partment of Natural Resources

ENVIRONMENTAL REPAIR PROGRAM
CASE TRACKING FORM FOR VER. 2.5
Form 4400-150

closed
02-64-000206

Re scored due to surface water contamination
3-1-93

D. # 206

istrict: NCD County: Vilas Co.
ite Name: C.M. Christiansen #2
1/4 Mile NE of Hwy 17 E
ddress: Phelps WI 54554
egal Municipality:
(T) V C

Case No.: 8908206 PMN:
FID:
Proj. Mgr:
Support Person:
Legal Desc: SE1/4 SW 1/4 Sec 35, T 42N R 11 (E) W
Lat: N ___ ° ___ . ___ ' Long: W ___ ° ___ . ___ '

ate of Discovery: 08/29/89
Date of RP Contact: ___/___/___

RIORITY SCREENING:
X 1 = High
_ 3 = Low
_ 4 = Unknown

RE-SCORE
22 · 40

FUNDING SOURCE:
X 1 = RP
___ 2 = LTF
___ 3 = EF
___ 4 = SF
___ 5 = None
___ 6 = Other (Describe In Comments)
___ 7 = EPA Emergency Resp.

ENFORCEMENT AUTHORITY:
X 1 = Spill Law s. 144.76, Wis. Stats.
___ 2 = Envir Repair Law s. 144.442, Wis. Stats.
___ 3 = Hazardous Waste Rules NR 600 Series
___ 4 = Solid Waste Rules NR 500 Series
___ 5 = CERCLA
___ 6 = Abandoned Container s. 144.77, Wis. Stat.
___ 7 = Other (Describe In Comments)

ROGRAMS INVOLVED: (L - LEAD S - SUPPORT)
_ Aban Containers
_ Lust
_ NR 600 Hazardous Waste
___ NR 500 Solid Waste
___ Spills
___ Superfund
___ Water Supply
___ Water Resources Mgt
___ Env. Repair

ESPONSIBLE PARTY:
usiness Name: C.M. Christiansen
wner/Mgr.: P.C. Christiansen
ddress: P.O. Box 100
Phelps WI 54554
one: 715 / 545-2333
ontact Person:

Business Name:
Owner/Mgr.:
Address:
Phone: ___/
Contact Person:

Threat		KNOWN IMPACTS (X)	POTENTIAL IMPACTS (X)
e/Explosion threat	(1)		
ntaminated Private Well	(2)		
ntaminated Public Well	(3)		
oundwater Contamination	(4)		X
il Contamination	(5)	X	
rect Contact	(10)		
ntaminated Surface Water	(7)	X	
ntaminated Air	(8)		
ther	(6)		

ONSULTANT INFORMATION:
mpany: White Water Assoc.
ntact Person:
dress: P.O. Box 27
Amasa, MI 49903
one: 906 / 822-7889
t additional on separate sheet & attach.)

Company:
Contact Person:
Address:
Phone: ___/

TYPE (Enter Code)	DISCHARGED	RECOVERED	TREATED	STORED	DISPOSED	DISPOSAL LOCATION CITY	STATE
78113							
78131							
77135							
00625							

ERP CASE STATUS

x as appropriate)		DATE INITATED (MM YY)	DATE COMPLETED (MM YY)	COMMENTS
	NO ACTION TAKEN	/	/	
	EMERGENCY	/	/	
	WORK PLAN APP	/	/	
X	FIELD INVEST I	8 / 89	/	
	II	9 / 89	/	
	III	/	/	
	REM DESIGN	/	/	
	REM ACTION I	/	/	
	O & M I	/	/	
	REM ACTION II	/	/	
	O & M II	/	/	
	LONG TERM MONT	/	/	
	ENFORCEMENT	/	/	

EF STATE LEAD CONSULTANT COST (OPTIONAL)

CONSULTANT	CONTRACT/PURCHASE ORDER NUMBER	CONTRACT AMOUNT	AMOUNT PAID TO DATE	LAST INVOICE APPROVED DATE
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /

ENVIRONMENTAL REPAIR PROGRAM-PRIORITY RANKING WORKSHEET

To be used with NR 550, Wis. Adm. Code, table and instructions.

I. GROUNDWATER ROUTE WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	Ref. Section
(1) Observed Release	(0) 45	1		45	sub. (1)
If observed release is given a score of 45, proceed to line (4).					
If observed release is given a score of 0, proceed to line (2).					
(2) Route Characteristics					sub. (2)
Depth to Groundwater	0 1 2 (3)	2	6	6	
Infiltration Potential	0 1 2 (3)	1	3	3	
Permeability of the Unsaturated Zone	0 1 (2) 3	1	2	3	
Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score		(14)	15	
(3) Containment	0 1 2 3	1	(3)	3	sub. (3)
(4) Waste Characteristics					sub. (4)
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Leachate Strength	0 2 4 6 8 10	1		10	
Waste Quantity/Hazardous Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score		(14)	26	
(5) Potential Impacts					sub. (5)
Groundwater Use	0 1 (2) 3	3	2	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 (30) 32 35 38 40	1	30	40	
	Total Potential Impacts		(32)	49	
(6) If line (1) is 45, multiply (1) X (4) X (5) If line (1) is 0, multiply (2) X (3) X (4) X (5)			2168 ÷	57,330	
(7) Divide line (6) by 57,330 and multiply by 100			S_{gw} =	36.92	

II. SURFACE WATER ROUTE WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	Ref. Section
(1) Observed Release	0 (45)	1	(45)	45	sub. (1)
If observed release is given a score of 45, proceed to line (4).					
If observed release is given a score of 0, proceed to line (2).					
(2) Route Characteristics					sub. (2)
Facility Slope and Intervening Terrain	0 1 2 3	1		3	
Run-off Potential	0 1 2 3	1		3	
Distance to Nearest Surface Water	0 1 2 3	2		6	
Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score			15	
(3) Containment	0 1 2 3	1		3	sub. (3)
(4) Waste Characteristics					sub. (4)
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Leachate Strength	0 2 4 6 8 10	1		10	
Hazardous Waste Quantity/Total Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score		(14)	26	
(5) Potential Impacts					sub. (5)
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 (3)	2	6	6	
Population Served/ Distance to Water	0 4 6 8 10 12 16 18 20	1		40	
Intake Downstream	24 30 32 35 40				
	Total Potential Impacts		(12)	55	
(6) If line (1) is 45, multiply (1) X (4) X (5) If line (1) is 0, multiply (2) X (3) X (4) X (5)			7560 ÷	64,350	
(7) Divide line (6) by 64,350 and multiply by 100			S_{sw} =	11.75	

III. AIR ROUTE WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	Ref. Section
(1) Observed Release	0 45	1		45	sub. (1)
Date and Location:					
Sampling Procedures:					
If line (1) is 0, then S_a = 0, Enter on line (5).					
If line (1) is 45, then proceed to line (2).					
(2) Waste Characteristics					sub. (2)
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity/Total Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Route Characteristics Score			20	
(3) Potential Impacts					sub. (3)
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Potential Impact Score			39	
(4) Multiply (1) X (2) X (3)				35,100	
(5) Divide line (4) by 35,100 and multiply by 100			S_a =	0	

$$S_M = \frac{1}{1.73} \left(S_{gw}^2 + S_{sw}^2 + S_a^2\right)^{0.5}$$

where: S_{gw} = groundwater route score
S_{sw} = surface water route score
S_a = air route score

SCORE 22.40

Department of Natural Resources
Form 4400-

ERP MIGRATION SCORE

Site or Facility Name: C.M. Christiansen #2 (barrels)

Location: 1/4 Mile NE of Hwy 17 on Hwy E, Phelps, WI 54554

DNR District: NCD

Person(s) in charge of the site or facility: P.C. Christiansen, P.O. Box 100, Phelps, WI 54554 (715) 545-2333

Name of Reviewer: Joan Loduha **Date:** March 1, 1993

General description of the site or facility:

(For example: landfill, surface impoundment, waste pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Re-scored 3/1/93 due to information of surface water contamination.

On Aug. 29, 1989 an anonymous caller complains of drums spillage. DNR employees inspect on Aug. 31, 1989. 33 unlabeled drums were found. Some drums containing liquid were observed as damaged, rusted and leaking. Letter sent to Christiansen to secure area, sample and repack drums and store in a safe location until disposal. Also requests additional site study and if necessary, remediation. On Sept. 19, 1989 DNR sampled. On Oct. 11, 1989 DNR request Christiansen to hire consultant and study site. White Water Assoc. tests all barrels; found two compounds, these two being stain and varnish. Tested for total VOCs, PCBs and EP tox metals. Detects of: Methylene chloride, Ethylbenzene, Toluene, m-xylene, O & P xylene and lead.
Site is approximately 120 feet from stream and wetland area.
Phelps population = 1200.
Per water resources of Upper WI River Basin: Thin lenses of sand and gravel within are beneath till or clay. Area is mostly rolling ground moraine but includes one area of hilly terrain.

SCORES: Sm = 22.40 (Sgw = 36.92 Ssw = 11.75 Sa = 0)

EF COVER SHEET

WORKSHEET FOR COMPUTING THE MIGRATION SCORE, Sm

	S	S^2
GROUNDWATER ROUTE SCORE (Sgw)	36.92	1363.09
SURFACE WATER ROUTE SCORE (Sgw)	11.75	138.96
AIR ROUTE SCORE (Sa)	0	
$Sgw^2 + Ssw^2 + Sa^2$		1501.15
$(Sgw^2 + Ssw^2 + Sa^2)^{0.5}$	38.74467705	
$(Sgw^2 + Ssw^2 + Sa^2)^{0.5} / 1.73$	Sm = 22.40	

WISCONSIN ENVIRONMENTAL FUNDING
REFERENCE SUMMARY

Site or Facility Name: C.M. Christiansen #2
Location: City Phelps County Vilas DNR District NCD

Reference Identification Number	Description of Reference
#1	WDNR Rhinelander & Wausau Files
#2	Quad TOPO Map Phelps
#3	Population list of Recycling Grants 7/90
#4	State Natural Areas by County
#5	Chapter NR 26 Fish Refuges
#6	Water Resources of WI Upper WI River Basin
#7	State Lab of Hygiene (Surface Water Info)

State Laboratory of Hygiene
University of Wisconsin Center for Health Sciences
465 Henry Mall, Madison, WI 53706
R.H. Laessig, Ph.D., Director S.L. Inhorn, M.D., Medical Director

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Environmental Science Section (608) 262-2797 DNR LAB ID 113133790
Organic chemistry (#1 of 4 on 01/27/93, unseen)

Id: 643404 Point/Well/..: Field #: G-3-92 Route: WR70
Collection Date: 09/28/92 Time: 11:05 County: 64 (Vilas)
From: MILITARY CREEK, DOWNSTREAM OF HWY E BELOW POLE YD., DRYING AREA
Description: EAST SIDE OF STREAM - IMPACT SAMPLE
To: LINDA TALBOT
WR/2 Source: Sediment
MADISON, WI
Account number: WR166 Collected by: JIM KREITLOW
Date Received: 11/18/92 Labslip #: OD001743 Reported: 01/26/93

---- test: CHLOROPHENOLS IN SOILS - 1540

2,4,6-TRICHLOROPHENOL		<0.10	UG/G, DRY
2,4,5-TRICHLOROPHENOL		<0.10	UG/G, DRY
PENTACHLOROPHENOL (PCP)	+	0.64	UG/G, DRY
PHENOLS EXTRACTION/DERIVATIZATION		C	
TOTAL ORGANIC CARBON IN SEDIMENT BY SLURRY METHOD	+	126000.	UG/G, DRY

TOTAL ORGANIC CARBON IN SEDIMENT BY SLURRY - PREP C

--- Footnotes ---
+: Positive results are prefixed by a plus sign.

State Laboratory of Hygiene
University of Wisconsin Center for Health Sciences
465 Henry Mall, Madison, WI 53706
R.H. Laessig, Ph.D., Director S.L. Inhorn, M.D., Medical Director

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Environmental Science Section (608) 262-2797 DNR LAB ID 113133790
Organic chemistry (#2 of 4 on 01/27/93, unseen)

Id: 643405 Point/Well/..: Field #: G-2-92 Route: WR70
Collection Date: 09/28/92 Time: 10:20 County: 64 (Vilas)
From: MILITARY CR, DOWNSTREAM OF FOOTBRIDGE BELOW POLE YD DRYING AREA
Description: NORTHSIDE OF CREEK ABOVE HWY E - IMPACT SAMPLE
To: LINDA TALBOT
WR/2 Source: Sediment
MADISON, WI
Account number: WR166 Collected by: JIM KREITLOW
Date Received: 11/18/92 Labslip #: OD001744 Reported: 01/26/93

---- test: CHLOROPHENOLS IN SOILS - 1540

2,4,6-TRICHLOROPHENOL		<0.10	UG/G, DRY
2,4,5-TRICHLOROPHENOL		<0.10	UG/G, DRY
PENTACHLOROPHENOL (PCP)	+	0.05	UG/G, DRY
PHENOLS EXTRACTION/DERIVATIZATION		C	
TOTAL ORGANIC CARBON IN SEDIMENT BY SLURRY METHOD	+	11400.	UG/G, DRY
TOTAL ORGANIC CARBON IN SEDIMENT BY SLURRY - PREP		C	

--- Footnotes ---
+: Positive results are prefixed by a plus sign.

State Laboratory of Hygiene
University of Wisconsin Center for Health Sciences
465 Henry Mall, Madison, WI 53706
R.H. Laessig, Ph.D., Director S.L. Inhorn, M.D., Medical Director

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Environmental Science Section (608) 262-2797 DNR LAB ID 113133790
Organic chemistry (#3 of 4 on 01/27/93, unseen)

Id: 643406 Point/Well/..: Field #: G-1-92 Route: WR70
Collection Date: 09/28/92 Time: 10:00 County: 64 (Vilas)
From: MILITARY CR, UP GRADIENT OF POLE YD. DRYING AREA
Description: NATURAL BACKGROUND SAMPLE - SOUTHSIDE OF STREAM
To: LINDA TALBOT
WR/2 Source: Sediment
MADISON, WI
Account number: WR166 Collected by: JIM KREITLOW
Date Received: 11/18/92 Labslip #: OD001745 Reported: 01/26/93

---- test: CHLOROPHENOLS IN SOILS - 1540

2,4,6-TRICHLOROPHENOL	<0.10	UG/G, DRY
2,4,5-TRICHLOROPHENOL	<0.10	UG/G, DRY
PENTACHLOROPHENOL (PCP)	<0.02	UG/G, DRY
PHENOLS EXTRACTION/DERIVATIZATION	C	
TOTAL ORGANIC CARBON IN SEDIMENT BY SLURRY METHOD +	224000.	UG/G, DRY
TOTAL ORGANIC CARBON IN SEDIMENT BY SLURRY - PREP	C	

--- Footnotes ---
+: Positive results are prefixed by a plus sign.

State Laboratory of Hygiene
University of Wisconsin Center for Health Sciences
465 Henry Mall, Madison, WI 53706
R.H. Laessig, Ph.D., Director S.L. Inhorn, M.D., Medical Director

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Environmental Science Section (608) 262-2797 DNR LAB ID 113133790
Organic chemistry (#4 of 4 on 01/27/93, unseen)

Id: 643403 Point/Well/..: Field #: G-4-92 Route: WR70
Collection Date: 09/28/92 Time: 11:40 County: 64 (Vilas)
From: MILITARY CREEK, 100 FEET ABOVE CONFLUENCE WITH N. TWIN LAKE - BELOW
Description: WATERBODY 1623900
To: LINDA TALBOT
WR/2 Source: Sediment
MADISON, WI
Account number: WR166 Collected by: JIM KREITLOW
Date Received: 11/18/92 Labslip #: OD001746 Reported: 01/26/93

---- test: CHLOROPHENOLS IN SOILS - 1540

2,4,6-TRICHLOROPHENOL		<0.10	UG/G, DRY
2,4,5-TRICHLOROPHENOL		<0.10	UG/G, DRY
PENTACHLOROPHENOL (PCP)	+	0.03	UG/G, DRY
PHENOLS EXTRACTION/DERIVATIZATION		C	
TOTAL ORGANIC CARBON IN SEDIMENT BY SLURRY METHOD	+	13700.	UG/G, DRY

TOTAL ORGANIC CARBON IN SEDIMENT BY SLURRY - PREP C

--- Footnotes ---
+: Positive results are prefixed by a plus sign.

ERP MIGRATION SCORE

Site or Facility Name: C.M. Christiansen #2 (barrels)

Location: 1/4 Mile NE of Hwy 17 on Hwy E, Phelps, WI 54554

DNR District: NCD

Person(s) in charge of the site or facility: P.C. Christiansen, P.O. Box 100, Phelps, WI 54554 (715) 545-2333

Name of Reviewer: Joan Loduha Date: January 8, 1992

General description of the site or facility:

(For example: landfill, surface impoundment, waste pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

On Aug. 29, 1989 an anonymous caller complains of drums spillage. DNR employees inspect on Aug. 31, 1989. 33 unlabeled drums were found. Some drums containing liquid were observed as damaged, rusted and leaking. Letter sent to Christiansen to secure area, sample and repack drums and store in a safe location until disposal. Also requests additional site study and if necessary, remediation. On Sept. 19, 1989 DNR sampled. On Oct. 11, 1989 DNR request Christiansen to hire consultant and study site. White Water Assoc. tests all barrels; found two compounds, these two being stain and varnish. Tested for total VOCs, PCBs and EP tox metals. Detects of: Methylene chloride, Ethylbenzene, Toluene, m-xylene, O & P xylene and lead.
Site is approximately 120 feet from stream and wetland area.
Phelps population = 1200.
Per water resources of Upper WI River Basin: Thin lenses of sand and gravel within are beneath till or clay. Area is mostly rolling ground moraine but includes one area of hilly terrain.

SCORES: Sm = 21.91 (Sgw = 36.92 Ssw = 8.62 Sa = 0)

EF COVER SHEET

WORKSHEET FOR COMPUTING THE MIGRATION SCORE, Sm

	S	S^2
GROUNDWATER ROUTE SCORE (Sgw)	36.92	1363.09
SURFACE WATER ROUTE SCORE (Sgw)	8.62	74.30
AIR ROUTE SCORE (Sa)	0	
$Sgw^2 + Ssw^2 + Sa^2$		1437.39
$(Sgw^2 + Ssw^2 + Sa^2)^{0.5}$	37.91292656	
$(Sgw^2 + Ssw^2 + Sa^2)^{0.5} / 1.73$	Sm = 21.91	

WISCONSIN ENVIRONMENTAL FUNDING
REFERENCE SUMMARY

Site or Facility Name: C.M. Christiansen #2

Location: City Phelps County Vilas DNR District NCD

Reference Identification Number	Description of Reference
#1	WDNR Rhinelander & Wausau Files
#2	Quad TOPO Map Phelps
#3	Population list of Recycling Grants 7/90
#4	State Natural Areas by County
#5	Chapter NR 26 Fish Refuges
#6	Water Resources of WI Upper WI River Basin

Department of Natural Resources

ENVIRONMENTAL REPAIR PROGRAM
CASE TRACKING FORM FOR VER. 2.1
Form 4400-150

Orig.
I.D. # 206

1/8/92

District: NCD County: Vilas Co
Site Name: C.M. Christiansen #2
1/4 mile NE of HWY 17 on HWY E
Address: Phelps WI 54554
Legal Municipality:
(T) V C

Case No.: PMN:
FID:
Proj. Mgr: ERP
Support Person:
Legal Desc: SE 1/4 SW 1/4 Sec 35, T 42, R 11 (E/W)
Lat: N ___ ° ___ . ___ ' Long: W ___ ° ___ . ___ '

Date of Discovery: 8/29/89

Date of RP Contact: 9/1/89

PRIORITY SCREENING:
X 1 = High
___ 3 = Low
___ 4 = Unknown

PRE-SCORE
21 . 91

FUNDING SOURCE:
X 1 = RP
___ 2 = LTF
___ 3 = EF
___ 4 = SF
___ 5 = None
___ 6 = Other (Describe In Comments)
___ 7 = EPA Emergency Resp.

ENFORCEMENT AUTHORITY:
X 1 = Spill Law s. 144.76, Wis. Stats.
___ 2 = Envir Repair Law s. 144.442, Wis. Stats.
___ 3 = Hazardous Waste Rules NR 600 Series
___ 4 = Solid Waste Rules NR 500 Series
___ 5 = CERCLA
___ 6 = Abandoned Container s. 144.77, Wis. Stat.
___ 7 = Other (Describe in Comments)

PROGRAMS INVOLVED: (L - LEAD S - SUPPORT)

___ Aban Containers	___ NR 500 Solid Waste	___ Water Supply
___ Lust	___ Spills	___ Water Resources Mgt
___ NR 600 Hazardous Waste	___ Superfund	___ Env. Repair

RESPONSIBLE PARTY:
Business Name: C.M. Christiansen
Owner/Mgr.: P.C. Christiansen
Address: PO Box 100
Phelps, WI 54554
Phone: 715 / 545-2333
Contact Person:

Business Name:
Owner/Mgr.:
Address:
Phone: /
Contact Person:

		KNOWN IMPACTS (X)	POTENTIAL IMPACTS (X)
No Threat			
Fire/Explosion threat	(1)		
Contaminated Private Well	(2)		
Contaminated Public Well	(3)		
Groundwater Contamination	(4)		X
Soil Contamination	(5)	X	
Direct Contact	(10)		
Contaminated Surface Water	(7)		X
Contaminated Air	(8)		
Other ___	(6)		

CONSULTANT INFORMATION:
Company: White Water Assoc.
Contact Person:
Address: PO Box 27
Amasa, MI 49903
Phone: 906 / 822-7889
(List additional on separate sheet & attach.)

Company:
Contact Person:
Address:
Phone: /

EPA HAZARDOUS SUBSTANCES

(Please indicate if quantities are product or contaminated soil in pounds, gallons or cubic yards.)

TYPE (Enter Code)	DISCHARGED	RECOVERED	TREATED	STORED	DISPOSED	DISPOSAL LOCATION CITY	STATE
78113							
78131							
78121							

ERP CASE STATUS

(x as appropriate)

		DATE INITATED (MM YY)	DATE COMPLETED (MM YY)	COMMENTS
	NO ACTION TAKEN	/	/	
	EMERGENCY	/	/	
	WORK PLAN APP	/	/	
X	FIELD INVEST I	8 / 89	/	
	II	9 / 89	/	
	III	/	/	
	REM DESIGN	/	/	
	REM ACTION I	/	/	
	O & M I	/	/	
	REM ACTION II	/	/	
	O & M II	/	/	
	LONG TERM MONT	/	/	
	ENFORCEMENT	/	/	

EF STATE LEAD CONSULTANT COST (OPTIONAL)

CONSULTANT	CONTRACT/PURCHASE ORDER NUMBER	CONTRACT AMOUNT	AMOUNT PAID TO DATE	LAST INVOICE APPROVED DATE
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /

ENVIRONMENTAL REPAIR PROGRAM-PRIORITY RANKING WORKSHEET

To be used with NR 550, Wis. Adm. Code, table and instructions.

I. GROUNDWATER ROUTE WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	
(1) Observed Release	(0) 45	1	0	45	
If observed release is given a score of 45, proceed to line (4).					
If observed release is given a score of 0, proceed to line (2).					
(2) Route Characteristics					sub. (2)
Depth to Groundwater	0 1 2 (3)	2	6	6	
Infiltration Potential	0 1 2 (3)	1	3	3	
Permeability of the Unsaturated Zone	0 1 (2) 3	1	2	3	
Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score		(14)	15	
(3) Containment	0 1 2 3	1	(3)	3	sub. (3)
(4) Waste Characteristics					sub. (4)
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Leachate Strength	0 2 4 6 8 10	1		10	
Waste Quantity/Hazardous Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score		(14)	26	
(5) Potential Impacts					sub. (5)
Groundwater Use	0 1 (2) 3	3	6	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 (30) 32 35 38 40	1	30	40	
	Total Potential Impacts		(36)	49	
(6) If line (1) is 45, multiply (1) X (4) X (5) If line (1) is 0, multiply (2) X (3) X (4) X (5)			21168 ÷	57,330	
(7) Divide line (6) by 57,330 and multiply by 100			S_{gw} = 36.92		

II. SURFACE WATER ROUTE WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	Ref. Section
(1) Observed Release	(0) 45	1		45	sub. (1)
If observed release is given a score of 45, proceed to line (4).					
If observed release is given a score of 0, proceed to line (2).					
(2) Route Characteristics					sub. (2)
Facility Slope and Intervening Terrain	0 (1) 2 3	1	1	3	
Run-off Potential	0 (1) 2 3	1	1	3	
Distance to Nearest Surface Water	0 1 2 (3)	2	6	6	
Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score		(11)	15	
(3) Containment	0 1 2 (3)	1	(3)	3	sub. (3)
(4) Waste Characteristics					sub. (4)
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Leachate Strength	0 2 4 6 8 10	1		10	
Hazardous Waste Quantity/Total Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score		(14)	26	
(5) Potential Impacts					sub. (5)
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 (3)	2	6	6	
Population Served/ Distance to Water	(0) 4 6 8 10 12 16 18 20	1		40	
Intake Downstream	24 30 32 35 40				
	Total Potential Impacts		(12)	55	
(6) If line (1) is 45, multiply (1) X (4) X (5) If line (1) is 0, multiply (2) X (3) X (4) X (5)			5544 ÷	64,350	
(7) Divide line (6) by 64,350 and multiply by 100			S_{sw} = 8.62		

III. AIR ROUTE WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	Ref. Section
(1) Observed Release	(0) 45	1		45	sub. (1)
Date and Location:					
Sampling Procedures:					
If line (1) is 0, then S_a = 0, Enter on line (5).					
If line (1) is 45, then proceed to line (2).					
(2) Waste Characteristics					sub. (2)
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity/Total Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Route Characteristics Score			20	
(3) Potential Impacts					sub. (3)
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Potential Impact Score			39	
(4) Multiply (1) X (2) X (3)				35,100	
(5) Divide line (4) by 35,100 and multiply by 100			S_a = 0		

$$S_M = \frac{1}{1.73} \left(S_{gw}^2 + S_{sw}^2 + S_a^2\right)^{0.5}$$

where: S_{gw} = groundwater route score
S_{sw} = surface water route score
S_a = air route score

SCORE 21.91

Department of Natural Resources
Form 4400-

State of Wisconsin
Department of Natural Resources

TOXIC AND HAZARDOUS SPILL REPORT

Form 91 Rev. 6-86

State Div. Emergency Gov't. (608) 266-3232
U.S. Nat'l. Response Center (800) 424-8802
Chemtrec/Pesticides/Chlorine (800) 424-9300

Spill ID Number 02-64-000206 closed
Y Y M M D D 0-99

Date of Incident	Day of Week	Time of Incident	Reported By (Name)	Telephone Number
8-24-89	Tues	☐ A.M. ☐ P.M.	Anonymous	(—) —
Date Reported	**Day of Week**	**Time Reported**	**Agency or Firm Reporting**	**Reported thru Div. Emergen. Gov't.**
8-29-89	Tues	☐ A.M. ☒ P.M. 3 PM	—	☐ Yes ☒ No

Substance Involved	Quantity	Units	Person or Firm Responsible
unknown	31	drums	C.M. Christiansen Co.
Substance Involved	**Quantity**	**Units**	**Contact Name / Telephone Number**
			P.C. Christiansen (715) 545-2333

Physical Characteristics

☐ Solid ☒ Liquid Color ____
☐ Semisolid ☐ Gas Odor ____

Address — Street or Route
P.O. Box 100

City, State, Zip Code
Mercer, WI 54554

Cause of Incident
Leaking Drums

Exact Location Description (intersection, mileage, etc.)
¼ mile NE of intersection of E & F

County Location	¼¼, ¼, Section, Town, Range
Vilas	SE, SW, 35, T 42 N, R 11 E

DNR Dist	DNR Area	Groundwaters Affected
NCD	Woodr	☐ Yes ☐ No ☒ Potential

Surface Waters Affected	Name of Surface Water
☐ Yes ☐ No ☒ Potential	Military Creek

Date District Notified	Day of Week	Time District Notified
8-29-89	Tues	☐ A.M. ☒ P.M. 3

District Person Notified	Telephone Number
Tom Jerow	(715) 369-8810

Date Investigated	Day of Week	Time Investigated
8-31-89	Thurs	☒ A.M. ☐ P.M. 9:30

Person Investigating	Telephone Number
Tom Jerow	(715) 369-8810

Action Taken By DNR

☐ No Action Taken ☒ Investigation ☐ Supervise/Conduct Cleanup
☒ Spiller Required To Take Action; Type repackage drums
☐ Contractor Hired By DNR; Name ____
☐ Amount Recovered ____
☐ 29.29 Enforcement ____

Other Agencies on Scene

Local Wardens
State ____
Federal ____

Action Taken By Spiller

☐ No Action Taken ☐ No Notification ☐ Investigate
☐ Containment; Type ____
☐ Cleanup; Method ____
☐ Amount Recovered ____
☐ Monitor ____
☐ Contractor Hired; Name ____
☒ Other Action In Process of hiring contractor

Spill Location

☒ Industrial Facility/Paper Mill/Chem. Co.
☐ Gas/Service Station/Garage, Auto Dealer, Repair Shop
☐ Ag Coop/Facility/Cheese Factory/Creamery
☐ Other Small Business (bank, grocery, insurance co., etc.)
☐ Public Property (city, county, state, church, school, etc.)
☐ Utility Co., Power Generating/Transfer Facility
☐ Private Property (home/farm)
☐ Pipeline, Terminal, Tank Farm, Oil Jobber/Wholesaler
☐ Transportation Accident, Fuel Supply Tank Spill
☐ Transportation Accident, Load Spill
☐ Construction, Excavation, Wrecking, Quarry, Mine
☐ Other ____

Spilled Substance Destination

☐ Air
☒ Soil
☐ Groundwater
☐ Surface Water
☐ Storm Sewer
☐ Sanitary Sewer
☐ Contained/Recovered
☐ Other ____

Person Filing This Report (print name)
Tom Jerow

Signature	Date Signed
Tom Jerow	8-31-89

Additional Comments:

Material appears to be some type of solvent or paint. I obtained 150 to 200 ppm (meter units) on the drums.

DISTRICT

Department of Natural Resources

ENVIRONMENTAL REPAIR PROGRAM
CASE TRACKING FORM FOR VER. 8.2.1
Form 4400-150

02-64-000206
closed

Re-scored due to surface water contamination 3-1-93

I.D. # 206

District: NCD County: Vilas Co.
Site Name: C.M. Christiansen #2
¼ Mile NE of Hwy 17 E
Address: Phelps WI 54554
Legal Municipality:
(T) V C

Case No.: 8908206 PMN:
FID:
Proj. Mgr:
Support Person:
Legal Desc: SE 1/4 SW 1/4 Sec 35, T 40N, R 11 (E)W
Lat: N ___ ° ___ . ___ ' Long: W ___ ° ___ . ___ '

Date of Discovery: 08/29/89
Date of RP Contact: ___/___/___

PRIORITY SCREENING:
X 1 = High
___ 3 = Low
___ 4 = Unknown

PRE-SCORE
22 . 40

FUNDING SOURCE:
X 1 = RP
___ 2 = LTF
___ 3 = EF
___ 4 = SF
___ 5 = None
___ 6 = Other (Describe In Comments)
___ 7 = EPA Emergency Resp.

ENFORCEMENT AUTHORITY:
X 1 = Spill Law s. 144.76, Wis. Stats.
___ 2 = Envir Repair Law s. 144.442, Wis. Stats.
___ 3 = Hazardous Waste Rules NR 600 Series
___ 4 = Solid Waste Rules NR 500 Series
___ 5 = CERCLA
___ 6 = Abandoned Container s. 144.77, Wis. Stat.
___ 7 = Other (Describe In Comments)

PROGRAMS INVOLVED: (L - LEAD S - SUPPORT)

___ Aban Containers	___ NR 500 Solid Waste	___ Water Supply
___ Lust	___ Spills	___ Water Resources Mgt
___ NR 600 Hazardous Waste	___ Superfund	___ Env. Repair

RESPONSIBLE PARTY:

Business Name: C.M. Christiansen
Owner/Mgr.: P.C. Christiansen
Address: P.O. Box 100
Phelps WI 54554
Phone: 715 / 545-2333
Contact Person:

Business Name:
Owner/Mgr.:
Address:
Phone: ___/
Contact Person:

		KNOWN IMPACTS (X)	POTENTIAL IMPACTS (X)
No Threat		___	
Fire/Explosion threat	(1)	___	___
Contaminated Private Well	(2)	___	___
Contaminated Public Well	(3)	___	___
Groundwater Contamination	(4)	___	X
Soil Contamination	(5)	X	___
Direct Contact	(10)	___	___
Contaminated Surface Water	(7)	X	___
Contaminated Air	(8)	___	___
Other ___	(6)	___	___

CONSULTANT INFORMATION:

Company: White Water Assoc.
Contact Person:
Address: P.O. Box 27
Amasa, MI 49903
Phone: 906 / 822-7889
(List additional on separate sheet & attach.)

Company:
Contact Person:
Address:
Phone: ___/

cubic yards.)

TYPE (Enter Code)	DISCHARGED	RECOVERED	TREATED	STORED	DISPOSED	DISPOSAL LOCATION CITY	STATE
78113							
78131							
77135							
00825							

ERP CASE STATUS

(x as appropriate)		DATE INITATED (MM YY)	DATE COMPLETED (MM YY)	COMMENTS
	NO ACTION TAKEN	/	/	
	EMERGENCY	/	/	
	WORK PLAN APP	/	/	
X	FIELD INVEST I	8 / 89	/	
	II	9 / 89	/	
	III	/	/	
	REM DESIGN	/	/	
	REM ACTION I	/	/	
	O & M I	/	/	
	REM ACTION II	/	/	
	O & M II	/	/	
	LONG TERM MONT	/	/	
	ENFORCEMENT	/	/	

EF STATE LEAD CONSULTANT COST (OPTIONAL)

CONSULTANT	CONTRACT/PURCHASE ORDER NUMBER	CONTRACT AMOUNT	AMOUNT PAID TO DATE	LAST INVOICE APPROVED DATE
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /
		$	$	/ /

To be used with NR 550, Wis. Adm. Code, table and instructions.

I. GROUNDWATER ROUTE WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	Ref. Section
(1) Observed Release	(0) 45	1		45	sub. (1)
If observed release is given a score of 45, proceed to line (4).					
If observed release is given a score of 0, proceed to line (2).					
(2) Route Characteristics					sub. (2)
Depth to Groundwater	0 1 2 (3)	2	6	6	
Infiltration Potential	0 1 2 (3)	1	3	3	
Permeability of the Unsaturated Zone	0 1 (2) 3	1	2	3	
Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score		(14)	15	
(3) Containment	0 1 2 3	1	(3)	3	sub. (3)
(4) Waste Characteristics					sub. (4)
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Leachate Strength	0 2 4 6 8 10	1		10	
Waste Quantity/Hazardous Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score		(14)	26	
(5) Potential Impacts					sub. (5)
Groundwater Use	0 1 (2) 3	3	2	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 (30) 32 35 38 40	1	30	40	
	Total Potential Impacts		(32)	49	
(6) If line (1) is 45, multiply (1) X (4) X (5) If line (1) is 0, multiply (2) X (3) X (4) X (5)			21168 ÷	57,330	
(7) Divide line (6) by 57,330 and multiply by 100			S_{gw} =	36.92	

II. SURFACE WATER ROUTE WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	Ref. Section
(1) Observed Release	0 (45)	1	(45)	45	sub. (1)
If observed release is given a score of 45, proceed to line (4).					
If observed release is given a score of 0, proceed to line (2).					
(2) Route Characteristics					sub. (2)
Facility Slope and Intervening Terrain	0 1 2 3	1		3	
Run-off Potential	0 1 2 3	1		3	
Distance to Nearest Surface Water	0 1 2 3	2		6	
Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score			15	
(3) Containment	0 1 2 3	1		3	sub. (3)
(4) Waste Characteristics					sub. (4)
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Leachate Strength	0 2 4 6 8 10	1		10	
Hazardous Waste Quantity/Total Waste Quantity	0 1 (2) 3 4 5 6 7 8	1	2	8	
	Total Waste Characteristics Score		(14)	26	
(5) Potential Impacts					sub. (5)
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 (3)	2	6	6	
Population Served/ Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1		40	
	Total Potential Impacts		(12)	55	
(6) If line (1) is 45, multiply (1) X (4) X (5) If line (1) is 0, multiply (2) X (3) X (4) X (5)			7560 ÷	64,350	
(7) Divide line (6) by 64,350 and multiply by 100			S_{sw} =	11.75	

III. AIR ROUTE WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	Ref. Section
(1) Observed Release	0 45	1		45	sub. (1)
Date and Location:					
Sampling Procedures:					
If line (1) is 0, then S_a = 0, Enter on line (5).					
If line (1) is 45, then proceed to line (2).					
(2) Waste Characteristics					sub. (2)
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantilty/Total Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Route Characteristics Score			20	
(3) Potential Impacts					sub. (3)
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Potential Impact Score			39	
(4) Multiply (1) X (2) X (3)				35,100	
(5) Divide line (4) by 35,100 and multiply by 100			S_a =	0	

$$S_M = \frac{1}{1.73} \left(S_{gw}^2 + S_{sw}^2 + S_a^2\right)^{0.5}$$

where: S_{gw} = groundwater route score
S_{sw} = surface water route score
S_a = air route score

SCORE 22.40

Department of Natural Resources
Form 4400-