Ohio EPA

COVER MEMO

SUBJECT: FINAL DECISION DOCUMENT -- Hagglunds Denison former plant site, 1220 Dublin Road, Columbus, Ohio -- MSL I.D. #125-1389, Franklin County.

Prepared By: David O'Toole, CDO, DERR

DATE: June 24, 1997

FINAL DOCUMENT FOR SIGNATURES (Decision Document Page 5 - Signature Page)

Necessary Approvals	Approved By	Date
Jan Carlson, Chief, DERR	James P. Carlson	7/21/97
Mike Czeczele, Assistant Chief, DERR	Mike Czeczele	7.21.97
Ray Beaumier, Manager, DERR	Raymond A. Beaumier	7/17/97
Deborah Strayton, Manager, CDO, DERR	Deborah Strayton	6/25/97
Catherine Stroup, Legal, CO	Catherine A. Stroup	7/10/97

SUMMARY:

The attached Final Decision Document describes the selection of the no further action alternative for the former Hagglunds Denison plant site in Columbus, Ohio. Past interim actions by Hagglunds removed all major threats from the release of chemicals into the groundwater. An RI/FS revealed that the remaining VOC contaminants do not pose an unacceptable risk to human health or the environment. A public information session and hearing was held in Columbus on May 28, 1997 to present the draft preferred plan for the site. No comments were received during the public hearing. Therefore, the final decision document is the unchanged preferred plan for the former Hagglunds Denison plant site.

RETURN ALL SUPPORTING DOCUMENTS TO: **DAVID O'TOOLE, CDO, DERR**
(Phone: 614-728-5040)

DECISION DOCUMENT

HAGGLUNDS DENISON CORP. (now known as DENISON HYDRAULICS)

JUNE 23, 1997

SITE:

Hagglunds Denison, Corp.
1220 Dublin Road
Columbus, Ohio 43216
MSL I.D. No. 125-1389
Franklin County

DECLARATION:

This decision document represents the Ohio Environmental Protection Agency (EPA), Division of Emergency and Remedial Response's selected remedial action for the former Hagglunds Denison plant site located at 1220 Dublin Road in Columbus, Ohio (see Figure 1). The selected and final remedial action is the no further action alternative. It has been determined that the site poses no unacceptable risks to human health and the environment. Therefore, no additional remedial actions will be necessary at this site.

DECISION SUMMARY:

Hagglunds Denison, Corp. (Hagglunds) formerly owned and operated an administrative, equipment research, and testing facility in Columbus, Ohio (see Figure 2). Denison Hydraulics purchased the Hagglunds Denison company on June 15, 1993. Denison Hydraulics then sold this property to Elford, Inc., a construction services company also in Columbus, Ohio, on March 29, 1996.

The former Hagglunds site, which consists of five buildings, was built in 1959 on about five acres of land. Subsequent additions have been incorporated into the main building. Research operations occupied the first floor, and business offices were on the second floor of the main building. The four smaller buildings were generally used for equipment testing at Hagglunds.

The primary function of the former Hagglunds site was to test pumps, valves and various other hydraulic equipment. Daily operations at the site included metal degreasing and painting of hydraulic equipment using cutting oils, solvents and hydraulic oils. Liquid waste streams from the testing and refinishing operations flowed through sewer lines discharging to three underground storage tanks (USTs) located outside the main building. The three USTs contents were pumped out as needed, or at least weekly, by Hagglunds and taken to an off-site disposal facility.

Wastes from other process operations were stored outside in 55-gallon drums on a concrete storage pad northwest of the main plant building. These process wastes were separated by Hagglunds into hazardous and nonhazardous sections on the storage pad. After a limited soil investigation by Hagglunds in 1989, the drum storage pad area was determined not to be a significant source of contamination.

In October 1987, Hagglunds contracted with ChemTech Consultants (CTC) to perform tank tightness testing on the three USTs, noted as Tanks C-1, C-2 and C-3 (see attached Figure 2). Tank C-1 was a 550 gallon storage unit for hydraulic oil. Tank C-2 was a 550 gallon storage unit for waste oil. Tank C-3 was a 10,000 gallon storage unit for diesel fuel. CTC's assessment revealed leakage from Tank C-1, which was removed on March 28, 1988. The excavated soil from Tank C-1 was also removed and disposed off-site. Tank C-2 was removed by CTC on March 31, 1988 with soil contamination observed in the excavated pit. Part of the excavated soil was used for backfill in the area of Tank C-2. Polychlorinated biphenols (PCBs), lead, chromium, and volatile organic compounds (VOCs) were detected in the soils around Tank C-2.

Further testing by CTC in July 1988 revealed that no chlorinated compounds above detection levels were found at Tank C-1, but chlorinated compounds were found above detection limits at Tank C-2. Additional investigation at Tank C-2 was performed in September 1988. Groundwater monitoring in September 1988 at Tank C-2 also detected several VOCs. Additional soil was removed from the Tank C-2 area in October 1988. Hagglunds performed a number of soil sampling events at the former Tank C-2 location from April 1991 to December 1992 that confirmed the release of several contaminants.

In August 1990, the third UST, Tank C-3, was removed from the former Hagglunds site. This tank area had undergone limited investigation and was accepted as "clean" (No Further Action required) by the State Fire Marshal's (SFM) office in August 1992. The SFM's Bureau of Underground Storage Tank Regulations administers all removal actions dealing with petroleum products, such as the diesel fuel stored in Tank C-3 by Hagglunds.

Hagglunds began to monitor the groundwater in 1988 after several VOCs were found to be above the drinking water standard's maximum contaminant levels (MCLs). To voluntarily address this contamination Hagglunds installed a groundwater capture system in May 1991. The system used a shallow interceptor trench and a bedrock aquifer recovery well to collect the groundwater from the Tank C-2 area. The untreated groundwater was then pumped directly to the Columbus sanitary sewer line. The system operated from May 5, 1992 until January 26, 1996. A total of 20,320,000 gallons of groundwater was pumped into the sanitary sewer during this system's operation.

Hagglunds prepared an interim summary report of the investigation and remedial activities performed at the site, and presented this interim report to Ohio EPA on September 21, 1988. Hagglunds also elected to continue performing site investigation and remediation activities at their former plant site. Twelve monitoring wells were sampled semi-annually beginning in 1989 and ending in July 1991. Hagglunds also installed seven new on-site monitoring wells, which were then sampled in October 1991, January 1992 and December 1992. Thirteen soil samples were collected in September 1991 at the former C-2 Tank area. Four soil samples were collected in 1989 at the former drum storage area.

On December 28, 1992, Ohio EPA entered into Director's Final Findings and Orders (DFFOs) with Hagglunds Denison to address the environmental contamination related to the former Hagglunds site in Columbus, Ohio. Further studies at Hagglunds were conducted in accordance with the Ohio EPA's DFFOs, which included the performance of a Remedial Investigation and Feasibility Study (RI/FS). The RI/FS process was used to evaluate the existing conditions at this former Hagglunds Denison plant site.

A site-specific work plan for the RI was submitted by Hagglunds to Ohio EPA on June 4, 1993. The work plan presented the current information on the site's history, geology, completed investigations, and past remedial activities. Also, the work plan detailed the steps that would be taken to determine the nature and extent of the VOC contamination, and to perform a human health and ecological risk assessment for the former Hagglunds site. Ohio EPA approved the RI work plan in July 1993.

To determine the site's existing soil contamination, one soil boring was performed twenty-five feet to the west of the Tank C-2 area in December 1993. The former drum storage area was not investigated during the RI. Hagglund's consultant reviewed the four soil samples collected earlier in 1989, and concluded that the low levels of VOCs detected in this former drum area were not considered significant.

The RI investigative work also included the installation of three off site groundwater monitoring wells to the west of the former Hagglunds site in 1993. This brought the total number of groundwater monitoring wells to twenty-two, nineteen on-site and three off-site. In December 1993 and October 1994, Hagglunds sampled thirteen different groundwater monitoring wells for selected VOCs.

Human health risks from the remaining contamination in the soil and groundwater at Hagglunds were calculated for both current and future exposure scenarios. Scenarios were based on possible dermal contact, ingestion, or inhalation from soil, air and water exposure pathways.

The Baseline Risk Assessment (part of the RI report) stated that the low levels of chemicals detected in the site's groundwater were all below the MCLs. Also, the risk-based concentrations for a lifetime carcinogenic exposure risk is lower than the most conservative value of one in a million (1 in 1,000,000) used by the USEPA. The cumulative excess lifetime cancer risks for each receptor (child, teenager and adult) were not calculated because of the low levels of the chemicals detected in the soil and groundwater. Therefore, the risk assessment section concluded that no significant exposure risk, environmental or human, is posed by the former Hagglunds site in Columbus.

The finalized RI Report, amended from the original 1994 submittal, was submitted to Ohio EPA by Hagglunds on December 14, 1995. The final RI report discussed the site history, site setting, investigation methods, baseline risk assessment, the nature and extent of the contamination, and ecological assessment completed to determine the appropriate response actions for the VOC contamination in the soil and groundwater. The revised final RI report for Hagglunds, using much of the earlier information obtained before the issuance of the DFFOs, was approved by Ohio EPA on January 18, 1996.

Remediation work initiated by Hagglunds prior to the RI has reduced the elevated VOCs levels discovered at the former plant site. Also, in May 1992, Hagglunds began operating a groundwater capture system used to collect the groundwater around the former Tank C-2. The system pumped 300,000 to 400,000 gallons per month of groundwater into a sanitary sewer line. The system's discharge was analyzed monthly for VOC concentrations. Because the level of VOCs were below the drinking water standard for MCLs, Hagglunds decided to cease operations of the capture system in January 1996.

The RI report defined the extent of the contamination, and the human health and ecological assessments indicate that the remaining concentrations of VOCs do not pose any further significant exposure risk. The source of the VOC contaminants has been removed through the three USTs removals and the associated soil excavation work. With no source, the residual VOC concentrations are expected to continue to decline as natural attenuation processes occur. Therefore, no further remedial actions are necessary at the former Hagglunds Denison site.

Remedial Alternatives Evaluated in the Feasibility Study (FS):

Since the human health and ecological assessments of the RI indicate that the remaining VOC contaminant levels do not present unacceptable risks to human health or the environment, the No Further Action alternative was the only remedial alternative evaluated by the FS. Therefore, development and evaluation of other remedial alternatives were not considered necessary by the Ohio EPA for the former Hagglunds Denison plant site in Columbus.

RESPONSIVENESS SUMMARY:

A public information session and hearing was held at the Ohio EPA's Central Office, 1800 Watermark Drive, Columbus, Ohio on May 28, 1997 at 7:00 p.m. Ohio EPA staff was prepared to give a presentation of the draft preferred plan and the results of the site investigation, however, no audience members from the general public were in attendance at the May 28th meeting. A formal public hearing was then held for interested public to provide formal comments on Ohio EPA's Preferred Plan for the Hagglunds Denison Corp. (now known as Denison Hydraulics). No written or verbal comments were received at the public hearing. A transcript of the public hearing is on file at Central District Office.

Signatures:

Jan Carlson, Chief
Division of Emergency and Remedial Response
Ohio Environmental Protection Agency

Mike Czeczele, Assistant Chief
Division of Emergency and Remedial Response
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Deborah Strayton 6/25/97
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Raymond A. Beaumier 7/17/97
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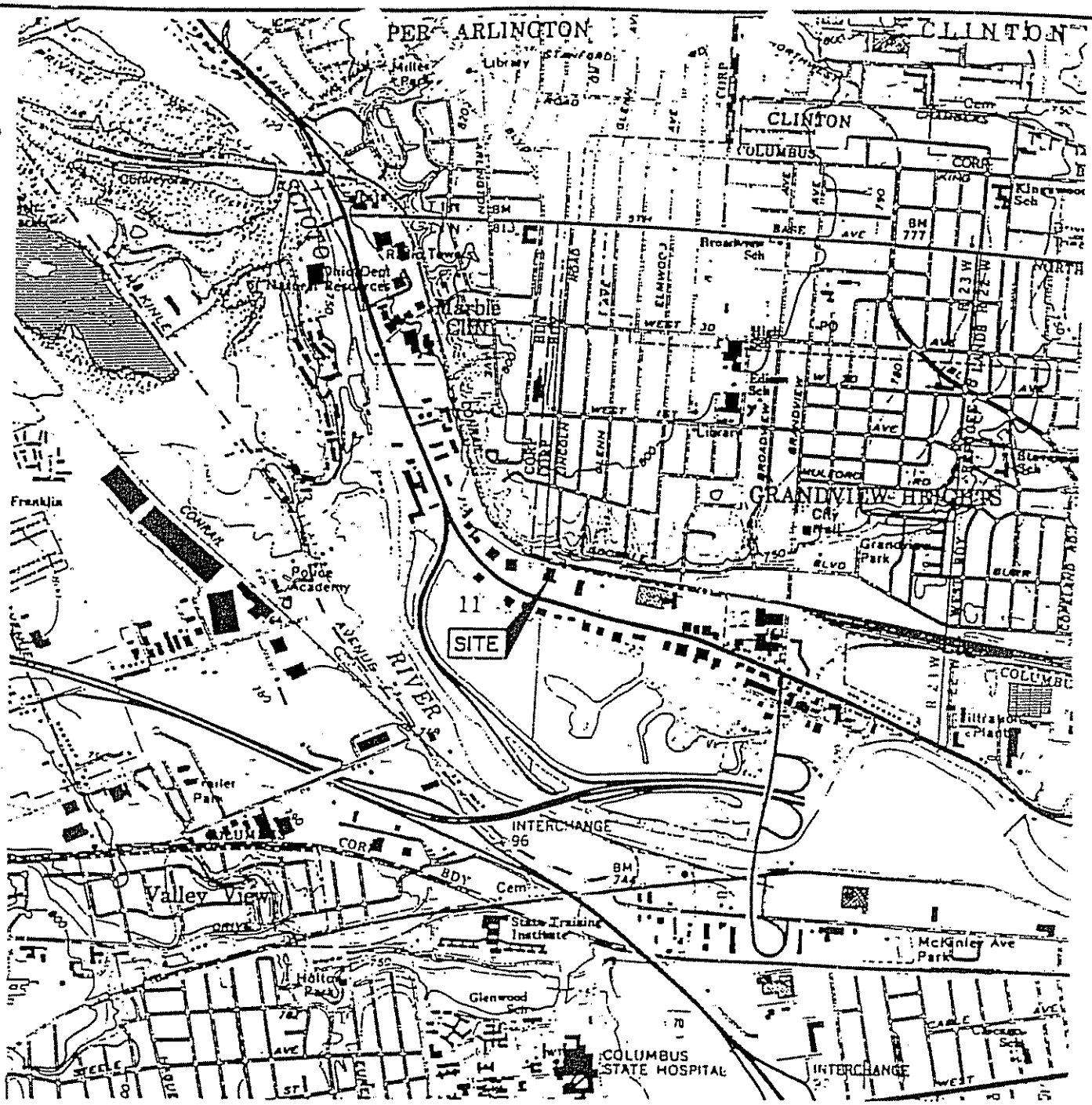
Division of Emergency and Remedial Response
Ohio Environmental Protection Agency



SCALE 1:24000

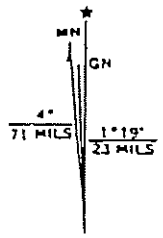
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929



UTM GRID AND 1982 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

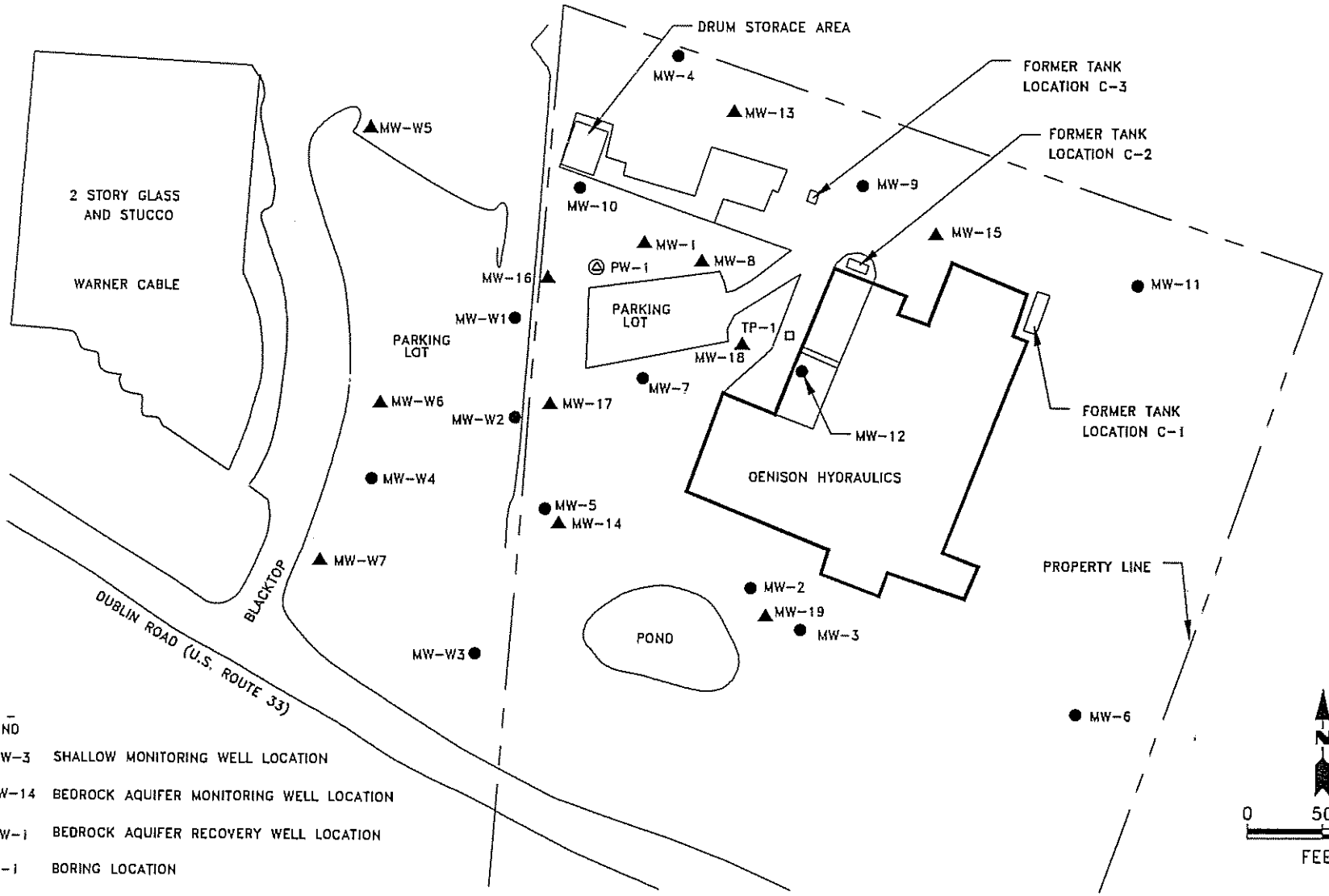
QUADRANGLE LOCATION

SOUTHWEST COLUMBUS QUADRANGLE
OHIO—FRANKLIN CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

GENERAL LOCATION MAP
HAGGLUNDS DENISON
COLUMBUS, OHIO

FIGURE 1

511785



BURLINGTON ENVIRONMENTAL
– A Philip Environmental Company –

TITLE: Well Location Map

DWN:	DES.:	PROJECT NO.: 13081
PTS		Denison Hydraulics Columbus, Ohio
CHKD:	APPD:	
DATE: 01/03/95	REV.: B	Figure 2

WK#1 C:\DENISON\GEO\MAPS\WELLLOC.DWG