MOUND

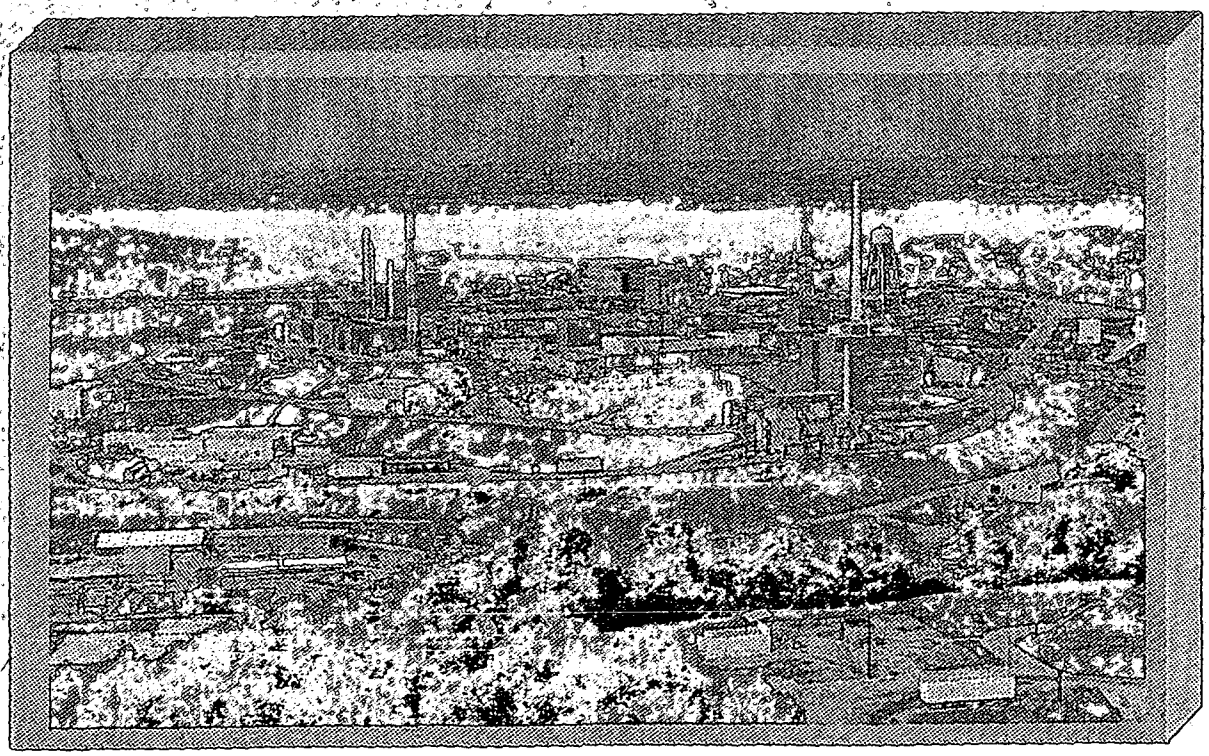
Environmental Restoration Program

MOUND PLANT

Building Data Package

Magazines 5, 6, 7, 10, 11, 20, 53, 54

Located within Release Block C, E, R, Q



BDP Magazines 5, 6, 7, 10, 11, 20, 53, 54

REV	DESCRIPTION	DATE
PUBLIC RELEASE 0	Available for comments.	Sept. 4, 1997
FINAL 1	Comment period expired. No comments. Press release inserted.	Nov. 4, 1997

MOUND

Environmental Restoration Program

MOUND PLANT BUILDING DATA PACKAGE

Notice of Public Review Period

The following Building Data Packages will be available for public review in the CERCLA Public Reading Room, 305 E. Central Ave., Miamisburg, Ohio beginning August 7, 1997. Public comment will be accepted on these packages from August 7, 1997, through September 10, 1997.

Buildings 5, 6, 7, 10, 11, 20, 53, 54: Energetic/Inert Storage Magazines

Written comments may be sent to Mound Community Relations, P.O. Box 3000, Miamisburg, Ohio 45343-3000 or by E-Mail to nowksl@doe-md.gov. Questions can be referred to Mound's Community Relations at (937) 865-4140.

Mound Plant Recommendation
Magazines

BACKGROUND:

Magazines 5, 6, 7, 10, 11, 20 and 54 are single story reinforced concrete structures covered with approximately two feet of earth. Magazine 6 has no earth covering. Each Magazine has one or more storage cells that are protected by a canopy. Magazines 5, 6, 7, 10, 11, 20 and 54 range in size from 90 - 513 square feet and were constructed between 1949 and 1970.

RECOMMENDATION:

After thorough review of the environmental data and the building data package, the Core Team agrees that all existing environmental issues associated with Magazines 5, 6, 7, 10, 11, 20 and 54 have been resolved. Future use of Magazines 5, 6, 7, 10, 11, 20 and 54, if left in place, shall be restricted to industrial/commercial use. The Core Team hereby recommends that the U.S. Department of Energy submit a letter to the Administrator of the U.S. EPA for final approval of the lease or sale of this property, as required by Section 120(h) of CERCLA.

CONCURRENCE:

DOE/MEMP: Sam Cheng 5-14-97
Sam Cheng, D&D Team Leader (date)

USEPA: Timothy J. Fischer 5/14/97
Timothy J. Fischer, Rem. Proj. Mgr. (date)

OEPA: Brian K. Nickel 5/15/97
Brian K. Nickel, Project Manager (date)

MOUND PLANT

Building Data Package

BDP 5,6,7,10,11,20,53,54

Release Block C,E,R,Q

N
O
P
H
G
L
F
11
7
54
J
M
K
6
C
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53
B
D
S
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A

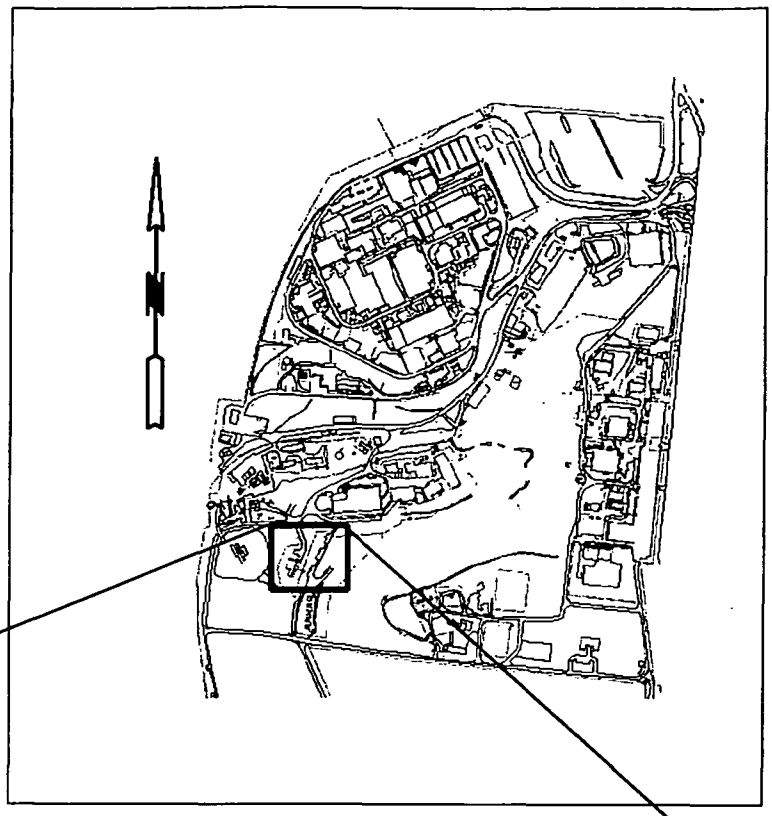
Mound Plant

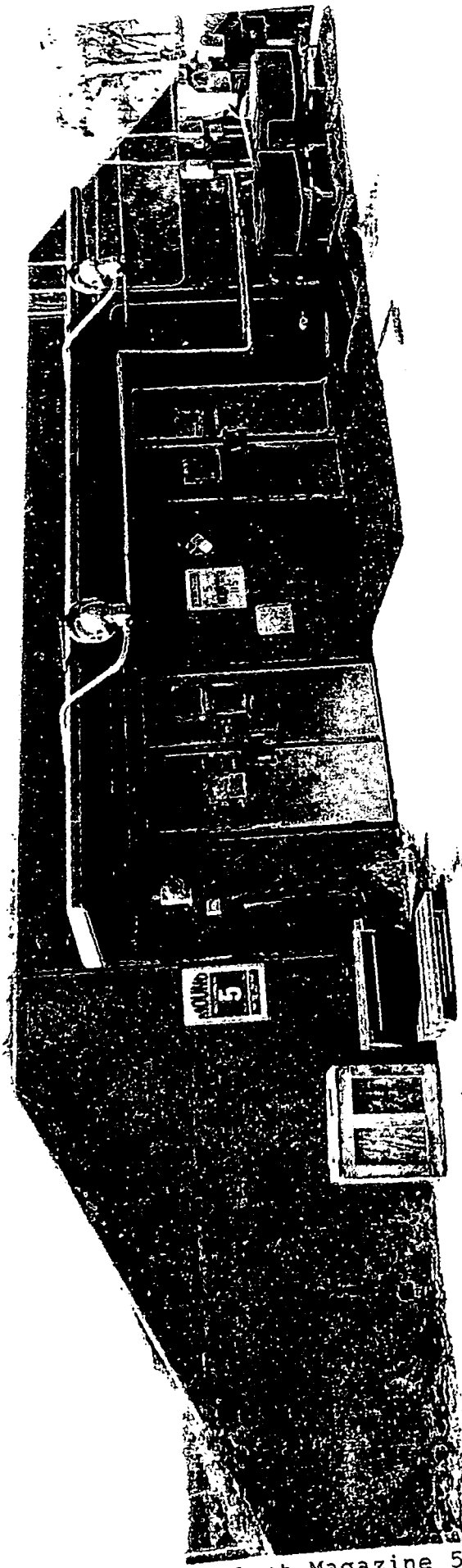
Magazine 5

Materials Storage

Release Block C

On the map below:
- Building number and location shown in black
- PRS locations and numbers shown in blue
- Surrounding buildings shown in green
- Fencing shown in red
- Elevation contours shown in brown




AMMO
5

Mound Plant

Magazine 6

Materials Storage

Release Block C

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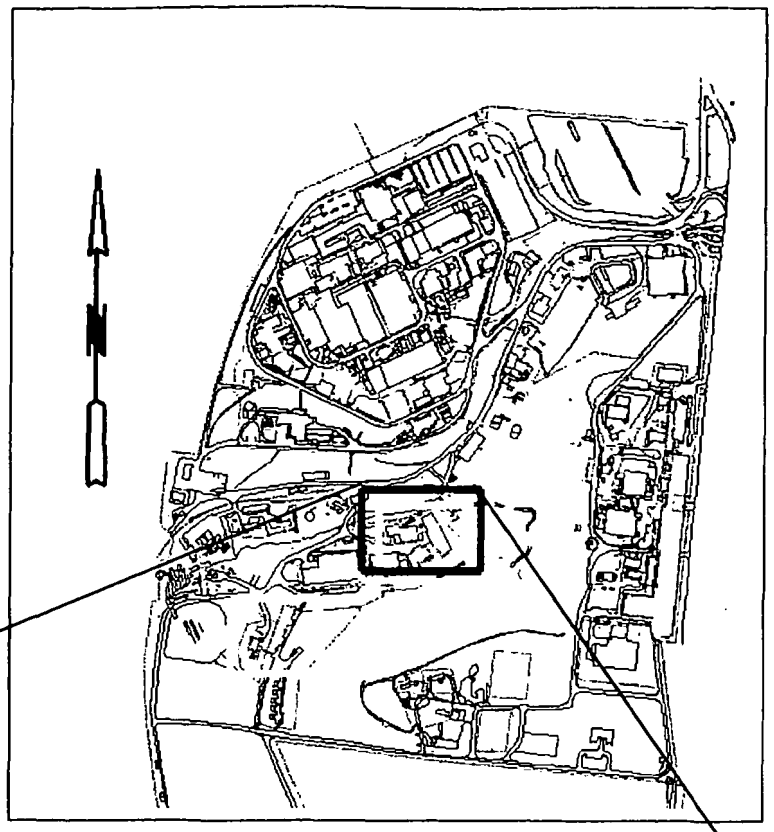
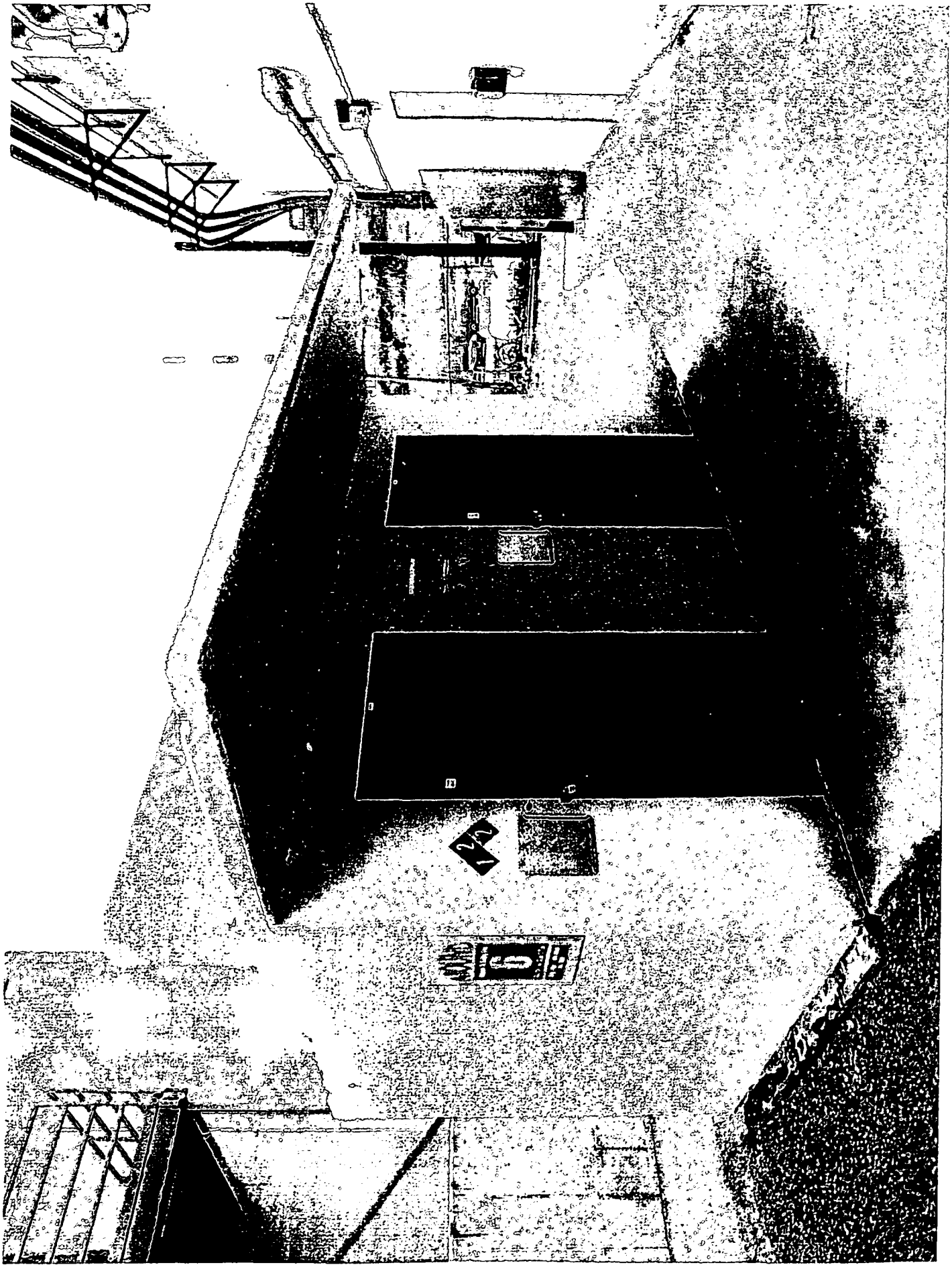
- PRS locations and numbers shown in blue
- Surrounding buildings shown in green
- Fencing shown in red
- Elevation contours shown in brown





Mound Plant Magazine 6

9.118-65

Mound Plant

Magazine 7

Materials Storage

Release Block R

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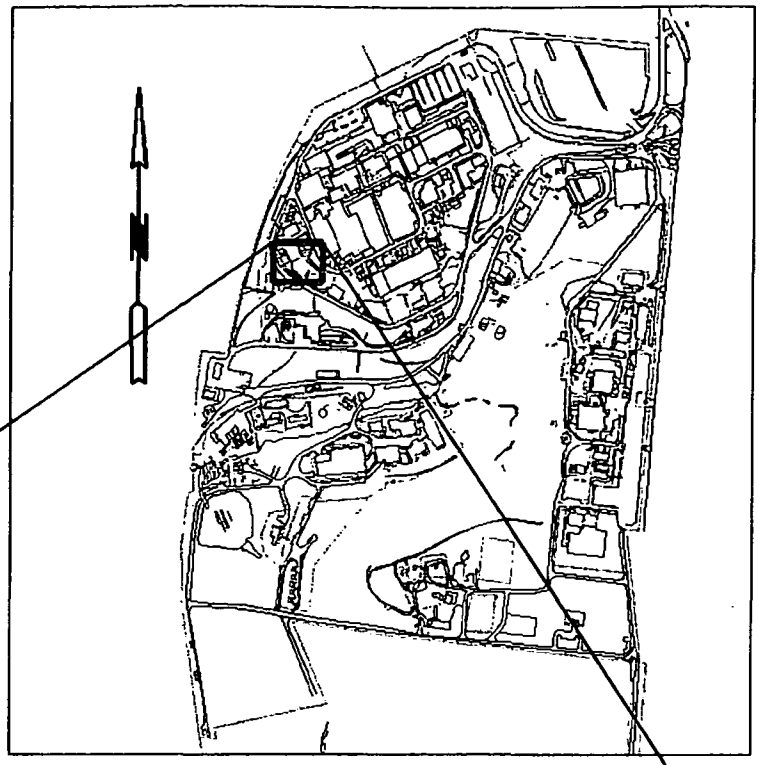
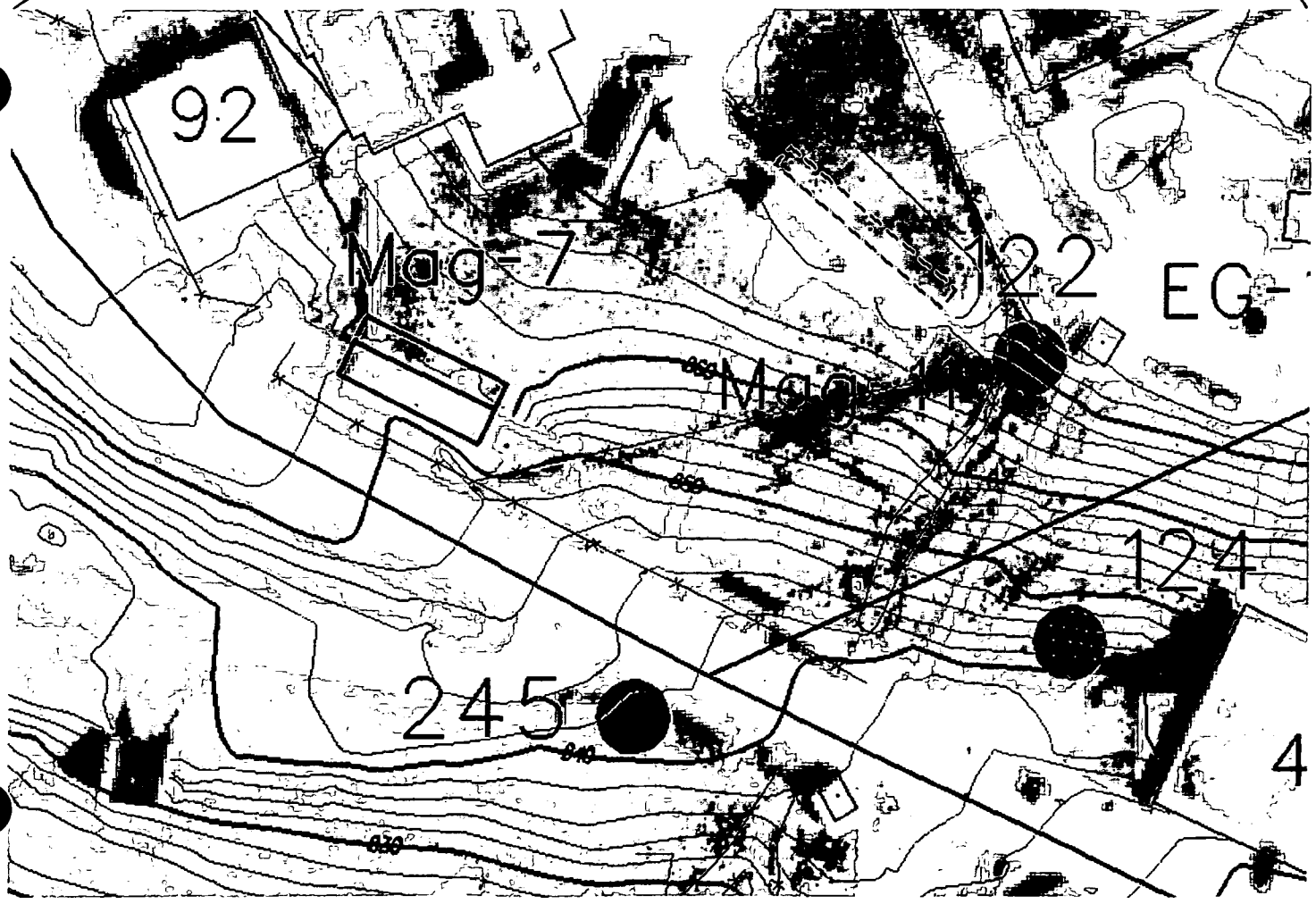
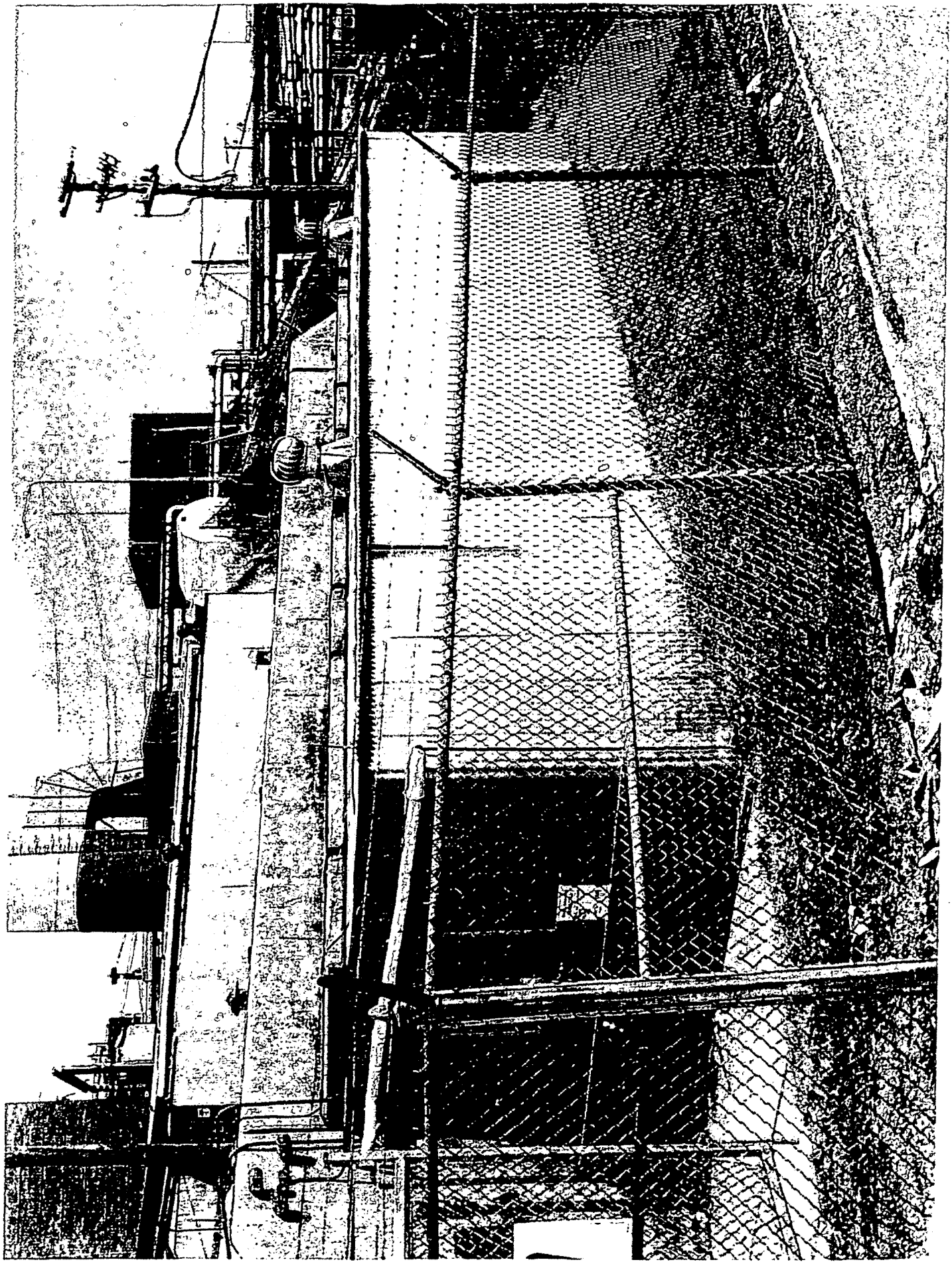
- PRS locations and numbers shown in blue
- Surrounding buildings shown in green
- Fencing shown in red
- Elevation contours shown in brown







Mound Plant

Magazine 10

Materials Storage

Release Block C

On the map below:
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- PRS locations and numbers shown in blue
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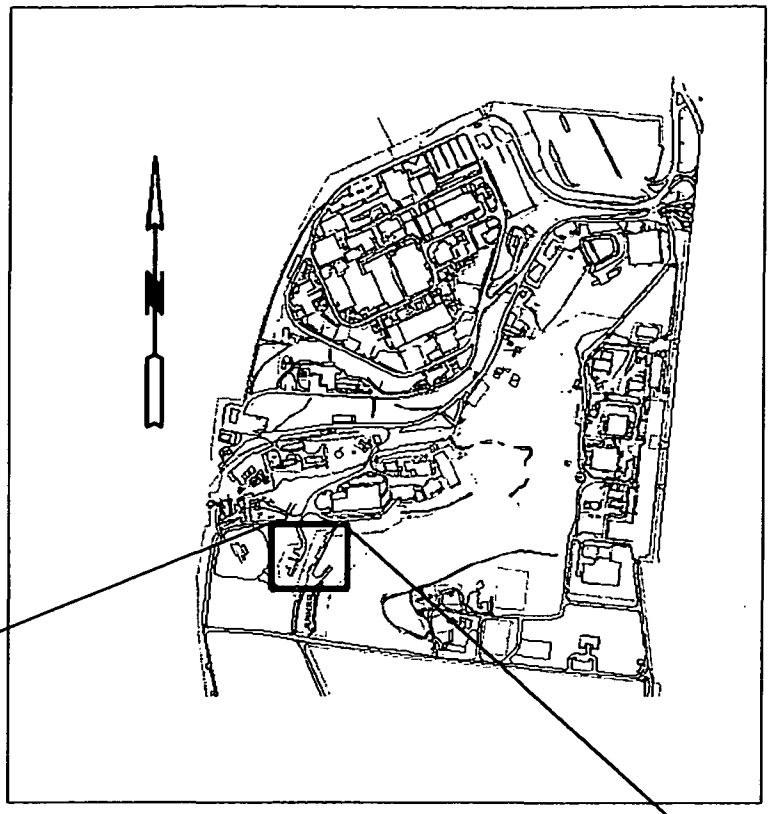
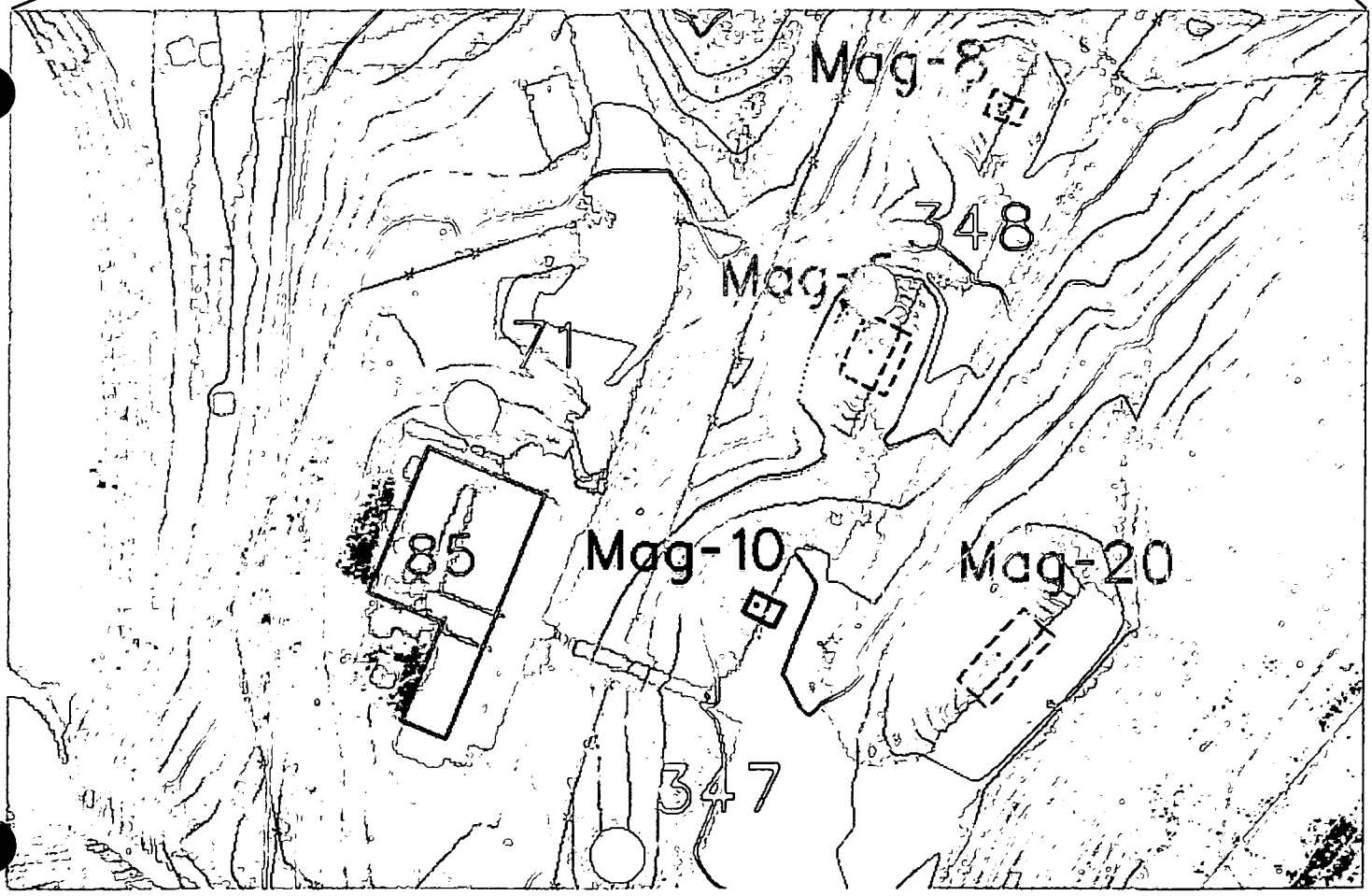
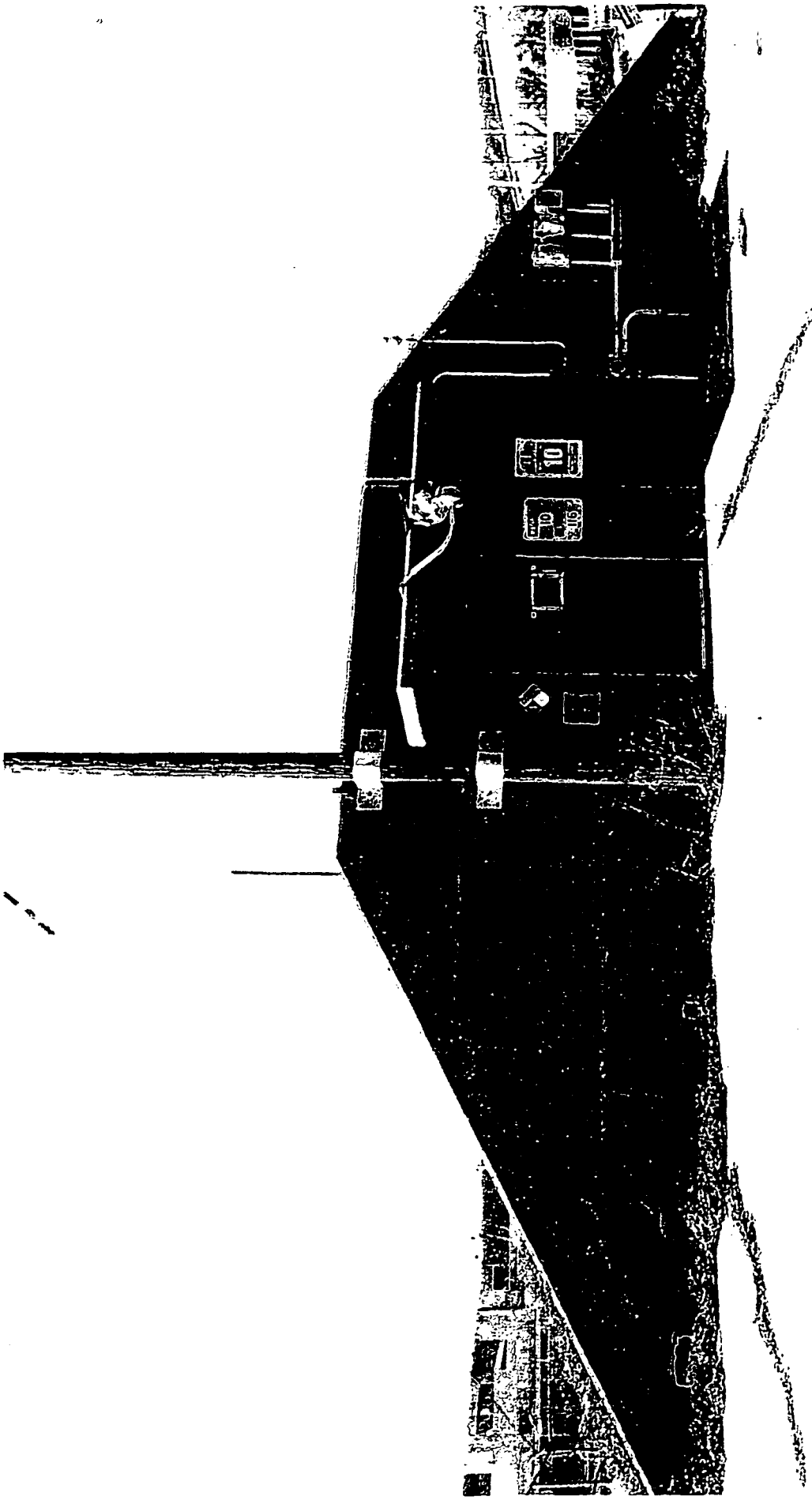
- Fencing shown in red
- Elevation contours shown in brown





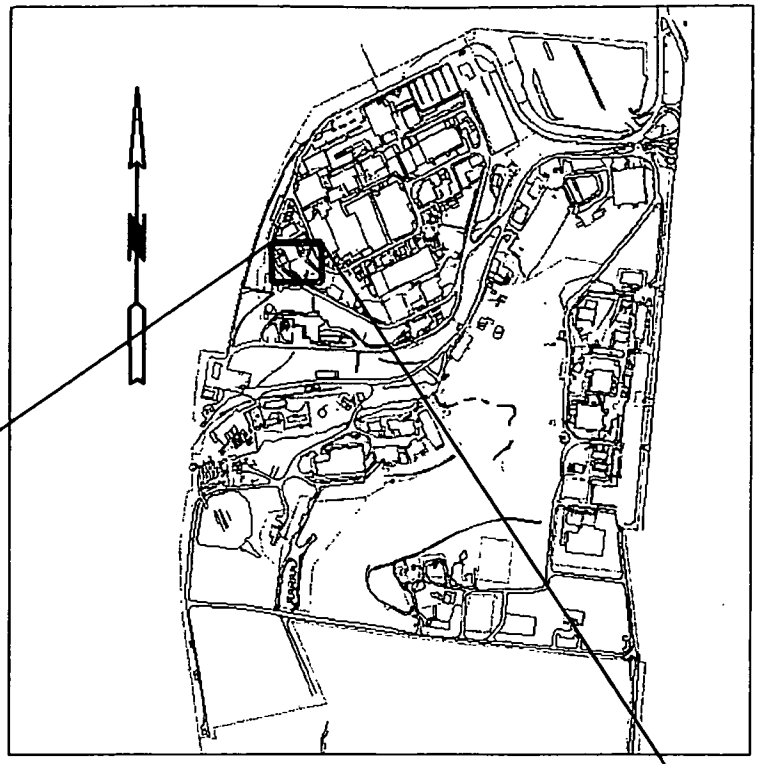


Mound Plant

Magazine 11

Materials Storage

Release Block R



On the map below:
- Building number and location shown in black
- PRS locations and numbers shown in blue
- Surrounding buildings shown in green
- Fencing shown in red
- Elevation contours shown in brown

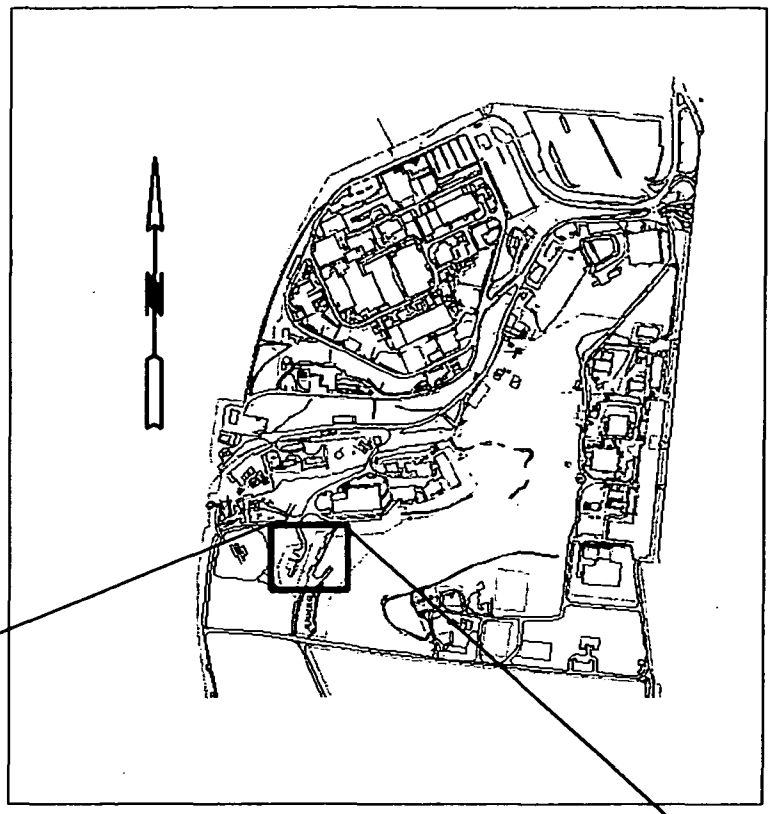
Mound Plant

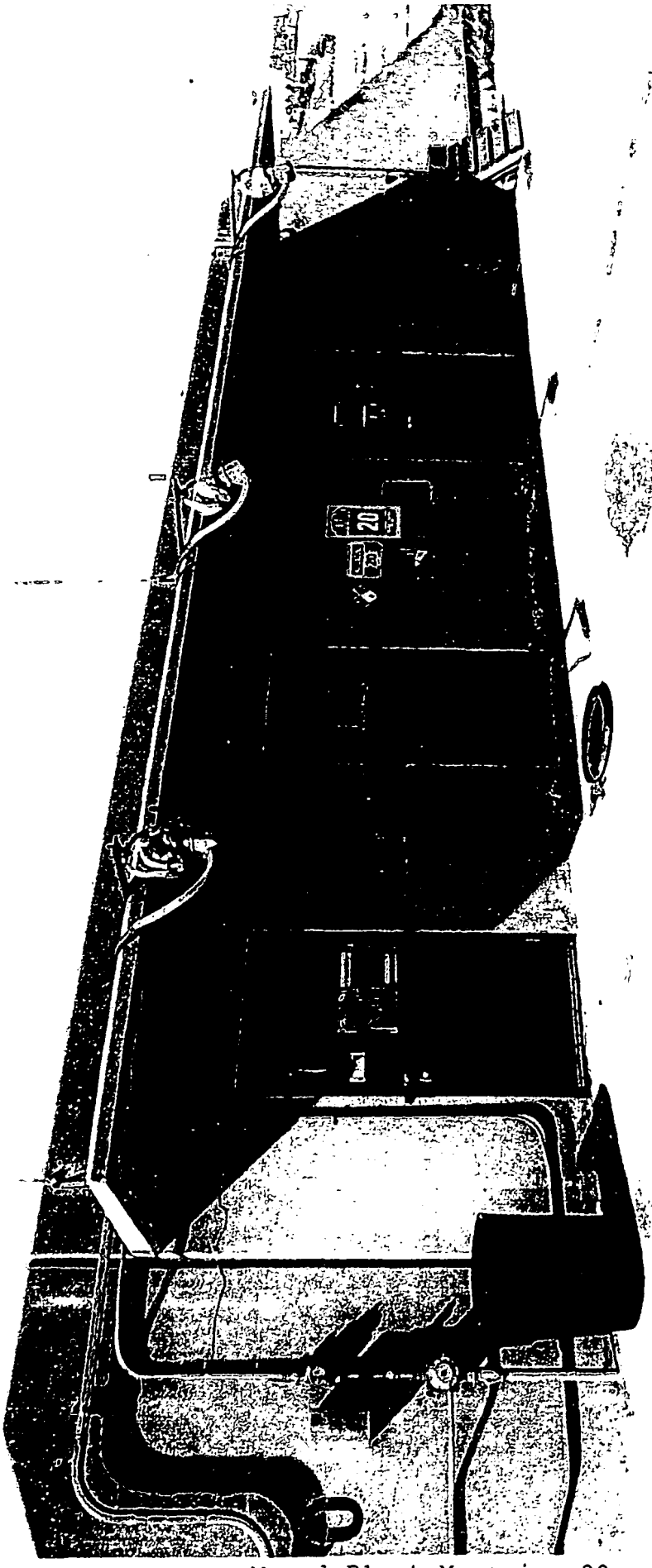
Magazine 20

Materials Storage

Release Block C

On the map below:
- Building number and location shown in black
- PRS locations and numbers shown in blue
- Surrounding buildings shown in green
- Fencing shown in red
- Elevation contours shown in brown





Mound Plant Magazine 20

9.123-65

Mound Plant

Magazine 53

Materials Storage

Release Block E

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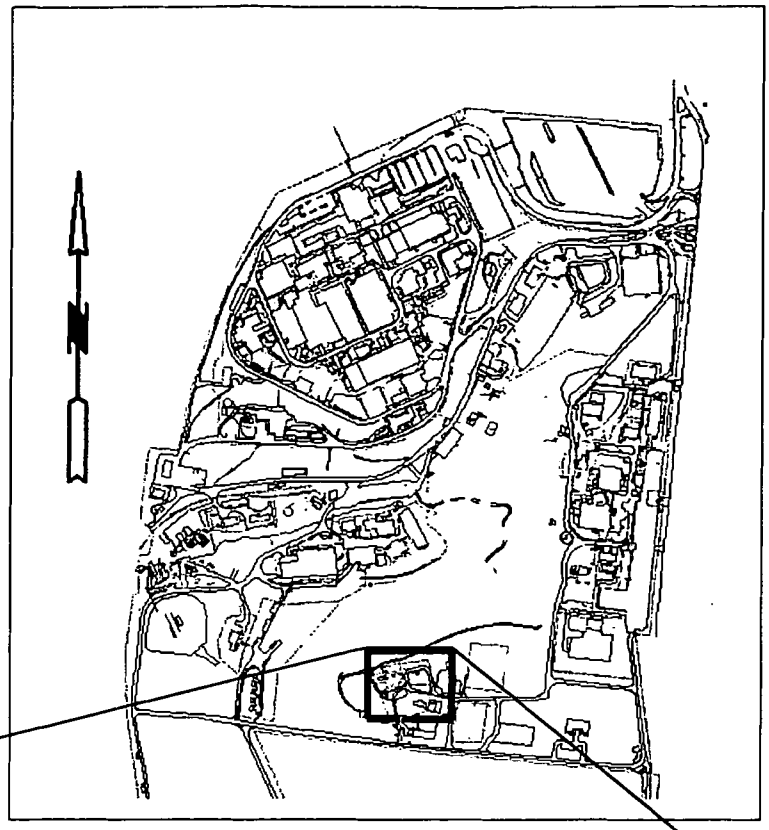
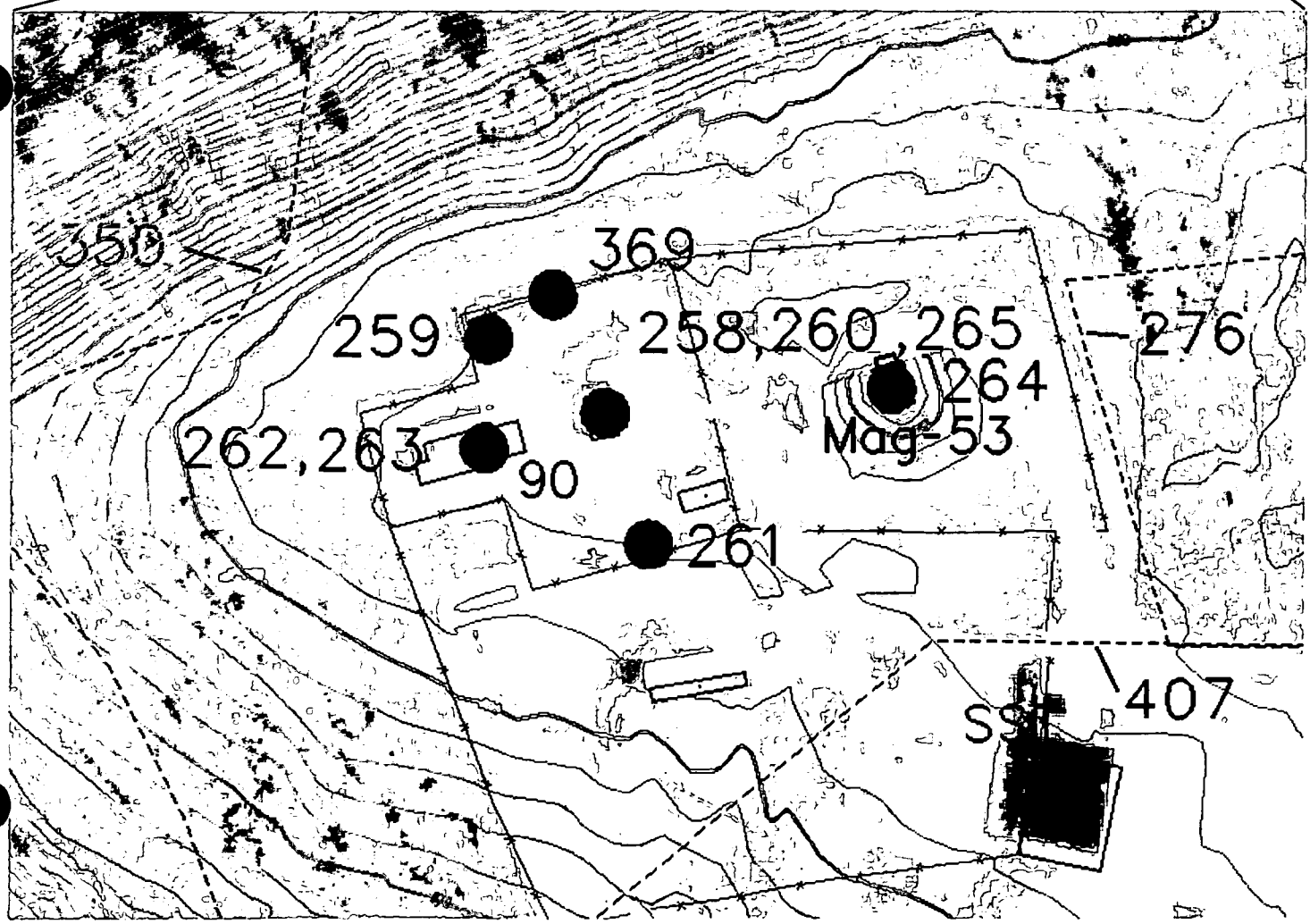
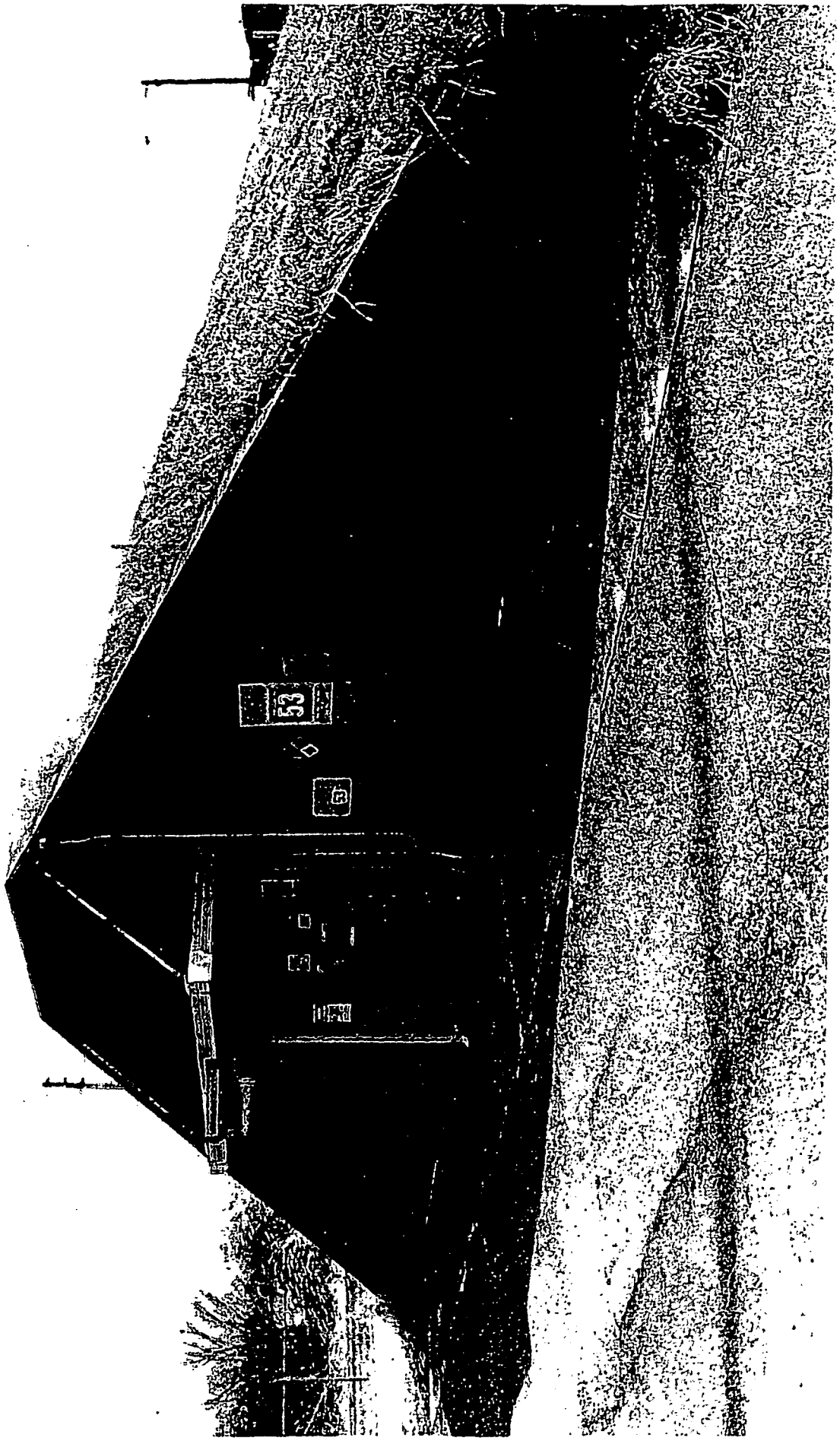
- PRS locations and numbers shown in blue
- Surrounding buildings shown in green
- Fencing shown in red
- Elevation contours shown in brown







Mound Plant Magazine 53

9.125-65

Mound Plant

Magazine 54

Materials Storage

Release Block Q

On the map below:
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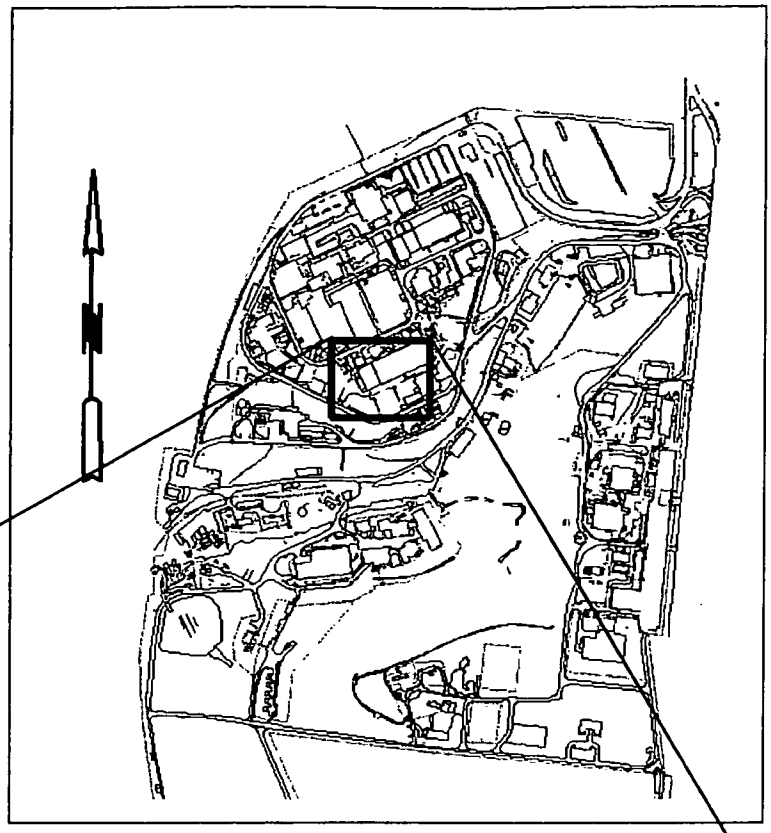
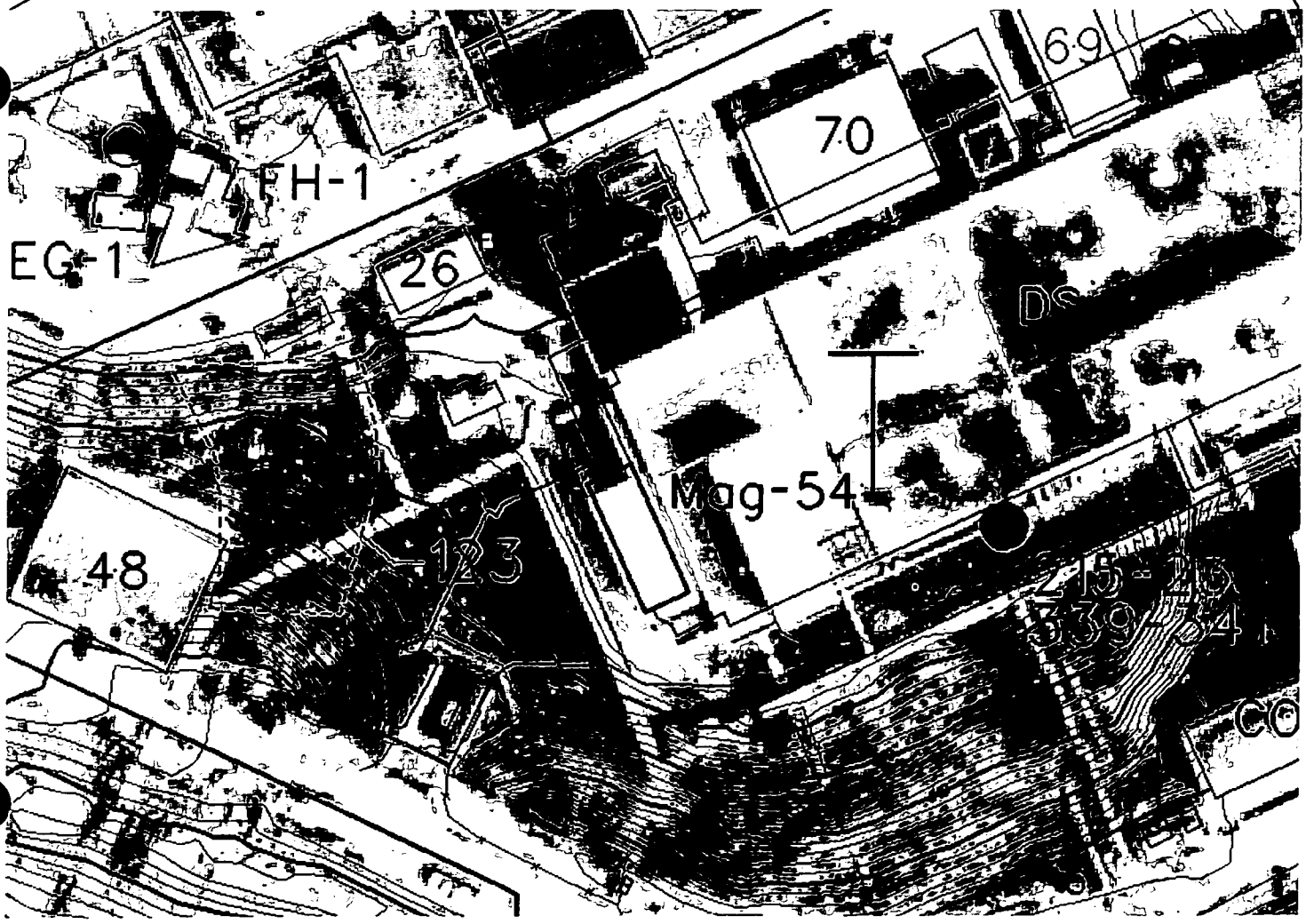
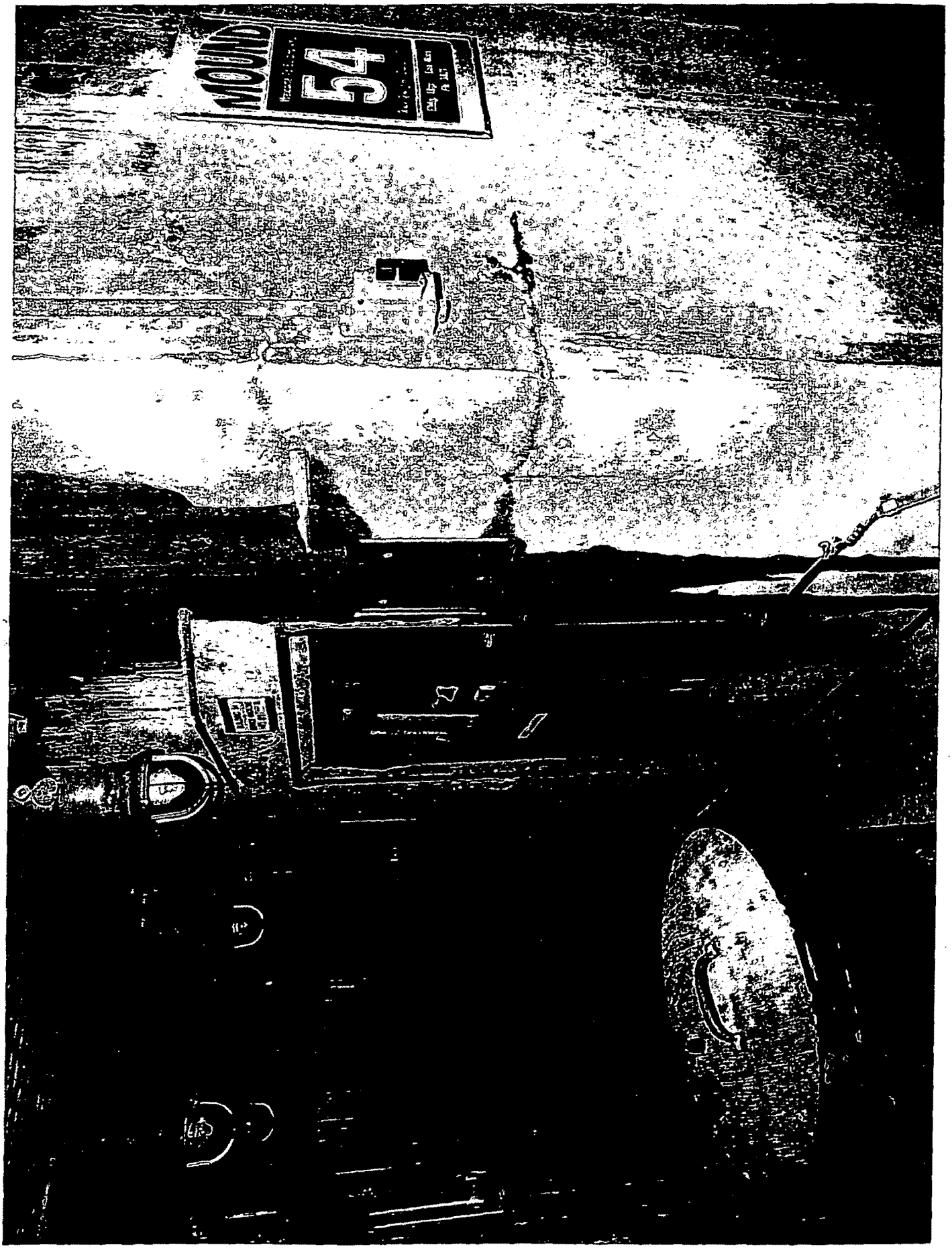
- PRS locations and numbers shown in blue
- Surrounding buildings shown in green
- Fencing shown in red
- Elevation contours shown in brown







Mound Plant Magazine 54

9.126-65

BUILDING DATA PACKAGE (BDP)

MAGAZINES 5, 6, 7, 10, 11, 20, 53, 54

DOE MOUND PLANT

MIAMISBURG, OHIO 45343

Table of Contents

1.0 Summary

1.1 General

This document has been prepared in response to an agreement between the Department of Energy (DOE), the U.S. Environmental Protection Agency, and the Ohio Environmental Protection Agency. It is a Building Data Package of Magazines 5, 6, 7, 10, 11, 20, 53 and 54 located at the DOE Mound Plant in Miamisburg, Ohio. This investigation was performed in accordance with the procedures laid out in ASTM Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process (Designation E 1527-94).

The scope of the investigation included the magazines and a 15-foot wide perimeter border around the magazines. This perimeter includes roadways, sidewalks, pavement and grass covered areas. The investigation of Magazines 5, 6, 7, 10, 11, 20, 53 and 54 included the following.

1) A building and perimeter inspection.
2) An examination of historical aerial photographs and maps.
3) A review of federal and state regulatory agency record.
4) Personnel interviews.
5) A review of Mound Plant records for:
   a) History of spills and releases
   b) Past sampling data
      - Radiological survey
      - Chemical history
      - Lead paint
      - Asbestos
      - Radon

Although Magazine 53 is included throughout this document, the Core Team decided on May 14, 1997 that this magazine would be excluded from the binning recommendation. Magazine 53 is included in the RCRA closure for the Burn Area. Finalization of the RCRA closure will allow the Core Team to reevaluate Magazine 53. The building investigation was conducted by EG&G personnel on March 26, 1997 and April 14 through April 28, 1997.

Mound Plant is located in the southern portion of the corporation limits of Miamisburg, Ohio. The entire Mound Plant facility is situated on 305 acres of land and contains approximately 130 buildings. The subject property consists of Mound Plant Magazines 5, 6, 7, 10, 11, 20, 53, and 54.

Magazine	Facility Area	Date Constructed
Magazine 5	314 sq. ft.	1961
Magazine 6	90 sq. ft.	1949
Magazine 7	387 sq. ft.	1957
Magazine 10	66 sq. ft.	1956
Magazine 11	372 sq. ft.	1957
Magazine 20	303 sq. ft.	1963
Magazine 53	239 sq. ft.	1970
Magazine 54	513 sq. ft.	1970

All areas *are in gross* square feet (external wall to external wall). These magazines have served primarily as storage facilities for containerized bulk explosive materials for United States Department of Energy detonator production.

1.2 Statement of Environmental Concerns

There are no substantial environmental concerns related to these magazines and the 15-foot perimeter area.

Because refrigerants were not removed from the Magazine 5 HVAC system, future owners of these facilities will have to be cognizant of the responsibilities of managing chlorinated fluorocarbon refrigerant materials.

Because of the date of construction, there is some potential for the presence of lead based paints in all of these Magazines.

2.0 Introduction

2.1 Purpose

The purpose of this Building Data Package is to identify, as possible, any recognized environmental conditions (defined below) that may affect the subject property.

2.2 Special Terms and Conditions

Key Site Manager – The Key Site Manager is the person identified by the owner of a property as having good knowledge of the uses and physical characteristics of the property. This individual is frequently, but not necessarily always, the Building Manager. Mr. Robert Ward, Building Manager, has been designated as the Key Site Manager for Magazines 5, 6, 10, 20, and 53. Mr. Jeff Boston, Building Manager, has been designated as the Key Site Manager for Magazine 54. Mr. Gary Weidenbach, Building Manager, has been designated as the Key Site Manager for Magazines 7 and 11.

Recognized Environmental Condition – The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a likely release, a past release, or a material threat of a release of any hazardous substances or petroleum into structures or into the ground, ground water, or surface water near the building. The term is not intended to include *deminimis* conditions that generally do not present a material risk of harm to public health or the environment, and that generally would not be the subject of an enforcement action brought to the attention of the appropriate governmental agencies.

2.3 Limitations and Exceptions of Assessment

Magazines 5, 6, 7, 10, 11, 20, 53 and 54, as stated above, are covered by the building footprint, the surrounding concrete roadway, concrete sidewalk, asphalt pavement, and grass covered areas 15 feet around the perimeter of the magazines. Soil conditions beneath the magazines and the paved areas could not be observed. Based on the process history of the magazines and the records of soil investigations in the soil areas near the magazines, it was determined that no soil samples were required within the 15-foot perimeter.

2.4 Limiting Conditions and Methodology Used

2.4.1 On-Site Methodology

Mound Plant personnel examined the magazines in the Spring of 1997. This examination consisted of a detailed inspection of the magazines and border survey of the neighboring properties.

2.4.2 Use of Previous Assessments

This report used a variety of previous assessments completed by EG&G Mound and/or its subcontractors. The reports used were as follows.

- OU-9 Site Scoping Report, Volumes 1-12
- Mound Facility Physical Characterization, December 1992
- Active Underground Storage Plan, November 1994.
- MD-22153, Mound Site Radionuclides By Location, July 1995
- Asbestos Surveys
- Environmental Appraisal of the Mound Plant, March 1996
- Characterization of Mound's Hazardous, Radioactive and Mixed Wastes, August 1990
- Phase 1, Environmental Assessment of Thirteen Buildings at Mound Plant, April 1994

2.4.3 Historical Information

A complete title search of the Mound Plant was completed on June 3, 1995. A copy of the report is in Appendix 7.3.

2.4.4 Records Review

Environmental Data Resources (EDR), Inc., of Southport, Connecticut, a regulatory database search company, was contracted in 1995 to provide environmental regulatory information concerning the site and surrounding properties, consistent with the requirements of ASTM Standard #1527-94. This information was reviewed by Environmental Restoration personnel for indications of recognized environmental conditions.

3.0 Site Description

3.1 Location and Legal Description

Magazines 5, 6, 7, 10, 11, 20, 53, and 54 are located at the U.S. Department of Energy facility known as Mound Plant. Mound Plant is situated in the city of Miamisburg, Miami Township, Montgomery County, state of Ohio, and is being a track of land containing 305.116 acres, more or less, situated in part of Section 30 and fractional Sections 35 and 36, Town 2, Range MRS and being all of city lots numbered 2259, 2290, 4777, 4778, and 4779 and part of out lot #6 lying within the city of Miamisburg, Ohio; and being the same premises convened in Warranty Deeds recorded in Volume 1214, pages 10, 12, 15, and 17, Volume 1215, page 347, Volume 1214, page 248, Volume 1246, page 45, Volume 1258, page 74, Volume 1258, Volume 1256, page 179, and microfiche no. 81-376A01 and microfiche #81-323. Deed records, maps, and site plans are in Appendix 7.2 and 7.3.

3.2 Site and Vicinity Characteristics

The subject site consists of Mound Plant Magazines 5, 6, 7, 10, 11, 20, 53, and 54 and a 15-foot wide perimeter border around each magazine. (See Appendix 7.2 and Introductory Pages.)

The Mound Plant facility is situated on 305 acres of land and contains approximately 130 buildings with a total of approximately 1.4 million square feet of floor space. (The number of buildings is constantly diminishing as buildings are decommissioned and either sold or demolished.) The original 182-acre site, purchased by the Manhattan Engineering District in 1946, consists of two hills and an intervening valley that runs approximately east and west. The 124-acre tract, acquired in 1981, is an underdeveloped mixture of fields and woods that undulates and slopes downward to the west, away from the main site. This area was acquired to serve as a buffer and has been used as a staging area and parking area for contractors working on-site.

To the west lies a Conrail Railroad line and the north south trending Miami-Erie Canal (owned and controlled by the Ohio Department of Natural Resources). The northern boundaries of the site abuts the historic residential area of Miamisburg, Ohio. Mound Road marks the northern half of the eastern perimeter of the facility then veers east, away from the southern half of the eastern boundary. A public golf course (belonging to the City of Miamisburg), the Miamisburg Mound Memorial Park, old agricultural fields, residential lots, and vacant wooded lots border against the facility along Mound Road. Benner Road forms the southern property

line of the Mound Plant, with agricultural fields and farms occupying the lands beyond.

3.3 Description of Structures, Roads, Other Improvements on the Site

Magazines 5, 6, 7, 10, 11, 20, 53, and 54 are single story reinforced concrete structures. Magazines 5, 7, 10, 11, 20, 53, and 54 are covered with earth. Magazine 6 has no earth covering. The earth covering was removed to allow an addition to Building 63 to be constructed. There were no other structures, roads or improvement that would impact the environmental conditions of the magazines.

3.4 Information Reported by User Regarding Environmental Liens or Specialized Knowledge or Experience

The title search completed on June 3, 1995 indicated one lien against the property. That resulted from an unpaid Montgomery County incinerator fee. After this was discovered, the fee was paid and the lien was removed from the title.

3.5 Current uses of Magazines 5, 6, 7, 10, 11, 20, 53 and 54

No operations are being conducted in Magazines 5, 6, 7, 10, 11, 20, 53, and 54, and the magazines are currently empty.

3.6 Past Uses of Magazines 5, 6, 7, 10, 11, 20, 53, and 54

The magazines were used for the purpose of storing large quantities of containerized explosives. Detonators, high explosive powders, detonator cords, pyrotechnic powders, hexanitrostilbene, and primary explosives were stored in drums on the floor or on shelves.

Magazine 5 consists of two storage cells. A continuous concrete canopy protects the entrance to the cells. The roadway ends at the edge of the foundation. This building was constructed as a slab on grade building, with reinforced concrete walls and roof that was covered with about two feet of earth. Materials were removed by September 9, 1995. This magazine has a central cooling system.

Magazine 6 consists of two storage cells. A continuous concrete canopy protects the entrance to cells. The roadway ends at the edge of the foundation. This building was constructed as a slab on grade building, with reinforced concrete walls and roof that was covered with about two feet of earth. At some time the earth was removed. Materials were removed by September 30, 1994.

Magazine 7 consists of four storage cells. A plastic canopy protects the entrance to the cells. The roadway ends at the edge of the foundation. This building was constructed as a slab on grade building, with reinforced concrete walls and roof that was covered with about two feet of earth. Explosive materials were stored in tray type containers in one cell to allow the drying system to function properly. The rooms were sealed in late 1994. When opened, there were no residual materials. This magazine has a steam heating system.

Magazine 10 consists of a single storage cell. A continuous concrete canopy protects the entrance to the cell. The roadway ends near the edge of the foundation. This building was constructed as a slab on grade building, with reinforced concrete walls and roof that was covered with about two feet of earth. Materials were removed from this magazine by September 30, 1995. This magazine had neither a heating or cooling system.

Magazine 11 consists of eight storage cells. A plastic canopy protects the entrance to the cells. The roadway ends at the edge of the foundation. This building was constructed as a slab on grade building, with reinforced concrete walls and roof that was covered with about two feet of earth. The rooms were sealed in late 1994. When opened, there were no residual materials. This magazine has a steam heating system.

Magazine 20 consists of three cells. The center cell is full of sandbags and sealed. The sandbags were placed in this cell to allow for larger quantities of explosives to be stored in the remaining two cells. The purpose of the sandbags was to eliminate propagation of an explosion of either of the two end cells. A continuous concrete canopy protects the entrance to the cells. The roadway ends at the edge of the foundation. This building was constructed as a slab on grade building, with reinforced concrete walls and roof that was covered with about two feet of earth. Materials were removed from this magazine at some time prior to September 30, 1995. This magazine has neither a heating or cooling system.

Magazine 53 consists of a single cell. A canopy protects the entrance to the cells. The roadway ends at the edge of the foundation. This building was constructed as a slab on grade building, with reinforced concrete walls and roof that was covered with about two feet of earth. The roof and sidewall construction of this magazine is corrugated steel rather than concrete. The end walls are 12" reinforced concrete. This bunker was used for the temporary storage of waste products. Materials were removed from this magazine at some time prior to the end of 1996. This magazine has neither a heating or cooling system. Magazine 53 was included in the RCRA closure of the Burn Area. This magazine will be reviewed after the RCRA closure is completed.

Magazine 54 consists of five cells. A plastic canopy protects the entrance to the cells. The roadway ends at the edge of the wall foundation. This building was constructed as a slab on grade building with reinforced concrete walls and roof that was covered with about two feet of earth. Materials were removed from this magazine at some time prior to September 30, 1994. This magazine has neither a heating or cooling system.

3.7 Current and Past Uses of Adjacent Buildings

These magazines are located in somewhat remote locations with no contiguous buildings. The exception is Magazine 54, which is a continuation of the dock at building DS.

Magazines 5, 6, 10, & 20

Close Proximity to Building	Building Area (Sq. Ft)	Current Use	Past Use	Direction from Building
87	38,882	Vacant	Explosive Testing	SW
85	3,161	Vacant	Powder Blending & Processing	E

These facilities appear to have no environmental impact on the above magazines.

Magazines 7 & 11

Close Proximity to Building	Building Area (Sq. Ft)	Current Use	Past Use	Direction from Building
I	64, 654	Vacant	Load & Test Explosives	S
SW	43,066	Processing Nuclear Materials	Same as Current Use	SW
89	4,380	Vacant	Explosive Component Storage	W
48	7,950	Vacant	Explosives Testing & Offices	NW

These facilities appear to have no environmental impact on the above magazines.

Magazine 53

Close Proximity to Building	Building Area (Sq. Ft)	Current Use	Past Use	Direction from Building
SST	590	Salt Storage	Salt Storage	N

This facility appears to have no environmental impact on the above magazines.

Magazine 54

Close Proximity to Building	Building Area (Sq. Ft)	Current Use	Past Use	Direction from Building
DS	47,810	Metrology Laboratories Explosive Development Tape Processing Production Receiving Inspection	Metrology Laboratories	W

This facility appears to have no environmental impact on the above magazines.

4.0 Records Review

4.1 Standard Environmental Record Sources, Federal and State

Environmental Data Resources, Inc., provided information regarding sites in the vicinity of the subject site, which appear in regulatory agency summaries and databases. Sites under the jurisdiction of various regulatory offices or programs were included in the EDR search report, provided in Appendix 7.4.

There are fourteen sites within the appropriate (see EDR document, Appendix 7.4) radii for an ASTM Phase I Environmental Site Assessment search. The properties are designated in Table 1 as well as in the EDR report.

All of the identified sites listed in Table 1 are located north or west of the Mound Plant. These other sites are as much as 170 feet lower in elevation than the Mound Plant main hill; thus they are down gradient or down slope in terms of surface water, and probably ground water flow. These other sites are very unlikely to adversely effect the soil or ground water conditions at the subject site.

The Mound Plant site was identified as a contaminated site on the National Priority List under CERCLA (Superfund) in 1989. The Mound Plant site was originally listed as a consequence of historic disposal practices including use of a commercial/industrial landfill, various spills, and the use of underground storage tanks, resulting in the contamination of soils and drinking water. The original contaminants of concern were calcium cyanide, copper cyanide, plutonium and its isotopes, and compounds, specifically plutonium-238, and uranium, its isotopes and compounds.

The clean-up of the Mound Site was originally to be accomplished under the CERCLA mandated procedures for regulating Superfund Sites using the operable unit (OU) system to define and characterize clean-up areas. As the clean-up effort went forward, it became apparent that the Mound Site did not fit the profile for a clean-up strategy based on operable units. The Department of Energy (DOE), the United States Environmental Protection Agency (USEPA), and the Ohio Environmental Protection Agency (OEPA) designed a new decision making process for the clean-up of Mound. The new process is known formally as a "removal site evaluation process" and informally as the "Mound 2000 process". The Mound 2000 process system divided Mound into 19 Release Blocks containing over 400 Potential Release Sites (PRSs) with approximately

200 concerned with potentially contaminated soils, and the balance with potential contamination in buildings.

In compliance with permit requirements under RCRA, the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), and the Clean Air Act (CAA), Mound Plant has applied for or has received permits for its surface water discharges, air emissions, and hazardous waste program. Mound Plant has submitted both RCRA Part A and Part B permit applications and operates as a RCRA hazardous waste treatment and storage facility under an interim status. Mound Plant also maintains an NPDES surface water discharge permit with Facility I.D. number OH 009857. Permits for the open burning of wastes involving explosives and other fuels have been issued by the Regional Air Pollution Control Agency (RAPCA). Other operations that produce particulate or vaporous emissions are registered with RAPCA and OEPA. Mound Plant also submits annual Emergency and Hazardous Chemical Inventory forms to the OEPA, pursuant to SARA, Title III, the Emergency Planning and Community Right-to-Know Act. The 1995 version of this report indicated that no chemicals are stored in Magazines 5, 7, 10, 11, 20, 53, and 54 in quantities above the regulatory thresholds.

Table 1. Properties of ASTM Phase I Environmental Sites Assessment

Address and Property Name	Proximity	Status
U.S. DOE Mound Plant	Mound Road Miamisburg, OH (target property)	NPL, PADS, CERLIS, LUST, & TRIS
D.J. Ceramics	611 S. Main Street Miamisburg, OH (WNW)	LUST
CG&R	901 S. Main Street Miamisburg, OH (W)	LUST
GMC Delco Products Division	329 E. First Street Miamisburg, OH (NNW)	RCRIS-SQG, FINDS
Dayton Public Schools	348 W. First Street Miamisburg, OH (NNW)	RCRIS-SQG, FINDS
City of Miamisburg Pump Station	1021 S. Main Street Miamisburg, OH (WSW)	UST
Richard Church, Sr. Estate	1009 S. Main Street Miamisburg, OH	LUST
Presto Adhesive Paper Co., Inc.	222 Mound Avenue Miamisburg, OH (N)	RCRIS-LQG, FINDS
Plocher Andrew Sons	4128 E. First Street Miamisburg, OH (N)	RCRIS-SQG, FINDS
Shell Oil Co.	1224 S. Main Street Miamisburg, OH	LUST
Point Store	155 S. Main Street Miamisburg, OH (N)	LUST
Miamisburg Water Treatment Plant	302 S. Riverview Miamisburg, OH (NW)	LUST
Miamisburg Well Field/Unknown Source	302 S. Riverview Miamisburg, OH (NW)	LUST
Technicote, Inc.	222 Mound Avenue Miamisburg, OH (N)	RCRIS-SQG, UST, LUST

4.2 Physical Setting Source(s)

See Appendix 7.2.

4.3 Historical Use Information

A history of the site was developed to identify past uses that may have an environmental impact. A title search was performed on June 3, 1995 to establish a history of ownership. The history of operations comes from other documents. In the summer of 1942, the United States Army organized the Manhattan Energy District for the purpose of developing an atomic bomb. This undertaking became known as the "Manhattan Project." In 1943, the director of Monsanto Chemical Company (MCC, now Monsanto Corporation) Central Research department in Dayton, Ohio accepted the responsibility for chemistry and the metallurgy of radioactive polonium-210, and the Dayton Project was launched. MCC operated five (5) units of the Dayton Project at various locations around the Dayton area. For Dayton Unit V (more formally known as the Dayton Engineer Works under the Dayton Engineer District), a 128-acre site on the outskirts of the town of Miamisburg, Montgomery County, Ohio, was selected in 1946 as the location for a permanent research facility in support of the Manhattan Project. In July 1946, the Monsanto Research Corporation (MRC), a subsidiary of MCC, engaged the firm of Giffels and Vallet of Detroit, Michigan, to design the plant. Construction of the new facility, consisting of fourteen (14) original buildings began in February 1947 by Maxon Construction Co., Dayton, Ohio. The plant was the first permanent facility of the Atomic Energy Commission, which succeeded the wartime Manhattan Engineering District. The Mound Plant was occupied by MRC personnel in May 1948 and operations involving radionuclides began in January 1949.

Mound Plant is a Government Owned/Contractor Operated (GOCO) facility, originally administered under the Oak Ridge Operations office of the AEC. The plant was assigned new production and development functions in 1955 when the administrative control was assumed by the AEC's Santa Fe operations office. The Santa Fe Operations Office was changed to the Albuquerque Operations office in April 1956. In January 1975, upon the dissolution of the AEC, the plant formally came under the Energy Research and Development Administration. In October 1977, the plant was incorporated into the DOE complex and the facility designation was changed from Mound Laboratory to Mound Plant. MRC was the sole operating contractor until October 1988 when EG&G Mound Applied Technologies took over.

Magazines 5, 6, 7, 10, 11, 20, and 54 were constructed from 1949 to 1970 as explosives storage bunkers. No waste was generated or stored in these magazines. Magazine 53 was used for temporary storage of containerized explosive waste prior to thermal destruction.

4.4 Additional Record Sources

4.4.1 History of Past Spills and Releases

No spills or releases were likely to have occurred in the magazines because 1) all energetic materials were stored in sealed containers and 2) procedures did not allow the opening of the sealed containers inside the magazine. See Appendix 7.5.

4.4.1.1 Associated PRS Overview

As a result of the investigations and documentation conducted to comply with the CERCLA cleanup process via the FFA/DOE ER program, DOE and EG&G Mound Applied Technologies have tabulated all the Potential Release Sites (PRSs). Many additional contaminants of concern and types of operations were identified beyond the original NPL listing of site activities. A total of 413 PRSs have been identified. None of these 413 PRSs have been attributed to the magazines. The PRSs that are in the general vicinity of the magazines will be listed and discussed below. (See Introductory Pages and Appendix 7.2.)

Magazines 5, 10, 20

PRS 71 – Identified as a potential release site because it was a below grade tank designed to store waste solvents associated with explosive processing in Building 85. Based on sampling results and the fact that the tank was never used, this PRS was binned as "No Further Assessment." See Appendix 7.2.

PRS 347 – Identified as a soil Potential Release Site because of qualitative hydrocarbon detections found during PETREX soil gas portion of the OU-5, Non Area of Concern Investigation. Subsequent sampling and analysis in the area allowed this PRS to be binned "No Further Assessment." See Appendix 7.2.

PRS 348– Identified as a soil Potential Release Site because of qualitative hydrocarbon detections found during PETREX soil gas portion of the OU-5, Non Area of Concern investigation. Subsequent sampling and analysis in the area allowed this PRS to be binned "No Further Assessment." See Appendix 7.2.

Magazine 6

PRS 67 – Originally identified by the Preliminary Review/Visual Site Inspection conducted by the U.S. Environmental Protection Agency in 1988. It is an open, unlined channel that flows above the ground, through the central part of the facility from Building 22 to the retention basins on the western plant boundary. The ditch carries surface run-off from both the Main Hill and the SM/PP Hill areas, as well as the asphalt-lined pond that drains to the ditch through a culvert, emerging behind Building 22. From that point, the open ditch falls 40 feet over a length of 1800 feet. The banks rise steeply from 8 to 20 feet above the flow line of the ditch, and its width varies from 30 to 80 feet. The upper-most reach of the ditch was in-filled and reclaimed for development in the late 1960s. In the 1960s and early 1970s, the plant drainage ditch received systematic releases of low-activity plutonium-238 wastewaters from operations in the SM and WDA buildings. Periodic spills due to Mound Plant operations have occurred since the 1950s and are documented in investigation reports. The contaminants involved included fuels, solvents, oils, cooling-water brines (calcium chloride and zinc chromate), ethylene glycol, and plutonium-238 waste-waters that reached the ditch via surface runoff. This PRS was reviewed by the Core Team and binned as "Further Assessment."

PRS 72 – Identified as that area which was used in the early 1950s for the storage of materials contaminated with polonium-210. It is also known as Area 13. In 1949, wood, equipment, and other materials were brought to Mound from the former Dayton operations and staged in and around Area 13. Materials were monitored for alpha contamination associated with the polonium-210. In 1955, wood and lumber that was too contaminated to be removed from the plant site was soaked with fuel oil and burned in Area 13. Residual materials were subsequently buried in the historic landfill (now known as

PRS 10). This PRS was reviewed by the core team and binned as "Further Assessment."

PRS 87 – Refers to the storage sheds that supplied solvents to the cleaning operations performed in Building 49. The Building 49 operations have used two storage sheds. The first shed was built in 1968 and was operated until 1986. This shed, located on the north side of Building 29, was demolished in 1986 to provide space for the construction of the Building 49 addition. Another shed was built and is located approximately 100 feet east of the Building 49 addition. This shed is a small metal structure with dimensions of 8x12x10 feet. It was operational from 1986 to the early 1990s. Trichloroethene (TCE), isopropyl alcohol, ethyl alcohol, Freon TF, and hexane were stored in these sheds. There is no record of a solvent spill or leak from the storage sheds. The Building 49 Solvent sheds did not involve radiological operations. Building 49 and the Solvent shed have been leased to a commercial company, EG&G Star City. This PRS was reviewed by the Core Team and was binned as "Further Assessment."

PRS 330 – Identified as an Underground Storage Tank (UST), tank 260. The tank was in service from 1956 to 1968. It was used to store No. 2 fuel oil that supported Building 2, located in the Mound Test Fire area. The tank was removed in 1968. Approximately 8 inches of asphalt was placed over the area in 1972. This PRS was binned as "No Further Assessment." See Appendix 7.2.

PRS 331 – Identified as the Building 2 septic tank. Because of the discharge of sanitary wastewater from Building 2 to this tank; it was identified as a Potential Release Site. This PRS was binned as "No Further Assessment." See Appendix 7.2.

Magazines 7 and 11

PRS 122 – Identified as underground radioactive waste lines. These lines were used to transport radioactive waste from SW, R, and H buildings to the Waste Disposal (WD) building. These lines were abandoned in 1970. This PRS will be addressed as part of the D&D program.

PRS 124 – Identified as a soil Potential Release Site. It is associated with PRS 122. This soil area west of Building 48 was contaminated from a break in the underground line. This PRS will be addressed as part of the D&D program.

PRS 245 – Identified as a Potential Release Site because of the detection of volatile organic compounds during the Mound Reconnaissance Sampling Soil Gas survey. This PRS was binned as "No Further Assessment." See Appendix 7.2.

Magazine 53

PRS 258/259/260/261/262/263/264/265 – Potential Release Sites (PRS) 258 through 265 refer to the waste storage and treatment facilities located in the "Burn Area." This area is located northwest of Building 21. A variety of wastes such as explosive powders, pyrotechnic materials, solid wastes contaminated with energetic materials, and weapon components were thermally treated in the "Burn Area."

The units listed below were identified by the 1988 RCRA Facility Assessment and were subsequently investigated by Mound's Environmental Restoration program.

PRS	Unit	Description	In Service Dates
258	Open Burn Cubicle	Thermal treatment unit – open burn	1966-1995
259	Pyrotechnics Shed	Waste storage shed – pyrotechnic materials	1975-1996
260	Thermal Treatment Unit	Thermal treatment unit – electrical furnace operated within the Open Burn Cubicle	? - 1991
261	Trash Burner Area	Thermal treatment unit	1950s-1988
262 263	Retort Building 90	Thermal treatment unit – rotary kiln	1984-1995
264	Magazine 53	Waste Storage Bunker – secondary explosives	1970-1996
265	Pretreatment Unit	Evaporation of waste solvents prior to thermal treatment via Open Burn Cubicle	? - 1991

These PRSs are being addressed as part of the RCRA Closure Plan for the Burn Area.

PRS 369 – Identified as a soil Potential Release Site because of qualitative hydrocarbon detections found during the PETREX soil gas portion of the OU-5, Non Area of Concern investigation. Subsequent sampling and analysis allowed this PRS to be binned "No Further Assessment." See Appendix 7.2.

PRS 350 – Identified as a soil Potential Release Site because of detectable plutonium-238 concentrations (25-50 pCi/g) discovered during the OU-5 Phase I investigation in 1994. This PRS has been binned as "No Further Assessment." See Appendix 7.2.

PRS 407 – Identified as the soil area associated with Building 21. Building 21 stored thorium sludges in the 1960s. This soil area will be addressed through the D&D project to remediate Building 21 and the associated contaminated soil.

Magazine 54

PRS 123 – Identified as a soil Potential Release Site. The underground radioactive waste line (PRS 122) broke in this area and contaminated the soil waste of Magazine 54. This PRS will be addressed as a part of the D&D program.

PRS 215-233 & 339-341 – Are sumps and drains in T Building. These PRSs will be addressed within the framework of building dispositioning.

4.4.1.2 Occurrence Reports

An interview with the Occurrence Report Manager, Jeff Boston, on April 23, 1997, indicated no reportable events.

4.4.2 Past Sampling Data

4.4.2.1. Radiation Surveys

A radiation survey was conducted on these Magazines the week of April 14, 1997. A wipe and scan survey was accomplished per the requirements of the Property/Waste Release Evaluation (P/WRE) for these Magazines. The Radiological

Characterization Summary indicates that no radiological contamination was detected above the DOE 5400.5 Guidelines, NUREG 1500 Guidelines or the Attachment 1 Limit (MD-90043). See the following Table 2 and Appendix 7.6.

Table 2
Radiological Characterization Summary

Magazines 5, 6, 7, 10, 11, 20, 53, 54

Type	RSDS	Location	Amount (dpm/100 cm2)	5400.5 Guidelines for Groups 1, 3, 4 (fixed + loose) (dpm/100 cm2)	NUREG 1500 Guidelines (loose) (dpm/100 cm2)	Attachment 1 Limit (fixed + loose) (See Note 2.) (dpm/100 cm2)	Comments
Highest Alpha Smearable Activity	97-GA-213	Magazine 7 Room 3	4	20	211	20	No Action Necessary
Highest Alpha Fixed Activity	All	All	<100	100	Note 1	100	No Action Necessary
Highest Beta Smearable Activity	97-GA-213	Magazine 7 Room 1	7	1,000	9940	1,000	No Action Necessary
Highest Beta Fixed Activity	All	All	<5,000	5,000	Note 1	5,000	No Action Necessary
Highest Tritium Smearable Activity	97-GA-212	Magazine 11 Room 7	110	1,000	Note 1	1,000	No Action Necessary

Note 1: NUREG-1500 gives guidelines for loose beta and alpha only.
Note 2 The limits referenced above is based on MD-80043, Radiological Work Requirements Procedure 400 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste ", Attachment 1.

4.4.2.2. Chemical History

There is no historical chemical data on any of the magazines, except Magazine 53. The chemical data for Magazine 53 was collected as part of the RCRA closure plan for the Burn Area. The magazine was decontaminated and the rinseate was analyzed for eleven compounds to determine successful decontamination. All eleven compounds analyzed were detected below the action levels.

4.4.2.3. Lead Paint

Because of the age of Magazines 5, 6, 7, 10, 11, 20, 53 and 54, lead paint is assumed to be present. Paint chip samples were collected in Magazines 5, 7, 11 and 20, and indicated no lead contamination. See Appendix 7.6.

4.4.2.4. Asbestos

Mound's Technical Manual, Asbestos Program Manual, MD-10391, indicates that (known, assumed, suspected) asbestos was not found in Magazines 5, 6, 7, 10, 11, 20, 53, and 54. Floor tile samples were collected from Magazines 5, 7, and 11 and indicated no asbestos contamination. See Appendix 7.6.

4.4.2.5. Radon

Mr. Ron Daily of the Mound Radiological Assessment/Management Group has indicated that the storage magazines are not intended for human habitation and thus radon information is not available for them. The interior air volume of such a small space is massively diluted each time the door is open and a dangerous level of radon could not accumulate.

4.4.3. Chemicals Removed After Mission End

The only chemicals stored in the magazines were explosives. All explosives were removed from the magazines

4.4.4. Review of Building Prints

Building prints were reviewed and included in Appendix 7.2.

4.4.5. Aerial Photographs

Aerial photographs from 1994, 1983, 1973, 1968, 1965, 1959, 1949, and 1938 were reviewed and copies are found in Appendix 7.2.

The 1938 photograph shows that the Mound Plant site was agricultural fields and undeveloped wooded lots. The historic Miamisburg Indian Mound is visible for a location reference.

The 1949 photograph shows the completed initial phase of construction on the Mound Plant Main Hill. Approximately fourteen (14) buildings are visible. Roadways on both the Main Hill and the eastern hill are present.

The overall Mound Plant facilities, as depicted in the 1968, 1973, 1983, and 1994 photographs continue to show change and expansion.

5.0 Site Reconnaissance

5.1 Hazardous Substances in Connection with Identified Uses

5.1.1 Space

The magazines are not in use at this time. There are no indications of the presence of hazardous substances. All energetic materials were stored in sealed containers and procedures did not allow the opening of these containers inside the magazines. See Appendix 7.5.

5.1.2 Heating/Cooling

Steam for heating is provided to Magazines 7 and 11 via an above ground system of distribution piping running from the powerhouse (Building P). The boilers generate saturated 125 psig steam and reduced to 30 psig for use in the magazine. The condensate is not collected in the magazines.

Air conditioning was provided to Magazine 5 via split package air conditioning systems. These units have been disconnected. Records indicate that refrigerants were not removed from these systems. All other Magazines have no heating or cooling systems.

5.1.3 Stains or Corrosion

Only minor stains were observed. These stains are believed to be rust from containers and shelving.

5.1.4 Drains and Sumps

No drains or sumps were located in Magazines 5, 6, 7, 10, 11, 20 53 and 54.

5.1.5 Wastewater

Potable water and sanitary service was never provided for Magazines 5, 6, 7, 10, 11, 20, 53, and 54. The Mound Plant facility operates an on-site sanitary and storm water sewer treatment plant (Building 57) to manage the plant's storm water and sanitary waste water pursuant to a National Pollution Discharge Elimination system (NPDES) permit issued by OEPA. No wastewater was generated in the area.

5.1.6 Septic Systems

No evidence of a septic system was noted or is known to have ever existed in the immediate vicinity of the magazines.

5.1.7 Suspect Asbestos Containing Material

ACM in buildings can be found in five (5) forms: sprayed or troweled on ceilings and walls (surfacing materials); insulation around pipes, ducts, boilers and tanks (pipe and boiler insulation); transite (in ground piping); and in roofing materials (shingles and roofing felts); other products such as ceiling and floor tiles and wall boards (miscellaneous materials).

Although past records (See Section 4.4.2.4) indicate asbestos was not found in the magazines. Suspected asbestos floor tile was found in Magazines 5, 7, 11, and 20. Samples were collected and the analysis reconfirmed that this floor tile did not contain asbestos. See Appendix 7.6.

Steam piping insulation from Building I to Magazines 7 and 11 appears to be in poor repair. These magazines were constructed in 1957 and therefore the insulation is suspected to be ACM. See Environmental Evaluation Concern matrix for the latest information.

Explosion proof lighting used throughout the magazines was known to use ACM gasket materials for sealing the fixtures.

5.1.8 Paint

Lead based paint was used in the U.S. prior to 1978, when Congress established the limits on the maximum lead concentration allowable in residential buildings. The risk of a lead based paint hazard exists only when painted surfaces are damaged (cracked, chipped, loosened, or chewed).

Because of the age of the magazines, it is likely that lead based paint has been used. No formal survey was made for lead paint. There was substantial chipping and peeling in Magazines 5, 7, and 11. Testing of these areas has been completed. Samples were collected and the analysis indicated no lead contamination. See Appendix 7.6.

5.1.9 Fluorescent Lamps

Fluorescent lamps were not utilized in Magazines 5, 6, 7, 10, 11, 20, 53 and 54.

5.2 Hazardous Substance Containers and Unidentified Substance Containers

There were no hazardous or unidentified substance containers found.

5.3 Storage Tanks

No storage tanks are associated with the magazines.

5.4 Indications of PCBs

Fluorescent lighting was not used in these magazines. No wet type transformers were utilized in the magazine area. There were no other indications of PCBs in the magazine.

5.5 Indications of Solid Waste Disposal

No solid waste was observed in the magazines. No evidence of hazardous waste was noted in the immediate vicinity of the magazines.

5.6 Physical Setting Analysis, If Migrating Hazardous Substances Are An Issue

There are no migrating hazardous substances detected to the magazines.

5.7 Other Conditions of Concern

There are no other conditions of concern.

5.8 Interviews

Information gained in discussions with the following personnel and the historical information have been incorporated within this document.

5.8.1 Recent Interviews

Magazines 7 & 11

Current Building Manager of Magazines 7 and 11, Mr. Gary Weiedenbach, has been employed at the Mound Plant for 21 years and has been the Building Manger of these magazines for the last year.

Former Building Manager, Mr. William Whitelow, has been employed at the Mound Plant for 17 years and had been the Building Manager of these magazines for a year and a half.

Past Building Manager, Mr. Jeff Mathews, had worked in the magazine area during the production years.

Magazines 5, 6, 10, 20, & 53

Current Building Manager of Magazines 5, 6, 10, 20, and 53, Mr. Robert Ward, has been employed at the Mound plant for 17 years and the Building Manager of these magazines for the last 2 years.

Previous Building Manager, Mr. Brady Barnhart, has been employed at the Mound plant for 24 years and he worked in the area of these magazines for 23 years.

Magazine 54

Current Building Manager of Magazine 54, Mr. Jeff Boston, has been employed at the plant for 17 years and the Building Manager of this magazine for the last year and a half.

5.8.2 Historical Interviews

Additional interviews were also completed in 1990 and 1995 involving personnel working in the process area at that time. (See MLM-ML-90-48-0001, *Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes*, August 15, 1990 and MLM-ML-96-43-0001, *Environmental Appraisal Report of the Mound Plant*, March 29, 1996.)

6.0 Findings and Observations

Based on the process history of the magazines and the records of soil investigation in the soil areas near the magazines, it was determined that no further soil samples were required in the 15-foot perimeter boundary.

No spills or releases were likely to have occurred in the magazines because 1) all energetic materials were stored in sealed containers and 2) procedures did not allow the opening of the sealed containers inside the magazines.

6.1 Environmental Concern (Matrix)

Mound Personnel accomplished this building data package for Magazines 5, 6, 7, 10, 11, 20, 53, and 54. The following is derived:

Radiological: No radiological materials were housed within the magazines. Radiological confirmation studies indicate only normal local background readings for all magazines.

Lead Paint: Environmental regulatory and administrative pressure over the past few years has pushed to discourage the use of lead based paints. Paints already in place are not currently regulated in the industrial setting. However, pressure to regulate that condition is mounting and may become a reality in the future. Any property owner should be aware of that potential risk.

Specific lead paint analysis has been performed on Magazines 5, 7, and 11. Results were negative for lead in the paint.

HVAC Refrigerants: Use of chlorinated fluorocarbon refrigerants was observed in Magazine 5. Use of such substances has recently undergone regulatory change and future use will likely be limited. The refrigerants were not removed.

The demolition plan for this magazine should include the proper handling of these refrigerants.

Asbestos: No suspect Asbestos materials were observed during the previous studies or observations. Tile samples were taken on Buildings 5, 7, 11 and 20. Results indicate no asbestos material within the file. Asbestos is suspected on pipeline running to Magazines 7 and 11 (from I Building).

MAGAZINES 5, 6, 7, 10, 11, 20, 53 & 54 :
ENVIRONMENTAL CONCERN EVALUATION

DESCRIPTION	POT-ENTIAL PROB-LEM?	COMMENT	PROPOSED RESOLUTION	REF
Conductive floor tile - suspected to be asbestos containing material.	No	Floor tile is in good shape.	Sample collected for asbestos testing. Analysis to be completed by May 8, 1997	4.4.2.4 5.1.7 6.0
Paint peeling in Magazines 5, 7 & 11.	No		Samples collected for lead testing. Analysis to be completed by May 8, 1997	4.4.2.3 5.1.8 6.0
Suspect asbestos insulation on steam piping to Magazines 7 & 11 in poor repair.	Yes	Determine appropriate action for insulation		4.4.2.4 5.1.7 6.0

April 28, 1997

7.0 Appendices

7.1 Acronyms

AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ACM	Asbestos Containing Materials
AL	US Department of Energy, Albuquerque Operations Office
ASTM	American Society for Testing and Materials
BUSTR	Bureau of Underground Storage Tank Regulations
CAA	Clean Air Act
CEG	Conditionally Exempt Generator
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
D&D	Decontamination and Decomissioning
DOE	U.S. Department of Energy
DPM/100 cm^2	Disintegration Per Minute one hundred square Centimeters
EMF	Electromagnetic Field
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration (Program)
ERDA	Energy Research and Development Administration
ERNS	Emergency Response Notification System
FFA	Federal Facility Agreement
FINDS	Facility Index System
FS	Feasibility Study
GSA	General Services Administration
HEPA	High Efficiency Particulate Air
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
M&O	Maintenance and Operations
MAT	Mound Applied Technologies
MCC	Monsanto Chemical Company
MEMP	Mound Environmental Management Project

MMCIC	Miamisburg Mound Community Improvement Corporation
MRC	Monsanto Research Corporation
NPDES	National Pollutant Discharge Elimination System
NUREG	Nuclear Regulatory
OEPA	Ohio Environmental Protection Agency
ORPS	Occurrence Reporting and Processing System
PADS	PCB Activity Database
PCB	Polychlorinated Biphenyls
PRS	Potential Release Site
P/WRE	Property/Waste Release Evaluation
RAPCA	Regional Air Pollution Control Agency
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RI	Remedial Investigation
RSDS	Radiological Survey Data Sheet
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SHWS	State Hazardous Waste Site
SQG	Small Quantity Generator
SWMU	Solid Waste Management Unit
TRIS	Toxic Chemical Release Inventory System
TSD	Treatment, Storage, & Disposal Facility
UST	Underground Storage Tank
VOC	Volatile Organic Compound

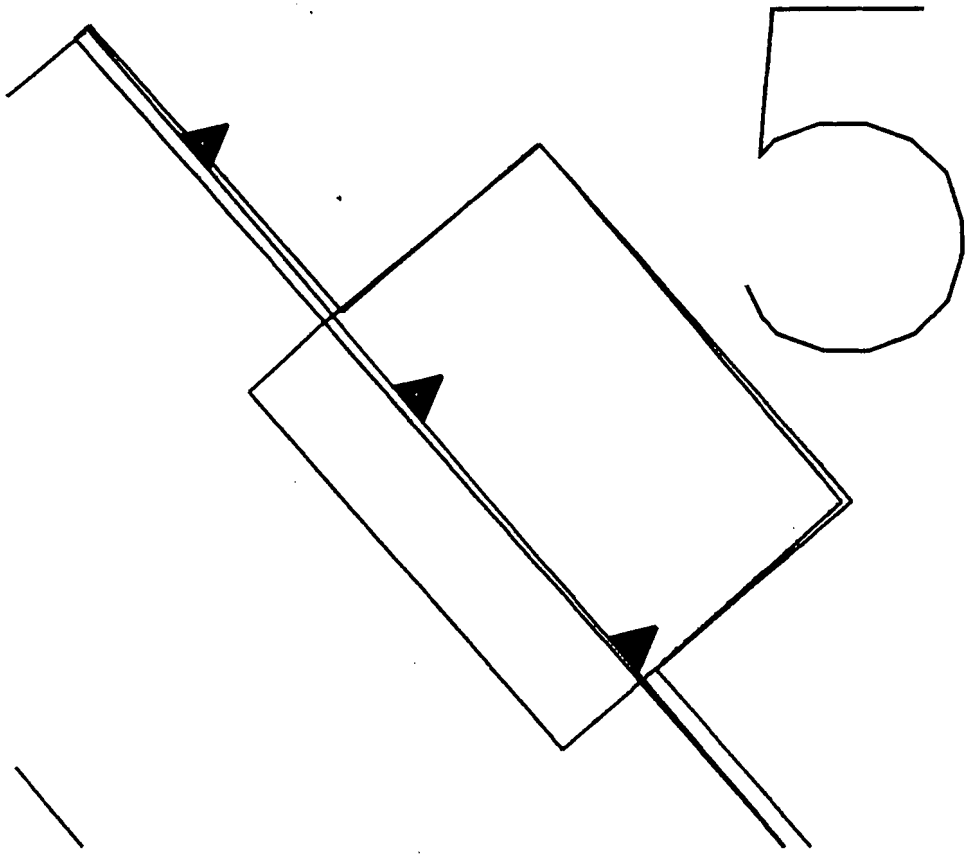
Appendices 7.2 Maps, Figures, & Photographs,

And PRS Supplemental Information

Appendix 7.2.1 Map of Montgomery County

Appendix 7.2.2 Site Plan and PRS Release Blocks

Appendix 7.2.3 Building Drawings



FIRE
POTABLE
RAW
SANITARY
STORM
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UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
MAGAZINE 5

DATE: 3-4-96

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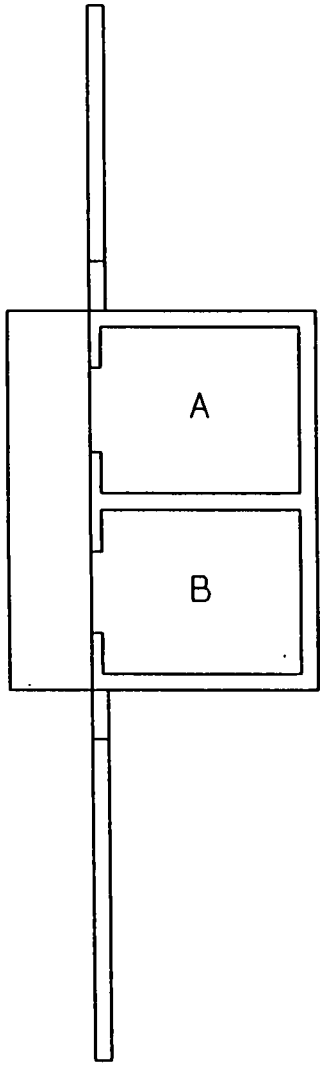

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(Title) (Date)

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MAGAZINE #5 FIRST FLOOR BLDG CODE:3305

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___ NONE ___ TRUEBOC ___ TEBOC ___ EMBOC
TECH. REVP. _____ _____
GR. MGR. _____ _____
TRUEBOC _____ _____
TEBOC _____ _____
EMBOC _____ _____

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DESIGN ENG	PROJ MGR
DRAWN	ENG SUPV
LP & EE	PEER REV
CHK PER	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	Ø					

PART CLASSIFICATION

DRAWING CLASSIFICATION: UCNI

TITLE: (U) TITLE CLASSIFICATION
MAGAZINE #5
FLOOR PLANS

SIZE: C | DRAWING NUMBER: FSC911328 | JOB NUMBER: 12335

DRG TYPE: SFP | FROM: MAG #5 | CAGE: 14865 | SCALE: AS NOTED | SHEET 1 OF 1

STATUS: MD-REL-12/12/91 | ORIGIN: MD-BRJ-V3.Ø

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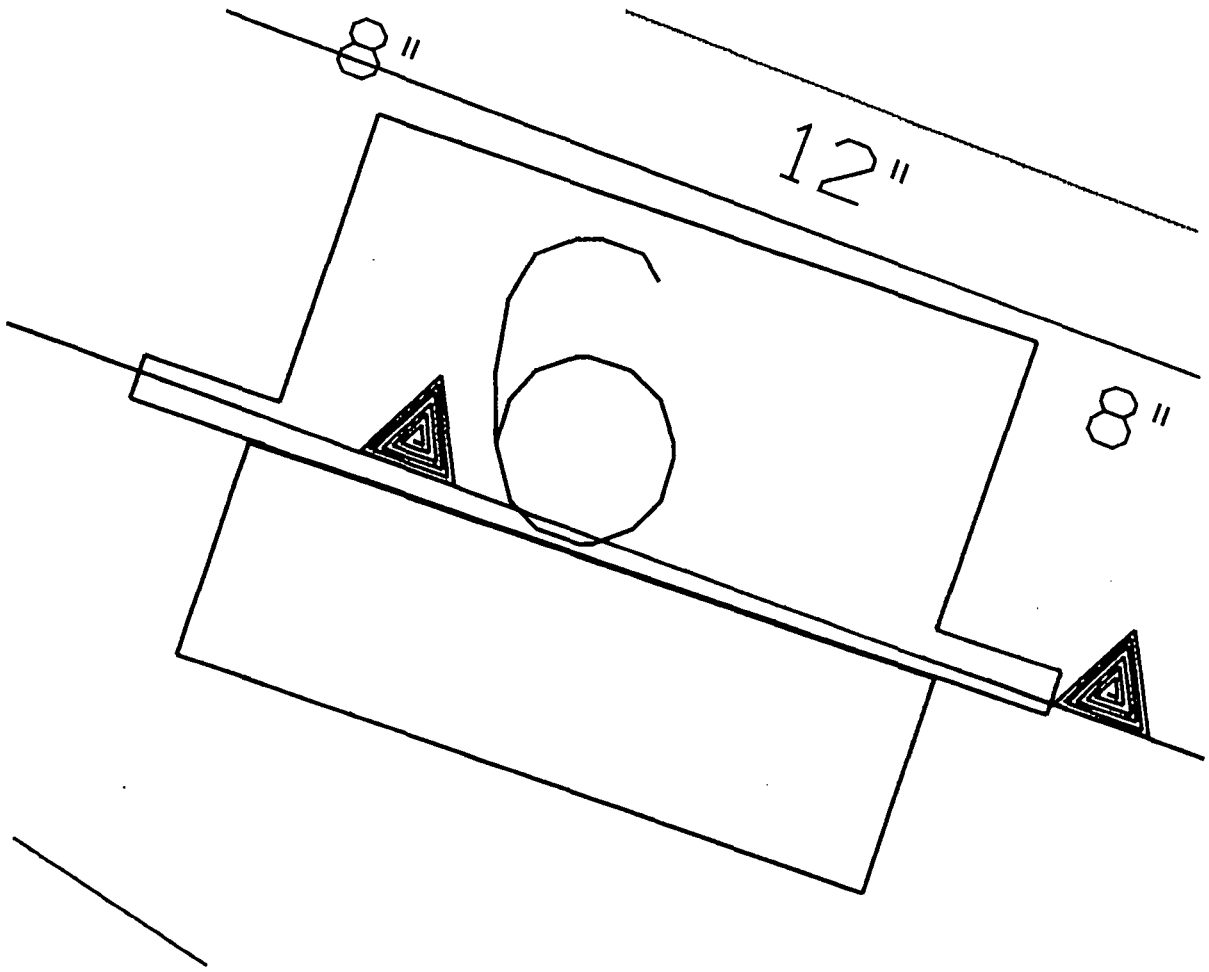

FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
MAGAZINE 6

DATE: 5-14-96

9.118-61

NO	DATE	REVISION	BY	CHKD	D.	C	M
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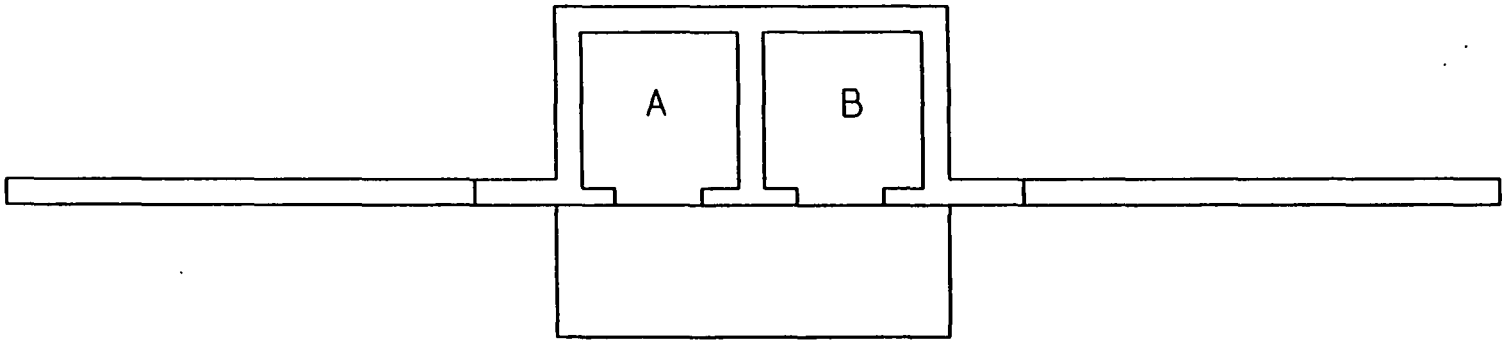

DERIVATIVE CLASSIFIER

(Title) (Date)

MAGAZINE #6
FIRST FLOOR
BLDG CODE:3306

APPROVALS: DATE:
SAFETY DIRECTIVE REQUIRED:
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NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

SECTION CHR | PROJ MGR
SPCHR | CHR REPR
CP & EC | PECH REV
CHR MGR |
APVD | DATE

SHEET 1 2 3 4 5 6 | TITLE (U) TITLE CLASSIFICATION
ISSUE 0 | MAGAZINE #6 FLOOR PLANS
PART CLASSIFICATION
DRAWING CLASSIFICATION: UCNI | SIZE C | DRAWING NUMBER FSC911329 | JOB NUMBER 12335
DRG TYPE SFP | FROM MAG #6 | CAGE 14863 | SCALE AS NOTED | SHEET 1 OF 1
STATUS MD-REL-12/12/91 | ORIGIN MD-BR3-V3.0

9.118-57

REV	DATE	REVISION	BY	CHKR			APP
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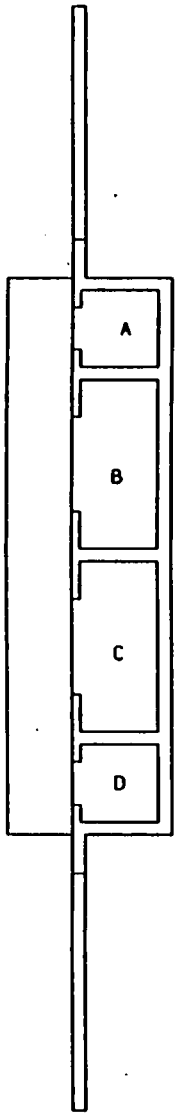

DERIVATIVE CLASSIFIER

C.D. Myers

Sr. Class Anal. 2/20/96

(Title) (Date)

MAGAZINE #7 FIRST FLOOR BLDG CODE:3307

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___ NONE ___ TRUEDOC ___ TEDOC ___ EDOC
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NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

DESIGN ENG PROJ MGR
SPONS ENG SUPV
S.P. & EC PEER REV
ENG MGR
APVD DATE

SHEET 1 2 3 4 5 6
ISSUE 0
PART CLASSIFICATION
DRAWING CLASSIFICATION UCNI
TITLE (U) TITLE CLASSIFICATION
MAGAZINE #7
FLOOR PLANS
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DRAWING NUMBER FSC911330
JOB NUMBER 12335
DWG TYPE SFP PRINT MAG #7 CADRE 14865 SCALE AS NOTED SHEET 1 OF 1
STATUS MD-REL-12/12/91 ORIGIN MD-BR3-V3.0

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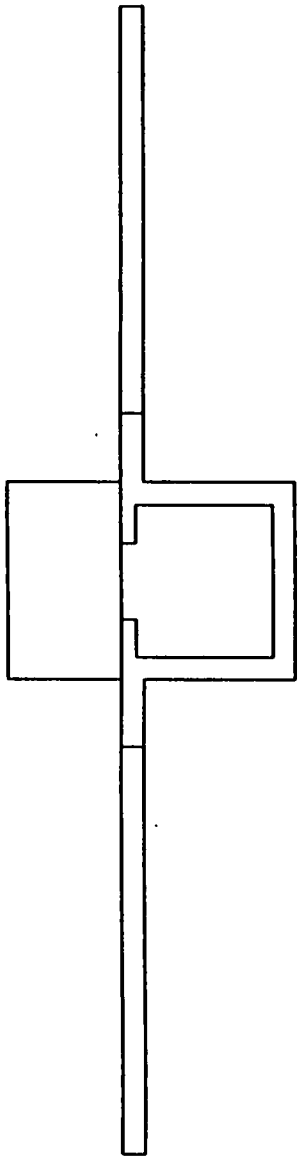
E.G. & G. - MOUND
UNDERGROUND WATER & WASTE LINES
MAGAZINE 7
DATE: 3-14-96

NO	DATE	REVISION	BY	CHKD	EN	ENGR	APVD	M
0	12/12/91	ASBUILT ISSUE	DCW				DVD	

DERIVATIVE CLASSIFIER

R D Myers
(Name)

Q Class Anal 2/20/96
(Title) (Date)



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FIRST FLOOR
BLDG CODE:3308

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NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

DESIGN DWG	PROJ MGR
SPONS	DWG SUPV
CP & QE	PEER REV
DWG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
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PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
MAGAZINE #8
FLOOR PLANS

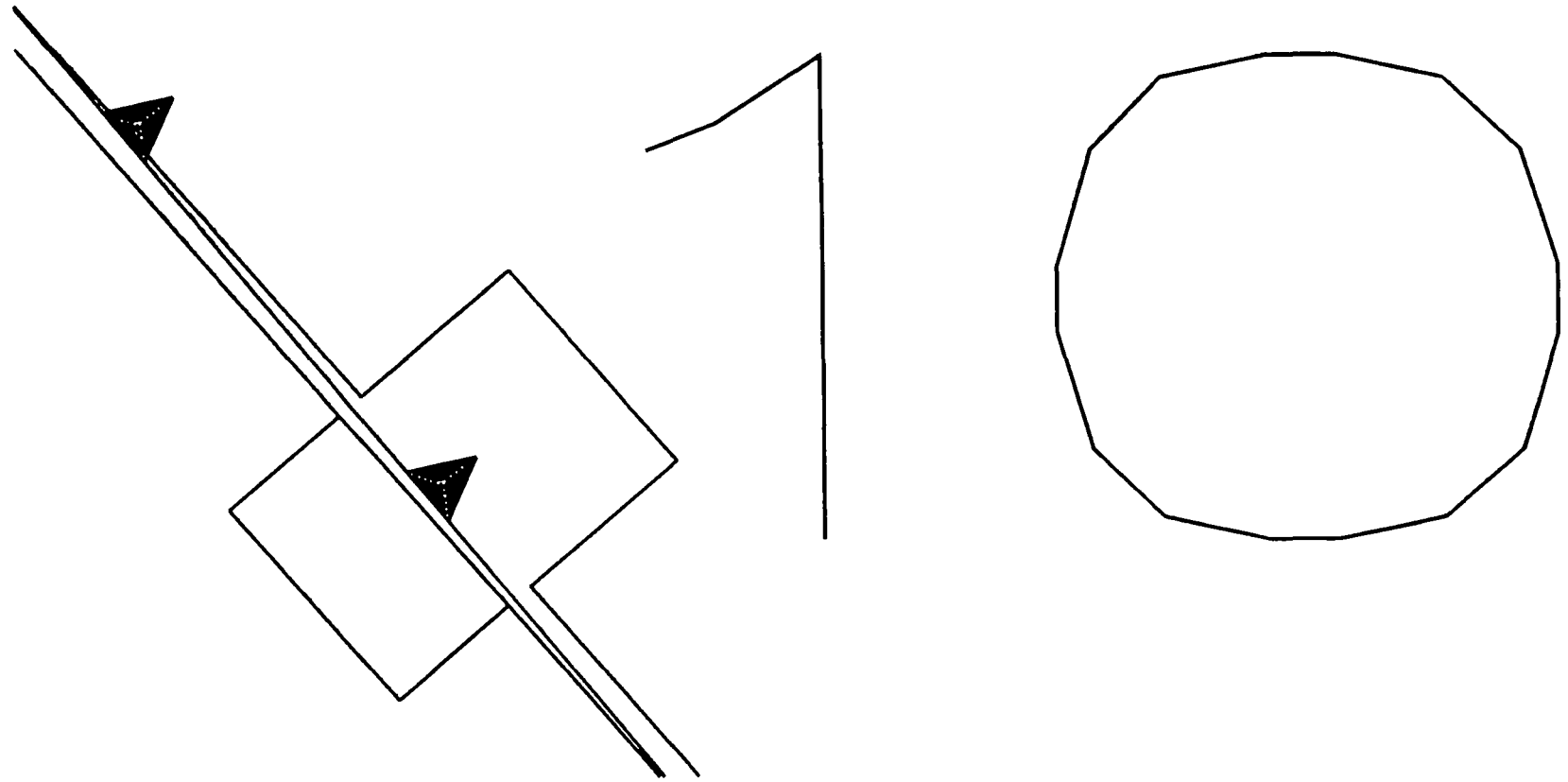
DRAWING CLASSIFICATION: UCNI

SIZE: C | DRAWING NUMBER: FSC911331 | JOB NUMBER: 12335

DWG TYPE: SFP | FROM: MAG #8 | CADD: 14865 | SCALE: AS NOTED | SHEET: 1 OF 1

STATUS: MD-REL-12/12/91 | DRIVEN: MD-BRJ-V3.0

9.120-57



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E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
MAGAZINE 10

DATE: 3-19-96

9.121-61

ISS	DATE	REVISION	BY	CHKR	DES	ENGR	APVD
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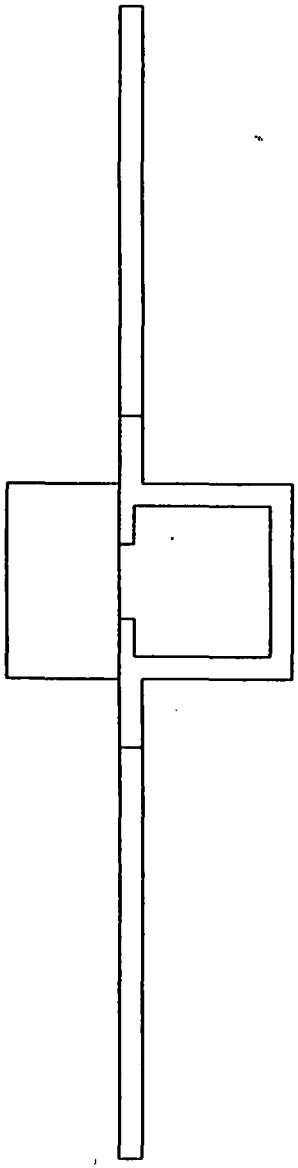
UNCLASSIFIED

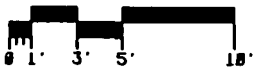
DERIVATIVE CLASSIFIER

R D Myers

S. Class. Anal 2/20/96

(Title) (Date)





MAGAZINE #10
FIRST FLOOR
BLDG CODE:3310

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
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TECH. REP. _____
GR. MBR. _____
TRUEBOC _____
TEBOC _____
EVBOC _____

NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

SECTION CHF PROJ MGR
BRANCH CHF ENG SUPV
LP & CC PEER REV
ENG MGR
APVD DATE

SHEET 1 2 3 4 5 6
ISSUE 0
PART CLASSIFICATION
DRAWING CLASSIFICATION UCNI
DRAWING TYPE SFP PREPD MAG #10 CHKD 14865 SCALE AS NOTED SHEET 1 OF 1
STATUS MD-REL-12/12/91 ORIGIN MD-BR3-V3.0

TITLE (U) TITLE CLASSIFICATION
MAGAZINE #10
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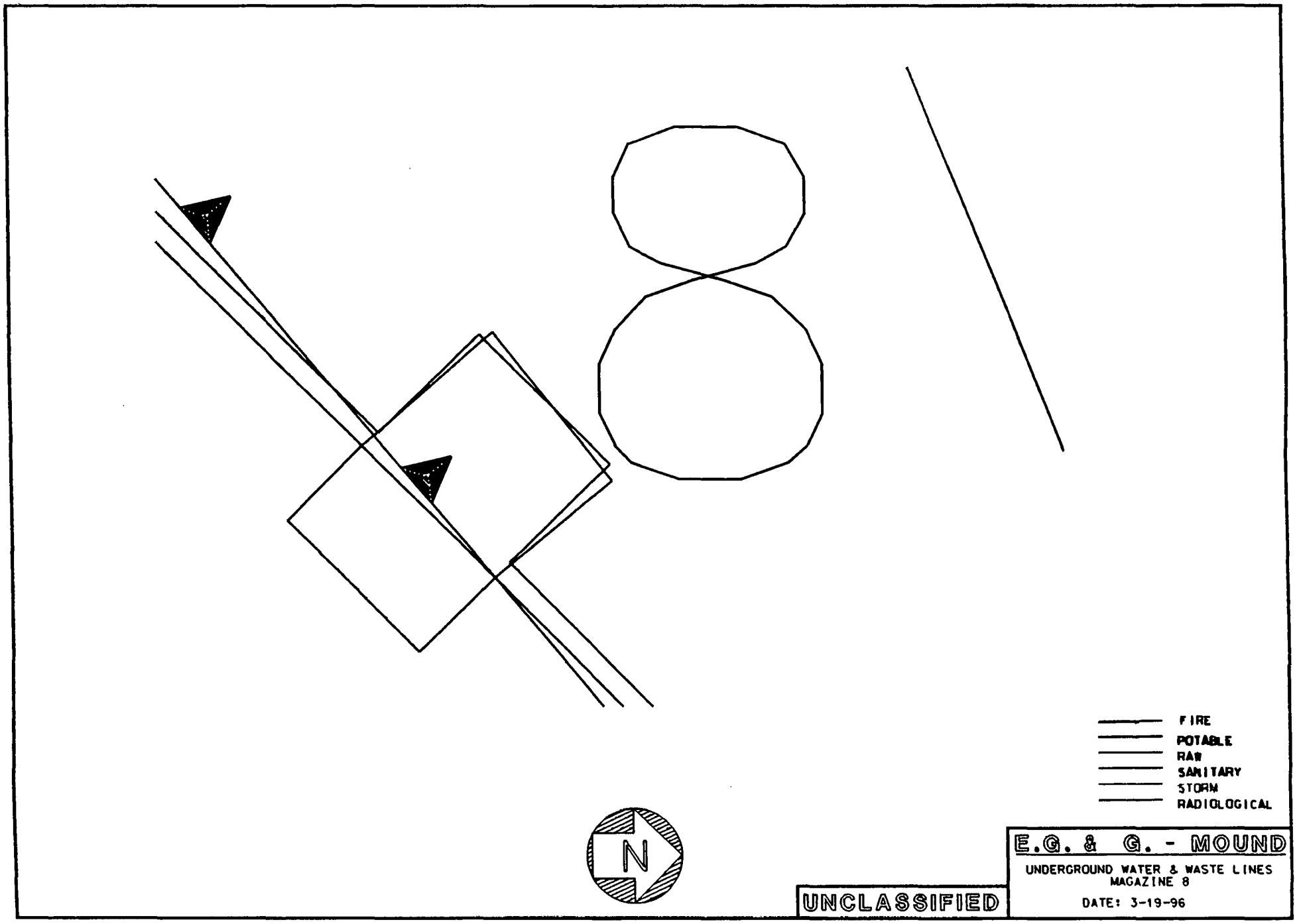
9.121-57



UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
MAGAZINE 8

DATE: 3-19-96

9.120-61

ISS	DATE	REVISION	BY	CHKR	APVD
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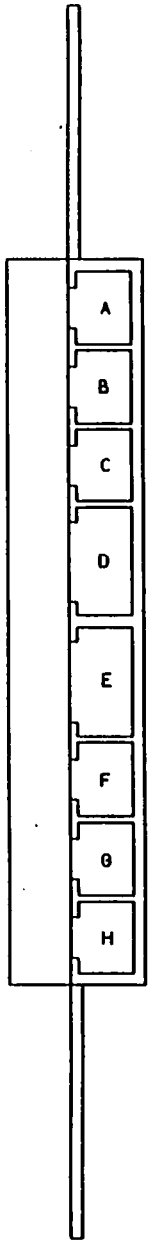
UNCLASSIFIED

DERIVATIVE CLASSIFIER

Sr. Class. Anal. 2/20/96

(Title) (Date)



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FIRST FLOOR
BLDG CODE:3311

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DESIGN DAS | PROJ MGR
DRAWN | CHG SUPV
CHK & QC | PEER REV
ENG MGR
APVD | DATE

SHEET	1	2	3	4	5	6
ISSUE	0					

PART CLASSIFICATION

DRAWING CLASSIFICATION: UCNI

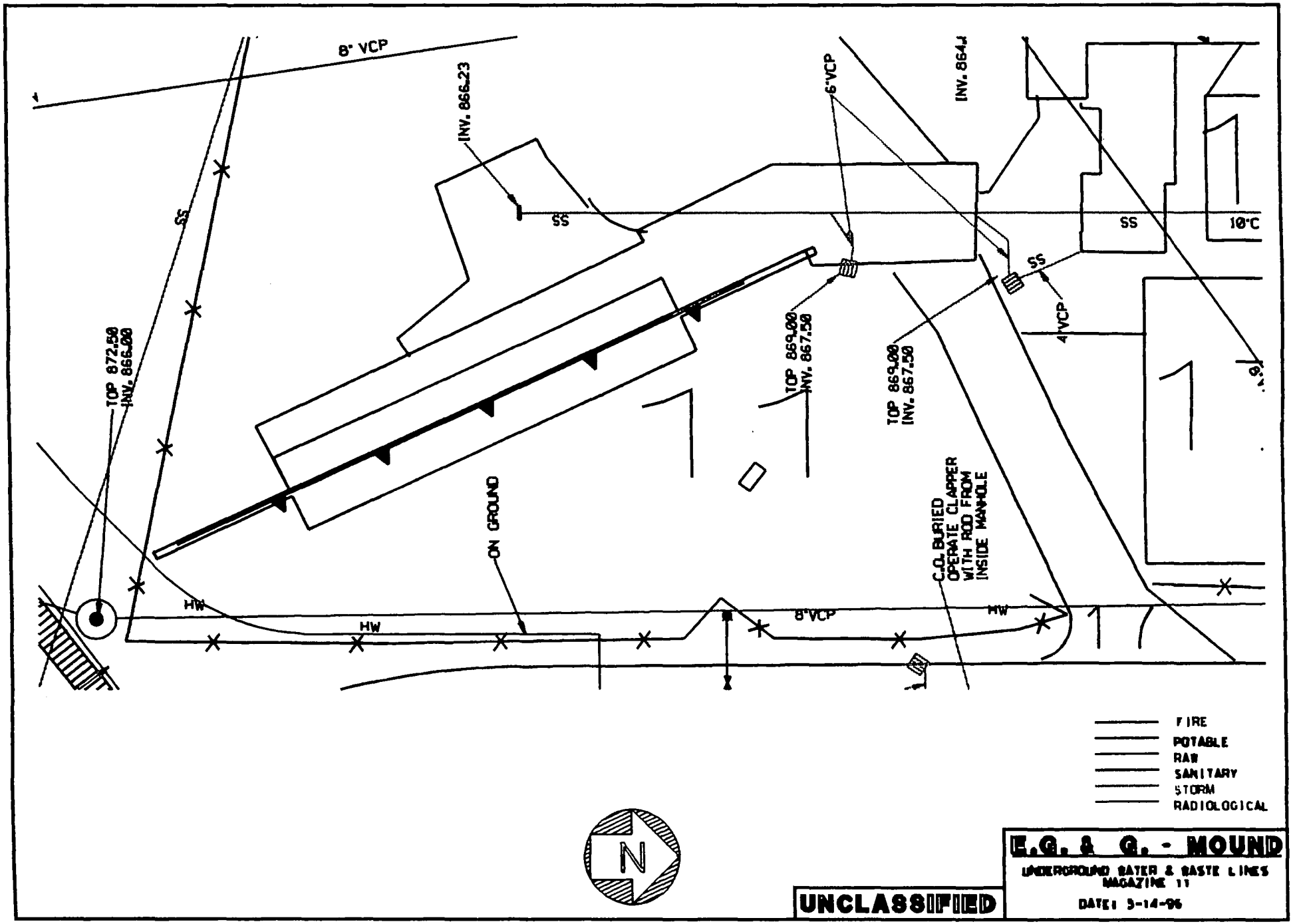
TITLE: (U) TITLE CLASSIFICATION
MAGAZINE #11
FLOOR PLANS

SIZE: C | Drawing Number: FSC911333 | JOB NUMBER: 12333

CHG TYPE: SFP | PRINT: MAG #11 | CADD: 14065 | SCALE IS NOTED | SHEET 1 OF 1

STATUS: MD-REL-12/12/91 | ORIGIN: MD-BR3-V3.0

9.122-25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6"VCP
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4"VCP
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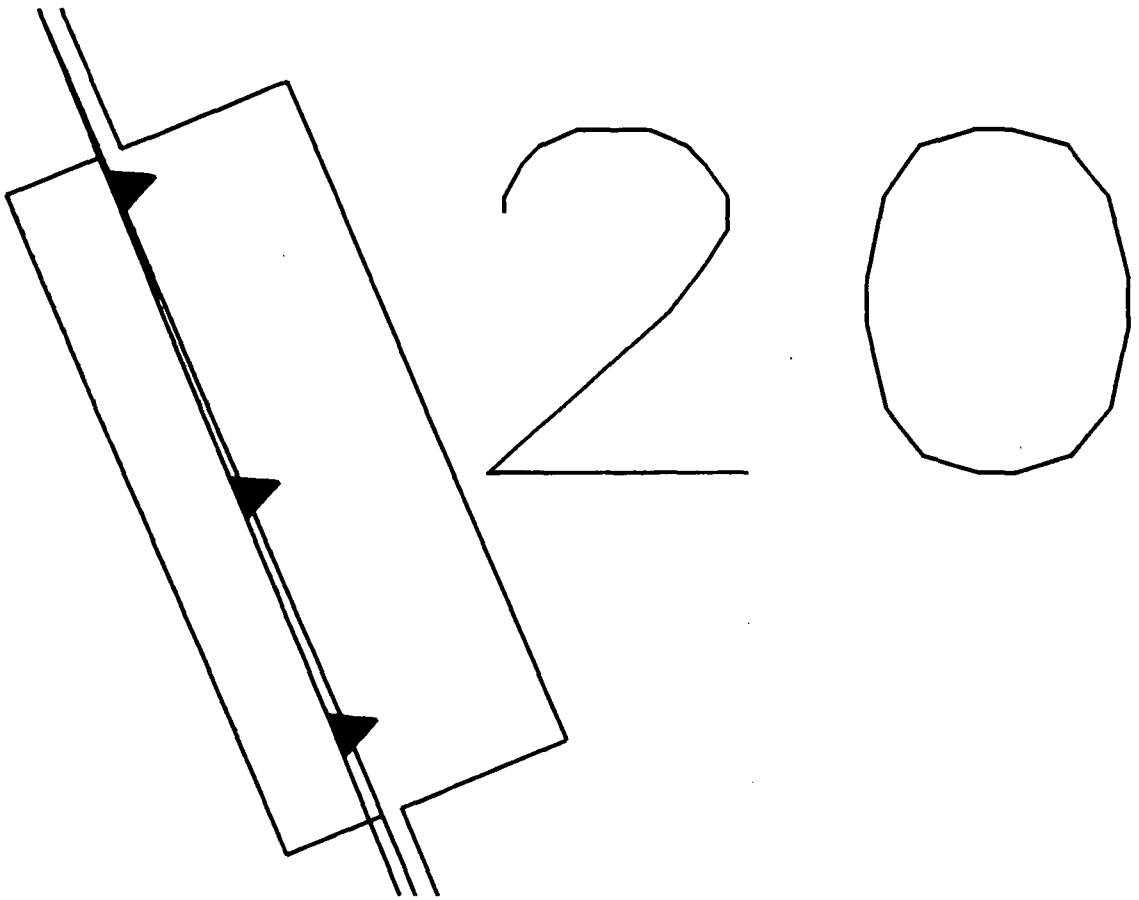
E.G. & G. - MOUND
UNDERGROUND WATER & WASTE LINES
MAGAZINE 11
DATE: 5-14-96



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STORM
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UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
MAGAZINE 20

DATE: 3-19-96

9.123-61

ISS	DATE	REVISION	BY	CHKR		APVD
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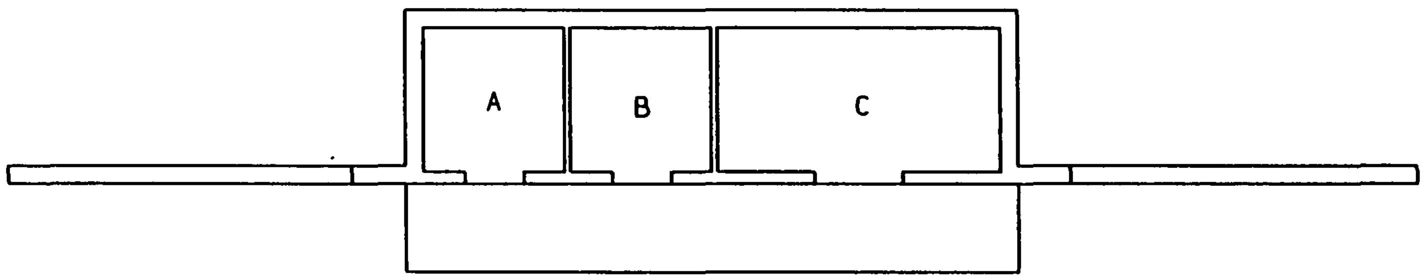

DERIVATIVE CLASSIFIER

[signature] Liam

S. Class. Anal. 2/29/96

(Title) (Date)

UNCLASSIFIED

MAGAZINE #20
FIRST FLOOR
BLDG CODE:3320

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___ NONE ___ TRUESOC ___ TESSC ___ EMSOC
TECH. RESP.
SR. MGR.
TRUESOC
TESSC
EMSOC

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DESIGN CHK | PROJ MGR | SPONS | ENG SUPV | QLP & CE | PEER REV | ENG MGR | APVD | DATE

SHEET	1	2	3	4	5	6
ISSUE	0					

PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
MAGAZINE #20
FLOOR PLANS

DRAWING CLASSIFICATION: UCNI

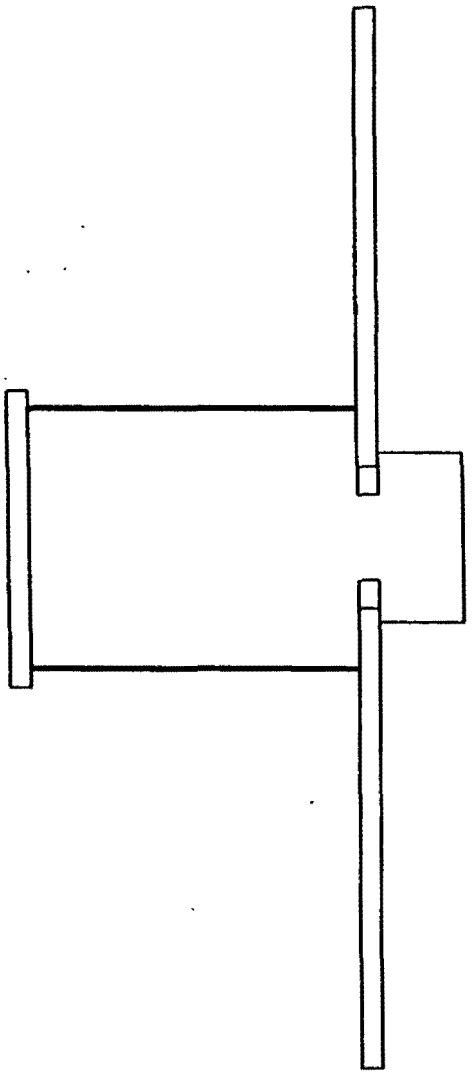
SIZE: C | DRAWING NUMBER: FSC911335 | JOB NUMBER: 12335

DWG TYPE SFP | FROM MAG #20 | CAGEC 14065 | SCALE AS NOTED | SHEET 1 OF 1

STATUS MD-REL-12/12/91 | ORIGIN MD-BR3-V3.0

9.123-57

ISS	DATE	REVISION	BY	CHKR
0	12/12/91	ASBUILT ISSUE	DCW	DVD



UNCLASSIFIED

DERIVATIVE CLASSIFIER

R.D. Myer
(Name)

S. Class. Anal. 2/29/96
(Title) (Date)

MAGAZINE #53
FIRST FLOOR
BLDG CODE:3353

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
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SR. MGR. _____
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NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

DESIGN ENG | PROJ MGR
SPONS | ENG SUPV
LP & BC | PEER REV
ENG MGR
APVD | DATE

SHEET	1	2	3	4	5	6
ISSUE	0					

PART CLASSIFICATION:
DRAWING CLASSIFICATION: UCNI

TITLE: (U) TITLE CLASSIFICATION
MAGAZINE #53
FLOOR PLANS

SITE	DRAWING NUMBER	JOB NUMBER
C	FSC911337	12335

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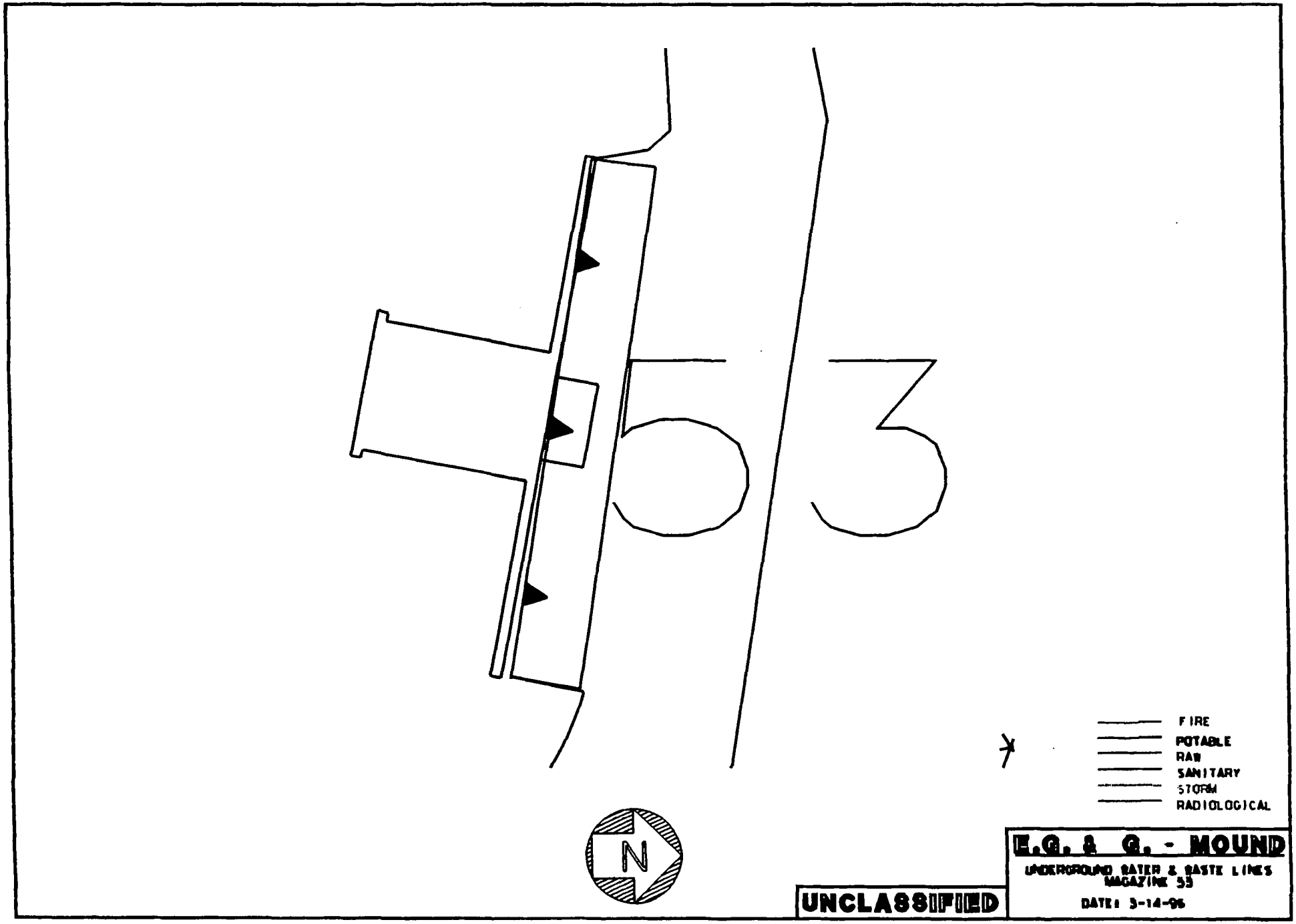
STATUS MD-REL.-12/12/91 | ORIGIN MD-BR3-V3.0

9.125-57


53
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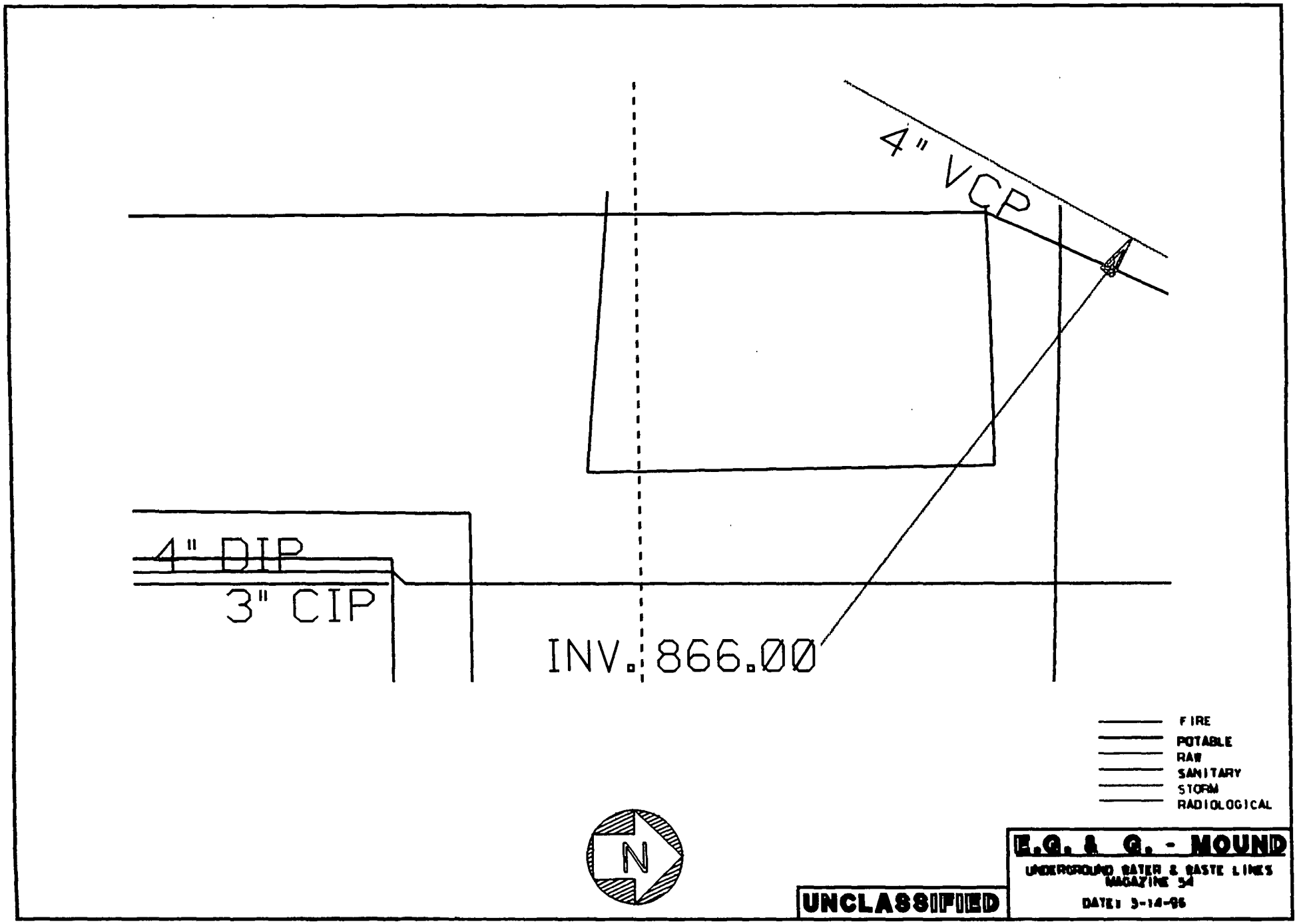
E.G. & G. - MOUND
UNDERGROUND WATER & WASTE LINES
MAGAZINE 53
DATE: 3-14-96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UNDERGROUND WATER & WASTE LINES
MAGAZINE 54
DATE: 5-14-86
UNCLASSIFIED

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REV	DATE	REVISION	BY	CHKD		APVD
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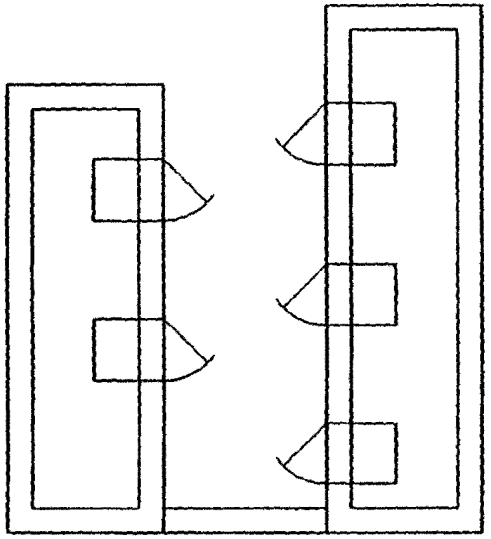
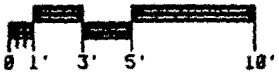
UNCLASSIFIED

DERIVATIVE CLASSIFIER

(Name)

(Title) (Date) 2/20/96





MAGAZINE #54
FIRST FLOOR
BLDG CODE:3354

APPROVALS: DATE:
SAFETY COMMITTEE REVIEWED:
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NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

SHEET	1	2	3	4	5	6
TITLE	8					

TITLE: MAGAZINE #54 FLOOR PLANS

(U) TITLE CLASSIFICATION

DRAWING CLASSIFICATION: UCNI

DRAWING NUMBER: C FSC911338

JOB NUMBER: 12333

DRN BY: SFP | FROM: MAG #54 | SCALE: 14865 | SCALE AS NOTED | SHEET 1 OF 1

STATUS: MD-REL-12/12/91 | ORIGIN: MD-BR3-V3.8

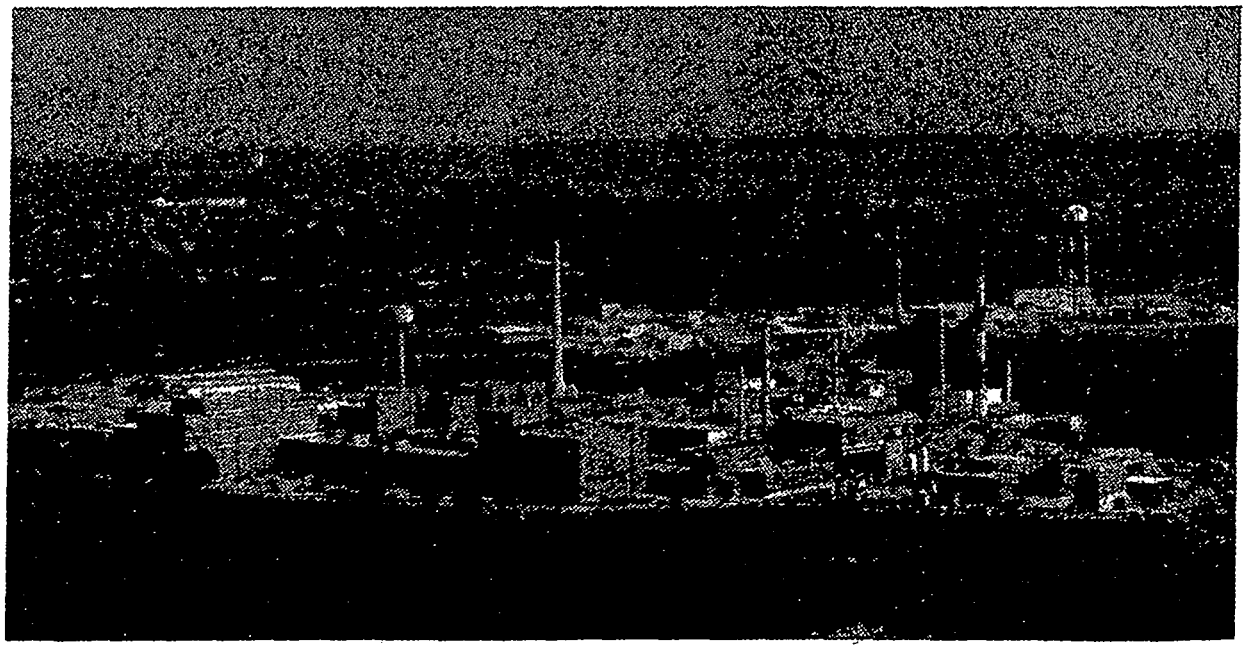
9.126-57

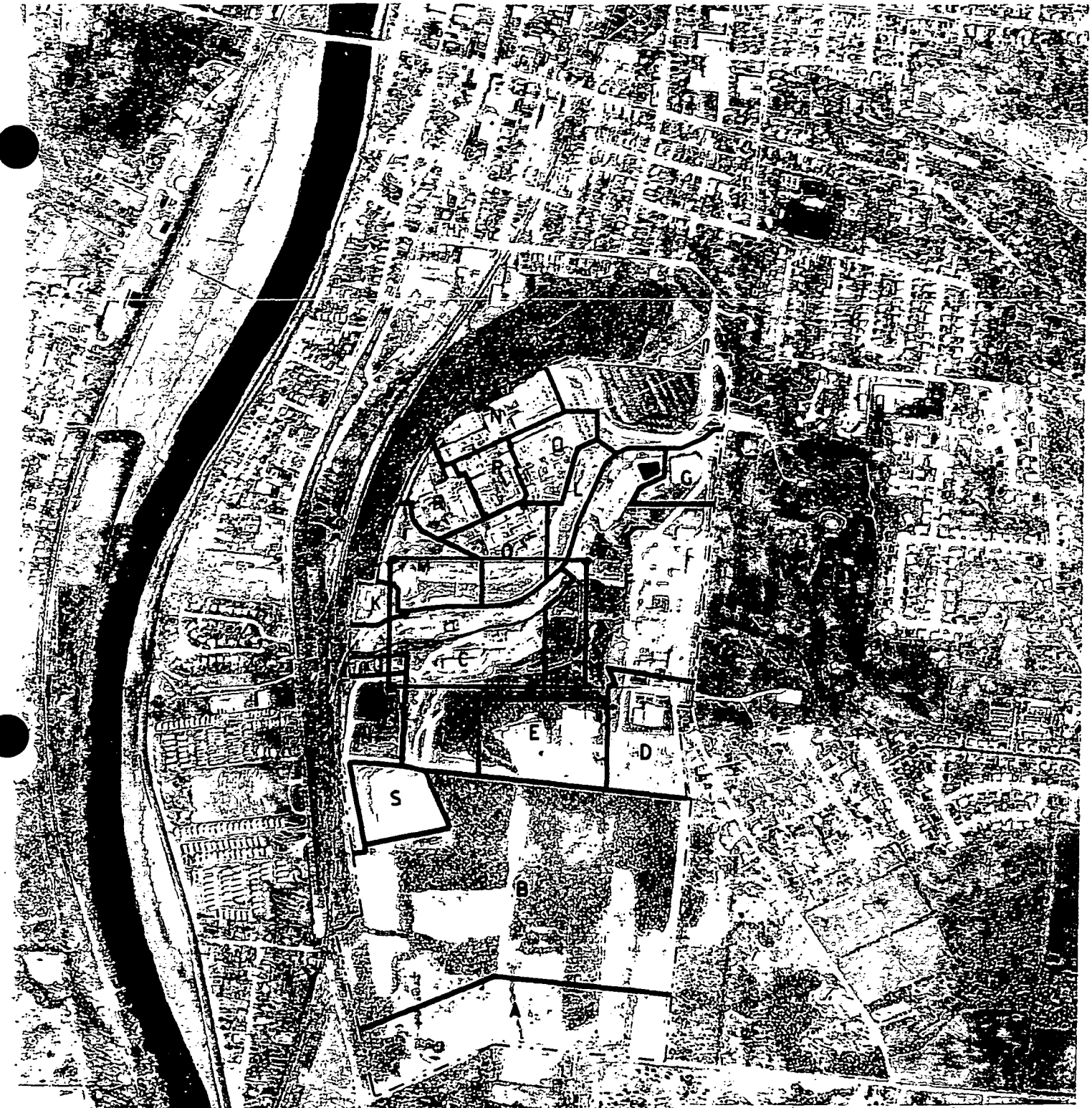
Appendix 7.2.4 PRS Supplemental Information

MOUND

Environmental
Restoration
Program

MOUND PLANT
Potential Release Site Package
PRS # 67



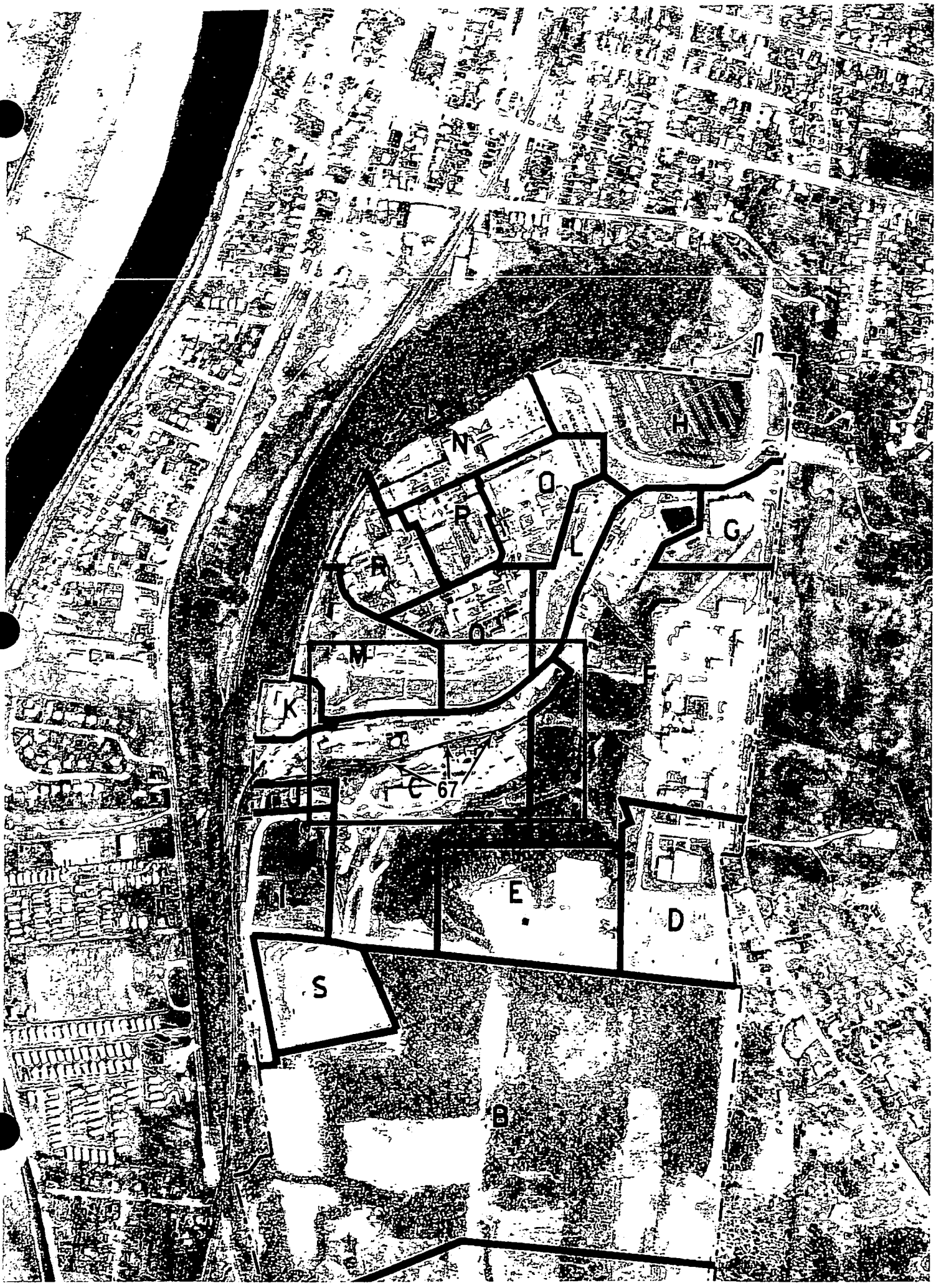


MOUND PLANT

Release Block C

Potential Release Site

PRS 67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67
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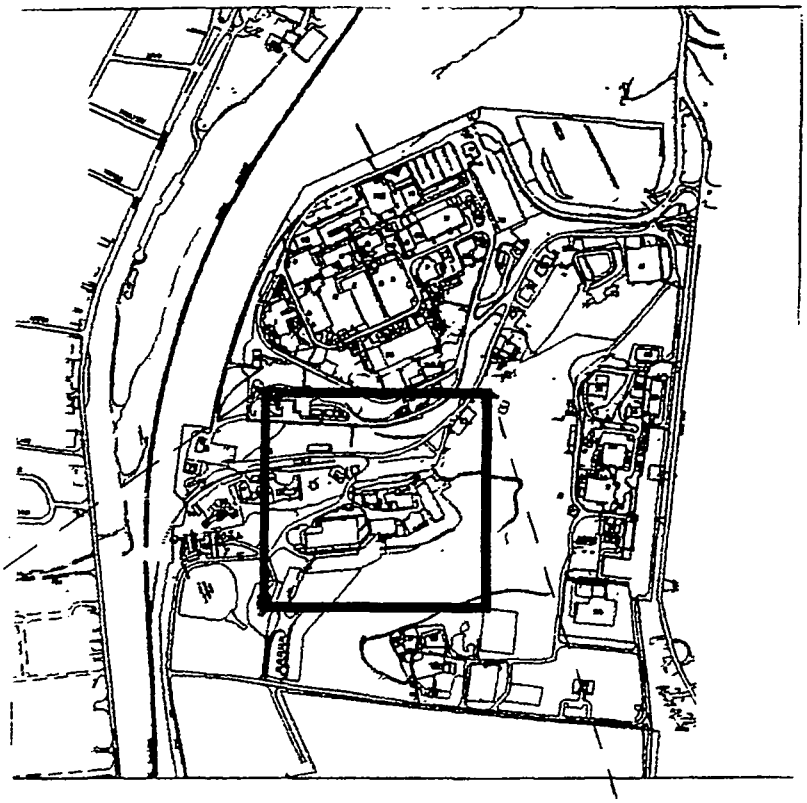
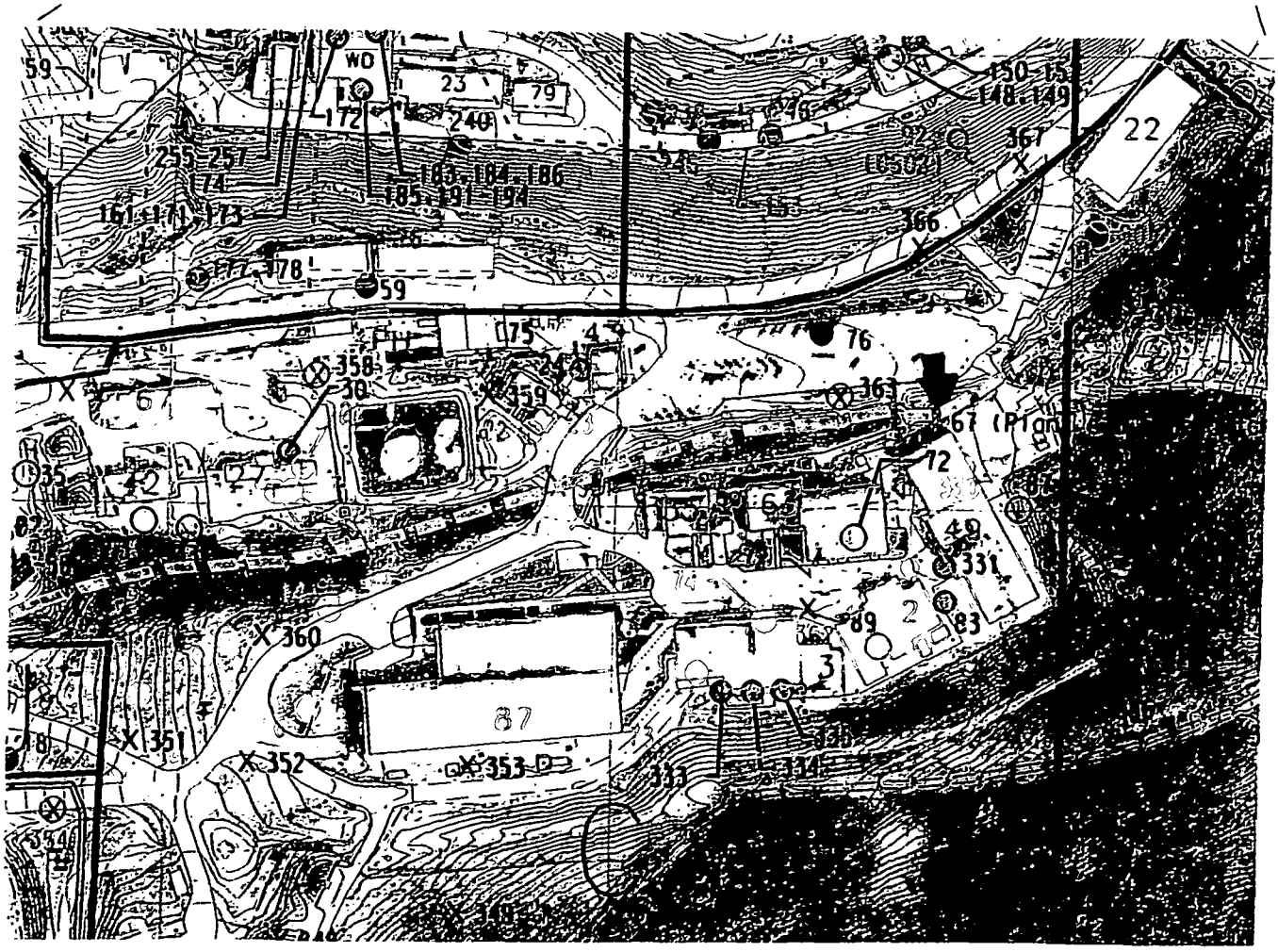
MOUND PLANT

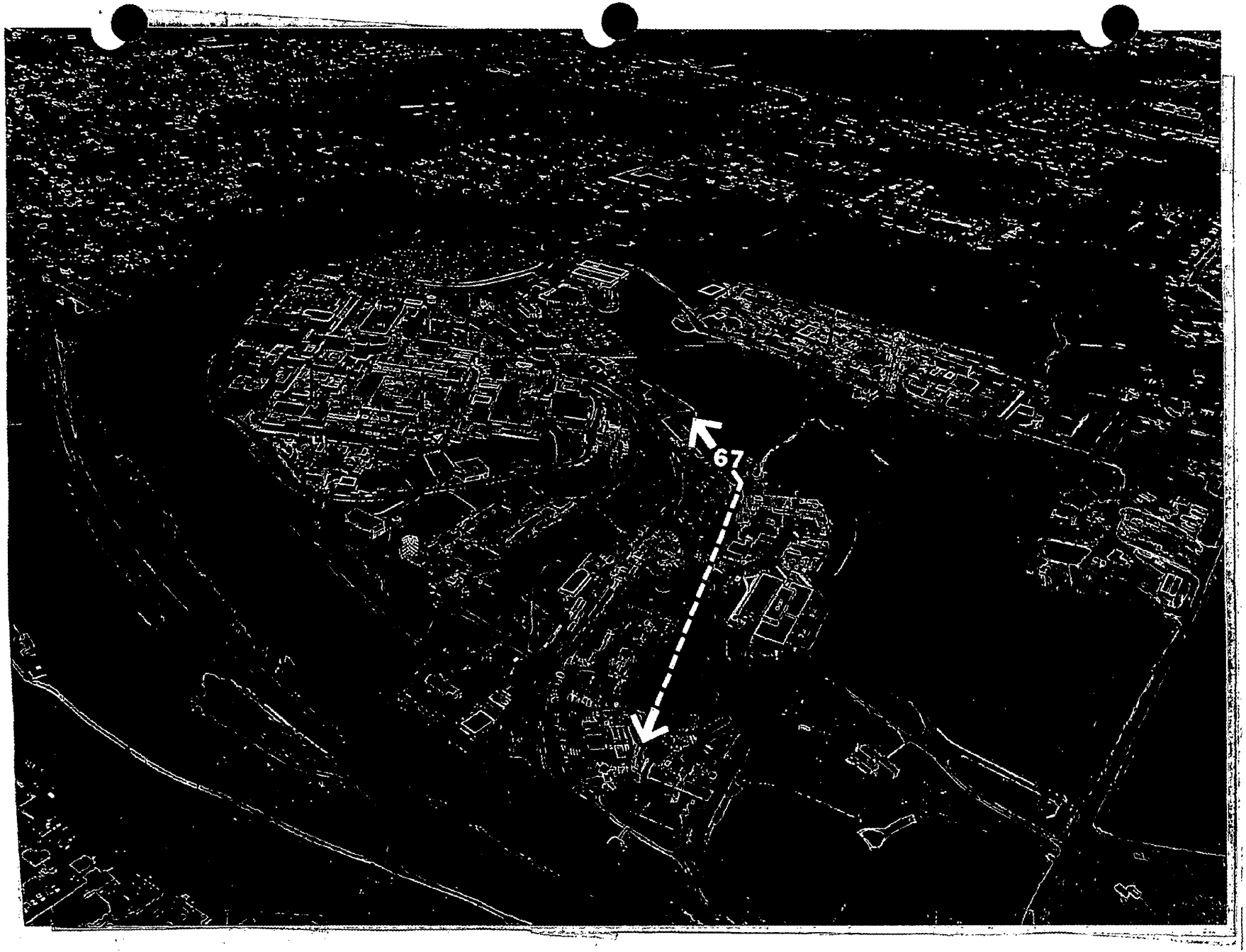
Release Block C

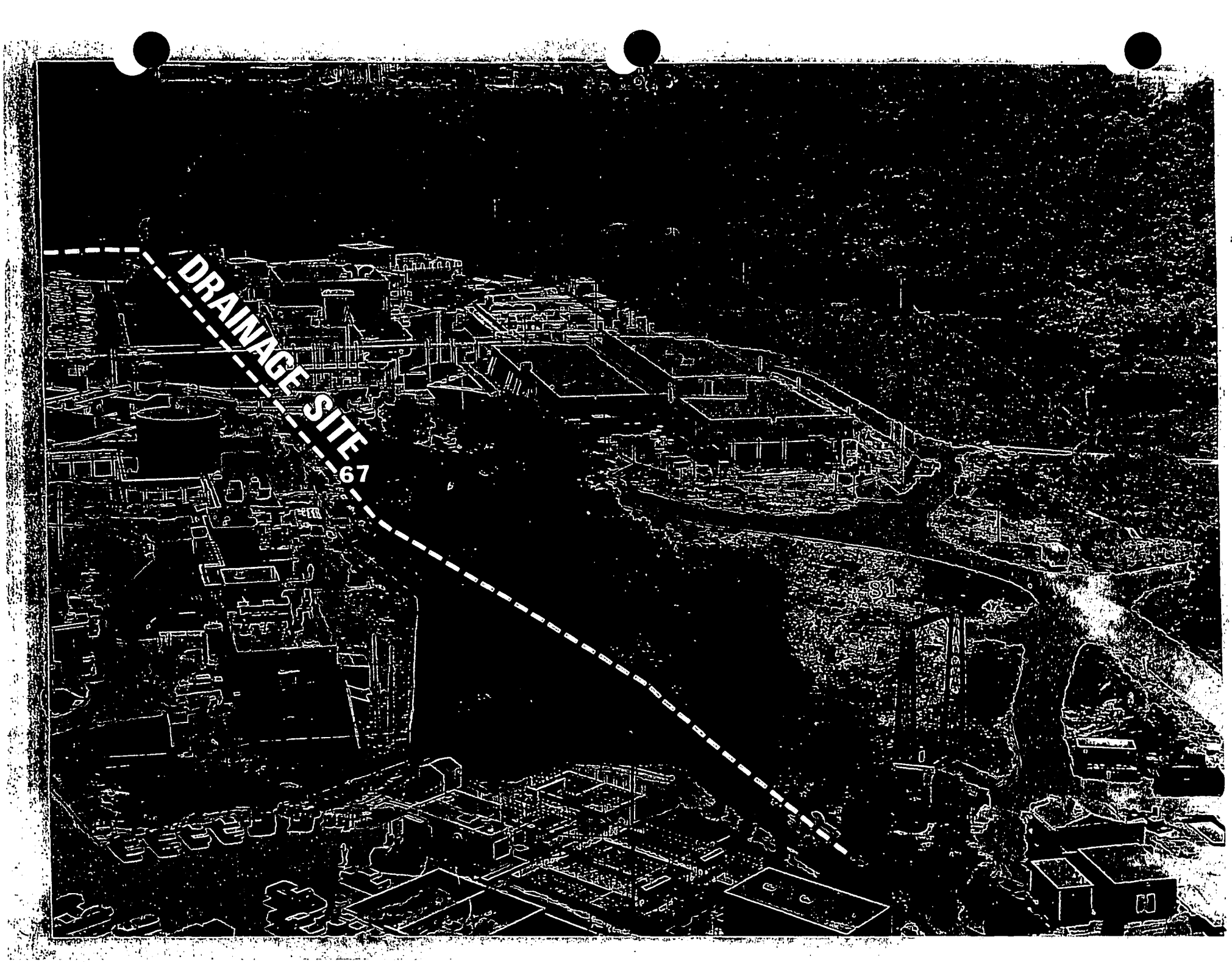
Potential Release Site

PRS 67






67


DRAINAGE SITE
67

PRS 67

PRS HISTORY:

Potential Release Site (PRS) 67 [1] was originally identified by the Preliminary Review/Visual Site Inspection conducted by the U.S. Environmental Protection Agency in 1988.[2] It is an open, unlined channel that flows above ground through the central part of the facility from Building 22 to the retention basins on the western plant boundary. The ditch carries surface run-off from both the Main Hill and the SM/PP Hill areas, as well as the asphalt lined pond that drains to the ditch through a culvert, emerging behind Building 22. From that point, the open ditch falls 40 feet over a length of 1800 feet. The banks rise steeply from 8 to 20 feet above the flow line of the ditch, and its width varies from 30 to 80 feet.[3,4] The upper-most reach of the ditch was infilled and reclaimed for development in the late 1960s. In the 1960s and early 1970s, the plant drainage ditch received systematic releases of low-activity plutonium-238 wastewaters from operations in the SM and WDA Buildings.[5] Periodic spills due to Mound Plant operations have occurred since the 1950's and are documented in investigation reports.[6] The contaminants involved included fuels, solvents, oils, cooling-water brines (calcium chloride and zinc chromate), ethylene glycol, and plutonium-238 wastewaters which reached the ditch via surface runoff.[6]

CONTAMINATION:

Several independent surface and subsurface investigations have been conducted at or near the plant drainage ditch (PRS 67). The first was a result of discovery of plutonium-238 in the Miami-Erie canal in 1974. Fifty-five samples up to six feet deep over the full length of the ditch were collected and analyzed by wet chemistry methods at Mound. The results of that investigation indicated that plutonium-238 was present at concentrations over 25 pCi/g in 25% of the samples, at concentrations up to 535 pCi/g.[4] The guideline criteria (ALARA) for Pu-238 is 25 pCi/gm.

In 1986, portions of the ditch were remediated as part of the Mound decontamination and decommissioning (D&D) Program removal of the WTS pipeline. During verification sampling, 1027 pCi/g of plutonium-238 were found 3-4 feet underground where the pipeline had crossed the ditch.[4] Subsequently, excavation and removal along the pipeline trench reduced that source to <100 pCi/g.[7]

As part of the Environmental restoration (ER) Program Operable Unit 6, verification sampling was conducted along the length of the former WTS pipeline[7]. Three soil samples were collected from a soil boring where the pipeline had crossed the plant drainage ditch . All samples were analyzed for volatile and semi-volatile organic compounds, pesticides and PCBs, total metals and radiological parameters. The results are summarized in Table 1.

Table 1 - Summary of Subsurface Verification Sample (Location 19-4A at Plant Drainage Ditch) Results [7] above Guideline Criteria

Parameter	No. of Samples	Risk-Based Guideline Criteria	Concentration Range	Units
Plutonium-238	1	25	68.84	pCi/g
Thorium-228	2	0.85	0.86-1.23	pCi/g
Beryllium	2	0.7	0.82-8.5J	mg/kg
Aroclor 1248	3	0.38	36-38UJ	mg/kg
Aroclor 1254	3	21.5	36-38UJ	mg/kg
Aroclor 1260	3	0.41	36-38UJ	mg/kg
Dieldrin	3	0.185	1.4-1.9UJ	mg/kg

U = non-detected, J = estimated

In 1995, the Other Soils Investigation was conducted as part of the Mound D&D Program characterization sampling of known or suspected areas of radiological contamination.[8] Fifty-one locations up to 6 feet in depth were sampled along the exposed extent of the plant drainage ditch.[8] Samples were subjected to field screening for volatile organic compounds using an organic vapor analyzer (OVA) and field instrument for detection of low-energy radiation (FIDLER) survey for plutonium-238 and thorium-232. Samples were additionally analyzed for 1) plutonium-238 and thorium-232 by the Mound Soil Screening Facility, and 2) metals using a portable x-ray fluoroscope (PXRF). Although the project collected samples for corroborative laboratory analysis, none were collected from the ditch locations. Of 170 individual samples, 23 exhibited concentrations of plutonium-238 that exceeded the Mound as low as reasonable achievable (ALARA) guideline of 25 pCi/g. The maximum concentration was 241 pCi/g in the lower reach of the ditch , just north of Building 34. The PXRF results were inconclusive, but suggested that no hazardous metals are present. Field screening for volatile organic compounds qualitatively indicated that 8 locations exhibited measurements above background.[8]

As part of the Environmental restoration (ER) Program Operable Unit 9, Remedial Investigation surface waters and sediments were sampled at 8 locations along the plant drainage ditch in Fall 1994 and Spring 1995.[9] In addition, subsurface samples were collected in the Fall 1994 at 3 boreholes that ranged in depth up to 36.5-feet below ground surface. Samples were analyzed for volatile and semi-volatile organic compounds, pesticides and PCBs, total metals and radiological parameters. As part of the investigation, samples from distant ponds and streams were analyzed to establish background concentrations. The results of the investigation [9] indicated that within the plant drainage ditch:

- surface water analyses indicated that no parameters occur above guideline values;
- sediment analyses indicated that plutonium-238 and a series of polyaromatic hydrocarbons (semi-volatile organic compounds) occur above guideline criteria (Table 2);
- subsurface soils analyses indicated that radium-226 and thorium-228 occur above guideline criteria (Table 3). The values are, however, at or below background. The draft background values established indicated that the guideline value for radium-226 is below background.[9]

Table 2 - Summary of Plant Drainage Ditch Sediment Results[9] above Guideline Criteria

	Samples	Guideline Criteria	Range	
Plutonium-238	11	25	6.2-28.0	pCi/g
Benzo(a)pyrene	10	0.41	0.47-11.0	mg/kg
Benzo(a)anthracene	2	4.10	4.6-14.0	mg/kg
Benzo(a)fluoranthene	2	4.10	6.0-20.0	mg/kg
Dibenzo(a,h)anthracene	2	0.41	0.5-2.0	mg/kg
Indeno(1,2,3-cd)pyrene	1	4.10	7.5	mg/kg

Table 3 - Summary of Plant Drainage Ditch Subsurface Soils Results [9] above Guideline Criteria

Parameter	No. of Samples	Risk-Based Guideline Criteria	Concentration Range	Units
Radium-226	16	0.14	0.58-1.27	pCi/g
Thorium-228	3	0.85	0.97-1.18	pCi/g

READING ROOM REFERENCES:

1) Operable Unit 9, Site Scoping Report: Volume 12 - Site Summary Report, December 1994. (pages 7-9)
2) Preliminary review/Visual Site Inspection [Draft], U.S. Environmental Protection Agency, July 1988.(pages 10-13)
3) Operable Unit 9, Remedial Investigation/Feasibility Study, Site Wide Work Plan, April 1992. (pages 14-17)
4) Operable Unit 9, Site Scoping Report: Volume 3 - Radiological Site Survey, June 1993. (pages 18-27)
5) Operable Unit 9, Site Scoping Report: Volume 7 - Waste Management, February 1993. (pages 28-33)
6) Operable Unit 9, Site Scoping Report: Volume 11 - Spills and Response Actions, March 1992. (pages 34-41)
7) Operable Unit 6, Area 19 and 14 Verification Sampling and Analysis Report. (pages 89-96)

OTHER REFERENCES:

8) Other Soils Characterization Report [Draft] January 1996. (pages 42-49)
9) Operable Unit 9, Surface Water and Sediment Report [Draft] March 1996. (pages 50-88)

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Dean A. Buckner, Member of EG&G Technical Staff
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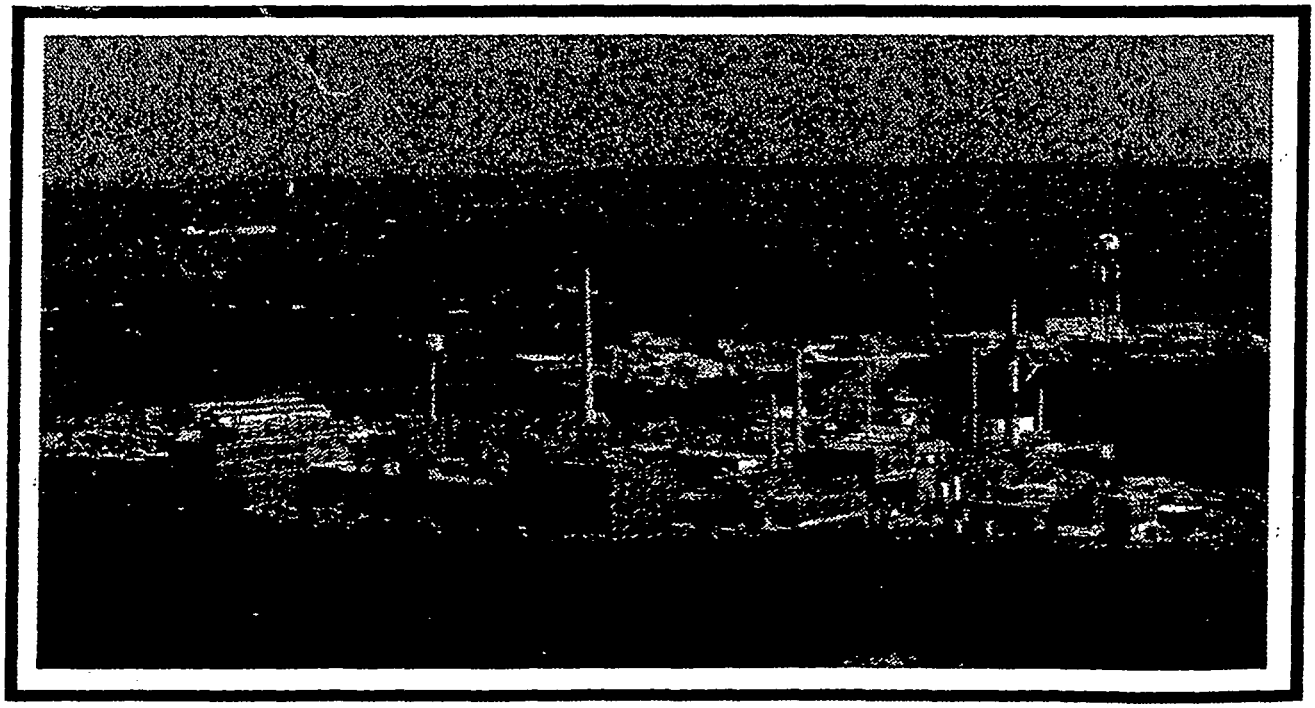
MOUND

Environmental
Restoration
Program

MOUND PLANT
Potential Release Site Package
PRS # 72

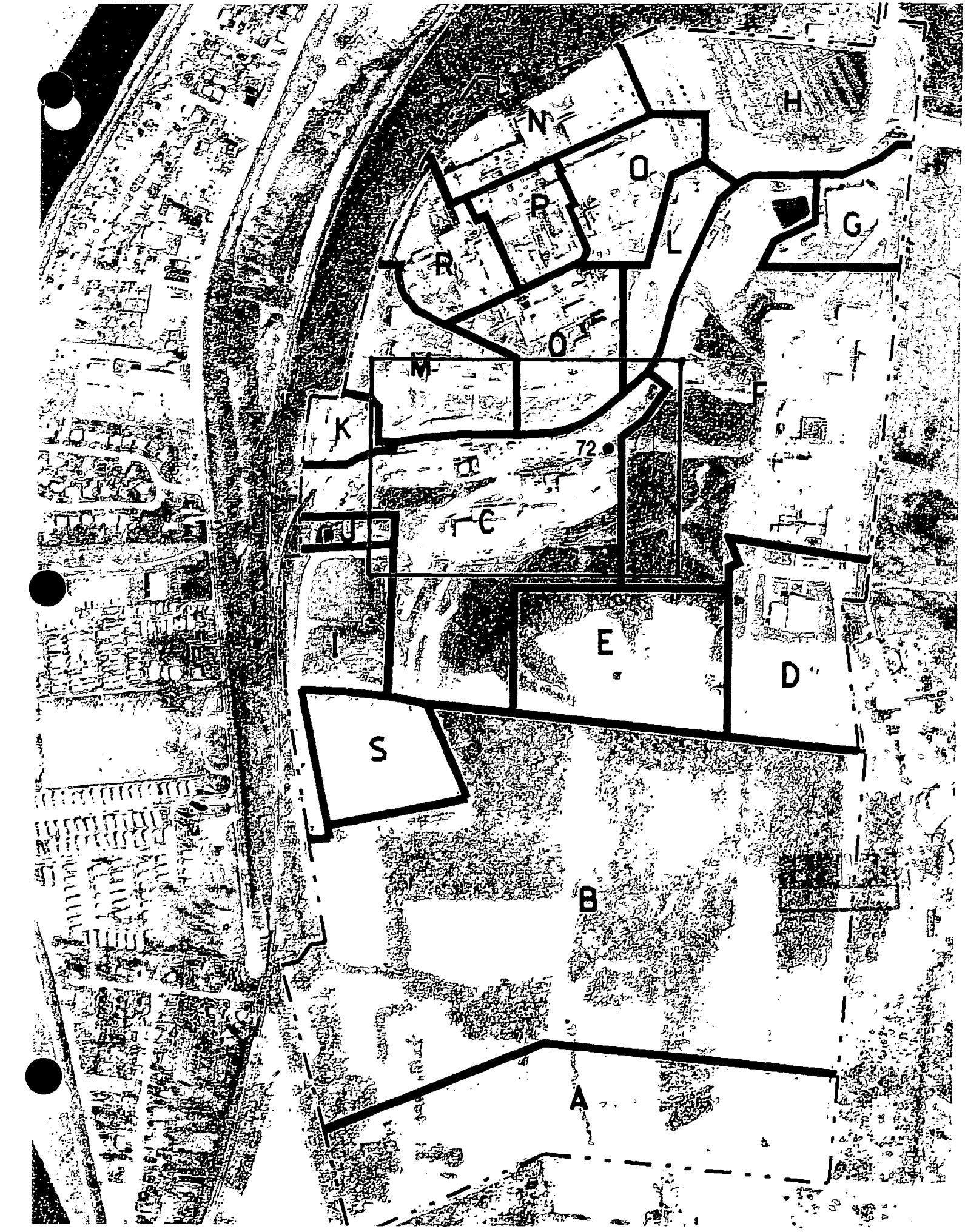


MOUND PLANT

Release Block C

Potential Release Site

PRS 72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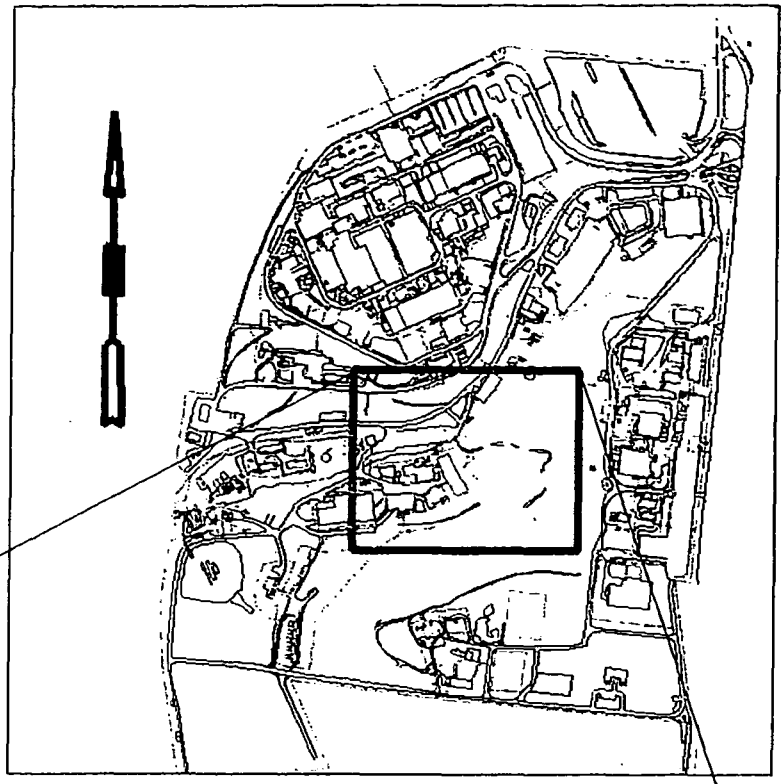
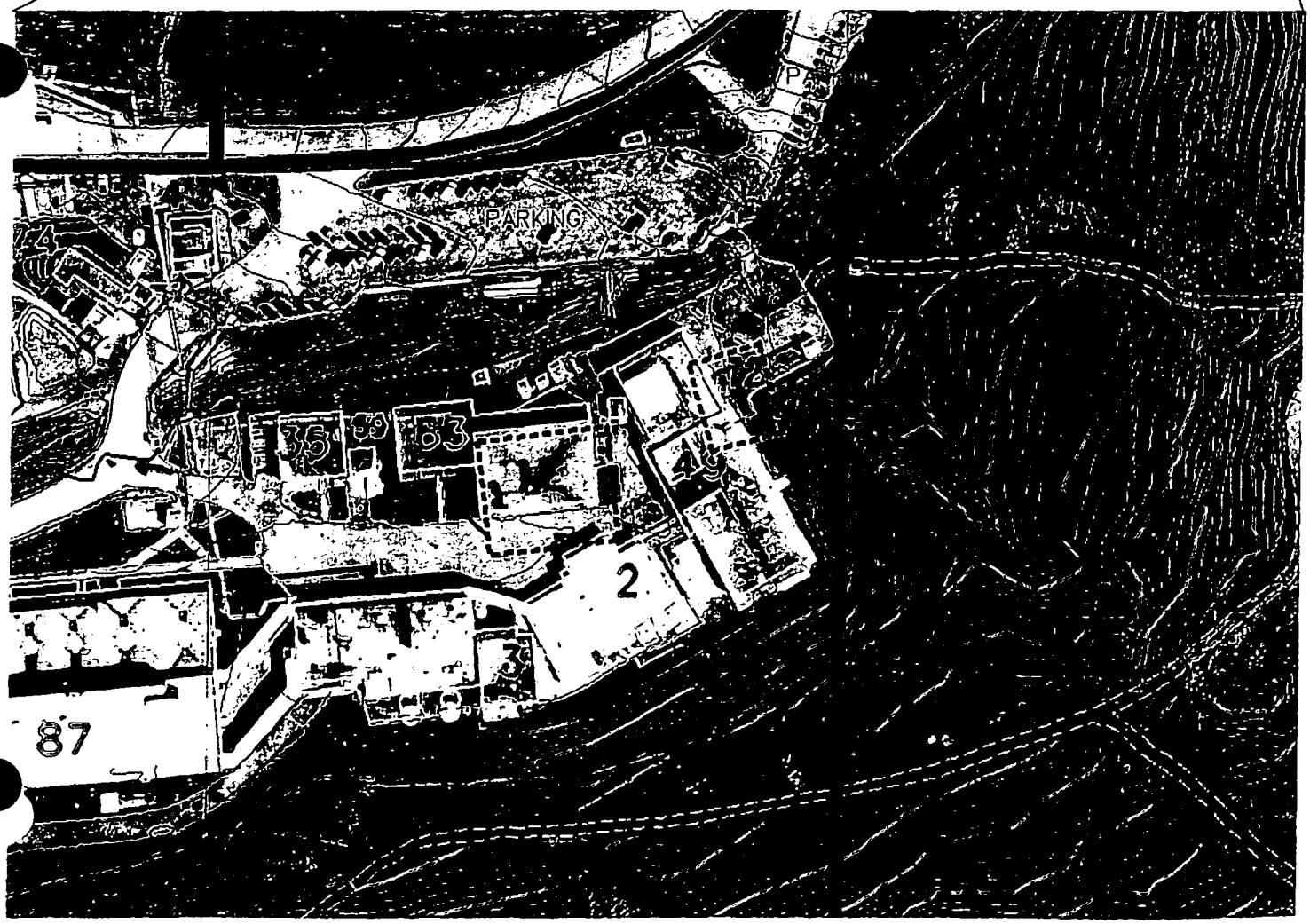
Mound Plant

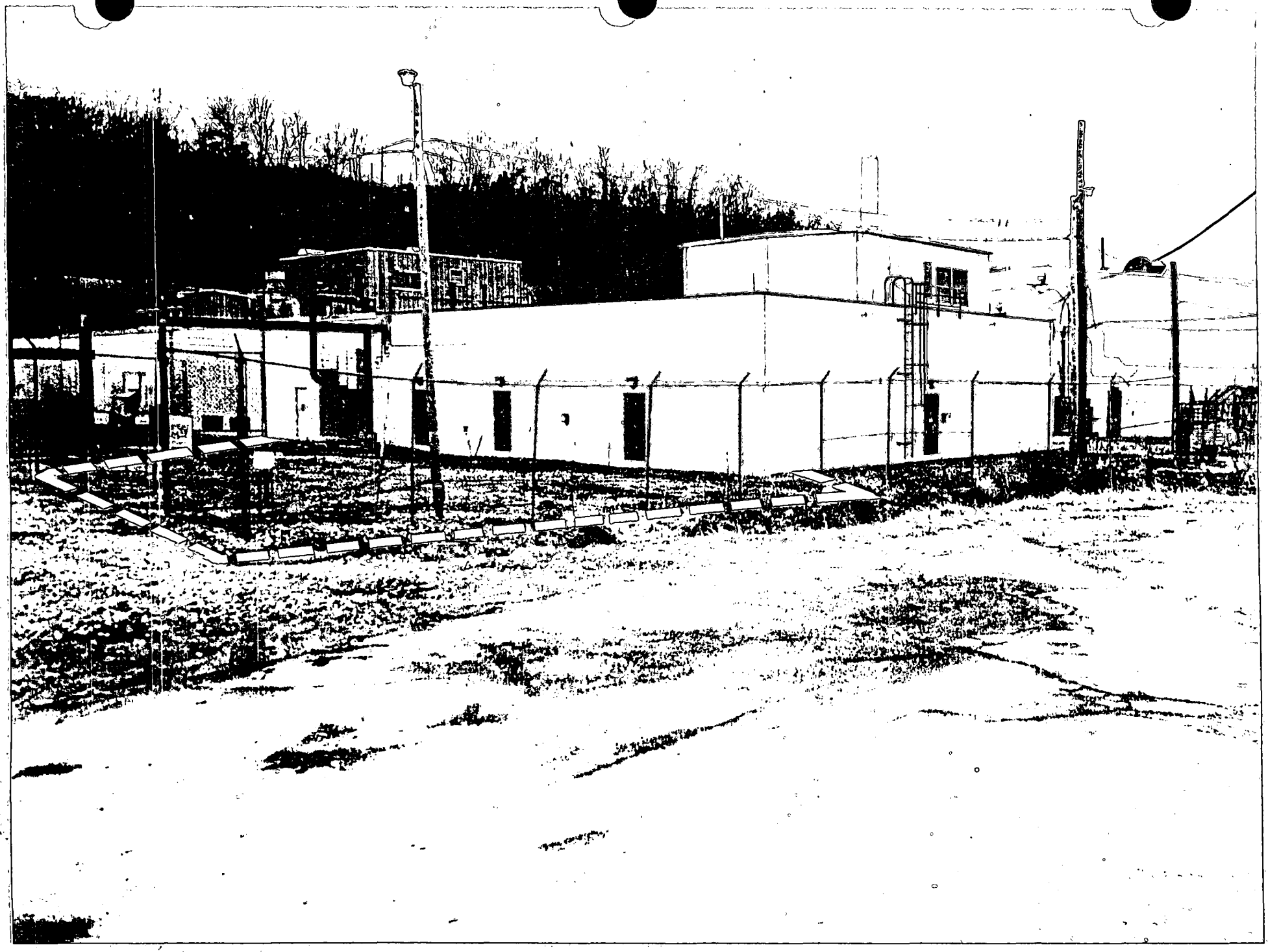
Release Block C

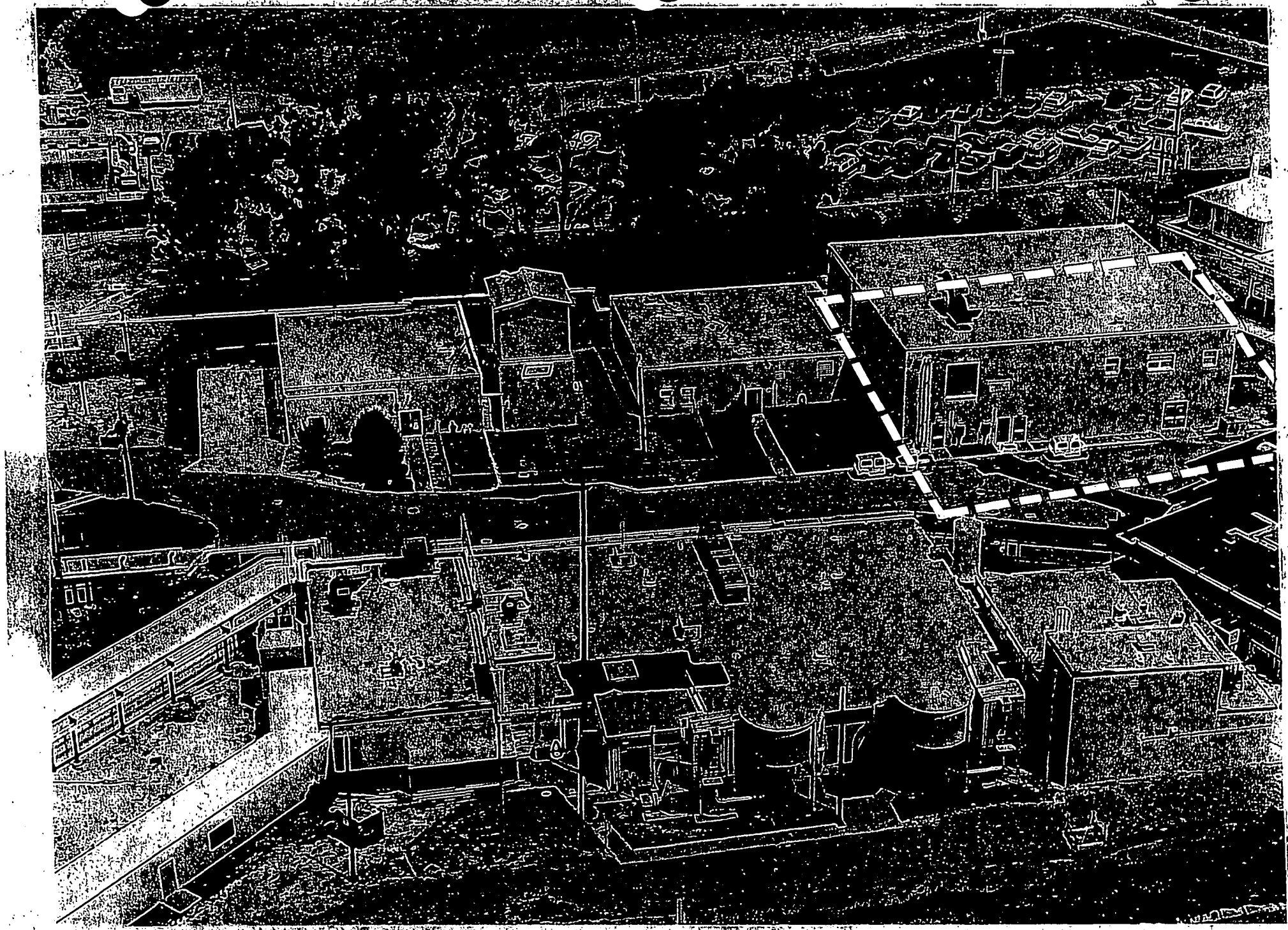
Potential Release Site

PRS 72









PRS 72

PRS HISTORY:

Potential Release Site (PRS) 72 is identified as that area which was used in the early 1950s for the storage of materials contaminated with polonium-210. It is also known as Area 13. In 1949, wood, equipment, and other materials were brought to Mound from the former Dayton operations and staged in and around Area 13. Materials were monitored for alpha contamination associated with the polonium-210. In 1955, wood and lumber that was too contaminated to be removed from the plant site was soaked with fuel oil and burned in Area 13. Residual materials were subsequently buried in the historic landfill (now known as PRS 10).

The actual location of Area 13 was disputed in the Operable Unit 9, Site Scoping Report: Volume 3 - Radiological Site Survey.[2] In that report, it was noted that the modern physical layout of the test fire area renders an exact location of Area 13 difficult to interpret.

Plate I of the Rad Survey[2] shows two possible locations. Most references place Area 13 northeast of Building 49, a plot approximately 100-feet by 100-feet, just south of the plant drainage ditch in what is now known as the test fire area. Most of the applicable data describe that area, and are herein referred to, as the Area 13 data.

However, an alternate site is identified on Plate I of the Rad Survey[2] lying just west of Building 49, partially covered by Building 63. The associated data are herein called the Building 63 data. Both are presented because radiation caused the PRS concern and it is not certain just where the storage/burning site was placed.

CONTAMINATION:

Polonium-210 (Po-210) was known to be the contaminant of concern. Po-210 has a short half-life (138 days) and would have completely decayed in four years time.

Radiological contamination, reported as part of the Site Survey Project,[2] conducted in the mid-1980s indicated plutonium-238 concentrations in the range of 0.28 to 5.74 pCi/g, in Area 13.

In the Building 63 area, plutonium concentrations were measured from 0.08 to 0.54 pCi/g. These plutonium concentrations are below the Mound ALARA (as low as reasonably achievable) guideline of 25 pCi/g. Three surface samples from each area were analyzed for the above results, and thorium was less than 2 pCi/g (compared with the regulatory guideline of 5 pCi/g).[9]

Field investigations of Area 13, conducted in 1994,[6] found no organic compounds to exceed the guideline criteria. However, a 1994 PETREX soil gas investigation,[4, 5] that took thirty-six PETREX samples from a grid covering Area 13, found relatively moderate to high readings for aromatic, semivolatile, petroleum and halogenated hydrocarbons.

Due to the PETREX soil gas results, a follow-on investigation was conducted. The 1996 Soil Gas Confirmation Investigation sampled six soil locations (Nos. SGC A13 000056 through 000061). Four samples reached three feet in depth, No. 000056 could reach only 18 inches and 000060 could reach only 12 inches. All of the samples were within the borders of Area 13. A quantitative analysis was performed on each sample for volatiles, semivolatiles, PCBs, metals, pesticides, radionuclides and explosives.

Results showed that in all of the samples, all of the analyte concentrations were less than the applicable guideline criteria, with the following exception. Sample No. 000061 measured 43000 ppb of trichloroethene where as the 10^{-6} Risk Based Guideline is 41000 ppb.[8]

In 1995, a PETREX soil survey [10] sampled two sites just east and west of the Building 63 area. These samples showed somewhat elevated readings for aromatic and petroleum hydrocarbons.

The follow-on gas confirmation sampling [7] took two specimens from 100 to 200 feet respectively, north and east of the Building 63 area. Quantitative analyses were made for volatiles, semivolatiles, PCBs, metals, radionuclides and explosives. Neither site showed any analyte concentration to be above the applicable guideline criteria.

READING ROOM REFERENCES:

1) OU9, Site Scoping Report: Volume 12 - Site Summary Report, Final, 1994. (pages 5-6.1)
2) OU9, Site Scoping Report: Volume 3 - Radiological Site Survey, Final, 1993. (pages 7-13)
3) OU9, Site Scoping Report: Volume 7 - Waste Management, Draft Final, 1992. (pages 14-18)
4) OU5, Operational Area Phase I Investigation, Area 13 Field Report: Volume I, Final, 1995. (pages 19-43)
5) OU5, Operational Area Phase I Investigation, Area 13 Field Report: Volume II, Final, 1995. (pages 44-52)
6) OU9, Hydrogeologic Investigation: Soil Chemistry Report, Technical Memorandum, 1994. (pages 53-57)
7) Soil Gas Confirmation Sampling, May 1996. (pages 58-70)
8) Risk Based Guideline Criteria, Final, Revision 0, 1995.
10) OU5, Operational Area Phase I Investigation Non-AOC Field Report: Volume II, Appendices A-G, Final, June 1995. (pages 71-82)

OTHER REFERENCES:

9) Code of Federal Regulations, 40 CFR 192.41 and 40 CFR 192.12.

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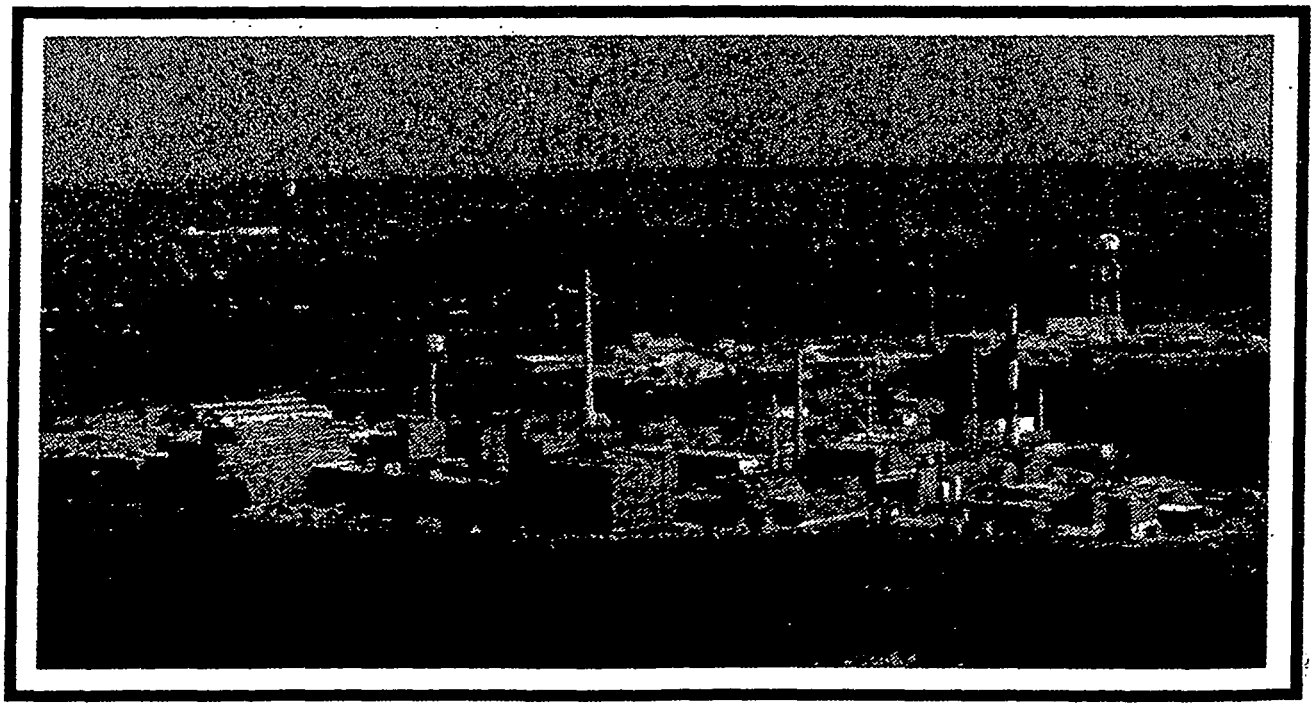
OhioEPA

MOUND PLANT

Potential Release Site Package

PRS # 87

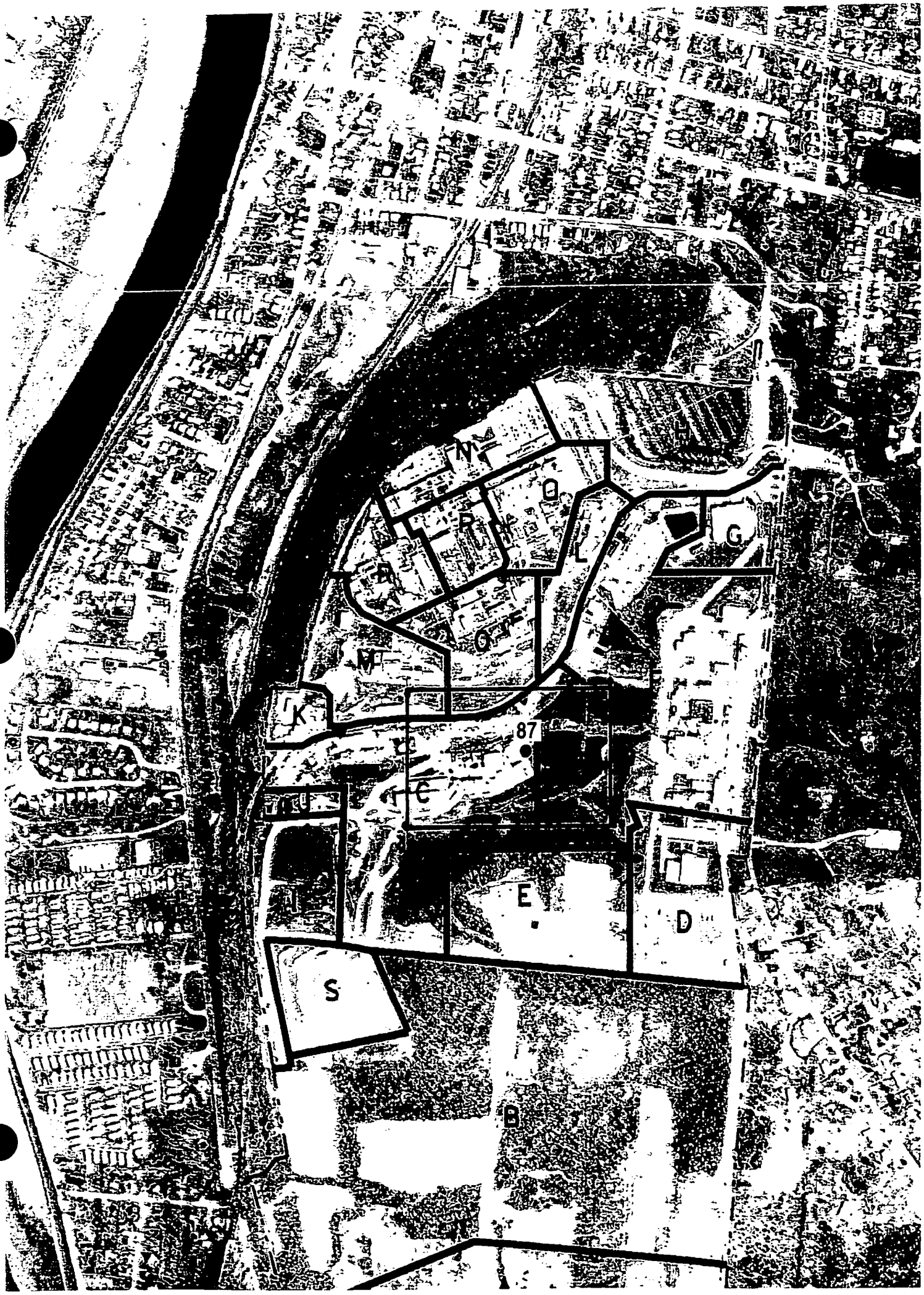


MOUND PLANT

Release Block C

Potential Release Site

PRS 87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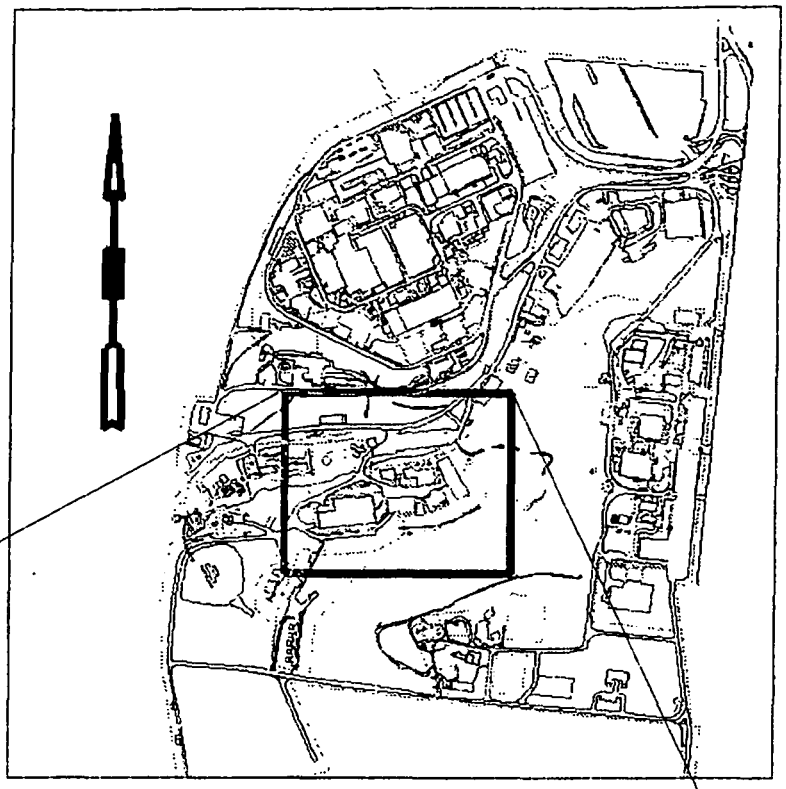
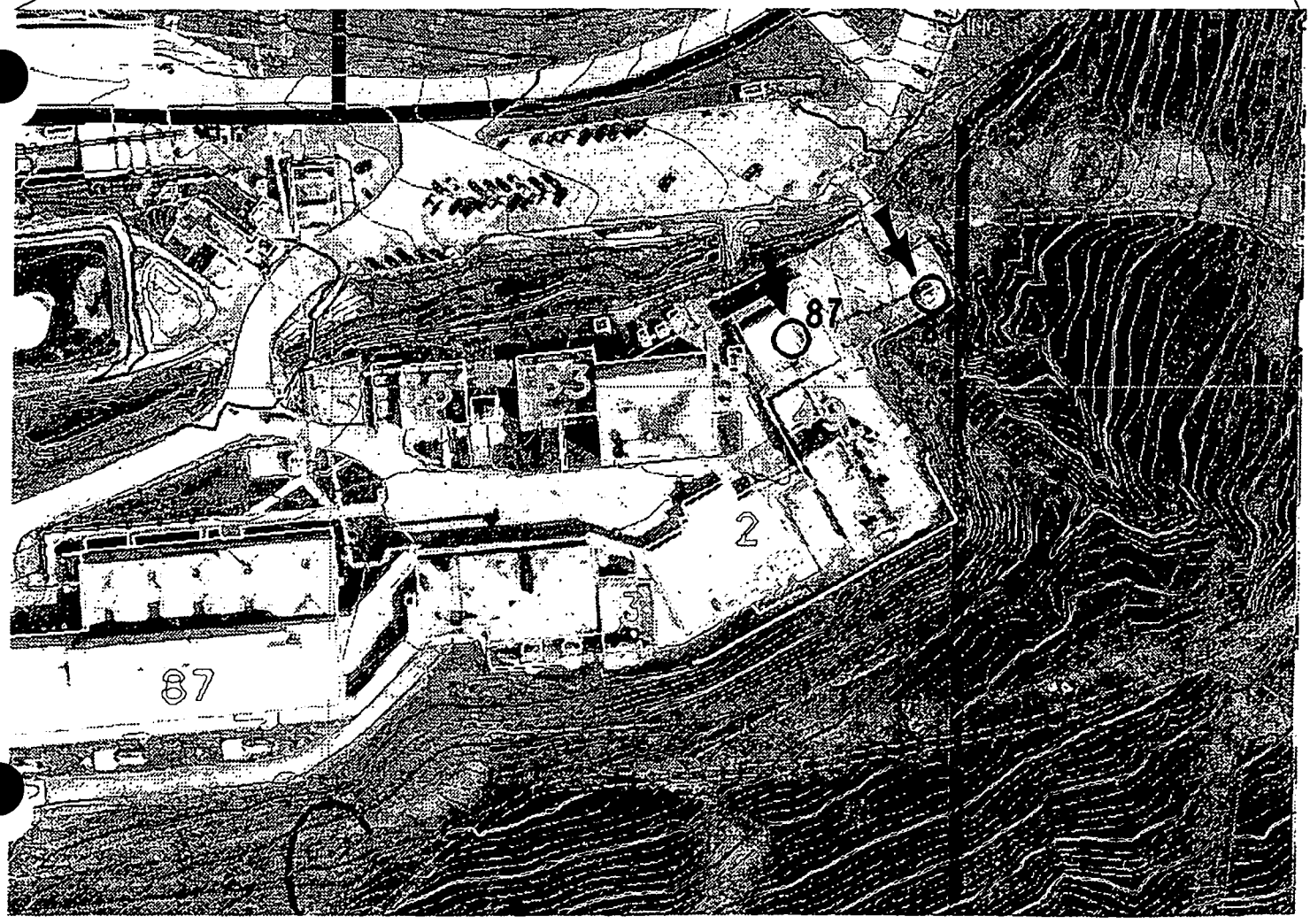
Mound Plant

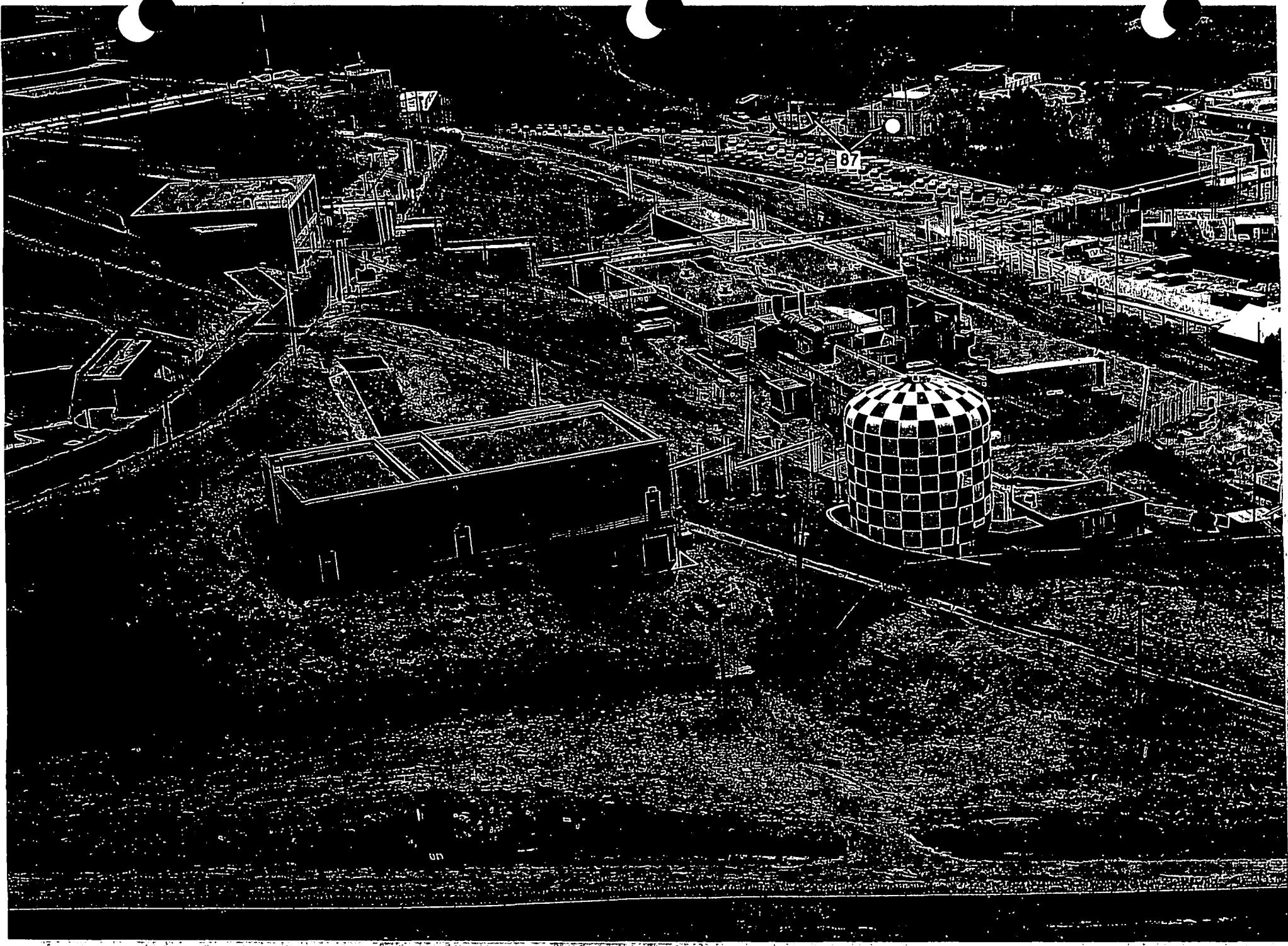
Release Block C

Potential Release Site

PRS 87



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PRS 87

PRS HISTORY:

Potential Release Site (PRS) 87 refers to the storage sheds that supplied solvents to the cleaning operations performed in Building 49.[2] The Building 49 operations have used two storage sheds. The first shed was built in 1968 and was operated until 1986. This shed, located on the north side of Building 49, was demolished in 1986 to provide space for the construction of the Building 49 addition. Another shed was built and is located approximately 100 feet east of the Building 49 addition. This shed is a small metal structure with dimensions of 8x12x10 feet. It was operational from 1986 to the early 1990s. Trichloroethene (TCE), isopropyl alcohol, ethyl alcohol, Freon TF, and hexane were stored in these sheds. There is no record of a solvent spill or leak from the storage sheds. The Building 49 Solvent Sheds did not involve radiological operations. Building 49 and the Solvent Shed have been leased to a commercial company, EG&G Star City.

CONTAMINATION:

1) The ***Radiological Site Survey***[4] investigated Mound soils for radionuclides. Seven surface samples were collected in 1983-84 from the vicinity of PRS 87 and were analyzed for plutonium-238 and thorium-232. Both Pu-238 and Th-232 were below guideline criteria of 25 pCi/g and 5 pCi/g, respectively. These measurements are summarized below:

Contaminant	Maximum Concentration Detected	Guideline Criteria
Plutonium-238	5.74 pCi/g (surface soil)	25 pCi/g (Mound ALARA)
Thorium-232	Less than 2 pCi/g (surface soil)	5 pCi/g[5] (surface soil)

NOTE: pCi/g = picocuries per gram, ALARA = As Low As Reasonably Achievable

2) In 1994, the ***OU5, Operational Area Phase 1 Investigation Area 13 Field Sampling***[3] performed radionuclide analyses of soil from Area 13 (PRS 72) which is adjacent to Building 49 and the solvent shed (PRS 87). Soil samples were analyzed for plutonium-238 and thorium-232 by Mound's Soil Screening facility. Both Pu-238 and Th-232 were below guideline criteria of 25 pCi/g and 5 pCi/g, respectively. These measurements are summarized below:

Contaminant	Maximum Concentration Detected	Guideline Criteria
Plutonium-238	24 pCi/g (surface soil)	25 pCi/g (Mound ALARA)
Thorium-232	1.1 pCi/g (surface soil)	5 pCi/g[5] (surface soil)

The OU5 investigation also measured the concentration of organic chemicals that are gaseous vapors entrained in the soil. The measurements, known as PETREX soil gas analyses, are qualitative screening. In summary, these PETREX soil measurements showed relatively high readings of aromatic, semivolatile, petroleum, and halogenated hydrocarbons. Sample ID #803, next to Building 49, contained the highest relative levels of tetrachloroethene and trichloroethene.

3) In February 1996, the ***Soil Gas Confirmation Sampling*** [6] project analyzed additional soil samples to supplement previous investigations performed at Mound. In summary, this investigation analyzed six samples, #000056 through #000061, for VOCs, semivolatile organic compounds, pesticides/PCBs, inorganics, explosives, and radionuclides. Analysis results which exceed Guideline Criteria are listed below:

Contaminant	Maximum Concentration Detected	Guideline Criteria
Trichloroethene	43 mg/kg (sample #61 in soil)	0.43 mg/kg [8], 41 mg/kg [7] (in soil)

READING ROOM REFERENCES:

1) OU9, Site Scoping Report: Volume 12 - Site Summary Report, December 1994. (pages 6-8)
2) OU9, Site Scoping Report: Volume 7 - Waste Management, February 1993. (pages 14-17)
3) OU5, Operational Area Phase I Investigation - Area 13 Field Report, Volume I & II Final, (Revision 1), June 1995. (pages 18-63)
4) OU9, Site Scoping Report: Volume 3 - Radiological Site Survey, 1993. (pages 9-13)
7) Risk-Based Soil Guidelines, Final, Revision 3, December 1995. (pages 76-77)

OTHER REFERENCES:

5) Code of Federal Regulations, 40 CFR 192.12 and 40 CFR 192.41.
6) Further Assessment, Soil Gas Confirmation Sampling, May 1996. (pages 64-75)
8) Soil Screening Level Calculations by Alec Bray (pages 78-84)

PREPARED BY:

John W. Nichols, Member of EG&G Technical Staff
W. David Gloekler, Member of EG&G Technical Staff

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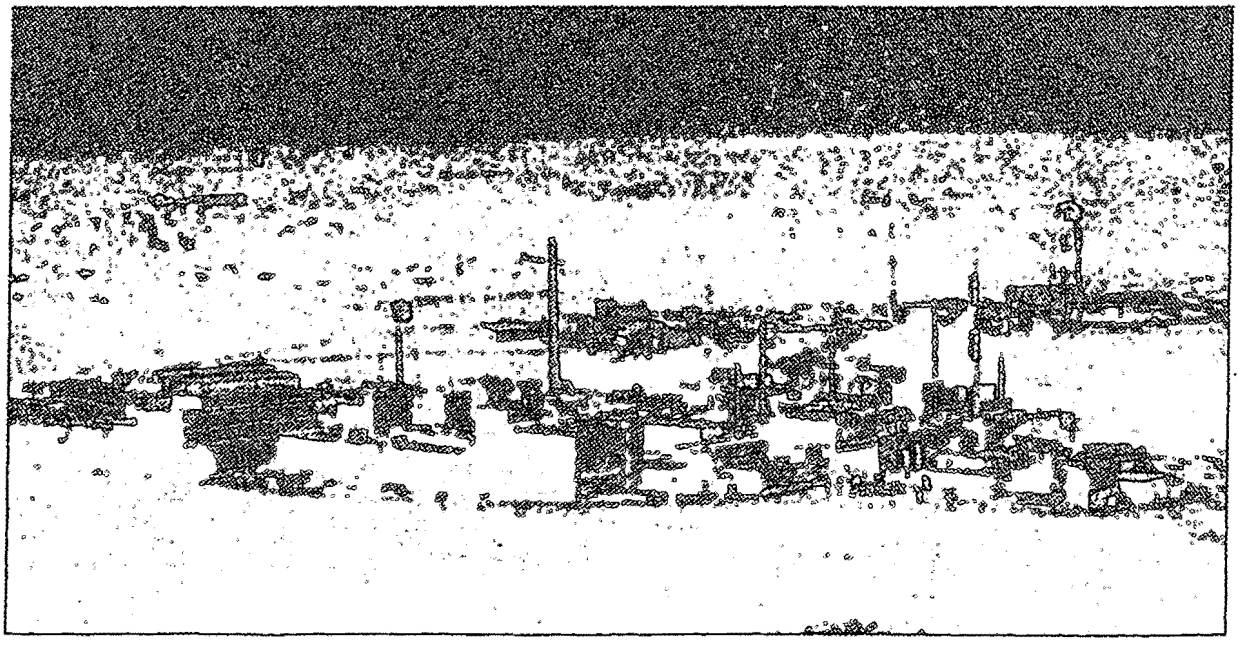
MOUND PLANT

Potential Release Site Package

PRS # 258/259/260/261/262/263/264/265



COLLECTED INFORMATION
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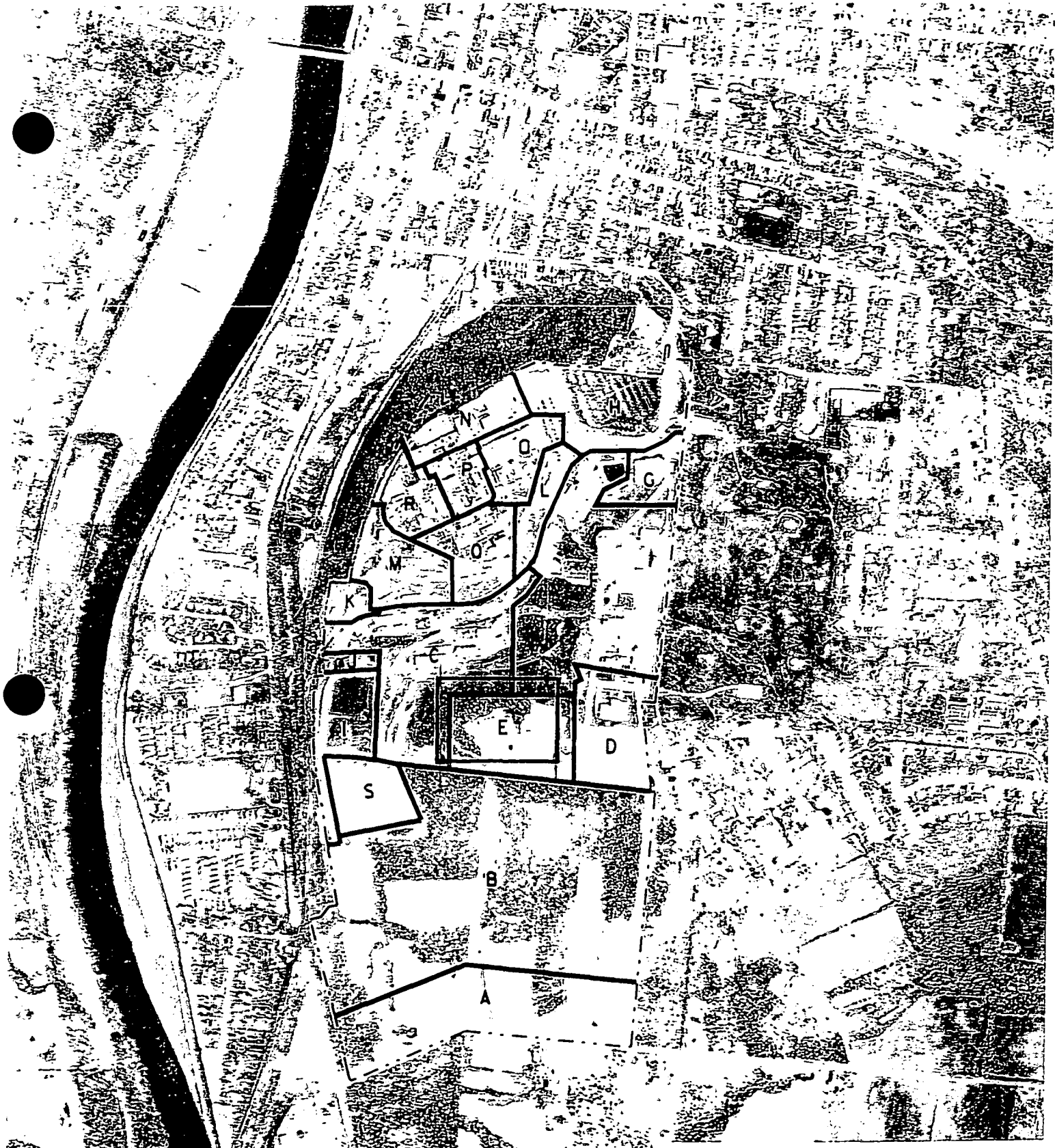

MOUND PLANT
Release Block E
Potential Release Site
PRS 258/259/260/261/
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Release Block E

Potential Release Site

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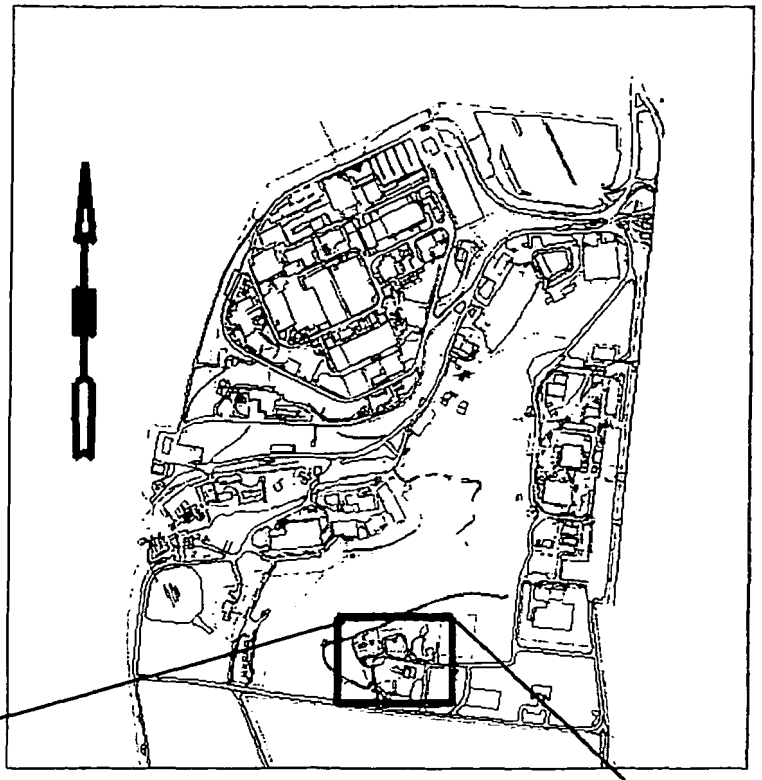

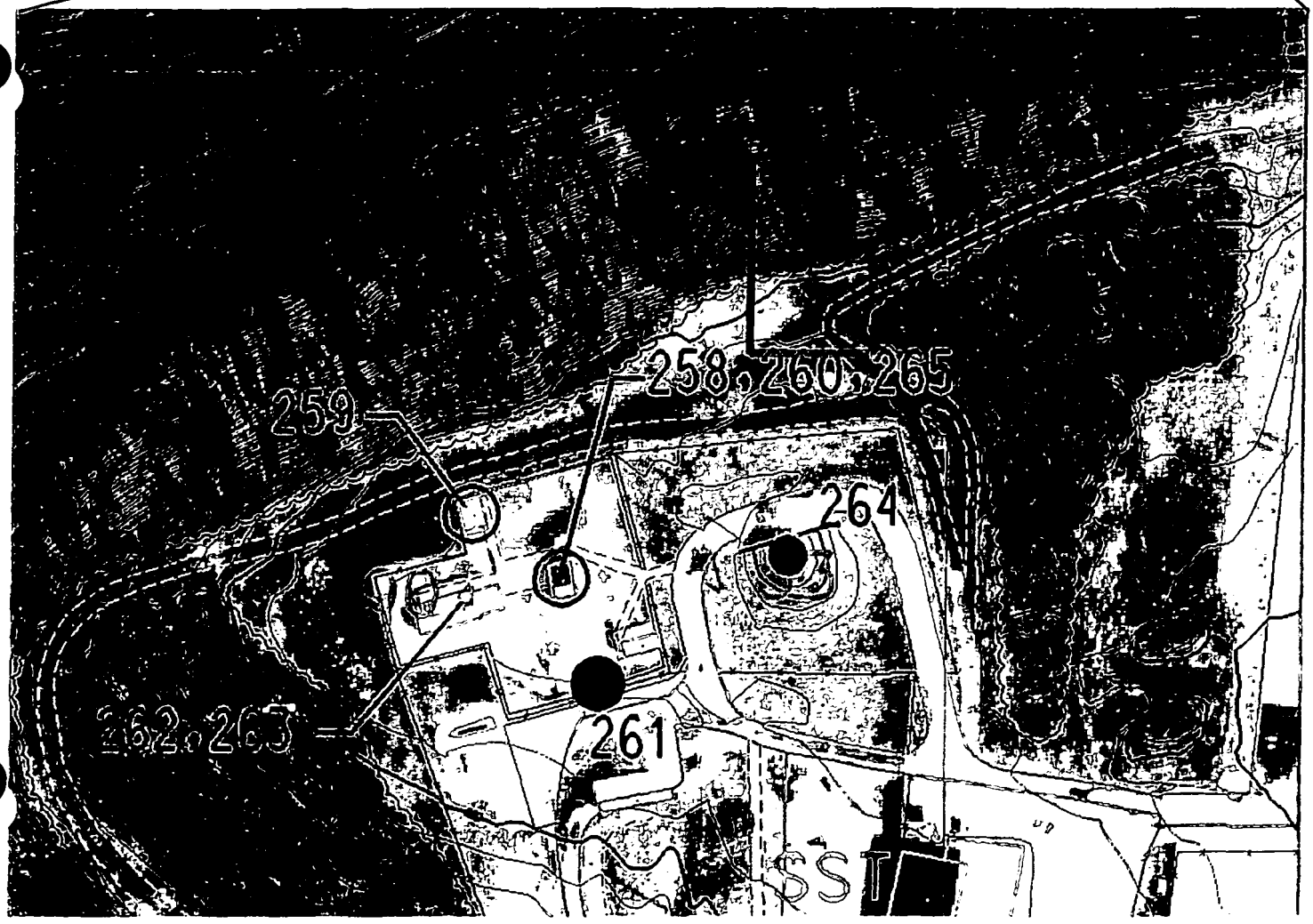


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PRS 258/259/260/261/262/263/264/265

PRS HISTORY:

Potential Release Sites (PRS) 258 through 265 refer to the waste storage and treatment facilities located in the "Burn Area". This area is located northwest of Building 21. A variety of wastes such as explosive powders, pyrotechnic materials, solid wastes contaminated with energetic materials, and weapon components were thermally treated in the "Burn Area".[2,3]

The units listed below were identified by the 1988 RCRA Facility Assessment [3] and were subsequently investigated by Mound's Environmental Restoration Program.

PRS	Unit	Description	In Service Dates
258	Open Burn Cubicle	thermal treatment unit - open burn	1966 - 1995
259	Pyrotechnics shed	waste storage shed - pyrotechnic materials	1975 - 1996
260	Thermal Treatment Unit	thermal treatment unit - electrical furnace operated within the Open Burn Cubicle	? - 1991
261	Trash Burner Area	thermal treatment unit	1950s - 1988
262 263	Retort Building 90	thermal treatment unit - rotary kiln	1984 - 1995
264	Magazine 53	waste storage bunker - secondary explosives	1970 - 1996
265	Pretreatment Unit	Evaporation of waste solvents prior to thermal treatment via Open Burn Cubicle	? - 1991

CONTAMINATION:

The 1983-84 Radiological Site Survey [4] analyzed soil (eight surface samples and one core sample) collected from the Burn Area. The maximum soil concentration of plutonium-238 was 1.45 pCi/g which is below the ALARA guideline value of 25 pCi/g. The maximum soil concentration of thorium was 0.7 pCi/g which is below the regulatory limits of 5 pCi/g (surface) and 15 pCi/g (subsurface).

The OU3 Miscellaneous Sites Limited Investigation Report [5] includes the 1991 analysis results for eighteen soil locations from the Burn Area. These samples were analyzed for organic compounds, inorganic compounds, and explosives. Beryllium was the only analyte detected above its guideline value (GV). The maximum concentration of beryllium detected in the Burn Area was 2.3 mg/kg. The GV for beryllium is 0.7 mg/kg and the maximum OU9 background value is 2.4 mg/kg.

In 1994, OU5, Operational Area Phase II Investigations Non-AOC Field Report [7] investigated the Burn Area for explosives, Soil Gas Organics, and radioactivity. One sample, BB6001, detected nitrobenzene at an estimated concentration of 0.38 mg/kg. The PETREX soil gas samples [3] indicated the presence of aromatic hydrocarbons, petroleum hydrocarbons, total halogenated hydrocarbons, and semivolatile hydrocarbons. Twelve samples were analyzed for radioactivity. One sample (grid location 03N15W) contained 28 pCi/g of plutonium-238 which exceeds the 25 pCi/g ALARA guideline limit. The soil concentrations of thorium were all below the regulatory limits of 5/15 pCi/g.

The 1996 Soil Gas Confirmation Sampling[8] collected one sample, # 000015, from the Burn Area. This sample was analyzed for organics and inorganics. All measurements were below their respective guideline values.

Additional soil samples will be collected in 1996. They will be analyzed for following Appendix XIII waste constituents: antimony, barium, beryllium, cadmium, lead, nickel, silver, dibutylphthalate, diphenylamine, and nitroglycerine. These measurements are required by OHIO EPA regulations involving the RCRA Closure Plan for the Burn Area[9].

READING ROOM REFERENCES:

1) OU9, Site Scoping Report: Volume 12 - Site Summary Report, December 1994. (pages 6-9)
2) OU9, Site Scoping Report: Volume 7 - Waste Management, February 1993. (pages 42-49)
3) Preliminary Review/Visual Site Inspection for RCRA Facility Assessment of Mound Plant, July 1988. (pages 10-16)
4) OU9, Site Scoping Report: Volume 3 - Radiological Site Survey, June 1993. (pages 37-41)
5) OU3, Miscellaneous Site Limited Field Investigation Report, Volume I & II, Appendix A, July 1993. (pages 50-223)
6) OU3,Limited Field Investigation, Work Plan, Mound Plant, Miscellaneous Site, June 1991. (pages 224-233)
7) OU5, Operational Area Phase I Investigations Non-AOC Field Report, Volumes I & II, June 1995. (pages 17-36)
8) Soil Gas Confirmation Sampling, May 1996. (pages 234-239)

OTHER REFERENCES:

9) Burn Area Closure Plan, May 16, 1996. (pages 240-283)

PREPARED BY:

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W. David Gloekler, Member of EG&G Technical Staff

MOUND PLANT
PRS 71
SOLVENT WASTE TANK - BUILDING 85

RECOMMENDATION:

Historical process knowledge indicated that this Potential Release Site (PRS), which is a below grade tank located adjacent to Building 85, was never used. Building 85 was designed to store waste solvent associated with explosives processing, however was never occupied or used. Sampling that investigated chemical contamination in the area resulted with no levels of concern for volatile organic compounds (VOCs). There was no history of radiological processes occurring in the area of the building or tank location and radiological sampling near the location of the tank indicated thorium below the D&D clean-up level of 5 pCi/g surface and 15 pCi/g subsurface. Plutonium was not detected above the Mound Soil Screening Level of 25 pCi/g, which was well below the 10-5 risk guideline value of 55 pCi/g. Based on the sampling results and the fact that the tank was never used, PRS 71 has been recommended for NO FURTHER ASSESSMENT.

CONCURRENCE:

DOE/MB: Arthur Kleinrath 2/29/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 3/4/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 2/29/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from ~~4/15/96~~ 3/15/96 to ~~5/15/96~~ 4/01/96.

☒ No comments were received during the comment period.

☐ Comment responses can be found on page_____ of this package.

MOUND PLANT
PRS 245
SOIL CONTAMINATION - WD BUILDING

RECOMMENDATION:

This soils location was identified as a Potential Release Site (PRS) because of the detection of Volatile Organic Compounds (VOCs) during the Mound Reconnaissance Sampling soil gas survey. The compounds identified were trichloroethane (111-TCA), trichloroethene (TCE), and Freon 113.

Calculations were performed converting the 10^{-6} Risk Based Guideline Values (given in mg contaminant per kg soil) to corresponding 10^{-6} Risk Based Guideline Values for soil gas concentrations (parts contaminant per parts soil gas). The results of the calculation showed that the 111-TCA detection was approximately 8,000 times less than guideline criteria and the TCE detection was approximately 60 times less than guideline criteria (no guideline criteria exists for Freon 113). Additionally, plutonium-238 and thorium-232 concentrations were below their guideline criteria of 25 pCi/g and 5 pCi/g respectively.

Therefore, since the VOC soil gas detections establishing this soils location as a PRS have been shown not to be evidence of contamination above guideline criteria and since there is no additional evidence of contamination, PRS 245 requires NO FURTHER ASSESSMENT.

CONCURRENCE:

DOE/MB: _____ 8/20/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: _____ 8/20/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: _____ 8/20/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 9/15/96 to 10/15/96

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

MOUND PLANT
PRS 330
FORMER TANK SITE – BUILDING 2 FUEL OIL TANK

RECOMMENDATION:

PRS 330 is the site of a former underground storage tank located in the western sector of the original Mound plant. In 1994, qualitative hydrocarbon detections were found during the PETREX soil gas portion of the ***OU5, Non Area of Concern*** investigation. No radioactive or hazardous waste generating processes or activities are known to have occurred at PRS 330.

In 1996, the Soil Gas Confirmation Sampling effort sampled the locations with the highest ion counts (confirmation sample locations 7, 11, and 18) in the western sector and discovered no contamination above the 10^{-6} risk range. PRS 330 was not sampled as part of the Soil Gas Confirmation Sampling but the PRS had lower ion counts than confirmation sample locations 7, 11, and 18. This implies that PRS 330 has similar or lower health risk than confirmation sample locations 7, 11, and 18.

All radiological samples collected near this PRS indicate that radionuclides are below their applicable 10^{-6} Risk Based Guideline Values, ALARA or regulatory levels. Therefore, NO FURTHER ASSESSMENT is recommended for PRS 330.

CONCURRENCE:

DOE/MB: Arthur K Kleinrath 2/19/97
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fisch 2/19/97
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 2/19/97
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from _____ to _____

☐ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

MOUND PLANT
PRS 331
BUILDING 2 SEPTIC TANK

RECOMMENDATION:

This location was identified as a Potential Release Site (PRS) because the tank had been used to receive the discharge of sanitary waste water from Building 2.

No radionuclide nor hazardous waste generating processes were known to have occurred in Building 2. The OU5 Non-AOC Field survey did not detect any contamination above screening levels. Soil plutonium concentrations were below the Mound ALARA guideline of 25 pCi/g, and thorium was below the accepted regulatory standard of 5 pCi/g (surface) and 15 pCi/g (subsurface).

Therefore, PRS 331 requires NO FURTHER ASSESSMENT.

CONCURRENCE:

DOE/MB: Arthur K Kleinrath 10/3/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fisher 10/3/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K Nickel 10/3/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 10/15/96 to 11/15/96

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

MOUND PLANT
PRS 346/347/348/355/370
SOIL CONTAMINATION

RECOMMENDATION:

PRS 346, 347, 348, 355, and 370 are soil potential release sites (PRSs) located in the southern sector of the original Mound plant. These soil locations were identified as PRSs due to qualitative hydrocarbon detections found during the PETREX soil gas portion of the ***OU5, Non Area of Concern*** investigation. No radioactive or hazardous waste generating processes or activities are known to have occurred at PRSs 346, 347, 348, 355, or 370.

In 1996, the Soil Gas Confirmation sampling effort sampled the locations with the highest ion counts (confirmation sample locations 15, 16, and 17) in the southern sector and discovered no contamination above the 10-6 risk range. PRSs 346, 347, 348, 355, and 370 were not sampled as part of the *Soil Gas Confirmation Sampling* but the PRSs had lower ion counts than confirmation sample locations 15, 16, and 17. This implies that PRSs 346, 347, 348, 355, and 370 will have similar or lower health risk.

All radiological samples collected near these PRSs indicate that radionuclides are below their applicable 10^{-6} Risk Based Guideline Criteria, ALARA, regulatory, or background levels. Therefore, NO FURTHER ASSESSMENT is recommended.

CONCURRENCE:

DOE/MB: Arthur W. Kleinrath 11/20/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 11/20/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 11/20/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 12/19/96 to 1/23/97

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

MOUND PLANT
PRS 311/350
SOIL CONTAMINATION AREA
WEST OF BUILDING 21

RECOMMENDATION:

Potential Release Site (PRS) 311 was identified during a 1983 site survey project which discovered an isolated plutonium-238 reading of 29 pCi/g. This value is below the DOE clean-up standard of 100 pCi/g and the OU4 canal clean-up level of 75 pCi/g for plutonium as well as the 10^{-5} risk guideline value of 55 pCi/g. An isolated thorium-232 measurement of 2 pCi/g was below the D&D clean-up level of 5 pCi/g surface and 15 pCi/g subsurface for thorium, therefore, NO FURTHER ASSESSMENT is recommended for PRS 311.

PRS 350 consists of detectable plutonium-238 concentrations (25-50 pCi/g) discovered in the vicinity of PRS 311 during the OU5 Phase I Investigation in 1994. Plutonium concentrations were below the DOE clean-up standard of 100 pCi/g , the OU4 canal clean-up level of 75 pCi/g for plutonium , and the 10^{-5} risk guideline value of 55 pCi/g. . No radiological processes are known to have occurred at the location of PRS 350 and the age of the area's vegetation suggests that the area of PRS 350 did not experience any large scale earth moving operations that could have deposited contamination from another area of the plant. Based upon this information, PRS 350 is recommended for NO FURTHER ASSESSMENT.

CONCURRENCE:

DOE/MB: Arthur W. Kleinrath, Remedial Project Manager — 2/29/96 (date)

USEPA: Timothy J. Fischer, Remedial Project Manager — 3/4/96 (date)

OEPA: Brian K. Nickel, Project Manager — 3/4/96 (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 3/15/96 4/15/96 to 4/1/96 5/15/96.

☒ No comments were received during the comment period.

☐ Comment responses can be found on page_____ of this package.

MOUND PLANT
PRS 369
SOIL CONTAMINATION

RECOMMENDATION:

Potential Release Site (PRS) 369 was identified due to elevated qualitative PETREX hydrocarbon levels. During the 1996 soil gas confirmation investigation all concentrations of volatile, semivolatile, PCBs, pesticides, metals, radionuclides, and explosives, in the soils, were below their respective ALARA, regulatory or 10^{-6} Risk Based Guideline Criteria. Therefore, NO FURTHER ASSESSMENT is recommended.

CONCURRENCE:

DOE/MB: Arthur W. Kleinrath 11/20/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 11/20/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 11/20/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 12/19/96 to 1/23/97

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

Appendix 7.2.5 Aerial Photographs

Appendices 7.3 Ownership/Historical Documentation: "Title Search"

FA/MTSOR
FORM 900
TITLE INSURANCE
COMMITMENT

COMMITMENT FOR TITLE INSURANCE

First American Title Insurance Company

FIRST AMERICAN TITLE INSURANCE COMPANY, A CALIFORNIA CORPORATION, herein called the Company, for valuable consideration, hereby commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest covered hereby in the land described or referred to in Schedule A, upon payment of the premiums and charges therefor; all subject to the provisions of Schedule A and B and to the Conditions and Stipulations hereof.

This Commitment shall be effective only when the identity of the proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A hereof by the Company, either at the time of the issuance of this Commitment or by subsequent indorsement.

This Commitment is preliminary to the issuance of such policy or policies of title insurance and all liability and obligations hereunder shall cease and terminate six (6) months after the effective date hereof or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue such policy or policies is not the fault of the Company. This Commitment shall not be valid or binding until countersigned by an authorized officer or agent.

IN WITNESS WHEREOF, the Company has caused its corporate name and seal to be hereunto affixed.

Issued By:

MIDLAND TITLE SECURITY, INC.

First American Title Insurance Company

BY Parker S. Kennedy PRESIDENT

ATTEST William C. Gaylord SECRETARY

Countersigned:

By _____

Validating Signatory

FIRST AMERICAN TITLE INSURANCE COMPANY

Commitment No: 9-41914

Schedule A

Effective date: June 3, 1995 at 7:59 A.M.

1. **Policy or Policies to be issued:**	**Amount**
a. **Owner's Policy** **Proposed Insured:** The United States of America	$TBD
b. **Loan Policy** **Proposed Insured:** To Be Determined, its successors and/or assigns	$TBD

2. **The estate or interest in the land described or referred to in this Commitment and covered herein is a Fee Simple and title to the estate or interest in said land is at the effective date hereof vested in:**
The United States of America

3. **The land referred to in this Commitment is described as follows:**

The examined property consists of all legal descriptions as shown on source deeds listed on Schedule B, Section II, note regarding vesting of title. A new legal description with appropriate approvals must be obtained prior to title transfer.

FIRST AMERICAN TITLE INSURANCE COMPANY

Commitment No: 9-41914

Schedule B Section I

The following are the requirements to be complied with:

Instrument(s) creating the estate or interest to be insured must be approved, executed, delivered and filed for record.

End of Schedule B - Section I

Schedule B Section II

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company:

1. Defects, liens, encumbrances, adverse claims or other-matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date the proposed Insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment.

2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.

3. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by public records.

4. Any lien, or right to an lien, for services labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

5. Rights of parties in actual possession of all or any part of the premises.

6. Special assessments and special taxes, if any, and taxes not yet due and payable.

FIRST AMERICAN TITLE INSURANCE COMPANY

Commitment No: 9-41914

Continuation of Schedule B - Section II :

Note: Title Holder took Title in Deed Book 1256-179, Deed Book 1265-361, Deed Book 1214-12, Deed Book 1214-248, Deed Book 1215-347, Deed Book 1246-45 , Deed Book 1258-56, Deed Book 1258-74, Deed Microfiche 81-376-A01, Deed Microfiche 81-323-A11, Deed Book 1214-10, Deed Book 1214-15 and Deed Book 1214-17

7. Subject to restrictions as shown of record in Deed Book 939, Page 322, Volume 1116-262, Volume 1116-265, Volume 1116-268 and Microfiche 89-560-E08.

8. Easement to The Dayton Power and Light Co. as shown of record in Deed Book 2341-323, Deed Book 1275-9, Deed Book 2341-43 and Deed Book 2437-611.

9. Easement to the City of Miamisburg as shown of record in Deed Book 2260-228.

10. Subject to a Reservation as shown of record in Deed Book 548-218.

11. Subject to an Agreement between The New York Central Railroad Company and the Cleveland, Cincinnati, Chicago and St. Louis Railway Company and The United States of America as shown of record in Deed Book 1282-401.

12. Subject to an Affidavit as shown of record in Deed Microfiche 90-616-D02.

13. Subject to an Agreement between William F. Mobley and Margaret Mobley and William Hamilton and Janet W. Hamilton as shown of record in Deed Book 1214, Page 8.

14. Subject to conditions as shown in Quitclaim Deed Book 1212, Page 87.

NOTE: The Mound Property has all been annexed to City of Miamisburg, which makes some USA deed Descriptions obsolete.

15. 1994 Duplicate for Aud. Parcel Number K46-3-34-14 & 21 (2.390 Acres) lists taxes in the name of The United States of America
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 7,530.00 Building: 0.00 Total: 7,530.00.

Aud. Parcel Number K46-5-3-13 (88.320 Acres, Lot 2290)
First Installment due January 1995 is $ 0 .00.
Second Installment due July 1995 is $ 0.00.
Land: 618,240.00 Building: 0.00 Total: 618,240.00.

Aud. Parcel Number K46-11-9-1 (21.170 Acres, Lot 4777)
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 29,650.00 Building: 0.00 Total: 29,650.00.

Aud. Parcel Number K46-11-9-2 (42.877 Acres, Lot 4778)
First Installment due January 1995 is $ 0.00.

FIRST AMERICAN TITLE INSURANCE COMPANY

Commitment No: 9-41914

Continuation of Schedule B - Section II :

Second Installment due July 1995 is $ 0.00.
Land: 60,030.00 Building: 0.00 Total: 60,030.00.

Aud. Parcel Number K46-11-9-3 (1.6 Acres, Lot 4779)
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 2,240.00 Building: 0.00 Total: 2,240.00.

Aud. Parcel Number K46-5-1-2 & 9 (86.198 Acres, Lot 2259)
First Installment due January 1995 is $ 36.91, which includes a Delinquent Incinerator Assessment of $ 34.46, plus a $ 2.45 penalty. (First Installment is not paid.)
Second Installment due July 1995 is $ 0.00.
Land: 814,380.00 Building: 0.00 Total: 814,380.00.

Aud. Parcel Number K46-15-7-1 (35.500 Acres, Lot 6127)
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 49,700.00 Building: 0.00 Total: 49,700.00.

Aud. Parcel Number K46-15-7-2 (24.197 Acres, Lot 6128)
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 33,530.00 Building: 0.00 Total: 33,530.00.

End of Schedule B - Section II

Appendices 7.4 Regulatory Documentation: "EDR Document"

The EDR-Radius Map
with GeoCheck™

US Department of Energy
Off Mound Rd.
Miamisburg, OH 45432

Inquiry Number: 100553.1s

December 13, 1995

Environmental Data Resources, Inc.

Creators of Toxicheck®

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The search met the specific requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-94, or custom distances requested by the user.

The address of the subject property for which the search was intended is:

OFF MOUND RD.
MIAMISBURG, OH 45432

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the subject property or within the ASTM E 1527-94 search radius around the subject property for the following Databases:

Delisted NPL:..... NPL Deletions
RCRIS-TSD:..... Resource Conservation and Recovery Information System
CERC-NFRAP:..... Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS:..... Corrective Action Report
State LF:..... Licensed Solid Waste Facilities
RAATS:..... RCRA Administrative Action Tracking System
HMIRS:..... Hazardous Materials Information Reporting System
ERNS:..... Emergency Response Notification System
NPL Liens:..... Federal Superfund Liens
TSCA:..... Toxic Substances Control Act
MLTS:..... Material Licensing Tracking System
RODS:..... Records Of Decision
CONSENT:..... Superfund (CERCLA) Consent Decrees
OH Spills:..... Not reported
Coal Gas:..... Former Manufactured gas (Coal Gas) Sites

Unmapped (orphan) sites are not considered in the foregoing analysis.

Search Results:

Search results for the subject property and the search radius, are listed below:

Subject Property:

The subject property was not listed in any of the databases searched by EDR.

EXECUTIVE SUMMARY

Surrounding Properties:

Sites with an elevation equal to or higher than the subject property are in the left hand column; those with a lower elevation are in the right hand column. Page numbers refer to the EDR Radius Map report where detailed data on individual sites may be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 09/01/1995 has revealed that there is 1 NPL site within approximately 1.33 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	***8***	***US DOE MOUND PLANT***	***8***

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already by listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data comes from the Ohio Environmental Protection Agency's Master Sites List.

A review of the State Haz. Waste list, as provided by EDR, and dated 04/01/1995 has revealed that there is 1 State Haz. Waste site within approximately 1.33 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
		MIAMISBURG WELL FIELD / UNK SOURC	18

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, persuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).
CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 08/31/1995 has revealed that there is 1 CERCLIS site within approximately 0.83 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	***8***	***US DOE MOUND PLANT***	***8***

EXECUTIVE SUMMARY

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data comes from the Department of Commerce Division of State Fire Marshal's List of Reported Petroleum Underground Storage Tank Release Incidents.

A review of the LUST list, as provided by EDR, and dated 11/01/1995 has revealed that there are 7 LUST sites within approximately 0.83 Miles of the subject property.

Equal/Higher Elevation	Page
US DOE MOUND PLANT	*8*

Lower Elevation	Page
US DOE MOUND PLANT	*8*
DJ CERAMICS	10
CG&R	11
RICHARD CHURCH SR ESTATE	13
TECHNICOTE INC	*14*
POINT STORE	17
MIAMISBURG WATER TREATMENT PLT	17

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data comes from the Department of Commerce Division of State Fire Marshal's Facility File.

A review of the UST list, as provided by EDR, and dated 09/01/1995 has revealed that there are 3 UST sites within approximately 0.58 Miles of the subject property.

Equal/Higher Elevation	Page

Lower Elevation	Page
CITY OF MIAMISBURG PUMP STATIO	12
TECHNICOTE INC	*14*
SHELL OIL CO. #23420931760	16

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 05/31/1995 has revealed that there are 4 RCRIS-SQG sites within approximately 0.58 Miles of the subject property.

Equal/Higher Elevation	Page

Lower Elevation	Page
GMC DELCO PRODUCTS DIV	*12*
DAYTON PUBLIC SCHOOLS	*12*
TECHNICOTE INC	*14*
PLOCHER ANDREW SONS	*16*

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 05/31/1995 has revealed that there is 1 RCRIS-LQG site within approximately 0.58 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
		PRESTO ADHESIVE PAPER CO INC	*13*

PADS: The PCB Activity Database identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify the United States Environmental Protection Agency of such activities. The source of this database is the U.S. EPA.

A review of the PADS list, as provided by EDR, and dated 10/14/1994 has revealed that there is 1 PADS site within approximately 0.33 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	*8*	*US DOE MOUND PLANT*	*8*

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/27/1994 has revealed that there are 3 FINDS sites within approximately 0.33 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	*8*	*US DOE MOUND PLANT*	*8*
		GMC DELCO PRODUCTS DIV	*12*
		DAYTON PUBLIC SCHOOLS	*12*

TRIS: The Toxic Chemical Release Inventory System identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313. The source of this database is the U.S. EPA.

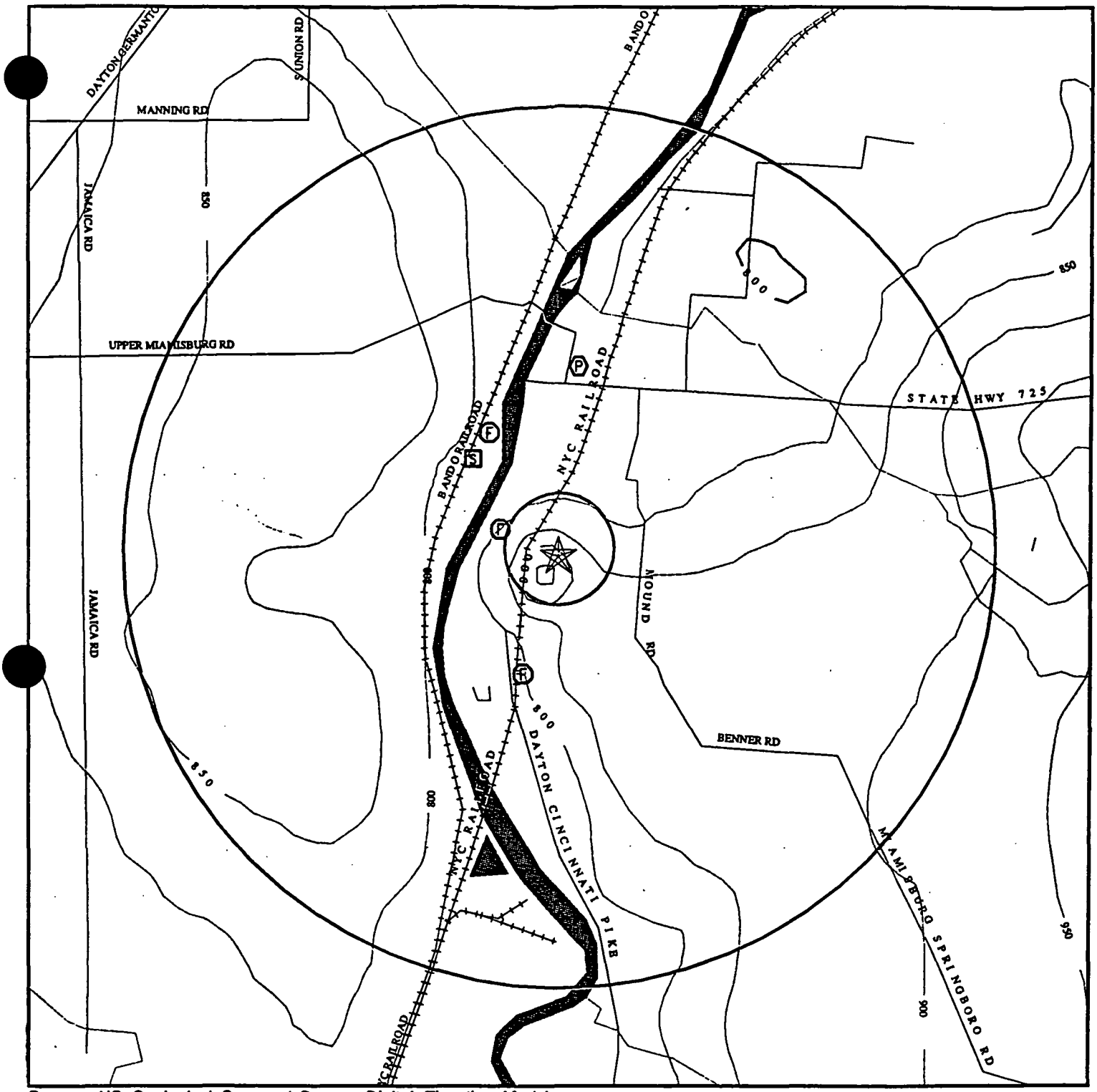
A review of the TRIS list, as provided by EDR, and dated 12/31/1992 has revealed that there is 1 TRIS site within approximately 0.33 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	*8*	*US DOE MOUND PLANT*	*8*

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
PHILLIPS SAND & GRAVEL	FINDS,CERC-NFRAP,State Haz. Waste
US DOE MOUND FACILITY*	State Haz. Waste
DYES PENNZOIL	LUST
TOMS QUICK LUBE	LUST
KNOLLWOOD GARDEN CENTER	LUST
BOONE WATER SYSTEMS, INC.	UST,LUST
UNKNOWN	LUST
CATES SALES & SERVICE	UST
KNOLLWOOD MARATHON	UST
DYE'S KNOLLWOOD PENNZOIL	UST
TOM'S SUTO QUICK LUBE SERVIE I	UST
KNOLLWOOD FLORIST, INC.	UST
PENNZOIL	UST
GARY L. JESTICE	UST
WYLIE F. FAULKNER	UST
C G & R	UST
THE POINTE	UST
FRALEY FENCE	UST
CITY OF MIAMISBURG	UST
MONARCH MARKING SYS INC	UST
UES INC	RCRIS-SQG

TOPOGRAPHIC MAP - 100553.1s - HOK/K Industrial



Source: US Geological Survey 1-Degree Digital Elevation Model
Compiled 09/15/92

0 1/4 1/2 1 2
Miles

- Major Roads
- Contour lines (25 foot interval unless otherwise shown)
- Waterways
- Earthquake epicenter, Richter 5 or greater.
- (F)(S) - Closest well according to (F)ederal or (S)tate database in quadrant.
- (P) - Closest public water supply well.

TARGET PROPERTY:	US Department of Energy	CUSTOMER:	HOK/K Industrial
ADDRESS:	Off Mound Rd.	CONTACT:	Shelby R. Politte
CITY/STATE/ZIP:	Miamisburg OH 45432	INQUIRY #:	100553.1s
LAT/LONG:	39.6312 / 84.2884	DATE:	December 13, 1995

GEOCHECK VERSION 2.1
SUMMARY

GEOLOGIC AGE IDENTIFICATION†

Geologic Code:	O3
Era:	Paleozoic
System:	Ordovician
Series:	Upper Ordovician (Cincinnatian)

ROCK STRATIGRAPHIC UNIT†

Category:	Stratified Sequence

GROUNDWATER FLOW INFORMATION

General Topographic Gradient:	General North
General Hydrogeologic Gradient:	The hydrogeologic data for this report indicates that groundwater flow generally is to the South. However, because of the number and/or location of wells, the various depths of aquifers or other insufficient data, the direction of groundwater flow is uncertain.

Note: In a general way, the water table typically conforms to surface topography.‡

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property:	2439084-F3 MIAMISBURG, OH

FEDERAL DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP	LITHOLOGY	DEPTH TO WATER TABLE
North	1/2 - 1 Mile	Sand and silt	12 ft.
South	1/2 - 1 Mile	Outwash	Not Reported
West	1/4 - 1/2 Mile	Not Reported	24 ft.

STATE DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP
Northern	1/2 - 1 Mile
Southern	>2 Miles

PUBLIC WATER SUPPLY SYSTEM INFORMATION (EPA-FRDS)

Searched by Nearest Well.

Location Relative to TP:	1/2 - 1 Mile North
PWS Name:	MOUND PLANT MANAGER, MAINTENANCE EG&G PO BOX 3000 MIAMISBURG, OH 45343

Well currently has or has had major violation(s): No

AREA RADON INFORMATION

MONTGOMERY COUNTY, OH

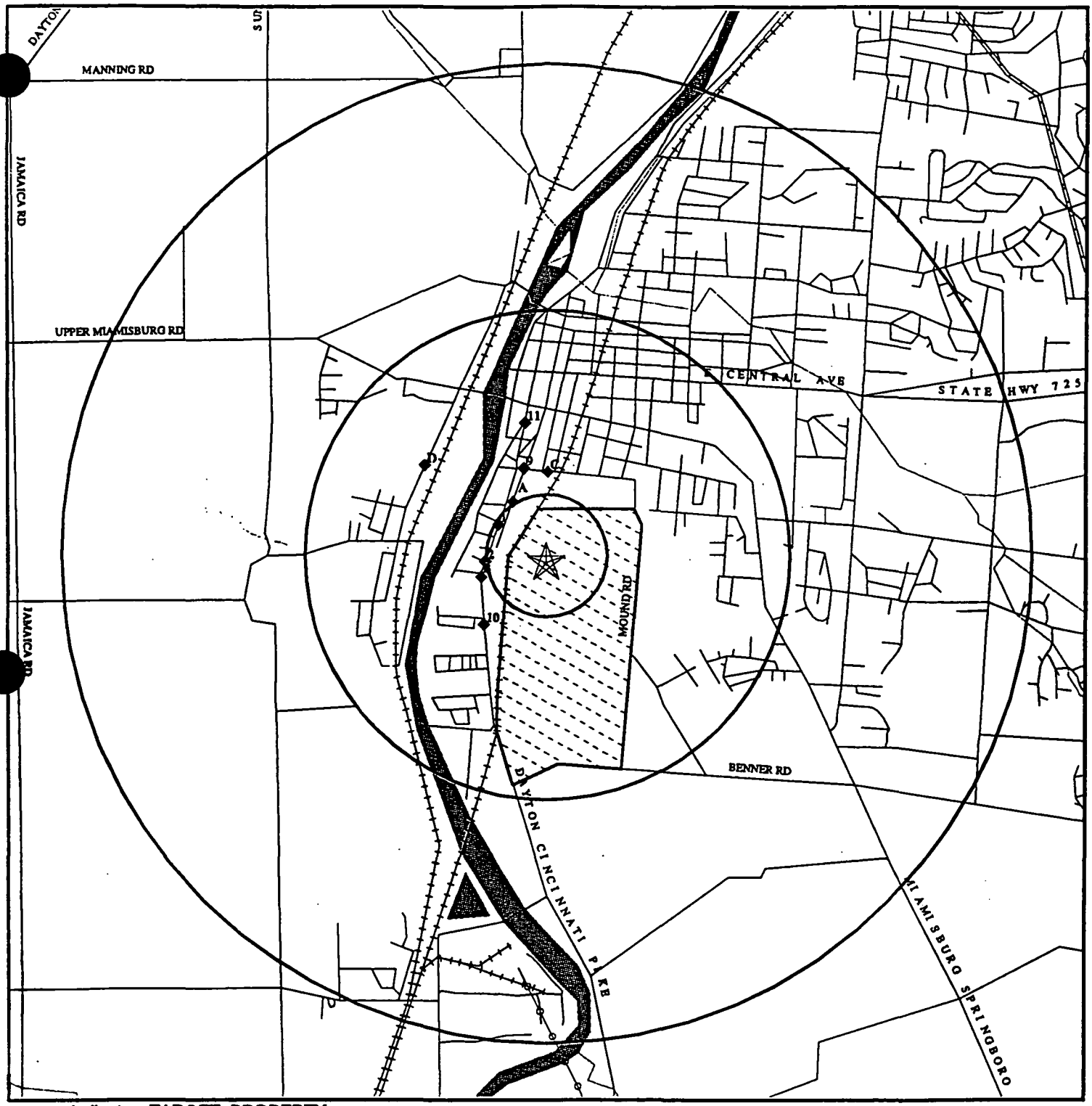
Number of sites tested: 35

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	2.966 pCi/L	77%	23%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	5.963 pCi/L	67%	27%	7%

† Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

‡ U.S. EPA Ground Water Handbook, Vol I: Ground Water and Contamination, Office of Research and development EPA/625/6-90/016a,Chapter 4, page 78, September 1990.

OVERVIEW MAP - 100553.1s - HOK/K Industrial



★ - Indicates TARGET PROPERTY.

▲ - Indicates sites at elevations higher than or equal to the target property.

● - Indicates sites at elevations lower than the target property.

- Coal Gasification Sites (if requested)

- National Priority List Sites

0 1/4 1/2 1 2

Miles

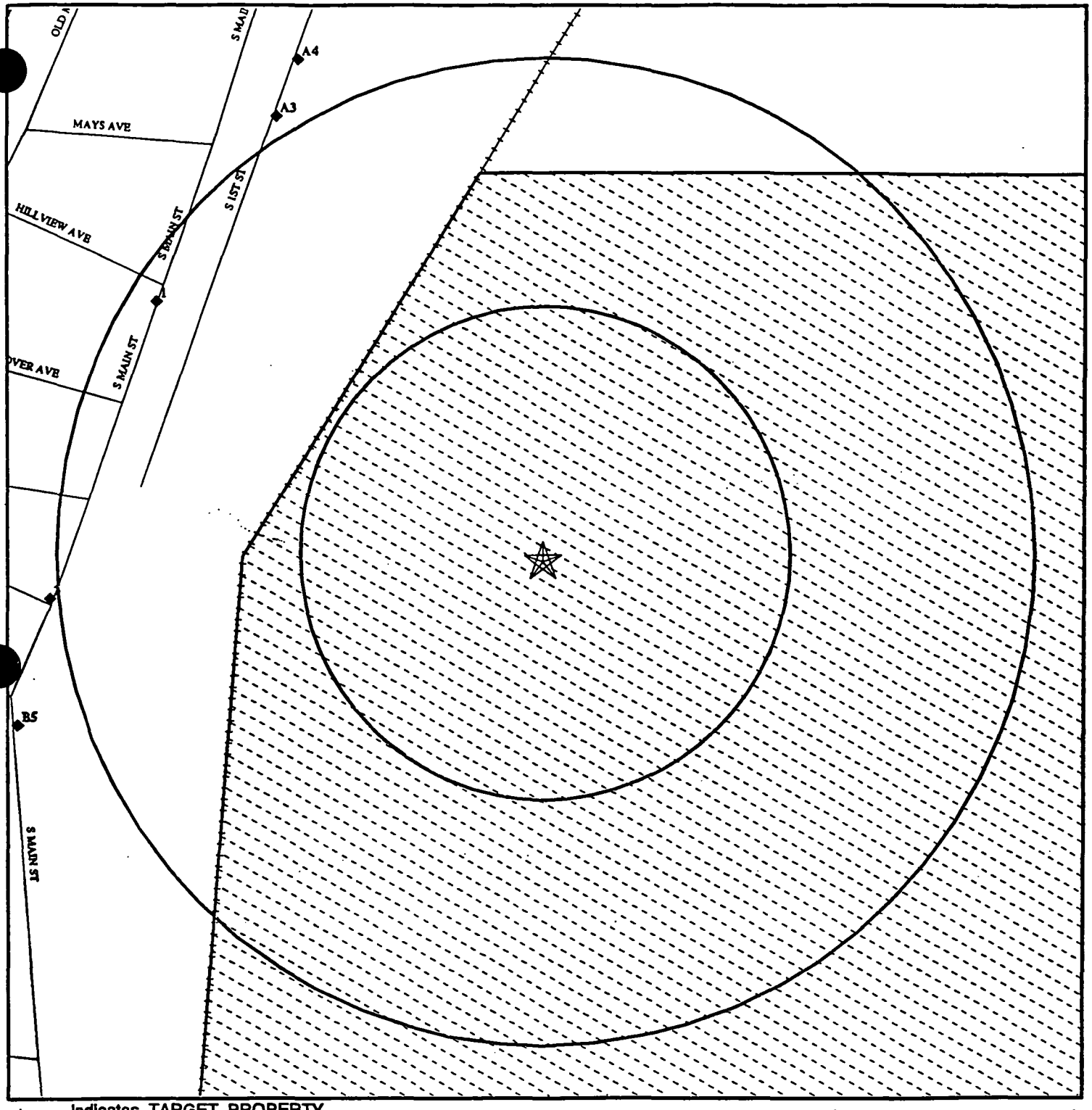
N

- Power transmission lines (USGS DLG, 1993)

- Oil & Gas pipelines (USGS DLG, 1993)

TARGET PROPERTY:	US Department of Energy	CUSTOMER:	HOK/K Industrial
ADDRESS:	Off Mound Rd.	CONTACT:	Shelby R. Politte
CITY/STATE/ZIP:	Miamisburg OH 45432	INQUIRY #:	100553.1s
LAT/LONG:	39.6312 / 84.2884	DATE:	December 13, 1995

DETAIL MAP - 100553.1s - HOK/K Industrial



★ - Indicates TARGET PROPERTY.

▲ - Indicates sites at elevations higher than or equal to the target property.

◆ - Indicates sites at elevations lower than the target property.

- Coal Gasification Sites (if requested)

- Sensitive Receptors

- National Priority List Sites

0 1/8 1/4

Miles

- Power transmission lines (USGS DLG, 1993)

- Oil & Gas pipelines (USGS DLG, 1993)

TARGET PROPERTY:	US Department of Energy	CUSTOMER:	HOK/K Industrial
ADDRESS:	Off Mound Rd.	CONTACT:	Shelby R. Politte
CITY/STATE/ZIP:	Miamisburg OH 45432	INQUIRY #:	100553.1s
LAT/LONG:	39.6312 / 84.2884	DATE:	December 13, 1995

MAP FINDINGS SUMMARY SHOWING ALL SITES

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.330	1	0	0	0	0	1
Delisted NPL		0.330	0	0	0	NR	NR	0
RCRIS-TSD		1.330	0	0	0	0	0	0
State Haz. Waste		1.330	0	0	0	1	0	1
CERCLIS		0.830	1	0	0	0	NR	1
CERC-NFRAP		0.330	0	0	0	NR	NR	0
CORRACTS		1.330	0	0	0	0	0	0
State Landfill		0.830	0	0	0	0	NR	0
LUST		0.830	1	1	3	2	NR	7
UST		0.580	0	0	3	0	NR	3
RAATS		0.330	0	0	0	NR	NR	0
RCRIS Sm. Quan. Gen.		0.580	0	0	4	0	NR	4
RCRIS Lg. Quan. Gen.		0.580	0	0	1	0	NR	1
HMIRS		0.330	0	0	0	NR	NR	0
PADS		0.330	1	0	0	NR	NR	1
ERNS		0.330	0	0	0	NR	NR	0
FINDS		0.330	1	0	4	NR	NR	5
TRIS		0.330	1	0	0	NR	NR	1
NPL Liens		0.330	0	0	0	NR	NR	0
TSCA		0.330	0	0	0	NR	NR	0
MLTS		1.330	0	0	0	0	0	0
ROD		1.330	0	0	0	0	0	0
CONSENT		1.330	0	0	0	0	0	0
OH Spills		0.330	0	0	0	NR	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

MAP FINDINGS SUMMARY SHOWING ONLY SITES HIGHER THAN OR THE SAME ELEVATION AS TP

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.330	0	0	0	0	0	0
Delisted NPL		0.330	0	0	0	NR	NR	0
RCRIS-TSD		1.330	0	0	0	0	0	0
State Haz. Waste		1.330	0	0	0	0	0	0
CERCLIS		0.830	0	0	0	0	NR	0
CERC-NFRAP		0.330	0	0	0	NR	NR	0
CORRACTS		1.330	0	0	0	0	0	0
State Landfill		0.830	0	0	0	0	NR	0
LUST		0.830	0	0	0	0	NR	0
UST		0.580	0	0	0	0	NR	0
RAATS		0.330	0	0	0	NR	NR	0
RCRIS Sm. Quan. Gen.		0.580	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.580	0	0	0	0	NR	0
HMIRS		0.330	0	0	0	NR	NR	0
PADS		0.330	0	0	0	NR	NR	0
ERNS		0.330	0	0	0	NR	NR	0
FINDS		0.330	0	0	0	NR	NR	0
TRIS		0.330	0	0	0	NR	NR	0
NPL Liens		0.330	0	0	0	NR	NR	0
TSCA		0.330	0	0	0	NR	NR	0
MLTS		1.330	0	0	0	0	0	0
ROD		1.330	0	0	0	0	0	0
CONSENT		1.330	0	0	0	0	0	0
OH Spills		0.330	0	0	0	NR	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

NPL
Region

US DOE MOUND PLANT
MOUND RD
MIAMISBURG, OH 45342

PADS 1000190772
CERCLIS OH6890008984
FINDS
NPL
TRIS
LUST

CERCLIS Classification Data:

Site Incident Category:	Not reported	Federal Facility:	YES
Ownership Status:	FEDERALLY OWNED	NPL Status:	CURRENTLY ON THE FINAL NPL
EPA Notes:	Not reported		

CERCLIS Assessment History:

Assessment:	DISCOVERY	Completed:	11/01/1980
Assessment:	PRELIMINARY ASSESSMENT	Completed:	03/25/1986
Assessment:	SCREENING SITE INSPECTION	Completed:	07/14/1989
Assessment:	HAZARD RANKING DETERMINED	Completed:	07/14/1989
Assessment:	PROPOSAL TO NPL	Completed:	07/14/1989
Assessment:	FINAL LISTING ON NPL	Completed:	11/24/1989
Assessment:	TECHNICAL ASSISTANCE	Completed:	Not reported
Assessment:	TECHNICAL ASSISTANCE	Completed:	Not reported
Assessment:	REMOVAL ACTION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	06/12/1995
Assessment:	REMEDIAL ACTION	Completed:	Not reported
Assessment:	REMEDIAL DESIGN	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	06/12/1995
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported

CERCLIS Site Status:
This site is currently under investigation by the government to assess the extent of further action

CERCLIS Alias Name(s):
US DOE MOUND FACIL
MOUND PLANT (USDOE)

US DOE MOUND PLANT (Continued) 1000190772

NPL:

ID:	05OH073
Date Listed:	11/21/89 (FINAL)
EPA/ID:	Not reported
Haz. Rank Score:	34.61
Status:	LISTED ON NPL
Rank:	Not reported
Group:	15
Ownership:	Federal
Ownership:	Govt. Owned, Contract. Oper.
Permit:	NPDES
Permit:	Air
Permit:	RCRA Interim Status
Permit:	Radioactive
Site Activities:	Landfill, Comm./Indus.
Site Activities:	Spill
Site Activities:	Tank, below ground
Site Condition:	Contam. Drinking Water
Waste.Type:	Metals
Waste Type:	Radioactive Substances

Contaminant:	Media Affected:
CALCIUM CYANIDE	Not reported
COPPER CYANIDE	Not reported
PLUTONIUM AND COMPOUNDS, NOS (PU	Not reported
URANIUM AND COMPOUNDS, NOS (U)	Not reported
PLUTONIUM 238	Surface Water

Distance to nearest Population:	Not reported
Population within a 1 Mile Radius:	Not reported
Population within a 2 Mile Radius:	Not reported
Population within a 4 Mile Radius:	Not reported
Vertical Distance to Aquifer:	21 Feet to 75 Feet
Ground Water Use:	Used as Drinking Water, Alternative Source not Available
Distance to nearest Surface Water:	Not reported

Other Pertinent Environmental Activity Identified at Site:
facility has active water discharge permits
facility has an emission permit under the Clean Air Act
civil judicial and administrative enforcement cases against facility
facility is a PCB generator, storer, transporter or permitted disposer

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	US DOE MOUND PLANT (Continued)		1000190772

LUST:

Facility ID:	570630	Incident ID:	579108400
Report No:	5791084	Facility Track:	0
Facility Tel:	513-865-4020	Responsibility:	-0-
Owner:	US DEPT OF ENERGY -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	07/16/91
Fiscal Track:	F900	Coordinator:	Central Office Corrective Actions
Facility Status:	Initial Corrective Action Program Report		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Incident eligible for LTF oversight and/or spending - a suspected or confirmed release of petroleum from a regulated UST.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	HODNETT	Authorize Date:	07/12/91
Remarks:	0		
Summary:	-0-		
Added Date:	12/18/89	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

1 WNW 1/8-1/4 Lower	DJ CERAMICS 611 S MAIN ST MIAMISBURG, OH 45342	LUST	S101424591 N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

DJ CERAMICS (Continued) S101424591

LUST:

Facility ID:	-0-	Incident ID:	575048600
Report No:	5750486	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY95	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	04/20/95
Remarks:	-0-		
Summary:	-0-		
Added Date:	04/20/95	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

2 West 1/4-1/2 Lower

CG&R LUST S101565590
901 S MAIN ST N/A
MIAMISBURG, OH 45342

LUST:

Facility ID:	572444	Incident ID:	574126900
Report No:	5741269	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY94	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	07/26/94
Remarks:	-0-		
Summary:	CLOS RPT RECD		
Added Date:	07/26/94	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A3 NNW 1/4-1/2 Lower	GMC DELCO PRODUCTS DIV 329 EAST FIRST STREET DAYTON, OH 45402	RCRIS-SQG FINDS	1000110283 OHD000817593

RCRIS:
Owner: NAME NOT REPORTED
(312) 555-1212

Contact: KARENANN BERNER
(513) 258-7621

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D000	.00000 (N)	Notification	D001	.00000 (N)	Notification
D002	.00000 (N)	Notification	D003	.00000 (N)	Notification
F001	.00000 (N)	Notification	F002	.00000 (N)	Notification
F003	.00000 (N)	Notification	F005	.00000 (N)	Notification
F006	.00000 (N)	Notification	F007	.00000 (N)	Notification
F008	.00000 (N)	Notification	F009	.00000 (N)	Notification
F010	.00000 (N)	Notification	F011	.00000 (N)	Notification
F012	.00000 (N)	Notification	P029	.00000 (N)	Notification
P030	.00000 (N)	Notification	P074	.00000 (N)	Notification
P098	.00000 (N)	Notification	P104	.00000 (N)	Notification
P106	.00000 (N)	Notification	P121	.00000 (N)	Notification
U159	.00000 (N)	Notification	U160	.00000 (N)	Notification
U188	.00000 (N)	Notification	U210	.00000 (N)	Notification
U220	.00000 (N)	Notification	U226	.00000 (N)	Notification
U239	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

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Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A4 NNW 1/4-1/2 Lower	DAYTON PUBLIC SCHOOLS 348 W FIRST ST DAYTON, OH 45402	RCRIS-SQG FINDS	1000558707 OHD100060912

RCRIS:
Owner: DAYTON PUBLIC SCHOOLS
(513) 461-3000

Contact: PETER WEIMER
(513) 439-0863

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D000	.00000 (N)	Notification	D001	.00000 (N)	Notification
D002	.00000 (N)	Notification	D003	.00000 (N)	Notification
F001	.00000 (N)	Notification	F002	.00000 (N)	Notification
F003	.00000 (N)	Notification	F004	.00000 (N)	Notification
F005	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

Other Pertinent Environmental Activity Identified at Site:
facility is involved with pesticide/toxic substances production

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Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
B5 WSW 1/4-1/2 Lower	CITY OF MIAMISBURG PUMP STATIO 1021 S MAIN ST MIAMISBURG, OH 45342	UST	U000694613 N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

CITY OF MIAMISBURG PUMP STATIO (Continued) — U000694613

UST:

Facility ID:	0-576024	Tank ID:	1
Capacity:	1,000	Tank Status:	Curr
Tank Age:	7	Owner Name:	CITY OF MIAMISBURG
Product:	Diesel	Owner Address:	PO BOX 570
Material:	Fiberglass	City, State, Zip:	MIAMISBURG, OH 45343
Piping Material:	Copper	Facility Contact:	JESSE MULLINS
Piping Type:	Suction -- No Valve	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

B6 / WSW / 1/4-1/2 / Lower — RICHARD CHURCH SR ESTATE, 1009 S MAIN ST, MIAMISBURG, OH 45342 — LUST — S101565323 / N/A

LUST:

Facility ID:	571192	Incident ID:	570118000
Report No:	5701180	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	Not reported -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	04/21/92
Fiscal Track:	F900	Coordinator:	Central Office Closure
Facility Status:	No Further Action		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	1, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	04/17/92
Remarks:	0		
Summary:	CLOS RPT RECD		
Added Date:	05/24/90	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

C7 / North / 1/4-1/2 / Lower — PRESTO ADHESIVE PAPER CO INC, 222 MOUND AVE, MIAMISBURG, OH 45342 — FINDS, RCRIS-LQG — 1000389064 / OHD004243614

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

PRESTO ADHESIVE PAPER CO INC (Continued) 1000389064

RCRIS:
Owner: PITNEY BOWES
(312) 555-1212

Contact: ALAN GORSKI
(513) 865-2600

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	D003	.00000 (N)	Notification
F005	.00000 (N)	Notification	U002	.00000 (N)	Notification
U112	.00000 (N)	Notification	U140	.00000 (N)	Notification
U159	.00000 (N)	Notification	U220	.00000 (N)	Notification
U239	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

Other Pertinent Environmental Activity Identified at Site:
facility has an emission permit under the Clean Air Act

C8 North 1/4-1/2 Lower — TECHNICOTE INC, 222 MOUND AVE, MIAMISBURG, OH 45342 — RCRIS-SQG, UST, LUST — 1000243045, OHD980896468

RCRIS:
Owner: TECHNICOTE
(312) 555-1212

Contact: TOM BLOSSER
(513) 859-4448

Waste	Quantity	Info Source
D001	.00000 (N)	Notification

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

There are 1 compliance/violation record(s) reported at this site:

Evaluation	Date	Violations
COMPLIANCE EVALUATION INSPECTION (CEI)	14-JAN-88	YES

TECHNICOTE INC (Continued) 1000243045

LUST:

Facility ID:	570319	Incident ID:	573000600
Report No:	5730006	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY93	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	01/11/93
Remarks:	-0-		
Summary:	-0-		
Added Date:	01/11/93	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

UST:

Facility ID:	0-570319	Tank ID:	1
Capacity:	8,000	Tank Status:	Remv
Tank Age:	Unk	Owner Name:	TECHNICOTE, INC.
Product:	HAZ-69742-89-8	Owner Address:	222 MOUND AVE
Material:	Bare Steel	City, State, Zip:	MIAMISBURG, OH 45342
Piping Material:	Bare Steel	Facility Contact:	MILES D. TREECE
Piping Type:	Suction -- Valve	Telephone:	(513) 859-4448
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

Facility ID:	0-570319	Tank ID:	2
Capacity:	8,000	Tank Status:	Remv
Tank Age:	Unk	Owner Name:	TECHNICOTE, INC.
Product:	Not reported	Owner Address:	222 MOUND AVE
Material:	Bare Steel	City, State, Zip:	MIAMISBURG, OH 45342
Piping Material:	Bare Steel	Facility Contact:	MILES D. TREECE
Piping Type:	Suction -- Valve	Telephone:	(513) 859-4448
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

TECHNICOTE INC (Continued) 1000243045

Facility ID:	0-570319	Tank ID:	3
Capacity:	500	Tank Status:	Remv
Tank Age:	Unk	Owner Name:	TECHNICOTE, INC.
Product:	Not reported	Owner Address:	222 MOUND AVE
Material:	Bare Steel	City, State, Zip:	MIAMISBURG, OH 45342
Piping Material:	Bare Steel	Facility Contact:	MILES D. TREECE
Piping Type:	Suction -- Valve	Telephone:	(513) 859-4448
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

9
NNW
1/4-1/2
Lower

PLOCHER ANDREW SONS
418 E FIRST ST
DAYTON, OH 45402

RCRIS-SQG 1000170454
FINDS OHD004243937

RCRIS:
Owner: PLOCHER ANDREW SONS
(312) 555-1212
Contact: CHUCK KRAFT
(513) 228-6128

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	F003	.00000 (N)	Notification
F005	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

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10
SW
1/4-1/2
Lower

SHELL OIL CO. #23420931760
1224 S MAIN ST
DAYTON, OH 45409

UST U000894456
N/A

UST:

Facility ID:	0-570157	Tank ID:	1
Capacity:	8,000	Tank Status:	Curr
Tank Age:	25	Owner Name:	SHELL OIL CO.
Product:	Gasoline	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Fiberglass	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Fiberglass	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

Facility ID:	0-570157	Tank ID:	2
Capacity:	10,000	Tank Status:	Curr
Tank Age:	25	Owner Name:	SHELL OIL CO.
Product:	Gasoline	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Fiberglass	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Fiberglass	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

SHELL OIL CO. #23420931760 (Continued) U000894456

Facility ID:	0-570157	Tank ID:	3
Capacity:	10,000	Tank Status:	Curr
Tank Age:	24	Owner Name:	SHELL OIL CO.
Product:	Gasoline	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Fiberglass	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Fiberglass	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

Facility ID:	0-570157	Tank ID:	4
Capacity:	1,000	Tank Status:	Curr
Tank Age:	22	Owner Name:	SHELL OIL CO.
Product:	Used Oil	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Bare Steel	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Bare Steel	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

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11 North 1/2-1 Lower — POINT STORE, 155 S MAIN ST, MIAMISBURG, OH 45342 — LUST — S100648047 N/A

LUST:

Facility ID:	570738	Incident ID:	573182400
Report No:	5731824	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0- -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY93	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	09/07/93
Remarks:	-0-		
Summary:	-0-		
Added Date:	09/23/93	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

D12 NW 1/2-1 Lower — MIAMISBURG WATER TREATMENT PLT, 302 S RIVERVIEW, MIAMISBURG, OH 45342 — LUST — S101565457 N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

MIAMISBURG WATER TREATMENT PLT (Continued) S101565457

LUST:

Facility ID:	570747	Incident ID:	572089900
Report No:	5720899	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	05/14/92
Fiscal Track:	FY92	Coordinator:	Central Office Closure
Facility Status:	No Further Action		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	1, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	05/13/92
Remarks:	-0-		
Summary:	CLOS RPT RECD		
Added Date:	04/23/92	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

D13 MIAMISBURG WELL FIELD / UNK SOURCE SHWS S100037719
NW 302 S RIVERVIEW AVE N/A
1/2-1 MIAMISBURG, OH 45342
Lower

SHWS:

Facility ID:	557-1359	EPA ID:	NOT ASSIGNED	Prelim. Assessment Date:	Not reported
Priority:	HIGH - There is evidence or it is suspected that hazardous waste has been managed and there is evidence of a release of hazardous waste which which may present a substantial threat to public health or safety.				
Problem:	GW ORGANICS				

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
BEAVERCREEK	U001964051	CATES SALES & SERVICE	3310 DAYTON XENIA RD	45432	UST	0-292261
BEAVERCREEK	S101562515	DYES PENNZOIL	3851 DAYTON XENIA RD	45432	LUST	-0-
BEAVERCREEK	S101562533	TOMS QUICK LUBE	3815 DAYTON XENIA RD	45432	LUST	-0-
BEAVERCREEK	S101562553	KNOLLWOOD GARDEN CENTER	3766 DAYTON XENIA RD	45432	LUST	-0-
BEAVERCREEK	U000892037	KNOLLWOOD MARATHON	3844 DAYTON-XENIA RD	45432	UST	0-290099
BEAVERCREEK	U000696152	DYE'S KNOLLWOOD PENNZOIL	3851 DAYTON-XENIA RD	45432	UST	0-294274
DAYTON	U001431511	BOONE WATER SYSTEMS, INC.	1519 S CENTRAL DR	45432	UST, LUST	290587
DAYTON	U000892071	TOM'S SUTO QUICK LUBE SERVIE I	3815 DAYTON XENIA RD	45432	UST	0-293719
DAYTON	U000894584	KNOLLWOOD FLORIST, INC.	3766 DAYTON XENIA RD	45432	UST	0-570895
DAYTON	1000990750	UES INC	4401 DAYTON-XENIA RD	45432	RCRIS-SQG	
DAYTON	1000289261	PHILLIPS SAND & GRAVEL	NORTH FAIRFIELD RD	45432	FINDS, CERC-NFRAP, SHWS	
MIAMISBURG	S100031602	UNKNOWN	ADJ 150 RIVERVIEW AVE	45342	LUST	-0-
MIAMISBURG	U002223400	PENNZOIL	8681 DAYTON CINCINNATI PIKE	45342	UST	0-572210
MIAMISBURG	U000894692	GARY L. JESTICE	72 N MAIN ST	45342	UST	0-577617
MIAMISBURG	U000894676	WYLIE F. FAULKNER	110 N MAIN ST	45342	UST	0-576514
MIAMISBURG	U001964188	C G & R	901 S MAIN ST	45342	UST	0-572444
MIAMISBURG	U001431648	THE POINTE	155 S MAIN ST	45342	UST	0-570738
MIAMISBURG	U001431608	FRALEY FENCE	311 N MAIN ST	45342	UST	0-570049
MIAMISBURG	U000894675	CITY OF MIAMISBURG	600 N MAIN ST	45342	UST	0-576023
MIAMISBURG	S100779275	US DOE MOUND FACILITY*	MOUND RD	45342	SHWS	
MIAMISBURG	U001431691	MONARCH MARKING SYS INC	ST RT 725 AND BYERS RD	45432	UST	0-574851

GEOCHECK VERSION 2.1 ADDENDUM
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (North Quadrant)

BASIC WELL DATA

Site ID:	393819084173900	Distance from TP:	1/2 - 1 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1990	County:	Montgomery
Altitude:	692.17 ft.	State:	Ohio
Well Depth:	44.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	11.50 ft.	Prim. Use of Site:	Observation
Date Measured:	11271990	Prim. Use of Water:	Unused

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Pleistocene
Principal Lithology of Unit:	Sand and silt
Further Description:	SILT/SAND BROWN

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (South Quadrant)

BASIC WELL DATA

Site ID:	393724084172900	Distance from TP:	1/2 - 1 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1964	County:	Montgomery
Altitude:	698.00 ft.	State:	Ohio
Well Depth:	226.00 ft.	Topographic Setting:	Valley flat
Depth to Water Table:	Not Reported	Prim. Use of Site:	Withdrawal of water
Date Measured:	Not Reported	Prim. Use of Water:	Industrial

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Pleistocene
Principal Lithology of Unit:	Outwash
Further Description:	Not Reported

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (West Quadrant)

BASIC WELL DATA

Site ID:	393757084173600	Distance from TP:	1/4 - 1/2 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1955	County:	Montgomery
Altitude:	691.00 ft.	State:	Ohio
Well Depth:	95.00 ft.	Topographic Setting:	Valley flat
Depth to Water Table:	24.13 ft.	Prim. Use of Site:	Withdrawal of water
Date Measured:	12311975	Prim. Use of Water:	Public supply

LITHOLOGIC DATA

Not Reported

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Water Well Information:

Well Within 1/2 - 1 Mile of Target Property (Northern Quadrant)

PWS ID:	5701212	Population Served:	18,500
Latitude:	0393813	Longitude:	0841744
Owner:	MIAMISBURG,CITY OF		
Source:	Ground		

Well Within >2 Miles of Target Property (Southern Quadrant)

PWS ID:	8301412	Population Served:	7,800
Latitude:	0393505	Longitude:	0841733
Owner:	SPRINGBORO,VLG.OF-CHAUTAUQUA		
Source:	Ground		

GEOCHECK VERSION 2.1
PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest Well.

PWS SUMMARY:

PWS ID:	OH5744912	PWS Status:	Active	Distance from TP:	1/2 - 1 Mile
Date Initiated:	Not Reported	Date Deactivated:	Not Reported	Dir relative to TP:	North
PWS Name:	MOUND PLANT MANAGER, MAINTENANCE EG&G PO BOX 3000 MIAMISBURG, OH 45343				
Addressee / Facility Type:	Not Reported				
Facility Name:	Not Reported				
Facility Latitude:	39 38 34		Facility Longitude:	084 17 12	
City Served:	Not Reported:				
Treatment Class:	Treated		Population Served:	1,001 - 2,500 Persons	

Well currently has or has had major violation(s): No

EPA Waste Codes Addendum

Code	Description
D000	NOT DEFINED
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D002	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
D003	A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
F001	THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F002	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F003	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F004	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: CRESOLS AND CRESYLIC ACID, AND

Code	Description
	NITROBENZENE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F006	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
F007	SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS
F008	PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F009	SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F010	QUENCHING BATH RESIDUES FROM OIL BATHS FROM METAL HEAT TREATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F011	SPENT CYANIDE SOLUTIONS FROM SALT BATH POT CLEANING FROM METAL HEAT TREATING OPERATIONS.
F012	QUENCHING WASTE WATER TREATMENT SLUDGES FROM METAL HEAT TREATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
P029	COPPER CYANIDE
P029	COPPER CYANIDE CU(CN)
P030	CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED
P074	NICKEL CYANIDE
P074	NICKEL CYNAIDE NI(CN)2
P098	POTASSIUM CYANIDE
P098	POTASSIUM CYANIDE K(CN)
P104	SILVER CYANIDE
P104	SILVER CYANIDE AG(CN)

EPA Waste Codes Addendum

Code	Description
P106	SODIUM CYANIDE
P106	SODIUM CYANIDE NA(CN)
P121	ZINC CYANIDE
P121	ZINC CYANIDE ZN(CN)2
U002	ACETONE (I)
U002	2-PROPANONE (I)
U112	ACETIC ACID ETHYL ESTER (I)
U112	ETHYL ACETATE (I)
U140	ISOBUTYL ALCOHOL (I,T)
U140	1-PROPANOL, 2-METHYL- (I,T)
U159	2-BUTANONE (I,T)
U159	METHYL ETHYL KETONE (MEK) (I,T)
U160	2-BUTANONE, PEROXIDE (R,T)
U160	METHYL ETHYL KETONE PEROXIDE (R,T)
U188	PHENOL
U210	ETHENE, TETRACHLORO-
U210	TETRACHLOROETHYLENE
U220	BENZENE, METHYL-
U220	TOLUENE
U226	ETHANE, 1,1,1-TRICHLORO-
U226	METHYL CHLOROFORM
U239	BENZENE, DIMETHYL- (I,T)
U239	XYLENE (I)

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM RECORDS:

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-416-0702
CERCLIS: CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 08/31/95 — Date of Data Arrival at EDR: 11/02/95
Date Made Active at EDR: 12/04/95 — Elapsed ASTM days: 32

ERNS: Emergency Response Notification System
Source: EPA
Telephone: 202-260-2342
ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/94 — Date of Data Arrival at EDR: 04/11/95
Date Made Active at EDR: 05/25/95 — Elapsed ASTM days: 44

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852
NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 09/01/95 — Date of Data Arrival at EDR: 10/17/95
Date Made Active at EDR: 10/25/95 — Elapsed ASTM days: 8

RCRIS: Resource Conservation and Recovery Information System
Source: EPA/NTIS
Telephone: 703-308-7907
RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 05/31/95 — Date of Data Arrival at EDR: 06/28/95
Date Made Active at EDR: 08/22/95 — Elapsed ASTM days: 55

FEDERAL NON-ASTM RECORDS:

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: Varies — Date of Next Scheduled Update: 09/01/95

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 703-308-7907
CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/95 — Date of Next Scheduled Update: 12/18/95

FINDS: Facility Index System
Source: EPA/NTIS
Telephone: 800-908-2493
FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/94 — Date of Next Scheduled Update: 01/08/96

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/94 — Date of Next Scheduled Update: 04/30/96

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/01/95 — Date of Next Scheduled Update: 01/15/96

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-260-8969
NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91 — Date of Next Scheduled Update: 02/26/96

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-260-3992
PADS: PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/14/94 — Date of Next Scheduled Update: 02/19/96

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/95 Date of Next Scheduled Update: 12/18/95

ROD: Records Of Decision
Source: NTIS
Telephone: 703-416-0703
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/31/95 Date of Next Scheduled Update: 03/04/96

TRIS: Toxic Chemical Release Inventory System
Source: EPA/NTIS
Telephone: 202-260-2320
TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/92 Date of Next Scheduled Update: 04/12/96

TSCA: Toxic Substances Control Act
Source: EPA/NTIS
Telephone: 202-260-1444
TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 01/31/95 Date of Next Scheduled Update: 03/18/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE OF OHIO ASTM RECORDS:

LUST: List of Reported Petroleum Underground Storage Tank Release Incidents
Source: Department of Commerce
Telephone: 614-752-7926
LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 11/01/95 — Date of Data Arrival at EDR: 11/06/95
Date Made Active at EDR: 12/05/95 — Elapsed ASTM days: 29

SHWS: Master Sites List
Source: Ohio Environmental Protection Agency
Telephone: 614-644-3143
SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 04/01/95 — Date of Data Arrival at EDR: 04/24/95
Date Made Active at EDR: 05/16/95 — Elapsed ASTM days: 22

SWF/LS: Licensed Solid Waste Facilities
Source: Ohio Environmental Protection Agency
Telephone: 614-644-2621
SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/22/95 — Date of Data Arrival at EDR: 06/26/95
Date Made Active at EDR: 07/27/95 — Elapsed ASTM days: 31

UST: Facility File
Source: Department of Commerce
Telephone: 614-752-7926
UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/01/95 — Date of Data Arrival at EDR: 09/18/95
Date Made Active at EDR: 10/10/95 — Elapsed ASTM days: 22

STATE OF OHIO NON-ASTM RECORDS:

SPILLS: Inclused Reported Incidents, Spills or Releases to The Environment
Source: Ohio EPA
Telephone: 614-644-2084
SPILLS: All reported incidents, spills or releases to the environment.

Date of Government Version: 12/31/93 — Date of Next Scheduled Update: 12/18/95

Historical and Other Database(s)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

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The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

DELISTED NPL: Delisted NPL Sites
Source: EPA
Telephone: 703-603-8769
DELISTED NPL: The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

NFRAP: No Further Remedial Action Planned
Source: EPA/NTIS
Telephone: 703-416-0702
NFRAP: As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

FRDS: Federal Reporting Data System
Source: EPA/Office of Drinking Water
Telephone: 202-260-2805
FRDS provides information regarding public water supplies and their compliance with monitoring requirements, maximum contaminant levels (MCL's), and other requirements of the Safe Drinking Water Act of 1986.

Area Radon Information: The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals who, due to their fragile immune systems, are deemed to be especially sensitive to environmental discharges. These typically include the elderly, the sick, and children. While the exact location of these sensitive receptors cannot be determined, EDR indicates those facilities, such as schools, hospitals, day care centers, and nursing homes, where sensitive receptors are likely to be located.

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1994 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Water Dams: National Inventory of Dams
Source: Federal Emergency Management Agency
Telephone: 202-646-2801
WATER DAMS: National computer database of more than 74,000 dams maintained by the Federal Emergency Management Agency.

Ohio Public Water Systems
Source: Ohio EPA, Division of Drinking & Groundwater

Appendices 7.5 Environmental Appraisal Report of the Mound Plant (Abstract)(Interview Documentation)

9.117 MAGAZINE 5

9.117.1 Scope of Magazine 5 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team performed a walk-through of Magazine 5 on the morning of January 29, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is presented in Attachment 1 (Section 9.117.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.117.6.2).

9.117.2 Description of Magazine 5

Magazine 5, is a one-story, 314-square-foot reinforced concrete structure. The roof is also of reinforced concrete covered with earth. Location is shown in Attachment 3 (Section 9.117.6.3). Adjacent buildings are Magazines 10 and 8. Floor Plans are presented as Attachment 4 (Section 9.117.6.4). The building is serviced with electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93). Refrigeration was provided when the magazine was operational; it is now disconnected.

Magazine 5 was constructed in 1961 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building has been used for the same purpose since construction. Storage of pyrotechnics and energetic materials has occurred in the building (*Mound Facility Physical Characterization*,12-1-93). It was emptied and cleaned under the Safe Shutdown program.

9.117.3 Summary of Findings

There were no issues of environmental concern identified during the walk-through or during review of reference materials.

9.117.4 Observations

9.117.4.1 Air Emissions

There are no fumehoods within the building. There are no fuel-burning units in the building. There is no evidence of fugitive dust. No air emission permit applications have been submitted to RAPCA for activities in the building.

9.117.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal, or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

9.117.4.2.1 Sanitary Wastewater

The building has no sanitary services, as confirmed by the diagram of underground utility lines, presented as Attachment 5 (Section 9.117.6.5).

9.117.4.2.2 Storm Wastewater

The building is not directly serviced by storm drains according to Attachment 5 (Section 9.117.6.5). Storm water becomes part of the surface water and is either absorbed into the ground or flows to the nearest storm drain inlet.

9.117.4.2.3 Chemicals

No chemicals were ever stored in the building, other than energetic materials which were stored in sealed containers. As there are no connections to wastewater collection lines, chemicals cannot enter the system.

9.117.4.3 Potable and Service Water

Potable and service water are not supplied to the building.

9.117.4.4 Chemical Storage and Hazardous Material

There is currently nothing stored in Magazine 5. All energetic materials were removed by September 30, 1995. Energetic materials removed from the magazines were either transferred to another Department of Energy (DOE) site to meet their program requirements, or destroyed.

A review of the procedures and requirements contained in MD-10431, *Safe Shutdown Standards Operating Procedures*, and the Safe Shutdown process manager's records indicate that once

Phase II Activities (i.e., commencement of Safe Shutdown) begin, all chemicals within the building are inventoried (chemicals contained in idle equipment are handled separately). Chemicals which can be reused, either at Mound or transferred to the City of Miamisburg—subject to age and condition—are identified and processed separately.

Subsequently, all the remaining chemicals are placed in containers, characterized, and transferred to Waste Management for disposition. A copy of the inventory, chemical profile of each container, and Waste Management's acceptance becomes a permanent part of the Mound Safe Shutdown Plan for the specific building. As chemicals are transferred to Waste Management, a central chemical database in the program manager's office is updated monthly to reflect the disposition. All activities are conducted in accordance with MD-70523, 40 CFR 265, and OAC 3745.52. As hazardous waste generators, all Safe Shutdown process managers have received training in accordance with 40 CFR 265.16.

Magazine 5 was cleaned, for housekeeping purposes, in accordance with Mound Procedure SOA-950066, Rev. 0, *General Sanitization/Cleaning Standard Operating Procedure for Safe Shutdown of Non-static Energetic Materials Areas.*

An earlier report, *Mound Facility Physical Characterization*, 12-1-93, indicated that Magazine 5 is contaminated with energetic materials. Based upon discussions with its author, there does not appear to be any supporting documentation for this statement. At the time of the walk-through, there was no energetic material contamination observed. DOE and Mound energetic materials policies require that all energetic materials in magazines be in containers. Additionally, it is forbidden to open the containers in the magazine. Interviews with operating personnel and subject matter experts in Industrial Safety and on the Energetic Materials Safety Oversight Committee (EMSOC) indicate that the rules were followed. As containers were not opened, no contamination should have occurred. However, no tests for contamination have been conducted.

There are no aboveground storage tanks in or around the building. There are no sumps, separators, or catch basins, in or around the building, and there are no underground storage tanks associated with this building.

The building was tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95).

There are no capacitors or transformers containing polychlorinated biphenyls (PCBs) located in the building. There is no record of past presence. (PCB Annual Document Log)

9.117.4.5 Solid, Hazardous, and Radioactive Wastes

Solid waste previously generated was primarily wood scrap from damaged pallets. At Mound there is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a site collection point, then shipped offsite to a local landfill by a contractor. The disposal permit is maintained by the Waste Management Group.

The building manager indicated that there was no evidence that hazardous materials or wastes were mixed with solid waste streams when the building was in service. According to information presented in the BMQ and the Mound hazardous waste inventory, there is no record of hazardous waste collection from this magazine.

9.117.4.6 Waste Minimization and Pollution Prevention

The building has undergone safe shutdown, and waste minimization and pollution prevention activities are not applicable to an empty building.

9.117.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.117.6.6). The environmental appraisal of Magazine 5 indicates that no action items, need be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

9.118 MAGAZINE 6

9.118.1 Scope of Magazine 6 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team performed a walk-through of Magazine 6 on the morning of January 29, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is presented in Attachment 1 (Section 9.118.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.118.6.2).

9.118.2 Description of Magazine 6

Magazine 6 is a one-story, 90-square-foot reinforced concrete structure. The roof is also of reinforced concrete. Its location is shown in Attachment 3 (Section 9.118.6.3). Building 63 is adjacent. Floor Plans are presented as Attachment 4 (Section 9.118.6.4). The building is serviced with electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Magazine 6 was constructed in 1949 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building has been used for the same purpose since construction. Storage of energetic materials has occurred in the building (*Mound Physical Facility Characterization*, 12-1-93). It was emptied under the Safe Shutdown program.

9.118.3 Summary of Findings

There were no issues of environmental concern identified during the walk-through or during review of reference materials.

9.118.4 Observations

9.118.4.1 Air Emissions

There are no fumehoods within the building. There are no fuel-burning units in the building. There is no evidence of fugitive dust. No air emission permit applications have been submitted to RAPCA for activities in the building.

9.118.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal, or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

9.118.4.2.1 Sanitary Wastewater

The building has no sanitary services, as confirmed by the diagram of underground utility lines, presented as Attachment 5 (Section 9.118.6.5).

9.118.4.2.2 Storm Wastewater

The building is not directly serviced by storm drains according to Attachment 5 (Section 9.118.6.5). Storm water becomes part of the surface water and is either absorbed into the ground or flows to the nearest storm drain inlet.

9.118.4.2.4 Chemicals

No chemicals were ever stored in the building other than energetic materials which were stored in sealed containers. There is no connection to the wastewater collection system, therefore no chemicals could have entered the system.

9.118.4.3 Potable and Service Water

Potable and service water are not supplied to the building.

9.118.4.4 Chemical Storage and Hazardous Materials

There is currently nothing stored in Magazine 6. All energetic materials were removed by September 30, 1994. Energetic materials removed from the magazines were either transferred to another Department of Energy (DOE) site to meet their program requirements, or destroyed. A review of the procedures and requirements contained in MD-10431, *Safe Shutdown Standards Operating Procedures*, and the Safe Shutdown process manager's records indicate that once Phase II Activities (i.e., commencement of Safe Shutdown) begin, all chemicals within the

building are inventoried (chemicals contained in idle equipment are handled separately). Chemicals which can be reused, either at Mound or transferred to the City of Miamisburg—subject to age and condition—are identified and processed separately.

Subsequently, all the remaining chemicals are placed in containers, characterized, and transferred to Waste Management for disposition. A copy of the inventory, chemical profile of each container, and Waste Management's acceptance becomes a permanent part of the Mound Safe Shutdown Plan for the specific building. As chemicals are transferred to Waste Management, a central chemical database in the program manager's office is updated monthly to reflect the disposition. All activities are conducted in accordance with MD-70523, 40 CFR 265, and OAC 3745.52. As hazardous waste generators, all Safe Shutdown process managers have received training in accordance with 40 CFR 265.16.

An earlier report, *Mound Facility Physical Characterization*, 12-1-93, indicated that Magazine 6 is contaminated with energetic materials. Based upon discussions with its author, there does not appear to be any supporting documentation for this statement.

At the time of the walk-through, there was no energetic material contamination observed. DOE and Mound energetic materials policies require that all energetic materials in magazines be in containers. Additionally, it is forbidden to open the containers in the magazine. Interviews with operating personnel and subject matter experts in Industrial Safety and on the Energetic Materials Safety Oversight Committee (EMSOC) indicate that the rules were followed. As containers were not opened, no contamination should have occurred. However, no tests for contamination have been conducted.

There are no aboveground storage tanks in or around the building. There are no sumps, separators, or catch basins, in or around the building, and there are no underground storage tanks associated with this building.

The building was tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95).

There are no capacitors or transformers containing PCBs located in the building. There is no record of past presence. (PCB Annual Document Log)

9.118.4.5 Solid, Hazardous, and Radioactive Wastes

Solid waste previously generated was primarily wood scraps from damaged pallets. At Mound there is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a site collection point, then shipped offsite to a local landfill by a contractor. The disposal permit is maintained by the Waste Management Group.

The Building Manager indicated that there was no evidence that hazardous materials or wastes were mixed with solid waste streams when the building was in service. According to information

presented in the BMQ and the Mound Hazardous Waste Inventory, there is no record of hazardous waste collection from this magazine.

9.118.4.6 Waste Minimization and Pollution Prevention

The building has undergone safe shutdown, and waste minimization and pollution prevention activities are not applicable to an empty building.

9.118.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.118.6.6). The environmental appraisal of Magazine 6 indicates that no following action items need to be planned for this magazine.

9.119 MAGAZINE 7

9.119.1 Scope of Magazine 7 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team performed a visit to Magazine 7 on the morning of January 29, 1996. A walk-through was not possible because the magazine is sealed. The Environmental Appraisal Checklist (EAC) was not used. The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 1 (Section 9.119.4.1).

9.119.2 Description of Magazine 7

Magazine 7 is a one-story, 387-square-foot, reinforced concrete structure. The roof is also of reinforced concrete covered with earth. Its location is shown in Attachment 2 (Section 9.119.4.2). Floor plans are presented as Attachment 3 (Section 9.119.4.3) and underground utility lines are presented as Attachment 4 (Section 9.119.4.4). The magazine is serviced with electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Magazine 7 was constructed in 1957 (MD-10391, *Asbestos Program Manual*, 9-14-95). The magazine has been used for the same purpose since construction. Storage of pyrotechnics and energetic materials has occurred in the building (Mound Facility Physical Characterization, 12-1-93).

9.119.3 Summary of Findings

Photographs were taken to document the environmental appraisal. They are included as Attachment 5 (Section 9.119.4.6). Magazine 7 was emptied several years prior to the beginning of the Safe Shutdown program, due to concerns about fragments from the calculated explosion "arc." It was sealed at the end of FY94, to prevent further use. There were no issues of environmental concern identified with the visual inspection and during review of reference materials.

9.121 MAGAZINE 10

9.121.1 Scope of Magazine 10 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

A team of environmental professionals performed a walk-through of Magazine 10 on the morning of January 29, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is presented as Attachment 1 (Section 9.121.6.1) was used to record findings. The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.121.6.2).

9.121.2 Description of Magazine 10

Magazine 10 is a one-story, 66-square-foot, reinforced concrete structure. The roof is also of reinforced concrete covered with earth. Its location is shown in Attachment 3 (Section 9.121.6.3). Adjacent to Magazine 10 is Magazine 5. Floor Plans are presented as Attachment 4 (Section 9.121.6.4). The magazine is serviced with electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Magazine 10 was constructed in 1956 (MD-10391, *Asbestos Program Manual*, 9-14-95). The magazine has been used for the same purpose since construction. Storage of pyrotechnics and energetic materials has occurred in the magazine (*Mound Facility Physical Characterization*, 12-1-93). It was emptied and cleaned under the Safe Shutdown program.

9.121.3 Summary of Findings

There were no issues of environmental concern identified during the walk-through and during review of reference materials.

9.121.4 Observations

9.121.4.1 Air Emissions

There are no fumehoods within the magazine. There are no fuel-burning units in the magazine. There is no evidence of fugitive dust. No air emissions permit applications have been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building.

9.121.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal, or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

9.121.4.2.1 Sanitary Wastewater

Magazine 10 has no sanitary services, as confirmed by the diagram of underground lines Attachment 5 (Section 9.121.6.5).

9.121.4.2.2 Storm Wastewater

Magazine 10 is not directly serviced by storm drains according to Attachment 5 (Section 9.121.6.5). Storm water becomes part of the surface water and is either absorbed into the ground or flows to the nearest storm drain inlet.

9.121.4.2.3 Chemicals

No chemicals were ever stored in the magazine other than energetic materials which were stored in sealed containers.

9.121.4.3 Potable and Service Water

Potable and service water are not supplied to Magazine 10.

9.121.4.4 Chemical Storage and Hazardous Material

There is currently nothing stored in Magazine 10. All energetic materials were removed by September 30, 1995. Energetic materials removed from the magazines were either transferred to another DOE site to meet their program requirements, or destroyed.

An earlier report, Mound Facility Physical Characterization, 12-1-93, indicated that Magazine 10 was contaminated with energetic materials. Based upon discussions with its author, there does not appear to be any supporting documentation for this statement.

At the time of the walk-through, there was no energetic material contamination observed. DOE and Mound energetic materials policies require that all energetic materials in magazines be in containers. Additionally, it is forbidden to open the containers in the magazine. Interviews with operating personnel and subject matter experts in Industrial Safety and on the Energetic Materials Safety Oversight Committee (EMSOC) indicate that the rules were followed. As containers were not opened, no contamination should have occurred. However, no tests for contamination have been conducted.

Magazine 10 was cleaned, for housekeeping purposes, in accordance with Mound Procedure SOA-950066, Rev. 0, *General Sanitization/Cleaning Standard Operating Procedure for Safe Shutdown of Non-static Energetic Materials Areas.*

There are no above-ground storage tanks in or around the magazine. There are no sumps, separators, or catch basins, in or around the magazine, and no underground storage tanks are associated with this structure.

The magazine has been tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95).

There are no capacitors or transformers containing PCB's located in the magazine. There is no record of past presence (1995 PCB Annual Document Log).

9.121.4.5 Solid, Hazardous, and Radioactive Wastes

Solid waste previously generated was primarily wood scrap from damaged pallets. At Mound there is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a site collection point, then shipped offsite to a local landfill by a contractor. The disposal permit is maintained by the Waste Management Group.

The building manager indicated that there was no evidence that hazardous materials or wastes were mixed with solid waste streams when the building was in service. According to information presented in the BMQ and the Mound hazardous waste inventory, there is no record of hazardous waste collection from this magazine.

9.121.4.6 Waste Minimization and Pollution Prevention

Magazine 10 has undergone Safe Shutdown, and waste minimization and pollution prevention activities are not applicable to an empty magazine.

9.121.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.121.6.6). The environmental appraisal of Magazine 10 indicates that no action items need to be planned for accomplishment.

9.122 MAGAZINE 11

9.122.1 Scope of Magazine 11 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team performed a visit to Magazine 11 on the morning of January 29, 1996. A walk-through was not possible because the magazine was sealed. The Environmental Appraisal Checklist (EAC) was not used. The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 1 (Section 9.122.4.1).

9.122.2 Description of Magazine 11

Magazine 11 is a one-story, 372-square-foot, reinforced concrete structure. The roof is also of reinforced concrete covered with earth. Location is shown in Attachment 2 (Section 9.122.4.2). Floor Plans are presented as Attachment 3 (Section 9.122.4.3). A diagram of underground utility lines is presented in Attachment 4 (Section 9.122.4.4). The magazine is serviced with electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Magazine 11 was constructed in 1957 (MD-10391, *Asbestos Program Manual*, 9-14-95). The magazine has been used for the same purpose since construction. Storage of pyrotechnics and energetic materials has occurred in the magazine (*Mound Facility Physical Characterization*, 12-1-93).

9.122.3 Summary of Findings

Photographs were taken to document the building site. They are included as Attachment 5 (Section 9.122.4.5). Magazine 11 was emptied several years prior to the beginning of the Safe Shutdown program, due to concerns about fragments from the calculated explosion "arc." It was sealed at the end of FY94, to prevent further use. An Environmental Site Assessment (ASTM E 1527-94 or E 1528-93) was not conducted at that time.

Since the building was sealed at the time of the appraisal, an environmental appraisal checklist could not be prepared. No further action was taken concerning this building.

9.123 MAGAZINE 20

9.123.1 Scope of Magazine 20 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team performed a walk-through of Magazine 20 on the morning of January 29, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is presented in Attachment 1 (Section 9.123.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.123.6.2).

9.123.2 Description of Magazine 20

Magazine 20 is a one-story, 303-square-foot reinforced concrete structure. The roof is also of reinforced concrete covered with earth. The location is shown in Attachment 3 (Section 9.123.6.3). Magazine 10 is adjacent. Floor plans are presented as Attachment 4 (Section 9.123.6.4). The building is serviced with electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Magazine 20 was constructed in 1963 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building has been used for the same purpose since construction. Storage of pyrotechnics and energetic materials has occurred in the building (*Mound Facility Physical Characterization*, 12-1-93). It was emptied and cleaned under the Safe Shutdown program.

9.123.3 Summary of Findings

There were no issues of environmental concern identified during the walk-through or during review of reference materials.

9.123.4 Observations

9.123.4.1 Air Emissions

There are no fumehoods within the building. There are no fuel-burning units in the building. There is no evidence of fugitive dust. No air emission permit applications have been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building.

9.123.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal, or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

9.123.4.2.1 Sanitary Wastewater

The building has no sanitary services, as confirmed by the diagram of underground lines, presented as Attachment 5 (Section 9.123.6.5).

9.123.4.2.2 Storm Wastewater

The building is not directly serviced by storm drains according to Attachment 5 (Section 9.123.6.5). Storm water becomes part of the surface water and is either absorbed into the ground or flows to the nearest storm drain inlet.

9.123.4.2.3 Chemicals

No chemicals were ever stored in the building, other than energetic materials which were stored in sealed containers. There is no connection to wastewater collection systems, so no chemicals could have flowed into drains.

9.123.4.3 Potable and Service Water

Potable and service water are not supplied to the building.

9.123.4.4 Chemical Storage and Hazardous Material

There is currently nothing stored in Magazine 20. All energetic materials were removed by September 30, 1995. Energetic materials removed from the magazines were either transferred to another Department of Energy (DOE) site to meet their program requirements, or destroyed.

A review of the procedures and requirements contained in MD-10431, *Safe Shutdown Standards Operating Procedures*, and the Safe Shutdown process manager's records indicate that once

Phase II Activities (i.e., commencement of Safe Shutdown) begin, all chemicals within the building are inventoried (chemicals contained in idle equipment are handled separately). Chemicals which can be reused, either at Mound or transferred to the City of Miamisburg—subject to age and condition—are identified and processed separately.

Subsequently, all the remaining chemicals are placed in containers, characterized, and transferred to Waste Management for disposition. A copy of the inventory, chemical profile of each container, and Waste Management's acceptance becomes a permanent part of the Mound Safe Shutdown Plan for the specific building. As chemicals are transferred to Waste Management, a central chemical database in the program manager's office is updated monthly to reflect the disposition. All activities are conducted in accordance with MD-70523, 40 CFR 265, and OAC 3745.52. As hazardous waste generators, all Safe Shutdown process managers have received training in accordance with 40 CFR 265.16.

Magazine 20 was cleaned, for housekeeping purposes, in accordance with Mound Procedure SOA-950066, Rev. 0, *General Sanitization/Cleaning Standard Operating Procedure for Safe Shutdown of Non-static Energetic Materials Areas.*

An earlier report, *Mound Facility Physical Characterization,* 12-1-93, indicated that Magazine 20 is contaminated with energetic materials. Based upon discussions with its author, there does not appear to be any supporting documentation for this statement.

At the time of the walk-through, there was no energetic material contamination observed. DOE and Mound energetic materials policies require that all energetic materials in magazines be in containers. Additionally, it is forbidden to open the containers in the magazine. Interviews with operating personnel and subject matter experts in Industrial Safety and on the Energetic Materials Safety Oversight Committee (EMSOC) indicate that the rules were followed. As containers were not opened, no contamination should have occurred. However, no tests for contamination have been conducted.

There are no aboveground storage tanks in or around the building. There are no sumps, separators, or catch basins, in or around the building, and there are no underground storage tanks associated with this building.

The building was tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95).

There are no capacitors or transformers containing polychlorinated biphenyls (PCB's) located in the building. There is no record of past presence. (1995 PCB Annual Document Log)

9.123.4.5 Solid, Hazardous, and Radioactive Wastes

Solid waste previously generated was primarily wood scraps from damaged pallets. At Mound there is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed

by janitorial personnel to a site collection point, then shipped offsite to a local landfill by a service contractor. The disposal permit is maintained by the Waste Management Group.

The building manager indicated that there was no evidence that hazardous materials or wastes were mixed with solid waste streams when the building was in service. According to information presented in the BMQ and the Mound Hazardous Waste Inventory, there is no record of hazardous waste collection from this magazine.

9.123.4.6 Waste Minimization and Pollution Prevention

The building has undergone safe shutdown, and waste minimization and pollution prevention activities are not applicable to an empty building.

9.123.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.123.6.6). The environmental appraisal of Magazine 20 indicates that no action items need be planned and scheduled for this building.

9.125 MAGAZINE 53

9.125.1 Scope of Magazine 53 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team performed a walk-through of Magazine 53 on the morning of January 29, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.125.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.125.6.2).

9.125.2 Description of Magazine 53

Magazine 53 is a one-story, 239-square-foot reinforced concrete structure. The roof is of reinforced steel covered with earth. Its location is shown in Attachment 3 (Section 9.125.6.3). Adjacent building is 90. Floor Plans are presented as Attachment 4 (9.125.6.4). The building is serviced with electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Magazine 53 was constructed in 1970 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building has been used for the same purpose since construction. Storage of pyrotechnics and energetic materials has occurred in the building (*Mound Facility Characterization*, 12-1-93).

9.125.3 Summary of Findings

There were no issues of environmental concern identified during the walk-through or during review of reference materials.

9.125.4 Observations

9.125.4.1 Air Emissions

There are no fumehoods within the building. There are no fuel-burning units in the building. There is no evidence of fugitive dust. No air emission permit applications have been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building.

9.125.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary

wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal, or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

9.125.4.2.1 Sanitary Wastewater

The building has no sanitary services, as confirmed by the diagram of underground utility lines, presented as Attachment 5 (Section 9.125.6.5).

9.125.4.2.2 Storm Wastewater

The building is not directly serviced by storm drains according to Attachment 5 (Section 9.125.6.5). Storm water becomes part of the surface water and is either absorbed into the ground or flows to the nearest storm drain inlet.

9.125.4.3 Chemicals

No chemicals were ever stored in the building, other than energetic materials which were stored in sealed containers.

9.125.4.4 Potable and Service Water

Potable and service water are not supplied to the building.

9.125.4.5 Chemical Storage and Hazardous Materials

The bulk of the energetic materials were removed from Magazine 53 by September 30, 1995. It is still in service, to handle small quantities of energetic materials which may be discovered during Safe Shutdown operations. Energetic materials removed from the magazines were either transferred to another DOE site to meet their program requirements, or destroyed.

A review of the procedures and requirements contained in MD-10431, *Safe Shutdown Standards Operating Procedures*, and the Safe Shutdown process manager's records indicate that once Phase II Activities (i.e., commencement of Safe Shutdown) begin, all chemicals within the building are inventoried (chemicals contained in idle equipment are handled separately). Chemicals which can be reused, either at Mound or transferred to the City of Miamisburg—subject to age and condition—are identified and processed separately.

Subsequently, all the remaining chemicals are placed in containers, characterized, and transferred to Waste Management for disposition. A copy of the inventory, chemical profile of each container, and Waste Management's acceptance becomes a permanent part of the Mound Safe Shutdown Plan for the specific building. As chemicals are transferred to Waste Management, a central chemical database in the program manager's office is updated monthly to reflect the disposition. All activities are conducted in accordance with MD-70523, 40 CFR 265, and OAC 3745.52. As hazardous waste generators, all Safe Shutdown process panagers have received training in accordance with 40 CFR 265.16. There is no evidence that chemicals entered the storm or sanitary drains.

An earlier report, *Mound Facility Physical Characterization* (12-1-93), indicated that Magazine 53 is contaminated with energetic materials. Based upon discussions with its author, there does not appear to be any supporting documentation for this statement.

At the time of the walk-through, there was no energetic material contamination observed. Department of Energy (DOE) and Mound energetic materials policies require that all energetic materials in magazines be in containers. Additionally, it is forbidden to open the containers in the magazine. Interviews with operating personnel and subject matter experts in Industrial Safety and on the Energetic Materials Safety Oversight Committee (EMSOC) indicate that the rules were followed. As containers were not opened, no contamination should have occurred. However, no tests for contamination have been conducted.

There are no aboveground storage tanks in or around the building and there are no underground storage tanks associated with this building. There are no sumps, separators, or catch basins, in or around the building.

The building was tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95).

There are no capacitors or transformers containing polychlorinated biphenyls (PCB's) located in the building. There is no record of past presence (1995 PCB Annual Document Log).

9.125.4.5 Solid, Hazardous, and Radioactive Wastes

Solid waste previously generated was primarily wood scrap from damaged pallets. At Mound there is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a site collection point, then shipped offsite to a local landfill by a contractor. The disposal permit is maintained by the Waste Management Group.

The building manager indicated that there was no evidence that hazardous materials or wastes were mixed with solid waste streams when the building was in service. According to information presented in the BMQ and the Mound hazardous waste inventory, there is no record of hazardous waste collection from this magazine.

9.125.4.6 Waste Minimization and Pollution Prevention

At Mound there is an active program to minimize waste streams in accordance with state and federal requirements and Executive Order 12856.

9.125.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.125.6.6). The environmental appraisal of Building 53 indicates that no action items are necessary.

9.126 MAGAZINE 54

9.126.1 Scope of Magazine 54 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a site-wide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team performed a walk-through of Magazine 54 on the morning of February 21, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.126.6.1) was used to record findings. The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.126.6.2).

9.126.2 Description of Magazine 54

Magazine 54 is a one-story, 331-square-foot, reinforced concrete structure. Its location is shown in Attachment 3 (Section 9.126.6.3). The roof is also of reinforced concrete covered with earth. Floor plans are presented as Attachment 4 (Section 9.126.6.4). Magazine 54 has electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Magazine 54 was constructed in 1970 (MD-10391, *Asbestos Program Manual*, 9-14-95). Magazine 54 has been used for the same purpose since construction. Storage of energetic materials and components has occurred in Magazine 54 (*Mound Facility Physical Characterization*, 12-1-93). It was emptied under the Safe Shutdown program.

9.126.3 Summary of Findings

There were no issues of environmental concern identified during the walk-through or during review of reference materials.

9.126.4 Observations

9.126.4.1 Air Emissions

There are no fumehoods within Magazine 54. There are no fuel-burning units in the building. There is no evidence of fugitive dust. No air emission permit applications have been submitted to RAPCA for activities in Magazine 54.

9.126.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal, or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

9.126.4.2.1 Sanitary Wastewater

Magazine 54 has no sanitary services, as confirmed by the diagram of underground lines, presented as Attachment 5 (Section 9.126.6.5).

9.126.4.2.2 Storm Wastewater

Magazine 54 is not directly serviced by storm drains, according to Attachment 5 (Section 9.126.6.5). Storm water becomes part of the surface water and is either absorbed into the ground or flows to the nearest storm drain inlet.

9.126.4.2.3 Chemicals

No chemicals were ever stored in Magazine 54, other than energetic materials which were stored in sealed containers.

9.126.4.3 Potable and Service Water

Potable and service water are not supplied to Magazine 54.

9.126.4.4 Chemical Storage and Hazardous Materials

There is currently nothing stored in Magazine 54. All energetic materials were removed by September 30, 1994. Energetic materials removed from the magazines were either transferred to another DOE site to meet their program requirements, or destroyed.

An earlier report, *Mound Facility Physical Characterization* (12-1-93), indicated that Magazine 54 was contaminated with energetic materials. Based upon discussions with its author, there does not appear to be any supporting documentation for this statement.

At the time of the walk-through for this appraisal, there was no energetic material contamination observed. DOE and Mound energetic materials' policies require that all energetic materials in magazines be in containers. Additionally, it is forbidden to open the containers in the magazine. Interviews with operating personnel and subject matter experts in Industrial Safety and on the Energetic Materials Safety Oversight Committee (EMSOC) indicate that the rules were followed. As containers were not opened, no contamination should have occurred. However, no tests for contamination have been conducted.

There are no aboveground storage tanks in or around Magazine 54 and no underground storage tanks are associated with Magazine 54. There are no sumps, separators, or catch basins, in or around Magazine 54.

Magazine 54 has been tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95).

There are no capacitors or transformers containing polychlorinated biphenyls (PCB's) located in Magazine 54 (1995 PCB Annual Document Log). There is no record of past presence.

9.126.4.5 Solid, Hazardous, and Radioactive Waste

Solid waste previously generated was primarily wood scrap from damaged pallets. At Mound there is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a site collection point, then shipped off-site to a local landfill by a contractor. The disposal permit is maintained by the Waste Management Group.

The building manager indicated that there was no evidence that hazardous materials or wastes were mixed with solid waste streams when Magazine 54 was in service. According to information presented in the BMQ, found in Attachment 2 (Section 9.126.6.2) and the Mound hazardous waste inventory, there is no record of hazardous waste collection from this magazine.

9.126.4.6 Waste Minimization and Pollution Prevention

Magazine 54 has undergone safe shutdown, and waste minimization and pollution prevention activities are not applicable to an empty magazine.

9.126.5 Findings and Recommendations

The environmental appraisal of Magazine 54 indicates that no action items need to be considered for Magazine 54. Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.126.6.6).

Appendices 7.6 Radiological & Other Survey Reports

Appendix 7.6.1 Radiological

Attach to P/WRE # 040897-7-08

THIS P/WRE IS INTENDED FOR USE PRIOR TO THE DISMANTLING OR DEMOLITION OF ONSITE BUILDINGS THAT ARE NOT EXPECTED TO BE CONTAMINATED.

Note: The objective of the following survey is to confirm that buildings which are expected to be radiologically clean, based on existing information, do not contain unexpected radiological contamination. The following survey protocol is based on criteria from a document titled "Generic Process for the Disposition of Buildings That Have Potential or Actual Radiological Contamination."

The following surveys are based on the subject magazine(s) not being over an Underground Radioactive Materials Area (URMA) as determined by ER. If the magazine is over an URMA, this P/WRE is void and must be revised.

BUILDING SURVEY

1. The building owner is responsible for presenting the following survey criteria to the decision makers (as defined in "Generic Process for the Disposition of Buildings That Have Potential or Actual Radiological Contamination") and gaining their approval prior to the survey being performed.

2. Perform a wipe and scan survey in the following areas, as applicable to the building being surveyed. Perform at least one-100cm^2 wipe per each square meter of floor area. Apply limits as defined in attachment 1 of MD-80043 Operation 400.

   Note: Use an NE Electra with a DP-6 probe for the scan survey. The scan survey will cover about 930 cm^2 (approximately 1 square foot) at each location where a wipe is taken. The survey with this instrument will be for alpha and beta-gamma contamination.

   a. floor
   b. floor drains
   c. sink drains
   d. air vents
   e. perform representative wipe and scan surveys of the foundation as it is removed for waste

3. All removable contamination surveys are to be counted for alpha, beta and tritium.

4. Conduct a general area dose rate survey inside the building using a micro-R meter. Report measurements greater than 10 micro-R above background or greater than 25 micro-R (total) to the Area Radiological Engineer (Area RE).

5. Conduct and document all surveys (direct and wipe surveys) in accordance with MD-80036 Operation 10002.

6. Contact the Area RE immediately, if any of the above surveys indicate the presence of contamination above the limits in Attachment 1 of MD-80043 Operation 400 or indicate the presence of radioactive material, and void the P/WRE. Also contact the Area Radiological Engineer if any contamination surveys are greater than background.

7. If item 6 indicates contamination levels above background, a detailed internal survey of the building, including the walls and overhead areas, will be required and shall be sent to the decision makers for approval of survey results.

8. Radiological Operations shall collate and attach legible, approved copies of all survey data to the P/WRE and present the information to the building owner. The building owner will need this information for final closure with the decision makers.

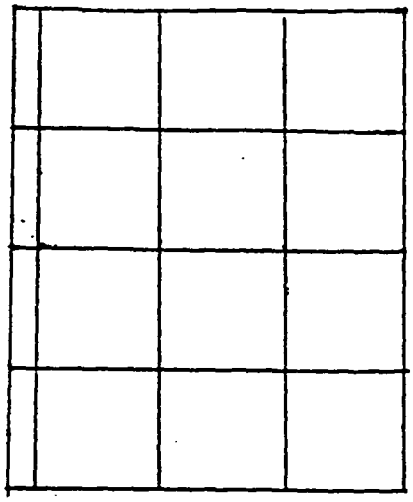
PHH 36-1 D1/38

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) MAGAZINE 5A, 5B & 10	SURVEY NO. 97-GA-218
PURPOSE: SURVEY MAGAZINE 5 & 10 FOR RELEASE	RWP NO. NA
PWRE # 040897-53-07	DATE: 4-18-97
	TIME: AM

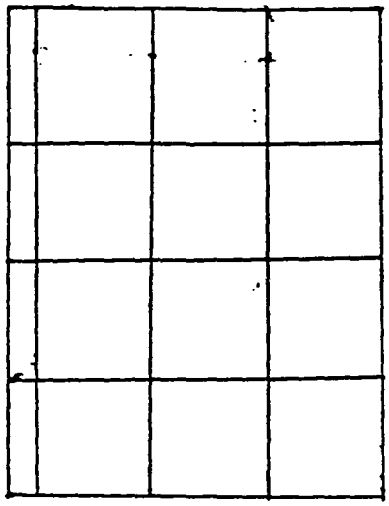
MAP/DRAWING

MAGAZINE 5A

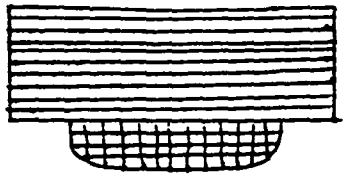


FLOOR

MAGAZINE 5B

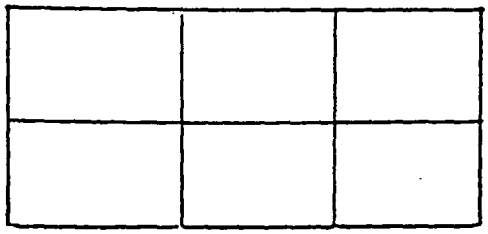


FLOOR



AIR CONDENSER FAN IN CEILING

MAGAZINE 10



FLOOR

LEGEND: # = mrem/hr (γ) whole body; # E = mrem/hr (β+η+γ) extremity on contact; (#) = mrem/hr neutron; [#] = air sample number; (#) = swipe number; (#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
MICRO R	3858	10-8-97
ELECTRA	5382/5383	9-11-97
NA	NA	NA

[redacted] 2347	Date: 4-18-97
5368	Date: 4/21/97
Reviewed/Approved by: (Signature/HP#)	Date:

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				MAGAZINE 5A
2				5A
3				5A
4				5A
5				5A
6				5A
7				5A
8				5A
9				5A
10				5A
11				5A
12				5A
13				FAN 5A
14				FAN 5A
15				FAN 5A
16				MAGAZINE 5B
17				5B
18				5B
19				5B
20				5B
21				5B
22				5B
23				5B
24				5B
25				5B
26				5B
27				5B
28				FAN 5B
29				FAN 5B
30				FAN 5B

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
31				MAGAZINE 10
32				10
33				10
34				10
35				10
36				10
37				10
38				10

NO FURTHER ENTRY

COMMENTS:
TOOK READINGS WITH ELECTRA $\alpha < 100$ dpm/100cm^2, $\beta < 5000$ dpm/100cm^2
TOOK DOSE RATE READINGS, ALL READINGS WERE NON DETECTABLE AT 30 CM
WIPE RESULTS ATTACHED

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
NA	NA

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers

Page 3 of 5

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR049
Batch Ended: 4/21/97 6:51
Cal. Due Date: 3/3/98
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: T 97-GA-218 ROBINSON

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.04	<MDA	0.00	1.31	<MDA
A2	2	0.00	2.04	<MDA	0.00	1.32	<MDA
A3	3	0.00	1.93	<MDA	0.39	1.76	<MDA
A4	4	0.00	2.01	<MDA	0.00	1.24	<MDA
B1	5	0.00	2.03	<MDA	0.11	1.82	<MDA
B2	6	0.00	2.01	<MDA	0.00	1.31	<MDA
B3	7	0.00	1.92	<MDA	0.00	1.23	<MDA
B4	8	1.68	1.95	<AL	0.00	1.24	<MDA
C1	9	0.00	2.00	<MDA	0.00	1.78	<MDA
C2	10	0.00	1.98	<MDA	0.00	1.26	<MDA
C3	11	0.00	1.83	<MDA	0.00	1.16	<MDA
C4	12	1.51	1.87	<AL	2.41	2.29	<MDA
D1	13	0.00	2.05	<MDA	1.66	2.33	<MDA
D2	14	0.00	2.11	<MDA	1.79	2.38	<MDA
D3	15	0.00	1.94	<MDA	0.00	1.28	<MDA
D4	16	0.00	1.93	<MDA	0.35	1.83	<MDA
A1	17	0.00	2.04	<MDA	0.00	1.31	<MDA
A2	18	1.68	2.05	<AL	1.62	2.28	<MDA
A3	19	0.00	1.92	<MDA	0.00	1.25	<MDA
A4	20	0.00	2.01	<MDA	0.00	1.24	<MDA
B1	21	0.00	2.04	<MDA	2.69	2.58	<MDA
B2	22	0.00	2.01	<MDA	0.00	1.31	<MDA
B3	23	1.58	1.92	<AL	0.00	1.23	<MDA
B4	24	0.00	1.95	<MDA	0.00	1.24	<MDA
C1	25	1.49	2.03	<MDA	4.89	3.08	<AL
C2	26	0.00	2.00	<MDA	1.45	2.18	<MDA
C3	27	0.00	1.83	<MDA	0.00	1.16	<MDA
C4	28	1.51	1.84	<AL	0.00	1.15	<MDA
D1	29	1.30	2.04	<MDA	0.00	1.35	<MDA
D2	30	0.00	2.11	<MDA	1.79	2.38	<MDA
D3	31	0.00	1.94	<MDA	0.00	1.28	<MDA
D4	32	0.00	1.93	<MDA	1.65	2.24	<MDA
A1	33	1.71	2.04	<AL	0.00	1.31	<MDA
A2	34	0.00	2.04	<MDA	0.00	1.32	<MDA
A3	35	0.00	1.92	<MDA	0.00	1.25	<MDA
A4	36	0.00	2.02	<MDA	0.47	1.76	<MDA
B1	37	0.00	2.02	<MDA	0.00	1.29	<MDA
B2	38	0.00		<MDA	4.12	2.92	<AL

ıe: 2.00
:a Mode: DPM Nuclide: SM-PW-UG Quench Set: SM-PW-UG
:kg[redacted] Subtract: 1st Vial

	LL	UL	LCR	2SΣ	BKG
ıion A:	0.5	18.6	0	0.0	7.50
ıion B:	2.0	18.6	0	0.0	6.90
:ion C:	20.0	2000	0	0.0	12.40

ːnch Indicator: tSIE/AEC
Ext Std Terminator: Count
-6A-218 ROBINSON (30-7 D1/38)
ıinescence Correction On
:ncidence Time(ns): 18
.ay Before Burst(ns): Normal
ıtocol Data Filename: c:\data\PROT4.DAT
ːnt Data Filename: c:\data\SDATA4.DAT
ːctrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.50	6.90	3	B	656.64		0.00	12.40
0	2.00	469.50	426.60	0		619.04	934.05	93.95	3.60
1	2.00	0.00	0.00	0		565.01	0.00	0.00	0.00
2	2.00	0.50	1.10	0		602.10	1.01	8.76	0.00
3	2.00	2.50	2.60	0		622.22	4.96	9.53	0.00
4	2.00	0.00	0.00	0		634.57	0.00	0.00	0.00
[redacted]	2.00	1.50	1.60	0		604.37	3.01	9.21	0.00
[redacted]	2.00	0.00	0.00	0		608.96	0.00	0.00	1.10
7	2.00	1.00	1.10	0		604.66	2.01	8.98	0.00
8	2.00	0.00	0.00	0		605.49	0.00	0.00	0.00
9	2.00	0.00	0.00	11		620.05	0.00	0.00	0.00
10	2.00	0.00	0.00	0		576.52	0.00	0.00	0.00
11	2.00	2.50	2.60	0		586.74	5.05	9.69	0.00
12	2.00	0.00	0.00	0		594.79	0.00	0.00	0.00
13	2.00	0.00	0.00	0		516.10	0.00	0.00	0.00
14	2.00	0.00	0.00	0		620.00	0.00	0.00	0.10
15	2.00	0.50	0.10	0		596.87	1.01	8.78	1.60
16	2.00	0.00	0.60	0		507.36	0.00	0.00	0.60
17	2.00	0.00	0.00	0		453.21	0.00	0.00	0.00
18	2.00	0.00	0.00	0		551.50	0.00	0.00	0.00
19	2.00	0.00	0.10	0		509.20	0.00	0.00	0.00
20	2.00	0.00	0.00	0		619.78	0.00	0.00	1.60
21	2.00	0.00	0.00	0		577.90	0.00	0.00	0.00
22	2.00	0.00	0.00	7		530.56	0.00	0.00	0.00
23	2.00	0.00	0.00	11		583.07	0.00	0.00	0.00
24	2.00	0.00	0.00	0		487.86	0.00	0.00	1.60
25	2.00	2.50	3.10	0		518.54	5.47	10.50	0.00
26	2.00	1.00	1.60	0		467.72	2.29	10.25	0.00
27	2.00	0.00	0.00	0		560.18	0.00	0.00	0.00
28	2.00	1.50	0.60	0		577.35	3.04	9.28	2.60
29	2.00	0.00	0.00	9		631.08	0.00	0.00	0.00
[redacted]	2.00	2.50	3.10	0		573.38	5.07	9.73	0.10
31	2.00	1.50	1.60	0		603.97	3.01	9.21	0.00
32	2.00	0.00	0.00	0		560.28	0.00	0.00	0.00
33	2.00	0.00	0.00	0		558.19	0.00	0.00	2.60
34	2.00	0.00	0.00	0		586.48	0.00	0.00	0.00

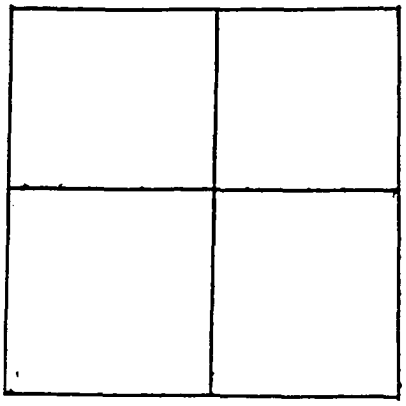
P2 30-1 B1/35

RADIOLOGICAL SURVEY DATA SHEET

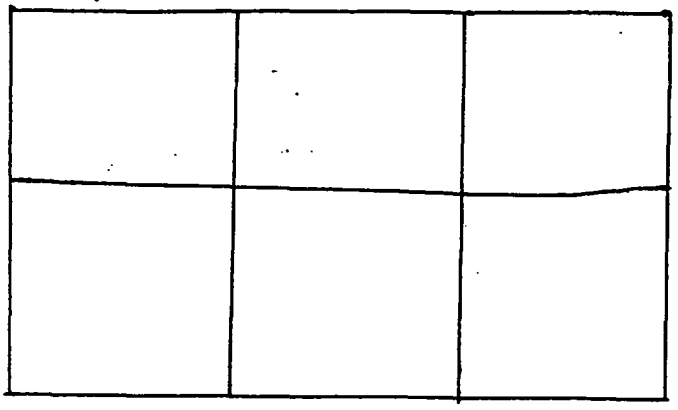
LOCATION: (BLDG./~~AREA/ROOM~~) BLdG 7 MAGAZINES 1, 2, 3, 4	SURVEY NO. 97-GA-213
PURPOSE: SURVEY MAGAZINES 1, 2, 3, 4 FOR RELEASE	RWP NO. NA
	DATE: 4-17-97
PWRE# 040897-7-08	TIME: AM

MAP/DRAWING

MAGAZINE 1 & 4



MAGAZINE 2 & 3



LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
MICRO-R	3858	10-8-97
ELECTRA	5382/5383	9-11-97
NA	NA	NA

[redacted]	2347	Date: 4-17-97
	5490	Date: 4-21-97
Reviewed/Approved by: (Signature/HP#)		Date:

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☑ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				MAGAZINE FLOOR # 1
2				FLOOR # 1
3				FLOOR # 1
4				FLOOR # 1
5				VENT PIPE # 1
6				VENT PIPE # 1
7				MAGAZINE FLOOR #2
8				FLOOR 2
9				FLOOR 2
10				FLOOR 2
11				FLOOR 2
12				FLOOR 2
13				FLOOR 2
14				2
15				VENT PIPE 2
16				VENT PIPE 2
17				MAGAZINE FLOOR #3
18				FLOOR # 3
19				FLOOR # 3
20				FLOOR # 3
21				FLOOR #3
22				FLOOR #3
23				FLOOR # 3
24				FLOOR # 3
25				VENT PIPE # 3
26				VENT PIPE # 3
27				MAGAZINE FLOOR #4
28				FLOOR #4
29				FLOOR # 4
30				FLOOR #4

☑ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
31				VENT PIPE #4
32				VENT PIPE #4

NO FURTHER ENTRY

COMMENTS:
TOOK DIRECT READINGS WITH ELECTRA, α < 100 dpm/100cm^2, β < 5000 dpm/100cm^2
TOOK DOSE RATE READINGS, ALL READINGS WERE NON DETECTABLE AT 30 CM
WIPE RESULTS ATTACHED

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
NA	NA

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A

Health Physics Counting Lab -- Wipe Analysis

Date: 4/20/97
Counting Unit id: 2
Data file name: C:\LBXL\UNIT2\Sme2D000.csv
Batch Ended: 4/20/97 20:58
Crosstalk Correction: Applied
Cal. Due Date: 11/13/97

Alpha activity action level (DPM): 20.00
Beta activity action level (DPM): 200.00

System Serial #: 59544

Batch ID: T 97-GA-213 ROBINSON 4-21-97 ~~(D1/DS2)~~ D1/BS2 2nd TOS

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
69	1	0.415	1.96	<MDA	0.08	2.37	<MDA	1.50	4/20/97 20:05
63	2	0.000	2.02	<MDA	6.96	4.10	<AL	1.50	4/20/97 20:07
37	3	0.415	1.96	<MDA	0.08	2.37	<MDA	1.50	4/20/97 20:09
83	4	0.415	1.96	<MDA	0.08	2.37	<MDA	1.50	4/20/97 20:10
58	5	0.415	1.96	<MDA	0.08	2.37	<MDA	1.50	4/20/97 20:12
30	6	2.421	2.74	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:14
139	7	0.244	1.99	<MDA	3.41	3.34	<MDA	1.50	4/20/97 20:15
141	8	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:17
140	9	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:19
131	10	0.000	1.98	<MDA	1.97	2.90	<MDA	1.50	4/20/97 20:20
56	11	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:22
34	12	0.501	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:24
31	13	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:26
79	14	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:27
6	15	0.000	1.96	<MDA	0.31	2.37	<MDA	1.50	4/20/97 20:29
12	16	0.000	1.96	<MDA	0.31	2.37	<MDA	1.50	4/20/97 20:31
92	17	4.169	3.36	<AL	1.29	2.90	<MDA	1.50	4/20/97 20:32
11	18	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:34
22	19	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:36
33	20	0.000	1.98	<MDA	1.97	2.90	<MDA	1.50	4/20/97 20:37
80	21	0.000	1.96	<MDA	0.31	2.37	<MDA	1.50	4/20/97 20:39
37	22	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:41
78	23	0.000	2.01	<MDA	5.30	3.74	<AL	1.50	4/20/97 20:42
107	24	0.000	2.01	<MDA	5.30	3.74	<AL	1.50	4/20/97 20:44
38	25	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:46
48	26	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:48
23	27	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:49
9	28	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:51
43	29	0.000	1.96	<MDA	0.31	2.37	<MDA	1.50	4/20/97 20:53
59	30	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:54

Health Physics Counting Lab -- Wipe Analysis

Date: 4/20/97
Counting Unit id: 2
Data file name: C:\LBXL\UNIT2\Sme2D000.csv
Batch Ended: 4/20/97 20:58
Crosstalk Correction: Applied
Cal. Due Date: 11/13/97

Alpha activity action level (DPM): 20.00
Beta activity action level (DPM): 200.00

System Serial #: 59544
Batch ID: T 97-GA-213 ROBINSON 4-21-97 ~~(D1/D32)~~ B1/B32 TOS

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
13	31	0.501	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:56
52	32	0.000	1.95	<MDA	0.00	1.69	<MDA	1.50	4/20/97 20:58

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97-GA-[illegible] Page 5 of 5

[illegible]: [illegible]
Data Mode: CPM Nuclide: [illegible] Quench Set: [illegible]
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	5.30
Region B:	2.0 -	18.6	0	0.0	5.70
Region C:	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]
[illegible]
[illegible] ROBINSON [illegible]
Luminescence Correction On
[illegible]
Delay Before Count [illegible]
Protocol Data Filename: [illegible]
Count Data Filename: [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1–8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	2.00	[illegible]	[illegible]	1.00	436.46	0	0.00	[illegible]
10	2.00	[illegible]	[illegible]	0.40	[illegible]	0	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]
12	2.00	[illegible]	[illegible]	[illegible]	570.24	0	0.00	[illegible]
13	2.00	0.20	0.30	0.00	538.35	0	0.41	7.56
14	2.00	0.00	0.00	0.00	507.16	0	0.00	0.00
15	2.00	0.20	0.00	4.10	473.73	0	0.43	8.17
16	2.00	0.00	0.00	0.00	432.61	10	0.00	0.00
17	2.00	8.20	7.60	7.60	489.72	0	17.55	11.57
18	2.00	4.70	4.30	3.10	522.11	0	9.23	10.19
19	2.00	11.20	10.80	5.10	543.04	0	23.03	12.51
20	2.00	14.70	13.70	4.10	526.23	0	30.83	14.[illegible]
21	2.00	8.70	7.21	6.10	504.27	0	18.44	11.97
22	2.00	7.70	7.[illegible]	[illegible]	504.12	0	11.75	11.57
23	2.00	1.20	[illegible]	[illegible]	504.32	[illegible]	3.55	8.40
24	2.00	1.70	0.30	1.10	576.32	0	3.53	8.66
25	2.00	4.70	4.80	[illegible]	519.78	0	14.10	11.07
26	2.00	4.70	4.80	3.40	301.07	0	9.97	10.71
27	2.00	0.00	0.00	5.10	440.[illegible]	0	0.00	0.00
28	[illegible]	3.70	3.80	[illegible]	454.[illegible]	0	7.9[illegible]	9.59
29	[illegible]	7.[illegible]	7.[illegible]	3.40	477.[illegible]	[illegible]	16.59	11.73
30	[illegible]	1.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.73	[illegible]
31	2.00	2.[illegible]	2.30	3.10	389.[illegible]	0	6.72	10.97
32	2.00	0.00	[illegible]	1.00	398.09	0	0.00	0.00

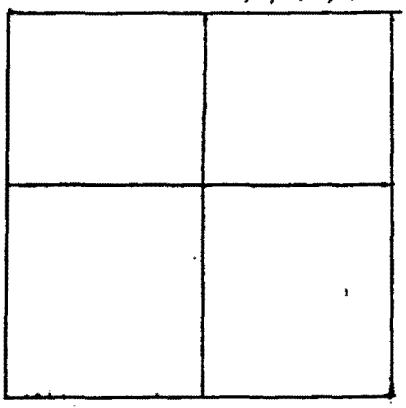
PAS 30-7 C1/52

RADIOLOGICAL SURVEY DATA SHEET

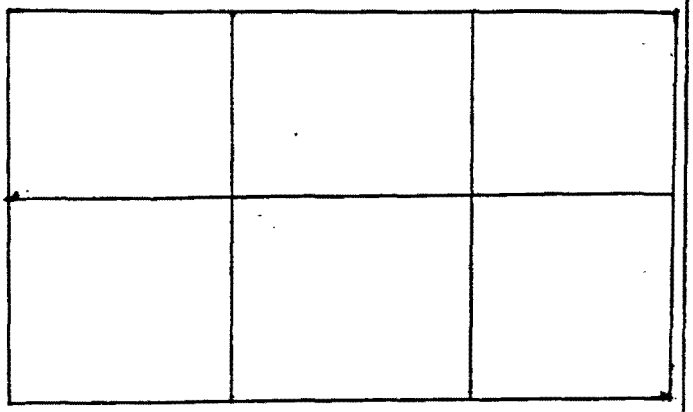
LOCATION: (BLDG./AREA/ROOM) BLDG 11, MAGAZINES 1,2,3,4,5,6,7+8	SURVEY NO. 97-GA-212
PURPOSE: SURVEY MAGAZINES IN BLDG 11, # 1,2,3,4,5,6 7,8 FOR RELEASE PWRE # 040897-7-08	RWP NO. NA
	DATE: 4-17-97
	TIME: AM

MAP/DRAWING

MAGAZINES 1,2,3,6,7,8



MAGAZINES 4+5



LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
MICRO R	3858	10-8-97
ELECTRA	5382/5383	9-11-97
NA	NA	NA

[redacted] 2347 Date: 4-17-97

5268 Date: 4/21/97

Reviewed/Approved by: (Signature/HP#) Date:

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☑ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				BLDG 11 Rm 1
2				Rm 1
3				Rm 1
4				Rm 1
5				VENT PIPE Rm 1
6				VENT PIPE RM 1
7				BLDG 11 Rm 2
8				Rm 2
9				Rm 2
10				Rm 2
11				VENT PIPE Rm 2
12				VENT PIPE RM 2
13				BLDG 11 Rm 3
14				RM 3
15				Rm 3
16				Rm 3
17				VENT PIPE Rm 3
18				VENT PIPE Rm 3
19				BLDG 11 Rm4
20				Rm4
21				Rm 4
22				Rm 4
23				Rm 4
24				Rm 4
25				VENT PIPE Rm of
26				VENT PIPE Rm4
27				BLDG 11 Rm 5
28				Rm 5
29				Rm 5
30				Rm 5

☑ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
31				Rm 5
32				Rm 5
33				VENT PIPE Rm 5
34				VENT PIPE Rm 5
35				BLDG 11 Rm 6
36				RM6
37				Rm6
38				Rm6
39				VENT PIPE Rm6
40				VENT PIPE Rm 6
41				BLDG 11 Rm7
42				Rm7
43				Rm7
44				Rm7
45				VENT PIPE Rm7
46				VENT PIPE Rm7
47				BLDG 11 Rm8
48				RM8
49				Rm8
50				Rm8
51				VENT PIPE Rm8
52				VENT PIPE Rm8

NO FURTHER ENTRY

COMMENTS:
TOOK DIRECT READINGS WITH ELECTRA α<100 dpm/100 cm^2 AND β<5000 dpm/100 cm^2
TOOK DOSE RATE READINGS, ALL READINGS WERE NON DETECTABLE AT 30 CM
WIPE RESULTS ATTACHED

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
NA	NA

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR048
Batch Ended: 4/21/97 6:28
Cal. Due Date: 3/3/98
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: T 97-GA-212 ROBINSON

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.07	<MDA	2.98	3.61	<AL
A2	2	0.00	2.05	<MDA	1.75	3.28	<MDA
A3	3	0.00	1.94	<MDA	2.87	3.49	<AL
A4	4	0.00	2.03	<MDA	1.71	3.15	<MDA
B1	5	0.00	2.04	<MDA	1.40	3.23	<MDA
B2	6	1.67	2.01	<AL	0.00	1.31	<MDA
B3	7	0.00	1.92	<MDA	0.00	1.23	<MDA
B4	8	0.00	1.97	<MDA	1.60	3.15	<MDA
C1	9	1.52	1.99	<MDA	0.00	1.26	<MDA
C2	10	0.00	1.99	<MDA	0.19	1.78	<MDA
C3	11	0.00	1.83	<MDA	0.00	1.16	<MDA
C4	12	0.00	1.86	<MDA	1.41	1.98	<MDA
D1	13	0.00	2.04	<MDA	0.00	1.35	<MDA
D2	14	1.56	2.11	<MDA	0.28	1.95	<MDA
D3	15	0.00	1.94	<MDA	0.00	1.28	<MDA
D4	16	0.00	1.95	<MDA	4.24	3.90	<AL
A1	17	0.00	2.05	<MDA	0.37	1.85	<MDA
A2	18	0.00	2.04	<MDA	0.00	1.32	<MDA
A3	19	0.00	1.93	<MDA	1.63	3.16	<MDA
A4	20	0.00	2.05	<MDA	4.20	3.78	<AL
B1	21	0.00	2.03	<MDA	0.11	1.82	<MDA
B2	22	0.00	2.03	<MDA	1.51	3.26	<MDA
B3	23	1.58	1.92	<AL	0.00	1.23	<MDA
B4	24	0.00	1.98	<MDA	2.84	3.48	<AL
C1	25	1.51	2.00	<MDA	0.00	1.78	<MDA
C2	26	0.00	2.00	<MDA	1.45	3.18	<MDA
C3	27	0.00	1.83	<MDA	0.00	1.64	<MDA
C4	28	1.51	1.88	<AL	3.56	3.56	<AL
D1	29	0.00	2.04	<MDA	0.00	1.35	<MDA
D2	30	0.00	2.13	<MDA	4.54	3.08	<AL
D3	31	0.00	1.94	<MDA	0.43	1.80	<MDA
D4	32	0.00	1.92	<MDA	0.00	1.30	<MDA
A1	33	0.00	2.05	<MDA	0.37	1.85	<MDA
A2	34	1.68	2.05	<AL	0.30	1.86	<MDA
A3	35	0.00	1.92	<MDA	0.00	1.25	<MDA
A4	36	0.00	2.01	<MDA	0.00	1.24	<MDA
B1	37	0.00	2.02	<MDA	0.00	1.25	<MDA
B2	38	0.00	2.06	<MDA	5.42	3.20	<AL

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR048
Batch Ended: 4/21/97 6:28
Cal. Due Date: 3/3/98
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: T 97-GA-2[illegible]2 ROBINSON

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B3	39	0.00	1.93	<MDA	0.12	1.73	<MDA
B4	40	0.00	1.95	<MDA	0.00	1.24	<MDA
C1	41	0.00	2.00	<MDA	0.00	1.78	<MDA
C2	42	0.00	1.98	<MDA	0.00	1.26	<MDA
C3	43	0.00	1.83	<MDA	0.00	1.16	<MDA
C4	44	0.00	1.91	<MDA	5.99	3.03	<AL
D1	45	0.00	2.05	<MDA	0.32	1.91	<MDA
D2	46	0.00	2.10	<MDA	0.00	1.38	<MDA
D3	47	0.00	1.96	<MDA	2.98	2.55	<AL
D4	48	0.00	1.92	<MDA	0.00	1.30	<MDA
A1	49	0.00	2.04	<MDA	0.00	1.31	<MDA
A2	50	0.00	2.04	<MDA	0.44	1.86	<MDA
A3	51	0.00	1.92	<MDA	0.00	1.25	<MDA
A4	52	3.68	2.86	<AL	2.66	2.45	<MDA

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ge: 2.00
ta Mode: DPM Nuclide: SM-PW-U6 Quench Set: SM-PW-U6
:K[redacted]d Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
gion A:	0.5 -	18.6	0	0.0	8.20
gion B:	2.0 -	18.6	0	0.0	7.80
gion C:	20.0 -	2000	0	0.0	14.60

ench Indicator: tSIE/AEC
Ext Std Terminator: Count
-6A-212 ROBINSON(30-7 C1/52)
sinescence Correction On
incidence Time(ns): 18
lay Before Burst(ns): Normal
otocol Data Filename: c:\data\PROT3.DAT
unt Data Filename: c:\data\SDATA3.DAT
ectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	8.20	7.80	5	B	653.97		0.00	14.60
0	2.00	459.80	421.70	0		607.68	924.21	93.43	1.40
1	2.00	0.00	0.00	0		578.74	0.00	0.00	0.00
2	2.00	1.30	1.70	0		570.02	2.64	9.61	0.00
3	2.00	0.00	0.00	0		566.08	0.00	0.00	0.00
4	2.00	1.80	2.20	0		537.60	3.81	10.22	0.00
[redacted]	2.00	0.00	0.20	0		516.18	0.00	0.00	1.40
6	2.00	0.00	0.00	0		460.56	0.00	0.00	0.00
7	2.00	1.30	1.20	0		578.46	2.64	9.59	0.00
8	2.00	0.00	0.00	0		587.72	0.00	0.00	0.00
9	2.00	0.00	0.00	0		474.44	0.00	0.00	0.00
10	2.00	0.30	0.00	0		512.29	0.66	9.94	0.00
11	2.00	0.00	0.00	0		570.84	0.00	0.00	0.00
12	2.00	0.00	0.00	0		530.75	0.00	0.00	0.00
13	2.00	0.00	0.00	0		468.91	0.00	0.00	0.00
14	2.00	3.30	3.20	0		540.21	6.93	10.80	0.00
15	2.00	0.00	0.00	0		482.18	0.00	0.00	0.00
16	2.00	0.00	0.00	0		583.57	0.00	0.00	0.00
17	2.00	0.00	0.00	0		505.14	0.00	0.00	0.00
18	2.00	0.00	0.00	0		500.50	0.00	0.00	0.00
19	2.00	0.00	0.00	0		527.05	0.00	0.00	0.00
20	2.00	0.00	0.00	0		601.12	0.00	0.00	0.00
21	2.00	3.30	3.20	0		535.55	7.01	10.92	0.00
22	2.00	0.00	0.00	0		512.85	0.00	0.00	2.40
23	2.00	0.00	0.00	0		575.71	0.00	0.00	0.00
24	2.00	0.00	0.00	0		567.69	0.00	0.00	0.00
25	2.00	0.00	0.00	0		484.77	0.00	0.00	0.00
26	2.00	0.00	0.00	0		518.68	0.00	0.00	0.90
27	2.00	0.00	0.00	0		586.85	0.00	0.00	0.00
28	2.00	0.00	0.00	0		613.45	0.00	0.00	0.90
[redacted]	2.00	0.00	0.00	0		552.15	0.00	0.00	0.00
[redacted]	2.00	0.00	0.00	0		477.51	0.00	0.00	0.00
31	2.00	0.00	0.00	0		603.07	0.00	0.00	0.00
32	2.00	0.00	0.00	0		551.48	0.00	0.00	0.00
33	2.00	0.00	0.00	0		519.64	0.00	0.00	0.00
34	2.00	0.00	0.00	0		574.53	0.00	0.00	0.00

S#	TIME	CPMA	CPMB	LUM FLAG	tSIE	DPM1	2Sigma	CPMC
	2.00	0.00	0.00	0	542.09	0.00	0.00	0.00
36	2.00	0.00	0.00	0	492.99	0.00	0.00	0.40
37	2.00	0.00	0.20	0	556.16	0.00	0.00	0.00
38	2.00	0.00	0.00	0	565.75	0.00	0.00	0.00
39	2.00	0.00	0.00	0	540.74	0.00	0.00	0.00
40	2.00	0.00	0.00	0	485.10	0.00	0.00	0.00
41	2.00	0.00	0.00	0	424.10	0.00	0.00	0.00
42	2.00	45.30	31.70	3	420.33	109.75	27.22	4.40
43	2.00	0.00	0.00	0	546.45	0.00	0.00	1.40
44	2.00	0.00	0.00	0	562.06	0.00	0.00	0.00
45	2.00	0.00	0.00	0	457.73	0.00	0.00	0.00
46	2.00	0.00	0.00	0	480.67	0.00	0.00	0.00
47	2.00	0.00	0.00	0	493.56	0.00	0.00	0.00
48	2.00	0.30	0.20	0	569.36	0.61	9.17	0.00
49	2.00	0.00	0.00	0	560.76	0.00	0.00	0.00
50	2.00	0.00	0.00	0	470.21	0.00	0.00	0.00
51	2.00	0.00	0.00	0	450.85	0.00	0.00	0.00
52	2.00	0.00	0.00	0	409.76	0.00	0.00	0.00

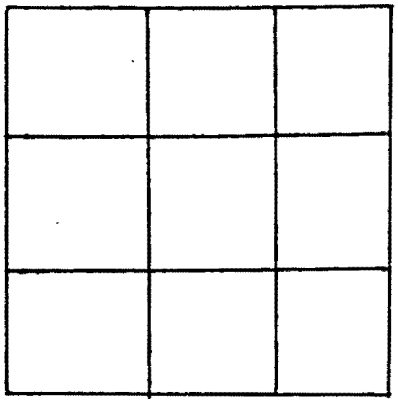
R46 G1/30

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) MAGAZINE 20	SURVEY NO. 97-GA-217
PURPOSE: SURVEY MAGAZINE 20A + 20C FOR RELEASE PWRE# 040897-53-07	RWP NO. NA DATE: 4-18-97 TIME: AM

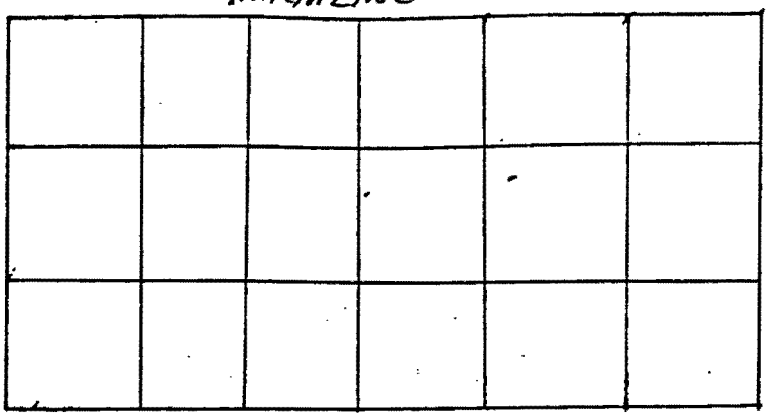
MAP/DRAWING

MAGAZINE 20A



FLOOR

MAGAZINE 20C



FLOOR

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
MICRO R	3835	10-8-97
ELECTRA	5382/5383	9-11-97
NA	NA	NA

[redacted] 247 Date: 4-18-97

5268 Date: 4/21/97

Reviewed/Approved by: (Signature/HP#) Date:

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☑ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
1				MAGAZINE 20A
2				20A
3				20A
4				20A
5				20A
6				20A
7				20A
8				20A
9				20A
10				20A
11				MAGAZINE 20C
12				20C
13				20C
14				20C
15				20C
16				20C
17				20C
18				20C
19				20C
20				20C
21				20C
22				20C
23				20C
24				20C
25				20C
26				20C
27				20C
28				20C
29				20C
30				20C

☑ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
				NO FURTHER ENTRY

COMMENTS:
TOOK READINGS WITH ELECTRA $\alpha < 100$ dpm/100cm^2, $\beta < 5000$ dpm/100 cm^2
TOOK DOSE RATE READINGS, ALL READINGS WERE NON DETECTABLE AT 30 CM
WIPE RESULTS ATTACHED

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
NA	NA

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark "N/A"

Time: 2.00
Data Mode: DPM Nuclide: SM-PW-UG Quench Set: SM-PW-UG
Background Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
Region A:	0.5	18.6	0	0.0	7.80
Region B:	2.0	18.6	0	0.0	7.50
Region C:	20.0	2000	0	0.0	12.20

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
97-GA-217 ROBINSON (30-7 E1/30)
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\PROT6.DAT
Count Data Filename: c:\data\SDATA6.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.80	7.50	4	B	664.72		0.00	12.20
0	2.00	458.20	425.00	0		624.36	908.44	91.89	1.30
1	2.00	0.00	0.00	0		611.70	0.00	0.00	0.00
2	2.00	0.00	0.00	0		590.57	0.00	0.00	0.30
3	2.00	0.00	0.00	0		636.05	0.00	0.00	0.00
4	2.00	0.00	0.00	0		577.70	0.00	0.00	0.00
5	2.00	1.20	1.00	0		584.77	2.43	9.31	0.30
6	2.00	0.20	0.50	0		527.47	0.43	9.48	0.00
7	2.00	0.00	0.00	0		620.58	0.00	0.00	0.00
8	2.00	2.20	1.50	0		577.53	4.46	9.76	0.30
9	2.00	0.00	0.00	0		601.52	0.00	0.00	0.00
10	2.00	0.00	0.00	0		598.32	0.00	0.00	0.00
11	2.00	0.70	0.00	0		551.41	1.43	9.20	0.00
12	2.00	0.00	0.00	0		608.95	0.00	0.00	1.80
13	2.00	0.00	0.00	0		615.54	0.00	0.00	2.30
14	2.00	0.00	0.00	0		588.00	0.00	0.00	0.00
15	2.00	0.00	0.00	0		509.53	0.00	0.00	1.30
16	2.00	0.00	0.00	0		596.69	0.00	0.00	2.30
17	2.00	0.00	0.00	0		605.16	0.00	0.00	3.80
18	2.00	0.00	0.00	0		518.43	0.00	0.00	0.00
19	2.00	0.00	0.00	0		578.43	0.00	0.00	0.00
20	2.00	0.20	0.00	6		529.45	0.43	9.43	0.00
21	2.00	0.20	0.00	0		579.06	0.40	8.87	0.00
22	2.00	0.20	0.00	0		605.91	0.40	8.80	0.00
23	2.00	0.00	0.00	0		578.15	0.00	0.00	0.00
24	2.00	0.70	1.00	0		635.48	1.38	8.84	0.00
25	2.00	0.00	0.00	0		559.78	0.00	0.00	1.30
26	2.00	0.70	0.50	0		546.73	1.45	9.30	0.00
27	2.00	0.00	0.00	0		577.72	0.00	0.00	0.00
28	2.00	0.00	0.00	0		581.52	0.00	0.00	0.00
29	2.00	2.70	2.50	0		560.97	5.50	10.02	2.30
30	2.00	0.70	0.00	0		608.16	1.41	9.02	0.00

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR052
Batch Ended: 4/21/97 7:50
Cal. Due Date: 3/3/98
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: T 97-GA-217 ROBINSON

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.06	<MDA	1.67	2.26	<MDA
A2	2	1.68	2.04	<AL	0.00	1.32	<MDA
A3	3	0.00	1.95	<MDA	4.12	2.79	<AL
A4	4	0.00	2.01	<MDA	0.00	1.24	<MDA
B1	5	0.00	2.04	<MDA	2.69	2.58	<MDA
B2	6	0.00	2.01	<MDA	0.00	1.30	<MDA
B3	7	0.00	1.93	<MDA	1.35	2.12	<MDA
B4	8	0.00	1.97	<MDA	1.60	2.15	<MDA
C1	9	0.00	1.99	<MDA	0.00	1.26	<MDA
C2	10	1.64	1.98	<AL	0.00	1.26	<MDA
C3	11	0.00	1.83	<MDA	0.00	1.16	<MDA
C4	12	0.00	1.87	<MDA	2.56	2.29	<AL
D1	13	1.29	2.05	<MDA	0.20	1.91	<MDA
D2	14	1.57	2.10	<MDA	0.00	1.38	<MDA
D3	15	0.00	1.94	<MDA	0.00	1.28	<MDA
D4	16	0.00	1.93	<MDA	0.35	1.83	<MDA
A1	17	0.00	2.04	<MDA	0.00	1.31	<MDA
A2	18	0.00	2.04	<MDA	0.00	1.32	<MDA
A3	19	0.00	1.92	<MDA	0.00	1.25	<MDA
A4	20	0.00	2.01	<MDA	0.00	1.24	<MDA
B1	21	0.00	2.02	<MDA	0.00	1.29	<MDA
B2	22	1.67	2.02	<AL	0.07	1.84	<MDA
B3	23	0.00	1.93	<MDA	0.12	1.73	<MDA
B4	24	0.00	1.95	<MDA	0.00	1.24	<MDA
C1	25	3.49	2.82	<AL	0.00	1.78	<MDA
C2	26	1.63	2.00	<AL	1.32	2.18	<MDA
C3	27	1.46	1.84	<AL	1.04	2.01	<MDA
C4	28	0.00	1.86	<MDA	1.41	1.98	<MDA
D1	29	0.00	2.05	<MDA	1.66	2.33	<MDA
D2	30	0.00	2.10	<MDA	0.00	1.38	<MDA

RADIOLOGICAL SURVEY DATA SHEET

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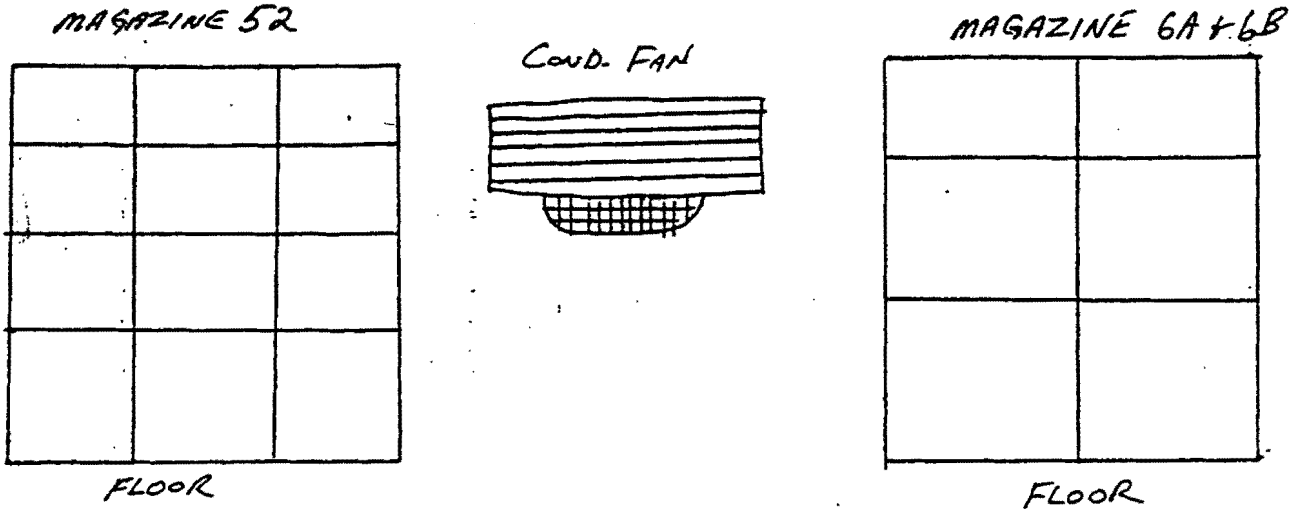
LOCATION: (BLDG./AREA/ROOM)	SURVEY NO. 97-GA-215
PURPOSE: SURVEY MAGAZINE 52 AND MAGAZINE 6A+6B FOR RELEASE PWRE# 040897-6-09	RWP NO. NA
	DATE: 4-18-97
	TIME: AM+PM

MAP/DRAWING



LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
MICRO R	3858	10-8-97
ELECTRA	5382/5383	9-11-97
NA	NA	NA

[redacted] 9347 Date: 4-18-97

5268 Date: 4/21/97

Reviewed/Approved by: (Signature/HP#) Date:

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				MAGAZINE 5B
2				5B
3				5B
4				5B
5				5B
6				5B
7				5B
8				5B
9				5B
10				5B
11				5B
12				5B
13				COIL FAN 5B
14				COIL FAN 5B
15				COIL FAN 5B
16				MAGAZINE 6A
17				6A
18				6A
19				6A
20				6A
21				6A
22				6A
23				6A
24				MAGAZINE 6B
25				6B
26				6B
27				6B
28				6B
29				6B
30				SHELF 6B

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
31				SHELF 6B
32				SHELF 6B
33				SHELF 6B
34				SHELF 6B
35				SHELF 6B
36				SHELF 6B
37				PIPE VENT 6B
38				PIPE VENT 6B

NO FURTHER ENTRY

COMMENTS:
TOOK DIRECT READINGS WITH ELECTRA α < 100dpm/100cm^2, β < 5000dpm/100cm^2
TOOK DOSE RATE READINGS, READINGS WERE ALL NON DETECTABLE AT 30CM
WIPE RESULTS ATTACHED

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
NA	NA

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.

Page 3 of 5

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR050
Batch Ended: 4/21/97 7:04
Cal. Due Date: 3/3/98
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: T 97-GA-215 ROBINSON

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	1.71	2.04	<AL	0.00	1.31	<MDA
A2	2	0.00	2.04	<MDA	0.00	1.32	<MDA
A3	3	0.00	1.92	<MDA	0.00	1.25	<MDA
A4	4	0.00	2.01	<MDA	0.00	1.24	<MDA
B1	5	1.73	2.04	<AL	1.27	2.23	<MDA
B2	6	0.00	2.02	<MDA	0.21	1.84	<MDA
B3	7	0.00	1.93	<MDA	1.35	2.12	<MDA
B4	8	0.00	1.97	<MDA	1.60	2.15	<MDA
C1	9	0.00	1.99	<MDA	0.00	1.26	<MDA
C2	10	3.61	2.80	<AL	0.00	1.26	<MDA
C3	11	0.00	1.83	<MDA	0.00	1.16	<MDA
C4	12	0.00	1.87	<MDA	2.56	2.29	<AL
D1	13	0.00	2.04	<MDA	0.00	1.35	<MDA
D2	14	0.00	2.10	<MDA	0.00	1.38	<MDA
D3	15	1.47	1.94	<MDA	0.00	1.28	<MDA
D4	16	0.00	1.92	<MDA	0.00	1.30	<MDA
A1	17	0.00	2.06	<MDA	1.67	2.26	<MDA
A2	18	0.00	2.05	<MDA	1.75	2.28	<MDA
A3	19	0.00	1.93	<MDA	1.63	2.16	<MDA
A4	20	0.00	2.04	<MDA	2.96	2.49	<AL
B1	21	1.74	2.02	<AL	0.00	1.29	<MDA
B2	22	0.00	2.01	<MDA	0.00	1.30	<MDA
B3	23	0.00	1.94	<MDA	2.57	2.45	<MDA
B4	24	0.00	1.95	<MDA	0.00	1.24	<MDA
C1	25	0.00	2.03	<MDA	3.76	2.81	<AL
C2	26	0.00	1.98	<MDA	0.00	1.26	<MDA
C3	27	3.29	2.58	<AL	0.00	1.16	<MDA
C4	28	0.00	1.86	<MDA	1.41	1.98	<MDA
D1	29	0.00	2.04	<MDA	0.00	1.35	<MDA
D2	30	0.00	2.10	<MDA	0.00	1.38	<MDA
D3	31	0.00	1.96	<MDA	2.98	2.55	<AL
D4	32	0.00	1.93	<MDA	1.65	2.24	<MDA
A1	33	0.00	2.07	<MDA	2.98	2.61	<AL
A2	34	0.00	2.06	<MDA	3.07	2.63	<AL
A3	35	3.44	2.71	<AL	0.00	1.25	<MDA
A4	36	0.00	2.02	<MDA	0.47	1.76	<MDA
B1	37	0.00	2	<MDA	0.00	1.29	<MDA
B2	38	3.67	2.84	<AL	0.00	1.31	<MDA

ae: 2.00
ta Mode: DPM Nuclide: SM-PW-UG Quench Set: SM-PW-UG
ch[redacted]d Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
ion A:	0.5 -	18.6	0	0.0	7.80
ion B:	2.0 -	18.6	0	0.0	7.30
ion C:	20.0 -	2000	0	0.0	12.00

nch Indicator: tSIE/AEC
Ext Std Terminator: Count
6A-215 ROBINSON (30-7 A1/38)
inescence Correction On
ncidence Time(ns): 18
ay Before Burst(ns): Normal
tocol Data Filename: c:\data\PROT1.DAT
nt Data Filename: c:\data\SDATA1.DAT
ctrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.80	7.30	3	B	660.14		0.00	12.00
0	2.00	426.20	394.70	0		606.29	856.30	88.04	0.00
1	2.00	0.70	0.20	0		578.22	1.42	9.09	4.50
2	2.00	0.00	0.00	0		518.46	0.00	0.00	3.50
3	2.00	0.00	0.00	0		598.48	0.00	0.00	0.00
4	2.00	0.00	0.00	0		635.68	0.00	0.00	0.00
[redacted]	2.00	0.20	0.20	0		550.87	0.41	8.96	0.00
6	2.00	0.00	0.00	0		552.69	0.00	0.00	1.50
7	2.00	0.00	0.00	0		624.70	0.00	0.00	0.00
8	2.00	0.00	0.00	9		606.33	0.00	0.00	0.50
9	2.00	1.20	0.20	0		610.96	2.40	9.21	0.00
10	2.00	0.00	0.00	0		611.78	0.00	0.00	0.00
11	2.00	0.00	0.00	8		531.10	0.00	0.00	0.00
12	2.00	0.00	0.20	0		625.70	0.00	0.00	1.50
13	2.00	0.00	0.00	0		614.87	0.00	0.00	0.50
14	2.00	1.20	1.20	0		568.24	2.44	9.34	1.00
15	2.00	0.00	0.00	0		565.20	0.00	0.00	0.00
16	2.00	0.00	0.00	0		504.10	0.00	0.00	0.00
17	2.00	0.70	0.70	0		466.30	1.61	10.30	0.00
18	2.00	0.00	0.00	0		562.67	0.00	0.00	1.50
19	2.00	1.20	1.70	0		618.73	2.39	9.15	0.00
20	2.00	0.00	0.00	0		497.75	0.00	0.00	5.00
21	2.00	0.70	0.20	0		584.25	1.42	9.07	3.00
22	2.00	0.70	0.70	6		605.75	1.41	9.01	0.00
23	2.00	0.00	0.00	0		618.82	0.00	0.00	0.50
24	2.00	0.00	0.00	0		585.04	0.00	0.00	2.00
25	2.00	0.20	0.20	0		536.91	0.42	9.25	0.00
26	2.00	0.20	0.70	0		537.22	0.42	9.24	0.50
27	2.00	0.00	0.00	0		537.83	0.00	0.00	0.00
28	2.00	1.70	2.20	0		557.89	3.46	9.59	2.50
[redacted]	2.00	0.20	0.70	0		529.05	0.43	9.42	2.00
30	2.00	0.00	0.00	0		553.44	0.00	0.00	0.00
31	2.00	0.00	0.00	0		551.07	0.00	0.00	0.00
32	2.00	0.70	1.20	0		606.18	1.41	9.01	0.00
33	2.00	0.20	0.70	0		545.45	0.41	9.07	0.50
34	2.00	0.00	0.00	0		571.90	0.00	0.00	2.00

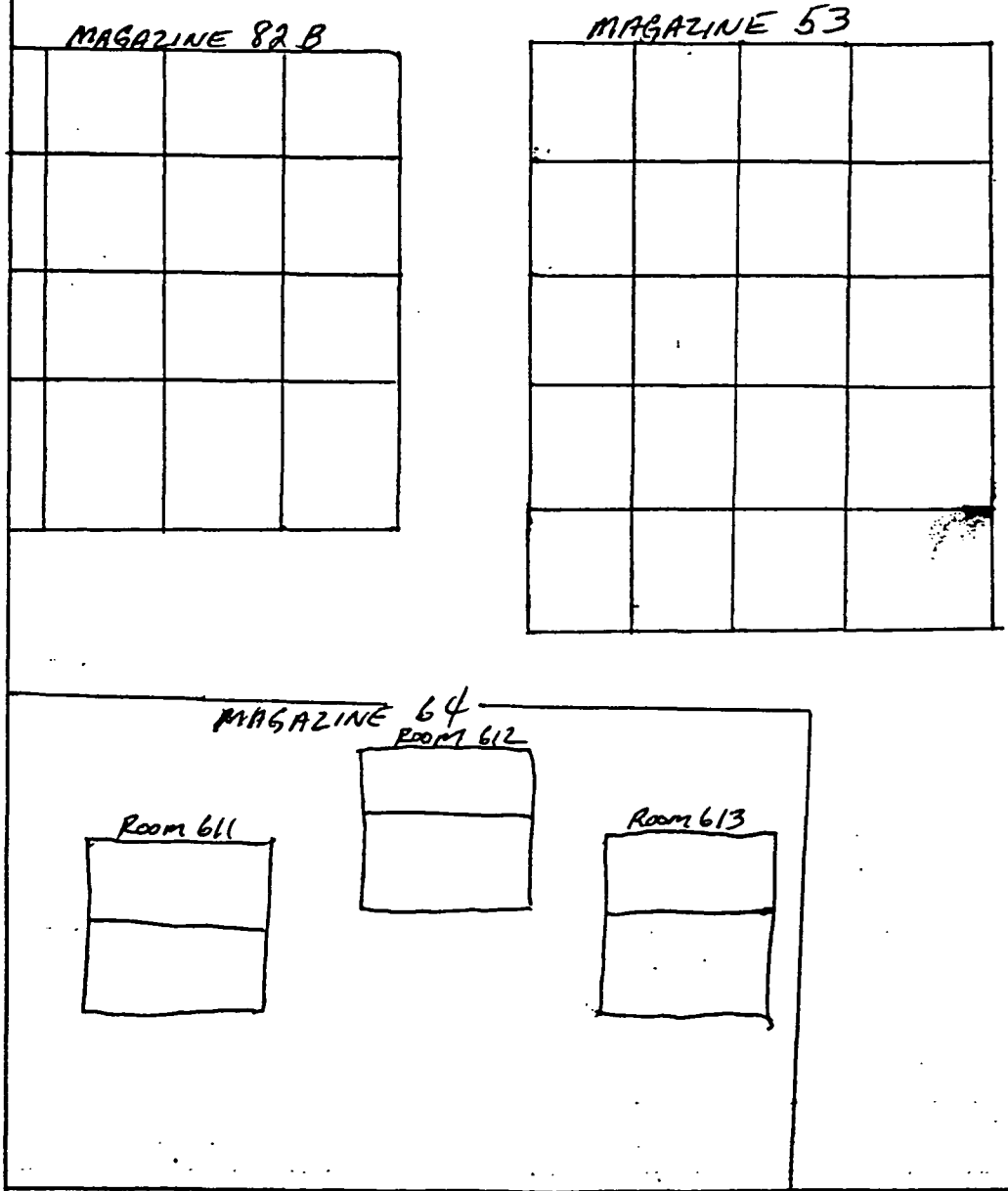
S#	TIME	CPMA	CPMB	LUM FLAG	tSIE	DPM1	2Sigma	CPMC
35	2.00	0.00	0.00	0	621.36	0.00	0.00	4.00
[illegible]	2.00	0.00	0.00	0	582.14	0.00	0.00	2.00
[illegible]	2.00	0.70	0.20	0	605.81	1.41	9.01	0.00
38	2.00	0.20	0.20	0	597.35	0.40	8.81	0.00

30-7 A1/A44 P7

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (~~BLDG/AREA/ROOM~~) MAGAZINE 82B, 53 + 64	SURVEY NO. 97-GA-209
PURPOSE: SURVEY MAGAZINE 82B, 53, 64 Room 611, 612 AND 613. PWRE 040897-80-10 FOR RELEASE PWRE 040897-53-07 AND PWRE 040897-6-09	RWP NO. NA
	DATE: 4-15-97
	TIME: PM

MAP/DRAWING



LEGEND: # = mrem/hr (γ) whole body; # E = mrem/hr (β+η+γ) extremity on contact; # = mrem/hr neutron; # = air sample number; (#) = swipe number; (#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
MICRO R	3858	10-8-97
ELECTRA	5382/5283	9-11-97
NA	NA	NA

[redacted] 347 Date: 4-15-97

SJGS Date: 4/15/97

Reviewed/Approved by: (Signature/HP#) Date:

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				MAGAZINE 82B
2				82B
3				82B
4				82B
5				82B
6				82B
7				82B
8				82B
9				82B
10				82B
11				82B
12				82B
13				MAGAZINE 53
14				53
15				53
16				53
17				53
18				53
19				53
20				53
21				53
22				53
23				53
24				53
25				53
26				53
27				53
28				53
29				53
30				53

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
31				53
32				53
33				MAGAZINE 64-611
34				64-611
35				64-611
36				64-611
37				64-612
38				64-612
39				64-612
40				64-612
41				64-613
42				64-613
43				64-613
44				64-613

NO FURTHER ENTRY

COMMENTS: TOOK DIRECT READINGS WITH ELECTRA, $\alpha < 100$ dpm/100cm^2, $\beta < 5000$ dpm/100cm^2
TOOK DOSE RATE READINGS, ALL READINGS WERE NON DETECTABLE AT 30 CM
WIPE RESULTS ATTACHED

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
NA	NA

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR035
Batch Ended: 4/15/97 15:04
Cal. Due Date: 3/3/98
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: T 97-GA-209 ROBINSON

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.05	<MDA	0.37	1.85	<MDA
A2	2	1.68	2.04	<AL	0.00	1.32	<MDA
A3	3	0.00	1.92	<MDA	0.00	1.25	<MDA
A4	4	0.00	2.02	<MDA	0.47	1.76	<MDA
B1	5	3.74	2.86	<AL	0.00	1.82	<MDA
B2	6	0.00	2.02	<MDA	0.21	1.84	<MDA
B3	7	0.00	1.92	<MDA	0.00	1.23	<MDA
B4	8	0.00	1.95	<MDA	0.00	1.24	<MDA
C1	9	0.00	2.01	<MDA	1.25	2.18	<MDA
C2	10	0.00	1.99	<MDA	0.19	1.78	<MDA
C3	11	0.00	1.83	<MDA	0.00	1.16	<MDA
C4	12	0.00	1.85	<MDA	0.27	1.62	<MDA
D1	13	0.00	2.05	<MDA	0.32	1.91	<MDA
D2	14	0.00	2.11	<MDA	1.79	2.38	<MDA
D3	15	0.00	1.95	<MDA	1.70	2.21	<MDA
D4	16	0.00	1.93	<MDA	0.35	1.83	<MDA
A1	17	0.00	2.05	<MDA	0.37	1.85	<MDA
A2	18	0.00	2.05	<MDA	1.75	2.28	<MDA
A3	19	0.00	1.92	<MDA	0.00	1.25	<MDA
A4	20	0.00	2.04	<MDA	2.96	2.49	<AL
B1	21	0.00	2.03	<MDA	0.11	1.82	<MDA
B2	22	0.00	2.01	<MDA	0.00	1.30	<MDA
B3	23	0.00	1.94	<MDA	2.57	2.45	<MDA
B4	24	0.00	1.96	<MDA	0.36	1.75	<MDA
C1	25	0.00	1.99	<MDA	0.00	1.26	<MDA
C2	26	1.64	1.98	<AL	0.00	1.26	<MDA
C3	27	0.00	1.83	<MDA	0.00	1.64	<MDA
C4	28	0.00	1.85	<MDA	0.27	1.62	<MDA
D1	29	0.00	2.05	<MDA	0.32	1.91	<MDA
D2	30	1.57	2.10	<MDA	0.00	1.38	<MDA
D3	31	0.00	1.96	<MDA	2.98	2.55	<AL
D4	32	0.00	1.92	<MDA	0.00	1.30	<MDA
A1	33	0.00	2.04	<MDA	0.00	1.31	<MDA
A2	34	0.00	2.04	<MDA	0.44	1.86	<MDA
A3	35	0.00	1.92	<MDA	0.00	1.25	<MDA
A4	36	0.00	2.01	<MDA	0.00	1.24	<MDA
B1	37	0.00	2.05	<MDA	3.98	2.89	<AL
B2	38	1.67	2.02	<AL	0.07	1.84	<MDA

Page 3 of 6

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR035
Batch Ended: 4/15/97 15:04
Cal. Due Date: 3/3/98
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: T 97-GA-209 ROBINSON

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B3	39	0.00	1.92	<MDA	0.00	1.23	<MDA
B4	40	0.00	1.95	<MDA	0.00	1.24	<MDA
C1	41	0.00	1.99	<MDA	0.00	1.26	<MDA
C2	42	0.00	1.98	<MDA	0.00	1.26	<MDA
C3	43	0.00	1.83	<MDA	0.00	1.64	<MDA
C4	44	0.00	1.85	<MDA	0.27	1.62	<MDA

Page 4 of 6

me: 2.00
t: DPM Nuclide: SM-PW-UG Quench Set: SM-PW-UG
ckground Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
gion A:	0.5	18.6	0	0.0	7.30
gion B:	2.0	18.6	0	0.0	6.60
gion C:	20.0	2000	0	0.0	12.20

ench Indicator: tSIE/AEC
Ext Std Terminator: Count
7-6A-209 ROBINSON 4-16-97 (A1-A44) 30-7 CYR
minescence Correction On
incidence Time(ns): 18
lay Before Burst(ns): Normal
otocol Data Filename: c:\data\PROT7.DAT
unt Data Filename: c:\data\SDATA7.DAT
ectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.30	6.60	3	B	647.38		0.00	12.20
0	2.00	469.20	435.40	0		611.38	938.57	94.41	3.30
1	2.00	1.70	1.90	6		600.49	3.42	9.20	0.00
2	2.00	0.70	0.00	6		555.41	1.43	8.86	13.30
3	2.00	0.00	0.00	8		463.36	0.00	0.00	4.30
4	2.00	0.00	0.00	0		458.31	0.00	0.00	0.00
5	2.00	0.20	0.90	6		503.56	0.44	9.38	1.30
6	2.00	0.20	0.00	0		505.04	0.44	9.37	0.00
7	2.00	0.00	0.00	0		514.31	0.00	0.00	2.80
8	2.00	1.70	1.40	6		560.54	3.46	9.30	0.30
9	2.00	0.00	0.00	0		543.00	0.00	0.00	0.00
10	2.00	0.20	0.90	0		507.35	0.44	9.35	0.00
11	2.00	0.00	0.00	0		537.19	0.00	0.00	0.00
12	2.00	0.00	0.00	0		509.42	0.00	0.00	0.00
13	2.00	1.20	1.90	0		575.28	2.43	9.04	0.00
14	2.00	0.00	0.00	0		590.08	0.00	0.00	0.30
15	2.00	0.00	0.00	0		563.93	0.00	0.00	4.30
16	2.00	0.00	0.00	0		560.10	0.00	0.00	1.80
17	2.00	0.00	0.00	0		593.58	0.00	0.00	0.00
18	2.00	5.70	5.90	0		627.33	11.26	10.66	0.00
19	2.00	0.00	0.00	0		586.41	0.00	0.00	2.30
20	2.00	2.20	2.90	0		591.88	4.43	9.44	0.30
21	2.00	2.20	2.40	0		541.19	4.60	9.80	0.00
22	2.00	0.00	0.00	0		595.78	0.00	0.00	1.30
23	2.00	0.00	0.00	0		558.82	0.00	0.00	0.30
24	2.00	0.00	0.00	0		597.25	0.00	0.00	0.00
25	2.00	0.20	0.40	7		574.48	0.41	8.57	0.00
26	2.00	0.70	1.40	0		571.75	1.42	8.82	0.00
27	2.00	0.00	0.00	0		542.08	0.00	0.00	0.00
28	2.00	0.00	0.00	0		588.08	0.00	0.00	0.00
29	2.00	0.20	0.90	0		589.81	0.40	8.54	0.00
30	2.00	0.00	0.40	0		584.50	0.00	0.00	0.30
31	2.00	1.20	1.90	0		580.52	2.43	9.03	0.00
32	2.00	0.70	0.90	0		575.44	1.42	8.81	3.80
33	2.00	1.70	1.40	0		625.29	3.36	9.06	2.30
34	2.00	0.00	0.00	0		560.42	0.00	0.00	0.00

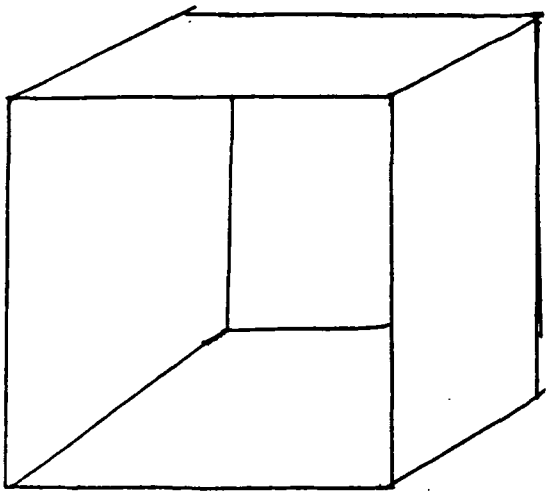
S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
35	2.00	0.00	0.00	0		593.36	0.00	0.00	0.00
36	2.00	0.00	0.00	0		571.78	0.00	0.00	0.00
37	2.00	3.70	3.90	0		598.28	7.44	10.06	0.30
38	2.00	0.20	0.40	0		592.89	0.40	8.53	0.00
39	2.00	1.20	0.40	0		607.48	2.41	8.96	0.00
40	2.00	0.70	0.90	0		574.26	1.42	8.81	3.80
41	2.00	0.00	0.00	0		549.03	0.00	0.00	0.00
42	2.00	0.00	0.00	0		580.06	0.00	0.00	0.00
43	2.00	0.70	0.90	0		595.39	1.41	8.76	2.30
44	2.00	0.70	0.90	0		591.26	1.41	8.77	0.00

RADIOLOGICAL SURVEY DATA SHEET

Page 1 of 4

LOCATION: (BLDG./~~AREA/ROOM~~) BLDG 54	SURVEY NO. 97-GA-216
PURPOSE: SURVEY MAGAZINES 1, 2, 3, 4, 5 FOR RELEASE	RWP NO. NA
PWRE # 040897-7-08	DATE: 4-17-97
	TIME: AM

MAP/DRAWING



BLDG 54

MAGAZINE 1, 2, 3, 4, 5

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
MICRO R	3858	10-8-97
ELECTRA	5382/5383	9-11-97
NA	NA	NA

[redacted] 2347 Date: 4-17-97

[redacted] 5568 Date: 4/21/97

Reviewed/Approved by: (Signature/HP#) Date:

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☑ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
1				FLOOR MAGAZINE # 1
2				FLOOR 1
3				L SIDE 1
4				R SIDE 1
5				BACK 1
6				TOP 1
7				FLOOR MAGAZINE # 2
8				FLOOR 2
9				L SIDE 2
10				R SIDE 2
11				BACK 2
12				TOP 2
13				FLOOR MAGAZINE # 3
14				FLOOR 3
15				L SIDE 3
16				R. SIDE 3
17				BACK 3
18				TOP 3
19				FLOOR MAGAZINE # 4
20				~~L SIDE~~ FLOOR 4
21				L. SIDE 4
22				R. SIDE 4
23				BACK 4
24				TOP 4
25				FLOOR MAGAZINE # 5
26				FLOOR 5
27				L. SIDE 5
28				R. SIDE 5
29				BACK 5
30				TOP 5

☑ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments

N/A

COMMENTS:
TOOK DIRECT READINGS WITH ELECTRA α < 100dpm/100cm^2, β < 5000dpm/100cm^2
TOOK DOSE RATE READINGS, ALL READINGS WERE NON DETECTABLE AT 30CM
WIPE RESULTS ATTACHED

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N/A	N/A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Page 3 of 4

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR051
Batch Ended: 4/21/97 7:17
Cal. Due Date: 3/3/98
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: T 97-GA-216 ROBINSON

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.08	<MDA	4.28	2.92	<AL
A2	2	0.00	2.04	<MDA	0.00	1.32	<MDA
A3	3	0.00	1.93	<MDA	0.39	1.76	<MDA
A4	4	0.00	2.04	<MDA	2.96	2.49	<AL
B1	5	0.00	2.03	<MDA	0.11	1.82	<MDA
B2	6	0.00	2.03	<MDA	1.51	2.26	<MDA
B3	7	0.00	1.93	<MDA	1.35	2.12	<MDA
B4	8	0.00	1.95	<MDA	0.00	1.24	<MDA
C1	9	3.49	2.82	<AL	0.00	1.78	<MDA
C2	10	0.00	2.00	<MDA	1.45	2.18	<MDA
C3	11	0.00	1.85	<MDA	3.47	2.60	<AL
C4	12	0.00	1.88	<MDA	3.70STET	2.56	<AL
D1	13	0.00	2.04	<MDA	0.00	1.35	<MDA
D2	14	0.00	2.10	<MDA	0.00	1.38	<MDA
D3	15	1.47	1.94	<MDA	0.00	1.28	<MDA
D4	16	0.00	1.92	<MDA	0.00	1.30	<MDA
A1	17	0.00	2.05	<MDA	0.37	1.85	<MDA
A2	18	0.00	2.04	<MDA	0.44	1.86	<MDA
A3	19	0.00	1.93	<MDA	0.39	1.76	<MDA
A4	20	0.00	2.01	<MDA	0.00	1.24	<MDA
B1	21	0.00	2.02	<MDA	0.00	1.29	<MDA
B2	22	0.00	2.02	<MDA	0.21	1.84	<MDA
B3	23	0.00	1.93	<MDA	0.12	1.73	<MDA
B4	24	0.00	1.95	<MDA	0.00	1.24	<MDA
C1	25	0.00	2.01	<MDA	1.25	2.18	<MDA
C2	26	0.00	1.99	<MDA	0.19	1.78	<MDA
C3	27	0.00	1.83	<MDA	0.00	1.16	<MDA
C4	28	0.00	1.88	<MDA	3.70	2.56	<AL
D1	29	1.31	2.04	<MDA	0.00	1.35	<MDA
D2	30	0.00	2.10	<MDA	0.00	1.38	<MDA

ae: 2.00
ta Mode: DPM Nuclide: SM-PW-U6 Quench Set: SM-PW-U6
ck nd Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
gion A:	0.5	18.6	0	0.0	7.90
gion B:	2.0	18.6	0	0.0	7.10
gion C:	20.0	2000	0	0.0	12.40

ench Indicator: tSIE/AEC
Ext Std Terminator: Count
-6A-216 ROBINSON (30-7 F1/30)
ainescence Correction On
incidence Time(ns): 18
lay Before Burst(ns): Normal
otocol Data Filename: c:\data\PROT5.DAT
unt Data Filename: c:\data\SDATA5.DAT
ectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.90	7.10	3	B	648.55		0.00	12.40
0	2.00	480.10	442.40	0		606.30	964.80	96.60	4.60
1	2.00	0.60	0.40	0		544.95	1.25	9.33	0.00
2	2.00	0.00	0.00	0		450.36	0.00	0.00	0.00
3	2.00	0.00	0.00	0		466.97	0.00	0.00	2.60
4	2.00	1.60	1.40	0		588.18	3.23	9.51	0.00
5	2.00	0.00	0.00	0		542.97	0.00	0.00	0.00
6	2.00	0.00	0.00	0		524.27	0.00	0.00	0.00
7	2.00	0.00	0.00	0		578.19	0.00	0.00	0.00
8	2.00	0.00	0.00	0		490.61	0.00	0.00	0.00
9	2.00	0.00	0.00	8		579.16	0.00	0.00	2.60
10	2.00	0.00	0.00	0		559.93	0.00	0.00	1.10
11	2.00	0.00	0.00	0		582.33	0.00	0.00	0.00
12	2.00	0.00	0.00	0		524.03	0.00	0.00	1.10
13	2.00	0.00	0.00	0		557.36	0.00	0.00	2.60
14	2.00	0.00	0.00	0		550.19	0.00	0.00	0.00
15	2.00	0.00	0.00	0		499.51	0.00	0.00	0.00
16	2.00	0.00	0.00	0		569.71	0.00	0.00	0.00
17	2.00	0.60	0.90	0		520.62	1.31	9.81	4.10
18	2.00	0.00	0.00	0		520.34	0.00	0.00	2.10
19	2.00	0.00	0.00	0		499.60	0.00	0.00	0.00
20	2.00	0.10	0.40	0		444.38	0.23	10.27	0.00
21	2.00	0.00	0.00	0		498.64	0.00	0.00	0.00
22	2.00	0.00	0.00	0		594.10	0.00	0.00	0.00
23	2.00	0.00	0.00	0		515.87	0.00	0.00	1.60
24	2.00	0.00	0.00	0		591.54	0.00	0.00	0.00
25	2.00	0.00	0.00	0		563.76	0.00	0.00	5.60
26	2.00	0.00	0.00	0		521.11	0.00	0.00	2.60
27	2.00	0.00	0.00	0		565.98	0.00	0.00	0.60
28	2.00	0.10	0.00	0		499.85	0.22	9.75	0.00
29	2.00	0.00	0.00	8		610.23	0.00	0.00	0.00
30	2.00	0.00	0.00	0		500.22	0.00	0.00	3.10

Appendix 7.6.2 Asbestos

TABLE 1
BUILDING INFORMATION FOR EG&G MOUND FACILITY

Compiled by: Mound Industrial Hygiene

BUILDING NAME	YEAR CONSTRUCTED	SQUARE FOOTAGE	ACBM[1] ?
A	1948	55,582	Yes
B	1948	27,735	Yes
C	1948	13,403	Yes
COS	1986	64,654	Suspected[2]
DS	1965	47,810	Yes
E	1948	47,755	Yes
EG1	1973	240	Suspected[2]
EG2	1973	240	Suspected[2]
EG4	1958	148	Suspected[2]
EG6	1975	240	Suspected[2]
EG7	1972	80	Suspected[2]
FH1	1948	400	No
FH2	1948	400	No
G	1948	7,518	Yes
GH	1948	5,347	Yes
GH44	1963	365	Assumed[3]
GIS	1948	166	Yes
GP-1	1949	7,792	Yes
GP44	1971	365	Assumed[3]
GW	1968	9,782	Yes
H	1948	17,334	Yes
HH	1948	15,276	Yes
I	1948	25,736	Yes
M	1948	56,018	Yes
OSE	1986	90,072	Assumed[3]

BUILDING NAME	YEAR CONSTRUCTED	SQUARE FOOTAGE	ACBM[1] ?
OSW	1974	54,280	Yes
P	1948	15,143	Yes
PH	1948	646	Yes
PS	1963	2,288	Yes
R	1948	55,003	Yes
SD	1948	1,593	Yes
SST	1973	590	Suspected[2]
SW	1951	43,066	Yes
T	1948	172,963	Yes
W	1948	32,484	Yes
WD	1948	16,216	Yes
WDA	1966	5,000	Yes
WH1	1960	374	No
WH2	1960	374	No
WH3	1960	128	No
1	1957	986	Yes
2	1959	6,291	Yes
3	1964	12,391	Yes
5	1948	314	No
6	1948	90	No
7	1986	387	No
8	1986	66	No
10	1986	66	No
11	1986	372	No
13	1960	47	Suspected[2]
14	1986	53	Suspected[2]
16	1960	480	Yes
17	1961	1,120	Yes
19	1963	4,480	No

BUILDING NAME	YEAR CONSTRUCTED	SQUARE FOOTAGE	ACBM[1] ?
20	1986	303	No
21	1966	4,069	Suspected[2]
22	1966	9,090	No
23	1966	3,422	Yes
24	1966	840	Yes
25	1966	430	Yes
26	1965	800	Assumed[3]
27	1968	5,285	Yes
28	1966	11,329	Yes
29	1964	6,601	Yes
30	1964	740	Yes
31	1966	8,740	Suspected[2]
33	1965	1,344	Yes
34	1965	1,100	No
35	---	2,500	Yes
36	1968	4,255	Yes
37	1968	2,463	Yes
38	1968	44,327	Yes
39	1967	3,515	No
40	1968	12,227	Yes
42	1969	2,892	Yes
43	1969	1,516	Yes
44	1969	2,480	Yes
45	1970	2,775	Yes
46	1969	2,439	Yes
47	1969	3,611	Yes
48	1970	7,950	Yes
49	1970	14,929	Yes
50	1971	14,849	Yes

BUILDING NAME	YEAR CONSTRUCTED	SQUARE FOOTAGE	ACBM[1] ?
51	1972	3,541	Assumed[3]
52	1973	78	No
53	1986	239	No
54	1986	331	No
55	1973	330	No
56	1973	613	Yes
57	1975	510	Yes
58	1977	6,110	No
59	1978	668	Suspected[2]
60	1980	3,958	Yes
61	1983	45,490	Suspected[2]
62	1980	290	Yes
63	1981	16,461	Assumed[3]
64	---	72	No
65	1979	2,400	Assumed[3]
66	1979	600	Suspected[2]
67	1982	3,787	Assumed[3]
68	1979	1,990	Suspected[2]
69	1981	1,620	Suspected[2]
70	1982	3,366	Suspected[2]
71	1983	800	Suspected[2]
72	1983	2,400	No
73	1983	2,200	Suspected[2]
74	1986	400	Suspected[2]
79	1983	1,650	Suspected[2]
80	1986	314	No
81	1986	314	No
82	1986	314	No
83	1986	314	No

BUILDING NAME	YEAR CONSTRUCTED	SQUARE FOOTAGE	ACBM[1] ?
84	1986	314	No
85	1988	3,160	No
87	1988	38,882	No
88	1983	7,200	Assumed[3]
89	1984	4,830	Assumed[3]
90	1983	656	Suspected[2]
91	1984	8,065	Suspected[2]
92	1984	1,600	Suspected[2]
93	1984	2,936	Suspected[2]
94	1984	1,240	Assumed[3]
95	1985	2,000	Suspected[2]
96	----	432	Suspected[2]
98	1988	8,517	Suspected[2]
99	1989	11,412	Suspected[2]
100	1989	6,292	Suspected[2]
101	1986	1,815	Suspected[2]
102	1987	10,982	Suspected[2]
104	----	1,800	Suspected[2]
105	----	38,027	Suspected[2]
106	----	180	Suspected[2]
107	----	70	Suspected[2]
112	----	785	Suspected[2]
113	----	547	Suspected[2]
114	----	432	Suspected[2]
119	----	350	Suspected[2]
120	----	350	Suspected[2]

NOTES: (1) ACBM - Asbestos-containing building materials
(2) Building is noted to contain "suspect" asbestos-containing building materials. Industrial hygiene building files lack building construction or

Appendix 7.6.3 Lead

Appendix 7.6.4 Environmental Concern Evaluation (Matrix)

Appendix 7.6.5 Chemical History

BURN AREA CLOSURE PLAN

U.S. Department of Energy
Mound Plant
Miamisburg, Ohio
EPA I.D. No. OH6890008984
Ohio I.D. No. 05-57-0677
May 16, 1996

1.6 Other Environmental Permits

Description	Permit Number
NPDES permit (water)	1IO00005**D
Ohio Hazardous Waste permit	05-57-0677
Building 90 retort (air)	857091196N002
Open Burn Unit for explosives waste (air)	Letter permit

NOTE: The Mound Plant has other permits in force. However, these are not listed because they are not relevant to Burn Area operations.

2. CLOSURE PROCEDURES

2.1 Disposal or Decontamination of Equipment, Structures, and Soils

2.1.1 Magazine 53: Any remaining containers of waste will be removed from the structure and sent to a RCRA commercial facility for treatment and disposal. Waste shipments will be accompanied by appropriate manifests and land disposal restriction notifications. Any necessary storage of the waste will be provided in accordance with the existing on-site waste management system. Magazine 53 will be visually characterized to see if any visible contamination is present. If visible contamination is present and greater than 5% of total surface area then decontamination of the structure will be required. If visible contamination is less than 5% of the total surface area then decontamination will not take place. The structure will not be dismantled. If decontamination of the structure is necessary, it will proceed as described below:

1. The floor of the structure will be swept with a floor broom. The sweepings and the broom head will be collected in appropriate DOT containers and managed as hazardous waste unless samples indicate otherwise. All interior surfaces of Magazine 53 will then be decontaminated.

2. The method for decontamination will be chemical extraction by water washing or spraying. A detergent such as Alconox, Liquinox, or similar product may be used, as well as, cloths, rags or mops, as necessary. High-pressure water washing may also be used if appropriate measures are taken to confine the water.

3. Mound shall ensure that all run-off water from the decontamination procedure is contained, collected and packaged according to Hazardous Waste requirements. Collected water will be stored in Building 72 awaiting receipt of analyses.

4. A rinseate sample will be collected and evaluated against the following criteria to determine if successful decontamination has been achieved:

Compound	mg/l
Antimony	0.09
Barium	2.0
Beryllium	0.06
Cadmium	0.075
Chromium	1.0
Dibutylphthalate	1.0
Diphenylamine	1.0
Lead	0.6
Nickel	1.0
Nitroglycerin	1.0
Silver	1.0

5. The decontamination procedures described above will be repeated, as necessary, until the rinseate standard is met.

6. An independent, registered professional engineer will certify the work described above has been performed in accordance with this plan.

2.1.2 Pyroshed: Any remaining containers of waste will be removed from the structure and sent to a RCRA commercial facility for treatment and disposal. Waste shipments will be accompanied by appropriate manifests and land disposal restriction notifications. Any necessary storage of the waste will be provided in accordance with the existing on-site waste management system. The Pyroshed will be visually characterized to see if any visible contamination is present. If visible contamination is present and greater than 5% of total surface area then decontamination of the structure will be required. If visible contamination is less than 5% of the total surface area then decontamination will not take place. If decontamination is not necessary the Pyroshed will be dismantled/demolished and the debris disposed of as discussed in items 6 through 11 below. If decontamination of the structure is necessary, it will proceed as follows:

Quanterra
Environmental Services

EG & G Mound
One Mound Road
Building OSW-440C
Miamisburg, OH 45343

Project: 145.07

Category: ICAP Metals
Method: EPA 6010
Matrix: Water

Sample Date : 08/22/96
Receipt Date : 08/23/96
Report Date : 09/17/96

Client ID: BA 4,5,6-53

Quanterra ID : 11921-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Antimony	7440-36-0	QCBLK111818-1	09/06/96	09/09/96	43.7	UG/L	U	90.0	1
Barium	7440-39-3	QCBLK111818-1	09/06/96	09/09/96	10.4	UG/L	B	1000	1
Beryllium	7440-41-7	QCBLK111818-1	09/06/96	09/09/96	1.0	UG/L	U	100	1
Cadmium	7440-43-9	QCBLK111818-1	09/06/96	09/09/96	6.6	UG/L	B	75.0	1
Chromium	7440-47-3	QCBLK111818-1	09/06/96	09/09/96	3.5	UG/L	B	1000	1
Lead	7439-92-1	QCBLK111818-1	09/06/96	09/09/96	36.6	UG/L	B	600	1
Nickel	7440-02-0	QCBLK111818-1	09/06/96	09/09/96	17.3	UG/L	B	1000	1
Silver	7440-22-4	QCBLK111818-1	09/06/96	09/09/96	4.0	UG/L	U	1000	1

Quanterra
Environmental Services

Explosives by LC/MS
Method 8321

Client Name: EG&G Mound
Client ID: BA 5-53
Lab ID: 051108-0002-SA
Matrix: AQUEOUS
Authorized: 23 AUG 96

Sampled: 22 AUG 96
Received: 23 AUG 96

Prepared: 27 AUG 96
Analyzed: 12 SEP 96

Parameter	Result	Units	Reporting Limit
HMX	ND	ug/L	50
1,3,5-Trinitrobenzene	ND	ug/L	50
RDX	9.3	ug/L	5.0
1,3-Dinitrobenzene	ND	ug/L	2.0
2,4,6-Trinitrotoluene	ND	ug/L	20
Tetryl	ND	ug/L	100
Nitrobenzene	ND	ug/L	5.0
Nitroglycerin	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	2.0
2,6-Dinitrotoluene	ND	ug/L	5.0
2-Amino-4,6-dinitrotoluene	ND	ug/L	20
4-Amino-2,6-dinitrotoluene	ND	ug/L	20
2/4-Nitrotoluene	ND	ug/L	5.0
3-Nitrotoluene	ND	ug/L	5.0
PETN	ND	ug/L	2000

Surrogate	Recovery		Limits
Nitrobenzene-d5	ND	%	30-170

Dilution factor is 20. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Dianne Buckheister

Approved By: Audrey Cornell

Quanterra
Environmental Services

EG & G Mound
One Mound Road
Building OSW-440C
Miamisburg, OH 45343

Project: 145.07

Category: Semivolatile
Method: EPA 8270
Matrix: Water

Client ID: BA 4,5,6-53

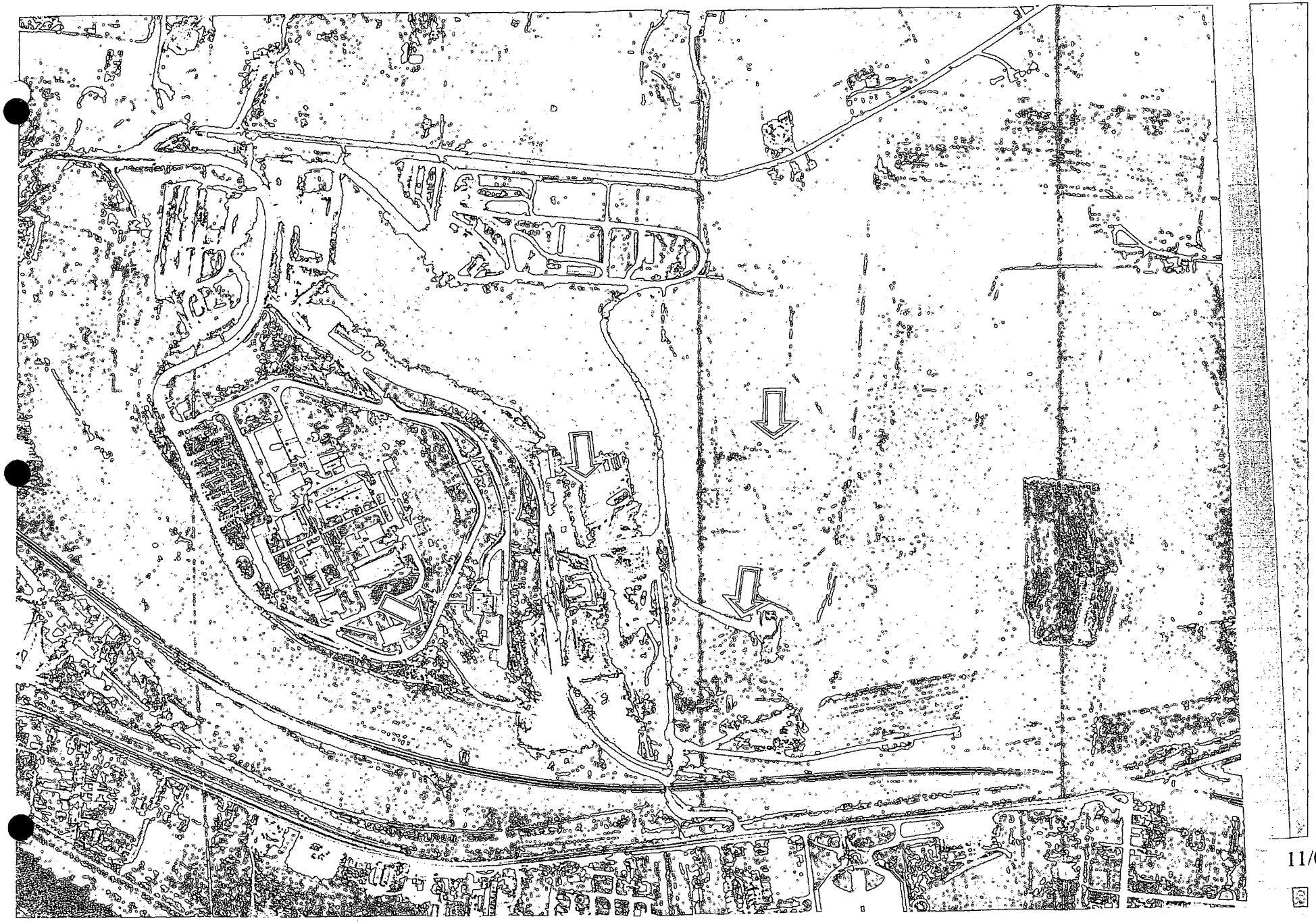
Sample Date : 08/22/96
Receipt Date : 08/23/96
Report Date : 09/21/96

Quanterra ID : 11921-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Dimethyl Sulfixode	67-68-5	QCBLK110889-1	08/29/96	09/19/96	1000	UG/L	U	1000	1
Formamide, N,N-dimethyl-	68-12-2	QCBLK110889-1	08/29/96	09/19/96	1000	UG/L	U	1000	1
Phenol	108-95-2	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
bis(2-Chloroethyl)Ether	111-44-4	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2-Chlorophenol	95-57-8	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
1,3-Dichlorobenzene	541-73-1	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
1,4-Dichlorobenzene	106-46-7	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
1,2-Dichlorobenzene	95-50-1	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2-Methylphenol	95-48-7	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
bis(2-Chloroisopropyl)Ether	108-60-1	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
4-Methylphenol	106-44-5	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
N-nitroso-di-n-propylamine	621-64-7	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Hexachloroethane	67-72-1	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Nitrobenzene	98-95-3	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Isophorone	78-59-1	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2-Nitrophenol	88-75-5	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2,4-Dimethylphenol	105-67-9	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
bis(2-Chloroethoxy)Methane	111-91-1	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2,4-Dichlorophenol	120-83-2	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
1,2,4-Trichlorobenzene	120-82-1	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Naphthalene	91-20-3	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
4-Chloroaniline	106-47-8	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Hexachlorobutadiene	87-68-3	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Chloro-3-Methylphenol	59-50-7	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2-Methylnaphthalene	91-57-6	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Hexachlorocyclopentadiene	77-47-4	QCBLK110889-1	08/29/96	09/19/96	50	UG/L	U	50	1
2,4,6-Trichlorophenol	88-06-2	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2,4,5-Trichlorophenol	95-95-4	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2-Chloronaphthalene	91-58-7	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2-Nitroaniline	88-74-4	QCBLK110889-1	08/29/96	09/19/96	50	UG/L	U	50	1
DimethylPhthalate	131-11-3	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Acenaphthylene	208-96-8	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2,6-Dinitrotoluene	606-20-2	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
3-Nitroaniline	99-09-2	QCBLK110889-1	08/29/96	09/19/96	50	UG/L	U	50	1
Acenaphthene	83-32-9	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2,4-Dinitrophenol	51-28-5	QCBLK110889-1	08/29/96	09/19/96	50	UG/L	U	50	1
4-Nitrophenol	100-02-7	QCBLK110889-1	08/29/96	09/19/96	50	UG/L	U	50	1
Dibenzofuran	132-64-9	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
2,4-Dinitrotoluene	121-14-2	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Diethylphthalate	84-66-2	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
4-Chlorophenyl-PhenylEther	7005-72-3	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Fluorene	86-73-7	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
4-Nitroaniline	100-01-6	QCBLK110889-1	08/29/96	09/19/96	50	UG/L	U	50	1
4,6-Dinitro-2-Methylphenol	534-52-1	QCBLK110889-1	08/29/96	09/19/96	50	UG/L	U	50	1
n-Nitrosodiphenylamine	86-30-6	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
4-Bromophenyl-Phenyl Ether	101-55-3	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Hexachlorobenzene	118-74-1	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Pentachlorophenol	87-86-5	QCBLK110889-1	08/29/96	09/19/96	50	UG/L	U	50	1
Phenanthrene	85-01-8	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Anthracene	120-12-7	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Carbazole	86-74-8	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Di-N-Butylphthalate	84-74-2	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Fluoranthene	206-44-0	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Pyrene	129-00-0	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
ButylBenzylPhthalate	85-68-7	QCBLK110889-1	08/29/96	09/19/96	3	UG/L	J	10	1
3,3'-Dichlorobenzidine	91-94-1	QCBLK110889-1	08/29/96	09/19/96	50	UG/L	U	50	1
Benzo(a)Anthracene	56-55-3	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
Chrysene	218-01-9	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1
bis(2-Ethylhexyl)Phthalate	117-81-7	QCBLK110889-1	08/29/96	09/19/96	46	UG/L	B	10	1
Di-N-OctylPhthalate	117-84-0	QCBLK110889-1	08/29/96	09/19/96	10	UG/L	U	10	1

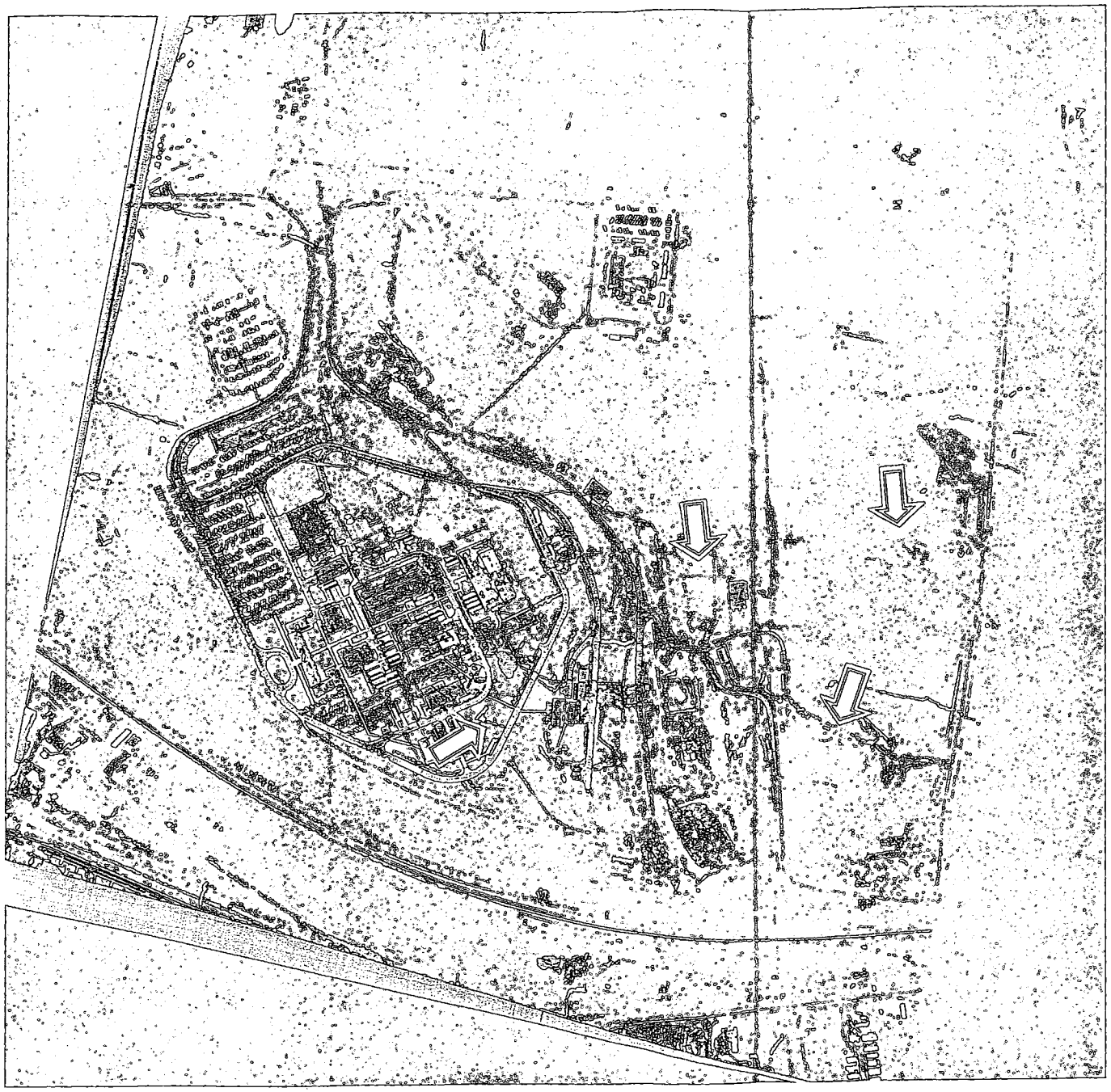
MIAMISBURG
25
GREAT
MIAMI
MOUND RD.
MIAMISBURG-SPRINGBORO RD.
30

1938



11/08/49

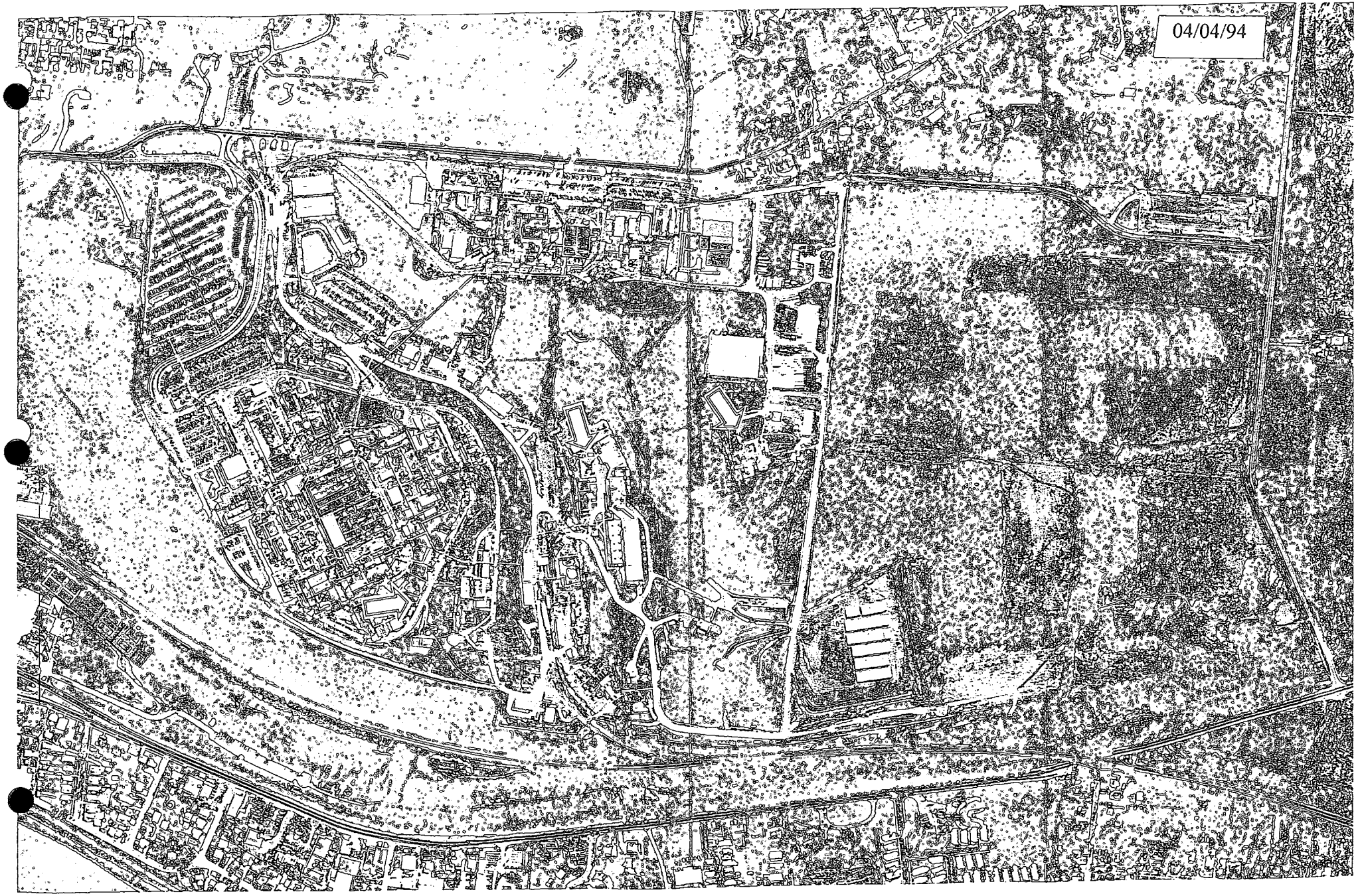
11/19/59



04/07/65

03/30/68


06/83


04/04/94

Legend

Structures
Paved roadway
Exposed roadway
Railroad
Water course
Fence
Retaining wall
Flood Plain boundary
Contour line

PRS Area boundary
PRS Block

STATUS		
23	=	No Further Assessment Pending Stakeholder Review
115	=	No Further Assessment Required
7	=	Response Action Required
54	=	Further Assessment Required
23	=	Unbinned
190	=	To be Addressed Under the Decontamination & Decommissioning Program
totals 412		

0 100 200 400 600 800 1000
Scale in Feet

1. The steckanto base map data file was obtained from Woolpert Consultants, Inc., Dayton, Ohio. The data were photogrammetrically compiled from aerial photography dated 04/06/94.

Coordinate Datum is based on the Ohio State Plane Coordinate System, South Zone - Horizontal Ground Control is based on NAD 1983. Vertical Ground Control is based on MSL 1988.

1991 magnetic north declination at center of plant. Magnetic north is 1 degree east of true north. Declination between state plane (grid) north is 1.13 degrees west of true north.

MOUND
Environmental Restoration Management Information System

NO.	DATE	REVISION	BY	CHKD	DES	#
04-07-97	Revision to PRS status	RB				
03-17-97	Revision to PRS status	RB				
02-27-97	Revision to PRS status	RB				
01-29-97	Revision to PRS status	RB				

SHEET 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
CODE
SHEET 1 2 3 4 5 6
SCALE F
FONT CLASSIFICATION

TITLE CLASSIFICATION
PRS STATUS MAP
04/07/97

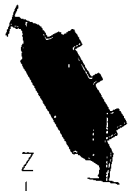
SYSTEM CLASSIFICATION: UNCLASSIFIED
SIZE: E
DRAWING NUMBER: FSE-960150
JOB NUMBER
DWG TYPE: Site
PROJ
CHKD
SCALE: Graphic
SHEET 1 OF 1
STATUS: HS-REL-04/07/97
LEVEL
INITIATION: 5.0

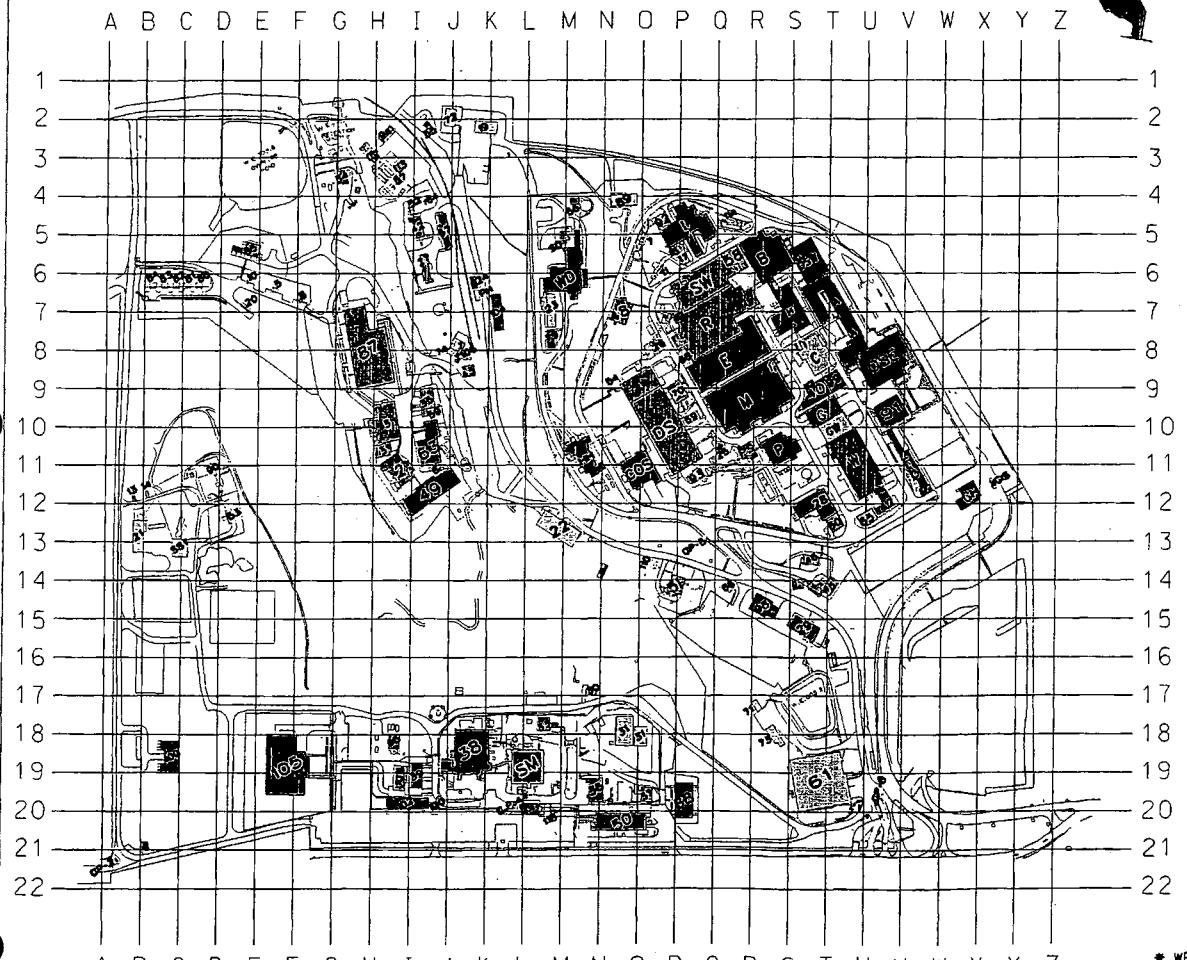
05109-FSE-960150

LEGEND:

- ADMINISTRATIVE BUILDINGS
- STORAGE BUILDINGS
- PRODUCTION BUILDINGS
- SERVICE BUILDINGS
- LABORATORY
- UTILITY BUILDINGS
- REMOVED / DEMOLISHED BUILDINGS

T-BLDG
(UNDER DS BLDG)





MOUND BUILDING LOCATIONS

BUILDING	LOCATION
A	T/7
B	R.S/5.6
C	S.T/8.9
COS	O/11
DS	P/10
E	O/8
G	S.T/9.10
GH	W.X/11.12
GIS	X.Y/11.12
GP1	V.W/11.12
GP2	A.B/21.22
GP5	P.Q/12.13
GP8	U.V/19.20
GP44	K.L/19.20
GW	T/10
H	S/7
HH	M.N/10.11
I	P/5
M	R/9
OSE	U.V/8.9
OSW	S.T/5.6
P	R.S/10.11
PH	J.K/6.7
PS	O.R/10.11
R	O/7
SD	M/5
SST	C/13
SW	O/6
T	P/10
W	U/11
WD	M/6
WH1	*
WH2	*
WH3	*
1	J.K/8.9
2	H.I/11.12
3	H.I/10.11
4	B/21
5	E.F/6.7
6	J/11
7	O/5
8	F.G/6.7
10	D.E/6.7
11	O.P/5.6
19	J.K/2.3
20	D.E/6.7
21	A.B/12.13
22	L.M/12.13
23	L.M/6.7
24	J.K/6.7
25	Q.R/10.11
27	I.J/5.6
28	T/12
29	S.T/15.16
30	M.N/16.17
31	O/18
33	L.M/17.18
34	G.H/3.4
35	I.J/9.10
36	M.N/19.20

BUILDING	LOCATION
37	O.P/19.20
38	J.K/18.19
39	I.J/19.20
40	S.T/9.10
42	I.J/4.5
43	J.K/8.9
44	L.M/19.20
45	T/14
46	S.T/13.14
47	U.V/11.12
48	N.O/6.7
49	I.J/11.12
50	N.O/20.21
51	P/14
52	I.J/4.5
53	D.E/12.13
54	N.O/8.9
55	I.J/2.3
56	M.N/4.5
57	H.I/3.4
58	Q.R/5.6
59	I.J/9.10
60	T.U/12.13
61	T/19
63	I.J/10.11
64	I.J/4.5
67	I.J/4.5
68	P.Q/8.9
71	R.S/17.18
72	J/2
73	R.S/18.19
74	J.8
79	L.M/7.8
80	C.D/6.7
81	C.D/6.7
82	B.C/6.7
83	B.C/6.7
84	B.C/6.7
85	D.E/5.6
87	H/8
88	P.Q/19.20
89	N.O/4.5
91	U.V/9.10
94	H.I/2.3
95	H.I/18.19
98	R.S/14.15
99	T.U/8.9
100	B.C/18.19
101	H.I/19.20
102	I/20
104	K.L/7.8
105	F/19
110	O.P/13.14
112	H/3
113	H.I/3.4
118	L.M/20
120	I.J/19.20

REMOVED / DEMOLISHED BUILDINGS

BUILDING	LOCATION
13	A,B/11.12
14	B.C/11.12
16	P.Q/5.6
17	P.Q/5.6
26	O.P/7.8
65	U.V/12.13
66	Q.R/14.15
69	P.Q/9.10
70	P/9
90	C.D/11.12
92	O.P/4.5
93	P.Q/11.12
96	U.V/11.12
106	J.K/8.9
114	Q.R/4.5
SM	L/19

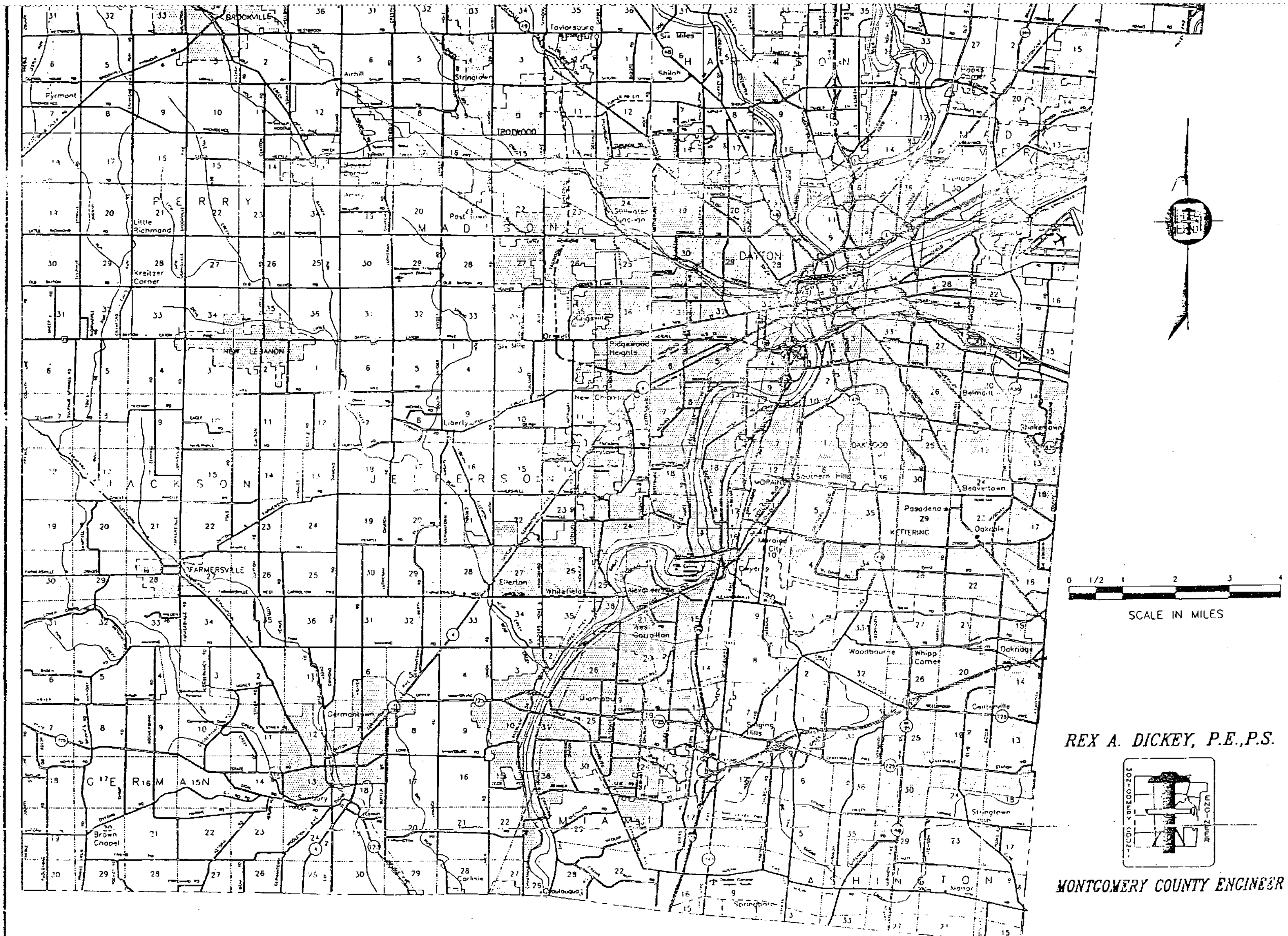
* WELL HOUSES LOCATED TO THE LEFT OF THE OVERFLOW POND (E/3) IN AREA NOT INCLUDED ON THIS MAP.

MOUND SITE
PLANNING INFORMATION

BUILDING LOCATIONS

No. 6-6

REVISION DATE
09/16/96



REX A. DICKEY, P.E.,P.S.

MONTGOMERY COUNTY ENGINEER

FEBRUARY, 1997