

PROJECT SUMMARY SHEET
FOR
DERP-FUDS HTRW PROJECT NO. G05OH001819
PENTOLITE AREA WASTE LAGOONS
PLUM BROOK ORDNANCE WORKS
SANDUSKY, OHIO
SITE NO. G05OH001800
21 NOVEMBER 1998

PROJECT DESCRIPTION: The project area is the former Pentolite Area waste lagoons. Pentolite was manufactured at the former Plum Brook Ordnance Works (PBOW) by the Department of Defense (DoD) from March 1943 through August 1945. During this period, wastewater that was generated from this process was disposed of into two (2) waste water lagoons, or settling basins, located in the former pentolite dry storage area. The lagoons have since been removed and the pentolite area re-graded for the construction of the Plum Brook Reactor Facility. Potentially contaminated soil was either disposed of at an unknown location or spread over the area during construction. The lagoons do not appear on current PBOW maps.

PROJECT ELIGIBILITY: Records indicate that the Pentolite Area waste lagoons were utilized by DoD for the manufacture of pentolite. Based on past site activities, pentaerythrinol (PE), pentaerythrinol tetranitrate (PETN), trinitrotoluene (TNT), and acetone are likely contaminants of concern at the Pentolite Area waste lagoons.

POLICY CONSIDERATIONS: Current DoD policy dictates eligibility for remediation of DoD generated hazardous and toxic waste even though there was no evidence of a hazard when the property was transferred from DOD. Any pentolite, nitroaromatic, and acetone contamination present at the waste lagoons would be from direct DoD use of the site.

PROPOSED PROJECT: An HTRW project is proposed, which consists of the preparation of a Limited Site Investigation of the Pentolite Area waste lagoons to determine the nature and extent of residual contamination. Surface soils and sediment should be sampled for contaminants of concern (COCs), and monitoring wells should be installed to sample groundwater for COCs.

EPA Form 2070-12: Attached.

DD Form 1391: Attached.

District POC: Nancy O. Stouffer, CELRH-DL-M, (304) 529-5035, is the Geographic District Project Manager, and Kevin L. Jasper, CELRL-DL-B, (502) 625-7015, is the Design District Project Manager, for the PBOW site.

PH. GOSCH 001819

 POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT		I. IDENTIFICATION 01 STATE 02 SITE NUMBER	
II. SITE NAME AND LOCATION			
01 SITE NAME (Legal, common, or descriptive name of site) PLUM BROOK ORNANCE WORKS		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER	
03 CITY SANDUSKY	04 STATE OH	05 ZIP CODE	06 COUNTY ERIE
09 COORDINATES LATITUDE: 41 23 05 LONGITUDE: 83 41 05		07 COUNTY CODE	08 CONG DIST 5
10 DIRECTIONS TO SITE (Starting from nearest public road) I 80, NORTH 0.1 MILE ON RT 4, EAST 0.2 MILE ON RT 13. SITE NEAR BLOOMINGVILLE			
III. RESPONSIBLE PARTIES			
01 OWNER (if known) US ARMY CORPS OF ENGINEERS		02 STREET (Business, mailing, residential) 502 8TH STREET	
03 CITY HUNTINGTON	04 STATE WV	05 ZIP CODE 25701	06 TELEPHONE NUMBER 304 529-5760
07 OPERATOR (if known and different from owner)		08 STREET (Business, mailing, residential)	
09 CITY		10 STATE	11 ZIP CODE
13 TYPE OF OWNERSHIP (Check one) <input type="checkbox"/> A. PRIVATE <input checked="" type="checkbox"/> B. FEDERAL: NASA <input checked="" type="checkbox"/> F. OTHER: FORMER DOD USE <small>(Specify)</small>		<input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> G. UNKNOWN	
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: / / <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (RCRA 103 ci) DATE RECEIVED: / / <input type="checkbox"/> C. NONE			
IV. CHARACTERIZATION OF POTENTIAL HAZARD			
01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES DATE 2 90 <input type="checkbox"/> NO <small>MONTH DAY YEAR</small>		BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input checked="" type="checkbox"/> F. OTHER: NASHVILLE CORPS. <small>(Specify)</small>	
02 SITE STATUS (Check one) <input type="checkbox"/> A. ACTIVE <input checked="" type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION 1941 1945 <small>BEGINNING YEAR ENDING YEAR</small> <input type="checkbox"/> UNKNOWN	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED TRINITROTOLUENE AND DERIVATIVES ACETONE, BARIUM, CHROMIUM MANGANESE			
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION SOIL AND GROUNDWATER CONTAMINATION			
V. PRIORITY ASSESSMENT			
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents) <input checked="" type="checkbox"/> A. HIGH (inspection required promptly) <input type="checkbox"/> B. MEDIUM (inspection required) <input type="checkbox"/> C. LOW (inspect on time available basis) <input type="checkbox"/> D. NONE (No further action needed, complete current disposition form)			
VI. INFORMATION AVAILABLE FROM			
01 CONTACT FRANK ALBERT		02 OF (Agency/Organization) HUNTINGTON DISTRICT CORPS ENGINEERS	
04 PERSON RESPONSIBLE FOR ASSESSMENT SAME		05 AGENCY	06 ORGANIZATION
		07 TELEPHONE NUMBER	08 DATE 11 21 98 <small>MONTH DAY YEAR</small>



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

<p>01 PHYSICAL STATES (Check all that apply)</p> <p><input type="checkbox"/> SOLID <input type="checkbox"/> POWDER, FINES <input type="checkbox"/> SLUDGE <input type="checkbox"/> OTHER _____ <small>Specify</small></p>	<p>02 WASTE QUANTITY AT SITE <small>Measures of waste quantities must be independent</small></p> <p>TONS UNKNOWN CUBIC YARDS NO. OF DRUMS _____</p>	<p>03 WASTE CHARACTERISTICS (Check all that apply)</p> <p><input checked="" type="checkbox"/> A TOXIC <input type="checkbox"/> B CORROSIVE <input type="checkbox"/> C RADIOACTIVE <input type="checkbox"/> D PERSISTENT <input type="checkbox"/> E SOLUBLE <input type="checkbox"/> F INFECTIOUS <input type="checkbox"/> G FLAMMABLE <input type="checkbox"/> H IGNITABLE <input checked="" type="checkbox"/> I HIGHLY VOLATILE <input checked="" type="checkbox"/> J EXPLOSIVE <input type="checkbox"/> K REACTIVE <input type="checkbox"/> L INCOMPATIBLE <input type="checkbox"/> M NOT APPLICABLE</p>
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III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
ELU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	BARBIT	1022-31-8	LAND	219,000	ppb
	CHROMIUM	7440-47-3	LAND	20,000	ppb
	1,3-DNB	99-65-0	LAND	6,400	ppb
	2,6-DNT	25321-14-6	LAND	1,200	ppb
	2,4-DNT	25321-14-6	LAND	20,000	ppb
	LEAD	7439-92-1	LAND	50,000	ppb
	MANGANESE	7439-96-5	LAND	2,600,000	ppb
	NITRATE		LAND	2,500,000	ppb
	NITROBENZENE	98-95-3	LAND	480	ppb
	NITROTOLUENE		LAND	480	ppb
	SODIUM	1310-73-2	LAND	3,420,000	ppb
	SULFATE		LAND	2,000,000	ppb
	1,3,5-TNB	118-96-7	LAND	15,000	ppb
	2,4,6-TNT	118-96-7	LAND	740	ppb

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FEB 1990 CONFIRMATION STUDY
NASHVILLE DISTRICT CORPS OF ENGINEERS
(MAX. CONCENTRATION SHOWN)

RI G0504001819



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____
02 OBSERVED (DATE: 2/90) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

01 B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: >100
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

01 C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: _____
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

01 D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: _____
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

01 E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: _____
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

01 F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 50 ACRES
(Acres)
02 OBSERVED (DATE: 2/90) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

01 G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: >100
02 OBSERVED (DATE: 2/90) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION
NO KNOWN USERS OF AFFECTED AQUIFER

01 H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: _____
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

01 I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: _____
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

01 K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include names of species)

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

01 L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

01 M. UNSTABLE CONTAINMENT OF WASTES
(Soils/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: >100

02 OBSERVED (DATE: 2/90) POTENTIAL ALLEGED

04 NARRATIVE DESCRIPTION

SOIL CONTAMINATION DISCOVERED

01 N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

01 O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

01 P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: >100

IV. COMMENTS

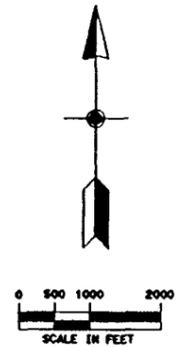
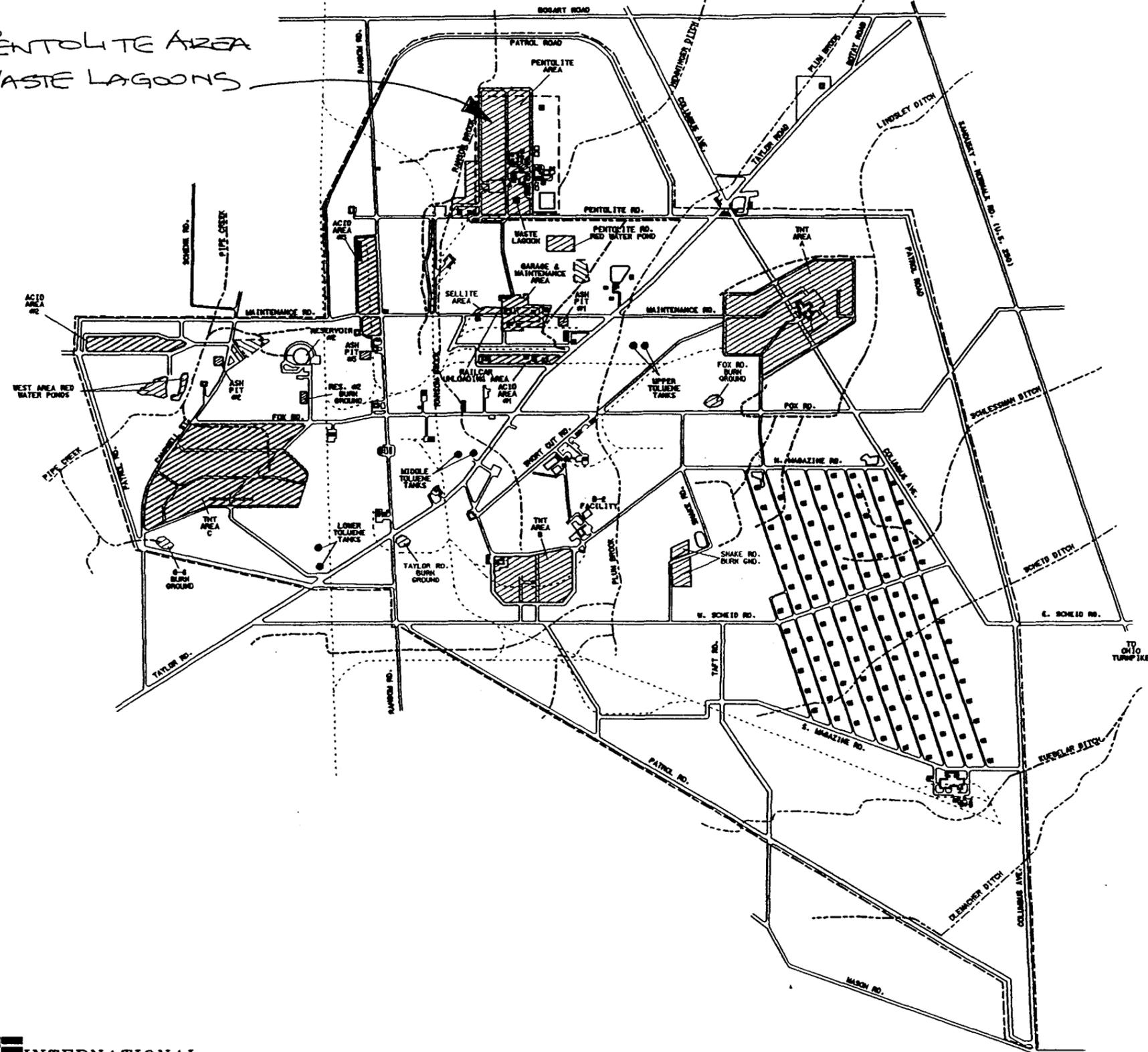
V. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)

CONFIRMATION STUDY FEB 1990
NASHVILLE DISTRICT CORPS OF ENGINEERS

1. COMPONENT ARMY	FY 1999 MILITARY CONSTRUCTION PROJECT DATA			2. DATE NOV 1998	
3. INSTALLATION AND LOCATION Plum Brook Ordnance Works Sandusky, Ohio			4. PROJECT TITLE DERP-FUDS HTRW – SI		
5. PROGRAM ELEMENT DERP-FUDS	6. CATEGORY CODE HTRW	7. PROJECT NUMBER G05OH001819	8. PROJECT COST (\$000) \$ 90.0		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
Prepare Limited Site Investigation by CELRL					\$ 80.0
Project Management by CELRH					\$ 10.0
TOTAL					\$ 90.0
10. DESCRIPTION OF PROPOSED CONSTRUCTION Prepare a Limited Site Investigation Study on the subject Pentolite Area Waste Lagoons. Work will include: <ol style="list-style-type: none"> 1. Sampling and chemical analysis of soil and water samples 2. Preparation of a Limited Site Investigation Report and recommendation for the need for further investigation (RI/FS) of the Pentolite Area Waste Lagoons. 					

PENTOLITE AREA
WASTE LAGOONS

PLUM BROOK ORDNANCE WORKS
SANDUSKY, OHIO



LEGEND:

- STREAM
- RAILROAD
- PBS BOUNDARY FENCE
- AREA OF CONCERN
- MIS-LOCATED AOC (Sampled by M-K, 1994a)

ICI INTERNATIONAL CONSULTANTS, INC.

G0504001819

FIGURE 1-2		DATE 12 JUL 95
LOCATIONS of AREAS of CONCERN (AOCs) at PBOW		PREPARED JET
		CHECKED DBJ