Belliveau, Cherryl L

From: Belliveau, Cherryl L
Sent: Tuesday, September 23, 2003 11:55 AM
To: Saari, Christopher A
Cc: Boardman, Daniel C
Subject: File Note

Chris:

Please place a note in file #03-58-000380 (Former Ackley Amoco) to reference file #07-58-438023.

Thank you.

Sherrie Belliveau
NOR Remediation & Redevelopment
Wisconsin Department of Natural Resources
(☎) phone: 715-365-8996
(☎) fax: 715-365-8977
(✉) e-mail: cherryl.belliveau@dnr.state.wi.us

See also:

03-58-000380

Read PER JAN
SAWYER County

Read 3/26
Groundwater Contamination
as expected.

Post-it® Fax Note 7671	Date 5/11/03	# of pages ▶ 3
To JAN	From D. Boardman	
Co./Dept. SAWYER	Co. WI-DNR	
Phone # 715-634-6463	Phone # 715-365-8943	
Fax # 715-638-3282	Fax #	

LETTER OF TRANSMITTAL

Northern Environmental℠
Hydrologists • Engineers • Geologists

330 South 4th Avenue
Park Falls, Wisconsin 54552

715-762-1544
1-800-498-3913
Fax 715-762-1844

DATE 3-6-03 | PROJECT NO. SAW04-2300-0458

ATTENTION Mr. Bill Schultz

RE

TO: WI. Dept. of Natural Resources
107 Sutliff Avenue
Rhinelander, WI 54501

WE ARE SENDING YOU

- [x] Attached
- [ ] Under separate cover
- [ ] Shop Drawings
- [ ] Specifications
- [ ] Plans
- [ ] Copy of letter
- [ ] Samples
- [ ] Change order
- [ ] _____

COPIES	DESCRIPTION

THESE ARE TRANSMITTED (see code)

A. For Approval
B. For Your Use
C. As Requested
D. For Review and Comment
E. For Bids Due _____ 19 ____
F. No Exceptions Taken
G. Make Noted Corrections
H. Amend & Resubmit
I. _____
J. Resubmit _____ Copies for Review
K. Submit _____ Copies for Distribution
L. Return _____ Corrected Prints
M. Review and Sign _____

REMARKS: Bill:
Enclosed is a copy of the letter report regarding the building demolition, tank removal, & additional site investigation activities at the Former Ackley Amoco located in Couderay, WI. Please feel free to contact us with any comments or questions.

Thank you

COPY TO: _____

SIGNED: Deb Koenig

Northern Environmental
Hydrologists • Engineers • Geologists

330 South 4th Avenue
Park Falls, WI 54552
715-762-1544
800-498-3913
Fax 715-762-1844

December 30, 2002
(SAW04-2300-0458)

Mr. Kris Mayberry
Sawyer County Clerk
P.O. Box 935
Hayward, Wisconsin 54843

RE: Building Demolition, Tank Removal, and Additional Site Investigation Activities, Former Ackley Amoco, 12264 Highway 70, Couderay, Wisconsin (WDNR ID #03-58-000380) (FID #858120450)

Dear Mr. Mayberry:

Northern Environmental Technologies, Incorporated (Northern Environmental) has completed building demolition, tank removal, and additional site investigation (SI) activities at the Former Ackley Amoco, 12264 Highway 70, Couderay, Wisconsin (Site) (Figure 1). This work was completed under a Brownfield Site Assessment Grant (SAG) awarded to Sawyer County by the Wisconsin Department of Natural Resources (WDNR).

On June 20, 2002, four underground storage tanks (USTs) (two 1,500 gallon unleaded gasoline, one 1,000-gallon diesel, and one 1,000-gallon fuel oil) were removed from the Site (Figure 2). All UST site assessment activities conformed with Chapter ILHR 10, Wisconsin Administrative Code (WAC) and the WDNR site assessment guidelines. During tank removal, one soil sample was collected beneath each end of each tank, and also beneath each dispenser. Each soil sample was described in the field by Northern Environmental personnel and was subjected to field screening using a TEI Model 580B Organic Vapor Monitor photoionization detector (PID) equipped with a 10.6 eV lamp calibrated daily for direct response to isobutylene. PID headspace analysis consisted of collecting a representative soil sample, transferring the sample to a resealable plastic bag, and storing the sample in a relatively warm location for at least 15 minutes. The resealable bag was then punctured with the PID probe. The highest stable PID reading occurring within 10 to 20 seconds was recorded in instrument units as isobutylene (iui). The results of samples field screened during tank removal activities are summarized in Table 1. No soil samples were sent to be laboratory analyzed due to the SI, which was in progress at the Site. Tank closure checklists and inventory forms are included in Appendix A.

The former Ackley Amoco building demolition was completed during June of 2002. Building demolition activities were completed by Thompson's Sand and Gravel of Hayward, Wisconsin who was contracted by Advanced Tank Service, Inc. (ATS) of Eau Claire, Wisconsin. All building demolition material was disposed of properly at the Thompson's Sand and Gravel landfill.

Two additional monitoring wells (MW2100 and MW2200) were constructed on September 10, 2002 to determine the extent of petroleum impact to the ground water (Figure 2). These wells were installed and developed in accordance with NR 141 WAC ground water monitoring well requirements. The monitoring wells were constructed under the direction of Northern Environmental personnel. The position of the filter pack, filter pack seal, annular space seal, and surface seal were measured with a ballasted measuring tape. The monitoring wells were constructed of two-inch diameter, threaded, flush-joint polyvinyl chloride (PVC) casing.

Monitoring well screens consisted of a 10-foot long section of two-inch diameter, 0.010-inch mill slot, threaded, flush joint PVC. The monitoring well screens were positioned so that approximately five feet of screen was above the apparent seasonal high water table allowing the presence of floating product to be identified. The well bottoms consisted of pointed, threaded, flush-joint PVC cap. No glues, solvents, lubricants, or similar substances were used in well construction.

Monitoring wells MW2100 and MW2200 terminate approximately six inches below ground surface and are protected with a 12-inch diameter aluminum flush mount protective casing that is set in concrete. The wells are capped with a two-inch expandable locking cap. WDNR well construction forms are included in Appendix B.

The monitoring wells were developed using a submersible pump to remove the effects of drilling and well installation procedures. Well development helps to ensure that water entering the well is representative of ambient ground water. During well development, observation of pH, specific conductivity, temperature, turbidity, and free product occurrence were recorded. When 10 well volumes had been removed, or the well produced sediment-free water, the well was considered developed. WDNR well development forms are included as Appendix C. Well development summary sheets are included as Appendix D. Water level data sheets are included as Appendix E. A ground water monitoring well information form is included as Appendix F.

Ground-water samples were collected from MW2100 and MW2200 on October 14, 2002 with a disposable bailer and emptied into 40-milliliter vials sealed with a Teflon lined cap and preserved with hydrochloric acid (HCL). The ground-water samples were chilled to four degrees Celsius and were transported under chain-of-custody protocol to a WDNR certified laboratory (En Chem, Green Bay, Wisconsin). The samples were analyzed for volatile organic compounds (VOCs) (EPA Method SW846 8260B) and lead. Copies of ground-water laboratory analytical reports and chain-of-custody forms are presented in Appendix G.

Laboratory analytical results of ground-water samples collected from MW2200 indicated concentrations of petroleum compounds above WDNR Enforcement Standards (ES) and WDNR Preventative Action Limits (PAL). Laboratory analytical results of ground-water samples collected from MW2100 did not indicate significant petroleum compound concentrations. Ground-water analytical results are summarized in Table 2.

We trust this information meets your needs. Please feel free to contact Northern Environmental (800) 498-3913 if there are any questions.

Sincerely,

Northern Environmental Technologies, Incorporated

Shan M. Moquin
Environmental Scientist

Anne Michalski for
Barbara J. Flietner, PG
Project Manager

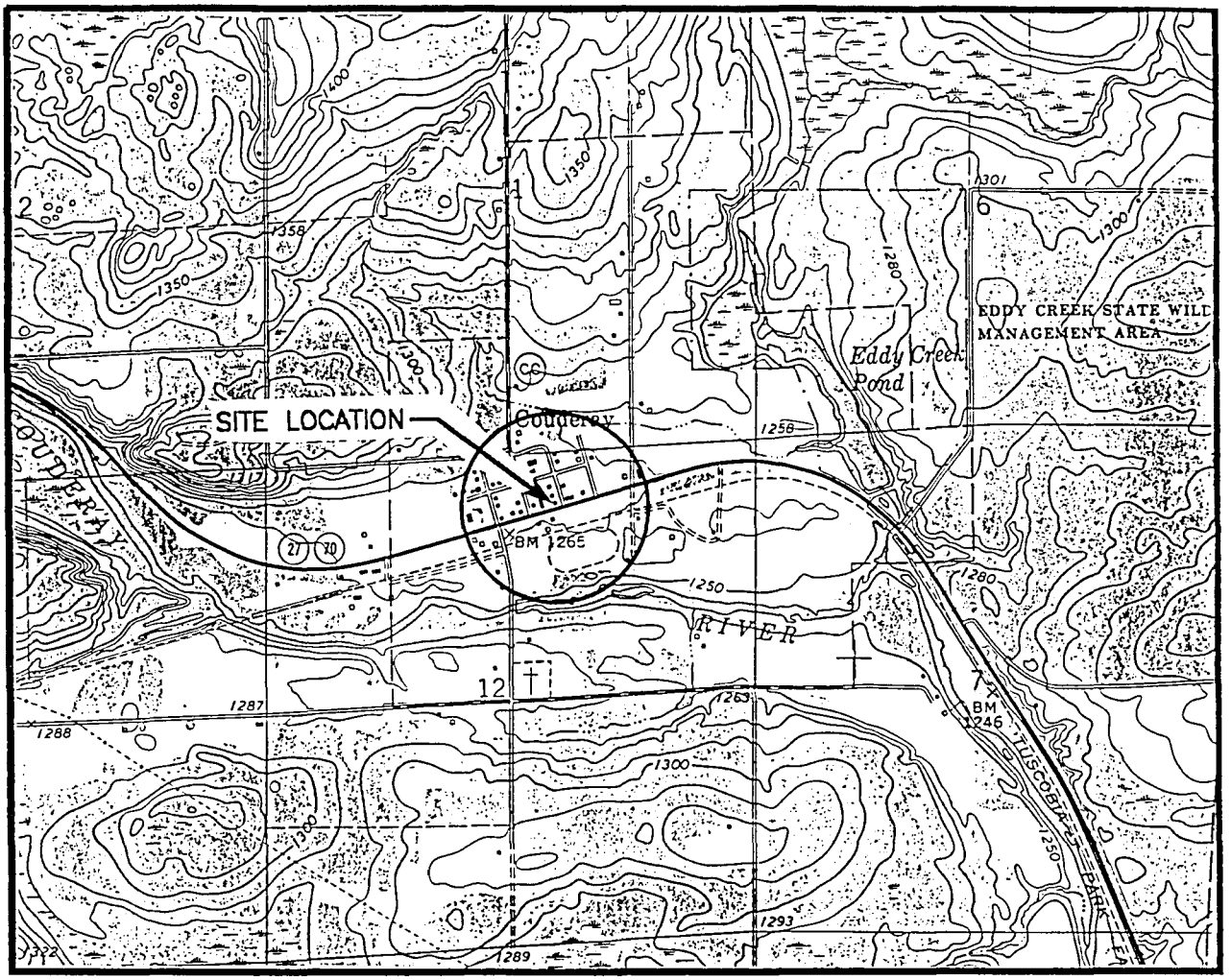
Timothy J. McCormick
District Director

SMM/dak

Enclosures

Cc: Sawyer County Land and Conservation Department

FIGURES



SCALE IN FEET

1" = 2000'

0 1000 2000 3000 4000 5000 6000 7000 8000

N

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

LEGEND

○ BOUNDARY FOR WATER SUPPLY WELLS WITHIN A 1200' RADIUS OF SITE

■ PROBABLE LOCATION OF WATER SUPPLY WELLS

QUADRANGLE LOCATION

BASE MAP SOURCE: USGS COUDERAY, WISCONSIN 7.5 MINUTE QUADRANGLE, 1971

DRAWN BY: BJF	PROJECT: SAW04-2300-0458	DATE: 12/17/02

REV. DATE

Northern Environmental℠
Hydrologists • Engineers • Geologists

FIGURE 1
SITE LOCATION AND LOCAL TOPOGRAPHY

FORMER ACKLEY AMOCO
COUDERAY, WISCONSIN
SAWYER COUNTY

S:\PROJ\SAW\04-0458\CAD\TOPO

N

SCALE IN FEET
15 0 15 30

PW-2
TRAILER HOME
VILLAGE PUB
PRIVATE WELL
HOUSE
PW-1
PATTERSON RESIDENCE
PASHA STREET
GARAGE
CONCRETE
MW200 GP100
MW400
PZ300
GP1300
GP800
GP200
S8
UST
S7
GP400
GP300
GRASS
GP900
S1
S3
S6
S5
UST
UST
UST
S2
S4
FORMER ACKLEY AMOCO
PZ700
SEPTIC FIELD
MW600
GP500
MW100
GP1400
ASPHALT
GP1200
FORMER PRODUCT PIPING
DOT RIGHT-OF-WAY
MW2200
WS1700
GP700
S10
S9
S11
GP1100
GP1500
GRASS
GP600
ASPHALT
GRAVEL
GP1000
MW500
HIGHWAY WHITE LINE
WS1900
ALLEY
HIGHWAY 70
HIGHWAY WHITE LINE
WS2000
WS1600
MW2100
GRASS
WS1800

LEGEND

- S6 TANK PULL SOIL SAMPLE LOCATION (FIELD ANALYSIS)
- WS1900 GEOPROBE WATER SAMPLE LOCATION
- PZ700 PIEZOMETER LOCATION
- MW600 MONITORING WELL LOCATION
- GP500 GEOPROBE SOIL BORING LOCATION
- SURFACE MATERIAL DIVISION
- PROPERTY LINE LOCATION
- FORMER FENCE LOCATION
- FORMER SEPTIC FIELD LOCATION
- FORMER DISPENSER ISLAND LOCATION
- UST FORMER UNDERGROUND STORAGE TANK (UST) LOCATION

DRAWN BY: BJF	PROJECT: SAW04-2300-0458	DATE: 12/17/02
REV. DATE 12/17/02	THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS THE PROPERTY OF NORTHERN ENVIRONMENTAL INCORPORATED AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS EXPRESSLY FURNISHED.	FIGURE 2 LAYOUT, SOIL BORING, MONITORING WELL, AND PIEZOMETER LOCATIONS
	Northern Environmental℠ *Hydrologists • Engineers • Geologists*	FORMER ACKLEY AMOCO COUDERAY, WISCONSIN SAWYER COUNTY

S:\PROJ\SAW\04-0458\CAD\SBMWLOC

TABLES

Table 1, Tank Removal Soil Field Screening Results, Former Ackley Amoco, Couderay, Wisconsin

Sample Label	Depth (feet)	Sample Location	Sample Description	Date Collected	PID Headspace Analysis		
					Time Collected	Time Analyzed	PID Response (iui)
S1	9.5	North End - UST 1	Sand	06/20/02	0855	0910	540
S2	9.5	South End - UST 1	Sand	06/20/02	0856	0911	95
S3	9.5	North End - UST 2	Sand	06/20/02	0903	0918	329
S4	9.5	South End - UST 2	Sand	06/20/02	0904	0919	84
S5	9.0	East End - UST 3	Sand	06/20/02	0938	0953	133
S6	9.0	West End - UST 3	Sand	06/20/02	0940	0955	313
S7	9.0	East End - UST 4	Sand	06/20/02	1017	1032	136
S8	9.0	West End - UST 4	Sand	06/20/02	1018	1033	212
S9	1.5	East Dispenser	Silt	06/20/02	1022	1037	484
S10	1.5	Middle Dispenser	Silt	06/20/02	1024	1039	464
S11	1.5	West Dispenser	Silt	06/20/02	1025	1040	569

NOTE:

PID = Photoionization Detector

iui = instrument units as isobutylene

Table 2, Ground-Water Analytical Results, Former Ackley Amoco, Couderay, Wisconsin

Well ID	Date Sampled	QC Hold Time Met	Relevant and Significant Analytical Results (µg/L)												
				VOCs											
			Lead	Benzene	n-Butylbenzene	sec-Butylbenzene	Diisopropyl Ether	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes
WAC Preventive Action Limit (PAL) (µg/l)			1.5	0.5	NE	NE	NE	140	NE	NE	8	NE	200	96	1000
WAC Enforcement Standard (ES) (µg/l)			15	5	NE	NE	NE	700	NE	NE	40	NE	1000	480	10000
MW100	08/23/01	Yes	*10.9*	4900	280	<15	21	1900	87	26*	560	300	19000	2790	11300
MW200	08/23/01	Yes	*1.8**	<0.10	0.96*	<0.30	<0.10	<0.10	<0.10	<0.20	<0.70	<0.30	0.82	<0.50	0.15*
PZ300	08/23/01	Yes	*1.8**	0.45	2.4	<0.30	<0.10	0.95	0.94	0.69*	<0.70	<0.30	6.9	6.2	9.8
MW400	08/23/01	Yes	*8.4*	76	340	17*	80	2400	110	31*	440	400	7400	3420	13200
MW500	08/23/01	Yes	1.4*	1200	120*	1100	<20	900	<20	<40	210*	100*	18000	1480	*5800*
MW600	08/23/01	Yes	<1.4	<0.10	<0.40	<0.30	<0.10	<0.10	<0.10	<0.20	<0.70	<0.30	<0.10	<0.50	<0.30
PZ700	08/23/01	Yes	<1.4	<0.10	<0.40	<0.30	<0.10	<0.10	<0.10	<0.20	<0.70	<0.30	<0.10	<0.50	<0.30
WS1700	10/01/01	Yes	---	80	<0.40	<0.30	<0.10	13	1.1	<0.20	1.6*	1.6	0.28*	5.9	13.45
WS1800	10/01/01	Yes	---	<0.10	<0.40	<0.30	<0.10	<0.10	<0.10	<0.20	<0.70	<0.30	<0.10	<0.50	<0.30
WS1900	10/01/01	Yes	---	0.11*	<0.40	<0.30	<0.10	<0.10	0.42	<0.20	<0.70	<0.30	<0.10	<0.50	<0.30
WS2000	10/01/01	Yes	---	<5.0	240	<15	<5.0	*560*	47	<10	190	200	160	1650	*2180*
MW2100	10/14/02	Yes	*3.8*	<0.25	<0.65	<0.62	<0.60	<0.53	<0.66	<0.58	<0.63	<0.95	<0.84	<1.33	<1.83
MW2200	10/14/02	Yes	0.09 "J"	120	<0.65	<0.62	<0.60	59	6.2	<0.58	*9.6*	10	2.3 "J"	*98*	133

Notes:

VOCs	= Volatile Organic Compounds
µg/l	= micrograms per liter
NE	= Not Established by Wisconsin Administrative Code (WAC)
10.9	= WAC Preventive Action Limit Exceeded
4900	= WAC Enforcement Standard Exceeded
<x	= Not detected above laboratory limit of x
* or "J"	= Analyte detected between laboratory Limit of Detection (LOD) and Limit of Quantitation (LOQ)
PW-1	= Neighbor's House Private Potable Well
PW-2	= Neighbor's Trailer Home Private Potable Well
---	= not analyzed
WS	= Water Sample collected from Geoprobe boring

Table 2, Ground-Water Analytical Results, Former Ackley Amoco, Couderay, Wisconsin

Well ID	Date Sampled	QC Hold Time Met	Relevant and Significant Analytical Results (µg/L)												
				VOCs											
			Lead	Benzene	n-Butylbenzene	sec-Butylbenzene	Diisopropyl Ether	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes
WAC Preventive Action Limit (PAL) (µg/l)			1.5	0.5	NE	NE	NE	140	NE	NE	8	NE	200	96	1000
WAC Enforcement Standard (ES) (µg/l)			15	5	NE	NE	NE	700	NE	NE	40	NE	1000	480	10000
Duplicate (MW400)	08/23/01	Yes	—	93	—	—	—	2700	—	—	—	—	8000	3520	13600
Duplicate (MW2200)	10/14/02	Yes	—	110	<0.65	<0.62	<0.60	53	4.9	<0.58	7.5	8.7	1.8"J"	96	126
Trip Blank	08/23/01	Yes	—	<0.40	—	—	—	<0.40	—	—	—	—	<0.40	<0.80	<1.10
	10/14/02	Yes	—	<0.25	<0.65	<0.62	<0.60	<0.53	<0.66	<0.58	<0.63	<0.95	<0.84	<1.33	<1.83
PW-1	08/23/01	Yes	—	<0.10	<0.40	<0.30	<0.10	<0.10	<0.10	<0.20	<0.70	<0.30	<0.10	<0.50	<0.30
PW-2	08/23/01	Yes	—	<0.10	<0.40	<0.30	<0.10	<0.10	<0.10	<0.20	<0.70	<0.30	<0.10	<0.50	<0.30

Notes:

VOCs = Volatile Organic Compounds

µg/l = micrograms per liter

NE = Not Established by Wisconsin Administrative Code (WAC)

10.9 = WAC Preventive Action Limit Exceeded

4900 = WAC Enforcement Standard Exceeded

<x = Not detected above laboratory limit of x

* or "J" = Analyte detected between laboratory Limit of Detection (LOD) and Limit of Quantitation (LOQ)

PW-1 = Neighbor's House Private Potable Well

PW-2 = Neighbor's Trailer Home Private Potable Well

— = not analyzed

WS = Water Sample collected from Geoprobe boring

APPENDIX A

TANK CLOSURE CHECKLISTS AND INVENTORY FORMS

Reg Obj #: 343109

UNDERGROUND FLAMMABLE/COMBUSTIBLE LIQUID STORAGE TANK INVENTORY

Information Required By Section 101.142, Wis. Stats.

Send Completed Form To
Department of Commerce
Bureau of Storage Tank Regulation
P O Box 7837
Madison, WI 53707-7837

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. A separate [illegible] completed form to the agency designated in the top right corner. Have you previously [illegible]? ☒ Yes ☐ No If yes, are you correcting/updating information only? ☐ Yes ☐ No

Personal information you provide may be used for secondary purposes. [Privacy Law, s. 15.04 (1)(m)]

This registration applies to a tank that is (check one):
☐ In Use ☒ Closed - Tank Removed ☐ Ownership Change (Indicate new owner name in block 2)
☐ Newly Installed ☐ Closed - Filled with Inert Materials
☐ Abandoned with Product ☐ Temporary Out of Service - Provide Date: _____
☐ Abandoned without Product (empty) ☐ Abandon with Water

Fire Department providing fire coverage where tank is located:
☐ City ☐ Village 5710
☐ Town of Couderay

A. IDENTIFICATION (Please Print)

1. Tank Site Name	Site Address	Site Telephone Number
Ackley's Amoco	12264 Hwy 70	( ) NONE
☐ City ☐ Village ☒ Town of: Couderay	State: WI	Zip Code: ~~54800~~ 54828
		County: Sawyer
2. Tank Owner Name: Sawyer County	Mailing Address: P.O. Box 89	Telephone Number: ( )
☐ City ☐ Village ☐ Town of: Hayward	State: WI	Zip Code: 54843
		County: Sawyer
3. Previous Name	Previous site address if different than #1	

B. Site ID #: 50521 | Facility ID #: | Customer ID #:

C. 4. Tank Age (age or date installed): 1984 | 5. Tank Capacity (gallons): 1500

D. LAND OWNER TYPE (check one)
☐ County ☐ Federal Leased ☐ Federal Owned ☐ Municipal ☐ Other Government
☒ Private ☐ State ☐ Tribal Nation

E. OCCUPANCY TYPE (check one)
☒ Gas/Retail Sales ☐ Bulk Storage ☐ Utility ☐ Mercantile/Commercial ☐ Industrial ☐ School ☐ Residential
☐ Agricultural ☐ Backup or Emergency Generator ☐ Other (Specify:)

F. Tank Construction:
☐ Bare Steel ☒ Coated Steel ☐ Unknown
☐ Fiberglass ☐ Steel – Fiberglass Reinforced Plastic Composite
☐ Lined (Date): ☐ Other (specify):

Cathodic Protection
☒ Sacrificial Anodes
☐ Impressed Current
☐ N/A

Overfill Protection? ☐ Yes ☒ No
Spill Containment? ☐ Yes ☒ No
Tank Double Walled? ☐ Yes ☒ No

G. Primary Tank leak detection method.
☒ Inventory control and tightness testing ☐ Automatic tank gauging ☐ Groundwater monitoring
☐ Manual tank gauging (only for tanks of 1,000 gallons or less) ☐ Interstitial monitoring ☐ Vapor monitoring
☐ Statistical Inventory Reconciliation (SIR) ☐ Unknown

H. Piping Construction:
☒ Bare Steel ☐ Coated Steel ☐ Unknown
☐ Fiberglass ☐ Flexible ☐ N/A
☐ Other (specify)

Cathodic Protection
☐ Sacrificial Anodes
☐ Impressed Current
☒ N/A

Pipe Double Walled? ☐ Yes ☒ No

I. Primary Piping System Type: ☐ Pressurized piping with A. ☐ auto shutoff; B. ☐ alarm or C. ☐ flow restrictor ☐ Unknown
☒ Suction piping with check valve at tank ☐ Suction piping with check valve at pump and inspectable ☐ Not needed if waste oil

J. Piping Leak Detection Method: (used if pressurized or check valve at tank): ☐ SIR ☐ Tightness testing ☐ Electronic line leak monitor
☐ Groundwater monitoring ☐ Vapor monitoring ☐ Interstitial monitoring ☐ Not required ☒ Unknown

K. Vapor Recovery/Stage II CARB #: _____
☐ Fiberglass ☐ Other (specify): ☐ Flexible ☐ Operational - Provide Date (mo/day/yr):

L. TANK CONTENTS (Current, or previous product if tank now empty)
☐ Diesel ☒ Leaded ☐ Unleaded ☐ Fuel Oil ☐ Gasohol
☐ Other (Specify): _____ ☐ Empty ☐ Sand/Gravel/Slurry* ☐ Unknown* ☐ Premix
☐ Waste/Used Motor Oil ☐ Chemical _____ ☐ Kerosene ☐ Aviation ☐ Hazardous Waste*
(Indicate chemical name and number)

* If chosen, this tank is NOT PECFA eligible.

Geo Latitude: | Geo Longitude:

M. If Tank Closed, Abandoned or Out of Service, give date (mo/day/yr): 6/20/02

Has a site assessment been completed (see reverse side for details)
☒ Yes ☐ No

Owner or Operator Name (please print): Dale Olson

Indicate whether: ☐ Owner or ☒ Operator

Owner or Operator Signature: Dale Olson

Date Signed 6/26/02

Note: Refer to comments on reverse side of form.

ERS-7437 (R 04/98)

g Obj #: 343110

UNDERGROUND FLAMMABLE/COMBUSTIBLE LIQUID STORAGE TANK INVENTORY

Information Required By Section 101.142, Wis. Stats.

Send Completed Form To
Department of Commerce
Bureau of Storage Tank Regulation
P O Box 7837
Madison, WI 53707-7837

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. A separate [illegible] completed form to the agency designated in the top right corner. Have you previously [illegible] submitting a form? ☒ Yes ☐ No If yes, are you correcting/updating information only? ☐ Yes ☐ No

Personal information you provide may be used for secondary purposes. [Privacy Law, s. 15.04 (1)(m)]

This registration applies to a tank that is (check one):
☐ In Use ☒ Closed - Tank Removed ☐ Ownership Change (Indicate new owner name in block 2)
☐ Newly Installed ☐ Closed - Filled with Inert Materials
☐ Abandoned with Product ☐ Temporary Out of Service - Provide Date: _____
☐ Abandoned without Product (empty) ☐ Abandon with Water

Fire Department providing fire coverage where tank is located:
☐ City ☐ Village 5710
☒ Town of Couderay

A. IDENTIFICATION (Please Print)

1. Tank Site Name	Site Address	Site Telephone Number
Ackley's Amoco	12264 Hwy 70	( ) None
☐ City ☐ Village ☒ Town of: Couderay	State WI / Zip Code 54828	County Sawyer
2. Tank Owner Name	Mailing Address	Telephone Number
Sawyer County	P.O. Box 89	( )
☐ City ☐ Village ☐ Town of: Hayward	State WI / Zip Code 54843	County Sawyer
3. Previous Name	Previous site address if different than #1	

B. Site ID #: 50521 Facility ID #: Customer ID #:

C 4 Tank Age (age or date installed): 1984 5. Tank Capacity (gallons): 1000

D. LAND OWNER TYPE (check one)
☐ County ☐ Federal Leased ☐ Federal Owned ☐ Municipal ☐ Other Government
☒ Private ☐ State ☐ Tribal Nation

E. OCCUPANCY TYPE (check one)
☒ Gas/Retail Sales ☐ Bulk Storage ☐ Utility ☐ Mercantile/Commercial ☐ Industrial ☐ School ☐ Residential
☐ Agricultural ☐ Backup or Emergency Generator ☐ Other (Specify:)

F. Tank Construction:
☐ Bare Steel ☒ Coated Steel ☐ Unknown
☐ Fiberglass ☐ Steel – Fiberglass Reinforced Plastic Composite
☐ Lined (Date): ☐ Other (specify).

Cathodic Protection
☒ Sacrificial Anodes
☐ Impressed Current
☐ N/A

Overfill Protection? ☐ Yes ☒ No
Spill Containment? ☐ Yes ☒ No
Tank Double Walled? ☐ Yes ☒ No

G. Primary Tank leak detection method.
☒ Inventory control and tightness testing ☐ Automatic tank gauging ☐ Groundwater monitoring
☐ Manual tank gauging (only for tanks of 1,000 gallons or less) ☐ Interstitial monitoring ☐ Vapor monitoring
☐ Statistical Inventory Reconciliation (SIR) ☐ Unknown

H. Piping Construction:
☒ Bare Steel ☐ Coated Steel ☐ Unknown
☐ Fiberglass ☐ Flexible ☐ N/A
☐ Other (specify)

Cathodic Protection
☐ Sacrificial Anodes
☐ Impressed Current
☒ N/A

Pipe Double Walled? ☐ Yes ☒ No

I. Primary Piping System Type: ☐ Pressurized piping with ➡ A. ☐ auto shutoff; B. ☐ alarm or C. ☐ flow restrictor ☐ Unknown
☒ Suction piping with check valve at tank ☐ Suction piping with check valve at pump and inspectable ☐ Not needed if waste oil

J. Piping Leak Detection Method (used if pressurized or check valve at tank): ☐ SIR ☐ Tightness testing ☐ Electronic line leak monitor
☐ Groundwater monitoring ☐ Vapor monitoring ☐ Interstitial monitoring ☐ Not required ☒ Unknown

K. Vapor Recovery/Stage II CARB #: _____
☐ Fiberglass ☐ Other (specify): ☐ Flexible ☐ Operational - Provide Date (mo/day/yr):

L. TANK CONTENTS (Current, or previous product if tank now empty)
☒ Diesel ☐ Leaded ☐ Unleaded ☐ Fuel Oil ☐ Gasohol
☐ Other (Specify): _____ ☐ Empty ☐ Sand/Gravel/Slurry* ☐ Unknown* ☐ Premix
☐ Waste/Used Motor Oil ☐ Chemical _____ ☐ Kerosene ☐ Aviation ☐ Hazardous Waste*
(Indicate chemical name and number)

* If chosen, this tank is NOT PECFA eligible.

Geo Latitude: Geo Longitude:

M. If Tank Closed, Abandoned or Out of Service, give date (mo/day/yr): 6/20/02

Has a site assessment been completed (see reverse side for details)
☒ Yes ☐ No

Owner or Operator Name (please print): Dale Olson

Indicate whether:
☐ Owner or ☒ Operator

Owner or Operator Signature: Dale Olson

Date Signed 6/26/02

Refer to comments on reverse side of form

EPS 7437 R 04/98

DNR #: 343111

UNDERGROUND FLAMMABLE/COMBUSTIBLE LIQUID STORAGE TANK INVENTORY

Information Required By Section 101.142, Wis. Stats.

Send Completed Form To
Department of Commerce
Bureau of Storage Tank Regulation
P O Box 7837
Madison, WI 53707-7837

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. A separate [illegible]. Send each completed form to the agency designated in the top right corner. Have you previously [illegible] this form? ☒ Yes ☐ No If yes are you correcting/updating information only? ☐ Yes ☐ No

Personal information you provide may be used for secondary purposes. [Privacy Law, s. 15.04 (1)(m)]

This registration applies to a tank that is (check one):
- ☐ In Use
- ☐ Newly Installed
- ☐ Abandoned with Product
- ☐ Abandoned without Product (empty)
- ☒ Closed - Tank Removed
- ☐ Closed - Filled with Inert Materials
- ☐ Temporary Out of Service - Provide Date: ____
- ☐ Abandon with Water
- ☐ Ownership Change (Indicate new owner name in block 2)

Fire Department providing fire coverage where tank is located:
☐ City ☐ Village 5710
☒ Town of Couderay

A. IDENTIFICATION (Please Print)

1. Tank Site Name	Site Address		Site Telephone Number
Ackley's Amoco	12264 Hwy 70		( ) None
☐ City ☐ Village ☒ Town of: Couderay	State: WI	Zip Code: 54828	County: Sawyer
2. Tank Owner Name: Sawyer County	Mailing Address: P.O. Box 89		Telephone Number: ( )
☐ City ☐ Village ☐ Town of: Hayward	State: WI	Zip Code: 54843	County: Sawyer
3. Previous Name	Previous site address if different than #1		

B. Site ID #: 50521 | Facility ID #: | Customer ID #:

C. 4. Tank Age (age or date installed): 1984 | 5. Tank Capacity (gallons): 1500

D. LAND OWNER TYPE (check one)

☐ County ☐ Federal Leased ☐ Federal Owned ☐ Municipal ☐ Other Government
☒ Private ☐ State ☐ Tribal Nation

E. OCCUPANCY TYPE (check one)

☒ Gas/Retail Sales ☐ Bulk Storage ☐ Utility ☐ Mercantile/Commercial ☐ Industrial ☐ School ☐ Residential
☐ Agricultural ☐ Backup or Emergency Generator ☐ Other (Specify:)

F. Tank Construction:			Cathodic Protection		
☐ Bare Steel	☒ Coated Steel	☐ Unknown	☒ Sacrificial Anodes	Overfill Protection?	☐ Yes ☒ No
☐ Fiberglass	☐ Steel – Fiberglass Reinforced Plastic Composite		☐ Impressed Current	Spill Containment?	☐ Yes ☒ No
☐ Lined (Date):	☐ Other (specify):		☐ N/A	Tank Double Walled?	☐ Yes ☒ No

G. Primary Tank leak detection method:
☒ Inventory control and tightness testing ☐ Automatic tank gauging ☐ Groundwater monitoring
☐ Manual tank gauging (only for tanks of 1,000 gallons or less) ☐ Interstitial monitoring ☐ Vapor monitoring
☐ Statistical Inventory Reconciliation (SIR) ☐ Unknown

H. Piping Construction:			Cathodic Protection	
☒ Bare Steel	☐ Coated Steel	☐ Unknown	☐ Sacrificial Anodes	Pipe Double Walled? ☐ Yes ☒ No
☐ Fiberglass	☐ Flexible	☐ N/A	☐ Impressed Current	
☐ Other (specify)			☒ N/A	

I. Primary Piping System Type: ☐ Pressurized piping with → A. ☐ auto shutoff; B. ☐ alarm or C. ☐ flow restrictor ☐ Unknown
☒ Suction piping with check valve at tank ☐ Suction piping with check valve at pump and inspectable ☐ Not needed if waste oil

J. Piping Leak Detection Method: (used if pressurized or check valve at tank): ☐ SIR ☐ Tightness testing ☐ Electronic line leak monitor
☐ Groundwater monitoring ☐ Vapor monitoring ☐ Interstitial monitoring ☐ Not required ☒ Unknown

K. Vapor Recovery/Stage II CARB #: ____
☐ Fiberglass ☐ Other (specify): ☐ Flexible ☐ Operational - Provide Date (mo/day/yr):

L. TANK CONTENTS (Current, or previous product if tank now empty)

☐ Diesel	☐ Leaded	☒ Unleaded	☐ Fuel Oil	☐ Gasohol
☐ Other (Specify): ____	☐ Empty	☐ Sand/Gravel/Slurry*	☐ Unknown*	☐ Premix
☐ Waste/Used Motor Oil	☐ Chemical ____ (Indicate chemical name and number)	☐ Kerosene	☐ Aviation	☐ Hazardous Waste*

* If chosen, this tank is NOT PECFA eligible.

Geo Latitude: | Geo Longitude:

M. If Tank Closed, Abandoned or Out of Service, give date (mo/day/yr): 6/20/02

Has a site assessment been completed (see reverse side for details)
☒ Yes ☐ No

Owner or Operator Name (please print): Dale Olson

Indicate whether: ☐ Owner or ☒ Operator

Owner or Operator Signature: Dale Olson

Date Signed 6/26/02

Refer to comments on reverse side of form.

ERS 7437 (R 04/98)

Obj #: _____

UNDERGROUND
FLAMMABLE/COMBUSTIBLE LIQUID STORAGE TANK INVENTORY

Information Required By Section 101.142, Wis. Stats.

Send Completed Form To
Department of Commerce
Bureau of Storage Tank Regulation
P O Box 7837
Madison, WI 53707-7837

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. A separate completed form to the agency designated in the top right corner. Have you previously registered this tank? ☐ Yes ☒ No If yes, are you correcting/updating information only? ☐ Yes ☐ No

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04 (1)(m)]

This registration applies to a tank that is (check one):
☐ In Use ☒ Closed - Tank Removed ☐ Ownership Change (Indicate new owner name in block 2)
☐ Newly Installed ☐ Closed - Filled with Inert Materials
☐ Abandoned with Product ☐ Temporary Out of Service - Provide Date: _____
☐ Abandoned without Product (empty) ☐ Abandon with Water

Fire Department providing fire coverage where tank is located:
☐ City ☐ Village 570
☒ Town of Couderay

A. IDENTIFICATION (Please Print)

1. Tank Site Name	Site Address	Site Telephone Number
Ackley's Amoco	12264 Hwy 70	( ) NONE
☐ City ☐ Village ☒ Town of: Couderay	State: WI	Zip Code: 54828	County: Sawyer
2. Tank Owner Name	Mailing Address	Telephone Number
Sawyer County	P.O. Box 89	( )
☐ City ☐ Village ☐ Town of: Hayward	State: WI	Zip Code: 54843	County: Sawyer
3. Previous Name	Previous site address if different than #1	

B. Site ID #: 50521 | Facility ID #: | Customer ID #:

C 4. Tank Age (age or date installed): | 5. Tank Capacity (gallons): 1000

D. LAND OWNER TYPE (check one)
☐ County ☐ Federal Leased ☐ Federal Owned ☐ Municipal ☐ Other Government
☒ Private ☐ State ☐ Tribal Nation

E. OCCUPANCY TYPE (check one)
☒ Gas/Retail Sales ☐ Bulk Storage ☐ Utility ☐ Mercantile/Commercial ☐ Industrial ☐ School ☐ Residential
☐ Agricultural ☐ Backup or Emergency Generator ☐ Other (Specify:)

F. Tank Construction:
☒ Bare Steel ☐ Coated Steel ☐ Unknown
☐ Fiberglass ☐ Steel – Fiberglass Reinforced Plastic Composite
☐ Lined (Date): ☐ Other (specify):

Cathodic Protection: ☐ Sacrificial Anodes ☐ Impressed Current ☒ N/A

Overfill Protection? ☐ Yes ☒ No
Spill Containment? ☐ Yes ☒ No
Tank Double Walled? ☐ Yes ☒ No

G. Primary Tank leak detection method:
☐ Inventory control and tightness testing ☐ Automatic tank gauging ☐ Groundwater monitoring
☐ Manual tank gauging (only for tanks of 1,000 gallons or less) ☐ Interstitial monitoring ☐ Vapor monitoring
☐ Statistical Inventory Reconciliation (SIR) ☒ Unknown

H. Piping Construction:
☐ Bare Steel ☐ Coated Steel ☐ Unknown
☐ Fiberglass ☐ Flexible ☐ N/A
☒ Other (specify) Copper

Cathodic Protection: ☐ Sacrificial Anodes ☐ Impressed Current ☒ N/A

Pipe Double Walled? ☐ Yes ☒ No

I. Primary Piping System Type: ☐ Pressurized piping with → A. ☐ auto shutoff; B. ☐ alarm or C. ☐ flow restrictor ☐ Unknown
☐ Suction piping with check valve at tank ☒ Suction piping with check valve at pump and inspectable ☐ Not needed if waste oil

J. Piping Leak Detection Method: (used if pressurized or check valve at tank): ☐ SIR ☐ Tightness testing ☐ Electronic line leak monitor
☐ Groundwater monitoring ☐ Vapor monitoring ☐ Interstitial monitoring ☐ Not required ☒ Unknown

K. Vapor Recovery/Stage II CARB #: _____
☐ Fiberglass ☐ Other (specify): ☐ Flexible ☐ Operational - Provide Date (mo/day/yr):

L. TANK CONTENTS (Current, or previous product if tank now empty)
☐ Diesel ☐ Leaded ☐ Unleaded ☒ Fuel Oil ☐ Gasohol
☐ Other (Specify): _____ ☐ Empty ☐ Sand/Gravel/Slurry* ☐ Unknown* ☐ Premix
☐ Waste/Used Motor Oil ☐ Chemical _____ ☐ Kerosene ☐ Aviation ☐ Hazardous Waste*
(Indicate chemical name and number)

* If chosen, this tank is NOT PECFA eligible.

Geo Latitude: | Geo Longitude:

M. If Tank Closed, Abandoned or Out of Service, give date (mo/day/yr): 6/20/02

Has a site assessment been completed (see reverse side for details)
☒ Yes ☐ No

Owner or Operator Name (please print): Dale Olson
Indicate whether: ☐ Owner or ☒ Operator

Owner or Operator Signature: Dale Olson
Date Signed 6/26/02

Note: Refer to comments on reverse side of form.

ERS-7437 (R. 04/98)

Complete one form for each site closure.

The information you provide may be used for secondary purposes [Privacy Law, s.15.04(1)(m)].

CHECKLIST FOR TANK CLOSURE

CHECK ONE: ☒ UNDERGROUND ☐ ABOVEGROUND

FOR PORTIONS OF THE FORM THAT DO NOT APPLY, CHECK THE N/A BOX BELOW

RETURN COMPLETED CHECKLIST TO:
Wisconsin Department of Commerce
ERS Division
Bureau of Storage Tank Regulation
P.O. Box 7837
Madison, WI 53707-7837

A. IDENTIFICATION: (Please Print) Indicate whether closure is for: ☒ Tank System ☐ Tank Only ☐ Piping Only

1. Site Name	2. Owner Name
Ackley's Amoco	Sawyer County
Site Street Address (not P.O. Box)	Owner Street Address
12264 Hwy 70	P.O. Box 89
☐ City ☐ Village ☒ Town of: Couderay	☐ City ☐ Village ☐ Town of: Hayward
State WI	State WI
Zip Code 54828	Zip Code 54843
County Sawyer	County Sawyer
	Telephone No. (Include area code) ( )

3. Closure Company Name (print)	Closure Company Street Address
Advanced Tank Service, Inc	P.O. Box 1072
Closure Company Telephone No. (include area code)	Closure Company City, State, Zip Code
(715) 831-8484	Eau Claire WI 54702
4. Name of Company Performing Closure Assessment	Assessment Company Street Address, City, State, Zip Code
Northern Environmental	330 South Ave Park Falls, WI 54552
Telephone No. (include area code)	Certified Assessor Name (print)
(715) 762-4549	Kurt Fisher
Assessor Signature	Assessor Certification No.
Kurt Fisher	4160

	Tank ID #	Closure	Temp. Closure	Closure in Place	Tank Capacity	Contents*	Closure Assessment
1.	343109	☒	☐	☐	1500	Leaded	☒ Y ☐ N
2.	343110	☒	☐	☐	1000	Diesel	☒ Y ☐ N
3	343111	☒	☐	☐	1500	Unleaded	☒ Y ☐ N
4.		☒	☐	☐	1000	Fuel Oil	☒ Y ☐ N

* Indicate which product: Diesel; Leaded; Unleaded; Fuel Oil; Gasohol; Aviation Fuel; Kerosene; Premix; Waste/Used Motor Oil; Flammable/Combustible Hazardous Waste; Chemical (indicate the chemical name(s) _____ and CAS number(s) _____ _____ _____; Other _____

Written notification was provided to the local agent 15 days in advance of closure date.	☒ Y	☐ N	☐ NA
All local permits were obtained before beginning closure.	☒ Y	☐ N	☐ NA

Check applicable box at right in response to all statements in Sections B-E.	Remover Verified	Inspector Verified	NA
B. TEMPORARILY OUT OF SERVICE			
Written inspector approval of temporary closure obtained, which is effective until (provide date) _____	☐ Y ☐ N	☐	☐
1. Product Removed			
a. Product lines drained into tank (or other container) and resulting liquid removed, AND	☐ Y ☐ N	☐	☐
b. All product removed to bottom of suction line, OR	☐ Y ☐ N	☐	☐
c. All product removed to within 1" of bottom.	☐ Y ☐ N	☐	☐
2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped.	☐ Y ☐ N	☐	☐
3. All product lines at the islands or pumps located elsewhere are removed and capped, OR	☐ Y ☐ N	☐	☐
4. Dispensers/pumps left in place but locked and power disconnected.	☐ Y ☐ N	☐	☐
5. Vent lines left open.	☐ Y ☐ N	☐	☐
6. Inventory form filed indicating temporary closure.	☐ Y ☐ N	☐	☐
C. CLOSURE BY REMOVAL			
1. Product from piping drained into tank (or other container).	☒ Y ☐ N	☐	☐
2. Piping disconnected from tank and removed.	☒ Y ☐ N	☐	☐
3. All liquid and residue removed from tank using explosion proof pumps or hand pumps.	☒ Y ☐ N	☐	☐
4. All pump motors and suction hoses bonded to tank or otherwise grounded.	☒ Y ☐ N	☐	☐
5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed...	☒ Y ☐ N	☐	☐
NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR.			
6. Vent lines left connected until tanks purged.	☐ Y ☐ N	☐	☒
7. Tank openings temporarily plugged so vapors exit through vent.	☐ Y ☐ N	☐	☒
8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F.	☒ Y ☐ N	☐	☐
9. Tank removed from excavation after PURGING/INERTING; placed on level ground and blocked to prevent movement.	☒ Y ☐ N	☐	☐
10. Tank cleaned before being removed from site	☒ Y ☐ N	☐	☐

- CONTINUE ON NEXT PAGE -

C. CLOSURE BY REMOVAL (continued)

	Remover Verified		Inspector Verified	NA
11. Tank labeled in 2" high letters after removal but before being moved from site.	☒Y	☐N	☐	☐
NOTE: COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST REUSE; FORMER CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE.				
12. Tank vent hole (1/8" in uppermost part of tank) installed prior to moving the tank from site.	☐Y	☒N	☐	☒
13. Form ERS-7437 or ERS-8731 filed by owner with the Dept. of Commerce indicating closure by removal.	☐Y	☐N	☐	☐
14. Site security is provided while the excavation is open.	☐Y	☐N	☐	☐

D. CLOSURE IN PLACE

NOTE: CLOSURES IN PLACE ARE ONLY ALLOWED WITH THE PRIOR WRITTEN APPROVAL OF THE DEPARTMENT OF COMMERCE OR LOCAL AGENT.

1. Product from piping drained into tank (or other container).	☐Y	☐N	☐	☐
2. Piping disconnected from tank and removed.	☐Y	☐N	☐	☐
3. All liquid and residue removed from tank using explosion proof pumps or hand pumps.	☐Y	☐N	☐	☐
4. All pump motors and suction hoses bonded to tank or otherwise grounded.	☐y	☐N	☐	☐
5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed.	☐Y	☐N	☐	☐
NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR - EDUCTOR OUTPUT 12 FT. ABOVE GRADE.				
6. Vent lines left connected until tanks purged.	☐Y	☐N	☐	☐
7. Tank openings temporarily plugged so vapors exit through vent.	☐Y	☐N	☐	☐
8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) see Section F.	☐Y	☐N	☐	☐
9. Tank properly cleaned to remove all sludge and residue.	☐Y	☐N	☐	☐
10. Solid inert material (sand, cyclone boiler slag, pea gravel recommended) introduced and tank filled.	☐Y	☐N	☐	☐
11. Vent line disconnected or removed.	☐Y	☐N	☐	☐
12. Inventory form filed by owner with the Department of Commerce indicating closure in place.	☐Y	☐N	☐	☐

E. CLOSURE ASSESSMENTS

NOTE: DETERMINE IF A CLOSURE ASSESSMENT IS REQUIRED BY REFERRING TO COMM 10.

1. Individual conducting the assessment has a closure assessment plan (written) which is used as the basis for their work on the site.	☒Y	☐N	☐	☐
2. Do points of obvious contamination exist?	☒Y	☐N	☐	☐
3. Are there strong odors in the soils?	☒Y	☐N	☐	☐
4. Was a field screening instrument used to pre-screen soil sample locations?	☒Y	☐N	☐	☐
5. Was a closure assessment omitted because of obvious contamination?	☐Y	☒N	☐	☐
6. Was the DNR notified of suspected or obvious contamination?	☒Y	☐N	☐	☐

Agency, office and person contacted: _____

7. Contamination suspected because of: ☒Odor ☒Soil Staining ☐Free Product ☐Sheen on Groundwater ☒Field Instrument Test

F. METHOD OF ACHIEVING 10% LEVEL DESCRIPTION

☐ Eductor Or Diffused Air Blower
Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12 feet above ground.
Diffused air blower bonded and drop tube removed. Air pressure not exceeding 5 psig.

☐ Dry Ice
Dry ice introduced at 1.5 pounds per 100 gallons of tank capacity. Dry ice crushed and distributed over the greatest possible tank area. Dry ice evaporated before proceeding.

☒ Inert Gas (CO/2 or N/2) NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE. THE TANK MAY NOT BE ENTERED IN THIS STATE WITHOUT SPECIAL EQUIPMENT.
Gas introduced through a single opening at a point near the bottom of the tank at the end of the tank opposite the vent.
Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas introducing device grounded.

☒ Tank atmosphere monitored for flammable or combustible vapor levels.
Calibrate combustible gas indicator. Drop tube removed prior to checking atmosphere. Tank space monitored at bottom, middle and upper portion of tank. Readings of 10% or less of the lower flammable range (LEL) obtained before removing tank from ground.

G. NOTE SPECIFIC PROBLEMS OR NONCOMPLIANCE ISSUES BELOW

Inspector not on site

H. REMOVER/CLEANER INFORMATION

Remover Name (print)	Remover Signature	Remover Certification No.	Date Signed
Mike Olson	Mike Olson	41335	6/20/02

I. INSPECTOR INFORMATION

Inspector Name (print)	Inspector Signature	Inspector Certification No.
Rod Sherven	R Sherven	35167

FDID # For Location Where Inspection Performed	Inspector Telephone Number	Date Signed
5710	(715) 723-0607	7/2/02

TANK INVENTORY FORM ERS-7437 or ERS-8731 SIGNED BY THE OWNER MUST BE SUBMITTED WITH EACH CLOSURE CHECKLIST

REMOVER

APPENDIX B

WDNR WELL CONSTRUCTION FORMS

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management [X]
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: ACKLEY AMOCO	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-310c
Facility License, Permit or Monitoring No.	Local Grid Origin [X] (estimated: ☐) or Well Location ☐ Lat. ___ ° ___ ' ___ " Long. ___ ° ___ ' ___ " or	Wis. Unique Well No.	DNR Well ID No.
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 9/10/2002 (m m d d y y y y)
Type of Well: Well Code 11 / mw	Section Location of Waste/Source: ___ 1/4 of ___ 1/4 of Sec. ___, T. ___ N, R. ___ ☐E ☐W	Well Installed By: Name (first, last) and Firm: JONES BEAUFORD; GILES ENGINEERING ASSOC. INC.
Distance from Waste/Source _____ ft.	Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes [X] No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger [X] 41
_____ Other ☐

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None [X] 99

16. Drilling additives used? ☐ Yes [X] No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or _0.5_ ft.

F. Fine sand, top _____ ft. MSL or _6_ ft.

G. Filter pack, top _____ ft. MSL or _8_ ft.

H. Screen joint, top _____ ft. MSL or _10_ ft.

I. Well bottom _____ ft. MSL or _20_ ft.

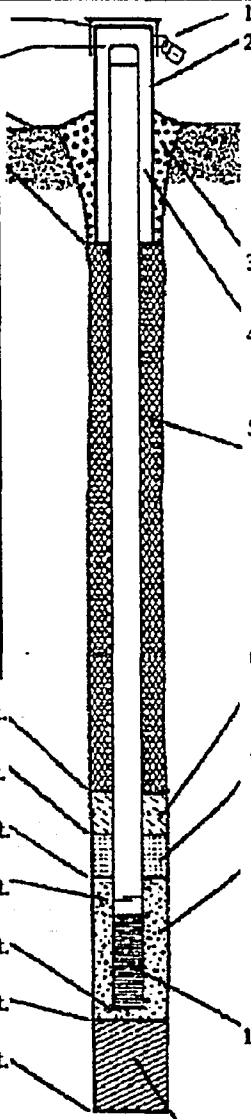
J. Filter pack, bottom _____ ft. MSL or _20_ ft.

K. Borehole, bottom _____ ft. MSL or _20_ ft.

L. Borehole, diameter _8.25_ in.

M. O.D. well casing _2.35_ in.

N. I.D. well casing _2_ in.



1. Cap and lock? [X] Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel [X] 04
_____ Other ☐
d. Additional protection? [X] Yes ☐ No
If yes, describe: EXPANDABLE CAP

3. Surface seal: Bentonite ☐ 30
Concrete ☐ 01
CONCRETE Other [X]

4. Material between well casing and protective pipe:
Bentonite [X] 30
_____ Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite [X] 33
b. _____ Lbs/gal mud weight... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. 150 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☐ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. [X]3/8 in. ☐1/2 in. Bentonite chips [X] 32
c. _____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. 45-55 RED FLINT
b. Volume added 50 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. 30 RED FLINT AMERICAN MATERIALS
b. Volume added 450 ft^3

9. Well casing: Flush threaded PVC schedule 40 [X] 23
Flush threaded PVC schedule 80 ☐ 24
_____ Other ☐

10. Screen material: PVC
a. Screen type: Factory cut ☐ 11
Continuous slot ☐ 01
_____ Other [X]
b. Manufacturer TIMCO
c. Slot size: ___ in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None [X] 14
_____ Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Timothy R Smith	GILES ENGINEERING ASSOC. INC.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

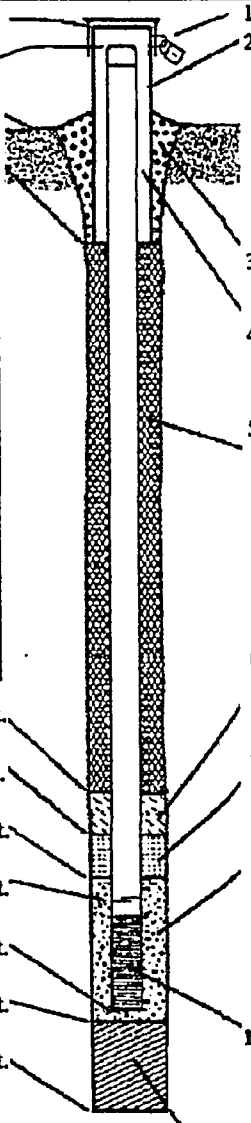
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management [X]
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: ACKLEY AMOCO	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-2200
Facility License, Permit or Monitoring No.	Local Grid Origin [X] (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 9/10/2002 (m m d d y y y y)
Type of Well: Well Code 11 / mw	Section Location of Waste/Source: _____ 1/4 of _____ 1/4 of Sec, _____ T. _____ N, R. _____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: JONES BEAUFORD; GILES ENGINEERING ASSOC. INC.
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number



A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes [X] No

14. Drilling method used: Rotary 50; Hollow Stem Auger [X] 41; Other ☐ _____

15. Drilling fluid used: Water 02; Air ☐ 01; Drilling Mud ☐ 03; None ☐ 99

16. Drilling additives used? ☐ Yes [X] No
Describe _____

17. Source of water (attach analysis, if required): _____

E. Bentonite seal, top _____ ft. MSL or _0.5_ ft.
F. Fine sand, top _____ ft. MSL or _7_ ft.
G. Filter pack, top _____ ft. MSL or _9_ ft.
H. Screen joint, top _____ ft. MSL or _11_ ft.
I. Well bottom _____ ft. MSL or _21_ ft.
J. Filter pack, bottom _____ ft. MSL or _21_ ft.
K. Borehole, bottom _____ ft. MSL or _21_ ft.
L. Borehole, diameter _8.25_ in.
M. O.D. well casing _2.35_ in.
N. I.D. well casing _2_ in.

1. Cap and lock? [X] Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel [X] 04; Other ☐ _____
d. Additional protection? [X] Yes ☐ No
If yes, describe: EXPANDABLE CAP
3. Surface seal: Bentonite ☐ 30; Concrete ☐ 01; CONCRETE; Other [X] _____
4. Material between well casing and protective pipe: Bentonite [X] 30; Other ☐ _____
5. Annular space seal: a. Granular/Chipped Bentonite [X] 33
b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. 150 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ☐ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. [X]3/8 in. ☐1/2 in. Bentonite chips [X] 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. 45-55 RED FLINT
b. Volume added 50 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. 30 RED FLINT AMERICAN MATERIALS
b. Volume added 450 ft^3
9. Well casing: Flush threaded PVC schedule 40 [X] 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐ _____
10. Screen material: PVC
a. Screen type: Factory cut ☐ 11; Continuous slot ☐ 01; Other [X] _____
b. Manufacturer TIMCO
c. Slot size: _____ in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None [X] 14; Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Timothy R. Fuller | Firm: GILES ENGINEERING ASSOC. INC.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

APPENDIX C

WDNR WELL DEVELOPMENT FORMS

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Ackley Amoco	SAWYER	MW2100
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well ID Number**
	58	_____ / _____

1. Can this well be purged dry? ☐ Yes [X] No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	[X] 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 45 min.

4. Depth of well (from top of well casisng) 20 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 6.1 gal.

7. Volume of water removed from well 50 gal.

8. Volume of water added (if any) _____ gal.

9. Source of water added _____

10. Analysis perfomed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 13.88 ft.	13.9 ft.
Date	b. 9/18/2002 (m m d d y y y y)	9/18/2002 (m m d d y y y y)
Time	c. 11 : 23 [X] a.m. ☐ p.m.	12 : 16 ☐ a.m. [X] p.m.
12. Sediment in well bottom	1 inches	0.5 inches
13. Water clarity	Clear ☐ 10 Turbid [X] 15 (Describe) Muddy	Clear [X] 20 Turbid ☐ 25 (Describe) Clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Shan Last Name: Moquin
Firm: Northern Environmental

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Bill Last Name: Schultz
Facility/Firm: WDNR
Street: 107 Sutliff Avenue
City/State/Zip: Rhinelander WI 54501-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Shan M. Moquin
Print Name: Shan M. Moquin
Firm: Northern Environmental

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Ackley Amoco	SAWYER	MW2200

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	58		

1. Can this well be purged dry? ☐ Yes [X] No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	[X] 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 50 min.

4. Depth of well (from top of well casisng) 21 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 5.3 gal.

7. Volume of water removed from well 50 gal.

8. Volume of water added (if any) ____ gal.

9. Source of water added _____

10. Analysis perfomed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 15.66 ft.	15.67 ft.
Date	b. 9/18/2002 (m m d d y y y y)	9/18/2002
Time	c. 10:12 [X] a.m. ☐ p.m.	11:09 [X] a.m. ☐ p.m.
12. Sediment in well bottom	1 inches	0.5 inches
13. Water clarity	Clear ☐ 10 Turbid [X] 15 (Describe) Muddy	Clear [X] 20 Turbid ☐ 25 (Describe) Clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Shan Last Name: Moquin
Firm: Northern Environmental

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Bill Last Name: Schultz
Facility/Firm: WDNR
Street: 107 Sutliff Avenue
City/State/Zip: Rhinelander WI 54501-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Shan M. Moquin
Print Name: Shan M. Moquin
Firm: Northern Environmental

NOTE: See instructions for more information including a list of county codes and well type codes.

APPENDIX D

WELL DEVELOPMENT SUMMARY SHEETS

WELL DEVELOPMENT SUMMARY

PROJECT: SAW04-2300-0458 **WELL NUMBER:** MW2100

LOCATION: COUDERAY, WISCONSIN **WELL LOCATION:**

PERSONNEL: SMM **RISER ELEVATION:** 1257.38

GROUND ELEVATION: 1257.66

Date	Time	Method	Volume (gallons)	Final Appear	Temp. ° F	pH (su)	Conduct µmho/cm	HNu (ppm)	Comments
09/18/02	1153	PR PUMP	30.00	1	---	7.7	340	---	---
09/18/02	1158	PR PUMP	35.00	1	---	7.6	340	---	---
09/18/02	1203	PR PUMP	40.00	1	---	7.5	340	---	---
09/18/02	1207	PR PUMP	45.00	1	---	7.4	340	---	---
09/18/02	1211	PR PUMP	50.00	1	---	7.4	340	---	---
Total Gallons Purged =			**50.00**						

METHOD = PVC BAIL: PVC Point Source or standard bailer
SS BAIL: Stainless steel point source or standard bailer
DSP BAIL: Disposable Bailer
B PUMP: Bladder pump
C PUMP: Centrifugal pump with PVC hoses
PC PUMP: Peristaltic pump
PI PUMP: Submerged piston pump
PR PUMP: Purge pump
CONDUCT = Specific Conductance (mho/cm) at ambient temperature

APPEARANCE:
1 = Clear
2 = Slightly Cloudy
3 = Cloudy
4 = Very Cloudy
5 = Cloudy - Muddy
6 = Muddy
7 = Very Muddy

WELL DEVELOPMENT SUMMARY

PROJECT: SAW04-2300-0458 **WELL NUMBER:** MW2200

LOCATION: COUDERAY, WISCONSIN **WELL LOCATION:**

PERSONNEL: SMM **RISER ELEVATION:** 1259.14

GROUND ELEVATION: 1259.41

Date	Time	Method	Volume (gallons)	Final Appear	Temp. ° F	pH (su)	Conduct µmho/cm	HNu (ppm)	Comments
09/18/02	1048	PR PUMP	30.00	1	---	9.0	660	---	---
09/18/02	1052	PR PUMP	35.00	1	---	8.0	640	---	---
09/18/02	1058	PR PUMP	40.00	1	---	7.8	620	---	---
09/18/02	1103	PR PUMP	45.00	1	---	7.6	620	---	---
09/18/02	1107	PR PUMP	50.00	1	---	7.4	610	---	---
Total Gallons Purged =			**50.00**						

METHOD = PVC BAIL: PVC Point Source or standard bailer
SS BAIL: Stainless steel point source or standard bailer
DSP BAIL: Disposable Bailer
B PUMP: Bladder pump
C PUMP: Centrifugal pump with PVC hoses
PC PUMP: Peristaltic pump
PI PUMP: Submerged piston pump
PR PUMP: Purge pump
CONDUCT = Specific Conductance (mho/cm) at ambient temperature

APPEARANCE:
1 = Clear
2 = Slightly Cloudy
3 = Cloudy
4 = Very Cloudy
5 = Cloudy - Muddy
6 = Muddy
7 = Very Muddy

APPENDIX E

WATER LEVEL DATA SHEETS

WATER LEVEL DATA

Project: SAW04-2300-0458 **Well Number:** MW2100

Location: COUDERAY, WISCONSIN **Well Location:**

Personnel: SMM **Riser Elevation:** 1257.38

Ground Elevation: 1257.66

Date	Time	Measuring Device	Depth (ft. below top of riser)	Water Level		Comments
				Depth (ft. below grade)	Elevation (ft. sd)	
09/18/02	1123	SWLP	13.88	14.16	1243.50	Pre Development
09/18/02	1216	SWLP	13.90	14.18	1243.48	Post Development
10/14/02	1353	SWLP	13.07	13.35	1244.31	—

Measuring Device:
SWLP: Solonist Water Level Probe
OWLP: Olympic Water Level Probe
TAPE: Steel or Fiberglass Measuring Tape

NOTE: All water level elevations are referenced to site datum.

WATER LEVEL DATA

Project: SAW04-2300-0458

Location: COUDERAY, WISCONSIN

Personnel: SMM

Well Number: MW2200

Well Location:

Riser Elevation: 1259.14

Ground Elevation: 1259.41

Date	Time	Measuring Device	Depth (ft. below top of riser)	Water Level		Comments
				Depth (ft. below grade)	Elevation (ft. sd)	
09/18/02	1012	SWLP	15.66	15.93	1243.48	Pre Development
09/18/02	1109	SWLP	15.67	15.94	1243.47	Post Development
10/14/02	1419	SWLP	14.83	15.10	1244.31	---

Measuring Device:
SWLP: Solonist Water Level Probe
OWLP: Olympic Water Level Probe
TAPE: Steel or Fiberglass Measuring Tape

NOTE: All water level elevations are referenced to site datum.

APPENDIX F

GROUND-WATER MONITORING WELL INFORMATION FORM

State of Wisconsin
Department of Natural Resources

GROUNDWATER MONITORING WELL INFORMATION FORM

Chapter 281 and 289, Wis. Stats.
Form 4400-89
Rev. 7-98

Facility Name	Facility ID Number	License, Permit or Monitoring No.	Date	Completed By (Name and Firm)
Former Ackley Amoco			8/13/01	Shan M. Moquin Northern Environmental

WI Unique Well No	Well Name	DNR Well ID Number	Well Location	Dir. N/E	Dir. S/W	Date Established	Well Casing Diam.	Well Casing Type	Elevations Top of Well Casing	Elevations Ground Surface	Reference MSL (√)	Reference Site Datum (√)	Depths Screen Top	Depths Initial Groundwater	Depths Well Depth	Screen Length	Well Type	Well Status	Enf. Stds.	Grad-ient	Distance to Waste
PI821	MW100					8/6/01	2	P	1259.09	1259.37	X		8.5	15.91	17	10	11/mw	A	X		
PI822	MW200					8/6/01	2	P	1258.7	1259.04	X		9.5	15.51	17	10	11/mw	A	X		
PI823	PZ300					8/6/01	2	P	1259.14	1259.43	X		31	16	35	5	12/pz	A	X		
PI824	MW400					8/7/01	2	P	1259.07	1259.44	X		11	15.9	20	10	11/mw	A	X		
PI825	MW500					8/7/01	2	P	1258.71	1259.27	X		11	15.55	20	10	11/mw	A	X		
PI826	MW600					8/7/01	2	P	1259	1259.68	X		11	15.8	20	10	11/mw	A	X		
PI827	PZ700					8/7/01	2	P	1259.26	1259.66	X		29.5	16.05	34	5	12/pz	A	X		
	MW2100					9/10/02	2	P	1257.38	1257.66	X		10	13.88	20	10	11/mw	A	X		.
	MW2200					9/10/02	2	P	1259.14	1259.41	X		11	15.66	21	10	11/mw	A	X		

Location Coordinates Are:
☐ State Plane Coordinate ☐ Local Grid System
☐ Northern
☐ Central
☐ Southern

Grid Origin Location: (Check if estimated: ☐)
Lat. 45 ° 47 ' 46 " Long. 91 ° 18 ' 15 " or
St. Plane _____ ft. N. _____ ft. E. S/C/N Zone

Remarks:

Completion of this form is mandatory under s. NR 507.14 and NR 110.25 Wis. Adm. Code. Failure to file this form may result in forfeiture of not less than $10 nor more than $5,000 for each day of violation. Personally identifiable information provided is intended to be used by the Department for the purposes related to the waste management program.

APPENDIX G

GROUND-WATER ANALYTICAL REPORTS

En Chem Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

- Analytical Report -

Project Name : COUDERAY, WI
Project Number : SAW04-2300-0458
Field ID : MW2100
Lab Sample Number : 827166-001
WI DNR LAB ID : 405132750

Client : NORTHERN ENVIRONMENTAL
Report Date : 11/6/02
Collection Date : 10/14/02
Matrix Type : WATER

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Lead	3.8	0.060	0.19		ug/L		11/6/02	SW846 3020	SW846 6020	ccr

Organic Results

EPA 8260 VOLATILE LIST- WATER Prep Method: SW846 5030B Prep Date: 10/17/02 Analyst: JSF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Benzene	< 0.25	0.25	0.80		ug/L		10/17/02	SW846 8260B
Bromobenzene	< 0.74	0.74	2.4		ug/L		10/17/02	SW846 8260B
Bromochloromethane	< 0.67	0.67	2.1		ug/L		10/17/02	SW846 8260B
Bromodichloromethane	< 0.23	0.23	0.73		ug/L		10/17/02	SW846 8260B
Bromoform	< 0.45	0.45	1.4		ug/L		10/17/02	SW846 8260B
Bromomethane	< 0.87	0.87	2.8		ug/L		10/17/02	SW846 8260B
s-Butylbenzene	< 0.62	0.62	2.0		ug/L		10/17/02	SW846 8260B
t-Butylbenzene	< 0.96	0.96	3.1		ug/L		10/17/02	SW846 8260B
n-Butylbenzene	< 0.65	0.65	2.1		ug/L		10/17/02	SW846 8260B
Carbon tetrachloride	< 0.47	0.47	1.5		ug/L		10/17/02	SW846 8260B
Chloroform	< 0.45	0.45	1.4		ug/L		10/17/02	SW846 8260B
Chlorobenzene	< 0.58	0.58	1.8		ug/L		10/17/02	SW846 8260B
Chlorodibromomethane	< 0.84	0.84	2.7		ug/L		10/17/02	SW846 8260B
Chloroethane	< 0.84	0.84	2.7		ug/L		10/17/02	SW846 8260B
Chloromethane	< 0.27	0.27	0.86		ug/L		10/17/02	SW846 8260B
2-Chlorotoluene	< 0.66	0.66	2.1		ug/L		10/17/02	SW846 8260B
4-Chlorotoluene	< 0.89	0.89	2.8		ug/L		10/17/02	SW846 8260B
1,2-Dibromo-3-chloropropane	< 0.88	0.88	2.8		ug/L		10/17/02	SW846 8260B
1,2-Dibromoethane	< 0.66	0.66	2.1		ug/L		10/17/02	SW846 8260B
Dibromomethane	< 0.74	0.74	2.4		ug/L		10/17/02	SW846 8260B
1,3-Dichlorobenzene	< 0.58	0.58	1.8		ug/L		10/17/02	SW846 8260B
1,4-Dichlorobenzene	< 0.63	0.63	2.0		ug/L		10/17/02	SW846 8260B
1,2-Dichloroethane	< 0.55	0.55	1.8		ug/L		10/17/02	SW846 8260B
1,2-Dichlorobenzene	< 0.71	0.71	2.3		ug/L		10/17/02	SW846 8260B
1,1-Dichloroethene	< 0.56	0.56	1.8		ug/L		10/17/02	SW846 8260B
cis-1,2-Dichloroethene	< 0.81	0.81	2.6		ug/L		10/17/02	SW846 8260B
Dichlorodifluoromethane	< 0.57	0.57	1.8		ug/L		10/17/02	SW846 8260B

En Chem Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

- Analytical Report -

Project Name : COUDERAY, WI
Project Number : SAW04-2300-0458
Field ID : MW2100
Lab Sample Number : 827166-001
WI DNR LAB ID : 405132750

Client : NORTHERN ENVIRONMENTAL
Report Date : 11/6/02
Collection Date : 10/14/02
Matrix Type : WATER

trans-1,2-Dichloroethene	<	0.80	0.80	2.5	ug/L		10/17/02	SW846 8260B
1,2-Dichloropropane	<	0.39	0.39	1.2	ug/L		10/17/02	SW846 8260B
1,1-Dichloroethane	<	0.87	0.87	2.8	ug/L		10/17/02	SW846 8260B
1,3-Dichloropropane	<	0.62	0.62	2.0	ug/L		10/17/02	SW846 8260B
2,2-Dichloropropane	<	0.99	0.99	3.2	ug/L		10/17/02	SW846 8260B
1,1-Dichloropropene	<	0.79	0.79	2.5	ug/L		10/17/02	SW846 8260B
cis-1,3-Dichloropropene	<	0.57	0.57	1.8	ug/L		10/17/02	SW846 8260B
trans-1,3-Dichloropropene	<	0.64	0.64	2.0	ug/L		10/17/02	SW846 8260B
Diisopropyl ether	<	0.60	0.60	1.9	ug/L		10/17/02	SW846 8260B
Ethylbenzene	<	0.53	0.53	1.7	ug/L		10/17/02	SW846 8260B
Fluorotrichloromethane	<	0.85	0.85	2.7	ug/L		10/17/02	SW846 8260B
Hexachlorobutadiene	<	0.95	0.95	3.0	ug/L		10/17/02	SW846 8260B
Isopropylbenzene	<	0.66	0.66	2.1	ug/L		10/17/02	SW846 8260B
p-Isopropyltoluene	<	0.58	0.58	1.8	ug/L		10/17/02	SW846 8260B
Methylene chloride	<	0.47	0.47	1.5	ug/L		10/17/02	SW846 8260B
Methyl-tert-butyl-ether	<	0.87	0.87	2.8	ug/L		10/17/02	SW846 8260B
Naphthalene	<	0.63	0.63	2.0	ug/L		10/17/02	SW846 8260B
n-Propylbenzene	<	0.95	0.95	3.0	ug/L		10/17/02	SW846 8260B
Styrene	<	0.62	0.62	2.0	ug/L	&	10/17/02	SW846 8260B
1,1,2,2-Tetrachloroethane	<	0.77	0.77	2.5	ug/L		10/17/02	SW846 8260B
1,1,1,2-Tetrachloroethane	<	0.95	0.95	3.0	ug/L		10/17/02	SW846 8260B
Tetrachloroethene	<	0.63	0.63	2.0	ug/L		10/17/02	SW846 8260B
Toluene	<	0.84	0.84	2.7	ug/L		10/17/02	SW846 8260B
1,2,3-Trichlorobenzene	<	0.77	0.77	2.5	ug/L		10/17/02	SW846 8260B
1,2,4-Trichlorobenzene	<	0.57	0.57	1.8	ug/L		10/17/02	SW846 8260B
1,1,1-Trichloroethane	<	0.65	0.65	2.1	ug/L		10/17/02	SW846 8260B
1,1,2-Trichloroethane	<	0.50	0.50	1.6	ug/L		10/17/02	SW846 8260B
1,2,4-Trimethylbenzene	<	0.69	0.69	2.2	ug/L		10/17/02	SW846 8260B
Trichloroethene	<	0.39	0.39	1.2	ug/L		10/17/02	SW846 8260B
1,2,3-Trichloropropane	<	0.92	0.92	2.9	ug/L		10/17/02	SW846 8260B
1,3,5-Trimethylbenzene	<	0.64	0.64	2.0	ug/L		10/17/02	SW846 8260B
Vinyl chloride	<	0.11	0.11	0.35	ug/L		10/17/02	SW846 8260B
Xylenes, -m, -p	<	1.1	1.1	3.5	ug/L		10/17/02	SW846 8260B
Xylene, -o	<	0.73	0.73	2.3	ug/L		10/17/02	SW846 8260B
4-Bromofluorobenzene		99			%Recov		10/17/02	SW846 8260B
Dibromofluoromethane		105			%Recov		10/17/02	SW846 8260B
Toluene-d8		109			%Recov		10/17/02	SW846 8260B

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- Analytical Report -

Project Name : COUDERAY, WI
Project Number : SAW04-2300-0458
Field ID : MW2200
Lab Sample Number : 827166-002
WI DNR LAB ID : 405132750

Client : NORTHERN ENVIRONMENTAL
Report Date : 11/6/02
Collection Date : 10/14/02
Matrix Type : WATER

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Lead	0.090	0.060	0.19		ug/L	Q	11/6/02	SW846 3020	SW846 6020	ccr

Organic Results

EPA 8260 VOLATILE LIST- WATER Prep Method: SW846 5030B Prep Date: 10/17/02 Analyst: JSF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Benzene	120	0.25	0.80		ug/L		10/17/02	SW846 8260B
Bromobenzene	< 0.74	0.74	2.4		ug/L		10/17/02	SW846 8260B
Bromochloromethane	< 0.67	0.67	2.1		ug/L		10/17/02	SW846 8260B
Bromodichloromethane	< 0.23	0.23	0.73		ug/L		10/17/02	SW846 8260B
Bromoform	< 0.45	0.45	1.4		ug/L		10/17/02	SW846 8260B
Bromomethane	< 0.87	0.87	2.8		ug/L		10/17/02	SW846 8260B
s-Butylbenzene	< 0.62	0.62	2.0		ug/L		10/17/02	SW846 8260B
t-Butylbenzene	< 0.96	0.96	3.1		ug/L		10/17/02	SW846 8260B
n-Butylbenzene	< 0.65	0.65	2.1		ug/L		10/17/02	SW846 8260B
Carbon tetrachloride	< 0.47	0.47	1.5		ug/L		10/17/02	SW846 8260B
Chloroform	< 0.45	0.45	1.4		ug/L		10/17/02	SW846 8260B
Chlorobenzene	< 0.58	0.58	1.8		ug/L		10/17/02	SW846 8260B
Chlorodibromomethane	< 0.84	0.84	2.7		ug/L		10/17/02	SW846 8260B
Chloroethane	< 0.84	0.84	2.7		ug/L		10/17/02	SW846 8260B
Chloromethane	< 0.27	0.27	0.86		ug/L		10/17/02	SW846 8260B
2-Chlorotoluene	< 0.66	0.66	2.1		ug/L		10/17/02	SW846 8260B
4-Chlorotoluene	< 0.89	0.89	2.8		ug/L		10/17/02	SW846 8260B
1,2-Dibromo-3-chloropropane	< 0.88	0.88	2.8		ug/L		10/17/02	SW846 8260B
1,2-Dibromoethane	< 0.66	0.66	2.1		ug/L		10/17/02	SW846 8260B
Dibromomethane	< 0.74	0.74	2.4		ug/L		10/17/02	SW846 8260B
1,3-Dichlorobenzene	< 0.58	0.58	1.8		ug/L		10/17/02	SW846 8260B
1,4-Dichlorobenzene	< 0.63	0.63	2.0		ug/L		10/17/02	SW846 8260B
1,2-Dichloroethane	< 0.55	0.55	1.8		ug/L		10/17/02	SW846 8260B
1,2-Dichlorobenzene	< 0.71	0.71	2.3		ug/L		10/17/02	SW846 8260B
1,1-Dichloroethene	< 0.56	0.56	1.8		ug/L		10/17/02	SW846 8260B
cis-1,2-Dichloroethene	< 0.81	0.81	2.6		ug/L		10/17/02	SW846 8260B
Dichlorodifluoromethane	< 0.57	0.57	1.8		ug/L		10/17/02	SW846 8260B

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- Analytical Report -

Project Name : COUDERAY, WI
Project Number : SAW04-2300-0458
Field ID : MW2200
Lab Sample Number : 827166-002
WI DNR LAB ID : 405132750

Client : NORTHERN ENVIRONMENTAL
Report Date : 11/6/02
Collection Date : 10/14/02
Matrix Type : WATER

trans-1,2-Dichloroethene	<	0.80	0.80	2.5	ug/L		10/17/02	SW846 8260B
1,2-Dichloropropane	<	0.39	0.39	1.2	ug/L		10/17/02	SW846 8260B
1,1-Dichloroethane	<	0.87	0.87	2.8	ug/L		10/17/02	SW846 8260B
1,3-Dichloropropane	<	0.62	0.62	2.0	ug/L		10/17/02	SW846 8260B
2,2-Dichloropropane	<	0.99	0.99	3.2	ug/L		10/17/02	SW846 8260B
1,1-Dichloropropene	<	0.79	0.79	2.5	ug/L		10/17/02	SW846 8260B
cis-1,3-Dichloropropene	<	0.57	0.57	1.8	ug/L		10/17/02	SW846 8260B
trans-1,3-Dichloropropene	<	0.64	0.64	2.0	ug/L		10/17/02	SW846 8260B
Diisopropyl ether	<	0.60	0.60	1.9	ug/L		10/17/02	SW846 8260B
Ethylbenzene		59	0.53	1.7	ug/L		10/17/02	SW846 8260B
Fluorotrichloromethane	<	0.85	0.85	2.7	ug/L		10/17/02	SW846 8260B
Hexachlorobutadiene	<	0.95	0.95	3.0	ug/L		10/17/02	SW846 8260B
Isopropylbenzene		6.2	0.66	2.1	ug/L		10/17/02	SW846 8260B
p-Isopropyltoluene	<	0.58	0.58	1.8	ug/L		10/17/02	SW846 8260B
Methylene chloride	<	0.47	0.47	1.5	ug/L		10/17/02	SW846 8260B
Methyl-tert-butyl-ether	<	0.87	0.87	2.8	ug/L		10/17/02	SW846 8260B
Naphthalene		9.6	0.63	2.0	ug/L		10/17/02	SW846 8260B
n-Propylbenzene		10	0.95	3.0	ug/L		10/17/02	SW846 8260B
Styrene	<	0.62	0.62	2.0	ug/L	&	10/17/02	SW846 8260B
1,1,2,2-Tetrachloroethane	<	0.77	0.77	2.5	ug/L		10/17/02	SW846 8260B
1,1,1,2-Tetrachloroethane	<	0.95	0.95	3.0	ug/L		10/17/02	SW846 8260B
Tetrachloroethene	<	0.63	0.63	2.0	ug/L		10/17/02	SW846 8260B
Toluene		2.3	0.84	2.7	ug/L	Q	10/17/02	SW846 8260B
1,2,3-Trichlorobenzene	<	0.77	0.77	2.5	ug/L		10/17/02	SW846 8260B
1,2,4-Trichlorobenzene	<	0.57	0.57	1.8	ug/L		10/17/02	SW846 8260B
1,1,1-Trichloroethane	<	0.65	0.65	2.1	ug/L		10/17/02	SW846 8260B
1,1,2-Trichloroethane	<	0.50	0.50	1.6	ug/L		10/17/02	SW846 8260B
1,2,4-Trimethylbenzene		98	0.69	2.2	ug/L		10/17/02	SW846 8260B
Trichloroethene	<	0.39	0.39	1.2	ug/L		10/17/02	SW846 8260B
1,2,3-Trichloropropane	<	0.92	0.92	2.9	ug/L		10/17/02	SW846 8260B
1,3,5-Trimethylbenzene	<	0.64	0.64	2.0	ug/L		10/17/02	SW846 8260B
Vinyl chloride	<	0.11	0.11	0.35	ug/L		10/17/02	SW846 8260B
Xylenes, -m, -p		100	1.1	3.5	ug/L		10/17/02	SW846 8260B
Xylene, -o		33	0.73	2.3	ug/L		10/17/02	SW846 8260B
4-Bromofluorobenzene		99			%Recov		10/17/02	SW846 8260B
Dibromofluoromethane		104			%Recov		10/17/02	SW846 8260B
Toluene-d8		106			%Recov		10/17/02	SW846 8260B

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- Analytical Report -

Project Name : COUDERAY, WI
Project Number : SAW04-2300-0458
Field ID : DUP
Lab Sample Number : 827166-003
WI DNR LAB ID : 405132750

Client : NORTHERN ENVIRONMENTAL
Report Date : 11/6/02
Collection Date : 10/14/02
Matrix Type : WATER

Organic Results

EPA 8260 VOLATILE LIST- WATER Prep Method: SW846 5030B Prep Date: 10/18/02 Analyst: HW

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Benzene	110	0.25	0.80		ug/L		10/18/02	SW846 8260B
Bromobenzene	< 0.74	0.74	2.4		ug/L		10/18/02	SW846 8260B
Bromochloromethane	< 0.67	0.67	2.1		ug/L		10/18/02	SW846 8260B
Bromodichloromethane	< 0.23	0.23	0.73		ug/L		10/18/02	SW846 8260B
Bromoform	< 0.45	0.45	1.4		ug/L		10/18/02	SW846 8260B
Bromomethane	< 0.87	0.87	2.8		ug/L		10/18/02	SW846 8260B
s-Butylbenzene	< 0.62	0.62	2.0		ug/L		10/18/02	SW846 8260B
t-Butylbenzene	< 0.96	0.96	3.1		ug/L		10/18/02	SW846 8260B
n-Butylbenzene	< 0.65	0.65	2.1		ug/L		10/18/02	SW846 8260B
Carbon tetrachloride	< 0.47	0.47	1.5		ug/L		10/18/02	SW846 8260B
Chloroform	< 0.45	0.45	1.4		ug/L		10/18/02	SW846 8260B
Chlorobenzene	< 0.58	0.58	1.8		ug/L		10/18/02	SW846 8260B
Chlorodibromomethane	< 0.84	0.84	2.7		ug/L		10/18/02	SW846 8260B
Chloroethane	< 0.84	0.84	2.7		ug/L		10/18/02	SW846 8260B
Chloromethane	< 0.27	0.27	0.86		ug/L		10/18/02	SW846 8260B
2-Chlorotoluene	< 0.66	0.66	2.1		ug/L		10/18/02	SW846 8260B
4-Chlorotoluene	< 0.89	0.89	2.8		ug/L		10/18/02	SW846 8260B
1,2-Dibromo-3-chloropropane	< 0.88	0.88	2.8		ug/L		10/18/02	SW846 8260B
1,2-Dibromoethane	< 0.66	0.66	2.1		ug/L		10/18/02	SW846 8260B
Dibromomethane	< 0.74	0.74	2.4		ug/L		10/18/02	SW846 8260B
1,3-Dichlorobenzene	< 0.58	0.58	1.8		ug/L		10/18/02	SW846 8260B
1,4-Dichlorobenzene	< 0.63	0.63	2.0		ug/L		10/18/02	SW846 8260B
1,2-Dichloroethane	< 0.55	0.55	1.8		ug/L		10/18/02	SW846 8260B
1,2-Dichlorobenzene	< 0.71	0.71	2.3		ug/L		10/18/02	SW846 8260B
1,1-Dichloroethene	< 0.56	0.56	1.8		ug/L		10/18/02	SW846 8260B
cis-1,2-Dichloroethene	< 0.81	0.81	2.6		ug/L		10/18/02	SW846 8260B
Dichlorodifluoromethane	< 0.57	0.57	1.8		ug/L		10/18/02	SW846 8260B
trans-1,2-Dichloroethene	< 0.80	0.80	2.5		ug/L		10/18/02	SW846 8260B
1,2-Dichloropropane	< 0.39	0.39	1.2		ug/L		10/18/02	SW846 8260B
1,1-Dichloroethane	< 0.87	0.87	2.8		ug/L		10/18/02	SW846 8260B
1,3-Dichloropropane	< 0.62	0.62	2.0		ug/L		10/18/02	SW846 8260B
2,2-Dichloropropane	< 0.99	0.99	3.2		ug/L		10/18/02	SW846 8260B

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- Analytical Report -

Project Name : COUDERAY, WI
Project Number : SAW04-2300-0458
Field ID : DUP
Lab Sample Number : 827166-003
WI DNR LAB ID : 405132750

Client : NORTHERN ENVIRONMENTAL
Report Date : 11/6/02
Collection Date : 10/14/02
Matrix Type : WATER

1,1-Dichloropropene	<	0.79	0.79	2.5	ug/L		10/18/02	SW846 8260B
cis-1,3-Dichloropropene	<	0.57	0.57	1.8	ug/L		10/18/02	SW846 8260B
trans-1,3-Dichloropropene	<	0.64	0.64	2.0	ug/L		10/18/02	SW846 8260B
Diisopropyl ether	<	0.60	0.60	1.9	ug/L		10/18/02	SW846 8260B
Ethylbenzene		53	0.53	1.7	ug/L		10/18/02	SW846 8260B
Fluorotrichloromethane	<	0.85	0.85	2.7	ug/L		10/18/02	SW846 8260B
Hexachlorobutadiene	<	0.95	0.95	3.0	ug/L		10/18/02	SW846 8260B
Isopropylbenzene		4.9	0.66	2.1	ug/L		10/18/02	SW846 8260B
p-Isopropyltoluene	<	0.58	0.58	1.8	ug/L		10/18/02	SW846 8260B
Methylene chloride	<	0.47	0.47	1.5	ug/L		10/18/02	SW846 8260B
Methyl-tert-butyl-ether	<	0.87	0.87	2.8	ug/L		10/18/02	SW846 8260B
Naphthalene		7.5	0.63	2.0	ug/L		10/18/02	SW846 8260B
n-Propylbenzene		8.7	0.95	3.0	ug/L		10/18/02	SW846 8260B
Styrene	<	0.62	0.62	2.0	ug/L	&	10/18/02	SW846 8260B
1,1,2,2-Tetrachloroethane	<	0.77	0.77	2.5	ug/L		10/18/02	SW846 8260B
1,1,1,2-Tetrachloroethane	<	0.95	0.95	3.0	ug/L		10/18/02	SW846 8260B
Tetrachloroethene	<	0.63	0.63	2.0	ug/L		10/18/02	SW846 8260B
Toluene		1.8	0.84	2.7	ug/L	Q	10/18/02	SW846 8260B
1,2,3-Trichlorobenzene	<	0.77	0.77	2.5	ug/L		10/18/02	SW846 8260B
1,2,4-Trichlorobenzene	<	0.57	0.57	1.8	ug/L		10/18/02	SW846 8260B
1,1,1-Trichloroethane	<	0.65	0.65	2.1	ug/L		10/18/02	SW846 8260B
1,1,2-Trichloroethane	<	0.50	0.50	1.6	ug/L		10/18/02	SW846 8260B
1,2,4-Trimethylbenzene		96	0.69	2.2	ug/L		10/18/02	SW846 8260B
Trichloroethene	<	0.39	0.39	1.2	ug/L		10/18/02	SW846 8260B
1,2,3-Trichloropropane	<	0.92	0.92	2.9	ug/L		10/18/02	SW846 8260B
1,3,5-Trimethylbenzene	<	0.64	0.64	2.0	ug/L		10/18/02	SW846 8260B
Vinyl chloride	<	0.11	0.11	0.35	ug/L		10/18/02	SW846 8260B
Xylenes, -m, -p		97	1.1	3.5	ug/L		10/18/02	SW846 8260B
Xylene, -o		29	0.73	2.3	ug/L		10/18/02	SW846 8260B
4-Bromofluorobenzene		105			%Recov		10/18/02	SW846 8260B
Dibromofluoromethane		115			%Recov		10/18/02	SW846 8260B
Toluene-d8		110			%Recov		10/18/02	SW846 8260B

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- Analytical Report -

Project Name : COUDERAY, WI
Project Number : SAW04-2300-0458
Field ID : TRIP
Lab Sample Number : 827166-004
WI DNR LAB ID : 405132750

Client : NORTHERN ENVIRONMENTAL
Report Date : 11/6/02
Collection Date : 10/14/02
Matrix Type : WATER

Organic Results

EPA 8260 VOLATILE LIST- WATER **Prep Method:** SW846 5030B **Prep Date:** 10/18/02 **Analyst:** HW

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Benzene	< 0.25	0.25	0.80		ug/L		10/18/02	SW846 8260B
Bromobenzene	< 0.74	0.74	2.4		ug/L		10/18/02	SW846 8260B
Bromochloromethane	< 0.67	0.67	2.1		ug/L		10/18/02	SW846 8260B
Bromodichloromethane	< 0.23	0.23	0.73		ug/L		10/18/02	SW846 8260B
Bromoform	< 0.45	0.45	1.4		ug/L		10/18/02	SW846 8260B
Bromomethane	< 0.87	0.87	2.8		ug/L		10/18/02	SW846 8260B
s-Butylbenzene	< 0.62	0.62	2.0		ug/L		10/18/02	SW846 8260B
t-Butylbenzene	< 0.96	0.96	3.1		ug/L		10/18/02	SW846 8260B
n-Butylbenzene	< 0.65	0.65	2.1		ug/L		10/18/02	SW846 8260B
Carbon tetrachloride	< 0.47	0.47	1.5		ug/L		10/18/02	SW846 8260B
Chloroform	< 0.45	0.45	1.4		ug/L		10/18/02	SW846 8260B
Chlorobenzene	< 0.58	0.58	1.8		ug/L		10/18/02	SW846 8260B
Chlorodibromomethane	< 0.84	0.84	2.7		ug/L		10/18/02	SW846 8260B
Chloroethane	< 0.84	0.84	2.7		ug/L		10/18/02	SW846 8260B
Chloromethane	< 0.27	0.27	0.86		ug/L		10/18/02	SW846 8260B
2-Chlorotoluene	< 0.66	0.66	2.1		ug/L		10/18/02	SW846 8260B
4-Chlorotoluene	< 0.89	0.89	2.8		ug/L		10/18/02	SW846 8260B
1,2-Dibromo-3-chloropropane	< 0.88	0.88	2.8		ug/L		10/18/02	SW846 8260B
1,2-Dibromoethane	< 0.66	0.66	2.1		ug/L		10/18/02	SW846 8260B
Dibromomethane	< 0.74	0.74	2.4		ug/L		10/18/02	SW846 8260B
1,3-Dichlorobenzene	< 0.58	0.58	1.8		ug/L		10/18/02	SW846 8260B
1,4-Dichlorobenzene	< 0.63	0.63	2.0		ug/L		10/18/02	SW846 8260B
1,2-Dichloroethane	< 0.55	0.55	1.8		ug/L		10/18/02	SW846 8260B
1,2-Dichlorobenzene	< 0.71	0.71	2.3		ug/L		10/18/02	SW846 8260B
1,1-Dichloroethene	< 0.56	0.56	1.8		ug/L		10/18/02	SW846 8260B
cis-1,2-Dichloroethene	< 0.81	0.81	2.6		ug/L		10/18/02	SW846 8260B
Dichlorodifluoromethane	< 0.57	0.57	1.8		ug/L		10/18/02	SW846 8260B
trans-1,2-Dichloroethene	< 0.80	0.80	2.5		ug/L		10/18/02	SW846 8260B
1,2-Dichloropropane	< 0.39	0.39	1.2		ug/L		10/18/02	SW846 8260B
1,1-Dichloroethane	< 0.87	0.87	2.8		ug/L		10/18/02	SW846 8260B
1,3-Dichloropropane	< 0.62	0.62	2.0		ug/L		10/18/02	SW846 8260B
2,2-Dichloropropane	< 0.99	0.99	3.2		ug/L		10/18/02	SW846 8260B

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- Analytical Report -

Project Name : COUDERAY, WI
Project Number : SAW04-2300-0458
Field ID : TRIP
Lab Sample Number : 827166-004
WI DNR LAB ID : 405132750

Client : NORTHERN ENVIRONMENTAL
Report Date : 11/6/02
Collection Date : 10/14/02
Matrix Type : WATER

1,1-Dichloropropene	<	0.79	0.79	2.5	ug/L		10/18/02	SW846 8260B
cis-1,3-Dichloropropene	<	0.57	0.57	1.8	ug/L		10/18/02	SW846 8260B
trans-1,3-Dichloropropene	<	0.64	0.64	2.0	ug/L		10/18/02	SW846 8260B
Diisopropyl ether	<	0.60	0.60	1.9	ug/L		10/18/02	SW846 8260B
Ethylbenzene	<	0.53	0.53	1.7	ug/L		10/18/02	SW846 8260B
Fluorotrichloromethane	<	0.85	0.85	2.7	ug/L		10/18/02	SW846 8260B
Hexachlorobutadiene	<	0.95	0.95	3.0	ug/L		10/18/02	SW846 8260B
Isopropylbenzene	<	0.66	0.66	2.1	ug/L		10/18/02	SW846 8260B
p-Isopropyltoluene	<	0.58	0.58	1.8	ug/L		10/18/02	SW846 8260B
Methylene chloride	<	0.47	0.47	1.5	ug/L		10/18/02	SW846 8260B
Methyl-tert-butyl-ether	<	0.87	0.87	2.8	ug/L		10/18/02	SW846 8260B
Naphthalene	<	0.63	0.63	2.0	ug/L		10/18/02	SW846 8260B
n-Propylbenzene	<	0.95	0.95	3.0	ug/L		10/18/02	SW846 8260B
Styrene	<	0.62	0.62	2.0	ug/L	&	10/18/02	SW846 8260B
1,1,2,2-Tetrachloroethane	<	0.77	0.77	2.5	ug/L		10/18/02	SW846 8260B
1,1,1,2-Tetrachloroethane	<	0.95	0.95	3.0	ug/L		10/18/02	SW846 8260B
Tetrachloroethene	<	0.63	0.63	2.0	ug/L		10/18/02	SW846 8260B
Toluene	<	0.84	0.84	2.7	ug/L		10/18/02	SW846 8260B
1,2,3-Trichlorobenzene	<	0.77	0.77	2.5	ug/L		10/18/02	SW846 8260B
1,2,4-Trichlorobenzene	<	0.57	0.57	1.8	ug/L		10/18/02	SW846 8260B
1,1,1-Trichloroethane	<	0.65	0.65	2.1	ug/L		10/18/02	SW846 8260B
1,1,2-Trichloroethane	<	0.50	0.50	1.6	ug/L		10/18/02	SW846 8260B
1,2,4-Trimethylbenzene	<	0.69	0.69	2.2	ug/L		10/18/02	SW846 8260B
Trichloroethene	<	0.39	0.39	1.2	ug/L		10/18/02	SW846 8260B
1,2,3-Trichloropropane	<	0.92	0.92	2.9	ug/L		10/18/02	SW846 8260B
1,3,5-Trimethylbenzene	<	0.64	0.64	2.0	ug/L		10/18/02	SW846 8260B
Vinyl chloride	<	0.11	0.11	0.35	ug/L		10/18/02	SW846 8260B
Xylenes, -m, -p	<	1.1	1.1	3.5	ug/L		10/18/02	SW846 8260B
Xylene, -o	<	0.73	0.73	2.3	ug/L		10/18/02	SW846 8260B
4-Bromofluorobenzene		99			%Recov		10/18/02	SW846 8260B
Dibromofluoromethane		114			%Recov		10/18/02	SW846 8260B
Toluene-d8		107			%Recov		10/18/02	SW846 8260B

Organic Data Qualifiers*

B	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
C	Elevated detection limit.
D	Analyte value from diluted analysis, or surrogate result not applicable due to sample dilution.
E	Analyte concentration exceeds calibration range.
F	Surrogate results outside control criteria.
H	Extraction or analysis performed past holding time.
J	Qualitative evidence of analyte present: concentration detected is greater than the method detection limit but less than the reporting limit.
K	Detection limit may be elevated due to the presence of an unrequested analyte.
N	Spiked sample recovery not within control limits.
P	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
S	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
U	The analyte was not detected above the reporting limit.
W	Sample received with headspace.
X	See Sample Narrative.
&	Laboratory Control Spike recovery not within control limits.
*	Duplicate analyses not within control limits.
SUB1	Assay was subcontracted to an approved lab.
SUB2	Assay was subcontracted to En Chem Green Bay WI Cert. #405132750.

EN CHEM INC.

Corporate Office & Laboratory
1241 Bellevue Street, Suite 9 • Green Bay, WI 54302
920-469-2436 • Fax: 920-469-8827 • 800-7-ENCHEM
www.enchem.com

- Analytical Report -

Project Name : COUDERAY, WI

Project Number : SAW04-2300-0458

Client: NORTHERN ENVIRONMENTAL

WI DNR LAB ID : 405132750

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
827166-001	MW2100	10/14/02			
827166-002	MW2200	10/14/02			
827166-003	DUP	10/14/02			
827166-004	TRIP	10/14/02			

Please visit our Internet homepage at: www.enchem.com

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. Reported results shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested.

Approval Signature

11/06/02
Date

En Chem, Inc. Cooler Receipt Log

Batch No. 827166

Project Name or ID SAW04-2300-0458 No. of Coolers: 1 Temps: ROT

A. Receipt Phase: Date cooler was opened: 10-16-02 By: RJ.

1: Were samples received on ice? (Must be ≤ 6 C)	YES	NO[2]	
2. Was there a Temperature Blank?	YES	NO	
3: Were custody seals present and intact? (Record on COC)	YES	NO	
4: Are COC documents present?	YES	NO[2]	
5: Does this Project require quick turn around analysis?	YES	NO	
6: Is there any sub-work?	YES	NO	
7: Are there any short hold time tests?	YES	NO	
8: Are any samples nearing expiration of hold-time? (Within 2 days)	YES[1]	NO	Contacted by/Who
9: Do any samples need to be Filtered or Preserved in the lab?	YES[1]	NO	Contacted by/Who

B. Check-In Phase: Date samples were Checked-In: 10-16-02 By: RJ

1: Were all sample containers listed on the COC received and intact?	YES	NO[2]	NA
2: Sign the COC as received by En Chem. Completed	YES	NO	
3: Do sample labels match the COC?	YES	NO[2]	
4: Check sample pH of preserved samples. (Not VOCs) Completed	YES	NO	NA
5: Do samples have correct chemical preservation?	YES	NO[2]	NA
6: Are dissolved parameters field filtered?	YES	NO[2]	NA
7: Are sample volumes adequate for tests requested?	YES	NO[2]	
8: Are VOC samples free of bubbles >6mm	YES	NO[2]	NA
9: Enter samples into logbook. Completed	YES	NO	
10: Place laboratory sample number on all containers and COC. Completed	YES	NO	
11: Complete Laboratory Tracking Sheet (LTS). Completed	YES	NO	NA
12: Start Nonconformance form.	YES	NO	NA
13: Initiate Subcontracting procedure. Completed	YES	NO	NA
14: Check laboratory sample number on all containers and COC. 10/16/02	YES	NO	NA

Short Hold-time tests:

48 Hours or less	7 days	Footnotes
Coliform (6 hrs)	Flashpoint	1 Notify proper lab group immediately.
Hexavalent Chromium (24 Hrs)	TSS	
BOD	Total Solids	2 Complete nonconformance memo.
Nitrite or Nitrate	TDS	
Low Level Mercury	Sulfide	
Ortho Phosphorus	Free Liquids	
Turbidity	Total Volatile Solids	
Surfactants	Aqueous Extractable Organics- ALL	
Sulfite	Unpreserved VOC's	
En Core Preservation	Ash	
Color		

Rev. 9/5/2001, Attachment to 1-REC-5.
Subject to QA Audit.

Reviewed by/date CT 10/17/02

p:/everyone/forms/samplereceiving/crl.doc

VC1 Page 1 of 1

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CHAIN OF CUSTODY RECORD REQUEST FOR ANALYSIS

COC No: 17793

Check office originating request

- ☐ 954 Circle Drive, Green Bay, WI 54304, 920-592-8400, FAX 920-592-8444
- ☒ 330 South 4th Avenue, Park Falls, WI 54552, 715-762-1544, FAX 715-762-1844
- ☐ 16543 State Hwy 371, Brainerd, MN 56401, 218-825-9001, FAX 218-828-8600
- ☐ 647 Academy Dr., Northbrook, IL 60062, 847-562-8577, FAX 847-562-8552
- ☐ 3349 Southgate Court SW #102, Cedar Rapids, IA 52404, 319-365-0466, FAX 319-365-0464
- ☐ 1214 W. Venture Ct., Mequon, WI 53092, 262-241-3133, FAX 262-241-8222
- ☐ 1203 Storbeck Drive, Waupun, WI 53963, 920-324-8600, FAX 920-324-3023
- ☐ 372 West County Road D, New Brighton, MN 55112, 651-635-9100, FAX 651-635-0643
- ☐ 112 7th Street NE, Rochester, MN 55906, 507-282-3800, FAX 507-282-3100
- ☐ 801 East Mt. Hope, Lansing, MI 48910, 517-702-0470, FAX 517-702-0477
- ☐ _____

Project No: SAW04-Task No 2300-0458

Project Location (city): Couderay WI

Project Manager: Barb Fletner

Sampler (name): Shan M. Moquin

Sampler (Signature): Shan M. Moquin

Sampling Date(s): 10-14-02

Reports to be Sent to: Shan M. Moquin

Laboratory: En Chem

Wisconsin DNR Certification #: 405132750

Laboratory Contact: Chris Zabel

Price Quote: Annual Bid

TURNAROUND TIME REQUIRED

☒ Normal ☐ Rush

Date Needed _____

Sample Integrity - To be completed by receiving lab

Seal intact upon receipt ☐ yes ☐ no

Method of shipment _____

Contents Temperature _____ °C Refrigerator No. _____

ANALYSES REQUESTED

Lab ID No.	Sample No.	Collection Date	Collection Time	No. of Containers, Size & Type	Description Water	Description Soil	Description Other	Preservative	DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021) 8260 ck 10/17/02	PAH (EPA Method	Pb (EPA Method
001	MW2100	10-14-02	1400	3-40ml, 1-500ml	X			HNO_3, HCl, ice					X		X
002	MW2200		1430	↓	X			↓					X		X
003	DUP		-	3-40ml	X			HCl, ice				X	X		
004	TRIP	↓	1405	1-40ml	X			↓				X	X		

Non En Chem client

Packed for Shipping by: Shan M. Moquin

Shipment Date: 10-15-02

Comments: Run VOC (8260) for Dup: TRIP per B.F. - cle 10/17/02

PHV ok 827166

Relinquished By	Date	Time	Company
Shan M. Moquin	10-15-02	8:31 a.m.	NETI
Received By	Date	Time	Company
D. Kukuk	10-15-02	11:50	Dunham Express
Relinquished By	Date	Time	Company
Dunham			
Received By	Date	Time	Company
R Jacobs	10-16-02	8:10	
Relinquished By	Date	Time	Company
Received By	Date	Time	Company

DRAFT

N

SCALE IN FEET
15 0 15 30

PW-2

TRAILER HOME

VILLAGE PUB PRIVATE WELL

HOUSE

PW-1

PATTERSON RESIDENCE

PASHA STREET

VILLAGE PUB

GARAGE

CONCRETE

GP1300

MW200 GP100

MW400

PZ300

GP800

UST

GP200

GP400

GP300

GRASS

GP900

FORMER ACKLEY AMOCO

UST UST UST

SEPTIC FIELD

PZ700

MW600

GP500

hot

MW100

GP1400

ASPHALT

GP1200

DOT RIGHT-OF-WAY

GP700

GP1700

GRASS

GP600

ASPHALT

GP1100

GP1500

HIGHWAY WHITE LINE

GRAVEL

GP1000

MW500

hot

hot

ALLEY

GP1900

HIGHWAY 70

HIGHWAY WHITE LINE

GP2000

GP1600

GRASS

GP1800

Oct 1 - WS 1700, WS 1800, WS 1900, WS 2000 points added.

GP points on map WS in text.

LEGEND

- PZ700 — PIEZOMETER LOCATION
- MW600 — MONITORING WELL LOCATION
- GP500 — GEOPROBE SOIL BORING LOCATION
- SURFACE MATERIAL DIVISION
- PROPERTY LINE LOCATION
- FENCE LOCATION
- SEPTIC FIELD LOCATION
- DISPENSER ISLAND LOCATION
- UST — UNDERGROUND STORAGE TANK (UST) LOCATION

DRAWN BY: BJF	PROJECT: DNR04-2200-0371	DATE: 10/02/01
REV. DATE	THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS THE PROPERTY OF NORTHERN ENVIRONMENTAL INCORPORATED AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS EXPRESSLY FURNISHED.	

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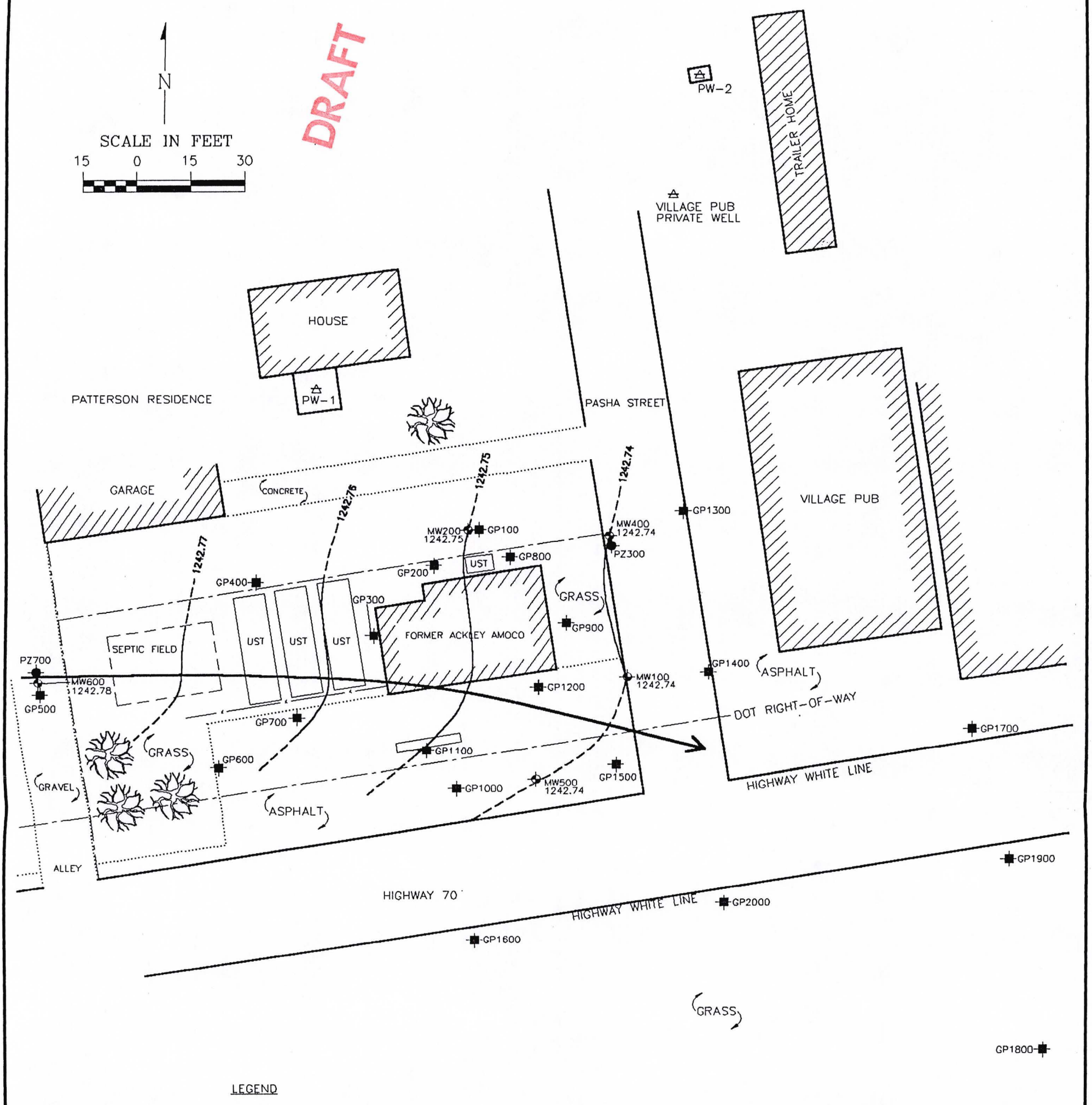
FIGURE 2
LAYOUT, SOIL BORING, MONITORING WELL, AND PIEZOMETER LOCATIONS

FORMER ACKLEY AMOCO
COUDERAY, WISCONSIN
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

S:\PROJ\DNR\04-0371\CAD\SBMWLOC



LEGEND

PZ700	PIEZOMETER LOCATION
MW600	MONITORING WELL LOCATION
GP500	GEOPROBE SOIL BORING LOCATION
.....	SURFACE MATERIAL DIVISION
— - — - — - —	PROPERTY LINE LOCATION
——— ‹ ———	FENCE LOCATION
— — — — — —	SEPTIC FIELD LOCATION
1242.74 — ———	8/23/01 GROUND-WATER ELEVATION CONTOUR IN FEET (DASHED LINE = INFERRED ELEVATION) (CONTOUR INTERVAL = .01 FEET)
←	GROUND-WATER FLOW DIRECTION
▭	DISPENSER ISLAND LOCATION
UST	UNDERGROUND STORAGE TANK (UST) LOCATION

DRAWN BY: BJF	PROJECT: DNR04-2200-0371	DATE: 10/18/01
REV. DATE		FIGURE 4 GROUND-WATER ELEVATION MAP
	Northern Environmental℠ *Hydrologists • Engineers • Geologists*	FORMER ACKLEY AMOCO COUDERAY, WISCONSIN WISCONSIN DEPARTMENT OF NATURAL RESOURCES

S:\PROJ\DNR\04-0371\CAD\GWFLOW

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PHASE I AND PHASE II SITE INVESTIGATION REPORT

FORMER ACKLEY AMOCO
12264 HIGHWAY 70
COUDERAY, WISCONSIN 54828

(WDNR ID #03-58-000380)
(FID #858120450)

October 24, 2001

Prepared For:

Mr. Bill Schultz, Wisconsin Dept. of Natural Reasources Project manager
107 Sutliff Avenue
Rhinelander, Wisconsin 54501
(715) 365-8965

Prepared By:

Northern Environmental Technologies, Incorporated
330 South 4th Avenue
Park Falls, Wisconsin 54552
(715) 762-1544

Project Number: DNR04-2200-0371

Barbara J. Flietner, PG
Staff Geologist/Hydrogeologist

Timothy J. McCormick
District Director

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FIGURES

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APPENDICES

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1.0 EXECUTIVE SUMMARY

Northern Environmental Technologies Incorporated (Northern Environmental) has completed a Phase I and Phase II Site Investigation in the vicinity of the Former Ackley Amoco, 12264 Highway 70, Couderay, Wisconsin (the Site). A gasoline service station formerly operated at the Site. Four underground storage tanks (USTs) are located at the Site. In 1979 and 1992, private wells east of the Site were impacted by petroleum contaminants. Several private wells were relocated or replaced. In March 2001, the Wisconsin Department of Natural Resources (WDNR) solicited bids for a Phase I and Phase II Site Investigation (SIs) to be conducted in the vicinity of the Site. The SIs were to include a records/historical review, an asbestos and magnetometer survey, and a subsurface investigation.

On July 11, 2001, Northern Environmental was contracted to perform the SIs. Existing data was reviewed to identify recognized environmental conditions within the vicinity of the Site. Northern Environmental contracted EcoSearch Environmental Resources, Inc. (EcoSearch) to perform a records search of federal and state databases for nearby potential environmental concerns. Well logs for the Village of Couderay were requested from the Wisconsin Geological and Natural History Survey. Northern Environmental contracted Chris Dupré (asbestos inspector AI-01755) to perform an inspection of the building and to identify, inventory, and collect suspect asbestos samples for laboratory analysis. A limited magnetometer survey was conducted at the Site by Northern Environmental to aid in location of the on-site USTs and to determine if any unsuspected anomalies existed at the Site.

Sixteen soil borings (GP100 through Gp1600) were completed at the Site on August 6 and 7, 2001. The soil borings were completed to assess the petroleum release in soils at the Site. Five monitoring wells (MW100, MW200, MW400, MW500, and MW600) and two piezometers (PZ300 and PZ700) were installed on August 6 and 7, 2001. The monitoring wells and piezometers were used to determine the extent of the petroleum impact to the ground water. Northern Environmental collected ground-water samples from all monitoring wells and two adjacent private potable wells (PW-1 and PW-2) on August 23, 2001. On October 1, 2001, a Geoprobe™ was used to collect ground-water samples from four water sample locations (WS1700, WS1800, WS1900, and WS2000). Ground-water samples were analyzed for volatile organic compounds (VOCs) and lead.

A release appears to have originated from the UST system located at the Site. Petroleum-contaminated soil is evident within the vicinity of the fueling island and within the southeast portion of the Site. Up-gradient monitoring wells and piezometers do not contain significant petroleum compounds therefore indicating that the Site is the likely source of the petroleum-contaminated ground water to the east-southeast of the Site.

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2.0 INTRODUCTION AND BACKGROUND

Northern Environmental Technologies Incorporated (Northern Environmental) has completed a Phase I and Phase II Site Investigation in the vicinity of the Former Ackley Amoco, 12264 Highway 70, Couderay, Wisconsin (the Site). The Site location is shown on Figure 1. The Site is located in the northwest quarter of the northeast quarter of Section 12, Township 38 north, Range 8 west (45 degrees, 47 minutes, and 46 seconds north latitude; 91 degrees, 18 minutes, and 16 seconds west longitude) in Couderay, Sawyer County, Wisconsin.

A gasoline service station formerly operated at the Site. Four underground storage tanks (USTs) are located at the Site. In 1979 and 1992, private wells east of the Site were impacted by petroleum contaminants. Several private wells were relocated or replaced. In March 2001, the Wisconsin Department of Natural Resources (WDNR) solicited bids for a Phase I and Phase II Site Investigation (SIs) to be conducted in the vicinity of the Site. The SIs were to include a records/historical review, an asbestos and magnetometer survey, and a subsurface investigation.

On July 11, 2001, Northern Environmental was contracted to perform the SIs. The following report presents and interprets the data collected during the SIs.

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3.0 METHODS OF INVESTIGATION

Investigative methods employed to evaluate the Site conditions included conducting a records/historical review, an asbestos and magnetometer survey, and a subsurface investigation. The subsurface investigation consisted of advancing soil borings, collecting soil samples, installing monitoring wells and piezometers, collecting ground-water samples, and characterizing local hydrogeologic conditions at the Site.

3.1 Phase I Site Assessment

Existing data was reviewed to identify recognized environmental conditions within the vicinity of the Site. Local physiography, geology, and hydrology were evaluated by reviewing topographic maps (USGS, Couderay 1971) and geologic and hydrogeologic publications (Mickelson, et al., 1984).

The Wisconsin Department of Commerce (WDCOMM) on-line tank database was contacted to determine if any petroleum storage tanks were registered at the Site (WDCOMM, 2001). Northern Environmental contracted EcoSearch Environmental Resources, Inc. (EcoSearch) to perform a records search of federal and state databases for nearby potential environmental concerns. The EcoSearch Government Records Search is included in Appendix A1. Well logs for the Village of Couderay were requested from the Wisconsin Geological and Natural History Survey. Well logs are included in Appendix A2.

3.2 Asbestos, Magnetometer, and Demolition Survey

Northern Environmental contracted Chris Dupré (asbestos inspector AI-01755) to perform an inspection of the building and to identify, inventory, and collect suspect asbestos samples for laboratory analysis. A written report from Chris Dupré is included as Appendix B1.

A simple magnetometer survey was conducted at the Site by Northern Environmental to aid in location of the on-site USTs and to determine if any unsuspected anomalies existed at the Site.

3.3 Soil

Sixteen soil borings (GP100 through Gp1600) were completed at the Site on August 6 and 7, 2001. The soil borings were completed to assess the condition of soils on-site and within the vicinity of the Site. The location of the soil borings are shown on Figure 2. Specific soil samples were selected for field screening and laboratory analysis to confirm or deny the presence of petroleum compounds. The field screening results were used to select soil samples for laboratory analysis. Seventeen soil samples were laboratory analyzed for volatile organic compounds (VOCs) and lead. Soil exploration boring, field screening, and sample collection methods are described in Appendix B2. The WDNR soil boring logs are included in Appendix B3. The WDNR borehole abandonment forms are included as Appendix B4.

3.4 Ground Water

Five monitoring wells (MW100, MW200, MW400, MW500, and MW600) and two piezometers (PZ300 and PZ700) were installed on August 6 and 7, 2001. The monitoring wells and piezometer were constructed to determine the extent of the petroleum impact to the ground water and were installed and developed in accordance with NR141 Wisconsin Administrative Code ground-water monitoring well requirements (WDNR, 1992). Monitoring well and piezometer locations are shown on Figure 2. Northern Environmental collected

ground-water samples from all monitoring wells and two adjacent private potable wells (PW-1 and PW-2) on August 23, 2001. On October 1, 2001, a Geoprobe™ was used to collect ground-water samples from four water sample locations (WS1700, WS1800, WS1900, and WS2000). Ground-water samples were analyzed for VOCs and lead. Northern Environmental correlated the monitoring well and piezometer elevations to mean sea level on August 9, 2001. The monitoring wells and piezometer were used to determine the depth to ground water, ground-water flow direction, and ground-water quality.

Monitoring well construction, development, and sample collection methods are described in Appendix B5. The WDNR monitoring well construction forms are included in Appendix B6. The WDNR well development forms and well development summary sheets are included in Appendices B7 and B8, respectively. The WDNR ground-water monitoring well information form is included as Appendix B9.

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4.0 RESULTS OF INVESTIGATION

4.1 Phase I Site Assessment

Historical data indicates that the Site has been owned and operated as a gasoline service station by the Ackley family and the Standard Oil Company since approximately 1952. Prior to 1952 the Site was privately owned. According to the WDCOMM online tank database (July 2001), three USTs (one 1500-gallon leaded gasoline, one 1000-gallon diesel, and one 1500-gallon unleaded gasoline) are registered to the Site. A site reconnaissance confirmed the presence of the three registered USTs and discovered an unregistered fuel oil or waste oil UST directly north of the Amoco building. The Site is served with public electricity, telephone, and storm sewer and has a private septic system. Local residences receive water from private potable wells. A private potable well at the Site was not inspected. The Site consists of one building (the Amoco station), and is 65% unvegetated (building, concrete, etc.) and 35% vegetated (grass and trees). The Site is bounded by Highway 70 and vacant land to the south, a gift shop/residence to the west, a residence to the north, and a tavern\restaurant to the east.

The EcoSearch report identified the Site as a registered LUST site, and noted two additional LUST sites within a ¼-mile radius of the Site. Four registered RST sites were noted within a ¼-mile radius, and one SWF site was noted within a 1-mile radius of the Site.

4.2 Asbestos, Magnetometer, and Demolition Survey

The limited magnetometer survey conducted at the Site identified the locations of the registered USTs and the suspected unregistered fuel oil or waste oil UST north of the building. The magnetometer survey did not result in locating additional areas of concern.

The asbestos and demolition survey conducted by Chris Dupré identified possible PCB light ballasts, fluorescent light bulbs, and suspect materials (sheetrock ceilings and walls). Five bulk samples were collected from the sheetrock ceilings/walls and analyzed for asbestos. Laboratory analysis of the bulk samples did not indicate asbestos. Bulk asbestos analytical reports are included as Appendix B10.

4.3 Hydrogeology

The results of the SI indicated that one native stratigraphic soil unit is present in the upper 16 feet of soils at the Site. The native stratigraphic unit consists of a sandy glacial till associated with the Copper Falls Formation (Mickelson, 1984). Depth to bedrock is anticipated to be less than 50 feet below grade (fbg). A geologic cross-section is included as Figure 3. The soil type encountered is described below:

Sand (Till): The till unit consists of up to sixteen feet of red-brown medium to coarse grained sand with some rounded fine to medium gravel and layers of silt at the surface and eight fbg.

Ground-water elevation data indicates that the water table ranges from 15.5-16.5 fbg on-site. Ground-water flow during the SI was typically to the east-southeast. Information obtained during the SI shows that there is an approximate horizontal hydraulic gradient of 2.3×10^{-4} feet per foot across the Site. Water level measurement methods are included as Appendix B11 and water level data summary sheets are included as Appendix B12. The August 23, 2001 ground-water elevation map is included as Figure 4.

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4.4 Soil

Field screening of soil samples collected during the SI produced photoionization detector (PID) responses up to 989 instrument units as isobutylene (iui). Elevated field screening results were noted from soil borings GP400, GP500, GP800, GP900, GP1000, GP1100, GP1200, and GP1500.. Field screening from all other soil borings did not indicate significant volatile vapor concentrations. Field screening results from the SI are summarized in Table 1.

Laboratory analysis of soil samples indicated petroleum compound concentrations above Chapter NR 720 Residual Contaminant Levels (RCLs) in soil borings GP900, GP1000, GP1100, and GP1200. Soil borings GP1000 and GP1100 indicated petroleum compound concentrations above Chapter NR 746 Table 1 values. Soil samples from borings GP100 through GP800 and GP1300 through GP1600 did not contain contaminant concentrations above WDNR RCLs or Chapter NR746 Table 1 and Table 2 values. Laboratory analytical results were used to determine the extent of petroleum compounds in soil. Laboratory analytical results of SI soil samples are summarized in Table 2. Copies of the laboratory analytical reports for soil samples are included in Appendix B13.

4.5 Ground Water

Laboratory analytical results of ground-water samples collected during the SI indicated concentrations of petroleum compounds above WDNR Enforcement Standards (ES) and WDNR Preventative Action Limits (PAL) present in MW100, MW400, MW500, and water sample WS2000. Monitoring well MW200 and piezometer PZ300 contained petroleum concentrations above the WDNR PAL. Water sample WS1700 contained petroleum concentrations above the WDNR ES. Lead was detected in monitoring wells MW100, MW200, MW400, and piezometer PZ300. Monitoring well MW600, piezometer PZ700, water samples WS1800 and WS1900, and private wells PW-1 and PW-2 did not indicate significant petroleum compound concentrations during the SI. Ground-water analytical results are included as Table 3. Ground-water analytical reports are presented in Appendix B14.

DRAFT

5.0 CONCLUSIONS AND RECOMMENDATIONS

A release appears to have originated from the UST system located at the Site. Petroleum-contaminated soil is evident within the vicinity of the fueling island and within the southeast portion of the Site. Up-gradient monitoring wells and piezometers do not contain significant petroleum compounds therefore indicating that the Site is the likely source of the petroleum-contaminated ground water to the east-southeast of the Site.

The results of this study are based upon interpretation of the information available to Northern Environmental. Northern Environmental has assumed that the information provided by cited references is complete and correct. Northern Environmental does not warrant that this report represents an exhaustive study of all possible environmental concerns potentially associated with the site. However, the items documented as part of this report do represent the most likely sources of environmental concerns associated with the release, and are consequently believed to adequately address the client's needs at this time.

DRAFT

6.0 PROFESSIONAL CERTIFICATIONS

I, Barbara J. Flietner, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

_____ _____

Barbara J. Flietner, PG Date
Staff Geologist/Hydrogeologist

DRAFT

7.0 REFERENCES

Nielsen, David M., *Practical Handbook of Groundwater Monitoring*, Lewis Publishers, Inc., 1991.

United States Geological Survey (USGS), *Perkinstown, Wisconsin 7.5 Minute Quadrangle Topographic Map*, 1981.

University of Wisconsin - Extension Geological and Natural History Survey (UW-GNHS), *Bedrock Geologic Map of Wisconsin,* 1982.

University of Wisconsin - Extension Geological and Natural History Survey (UW-GNHS), *Soils of Wisconsin,* 1968.

Wisconsin Department of Commerce (WDCOMM), "Petroleum Environmental Cleanup Fund", *Wisconsin Administrative Code,* Comm 47, February 1999.

Wisconsin Department of Natural Resources (WDNR), "Petroleum Environmental Cleanup Fund Interagency Responsibilities", *Wisconsin Administrative Code,* Chapter NR746, May 2000 and January 2001.

Wisconsin Department of Natural Resources (WDNR), "Closure Assessments for Underground Storage Tanks", September 1990.

Wisconsin Department of Natural Resources (WDNR), "Environmental Protection: Investigation and Remediation of Environmental Contamination", *Wisconsin Administrative Code,* NR 700 Series.

Wisconsin Department of Natural Resources (WDNR), "Groundwater Monitoring Well Requirements", *Wisconsin Administrative Code,* Chapter NR 141, January 1992.

Wisconsin Department of Natural Resources (WDNR), "Groundwater Sampling Procedures Guidelines", September 1996.

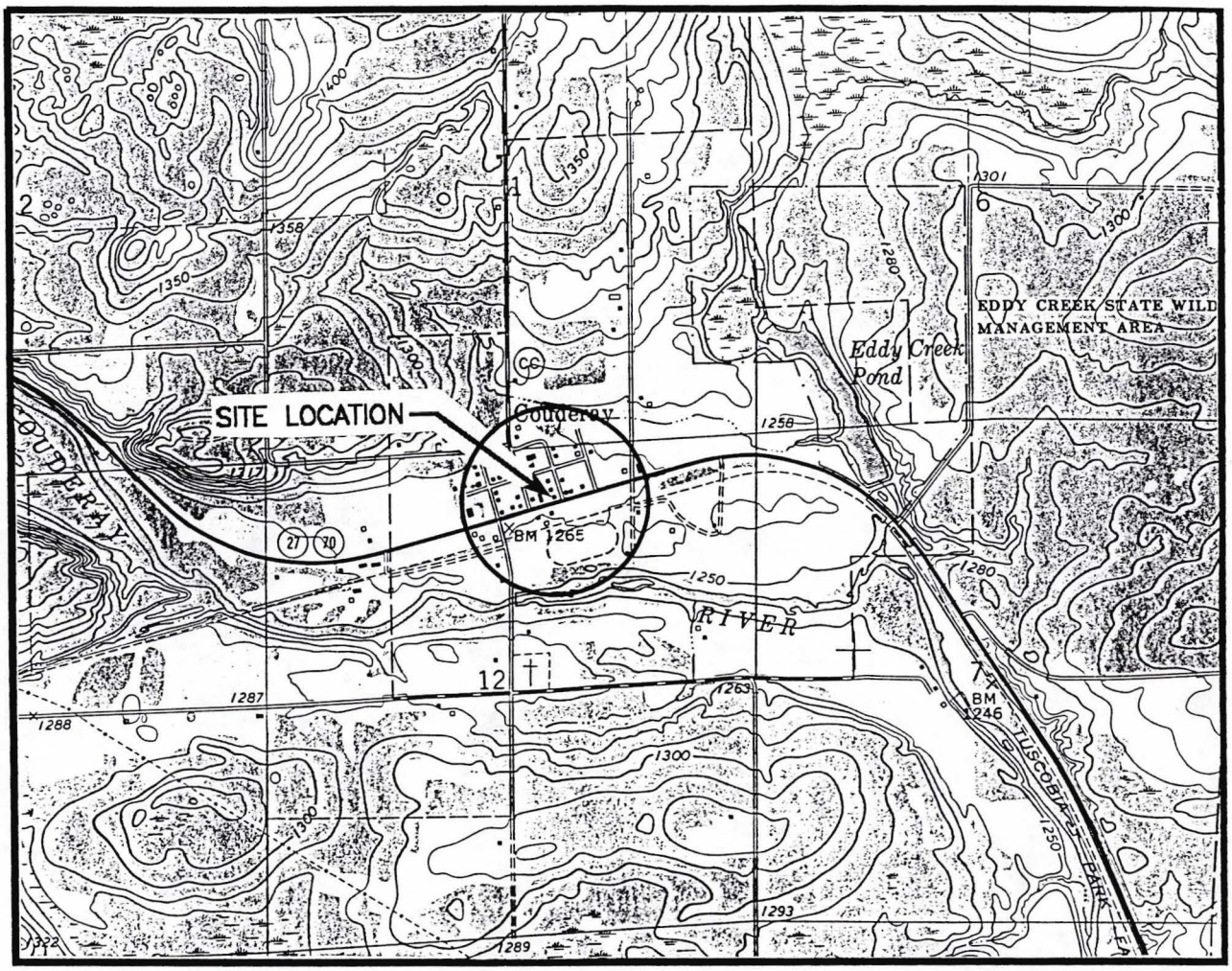
Wisconsin Department of Natural Resources (WDNR), "Groundwater Quality Standards", *Wisconsin Administrative Code,* Chapter NR 140, December 1998.

Wisconsin Department of Natural Resources (WDNR), "Guidance for Conducting Environmental Response Actions", PUBL SW-157-92, March 1992.

Wisconsin Department of Natural Resources, "Leaking Underground Storage Tank (LUST) and Petroleum Analytical and Quality Assurance Guidance", PUBL SW-130-93, July 1993.

Wisconsin Department of Natural Resources (WDNR), "Notification of the Discharge of Hazardous Substances", *Wisconsin Administrative Code,* Chapter NR 158, April 1994.

FIGURES



DRAFT

SCALE IN FEET

1" = 2000'

0 1000 2000 3000 4000 5000 6000 7000 8000

N

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

LEGEND

○ BOUNDARY FOR WATER SUPPLY WELLS WITHIN A 1200' RADIUS OF SITE

■ PROBABLE LOCATION OF WATER SUPPLY WELLS

QUADRANGLE LOCATION

BASE MAP SOURCE: USGS COUDERAY, WISCONSIN 7.5 MINUTE QUADRANGLE, 1971

DRAWN BY: BJF	PROJECT: DNR04-2200-0371	DATE: 10/18/01

REV. DATE

▲ Northern Environmental℠
Hydrologists • Engineers • Geologists

FIGURE 1

SITE LOCATION AND LOCAL TOPOGRAPHY

FORMER ACKLEY AMOCO
COUDERAY, WISCONSIN

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

S:\PROJ\DNR\04-0371\CAD\TOPO

WISCONSIN
DEPT. OF NATURAL RESOURCES

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
William H. Smith, Regional Director

Northern Region Headquarters
107 Sutliff Ave.
Rhinelander, Wisconsin 54501-0818
Telephone 715-365-8900
FAX 715-365-8932
TDD 715-365-8957

January 26, 2001

Kris Mayberry
Sawyer County Clerk
P.O. Box 273
Hayward, WI 54843

Subject: Couderay Site Investigation

Dear Kris:

Thank you for meeting with Bill Schultz and me on January 24, 2001 regarding the Couderay groundwater contamination problem. As we indicated at the meeting the Northern Region (NOR) Remediation and Redevelopment (R&R) program requested and received Environmental Repair Funds (ERF) to investigate the groundwater contamination that has affected numerous private wells in the Village of Couderay.

As I indicated to the Sawyer County Board on December 21, 2001, state funds may be available to investigate the source of the groundwater contamination in Couderay. The NOR – R&R has requested and received $28,000 in funding to do the initial phase of the investigation into the groundwater contamination in Couderay. These funds will be used to determine where the source of the contamination is and if there is a viable Responsible Party (RP) present. If a viable RP is identified they would be required to remediate the site contributing to the groundwater contamination. Should the investigation show that the contamination was originating from a property that did not have a viable RP – the Ackley property for instance - then we could seek additional state funds to remediate the problem.

At the meeting of December 21, 2000 the Sawyer County Board was considering taking action to delete the Ackley property from lands taken by the County for non-payment of real estate taxes. The Board was concern with having to be subject to substantial financial liabilities if they maintain control of this property. The Local Government Unit exemption as provided in s. 292.11(9)(e) Wis. State. Stats. and explained in detail in a letter to Dianne M. Ince, Sawyer County Treasurer, dated 1/18/00 (see attached) does provide the County with protections from becoming responsible for the investigation and remediation of a site taken on back taxes. If the County does maintain control of the Ackley property and this property is found to be the source of the contamination the County would not be responsible for investigating and remediating the site per the exemption from liability under s. 292.11(9)(e) Wis. State. Stats.

I believe that the only action that the County may be required to take – other then those required to maintain the LGU exemption - should the investigation indicate that the Ackley property *is not* the source of the contamination and the County maintains control of the property through tax delinquency, is that the Department of Commerce may require the County to remove any underground fuel tanks remaining on the site. If the Ackley property is determined to be the source of the groundwater problems in Couderay the removal of any remaining tanks could be covered by additional state funds in the second phase of investigation.

The Department is hoping that the effort to investigate and possible funding to remediate the Ackley site is viewed by the County as a good faith effort by the Department to establish a partnership with Sawyer County to address this Brownfield site. We would encourage the County to take advantage of the liability exemption provided in s. 292.11(9)(e) Wis. State. Stats. and maintain control of this property on back taxes. Access to the property to perform the required investigation would be simplified if the site remains in the County's control.

Please feel free to contact me at (715) 365-8943 if you should have any questions related to the investigation at this site or assistance that may be required at other Brownfield site in Sawyer County.

Sincerely,

Dan Boardman
Brownfield Coordinator
NOR –R&R

Cc.
File
Bill Schultz, R&R Engineer, DNR Rhinelander

WISCONSIN
DEPT. OF NATURAL RESOURCES

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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Northern Region Headquarters
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TDD 715-365-8957

January 18, 2000

Dianne M. Ince
County Treasurer
P.O. Box 151
Hayward, WI 54843

Subject: Request for Guidance on Repossession of Contaminated Parcels

Dear Dianne:

Thank you for your inquiry into the procedure for using the Local Government Unit (LGU) Exemption should Sawyer County acquire contaminated parcels of land through the tax delinquency process. As indicated in the guidance provided to the Sawyer County Conservation Committee in September s. 292.11(9)(e), authorize LGU's to take possession of real property through tax delinquency proceedings without incurring liability under the spills law for any preexisting environmental contamination on the property. This letter will address the process related to the exemption covered under s. 292.11(9)(e) after the county has possession of the property but not the process the county utilizes to repossess a property on back taxes. The procedure the county utilizes to repossess properties for back taxes should be done with the guidance of the county legal council.

As indicated in the guidance memo, once the county takes possession of a contaminated property that is covered by s. 292.11 there are certain actions the county must take to maintain the exemption. It is important to note that the exemption from liability DOES NOT include an exemption from s. 292.11(2), which is the responsibility to notify the DNR immediately of any discharge of a hazardous substance that the person possesses or controls. Thus, once a LGU – Sawyer County in this case - acquires property (even through the methods outlined in s. 292.11(9)(e)), the LGU is required by statue to notify DNR of any hazardous substance discharge. Therefore the county must notify the department, preferably by letter, that the county has taken possession of a contaminated property. Please indicate in the correspondence that the county is taking possession of the property under the LGU exemption. It would also be advisable to address that the county has taken the actions necessary to maintain the LGU exemption. For instance, the county must assure the following:

- That the county did not cause the discharge on the property.
- That the county took appropriate action to restrict access to the property in order to minimize costs or damage that may result from unauthorized persons entering the

property

- That the county sample and analyze unidentified substances in containers stored aboveground on the property
- That the county has removed and disposed of or properly stored any hazardous substances in aboveground containers that have leaked or are likely to leak.

Once the above listed items are addressed the county may elect to take no further action on the property and still qualify for the exemption.

The next step in the process depends on what the county decides to do with the property in their control. Some of the options that the county might consider would be to:

- Investigate and remediate the existing contamination on the property and then sell the property.
- Sell the property as is, the buyer then becoming the responsible party to investigate and remediate the contamination on the property.
- Investigate and remediate the existing contamination and develop the property for county use.

An important item to remember is that the LGU exemption is NOT TRANSFERABLE to a third party. Should a third party purchase the contaminated property from the county the third party would be responsible for investigating and remediating the site as the responsible party.

Should the county decide to use or develop the property the DNR would recommend the county submit a development plan to the DNR and address any substantial threat to public health or safety that may arise from the intended use or development of the property. It would be up to the county to provide the DNR with the necessary information that will be used to determine whether a substantial threat to public health or safety exists based on the intended use or development of the property. This is necessary because only the county knows what the intended use or development plans for the property are and the county has access to the property to assess the environmental contamination on the site. The assessment is usually done by conducting a phase I and II investigation on the site. It may be that substantial information already exists for the site. If the DNR determines that the information is valid the county may not be required to do another assessment dependent on the intended use or development of the site.

The determination of whether a substantial threat to public health or safety exists would be made jointly by the DNR and the State Department of Health. The determinations as to whether a substantial threat to public health or safety exists are made on case-by-case basis. If a determination that a threat to public health or safety does exist on a site the county would be required to take the necessary actions to address the threats, again based on the intended use or development of the site. There are several examples included in the guidance packet you received. If the county should decide not to address any determined substantial threat to public health or safety then the exemption would no longer be in effect and the DNR could take enforcement action requiring the county to investigate and remediate the site.

I hope this is of help to you in identifying the process to use to maintain a LGU exemption under 292.11(9)(e). In summary the county first must notify the DNR when they have taken possession of a contaminated property to be in compliance with 292.11(2). Secondly the county must take the necessary steps to protect the property from unauthorized persons, sample and analyze unidentified substances in containers stored aboveground and remove and dispose of or properly store any hazardous substances in aboveground containers that are leaking or likely to leak. The next step in the process will depend on the future use of the site. Whether the county sells the property or plans to use or develop the site will determine what is required of them next as indicated above.

Please feel free to contact me at (715) 365-8943 for any clarification on the process. In addition please remember that I am available to address any questions or provide clarification on the process at any time. Thank you again for your inquiry.

Sincerely,

Dan Boardman, Waste Management Specialist

cc. Michael Prager, Land Recycling Team Leader – R & R Madison
Judith Ohm, LS/5

CORRESPONDENCE/MEMORANDUM

DATE: January 24, 2001 FILE REF: 03-58-000380

TO: Renee Sanford

FROM: John Robinson, Bill Schultz, Dan Boardman

SUBJECT: Request for State Funding for a Site Investigation at Couderay, Wis.

Site Location

The Village of Couderay is located in Sawyer County approximately 30 miles east of Spooner along US Highway 70. The village has a population of approximately 100, and has no public water or sewer service. The soils are medium sand and silt with bedrock at approximately 57 feet. Groundwater is at 14 feet below the ground surface (bgs), and the direction of flow is thought to be east.

Site History

In July of 1979, the owners of three shallow driven wells in the village (Village Tap, machine shop, Amoco Gas Station) complained of patroleum in their drinking water. Petroleum contamination in groundwater has been detected vertically at the bedrock surface (57 feet bgs) and horizontally in a plume almost 700 feet long. Several properties in the immediate area are considered possible sources of the contamination. In 1982 the gas station reported an UST leaking and the tank was replaced. From 1979 to 1983 funding for new wells to the three impacted residencies was provided by the Well Compensation Fund. In 1992, another private well, on the Sus property, was impacted with petroleum contamination. Potable water was obtained by hooking into an adjacent private well to the north (9/11/92). On October 21, 1992, a RP letter was sent to the owner of the gas station property (Russell Ackley). In a reply from Mr. Ackley's lawyer, Mr. Ackley questions if he is the individual causing the problem pointing out that there are several other potential underground tank sources in closer proximity to the Sus property. This includes Artsinger's IGA, County Highway Shop, Village Pub and Grub, and an old service garage. The Department replied back to Mr. Ackley acknowledging that there could be additional other sources, but pointing out the known problems reported at his property. In 1993 Mr. Ackley died and no subsequent investigation has been done at the site. Sawyer County now has the property back on delinquent taxes. Five hundred feet to the northeast tanks were pulled and some remedial work done at the County Highway Shop (DCOM closed site at the highway shop in 1997 (03-58-000226)). At the present time it is unclear as to the source of the contamination impacting groundwater and potable wells in the area.

Proposed Work

The Northern Region is proposing to use state funds to do a limited site investigation in the area including the Russell Ackley property in Couderay. This would include a record search of the surrounding properties, identifying potential sources and receptors, taking soil samples, installing several monitoring wells, analytical sampling and defining the source(s) of the contamination.

The estimated cost for this site investigation and report is estimated at $28,000. Bill Schultz will write the scope of work and be the project manager for the Department.

Future Determinations

This initial investigation will allow the Department to assess the following:

- Identify potential RPs.
- Is a viable RP present?
- Are significant potential receptors present?
- Is a full degree and extent investigation necessary?
- Should state environmental funding be used to remediate the site?

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State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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January 18, 2000

Dianne M. Ince
County Treasurer
P.O. Box 151
Hayward, WI 54843

Subject: Request for Guidance on Repossession of Contaminated Parcels

Dear Dianne:

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As indicated in the guidance memo, once the county takes possession of a contaminated property that is covered by s. 292.11 there are certain actions the county must take to maintain the exemption. It is important to note that the exemption from liability DOES NOT include an exemption from s. 292.11(2), which is the responsibility to notify the DNR immediately of any discharge of a hazardous substance that the person possesses or controls. Thus, once a LGU – Sawyer County in this case - acquires property (even through the methods outlined in s. 292.11(9)(e)), the LGU is required by statue to notify DNR of any hazardous substance discharge. Therefore the county must notify the department, preferably by letter, that the county has taken possession of a contaminated property. Please indicate in the correspondence that the county is taking possession of the property under the LGU exemption. It would also be advisable to address that the county has taken the actions necessary to maintain the LGU exemption. For instance, the county must assure the following:

- That the county did not cause the discharge on the property.
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property

- That the county sample and analyze unidentified substances in containers stored aboveground on the property
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Once the above listed items are addressed the county may elect to take no further action on the property and still qualify for the exemption.

The next step in the process depends on what the county decides to do with the property in their control. Some of the options that the county might consider would be to:

- Investigate and remediate the existing contamination on the property and then sell the property.
- Sell the property as is, the buyer then becoming the responsible party to investigate and remediate the contamination on the property.
- Investigate and remediate the existing contamination and develop the property for county use.

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Should the county decide to use or develop the property the DNR would recommend the county submit a development plan to the DNR and address any substantial threat to public health or safety that may arise from the intended use or development of the property. It would be up to the county to provide the DNR with the necessary information that will be used to determine whether a substantial threat to public health or safety exists based on the intended use or development of the property. This is necessary because only the county knows what the intended use or development plans for the property are and the county has access to the property to assess the environmental contamination on the site. The assessment is usually done by conducting a phase I and II investigation on the site. It may be that substantial information already exists for the site. If the DNR determines that the information is valid the county may not be required to do another assessment dependent on the intended use or development of the site.

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I hope this is of help to you in identifying the process to use to maintain a LGU exemption under 292.11(9)(e). In summary the county first must notify the DNR when they have taken possession of a contaminated property to be in compliance with 292.11(2). Secondly the county must take the necessary steps to protect the property from unauthorized persons, sample and analyze unidentified substances in containers stored aboveground and remove and dispose of or properly store any hazardous substances in aboveground containers that are leaking or likely to leak. The next step in the process will depend on the future use of the site. Whether the county sells the property or plans to use or develop the site will determine what is required of them next as indicated above.

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Sincerely,

Dan Boardman, Waste Management Specialist

cc. Michael Prager, Land Recycling Team Leader – R & R Madison
Judith Ohm, LS/5

FORMER ACKLEY AMOCO SUMMARY

Address: 12264 Hwy. 70, Couderay, WI, Sawyer County

Lust (Leaking Underground Storage Tank) – 03-58-000380
FID: 858120450
Abandoned and tax delinquent

There are several methods available to address the site.

- The County takes the property on back taxes and utilizes the LGU exemption provided in NR 292.11(9)(e). ***The county is not required to investigate or remediate the site***. Advantage is that the County could apply for a SAG and use the forgiven taxes as part or the entire 20% share. The county could then retain the property, sell the property to the interested party (the purchaser would complete the clean up under the existing PECFA claim), or develop the property for Counties use. If the County chooses to develop the property the site would have to be cleaned up to the risk associated with the intended use.

- The County could simply get access to the property and apply for a SAG grant, conduct the eligible activities and leave it as is. Would have to come up with 20% dollar share of the grant. Demolition of structure may be questionable under this scenario.

"Brownfields" are defined as abandoned or underutilized properties where the cleanup and redevelopment is hindered by real or perceived environmental contamination.

Land Recycling Law (1994). The 1997-1999 state budget and the 1999-2001 provided and expanded liability protections for LGU's. The 1999-2001 changed the exemption to include sites with federally regulated underground storage tanks.

These laws provide an exemption to the Hazardous Spill Law when LGU's acquire a property through ***tax delinquency***, bankruptcy proceedings, condemnation, eminent domain, escheat, for slum clearance, or blight elimination or using Stewardship funds or from another eligible LGU. The exemption for LGU's is not transferable.

LGU must:

- Have not caused the release – ***County did not cause***
- Restrict access to minimize cost or damages – ***Not a problem at site***
- Sample and analyze unidentified substances in above ground containers. ***None Present on site***
- Remove, dispose or properly store hazardous substances in above ground containers that are leaking or likely to leak. ***None present on site***

- Immediately report to the DNR the presence of hazardous substances on the property. ***Report if taken on back taxes – this avoids receiving Responsible Party Letter.***

Site Assessment Grants (SAG's)

- First year was 1999-2001. $1.45 million for two years.
- Increased to $3.4 million for two years.
- $1.7 million/year: $1.19 million for small grants ($2,000 – $30,000) and $510,000 for large grants up to $100,000.
- For LGU's and Redevelopment, Community and Housing authorities
- (see SAG Fact Sheet – Blue)

SAG: Application, Application Instructions and Scoring – if need to.

- Applications ***due January 18, 2002***
- 80%/20% matching (can use forgiven taxes, cash, in-kind services)
- ***Need County resolution*** for application (see example given)
- Expenses related to eligible activities must have taken place during contract period – 1 year from DNR signing – can ask for 1-year extension.
- Forgiveness of taxes, pay billings, etc. during grant period. ***(IMPORTANT)***
- Eligible cost cover consultants, grant preparation – as long as billed and paid during grant contract period.
- Is assessment program (Including demolition) – will have to finish cleanup through PECFA.
- Will pay for ***demolition of any structures or buildings, Underground Storage Tanks removal.***

SCORING: IF NECESSARY. – See Brownfield Site Assessment Grant information sheet (BLUE)

LGU's Utilizing Site Assessment Grants in 1999-2001 cycle:

- City of Crandon – Pat DeWitt – Mayor (715)478-2400
- Village of Clayton – William Olson – Village Clerk (715)948-2460
- City of Superior – Clifford Knettel – Planning Dept. (715) 394-0354
- Douglas County – Susan Sandvick - County Clerk (715)395-1568
- Barron County (Village of Barronett) – Clarice Fall – County Clerk (715) 537-6200

TO Mickela
Mem AM - for help ft
m Inspection Warrant.

TO Mickela 2/27/01
- Chris Mayberry
- Lot 4, block 1
original Plat

State Lead Proposal.

COUDERAY FILE REVIEW:

7/11/79: Complaint of gasoline in well at Village Tap. Village Tap, machine shop and gas station has same problem. Not sure of source – gas station had been dumping oil on ground for some time. Sample taken gasoline detected – 1.4 mg/L.

7/20/79: Notified owner of village Tap that she had to drill new well – same with machine shop. Both stated they had good water 4 years earlier.

7/23/79: DNR tried to sample soil where oil dumped – owner did not allow. Operator was told he would have to clean up the area whether this Is what caused the well contamination or not. DNR would contact the owner of the property (obviously owner and operator are different). State inspector would be checking tanks for leaks in the near future.

NOTE: Possible buried tanks in front of village Tap – pumps removed 35 years before – owner was checking on if tanks were pulled?

7/27/79: DNR talks to owner of gas station property – told to clean up oil dump area. Letter will be sent.

7/31/79: Letter to owner of property to clean up area – notify DNR so on-site inspection can be conducted. Given two weeks.

7/31/79: DNR letter to DHILR to assist in getting rid of the "improperly abandoned buried fuel tanks" in Couderay.

8/03/79: Contacted fire chief about survey to identify buried tanks in Couderay.

8/22/79: Drilled 4"well – Village Tap 0.4mg/L (environmentally weathered – not sure what that means)

9/18/79: Ms. Sus calls Secretary Earl's office – summary of conversation:

a) Gas found in well, new 300 foot well yields no water, owner inquires to health department about food license, and health states license pulled four years previously due to gasoline in water supply.

b) Samples show gasoline present in well. Owners to put in new well.

c) August – new well drilled – sampled when hit rock, detected gasoline. No sample taken after penetrated rock.

d) Static level at 20 feet/bedrock granite found at 58 feet. Drilled to 300 feet without finding sufficient water.

e) Mrs. Sus said the machine shop, which is next to the village tap, had removed a buried gasoline tank two years earlier. The well at the machine shop contains gasoline.

f) DILHR would make an effort to determine if there are leaks in the area.

9/20/79 – Sus's get good water from well installed north of tavern – 42 feet deep. Abandoned previous well.

9/20 and 9/21/79 letters from DNR to Sus's explaining options to obtaining good water – carbon filters/municipal supplies etc. routine suggestions.

10/4/79 Memo: All tanks except the regular gasoline tanks at the standard station have been checked for leaks and that tank will be tested by the end of the weekend. County shop will be pulling up their old tanks in the near future.

5/14/82 Memo: Herrick: gasoline contamination of station well – has 4000 reg. Gas tank and 1000 gal unleaded. Operator says can tell losing gas from tank – will be measured

6/10/82 Memo; Herrick – One abandoned empty tank was removed by Ackley. Unleaded small tank partially exposed for standpipe test. Advised to test both tanks.

6/11/82 Letter: Samples show presence of gasoline in station well. Reportedly two active and two inactive tanks that have never been removed. Tanks have to be removed and active ones tested. Well to close to rusted out septic. Well must be abandoned.

6/15/82 Memo – results of standpipe test: Standpipe lost 17 gallons in 2 days – owner will replace that tank. Inspector observed wet spots on tank in morning – like condensation or weep.

5/27/83 Memo: Request for variance to put well in at gas station. Had installed a new holding tank. Tanks have been checked at the station and one has been replaced.

6/9/83 Memo: OK for well – mentions that the probable water direction is SOUTH. Put well in Northwest corner.

8/19/92 Memo: Saari to Roesler: Sus's well appears to be contaminated with gasoline.

- 34' deep, 590 ppb of benzene – also toluene, xylene and 1,2-dichloroethane below ES levels.
- Three driven point wells to west (standard station, village pub, and old garage/shop had well replaced in 1979-1983.

- Replace wells put to north.
- Documented leakage at standard station
- Also salt contamination near county highway shop
- Groundwater flow to NORTHEAST

10/21/92 Letter to owner of property – (Ackley) – Amoco Station – sampling from June/July found petroleum contamination in well located east of Amoco Station – similar to what was experienced in 1979-83.

11/4/92 Letter to DNR (Saari) from Ackleys lawyer denying his tanks responsible – asked to prove it.

11/13/92 Letter Saari (DNR) to Ackleys's lawyer: Indicates possible other sources but have not been confirmed – Amoco remains likely source.

NOTES – Sus's hooked up to nearby well – 9/11/92, no more need for bottled water.
- Ackley obituary in the paper.

10/31/00 Memo form Tom K – not informative – mentions several sources, thinks IGSA may have closed out – told to contact Commerce – Laube.

THANK You

Liability Issues - present & future
COST
Commitment of County Resources.

LAST TIME QUESTIONS about SITE
MAINLY would there be enough funds to accomplish goal
QUESTIONS AS TO WHAT IS ON SITE

DUE TO QUESTION (WE) THE DNR SAID WE would INQUIRE AS TO THE AVAILABILITY OF FUNDS from the ERF to INVESTIGATE THE SITE, CLARIFY THE SITUATION AS to VIABLE RP, Source of PROBLEM THAT CAUSE WELL Contamination - Public HEALTH HAZARD.

Did Secure funds - $26,000 THANKS to Bill Schultz eng. R&R - Rhinelander
Bids out & Northern Environment of Park Falls HIRED.
Results IN:
- VERIFIED EXISTENCE of THREE Register tanks - WEST SIDE
- AND ONE PREVIOUSLY UNKNOWN tank - SMALLER - NORTH SIDE
- Asbestos INSPECTION Negative (WASTE OIL or fuel oil)
- Confirmed Soil & groundwater contamination
  - Soil in AREA of fill spout & pump island
  - Groundwater downgradient
- RP AMOCO (Ackley) Contrary to hes and lawyer claim (1992)
- No Viable RP - Ackley died 1993

THIS INFORMATION should allow precise application of SAG funds to accomplish goal - IF INTERESTED.

LETS GET BACK to Questions

LIABILITY - LGU's Exemption - should take on BACK TAXES or condemnation

292.11(9)(c) - NOT RESPONSIBLE for INVESTIGATING or REMEDIATING SITE

- unless caused by LGU - NOT
- RESTRICT ACCESS - BUILDING is SECURE
- SAMPLE & Identify substances to containers above ground NONE ON PROPERTY
- REMOVE OR DISPOSE of SAME - NOTHING TO DO.
- REPORT County has taken SITE - ASSURES will NOT RECEIVE RP LETTER.
  → Will RECEIVE LETTER FROM DNR acknowledging exemption and outlining above.

COST - can be done for NO COST to County.
- THERE MAYBE COST TO apply from consultant
  - would be covered if received Grant.
- ALL RELATED Eligible COST COVER - MOSTLY HANDLED BY Consultant.
- would NEED funds to pay for bills - before re-imbursement
- 80/20 - 20 could come from forgiven taxes.
-

Commitment From County
- would NOT HAVE TO commit work
Know whether Receive Grant
(Increased funding from 1.4 for 2yrs to 1.7mill/yr
for next two years)
- would need Resolution to apply - awareness
- Contract period - do back taxes, bills progress
during period.
- Can back out
- most work done by consultant

SAG ACTIVITIES:
- PUBLIC TALKS - County may have to if taken
LATER - DEPT. of Commerce Rule.
- Demolition of buildings
- Disposal of some soil.
- PAY FOR CONSULTANT (BILL to Grant PERIOD)

Clarify
- DO NOT HAVE to TAKE PROPERTY
will for LGU exemption / maybe back taxes.
- Can transfer to Village - otherwise NOT TRANSFERRED
- Scoring of Grants - If Needed
- 29 homes parts.

- Examples / Questions

STATES INVESTMENT:

NEW WELLS

26,000 INVESTIGATION

BY Legislature: LGU exemption (PROTECTION)

: SAG funding

Not Closeout of SITE - FECFA

- How would Comm. have had decent conversation about Site w/out the DNR present.

Make Note that County could deed to City w/ LGU exemption.

4 tanks in ground

Akley since 1952
3 tanks registered
1 tank unregistered - fuel oil / or waste oil (North Building)
No Asbestos detected

Groundwater at 15.5 – 16.5 flow to East-Southeast ~~Southeast~~

INTRODUCE

OUTLINE PAST, TO PRESENT

- MENTION WI-DNR INVESTIGATION
- GET INTO SAG -

SAG - WHAT WE HAVE
- WHAT CAN BE DONE
- BY COUNTY -
- LGU
- REMOVE TANK, demolish STRUCTURE
- REMOVE SOME SOIL
- PAY for Consultant
- Consultant will do application
-

SAWYER COUNTY TREASURER'S OFFICE
DIANNE INCE-TREASURER
PO BOX 151
HAYWARD WI 54843-0151

PRESORTED FIRST CLASS

HAYWARD NOV 18 '99 WI

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Department of Natural Resources
Daniel C. Boardman, Brownfields Coordinator
107 Sutliff Avenue
Rhinelander, WI 54501

AUTO

SAWYER COUNTY
Office of the Treasurer
Dianne M. Ince
P.O. Box 151 • Hayward • Wisconsin • 54843
(715) 634-4868 • Fax: (715) 634-6839 • sctreas@win.bright.net

November 17, 1999

Department of Natural Resources
Daniel C. Boardman, Brownfields Coordinator
107 Sutliff Avenue
Rhinelander, WI 54501

Re: Notification of acquisition of contaminated parcels

Dear Dan,

Sawyer County may acquire two contaminated parcels through the tax delinquency process. The two parcels are located in the:

1. Town of Hayward , Section 33, Township 41, Range 9W
   Computer #010-941-33 1304
   Owner: Pricerite Inc.
2. Village of Winter, Section 32, Township 39, Range 5W
   Computer #190-539-32 1121
   Owner: Helenetta Dombrock /Dale J. Tice

Please advise this office of the correct procedure to proceed with this matter. We appreciate the information you brought to the Conservation Committee meeting in September. This has helped us in deciding to proceed with this matter.

Sincerely,

Dianne M. Ince

Dianne M. Ince
County Treasurer

Regional Issues

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? If remain state lead? ERP
? Has owned well
? Health & Safety Risk.
County

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Sincerely,

Dianne M. Ince

Dianne M. Ince
County Treasurer

Regional #13