporter, were also present for the reconnaissance interview and tour. The reconnaissance team discussed the purpose of the SSI with site representatives and gathered site-specific information. Spawr, Tenney, and Hubert then accompanied the team on a tour of the site.

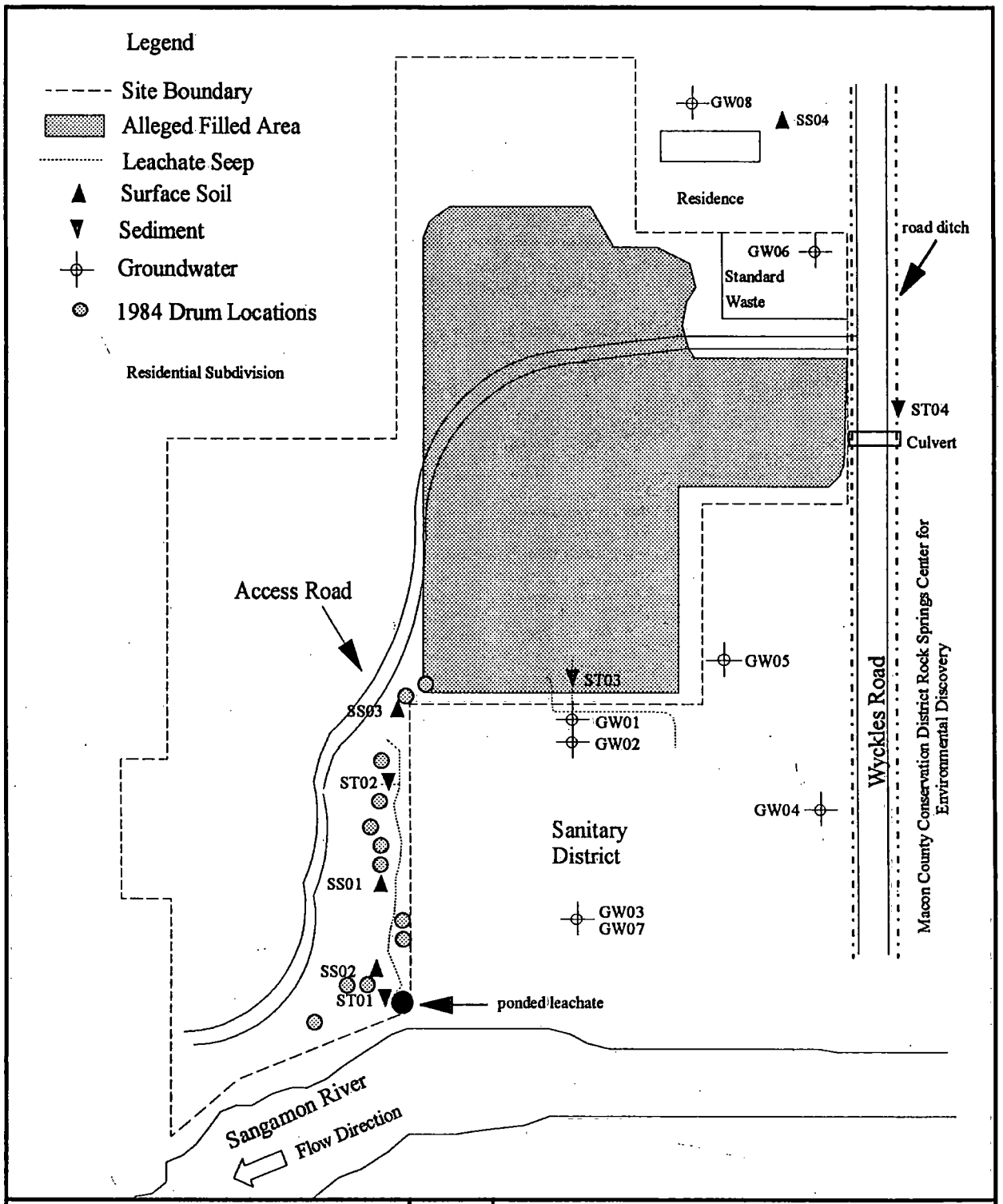

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Figure 3-1
Sampling Locations

Decatur/Barding & Spawr Landfill
Decatur, Illinois

Table 3-1
Decatur/Barding & Spawr Landfill
Sample Descriptions

Sample	Depth Units	Appearance	Location
GW01	37.5 feet	Clear, odorless	Sanitary District monitoring well G102D
GW02	11.6 feet	Slightly brown, odorless	Sanitary District monitoring well G102S
GW03	28.4 feet	Clear, odorless	Sanitary District monitoring well G103
GW04	42.5 feet	Clear, odorless	Sanitary District monitoring well G104
GW05	51.7 feet	Clear, odorless	Sanitary District monitoring well G101D
GW06	40 feet	Clear, odorless	Standard Waste Facility Well
GW07	28.4 feet	Clear, odorless	Sanitary District monitoring well G103, duplicate of GW03
GW08	unknown	Clear, hydrogen sulfide odor	Private well; selected to represent background groundwater conditions
ST01	2 - 6 inches	Reddish-brown clay	In a leachate channel about forty feet west of the Sanitary District, 200 feet north of the Sangamon River
ST02	2 - 6 inches	Reddish-brown clay	In a leachate channel about thirty feet west of the Sanitary District, 800 feet north of the Sangamon River
ST03	2 - 6 inches	Black silty muck	In a leachate channel about fifty feet north of GW01 and GW02.

Table 3-1 (Continued) Decatur/Barding & Spawr Landfill Sample Descriptions			
Sample	Depth Units	Appearance	Location
ST04	2 - 6 inches	Dark brown silt	In the ditch on the eastern side of Wyckles Road, 15 feet north of a culvert under Wyckles Road; selected to represent background conditions.
SS01	2 - 6 inches	Brown clay	About forty feet west of the Sanitary District and 600 feet north of the Sangamon River
SS02	2 - 6 inches	Wet, black muck	About fifty feet west of the Sanitary District and 300 feet north of the Sangamon River
SS03	2 - 6 inches	Brown clay	About forty feet west of the Sanitary District and 1100 feet north of the Sangamon River
SS04	2 - 6 inches	Brown clay	Residence side yard; selected to establish background conditions

3.4 Groundwater Sampling

On February 16 and 17, 1993, a field team collected seven groundwater samples and one duplicate sample at an onsite facility well, five offsite monitoring wells, and one residential well. The wells were purged using a decontaminated Fultz pump until they were dry or until at least three well volumes of water were removed.

Groundwater samples were shipped to CLP participant laboratories on February 17 and 18, 1993. Samples scheduled for organic analyses were shipped to American Analytical and Technical Services in Broken Arrow, Oklahoma. Samples scheduled for inorganic analyses were shipped to Skinner and Sherman in Waltham, Maryland.

All reusable sampling equipment and personal protective equipment (PPE) were decontaminated before transport offsite. Disposable sampling and PPE items

were discarded in accordance with procedures outlined in the SSI project work plan and QAPjP.

3.5 Sediment Sampling

On February 17, 1993, a field team collected four sediment samples. The sediment samples were collected using decontaminated stainless steel spoons.

Sediment samples for inorganic analysis were sealed, labeled, packaged, and shipped to Skinner and Sherman in Waltham, Maryland, on February 17 and 18, 1993. Sediment samples for organic analysis were shipped to American Analytical and Technical Services in Broken Arrow, Oklahoma, on February 18, 1993.

All reusable sampling equipment and PPE were decontaminated before transport offsite. Disposable sampling and PPE items were discarded in accordance with procedures outlined in the SSI project work plan and the QAPjP.

Background sediment sample, ST04, was taken on the eastern side of Wyckles Road, upstream of the probable point of entry for landfill surface water runoff.

Sediment samples, ST02 and ST03, were taken from leachate channels to assess the surface water pathway close to the source. Sediment sample, ST01, was collected from ponded leachate near the Sangamon River to evaluate the overland flow pathway near the probable point of entry into the Sangamon River.

3.6 Soil Sampling

On February 17, 1993, a field team collected four soil samples using clean, stainless steel spoons. Soil samples scheduled for organic analysis were shipped to Coast to Coast Analytical Services in Westbrook, Maine, on February 18, 1993. Soil samples scheduled for inorganic analysis were shipped to NFT, Inc., in Lakewood, Colorado, on February 18, 1993.

All reusable sampling and PPE were decontaminated before transport offsite. Disposable sampling and PPE items were discarded in accordance with procedures outlined in the SSI project work plan and the QAPjP.

A background soil sample, SS04, was collected from the residence north of the site. This location was selected as representative of natural soil conditions in the area. Soil samples SS01-3 were collected on Barding & Spawr property in an area where dilapidated, empty drums are strewn across the ground surface.

3.7 Analytical Results

This section summarizes analytical results from SSI samples. Appendix D presents SSI analytical data.

Laboratory analysis of the onsite facility well and offsite monitoring well samples indicate one pesticide and eight inorganic substances are present in the groundwater. Sediment sample data indicate one pesticide and one inorganic substance are present in the surface water pathway. Three pesticides and five inorganic substances are found in the soil samples.

3.8 Key Samples

"Key samples" are samples that contain substances in sufficient concentration to document an observed release. Table 3-2 identifies SSI key samples in the groundwater, surface water, and soil pathways.

Table 3-2
Decatur/Barding & Spawr Landfill
Key Sample Summary

Groundwater

Substance	Sample Number						
	GW01	GW02	GW03	GW04	GW05	GW06	GW08 Background
Pesticides (µg/L)							
Gamma-BHC (Lindane)		0.11 P					0.050 UJ
Inorganics (µg/L)							
Cobalt	--	19.9 B	--	--	--	--	2.5 U
Copper	--	--	--	--	--	96.6	5.1 JB
Manganese	233	4890	1280	5840	386	--	42.2
Mercury	--	--	--	4.2 JN	--	--	0.1 UN
Nickel	--	85.6	33.9 B	--	--	--	3.0 U
Potassium	--	44600	--	--	--	--	2880 B
Sodium	--	160000	242000	--	24.8	49.5	37000
Zinc	--	--	--	--	--	--	4.7 U

Table 3-2 (continued)
Sediment

Substance		
	ST03	ST04 (Background)
Pesticides (µg/kg)		
Alpha Chlordane	8.0 JP	7.4 U
Inorganics (mg/kg)		
Arsenic	49.3 JP*S	8.5 JN*

Table 3-2 (Continued) Decatur/Barding & Spawr Landfill Key Sample Summary			
Surface Soil			
Substance	Sample Number		
	SS02	SS03	SS04 (Background)
Pesticides (μg/kg)			
Heptachlor Epoxide	2.4 J	--	2.2 U
Dieldrin	9.1 J	--	4.5 U
Gamma Chlordane	2.3 PJ		2.2 U
Inorganics (mg/kg)			
Aluminum	--	13100	3330
Chromium	--	17.7	4.9
Iron	--	22100	7050
Nickel	--	30.0	9.6 B
Potassium	--	2070	561 B

U Substance is undetected. The reported value is the contract required quantitation limit (CRQL) for organics and the contract required detection limit (CRDL) for inorganics.
J Reported value is estimated.
P Indicates greater than 25 percent difference for detected concentrations between gas chromatograph columns in pesticide/Arochlor analysis.
B Reported value is less than the CRDL, but greater than or equal to the instrument detection limit (IDL).
N Spiked sample recovery not within control limits.
S Reported value was determined by the method of standard additions.
* Duplicate analysis not within control limits.

4.0 Characterization of Sources

4.1 Introduction

Barding & Spawr has three potential sources of hazardous substances: the landfill, drums, and contaminated soil.

4.2 Landfill

4.2.1 Description

The area where landfilling took place is shaped irregularly and occupies about half (33 acres) of the 66-acre property. No liner is known to have been placed before landfilling began. A vegetated soil cover is in place, but its thickness and lateral extent are unknown. The volume and depth of landfilled wastes are unknown.

4.2.2 Waste Characteristics

Barding & Spawr accepted municipal solid wastes and industrial wastes. Specific characteristics of wastes landfilled at the site are unknown. SSI analytical results indicate the groundwater pathway contains one pesticide and eight inorganics above background levels. Sediment in the surface water pathway contains alpha chlordane and arsenic above background levels. The soil pathway contains three pesticides and five inorganics above background levels.

4.2.3 Potentially Affected Migration Pathways

Analysis of SSI samples document observed releases to the groundwater, surface water, and soil pathways. Observed releases documented by SSI sampling in the groundwater and surface water pathways may be attributable to the landfill. Sampling of onsite and nearby wells document observed releases to groundwater beneath and adjacent to Barding & Spawr. Sediment samples collected from onsite ditches document observed releases to the onsite segment of the surface water pathway.

Although SSI sampling documents an observed release to the soil pathway, it is most likely related to the onsite drums and is assigned to the contaminated soil source.

The landfill's effect on the air pathway is deemed minimal because of the presence of a soil cover.

4.3 Drums

4.3.1 Description

Some of the drums found onsite in 1984 are still present. At the time of their discovery, nineteen 55-gallon drums were documented onsite. Some of the drums contained an unidentified liquid in 1984. About one dozen dilapidated and empty drums were observed onsite during the 1993 SSI sampling visit.

4.3.2 Waste Characteristics

Information about the drum contents is unavailable; they were never sampled.

4.3.3 Potentially Affected Migration Pathways

The potential for drummed material to affect migration pathways is minimal. The drums are empty. Past releases from drums would most likely affect the soil pathway. Observed releases to the soil pathway are attributed to the contaminated soil source

4.4 Contaminated Soil

4.4.1 Description

SSI sampling results document contaminated soil near the drums on Barding & Spawr property west of the Sanitary District facility. The area of contaminated soil is estimated to be about one-half acre in size. The affected area is located on vegetated ground surface that slopes eastward.

4.4.2 Waste Characteristics

The former contents of the drums are unknown. SSI sampling documents the presence of three pesticides and five inorganic substances in the soil near the drums.

4.4.3 Potentially Affected Migration Pathways

The soil pathway is affected. Surface water runoff over the contaminated soil area may entrain soil bound hazardous substances, potentially affecting the surface water pathway.

The potential effect of the contaminated soil on the groundwater pathway is deemed minimal; however, a potential exists for migration of hazardous substances downward through the soil to the water table. Vegetation on the ground surface minimizes the potential effect to the air pathway.

4.5 Other Potential Sources Within One Mile

Several CERCLIS listed sites exist within one mile of Barding & Spawr: Macon County #2 (ILD 980 498 125), Macon County Landfill Corporation (ILD 067 415 588), McKinney Landfill (ILD 980 498 158), Murrell Landfill (ILD 980 901 540), and Rueben Murrell (ILD 984 769 240) (USEPA 1993).

The Region V list of RCRA notifiers in Illinois contains over 165 facilities in Decatur; some may be within one mile of Barding & Spawr (USEPA 1992).

5.0 Discussion of Migration Pathways

5.1 Introduction

This section includes useful information to evaluate the potential impact to the environment of observed releases at Barding & Spawr.

5.2 Groundwater

Analyses of SSI groundwater samples GW01 through GW06 establish observed releases to the groundwater pathway.

Site-specific information on the geology of the Barding & Spawr site is unavailable. The regional geology around the Barding & Spawr site is comprised of undifferentiated glacial drift units over sedimentary bedrock.

A detailed statewide study by Berg and Kempton (1988) provides three-dimensional mapping of geological materials to a depth of 50 feet. Near the site, the Berg and Kempton map suggests the overburden is composed, in descending order, of the following sediments: loess (silt), loamy and sandy till, and laterally discontinuous silty clay and clay till. Bedrock is expected to be Pennsylvanian shale with interbedded sandstone, limestone, and coal (Selkregg and Kempton 1958). The Pennsylvanian bedrock can only produce small quantities of groundwater.

Well data from the Illinois State Water Survey (ISWS) indicate rural residents within the 4-mile target distance are supplied by groundwater drawn from the glacial drift (ISWS 1992). Table 5-1 presents the population using private wells within 4 miles of the site. Approximate population values presented in Table 5-1 were determined by multiplying the Macon County average of 2.49 persons per household by the number of houses counted in each distance ring on a topographic map (U.S. Department of Commerce 1991; USGS 1967a, 1967b, 1982a, 1982b).

5.3 Surface Water

SSI sediment sample, ST01, establishes an observed release to the surface water pathway. Site overland flow runoff drains to the adjacent Sangamon River, which flows southwesterly at approximately 680 cubic feet per second (USGS 1991). The probable point of entry to the Sangamon River is onsite. No surface water intakes are within 15 miles downstream of the site (IEPA 1983). Drinking water for the city of Decatur is drawn from the surface water pathway; however, Decatur's surface water

Table 5-1 Decatur/Barding & Spawr Landfill Estimated Population Relying on Groundwater	
Distance From Site	Estimated Population
0 to 1/4 mile	77
1/4 to 1/2 mile	125
1/2 to 1 mile	618
1 to 2 miles	1,599
2 to 3 miles	2,923
3 to 4 miles	1,183
Total	6,525

Source: City of Decatur 1993; ISWS 1993; U.S. Department of Commerce 1991; USGS 1967a, 1967b, 1982a, 1982b

intakes are upstream of the site in Lake Decatur, an impounded reach of the Sangamon River. The closest city water intake is just under four miles from the site (IEPA 1989b). Table 5-2 presents information on this intake. No critical habitats for endangered species are known to exist within the 15 mile downstream target area on the Sangamon River; however, this segment is fronted by wetlands (Illinois Department of Conservation 1993, U.S. Fish Wildlife Service 1988a 1988b, 1988c, 1988d, 1988e). The Sangamon River appears to be used only for recreational purposes, including fishing for human consumption.

Table 5-2 Public Water Supply Sources Within 4 Miles of Decatur/Barding & Spawr Landfill				
Distance/Direction From Site	Source Name	Source Location	Population Served	Source Type
4 miles east	City of Decatur	Lake Decatur	31,063	Surface Water

Source: City of Decatur 1993

5.4 Soil

The fence at Barding & Spawr does not completely surround the site and is not in good condition. No workers are on the landfilled part of the property; however, workers are at the Standard Waste facility on the northeastern corner of the site. No school, day care center, occupied residence, or work place appears to exist within 200 feet of identified source areas.

5.5 Air

No air samples were taken during the sampling visit, except for standard air monitoring. Readings with a photoionization detector were at background levels around the site and at sampling locations.

Thirty-one residences are within one-quarter mile of the site, mostly to the north and west (USGS 1967a,1982a).

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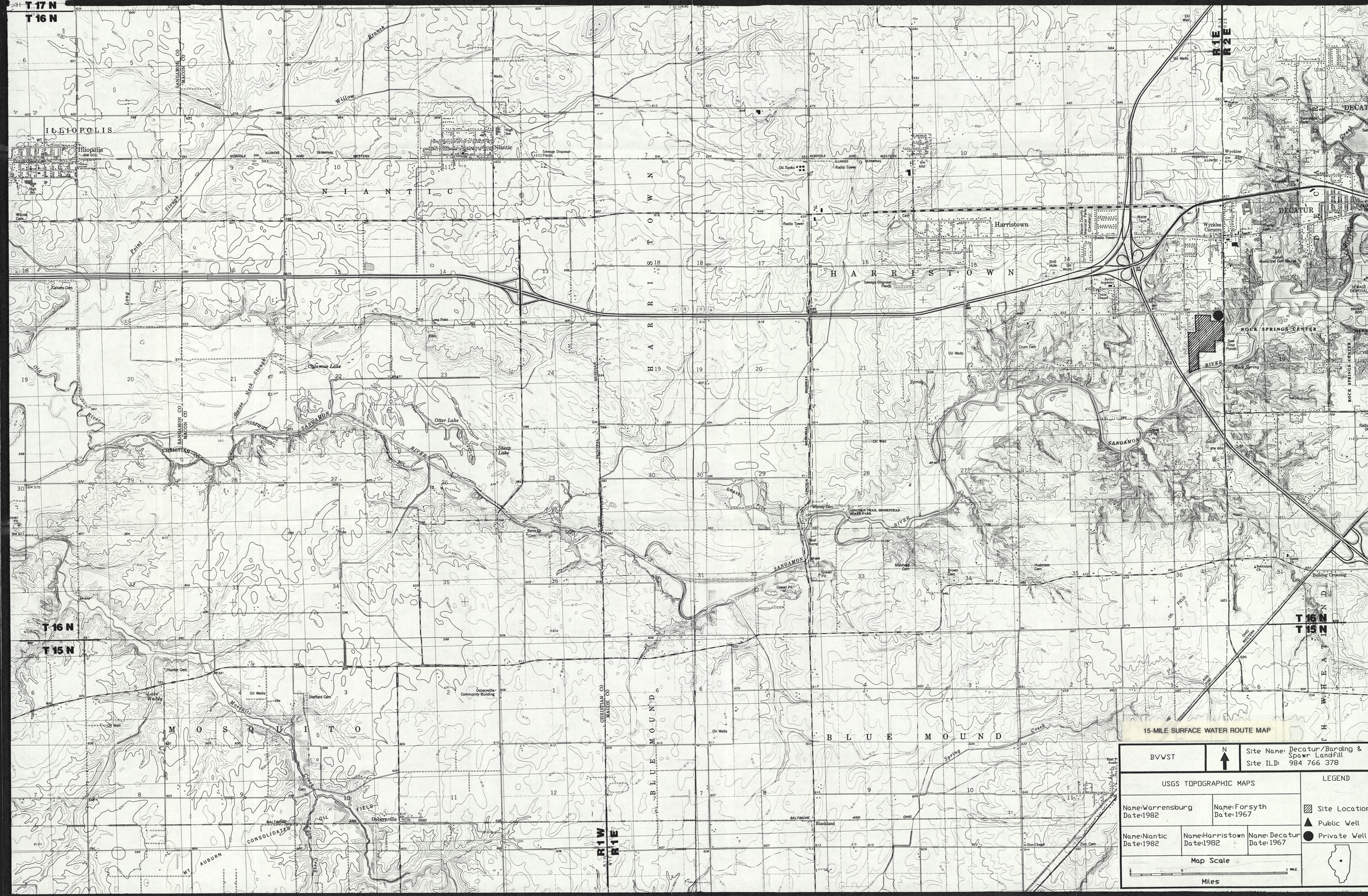
Appendix A

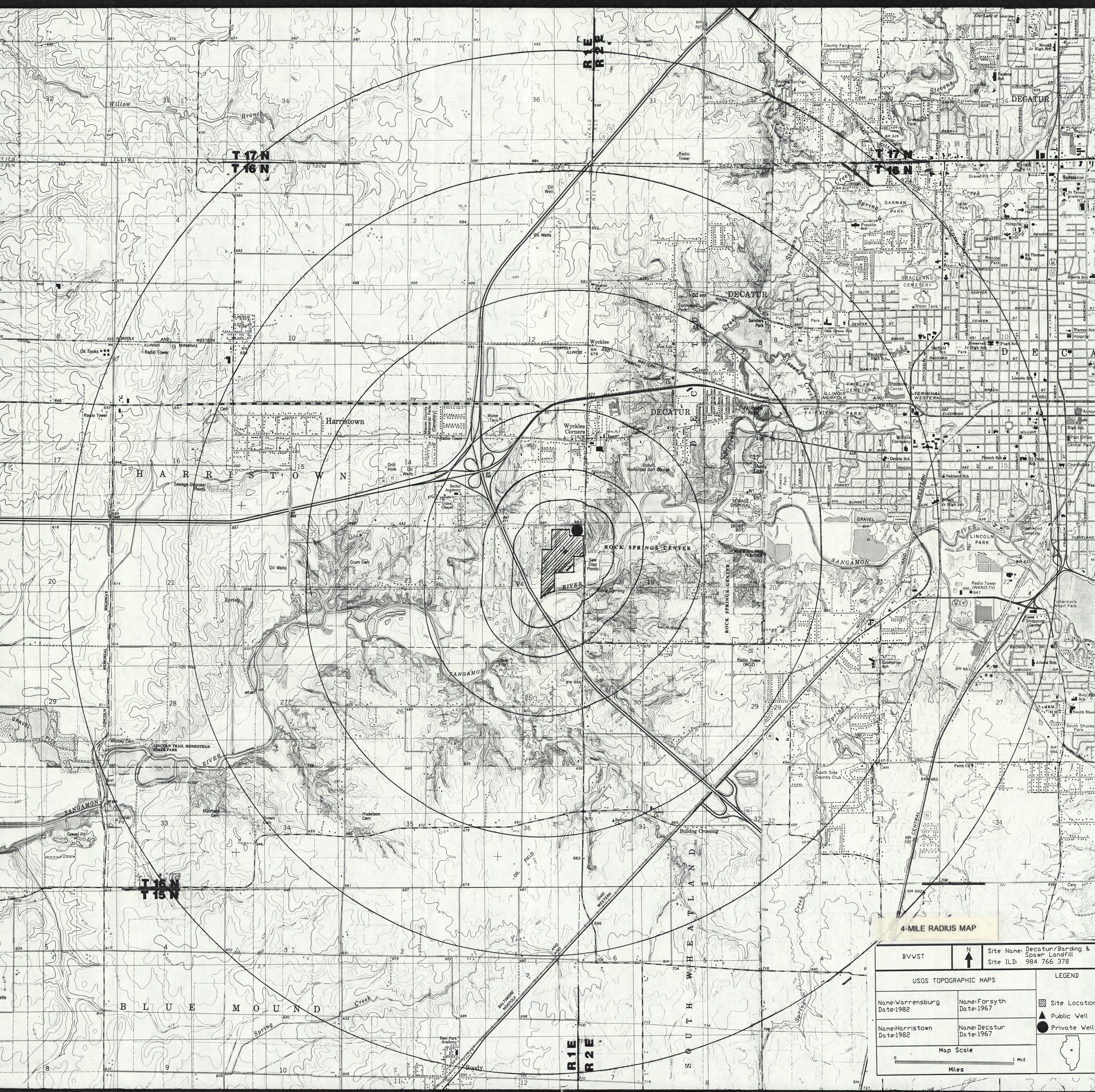
Decatur/Barding & Spawr Landfill

4-Mile Radius Map and
15-Mile Surface Water Route Map



BVWST	N	Site Name: Decatur/Barding & Spawr Landfill Site ILD: 984 766 378

USGS TOPOGRAPHIC MAPS			LEGEND
Name: Warrensburg Date: 1982	Name: Forsyth Date: 1967		Site Location
Name: Niantic Date: 1982	Name: Harristown Date: 1982	Name: Decatur Date: 1967	Public Well Private Well
Map Scale 0 MILE Miles			


4-MILE RADIUS MAP
BVWST
Site Name: Decatur/Barding & Spawr Landfill
Site ILD: 984 766 378
USGS TOPOGRAPHIC MAPS
Name: Warrensburg Date: 1982
Name: Forsyth Date: 1967
Name: Harristown Date: 1982
Name: Decatur Date: 1967
Map Scale
0
1 MILE
Miles
LEGEND
Site Location
Public Well
Private Well
T 17 N
T 16 N
T 15 N
R 1 E
R 2 E
DECATUR
HARRISTOWN
BLUE MOUND
SOUTH WHEATLAND
ROCK SPRINGS CENTER
SANGAMON RIVER
Harristown
Wyckles Corners
Wyckles
Bulldog Crossing
Boody
GRACELAND CEMETERY
FAIRLAWN CEMETERY
GARMAN PARK
LINCOLN PARK
LINCOLN TRAIL HOMESTEAD STATE PARK
Sewage Disposal Ponds
Sew Disp Ponds
Radio Tower
Oil Wells
Oil Tanks
Water Tank
Gravel Pit
Sanitarium
Hospital
Millikin University
Scovill Municipal Golf Course
Radio Tower (WAND-TV)
Radio Tower (WDZ)
South Side Country Club
Greenwood Cemetery
Fishermans Wharf Park
South Shores Park
Shopping Center
Courthouse
Post Office
Central Park
Substation
Our Lady of Lourdes Sch
County Fairground
Bolling Springs Cemetery
Greenscell Park
Franklin Sch
Trailer Park
St Joseph Hall
St Teresa Academy
St Thomas Sch
Monroe Park
Harris Sch
Warren Sch
Garfield Sch
Roosevelt Jr High Sch
Pugh Sch
MacArthur High Sch
Lincoln Sch
Dennis Sch
French Sch
St Paul Sch
Oakland Sch
Wilson Jr High Sch
Enterprise Sch
Adams Sch
Holy Rosary Sch
Faith Ch
Sunnyside Park
Sanders Park
Oak Grove Sch
Shady Lake
Kiwanis Park
Sewage Disposal
Indep Bdy
Gravel Pit
Bethel Academy
Union Chapel
Macon County Memorial Park (Cemetery)
Drill Hole
Crum Cem
Whitley Cem
Boat Ramp
Muirhead Cem
Brown Cem
Hudelson Cem
Bethlehem Ch
Salem Ch
Sharon Ch
New Life Ch
Sunnyside Road Ch
Cerron Cem
East Park Academy
Rock Spring
Willow Branch
Spring Creek
Stevens Creek
Sangamon River
Oil Field
Norfolk and Western Terminal
Illinois Central
Baltimore Norfolk
Ohio Western

Site Inspection Report

Appendix B

Decatur/Barding & Spawr Landfill

USEPA Form 2070-13

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 984 766 378

I. SITE NAME AND LOCATION

01 SITE NAME: Decatur/Barding & Spawr Landfill
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: South Wyckles Road
03 CITY: Decatur
04 STATE: IL
05 ZIP CODE: 62522
06 COUNTY: Macon
07 COUNTY CODE: 115
08 CONG DIST: 18
09 COORDINATES: LATITUDE 39° 49' 30.0" LONGITUDE 089° 01' 50.0"
10 TYPE OF OWNERSHIP (Check one): [X] A. PRIVATE [ ] B. FEDERAL [ ] C. STATE [ ] D. COUNTY [ ] E. MUNICIPAL [ ] F. OTHER [ ] G. UNKNOWN

II. INSPECTION INFORMATION

01 DATE OF INSPECTION: 2 16 93 (MONTH DAY YEAR)
02 SITE STATUS: [ ] ACTIVE [X] INACTIVE
03 YEARS OF OPERATION: mid 1950s late 1960s (BEGINNING YEAR, ENDING YEAR) [ ] UNKNOWN
04 AGENCY PERFORMING INSPECTION (Check all that apply): [ ] A. EPA [X] B. EPA CONTRACTOR B&V Waste Science and Technology [ ] C. MUNICIPAL [ ] D. MUNICIPAL CONTRACTOR [ ] E. STATE [ ] F. STATE CONTRACTOR [ ] G. OTHER

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Ramona Reints	Project Scientist	BVWST	312 346-3775
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Stephen Mehay	Project Scientist	BVWST	312 346-3775
Baltazar Berena	Technician	BVWST	312 346-3775
Jeffery Albano	Project Scientist	BVWST	312 346-3775
Timothy Moody	Community Relations Specialist	BVWST	312 346-3775
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
James Spawr	Operator	Standard Waste:	217 409-0020
		965 S. Wyckles Road	( )
		Decatur, IL	( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
[X] PERMISSION [ ] WARRANT	2/16 0700-1735 2/17 0700-1700	2/16-25°F, snowing, cloudy, winds 5-10mph 2/17-10°F, cloudy, winds 5-15mph

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Alan Altur	USEPA	312 886-0370

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Ramona Reints	USEPA	BVWST	(312)3463-775	12 30 93 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE: ILD | 02 SITE NUMBER: 984 766 378

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

X A. SOLID
B. POWDER, FINES
C. SLUDGE
D. OTHER _____ (Specify)
E. SLURRY
X F. LIQUID
G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____
CUBIC YARDS unknown
NO. OF DRUMS 19

03 WASTE CHARACTERISTICS (Check all that apply)

X A. TOXIC
B. CORROSIVE
C. RADIOACTIVE
X D. PERSISTENT
X E. SOLUBLE
F. INFECTIOUS
G. FLAMMABLE
H. IGNITABLE
I. HIGHLY VOLATILE
J. EXPLOSIVE
K. REACTIVE
L. INCOMPATIBLE
M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	unknown		
SOL	SOLVENTS	unknown		
PSD	PESTICIDES	unknown		
OCC	OTHER ORGANIC CHEMICALS	unknown		
IOC	INORGANIC CHEMICALS	unknown		
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	Copper			96.6	PPB
MES	Zinc			49.5	PPB
PSD	Heptachlor Epoxide			2.4	PPB
PSD	Dieldrin			9.1	PPB
PSD	Gamma Chlordane			2.3	PPB
MES	Aluminum			13100	PPM
MES	Iron			22100	PPM
MES	Chromium			177	PPM
MES	Nickel			30.0	PPM
MES	Arsenic			49.3	PPM
PSD	Alpha Chlordane			8	PPB

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sampling analysis, reports)

BVWST, 1993

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER
ILD 984 766 378

HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION
02 ☒ OBSERVED (DATE: 10/7/87, 2/16/93) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6525
04 NARRATIVE DESCRIPTION

Groundwater sampling conducted in October 1987 and February 1993 revealed the presence of several hazardous substances in the onsite well and in offsite monitoring wells. The population affected was obtained from the 1990 census figures and US Geological Survey maps.

01 ☒ B. SURFACE WATER CONTAMINATION
02 ☒ OBSERVED (DATE: 2-16-93) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown
04 NARRATIVE DESCRIPTION

The Sangamon River is the southern border of the site. It is used for recreational purposes. Leachate from the landfill drains to a catch basin on the Sanitary District as well as ponding near the Sangamon River.

01 ☐ C. CONTAMINATION OF AIR
02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

unknown

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS
02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

unknown

01 ☐ E. DIRECT CONTACT
02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

unknown

01 ☒ F. CONTAMINATION OF SOIL
02 ☒ OBSERVED (DATE: 2/16/93) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 66 Acres
04 NARRATIVE DESCRIPTION

Soil sampling conducted in February 1993 indicates hazardous substances are present in onsite soils.

01 ☐ G. DRINKING WATER CONTAMINATION
02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6525
04 NARRATIVE DESCRIPTION

See I.A.

01 ☐ H. WORKER EXPOSURE/INJURY
02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

unknown

01 ☐ I. POPULATION EXPOSURE/INJURY
02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

unknown

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE ILD | 02 SITE NUMBER 984 766 378

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

unknown

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

unknown

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

unknown

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills, Runoff, Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: 4-11-84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown — 04 NARRATIVE DESCRIPTION

Nineteen 55-gallon drums were first documented onsite in 1984. At that time some were full or partially full of liquid. During the 1987 inspection, large areas of uncovered refuse and leachate flows were noted.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

unknown

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

unknown

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

unknown

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 19905

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

US Department of Commerce, 1991. Summary Population and Housing Characteristics, Illinois, 1990 Census of Population and Housing.
US Geological Survey, 1967 and 1982. Topographic maps of Decatur, Harristown, Warrensburg, Forsyth, IL. 7.5-minute quadrangle.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE: ILD 02 SITE NUMBER: 984 766 378

II. PERMIT INFORMATION

No permits issued

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☒ A. SURFACE IMPOUNDMENT	alleged	
☐ B. PILES		
☒ C. DRUMS, ABOVE GROUND	19	55 gallon
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	unknown	
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER

- ☐ A. BUILDINGS ON SITE

06 AREA OF SITE: 66 (Acres)

07 COMMENTS

A waste pit used for disposing industrial waste onsite is alleged. It was never documented during site visits and the owner's son denies it was ever present.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

Dilapidated, empty drums lie along the east border of the site near the sanitary district. No diking, liners or containment are known to exist.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO

02 COMMENTS

The site is partially surrounded with a 4-strand barbed wire fence.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

BVWST, 1993

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	984 766 378

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check all applicable)

	SURFACE	WELL
COMMUNITY	A. ☒	B. ☐
NON-COMMUNITY	C. ☐	D. ☐

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. ☐	B. ☐	C. ☒
D. ☐	E. ☐	F. ☐

03 DISTANCE TO SITE

A. < 4 (mi)

B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING ☒ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUNDWATER 6525

03 DISTANCE TO NEAREST DRINKING WATER WELL 0.25 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
11.5 (ft)	S-S/W	10 (ft)	unknown (gpd)	☒ YES ☐ NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)

Area wells are for private use. These wells draw water from the shallow glacial drift aquifer.

10 RECHARGE AREA		11 DISCHARGE AREA	
☐ YES ☐ NO	COMMENTS: unknown	☐ YES ☐ NO	COMMENTS: unknown

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Sangamon River	☐	0 (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 820 NO. OF PERSONS	B. 2668 NO. OF PERSONS	C. 10,220 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION .25 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 742

04 DISTANCE TO NEAREST OFF-SITE BUILDING .25 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

A rural/suburban population is in the site vicinity.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 984 766 378

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☒ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☒ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
200 (ft)	unknown (ft)	unknown

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
1.89 (in)	3 (in)	varies %	varies	unknown %

09 FLOOD POTENTIAL
SITE IS IN 500 YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. .5 (mi)	B. _____ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)
_____ (mi)
ENDANGERED SPECIES: none

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. onsite (mi)	B. border site (mi)	C. .25 (mi)	D. .25 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site topography is sloping and irregular. However, most runoff eventually drains to the Sangamon River south of the site.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

US Fish and Wildlife Service, 1988. Wetlands Inventory maps: Decatur and Harristown, IL. Aerial photography dated May, 1983.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER
ILD 984 766 378

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	8	TAL-Skinner and Sherman TCL-American Analytical and Technical Present Services	
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	4	TAL-NFT, Inc. ~~TCL-Coast to Coast Analytical Services Present~~	
VEGETATION			
OTHER Sediment	4	TAL-Skinner and Sherman TCL-American Analytical and Technical Present Services	

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
PID	Field screening instruments did not give readings above background except when downwind from the sanitary district sludge lagoon.
Water level	
pH/conductivity	

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☐ AERIAL

02 IN CUSTODY OF BVWST
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS SSI Report

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

BVWST, 1993

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER
ILD 984 766 378

CURRENT OWNER(S)				PARENT COMPANY (If applicable)			
01 NAME: Lavone Barding		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.): 2271 West Center St.		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY: Decatur	06 STATE: IL	07 ZIP CODE: 62526		12 CITY	13 STATE	14 ZIP CODE	
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		12 CITY	13 STATE	14 ZIP CODE	
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		12 CITY	13 STATE	14 ZIP CODE	
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		12 CITY	13 STATE	14 ZIP CODE	

III. PREVIOUS OWNER(S) (Last most recent first)			IV. REALTY OWNER(S) (If applicable; list most recent first)		
01 NAME: Junior L. Barding		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.): - deceased-		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
ILD 984 766 378

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE	08 YEARS OF OPERATION	09 NAME OF OWNER
James Spawr/Junior Barding		965 S. Wyckles Road		Decatur	IL	60522	20	Lavone Barding

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE	08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

BVWST, 1993

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	984 766 378

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
none	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
unknown			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
unknown			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER
ILD 984 766 378

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	984 766 378

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ S. CAPPING/COVERING — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ W. GAS CONTROL — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ X. FIRE CONTROL — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ Z. AREA EVACUATED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
ILD 984 766 378

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

In 1984 the Illinois Environmental Protection Agency (IEPA) conducted an inspection of the Decatur Barding and Spawr Landfill. During the inspection, nineteen 55-gallon drums were found onsite. Several drums were full or partially full of liquid. Two leachate flows were also noted during this inspection.

In 1987 IEPA conducted a followup inspection. During this visit, large areas of uncovered refuse and leachate flows were observed. The leachate was sampled and contained three solvents at concentrations under 10 parts per billion. Neighboring monitoring wells contained compounds under 50 parts per billion.

A preliminary assessment was conducted in 1989. The site was assigned a high priority because of onsite contamination and proximity of the surrounding population.

A screening site inspection reconnaissance and sampling visit were conducted in 1993.

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA, 1993

Appendix C

Decatur/Barding & Spawr Landfill

Target Compound List and
Target Analyte List

Target Compound List

Volatiles

Chloromethane
Bromomethane
Vinyl Chloride
Chloroethane
Methylene Chloride
Acetone
Carbon Disulfide
1,1-Dichloroethene
1,1-Dichloroethane
1,2-Dichloroethene (total)
Chloroform
1,2-Dichloroethane
2-Butanone
1,1,1-Trichloroethane
Carbon Tetrachloride
Bromodichloromethane
1,2-Dichloropropane
Cis-1,3-Dichloropropene
Trichloroethene
Dibromochloromethane
1,1,2-Trichloroethane
Benzene
trans-1,3-Dichloropropane
Bromoform
4-Methyl-2-pentanone
2-Hexanone
Tetrachloroethene
Toluene
1,1,2,2-Tetrachloroethane
Chlorobenzene
Ethyl benzene
Styrene
Xylenes (total)

Source: Target Compound List for water and soil with low or medium levels of volatile and semi-volatile organic contaminants, as shown in the Quality Assurance Project Plan for Region V Superfund Site Assessment Program, BVWST, September 27, 1991.

Target Compound List (Continued)

Semi-Volatiles

Phenol
bis(2-Chloroethyl) ether
2-Chlorophenol
1,3-Dichlorobenzene
1,4-Dichlorobenzene
1,2-Dichlorobenzene
2-Methylphenol
2,2-oxybis-(1-Chloropropane)*
4-Methylphenol
N-Nitroso-di-n-dipropylamine
Hexachloroethane
Nitrobenzene
Isophorone
2-Nitrophenol
2,4-Dimethylphenol
bis(2-Chloroethoxy) methane
2,4-Dichlorophenol
1,2,4-Trichlorobenzene
Naphthalene
4-Chloroaniline
Hexachlorobutadiene
4-Chloro-3-methylhenol
2-Methylnaphthalene
Hexachlorocyclopentadiene
2,4,6-Trichlorophenol
2,4,5-Trichlorophenol
2-Chloronephthalene
2-Nitroaniline
Dimethylphthalate
Acenaphthylene
2,6-Dinitrotoluene
3-Nitroaniline
Acenaphthene
2,4-Dinitrophenol
4-Nitrophenol
Dibenzofuran
2,4-Dinitrotoluene
Diethylphthalate
4-Chlorphenyl-phenyl ether
Fluroene
4-Nitroaniline
4,6-Dinitro-2-methylphenol
N-Nitrosodiphenylamine
4-Bromophenyl-phenyl ether
Hexachlorobenzene
Pentachlorophenol
Phenanthrenel
Anthracene
Carbazole
Di-n-butylphthalate
Fluoranthene
Pyrene
Butyl benzyl phthalate
3,3-Dichlorbenzidine
Benzo(a)anthracene
Chrysene
bis(2-Ethylhexyl)phthalate
Di-n-Octyphthalate
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzp(a)pyrene
Indeno(1,2,3-cd)pyrene
Dibenzo(a,h)anthracene
Benzo(g,h,i)perylene

*Previously known by the name of bis(2-chlorousipropyl) ether.

Source: Target Compound List for water and soil with low or medium levels of volatile and semi-volatile organic contaminants, as shown in the Quality Assurance Project Plan for Region V Superfund Site Assessment Program, BVWST, September 27, 1991.

Target Compound List (Continued)

Pesticide/PCB

alpha-BHC	4,4-DDT
beta-BHC	Methoxychlor
delta-BHC	Endrin ketone
gamma-BHC (Lindane)	Endrin aldehyde
Heptachlor	alpha-chlordane
Aldrin	gamma-chlordane
Heptachlor epoxide	Toxaphene
Endosulfan I	Aroclor-1016
Dieldrin	Aroclor-1221
4,4-DDE	Aroclor-1232
Endrin	Aroclor-1242
Endosulfan II	Aroclor-1248
4,4-DDD	Aroclor-1254
Endosulfan sulfate	Aroclor-1260

Source: Target Compound List for water and soil containing less than high concentrations of pesticides/aroclors, as shown in the Quality Assurance Project Plan for Region V Superfund Site Assessment Program, BVWST, September 27, 1991.

Target Analyte List

Aluminum	Magnesium
Antimony	Manganese
Arsenic	Mercury
Barium	Nickel
Beryllium	Potassium
Cadmium	Selenium
Calcium	Silver
Chromium	Sodium
Cobalt	Thallium
Copper	Vanadium
Iron	Zinc
Lead	Cyanide

Source: Target Analyte List in the Quality Assurance Project Plan for Region V Superfund Site Assessment Program, BVWST, September 27, 1991.

Appendix D
Decatur/Barding & Spawr Landfill
Analytical Results

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Inorganic Analysis for Soil Samples D-28

Data Qualifiers		
Analysis	Qualifier	Description
Organic	U	Compound was analyzed but not detected. The associated numerical value is the sample quantitation limit.
	J	An estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria with the result less than the sample quantitation limit but greater than zero.
	B	Reported value is less than the CRQL, but greater than the instrument detection limit.
	N	Indicates presumptive evidence of a compound. This flag is used only for TICs.
	A	Indicates that a TIC is a suspected aldol-condensation product.
	P	Indicates there is greater than 25 percent difference for detected concentrations between two gas chromatograph columns in pesticide/Arochlor analysis. The lower of the two values is flagged.
Inorganic	U	Compound was analyzed for but not detected. The associated numerical value is the sample quantitation limit.
	J	An estimated value.
	B	The reported value is less than the CRDL, but greater than or equal to the IDL.
	N	Spiked sample recovery not within control limits.
	W	Post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50 percent of spike absorbance.
	*	Duplicate analysis not within control limits.
	+	Correlation coefficient for the method of standard additions (MSA) is less than 0.995.
	S	The reported value was determined by the MSA.

Volatile Organic Analysis for Groundwater Samples Decatur/Barding & Spawr Landfill							
Volatile Compound	Sample Locations and Number Concentrations in ug/L						
	GW01	GW02	GW03	GW04	GW05	GW06	GWO8 Background
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
Methylene Chloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ
Carbon Disulfide	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Volatile Organic Analysis for Groundwater Samples Decatur/Barding & Spawr Landfill							
Volatile Compound	Sample Locations and Number Concentrations in ug/L						
	GW01	GW02	GW03	GW04	GW05	GW06	GWO8 Background
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total Number of TICS *	0	0	1	0	0	0	0

* Number, not concentrations, of tentatively identified compounds (TICs).

gw-volat

Volatile Organic Analysis for Groundwater Samples Tentatively Identified Compounds Decatur/Barding & Spawr Landfill Concentrations in ug/L		
Compound Name	Retention Time	Estimated Concentration
Sample GW03		
Propene chloro-	2.074	12 J

Vtic-gw

Semi-volatile Organic Analysis for Groundwater Samples
Decatur/Barding & Spawr Landfill

Semi-volatile Compound	Sample Location and Number Concentrations in ug/L						
	GWO1	GW02	GW03	GW04	GW05	GW06	GW08 Background
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)Ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	10 UJ	10 U	10 UJ	10 UJ	10 UJ	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
n-Nitroso-Di-n-Propylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)Methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 UJ	10 U	10 U	10 U	10 U	10 UJ
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Semi-volatile Organic Analysis for Groundwater Samples
Decatur/Barding & Spawr Landfill

Semi-volatile Compound	Sample Location and Number Concentrations in ug/L						
	GWO1	GW02	GW03	GW04	GW05	GW06	GW08 Background
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dimethyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-Methylphenol	25 U	25 U	25 U	25 U	25 U	25 U	25 U
n-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U
di-n-Butylphthalate	10 U	10 U	10 U	10 U	0.6 J	10 U	2 J
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Semi-volatile Organic Analysis for Groundwater Samples
Decatur/Barding & Spawr Landfill

Semi-volatile Compound	Sample Location and Number Concentrations in ug/L						
	GWO1	GW02	GW03	GW04	GW05	GW06	GW08 Background
Butylbenzylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ
Benzo(a)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)Phthalate	10 UJB	10 UJB	10 UJB	10 UJB	10 UJB	10 UJB	10 U
di-n-Octyl Phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)Perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total Number of TICs *	0	16	2	2	1	1	4

* Number, not concentration, of tentatively identified compounds (TICs).

gw-semiv

Semi-volatile Organic Analysis for Groundwater Samples Tentatively Identified Compounds Decatur/Barding & Spawr Landfill Concentrations in ug/L		
Compound Name	Retention Time	Estimated Concentration
Sample GW02		
Benzene, chloro-	5.03	3 JN
Unknown	10.16	2 J
Unknown	11.00	2 J
Unknown	11.45	4 J
Morpholine, 4-acetyl-	11.49	16 JN
Phenol, 3-(1,1-dimethylethyl	12.83	3 JN
Benzamide, N,N-diethyl-3-met	16.18	4 JN
Unknown	16.79	3 J
Unknown	17.06	12 J
2(3H)-Benzothiazolone	17.25	26 JN
Unknown	17.64	7 J
Unknown	18.10	8 J
2,4,6(1H,3H,5H)-Pyrimidinetr	18.49	26 JN
Unknown	20.18	2 J
Unknown	20.62	5 J
Unknown	23.24	4 J
Sample GW03		
Unknown	17.04	3 J
Unknown	26.00	16 UJB
Sample GW04		
Unknown	2.57	2 J
Unknown	9.09	4 J
Sample GW05		
Unknown	26.00	2 UJB
Sample GW06		
Unknown	18.23	3 J
Sample GW08 Background		
Unknown	18.07	2 J
Unknown	18.25	6 J
Unknown	19.06	6 J
Unknown	25.79	7 J

tic-gw

Pesticide/Pcb Analysis for Groundwater Samples Decatur/Barding & Spawr Landfill							
Pesticide/ PCB	Sample Locations and Number Concentrations in ug/L						
	GW01	GW02	GW03	GW04	GW05	GW06	GW08 Background
Alpha-BHC	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 UJ
Beta-BHC	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 UJ
Delta-BHC	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 UJ
Gamma-BHC (Lindane)	0.050 U	0.11 P	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 UJ
Heptachlor	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 UJ
Aldrin	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 UJ
Heptachlor Epoxide	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 UJ
Endolsulfan I	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 UJ
Dieldrin	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 UJ
4,4'-DDE	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 UJ
Endrin	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 UJ
Endosulfan II	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 UJ
4,4'-DDD	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 UJ
Endosulfan Sulfate	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 UJ
4,4'-DDT	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 UJ
Methoxychlor	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
Endrin Ketone	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ
Endrin Aldehyde	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ
Alpha-Chlordane	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ
Gamma-Chlordane	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ
Toxaphene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ
Aroclor-1016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Aroclor-1221	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ
Aroclor-1232	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1242	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Aroclor-1248	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Aroclor-1254	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Aroclor-1960	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ

gwpest

Inorganic Analysis for Groundwater Samples Decatur/Barding & Spawr Landfill							
Metals and Cyanide	Sample Locations and Number Concentrations in ug/L						
	GW01	GW02	GW03	GW04	GW05	GW06	GWO8 Background
Aluminum	36.8 UJB	32.0 UJB	46.1 UJB	54.3 UJB	73.6 UJB	27.0 U	40.7 UB
Antimony	34.9 JB	19.5 JB	26.5 JB	28.7 JB	29.1 JB	23.8 JB	18.4 U
Arsenic	3.2 B	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	94.3
Barium	234	553	244	128 B	119 B	39.3 B	190 B
Beryllium	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Cadmium	1.6 U	1.6 U	2.1 JB	1.6 U	1.6 U	1.6 U	1.6 U
Calcium	107000	127000	209000	151000	136000	104000	106000
Chromium	4.8 JB	6.0 JB	3.8 JB	3.3 JB	3.4 JB	5.0 JB	2.7 U
Cobalt	2.5 U	19.9 B	3.4 JB	6.0 JB	2.7 JB	2.5 U	2.5 U
Copper	7.3 JB	23.7 JB	49.3 J	14.6 JB	2.9 JB	96.6	5.1 JB
Iron	3550 J	25.1 JB	226 J	321 J	1070 J	6.5 UJ	3910 J
Lead	2.8 UB	4.0 UW	1.5 U	1.5 U	2.2 UB	1.5 U	1.5 U
Magnesium	52100	81800	117000	72800	78700	43500	58100
Manganese	233	4890	1280	5840	386	1.5 JB	42.2
Mercury	0.49 JN	0.49 JN	0.10 UJN	4.2 JN	0.10 UN	0.10 UN	0.10 UN
Nickel	6.1 JB	85.6	33.9 B	18.6 JB	5.1 JB	3.6 JB	3.0 U
Potassium	2220 B	44600	1850 B	947 B	2130 B	1230 B	2880 B
Selenium	3.8 UJW	3.8 UJW	3.8 U	3.8 UJW	3.8 U	3.8 U	3.8 UJW
Silver	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
Sodium	33600	160000	242000	105000	71100	13600	37000
Thallium	1.9 UN	1.9 UN	1.9 UN	1.9 UN	1.9 UN	1.9 UN	1.9 UJNW
Vanadium	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 JB	2.5 U
Zinc	11.1 JB	11.2 JB	16.5 JB	8.7 JB	24.8	49.5	4.7 U
Cyanide	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U

gwmetals

Volatile Organic Analysis for Sediment Samples Decatur/Barding & Spawr Landfill				
Volatile Compound	Sample Locations and Number Concentrations in ug/kg			
	ST01	ST02	ST03	ST04 Background
Chloromethane	12 U	14 U	24 U	43 U
Bromomethane	12 U	14 U	24 U	43 U
Vinyl Chloride	12 U	14 U	24 U	43 U
Chloroethane	12 UJ	14 UJ	24 UJ	43 UJ
Methylene Chloride	5 J	14 U	24 U	43 U
Acetone	12 UJB	25 UJB	35 UJ	200 JB
Carbon Disulfide	12 U	14 U	24 U	43 U
1,1-Dichloroethene	12 U	14 U	24 U	43 U
1,1-Dichloroethane	12 U	14 U	24 U	43 U
1,2-Dichloroethene (total)	12 U	14 U	24 U	43 U
Chloroform	12 U	14 U	24 U	43 U
1,2-Dichloroethane	12 U	14 U	24 U	43 U
2-Butanone	12 U	14 U	6 J	56
1,1,1-Trichloroethane	12 U	14 U	24 U	43 U
Carbon Tetrachloride	12 U	14 U	24 U	43 U
Bromodichloromethane	12 U	14 U	24 U	43 U
1,2-Dichloropropane	12 U	14 U	24 U	43 U
cis-1,3-Dichloropropene	12 U	14 U	24 U	43 U
Trichloroethene	12 U	14 U	24 U	43 U
Dibromochloromethane	12 U	14 U	24 U	43 U
1,1,2-Trichloroethane	12 U	14 U	24 U	43 U
Benzene	12 U	2 J	24 U	43 U
trans-1,3-Dichloropropene	12 U	14 U	24 U	43 U
Bromoform	12 U	14 U	24 U	43 U
4-Methyl-2-Pentanone	12 U	14 U	24 U	43 UJ
2-Hexanone	12 UJ	14 UJ	24 UJ	43 UJ
Tetrachloroethene	12 U	14 U	24 U	43 UJ
1,1,2,2-Tetrachloroethane	12 U	14 U	24 U	43 UJ
Toluene	12 U	14 U	24 U	43 UJ
Chlorobenzene	12 U	14 U	24 U	43 UJ
Ethylbenzene	12 U	14 U	24 U	43 UJ
Styrene	12 U	14 U	24 U	43 UJ
Xylene (total)	12 U	14 U	24 U	43 UJ
Total Number of TICS *	0	0	0	0

* Number, not concentrations, of tentatively identified compounds (TICs). sed-vol

Semi-volatile Organic Analysis for Sediment Samples
Decatur/Barding & Spawr Landfill

Semi-volatile Compound	Sample Location and Number Concentrations in ug/kg			
	ST01	ST02	ST03	ST04 Background
Phenol	390 U	450 U	800 U	1400 U
bis(2-Chloroethyl)Ether	390 U	450 U	800 U	1400 U
2-Chlorophenol	390 UJ	450 UJ	800 UJ	1400 UJ
1,3-Dichlorobenzene	390 U	450 U	800 U	1400 U
1,4-Dichlorobenzene	390 U	27 J	800 U	1400 U
1,2-Dichlorobenzene	390 U	450 U	800 U	1400 U
2-Methylphenol	390 U	450 U	800 U	1400 U
2,2'-oxybis(1-Chloropropane)	390 U	450 U	800 U	1400 U
4-Methylphenol	390 U	450 U	800 U	1400 U
n-Nitroso-Di-n-Propylamine	390 U	450 U	800 U	1400 U
Hexachloroethane	390 U	450 U	800 U	1400 U
Nitrobenzene	390 U	450 U	800 U	1400 U
Isophorone	390 U	450 U	800 U	1400 U
2-Nitrophenol	390 U	450 U	800 U	1400 U
2,4-Dimethylphenol	390 U	450 U	800 U	1400 U
bis(2-Chloroethoxy)Methane	390 U	450 U	800 U	1400 U
2,4-Dichlorophenol	390 U	450 U	800 U	1400 U
1,2,4-Trichlorobenzene	390 U	450 U	800 U	1400 U
Naphthalene	390 U	450 U	800 U	1400 U
4-Chloroaniline	390 U	450 U	800 U	1400 U
Hexachlorobutadiene	390 U	450 U	800 U	1400 U
4-Chloro-3-Methylphenol	390 UJ	450 UJ	800 UJ	1400 UJ
2-Methylnaphthalene	390 U	450 U	800 U	1400 U
Hexachlorocyclopentadiene	390 U	450 U	800 U	1400 U
2,4,6-Trichlorophenol	390 U	450 U	800 U	1400 U
2,4,5-Trichlorophenol	940 U	1100 U	2000 U	3500 U
2-Chloronaphthalene	390 U	450 U	800 U	1400 U
2-Nitroaniline	940 U	1100 U	2000 U	3500 U
Dimethyl Phthalate	390 U	450 U	800 U	1400 U
Acenaphthylene	390 U	450 U	800 U	1400 U
2,6-Dinitrotoluene	390 U	450 U	800 U	1400 U
3-Nitroaniline	940 U	1100 U	2000 U	3500 U
Acenaphthene	390 U	450 U	800 U	1400 U
2,4-Dinitrophenol	940 U	1100 U	2000 U	3500 U
4-Nitrophenol	940 UJ	1100 UJ	2000 UJ	3500 UJ
Dibenzofuran	390 U	450 U	800 U	1400 U
2,4-Dinitrotoluene	390 UJ	450 UJ	800 UJ	1400 UJ
Diethylphthalate	390 U	450 U	800 U	1400 U
4-Chlorophenyl-phenylether	390 U	450 U	800 U	1400 U
Fluorene	390 U	450 U	800 U	1400 U
4-Nitroaniline	940 U	1100 U	2000 U	3500 U
4,6-Dinitro-2-Methylphenol	940 U	1100 U	2000 U	3500 U
n-Nitrosodiphenylamine	390 U	450 U	800 U	1400 U
4-Bromophenyl-phenylether	390 U	450 U	800 U	1400 U

Semi-volatile Organic Analysis for Sediment Samples
Decatur/Barding & Spawr Landfill

Semi-volatile Compound	Sample Location and Number Concentrations in ug/kg			
	ST01	ST02	ST03	ST04 Background
Hexachlorobenzene	390 U	450 U	800 U	1400 U
Pentachlorophenol	940 UJ	1100 UJ	2000 UJ	3500 UJ
Phenanthrene	390 U	450 U	150 J	210 J
Anthracene	390 U	450 U	800 U	1400 U
Carbazole	390 U	450 U	800 U	1400 U
di-n-Butylphthalate	390 U	450 U	800 U	1400 U
Fluoranthene	390 U	450 U	230 J	340 J
Pyrene	390 U	450 U	150 J	220 J
Butylbenzylphthalate	390 U	450 U	800 U	1400 U
3,3'-Dichlorobenzidine	390 U	450 U	800 U	1400 U
Benzo(a)Anthracene	390 U	450 U	67 J	120 J
Chrysene	390 U	450 U	90 J	150 J
bis(2-Ethylhexyl)Phthalate	390 UJB	450 UJB	800 UJB	1400 UJB
di-n-Octyl Phthalate	390 U	450 U	800 U	1400 U
Benzo(b)Fluoranthene	390 U	450 U	800 U	230 J
Benzo(k)Fluoranthene	390 U	450 U	800 U	1400 U
Benzo(a)Pyrene	390 U	450 U	800 U	1400 U
Indeno(1,2,3-cd)Pyrene	390 U	450 U	800 U	1400 U
Dibenzo(a,h)Anthracene	390 U	450 U	800 U	1400 U
Benzo(g,h,i)Perylene	390 U	450 U	800 U	1400 U
Total Number of TICs	8	18	20	21

sedim-sv

Semi-volatile Organic Analysis for Sediment Samples Tentatively Identified Compounds Decatur/Barding & Spawr Landfill Concentrations in ug/kg		
Compound Name	Retention Time	Estimated Concentration
Sample ST01		
Benzene, methyl-	3.28	98 JN
3-Penten-2-one, 4-methyl-	3.93	120 UJBNA
2-Pentanone, 4-hydroxy-4-met	5.07	6500 UJBNA
Unknown	23.27	310 J
Unknown	25.68	98 J
Unknown	25.99	120 J
Unknown Alkane	26.38	120 J
Unknown Alkane	28.00	220 J
Sample ST02		
Benzene, methyl-	3.27	320 JN
3-Penten-2-one, 4-methyl-	3.93	140 UJBNA
Aldol condensate	5.05	6300 JA
Ethane, 1,1,2,2-tetrachloro-	6.65	110 JN
2(3H)-Benzothiazolone	17.19	700 JN
Unknown	19.80	110 J
Unknown	21.38	160 J
Unknown	21.46	520 J
Unknown	21.51	320 J
Unknown	22.91	2100 J
Unknown	22.97	1100 J
Unknown	23.07	110 J
Unknown Alkane	23.73	320 J
Unknown Alkane	25.05	470 JN
Unknown	25.73	1200 J
Unknown	26.00	180 J
Unknown Alkane	26.37	860 J
Unknown Alkane	28.00	950 J
Sample ST03		
2-Pentanone, 4-hydroxy-4-met	5.02	11000 UJBNA
Acetic acid, octyl ester	11.61	2200 JN
Butanoic acid, octyl ester	13.87	8100 JN
Unknown	16.02	730 J
9-Hexadecenoic acid	19.52	1400 JN
Hexadecanoic acid	19.67	1200 JN
Methoxsalen	20.65	1000 JN
7H-Furo(3,2-g)(1)benzopyran-	20.84	1300 JN
Unknown	21.19	610 J
Nonanmide	21.51	410 JN
7H-Furo(3,2-g)(1)benzopyran-	22.26	930 JN
Unknown	22.92	1300 J
Unknown Alkane	25.05	530 J
Unknown	25.74	3300 J
Unknown	25.99	1200 J
Unknown Alkane	26.38	4100 J
Unknown Alkane	28.02	4900 J

Semi-volatile Organic Analysis for Sediment Samples Tentatively Identified Compounds Decatur/Barding & Spawr Landfill Concentrations in ug/kg		
Compound Name	Retention Time	Estimated Concentration
Sample ST03 (Continued)		
Unknown Alkane	30.20	770 J
Unknown	31.60	690 J
Unknown	31.84	410 J
Sample ST04 Background		
2-Pentanone, 4-hydroxy-4-met	5.08	25000 UJNBA
Acetic acid, octyl ester	11.60	800 JN
Butanoic acid, octyl ester	13.86	2700 JN
Tetradecanoic acid	18.44	1000 JN
9-Hexadecenoic acid	19.56	6700 JN
Unknown hydrocarbon	19.62	2500 J
Hexadecanoic acid	19.71	8700 JN
Unknown hydrocarbon	21.17	8000 J
Unknown	21.22	5400 J
Unknown	22.93	5200 J
Unknown Alkane	25.05	2400 J
Unknown	25.75	3400 J
Unknown	26.00	1800 J
Unknown Alkane	26.40	12000 J
Unknown hydrocarbon	26.59	2600 J
Unknown Alkane	28.06	14000 J
Unknown	28.49	1600 J
Unknown	29.06	1800 J
Unknown	29.79	1100 J
Unknown Alkane	30.25	2700 J
Unknown	31.64	1600 J

tic-sed

Pesticide/Pcb Analysis for Sediment Samples Decatur/Barding & Spawr Landfill				
Pesticide/	Sample Location and Number Concentrations in ug/kg			
	ST01	ST02	ST03	ST04
PCB				Background
Alpha-BHC	2.0 U	2.3 U	4.1 UJ	7.4 U
Beta-BHC	2.0 U	2.3 U	4.1 UJ	7.4 U
Delta-BHC	2.0 U	2.3 U	4.1 UJ	7.4 U
Gamma-BHC (Lindane)	2.0 U	2.3 U	4.1 UJ	7.4 U
Heptachlor	2.0 U	2.3 U	4.1 UJ	7.4 U
Aldrin	2.0 U	2.3 U	4.1 UJ	7.4 U
Heptachlor Epoxide	2.0 U	2.3 U	4.1 UJ	7.4 U
Endosulfan I	2.0 U	2.3 U	4.1 UJ	7.4 U
Dieldrin	3.9 U	4.5 U	8.0 UJ	14 U
4,4'-DDE	3.9 U	4.5 U	8.0 UJ	14 U
Endrin	3.9 U	4.5 U	8.0 UJ	14 U
Endosulfan II	3.9 U	4.5 U	8.0 UJ	14 U
4,4'-DDD	3.9 U	4.5 U	8.0 UJ	14 U
Endosulfan Sulfate	3.9 U	4.5 U	8.0 UJ	14 U
4,4'-DDT	3.9 U	4.5 U	8.0 UJ	14 U
Methoxychlor	20 U	23.0 U	41.0 UJ	74 U
Endrin Ketone	3.9 U	4.5 U	8.0 UJ	14 U
Endrin Aldehyde	3.9 U	4.5 U	8.0 UJ	14 U
Alpha-Chlordane	2.0 U	2.3 U	8.0 PJ	7.4 U
Gamma-Chlordane	2.0 U	2.3 U	6.9 PJ	7.4 U
Toxaphene	200 U	230 U	410 UJ	740 U
Aroclor-1016	39 U	45 U	80 UJ	140 U
Aroclor-1221	79 U	91 U	160 UJ	290 U
Aroclor-1232	39 U	45 U	80 UJ	140 U
Aroclor-1242	39 U	45 U	80 UJ	140 U
Aroclor-1248	39 U	45 U	84 UJ	140 U
Aroclor-1254	39 U	45 U	110 UJ	140 U
Aroclor-1260	39 U	45 U	80 UJ	140 U

Pestsed

Inorganic Analysis for Sediment Samples Decatur/Barding & Spawr Landfill				
Metals and Cyanide	Sample Locations and Number Concentrations in mg/kg			
	ST01	ST02	ST03	ST04 Background
Aluminum	2310 *	5130 *	6760 *	5290 *
Antimony	4.3 U	5.4 U	6.8 U	13.9 U
Arsenic	5.0 JN*+	14.1 JN*	49.3 JN*S	8.5 JN*
Barium	29.0 B	150	205	87.0 B
Beryllium	0.20 U	0.26 U	0.32 U	0.66 U
Cadmium	0.32 U	0.40 U	0.50 U	1.0 U
Calcium	51200	35500	48900	20200
Chromium	9.2	8.5 J	13.2 J	12.5 J
Cobalt	3.5 B	5.4 B	7.0 B	6.6 B
Copper	18.7 *	26.5 *	51.4 *	28.7 J*
Iron	16600 J*	29000 J*	35000 J*	12300 J*
Lead	8.5 JN	7.7 JN	30.9 JN	41.9 JN
Magnesium	17400 J*	11700 J*	10500 J*	7090 J*
Manganese	472 J*	265 J*	682 J*	747 J*
Mercury	0.06 U	0.07 U	0.16 B	0.17 U
Nickel	8.8 B	10.3 B	16.5	17.3 B
Potassium	503 B	1090 B	1430 B	1140 B
Selenium	0.72 UJNW	0.86 UJNW	1.0 UJNW	2.3 UJNW
Silver	1.0 U	2.3 B	1.6 U	3.4 U
Sodium	94.8 JB	116 B	398 B	334 B
Thallium	0.44 U	0.53 U	0.64 U	1.4 U
Vanadium	10.0 B	14.2 B	21.3	13.1 B
Zinc	35.3 *	33.3 *	239	92.4 *
Cyanide	0.58 U	0.72 U	0.84 U	1.9 U

sedmetal

Volatile Organic Analysis for Soil Samples Decatur/Barding & Spawr Landfill				
Volatile Compound	Sample Locations and Number Concentrations in ug/kg			
	SS01	SS02	SS03	SS04 Background
Chloromethane	12 UJ	14 UJ	13 UJ	14 UJ
Bromomethane	12 U	14 U	13 U	14 U
Vinyl Chloride	12 U	14 U	13 U	14 U
Chloroethane	12 U	14 U	13 U	14 U
Methylene Chloride	12 U	14 UJB	13 U	14 UJB
Acetone	12 U	14 U	13 U	14 U
Carbon Disulfide	12 U	14 U	13 U	14 U
1,1-Dichloroethene	12 U	14 U	13 U	14 U
1,1-Dichloroethane	12 U	14 U	13 U	14 U
1,2-Dichloroethene (total)	12 U	3 J	13 U	14 U
Chloroform	12 U	14 U	13 U	14 U
1,2-Dichloroethane	12 U	14 U	13 U	14 U
2-Butanone	12 U	14 U	13 U	14 U
1,1,1-Trichloroethane	12 U	14 U	13 U	14 U
Carbon Tetrachloride	12 U	14 U	13 U	14 U
Bromodichloromethane	12 U	14 U	13 U	14 U
1,2-Dichloropropane	12 U	14 U	13 U	14 U
cis-1,3-Dichloropropene	12 U	14 U	13 U	14 U
Trichloroethene	12 U	14 U	13 U	14 U
Dibromochloromethane	12 U	14 U	13 U	14 U
1,1,2-Trichloroethane	12 U	14 U	13 U	14 U
Benzene	12 U	14 U	13 U	14 U
trans-1,3-Dichloropropene	12 U	14 U	13 U	14 U
Bromoform	12 U	14 U	13 U	14 U
4-Methyl-2-Pentanone	12 U	14 U	13 U	14 UJ
2-Hexanone	12 U	14 U	13 U	14 UJ
Tetrachloroethene	12 U	14 U	13 U	14 UJ
1,1,2,2-Tetrachloroethane	12 U	14 U	13 U	14 UJ
Toluene	12 U	14 U	13 U	14 UJ
Chlorobenzene	12 U	14 U	13 U	14 UJ
Ethylbenzene	12 U	14 U	13 U	14 UJ
Styrene	12 U	14 U	13 U	14 UJ
Xylene (total)	12 U	14 U	13 U	14 UJ
Total Number of TICs *	1	0	0	3

* Number, not concentrations, of tentatively identified compounds (TICs).

soil-vol

Volatile Organic Analysis for Soil Samples Tentatively Identified Compounds Decatur/Barding & Spawr Landfill Concentrations in ug/kg		
Compound Name	Retention Time	Estimated Concentration
Sample SS01		
2-Tridecanone	20.87	15 JN
Sample SS04 Background		
.alpha.-pinene	20.95	11 JN
1-Nonadecene	23.81	26 JN
Benzeneacetic acid, .alpha.,	24.12	34 JN

tic-vol

Semi-volatile Organic Analysis for Soil Samples
Decatur/Barding & Spawr Landfill

Semi-volatile Compound	Sample Location and Number Concentrations in ug/kg			
	SS01	SS02	SS03	SS04 Background
Phenol	520 U	460 U	17 J	520 U
bis(2-Chloroethyl)Ether	520 U	460 U	480 U	520 U
2-Chlorophenol	520 U	460 U	480 U	520 U
1,3-Dichlorobenzene	520 U	460 U	480 U	520 U
1,4-Dichlorobenzene	520 U	460 U	480 U	520 U
1,2-Dichlorobenzene	520 U	460 U	480 U	520 U
2-Methylphenol	520 U	460 U	480 U	520 U
2,2'-oxybis(1-Chloropropane)	520 UJ	460 U	480 U	520 UJ
4-Methylphenol	520 U	460 U	480 U	520 U
n-Nitroso-Di-n-Propylamine	520 U	460 U	480 U	520 U
Hexachloroethane	520 U	460 U	480 U	520 U
Nitrobenzene	520 U	460 U	480 U	520 U
Isophorone	520 U	460 U	480 U	520 U
2-Nitrophenol	520 U	460 U	480 U	520 U
2,4-Dimethylphenol	520 U	460 U	480 U	520 U
bis(2-Chloroethoxy)Methane	520 UJ	460 U	480 U	520 UJ
2,4-Dichlorophenol	520 U	460 U	480 U	520 U
1,2,4-Trichlorobenzene	520 U	460 U	480 U	520 U
Naphthalene	520 U	460 U	480 U	520 U
4-Chloroaniline	520 U	460 U	480 U	520 U
Hexachlorobutadiene	520 U	460 U	480 U	520 U
4-Chloro-3-Methylphenol	520 U	460 U	480 U	520 U
2-Methylnaphthalene	520 UJ	460 U	408 U	520 UJ
Hexachlorocyclopentadiene	520 UJ	460 U	480 U	520 UJ
2,4,6-Trichlorophenol	520 U	460 U	480 U	520 U
2,4,5-Trichlorophenol	1200 U	1100 U	1200 U	1200 U
2-Chloronaphthalene	520 U	460 U	480 U	520 U
2-Nitroaniline	1200 UJ	1100 U	1200 U	1200 UJ
Dimethyl Phthalate	520 U	460 U	480 U	520 U
Acenaphthylene	520 U	460 U	480 U	520 U
2,6-Dinitrotoluene	520 U	460 U	480 U	520 U
3-Nitroaniline	1200 UJ	1100 U	1200 U	1200 UJ
Acenaphthene	520 U	460 U	480 U	520 U
2,4-Dinitrophenol	1200 U	1100 U	1200 U	1200 U
4-Nitrophenol	1200 UJ	1100 U	1200 U	1200 UJ
Dibenzofuran	520 U	460 U	480 U	520 U
2,4-Dinitrotoluene	520 U	460 U	480 U	520 U
Diethylphthalate	520 UJB	460 U	480 UJB	520 UJB
4-Chlorophenyl-phenylether	520 U	460 U	480 U	520 U
Fluorene	520 U	460 U	480 U	520 U
4-Nitroaniline	1200 UJ	1100 U	1200 U	1200 UJ
4,6-Dinitro-2-Methylphenol	1200 U	1100 U	1200 U	1200 U
n-Nitrosodiphenylamine	520 U	460 U	480 U	520 U
4-Bromophenyl-phenylether	520 U	460 U	480 U	520 U

Semi-volatile Organic Analysis for Soil Samples
Decatur/Barding & Spawr Landfill

Semi-volatile Compound	Sample Location and Number Concentrations in ug/kg			
	SS01	SS02	SS03	SS04 Background
Hexachlorobenzene	520 U	460 U	480 U	520 U
Pentachlorophenol	1200 U	1100 U	1200 U	1200 U
Phenanthrene	47 J	460 U	480 U	520 U
Anthracene	520 U	460 U	480 U	520 U
Carbazole	520 U	460 U	480 U	520 U
di-n-Butylphthalate	520 UJB	460 UJB	480 UJB	520 UJB
Fluoranthene	57 J	20 J	17 J	13 J
Pyrene	54 J	460 U	18 J	11 J
Butylbenzylphthalate	520 U	460 U	480 U	520 U
3,3'-Dichlorobenzidine	520 U	460 U	480 U	520 U
Benzo(a)Anthracene	30 J	460 U	480 U	520 U
Chrysene	30 J	460 U	480 U	520 U
bis(2-Ethylhexyl)Phthalate	220 J	120 J	34 J	27 J
di-n-Octyl Phthalate	520 U	460 U	480 U	520 U
Benzo(b)Fluoranthene	52 J	460 U	480 U	520 U
Benzo(k)Fluoranthene	520 U	460 U	480 U	520 U
Benzo(a)Pyrene	43 J	460 U	480 U	520 U
Indeno(1,2,3-cd)Pyrene	520 U	460 U	480 U	520 U
Dibenzo(a,h)Anthracene	520 U	460 U	480 U	520 U
Benzo(g,h,i)Perylene	520 U	460 U	480 U	520 U
Total Number of TICs	21	21	21	22

soil-sv

Semi-volatile Organic Analysis for Soil Samples Tentatively Identified Compounds Decatur/Barding & Spawr Landfill Concentrations in ug/kg		
Compound Name	Retention Time	Estimated Concentration
Sample SS01		
Unknown	5.74	400 UJB
Unknown	12.56	120 J
Hexandioic acid, dioctyl es	35.59	3800 UJBN
Unknown Alkane	37.14	170 J
Unknown Alkane	38.46	150 J
Unknown Alkane	39.74	1200 J
Unknown Alkane	40.97	380 J
Unknown Alkane	42.18	6000 J
Unknown Alkane	43.32	540 J
10-Octadecenal	43.78	980 JN
Unknown Alkane	44.46	6600 J
1-Eicosyne	44.92	340 JN
Unknown Alkane	45.54	340 J
8-Octadecenal	46.01	1600 JN
Unknown Alkane	46.60	3000 J
1-Dotriacontanol	46.73	500 JN
Unknown	47.06	460 J
Unknown	47.87	660 J
Octadecanal	48.13	480 JN
Unknown Alkane	48.66	440 J
Unknown	48.79	640 J
Sample SS02		
3-Penten-2-one, 4-methyl-	4.98	420 JN
Unknown	5.82	1300 J
2-Pentanone, 4-hydroxy-4-met	6.42	24000 JNA
2-Hexen-1-ol, (Z)-	7.51	200 JN
Unknown	8.26	440 UJB
Hexandioic acid, diocyl es	38.98	1300 UJBN
Unknown Alkane	40.56	800 J
Unknown Alkane	43.21	220 J
13-Octadecenal	47.34	130 JN
Unknown	48.00	560 J
1-Hetetracontanol	48.14	190 JN
Cholesterol	48.37	200 JN
(Z)14-Tricosenyl formate	49.60	360 JN
Unknown Alkane	50.18	160 J
1-Heneicosyl formate	50.38	190 JN
.gamma.-Sitosterol	50.54	540 JN
Unknown	51.12	110 J
Stigmast-4-en-3-one	52.11	260 JN
Unknown	52.67	110 J
Unknown	53.39	120 J
Unknown	53.55	260 J

Semi-volatile Organic Analysis for Soil Samples Tentatively Identified Compounds Decatur/Barding & Spawr Landfill Concentrations in ug/kg		
Compound Name	Retention Time	Estimated Concentration
Sample SS03		
3-Penten-2-one, 4-methyl-	4.97	1100 JN
Unknown	5.52	200 J
Butane, 2,3-dichloro-2-methy	5.66	150 JN
Unknown	5.75	840 J
2-Pentanone, 4-hydroxy-4-met	6.50	36000 JNA
2-Hexen-1-ol, (Z) -	7.50	100 JN
Cyclohexanone	7.67	150 UJBN
Unknown	8.25	340 UJB
Unknown	15.48	120 J
Hexanedioic acid, dioctyl es	39.00	3400 UJBN
Unknown Alkane	43.20	120 J
(Z) 14- Tricosenyl formate	47.31	320 JN
Unknown	47.97	740 J
1-Hentetracontanol	4.00	800 JN
Unknown	49.64	640 J
Unknown	49.95	360 J
Unknown	50.15	360 J
Unknown	51.24	150 J
Stigmast-4-en-3-one	52.04	150 JN
Unknown	52.98	120 J
Unknown	53.48	240 J
Sample SS04		
Unknown	5.74	360 UJB
Dodecanamide, N,N-bis(2-hydr	29.05	280 JN
9, 12-Octadecadienoic acid (Z	31.77	240 JN
Hexanedioic acid. dioctyl es	35.59	3800 UJBN
1-Dotriacontanol	37.04	460 JN
Hexadecanal	38.88	420 JN
1-Dotriacontanol	39.71	4200 JN
Unknown Alkane	40.97	360 J
Unknown Alkane	42.19	4200 J
17-Octadecenal	43.78	1400 JN
Unknown Alkane	44.47	5200 J
Unknown	44.92	580 J
Unknown	45.54	340 J
Stigmasterol	45.92	580 JN
(Z) 14-Tricosenyl formate	46.02	920 JN
Unknown	46.61	4600 J
Nonacosanol	46.73	520 JN
Unknown	47.09	480 J
Unknown	47.48	560 J
Unknown	47.90	1200 J
Unknown	48.66	1800 J
Unknown	48.83	3600 J

tic-svol

Pesticide and PCB Analysis for Soil Samples
Decatur/Barding & Spawr Landfill

Pesticide/PCB	Sample Location and Number Concentrations in µg/kg			
	SS01	SS02	SS 03	SS 04 Background
Alpha-BHC	1.8 U	2.3 UJ	2.2 UJ	2.2 U
Beta-BHC	1.8 U	2.3 UJ	2.2 UJ	2.2 U
Delta-BHC	1.8 U	2.3 UJ	2.2 UJ	2.2 U
Gamma-BHC (Lindane)	1.8 UJ	2.3 UJ	2.2 UJ	2.2 U
Heptachlor	1.8 U	2.3 UJ	2.2 UJ	2.1 J
Aldrin	1.8 U	2.3 UJ	2.2 UJ	2.2 U
Heptachlor Epoxide	1.8 U	2.4 J	2.2 UJ	2.2 U
Endosulfan I	1.8 U	2.3 UJ	2.2 UJ	2.2 U
Dieldrin	3.6 U	9.1 J	4.4 UJ	4.5 U
4,4'-DDE	3.6 U	4.5 UJ	4.4 UJ	4.5 U
Endrin	3.6 U	4.5 UJ	4.4 UJ	4.5 U
Endosulfan II	3.6 U	4.5 UJ	4.4 UJ	4.5 U
4,4'-DDD	3.6 U	4.5 UJ	4.4 UJ	4.5 U
Endosulfan Sulfate	3.6 U	4.5 UJ	4.4 UJ	4.5 U
4,4'-DDT	3.6 U	4.5 UJ	4.4 UJ	4.5 U
Methoxychlor	3.6 U	23 UJ	22 UJ	22 U
Endrin Ketone	3.6 U	4.5 UJ	4.4 UJ	4.5 U
Endrin Aldehyde	18 U	4.5 UJ	4.4 UJ	4.5 U
Alpha-Chlordane	1.8 U	2.3 UJ	2.2 UJ	2.2 U
Gamma-Chlordane	1.8 U	2.3 JP	2.2 UJ	2.2 U
Toxaphene	180 U	230 UJ	220 UJ	220 U
Aroclor-1016	36 U	45 UJ	44 UJ	45 U
Aroclor-1221	71 U	91 UJ	89 UJ	89 U
Aroclor-1232	36 U	45 UJ	44 UJ	45 U
Aroclor-1242	36 U	45 UJ	44 UJ	45 U
Aroclor-1248	36 U	45 UJ	44 UJ	45 U
Aroclor-1254	36 U	45 UJ	44 UJ	45 U
Aroclor-1260	36 U	45 UJ	44 UJ	45 U

Soil-pest

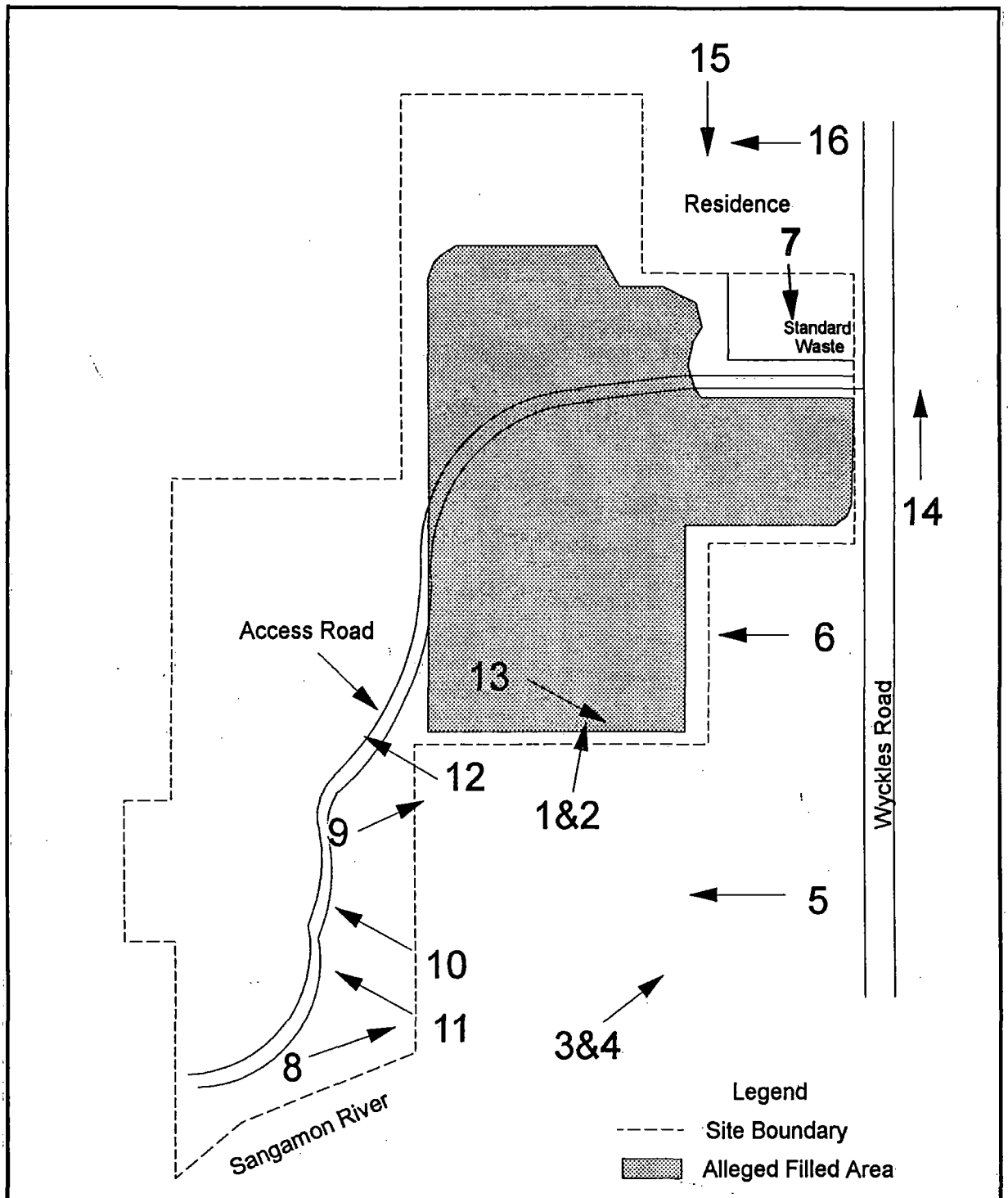
Inorganic Analysis for Soil Samples Decatur/Barding & Spawr Landfill				
Metals and Cyanide	Sample Locations and Number Concentrations in mg/kg			
	SS01	SS02	SS03	SS04 Background
Aluminum	4760	3870	13100	3330
Antimony	11.6 UJN	12.3 UJN	12.1 UJN	12.6 UJN
Arsenic	5.1 JN	3.7 JN	7.1 JN	3.7 JN
Barium	39.3 B	32.9 B	92.0	72.0
Beryllium	1.2 U	1.2 U	1.2 U	1.3 U
Cadmium	1.2 U	1.2 U	1.2 U	1.3 U
Calcium	16400 J*	44400 J*	3190 J*	1740 J*
Chromium	7.3	6.4	17.7	4.9
Cobalt	5.3 B	3.2 B	9.5 B	6.7 B
Copper	11.7	9.5	18.4	6.4
Iron	10200	8820	22100	7050
Lead	28.9	16.1	20.9	27.6
Magnesium	7910 J*	15800 J*	4250 J*	844 JB*
Manganese	328 JN	260 JN	485 JN	816 JN
Mercury	0.12 U	0.12 U	0.12 U	0.13 U
Nickel	13.2	11.0	30.0	9.6 B
Potassium	804 B	833 B	2070	561 B
Selenium	0.46 UJN	0.49 UJN	0.48 UJN	0.51 UJN
Silver	2.3 UJN	2.5 UJN	2.4 UJN	2.5 UJN
Sodium	231 U	247 U	242 U	253 U
Thallium	0.46 UJNW	0.49 UJN	0.48 UJN	0.51 UJNW
Vanadium	11.7	9.3 B	25.8	9.9 B
Zinc	42.6	37.8	77.7	36.3
Cyanide	0.17 U	0.19 U	0.18 U	0.19 U

soilmet

Appendix E

Decatur/Barding & Spawr Landfill

Site Photographs



Not to Scale	N	Figure E-1 Photo Locations
		Decatur/Barding and Spawr Landfill Decatur, Illinois

Date: 02/16/93

Time: 1410

Photo Taken By: R. Reints

Photo Number: 1

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Northeast

Description: Sanitary District monitoring well G102B in foreground. Sample GW01 (not shown) was collected from well G102B.

Date: 02/16/93

Time: 1440

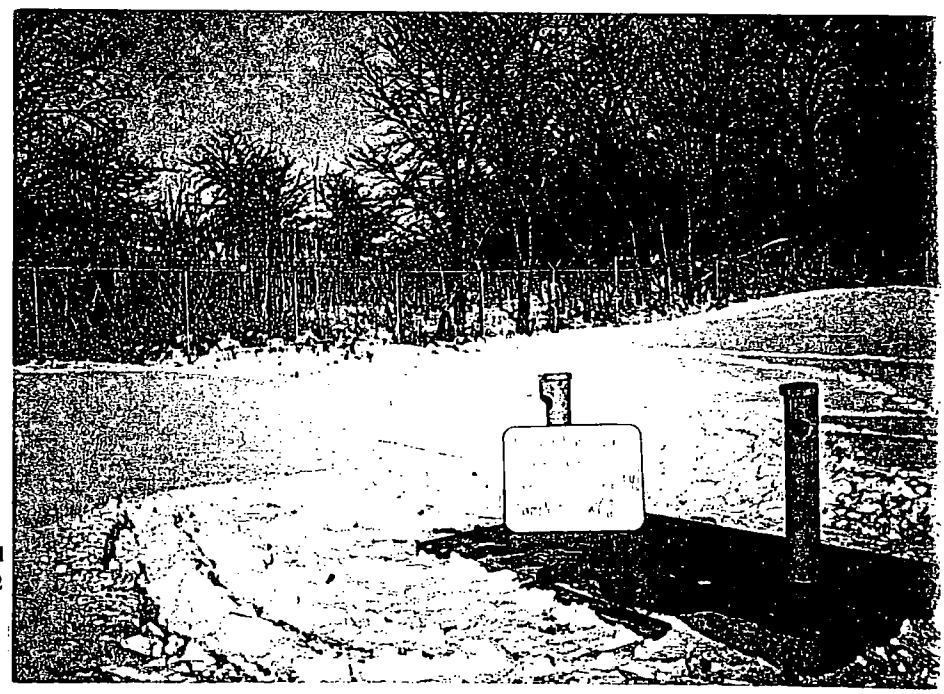
Photo Taken By: R. Reints

Photo Number: 2

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Northeast

Description: Sanitary District monitoring well G102 in center of photograph. Sample GW02 (not shown) was collected from well G102.



Date: 02/16/93

Time: 1515

Photo Taken By: R. Reints

Photo Number: 3

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Northeast

Description: Sanitary District monitoring well G103 in center of photograph. Sample GW03 (not shown) was collected from well G103.

Date: 02/16/93

Time: 1530

Photo Taken By: R. Reints

Photo Number: 4

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Northeast

Description: Sanitary District monitoring well G103 in center of photograph. Sample GW07 (not shown) was collected from well G103. Placard is incorrectly labeled Sample GW04.

Date: 02/16/93

Time: 1610

Photo Taken By: R. Reints

Photo Number: 5

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: West

Description: Sanitary District monitoring well G104. Sample GW04 (not shown) was collected from well G104. Placard is incorrectly labeled Sample GW05.

Date: 02/16/93

Time: 1700

Photo Taken By: R. Reints

Photo Number: 6

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: West

Description: Sanitary District monitoring well G101B in background. Sample GW05 (not shown) was collected from well G101B. Placard is incorrectly labeled Sample GW06.

Date: 02/17/93

Time: 0733

Photo Taken By: R. Reints

Photo Number: 7

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: South

Description: Kitchen faucet in Standard Waste's office building. Sample GW06 (not shown) was collected at this location.

Date: 02/17/93

Time: 1408

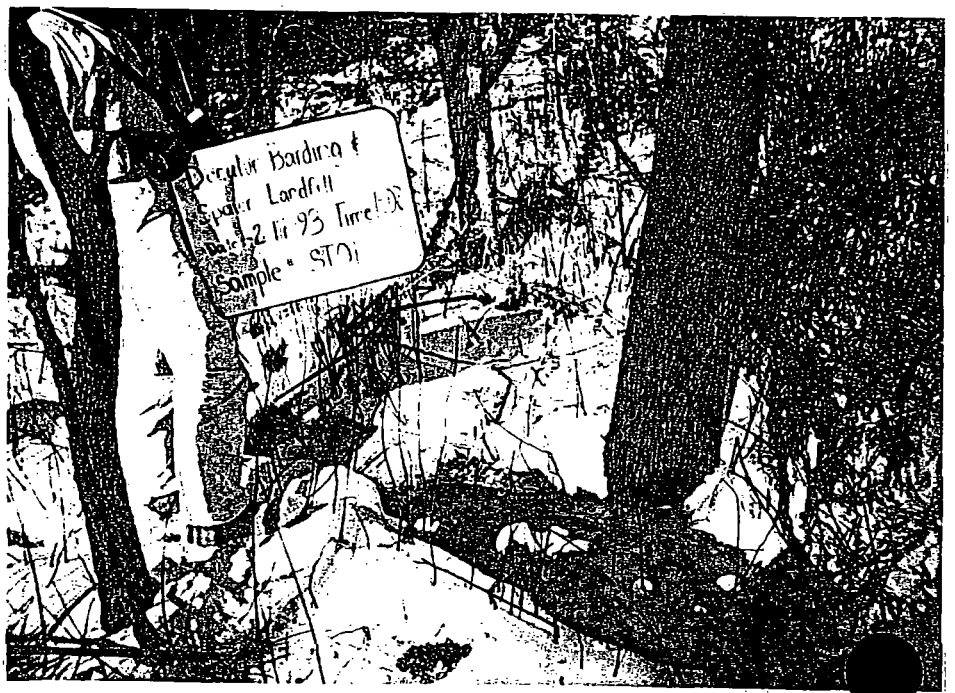
Photo Taken By: R. Reints

Photo Number: 8

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Northeast

Description: Sample location of ST01. ST01 was collected through the hole in the ice.



Date: 02/17/93

Time: 1425

Photo Taken By: R. Reints

Photo Number: 9

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Northeast

Description: Sample location of ST02. ST02 was collected below the red flag, below standing water. The standing water appears to be ponded leachate that drains to the ditch behind and below the placard.

Date: 02/17/93

Time: 1444

Photo Taken By: R. Reints

Photo Number: 10

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Northwest

Description: Sample location of SS01. Note the drums and refuse in the background.

Date: 02/17/93

Time: 1500

Photo Taken By: R. Reints

Photo Number: 11

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Northwest

Description: Sample SS02 location. Note refuse in the background and terrain.

Date: 02/17/93

Time: 1540

Photo Taken By: R. Reints

Photo Number: 12

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Northwest

Description: Sample SS03 location.

Date: 02/17/93

Time: 1555

Photo Taken By: R. Reints

Photo Number: 13

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: Southeast

Description: Sample ST03 location. Drainage is southerly, under the fence in background and onto the adjacent Sanitary District.

Date: 02/17/93

Time: 1630

Photo Taken By: R. Reints

Photo Number: 14

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: North

Description: Background sample location ST04 in Wyckles Road ditch.

Date: 02/1/93

Time: 1646

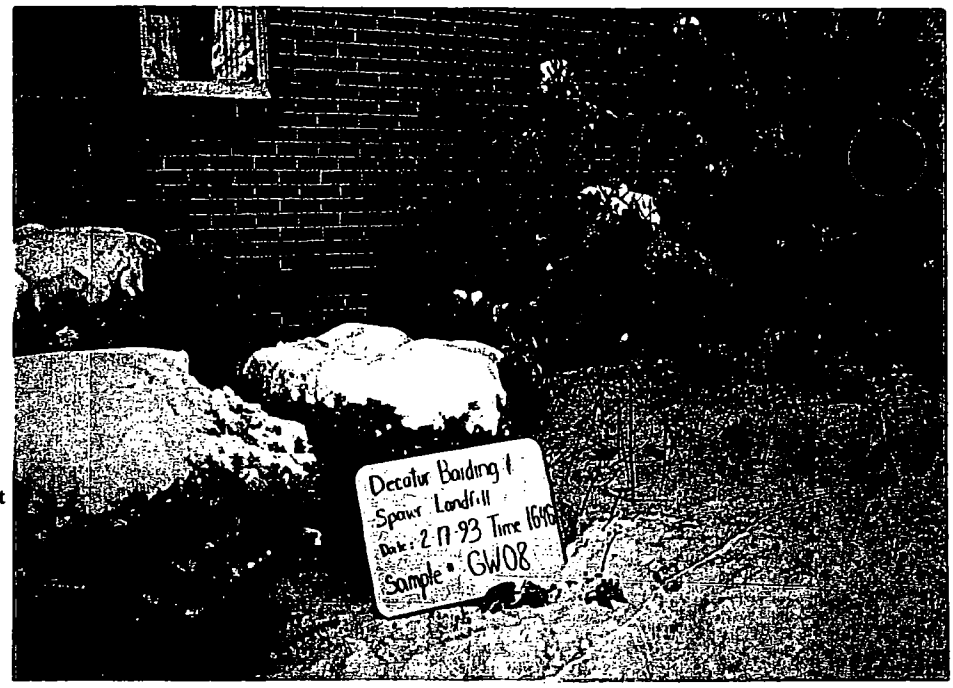
Photo Taken By: R. Reints

Photo Number: 15

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: South

Description: Sample location GW08 at residence. GW08 was collected from hydrant above placard on the side of the house.



Date: 02/17/93

Time: 1655

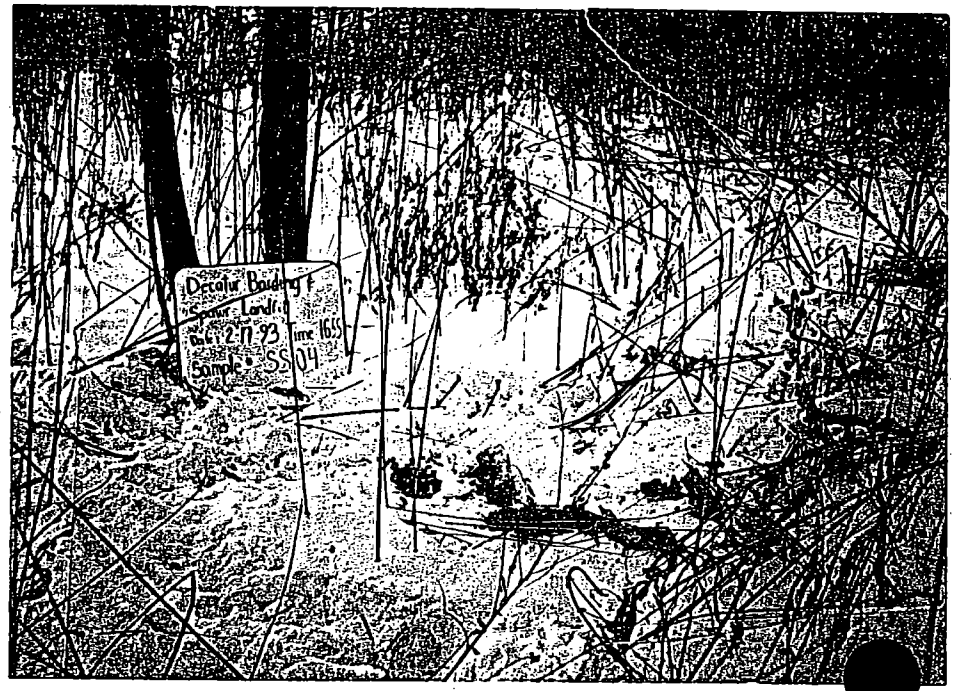
Photo Taken By: R. Reints

Photo Number: 16

Location/ILD #: Decatur/Barding & Spawr Landfill ILD 984 766 378

Direction of Photo: West

Description: Background sample location SS04 at residence.



Appendix F

Decatur/Barding & Spawr Landfill

Representative Well Logs

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

058 41905
Sic?

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift X. In Rock____.
   Tubular X. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 1000 Ft. Seepage Tile Field____
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank 1000 Barnyard____
   Leaching Pit____ Manure Pile____
3. Well furnishes water for human consumption? Yes____No X
4. Date well completed Sept 30-1982
5. Permanent Pump Installed? Yes____Date____No X
   Manufacturer____Type____Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes X No____Type____
7. Pitless Adapter Installed? Yes____No X
   Manufacturer____Model Number____
   How attached to casing?____
8. Well Disinfected? Yes____No X
9. Pump and Equipment Disinfected? Yes____No____
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____No X

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Sanitary Dist of Decatur BGM Associates Well No. 1
    Address 1999 W. Grand - Decatur-Ill.
    Driller B.E. Mashburn License No. 92-520
11. Permit No. 105134 Date Oct 6-82
12. Water from Sand & Gravel Formation 13. County Macon
    at depth 12 to 38 ft. X Sec. 24
    14. Screen: Diam. 6 in. Twp. 16N
    Length: 8 ft. Slot 124 15 Rge. 1E
    4' - 4' Elev.____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	Plastic	+1	30

SHOW LOCATION IN SECTION PLAT
390'S 115'W NE/C
SE SE NE
(industrial)

16. Size Hole below casing: 6 in.
17. Static level 9 ft. below casing top which is 1 ft. above ground level. Pumping level 13 ft. when pumping at 100 gpm for 4 hours. Recovery 30 seconds

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
brown Clay	12	12
Sand & Gravel	26	38

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Bruce Mashburn DATE Jan 28-83

IDPH 65
1/7 NB-1

F-2

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored X. Hole Diam. 44 in. Depth 73 ft.
   Curb material _____. Buried Slab: Yes X No____
   b. Driven ____. Drive Pipe Diam. ____in. Depth ____ft.
   c. Drilled ____. Finished in Drift ____. In Rock ____.
   Tubular ____. Gravel Packed X.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building _____ Ft. Seepage Tile Field _____
   Cess Pool _____ Sewer (non Cast iron) _____
   Privy _____ Sewer (Cast Iron) _____
   Septic Tank _____ Barnyard _____
   Leaching Pit _____ Manure Pile _____
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed June 27, 1979
5. Permanent Pump Installed? Yes X Date 7/79 - BY CUSTOMER
   Manufacturer Valley Type ½ HP Location Well
   Capacity 12 gpm. Depth of Setting 52 Ft.
6. Well Top Sealed? Yes X No____ Type _____
7. Pitless Adapter Installed? Yes X No____
   Manufacturer Baker Model Number _____
   How attached to casing? Clamp
8. Well Disinfected? Yes____ No____
9. Pump and Equipment Disinfected? Yes____ No____
10. Pressure Tank Size 42 gal. Type Well-x-Trol
    Location house
11. Water Sample Submitted? Yes____ No____

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Mr. Steve Edwards Well No. _____
    Address R.R. 8 Box 399A Decatur, Il. 62526
    Driller Joseph R. Reynolds License No. 92-601
11. Permit No. 87194 Date June 27, 1979
12. Water from Glacial Drift (Formation) 13. County Macon
    at depth 44 to 73 ft.
    Sec. 25
    Twp. 16N
    Rge. 1E
    Elev. _____
14. Screen: Diam. _____ in.
    Length: _____ ft. Slot _____

SHOW LOCATION IN SECTION PLAT
NE NW SE

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
10	Plastic	+1	-17
36	Concrete	-17	-60
24	Concrete	-60	-73

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
Top Soil	0-3'	
Hard Pan	20'	
Glacial Drift	38'	
Sand	42'	
Glacial Drift	55'	
Sand	60'	
Sand	73'	

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Joseph R Reynolds DATE June 28, 1979

IDPH 4.065
1/74 – KNB-1

F-7

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO [illegible]ERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored ✓. Hole Diam. 44 in. Depth 36 ft.
   Curb material Cone. Buried Slab: Yes ✓ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled ____. Finished in Drift ____. In Rock ____.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building — Ft. Seepage Tile Field —
   Cess Pool — Sewer (non Cast iron) —
   Privy — Sewer (Cast iron) —
   Septic Tank — Barnyard —
   Leaching Pit — Manure Pile —
3. Well furnishes water for human consumption? Yes ✓ No ____
4. Date well completed 6-28-85
5. Permanent Pump Installed? Yes ____ Date ____ No ✓
   Manufacturer ____ Type ____ Location ____
   Capacity ____ gpm. Depth of Setting ____ Ft.
6. Well Top Sealed? Yes ✓ No ____ Type ____
7. Pitless Adapter Installed? Yes ____ No ✓
   Manufacturer ____ Model Number ____
   How attached to casing? ____
8. Well Disinfected? Yes ____ No ✓
9. Pump and Equipment Disinfected? Yes ____ No ✓
10. Pressure Tank Size ____ gal. Type ____
    Location ____
11. Water Sample Submitted? Yes ____ No ✓

REMARKS:
New const – County # 21866
no bldg yet.

F-4

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Paul McKinney Well No. ____
    Address Decatur
    Driller Sink License No. 92-607
11. Permit No. 118484 Date 6-15-85
12. Water from Gravel (Formation) at depth 20 to 32 ft.
13. County Macon
    Sec. 24.6
    Twp. 16N
    Rge. 1E
    Elev. ____
14. Screen: Diam. ____ in.
    Length: ____ ft. Slot ____

	X		

SHOW LOCATION IN SECTION PLAT
SW NE NW

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
6	plastic		10
36	concrete		36

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		12
gravelly yellow clay		20
gravel & gray clay mix		32
gray clay		36

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Harold Sink DATE 6-28-85

PH 4.065
14 – KNR.1

Whi[illegible] copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTION [illegible] DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored ✓. Hole Diam. 44 in. Depth 56 ft.
   Curb material ____. Buried Slab: Yes ____ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled ____. Finished in Drift ____. In Rock ____.
   Tubular ____. Gravel Packed ✓.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building ____ Ft. Seepage Tile Field ____
   Cess Pool ____ Sewer (non Cast Iron) ____
   Privy ____ Sewer (Cast Iron) ____
   Septic Tank ____ Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Well furnishes water for human consumption? Yes ____ No ____
4. Date well completed ____
5. Permanent Pump Installed? Yes ____ Date ____ No ____
   Manufacturer ____ Type ____ Location ____
   Capacity ____ gpm. Depth of Setting ____ Ft.
6. Well Top Sealed? Yes ✓ No ____ Type ____
7. Pitless Adapter Installed? Yes ✓ No ____
   Manufacturer Baker Model Number ____
   How attached to casing? Clamp
8. Well Disinfected? Yes ____ No ____
9. Pump and Equipment Disinfected? Yes ____ No ____
10. Pressure Tank Size ____ gal. Type ____
    Location ____
11. Water Sample Submitted? Yes ____ No ____

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner [illegible] Well No. ____
    Address 432 [illegible]
    Driller [illegible] License No. 82601
11. Permit No. 83036 Date 12/22/78
12. Water from Sand & Clay Formation at depth 32 to 56 ft.
13. County Macon
    Sec. 24 SE
    Twp. 16N
    Rge. 1E
    Elev. ____
14. Screen: Diam. ____ in.
    Length: ____ ft. Slot ____

SHOW LOCATION IN SECTION PLAT
SE SE NW

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
10"	Plastic	+1	-14
36"	Concrete	+14	56

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
Top Soil	0-3'	
Yellow Clay	14'	
Clay	28'	
Sand & Clay	32'	
Blue Clay	46'	
Sand-Gravel	49'	
Blue Clay	52'	

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Carl & Reynolds Well Drilling [illegible] DATE 12-26-78
[illegible]

IDPH 4.065
1/74 – KNB-1

REFERENCE NUMBER 004

White Copy – Ill. Dept. of Public Health
Yel. Copy – Well Contractor
Blue Copy – Well Owner

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored X. Hole Diam. 43 in. Depth 40 ft.
   Curb material ____. Buried Slab: Yes X No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled ____. Finished in Drift X. In Rock ____.
   Tubular ____. Gravel Packed X.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 100 Ft. Seepage Tile Field ____
   Cess Pool ____ Sewer (non Cast iron) ____
   Privy ____ Sewer (Cast iron) ____
   Septic Tank ____ Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Well furnishes water for human consumption? Yes X No ____
4. Date well completed 9-79
5. Permanent Pump Installed? Yes X Date 9-79 No ____
   Manufacturer F & W Type sub Location well
   Capacity 10 gpm. Depth of Setting 35 Ft.
6. Well Top Sealed? Yes X No ____ Type ____
7. Pitless Adapter Installed? Yes X No ____
   Manufacturer Baker Model Number 6"
   How attached to casing? Bolt
8. Well Disinfected? Yes X No ____
9. Pump and Equipment Disinfected? Yes X No ____
10. Pressure Tank Size 42 gal. Type galv.
    Location basement
11. Water Sample Submitted? Yes ____ No ____

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Elsie Witts Well No. ____
    Address RR 8 Decatur Il
    Driller Geo Cook Jr License No. 102-15
11. Permit No. 89495 Date 9-79
12. Water from Clayfordy (Formation) 13. County Macon
    at depth 17 to 18 ft. Sec. 24 b
    Twp. 16N
    Rge. 1E
    Elev. ____
14. Screen: Diam. ____ in.
    Length: ____ ft. Slot ____

		X	

SHOW LOCATION IN SECTION PLAT
NE SE SE

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6	PVC	0	14
36	Concrete	14	40

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
top soil	1	1
Y-clay	7	8
Drift	9	17
Sandy Clay	1	18
Drift	22	40

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED George C. Cook Jr. DATE 9/79

IDP[illegible] 065
1/7[illegible] KNB-1

F-6

FILE COPY

White Copy – Ill. Dept. of Pub. Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, HEALTH PROTECTION, ENVIRONMENTAL HEALTH, 525 WEST JEFFERSON, SPRINGFIELD, ILLINOIS 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored X. Hole Diam. 36 in. Depth 73 ft.
   Curb material Tile. Buried Slab: Yes X No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled ____. Finished in Drift ____. In Rock ____.
   Tubular ____. Gravel Packed X.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 100 Ft. Seepage Tile Field ____
   Cess Pool ____ Sewer (non Cast Iron) ____
   Privy ____ Sewer (Cast iron) ____
   Septic Tank 92 Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Well furnishes water for human consumption? Yes ____ No ____
4. Date well completed 6-8-88
5. Permanent Pump Installed? Yes ____ Date ____ No ____
   Manufacturer ____ Type ____ Location ____
   Capacity ____ gpm. Depth of Setting ____ Ft.
6. Well Top Sealed? Yes X No ____ Type Buried Slab
7. Pitless Adapter Installed? Yes ____ No ____
   Manufacturer ____ Model Number ____
   How attached to casing? ____
8. Well Disinfected? Yes ____ No X
9. Pump and Equipment Disinfected? Yes ____ No ____
10. Pressure Tank Size ____ gal. Type ____
    Location ____
11. Water Sample Submitted? Yes ____ No X

REMARKS:

Co # 22041

F-5

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Joe Robertson Well No. ____
    Address Decatur
    Driller Gerald Tuttle License No. 0009200315
11. Permit No. 003186 Date 6-8-88
12. Water from ____ Formation at depth 28 to 40 ft.
13. County Macon
    Sec. 24 44
    Twp. 16 N
    Rge. 1E
    Elev. ____
14. Screen: Diam. ____ in.
    Length: ____ ft. Slot ____

SHOW LOCATION IN SECTION PLAT

NW NW NE

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
6	Sch 21	0	10
36		10	73

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
Top Soil	4	
Yellow clay	28	
Sand and clay	15	
Gray Silt	26	

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Gerald D. Tuttle DATE Aug 9-88

IPH 4.065
KNB-1
IL 482-0126