

**Wurlitzer "Area B"**  
**Inactive Hazardous Waste Site**  
North Tonawanda, New York  
Site No. 9-32-041

**REMEDIAL INVESTIGATION  
REPORT**



**DECEMBER 1998**

Prepared by:

Division of Environmental Remediation  
New York State Department of Environmental Conservation

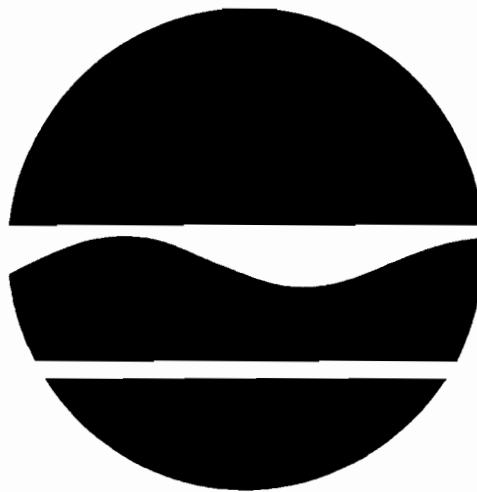
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## Executive Summary

### 1.0 Introduction & Site History

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The Wurlitzer "Area B" site is a wooded 5.5 acre parcel of land which is situated in the south-west corner of the Wurlitzer Industrial Park Complex in North Tonawanda, New York. The Industrial Park, located at 908 Niagara Falls Boulevard, comprises a total area of approximately 44 acres. Figure 1-1 shows the Industrial Park location.

The site is bounded on the north-west side by a former Conrail railroad line. The tracks have been removed and the right-of-way now contains underground Oxbow co-generation power and steam lines. Wurlitzer Drive runs along the western side of the site and intersects with Fairmont Avenue in the residential neighborhood to the north and west of the site. The nearest homes are those along the south side of Fairmont Avenue, near the intersection of Wurlitzer Drive. The back yards of these residences are adjacent to the elevated former conrail line. Figure 1-2 is a map of the Industrial Park and includes details of the Area B.

Area B is wooded, and with the exception of numerous piles of fill, is relatively flat. An abandoned, elevated section of railroad track runs through the south-western corner of the site and ends just before Wurlitzer Drive. This spur once connected with the conrail track at the southern corner of the Wurlitzer plant property. The area of the site along the elevated former Conrail line is relatively low lying and rain water and snow melt accumulates along this side of the site. There also appears to be occasional ponding of water on the south-eastern side of the site.

The Industrial Park was owned and operated by Wurlitzer Industries from 1908 to 1977. The site's facilities were used for the manufacture of several products including automatic phonographs, player pianos, electric organs, and jukeboxes. During its operating history Wurlitzer Industries also utilized this facility for production processes related to several Defense Department contracts. The former Wurlitzer manufacturing building is currently owned by Irr Supply Centers, Inc. and Ancor Industrial Plastics, Inc. The building is currently used for manufacturing and as commercial rental space. Area B consists of tracks of land currently owned by Blue Bird Industrial Park North, Inc. and Ancor Plastics, Inc.

A dirt access road runs through Area B, starting from a gate on the northeast side of the site near the end of the former plant building. It runs parallel to the former Conrail line approximately 2/3 of the way toward Wurlitzer Drive. Aerial photos taken between 1958 and 1966 indicate activity within Area B took place along the southern side of this access road. This activity is believed to have included disposal of various waste materials. Based upon the nature of the manufacturing processes, it is likely that wastes generated at the plant included scrap metal, metal sludges from plating operations, and degreasing wastes.

It appears that the access road was used to deposit various waste material within the confines of Area B. The disposal of fill occurred in the western corner of the site as well as along

either side of the access road along its length, up to and outside the fence gate near the plant. The fill observed on site includes soil, concrete rubble, asphalt rubble, roofing materials, cinders, scrap metal, metal buckets, scrap wood, wooden pallets, and brush. Numerous 55 gallon drum carcasses (crushed or empty) have also been observed throughout the site. In addition, several drums containing solid waste materials were included in the materials deposited on site.

The Wurlitzer Plant property was listed as a suspected hazardous waste disposal site in June 1980. The property consisted of approximately 44 acres and included the former plant buildings, parking lots, and related grounds. In the late 1980s, specific attention was focused on two specific areas of the site, which became known as Area A and Area B. Area A was a parcel of vacant land on the north side of the former Conrail tracks and protruded into the southeastern side of adjacent the residential neighborhood. Area A was believed to have been associated with loading and unloading of materials used in plant production. Area B was a wooded and densely overgrown parcel adjacent to the southwestern portion of the plant.

During the 1990s, a foot path was observed in Area B through the brush along the overgrown former access road. In addition, several indications of site use were noted in 1995. The signs of periodic activity noted by the DEC and DOH during site inspections included: a tree stand (similar to those constructed for hunting purposes), a plywood shelter (i.e. children's play fort), a child's glove, and bottles. In November of 1995, the New York State Department of Health (NYSDOH) recommended that a fence be constructed around Area B to prevent possible direct human contact with any contaminated soils or wastes at the site. In December 1995 one of the Area B site owners installed a temporary orange plastic construction fence (a.k.a. snow fence) around the site.

In March 1996, after concluding that waste and fill materials within Area B posed a significant threat to human health, the NYSDEC reclassified the Wurlitzer site from a Class 2a designation (signifying a temporary classification assigned to a site which has inadequate data for another classification) to a Class 2 designation (signifying a significant threat to the public health or environment - action required) in the New York State Registry of Inactive Hazardous Waste Disposal Sites. In October 1996, to reduce the possibility of direct human contact or incidental ingestion of contaminated waste and fill materials, the NYSDEC funded the installation of a permanent chain link fence around the perimeter of the site.

## **2.0 Scope of the Remedial Investigation**

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Beginning in 1989, several limited scope investigations and sampling events have been conducted at the Wurlitzer Area B site. The remedial investigation was performed during 1997 and 1998 to provide a more thorough characterization of existing site conditions, and to obtain the necessary data to determine the nature and extent of any site contaminants.

Non-investigative tasks performed as part of the remedial investigation included: site clearing and grubbing of brush and small trees; disposal of drummed and containerized wastes remaining on site; performance of a site topographic survey; and replacement of a damaged portion

of fence to prevent unrestricted site access.

Investigative tasks performed as part of the remedial investigation included: a geophysical survey to investigate the possibility of buried wastes; collection and analysis of groundwater samples from existing monitoring wells; collection and analysis of basement sump water samples from homes along Fairmont Avenue; collection and analysis of soils samples at 50' x 50' grid intervals throughout the site; and completion of test pits and sampling within fill/waste piles to determine composition of the on site materials.

### **3.0 Results of the Remedial Investigation**

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From the data gathered during the remedial investigation, site contamination is limited to the organic and inorganic contaminants in the waste and fill solids which have been disposed of on the site. Both organic and inorganic contaminants were detected in the on-site waste and fill materials significantly above soil guidance criteria contained in NYSDEC Technical and Administrative Guidance Memorandum 4046: Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046). Those organic contaminants of concern detected in the waste and fill material include: benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, and dibenz[g,h,i]perylene. Those inorganic contaminants of concern detected in the waste and fill material include: arsenic, barium, cadmium, chromium, lead, and zinc. Tables 3, 4, and 5 list results of the soil sampling from the grid locations and also list NYSDEC TAGM 4046 soil guidance concentrations for each compound.

In an effort to more thoroughly examine the consistency and depth of the various fill piles, 39 test pits were excavated throughout the site. Most fill piles contained black cinder type waste.

Depth to native soils in the non-filled areas of the site is generally between 1 - 3 feet. Test pit excavations indicate that fill materials were disposed only on the surface of the site, and that wastes and fill were not buried below the surface of native soil.

Several samples of material were obtained from the fill areas in these test pits in order to assess fill material characteristics. The results from the test pit samples indicate contaminant concentrations similar to the samples obtained from grid locations taken within fill areas. Samples were taken from 10 of the 39 test pits and analyzed for VOCs, semi-volatiles, and metals. In addition, 3 of the test pit samples were submitted for Toxic Characteristic Leaching Procedure (TCLP) testing (TCLP is a testing procedure design to measure the leachability of contaminants within a waste or soil sample). Figure 5 shows the test pit locations and summarizes significant contaminants detected. Table 6 lists concentrations of the compounds of concern in the samples obtained from the test pits. Table 7 summarizes results of TCLP analysis.

Soil samples taken outside of waste and fill disposal areas do not indicate elevated concentrations of identified site contaminants. Groundwater samples taken from monitoring wells at the site and nearby residential basement sumps indicate that the deposition of fill and waste materials on site has not had a significant effect on the groundwater.



## **4.0 Environmental Threat Assessment**

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No formal Habitat Assessment was performed on the Wurlitzer Area B site. Despite some periodic standing water on site, there are no wetlands, streams or other significant surface water features on site. Numerous animal holes and burrows have been observed throughout the site. Squirrels, chipmunks, snakes, and various bird species have been observed on site. Although there is currently a 6 foot high chain link fence surrounding the property, deer have also been observed on the site. These species, especially the burrowing animals, are potentially exposed to the high levels of metals on site through contact with or incidental ingestion of contaminated waste and/or fill. The deer and birds are more wide ranging and not likely to be significantly exposed to contaminants due to the small size of the site.

Clearing of underbrush during the investigation has removed a portion of the existing habitat and has probably displaced some of the wildlife using the site. The extent of future use of the site by wildlife depends upon the re-establishment of this vegetation. However, due to the nature and extent of the contamination detected on site, it is unlikely that the site poses any significant threat to the environment.

## **5.0 Human Health Exposure Assessment**

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One potential human exposure pathway- direct contact with and/or incidental ingestion of wastes remaining in drums and containers, was eliminated through the removal and disposal of these remaining materials. This removal action will serve to prevent future acute exposures to known site contaminants.

Since the extent of remaining site contamination is limited to the waste and fill material solids found on the surface of the site, the primary potential human exposure pathways are through direct contact with the waste and fill materials.

Completed pathways which are either known to or may exist include:

- Dermal (skin) contact with contaminated waste and/or fill materials by former or future site users or trespassers;
- Incidental ingestion of contaminated waste and/or fill materials by former or future site users or trespassers.

These potential exposure pathways were addressed in the interim by installing a chain link fence around the perimeter of the site. During the remedial investigation, the fence gate and damaged fence sections near the former Wurlitzer plant building were replaced to provide better site control. Even though the site is currently fenced, these exposure pathways may be still considered “complete”, since exposure potential remains for site trespassers and future site users.

## 6.0 Conclusions

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From test pit excavations and hand augering throughout the site, it is apparent that waste, fill materials, refuse, and other debris was disposed of on the surface of the site, and no burial of wastes took place. Groundwater and residential basement sump water sample results indicate that the waste materials disposed at the site have not had a significant effect on groundwater.

Significant organic and inorganic contaminants are present in the waste and fill materials previously disposed on site. While some contaminants are present throughout the site in almost all fill areas, the majority of significant contaminants detected were found in the area of waste and fill material on the southwestern half of the site.

Numerous animals such as squirrels, chipmunks, snakes, birds, deer, etc. have been observed at the site. No formal Habitat Assessment was performed on the Wurlitzer site. However, due to the nature and extent of the contamination present at the site, it is unlikely that the site poses any significant threat to the environment at this time.

Repairs to the fence and replacement of the main gate was completed during the Remedial Investigation. The fence will limit access to the site, but cannot prevent trespassers from gaining access. Despite the fence, potential exposure pathway exist for trespassers or future site workers who may have dermal contact or incidental ingestion of contaminated waste and/or fill materials which remain on site. A Feasibility Study must be performed to evaluate appropriate remedial actions to address these possible exposure pathways.

## Section 1: Site Description and History

### 1.1 Site Description

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The Wurlitzer "Area B" site is a wooded 5.5 acre parcel of land which is situated in the south-west corner of the Wurlitzer Industrial Park Complex in North Tonawanda, New York. The Industrial Park, located at 908 Niagara Falls Boulevard, comprises a total area of approximately 44 acres. Figure 1-1 shows the Industrial Park location.

The site is bounded on the north-west side by a former Conrail railroad line. The tracks have been removed and the right-of-way now contains underground Oxbow co-generation power and steam lines. Wurlitzer Drive runs along the western side of the site and intersects with Fairmont Avenue in the residential neighborhood to the north and west of the site. The nearest homes are those along the south side of Fairmont Avenue, near the intersection of Wurlitzer Drive. The back yards of these residences are adjacent to the elevated former conrail line. Figure 1-2 is a map of the Industrial Park and includes details of the Area B.

Area B is wooded, and with the exception of numerous piles of fill, is relatively flat. An abandoned, elevated section of railroad track runs through the south-western corner of the site and ends just before Wurlitzer Drive. This spur once connected with the conrail track at the southern corner of the Wurlitzer plant property. The area of the site along the elevated former Conrail line is relatively low lying and rain water and snow melt accumulates along this side of the site. There also appears to be occasional ponding of water on the south-eastern side of the site.

### 1.2 Site History

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The Industrial Park was owned and operated by Wurlitzer Industries from 1908 to 1977. The site's facilities were used for the manufacture of several products including automatic phonographs, player pianos, electric organs, and jukeboxes. During its operating history Wurlitzer Industries also utilized this facility for production processes related to several Defense Department contracts. The former Wurlitzer manufacturing building is currently owned by Irr Supply Centers, Inc. and Ancor Industrial Plastics, Inc. The building is currently used for manufacturing and as commercial rental space. Area B consists of tracks of land currently owned by Blue Bird Industrial Park North, Inc. and Ancor Plastics, Inc.

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It appears that the access road was used to deposit various waste material within the confines of Area B. The disposal of fill occurred in the western corner of the site as well as along either side of the access road along its length, up to and outside the fence gate near the plant. The fill observed on site includes soil, concrete rubble, asphalt rubble, roofing materials, cinders, scrap metal, metal buckets, scrap wood, wooden pallets, and brush. Numerous 55 gallon drum carcasses (crushed or empty) have also been observed throughout the site. In addition, several drums containing solid waste materials were included in the materials deposited on site.

The Wurlitzer Plant property was listed as a suspected hazardous waste disposal site in June 1980. The property consisted of approximately 44 acres and included the former plant buildings, parking lots, and related grounds. In the late 1980s, specific attention was focused on two specific areas of the site, which became known as Area A and Area B. Area A was a parcel of vacant land on the north side of the former Conrail tracks and protruded into the southeastern side of adjacent the residential neighborhood. Area A was believed to have been associated with loading and unloading of materials used in plant production. Area B was a wooded and densely overgrown parcel adjacent to the southwestern portion of the plant.

During the 1990s, a foot path was observed in Area B through the brush along the overgrown former access road. In addition, several indications of site use were noted in 1995. The signs of periodic activity noted by the DEC and DOH during site inspections included: a tree stand (similar to those constructed for hunting purposes), a plywood shelter (i.e. children's play fort), a child's glove, and bottles. In November of 1995, the New York State Department of Health (NYSDOH) recommended that a fence be constructed around Area B to prevent possible direct human contact with any contaminated soils or wastes at the site. In December 1995 one of the Area B site owners installed a temporary orange plastic construction fence (a.k.a. snow fence) around the site.

In March 1996, after concluding that waste and fill materials within Area B posed a significant threat to human health, the NYSDEC reclassified the Wurlitzer site from a Class 2a designation (signifying a temporary classification assigned to a site which has inadequate data for another classification) to a Class 2 designation (signifying a significant threat to the public health or environment - action required) in the New York State Registry of Inactive Hazardous Waste Disposal Sites. In October 1996, to reduce the possibility of direct human contact or incidental ingestion of contaminated waste and fill materials, the NYSDEC funded the installation of a permanent chain link fence around the perimeter of the site.

### 1.3 Summary of Previous Investigations

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Beginning in 1989, various sections of the Wurlitzer Industrial Park site have been inspected and sampled in order to confirm possible hazardous waste disposal. Significant sampling events and reports generated from this work are summarized in Appendix A and described below.

#### *Phase I Investigation*

In 1989 a Phase I Investigation was conducted on the entire Wurlitzer Industrial Park property by Engineering Science and Dames & Moore on behalf of the NYSDEC. The Phase I Investigation consisted of site inspections and background information searches. It did not include any environmental sampling.

#### *Phase II Investigation*

In 1990 a Phase II Investigation was conducted on the entire Wurlitzer Industrial Park property by Ecology & Environment on behalf of the NYSDEC. The Phase II Investigation was performed in an attempt to identify hazardous waste disposal at the site and characterize potential impacts from disposal. This investigation included the sampling of surface water, sediment, and waste material piles in selected areas of the plant site. It also included the installation of groundwater monitoring wells and subsequent groundwater sampling. Figure 2 shows the location of the three pairs of monitoring wells installed around Area B as part of the Phase II investigation.

Most of the Phase II sampling was targeted at the two areas of the industrial park property known as Area A and Area B. A figure indicating Phase II sampling locations is contained in Appendix A, Figure A1. Phase II Sampling of Area B included surface soil, sediment from two low lying wet areas, and groundwater. The four surface soil samples taken in Area B indicated the presence of semi-volatile organic contaminants in all of the samples, as well as elevated metals concentrations in one of the samples. The semi-volatile contaminants detected were primarily polyaromatic hydrocarbons (PAHs). The results of this surface soil sampling are summarized in Appendix A, Table A1. Sediment samples from the low lying areas of the site indicated some elevated metals concentrations as well. The results from the sediment sampling are summarized in Appendix A, Table A2. Samples from the groundwater monitoring wells did not indicate the presence of volatile or semi-volatile organic contamination, however several metals were detected in site groundwater above Class GA (drinking water) standards. The results from the groundwater sampling are summarized in Appendix A, Table A3.

#### *1991 Sampling of Wastes*

In 1991, the NYSDEC took two samples of waste materials located within Area B. One waste was a "tar"- like substance and the other waste was a sandy solid material which was present in a drum. The "tar" - like sample contained elevated concentrations of volatile organics, PAHs, pesticides, and metals. The sandy material did not contain any significant organic contaminants, but was not tested for metals. These results are summarized in Appendix A, Table A4.

### *1995 Soils Sampling*

In April 1995, the NYSDEC collected 10 surface soil samples from Area B and submitted these samples for metals analysis. Six of the samples were analyzed for total metals and four of the samples were analyzed for leachable metals for toxicity using the Toxicity Characteristic Leaching Procedure (TCLP). Several of the samples contained elevated metals concentrations, however none of the samples submitted for TCLP analysis exhibited an elevated amount of leachable metals. The results of these soil samples are summarized in Appendix A, Table A5. In October 1995, the NYSDEC and NYSDOH took eight soil samples and two waste samples (from drums) within Area B. Several of the soil samples contained elevated metals concentrations. One of the waste samples taken from a drum, a white powder, was tentatively identified as barium sulfate. The sampling results from the other drum cannot be located. The results of these samples are summarized in Appendix A, Tables A6 and A7.

### *1996 Residential Soil and Surface Water Sampling*

In April 1996, the NYSDEC and NYSDOH collected five surface soil samples from residential properties adjacent to Area B. In addition, seven surface water samples were collected from both on-site locations and from the former Conrail line between the residential properties and the site.

The surface water samples did not indicate any significant metals concentrations within the standing waters at and near the site. The results from the surface water samples are summarized in Appendix A, Table A8. The residential soil samples taken in April 1996 indicated elevated concentrations of antimony and thallium. However, the data from the analysis of these soil samples was rejected by the NYSDOH due to quality control problems.

Since previous site sampling had not indicated significant concentrations of these metals, NYSDOH recommended that resampling of the residential soils be performed. In July 1996, the residential soils were resampled. Seven surface soil samples were taken from the same properties adjacent to Area B, and four "background" samples were taken from other residential areas within the community (locations and results of background soil samples are contained in Appendix G). The soil samples taken in July were submitted to the NYSDOH's Wadsworth laboratory (in Albany, New York) for analysis. The results from the resampling of the residential soils did not confirm the previous analysis of the soils performed by the NYSDEC's Saratoga, New York laboratory. Results from both rounds of residential soil sampling are contained in Appendix B. It was concluded that the elevated levels of antimony and thallium were "false-positive" results which were not indicative of the actual concentrations of thallium and antimony in the residential soils.

## Section 2: Site Investigation Methodology

### 2.1 Scope of Field Investigations

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The Remedial Investigation was designed to provide a thorough and efficient mechanism for characterizing the nature and extent of contamination within Area B. The scope of work was developed to supplement previous site data and to provide sufficient information to evaluate the need for remedial measures at the site.

The scope of work for the Remedial Investigation included:

- Radiation survey;
- Site clearing and debris removal;
- Disposal of drummed wastes remaining on site;
- Performance of a geophysical survey to investigate the possibility of buried wastes;
- Replacement of the damaged fence and gate on the plant side of the site;
- Completion of a site survey to map topographic features and tie-in sampling locations;
- Collection and analysis of groundwater samples from existing groundwater monitoring wells;
- Collection and analysis of basement sump water samples from several homes along Fairmont Avenue;
- Collection and analysis of surface and subsurface soil samples at 50' X 50' grid intervals throughout the site;
- Completion of test pits within the waste/fill piles to determine the nature of waste deposition; and
- Collection and analysis of samples from waste/fill piles during test pits.

## **2.2 Description of Field Investigations**

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### ***Radiation Survey***

A radiation survey was performed at the site prior to initial clearing and debris removal activities. The primary reason for the survey was to ensure that no scrap metal or other debris at the site exhibited levels of radiation above background. If scrap metal or debris were found to have radiation levels above background levels, it could complicate the off-site disposal of this material.

### ***Site Clearing and Debris Removal***

Various wastes and fill materials have been deposited at the site over the years. Material visible throughout the site and included concrete, scrap metal, rusted drum carcasses, wooden pallets, tires, brush, etc. Deposition generally occurred along the dirt access roadway which had overgrown with vegetation over the years. In addition, small trees and other vegetation has grown through some areas of the fill material. Removal of brush and small trees was necessary to provide access for the investigative tasks. Removal of scrap metal from the surface of the site was necessary in order to complete the geophysical investigation.

### ***Disposal of Remaining Drummed Wastes***

Several metal 55-gallon type drums and smaller metal containers with solid waste materials remaining were present on site. It was appropriate to secure the remaining drums and containers in overpack drums, and then sample this material for disposal at a licensed waste disposal facility.

### ***Geophysical Survey***

Given the presence of numerous metal drums and drum carcasses throughout the site, it was necessary to investigate the possibility of buried waste materials. An electromagnetic survey was performed to map possible buried metal and changes in soil types.

### ***Fence Repairs***

Repair of the fence and replacement of the main gate near the plant was necessary to secure the site and prevent unrestricted access.

### ***Site Survey***

A site survey was performed to establish the sampling grid and to map the limits and extent of the waste/fill material deposited at the site. The topographic survey provides information necessary to estimate the volume of waste fill within specific areas of the site.



### *Groundwater sampling*

Previous sampling of the groundwater monitoring wells did not indicate the presence of volatile or semi-volatile organic contaminants. Previous sampling of the wells did indicate minor concentrations of metals in groundwater in excess of State Class GA (drinking water) standards. Due to the known presence of elevated metals in some of the waste solids on site, the monitoring wells were resampled.

### *Basement Sump Water Sampling*

In order to address the possibility of exposures from groundwater contaminant migration, groundwater from the basement sumps of three homes along Fairmont Avenue were sampled.

### *Surface Soil Sampling*

After a 50' x 50' grid was established by the surveyor, soil composite samples were collected from each grid location. Each grid sample was composited from soils collected from a 0-6 inch interval and a 2-3 foot interval. The 0-6 inch interval was chosen to address possible direct human contact with surface soils. The 2-3 foot interval was chosen to provide information to characterize the physical and chemical composition of the fill materials present.

### *Test Pits and Sampling Within Waste/Fill Piles*

Test pits were excavated within the majority of the waste/fill piles to identify the depth, extent, and composition of the materials in the piles. Vertical excavation through the piles continued until native (undisturbed) soils were encountered. Materials from test pits in several waste/fill piles were collected for analysis.

## Section 3: Remedial Investigation Results

Several site activities were necessary or appropriate which were not related to site contaminant characterization. These activities included: the clearing of brush, small trees, and debris; proper containment, sampling (for disposal), and off-site disposal of drummed wastes remaining on site; and repair/replacement of a section of the perimeter site fence. Other site activities were necessary to characterize the nature and extent of site contamination. These activities included: a geophysical investigation; a site topographic survey; collection and analysis of groundwater and residential basement sump water samples; and the collection and analysis of soil and fill materials throughout the site. All of these activities are described in greater detail below.

### 3.1 Radiation Survey

A radiation survey was completed at the site on October 9, 1997 by a qualified employee of Malcolm Pirnie Engineer, Inc. Gamma radiation levels were measured using a Ludlum Model 3 rate meter and Model 44-2 detector provided by Environmental Restoration Group, Inc. of Albuquerque, New Mexico.

Levels of background gamma radiation were measured off-site at 0.008 mRems/hour. On site measurements of gamma radiation were measured slightly above background and ranged from 0.010 to 0.015 mRems/hour. The on-site readings indicated that material within the site exhibited normal levels of gamma radiation. The radiation survey results are included in Appendix C. Based upon these results, it was concluded that none of the material present on site posed radiological concerns.

### 3.2 Site Clearing and Surface Debris Removal

In order to conduct geophysical and land surveying activities, it was necessary to clear the site of the dense underbrush, small trees, scrap metal and other debris. Malcolm Pirnie procured the services of Griffen Industrial Services, Inc. to perform the clearing and grubbing of small trees and brush, as well as debris removal. Griffen subcontracted this site work to Triple S Construction.

A site walkover to discuss the scope of the work was performed on October 24, 1997. Representatives of the NYSDEC, Malcolm Pirnie, Griffen, and Triple S attended the site walkover. A buffer strip of trees and smaller growth (within 50-100 feet of the fence) was marked with surveyor tape along the perimeter of the site near Wurlitzer Drive and the residential backyards. The buffer strip was maintained to ensure some natural visual barrier remained after clearing was performed.

In addition, all significant mature trees on the site (diameter greater than approximately 6 inches) were preserved.

Clearing of the site commenced on October 26, 1997. Cleared brush and small trees were chipped and the chips left on site. Scrap metal and other site debris (numerous tires, wood, railroad ties, concrete, etc) were removed from the site between October 26 - November 4, 1997. A

walkover was performed to inspect this work on November 5, 1997. During this inspection, areas of brush and vines were identified, as well as some scrap metal which had not been removed. The removal and off-site disposal of these materials was completed between November 11- 20, 1997. An additional pile of scrap metal was also removed from the site on December 12, 1997.

### **3.3 Disposal of Remaining Drummed Wastes**

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Several drums of waste materials were identified and characterized for disposal purposes. Two drums contained a waste hydroxide salt, two drums contained a barium sulfate waste, two drums contained a tar waste, and one drum contained grease. In addition, some asbestos containing wastes were also containerized in steel drums for disposal purposes.

The wastes were secured in plastic and steel overpack containers on November 25, 1997. These wastes were removed from the site on January 15, 1998 for proper disposal. The non-asbestos wastes were shipped by Environmental Service Group to Chem Met Services in Brownstown Michigan. The asbestos waste was sent by Environmental to Sunstream, Inc. in Binghamton, New York. Appendix D contains copies of the waste manifests for disposal.

### **3.4 Geophysical Survey**

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On December 3, 1997, Berkshire Environmental performed a geophysical survey of the site to investigate the possibility of buried wastes at the site. This entailed the use of Electromagnetic (EM) induction to map near-surface electrical conductivity variations. Ground conductivity data is sensitive to buried and surficial metal and changes in subsurface soils, saturation, and dissolved ion concentration.

An EM-31 terrain conductivity system (see Appendix E, figure 1) was used to perform the geophysical survey. This equipment is capable of exploring the subsurface to depths of approximately 15 feet. A 25' x 25' control grid (further dividing the 50' x 50' surveyed grid) was flagged by Malcolm Pirnie and used for the geophysical survey. Berkshire established and labeled an (x,y) coordinate system and located site landmarks relative to the control grid. All EM-31 data were collected and digitally recorded on a 12.5' x 12.5' pattern. A total of 1,685 site points were measured for conductivity. Results of the geophysical survey are contained in Appendix E.

Ground conductivity results reveal high correlation between areas of waste/fill along the access road and the outline of high conductivity readings (see Appendix E, Figures 2, 3, and 4). Ground conductivity readings also indicated elevated background values within the surface mounds. This is indicative of a widespread conductive component within the mounds, such as ash or disseminated metal.

Several discrete anomalies were detected outside the mounded areas. The readings for these anomalies generally are reflective of either single objects or tightly grouped conductive or magnetic objects. The geophysical report recommended physical investigations of these areas. These locations were included as part of the test pit excavation and sampling investigation.

### **3.5 Site Geology and Hydrogeology**

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Most of the geologic and hydrogeologic information on the site comes from the Phase II Investigation conducted by Ecology and Environment Engineering. Most of the subsurface characterizations come from either boring logs generated during the installation of the overburden monitoring wells, or from regional geologic and hydrogeologic references.

#### *Geology*

Deep soil borings in the overburden were not undertaken as a part of this investigation. However, the Phase II Investigation completed at the site by Ecology and Environment in April 1992 for the NYSDEC did characterize overburden material of Area B. The overburden in this area consists of silt with smaller amounts of sand and clay down to a depth of about 5 feet, where there is a waterbearing lens of fine sand about a foot thick. Below this waterbearing lens, a dry red and gray clay grades downward into a varved clay (thin alternating red and gray layers of clay). Silt seams an inch thick occur throughout these clay units. The clay becomes coarser with depth, and at 31 feet below ground surface grades into a till composed of sandy gravel-clay with shale fragments. Bedrock, the Camilus Shale, was encountered at 36 feet below ground surface.

#### *Hydrology*

Two overburden waterbearing zones have been identified at the Wurlitzer site. A shallow overburden waterbearing zone occurs in sand lenses at about 5 feet below ground surface. These shallow lenses are not continuous over the site, so it is not likely that there is significant groundwater presence or movement in this zone. Water levels measured in three shallow monitoring wells in Area B in December 1997 indicate groundwater flow was to the west. Water levels measured in April 1998 indicate flow was to the south. Appendix E contains a summary of groundwater elevation readings and site details indicating general groundwater flow directions. These water levels represent isolated, perched water bearing lenses without significant flow or discharge directions. The water in these lenses is isolated by underlying tight clays from the deep overburden waterbearing zone.

The deep overburden waterbearing zone occurs in the varved (layered) clay from about 14 feet below ground surface to the top of rock at about 36 feet below ground surface in Area B. Water levels in three monitoring wells installed in this zone measured in December 1997 and April 1998 indicate flow is generally to the northwest (see Appendix F). Hydraulic conductivity measurements were not made, however, due to the tight nature of the clay, it is likely that groundwater flow in the deep overburden waterbearing zone is not significant.

### **3.6 Groundwater Sampling**

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As part of the remedial investigation, three pairs of groundwater monitoring wells

previously installed in the Phase II Investigation (installed and last sampled in 1989/90) were selected for sampling (see Figure 2). Each well pair consists of a shallow and a deeper overburden well. The shallow wells are generally screened approximately 5-7 feet below ground surface, and the deeper wells are generally screened approximately 25-35 feet below ground surface.

Groundwater sampling was performed during December 8, 1997. Samples were analyzed for VOCs, SVOCs, and metals. With the exception of acetone (detected at 7.8 parts per billion in one well), no VOCs or SVOCs were detected in site groundwater above Class GA (drinking water) standards. The detection of acetone in this low of a concentration is most likely a laboratory induced contaminant (glassware cleaning is frequently responsible) and not truly reflective of groundwater characteristics.

Some metals were detected in concentrations above Class GA standards in the groundwater samples. These included one exceedence of chromium in well MW-5S (61.5 ppb vs. Class GA standard of 50 ppb), one exceedence of iron in well MW-6 (3010 ppb vs. Class GA standard of 300), and exceedences of sodium in each of the wells. However, metals concentrations which exceed Class GA standards are not uncommon in groundwater samples. Since the samples are not filtered, the concentrations are often caused by the presence of fine silts or other suspended media in the sample. In this case, the concentrations of metals detected in the samples do not indicate any significant groundwater contamination at the site. In addition, direct human consumption of the groundwater near the site is unlikely since the residential neighborhood does not use groundwater for drinking water purposes. Drinking water is supplied to the homes through the City's public water supply system.

### **3.7 Basement Sump Water Sampling**

---

Three homes along Fairmont Avenue were selected for basement sump water sampling. These three homes were selected based upon proximity to the site, location along Fairmont Avenue, and homeowner availability and willingness to participate in basement sump sampling.

On December 8-9, 1997 NYSDEC and NYSDOH representatives visited numerous homes along Fairmont Avenue to select and schedule sampling at three residential basement sumps. On December 10, 1997, the same State representatives sampled groundwater from three residential basement sumps. All three residents interviewed indicated that basement sump pumps were in frequent operation and at least one resident indicated that their sump pump operated on a near continuous basis.

Basement sump water from the residences were sampled for VOCs, SVOCs, and metals. With the exception of acetone, which was detected in extremely low concentrations (and is most likely a laboratory contaminant), no VOCs or SVOCs were detected. With regard to metals results, only magnesium and sodium were detected above NYS Class GA water standards. Results of these sump water samples are listed in Table 2.

### 3.8 Soil Sample Results From Grid Locations

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On December 8 - 12, 1997 soil samples were collected from each 50' x 50' grid location staked during the site survey. This corresponded to the collection of approximately 113 soil samples. One composite sample from each location was obtained using a hand auger. The sample was composited from material taken from a 0-6 inch depth and a 2-3 foot depth at each location. Samples were composited within a stainless steel mixing bowl which was decontaminated between locations. Each sample was submitted to the laboratory for SVOC and metals analysis. Several samples were also submitted for VOC analysis.

Soil concentrations at the site were compared to the concentrations listed in the NYSDEC Technical and Administrative Guidance Memorandum 4046: Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046). For evaluation of metals concentrations, soils samples were also compared to metals concentrations detected in background soil samples taken by the NYSDOH at several locations in the community in 1996 (as part of the residential soil sampling program performed). The four background soil samples were collected at: a baseball field in Leah Park; St. Matthews Cemetery; the West Canal Marina; and the Wurlitzer Pool near the swings. These locations are shown in Appendix G, figure G1. The results of the background samples, and average concentrations for the background samples are contained in Table G1 of Appendix G.

#### *Metals*

The following metals were detected above NYSDEC TAGM 4046 soil guidance levels in at least one of the boring samples: aluminum, arsenic, barium, beryllium, cadmium, calcium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, selenium, silver, sodium, zinc, and cyanide. Of the metals detected above NYSDEC TAGM 4046 levels, arsenic, barium, cadmium, chromium, lead, and zinc are considered to be compounds of concern for the site. Calcium, copper, iron, manganese, nickel and sodium were detected in several site soil samples above NYSDEC TAGM 4046 levels, but were not present in concentrations which would indicate that they are compounds of concern for the site. Table 3 lists results of the soil sampling from the grid locations and lists NYSDEC TAGM 4046 concentrations for each inorganic compound.

The results of the soil sampling from the grid locations indicate a high correlation between samples with elevated levels of metals and the waste/fill pile locations. Figure 3 shows the areas of the site with elevated metals concentrations. One general area of fill accounted for the majority of the exceedences of NYSDEC TAGM 4046 soil guidance levels for metals of concern. This area of fill is located on the southwest portion of the site (the half of the site closer to Wurlitzer Drive) and is located throughout grid locations CS 150-500, CS 150-550, CS 150-600, CS 200-500, CS 200-550, CS 200-600, CS 250-600, CS 300-650, CS 350-650, CS 350-550, CS 400-600, and CS 400-650. This area exhibited the highest concentrations of arsenic, barium, cadmium, chromium, lead, and zinc. The concentrations of metals of concern in this area are significantly above

NYSDEC TAGM 4046 soil guidance levels, and are also well above background levels. It should be noted that this general area of fill material corresponds to the location of a multi colored granular waste material, as well as the area where several of the drummed wastes were found.

Several of the fill piles located along the dirt access road (which runs from the fence gate on the plant side of the site toward the larger area of fill near Wurlitzer Drive) also contained metals concentrations which exceeded NYSDEC TAGM 4046 guidance levels.

### *Semi-Volatile Organics*

Several Semi-Volatile Organic Compounds (SVOCs) were detected at the site in concentrations which exceed NYSDEC TAGM 4046 soil guidance levels. Most of the SVOCs detected are Polyaromatic Hydrocarbon compounds (PAHs) associated with oil and grease, combustion byproducts, and asphalt products. Table 4 summarizes semi-volatile concentrations for soil samples taken at each grid location, and lists NYSDEC TAGM 4046 soil guidance levels for each compound. In nearly all instances, the areas of the site with the highest PAH concentrations were also areas with elevated metals concentrations. These locations included CS 200-650, CS 250-350, Cs 300-100, CS 300-250, CS 300-450, Cs 350-200. PAHs detected in the highest concentrations included benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, and dibenz[g,h,i]perylene. Figure 4 shows the areas where elevated PAHs were detected.

### *Volatile Organics*

Several of the soil samples obtained from the grid locations were analyzed for volatile organic compounds (VOCs). The soil samples selected for VOC analysis were those in or near areas of fill/waste which were characterized by discolorations or proximity to former drum locations. Several VOC compounds were detected, but none were detected in significant concentrations. The results of the VOC sampling in grid location soils are summarized in Table 5.

## **3.9 Soil Sample Results From Test Pit Excavation Locations**

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In an effort to more thoroughly examine the consistency and depth of the various fill piles, 39 test pits were excavated throughout the site. Test pit log descriptions are contained in Appendix H. Most fill piles contained black cinder type waste. Depth to native soils in non-fill areas of the site generally range between 1 - 3 feet. From test pit excavations it is evident that fill materials were disposed only on the surface of the site, and that wastes and fill were not buried below the surface of native soil.

Several samples were obtained from the fill areas in order to assess the fill material characteristics. The results from the test pit samples indicate similar contaminant concentrations as the samples obtained from grid location samples which were taken within fill areas. Figure 5

shows test pit locations. Samples were taken from 10 of the 39 test pits and analyzed for VOCs, semi-volatiles, and metals. In addition, 3 of the test pit samples were submitted for Toxic Characteristic Leaching Procedure (TCLP) testing. TCLP is a testing procedure design to measure the leachability of contaminants within a waste or soil sample. TCLP results indicate leachable concentrations of cadmium in excess of regulatory levels in 2 of the 3 samples. No other organic or inorganic TCLP exceedences were detected. Table 6 lists concentrations of compounds of concern in the samples obtained from the test pits, and Table 7 summarizes results of TCLP analysis.

### **3.10 Human Health Exposure Assessment**

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Using information gathered from the remedial investigation, a qualitative human health exposure assessment was performed for the site. A qualitative exposure assessment considers the type of contaminants found on site, the contaminant concentrations, the extent of the site media effected, and the potential for exposure pathways which could result in human exposure to the contaminants.

#### *Nature and Extent of Site Contamination*

Based upon data gathered during the remedial investigation, it appears that site contamination is limited to the organic and inorganic contaminants within in the waste and fill solids which have been disposed of on the site. Both organic and inorganic contaminants were detected in the on-site waste and fill materials significantly above NYSDEC TAGM 4046 soil guidance. Those organic contaminants of concern detected in the waste and fill material include: benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, and dibenz[g,h,i]perylene. Those inorganic contaminants of concern detected in the waste and fill material include: arsenic, barium, cadmium, chromium, lead, and zinc. Soil samples taken outside of waste and fill disposal areas do not indicate elevated concentrations of site contaminants.

Site groundwater was sampled during the 1990-1991 Phase II investigation as well as during the Remedial Investigation. Iron, magnesium, manganese, and chromium were detected in at least one of the groundwater samples above NYSDEC Class GA (drinking water) standards. Of these compounds, only chromium is considered a site contaminant which may be related to waste/fill disposal on site. Since the groundwater samples were taken unfiltered (using paper or other filtration to remove fine suspended materials), concentrations of iron, magnesium, manganese, and other metals in excess of NYSDEC Class GA standards are not uncommon. Chromium was detected in two of the groundwater samples in concentrations slightly in excess of Class GA standards (i.e. 61 ppb vs. Class GA standard of 50 ppb).

As an additional assessment of groundwater quality in the vicinity of the site, several residential basement sumps were sampled from homes along Fairmont Avenue. Both magnesium



and sodium were detected in basement sump water samples in excess of NYSDEC Class GA standards, however none of the contaminants of concern for the site were detected in basement sump waters.

### *Potential Human Health Exposure Pathways*

The five elements of an exposure pathway are 1) the source of the contamination; 2) the environmental media and transport mechanism; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may also be based upon past, present, or future events. Since the extent of site contamination is limited to the waste and fill material solids found at the site, the primary potential human exposure pathways are through direct contact with the waste and fill materials.

Completed pathways which are either known to or may exist include:

- Dermal (skin) contact with contaminated waste and/or fill materials by former or future site users or trespassers;
- Incidental ingestion of contaminated waste and/or fill materials by former or future site users or trespassers.

These potential exposure pathways were addressed in the interim through the installation of a chain link fence around the perimeter of the site. During the remedial investigation, the fence gate and damaged fence sections near the former Wurlitzer plant building were replaced to provide further site control. However, while the site is currently fenced, the above exposure pathways may be still considered “complete” since exposure potential remains for site trespassers and future site users.

### **3.11 Environmental Threat Assessment**

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The Wurlitzer Area B site lies between residential and commercial/industrial areas. It is approximately 5 acres in size and contains mixed hardwood trees which vary in diameter from several inches to several feet. Prior to site investigations, most of the site was overgrown with thick brush, including brush and weed growth throughout much of the waste and fill areas of the site. Two low-lying areas of the site exist which are relatively free of fill materials. These areas are the northwestern side of the site adjacent to the property fence, and the southern side of the site adjacent to the elevated railroad spur. These low-lying areas frequently contain standing water from precipitation and snowmelt.

The site’s underbrush was cleared and removed from the site in order to perform the investigation. In addition, several small trees (generally less than 6 inches in diameter) were cut and chipped on site to facilitate investigation activities. Existing trees and brush were not removed

along the property boundaries nearest Wurlitzer Drive and the backyards of the homes along Fairmont Avenue. This growth was preserved to provide a "buffer strip" (primarily a visual barrier) between the site and the surrounding property.

No formal Habitat Assessment was performed on the Wurlitzer Area B site. Despite some periodic standing water on site, there are no wetlands, streams or other significant surface water features on site. However, numerous animal holes and burrows have been observed throughout the site. Squirrels, chipmunks, and various bird species have been observed on site. Although there is currently a 6 foot high chain link fence surrounding the property, deer have also been observed on the site. These species, especially the burrowing animals, are potentially exposed to the high levels of metals on site through contact with or incidental ingestion of contaminated waste and/or fill. The deer and birds are more wide ranging and not likely to be significantly exposed to contaminants due to the small size of the site.

Clearing of underbrush during the investigation has removed a portion of the existing habitat and has probably displaced some of the wildlife using the site. The extent of future use of the site by wildlife depends upon the re-establishment of this vegetation. Due to the nature and extent of the contamination detected on site however, it is unlikely that the site poses any significant threat to the environment.

## Section 4: Conclusions

From test pit excavations and hand augering throughout the site, it is apparent that waste, fill materials, refuse, and other debris was disposed of on the surface of the site, and no burial of wastes took place. Groundwater and residential basement sump water sample results indicate that the waste materials disposed at the site have not had a significant effect on groundwater.

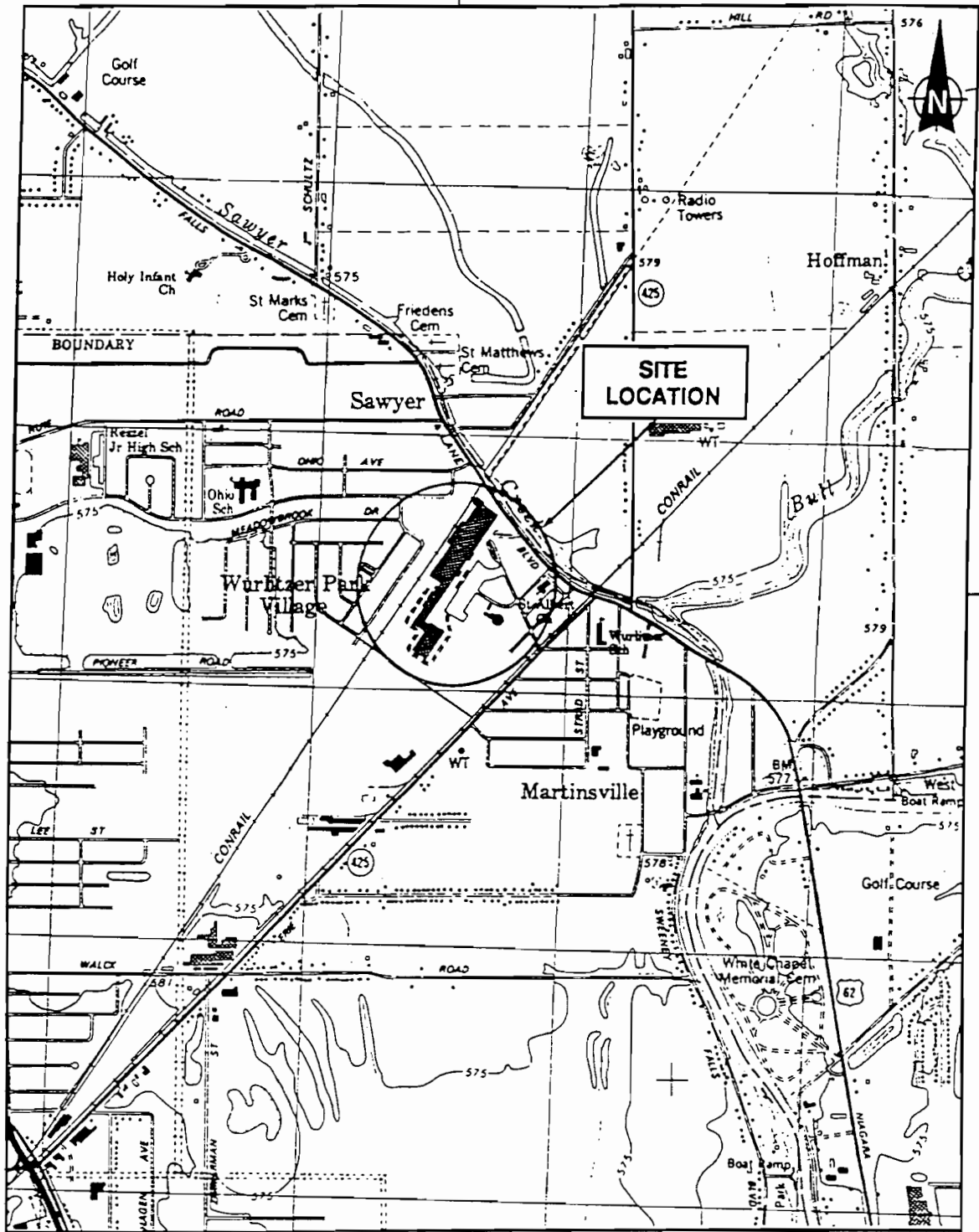
Significant organic and inorganic contaminants are present in the waste and fill materials previously disposed on site. While some contaminants are present throughout the site in almost all fill areas, the majority of significant contaminants detected were found in the area of waste and fill material on the southwestern half of the site.

Numerous animals such as squirrels, chipmunks, snakes, birds, deer, etc. have been observed at the site. No formal Habitat Assessment was performed on the Wurlitzer site. However, due to the nature and extent of the contamination present at the site, it is unlikely that the site poses any significant threat to the environment at this time.

Repairs to the fence and replacement of the main gate was completed during the Remedial Investigation. The fence will limit access to the site, but cannot prevent trespassers from gaining access. Despite the fence, potential exposure pathways exist for trespassers or future site workers who may have dermal contact or incidental ingestion of contaminated waste and/or fill materials which remain on site. A Feasibility Study must be performed to evaluate appropriate remedial actions to address these possible exposure pathways.

# FIGURES

78° 50' 39" W



SOURCE: USGS 7.5 Minute Series (Topographic) Quadrangle, Tonawanda East, NY 1980.

SCALE 1:24,000

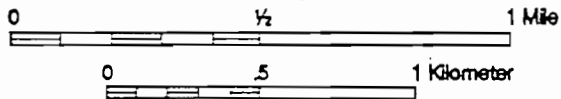
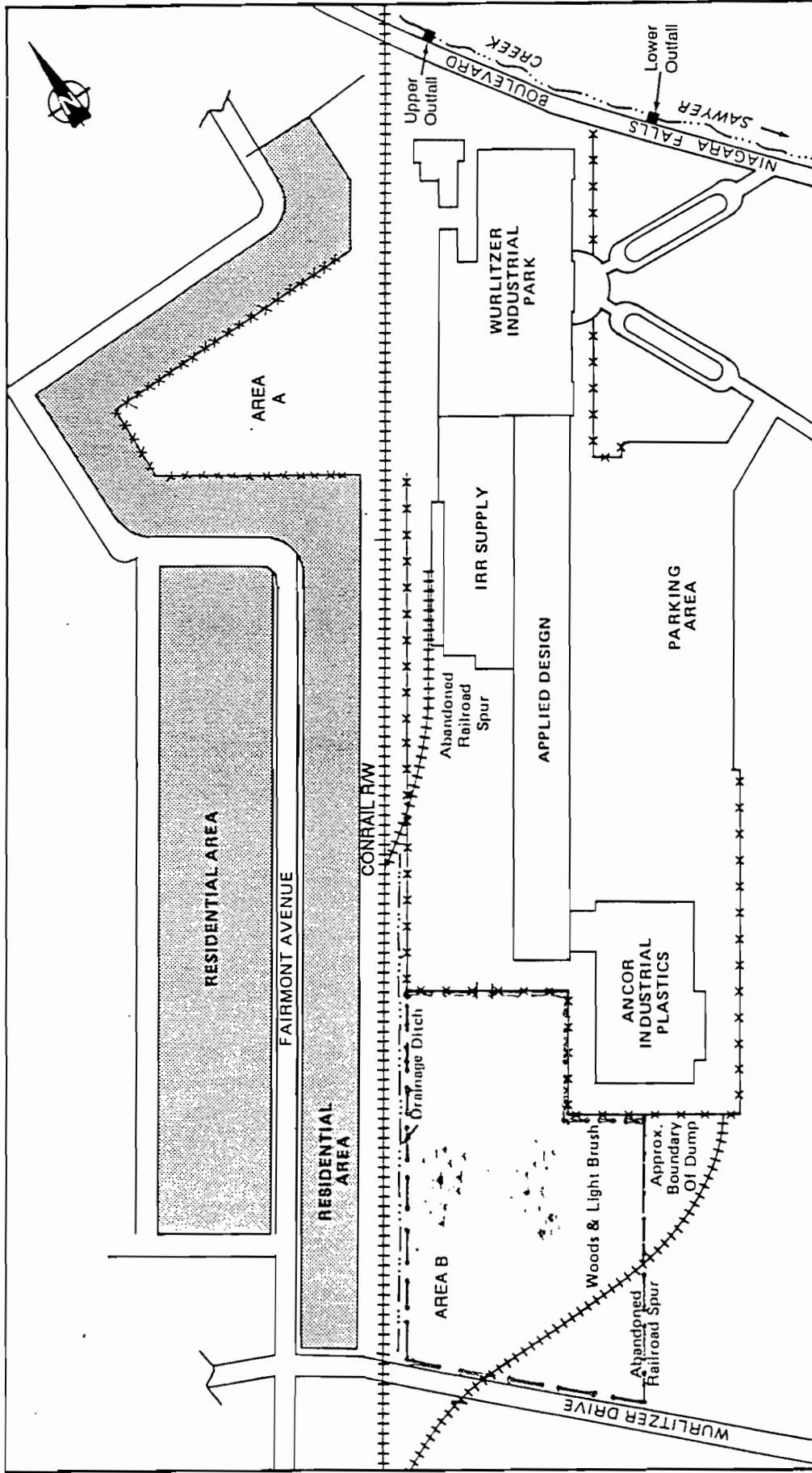


Figure 1-1  
WURLITZER SITE LOCATION MAP

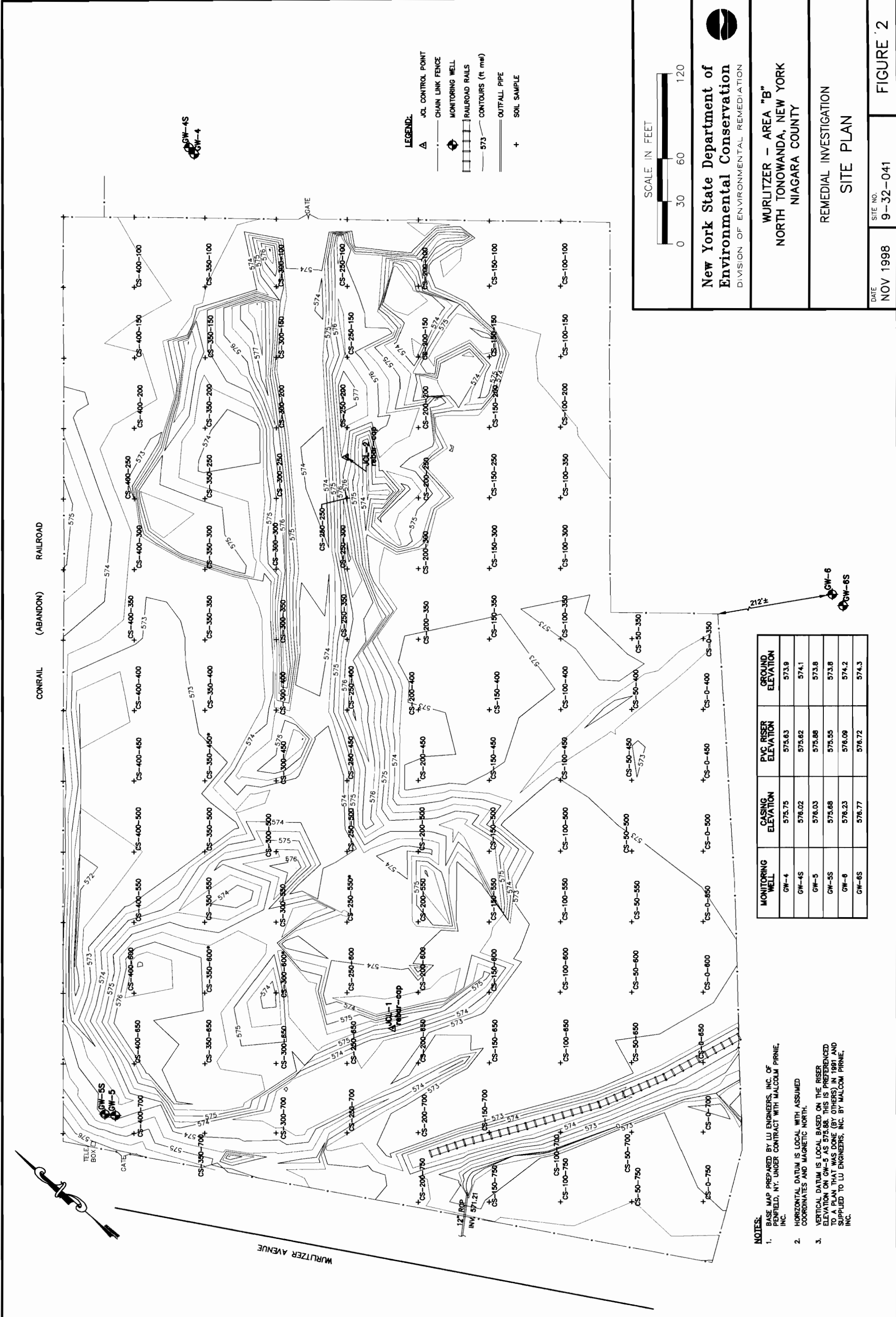


NOT TO SCALE

Figure 1-2  
WURLITZER SITE MAP

--- SITE BOUNDARY

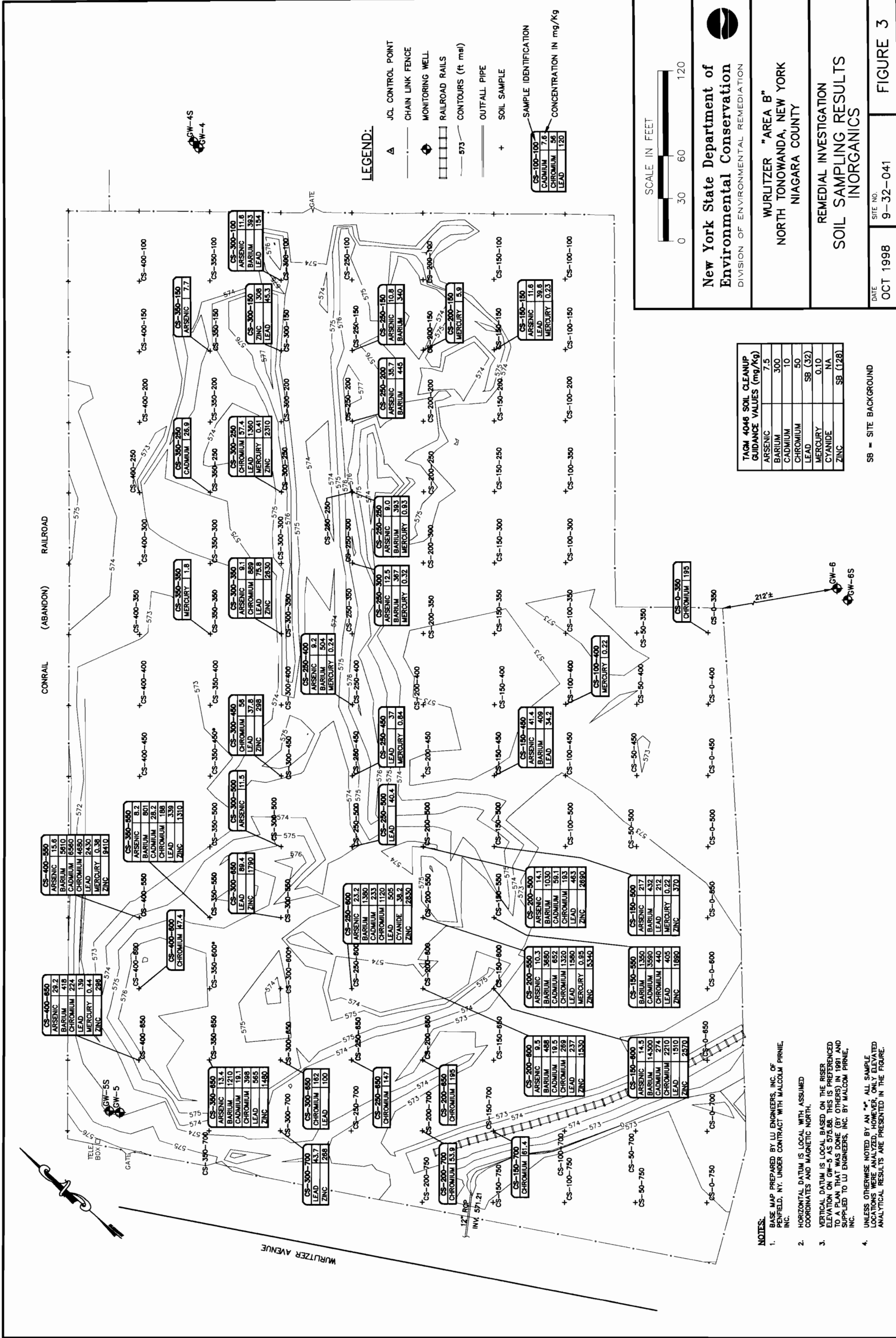
SOURCE: Ecology and Environment Engineering, P.C.



**NOTES:**

- BASE MAP PREPARED BY LU ENGINEERS, INC. OF PENFIELD, NY, UNDER CONTRACT WITH MALCOLM PIRNIE, INC.
- HORIZONTAL DATUM IS LOCAL WITH ASSUMED COORDINATES AND MAGNETIC NORTH.
- VERTICAL DATUM IS LOCAL BASED ON THE RISER ELEVATION ON GW-5 AS 573.88. THIS IS PREFERRED TO A PLAN THAT WAS DONE (BY OTHERS) IN 1991 AND SUPPLIED TO LU ENGINEERS, INC. BY MALCOLM PIRNIE, INC.

MONITORING WELL	CASING ELEVATION	PVC RISER ELEVATION	GROUND ELEVATION
GW-4	575.75	575.63	573.9
GW-4S	578.02	575.62	574.1
GW-5	578.03	575.88	573.8
GW-5S	575.68	575.55	573.8
GW-6	578.23	578.09	574.2
GW-6S	576.77	576.72	574.3



**New York State Department of Environmental Conservation**  
DIVISION OF ENVIRONMENTAL REMEDIATION

**WURLITZER "AREA B"**  
NORTH TONAWANDA, NEW YORK  
NIAGARA COUNTY

REMEDIAL INVESTIGATION  
SOIL SAMPLING RESULTS  
INORGANICS

DATE: OCT 1998  
SITE NO.: 9-32-041  
FIGURE 3

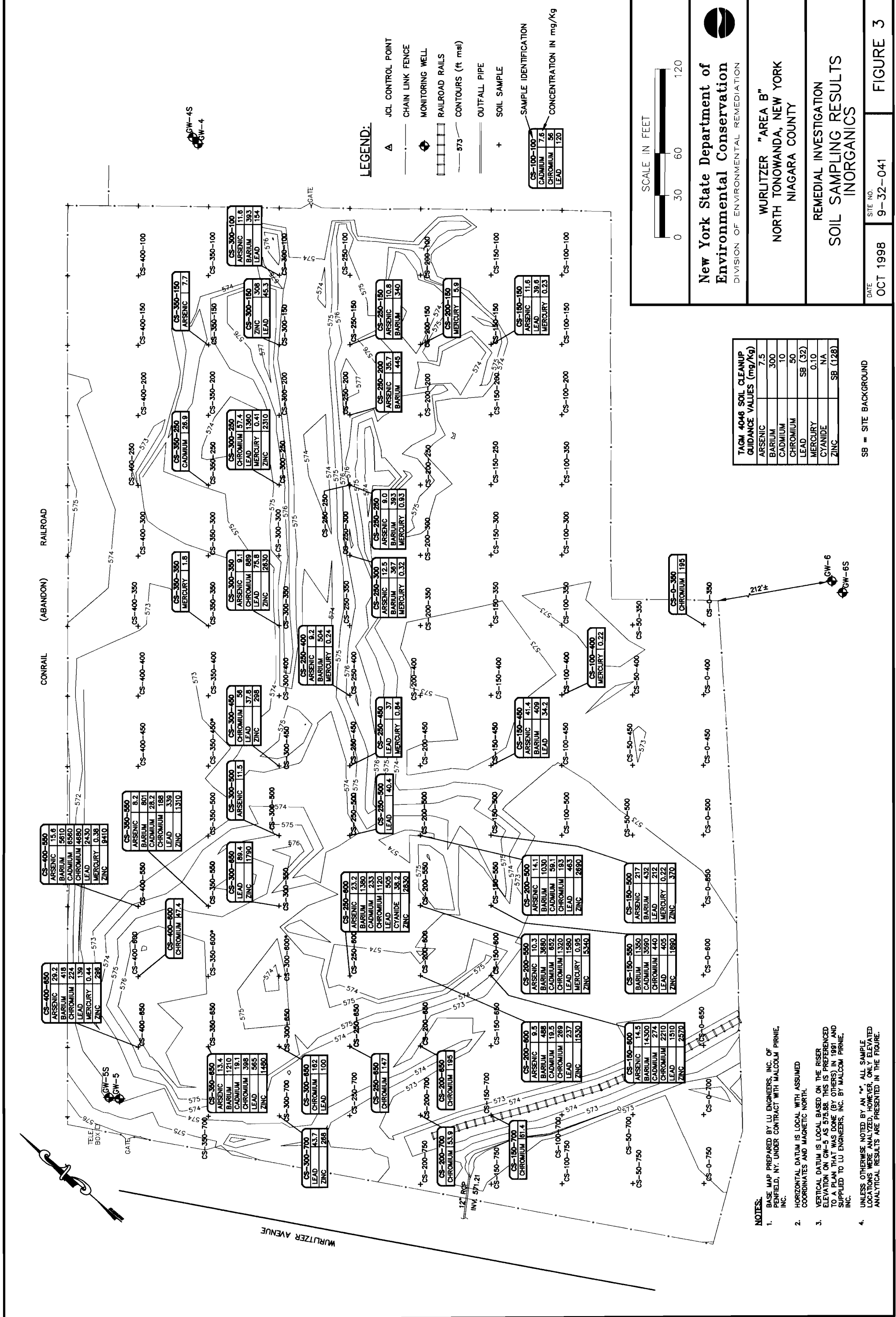
**TACM 4046 SOIL CLEANUP GUIDANCE VALUES (mg/kg)**

ARSENIC	7.5
BARIUM	300
CADMIUM	10
CHROMIUM	50
LEAD	SB (32)
MERCURY	0.10
CYANIDE	NA
ZINC	SB (128)

SB = SITE BACKGROUND

- NOTES:**
1. BASE MAP PREPARED BY LU ENGINEERS, INC. OF PENFIELD, NY, UNDER CONTRACT WITH MALCOLM PIRNIE, INC.
  2. HORIZONTAL DATUM IS LOCAL WITH ASSUMED COORDINATES AND MAGNETIC NORTH.
  3. VERTICAL DATUM IS LOCAL BASED ON THE RISER ELEVATION ON GW-5 AS 575.68. THIS IS REFERENCED TO A PLAN THAT WAS DONE (BY OTHERS) IN 1991 AND SUPPLIED TO LU ENGINEERS, INC. BY MALCOLM PIRNIE, INC.
  4. UNLESS OTHERWISE NOTED BY AN "M", ALL SAMPLE LOCATIONS WERE ANALYZED. HOWEVER, ONLY ELEVATED ANALYTICAL RESULTS ARE PRESENTED IN THE FIGURE.





**New York State Department of Environmental Conservation**  
DIVISION OF ENVIRONMENTAL REMEDIATION

**WURLITZER "AREA B"**  
NORTH TONAWANDA, NEW YORK  
NIAGARA COUNTY

**REMEDIAL INVESTIGATION  
SOIL SAMPLING RESULTS  
INORGANICS**

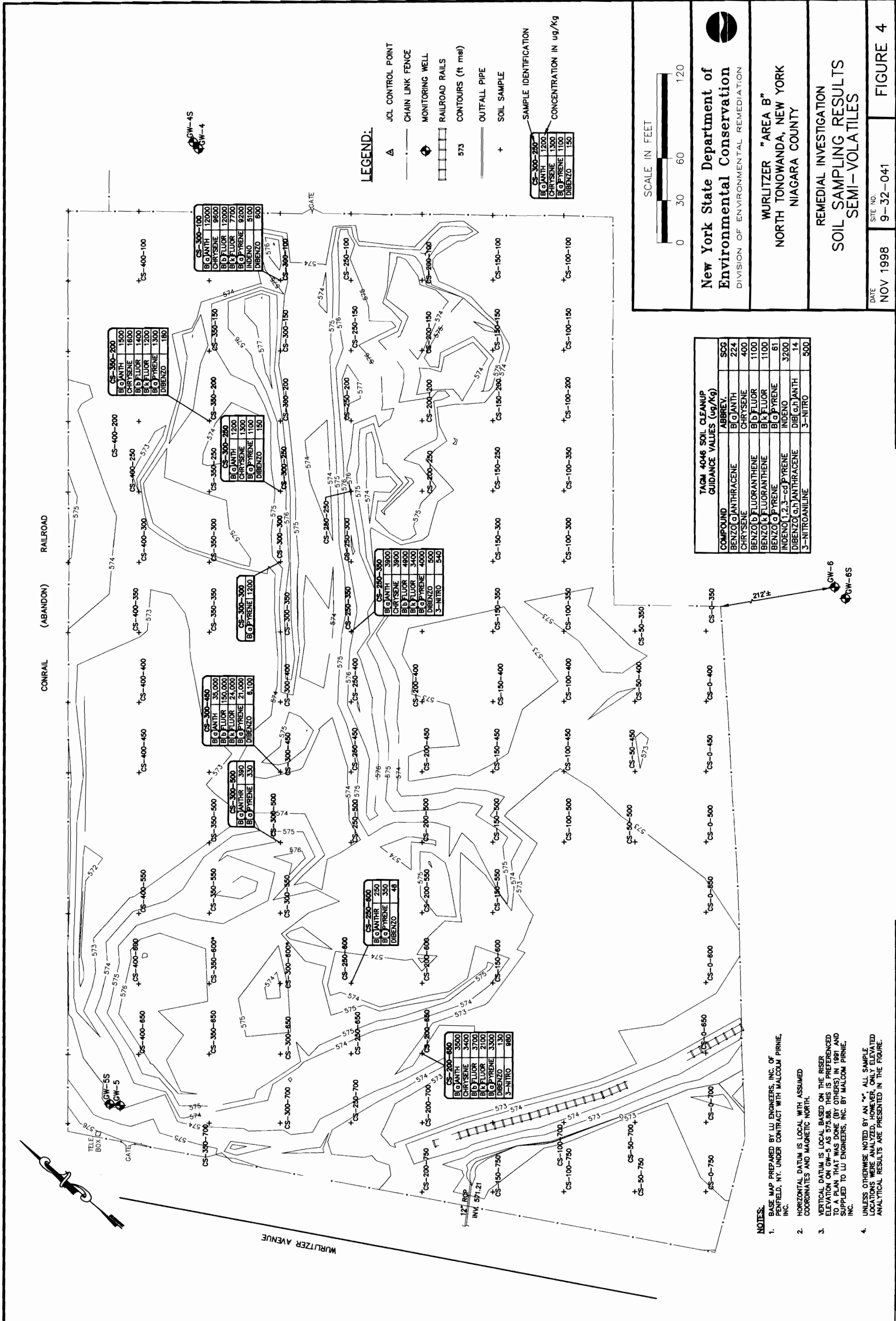
DATE: OCT 1998  
SITE NO.: 9-32-041  
FIGURE 3

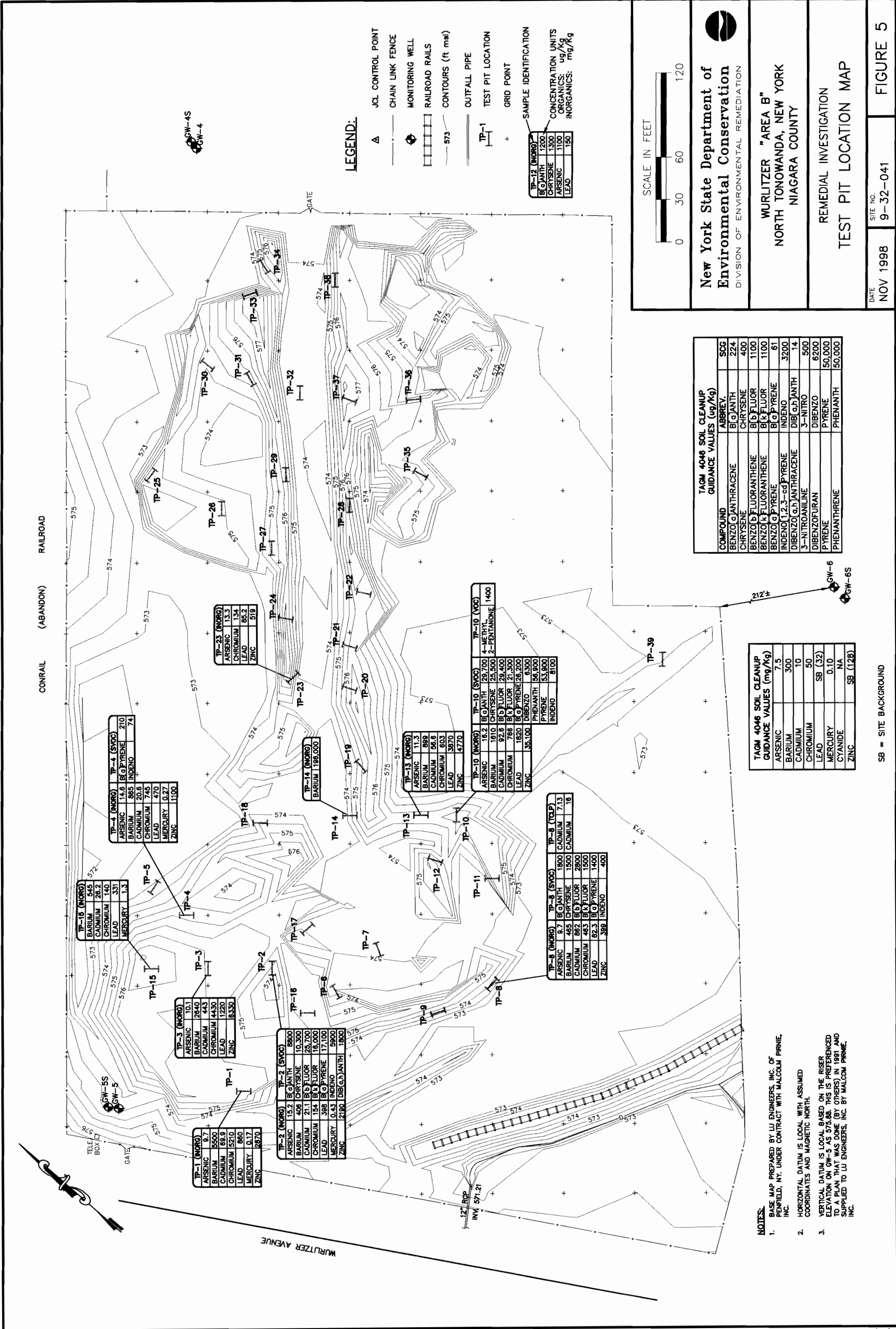
**TAGM 4046 SOIL CLEANUP GUIDANCE VALUES (mg/kg)**

ARSENIC	7.5
BARIIUM	300
CADMIUM	10
CHROMIUM	50
LEAD	SB (32)
MERCURY	0.10
CYANIDE	NA
ZINC	SB (128)

SB = SITE BACKGROUND

- NOTES:**
1. BASE MAP PREPARED BY LU ENGINEERS, INC. OF PENFIELD, NY, UNDER CONTRACT WITH MALCOLM PIRNIE, INC.
  2. HORIZONTAL DATUM IS LOCAL WITH ASSUMED COORDINATES AND MAGNETIC NORTH.
  3. VERTICAL DATUM IS LOCAL BASED ON THE RISER ELEVATION ON GW-5 AS 575.88. THIS IS PREFERRED TO A PLAIN THAT WAS DONE (BY OTHERS) IN 1991 AND SUPPLIED TO LU ENGINEERS, INC. BY MALCOLM PIRNIE, INC.
  4. UNLESS OTHERWISE NOTED BY AN "X" ALL SAMPLE LOCATIONS WERE ANALYZED. HOWEVER, ONLY ELEVATED ANALYTICAL RESULTS ARE PRESENTED IN THE FIGURE.





**LEGEND:**

- △ JOL CONTROL POINT
- CHAIN LINK FENCE
- ⊕ MONITORING WELL
- ▭ RAILROAD RAILS
- 573 CONTOURS (ft msl)
- OUTFALL PIPE
- TP-1 TEST PIT LOCATION
- + GRID POINT

**SAMPLE IDENTIFICATION**

TP-12 (INORG)	1200
B/G ANTH	1300
CHRYSENE	1100
ARSENIC	150
LEAD	150

**CONCENTRATION UNITS**  
 ORGANICS: ug/Kg  
 INORGANICS: mg/Kg

SCALE IN FEET



**New York State Department of Environmental Conservation**  
 DIVISION OF ENVIRONMENTAL REMEDIATION

**WURLITZER "AREA B"**  
 NORTH TONOWANDA, NEW YORK  
 NIAGARA COUNTY

REMEDIAL INVESTIGATION  
 TEST PIT LOCATION MAP

DATE: NOV 1998  
 SITE NO.: 9-32-041  
**FIGURE 5**

**TAGM 4046 SOIL CLEANUP GUIDANCE VALUES (ug/Kg)**

COMPOUND	ABBREY.	SCG
BENZOCANTHRACENE	B/G ANTH	224
CHRYSENE	CHRYSENE	400
BENZOB FLUORANTHENE	B/B FLUOR	1100
BENZOK FLUORANTHENE	B/K FLUOR	1100
BENZOPYRENE	B/G PYRENE	61
INDENO(1,2,3-cd)PYRENE	INDENO	3200
DIBENZO(ghi)ANTHRACENE	DIB/GH ANTH	14
3-NITROANILINE	3-NITRO	500
DIBENZOFURAN	DIBENZO	6200
PYRENE	PYRENE	50,000
PHENANTHRENE	PHENANTH	50,000

**TAGM 4046 SOIL CLEANUP GUIDANCE VALUES (mg/Kg)**

ARSENIC	7.5
BARIUM	300
CADMIUM	10
CHROMIUM	50
LEAD	SB (32)
MERCURY	0.10
CYANIDE	NA
ZINC	SB (128)

**TP-4 (INORG) TP-4 (SVOC)**

ARSENIC	14.6	B/G PYRENE	210
BARIUM	865	INDENO	74
CADMIUM	20.8		
CHROMIUM	745		
LEAD	470		
MERCURY	0.27		
ZINC	1100		

**TP-15 (INORG)**

BARIUM	545
CADMIUM	26.2
CHROMIUM	140
LEAD	331
MERCURY	1.3

**TP-3 (INORG)**

ARSENIC	10.1
BARIUM	2840
CADMIUM	443
CHROMIUM	4430
LEAD	1220
ZINC	16330

**TP-2 (INORG) TP-2 (SVOC)**

ARSENIC	15.2	B/G ANTH	8600
BARIUM	408	CHRYSENE	10,300
CADMIUM	21.1	B/B FLUOR	25,700
CHROMIUM	134	B/K FLUOR	16,000
LEAD	398	B/G PYRENE	17,100
MERCURY	0.43	INDENO	5900
ZINC	2190	DIB(GH)ANTH	1800

**TP-13 (INORG)**

ARSENIC	11.3
BARIUM	889
CADMIUM	56.8
CHROMIUM	803
LEAD	3870
ZINC	4770

**TP-10 (INORG) TP-10 (SVOC) TP-10 (VOC)**

ARSENIC	18.2	B/G ANTH	29,700	4-METHYL	1400
BARIUM	1610	CHRYSENE	25,500	2-PENTANONE	1400
CADMIUM	92.8	B/B FLUOR	29,400		
CHROMIUM	788	B/K FLUOR	21,300		
LEAD	1820	B/G PYRENE	28,200		
ZINC	35,100	DIBENZO	8300		
		PHENANTH	86,800		
		INDENO	53,900		
			8100		

**TP-8 (INORG) TP-8 (SVOC) TP-8 (TCLP)**

ARSENIC	9.7	B/G ANTH	1800	CADMIUM	7.13
BARIUM	465	CHRYSENE	1500	CADMIUM	16
CADMIUM	862	B/B FLUOR	2800		
CHROMIUM	463	B/K FLUOR	1500		
LEAD	82.3	B/G PYRENE	1400		
ZINC	398	INDENO	400		

- NOTES:**
1. BASE MAP PREPARED BY LU ENGINEERS, INC. OF PENFIELD, NY, UNDER CONTRACT WITH MALCOLM PIRNIE, INC.
  2. HORIZONTAL DATUM IS LOCAL WITH ASSUMED COORDINATES AND MAGNETIC NORTH.
  3. VERTICAL DATUM IS LOCAL BASED ON THE RISER ELEVATION ON GW-5 AS 575.88. THIS IS REFERENCED TO A PLAN THAT WAS DONE (BY OTHERS) IN 1991 AND SUPPLIED TO LU ENGINEERS, INC. BY MALCOLM PIRNIE, INC.

SB = SITE BACKGROUND

# TABLES

**Table 1**  
**Wurlitzer Area B Site**  
**Remedial Investigation**  
**Summary of Groundwater Results (ug/L)**

Sample Number Lab. Sample No. Sampling Date	NYSDEC Class GA Water Quality Standard (ug/L)	GW-4-01 35960 12/9/97 CONC Q (ug/L)	GW-4S-01 35961 12/9/97 CONC Q (ug/L)	GW-5-01 35962 12/9/97 CONC Q (ug/L)	GW-SS-01 35965 12/9/97 CONC Q (ug/L)	GW-6-01 35966 12/9/97 CONC Q (ug/L)	GW-6S-01 35967 12/9/97 CONC Q (ug/L)	GW-DUP 35968 12/9/97 CONC Q (ug/L)
<b>INORGANIC PARAMETERS</b>								
Aluminum	NA	120 B	156 B	209	17.3 B	1780	328	133 B
Barium	1000	68.1 B	7.3 B	28.6 B	3.3 B	50.9 B	8.7 B	4.8 B
Calcium	NA	5190	62600	6740	8810	18500	20900	8600
Chromium	50	ND	ND	ND	61.5	2.6 B	ND	ND
Copper	200	7.9 B	8.3 B	7.1 B	9.5 B	21.4 B	10.3 B	5.7 B
Iron	300	243	199	219	ND	3010	529	223
Magnesium	35,000 <sup>1</sup>	2420 B	62200	5440	45400	12500	15800	1840 B
Manganese	300	4.1 B	3.9 B	6.4 B	ND	82.8	16	5.2 B
Nickel	NA	ND	3.3 B	ND	ND	4.7 B	ND	ND
Potassium	NA	20600	1380 B	7430	50700	9200	606 B	567 B
Silver	50	ND	1.3 B	ND	ND	ND	ND	ND
Sodium	20000	388000	187000	240000	233000	332000	173000	295000
Vanadium	NA	ND	ND	1.2 B	ND	4.2 B	1.3 B	1.4 B
Zinc	300	2.9 B	5.4 B	3.8 B	2.4 B	19.8 B	5 B	3 B
<b>SEMIVOLATILE COMPOUND</b>								
Di-n-butylphthalate		ND	ND	ND	ND	ND	ND	I J
<b>VOLATILE ORGANICS</b>								
Acetone		ND	ND	4 J	8 J	8 J	ND	ND
<b>Notes:</b>								
Only those compounds detected in at least one sample have been included in this table.								
<sup>1</sup> NYSDEC Ambient Water Quality Guidance Value								
NA = Not available.								
ND = Compound was analyzed for, but not detected.								
J = Concentration has been estimated.								
B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.								

Table 2

Wurlitzer Area B Site  
Remedial Investigation

Summary of Basement Sump Water Results (ug/L)

Sample Number Lab. Sample No. Sampling Date	NYSDEC Class GA Water Quality Standards (ug/L)	BSW-1 36544 12/12/97 CONC Q (ug/L)	BSW-2 36545 12/12/97 CONC Q (ug/L)	BSW-3 36546 12/12/97 CONC Q (ug/L)
<b>INORGANIC PARAMETERS</b>				
Aluminum	NA	80.8 B	70 B	44.1 B
Barium	1,000	65.8 B	5.4 B	5.9 B
Cadmium	10	3.5 B	1.3 B	1.1 B
Calcium	NA	150,000	5,330	4,770 B
Chromium	50	13.5	9.5 B	11.6
Copper	200	43.6	14 B	8.9 B
Iron	300	102	122	119
Magnesium	35,000 <sup>1</sup>	43,700	1,030 B	2,480 B
Manganese	300	ND	1.1 B	ND
Nickel	NA	10.4 B	9.1 B	8.9 B
Potassium	NA	1060 B	3850 B	1150 B
Sodium	20,000	36,500	378,000	396,000
Zinc	300	23.4	23.2	14.4 B
Cyanide	100	ND		ND
<b>VOLATILE ORGANICS</b>				
Acetone	NA	3 J	ND	8 J
<p>Notes:</p> <p>Only those compounds detected in at least one sample are included in this table</p> <p><sup>1</sup> NYSDEC Ambient Water Quality Guidance Value</p> <p>NA = Not available.</p> <p>ND = Compound was analyzed for, but not detected.</p> <p>B = Concentration is above the instrument detection limit but below the contract required detection limit</p> <p>J = Concentration has been estimated.</p>				

Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-0-350 36070 12/10/97 CONC (mg/kg)	CS-0-400 36071 12/10/97 CONC (mg/kg)	CS-0-450 36072 12/10/97 CONC (mg/kg)	CS-0-500 36073 12/10/97 CONC (mg/kg)	CS-0-550 36074 12/10/97 CONC (mg/kg)	CS-0-600 36075 12/10/97 CONC (mg/kg)	CS-0-650 36076 12/10/97 CONC (mg/kg)	CS-0-700 36077 12/10/97 CONC (mg/kg)	CS-0-750 36078 12/10/97 CONC (mg/kg)	CS-0-350 36079 12/10/97 CONC (mg/kg)
<b>INORGANIC COMPOUNDS</b>											
Aluminum	SB (18875)	12100	8720	7760	9460	9400	11400	9820	9480	8670	11300
Antimony	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	7.5 OR SB (NE)	16.3	3.4	2.8	4	4	3.9	3.9	3.3	2.5	3.2
Barium	300 OR SB (98)	159	47.3	43.2	B	46.2	B	51.4	49.8	45.7	B
Beryllium	0.16 OR SB (0.8)	0.75	B	0.3	B	0.33	B	0.37	B	0.32	B
Cadmium	10 OR SB (1)	0.41	B	ND	ND	ND	0.28	ND	ND	ND	ND
Calcium	SB (27728)	23200	53500	54000	40800	73700	27900	37800	44000	50900	30700
Chromium	50 OR SB (26)	12.2	11.4	10.8	11.1	11.4	13.6	11.2	11.3	10.9	12.7
Cobalt	30 OR SB (9)	5.4	5.1	4.2	B	5.2	B	5.3	B	5.1	B
Copper	25 OR SB (18)	164	13.5	12.4	13.7	14.9	12.4	13.3	12.9	12	12.7
Iron	2000 OR SB (20525)	26200	14100	12600	12700	12900	11800	13500	14000	12400	15200
Lead	SB (32)	26.4	9.1	9.8	11	8.9	18.5	11.3	10.1	9.7	11.7
Magnesium	SB (12570)	4770	12100	10800	8480	11700	5930	9500	10600	10400	8020
Manganese	SB (325)	219	289	231	484	301	154	343	389	300	272
Mercury	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	13 OR SB (22)	17.3	E	12.3	E	13.8	E	14.6	E	12.4	E
Potassium	SB (3560)	815	B	800	B	1110	B	890	B	852	B
Selenium	2 OR SB (NE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	SB (ND)	0.46	B	0.66	B	1.2	B	ND	ND	ND	1.4
Sodium	SB (<400)	521	B	249	B	267	B	201	B	235	B
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	24.9	19.4	17.6	20.3	22.5	21.8	20.2	21.3	18.7	23.1
Zinc	20 OR SB (128)	69.1	E	44.8	E	43.8	E	48.5	E	45.1	E
Cyanide	NA	0.49	B	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
 ND = Compound was analyzed for, but not detected.  
 B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.  
 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-50-400 36080 12/10/97 CONC Q (mg/kg)	CS-50-450 36081 12/10/97 CONC Q (mg/kg)	CS-50-500 36082 12/10/97 CONC Q (mg/kg)	CS-50-550 36083 12/10/97 CONC Q (mg/kg)	CS-50-600 36084 12/10/97 CONC Q (mg/kg)	CS-50-650 36085 12/10/97 CONC Q (mg/kg)	CS-50-700 36086 12/10/97 CONC Q (mg/kg)	CS-50-750 36087 12/10/97 CONC Q (mg/kg)	CS-100-100 36088 12/10/97 CONC Q (mg/kg)	CS-100-150 36089 12/10/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>											
Aluminum	SB (18875)	11900	12700	8250	8770	9600	9480	9510	7140	9060	8310
Antimony	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	7.5 OR SB (NE)	4.7	2.7	3.7	2.5	3	2.8	3.7	2.5	3.4	3.9
Barium	300 OR SB (98)	157	68.3	48.7	43.8	55.3	48.6	54.5	41	51.9	47.1
Beryllium	0.16 OR SB (0.8)	0.69	0.42	0.33	0.33	0.35	0.35	0.36	0.29	0.35	0.34
Cadmium	10 OR SB (1)	ND	0.34	ND	ND	0.25	0.25	ND	ND	ND	0.28
Calcium	SB (27728)	32300	26800	59200	46100	50400	35200	43000	57900	49000	59000
Chromium	50 OR SB (26)	12.8	15.8	10.7	11.1	12.9	12.6	12.8	10.3	11.5	11.7
Cobalt	30 OR SB (9)	5.3	4.6	6.2	5.1	4.7	4.1	5.2	5.3	5.6	6.3
Copper	25 OR SB (18)	25.5	12.8	15.3	13.5	13.6	14.2	12.3	12.4	14.2	16.2
Iron	2000 OR SB (20525)	27200	13200	14600	12900	11600	11500	13700	12900	14300	13900
Lead	SB (32)	10	13.9	8.2	7.9	12.4	13	11.5	7.6	12.5	13.1
Magnesium	SB (12570)	7000	6680	14300	11800	9290	7780	9170	12600	9850	12600
Manganese	SB (325)	207	159	485	294	271	224	312	401	388	379
Mercury	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	13 OR SB (22)	13.6	14.5	13.5	12	13.4	12.2	13.9	12.4	14.5	14.8
Potassium	SB (3560)	882	874	1160	915	896	801	823	1280	940	1190
Selenium	2 OR SB (NE)	ND	ND	0.88	ND	0.98	0.81	0.91	0.89	ND	ND
Silver	SB (ND)	ND	0.32	ND	ND	ND	ND	ND	ND	0.3	2.2
Sodium	SB (<400)	718	252	278	287	238	210	206	237	305	254
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	23.2	23.2	20.9	20.9	19.6	19.3	20	17.1	20.5	19.6
Zinc	20 OR SB (128)	42.2	60.2	43.6	39.2	47.8	45.8	46.8	45	50.9	54.1
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.

SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.

NA = Not available.

ND = Compound was analyzed for, but not detected.

B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.

E = Concentration is estimated because of the presence of interference.

NE = Compound was not included in the analysis



Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-100-200 36092 12/10/97 CONC Q (mg/kg)	CS-100-250 36093 12/10/97 CONC Q (mg/kg)	CS-100-300 36094 12/10/97 CONC Q (mg/kg)	CS-100-350 36095 12/10/97 CONC Q (mg/kg)	CS-100-400 36096 12/10/97 CONC Q (mg/kg)	CS-100-450 36097 12/10/97 CONC Q (mg/kg)	CS-100-500 36098 12/10/97 CONC Q (mg/kg)	CS-100-550 36099 12/10/97 CONC Q (mg/kg)	CS-100-600 36100 12/10/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	9500	9480	9190	8820	8490	8790	8520	8760	7920
Antimony	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	7.5 OR SB (NE)	2.7	3.4	4.1	2.7	1.8	3.2	3.2	2	3.3
Barium	300 OR SB (98)	54.9	52.1	54.4	52.1	44.6	62.2	47.9	43.5	57.3
Beryllium	0.16 OR SB (0.8)	0.37	0.37	0.35	0.36	0.31	0.42	0.34	0.34	0.37
Cadmium	10 OR SB (1)	ND	0.29	ND	0.27	ND	0.61	0.35	ND	ND
Calcium	SB (27728)	30000	48600	40400	45700	45500	30500	48000	65000	36700
Chromium	50 OR SB (26)	12.1	12	12.1	11.5	12.2	11.9	11.6	11.2	15.4
Cobalt	30 OR SB (9)	4.6	4.3	4.6	4.6	4.2	4.9	4.2	4.4	4.7
Copper	25 OR SB (18)	11.6	14.2	12.3	13.9	11.7	19.9	13.9	13.7	14.7
Iron	2000 OR SB (20525)	14300	13500	13800	13100	12000	13100	11700	12700	11700
Lead	SB (32)	12.7	14.9	11.6	13.2	7.7	17.9	11.3	7.6	12.3
Magnesium	SB (12570)	8170	7580	8650	10000	10700	7560	10300	12000	8880
Manganese	SB (325)	198	238	216	305	244	243	247	252	361
Mercury	0.1	ND	ND	ND	ND	0.22	ND	ND	ND	ND
Nickel	13 OR SB (22)	13.2	13.4	13.3	14.1	11.3	13.5	12.6	11.6	13.7
Potassium	SB (3560)	806	871	787	803	891	697	771	909	597
Selenium	2 OR SB (NE)	ND	0.83	ND	ND	ND	1.1	0.82	ND	0.77
Silver	SB (ND)	ND	ND	ND	ND	ND	0.41	ND	ND	0.32
Sodium	SB (<400)	213	211	210	223	293	225	257	300	217
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	20.6	20.7	19	18.3	17.9	20.3	18.1	19	17
Zinc	20 OR SB (128)	54.7	56.9	53.9	52.3	42.4	60.6	45.4	42.7	48.4
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
 ND = Compound was analyzed for, but not detected.  
 B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.  
 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-100-650 36101 12/10/97 CONC Q (mg/kg)	CS-100-700 36102 12/10/97 CONC Q (mg/kg)	CS-100-750 36103 12/10/97 CONC Q (mg/kg)	CS-150-100 36457 12/12/97 CONC Q (mg/kg)	CS-DUP-1 36489 12/12/97 CONC Q (mg/kg)	CS-150-150 36497 12/12/97 CONC Q (mg/kg)	CS-150-200 36460 12/12/97 CONC Q (mg/kg)	CS-150-250 36461 12/12/97 CONC Q (mg/kg)	CS-150-300 36462 12/12/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	9890	11100	11500	11300	10200	11000	8320	9940	8150
Antimony	SB (ND)	ND	ND	0.98	ND	ND	ND	ND	ND	ND
Arsenic	7.5 OR SB (NE)	3.3	4.2	3.5	2.2	3.3	11.6	ND	3.6	3.3
Barium	300 OR SB (98)	55.9	61.2	78.6	64.4	59	184	47.4	59.5	50.4
Beryllium	0.16 OR SB (0.8)	0.38	0.53	0.6	0.42	0.35	0.54	0.28	0.32	0.28
Cadmium	10 OR SB (1)	ND	ND	ND	ND	ND	3.2	ND	ND	ND
Calcium	SB (27728)	40100	3950	15800	57700	47400	8480	49800	50600	46600
Chromium	50 OR SB (26)	11.6	14.1	15.6	13	12.3	17.2	14	12.3	10.7
Cobalt	30 OR SB (9)	4.3	6.6	8.3	6.4	5.6	4.7	4.7	5.4	4.7
Copper	25 OR SB (18)	11.2	17.1	15.9	15.1	14.9	37.3	13.3	15.4	13.4
Iron	2000 OR SB (20525)	12200	18300	19500	15700	14600	16600	12600	15100	13800
Lead	SB (32)	8.7	14.2	9.9	11	10.3	39.6	11.4	14.5	10.5
Magnesium	SB (12570)	8540	2260	5510	11200	10200	2010	11500	10300	11900
Manganese	SB (325)	203	137	290	513	338	87.1	255	322	229
Mercury	0.1	ND	ND	ND	ND	ND	0.23	ND	ND	ND
Nickel	13 OR SB (22)	12	16.7	18.6	16.4	14.6	15.1	14.4	15.2	12.4
Potassium	SB (3560)	804	785	1030	1210	994	630	877	933	710
Selenium	2 OR SB (NE)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	SB (ND)	ND	ND	ND	ND	ND	0.41	ND	ND	ND
Sodium	SB (<400)	251	169	198	310	223	512	243	221	229
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	18.9	25.1	24.7	22.4	22.2	22	17.4	20	18.3
Zinc	20 OR SB (128)	43.1	55.8	54	55	55	86.4	49.8	58.6	46.7
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.

SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.

NA = Not available.

ND = Compound was analyzed for, but not detected.

B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.

E = Concentration is estimated because of the presence of interference.

NE = Compound was not included in the analysis

Table 3

Wurritzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-150-350 36463 12/12/97 CONC Q (mg/kg)	CS-150-400 36464 12/12/97 CONC Q (mg/kg)	CS-150-450 36465 12/12/97 CONC Q (mg/kg)	CS-150-500 36498 12/12/97 CONC Q (mg/kg)	CS-150-550 36499 12/12/97 CONC Q (mg/kg)	CS-150-600 36500 12/12/97 CONC Q (mg/kg)	CS-150-650 36501 12/12/97 CONC Q (mg/kg)	CS-150-700 36502 12/12/97 CONC Q (mg/kg)	CS-150-750 36503 12/12/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	8740	9200	12600	10200	15700	22500	14800	11000	10200
Antimony	SB (ND)	ND	ND	1.5	1.9	ND	24	1.1	ND	ND
Arsenic	7.5 OR SB (NE)	3	2.9	41.4	217	5.7	14.5	4.2	4.4	3.6
Barium	300 OR SB (98)	52.5	58.6	409	432	1350	14300	93.9	62.5	58.9
Beryllium	0.16 OR SB (0.8)	0.27	0.31	0.96	0.87	0.6	0.35	0.51	0.37	0.4
Cadmium	10 OR SB (1)	ND	0.46	1.9	9.5	3590	274	3.6	0.74	0.34
Calcium	SB (27728)	47100	61100	29700	10700	11800	37200	3940	38300	25700
Chromium	50 OR SB (26)	11	12	18.6	72.6	440	2210	46.8	61.4	14
Cobalt	30 OR SB (9)	4.9	5.1	6.1	6.1	18.3	33.8	5.6	4.5	6.7
Copper	25 OR SB (18)	12.9	15.4	39.3	123	1220	3040	33	22.9	19.2
Iron	2000 OR SB (20525)	12900	12100	20000	41100	25100	87700	15300	13600	16800
Lead	SB (32)	11.2	16.5	34.2	212	405	1510	15.2	16.8	8.4
Magnesium	SB (12570)	9910	8910	6690	1700	5530	13300	2600	7890	9990
Manganese	SB (325)	260	224	203	140	339	1020	84	197	521
Mercury	0.1	ND	ND	ND	0.22	0.55	ND	ND	ND	ND
Nickel	13 OR SB (22)	12.8	13.2	22.3	20.7	354	214	18.5	15.1	15.9
Potassium	SB (3560)	784	693	898	922	1320	1390	963	985	1330
Selenium	2 OR SB (NE)	2.1	ND	4.5	ND	ND	ND	ND	ND	ND
Silver	SB (ND)	ND	ND	0.91	1.2	3.7	49.7	0.33	0.31	ND
Sodium	SB (<400)	235	221	429	853	627	670	199	211	204
Thallium	SB (ND)	ND	ND	ND	1.8	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	17.8	19.9	31.6	29	31.2	27.2	30.9	23.8	24.7
Zinc	20 OR SB (128)	47.6	55.8	101	370	1890	2570	80.3	59.2	50.1
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
 ND = Compound was analyzed for, but not detected.  
 B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.  
 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 3

Wurritzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-200-100 36504 12/12/97 CONC Q (mg/kg)	CS-200-150 36505 12/12/97 CONC Q (mg/kg)	CS-200-200 36506 12/12/97 CONC Q (mg/kg)	CS-200-250 36507 12/12/97 CONC Q (mg/kg)	CS-200-300 36466 12/12/97 CONC Q (mg/kg)	CS-200-350 36559 12/12/97 CONC Q (mg/kg)	CS-200-400 36562 12/12/97 CONC Q (mg/kg)	CS-200-450 36563 12/12/97 CONC Q (mg/kg)	CS-200-500 36508 12/12/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	12100	13600	9120	11900	9410	8810	9370	9730	16600
Antimony	SB (ND)	ND	ND	ND	ND	ND	1	ND	1	4.6
Arsenic	7.5 OR SB (NE)	5.1	5	6	5.2	2.7	3	3.1	4.1	14.1
Barium	300 OR SB (98)	214	240	85	172	54.8	59.1	62.1	92.8	1030
Beryllium	0.16 OR SB (0.8)	0.7	0.78	0.58	0.67	0.29	0.45	0.46	0.49	0.66
Cadmium	10 OR SB (1)	ND	ND	ND	6.6	ND	0.47	0.27	2.5	59.1
Calcium	SB (27728)	29300	12400	47600	38400	52800	41300	35900	42000	23400
Chromium	50 OR SB (26)	11.3	9.8	11.5	12.6	11.1	21.2	20.7	37.1	193
Cobalt	30 OR SB (9)	5.5	4	6.4	6.3	4.8	4.2	4.6	5.1	10.1
Copper	25 OR SB (18)	19.7	18.2	19.5	38.2	11.5	13.8	17.1	33.5	1350
Iron	2000 OR SB (20525)	19900	17500	18300	19400	14300	11100	12900	13100	34300
Lead	SB (32)	6.4	7.9	10	20	7.2	15.2	13.1	25.4	463
Magnesium	SB (12570)	6430	1380	10900	8110	10900	8720	8690	8590	6100
Manganese	SB (325)	247	91.9	330	367	260	232	264	283	410
Mercury	0.1	ND	5.9	ND	ND	ND	ND	ND	ND	ND
Nickel	13 OR SB (22)	12.9	9.8	15.5	16.1	12.2	17.5	18.5	21.4	77.7
Potassium	SB (3560)	820	663	1360	1120	842	839	738	926	1720
Selenium	2 OR SB (NE)	ND	ND	ND	ND	1.8	ND	ND	ND	ND
Silver	SB (ND)	1.5	1	0.5	ND	ND	ND	ND	0.7	4.1
Sodium	SB (<400)	728	827	323	556	260	237	246	296	521
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	27.4	26.5	24.3	26.4	18.9	18	19.4	20.8	29.9
Zinc	20 OR SB (128)	27.2	23.9	45.4	59.8	41.4	48.1	47.4	103	2690
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
 ND = Compound was analyzed for, but not detected.  
 B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.  
 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 3

Wurritzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-200-550 36509 12/12/97 CONC Q (mg/kg)	CS-200-600 36510 12/12/97 CONC Q (mg/kg)	CS-200-650 36548 12/13/97 CONC Q (mg/kg)	CS-DUP-9 36555 12/13/97 CONC Q (mg/kg)	CS-200-700 36549 12/13/97 CONC Q (mg/kg)	CS-200-750 36550 12/13/97 CONC Q (mg/kg)	CS-250-100 36511 12/12/97 CONC Q (mg/kg)	CS-250-150 36514 12/12/97 CONC Q (mg/kg)	CS-250-200 36515 12/12/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	27300	17300	11600	8740	8710	6490	14300	11000	12400
Antimony	SB (ND)	12.2	4.7	2.3	2.8	ND	ND	ND	ND	ND
Arsenic	7.5 OR SB (NE)	10.3	9.5	5.4	6.6	3.4	4.5	6.4	10.8	35.7
Barium	300 OR SB (98)	3880	488	105	92	54.5	47.8	187	340	445
Beryllium	0.16 OR SB (0.8)	0.46	0.76	0.57	0.49	0.45	0.37	0.68	0.9	1
Cadmium	10 OR SB (1)	652	19.5	2.2	1.2	0.48	ND	ND	ND	0.38
Calcium	SB (27728)	17700	11400	18000	28500	38300	46200	10300	14600	12900
Chromium	50 OR SB (26)	1320	269	195	242	53.9	18.3	15.7	9.5	13.8
Cobalt	30 OR SB (9)	18.2	12.5	5	4.6	5	5.5	6.2	5.1	5.6
Copper	25 OR SB (18)	4030	554	29	29.2	22.3	15.3	18.5	28	28.4
Iron	2000 OR SB (20525)	55700	30500	15800	15700	13900	15000	22700	23200	26700
Lead	SB (32)	1580	237	19.1	17.8	12.3	7.9	14.4	4.8	14.9
Magnesium	SB (12570)	5510	4010	4860	6430	8540	11700	2470	1470	1140
Manganese	SB (325)	572	255	166	239	233	344	236	67.3	138
Mercury	0.1	0.95	ND	ND	ND	ND	ND	ND	0.18	6.8
Nickel	13 OR SB (22)	236	115	24.6	20.6	19.8	17.1	14.1	11.8	12.7
Potassium	SB (3560)	2220	2080	981	826	997	1120	980	678	851
Selenium	2 OR SB (NE)	ND	ND	ND	ND	ND	ND	ND	ND	5.7
Silver	SB (ND)	24.9	2.7	0.36	0.52	ND	ND	ND	ND	ND
Sodium	SB (<400)	946	418	260	270	223	257	504	925	1020
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	29.2	42.9	23.9	20	19.2	16.4	30.7	29.5	33.6
Zinc	20 OR SB (128)	5340	1530	109	80.4	55.2	39.4	107	9.8	35.6
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	0.58	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
 ND = Compound was analyzed for, but not detected.  
 B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.  
 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-DUP-5 36493 12/12/97 CONC Q (mg/kg)	CS-250-250 36516 12/12/97 CONC Q (mg/kg)	CS-250-300 36517 12/12/97 CONC Q (mg/kg)	CS-250-350 36518 12/12/97 CONC Q (mg/kg)	CS-250-400 36519 12/12/97 CONC Q (mg/kg)	CS-250-450 36520 12/12/97 CONC Q (mg/kg)	CS-250-500 36521 12/12/97 CONC Q (mg/kg)	CS-DUP-7 36495 12/12/97 CONC Q (mg/kg)	CS-250-600 36522 12/12/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	13300	12200	15100	10100	15400	12600	8510	10500	15800
Antimony	SB (ND)	ND	1.6	1.2	ND	1.5	1.2	1.6	1.6	3.3
Arsenic	7.5 OR SB (NE)	23.4	9	12.5	10.1	9.2	6.7	5	6.3	23.2
Barium	300 OR SB (98)	396	393	367	241	504	282	150	189	1380
Beryllium	0.16 OR SB (0.8)	0.98	0.87	1.1	0.94	1.3	0.85	0.58	0.6	0.55
Cadmium	10 OR SB (1)	0.31	0.86	2.4	ND	2.5	2.3	4.7	29.8	233
Calcium	SB (27728)	15700	23500	20000	11600	34100	7730	54900	54700	12000
Chromium	50 OR SB (26)	13	10.4	13	10.5	15.7	27.1	13.7	13.6	1120
Cobalt	30 OR SB (9)	6.3	4.4	5.2	4.5	5.7	7	5.7	5.9	11.1
Copper	25 OR SB (18)	28.9	23.3	43.3	27.6	61.4	61.9	124	563	3630
Iron	2000 OR SB (20525)	30800	28000	28000	18500	30800	24600	20400	22400	64600
Lead	SB (32)	11.1	20.1	13.2	17.3	16.2	37	40.4	55.9	505
Magnesium	SB (12570)	1330	1950	1330	934	2760	2120	10100	9560	3180
Manganese	SB (325)	108	197	92.4	61	225	260	307	300	800
Mercury	0.1	ND	0.93	0.32	0.74	0.24	0.84	ND	ND	ND
Nickel	13 OR SB (22)	12.9	9.8	14.4	11.7	14.1	22.2	17.8	24.6	133
Potassium	SB (3560)	838	779	984	684	1080	832	1040	1020	1780
Selenium	2 OR SB (NE)	2.7	ND	ND	ND	ND	ND	ND	ND	1.2
Silver	SB (ND)	0.33	ND	0.3	ND	0.47	0.98	ND	0.45	74.8
Sodium	SB (<400)	1030	1040	1230	850	1050	497	496	595	591
Thallium	SB (ND)	ND	ND	ND	ND	1.8	ND	ND	ND	ND
Vanadium	150 OR SB (37)	34.8	23.2	28	27.8	33.5	41.4	20.3	24.7	25.5
Zinc	20 OR SB (128)	34	97.7	66.6	27.2	123	152	172	241	2830
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	38.2

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
 ND = Compound was analyzed for, but not detected.  
 B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.  
 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-250-700 36551 12/13/97 CONC Q (mg/kg)	CS-DUP-11 36557 12/13/97 CONC Q (mg/kg)	CS-300-100 36524 12/12/97 CONC Q (mg/kg)	CS-300-150 36527 12/12/97 CONC Q (mg/kg)	CS-300-200 36528 12/12/97 CONC Q (mg/kg)	CS-300-250 36529 12/12/97 CONC Q (mg/kg)	CS-DUP-6 36494 12/12/97 CONC Q (mg/kg)	CS-300-300 36530 12/12/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>									
Aluminum	SB (18875)	7120	8870	22100	11000	13300	12100	15400	11200
Antimony	SB (ND)	1.9	ND	1.6	1.6	1.4	2.7	2.1	1.5
Arsenic	7.5 OR SB (NE)	7.4	3.7	11.6	4.9	9.4	7.1	13.3	6.4
Barium	300 OR SB (98)	115	60.1	393	181	297	2220	3420	138
Beryllium	0.16 OR SB (0.8)	0.49	0.57	1.3	0.83	1.1	1	1.2	0.64
Cadmium	10 OR SB (1)	0.89	ND	6	6.7	ND	7.9	15.4	0.7
Calcium	SB (27728)	34800	21300	23700	32000	17800	30300	37300	11100
Chromium	50 OR SB (26)	147	24.2	16.1	13.2	12.9	57.4	53.3	13.6
Cobalt	30 OR SB (9)	5.2	7.1	4.8	5.3	4.7	7.3	10.6	4.6
Copper	25 OR SB (18)	31.4	23.3	17.5	85	17.9	92.9	111	35.7
Iron	2000 OR SB (20525)	18200	17400	22300	19900	20700	22700	37200	24200
Lead	SB (32)	12.3	13.1	154	45.3	8.1	1360	362	40.4
Magnesium	SB (12570)	8040	6560	2810	6360	1190	3560	5040	2240
Manganese	SB (325)	247	306	311	309	56	347	427	134
Mercury	0.1	ND	ND	ND	ND	ND	0.41	0.44	ND
Nickel	13 OR SB (22)	13.1	22.1	31.3	25.2	13.4	26.2	38.9	15
Potassium	SB (3560)	740	1250	907	878	906	933	1080	748
Selenium	2 OR SB (NE)	ND	ND	ND	ND	ND	ND	ND	ND
Silver	SB (ND)	0.42	ND	0.54	0.26	0.3	1.2	1.9	ND
Sodium	SB (<400)	418	197	1070	549	1030	801	1050	539
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	18.7	23.8	73.5	22.6	31.6	48.7	79.4	20.7
Zinc	20 OR SB (128)	77.1	59.1	210	308	20.7	2310	4480	93.1
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
 ND = Compound was analyzed for, but not detected.  
 B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.  
 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-300-350 36531 12/12/97 CONC Q (mg/kg)	CS-300-400 36532 12/12/97 CONC Q (mg/kg)	CS-300-450 36533 12/12/97 CONC Q (mg/kg)	CS-300-500 36564 12/12/97 CONC Q (mg/kg)	CS-DUP-3 36491 12/12/97 CONC Q (mg/kg)	CS-300-550 36534 12/12/97 CONC Q (mg/kg)	CS-300-650 36552 12/13/97 CONC Q (mg/kg)	CS-300-700 36471 12/12/97 CONC Q (mg/kg)	CS-350-100 36474 12/12/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	10100	11600	11000	8490	8260	13700	11400	8420	10900
Antimony	SB (ND)	6.8	ND	1.3	1.3	ND	1.8	ND	ND	ND
Arsenic	7.5 OR SB (NE)	9.1	7	6	11.5	16	5	5.6	6.9	3.4
Barium	300 OR SB (98)	125	193	165	237	226	180	274	201	60.9
Beryllium	0.16 OR SB (0.8)	1.1	0.58	0.85	1.3	1.2	0.57	0.77	0.42	0.36
Cadmium	10 OR SB (1)	0.83	ND	3.1	0.7	0.99	6.3	4.8	3	ND
Calcium	SB (27728)	5880	4540	13400	11300	10800	11800	9460	30300	37400
Chromium	50 OR SB (26)	889	20.3	56	22.4	16.7	34.7	182	25.1	12.5
Cobalt	30 OR SB (9)	8.7	4.7	6	5.1	5	6.1	5.2	6.1	5.4
Copper	25 OR SB (18)	19.7	17	72.7	27.2	28.4	737	222	52.7	14
Iron	2000 OR SB (20525)	23900	19600	18000	25400	21100	28800	21300	18000	15700
Lead	SB (32)	75.8	14.7	37.8	18.2	27.8	89.4	100	43.7	12.1
Magnesium	SB (12570)	1240	1760	3300	1010	1120	3600	1960	8030	9110
Manganese	SB (325)	65.3	74.3	230	80.4	77	221	102	281	327
Mercury	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	13 OR SB (22)	16.3	18	41	18.2	13.5	31.6	57.9	26.6	13.7
Potassium	SB (3560)	780	633	728	729	645	1170	1140	1360	1030
Selenium	2 OR SB (NE)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	SB (ND)	0.34	ND	0.75	0.37	0.57	0.68	3.6	0.49	ND
Sodium	SB (<400)	337	269	426	587	638	335	615	303	272
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	22.3	23.5	26.1	24.7	26.6	26.3	24.1	21.1	22.6
Zinc	20 OR SB (128)	2630	45.2	298	40.2	56	1790	181	268	50.2
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.

SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.

NA = Not available.

ND = Compound was analyzed for, but not detected.

B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.

E = Concentration is estimated because of the presence of interference.

NE = Compound was not included in the analysis



Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-350-150 36535 12/12/97 CONC Q (mg/kg)	CS-DUP-4 36492 12/12/97 CONC Q (mg/kg)	CS-350-200 36536 12/12/97 CONC Q (mg/kg)	CS-350-250 36537 12/12/97 CONC Q (mg/kg)	CS-350-300 36540 12/12/97 CONC Q (mg/kg)	CS-350-350 36475 12/12/97 CONC Q (mg/kg)	CS-350-400 36476 12/12/97 CONC Q (mg/kg)	CS-350-500 36477 12/12/97 CONC Q (mg/kg)	CS-350-550 36541 12/12/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	7340	11300	12100	11200	11800	10100	10700	10400	12700
Antimony	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	1.3
Arsenic	7.5 OR SB (NE)	7.7	8.2	4.7	3.4	2.7	2.6	5.3	3	8.2
Barium	300 OR SB (98)	210	255	98.4	68.6	72.1	58.4	61	62.5	801
Beryllium	0.16 OR SB (0.8)	0.74	0.82	0.58	0.54	0.48	0.35	0.36	0.3	0.55
Cadmium	10 OR SB (1)	ND	ND	0.37	26.9	ND	ND	ND	0.64	28.2
Calcium	SB (27728)	8250	12000	5480	14700	24900	62600	45900	38700	13100
Chromium	50 OR SB (26)	11	7.6	15.3	23	22.9	13	12.9	22.4	188
Cobalt	30 OR SB (9)	3.5	3.5	4.5	4.6	5.7	5.4	5.4	4.4	6.9
Copper	25 OR SB (18)	12.5	12	23.4	18.7	12.2	17.2	14.3	13.9	2190
Iron	2000 OR SB (20525)	19100	16000	15000	13100	14100	15400	14700	12900	24100
Lead	SB (32)	4.7	4.1	27	18.1	12.3	13.5	11.3	12.9	339
Magnesium	SB (12570)	902	1120	1990	3970	6370	13900	10500	8930	2760
Manganese	SB (325)	58.3	56.3	83.9	149	290	384	345	256	239
Mercury	0.1	ND	ND	ND	ND	ND	1.8	ND	ND	ND
Nickel	13 OR SB (22)	10.7	8.1	19.1	31.1	21.1	14.9	14.6	12	98.6
Potassium	SB (3560)	318	381	856	898	954	1030	818	957	1370
Selenium	2 OR SB (NE)	ND	ND	ND	10.3	ND	ND	ND	ND	0.86
Silver	SB (ND)	ND	0.42	ND	ND	ND	ND	ND	0.39	6.7
Sodium	SB (<400)	710	970	180	149	208	335	266	215	717
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	19.5	22.5	24.1	21.7	22.9	22	21.4	19.8	23.8
Zinc	20 OR SB (128)	14.7	13.7	78.2	56.8	47.9	60	51.5	55.3	1310
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
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 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-350-650 36553 12/13/97 CONC Q	CS-350-700 36478 12/12/97 CONC Q	CS-400-100 36479 12/12/97 CONC Q	CS-400-150 36480 12/12/97 CONC Q	CS-DUP-2 36490 12/12/97 CONC Q	CS-400-200 36481 12/12/97 CONC Q	CS-400-250 36542 12/12/97 CONC Q	CS-400-300 36482 12/12/97 CONC Q	CS-400-350 36483 12/12/97 CONC Q
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	11100	22800	8710	9950	10500	10800	9090	8770	11900
Antimony	SB (ND)	2.3	1.9	ND	ND	1.1	ND	ND	ND	ND
Arsenic	7.5 OR SB (NE)	13.4	4.6	3.4	3.4	3.8	2.8	5.3	4.3	4.7
Barium	300 OR SB (98)	1210	241	48	58.7	63.4	60.6	65.3	46.4	74.1
Beryllium	0.16 OR SB (0.8)	0.66	0.9	0.31	0.33	0.35	0.35	0.5	0.29	0.42
Cadmium	10 OR SB (1)	19.1	0.28	0.81	1.1	1	0.36	ND	ND	0.38
Calcium	SB (27728)	11700	66000	50300	57200	45900	36300	16800	42700	26700
Chromium	50 OR SB (26)	398	34.2	12.5	13.5	13.6	30.7	20.5	10.5	14.6
Cobalt	30 OR SB (9)	7.2	14.5	5	5.3	5.1	5.1	5	4.8	5.6
Copper	25 OR SB (18)	1480	36.8	15	15.7	13.9	18.2	23.1	12.1	15.7
Iron	2000 OR SB (20525)	41500	38600	15100	15600	14300	15600	17500	13500	15600
Lead	SB (32)	565	12.3	12.3	12.9	11.4	18.2	14.6	10	23.8
Magnesium	SB (12570)	4780	13200	12200	11600	9430	8350	4740	10300	6760
Manganese	SB (325)	289	635	350	290	239	232	168	273	385
Mercury	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	13 OR SB (22)	69.3	32.2	14.7	17.2	15.4	22.2	18.4	12.1	16.8
Potassium	SB (3560)	2070	5450	935	1080	986	1020	560	740	781
Selenium	2 OR SB (NE)	0.92	ND	ND	1.1	ND	ND	ND	ND	ND
Silver	SB (ND)	5.5	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	SB (<400)	443	425	347	357	321	414	175	270	0.29
Thallium	SB (ND)	ND	ND	ND	1.9	ND	ND	ND	ND	269
Vanadium	150 OR SB (37)	21.1	44.4	19.1	21.5	23.1	22.2	26.5	18.4	24.4
Zinc	20 OR SB (128)	1480	75.7	61.7	67.7	60.4	68.2	54.9	48.1	65.7
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
 ND = Compound was analyzed for, but not detected.  
 B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.  
 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 3

Wurlitzer Area B Site  
Remedial Investigation

Summary of Inorganic Results for Soil Composites (mg/kg)

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	CS-400-400 36484 12/12/97 CONC Q (mg/kg)	CS-400-450 36485 12/12/97 CONC Q (mg/kg)	CS-400-500 36486 12/12/97 CONC Q (mg/kg)	CS-400-550 36543 12/12/97 CONC Q (mg/kg)	CS-DUP-8 36496 12/12/97 CONC Q (mg/kg)	CS-400-600 36554 12/13/97 CONC Q (mg/kg)	CS-DUP-10 36556 12/13/97 CONC Q (mg/kg)	CS-400-650 36487 12/12/97 CONC Q (mg/kg)	CS-400-700 36488 12/12/97 CONC Q (mg/kg)
<b>INORGANIC COMPOUNDS</b>										
Aluminum	SB (18875)	9790	11200	16100	23800	26200	10100	10100	11800	13900
Antimony	SB (ND)	ND	ND	ND	29.5	24	1.2	1.5	3.2	ND
Arsenic	7.5 OR SB (NE)	3.7	3.7	5	15.6	20.2	3.6	3.2	29.2	2.8
Barium	300 OR SB (98)	51	63.5	99.3	5610	6700	75.9	72.2	418	93.4
Beryllium	0.16 OR SB (0.8)	0.29	0.35	0.77	0.53	0.38	0.55	0.51	0.76	0.4
Cadmium	10 OR SB (1)	ND	0.45	0.27	5560	2500	0.63	0.7	8.6	ND
Calcium	SB (27728)	52700	36200	5630	16700	18000	28600	32600	16600	5130
Chromium	50 OR SB (26)	11.5	15.4	20.3	4680	2830	47.4	64.1	224	17.8
Cobalt	30 OR SB (9)	4.7	5	10.9	16.8	27.5	5.4	5.4	5.5	6
Copper	25 OR SB (18)	12.2	16.2	17.1	3060	16000	24.6	23.5	278	6.1
Iron	2000 OR SB (20525)	13900	14100	23300	166000	150000	16100	15800	29100	17100
Lead	SB (32)	7.9	18.8	15	2430	1520	28.4	23.9	139	8.8
Magnesium	SB (12570)	11600	8200	3680	4110	4270	7320	7070	3130	3110
Manganese	SB (325)	276	256	485	828	911	268	256	172	157
Mercury	0.1	ND	ND	ND	0.38	0.96	ND	ND	0.44	ND
Nickel	13 OR SB (22)	12	14.2	22.7	578	276	22.7	21.6	47.9	15.2
Potassium	SB (3560)	878	950	983	1870	2140	1370	1290	997	910
Selenium	2 OR SB (NE)	ND	ND	ND	ND	1.9	ND	ND	ND	ND
Silver	SB (ND)	ND	0.36	ND	35.8	46	ND	ND	3.6	ND
Sodium	SB (<400)	302	267	283	971	954	243	235	718	173
Thallium	SB (ND)	ND	ND	ND	1.9	ND	ND	ND	ND	ND
Vanadium	150 OR SB (37)	20	22.4	37	25.8	27.3	22.2	21.7	24.5	23.6
Zinc	20 OR SB (128)	40.4	62.9	66.4	9410	6710	116	107	296	85.9
Cyanide	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 SB = Soil background. Numbers in ( ) indicate average of 4 background sample concentrations.  
 NA = Not available.  
 ND = Compound was analyzed for, but not detected.  
 B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.  
 E = Concentration is estimated because of the presence of interference.  
 NE = Compound was not included in the analysis

Table 4  
Wurliizer Area B Site  
Remedial Investigation  
Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-0-350 O36070 12/10/97 I CONC Q (ug/kg)	CS-0-400 O36071 12/10/97 I CONC Q (ug/kg)	CS-0-450 O36072 12/10/97 I CONC Q (ug/kg)	CS-0-500 O36073 12/10/97 I CONC Q (ug/kg)	CS-0-550 O36074 12/10/97 I CONC Q (ug/kg)	CS-0-600 O36075 12/10/97 I CONC Q (ug/kg)	CS-0-650 O36076 12/10/97 I CONC Q (ug/kg)	CS-0-700 O36077 12/10/97 I CONC Q (ug/kg)	CS-0-750 O36078 12/10/97 I CONC Q (ug/kg)
<b>SEMIVOLATILE COMPOUND</b>										
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	6,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	8,100	260	210	160	200	240	150	170	190	130
Fluoranthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benz[a]anthracene	224	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	61	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[ghi]perylene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:  
Only those compounds detected in at least one sample have been included in this table.  
ND = Compound was analyzed for, but not detected.  
J = Concentration has been estimated.  
E = Concentration is estimated because of the presence of interference.

Table 4  
 Wurliizer Area B Site  
 Remedial Investigation  
 Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-50-350		CS-50-400		CS-50-450		CS-50-500		CS-50-550		CS-50-600		CS-50-650		CS-50-700		CS-50-750			
		O36079 12/10/97	CONC (ug/kg)	O36080 12/10/97	CONC (ug/kg)	O36081 12/10/97	CONC (ug/kg)	O36082 12/10/97	CONC (ug/kg)	O36083 12/10/97	CONC (ug/kg)	O36084 12/10/97	CONC (ug/kg)	O36085 12/10/97	CONC (ug/kg)	O36086 12/10/97	CONC (ug/kg)	O36087 12/10/97	CONC (ug/kg)	CONC (ug/kg)	
<b>SEMIVOLATILE COMPOUND</b>																					
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Naphthalene	13,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Acenaphthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dibenzofuran	6,200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Fluorene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Phenanthrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Anthracene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbazole	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Di-n-butylphthalate	8,100	88	J	87	J	190	J	95	J	100	J	80	J	150	J	47	J	160	J	320	J
Fluoranthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Pyrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzo[a]anthracene	224	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chrysene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzo[b]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzo[k]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzo[a]pyrene	61	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzo[ghi]perylene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:  
 Only those compounds detected in at least one sample have been included in this table.  
 ND = Compound was analyzed for, but not detected.  
 J = Concentration has been estimated.  
 E = Concentration is estimated because of the presence of interference.

Table 4  
 Wurlitzer Area B Site  
 Remedial Investigation  
 Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-100-100 O36088 12/10/97 I CONC (ug/kg)	CS-100-150 O36089 12/10/97 I CONC (ug/kg)	CS-100-200 O36092 12/10/97 I CONC (ug/kg)	CS-100-250 O36093 12/10/97 I CONC (ug/kg)	CS-100-300 O36094 12/10/97 I CONC (ug/kg)	CS-100-350 O36095 12/10/97 I CONC (ug/kg)	CS-100-400 O36096 12/10/97 I CONC (ug/kg)	CS-100-450 O36097 12/10/97 I CONC (ug/kg)	CS-100-500 O36098 12/10/97 I CONC (ug/kg)
<b>SEMI-VOLATILE COMPOUND</b>										
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	6,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	8,100	98	J	17	13	17	24	17	17	20
Fluoranthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	224	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	61	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:  
 Only those compounds detected in at least one sample have been included in this table.  
 ND = Compound was analyzed for, but not detected.  
 J = Concentration has been estimated.  
 E = Concentration is estimated because of the presence of interference.

Table 4  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-100-550 O36099 12/10/97 I CONC Q (ug/kg)	CS-100-600 O36100 12/10/97 I CONC Q (ug/kg)	CS-100-650 O36101 12/10/97 I CONC Q (ug/kg)	CS-100-700 O36102 12/10/97 I CONC Q (ug/kg)	CS-100-750 O36103 12/10/97 I CONC Q (ug/kg)	CS-150-100 O36457 12/10/97 I CONC Q (ug/kg)	CS-DUP-1 O36489 12/12/97 I CONC Q (ug/kg)	CS-150-150 O36497 12/12/97 I CONC Q (ug/kg)	CS-150-200 O36460 12/10/97 I CONC Q (ug/kg)
<b>SEMIVOLATILE COMPOUND</b>										
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	ND	ND	ND	ND	6	ND
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	6,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50,000	ND	ND	ND	ND	ND	ND	ND	42	ND
Anthracene	50,000	ND	ND	ND	ND	ND	ND	ND	10	ND
Carbazole	50,000	ND	ND	ND	ND	ND	ND	ND	30	ND
Di-n-butylphthalate	8,100	17	10	13	14	15	12	48	ND	6
Fluoranthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	J
Pyrene	50,000	ND	ND	ND	ND	ND	ND	ND	38	ND
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	26	ND
Benzo[a]anthracene	224	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	400	ND	ND	ND	ND	ND	ND	ND	14	ND
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	ND	ND	ND	ND	ND	17	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	23	ND
Benzo[a]pyrene	61	ND	ND	ND	ND	ND	ND	ND	28	ND
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	ND	ND	ND	ND	12	ND
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	ND	ND	ND	4	ND
Benzo[g,h,i]perylene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:  
Only those compounds detected in at least one sample have been included in this table.  
ND = Compound was analyzed for, but not detected.  
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Table 4  
 Wurlitzer Area B Site  
 Remedial Investigation  
 Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-150-250 O36461 12/10/97 I CONC (ug/kg)	CS-150-300 O36462 12/10/97 I CONC (ug/kg)	CS-150-350 O36463 12/10/97 I CONC (ug/kg)	CS-150-400 O36464 12/10/97 I CONC (ug/kg)	CS-150-450 O36465 12/10/97 I CONC (ug/kg)	CS-150-500 O36498 12/12/97 I CONC (ug/kg)	CS-150-550 O36499 12/12/97 I CONC (ug/kg)	CS-150-600 O36500 12/12/97 I CONC (ug/kg)	CS-150-650 O36501 12/12/97 I CONC (ug/kg)
<b>SEMI-VOLATILE COMPOUND</b>										
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	ND	ND	6	ND	ND	ND
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND	4	ND	ND	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	6,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	ND	ND	ND	ND	4	ND	ND
Phenanthrene	50,000	ND	ND	ND	ND	39	30	41	ND	ND
Anthracene	50,000	ND	ND	ND	ND	9	5	9	ND	ND
Carbazole	50,000	ND	ND	ND	ND	16	19	31	ND	ND
Di-n-butylphthalate	8,100	ND	6	10	4	12	19	ND	8	7
Fluoranthene	50,000	ND	ND	ND	ND	38	41	65	ND	ND
Pyrene	50,000	ND	ND	ND	ND	28	33	51	ND	ND
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	224	ND	ND	ND	ND	15	20	26	ND	ND
Chrysene	400	ND	ND	ND	ND	19	25	29	ND	ND
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	ND	ND	ND	24	ND	ND	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1,100	ND	ND	ND	ND	25	41	40	ND	ND
Benzo[k]fluoranthene	1,100	ND	ND	ND	ND	31	50	49	ND	ND
Benzo[a]pyrene	61	ND	ND	ND	ND	14	20	19	ND	ND
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	ND	5	7	7	ND	ND
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	50,000	ND	ND	ND	ND	6	7	6	ND	ND

Notes:  
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Table 4  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-150-700 O36502 12/12/97 I CONC Q (ug/kg)	CS-150-750 O36503 12/12/97 I CONC Q (ug/kg)	CS-200-100 O36504 12/12/97 I CONC Q (ug/kg)	CS-200-150 O36505 12/12/97 I CONC Q (ug/kg)	CS-200-200 O36506 12/12/97 I CONC Q (ug/kg)	CS-200-250 O36507 12/12/97 I CONC Q (ug/kg)	CS-200-300 O36466 12/10/97 I CONC Q (ug/kg)	CS-200-350 O36559 12/12/97 I CONC Q (ug/kg)	CS-200-400 O36502 12/12/97 I CONC Q (ug/kg)
<b>SEMIVOLATILE COMPOUND</b>										
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	6,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	8,100	20	9	20	10	23	8	14	68	120
Fluoranthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	224	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	61	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:  
Only those compounds detected in at least one sample have been included in this table.  
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Table 4  
 Wurlitzer Area B Site  
 Remedial Investigation  
 Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-200-450 O36563 12/12/97 CONC Q (ug/kg)	CS-200-500 O36508 12/12/97 CONC Q (ug/kg)	CS-200-550 O36509 12/12/97 CONC Q (ug/kg)	CS-200-600 O36510 12/12/97 CONC Q (ug/kg)	CS-200-650 O36548 12/13/97 CONC Q (ug/kg)	CS-DUP-9 O36555 12/13/97 CONC Q (ug/kg)	CS-200-650DL O36548DL 12/13/97 CONC Q (ug/kg)	CS-DUP-9DL O36555DL 12/13/97 CONC Q (ug/kg)
<b>SEMIVOLATILE COMPOUND</b>									
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	ND	570	190	470	ND
2-Methylnaphthalene	36,400	ND	ND	ND	ND	410	170	ND	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	980	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	2000	1000	1900	1000
Dibenzofuran	6,200	ND	ND	ND	ND	990	460	870	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	ND	ND	2500	1200	2200	1200
Phenanthrene	50,000	ND	ND	6	ND	ND	5000	8600	5300
Anthracene	50,000	ND	ND	ND	ND	2900	1600	2700	1500
Carbazole	50,000	ND	ND	ND	ND	10000	5300	8000	4400
Di-n-butylphthalate	8,100	J	13	ND	7	290	120	ND	ND
Fluoranthene	50,000	ND	ND	10	8	ND	4600	7400	4700
Pyrene	50,000	ND	ND	8	6	5600	3700	5600	3600
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Benzoflanthracene	224	ND	ND	5	5	3500	2100	3000	1900
Chrysene	400	ND	ND	6	19	3400	2100	3100	1900
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	28	ND	ND	ND	ND	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Benzofluoranthene	1,100	ND	ND	12	7	3700	2000	2300	1600
Benzokfluoranthene	1,100	ND	ND	15	8	2100	1700	2400	1900
Benzofluorene	61	ND	ND	6	ND	3300	2000	2700	1700
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	ND	1100	700	1300	900
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	130	310	ND	ND
Benzofg,h,i]perylene	50,000	ND	ND	ND	ND	1000	660	1400	1000

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Table 4  
 Wurlitzer Area B Site  
 Remedial Investigation  
 Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-200-650RR 12/13/97 CONC I	CS-DUP-9RR 036555RR 12/13/97 CONC I	CS-200-700 036549 12/13/97 CONC I	CS-200-750 036550 12/13/97 CONC I	CS-250-100 036511 12/12/97 CONC I	CS-250-150 036514 12/12/97 CONC I	CS-250-200 036515 12/12/97 CONC I	CS-DUP-5 036493 12/12/97 CONC I
<b>SEMIVOLATILE COMPOUND</b>									
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	530	190	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	36,400	390	180	ND	ND	ND	ND	ND	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	500	310	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	1900	990	ND	ND	ND	ND	ND	ND
Dibenzofuran	6,200	1400	690	ND	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	2100	1100	ND	ND	ND	ND	ND	ND
Phenanthrene	50,000	7200	4100	ND	ND	ND	ND	ND	ND
Anthracene	50,000	2600	1400	ND	ND	ND	ND	ND	ND
Carbazole	50,000	4100	2300	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	8,100	250	100	110	130	11	56	150	23
Fluoranthene	50,000	6600	4300	ND	69	ND	ND	ND	ND
Pyrene	50,000	4600	3100	ND	86	ND	ND	ND	ND
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	224	3400	2000	ND	65	ND	ND	ND	ND
Chrysene	400	3100	1900	ND	84	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1,100	4300	2200	ND	120	ND	ND	ND	ND
Benzo[k]fluoranthene	1,100	1500	1300	ND	98	ND	ND	ND	ND
Benzo[a]pyrene	61	3000	1800	ND	99	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	3,200	1100	740	ND	58	ND	ND	ND	ND
Dibenz[a,h]anthracene	14	150	100	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	50,000	1100	720	ND	55	ND	ND	ND	ND

Notes:  
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Table 4  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-250-250 O36516 12/12/97 CONC Q (ug/kg)	CS-250-300 O36517 12/12/97 CONC Q (ug/kg)	CS-250-350 O36518 12/12/97 CONC Q (ug/kg)	CS-250-350DL O36518DL 12/12/97 CONC Q (ug/kg)	CS-250-400 O36519 12/12/97 CONC Q (ug/kg)	CS-250-450 O36520 12/12/97 CONC Q (ug/kg)	CS-250-500 O36521 12/12/97 CONC Q (ug/kg)	CS-DUP-7 O36495 12/12/97 CONC Q (ug/kg)	CS-250-600 O36522 12/12/97 CONC Q (ug/kg)
<b>SEMI-VOLATILE COMPOUND</b>										
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	59 J	54 J	1500	1400 JD	46 J	ND	ND	ND	ND
2-Methylnaphthalene	36,400	65 J	55 J	390 J	ND	ND	ND	ND	ND	ND
Acenaphthylene	41,000	ND	ND	280 J	ND	ND	ND	ND	ND	51 J
3-Nitroaniline	500	ND	ND	540 J	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	1200	JD	ND	ND	ND	ND	ND
Dibenzofuran	6,200	ND	ND	620	JD	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	1300	JD	ND	ND	ND	ND	ND
Phenanthrene	50,000	100 J	56 J	5400	8200 JD	70 J	65 J	ND	7 J	380 J
Anthracene	50,000	ND	ND	2200	JD	ND	ND	ND	6 J	ND
Carbazole	50,000	ND	ND	8000	D	ND	ND	ND	ND	320 J
Di-n-butylphthalate	8,100	220 J	120 J	200 J	ND	80 J	280 J	140 J	ND	220 J
Fluoranthene	50,000	82 J	ND	5300	D	47 J	60 J	ND	10 J	550
Pyrene	50,000	78 J	ND	7000	D	45 J	51 J	ND	7 J	490
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzofluoranthracene	224	45 J	ND	3900	JD	ND	ND	ND	ND	250 J
Chrysene	400	49 J	ND	3900	JD	ND	ND	ND	5 J	300 J
bis(2-Ethylhexyl)phthalate	50,000	72 J	130 J	170 J	ND	170 J	89 J	ND	ND	79 J
Di-n-octylphthalate	50,000	85 J	160 J	360 J	ND	ND	100 J	ND	ND	ND
Benzofluoranthene	1,100	ND	ND	4900	JD	ND	ND	ND	7 J	420 J
Benzokjfluoranthene	1,100	ND	ND	3400	JD	ND	ND	ND	8 J	320 J
Benzofluoranthene	61	ND	ND	4000	JD	ND	ND	ND	ND	350 J
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	1800	JD	ND	ND	ND	ND	190 J
Dibenz[a,h]anthracene	14	ND	ND	500	ND	ND	ND	ND	ND	48 J
Benzofluoranthene	50,000	ND	ND	1900	JD	ND	ND	ND	ND	200 J

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Table 4  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-250-650 O36523 12/12/97 CONC (ug/kg)	CS-250-700 O36551 12/13/97 CONC Q (ug/kg)	CS-DUP-11 O36557 12/13/97 CONC Q (ug/kg)	CS-300-100 O36524 12/12/97 CONC Q (ug/kg)	CS-300-100DL O36524DL 12/12/97 CONC Q (ug/kg)	CS-300-150 O36527 12/12/97 CONC Q (ug/kg)	CS-300-200 O36528 12/12/97 CONC Q (ug/kg)	CS-300-250 O36529 12/12/97 CONC Q (ug/kg)	CS-DUP-6 O36494 12/12/97 CONC Q (ug/kg)
<b>SEMI-VOLATILE COMPOUND</b>										
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	53	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	2900	ND	2900	3500	ND	ND	ND	ND
2-Methylnaphthalene	36,400	ND	1800	ND	1800	2200	JD	61	220	ND
Acenaphthylene	41,000	ND	83	ND	83	ND	JD	59	83	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	200	24
Acenaphthene	50,000	ND	5400	ND	5400	9600	D	ND	ND	ND
Dibenzofuran	6,200	ND	3000	ND	3000	4600	JD	ND	230	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	130	ND
Fluorene	50,000	ND	6600	ND	6600	11000	D	ND	350	ND
Phenanthrene	50,000	ND	ND	ND	ND	35000	D	66	2000	52
Anthracene	50,000	ND	6900	ND	6900	12000	D	ND	390	14
Carbazole	50,000	ND	41000	ND	41000	52000	D	ND	1500	82
Di-n-butylphthalate	8,100	100	110	J	ND	ND	D	ND	1500	63
Fluoranthene	50,000	ND	ND	ND	ND	29000	D	ND	2300	130
Pyrene	50,000	ND	18000	ND	18000	21000	D	ND	2000	170
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	D	ND	ND	ND
Benzofluoranthene	224	ND	12000	ND	12000	13000	D	ND	1200	110
Benzokjfluoranthene	61	ND	9600	ND	9600	12000	D	ND	1300	110
Benzo[a]pyrene	3,200	ND	1100	ND	1100	790	JD	ND	280	22
Indeno[1,2,3-cd]pyrene	14	ND	ND	ND	ND	ND	JD	ND	ND	ND
Dibenz[a,h]anthracene	50,000	ND	12000	ND	12000	10000	D	ND	1100	230
Benzo[g,h,i]perylene	50,000	ND	7700	ND	7700	11000	D	ND	1100	290
		ND	9200	ND	9200	12000	D	ND	1100	100
		ND	5100	ND	5100	5200	D	ND	470	30
		ND	600	ND	600	640	JD	ND	150	16
		ND	5400	ND	5400	5100	D	ND	490	27

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Table 4  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-DUP-6RR O36494RR 12/12/97 I CONC Q (ug/kg)	CS-300-300 O36530 12/12/97 I CONC Q (ug/kg)	CS-300-350 O36531 12/12/97 I CONC Q (ug/kg)	CS-300-400 O36532 12/12/97 I CONC Q (ug/kg)	CS-300-450 O36533 12/12/97 I CONC Q (ug/kg)	CS-300-450DL O36533DL 12/12/97 50 CONC Q (ug/kg)	CS-300-500 O36564 12/12/97 I CONC Q (ug/kg)	CS-DUP-3 O36491 12/12/97 I CONC Q (ug/kg)
<b>SEMI-VOLATILE COMPOUND</b>									
2-Methylphenol	100	ND	ND	ND	ND	59	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	98	ND	ND	ND
Naphthalene	13,000	ND	ND	47	ND	5400	7100	72	130
2-Methylnaphthalene	36,400	ND	ND	50	ND	1800	2200	51	120
Acenaphthylene	41,000	23	ND	ND	ND	370	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	5700	8700	ND	ND
Dibenzofuran	6,200	ND	ND	ND	ND	2900	5100	ND	ND
Diethylphthalate	7,100	ND	ND	140	53	110	ND	ND	ND
Fluorene	50,000	ND	ND	ND	ND	6300	11000	49	56
Phenanthrene	50,000	52	240	100	56	ND	78000	580	520
Anthracene	50,000	13	53	ND	ND	ND	23000	120	92
Carbazole	50,000	20	170	ND	ND	120000	77000	180	400
Di-n-butylphthalate	8,100	62	1400	110	88	1100	ND	110	140
Fluoranthene	50,000	120	330	110	49	ND	84000	760	760
Pyrene	50,000	160	250	86	46	35000	65000	610	750
Butylbenzylphthalate	50,000	ND	ND	ND	ND	120	ND	ND	ND
Benzofluoranthene	224	120	140	45	ND	35000	38000	390	390
Chrysene	400	110	160	57	ND	ND	39000	500	420
bis(2-Ethylhexyl)phthalate	50,000	23	140	240	ND	540	ND	60	51
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	59
Benzofluoranthene	1,100	210	110	ND	ND	150000	24000	340	340
Benzofluoranthene	1,100	280	120	ND	ND	24000	28000	340	380
Benzofluoranthene	61	96	120	ND	ND	21000	30000	330	350
Indeno[1,2,3-cd]pyrene	3,200	34	65	ND	ND	21000	14000	170	150
Dibenz[a,h]anthracene	14	20	ND	ND	ND	6100	ND	62	ND
Benzofluoranthene	50,000	28	67	ND	ND	4800	14000	180	140

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Table 4  
Wurliizer Area B Site  
Remedial Investigation  
Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSD/EC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-300-550 O36534 12/12/97 CONC Q (ug/kg)	CS-300-550RE O36534RE 12/12/97 CONC Q (ug/kg)	CS-300-650 O36552 12/13/97 CONC Q (ug/kg)	CS-300-700 O36471 12/12/97 CONC Q (ug/kg)	CS-350-100 O36474 12/12/97 CONC Q (ug/kg)	CS-350-150 O36535 12/12/97 CONC Q (ug/kg)	CS-DUP-4 O36492 12/12/97 CONC Q (ug/kg)	CS-350-200 O36536 12/12/97 CONC Q (ug/kg)
<b>SEMIVOLATILE COMPOUND</b>									
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	90	ND	55	100	140
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND	ND	95	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	78	ND	ND	ND	360
Dibenzofuran	6,200	ND	ND	ND	48	ND	ND	ND	99
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	ND	100	ND	ND	ND	320
Phenanthrene	50,000	130	55	ND	660	ND	ND	68	2100
Anthracene	50,000	ND	ND	ND	160	ND	ND	ND	590
Carbazole	50,000	ND	ND	ND	620	ND	ND	ND	2300
Di-n-butylphthalate	8,100	520	570	180	1200	170	72	ND	130
Fluoranthene	50,000	160	94	ND	660	ND	ND	ND	2700
Pyrene	50,000	160	81	ND	590	ND	ND	ND	2100
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Benzofluranthracene	224	84	ND	ND	300	ND	ND	ND	1500
Chrysene	400	290	280	ND	340	ND	ND	ND	1600
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1,100	ND	ND	ND	260	ND	ND	ND	1400
Benzo[k]fluoranthene	1,100	75	ND	ND	260	ND	ND	ND	1200
Benzo[a]pyrene	61	75	ND	ND	230	ND	ND	ND	1300
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	110	ND	ND	ND	660
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	ND	ND	ND	180
Benzo[g,h,i]perylene	50,000	ND	ND	ND	98	ND	ND	ND	610

Notes:  
Only those compounds detected in at least one sample have been included in this table.  
ND = Compound was analyzed for, but not detected.  
J = Concentration has been estimated.  
E = Concentration is estimated because of the presence of interference.

Table 4  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-350-250		CS-350-300		CS-350-400		CS-350-500		CS-350-550		CS-350-650		CS-350-650RR		CS-350-700	
		CONC	Q	CONC	Q	CONC	Q	CONC	Q	CONC	Q	CONC	Q	CONC	Q	CONC	Q
<b>SEMIVOLATILE COMPOUND</b>																	
2-Methylphenol	100	ND		ND		ND		ND		ND		ND		ND		ND	
2,4-Dimethylphenol	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Naphthalene	13,000	ND		ND		ND		ND		ND		ND		ND		ND	
2-Methylnaphthalene	36,400	ND		ND		ND		ND		ND		ND		ND		ND	
Acenaphthylene	41,000	ND		ND		ND		ND		ND		ND		ND		ND	
3-Nitroaniline	500	ND		ND		ND		ND		ND		ND		ND		ND	
Acenaphthene	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Dibenzofuran	6,200	ND		ND		ND		ND		ND		ND		ND		ND	
Diethylphthalate	7,100	ND		ND		ND		ND		ND		ND		ND		ND	
Fluorene	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Phenanthrene	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Anthracene	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Carbazole	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Di-n-butylphthalate	8,100	95	J	120	J	130	J	110	J	630	J	96	J	90	J	ND	J
Fluoranthene	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Pyrene	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Butylbenzylphthalate	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Benzo[a]anthracene	224	ND		ND		ND		ND		ND		ND		ND		ND	
Chrysene	400	ND		ND		ND		ND		ND		ND		ND		ND	
bis(2-Ethylhexyl)phthalate	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Di-n-octylphthalate	50,000	ND		ND		ND		ND		ND		ND		ND		ND	
Benzo[b]fluoranthene	1,100	ND		ND		ND		ND		ND		ND		ND		ND	
Benzo[k]fluoranthene	1,100	ND		ND		ND		ND		ND		ND		ND		ND	
Benzo[a]pyrene	61	ND		ND		ND		ND		ND		ND		ND		ND	
Indeno[1,2,3-cd]pyrene	3,200	ND		ND		ND		ND		ND		ND		ND		ND	
Dibenz[a,h]anthracene	14	ND		ND		ND		ND		ND		ND		ND		ND	
Benzo[g,h,i]perylene	50,000	ND		ND		ND		ND		ND		ND		ND		ND	

Notes:

Only those compounds detected in at least one sample have been included in this table.

ND = Compound was analyzed for, but not detected.

J = Concentration has been estimated.

E = Concentration is estimated because of the presence of interference.



Table 4  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-400-100 O36479 12/12/97 I CONC Q (ug/kg)	CS-400-150 O36480 12/12/97 I CONC Q (ug/kg)	CS-DUIP-2 O36490 12/12/97 I CONC Q (ug/kg)	CS-400-200 O36481 12/12/97 I CONC Q (ug/kg)	CS-400-250 O36542 12/12/97 I CONC Q (ug/kg)	CS-400-300 O36482 12/12/97 I CONC Q (ug/kg)	CS-400-350 O36483 12/12/97 I CONC Q (ug/kg)	CS-400-400 O36484 12/12/97 I CONC Q (ug/kg)	CS-400-450 O36485 12/12/97 I CONC Q (ug/kg)
<b>SEMIVOLATILE COMPOUND</b>										
2-Methylphenol	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	6,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	8,100	75	45	91	63	91	63	54	J	ND
Fluoranthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	224	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	61	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:  
Only those compounds detected in at least one sample have been included in this table.  
ND = Compound was analyzed for, but not detected.  
J = Concentration has been estimated.  
E = Concentration is estimated because of the presence of interference.

Table 4  
 Wurlitzer Area B Site  
 Remedial Investigation  
 Summary of Semi-Volatile Organics (ug/kg) in Soil

Sample Number Lab. Sample No. Sampling Date Dilution Factor	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-400-500 O36486 12/12/97 I CONC Q (ug/kg)	CS-400-550 O36543 12/12/97 I CONC Q (ug/kg)	CS-DUP-8 O36496 12/13/97 I CONC Q (ug/kg)	CS-400-600 O36554 12/13/97 I CONC Q (ug/kg)	CS-DUP-10 O36556 12/13/97 I CONC Q (ug/kg)
<b>SEMIVOLATILE COMPOUND</b>						
2-Methylphenol	100	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50,000	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	ND	ND
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND
Acenaphthylene	41,000	ND	ND	ND	ND	ND
3-Nitroaniline	500	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	ND
Dibenzofuran	6,200	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	ND	ND	ND	ND
Fluorene	50,000	ND	ND	ND	ND	ND
Phenanthrene	50,000	ND	ND	ND	ND	45 J
Anthracene	50,000	ND	ND	ND	ND	ND
Carbazole	50,000	ND	ND	ND	ND	ND
Di-n-butylphthalate	8,100	ND	250 J	40	150 J	85 J
Fluoranthene	50,000	ND	ND	ND	73 J	89 J
Pyrene	50,000	ND	ND	ND	59 J	65 J
Butylbenzylphthalate	50,000	ND	ND	ND	ND	ND
Benzo[a]anthracene	224	ND	ND	ND	ND	ND
Chrysene	400	ND	ND	ND	ND	45 J
bis(2-Ethylhexyl)phthalate	50,000	ND	70 J	6 J	ND	ND
Di-n-octylphthalate	50,000	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1,100	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1,100	ND	ND	ND	ND	ND
Benzo[a]pyrene	61	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	3,200	ND	ND	ND	ND	ND
Dibenz[a,h]anthracene	14	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	50,000	ND	ND	ND	ND	ND

Notes:  
 Only those compounds detected in at least one sample have been included  
 ND = Compound was analyzed for, but not detected.  
 J = Concentration has been estimated.  
 E = Concentration is estimated because of the presence of interference.

Table 5

Wurlitzer Area B Site  
Remedial Investigation

Summary of Volatile Organic Compounds (ug/kg) in Soil

Sample Number Lab. Sample Number Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-350-250 O36537 12/12/97 CONC Q (ug/kg)	CS-350-300 O36540 12/12/97 CONC Q (ug/kg)	CS-350-550 O36541 12/12/97 CONC Q (ug/kg)	CS-350-550RE O36541RE 12/12/97 CONC Q (ug/kg)	CS-400-250 O36542 12/12/97 CONC Q (ug/kg)	CS-400-250RE O36542RE 12/12/97 CONC Q (ug/kg)	CS-400-550 O36543 12/12/97 CONC Q (ug/kg)	CS-400-550RE O36543RE 12/12/97 CONC Q (ug/kg)
<b>VOLATILE ORGANICS</b>									
Methylene Chloride	100	ND	11 J	ND	9 J	ND	11 J	ND	35
Trichloroethene	700	ND	ND	ND	ND	ND	ND	35	95
1,1,2-Trichloroethane	10,000	ND	ND	ND	ND	ND	ND	8 J	29
4-Methyl-2-Pentanone	1000	6.6 J	ND	ND	ND	ND	ND	ND	ND
<p>Notes: Only those compounds detected in at least one sample have been included in this table. ND = Compound was analyzed for, but not detected. J = Concentration has been estimated.</p>									

Table 5

Wurlitzer Area B Site  
Remedial Investigation

Summary of Volatile Organic Compounds (ug/kg) in Soil

Sample Number Lab. Sample Number Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	CS-350-250 O36537 12/12/97 CONC Q (ug/kg)	CS-350-300 O36540 12/12/97 CONC Q (ug/kg)	CS-350-550 O36541 12/12/97 CONC Q (ug/kg)	CS-350-550RE O36541RE 12/12/97 CONC Q (ug/kg)	CS-400-250 O36542 12/12/97 CONC Q (ug/kg)	CS-400-250RE O36542RE 12/12/97 CONC Q (ug/kg)	CS-400-550 O36543 12/12/97 CONC Q (ug/kg)	CS-400-550RE O36543RE 12/12/97 CONC Q (ug/kg)
<b>VOLATILE ORGANICS</b>									
Methylene Chloride	100	ND	11 J	ND	9 J	ND	11 J	ND	35
Trichloroethene	700	ND	ND	ND	ND	ND	ND	35	95
1,1,2-Trichloroethane	10,000	ND	ND	ND	ND	ND	ND	8 J	29
4-Methyl-2-Pentanone	1000	6.6 J	ND	ND	ND	ND	ND	ND	ND

Notes:

Only those compounds detected in at least one sample have been included in this table.  
 ND = Compound was analyzed for, but not detected.  
 J = Concentration has been estimated.

Table 6  
Wurritzer Area B Site  
Remedial Investigation  
Summary of Soil Sample Results Taken from Test Pit Excavations

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	TP-1 44040 4/21/98 Conc. Q (mg/kg)	TP-2 44041 4/21/98 Conc. Q (mg/kg)	TP-3 44042 4/21/98 Conc. Q (mg/kg)	TP-4 44043 4/21/98 Conc. Q (mg/kg)	TP-8C 44047 4/21/98 Conc. Q (mg/kg)	TP-10 44044 4/21/98 Conc. Q (mg/kg)
<b>INORGANICS</b>							
Aluminum	SB (18875)	41500	15200	38900	13900	12900	17800
Antimony	SB (ND)	ND	ND	19.2	ND	ND	ND
Arsenic	7.5 or SB (NE)	9.7	15.2	10.1	14.6	9.7	16.2
Barium	300 or SB (98)	5550	406	2640	865	465	1610
Beryllium	0.16 or SB (0.8)	0.49	0.98	0.85	1.2	1.2	0.63
Cadmium	10 or SB (1)	69.9	21.1	443	20.6	862	92.6
Calcium	SB (27728)	20000	9700	48100	22800	33500	60000
Chromium	50 or SB (26)	5210	154	4430	745	463	766
Cobalt	30 or SB (9)	17.7	9.4	16.9	6.5	5.4	14.1
Copper	25 or SB (18)	3270	875	3150	753	1240	2500
Iron	2000 or SB (20525)	68200	56500	61600	29600	94000	100000
Lead	SB (32) <sup>(2)</sup>	860	398	1220	470	82.3	1820
Magnesium	SB (12570)	10100	15200	8880	3400	2530	5960
Manganese	SB (325)	914	576	597	465	593	1080
Mercury	0.10	0.17	0.43	ND	0.27	ND	0.4
Nickel	13 or SB (22)	608	1050	299	68.1	519	98.1
Potassium	SB (3560)	3540	3310	2920	1210	699	1260
Selenium	2 or SB (NE)	15.8	ND	ND	5.6	ND	ND
Silver	SB (<4)	127	2.2	7.7	2.2	0.72	14
Sodium	SB (<400)	1340	717	3380	732	5480	610
Thallium	SB (ND)	ND	ND	ND	ND	ND	ND
Vanadium	150 or SB (37)	25.1	51.5	34	18.6	21.9	19.3
Zinc	20 or SB (128)	2870	2190	6330	1110	399	35100
Cyanide	<sup>(3)</sup>	6.6	1.2	2.1	0.93	40.5	26.2

Table 6  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Soil Sample Results Taken from Test Pit Excavations

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	TP-1 44040 4/21/98 Conc. Q (ug/kg)	TP-2 44041 4/21/98 Conc. Q (ug/kg)	TP-3 44042 4/21/98 Conc. Q (ug/kg)	TP-4 44043 4/21/98 Conc. Q (ug/kg)	TP-8C 44047 4/21/98 Conc. Q (ug/kg)	TP-10 44044 4/21/98 Conc. Q (ug/kg)
<b>SEMIVOLATILE ORGANIC COMPOUNDS</b>							
Naphthalene	13,000	ND	1500	ND	210	ND	5100
2-Methylnaphthalene	36,400	ND	560	ND	86	ND	2000
Acenaphthylene	41,000	ND	2400	ND	ND	ND	ND
Acenaphthene	50,000 <sup>(4)</sup>	ND	1300	ND	120	ND	7200
Dibenzofuran	6,200	ND	1200	ND	120	ND	6300
Diethylphthalate	7,100	ND	ND	ND	ND	ND	ND
Fluorene	50,000 <sup>(4)</sup>	ND	1600	ND	170	ND	8700
Phenanthrene	50,000 <sup>(4)</sup>	ND	15200	ND	1200	610	56900
Anthracene	50,000 <sup>(4)</sup>	ND	3900	ND	190	140	16360
Carbazole	NV	ND	3300	ND	130	64	14600
Di-n-butylphthalate	8,100	ND	ND	ND	ND	ND	ND
Fluoranthene	50,000 <sup>(4)</sup>	ND	16300	ND	700	2500	45300
Pyrene	50,000 <sup>(4)</sup>	ND	19800	ND	610	2900	53900
Benzo[a]anthracene	244 or MDL	ND	8800	ND	240	1800	29700
Chrysene	400	ND	10300	ND	290	1500	25500
bis(2-Ethylhexyl)phthalate	50,000 <sup>(4)</sup>	96	ND	ND	ND	85	27700
Benzo[b]fluoranthene	1,100	ND	25700	ND	240	2800	29400
Benzo[k]fluoranthene	1,100	ND	16000	ND	260	1500	21300
Benzo[a]pyrene	61 or MDL	ND	17100	ND	210	1400	26200
Indeno[1,2,3-cd]pyrene	3.2	ND	5900	ND	74	400	8100
Dibenz[a,h]anthracene	14 or MDL	ND	1800	ND	ND	120	2800
Benzo[ghi,perylene]	50,000 <sup>(4)</sup>	ND	5800	ND	69	370	7200

Table 6  
 Wurlitzer Area B Site  
 Remedial Investigation  
 Summary of Soil Sample Results Taken from Test Pit Excavations

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	TP-1 44040 4/21/98 Conc. Q (ug/kg)	TP-2 44041 4/21/98 Conc. Q (ug/kg)	TP-3 44042 4/21/98 Conc. Q (ug/kg)	TP-4 44043 4/21/98 Conc. Q (ug/kg)	TP-8C 44047 4/21/98 Conc. Q (ug/kg)	TP-10 44044 4/21/98 Conc. Q (ug/kg)
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	200	NA	NA	NA	NA	33	NA
4-Methyl-2-Pentanone	1,000	NA	NA	NA	NA	6.5	NA
Xylenes(total)	1,200	NA	NA	NA	NA	ND	NA
<p>Notes:            Only those compounds detected in at least one sample have been included in this table.</p> <p>* The volatile organic compound results are from sample TP-14RE.</p> <p>(2) Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.</p> <p>(3) Some forms of cyanide are complex and very stable while other forms are pH dependent and hence are very unstable. Site specific form(s) of cyanide should be taken into consideration when establishing soil cleanup objectives.</p> <p>(4) As per TAGM #4046, Total VOCs, 10 ppm, Total Semi-VOCs, 500 ppm, and individual Semi-VOCs, 50 ppm. NV = No Value.</p> <p>MDL = Method Detection Limit.            NA = Not Analyzed.            ND = Compound was analyzed for, but not detected.            D = Value was taken from a diluted test sample            J = Concentration has been estimated.            B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.            NE= compound was not included in the analysis</p>							

Table 6  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Soil Sample Results Taken from Test Pit Excavations

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	TP-10A 44066 4/22/98 Conc. (mg/kg)	DUP-1 44065 4/22/98 Conc. (mg/kg)	TP-13 44045 4/21/98 Conc. (mg/kg)	TP-14* 44048 4/21/98 Conc. (mg/kg)	TP-15 44046 4/21/98 Conc. (mg/kg)	TP-23 44064 4/22/98 Conc. (mg/kg)
<b>INORGANICS</b>							
Aluminum	SB (18875)	1580	1450	20600	255	18800	12200
Antimony	SB (ND)	ND	ND	ND	ND	ND	2.5 B
Arsenic	7.5 or SB (NE)	ND	ND	11.3	ND	7	13.3
Barium	300 or SB (98)	217	66.3	899	196000	545	240
Beryllium	0.16 or SB (0.8)	ND	ND	0.94	ND	0.74	0.89 B
Cadmium	10 or SB (1)	1.5	0.27	56.6	0.69	26.2	2.2
Calcium	SB (27728)	2590	2380	25900	18000	41900	52400
Chromium	50 or SB (26)	8.1	1.5	603	6.4	140	134 J
Cobalt	30 or SB (9)	1.8	1.8	1.3	192	7.1	12.9 B
Copper	25 or SB (18)	39.6	7.7	8020	21	632	197 J
Iron	2000 or SB (20525)	1590	496	41600	4320	23700	59900
Lead	SB (32) <sup>(2)</sup>	178000	165000	3870	13.2	331	85.2
Magnesium	SB (12570)	10400	10800	9890	1310	9460	23600
Manganese	SB (325)	146	150	394	26.9	433	790
Mercury	0.10	ND	ND	ND	ND	1.3	ND
Nickel	13 or SB (22)	2.3	0.97	90.2	4.7	59.8	145 J
Potassium	SB (3560)	250	254	1230	79.8	1720	1710 B
Selenium	2 or SB (NE)	ND	ND	ND	ND	ND	ND
Silver	SB (<4)	1.8	6.6	8.7	ND	11.7	ND
Sodium	SB (<400)	364	116	962	282	459	634 JB
Thallium	SB (ND)	6	5.9	ND	ND	ND	ND
Vanadium	150 or SB (37)	1.6	1.5	22.4	1.9	24.6	27.5
Zinc	20 or SB (128)	158	27.4	4770	22.9	705	519 J
Cyanide	<sup>(3)</sup>	ND	ND	4.8	9.4	2.9	ND



Table 6  
 Wurlitzer Area B Site  
 Remedial Investigation  
 Summary of Soil Sample Results Taken from Test Pit Excavations

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	TP-10A 44066 4/22/98 Conc. Q (ug/kg)	DUP-1 44065 4/22/98 Conc. Q (ug/kg)	TP-13 44045 4/21/98 Conc. Q (ug/kg)	TP-14* 44048 4/21/98 Conc. Q (ug/kg)	TP-15 44046 4/21/98 Conc. Q (ug/kg)	TP-23 44064 4/22/98 Conc. Q (ug/kg)
<b>SEMIVOLATILE ORGANIC COMPOUNDS</b>							
Naphthalene	13,000	32300 J	31000 JD	ND	68 J	ND	ND
2-Methylnaphthalene	36,400	3400 J	3400 J	ND	85 J	ND	ND
Acenaphthylene	41,000	ND	ND	ND	68 J	ND	ND
Acenaphthene	50,000 <sup>(4)</sup>	ND	ND	ND	ND	ND	ND
Dibenzofuran	6,200	ND	ND	ND	ND	ND	ND
Diethylphthalate	7,100	ND	13600 R	ND	ND	ND	ND
Fluorene	50,000 <sup>(4)</sup>	ND	ND	ND	ND	ND	ND
Phenanthrene	50,000 <sup>(4)</sup>	ND	ND	ND	220 J	ND	ND
Anthracene	50,000 <sup>(4)</sup>	ND	ND	ND	67 J	ND	ND
Carbazole	NV	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	8,100	ND	ND	ND	ND	ND	ND
Fluoranthene	50,000 <sup>(4)</sup>	ND	ND	10230 E	ND	ND	ND
Pyrene	50,000 <sup>(4)</sup>	ND	ND	ND	310 J	ND	ND
Benzo[a]anthracene	244 or MDL	ND	ND	ND	510 J	ND	ND
Chrysene	400	ND	ND	ND	190 J	ND	ND
bis(2-Ethylhexyl)phthalate	50,000 <sup>(4)</sup>	870 J	1300 J	3200 JD	260 J	ND	ND
Benzo[b]fluoranthene	1,100	ND	ND	ND	1600 J	59 J	ND
Benzo[k]fluoranthene	1,100	ND	ND	ND	360 J	ND	ND
Benzo[a]pyrene	61 or MDL	ND	ND	ND	390 J	ND	ND
Indeno[1,2,3-cd]pyrene	3.2	ND	ND	ND	270 J	ND	ND
Dibenz[a,h]anthracene	14 or MDL	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	50,000 <sup>(4)</sup>	ND	ND	ND	84 J	ND	ND

Table 6  
Wurlitzer Area B Site  
Remedial Investigation  
Summary of Soil Sample Results Taken from Test Pit Excavations

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (ug/kg)	TP-10A 44066 4/22/98 Conc. Q (ug/kg)	DUP-1 44065 4/22/98 Conc. Q (ug/kg)	TP-13 44045 4/21/98 Conc. Q (ug/kg)	TP-14* 44048 4/21/98 Conc. Q (ug/kg)	TP-15 44046 4/21/98 Conc. Q (ug/kg)	TP-23 44064 4/22/98 Conc. Q (ug/kg)
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	200	ND	NA	NA	17	J	NA
4-Methyl-2-Pentanone	1,000	1400	NA	NA	ND	NA	NA
Xylenes(total)	1,200	498	NA	NA	ND	NA	NA
<b>Notes:</b> Only those compounds detected in at least one sample have been included in this table. * The volatile organic compound results are from sample TP-14RE (1) Recommended soil cleanup objectives are average background concentrations as reported in a 1984 survey of reference material by E. Carlo McGovern, NYSDEC. (2) Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm. (3) Some forms of cyanide are complex and very stable while other forms are pH dependent and hence are very unstable. Site specific form(s) of cyanide should be taken into consideration when establishing soil cleanup objectives. (4) As per TAGM #4046, Total VOCs, 10 ppm, Total Semi-VOCs, 500 ppm, and individual Semi-VOCs, 50 ppm. NV = No Value. MDL = Method Detection Limit. NA = Not Analyzed. ND = Compound was analyzed for, but not detected. D = Value was taken from a diluted test sample J = Concentration has been estimated. B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit.							

Table 7

## Wurlitzer Area B Site Remedial Investigation

## Summary of TCLP Samples Taken from Test Pit Excavations

Sample Number Lab Sample No. Sampling Date	TCLP Regulatory Level (mg/l)	TP-8A 44051 4/21/98 Conc. Q (mg/l)	TP-8B 44052 4/21/98 Conc. Q (mg/l)	TP-11 44053 4/21/98 Conc. Q (mg/l)
<b>TCLP INORGANICS</b>				
Arsenic	5.0	ND	0.0064 B	0.0128
Lead	5.0	0.0577	0.523	0.0068 J
Barium	100.0	2.46	1.93	0.124 B
Cadmium	1.0	7.13	16	0.013
Mercury	0.2	0.00097 J	0.00086 J	ND
Selenium	1.0	0.0051	0.004 B	ND
Silver	5.0	0.0033 B	ND	ND
Chromium	5.0	0.0019 B	0.042	0.0059 B
<b>TCLP SEMIVOLATILE ORGANIC COMPOUNDS</b>				
Pyridine	5.0	ND	ND	ND
1,4-Dichlorobenzene	7.5	ND	ND	ND
2-Methylphenol	?	ND	ND	ND
3+4-Methylphenols	?	ND	ND	ND
Hexachloroethane	3.0	ND	ND	ND
Nitrobenzene	2.0	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND
2,4,6-Trichlorophenol	2.0	ND	ND	ND
2,4,5-Trichlorophenol	400.0	ND	ND	ND
2,4-Dinitrotoluene	0.13	ND	ND	ND
Hexachlorobenzene	0.13	ND	ND	ND
Pentachlorophenol	100.0	ND	ND	ND
<b>TCLP VOLATILE ORGANIC COMPOUNDS</b>				
Vinyl Chloride	0.2	ND	ND	ND
1,1-Dichloroethene	0.7	ND	ND	ND
Chloroform	6.0	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND
2-Butanone	200.0	ND	ND	ND
Carbon Tetrachloride	0.5	ND	ND	ND
Trichloroethene	0.5	ND	ND	ND
Benzene	0.5	ND	ND	ND
Tetrachloroethene	0.7	ND	ND	ND
Chlorobenzene	100.0	ND	ND	ND

Table 7

Wurlitzer Area B Site Remedial Investigation

Summary of TCLP Samples Taken from Test Pit Excavations

Sample Number Lab Sample No. Sampling Date	TCLP Regulatory Level (mg/l)	TP-8A 44051 4/21/98 Conc. Q (mg/l)	TP-8B 44052 4/21/98 Conc. Q (mg/l)	TP-11 44053 4/21/98 Conc. Q (mg/l)
<b>TCLP PESTICIDES</b>				
gamma-BHC (Lindane)	0.4	ND	ND	ND
Heptachlor	0.008	ND	ND	ND
Heptachlor epoxide	0.008	ND	ND	ND
Endrin	0.02	ND	ND	ND
Methoxychlor	10.0	ND	ND	ND
alpha-Chlordane	0.03	ND	ND	ND
Toxaphene	0.5	ND	ND	ND
<b>TCLP HERBICIDES</b>				
2,4-D	10.0	ND	ND	ND
SILVEX	1.0	ND	ND	ND
2,4,5-T	400.0	ND	ND	ND
<p><b>Notes:</b>                      MDL = Method Detection Limit.                      NV = No Value.                      ND = Compound was analyzed for, but not detected.                      J = Concentration has been estimated.                      B = Inorganic concentration is above the instrument detection limit but below the contract required detection limit</p>				

# Appendix A

**Table A1**  
**Wurlitzer Site (#9-32-041) - Past Investigations/Sampling**

<u>Date</u>	<u>Event</u>	<u>Results</u>
Jan. 1989	E&E Phase I Invest.	Recommended no further action despite possible on-site disposal of wastes
Apr. 1992	E&E Phase II Invest.	Aerial photos indicate on-site disposal in areas "A" and "B"; documentation of on-site disposal of TCE still bottoms (location of disposal unknown); metals detected in groundwater above class "GA" stand; waste sampled in area B contained PAHs, VOCs, and pesticides.
1991	Region 9 sampling	Samples taken of tar/waste and solids in drums in area "B". Tar waste contains Dichlorobenzenes at up to 160 ppm; other PAHs.
Oct. 1995	DEC/DOH sampling of Area B.	Six (6) samples taken: 2 samples taken from drums - one white solid and one tar like waste - these substances were tentatively identified as Barium Sulfate (used in production of artificial ivory - i.e. piano keys) and partially evaporated fuel oil; 4 soil samples taken near solvent tanks and discharge pipes - contained arsenic, lead, cadmium, chromium, and nickle above health-based soil criteria.
Apr. 1996	DEC/DOH sampling of residential surface soil from backyards adjacent to Area B.	Five (5) backyard surface soil samples and several surface water samples from on-site in Area B. Backyard soil samples show elevated antimony and thallium concentrations (although these metals have not been found in similar concentrations on-site). DOH recommended resampling to confirm concentrations.
July 1996	DEC/DOH re-sampling of residential surface soils	Seven (7) backyards were sampled along with 4 "background" samples taken from other neighborhoods. Elevated levels of antimony and thallium previously detected by DEC labs were not confirmed.

**TABLE A1**

**NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
WURLITZER AREA B SITE REMEDIAL INVESTIGATION WORK PLAN**

*SUMMARY OF HISTORICAL SURFACE SOIL ANALYTICAL RESULTS (E&E, 1990)*

<b>Parameter <sup>(1)</sup></b>	<b>TAGM 4046 Guidance</b>	<b>S-5</b>	<b>S-6</b>	<b>S-7</b>	<b>S-8</b>
<b>Volatiles (<math>\mu\text{g}/\text{kg}</math>):</b> Trichloroethylene	700	ND	ND	7	ND
<b>Semi-Volatiles (<math>\mu\text{g}/\text{kg}</math>):</b> Total PAHs <sup>(2)</sup>	500,000	920	1,800	26,000	13,000
<b>Pesticides (<math>\mu\text{g}/\text{kg}</math>):</b> Endosulfan Sulfate	1,000	ND	ND	ND	190
<b>PCBs (<math>\mu\text{g}/\text{kg}</math>):</b> Aroclor-1254	1,000	ND	ND	ND	750
<b>Inorganics (mg/kg):</b>					
Barium	300	ND	ND	ND	6,900
Cadmium	10	2.0	47.7	ND	74.8
Copper	25	ND	ND	ND	1,360
Lead	30	ND	464	ND	1,280
Silver	200	ND	9.3	ND	6.8
Zinc	20	ND	ND	ND	3,050
Cyanide	N/A	ND	ND	ND	130

**Notes:**

<sup>(1)</sup> Only those parameters detected above the PQL in at least one sample are listed.

<sup>(2)</sup> Since PAHs were detected in all samples, compounds detected below the CRQL were included in the total. Therefore, these values are considered estimates.

ND = Compound not detected above the PQL.

N/A = Cleanup goal not available.

Shading indicates concentrations above TAGM 4046 Soil Guidance.

**Source:** Ecology and Environment Engineering, P.C. 1990.

TABLE A2

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
WURLITZER AREA B SITE REMEDIAL INVESTIGATION WORK PLAN

*SUMMARY OF HISTORICAL SEDIMENT ANALYTICAL DATA (E&E, 1990)*

Parameter	TAGM 4046 Guidance	SED-3	SED-4
<b>Volatiles:</b>	---	ND	ND
<b>Semi-Volatiles (<math>\mu\text{g}/\text{kg}</math>):</b> Total PAHs ( $\mu\text{g}/\text{kg}$ ) <sup>(1)</sup>	500,000	1,500	4,800
<b>PCBs (<math>\mu\text{g}/\text{kg}</math>):</b> Aroclor-1254	1,000	ND	490
<b>Inorganics (mg/kg):</b>			
Antimony	30	ND	23.6
Cadmium	10	45.2	13.9
Lead	30	316	ND
Silver	200	47.4	ND

**Notes:**

<sup>(1)</sup> Since PAHs were detected in all samples, compounds detected below the CRQL were included in the total. Therefore, these values are considered estimates.

ND = Compound not detected above the PQL.

Shading indicates concentrations above TAGM 4046 Soil Guidance.

Sediment samples were collected from lowest point in marshy areas (soil was dry during sampling).

**Source:** Ecology and Environment Engineering, P.C. 1990.



TABLE A3

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
 WURLITZER AREA B SITE REMEDIAL INVESTIGATION WORK PLAN

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL DATA (E&E, 1990)

Inorganic <sup>(1)</sup> (µg/L)	NYSDEC Class GA Groundwater Standards	GW-4	GW-4S	GW-5	GW-5S	GW-6	GW-6S
Chromium	50	ND	ND	ND	ND	61.4	ND
Iron	300	13,100	8,460	12,500	NS	55,800	ND
Magnesium	35,000 <sup>(2)</sup>	ND	57,700	39,400	NS	65,000	ND
Manganese	300	558	514	480	NS	1,810	ND

**Notes:**

<sup>(1)</sup> Only those inorganic compounds that were detected in at least one groundwater sample are presented.

<sup>(2)</sup> Guidance value.

NS = Well was dry when sampling was attempted.

Shading indicates concentrations above NYSDEC Class GA Groundwater Standards.

Groundwater monitoring wells GW-4, 4S, 6, and 6S are located outside of the fence just east of Area B.

Groundwater monitoring well pair GW-5/5S is located in the northwestern corner of Area B.

**Source:** Ecology and Environment Engineering, P.C. 1990.

TABLE A4

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
WURLITZER AREA B SITE REMEDIAL INVESTIGATION WORK PLAN

*SUMMARY OF HISTORICAL DRUM WASTE ANALYTICAL DATA (E&E, 1991)*

Parameter	Tar/Waste Sample (A61701)	Drum Solid/Sand (A61702)
<b>Volatiles (<math>\mu\text{g}/\text{kg}</math>):</b>		
Acetone	2,200	33 B
Toluene	1,100	ND
Chlorobenzene	390 J	ND
Ethylbenzene	1,300	ND
Total Xylene	9,800	ND
<b>Semi-Volatiles (<math>\mu\text{g}/\text{kg}</math>):</b>		
1,4-Dichlorobenzene	68,000 J	ND
1,2-Dichlorobenzene	370,000	ND
1,2,4-Trichlorobenzene	31,000 J	ND
Napthalene	160,000 J	ND
2-Methylnapthalene	840,000	ND
Dibenzofuran	27,000 J	ND
Fluorene	120,000 J	ND
Phenanthrene	860,000	ND
Anthracene	88,000 J	ND
Fluoranthene	42,000 J	ND
Pyrene	390,000	ND
Butylbenzylphthalate	ND	55 J
Benzo(a)anthracene	140,000 J	ND
Chrysene	280,000	ND
Benzo(b)fluoranthene	34,000 J	ND
Benzo(a)pyrene	81,000 J	ND
<b>Pesticides/PCBs (<math>\mu\text{g}/\text{kg}</math>):</b>		
Endrin	1,100	ND
4,4'-DDD	98 J	ND
Methoxychlor	860 J	270
Endrin Ketone	170 J	ND
<b>Notes:</b>		
ND = Compound not detected above practical quantitation limit (PQL).		
J = Indicates an estimated value below PQL.		
B = Also found in associated blank.		

TABLE A4 (continued)

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
WURLITZER AREA B SITE REMEDIAL INVESTIGATION WORK PLAN

*SUMMARY OF HISTORICAL DRUM WASTE ANALYTICAL DATA (E&E, 1991)*

Parameter	Tar/Waste Sample (A61701)	Drum Solid/Sand (A61702)
<b>Inorganic (mg/kg):</b>		
Aluminum	ND	NA
Arsenic	ND	NA
Barium	ND	NA
Beryllium	ND	NA
Cadmium	4.3	NA
Calcium	6.230	NA
Chromium	365	NA
Cobalt	ND	NA
Copper	ND	NA
Iron	42.500	NA
Lead	13.3	NA
Magnesium	ND	NA
Manganese	468	NA
Mercury	ND	NA
Nickel	153	NA
Selenium	ND	NA
Vanadium	ND	NA
Zinc	ND	NA
<b>Notes:</b> ND = Compound not detected above practical quantitation limit (PQL). NA = Sample not analyzed for inorganic compounds.		

TABLE A5

**NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
WURLITZER AREA B SITE REMEDIAL INVESTIGATION WORK PLAN**

*SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA (4/13/95)*

Parameter	TAGM 4046 Guidance	S-1	S-2	S-4	S-6	S-7	S-8
<b>Inorganics (mg/kg):</b>							
Aluminum	SB	6,760	2,660	9,690	10,000	7,520	10,700
Arsenic	7.5	110	ND	10.8	8.2	6.9	11.1
Barium	300	200	532	210	271	64.2	94.8
Beryllium	SB	1.5	ND	1.7	ND	ND	ND
Cadmium	10	83.4	ND	ND	ND	ND	ND
Calcium	SB	46,500	216,000	9,860	13,300	53,700	80,800
Chromium	50	22.3	180	6.3	4.9	8.7	13.3
Cobalt	30	ND	ND	14.6	ND	ND	ND
Copper	25	72.9	25	29.9	9.7	15.1	22.7
Iron	SB	16,000	2,790	35,700	20,500	15,900	24,400
Lead	SB	170	196	9.2	2.1	9.6	15.9
Magnesium	SB	11,300	13,100	108	ND	11,300	17,500
Manganese	SB	354	41.9	ND	66.1	321	487
Mercury	0.1	2.1	0.79	0.2	ND	ND	ND
Nickel	13	39.5	21.4	25	12.4	16.1	24.1
Selenium	2.0	2.0	ND	ND	ND	2.0	ND
Vanadium	150	83.7	ND	21.4	19.67	15.5	20.9
Zinc	20	625	1,050	28.1	ND	36.9	56.8

**Notes:**

SB = Soil background

ND = Compound not detected above PQL.

Shading indicates concentration above TAGM 4046 soil guidance.

S-1: Red brick-like material.

S-2: Pile of mortar-like chunks.

S-3, S-4, S-5, S-6, S-7, S-9: Black ash-like material.

S-8: Wet soil from middle of path.

S-10: Waste from collapsed drum.

Samples S-3, S-5, S-9, and S-10 were analyzed as TCLP extract samples and no compounds were detected.

TABLE A6

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
WURLITZER AREA B SITE REMEDIAL INVESTIGATION*SUMMARY OF DRUM WASTE ANALYTICAL DATA (10/12/95)*

Inorganic (mg/kg)	H2 (white in drum)
Aluminum	129
Antimony	ND
Arsenic	ND
Barium	559,000
Beryllium	0.7
Cadmium	ND
Calcium	443
Chromium	5.0
Cobalt	ND
Copper	25
Iron	205
Lead	15
Magnesium	200
Manganese	4.0
Mercury	ND
Nickel	259
Potassium	730
Selenium	ND
Silver	ND
Sodium	2,400
Thallium	ND
Vanadium	3.0
Zinc	9.0
Cyanide	1.0

**Note:**

ND = Compound not detected above PQL.

TABLE A7

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
WURLITZER AREA B SITE REMEDIAL INVESTIGATION

*SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA (10/12/95)*

Parameter	TAGM 4046 Guidance	W1	W2	W3	W4	H1	H3	H4	H5
<b>Inorganics (mg/kg):</b>									
Aluminum	SB	34,300	96,200	43,000	7,130	6,070	3,420	20,500	28,100
Antimony	SB	49.4	29.1	169	ND	38	ND	ND	ND
Arsenic	7.5	14.5	6.6	ND	6.2	10	ND	4.3	4.4
Barium	300	1,560	963	51,500	8,150	681	1,530	1,920	1,410
Beryllium	SB	0.47	0.59	0.28	0.67	ND	ND	0.4	0.6
Cadmium	10	123	54.5	304	3,200	3.0	5.0	129	206
Calcium	SB	25,000	24,800	35,400	31,200	24,300	6,500	15,200	44,400
Chromium	50	1,190	977	14,200	2,760	363	352	1,250	10,500
Cobalt	30	17.8	12.2	21.7	29	63	ND	15	21
Copper	25	7,420	19,400	4,590	26,300	279	98	624	1,850
Iron	SB	84,400	41,100	37,900	43,800	361,00	4,050	24,300	26,100
Lead	SB	1,630	1,220	6,520	997	4,522	321	1,080	16,700
Magnesium	SB	6,700	6,770	14,800	6,000	6,350	1,690	27,800	2,800
Manganese	SB	965	1,400	545	549	2,890	50	433	340
Mercury	0.1	0.34	0.28	0.56	0.7	148	ND	0.55	6.85
Nickel	13	415	111	1,280	56,300	100	40	453	267
Potassium	SB	2,420	997	2,800	2,220	1,090	729	1,720	2,730
Selenium	2.0	0.92	0.98	3.4	0.8	ND	ND	ND	ND
Silver	SB	17.6	10.7	97.3	2.5	6.0	11	20	22
Sodium	SB	834	474	922	604	ND	ND	ND	ND
Thallium	SB	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	150	25.8	25	21	16.6	34	3.0	15	26
Zinc	20	18,900	3,660	11,100	17,100	1,190	324	1,160	4,450
Cyanide	N/A	ND	7.6	1.8	8,350	ND	260	186	7

TABLE A7 (continued)

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
WURLITZER AREA B SITE REMEDIAL INVESTIGATION WORK PLAN

*SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA (10/12/95)*

**Notes:**

ND= Compound not detected above PQL.

SB = Site background.

N/A = Cleanup goal not available.

Shading indicates concentrations above TAGM cleanup goals.

W1: Fill material with white chalky veins.

W2: Variable fill texture and color.

W3: Waste material sample from mound.

W4: Stained soil around corroded drum.

H1: Brown surface soil.

H3: Green clay surface soil.

H4: Green clay surface soil.

H5: Yellow/white surface soil.

Sample H2 was collected from drum waste and is presented separately in Table A6.

TABLE A8

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
WURLITZER AREA B SITE REMEDIAL INVESTIGATION WORK PLAN

*SUMMARY OF HISTORICAL SURFACE WATER ANALYTICAL DATA (4/96)*

Inorganic <sup>(1)</sup> ( $\mu\text{g/L}$ )	Class C Water Qual. Standard	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7
Aluminum	100	520	70	260	100	160	170	150
Antimony	N/A	170	190	650	110	120	130	180
Barium	N/A	380	210	950	30	10J	40J	80J
Cadmium	<sup>(2)</sup>	ND	ND	280	10	20	20	30
Calcium	N/A	20,000B	21,000B	8,900	2,800B	300B	1,160	5,100B
Chromium	<sup>(2)</sup>	330	60	70	30	30	30	40
Copper	<sup>(2)</sup>	310	190	240	130	100	80	80
Iron	300	2,000	120	500	90	120	1,600	370
Lead	<sup>(2)</sup>	100	50	50	30	40	50	60
Magnesium	N/A	500,000B	500,000B	500,000B	500,000B	139,000B	450,000B	500,000B
Manganese	N/A	430	50	70	30	30	70	70
Nickel	<sup>(2)</sup>	ND	ND	420	20	30	30	40
Potassium	N/A	15,000	9,500	8,900	11,000	700	3,000	5,200
Selenium	1	90	100	80	80	80	100	110
Sodium	N/A	9,000	4,500	10,900	1,900	1,870	2,400	7,200
Thallium	8	180	210	160	150	180	170	210
Zinc	30	30	ND	ND	ND	ND	ND	ND

**Notes:**

<sup>(1)</sup> Only those inorganic compounds that were detected in at least one sample are presented.

<sup>(2)</sup> Depends on hardness

<sup>(3)</sup> Guidance Value.

N/A = Water quality standard or guidance value for Class C is not available.

ND = Compound not detected above practical quantitation limit (PQL).

J = Indicates an estimated value below PQL.

B = Also found in associated blank.

Shading indicates concentrations above NYSDEC Class C Water Quality Standards.



# Appendix B

NEW YORK STATE DEPARTMENT of ENVIRONMENTAL CONSERVATION

DIVISION of HAZARDOUS WASTE REMEDIATION

SITE: WURLITZER

SITE CODE: 932044 T&A CODE: A617  
 FIELD ID: R-1 REC'D: 4/19/96 DIGESTED: 6/26/96  
 LAB ID: 99611014 ANAL: 6/26/96 REPORTED: 6/28/96  
 MATRIX: SOIL % SOLID: 64%

	<u>mg/Kg</u>		<u>mg/Kg</u>
Aluminum	7,800	Magnesium	36,000B
Antimony	100E	Manganese	150
Arsenic	10U	Mercury	0.2U
Barium	70J	Nickel	44
Beryllium	4J	Potassium	590
Cadmium	12	Selenium	24
Calcium	23,000B	Silver	10U
Chromium	25	Sodium	190J
Cobalt	10J	Titanium	25
Copper	47	Thallium	39E
Iron	10,000	Vanadium	20J
Lead	54	Zinc	150

COMMENTS: E=ESTIMATE, POSSIBLE INTERELEMENT INTERFERENCE

NEW YORK STATE DEPARTMENT of ENVIRONMENTAL CONSERVATION

DIVISION of HAZARDOUS WASTE REMEDIATION

SITE: WURLITZER

SITE CODE: 932044 T&A CODE: A617

FIELD ID: R-2 REC'D: 4/19/96 DIGESTED: 6/26/96

LAB ID: 99611015 ANAL: 6/26/96 REPORTED: 6/28/96

MATRIX: SOIL % SOLID: 67%

	<u>mg/Kg</u>		<u>mg/Kg</u>
Aluminum	9,500	Magnesium	36,000B
Antimony	97E	Manganese	274
Arsenic	10U	Mercury	0.2U
Barium	65J	Nickel	26
Beryllium	5U	Potassium	1,000
Cadmium	9	Selenium	30
Calcium	36,500B	Silver	10U
Chromium	33	Sodium	160J
Cobalt	9J	Titanium	23
Copper	39	Thallium	35E
Iron	10,000	Vanadium	21J
Lead	31	Zinc	130

COMMENTS: E=ESTIMATE, POSSIBLE INTERELEMENT INTERFERENCE

NEW YORK STATE DEPARTMENT of ENVIRONMENTAL CONSERVATION

DIVISION of HAZARDOUS WASTE REMEDIATION

SITE: WURLITZER

SITE CODE: 932044 T&A CODE: A617

FIELD ID: R-3 REC'D: 4/19/96 DIGESTED: 6/26/96

LAB ID: 99611016 ANAL: 6/26/96 REPORTED: 6/28/96

MATRIX: SOIL % SOLID: 60%

	<u>mg/Kg</u>		<u>mg/Kg</u>
Aluminum	11,300	Magnesium	38,000B
Antimony	97E	Manganese	170
Arsenic	10U	Mercury	0.2U
Barium	73J	Nickel	18
Beryllium	5U	Potassium	860
Cadmium	8	Selenium	24
Calcium	38,200B	Silver	10U
Chromium	31	Sodium	130J
Cobalt	5J	Titanium	20
Copper	30	Thallium	39E
Iron	11,200	Vanadium	20J
Lead	37	Zinc	83

COMMENTS: E= ESTIMATE, POSSIBLE INTERELEMENT INTERFERENCE

NEW YORK STATE DEPARTMENT of ENVIRONMENTAL CONSERVATION

*DIVISION of HAZARDOUS WASTE REMEDIATION*

SITE: WURLITZER

SITE CODE: 932044 T&A CODE: A617  
 FIELD ID: R-4 REC'D: 4/19/96 DIGESTED: 6/26/96  
 LAB ID: 99611017 ANAL: 6/26/96 REPORTED: 6/28/96  
 MATRIX: SOIL % SOLID: 78%

	<u>mg/Kg</u>		<u>mg/Kg</u>
Aluminum	8,300	Magnesium	30,000B
Antimony	86E	Manganese	280
Arsenic	10U	Mercury	0.2U
Barium	61J	Nickel	16J
Beryllium	5U	Potassium	650
Cadmium	7	Selenium	19
Calcium	30,000B	Silver	10U
Chromium	35	Sodium	190J
Cobalt	8J	Titanium	26
Copper	50	Thallium	29E
Iron	8,700	Vanadium	18J
Lead	38	Zinc	82

COMMENTS: E= ESTIMATE, POSSIBLE INTERELEMENT INTERFERENCE

NEW YORK STATE DEPARTMENT of ENVIRONMENTAL CONSERVATION

DIVISION of HAZARDOUS WASTE REMEDIATION

SITE: WURLITZER

SITE CODE: 932044 T&A CODE: A617

FIELD ID: R-5 REC'D: 4/19/96 DIGESTED: 6/26/96

LAB ID: 99611018 ANAL: 6/26/96 REPORTED: 6/28/96

MATRIX: SOIL % SOLID: 65%

	<u>mg/Kg</u>		<u>mg/Kg</u>
Aluminum	12,500	Magnesium	38,000B
Antimony	110E	Manganese	200
Arsenic	10U	Mercury	0.2U
Barium	94J	Nickel	18J
Beryllium	5U	Potassium	600
Cadmium	10	Selenium	27
Calcium	27,000B	Silver	10U
Chromium	25	Sodium	170J
Cobalt	7J	Titanium	9J
Copper	27	Thallium	47E
Iron	11,000	Vanadium	22J
Lead	43	Zinc	86

COMMENTS: E= ESTIMATE, POSSIBLE INTERELEMENT INTERFERENCE

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619187 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:799 FAIRMONT BACKYARD - T1  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 10:00 LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	81. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.08 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.5 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	69. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	7. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	22. MCG/G
55COPPER COPPER IN DRY SOLIDS	24. MCG/G
55IRON IRON IN DRY SOLIDS	15800. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	136. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	36. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	24. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	116. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	27. MCG/G
55ZINC ZINC IN DRY SOLIDS	129. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	37. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINIUM ALUMINIUM IN DRY SOLIDS	13400. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	7090. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	1980. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	3130. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619186 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:799 FAIRMONT BACKYARD - B1  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 10:00 LAST ACTION DATE:96/08/09

PARAMETER	RESULT
01SOLIDS SOLIDS, DRY	83. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.11 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	73. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	7. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	24. MCG/G
55COPPER COPPER IN DRY SOLIDS	25. MCG/G
55IRON IRON IN DRY SOLIDS	16400. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	129. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	42. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	26. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	100. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	28. MCG/G
55ZINC ZINC IN DRY SOLIDS	140. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	47. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	14200. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	5790. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	1850. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	2590. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619189 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:807 FAIRMONT BACKYARD - T2  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 10:30 LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	83. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.04 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	72. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	7. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	33. MCG/G
55COPPER COPPER IN DRY SOLIDS	20. MCG/G
55IRON IRON IN DRY SOLIDS	16400. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	258. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	17. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	26. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	234. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	33. MCG/G
55ZINC ZINC IN DRY SOLIDS	93. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	22. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	15700. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	18400. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	3600. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	8770. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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PAGE 1 RESULTS OF EXAMINATION PARTIAL REPORT

SAMPLE ID: 9619188 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:807 FAIRMONT BACKYARD - B2  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 10:30 LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	83. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.04 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	74. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	6. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	36. MCG/G
55COPPER COPPER IN DRY SOLIDS	18. MCG/G
55IRON IRON IN DRY SOLIDS	16600. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	269. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	18. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	34. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	230. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	32. MCG/G
55ZINC ZINC IN DRY SOLIDS	71. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	19. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	15100. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	24500. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	3030. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	9080. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619191 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:831 FAIRMONT BACKYARD - T3  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 11:00 LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	70. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.06 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.5 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	66. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	6. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	25. MCG/G
55COPPER COPPER IN DRY SOLIDS	15. MCG/G
55IRON IRON IN DRY SOLIDS	13700. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	177. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	17. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	21. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	97. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	27. MCG/G
55ZINC ZINC IN DRY SOLIDS	66. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	21. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	13600. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	12400. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	2020. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	5630. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619190 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:831 FAIRMONT BACKYARD - B3  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 11:00 LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	74. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.06 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	74. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	6. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	28. MCG/G
55COPPER COPPER IN DRY SOLIDS	15. MCG/G
55IRON IRON IN DRY SOLIDS	14600. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	191. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	16. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	24. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	227. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	32. MCG/G
55ZINC ZINC IN DRY SOLIDS	65. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	19. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	16500. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	13200. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	2760. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	5830. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619192      SAMPLE RECEIVED:96/07/19/      CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID:                      DRAINAGE BASIN:                      GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C.                      COUNTY:NIAGARA  
LATITUDE:                      LONGITUDE:                      Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:793 FAIRMONT BACKYARD - B4  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 16:00                      LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	80. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	< 0.04 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	70. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	6. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	37. MCG/G
55COPPER COPPER IN DRY SOLIDS	20. MCG/G
55IRON IRON IN DRY SOLIDS	15700. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	285. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	17. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	46. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	138. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	28. MCG/G
55ZINC ZINC IN DRY SOLIDS	82. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	23. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	13300. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	30600. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	2810. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	10300. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619193      SAMPLE RECEIVED:96/07/19/      CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID:                      DRAINAGE BASIN:                      GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C.                      COUNTY:NIAGARA  
LATITUDE:                      LONGITUDE:                      Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:793 FAIRMONT BACKYARD - T4  
REPORTING LAB:                      10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 16:00                      LAST ACTION DATE:96/08/09

PARAMETER	RESULT
01SOLIDS SOLIDS, DRY	76. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	< 0.04 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.5 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	72. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	7. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	42. MCG/G
55COPPER COPPER IN DRY SOLIDS	19. MCG/G
55IRON IRON IN DRY SOLIDS	16800. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	310. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	17. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	49. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	156. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	28. MCG/G
55ZINC ZINC IN DRY SOLIDS	71. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	20. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	13100. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	32300. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	2510. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	10500. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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PAGE 1 RESULTS OF EXAMINATION PARTIAL REPORT

SAMPLE ID: 9619194 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:837 FAIRMONT BACKGROUND - B5  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 13:00 LAST ACTION DATE:96/08/09

PARAMETER	RESULT
01SOLIDS SOLIDS, DRY	77. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	< 0.04 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	89. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	7. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	24. MCG/G
55COPPER COPPER IN DRY SOLIDS	13. MCG/G
55IRON IRON IN DRY SOLIDS	16800. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	152. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	17. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	20. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	180. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	35. MCG/G
55ZINC ZINC IN DRY SOLIDS	74. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	25. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	19100. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	5000. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	2280. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	3680. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619195      SAMPLE RECEIVED:96/07/19/      CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID:                      DRAINAGE BASIN:                      GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C.                      COUNTY:NIAGARA  
LATITUDE:                      LONGITUDE:                      Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:837 FAIRMONT BACKYARD - T5  
REPORTING LAB:                      10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 13:00                      LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	76. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	< 0.04 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	85. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	7. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	23. MCG/G
55COPPER COPPER IN DRY SOLIDS	13. MCG/G
55IRON IRON IN DRY SOLIDS	16600. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	163. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	18. MCG/G
55STRONTI STRONTIUM IN DRY SOLIDS	< 20. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	156. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	34. MCG/G
55ZINC ZINC IN DRY SOLIDS	78. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	25. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	18400. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	4740. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	2340. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	3490. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

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SAMPLE ID: 9619196 SAMPLE RECEIVED: 96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE: 3103  
POLITICAL SUBDIVISION: NO. TONAWANDA C. COUNTY: NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION: 825 FAIRMONT BACKYARD - B6  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 16:00 LAST ACTION DATE: 96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	75. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.05 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	84. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	7. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	29. MCG/G
55COPPER COPPER IN DRY SOLIDS	17. MCG/G
55IRON IRON IN DRY SOLIDS	16900. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	206. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	18. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	25. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	187. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	33. MCG/G
55ZINC ZINC IN DRY SOLIDS	71. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	22. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	16800. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	13900. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	2760. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	6590. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

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SAMPLE ID: 9619197 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
 PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
 SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
 POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
 LATITUDE: LONGITUDE: Z DIRECTION:  
 LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
 DESCRIPTION:825 FAIRMONT BACKYARD - T6  
 REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
 TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
 SAMPLE TYPE: 600:SOIL, SAND  
 TIME OF SAMPLING: 96/07/17 16:00 LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	71. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.06 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.7 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	92. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	7. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	30. MCG/G
55COPPER COPPER IN DRY SOLIDS	18. MCG/G
55IRON IRON IN DRY SOLIDS	17900. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	216. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	20. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	26. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	189. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	36. MCG/G
55ZINC ZINC IN DRY SOLIDS	78. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	25. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	18600. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	12600. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	3760. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	6570. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619199 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:843 FAIRMONT BACKYARD - T7  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/17 15:00 LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	83. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.04 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	71. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	6. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	24. MCG/G
55COPPER COPPER IN DRY SOLIDS	15. MCG/G
55IRON IRON IN DRY SOLIDS	15300. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	248. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	15. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	31. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	178. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	30. MCG/G
55ZINC ZINC IN DRY SOLIDS	64. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	19. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	15000. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	19700. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	2990. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	8270. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619200 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
DESCRIPTION:SHALLOW LEFT FIELD, LEAH PARK - BB1  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/18 11:30 LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	90. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	< 0.04 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.8 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	95. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	10. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	24. MCG/G
55COPPER COPPER IN DRY SOLIDS	18. MCG/G
55IRON IRON IN DRY SOLIDS	20500. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	366. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	20. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	73. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	218. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	37. MCG/G
55ZINC ZINC IN DRY SOLIDS	57. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	< 15. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	18900. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	40600. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	5190. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	12200. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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SAMPLE ID: 9619201 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
 PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
 SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
 POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
 LATITUDE: LONGITUDE: Z DIRECTION:  
 LOCATION: WURLITZER SITE - #932041 - TOWN OF N TONAWANDA  
 DESCRIPTION:ST MATHEWS CEMETERY - BB2  
 REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
 TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
 SAMPLE TYPE: 600:SOIL, SAND  
 TIME OF SAMPLING: 96/07/18 12:00 LAST ACTION DATE:96/08/09

-----PARAMETER-----	-----RESULT-----
01SOLIDS SOLIDS, DRY	78. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.06 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.9 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	123. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55COBALT COBALT IN DRY SOLIDS	9. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	28. MCG/G
55COPPER COPPER IN DRY SOLIDS	15. MCG/G
55IRON IRON IN DRY SOLIDS	22300. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	223. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	25. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	23. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	162. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	46. MCG/G
55ZINC ZINC IN DRY SOLIDS	109. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	33. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	23900. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	4610. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	3060. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	4190. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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SUBMITTED BY:S SHOST

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NEW YORK STATE DEPARTMENT OF HEALTH  
WADSWORTH CENTER

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PAGE 1

RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619202 SAMPLE RECEIVED: 96/07/19/ CHARGE: 0.00  
PROGRAM: 110: STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE: 3103  
POLITICAL SUBDIVISION: NO. TONAWANDA C. COUNTY: NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - 932041 - TOWN OF NO TONAWANDA  
DESCRIPTION: WEST CANAL MARINA - BB3  
REPORTING LAB: 10: LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035: METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600: SOIL, SAND  
TIME OF SAMPLING: 96/07/18 15:00 LAST ACTION DATE: 96/08/09

-----PARAMETER-----	-----RESULT-----
01 SOLIDS SOLIDS, DRY	85. PERCENT
25 ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03 MERCURY MERCURY IN DRY SOLIDS	0.05 MCG/G
25 SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55 BERYL BERYLLIUM IN DRY SOLIDS	0.9 MCG/G
55 SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55 BARIUM BARIUM IN DRY SOLIDS	109. MCG/G
55 CADMIUM CADMIUM IN DRY SOLIDS	< 2. MCG/G
55 COBALT COBALT IN DRY SOLIDS	10. MCG/G
55 CHROMIUM CHROMIUM IN DRY SOLIDS	37. MCG/G
55 COPPER COPPER IN DRY SOLIDS	20. MCG/G
55 IRON IRON IN DRY SOLIDS	24300. MCG/G
55 MANGAN MANGANESE IN DRY SOLIDS	309. MCG/G
55 NICKEL NICKEL IN DRY SOLIDS	26. MCG/G
55 STRONT STRONTIUM IN DRY SOLIDS	84. MCG/G
55 TITANIUM TITANIUM IN DRY SOLIDS	74. MCG/G
55 VANADIUM VANADIUM IN DRY SOLIDS	39. MCG/G
55 ZINC ZINC IN DRY SOLIDS	93. MCG/G
55 MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55 LEAD LEAD IN DRY SOLIDS	27. MCG/G
55 ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55 TIN TIN IN DRY SOLIDS	< 20. MCG/G
55 THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55 ALUMINUM ALUMINUM IN DRY SOLIDS	20500. MCG/G
55 CALCIUM CALCIUM IN DRY SOLIDS	10300. MCG/G
55 POTASS POTASSIUM IN DRY SOLIDS	3770. MCG/G
55 MAGNES MAGNESIUM IN DRY SOLIDS	7690. MCG/G
55 SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01 DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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SUBMITTED BY: S SHOST

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NEW YORK STATE DEPARTMENT OF HEALTH  
WADSWORTH CENTER

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PAGE 1

RESULTS OF EXAMINATION

PARTIAL REPORT

SAMPLE ID: 9619203 SAMPLE RECEIVED:96/07/19/ CHARGE: 0.00  
PROGRAM: 110:STATE SUPERFUND ANALYTICAL SERVICES  
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE:3103  
POLITICAL SUBDIVISION:NO. TONAWANDA C. COUNTY:NIAGARA  
LATITUDE: LONGITUDE: Z DIRECTION:  
LOCATION: WURLITZER SITE - 932041 - TOWN OF NO TONAWANDA  
DESCRIPTION:WURLITZER POOL BENEATH SWINGS - BB4  
REPORTING LAB: 10:LABORATORY OF INORGANIC ANALYTICAL CHEMISTRY - ALBANY  
TEST PATTERN: 10-035:METALS IN SOLID MATERIAL  
SAMPLE TYPE: 600:SOIL, SAND  
TIME OF SAMPLING: 96/07/18 13:30 LAST ACTION DATE:96/08/09

PARAMETER	RESULT
01SOLIDS SOLIDS, DRY	93. PERCENT
25ARSENIC ARSENIC IN DRY SOLIDS	[NE]
03MERCURY MERCURY IN DRY SOLIDS	0.04 MCG/G
25SELENIUM SELENIUM IN DRY SOLIDS	[NE]
55BERYL BERYLLIUM IN DRY SOLIDS	0.6 MCG/G
55SILVER SILVER IN DRY SOLIDS	< 4. MCG/G
55BARIUM BARIUM IN DRY SOLIDS	63. MCG/G
55CADMIUM CADMIUM IN DRY SOLIDS	5. MCG/G
55COBALT COBALT IN DRY SOLIDS	6. MCG/G
55CHROMIUM CHROMIUM IN DRY SOLIDS	16. MCG/G
55COPPER COPPER IN DRY SOLIDS	19. MCG/G
55IRON IRON IN DRY SOLIDS	15000. MCG/G
55MANGAN MANGANESE IN DRY SOLIDS	403. MCG/G
55NICKEL NICKEL IN DRY SOLIDS	15. MCG/G
55STRONT STRONTIUM IN DRY SOLIDS	35. MCG/G
55TITANIUM TITANIUM IN DRY SOLIDS	99. MCG/G
55VANADIUM VANADIUM IN DRY SOLIDS	25. MCG/G
55ZINC ZINC IN DRY SOLIDS	253. MCG/G
55MOLYBDEN MOLYBDENUM IN DRY SOLIDS	< 8. MCG/G
55LEAD LEAD IN DRY SOLIDS	36. MCG/G
55ANTIMONY ANTIMONY IN DRY SOLIDS	< 30. MCG/G
55TIN TIN IN DRY SOLIDS	< 20. MCG/G
55THALLIUM THALLIUM IN DRY SOLIDS	< 30. MCG/G
55ALUMINUM ALUMINUM IN DRY SOLIDS	12200. MCG/G
55CALCIUM CALCIUM IN DRY SOLIDS	55400. MCG/G
55POTASS POTASSIUM IN DRY SOLIDS	2220. MCG/G
55MAGNES MAGNESIUM IN DRY SOLIDS	26200. MCG/G
55SODIUM SODIUM IN DRY SOLIDS	< 400. MCG/G
01DIGEST DIGESTION OF SOLIDS FOR METALS	DONE

\*\*\*\* END OF REPORT \*\*\*\*

COPIES SENT TO: CO(2), RO(1), LPHE(1), FED( ), INFO-P( ), INFO-L( )

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SUBMITTED BY: S SHOST

# Appendix C



# RADIATION SURVEY

0266-33-2100

## Site Information

Name/Location: Wurlitzer Area B Site, North Tonawanda, New York

Date of Survey: 10/09/97 Weather: clear 70's

MPI Employee Conducting Survey: Ken Kota

Current TLD Badge: Yes Date on Badge: 10/01/97

## Radiation Meter

Manufacturer: Ludlum Measurements, Inc., Sweetwater, TX (915) 235-5494

Distributor: Environmental Restoration Group, Inc., Albuquerque, NM (505) 298-4224

Model: 3 (rate meter); 44-2 (detector)

Calibration Date: 4/7/97 Calibration Due Date: 4/7/98

Radiation Measured: Gamma

## Meter Readings

Background: 8  $\mu\text{R/hr}$  X (0.001 mR/ $\mu\text{R}$ ) = 0.008 mR/hr

(Note: typical background ~ 20  $\mu\text{R/hr}$  = 0.02 mR/hr)

## *Permissible Detection Range:*

2X Background: 16  $\mu\text{R/hr}$  X (0.001 mR/ $\mu\text{R}$ ) = 0.016 mR/hr

Upper Limit: 500  $\mu\text{R/hr}$  X (0.001 mR/ $\mu\text{R}$ ) = 0.5 mR/hr

## RADIATION SURVEY

Location Description	Reading	
	$\mu\text{R/hr}$	mR/hr
along trail From West to East fences	15	0.015
north of trail amongst piles of debris	10-15	0.01-0.015
south " " " " " "	10-15	0.01-0.015
southern half of site to new fence line	10-12	0.01-0.012

- majority of debris piles are on either side of the east/west trail.
- entire site is covered with dense brush with scattered trees, 6"-12"  $\phi$ .
- marsh area located in approx. center of southern section.



Designer and Manufacturer  
of  
Scientific and Industrial  
Instruments

### CERTIFICATE OF CALIBRATION

**LUDLUM MEASUREMENTS, INC.**  
POST OFFICE BOX 810 PH. 915-235-5494  
501 OAK STREET FAX NO. 915-235-4672  
SWEETWATER, TEXAS 79556, U.S.A.

CUSTOMER ENVIRONMENTAL RESTORATION CORP. ORDER NO. 225771

Mfg. Ludlum Measurements, Inc. Model 3 Serial No. 124304

Mfg. Ludlum Measurements, Inc. Model 44-2 Serial No. PR130739

Cal. Date 04/07/97 Cal Due Date 04/07/98 Cal. Interval 1 Year Meterface 202-666

Check mark  applies to applicable instr. and/or detector IAW mfg. spec. T. 73 °F RH 20 % Alt 705.8 mm Hg

New Instrument  Instrument Received  Within Toler. +-10%  10-20%  Out of Tol.  Requiring Repair

Mechanical ck.  Meter Zeroed  Background Subtract  Input Sens. Linearity

F/S Resp. ck.  Reset ck.  Window Operation  Geotropism

Audio ck.  Alarm Setting ck.  Batt. ck. (Min. Volt) 2.2 VDC

Calibrated in accordance with LMI SOP 14.8 rev 12/05/89.  Calibrated in accordance with LMI SOP 14.9 rev 12/19/89.

Instrument Volt Set 72.8 V Input Sens. 34 mV Det. Oper. 72.8 V at 34 mV Threshold Dial Ratio      =      mV

HV Readout (2 points) Ref./Inst.      /      V Ref./Inst.      /      V

#### COMMENTS:

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING*
<u>X100</u>	<u>4000 uR/hr</u>	<u>40</u>	<u>40</u>
<u>X100</u>	<u>1000 uR/hr</u>	<u>10</u>	<u>10</u>
<u>X 10</u>	<u>400 uR/hr = 69K cpm</u>	<u>40</u>	<u>40</u>
<u>X 10</u>	<u>100 uR/hr</u>	<u>10</u>	<u>10</u>
<u>X 1.0</u>	<u>6900 cpm</u>	<u>40</u>	<u>40</u>
<u>X 1.0</u>	<u>1730 cpm</u>	<u>10</u>	<u>10</u>
<u>X 0.1</u>	<u>690 cpm</u>	<u>40</u>	<u>40</u>
<u>X 0.1</u>	<u>173 cpm</u>	<u>10</u>	<u>10</u>

\*Uncertainty within ± 10% C.F. within ± 20% X 1.0.1 Range(s) Calibrated Electronically

REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*
Digital Readout			Log Scale		

Ludlum Measurements, Inc. certifies that the above Instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of MIL-STD-45662A and ANSI N323-1978. State of Texas Calibration License No. LO-1963

#### Reference Instruments and/or Sources:

Ci-137 Gamma S/N  1162  G112  M565  5105  T1008  T879  512  Neutron Am-241 Be S/N T-304

Alpha S/N       Beta S/N       Other     

m 500 S/N 104542  Oscilloscope S/N       Multimeter S/N 57770263

Calibrated By: Bob Weems Date 4-7-97

Reviewed By: Phonda Harris Date 4-7-97

# Appendix D



**THE ENVIRONMENTAL SERVICE GROUP (NY), INC.**

177 WALES AVENUE, TONAWANDA, NY 14151  
716/695-6720 • Fax 716/695-0161

**Waste Profile Report**

EXPIRATION DATE \_\_\_\_\_

REMEDIAL YES  NO

**E.S.G. USE ONLY**

Approved: Yes  No  ACCT. \_\_\_\_\_

Handling Code \_\_\_\_\_ ERG:# \_\_\_\_\_

Submitted to \_\_\_\_\_

Approval # \_\_\_\_\_

PLEASE ATTACH: All Material Data Sheets (MSDS), Analysis Reports, Handling Precautions, Additional Hazard Information, Support Data & Comments.

Generator Name WURLITZER PARK - NYSDEC  
Site Address NIAGARA FALLS BOULEVARD  
City, State, Zip NORTH TONAWANDA, NY 14120  
Technical Contact MS. LORI SECKER  
Name Title  
Area Code ( 716 ) Telephone 667-6664  
EPA ID# NYD 000 911 339

Billing Name MALCOLM PERNIE, INC.  
Mailing Address 40 CENTRE DRIVE  
City, State, Zip BUFFALO, NY 14219-0138  
Business Contact MS. LORI SECKER  
Name Title  
Area Code ( 716 ) Telephone 667-6664  
Common Name of Waste (2 x 85) TAR

**HAZARDOUS PROPERTIES**

Ignitable  
 Corrosive  
 Reactive  
 EP Toxic  
 None  
 Listed (Subpart D)  
 TSCA  
 Radioactive

GENERATING PROCESS  
2 x 55 GALLON DRUMS PLACED INTO  
85 GALLON OVERPACKS FOR DISPOSAL  
OUTDATED, OLD, UNUSED ROOFING  
TAR  
PROFILE BASED ON GENERATOR  
KNOWLEDGE

**SHIPPING INFORMATION**

EPA Hazard Waste # DO1  
NYS Non-Hazard # \_\_\_\_\_  
Container Type:  Drum  Bulk  Other  
Rate of Generation 2 x 55 IN 85 OP'S PER YEAR  
Quantity Units Frequency  
Is waste DOT Regulated?  Yes  No  
Proper DOT Shipping Name: (RQ), Waste TAR, LIQUID

**CHEMICAL COMPOSITION (Totals must add up to 100%)**

ROOFING TAR (PETROLEUM BASED)	100	%	%

Hazard Class/Packing Group 3/PGII  
UN/NA # UN1999  
Placarding CLASS 3  
RQ Value 100#

**ORGANIC CHARACTERISTICS**

BELOW REG LEVELS

	D012 Endrin
	D013 Lidane
	D014 Methoxychlor
	D015 Toxaphene
	D016 2,4-Dichlorophenoxycetic Acid
	D017 2,4,5-TP (Silvex)
	D018 Benzene
	D019 Carbon Tetrachloride
	D020 Chlorodane
	D021 Chlorobenzene
	D022 Chloroform
	D023 o-Cresol
	D024 m-Cresol
	D025 p-Cresol
	D026 Cresol (total)
	D027 1,4-Dichlorobenzene
	D028 1,2-Dichloroethane
	D029 1,1-Dichloroethylene
	D030 2,4-Dinitrotoluene
	D031 Heptachlor
	D032 Hexachlorobenzene
	D033 Hexachloro-1,3-butadiene
	D034 Hexachlorethane
	D035 Methyl Ethyl Ketone
	D036 Nitrobenzene
	D037 Pentachlorophenol
	D038 Pyridine
	D039 Tetrachloroethylene
	D040 Trichloroethylene
	D041 2,4,5-Trichlorophenol
	D042 2,4,6-Trichlorophenol
	D043 Vinyl Chloride

**PHYSICAL DESCRIPTION**

Physical State:  Liquid  Sludge  Solid  
 Powder  Debris  Other  
Viscosity:  Low  Medium  High  
Pumpable:  Yes  No  Partial %  
Layering:  None  Bilayered  Multilayered

Solids (% Wt.) Total 70-90 Suspended 70-90  
Settleable 70-90  
Odor PETROLEUM Color DARK  
Specific Gravity <1 Density <8.33  
Flash Point of 100-140 BTU/lb. 8-10,000  
PH 6-8 Total Alkalinity/Acidity (%) N/A

**METALS (mg/l or ppm)**

(X) TCLP ( ) Total

BELOW REG LEVELS

D004 Arsenic (As)	
D005 Barium (Ba)	
D006 Cadmium (Cd)	
D007 Chromium (Cr)	
D007 Chromium (Hex)	
D008 Lead (Pb)	
D009 Mercury (Hg)	
D010 Selenium (Se)	
D011 Silver (Ag)	
001D Copper (Cu)	
OHIO Nickel (Ni)	
003D Zinc (Zn)	
CAL Thallium (Tl)	
Other	

**OTHER**

Pesticides 0 Herbicides 0 PCB 0  
HOC 0 TOX 0 Pnenol (ics) 0  
Other \_\_\_\_\_  
Sample Submitted  Yes  No By \_\_\_\_\_  
Analysis Required  Yes  No Lab \_\_\_\_\_  
SAMPLE NUMBER: ESG \_\_\_\_\_

**INORGANIC (mg/l or ppm)**

Reactive Cyanide	<u>0</u>
Reactive Sulfide	
Total Cyanide	
Total Sulfide	

On behalf of the generator, I certify that all information contained in this profile, including any attachments is complete, factual and accurate. It represents the known and suspected hazards and waste generator regulations pertaining to the waste described above. I am a duly authorized representative of the generator. Generator agrees to indemnify and hold the Environmental Service Group (NY), Inc. (ESG) harmless for any claims, liabilities, damages and costs arising out of or in any way related to breach of the above certification. I further authorize ESG to transmit the above information to regulatory or TSD facilities as required for disposal.

SIGNED BY Lori Secker Name for NYSDEC Title \_\_\_\_\_ Date Signed 12/19/97

CHEM - MET SERVICES, INC.  
18550 Allen Rd. - Wyandotte, MI 48192  
(313) 282-9250 Fax: (313)-282-1655  
MID 096 963 194

CHEMICAL CONSERVATION CORPORATION  
10100 Rocket Blvd. - Orlando, FL 32824  
(407) 859-4441 Fax: (407)855-2812  
FLD 980 559 728

CHEMICAL CONSERVATION OF GEORGIA  
1612 James P. Rodgers Circle - Valdosta, GA 31601  
(912) 244-0474 Fax: (912) 333-0328  
GAD 093 380 814



CHECK ONE OF THE ABOVE

WASTE MATERIAL PROFILE

Page 1 of 2

Note: IF YOU HAVE QUESTIONS OR NEED HELP WITH THIS FORM PLEASE CALL YOUR SALES OR CUSTOMER SERVICE REPRESENTATIVE.

A. GENERATOR NAME: WURLITZER PARK NYSDEC EPA ID: NYD000911339 SIC CODE: \_\_\_\_\_

NIAGARA FALLS BOULEVARD NORTH TONAWANDA NY 14120  
SITE ADDRESS MALCOLM PERNIE, INC. CITY STATE ZIP CODE

40 CENTRE DRIVE BUFFALO NY 14219-0138  
MAILING ADDRESS CITY STATE ZIP CODE

CONTACT NAME MS. LORI SECKER PH: (716) 667-6664 FAX: \_\_\_\_\_

BILL TO: THE ENVIRONMENTAL SERVICE GROUP (NY), INC.  
NAME: \_\_\_\_\_

P.O. BOX 242 TONAWANDA NY 14151-0242  
MAILING ADDRESS CITY STATE ZIP CODE

CONTACT NAME MR. MARK HAGEMAN PH: (716) 695-6720 FAX: (716) 695-0161

B. DESCRIBE WASTE AND PROCESS: TAR, 2 x 55 GALLON DRUMS PLACED INTO 85 GALLON OVERPACKS FOR DISPOSAL,

OUTDATED, OLD, UNUSED ROOFING TAR.

Check all that apply: Spent Solvent?  Yes  No  Virgin (Unused, Off-spec, Expired/out-dated, Tank/drum residue)  Spilled

C. COMPOSITION OF WASTE List all chemicals and/or materials in waste. Provide MSDSs for Trade Names. Inventory sheets for LABPACKS

CHEMICALS AND / OR MATERIALS	%	CHEMICALS AND / OR MATERIALS	%	CHEMICALS AND / OR MATERIALS	%
ROOFING TAR	100				
(PETROLEUM BASED)					
TOTAL MUST = 100 %					

D. PHYSICAL DATA:

ODOR: <input type="checkbox"/> Strong <input checked="" type="checkbox"/> Mild <input type="checkbox"/> None Color: DARK	FLASH POINT: <input type="checkbox"/> < 73°F <input type="checkbox"/> 73 - 99°F <input type="checkbox"/> 100 - 139°F <input type="checkbox"/> 140 - 200°F <input checked="" type="checkbox"/> > 200°F <input checked="" type="checkbox"/> 100-140	pH: <input type="checkbox"/> ≤ 2 <input type="checkbox"/> 2.1 - 7 <input type="checkbox"/> 7.1 - 12.4 <input type="checkbox"/> ≥ 12.5 <input checked="" type="checkbox"/> 6-8
SEPARATED LAYERS? None <input checked="" type="checkbox"/> or ___ # of layers - (Don't include settled solids)	SPECIFIC GRAVITY: <input type="checkbox"/> < 0.8 <input type="checkbox"/> 0.8 - 1.0 <input type="checkbox"/> 1.1 - 1.7 <input checked="" type="checkbox"/> > 1.7 <input checked="" type="checkbox"/> < 1	SOLIDS LAYER (in gal) <input checked="" type="checkbox"/> < 5 <input type="checkbox"/> 5 - 10 <input type="checkbox"/> 10 - 20 <input type="checkbox"/> 20 - 30 <input type="checkbox"/> 30 - 40 <input type="checkbox"/> > 40 <input type="checkbox"/> N/A
VISCOSITY: <input type="checkbox"/> Low <input type="checkbox"/> Medium <input checked="" type="checkbox"/> High Pumpable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pourable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	WATER (% BY VOL) <input checked="" type="checkbox"/> < 5 <input type="checkbox"/> 5 - 10 <input type="checkbox"/> 10 - 15 <input type="checkbox"/> 15 - 20 <input type="checkbox"/> 20 - 25 <input type="checkbox"/> 25 - 30 <input type="checkbox"/> > 30	HEATING VALUE (BTU/LB) <input type="checkbox"/> < 5,000 <input type="checkbox"/> 5,000 - 10,000 <input checked="" type="checkbox"/> > 10,000 <input checked="" type="checkbox"/> 8-10,000
SLUDGE (in Gals) <input type="checkbox"/> < 5 <input type="checkbox"/> 5 - 10 <input type="checkbox"/> 10 - 20 <input type="checkbox"/> 20 - 30 <input type="checkbox"/> 30 - 40 <input checked="" type="checkbox"/> > 40	CHLORIDE (% BY WT.) <input checked="" type="checkbox"/> < 2 <input type="checkbox"/> 2 - 5 <input type="checkbox"/> 5 - 8 <input type="checkbox"/> 8 - 11 <input type="checkbox"/> 11 - 14 <input type="checkbox"/> > 14	STATE: Free liquids? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Powder <input type="checkbox"/> Granular <input type="checkbox"/> Rock <input type="checkbox"/>

E. WASTE REGULATION: RCRA/EPA Hazardous waste?  YES  NO OR Is this a STATE Hazardous waste?  YES  NO  
LIST ALL RCRA/EPA/STATE Hazardous waste codes OR NON-Hazardous waste codes here: DO01

F. SHIPPING INFORMATION: Is this a DOT Hazardous Material?  YES  NO

Proper DOT Shipping Name (from the 49 CFR §172.101 table) (RQ), WASTE TAR, LIQUID

Hazard Class 3 PG II UN/NA ID No. UN1999 List 2 major components in the waste (TAR)

FOR INTERNAL USE ONLY: LAB: \_\_\_\_\_ QC \_\_\_\_\_ AN.I.D. \_\_\_\_\_

Approved  Broker  Rejected Facility:  Chem-Met  CCFL  CCGA  Other: \_\_\_\_\_

Facility System Code: M \_\_\_\_\_ UN/NA Code: \_\_\_\_\_ Waste Codes: \_\_\_\_\_

FORM : B \_\_\_\_\_ SOURCE : A \_\_\_\_\_ SYSTEM : M \_\_\_\_\_ UTS TABLE: \_\_\_\_\_ CONSOLID: \_\_\_\_\_ PC \_\_\_\_\_

NOTES: \_\_\_\_\_



**ENVIRONMENTAL**  
SERVICE GROUP (NY) INC.

3083

NY DEC# 9A-324  
PA DER# AHS144  
OH EPA# 63514-HW  
EPA ID# NYD 986903904

P.O. BOX 242 TONAWANDA, N.Y. 14151-0242  
716/695-6720 Fax# 716/695-0161

**BILL OF LADING**

S Name NYSDEC (WURLITZER PARK) T. CHEM MET SERVICES, INC.  
H \_\_\_\_\_  
I Street NIAGARA FALLS BOULEVARD S. 18550 ALLEN ROAD  
P \_\_\_\_\_ D. \_\_\_\_\_  
P \_\_\_\_\_  
E \_\_\_\_\_  
R City NORTH TONAWANDA, NY 14120 F. BROWNSTOWN, MI 48192

Contact MS. LORI SECKER Phone # 716/667-6664 ( )

Scheduled Date 01/15/98 Time \_\_\_\_\_ Scheduled Date \_\_\_\_\_ Time \_\_\_\_\_

QTY	DOT SHIPPING NAME	HAZ CLASS	HAZ #	UN/NA #	PROD CODE
002	(2 X 85) HYDROXIDE SALT (N/H) WUR33903 <i>5425</i>	8-029L		UN1759 PGIII	114
002	(2 X 55) BARIUM SULFATE SCALE WUR33902	9- <del>0005</del>	D005	NA3077 PGIII	113
001	(1 X 85) NON-HAZ BREASE WUR33901 <i>5</i>	-029L			114

P.O.# \_\_\_\_\_ MANIFEST # MI4406032 DRIVER MIKE DATE 1/15/98 TRUCK # 238

One hour loading/unloading time allowance.

TIME IN:	<u>2:00</u>	TIME IN:	
TIME OUT:	<u>3:45</u>	TIME OUT:	

REASON FOR DELAY:

Quality Control Inspection: The following discrepancy(s) was observed when inspecting your waste shipment. \_\_\_\_\_

Additional treatment may be required, increasing the cost of disposal. If you have any questions, please call Customer Service (716) 695-6720.

I, the undersigned, certify that the above information is true and complete.

X Lori Secker for NYSDEC Released by X \_\_\_\_\_ Released by

DATE: 1/15/98 DATE: \_\_\_\_\_



# ENVIRONMENTAL SERVICE GROUP (NY) INC.

## 3084

NY DEC# 9A-324  
 PA DER# AHS144  
 OH EPA# 63514-HW  
 EPA ID# NYD 986903904

P.O. BOX 242 TONAWANDA, N.Y. 14151-0242  
 716/695-6720 Fax# 716/695-0161

### BILL OF LADING

S Name NYSDEC (WURLITZER PARK) T. SUNSTREAM, INC.  
 H \_\_\_\_\_  
 I Street NIAGARA FALLS BOULEVARD S. 6 SPRING FOREST AVENUE  
 P \_\_\_\_\_  
 P \_\_\_\_\_ D. \_\_\_\_\_  
 E \_\_\_\_\_  
 R City NORTH TONAWANDA, NY 14120 F. BINGHAMTON, NY 13905

Contact MS. LORI SECKER Phone # 716/667-6664 ( )

Scheduled Date 01/15/98 Time \_\_\_\_\_ Scheduled Date \_\_\_\_\_ Time \_\_\_\_\_

QTY	DOT SHIPPING NAME	HAZ CLASS	HAZ #	UN/NA #	PROD CODE
001	(1 X 55) ASBESTOS TILES	<del>9XXXX</del>	N087	NA2212 PGIII	121

P.O.# \_\_\_\_\_ MANIFEST # n/a DRIVER Mike DATE 1/15/98 TRUCK # 238

One hour loading/unloading time allowance.

TIME IN:	<u>2:15</u>	TIME IN:	
TIME OUT:	<u>3:12</u>	TIME OUT:	

REASON FOR DELAY: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Quality Control Inspection: The following discrepancy(s) was observed when inspecting your waste shipment. \_\_\_\_\_  
 \_\_\_\_\_

Additional treatment may be required, increasing the cost of disposal. If you have any questions, please call Customer Service (716) 695-6720.

I, the undersigned, certify that the above information is true and complete.  
 X Lori Secker for NYSDEC X \_\_\_\_\_  
 Released by \_\_\_\_\_ Released by \_\_\_\_\_  
 DATE: 1/15/98 DATE: \_\_\_\_\_





**THE ENVIRONMENTAL SERVICE GROUP (NY), INC.**

177 WALES AVENUE, TONAWANDA, NY 14151  
716/695-6720 • Fax 716/695-0161

**Waste Profile Report**

EXPIRATION DATE \_\_\_\_\_

REMEDIAL YES  NO

**E.S.G. USE ONLY**

Approved: Yes  No  ACCT. \_\_\_\_\_

Handling Code \_\_\_\_\_ ERG:# \_\_\_\_\_

Submitted to \_\_\_\_\_

Approval # \_\_\_\_\_

PLEASE ATTACH: All Material Data Sheets (MSDS), Analysis Reports, Handling Precautions, Additional Hazard Information, Support Data & Comments.

Generator Name WURLITZER PARK - NYSDEC Billing Name MALCOLM PERNIE, INC.

Site Address NIAGARA FALLS BOULEVARD Mailing Address 40 CENTRE DRIVE

City, State, Zip NORTH TONAWANDA, NY 14120 City, State, Zip BUFFALO, NY 14219-0138

Technical Contact MS. LORI SECKER Business Contact MS. LORI SECKER

Name Title Name Title

Area Code ( 716 ) Telephone 667-6664 Area Code ( 716 ) Telephone 667-6664

EPA ID# NYD 000 911 339 Common Name of Waste BARIUM SULFATE SCALE

**HAZARDOUS PROPERTIES**

Ignitable  
 Corrosive  
 Reactive  
 EP Toxic  
 None  
 Listed (Subpart D)  
 TSCA  
 Radioactive

**GENERATING PROCESS**  
BARIUM SULFATE SCALE, DIRT AND GRIT FROM PLANT CLEAN-UP/  
CLOSURE DRUMMED FOR DISPOSAL

**PROFILE BASED ON GENERATOR KNOWLEDGE**

**SHIPPING INFORMATION**

EPA Hazard Waste # D005

NYS Non-Hazard # \_\_\_\_\_

Container Type:  Drum  Bulk  Other \_\_\_\_\_

Rate of Generation 2 55 GALLON DRUMS YEAR

Quantity Units Frequency

Is waste DOT Regulated?  Yes  No

Proper DOT Shipping Name: HAZARDOUS WASTE SOLID, N.O.S. (BARIUM, DIRT, GRIT)

**CHEMICAL COMPOSITION (Totals must add up to 100%)**

<u>BARIUM SULFATE SCALE</u>	<u>80-100</u>	%
<u>DIRT/GRIT</u>	<u>0-20</u>	%
_____	_____	%
_____	_____	%
_____	_____	%
_____	_____	%

**ORGANIC CHARACTERISTICS**

<u>0</u>	D012 Endrin
_____	D013 Lidane
_____	D014 Methoxychlor
_____	D015 Toxaphene
_____	D016 2,4-Dichlorophenoxycetic Acid
_____	D017 2,4,5-TP (Silvex)
_____	D018 Benzene
_____	D019 Carbon Tetrachloride
_____	D020 Chlorodane
_____	D021 Chlorobenzene
_____	D022 Chloroform
_____	D023 o-Cresol
_____	D024 m-Cresol
_____	D025 p-Cresol
_____	D026 Cresol (total)
_____	D027 1,4-Dichlorobenzene
_____	D028 1,2-Dichloroethane
_____	D029 1,1-Dichloroethylene
_____	D030 2,4-Dinitrotoluene
_____	D031 Heptachlor
_____	D032 Hexachlorobenzene
_____	D033 Hexachloro-1,3-butadiene
_____	D034 Hexachlorethane
_____	D035 Methyl Ethyl Ketone
_____	D036 Nitrobenzene
_____	D037 Pentachlorophenol
_____	D038 Pyridine
_____	D039 Tetrachloroethylene
_____	D040 Trichloroethylene
_____	D041 2,4,5-Trichlorophenol
_____	D042 2,4,6-Trichlorophenol
_____	D043 Vinyl Chloride

**PHYSICAL DESCRIPTION**

Physical State  Liquid  Sludge  Solid  
 Powder  Debris  Other

Viscosity  Low  Medium  High

Pumpable  Yes  No  Partial %

Layering  None  Bilayered  Multilayered

Solids (% Awt.) Total 100 Suspended 100

Settleable 100

Odor NONE Color WHITE

Specific Gravity N/A Density N/A

Flash Point  $^{\circ}\text{F}$  >200 BTU/lb. <1,000

PH N/A Total Alkalinity/Acidity (%) N/A

**METALS (mg/l or ppm)**

	( ) TCLP	( X ) Total
D004 Arsenic (As)		<u>0</u>
D005 Barium (Ba)		<u>559,000</u>
D006 Cadmium (Cd)		<u>0</u>
D007 Chromium (Cr)		<u>5.0</u>
D007 Chromium (Hex)		<u>5.0</u>
D008 Lead (Pb)		<u>15.0</u>
D009 Mercury (Hg)		<u>0</u>
D010 Selenium (Se)		<u>0</u>
D011 Silver (Ag)		<u>0</u>
001D Copper (Cu)		<u>25</u>
0HIO Nickel (Ni)		<u>259</u>
003D Zinc (Zn)		<u>9.0</u>
CAL Thallium (Tl)		<u>0</u>
Other _____		

**OTHER**

Pesticides 0 Herbicides 0 PCB 0

HOC 0 TOX 0 Phenol (ics) 0

Other \_\_\_\_\_

Sample Submitted  Yes  No By \_\_\_\_\_

Analysis Required  Yes  No Lab \_\_\_\_\_

SAMPLE NUMBER: ESG

**INORGANIC (mg/l or ppm)**

Reactive Cyanide	<u>0</u>
Reactive Sulfide	_____
Total Cyanide	_____
Total Sulfide	_____

On behalf of the generator, I certify that all information contained in this profile, including any attachments is complete, factual and accurate. It represents the known and suspected hazards and waste generator regulations pertaining to the waste described above. I am a duly authorized representative of the generator. Generator agrees to indemnify and hold the Environmental Service Group (NY), Inc. (ESG) harmless for any claims, liabilities, damages and costs arising out of or in any way related to breach of the above certification. I further authorize ESG to transmit the above information to regulatory or TSD facilities as required for disposal.

SIGNED BY Lori Secker for NYSDEC Date Signed 12/19/97

Name Title



**THE ENVIRONMENTAL SERVICE GROUP (NY), INC.**

177 WALES AVENUE, TONAWANDA, NY 14151  
716/695-6720 • Fax 716/695-0161

**Waste Profile Report**

EXPIRATION DATE \_\_\_\_\_  
REMEDIAL YES  NO

**E.S.G. USE ONLY**  
Approved: Yes  No  ACCT. \_\_\_\_\_  
Handling Code \_\_\_\_\_ ERG: # \_\_\_\_\_  
Submitted to ST  
Approval # \_\_\_\_\_

PLEASE ATTACH: All Material Data Sheets (MSDS), Analysis Reports, Handling Precautions, Additional Hazard Information, Support Data & Comments.

Generator Name WURLITZER PARK - NYSDEC  
Site Address NIAGARA FALLS BOULEVARD  
City, State, Zip NORTH TONAWANDA, NY 14120  
Technical Contact MS. LORI SECKER

Billing Name MALCOLM PERNIE, INC.  
Mailing Address 40 CENTRE DRIVE  
City, State, Zip BUFFALO, NY 14219-0138  
Business Contact MS. LORI SECKER

Area Code ( 716 ) Telephone 667-6664  
EPA ID# NYD 000 911 339

Area Code ( 716 ) Telephone 667-6664  
Common Name of Waste TILE

**HAZARDOUS PROPERTIES**

Ignitable  
 Corrosive  
 Reactive  
 EP Toxic  
 None ASBESTOS  
 Listed (Subpart D)  
 TSCA  
 Radioactive

GENERATING PROCESS  
FLOOR TILE CONTAINING ASBESTOS  
BAGGED AND DRUMMED FOR DISPOSAL

PROFILE BASED ON GENERATOR KNOWLEDGE

**SHIPPING INFORMATION**

EPA Hazard Waste # NONE  
NYS Non-Hazard # NY-N807  
Container Type:  Drum  Bulk  Other  
55 GALLON DRUM ONCE  
Rate of Generation  
Quantity Units Frequency  
Is waste DOT Regulated?  Yes  No  
Proper DOT Shipping Name: (RQ) ~~XXXX~~ ASBESTOS

**CHEMICAL COMPOSITION** (Totals must add up to 100%)

<u>ASBESTOS FLOOR TILE</u>	%	_____	%
<u>100</u>	%	_____	%
_____	%	_____	%
_____	%	_____	%
_____	%	_____	%
_____	%	_____	%
_____	%	_____	%

Hazard Class/Packing 9 PGIII  
UN/NA # NA2212  
Placarding CLASS 9  
RQ Value 1+

**ORGANIC CHARACTERISTICS**

<u>0</u>	D012 Endrin
_____	D013 Lidane
_____	D014 Methoxychlor
_____	D015 Toxaphene
_____	D016 2,4-Dichlorophenoxyacetic Acid
_____	D017 2,4,5-TP (Silvex)
_____	D018 Benzene
_____	D019 Carbon Tetrachloride
_____	D020 Chlorodane
_____	D021 Chlorobenzene
_____	D022 Chloroform
_____	D023 o-Cresol
_____	D024 m-Cresol
_____	D025 p-Cresol
_____	D026 Cresol (total)
_____	D027 1,4-Dichlorobenzene
_____	D028 1,2-Dichloroethane
_____	D029 1,1-Dichloroethylene
_____	D030 2,4-Dinitrotoluene
_____	D031 Heptachlor
_____	D032 Hexachlorobenzene
_____	D033 Hexachloro-1,3-butadiene
_____	D034 Hexachlorethane
_____	D035 Methyl Ethyl Ketone
_____	D036 Nitrobenzene
_____	D037 Pentachlorophenol
_____	D038 Pyridine
_____	D039 Tetrachloroethylene
_____	D040 Trichloroethylene
_____	D041 2,4,5-Trichlorophenol
_____	D042 2,4,6-Trichlorophenol
_____	D043 Vinyl Chloride

**PHYSICAL DESCRIPTION**

Physical State  Liquid  Sludge  Solid  
 Powder  Debris  Other  
Viscosity  Low  Medium  High  
Pumpable  Yes  No  Partial %  
Layering  None  Bilayered  Multilayered

Solids (% wt.) Total 100 Suspended 100  
Settleable 100  
Odor NONE Color TYPICAL  
Specific Gravity N/A Density N/A  
Flash Point N/A BTU/lb. N/A  
PH N/A Total Alkalinity/Acidity (%) N/A

**METALS** (mg/l or ppm)

( ) TCLP ( X ) Total

D004 Arsenic (As)	<u>0</u>
D005 Barium (Ba)	_____
D006 Cadmium (Cd)	_____
D007 Chromium (Cr)	_____
D007 Chromium (Hex)	_____
D008 Lead (Pb)	_____
D009 Mercury (Hg)	_____
D010 Selenium (Se)	_____
D011 Silver (Ag)	_____
001D Copper (Cu)	_____
0H10 Nickel (Ni)	_____
003D Zinc (Zn)	_____
CAL Thallium (Tl)	_____
Other _____	_____

**INORGANIC** (mg/l or ppm)

Reactive Cyanide	<u>0</u>
Reactive Sulfide	_____
Total Cyanide	_____
Total Sulfide	_____

**OTHER**

Pesticides 0 Herbicides 0 PCB 0  
HOC 0 TOX 0 Phenol (ics) 0  
Other \_\_\_\_\_  
Sample Submitted  Yes  No By \_\_\_\_\_  
Analysis Required  Yes  No Lab \_\_\_\_\_  
SAMPLE NUMBER: ESG \_\_\_\_\_

On behalf of the generator, I certify that all information contained in this profile, including any attachments is complete, factual and accurate. It represents the known and suspected hazards and waste generator regulations pertaining to the waste described above. I am a duly authorized representative of the generator. Generator agrees to indemnify and hold the Environmental Service Group (NY), Inc. (ESG) harmless for any claims, liabilities, damages and costs arising out of or in any way related to breach of the above certification. I further authorize ESG to transmit the above information to regulatory or TSD facilities as required for disposal.

SIGNED BY Lori Secker for NYSDEC Date Signed 12/19/97  
Name Title



**THE ENVIRONMENTAL SERVICE GROUP (NY), INC.**

177 WALES AVENUE, TONAWANDA, NY 14151  
716/695-6720 • Fax 716/695-0161

**Waste Profile Report**

EXPIRATION DATE \_\_\_\_\_  
REMEDIAL YES  NO

**E.S.G. USE ONLY**

Approved: Yes  No  ACCT. \_\_\_\_\_  
Handling Code \_\_\_\_\_ ERG:# \_\_\_\_\_  
Submitted to \_\_\_\_\_  
Approval # \_\_\_\_\_

PLEASE ATTACH: All Material Data Sheets (MSDS), Analysis Reports, Handling Precautions, Additional Hazard Information, Support Data & Comments.

Generator Name WURLITZER PARK NYSDEC  
Site Address NIAGARA FALLS BOULEVARD  
City, State, Zip NORTH TONAWANDA, NY 14120  
Technical Contact MS. LORI SECKER  
Name Title  
Area Code ( 716 ) Telephone 667-6664  
EPA ID# NYD 000 911 339

Billing Name MALCOLM PERNIE, INC.  
Mailing Address 40 CENTRE DRIVE  
City, State, Zip BUFFALO, NY 14219-0138  
Business Contact MS. LORI SECKER  
Name Title  
Area Code ( 716 ) Telephone 667-6664  
Common Name of Waste GREASE

**HAZARDOUS PROPERTIES**

Ignitable  
 Corrosive  
 Reactive  
 EP Toxic  
 None  
 Listed (Subpart D)  
 TSCA  
 Radioactive

GENERATING PROCESS  
OUTDATED, UNUSED GREASE  
PLACED INTO 85 GALLON  
OVERPACK FOR DISPOSAL  
PROFILE BASED ON GENERATOR  
KNOWLEDGE

**SHIPPING INFORMATION**

EPA Hazard Waste # NONE  
NYS Non-Hazard # MI-029L  
Container Type:  Drum  Bulk  Other  
Rate of Generation 1 x 55 IN 85 OP ONCE  
Quantity Units Frequency  
Is waste DOT Regulated?  Yes  No  
Proper DOT Shipping Name: NON-RCRA, NON-DOT  
REGULATED GREASE

**CHEMICAL COMPOSITION (Totals must add up to 100%)**

PETROLEUM GREASE 100% %  
%  
%  
%  
%  
%  
%

**Hazard Class / Packing Group**

UN/NA # \_\_\_\_\_  
Placarding \_\_\_\_\_  
RQ Value \_\_\_\_\_

**ORGANIC CHARACTERISTICS**

0 D012 Endrin  
D013 Lidane  
D014 Methoxychlor  
D015 Toxaphene  
D016 2,4-Dichlorophen-  
oxyacetic Acid  
D017 2,4,5-TP (Silvex)  
D018 Benzene  
D019 Carbon Tetrachloride  
D020 Chlorodane  
D021 Chlorobenzene  
D022 Chloroform  
D023 o-Cresol  
D024 m-Cresol  
D025 p-Cresol  
D026 Cresol (total)  
D027 1,4-Dichlorobenzene  
D028 1,2-Dichloroethane  
D029 1,1-Dichloroethylene  
D030 2,4-Dinitrotoluene  
D031 Heptachlor  
D032 Hexachlorobenzene  
D033 Hexachloro-1,3-butadiene  
D034 Hexachlorethane  
D035 Methyl Ethyl Ketone  
D036 Nitrobenzene  
D037 Pentachlorophenol  
D038 Pyridine  
D039 Tetrachloroethylene  
D040 Trichloroethylene  
D041 2,4,5-Trichlorophenol  
D042 2,4,6-Trichlorophenol  
D043 Vinyl Chloride

**PHYSICAL DESCRIPTION**

Physical State  Liquid  Sludge  Solid  
 Powder  Debris  Other  
Viscosity  Low  Medium  High  
Pumpable  Yes  No  Partial %  
Layering  None  Bilayered  Multilayered  
Solids (% Awt.) Total 100 Suspended 100  
Settleable 100  
Odor MILD PETROLEUM Color TYPICAL  
Specific Gravity N/A Density N/A  
Flash Point °F N/A BTU/lb. N/A  
PH N/A Total Alkalinity/Acidity (%) N/A

**METALS (mg/l or ppm)**

( X ) TCLP ( ) Total  
D004 Arsenic (As) 0  
D005 Barium (Ba) \_\_\_\_\_  
D006 Cadmium (Cd) \_\_\_\_\_  
D007 Chromium (Cr) \_\_\_\_\_  
D007 Chromium (Hex) \_\_\_\_\_  
D008 Lead (Pb) \_\_\_\_\_  
D009 Mercury (Hg) \_\_\_\_\_  
D010 Selenium (Se) \_\_\_\_\_  
D011 Silver (Ag) \_\_\_\_\_  
001D Copper (Cu) \_\_\_\_\_  
OHIO Nickel (Ni) \_\_\_\_\_  
003D Zinc (Zn) \_\_\_\_\_  
CAL Thallium (Tl) \_\_\_\_\_  
Other \_\_\_\_\_

**OTHER**

Pesticides 0 Herbicides 0 PCB 0  
HOC 0 TOX 0 Phenol (ics) 0

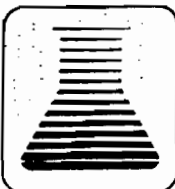
**INORGANIC (mg/l or ppm)**

Reactive Cyanide 0  
Reactive Sulfide \_\_\_\_\_  
Total Cyanide \_\_\_\_\_  
Total Sulfide \_\_\_\_\_

SAMPLE NUMBER: ESG

On behalf of the generator, I certify that all information contained in this profile, including any attachments is complete, factual and accurate. It represents the known and suspected hazards and waste generator regulations pertaining to the waste described above. I am a duly authorized representative of the generator. Generator agrees to indemnify and hold the Environmental Service Group (NY), Inc. (ESG) harmless for any claims, liabilities, damages and costs arising out of or in any way related to breach of the above certification. I further authorize ESG to transmit the above information to regulatory or TSD facilities as required for disposal.

SIGNED BY Lori Secker for NYSDEC Name \_\_\_\_\_ Title \_\_\_\_\_  
Date Signed 12/19/97



**THE ENVIRONMENTAL SERVICE GROUP (NY), INC.**

177 WALES AVENUE, TONAWANDA, NY 14151  
716/695-6720 • Fax 716/695-0161

**Waste Profile Report**

EXPIRATION DATE \_\_\_\_\_  
REMEDIAL YES  NO

**E.S.G. USE ONLY**  
Approved: Yes  No  ACCT. \_\_\_\_\_  
Handling Code \_\_\_\_\_ ERG: # \_\_\_\_\_  
Submitted to \_\_\_\_\_  
Approval # \_\_\_\_\_

PLEASE ATTACH: All Material Data Sheets (MSDS), Analysis Reports, Handling Precautions, Additional Hazard Information, Support Data & Comments.

Generator Name WURLITZER PARK - NYSDEC  
Site Address NIAGARA FALLS BOULEVARD  
City, State, Zip NORTH TONAWANDA, NY 14120  
Technical Contact MS. LORI SECKER

Billing Name MALCOLM PERNIE, INC.  
Mailing Address 40 CENTRE DRIVE  
City, State, Zip BUFFALO, NY 14219-0138  
Business Contact MS. LORI SECKER

Name Title  
Area Code ( 716 ) Telephone 667-6664  
EPA ID# NYD 000 911 339

Name Title  
Area Code ( 716 ) Telephone 667-6664  
Common Name of Waste HYDROXIDE SALTS

**HAZARDOUS PROPERTIES**

Ignitable  
 Corrosive  
 Reactive  
 EP Toxic  
 None  
 Listed (Subpart D)  
 TSCA  
 Radioactive

**GENERATING PROCESS**  
HYDROXIDE SALTS (POTASSIUM/SODIUM) CONTAMINATED WITH DIRT AND GRIT, NO LONGER USABLE, PLACED IN 85 GALLON OVERPACKS  
**FOR DISPOSAL, PROFILE BASED ON GENERATOR KNOWLEDGE**

**SHIPPING INFORMATION**

EPA Hazard Waste # NONE  
NYS Non-Hazard # NY-N899, MI-029L  
Container Type:  Drum  Bulk  Other  
Rate of Generation 2 x 55 IN 85 OP'S YEAR  
Quantity Units Frequency  
Is waste DOT Regulated?  Yes  No  
Proper DOT Shipping Name: (RO) Waste CORROSIVE SOLID, N.O.S. (POTASSIUM HYDROXIDE, SODIUM HYDROXIDE)

**CHEMICAL COMPOSITION** (Totals must add up to 100%)

POTASSIUM/SODIUM HYDROXIDE SALT	90-100%	%
DIRT/GRIT/DEBRIS	0-10%	%
		%
		%
		%
		%

**ORGANIC CHARACTERISTICS**

0	D012 Endrin
	D013 Lidane
	D014 Methoxychlor
	D015 Toxaphene
	D016 2,4-Dichlorophenoxyacetic Acid
	D017 2,4,5-TP (Silvex)
	D018 Benzene
	D019 Carbon Tetrachloride
	D020 Chlorodane
	D021 Chlorobenzene
	D022 Chloroform
	D023 o-Cresol
	D024 m-Cresol
	D025 p-Cresol
	D026 Cresol (total)
	D027 1,4-Dichlorobenzene
	D028 1,2-Dichloroethane
	D029 1,1-Dichloroethylene
	D030 2,4-Dinitrotoluene
	D031 Heptachlor
	D032 Hexachlorobenzene
	D033 Hexachloro-1,3-butadiene
	D034 Hexachlorethane
	D035 Methyl Ethyl Ketone
	D036 Nitrobenzene
	D037 Pentachlorophenol
	D038 Pyridine
	D039 Tetrachloroethylene
	D040 Trichloroethylene
	D041 2,4,5-Trichlorophenol
	D042 2,4,6-Trichlorophenol
	D043 Vinyl Chloride

**PHYSICAL DESCRIPTION**

Physical State:  Liquid  Sludge  Solid  
 Powder  Debris  Other  
Viscosity:  Low  Medium  High  
Pumpable:  Yes  No  Partial %  
Layering:  None  Bilayered  Multilayered

Solids (% Awt.) Total 100 Suspended 100  
Settleable 100  
Odor NONE Color TYPICAL  
Specific Gravity N/A Density N/A  
Flash Point >200 BTU/lb. <1,000  
PH N/A Total Alkalinity/Acidity (%) N/A

**METALS** (mg/l or ppm)

	( X ) TCLP	( ) Total
D004 Arsenic (As)		0.066
D005 Barium (Ba)		0.112
D006 Cadmium (Cd)		<0.05
D007 Chromium (Cr)		0.502
D007 Chromium (Hex)		0.502
D008 Lead (Pb)		<0.05
D009 Mercury (Hg)		<0.05
D010 Selenium (Se)		<0.05
D011 Silver (Ag)		<0.05
001D Copper (Cu)		0
0H10 Nickel (Ni)		
003D Zinc (Zn)		
CAL Thallium (Tl)		
Other		

**INORGANIC** (mg/l or ppm)

Reactive Cyanide	0
Reactive Sulfide	
Total Cyanide	
Total Sulfide	

**OTHER**

Pesticides 0 Herbicides 0 PCB 0  
HOC 0 TOX 0 Phenol (ics) 0  
Other \_\_\_\_\_  
Sample Submitted  Yes  No By \_\_\_\_\_  
Analysis Required  Yes  No Lab \_\_\_\_\_  
SAMPLE NUMBER: ESG \_\_\_\_\_

On behalf of the generator, I certify that all information contained in this profile, including any attachments is complete, factual and accurate. It represents the known and suspected hazards and waste generator regulations pertaining to the waste described above. I am a duly authorized representative of the generator. Generator agrees to indemnify and hold the Environmental Service Group (NY), Inc. (ESG) harmless for any claims, liabilities, damages and costs arising out of or in any way related to breach of the above certification. I further authorize ESG to transmit the above information to regulatory or TSD facilities as required for disposal.

SIGNED BY Lori Secker for NYSDEC Date Signed 12-11-97  
Name Title



**READ ALL INSTRUCTIONS  
BEFORE COMPLETING THIS FORM.**

This form is to be used to report information regarding hazardous waste management practices at your facility. It is to be used in conjunction with the following instructions and the information provided on this form. It is to be used to report information regarding hazardous waste management practices at your facility. It is to be used in conjunction with the following instructions and the information provided on this form.

**GENERATOR INSTRUCTIONS**

Item 1. For shipment of regulated quantities of hazardous waste under the U.S. EPA Double Drum Rule, you must use a manifest and a bill of lading. The manifest and bill of lading must be prepared by you and must be submitted to the EPA Region Office in the State of Michigan. The manifest and bill of lading must be prepared by you and must be submitted to the EPA Region Office in the State of Michigan.

Item 2. If a generator is required to use a manifest, the generator must use a manifest and a bill of lading. The manifest and bill of lading must be prepared by the generator and must be submitted to the EPA Region Office in the State of Michigan. The manifest and bill of lading must be prepared by the generator and must be submitted to the EPA Region Office in the State of Michigan.

Item 3. The generator must use a manifest and a bill of lading. The manifest and bill of lading must be prepared by the generator and must be submitted to the EPA Region Office in the State of Michigan. The manifest and bill of lading must be prepared by the generator and must be submitted to the EPA Region Office in the State of Michigan.

Item 4. The generator must use a manifest and a bill of lading. The manifest and bill of lading must be prepared by the generator and must be submitted to the EPA Region Office in the State of Michigan. The manifest and bill of lading must be prepared by the generator and must be submitted to the EPA Region Office in the State of Michigan.

Item 5. The generator must use a manifest and a bill of lading. The manifest and bill of lading must be prepared by the generator and must be submitted to the EPA Region Office in the State of Michigan. The manifest and bill of lading must be prepared by the generator and must be submitted to the EPA Region Office in the State of Michigan.

**TABLE 1** For use with wastes regulated under Part 121 of Act 451, 1994 as amended only. Wastes which have been evaluated and found to fall outside of RCRA at Part 131 of Act 451, 1994 are not included. Regulations should be manufactured using these numbers.

Waste	Waste No.	Waste
Air Solution	0011	Crude Oil
Alkylamine Solution	0021	Crude Oil
Alkyne Solution	0031	Crude Oil
Alkyne Solution	0041	Crude Oil
Alkyne Solution	0051	Crude Oil
Alkyne Solution	0061	Crude Oil
Alkyne Solution	0071	Crude Oil
Alkyne Solution	0081	Crude Oil
Alkyne Solution	0091	Crude Oil
Alkyne Solution	0101	Crude Oil
Alkyne Solution	0111	Crude Oil
Alkyne Solution	0121	Crude Oil
Alkyne Solution	0131	Crude Oil
Alkyne Solution	0141	Crude Oil
Alkyne Solution	0151	Crude Oil
Alkyne Solution	0161	Crude Oil

**TRANSPORTER INSTRUCTIONS**

Item 17. Print the name of the person accepting the waste on behalf of the next transporter that person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt. Item 18. Print the name of the person accepting the waste on behalf of the next transporter that person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt.

**TREATMENT, STORAGE, OR DISPOSAL FACILITY INSTRUCTIONS**

Item 19. An authorized representative of the designated (or alternate) facility must sign this space. Item 20. Print or type the name of the person accepting the waste on behalf of the generator. Item 21. Print or type the name of the person accepting the waste on behalf of the generator.

**ADDRESS ALL MDNR MANIFEST COPIES TO:**  
**WASTE MANAGEMENT DIVISION**  
**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**  
**BOX 30038**  
**LANSING, MI 48909-7538**  
 (517) 373-2740



NYG0373788

HAZARDOUS WASTE MANIFEST  
P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple.

(Rev. 3/97)

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA No.		Manifest Doc. No.		2. Page 1 of 2		Information within heavy bold line is not required by Federal Law.			
3. Generator's Name and Mailing Address <b>NYSD&amp;C CHEMILIZER CORP</b> <b>WINDSOR FALLS BOULEVARD</b> <b>NORTH WINDSOR, NY 14128</b>						<b>A. NYG0373788</b>					
4. Generator's Telephone Number		5. Transporter 1 (Company Name)		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Telephone			
		ENVIRONMENTAL SERVICE GROUP		NY 0326902704		879922 NY		(518) 457-1122			
7. Transporter 2 (Company Name)		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Telephone		G. State Facility ID			
<b>Chem-Mat Services</b>		MI 0048463194				800-1282-9251					
9. Designated Facility Name and Site Address <b>CHEMICAL CONSERVATION OF GEORGIA</b> <b>1616 JAMES P. ROBBERS CIRCLE</b> <b>MARIETTA, GA 30067</b>						10. US EPA ID Number		H. Facility Telephone			
						GA 032134		(770) 244-4474			
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)						12. Containers Number Type		13. Total Quantity		14. Unit Wt/Vol	
a. <b>FLUORINATED TFM LIQUID</b>						2 07		<b>0 1000</b>		c	
I. Waste No.						EPA STATE					
b.						EPA STATE					
c.						EPA STATE					
d.						EPA STATE					
J. Additional Descriptions for Materials listed Above						K. Handling Codes for Wastes Listed Above					
a.						c <input type="checkbox"/>					
b.						d <input type="checkbox"/>					
15. Special Handling Instructions and Additional Information						* CONTINUATION SHEET FOR TRANSPORTERS 3 & 4 *					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.											
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature: <b>Lori Secker for NYSD&amp;C</b> Mo. Day Year <b>10   11   15   98</b>					
18. Transporter 2 Acknowledgement of Receipt of Materials						Signature: <b>Michael L. Bazzano</b> Mo. Day Year <b>10   11   15   98</b>					
19. Discrepancy Indication Space						Signature: <b>Dennis A. Romanski</b> Mo. Day Year					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 11						Signature: <b>Charlotte Williams</b> Mo. Day Year <b>10   13   07   98</b>					

800/535-5053

**UNIFORM HAZARDOUS WASTE MANIFEST**  
(Continuation Sheet)

21. Generator's US EPA ID No.

Manifest Document No.

22. Page

Information in the shaded areas is not required by Federal law.

N.Y.D.0.0.0.9.1.1.3.3.9 | 0.3.0.8.2

2

23. Generator's Name

716/667-6664

NYSDEC (WURLITZER PARK)  
NIAGARA FALLS BOULEVARD  
NORTH TONAWANDA, NY 14120

L. State Manifest Document Number

NYG0373788

M. State Generator's ID

SAME

24. Transporter 3 Company Name

CHEMICAL CONSERVATION CORP.

25. US EPA ID Number

F.L.D.9.8.0.5.5.9.7.2.8

N. State Transporter's ID

O. Transporter's Phone 407 859-4441

26. Transporter \_\_\_\_\_ Company Name

27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)  
(HM)

29. Containers

No

Type

30. Total Quantity

31. Unit W/Vol

R. Waste No.

a.

b.

c.

d.

e.

f.

g.

h.

i.

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

CONTINUATION SHEET PREPARED FOR THE EXCLUSIVE USE OF TRANSPORTERS 3 & 4.

33. Transporter 3 Acknowledgement of Receipt of Materials

Date

Printed/Typed Name

STEVE BREWER

Signature

Month Day Year

1 28 98

34. Transporter \_\_\_\_\_ Acknowledgement of Receipt of Materials

Date

Printed/Typed Name

Signature

Month Day Year

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY



# Appendix E

December 8, 1997  
Project Number 97-678

Ms. Lori Secker  
Malcolm Pirnie, Inc.  
40 Centre Drive, P.O. Box 1938  
Buffalo, NY 14219

Subject:      *Results of a Geophysical Investigation, North Tonawanda, New York*

Dear Ms. Secker,

Berkshire Environmental, Inc. (Berkshire) performed an electromagnetic (Geonics EM-31) survey at the Wurlitzer Site, North Tonawanda, New York on Wednesday, December 3, 1997. Surface conditions at the site were characterized by random surface debris as well as large diameter (~15 ft) and irregular-shaped mounded piles. The purpose of the investigation was to detect possible buried drums within the ~5 acre survey area.

Results of the investigation reveal an extensive "T"-shaped area of high-amplitude ground conductivity values oriented northeast-southwest. Some surface scrap and piles of debris are included within this region, however conductive boundaries are defined more by mounding than surface features. Elevated background values dominate the ground conductivity map which suggests a conductive component to the soil. Numerous bulls-eye anomalies that are not related to noted surface features were also interpreted on both in-phase and ground conductivity maps. Berkshire recommends physical inspection of these areas.

## 1.0 ELECTROMAGNETIC THEORY & INSTRUMENTATION

Electromagnetic (EM) induction is a non-invasive geophysical technique implemented to map near-surface electrical conductivity variations. The EM method involves the generation of an alternating magnetic field which causes eddy currents to flow in conductive materials. These eddy currents produce a secondary magnetic field which is sensed and measured by the field instrumentation. The apparent electrical conductivity of the subsurface is derived by comparing the primary magnetic field with the measured secondary field and recorded in milliSiemens/meter (mS/m), the inverse of resistivity. Ground conductivity data are sensitive to buried and surficial metal and changes in subsurface soils, saturation, and dissolved ion concentration. In-phase values, a second mode of data, are sensitive to both ferrous and non-ferrous metal and are recorded in parts per thousand (ppt).

120897\c:\project\97-678.rpt



EM exploration depth is dependant on the spacing between the transmitter and receiver coils and their orientation. For this study, Berkshire utilized its in-house Geonics EM-31 terrain conductivity system with an intercoil spacing of 12 ft. Ground conductivity and in-phase data were digitally recorded at each station in the vertical dipole mode to explore subsurface depths to approximately 15 ft (Figure 1).

## 2.0 FIELD DESIGN

A 25 x 25 ft control grid was flagged and cleared of vegetation by Malcolm Pirnie, Inc. prior to Berkshire mobilization. Berkshire established and labeled an (x,y) coordinate system and located site landmarks (fence, railroad tracks) relative to the control grid (Figure 2). All EM-31 data were collected and digitally recorded on a 12.5 x 12.5 ft pattern in accessible areas. In total, 3,370 data values (1,685 points) were recorded.

All EM-31 data were digitally stored, downloaded to a computer and reviewed for data QA/QC in the field. Berkshire generated preliminary contour maps of the ground conductivity and in-phase data and relayed preliminary interpretations to the Malcolm Pirnie, Inc. representative. Although numerous anomalies were identified, a distinction between the effects of known surface features vs. unknown buried targets were not determined in the field. As a result, only one interpreted EM-31 anomaly was field flagged.

## 3.0 DATA INTERPRETATION

Final data plots were splined and contoured using SURFER v.6.01 software package. The resolution of all interpreted EM-31 anomalies is constrained by the 12.5 x 12.5 ft data collection spacing and interpolation between adjacent data points.

The ground conductivity interpretation map (Figure 3) is dominated by a cluster of high-amplitude anomalies within a northeast-southwest trending "T"-shaped area. Some surface scrap and debris piles are included within this region, however this area is not defined by surface features alone. A correlation also exists between observed surface mounding and area boundaries. Isolated "bulls-eye" anomalies are also present which do not appear to be related to noted surface features. Four additional bulls-eye responses are located outside the "T" zone, centered at coordinates (325,675), (387.5,525), (37.5,362.5), and (362.5,150).

Based on their limited lateral extent, these bulls-eye responses are interpreted as either single metallic targets or tightly grouped objects. The ground conductivity map is also characterized by elevated background values (40-50 mS/m). This suggests a conductive component is present in the soil, such as disseminated metal or ash.

Although the "T" area is relatively apparent on the in-phase component as well, the most prominent features observed on this map (Figure 4) are the numerous bulls-eye anomalies. Highlighted in yellow, they can be found at coordinates (162.5,587.5), (212.5,112.5), (362.5,125), (362.5,212.5), (37.5,362.5), (387.5,525), (412.5,587.5), (362.5,550), (237.5,612.5), and (325,675). Several anomalies overlap or are adjacent to surface debris, however their extent beyond debris limits suggests additional buried targets may exist in these areas. Berkshire recommends physical investigations of all EM-31 anomalies to determine their source. Berkshire also recommends close examination of noted surface features to verify that they are in fact the source of high-amplitude values recorded in their vicinity.

#### 4.0 CONCLUSIONS & RECOMMENDATIONS

On December 3, 1997 Berkshire performed an EM-31 survey at the Wurlitzer Site in North Tonawanda, New York to detect possible buried drums within an ~5 acre survey area. In total, 1,685 EM-31 grid locations were surveyed and digitally recorded on a 12.5 x 12.5 ft grid pattern.

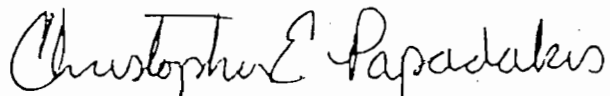
The most prominent feature on site is the "T"-shaped area of high-amplitude values. This zone is interpreted to be the result of surface debris combined with buried metallic and conductive targets. Elevated background values observed on the ground conductivity map suggest a conductive soil component is also present within the mounds.

Numerous bulls-eye anomalies were interpreted on both the ground conductivity and in-phase maps. Bulls-eye responses are typically recorded over either single targets or tightly grouped conductive or magnetically susceptible objects. Berkshire recommends physical investigations of all EM-31 anomalies to determine their source.

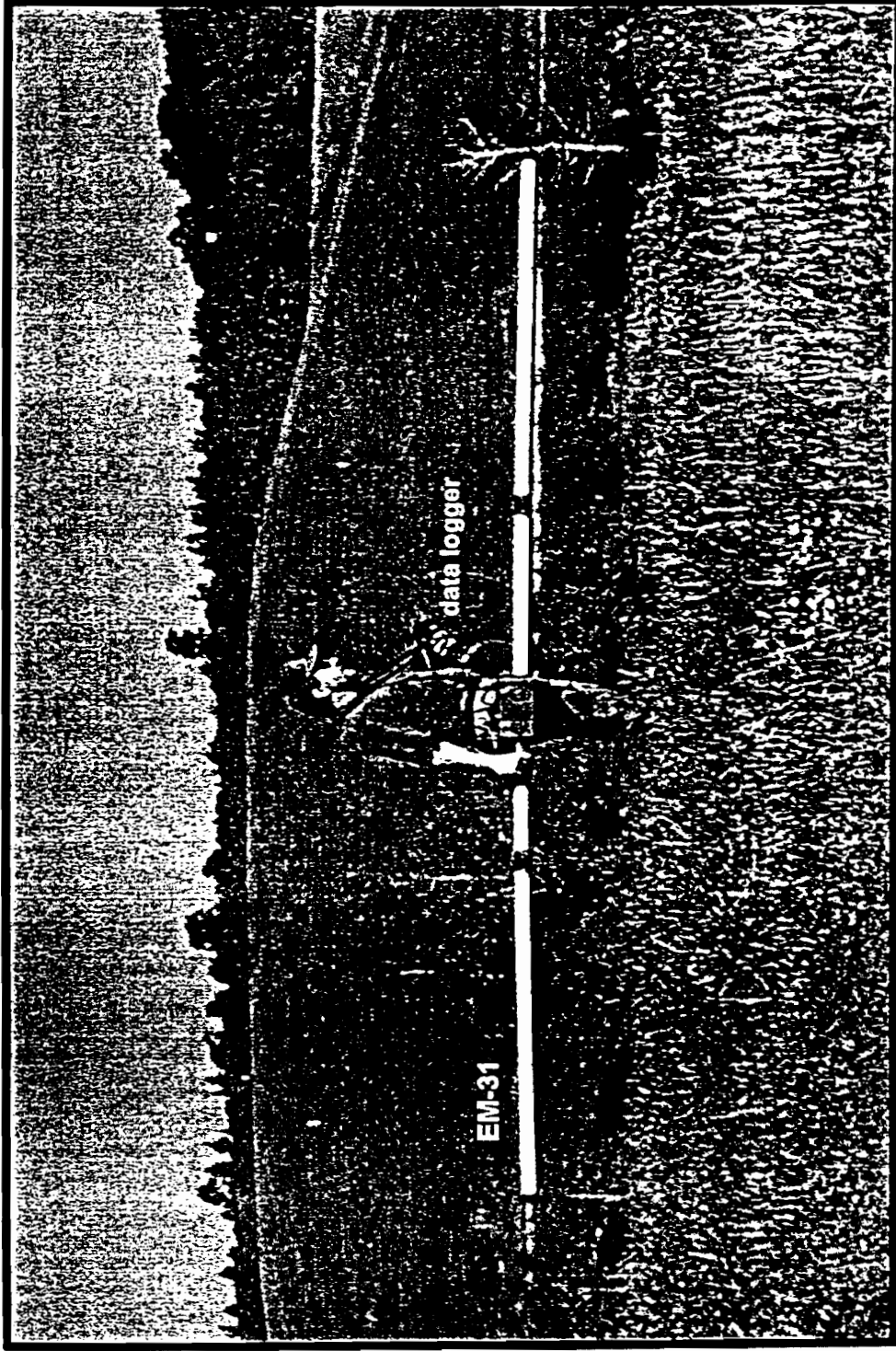
## 5.0 CLOSING

The field procedures and interpretative methodologies used in this project are consistent with standard, recognized practices in similar geophysical investigations. The correlation of geophysical responses with probable subsurface features is based on the past result of similar surveys although it is possible some variation could exist at this site. This warranty is in lieu of all other warranties either implied or expressed. Berkshire assumes no responsibility for interpretations made by others based on work performed by or recommendations made by Berkshire.

Sincerely,  
Berkshire Environmental, Inc.  
Near-Surface Geophysical Consultants



Christopher E. Papadakis  
Sr. Geophysical Engineer & Principal



Geonics EM-31 Instrumentation

## EM-31 Instrumentation

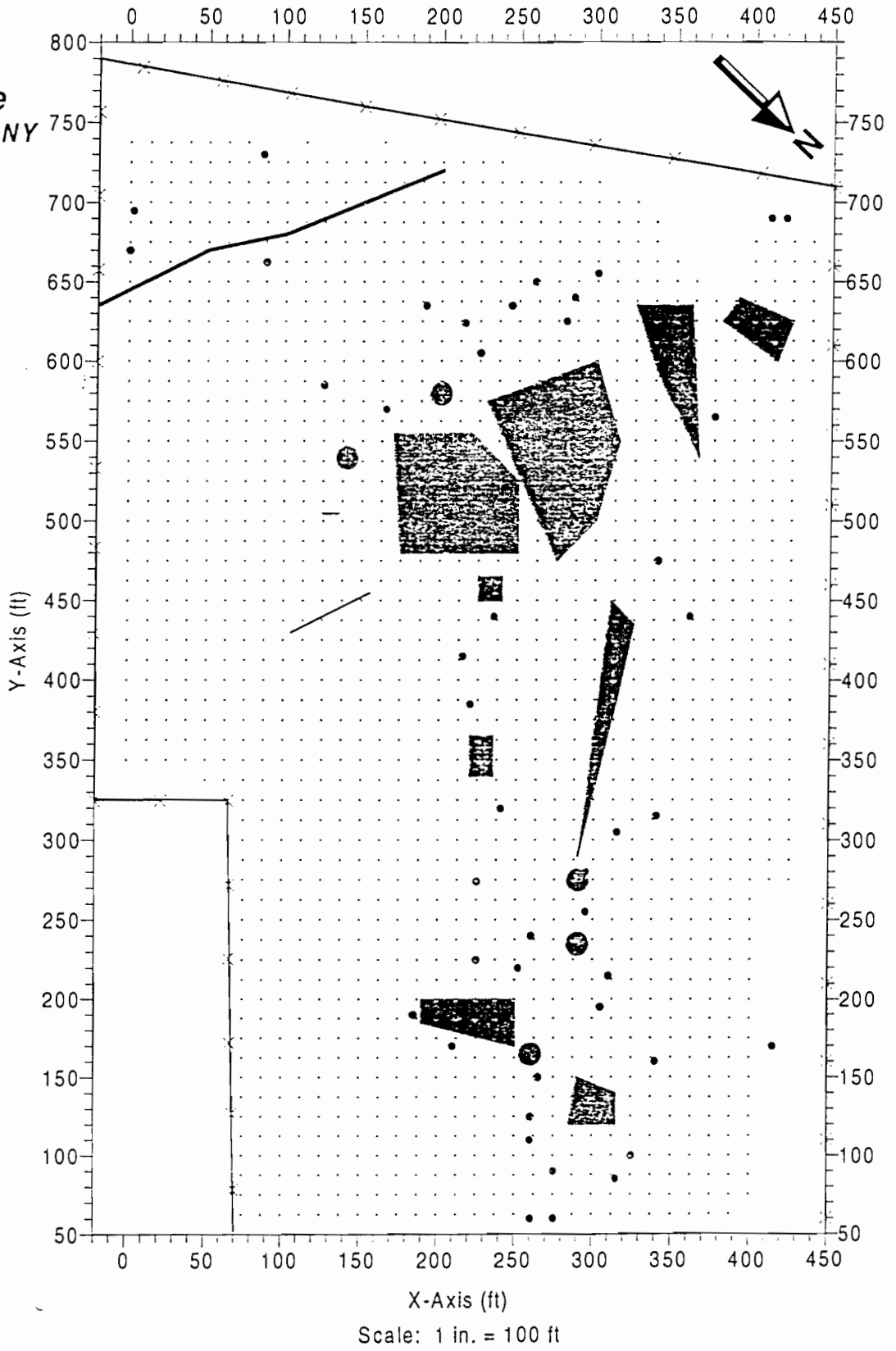
Figure 1



**Wurlitzer Site**  
North Tonawanda, NY  
December 1997

**LEGEND**

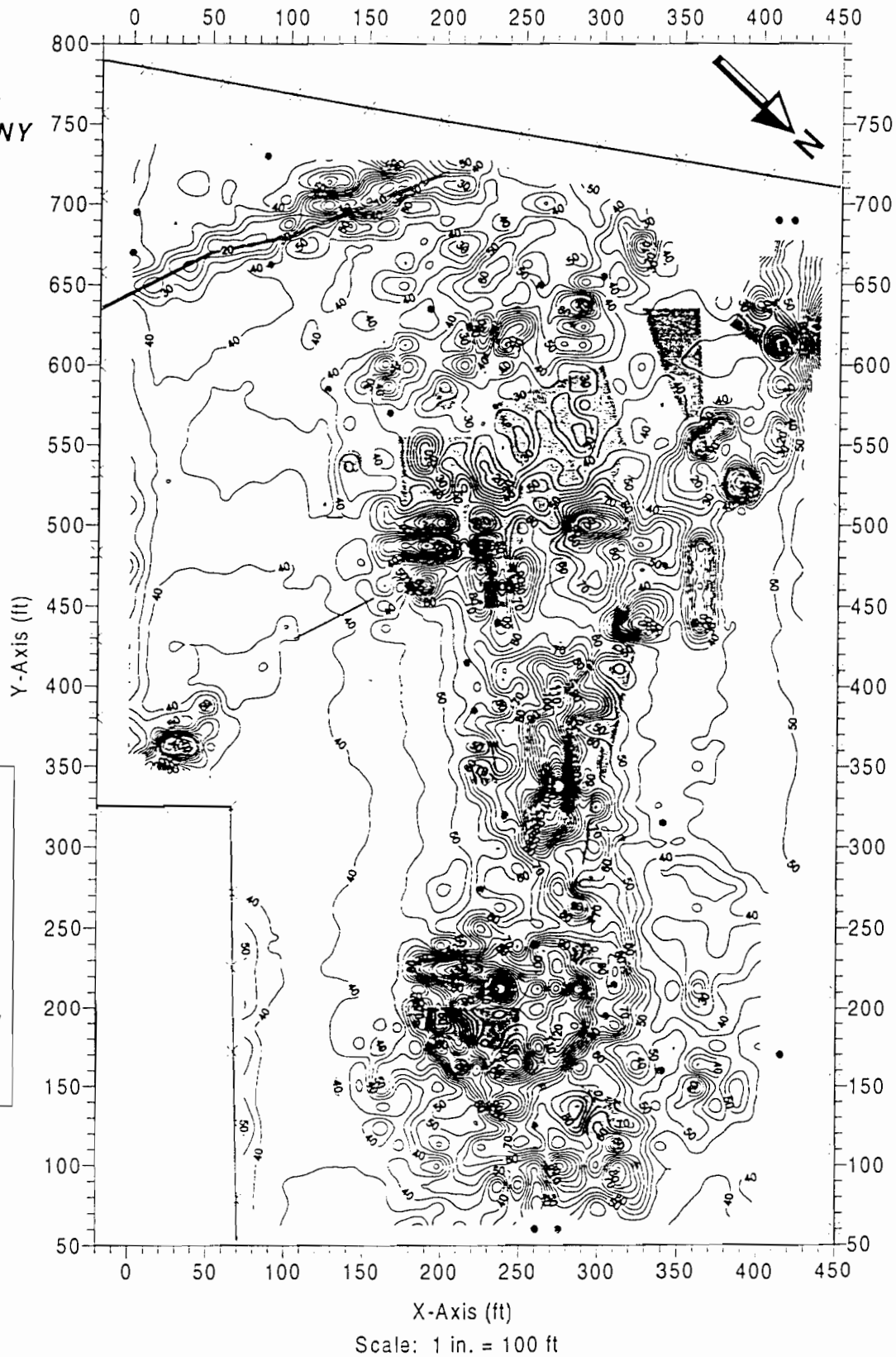
- EM-31 Data Point
- Surface Scrap/  
Debris Piles
- Railroad Tracks



Data Reference Map

Figure 2

**Wurlitzer Site**  
 North Tonawanda, NY  
 December 1997



**LEGEND**

- EM-31 Data Point
- Surface Scrap/Debris Piles
- Conductivity High
- Ground Conductivity Anomaly
- Railroad Tracks

Contour Interval = 5 mS/m  
 Negative contours Dashed

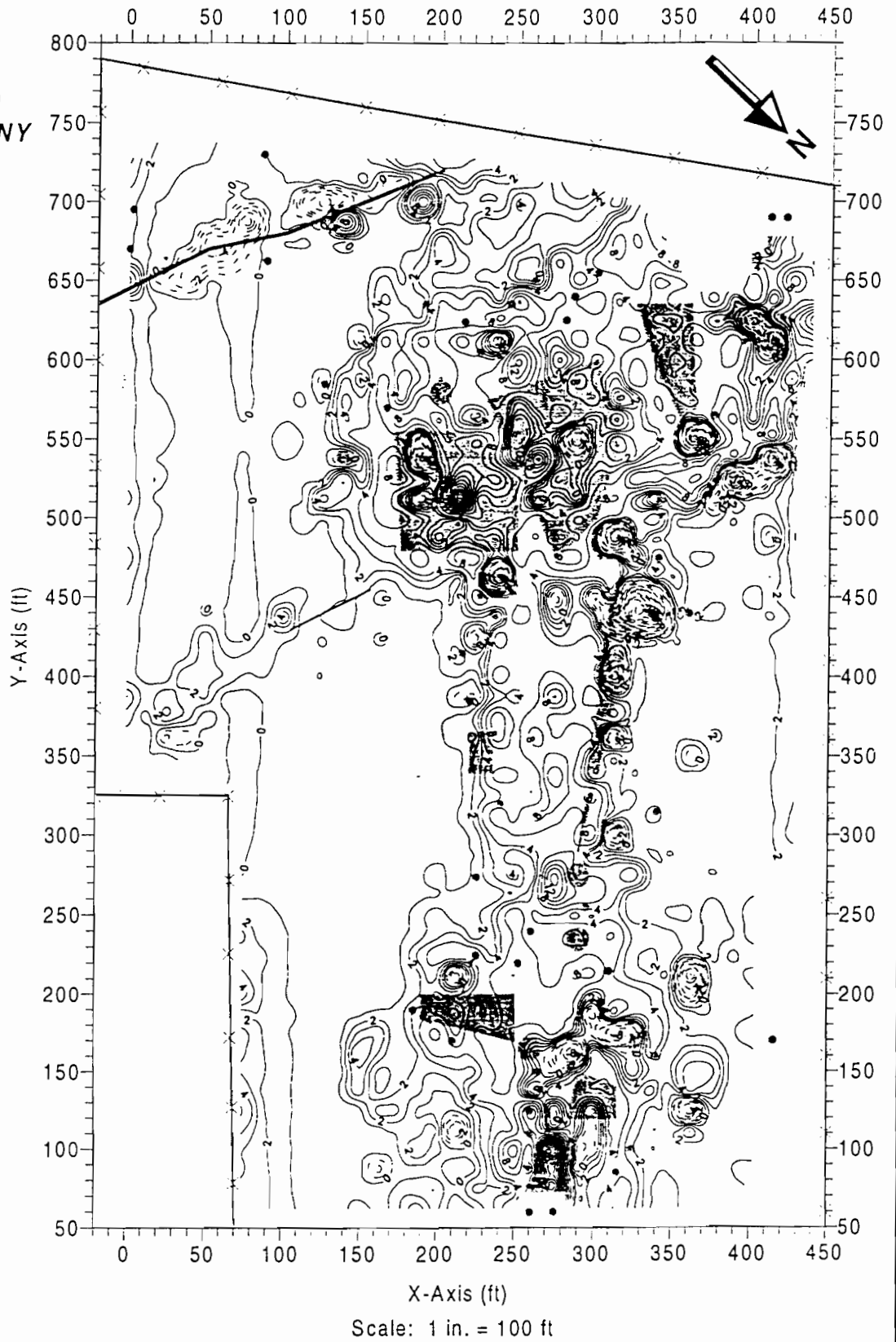


**Ground Conductivity Contour Map**

**Figure 3**



**Wurlitzer Site**  
 North Tonawanda, NY  
 December 1997



**LEGEND**

- EM-31 Data Point
- Surface Scrap/Debris Piles
- In-Phase Anomaly
- Railroad Tracks

Contour Interval = 2 ppt  
 Negative contours Dashed



**In-Phase Contour Map**

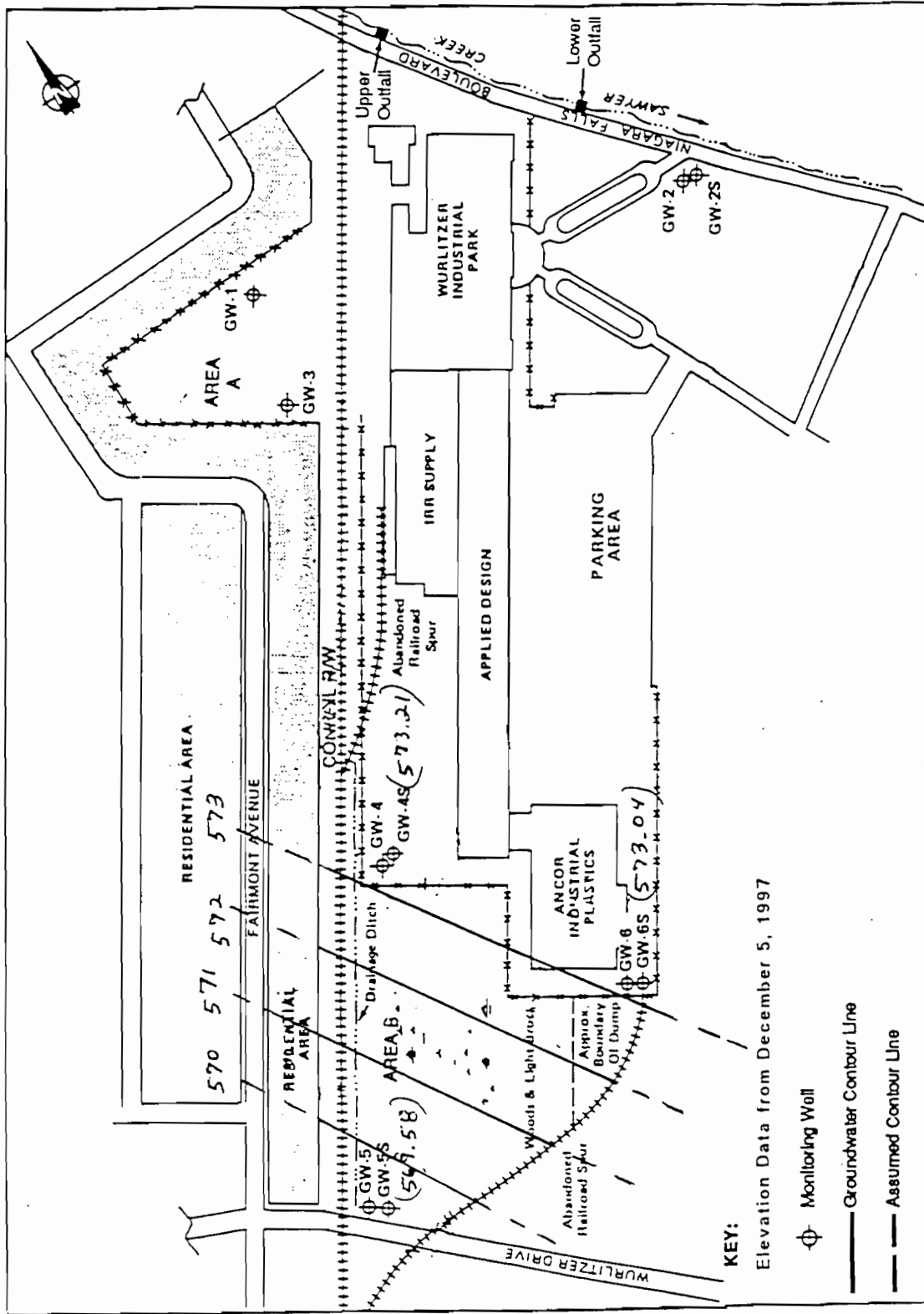
**Figure 4**

# Appendix F

Wurlitzer Area B Site  
Remedial Investigation

Groundwater Elevation Information

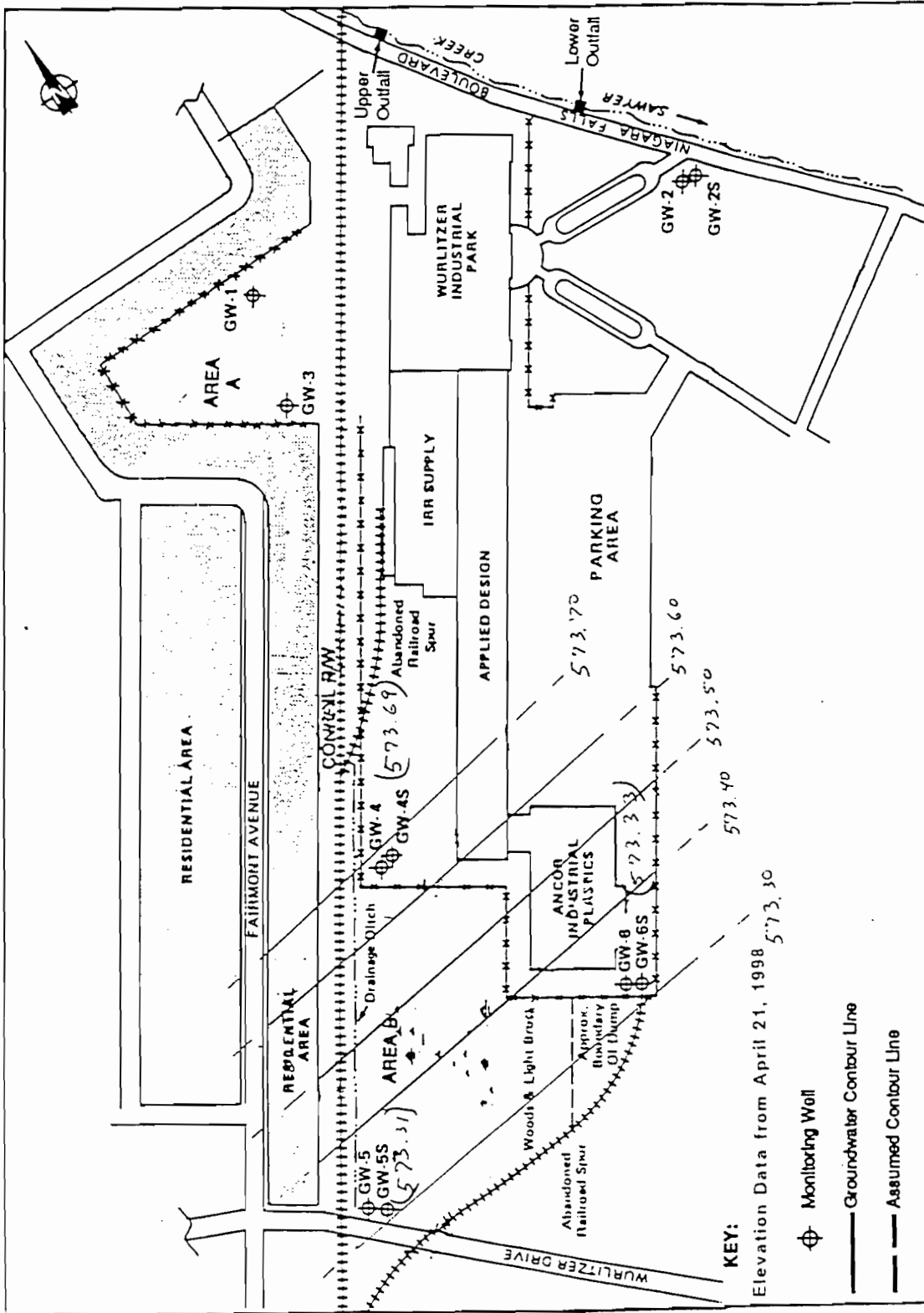
Well No.	Top of Casing <sup>1</sup>	DTW (feet) 12/5/97	Groundwater Elevation <sup>1</sup>	DTW (feet) 4/21/98	Groundwater Elevation <sup>1</sup>
MW-4	575.63	11.78	563.85	11.52	564.11
MW-4S	575.62	2.41	573.21	1.93	573.69
MW-5	575.88	11.35	564.53	11.47	564.41
MW-5S	575.55	5.97	569.58	2.24	573.31
MW-6	576.09	10.42	565.67	10.18	565.91
MW-6S	576.72	3.68	573.04	3.39	573.33
<b>Notes:</b> DTW = Depth to water. <sup>1</sup> Elevation in feet above mean sea level .					



NOT TO SCALE

SOURCE: Ecology and Environment Engineering, P.C.

GROUNDWATER CONTOUR MAP OF SHALLOW OVERBURDEN AQUIFER  
 WURLITZER SITE



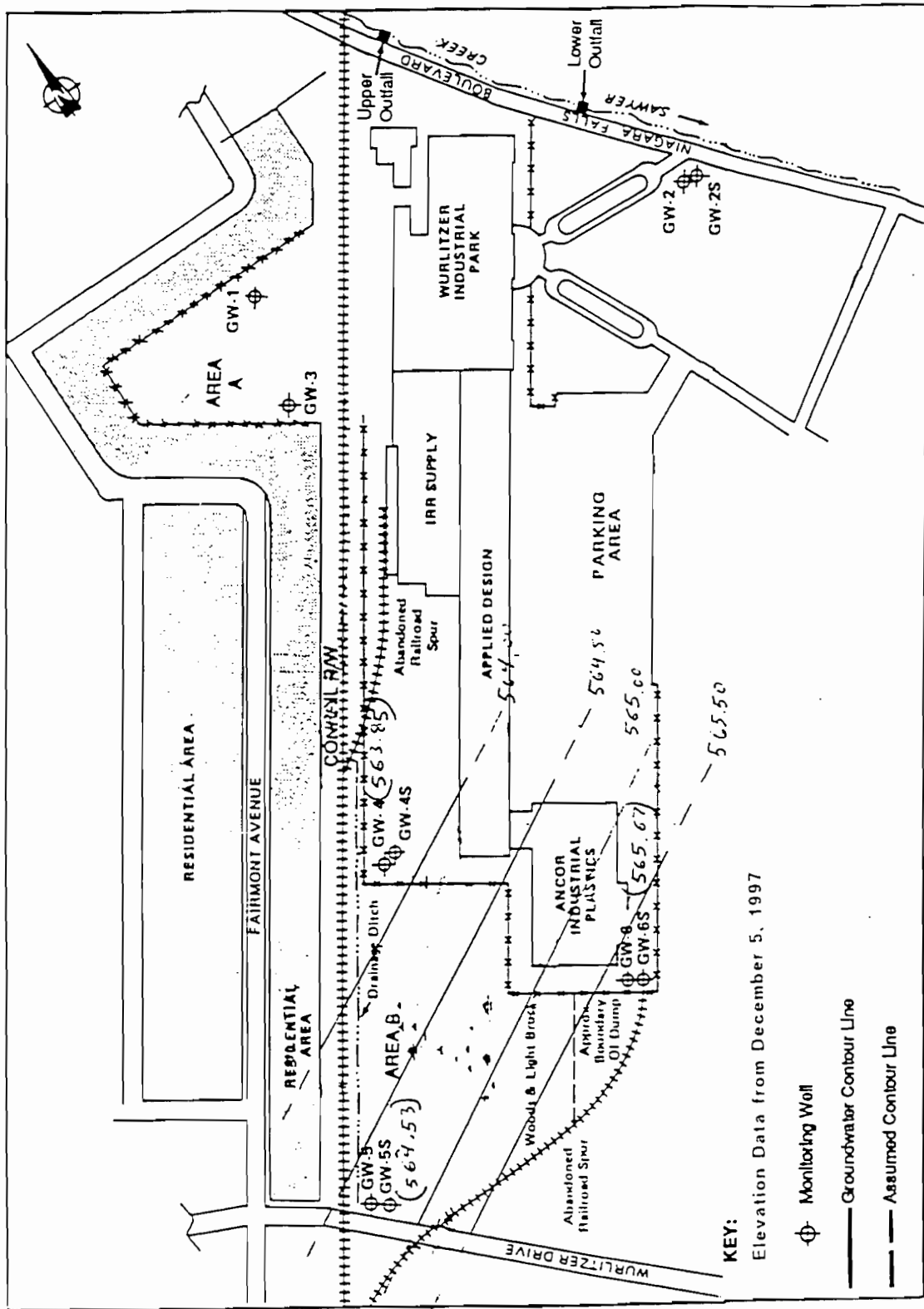
**KEY:**  
 Elevation Data from April 21, 1998 573.30

- ⊕ Monitoring Well
- Groundwater Contour Line
- Assumed Contour Line

SOURCE: Ecology and Environment Engineering, P.C.

NOT TO SCALE

GROUNDWATER CONTOUR MAP OF SHALLOW OVERBURDEN AQUIFER  
 WURLITZER SITE



**KEY:**

Elevation Data from December 5, 1997

⊕ Monitoring Well

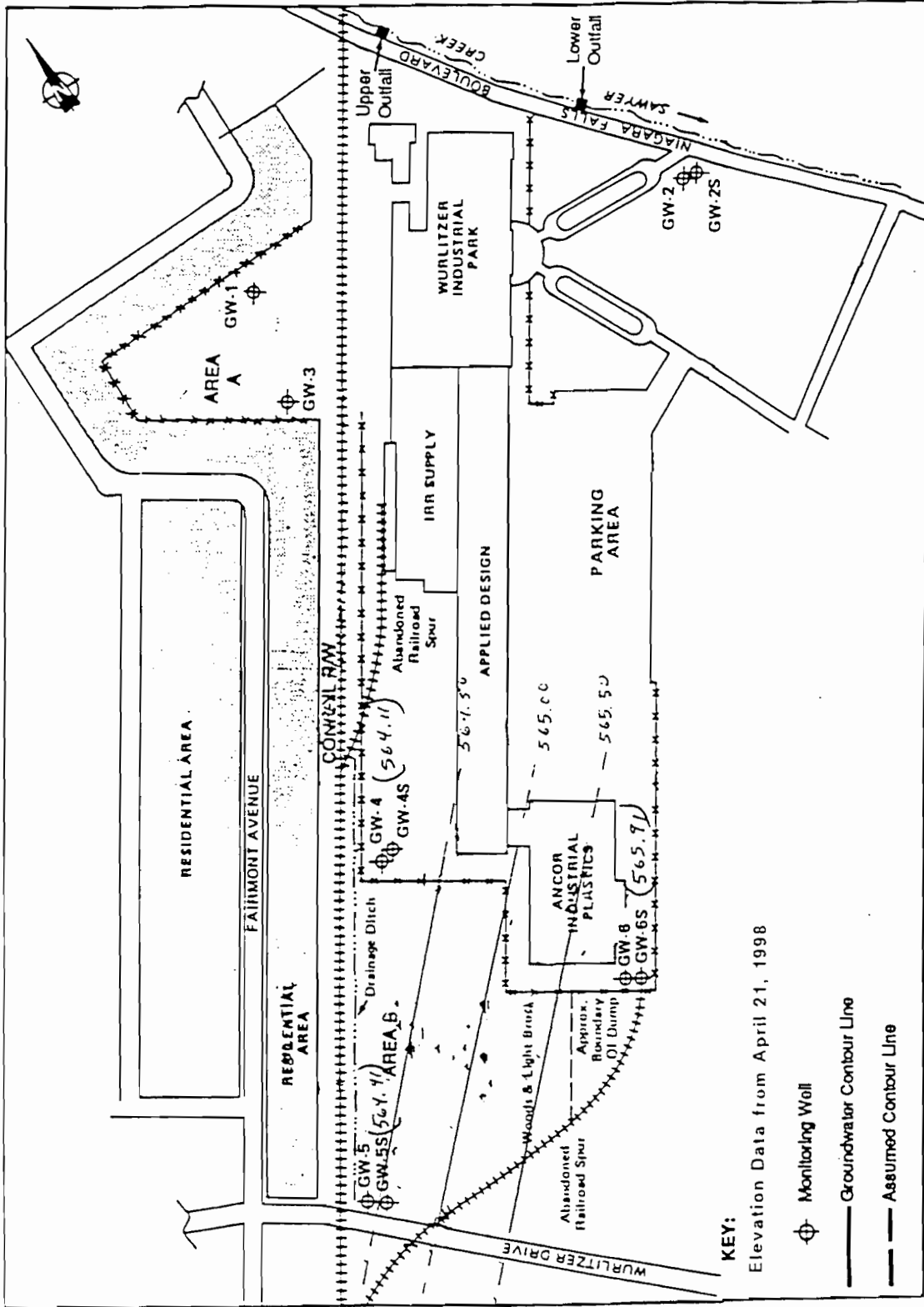
— Groundwater Contour Line

- - - Assumed Contour Line

SOURCE: Ecology and Environment Engineering, P.C.

NOT TO SCALE

**GROUNDWATER CONTOUR MAP OF DEEP OVERBURDEN AQUIFER  
WURLITZER SITE**



**KEY:**

Elevation Data from April 21, 1998

- ⊕ Monitoring Well
- Groundwater Contour Line
- - - Assumed Contour Line

SOURCE: Ecology and Environment Engineering, P.C.

NOT TO SCALE

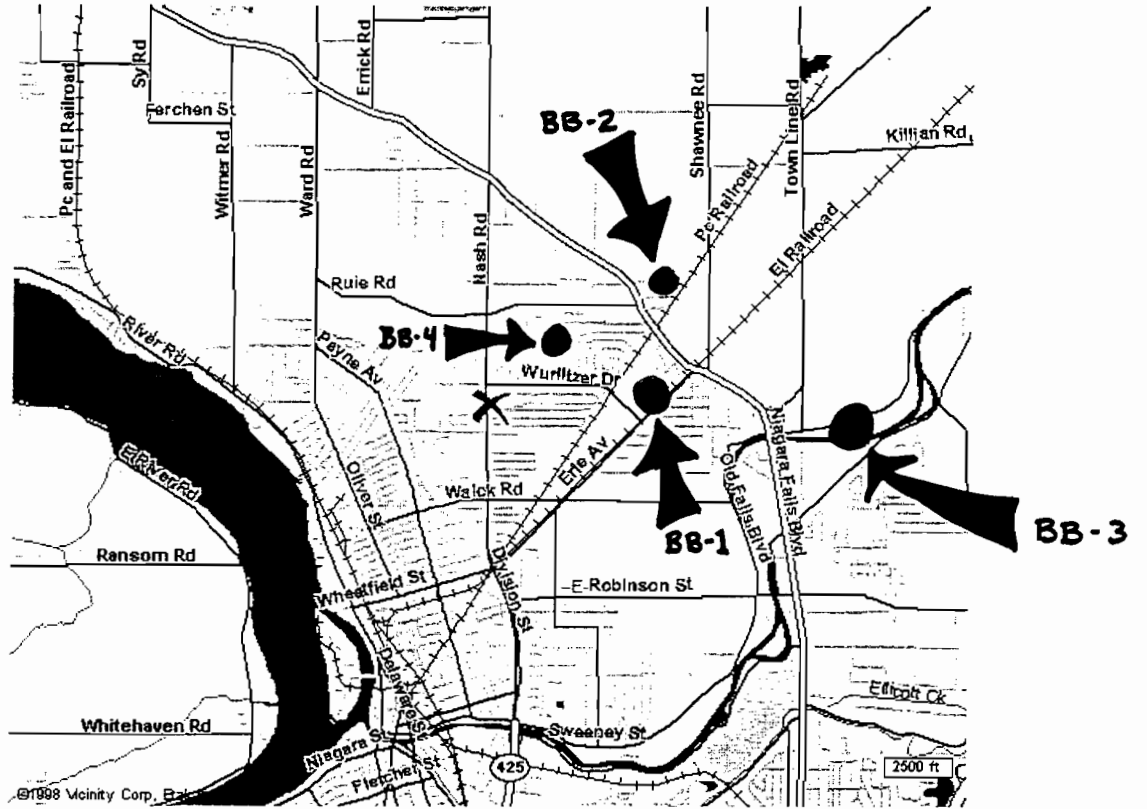
**GROUNDWATER CONTOUR MAP OF DEEP OVERBURDEN AQUIFER  
WURLITZER SITE**

# Appendix G



Figure G1

Background Soil Sample Locations



BB-1: Leah Park

BB-2: St Mathews Cemetery

BB-3: West Canal Marina

BB-4: Wurlitzer Pool

Table G1

**Wurlitzer Area B Site  
Remedial Investigation**

**Summary of Inorganic Results for Background Soil Samples (mg/kg)**

Sample Number Lab. Sample No. Sampling Date	NYSDEC TAGM 4046 Soil Cleanup Guidance (mg/kg)	BB1 9619200 7/18/96 CONC (mg/kg)	BB2 9619201 7/18/96 CONC (mg/kg)	BB3 9619202 7/18/96 CONC (mg/kg)	BB4 9619203 7/18/96 CONC (mg/kg)	Range of Background Concentrations CONC (mg/kg)	Average Background Concentration CONC (mg/kg)
<b>INORGANIC COMPOUNDS</b>							
Aluminum	SB	18900	23900	20500	12200	12200 - 23900	18875
Antimony	SB	< 30	< 30	< 30	< 30	< 30	< 30
Arsenic	7.5 OR SB	NA	NA	NA	NA	NA	NA
Barium	300 OR SB	95	123	109	63	63 - 123	98
Beryllium	0.16 OR SB	0.8	0.9	0.9	0.6	0.6 - 0.9	0.8
Cadmium	10 OR SB	< 2	< 2	< 2	5	< 2 - 5	2
Calcium	SB	40600	4610	10300	55400	4610 - 55400	27728
Chromium	50 OR SB	24	28	37	16	16 - 37	26
Cobalt	30 OR SB	10	9	10	6	6 - 10.	9
Copper	25 OR SB	18	15	20	19	15 - 20	18
Iron	2,000 OR SB	20500	22300	24300	15000	15000 - 24300	20525
Lead	SB	ND	33	27	36	ND - 36	32
Magnesium	SB	12200	4190	7690	26200	4190 - 26200	12570
Manganese	SB	366	223	309	403	223 - 403	325
Mercury	0.1	ND	0.06	0.05	ND	ND - 0.06	0.03
Nickel	13 OR SB	20	25	26	15	15 - 26	22
Potassium	SB	5190	3060	3770	2220	2220 - 5190	3560
Selenium	2 OR SB	NA	NA	NA	NA	NA	NA
Silver	SB	< 4	< 4	< 4	< 4	< 4	< 4
Sodium	SB	< 400	< 400	< 400	< 400	< 400	< 400
Thallium	SB	< 30	< 30	< 30	< 30	< 30	< 30
Vanadium	150 OR SB	37	46	39	25	25 - 46	37
Zinc	20 OR SB	57	109	93	253	57 - 253	128
Cyanide	NA	NA	NA	NA	NA	NA	NA
<p><b>Notes:</b>            SB= Site background            NA = Not analyzed.            ND = Compound was analyzed for, but not detected above limits.</p>							

# Appendix H

**MALCOLM  
PIRNIE**

Project:	Wurlitzer Area B	Excavation Dates:	4/20/98
Project No.:	0266-332	Excavation Method:	Backhoe
Client:	NYSDEC	Logged / Checked By:	DER/LES
Location:	North Tonawanda	Test Pit Location #:	TP-1 to TP-4

Test Pit	Depth BGS	Soil Description	Samples	Comments (Include seepage horizons)
TP-1	0-2.5	Fill - Mix of black ash/cinders and dark brown to black silt and clay, some rust to red and white to gray sand-sized material, broken glass, green and yellow paint pigment pieces, slag, cloth, wire, and wood fragments.	Metals SVOCs	Water seepage above native material.
		2.5-3	Native material - Brown silt and clay.	
TP-2	1.5-0	In mound - reworked native material: brown sandy silt and clay.		Water seepage at 1.5 feet.
		0-1.5	Fill - Black ash/cinders, some glass, metal shards, pieces of cut wood at 1.5 feet bgs.	Metals SVOCs
	1.5-3.0	Native material - Brown sandy silt and clay.		
	3.0-3.5	Native material - Tan clayey silt.		
TP-3	0-4	Fill - Medium brown sandy silt, some gravel, some light green fabric material, concrete pieces up to 10 cm in diameter, some rust-colored sand (possibly weathered metal pieces), some white silt-sized material.	Metals SVOCs	Water seepage at 4 feet. Sample collected of white material and green fabric.
		4-4.5	Native material - Tan to light brown clayey silt, some fine sand, rust-colored mottling.	
	TP-4	0-1	Fill - Black ash/cinders, some dark brown sandy silt and clay.	
1-1.5		Fill - Rust-colored sand-sized material, some some white silt-sized material, metal pieces, some cardboard and paper. Some red clay-sized material is present that is completely dry, while all other material is moist - it floats on water.	Metals SVOCs	
1.5-3.5		Native material - Brown sandy silt and clay.		

**MALCOLM  
PIRNIE**

Project:	Wurlitzer Area B	Excavation Dates:	4/20/98
Project No.:	0266-332	Excavation Method:	Backhoe
Client:	NYSDEC	Logged / Checked By:	DER/LES
Location:	North Tonawanda	Test Pit Location #:	TP-5 to TP-8

Test Pit	Depth BGS	Soil Description	Samples	Comments (Include seepage horizons)
TP-5	0-2	Fill - Reworked brown sandy silt and clay, broken glass, metal fragments, some white silt-sized material, wood fragments, some light green fabric.	None.	Significant water at level of nearby pool (1 foot bgs).
	2-3	Native material - Brown sandy silt and clay.		
TP-6	0-1.2	Fill - Matrix of dark brown sandy silt, some rust-colored sand, some black ash and cinders, metal pieces, green fabric, broken glass, wood fragments.	None.	
	1.2-2.0	Brown sandy silt and clay.		
	2.0-3.0	Native material - Tan clayey silt, some very fine sand, some rust colored mottling.		
TP-7	0-1.3	Fill - Matrix of dark brown sandy silt and clay, red bricks, wood fragments, white granular material.	None.	Significant water in test pit at 1.3 feet - below the concrete pad.
	1.3-2	Layer of concrete, to continue deeper must move to edge of concrete.		
	1.3-3	Native material - Brown sandy silt and clay.		
TP-8	0-2	Fill - Black ash/cinders, some metal pieces, two drums buried just below the surface. The drums appear to have contained red paint. Also present are many colors of paint pigments (light blue and bright green predominant, some reds, purples, yellows and oranges).	TCLP SVOCs Metals VOCs	Seepage just above native material.  Samples collected: TP-8A - TCLP Analysis from blue and green pigments.
	2-3	Native material - Tan clayey silt, some very fine sand, some rust-colored mottling.		TP-8B - TCLP Analysis from all color pigments. TP-8C - VOCs, SVOCs, and Metals from wet red paint-stained soil.
				Test pit completed in area of 5 to 10 feet in diameter lacking vegetation.

**MALCOLM  
PIRNIE**

Project: Wurlitzer Area B  
 Project No.: 0266-332  
 Client: NYSDEC  
 Location: North Tonawanda

Excavation Dates: 4/20/98  
 Excavation Method: Backhoe  
 Logged / Checked By: DER/LES  
 Test Pit Location #: TP-9 to TP-14

Test Pit	Depth BGS	Soil Description	Samples	Comments (Include seepage horizons)
TP-9	0-1.5	Fill - Black ash/cinders.	None.	Seepage just above native material.
	1.5-3	Native material - Tan clayey silt, some very fine sand, some rust-colored mottling.		
TP-10	0-1	Fill - Black ash/cinders, some gravel, a rusted metal pail with moist white paint.	SVOCs Metals	Seepage just above native material.
	1-2	Fill - Black ash/cinders and rust-colored sand, many metals pieces.		
	2-2.5	Native material - Brown sandy silt and clay, some gravel.		
	2.5-3	Native material - Tan clayey silt, some very fine sand, some rust-colored mottling.		
TP-11	0-2	Fill - Black ash/cinders.	TCLP	
	2-4	Native material - Brown sandy silt and clay.		
TP-12	0-2	Fill - Black ash/cinders with red brick, some metal scraps and plastic pieces.	None.	
	2-3	Native material - Tan to light brown clayey silt.		
TP-13	0-2	Fill - Uniform black ash/cinders.		Minor seepage just above native material.
	2-2.5	Same as above with metals pieces, some moist red paint, glass shards, some rust staining.	Metals SVOCs	
	2.5-3	Native material - Tan to light brown clayey silt.		
TP-14	0-2.5	Fill - Black ash/cinders, some wood fragments, glass shards, and metal pieces. Pockets of clean coarse angular sand, other pockets of white to whitish-yellow material.	Metals SVOCs VOCs	Seepage from just above native material. Sample collected of white material.
	2.5-3.5	Native material - Tan to light brown clayey silt.		

**MALCOLM  
PIRNIE**

Project:	Wurlitzer Area B	Excavation Dates:	4/20/98 - 4/21/98
Project No.:	0266-332	Excavation Method:	Backhoe
Client:	NYSDEC	Logged / Checked By:	DER/LES
Location:	North Tonawanda	Test Pit Location #:	TP-15 to TP-19

Test Pit	Depth BGS	Soil Description	Samples	Comments (Include seepage horizons)
TP-15	0-2	Brown to tan clayey silt, some sand.		Seepage at 4 feet bgs.
	2-4	Dark brown with rust-staining sandy silt, some glass, wood fragments, some moist yellow paint, minor pink to red dry paint pigments (hydrophobic), some white to gray sand-sized ash or cinders with gravel-sized pieces of rusted metal.	SVOCs Metals	Sample collected of hydrophobic material.
	4-4.5	Dark brown sandy silt and clay.		
	4.5-5	Tan to light brown clayey silt with some very fine sand.		
TP-16	0-2	Light to medium brown sandy silt and clay.	None.	Seepage from just above native material.
	2-4	Dark brown to black with some rust-colored staining sand and silt-sized material, some white sand-sized material, some glass and metal fragments.		
	4-5	Native material - Tan to light brown clayey silt, minor very fine sand.		
TP-17	0-0.2	Roofing material including tar paper and solidified tar.	None.	Water seeping in from nearby puddle.
	0.2-2.5	Dark brown to black silt and sand, some gravel, some wood and rusted metal fragments, concrete pieces (5 cm), broken glass.		
	2.5-4	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-18	0-1	Roofing material including tar paper and solidified tar.	None.	
	1-3	Uniform black ash/cinders.		
	3-4	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-19	0-5	Uniform black ash/cinders, one lens of coarse angular quartz sand.	None.	Seepage just above native material.
	5-6	Native material - Tan to light brown clayey silt, some rust mottling.		

**MALCOLM  
PIRNIE**

Project: Wurlitzer Area B  
 Project No.: 0266-332  
 Client: NYSDEC  
 Location: North Tonawanda

Excavation Dates: 4/21/98  
 Excavation Method: Backhoe  
 Logged / Checked By: DER/LES  
 Test Pit Location #: TP-20 to TP-25

Test Pit	Depth BGS	Soil Description	Samples	Comments (Include seepage horizons)
TP-20	0-1	Wood chips.	None.	Seepage just above native material.
	1-4	Uniform black ash/cinders.		
	4-5	Native material - Brown to dark brown sandy silt and clay.		
	5-6	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-21	0-0.2	Roofing material including tar paper.	None.	Seepage just above native material.
	0.2-5	Uniform black ash/cinders.		
	5-6	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-22	0-3	Uniform black ash/cinders.	None.	Seepage just above native material.
	3-4	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-23	0-3	Uniform black ash/cinders.		
	3-4	Same as above, with lenses of gray to white material, fibrous in spots, some sand and silt-sized material.	SVOCs Metals	
	4-5	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-24	0-1.5	Reworked native material - brown to tan sandy silt and clay.	None.	Seepage just above native material.
	1.5-3.5	Black cinders/ash, some rusted metal debris, some wood fragments.		
	3.5-5	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-25	0-2.5	Reworked native material - brown to dark brown sandy silt and clay.	None.	Seepage just above native material.
	2.5-4	Native material - Tan to light brown clayey silt, some rust mottling.		



**MALCOLM  
PIRNIE**

Project:	Wurlitzer Area B	Excavation Dates:	4/20/98
Project No.:	0266-332	Excavation Method:	Backhoe
Client:	NYSDEC	Logged / Checked By:	DER/LES
Location:	North Tonawanda	Test Pit Location #:	TP-26 to TP-32

Test Pit	Depth BGS	Soil Description	Samples	Comments (Include seepage horizons)
TP-26	0-3	Reworked native material - brown to dark brown sandy silt and clay, large concrete pieces at surface.	None.	
	3-5	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-27	0-3	Black cinders/ash with some lenses of reworked native material - brown to dark brown sandy silt and clay, some red and yellow brick.	None.	Seepage just above native material.
	3-4.5	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-28	0-4	Uniform black cinders/ash, some scrap metal at surface.	None.	Seepage just above native material.
	4-5	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-29	0-4	Uniform black cinders/ash.	None.	Seepage just above native material.
	4-5	Native material - Tan to light brown clayey silt, some rust mottling.		
TP-30	0-2	Uniform black cinders/ash with some intermixed tan to brown sandy silt and clay.	None.	Seepage just above native material.
	2-4	Native material - Tan to light brown clayey silt, some rust mottling, some very fine sand.		
TP-31	0-2	Reworked native material - tan clayey silt with rust mottling.	None.	Seepage just above native material.
	2-3	Uniform black cinders/ash.		
	3-4	Native material - Tan to light brown clayey silt, some rust mottling, some very fine sand.		
TP-32	0-1.5	Reworked native material - tan clayey silt with rust mottling.	None.	Seepage just above native material.
	1.5-2.5	Uniform black cinders/ash.		
	2.5-4	Native material - Tan to light brown clayey silt, some rust mottling, some very fine sand.		

**MALCOLM  
PIRNIE**

Project:	<u>Wurlitzer Area B</u>	Excavation Dates:	<u>4/21/98</u>
Project No.:	<u>0266-332</u>	Excavation Method:	<u>Backhoe</u>
Client:	<u>NYSDEC</u>	Logged / Checked By:	<u>DER/LES</u>
Location:	<u>North Tonawanda</u>	Test Pit Location #:	<u>TP-33 to TP-38</u>

Test Pit	Depth BGS	Soil Description	Samples	Comments (Include seepage horizons)
TP-33	0-2	Brown to dark brown sandy silt and clay, some red brick.	None.	
	2-2.2	Layer of shingles (possibly transite).		
	2.2-3	Uniform black cinders/ash.		
	3-4	Native material - Tan to light brown clayey silt, some rust mottling, some very fine sand.		
TP-34	0-4	Uniform black cinders/ash with some intermixed tan to brown sandy silt and clay, some red brick and metal pieces.	None.	Seepage just above native material.
	4-5	Native material - Tan to light brown clayey silt, some rust mottling, some very fine sand.		
TP-35	0-2	Uniform black cinders/ash.	None.	Seepage just above native material.
	2-3	Native material - Brown to dark brown sandy silt and clay.		
	3-4	Native material - Tan to light brown clayey silt, some rust mottling, some very fine sand.		
TP-36	0-1.5	Reworked native material - tan clayey silt with rust mottling.	None.	
	1.5-3	Uniform black cinders/ash.		
	3-4	Native material - Tan to light brown clayey silt, some rust mottling, some very fine sand.		
TP-37	0-2	Reworked native material - tan clayey silt with rust mottling, some red brick, wood, and metal.	None.	Seepage just above native material.
	2-2.2	Layer of (transite) shingles.		
	2.2-4.5	Uniform black cinders/ash.		
	4.5-6	Native material - Tan to light brown clayey silt, some rust mottling, some very fine sand.		
TP-38	0-3	Uniform black cinders/ash.	None.	Seepage just above native material.
	3-5	Native material - Tan to light brown clayey silt, some rust mottling, some very fine sand.		

