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Region 5

ON SCENE COORDINATOR'S REPORT

ON-SCENE COORDINATOR'S REPORT

CERCLA REMOVAL ACTION

SUMMIT EQUIPMENT AND SUPPLIES

AKRON, OHIO

Waste Management Division
Office of Superfund
Emergency and Enforcement
Response Branch



ON-SCENE COORDINATOR'S REPORT
CERCLA REMOVAL ACTION
SUMMIT EQUIPMENT AND SUPPLIES
AKRON, OHIO

DELIVERY ORDER NO. 7360-05-004

SITE ID #8A

REMOVAL DATES: 3-10-87 TO 9-29-87

Prepared by:

Ralph H. Dollhopf
On-Scene Coordinator
Emergency and Enforcement Response Branch
Office of Superfund
Waste Management Division
Region V
United States Environmental Protection Agency

EXECUTIVE SUMMARY

On March 10, 1987, the United States Environmental Protection Agency (U.S. EPA) initiated removal actions at the Summit Equipment and Supplies Site in Akron, Ohio. The removal action was taken to mitigate threats to public health and the environment posed by the presence of polychlorinated biphenyls (PCBs) at this site. These materials presented threats of direct contact, food chain contamination, and off-site migration of contaminants.

The primary objectives of this removal were to stabilize site conditions, thereby minimizing the likelihood of ongoing and future releases and to evaluate the extent of both on- and off-site PCB contamination related to the release of PCBs at this facility. Site stabilization was accomplished by constructing drainage control measures, restricting site access (fencing), off-site disposal of 1,282 transformers and 286 capacitors, and excavation of 650 cubic yards of contaminated soils from off-site areas. All removal activities taken were consistent with the National Contingency Plan (NCP) provisions for removal actions.

The removal was completed on September 29, 1987, at an estimated cost (under control of the OSC) of \$546,832.71, of which \$419,667.13 was for the Emergency Response Cleanup Services (ERCS) contractor. The On-Scene Coordinator (OSC) was Ralph H. Dollhopf.

This site is not on the National Priorities List (NPL).



Ralph H. Dollhopf
On-Scene Coordinator

2-27-90
Date

TABLE OF CONTENTS
SUMMIT EQUIPMENT AND SUPPLIES SITE

	<u>PAGE</u>
EXECUTIVE SUMMARY.....	i
List of Tables.....	ii
List of Figures.....	iii
List of Appendices.....	iv
1.0 SUMMARY OF EVENTS.....	1
1.1 Initial Situation.....	1
1.1.1 Location and Hydrogeologic Description.....	1
1.1.2 Site Description.....	1
1.2 Site History.....	4
1.3 Threat to Public Health and the Environment.....	6
1.4 Attempts to Obtain a Response by Potentially Responsible Parties (PRPs).....	6
1.5 Federal Cleanup Action.....	7
1.5.1 Site Safety.....	7
1.5.2 Site Security.....	8
1.5.3 Drainage Control Measures.....	8
1.5.4 On-site Roadways.....	8
1.5.5 Transformer and Capacitor Recovery and Staging.....	8
1.5.6 Off-site Disposal.....	12
1.5.7 Off-site Soil Excavation.....	12
1.5.8 Extent-of-Contamination Study.....	16
1.6 Community Relations.....	16
1.7 Cost Summary.....	18
2.0 EFFECTIVENESS OF REMOVAL ACTIONS.....	18
2.1 Responsible Parties.....	18
2.2 State and Local Agencies.....	18
2.3 Contractors.....	20
2.4 Federal Agencies.....	20
3.0 PROBLEMS ENCOUNTERED.....	20
4.0 RECOMMENDATIONS.....	21

LIST OF TABLES
SUMMIT EQUIPMENT AND SUPPLIES SITE

<u>TABLE</u>	<u>PAGE</u>
1 Off-site Disposal Summary.....	13
2 Sample Matrices and Parameters, TAT EOC Study.....	17
3 Summary of Removal Costs.....	19
4 Timeline of Removal Events.....	22-25

LIST OF FIGURES
SUMMIT EQUIPMENT AND SUPPLIES SITE

<u>FIGURE</u>		<u>PAGE</u>
1	Location Map.....	2
2	Site Location Map.....	3
3	Site Investigation PCB Sample Locations/ Concentrations.....	5
4	Fence Construction Locations.....	9
5	Drainage Control Locations.....	10
6	Scrap/Debris Piles and Staging Areas.....	11
7	Off-site Soil Excavation.....	14
8	Nesmith Lake Beach Excavation.....	15

LIST OF APPENDICES
SUMMIT EQUIPMENT AND SUPPLIES SITE

- A. ACTION MEMORANDUM
- B. ENFORCEMENT
 - 1. VERBAL NOTIFICATION
 - 2. INFORMATION REQUESTS
- C. CORRESPONDENCE
- D. POLREPS
- E. ERCS DELIVERY ORDER AND MODIFICATIONS
- F. TAT
 - 1. TDD's
 - 2. COSTS
- G. REMOVAL FORMS/REPORTS/LOGS
 - 1. WORK REPORTS
 - 2. WORK ORDER
 - 3. ENTRY/EXIT LOGS
 - 4. EQUIPMENT/MATERIALS LOGS
 - 5. HOT ZONE LOGS
 - 6. SECURITY REPORTS
 - 7. TELEPHONE LOGS
 - 8. BID INFORMATION
- H. 1900-55 DAILY COST REPORTS
- I. INCIDENT OBLIGATION LOG (IOL)
- J. ERCS CONTRACTOR INVOICES (1-9)
- K. AIR MONITORING LOG
- L. OSC LOG
- M. SITE SAFETY PLAN
- N. COMMUNITY RELATIONS PLAN
- O. SAMPLING AND ANALYTICAL
 - 1. SAMPLING PLANS
 - 2. FIELD DATA SHEETS
 - 3. CUSTODY CHAINS
 - 4. ANALYTICAL REPORTS
 - 5. PCB TEST KIT ANALYTICAL
- P. DISPOSAL
 - 1. DISPOSAL CORRESPONDENCE
 - 2. MANIFESTS
- Q. OHIO DEPARTMENT OF PUBLIC HEALTH REPORT ON SES WORKER EXPOSURE
- R. OSHA REPORTS
- S. PHOTO DOCUMENTATION
 - 1. PHOTO LOG
 - 2. EXTRA PHOTOS
 - 3. AERIAL PHOTOS
- T. MAPS/SKETCHES
- U. OSC REPORT OUTLINE/SPUR
- V. SITE ASSESSMENT
- W. EXTENT-OF-CONTAMINATION (EOC) REPORT
- X. TRANSFORMER INVENTORY
- Y. CAPACITOR INVENTORY

NOTE: Portions of these appendices may contain confidential business information and should be reviewed by the Office of Regional Counsel prior to release to the public.

1.0 SUMMARY OF EVENTS

1.1 Initial Situation

1.1.1 Location and Hydrogeologic Description

The Summit Equipment and Supplies (SES) site, approximately six acres in size, is located north of 875 Ivor Avenue, Akron, Ohio and one-half mile south of the I-77/I-277 interchange (See Figures 1 and 2).

The site is bordered on its northern perimeter by a drainage ditch which, in turn, runs parallel with and is adjacent to the Akron/Barberton Beltway Railroad. The eastern perimeter of the site is a peat bog which is also contiguous with nearby Nesmith Lake. A light industrial complex comprises the site's western boundary. Residential areas are established along Ivor Avenue, south of the site.

SES overlies a portion of the "Akron River" buried valley, a prolific groundwater producer. This valley is filled to depths greater than 300 feet, with interlensing layers of coarse to fine alluvium, silts, clays and tills. The subsurface geology consists of interbedded sands, gravels, and silts, as verified by monitoring wells. These same monitoring wells, installed during this removal action, have confirmed the elevation of the local groundwater table at 7 to 16 feet below grade. The flow of this groundwater is toward the east and southeast. Sands on the site's surface are, generally, highly permeable. Certain low-lying areas exhibit ponding as a result of the migration of finer materials to these areas via overland flow during storm events. The drainage ditch located along the site's northern perimeter flows into the Ohio Canal. The Ohio Canal eventually leads to the Tuscarawa River which forms the headwaters of Portage Lake, an Ohio State Park.

1.1.2 Site Description

The SES site is a scrap metal processing facility. The site is covered over most of its surface with continuous piles of scrap and debris, some as high as 20 to 30 feet. Generally, these piles do not appear to be segregated or sorted in any particular order. Rather, they appear as aggregate heaps of twisted sheet metal, structural steel, wire, tires, wood, electrical equipment, motors, batteries and miscellaneous other debris. Access to these piles (prior to removal activity) was limited by a lack of roadways between contiguous piles.

According to SES owners and operators, the facility became engaged in the purchase and salvage of used electrical equipment during the late 1960's. This equipment included PCB transformers and other electrical apparatus which contained PCB-capacitor components. Metals reclaimed from electrical equipment were reportedly smelted in a small furnace adjacent to the SES office.

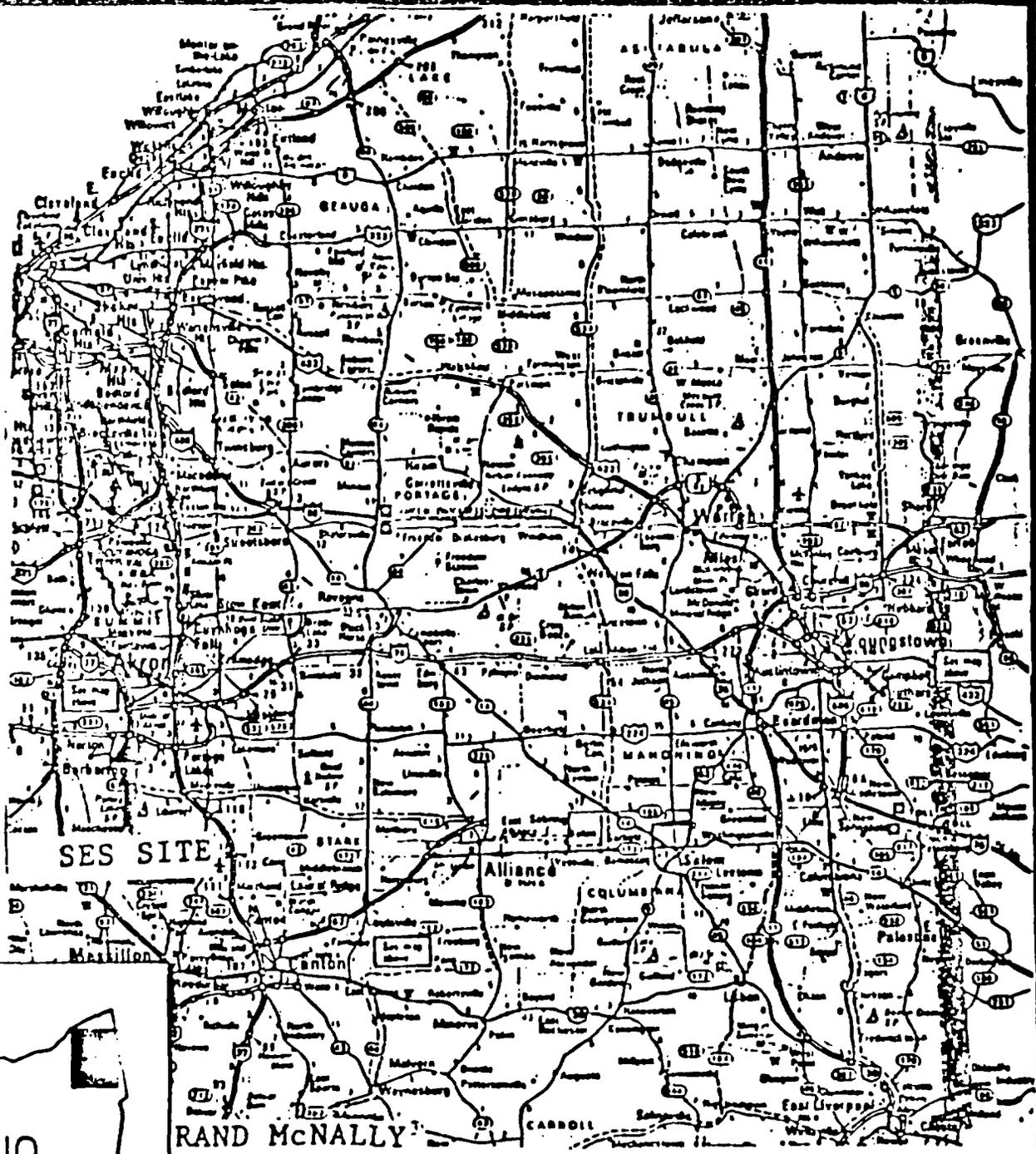
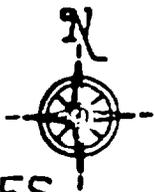


FIGURE 1
 LOCATION MAP
 SUMMIT EQUIPMENT AND SUPPLIES
 AKRON, OHIO



NO SCALE



EPA



FIGURE 2
 SITE LOCATION MAP
 SUMMIT EQUIPMENT AND SUPPLIES
 AKRON, OHIO



NO SCALE



Transformer dielectric fluids were reportedly used to fuel the same small furnace.

Releases from PCB items and materials (transformers and capacitors) at the SES facility between the late 1960's and February 1987 resulted in widespread contamination of on-site soils with PCBs and in the off-site migration of PCB contaminants to adjacent residential areas. In one instance, contaminated off-site sandy soils were excavated by their owner (Castle Apartments) and transported to a bathing beach on Nesmith Lake one-half mile southeast of the SES Facility.

1.2 Site History

In July 1986, the Ohio Environmental Protection Agency/Office of Emergency Response (OEPA/OER) received a complaint from the Akron Police Department regarding the operations at SES. In following this complaint, OEPA/OER conducted a compliance inspection at SES on July 31, 1986. This inspection was performed by OEPA/OER personnel pursuant to the U.S. EPA Pilot Toxic Substance Control Act (TSCA) Cooperative Enforcement Program. OEPA/OER inspectors observed approximately 2,000 transformer carcasses, several electrical capacitors and numerous areas where oils were suspected to have been spilled. Five on-site soil samples were collected by the OEPA/OER inspectors for PCB analysis. These analyses confirmed the presence of PCBs in site soils at levels ranging from 180 parts per million (ppm) to 74,000 ppm.

In October 1986, the OEPA/OER advised the SES site owners of the PCB contamination at the site and suggested that the company retain the services of a consultant to evaluate and remediate the problem.

On February 3, 1987, after determining that SES site operators were not going to stabilize the site, the OEPA/OER requested the assistance of the U.S. EPA Region V Eastern Response Unit in evaluating and mitigating site conditions.

On February 5, 1987, OSC Ralph Dollhopf and Technical Assistance Team (TAT) representatives performed a site investigation at SES. During this visit the OSC and TAT confirmed the presence of hundreds of transformer casings and several electrical capacitors. The presence of numerous PCB items prompted the OSC's concern that PCB contamination may have been transported from the site to nearby residential areas by vehicle traffic and storm runoff over the years of site operation. As such, the OSC directed the TAT to develop a sampling plan to reveal the extent of suspected PCB migration from the site. This plan was implemented on February 12 and 19, 1987. Analyses of these samples demonstrated the presence of low levels of PCBs in residential areas to the south of the site (less than 20 ppm PCB), however no PCB contamination was detected along northeast and northwestern perimeters. Levels of PCB ranging from 550 to 8700 ppm were observed in the drainage ditch along the site's northern perimeter. (See Figure 3)

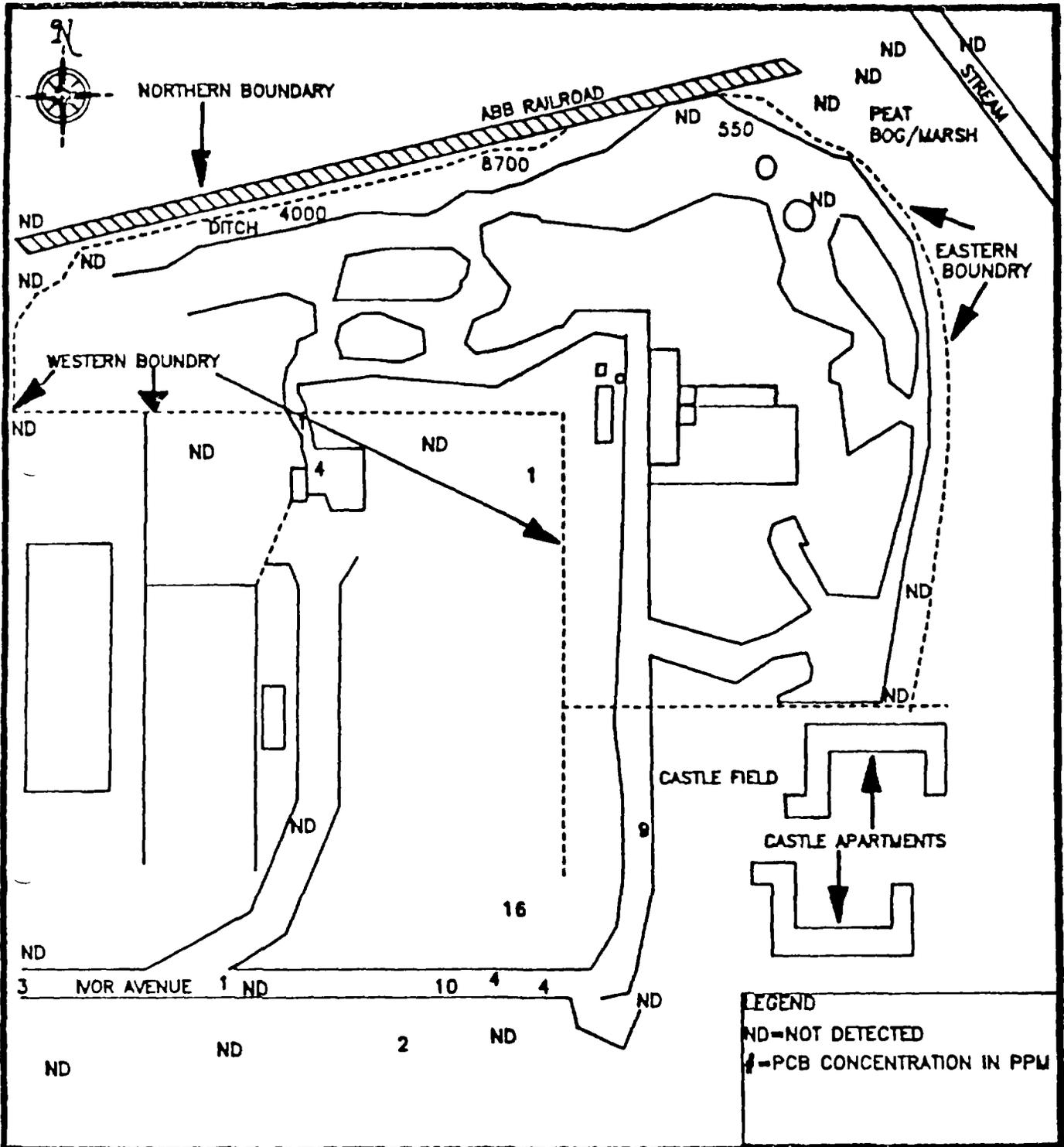


FIGURE 3
 SITE INVESTIGATION PCB SAMPLE LOCATIONS/CONCENTRATIONS
 SUMMIT EQUIPMENT AND SUPPLIES
 AKRON, OHIO
 NO SCALE



1.3 Threat to Public Health and the Environment

Section 300.65(b)(2)(i) of the National Contingency Plan authorizes a removal action where "actual or potential exposure to hazardous substances or pollutants or contaminants by nearby population, animals, or food chain" exists. The SES site presented several current and potential imminent and substantial threats to human health and welfare. SES employees engaged in scrapping activities on highly contaminated areas of the site were subject to PCB exposure via inhalation, dermal absorption and ingestion pathways. The same exposure pathways existed for members of the general public who accessed unrestricted parts of the site proper and contaminated areas adjacent to the site. PCBs are persistent, toxic compounds capable of causing both short- and long-term local and systemic health effects in humans. Their great potential for food chain contamination and bioaccumulation is well documented. PCBs are suspected human carcinogens.

Section 300.65(b)(2)(iv) of the National Contingency Plan authorizes immediate removal of "high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate."

The SES site's location upgradient from a large marsh and Nesmith Lake established it as a direct potential threat (via off-site migration of PCBs) to wetland fauna and to members of the public accessing the lake for recreational purposes.

Evidence of the cutting of transformer carcass, use of transformers as burning receptacles and burning of transformer oils (dielectric fluids) as fuel for smelting operations promoted further concern regarding the potential presence of dioxin and furan compounds (PCDDs and PCDFs) at SES. PCDD and PCDF compounds may be formed by incomplete combustion of PCBs. Specific congeners of these compounds are considered to be extremely toxic. Exposure pathways for these compounds with respect to the SES site were similar to those for PCBs.

1.4 Attempts to Obtain a Response by Potentially Responsible Parties (PRPs)

On March 7, 1987, the OSC provided "verbal notification" to SES owner and operator, Mr. Benjamin Hirsch. This notification was transmitted by telephone and was followed in writing on March 15, 1987. The notification advised Mr. Hirsch of the necessity that the following removal activities to be taken immediately at the site:

- 1) Establishment of site security and safety measures.
- 2) Development of migration control plans to prevent continued release of contaminants to off-site areas.
- 3) Excavation and removal of all off-site contaminated soils.

- 4) Further characterization of on-site and off-site areas suspected to be contaminated with PCBs.

On February 9, 1987, Mr. Hirsch and his attorney responded to the above notification by advising the OSC that although SES was willing to cooperate with U.S. EPA, it was not financially able to undertake the necessary prescribed removal activities. At the conclusion of Mr. Hirsch's response, the OSC advised Mr. Hirsch and his attorney that U.S. EPA would initiate removal activities at SES on March 10, 1987.

On April 15, 1987, U.S. EPA issued a CERCLA 104(e) "Information Request" letter to SES. Mr. Hirsch had previously (during site investigation activities) acknowledged the existence of business records containing information about the origin and purchase transactions of the site's transformers and capacitors. Some additional documents were provided by Mr. Hirsch.

1.5 Action Taken

The SES removal field work was performed by Zone III Emergency Response Clean-up Services (ERCS) contractor, MAECOORP, Incorporated, headquartered in Homewood, Illinois. The Federal On-Scene Coordinator, Ralph Dollhopf was further assisted by Zone I TAT representatives from the Cleveland area Roy F. Weston TAT office.

Federal fund allocations totalling \$314,500 were approved by the Region V Administrator on March 6, 1987. This amount included \$231,500 for ERCS expenditures. On April 16, 1987, a subsequent action memorandum requesting a total project increase of \$292,000 was submitted to the Regional Administrator and approved. This approval resulted in a total approved project ceiling of \$607,300 of which \$465,500 were available for ERCS expenditures.

On March 10, 1987, the OSC met with MAECOORP's response manager Allan Blanchard and TAT representatives Jerry Klein and David Hartman to discuss and schedule the required removal activities. A timeline of removal events discussed below is presented as Table 4.

1.5.1 Site Safety

The initial site Health and Safety Plan (HSP) was developed by the TAT and approved by the OSC. Later, as site conditions became modified by escalating cleanup activity, the OSC tasked MAECOORP to develop an expanded plan to accommodate changing site status.

The first formal safety meeting of the project was conducted on March 14, 1987, before the commencement of work in the hot zone. Subsequent safety meetings were held daily throughout the project.

Throughout the initial stages of site work, the site was monitored daily with an Organic Vapor Analyzer (OVA), radiation meter and

explosimeter. No measurements above background were detected with this instrumentation.

1.5.2 Site Security

Several measures were implemented to restrict access to contaminated areas of the site. Prior to the onset of the removal project, only the western and southern site boundaries were fenced. In order to completely secure the site, MAECORP subcontracted with a local fencing contractor to construct 7-foot high chain link fencing along the northern and eastern boundaries. This new fence, approximately 1,600 feet in length was tied into existing fence on the east and west. Two vehicle access gates were installed to facilitate access to the site for removal personnel (see Figure 4).

"Hazardous Materials" warning signs were fabricated and posted at 50' intervals along the entire site perimeter.

A security guard service was retained to restrict site access during the period of fence construction and to provide security for EPA and MAECORP removal equipment and materials throughout the course of the project.

1.5.3 Drainage Control Measures

Initial removal activities included the construction of drainage control measures along the north and eastern site perimeters. Beginning on March 15, 1987, MAECORP personnel, using a large bulldozer, cut rough roadways along the north and east sides of the site. A two foot soil barrier was formed along the outside edge of these roadways to prevent the release of potentially contaminated storm water runoff from the site to the drainage ditch and peat bog located north and east of the site, respectively.

These roadways also served to facilitate access to the site for removal personnel and to facilitate fence construction (see Figure 5).

1.5.4 On-Site Roadways

Similar equipment (bulldozer and front end loader) was next used to clear rough roadways and staging areas among the many large piles of debris on site (see Figure 6). The access and work area created by this action was prerequisite to the next major task of searching for and removing transformers and capacitors located in the debris piles.

1.5.5 Transformer and Capacitor Recovery and Staging

The piles of debris shown in Figure 6 were searched for electrical equipment (transformers and capacitors) by MAECORP ground personnel. Once located, these items were strapped or chained to

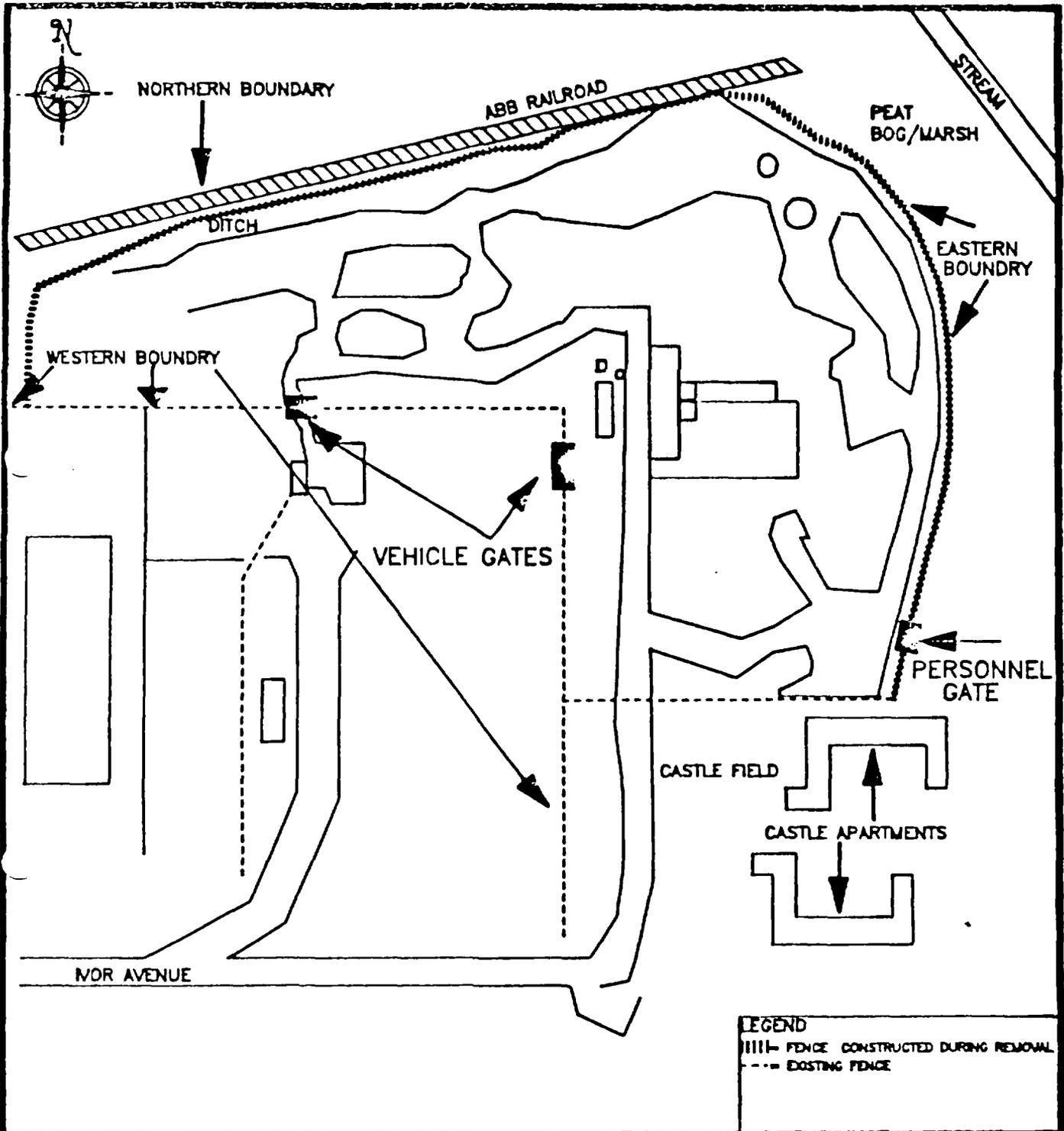


FIGURE 4
 FENCE CONSTRUCTION LOCATIONS
 SUMMIT EQUIPMENT AND SUPPLIES
 AKRON, OHIO
 NO SCALE



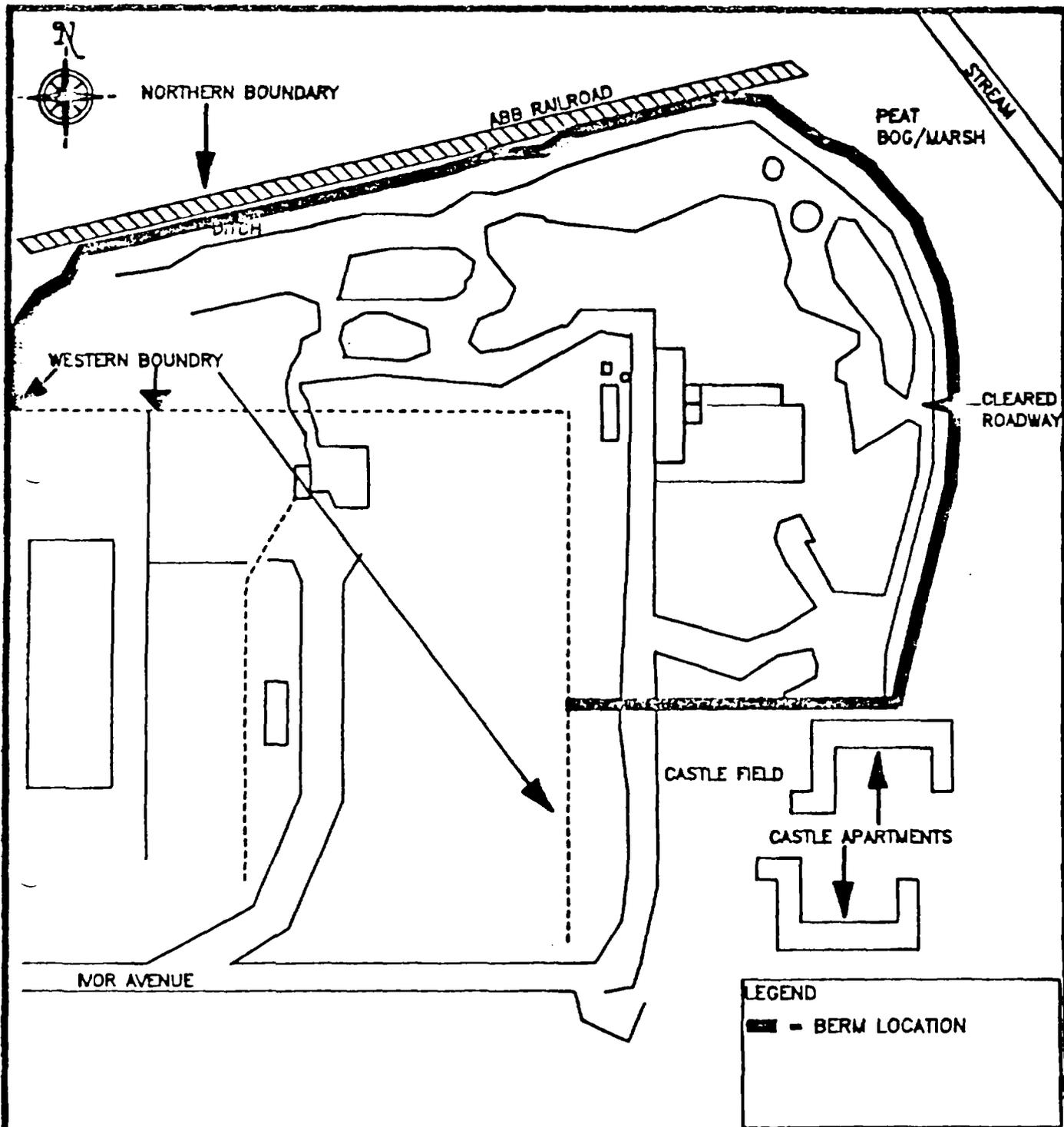


FIGURE 5
 DRAINAGE CONTROL (BERM) LOCATIONS
 SUMMIT EQUIPMENT AND SUPPLIES
 AKRON, OHIO
 NO SCALE



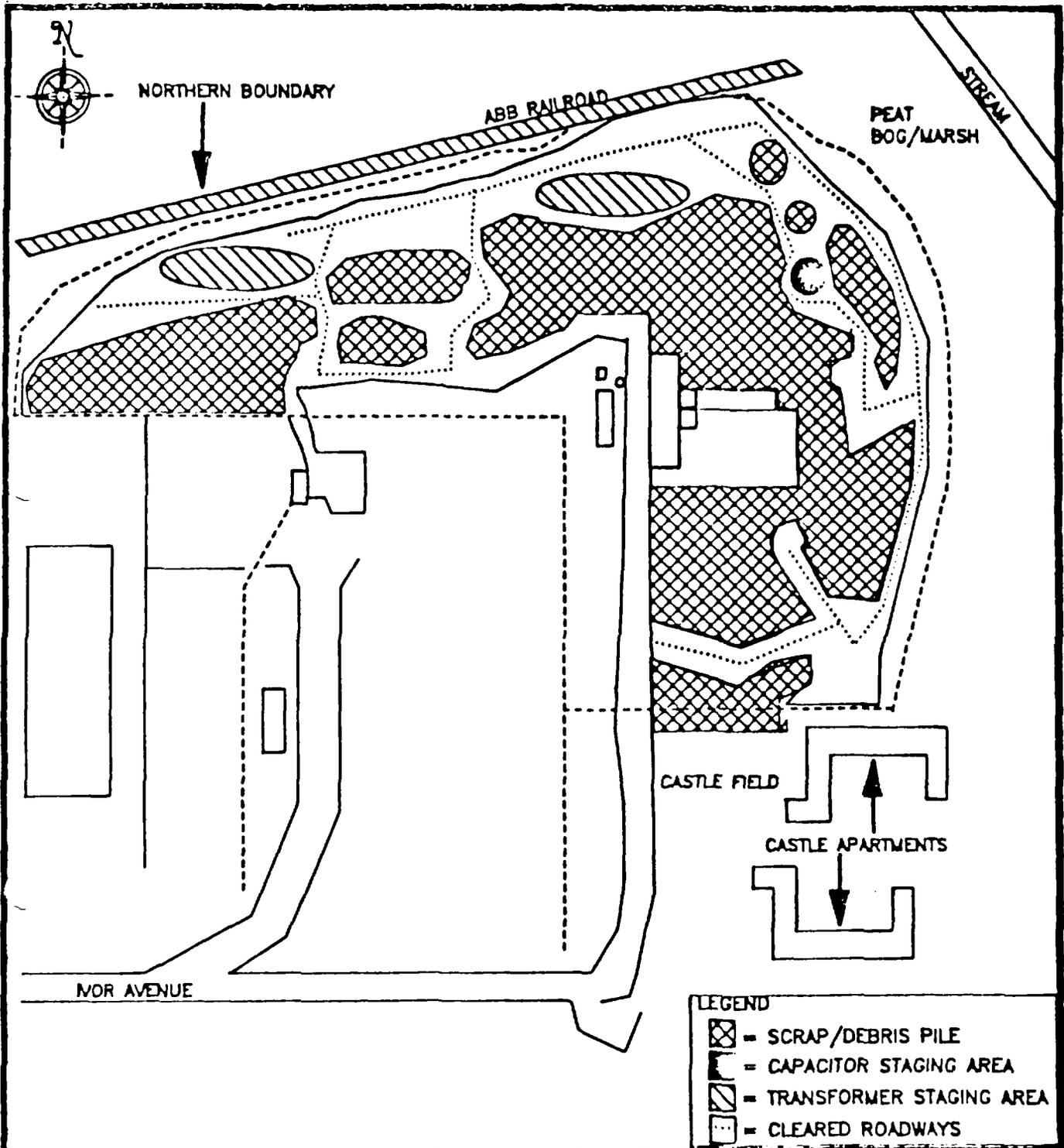


FIGURE 6
 SCRAP/DEBRIS PILES AND STAGING AREAS
 SUMMIT EQUIPMENT AND SUPPLIES
 AKRON, OHIO
 NO SCALE



the bucket of a Cat 215 backhoe which then pulled them from the pile. Transformers were then transported by a Cat 950 front end loader to staging areas. Capacitors were transported to a separate staging area. Large pieces of electrical control apparatus were carefully searched for individual or banks of capacitors. When found, these items were removed from their housings and taken to a separate staging area (see Figure 6).

In all, 1,282 transformers/transformer carcasses and 286 capacitors were located and secured in this fashion. All capacitor and transformers were inventoried for nameplate information and physical description. Capacitors were then overpacked to insure that they did not leak onto the ground.

1.5.6 Off-Site Disposal

Once all identifiable transformers and capacitors had been collected from the site's debris piles, arrangements were made for secure off-site disposal of these items. Capacitors and PCB contaminated oils from transformers were shipped off-site for incineration. Dielectric fluids (5,000 gal.) not containing PCBs were left on site in their respective containers (transformers). All remaining transformers were crushed when possible and sent to a secure TCSA-approved landfill facility. Details of the off-site disposal of this material are summarized in Table 1.

1.5.7 Off-Site Soil Excavation

During the period when the above stabilization activities were being completed, the TAT was performing an extent-of-contamination (EOC) sampling effort at the direction of the OSC. This EOC program was designed to evaluate both on-site and off-site impacts of the PCBs released at SES. The effort is described in more detail in Section 1.5.8.

Off-site soil sampling comprised one component of the EOC work. Analysis of off-site soil samples demonstrated the presence of PCBs from off-site areas where soils had become contaminated with PCBs which had migrated or been transported from the SES facility.

Areas 1 and 2 were located in drainage ditches on the north and northwest sides of the site (Figure 7). Approximately 50 cubic yards of soils (PCB concentrations 850 - 8,400 ppm) from these two areas were excavated and staged on the SES site proper at soil staging area #1.

Area 3 was located in a small field south of the site on property owned by the Castle Apartment Complex, Inc. Approximately 400 cubic yards of sandy soils (PCBs up to 2,900 ppm) were removed from this area and placed in soil staging Area #2 on the SES site proper.

Figure 8 shows that Area #4 represents a portion of the Castle Apartments beach in Nesmith Lake southeast of the SES site. This

TABLE 1

OFF SITE DISPOSAL SUMMARY

Summit Equipment and Supplies Site, Akron, Ohio
 March 10, 1987 - September 29, 1987

<u>WASTE STREAM</u>	<u>QUANTITY</u>	<u>RECEIVING FACILITY</u>	<u>TYPE OF DISPOSAL/ TREATMENT</u>	<u>DATE(S)</u>
Transformers	1238 (206,034 lbs.)	Chemical Waste Management Emelle, Alabama	Landfill in TSCA Cell	4-13-87 4-14-87 4-21-87 4-29-87
Transformers	44 (8,880 lbs.)	Chemical Waste Emelle, Alabama	Triple Rinse/ Landfill in TSCA Cell	4-24-87
PCB Oil	15 Drums (825 Gallons)	Chemical Waste Management Emelle/SCA, Chicago, Illinois	Incineration	4-29-87
Capacitors	286 (11 Drums)	National Electric (APTUS)* Coffeyville, Kansas	Incineration	7-7-87*

*Capacitors were originally shipped (4-24-87) to CWM/Emelle for later incineration at CWM/SCA. However, when CWM/SCA went out of compliance, arrangements were made for incineration at National Electric facility on 7-7-87.

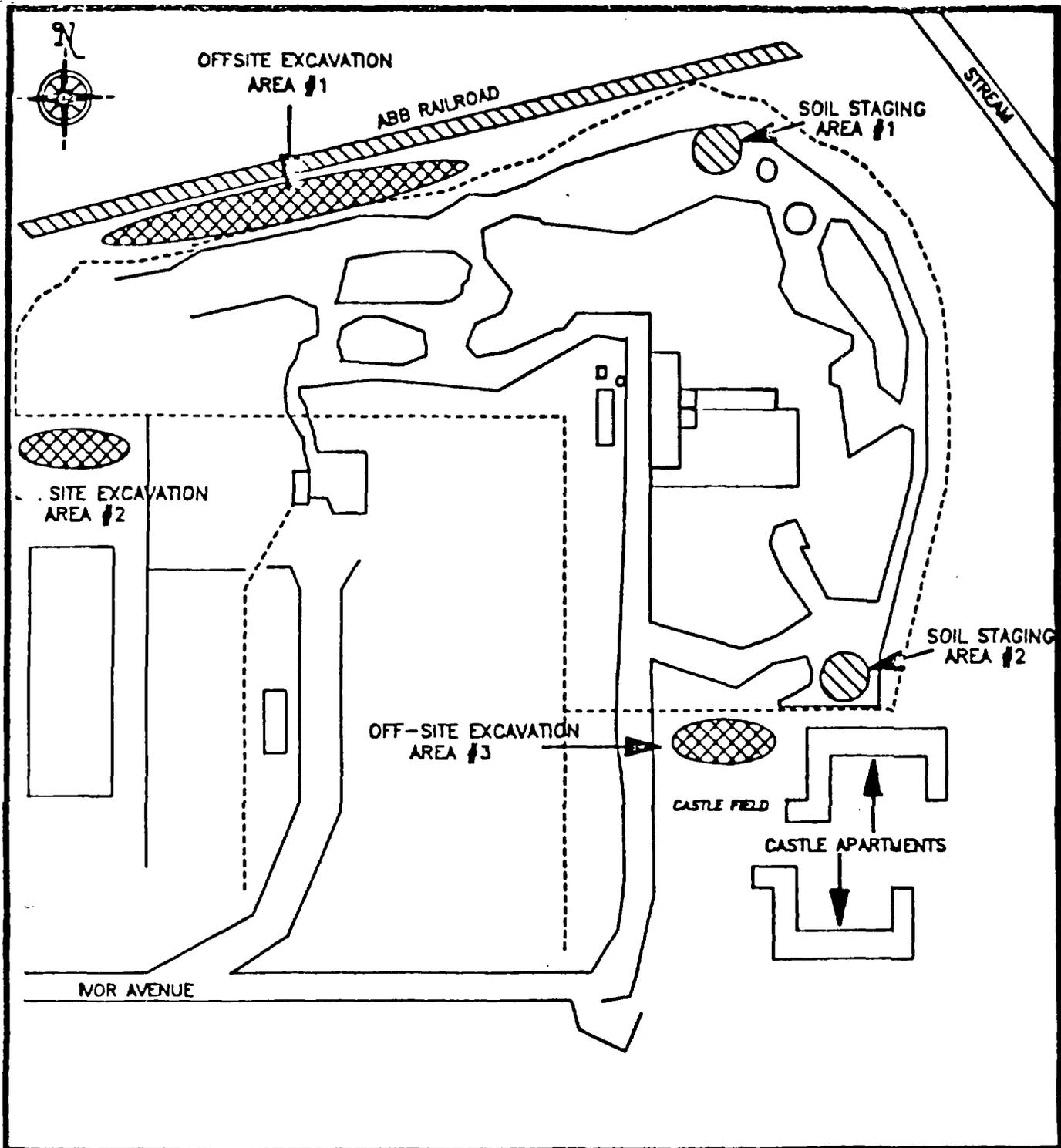


FIGURE 7
 OFF-SITE SOIL EXCAVATION
 SUMMIT EQUIPMENT AND SUPPLIES
 AKRON, OHIO
 NO SCALE

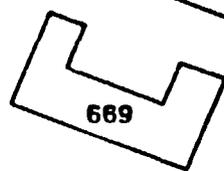
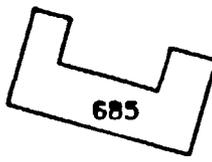
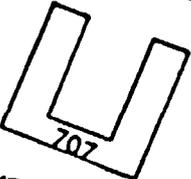
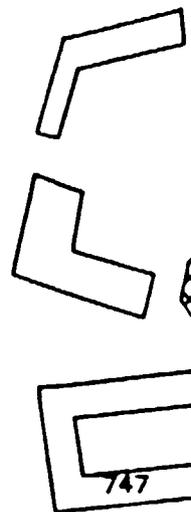




NESMITH LAKE

BEACH AREA EXCAVATED
(AREA #4)

BEACH



CASTLE APARTMENT COMPLEX

Carnegie Ave

FIGURE 8
NESMITH LAKE BEACH EXCAVATION
SUMMIT EQUIPMENT AND SUPPLIES
AKRON, OHIO

NO SCALE



EPA

area became contaminated when the Castle Apartments maintenance personnel excavated contaminated soil from their corporation's property in Area #3 and transported it to the beach during beach maintenance work. The OSC elected to remove all PCB-containing soils from the beach to mitigate the potential threat to beach users and to minimize any further related degradation of the Nesmith Lake ecosystem. Approximately 200 cubic yards of beach sand were removed and returned to the SES site proper (staging Area #2). Postexcavation sampling showed non-detectable levels of PCBs in remaining beach soils.

All off-site excavation areas were backfilled with clean sand upon receipt of postexcavation sampling analytical results. Additional restoration included the replacement of small shrubs removed during excavation at Area #3.

1.5.8 Extent of Contamination Study

During pre-removal investigations at SES the OSC recognized the potential for widespread PCB contamination of the site and nearby off-site areas. As such the OSC directed the TAT to prepare a plan for investigating the degree to which the SES area had been impacted by the site's salvaging activity over the years. Table 2 summarizes the sample matrices and parameters evaluated by the TAT during the implementation of this Extent-of-Contamination (EOC) program.

Implementation of the plan began simultaneously with the removal activities and was completed in June of 1987.

The EOC study, its results, and conclusions are presented in detail in the report entitled "Extent-of-Contamination for Summit Equipment and Supplies" included as Appendix W to this report. In general, the EOC study confirmed that the SES site proper is extensively contaminated with PCBs in its sandy surface soils (6" - 1') and in some cases, in deeper soils (3' - 5').

Heavy metals (lead, cadmium, mercury, zinc, copper) represent another significant contaminant at SES, in that they were detected at levels many times higher than background in the site's soils. The metals will need to be addressed in future removal activities.

Low levels of dioxin/furan compounds presumably related to the incomplete incineration of PCBs were also detected in particular areas of the site. While levels of these compounds are not high and were not found extensively, they will need to be addressed during future removal activities.

1.6 Community Relations

Local community interest in the SES removal activity was very high during the period from February to May 1987. The Region V Office of Public Affairs worked closely with the OSC to develop a formal Community Relations Plan (CRP) distribute fact sheets, conduct

TABLE 2

SAMPLE MATRICES AND PARAMETERS
 TAT EXTENT OF CONTAMINATION STUDY

Summit Equipment Supplies Site Akron, Ohio
 March 10, 1987 - September 29, 1987

<u>MATRICES</u>	<u>PARAMETERS</u>	<u>QUANTITY ANALYZED</u>
SOIL/SEDIMENT	PCB	501
SOIL	PRIORITY POLLUTANT METALS	10
SOIL/ASH	DIOXIN/FURAN	4
SWIPE (100cm ²)	PCB	36
OIL	PCB	57
GROUND WATER	PCB	16
GROUND WATER	PRIORITY POLLUTANT METALS	6
SURFACE WATER	PCB	6
AIR SAMPLES PARTIC./VOL.	PCB	49

public meetings, and issue press releases during this time. All these activities were closely coordinated with the Akron city government which was very concerned with keeping its constituency informed of the SES situation. (Appendix N)

1.7 Cost Summary

The site stabilization activities conducted during this removal were performed by ERCS Contractor, MAECORP, of Homewood, Illinois, under Delivery Order #7360-05-004. The categorized ERCS costs presented in Table 3 total \$419,667.13 and represent total costs approved to date by the OSC. These costs are subject to definitization.

Removal support was provided by the TAT under Technical Direction Document (TDD) #5-8703-14; Community Relations support was provided under TDD #5-8703-06; and EOC work was provided under TDD #5-8703-15. TAT costs for removal support total \$44,668.13.

EPA direct and indirect costs total \$24,960.65 and \$57,536.80, respectively. All the above expenditures are summarized in Table 3. All costs are subject to verification by the Financial Management Branch (FMB) of the U.S. EPA.

2.0 EFFECTIVENESS OF REMOVAL ACTIONS

2.1 Responsible Parties

Generally, the SES site owner and operator, Mr. Benjamin Hirsch and his employees were cooperative with U.S. EPA and its contractors throughout the course of this project. As previously mentioned, however, Mr. Hirsch indicated prior to the onset of the removal that he had no resources available to contribute to stabilization/cleanup work. SES assistance, therefore, was limited primarily to providing information regarding the history of site operations and origin of PCB items and materials.

2.2 State and Local Agencies

The Ohio Environmental Protection Agency (OEPA) was instrumental in documenting problematic conditions and encouraging federal interest at SES.

Later, while federal removal activities were underway, OEPA undertook to collect fish samples from Nesmith Lake. These samples were collected for the purpose of evaluating the extent to which fish in the lake may have been impacted by the lake's proximity to such a large, uncontrolled PCB site as SES. Analysis of fish tissue samples performed by OEPA demonstrated the presence of measurable quantities of PCBs and led to the issuance of consumption advisories for fish taken from the lake.

The Akron Police Department was instrumental in calling attention to the site to OEPA in 1986. Thereafter, the Akron Police

TABLE 3

SUMMARY OF REMOVAL COSTS

Summit Equipment and Supplies Site
 Alcon, Ohio
 March 10, 1987 - September 29, 1987

<u>CATEGORY</u>	<u>EXPENDITURES</u>	<u>SOURCE</u>
ERCS \$419,667.13	IOL	
TAT	44,668.13	IOL
EPA (direct)	24,960.65	SPUR (11-22-89)
<u>EPA (indirect)</u>	<u>57,536.80</u>	SPUR (11-22-89)
*TOTAL	\$546,832.71	

*Any indication of specific costs incurred in this report is only an approximation and is subject to internal audit and final "definitization." The OSC report is not a final reconciliation of the costs associated with a site.

Department provided assistance to U.S. EPA, TAT, and MAECORP on several occasions.

The Akron Mayor's office provided continuous support to the OSC and Region V Public Affairs personnel in the implementation of the project's Community Relations Plan.

2.3 Contractors

MAECORP personnel performed all removal/stabilization activities efficiently and cost-effectively. In particular, the OSC felt that MAECORP made a commendable effort to identify and recover as many transformers and capacitors as possible under very difficult working conditions.

Although there are assuredly some transformers and capacitors remaining below the large scrap and debris piles, the immediate potential for release of PCBs and degradation of site conditions was reduced.

Likewise, MAECORP's excavation of PCB contaminated soils from off-site locations reduced the potential threat of PCB exposures for the general public.

The TAT performance of the EOC study during this removal provided valuable information necessary to plan future site remediation. The EOC program evaluated potential contaminant parameters within a variety of sample matrices. The report (Appendix W) summarizing this work was well assembled and will be important in the planning of subsequent cleanup work necessary for the SES site.

2.4 Federal Agencies

U.S. EPA's rapid response to simultaneously characterize and stabilize the SES site was successful in reducing immediate threats to public health and the environment and increasing community awareness and understanding of the SES situation.

In addition, at U.S. EPA's request, the U.S. Occupational Safety and Health Administration (OSHA) initiated inspection and enforcement activity at SES in an effort to improve working conditions for the facility's personnel. OSHA's efforts have resulted in some improvement in worker protection and enhanced employee awareness of workplace hazards at SES.

3.0 PROBLEMS ENCOUNTERED

Operational problems for removal personnel were presented by inclement winter weather and physical hazards and access difficulties presented by the site's huge piles of unsorted scrap metal and debris.

Site safety and decontamination protocols were at times difficult to manage because the SES facility continued to perform a limited

amount of salvage work while removal operations were proceeding. This situation called for a relatively great degree of coordination between the OSC, removal contractors, SES, and OSHA to ensure that all workers were adequately protected and that continued release of PCB contamination was not occurring.

4.0 RECOMMENDATIONS

For all threats of future release from this facility to be mitigated, the following actions must occur:

- A) All scrap and debris must be removed from the site surface, decontaminated where appropriate, and properly processed/disposed of.
- B) All PCB items (transformers, capacitors, etc.) identified during scrap removal must be stabilized and properly disposed of.
- C) A determination of the amount of contaminated soil on site must be completed to allow evaluation of the best treatment/disposal alternative for this soil.
- D) The SES site's groundwater conditions must be more thoroughly investigated to determine the extent to which it has been impacted by PCB releases. It may be necessary to remediate the site's groundwater.

TABLE 4 (continued)

April 1987

DATE ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SITE MEETING AND ENTRY																															
ON-SITE SAMPLING	---				-----			-----			-----										---										-----
DECON & OFFICE TRAILER SET-UP			---																												
UTILITIES SET-UP																															
CUT ACCESS ROAD THRU SITE																															
MIGRATION CONTROL DITCH/BERM						-----																									
PREPARE STAGING AREA																								---							
OFF-SITE SAMPLING										---												-----		---							-----
EXCAVATE DITCH & STAGE SOIL																															
STAGE TRANSFORMERS/OIL/CAPAC.	-----					-----						-----	-----										-----	-----							
INSTALL FENCING																															
PUBLIC MEETING/PRESS CONF.																															
DECON CREW																															
MOB CREW																															
SAMPLING OF TRANSFORMERS	---					-----				---																					
CAPACITOR CATALOGING/OVERPACK.						-----																									
REMOVAL OFF-SITE CONTAMINANTS			---				---																	---	---						---
OSHA INSPECTION/TOUR			---																												
TRANSFORMER OIL PUMPING						-----																									
DICKIN SAMPLING/SHIPPING								---			---																				
CATALOG TRANSFORMERS						-----																									
TRANSFORMER CRUSHING/STAGING										-----																					
SEGREGATION OF TRANSFORMERS										---																					
LOADING AREA READY										---																					
LOADING TRUCKS													-----											-----	-----						---
EXCAVATION FOR POSSIBLE DRUMS																								---							
DEPTH SAMPLING																								-----							-----
WATER TREATMENT																															
RESTORATION SUP./OFF-SITE ZONE																															

23

TABLE 4 (continued)

		May 1987																														
DATE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ACTIVITY																																
SITE MEETING AND ENTRY																																
ON-SITE SAMPLING									---			-----																				
DECON & OFFICE TRAILER SET-UP																																
UTILITIES SET-UP																																
CUT ACCESS ROAD THRU SITE																																
MITIGATION CONTROL DITCH/BERM																																
PREPARE STAGING AREA																																
OFF-SITE SAMPLING						-----			---			-----								---										-----		
EXCAVATE DITCH & STAGE SOIL																																
STAGE TRANSFORMERS/OIL/CAPAC.																																
INSTALL FENCING																																
PUBLIC MEETING/PRESS CONF.									---																							
DECON CREW	---										---																					
MOB CREW						---																										
SAMPLING OF TRANSFORMERS*																																
CAPACITOR CATALOGING/OVERPACK.																																
REMOVAL OFF-SITE CONTAMINANTS	---						---																									
OSHA INSPECTION/TCLR																																
TRANSFORMER OIL PUMPING																																
DIOXIN SAMPLING/SHIPPING																																
CATALOG TRANSFORMERS																																
TRANSFORMER CRUSHING/STAGING																																
SEGREGATION OF TRANSFORMERS																																
LOADING AREA READIED																																
LOADING TRUCKS																																
EXCAVATION FOR POSSIBLE DRUMS																																
DEPTH SAMPLING																																
WATER TREATMENT																																
RESTORATION SLP./OFF-SITE ZONE									-----																							
AIR MONITORING (GILLIAN PUMP)						-----			---			-----					---															
DRILLING/CELL SAMPLING														-----																	---	

16

TABLE 4 (continued)

June 1987

DATE ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SITE MEETING AND ENTRY																															
ON-SITE SAMPLING						---																									
DECON & OFFICE TRAILER SET-UP																															
ETICLATES SET-UP																															
CUT ACCESS ROAD THRU SITE																															
CUT MIGRATION CONTROL DITCH																															
PREPARE STAGING AREA																															
OFF-SITE MIGRATION SAMPLING		-----																													
EXCAVATE DITCH & STAGE SOIL																															
STAGE TRANSFORMERS/OIL/CAPAC.																															
INSTALL FENCING																															
PUBLIC MEETING																															
DECON CREW						---																									
MOB CREW	---																														
SAMPLING OF TRANSFORMERS																															
CAPACITOR CATALOGING/OVERPACK.																															
REMOVAL OFF-SITE CONTAMINANTS		-----																													
OSHA INSPECTION/TOUR																															
TRANSFORMER OIL PUMPING																															
DITCHIN STARTING/SHIPPING																															
TRANSFORMER CRASHING/STAGING																															
SEGREGATION OF TRANSFORMERS																															
LOADING AREA READY																															
LOADING TRUCKS																															
EXCAVATION FOR POSSIBLE DRUMS WATER TREATMENT																															