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Interlake Property
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Volume 1 of 2

CERCLA
Screening Site Inspection Report

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1. INTRODUCTION

Illinois Environmental Protection Agency's Pre-Remedial Unit was tasked by the United States Environmental Protection Agency (USEPA) to conduct a screening site inspection of the Interlake Property.

The site was initially discovered by the Illinois EPA in August of 1980. The site was evaluated in the form of a Preliminary Assessment (PA) that was completed by Suzanne Kozlowski of E and E. IEPA's Pre-Remedial Unit prepared a screening site inspection (SSI) work plan for the Interlake Property that was approved by USEPA. The SSI was conducted on July 18-20, 1989 with the collection of fifteen samples (seven groundwater and eight soil/sediment).

The purposes of an 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) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing 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 SI will not automatically be done on these site, however. 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 NFRAP or

deferred to other statutes are not candidates for a listing SI.
The listing SI will address all the 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 by another authority will receive a listing SI (USEPA 1988).

USEPA Region V has also instructed IEPA to identify sites during the SSI that may require removal action to remediate an immediate human health and/or environmental threat.

2. SITE BACKGROUND

2.1 INTRODUCTION

This section includes information obtained from the SSI work plan preparation.

2.2 SITE DESCRIPTION

The Interlake Property is an inactive landfill and lagoon site located west of Acme Steel (formerly Interlake Steel) in a heavily industrialized area, 14 miles south of downtown Chicago, IL. Much of the wastes disposed of at Interlake Property were generated from coking operations and steel manufacturing processes. Waste products from the coking process are tars containing Benzene, Toluene, Phenols and Polynuclear Aromatic Hydrocarbons and Hydrogen Sulfide gas. Interlake Steel used old sand mining areas for lagoons on the northeast side of the site while landfilling of slag and rubble on the southern third of the site has raised the surface elevation about five feet above its former level.

The site is located on 289 acres in the corporate city limits of Chicago (see Figure 2-1) in Cook County (Section 13 and 24 of T.37N., R.14E.). The site is bound by 116th Street to the south, 110th Street to the north, Stoney Island Avenue right-of-way to the west, and the Norfolk and Western Railroad right-of-way to the east. Eighty-seven acres on site have been designated as wetlands by the US Army Corps of Engineers. A 4-mile radius map surrounding Interlake Property can be viewed in Appendix A with a fifteen-mile

surface water map in Appendix B.

2.3 SITE HISTORY

According to Interlake Landfill's RCRA Part A, filling operations at the site began in 1968. Waste Streams included K063 (wean plant sludge), basic oxygen furnace dust and basic oxygen furnace slag. Although not permitted, pickle liquor was also disposed of on site.

USEPA inspected the facility on June 26, 1980 and June 27, 1980 and sampled October 7, 1980. The inspections focused on 3 man-made lagoons on the northeast side of the site. Two sludge and two surface water samples in this area detected heavy metal contamination ranging from 2 ug/g (ppm) Barium to 300 ug/g Chromium. Chromium and Copper were also found in the surface water. Based on the 1980 inspections, the waste contained in the logoons could amount to 2,616,000 cubic yards for a once filled capacity.

In June of 1981, Waste Management, Inc., purchased Interlake Property and contracted a company to conduct the site hydrogeologic study. The study was completed in June of 1982. According to the study, the lakes (old lagoons sampled in October of 1980) are estimated to be 15-20 feet at their deepest. Groundwater samples taken during the study detected Cyanide in the range of 0.10 to 2.96 mg/l and Benzene in the range of less than 0.010 to 0.90 mg/l for 6 of the shallow bedrock monitor wells.

During June of 1983, U.S. EPA conducted a study for wetlands and drainage areas on the southeast side of Chicago.

The study area included Interlake Property where 5 of the 18 core sediment samples were taken. Some of the highest concentrations of metals detected in the study area, occurred on-site and included: Cadmium at 20 ug/g; Lead at 4.4 mg/g (ppm); Zinc at 12 mg/g; and Silver at 6.6 ug/g. Polynuclear Aromatic compounds were detected in 4 of the 5 on site samples while Polychlorinated Biphenols were detected in only one on-site sample at 11 mg/g.

Currently, the site is inactive. Waste Management's plans have been aimed at further developing the site into a municipal landfill. Figure 2-2 is a map obtained from the 1982 hydrogeologic study which depicts the current site conditions.

Source: IEPA, 1989; USGS Topographic Map 1973, Lake Calumet, IL-IN Quadrangle

Approximate Scale: 1 inch = 1125 feet

Figure 2-1

SITE LOCATION

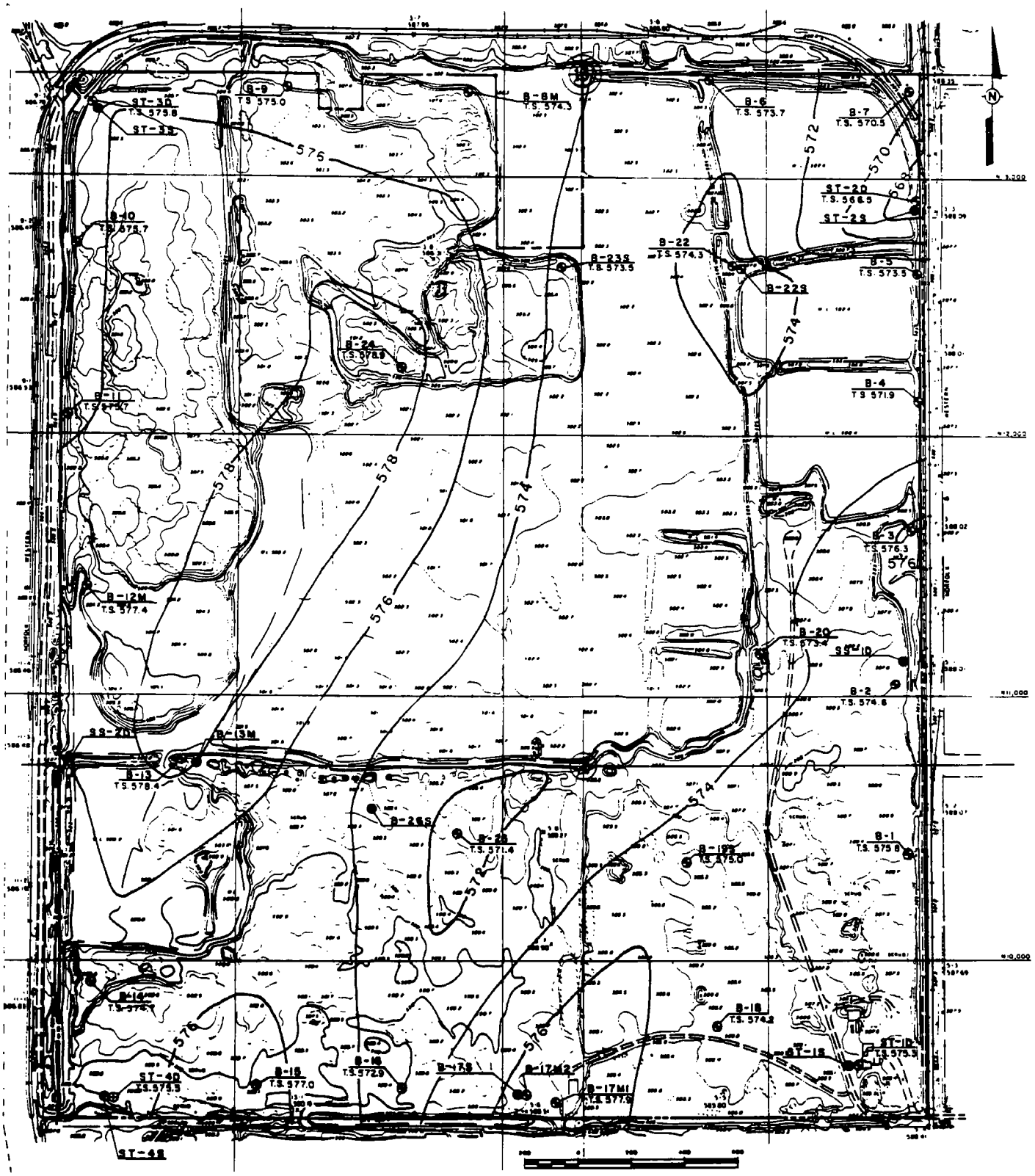


Figure 2-2

SITE FEATURES

3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

This section outlines procedures and observations of the SSI at the Interlake Property site. Individual subsections address the site representative interview, reconnaissance inspection and sampling procedures. The SSI was conducted in accordance with the USEPA-approved work plan.

The USEPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the Interlake Property site is located in Appendix C.

3.2 SITE REPRESENTATIVE INTERVIEW

Site representative interviews were conducted on the day of the reconnaissance with John J. McDonnell, P.E. for Waste Management of North America, Inc. Pertinent site information was made available to the IEPA through a copy of a 1982 Site Hydrogeologic Report.

3.3 RECONNAISSANCE INSPECTION

IEPA personnel conducted a reconnaissance inspection of the Interlake Property site and surrounding area on May 17, 1989. The inspection included a walk around the Interlake Property to identify potential soil/sediment sampling locations and appropriate health and safety requirements.

<u>Reconnaissance Inspection Observations.</u> Lake Calumet lies just west of Interlake Property. East of the site is Acme Steel, south of the site is the Paxton landfill and

north of the site is the Norfolk and Western Railroad yard and MSD landfill. Much of the southern third of the Interlake Property resembles a barren wasteland of slag and rubble, however, a majority of the site consists of wetlands which included a variety of birds and animals. Birds including egrets, ducks, shore birds, gulls and herons were making use of the terrain. A muskrat and several large fish were also observed.

On the east side of the site, in the area where the lagoons had been, a dark oily sheen was noticed in a ditch along the fence. In another area not far from the ditch, more of the same type material was seen floating in a small pond. The same pond also had a chalky appearance, as though lime had been added to the water.

3.4 SAMPLING PROCEDURES

Samples were collected by IEPA personnel to determine levels of USEPA Target Compound List (TCL) compounds present at the site. The TCL is provided in Appendix D.

From July 18-20, 1989, IEPA collected seven groundwater samples and eight soil samples (see Figure 3-1 and 3-2 for the fifteen sampling locations).

Groundwater Sampling Procedures. The six monitor wells on-site and one off-site well were sampled to verify releases to the Niagaran dolomite aquifer. The on-site monitor wells (indicated as G101 through G106 on Figure 3-1) had five well volumes purged, with pH, conductivity and temperature measured. Because of the large water volume in wells G105

and G106, a submersible pump was used for purging. The other wells were purged with a four foot PVC bailer and sampled with a three foot teflon bailer and polyethylene cord. Samples of the monitor wells (G101 through G106) were purged by, and split with Gulf Coast Laboratory employees hired by Waste Management. Gulf Coast sampled for volatile organics only. The total metals sample was field filtered with a Masterflex variable speed peristaltic pump and filter stand with filters.

An off-site well was sampled as background. G107 (in Figure 3-2) was taken at the William F. Powers Conservation Area (part of Wolf Lake State Park), southeast of Interlake Property. Forty-five gallons were hand pumped from the well and pH, conductivity and temperature measured. Metals were not field filtered for this sample.

After sample collection, preservatives were added to the appropriate bottles, evidence taped and packaged in accordance with USEPA required procedures.

All water samples were analyzed for the TCL by IEPA's Springfield lab (Organic analysis) and IEPA's Champaign lab (Inorganic analysis).

Well logs for the groundwater samples taken during the SSI are provided in Appendix F along with other data generated during the sampling event. Groundwater flow direction map obtained from the 1982 hydrogeologic investigation is provided in Figure 3-3.

Soil/Sediment Sampling Procedures. The eight

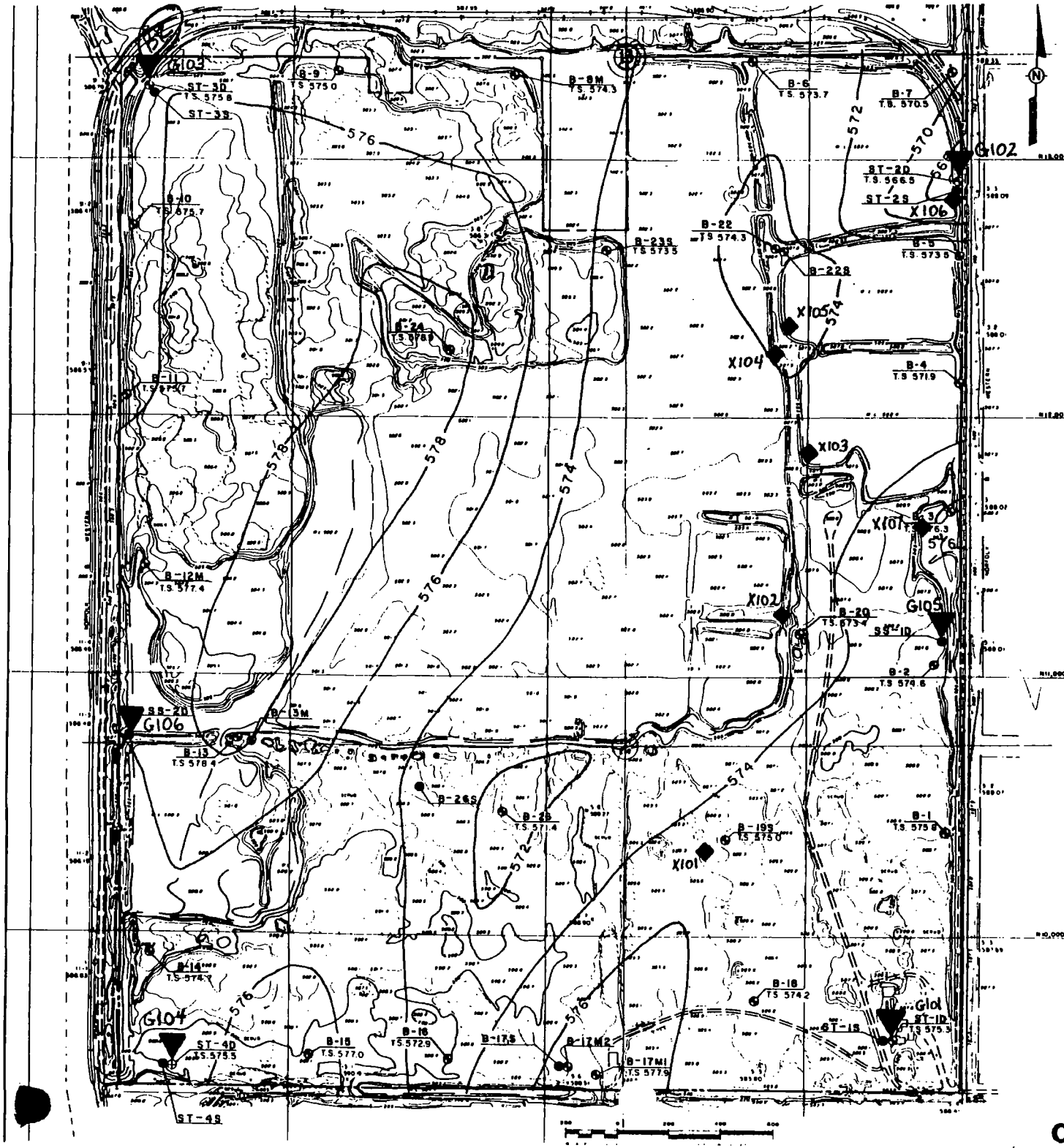
soil/sediment samples (see Figure 3-1 for on-site locations) were taken to compare a background soil sample to on-site soil and sediment samples. Sample X101 was taken from 0 to 6 inches deep near monitor well B19S. The location is about 107 feet at 240 degrees from B19S. Sediment sample X102 was taken in 1 to 3 feet of the surface water (wetland lake area) west of G105 (well SS-1D). The HNU at this point read 15 meter units above background when held over the sample. Sample X103 was taken north of X102, in the southwest corner of the southernmost lagoon (now a lake) from water approximately one foot deep. Sample X104 was taken north of X103 in a wetland area from mucky soil. Sample X105 was a was taken catty-corner of X104 in the southwest corner of the center lagoon (now a lake) in about 1 to 2.5 feet of water. The sides of the old lagoon had to be sampled as the bottom was to deep to reach. Sample X106 was taken in a marshy area on the east side of the northernmost lagoon (now a lake) in one-half foot of water. An approximate location was 70 feet at 220 degrees from G102 (well ST-2D). Sample X107 was taken north of G105 (well SS-1D) in the limey pond found during the site reconnaissance. The sample was obtained in 1 to 2 feet of water on the west side of the pond. Sample X108 was taken as background at the William F. Powers Conservation Area south of sample G107 in 0 to 6 inches of soil.

The surface samples were collected with stainless steel spoons, with the soil transferred directly into the sample jars. The sediment samples were obtained with a long handled

grab sampler. The sample jars were evidence taped and packaged in accordance with USEPA required procedures. The IEPA samples were analyzed for the TCL by IEPA's Springfield lab (Organic analysis) and IEPA's Champaign lab (Inorganic analysis). Photographs for the Interlake Property SSI are provided in Appendix E.

Decontamination Procedures. Standard IEPA decontamination procedures were followed prior to the collection of all samples. The procedures included the scrubbing of all equipment (bailers, spoons, pans, etc.) with a non-foaming Trisodium Phosphate solution, rinsing with hot tap water, rinsing with acetone, rinsing with hot tap water again and final rinsed with distilled water. All equipment is air dried, then wrapped and stored in heavy duty aluminum foil for transport to the field. Field decontamination procedures include all of the above except scrubbing with Trisodium phosphate and the hot tap water rinse.

Figure 3-1
ON-SITE SAMPLING LOCATIONS



LEGEND

- SOIL TEST BORING AND/OR PIEZOMETER
- AUGER BORING WITH PIEZOMETER
- BORING NUMBER
- ST-1D — RELATIVE PIEZOMETER SCREEN DEPTH
- T.S. 575.3 — TOP OF TILL ELEVATION USED TO DEVELOP CONTOURS
- 576 — TOP OF TILL ELEVATION CONTOUR (MSL), 2.0 FOOT INTERVAL.

ABBREVIATIONS:

- ST — BORING DRILLED DURING PRELIMINARY EXPLORATION.
- B — BORING DRILLED DURING MAIN EXPLORATION
- SS — STAINLESS STEEL PIEZOMETER.
- S — PIEZOMETER SCREENED IN NEAR SURFACE AQUIFER.
- D — PIEZOMETER SCREENED IN ROCK AQUIFER.
- M — PIEZOMETER SCREENED IN SAND OR SILT SEAM.

NOTES

1. BORING AND PIEZOMETER LOCATIONS ARE APPROXIMATE.
2. THE TOP OF TILL ELEVATIONS HAVE BEEN INTERPRETED FROM THE SOIL TEST BORINGS. THE CONTOURS ARE BASED ON THESE ELEVATIONS AND OUR INTERPRETATION. THEY ARE INTENDED TO ILLUSTRATE GENERAL TRENDS, NOT TO LOCATE SPECIFIC VALUES.
3. THIS DRAWING HAS BEEN REPRODUCED FROM AN UNNUMBERED DRAWING SUPPLIED BY WASTE MANAGEMENT ON MAY 6, 1982. THE DRAWING INCLUDED THE SURFACE TOPOGRAPHY (FROM AIRPHOTOGRAPHY TAKEN DEC., 1981), PROPERTY LINES, AND ASSUMED COORDINATE SYSTEM.

▼ Groundwater Samples

◆ Soil/Sediment Samples

TOP OF TILL CONTOURS
INTERLAKE SITE
CHICAGO, ILLINOIS
PREPARED F
WASTE MANAGEM INC.
OAK BROOK, ILLINOIS

Canonie Environmental

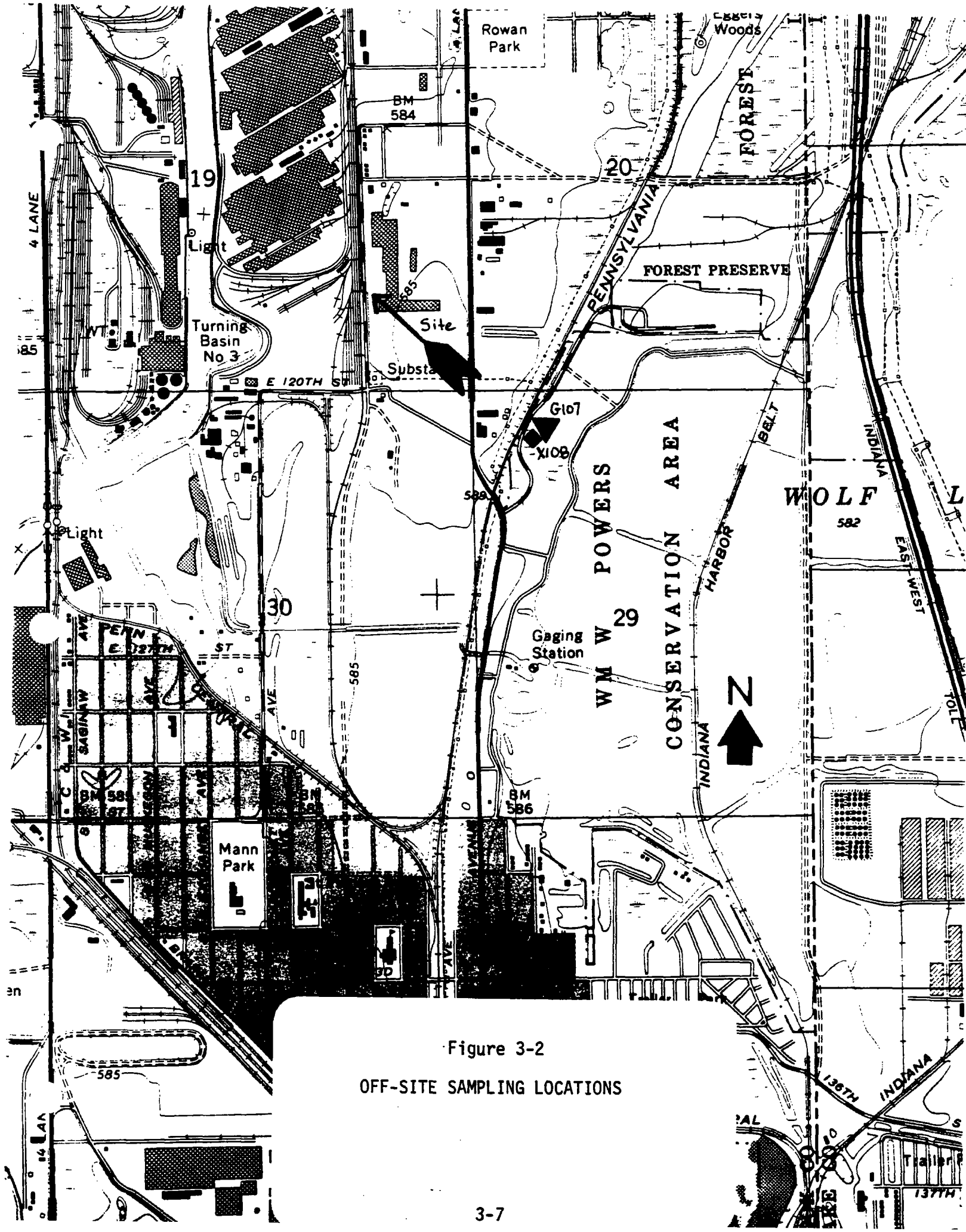


Figure 3-2

OFF-SITE SAMPLING LOCATIONS

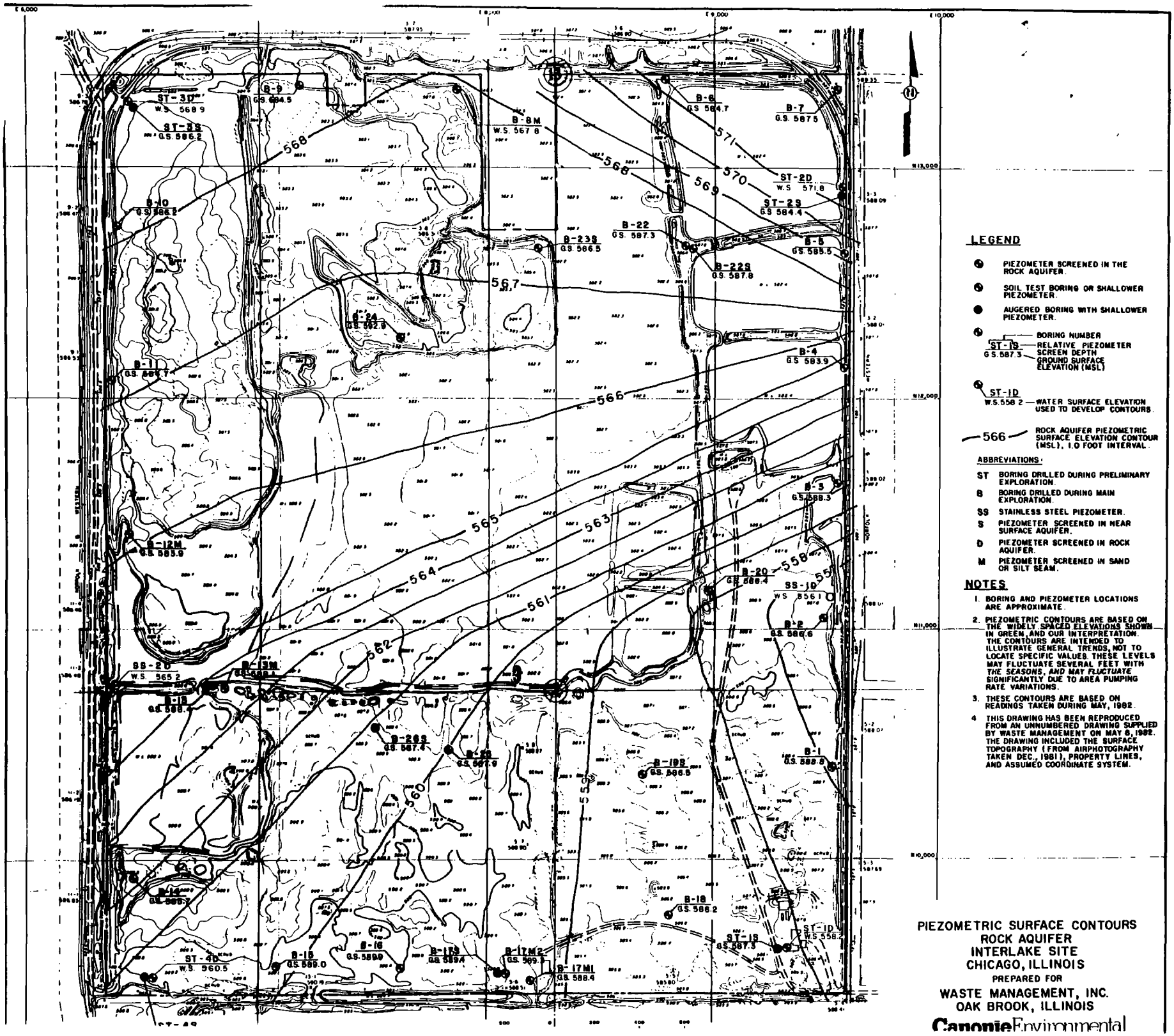


Figure 3-3
GROUNDWATER FLOW MAP
Niagaran dolomite aquifer

4. ANALYTICAL RESULTS

4.1 INTRODUCTION

This section includes the analytical results of Target Compound List compounds from IEPA collected samples at the Interlake Property.

4.2 ANALYTICAL RESULTS FROM IEPA COLLECTED SAMPLES

Chemical analysis of groundwater samples collected by IEPA personnel revealed the following substances: semi-volatiles, heavy metals, common laboratory artifacts and common groundwater constituents. Analysis of soil samples collected by IEPA personnel revealed the following substances: volatiles, pesticides, semi-volatiles, heavy metals, common laboratory artifacts and common soil constituents (see Table 4-1 for the summary of groundwater and soil sample results. Complete laboratory analytical data for the groundwater and soil/sediment samples are provided in Appendix I.

Semi-volatiles detected in groundwater samples included Naphthalene estimated at 0.2 ug/l (ppb) in G106, 4-Chloro-3-Methylphenol estimated at 0.3 ug/l in G102, and Phenanthrene estimated at 0.4 and 0.5 ug/l in G102 and G106 respectively. Phthalate compounds detected in groundwater samples on site include Di-n-Butylphthalate estimated at 0.2 ug/l in G102, and Bis(2-ethylhexyl)phthalate estimated at 0.2, 1.0, and 9.0 ug/l in G102, G103 and G105 respectively, Diethylphthalate estimated at 0.7 and 0.2 ug/l in G102 and G103 respectively.

Inorganics significantly above background were detected in several of the groundwater samples. In G102, Barium was greater than 3 times the background and Calcium was almost 8 times greater than background. In G106, Aluminum was greater than 7 times the background, Iron was greater than 11 times background and G106 was the only sample to detect Asenic, estimated at 3.0 ug/l. Concentrations of Lead in G102 and G106 were 9 times greater than background. Sulfate was also detected in G102 and G106 at concentrations of 173,000 and 13,000 ug/l respectively. In sample G102, Manganese was over 21 times greater than background at 110.0 ug/l

A few volatiles were found in the on-site soil/sediment samples. 2 Butanone was detected at estimated values of 9.0, 2.0 and 310.0 ug/kg (ppb) in X102, X106 and X107 respectively. Toluene had an estimated value of 1.0 ug/kg in X106. Sample X102 also detected concentrations of 2-Hexanone at 48.0 ug/kg and total Xylenes estimated at 0.5 ug/kg.

Many semi-volatiles were detected in the on-site soil/sediment samples including Phenol compounds, Naphtha compounds, and Polynuclear Aromatic Compounds. A few examples include Dibenzofuran detected in 5 of the 7 on-site samples in the range of 29 to 200 ug/kg estimated, Anthracene detected in the same five samples with a range of 48 to 810 ug/kg estimated, and Benzo(b)fluoranthene detected in four of the on-site samples at an average estimated concentration of 3335 ug/kg.

Pesticides were detected in the soil/sediment samples.

4,4'-DDE was estimated at greater than 5 times above background in samples X101, X102, and X104. 4,4'-DDD was detected in on-site samples X101 through X104 in the range of 29.2 to 276.5 ug/kg estimated, and 4,4'-DDT was estimated 3 times above background in sample X102. The pesticide Lindane (gamma BHC), was detected in sample X102 at an estimated concentration of 69.8 ug/kg.

Analysis of the inorganic constituents in the soil/sediment samples revealed certain metals substantially above background. In X105, Beryllium was greater than 3 times background, Vanadium was greater than 9 times background, Cadmium was greater than 16 times background and Chromium was 20 times above background levels. Silver was also detected in X105 at 2.8 mg/kg. Concentrations of Lead on site ranged from an estimated 20.0 mg/kg in X101 to 128 mg/kg in X103. Magnesium levels were at least 3 times background in all but one on-site sample. In X101, Selenium was detected at 4.6 mg/kg, and Silver was estimated at 2.0 mg/kg. Cyanide was detected in 3 on-site samples in the range of 0.7 to 4.2 mg/kg.

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TABLE 4-1

SAMPLING POINT / PARAMETER	G101 07-19-89	G102 07-19-89	G103 07-20-89	G104 07-20-89	G105 07-19-89	G106 07-19-89	G107 07-18-89	X101 07-19-89	X102 07-19-89	X103 07-19-89
VOLATILES										
Methylene Chloride	3.0 J	--	--	0.9 J	4.0 J	--	--	2.0 J	4.0 J	2.0 J
Acetone	76.0 DJ	3200.0 D	300.0 D	99.0	880.0 DJ	11000.0 D	91.0	--	130.0 J	80.0 J
2-Butanone (MEK)	50.0 R	2500.0 R	50.0 R	10.0 R	50.0 R	500.0 R	10.0 R	--	9.0 J	--
2-Hexanone	--	--	--	--	--	--	--	--	48.0	--
Toluene	--	--	--	--	--	--	--	--	--	--
Xylene(total)	--	--	--	--	--	--	--	--	0.5 J	--
SEMIVOLATILES										
2-Methylphenol	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	0.2 J	--	760.0 J	--	210.0 J
4-Chloro-3-Methylphenol	--	0.3 J	--	--	--	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--	--	--	330.0 J	--	160.0 J
Acenaphthylene	--	--	--	--	--	--	--	--	--	26.0 J
Acenaphthalene	--	--	--	--	--	--	--	--	--	270.0 J
Dibenzofuran	--	--	--	--	--	--	--	130.0 J	--	200.0 J
Diethylphthalate	--	0.7 J	2.0 J	--	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--	--	--	--	360.0 J
Phenanthrene	--	0.4 J	--	--	--	0.5 J	--	610.0 J	--	5200.0
Anthracene	--	--	--	--	--	--	--	48.0 J	--	810.0 J
Di-n-Butylphthalate	--	0.2 J	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--	--	970.0 J	--	5100.0
Pyrene	--	--	--	--	--	--	--	880.0 J	--	4600.0
Benzo(a)anthracene	--	--	--	--	--	--	--	640.0 J	--	4500.0
Chrysene	--	--	--	--	--	--	--	420.0 J	--	4500.0
bis(2-Ethylhexyl)phthalate	--	0.2 J	1.0 J	--	9.0 J	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	510.0 J	--	7400.0
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	3700.0
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	4100.0
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--
PESTICIDES										
gamma-BHC (Lindane)	--	--	--	--	--	--	--	--	69.8 J	--
4,4'-DDE	--	--	--	--	--	--	--	54.9 J	52.1 J	11.3 J
4,4'-DDD	--	--	--	--	--	--	--	42.9 J	276.5 J	29.9 J
4,4'-DDT	--	--	--	--	--	--	--	33.3 J	79.9 J	17.0 J

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TABLE 4-1

SAMPLING POINT / PARAMETER	G101 07-19-89	G102 07-19-89	G103 07-20-89	G104 07-20-89	G105 07-19-89	G106 07-19-89	G107 07-18-89	X101 07-19-89	X102 07-19-89	X103 07-19-89
INORGANICS										
Aluminum	110.0 B	210.0	260.0	149.0	140.0	720.0	90.0	51000.0	5600.0	6400.0
Antimony	--	--	--	--	--	--	--	--	--	0.7 B
Arsenic	--	--	--	--	--	3.0 B	--	4.8	7.6 B	5.1
Barium	21.0 B	79.0 B	14.0 B	23.0 B	21.0 B	28.0 B	24.0 B	520.0	144.0	83.0
Beryllium	--	--	--	--	--	--	--	7.3	0.4	0.9 B
Cadmium	--	--	--	--	--	2.8 B	--	0.7 B	0.7	1.9
Calcium	8900.0	87000.0	13500.0	20000.0	19000.0	11000.0	5100.0	236000.0	104000.0	107000.0
Chromium	--	--	--	--	--	--	--	33.0	21.0	98.0
Cobalt	--	--	--	--	--	--	--	3.9 B	2.3 B	4.2 B
Copper	--	--	--	--	--	--	8.4 B	16.0	24.0	49.0
Iron	--	--	150.0	56.0 B	--	1100.0	99.0 B	16900.0	21000.0	46000.0
Lead	23.0	36.0	3.0 B	6.0	13.0	38.0	4.0 B	20.0	76.0	128.0
Magnesium	3400.0 B	35000.0	5000.0 B	13000.0	3300.0 B	4500.0 B	3300.0 B	24000.0	10500.0	27000.0
Manganese	4.7 B	110.0	11.0 B	27.0 B	3.9 B	40.0 B	5.2 B	5100.0 B	900.0	4500.0
Mercury	1.3	1.1	1.3	1.3	1.3	1.2	1.4	--	--	0.2
Nickel	--	8.9 B	7.8 B	7.7 B	--	9.4 B	5.1 B	11.0	13.0 B	17.0
Potassium	1400.0 B	7300.0	2500.0 B	6600.0	2600.0 B	3700.0 B	2200.0 B	3100.0	680.0	1300.0
Selenium	--	--	--	--	--	--	--	4.6	--	--
Silver	--	--	--	--	--	--	--	2.0 B	--	--
Sodium	105000.0	59000.0	107000.0	121000.0	94000.0	96000.0	78000.0	1600.0	940.0	560.0 B
Vanadium	--	--	--	--	--	--	--	34.0	22.0	111.0
Zinc	--	16.0 B	--	--	--	--	260.0	120.0	200.0	155.0
Cyanide	--	--	--	--	--	--	--	1.6	--	--
Sulfate	--	173000.0	--	--	--	13000.0	--	--	--	--
TEMPERATURE	53.2	52.5	53.7	53.6	53.0	53.7	61.4			
SP. COND.(umhos)	481.0	849.0	507.0	688.0	583.0	477.0	430.0			
PH	8.4	7.5	8.3	8.1	9.1	8.5	8.8			

INTERLAKE PROPERTY WMI
ILD 000810432

SAMPLING POINT	X104	X105	X106	X107	X108
	07-19-89	07-19-89	07-19-89	07-19-89	07-18-89
PARAMETER					
VOLATILES					
Methylene Chloride	2.0 J	3.0 J	3.0 J	36.0 J	3.0 J
Acetone	110.0 J	49.0 J	62.0 J	5000.0	
2-Butanone (MEK)	22.0 R	12.0 R	2.0 J	310.0 J	10.0 R
2-Hexanone	--	--	--	--	--
Toluene	--	--	1.0 J	--	--
Xylene(total)	--	--	--	--	--
SEMIVOLATILES					
2-Methylphenol	--	--	--	120.0 J	--
4-Methylphenol	--	--	--	5000.0	--
Naphthalene	88.0 J	96.0 J	--	1200.0 J	84.0 J
4-Chloro-3-Methylphenol	--	--	--	--	--
2-Methylnaphthalene	--	66.0 J	--	--	--
Acenaphthylene	--	--	--	--	--
Acenaphthalene	--	--	--	--	--
Dibenzofuran	--	78.0 J	29.0 J	150.0 J	--
Diethylphthalate	--	--	21.0 J	--	--
Fluorene	--	130.0 J	25.0 J	93.0 J	--
Phenanthrene	240.0 J	1600.0	540.0 J	690.0 J	260.0 J
Anthracene	--	250.0 J	90.0 J	51.0 J	--
Di-n-Butylphthalate	--	--	--	--	--
Fluoranthene	370.0 J	2900.0	990.0	--	590.0 J
Pyrene	330.0 J	2700.0	940.0	--	670.0 J
Benzo(a)anthracene	--	2800.0	460.0 J	--	40.0 J
Chrysene	--	2300.0	410.0 J	--	290.0 J
bis(2-Ethylhexyl)phthalate	--	--	--	--	--
Benzo(b)fluoranthene	--	5000.0	430.0 J	--	--
Benzo(k)fluoranthene	--	3400.0	--	--	--
Benzo(a)pyrene	--	4600.0	--	--	--
Indeno(1,2,3-cd)pyrene	--	4800.0	--	--	--
PESTICIDES					
gamma-BHC (Lindane)	--	--	--	--	--
4,4'-DDE	64.6 J	--	--	--	9.8 J
4,4'-DDD	168.4 J	--	--	--	--
4,4'-DDT	24.4 J	--	--	--	25.9 J

INTERLAKE PROPERTY WMI
ILD 000810432

SAMPLING POINT	X105	X106	X107	X108
	07-19-89	07-19-89	07-19-89	07-18-89
PARAMETER				
INORGANICS				
Aluminum	8800.0	4900.0	770.0	5900.0
Antimony	--	--		
Arsenic	3.6	2.7	2.9 B	4.9
Barium	220.0	75.0	150.0	122.0
Beryllium	1.6	0.4 B	--	0.5 B
Cadmium	18.0	0.7 B	--	1.1
Calcium	110000.0	66000.0	340000.0	14000.0
Chromium	710.0	21.0	5.0 B	35.0
Cobalt	15.0	3.8 B		3.8 B
Copper	52.0	13.0	3.8 B	54.0
Iron	25000.0	14000.0	3800.0	23000.0
Lead	110.0	40.0	--	132.0
Magnesium	23000.0	30000.0	41000.0	7400.0
Manganese	1100.0	1800.0	260.0	1800.0
Mercury	0.2	0.3		0.1
Nickel	69.0	9.6	11.0 B	31.0
Potassium	600.0 B	860.0 B	--	880.0
Selenium	--	--	--	--
Silver	2.8	--	--	--
Sodium	480.0 B	580.0 B	520.0 B	240.0 B
Vanadium	170.0	28.0	2.0	18.0
Zinc	160.0	77.0	43.0	150.0
Cyanide	0.7	--	4.2	--
Sulfate	--	--	--	--
TEMPERATURE				
SP. COND.(umhos)				
PH				

U.S.E.P.A. DEFINED DATA QUALIFIERS

QUALIFIER	DEFINITION ORGANICS	DEFINITION INORGANICS
• U	Compound was tested for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by two, to account for the fact that only half of the extract is recovered.	Analyte was analyzed for but not detected.
• J	Estimated value. Used 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 and the result is less than the sample quantitation limit but greater than zero. Used in data validation when the quality control data indicate that a value may not be accurate.	Estimated value. Used in data validation when the quality control data indicate that a value may not be accurate.
• C	This flag applies to pesticide results where the identification is confirmed by GC/MS.	Method qualifier indicates analysis by the Manual Spectrophotometric method.
• B	Analyte was found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action	The reported value is less than the CRDL but greater than the instrument detection limit (IDL).
• D	Identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and <u>all</u> concentration values are flagged with the "D" flag.	not used

QUALIFIER	DEFINITION ORGANICS	DEFINITION INORGANICS
E	Identifies compounds whose concentrations exceed the calibration range for that specific analysis. All extracts containing compounds exceeding the calibration range must be diluted and analyzed again. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses must be reported on separate Forms I. The Form I for the diluted sample must have the "DL" suffix appended to the sample number.	The reported value is estimated because of the presence of interference
A	This flag indicates that a TIC is a suspected aldol concentration product formed by the reaction of the solvents used to process the sample in the laboratory.	Method qualifier indicates analysis by Flame Atomic Absorption (AA).
M	not used	Duplicate injection (a QC parameter) not met.
N	not used	Spiked sample (a QC parameter) recovery not within control limits.
S	not used	The reported value was determined by the Method of Standard Additions (MSA).
W	not used	Post digestion spike for Furnace AA analysis (a QC parameter) is out of control limits of 85% to 115% recovery, while sample absorbance is less than 50% of spike absorbance.
*	not used	Duplicate analysis (a QC parameter) not within control limits.
+	not used	Correlation coefficient for MSA (a QC parameter) is less than 0.995.

QUALIFIER	DEFINITION ORGANICS	DEFINITION INORGANICS
• P	not used	Method qualifier indicates analysis by ICP (Inductively Coupled Plasma) Spectroscopy.
• CV	not used	Method qualifier indicates analysis by Cold Vapor AA.
• AV	not used	Method qualifier indicates analysis by Automated Cold Vapor AA
• AS	not used	Method qualifier indicates analysis by Semi-Automated Cold Spectrophotometry.
• T	not used	Method qualifier indicates Titrimetric analysis.
• NR	The analyte was not required to be analyzed.	The analyte was not required to be analyzed.
• R	Rejected data. The QC parameters indicate that the data is not usable for any purpose.	Rejected data. The QC parameters indicate that the data is not usable for any purpose.

5. DISCUSSION OF MIGRATION PATHWAYS

5.1 INTRODUCTION

This section discusses data and information that apply to potential migration pathways and targets of TCL compounds that can be attributed to Interlake Property.

The four migration pathways of concern are groundwater, surface water, air and on-site exposure.

5.2 GROUNDWATER

According to the 1982 hydrogeologic study at the site, the depth to groundwater is less than 15 feet. Groundwater flow directions in the near surface sand unit, indicates a west-southwest movement toward Lake Calumet. The Niagaran dolomite directly underlies the glacial drift and overlies the Maquoketa formation. The Niagaran dolomite surface drops approximately 78 feet from a high point near the northeast corner, to the southern portion of the site. The Niagaran dolomite aquifer flows south across the site. The regional flow in the Niagaran dolomite is to the east with major recharge at surface outcrop areas to the west and south of the South Chicago area.

Samples collected from six monitor wells and a hand pump well during the July 18-20, 1989 SSI indicate an observed release to groundwater in the Niagaran dolomite aquifer.

According to Illinois State Water Survey (ISWS) Report of Investigation 46, the Niagaran dolomite is used as a low yield aquifer for potable water supplies for individual

dwellings. Water yields are obtained from fractures and solution features in the formation.

An ISWS printout of wells within 3 miles of the site list five private wells and one park well (G107), which utilize the Niagaran dolomite aquifer or groundwater above this aquifer. The nearest private well is 25 feet deep and located somewhere in Section 14, between three-quarters to a mile and three-quarters northwest of the site. Another private well is 83 feet deep in the Niagaran dolomite and is approximately one and one-quarter mile west of the site. The wells in this area would require more than minimal hook-up requirements to access Lake Michigan water, therefor they have been listed as wells with no alternative source for drinking water.

A list of non-community wells (serving over 25 people) obtained from the Illinois Department of Public Health (IDPH) show another eight wells within 3 miles of the site. These eight however, are without well logs to substantiate the aquifer of use. Appendix G contains information on ISWS and IDPH wells.

5.3 SURFACE WATER

The site is relatively flat with surface drainage in the fill areas through porous fill and an upper sand layer, ultimately draining to Lake Calumet. The surface drainage in the wetland areas is generally through near surface sands and ditches to Lake Calumet.

Sediment samples collected at Interlake Property during

the SSI indicate an observed release to the wetlands. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers have designated 87 acres of the site as wetlands. The U.S. Department of the Interior Fish and Wildlife Service, National Wetlands Inventory (May, 1983 map of Lake Calumet IL-IN) has designated two thirds of the site as wetland areas. The map is provided in Appendix H.

Habitat in and around these wetlands could support the federally endangered Piping Plover (Charadrius melodus) and Indiana Bat (Myotis sodalis) although these two were not seen. According to the book, Endangered and Threatened Species of Illinois, both species have, or have had distributions in Cook County. Nesting for the Piping Plover has been documented at Lake Calumet, less than one-quarter mile west of the site.

Surface water intakes do not exist in Lake Calumet or three miles downstream in the Calumet River.

5.4 AIR

No documented releases to the air were observed during the SSI. A photo-ionization detector (HNU) with an 11.7 eV lamp was used to screen the soil/sediment samples. On sample X102, the HNU read 15 meter units above background when placed near the sample. The HNU read background in the breathing zone.

More than 10,000 people live within 4 miles of the site.

5.5 ON-SITE EXPOSURE

On-site exposure is a pathway of concern at this

facility because contamination is less than two feet deep. The fence on part of the west side of the site, next to Lake Calumet, is either torn down or nonexistent. While sampling G102 near the fenceless area on the west side, several couples were noticed fishing on site. They were catching and taking home small bullhead catfish. Empty shotgun shells and old duck blinds, indicating the site is used for hunting. In the southeast corner of the property, a group of dilapidated buildings are being used for a homestead. Although the inhabitants were never seen, their presence was verified by the curtains in the windows, recent trash and a flock of domestic chickens. Also, the large landfill just south of the Interlake Property (Paxton Landfill), must send employees over to the site regularly in order to pick up wind blown trash.

According to data obtained from the 1980 Census of Population and Housing, the block statistic for Chicago show that 3,446 people live within one mile of the site.

6. BIBLIOGRAPHY

Canonie Engineers, Inc., June 1982, "Hydrogeologic Investigation Interlake Site Chicago, IL", Prepared for Waste Management, Inc., Oak Brook, IL.

Ecology and Environment, Inc., 1986, Potential Hazardous Waste Site Preliminary Assessment for Interlake Landfill and Coke Plant, ILD000810432, prepared by Suzanne Kozlowski, Chicago, IL.

Illinois Department of Energy and Natural Resources, State Water Survey, Printout of Water Wells within a 3-Mile Radius of the Site.

Illinois Department of Energy and Natural Resources, State Water Survey, 1963, "Yields if Shallow Dolomite Wells in Northern Illinois", Report Inv. 46

Illinois Environmental Protection Agency Division of Land Pollution Control, file L0316000025.

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US Department of Commerce, Bureau of the Census, 1980 Census of Population and Housing, Block Statistics for Chicago, IL.

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USEPA, Memorandum dated September 26, 1980 for Interlake Steel.

USEPA, Office of Solid Waste and Emergency Response, February 12, 1988, Pre-Remedial Strategy for Implementing SARA, Directive number 9345.2-01, Washington, D.C.

US Geological Survey, 7.5 Minute Series Topographic Quadrangle Maps: 1972, Jackson Park, IL-IN; 1978, Blue Island IL; 1978, Harvey IL; 1977, Lake Calumet, IL-IN; 1980, Calumet City, IL-IN.

SDMS US EPA Region V

Imagery Insert Form

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4-MILE RADIUS MAP

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APPENDIX B

15-MILE SURFACE WATER MAP

SDMS US EPA Region V

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15-MILE SURFACE WATER MAP

☐ **Other:**

APPENDIX C

U.S. EPA FORM 2070-13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Site Inspection Report

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	000810432

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Interlake Property WMI	116th and Stoney Island Ave.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Chicago	IL	60617	Cook	031	01

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
41 41 14.0	087 34 24.0	■ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION (MONTH DAY YEAR)	02 SITE STATUS	03 YEARS OF OPERATION (BEGINNING YEAR / ENDING YEAR)
7 / 18-20 / 90	☐ ACTIVE ■ INACTIVE	UNKNOWN / 1981 (RCRA Part A states 1968) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ___ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ___ (Name of firm)
■ E. STATE ☐ F. STATE CONTRACTOR ___ (Name of firm) ☐ G. OTHER ___ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Timothy J. Murphy	EPS	IEPA	(217) 782-6760

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Greg Dunn	"	"	( ) "
John Morgan	"	"	( ) "
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
John J. McDonnell	P. E.	138th and Calumet Expwy.	(312) 646-3099
Curt Thauf	"	"	( ) "
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
■ PERMISSION ☐ WARRANT	over 3 day period	overcast 70's °F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Curt Thauf	Waste Management of North America, Inc.	(312) 646-3099

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE (MONTH DAY YEAR)
Timothy J. Murphy	IEPA	RPMS	(217) 785-5737	9, 28, 89

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	008104332

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*

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

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

TONS 2,616,000

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS *(Check all that apply)*

- ■ A. TOXIC
- ■ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ■ D. PERSISTENT
- ■ 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	2,616,000	Cu yds	based on once filled
OLW	OILY WASTE			capacity of lagoons described
SOL	SOLVENTS			in 9-26-80 USEPA Memo which
PSD	PESTICIDES			contained 3.4 ppm PCB and
OCC	OTHER ORGANIC CHEMICALS			xylene isomer
IOC	INORGANIC CHEMICALS			
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
	See				
	Table				
	4-1				
	in				
	Report				

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, sample analysis, reports)*

IEPA SSI results of Samples (table 4-1 in report)
IEPA Division of Land Pollution Control (DLPC) file L0316000025
USEPA Memorandum on Interlake Steel ~Sept. 26, 1980

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	000810432

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 ■ OBSERVED (DATE: 4/4-7/82) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: > 225 — 04 NARRATIVE DESCRIPTION

On-site monitor wells sample in 1982 indicated Benzene and Cyanide in groundwater. SSI samples 7/20/89 in six Niagaran dolomite monitor wells found traces of PNA's sulfates and metals

01 ■ B. SURFACE WATER CONTAMINATION — 02 ■ OBSERVED (DATE: 9/26/80) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION

USEPA memos of inspections note pumping of lagoons sludge waste into adjacent wetlands. PCB's and xylene isomers found in sludge. SSI sediments collected 7/19-20/89 show PNA's pesticides, volatiles and heavy metal contamination in the on-site wetlands.

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

None documented or observed

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

None documented or observed

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

During SSI 7/18-20/89, people were fishing the wetlands on the west side of the site

01 ■ F. CONTAMINATION OF SOIL — 02 ■ OBSERVED (DATE: 7/20/89) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 289 (Acres) — 04 NARRATIVE DESCRIPTION

Soil contamination consists of volatiles, PNA's, pesticides and heavy metals

01 ■ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: ____) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: >225 — 04 NARRATIVE DESCRIPTION

Illinois State Water Survey lists 5 private wells and one park well which obtain groundwater from the Niagaran dolomite aquifers above this. Also within 3 miles of the site, Illinois Dept. of Public Health list 8 wells serving more than 25

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

Workers from Paxton landfill, south of the site, pick-up wind blown trash regularly. Surface soils in this area contain PNA's volatiles, pesticides and heavy metals (see X101 sample results and location in report).

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

See E., G., and H. above.

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MAY 3 1991
TECHNICAL SUPPORT SECTION

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	0008104332

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ■ J. DAMAGE TO FLORA — 02 ■ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Certain areas of the site resemble a barren wasteland with little or no vegitation

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)
Pesticide and heavy metal contamination could bioaccumulate in fish

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

01 ■ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ■ OBSERVED (DATE: 9-26-80) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Wastes have been deposited directly into wetlands

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None documented or observed

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None documented or observed

01 ■ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: 9-26-80) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Lagoons were not permitted by EPA

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
Stream flowing into site from the North appears to be dark colored and contaminated. Sample should be obtained during LSI activities

III. TOTAL POPULATION POTENTIALLY AFFECTED: 7225

IV. COMMENTS

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

IEPA DLPC file L0316000025

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	000810432

II. PERMIT INFORMATION

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	ILD000810432			K063 was delisted
☐ F. SPCC PLAN				site did not accept waste
☐ G. STATE (Specify)				since 11-19-80
☐ 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	≈ 2,616,000	cu. yds.
■ B. PILES	UNKNOWN	
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
■ F. LANDFILL	21,000	acre-feet
☐ 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: 289 (Acres)

07 COMMENTS

Much of the southern 1/3 of the site is covered with slag and rubble with an average thickness of 5'

The yds^3 amount was generated from a USEPA memo dated Sept. 26th 1980, from approx. dimensions of 3 lagoons on site

The landfill was obtained from the RCRA Part A

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.

3 Lagoons were previously sand mines ∴ No liner

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ■ YES ☐ NO

02 COMMENTS

On the west side of the site, the fence has been torn down or was never built

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

IEPA DLPC file L0316000025

SSI, July 19-21, 1989

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	000810432

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as 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. _____ (mi)
B. 1.25 (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 GROUND WATER UNKNOWN

03 DISTANCE TO NEAREST DRINKING WATER WELL _____ (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
15 (ft)	east - regional south - local	15 (ft)	UNKNOWN (gpd)	☐ YES ■ NO

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

5 private wells and 1 park well obtain groundwater from Niagaran dolomite or aquifer above.
8 Illinois Dept. of Public Health wells w/in 3 miles, however aquifer of use is unknown (NON-community serving greater than 25 people)

10 RECHARGE AREA Niagaran dolomite

■ YES ☐ NO
COMMENTS Surface outcrops west and south of the South Chicago Area

11 DISCHARGE AREA

☐ YES ■ NO
COMMENTS

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
Lake Calumet	☐	1/4 mile W. (mi)
Calumet River	☐	1/2 mile E. (mi)
Wetlands (on-site)	■	0 (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. 3,446	B. >10,000	C. >10,000
NO. OF PERSONS	NO. OF PERSONS	NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION 0 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE UNKNOWN > 10,000

04 DISTANCE TO NEAREST OFF-SITE BUILDING .0095 (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)

urban areas are located within the vicinity of the site, including residents of the south side of Chicago

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	000810432

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 ■ OBSERVED (DATE: 4/4-7/82) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: > 225 — 04 NARRATIVE DESCRIPTION

On-site monitor wells sample in 1982 indicated Benzene and Cynide in groundwater. SSI samples 7/20/89 in Six Niagaran dolomite monitor wells found traces of PNA's sulfates and metals

01 ■ B. SURFACE WATER CONTAMINATION — 02 ■ OBSERVED (DATE: 9/26/80) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION

USEPA memos of inspections note pumping of lagoons sludge waste into adjacent wetlands. PCB's and xylene isomers found in sludge. SSI sediments collected 7/19-20/89 show PNA's pesticides, volatiles and heavy metal contamination in the on-site wetlands.

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

None documented or observed

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

None documented or observed

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

During SSI 7/18-20/89, people were fishing the wetlands on the west side of the site

01 ■ F. CONTAMINATION OF SOIL — 02 ■ OBSERVED (DATE: 7/20/89) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 289 (Acres) — 04 NARRATIVE DESCRIPTION

Soil contamination consists of volatiles, PNA's, Pesticides and heavy metals

01 ■ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: ____) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: > 225 — 04 NARRATIVE DESCRIPTION

Illinois State Water Survey lists 5 private wells and one park well which obtain groundwater from the Niagaran dolomite aquifers above this. Also within 3 miles of the site, Illinois Dept. of Public Health list 8 wells serving more than 25

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

Workers from Paxton landfill, south of the site, pick-up wind blown trash regularly. Surface soils in this area contain PNA's volatiles, Pesticides and heavy metals (see X101 sample results and location in report).

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

See E., G., and H. above.

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TECHNICAL SUPPORT SECTION

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	000810432

II. HAZARDOUS CONDITIONS AND INCIDENTS *(Continued)*

01 ■ J. DAMAGE TO FLORA — 02 ■ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Certain areas of the site resemble a barren wasteland with little or no vegitation

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION *(Include name(s) of species)*
Pesticide and heavy metal contamination could bioaccumulate in fish

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

01 ■ M. UNSTABLE CONTAINMENT OF WASTES *(Spills/Runoff/Standing liquids, Leaking drums)* — 02 ■ OBSERVED (DATE: 9-26-80) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Wastes have been deposited directly into wetlands

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None documented or observed

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None documented or observed

01 ■ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: 9-26-80) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Lagoons were not permitted by EPA

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
Stream flowing into site from the north appears to be dark colored and contaminated. Sample should be obtained during LSI activities

III. TOTAL POPULATION POTENTIALLY AFFECTED: 7225

IV. COMMENTS

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

IEPA DLPC file L0316000025

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	000810432

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
25-75 (ft)	15 (ft)	

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

09 FLOOD POTENTIAL

SITE IS IN _____ YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. N.A. (mi)

OTHER: B. 0 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

¼ (mi)

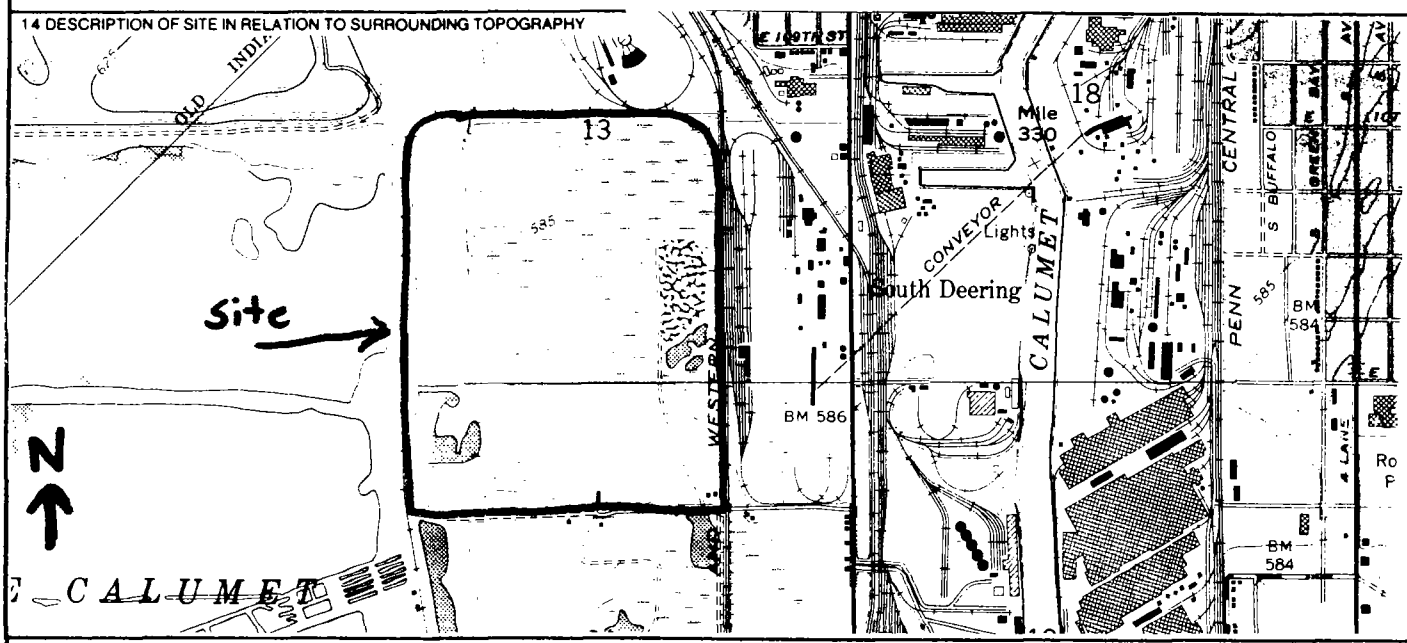
ENDANGERED SPECIES: Piping Plover (Charadrius melodus)

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. .0095 (mi)	B. .2 (mi)	C. N.A. (mi)	D. N.A. (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY



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

IEPA DLPC file L0316000025

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	000810432

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	7	IEPA Springfield, IL Lab - organics IEPA ~~Springfield,~~ Champaign, Lab - inorganics	Now available
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL / Sediment	8	Same as above	"
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
temp, pH, spec cond.	groundwater samples

IV. PHOTOGRAPHS AND MAPS

01 TYPE ■ GROUND ■ AERIAL

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

03 MAPS ■ YES ☐ NO

04 LOCATION OF MAPS IEPA DLPC file L0316000025

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

other data obtained from June 1982 Site Hydrogeologic Study including:
- groundwater flow
- soil permiability / bedrock permiability
- geology / hydrogeology

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

IEPA DLPC file L0316000025

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	000810432

II. PERMIT INFORMATION

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	ILD000810432			K063 was delisted
☐ F. SPCC PLAN				site did not accept waste
☐ G. STATE (Specify)				since 11-19-80
☐ 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	≈ 2,616,000	cu. yds.
■ B. PILES	unknown	
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
■ F. LANDFILL	21,000	acre-feet
☐ 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: 289 (Acres)

07 COMMENTS

Much of the southern 1/3 of the site is covered with slag and rubble with an average thickness of 5'

The yds^3 amount was generated from a USEPA memo dated Sept. 26th 1980, from approx. dimensions of 3 lagoons on site

The landfill was obtained from the RCRA Part A

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.

3 Lagoons were previously sand mines ∴ no liner

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ■ YES ☐ NO

02 COMMENTS

On the west side of the site, the fence has been torn down or was never built

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

IEPA DLPC file L0316000025

SSI, July 19-21, 1989

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	000810432

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as 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. _____ (mi)
B. 1.25 (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 GROUND WATER UNKNOWN

03 DISTANCE TO NEAREST DRINKING WATER WELL _____ (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
15 (ft)	east - regional south - local	15 (ft)	UNKNOWN (gpd)	☐ YES ■ NO

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

5 private wells and 1 park well obtain groundwater from Niagaran dolomite or aquifer above.
8 Illinois Dept. of Public Health wells w/in 3 miles, however aquifer of use is unknown (Non-community serving greater than 25 people)

10 RECHARGE AREA: ■ YES ☐ NO
COMMENTS: Niagaran dolomite Surface outcrops west and south of the South Chicago Area

11 DISCHARGE AREA: ☐ YES ■ NO
COMMENTS:

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
Lake Calumet	☐	1/4 mile W. (mi)
Calumet River	☐	1/2 mile E. (mi)
Wetlands (on-site)	■	0 (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. 3,446 NO OF PERSONS	B. 710,000 NO OF PERSONS	C. 710,000 NO OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 0 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: UNKNOWN > 10,000

04 DISTANCE TO NEAREST OFF-SITE BUILDING: .0095 (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)

urban areas are located within the vicinity of the site, including residents of the south side of Chicago

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	000810432

II. CURRENT OWNER(S)				PARENT COMPANY (If applicable)			
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
Waste Management of Illinois Inc.				Waste Management of Illinois Inc			
03 STREET ADDRESS (P.O. Box, RFD #, etc.) P.O. Box 563 7300 College Drive		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.) 3003 Butterfield Rd		11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		12 CITY	13 STATE	14 ZIP CODE	
Palos Heights	IL	60463		Oak Brook	IL	60521	
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) (List most recent first)				IV. REALTY OWNER(S) (If applicable, list most recent first)			
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
Interlake Inc.				Interlake Inc.			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
135 St. and Perry Ave				2015 Spring Rd			
05 CITY	06 STATE	07 ZIP CODE		05 CITY	06 STATE	07 ZIP CODE	
Chicago	IL	60627		Oak Brook	IL	60521	
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	000810432

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
Waste Management of Illinois Inc.	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
P.O. Box 1309 138th and Calumet Expressway	

05 CITY	06 STATE	07 ZIP CODE
Calumet City	IL	60409

08 YEARS OF OPERATION	09 NAME OF OWNER
Not in operation	

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
Stall Trucking and Excavating	

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

05 CITY	06 STATE	07 ZIP CODE
UNKNOWN		

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

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

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

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

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)

IEPA DLPC files L0316000025

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	00081043Z

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER	
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
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
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)

IEPA DLPC file L0316000025

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	000810432

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	000810432

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)*

IEPA DLPC files L0316000025

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	000810432

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

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

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

IEPA DLPC file L0316000025

TARGET COMPOUND LIST

Volatile Target Compounds

Compound	Water CRDL	Soil/Solid CRDL
1. chloromethane	10 ug/l	10 ug/kg
2. bromomethane	10	10
3. vinyl chloride	10	10
4. chloroethane	10	10
5. methylene chloride	5	5
6. acetone	10	10
7. carbon disulfide	5	5
8. 1,1-dichloroethene	5	5
9. 1,1-dichloroethane	5	5
10. t-1.2-dichloroethene	5	5
11. 1,2-dichloropropane	5	5
12. chloroform	5	5
13. 1,2-dichloroethane	5	5
14. 2-butanone	10	10
15. 1,1,1-trichloroethane	5	5
16. carbon tetrachloride	5	5
17. vinyl acetate	10	10
18. dichlorobromomethane	5	5
19. c-1,3-dichloropropene	5	5
20. trichloroethene	5	5
21. benzene	5	5
22. chlorodibromomethane	5	5
23. 1,1,2-trichloroethane	5	5
24. t-1,3-dichloropropene	5	5
25. 2-chloroethyl vinyl ether	10	10
26. bromoform	5	5
27. 2-hexanone	10	10
28. 4-methyl-2-pentanone	10	10
29. 1,1,2,2-tetrachloroethane	5	5
30. tetrachloroethene	5	5
31. toluene	5	5
32. chlorobenzene	5	5
33. ethylbenzene	5	5
34. styrene	5	5
35. total xylenes	15	15

CRDL - Contract Required Detection Limit

Base/Neutral Target Compounds

Compound	Water CRDL	Soil/Solid CRDL
1. Hexachloroethane	10 ug/l	330 ug/kg
2. Bis (2-chloroethyl) ether	10	330
3. Benzyl Alcohol	10	330
4. Bis (2-chloroisopropyl) ether	10	330
5. N-nitrosodi-n-propylamine	10	330
6. Nitrobenzene	10	330
7. Hexachlorobutadiene	10	330
8. 2-Methylnaphthalene	10	330
9. 1,2,4-trichlorobenzene	10	330
10. Isophorone	10	330
11. Naphthalene	10	330
12. 4-Chloroaniline	10	330
13. Bis (2-chloroethoxy) methane	10	330
14. Hexachlorocyclopentadiene	10	330
15. 2-chloronaphthalene	10	330
16. 2-Nitroaniline	50	1600
17. Acenaphthylene	10	330
18. 3-Nitroaniline	50	1600
19. Acenaphthene	10	330
20. Dibenzofuran	10	330
21. Dimethylphthalate	10	330
22. 2,6-Dinitrotoluene	10	330
23. Fluorene	10	330
24. 4-Nitroaniline	50	1600
25. 4-Chlorophenyl-phenyl ether	10	330
26. 2,4-Dinitrotoluene	10	330
27. Diethylphthalate	10	330
28. N-Nitrosodiphenylamine	10	330
29. Hexachlorobenzene	10	330
30. Phenanthrene	10	330
31. 4-Bromophenyl-phenyl ether	10	330
32. Anthracene	10	330
33. Dibutylphthalate	10	330
34. Fluoranthene	10	330
35. Pyrene	10	330
36. Butyl benzyl phthalate	10	330
37. Bis (2-ethylhexyl) phthalate	10	330
38. Chrysene	10	330
39. Benzo (a) anthracene	10	330
40. 3,3'-Dichlorobenzidene	20	660
41. Di-n-octyl phthalate	10	330
42. Benzo (b) fluoranthene	10	330
43. Benzo (k) fluoranthene	10	330
44. Benzo (a) pyrene	10	330
45. Indeno (1,2,3-cd) pyrene	10	330
46. Dibenzo (a,h) anthracene	10	330
47. Benzo (g,h,i) perylene	10	330
48. 1,2-Dichlorobenzene	10	330
49. 1,3-Dichlorobenzene	10	330
50. 1,4-Dichlorobenzene	10	330

Acid Target Compounds

Compound	Water CRDL	Soil/Solid CRDL
1. Benzoic Acid	50 ug/l	1600 ug/kg
2. Phenol	10	330
3. 2-chlorophenol	10	330
4. 2-nitrophenol	50	1600
5. 2-methylphenol	10	330
6. 2,4-dimethylphenol	10	330
7. 4-methylphenol	10	330
8. 2,4-dichlorophenol	10	330
9. 2,4,6-trichlorophenol	10	330
10. 2,4,5-trichlorphenol	50	1600
11. 4-chloro-3-methylphenol	10	330
12. 2,4-dinitrophenol	50	1600
13. 2-methyl-4,6-dinitrophenol	50	1600
14. Pentachlorophenol	50	1600
15. 4-nitrophenol	50	1600

Pesticide Target Compounds

Compound	Water CRDL	Soil/Solid CRDL
1. alpha-BHC	.05 ug/l	8.0 ug/kg
2. beta-BHC	.05	8.0
3. delta-BHC	.05	8.0
4. Lindane (gamma-BHC)	.05	8.0
5. Heptachlor	.05	8.0
6. Aldrin	.05	8.0
7. Heptachlor epoxide	.05	8.0
8. Endosulfan I	.05	8.0
9. 4,4'-DDE	.10	16.0
10. Dieldrin	.10	16.0
11. Endrin	.10	16.0
12. 4,4'-DDD	.10	16.0
13. Endosulfan II	.10	16.0
14. 4,4'-DDT	.10	16.0
15. Endrin aldehyde	.10	16.0
16. Endosulfan sulfate	.10	16.0
17. Methoxychlor	.50	80.0
18. Chlordane	.50	80.0
19. Toxaphene	.50	80.0
20. Arochlor-1016	1.0	160.0
21. Arochlor-1221	.50	80.0
22. Arochlor-1232	.50	80.0
23. Arochlor-1242	.50	80.0
24. Arochlor-1248	.50	80.0
25. Arochlor-1254	1.0	160.0
26. Arochlor-1260	1.0	160.0

Inorganic Target Compounds

Metals Analyses (CRDL)-ug/l*	
Aluminum	200
Antimony	60
Arsenic	10
Barium	200
Beryllium	5
Cadmium	5
Chromium	10
Cobalt	50
Copper	25
Iron	100
Lead	5
Manganese	15
Mercury	0.2
Nickel	40
Selenium	5
Silver	10
Thallium	10
Vanadium	50
Zinc	20

Other Inorganics
Cyanide
Sulfide
Phenols
Nitrogen-Ammonia
Nitrogen, Total Kjeldahl
Nitrogen-Nitrate
Boron
pH

*Any analytical method specified in the Quality Assurance Project Plan (QAPP) may be utilized as long as the documented instrument or method detection limits meet the Contract Required Detection Level requirements. Higher detection levels may only be used in the following circumstance:

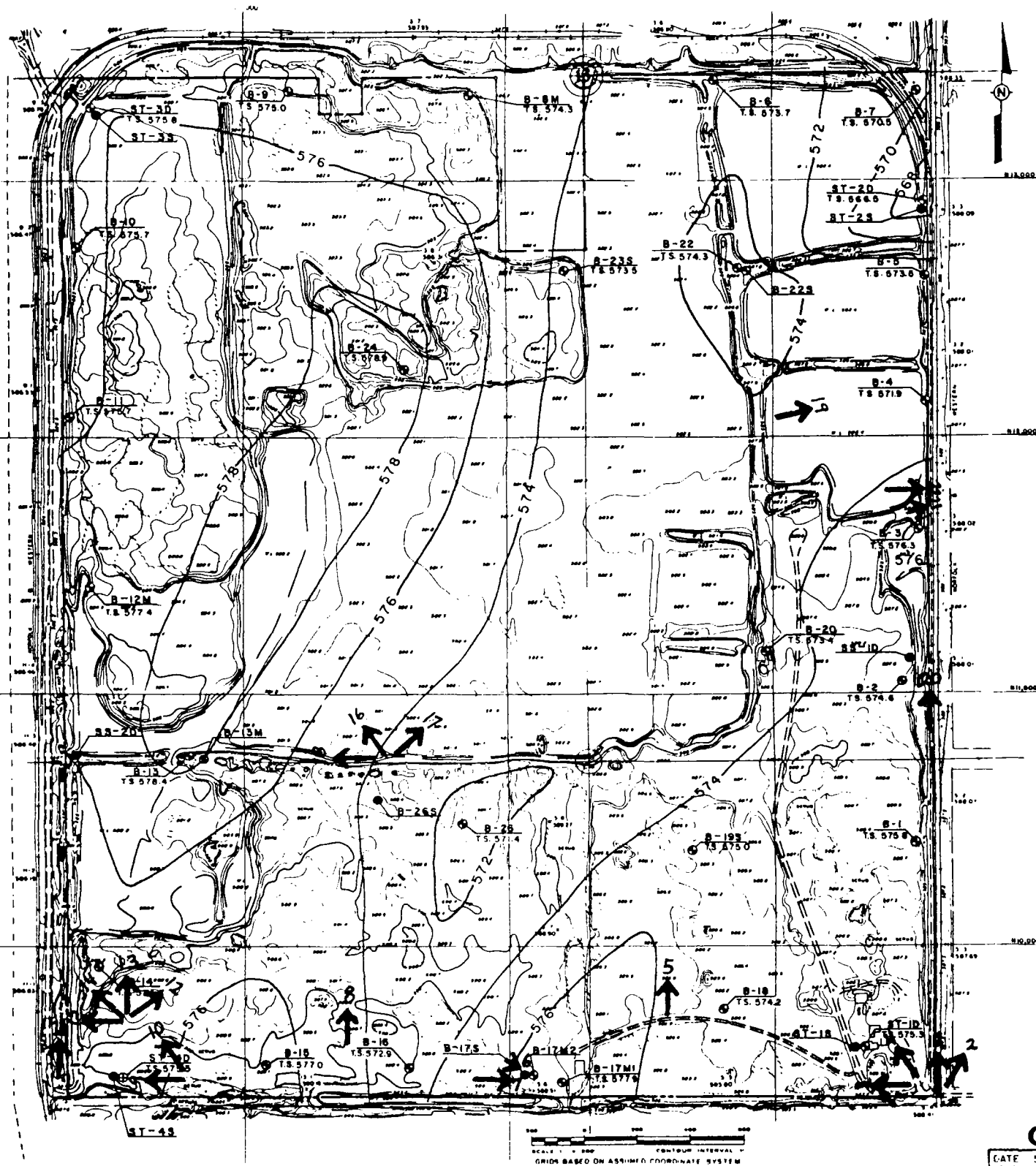
If the sample concentration exceeds two times the detection limit of the instrument or method in use, the value may be reported even though the instrument or method detection limit may not equal the CRDL. This is illutrated in the example below:

For lead:

Method in use -- ICP
Instrument Detection Limit (IDL) = 40
Sample Concentration = 85
Contract Required Detection Level (CRDL) = 5

The value of 85 may be reported even though instrument detection limit is greater than required detection level. The instrument or method detection limit must be documented as described in Form IIIX.

These CRDL are the instrument detection limits obtained in pure water that must be met using ICP/Flame AA or Furnace AA. The detection limits for samples may be considerably higher depending on the sample matrix.



LEGEND

- SOIL TEST BORING AND/OR PIEZOMETER
- AUGER BORING WITH PIEZOMETER
- ST-1D — BORING NUMBER; RELATIVE PIEZOMETER SCREEN DEPTH; T.S. 575.3 — TOP OF TILL ELEVATION USED TO DEVELOP CONTOURS
- 576 — TOP OF TILL ELEVATION CONTOUR (MSL), 2.0 FOOT INTERVAL

ABBREVIATIONS:

- ST — BORING DRILLED DURING PRELIMINARY EXPLORATION.
- B — BORING DRILLED DURING MAIN EXPLORATION
- SS — STAINLESS STEEL PIEZOMETER.
- S — PIEZOMETER SCREENED IN NEAR SURFACE AQUIFER.
- D — PIEZOMETER SCREENED IN ROCK AQUIFER
- M — PIEZOMETER SCREENED IN SAND OR SILT SEAM.

NOTES

1. BORING AND PIEZOMETER LOCATIONS ARE APPROXIMATE
2. THE TOP OF TILL ELEVATIONS HAVE BEEN INTERPRETED FROM THE SOIL TEST BORINGS. THE CONTOURS ARE BASED ON THESE ELEVATIONS AND OUR INTERPRETATION. THEY ARE INTENDED TO ILLUSTRATE GENERAL TRENDS, NOT TO LOCATE SPECIFIC VALUES.
3. THIS DRAWING HAS BEEN REPRODUCED FROM AN UNNUMBERED DRAWING SUPPLIED BY WASTE MANAGEMENT ON MAY 6, 1982. THE DRAWING INCLUDED THE SURFACE TOPOGRAPHY (FROM AIRPHOTOGRAPHY TAKEN DEC. 1981), PROPERTY LINES, AND ASSUMED COORDINATE SYSTEM.

Direction of Photographs

GRIDS BASED ON ASSUMED COORDINATE SYSTEM

TOP OF TILL CONTOURS
INTERLAKE SITE
CHICAGO, ILLINOIS

PREPARED FOR

WASTE MANAGEMENT, INC.
OAK BROOK, ILLINOIS

Canonie Environmental

DATE 5/19/82	FIGURE 10	DRAWING NUMBER

DATE: 17 May 89

TIME: 12:05 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave.

Comments: Picture taken toward the North at the southeast corner of the property. Norfolk and Western R.R. tracks

1.

DATE: 17 May 89

TIME: 12:05 pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the Northeast at the southeast corner of the property. Acme Steel (formerly Interlake Steel) in the background

2.

DATE: 17 May 89

TIME: 12:07 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave.

Comments: Picture taken toward the west near the south east corner of the property. Paxton Landfill is south of the site.

3.

DATE: 17 May 89

TIME: 12:08 pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the northwest near the southeast corner of the property

4.

DATE: 17 May 89

TIME: 12:10 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave

Comments: Picture taken toward the North of areas of slag deposits

5.

DATE: 17 May 89

TIME: 12:12 pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward downward into well (piezometer B-17MZ)

6.

DATE: 17 May 89

TIME: 12:15 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave.

Comments: Picture taken toward the east

7.

DATE: 17 May 89

TIME: 12:17 pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the North of areas of slag deposits

8.

DATE: 17 May 89

TIME: 12:20 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave

Comments: Picture taken toward the west of wells ST-4D and ST-4S

9.

DATE: 17 May 89

TIME: 12:20 pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the northwest, Old Chicago incinerator in background (3 red+white stacks)

10.

DATE: 17 May 89

TIME: 12:25 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave.

Comments: Picture taken toward the North at the south-west corner of the property

11.

DATE: 17 May 89

TIME: 12:30 pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the Northeast Near the south west corner of the property

12.

DATE: 17 May 89

TIME: 12:30 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave.

Comments: Picture taken toward the North near the South west corner of the property

13.

DATE: 17 May 89

TIME: 12:30 pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the Northwest near the South west corner of the property

14.

DATE: 17 May 89

TIME: 12:30 pm

Photograph by:

Tim Murphy

Location:

Interlake Property 110th to 116th and Stoney Island Ave.

Comments: Picture taken toward the west, Lake Calumet in the background

15.

DATE: 17 May 89

TIME: 12:37 pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the north-west of wetlands area, ducks taking flight

16.

DATE: 17 May 89

TIME: 12:38 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave.

Comments: Picture taken toward the Northeast of wet-lands area, about 5 egrets or cranes taking flight

17.

DATE: 17 May 89

TIME: 12: 38pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the west of wet lands area, old duck blinds in lake

18.

DATE: 17 May 89

TIME: 12:45pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave.

Comments: Picture taken toward the east of old lagoon area

19.

DATE: 17 May 89

TIME: 12:50pm

Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the North of drainage ditch along R.R. tracks near eastern border

20.

DATE: 17May89

TIME: 12:55pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th to 116th and Stoney Island Ave.

Comments: Picture taken toward downward into ditch along R.R. tracks of eastern border

21.

DATE: 17 May 89

TIME: 12:56pm

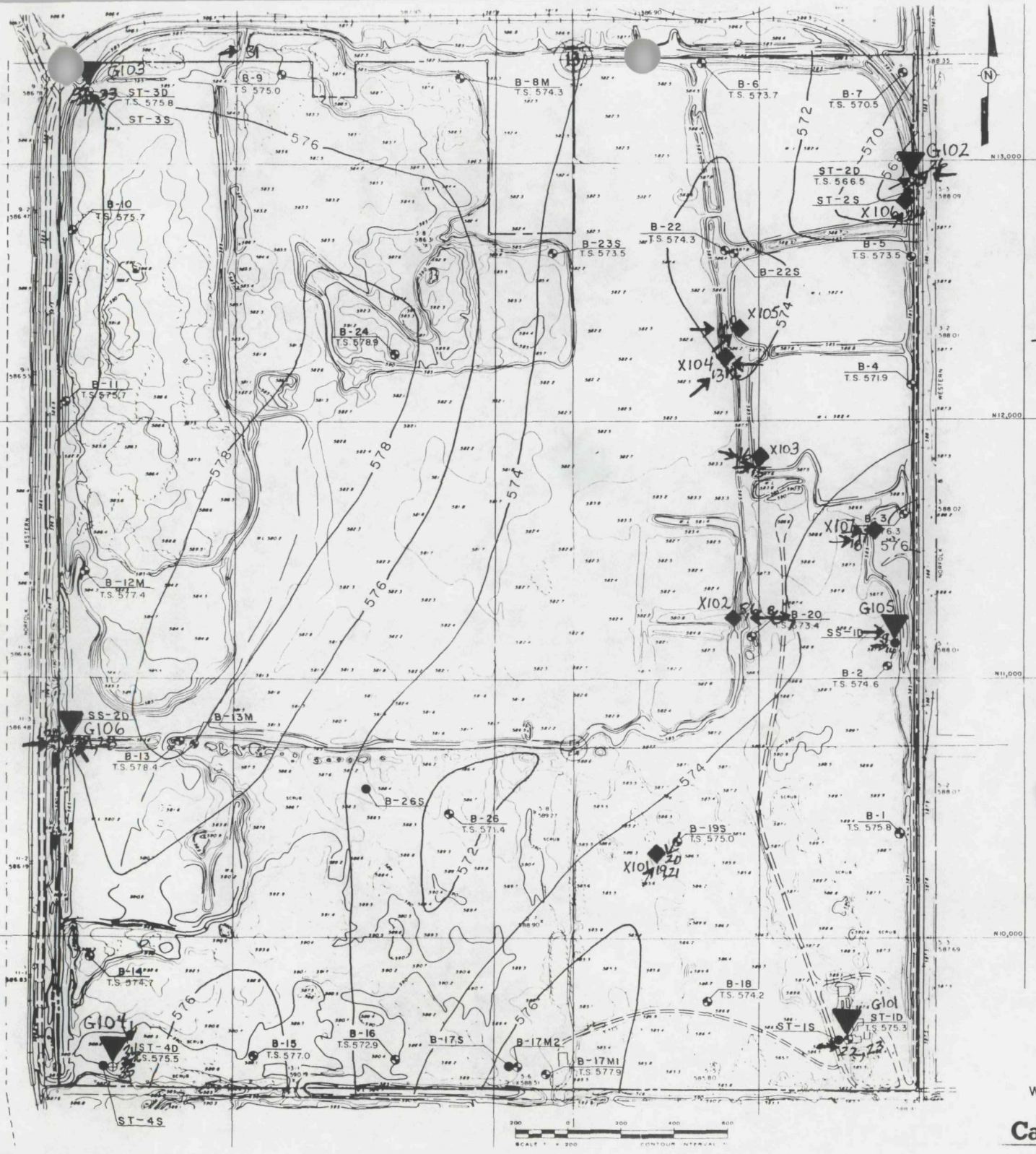
Photograph by:

Tim Murphy

Location: E. of Lake Calumet Chicago, Cook Co., IL

Comments: Picture taken toward the east over ditch where contamination was observed

22.



LEGEND

- SOIL TEST BORING AND/OR PIEZOMETER
- AUGER BORING WITH PIEZOMETER
- ST-1D — BORING NUMBER; RELATIVE PIEZOMETER SCREEN DEPTH; T.S. 575.3 — TOP OF TILL ELEVATION USED TO DEVELOP CONTOURS
- 576 — TOP OF TILL ELEVATION CONTOUR (MSL), 2.0 FOOT INTERVAL

ABBREVIATIONS:

- ST BORING DRILLED DURING PRELIMINARY EXPLORATION.
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- S PIEZOMETER SCREENED IN NEAR SURFACE AQUIFER.
- D PIEZOMETER SCREENED IN ROCK AQUIFER.
- M PIEZOMETER SCREENED IN SAND OR SILT SEAM.

NOTES

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▼ Groundwater Samples

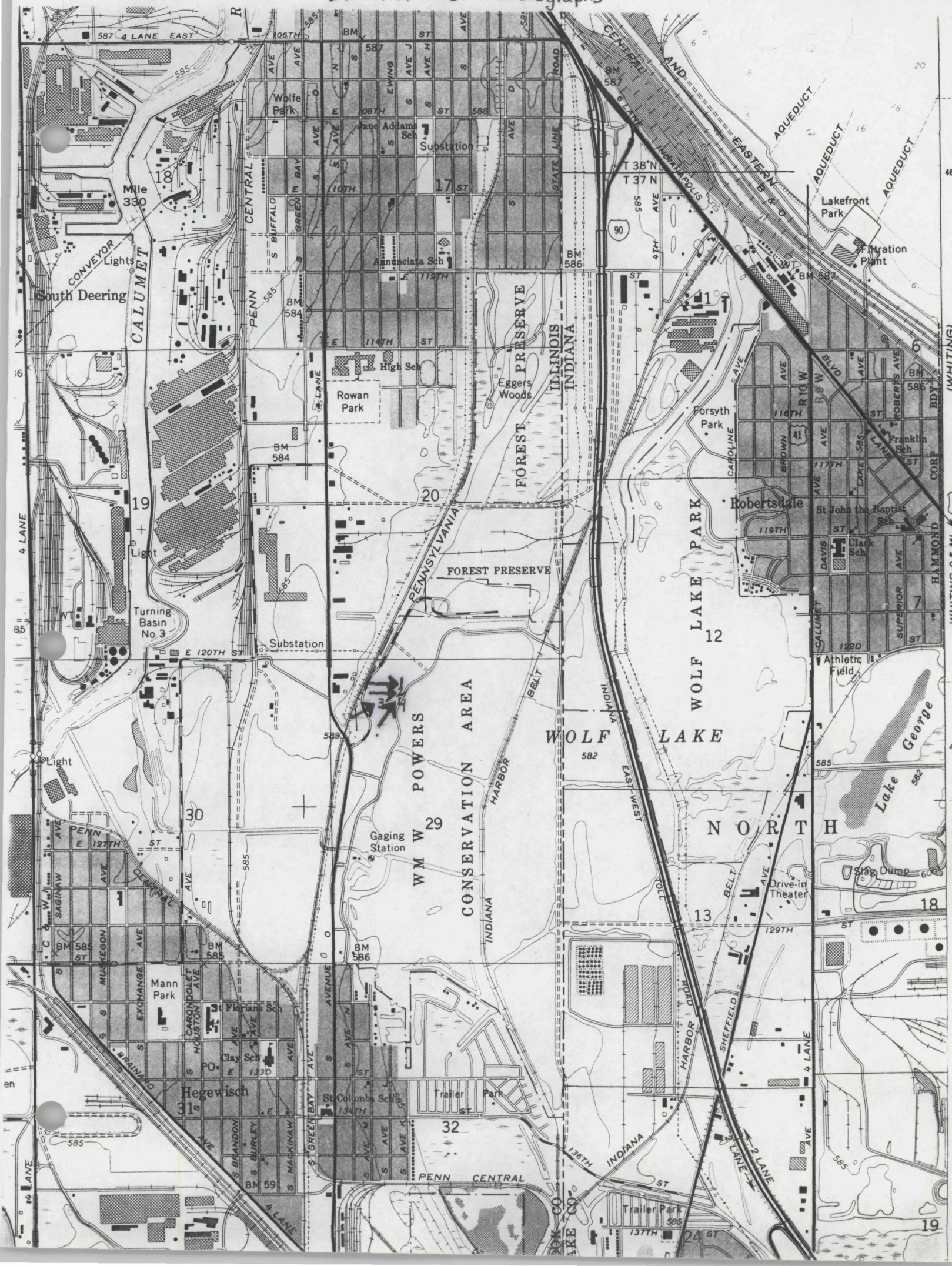
◆ Soil/Sediment Samples

Direction of Photographs

TOP OF TILL CONTOURS
INTERLAKE SITE
CHICAGO, ILLINOIS
PREPARED FOR
WASTE MANAGEMENT, INC.
OAK BROOK, ILLINOIS

Canonie Environmental

Direction of Photographs



DATE: 7-18-89

TIME: 3:45pm

Photograph by:

Tim Murphy

Location:

William F. Powers Conservation Area

Comments: Picture taken toward the west of soil sample X108

1

DATE: 7-18-89

TIME: 3:45pm

Photograph by:

Tim Murphy

Location: approx. 1.8 miles east southeast of Interlake Property Site

Comments: Picture taken toward the north of soil sample X108

2

IL 532-0603
L/NPC 24 (Rev. 7/88)

DATE: 7-18-89

TIME: 4:00pm

Photograph by:

Tim Murphy

Location:

William F. Powers Conservatio Area

Comments: Picture taken toward the northwest of groundwater sample G107

3

DATE: 7-18-89

TIME: 4:00pm

Photograph by:

Tim Murphy

Location: approx. 1.8 miles east southeast of Interlake Property Site

Comments: Picture taken toward the west-northwest of groundwater sample G107

4

IL 532-0603
L/NPC 24 (Rev. 7/86)

DATE: 7-19-89

TIME: 8:55

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th Sts. between Torrence and Stoney Island Ave

Comments: Picture taken toward the east near sediment sample X 102

7

DATE: 7-19-89

TIME: 8:55 am

Photograph by:

Tim Murphy

Location: Interlake Prop. Chicago, Cook Co., IL just east of Lake Calumet

Comments: Picture taken toward the west at the area near sediment sample X102

8

DATE: 7-19-89

TIME: 9:25 am

Photograph by:

Tim Murphy

Location:

Interlake Property 110th-116th Sts. between Torrence and Stoney Island Ave.

Comments: Picture taken toward the east of groundwater sample G105 (SS-1D)

9

DATE: 7-19-89

TIME: 10:00 am

Photograph by:

Tim Murphy

Location: Interlake Prop. Chicago, Cook Co., IL just east of Lake Calumet

Comments: Picture taken toward the North-North east at the area Near Sediment sample X 105

10

DATE: 7-19-89

TIME: 10:00 am

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th Sts. between Torrence and Stoney Island Ave.

Comments: Picture taken toward the east of sediment sample X105

11

DATE: 7-19-89

TIME: 10:10 am

Photograph by:

Tim Murphy

Location: Interlake Prop. Chicago, Cook Co., IL just east of Lake Calumet

Comments: Picture taken toward the west of entrance used to obtain sediment sample X104

12

DATE: 7-19-89

TIME: 10:15 am

Photograph by:

Tim Murphy

Location:

Interlake Property 110th - 116th Sts. between Torrence and Stoney Island Ave.

Comments: Picture taken toward the northwest of Sediment Sample X104

13

DATE: 7-19-89

TIME: 11:00 pm

Photograph by:

Tim Murphy

Location: Interlake Prop.

Chicago, Cook Co., IL just east of Lake Calumet

Comments: Picture taken toward the east of groundwater Sample G105 (SS-1D)

14.

IL 532-0803
L/NPC 24 (Rev. 7/86)

DATE: 7-19-89

TIME: 11:20 am

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th Sts. between Torrence and Stoney Island Ave.

Comments: Picture taken toward the east of sediment sample X 103

15

DATE: 7-19-89

TIME: 11:20am

Photograph by:

Tim Murphy

Location: Interlake Prop. Chicago, Cook Co., IL east of Lake Calumet

Comments: Picture taken toward the east of sediment sample X 103

16

DATE: 7-19-89

TIME: 12:00pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th St between Torrence and Stoney Island Ave

Comments: Picture taken toward the east of Sediment Sample X 107

17

DATE: 7-19-89

TIME: 12:00pm

Photograph by:

Tim Murphy

Location: Interlake Prop.

Chicago, Cook Co., IL east of lake Calumet

Comments: Picture taken toward the east of Sediment Sample X 107

18

DATE: 7-19-89

TIME: 12:40 pm

Photograph by:

John Morgan

Location:

Interlake Property, 110th-

116th St. between Torrence

and Stoney Island Ave.

Comments: Picture taken toward

North-Northeast of

Soil Sample X 101

approx. 240° and 107 ft.

from B-195

19

DATE: 7-19-89

TIME: 12:40pm

Photograph by:

Tim Murphy

Location: Interlake Prop.

Chicago, Cook Co., IL

east of Lake Calumet

Comments: Picture taken toward

the Southwest of Soil

Sample X 101

20

DATE: 7-19-89

TIME: 12:40pm

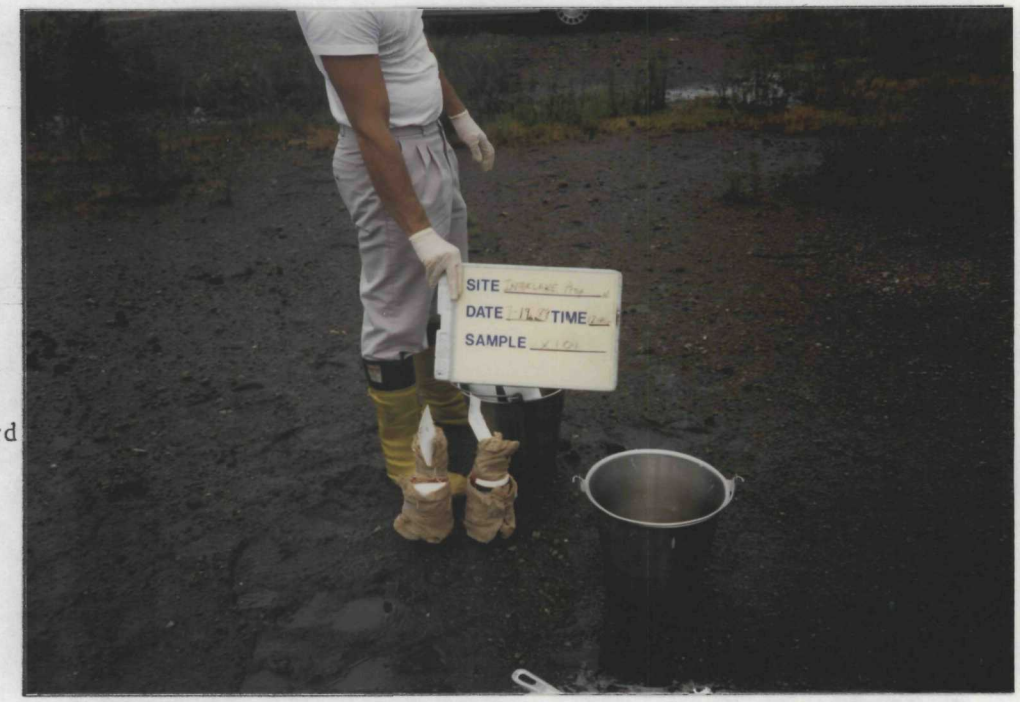
Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th St. between Torrence and Stoney Island Ave.

Comments: Picture taken toward the northeast of soil sample X101



21

DATE: 7-19-89

TIME: 1:50pm

Photograph by:

Tim Murphy

Location: Interlake Prop. Chicago, Cook Co., IL east of Lake Calumet

Comments: Picture taken toward the east of groundwater sample G101 (ST-1D)

22

DATE: 7-19-89

TIME: 1:50pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th - 116th St. between Torrence and Stoney Island Ave.

Comments: Picture taken toward the east-northeast of groundwater sample G101 (ST-1D)

23

DATE: 7-19-89

TIME: 2:45 pm

Photograph by:

Tim Murphy

Location: Interlake Prop. Chicago, Cook Co., IL east of Lake Calumet

Comments: Picture taken toward the northeast of Sediment sample X106, approx. 220° and approx. 70 ft. from ST-2S

24

IL 532-0603
L/NPC 24 (Rev. 7/88)

DATE: 7-19-89

TIME: 3:55 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-

116th St. between Torrence

and Stoney Island Ave.

Comments: Picture taken toward

the north of groundwater

sample G102 (ST-2D)

25

DATE: 7-19-89

TIME: 4:00 pm

Photograph by:

Tim Murphy

Location: Interlake Prop.

Chicago, Cook Co., IL

east of Lake Calumet

Comments: Picture taken toward

the west of entrance

used to gain axcess to

G102 (ST-2D) and X106

26

DATE: 7-19-89

TIME: 4:45 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th St. between Torrence and Stoney Island Ave.

Comments: Picture taken toward the east-northeast in the area of G106 (SS-2D), Man in orange shirt fishing with his wife

27

DATE: 7-19-89

TIME: 5:45 pm

Photograph by:

Tim Murphy

Location: Interlake Prop. Chicago, Cook Co., IL east of Lake Calumet

Comments: Picture taken toward the northwest of sample G106 (SS-2D)

28

DATE: 7-19-89

TIME: 5:45 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th St. between Torrence and Stoney Island Ave.

Comments: Picture taken toward the North-Northwest of groundwater sample G106

29

DATE: 7-19-89

TIME: 6:00pm

Photograph by:

Tim Murphy

Location: Interlake Prop. Chicago, Cook Co., IL east of Lake Calumet

Comments: Picture taken toward the east-Northeast in the G106 area, another couple going fishing

30

DATE: 7-20-89

TIME: 9:30am

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th St. between Torrance and Stoney Island Ave.

Comments: Picture taken toward the east of ditch running north to south from adjacent property in north west corner of property

31

DATE: 7-20-89

TIME: 10:10 am

Photograph by:

Tim Murphy

Location: Interlake Prop. Chicago, Cook Co., IL east of Lake Calumet

Comments: Picture taken toward the North of groundwater sample G103 (ST-3D) in Northwest corner of property

32

DATE: 7-20-89

TIME: 10:10 am

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th St. between Torrence and Stoney Island Ave.

Comments: Picture taken toward the northwest of G103

33

DATE: 7-20-89

TIME: 1:10pm

Photograph by:

Tim Murphy

Location: Interlake Prop.

Chicago, Cook Co., IL east of Lake Calumet

Comments: Picture taken toward the south of groundwater sample G104 (ST-4D) in southwest corner of property

34

IL 532-0603
L/NPC 24 (Rev. 7/86)

DATE: 7-20-89

TIME: 1:10 pm

Photograph by:

Tim Murphy

Location:

Interlake Property, 110th-116th St. between Torrance and Stoney Island Ave

Comments: Picture taken toward the South west of G104

35

DATE:

TIME:

Photograph by:

Location:

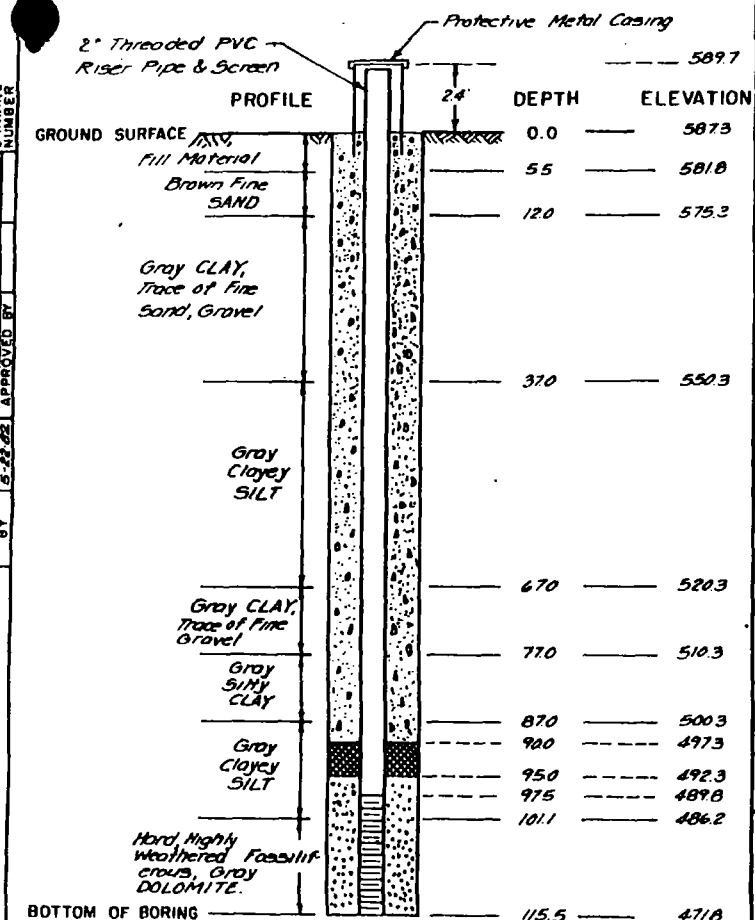
Comments: Picture taken toward

IL 532-0603
L/NPC 24 (Rev. 7/86)

APPENDIX F

WELL LOGS AND DATA GENERATED DURING SSI

PIEZOMETER INSTALLATION DETAILS



LEGEND

- GROUT
- BENTONITE
- GRANULAR BACKFILL
- NATURAL SOIL
- PIEZOMETER SCREEN

NOTES

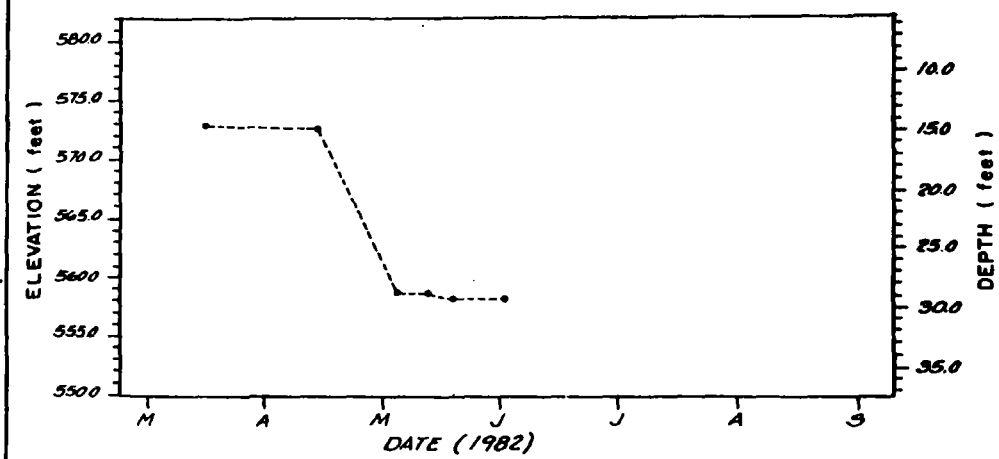
1. NOT DRAWN TO SCALE.
2. DEPTH AND ELEVATION DATA IS APPROXIMATE.
3. DEPTH AND ELEVATION DATA IN FEET.

GROUNDWATER LEVEL OBSERVATIONS

DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS
3/17	16.9	572.8	
4/14	17.1	572.6	
5/5	31.1	558.6	Change in water level due to mounding effect of drilling fluid
5/12	31.1	558.6	
5/18	31.5	558.2	
6/3	31.5	558.2	

DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS

SUMMARY OF PIEZOMETER LEVELS



GENERAL NOTES

1. PIEZOMETER INSTALLED ON 3/3/82.
2. WATER LEVEL DEPTH REPORTED UNDER "GROUNDWATER LEVEL OBSERVATIONS" IS FROM TOP OF CASING.
3. DEPTHS REPORTED ON "SUMMARY OF PIEZOMETER LEVELS" ARE REFERENCED TO THE GROUND SURFACE.

PIEZOMETER ST-1D
INSTALLATION & MONITORING DETAILS

INTERLAKE SITE
CHICAGO, ILLINOIS
FOR
WASTE MANAGEMENT, INC
OAK BROOK, ILLINOIS

Canonie Engineers

DRAWING NUMBER
CHECKED BY
APPROVED BY
DRAWN BY RGD 5-22-82

G101

Canonie Engineers

Boring Log

PROJECT No. 81-099
BORING No. ST-1
PAGE 1 OF 3

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 192.0 N. AND 2971.0 E. OF THE SW CORNER SURFACE ELEV. 587.3
DRILLER CANONIE TEST BORING, JIM WANDERSEE DATE: START 2-24-82 FINISH 3-3-82

DEPTH	SAMPLE No.	TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0-6	BLOW COUNT 6-12	BLOW COUNT 12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
													SLAG, FINE SAND (FILL MATERIAL).	
5	1	SS	3.5	5.0	30	24	6	12	-	43.7		5.5		
													MEDIUM DENSE BROWN FINE SAND, TRACE OF SILT.	
10	2	SS	8.5	10.0	4	5	8	18	SP-SM	28.0		12.0		
15	3	SS	13.5	15.0	4	5	8	18	CL	22.8				
20	4	SS	18.5	20.0	4	7	8	18	CL	19.8				
													STIFF TO HARD GRAY SILTY CLAY, TRACE OF COARSE TO FINE SAND.	
25	5	SS	23.5	25.0	7	9	15	18	CL	20.2				
30	6	SS	28.5	30.0	8	14	19	18	CL	19.2				
35	7	ST	33.5	35.5	-	-	-	-	CL	-		37.0		
40	8	SS	38.5	40.0	15	18	19	18	ML	12.6				

Canonie Engineers

Boring Log

PROJECT No. 81-099
BORING No. ST-1
PAGE 2 OF 3

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 192.0 N. AND 2971.0 E. OF THE SW CORNER SURFACE ELEV. 587.3
DRILLER CANONIE TEST BORING, JIM WANDERSEE DATE: START 2-24-82 FINISH 3-3-82

DEPTH	SAMPLE No	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0-6	BLOW COUNT 6-12	BLOW COUNT 12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
45	9	SS	43.5	45.0	10	13	17	18	ML	13.2				
50	10	SS	48.5	50.0	16	21	48	18	ML	12.5				
55	11	SS	53.5	55.0	25	34	26	18	ML	11.7			HARD GRAY CLAYEY SILT, TRACE OF COARSE SAND.	
60	12	SS	58.5	60.0	12	18	24	18	ML	14.2				
65	13	SS	63.5	65.0	10	14	24	18	ML	15.7				
												67.0		
70	14	SS	68.5	70.0	9	10	13	18	CL	25.4			VERY STIFF TO HARD GRAY CLAY, TRACE OF SILT, TRACE OF COARSE SAND. (SAND SEAM AT 71 FT.).	
75	15	SS	73.5	75.0	15	21	24	18	CL	13.7				
												77.0		
80	16	SS	78.5	80.0	24	31	51	18	ML-CL	18.1			HARD GRAY SILTY CLAY, SILT SEAMS, TRACE TO SOME FINE SAND.	

Canonie Engineers

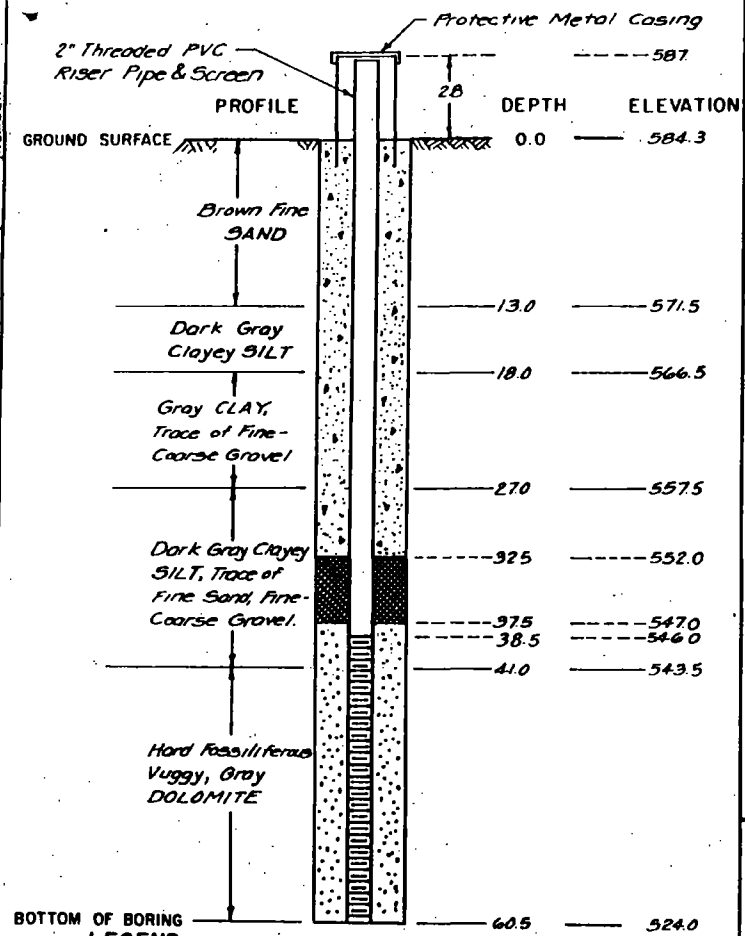
Boring Log

PROJECT No. 81-099
BORING No. ST-1
PAGE 3 OF 3

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 192.0 N. AND 2971.0 E. OF THE SW CORNER SURFACE ELEV. 587.3
DRILLER CANONIE TEST BORING, JIM WANDERSEE DATE: START 2-24-82 FINISH 3-3-82

DEPTH	SAMPLE No	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0-6	BLOW COUNT 6-12	BLOW COUNT 12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
85	17	SS	83.5	85.0	21	37	24	18	CL	17.0			SAME AS ABOVE.	
												87.0		
90	18	SS	88.5	90.0	36	43	42	18	ML	14.7			HARD GRAY CLAYEY SILT, TRACE OF DOLOMITE ROCK FRAGMENTS.	
95	19	SS	93.5	95.0	23	34	100/5	18	ML	13.8				
100	20	SS	98.5	100.0	30	43	39	18	ML	12.1				
												101.1	CORED FROM 101.6 FT. TO 116.0 FT. RECOVERED 16.4 FT., 98 PERCENT.	
105													HARD, MODERATELY TO HIGHLY WEATHERED, FOSSILIFEROUS, VUGGY, FINE GRAINED MEDIUM GRAY DOLOMITE, WITH PYRITE INFILLINGS. RQD - 70 PERCENT.	
110														
115												116.0		

PIEZOMETER INSTALLATION DETAILS



LEGEND

- GROUT
- BENTONITE
- GRANULAR BACKFILL
- NATURAL SOIL
- PIEZOMETER SCREEN

NOTES

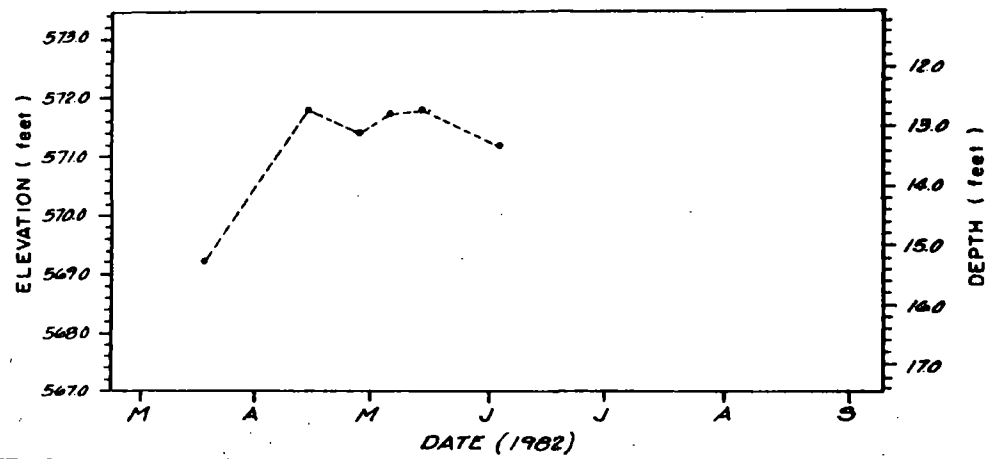
1. NOT DRAWN TO SCALE.
2. DEPTH AND ELEVATION DATA IS APPROXIMATE.
3. DEPTH AND ELEVATION DATA IN FEET.

DRAWING NUMBER | DRAWN BY | CHECKED BY | APPROVED BY | 5/27/82

GROUNDWATER LEVEL OBSERVATIONS

DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS	DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS
3/17	18.1	569.2					
4/14	15.5	571.8					
4/28	15.9	571.4					
5/5	15.6	571.7					
5/12	15.5	571.8					
6/9	16.1	571.2					

SUMMARY OF PIEZOMETER LEVELS



GENERAL NOTES

1. PIEZOMETER INSTALLED ON 9/8/82.
2. WATER LEVEL DEPTH REPORTED UNDER "GROUNDWATER LEVEL OBSERVATIONS" IS FROM TOP OF CASING.
3. DEPTHS REPORTED ON "SUMMARY OF PIEZOMETER LEVELS" ARE REFERENCED TO THE GROUND SURFACE.

PIEZOMETER ST-2D INSTALLATION & MONITORING DETAILS

INTERLAKE SITE
CHICAGO, ILLINOIS
FOR
WASTE MANAGEMENT, INC
OAK BROOK, ILLINOIS

Canonie Engineers

G102

Canonie Engineers

Boring Log

PROJECT No. 81-099
BORING No. ST-2
PAGE 1 OF 2

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 3488.0 N. AND 3208.0 E. OF THE SW CORNER SURFACE ELEV. 584.5
DRILLER CANONIE TEST BORING, JIM WANDERSEE DATE: START 3-4-82 FINISH 3-8-82

DEPTH	SAMPLE No.	TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0-6	6-12	12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO.
5	1	SS	3.5	5.0	4	5	5	18	SM	28.7			MEDIUM DENSE BROWN FINE SAND, TRACE OF SILT.	
10	2	SS	8.5	10.0	4	5	7	18	SM	28.2				
												13.0		
15	3	SS	13.5	15.0	4	7	13	18	ML	17.7			VERY STIFF DARK GRAY CLAYEY SILT, TRACE TO SOME FINE TO COARSE SAND.	
												18.0		
20	4	SS	18.5	20.0	3	5	8	18	CL	20.8			MEDIUM STIFF GRAY CLAY, TRACE OF SILT, TRACE OF COARSE SAND, TRACE OF COARSE GRAVEL, TRACE TO SOME FINE SAND.	
25	5	ST	23.5	25.0	-	-	-	-	-	-				
												27.0		
30	6	SS	28.5	30.0	13	19	21	18	ML	15.2			HARD DARK GRAY CLAYEY SILT, TRACE OF FINE TO MEDIUM SAND.	
35	7	SS	33.5	35.0	26	40	55	18	ML	12.8				
40	8	SS	38.5	40.0	16	44	100/2	12	ML	11.6				
												41.0		

Canonie Engineers

Boring Log

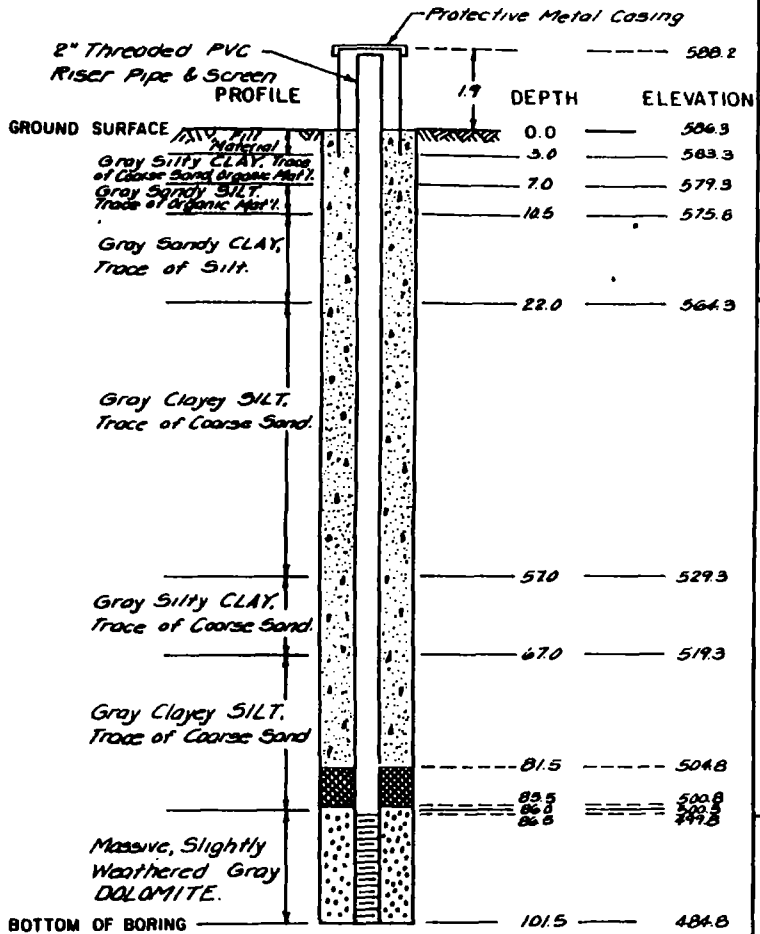
PROJECT No. 81-099
BORING No. ST-2
PAGE 2 OF 2

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 3488.0 N. AND 3208.0 E. OF THE SW CORNER SURFACE ELEV. 584.8
DRILLER CANONIE TEST BORING, JIM WANDERSEE DATE: START 3-4-82 FINISH 3-8-82

DEPTH	SAMPLE No	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0-6	BLOW COUNT 6-12	BLOW COUNT 12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
												41.0	CORED FROM 41.0 FT. TO 60.8 FT. RECOVERED 18.4 FT., 93 PERCENT.	
45													HARD, MODERATELY TO HIGHLY WEATHERED, FOSSILIFEROUS, VUGGY, FINE GRAINED MEDIUM GRAY DOLOMITE, WITH PYRITE INFILLINGS.	
50													RQD - 49 PERCENT.	
55														
60												60.8		

6103

PIEZOMETER INSTALLATION DETAILS



LEGEND

- GROUT
- BENTONITE
- GRANULAR BACKFILL
- NATURAL SOIL
- PIEZOMETER SCREEN

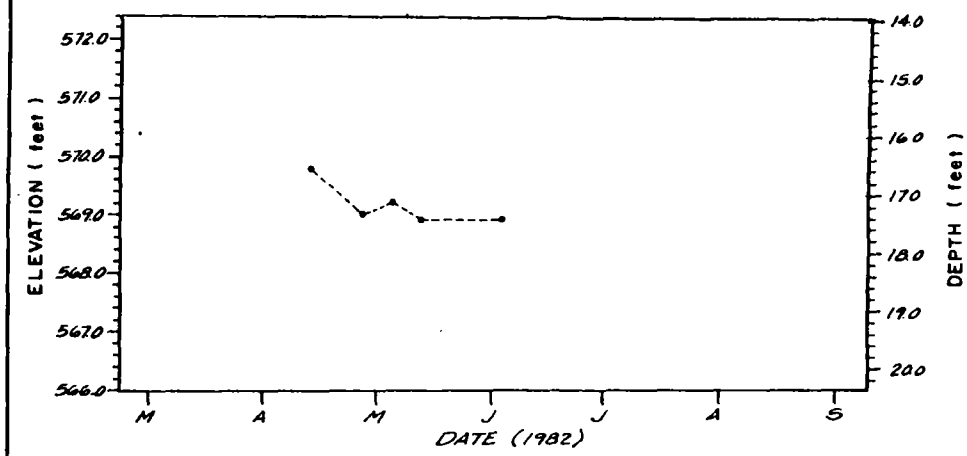
NOTES

1. NOT DRAWN TO SCALE.
2. DEPTH AND ELEVATION DATA IS APPROXIMATE.
3. DEPTH AND ELEVATION DATA IN FEET.

GROUNDWATER LEVEL OBSERVATIONS

DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS	DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS
4/14	18.4	569.8					
4/28	19.2	569.0					
5/5	19.0	569.2					
5/12	19.3	568.9					
6/9	19.3	568.9					

SUMMARY OF PIEZOMETER LEVELS



GENERAL NOTES

1. PIEZOMETER INSTALLED ON 4/13/82 .
2. WATER LEVEL DEPTH REPORTED UNDER "GROUNDWATER LEVEL OBSERVATIONS" IS FROM TOP OF CASING .
3. DEPTHS REPORTED ON "SUMMARY OF PIEZOMETER LEVELS" ARE REFERENCED TO THE GROUND SURFACE.

PIEZOMETER ST-3D
INSTALLATION & MONITORING DETAILS

INTERLAKE SITE
CHICAGO, ILLINOIS
FOR
WASTE MANAGEMENT, INC
OAK BROOK, ILLINOIS

Canonie Engineers

DRAWN BY | CHECKED BY | APPROVED BY | DRAWING NUMBER

Canonie Engineers

Boring Log

PROJECT No. 81-099
BORING No. ST-3
PAGE 1 OF 3

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 3877 N. AND 111.0 E. OF THE SW CORNER SURFACE ELEV. 586.3
DRILLER CANONIE TEST BORING, WILLIAM HOLLOMAN DATE: START 4-7-82 FINISH 4-10-82

DEPTH	SAMPLE No	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0-6	BLOW COUNT 6-12	BLOW COUNT 12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
												3.0	FILL MATERIAL.	
5	1	SS	3.5	5.0	3	4	6	18	CL			7.0	STIFF GRAY SILTY CLAY, TRACE OF COARSE SAND, TRACE OF ORGANIC MATERIAL.	
10	2	SS	8.5	10.0	2	3	5	12	ML			10.5	FIRM GRAY SANDY SILT, TRACE TO SOME ORGANIC MATERIAL.	
15	3	SS	13.5	15.0	3	5	7	12	CL				STIFF GRAY SANDY CLAY, TRACE OF FINE TO COARSE SAND, TRACE OF SILT, TRACE OF PYRITE.	
20	4	SS	18.5	20.0	4	7	9	18	CL			22.0		
25	5	SS	23.5	25.0	7	13	17	18	ML				VERY STIFF TO HARD GRAY CLAYEY SILT, TRACE OF COARSE SAND.	
30	6	SS	28.5	30.0	9	9	12	18	ML					
35	7	SS	33.5	35.0	7	12	18	18	ML					
40	8	SS	38.5	40.0	10	14	20	18	ML					

Canonie Engineers

Boring Log

PROJECT No. 81-099
BORING No. ST-3

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 3877 N. AND 111.0 E. OF THE SW CORNER SURFACE ELEV. 586.3
DRILLER CANONIE TEST BORING, WILLIAM HOLLOMAN DATE: START 4-7-82 FINISH 4-10-82

DEPTH	SAMPLE No	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0-6	BLOW COUNT 6-12	BLOW COUNT 12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
45	9	SS	43.5	45.0	13	15	27	18	ML				HARD GRAY CLAYEY SILT, TRACE TO SOME FINE TO COARSE SAND, TRACE FINE GRAVEL.	
50	10	SS	48.5	50.0	17	19	27	18	ML					
55	11	SS	53.5	55.0	9	16	18	18	ML-CL			57.0		
60	12	SS	58.5	60.0	8	14	24	18	CL				VERY STIFF TO HARD GRAY SILTY CLAY, TRACE OF COARSE SAND.	
65	13	SS	63.5	65.0	7	11	15	18	CL			67.0		
70	14	SS	68.5	70.0	18	26	43	18	ML				HARD GRAY CLAYEY SILT, TRACE OF COARSE SAND.	
75	15	SS	73.5	75.0	34	30	49	18	ML					
80	16	SS	78.5	80.0	30	39	36	18	ML					

Canonie Engineers

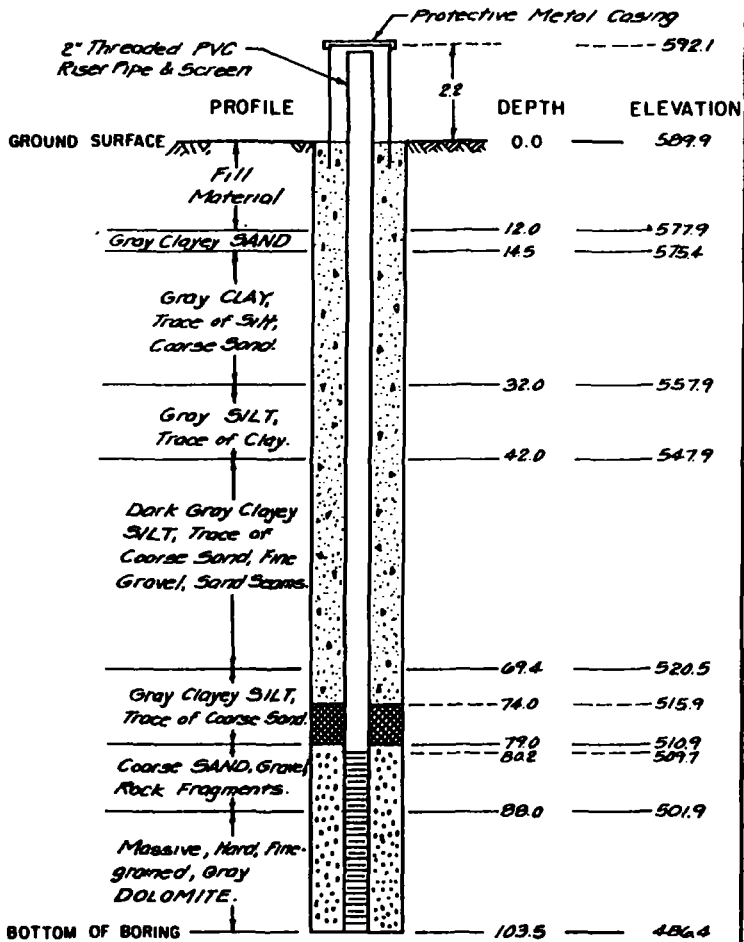
Boring Log

PROJECT No. 81-099
BORING No. ST-3
PAGE 3 OF 3

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 3877 N. AND 111.0 E. OF THE SW CORNER SURFACE ELEV. 586.2
DRILLER CANONIE TEST BORING, WILLIAM HOLLOMAN DATE: START 4-7-82 FINISH 4-10-82

DEPTH	SAMPLE No.	TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0-6	6-12	12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
85	17	SS	83.5	85.0	30	67	92	18	ML				HARD GRAY CLAYEY SILT, TRACE OF COARSE SAND.	
												86.5	CORED 86.5 FT. TO 101.5 FT. RECOVERED 10 FT., 100 PERCENT.	
90														
95													MEDIUM, SLIGHTLY WEATHERED FINE GRAINED, MASSIVE, LIGHT TO MEDIUM GRAY DOLOMITE, WITH PYRITE INFILLING IN FRACTURES. RQD - 98 PERCENT	
100												101.5		

PIEZOMETER INSTALLATION DETAILS



LEGEND

- GROUT
- BENTONITE
- GRANULAR BACKFILL
- NATURAL SOIL
- PIEZOMETER SCREEN

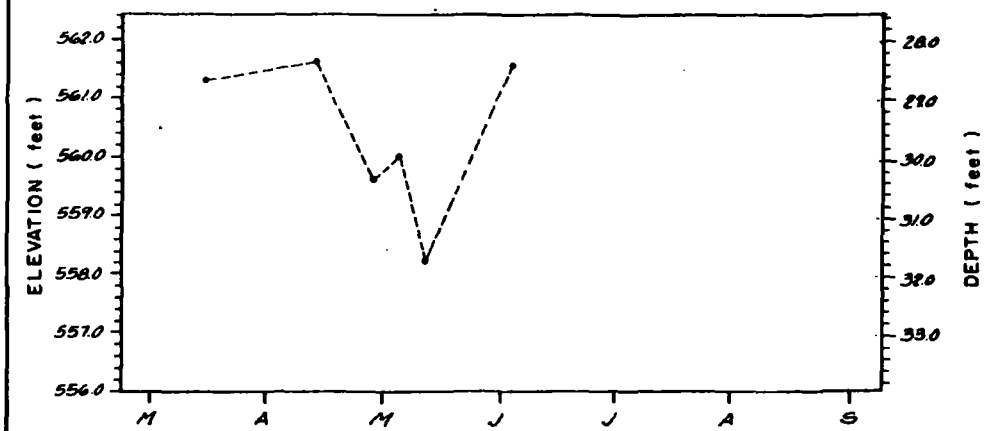
NOTES

1. NOT DRAWN TO SCALE.
2. DEPTH AND ELEVATION DATA IS APPROXIMATE.
3. DEPTH AND ELEVATION DATA IN FEET.

GROUNDWATER LEVEL OBSERVATIONS

DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS	DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS
3/17	30.8	561.3					
4/14	30.5	561.6					
4/28	32.5	559.6					
5/5	32.1	560.0					
5/12	33.9	558.2					
6/9	30.6	561.5					

SUMMARY OF PIEZOMETER LEVELS



GENERAL NOTES

1. PIEZOMETER INSTALLED ON 3/12/82 .
2. WATER LEVEL DEPTH REPORTED UNDER "GROUNDWATER LEVEL OBSERVATIONS" IS FROM TOP OF CASING .
3. DEPTHS REPORTED ON "SUMMARY OF PIEZOMETER LEVELS" ARE REFERENCED TO THE GROUND SURFACE.

PIEZOMETER ST-4D
INSTALLATION & MONITORING DETAILS

INTERLAKE SITE
CHICAGO, ILLINOIS
FOR
WASTE MANAGEMENT, INC
OAK BROOK, ILLINOIS

Canonie Engineers

DRAWING NUMBER | CHECKED BY | APPROVED BY | DRAWN BY RGD 3/23/82

G104

Canonie Engineers

Boring Log

PROJECT No. 81-099
BORING No. ST-4
PAGE 1 OF 3

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 86.0 N. AND 195.0 E. OF THE SW CORNER SURFACE ELEV. 590.0
DRILLER RAIMONDE DRILLING, ANGELO RAIMONDE DATE: START 3-8-82 FINISH 3-12-82

DEPTH	SAMPLE No.	TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0-6	6-12	12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
5	1	SS	3.5	5.0	4	4	10	1	-	-			SLAG, SAND, BRICK (FILL MATERIAL).	
10	2	SS	8.5	10.0	5	4	6	3	-	19.2		12.0		
										32.1			DENSE GRAY CLAYEY SAND.	
15	3	SS	13.5	15.0	8	15	23	18	SP	23.2		14.5		
20	4	SS	18.5	20.0	16	12	15	15	CL	19.3			HARD GRAY CLAY, TRACE OF SILT, TRACE OF COARSE SAND.	
25	5	SS	23.5	25.0	6	9	14	18	CL	21.4				
30	6	SS	28.5	30.0	9	18	25	18	CL	21.6		32.0		
35	7	SS	33.5	35.0	40	70	100/3	14	ML	19.1			HARD GRAY SILT, TRACE OF CLAY.	
40	8	SS	38.5	40.0	25	42	72	-	ML	13.3		42.0		

Canonie Engineers

Boring Log

PROJECT No. 81-099
BORING No. ST-4
PAGE 2 OF 3

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 86.0 N. AND 195.0 E. OF THE SW CORNER SURFACE ELEV. 590.0
DRILLER RAIMONDE DRILLING, ANGELO RAIMONDE DATE: START 3-8-82 FINISH 3-12-82

DEPTH	SAMPLE No	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0-6	BLOW COUNT 6-12	BLOW COUNT 12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
												42.0		
45	9	SS	43.5	45.0	38	81		8	ML	14.1				
50	10	SS	48.5	50.0	36	55	73	7	ML	13.8				
55	11	SS	53.5	55.0	69	100	-	7	ML	17.5			HARD DARK GRAY TO GRAY CLAYEY SILT, TRACE OF COARSE SAND, TRACE OF FINE GRAVEL, FINE TO COARSE SAND SEAMS.	
60	12	SS	58.5	60.0	59	65	82	-	ML	19.7				
65	13	ST	63.5	65.0	-	-	-	-	ML-CL	-				
										15.3		68.5	HARD GRAY CLAY, TRACE OF SILT.	
70	14	SS	68.5	70.0	16	48	88	18	ML	24.1		69.4	TRACE OF FINE SAND.	
75	15	SS	73.5	75.0	69	100/6	-	7	ML	13.2			HARD GRAY CLAYEY SILT, TRACE OF COARSE SAND.	
												79.0		
80	16	SS	78.5	80.0	100/2	-	-	-	GC	-				

Canonie Engineers

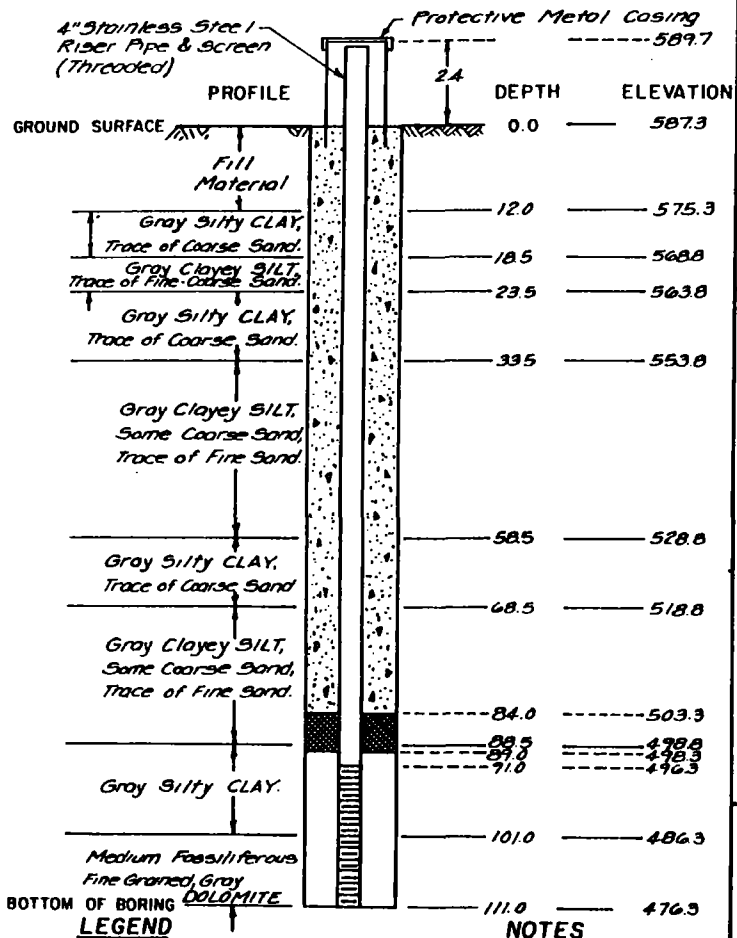
Boring Log

PROJECT No. 81-099
BORING No. ST-4
PAGE 3 OF 3

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 86.0 N. AND 195.0 E. OF THE SW CORNER SURFACE ELEV. 590.0
DRILLER RAIMONDE DRILLING, ANGELO RAIMONDE DATE: START 3-8-82 FINISH 3-12-82

DEPTH	SAMPLE No.	TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0-6	6-12	12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO.
80	17	SS	80.0	82.5	18	7	1/6	6	GC	-				
													LOOSE TO VERY DENSE COARSE SAND AND GRAVEL, CLAY BOULDERS, WEATHERED ROCK FRAGMENTS.	
85	18	SS	83.5	85.0	40	45	35	3	GC	-				
	19	SS	85.5	87.0	100/4	-	-	-	-	8.9				
												88.0		
													CORED 88.5 FT TO 103.5 FT. RECOVERED 14.6 FT., 98 PERCENT.	
90														
													HARD, FRESH TO SLIGHTLY WEATHERED, MASSIVE, FINE GRAINED MEDIUM DARK GRAY DOLOMITE, SLIGHTLY FOSSILIFEROUS, PYRITE INFILLING IN FRACTURES. RQD - 83 PERCENT.	
95														
100														
												103.5		
105														

PIEZOMETER INSTALLATION DETAILS



LEGEND

- GROUT
- BENTONITE
- GRANULAR BACKFILL
- NATURAL SOIL
- PIEZOMETER SCREEN

NOTES

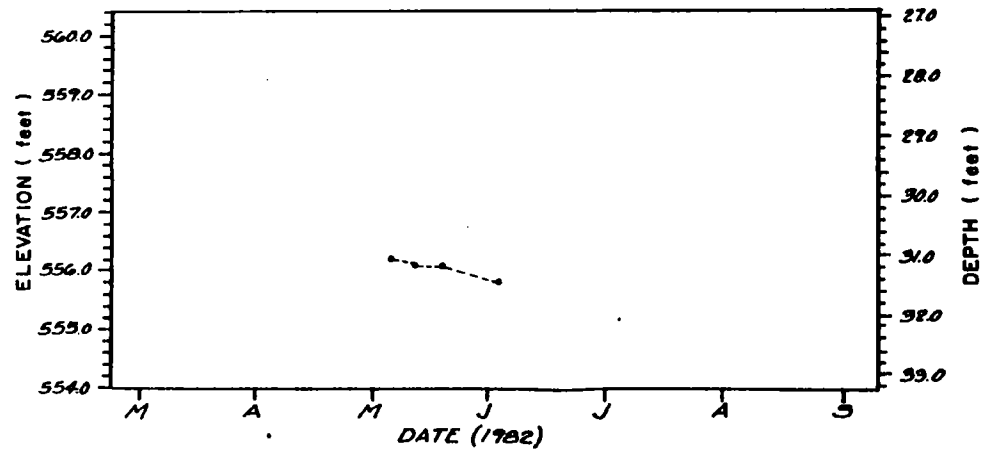
1. NOT DRAWN TO SCALE.
2. DEPTH AND ELEVATION DATA IS APPROXIMATE.
3. DEPTH AND ELEVATION DATA IN FEET.

GROUNDWATER LEVEL OBSERVATIONS

DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS
5/5	33.5	556.2	
5/12	33.6	556.1	
5/18	33.6	556.1	
6/3	33.9	555.8	

DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS

SUMMARY OF PIEZOMETER LEVELS



GENERAL NOTES

1. PIEZOMETER INSTALLED ON 4/26/82.
2. WATER LEVEL DEPTH REPORTED UNDER "GROUNDWATER LEVEL OBSERVATIONS" IS FROM TOP OF CASING.
3. DEPTHS REPORTED ON "SUMMARY OF PIEZOMETER LEVELS" ARE REFERENCED TO THE GROUND SURFACE.

PIEZOMETER SS-1D
INSTALLATION & MONITORING DETAILS

INTERLAKE SITE
CHICAGO, ILLINOIS
FOR
WASTE MANAGEMENT, INC
OAK BROOK, ILLINOIS

Canonie Engineers

DRAWN BY RGD 5/27/82 | CHECKED BY | APPROVED BY | DRAWING NUMBER

G105

Canonie Engineers

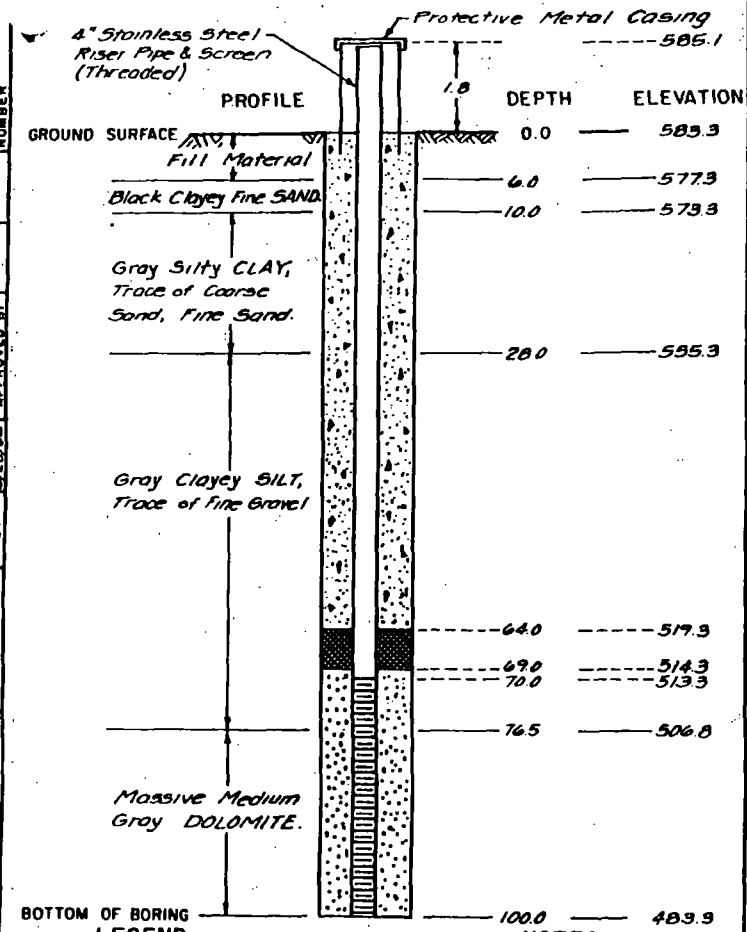
Boring Log

PROJECT No. 81-099
BORING No. SS-1
PAGE 1 OF 1

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 1724.0 N. AND 3152.0 E. OF THE SW CORNER SURFACE ELEV. 587.3
DRILLER CANONIE DRILLING, WILLIE HOLLOMAN DATE: START 4-20-82 FINISH 4-27-82

DEPTH	SAMPLE No.	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0-6	BLOW COUNT 6-12	BLOW COUNT 12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
100												101.0	RUN #1 101.0 TO 103.5 FT. RECOVERED 2.5 FT., 100 PERCENT.	
													RUN #2 103.5 TO 110.0 FT. RECOVERED 7.5 FT., 100 PERCENT	
105													MEDIUM HARD, MODERATELY WEATHERED, FOSSILIFEROUS, VUGGY LIGHT TO MEDIUM GRAY DOLOMITE WITH SHALE PARTINGS AND PYRITE INFILLINGS. RQD - 68 PERCENT.	
110												110.0		

PIEZOMETER INSTALLATION DETAILS



LEGEND

- GROUT
- BENTONITE
- GRANULAR BACKFILL
- NATURAL SOIL
- PIEZOMETER SCREEN

NOTES

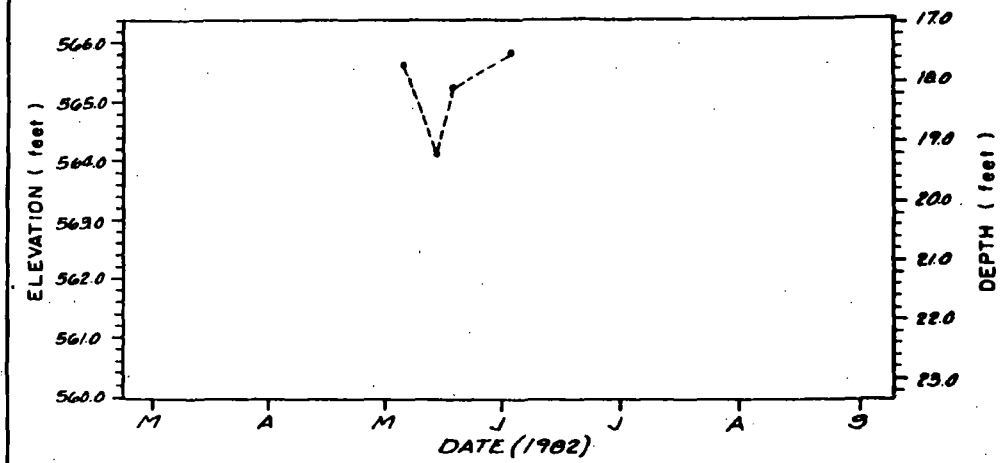
1. NOT DRAWN TO SCALE.
2. DEPTH AND ELEVATION DATA IS APPROXIMATE.
3. DEPTH AND ELEVATION DATA IN FEET.

GROUNDWATER LEVEL OBSERVATIONS

DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS
5/5	19.5	565.6	
5/12	21.0	564.1	Water level read 2 days after water quality test.
5/18	19.9	565.2	
6/3	19.3	565.8	

DATE TIME	WATER LEVEL DEPTH	WATER LEVEL ELEV.	COMMENTS

SUMMARY OF PIEZOMETER LEVELS



GENERAL NOTES

1. PIEZOMETER INSTALLED ON 5/3/82.
2. WATER LEVEL DEPTH REPORTED UNDER "GROUNDWATER LEVEL OBSERVATIONS" IS FROM TOP OF CASING.
3. DEPTHS REPORTED ON "SUMMARY OF PIEZOMETER LEVELS" ARE REFERENCED TO THE GROUND SURFACE.

PIEZOMETER SS-2D
INSTALLATION & MONITORING DETAILS

INTERLAKE SITE
CHICAGO, ILLINOIS
FOR
WASTE MANAGEMENT, INC
OAK BROOK, ILLINOIS

Canonie Engineers

DRAWN BY RGD 5/28/82 | CHECKED BY | APPROVED BY | DRAWING NUMBER

G106

Canonie Engineers

Boring Log

PROJECT No. 81-099
BORING No. SS-2
PAGE 1 OF 1

PROJECT NAME WASTE MANAGEMENT - INTERLAKE
BORING LOCATION 1336.0 N. AND 39.0 E. OF THE SW CORNER SURFACE ELEV. 583.3
DRILLER RAIMONDE DRILLING, ANGELO RAIMONDE DATE: START 4-28-82 FINISH 5-3-82

DEPTH	SAMPLE No	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0-6	BLOW COUNT 6-12	BLOW COUNT 12-18	RECOVERY IN INCHES	U.S.C.S. SOIL TYPE	PERCENT MOISTURE	qu TSF	CONTACT DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
75													RUN #1 76.5 TO 85.0 FT. RECOVERED 8.4 FT., 99 PERCENT.	
												76.5	MEDIUM HARD, FRESH, MASSIVE, FINE GRAINED MEDIUM GRAY DOLOMITE FROM 76.5 TO 79.3 FT.	
80												79.3		
									ML			82.0	GRAY CLAYEY SILT, TRACE OF COARSE SAND, WEATHERED BEDROCK AND FINE GRAVEL FROM 79.3 FT. TO 82.0 FT.	
85													MEDIUM HARD, SLIGHTLY WEATHERED, MASSIVE MEDIUM GRAY DOLOMITE FROM 82.0 TO 84.9 FT.	
90														
95													RUN #2 85.0 TO 88.0 FT. RECOVERED 2.45 FT., 82 PERCENT.	
100													RUN #3 88 TO 101 FT. RECOVERED 9.6 FT. 74 PERCENT.	
												101.0	MEDIUM HARD, FRESH, FOSSILIFEROUS FINE GRAINED, LIGHT TO MEDIUM GRAY DOLOMITE WITH PYRITE INFILLINGS. RQD - 70 PERCENT.	
105														

G107

[redacted]

LOG OF WATER WELL

Property owner State of Illinois (Wolf Lake) Well No. 1

Drilled by KRAMER BROS. Year 1948

Formations passed through	Thickness	Depth of Bottom
Fill	8	8
~~Sand~~	~~12~~	~~20~~
Hard clay with gravel	10	30
Soft squeeze clay	30	60
Hard gravely clay	10	70
Broken rock, clay, sand, CO_2 Gas	7	77
~~Brown lime--dry hole~~	~~3~~	~~80~~
Grey lime--dry hole	5	85
Brown & grey lime, much CO_2 Gas	5	90
Hard brown lime	5	95
Hard grey lime	20	115
~~Hard grey-brown lime~~	~~15~~	~~130~~
Hard grey lime	50	180
Grey-brown lime	30	210

[Continue on back if necessary]

Finished in Limestone at 210 to ____ ft.

Cased with 4 inch Galv. Wrought Pipe from 0 to 77 ft.

and ____ inch ____ from ____ to ____ ft.

Size hole below casing 4 inch. Static level from surf. 42 ft.

Tested capacity 5 gal. per min. Temperature ____ °F.

Water lowered to 110 ft. ____ in. in ____ hrs. 20 min.

Length of test 4 hrs. ____ min. Screen ____

Slot ____ Diam. ____ Length ____ Bottom set at ____ ft.

[Show location in Section Plat]

Township name ____ Elev. ____

Description of location Wolf Lake State Park, 124th & Ave. O, Chicago, Ill.

Sec. 29

Twp. 37N

Rge. 15E

Signed Claude Kramer County Cook

Copy for Illinois State Geological Survey Index:

WMI Environmental Monitoring Laboratories, Inc.

Site # 250

Bottle Set: AA4823

FIELD INFORMATION FORM

G101

Sample Point: WSTO2D (Source Code)

PURGING INFORMATION

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	ACTUAL VOLUME PURGED (Gallons)
890719	1135	23	117	600

PURGING AND SAMPLING EQUIPMENT

Purging Equipment ..... Dedicated (Y) (N) (circle one) Sampling Equipment ..... Dedicated (Y) (N) (circle one)

Purging Device	G	A-Submersible Pump	D-Gas Lift Pump	G-Bailer	X- (PURGING OTHER (SPECIFY))
Sampling Device	G	B-Peristaltic Pump	E-Venturi Pump	H-Scoop/Shovel	X- BOTTOM DISCHARGE (SAMPLING OTHER (SPECIFY))
		C-Bladder Pump	F-Dipper/Bottle	I-Piston Pump	
Purging Material	D A	A-Teflon	C-Polypropylene	E-Polyethylene	X- (PURGING OTHER (SPECIFY))
Sampling Material	A	B-Stainless Steel	D-PVC		X- (SAMPLING OTHER (SPECIFY))
Tubing-Purging	—	A-Teflon	D-Polypropylene	F-Silicon	X- (PURGING OTHER (SPECIFY))
Tubing-Sampling	—	B-Tygon	E-Polyethylene	G-Combination teflon/ Polypropylene	X- (SAMPLING OTHER (SPECIFY))
		C-Rope X- POLYETHYLENE (SPECIFY)			

FIELD MEASUREMENTS

Well Elevation	(ft/msl)	Land Surface Elevation	(ft/msl)
Depth to water From top of well casing	34.00 (ft)	Depth to water From land surface	31.94 (ft)
Groundwater Elevation	(ft/msl)	Groundwater Elevation	(ft/msl)
Well Depth	105.49 (ft)	Stickup	2.06 (ft)

	ph		spec cond		Sample Temp.	
1st	8.40 (STD)	1st	488	µm/cm at 25° C		12.1 (° C)
2nd	(STD)	2nd		µm/cm at 25° C	WELL DIAMETER (other parameter)	2 (value) IN. (units)
3rd	(STD)	3rd		µm/cm at 25° C	(other parameter)	value / units
4th	(STD)	4th		µm/cm at 25° C	(other parameter)	value / units

FIELD COMMENTS

Sample Appearance: CLOUDY Odor: NONE Color: LIGHT GREY Turbidity: MODERATE

Weather Conditions: 70°F, OVERCAST, LIGHT VARIABLE WINDS (PURGE + SAMPLE) LIGHT RAIN (SAMPLE).

Other: M.P. = TOP OF INNER PVC WELL CASING. - TALL WEEDS SURROUNDING WELL.
- 105.49 - 34.00 = 71.49 x0.163 = 11.65 ① x3 = 34.95 ③. - METERS RESTANDARDIZED AT THIS WELL
- WELL LOCATED IN SOUTH EAST CORNER OF PROPERTY ADJACENT TO ABANDONED BUILDINGS.
- 2" x 3' BOTTOM DISCHARGE TEFLON BAILER DEDICATED TO WELL IMMEDIATELY PRIOR TO PURGE/SAMPLE
- BAILERS DECON'D WITH A 50% ACETONE/D.I. H_2O SOLUTION, FOLLOWED WITH TRIPLE D.I. H_2O RINSE
- THIS SAMPLE OBTAINED DURING AN IEPA SITE INVESTIGATION.
SEE ATTACHED FIELD SURVEY FORM FOR pH, TEMP(°C), CONDUCTIVITY STABILIZATION.

I certify that sampling procedures were in accordance with applicable EPA, State and WMI protocols.

7/19/89 (Date) [signature] Employer: G.C.L.

EML FF-2 6/88

WESTON/GULF COAST LABORATORIES, INC.
FIELD SURVEY FORM

Sample I.D.: G101 ST01D
Facility: INTERLAKE
~~RFW #~~ BOTTLE SET #: AA4823

Date: 07-19-89
Sampling Method: 2"x3' DEDICATED BOTTOM DISCHARGE TEFLON BAILER.

Comments: PH, TEMPERATURE, CONDUCTIVITY STABILIZATION

TIME	PH	TEMP(°C)	CONDUCTIVITY (µS/cm @ 25°C)	GALLONS PURGED	COMMENTS
1135	9.08	12.2	463	0	-LIGHT GREY, CLOUDY, NO ODOR.
1150	9.04	11.5	458	5	-LIGHT GREY, CLOUDY, NO ODOR.
-SWITCHED TO USING A 2"x5' PVC BAILER TO PURGE. TEFLON BAILER DID NOT HOLD ENOUGH WATER AND CHECK-BALL DID NOT SEAT WELL.					
1220	8.94	12.7	477	10	-LIGHT GREY, CLOUDY, NO ODOR.
1233	8.74	11.9	488	15	-GREY, CLOUDY, NO ODOR.
1242	8.56	11.5	485	20	-GREY, CLOUDY, NO ODOR.
1250	8.46	11.7	491	25	-GREY, CLOUDY, NO ODOR.
1300	8.48	11.7	479	30	-GREY, CLOUDY, NO ODOR.
-METERS RESTANDARDIZED.					
1308	8.07	11.7	477	35	-GREY, CLOUDY, NO ODOR.
1315	8.31	11.7	474	40	-LIGHT GREY, CLOUDY, NO ODOR.
1325	8.36	11.7	472	45	-LIGHT GREY, CLOUDY, NO ODOR.
1330	8.37	11.7	477	50	-LIGHT GREY, CLOUDY, NO ODOR.
1340	8.39	11.7	478	55	-LIGHT GREY, CLOUDY, NO ODOR.
1350	8.40	11.8	481	60	-LIGHT GREY, CLOUDY, NO ODOR.
-PARAMETERS STABLE, 5 CASING VOLUMES REMOVED. TEFLON BAILER USED TO SAMPLE.					

NOTE: DEAD "ANTS" WERE OBSERVED IN PURGE WATER DURING ENTIRE PURGE, BUT WERE ESPECIALLY PRESENT IN LAST 20 GALLONS PURGED.

Sampler Name (Print): ANDY HOUSER Signature: Andy Houser

#2

WMI Environmental Monitoring Laboratories, Inc.

Site # 250

Bottle Set: AA4825

FIELD INFORMATION FORM G10Z

Sample Point: WST02D (Source Code)

PURGING INFORMATION

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	ACTUAL VOLUME PURGED (Gallons)
890719	1455	09	62	330

PURGING AND SAMPLING EQUIPMENT

Purging Equipment ..... Dedicated Y | N (circle one)

Sampling Equipment ..... Dedicated Y | N (circle one)

Purging Device	G	A-Submersible Pump	D-Gas Lift Pump	G-Bailer	X- (PURGING OTHER (SPECIFY))
Sampling Device	G	B-Peristaltic Pump	E-Venturi Pump	H-Scoop/Shovel	X- BOTTOM DISCHARGE (SAMPLING OTHER (SPECIFY))
		C-Bladder Pump	F-Dipper/Bottle	I-Piston Pump	
Purging Material	D	A-Teflon	C-Polypropylene	E-Polyethylene	X- (PURGING OTHER (SPECIFY))
Sampling Material	A	B-Stainless Steel	D-PVC		X- (SAMPLING OTHER (SPECIFY))
Tubing-Purging	—	A-Teflon	D-Polypropylene	F-Silicon	X- (PURGING OTHER (SPECIFY))
Tubing-Sampling	—	B-Tygon	E-Polyethylene	G-Combination teflon/ Polypropylene	X- (SAMPLING OTHER (SPECIFY))
		C-Rope X- POLYETHYLENE (SPECIFY)			

FIELD MEASUREMENTS

Well Elevation	(ft/msl)	Land Surface Elevation	(ft/msl)
Depth to water From top of well casing	18.84 (ft)	Depth to water From land surface	16.59 (ft)
Groundwater Elevation	(ft/msl)	Groundwater Elevation	(ft/msl)
Well Depth	57.09 (ft)	Stickup	2.25 (ft)

	ph		spec cond		Sample Temp.	
1st	7.49 (STD)	1st	849 µm/cm at 25° C		11.9 (° C)	
2nd	(STD)	2nd	µm/cm at 25° C		WELL DIAMETER (other parameter)	2 (value) IN. (units)
3rd	(STD)	3rd	µm/cm at 25° C		(other parameter)	(value) (units)
4th	(STD)	4th	µm/cm at 25° C		(other parameter)	(value) (units)

FIELD COMMENTS

Sample Appearance: CLOUDY Odor: NONE Color: GREY Turbidity: HIGH.

Weather Conditions: 70°F, OVERCAST, LIGHT VARIABLE WINDS (PURGE + SAMPLE).

Other: M.P. = TOP OF INNER PVC WELL CASING. - WELL ENTIRELY SURROUNDED BY DENSE, TALL WEEDS.
- 57.09 - 18.84 = 38.25 × 0.163 = 6.24 (1) × 3 = 18.72. (3) - OBSTRUCTION IN WELL CASING AT 40.31! COULD NOT GET BAILER PAST OBSTRUCTION.
- WELL LOCATED IN NORTHEAST CORNER OF PROPERTY.
- 2"×3' BOTTOM DISCHARGE TEFLON BAILER DEDICATED TO WELL IMMEDIATELY PRIOR TO PURGE/SAMPLE
- BAILERS DECON'D WITH A 50% ACETONE, 50% D.I. H_2O SOLUTION FOLLOWED WITH A TRIPLE D.I. H_2O RINSE
- THIS SAMPLE OBTAINED DURING AN IEPA SITE INVESTIGATION.

SEE ATTACHED FIELD SURVEY FORM FOR pH, TEMP(°C), CONDUCTIVITY STABILIZATION.

I certify that sampling procedures were in accordance with applicable EPA, State and WMI protocols.

07/19/89 (Date) [signature] (Signature) Employer: G.C.L

G102

Sample I.D.: ST02D

Facility: INTERLAKE

~~RFW #~~ BOTTLE SET #: AA 4825

WESTON/GULF COAST LABORATORIES, INC.
FIELD SURVEY FORM

Date: 07-19-89

Sampling Method: 2"X3' BOTTOM DISCHARGE TEFLON BAILER.

Comments: PH, TEMPERATURE, CONDUCTIVITY STABILIZATION

TIME	PH	TEMP.(°C)	CONDUCTIVITY (µS/cm @ 25°C).	GALLONS PURGED	COMMENTS
1455	9.74	11.7	678	0	-LIGHT GREY, CLOUDY, NO ODOR.
1500	7.57	11.7	846	5	-BROWN, CLOUDY, SLIGHT ODOR.
1509	7.45	11.3	843	10	-BROWNISH GREY, TURBID, VERY SLIGHT ODOR
1520	7.64	11.4	840	15	-GREY, VERY TURBID, NO ODOR.
1531	7.56	11.3	841	20	-GREY, VERY TURBID, NO ODOR.
1537	7.50	11.3	842	25	-GREY, VERY TURBID, NO ODOR.
1545	7.45	11.4	843	30	-GREY, VERY TURBID, NO ODOR.
1548	7.51	11.4	849	33	-GREY, VERY TURBID, NO ODOR.

-PARAMETERS STABLE AFTER 5 CASING VOLUMES.

-WELL SAMPLED WITH TEFLON BAILER.

Sampler Name (Print): ANDY HOUSER Signature: Andy Houser

#2

WMI Environmental Monitoring Laboratories, Inc.

Site # 2510

Bottle Set: AA4827

FIELD INFORMATION FORM G103

Sample Point: W S T 0 3 D (Source Code)

PURGING INFORMATION

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	ACTUAL VOLUME PURGED (Gallons)
890720	0855	08	120	200

PURGING AND SAMPLING EQUIPMENT

Purging Equipment ..... Dedicated | Y | (N) (circle one) Sampling Equipment ..... Dedicated (Y) | N | (circle one)

Purging Device	G	A-Submersible Pump	D-Gas Lift Pump	G-Bailer	X- (PURGING OTHER (SPECIFY))
Sampling Device	G	B-Peristaltic Pump	E-Venturi Pump	H-Scoop/Shovel	X- BOTTOM DISCHARGE (SAMPLING OTHER (SPECIFY))
		C-Bladder Pump	F-Dipper/Bottle	I-Piston Pump	
Purging Material	D	A-Teflon	C-Polypropylene	E-Polyethylene	X- (PURGING OTHER (SPECIFY))
Sampling Material	A	B-Stainless Steel	D-PVC		X- (SAMPLING OTHER (SPECIFY))
Tubing-Purging	—	A-Teflon	D-Polypropylene	F-Silicon	X- (PURGING OTHER (SPECIFY))
Tubing-Sampling	—	B-Tygon	E-Polyethylene	G-Combination teflon/ Polypropylene	X- (SAMPLING OTHER (SPECIFY))
		C-Rope X- POLYETHYLENE (SPECIFY)			

FIELD MEASUREMENTS

Well Elevation	(ft/msl)	Land Surface Elevation	(ft/msl)
Depth to water From top of well casing	22.29 (ft)	Depth to water From land surface	20.39 (ft)
Groundwater Elevation	(ft/msl)	Groundwater Elevation	(ft/msl)
Well Depth	96.12 (ft)	Stickup	1.90 (ft)

	ph	spec. cond. (µm/cm at 25° C)	
1st	8.21 (STD)	528	Sample Temp. 12.2 (° C)
2nd	(STD)		WELL DIAMETER (other parameter) 2 (value) IN. (units)
3rd	(STD)		(other parameter) (value) (units)
4th	(STD)		(other parameter) (value) (units)

FIELD COMMENTS

Sample Appearance: CLOUDY Odor: SLIGHT Color: GREY Turbidity: MODERATE

Weather Conditions: 65°F, OVERCAST, NORTH WIND ~15 M.P.H. (PURGE + SAMPLE). LIGHT RAIN (SAMPLE)

Other: M.P. = TOP OF INNER PVC WELL CASING. -D.I.P. pH = 8.19 @ 12.2°C, D.I.P. SC = 53

-96.12 - 22.29 = 73.83 × 0.163 = 12.03 (1) × 3 = 36.09 (3) -METERS STANDARDIZED AT THIS WELL

-WELL LOCATED IN NORTH WEST CORNER OF PROPERTY.

-2" X 3' BOTTOM DISCHARGE TEFLON BAILER WAS DEDICATED TO WELL JUST PRIOR TO PURGE/SAMPLE.

-BAILER WAS DECON'D USING A 50% ACETONE/50% D.I. H_2O SOLUTION, FOLLOWED BY A TRIPLE D.I. H_2O RINSE.

-THIS SAMPLE OBTAINED DURING AN IEPA SITE INVESTIGATION.

SEE ATTACHED FIELD SURVEY FORM FOR pH, TEMP(°C) CONDUCTIVITY STABILIZATION.

I certify that sampling procedures were in accordance with applicable EPA, State and WMI protocols.

07/20/89 (Date) [signature] (Signature) Employer: G.C.L.

WESTON/GULF COAST LABORATORIES, INC.
FIELD SURVEY FORM

Sample I.D.: G103 ST03D
Facility: INTERLAKE
~~HFW~~ BOTTLE SET #: AA4827

Date: 07-20-89
Sampling Method: 2"x3' DEDICATED BOTTOM DISCHARGE TEFLON BAILER.

Comments: PH, TEMPERATURE, CONDUCTIVITY STABILIZATION

TIME	PH	TEMP(°C)	CONDUCTIVITY (µS/cm@25°)	GALLONS PURGED	COMMENTS
0855	7.95	12.2	525	0.5	-VERY LIGHT GREY, SLIGHTLY CLOUDY, NO ODOR
0905	8.20	11.9	514	5	-GREY, SLIGHTLY CLOUDY, NO ODOR.
0916	8.13	12.1	519	10	-GREY, CLOUDY, NO ODOR
0926	8.19	12.1	523	15	-GREYISH BROWN, CLOUDY, NO ODOR,
0943	8.31	12.1	507	20	-DARK GREY, VERY TURBID, SILTY, SLIGHT ODOR.

-WELL DREWDOWN TO BOTTOM OF WELL, MEASUREMENTS OF "20" GALLONS PURGED WERE FROM BOTTOM OF WELL. WELL ALLOWED TO RECHARGE FOR ~20 MINUTES PRIOR TO SAMPLING.
-WELL HAD RECHARGED ~10 FT. AFTER RECHARGING.

Sampler Name (Print): ANDY HOUSER Signature: Andy Houser

#2

WMI Environmental Monitoring Laboratories, Inc.

Site # 250

Bottle Set: AA418281

FIELD INFORMATION FORM

G104

Sample Point: WSTO4D (Source Code)

PURGING INFORMATION

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	ACTUAL VOLUME PURGED (Gallons)
890720	1130	1.4	9.6	48.0

PURGING AND SAMPLING EQUIPMENT

Purging Equipment ..... Dedicated | Y | (N) (circle one) Sampling Equipment ..... Dedicated (Y) (circle one) | N |

Purging Device	G	A-Submersible Pump	D-Gas Lift Pump	G-Bailer	X- (PURGING OTHER (SPECIFY))
Sampling Device	G	B-Peristaltic Pump	E-Venturi Pump	H-Scoop/Shovel	X- BOTTOM DISCHARGE (SAMPLING OTHER (SPECIFY))
		C-Bladder Pump	F-Dipper/Bottle	I-Piston Pump	
Purging Material	D	A-Teflon	C-Polypropylene	E-Polyethylene	X- (PURGING OTHER (SPECIFY))
Sampling Material	A	B-Stainless Steel	D-PVC		X- (SAMPLING OTHER (SPECIFY))
Tubing-Purging	—	A-Teflon	D-Polypropylene	F-Silicon	X- (PURGING OTHER (SPECIFY))
Tubing-Sampling	—	B-Tygon	E-Polyethylene	G-Combination teflon/ Polypropylene	X- (SAMPLING OTHER (SPECIFY))
		C-Rope X- POLYETHYLENE (SPECIFY)			

FIELD MEASUREMENTS

Well Elevation	(ft/msl)	Land Surface Elevation	(ft/msl)
Depth to water From top of well casing	42.16 (ft)	Depth to water From land surface	40.35 (ft)
Groundwater Elevation	(ft/msl)	Groundwater Elevation	(ft/msl)
Well Depth	100.94 (ft)	Stickup	1.81 (ft)

	ph	spec. cond. (µm/cm at 25° C)	Sample Temp.
1st	8.07 (STD)	683	12.1 (° C)
2nd	(STD)		
3rd	(STD)		
4th	(STD)		

(other parameter)	value	units
WELL DIAMETER	2	IN.

FIELD COMMENTS

Sample Appearance: CLOUDY Odor: SLIGHT Color: GREY Turbidity: MODERATE

Weather Conditions: 65°F, OVERCAST, NORTH WIND W/10-15 M.P.H. (PURGE + SAMPLE).

Other: M.P. = TOP OF WATER PVC WELL CASING.

-100.94 - 42.16 = 58.78 x 0.163 = 9.58 (1) x 3 = 28.74 (3)

- WELL LOCATED IN SOUTHWEST CORNER OF PROPERTY.
- 2"x3' BOTTOM DISCHARGE TEFLON BAILER DEDICATED TO WELL JUST PRIOR TO PURGE/SAMPLE
- BAILERS DECON'D USING A 50% ACETONE/DI H2O SOLUTION FOLLOWED WITH A TRIPLE D.I. H2O RINSE.
- THIS SAMPLE OBTAINED DURING AN IEPA SITE INVESTIGATION.

SEE ATTACHED FIELD SURVEY FORM FOR pH, TEMP (°C), CONDUCTIVITY STABILIZATION.

I certify that sampling procedures were in accordance with applicable EPA, State and WMI protocols.

07/20/89 (Date) (Signature) Employer: G.C.L.

FML FF-2 9/88

G104

WESTON/GULF COAST LABORATORIES, INC.
FIELD SURVEY FORM

Sample I.D.: ST04D
Facility: INTERLAKE
~~RFW #~~ BOTTLE SET #: AA4828

Date: 07-20-89
Sampling Method: 2"x3' BOTTOM DISCHARGE TEFLON BAILER (DEDICATED)

Comments: PH, TEMPERATURE, CONDUCTIVITY STABILIZATION

TIME	PH	TEMP(oC)	CONDUCTIVITY (µS/CM@25°C)	GALLONS PURGED	COMMENTS
1130	7.87	12.8	786	0	-LIGHT BROWN, CLOUDY, VERY SLIGHT ODOR
1140	7.82	12.7	778	5	-LIGHT BROWN, CLOUDY, VERY SLIGHT ODOR.
1148	7.98	12.2	723	10	-LIGHT BROWN, CLOUDY, VERY SLIGHT ODOR.
1155	7.96	12.4	685	15	-LIGHT BROWN, CLOUDY, SLIGHT ODOR
1203	8.05	12.5	682	20	-LIGHT BROWN, CLOUDY, SLIGHT ODOR.
1210	8.15	12.4	691	25	-GREY, CLOUDY, VERY SLIGHT ODOR
1220	8.03	11.8	669	30	-GREY, CLOUDY, SLIGHT ODOR.
1229	7.97	12.0	677	35	-GREY, CLOUDY, SLIGHT ODOR.
1238	8.07	11.8	682	40	-GREY, CLOUDY, SLIGHT ODOR.
1247	8.09	11.9	675	45	-GREY, CLOUDY, SLIGHT ODOR.
1255	8.10	12.0	688	48	-GREY, CLOUDY, SLIGHT ODOR.

-PARAMETERS STABLE, 5 CASING VOLUMES PURGED. WELL SAMPLED WITH TEFLON BAILER.

Sampler Name (Print): ANDY HOUSER Signature: Andy Houser

#2

WMI Environmental Monitoring Laboratories, Inc.

Site # 250

Bottle Set: AA4822

FIELD INFORMATION FORM G105

Sample Point: WSS01D (Source Code)

PURGING INFORMATION

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL IN CASING (Gallons)	ACTUAL VOLUME PURGED (Gallons)
890719	0900	13	486	2600

PURGING AND SAMPLING EQUIPMENT

Purging Equipment ..... Dedicated | Y | N (circle one)

Sampling Equipment ..... Dedicated | Y | N (circle one)

Purging Device	A	A-Submersible Pump	D-Gas Lift Pump	G-Bailer	X- PURGING OTHER (SPECIFY)
Sampling Device	G	B-Peristaltic Pump	E-Venturi Pump	H-Scoop/Shovel	X- BOTTOM DISCHARGE SAMPLING OTHER (SPECIFY)
		C-Bladder Pump	F-Dipper/Bottle	I-Piston Pump	
Purging Material	X	A-Teflon	C-Polypropylene	E-Polyethylene	X- METAL/PLASTIC PURGING OTHER (SPECIFY)
Sampling Material	A	B-Stainless Steel	D-PVC		X- SAMPLING OTHER (SPECIFY)
Tubing-Purging	—	A-Teflon	D-Polypropylene	F-Silicon	X- PURGING OTHER (SPECIFY)
Tubing-Sampling	—	B-Tygon	E-Polyethylene	G-Combination teflon/ Polypropylene	X- SAMPLING OTHER (SPECIFY)
		C-Rope X- POLYETHYLENE (SPECIFY)			

FIELD MEASUREMENTS

Well Elevation	(ft/msl)	Land Surface Elevation	(ft/msl)
Depth to water From top of well casing	36.67 (ft)	Depth to water From land surface	34.93 (ft)
Groundwater Elevation	(ft/msl)	Groundwater Elevation	(ft/msl)
Well Depth	111.06 (ft)	Stickup	1.74 (ft)

	ph		spec. cond		
1st	9.17 (STD)	1st	549 µm/cm at 25° C	Sample Temp.	12.2 (° C)
2nd	(STD)	2nd	µm/cm at 25° C	WELL DIAMETER (other parameter)	4 value, IN. units
3rd	(STD)	3rd	µm/cm at 25° C	(other parameter)	value, units
4th	(STD)	4th	µm/cm at 25° C	(other parameter)	value, units

FIELD COMMENTS

Sample Appearance: CLOUDY Odor: NONE Color: LIGHT GREY Turbidity: MODERATE

Weather Conditions: 70°F, OVERCAST, NORTH WIND ~ 5-10 M.P.H. (PURGE + SAMPLE)

Other: M.P. = TOP OF INNER STAINLESS STEEL WELL CASING. ~~SEE ATTACHED FIELD SURVEY~~ FORM FOR PH, TEMP, CONDUCTIVITY

- 111.06 - 36.67 = 74.39 x0.653 = 48.58 ① x3 = 145.74 ② STABILIZATION!

- WELL LOCATED ON EAST EDGE OF PROPERTY.
- METERS STANDARDIZED AT THIS WELL.
- DUP. PH = 9.16 @ 12.3 °C.
- DUP. S.C. = 551
- BAILER USED FOR SAMPLING WAS DECON'D WITH A 50% ACETONE/50% D.I. H_2O SOLUTION AND TRIPLE-RINSED WITH D.I. H_2O. (PER IEPA REGULATIONS)
- THIS SAMPLE OBTAINED DURING AN IEPA SITE INVESTIGATION.

I certify that sampling procedures were in accordance with applicable EPA, State and WMI protocols.

07/19/89 (Date) [signature] (Signature) Employer: G.C.L.

G105

WESTON/GULF COAST LABORATORIES, INC.
FIELD SURVEY FORM

Sample I.D.: SS01D
Facility: INTERLAKE
~~RFW #~~ BOTTLE SET #: AA4822

Date: 07-19-89
Sampling Method: 2" NON-DEDICATED TEFLON BAILER (BOTTOM DISCHARGE).

Comments: PH, TEMPERATURE, CONDUCTIVITY STABILIZATION

TIME	PH	TEMP.(°C)	CONDUCTIVITY (µS/cm @ 25°C)	GALLONS PURGED	COMMENTS
0900	11.96	12.5	3320	~2	-START PURGE. PUMP ~10' BELOW STATIC.
-PUMP LOWERED TO 90FT. DUE TO DRAWDOWN.					
0910	12.00	11.8	3150	20	-LIGHT GREY, SLIGHTLY CLOUDY, SLIGHT ODOR
0915	11.56	12.2	5160	40	-LIGHT GREY, SLIGHTLY CLOUDY, NO ODOR.
-PUMP LOWERED TO BOTTOM OF WELL DUE TO DRAWDOWN.					
0920	10.65	11.7	1032	60	-GREY, VERY TURBID, SILTY, NO ODOR.
0926	9.92	11.5	938	80	-LIGHT GREY, SLIGHTLY CLOUDY, NO ODOR.
0931	9.70	11.8	879	100	-GREY, CLOUDY, NO ODOR.
0937	9.45	11.5	585	120	-GREY, CLOUDY, NO ODOR.
0942	9.39	11.5	566	140	-LIGHT GREY, SLIGHTLY CLOUDY, NO ODOR.
0947	9.35	11.9	587	160	-LIGHT GREY, SLIGHTLY CLOUDY, NO ODOR.
0954	9.16	11.7	633	180	-LIGHT GREY, SLIGHTLY CLOUDY, NO ODOR.
-NOTE: PURGE WATER WAS GREY, VERY TURBID, NO ODOR BETWEEN 165 AND 175 GALLONS PURGED.					
-PUMP WAS RAISED WHILE RUNNING TO CHECK WATER LEVEL. PUMP STOPPED PUMPING WHEN RAISED ~1 FT. PURGED WATER AFTER RAISING PUMP WAS GREY, VERY TURBID, SILTY, NO ODOR FOR ~1 GALLON.					
1002	9.16	11.7	562	200	-GREY, SLIGHTLY CLOUDY, NO ODOR.
1007	9.20	11.5	627	220	-GREY, TURBID, NO ODOR.
1014	9.11	11.8	608	240	-LIGHT GREY, SLIGHTLY CLOUDY, NO ODOR.
1019	9.13	11.7	583	260	-VERY LIGHT GREY, SLIGHTLY CLOUDY, NO ODOR.
-PARAMETERS STABLE. PUMP REMOVED & WELL SAMPLED.					

Sampler Name (Print): ANDY HOUSER Signature: Andy Houser

*2

WMI Environmental Monitoring Laboratories, Inc.

Site # 250

Bottle Set: AA4826

FIELD INFORMATION FORM G106

Sample Point: WSS02D (Source Code)

PURGING INFORMATION

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL IN CASING (Gallons)	ACTUAL VOLUME PURGED (Gallons)
890719	1645	08	430	600

PURGING AND SAMPLING EQUIPMENT

Purging Equipment ..... Dedicated | Y | (N) (circle one)

Sampling Equipment ..... Dedicated (Y) (N) (circle one)

Purging Device	A	A-Submersible Pump	D-Gas Lift Pump	G-Bailer	X- (PURGING OTHER (SPECIFY))
Sampling Device	G	B-Peristaltic Pump	E-Venturi Pump	H-Scoop/Shovel	X- (SAMPLING OTHER (SPECIFY))
		C-Bladder Pump	F-Dipper/Bottle	I-Piston Pump	
Purging Material	X	A-Teflon	C-Polypropylene	E-Polyethylene	X- METAL/PLASTIC (PURGING OTHER (SPECIFY))
Sampling Material	A	B-Stainless Steel	D-PVC		X- (SAMPLING OTHER (SPECIFY))
Tubing-Purging	—	A-Teflon	D-Polypropylene	F-Silicon	X- (PURGING OTHER (SPECIFY))
Tubing-Sampling	—	B-Tygon	E-Polyethylene	G-Combination teflon/ Polypropylene	X- (SAMPLING OTHER (SPECIFY))
		C-Rope X- POLYETHYLENE (SPECIFY)			

FIELD MEASUREMENTS

Well Elevation	(ft/msl)	Land Surface Elevation	(ft/msl)
Depth to water From top of well casing	25.37 (ft)	Depth to water From land surface	23.07 (ft)
Groundwater Elevation	(ft/msl)	Groundwater Elevation	(ft/msl)
Well Depth	91.26 (ft)	Stickup	2.30 (ft)

	ph	spec cond	Sample Temp.
1st	8.53 (STD)	492 µm/cm at 25° C	13.5 (° C)
2nd	(STD)	µm/cm at 25° C	
3rd	(STD)	µm/cm at 25° C	
4th	(STD)	µm/cm at 25° C	

(other parameter)	value	units
WELL DIAMETER	4	IN.

FIELD COMMENTS

Sample Appearance: CLOUDY Odor: NONE Color: BROWN Turbidity: VERY HIGH

Weather Conditions: 65°F, OVERCAST, LIGHT VARIABLE WINDS (PURGE + SAMPLE).

Other: M.P. = TOP OF INNER STAINLESS STEEL WELL CASING - BUGS FOUND INSIDE OUTER PROTECTIVE CASING.

- 91.26 − 25.37 = 65.89 x0.653 = 43.03 (1) x3 = 129.09 (3).

- WELL LOCATED ON WEST EDGE OF PROPERTY.

- BAILER USED FOR SAMPLING WAS DECON'D USING A 50% ACETONE/50% D.I. H_2O SOLUTION FOLLOWED BY A TRIPLE D.I. H_2O RINSE.

- THIS SAMPLE OBTAINED DURING AN IEPA SITE INVESTIGATION.

- SEE ATTACHED FIELD SURVEY FORM FOR pH, TEMP(°C), CONDUCTIVITY STABILIZATION.

I certify that sampling procedures were in accordance with applicable EPA, State and WMI protocols.

07/19/89 (Date) [signature] (Signature) Employer: G.C.L.

WESTON/GULF COAST LABORATORIES, INC.

FIELD SURVEY FORM

Sample I.D.: SS02D

Facility: INTERLAKE

RFW # / BOTTLE SET #: AA 4826

Date: 07-19-89

Sampling Method: 2"x3' NON-DEDICATED BOTTOM DISCHARGE TEFLON BAILER.

Comments: pH, TEMPERATURE, CONDUCTIVITY STABILIZATION

TIME	pH	TEMP.(°C)	CONDUCTIVITY (µS/cm @ 25°C)	GALLONS PURGED	COMMENTS
1650	8.43	12.8	495	10	-GREY, TURBID, NO ODOR.
1653	8.48	12.8	514	20	-GREY, TURBID, NO ODOR.
-PUMP WAS AT 60 FT. BUT WATER DREWDOWN IN WELL. PUMP LOWERED TO BOTTOM OF WELL.					
1658	8.54	12.1	492	40	-BROWN, TURBID, NO ODOR.
-WELL PURGED DRY AT 48 GALLONS. WELL ALLOWED TO RECHARGE.					
-PUMP RESTARTED: PURGED ADDITIONAL 5 GALLONS AFTER 8 MINUTE RECHARGE. PUMP STOPPED AND WELL ALLOWED TO RECHARGE.					
1720	8.46	12.1	477	60	-BROWN, TURBID, SILTY, NO ODOR.
-PUMP PULLED & WELL SAMPLED.					
-PARAMETERS FAIRLY STABLE, BUT WELL SAMPLED DUE TO SLOW RECHARGE.					

Sampler Name (Print): ANDY HOUSER Signature: Andy Houser

#2

FIELD SURVEY FORM

LPC #: 0 3 1 6 0 0 0 2 5 -- Cook County

Facility Name: Interlake Property ILD #: 0 0 0 8 1 0 4 3 2

Purge Date:	7-18-89	Sample Point ID:	G107
Purge Time:	3:49 pm	Casing Vol. (gals.):	unk
Sample Date:	7-18-89	Vol. Purged (gals.):	45
Sample Time:	4:00 pm	Sample Method:	from hand pump

Elevation:	≈ 590 AMSL	Total Well Depth:	210
Water Level:	unknown	Stick-Up:	NA
GW Elevation:	unknown		

Prior to Purge		During Purging		Post Purge	
Gals. Removed:		Gals. Removed:		Gals. Removed:	40
Temp. (C):		Temp. (C):		Temp. (C):	61.4°F
pH:		pH:		pH:	8.8
Spec. Cond.:		Spec. Cond.:		Spec. Cond.:	4.3x100

Weather Conditions: Overcast ≈ 75°F

Sample Appearance: clear

Sampler Comments: hand pump well in Wm. F. Powers Conservation Area

TM:tk:4/39/35(8/10/89)

Powers Houser
Gulf Coast Labs
University Park, IL

7-20-89

Soil Samples were taken at the Interlake Property on 7-19-89. The samples were designated as:

X 101	near B19S (107' @ 240°)		Soil sample
X 102	west of SS-1D in wetland water		sediment "
X 103	north of X102 in old lagoon area		sediment "
X 104	in wetland area		sediment "
X 105	in old lagoon area	cofdy corner of X104	sediment "
X 106	near ST-2S (≈ 70' @ ≈220°)		sediment "
X 107	east of X103 in small lined pond near eastern fence		sediment "

X 108 was taken off site at Wm. F Powers Conservation area on 7-18-89. The sample was just south of the hand pump well (G107).

Pictures and a map detailing locations of soil/sediment samples will be sent to Robert Houser at Gulf Coast Labs when they become available.

Timothy J. Murphy
IEPA
Springfield IL

COPY

APPENDIX G

ISWS AND IDPH WELLS WITHIN 3 MILES OF THE SITE

Layout of Private Well Data file for Cook County Lake Calumet Area

Cols	Field length	Name	Description
1-3	3	FIPS	County code number
4-8	5	SGS County number	
9-18	10	Location	Township cols 9-11 Range cols 12-14 Section cols 15-16 Plot cols 17-18
19-58	40	Owner	
59-78	20	Driller	
79-85	7	Date	Month cols 79-80 Day cols 81-82 Century col 83 Year cols 84-85
86	1	Permit code letter	Indicates agency which issued permit number M Mines and Minerals P Public Health E EPA X Undetermined
87-92	6	Permit number	
93-96	4	Depth	
97	1	Water Level Known	* Yes - No blank Unknown
98-101	4	Record type	Indicates type of paper record(s) information was taken from L Log A Affadavit (Abandon C Chemical I Inventory
102-103	2	Well type	A two letter code indicating the type of well CM Commercial CO Conservation DO Domestic IN Industrial IR Irrigation MU Municipal PK Park SC School OB Observation DU Dug
104	1	Well aquifer	Dot's code to indicate well aquifer B- bedrock
105	1	Comment in Name field	X Yes blank NO

Cook Cou

70	37N14E
60	37N14E
130	Total

In the aquifer of Concern

031	37N14E131A	COKE OVEN PLANT		0000000		1000-L	INB
031	37N14E131B	INTERLAKE IRON CO		0000943		1690- C	INB
~~031~~	~~37N14E177G~~	~~WASHINGTON HEIGHTS WATER PARK~~	~~J P MILLER CO~~	~~0000889~~		~~1308-L~~	~~INB~~
031	37N14E221D	SHERWIN WILLIAMS	J P MILLER	0000907		1634-L	INB
031	37N14E276G	AMERICAN MALTING CO (NEW WELL)	J P MILLER	0300901		1296-L C	INB
031	37N14E276G	AMERICAN MALTING CO (OLD WELL)	J P MILLER	0000000		1656-L C	INB
~~031~~	~~37N14E32~~	~~WM J HOWARD CO~~	~~BOYSEN~~	~~0000944~~		~~400-L C~~	~~INB~~
031	37N14E 1BG	HOLL		0000948		25-L	DO
~~031~~	~~37N14E043F~~	~~CHICAGO & WESTERN INDIANA RR~~	~~LAYNE-WESTERN~~	~~0127968~~	~~004152~~	~~898-L~~	~~INB~~
~~031~~	~~37N14E294H~~	~~INTERNATIONAL HARVESTER CO~~		~~0000000~~		~~1246-L~~	~~INB~~
~~031~~	~~37N14E043F~~	~~METROPOLITAN SANITARY DIST~~	~~LAYNE-WESTERN~~	~~0100968~~		~~489- C~~	~~IINB~~
0310027237	N14E13	CAL-AUTO WRECKERS	WEHLING	0300959		292-L	INB
0310027337	N14E13	CAL-AUTO WRECKERS	WEHLING	0400959		230-L	INB
031	37N14E142E	METROPOLITAN SANITARY DIST	GEORGE GAFFKE	0329982	102807	137-L	OBB
031	37N14E142H	METROPOLITAN SANITARY DIST	GEORGE GAFFKE	0329982	102806	113-L	OBB
031	37N14E145D	METROPOLITAN SANITARY DIST	GEORGE GAFFKE	0329982	102808	129-L	OBB
031	37N14E147G	METROPOLITAN SANITARY DIST	GEORGE GAFFKE	0415982	102809	120-L	OBB
031	37N14E22	SHERWIN-WILLIAMS CO	LAYNE-WESTERN	1219961		420-L	INB
031	37N14E221B	SHERWIN-WILLIAMS CO	LAYNE-WESTERN	0000962		1648-L C	INB
031	37N14E236B	D MELE	MACULEY	0000937		83-L	DOB
031	37N14E245C	CAL HARBOR DEVEL CORP	WEHLING	0115972	016145	260-L	INB
031	37N14E245C	ALDURN CO #1	WEHLING	0900980		300-L	INB
031	37N14E248D	CHEM-CLEAR INC	WEHLING	0406981	097838	150-L	INB
031	37N14E248D	CHEM-CLEAR INC	WEHLING	1010984	114806	500-L	INB
031	37N14E275E	METROPOLITAN SANITARY DIST TW#1	LAYNE-WESTERN	1200967		495-	CIINB
031	37N14E274E	METROPOLITAN SANITARY DIST TW#1	LAYNE-WESTERN	0110968	0039421684-L		CIOBB
031	37N14E275E	METROPOLITAN SANITARY DIST OW#1	LAYNE-WESTERN	0100968		1675-	CIINB
031	37N14E276A	METROPOLITAN SANITARY DIST	KNIERIM	0800984	112585	343-L	OBB
~~031~~	~~37N14E292G~~	~~WHITMAN & BARNES MFG CO~~		~~0000893~~		~~1308-L~~	~~INB~~
~~031~~	~~37N14E305A~~	~~SMELTER~~		~~0000891~~		~~1449-L~~	~~INB~~
~~031~~	~~37N14E318C~~	~~METROPOLITAN SANITARY DIST (DRY HOLE)~~	~~WEHLING~~	~~1106974~~	~~033781~~	~~386-L~~	~~INB~~
~~031~~	~~37N14E311D~~	~~A ETTEMA (SPRING FED)~~	~~ETTEMA~~	~~0000900~~		~~14-L~~	~~DO~~
~~031~~	~~37N14E311C~~	~~G FRICK~~		~~0000948~~		~~30-L~~	~~DO~~
~~031~~	37N14E313D	METROPOLITAN SANITARY DIST	KNIERIM	0700984	112310	292-L	~~OBB~~
031	~~37N14E317C~~	METROPOLITAN SANITARY DIST	WEHLING	1106974	033781	~~386-L~~	INB
031	37N14E318C	METROPOLITAN SANITARY DIST	KNIERIM	0700984	112309	282-L	OBB
031	37N14E326E	SANITARY DIST OF CHICAGO		0000927		600-L	INB
031	37N14E326E	ED KIESSLING	KRICK	0000922		118-L	DOB
031	37N14E326E	ED KIESSLING	KIESSLING	0000900		20-L	DO
031	37N14E324E	STOKES ENGINEERING CO	KRAMER	0100946		175-L	IN
031	37N14E32	BONELL MFG CO	WEHLING	0323967	0019481021-L		INB
031	37N14E326E	METROPOLITAN SANITARY DIST	LAYNE-WESTERN	1216967	003943	888-L	OBB
031	37N14E324G		KRAMER	0000000		99-L	DOB
031	37N14E325E	METROPOLITAN SANITARY DIST	KNIERIM	0700984	112311	301-L	OBB
031	~~37N14E326E~~	METROPOLITAN SANITARY DIST	LAYNE-WESTERN	0100968		~~874-~~	CIINB
031	37N14E326E	METROPOLITAN SANITARY DIST		0000968		453-	CIINB
~~031~~	~~37N14E332B~~	~~METROPOLITAN SANITARY DIST~~	~~KNIERIM~~	~~0700984~~	~~112587~~	~~330-L~~	~~OBB~~
031	37N14E333F	METROPOLITAN SANITARY DIST	KNIERIM	0900984	112314	328-L	OBB
~~031~~	~~37N14E336C~~	~~METROPOLITAN SANITARY DIST~~	~~KNIERIM~~	~~0700984~~	~~112313~~	~~328-L~~	~~OBB~~
~~031~~	~~37N14E337C~~	~~METROPOLITAN SANITARY DIST~~	~~KNIERIM~~	~~0700984~~	~~112312~~	~~308-L~~	~~OBB~~
031	37N14E341A	BRENDA BROOKS	KNIERIM	1220978	082956	210-L	DOB
031	37N14E356A	LAND AND LAKES CO	WEHLING	0627978	075892	450-L	INB
031	37N14E347C	METROPOLITAN SANITARY DIST	KNIERIM	0800984	112584	348-L	OBB
031	37N14E36	LES HILL	HOLLEMAN	0612976	048029	200-L	DOB
031	37N14E36	JOHN CHENEP	HOLLEMAN	0815976	049390	301-L	DOB
031	37N14E361C	FORD UNION HALL LOCAL	WEHLING	0718968	004263	428-L	CMB
031	37N14E361F	MR PAPPAS	WILL-DUPAGE	0320980	093063	305-L	DOB
031	37N14E367A	C I D CORP TRUCK WASH	K & K	0828972	0193641125-L		CMB

6	Domestic + Park
39	Industrial
5	Commercial
6	Observation

031	37N14E361FMR PAPPAS	WILL-DUPAGE	0320980	093063 305-L	DOB
031	37N14E367AC I D CORP TRUCK WASH	K & K	0828972	0193641125-L	CMB
031	37N14E367DACE SCAVENGER SERVICE	HOLLE	0320970	008696 329-L	CMB
031	4E36 RED MILL MARINA	FOYLE & SON	0522977	061215 305-L	CMB
031	37N15E055A		0000000	260-L	B
031	37N15E06 JOHN MOHR & SONS	GRAY	0519927	1601*L	C INB
031	37N15E06 NORRIS ELEVATOR CO		0000910	346-	IN
031	37N15E07 WILLARD SONS & BELL		0000000	187-L	IN
031	37N15E072HLEHIGH VALLEY COAL SALES CO		0000000	365-L	IN
031	37N15E07 CALUMET ELEVATOR CO		0000911	363-	IN
031	37N15E07 CALUMET ELEVATOR CO		0000909	350-	IN
031	37N15E078FJ ROSENBAUM GRAIN CO		0000000	350-L	IN
031	37N15E18 BY-PRODUCTS COKE CORP		0000918	418-L	IN
031	37N15E186FJ ROSENBAUM GRAIN CO		0000000	502-L	IN
031	37N15E187FWISCONSIN STEEL CO	GEIGER	0000913	1706*L	INB
031	37N15E186FWISCONSIN STEEL CO		0000000	405-L	IN
031	37N15E18 ILLINOIS STEEL CO	GRAY-MILAEGER	0000930	1680-L	INB
031	37N15E075DCENTRAL ELEVATOR CO		0000915	363-	C IN
031	37N15E297FWOLF LAKE STATE PARK	KRAMER BROS	0000948	210*L	PKB
031	37N15E183HOTTAWA SILICA CO	LAYNE-WESTERN	0229968M0042301003*L		INB
031	37N15E184HMETROPOLITAN SANITARY DIST (SP CA #6)	LAYNE-WESTERN	0100968	534*	CIINB
031	37N15E184HMETROPOLITAN SANITARY DIST (SP CA #6)	LAYNE-WESTERN	0200968	1003*	CIINB
031	37N15E208GSOUTH CHICAGO DISPOSAL	SHARPE	0307984M110850	200-L	INB
0312696637N15E306FARROW TERMINAL		WEHLING	0503985M117422	450-L	INB
031	37N15E326HU S ARMY NIKE SITE C-44 (TW 1)		0000956	114*L	INBX
031	37N15E326HU S ARMY NIKE SITE C-44 (#1)	J P MILLER	0300958	22*L	INUX
031	37N15E326HU S ARMY NIKE SITE C-44 (#2)	J P MILLER	0300958	22*L	INUX
031	37N15E083BALBERT SCHWILL & CO/FALSTAFF BREWING	GEIGER	0000938	1830*L	INB
031	37N15E081CALBERT SCHWILL & CO/FALSTAFF BREWING	GEIGER	0900903	1735*L	INB
031	37N15E084DALBERT SCHWILL MALTING/FALSTAFF BREWING	GEIGER	0600944	1735*L	C INB
031	37N15E083CALBERT SCHWILL & CO/FALSTAFF BREWING		0000946	27-	C IN
031	37N15E081BCOLUMBIA MALTING CO/FALSTAFF BREWING	GEIGER	0000903	1400*L	C INB
031	37N15E081BCOLUMBIA MALTING CO/FALSTAFF BREWING	J P MILLER	0600902	1353*L	INB
031	37N15E081BCOLUMBIA MALTING CO/FALSTAFF BREWING	GEIGER	0000917	1702*L	C INB
031	37N15E085ACOLUMBIA MALTING CO/FALSTAFF BREWING		0000000	340-L	IN
031	37N15E056GCARNEGIE ILLINOIS STEEL/ILLINOIS STEEL	GRAY-MILAEGER	0000930	1680-L	C INB
031	37N15E CARNEGIE ILLINOIS STEEL/ILLINOIS STEEL			1335-L	INB
031	37N15E055FILLINOIS STEEL CO		0000887	2080-L	INB
031	37N15E193DREPUBLIC STEEL CORP		0000949	18-	C IN
~~031~~	~~37N14E33 RIVERDALE~~		~~0000902~~	~~430*~~	~~CIMB~~
031	37N15E18 FEDERAL STEEL CO		0000000	-	IIN
031	37N15E30 GENERAL CHEMICAL CO		0000901	275*	IIN
031	37N15E05 ILLINOIS STEEL CO	WILSON	0000887	2065*	IIN
031	37N15E05 ILLINOIS STEEL CO (SOUTH WELL)	GRAY-MILAEGER	0000930	1680*	IINB
031	37N15E05 ILLINOIS STEEL CO (NORTH WELL)	GRAY-MILAEGER	0000930	1660*	IINB
~~031~~	~~37N14E29 INGERSOL STEEL & DISC CO~~	~~J P MILLER~~	~~0000000~~	~~-~~	~~IIN~~
031	37N14E13 INTERLAKEN IRON & STEEL CO (WELL NEVER U	CATER	0000916	1000-	IINBX
031	37N14E13 INTERLAKEN IRON & STEEL CO (PLUGGED TO 1	CATER	0000916	1733*	IINBX
~~031~~	~~37N14E29 INTERNATIONAL HARVESTER~~		~~0000900~~	~~1240*~~	~~IINB~~
031	37N15E18 IRONDALE ELEVATOR (ORIGINALLY 305')	GEIGER & WILSON	0000902	502-	IINBX
031	37N15E05 IZZI SERVICE STATION	SNELTON	0900932	260*L	ICMB
031	37N15E31 JOHN MOHR & SONS	GRAY	0000927	1601*	IINB
031	37N14E27 KENSINGTON ELEVATORS	WILSON	0000914	213-	IIN
031	37N15E06 NORRIS GRAIN ELEVATOR	WILSON	0000910	346*	IINB
031	37N15E05 PEOPLES LAUNDRY	WILSON	0000916	346-	ICMB
031	37N15E06 POLLOCK STEEL CO	GEIGER	0000921	255-	IINB
031	37N15E07 RIALTO ELEVATOR/STAR GRAIN CO	WILSON	0000910	403*	IINB
031	37N15E07 ROSENBAUM ELEVATOR	WILSON	0000910	400*	IINB
031	37N15E05 SCHAEFFER ELEVATOR CO	WILSON	0000906	350*	I INB
031	37N14E22 SHERWIN-WILLIAMS	J P MILLER	0000907	1634-	IINB
031	37N15E07 WASHBURN-CROSBY/START CRESENT MILLING CO		0000934	318-	IINB
031	37N15E18 WISCONSIN STEEL CO	GEIGER	0000913	1706-	IINB
031	37N15E18 WISCONSIN STEEL CO		0000903	450-	IINB
031	37N15E083CALBERT SCHWILL MALTING CO	GEIGER	0000903	1715 L	INB
031	37N15E083CALBERT SCHWILL MALTING CO	GEIGER	0000896	1400 L	INB
031	37N14E27 AMERICAN MALT CO (DEEPENED IN 1902 FROM	J P MILLER	0000893	1656 L	INBX
031	37N14E27 AMERICAN MALTING CO/W H PURCELL BRANCH	J P MILLER	0000914	1648 L	INB

031	37N14E27	AMERICAN MALTING CO/W H PURCELL BRANCH	J P MILLER	0000914	1648	L	INB
031	37N15E07	CALUMET ELEVATOR	WILSON	0000911	364	L	IN
031	3[illegible]5E07	CALUMET ELEVATOR	WILSON	0000909	360	L	IN
031	3[illegible]5E081B	COLUMBIA MALTING CO	GEIGER	0000903	1400	L	INB
031	37N15E081B	COLUMBIA MALTING CO	MILLER	0600898	1353	L	IN
031	37N15E081B	COLUMBIA MALTING CO	GEIGER	0000917	1800	L	IN
031	37N15E08	COLUMBIA MALTING CO		0000902	340	L	IN
031	37N14E021H	EVERGREEN CEMETERY		0000000	1520	L	CMB

PWS ID NUMBER	REGION CODE	COUNTY CODE	PWS CITY	PWS NAME	SERVICE AREA #1	PWS ZIP CODE
			CALUMET CTY			
			CALUMET CTY			
			CALUMET CTY	1		
0101782	08	031	CHICAGO	FLATFOOT LAKE HP 5127	20	00000
			CHICAGO			
0101790	08	031		POWDERHORN LAKE HP 5293	20	00000
0120055	08	031		WOLF LAKE FLYING FIELD HP 5067 Avenue O North of Powers Lake	20	00000
0070193	08	031		EGGER'S WOODS HP 5298 SS 112th WO Indiana STL	20	60617
0070201	08	031		EGGERS WOODS HP 5299 SS 112th WO Indiana STL	20	60617
0073783	08	031		BEAUBIEN PRESERVE GR HP 5128 WO XWY SO 130th St 74353	20	60627
0069500	08	031		LABAUGH WOODS WEST HP 2120	20	60630
0070383	08	031		CALDWELL WOODS 2107	20	60631
0070391	08	031		CALDWELL WOODS GR 1 2108	20	60631
0070409	08	031		CALDWELL WOODS 2092	20	60631
0117556	08	031		ALL SAINTS CHAPEL WELL #3	13	60631
0097055	08	031		MARYNOOK TAP SOUTH INC 13610 S. Torrence	07	60633
0097097	08	031		UAW HALL LOCAL #551 136th and Torrence 71363	12	60633
0099978	08	031		WINDJAMMER MARINA 13701 S. Hoxie	07	60633
0119933	08	031		NU-CAR CARRIERS ATINGUS RENTAS 13511 Torrence	10	60633
0074260	08	031		INDIAN BOUNDARY GOLF 3127	20	60634
0074278	08	031		INDIAN BOUNDARY GOLF 3128	20	60634
0076703	08	031		NORTHWESTERN MALT & GRAIN CO	10	60639
0073858	08	031		CALDWELL GOLF COURSE HP 2116	20	60646
0074161	08	031		EDGEBROOK GOLF COURSE 2136	20	60646
0074179	08	031		EDGEBROOK GOLF COURSE 2135	20	60646
0074187	08	031		EDGEBROOK GOLF COURSE 2109	20	60646
0074195	08	031		EDGEBROOK WOODS 2111	20	60646

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

INSTRUCTIONS – 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

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Exemption 6 - Non Responsive

[redacted] Well No. _____
Chicago, IL

1. Type of Well
   a. Dug____. Bored____. Hole Di[illegible] in. Depth 150 ft.
   Curb material _____. Buried Sh[illegible] Yes____ No____
   b. Driven____. Drive Pipe Di[illegible] in. Depth ____ ft.
   c. Drilled x. Finished in D[illegible] In Rock x.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	F[illegible] (Ft.)	TO (Ft.)
grout cemen[illegible]	[illegible]	too

2. Distance to Nearest:
   Building 10+ Ft. Seepage Tile Field 75+
   Cess Pool _____ Sewer (non Cast iron) _____
   Privy _____ Sewer (Cast iron) _____
   Septic Tank 50+ Barnyard _____
   Leaching Pit _____ Manure Pile _____
3. Well furnishes water for human consumption? Yes x No____
4. Date well completed 4-6-81
5. Permanent Pump Installed? Yes x Date 4-17-81 No____
   Manufacturer Red Jacket Type Sub Location in well
   Capacity 28 gpm. Depth of Setting 126 Ft.
6. Well Top Sealed? Yes____ No____ Type _____
7. Pitless Adapter Installed? Yes____ No____
   Manufacturer Baker Model Number _____
   How attached to casing? Compre[illegible] gasketed [illegible] bolts
8. Well Disinfected? Yes x No____
9. Pump and Equipment Disinfected? Yes x No____
10. Pressure Tank Size____ gal. Type _____
    Location _____
11. Water Sample Submitted? Yes____ No____

REMARKS:

Driller Wendell S. Wehling License No. 102-2
11. Permit No. 97838 Date 12-12-80
12. Water from Lime (Formation) 13. County Cook
    at depth ____ to ____ ft.
14. Screen: Diam. ____ in.
    Length: ____ ft. Slot ____
    165'S 95'E NW SW¼

Exemption 6 - Non Responsive

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
6	black steel	+1	82
	Cemented in place		

SHOW LOCATION IN

Exemption 6 - Non Responsive

16. Size Hole below casing: 5-7/8 in.
17. Static level 30 ft. below casing top which is ____ ft. above ground level. Pumping level 68 ft. when pumping at 40 gpm for 7 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Fill	15	15
rocks & clay	3	18
Clay	64	82
Gray and brown Lime	68	150

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED W. S. Wehling DATE 5-22-81

IDPH 4.065
1/74 – KNB-1

Location - field

Exemption 6 - Non Responsive

City [redacted] County Located on East side of Boiler Room

Exemption 6 - Non Responsive

Location (in feet from section corner)

Owner Kensington Elevators Authority V. F. Sells, Engr 12-18-30 3/30/34

Contractor Wilson Address

Date drilled 1914 Elev. above sea level top of well

Depth 213 feet

Log

Consumption - 14,400 g.p.d. 5.75 Mil Gals per year

Were drill cuttings saved Where filed

Size hole 4" If reduced, where and how much

Casing record

Distance to water when not pumping Distance to water is

feet after pumping at G. P. M. for hours.

Reference point for above measurements

Type of pump Erb Vertical Pumps Distance to cylinder

Length of cylinder Length of suction pipe below cylinder

Length stroke Speed

Hours used per day 4 times daily - 4 hrs Type of power

Rating of motor Rating of pump in G. P. M.

Can following be measured: (1) Static water level

(2) Pumping level (3) Discharge

(4) Influence on other wells

Temperature of water Was water sample collected

Date Effect of water on meters, hot water coils, etc.

Date of Analysis Analysis No.

Recorder

Date

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For Boiler Feed Only

Well known as the one [redacted] of Sub-power Station.

[redacted]

[redacted]

Ground [redacted]

Location (in feet from section corner)

Owner Interlaken Iron & Steel Co. Authority M.A. Tack, Engineer

Contractor Wm Cater Co. Address

Date drilled 1916 Elev. above sea level top of well 592.7

Depth 1733 ft. but lower 43 ft from 1690 to 1733 plugged (see over)

Log Should be on file at S.G.S. Plotted log on file at Interlaken Co.
S.G.S. Index 2318

Note: When well was drilled well was shot at elev 1690 before surface with 60 Qts of nitrogylerine.

Were drill cuttings saved Where filed

Size hole 8" bottom If reduced, where and how much

Casing record 16"O.D. & 10" shoe from surface to 95'-3"; 12" liner from 509 to 690 ft; 10 " liner from 1260 ft to 1300 ft.

Distance to water when not pumping 190 ft (1833) Distance to water is

feet after pumping at G. P. M. for hours.

Reference point for above measurements

Type of pump see notes(over) Distance to cylinder

Length of cylinder Length of suction pipe below cylinder

Length stroke Speed

Hours used per day Type of power

Rating of motor Rating of pump in G. P. M.

Can following be measured: (1) Static water level

(2) Pumping level (3) Discharge

(4) Influence on other wells

Temperature of water Was water sample collected

Date Effect of water on meters, hot water coils, etc.

Date of Analysis Analysis No.

Recorder

Date

2807-19399 12

Notes: -

It appears from conversation with authorities and C.P.Miller, that the reason for plugging up the lower 43 ft was due to a lost tool which Cater was unable to remove. The plug consists of 18" of lead over which is concrete to a depth of about 40 ft and on top of this another 18" lead plug was placed.

When the well was first drilled and placed into service, it was equipped with an air lift, and upon removing it to install a deep well tubbine unit, only 160 ft of drop pipe was removed 2/20/34, and the balance dropped to the bottom of the hole. The top of the drop-pipe in the well has been measured to be 560 ft from the surface.

A Pomona deep well turbine unit has been ordered and it is expected to be installed within the next three or four weeks. The unit will consist of 300 ft of 7" drop pipe, 12 stages of 8" bowls, and 20 ft of 6" suction pipe, drive will consist of a steam turbine, and the spped will be varied to see the effect on drawdown with different rates of pumping. An airline (¼") is expected to be placed with the unit.

In interviewing Mr. Tack relative to the basis of selecting the capacity of 450 g.p.m for the unit, he stated that a test was made on the well. Unbelievable as it may seem, the test was based on the theory that a rock well will yield as much as it will drink. So, he states that river water (Calumet) was discharged into the well for 24 hours continuously, which raised the water level from the static level of 190 ft to 188 ft from the surface. The rate of discharge into the well (so-called rate of drinking) was 480 g.p.m. From the above, Mr. Tack stated that the specific capacity of the well is expected to be 4 g.p.m. per foot of drawdown. Hence, a pump of 450 g.p.m. with a setting of 300 ft to the bowls.

There is also contemplated the installation of a Sparling meter to measure the flow. This would be a very interesting spot to be present during the official test for a number of reasons.

Another interesting fact is that at present city water is used for drinking, and the Company is installing this unit so that it will replace the use of city water for drinking purposes; in fact all purposes except boiler water.

The Comapny will be very glad to have the Water Survey's cooperation, and will supply such data as requested by the Survey.

Exemption 6 - Non Responsive

County

Exemption 6 - Non Responsive

Location (in feet from section corner)

Owner American Malt Co Formerly W H Purcell Branch

Authority

Contractor J. P. Miller

Address

Date drilled 1893 - Started July 28 - Dec 1902 - deepened 1284 to 1656 ft.

Elev. above sea level top of well ~~690~~ 590

Depth 1656 feet

Dia at Top - 10"

Log

68 ft to rock. - 67'-7" - 10" pipe to rock - Jan Nov 1902, hole was reamed out to 8" to 1280 ft and deepened to 1656 ft.

Were drill cuttings saved

Where filed

Size hole 4" hole - Nov 1902

If reduced, where and how much

Casing record

Distance to water when not pumping

Distance to water is

feet after pumping at

G. P. M. for

hours.

Reference point for above measurements

Type of pump

Distance to cylinder

Length of cylinder

Length of suction pipe below cylinder

Length stroke

Speed

Hours used per day

Type of power

Rating of motor

Rating of pump in G. P. M.

Can following be measured: (1) Static water level

(2) Pumping level

(3) Discharge

(4) Influence on other wells

Temperature of water

Was water sample collected

Date

Effect of water on meters, hot water coils, etc.

Date of Analysis

Analysis No.

Recorder

Date

2207-18899 13

APPENDIX H

WETLANDS INVENTORY MAP

SDMS US EPA Region V

Imagery Insert Form

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974322

Sample wt/vol: 0.50 (g/mL) G Lab File ID: A0728BK08

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 79 Date Analyzed: 07/28/89

Column: (pack/cap) WIDE Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	480	U
74-83-9	Bromomethane	480	U
75-01-4	Vinyl Chloride	480	U
75-00-3	Chloroethane	480	U
75-09-2	Methylene Chloride	36	J
67-64-1	Acetone	5000	
75-15-0	Carbon Disulfide	240	U
75-35-4	1,1-Dichloroethene	240	U
75-35-3	1,1-Dichloroethane	240	U
540-59-0	1,2-Dichloroethene (total)	240	U
67-66-3	Chloroform	240	U
107-06-2	1,2-Dichloroethane	240	U
78-93-3	2-Butanone	310	J
71-55-6	1,1,1-Trichloroethane	240	U
56-23-5	Carbon Tetrachloride	240	U
108-05-4	Vinyl Acetate	480	U
75-27-4	Bromodichloromethane	240	U
78-87-5	1,2-Dichloropropane	240	U
10061-01-5	cis-1,3-Dichloropropene	240	U
79-01-6	Trichloroethene	240	U
124-48-1	Dibromochloromethane	240	U
79-00-5	1,1,2-Trichloroethane	240	U
71-43-2	Benzene	240	U
10061-02-6	Trans-1,3-Dichloropropene	240	U
75-25-2	Bromoform	240	U
108-10-1	4-Methyl-2-Pentanone	480	U
591-78-6	2-Hexanone	480	U
127-18-4	Tetrachloroethene	240	U
79-34-5	1,1,2,2-Tetrachloroethane	480	U
108-88-3	Toluene	240	U
108-90-7	Chlorobenzene	240	U
100-41-4	Ethylbenzene	240	U
100-42-5	Styrene	240	U
	Total Xylenes	240	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X107

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974322

Sample wt/vol: 0.50 (g/mL) G Lab File ID: A0728BK08

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 79 Date Analyzed: 07/28/89

Column (pack/cap) WIDE Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974322

Sample wt/vol: 30.2 (g/mL) G Lab File ID: AUG11GK03

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 79 dec. ____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/11/89

GPC Cleanup: (Y/N) Y pH: 11.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3100	J
111-44-4	bis(2-Chloroethyl)Ether	3100	U
95-57-8	2-Chlorophenol	3100	U
541-73-1	1,3-Dichlorobenzene	3100	U
106-46-7	1,4-Dichlorobenzene	3100	U
100-51-6	Benzyl Alcohol	3100	U
95-50-1	1,2-Dichlorobenzene	3100	U
95-48-7	2-Methylphenol	120	J
39638-32-9	bis(2-Chloroisopropyl)Ether	3100	U
106-44-5	4-Methylphenol	5000	
621-64-7	N-Nitroso-Di-n-Propylamine	3100	U
67-72-1	Hexachloroethane	3100	U
98-95-3	Nitrobenzene	3100	U
78-59-1	Isophorone	3100	U
88-75-5	2-Nitrophenol	3100	U
105-67-9	2,4-Dimethylphenol	3100	U
65-85-0	Benzoic Acid	15000	U
111-91-1	bis(2-Chloroethoxy)Methane	3100	U
120-83-2	2,4-Dichlorophenol	3100	U
120-82-1	1,2,4-Trichlorobenzene	3100	U
91-20-3	Naphthalene	1200	J
106-47-8	4-Chloroaniline	3100	U
87-68-3	Hexachlorobutadiene	3100	U
59-50-7	4-Chloro-3-Methylphenol	3100	U
91-57-6	2-Methylnaphthalene	3100	U
77-47-4	Hexachlorocyclopentadiene	3100	U
88-06-2	2,4,6-Trichlorophenol	3100	U
95-95-4	2,4,5-Trichlorophenol	15000	U
91-58-7	2-Chloronaphthalene	3100	U
88-74-4	2-Nitroaniline	15000	U
131-11-3	Dimethyl Phthalate	3100	U
208-96-8	Acenaphthylene	3100	U
606-20-2	2,6-Dinitrotoluene	3100	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ILLINOIS EPA Contract: 0316000025

Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974322

Sample wt/vol: 30.2 (g/mL) G Lab File ID: AUG11GK03

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 79 dec. ____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/11/89

GPC Cleanup: (Y/N) Y pH: 11.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	15000	U
83-32-9	Acenaphthene	3100	U
51-28-5	2,4-Dinitrophenol	15000	U
100-02-7	4-Nitrophenol	15000	U
132-64-9	Dibenzofuran	150	J
121-14-2	2,4-Dinitrotoluene	3100	U
84-66-2	Diethylphthalate	3100	U
7005-72-3	4-Chlorophenyl-phenylether	3100	U
86-73-7	Fluorene	93	J
100-10-6	4-Nitroaniline	15000	U
534-52-1	4,6-Dinitro-2-Methylphenol	15000	U
86-30-6	N-Nitrosodiphenylamine (1)	3100	U
101-55-3	4-Bromophenyl-phenylether	3100	U
118-74-1	Hexachlorobenzene	3100	U
87-86-5	Pentachlorophenol	15000	U
85-01-8	Phenanthrene	690	J
120-12-7	Anthracene	51	J
84-74-2	Di-n-Butylphthalate	3100	U
206-44-0	Fluoranthene	3100	U
129-00-0	Pyrene	3100	U
85-68-7	Butylbenzylphthalate	3100	U
91-94-1	3,3'-Dichlorobenzidine	6300	U
56-55-3	Benzo(a)Anthracene	3100	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3100	U
218-01-9	Chrysene	3100	U
117-84-0	Di-n-Octyl Phthalate	3100	U
205-99-2	Benzo(b)Fluoranthene	3100	U
207-08-9	Benzo(k)Fluoranthene	3100	U
50-32-8	Benzo(a)Pyrene	3100	U
193-39-5	Indeno(1,2,3-cd)Pyrene	3100	U
53-70-3	Dibenz(a,h)Anthracene	3100	U
191-24-2	Benzo(g,h,i)Perylene	3100	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X107

Lab Name: ILLINOIS EPA Contract: 0316000025

Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) _____ Lab Sample ID: D974322

Sample wt/vol: 30.2 (g/mL) ML Lab File ID: AUG11GK03T

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 79 dec. _____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/11/89

GPC Cleanup: (Y/N) Y pH: 11.0 Dilution Factor: 0.0302

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.72	180000	BAJ
2.	UNKNOWN DIMETHYL PHENOL	13.44	4800	J
3.	UNKNOWN DIMETHYL PHENOL	13.57	84	J
4.	UNKNOWN DIMETHYL PHENOL	13.74	2500	J
5.	UNKNOWN DIMETHYL PHENOL	13.92	570	J
6.	1H-INDOLE	15.82	370	J
7.	UNKNOWN ALIP. HYDROCARBON	21.14	130	BJ
8.	UNKNOWN ALIP. HYDROCARBON	24.45	55	J
9.	UNKNOWN	28.31	4500	BJ

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

E.P.A. SAMPLE NO.

X107

Lab Name: I.E.P.A. - Springfield Contract: Interlake

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

Matrix: (soil/water): Soil Lab Sample ID: D974322

Sample wt/vol: 30.050 (g/mL) g Lab File ID:

Level: (low/med) low Date Recieved: 07-19-1989

% Moisture: not dec.79.3 dec. --- Date Extracted: 07-21-1989

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 08-25-1989

GPC Cleanup: (Y/N) Y pH: 11 Dilution Factor: 5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	385	U
319-85-7	beta-BHC	385	U
319-86-8	delta-BHC	385	U
-89-9	gamma-BHC (Lindane)	385	U
76-44-8	Heptachlor	385	U
309-00-2	Aldrin	385	U
1024-57-3	Heptachlor epoxide	385	U
959-98-8	Endosulfan I	385	U
60-57-1	Dieldrin	769	U
72-55-9	4,4'-DDE	769	U
72-20-8	Endrin	769	U
33213-65-9	Endosulfan II	769	U
72-54-8	4,4'-DDD	769	U
1031-07-8	Endosulfan sulfate	769	U
50-29-3	4,4'-DDT	769	U
72-43-5	Methoxychlor	3846	U
53494-70-5	Endrin ketone	769	U
5103-71-9	alpha-Chlordane	3846	U
5106-74-2	gamma-Chlordane	3846	U
8001-35-2	Toxaphene	7692	U
12674-11-2	Aroclor-1016	3846	U
11104-28-2	Aroclor-1221	3846	U
11141-16-5	Aroclor-1232	3846	U
53469-21-9	Aroclor-1242	3846	U
12672-29-6	Aroclor-1248	3846	U
11097-69-1	Aroclor-1254	7692	U
11096-82-5	Aroclor-1260	7692	U

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ILLINOIS EPA CHAMPAIGN LAB Contract: INTERLAKE PROPERTY COOK CO. #0316000024

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 14

Matrix (soil/water): _____ Lab Sample ID: B910186

Level (low/med): _____ Date Received: 07/20/89

% Solids: 19.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	770			P	
7440-36-0	Antimony	1.5	U	S	F	R
7440-38-2	Arsenic	2.9	B	S	F	
7440-39-3	Barium	150			P	
7440-41-7	Beryllium	0.43	U		P	
7440-43-9	Cadmium	0.86	U		P	D
7440-70-2	Calcium	340000			P	
7440-47-3	Chromium	5	B		P	D
7440-48-4	Cobalt	1.2	U		P	D
7440-50-8	Copper	3.8	B		P	D
7439-89-6	Iron	3800			P	
7439-92-1	Lead	9.3	U		P	D
7439-95-4	Magnesium	41000			P	
7439-96-5	Manganese	260		N,*	P	D
7439-97-6	Mercury	0.14	U		AV	
7440-02-0	Nickel	11	B		P	D
7440-09-7	Potassium	190	U		P	D
7782-49-2	Selenium	0.87	U	S,W	F	
7440-22-4	Silver	1.6	U		P	D
7440-23-5	Sodium	520	B		P	D
7440-28-0	Thallium	0.65	U	S	F	
7440-62-2	Vanadium	2	B		P	
7440-66-6	Zinc	43			P	D
	Cyanide	4.2			AS	

Color Before: Gray Clarity Before: Opaque Texture: _____

Color After: Colorless Clarity After: Clear Artifacts: _____

Comments:

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Rev. IFB Amendment One

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974323

Sample wt/vol: 5.0 (g/mL) G Lab File ID: A0726BK05

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 4 Date Analyzed: 07/26/89

Column: (pack/cap) WIDE Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	UR
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X108

ab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974323

Sample wt/vol: 5.0 (g/mL) G Lab File ID: A0726BK05

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 4 Date Analyzed: 07/26/89

Column (pack/cap) WIDE Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974323

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AUG11GK08

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 4 dec. ____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/11/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	680	U
111-44-4	bis(2-Chloroethyl)Ether	680	U
95-57-8	2-Chlorophenol	680	U
541-73-1	1,3-Dichlorobenzene	680	U
106-46-7	1,4-Dichlorobenzene	680	U
100-51-6	Benzyl Alcohol	680	U
95-50-1	1,2-Dichlorobenzene	680	U
95-48-7	2-Methylphenol	680	U
39638-32-9	bis(2-Chloroisopropyl)Ether	680	U
106-44-5	4-Methylphenol	680	U
621-64-7	N-Nitroso-Di-n-Propylamine	680	U
67-72-1	Hexachloroethane	680	U
98-95-3	Nitrobenzene	680	U
78-59-1	Isophorone	680	U
88-75-5	2-Nitrophenol	680	U
105-67-9	2,4-Dimethylphenol	680	U
65-85-0	Benzoic Acid	3300	U
111-91-1	bis(2-Chloroethoxy)Methane	680	U
120-83-2	2,4-Dichlorophenol	680	U
120-82-1	1,2,4-Trichlorobenzene	680	U
91-20-3	Naphthalene	84	J
106-47-8	4-Chloroaniline	680	U
87-68-3	Hexachlorobutadiene	680	U
59-50-7	4-Chloro-3-Methylphenol	680	U
91-57-6	2-Methylnaphtralene	680	U
77-47-4	Hexachlorocyclopentadiene	680	U
88-06-2	2,4,6-Trichlorophenol	680	U
95-95-4	2,4,5-Trichlorophenol	3300	U
91-58-7	2-Chloronaphthalene	680	U
88-74-4	2-Nitroaniline	3300	U
131-11-3	Dimethyl Phthalate	680	U
208-96-8	Acenaphthylene	680	U
606-20-2	2,6-Dinitrotoluene	680	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ILLINOIS EPA Contract: 0316000025

Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974323

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AUG11GK08

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 4 dec. ____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/11/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3300	U
83-32-9	Acenaphthene	680	U
51-28-5	2,4-Dinitrophenol	3300	U
100-02-7	4-Nitrophenol	3300	U
132-64-9	Dibenzofuran	680	U
121-14-2	2,4-Dinitrotoluene	680	U
84-66-2	Diethylphthalate	680	U
7005-72-3	4-Chlorophenyl-phenylether	680	U
86-73-7	Fluorene	680	U
100-10-6	4-Nitroaniline	3300	U
534-52-1	4,6-Dinitro-2-Methylphenol	3300	U
86-30-6	N-Nitrosodiphenylamine (1)	680	U
101-55-3	4-Bromophenyl-phenylether	680	U
118-74-1	Hexachlorobenzene	680	U
87-86-5	Pentachlorophenol	3300	U
85-01-8	Phenanthrene	260	J
120-12-7	Anthracene	680	U
84-74-2	Di-n-Butylphthalate	680	U
206-44-0	Fluoranthene	590	J
129-00-0	Pyrene	670	J
85-68-7	Butylbenzylphthalate	680	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)Anthracene	440	J
117-81-7	bis(2-Ethylhexyl)Phthalate	680	U
218-01-9	Chrysene	290	J
117-84-0	Di-n-Octyl Phthalate	680	U
205-99-2	Benzo(b)Fluoranthene	680	U
207-08-9	Benzo(k)Fluoranthene	680	U
50-32-8	Benzo(a)Pyrene	680	U
193-39-5	Indeno(1,2,3-cd)Pyrene	680	U
53-70-3	Dibenz(a,h)Anthracene	680	U
191-24-2	Benzo(g,h,i)Perylene	680	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X108

Lab Name: ILLINOIS EPA Contract: 0316000025

Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) _____ Lab Sample ID: D974323

Sample wt/vol: 30.1 (g/mL) ML Lab File ID: AUG11GK08T

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. 4 dec. ____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/11/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 0.0301

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.22	5000	BAJ
2.	UNKNOWN	7.63	59	BJ
3.	UNKNOWN	9.30	110	BJ
4.	UNKNOWN ALIP. HYDROCARBON	15.79	35	J
5.	UNKNOWN PNA	16.85	66	BJ
6.	UNKNOWN ALIP. HYDROCARBON	17.24	44	J
7.	UNKNOWN ALIP. HYDROCARBON	18.10	56	J
8.	UNKNOWN ALIP. HYDROCARBON	19.89	53	J
9.	UNKNOWN ALIP. HYDROCARBON	21.10	57	BJ
10.	UNKNOWN ALIP. HYDROCARBON	21.19	200	J
11.	UNKNOWN ALIP. HYDROCARBON	23.37	52	J
12.	UNKNOWN ALIP. HYDROCARBON	25.44	39	J
13.	UNKNOWN ALIP. HYDROCARBON	27.34	55	J
14.	UNKNOWN	28.27	4600	BJ
15.	UNKNOWN ALIP. HYDROCARBON	29.26	54	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

E.P.A. SAMPLE NO.

X108

Lab Name: I.E.P.A. - Springfield Contract: Interlake

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

Matrix: (soil/water): Soil Lab Sample ID: D974323

Sample wt/vol: 30.050 (g/mL) g Lab File ID:

Level: (low/med) low Date Recieved: 07-19-1989

% Moisture: not dec. 4.9 dec. --- Date Extracted: 07-21-1989

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 08-25-1989

GPC Cleanup: (Y/N) Y pH: 6 Dilution Factor: 5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	84	U
319-85-7	beta-BHC	84	U
319-86-8	delta-BHC	84	U
[illegible]-89-9	gamma-BHC (Lindane)	84	U
76-44-8	Heptachlor	84	U
309-00-2	Aldrin	84	U
1024-57-3	Heptachlor epoxide	84	U
959-98-8	Endosulfan I	84	U
60-57-1	Dieldrin	168	U
72-55-9	4,4'-DDE	9.8	J
72-20-8	Endrin	168	U
33213-65-9	Endosulfan II	168	U
72-54-8	4,4'-DDD	168	U
1031-07-8	Endosulfan sulfate	168	U
50-29-3	4,4'-DDT	25.9	J
72-43-5	Methoxychlor	841	U
53494-70-5	Endrin ketone	168	U
5103-71-9	alpha-Chlordane	841	U
5106-74-2	gamma-Chlordane	841	U
8001-35-2	Toxaphene	1682	U
12674-11-2	Arochlor-1016	841	U
11104-28-2	Aroclor-1221	841	U
11141-16-5	Aroclor-1232	841	U
53469-21-9	Aroclor-1242	841	U
12672-29-6	Aroclor-1248	841	U
11097-69-1	Aroclor-1254	1682	U
11096-82-5	Aroclor-1260	1682	U

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ILLINOIS EPA CHAMPAIGN LAB Contract: INTERLAKE PROPERTY COOK CO. #0316000024

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 14

Matrix (soil/water): _____ Lab Sample ID: B910187

Level (low/med): _____ Date Received: 07/20/89

% Solids: 95.2

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5900			P	
7440-36-0	Antimony	1.4	B	S	F	D
7440-38-2	Arsenic	4.9		S	F	
7440-39-3	Barium	122			P	
7440-41-7	Beryllium	0.5	B		P	
7440-43-9	Cadmium	1.1			P	D
7440-70-2	Calcium	14000			P	
7440-47-3	Chromium	35			P	
7440-48-4	Cobalt	3.8	B		P	D
7440-50-8	Copper	54			P	
7439-89-6	Iron	23000			P	
7439-92-1	Lead	132			P	
7439-95-4	Magnesium	7400			P	
7439-96-5	Manganese	1800		N.*	P	D
7439-97-6	Mercury	0.13			AV	
7440-02-0	Nickel	31			P	D
7440-09-7	Potassium	880			P	D
7782-49-2	Selenium	0.17	U	S	F	
7440-22-4	Silver	0.32	U		P	D
7440-23-5	Sodium	240	B		P	D
7440-28-0	Thallium	0.13	U	S	F	
7440-62-2	Vanadium	18			P	
7440-66-6	Zinc	350			P	
	Cyanide	0.66	U		AS	

Color Before: Brown Clarity Before: Opaque Texture: _____

Color After: Green Clarity After: Clear Artifacts: _____

Comments:

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKTB

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) WATER Lab Sample ID: D974315

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A0721BK04

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. ____ Date Analyzed: 07/21/89

Column: (pack/cap) WIDE Dilution Factor: 1.00

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	~~U~~ R
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
----------	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKTB

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) WATER Lab Sample ID: D974315

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A0721BK04

Level: (low/med) LOW Date Received: 07/19/89

% Moisture: not dec. ____ Date Analyzed: 07/21/89

Column (pack/cap) WIDE Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK21

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) WATER Lab Sample ID: 072189BLK

Sample wt/vol: _____ (g/mL) ML Lab File ID: A0721BK01

Level: (low/med) LOW Date Received: 07/21/89

% Moisture: not dec. _____ Date Analyzed: 07/21/89

Column: (pack/cap) WIDE Dilution Factor: 1

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	UR
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
----------	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK21

ab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) WATER Lab Sample ID: 072189BLK

Sample wt/vol: _____ (g/mL) ML Lab File ID: A0721BK01

Level: (low/med) LOW Date Received: 07/21/89

% Moisture: not dec. _____ Date Analyzed: 07/21/89

Column (pack/cap) WIDE Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK24

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) WATER Lab Sample ID: 072489BLK

Sample wt/vol: _____ (g/mL) ML Lab File ID: A0724BK01

Level: (low/med) LOW Date Received: 07/24/89

% Moisture: not dec. _____ Date Analyzed: 07/24/89

Column: (pack/cap) WIDE Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	UR
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
----------	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK24

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) WATER Lab Sample ID: 072489BLK

Sample wt/vol: _____ (g/mL) ML Lab File ID: A0724BK01

Level: (low/med) LOW Date Received: 07/24/89

% Moisture: not dec. _____ Date Analyzed: 07/24/89

Column (pack/cap) WIDE Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK25

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: 072589BLK

Sample wt/vol: _____ (g/mL) G Lab File ID: A0725BK01

Level: (low/med) LOW Date Received: 07/25/89

% Moisture: not dec. _____ Date Analyzed: 07/25/89

Column: (pack/cap) WIDE Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	UR
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
----------	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK25

ab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: 072589BLK

Sample wt/vol: _____ (g/mL) G Lab File ID: A0725BK01

Level: (low/med) LOW Date Received: 07/25/89

% Moisture: not dec. _____ Date Analyzed: 07/25/89

Column (pack/cap) WIDE Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK26

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: 072689BLK

Sample wt/vol: _____ (g/mL) G Lab File ID: A0726BK01

Level: (low/med) LOW Date Received: 07/26/89

% Moisture: not dec. _____ Date Analyzed: 07/26/89

Column: (pack/cap) WIDE Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	UR
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
----------	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK26

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: 072689BLK

Sample wt/vol: _____ (g/mL) G Lab File ID: A0726BK01

Level: (low/med) LOW Date Received: 07/26/89

% Moisture: not dec. _____ Date Analyzed: 07/26/89

Column (pack/cap) WIDE Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK28

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: 072889BLK

Sample wt/vol: _____ (g/mL) G Lab File ID: A0728BK01

Level: (low/med) LOW Date Received: 07/28/89

% Moisture: not dec. _____ Date Analyzed: 07/28/89

Column: (pack/cap) WIDE Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	UR
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
----------	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK28

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: 072889BLK

Sample wt/vol: _____ (g/mL) G Lab File ID: A0728BK01

Level: (low/med) LOW Date Received: 07/28/89

% Moisture: not dec. _____ Date Analyzed: 07/28/89

Column (pack/cap) WIDE Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK30

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) WATER Lab Sample ID: 073089BLK

Sample wt/vol: _____ (g/mL) ML Lab File ID: A0730BK01

Level: (low/med) LOW Date Received: 07/30/89

% Moisture: not dec. ____ Date Analyzed: 07/30/89

Column: (pack/cap) WIDE Dilution Factor: 1

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	UR
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
----------	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK30

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) WATER Lab Sample ID: 073089BLK

Sample wt/vol: _____ (g/mL) ML Lab File ID: A0730BK01

Level: (low/med) LOW Date Received: 07/30/89

% Moisture: not dec. _____ Date Analyzed: 07/30/89

Column (pack/cap) WIDE Dilution Factor: 1

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: 097431

Matrix: (soil/water) WATER Lab Sample ID: D974411

Sample wt/vol: 1000 (g/mL) ML Lab File ID: AUG01HK03

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/01/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW

Lab Name: ILLINOIS EPA Contract: 0316000025

Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) WATER Lab Sample ID: D974411

Sample wt/vol: 1000 (g/mL) ML Lab File ID: AUG01HK03

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/01/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKW

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) _____ Lab Sample ID: D974411

Sample wt/vol: 1000 (g/mL) ML Lab File ID: AUG01HK03T

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/01/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.30	42	AJ
2.	UNKNOWN	7.72	2.4	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKSL

Lab Name: ILLINOIS EPA Contract: 0316000025

L Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974392

Sample wt/vol: 30.0 (g/mL) G Lab File ID: AUG11GK02

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/11/89

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)Ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl Alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
39638-32-9	bis(2-Chloroisopropyl)Ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-Di-n-Propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic Acid	190	J
111-91-1	bis(2-Chloroethoxy)Methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-Methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethyl Phthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKSL

Lab Name: ILLINOIS EPA Contract: 03160000Z5

Lab Code: SFFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) SOIL Lab Sample ID: D974392

Sample wt/vol: 30.0 (g/mL) G Lab File ID: AUG11GK02

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/11/89

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-10-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-Methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-Butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)Anthracene	660	U
117-81-7	bis(2-Ethylhexyl)Phthalate	660	U
218-01-9	Chrysene	660	U
117-84-0	Di-n-Octyl Phthalate	660	U
205-99-2	Benzo(b)Fluoranthene	660	U
207-08-9	Benzo(k)Fluoranthene	660	U
50-32-8	Benzo(a)Pyrene	660	U
193-39-5	Indeno(1,2,3-cd)Pyrene	660	U
53-70-3	Dibenz(a,h)Anthracene	660	U
191-24-2	Benzo(g,h,i)Perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKSL

Lab Name: ILLINOIS EPA Contract: 0316000025

Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix: (soil/water) _____ Lab Sample ID: D974392

Sample wt/vol: 30.0 (g/mL) ML Lab File ID: AUG11GK02T

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 07/21/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/11/89

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 0.0300

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.23	4000	AJ
2.	UNKNOWN	7.65	130	J
3.	UNKNOWN	9.32	110	J
4.	UNKNOWN	10.84	170	J
5.	UNKNOWN PNA	16.87	59	J
6.	UNKNOWN ALIP. HYDROCARBON	21.12	160	J
7.	UNKNOWN	28.29	2400	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

D974395B1

Lab Name: SPRINGFIELD IEPA Contract: Interlake

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

Matrix: (soil/water) WATER Lab Sample ID: D974395B1

Sample wt/vol: 1000 (g/mL) ml Lab File ID: _____

Level: (low/med) LOW Date Received: 7/19/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 7/21/89

Extraction: (SepF/Cont/Sonc) SepF Date Analyzed: 8/26/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

E.P.A. SAMPLE NO.

Lab Name: I.E.P.A. - Springfield Contract: Interlake D974390BL

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

Matrix: (soil/water): Soil Lab Sample ID: D974390BL

Sample wt/vol: 30.150 (g/mL) g Lab File ID:

Level: (low/med) low Date Recieved: 07-19-1989

% Moisture: not dec. --- dec. --- Date Extracted: 07-21-1989

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 08-25-1989

GPC Cleanup: (Y/N) Y pH: 7 Dilution Factor: 5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	80	U
319-85-7	beta-BHC	80	U
319-86-8	delta-BHC	80	U
-89-9	gamma-BHC (Lindane)	80	U
76-44-8	Heptachlor	80	U
309-00-2	Aldrin	80	U
1024-57-3	Heptachlor epoxide	80	U
959-98-8	Endosulfan I	80	U
60-57-1	Dieldrin	160	U
72-55-9	4,4'-DDE	160	~~J~~ U
72-20-8	Endrin	160	U
33213-65-9	Endosulfan II	160	U
72-54-8	4,4'-DDD	160	U
1031-07-8	Endosulfan sulfate	160	U
50-29-3	4,4'-DDT	160	~~J~~ U
72-43-5	Methoxychlor	800	U
53494-70-5	Endrin ketone	160	U
5103-71-9	alpha-Chlordane	800	U
5106-74-2	gamma-Chlordane	800	U
8001-35-2	Toxaphene	1600	U
12674-11-2	Aroclor-1016	800	U
11104-28-2	Aroclor-1221	800	U
11141-16-5	Aroclor-1232	800	U
53469-21-9	Aroclor-1242	800	U
12672-29-6	Aroclor-1248	800	U
11097-69-1	Aroclor-1254	1600	U
11096-82-5	Aroclor-1260	1600	U

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	G101	66	68	89	31	45	99		0
02	G102	72	56	80	35	51	110		0
03	G103	81	65	95	34	54	84		0
04	G104	72	69	90	33	54	77		0
05	G105	69	66	111	33	50	74		0
06	G106	82	71	88	35	53	77		0
07	G107	88	79	106	37	58	73		0
08	G107MS	83	101	115	41	58	91		0
09	G107MSD	79	89	127	35	57	99		0
10	SBLKW	78	64	83	38	59	75		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

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

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	SBLKSL	47	44	93	81	98	22		0
02	X101	56	52	41	83	107	26		0
03	X102	104	110	82	104	93	90		0
04	X103	69	85	94	113	131 *	31		1
05	X104	48	49	73	82	96	31		0
06	X105	70	78	86	125 *	95	47		1
07	X106	53	47	46	89	104	36		0
08	X107	53	45	135	84	72	16 *		1
09	X108	57	51	39	88	102	29		0
10	X108MS	101	94	72	100	101	129 *		1
11	X108MSD	79	76	84	87	84	98		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

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

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix Spike - EPA Sample No.: G107

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	100	0	34.3	34	12- 86
2-Chlorophenol	100	0	66.1	66	27-123
1,4-Dichlorobenzene	100	0	71.0	71	36 97
N-Nitroso-di-n-prop.(1)	100	0	92.2	92	41 116
1,2,4-Trichlorobenzene	100	0	71.2	71	39 98
4-Chloro-3-methylphenol	100	0	79.5	80	23 97
Acenaphthene	100	0	95.0	95	46-118
4-Nitrophenol	100	0	39.2	39	10- 80
2,4-Dinitrotoluene	100	0	90.1	90	24- 96
Pentachlorophenol	100	0	61.0	61	9-103
Pyrene	100	0	107	107	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100	28.8	29	16	42	12- 86
2-Chlorophenol	100	59.1	59	11	40	27-123
1,4-Dichlorobenzene	100	65.3	65	9	28	36 97
N-Nitroso-di-n-prop.(1)	100	66.3	66	33	38	41 116
1,2,4-Trichlorobenzene	100	68.7	69	3	28	39 98
4-Chloro-3-methylphenol	100	61.3	61	27	42	23 97
Acenaphthene	100	81.7	82	15	31	46-118
4-Nitrophenol	100	29.5	30	26	50	10- 80
2,4-Dinitrotoluene	100	93.0	93	-3	38	24- 96
Pentachlorophenol	100	63.4	63	-3	50	9-103
Pyrene	100	116	116	-8	31	26-127

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

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

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

COMMENTS:

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix Spike - EPA Sample No.: X102 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	100	0	84.4	84	26- 90
2-Chlorophenol	100	0	83.1	83	25-102
1,4-Dichlorobenzene	100	0	84.6	85	28 104
N-Nitroso-di-n-prop.(1)	100	0	99.5	100	41 126
1,2,4-Trichlorobenzene	100	0	79.8	80	38 107
4-Chloro-3-methylphenol	100	0	74.2	74	26 103
Acenaphthene	100	0	79.7	80	31-137
4-Nitrophenol	100	0	81.9	82	11-114
2,4-Dinitrotoluene	100	0	83.4	83	28- 89
Pentachlorophenol	100	0	72.7	73	17-109
Pyrene	100	0	80.3	80	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100	69.2	69	20	35	26- 90
2-Chlorophenol	100	71.0	71	16	50	25-102
1,4-Dichlorobenzene	100	66.5	67	24	27	28 104
N-Nitroso-di-n-prop.(1)	100	84.8	85	16	38	41 126
1,2,4-Trichlorobenzene	100	69.6	69	15	23	38 107
4-Chloro-3-methylphenol	100	64.1	64	14	33	26 103
Acenaphthene	100	65.5	66	19	19	31-137
4-Nitrophenol	100	86.0	86	-5	50	11-114
2,4-Dinitrotoluene	100	87.7	88	-6	47	28- 89
Pentachlorophenol	100	78.4	78	-7	47	17-109
Pyrene	100	85.5	86	-7	36	35-142

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

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

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

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: AUG01HK03 Lab Sample ID: D974411

Date Extracted: 07/21/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 08/01/89 Time Analyzed: 1223

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: FINN

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	G101	D974312	AUG01HK09	08/01/89
02	G101	D974312	AUG01HK09T	08/01/89
03	G102	D974375	AUG01HK07	08/01/89
04	G102	D974375	AUG01HK07T	08/01/89
05	G103	D974376	AUG01HK05	08/01/89
06	G103	D974376	AUG01HK05T	08/01/89
07	G104	D974377	AUG01HK06	08/01/89
08	G104	D974377	AUG01HK06T	08/01/89
09	G105	D974313	AUG01GK01	08/01/89
10	G105	D974313	AUG01GK01T	08/01/89
11	G106	D974378	AUG01HK08	08/01/89
12	G106	D974378	AUG01HK08T	08/01/89
13	G107	D974314	AUG01GK02	08/01/89
14	G107	D974314	AUG01GK02T	08/01/89
15	G107MS	D974410	AUG03HK05	08/03/89
16	G107MSD	D974410R	AUG03HK06	08/03/89

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: AUG11GK02 Lab Sample ID: D974392

Date Extracted: 07/21/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 08/11/89 Time Analyzed: 1411

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: FINN

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	X101	D974316	AUG11GK10	08/11/89
02	X101	D974316	AUG11GK10T	08/11/89
03	X102	D974317	AUG29GK03	08/29/89
04	X102	D974317	AUG29GK03T	08/29/89
05	X102MS	D974391	AUG11GK06	08/11/89
06	X102MSD	D974391R	AUG11GK07	08/11/89
07	X103	D074318	AUG14GK03	08/14/89
08	X103	D074318	AUG14GK03T	08/14/89
09	X104	D974319	AUG11GK04	08/11/89
10	X104	D974319	AUG11GK04T	08/11/89
11	X105	D974320	AUG14GK04	08/14/89
12	X105	D974320	AUG14GK04T	08/14/89
13	X106	D974321	AUG11GK09	08/11/89
14	X106	D974321	AUG11GK09T	08/11/89
15	X107	D974322	AUG11GK03	08/11/89
16	X107	D974322	AUG11GK03T	08/11/89
17	X108	D974323	AUG11GK08	08/11/89
18	X108	D974323	AUG11GK08T	08/11/89

COMMENTS:

5B

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

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: AUG01HK01 DFTPP Injection Date: 08/01/89

Instrument ID: FINN DFTPP Injection Time: 1057

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	37.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	46.5
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	51.7
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	26.5
365	Greater than 1.00% of mass 198	3.00
441	Present, but less than mass 443	15.1
442	Greater than 40.0% of mass 198	88.0
443	17.0 - 23.0% of mass 442	17.4 (19.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SBLKW	D974411	AUG01HK03	08/01/89	1223
02	SBLKW	D974411	AUG01HK03T	08/01/89	1223
03	G103	D974376	AUG01HK05	08/01/89	1417
04	G103	D974376	AUG01HK05T	08/01/89	1417
05	G104	D974377	AUG01HK06	08/01/89	1514
06	G104	D974377	AUG01HK06T	08/01/89	1514
07	G102	D974375	AUG01HK07	08/01/89	1611
08	G102	D974375	AUG01HK07T	08/01/89	1611
09	G106	D974378	AUG01HK08	08/01/89	1710
10	G106	D974378	AUG01HK08T	08/01/89	1710
11	G101	D974312	AUG01HK09	08/01/89	1808
12	G101	D974312	AUG01HK09T	08/01/89	1808
13	G105	D974313	AUG01GK01	08/01/89	1912
14	G105	D974313	AUG01GK01T	08/01/89	1912
15	G107	D974314	AUG01GK02	08/01/89	2008
16	G107	D974314	AUG01GK02T	08/01/89	2008
17	SSTD50	D801895TD	AUG01GK03	08/01/89	2106

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

Lab Name: ILLINOIS EPA Contract: 031600025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: AUG03HK01 DFTPP Injection Date: 08/03/89

Instrument ID: FINN DFTPP Injection Time: 1037

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	41.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	43.5
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	50.3
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	29.0
365	Greater than 1.00% of mass 198	4.30
441	Present, but less than mass 443	13.7
442	Greater than 40.0% of mass 198	93.6
443	17.0 - 23.0% of mass 442	16.6 (17.7)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDMX	080389MX	AUG03HK04	08/03/89	1306
02	G107MS	D974410	AUG03HK05	08/03/89	1356
03	G107MSD	D974410R	AUG03HK06	08/03/89	1441

5B

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

Lab Name: ILLINOIS EPA Contract: 0316000025

b Code: SFFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: AUG11G01 DFTPP Injection Date: 08/11/89

Instrument ID: FINN DFTPP Injection Time: 1104

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.3
68	Less than 2.0% of mass 69	0.5 (1.2)1
69	Mass 69 relative abundance	37.8
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	40.0 - 60.0% of mass 198	51.8
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	21.1
365	Greater than 1.00% of mass 198	2.20
441	Present, but less than mass 443	9.7
442	Greater than 40.0% of mass 198	72.3
443	17.0 - 23.0% of mass 442	13.3 (18.4)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD50	081189STD	AUG11GK01	08/11/89	1312
02	SBLKSL	D974392	AUG11GK02	08/11/89	1411
03	SBLKSL	D974392	AUG11GK02T	08/11/89	1411
04	X107	D974322	AUG11GK03	08/11/89	1518
05	X107	D974322	AUG11GK03T	08/11/89	1518
06	X104	D974319	AUG11GK04	08/11/89	1623
07	X104	D974319	AUG11GK04T	08/11/89	1623
08	SSTDMX	081189MX	AUG11GK05	08/11/89	1720
09	X102MS	D974391	AUG11GK06	08/11/89	1817
10	X102MSD	D974391R	AUG11GK07	08/11/89	1916
11	X108	D974323	AUG11GK08	08/11/89	2019
12	X108	D974323	AUG11GK08T	08/11/89	2019
13	X106	D974321	AUG11GK09	08/11/89	2115
14	X106	D974321	AUG11GK09T	08/11/89	2115
15	X101	D974316	AUG11GK10	08/11/89	2213
16	X101	D974316	AUG11GK10T	08/11/89	2213

5B

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

Lab Name: ILLINOIS EPA Contract: 0316000025

SMO Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: AUG14GK01 DFTPP Injection Date: 08/14/89

Instrument ID: FINN DFTPP Injection Time: 1617

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	32.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	41.6
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	48.3
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	23.7
365	Greater than 1.00% of mass 198	2.40
441	Present, but less than mass 443	14.5
442	Greater than 40.0% of mass 198	99.7
443	17.0 - 23.0% of mass 442	18.1 (18.2)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD50	081489STD	AUG14GK02	08/14/89	1633
02	X103	D074318	AUG14GK03	08/14/89	1732
03	X103	D074318	AUG14GK03T	08/14/89	1732
04	X105	D974320	AUG14GK04	08/14/89	1839
05	X105	D974320	AUG14GK04T	08/14/89	1839

5B

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

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: AUG29GK01 DFTPP Injection Date: 08/29/89

Instrument ID: FINN DFTPP Injection Time: 1235

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	41.8
68	Less than 2.0% of mass 69	0.6 (1.2)1
69	Mass 69 relative abundance	49.1
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	57.4
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	8.0
275	10.0 - 30.0% of mass 198	27.4
365	Greater than 1.00% of mass 198	3.00
441	Present, but less than mass 443	16.3
442	Greater than 40.0% of mass 198	92.4
443	17.0 - 23.0% of mass 442	16.6 (18.0)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD50	082989STD	AUG29GK02	08/29/89	1257
02	X102	D974317	AUG29GK03	08/29/89	1405
03	X102	D974317	AUG29GK03T	08/29/89	1405

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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: FINN Calibration Date(s): 05/26/89 05/26/89

Min RRF for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = MAY26G03 RRF50 = MAY26G05
RRF80 = MAY26GK01 RRF120= MAY26GK02 RRF160= MAY26GK05

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	RRF	% RSD
Phenol *	1.110	1.196	0.945	0.938	1.139	1.066	11.0*
bis(2-Chloroethyl)Ether	0.908	0.931	0.717	0.705	0.832	0.819	12.8
2-Chlorophenol	0.789	0.846	0.678	0.665	0.799	0.755	10.6
1,3-Dichlorobenzene	0.874	0.891	0.682	0.655	0.789	0.778	13.9
1,4-Dichlorobenzene *	0.919	0.927	0.714	0.680	0.816	0.811	14.0*
Benzyl Alcohol	0.504	0.605	0.513	0.536	0.628	0.557	10.1
1,2-Dichlorobenzene	0.834	0.845	0.657	0.636	0.755	0.745	13.0
2-Methylphenol	0.723	0.781	0.625	0.632	0.747	0.702	10.0
bis(2-Chloroisopropyl)Ether	1.319	1.373	1.089	1.073	1.252	1.221	11.1
4-Methylphenol	0.689	0.783	0.648	0.657	0.782	0.712	9.3
N-Nitroso-Di-n-Propylamine #	0.563	0.707	0.577	0.595	0.695	0.627	10.9#
Hexachloroethane	0.400	0.407	0.312	0.310	0.360	0.358	12.9
Nitrobenzene	0.425	0.469	0.377	0.396	0.535	0.440	14.4
Isophorone	0.675	0.808	0.666	0.714	0.973	0.767	16.7
-Nitrophenol *	0.160	0.203	0.168	0.182	0.250	0.193	18.7*
,4-Dimethylphenol	0.292	0.362	0.302	0.329	0.452	0.347	18.6
Benzoic Acid		0.072	0.098	0.110	0.144	0.106	28.2
bis(2-Chloroethoxy)Methane	0.466	0.532	0.436	0.458	0.633	0.505	15.8
2,4-Dichlorophenol *	0.227	0.283	0.242	0.264	0.367	0.277	19.8*
1,2,4-Trichlorobenzene	0.313	0.334	0.264	0.276	0.386	0.315	15.5
Naphthalene	1.054	1.117	0.857	0.896	1.195	1.024	14.1
4-Chloroaniline	0.241	0.340	0.315	0.355	0.494	0.349	26.4
Hexachlorobutadiene *	0.203	0.207	0.162	0.171	0.244	0.197	16.5*
4-Chloro-3-Methylphenol *	0.218	0.288	0.254	0.290	0.388	0.288	22.0*
2-Methylnaphthalene	0.629	0.691	0.528	0.564	0.752	0.633	14.4
Hexachlorocyclopentadiene #	0.263	0.328	0.240	0.280	0.386	0.299	19.5#
2,4,6-Trichlorophenol *	0.336	0.401	0.361	0.406	0.556	0.412	20.8*
2,4,5-Trichlorophenol		0.388	0.392	0.439	0.607	0.457	22.5
2-Chloronaphthalene	1.271	1.346	1.049	1.111	1.450	1.245	13.3
2-Nitroaniline		0.467	0.442	0.476	0.658	0.511	19.4
Dimethyl Phthalate	1.211	1.385	1.183	1.277	1.709	1.353	15.8
Acenaphthylene	1.884	2.018	1.576	1.619	2.130	1.845	13.2
2,6-Dinitrotoluene	0.251	0.319	0.282	0.305	0.435	0.318	22.0
3-Nitroaniline		0.310	0.282	0.314	0.482	0.347	26.3
Acenaphthene *	1.263	1.324	1.026	1.057	1.377	1.209	13.1*
2,4-Dinitrophenol #		0.092	0.069	0.097	0.106	0.091	17.3#
4-Nitrophenol #		0.121	0.109	0.132	0.119	0.120	7.9#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: FINN Calibration Date(s): 05/26/89 05/26/89

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = MAY26G03 RRF50 = MAY26G05
RRF80 = MAY26GK01 RRF120= MAY26GK02 RRF160= MAY26GK05

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.712	1.864	1.477	1.501	2.001	1.711	13.3
2,4-Dinitrotoluene	0.318	0.396	0.371	0.402	0.579	0.413	23.8
Diethylphthalate	1.267	1.410	1.255	1.310	1.887	1.426	18.6
4-Chlorophenyl-phenylether	0.706	0.755	0.629	0.646	0.912	0.730	15.6
Fluorene	1.329	1.414	1.190	1.179	1.641	1.351	14.1
4-Nitroaniline		0.268	0.228	0.262	0.402	0.290	26.5
4,6-Dinitro-2-Methylphenol		0.113	0.078	0.092	0.157	0.110	31.3
N-Nitrosodiphenylamine (1) *		0.343	0.361	0.319	0.368	0.348	6.3*
4-Bromophenyl-phenylether	0.196	0.257	0.205	0.219	0.292	0.234	17.1
Hexachlorobenzene	0.215	0.278	0.214	0.227	0.312	0.249	17.6
Pentachlorophenol *		0.107	0.102	0.119	0.165	0.123	23.4*
Phenanthrene	0.988	1.107	0.872	0.858	1.090	0.983	11.9
Anthracene	1.052	1.091	0.878	0.878	1.112	1.002	11.5
Di-n-Butylphthalate	1.508	1.369	1.102	1.112	1.457	1.310	14.6
Fluoranthene *	1.057	1.149	0.900	0.909	1.160	1.035	12.1*
Pyrene	1.117	1.186	0.927	0.936	1.158	1.065	11.7
Butylbenzylphthalate	0.644	0.746	0.676	0.676	0.900	0.728	14.1
3,3'-Dichlorobenzidine	0.140	0.300	0.149	0.190	0.390	0.234	46.2
Benzo(a)Anthracene	0.999	1.218	0.952	0.981	1.305	1.091	14.6
bis(2-Ethylhexyl)Phthalate	0.854	0.972	0.893	0.911	1.247	0.975	16.2
Chrysene	0.979	1.269	1.014	1.042	1.404	1.142	16.3
Di-n-Octyl Phthalate *	2.524	3.116	4.606	4.394	5.049	3.938	27.1*
Benzo(b)Fluoranthene	1.212	1.591	1.436	1.483	1.891	1.523	16.3
Benzo(k)Fluoranthene	1.127	1.663	1.491	1.643	2.163	1.617	23.1
Benzo(a)Pyrene *	1.242	1.743	1.425	1.653	2.183	1.649	21.7*
Indeno(1,2,3-cd)Pyrene	1.053	1.053	0.262	0.414	0.813	0.719	50.8
Dibenz(a,h)Anthracene	0.795	0.834	0.248	0.398	0.829	0.621	44.7
Benzo(g,h,i)Perylene	1.011	1.061	0.238	0.413	0.722	0.689	52.5
Nitrobenzene-d5	0.416	0.486	0.428	0.421	0.416	0.433	6.9
2-Fluorobiphenyl	1.435	1.567	1.330	1.365	1.341	1.408	7.0
Terphenyl-d14	1.551	1.238	1.156	1.008	1.066	1.204	17.7
Phenol-d5	1.320	1.467	1.272	1.194	1.027	1.256	12.9
2-Fluorophenyl	1.431	1.569	1.274	1.166	0.982	1.284	17.8
2,4,6-Tribromophenol	0.259	0.441	0.433	0.425	0.475	0.407	20.8

(1) Cannot be separated from Diphenylamine

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: FINN Calibration date: 08/01/89 Time: 2106

Lab File ID: AUG01GK03 Init. Calib. Date(s): 05/26/89 05/26/89

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Phenol *	1.066	1.177	-10.4 *
bis(2-Chloroethyl)Ether	0.819	0.852	-4.0
2-Chlorophenol	0.755	0.830	-9.9
1,3-Dichlorobenzene	0.778	0.903	-16.1
1,4-Dichlorobenzene *	0.811	0.947	-16.8 *
Benzyl Alcohol	0.557	0.506	9.2
1,2-Dichlorobenzene	0.745	0.842	-13.0
2-Methylphenol	0.702	0.740	-5.4
bis(2-Chloroisopropyl)Ether	1.221	1.383	-13.3
4-Methylphenol	0.712	0.756	-6.2
N-Nitroso-Di-n-Propylamine #	0.627	0.749	-19.5 #
Hexachloroethane	0.358	0.467	-30.5
Nitrobenzene	0.440	0.508	-15.5
Isophorone	0.767	0.806	-5.1
2-Nitrophenol *	0.193	0.184	4.7 *
2,4-Dimethylphenol	0.347	0.322	7.2
Benzoic Acid	0.106	0.035	67.0
bis(2-Chloroethoxy)Methane	0.505	0.482	4.6
2,4-Dichlorophenol *	0.277	0.254	8.3 *
1,2,4-Trichlorobenzene	0.315	0.304	3.5
Naphthalene	1.024	1.082	-5.7
4-Chloroaniline	0.349	0.295	18.3
Hexachlorobutadiene *	0.197	0.178	9.6 *
4-Chloro-3-Methylphenol *	0.288	0.263	8.7 *
2-Methylnaphthalene	0.633	0.670	-5.8
Hexachlorocyclopentadiene #	0.299	0.262	12.4 #
2,4,6-Trichlorophenol *	0.412	0.392	4.9 *
2,4,5-Trichlorophenol	0.457	0.331	27.6
2-Chloronaphthalene	1.245	1.456	-17.0
2-Nitroaniline	0.511	0.542	-6.1
Dimethyl Phthalate	1.353	1.403	-3.7
Acenaphthylene	1.845	2.175	-17.9
2,6-Dinitrotoluene	0.318	0.290	8.8
3-Nitroaniline	0.347	0.269	22.5
Acenaphthene *	1.209	1.359	-12.4 *
2,4-Dinitrophenol #	0.091	0.062	31.9 #
4-Nitrophenol #	0.120	0.056	53.3 #

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: FINN Calibration date: 08/01/89 Time: 2106

Lab File ID: AUG01GK03 Init. Calib. Date(s): 05/26/89 05/26/89

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Dibenzofuran	1.711	1.862	-8.8
2,4-Dinitrotoluene	0.413	0.346	16.2
Diethylphthalate	1.426	1.517	-6.4
4-Chlorophenyl-phenylether	0.730	0.669	8.4
Fluorene	1.351	1.427	-5.6
4-Nitroaniline	0.290	0.209	27.9
4,6-Dinitro-2-Methylphenol	0.110	0.067	39.1
N-Nitrosodiphenylamine (1) *	0.348	0.294	15.5 *
4-Bromophenyl-phenylether	0.234	0.208	11.1
Hexachlorobenzene	0.249	0.223	10.4
Pentachlorophenol *	0.123	0.130	-5.7 *
Phenanthrene	0.983	1.148	-16.8
Anthracene	1.002	1.172	-17.0
Di-n-Butylphthalate	1.310	1.723	-31.5
Fluoranthene *	1.035	1.269	-22.6 *
Pyrene	1.065	1.291	-21.2
Butylbenzylphthalate	0.728	1.137	-56.2
3,3'-Dichlorobenzidine	0.234	0.213	9.0
Benzo(a)Anthracene	1.091	1.147	-5.1
bis(2-Ethylhexyl)Phthalate	0.975	1.469	-50.7
Chrysene	1.142	1.326	-16.1
Di-n-Octyl Phthalate *	3.938	3.305	16.1 *
Benzo(b)Fluoranthene	1.523	1.565	-2.8
Benzo(k)Fluoranthene	1.617	1.654	-2.3
Benzo(a)Pyrene *	1.649	1.692	-2.6 *
Indeno(1,2,3-cd)Pyrene	0.719	0.657	8.6
Dibenz(a,h)Anthracene	0.621	0.556	10.5
Benzo(g,h,i)Perylene	0.689	0.638	7.4
Nitrobenzene-d5	0.433	0.587	-35.6
2-Fluorobiphenyl	1.408	2.082	-47.9
Terphenyl-d14	1.204	1.624	-34.9
Phenol-d5	1.256	1.694	-34.9
2-Fluorophenyl	1.284	1.919	-49.5
2,4,6-Tribromophenol	0.407	0.355	12.8

(1) Cannot be separated from Diphenylamine

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

.strument ID: FINN Calibration date: 08/11/89 Time: 1312

Lab File ID: AUG11GK01 Init. Calib. Date(s): 05/26/89 05/26/89

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Phenol *	1.066	1.018	4.5 *
bis(2-Chloroethyl)Ether	0.819	0.670	18.2
2-Chlorophenol	0.755	0.767	-1.6
1,3-Dichlorobenzene	0.778	0.768	1.3
1,4-Dichlorobenzene *	0.811	0.827	-2.0 *
Benzyl Alcohol	0.557	0.355	36.3
1,2-Dichlorobenzene	0.745	0.749	-0.5
2-Methylphenol	0.702	0.663	5.6
bis(2-Chloroisopropyl)Ether	1.221	0.969	20.6
4-Methylphenol	0.712	0.714	-0.3
N-Nitroso-Di-n-Propylamine #	0.627	0.505	19.5 #
Hexachloroethane	0.358	0.361	-0.8
Nitrobenzene	0.440	0.319	27.5
Isophorone	0.767	0.547	28.7
2-Nitrophenol *	0.193	0.180	6.7 *
2,4-Dimethylphenol	0.347	0.228	34.3
Benzoic Acid	0.106	0.065	38.7
bis(2-Chloroethoxy)Methane	0.505	0.388	23.2
2,4-Dichlorophenol *	0.277	0.263	5.1 *
1,2,4-Trichlorobenzene	0.315	0.273	13.3
Naphthalene	1.024	0.906	11.5
4-Chloroaniline	0.349	0.278	20.3
Hexachlorobutadiene *	0.197	0.166	15.7 *
4-Chloro-3-Methylphenol *	0.288	0.216	25.0 *
2-Methylnaphthalene	0.633	0.619	2.2
Hexachlorocyclopentadiene #	0.299	0.116	61.2 #
2,4,6-Trichlorophenol *	0.412	0.402	2.4 *
2,4,5-Trichlorophenol	0.457	0.360	21.2
2-Chloronaphthalene	1.245	1.391	-11.7
2-Nitroaniline	0.511	0.394	22.9
Dimethyl Phthalate	1.353	1.298	4.1
Acenaphthylene	1.845	1.960	-6.2
2,6-Dinitrotoluene	0.318	0.308	3.1
3-Nitroaniline	0.347	0.221	36.3
Acenaphthene *	1.209	1.200	0.7 *
2,4-Dinitrophenol #	0.091	0.072	20.9 #
4-Nitrophenol #	0.120	0.060	50.0 #

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: FINN Calibration date: 08/11/89 Time: 1312

Lab File ID: AUG11GK01 Init. Calib. Date(s): 05/26/89 05/26/89

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D	
Dibenzofuran	1.711	1.717	-0.4	
2,4-Dinitrotoluene	0.413	0.278	32.7	
Diethylphthalate	1.426	1.211	15.1	
4-Chlorophenyl-phenylether	0.730	0.717	1.8	
Fluorene	1.351	1.444	-6.9	
4-Nitroaniline	0.290	0.127	56.2	
4,6-Dinitro-2-Methylphenol	0.110	0.065	40.9	
N-Nitrosodiphenylamine (1)	0.348	0.287	17.5	*
4-Bromophenyl-phenylether	0.234	0.244	-4.3	
Hexachlorobenzene	0.249	0.262	-5.2	
Pentachlorophenol	0.123	0.117	4.9	*
Phenanthrene	0.983	0.962	2.1	
Anthracene	1.002	0.891	11.1	
Di-n-Butylphthalate	1.310	0.963	26.5	
Fluoranthene	0.518	0.517	0.2	*
Pyrene	1.065	0.481	54.8	
Butylbenzylphthalate	0.728	0.993	-36.4	
3,3'-Dichlorobenzidine	0.234	0.237	-1.3	
Benzo(a)Anthracene	1.091	1.058	3.0	
bis(2-Ethylhexyl)Phthalate	0.975	1.398	-43.4	
Chrysene	1.142	1.177	-3.1	
Di-n-Octyl Phthalate	5.907	6.061	-2.6	*
Benzo(b)Fluoranthene	1.523	1.536	-0.9	
Benzo(k)Fluoranthene	1.617	1.655	-2.4	
Benzo(a)Pyrene	1.649	1.812	-9.9	*
Indeno(1,2,3-cd)Pyrene	0.719	0.718	0.1	
Dibenz(a,h)Anthracene	0.621	0.710	-14.3	
Benzo(g,h,i)Perylene	0.689	1.138	-65.2	
Nitrobenzene-d5	0.433	0.609	-40.7	
2-Fluorobiphenyl	1.408	3.755	-99.9	
Terphenyl-d14	1.204	4.217	-99.9	
Phenol-d5	1.256	1.537	-22.4	
2-Fluorophenyl	1.284	1.383	-7.7	
2,4,6-Tribromophenol	0.407	0.700	-72.0	

(1) Cannot be separated from Diphenylamine

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: FINN Calibration date: 08/14/89 Time: 1633

Lab File ID: AUG14GK02 Init. Calib. Date(s): 05/26/89 05/26/89

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Phenol *	1.066	0.827	22.4 *
bis(2-Chloroethyl)Ether	0.819	0.659	19.5
2-Chlorophenol	0.755	0.742	1.7
1,3-Dichlorobenzene	0.778	0.788	-1.3
1,4-Dichlorobenzene *	0.811	0.797	1.7 *
Benzyl Alcohol	0.557	0.293	47.4
1,2-Dichlorobenzene	0.745	0.746	-0.1
2-Methylphenol	0.702	0.640	8.8
bis(2-Chloroisopropyl)Ether	1.221	0.987	19.2
4-Methylphenol	0.712	0.667	6.3
N-Nitroso-Di-n-Propylamine #	0.627	0.515	17.9 #
Hexachloroethane	0.358	0.385	-7.5
Nitrobenzene	0.440	0.340	22.7
Isophorone	0.767	0.595	22.4
2-Nitrophenol *	0.193	0.196	-1.6 *
2,4-Dimethylphenol	0.347	0.267	23.1
Benzoic Acid	0.106	0.060	43.4
bis(2-Chloroethoxy)Methane	0.505	0.405	19.8
2,4-Dichlorophenol *	0.277	0.266	4.0 *
1,2,4-Trichlorobenzene	0.315	0.276	12.4
Naphthalene	1.024	0.910	11.1
4-Chloroaniline	0.349	0.245	29.8
Hexachlorobutadiene *	0.197	0.164	16.8 *
4-Chloro-3-Methylphenol *	0.288	0.248	13.9 *
2-Methylnaphthalene	0.633	0.611	3.5
Hexachlorocyclopentadiene #	0.299	0.104	65.2 #
2,4,6-Trichlorophenol *	0.412	0.370	10.2 *
2,4,5-Trichlorophenol	0.457	0.329	28.0
2-Chloronaphthalene	1.245	1.164	6.5
2-Nitroaniline	0.511	0.351	31.3
Dimethyl Phthalate	1.353	1.228	9.2
Acenaphthylene	1.845	1.684	8.7
2,6-Dinitrotoluene	0.318	0.285	10.4
3-Nitroaniline	0.347	0.248	28.5
Acenaphthene *	1.209	1.102	8.9 *
2,4-Dinitrophenol #	0.091	0.054	40.7 #
4-Nitrophenol #	0.120	0.106	11.7 #

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

strument ID: FINN Calibration date: 08/14/89 Time: 1633

Lab File ID: AUG14GK02 Init. Calib. Data(s): 05/26/89 05/26/89

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Dibenzofuran	1.711	1.524	10.9
2,4-Dinitrotoluene	0.413	0.300	27.4
Diethylphthalate	1.426	1.169	18.0
4-Chlorophenyl-phenylether	0.730	0.619	15.2
Fluorene	1.351	1.207	10.7
4-Nitroaniline	0.290	0.194	33.1
4,6-Dinitro-2-Methylphenol	0.110	0.078	29.1
N-Nitrosodiphenylamine (1) *	0.348	0.281	19.3 *
4-Bromophenyl-phenylether	0.234	0.240	-2.6
Hexachlorobenzene	0.249	0.265	-6.4
Pentachlorophenol *	0.123	0.111	9.8 *
Phenanthrene	0.983	0.954	3.0
Anthracene	1.002	0.928	7.4
Di-n-Butylphthalate	1.310	1.128	13.9
Fluoranthene *	1.035	0.827	20.1 *
Pyrene	1.065	0.820	23.0
Butylbenzylphthalate	0.728	0.895	-22.9
3,3'-Dichlorobenzidine	0.234	0.272	-16.2
Benzo(a)Anthracene	1.091	1.013	7.1
bis(2-Ethylhexyl)Phthalate	0.975	1.246	-27.8
Chrysene	1.142	1.071	6.2
Di-n-Octyl Phthalate *	3.938	3.747	4.9 *
Benzo(b)Fluoranthene	1.523	1.215	20.2
Benzo(k)Fluoranthene	1.617	1.316	18.6
Benzo(a)Pyrene *	1.649	1.580	4.2 *
Indeno(1,2,3-cd)Pyrene	0.719	0.569	20.9
Dibenz(a,h)Anthracene	0.621	0.643	-3.5
Benzo(g,h,i)Perylene	0.689	0.768	-11.5
Nitrobenzene-d5	0.433	0.510	-17.8
2-Fluorobiphenyl	1.408	2.003	-42.3
Terphenyl-d14	1.204	2.520	-99.9
Phenol-d5	1.256	1.080	14.0
2-Fluorophenyl	1.284	1.052	18.1
2,4,6-Tribromophenol	0.407	0.575	-41.3

(1) Cannot be separated from Diphenylamine

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: FINN Calibration date: 08/29/89 Time: 1257

Lab File ID: AUG29GK02 Init. Calib. Date(s): 05/26/89 05/26/89

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Phenol *	1.066	0.948	11.1 *
bis(2-Chloroethyl)Ether	0.819	0.642	21.6
2-Chlorophenol	0.755	0.683	9.5
1,3-Dichlorobenzene	0.778	0.756	2.8
1,4-Dichlorobenzene *	0.811	0.793	2.2 *
Benzyl Alcohol	0.557	0.433	22.3
1,2-Dichlorobenzene	0.745	0.775	-4.0
2-Methylphenol	0.702	0.602	14.3
bis(2-Chloroisopropyl)Ether	1.221	0.894	26.8
4-Methylphenol	0.712	0.631	11.4
N-Nitroso-Di-n-Propylamine #	0.627	0.505	19.5 #
Hexachloroethane	0.358	0.380	-6.1
Nitrobenzene	0.440	0.343	22.1
Isophorone	0.767	0.590	23.1
2-Nitrophenol *	0.193	0.175	9.3 *
2,4-Dimethylphenol	0.347	0.262	24.5
Benzoic Acid	0.106	0.068	35.9
bis(2-Chloroethoxy)Methane	0.505	0.404	20.0
2,4-Dichlorophenol *	0.277	0.256	7.6 *
1,2,4-Trichlorobenzene	0.315	0.304	3.5
Naphthalene	1.024	0.923	9.9
4-Chloroaniline	0.349	0.246	29.5
Hexachlorobutadiene *	0.197	0.176	10.7 *
4-Chloro-3-Methylphenol *	0.288	0.226	21.5 *
2-Methylnaphthalene	0.633	0.644	-1.7
Hexachlorocyclopentadiene #	0.299	0.118	60.5 #
2,4,6-Trichlorophenol *	0.412	0.368	10.7 *
2,4,5-Trichlorophenol	0.457	0.324	29.1
2-Chloronaphthalene	1.245	1.329	-6.7
2-Nitroaniline	0.511	0.266	48.0
Dimethyl Phthalate	1.353	1.155	14.6
Acenaphthylene	1.845	2.014	-9.2
2,6-Dinitrotoluene	0.318	0.251	21.1
3-Nitroaniline	0.347	0.172	50.4
Acenaphthene *	1.209	1.183	2.2 *
2,4-Dinitrophenol #	0.091	0.057	37.4 #
4-Nitrophenol #	0.120	0.082	31.7 #

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: FINN Calibration date: 08/29/89 Time: 1257

Lab File ID: AUG29GK02 Init. Calib. Data(s): 05/26/89 05/26/89

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Dibenzofuran	1.711	1.627	4.9
2,4-Dinitrotoluene	0.413	0.243	41.2
Diethylphthalate	1.426	1.098	23.0
4-Chlorophenyl-phenylether	0.730	0.606	17.0
Fluorene	1.351	1.198	11.3
4-Nitroaniline	0.290	0.115	60.3
4,6-Dinitro-2-Methylphenol	0.110	0.050	54.6
N-Nitrosodiphenylamine (1) *	0.348	0.295	15.2 *
4-Bromophenyl-phenylether	0.234	0.248	-6.0
Hexachlorobenzene	0.249	0.321	-28.9
Pentachlorophenol *	0.123	0.116	5.7 *
Phenanthrene	0.983	0.907	7.7
Anthracene	1.002	0.864	13.8
Di-n-Butylphthalate	1.310	1.030	21.4
Fluoranthene *	1.035	0.894	13.6 *
Pyrene	1.065	0.665	37.6
Butylbenzylphthalate	0.728	0.876	-20.3
3,3'-Dichlorobenzidine	0.234	0.244	-4.3
Benzo(a)Anthracene	1.091	1.013	7.1
bis(2-Ethylhexyl)Phthalate	0.975	1.412	-44.8
Chrysene	1.142	1.152	-0.9
Di-n-Octyl Phthalate *	3.938	3.462	12.1 *
Benzo(b)Fluoranthene	1.523	1.919	-26.0
Benzo(k)Fluoranthene	1.617	2.068	-27.9
Benzo(a)Pyrene *	1.649	1.779	-7.9 *
Indeno(1,2,3-cd)Pyrene	0.719	0.571	20.6
Dibenz(a,h)Anthracene	0.621	0.273	56.0
Benzo(g,h,i)Perylene	0.689	0.563	18.3
Nitrobenzene-d5	0.433	0.666	-53.8
2-Fluorobiphenyl	1.408	2.794	-98.4
Terphenyl-d14	1.204	4.847	-99.9
Phenol-d5	1.256	1.662	-32.3
2-Fluorophenyl	1.234	1.511	-17.7
2,4,6-Tribromophenol	0.407	0.892	-99.9

(1) Cannot be separated from Diphenylamine

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): AUG01GK03 Date Analyzed: 08/01/89

Instrument ID: FINN Time Analyzed: 2106

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	22200	11.10	48100	14.25	18000	18.77
	UPPER LIMIT	44400		96200		36000	
	LOWER LIMIT	11100		24050		9000	
	EPA SAMPLE NO.						
01	G101	16900	11.09	39500	14.24	20000	18.75
02	G102	20600	11.10	47500	14.25	26100	18.79
03	G103	16600	11.09	38000	14.22	20300	18.75
04	G104	19300	11.07	46500	14.22	19400	18.74
05	G105	20700	11.07	45900	14.22	19500	18.74
06	G106	18100	11.10	40300	14.24	17700	18.77
07	G107	21400	11.09	47600	14.24	20000	18.75
08	SBLKW	17700	11.05	40200	14.20	19200	18.74

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-1 1/87 Rev.

3C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): AUG01GK03 Date Analyzed: 08/01/89

Instrument ID: FINN Time Analyzed: 2106

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
	12 HOUR STD	29700	22.57	18800	29.76	5700	36.84
	UPPER LIMIT	59400		37600		11400	
	LOWER LIMIT	14850		9400		2850	
	EPA SAMPLE NO.						
01	G101	38900	22.55	21400	29.72	8720	36.84
02	G102	54300	22.57	30000	29.76	6620	36.87
03	G103	48100	22.54	20300	29.72	7090	36.82
04	G104	32000	22.54	14100	29.72	4130	36.82
05	G105	29400	22.54	14500	29.72	3290	36.82
06	G106	30900	22.55	13200	29.74	3200	36.84
07	G107	29100	22.55	10200	29.74	2990	36.86
08	SBLKW	35300	22.52	18600	29.71	7630	36.81

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

b File ID (Standard): AUG11GK01 Date Analyzed: 08/11/89

Instrument ID: FINN Time Analyzed: 1312

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	39500	10.97	89400	14.12	36100	18.64
	UPPER LIMIT	79000		178800		72200	
	LOWER LIMIT	19750		44700		18050	
	EPA SAMPLE NO.						
01	SBLKSL	24200	10.99	59400	14.12	23000	18.65
02	X101	24400	10.97	55500	14.10	17500 *	18.64
03	X104	21800	11.02	53600	14.15	20600	18.69
04	X106	24600	10.99	62700	14.14	26700	18.65
05	X107	28800	11.02	69600	14.15	28500	18.67
06	X108	23000	10.97	56000	14.10	21600	18.64

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-1 1/87 Rev.

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): AUG11GK01 Date Analyzed: 08/11/89

Instrument ID: FINN Time Analyzed: 1312

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
	12 HOUR STD	48800	22.42	8460	29.56	2310	36.49
	UPPER LIMIT	97600		16920		4620	
	LOWER LIMIT	24400		4230		1155	
	EPA SAMPLE NO.						
01	SBLKSL	37900	22.44	7360	29.57	2010	36.49
02	X101	19500 *	22.42	7600	29.56	2010	36.49
03	X104	26400	22.47	6220	29.61	2520	36.49
04	X106	33600	22.44	6980	29.57	2200	36.51
05	X107	32200	22.45	4930	29.61	2930	36.47
06	X108	23700 *	22.42	5450	29.56	1920	36.49

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

b File ID (Standard): AUG14GK02 Date Analyzed: 08/14/89

Instrument ID: FINN Time Analyzed: 1633

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	57500	11.02	127000	14.17	55300	18.69
	UPPER LIMIT	115000		254000		110600	
	LOWER LIMIT	28750		63500		27650	
	EPA SAMPLE NO.						
01	X103	38400	11.00	92200	14.15	36600	18.67
02	X105	32800	11.02	71000	14.15	32500	18.67

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): AUG14GK02 Date Analyzed: 08/14/89

Instrument ID: FINN Time Analyzed: 1633

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
	12 HOUR STD	74700	22.47	31600	29.62	11700	36.57
	UPPER LIMIT	149400		63200		23400	
	LOWER LIMIT	37350		15800		5850	
	EPA SAMPLE NO.						
01	X103	54100	22.45	25900	29.61	9520	36.57
02	X105	43100	22.47	20300	29.61	12900	36.56

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS.No.: _____ SDG No.: D97431

Lab File ID (Standard): AUG29GK02 Date Analyzed: 08/29/89

Instrument ID: FINN Time Analyzed: 1257

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	198000	10.99	465000	14.12	196000	18.65
	UPPER LIMIT	396000		930000		392000	
	LOWER LIMIT	99000		232500		98000	
	EPA SAMPLE NO.						
01	X102	183000	10.95	518000	14.10	270000	18.64

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): AUG29GK02 Date Analyzed: 08/29/89

Instrument ID: FINN Time Analyzed: 1257

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
	12 HOUR STD	251000	22.45	64500	29.61	8400	36.56
	UPPER LIMIT	502000		129000		16800	
	LOWER LIMIT	125500		32250		4200	
	EPA SAMPLE NO.						
01	X102	423000	22.42	183000 *	29.59	9850	36.54

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

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SAMPLE HOLDING TIMES AND DILUTIONS

Laboratory ILLINOIS EPA
Case Number INLAKE

Sample				VOA			BNA					PEST				
number	M	L	Rcvd	Anal	Hld	Dil	Extr	Hld	Anal	Hld	Dil	Extr	Hld	Anal	Hld	Di
G101	W	L	07/19	07/21	2											
G101DL	W	L	07/19	07/24	5	5.00										
G102	W	L	07/20	07/24	4											
G102DL	W	L	07/20	07/30	10	250										
G103	W	L	07/20	07/30	10											
G103DL	W	L	07/20	07/30	10	5.00										
G104	W	L	07/20	07/30	10											
G105	W	L	07/19	07/21	2											
G105DL	W	L	07/19	07/24	5	5.00										
G106	W	L	07/20	07/24	4	5.00										
G106DL	W	L	07/20	07/30	10	50.0										
G107	W	L	07/19	07/21	2											
VBLKTB	W	L	07/19	07/21	2											
X101	S	L	07/19	07/25	6											
X102	S	L	07/19	07/25	6											
X103	S	L	07/19	07/25	6											
X104	S	L	07/19	07/25	6											
X105	S	L	07/19	07/25	6											
X106	S	L	07/19	07/25	6											
X107	S	L	07/19	07/28	9	10.0										
X108	S	L	07/19	07/26	7											

SAMPLE HOLDING TIMES AND DILUTIONS

Laboratory . ILLINOIS EPA
Case Number INLAKE

Sample				VOA			BNA					PEST				
r ber	M	L	Rcvd	Anal	Hld	Dil	Extr	Hld	Anal	Hld	Dil	Extr	Hld	Anal	Hld	Dil
1	W	L	07/19				07/21	2	08/01	11						
G102	W	L	07/20				07/21	1	08/01	11						
G103	W	L	07/20				07/21	1	08/01	11						
G104	W	L	07/20				07/21	1	08/01	11						
G105	W	L	07/19				07/21	2	08/01	11						
G106	W	L	07/20				07/21	1	08/01	11						
G107	W	L	07/19				07/21	2	08/01	11						
X101	S	L	07/19				07/21	2	08/11	21	1.99					
X102	S	L	07/19				07/21	2	08/29	39	1.99					
X103	S	L	07/19				07/21	2	08/14	24	1.99					
X104	S	L	07/19				07/21	2	08/11	21	1.99					
X105	S	L	07/19				07/21	2	08/14	24	1.99					
X106	S	L	07/19				07/21	2	08/11	21	1.99					
X107	S	L	07/19				07/21	2	08/11	21	1.99					
X108	S	L	07/19				07/21	2	08/11	21	1.99					

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	G101	93	94	94		0
02	G101DL	91	89	107		0
03	G101MS	100	99	101		0
04	G101MSD	98	97	99		0
05	G102	95	91	98		0
06	G102DL	97	93	97		0
07	G103	93	89	89		0
08	G103DL	95	94	95		0
09	G104	99	97	94		0
10	G105	94	95	98		0
11	G105DL	94	89	106		0
12	G106	95	93	98		0
13	G106DL	93	95	94		0
14	G107	91	91	94		0
15	VBLK21	104	96	91		0
16	VBLK24	90	93	105		0
17	VBLK30	93	91	89		0
18	VBLKTB	93	92	95		0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(88-110)
S2 (BFB)	= Bromofluorobenzene	(86-115)
S3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	VBLK25	94	87	90		0
02	VBLK26	104	96	102		0
03	VBLK28	95	91	102		0
04	VSTD50	100	100	100		0
05	VSTD50	100	100	100		0
06	X101	98	87	100		0
07	X102	92	89	101		0
08	X103	103	90	116		0
09	X104	99	88	107		0
10	X105	98	89	116		0
11	X106	94	83	106		0
12	X107	93	91	109		0
13	X108	113	72 *	116		1
14	X108MS	123 *	81	114		1
15	X108MSD	120 *	86	117		1

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

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix Spike - EPA Sample No.: G101

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0	52.0	104	61-145
Trichloroethene	50.0	0	49.8	100	71-120
Benzene	50.0	0	50.4	101	76-127
Toluene	50.0	0	50.9	102	76-125
Chlorobenzene	50.0	0	52.4	105	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	52.8	106	-2	14	61-145
Trichloroethene	50.0	49.0	98	2	14	71-120
Benzene	50.0	48.6	97	4	11	76-127
Toluene	50.0	51.3	103	-1	13	76-125
Chlorobenzene	50.0	52.0	104	1	13	75-130

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

* Values outside of QC limits

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

COMMENTS:

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Matrix Spike - EPA Sample No.: X108 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0	35.7	71	59-172
Trichloroethene	50.0	0	48.4	97	62-137
Benzene	50.0	0	53.7	107	66-142
Toluene	50.0	0	61.4	123	59-139
Chlorobenzene	50.0	0	50.4	101	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	31.8	64	10	22	59-172
Trichloroethene	50.0	47.0	94	3	24	62-137
Benzene	50.0	52.7	105	2	21	66-142
Toluene	50.0	53.7	107	14	21	59-139
Chlorobenzene	50.0	47.7	95	6	21	60-133

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

* Values outside of QC limits

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

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0721BK01 Lab Sample ID: 072189BLK

Date Analyzed: 07/21/89 Time Analyzed: 0952

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 5100

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	G101	D974312	A0721BK05	1432
02	G101MS	D974312MS	A0721BK09	1731
03	G101MSD	D974312MSD	A0721BK11	1838
04	G105	D974313	A0721BK06	1550
05	G107	D974314	A0721BK07	1624
06	VBLKTB	D974315	A0721BK04	1358

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0724BK01 Lab Sample ID: 072489BLK

Date Analyzed: 07/24/89 Time Analyzed: 0938

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 5100

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	G101DL	D974312	A0724BK14	1925
02	G102	D974375	A0724BK02	1101
03	G105DL	D974313	A0724BK15	1958
04	G106	D974378	A0724BK07	1434

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0725BK01 Lab Sample ID: 072589BLK

Date Analyzed: 07/25/89 Time Analyzed: 0959

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: 5100

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	X101	D974316	A0725BK02	1046
02	X102	D974317	A0725BK04	1159
03	X103	D974318	A0725BK05	1233
04	X104	D974319	A0725BK06	1334
05	X105	D974320	A0725BK08	1447
06	X106	D974321	A0725BK09	1603

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0726BK01 Lab Sample ID: 072689BLK

Date Analyzed: 07/26/89 Time Analyzed: 0952

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: 5100

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	X108	D974323	A0726BK05	1320
02	X108MS	D974323MS	A0726BK06	1356
03	X108MSD	D974323MSD	A0726BK07	1431

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0728BK01 Lab Sample ID: 072889BLK

Date Analyzed: 07/28/89 Time Analyzed: 0947

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: 5100

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	X107	D974322	A0728BK08	1528

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0730BK01 Lab Sample ID: 073089BLK

Date Analyzed: 07/30/89 Time Analyzed: 1420

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 5100

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	G102DL	D974375	A0730BK08	1815
02	G103	D974376	A0730BK03	1527
03	G103DL	D974376	A0730BK04	1601
04	G104	D974377	A0730BK05	1634
05	G106DL	D974378	A0730BK06	1708

COMMENTS:

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0721BK07 BFB Injection Date: 07/21/89

Instrument ID: 5100 BFB Injection Time: 1624

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) WIDE

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.0
75	30.0 - 60.0% of mass 95	42.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	55.2
175	5.0 - 9.0% of mass 174	3.8 (6.9)1
176	Greater than 95.0%, but less than 101.0% of mass 174	54.4 (98.5)1
177	5.0 - 9.0% of mass 176	3.4 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VBLK21	072189BLK	A0721BK01	07/21/89	0952
02	VSTD50	072189STD	A0721BK03	07/21/89	1154
03	VBLKTB	D974315	A0721BK04	07/21/89	1358
04	G101	D974312	A0721BK05	07/21/89	1432
05	G105	D974313	A0721BK06	07/21/89	1550
06	G107	D974314	A0721BK07	07/21/89	1624
07	G101MS	D974312MS	A0721BK09	07/21/89	1731
08	G101MSD	D974312MSD	A0721BK11	07/21/89	1838

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0724BK01 BFB Injection Date: 07/24/89

Instrument ID: 5100 BFB Injection Time: 0938

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) WIDE

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.7
75	30.0 - 60.0% of mass 95	42.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	61.1
175	5.0 - 9.0% of mass 174	4.7 (7.7)1
176	Greater than 95.0%, but less than 101.0% of mass 174	58.8 (96.2)1
177	5.0 - 9.0% of mass 176	3.5 (6.0)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VBLK24	072489BLK	A0724BK01	07/24/89	0938
02	G102	D974375	A0724BK02	07/24/89	1101
03	VSTD50	072489STD	A0724BK04	07/24/89	1245
04	G106	D974378	A0724BK07	07/24/89	1434
05	G101DL	D974312	A0724BK14	07/24/89	1925
06	G105DL	D974313	A0724BK15	07/24/89	1958

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0725BK05 BFB Injection Date: 07/25/89

Instrument ID: 5100 BFB Injection Time: 1233

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mass 95	44.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	85.6
175	5.0 - 9.0% of mass 174	5.6 (6.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	83.5 (97.5)1
177	5.0 - 9.0% of mass 176	5.3 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VBLK25	072589BLK	A0725BK01	07/25/89	0959
02	X101	D974316	A0725BK02	07/25/89	1046
03	X103	D974318	A0725BK05	07/25/89	1233
04	X104	D974319	A0725BK06	07/25/89	1334
05	X105	D974320	A0725BK08	07/25/89	1447
06	X106	D974321	A0725BK09	07/25/89	1603
07	VSTD50	072589STD	A0725BK11	07/25/89	1710

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0726BK01 BFB Injection Date: 07/26/89

Instrument ID: 5100 BFB Injection Time: 0952

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	46.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	90.6
175	5.0 - 9.0% of mass 174	6.3 (7.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	88.2 (97.3)1
177	5.0 - 9.0% of mass 176	5.8 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VBLK26	072689BLK	A0726BK01	07/26/89	0952
02	X108	D974323	A0726BK05	07/26/89	1320
03	X108MS	D974323MS	A0726BK06	07/26/89	1356
04	X108MSD	D974323MSD	A0726BK07	07/26/89	1431
05	VSTD50	072689STD	A0726BK11	07/26/89	1714

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0728BK09 BFB Injection Date: 07/28/89

Instrument ID: 5100 BFB Injection Time: 1627

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.7
75	30.0 - 60.0% of mass 95	43.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	69.9
175	5.0 - 9.0% of mass 174	4.5 (6.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	67.1 (96.0)1
177	5.0 - 9.0% of mass 176	3.9 (5.8)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VBLK28	072889BLK	A0728BK01	07/28/89	0947
02	VSTD50	072889STD	A0728BK04	07/28/89	1207
03	X107	D974322	A0728BK08	07/28/89	1528

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID: A0730BK03 BFB Injection Date: 07/30/89

Instrument ID: 5100 BFB Injection Time: 1527

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) WIDE

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.1
75	30.0 - 60.0% of mass 95	44.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	79.4
175	5.0 - 9.0% of mass 174	5.8 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	76.9 (96.9)1
177	5.0 - 9.0% of mass 176	5.1 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VBLK30	073089BLK	A0730BK01	07/30/89	1420
02	G103	D974376	A0730BK03	07/30/89	1527
03	G103DL	D974376	A0730BK04	07/30/89	1601
04	G104	D974377	A0730BK05	07/30/89	1634
05	G106DL	D974378	A0730BK06	07/30/89	1708
06	G102DL	D974375	A0730BK08	07/30/89	1815
07	VSTD50	073089STD	A0730BK12	07/30/89	2028

=A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: 5100 Calibration Date(s): 04/17/89 04/17/89

Matrix:(soil/water) _____ Level:(low/med) _____ Column:(pack/cap) _____

Min RRF for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = A0417LC08 RRF50 = A0417LC07
RRF100= A0417LC10 RRF150= A0417LC13 RRF200= A0417LC14

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	RRF	% RSD
Chloromethane #	0.424	0.398	0.432	0.326	0.365	0.389	11.3#
Bromomethane	0.508	0.580	0.628	0.611	0.619	0.589	8.3
Vinyl Chloride *	0.784	0.856	0.858	0.798	0.740	0.807	6.2*
Chloroethane	0.368	0.347	0.344	0.424	0.382	0.373	8.7
Methylene Chloride	1.378	1.174	1.161	1.189	1.095	1.199	8.8
Acetone	0.386	0.293	0.274	0.305	0.283	0.308	14.6
Carbon Disulfide	1.563	1.320	1.587	2.090	2.005	1.713	18.9
1,1-Dichloroethene *	0.779	0.644	0.707	0.744	0.618	0.698	9.6*
1,1-Dichloroethane #	3.042	2.768	2.788	3.078	2.851	2.905	5.0#
1,2-Dichloroethene (total)	1.217	1.066	1.038	1.151	1.095	1.113	6.4
Chloroform *	3.950	3.801	4.511	4.840	5.084	4.437	12.5*
1,2-Dichloroethane	0.563	0.588	0.576	0.561	0.552	0.568	2.5
2-Butanone	0.030	0.028	0.026	0.022	0.020	0.025	16.6
1,1,1-Trichloroethane	2.126	2.156	2.651	2.889	3.042	2.573	16.3
Carbon Tetrachloride	0.300	0.276	0.317	0.323	0.290	0.301	6.4
Vinyl Acetate	0.351	0.344	0.230	0.151	0.101	0.235	47.8
Bromodichloromethane	0.436	0.452	0.508	0.565	0.585	0.509	13.0
1,2-Dichloropropane *	0.454	0.447	0.446	0.451	0.461	0.452	1.3*
cis-1,3-Dichloropropene	0.176	0.199	0.221	0.255	0.276	0.225	18.0
Trichloroethene	0.372	0.374	0.371	0.374	0.371	0.372	0.4
Dibromochloromethane	0.309	0.349	0.415	0.436	0.453	0.392	15.6
1,1,2-Trichloroethane	0.340	0.338	0.346	0.344	0.350	0.344	1.4
Benzene	1.001	0.990	1.002	0.962	0.890	0.969	4.9
Trans-1,3-Dichloropropene	0.489	0.637	0.699	0.772	0.805	0.680	18.4
Bromoform #	0.252	0.297	0.301	0.333	0.347	0.306	12.0#
4-Methyl-2-Pentanone	0.290	0.262	0.272	0.346	0.314	0.297	11.4
2-Hexanone	0.192	0.202	0.230	0.247	0.225	0.219	10.1
Tetrachloroethene	0.410	0.425	0.420	0.392	0.386	0.407	4.2
1,1,2,2-Tetrachloroethane #	0.526	0.585	0.634	0.651	0.656	0.610	9.0#
Toluene *	1.401	0.985	1.082	1.299	1.168	1.187	14.0*
Chlorobenzene #	1.020	0.981	1.009	0.989	0.948	0.989	2.8#
Ethylbenzene *	0.565	0.528	0.535	0.510	0.512	0.530	4.2*
Styrene	0.900	0.892	0.914	0.969	0.914	0.918	3.3
Total Xylenes	0.577	0.544	0.549	0.579	0.565	0.563	2.8
Toluene-d8	0.557	0.472	0.489	0.478	0.504	0.500	6.8
BFB	0.499	0.519	0.576	0.582	0.583	0.552	7.2
1,2-Dichloroethane-d4	0.230	0.236	0.250	0.258	0.263	0.247	5.7

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: 5100 Calibration date: 07/21/89 Time: 1154

Lab File ID: A0721BK03 Init. Calib. Date(s): 04/17/89 04/17/89

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) WIDE

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.389	0.307	21.1	#
Bromomethane		0.589	0.362	38.5	
Vinyl Chloride	*	0.807	0.978	-21.2	*
Chloroethane		0.373	0.221	40.8	
Methylene Chloride		1.199	1.278	-6.6	
Acetone		0.308	0.287	6.8	
Carbon Disulfide		1.713	2.344	-36.8	
1,1-Dichloroethene	*	0.698	0.806	-15.5	*
1,1-Dichloroethane	#	2.905	2.768	4.7	#
1,2-Dichloroethene (total)		1.113	1.263	-13.5	
Chloroform	*	4.437	4.054	8.6	*
1,2-Dichloroethane		0.568	0.534	6.0	
2-Butanone		0.025	0.025	0.0	
1,1,1-Trichloroethane		2.573	2.811	-9.3	
Carbon Tetrachloride		0.301	0.359	-19.3	
Vinyl Acetate		0.235	0.342	-45.5	
Bromodichloromethane		0.509	0.548	-7.7	
1,2-Dichloropropane	*	0.452	0.406	10.2	*
cis-1,3-Dichloropropene		0.225	0.183	18.7	
Trichloroethene		0.372	0.401	-7.8	
Dibromochloromethane		0.392	0.354	9.7	
1,1,2-Trichloroethane		0.344	0.332	3.5	
Benzene		0.969	0.971	-0.2	
Trans-1,3-Dichloropropene		0.680	1.066	-56.8	
Bromoform	#	0.306	0.367	-19.9	#
4-Methyl-2-Pentanone		0.297	0.166	44.1	
2-Hexanone		0.219	0.149	32.0	
Tetrachloroethene		0.407	0.352	13.5	
1,1,2,2-Tetrachloroethane	#	0.610	0.500	18.0	#
Toluene	*	1.187	1.196	-0.8	*
Chlorobenzene	#	0.989	0.980	0.9	#
Ethylbenzene	*	0.530	0.537	-1.3	*
Styrene		0.918	0.984	-7.2	
Total Xylenes		0.563	0.646	-14.7	
Toluene-d8		0.500	0.616	-23.2	
BFB		0.552	0.451	18.3	
1,2-Dichloroethane-d4		0.247	0.238	3.6	

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: 5100 Calibration date: 07/30/89 Time: 2028

Lab File ID: A0730BK12 Init. Calib. Date(s): 04/17/89 04/17/89

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) WIDE

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.389	0.414	-6.4	#
Bromomethane		0.589	0.430	27.0	
Vinyl Chloride	*	0.807	0.639	20.8	*
Chloroethane		0.373	0.263	29.5	
Methylene Chloride		1.199	1.370	-14.3	
Acetone		0.308	0.318	-3.2	
Carbon Disulfide		1.713	2.056	-20.0	
1,1-Dichloroethene	*	0.698	0.740	-6.0	*
1,1-Dichloroethane	#	2.905	2.893	0.4	#
1,2-Dichloroethene (total)		1.113	1.359	-22.1	
Chloroform	*	4.437	4.272	3.7	*
1,2-Dichloroethane		0.568	0.608	-7.0	
2-Butanone		0.025	0.028	-12.0	
1,1,1-Trichloroethane		2.573	2.980	-15.8	
Carbon Tetrachloride		0.301	0.384	-27.6	
Vinyl Acetate		0.235	0.297	-26.4	
Bromodichloromethane		0.509	0.514	-1.0	
1,2-Dichloropropane	*	0.452	0.413	8.6	*
cis-1,3-Dichloropropene		0.225	0.196	12.9	
Trichloroethene		0.372	0.399	-7.3	
Dibromochloromethane		0.392	0.415	-5.9	
1,1,2-Trichloroethane		0.344	0.331	3.8	
Benzene		0.969	0.987	-1.9	
Trans-1,3-Dichloropropene		0.680	0.943	-38.7	
Bromoform	#	0.306	0.345	-12.8	#
4-Methyl-2-Pentanone		0.297	0.264	11.1	
2-Hexanone		0.219	0.185	15.5	
Tetrachloroethene		0.407	0.385	5.4	
1,1,2,2-Tetrachloroethane	#	0.610	0.542	11.2	#
Toluene	*	1.187	1.153	2.9	*
Chlorobenzene	#	0.989	0.896	9.4	#
Ethylbenzene	*	0.530	0.492	7.2	*
Styrene		0.918	0.836	8.9	
Total Xylenes		0.563	0.552	2.0	
Toluene-d8		0.500	0.593	-18.6	
BFB		0.552	0.443	19.8	
1,2-Dichloroethane-d4		0.247	0.254	-2.8	

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: 5100 Calibration date: 07/28/89 Time: 1207

Lab File ID: A0728BK04 Init. Calib. Date(s): 04/17/89 04/17/89

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

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.389	0.485	-24.7	#
Bromomethane		0.589	0.482	18.2	
Vinyl Chloride	*	0.807	0.702	13.0	*
Chloroethane		0.373	0.308	17.4	
Methylene Chloride		1.199	1.421	-18.5	
Acetone		0.308	0.359	-16.6	
Carbon Disulfide		1.713	2.406	-40.5	
1,1-Dichloroethene	*	0.698	0.752	-7.7	*
1,1-Dichloroethane	#	2.905	3.045	-4.8	#
1,2-Dichloroethene (total)		1.113	1.503	-35.0	
Chloroform	*	4.437	4.258	4.0	*
1,2-Dichloroethane		0.568	0.561	1.2	
2-Butanone		0.025	0.027	-8.0	
1,1,1-Trichloroethane		2.573	3.071	-19.4	
Carbon Tetrachloride		0.301	0.401	-33.2	
Vinyl Acetate		0.235	0.389	-65.5	
Bromodichloromethane		0.509	0.545	-7.1	
1,2-Dichloropropane	*	0.452	0.398	12.0	*
cis-1,3-Dichloropropene		0.225	0.187	16.9	
Trichloroethene		0.372	0.408	-9.7	
Dibromochloromethane		0.392	0.423	-7.9	
1,1,2-Trichloroethane		0.344	0.301	12.5	
Benzene		0.969	0.982	-1.3	
Trans-1,3-Dichloropropene		0.680	1.045	-53.7	
Bromoform	#	0.306	0.359	-17.3	#
4-Methyl-2-Pentanone		0.297	0.216	27.3	
2-Hexanone		0.219	0.201	8.2	
Tetrachloroethene		0.407	0.412	-1.2	
1,1,2,2-Tetrachloroethane	#	0.610	0.483	20.8	#
Toluene	*	1.187	1.211	-2.0	*
Chlorobenzene	#	0.989	0.937	5.3	#
Ethylbenzene	*	0.530	0.526	0.8	*
Styrene		0.918	0.930	-1.3	
Total Xylenes		0.563	0.605	-7.5	
Toluene-d8		0.500	0.613	-22.6	
BFB		0.552	0.444	19.6	
1,2-Dichloroethane-d4		0.247	0.237	4.0	

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: 5100 Calibration date: 07/25/89 Time: 1710

Lab File ID: A0725BK11 Init. Calib. Date(s): 04/17/89 04/17/89

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

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.389	0.633	-62.7	#
Bromomethane		0.589	0.523	11.2	
Vinyl Chloride	*	0.807	0.757	6.2	*
Chloroethane		0.373	0.326	12.6	
Methylene Chloride		1.199	1.334	-11.3	
Acetone		0.308	0.452	-46.8	
Carbon Disulfide		1.713	2.295	-34.0	
1,1-Dichloroethene	*	0.698	0.687	1.6	*
1,1-Dichloroethane	#	2.905	2.897	0.3	#
1,2-Dichloroethene (total)		1.113	1.424	-27.9	
Chloroform	*	4.437	4.306	3.0	*
1,2-Dichloroethane		0.568	0.578	-1.8	
2-Butanone		0.025	0.030	-20.0	
1,1,1-Trichloroethane		2.573	2.936	-14.1	
Carbon Tetrachloride		0.301	0.044	85.4	
Vinyl Acetate		0.235	0.238	-1.3	
Bromodichloromethane		0.509	0.528	-3.7	
1,2-Dichloropropane	*	0.452	0.387	14.4	*
cis-1,3-Dichloropropene		0.225	0.171	24.0	
Trichloroethene		0.372	0.395	-6.2	
Dibromochloromethane		0.392	0.382	2.6	
1,1,2-Trichloroethane		0.344	0.310	9.9	
Benzene		0.969	0.955	1.4	
Trans-1,3-Dichloropropene		0.680	0.891	-31.0	
Bromoform	#	0.306	0.364	-19.0	#
4-Methyl-2-Pentanone		0.297	0.200	32.7	
2-Hexanone		0.219	0.182	16.9	
Tetrachloroethene		0.407	0.414	-1.7	
1,1,2,2-Tetrachloroethane	#	0.610	0.469	23.1	#
Toluene	*	1.187	1.164	1.9	*
Chlorobenzene	#	0.989	0.958	3.1	#
Ethylbenzene	*	0.530	0.506	4.5	*
Styrene		0.918	0.928	-1.1	
Total Xylenes		0.563	0.594	-5.5	
Toluene-d8		0.500	0.597	-19.4	
BFB		0.552	0.449	18.7	
1,2-Dichloroethane-d4		0.247	0.253	-2.4	

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: 5100 Calibration date: 07/26/89 Time: 1714

Lab File ID: A0726BK11 Init. Calib. Date(s): 04/17/89 04/17/89

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

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.389	0.558	-43.4	#
Bromomethane		0.589	0.530	10.0	
Vinyl Chloride	*	0.807	0.776	3.8	*
Chloroethane		0.373	0.282	24.4	
Methylene Chloride		1.199	1.440	-20.1	
Acetone		0.308	0.411	-33.4	
Carbon Disulfide		1.713	2.323	-35.6	
1,1-Dichloroethene	*	0.698	0.536	23.2	*
1,1-Dichloroethane	#	2.905	3.095	-6.5	#
1,2-Dichloroethene (total)		1.113	1.436	-29.0	
Chloroform	*	4.437	4.508	-1.6	*
1,2-Dichloroethane		0.568	0.582	-2.5	
2-Butanone		0.025	0.023	8.0	
1,1,1-Trichloroethane		2.573	3.255	-26.5	
Carbon Tetrachloride		0.301	0.399	-32.6	
Vinyl Acetate		0.235	0.312	-32.8	
Bromodichloromethane		0.509	0.523	-2.8	
1,2-Dichloropropane	*	0.452	0.392	13.3	*
cis-1,3-Dichloropropene		0.225	0.185	17.8	
Trichloroethene		0.372	0.402	-8.1	
Dibromochloromethane		0.392	0.398	-1.5	
1,1,2-Trichloroethane		0.344	0.303	11.9	
Benzene		0.969	0.962	0.7	
Trans-1,3-Dichloropropene		0.680	0.927	-36.3	
Bromoform	#	0.306	0.395	-29.1	#
4-Methyl-2-Pentanone		0.297	0.240	19.2	
2-Hexanone		0.219	0.195	11.0	
Tetrachloroethene		0.407	0.463	-13.8	
1,1,2,2-Tetrachloroethane	#	0.610	0.489	19.8	#
Toluene	*	1.187	1.185	0.2	*
Chlorobenzene	#	0.989	0.911	7.9	#
Ethylbenzene	*	0.530	0.509	4.0	*
Styrene		0.918	0.882	3.9	
Total Xylenes		0.563	0.588	-4.4	
Toluene-d8		0.500	0.586	-17.2	
BFB		0.552	0.456	17.4	
1,2-Dichloroethane-d4		0.247	0.259	-4.9	

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Instrument ID: 5100 Calibration date: 07/24/89 Time: 1245

Lab File ID: A0724BK04 Init. Calib. Date(s): 04/17/89 04/17/89

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) WIDE

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.389	0.681	-75.1	#
Bromomethane		0.589	0.663	-12.6	
Vinyl Chloride	*	0.807	0.961	-19.1	*
Chloroethane		0.373	0.357	4.3	
Methylene Chloride		1.199	1.527	-27.4	
Acetone		0.308	0.582	-89.0	
Carbon Disulfide		1.713	3.368	-96.6	
1,1-Dichloroethene	*	0.698	0.555	20.5	*
1,1-Dichloroethane	#	2.905	3.065	-5.5	#
1,2-Dichloroethene (total)		1.113	1.530	-37.5	
Chloroform	*	4.437	4.649	-4.8	*
1,2-Dichloroethane		0.568	0.499	12.2	
2-Butanone		0.025	0.016	36.0	
1,1,1-Trichloroethane		2.573	3.217	-25.0	
Carbon Tetrachloride		0.301	0.340	-13.0	
Vinyl Acetate		0.235	0.322	-37.0	
Bromodichloromethane		0.509	0.570	-12.0	
1,2-Dichloropropane	*	0.452	0.423	6.4	*
cis-1,3-Dichloropropene		0.225	0.188	16.4	
Trichloroethene		0.372	0.399	-7.3	
Dibromochloromethane		0.392	0.372	5.1	
1,1,2-Trichloroethane		0.344	0.308	10.5	
Benzene		0.969	0.916	5.5	
Trans-1,3-Dichloropropene		0.680	1.220	-79.4	
Bromoform	#	0.306	0.366	-19.6	#
4-Methyl-2-Pentanone		0.297	0.172	42.1	
2-Hexanone		0.219	0.151	31.1	
Tetrachloroethene		0.407	0.316	22.4	
1,1,2,2-Tetrachloroethane	#	0.610	0.520	14.8	#
Toluene	*	1.187	1.225	-3.2	*
Chlorobenzene	#	0.989	1.017	-2.8	#
Ethylbenzene	*	0.530	0.551	-4.0	*
Styrene		0.918	0.988	-7.6	
Total Xylenes		0.563	0.629	-11.7	
Toluene-d8		0.500	0.611	-22.2	
BFB		0.552	0.456	17.4	
1,2-Dichloroethane-d4		0.247	0.221	10.5	

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): A0721BK03 Date Analyzed: 07/21/89

Instrument ID: 5100 Time Analyzed: 1154

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) WIDE

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	7660	3.12	46600	4.63	80500	14.94
	UPPER LIMIT	15320		93200		161000	
	LOWER LIMIT	3830		23300		40250	
	EPA SAMPLE NO.						
01	G101	8260	3.17	47900	4.70	86100	15.00
02	G101MS	6990	3.20	44000	4.82	72600	15.14
03	G101MSD	6780	3.17	42900	4.77	70300	15.09
04	G105	7920	3.17	45900	4.72	82700	14.99
05	G107	8390	3.22	47500	4.78	83900	15.10
06	VBLK21	10200	3.30	59800	4.98	102000	15.32
07	VBLKTB	8230	3.13	47100	4.63	86500	14.85

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): A0724BK04 Date Analyzed: 07/24/89

Instrument ID: 5100 Time Analyzed: 1245

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) WIDE

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	5790	3.12	43900	4.60	83300	14.90
	UPPER LIMIT	11580		87800		166600	
	LOWER LIMIT	2895		21950		41650	
	EPA SAMPLE NO.						
01	G101DL	7900	3.23	43700	4.83	77300	15.17
02	G102	8990	3.30	51600	5.00	90500	15.32
03	G105DL	8120	3.20	44200	4.78	78200	15.12
04	G106	9000	3.17	52400	4.72	92100	15.04
05	VBLK24	8170	3.13	44600	4.62	83100	14.84

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): A0725BK11 Date Analyzed: 07/25/89

Instrument ID: 5100 Time Analyzed: 1710

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

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	7700	3.18	47500	4.77	70800	15.10
	UPPER LIMIT	15400		95000		141600	
	LOWER LIMIT	3850		23750		35400	
	EPA SAMPLE NO.						
01	VBLK25	13600	3.27	68700	4.95	112000	15.24
02	X101	9820	3.10	51200	4.58	76200	14.84
03	X102	7530	3.12	40400	4.63	57300	14.89
04	X103	6650	3.17	35500	4.70	48500	15.04
05	X104	6650	3.12	36800	4.62	49700	14.90
06	X105	6560	3.12	36300	4.63	52200	14.92
07	X106	7220	3.23	40700	4.85	60100	15.17

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): A0726BK11 Date Analyzed: 07/26/89

Instrument ID: 5100 Time Analyzed: 1714

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

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	6770	3.22	44700	4.85	63300	15.19
	UPPER LIMIT	13540		89400		126600	
	LOWER LIMIT	3385		22350		31650	
	EPA SAMPLE NO.						
01	VBLK26	8210	3.28	45800	4.95	62700	15.25
02	X108	5470	3.12	29000	4.63	34600	14.92
03	X108MS	5360	3.10	36200	4.63	40600	14.99
04	X108MSD	4870	3.10	30200	4.67	36100	15.00

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): A0728BK04 Date Analyzed: 07/28/89

Instrument ID: 5100 Time Analyzed: 1207

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

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	8830	3.12	54900	4.63	83200	14.97
	UPPER LIMIT	17660		109800		166400	
	LOWER LIMIT	4415		27450		41600	
	EPA SAMPLE NO.						
01	VBLK28	9260	3.40	56700	5.23	87900	15.54
02	X107	8740	3.17	52000	4.70	84600	15.02

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: ILLINOIS EPA Contract: 0316000025

Lab Code: SPFLD Case No.: INLAKE SAS No.: _____ SDG No.: D97431

Lab File ID (Standard): A0730BK12 Date Analyzed: 07/30/89

Instrument ID: 5100 Time Analyzed: 2028

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) WIDE

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	8260	3.17	48700	4.77	70000	15.12
	UPPER LIMIT	16520		97400		140000	
	LOWER LIMIT	4130		24350		35000	
	EPA SAMPLE NO.						
01	G102DL	8980	3.23	48500	4.87	72500	15.17
02	G103	10600	3.17	58100	4.75	91700	15.05
03	G103DL	10400	3.17	58100	4.73	92500	15.04
04	G104	9560	3.22	54100	4.80	82100	15.15
05	G106DL	9380	3.23	54100	4.87	81000	15.20
06	VBLK30	10600	3.35	59300	5.07	91400	15.40

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: Springfield - I.E.P.A. Contract: Interlake

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

	EPA SAMPLE NO.	S1 (DBC) #	OTHER
01	D974312	130	
02	D974313	98	
03	D974314	75	
04	D974375	113	
05	D974376	157 *	
06	D974377	156 *	
07	D974378	98	
08	D974394 MS	113	
09	D974394 MSD	130	
10	D974395 B1	153	
11			
12			
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25			
26			
27			
28			
29			
30		2	

ADVISORY QC LIMITS (24-154)

S1 (DBC) = Dibutylchlorendate

Column used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

FORM II PEST-1

1/87 Rev.

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Springfield - I.E.P.A. Contract: Interlake

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

Level: (low/med) _____

	EPA SAMPLE NO.	S1 (DBC) #	OTHER
01	D9743 16	189 *	
02	D9743 17	172 *	
03	D9743 18	199 *	
04	D9743 19	192 *	
05	D9743 20	179 *	
06	D9743 21	177 *	
07	D9743 22	182 *	
08	D9743 23	199 *	
09	D9743 89 MS	[illegible] *	
10	D9743 89 MSD	[illegible] *	
11	D9743 90 BL	190 *	
12			
13			
14			
15			
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30			

ADVISORY QC LIMITS (20-150)

S1 (DBC) = Dibutylchlorendate

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Springfield-IEPA **Contract:** Interlake

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

Matrix Spike - EPA Sample No.: D974394

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.2	0.0	.06	30 #	56-123
Heptachlor	0.2	0.0	.06	30 #	40-131
Aldrin	0.2	0.0	.02	10 #	40-120
Dieldrin	0.5	0.0	.26	52	52-126
Endrin	0.5	0.0	.30	60	56-121
4,4'-DDT	0.5	0.0	.32	64	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.2	.07	35 #	15	15	56-123
Heptachlor	0.2	.08	40	29 #	20	40-131
Aldrin	0.2	.03	15 #	40 #	22	40-120
Dieldrin	0.5	.31	62	18	18	52-126
Endrin	0.5	.36	72	18	21	56-121
4,4'-DDT	0.5	.37	74	14	27	38-127

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

* Values outside of QC limits

RPD: 2 out of 6 outside limits
Spike Recovery: 5 out of 12 outside limits

COMMENTS: _____

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Springfield - I.E.P.A. **Contract:** Interlake

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

Matrix Spike - EPA Sample No.: D974399 **Level:(low/med)** low

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	55.5	0.0	49.7	90	46-127
Heptachlor	55.5	0.0	53.0	95	35-130
Aldrin	55.5	0.0	77.7	140	34-132
Dieldrin	138.9	0.0	132.7	96	31-134
Endrin	138.9	9.4	145.9	98	42-139
4,4'-DDT	138.9	55.4	158.3	74	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	55.9	46.7	84	7	50	46-127
Heptachlor	55.9	50.6	91	4	31	35-130
Aldrin	55.9	121.9	218	44	43	34-132
Dieldrin	139.9	122.5	88	4	38	31-134
Endrin	139.9	133.5	89	10	45	42-139
4,4'-DDT	139.9	147.5	66	11	50	23-134

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

* Values outside of QC limits

RPD: 1 out of 6 outside limits
Spike Recovery: 2 out of 12 outside limits

COMMENTS: _____

4C
PESTICIDE METHOD BLANK SUMMARY

Lab Name: Springfield - I.E.P.A. Contract: Interlake

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

Lab Sample ID: D974390 Lab File ID: _____

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

Date Extracted: 7/21/89 Extraction: (SepF/Cont/Sonc) Sonc

Date Analyzed (1): 8/26/89 Date Analyzed (2): 8/29/89

Time Analyzed (1): 21:13:17 Time Analyzed (2): 3:44:44

Instrument ID (1): 21/V6A Instrument ID (2): 22/V6B

GC Column ID (1): DB-608 GC Column ID (2): DB-5

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	X101	D974316	8/26/89	8/28/89
02	X102	D974317	8/26/89	8/28/89
03	X103	D974318	8/26/89	8/28/89
04	X104	D974319	8/26/89	8/28/89
05	X105	D974320	8/26/89	8/28/89
06	X106	D974321	8/26/89	8/28/89
07	X107	D974322	8/26/89	8/28/89
08	X108	D974323	8/26/89	8/28/89
09	D974389 MS	D974389 MS	8/26/89	8/29/89
10	D974389 MSD	D974389 MSD	8/26/89	8/29/89
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: Springfield - I.E.P.A. Contract: Interlake

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

Lab Sample ID: D974395 Lab File ID: _____

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

Date Extracted: 7/21/89 Extraction: (SepF/Cont/Sonc) SepF

Date Analyzed (1): 8/26/89 Date Analyzed (2): 8/29/89

Time Analyzed (1): 18:25:40 Time Analyzed (2): 1:37:12

Instrument ID (1): 21/VGA Instrument ID (2): 22/VGB

GC Column ID (1): DB-608 GC Column ID (2): DB-5

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	G101	D974312	8/26/89	8/28/89
02	G105	D974313	8/26/89	8/28/89
03	G107	D974314	8/26/89	8/28/89
04	G-102	D974375	8/26/89	8/28/89
05	G-103	D974376	8/26/89	8/28/89
06	G-104	D974377	8/26/89	8/28/89
07	G-106	D974378	8/26/89	8/28/89
08	D974394 MS	D974394 MS	8/26/89	8/29/89
09	D974394 MSD	D974394 MSD	8/26/89	8/29/89
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

8D

PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: Springfield I.E.P.A. Contract: Interlake Property

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

Instrument ID: 21 / V6A GC Column ID: DB-608

Dates of Analyses: 08-25-1989 to 08-26-1989

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</=10.0%) (1)
ALDRIN	1298767	1427600	1486800	6.8
ENDRIN	530433	578227	604827	6.6
4,4'-DDT	312863	339513	358107	6.8
DBC	200890	217487	222680	5.3

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	08-25-1989	16:28:13	1.39	5.62	3.72
02	EVAL MIX B	08-26-1989	06:26:34	0.50	1.66	1.15
03	EVAL MIX B	08-26-1989	16:19:43	0.53	1.78	1.21
04	EVAL MIX B					
05	EVAL MIX B					
06	EVAL MIX B					
07	EVAL MIX B					
08	EVAL MIX B					
09	EVAL MIX B					
10	EVAL MIX B					
11	EVAL MIX B					
12	EVAL MIX B					
13	EVAL MIX B					
14	EVAL MIX B					

(2) See Form Instructions .

PESTICIDE EVALUATION STANDARDS SUMMARY
Evaluation of Retention Time Shift for Dibutylchlorendate

Lab NAME:Springfield-I.E.P.A. Contract: Interlake Property

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

Instrument ID: 21 / V6A GC Column ID: DB-608

Dates of Analyses: 08-25-1989 to 08-26-1989

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	%D	*
01:EVAL A	EVAL A	08-25-1989	15:46:09	0.0	
02:EVAL B	EVAL B	08-25-1989	16:28:13	0.1	
03:EVAL C	EVAL C	08-25-1989	17:10:11	0.3	
04:IND A	IND A	08-25-1989	17:52:11	0.0	
05:IND B	IND B	08-25-1989	18:34:10	0.0	
06:TDXAPH	TDXAPH	08-25-1989	19:15:55	0.0	
07:ARO 1660	ARO 1660	08-25-1989	19:57:41	0.0	
08:ARO 1221	ARO 1221	08-25-1989	20:39:38	0.1	
09:ARO 1232	ARO 1232	08-25-1989	21:21:23	0.1	
10:ARO 1242	ARO 1242	08-25-1989	22:03:20	0.2	
11:ARO 1248	ARO 1248	08-25-1989	22:45:17	0.1	
12:ARO 1254	ARO 1254	08-25-1989	23:27:14	0.2	
13:G-102	D974375	08-26-1989	00:09:11	0.3	
14:G-103	D974376	08-26-1989	01:32:52	0.6	
15:G-104	D974377	08-26-1989	02:56:45	0.5	
16:G-106	D974378	08-26-1989	04:20:41	0.4	
17:G101	D974312	08-26-1989	05:44:36	0.4	
18:EVAL B	EVAL B	08-26-1989	06:26:34	0.3	
19:G105	D974313	08-26-1989	07:08:31	0.6	
23:X103	D974314	08-26-1989	07:50:27	0.4	
24:IND A	D974316	08-26-1989	08:32:23	0.3	
25:X104	IND A	08-26-1989	09:14:20	0.1	
26:X105	D974318	08-26-1989	09:56:17	0.2	
27:X106	D974319	08-26-1989	10:38:14	0.2	
28:X107	D974320	08-26-1989	11:20:11	0.1	
29:X108	D974321	08-26-1989	12:02:06	0.2	
30:EVAL B	D974322	08-26-1989	14:14:26	0.1	
31:D974394MS	D974323	08-26-1989	14:56:12	0.3	
32:D974394MSD	EVAL B	08-26-1989	15:37:58	0.3	
33:D974395BL	D974394MS	08-26-1989	16:19:43	0.5	
34:D974389MS	D974394MSD	08-26-1989	17:01:42	0.2	
35:D974389MSD	D974395BL	08-26-1989	17:43:40	0.2	
36:IND B	D974389MS	08-26-1989	18:25:40	0.3	
37:D974390BL	D974389MSD	08-26-1989	19:07:25	0.3	
38:IND A	IND B	08-26-1989	19:49:22	0.1	
39:IND B	D974390BL	08-26-1989	20:31:19	0.4	
	IND A	08-26-1989	21:13:17	0.3	
	IND B	08-26-1989	21:55:15	0.1	
		08-26-1989	22:37:12	0.1	

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

FORM VIII PEST-2 1/87 Rev.

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Springfield I.E.P.A. Contract: Interlake Property

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

Instrument ID:21 / V6A GC Column ID: DB-608

DATE(S) OF ANALYSIS	FROM: 08-25-1989	DATE OF ANALYSIS	08-26-1989
	TO: 08-26-1989	TIME OF ANALYSIS	10:38:14
TIME(S) OF ANALYSIS	FROM: 15:46:09	EPA SAMPLE NO. (STANDARD)	IND A
	TO: 22:37:12		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT	%D
alpha-BHC	2.930	2.900	2.960	2636500				
beta-BHC	3.667	3.637	3.697	580883				
delta-BHC	4.546	4.516	4.576	1906933				
gamma-BHC	3.603	3.573	3.633	2336433	3.607	2317600	Y	0.8
Heptachlor	4.354	4.315	4.393	1533167	4.361	1481133	Y	3.4
Aldrin	5.275	5.223	5.319	1298767	5.286	1464033	Y	12.7
Hept. epoxide	7.226	7.169	7.283	1039033	7.237	1091200	Y	5.0
Endosulfan I	8.931	8.850	9.012	855467	8.944	815033	Y	4.7
Dieldrin	10.753	10.666	10.840	821150	10.752	804083	Y	2.1
4,4'-DDE	10.265	10.157	10.373	740967				
Endrin	13.440	13.280	13.568	530433				
Endosulfan II	15.101	14.879	15.323	490717	15.120	474800	Y	3.2
4,4'-DDD	14.800	14.663	14.937	391393				
Endo. sulfate	20.362	20.227	20.497	244867				
4,4'-DDT	18.000	17.852	18.110	312863	18.018	371292	N	18.7
Methoxychlor	34.227	34.053	34.401	88857	34.153	96378	Y	8.5
Endrin ketone	32.879	32.708	33.050	277017				
a Chlorane	8.766	8.706	8.826	863000				
g Chlordane	7.951	7.903	7.999	936500				
Toxaphene	15.370	15.262	15.478	9542				
Arochlor-1016	4.296	4.266	4.326	47587				
Arochlor-1221	2.845	2.815	2.875	27000				
Arochlor 1232	2.844	2.814	2.874	27168				
Arochlor 1242	4.291	4.261	4.321	45887				
Arochlor 1248	4.285	4.255	4.315	33563				
Arochlor 1254	11.316	11.190	11.442	25134				
Arochlor 1260	13.426	13.348	13.504	28899				

Under QNT Y/N: enter Y if quantitation was performed, N if not performed. %D ,must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the QRL is a form of quantitation, and therefore, at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and %D. Identification of such analytes is based primarily on pattern recognition.

8D

PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: Springfield I.E.P.A. Contract: Interlake Property

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

Instrument ID: VA 6B GC Column ID:DB-5

Dates of Analyses: 08-28-1989 TO 08-29-1989

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</=10.0%) (1)
ALDRIN	2508175	2474850	2591300	2.4
ENDRIN	1248830	1247760	1307920	2.7
4,4'-DDT	699370	741800	754920	4.0
DBC	427780	452720	450980	3.1

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	08-28-1989	09:23:56	4.38	1.35	2.76
02	EVAL MIX B	08-28-1989	17:39:57	0.00	0.00	0.00
03	EVAL MIX B	08-29-1989	00:01:49	0.00	0.00	0.00
04	EVAL MIX B					
05	EVAL MIX B					
06	EVAL MIX B					
07	EVAL MIX B					
08	EVAL MIX B					
09	EVAL MIX B					
10	EVAL MIX B					
11	EVAL MIX B					
12	EVAL MIX B					
13	EVAL MIX B					
14	EVAL MIX B					

(2) See Form Instructions .

PESTICIDE EVALUATION STANDARDS SUMMARY
Evaluation of Retention Time Shift for Dibutylchlorendate

Lab NAME: I.E.P.A. - Springfield Contract: Interlake Prop.

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

Instrument ID: 22 / V6B GC Column ID: DB-5

Dates of Analyses: 08-28-1989 to 08-29-1989

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	XD	*
01	EVAL A	EVAL A	08/28/89	08:55	0.0	
02	EVAL B	EVAL B	08/28/89	09:23	0.0	
03	EVAL C	EVAL C	08/28/89	09:50	0.1	
04	IND A	IND A	08/28/89	10:16	0.0	
05	IND B	IND B	08/28/89	10:48	0.1	
06	TOXAPH	TOXAPH	08/28/89	11:38	0.1	
07	ARO 1660	ARO 1660	08/28/89	12:10	0.2	
08	ARO 1221	ARO 1221	08/28/89	12:42	0.3	
09	ARO 1232	ARO 1232	08/28/89	13:06	0.2	
10	ARO 1242	ARO 1242	08/28/89	13:31	0.1	
11	ARO 1248	ARO 1248	08/28/89	14:03	0.3	
12	ARO 1254	ARO 1254	08/28/89	14:34	0.3	
13	G102	D974375	08/28/89	15:04	0.0	
14	G103	D974376	08/28/89	15:36	0.4	
15	G104	D974377	08/28/89	16:04	0.5	
16	G106	D974378	08/28/89	16:36	0.1	
17	G101	D974312	08/28/89	17:08	0.3	
18	EVAL B	EVAL B	08/28/89	17:39	0.0	
19	G105	D974313	08/28/89	18:11	0.3	
20	G107	D974314	08/28/89	18:43	0.2	
21	X101	D974316	08/28/89	19:15	0.4	
22	X102	D974317	08/28/89	19:47	0.2	
23	X103	D974318	08/28/89	20:18	0.1	
24	IND A	IND A	08/28/89	20:50	0.2	
25	X104	D974319	08/28/89	21:22	0.4	
26	X105	D974320	08/28/89	21:54	0.4	
27	X106	D974321	08/28/89	22:26	0.3	
28	X107	D974322	08/28/89	22:58	0.0	
29	X108	D974323	08/28/89	23:30	0.4	
30	EVAL B	EVAL B	08/29/89	00:01	0.4	
31	D973494MS	D973494MS	08/29/89	00:33	0.5	
32	D973494MSD	D973494MSD	08/29/89	01:05	0.8	
33	D973495BL	D973495BL	08/29/89	01:37	0.8	
34	D974389MS	D974389MS	08/29/89	02:09	0.5	
35	D974389MSD	D974389MSD	08/29/89	02:41	0.3	
36	IND B	IND B	08/29/89	03:13	0.6	
37	D974390BL	D974390BL	08/29/89	03:44	0.5	
38	IND A	IND A	08/29/89	04:16	0.5	
39	IND B	IND B	08/29/89	04:48	0.5	

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

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Springfield I.E.P.A. Contract: Interlake Property

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

Instrument ID: 22 / V6B GC Column ID: DB-5

DATE(S) OF ANALYSIS	FROM: 08-28-1989	DATE OF ANALYSIS	08-29-1989
	TO: 08-29-1989	TIME OF ANALYSIS	04:16:41
TIME(S) OF ANALYSIS	FROM: 08:55:49	EPA SAMPLE NO. (STANDARD)	IND A
	TO: 04:28:24		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT	%D
alpha-BHC	2.394	2.364	2.424	3967150				
beta-BHC	2.634	2.604	2.664	827425				
delta-BHC	2.990	2.960	3.020	2799250				
gamma-BHC	2.742	2.712	2.772	4406050	2.737	4874050	N	10.6
Heptachlor	3.880	3.850	3.910	3224750	3.871	3401850	Y	5.5
Aldrin	4.642	4.615	4.677	2323550	4.629	3152200	N	35.7
Hept. epoxide	5.601	5.562	5.640	2232950	5.590	2297000	N	2.9
Endosulfan I	6.810	6.762	6.858	1849850	6.788	1882950	N	1.8
Dieldrin	7.819	7.765	7.873	1849200	7.800	1890775	N	2.2
4,4'-DDE	7.563	7.510	7.616	1266700				
Endrin	8.793	8.735	8.857	842350				
Endosulfan II	9.189	9.123	9.255	1216525	9.152	1244825	N	2.3
4,4'-DDD	9.613	9.545	9.681	699860				
Endo. sulfate	11.670	11.587	11.753	751050				
4,4'-DDT	11.981	11.931	12.063	641563	11.941	874138	N	36.3
Methoxychlor	17.067	16.767	17.367	250208	16.999	273968	N	9.5
Endrin ketone	15.085	14.977	15.193	785725				
a Chlorane	6.882	6.835	6.929	1616950				
g Chlordane	6.341	6.298	6.384	1669000				
Toxaphene	9.865	9.790	9.940	18320				
Arochlor-1016	3.506	3.476	3.536	70780				
Arochlor-1221	2.364	2.334	2.394	45795				
Arochlor 1232	2.364	2.334	2.394	44121				
Arochlor 1242	3.496	3.466	3.526	81570				
Arochlor 1248	3.515	3.485	3.545	45517				
Arochlor 1254	7.969	7.930	8.008	41908				
Arochlor 1260	10.558	10.493	10.623	62324				

Under QNT Y/N: enter Y if quantitation was performed, N if not performed.
%D must be less than or equal to 15.0 % for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the QRL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and %D. Identfication of such analytes is based primarily on pattern recognition

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PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

6-102

Lab Name: Springfield - I.E.P.A. Contract: Interlake

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

GC Column ID (1): DB-608 GC Column ID (2): DB-5

Instrument ID (1): 21 / V6A Instrument ID (2): 22 / V6B

Lab Sample ID: D974375

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

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 B-BHC	Column 1	3.673	3.637	3.697	N	_
02	Column 2	—	2.604	2.664	Y	_
03 Heptachlor	Column 1	4.351	4.315	4.393	N	_
04	Column 2	—	3.850	3.910	Y	_
05	Column 1				_	_
06	Column 2				_	_
07	Column 1				_	_
08	Column 2				_	_
09	Column 1				_	_
10	Column 2				_	_
11	Column 1				_	_
12	Column 2				_	_

Comments: _____

FORM X PEST 1/87 Rev.

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

6105

-b Name: Springfield - I.E.P.A. Contract: Interlake

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

GC Column ID (1): DB-608 GC Column ID (2): DB-5

nstrument ID (1): 21 / V6A Instrument ID (2): 22 / V6B

ab Sample ID: D974313

ab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 B- BHC	Column 1	3.651	3.637	3.697	N	_
02	Column 2	—	2.604	2.664	Y	_
03	Column 1				_	_
04	Column 2				_	_
05	Column 1				_	_
06	Column 2				_	_
07	Column 1				_	_
08	Column 2				_	_
09	Column 1				_	_
10	Column 2				_	_
11	Column 1				_	_
12	Column 2				_	_

omments: _____

FORM X PEST

1/87 Rev.

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

X101

Lab Name: Springfield - I.E.P.A. Contract: Interlake

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

GC Column ID (1): DB-608 GC Column ID (2): DB-5

Instrument ID (1): 21 / V6A Instrument ID (2): 22 / V6B

Lab Sample ID: D974316

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

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Heptachlor	Column 1	4.373	4.315	4.393	N	_
02	Column 2	—	3.850	3.910	Y	_
03 pp-DDE	Column 1	10.215	10.157	10.373	Y	_
04	Column 2	7.548	7.510	7.616	N	_
05 Dieldrin	Column 1	10.810	10.666	10.846	N	_
06	Column 2	—	7.765	7.873	Y	_
07 pp-DDD	Column 1	14.730	14.663	14.937	Y	_
08	Column 2	9.593	9.545	9.681	N	_
09 pp-DDT	Column 1	17.936	17.852	18.110	N	_
10	Column 2	11.972	11.931	12.063	Y	_
11 _____	Column 1	_____	_____	_____	_	_
12	Column 2	_____	_____	_____	_	_

Comments: _____

FORM X PEST 1/87 Rev.

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PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

X102

-b Name: Springfield - I.E.P.A. Contract: Interlake

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

GC Column ID (1): DB-608 GC Column ID (2): DB-5

nstrument ID (1): 21 / V6A Instrument ID (2): 22 / V6B

ab Sample ID: D974317

ab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 A - BHC	Column 1	4.539	4.516	4.576	Y	_
02	Column 2	2.975	2.966	3.020	N	_
03 p,p - DDE	Column 1	10.745	10.157	10.373	Y	_
04	Column 2	7.555	7.510	7.616	N	_
05 p,p - DDD	Column 1	14.784	14.663	14.937	Y	_
06	Column 2	9.584	9.545	9.681	N	_
07 p,p - DDT	Column 1	18.020	17.852	18.110	N	_
08	Column 2	11.953	11.931	12.063	N	_
09 _____	Column 1	_____	_____	_____	_	_
10	Column 2	_____	_____	_____	_	_
11 _____	Column 1	_____	_____	_____	_	_
12	Column 2	_____	_____	_____	_	_

omments: _____

FORM X PEST 1/87 Rev.

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

X103

-b Name: Springfield - I.E.P.A. Contract: Interlake

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

GC Column ID (1): DB-608 GC Column ID (2): DB-5

nstrument ID (1): 21 / V6A Instrument ID (2): 22 / V6B

ab Sample ID: D974318

ab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Heptachlor	Column 1	4.389	4.315	4.393	N	_
02	Column 2	—	3.850	3.910	Y	_
03 p,p-DDE	Column 1	10.240	10.157	10.373	Y	_
04	Column 2	7.539	7.510	7.616	N	_
05 Dieldrin	Column 1	10.870	10.666	10.840	N	_
06	Column 2	—	7.765	7.873	Y	_
07 p,p-DDD	Column 1	14.776	14.663	14.937	Y	_
08	Column 2	9.577	9.545	9.681	N	_
09 p,p-DDT	Column 1	18.022	17.852	18.110	N	_
10	Column 2	11.945	11.931	12.063	N	_
11 _____	Column 1	_____	_____	_____	_	_
12	Column 2	_____	_____	_____	_	_

omments: _____

FORM X PEST 1/87 Rev.

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

X104

Lab Name: Springfield - I.E.P.A. Contract: Interlake

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

GC Column ID (1): DB-608 GC Column ID (2): DB-5

Instrument ID (1): 21 / V6A Instrument ID (2): 22 / V6B

Lab Sample ID: D974319

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

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 p,p-DDE	Column 1	10.215	10.157	10.373	Y	_
02	Column 2	7.546	7.510	7.616	N	_
03 p,p-DDD	Column 1	14.751	14.663	14.937	Y	_
04	Column 2	9.567	9.545	9.681	N	_
05 p,p-DDT	Column 1	17.986	17.852	18.110	N	_
06	Column 2	11.947	11.931	12.063	N	_
07	Column 1				_	_
08	Column 2				_	_
09	Column 1				_	_
10	Column 2				_	_
11	Column 1				_	_
12	Column 2				_	_

Comments: _____

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

X108

Lab Name: Springfield - I.E.P.A. Contract: Interlake

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

GC Column ID (1): DB-608 GC Column ID (2): DB-5

Instrument ID (1): 21 / V6A Instrument ID (2): 22 / V6B

Lab Sample ID: D974323

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

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 p,p-DDE	Column 1	10.259	10.157	10.373	Y	_
02	Column 2	7.578	7.510	7.616	N	_
03 Endrin	Column 1	13.473	13.280	13.568	N	_
04	Column 2	—	8.735	8.857	Y	_
05 p,p-DDT	Column 1	17.957	17.852	18.116	N	_
06	Column 2	11.959	11.931	12.063	N	_
07	Column 1				_	_
08	Column 2				_	_
09	Column 1				_	_
10	Column 2				_	_
11	Column 1				_	_
12	Column 2				_	_

Comments: _____