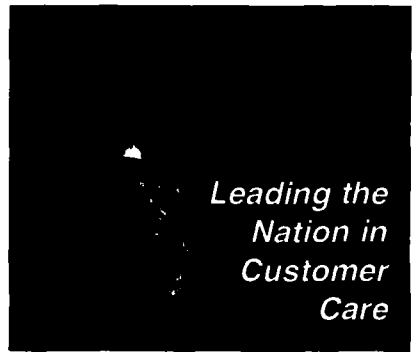
PHASE II - FINAL REPORT



Avanti Industrial Site
502-566 South Harris Street
Indianapolis, Indiana

Prepared by:

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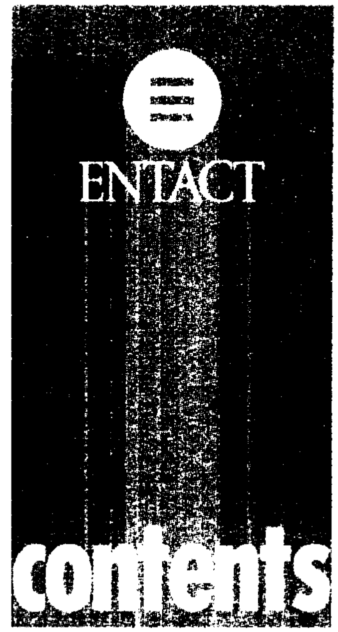
September 16, 1999



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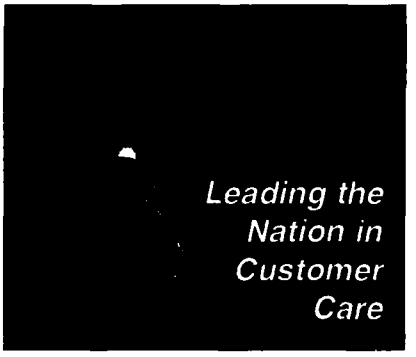
AVANTI INDUSTRIAL SITE INDIANAPOLIS, INDIANA



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ENTACT

Section one

Section 1

1.0 Introduction

This Phase II Final Report is submitted to fulfill the requirement of Section V.3.5 of the Administrative Order, Docket No. V-W-98-C-474 (Appendix A) pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The report details the removal action activities conducted by ENTACT, Inc. ("ENTACT") on behalf of the Respondents at the Avanti Industrial Site located in Indianapolis, Indiana (Figure 1). The removal activities were performed in accordance with the United States Environmental Protection Agency (U.S. EPA) approved workplan prepared by ENTACT and entitled, "Consolidation Action Workplan, Phase II - Stage B, for the Avanti Industrial Site Property, Indianapolis, Indiana" dated February 28, 1998, and its April 15, 1998 addendum (Appendix B) and the Phase II - Stage A Workplan dated November 17, 1995.

1.1 Background

Past industrial operations at the Avanti Industrial site (the "site") included a battery recycling operation, a secondary lead reclamation facility, and a lead oxide facility. In April 1993, the Indiana Department of Environmental Management (IDEM) and the Marion County Health Department conducted surface soil sampling at the Avanti Industrial site. In August 1993, the U.S. EPA also collected soil samples from the industrial portion of the site. Both sampling events found elevated levels of lead in site surface soils.

On March 29, 1994, the U.S. EPA issued an Administrative Order, Docket No. V-W-94-C-231 pursuant to Section 106(a) of CERCLA, to address contamination at the site. The site was defined to include the industrial property located at 502-566 South Harris Street and the surrounding residential properties.

The Order required the Respondents to conduct removal activities to abate an imminent and substantial endangerment to public health, welfare or the environment that may be presented by the actual or threatened release of hazardous substances at or from the Site. An amended Order was issued on March 5, 1996, and on March 7, 1996 the U.S. EPA issued a further Order requiring additional parties to participate, coordinate, and finance the removal activities.

The scope of work, as defined in the Order, was separated into two phases: Phase I - Residential Removal Activities and Phase II -Stages A, B, and C, Industrial Removal Activities. Phase I - Residential Removal activities were completed in January 1999.

The U.S. EPA approved the Phase II - Stage A Workplan for the Industrial site in November 1995. The November 1995 Workplan identified Stage B and C activities to be conducted upon completion of Stage A and required submission of an approved workplan for Stages B and C. Phase II - Stage A activities included the following:

- Prioritizing excavation areas based on current site knowledge;
- Excavation and segregation of approximately 30,000 cubic yards of smelter related materials (i.e., from the northwest portion of the Industrial Site);
- Performing XRF screening and verification sampling of excavated areas;
- Transportation and staging of the smelter related materials in the on-site buildings and at the northwest portion of the West Warehouse;
- Segregation of residential soils with total lead concentrations less than 1,000 milligrams per kilogram (mg/kg); and
- Backfilling and restoring excavation areas using residential soils (<1,000 mg/kg total lead and <5 milligrams per liter (mg/l) Toxicity Characteristic Leaching Procedure (TCLP) lead).

On-site activities associated with Phase II - Stage A were completed in April 1996. From June 24, 1996 to February 28, 1998, several draft workplans for Phase II - Stages B and C were submitted for U.S. EPA approval following interaction with the Indiana Department of Environmental Management (IDEM), the U.S. EPA and the Respondents. The February 28, 1998 Consolidation Action Workplan, Phase II - Stage B was approved by the U.S. EPA on April 15, 1998 with clarifications and modifications (Appendix B).

Avanti Industrial Site in April, 1996

On June 3, 1998, the U.S. EPA issued an Administrative Order, Docket No. V-W-98-C-474 pursuant to Section 106(a) of CERCLA, to address contamination at the site. Specifically, the Order required the Respondents to perform response activities at the Industrial Property (Section V.3), as described in the February 28, 1998 Consolidation Action Workplan, Phase II - Stage B and

its April 15, 1998 addendum. A copy of the Administrative Order is provided in Appendix A. This Phase II Final Report has been prepared by ENTACT to document the Phase II - Stage B removal activities performed at the site.

1.2 Summary of Phase II - Stage B Removal Activities

The following activities were conducted by ENTACT, with U.S. EPA oversight, during the removal action and are discussed in detail in this Final Report:

- Implemented health and safety procedures;
- Established site control measures for work areas;
- Implemented a surface soil characterization survey out side the proposed Consolidation Area;
- Prepared the site for Consolidation Area construction;
- Determined the location and areal extent of the Consolidation Area based on the results of the characterization survey;
- Disposed of approximately 15,000 cubic yards of stockpiled residential soils, at an off-site solid waste landfill;
- Consolidated Stage A stockpiled smelter related materials into the Consolidation Area;
- Decontamination and disposal or recycling of discarded tires found at the site;
- Covered the Consolidation Area with two feet of soil (18 inches of clay and 6 inches of topsoil) and vegetated with native prairie grasses;
- Placed a two-foot thick soil cover on the exposed soils surrounding the Consolidation Area which exceeded the site specific action level for antimony (310 milligrams per kilogram (mg/kg)), arsenic (43 mg/kg), barium (55,000 mg/kg), cadmium (390 mg/kg), chromium VI (3,900 mg/kg), lead (400 mg/kg), mercury (230 mg/kg), selenium (3,900 mg/kg) and silver (3,900 mg/kg);
- Decontaminated the on-site buildings and miscellaneous debris;
- Investigated, removed, and closed underground storage tanks (USTs);
- Characterized and properly disposed of containerized materials located inside the east warehouse; and
- Completed site restoration, including vegetation of exposed soils at the site.

Following interaction between the U.S. EPA, the City of Indianapolis, the IDEM, the Marion County Health Department and the Respondents, additional tasks were performed during the Phase II - Stage B removal actions, including:

- Installation and sampling of groundwater monitoring wells;
- Abandoned groundwater monitoring wells MW-5 and MW-6 (after sampling activities had been performed) and the on-site production well;
- Excavated the areas to the east of the Consolidation Area until metal concentrations were below the site specific action levels or until the excavation was two feet below grade;
- Surveyed and established the south property boundary and excavated on-site soils; and
- Constructed access control systems (i.e., fencing) for the Consolidation Area.

1.3 Site Location & Description

The Avanti Industrial site is located at and along 502-566 South Harris Street, Indianapolis, Indiana. Based upon the December 22, 1998 boundary survey, the site occupies an approximate area of 17.4 acres. It is bounded on the north by Victoria Street, on the east by Harris Street, on the south by Conrail railroad tracks and on the west by Eagle Creek. The site location is depicted on Figure 1. The western portion of the site, approximately 3.5 acres, is located within the 100-year floodplain of Eagle Creek.

The site topography is relatively flat except along Eagle Creek. Ground surface elevations range from 700 feet above mean sea level in the vicinity of the warehouse buildings to approximately 677 feet to the west at Eagle Creek. The White River is located approximately 9,500 feet east of the site at an elevation of 665 feet above mean sea level. Both Eagle Creek and the White River flow south, eventually joining approximately 2.5 miles south of the site.

Site soils have been modified by past industrial activity as well as Phase II - Stage A remediation activities. The site soils consist of loamy, fill soils and native sandy and gravelly soils along Eagle Creek. The site surficial geology consists of two types of unconsolidated deposits. Glacial drift deposits (gravel, sand, and some silt) are present on the upper, flat areas of the site while more recent alluvial deposits (gravel, sand, and some silt) follow along Eagle Creek. There may also be infrequent and thin sandy till zones present at depth. The unconsolidated deposits are estimated to be 35 to 65 feet thick before encountering the first bedrock unit, the New Albany Shale. The New Albany Shale is estimated to be over 80 feet thick before encountering the underlying Silurian and Devonian limestones and dolomites.

The uppermost aquifer at the site consists of a groundwater table aquifer located within the unconsolidated deposits. The depth to groundwater is approximately to be 20 feet below ground surface. The groundwater table aquifer is not being used as a potable water supply in the vicinity of the site.

ENTACT

Section two

Section 2

2.0 Site Preparation Activities

2.1 Health & Safety

Mobilization to the site began with the implementation of the Health and Safety Plan. This document was a specific plan for application of appropriate safety standards during field activities. All site personnel were required to read the plan and sign the acknowledgment form. Daily safety meetings were conducted for hazard awareness and coordination of daily work activities. As an additional precaution and as described in Section 2.3, a utility search was conducted for the property to identify underground and overhead gas, water, electrical, telephone and sewer lines.

Office trailers located on-site

2.2 Support Facilities

On-site office trailers were utilized for administrative facilities. Computer, facsimile and telephone service was established for project reporting and communication purposes. In addition, a personnel decontamination trailer was located near the office. Exclusion zones were established and demarcated with appropriate signs, fencing and barriers. A Contamination Reduction Zone was constructed to allow proper decontamination of personnel and equipment entering and exiting the exclusion zone.

Support Zone Decontamination Facility

2.3 On-site Utility Location

Overhead and underground utilities were identified for electrical, telephone, gas, sewer and water service (Figure 2). Necessary connections were made for electrical and telephone use. Water connections were also made to three fire hydrants to facilitate dust suppression and decontamination activities. In order to facilitate the construction of the Consolidation Area, Indianapolis Power & Light (IPL) removed nine power poles located within the boundary of the Consolidation Area.

Perimeter Air Monitoring Station

2.4 Perimeter Air Monitoring

Perimeter air monitoring stations, consisting of a PM-10 (Particulate Matter less than 10 microns) and a TSP (Total Suspended Particulates) unit, were established during the Phase II - Stage A activities in the northeast, northwest, southeast and southwest corners of the site (Figure 2). The air monitoring stations were positioned to monitor ambient air conditions throughout the duration of the Phase II - Stage B removal actions. Unit numbers were assigned to each of the PM-10 and TSP units positioned at the site. The air monitoring station location and unit numbers were as follows:

Northeast: PM-10 (416) and TSP (0416Q)
Northwest: PM-10 (415) and TSP (0415Q)
Southeast: PM-10 (375) and TSP (0375Q)
Southwest: PM-10 (517) and TSP (0517Q)

2.5 Background Air Monitoring

During site preparation activities, background air monitoring was conducted using low flow personal air sampling equipment. Five personnel areas were monitored on site over 8-hour periods. Background air samples (AS-003, AS-004, AS-005, AS-006 and AS-007) were collected for one day and air volume calculations

were completed for documentation purposes. Background samples were collected from the interior of the project trailer, East Warehouse and West Warehouse and on the north and south sides of the Consolidation Area.

Upon completion of background monitoring, the personal air samples were submitted for analysis of total lead using test method NIOSH 7300. The background personal air sampling results indicated no detectable lead concentrations. The background results are presented in Table 1.

2.6 Surveying

Prior to initiating excavation and Consolidation Area construction activities, the site was surveyed by a licensed engineer. The purpose of the survey was to delineate the location of the Consolidation Area in relationship to the 100-year flood plain and to establish the topography of the site (Figure 3). In addition to the topographic survey, a coordinate grid system (CGS) was established in the field with flagged stakes in order to provide a visual point of reference during the removal activities for sample tracking, excavation, and consolidation. The CGS was defined by 50 X 50-foot grids across the site. The configuration of the CGS is shown on Figure 3. A series of numbers and letters were assigned along the grid axis to provide a method for locating each grid, for identification of the samples collected during the Soil Characterization Survey, for sample tracking and for recording analytical information as data were received from the laboratory.

Silt Fence Installation

2.7 Site Clearing

ENTACT cleared the trees and brush located in the southwest portion of the site in order to facilitate construction of the Consolidation Area. In accordance with the Workplan, the trees/shrubs that were cleared from the site and the existing stockpiled trees/stumps were chipped or shredded during site preparation activities.

The shredded trees and shrubs (i.e., chipped wood) were then used to form a road base for the truck access road within the interior of the East Warehouse (in the former rail spur). This truck access road was subsequently utilized for loadout of the residential soils from the East Warehouse for transport to the off-site disposal facility. Remaining chipped wood was also utilized to construct a truck access road across the western portion of the site to facilitate stockpiling of the imported backfill material.

2.8 Stormwater Controls

Stormwater controls, established by ENTACT, consisted of silt fence and/or straw bales which were installed during site preparation activities to control surface runoff and to minimize the potential for soil transport into Eagle Creek. The location of the straw bale/silt fence in presented in Figure 4. A Soil Erosion Control Plan (SECP) for the site was completed and submitted to the City of Indianapolis during the site preparation phase of work.

This plan required inspections of stormwater controls, disturbed areas and material storage areas at a minimum of every seven days and within 24 hours of a 0.5-inch precipitation event. These inspections were performed by ENTACT, as required, and documented in the SECP.

Following the City of Indianapolis review of the SECP, a revised SECP, dated January 5, 1999, was submitted to the U.S. EPA and the City of Indianapolis as the final plan. A copy of the January 5, 1999 SECP is maintained in the administrative file.

ENTACT

Section three

3.0 Site Field Activities

3.1 Soil Characterization Survey

ENTACT performed a soil characterization survey (SCS) to determine the concentrations of metals in the surface soils outside the Consolidation Area for comparison to the following site specific action levels (noted in parentheses): antimony (310 mg/kg), arsenic (43 mg/kg), barium (55,000 mg/kg), cadmium (390 mg/kg), chromium VI (3,900 mg/kg), lead (400 mg/kg), mercury (230 mg/kg), selenium (3,900 mg/kg), and silver (3,900 mg/kg) . Grab samples were collected from the center of each 50 X 50-foot grid located outside the proposed Consolidation

SCS Sampling Location

Area. Surface grab samples were collected using a steel sampling trowel. The SCS samples were placed into laboratory supplied containers and analyzed for antimony arsenic, barium, cadmium, lead, selenium, silver, mercury and chromium VI using SW-846 approved methods. The SCS sample results are presented in Table 2.

The SCS results were presented to the U.S. EPA, IDEM, City of Indianapolis, Marion County Health Department and the Respondents in September 1998 (Appendix C). In December 1998, the south property boundary of the site was surveyed by a licensed surveyor and additional SCS grids were established and sampled to determine whether the metal concentrations in surface soils exceeded the site specific action levels. The SCS analytical results were compiled and are provided in Appendix D.

3.2 Residential Soil Disposal

In 1995/1996, during Stage A activities, representative samples from the residential soils stored inside the East Warehouse were collected by ENTACT and U.S. EPA technical assistance team (TAT) personnel and laboratory analyzed for TCLP metals. The purpose of the sampling was to verify that lead was the only

Residential Soils in East Warehouse

TCLP constituent of concern. The 1995/1996 data was utilized for initial classification of the residential soil (Appendix E). To verify the 1995/1996 data and provide analytical documentation for the approved special waste landfill, ENTACT performed additional residential soil characterization sampling in August, 1998.

As part of the sampling activities in August, 1998, ENTACT divided the residential soils into twenty piles approximately 750 cubic yards each. Each pile was then sampled and analyzed for TCLP lead and 10% of the piles (2 piles) were also analyzed for the remaining RCRA metals using TCLP. The residential soils exhibited TCLP lead concentrations of less than 3.75 mg/l and were therefore transported for off-site disposal as a special waste. Table 3 summarizes the residential soil analytical results and laboratory analytical data sheets are provided in Appendix F.

Loading of trucks with residential soil in the East Warehouse at the Avanti Site

In July 1998, ENTACT provided the U.S. EPA with the names of the proposed off-site disposal facilities for the residential soil to ensure that the proposed facilities were in compliance with the U.S. EPA Off-site Rule. On August 13, 1998 (Appendix G), U.S. EPA was notified that the residential soils would be transported for off-site disposal at the Twin Bridges Landfill (i.e., Recycling Disposal Facility (RDF)).

Special waste disposal approval was received (Verification No. 535040) from the disposal facility. Following receipt of U.S. EPA's approval, the residential soil was loaded and transported off-site for disposal at Twin Bridges RDF in Danville, Indiana from August 20, 1998 to September 16, 1998. The volume of material transported off-site via truck was approximately 15,000 cubic yards. An example of the Special Waste Disposal Notification forms submitted for each truck load of soil is provided in Appendix H. Complete transport and disposal documentation is contained in the ENTACT project file.

3.3 Backfill/Topsoil Source Selection and Sampling

Following excavation of the impacted soil and receipt of the verification sample analytical results, designated areas were backfilled and the Consolidation Area was covered utilizing off-site barrow sources. Directly involved governmental agencies (U.S. EPA, IDEM, Marion County Health Department, and the City of Indianapolis) were notified in writing of the date and location from which backfill soil and topsoil samples would be obtained (Appendix I).

The above mentioned agencies were invited to inspect the source areas and split samples. Soil samples from the off-site backfill sources (OBF-001 through OBF-008) were analyzed for total metals (i.e., antimony, arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury), pH, total petroleum hydrocarbons, and pesticides. Analytical results are summarized in Table 4 and the laboratory analytical data sheets are provided in Appendix I. Typical, native soil concentration ranges for the above parameters were determined from literature-based background ranges for Marion County and compared to the laboratory results to determine the acceptable chemical characteristics of the backfill soil and topsoil.

Following receipt of U.S. EPA's approval, backfill soil was obtained from Twin Bridges RDF (OBF-001), HARCO Sand & Gravel (OBF-004) and Littleton Sand & Supply (soil (OBF-007) & sand (OBF-008)). Topsoil (OBF-005) was obtained from a source at the Indianapolis Airport (Fortune Circle and West Executive Drive). The remaining off-site backfill sources (OBF-002, OBF-003 and OBF-006) were not utilized at the site.

UST Removal Activities

UST Location

3.4 UST Investigation, Removal, and Closure

ENTACT removed a total of four underground storage tanks (USTs), including one 20,000-gallon diesel tank, one 18,000-gallon diesel tank, one 8,000-gallon diesel tank, and one 300-gallon gasoline tank. UST locations are indicated on Figure 5. All four of the USTs were closed by removal in accordance with the November 1995 IDEM UST Guidance Manual. Soil samples

Off-site transport of UST

collected from the bottom and side walls of the excavation areas indicated that total petroleum hydrocarbon (TPH) concentrations were below the IDEM action level (100 mg/kg). Therefore, no further action relative to the USTs was determined by ENTACT, in consultation with U.S. EPA, to be needed for the site.

As part of the UST closure activities, the contents of the USTs were sampled and later transported for disposal at Envirosolve Environmental Management, Inc. in Indianapolis, Indiana. Once the USTs were cleaned and rinsed, the steel tanks were transported to SW Industries, Inc. of Indianapolis, Indiana for scrap metal recycling. The UST Closure Report and addendum, including the closure sample analytical results and sample locations, are provided in Appendix J.

3.5 Groundwater Investigation

On September 9, 1998, a meeting with representatives of the U.S. EPA, IDEM, City of Indianapolis, Marion County Health Department, Respondents and ENTACT was held. During the meeting, IDEM representatives raised questions regarding groundwater at the site. It was noted that groundwater was not part of the Order since no groundwater users are present in the immediate vicinity and the water table aquifer is not being used as a water supply down gradient of the site. On September 18, 1998, another meeting was held and a proposed groundwater monitoring program was further discussed. On September 23, 1998, ENTACT submitted a Groundwater Monitoring Program Plan (GWPP), at the request of Johnson Controls, Inc. (i.e., one of the Respondents). The objective of the GWPP was to determine the quality of groundwater in the upper aquifer and the direction of groundwater flow.

Even though the investigation was not part of the U.S. EPA Order, the GWPP was implemented by ENTACT and 6 monitoring wells were installed at the site. Groundwater samples were collected and the flow direction was calculated. The results were provided to the U.S. EPA, IDEM, the City of Indianapolis, and the Marion County Health Department.

Results of the Groundwater Monitoring Program indicated that the none of the maximum contaminant levels (MCLs) or action levels of the metals (i.e., antimony, arsenic, copper, lead and mercury) were exceeded in the upper aquifer at the site. Details of the groundwater investigation are contained in the Groundwater Monitoring Program Sampling Report, Revision 1, dated January 19, 1999, which is contained in the administrative files.

Following submission and review of GWPP results by the state, city and county representatives, abandonment of the monitoring wells located within the footprint of the Consolidation Area (i.e., MW-5 and MW-6) was completed. Well abandonment was performed to remove potential conduits for migration of contaminants and to facilitate construction of the Consolidation Area.

Containerized Materials

3.6 Characterization & Disposal of Containerized Materials

On August 10, 1998, characterization samples were collected from containerized materials located in the East Warehouse and sent to The Environmental Quality Company (EQ) for analysis. The waste was contained in twenty-four (24) 55-gallon drums and ten (10) 5-gallon buckets and containers. The characterization sample results were used to complete waste disposal profiles and to group the containers into waste streams.

The miscellaneous containers were found to contain various liquids and solid materials that were present in the East Warehouse at the time of ENTACTs arrival to initiate Phase I removal activities in 1994.

U.S. EPA was notified of the proposed off-site disposal facilities and compliance with the Off-site Disposal Rule was verified (Appendix K). Following approval of the disposal profiles by EQ, the materials were properly labeled and transported to EQ in Belleville, Michigan and Michigan Recovery Systems in Romulus, Michigan for disposal. Copies of the manifests used for off-site transport of the containerized materials are included in Appendix L.

3.7 Consolidation & Excavation Activities

The February 28, 1998 workplan and April 15, 1998 addendum required the consolidation of 30,000 cubic yards of smelter related materials. The smelter related materials staged in the West Warehouse and in the exterior stockpile at the northwest portion of the West Warehouse were moved into the Consolidation Area on the west portion of the site. The Consolidation Area design in the workplan required that the 50 X 50-foot grids with metal concentrations exceeding the site specific action levels be covered with 24 inches of clean soil, which consisted of 18 inches of backfill soil covered by 6 inches of topsoil.

During the September 9, 1998 a meeting with representatives of the U.S. EPA, IDEM, City of Indianapolis, Marion County Health Department, the Respondents and ENTACT, modifications to the

Consolidation Area design were discussed to facilitate potential redevelopment of the site. The same representatives held a meeting on September 18, 1998 to discuss preliminary design modifications to the Consolidation Area. On September 24, 1998, ENTACT submitted the revised Consolidation Area design to the meeting attendees (Appendix C).

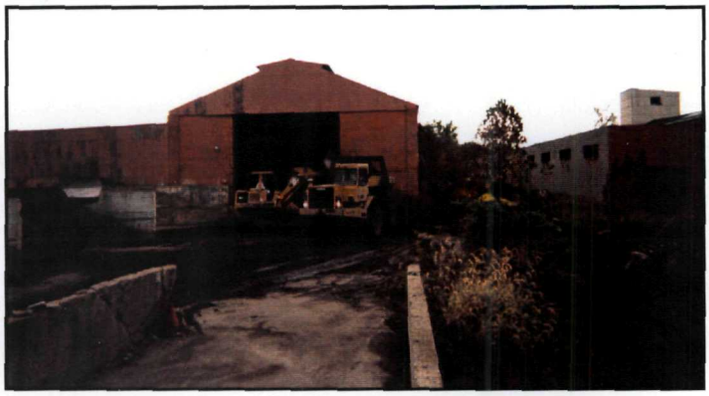
At the September 18, 1998 meeting, the City of Indianapolis and Marion County Health Department representatives also presented a workplan modification which included excavation of soils from the grids south of the buildings and east of the Consolidation Area which exceeded the metal action levels for placement in the Consolidation Area. The Respondents agreed to investigate the excavation option and several discussions between the City, County, IDEM, and U.S. EPA ensued. On November 3, 1998, a workplan modification request for excavation activities was submitted to the U.S. EPA (Appendix M). The workplan modification included X-ray fluorescence (XRF) field screening at 0.5 foot intervals to guide excavation activities in those grids with soils exceeding the action levels for metals. Following U.S. EPA's approval of the revised workplan, ENTACT excavated soil from the grids until XRF readings were 400 parts per million (ppm) lead or less, or until excavation occurred to a maximum depth of 2 feet. Once the excavation depth was achieved, a soil verification grab sample was collected for laboratory analysis of total metals (i.e., antimony, arsenic, barium, cadmium, chromium VI, lead, mercury, selenium, and silver).

XRF field screening readings were obtained from each grid during excavation and the results are summarized in Table 5. Soil/fill material was excavated utilizing a trackhoe, placed into a truck and transported to the Consolidation Area. Approximately 7,550 cubic yards of soil/fill material was excavated from the grids and placed in the Consolidation Area.

Excavation verification sample results collected from the 77 excavated grids indicated that 26 grids exceeded that lead action level at a depth of 2 feet. Only 3 of the 77 grids (084, 097 and 138) also exceeded the arsenic and antimony action levels at 2 feet in depth. Excavation verification sample results are summarized in Table 6 and the analytical data sheets are provided in Appendix N.

3.8 Placement of Impacted Material & Consolidation Area Cover

Prior to initiating consolidation activities, the Consolidation Area was surveyed and staked to designate the boundary. Periodic surveys were performed to maintain grades. Placement of the smelter related materials into the Consolidation commenced on September 30, 1998 was completed on November 4, 1998. Material was transported via front end loaders and dump trucks from the West Warehouse and exterior stockpile into the Consolidation Area.



West Warehouse Loadout Operations

Grid Excavation

South Property Boundary Excavation

Excavation North of Building

Excavation of the grids located to the south of the building and east of the Consolidation Area commenced on November 4, 1998 and was completed on December 2, 1998. Following completion of the south property boundary survey and supplemental SCS grid sampling, excavation of soil/fill from the grids extending to the south property line commenced on December 10, 1998 and was completed on December 11, 1998.

Transport of Smelter Related Materials

On April 20, 1999, excavation of the soil/fill from a narrow strip (approximately 3 feet by 65 feet) between the north property fence and the northernmost building was completed to a depth of 2 feet.

During excavation of the grids, soil/fill material was excavated utilizing a trackhoe, placed into a truck, and transported to the Consolidation Area. Materials placed in the Consolidation Area were graded and compacted utilizing bulldozers, a sheeps-foot compactor, and a smooth drum vibratory compactor. The eastern boundary of the Consolidation Area was reduced approximately 50 feet from the boundary proposed in the September 24, 1998 design to provide additional vehicle access to the west side of the West Warehouse. Upon completion of all consolidation activities, the Consolidation Area was smooth graded and surveyed in preparation for the soil cover.

Covering and grading of the Consolidation Area and the surrounding areas began on December 1, 1998 and was completed on June 7, 1999. Cover soil was obtained from off-site backfill sources, placed in lifts, graded, and compacted. As discussed in Section 3.3, off-site backfill sources were sampled for total antimony, arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury, pH, total petroleum hydrocarbons, and pesticides. In accordance with the workplan, the Consolidation Area was covered with a minimum of 24 inches of clean soil which consisted of 18 inches of backfill soil covered by 6 inches of topsoil.

Following placement of the 18 inches of backfill soil, a six-inch topsoil layer was added over the cover soil. The topsoil placement began on April 5, 1999 and was completed on June 8, 1999. Topsoil was sampled and analyzed for total antimony, arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury, pH, total petroleum hydrocarbons, and pesticides as discussed in Section 3.3.

Cover Installation in February, 1999

The area of the Consolidation Area final configuration is approximately 5.0 acres. An as-built topographic survey of the Consolidation Area is shown in Figure 6.

3.9 Backfill of Excavation Areas

Off-site backfill soil was placed in the excavation areas at the site following receipt of the verification analytical results. Backfill soil was placed in lifts, graded and compacted. Following placement of the backfill soil, topsoil was imported and placed as a final cover in those areas which were previously vegetated. Stone was imported and placed in the area located to the south of the eastern half of the East Warehouse and on the former on-site access road.

Backfill of Excavation Areas

Following excavation of the former railroad spur located inside the East Warehouse, U.S. EPA was notified that backfilling would consist of 18 inches of backfill sand and a final cover consisting of 6 inches of stone. The backfill sand was placed, graded and compacted and the stone was placed to cover the sand and graded.

Interior Rail Spur Backfill

3.10 Waste Tire Decontamination & Disposal

During Consolidation Area preparation activities, numerous discarded tires were discovered on site. These tires were decontaminated with pressure washers to remove any soil on the outside or inside of the tire. On August 27, 1998, 53 decontaminated tires were removed from the site by Grooms Tire Recycling, a qualified facility on the Indiana Waste Tire Processors List, following notification to the U.S. EPA (Appendix O).

Loadout of Scrap Tires

Additional tires contained within the smelter related material stockpiled in the West Warehouse were staged as the material was placed in the Consolidation Area. These tires were decontaminated, cut into quarters using a tire splitter (per landfill disposal requirements), loaded into two 20 cubic yard rolloff boxes, and disposed at Twin Bridges RDF. One rolloff container of tires was removed from the site on November 10, 1998 and the second rolloff container was removed from the site on November 16, 1998. An additional 94 decontaminated tires were removed from the site on December 9, 1998 by Grooms Tire Recycling. Copies of documents used for off-site transport of the discarded tires are included in Appendix O.

3.11 Residential Refuse Disposal

Residential Refuse (i.e., yard debris) collected during the Phase I residential removal activities had been stockpiled on the site. Per ENTACTs August 17, 1998 letter to the U.S. EPA (Appendix P), the debris did not meet the definition of a special waste and could be disposed as general debris. From August 11, 1998 through August 28, 1998, 10 rolloff boxes were transported off-site for disposal at Twin Bridges RDF.

Loadout of Residential Debris

3.12 Wood Debris Disposal

The railroad ties removed during the railroad spur excavations, telephone poles, and trees from the south property boundary were transported for off-site disposal at the Southside Landfill located in Indianapolis, Indiana. Wood shavings from the railroad ties, telephone poles, and trees were analyzed for TCLP lead, chromium, copper, arsenic, pentachlorophenol, and creosols to characterize the material for off-site disposal.

ENTACT evaluated off-site disposal options and determined that the wood debris could be disposed of as general debris. From documentation obtained from IDEM, the IDEM states "Extensive TCLP testing of pentachlorophenol and creosote treated wood has conclusively demonstrated that these wood products are not a hazardous waste". This "generator knowledge" and the laboratory results indicated that the wood is not a hazardous waste and can be disposed as general debris. Copies of the IDEM documentation, the wood debris analytical results and documents used for off-site transport of the wood debris are presented in Appendix Q.

3.13 Scrap Metal Decontamination & Recycling

Scrap metal located throughout the site was collected and stockpiled during site preparation. Metal that contained soil or dust was decontaminated by pressure washing prior to being loaded into the rolloff containers. After a sufficient volume of metal was accumulated, the scrap metal was removed from the site for recycling by Capitol City Metals, L.L.C. located in Indianapolis, Indiana.

Scrap metal rolloff containers were transported off-site on September 11, 1998, October 15, 1998, October 16, 1998, and June 8, 1999. Copies of the transportation documents for these rolloff containers are included in Appendix R.

3.14 Wastewater Discharge Permit

Decontamination wastewater that was not recycled for dust suppression activities during Phase II - Stage B operations was characterized for disposal at the local publicly owned treatment works (POTW) in Indianapolis, Indiana.

ENTACT applied for, and was issued, a Special Discharge Agreement for decontamination wastewater from the local POTW (Belmont Advanced Water Treatment (AWT)) on September 21, 1998 (Appendix S). The Special Discharge Agreement required ENTACT to sample every tank/batch of wastewater and perform laboratory analysis for pH and total metal concentrations for arsenic, lead, and zinc. Following sample collection and analysis, ENTACT received approval from AWT personnel before wastewater could be discharged.

On November 11, 1998, a 1,000-gallon tank of decontamination wastewater from the decontamination trailer was discharged; on November 25, 1998, a 21,000-gallon frac-tank containing decontamination wastewater from warehouse decontamination activities was discharged; and on May 25, 1999 approximately 10,000 gallons of stormwater that had collected in the truck dock located on the west side of the West Warehouse was also discharged to the Belmont AWT. Analytical results for the wastewater samples, notifications to the U.S. EPA of wastewater discharges, and Belmont AWT discharge approvals are included in Appendix S.

3.15 Dust and Fugitive Emissions Control

During completion of the Phase II - Stage B activities, dust and fugitive emissions were controlled and monitored by use of engineering controls and air monitoring. Dust suppression activities included the use of misting units, hoses, sprinkler systems, and application of water on the transport routes using a tow behind water tank. Sweeping of the road outside the site was also performed on a regular basis to minimize dust emissions from trucks that were entering and exiting the site.

Dust Control

Air monitoring (perimeter and random air monitoring) was also conducted during the Phase II - Stage B activities to ensure that adequate dust suppression techniques were being employed. Air monitoring activities are described in further detail in Section 4.0 of this Final Report.

3.16 Building Decontamination

Following the removal of the stockpiled residential soils from the East Warehouse and the smelter related materials from the West Warehouse, the on-site warehouses were decontaminated. Final building decontamination procedures included the following:

- removing residual soils in the buildings by sweeping the floors;
- high pressure hydro-decontamination of the ceilings, walls and floors; and
- collection and proper disposal of the decontamination water not recycled for misting operations.

Possible drainage routes (i.e., drains, doorways, cracks, etc.) were bermed in order to adequately contain the decontamination water. Decontamination water was collected and used for misting to control dust emissions during consolidation activities. Excess decontamination water (approximately 21,000-gallons) was discharged to the Belmont AWT facility following disposal approval.

Final Decontamination Using Dry Vacuuming Unit

In April 1999, U.S. EPA was notified of repairs to the warehouse floors that were necessary to complete final decontamination activities. Repairs were completed on April 13, 1999 and final decontamination activities commenced. A mechanical "dry" vacuuming unit was utilized to complete final decontamination efforts as described in ENTACTs April 15, 1999 notification to U.S. EPA (Appendix T).

3.17 Interior Building Sampling

In order to evaluate the effectiveness of building decontamination activities, U.S. EPA requested the Respondents to perform interior building sampling. ENTACT collected air samples using aggressive air sampling techniques. Aggressive air sampling was performed within the building interior of the East and West Warehouses on May 21, 24, and 25, 1999. The East Warehouse is approximately 100,000 square feet and the West Warehouse is approximately 39,000 square feet. Air samples were collected utilizing a MSA Escort LC Sampler Pump with preloaded filter cassettes.

Air samples were collected at a frequency of one sample per 20,000 square feet (i.e. 5 samples from within the East Warehouse and 2 samples from within the West Warehouse). The air sampler pumps were placed 5 to 6 feet above the floor and were placed to avoid airflow obstructions. Each sampler was operated for 60 minutes with a average flow rate of 3.5 liters per minute during which time the floors and walls within the buildings were disturbed with a high speed air device (i.e. leaf blower). Each 20,000 square foot area of the buildings was disturbed for 30 minutes prior to sample collection. Prior to and following each sampling event, the area air pumps were calibrated in accordance with the manufacturer's instructions. The filter cassettes were submitted for laboratory analysis of total lead using NIOSH Method 7300 with a detection limit of 2 micrograms per cubic meter ($\mu g/m^3$).

The OSHA (29 CFR 1910.1025) action level for lead of 30 $\mu g/m^3$ was utilized as the Building Decontamination clearance level. Aggressive Air Sample laboratory analytical results were compared to the clearance level. Sample results for lead below 30 $\mu g/m^3$ were utilized to document Building Decontamination effectiveness and ensure protection of future workers that may utilize the warehouse buildings. All Aggressive Air Samples were below the clearance level. The building clearance sample analytical data sheets submitted to the U.S. EPA are provided in Appendix U.

3.18 Site Restoration

Upon completion, the Consolidation Area cover consists of a minimum of 18 inches of clean backfill soil covered with 6 inches of topsoil. A native prairie vegetative cover was seeded on the Consolidation Area.

Installation of Native Prairie Vegetation

Exposed soil areas surrounding the Consolidation Area, which exceeded the action levels for the specified metals and the grids which were excavated, were covered with a minimum of 18 inches of clean backfill covered by 6 inches of topsoil. These excavation areas were covered with clean backfill and topsoil or stone. Areas with a topsoil cover were vegetated with native grasses. The final grade was surveyed prior to and following backfill and topsoil placement to ensure that at least 24 inches of clean cover material had been installed.

The seeding and revegetation of the topsoil on the excavated areas and the Consolidation Area was completed on June 10, 1999. After consultation with the Indiana office of the United States Department of Agriculture (USDA) Natural Resources Conservation Service, the Consolidation Area was seeded with the native prairie vegetation that consisted of Big Bluestem, Little Bluestem, and Indian Grass at a rate of 1.5 pounds per acre and Switch Grass and Side Oats Grama at a rate of 1.125 pounds per acre. The surrounding areas were planted with seed consisting of Perennial Rye Grass (25%), Tall Fescue (50%), Blue grass (10%), and Hard Fescue (15%) at a seeding rate of 100 pounds per acre.

Restoration activities also included installation and replacement of fencing. During excavation of soils along the south property boundary, the existing fence had to be removed. Once the excavation area was backfilled, a new fence was installed along the south property boundary. At the request of the City and county representatives, a fence was installed around the perimeter of the Consolidation Area to control access, as shown on Figure 6.

Consolidation Area Site Restoration

3.19 Cover Verification Sampling

Six (6) composite samples from the site were collected by the U.S. EPA and ENTACT to verify that the specific metal concentrations in the upper 2 feet of soil were below the action levels. The cover verification samples collected by ENTACT were analyzed for antimony, arsenic, barium, cadmium, chromium VI, lead, mercury, selenium, and silver. No metal concentrations exceeded the site specific action levels. Copies of the laboratory analytical results obtained by ENTACT and the U.S. EPA are provided in Appendix V.

Cover Verification Sampling

3.20 Personal Protective Equipment Disposal

All personal protective equipment (PPE) used during the Phase II activities, including tyvek suits, nitrile gloves, cotton gloves, disposable boots, and respirator cartridges, were collected and placed in polyethylene bags. PPE generated was staged on-site and transported for off-site disposal at Twin Bridges RDF.

3.21 Miscellaneous Activities

Other miscellaneous activities completed during the Phase II - Stage B removal actions at the site included the following:

- Sealing of a subsurface sump discovered in the southwest portion of the Consolidation Area footprint;
- Removal and off-site disposal of the contents of a drum containing waste oil that was found within the smelter related materials during placement in the Consolidation Area;
- Off-site disposal of an asphalt sealant tank; and
- Abandonment of an on-site water well located south of the East Warehouse.

Written notification of these activities was provided to the U.S. EPA and copies of the correspondence are maintained in the administrative file.

ENTACT

Section four

Section 4

4.0 Air Monitoring Activities

Air monitoring was performed utilizing PM-10 perimeter air monitors (respirable dust), TSP perimeter air monitors (total lead), personal air monitors (total lead), and hand-held random air monitors (RAM) (total dust) during site activities. Air monitoring procedures were performed in accordance with the Workplan.

4.1 Results of Perimeter Air Monitoring

Perimeter air samples were collected by using four TSP samplers and four PM-10 samplers. The TSP and PM-10 sampling equipment was positioned adjacent to each other in the northeast, northwest, southeast and southwest corners of the site to provide upwind and downwind air quality information (Figure 2). Total lead samples and total respirable dust particulate samples were collected and submitted for analysis at a frequency of 1 set per every 5 working days. Total lead concentrations were compared to the National Institute of Occupational Safety and Health (NIOSH) requirement for lead, which is 1.5 $\mu g/m^3$ based upon a 24-hour period. The National Ambient Air Quality Standard (NAAQS) of 150 $\mu g/m^3$ for a 24-hour period was utilized as the PM-10 particulate action level.

The NIOSH and NAAQS levels were not exceeded during the Phase II - Stage B activities. Results of TSP perimeter air monitoring are shown in Table 7 and results of PM-10 perimeter air monitoring are shown in Table 8.

4.2 Personal/Area Air Monitoring Results

Personal/area monitors were utilized by ENTACT associates during work activities. These monitors consist of low volume air pumps with pre-loaded filter cassettes. Monitoring results were used to establish the proper level of personal protective equipment (PPE). ENTACTs action level for use of half-face respirators is an 8-hour Time Weighted Average (TWA) of 30 $\mu g/m^3$. The OSHA 8-hour TWA action level for half-face respirators is 50 $\mu g/m^3$. ENTACTs action level for use of full-face powered air purifying respirators (PAPR) is an 8-hour TWA of 500 $\mu g/m^3$. Area/personal air samples were analyzed at the beginning and during each new construction activity. The results of the personal air monitoring are presented in Table 1.

4.3 Random Air Monitoring (RAM) Results

To assist with daily monitoring, a hand-held RAM was utilized to record periodic ambient air conditions during Phase II removal action activities. An 8-hour TWA was collected in and around the work zone. If a reading exceeded 0.20 milligrams dust per cubic meter (mg/m^3), then corrective measures regarding dust suppression would be increased and the four PM-10 samples and the four TSP samples for that specific day would be sent for laboratory analysis. During the project, the 8-hour TWA reading never exceeded the 0.20 (mg/m^3) action level. The results of the RAM are presented in Table 9.

ENTACT

Section five

Section 5

5.0 Quality Assurance/Quality Control

Sampling, analysis, and data management during removal activities at the site were performed in accordance with the Quality Assurance Project Plan (QAPP). Details of the Quality Assurance and Quality Control guidelines which were employed for sample collection and data management during the removal action are discussed in this section and include the following:

Data Quality Objectives
Field Documentation
Sampling Procedures
Sample Tracking and Shipment
Field Instrument Operation and Calibration
Field Quality Assurance and Quality Control
Laboratory Quality Assurance and Quality Control

The following information describes Quality Assurance and Quality Control (QA/QC) methods which were employed by ENTACT during the project implementation.

5.1 Quality Assurance Objectives

The overall objective of the quality assurance program was to ensure that technical data gathered during the removal action was accurate, precise, complete, and representative of actual field conditions.

For this project, it was necessary to gather sufficient information to verify that certain wastes were properly characterized for disposal, and that site specific action levels for metals were achieved.

Two levels of data quality objectives were used for the project. Data Quality Objective Level 1 consisted of field screening with the XRF. Data Quality Objective Level 2 consisted of media samples obtained for laboratory analysis. Data Quality Objective Level 2 samples were collected and analyzed in the laboratory during the SCS sampling, UST closure sampling, and off-site backfill analysis.

5.2 Field Documentation

In order to ensure proper sample tracking and record keeping, documentation of sample custody and analytical requests were maintained. To ensure valid sampling data, procedures for sample labeling, preservation, tracking, and laboratory QA/QC methods were reviewed periodically.

The Project Manager and QA/QC Coordinator were responsible for maintaining complete and up-to-date sample records. Sampling personnel recorded pertinent sampling information (i.e., time, date, sample I.D., analysis, etc.) in a field sample journal. Photographs taken were duplicated for on-site records and for this Final Report.

5.3 Sampling Procedures

Sampling procedures were presented in Section 3.5 and 3.6 of the Workplan. The procedures described, in detail, the types of equipment required, sample nomenclature, sampling technique, decontamination, and sample handling for each media type sampled. These procedures were followed in order to collect representative samples.

5.4 Sample Tracking and Shipment

The sample collection process involved certain methods of tracking and shipping each sample. These methods included the following:

Custody Procedures
Shipping Procedures

The following sections fully describe these methods employed during the project.

5.4.1 Custody Procedures

Custody is one of several factors which is necessary for the admissibility of environmental data as evidence in a court of law. Custody procedures help to satisfy the two major requirements for admissibility: relevance and authenticity. Sample custody was addressed in three parts: field sample collection, laboratory analysis, and final evidence files. Final evidence files, including all original laboratory reports, are currently being maintained under document control in a secure area at ENTACTs Wood Dale, Illinois office.

Sample identification documents were carefully prepared to maintain identification and chain-of-custody records and to control sample disposition. Components of the field documentation procedures included the use of field logbooks, sample labels, and chain-of-custody forms. Original data recorded in field logbooks, chain-of-custody records, and other forms were written in waterproof ink. The field sampler was personally responsible for the care and custody of the samples until they were transferred or properly dispatched.

5.4.2 Field Logbook

ENTACT maintained daily job logs and daily work order reports during the removal activities. These job logs and work order reports summarized all site activities performed, personnel on-site, problems encountered and corrective action taken. Daily job logs were prepared by the project manager or his designee in a bound book with sequentially numbered pages. ENTACT utilized these job logs to track the project status. ENTACT also recorded

project activities through photographic documentation, some of which is included in this Final Report. Additional photographic documentation and a copy of the daily work order reports are maintained in the ENTACTs project file.

Field logbooks of daily activities were used by the QA/QC Coordinator to record sampling activities on a daily basis. This book was bound and has consecutively numbered pages. Entries in the field logbook were made in ink and included: the name of the author; date and time of entry; location of activity; names and affiliations of personnel on site; sample collection or measurement methods; number of samples collected; daily weather report; sample identification numbers; field observation and comments; sampling depth increment for soils; field measurements; locations of photographs; and any deviations from the sampling plan. The logbooks were stored in the locked ENTACT trailer when they were not in use. The logbooks are stored in the project file located in the ENTACTs Wood Dale, Illinois office.

5.4.3 Sample Labels

Sample labels were necessary to prevent misidentification of samples. Preprinted labels contained space for the following information: sample location/identification, project number, date and time of sample collection, name of sampler, preservatives, and types of analysis to be performed. This information was inserted onto the labels prior to delivery of the samples to the laboratory.

5.4.4 Chain-of Custody

A Chain-of-Custody (COC) form was completed to record the custody of every sample collected. A COC form accompanied every shipment of samples to the analytical laboratory in order to establish the documentation necessary to trace sample possession from the time of sample collection through sample analysis. The sample portion of the COC form included the following:

- Project number, name and location;
- Sample identification;
- Name of Project Manager, Sampler, and Recorder;
- Sampling information (sampling area, depth, media type, type of sample, date and time of collection, etc.);
- Analysis to be performed;
- Preservatives used, if any; and
- Signatures of persons involved in the COC possession, including dates.

When a Chain-of-Custody form was filled out, one page of the three-part form was retained and placed in a file at the on-site office. The other two parts of the form accompanied the sample to the laboratory. One of those pages was retained by the laboratory and the other was returned with the sample result report.

Once the sample report was received, it was cross-checked with the COC file record and both COC pages and the laboratory report were placed in a file in fireproof storage. The analytical result was also entered into a computer database consisting of a comprehensive list of all samples taken at the site and the analytical results.

5.4.5 Laboratory Custody

The custody for each sample was transferred by the signing of the COC record by the receiving laboratory sample custodian. Each laboratory maintained strict written protocol for internal sample custody. Upon receipt of samples, information on the COC shipped with the samples was verified and recorded as to agreement or non-agreement.

Labels were also checked for notation of proper preservation. Samples were also checked for leaking or broken containers. The samples were then marked or labeled with laboratory sample numbers and placed in appropriate storage and/or secure areas to await analysis.

5.4.6 Shipping Procedures

For shipping, all samples were stored on ice and packaged in such a manner as to prevent damage or breakage during shipment or transport. Samples which were not hand delivered to, or picked up by the laboratory, were shipped through an overnight parcel service by sampling personnel. Samples were placed into suitable containers, labeled and sealed in such a manner that tampering with the seal would be obvious. All sample holding times were tracked and a copy of the Chain-of-Custody form accompanied the samples in a sealed plastic bag.

5.5 Maintenance and Calibration of Equipment

Proper calibration, maintenance, and use of instruments and equipment was imperative to ensure the quality of all data collected.

Instruments and equipment used to gather, generate or measure environmental and physical testing data were calibrated with sufficient frequency and in such a manner that accuracy and reproducibility were consistent with the manufacturer's specifications.

5.5.1 Field Instrument Calibration

All instruments and equipment used in the field were inspected to ensure that the item met and performed to manufacturer specifications and project specifications. Instruments meeting these requirements were issued to a field technician trained in instrument operation and made available for site use.

Field instruments used during the project included the XRF, low-volume air samplers, PM-10 particulate sampler, TSP particulate sampler, and RAM.

The XRF was calibrated at the start of each day of use against known quantity standards and pure elements. The XRF was then calibrated against three known quantity lead-laden soil samples to obtain the most accurate daily data possible. The low-volume air samplers, PM-10's, and TSP's were calibrated by ENTACT in accordance with the manufacturer's specifications. The RAM unit was factory calibrated at the beginning of the project and the RAM was zeroed at the beginning of each day following the manufacturer's start up procedures.

A record of the instrument calibrations was maintained in bound field notebooks. Information recorded included the following:

- Date of calibration
- All data pertaining to the calibration procedures
- Name of analyst performing calibration

The field notebooks are maintained in project file located at ENTACTs Wood Dale, Illinois office.

5.5.2 Laboratory Instrument Calibration

The laboratory instruments used during analysis of samples were calibrated according to and at the frequency indicated by the QA and QC procedures for each testing method used and any additional manufacturer's recommendations. Records of calibration, repair, or replacement were filed and maintained by the designated laboratory personnel performing analysis and quality control activities. Calibration records of the assigned laboratories are filed and maintained at the laboratory location where the work is performed.

5.6 Field Quality Assurance and Quality Control

Two different levels of sampling methods and quality objectives were employed during this project. These were the XRF as well as collection of samples for laboratory analysis. The following methods and procedures were employed for each respective level of sampling.

5.6.1 XRF Field Screening of Samples

An X-Ray Fluorescence (XRF) analyzer was utilized to screen soil in the field for total lead content during excavation. The XRF was utilized to guide excavation activities. As described above, the XRF was calibrated on a regular basis.

5.6.2 Samples for Laboratory Analysis

To ensure that appropriate procedures were followed during field sampling for laboratory analysis, sampling methods, record keeping, and sample control were continuously monitored by quality control measures.

Throughout the sampling efforts as part of the quality assurance procedures, various multiple samples were collected to assist with data evaluation. The following is a description of the types of quality assurance samples which were collected during the field activities.

5.6.3 Duplicate Samples

These samples consisted of identical samples which were collected, preserved, and transported in the same manner. Ten (10) percent of the final verification samples were duplicated and submitted to Pace Analytical Services, Inc. for analysis.

5.6.4 Field Rinsate Blank Samples

Field rinsate blank samples were utilized to identify possible sources of cross-contamination during sample collection and preservation. The field blank consisted of a sample obtained by rinsing decontaminated sampling equipment with analyte-free water. This water was then sampled and submitted for analysis to ensure that cross-contamination did not occur during sampling. One field blank rinsate sample was collected for each day soil samples were collected. An analytical summary of the field rinsate blanks collected during the removal action is provided in Table 10.

5.7 Laboratory Quality Assurance and Quality Control

As noted above, the laboratory used during the remedial action was Pace Analytical Services, Inc. Pace Analytical maintains extensive quality assurance and control programs which are available upon request.

These programs include the use of method blanks, reagent blanks, independent calibration verification standards, continuing calibration verification standard, laboratory control standard, duplicate analysis, and matrix spikes.

The laboratory also participates in internal and external audit programs with the EPA, state agencies, and independent third parties.

Additional laboratory information is presented below.

Pace Analytical Services, Inc.
7726 Moller Road
Indianapolis, Indiana 46268
(317) 875-5894
Facsimile: (317) 872-6189
Contact: Victoria Jamison, Project Manager

ENTACT

Section six

Section 6

6.0 Site Health & Safety

Removal activities conducted at the site were performed in accordance with the Health and Safety Plan (HASP). Safety inspections were conducted throughout the duration of the project. Site safety audits were also conducted periodically to determine whether the procedures outlined in the HASP were consistently followed and to determine if additional safety procedures were necessary. Based on the safety audits, it was determined that the HASP was being implemented consistently.

Equipment Decontamination Area

To reinforce on-site safety procedures, daily safety meetings were conducted and participants were required to sign the daily safety meeting log. Various safety topics were discussed during the daily safety meetings to address scheduled activities. Adherence to wearing the proper PPE was enforced by all on-site personnel during the Phase II - Stage B activities to minimize the potential exposure of personnel to hazardous substances.

Decontamination procedures were enforced and a decontamination trailer was on-site during completion of the removal actions. An equipment decontamination area was also established on-site. Prior to leaving the site, any equipment coming in contact with impacted material was decontaminated utilizing high pressure water. Exclusion zones were marked and signs were posted throughout the project site to remind personnel and visitors of the safety procedures and required PPE.

During completion of the removal action, Level C PPE with half-face respirators was utilized by on-site personnel. PPE was downgraded to Level D, following U.S. EPA notification, once all exposed soil areas exceeding the site specific action levels were covered with at least 18 inches of clean backfill.

ENTACT experienced no injuries during completion of the Phase II - Stage B activities.

ENTACT

Section seven

Section 7

7.0 Removal Action Cost Estimate

In accordance with Section V.3.5 of the Order, this section provides a good faith estimate of costs incurred in ENTACTs performance of the Phase II - Stage B activities on behalf of the Respondents.

The removal action costs are for all field activities performed by ENTACT, but do not include costs associated with other consultants, attorneys, etc.

The removal action cost estimate for Phase II - Stage B performed by ENTACT at the site is $ 1,864,119.

An example invoice for the removal action activities is provided in Appendix W.

ENTACT

Section eight

Section 8

8.0 Conclusion

The removal action at the site was completed on June 18, 1999. The objective of the removal action was to ensure that lead impacted materials located at the site no longer posed a threat to human health and the environment.

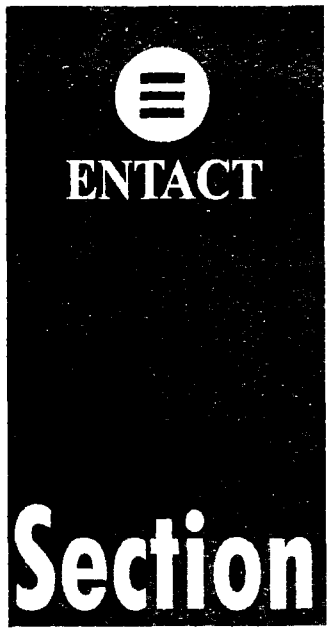
The Phase II removal activities described in the Final Report were conducted to meet the objective. In summary, the primary activities included:

- The residential lead-impacted soil staged in the East Warehouse was transported and disposed of in a Subtitle D landfill;
- Smelter related materials were placed in the on-site Consolidation Area and covered with 24 inches of clean soil;
- Lead-impacted soil/fill outside the Consolidation Area was excavated to the site specific action levels for metals or to depth of 2 feet and covered with 24 inches of soil;
- On-site USTs were removed;
- Miscellaneous containerized materials were transported off-site for disposal;
- On-site structures were decontaminated and clearance sampling was conducted; and
- Site restoration activities were completed, including installation of a chain link fence surrounding the Consolidation Area to secure access.

Based on the information provided in this report, ENTACT has concluded that the performance standards have been achieved and the removal action objectives have been met.

Avanti Site - 1994 Before Removal Actions

Avanti Site - June, 1999 After Removal Actions


ENTACT
Section
nine

9.0 Certification

Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Tom Holdeman
ENTACT, Inc.

ENTACT

Tables

Tables

Table 1
Personal/Area Air Monitoring Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Number	Date	Activity	Location	Lead ($\mu g/m^3$)
AS-001	8-5-98	R.R. Spur Construction	Inside East Warehouse	2.5
AS-002	8-6-98	Silt Fence Trenching	Outside - Site Perimeter	<2.0
AS-003	8-9-98	Background	Blue Office Trailer	<2.0
AS-004	8-9-98	Background	East Warehouse	<2.0
AS-005	8-9-98	Background	West Warehouse	<2.0
AS-006	8-9-98	Background	Downwind Grid C-10	<2.0
AS-007	8-9-98	Background	Upwind South end of site	<2.0
AS-008	8-11-98	UST Investigation	South of East Warehouse	<2.0
AS-009	8-12-98	Mobilization	Southwest corner of site	<2.0
AS-010	8-13-98	Move trees	Southwest portion of site	5.2
AS-011	8-13-98	Residential Debris	South of West Warehouse	<2.0
AS-012	8-13-98	General	Southwest corner of site	3.6
AS-013	8-18-98	Fence Relocation	Northwest half of site	3.5
AS-014	8-20-98	Residential Soil	East Warehouse	**91**
AS-015	8-21-98	Residential Soil	East Warehouse	**70**
AS-016	8-21-98	Residential Soil	East Warehouse	**79**
AS-017	8-25-98	Residential Soil	East Warehouse	21

Table 1
Personal/Area Air Monitoring Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Number	Date	Activity	Location	Lead ($\mu g/m^3$)
AS-018	8-25-98	Residential Soil	East Warehouse	30
AS-019	8-26-98	Residential Soil	East Warehouse	17
AS-020	8-26-98	Residential Soil	East Warehouse	<2.0
AS-021	8-27-98	Residential Soil	East Warehouse	**32**
AS-022	8-27-98	Residential Soil	East Warehouse	8.6
AS-023	8-28-98	Residential Soil	East Warehouse	11
AS-024	8-28-98	Residential Soil	East Warehouse	<2.0
AS-025	8-31-98	Residential Soil	East Warehouse	23
AS-026	8-31-98	Residential Soil	East Warehouse	13
AS-027	9-1-98	Residential Soil	East Warehouse	24
AS-028	9-1-98	Residential Soil	East Warehouse	<2.0
AS-029	9-1-98	Residential Soil	East Warehouse	11
AS-030	9-2-98	Residential Soil	East Warehouse	21
AS-031	9-2-98	Residential Soil	East Warehouse	11
AS-032	9-2-98	Backfill	West Field	<2.0
AS-033	9-3-98	Residential Soil	East Warehouse	12
AS-034	9-3-98	Residential Soil	East Warehouse	15
AS-035	9-3-98	Backfill	West Field	<2.0
AS-036	9-8-98	Residential Soil	East Warehouse	15
AS-037	9-8-98	Backfill	West Field	<2.0
AS-038	9-9-98	Residential Soil	East Warehouse	16
AS-039	9-9-98	Backfill	West Field	<2.0
AS-040	9-9-98	Wall Repair	N. of E. Warehouse	4.3

Table 1
Personal/Area Air Monitoring Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Number	Date	Activity	Location	Lead ($\mu g/m^3$)
AS-041	9-10-98	Residential Soil	East Warehouse	**45**
AS-042	9-10-98	Backfill	West Field	<2.0
AS-043	9-10-98	Wall Repair	N. of E. Warehouse	<2.0
AS-044	9-14-98	Residential Soil	East Warehouse	11
AS-045	9-15-98	Residential Soil	East Warehouse	14
AS-046	9-16-98	Debris Load-out	East Warehouse	**67**
AS-047	9-17-98	Debris Load-out	East Warehouse	**220**
AS-048	9-18-98	Debris Load-out	East Warehouse	**770**
AS-049	9-21-98	Debris Load-out	East Warehouse	**180**
AS-050	9-22-98	Debris Load-out	East Warehouse	24
AS-051	9-23-98	Debris Load-out	East Warehouse	20
*AS-052	9-24-98	Debris Load-out	East Warehouse	**110**
*AS-053	9-25-98	Debris Load-out Consolidation Area Prep.	East Warehouse West Field	5.1
*AS-054	9-28-98	Consolidation Area Prep.	West Field	**300**
*AS-055	9-28-98	Well Installation	West Field	3.5
AS-056	9-29-98	Consolidation Area Prep.	West Field	<2.0
AS-057	9-29-98	Well Installation	Wells	<2.0
AS-058	9-30-98	Well Installation	Wells	<2.0
AS-059	9-30-98	Dust Suppression	West Field	26
AS-060	10-1-98	Haz. Mat./ Truck	E. Warehouse	29
AS-061	10-1-98	Haz. Mat./ Loader	E. Warehouse	**81**

Table 1
Personal/Area Air Monitoring Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Number	Date	Activity	Location	Lead ($\mu g/m^3$)
AS-062	10-1-98	Wall Repair	N. of E. Warehouse	<2.0
AS-063	10-1-98	Dust Suppression	W. Field	11
AS-064	10-2-98	Wall Repair	N. of E. Warehouse	<2.0
AS-065	10-2-98	Haz. Mat./ Truck	E. & W. Warehouse	13
AS-066	10-2-98	Haz. Mat./ Loader	E. & W. Warehouse	**45**
AS-067	10-2-98	Dust Suppression	W. Field	<2.0
AS-068	10-5-98	Wall Repair	N. of E. Warehouse	<2.0
AS-069	10-5-98	Dust Suppression Spread Haz. Mat.	W. Field	<2.0
AS-070	10-5-98	Haz. Mat./ Truck	W. Field	<2.0
AS-071	10-5-98	Haz. Mat./ Loader	W. Warehouse	29
AS-072	10-6-98	Wall Repair	N. of E. Warehouse	<2.0
AS-073	10-6-98	Haz. Mat./ Truck	W. Field	3.0
AS-074	10-6-98	Haz. Mat./ Dozer	W. Field	5.9
AS-075	10-6-98	Haz. Mat./ Loader	W. Warehouse	16
AS-076	10-8-98	Haz. Mat./ Truck	W. Field	11
AS-077	10-8-98	Haz. Mat./ Loader	W. Warehouse	5.3
AS-078	10-8-98	Haz. Mat./ Dozer	W. Field	**130**
AS-079	10-9-98	Haz. Mat./ Truck	W. Field	9.1
AS-080	10-9-98	Haz. Mat./ Loader	W. Warehouse	**230**
AS-081	10-9-98	Haz. Mat./ Dozer	W. Field	<2.0
AS-082	10-12-98	Haz. Mat./ Truck	W. Field	29
AS-083	10-12-98	Haz. Mat./ Loader	W. Warehouse	**400**

Table 1
Personal/Area Air Monitoring Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Number	Date	Activity	Location	Lead ($\mu g/m^3$)
AS-084	10-12-98	Haz. Mat./ Dozer	W. Field	12
AS-085	10-13-98	Haz. Mat./ Truck	W. Field	21
AS-086	10-13-98	Haz. Mat./ Loader	W. Warehouse	**140**
AS-087	10-13-98	Haz. Mat./ Dozer	W. Field	2.9
AS-088	10-14-98	Haz. Mat./ Truck	W. Field	3.4
AS-089	10-14-98	Haz. Mat./ Loader	W. Warehouse	**39**
AS-090	10-14-98	Haz. Mat./ Dozer	W. Field	3.4
AS-091	10-14-98	Haz. Mat./ Loader	W. Field	3.7
AS-092	10-15-98	Wall Repair	N. of E. Warehouse	<2.0
AS-093	10-15-98	Haz. Mat./ Truck	W. Field	**61**
AS-094	10-15-98	Haz. Mat./ Dozer	W. Field	3.8
AS-095	10-15-98	Haz. Mat./ Loader	W. Warehouse	**140**
AS-096	10-16-98	Wall Repair	N. of E. Warehouse	<2.0
AS-097	10-16-98	Haz. Mat./ Truck	W. Field	6.0
AS-098	10-16-98	Haz. Mat./ Loader	W. Field	20
AS-099	10-16-98	Haz. Mat./ Dozer	W. Field	2.9
AS-100	10-19-98	Wall Repair	N. of E. Warehouse	<2.0
AS-101	10-19-98	Haz. Mat./ Truck	W. Field	2.7
AS-102	10-19-98	Haz. Mat./ Loader	W. Field	13
AS-103	10-19-98	Haz. Mat./ Dozer	W. Field	<2.0
AS-104	10-20-98	Haz. Mat./ Truck	W. Field	11
AS-105	10-20-98	Haz. Mat./ Loader	W. Field	12
AS-106	10-20-98	Haz. Mat./ Dozer	W. Field	2.9

Table 1
Personal/Area Air Monitoring Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Number	Date	Activity	Location	Lead ($\mu g/m^3$)
AS-107	10-21-98	Haz. Mat./ Truck	W. Field	6.7
AS-108	10-21-98	Haz. Mat./ Loader	W. Field	7.6
AS-109	10-21-98	Haz. Mat./ Dozer	W. Field	<2.0
AS-110	10-22-98	Haz. Mat./ Truck	W. Field	6.6
AS-111	10-22-98	Haz. Mat./ Loader	W. Warehouse	12
AS-112	10-22-98	Haz. Mat./ Dozer	W. Field	2.0
AS-113	10-23-98	Haz. Mat./ Truck	W. Field	<2.0
AS-114	10-23-98	Haz. Mat./ Loader	W. Field	8.3
AS-115	10-23-98	Haz. Mat./ Dozer	W. Field	<2.0
AS-116	10-23-98	Haz. Mat./ Dozer	W. Field	3.2
AS-117	10-26-98	Haz. Mat./ Loader	W. Warehouse	2.6
AS-118	10-26-98	Fence Work	W. Field	11
AS-119	10-27-98	UST's/ Track Hoe	S. of E. Warehouse	4.5
AS-120	10-27-98	Backfill	W. Field	<2.0
AS-121	10-27-98	Haz. Mat./ Truck	W. Field	2.9
AS-122	10-28-98	UST's/ Track Hoe	S. of E. Warehouse	14
AS-123	10-28-98	Backfill	W. Field	4.4
AS-124	10-29-98	Backfill	W. Field	<2.0
AS-125	10-29-98	Clean-up	W. Warehouse	<2.0
AS-126	11-4-98	Clean Road/ Track Hoe	S. of W. Warehouse	<2.0
AS-127	11-4-98	W. Field/ Dozer	Consolidation Work	<2.0

Table 1
Personal/Area Air Monitoring Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Number	Date	Activity	Location	Lead ($\mu g/m^3$)
AS-128	11-4-98	Haz. Mat./ Truck	W. Field	2.0
AS-129	11-5-98	Excavation/ Track Hoe	S. of W. Warehouse	<2.0
AS-130	11-5-98	Haz. Mat./ Dozer	W. Field	<2.0
AS-131	11-5-98	Haz. Mat./ truck	W. Field	<2.0
AS-132	11-6-98	Rail Spur/ Track Hoe	E. Warehouse	2.1
AS-133	11-9-98	Excavation/ Track Hoe	S. of E & W Warehouse	<2.0
AS-134	11-9-98	Haz. Mat./ Dozer	W. Field	<2.0
AS-135	11-9-98	Haz. Mat/ truck	W. Field	<2.0
AS-136	11-11-98	Power relocation	0517/0517Q	<2.0
AS-137	11-12-98	Excavation/ Track Hoe	S. of E. & W. Warehouses	<2.0
AS-138	11-12-98	Backfill/ Dozer	Clean Road	<2.0
AS-139	11-12-98	Haz. Mat./ Truck	W. Field	<2.0
AS-140	11-13-98	Excavation/ Track Hoe	S. of E. & W. Warehouses	3.2
AS-141	11-13-98	Backfill/ Dozer	Clean Road	<2.0
AS-142	11-13-98	Haz. Mat./ Truck	W. Field	<2.0
AS-143	11-14-98	Backfill/ Dozer	Clean Road	<2.0
AS-144	11-14-98	Consolidation/ Dozer	W. Field	<2.0
AS-145	11-16-98	Backfill/ Dozer	Clean Road	<2.0

Table 1
Personal/Area Air Monitoring Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Number	Date	Activity	Location	Lead ($\mu g/m^3$)
AS-146	11-16-98	Excavation/ Track Hoe	South of East & West Warehouses	4.9
AS-147	11-16-98	E. Warehouse	Background	<2.0
AS-148	11-17-98	Backfill/ Dozer	Clean Road	<2.0
AS-149	11-17-98	Excavation/ Track Hoe	S. of E. & W. Warehouses	<2.0
AS-150	11-17-98	Haz. Mat./ Truck	W. Field	<2.0
AS-151	11-18-98	Backfill/ Dozer	Clean Road	<2.0
AS-152	11-18-98	Excavation/ Track Hoe	S. of E. & W. Warehouses	<2.0
AS-153	11-18-98	Haz. Mat./ Truck	W. Field	<2.0
AS-154	11-25-98	Backfill/ Dozer	S. of E. & W. Warehouses	<2.0
AS-155	11-25-98	Excavation/ Track Hoe	Between E. & W. Warehouses	<2.0
AS-156	12-4-98	Backfill/ Dozer	W. Field	<2.0
AS-157	12-4-98	Excavation/ Mini	W. Warehouses	<2.0
AS-158	4-12-99	Decon/Vac	E. Warehouse	4.57
AS-159	4-12-99	Decon/Vac	E. Warehouse	5.31
AS-160	4-14-99	Decon/Vac	W. Warehouse	7
AS-161	4-14-19	Decon/Vac	W. Warehouse	6.46
AS-162	5-1-99	Backfill/Dozer	W. Field	<2.0
AS-163	5-1-99	Backfill/Compactor	W. Field	<2.0
AS-164	5-2-99	Backfill/Dozer	W. Field	<2.0

Table 1
Personal/Area Air Monitoring Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Number	Date	Activity	Location	Lead ($\mu g/m^3$)
AS-165	5-2-99	Backfill/Compactor	W. Field	<2.0
AS-166	5-3-99	Backfill/Dozer	W. Field	<2.0
AS-167	5-3-99	Backfill/Compactor	W. Field	<2.0
AS-168	5-4-99	Backfill/Dozer	W. Field	<2.0
AS-169	5-4-99	Backfill/Compactor	W. Field	<2.0
AS-170	5-5-99	Backfill/Dozer	W. Field	<2.0
AS-171	5-5-99	Backfill/Compactor	W. Field	<2.0
AS-172	5-7-99	Backfill/Dozer	W. Field	<2.0
AS-173	5-7-99	Backfill/Compactor	W. Field	<2.0
AS-174	5-8-99	Backfill/Dozer	W. Field	<2.0
AS-175	5-8-99	Backfill/Compactor	W. Field	<2.0

$\mu g/m^3$ – micrograms per cubic meter
Airborne ENTACT lead action level = 30 $\mu g/m^3$
Airborne lead PEL = 50 $\mu g/m^3$
Bold lead concentrations exceed the lead action level and/or PEL.

* -- Samples: AS-052, AS-053, AS-054, & AS-055
Analyzed for Arsenic, Cadmium, and Lead

Sample Number	Date	Arsenic ($\mu g/m^3$)	Cadmium ($\mu g/m^3$)
AS-052	9-24-98	<2.0	<2.0
AS-053	9-25-98	<2.0	<2.0
AS-054	9-28-98	<2.0	<2.0
AS-055	9-28-98	<2.0	<2.0

Table 2
Soil Characterization Survey Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	Date Collected	Analyte Concentrations and Site Specific Action Levels (mg/kg)								
		Antimony 310	Arsenic 43	Barium 55000	Cadmium 390	Chromium VI 3900	Lead 400	Mercury 230	Selenium 3900	Silver 3900
SCS-024	08/12/1998	<5.0	4.6	68	<2.0	<1.0	320	<1.0	<2.0	<2.0
SCS-011	08/12/1998	<5.0	5.0	100	<2.0	<1.0	**470**	<1.0	<2.0	<2.0
SCS-001	08/12/1998	<5.0	<2.0	25	<2.0	<1.0	58	<1.0	<2.0	<2.0
SCS-002	08/12/1998	<5.0	4.2	68	<2.0	1.4	360	<1.0	<2.0	<2.0
SCS-010	08/12/1998	<5.0	5.1	82	<2.0	<1.0	**540**	<1.0	<2.0	<2.0
SCS-023	08/12/1998	<5.0	4.5	69	<2.0	<1.0	**420**	<1.0	<2.0	<2.0
SCS-037	08/12/1998	<5.0	4.6	190	<2.0	<1.0	**510**	<1.0	<2.0	<2.0
SCS-036	08/12/1998	<5.0	5.2	72	<2.0	<1.0	**560**	<1.0	<2.0	<2.0
SCS-050	08/12/1998	<5.0	5.9	96	<2.0	<1.0	310	<1.0	<2.0	<2.0
SCS-049	08/12/1998	<5.0	5.4	93	<2.0	<1.0	390	<1.0	<2.0	<2.0
SCS-049-D	08/12/1998	<5.0	5.2	98	<2.0	<1.0	**410**	<1.0	<2.0	<2.0
SCS-035	08/13/1998	<5.0	3.7	28	<2.0	1.6	200	<1.0	<2.0	<2.0
SCS-048	08/13/1998	<5.0	3.2	21	<2.0	1.3	52	<1.0	<2.0	<2.0
SCS-061	08/13/1998	<5.0	4.2	24	<2.0	2.1	40	<1.0	<2.0	<2.0
SCS-062	08/13/1998	<5.0	9.6	110	2.2	3.3	**590**	<1.0	<2.0	<2.0
SCS-063	08/13/1998	<5.0	7.7	84	2.4	2.8	330	<1.0	<2.0	<2.0
SCS-073	08/13/1998	<5.0	3.2	21	<2.0	1.7	71	<1.0	<2.0	<2.0
SCS-074	08/13/1998	<5.0	2.9	14	<2.0	1.2	40	<1.0	<2.0	<2.0
SCS-075	08/13/1998	<5.0	3.2	28	<2.0	<1.0	110	<1.0	<2.0	<2.0
SCS-076	08/13/1998	<5.0	10	89	2.1	2.0	**440**	<1.0	<2.0	<2.0
SCS-077	08/13/1998	<5.0	10	120	2.2	1.7	**480**	<1.0	<2.0	<2.0
SCS-077-D	08/13/1998	<5.0	9.3	100	2.2	<1.0	**560**	<1.0	<2.0	<2.0
SCS-128	08/14/1998	49	39	110	5.7	2.0	**4,700**	1.1	<2.0	<2.0
SCS-127	08/14/1998	6.8	8.3	110	2.2	1.8	**6,800**	<1.0	<2.0	<2.0
SCS-126	08/14/1998	33	24	54	5.2	<1.0	**3,600**	3.0	<2.0	<2.0
SCS-125	08/14/1998	<5.0	3.1	11	<2.0	<1.0	77	<1.0	<2.0	<2.0
SCS-124	08/14/1998	<5.0	3.5	10	<2.0	<1.0	360	<1.0	<2.0	<2.0
SCS-111	08/14/1998	<5.0	3.6	15	<2.0	<1.0	180	<1.0	<2.0	<2.0
SCS-112	08/14/1998	<5.0	2.3	9.4	<2.0	<1.0	66	<1.0	<2.0	<2.0
SCS-113	08/14/1998	<5.0	4.0	56	<2.0	1.8	100	<1.0	<2.0	<2.0
SCS-114	08/14/1998	<5.0	4.7	32	<2.0	<1.0	140	<1.0	<2.0	<2.0

Table 2
Soil Characterization Survey Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	Date Collected	Analyte Concentrations and Site Specific Action Levels (mg/kg)								
		Antimony 310	Arsenic 43	Barium 55000	Cadmium 390	Chromium VI 3900	Lead 400	Mercury 230	Selenium 3900	Silver 3900
SCS-115	08/14/1998	56	42	79	15	<1.0	**11,000**	2.1	<2.0	<2.0
SCS-115-D	08/14/1998	85	**120**	120	10	<1.0	**12,000**	3.3	<2.0	<2.0
SCS-085	08/17/1998	<5.0	8.5	6.4	<2.0	<1.0	15	<1.0	<2.0	<2.0
SCS-086	08/17/1998	<5.0	3	13	<2.0	<1.0	34	<1.0	<2.0	<2.0
SCS-087	08/17/1998	<5.0	4.3	23	<2.0	1.6	**900**	<1.0	<2.0	<2.0
SCS-088	08/17/1998	<5.0	9	100	2.2	1.0	**690**	<1.0	<2.0	<2.0
SCS-089	08/17/1998	<5.0	4.1	31	<2.0	<1.0	320	<1.0	<2.0	<2.0
SCS-090	08/17/1998	6.7	16	62	2.7	<1.0	**720**	<1.0	<2.0	<2.0
SCS-098	08/17/1998	<5.0	7.8	7.0	<2.0	<1.0	34	<1.0	<2.0	<2.0
SCS-099	08/17/1998	<5.0	3.3	14	<2.0	<1.0	43	<1.0	<2.0	<2.0
SCS-100	08/17/1998	6.0	8.4	35	<2.0	1.5	**840**	1.3	<2.0	<2.0
SCS-101	08/17/1998	23	23	70	12	1.8	**10,000**	1.5	<2.0	<2.0
SCS-101-D	08/17/1998	31	27	83	14	<1.0	**10,000**	1.1	<2.0	<2.0
SCS-102	08/17/1998	61	21	86	2.9	1.4	**36,000**	<1.0	<2.0	<2.0
SCS-103	08/17/1998	47	23	83	9.1	<1.0	**22,000**	1.4	<2.0	<2.0
SCS-144	08/17/1998	<5.0	4.4	9.3	<2.0	<1.0	33	<1.0	<2.0	<2.0
SCS-145	08/17/1998	<5.0	4.0	27	<2.0	<1.0	68	<1.0	<2.0	<2.0
SCS-146	08/17/1998	<5.0	5.9	44	<2.0	<1.0	46	<1.0	<2.0	<2.0
SCS-148	08/17/1998	7.3	11	160	<2.0	<1.0	**830**	<1.0	<2.0	<2.0
SCS-147	08/17/1998	<5.0	9.1	180	<2.0	1.4	390	1.2	<2.0	<2.0
SCS-164	08/17/1998	<5.0	12	8.9	<2.0	<1.0	6.5	1.2	<2.0	<2.0
SCS-165	08/17/1998	<5.0	2.7	17	<2.0	<1.0	40	<1.0	<2.0	<2.0
SCS-166	08/17/1998	<5.0	3.9	21	<2.0	<1.0	37	<1.0	<2.0	<2.0
SCS-166-D	08/17/1998	<5.0	2.9	16	<2.0	<1.0	20	<1.0	<2.0	<2.0
SCS-167	08/18/1998	<5.0	9.3	100	3.9	<1.0	390	<1.0	<2.0	<2.0
SCS-168	08/18/1998	<5.0	9.8	530	2.1	<1.0	**400**	1.5	<2.0	<2.0
SCS-184	08/18/1998	<5.0	3.3	15	<2.0	<1.0	26	<1.0	<2.0	<2.0
SCS-185	08/18/1998	<5.0	4.6	23	<2.0	<1.0	83	<1.0	<2.0	<2.0
SCS-186	08/18/1998	**470**	**130**	110	48	<1.0	**44,000**	10	<2.0	<2.0
SCS-187	08/18/1998	10	14	360	4.5	<1.0	**910**	2.3	<2.0	<2.0
SCS-203	08/18/1998	<5.0	3.2	19	<2.0	<1.0	34	<1.0	<2.0	<2.0

Table 2
Soil Characterization Survey Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	Date Collected	Analyte Concentrations and Site Specific Action Levels (mg/kg)								
		Antimony 310	Arsenic 43	Barium 55000	Cadmium 390	Chromium VI 3900	Lead 400	Mercury 230	Selenium 3900	Silver 3900
SCS-204	08/18/1998	<5.0	4.5	30	<2.0	2.5	33	<1.0	<2.0	<2.0
SCS-205	08/18/1998	<5.0	6.4	33	<2.0	1.4	46	<1.0	<2.0	<2.0
SCS-206	08/18/1998	<5.0	8.2	35	<2.0	1.8	76	<1.0	<2.0	<2.0
SCS-206-D	08/18/1998	<5.0	9.1	40	<2.0	2.6	91	<1.0	<2.0	<2.0
SCS-225	08/18/1998	<5.0	28	45	<2.0	2.7	53	4.8	<2.0	<2.0
SCS-044	08/18/1998	<5.0	4.3	32	<2.0	<1.0	340	<1.0	<2.0	<2.0
SCS-083	08/18/1998	40	27	85	5.8	2.1	**18,000**	1.4	<2.0	<2.0
SCS-122	08/18/1998	12	6.1	27	<2.0	<1.0	**850**	<1.0	<2.0	<2.0
SCS-135	08/18/1998	20	11	45	2.6	1.3	**1,400**	<1.0	<2.0	<2.0
SCS-195	08/18/1998	40	9.4	30	2.7	<1.0	**2,600**	1.0	<2.0	<2.0
SCS-196	08/18/1998	26	9.7	34	2.4	<1.0	**2,600**	1.0	<2.0	<2.0
SCS-197	08/18/1998	75	27	170	9.7	<1.0	**6,400**	2.0	<2.0	<2.0
SCS-178	08/18/1998	12	7.5	18	2.2	<1.0	**940**	<1.0	<2.0	<2.0
SCS-179	08/18/1998	46	20	36	7.5	1.0	**3,600**	1.2	<2.0	<2.0
SCS-179-D	08/18/1998	48	19	33	8.5	2.2	**3,400**	1.2	<2.0	<2.0
SCS-046	08/19/1998	79	26	54	11	1.9	**22,000**	<1.0	<2.0	<2.0
SCS-110	08/19/1998	12	11	67	3.1	<1.0	**1,900**	1.2	<2.0	<2.0
SCS-160	08/19/1998	<5.0	9.3	74	2.2	<1.0	**930**	<1.0	<2.0	<2.0
SCS-020	08/19/1998	160	41	52	7.6	1.9	**26,000**	1.5	<2.0	<2.0
SCS-058	08/19/1998	26	14	41	2.7	2.0	**8,000**	<1.0	<2.0	<2.0
SCS-071	08/19/1998	67	20	65	4.2	<1.0	**15,000**	1.0	<2.0	<2.0
SCS-084	08/19/1998	17	10	40	<2.0	<1.0	**5,100**	<1.0	<2.0	<2.0
SCS-097	08/19/1998	<5.0	6.2	54	<2.0	2.1	**670**	<1.0	<2.0	<2.0
SCS-123	08/19/1998	14	11	53	3.2	2.9	**3,100**	<1.0	<2.0	<2.0
SCS-138	08/19/1998	120	**50**	66	18	1.5	**18,000**	7.7	<2.0	<2.0
SCS-138-D	08/19/1998	180	**72**	76	24	<1.0	**27,000**	10	<2.0	<2.0
SCS-158	08/19/1998	**350**	**79**	75	26	1.2	**23,000**	14	<2.0	<2.0
SCS-198	08/19/1998	14	13	58	7.9	1.1	**1,200**	<1.0	<2.0	<2.0
SCS-199	08/19/1998	24	21	28	6.7	1.0	**3,100**	<1.0	<2.0	<2.0
SCS-181	08/19/1998	11	9.5	39	2.7	1.5	**2,400**	<1.0	<2.0	<2.0
SCS-159	08/19/1998	40	16	43	6.3	1.8	**2,900**	<1.0	<2.0	<2.0

Table 2
Soil Characterization Survey Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	Date Collected	Analyte Concentrations and Site Specific Action Levels (mg/kg)								
		Antimony 310	Arsenic 43	Barium 55000	Cadmium 390	Chromium VI 3900	Lead 400	Mercury 230	Selenium 3900	Silver 3900
SCS-139	08/19/1998	15	13	44	3.9	2.1	**2,400**	<1.0	<2.0	<2.0
SCS-140	08/19/1998	12	8.7	22	2.8	2.4	**1,400**	<1.0	<2.0	<2.0
SCS-180	08/19/1998	9.8	9.1	40	3.2	1.9	**9,600**	<1.0	<2.0	<2.0
SCS-161	08/19/1998	<5.0	5.9	53	<2.0	2	**1,700**	<1.0	<2.0	<2.0
SCS-141	08/19/1998	<5.0	5.6	18	<2.0	<1.0	160	<1.0	<2.0	<2.0
SCS-141-D	08/19/1998	<5.0	5.3	16	<2.0	<1.0	140	<1.0	<2.0	<2.0
SCS-142	08/24/1998	6.8	8.5	50	4.9	1.0	**10,000**	1.0	<2.0	<2.0
SCS-143	08/24/1998	<5.0	7.4	43	<2.0	<1.0	**1,100**	<1.0	<2.0	<2.0
SCS-162	08/24/1998	<5.0	12	57	2.5	<1.0	**3,700**	<1.0	<2.0	<2.0
SCS-163	08/24/1998	<5.0	8.8	32	<2.0	1.9	350	<1.0	<2.0	<2.0
SCS-182	08/24/1998	<5.0	4.0	21	<2.0	<1.0	**1,200**	<1.0	<2.0	<2.0
SCS-201	08/24/1998	20	7.3	25	2.1	<1.0	**23,000**	2.0	<2.0	<2.0
SCS-183	08/24/1998	12	6.1	30	4.2	3.4	**6,800**	1.0	<2.0	<2.0
SCS-202	08/24/1998	<5.0	18	80	2.9	<1.0	**400**	<1.0	<2.0	<2.0
SCS-200	08/24/1998	23	12	33	3.9	<1.0	**6,500**	<1.0	<2.0	<2.0
SCS-215	08/24/1998	29	16	57	4.6	<1.0	**4,400**	1.6	<2.0	<2.0
SCS-215-D	08/24/1998	160	26	62	3.8	<1.0	**17,000**	1.5	<2.0	<2.0
SCS-218	08/24/1998	<5.0	10	64	3.2	<1.0	260	<1.0	<2.0	<2.0
SCS-216	08/24/1998	68	24	85	5.9	<1.0	**7,300**	4.4	<2.0	<2.0
SCS-233	08/24/1998	12	30	120	<2.0	<1.0	**780**	<1.0	<2.0	<2.0
SCS-214	08/25/1998	220	**61**	85	12	2.0	**25,000**	21	<2.0	<2.0
SCS-232	08/25/1998	37	15	90	4.2	<1.0	**4,500**	1.9	<2.0	<2.0
SCS-213	08/25/1998	<5.0	7.6	33	<2.0	<1.0	**890**	<1.0	<2.0	<2.0
SCS-194	08/25/1998	**370**	**77**	51	3.5	<1.0	**18,000**	1.4	<2.0	<2.0
SCS-245	08/25/1998	**360**	**92**	200	12	1.1	**19,000**	3.9	<2.0	<2.0
SCS-244	08/25/1998	11	8.9	37	4.0	<1.0	**2,300**	<1.0	<2.0	<2.0
SCS-243	08/25/1998	<5.0	17	120	4.3	1.3	**430**	2.2	<2.0	<2.0
SCS-243-D	08/25/1998	<5.0	16	130	<2.0	1.1	350	2.4	<2.0	<2.0
SCS-242	08/25/1998	<5.0	30	82	<2.0	<1.0	160	3.9	<2.0	<2.0
SCS-241	08/25/1998	<5.0	40	48	2.2	1.0	140	2.6	<2.0	<2.0
SCS-223	08/25/1998	<5.0	5.1	35	<2.0	<1.0	32	<1.0	<2.0	<2.0

Table 2
Soil Characterization Survey Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	Date Collected	Analyte Concentrations and Site Specific Action Levels (mg/kg)								
		Antimony 310	Arsenic 43	Barium 55000	Cadmium 390	Chromium VI 3900	Lead 400	Mercury 230	Selenium 3900	Silver 3900
SCS-222	08/25/1998	<5.0	4.0	26	<2.0	<1.0	40	<1.0	<2.0	<2.0
SCS-237	08/25/1998	<5.0	3.0	19	<2.0	<1.0	16	<1.0	<2.0	<2.0
SCS-238	08/25/1998	<5.0	5.3	42	<2.0	2.4	32	<1.0	<2.0	<2.0
SCS-239	08/25/1998	<5.0	5.9	52	<2.0	3.2	43	<1.0	<2.0	<2.0
SCS-224	08/25/1998	110	**50**	110	8.6	<1.0	**6,900**	2.1	<2.0	<2.0
SCS-240	08/25/1998	<5.0	16	49	<2.0	<1.0	63	1.6	<2.0	<2.0
SCS-008	08/25/1998	7.6	10	50	2.2	<1.0	**1,600**	<1.0	<2.0	<2.0
SCS-008-D	08/25/1998	7.2	9.5	47	<2.0	<1.0	**1,600**	<1.0	<2.0	<2.0
SCS-007	08/25/1998	8.6	5.3	17	<2.0	<1.0	**720**	<1.0	<2.0	<2.0
SCS-006	08/25/1998	9.3	9.2	37	2.3	1.1	**1,800**	<1.0	<2.0	<2.0
SCS-005	08/25/1998	<5.0	6.5	34	4.3	<1.0	**1,200**	<1.0	<2.0	<2.0
SCS-004	08/25/1998	6.7	9.3	62	4.3	<1.0	**1,800**	<1.0	<2.0	<2.0
SCS-003	08/25/1998	<5.0	6.7	110	2.4	<1.0	**580**	<1.0	<2.0	<2.0
*SCS-246	12/14/1998	14	12	83	<2.0	1.4	**1,000**	<1.0	<2.0	<2.0
*SCS-250	12/14/1998	5.4	6.4	73	2.9	1.2	**1,000**	<1.0	<2.0	<2.0
*SCS-251	12/14/1998	<5.0	6.0	270	2.3	<1.0	**590**	<1.0	<2.0	<2.0
*SCS-251-D	12/14/1998	<5.0	6.4	130	<2.0	1.5	**540**	<1.0	<2.0	<2.0
*SCS-252	12/14/1998	<5.0	4.4	83	4.4	1.0	**490**	<1.0	<2.0	<2.0
*SCS-253	12/14/1998	<5.0	13	270	2.3	<1.0	**650**	<1.0	<2.0	<2.0
*SCS-254	02/04/1999	<1.9	2.29	41	<1.9	<0.394	7.86	<1.0	<1.9	<1.9
*SCS-255	02/04/1999	<1.56	3.18	35.2	<1.56	0.471	6.89	<1.0	<1.56	<1.56
*SCS-256	02/04/1999	<1.55	2.14	21.5	<1.55	0.748	14.8	<1.0	<1.55	<1.55
*SCS-257	02/04/1999	<1.6	2.41	19.8	<1.6	0.938	13.7	<1.0	<1.6	<1.6
*SCS-258	02/04/1999	<1.85	2.35	21.8	<1.85	0.393	17.3	<1.0	<1.85	<1.85
*SCS-259	02/04/1999	<1.47	2.42	44.6	<1.58	1.61	110	<1.0	<1.47	<1.47
SCS-255-A8E	04/08/1999	11.2	10.2	47.2	2.38	1.51	**3,570**	<1.0	<1.59	<1.59

mg/kg -- milligrams per kilogram
Bold analyte concentrations exceed the site specific action levels.
* -- Additional SCS grids established following survey of south property boundary.

Table 3
Residential Soil Classification Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	Sample Location	Date Collected	TCLP Lead (mg/l)
RS-001*	Pile 1	08/10/1998	<0.50
RS-002	Pile 2	08/10/1998	<0.50
RS-003*	Pile 3	08/10/1998	<0.50
RS-004	Pile 4	08/10/1998	<0.50
RS-005	Pile 5	08/10/1998	<0.50
RS-006	Pile 20	08/10/1998	<0.50
RS-007	Pile 8	08/11/1998	<0.50
RS-008	Pile 14	08/11/1998	<0.50
RS-009	Pile 11	08/11/1998	<0.50
RS-010	Pile 9	08/11/1998	<0.50
RS-010-D	Pile 9	08/11/1998	<0.50
RS-011	Pile 6	08/11/1998	<0.50
RS-012	Pile 12	08/11/1998	<0.50
RS-013	Pile 18	08/11/1998	<0.50
RS-014	Pile 17	08/11/1998	<0.50
RS-015	Pile 16	08/11/1998	<0.50
RS-016	Pile 15	08/11/1998	<0.50
RS-017	Pile 13	08/11/1998	<0.50
RS-018	Pile 10	08/11/1998	<0.50
RS-019	Pile 7	08/11/1998	<0.50
RS-020	Pile 19	08/11/1998	<0.50
RS-020-D	Pile 19	08/11/1998	<0.50

mg/l -- milligrams per liter
* -- Analyzed for TCLP RCRA Metals
Sample identification with "D" designation indicates duplicate sample.

Table 4
Off-Site Backfill Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	*OBF-001	OBF-002	OBF-003	*OBF-004	*OBF-005	OBF-006	*OBF-007	*OBF-008
Date Collected	08/12/1998	10/15/1998	10/15/1998	10/15/1998	12/23/1998	03/30/1999	04/07/1999	05/03/1999
Metals (mg/kg)								
Antimony	<5.0	<5.0	<5.0	<5.0	<5.0	<1.65	<1.92	<1.94
Arsenic	<2.0	4.4	5.4	3.4	4	<1.65	4.99	<1.94
Barium	11	52	55	34	46	40.6	83.2	8.78
Cadmium	<2.0	<2.0	<2.0	<2.0	<2.0	<1.65	<1.92	<1.94
Chromium	<2.0	7.5	6.9	6	6.5	3.66	9.88	<1.94
Lead	<2.0	11	38	5.3	13	4.09	14.3	<1.94
Mercury	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Selenium	<2.0	<2.0	<2.0	<2.0	<2.0	<1.65	<1.92	<1.94
Silver	<2.0	<2.0	<2.0	<2.0	<2.0	<1.65	<1.92	<1.94
GC Pesticides (ug/kg)								
4,4'-DDD	<16	<16	<16	<16	<16	<3.3	<3.3	<3.3
4,4'-DDE	<16	<16	<16	<16	<16	<3.3	<3.3	<3.3
4,4'-DDT	<16	<16	<16	<16	<16	<3.3	<3.3	<3.3
Aldrin	<8.0	<8.0	<8.0	<8.0	<8.0	<1.7	<3.3	<1.7
alpha-BHC	<8.0	<8.0	<8.0	<8.0	<8.0	<1.7	<3.3	<1.7
alpha-Chlordane	<8.0	<8.0	<8.0	<8.0	<8.0	<1.7	<3.3 **	<1.7
beta-BHC	<8.0	<8.0	<8.0	<8.0	<8.0	<1.7	<3.3	<1.7
delta-BHC	<8.0	<8.0	<8.0	<8.0	<8.0	<1.7	<3.3	<1.7
Dieldrin	<16	<16	<16	<16	<16	<3.3	<3.3	<3.3
Endosulfan I	<8.0	<16	<16	<16	<16	<1.7	<3.3	<1.7
Endosulfan II	<16	<16	<16	<16	<16	<3.3	<3.3	<3.3
Endosulfan Sulfate	<16	<16	<16	<16	<16	<3.3	<3.3	<3.3
Endrin	<16	<16	<16	<16	<16	<3.3	<3.3	<3.3
Endrin Ketone	<16	<16	<16	<16	<16	<3.3	na	<3.3
gamma-BHC (Lindane)	<8.0	<8.0	<8.0	<8.0	<8.0	<1.7	<3.3	<1.7
Gamma-Chlordane	<8.0	<8.0	<8.0	<8.0	<8.0	<1.7	<3.3 **	<1.7
Heptachlor	<8.0	<8.0	<8.0	<8.0	<8.0	<1.7	<3.3	<1.7
Heptachlor Epoxide	<8.0	<8.0	<8.0	<8.0	<8.0	<1.7	<3.3	<1.7
Methoxychlor	<80	<80	<80	<80	<80	<17	<3.3	<17
Toxaphene	<160	<160	<160	<160	<160	<170	<3.3	<170
Wet Chemistry								
pH (s.u.)	8.57	7.52	7.96	8.08	7.92	8.78	8.15	9.61
Solids (%)	89.9	87.2	86.7	90.6	NA	NA	NA	NA
Total Petroleum Hydrocarbons								
TPH (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

mg/kg -- milligrams per kilogram
ug/kg -- micrograms per kilogram
* -- off-site backfill sources utilized during Phase II - Stage B
**-- analysis results reflect total Chlordane (technical) - no breakdown for gamma- or alpha-

Table 5
Grid Excavation XRF Field Screening Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Grid Location	XRF Lead 0"-6"	XRF Lead 6"-12"	XRF Lead 12"-18"	XRF Lead 18"-24"
138 (Side Slope)	1120	460	61, 100, 304, 71	-
138 (Base)	27225	22790, 21307, 24684	11422	4160, 3660, 5004
139	845	348, 301, 285, 276	-	-
140	563	226	BDL, BDL, BDL	-
141	-	-	-	-
142	483	393, 71, 225, 340	-	-
143	574	354, 250, 240, 338	-	-
158 (Side Slope)	1120	338, 161, 288, 72	-	-
158 (Base)	11672	22640, 22131, 24485	10450	4580, 9756, 10763
159	2175	682	400, 383, 374	-
160	983	884	792	488, 525, 648
161	439	400, BDL, BDL, BDL	-	-
162	471	BDL, 75, BDL	-	-
163	-	-	-	-

Table 5
Grid Excavation XRF Field Screening Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Grid Location	XRF Lead 0"-6"	XRF Lead 6"-12"	XRF Lead 12"-18"	XRF Lead 18"-24"
175	1071	876	983	1014, 1000, 9972
176	1241	1007	1121	1390, 1374, 1286
177	1102	978	1189	1084, 1261, 6210
178 (Side Slope) 178 (Base)	1440 949	387 26060, 24325, 24979	- 8367	- 1960, 5410, 4325
179	623	582	138, 120, 285, 216	-
180	247	24	10	-
181	667	632	2260	710, 1120, 858, 900
182	456	524	405	401, 208, 349
183	3440	2010	1420	1068, 1073, 985
194	16482	12438	764	882, 1126, 702, 977
195	725	325, 18, 210, 306	-	-
196	618	382, 347, 218, 293	-	-
197	1042	120, BDL, BDL	-	-

Table 5
Grid Excavation XRF Field Screening Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Grid Location	XRF Lead 0"-6"	XRF Lead 6"-12"	XRF Lead 12"-18"	XRF Lead 18"-24"
198	1890	365	933	2620, 2340
199	1020	1460	1430	1525, 1326, 1425
200	1540	881	412	405, 623, 718
201	1000	875	1400	610, 202, 160, 480
202	1240	611	808	208, 425, 417, 240
213	1224	889	961	16810, 328, 13471
214	1222	380, 221, 212, 306	-	-
214	-	-	521	738, 316, 408
215	1785	401, 76, 92, 54		-
216	493	362, 281, 124, 118	-	-
217	Asphalt	522	386, 419	486, 202, 410
218	Asphalt	463	407	435, 218, 196, 520
219	Asphalt	426	478	436, 417, 492
220	Asphalt	220	220	29, 76, 919
221	496	478	420	117, 76, 83
232	724	483	672	532, 497, 479

Table 5
Grid Excavation XRF Field Screening Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Grid Location	XRF Lead 0"-6"	XRF Lead 6"-12"	XRF Lead 12"-18"	XRF Lead 18"-24"
233	2750	2200	1700	1240, 2125, 2681
234	4221	4368	2681	3350, 2007, 2882
020	11730	5470	2820	2490, 768, 984, 2707
044	-	-	-	-
046	10850	7653	33, 328, 176	-
058	3030	2249	1075	983, 1001, 876
071	3750	7790	-	-
084 (Side Wall) 084 (Base)	1980 24890	4280 24631	2120 7624	851 4460, 8229, 7842, 19800
097	957	15240,13491, 12123	6283	3950, 9620, 10391
110	1070	2110, 11460,10226	13421	2870, 11736, 7240
123	3510	14110,13250 16429	13410	3761, 4296, 4483
019	749	629	547	36, BDL, 40
032	1531	1268	924	3920, 1764, 2518

Table 5
Grid Excavation XRF Field Screening Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Grid Location	XRF Lead 0"-6"	XRF Lead 6"-12"	XRF Lead 12"-18"	XRF Lead 18"-24"
045	2000	3241	2100	1670, 1498, 1837, 1264
018	1583	1324	1740	1690, 1600, 1638, 1549
031	741	7425	1129	2620, 2341, 2609, 2735

XRF – X-Ray Fluorescence Analyzer
XRF Lead measurements in parts per million (ppm).

Excavated Rail Spur inside East Warehouse
XRF Lead Measurements

North End	Middle	South End
766 ppm	120 ppm	645 ppm

Table 6
Excavation Verification Sample Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	Date Collected	Analyte Concentrations and Site Specific Action Levels (mg/kg)								
		Antimony 310	Arsenic 43	Barium 55000	Cadmium 390	Chromium VI 3900	Lead 400	Mercury 230	Selenium 3900	Silver 3900
143-C	11/12/1998	<5.0	3.5	37	<2.0	<1.0	7.2	<1.0	<2.0	<2.0
142-C	11/12/1998	<5.0	3.7	17	<2.0	<1.0	17	<1.0	<2.0	<2.0
162-C	11/12/1998	<5.0	3.4	27	<2.0	<1.0	12	<1.0	<2.0	<2.0
161-C	11/12/1998	<5.0	4.2	27	<2.0	1.0	4.9	<1.0	<2.0	<2.0
195-C	11/12/1998	<5.0	4.4	28	<2.0	<1.0	37	<1.0	<2.0	<2.0
214-C	11/12/1998	8.7	9.2	43	<2.0	<1.0	**1,700**	<1.0	<2.0	<2.0
196-C	11/12/1998	<5.0	7.4	63	<2.0	<1.0	30	<1.0	<2.0	<2.0
215-C	11/12/1998	<5.0	4.9	20	<2.0	<1.0	6.4	<1.0	<2.0	<2.0
197-C	11/12/1998	<5.0	4.6	24	<2.0	<1.0	4.9	<1.0	<2.0	<2.0
216-C	11/12/1998	<5.0	5.8	34	<2.0	1.3	30	<1.0	<2.0	<2.0
216-C-D	11/12/1998	<5.0	5.8	36	<2.0	1.0	28	<1.0	<2.0	<2.0
139-C	11/13/1998	<5.0	4.5	32	<2.0	<1.0	9.9	<1.0	<2.0	<2.0
159-D	11/13/1998	<5.0	4.7	31	<2.0	<1.0	5.7	<1.0	<2.0	<2.0
179-D	11/13/1998	<5.0	4.0	30	<2.0	<1.0	4.0	<1.0	<2.0	<2.0
019-E	11/19/1998	<5.0	5.6	29	<2.0	<1.0	12	<1.0	<2.0	<2.0
140-D	11/19/1998	<5.0	3.2	9.2	<2.0	<1.0	3.0	<1.0	<2.0	<2.0
141-A	11/19/1998	<5.0	3.7	32	<2.0	<1.0	5.0	<1.0	<2.0	<2.0
180-D	11/19/1998	<5.0	4.8	33	<2.0	1.5	85	<1.0	<2.0	<2.0
182-E	11/19/1998	<5.0	4.6	26	<2.0	<1.0	7.1	<1.0	<2.0	<2.0
163-A	11/19/1998	<5.0	4.3	31	<2.0	<1.0	28	<1.0	<2.0	<2.0
181-E	11/23/1998	<5.0	5.4	40	<2.0	1.3	100	<1.0	<2.0	<2.0
181-E-D	11/23/1998	<5.0	4.8	42	<2.0	1.0	96	<1.0	<2.0	<2.0
183-E	11/23/1998	<5.0	5.1	470	<2.0	1.2	**690**	<1.0	<2.0	<2.0
160-E	11/23/1998	<5.0	5.3	31	<2.0	1.2	100	<1.0	<2.0	<2.0
202-E	11/23/1998	<5.0	40	22	2.4	1.2	130	<1.0	<2.0	<2.0
201-E	11/23/1998	<5.0	16	35	<2.0	<1.0	180	<1.0	<2.0	<2.0
200-E	11/23/1998	<5.0	6.8	85	<2.0	1.9	250	<1.0	<2.0	<2.0
199-E	11/23/1998	<5.0	41	32	6.0	1.0	210	<1.0	<2.0	<2.0

Table 6
Excavation Verification Sample Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	Date Collected	Analyte Concentrations and Site Specific Action Levels (mg/kg)								
		Antimony 310	Arsenic 43	Barium 55000	Cadmium 390	Chromium VI 3900	Lead 400	Mercury 230	Selenium 3900	Silver 3900
198-E	11/23/1998	<5.0	7.7	46	<2.0	<1.0	51	<1.0	<2.0	<2.0
217-E	11/23/1998	<5.0	5.7	32	<2.0	1.2	**570**	<1.0	<2.0	<2.0
218-E	11/23/1998	<5.0	7.5	33	<2.0	<1.0	130	<1.0	<2.0	<2.0
219-E	11/23/1998	<5.0	8.8	92	<2.0	2.1	**460**	<1.0	<2.0	<2.0
219-E-D	11/23/1998	<5.0	7.2	80	<2.0	1.3	340	<1.0	<2.0	<2.0
220-E	11/23/1998	<5.0	9.1	71	<2.0	1.0	88	<1.0	<2.0	<2.0
177-E	11/23/1998	110	15	42	5.5	4.0	**13,000**	<1.0	<2.0	<2.0
176-E	11/23/1998	<5.0	9.7	27	<2.0	<1.0	150	<1.0	<2.0	<2.0
175-E	11/23/1998	23	12	36	4.4	<1.0	**2,400**	<1.0	<2.0	<2.0
194-E	11/23/1998	<5.0	4.6	24	<2.0	3.3	87	<1.0	<2.0	<2.0
213-E	11/23/1998	6.1	10	45	<2.0	1.2	**950**	<1.0	<2.0	<2.0
214-E	11/23/1998	13	13	54	2	<1.0	**1,900**	<1.0	<2.0	<2.0
232-E	11/23/1998	<5.0	4.2	21	<2.0	2.0	29	<1.0	<2.0	<2.0
233-E	11/23/1998	100	21	140	4.3	1.8	**25,000**	<1.0	2.5	<2.0
233-E-D	11/23/1998	160	35	63	6.1	1.1	**20,000**	<1.0	<2.0	<2.0
044-A	11/23/1998	<5.0	4.1	21	<2.0	<1.0	12	<1.0	<2.0	<2.0
018-E	11/23/1998	<5.0	24	110	<2.0	1.8	51	<1.0	<2.0	<2.0
031-E	11/23/1998	<5.0	16	180	<2.0	<1.0	39	<1.0	<2.0	<2.0
032-E	11/23/1998	16	8.4	36	<2.0	1.5	**1,100**	<1.0	<2.0	<2.0
045-E	11/23/1998	14	11	42	<2.0	<1.0	**3,500**	<1.0	<2.0	<2.0
020-E	11/23/1998	8.2	2.0	51	2.3	1.5	**4,500**	<1.0	8.9	<2.0
084-E	11/30/1998	210	**53**	68	7.7	<1.0	**44,000**	<1.0	6.0	<2.0
097-E	11/30/1998	**370**	8.6	92	2.2	<1.0	**44,000**	1.2	3.4	<2.0
110-E	11/30/1998	<5.0	3.3	46	<2.0	<1.0	22	<1.0	<2.0	<2.0
123-E	11/30/1998	11	6.5	37	<2.0	<1.0	**2,800**	<1.0	<2.0	<2.0
123-E-D	11/30/1998	<5.0	<2.0	22	<2.0	<1.0	88	<1.0	<2.0	<2.0
138-E	11/30/1998	**310**	**56**	52	17	<1.0	**37,000**	3.6	6.0	<2.0
158-E	11/30/1998	19	6.4	20	<2.0	<1.0	**1,500**	<1.0	<2.0	<2.0

Table 6
Excavation Verification Sample Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	Date Collected	Analyte Concentrations and Site Specific Action Levels (mg/kg)								
		Antimony 310	Arsenic 43	Barium 55000	Cadmium 390	Chromium VI 3900	Lead 400	Mercury 230	Selenium 3900	Silver 3900
178-E	11/30/1998	<5.0	3.2	32	<2.0	1.0	210	<1.0	<2.0	<2.0
*123I-E	12/07/1998	<5.0	2.7	25	<2.0	1.5	**440**	<1.0	<2.0	<2.0
*110I-E	12/07/1998	<5.0	<2.0	22	<2.0	1.3	**370**	<1.0	<2.0	<2.0
*097I-E	12/07/1998	<5.0	3.2	38	<2.0	1.7	**500**	<1.0	<2.0	<2.0
*084I-E	12/07/1998	<5.0	2.5	24	<2.0	1.4	**520**	<1.0	<2.0	<2.0
*071I-E	12/07/1998	<5.0	6.6	57	<2.0	<1.0	**1,200**	<1.0	<2.0	<2.0
*058I-E	12/07/1998	<5.0	5.8	49	<2.0	1.6	**3,900**	<1.0	<2.0	<2.0
*058I-E-D	12/07/1998	<5.0	6.2	58	<2.0	<1.0	**5,800**	<1.0	<2.0	<2.0
248-E	12/11/1998	32	8.6	42	<2.0	1.4	**2,900**	<1.0	<2.0	<2.0
249-E	12/11/1998	6.1	5.4	56	<2.0	1.6	**1,400**	<1.0	<2.0	<2.0
234-E	12/11/1998	220	27	48	3.0	1.6	**22,000**	<1.0	<2.0	<2.0
235-E	12/11/1998	<5.0	3.2	39	<2.0	<1.0	160	<1.0	<2.0	<2.0
236-E	12/11/1998	<5.0	2.9	59	<2.0	<1.0	120	<1.0	<2.0	<2.0
247-E	12/11/1998	6.1	5.1	100	<2.0	<1.0	**1,600**	1.3	<2.0	<2.0
221-E	12/11/1998	<5.0	14	34	<2.0	<1.0	**510**	<1.0	<2.0	<2.0

mg/kg -- milligrams per kilogram
Sample identification corresponds to sampling grid and composite sampling depth letter designation: A -- 0"-24", B -- 6"-24", C-- 12"-24", D -- 18"-24"
Sample identification with "E" designation indicates grab sample collected at 24" in depth.
Sample identification with "D" designation following depth designation indicates duplicate sample (i.e., 123-E-D).
Bold analyte concentrations exceed the site specific action levels.
* -- Sampling grids located inside the East Warehouse representing excavated railroad spur.

Table 7
TSP Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	TSP Unit Number	Date Collected	Total Lead (ug/m^3)
T-013	0375Q	08/07/1998	<0.15
T-014	0415Q	08/07/1998	<0.15
T-015	0416Q	08/07/1998	<0.15
T-016	0517Q	08/07/1998	<0.15
T-021	0416Q	08/11/1998	<0.15
T-022	0375Q	08/11/1998	<0.15
T-023	0415Q	08/11/1998	<0.15
T-024	0517Q	08/11/1998	<0.15
T-040	0416Q	08/18/1998	<0.15
T-041	0375-Q	08/18/1998	<0.15
T-042	0415-Q	08/18/1998	<0.15
T-043	0517-Q	08/18/1998	<0.15
T-063	0416Q	08/26/1998	<0.15
T-064	0375Q	08/26/1998	<0.15
T-065	0415Q	08/26/1998	<0.15
T-066	0517Q	08/26/1998	<0.15
T-071	0416Q	08/31/1998	<0.15
T-072	0375Q	08/31/1998	<0.15
T-073	0415Q	08/31/1998	<0.15
T-074	0517Q	08/31/1998	<0.15
T-087	0416Q	09/09/1998	<0.15
T-088	0375Q	09/09/1998	<0.15
T-089	0415Q	09/09/1998	<0.15
T-090	0517Q	09/09/1998	<0.15
T-107	0416Q	09/16/1998	<0.15
T-108	0375Q	09/16/1998	<0.15
T-109	0415Q	09/16/1998	<0.15
T-110	0517Q	09/16/1998	<0.15
T-131	0416Q	09/24/1998	<0.15
T-132	0375Q	09/24/1998	<0.15
T-133	0415Q	09/24/1998	<0.15
T-134	0517Q	09/24/1998	<0.15
T-151	0416Q	10/01/1998	<0.15
T-152	0375Q	10/01/1998	<0.15
T-153	0415Q	10/01/1998	0.29
T-154	0517Q	10/01/1998	0.48
T-167	0416Q	10/07/1998	<0.15
T-168	0375Q	10/07/1998	0.15
T-169	0415Q	10/07/1998	<0.15
T-170	0517Q	10/07/1998	<0.15
T-187	0416Q	10/14/1998	0.36
T-188	0375Q	10/14/1998	0.16
T-189	0415Q	10/14/1998	0.25

Table 7
TSP Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	TSP Unit Number	Date Collected	Total Lead (ug/m^3)
T-190	0517Q	10/14/1998	<0.15
T-203	0416Q	10/20/1998	<0.15
T-204	0375Q	10/20/1998	0.21
T-205	0415Q	10/20/1998	0.20
T-206	0517Q	10/20/1998	<0.15
T-231	0416Q	10/29/1998	<0.15
T-232	0375Q	10/29/1998	<0.15
T-233	0415Q	10/29/1998	0.31
T-234	0517Q	10/29/1998	<0.15
T-239	0416Q	11/02/1998	<0.15
T-240	0375Q	11/02/1998	<0.15
T-241	0415Q	11/02/1998	<0.15
T-242	0517Q	11/02/1998	<0.15
T-263	0416Q	11/11/1998	0.66
T-264	0375Q	11/11/1998	<0.15
T-265	0415Q	11/11/1998	<0.15
T-266	0517Q	11/11/1998	<0.15
T-275	0416Q	11/16/1998	<0.15
T-276	0375Q	11/16/1998	<0.15
T-277	0415Q	11/16/1998	<0.15
T-278	0517Q	11/16/1998	<0.15
T-303	0416Q	11/25/1998	<0.15
T-304	0375Q	11/25/1998	<0.15
T-305	0415Q	11/25/1998	<0.15
T-306	0517Q	11/25/1998	<0.15
T-311	0416Q	12/01/1998	<0.15
T-312	0375Q	12/01/1998	<0.15
T-313	0415Q	12/01/1998	<0.15
T-314	0517Q	12/01/1998	<0.15
T-331	0416Q	12/08/1998	<0.15
T-332	0375Q	12/08/1998	<0.15
T-333	0415Q	12/08/1998	<0.15
T-334	0517Q	12/08/1998	<0.15
T-355	0416Q	12/16/1998	<0.15
T-356	0375Q	12/16/1998	<0.15
T-357	0415Q	12/16/1998	<0.15
T-358	0517Q	12/16/1998	<0.15
T-371	0416Q	12/22/1998	<0.15
T-372	0375Q	12/22/1998	<0.15
T-373	0415Q	12/22/1998	<0.15
T-374	0517Q	12/22/1998	<0.15
T-383	0416Q	12/29/1998	<0.15
T-384	0375Q	12/29/1998	<0.15

Table 7
TSP Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	TSP Unit Number	Date Collected	Total Lead (ug/m^3)
T-385	0415Q	12/29/1998	<0.15
T-386	0517Q	12/29/1998	0.29
T-390	0375Q	01/04/1999	<0.15
T-391	0415Q	01/04/1999	<0.15
T-392	0517Q	01/04/1999	<0.15
T-411	0375Q	01/13/1999	<0.15
T-412	0415Q	01/13/1999	<0.15
T-413	0517Q	01/13/1999	<0.15
T-418	0375Q	01/18/1999	<0.15
T-419	0415Q	01/18/1999	<0.15
T-420	0517Q	01/18/1999	<0.15
T-441	0416Q	01/27/1999	<0.15
T-442	0375Q	01/27/1999	<0.15
T-443	0415Q	01/27/1999	<0.15
T-444	0517Q	01/27/1999	<0.15
T-453	0416Q	02/01/1999	<0.15
T-454	0375Q	02/01/1999	<0.15
T-455	0415Q	02/01/1999	<0.15
T-456	0517Q	02/01/1999	<0.15
T-581	0416Q	02/10/1999	<0.15
T-582	0375Q	02/10/1999	<0.15
T-583	0415Q	02/10/1999	<0.15
T-584	0517Q	02/10/1999	<0.15
T-593	0416Q	02/19/1999	<0.15
T-594	0375Q	02/19/1999	<0.15
T-595	0415Q	02/19/1999	<0.15
T-596	0517Q	02/19/1999	<0.15
T-609	0416Q	02/25/1999	<0.15
T-610	0375Q	02/25/1999	<0.15
T-611	0415Q	02/25/1999	<0.15
T-612	0517Q	02/25/1999	<0.15
T-625	0416Q	03/03/1999	<0.15
T-626	0375Q	03/03/1999	<0.15
T-627	0415Q	03/03/1999	<0.15
T-628	0517Q	03/03/1999	<0.15
T-644	0375Q	03/10/1999	<0.15
T-645	0415Q	03/10/1999	<0.15
T-646	0517Q	03/10/1999	<0.15
T-670	0416Q	03/19/1999	<0.15
T-671	0375Q	03/19/1999	<0.15
T-672	0415Q	03/19/1999	<0.15
T-673	0517Q	03/19/1999	<0.15
T-684	0416Q	03/25/1999	<0.15

Table 7
TSP Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	TSP Unit Number	Date Collected	Total Lead (ug/m^3)
T-685	0375Q	03/25/1999	<0.15
T-686	0415Q	03/25/1999	<0.15
T-687	0517Q	03/25/1999	<0.15
T-700	0416Q	03/31/1999	<0.15
T-701	0375Q	03/31/1999	<0.15
T-702	0415Q	03/31/1999	<0.15
T-703	0517Q	03/31/1999	<0.15
T-712	0375Q	04/05/1999	<0.15
T-713	0415Q	04/05/1999	<0.15
T-714	0517Q	04/05/1999	<0.15
T-735	0416Q	04/13/1999	<0.15
T-736	0375Q	04/13/1999	<0.15
T-737	0415Q	04/13/1999	<0.15
T-738	0517Q	04/13/1999	<0.15
T-755	0416Q	04/20/1999	<0.15
T-756	0375Q	04/20/1999	<0.15
T-757	0415Q	04/20/1999	<0.15
T-758	0517Q	04/20/1999	<0.15
T-779	0416Q	04/28/1999	<0.15
T-780	0375Q	04/28/1999	<0.15
T-781	0415Q	04/28/1999	<0.15
T-782	0517Q	04/28/1999	<0.15
T-799	0416Q	05/03/1999	<0.15
T-800	0375Q	05/03/1999	<0.15
T-801	0415Q	05/03/1999	<0.15
T-802	0517Q	05/03/1999	<0.15
T-835	0416Q	05/13/1999	<0.15
T-836	0375Q	05/13/1999	<0.15
T-837	0415Q	05/13/1999	<0.15
T-838	0517Q	05/13/1999	<0.15
T-847	0416Q	05/18/1999	<0.15
T-848	0375Q	05/18/1999	<0.15
T-849	0415Q	05/18/1999	<0.15
T-850	0517Q	05/18/1999	<0.15

TSP -- Total suspended particulate
ug/m^3 -- micrograms per cubic meter.
TSP total lead action level: 1.5 ug/m^3

Table 8
PM-10 Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	PM-10 Unit Number	Date Collected	Respirable Dust (ug/m^3)
HV-013	375	08/07/1998	69.6
HV-014	415	08/07/1998	37.6
HV-015	416	08/07/1998	24.1
HV-016	517	08/07/1998	42.4
HV-021	416	08/11/1998	51.9
HV-022	375	08/11/1998	53.5
HV-023	415	08/11/1998	41.0
HV-024	517	08/11/1998	46.9
HV-040	416	08/18/1998	31.9
HV-041	375	08/18/1998	39.8
HV-042	415	08/18/1998	26.6
HV-043	517	08/18/1998	34.4
HV-063	416	08/26/1998	27.7
HV-064	375	08/26/1998	30.1
HV-065	415	08/26/1998	23.7
HV-066	517	08/26/1998	29.8
HV-071	416	08/31/1998	27.2
HV-072	375	08/31/1998	31.4
HV-073	415	08/31/1998	23.3
HV-074	517	08/31/1998	25.3
HV-087	416	09/09/1998	28.1
HV-088	375	09/09/1998	27.3
HV-089	415	09/09/1998	22.4
HV-090	517	09/09/1998	41.3
HV-107	416	09/16/1998	42.4
HV-108	375	09/16/1998	32.4
HV-109	415	09/16/1998	24.6
HV-110	517	09/16/1998	37.7
HV-131	416	09/24/1998	47.3
HV-132	375	09/24/1998	43.0
HV-133	415	09/24/1998	37.8
HV-134	517	09/24/1998	47.4
HV-151	416	10/01/1998	25.6
HV-152	375	10/01/1998	27.6
HV-153	415	10/01/1998	26.7
HV-154	517	10/01/1998	25.0
HV-167	416	10/07/1998	12.3
HV-168	375	10/07/1998	13.4
HV-169	415	10/07/1998	16.4
HV-170	517	10/07/1998	14.4

Table 8
PM-10 Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	PM-10 Unit Number	Date Collected	Respirable Dust (ug/m^3)
HV-187	416	10/14/1998	48.3
HV-188	375	10/14/1998	51.1
HV-189	415	10/14/1998	46.1
HV-190	517	10/14/1998	44.1
HV-203	416	10/20/1998	19.6
HV-204	375	10/20/1998	25.4
HV-205	415	10/20/1998	21.4
HV-206	517	10/20/1998	20.0
HV-231	416	10/29/1998	33.8
HV-232	375	10/29/1998	32.1
HV-233	415	10/29/1998	34.6
HV-234	517	10/29/1998	35.4
HV-239	416	11/02/1998	10.2
HV-240	375	11/02/1998	11.1
HV-241	415	11/02/1998	13.0
HV-242	517	11/02/1998	13.7
HV-263	416	11/11/1998	16.9
HV-264	375	11/11/1998	24.4
HV-265	415	11/11/1998	28.7
HV-266	517	11/11/1998	20.6
HV-275	416	11/16/1998	32.5
HV-276	375	11/16/1998	31.3
HV-277	415	11/16/1998	28.7
HV-278	517	11/16/1998	26.5
HV-303	416	11/25/1998	23.4
Hv-304	375	11/25/1998	15.8
HV-305	415	11/25/1998	21.1
HV-306	517	11/25/1998	23.1
HV-311	416	12/01/1998	9.0
HV-312	375	12/01/1998	11.0
HV-313	415	12/01/1998	17.5
HV-314	517	12/01/1998	6.0
HV-331	416	12/08/1998	24.6
HV-332	375	12/08/1998	22.9
HV-333	415	12/08/1998	23.6
HV-334	517	12/08/1998	21.8
HV-355	416	12/16/1998	25.6
HV-356	375	12/16/1998	25.7
HV-357	415	12/16/1998	29.0
HV-358	517	12/16/1998	19.8

Table 8
PM-10 Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	PM-10 Unit Number	Date Collected	Respirable Dust (ug/m^3)
HV-371	416	12/22/1998	9.58
HV-372	375	12/22/1998	10.50
HV-373	415	12/22/1998	10.19
HV-374	517	12/22/1998	8.14
HV-383	416	12/29/1998	9.88
HV-384	375	12/29/1998	11.43
HV-385	415	12/29/1999	30.72
HV-386	517	12/29/1998	37.77
HV-390	375	01/04/1999	16.16
HV-391	415	01/04/1999	11.71
HV-392	517	01/04/1999	17.36
HV-411	375	01/13/1999	10.34
HV-412	415	01/13/1999	10.74
HV-413	517	01/13/1999	12.12
HV-418	375	01/18/1999	9.11
HV-419	415	01/18/1999	9.85
HV-420	517	01/18/1999	11.42
HV-441	416	01/27/1999	13.45
HV-442	375	01/27/1999	25.21
HV-443	415	01/27/1999	25.59
HV-444	517	01/27/1999	32.99
HV-453	416	02/01/1999	2.79
HV-454	375	02/01/1999	11.06
HV-455	415	02/01/1999	12.20
HV-456	517	02/01/1999	12.12
HV-581	416	02/10/1999	17.77
HV-582	375	02/10/1999	18.95
HV-583	415	02/10/1999	18.37
HV-584	517	02/10/1999	14.00
HV-593	416	02/14/1999	23.08
HV-594	375	02/14/1999	17.57
HV-595	415	02/14/1999	6.59
HV-596	517	02/14/1999	21.39
HV-609	416	02/25/1999	41.33
HV-610	375	02/25/1999	19.25
HV-611	415	02/25/1999	25.88
HV-612	517	02/25/1999	40.86
HV-625	416	03/03/1999	18.00
HV-626	375	03/03/1999	9.62
HV-627	415	03/03/1999	12.67

Table 8
PM-10 Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	PM-10 Unit Number	Date Collected	Respirable Dust (ug/m^3)
HV-628	517	03/03/1999	13.82
HV-644	375	03/10/1999	20.56
HV-645	415	03/10/1999	20.02
HV-646	517	03/10/1999	15.89
HV-670	416	03/19/1999	15.2
HV-671	375	03/19/1999	26.0
HV-672	415	03/19/1999	22.7
HV-673	517	03/19/1999	30.6
HV-684	416	03/25/1999	19.9
HV-685	375	03/25/1999	16.4
HV-686	415	03/25/1999	18.0
HV-687	517	03/25/1999	12.1
HV-700	416	03/31/1999	31.5
HV-701	375	03/31/1999	25.4
HV-702	415	03/31/1999	22.3
HV-703	517	03/31/1999	17.5
HV-712	375	04/05/1999	27.67
HV-713	415	04/05/1999	23.39
HV-714	517	04/05/1999	22.38
HV-735	416	04/13/1999	21.2
HV-736	375	04/13/1999	13.1
HV-737	415	04/13/1999	40
HV-738	517	04/13/1999	36.8
HV-755	416	04/20/1999	25.8
HV-756	375	04/20/1999	34.7
HV-757	415	04/20/1999	22.1
HV-758	517	04/20/1999	28.6
HV-779	416	04/28/1999	28.9
HV-780	375	04/28/1999	31.2
HV-781	415	04/28/1999	24.7
HV-782	517	04/28/1999	28
HV-799	416	05/03/1999	55.3
HV-800	375	05/03/1999	28.9
HV-801	415	05/03/1999	90.8
HV-802	517	05/03/1999	64.3
HV-835	416	05/13/1999	28.2
HV-836	375	05/13/1999	26.2
HV-837	415	05/13/1999	21.6
HV-838	517	05/13/1999	24
HV-847	416	05/18/1999	25.2

Table 8
PM-10 Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Sample Identification	PM-10 Unit Number	Date Collected	Respirable Dust (ug/m^3)
HV-848	375	05/18/1999	19.8
HV-849	415	05/18/1999	16.6
HV-850	416	05/18/1999	15.6

ug/m^3 -- micrograms per cubic meter

Bold concentrations exceed the action level of 150 ug/m^3 respirable dust

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
8-12-98	0.040	0.046	0.056	0.106
8-13-98	0.010	0.057	0.068	0.063
8-14-98	0.055	0.048	0.065	0.046
8-17-98	0.037	0.046	0.039	0.051
8-18-98	0.046	0.116	0.103	0.127
8-19-98	0.023	0.017	0.010	0.013
8-20-98	0.009	0.014	0.019	0.013
8-21-98	0.016	0.138	0.177	0.179
8-24-98	0.054	0.111	0.134	0.089
8-25-98	0.059	0.170	0.164	0.188
8-26-98	0.013	0.025	0.007	0.036
8-27-98	0.004	0.019	0.009	0.048
8-28-98	0.068	0.051	0.055	0.071
8-31-98	0.009	0.006	0.031	0.011
9-1-98	0.010	0.006	0.003	0.011

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
9-2-98	0.020	0.004	0.001	0.006
9-3-98	0.029	0.048	0.051	0.034
9-8-98	0.004	0.013	0.018	0.016
9-9-98	0.021	0.003	0.035	0.045
9-10-98	0.001	0.014	0.027	0.020
9-11-98	0.038	0.027	0.004	0.011
9-14-98	0.041	0.039	0.038	0.051
9-16-98	0.001	0.009	0.004	0.003
9-17-98	0.005	0.035	0.020	0.044
9-18-98	0.000	0.019	0.030	0.029
9-21-98	0.027	0.142	0.117	0.140
9-22-98	0.033	0.009	0.042	0.044
9-23-98	0.014	0.020	0.005	0.013
9-24-98	0.027	0.049	0.011	0.061
9-25-98	0.009	0.000	0.013	0.009

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
9-28-98	0.007	0.004	0.019	0.010
9-29-98	0.018	0.032	0.029	0.024
9-30-98	0.017	0.044	0.033	0.056
10-1-98	0.041	0.035	0.031	0.029
10-2-98	0.032	0.060	0.017	0.012
10-5-98	0.037	0.024	0.047	0.045
10-6-98	0.022	0.081	0.045	0.072
10-8-98	0.017	0.030	0.022	0.030
10-9-98	0.056	0.029	0.034	0.047
10-12-98	0.081	0.072	0.077	0.091
10-13-98	0.048	0.032	0.045	0.046
10-14-98	0.017	0.028	0.016	0.040
10-15-98	0.011	0.081	0.076	0.085
10-16-98	0.000	0.011	0.004	0.009
10-19-98	0.004	0.000	0.056	0.038

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
10-20-98	0.025	0.018	0.016	0.022
10-22-98	0.018	0.004	0.025	0.023
10-23-98	0.056	0.031	0.022	0.019
10-26-98	0.006	0.000	0.005	0.010
10-27-98	0.017	0.014	0.003	0.009
10-28-98	0.022	0.024	0.021	0.020
10-29-98	0.019	0.064	0.009	0.034
10-30-98	0.001	0.000	0.002	0.001
11-2-98	0.000	0.000	0.001	0.000
11-4-98	0.025	0.031	0.037	0.034
11-5-98	0.016	0.011	0.019	0.019
11-6-98	0.007	0.012	0.009	0.004
11-9-98	0.000	0.015	0.013	0.017
11-11-98	0.011	0.021	0.023	0.020
11-12-98	0.012	0.008	0.013	0.010

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
11-13-98	0.025	0.022	0.048	0.049
11-14-98	0.017	0.014	0.020	0.016
11-16-98	0.000	0.009	0.007	0.011
11-17-98	0.031	0.033	0.022	0.029
11-18-98	0.017	0.014	0.015	0.013
11-19-98	0.000	0.000	0.001	0.001
11-20-98	0.000	0.001	0.002	0.003
11-23-98	0.038	0.027	0.041	0.046
11-24-98	0.003	0.011	0.009	0.007
11-25-98	0.025	0.016	0.022	0.031
11-30-98	0.000	0.005	0.03	0.007
12-1-98	0.013	0.000	0.004	0.006
12-2-98	0.000	0.000	0.000	0.009
12-3-98	0.031	0.020	0.017	0.022
12-4-98	0.041	0.036	0.030	0.042

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
12-7-98	0.001	0.004	0.004	0.008
12-8-98	0.010	0.004	0.006	0.006
12-9-98	0.022	0.025	0.018	0.025
12-10-98	0.000	0.009	0.017	0.013
12-11-98	0.017	0.023	0.022	0.024
12-14-98	0.022	0.019	0.006	0.020
12-15-98	0.001	0.004	0.000	0.006
12-16-98	0.028	0.016	0.014	0.021
12-17-98	0.007	0.010	0.010	0.009
12-18-98	0.031	0.032	0.027	0.036
12-19-98	0.000	0.002	0.000	0.004
12-28-98	0.002	0.000	0.003	0.002
12-29-98	0.006	0.008	0.008	0.010
12-30-98	0.001	0.003	0.000	0.003
1-4-99	0.000	0.000	0.000	0.000

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
1-5-99	0.017	0.024	0.020	0.026
1-6-99	0.003	0.004	0.001	0.004
1-7-99	0.000	0.016	0.012	0.016
1-8-99	0.010	0.010	.008	0.008
1-11-99	0.011	0.008	0.000	0.009
1-12-99	0.014	0.014	0.013	0.013
1-13-99	0.000	0.002	0.000	0.003
1-14-99	0.016	0.012	0.018	0.019
1-18-99	0.011	0.015	0.012	0.018
1-19-99	0.020	0.006	0.017	0.021
1-20-99	0.004	0.04	0.000	0.005
1-21-99	0.007	0.013	0.026	0.031
1-22-99	0.036	0.033	0.039	0.041
1-25-99	0.000	0.007	0.007	0.009
1-26-99	0.022	0.013	0.023	0.023

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
1-27-99	0.001	0.000	0.001	0.002
1-28-99	0.016	0.013	0.012	0.014
1-29-99	0.025	0.025	0.036	0.036
2-1-99	0.014	0.010	0.011	0.012
2-2-99	0.006	0.006	0.003	0.004
2-3-99	0.017	0.018	0.000	0.018
2-4-99	0.000	0.022	0.031	0.044
2-5-99	0.004	0.004	0.003	0.004
2-8-99	0.011	0.009	0.016	0.019
2-9-99	0.000	0.001	0.006	0.005
2-10-99	0.027	0.019	0.030	0.030
2-11-99	0.016	0.000	0.004	0.012
2-12-99	0.008	0.015	0.015	0.013
2-15-99 SE	0.000	0.018	0.014	0.014
2-15-99 NE	0.002	0.011	0.006	0.015

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
2-15-99 NW	0.021	0.012	0.015	0.034
2-15-99 SW	0.008	0.004	0.010	0.011
2-16-99 SE	0.011	0.022	RAIN	0.024
2-16-99 NE	0.003	0.009	RAIN	0.009
2-16-99 NW	0.015	0.017	RAIN	0.021
2-16-99 SW	0.004	0.008	RAIN	0.009
2-17-99 SE	0.021	0.001	0.012	0.023
2-17-99 NE	0.013	0.004	0.007	0.016
2-17-99 NW	0.008	0.011	0.010	0.012
2-17-99 SW	0.023	0.010	0.009	0.026
2-18-99 SE	0.015	0.022	0.013	0.021
2-18-99 NE	0.006	0.019	0.008	0.019
2-18-99 NW	0.001	0.003	0.002	0.005
2-18-99 SW	0.004	0.007	0.007	0.010
2-19-99	0.000	0.004	0.011	0.011

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
2-22-99	0.021	0.020	0.022	0.023
2-23-99	0.000	0.000	0.000	0.001
2-24-99	0.017	0.014	0.014	0.019
2-25-99	0.002	0.009	0.005	0.007
2-26-99	0.002	0.014	0.010	0.013
3-1-99	0.002	0.004	0.004	0.004
3-2-99	0.013	0.009	0.011	0.011
3-3-99	0.009	0.004	0.010	0.009
3-4-99	0.015	0.003	0.012	0.013
3-5-99	0.001	0.006	0.003	0.006
3-8-99	0.003	0.005	0.002	0.004
3-9-99	0.000	0.001	N/A	0.001
3-10-99	0.001	0.001	0.002	0.002
3-11-99	0.005	0.008	0.003	0.008
3-12-99	0.011	0.009	0.010	0.011

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
3-18-99	0.003	0.001	0.004	0.005
3-19-99	0.005	0.010	0.008	0.012
3-22-99	0.003	0.006	0.003	0.006
3-23-99	0.011	0.009	0.009	0.012
3-24-99	0.004	0.002	0.004	0.005
3-25-99	0.003	0.003	0.002	0.003
3-26-99	0.010	0.005	0.004	0.001
3-29-99	0.013	0.011	0.012	0.013
3-30-99	0.008	0.010	0.007	0.011
3-31-99	0.003	0.006	0.000	0.008
4-1-99	0.005	0.012	0.001	0.013
4-2-99	0.014	0.014	0.009	0.016
4-5-99	0.011	0.021	0.019	0.022
4-6-99	0.025	0.018	0.022	0.027
4-7-99	0.009	0.013	0.016	0.016

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
4-8-99	0.011	0.008	0.017	0.021
4-9-99	0.014	0.022	0.021	0.024
4-12-99	0.025	0.029	0.021	0.030
4-13-99	0.008	0.008	0.010	0.011
4-19-99	0.006	0.003	0.004	0.006
4-20-99	0.010	0.002	0.005	0.010
4-22-99	0.011	0.013	0.010	0.014
4-23-99	0.014	0.013	0.009	0.015
4-26-99	0.014	0.014	0.011	0.015
4-29-99	0.011	0.019	0.015	0.019
4-30-99	0.002	0.000	0.002	0.002
5-1-99	0.22	0.019	0.020	0.024
5-2-99	0.024	0.021	0.019	0.026
5-3-99	0.018	0.025	0.027	0.030
5-4-99	0.011	0.023	0.027	0.031

Table 9
Random Air Monitoring Readings
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

Date	Reading 1 (mg/m^3)	Reading 2 (mg/m^3)	Reading 3 (mg/m^3)	Time Weighted Avg. (mg/m^3)
5-5-99	0.019	0.023	0.022	0.027
5-7-99	0.012	0.025	0.018	0.025
5-8-99	0.014	0.019	0.021	0.022
5-10-99	0.021	0.020	0.023	0.025
5-11-99	0.018	0.016	0.021	0.023
5-12-99	0.007	0.010	0.013	0.017
5-14-99	0.012	0.006	0.011	0.012
5-15-99	0.013	0.011	0.009	0.013
5-17-99	0.021	0.024	0.020	0.027
5-19-99	0.001	0.003	0.003	0.003
5-20-99	0.031	0.029	0.029	0.032
5-21-99	0.022	0.024	0.020	0.026
5-24-99	0.009	0.013	0.017	0.020

mg/m^3 – milligrams per cubic meter
Action level is 0.20 mg/m^3

Table 10
Field Rinsate Blanks Analytical Summary
Phase II - Stage B
Avanti Industrial Site
Indianapolis, Indiana

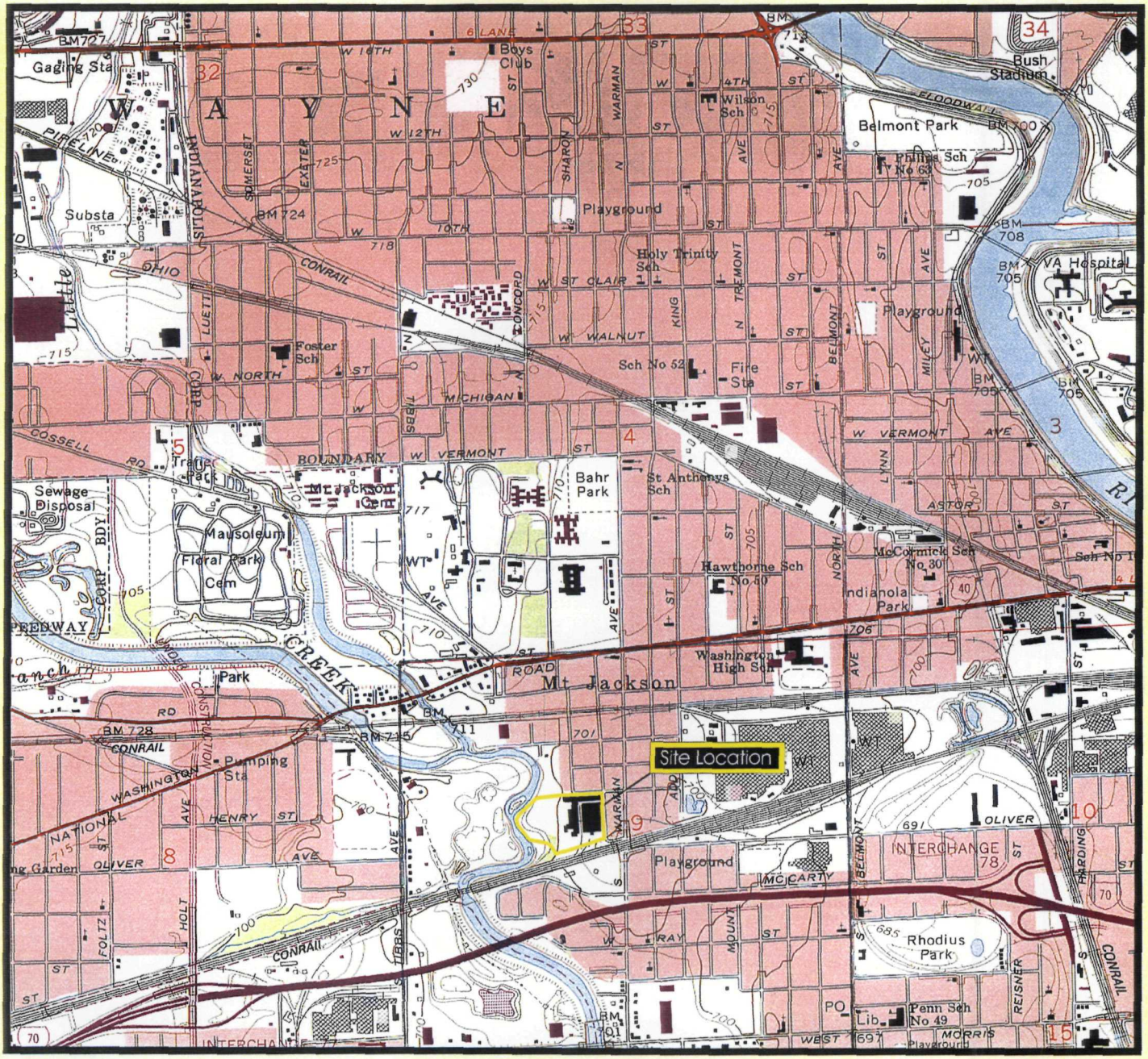
Sample Identification	Sampling Event	Date Collected	Analyte Concentrations (mg/kg)							
			Arsenic	Barium	Cadmium	Lead	Chromium	Mercury	Selenium	Silver
FB-001	Residential	08/10/1998	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-002	Residential	08/11/1998	--	--	--	<0.050	--	--	--	--
FB-003	Residential	08/11/1998	--	--	--	<0.050	--	--	--	--

Sample Identification	Sampling Event	Date Collected	Analytes Concentrations (mg/kg)								
			Antimony	Arsenic	Barium	Cadmium	Chromium VI	Lead	Mercury	Selenium	Silver
FB-004	SCS	08/12/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-005	SCS	08/13/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-006	SCS	08/14/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-007	SCS	08/17/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-008	SCS	08/17/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-009	SCS	08/18/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-010	SCS	08/18/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-011	SCS	08/19/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-012	SCS	08/19/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-013	SCS	08/24/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-014	SCS	08/24/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-015	SCS	08/25/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-016	SCS	08/25/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-017	SCS	08/25/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-018	Excavation	11/12/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-019	Excavation	11/13/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB020	Excavation	11/19/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-021	Excavation	11/23/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-022	Excavation	11/23/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-023	Excavation	11/23/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-024	Excavation	11/23/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-025	Excavation	11/30/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-026	Excavation	11/30/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-027	Excavation	12/07/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-028	Excavation	12/11/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-029	SCS	12/14/1998	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050
FB-030	SCS	02/04/1999	<0.10	<0.050	<0.10	<0.010	<0.050	<0.050	<0.0020	<0.010	<0.050

-- *not analyzed*

ENTACT

Figures



After U.S.G.S. 7.5 Min. Topo Quad., Indianapolis, In., 1967, Photo Revised 1980, Contour Interval 10 Feet

Indiana

Scale

0 ½ 1 mile

N

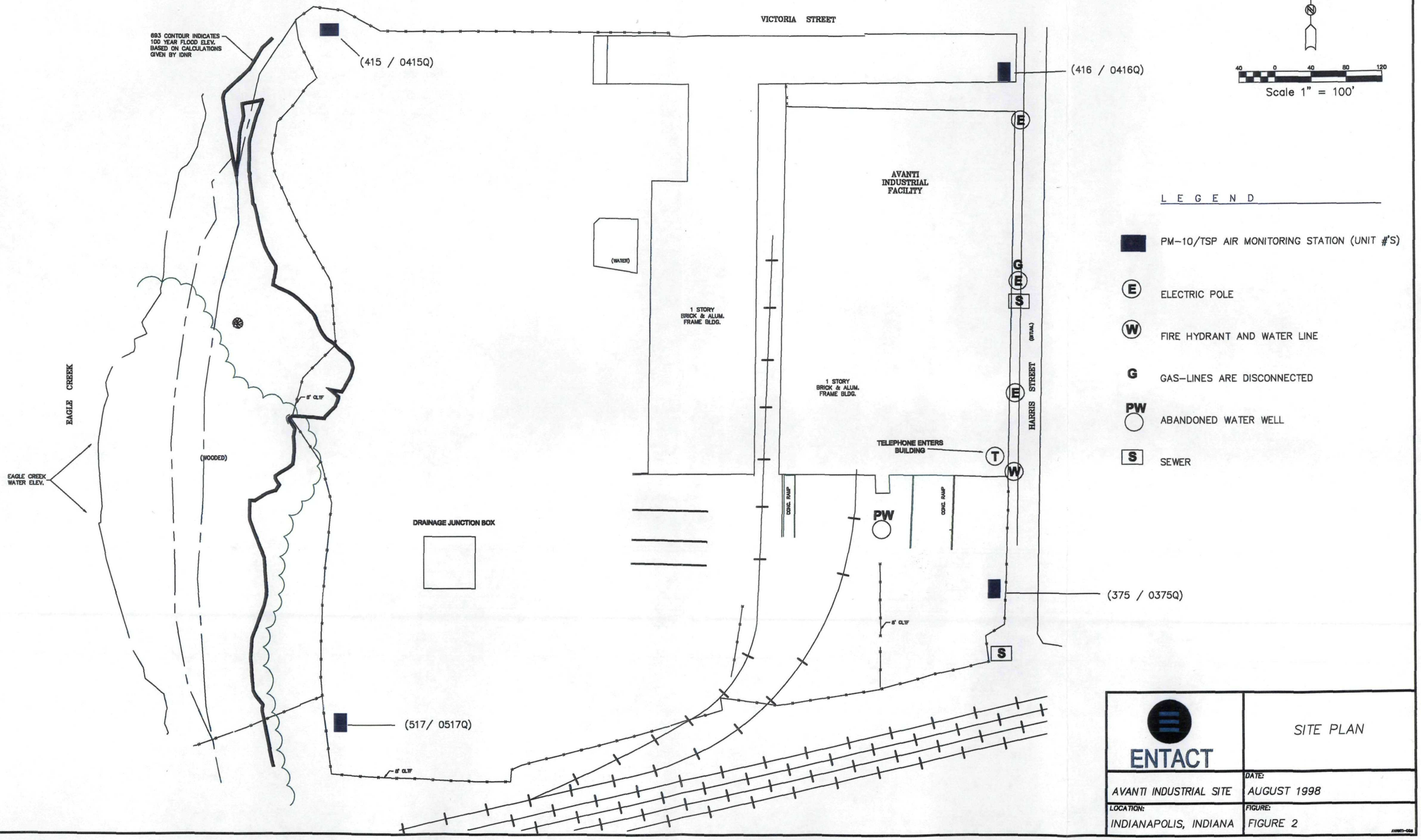
Quadrangle Location

FIGURE TITLE: Site Location Map	**CLIENT:** Avanti Industrial Site
DOCUMENT TITLE: Phase II - Stage B Final Report	**LOCATION:** Indianapolis, Indiana

ENTACT

1616 Corporate Ct. Suite 150
Irving, Texas 75038
(972)580-1323

DATE: 7/99	**PREPARED BY:** DM
SCALE: As Shown	**CHECKED BY:** DM
PROJECT NO: C572	**FIGURE NO:** Figure 1



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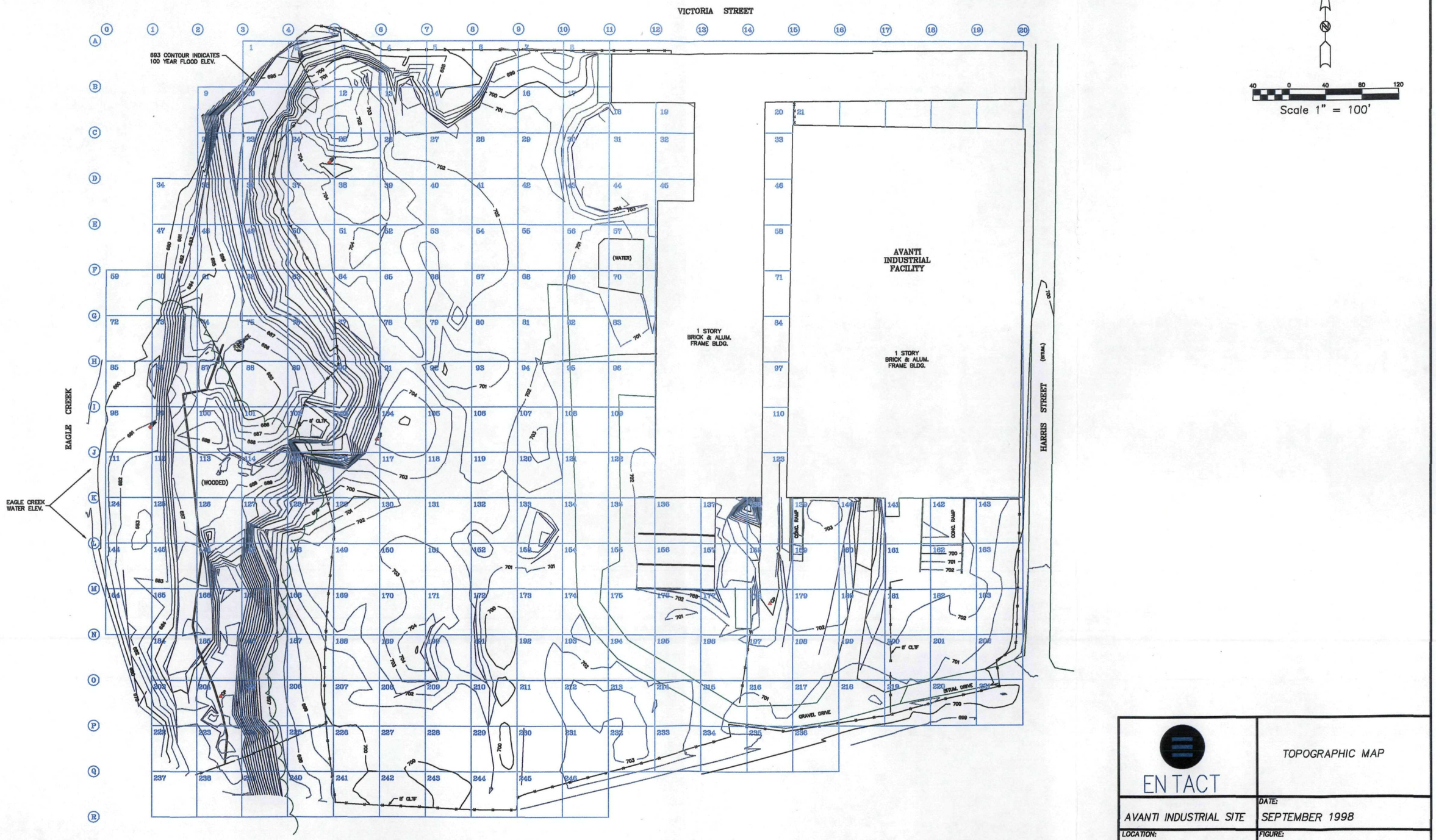
SITE PLAN

AVANTI INDUSTRIAL SITE	DATE: AUGUST 1998
LOCATION: INDIANAPOLIS, INDIANA	FIGURE: FIGURE 2



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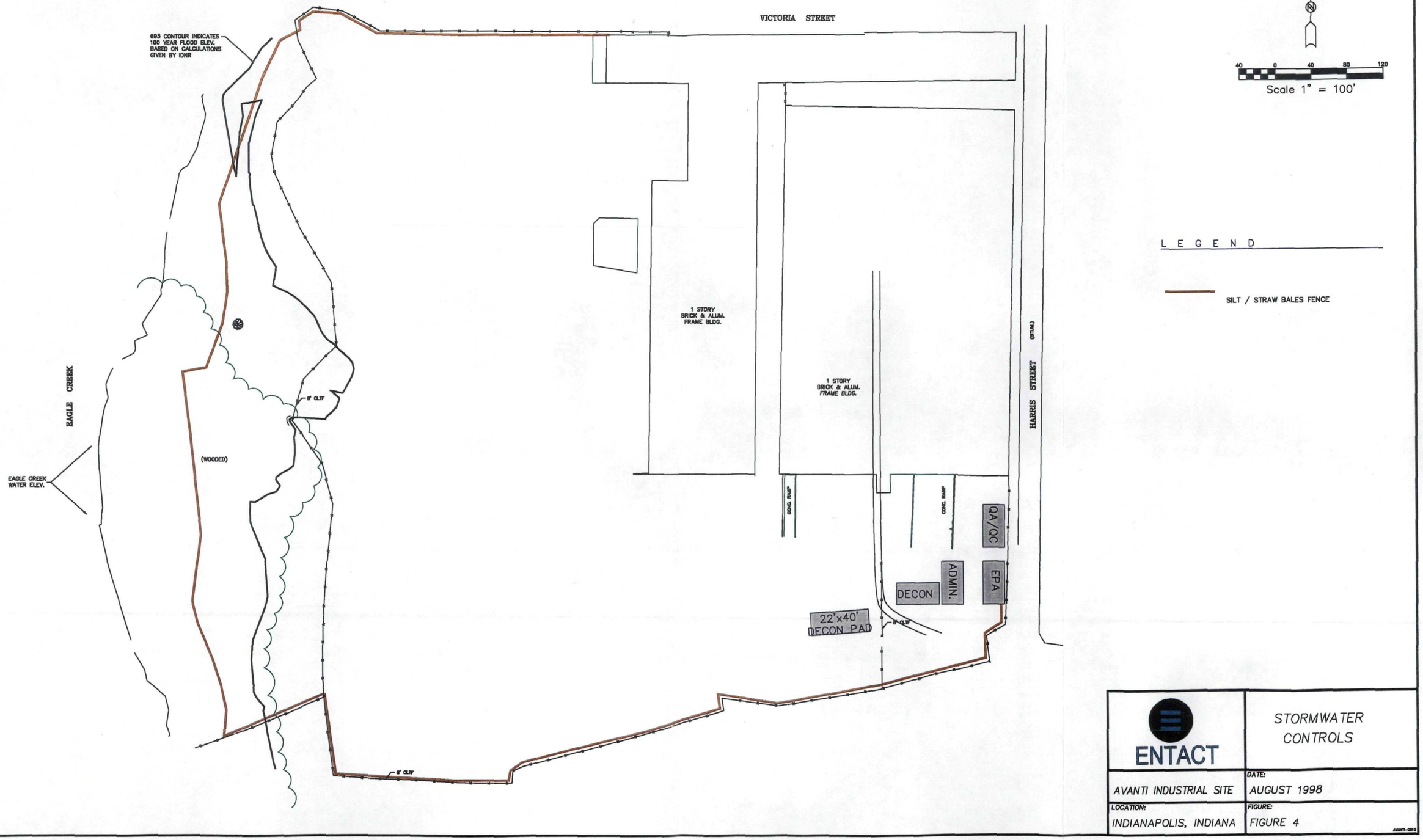
TOPOGRAPHIC MAP

AVANTI INDUSTRIAL SITE

DATE: SEPTEMBER 1998

LOCATION: INDIANAPOLIS, INDIANA

FIGURE: FIGURE 3



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STORMWATER CONTROLS

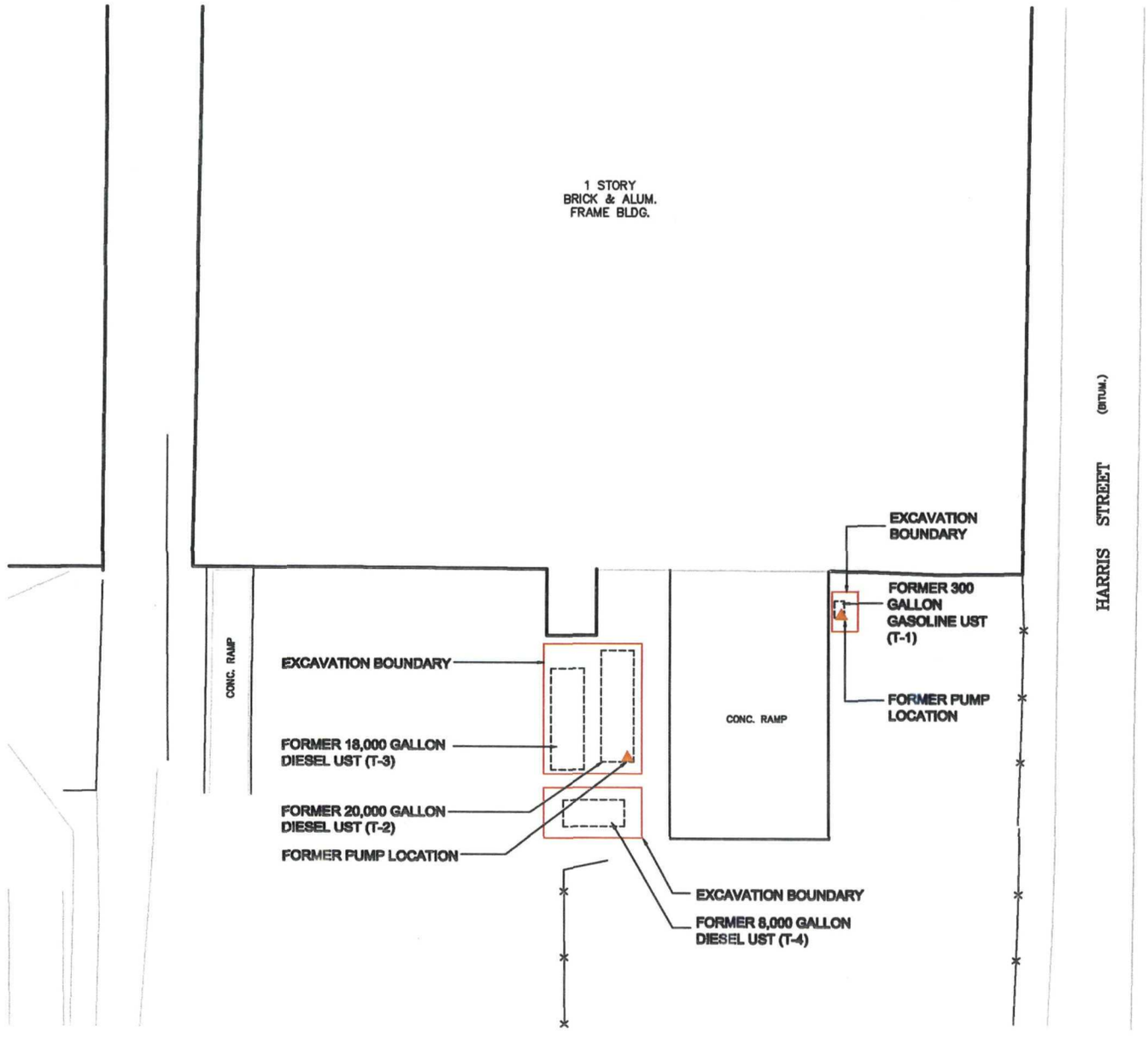
AVANTI INDUSTRIAL SITE

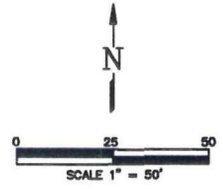
DATE: AUGUST 1998

LOCATION: INDIANAPOLIS, INDIANA

FIGURE: FIGURE 4

AVANTI-0010





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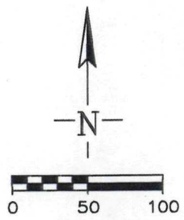
FORMER UST LOCATIONS

AVANTI INDUSTRIAL SITE

DATE: JANUARY 14, 1999

LOCATION: INDIANAPOLIS, INDIANA

FIGURE: FIGURE 5



693 CONTOUR INDICATES 100 YEAR FLOOD ELEVATION

LEGEND

—ooo— FLOW LINE

C.L.T.F. = CHAIN LINK TYPE FENCE

TBM— BLACK MARKER, MARK ON THE SOUTH SIDE OF THIRD RETAINING WALL, STORAGE BIN, WEST END OF WALL 4' UP (THIS VERTICAL CONTROL PROVIDED BY ENTACT, INC.)

1 STORY BRICK & ALUM. FRAME BLDG.

AVANTI INDUSTRIAL FACILITY

1 STORY BRICK & ALUM. FRAME BLDG.

HARRIS STREET

GRAVEL DRIVE

BIT. DRIVE

8' C.L.T.F.

ENTACT	AS-BUILT TOPOGRAPHIC SURVEY
AVANTI INDUSTRIAL SITE	DATE: JULY 1999
LOCATION: INDIANAPOLIS, INDIANA	FIGURE: FIGURE 6

ENTACT
environmental tactics in risk management

September 17, 1999

VIA Federal Express

Ms. Sonia Vega (SE-5J)
U.S. Environmental Protection Agency
Region 5, Emergency Response Section
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

RE: Phase II Final Report
Avanti Industrial Site
Indianapolis, Indiana

Dear Ms. Vega:

Per our conversation of September 16, 1999, enclosed are two (2) copies of the Phase II Final Report for the removal action conducted at the Avanti Industrial Site in Indianapolis, Indiana.

Please contact myself or Jeff Leed at (610) 670-7310 with any questions or if any additional information is needed.

Respectfully,
ENTACT, Inc.

Garry M. Stevenson

enclosures

cc: Mr. Jeff Leed, Leed Environmental, Inc.
Ms. Rachel Schneider, Quarles & Brady
file

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1360 North Wood Dale Road, Suite A • Wood Dale, IL 60191 • 630.616.2100 • Fax 630.616.9205
Chicago • Dallas • Indianapolis