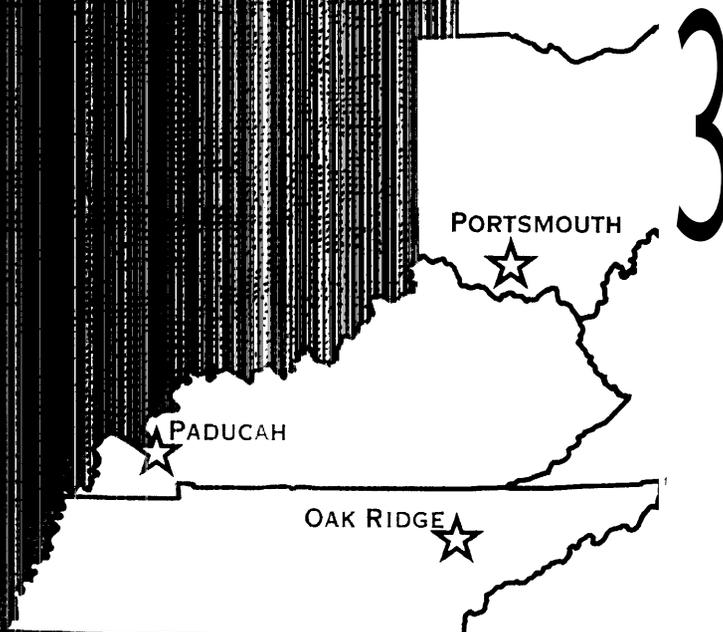




BJC/PAD-361/R1

**ENVIRONMENTAL MANAGEMENT
& ENRICHMENT FACILITIES
MANAGEMENT AND INTEGRATION CONTRACT**

**Final Inventory/Characterization
Report for the OS-13
Department of Energy
Material Storage Area at the
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**



**MANAGED BY
BECHTEL JACOBS COMPANY LLC
FOR THE UNITED STATES
DEPARTMENT OF ENERGY**

This document has received the appropriate reviews for release to the public.

**Final Inventory/Characterization Report for the OS-13
Department of Energy Material Storage Area (DMSA)
at the Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**

Date Issued – September 18, 2002

Prepared by
WESKEM, LLC
Under subcontract 23900-BA-RM005F
Prepared for the
US Department of Energy
Office of Environmental Management

BECHTEL JACOBS COMPANY LLC
managing the
Environmental Management Activities at the
East Tennessee Technology Park
Oak Ridge Y-12 Plant Oak Ridge National Laboratory
Paducah Gaseous Diffusion Plant Portsmouth Gaseous Diffusion Plant
Under contract DE-AC05-98OR22700
for the
U.S. DEPARTMENT OF ENERGY

This report is an abridged edition. The following sections have been omitted from this report, but are included in the full report.

OS-13 DMSA ZONE MAP

HP SURVEY DATA

SME INSPECTION / SAMPLING SUMMARY

RFD FORMS

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INVENTORY AND CHARACTERIZATION REPORT

DMSA OS-13 INVENTORY

REUSABLE MATERIAL INVENTORY

ACRONYMS

ADC	Authorized Derivative Classifier
DMSA	Department of Energy Material Storage Area
DOE	Department of Energy
EPA	Environmental Protection Agency
ft ²	Square Feet
ft ³	Cubic Feet
HP	Health Physics
IH	Industrial Hygiene
lbs	Pounds
Lc	Level Sub C
LLW	Low Level Waste
NCS	Nuclear Criticality Safety
OS	Outside
PCB	Polychlorinated Biphenyl
PGDP	Paducah Gaseous Diffusion Plant
RCRA	Resource Conservation and Recovery Act
RFD	Request for Disposal
SME	Subject Matter Expert
SVOA	Semi-volatile Organic Analysis
SWMU	Solid Waste Management Unit
TIO	Technical Information Officer
TSCA	Toxic Substances Control Act
USEC	United States Enrichment Corporation
VOA	Volatile Organic Analysis

EXECUTIVE SUMMARY

The Department of Energy Material Storage Area (DMSA) Outside (OS)-13 is located south of the C-340 facility at the Paducah Gaseous Diffusion Plant (PGDP). It occupies approximately 2,200 square feet (ft²). This DMSA is also identified as Solid Waste Management Unit (SWMU) # 224. OS-13 was initially identified as a Phase 1 DMSA (expected to have no fissionable material but not fully characterized). The characterization process began on January 8, 2002 and was completed on January 9, 2002. The DMSA has one roll-off bin, which contains 49 empty 55-gallon drums. The roll-off bin has been classified as reusable material and its contents have been identified and inventoried as Low Level Waste (LLW). The contents were inspected for Nuclear Criticality Safety (NCS), Resource Conservation and Recovery Act (RCRA) and Toxic Substances Control Act (TSCA) concerns. The remainder of the area is covered with various vegetations. The total volume of items contained within the DMSA is 1,824.8 cubic feet (ft³) with an estimated weight of 9,417 pounds (lbs). This DMSA now qualifies as a Phase 3 DMSA since it has been fully characterized and contains no fissionable material.

RCRA/Mixed

There were no RCRA/Mixed items identified with this DMSA.

TSCA/PCB

There were no TSCA/Polychlorinated Biphenyl (PCB) items identified with this DMSA.

LLW

The LLW contents consist of 49 empty 55-gallon drums with lids and lid clamping rings. Request for Disposal (RFD) forms were issued for the drums, lids and lid clamping rings. These items have an estimated volume of 384.80 ft³ with an estimated weight of **1,617** lbs. The LLW remains in the DMSA.

Reusable Materials

The roll-off bin is the only item identified as reusable with a total volume of 1,440 ft³ and a total weight of 7,800 lbs. The reusable items will remain in the DMSA until reuse.

NCS

There were no NCS concerns. The LLW items and the roll-off bin were visually inspected, exempted and documented on NCS Characterization Forms.

Industrial Hygiene

All Industrial Hygiene (M) data has been reviewed. The quality control samples are within normal acceptance guidelines. No personnel were exposed to airborne concentrations above the permissible exposure limit or threshold-limiting value.

HP

The Health Physics (HP) radiological survey indicated no radiological detection on any items in this DMSA.

Safety

There were no accidents, injuries or other incidents during the characterization activities. A safety officer was present during all activities and all persons were given stop work authority.

The area was photographed for documentation purposes. These photographs are part of the **DMSA** Control Files. Several photographs have been incorporated in the report for clarification of activities. They are located in section one of this report.

DMSA OS-13 Rolloff Bin Containing Drums Before Characterization



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DMSA OS-13 Rolloff Bin Containing Drums After Characterization



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Inventory By DMSA No.

<i>Curr.</i> <i>Zone</i>	<i>RFD #</i>	<i>Barcode #</i>	<i>Description</i>	<i>Vol.</i> <i>ft3</i>	<i>llw</i>	<i>tsca</i>	<i>rcra</i>	<i>mix</i>	<i>asb</i>	<i>fis</i>	<i>lnd</i>	<i>Gen.</i> <i>Date</i>	<i>Char.</i> <i>Date</i>	<i>Transferred To</i>
OS-13														
	111828	DMSA0111940	(49) EMPTY 55 GAL DRUMS	362.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/8/02	1/8/02						
	111829	DMSA0111941	(49) RINGS FROM 55 GAL DRUMS	7.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/8/02	1/8/02						
	111830	DMSA0111942	(49) LIDS FROM 55 GAL DRUMS	14.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/8/02	1/8/02						
<i>Summary for OS-13 (3 RFDs)</i>				384.8	<i>Ft3</i>									
Grand Total (3 RFDs)				384.8	Total Ft3									

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Legend

asb	Asbestos	Char	Characterization Date	fis	Fissionable
Gen	Generation Date	llw	Low Level Waste	lnd	Landfill
mix	Mixed Waste	rcra	Resource Conservation Recovery Act	tsca	Toxic Substances Control Act

OS-13 DMSA INVENTORY

Description	Original RFD#	Material Classification	Column #	Barcode	# Items	Estimated Volume (ft³)	Estimated Weight (lbs)	Material Transferred to USEC
(49) 55-Gallon Drums Empty	111828	LLW	OS-13	DMSAOI 11940	1	362.6	1,470	No
(49) Lid Clamping Rings from 55-Gallon Drums	111829	LLW	OS-13	DMSA0111941	1	7.4	49	No
(49) Lids from 55-Gallon Drums	111830	LLW	OS-13	DMSAOI11942	1	14.8	98	No

Total Estimated Volume (ft³)
384.8

Total Estimated Weight (lbs)
1,617

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OS-13 REUSABLE MATERIAL INVENTORY

Description	Original E#	Column #	Barcode	# Items	Estimated Volume (ft³)	Estimated Weight (lbs)	Material Transferred to USEC
Roll-off Bin	E00162	OS-13	DMSA0111943	1	1.440	7,800	No

Total Estimated Volume (ft³)
1,440

Total Estimated Weight (lbs)
7,800

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OS-13 REUSABLE MATERIAL INVENTORY

Description	Original E#	Column #	Barcode	# Items	Estimated Volume (ft³)	Estimated Weight (lbs)	Material Transferred to USEC
Roll-off Bin	E00162	OS-13	DMSA0111943	1	1,440	7,800	No

Total Estimated
Volume (ft³)
1,440

Total Estimated
Weight (lbs)
7,800

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