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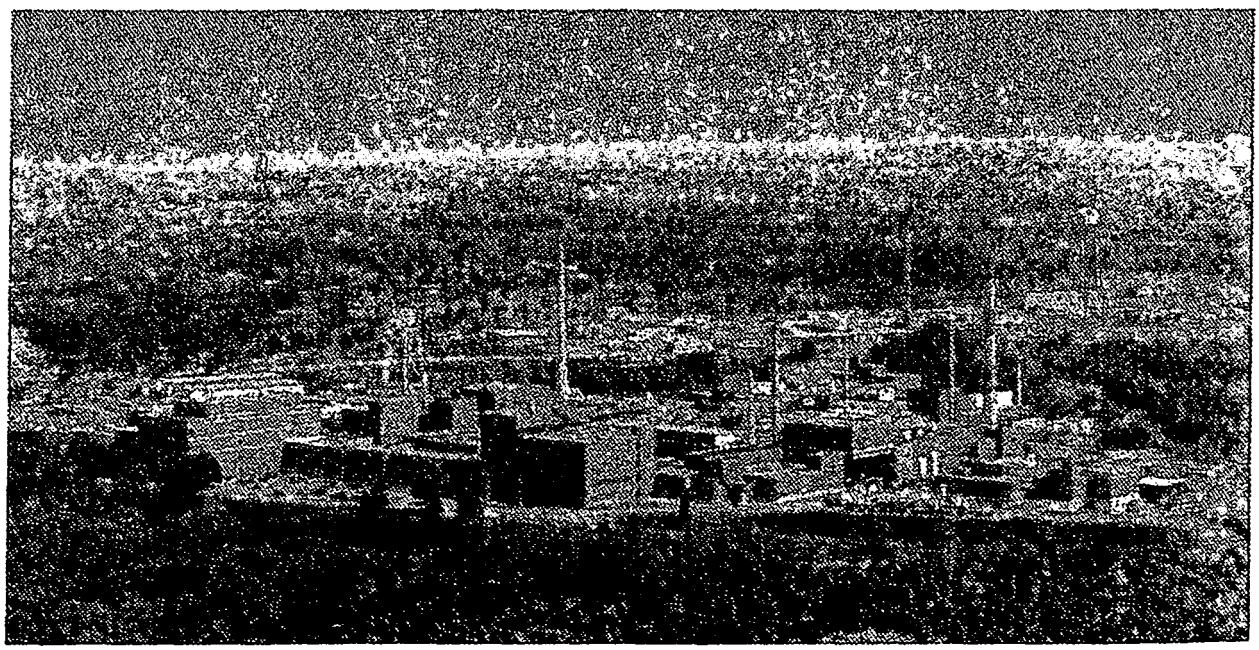
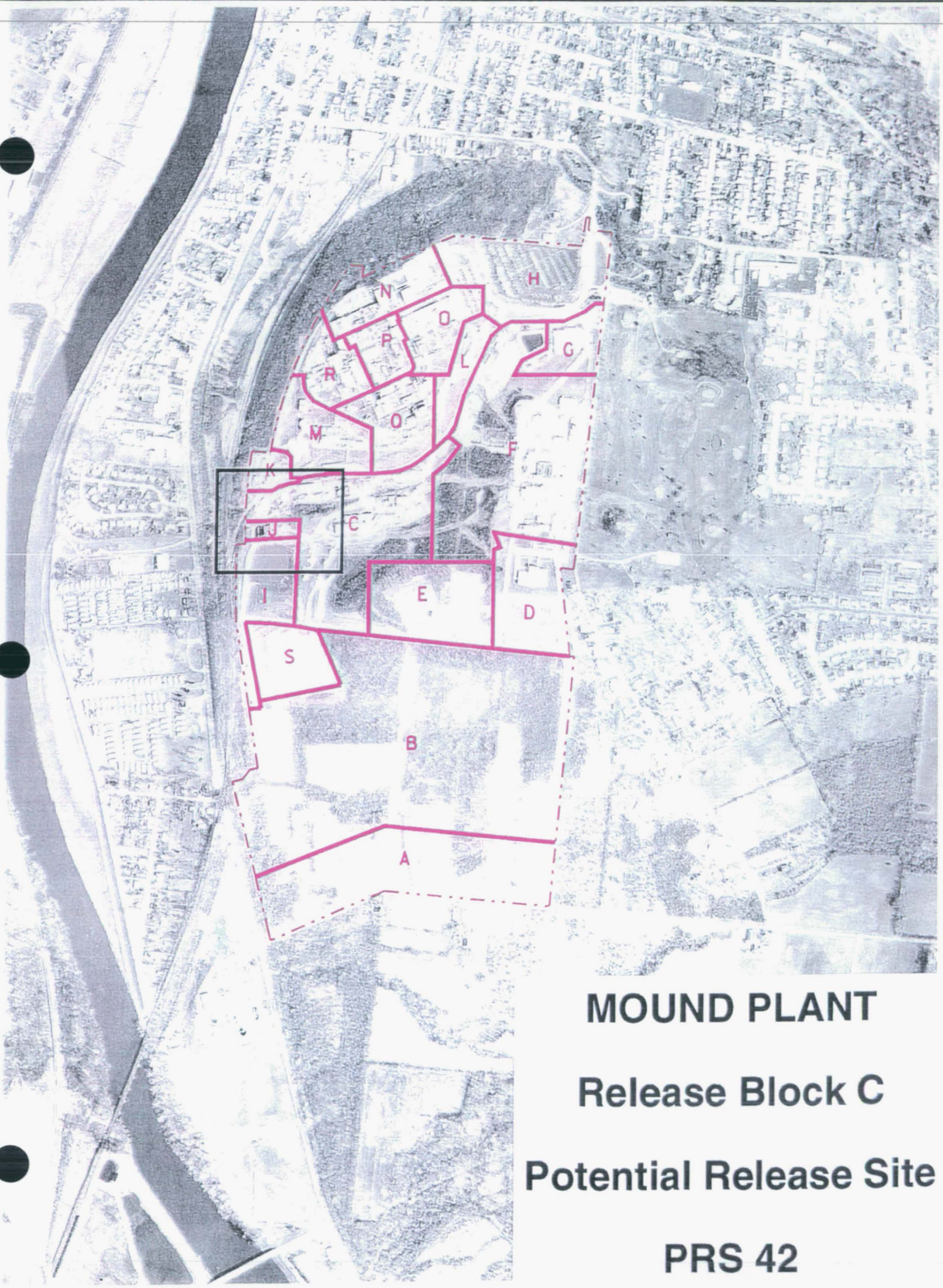
MOUND

Environmental
Restoration
Program

MOUND PLANT
Potential Release Site Package
PRS # 42



REV	DESCRIPTION	DATE
PUBLIC RELEASE 0	Available for comment.	Dec. 17, 1996
FINAL 1		

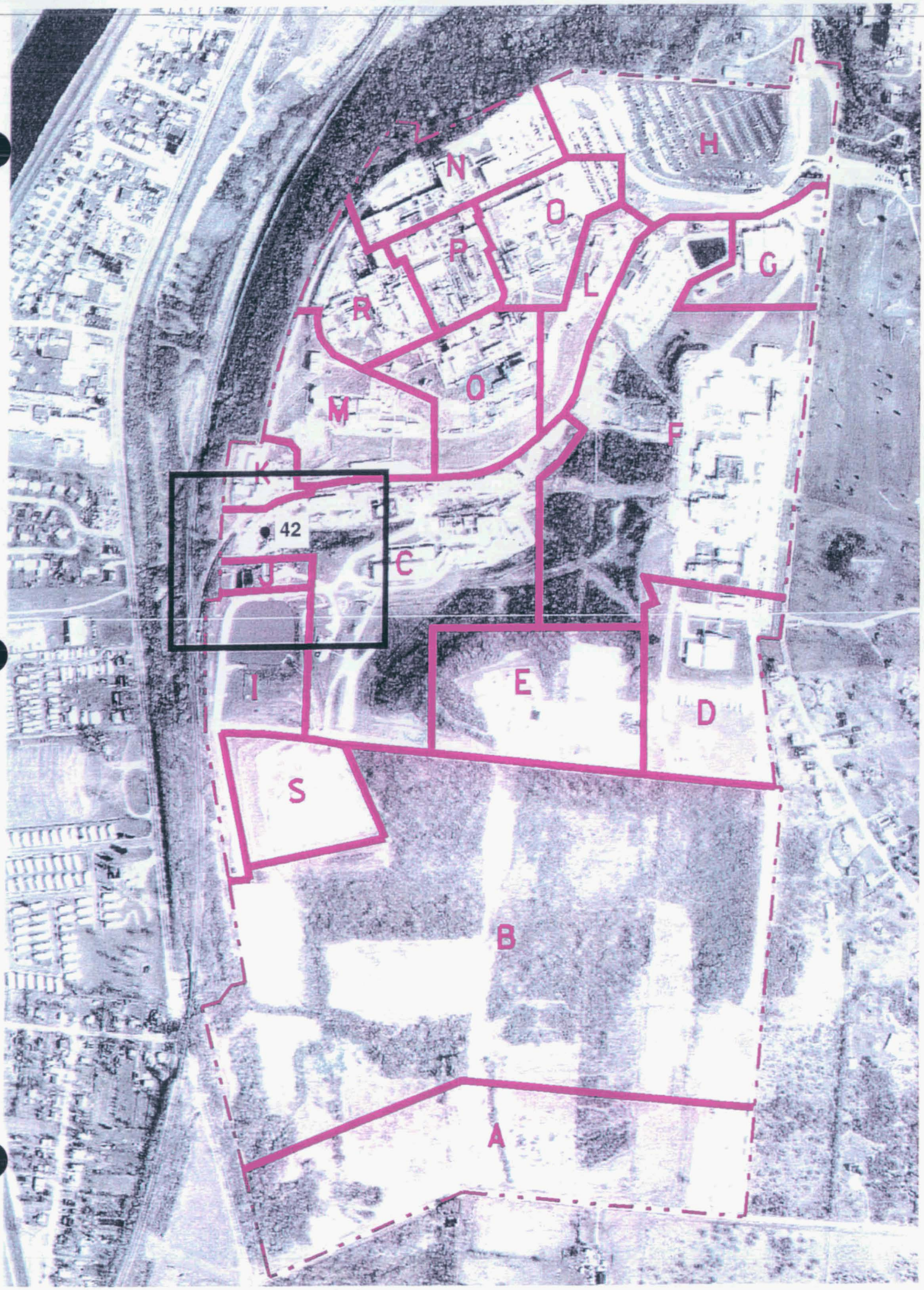


MOUND PLANT

Release Block C

Potential Release Site

PRS 42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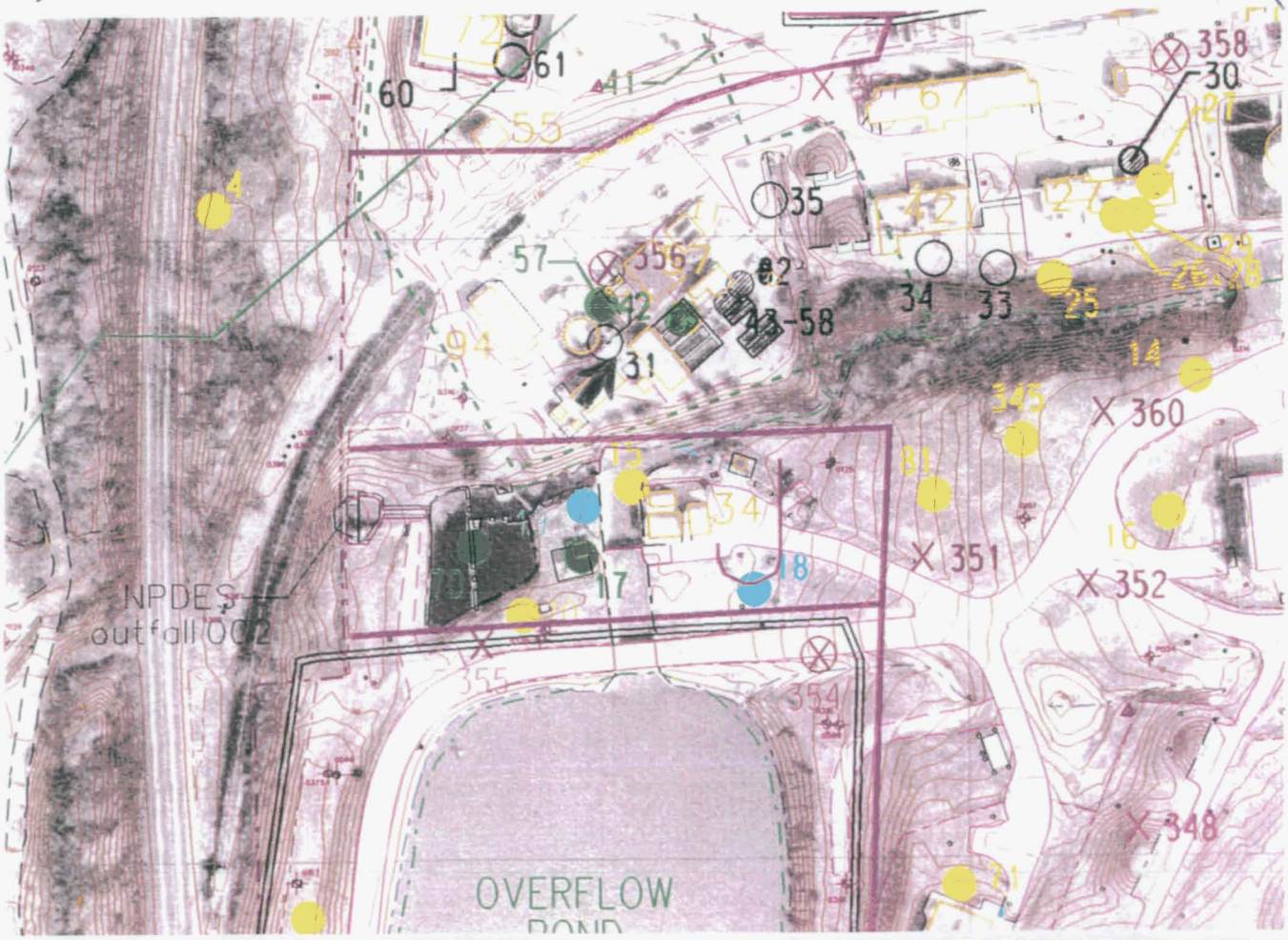
MOUND PLANT

Release Block C

Potential Release Site

PRS 42



42

PRS 42

PRS HISTORY:

Potential Release Site (PRS) 42 was identified in the OU9, Site Scoping Report: Volume 12 - Site Summary Report because excavated soils from the construction of T Building were transported and deposited in Area A (PRS 42). This identification as a PRS was mistaken because there were no known hazardous substances or radioactive processes that preceded the completion of T Building. This area is the current site for Mound's wastewater treatment plant which processes influent water from the sanitary sewers. Table A.1 [1] indicates PRS 42 soils were originally free of contamination. Information in Table A.2 [1] indicates PRS 41 activities did contaminate a larger soils area which included the construction soils from T-Building.

PROCESS DESCRIPTION:

There are no known hazardous substances or radioactive contamination issues associated with the excavated soils from the construction activities involving T-Building. Approximately 17 $ft.^3$ of soil was moved prior to the startup of any production or research operation.[2] The CEARP Phase I document recommended that No Further Action is warranted.[2]

CONTAMINATION:

There is no information that contamination of Area A resulted from the depositing of construction soils from T-Building. There are no historical data reports that were specific for the characterization of PRS 42 soil prior to siting the treatment plant in this area. All sampling and testing of soils from the vicinity of the wastewater treatment plant are related to the larger soils area itemized in PRS 41 data.

READING ROOM REFERENCES:

1) OU9, Site Scoping Report, Volume 12 - Site Summary Report, December 1994. (Pages 6-10)
2) CEARP Phase I: Installation Assessment Mound, April 1986. (Pages 11-13)

PREPARED BY:

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

MOUND PLANT
PRS 42
T BUILDING CONSTRUCTION SOIL STAGING AREA

RECOMMENDATION:

Potential Release Site (PRS) 42 was identified as a PRS due to T Building construction activities and the placement of the excavated soils at this location. Approximately 17 $ft.^3$ of soil was moved prior to the startup of any production or research operation at Mound . There are no known hazardous substances or radioactive contamination issues associated with the excavated soils from the construction activities involving T Building. Therefore, NO FURTHER ASSESSMENT is recommended.

CONCURRENCE:

DOE/MB: Arthur W. Kleinrath 11/26/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 12/3/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 12/17/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 1/9/97 to 2/13/97

☐ No comments were received during the comment period.

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

REFERENCE MATERIAL
PRS 42

Document Control No. _____

Environmental Restoration Program

OPERABLE UNIT 9 SITE SCOPING REPORT: VOLUME 12 – SITE SUMMARY REPORT

MOUND PLANT
MIAMISBURG, OHIO

December 1994

Final

U.S. Department of Energy
Ohio Field Office

EG&G Mound Applied Technologies

Table V.1. (page 3 of 5)

No.	Site Name	Evidence of Release[a]	Further Action Recommended[a]	FFA OU
5	Miami-Erie canal (south canal)	Yes	Yes	4
6	Miami-Erie canal (overflow creek)	Yes	Yes	4
14	Area C, Waste Storage Area (AKA, Drum Staging Area and Chemical Waste Storage Area)	No	No	5
15	Area C, Lithium Burn Area (AKA, Lithium Carbonate Disposal)	No	No	5
16	Area C, Past Hazardous Waste Storage Area (AKA, old Building 72) (see related site 345)	Yes, historically remediated	No	5
17	Oil Burn Structure	Yes	Yes	5
18	Building 34, Fire Fighting Training Facility Pits	Yes	Yes	5
19	Building 34, Historical Firefighting Training Pit	Yes	Yes	5
20	Building 34 Aviation Fuel Storage Tank (Tank 219)	Yes	No	5
21	Building 1 Leach Pit (Area I)	No	No	5
22	Building 1 Explosives Wastewater Settling Basin (AKA Building 1 Sump) (Tank 200)	No	No	5
23	Building 43 Explosives Wastewater Settling Basin (AKA Building 43 Sump) (Tank 201)	No	No	5
25	Building 27 Leach Pit (Area I)	No	No	5
26	Building 27 Concrete Flume (Tank 217)	No	No	5
27	Building 27 Settling Sump (Tank 218)	No	No	5
28	Building 27 Solvent/Drum Storage Area	No	No	5
37	Building 51 Waste Solvent Storage Tank (Tank 220)	Yes	Yes	5
38	Building 51 Waste Incinerator	No	No	5
39	Building 51 Waste Incinerator Scrubber	No	No	5
41	Area 3, Thorium Drum Storage and Redrumming Area	Yes	Yes	5
42	Area A, Construction Soils from T Building	Yes	No	5
57	Sludge Drying Beds	Yes	Yes	

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
41	Area 3, Thorium Drum Storage and Redrumming Area	G-5 H-5	Grounds	Thorium-232 and daughters	1, 4, 5, 6, 18	Thorium dust	S	4, 6	14, 16 1	Table B.1 (Table V.2 in Ref. 6) SGS[b], Table B.5 Locations 5221 and	6 12
42	Area A, Construction Soils	H-5	Grounds	Construction soil from T Bldg.	1	None Suspected			No Data		
43	Wastewater Treatment plant Building 57 Grit Chamber (Tank 101)	H-5	In service	Sanitary wastewaters	3, 4, 5	None Suspected	S	4	No Data on soils		
44	Building 57 Grit Conveyor										
45	Building 57 Comminuter (Tank 102)			Water softener backwashes discharged to storm sewer							
46	Building 57 Equalization Basin (Tank 103)			Plutonium-238 and other radionuclides		Treated effluent	SW	4	Water analyses submitted		
47	Building 57 Equalization Basin (Tank 104)					released to Great			monthly to OEPA in		
48	Building 57 Equalization Basin (Tank 105)					Miami River via			accordance with permit		
49	Building 57 Equalization Basin (Tank 106)					closed pipeline					
	57 Aeration Basin Tank 107)					NPDES permitted					
	57 Aeration Basin Tank 108)					outfall 001					
	ing 57 Clarifier (Tank 109)										
	ing 57 Clarifier (Tank 110)										

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
34	Underground Sanitary Sewer Line G14 WEST	H-5 H-6	(Cont.)	(Cont.)	(Cont.)	(Cont.)	SWMU	No	NA	OM	
35	Underground Sanitary Sewer Lines G19 & G14	G-5					SWMU	No	NA	OM	
36	Underground Sanitary Sewer Line G15	E-9					SWMU	No	NA	OM	
37	Building 51 Waste Solvent Storage Tank (Tank 220)	F-8	Historical		NA		SWMU	Yes	CERCLA	Yes	5
38	Building 51 Waste Incinerator	F-8	Historical		NA		SWMU	No	CERCLA	No	5
39	Building 51 Waste Incinerator Scrubber	F-8	Historical		NA		SWMU	No	CERCLA	No	5
40	Building 66 Lot	F-8	Grounds		AEA	AEA		Yes	AEA	D&D	
41	Area 3, Thorium Drum Storage and Repackaging Area	G-5 H-5	Grounds		AEA	AEA		Yes	CERCLA	Yes	5
42	Area A, Construction Soils from T Building	H-5	Grounds		AEA	AEA		Yes[c]	CERCLA	No	5
43	Wastewater Treatment plant Building 57 Grit Chamber (Tank 101)						SWMU	No	NA	OM	
44	Building 57 Grit Conveyor						SWMU	No	NA	OM	
45	Building 57 Comminuter (Tank 102)						SWMU	No	NA	OM	
46	Building 57 Equalization Basin (Tank 103)	H-5	In service	Effluent permitted to discharge under NPDES	CWA	AEA	SWMU	No	NA	OM	
	57 Equalization Basin (Tank 104)						SWMU	No	NA	OM	
	57 Equalization Basin (Tank 105)						SWMU	No	NA	OM	
	57 Equalization Basin (Tank 106)						SWMU	No	NA	OM	
	57 Aeration Basin (Tank 107)						SWMU	No	NA	OM	

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
336	Building 37 Waste Tank (AKA Low RiskWaste Tank (Tank 267)	F-10	In Service	effluent to wastewater treatment (Building 57)	CWA	AEA		No	NA	OM	
337	Building H Condensate Sump (Tank 268)	E-6	In Service		CWA	AEA		No	NA	OM	
338	Building 29 Septic Tank (Tank 270)	E-9	Inactive		AEA	AEA		No	CERCLA	No	5
339	T-44 Wastewater Sump (Tank 250)	F-7	Historical		NA	NA		No	AEA	D&D	
340	T-16b Wastewater Sump (Tank 251)	F-7	Historical		NA	NA		No	AEA	D&D	
341	T-90 Condensate Sump (Tank 269)	F-7	In Service		CWA	AEA		No	NA	OM	
342	T-1 Hot Side Fire Water Tank (Tank 271)	F-7	In Service		AEA	AEA		No	NA	OM	
343	T-20 Fire Water Sump (Tank 272)	F-7	In Service		AEA	AEA		No	NA	OM	
344	T-37 Fire Water Sump (Tank 273)	F-7	In Service		AEA	AEA		No	NA	OM	
345	Area C, Former Equipment Storage Area	H-6	Historical		NA			No	CERCLA	No	5

AEA - Atomic Energy Act of 1954
AKA - Also known as
BUSTR - Bureau of underground storage tank regulation
CAA - Clean Air Act
CWA - Clean Water Act
D&D - Action to be taken by Mound Plant Decomission and Decontamination Program
FUSRAP - Formerly Utilized Sites Remedial Action Program
HWMU - Hazardous waste management unit
NA - Not applicable
[a] - Highest plutonium-238 concentration 31.4 pCi/g.
[b] - Tank closed August 1992 (DOE 1992i).
[c] - To be included as part of Area 3 (#41) investigation.
[d] - Based upon [illegible] maintained non public water supply source under SDWA.
[e] - Five gallon release less than reportable quantity. (RQ)

NESHAP - National Emission Standard for Hazardous Air Pollutants
NPDES - Nation Pollution Discharge Elimination System
OM - Action to be taken by Mound Plant operations and maintainence
PBR - permit by rule
RAPCA - Regional Air Pollution Control Authority
RCRA - Resources Conservation and Recovery Act
SDWA - Safe Drinking Water Act
SWMU - Solid waste Management unit

ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENT, SAFETY AND HEALTH DIVISION
ENVIRONMENTAL PROGRAMS BRANCH

EXTRACT FROM

COMPREHENSIVE ENVIRONMENTAL ASSESSMENT AND RESPONSE PROGRAM

PHASE I:
INSTALLATION ASSESSMENT
MOUND

~~NOT FOR PUBLIC DISSEMINATION~~

~~May contain unclassified controlled nuclear information subject to Section 148 of the AEA, as amended (42 USC 2168). Approval by the Department of Energy prior to release is required.~~

April 1986

DRAFT DRAFT DRAFT DRAFT DRAFT

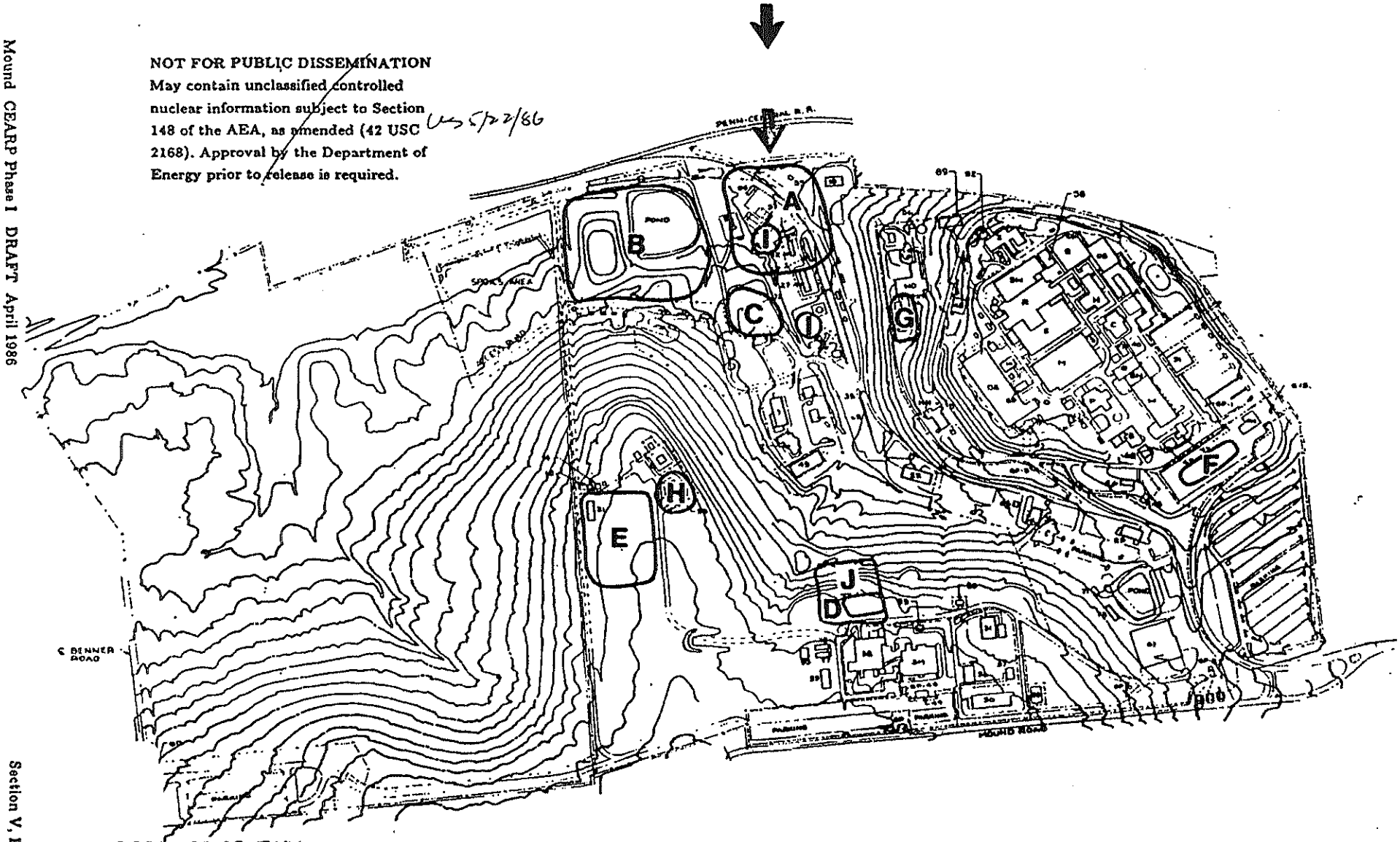
EXTRACT
DOES NOT CONTAIN
UNCLASSIFIED CONTROLLED
NUCLEAR INFORMATION

Reviewing Official: J. A. NESHEIM
Name

Date: 06-09-10

Reviewed for Classification/UCNI/OUO
BY: [illegible], Derivative Classifier
DOE, EMCBC
Date: 06-09-10
Confirmed Unclassified, Not UCNI/Not OUO

NOT FOR PUBLIC DISSEMINATION
May contain unclassified controlled nuclear information subject to Section 148 of the AEA, as amended (42 USC 2168). Approval by the Department of Energy prior to release is required.
US 5/22/86



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NUCLEAR INFORMATION
Reviewing Official: J. A. NESHEIM
Name
Date: 06-08-10

Figure V.1. Areas Potentially Contaminated with Hazardous Substances.

Table V.1

Planned Future Actions for Category 1
Areas Potentially Contaminated with Oils or Hazardous Substances

Area[a]	Planned Future Actions (PFA)
A	Construction soil material from Bldg T was used as fill material (approx. 17 ft^3) in the area of the sanitary treatment facility. No known hazardous substances were disposed of in this area. (Interviews 1985.) CERCLA Finding--Negative for Federal Facility Site Discovery and Identification Findings (FFSDIF), Preliminary Assessment (PA), and Preliminary Site Inspection (PSI); therefore, a HRS Migration Mode Score is not calculated. PFA--No further action is warranted.
B	Landfill operations were initiated when operations started at Mound in 1948 and ceased in the mid 1970s. Landfilled wastes included general refuse, construction materials, solvents, paints, photoprocessing solutions, and plating bath solutions. Radioactive materials were not landfilled. Many of the wastes were destroyed by burning at the time of landfilling. During construction of the overflow pond in 1978, these residual wastes were encountered. The wastes were compacted and confined in a large, sealed landfill in accordance with existing chemical landfill technology (Fig. V-3). Mound notified USEPA Region V on June 9, 1981 of the site as required under CERCLA. The materials are enclosed in a clay liner with provisions for monitoring of leachate. The volume of the landfill enclosure, including overflow pond fill, is 100,000 yd^3. It is estimated that the landfill enclosure may contain 1,000 ft^3 of hazardous substances. There may be residual hazardous substances that were not included in the clay-lined landfill; and landfilled residuals may exist under part of the overflow pond. However, based on the detailed records search, it appears that the probability of significant quantities of hazardous substances existing outside the landfill is remote. Potential exists for ground water contamination due to leakage from the landfill enclosure and movement of hazardous substances not enclosed in the landfill. The current ground water monitoring program may not detect potential movement of hazardous substances and oils away from the landfill area. (Interviews 1985; Monsanto Research Corporation 1985.) CERCLA Finding--Positive for FFSDIF, PA, and PSI; HRS Migration Mode Score 13 (Appendix D). PFA--Area B will be surveyed to determine the extent of contamination of oils and hazardous substances outside the landfill. The leachate monitoring system will be evaluated. Additionally, the potential outside the landfill for ground water contamination from unconfined oils and hazardous substances is being evaluated. Based on results of these CEARP Phase II studies, appropriate action will be taken.

[a]location of designated areas shown in Figure V-1.