CSID 1127

WORKSHEET 1
SUMMARY SCORE SHEET

Site Name/Location

17936 Littlerock Road SE Drug Lab
17936 SW Littlerock Rd.
Rochester, WA 98570

Thurston County, S32/T16/R3W
Tax Parcel #57001800300
Facility Site ID: 36626892 3362689 2

Site assessed/scored for 08/27/02 Update

Site Description

This site contained an illegal drug lab with an associated waste disposal pit. Unknown quantities of drug lab waste were dumped into this pit, which is located in a storage shed. The pit is approximately 2 feet deep, containing liquid and solid waste. A diesel spill also occurred near a vehicle filling area. This area contained a 55 gallon drum of diesel fuel with a hand operated pump attached to the opening. It was alleged that the property owner used this area to fill the fuel tanks of his logging trucks. The total quantities of both spills are unknown, but estimated to be less than 50 gallons based on the site inspection report and photographs (see attached).

Special Considerations

Soil samples collected from the waste pit were analyzed using EPA Method 8260. Results (see attached) confirmed contamination in excess of MTCA Method A cleanup standards. Samples were not collected from the diesel spill area, however the field investigator observed saturated soil and diesel odor.

ROUTE SCORES:

Surface Water/Human Health: 7.5 Surface Water/Environ:5.9

Air/Human Health: 14.0 Air/Environmental: 7.0

Ground Water/Human Health: 52.8 **OVERALL RANK:4**

WORKSHEET 2
ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE

List those substances to be considered for scoring. Source: 3
Naphthalene, 1,1,2,2-Tetrachloroethane, Toluene, 1,1,2-Trichloroethane, Xylene

Explain basis for choice of substance(s) to be used in scoring.
The above substances were confirmed in soil samples and several exceed MTCA Method A cleanup standards.

List those management units to be considered for scoring. Source: 3
Contaminated soil with potential to contaminate surface water

Explain basis for choice of unit to be used in scoring.
The above substances were confirmed in soil samples and several exceed MTCA Method A cleanup standards.

2. AIR ROUTE

List those substances to be considered for scoring. Source: 3
Naphthalene, 1,1,2,2-Tetrachloroethane, Toluene, 1,1,2-Trichloroethane, Xylene

Explain basis for choice of substance(s) to be used in scoring.
The above substances were confirmed in soil samples and several exceed MTCA Method A groundwater standards.

List those management units to be considered for scoring. Source: 3
Contaminated soil with potential release to air

Explain basis for choice of unit to be used in scoring.
The above substances were confirmed in soil samples and several exceed MTCA Method A cleanup standards.

3. GROUND WATER ROUTE

List those substances to be considered for scoring. Source: 1
Naphthalene, 1,1,2,2-Tetrachloroethane, Toluene, 1,1,2-Trichloroethane, Xylene

Explain basis for choice of substance(s) to be used in scoring.
The above substance was detected at elevated concentration in ground water in excess of MTCA Method A cleanup standards.

List those management units to be considered for scoring. Source: 1
Contaminated soil with potential to contaminate ground water

Explain basis for choice of unit to be used in scoring.
The above substances were confirmed in soil samples and several exceed MTCA Method A cleanup standards.

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

Unit: Not Scored

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

Based on their respective highest scoring toxicity/containment combinations, the following management units will be used for route scoring:

Surface Water -
Air -
Ground Water -

WORKSHEET 4
SURFACE WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

	Drinking Water Standard		Acute Toxicity		Chronic Toxicity		Carcinogenicity		
Substance	µg/L	Val.	mg/kg-bw	Val.	Mg/kg/day	Val.	WOE	PF*	Val
1. Naphthalene	20	6	490 rat	5	.004	5	ND	ND	-
2. 1,1,2,2-Tetrachloroethane	ND	-	800 rat	5	ND	-	.5	.1	3
3. Toluene	2000	4	5000 rat	3	.2	3	ND	ND	-
4. 1,1,2-Trichloroethane	3	8	580 rat	5	.004	5	.5	.0285	3
5. Xylenes	10000	4	50 hmn	10	2	1	ND	ND	-

PF*= Potency Factor **Source: 1,2**

Highest Value:10(Max.=10) +2 Bonus Points? 2 **Final Toxicity Value:12**

1.2 Environmental Toxicity

Substance	(X) Freshwater ( ) Marine Acute Water Quality Criteria		Non-human Mammalian Acute Toxicity	
	(ug/1)	Value	(mg/kg)	Value
1. Naphthalene	2300	2		
2. 1,1,2,2-Tetrachloroethane	9320	2		
3. Toluene	17500	2		
4. 1,1,2-Trichloroethane	18000	2		
5. Xylenes	ND	-	ND hmn data only	

Source: 1,2 Value: 2 (Max. =10)

1.3 Substance Quantity: unknown **Source:4 Value: 1 (Max. =10)**

Explain basis:

2.0 MIGRATION POTENTIAL

2.1 Containment **Source:4 Value: 4 (Max. =10)**
Explain basis: Spill, unmaintained/ineffective run-on/runoff control. The pit containing the drug lab waste is located in a small shed, therefore contained by a cover.

2.2 Surface Soil Permeability **Source:5 Value: 1 (Max. =7)**
Sand/gravel

2.3 Total Annual Precipitation (inches) **Source: 7 Value: 4 (Max. =5)**
51 INCHES

2.4 Max. 2-yr/24-hr precipitation (inches) **Source: 2 Value: 3 (Max. =5)**
2.5 inches

2.5 Flood Plain: no **Source:** 5 **Value:** 0 **(Max. =2)**

2.6 Terrain Slope (0-3%) **Source:** 5 **Value:** 1 **(Max. =5)**

3.0 TARGETS

3.1 Distance to Surface Water **Source:** 5 **Value:** 4 **(Max. =10)**
3700 ft. (wetland)

3.2 Population Served within 2 miles **Source:** 5 **Value:** 0 **(Max. =75)**
See WARM Scoring Manual Regarding Direction
√pop. = √4200 = 64

3.3 Area Irrigated within 2 miles **Source:** 8 **Value:** 0 **(Max. =30)**
See WARM Scoring Manual Regarding Direction
0.75√66 of acres = 6.09

3.4 Distance to Nearest Fishery Resource **Source:** 5 **Value:** 3 **(Max. =12)**
5800 ft (Black River)

3.5 Distance to and Names of Nearest Sensitive Environments
3700ft (Black River wetland/wood duck habitat, 6800ft (Scatter Creek Habitat) **Source:** 5 **Value:** 6 **(Max. =12)**

4.0 RELEASE
Explain the basis for scoring a release to surface water
No documented release **Source:** 4 **Value:** 0 **(Max. =5)**

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^3)	Val	(mg/m^3)	Val.	(mg/kg/day)	Val.	WOE	PF	Val
1. Naphthalene	166.5	4	ND	-	ND	-	ND	ND	-
2. 1,1,2,2-Tetrachloroethane	23.3	7	ND	-	ND	-	.5	.1	3
3. Toluene	1248.8	1	ND	-	.57	3	ND	ND	-
4. 1,1,2-Trichloroethane	149.9	4	ND	-	ND	-	.5	.0285	3
5. Xylenes	1448.6	1	21714	3	.085	5	ND	ND	-

Source: 1,2 Value: 7 (Max. =10)
+2 Bonus Points?
Final Toxicity Value: 7

1.3 Mobility
(Use numbers to refer to above listed substances)

1.3.1 Gaseous Mobility
Vapor Pressures (mmHg) **Source: 1,2 Value: 4 (Max. =4)**
1. Naphthalene: 8.2E-2 = 3
2. 1,1,2,2-Tetrachloroethane: 5.0E+00 = 3
3. Toluene: 2.8E+1 = 4
4. 1,1,2-Trichloroethane: 3.0E+1 = 4
5. Xylene: 1.0E+1 = 3

1.3.2 Particulate Mobility (Not Scored) **Source:_____ Value: (Max. =4)**
Soil Type:
Erodibility:
Climactic Factor:

1.4 Highest Human Health Toxicity/Mobility Matrix Value (from Table A-7)
Equals Final Matrix Value **Source: 1,2 Value: 14 (Max. =24)**

1.5 Environmental Toxicity/Mobility

Non-human Mammalian Acute (Table A-7)

Substance	Inhalation Toxicity (mg/m^3)	Value	Mobility (mmHg)	Value	Matrix Value
1. Naphthalene	ND	-	ND	-	-
2. 1,1,2,2-Tetrachloroethane	ND	-	ND	-	-
3. Toluene	ND	-	ND	-	-
4. 1,1,2-Trichloroethane	ND	-	ND	-	-
5. Xylenes	21714 Rat	3	1.0+01	3	5

Highest Environmental Toxicity/Mobility Matrix Value (From Table A-7) equals
Final Matrix Value: 5

1.6 Substance Quantity: unknown **Source:** 4 **Value:** 1 **(Max. =10)**

Explain basis:

2.0 MIGRATION POTENTIAL

2.1 Containment: **Source:** 4 **Value:** 5 **(Max. =10)**
Cover >2 ft. thick, no vapor collection system

3.0 TARGETS

3.1 Nearest Population <1000ft **Source:** 5 **Value:** 10 **(Max. =10)**

3.2 Distance to and Names of Nearest Sensitive Environments
3700ft (Black River wetland/wood duck habitat, 6800ft (Scatter Creek Habitat)
Source: 5 **Value:** 3 **(Max. =7)**

3.3 Population within 0.5 miles: **Source:** 5 **Value:** 29 **(Max. =75)**
√pop. = √840 = 28.98

4.0 RELEASE
Explain basis for scoring a release to air:
No confirmed release
Source: 3,4 **Value:** 0 **(Max. =5)**

WORKSHEET 6
GROUND WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Standard		Acute Toxicity		Chronic Toxicity		Carcinogenicity		
	(ug/m³)	Val	(mg/kg/bw)	Val	(mg/kg/day)	Val	WOE	PF	Val
1. Naphthalene	20	6	490 rat	5	.004	5	ND	ND	-
2. 1,1,2,2-Tetrachloroethane	ND	-	800 rat	5	ND	-	.5	.1	3
3. Toluene	2000	2	5000 rat	3	.2	1	ND	ND	-
4. 1,1,2-Trichloroethane	3	8	580 rat	5	.004	5	.5	.0285	-
5. Xylenes	10000	2	50 hmn	10	2	1	ND	-	-

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

1.2 Mobility (Not Scored)
(Use numbers to refer to above listed substances)
Cations/Anions **Source: __ Value: 3 (Max. =12)**
1.
2.
3.
4.
5.

OR Solubility **Source: 1 Value: 3 (Max. =3)**
1. 3.0E+1 = 1
2. 2.9E+3 = 3
3. 5.4E+2 = 2
4. 4.5E+3 = 3
5. 2.0E+2 = 2

1.3 Substance Quantity (Unknown) **Source: 4 Value: 1 (Max. =10)**

Explain basis:

2.0 MIGRATION POTENTIAL

2.1 Containment **Source: 4 Value: 10 (Max. =10)**
Explain Basis: Spills, no containment

2.2 Net Precipitation (inches): **Source: 2 Value: 3 (Max. =5)**
27.06"

2.3 Subsurface Hydraulic Conductivity: **Source: 5 Value: 4 (Max. =4)**
poorly sorted sand and gravel

2.4 Vertical Depth to Ground Water: **Source: __ Value: 6 (Max. =8)**
25-50 feet

3.0 Targets

3.1 Ground Water Usage: **Source: 5 Value: 4 (Max. =10)**
Private Supply, minimum hookup

3.2 Distance to Nearest Drinking Well (ft): **Source: 5 Value: 3 (Max. =5)**
2000ft

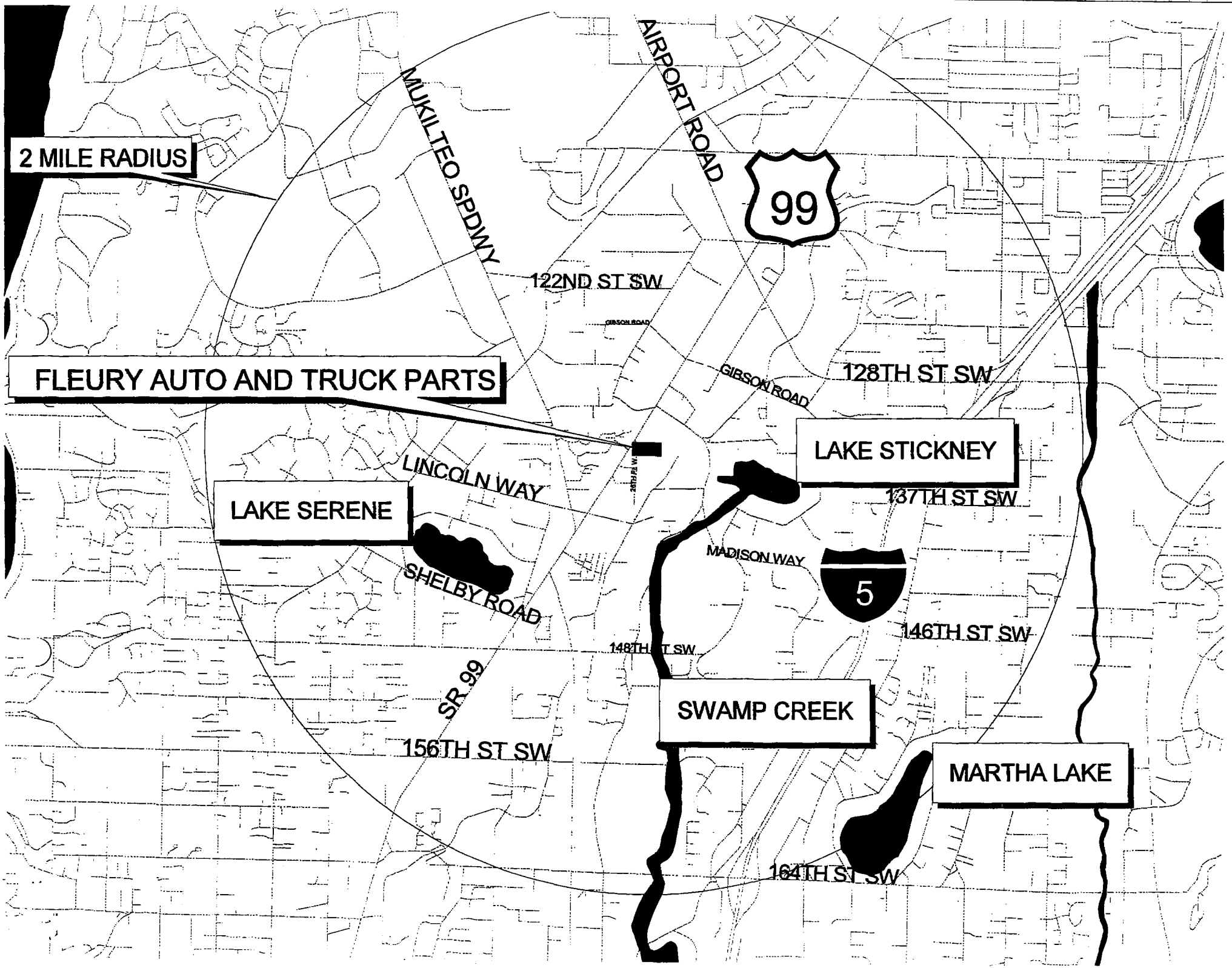
3.3 Population Served within 2 miles: **Source: 5 Value: 64 (Max. =100)**
$\sqrt{}$pop. = $\sqrt{}$4200 = 64.80

3.4 Area irrigated by Wells within 2 miles: **Source: 8 Value: 6 (Max. =50)**
0.75$\sqrt{}$66 of acres = 6.09

4.0 RELEASE **Source: Value: 0 (Max. =5)**
Explain basis for scoring a release to ground water:
No confirmed/documented release

SOURCES USED IN SCORING

1. Washington State Dept. of Ecology, Toxicology Database for Use In WARM Scoring, Jan. 1992.
2. Washington State Dept. of Ecology, Wash. Ranking Method, Scoring Manual, April 1992.
3. TEG, Inc., Soil Samples - Analytical Results, August 2000
4. Initial Investigation Field Report, Gerald Tousley, Nov. 2000.
5. Thurston County Geodata Center, includes map by S. Berg, July 2002.
6. Table 16-Estimated Evapotranspiration, E.M 2462, p42, for Thurston County Airport.
7. City of Olympia Web Site, Precipitation Data, July 2002.
8. Washington State Department of Ecology, Water Rights Application Tracking System (WRATS) for Township 16, Range 3W, August 2002.



DEPARTMENT OF ECOLOGY-- TOXICS CLEANUP PROGRAM
INTEGRATED SITE INFORMATION SYSTEM
PROJECT SUMMARY
AS OF 03/27/2001

FACILITY SITE ID: 33626892 **SITE NAME:** 17936 LITTLEROCK ROAD SE **TCP ID:**

SITE LOCATION: 17936 LITTLEROCK ROAD SE
ROCHESTER, WA 98579

SITE COMMENTS:

COUNTY: THURSTON

SITE MANAGER: LAWSON, REBECCA

ACTIVITY	ACTIVITY LEAD	ACTIVITY START	ACTIVITY END	ACTIVITY STATUS	LEGAL MECH	ACTIVITY COMMENT
Initial Investigation	LOCAL GOVERNMENT-SW	8/25/00	11/6/00	C		II byThurston County Health Dept.

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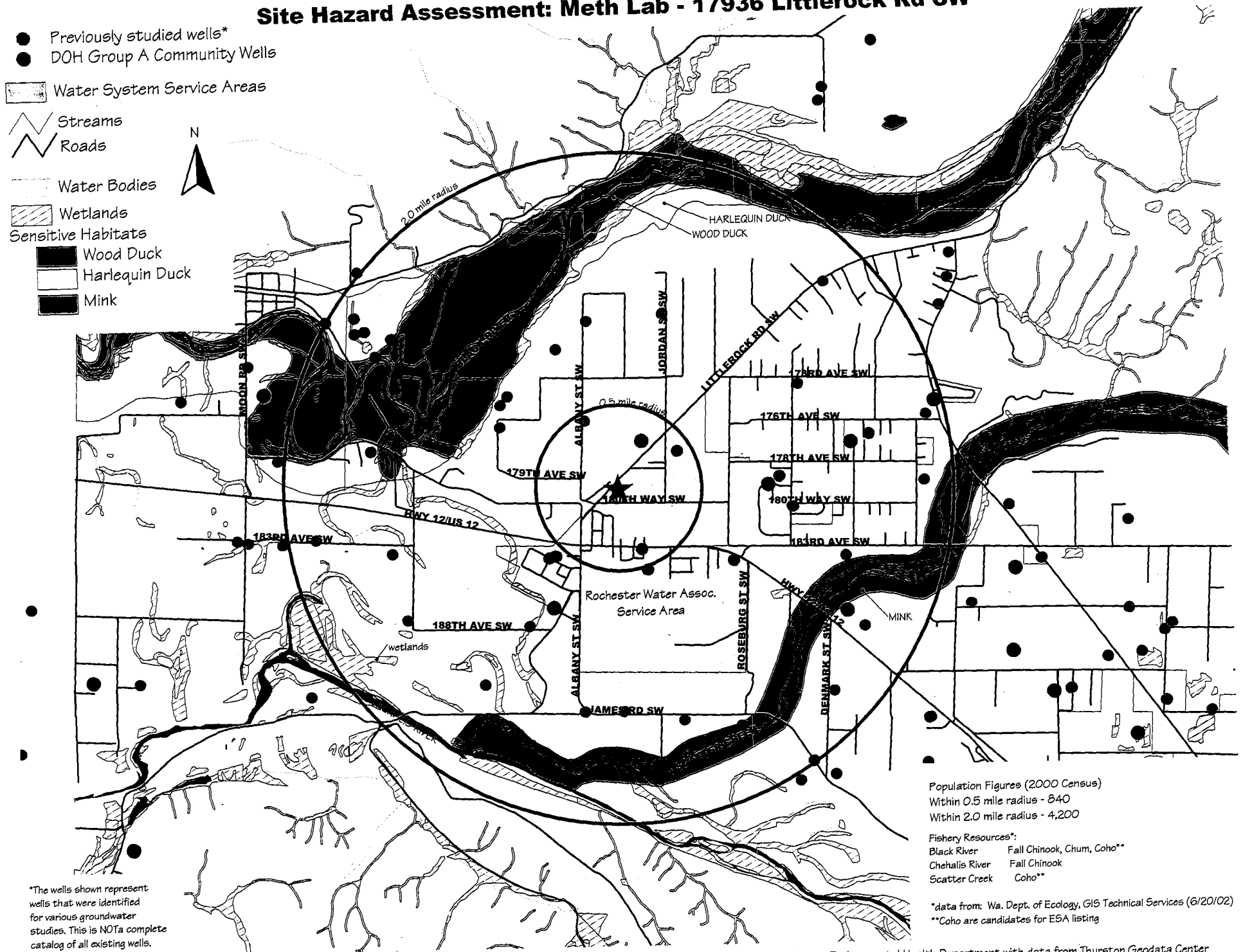
TEG NW SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

TEG Job Number:	S00829-2
Client:	TCHD
Client Job Name:	DRUG LAB
Client Job Number:	NA

Analytical Results

8260, µg/kg		MTH BLK	LCS	HOLE
Matrix	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/29/00	08/29/00	08/29/00
Date analyzed	Limits	08/29/00	08/29/00	08/29/00
Moisture, %				15%
Dichlorodifluoromethane	50	nd		nd
Chloromethane	50	nd		nd
Vinyl chloride	50	nd		nd
Bromomethane	50	nd		nd
Chloroethane	50	nd		nd
Trichlorofluoromethane	50	nd		nd
1,1-Dichloroethene	50	nd		nd
Methylene chloride	50	nd		nd
trans-1,2-Dichloroethene	50	nd		nd
1,1-Dichloroethane	50	nd		nd
2,2-Dichloropropane	50	nd		nd
cis-1,2-Dichloroethene	50	nd		nd
Bromochloromethane	50	nd		nd
Chloroform	50	nd		nd
1,1,1-Trichloroethane	50	nd		nd
1,1-Dichloropropene	50	nd		nd
Carbon tetrachloride	50	nd		nd
1,2-Dichloroethane	50	nd		nd
Benzene	50	nd	106%	nd
Trichloroethene	50	nd	107%	nd
1,2-Dichloropropane	50	nd		nd
Dibromomethane	50	nd		nd
Bromodichloromethane	50	nd		nd
cis-1,3-Dichloropropene	50	nd		nd
[redacted]	50	nd	107%	[redacted]
trans-1,3-Dichloropropene	50	nd		nd
[redacted]	50	nd		[redacted]
1,3-Dichloropropane	50	nd		nd
Tetrachloroethene	50	nd		nd
Dibromochloromethane	50	nd		nd
1,2-Dibromoethane (EDB)	50	nd		nd
Chlorobenzene	50	nd	100%	nd
1,1,1,2-Tetrachloroethane	50	nd		nd
Ethylbenzene	50	nd		nd
[redacted]	50	nd		[redacted]
Styrene	50	nd		nd
Bromoform	50	nd		nd
Isopropylbenzene	50	nd		nd
[redacted]	50	nd		[redacted]
1,2,3-Trichloropropane	50	nd		nd
n-Propylbenzene	50	nd		nd
Bromobenzene	50	nd		nd
[redacted]	50	nd		[redacted]
2-Chlorotoluene	50	nd		nd
4-Chlorotoluene	50	nd		nd
tert-Butylbenzene	50	nd		nd
[redacted]	50	nd		[redacted]
[redacted]	50	nd		[redacted]
[redacted]	50	nd		[redacted]
1,3-Dichlorobenzene	50	nd		nd
1,4-Dichlorobenzene	50	nd		nd
n-Butylbenzene	50	nd		[redacted]
1,2-Dichlorobenzene	50	nd		nd
1,2-Dibromo-3-Chloropropane	50	nd		nd
[redacted]	50	nd		[redacted]
Hexachloro-1,3-butadiene	50	nd		nd
[redacted]	50	nd		[redacted]
[redacted]	50	nd		[redacted]

Site Hazard Assessment: Meth Lab - 17936 Littlerock Rd SW



Population Figures (2000 Census)
Within 0.5 mile radius - 840
Within 2.0 mile radius - 4,200

Fishery Resources*:

Black River	Fall Chinook, Chum, Coho**
Chehalis River	Fall Chinook
Scatter Creek	Coho**

*data from: Wa. Dept. of Ecology, GIS Technical Services (6/20/02)
**Coho are candidates for ESA listing

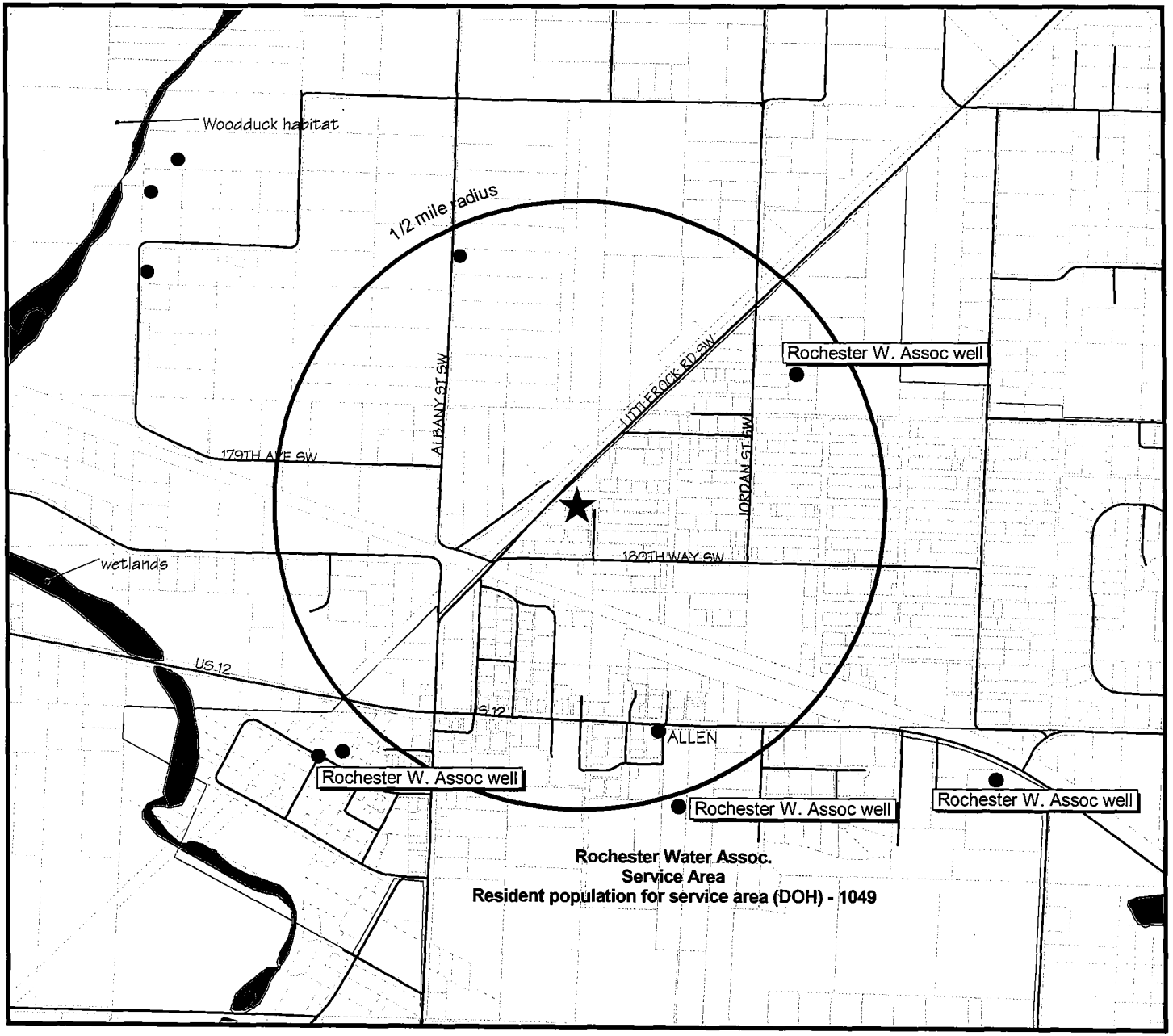
*The wells shown represent wells that were identified for various groundwater studies. This is NOTa complete catalog of all existing wells.

0.4 0 0.4 0.8 Miles

17936 littlerock.meth lab.apr S.B. Berg - August 2002 Thurston County Environmental Health Department with data from Thurston Geodata Center

17936 Littlerock Rd SE Meth Lab

Owner	Perry, Gregory J. (as of 8/17/01)
Parcel #	57001800300
Situs	17936 Littlerock Rd SE
Mailing	479 Shankin Rd, Onalaska, WA 98570
T/R-Sec	16N/3W-32



Parcels
Roads
Wells
Public Water
Streams
Water Bodies
Sensitive Habitats
Wetlands

Approximate 2000 census population within 1/2 mile radius - 840

The wells shown here only represent those wells whose locations weredigitized for study purposes. This is NOT a complete listing of all existing wells in the area.

0.2 0 0.2 0.4 0.6 0.8 1 Miles

N

17936_littlerock_meth_lab.apr
S.B. Berg - August 1, 2002
Thurston County Environmental Health
with data from Thurston Geodata Center

THURSTON COUNTY
WASHINGTON
SINCE 1852

COUNTY COMMISSIONERS
Cathy Wolfe
District One
Diane Oberquell
District Two
Kevin J. O'Sullivan
District Three

PUBLIC HEALTH AND
SOCIAL SERVICES DEPARTMENT

Patrick M. Libbey, Director
Diana T. Yu, MD, MSPH
Health Officer

August 7, 2002

Mr. Gregory Perry
479 Shankin Rd.
Onalaska, WA 98570

Subject : Drug Lab located at 17936 SE Littlerock Rd, Rochester, WA 98579

Dear Mr. Perry:

The Thurston County Health Department has completed the site hazard assessment (SHA) for the above location, as required under the Model Toxics Control Act. The SHA provides an estimation of the potential threat to human health and/or environment relative to all other Washington state sites assessed at this time. Your site has been determined to be a 4, where 1 represents the highest risk and 5 the lowest.

For your information, Ecology will be publishing the ranking of this and other recently assessed sites in the August 27, 2002 special issue of the site register. The site hazard ranking will be used in conjunction with other site-specific considerations in determining Ecology's priority for future actions.

If you have any inquiries or comments about the site scoring and ranking process, please contact me at 360-754-4111 x6451 or Michael Spencer, Department of Ecology at 360-407-7195

Sincerely,

Brad Zulewski
Environmental Health Specialist

Cc: Michael Spencer, Washington Department of Ecology – HQ
Dan Alexanian, DOE - TCP