CSID 4099

SITE HAZARD ASSESSMENT

WORKSHEET 1

Summary Score Sheet

SITE INFORMATION:

Park Laundry
122 N Main Avenue
Ridgefield, Clark County, WA 98642

Section/Township/Range: Sec. 23/T4N/R1W
Latitude: 45° 48' 57" Longitude: 122° 44' 45"
Ecology Facility Site ID No.: 8100630

Site scored/ranked for the February 2007 update
January 3, 2007

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

The Park Laundry Site was entered onto the Washington Department of Ecology's (Ecology) database of Confirmed and Suspected Contaminated Sites on April 27, 2006. Contamination by tetrachloroethene (PCE) in groundwater and soil were found at adjoining properties. Therefore, a historical investigation of the property was conducted. The investigation was able to confirm that a dry cleaner business named "Park Laundry" operated at the site from at least 1970-1974.

Currently, the site is a vacant lot without signs of a pre-existing commercial building. However, historical Clark County aerial photos show a commercial building structure on the site parcel. Never the less, subsurface soil and groundwater samples were necessary in determining existing onsite contamination.

On September 6, 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 arrived onsite with Boart Longyear to complete six ground borings for the collection of subsurface soil and groundwater samples. Groundwater was encountered at approximately 12 feet below ground surface (bgs). Soil samples were collected from the saturation zone at approximately 10-11 feet bgs. All groundwater and soil samples were collected according to proper methods and analyzed for volatile organic compounds (VOCs).

The analytical report showed soil and 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	Latitude & Longitude
PL1-S	Soil	Tetrachloroethene	ND	0.05 mg/kg	45° 48' 57.9" 122° 44' 44.4"
PL2-S	Soil	Tetrachloroethene	0.249 mg/kg	0.05 mg/kg	45° 48' 57.7" 122° 44' 44.6"
PL3-S	Soil	Tetrachloroethene	1.01 mg/kg	0.05 mg/kg	45° 48' 57.9" 122° 44' 44.8"
PL4-S	Soil	Tetrachloroethene	ND	0.05 mg/kg	45° 48' 57.8" 122° 44' 45.1"
PL5-S	Soil	Tetrachloroethene	0.112 mg/kg	0.05 mg/kg	45° 48' 57.9" 122° 44' 45.3"
PL6-S	Soil	Tetrachloroethene	ND	0.05 mg/kg	45° 48' 57.8" 122° 44' 45.5"
PL1-GW	Groundwater	Tetrachloroethene	1.29 µg/L	5.0 µg/L	45° 48' 57.9" 122° 44' 44.4"
PL2-GW	Groundwater	Tetrachloroethene	949 µg/L	5.0 µg/L	45° 48' 57.7" 122° 44' 44.6"
PL3-GW	Groundwater	Tetrachloroethene	34,500 µg/L	5.0 µg/L	45° 48' 57.9" 122° 44' 44.8"
PL4-GW	Groundwater	Tetrachloroethene	7.52 µg/L	5.0 µg/L	45° 48' 57.8" 122° 44' 45.1"
PL5-GW	Groundwater	Tetrachloroethene	1,680 µg/L	5.0 µg/L	45° 48' 57.9" 122° 44' 45.3"
PL6-GW	Groundwater	Tetrachloroethene	ND	5.0 µg/L	45° 48' 57.8" 122° 44' 45.5"

ND = Non Detect

As a result of this SHA, this site is scored and ranked due to the documented presence of tetrachloroethene in on-site groundwater and on-site subsurface soils 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. Site Hazard Assessment and lab results by Test America, Inc, Vancouver, Washington, Geo-Tech Explorations, October 18, 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.