



Environmental  
Restoration  
Program

*Mound Site  
CERCLA  
Reading Room Copy*

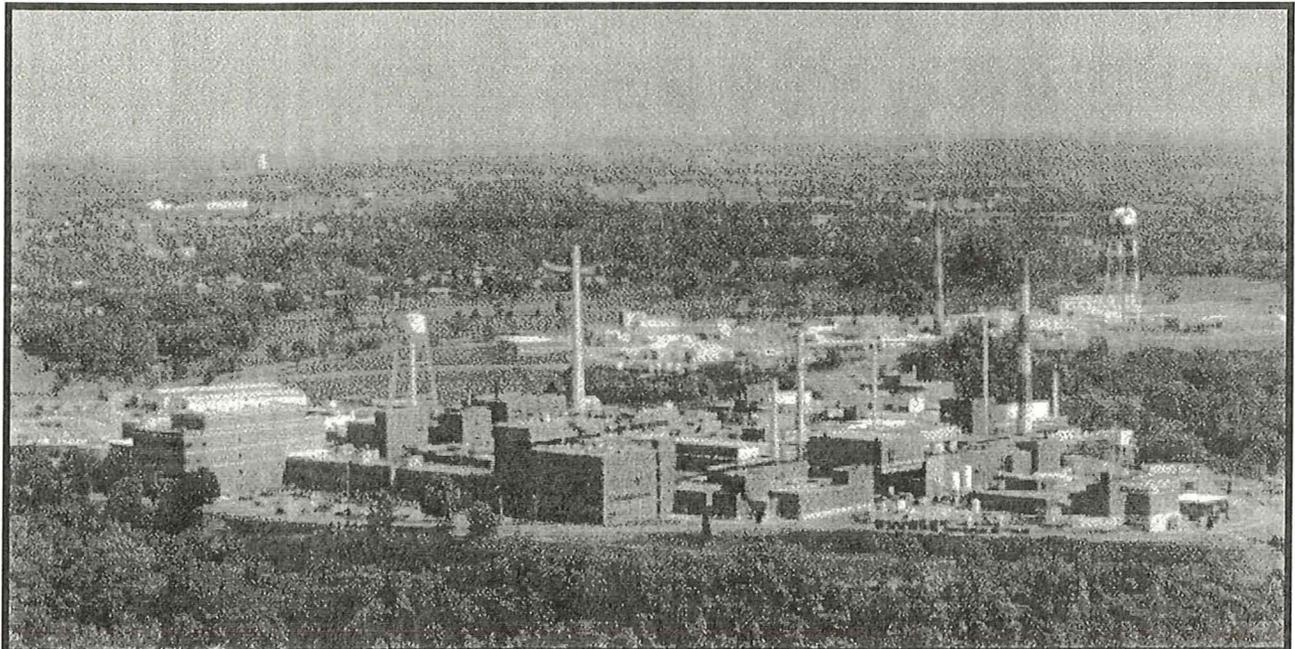


# Miamisburg Closure Project CLOSEOUT REPORT

## Building 60

(Demolition)

Final  
June 2003



# TABLE OF CONTENTS

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Section	Page
1.0 Purpose .....	1
2.0 Background.....	1
2.1 Building 60 .....	1
2.2 Solvent Shed.....	1
2.3 Potential Release Sites (PRs) .....	1
3.0 Actions Taken .....	2
4.0 Problems Encountered .....	3
5.0 Resources Committed .....	3
5.1 Personnel Organization.....	3
5.2 Demolition Cost.....	4

## Tables

Table 1: PRs in Proximity to Building 60 .....	2
Table 2: Waste Disposition.....	3
Table 3: Personnel Organization for the Demolition .....	3
Table 4: Cluster 60 Total Cost.....	4

## Appendices

Appendix A	Figures
	Figure 1: Location of Building 60
	Figure 2: Building Photos
Appendix B	Post-Final Status Survey Report Radiological Surveys

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## **1.0 PURPOSE**

This is the final report documenting completion of the demolition of Building 60 located at the DOE Miamisburg Closure Project (MCP) Site, as shown in the figures provided in Appendix A. The building demolition, including its slab and footers, was accomplished per the Work Package for Building 60 Demolition #SMPP/TFV-34620-01, a copy of which was included in Appendix O of the Building Data Package (BDP) for Building 60. The scope of work relating to this building is considered complete.

## **2.0 BACKGROUND**

### **2.1 Building 60**

Building 60 was constructed in 1980 and was located in the north central portion of the site, immediately east of Building 28. The building contained 3,958 square feet of floor space, and had not undergone any additions since its original construction. The building was designed and used for ceramics development and support. The first floor included a fabrication area, furnace area, and mechanical room. The second floor included an office area, metalizing area, restroom facilities, and janitorial closet.

Exposed exterior wall construction generally consisted of brick veneer on reinforced concrete block, with a four-inch break between the veneer and the block containing insulation. The building had a six-inch thick reinforced concrete slab underlain by six inches of compacted gravel, and the footer beams were twenty-four inches by thirty-six inches.

The building was serviced by sanitary and stormwater service lines, a fire sprinkler water main, and electric service of 480 volts. The building used central steam for heating and chilled glycol for cooling.

### **2.2 Solvent Shed**

A 9-foot by 9-foot solvent shed, with corrugated metal walls, was located approximately 13 feet south of the southeast corner of Building 60. The foundation was a concrete slab on grade, and was in good condition. The shed was used to store solvents and pump them to Buildings 28 and 60. The waste solvent was pumped back to the shed and containerized in drums prior to removal by Waste Management. To maintain a safe environment for flammable wastes, the shed had an explosion proof electrical system and thermostat controlled exhaust. The shed had been inactive since solvents and wastes were removed in 1995 when ceramics operations in Buildings 28 and 60 ceased. This shed is designated as PRS 127, which was binned No Further Assessment (NFA) by the Core Team in 1996.

### **2.3 Potential Release Sites (PRSs)**

As a result of the investigations and documentation accomplished to comply with the CERCLA cleanup process via the Federal Facilities Agreement (FFA)/DOE ER Program,

DOE and the site contractor tabulated all of the PRSs identified under the various regulatory programs in effect at the site. Of these 440 PRSs, four are near Building 60 (see Table 1).

**Table 1: PRSs in Proximity to Building 60**

PRS	CERCLA or Bldg. Related	Binning Status	Comments
100	CERCLA	NFA	Area F, Chromium Trench.
126	CERCLA	NFA	Building 28 Solvent Storage Area.
127	CERCLA	NFA	Building 28 Solvent Storage Shed. This solvent shed was demolished as part of the Building 60 demolition activities.
241	CERCLA	NFA	Northwest Parking Lots.

*NFA – No Further Assessment*

### **3.0 ACTIONS TAKEN**

The Building 60 BDP was submitted for simultaneous Core Team and public review on 10 March 2003, and the 30-day public review period concluded on 9 April 2003.

This Closeout Report documents the completion of the demolition and removal of Building 60 and the adjacent solvent shed. All preparation and demolition activities were performed in accordance with the detailed Work Plan to perform demolition and debris removal.

A Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) study of Building 60 was performed prior to demolition. The study report (provided in the BDP) provides details of the survey design and results and indicates that Building 60 met applicable surface release criteria. Post-demolition surveys showed no elevated readings (copies are provided in Appendix B).

Building debris was loaded into haulers and taken to a local sanitary landfill.

The demolition of Building 60 commenced on 24 April 2003 and was completed on 14 May 2003. Photographs taken before, during, and after demolition are provided in Appendix A.

Site restoration was completed on 25 June 2003.

**Table 2 - Materials Disposition**

<b>Building 60 Material</b>	<b>Quantity</b>	<b>Method</b>	<b>Location</b>
Asbestos Abatement (Debris)	30 cubic yards	Landfill	Stoney Hill
Construction Debris (concrete and rebar)	5,160 cubic yards	Landfill	Stoney Hill

**4.0 PROBLEMS ENCOUNTERED**

Building 60 was successfully demolished per the Work Package. However, the site required significant backfill soil and a layer of topsoil. The backfill material was taken from a clean PRS 66 overburden pile. The topsoil was purchased from a qualified offsite supplier.

**5.0 RESOURCES COMMITTED**

**5.1 Personnel Organization**

Table 3 lists the personnel organization for the demolition.

**Table 3 - Personnel Organization for the Demolition**

<b>Agency or Party Involved</b>	<b>Contact</b>	<b>Description of Participation</b>
US EPA (SR-6J) 77 W. Jackson Chicago, IL 60604 312-886-7058	David Seely	Federal agency responsible for MCP oversight.
Ohio EPA 410 E. Fifth Street Dayton, OH 45402-2911 937-285-6468	Brian Nickel	State agency responsible for MCP oversight.
DOE/ MCP P.O. Box 66 1 Mound Road Miamisburg, OH 45343-0066 937-865-3620	Frank Schmaltz	DOE/ MCP Project Manager responsible for project oversight and success.

**Table 3 - Personnel Organization for the Demolition**

<b>Agency or Party Involved</b>	<b>Contact</b>	<b>Description of Participation</b>
CH2M Hill Mound, Inc. SMPP-TFV Project P.O. Box 3030 1 Mound Road Miamisburg, OH 45343-3030 937-865-4169	Kurt Kehler	Provided the DOE/ MCP Project Manager with technical assistance, administrative support, sampling, decontamination, photo and site documentation, site safety, and report preparation.
CH2M Hill Mound, Inc. General Superintendent and Equipment Manager P.O. Box 3030 1 Mound Road Miamisburg, OH 45343-3030 937-865-4278	Max Edington	Provided the equipment necessary for the demolition.

**5.2 Demolition Cost**

Under the new site contract, CH2M Hill Mound, Inc. has elected to cluster financial data for multiple buildings together. However, for Building 60, the cluster only includes Building 60. The total cost for the demolition of Building 60 cluster is provided in Table 4.

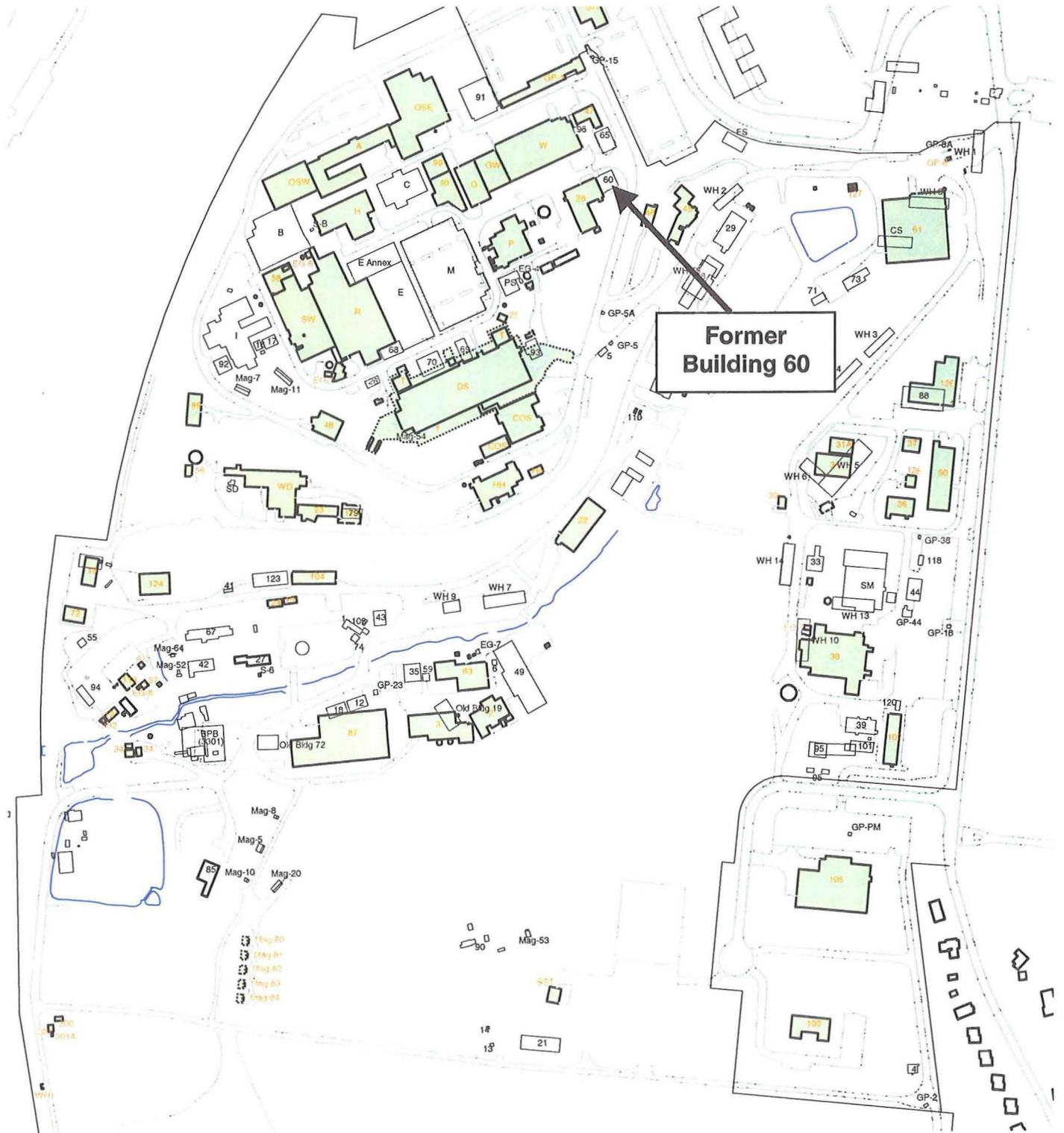
**Table 4 - Cluster 60 Total Cost**

<b>Activity</b>	<b>Cost</b>
Work Planning	\$16K
Demolition	\$114K
<b>Total</b>	<b>\$130K</b>

**APPENDIX A**

**Figures**

Figure 1 - Location of Building 60



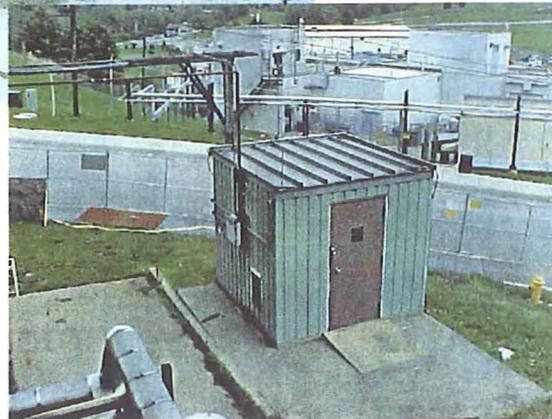
A1 of 5

## Figure 2 - Building Photos



**Bldg. 60**

**Bldg. 60 Solvent Shed**





**Bldg. 60 During Demolition**



**Bldg. 60 Misting During Demolition**

A 306 S



**Bldg. 60 Debris Loadout**

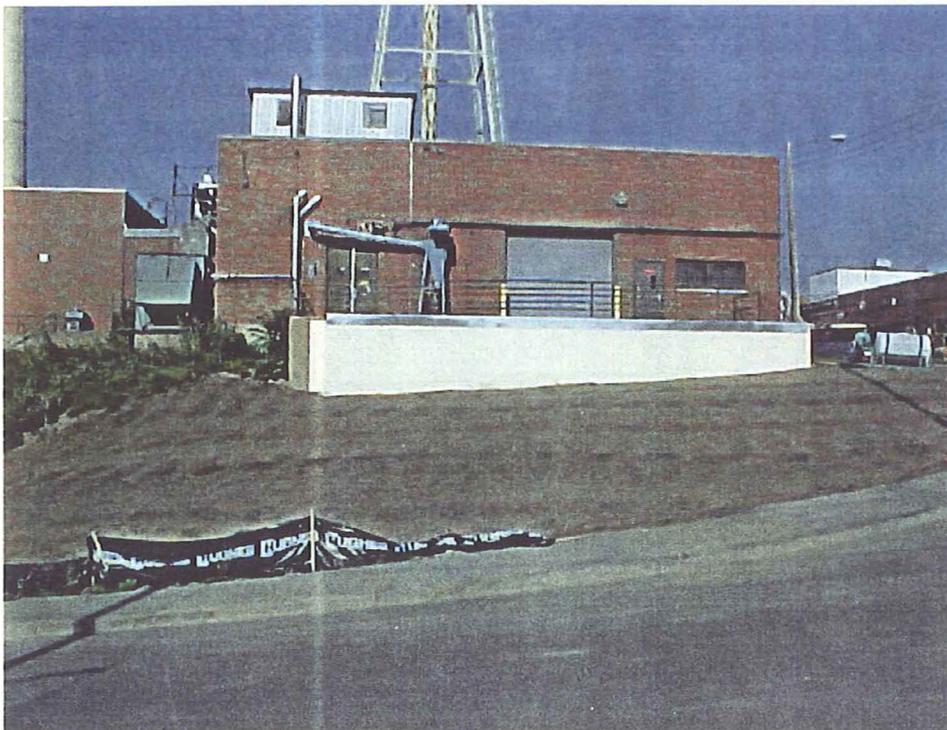


**Bldg. 60 Preliminary Grading**

A 4 of 5



**Bldg. 60 Top Soil Placement**



**Bldg. 60 After Final Grading and Seeding**

A5 of 5

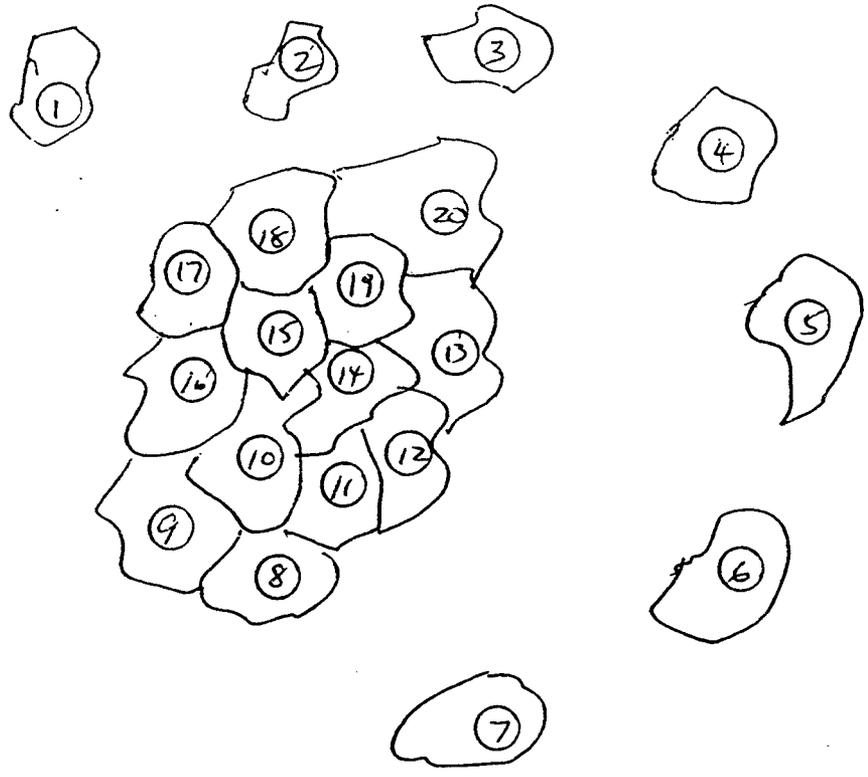
**APPENDIX B**

**Post-Final Status Survey Report  
Radiological Surveys**

# RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM)	60 CONCRETE	SURVEY NO	03-TF-0105
PURPOSE:	RELEASE CONCRETE TO WASTEMANAGEMENT	RWP NO.	N/A
		DATE:	5-6-2003
		TIME	0930

## MAP / DRAWING



COPY

- NOTE: BICRON FIDLER USED FOR INDICATION ONLY. RESULTS WERE NON-DETECTABLE.
- INTEGRATED READING TAKEN IF AUDIBLE ALPHA DETECTED ALL RESULTS:  
 $<100 \text{ dpm}/100\text{cm}^2$  ALPHA AND  $<5\text{K dpm}/100\text{cm}^2$  BETA NO AUDIBLE DETECTED

LEGEND: # = mrem/hr ( $\gamma$ ) whole body  
 #E = mrem/hr ( $\beta + \eta + \gamma$ ) extremity on contact  
 K = factor of 1000  
 - - - - = radiological boundary

$\Delta$  # = mrem/hr neutron      # = swipe number  
 # = air sample number      #/a = or  $\beta$  = direct contamination measurement in  $\text{dpm}/100 \text{ cm}^2$

### INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5336/5848	3-12-2004
FIDLER	3716/3713	9-17-2003
N/A		

Completed by: (Signature)	<i>[Signature]</i>	Date:	5-6-2003
Completed by: (Print Name)	DANIEL HARVEY		
Counted by: (Signature)	RECORD ON FILE	HP#	NA
Counted by: (Print Name)	NA		
Reviewed/Approved by: (Signature)	<i>[Signature]</i>	Date:	05-06-03
Reviewed/Approved by: (Print Name)	JIMMY K. RINEY		

B 1 of 7



# Smear Analysis

Unit Type: LB4100/W  
 Counting Unit ID: Green  
 Data file name: SMEAR003  
 Batch Ended: 5/6/03 9:20  
 Cal. Due Date: 4/25/03  
 Serial Number: 26966-3

Batch ID: 03-TF-0105 HARVEY-20 BSB

B3067

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	$\sigma$	flags	DPM	$\sigma$	flags
A1	1	0.49	2.07		0.00	1.45	
A2	2	1.59	1.92		0.41	2.14	
A3	3	0.85	2.23		0.00	1.46	
A4	4	0.00	2.00		1.08	2.14	
B1	5	0.00	1.96		0.00	1.45	
B2	6	0.00	2.11		2.18	2.52	
B3	7	0.00	2.19		1.35	1.98	
B4	8	0.00	2.14		0.35	1.84	
C1	9	1.06	2.00		0.00	1.31	
C2	10	0.00	1.82		0.24	1.68	
C3	11	0.00	2.11		0.00	1.45	
C4	12	0.00	2.06		3.82	2.91	
D1	13	1.38	2.08		0.72	3.02	
D2	14	0.00	2.18		0.00	1.29	
D3	15	0.00	2.27		4.46	3.00	
D4	16	0.00	2.29		2.57	2.52	
A1	17	0.00	2.10		1.25	2.29	
A2	18	0.00	1.90		0.00	1.37	
A3	19	0.00	2.23		0.00	1.46	
A4	20	0.00	2.00		1.08	2.14	

29H

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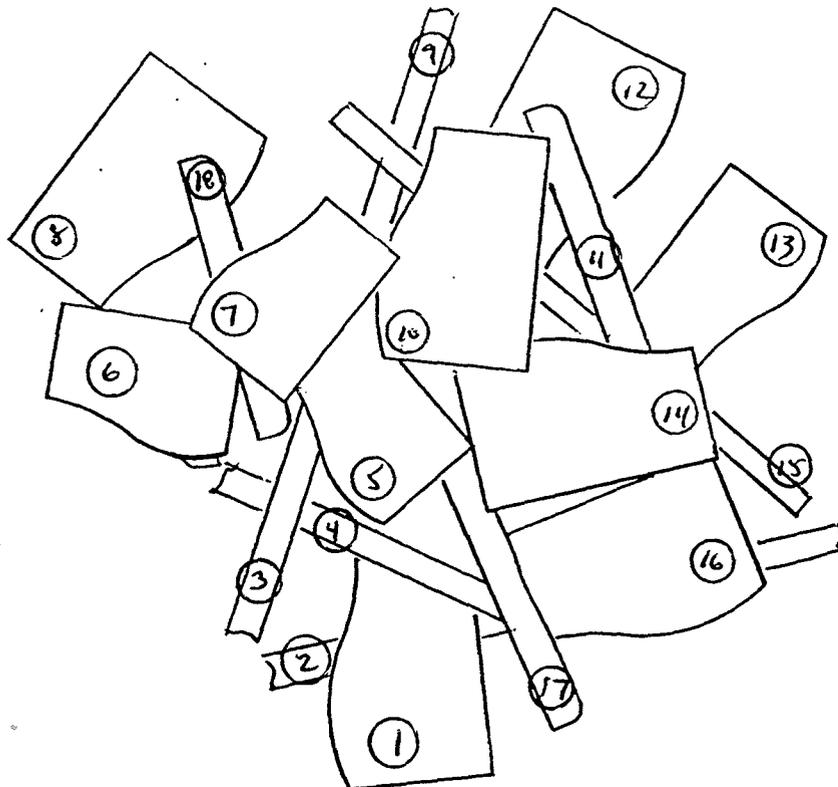
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# RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) <b>60 - SOLVENT SHED</b>	SURVEY NO. <b>03-TF-0096</b>
PURPOSE: <b>DEBRIS PILE</b>	RWP NO. <b>N/A</b>
	DATE: <b>4-24-03</b>
	TIME: <b>1300</b>

## MAP/DRAWING

COPY



\* INTEGRATED COUNTS TAKEN IF ~~ADD~~ AUDIBLE ALPHA DETECTED - NON DETECTED RESULTS

4-24-03  
 (2100 /  $\alpha$ ) (25K /  $\beta$ )

LEGEND: # = mrem/hr ( $\gamma$ ) whole body      # = mrem/hr neutron      # = swipe number  
 # E = mrem/hr ( $\beta + \eta + \gamma$ ) extremity on contact      # = air sample number      #/ $\alpha$  or  $\beta$  = direct cont. measurement in dpm/100cm<sup>2</sup>

### INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5833/5847	3-13-04
	N/A	

Completed by: (Signature) <i>[Signature]</i>	HP# [Redacted]	Date: <b>4-24-03</b>
Completed by: (Print Name) <b>DANIEL J. HARVEY</b>	<b>K. Abernombie</b>	
Counted by: (Signature) <i>[Signature]</i>	HP# <b>SEE</b>	Date:
Counted by: (Print Name) <b>ATTACHED</b>		
Reviewed/Approved by: (Signature) <i>[Signature]</i>	HP# [Redacted]	Date: <b>04-24-03</b>
Reviewed/Approved by: (Print Name) <b>DANIEL J. HARVEY</b>		

2 of 3

Survey No. 03-TF-0096

# RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm <sup>2</sup> )				
Sample #	$\beta/\gamma$	Alpha	Tritium	Comments
1-18	SEE ATTACHED	N/A		PEBRIS PILE
N/A				

Removable Contamination				
Swipes (dpm/100cm <sup>2</sup> )				
Sample #	$\beta/\gamma$	Alpha	Tritium	Comments
N/A				

COMMENTS:

N/A

### NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for  $\beta/\gamma$ , 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.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

B 6 of 7

### Alpha/Beta Analysis

Batch ID:	Smear Unit 1 - 200304241040	Count Date:	4/24/2003
Group:	G	Count Minutes:	1.5
Serial Number:	78218-1	Count Mode:	Simultaneous
Batch ID:	03-TF-0096 HARVEY-18 BSB	Operating Volts:	1440
Selected Geometry:	Swipe/Smear	Cal Due Dates:	6/19/2004

Efficiency (%)			Spillover (%)		
Alpha:	34.73	± 0.13	Alpha to Beta:	11.39	± 0.00
Beta:	46.13	± 0.13	Beta to Alpha:	0.07	± 0.00

<u>Sample ID</u>	<u>Carrier ID</u>	<u>Alpha</u> <u>(dpm)</u>	<u>σ</u>	<u>Beta</u> <u>(dpm)</u>	<u>σ</u>
1	6	0.00	0.00	2.74	2.04
2	35	0.00	0.00	2.74	2.04
3	28	0.00	0.00	1.37	1.45
4	68	2.18	1.92	2.58	2.05
5	71	2.19	1.92	1.21	1.45
6	14	0.00	0.00	0.00	0.00
7	12	2.18	1.92	5.32	2.90
8	36	2.18	1.92	2.58	2.05
9	45	0.00	0.00	1.37	1.45
10	58	2.19	1.92	1.21	1.45
11	73	0.00	0.00	1.37	1.45
12	88	0.00	0.00	2.74	2.04
13	28	0.00	0.00	0.00	0.00
14	9	0.00	0.00	1.37	1.45
15	44	0.00	0.00	4.11	2.50
16	42	0.00	0.00	1.37	1.45
17	57	0.00	0.00	0.00	0.00
18	51	2.19	1.92	1.21	1.45

*DSH*

*DSH*

*RBBrown*