

CSID 816

**WORKSHEET 1
SUMMARY SCORE SHEET**

Site Name/Location:

WSU Fulmer Hall Crawlspace
Pullman, Whitman County
Sec 5, T 14 N, R 45 E

Site Description:

The site is located in the crawl space beneath Fulmer Hall, a chemistry building on the Washington State University Campus in Pullman, Washington. The site encompasses approximately 7,000 square feet and is surrounded by concrete walls on all sides and underlies the first floor of the building. The crawl space is floored by soil with overhead clearance ranging from a few inches to three feet. Numerous drain and water pipes and concrete foundations cross the area.

As a result of leaks and poor drain cleanout procedures, mercury and lead in excess of MTCA Method A Compliance Cleanup Levels have contaminated crawlspace soils. Approximately 270 cubic yards of soil may have been contaminated.

Special Considerations:

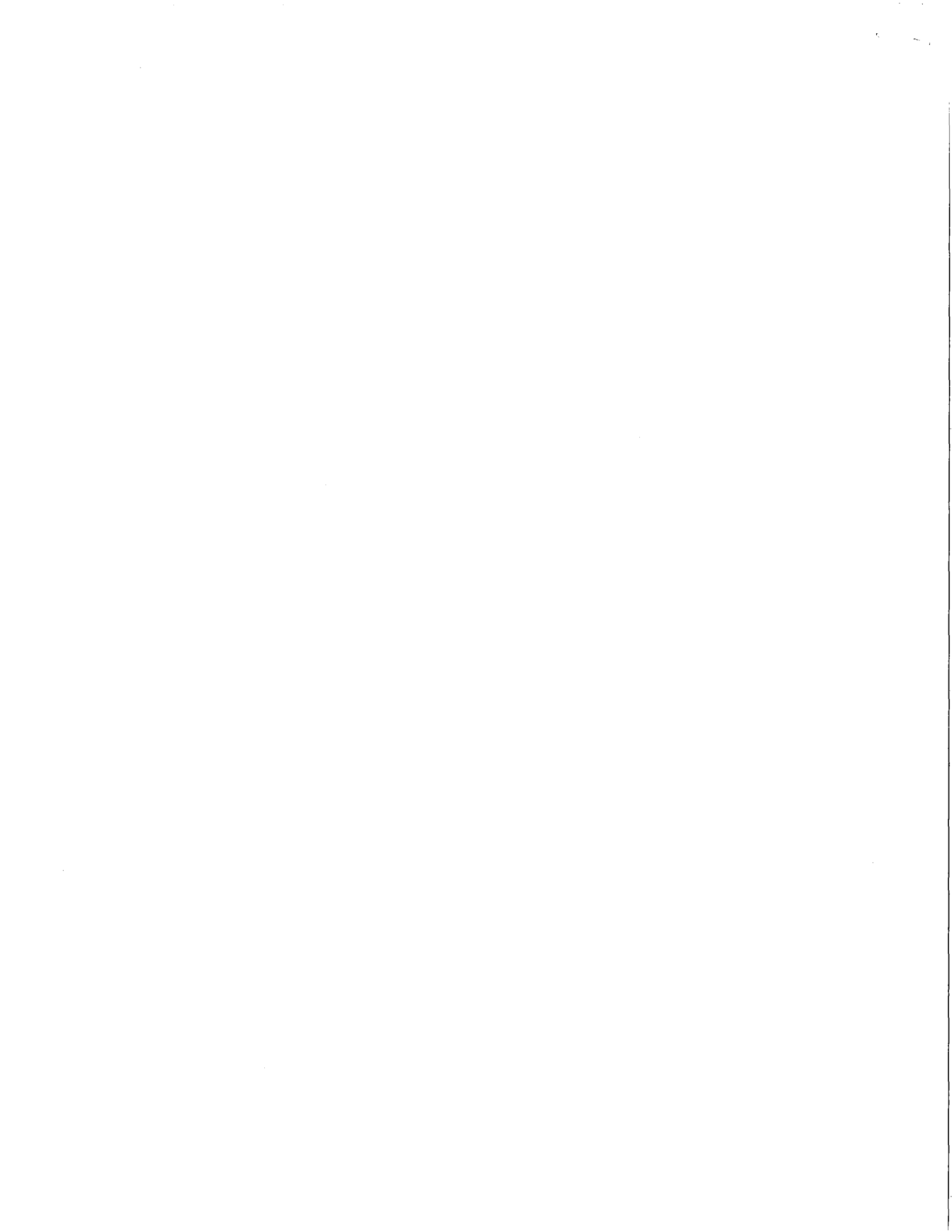
Institutional controls in place regulating access to crawlspace.

ROUTE SCORES:

Surface Water : N/A

Air: N/A

Ground Water/Human Health: _____



**WORKSHEET 2
ROUTE DOCUMENTATION**

1. SURFACE WATER ROUTE. N/A

2. AIR ROUTE. N/A

3. GROUND WATER ROUTE

List those substances to be considered for scoring: Source: 1

Mercury

Lead

Explain basis for choice of substance(s) to be used in scoring.

Analysis of crawlspace soil samples revealed mercury and lead in excess of MTCA Method A Compliance Cleanup Levels.

List those management units to be considered for scoring: Source: 1

Contaminated soil.

Explain basis for choice of unit to be used in scoring.

Crawlspace soils are completely confined within the concrete foundation/footings of Fulmer Hall.



**WORKSHEET 6
GROUND WATER ROUTE**

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

<u>Substance</u>	<u>Drinking Water Standard (ug/l)</u>	<u>Val.</u>	<u>Acute Toxicity (mg/kg-bw)</u>	<u>Val.</u>	<u>Chronic Toxicity (mg/kg/day)</u>	<u>Val.</u>	<u>Carcino- genicity WOE</u>	<u>PF*</u>	<u>Val.</u>	
1. Mercury	2	8	--	--	.003	--	5			X
2. Lead	5	8	--	--	--	--				X

*Potency Factor

Source: 2
Highest Value: 8
+ 2 Bonus Points? 2
Final Toxicity Value: 10

1.2 Mobility (Use numbers to refer to above listed substances)

Cations/Anions: 1 = 3 ; 2 = 2 ; Source: 2 Value: 3

1.3 Substance Quantity

Source: 1 Value: 3
Table 6

180 tons = 120 cu yds. Estimate presented in Remedial Investigation/Feasibility Study based on soil sample analysis.

2.0 MIGRATION POTENTIAL

2.1 Containment

Source: 1,3 Value: 3

Site is located entirely within the confines of Fulmer Hall crawlspace and is completely protected from precipitation and lateral water movement. Consequently, it was scored as a capped landfill without a liner or leachate collection system.

2.2 Net Precipitation: N/A covered site inches Source: 1 Value: 0

2.3 Subsurface Hydraulic Conductivity: >10⁻⁵ - 10⁻³ Source: 3,4 Value: 2

2.4 Vertical Depth to Ground Water: >200 - 300 feet Source: 5 Value: 2



3.0 TARGETS

3.1 Ground Water Usage: Public supplies, alternate sources Source: 5 Value: 4
(Max. = 10)

3.2 Distance to Nearest Drinking Water Well: 1275 ft Source: 6 Value: 4
(Max. = 5)

3.3 Population Served within 2 Miles: $\sqrt{\text{pop.}} = \sqrt{23565} = 153$ Source: 6 Value: 100
(Max. = 100)

3.4 Area Irrigated by (Groundwater) Wells
within 2 miles: $0.75\sqrt{\text{no. acres}} =$ Source: 7 Value: 7
 $0.75\sqrt{78} = 0.75(8) = 7$
(Max. = 50)

4.0 RELEASE

Source: 1 Value: 0

No documented release to groundwater (Max. = 5)



SOURCES USED IN SCORING

1. Washington State University Fulmer Hall Crawlspace Remedial Investigation/ Feasibility study. Prepared by AGRA Earth & Environmental Inc. for WSU
2. Toxicology Database - WARM
3. WARM Scoring Manual
4. S.C.S. Soil Survey of Whitman County
5. W.D.O.H. Drinking Water Information Network
6. EPASITEINFO Database
7. WRIS - DOE