

PRIVILEGED AND CONFIDENTIAL

DEPARTMENT OF
NATURAL RESOURCES
SED

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**McLAREN/HART
ENVIRONMENTAL ENGINEERING CORPORATION**

3695-M North 126th Street
Brookfield, Wisconsin 53005
414/790-1974

Prepared for:

Hein-Werner Corporation
2120 Pewaukee Road
Waukesha, Wisconsin 53188

**SITE INVESTIGATION REPORT
(TRENCHING INVESTIGATION)
MALLORY IMPROVEMENTS PROPERTY
1005 PERKINS AVENUE
WAUKESHA, WISCONSIN
FID #268091890**

August 22, 1996

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1.0 INTRODUCTION

Over the past year and a half, Hein-Werner Corporation (Hein-Werner) has cooperated with the Wisconsin Department of Natural Resources (WDNR) to investigate allegations by an anonymous caller of buried drums at the property located at 1005 Perkins Avenue, Waukesha, Wisconsin (the Property). The Property was formerly owned by Hein-Werner and was sold to Akerman (now known as VME Americas, Inc.) in November 1981. From 1981 until 1993, Akerman continued the manufacture and testing of backhoes on the Property. Akerman also continued to use the name "Hein-Werner" in connection with its operations. Reportedly, Akerman also continued to use the same paint supplier for a period of time after the purchase of the Property from Hein-Werner and records from one paint supplier indicate that Akerman was invoiced under the name "Hein-Werner." In 1993, Akerman sold the Property to Mallory Improvements, the present owner.

Since at least 1992, numerous investigations and remedial activities have been conducted at the site, including extensive trenching and excavation of soils between 1992-1994. None of this work revealed the presence or suspected presence of buried drums. Additionally, several affidavits obtained from former Hein-Werner employees attest that no drums or barrels were disposed on the Property during Hein-Werner's operations. These affidavits were supplied to the Wisconsin Department of Justice on July 7, 1995.

Even though it no longer owns the Property and even though the previous site work did not indicate that buried drums are present or even suspected, Hein-Werner agreed to conduct additional investigation on the eastern portion of the Property to determine whether buried drums are present.

Hein-Werner retained McLaren/Hart Environmental Engineering Corporation (McLaren/Hart) to conduct the investigation. A Site Investigation Work Plan (Work Plan) was submitted to WDNR on April 4, 1996, and was approved by the department on May 6, 1996. The site investigation, as approved, was conducted on May 23, 1996.

2.0 SITE BACKGROUND

The site background pertinent to the investigation was summarized in the Work Plan submitted April 4, 1996. Additionally, the site history, condition, geology, and hydrogeology and the results of numerous previous site investigations and remedial activities have been fully documented and reported to the WDNR by Versar, Inc. (October 1992, November 1992, November 1993, June 1994, February 1994) and by Dakota Environmental (February 1996).

Figure 1 shows the location of site investigations conducted on the eastern portion of the Property, including test pits placed by Versar in 1993, a magnetometer survey conducted by Dakota Environmental in December 1995, and the six exploratory trenches excavated under this Work Plan.

In developing the Work Plan, McLaren/Hart identified the location of trenches #1-4, as approved by the WDNR, as locations with the greatest magnetic anomalies (most likely to contain any buried drums). Trenches #5-6 were located at the direction of the WDNR on the day the exploratory trenching was conducted.

INSERT MAP

3.0 SITE INVESTIGATION ACTIVITIES

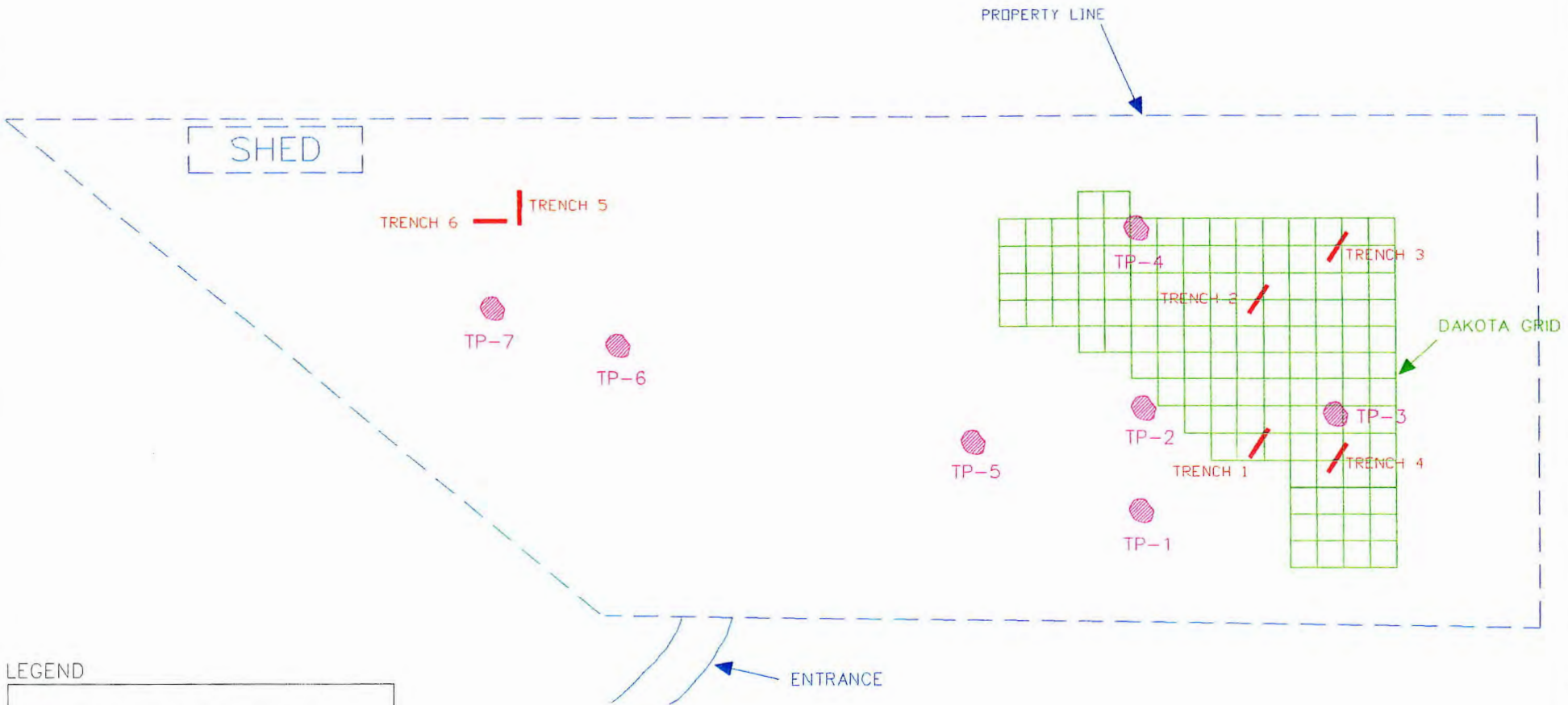
On May 23, 1996, McLaren/Hart conducted exploratory trenching on the Property consistent with the WDNR-approved Work Plan. WDNR investigator Michael Ellenbecker was present during the entire operation. WDNR hydrogeologist Scott Ferguson was present during the excavation of trenches #2 and #3.

Six exploratory trenches were completed as part of the investigation activities. Approximate locations of the trenches are indicated in Figure 1. Specific measurements for each trench are presented below. As provided in the Work Plan, four of the trenches were excavated in areas previously identified and marked as potentially containing buried ferrous metal (trenches #1-#4). Two additional trenches (#5 and #6) were excavated in areas selected by Mr. Ellenbecker.



TABLE 1
DIMENSIONS OF EXPLORATORY TRENCHES

TRENCH ID	LENGTH	WIDTH	DEPTH	START TIME	STOP TIME
Trench #1	36 feet	6 feet	9 feet	8:20 a.m.	9:10 a.m.
Trench #2	37 feet	5 feet	8 to 12 feet	10:00 a.m.	10:40 a.m.
Trench #3	35 feet	5 feet	12 feet	11:35 a.m.	12:00 p.m.
Trench #4	30 feet	5 feet	11 feet	9:24 a.m.	9:40 a.m.
Trench #5	36 feet	5 feet	7 feet	1:25 p.m.	1:45 p.m.
Trench #6	28 feet	5 feet	7 feet	1:45 p.m.	2:00 p.m.

In general, materials observed during excavation activities consisted of a surficial layer of sand and gravel fill; an intermediate layer of fill materials consisting of dark brown or black fill material, sand, some amounts of wood, concrete, brick, pieces of metal, and gravel; and an underlying layer of silty clay. With the exception of Trench #1, groundwater was observed seeping into the trenches at an approximate depth of eight feet below ground surface (bgs). In Trench #1, groundwater was encountered approximately six feet bgs and flowed freely into the trench. Specific observations regarding the materials encountered in each trench are presented below.

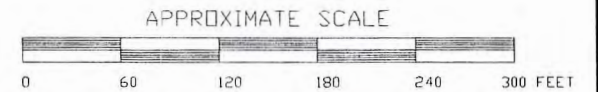


LEGEND

-  VERSAR TEST PIT LOCATION
-  MCLAREN/HART TRENCH LOCATION

NOTE: Adapted from Dakota 12/29/95, and Versar 11/93
Trench and test pit locations approximate

EASTERN PORTION MALLORY IMPROVEMENTS PROPERTY



DRWN: WCL	CHK'D: RS
JOB#: 10080-3667-001	DATE: 07-17-96



FIGURE 1
APPROXIMATE TRENCH LOCATIONS
MALLORY IMPROVEMENTS PROPERTY
1005 PERKINS AVENUE, WAUKESHA, WI

**TABLE 2
MATERIALS ENCOUNTERED DURING
EXPLORATORY TRENCHING ACTIVITIES**

TRENCH ID/DEPTH	COMMENTS
Trench #1	
0 to 9 feet	Dark brown to black fill, sand, occasional yellow foundry sand mold pieces, gravel, bricks, wood, debris, metal. Water at 6 feet.
9 feet	Fill, sand, gravel, slag, black, wet.
Trench #2	
0 to 8 feet	Dark brown to black fill, sand, gravel, wood, bricks, metal fragments.
8 to 12 feet	Dark brown to black fill, sand, gravel, slag, miscellaneous debris including a small amount of dried, red paint residue, one 35-gallon barrel filled with steel wires/rods, and a length of steel cable.
Trench #3	
0 to 8 feet	Dark brown to black fill, sand, gravel, concrete blocks, trace metal fragments.
8 to 11 feet	Dark brown to black fill, sand, gravel, foundry sand and slag. Crushed drum containing a small amount of residue of grease, empty, crushed can/drum and portion of corrugated culvert.
11 to 12 feet	Brown clay, silty.
12 feet	Gray, clay, silty.
Trench #4	
0 to 5 feet	Brown fill, sand, gravel, abundant roots.
5 to 11 feet	Black fill with occasional yellow foundry mold sand pieces, sand, gravel, bricks, metal fragments.
Trench #5	
0 to 7 feet	Dark brown to black fill, sand, gravel, charred wood, bricks, roots.
7 feet	Gray clay, silty.
Trench #6	
0 to 7 feet	Dark brown, fill, sand, gravel, foundry sand, some bricks, trace metal fragments, metal lid.
7 feet	Gray clay, silty.

In each of three trenches, metal fragments were found. No free liquids were associated with any of the container remnants. One container containing steel wire and rods was taken from trench #2. One can with a small amount of dried paint residue was also taken from trench #2. A crushed container with a residue of grease was found in trench #3, located approximately 30 feet from the adjacent salvage yard on the north boundary of the property. Other metal fragments included a crushed metal can (trench #3) and a metal lid (trench #6).

During the excavation activities, the backhoe operator, the North Shore Site Safety and Health Coordinator, and the Geoscientist and Technician donned Level C personal protective equipment (PPE). Individuals not wearing such equipment were restricted to an area approximately 20 feet away from the trenches. Breathing zone air monitoring was conducted, as well as remote air quality monitoring of the trenches with a photoionization detector and combustible gas meter. At no time during the excavation activities was there any indication of air quality in or near the trenches varying from pretrenching background levels.

As soil was removed from each trench, it was stockpiled on plastic sheeting adjacent to the trench. Observations of the removed material and conditions within the trench were recorded in project-specific field notebooks.

On completion of each exploratory trench and verification that ambient air quality had not been impacted, supervisory and regulatory personnel were permitted to view the open trench and the stockpiled excavation soil. After inspection of the exploratory trench and approval of the WDNR representative, the stockpiled material was replaced into its respective trench pursuant to the procedures outlined in the approved Work Plan.

In accordance with the Work Plan, no soil samples were collected from the excavation trenches because no elevated PID measurement were observed. After completion of backfilling of the final trench, the metal fragments were either overpacked or bagged in 6-mil polyethylene bags. With the cooperation of the property owner, Hein-Werner will pay the cost of disposal of these materials in accordance with applicable regulations.

3.0 CONCLUSIONS

Six exploratory trenches were excavated at the Mallory Improvements property. Materials observed consisted primarily of foundry fill, with minimal amounts of construction debris, metal fragments and a few crushed containers.

The minimal number of metal remnants recovered is consistent with the historical filling and use of the property, as well as the use of adjacent properties. In addition, in light of the property history, the metal containers cannot be traced to any particular party or to any particular date when they were placed on the Property.

Based on this investigation, and consistent with the previous investigations and remedial activities conducted on the Property, as well as sworn affidavits provided by Hein-Werner, it is McLaren/Hart's opinion that there is no evidence of widespread burying of drums at the site. Therefore, additional investigation into the anonymous allegations is not recommended or warranted.

McLaren/Hart recommends that no further investigation be conducted at the site.