

PROJECT SUMMARY SHEET
FOR
DERP-FUDS HTRW PROJECT NO. G05OH001817
WASTEWATER TREATMENT PLANTS NO. 1 AND 3
PLUM BROOK ORDNANCE WORKS
SANDUSKY, OHIO
SITE NO. G05OH001800
21 NOVEMBER 1998

PROJECT DESCRIPTION: The project areas are Wastewater Treatment Plants No. 1 and 3. The former Plum Brook Ordnance Works (PBOW) was utilized by the Department of Defense (DoD) from 1941 until 1945 for the manufacture of 2,4,6-trinitrotoluene (TNT), dinitrotoluene (DNT), and pentolite. Process waste water ("red water") from the Wash House was transported to Wastewater Treatment Plant No. 1 Area A, or WWTP No.3 Area C, and then discharged through wooden flumes and elevated discharge pipes to settling ponds, known as the West Area and Pentolite Road Red Water Ponds.

PROJECT ELIGIBILITY: Records indicate that Wastewater Treatment Plants No. 1 and 3 were utilized by DoD for operation of the former PBOW.

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. There may be nitroaromatic contamination present at the wastewater treatment plants that could be attributed to direct DoD use of the site.

PROPOSED PROJECT: An HTRW project is proposed which consists of a Limited Site Investigation. Surface and subsurface soil should be sampled and analyzed to determine the presence of contamination at the sites. Further investigations at Wastewater Treatment Plants No. 1 and 3 will depend on the SI results.

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.

ENCL 6

PH. G0504001817



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 ORDNANCE WORKS		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER			
03 CITY SANDUSKY		04 STATE OH	05 ZIP CODE	06 COUNTY ERIE	07 COUNTY CODE 5
09 COORDINATES LATITUDE 41 22 44 41 22 04		LONGITUDE 82 39 36 82 42 37			
10 DIRECTIONS TO SITE (Starting from nearest public road) I 20, 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	12 TELEPHONE NUMBER	
13 TYPE OF OWNERSHIP (Check one) <input type="checkbox"/> A. PRIVATE <input checked="" type="checkbox"/> B. FEDERAL: NASA (Agency name) <input checked="" type="checkbox"/> F. OTHER: FORMER DOD USE (Specify) <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 (CERCLA 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 MONTH DAY YEAR		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 type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input checked="" type="checkbox"/> F. OTHER: NASHVILLE CORPS (Specify) CONTRACTOR NAME(S):			
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 BEGINNING YEAR 1941 ENDING YEAR 1945 <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)
 A. HIGH (inspection required promptly) B. MEDIUM (inspection required) C. LOW (inspect on time available basis) 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		03 TELEPHONE NUMBER 304 529-5760	
04 PERSON RESPONSIBLE FOR ASSESSMENT SAME		05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE 11 21 98 MONTH DAY YEAR



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</p> <p><input type="checkbox"/> OTHER _____ <small>Specify</small></p>	<p>02 WASTE QUANTITY AT SITE</p> <p><small>Measures of waste quantities must be independent</small></p> <p>TONS UNKNOWN</p> <p>CUBIC YARDS _____</p> <p>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</p> <p><input type="checkbox"/> E SOLUBLE <input type="checkbox"/> F INFECTIOUS <input type="checkbox"/> G FLAMMABLE <input type="checkbox"/> H IGNITABLE</p> <p><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
SLU	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
	BARIUM	10022-31-8	LAND	24,000	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)

PH GOS04001817



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 02 OBSERVED (DATE: 2/90) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

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

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

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

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

01 F. CONTAMINATION OF SOIL 02 OBSERVED (DATE: 2/90) POTENTIAL ALLEGED
03 AREA POTENTIALLY AFFECTED: LESS THAN 1 ACRE 04 NARRATIVE DESCRIPTION

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

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

01 I. POPULATION EXPOSURE/INJURY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 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 name(s) 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
(Spills/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: >100
04 NARRATIVE DESCRIPTION
02 OBSERVED (DATE: 2/90) POTENTIAL ALLEGED

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 CORP OF ENGINEERS

1. COMPONENT ARMY	FY 1999MILITARY CONSTRUCTION PROJECT DATA	2. DATE NOV 1998
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3. INSTALLATION AND LOCATION Plum Brook Ordnance Works Sandusky, Ohio	4. PROJECT TITLE DERP-FUDS HTRW – SI
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5. PROGRAM ELEMENT DERP-FUDS	6. CATEGORY CODE HTRW	7. PROJECT NUMBER G05OH001817	8. PROJECT COST (\$000) \$ 90.0
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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 Wastewater Treatment Plants No. 1 and 3. Work will include:

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 Wastewater Treatment Plants No. 1 and 3.