

WASHINGTON RANKING METHOD

ROUTE SCORES SUMMARY AND RANKING CALCULATION SHEET

Site name: Pederson Fryer Region: CRO
 City, county: Yakima, Yakima

This site was ranked on August 12, 1991, based on quintile values from 259 assessed/scored sites.

Pathway	Route Score(s)	Quintile Group number(s)
SW-HH	<u>NS</u>	<u>0</u>
Air-HH	<u>14.0</u>	<u>3</u>
GW-HH	<u>66.6</u>	<u>5</u>
Sed-HH	<u>-</u>	<u>-</u>
SW-En	<u>NS</u>	<u>-</u>
Air-En	<u>0</u>	<u>1</u>
Sed-En	<u>-</u>	<u>-</u>

Priority scores:

$$\frac{25 + 6 + 0}{8} = \frac{31}{8} = 3.875 \approx 4$$

$$\frac{1 + 0}{7} = \frac{1}{7} \approx 0.14 \approx 1$$

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	5

DRAFT / FINAL

Matrix ("bin") Ranking: 3, or No Further Action

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

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

WORKSHEET 1
SUMMARY SCORE SHEET

Site Name: PEDERSON FRYER

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

1401 Birchfield Rd.
Yakima, WA., Yakima County

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

This former farmstead is now a cold storage chicken distribution center. Two USTs have been removed from the site along with approximately 3,000 yds³ of contaminated soil.

Quantity: Remaining contaminated soil volume unknown. Air and ground water scored using unknown quantity.

Special Considerations: (Include limitations in site file data, data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site)

Surface water route not scored, since spills were to subsurface, and soil has not been excavated and piled on site. Open pit present is not expected to be a surface water runoff potential.

ROUTE SCORES:

Ground Water/Human: 58.6

Overall Rank: _____

Surface Water/Human: NS

Air/Human: ~~-22.0~~ 14.0

Air/Environmental: 0

Surface Water/Environmental: NS

WORKSHEET 2
ROUTE DOCUMENTATION

SURFACE WATER ROUTE

List substances to be considered for scoring.

Source: _____

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

List management units to be considered in scoring:

Source: _____

Explain basis for choice of unit used in scoring.

AIR ROUTE

List substances to be considered for scoring.

Source: _____

BTEX

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

Known contaminants

List management units to be considered in scoring:

Source: _____

contaminated soil

Explain basis for choice of unit used in scoring.

WORKSHEET 2 (CONTINUED)
ROUTE DOCUMENTATION

GROUND WATER ROUTE

List substances to be considered for scoring.

Source: _____

BTEX
Lead

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

Known contaminants

List management units to be considered in scoring:

Source: _____

Contaminated soil

Explain basis for choice of unit used in scoring.

WORKSHEET 3
SUBSTANCE CHARACTERISTIC WORKSHEET
FOR MULTIPLE UNIT/SUBSTANCE SITES

	Combination 1	Combination 2	Combination 3
Unit: Substance: <u>AIR ROUTE</u> Human Toxicity/Mobility Value: Environmental Toxicity/Mobility Value: Containment Value:			
Air Human Subscore: Air Environmental Score:			
<u>SURFACE WATER ROUTE</u> Human Toxicity Value: Environmental Toxicity Value: Containment Value:			
Surface Water Human Subscore: Surface Water Environmental Subscore:			
<u>GROUND WATER ROUTE</u> Human Toxicity/Mobility Value: Containment Value:			
Ground Water Subscore:			

**WORKSHEET 4
SURFACE WATER ROUTE**

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Std.		Chronic Toxicity		Acute Toxicity		Carcinogenicity		
	($\mu\text{g/l}$)	Value	mg/kg/day	Value	mg/kg-bw	Value	WOE	Polency Factor	Value
1.									
2.									
3.									
4.									
5.									
6.									

Source: _____

Highest Value: _____

+2 Bonus Points?: _____

Value: _____

1.2 Environmental Toxicity

Substance	Acute Criteria ($\mu\text{g/L}$)	Non-human mammalian acute toxicity (mg/kg)	Value
1.			
2.			
3.			
4.			
5.			
6.			

Source: _____ Value: _____

1.3 Substance Quantity

Explain basis: _____

Source: _____ Value: _____

2.0 MIGRATION POTENTIAL

2.1 Containment

Explain basis: _____

Source: _____ Value: _____

2.2 Surface Soil Permeability: _____

Source: _____ Value: _____

2.3 Total Annual Precipitation: _____

Source: _____ Value: _____

2.4 Maximum 2-Year 24-Hr Precipitation: _____

Source: _____ Value: _____

2.5 Flood Plain: _____

Source: _____ Value: _____

2.6 Terrain Slope: _____

Source: _____ Value: _____

WORKSHEET 4 (CONTINUED)
SURFACE WATER ROUTE

3.0 TARGETS

3.1 Distance to Surface Water: _____

Source: _____ Value: _____

3.2 Population Served within 2 miles: _____

Source: _____ Value: _____

3.3 Area Irrigated by Sources within 2 miles: _____

Source: _____ Value: _____

3.4 Distance to Fishery Resource: _____

Source: _____ Value: _____

3.5 Distance to Sensitive Environment: _____

Source: _____ Value: _____

List: _____

4.0 RELEASE

Explain basis: _____

Source: _____ Value: _____

WORKSHEET 5 (CONTINUED)
AIR ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Introduction - please review before scoring

1.2 Human Toxicity

Substance	Air Std. $\mu\text{g}/\text{m}^3$		Chronic Toxicity $\text{mg}/\text{kg}/\text{day}$		Acute Toxicity $\text{mg}/\text{kg}-\text{bw}$		Carcinogenicity Potency Factor		
		Value		Value		Value	WOE	Factor	Value
1. B		10		3		0			5
2. E		4		0		0			0
3. T		7		0		1			0
4. X		7		3		1			0
5.									
6.									

Source: _____

Highest Value: 10

+2 Bonus Points?: 2

Toxicity Value: 12

1.3 Mobility

1.3.1 Gaseous Mobility

Vapor Pressure: B 4
E 3
T 4
X 3

Value: _____

Source: _____

1.3.2 Particulate Mobility

Soil Type: _____

Erodibility: _____

Climatic Factor: _____

Particulate Mobility Potential Value: _____

Source: _____

1.4 Final Human Health Toxicity/Mobility Matrix:

Value: 24

1.5 Environmental Toxicity/Mobility

Substance	Non-human mammalian Acute Toxicity		Mobility	
		Value		Value
1. B		0	4	
2. E		0	3	
3. T		1	4	
4. X		1	3	
5.				
6.				

Environmental Toxicity Mobility Matrix:

Source: 1 Value: 2

1.6 Substance Quantity: unknown

Source: 1 Value: 1

WORKSHEET 5
AIR ROUTE

2.0 MIGRATION POTENTIAL

2.1 Containment: SOIL COVER > 6 INCHES WITH
NO VAPOR RECOVERY

Source: 2 Value: 6

3.0 TARGETS

3.1 Nearest Population: < 1000 ft.

Source: Value: 10

3.2 Nearest Sensitive Environment:

Source: 1 Value: 0

List: None < 1 mile

3.3 Population within 1/2 mile: 153 ✓

Source: 1 Value: 12

4.0 RELEASE:

Source: 1 Value: 0

**WORKSHEET 6
GROUND WATER ROUTE**

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Std.		Chronic Toxicity		Acute Toxicity		Carcinogenicity		
	(µg/l)	Value	mg/kg/day	Value	mg/kg-bw	Value	WOE	Potency Factor	Value
1. <u>B</u>		<u>8</u>		<u>3</u>		<u>0</u>			<u>5</u>
2. <u>E</u>		<u>4</u>		<u>3</u>		<u>1</u>			<u>0</u>
3. <u>T</u>		<u>2</u>		<u>3</u>		<u>1</u>			<u>0</u>
4. <u>X</u>		<u>2</u>		<u>10</u>		<u>1</u>			<u>0</u>
5. <u>Lead</u>		<u>8</u>		<u>0</u>		<u>0</u>			<u>0</u>

Source: 1

Highest Value: 10

+2 Bonus Points?: 2

Value: 12

1.2 Mobility

Substance: B 3
E 2
T 2
X 2
Lead 0

Source: 1 Value: 3

1.3 Substance Quantity

Explain basis: unknown

Source: 1 Value: 1

2.0 MIGRATION POTENTIAL

2.1 Containment

Explain basis: spills to subsurface

Source: 1 Value: 10

2.2 Net Precipitation: 3, 3

Source: 1 Value: 1

2.3 Subsurface Hydraulic Conductivity: 10⁻⁵ - 10⁻³

Source: 1 Value: 5

2.4 Vertical Depth to Ground Water: 0 contaminated

Source: 1 Value: 8

3.0 TARGETS

3.1 Ground Water Usage: Public no alternate supply

Source: 1 Value: 9

3.2 Distance to Nearest Drinking Water Well: < 600 ft

Source: 1 Value: 5

3.3 Population Served with 2 miles: 3873 ✓

Source: 1 Value: 62

3.4 Area Irrigated by Wells within 2 miles: 1449 0.75 ft

Source: 1 Value: 29

4.0 RELEASE

Explain basis: seen visible on groundwater

Source: 1 Value: 5

WORKSHEET 7
SOURCES USED IN SCORING

1. SHA report for Pederson Fryer Farm
2. CONVERSATION WITH JOHN WIETFIELD, ECOLOGY, JULY 1991
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.