CSID 4871

SITE HAZARD ASSESSMENT

WORKSHEET 1

Summary Score Sheet

SITE INFORMATION:

Gramor Development (currently owned by J-T Properties LTD PTNSP)
5106 E 4th Plain Blvd (formerly)
5000 E 4th Plain Blvd (currently)

Vancouver, Clark County, WA 98661-6548
Section/Township/Range: Sec. 19/TS2N/R2E
Latitude: 45° 38' 27.00" Longitude: 122° 37' 3.00"
Ecology Facility Site ID No.: 81243434

Site scored/ranked for the February 2006 update
January 27, 2006

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

On October 31, 1997, the "Gramor Development" site was entered into the Washington Department of Ecology Integrated Site Information System of Confirmed and Suspected Contaminated Sites. Petroleum product (gasoline components) contamination of groundwater was reported and confirmed at the "Gramor Development" site on May 26, 1995 by Dames & Moore, Inc. The following summary notes the relevant documents reviewed and analytical summary results in Table 1 to show exceedances of the Model Toxics Control Act (MTCA) Method A Cleanup Levels:

Request for Ecology Opinion, May 26 1995, Dames & Moore, Inc.

> "BTEX components were detected in a groundwater sample, by Geoprobe, (P2) near the adjacent property containing an Arco Service Station. Benzene was detected at 290 ppb and Xylene was detected at 1,300 ppb. No source for this contamination was clearly identified. However, the adjacent property containing an Arco Service Station was suspected."

TABLE 1: Contaminants Detected at Gramor Development

Sample ID	Media	Sample Depth (feet bgs)	Contaminant	Result	MTCA Method A
P-2	Groundwater	-	TPH	ND	800 ppb
			Benzene	290	5 ppb
			Toluene	41	1,000 ppb
			Ethylbenzene	390	700 ppb

			Xylene	1,300	1,000 ppb
B-5	Soil	10 - 11	TPH	6 ppm	100 ppm
			Benzene	ND	290
			Toluene	0.003 ppm	7 ppm
			Ethylbenzene	ND	6 ppm
			Xylene	0.0024 ppm	9 ppm
B-5	Soil	15 - 16	TPH	ND	100 ppm
			Benzene	ND	290
			Toluene	0.0029 ppm	7 ppm
			Ethylbenzene	ND	6 ppm
			Xylene	ND	9 ppm
B-6	Soil	10 - 11	TPH	10 ppm	100 ppm
			Benzene	ND	290
			Toluene	0.0059 ppm	7 ppm
			Ethylbenzene	0.0023 ppm	6 ppm
			Xylene	0.011 ppm	9 ppm
B-7	Soil	10 - 11	TPH	17 ppm	100 ppm
			Benzene	ND	290
			Toluene	0.046 ppm	7 ppm
			Ethylbenzene	ND	6 ppm
			Xylene	0.056 ppm	9 ppm
B-7	Soil	15 - 16	TPH	ND	100 ppm
			Benzene	1.9 ppm	290
			Toluene	2.8 ppm	7 ppm
			Ethylbenzene	0.170 ppm	6 ppm
			Xylene	1.0 ppm	9 ppm

On September 20, 2005, Ecology sent a letter to the site owner(s) notifying them that Clark County Health Department's (CCHD) Environmental Health Division will be conducting a Site Hazard Assessment. On October 6, 2005, a site visit was made by CCHD. The site property address is now 5000 E 4th Plain Blvd (parcel ID# 030242-045). The main businesses currently located at the site are Albertson's Grocery, True Value Hardware, and many other small businesses contained within a strip mall and other building suites. In the location where the geo-probing was conducted now lies a small business building containing a Subway, Coffee's On, and Pizza Italiano.

The adjacent property (suspected source of contamination) with the former Arco Service Station currently contains a Payday Loans, Insurance express, and a vacant storefront. The address is 5210 E 4th Plain Blvd (parcel ID# 030243-030).

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:	**49.9**		

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

      Benzene, Xylenes

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

      These substances were detected in on-site groundwater samples associated with the site in concentrations exceeding their 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 substances were detected in on-site groundwater samples in Concentrations exceeding their 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	Benzene	5	8	3306 (rat)	3	-	ND	A	.029	5
2	Xylenes	10000	2	50 (hmn)	10	2	1	-	-	ND
3	Toluene	2000	2	5000 (rat)	3	0.2	1	-	-	ND
4	Ethylbenzene	700	4	3500 (rat)	3	0.1	1	-	-	ND

* *Potency Factor*

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

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

Cations/Anions	OR	Solubility (mg/L)
1=		1= $1.8 \times 10^3 = 3$
2=		2= $2.0 \times 10^2 = 2$
3=		3= $5.4 \times 10^2 = 2$
4=		4= $1.5 \times 10^2 = 2$

Source: 1,3
Value: 3
(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):** contaminated soil area capped, score as a landfill: 1)no liner (**3**); 2)low permeability cover (**1**); 3)no leachate collection system (**2**) = **6**	4,6	**6** (Max = 10)
2.2	**Net precipitation:** 22.9" – 5.7" = 23.2"	5	**3** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** sand, gravel	2, 4	**4** (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:** 7,000 ft	7	**1** (Max = 5)
3.3	**Population served within 2 miles: √ pop.** = >10,000	7	**100** (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles:** 477 **(0.75)*√# acres** = 16	7	**16** (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. Request for Ecology Opinion by Dames & Moore, Portland, Oregon, May 26, 1995.
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. Ariel Photo, GIS Clark County MapsOnline.
7. Washington State Department of Ecology, Water Rights Application System (WRATS) printout for two-mile radius of site.