WORKSHEET 1
Summary Score Sheet

SITE INFORMATION:

Name: Jerry's Custom Mechanics
Address: 3695 W Van Giesen
City: **West Richland** County: **Benton** State: **WA** Zip: **99352**
Section/Township/Range: **S05/ T09N/ R28E**
Latitude: **46° 17' 48.76" N** Longitude: **119° 20' 11.72" W**
TCP ID #: **85292259**

Site scored/ranked for the August 22, 2007 update.

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

The site known as Jerry's Custom Mechanics was listed on the Washington Department of Ecology's (Ecology) Integrated Site Information System on October 4, 2005, after an initial investigation was a performed. The initial complainant came from the City of West Richland's building inspector who discovered an old well casing inside the building with a green sheen of water visible. At first it was thought that the green sheen of water was caused by antifreeze contamination from the previous automotive business at the site.

After the site was listed by Ecology, the owners hired Able Clean-up Technologies, Inc. to take water samples from what appeared to be a well casing located in the southeast corner of the building. The water was analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX), total petroleum hydrocarbons diesel and oil, toxic characteristic leaching procedure (TCLP) metals, and ethylene and propylene. Only chromium and lead contamination was revealed to be higher than their Model Toxics Cleanup Act (MTCA) Method A cleanup level of 200 ug/L and 15 ug/L, respectively. Neither ethylene nor propylene, components of antifreeze, was detected in the groundwater samples.

A review of the City of West Richland's building department file only had history of the sites back to early 1980s, when the site was owned and operated by Jerry's Custom Mechanics. It is unknown when the structure was built but it appears that the building was built to house an automotive repair shop since there is a large garage door in the front of the structure. In 1991, Jerry's Custom Mechanics obtained a building permit to construct a Viking paint booth behind the southeast portion of the existing building. This structure is no longer at the site. Next door to the facility to the east is another automotive repair shop currently Squirrel's Auto Body (previously American Auto Works) which also had an automotive paint spray booth constructed in 2001.

Prior to the 1980s lead-chromate was used in paints as a pigment for reds, yellows, oranges, and green; however due to OHSA regulations these paints were reformulated to exclude metals. Hexavalent chromium is still used in corrosion inhibiting primers and as pigments industrial paints such as traffic paints and machine finishes. It is possible that both automotive body shops used lead-chromate paints and/or primers at their facilities.

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:	**44.3**		

OVERALL RANK: 3

*NS = Not Scored

WORKSHEET 2

Route Documentation

1. **SURFACE WATER ROUTE** - NOT SCORED
   a. List those substances to be considered for scoring: Source: 1

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

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

   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: 1

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

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

   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

      Lead and chromium

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

      Analytical results from soil sampling indicate the presence of these hazardous substances at levels which exceed current MTCA Method A cleanup levels.

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

      S**ubsurface soils**

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

      Spills/discharges caused soil contamination

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	Chromium	100	6	-	ND	1	1	-	-	ND
2	Lead	5	8	-	ND	<0.001(NOAEL)	10	-	-	ND

** Potency Factor*

Source:1,2,3

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 [Coefficient of Aqueous Migration (K)]	**OR** **Solubility (mg/L)**
1= K < 0.1 = 1	**1=**
2= K is 0.1 to 1.0 = 2	**2=**

Source:1,3

Value: 2
(Max = 3)

1.3 Substance Quantity (volume):	
Explain basis: Unknown, use default = 1	Source: 1 **Value:1** (Max=10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment (explain basis):** Site is approximately 60% covered with impervious material (asphalt/building) score as landfill: no liner (3), cover, unknown maintenance (1) and no leachate collection (2)	1,3	**6** (Max = 10)
2.2	**Net precipitation:** 5.0" – 3.4" = 1.6"	4	**1** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** Sand and gravels	1,3	**4** (Max = 4)
2.4	**Vertical depth to groundwater:** confirmed release to groundwater	1	**8** (Max = 8)

3.0 TARGETS

		Source	Value
3.1	**Groundwater usage:** Public supply, no alternate unthreatened sources available with minimal hookups	5,6	**9** (Max = 10)
3.2	**Distance to nearest drinking water well:** >600-1,300 **feet**	3, 5	**4** (Max = 5)
3.3	**Population served within 2 miles:** √ **pop.** = >10,000	5	**100** (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles:** **(0.75)*√# acres =** 0.75 * √122.75 = 8.31	6	**8** (Max = 50)

4.0 RELEASE

	Source	Value
Explain basis for scoring a release to groundwater: Release Documented	1	**5** (Max = 5)

SOURCES USED IN SCORING

1. Memorandum from The Riley Group, Inc., to the Department of Ecology dated January 5, 2007.

2. Washington State Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992

3. Washington State Department of Ecology, WARM Scoring Manual, April 1992.

4. Washington Climate for Benton, Franklin Counties, Cooperative Extension Services, College of Agriculture, Washington State University.

5. Washington Department of Ecology Well Log Viewer, available at http://apps.ecy.wa.gov/welllog/.

6. Washington State Department of Ecology, Water Rights Application System (WRATS) printouts

7. Washington State Department of Health, Division of Environmental Health, Office of Drinking Water, Water System Search, Available at http://www4.doh.wa.gov/SentryInternet/FindWaterSystem.aspx

8. Facility Site/Atlas, Department of Ecology, Geographic Information System, available at http://apps.ecy.wa.gov/website/facsite/viewer.htm

WASHINGTON RANKING METHOD

ROUTE SCORES SUMMARY AND RANKING CALCULATION SHEET

Site Name: Jerrys Custom Mechanics Region: Central

Street, City, County: 3695 W Van Giesen, West Richland, Benton

Facility ID: 85292259

This site was(X) ranked,( ) re-ranked, on August 31, 2007 based on the August 23, 2006 quintile values from a total of 912 assessed/scored sites.

Pathway	Route Scores	Quintile Group number(s)	Priority scores:
SW-HH	NS		$\frac{H^2 + 2M + L}{}$ = 2
Air – HH	NS		$\frac{4^2}{8}$ = 2
GW-HH	44.3	4	
SW-En	NS		$\frac{H^2 + 2L}{7}$ = N/A
Air-En	NS		

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 (e.g. typically with ground water route-only sites).

Human Health \ Environment	5	4	3	2	1	N/A
5	1	1	1	1	1	1
4	1	2	2	2	3	2
3	1	2	3	4	4	3
2	2	3	4	4	5	3
1	2	3	4	5	5	5
N/A	3	4	5	5	5	NFA

DRAFT / (FINAL)

Matrix (“bin”) Ranking: 3, _____ 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.