

CSID 3698

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**WORKSHEET 1
SUMMARY SCORE SHEET**

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

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

Geiger Field Housing Area

3600 South Spotted Rd

NW1/4 of Section 33, Township 25N, Range 42 EWM

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

Historically the Geiger Field Housing Area was military family housing for US Air Force personnel at Fairchild Air Force Base. Currently the housing area is vacant and boarded up. The housing area is comprised of duplex and single family homes. The housing area is located south of Spokane International Airport and Geiger Correctional Facility, west of the Spokane Waste to Energy Refuse Facility, and north of Interstate 90 and Geiger Boulevard.

On November 7, 1996, the Department of Ecology (Ecology) received a report on excavation and removal of underground storage heating oil tanks conducted in 1992 at the Geiger Field housing Area. The report revealed multiple releases of diesel fuel oil at this site. Soil and ground water samples obtained following tank removal contained diesel fuel contamination in excess of Model Toxics Control Act standards (up to 160 ppm in ground water and up to 62,000 ppm in soil).

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):
Partial remediation of contaminated soil has occurred at the site with remaining contamination under structures. Quantity of contaminant remaining on site is unknown.

ROUTE SCORES:

Surface Water/Human Health: NA

Surface Water/Environ.: NA

Air/Human Health: NA

Air/Environmental: NA

Ground Water/Human Health: 28.1

OVERALL RANK: 5

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WORKSHEET 2
ROUTE DOCUMENTATION

- 1. SURFACE WATER ROUTE Not Applicable.**
Contamination is restricted to subsurface soils
- 2. AIR ROUTE Not Applicable.**
Contamination is restricted to subsurface soils

WORKSHEET 2 (CONTINUED)
ROUTE DOCUMENTATION

3. GROUND WATER ROUTE

List those substances to be considered for scoring: Source: 1
Diesel fuel #2 (heating oil)

Explain basis for choice of substance(s) to be used in scoring.
Documentation of heating oil release into soil and shallow ground water following underground tank decommissioning.

List those management units to be considered for scoring: Source: 1
Contaminated ground water and subsurface soil.

Explain basis for choice of unit to be used in scoring.
This site is scored on the basis that the contaminant was detected at concentrations exceeding MTCA cleanup levels in soil and ground water (160 ppm ground water, 62,000 ppm soil).

WORKSHEET 6 GROUND WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Standard		Acute Toxicity		Chronic Toxicity		Carcino- genicity		
	(ug/l)	Val.	(mg/kg-bw)	Val.	(mg/kg/day)	Val.	WOE	PF*	Val.
1. TPH-Diesel	20	6	490	5	0.004	3	*	*	ND
2.									
3.									
4.									
5.									
6.									

Source's: 6 & 7
Highest Value: 6
+ 2 Bonus Points? 0
Final Toxicity Value: 6

*Potency Factor

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

Cations/Anions: _____ Source's: 6 & 7 Value: 1

OR

Solubility(mg/l): 1 = 3.0E+01

1.3 Substance Quantity

Source: 1 & 7 Value: 3

Explain basis: estimate of soil contamination based on
approximate square footage of four dwelling units @ 1800 each
times 3 foot depth which equals 800 cu yards. Table GW-7A

2.0 MIGRATION POTENTIAL

2.1 Containment Source: 7 Value: 10

Explain basis: Spills, Discharges, and Contaminated Soil

2.2 Net Precipitation: 7.2 inches Source: 7 & 8 Value: 1

2.3 Subsurface Hydraulic Conductivity: $> 10^{-5}$ to 10^{-3} Source: 7 & 9 Value: 3

2.4 Vertical Depth to Ground Water: 0 feet Source: 1 & 4 Value: 8

3.0 TARGETS

3.1 Ground Water Usage: Public supplies/alternative available Source: 3 & 7 Value: 4

(Max. = 10)

3.2 Distance to Nearest Drinking Water Well: $> 600 - 1,300$ ft Source: 3 & 4 Value: 4

(Max. = 5)

3.3 Population Served within 2 Miles: $\sqrt{\text{pop.}} = \sqrt{975} = 31$ Source: 3 & 4 Value: 31

(Max. = 100)

3.4 Area Irrigated by (Groundwater) Wells

within 2 miles: $0.75 \sqrt{\text{no. acres}} = 97$ Source: 5 Value: 7

$0.75 \sqrt{97} = 0.75 (10) = 7.4$

(Max. = 50)

4.0 RELEASE

Explain basis for scoring a release to ground Source: 1 & 7 Value: 5

water: Reference to shallow ground water encountered during tank
removal and subsequent ground water test at 160 ppm exceeding
MTCA and drinking water standards

(Max. = 5)

SOURCES USED IN SCORING

1. Site Assessment Report for UST Decommissioning
Fairchild AFB, Geiger Field Military Housing Areas,
Spokane, Washington.
E. P. Johnson Construction and Environmental, Inc. March 1993
2. Aquifer Sensitive Overlay Zone Map, Spokane County, Washington
3. Washington State Department of Health Drinking Water Information Network
4. Washington State Department of Ecology (Ecology) Well Logs
5. Ecology Water Resource Inventory Area (WRIA) System Data Base
6. Toxicology Data Base Washington Ranking Method (WARM)
7. WARM Scoring Manual
8. Washington Climate, Spokane County, WSU Dept. of Agriculture
9. Soil Survey of Spokane County Washington. USDA Soil Conservation Svc.
10. Ecology Letter: Initial Investigation Report on Review of Tank Removal
January 9, 1997