SITE HAZARD ASSESSMENT

WORKSHEET 1

Summary Score Sheet

SITE INFORMATION:

Hinrichs Property
126 N Main Avenue
Ridgefield, Clark County, WA 98642

Section/Township/Range: Sec. 24/T4N/R1W
Latitude: 45° 48' 58" Longitude: 122° 44' 45"
Ecology Facility Site ID No.: 1019789

Site scored/ranked for the February 2007 update
February 5, 2007

SITE DESCRIPTION (management areas, substances of concern, and quantities):

The Hinrichs Property was entered onto the Washington Department of Ecology's (Ecology) database of Confirmed and Suspected Contaminated Sites on October 9, 2006. Contamination by tetrachloroethene (PCE) in groundwater was found on site by the "Focused Subsurface Investigation Report" by Hahn and Associates, Inc. Currently, the site is a vacant lot without signs of a pre-existing commercial building. No onsite historical activity can be linked to the present contamination conditions. However, the adjoining property to the south was a former dry cleaner business that is currently a site with confirmed PCE contamination known as "Park Laundry".

On October 9, 2006, Ecology sent a letter to the site owner(s) notifying them that Clark County Public Health's (CCPH) Environmental Health Division will conduct a Site Hazard Assessment (SHA). On Wednesday, October 18, 2006, Clark County Public Health visited the site to familiarize with existing site conditions. Since groundwater samples were collected by Hahn and Associates, Inc., there was no need for further sampling during this SHA process.

According to the "Focused Subsurface Investigation Report", "A total of five borings (B1 through B5) were completed to facilitate the collection of soil and groundwater samples at locations focusing on the location of the former dry cleaners." Since the Photo-Ionization Detector (PID) did not detect any organic vapors in soil, soil samples were not analyzed in the laboratory. Boring B-5 was completed on a separate parcel to the north. Therefore, four separate sampling locations were utilized for confirming PCE in onsite groundwater. The "Focused Subsurface Investigation Report" showed groundwater contamination exceeding the Model Toxics Control Act (MTCA) Method A cleanup levels for tetrachloroethene. Table 1 displays the contaminant, media, and analytical results found onsite.

TABLE 1: Samples Above MTCA Method A Cleanup Levels

Sample ID	Matrix	Contaminant	Results	MTCA Method A
B1 - 100	Groundwater	Tetrachloroethene	4,890 µg/L	5.0 µg/L
B2 - 104	Groundwater	Tetrachloroethene	16.6 µg/L	5.0 µg/L
B3 - 103	Groundwater	Tetrachloroethene	7,210 µg/L	5.0 µg/L
B4 - 102	Groundwater	Tetrachloroethene	188 µg/L	5.0 µg/L

As a result of this SHA, this site is scored and ranked due to the documented presence of tetrachloroethene in on-site groundwater exceeding the MTCA Method A (Unrestricted Land Uses) cleanup levels.

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):

Due to the significant contamination documented on-site being primarily subsurface, the surface water and air routes are not applicable for WARM scoring for this site. Thus, only the groundwater route will be scored.

ROUTE SCORES:

Surface Water/Human Health: **NS**
Surface Water/Environmental.: **NS**
Air/Human Health: **NS**
Air/Environmental: **NS**
Groundwater/Human Health: **47.8**

OVERALL RANK: 3

WORKSHEET 2
Route Documentation

1. **SURFACE WATER ROUTE** – *Not Scored*
   a. List those substances to be considered for scoring: Source: __

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

   c. List those management units to be considered for scoring: Source: __

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

2. **AIR ROUTE** – *Not Scored*
   a. List those substances to be considered for scoring: Source: __
   b. Explain basis for choice of substance(s) to be used in scoring:

   c. List those management units to be considered for scoring: Source: __

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

3. **GROUNDWATER ROUTE**
   a. List those substances to be considered for scoring: Source: 1

      Tetrachloroethene

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

      This substance was detected in on-site subsurface soils and groundwater samples associated with the site in concentrations exceeding the respective MTCA Method A cleanup level.

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

      Subsurface soils and groundwater.

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

      The contaminating substance was detected in on-site subsurface soils and groundwater samples in concentrations exceeding the respective MTCA Method A cleanup level.

WORKSHEET 6
Groundwater Route

1.0 SUBSTANCE CHARACTERISTICS

1.2 Human Toxicity

	Substance	Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity		Value
								WOE	PF*	
1	Tetrachloroethene	5	8	800	5	0.01	3	B2	0.051	4

* *Potency Factor*

Source: 1,3
Highest Value: 8
(Max = 10)
Plus 2 Bonus Points? 0
Final Toxicity Value: 8
(Max = 12)

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

Cations/Anions	OR	Solubility (mg/L)
1=		1= $1.5 \times 10^2 = 2$
2=		2=
3=		3=
4=		4=
5=		5=
6=		6=

Source: 1,3
Value: 2
(Max = 3)

1.3 Substance Quantity:

Explain basis: Unknown, use default = 1	Source: 1,3 **Value: 1** (Max=10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment (explain basis):** Spill release to soil, no cover = **10**	4,6	**10** (Max = 10)
2.2	**Net precipitation:** 22.9" – 5.7" = 23.2"	5	**3** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** sand, silt	2, 4	**3** (Max = 4)
2.4	**Vertical depth to groundwater:** verified groundwater contamination = 0'	1, 4	**8** (Max = 8)

3.0 TARGETS

		Source	Value
3.1	**Groundwater usage:** public supply, but alternate sources available with minimum hookup requirements	7	**4** (Max = 10)
3.2	**Distance to nearest drinking water well:** ≤ 600 feet	7	**5** (Max = 5)
3.3	**Population served within 2 miles:** √ **pop.** = 3,600	7	**60** (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles:** 591 **(0.75)*√# acres** = 18	7	**18** (Max = 50)

4.0 RELEASE

	Source	Value
Explain basis for scoring a release to groundwater: Confirmed by laboratory analysis.	1	**5** (Max = 5)

SOURCES USED IN SCORING

1. "Focused Subsurface Investigation Report" by Hahn and Associates, Inc. dated August 8, 2006.
2. Soil Survey of Clark County, Washington, November 1972.
3. Washington State Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992
4. Washington State Department of Ecology, WARM Scoring Manual, April 1992.
5. Washington Climate – Net Rainfall Table
6. Arial Photo, GIS Clark County MapsOnline.
7. Washington State Department of Ecology, Water Rights Application System (WRATS) printout for two-mile radius of site.