

CSID 4240

**WORKSHEET 1  
SUMMARY SCORE SHEET**

**Site Name/Location (Street, City, County, Section/Township/Range, TCP ID Number):**

Industrial Petroleum Distributors Ecology Site No: S-34-6193-000  
1117 West Bay Drive NW Section 10  
Olympia, Washington 98502 Range 2W  
Township 16N

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

Industrial Petroleum Distributors (IPD) is located at 1117 West Bay Drive in Olympia, WA. The site is located within 100 feet of Budd Inlet. The site consists of eight large storage tanks located at the top of a steep slope, with the fuel loading rack located at the bottom of the slope along with a sheet metal building. The associated piping that connects the tank farm to the loading rack run down the face of the slope. This facility is inactive as a refueling facility, but is being used for bulk storage of approximately 160,000 gallons of potentially contaminated waste petroleum. The site is surrounded on three sides by a 6-foot locked chain link fence. The fourth side is at the top of the steep slope and is not accessible by road. The sheet metal building holds approximately 50 55-gallon drums of unknown contents. The drums are not labeled. Along the loading rack are numerous containers ranging from 1 pint to 55 gallons. Most of the containers are filled with unknown liquids. A few of the containers are open and full of what appears to be waste petroleum. In some instances the open drums have filled with rainwater and overflowed onto the ground.

The tanks are within a 3 foot high concrete block wall which surrounds them on the north, east, and south sides. The west side of the tank area backs up to another steep wooded slope. It is believed that the subsurface of the containment floor has a clay liner. The tanks are on concrete pads. Some corrosion is evident around the base of some of the tanks. There is a sump in the southeast corner of the tank farm which discharges through a pipe, down the hill to a valve box at the bottom. There appears to be a drainage ditch that runs north and south along the base of the steep slope. The final discharge point is through a storm drain that discharges to Budd Inlet.

Ecology records indicate that the wastes contained in the tank are contaminated with halogenated hydrocarbons >1000 ppm. These wastes have been stored in the tanks for approximately 10 years. On July 10, 1998, Ecology and Thurston County Health Department conducted a scheduled site sampling event. During this sampling event, it appeared that a value on Tank 2 was leaking. This area was sampled and showed total PAHs at 24ppm, NWTPH-Diesel at 15500 ppm and Heavy Oil at 14000 ppm. Analytical data showed no release to surface water at the toe of the steep slope.

**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) overriding a decision of no further action for the site):** NA

**ROUTE SCORES:**

Surface Water/Human Health: 36.7  
Air/Human Health: 44.9  
Ground Water/Human Health: 39.0

Surface Water/Environ.: 45.6  
Air/Environmental: 4.0

**OVERALL RANK: 1**

**WORKSHEET 2**  
**ROUTE DOCUMENTATION**

**1. SURFACE WATER ROUTE**

List those substances to be considered for scoring:      Source: 6,8,9  
Diesel, pyrene, phenathrene, and TCE

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

TPH-Diesel was detected at levels 70 times MTCA cleanup standard in the soils in the tank farm. Pyrene, and phenathrene were also detected in the soils during the same sampling event. TCE was previous identified during a sampling event conducted by the Department of Ecology in previous years.

List those management units to be considered for scoring:      Source: 6  
Contaminated soil

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

TPH-Diesel was detected at levels 70 times MTCA cleanup standard in the soils in the tank farm. Pyrene, and phenathrene were also detected in the soils during the same sampling event. TCE was previous identified during a sampling event conducted by the Department of Ecology in previous years.

**2. AIR ROUTE**

List those substances to be considered for scoring:      Source: 6,8,9  
Diesel, pyrene, phenathrene, and TCE

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

TPH-Diesel was detected at levels 70 times MTCA cleanup standard in the soils in the tank farm. Pyrene, and phenathrene were also detected in the soils during the same sampling event. TCE was previous identified during a sampling event conducted by the Department of Ecology in previous years.

List those management units to be considered for scoring:      Source: 6  
Contaminated soil

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

TPH-Diesel was detected at levels 70 times MTCA cleanup standard in the soils in the tank farm. Pyrene, and phenathrene were also detected in the soils during the same sampling event. TCE was previous identified during a sampling event conducted by the Department of Ecology in previous years.

**WORKSHEET 2 (CONTINUED)**  
**ROUTE DOCUMENTATION**

**3. GROUND WATER ROUTE**

List those substances to be considered for scoring:      Source: 6,8,9

Diesel, pyrene, phenathrene, and TCE

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

TPH-Diesel was detected at levels 70 times MTCA cleanup standard in the soils in the tank farm. Pyrene, and phenathrene were also detected in the soils during the same sampling event. TCE was previous identified during a sampling event conducted by the Department of Ecology in previous years.

List those management units to be considered for scoring:      Source: 6

Contaminated soil

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

TPH-Diesel was detected at levels 70 times MTCA cleanup standard in the soils in the tank farm. Pyrene, and phenathrene were also detected in the soils during the same sampling event. TCE was previous identified during a sampling event conducted by the Department of Ecology in previous years.

**WORKSHEET 3 (If Required)**  
**SUBSTANCE CHARACTERISTICS WORKSHEET**  
**FOR MULTIPLE UNIT/SUBSTANCE SITES**

Unit:

	<u>Combination 1</u>	<u>Combination 2</u>	<u>Combination 3</u>
<b>1. SURFACE WATER ROUTE</b> Substance(s):			
Human Toxicity Value:			
Environ. Toxicity Value:			
Containment Value:			
Rationale:			
Surface Water Human Subscore	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _
Surface Water Environ. Subscore:	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _
<b>2. AIR ROUTE</b> Substance(s):			
Human Toxicity/Mobility Value:			
Environ. Toxicity/Mobility Value: Containment Value: Rationale:			
Air Human Subscore:	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _
Air Environ. Subscore:	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _
<b>3. GROUND WATER ROUTE</b> Substance(s):			
Human Toxicity Value: Containment Value: Rationale			
Ground Water Subscore:	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _	( +3)( +1)= ( ) ( ) = _

## WORKSHEET 4 SURFACE WATER ROUTE

### 1.0 SUBSTANCE CHARACTERISTICS

#### 1.1 Human Toxicity

Substance	Drinking Water Standard		Acute Toxicity		Chronic Toxicity		Carcinogenicity		
	(ug/l)	Val.	(mg/kg-bw)	Val.	(mg/kg/day)	Val	WOE	PF*	Val.
1. Diesel	20	6	490	5	0.004	3	--		--
2. Phenathrene	0.2	10	--	--	--	--	--	--	--
3. Pyrene	0.2	10	2700	3	0.03	1	--		--
4. TCE	5	8	2402	3	--	--	B2-0.5	0.011	3

\*Potency Factor

Source: 1, 6, 9  
 Highest Value: 10  
(Max.=10)  
 +2 Bonus Points? 2  
 Final Toxicity Value 12  
(Max.=12)

#### 1.2 Environmental Toxicity

Substance	<input type="checkbox"/> Freshwater <input checked="" type="checkbox"/> Marine Acute Water Quality Criteria		Non-human Mammalian Acute Toxicity		Source: <u>1, 6, 9</u>	Value: <u>4</u> <small>(Max.=10)</small>
	(ug/l)	Value	(mg/kg)	Value		
1. Diesel	2350	2	490	4		
2. Phenathrene	300	4	--	--		
3. Pyrene	300	4	2700	2		
4. TCE	2000	4	2402	2		

1.3 Substance Quantity: 160,000 gallons of dangerous waste is stored in the aboveground storage tanks.	Source: <u>10</u>	Value: <u>7</u> <small>(Max.=10)</small>
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<b>2.0 MIGRATION POTENTIAL</b>		
2.1 Containment Explain basis: Spills, discharge with no run-on/runoff control	Source: 6	Value: <u>10</u> (Max. = 10)
2.2 Surface Soil Permeability: Run off enters a storm drain that discharges to surface water.	Source: 11	Value: <u>7</u> (Max. = 7)
2.3 Total Annual Precipitation: <u>50.96</u> inches	Source: 12	Value: <u>4</u> (Max. = 5)
2.4 Max. 2-Yr/24-hour Precipitation: <u>2.5</u> inches	Source: 2	Value: <u>3</u> (Max. = 5)
2.5 Flood Plain: 100 yr.	Source: 5	Value: <u>2</u> (Max. = 2)
2.6 Terrain Slope: Storm drain from property to water	Source: 11	Value: <u>3</u> (Max. = 5)
<b>3.0 TARGETS</b>		
3.1 Distance to Surface Water: 100 feet	Source: 5	Value: <u>10</u>
3.2 Population Served within 2 miles (See WARM Scoring Manual Regarding Direction):	Source: 11	Value: <u>0</u>
3.3 Area Irrigated within 2 miles <u>0.75%no. acres=0</u> Refer to note in 3.2.): <u>0.75% =0.75( )=</u>	Source: NA	Value: <u>0</u>
3.4 Distance to Nearest Fishery Resource: $\leq 1000$	Source: 5	Value: <u>12</u>
3.5 Distance to, and Name(s) of, Nearest Sensitive Environment(s): Percival Creek - 5000 ft.	Source: 5	Value: <u>12</u>
<b>4.0 RELEASE</b>		
Explain basis for scoring a release to surface water: No release	Source: 6	Value: <u>0</u>

# WORKSHEET 5 AIR ROUTE

## 1.0 SUBSTANCE CHARACTERISTICS

1.1 Introduction (WARM Scoring Manual) - Please review before scoring

1.2 Human Toxicity

Substance	Air Standard		Acute Toxicity		Chronic Toxicity		Carcinogenicity		
	(ug/m <sup>3</sup> )	Val.	(mg/m <sup>3</sup> )	Val	(mg/kg/day)	Val	WOE	PF*	Val.
1. Diesel	166.5	4	--	--	--	--	--		
2. Phenathrene	--	--	--	--	--	--	--		
3. Pyrene	--	--	170	8 (rat)	--	--	--		
4. TCE	0.8	10	15583	1	--	--	B2	.011	3

\*Potency Factor

Source: 1.6.9  
 Highest Value: 10  
 (Max.=10)

+2 Bonus Points? 2  
 Final Toxicity Value: 12  
 (Max.=12)

<b>1.3 Mobility (Use numbers to refer to above listed substances)</b>	
<b>1.3.1 Gaseous Mobility</b> Vapor Pressure(s) (mmHg): 1= .082; 2= .00068; 3 = 2.5x10.6; 4 = 58; Emissions will be gaseous only	Source: 1
	Value: 4 (Max.=4)
<b>1.3.2 Particulate Mobility</b>	
Soil type: NA	Source:
Erodibility	Value: NA (Max.=4)
Climatic Factor:	
<b>1.4 Highest Human Health Toxicity/Mobility Matrix Value (from Table A-7)</b>	Final Matrix Value: <u>24</u> (Max.=24)

### Non-human Mammalian Acute (Table A-7)

1.5 Environmental Toxicity/Mobility	Source: 1, 6, 9
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Substance	Inhal. Toxicity (mg/m <sup>3</sup> )	Value	Mobility (mmHg)	Value	Matrix Value
1. Diesel	--	--	0.082	--	--
2. Phenathrene	--	--	0.00068	--	--
3. Pyrene	170	8	0.13	1	12
4. TCE					

Highest Environmental Toxicity/Mobility Matrix Value  
 (From Table A-7) equals Final Matrix Value: 4  
(Max.=24)

1.6 Substance Quantity: 160,000 gallons	Source: <u>10</u>	Value: <u>7</u> <small>(Max.=10)</small>
Explain basis: The amount of dangerous waste stored on site.		

<b>2.0 MIGRATION POTENTIAL</b>		
2.1 Containment: Spills, no vapor collection	Source: 6	Value: <u>10</u> <small>(Max.=10)</small>
<b>3.0 TARGETS</b>		
3.1 Nearest Population: <1000 feet	Source: 5	Value: <u>10</u> <small>(Max.=10)</small>
3.2 Distance to, and Name(s) of, Nearest Sensitive Environment(s): Percival Creek - 5000 feet,	Source: 5	Value: <u>1</u> <small>(Max.=7)</small>
3.3 Population within 0.5 miles: %pop.=%1150 = 34	Source: 5	Value: <u>34</u> <small>(Max.=75)</small>
<b>4.0 RELEASE</b>		
Explain basis for scoring a release to air: No release	Source: 6	Value: <u>0</u> <small>(Max.=5)</small>



**WORKSHEET 6  
GROUND WATER ROUTE**

**1.0 SUBSTANCE CHARACTERISTICS**

**1.1 Human Toxicity**

Substance	Drinking Water Standard		Acute Toxicity		Chronic Toxicity		Carcinogenicity		
	(ug/l)	Val.	(mg/kg-bw)	Val.	(mg/kg/day)	Val	WOE	PF*	Val.
1. Diesel	20	6	490	5	0.004	3	--		
2. Phenathrene	0.2	10	--	--	--	--	--		
3. Pyrene	0.2	10	2700	3	0.03	1	--		
4. TCE	5	8	2402	3	--	--	B2 - 0.5	.011	3

\*Potency Factor

Source: 1, 6, 9  
Highest Value: 10  
(Max.=10)

+2 Bonus Points? 2  
Final Toxicity Value 12  
(Max.=12)

<b>1.2 Mobility (Use numbers to refer to above listed substances)</b>		
Cations/Anions 1= ; 2= ; Source: 3= ; 4= ; 5= ; 6=	Source: 1	Value: 3 (Max.=3)
OR Solubility(mg/l): 1= 30; 2= 1; 3= 13; 4= 15000;		
1.3 Substance Quantity: 160,000 gallons of dangerous waste stored onsite	Source: 10	Value: 7 (Max.= 10)
<b>2.0 MIGRATION POTENTIAL</b>		
2.1 Containment: Leaking valve on one of the tanks	Source: 6	Value: 10 (Max.= 10)
2.2 Net Precipitation: 27.06 inches:	Source: 12	Value: 3 (Max.= 5)
2.3 Subsurface Hydraulic Conductivity: $1.4 \times 10^{-3}$	Source: 3	Value: 4 (Max.= 4)
2.4 Vertical Depth to Ground Water: <25 feet	Source: 6	Value: 8 (Max.= 8)

<b>3.0 TARGETS</b>		
3.1 Ground Water Usage: Public supply - alternative	Source: 2	<b>Value: 4</b> (Max.= 10)
3.2 Distance to Nearest Drinking Water Well: 3500 ft	Source: 5	<b>Value: 2</b> (Max.= 5)
3.3 Population Served within 2 Miles: $\square$ pop. = $\square$ = 60	Source: 7	<b>Value: 8</b> (Max.= 100)
3.4 Area Irrigated by (Groundwater) Wells within 2 miles: 0.75 $\square$ no. acres = 0 0.75 $\square$ = 0.75 ( ) =	Source: 5	<b>Value: 0</b> (Max.= 50)
<b>4.0 RELEASE</b>		
Explain basis for scoring a release to ground water: No release	Source: 6	<b>Value: 0</b> (Max.= 5)

#### SOURCES USED IN SCORING

1. Washington Department of Ecology Toxicology Database for use in Warm Scoring, January 1992
2. Washington Department of Ecology WARM scoring manual, April 1992
3. Soil Survey Thurston County, WA, USDOA, June 1990
4. Recorded water rights, Department of Ecology, March 1997 - WRIS
5. Thurston County Geodata Center - maps and figures August 1998
6. Site Hazard Assesment sampling visit by Thurston County Health Department, July 1998
7. U.S. EPA site infor GIS Query for IPD, August 1998
8. Department of Ecology sampling results - March 1995
9. Department of Ecology sampling results - October 1990
10. Conversation with Nicky Rushing, Department of Ecology June 1998
11. Capital Facilities drawings from the city of Olympia Water resources. Date unknown
12. Thurston County Rainfall Data - National Weather Service Data - Olympia Station 1/83 thru present

**DEPARTMENT OF ECOLOGY  
TOXICS CLEANUP PROGRAM**

**SITE HAZARD ASSESSMENT DATA COLLECTION SUMMARY SHEETS  
FOR  
WASHINGTON RANKING METHOD**

**SURFACE WATER, AIR AND GROUND WATER ROUTES ONLY**

Site Name: Industrial Petroleum Distributor

Location: 1117 West Bay Drive, Olympia, WA

Site owner/operator: Mr. Bob May

Address: 16220 Wood-Red Road NE, Woodinville, WA 98072

Any other known PLP(s): The Estate of Mr. John O'Connell

Address: 624 North "J" Street, Tacoma, WA 98403

Date(s) of field site hazard assessment: July 9-10th, 1998

Samples or field measurements:   X   soil  
  X   surface water            ground water  
           air

(Attach copies of pertinent sampling and analytical data, as well as all other supporting documentation.) Yes

Photographs: Yes

Weather: Sunny and Warm, 78 degrees

Lead inspector: Gerald Tousley, Thurston County Health Department

Other inspectors: Martha Maggi, Department of Ecology

Signature: Gerald L. Tousley

**PART I: Hazardous Substances**

NOTE: Page numbers shown by "route" (e.g. SW-2, A-13) in parentheses refer to the WARM Scoring Manual. WK-numbers refer to page numbers of the worksheets at the end of the scoring manual.

A. Hazardous substances

List specific hazardous substances, known or suspected (check k or s), currently, or that have been previously (check c or p), at the site property (WK-2, WK-3). Give an estimate, if available, of the quantity (not concentration):

Hazardous Substance	K S C P	Quantity	Units
1. Diesel	K,C	160,000	gallons
2 Phenathrene.	K, C	Unknown	
3. Pyrene	K,C	Unknown	
4. TCE	K,P	Unknown	
5.			

By which routes are these available? (WK-2, WK-3)

Number(from above)	Surface Water	Air	Groundwater
1. 1	X	X	X
2. 2	X	X	X
3. 3	X	X	X
4. 4	X	X	X
5.			

**B. SOURCES**

Check those known or observed (WK-2, WK-3):	
X	drums or other containers
	electrical transformers
X	above ground tanks
	below ground tanks
	ponds, pits, or other impoundments
	pipelines (other than water, sewer, or gas)
	floor drains
	exterior drains for rainwater, surface waters, spills, etc.
	other? Identify:
	<u>Additional information/references</u>

**C. INDICATORS** Check those known or observed (SW-5; A-8, A-9; GW-6):

X	discolored soils
	disturbed soils
X	discolored standing water
	unusual or noxious odors
	sick or dead vegetation
	groundwater monitoring wells
	other? Identify:

If any are checked in B or C, explain details including exact locations (identify location on a map or drawing).

**PART II: Releases**

**A. KNOWN OR SUSPECTED RELEASES**

List those hazardous substances identified (by number) in I.A. which are known, or suspected, to have been released (WK-2, WK-3):

Substance (#)	Quant.Released	Units	Medium Released to
1	unk		soil, air, groundwater, surfacewater
2	unk		soil, air, groundwater, surfacewater
3	unk		soil, air, groundwater, surfacewater
4	unk		soil, air, groundwater, surfacewater

**B. SOURCES AND IMPACTS (SW-5, SW-6; A-9, A-10; GW-6, GW-7)**

List those hazardous substances identified (by number) in II.A. and identify the source and impact:

Substance No.	Source	Impacts/Affects to Area
1	unknown	soil, surfacewater, air,
2	unknown	soil, surfacewater, air,
3	unknown	soil, surfacewater, air,
4	unknown	soil, surfacewater, air,

Additional information/references:

**III. Migration Potential**

**A. CONTAINMENT--LANDFILLS (SW-7; A-11; GW-8, GW-9)**

Present? NA How many? \_\_\_\_\_

Check those that apply:	
<input type="checkbox"/>	1. An engineered, maintained run-on/run-off control system
<input type="checkbox"/>	2. An engineered/maintained cover without ponding
<input type="checkbox"/>	3. Unmaintained run-on/runoff control system or cover
<input type="checkbox"/>	4. No run-on/runoff control or no cover
<input type="checkbox"/>	5. Uncontaminated soil cover greater than 6" thick
<input type="checkbox"/>	6. Uncontaminated soil cover less than 6" thick
<input type="checkbox"/>	7. Contaminated soil used as cover
<input type="checkbox"/>	8. A functioning vapor collection system
<input type="checkbox"/>	9. Mixing or agitation used
<input type="checkbox"/>	10. No liner
<input type="checkbox"/>	11. Single clay or compacted soil liner (permeability _____ cm/sec )
<input type="checkbox"/>	12. Single synthetic liner (permeability _____ cm/sec)
<input type="checkbox"/>	13. Double liner system (permeability _____ cm/sec)
<input type="checkbox"/>	14. Leachate collection system, maintained and functioning
<input type="checkbox"/>	15. Leachate collection system, unknown condition or not functioning
<input type="checkbox"/>	16. Liquid wastes <u>may</u> have been disposed of
<input type="checkbox"/>	17. Liquid wastes <u>were</u> disposed of in landfill
<input type="checkbox"/>	18. Reliable evidence <u>no</u> liquid wastes were disposed

Additional comments/references:

**B. CONTAINMENT--SURFACE IMPOUNDMENTS (SW-8; A-12; GW-9)**

Present NA How many? \_\_\_\_\_

Check those that apply:	
<input type="checkbox"/>	1. The dike is apparently sound
<input type="checkbox"/>	2. The dike is regularly inspected and maintained
<input type="checkbox"/>	3. There is evidence of failure, erosion, slumping, or release of contents
<input type="checkbox"/>	4. Two feet of freeboard maintained automatically
<input type="checkbox"/>	5. The freeboard is manually controlled so that there is at least 2 feet of freeboard
<input type="checkbox"/>	6. Evidence of insufficient freeboard (<2 ft.)
<input type="checkbox"/>	7. A maintained cover
<input type="checkbox"/>	8. Unmaintained cover, no cover
<input type="checkbox"/>	9. No liner
<input type="checkbox"/>	10. Single synthetic liner
<input type="checkbox"/>	11. Single clay or compacted soil liner
<input type="checkbox"/>	12. Double liner
<input type="checkbox"/>	13. Working leak detection system
<input type="checkbox"/>	14. Evidence of loss of fluid (other than by evaporation)
<input type="checkbox"/>	15. Mixing/agitation processes used

Additional comments/references:



C. CONTAINMENT--DRUMS AND SMALL CONTAINERS (SW-9; A-10; GW-10)

Present \_\_\_\_\_ How many? 35

Check those that apply:	
	1. No functional containment
X	2. There is secondary containment capacity for the total volume of containers
	3. There is secondary containment with capacity for at least 110% of the volume of the largest container
	4. The secondary containment is less than 110% of the volume of the largest container
	5. The containers are stored in single, or double layers on pallets, or in racks
	6. The containers are stored in an unstable manner
	7. Some containers are open or have visible liquid
	8. Some containers are leaking
	9. Containers are protected from weather
	10. Containers showing deterioration
	11. Containment surface is impervious
	12. Containment surface has cracks or semi-permeable
	13. No base material/permeable base such as gravel/base materials unknown
	14. Containment is regularly inspected and maintained
	15. Evidence of containment failure

Additional comments/references:

**D. CONTAINMENT--STORAGE TANKS (SW-9; A-10; GW-10)**

Present? \_\_\_\_\_ How many? 8

Check those that apply:	
	1. Secondary containment with a capacity of 110% of the volume of the tanks
	2. Secondary containment at least 50% of the volume of all tanks
	3. Containment system with capacity for at least 10% of volume of containers or tanks
	4. No containment, or less than 10% capacity
	5. Tank volumes maintained
	6. Automatic controls used for volume maintenance
	7. Tanks are covered
	8. Uncovered tanks have aeration, mixing, or heating of tank contents
	9. Containers sealed, protected
	10. Containers sealed, not protected
	11. Containers deteriorated
X	12 Containers leaking
	13. Record the #s of above which apply <u>only</u> to above ground tank <u>8</u>
	14. Record the #s of above which apply <u>only</u> to below ground tanks _____
	15. Record the #s of above which apply to <u>both</u> above and below ground tanks: _____

Additional comments/references:

**E. CONTAINMENT--WASTE PILES (SW-10; A-11; GW-11)**

Present? NA How many? \_\_\_\_\_

Check those that apply:	
<input type="checkbox"/>	1. Waste pile is outside, no protecting structure
<input type="checkbox"/>	2. Waste pile is outside, in open structure with roof
<input type="checkbox"/>	3. Waste pile is outside, with partial or unmaintained cover
<input type="checkbox"/>	4. Waste pile is outdoors, with maintained cover
<input type="checkbox"/>	5. No cover is present
<input type="checkbox"/>	6. Waste pile is fully enclosed, intact building
<input type="checkbox"/>	7. There is an engineered run-on/run-off control
<input type="checkbox"/>	8. The run-on/run-off is maintained
<input type="checkbox"/>	9. Run-on/runoff control present, unknown condition
<input type="checkbox"/>	10. No run-on/runoff control system present, or unknown if present
<input type="checkbox"/>	11. Liner or base present; _____ Not present.
<input type="checkbox"/>	12. Single clay or compacted soil liner
<input type="checkbox"/>	13. Single synthetic liner
<input type="checkbox"/>	14. Double liner
<input type="checkbox"/>	15. Maintained, functioning leachate collection system
<input type="checkbox"/>	16. Leachate collection system; _____ Unknown condition; or _____ Not functioning.

Additional comments/references:

**F. CONTAINMENT--SPILLS, DISCHARGES, AND CONTAMINATED SOIL**  
**(SW-10; A-12; GW-12)**

Check those that apply:	
	1. Spill, discharge, or contaminated soil <u>only</u> in the subsurface at the site--including dry wells, drainfields, leaking underground storage tanks
	2. Soil contamination that has been covered partially excavated and filled with at least 6 inches of clean soil
	3. Soil contamination that has been covered or partially excavated and filled with <u>less</u> than 6 inches of clean soil
	4. Uncontaminated soil cover >2 feet thick
	5. No cover; or _____ Cover <2 feet, but > 6" thick
X	6. Spill, discharge, or contaminated soil present at the surface in an area with <u>maintained</u> run-on/run-off control
	7. Spill, discharge, or contaminated soil present at the surface in an area with <u>unmaintained</u> run-on/run-off controls?
X	8. Spill, discharge, or contaminated soil present at the surface with <u>no</u> run-on/run-off control or <u>unknown</u> controls?
	9. Contaminated soil has been disturbed or excavated and stored above grade
	10. A functioning vapor recovery system
	11. No vapor recovery system

Additional comments/references:

G. CONTAINMENT--SITE CHARACTERISTICS (SW-11, SW-12, SW-13, SW-14;  
GW-12, GW-13; WK-5-9)

1. How would you evaluate the site soils? Circle <u>predominant</u> textural class.	
X	Sand, gravel, sandy gravel, well-graded sand, well-graded gravel, gravelly sand, gravelly sand loam, silty sandy loam?
	Poorly-graded sands with fines, silt-sand mixtures, loam, silt loam, sandy silt loam, clayey sand, clay sand loam?
	Clayey sands, sand-clay mixtures, clayey gravels, clay-sand-gravel mixtures, inorganic silts, clayey silt loam, silty clay loam, porous rock outcrop, sandy silty clay, sandy clay loam?
	Clay (organic and inorganic), clay loam, rock outcrop, peat, peaty clay?
Is the above based on <b>personal observation</b> , lab analysis, or professional judgement by a soil expert? (circle)	
2. Total annual precipitation= <u>50.96</u> in./yr (SW-11; WK-6)	
3. Max. 2-yr/24-hr precip.= <u>2.5</u> inches (SW-12; WK-6)	
4. Net precipitation (see 2.2, GW-12)= <u>27.06</u> in. (WK-9)	
5. Is the site <u>not</u> in a flood plain? _____ (SW-12; WK-6) Is the site in a 500 year flood plain? _____ Is the site in a 100 year flood plain? <u>X</u>	
6. What is the terrain slope to the nearest surface water? <u>&gt;5% - 8%</u> (SW-14; WK-6)	
7. What is the subsurface hydraulic conductivity? <u>1.4x10<sup>-3</sup></u> cm/sec (GW-13; WK-9)	
8. What is the vertical depth from the deepest point of known contamination to ground water? <u>&lt;25</u> feet (GW-13; WK-9)	

IV. Targets

A. DISTANCE TO SURFACE WATER (SW-15; WK-6)

1. What surface water(s) (lake, stream, river, pond, bay, etc.) is/are within 10,000 feet (downgradient) of the site?

None?

Name	Dist.-ft.	Obs.	Meas.
Budd Inlet	100	X	X
Percival Creek	5000		X

Comments/references:

2. What drinking water intakes are within 2 miles of the site? (all lake intakes, river intakes downstream only) (SW-15; WK-6)

None? None

Source	Location	Pop. Served

3. How much acreage (anywhere) is irrigated by surface water intakes (downstream only) or wells (anywhere) within 2 miles of the site? (SW-15; GW-15; WK-6, WK-10)

None? \_\_\_\_\_

SURFACE WATER : Acres 0 (1600 acres max.)

Source(s) WRIS;

GROUNDWATER: Acres 6 (4500 acres max.)

Reference(s):

4. What is the distance to the nearest fishery resource (overland flow distance to nearest surface water which is a fishery resource)? (SW-16, SW-17, SW-18; WK-6)

Over 10,000 feet? \_\_\_ Distance if less than 10,000 feet? 100 ft.

5. What are the names of, and the distances to, the nearest sensitive environments (total of overland distances plus downgradient distances, count only overland flow distance if nearest sensitive environment is a fishery)? (SW-18; A-15; WK-6)

Over 10,000 feet? \_\_\_ Names and distances if less than 10,000 feet:

Budd Inlet - 100 feet

Percival Creek - 5000 feet

6. Is the aquifer a federally-designated sole source aquifer? NO (GW-14; WK-9)

7. Is the ground water used for: (GW-14; WK-10)

- private supply
- public supply
- irrigation of human food crops or livestock
- non-food (human) vegetation
- not used due to natural contaminants
- ground water not used, but usable

8. Distance to nearest drinking water well? 3500 feet (GW-15; WK-10)

9. Is there an alternate source available to groundwater for private or public water supply? (GW-14, 5WK-10) Yes

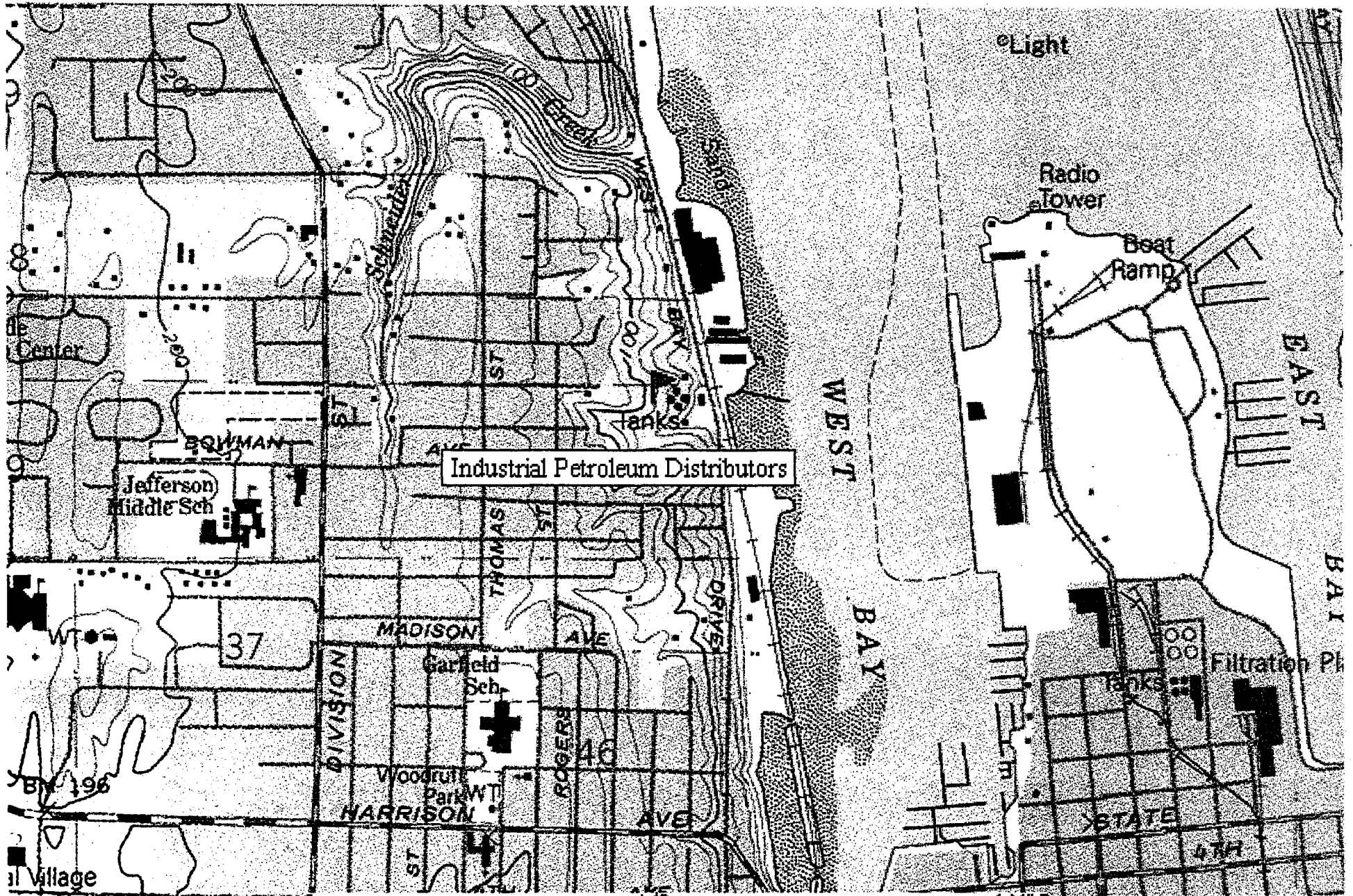
10. Population served by drinking water wells within 2 miles? 60 (GW-115; WK-10)

11. Distance to the nearest population? <500 feet (A-13,; WK-8)

12. Population within one-half mile radius? 1150 (A-15; WK-8)

Additional comments (e.g. potential for natural resource damage, or other ecological concerns).

Industrial Petroleum Distributors

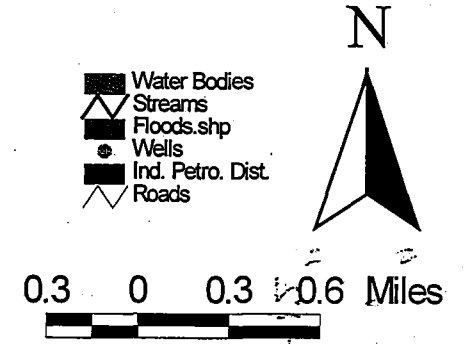
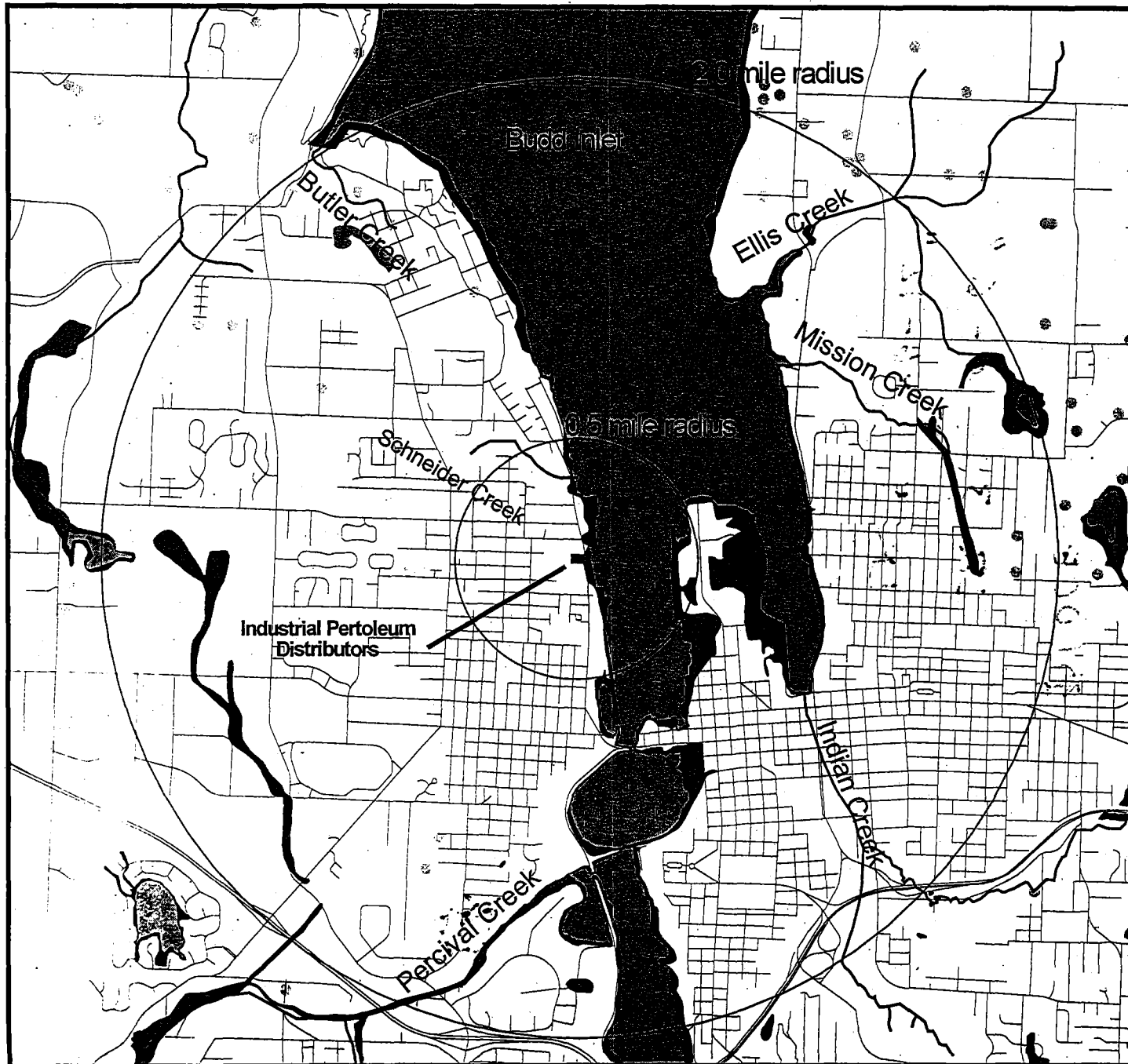


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# Industrial Petroleum Distributors and Surrounding Area



*The site is not within 0.5 miles of a sensitive area. The site does border on the 100yr flood plain for Budd Inlet.*

Fishery Resources	
Butler Ck	not listed
Deschutes R.	Coho; Chinook
Ellis Ck.	Coho
Indian Ck.	Coho
Mission Ck.	Coho
Moxie Ck.	Coho
Percival Ck.	Chinook, Coho
Schneider Ck.	salmonids observed but not listed

Population Figures (1990 Census)	
Within 0.5 mile radius	- 1,150 (approx)
Within 2.0 mile radius	- 21,000 (approx)

Wells shown include only those wells already in the Thurston County database. They are not a complete catalog of all existing wells.

Figure 1