

CSID 3853

WORKSHEET 1  
SUMMARY SCORE SHEET

Note: This document currently has no provision for sediment route scoring.

Site Name/Location (City, County, Section/Township/Range):

Interstate 82, Exit 33A Landfill  
Exit 33A, I-82  
Yakima, WA 98901

Parcel number: R=19 T=13 S=18 -41001 Date Scored: 7/25/97

Site Description (Include management areas, compounds of concern, and quantities):

This site is an old City of Yakima Landfill located in the south-east corner of the Boise Cascade log yard, next to exit 33A off of Interstate 82, in Yakima. The landfill was closed circa 1972 and the site has been used as a log yard by Boise Cascade since then. To the north of the site is the Boise Cascade log storage yard. To the west of the site is Boise Cascade log storage yard, then a residential area. To the south of the site is a drain, then commercial property. To the east of the site is Interstate 82, then the Yakima River.

In 1996, the Department of Transportation began building an off ramp from Interstate 82 (exit 33A). During construction, the old landfill was "rediscovered". Testing of the soil/garbage near the ground water in the landfill detected nothing but diesel and heavy oil range TPH. There was concern that tannins and lignins from the approximately 2 to 4 feet of bark dust on the log yard may be interfering with this test. (An organic chemist from Lauck's Laboratories confirmed that this can occur. He also stated that the 418.1 water test will not have this problem.)

This site was added to the SIS list on July 8, 1996. On May 8, 1997, Yakima Health District (YHD) personal sampled the down gradient ground water and had it analyzed for aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chloride, chromium, cobalt, copper, fluoride, iron, lead, magnesium, manganese, mercury, nickel, nitrate (as N), potassium, selenium, silver, sodium, sulfate, TPH, thallium, total dissolved solids, total organic carbon, vanadium, zinc and 36 volatile organics. Specific conductance, pH, and temperature were also tested for. Only lead and chromium were found above the MTCA method A cleanup levels. Comparison of the test data to USGS Water Resources Investigation Report 92-4017 did not indicate that elevated lead or chromium levels are common in this aquifer.

Only the ground water was scored because that is the only route available.

Special Considerations (Include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site):

ROUTE SCORES:

Surface Water/Human Health:   N/A  ; Surface Water/Environ.:   N/A  ;  
Air/Human Health:   N/A  ; Air/Environmental:   N/A  ;  
Ground Water/Human Health:   31.8  

OVERALL RANK:   5



**WORKSHEET 2  
ROUTE DOCUMENTATION**

**1. SURFACE WATER ROUTE**

Not Applicable/Not Scored

**2. AIR ROUTE**

Not Applicable/Not Scored

**3. GROUND WATER ROUTE**

List substances to be considered for scoring:

1. Lead
2. Chromium

Source: 1

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

These were the only contaminants found in the ground water above MTCA method A cleanup levels.

List management units to be considered in scoring:

Landfill

Source: 2

Explain basis for choice of unit used in scoring.

This is an old City of Yakima Landfill that was closed in the circa 1972.

**WORKSHEET 4  
SURFACE WATER ROUTE**

Not Applicable/Not Scored

**WORKSHEET 5  
AIR ROUTE**

Not Applicable/Not Scored



**WORKSHEET 6  
GROUND WATER ROUTE**

**1.0 SUBSTANCE CHARACTERISTICS**

**1.1 Human Toxicity**

<u>Substance</u>	<u>Drinking Water Standard</u> (ug/l) Val.	<u>Acute Toxicity</u> (mg/kg-bw) Val.	<u>Chronic Toxicity</u> (mg/kg/day) Val.	<u>Carcinogenicity</u> WOE PF* Val.
1. lead	(5) 8	-	-	-
2. chromium	(100) 6	-	(.005) 3	-

\*Potency Factor

Source:	1,2
Highest Value:	8
+2 Bonus Points?	2
<b>Final Toxicity Value</b>	<b>10</b>

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

1. lead	.1 to 1	coefficient of aqueous migration	Source 2	<b>Value: 2</b>
2. chromium	<.1	coefficient of aqueous migration		

**1.3 Substance Quantity**

Source: 2,1 **Value: 1**  
 Explain basis: Since the total volume of lead and chromium disposed of in this facility is impossible to determine because this facility was closed over 30 years ago, no records are available. This is the default value specified in the Washington Ranking Method Scoring Manual.

**2.0 MIGRATION POTENTIAL**

**2.1 Containment**

Source: 2,3 **Value: 7**  
 Explain basis: Landfill with no liner, compacted soil with poor or unknown maintenance, no leachate collection system, possible free liquid disposal in landfill.

2.2 Net Precipitation: 7.2 inches Source: 4 **Value: 1**

2.3 Subsurface Hydraulic Conductivity:  $> 10^{-3}$  Source: 2,1 **Value: 4**

2.4 Vertical Depth to Ground Water: in contact Source: 1,2 **Value: 8**

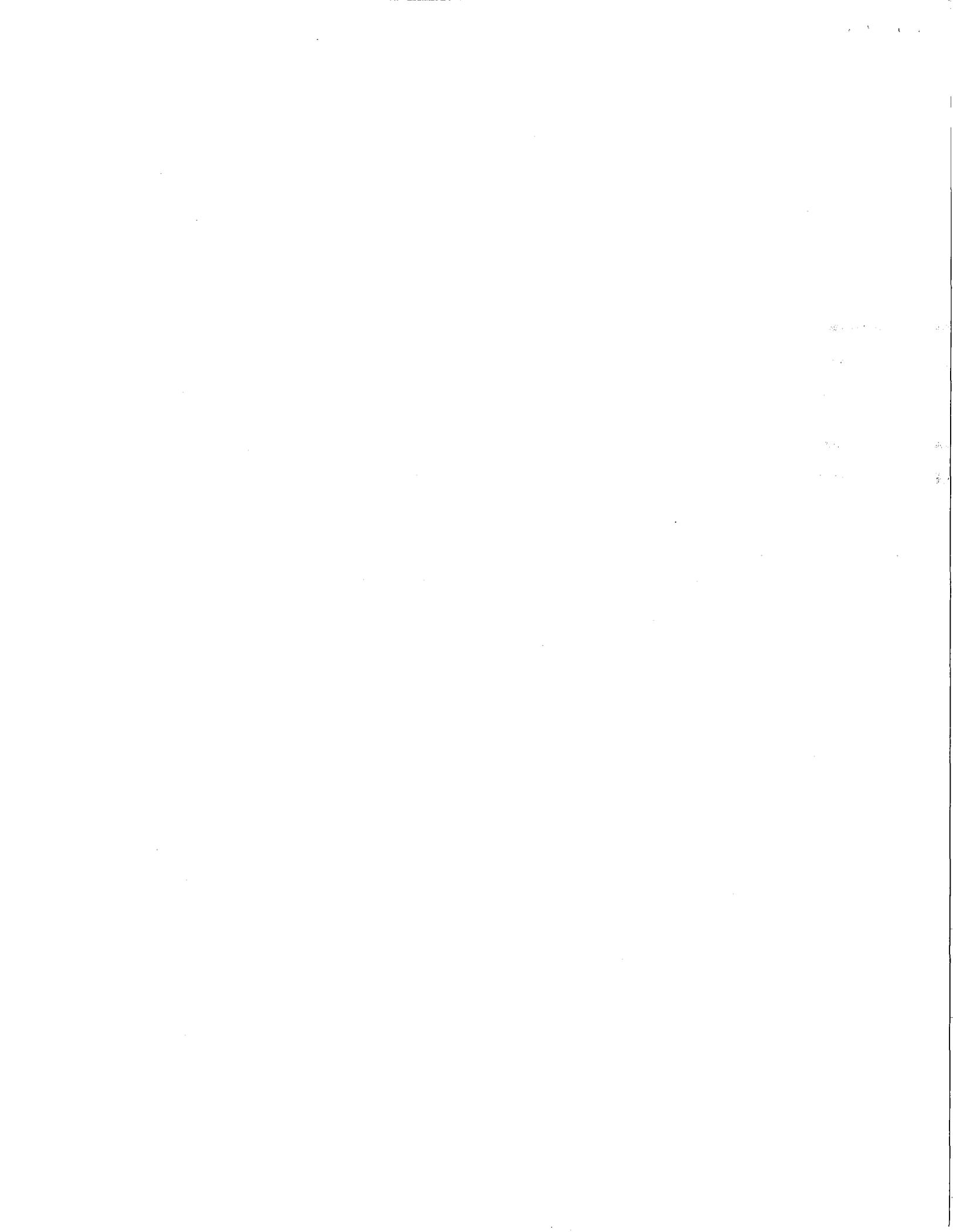
**3.0 TARGETS**

3.1 Ground Water Usage: Public supply, but alternate sources available with minimum hookup requirements Source: 1,2 **Value: 4**

3.2 Distance to Nearest Drinking Water Well: 2500 feet Source: 1 **Value: 3**

3.3 Population Served within 2 Miles:  $(250)^2 = 15.81$  Source: 1,5 **Value: 16**

3.4 Area Irrigated by (Groundwater) Wells within 2 miles:  $.75(1152.4)^2 = 25.46$  Source: 6 **Value: 25**



4.0 **RELEASE**

Explain basis for scoring a release to ground water:

The bottom of the landfill is in the ground water.

Source: 1,3

Value: 5

**SOURCES USED IN SCORING**

1. *Yakima Health District sampling visit on May 8, 1997.*
2. *Washington Ranking Method Scoring Manual, April 1992.*
3. *Site Inspection Report, Yakima Old City Landfill, Department of Ecology, 1986*
4. *Washington Climate for Grant, Kittitas, Klickitat, and Yakima Counties, May 1979*
5. *Yakima County Council of Governments Census Maps Data*
6. *WDOE Water Rights Information System.*
7. *USGS Water Resources Investigation Report 92-4017*