

WASHINGTON RANKING METHOD

ROUTE SCORES SUMMARY AND RANKING CALCULATION SHEET

For Sites With No Sediment Route Migration Pathways

Site name: WA DOT - Rimrock Region: CRO

Street, city, county: Naches, Yakima

This site was (X) ranked, ( ) re-ranked, on March 1, 1994 based on quintile values from a total of 390 assessed/scored sites.

Pathway	Route Score(s)	Quintile Group number(s)	Priority scores:
SW-HH	<u>NS</u>	<u>0</u>	$\frac{16 + 0 + 0}{8} = \frac{16}{8} = 2$
Air-HH	<u>NS</u>	<u>0</u>	
GW-HH	<u>SI.0</u>	<u>4</u>	
SW-En	<u>NS</u>	<u>0</u>	$\frac{0 + 0}{7} = \frac{0}{7} = \text{N/A}$
Air-En	<u>NS</u>	<u>0</u>	

Use the matrix presented to the right, along with the two priority scores, to determine the site ranking. N/A refers to where there is no applicable pathway.

	Human Health	Environment					
		5	4	3	2	1	N/A
5		1	1	1	1	1	1
4		1	2	2	2	3	4
3		1	2	3	4	4	5
→ 2		2	3	4	4	5	5
1		2	3	4	5	5	5
N/A		3	4	5	5	5	N/A

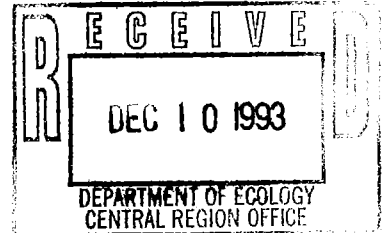
DRAFT / FINAL

Matrix ("bin") Ranking: 5, or          No Further Action

CONFIDENCE LEVEL: The relative position of this site within this bin is:

- almost into the next higher bin.
- right in the middle, unlikely to ever change.
- almost into the next lower bin.

WORKSHEET 1  
SUMMARY SCORE SHEET



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

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

DOT-Rimrock  
Junction of Highways 12 & 410  
Naches, WA 98937

Parcel number: R16, T15, S35

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

In May of 1991, the Washington State Department of Transportation had a 500 gallon unleaded tank and a 1500 gallon diesel tank removed from below the ground at the site. Accessible soils were removed and remediated, but some soils underneath the existing structure at the site were left in place on the condition that when the structure was removed, the soils would be excavated and remediated. These remaining soils exceeded MTCA clean up levels for TPH-gasoline and TPH-diesel. The structure is no longer there and there is no evidence that any further clean up has occurred. This site affects only the ground water pathway.

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):

In scoring this site, we are assuming that both contaminants are in the ground beneath the old building site (underneath a concrete pad).

ROUTE SCORES:

Surface Water/Human Health: \_\_\_\_\_;      Surface Water/Environ.: \_\_\_\_\_;  
Air/Human Health: \_\_\_\_\_;      Air/Environmental: \_\_\_\_\_;  
Ground Water/Human Health: 51.0.

OVERALL RANK: 5.

Rev. 4/3/92

WORKSHEET 2  
ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE

List substances to be considered for scoring:

N/A-not scored

2. AIR ROUTE

List substances to be considered for scoring:

N/A-not scored

3. GROUND WATER ROUTE

List substances to be considered for scoring:

TPH-Gasoline and TPH-Diesel

Source: 1

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

These were the contaminants found which exceeded MTCA clean up levels.

List management units to be considered in scoring:

Contaminated soil.

Source: 1, 3

Explain basis for choice of unit used in scoring.

TPH-diesel and TPH-gasoline were found in soil samples and exceeded MTCA clean-up standards. It was the only unit found during the investigation.

**SUBSTANCE CHARACTERISTICS WORKSHEET  
FOR MULTIPLE UNIT/SUBSTANCE SITES**

Not Applicable

**SURFACE WATER ROUTE**

Not Applicable-not scored

**AIR ROUTE**

Not Applicable-not scored

**GROUND WATER ROUTE**

**1.0 SUBSTANCE CHARACTERISTICS**

**1.1 Human Toxicity**

Substance	Drinking Water Standard		Acute Toxicity		Chronic Toxicity		Carcinogenicity	
	(ug/l)	Val.	(mg/kg-bw)	Val.	(mg/kg/day)	Val.	WOE PF*	Val.
1. TPH-gas (from benzene)	5	8	3306	3	x	-	A .029	5
2. TPH-diesel (from naphthalene)	20	6	490	5	.004	3	ND	ND

\*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 \_\_\_\_\_ Source: \_\_\_\_\_ Value: \_\_\_\_\_

OR

Solubility(mg/l) 1. 1.8E+03 2. 3.0E+01 \_\_\_\_\_ Source: 2 Value: 3

1.3 Substance Quantity default value of < 10 cu.yd. Source: 1.3 Value: 1  
Explain basis: The exact amount of petroleum contaminated soil beneath the old building site is not known.

## 2.0 MIGRATION POTENTIAL

- 2.1 Containment Source: 1, 4 Value: 10  
Explain basis: Spills/discharges/contaminated soil always rank 10.
- 2.2 Net Precipitation: 2.6 inches Source: 5 Value: 1  
Calculated from October 1 to March 31 using Yakima numbers.
- 2.3 Subsurface Hydraulic Conductivity: >10<sup>-3</sup> Source: 3, 4 Value: 4
- 2.4 Vertical Depth to Ground Water: 0 feet Source: 1, 3, 4 Value: 8  
Ground water is less than 25 feet deep in this area.

## 3.0 TARGETS

- 3.1 Ground Water Usage: Public supply; no non-threatened alternative  
Source: 6, 4 Value: 9
- 3.2 Distance to Nearest Drinking Water Well: 470 ft Source: 3, 4 Value: 5
- 3.3 Population Served within 2 Miles: 771<sup>-2</sup> = 28 Source: 7, 4 Value: 28
- 3.4 Area Irrigated by (Groundwater) Wells  
within 2 miles: .75 (963<sup>-2</sup>) = 23 Source: 7 Value: 23

## 4.0 RELEASE

- Explain basis for scoring a release to ground water: Source: 1 Value: 5  
WDOT soil sample test data indicates presence of gasoline and diesel above MTCA clean up levels.

## SOURCES USED IN SCORING

1. Washington State Department of Transportation, Cleanup Action for the WSDOT Property at Rimrock, October 1991
2. Toxicology Data Base for Use in Washington Ranking Method Scoring, January 1992
3. Site visit by Yakima Health District staff on October 22, 1993
4. Washington Ranking Method, Scoring Manual, April 1992
5. Washington Climate for Grant, Kittitas, Klickitat and Yakima Counties, May 1979
6. WDOE Water Rights Information System (WRIS)
7. Yakima County Council of Governments Census Maps Data