6-23-99

ALPHA TERRA
SCIENCE

Alpha Terra Science, Inc.
1237 S. Pilgrim Road, Plymouth, WI 53073-4969
TEL 920/892-2444 FAX 920/892-2620
E-mail-alphaterra@excel.net

July 19, 1999

09-36-2926CeC

Mr. Bob Meyers
Plant Operation Department
Holy Family Hospital
2300 Western Avenue
Manitowoc, WI 54220

RECEIVED
OCT 29 1999
BUREAU FOR
REMEDIATION & REDEVELOPMENT

RE: Closure Site Assessment Information for the Holy Family Hospital 16,000 gallon Underground Storage Tank for Back-Up Generator located at 2300 Western Avenue, Manitowoc, Wisconsin

Dear Mr. Meyers:

Alpha Terra Science, Inc. (ATS), Plymouth Wisconsin, performed an Underground Storage Tank (UST) Closure Assessment on June 23, 1999 at the Holy Family Hospital facility referenced above. The closure assessment conforms with Wisconsin Department of Commerce (WDCOMM) and Wisconsin Department of Natural Resources (WDNR) requirements.

UST closure documentation is included in the attachments. All recipients of this letter and report are included in Attachment A. Parties involved in the removal are listed in Attachment B. Site background information is listed in Attachment C. Information specific to tank closing and tank and product management is included in Attachment D. A copy of the Completed Checklist for Underground Tank Closure which was sent to WDCOMM is included in Attachment E.

One 16,000 gallon fuel oil UST was located on the north of the hospital facility beneath the parking lot and driveway. The UST was installed in 1976 and was originally used to contain # 6 fuel oil. It was converted to heating oil in the 1980's. The site layout is shown on the sketch map of the site. Based on the size and contents of the tank, a site assessment was required by required ILHR 10.

Soil samples were collected during UST closure in accordance with WDCOMM and WDNR requirements. A sample of soil located beneath each end of the tank and the middle of the tank was obtained. The soil samples consisted of fill, as native materials could not be accessed due to the presence of a concrete pad used to anchor the tank. One soil sample beneath the piping where it entered the boiler room was also obtained. All of the samples were submitted to a Wisconsin-certified laboratory to be analyzed for diesel-range organics (DRO).

SER 024

The laboratory results and field results indicate the native soils beneath the UST at depths of 6 to 13 feet below grade are not impacted with fuel oil. Most of the soil samples contained no detectable concentration of DRO. One soil sample contained a trace of DRO, at 4.5 parts per million. The WDNR guideline for determination of whether contamination is present is 10 mg/kg DRO.

Sample locations are shown on the sketch map, and the results of laboratory analyses are included in Attachment F.

During excavation, there were no odors of petroleum in the UST backfill. Upon removal of the UST, all excavated soil was returned to the excavation.

Based on the field screening results and the laboratory findings, it appears that no further action related to the former UST is necessary.

We trust this information meets your needs. Please feel free to contact Alpha Terra Science if you have any questions or comments.

Sincerely,

Kendrick A. Ebbott, P.G.
Senior Hydrogeologist

Attachments

REFERENCES

Wisconsin Department of Industry, Labor, and Human Relations, Chapter ILHR 10, Flammable and Combustible Liquids, April, 1991.

Wisconsin Department of Natural Resources, Site Assessments for Underground Storage Tanks Technical Guidance, September, 1992

Base Map USGS 7.5' Manitowoc Topographic Map, 1973

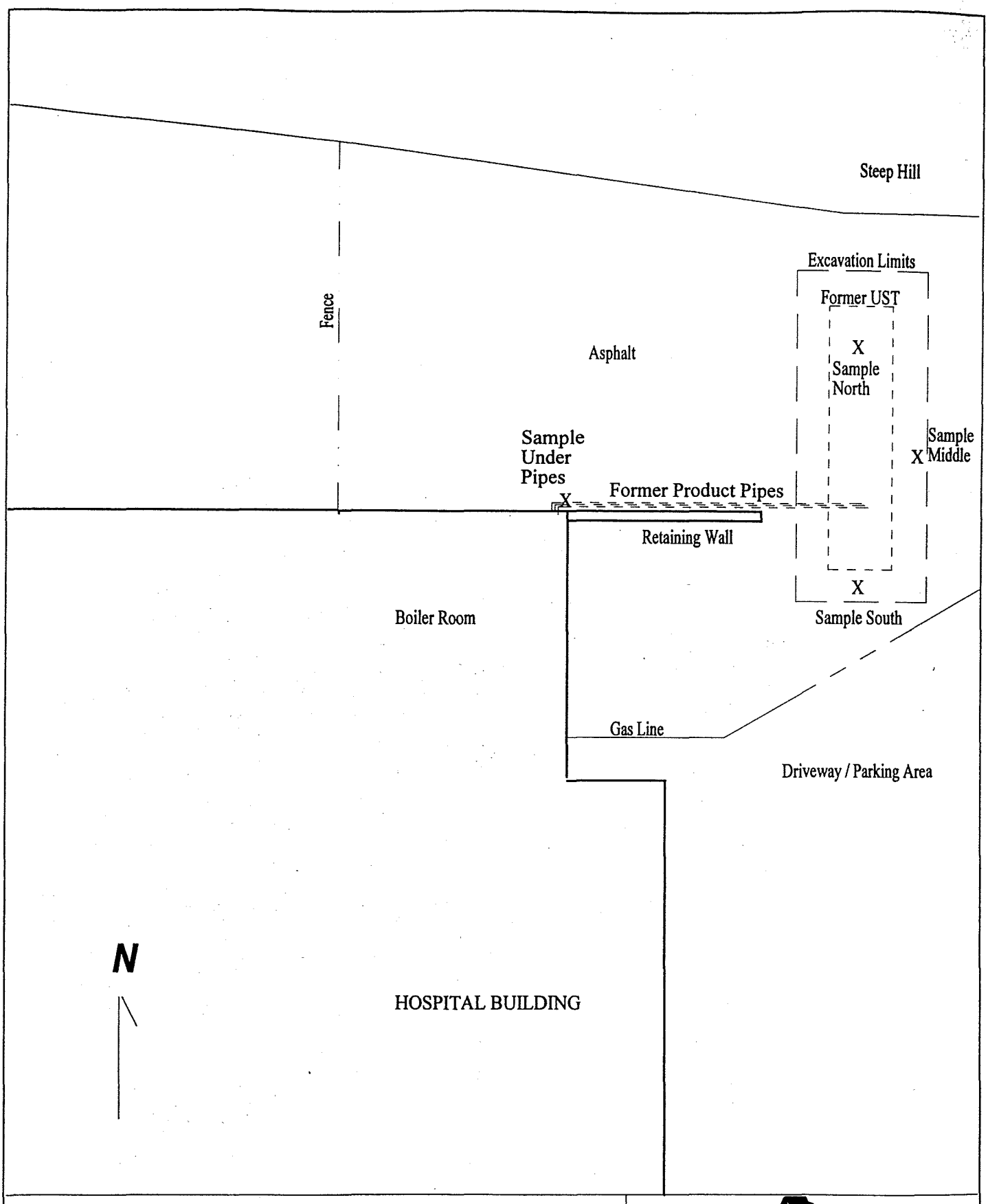
Title: **Site Location and Local Topography**

Project: **UST Assessment**

Client: **Holy Family Hospital, Manitowoc, WI**

ALPHA TERRA SCIENCE

SCALE: 1 : 24,000	DWG NO: FIGURE 1
DRAWN BY: KAE	DATE: July 19, 1999



Title: **Site Layout and Sample Locations**

Project: **UST Assessment**

Client: **Holy Family Hospital, Manitowoc, WI**

ALPHA TERRA SCIENCE

SCALE: 1" : 20'	DWG NO: FIGURE 2
DRAWN BY: KAE	DATE: July 19, 1999

ATTACHMENT A

REPORT DISTRIBUTION

REPORT DISTRIBUTION

Mr. Bob Meyers (2 Copies)
Holy Family Hospital
2300 Western Avenue
Manitowoc, WI, 54220

Tank Response Unit - SW/3
Wisconsin Department of Natural Resources
PO Box 7921
Madison, WI 53707

Checklist for Underground Storage Tank Closure and
Underground Petroleum Product Tank Inventory Form
were submitted to the Wisconsin Department of Commerce
by Mr. James Krowiocz of the City of Manitowoc Fire Department

ATTACHMENT B

INVOLVED PERSONNEL

INVOLVED PERSONNEL

UST Removal Contractor and UST Cleaner

Company Name:	Clearwater Technology
Company Address:	535 Petra Lane, Sheboygan, WI 53081
Company Phone Number:	(920) 208-8125
Certified Individual:	Steve Sternard
Certification Number:	659369

Site Assessor

Company Name:	Alpha Terra Science, Inc.
Company Address:	1237 South Pilgrim Road, Plymouth, WI 53073
Company Phone Number:	(414) 892-2444
Certified Individual:	Kendrick A. Ebbott
Certification Number:	41782

Cleaned UST Disposal

Company Name:	Mr. Gary Edler
Company Address:	N5965 Division Road, Glenbeulah, WI 53023
Company Phone Number:	(920) 526-3871
Use:	Cut open and converted to pen for handling buffalo

Tank Contents and Cleaning Residuals

Company Name:	Chief Liquid Waste
Company Address:	Winnecone, WI
Company Phone Number:	
Contact:	

Four and a half drums of product were removed from the tank. There was no sludge.

ATTACHMENT C

SITE INFORMATION

SITE INFORMATION

Site Owner:	Holy Family Memorial Hospital
Site Address:	2300 Western Avenue, Manitowoc, WI 54220
County:	Manitowoc
Contact:	Bob Meyers
Telephone Number:	(920) 684-2312

Hydrogeology Encountered

The maximum excavation depth was 13 feet, where a concrete pad was encountered. The pad was used to secure tie-down straps which were placed over the tank. The tank backfill consisted of bank run sand. The fill was light brown, loose, with no plasticity. Native soil was not encountered, as widening or deepening the excavation would have resulted in a much larger area of restoration. On the south end of the tank, some silty clay fill was present.

The excavation was dry to the investigation depth of 13 feet. No water was present in the tank. The excavation was on the side of a 50 foot high hill, and the depth to water is expected to be 20 feet or greater.

Lake Michigan is used as the drinking water supply for the City of Manitowoc.

Summary of Past and Present Tank Use

The tank was installed in 1976. It appears the tank was originally used to contain #6 fuel oil as back-up for the hospital boiler. The piping was insulated and heat tape was found along the piping runs. A heater was also present inside the tank to make the # 6 fuel oil flow.

The tank was converted to # 2 fuel oil at some point. The removed residual product from the tank consisted of a dark fuel oil, probably a mixture of #6 and #2 fuel oil.

ATTACHMENT D

CLOSURE SPECIFICS

UST CLOSURE SPECIFICS

Date of Closure:	June 23, 1999
Date of Cleaning :	June 21, 1999
Temperature:	70°F
Precipitation:	Overcast, light rain
Method of Closure:	Removal

The tank was buried at a depth of 3 feet below grade under a driveway and parking area on the hospital north side. The tank dimensions were 10 foot diameter by 35.25 feet long. The tank capacity was listed as 16,000 gallons, but the dimensions calculate to a 20,000 gallon tank. The tank contained fuel oil for heating purposes for a back-up generator at the hospital.

The UST was located 35 feet east of the northeast corner of hospital building. The top of the UST was exposed, and the tank contents were pumped into drums. The tank atmosphere was monitored for flammable or combustible atmosphere levels prior to entry. The tank was then emptied and cleaned in place on June 21, 1999. The tank was pulled from the excavation and placed on a vehicle for off-site transport on June 23, 1999.

The tank was constructed of single wall steel. The tank had no holes and was in excellent condition.

ATTACHMENT E

CHECKLIST FOR UST CLOSURE FORM

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

[redacted]

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
HOLY FAMILY MEDICAL CENTER	HOLY FAMILY MEDICAL CENTER / DAN MCGINTY
Site Street Address (not P.O. Box)	Owner Street Address
2300 WESTERN AVE	P.O. BOX 1450
☒ City ☐ Village ☐ Town of:	☒ City ☐ Village ☐ Town of:
MANITOWOC	MANITOWOC
State: WI	Zip Code: 54220
Zip Code: 54220	State: WI
County: MANITOWOC	Zip Code: 54220
	County: MANITOWOC
	Telephone No. (include area code): (920) 684-2011

3. Closure Company Name (print)	Closure Company Street Address
CLEARWATER TECHNOLOGIES, INC.	535 PETRA LANE
Closure Company Telephone No. (include area code)	Closure Company City, State, Zip Code
(920) 208-8125	SHEBOYGAN, WI 53081
4. Name of Company Performing Closure Assessment	Assessment Company Street Address, City, State, Zip Code
ALPHA TERRA SCIENCE	1257 SOUTH PILGRIM ROAD PLYMOUTH, WI 53073

Telephone No. (include area code)	Certified Assessor Name (print)	Assessor Signature	Assessor Certification No.
(920) 892-2446	Ken Ebbott	[signature]	41782

Tank ID #	Closure	Temp. Closure	Closure in Place	Tank Capacity	Contents*	Closure Assessment
1. 4745T	☒	☐	☐	~~10,000~~ 20,000	FUEL OIL	☒ Y ☐ N
2.	☐	☐	☐			☐ Y ☐ N
3	☐	☐	☐			☐ Y ☐ N
4.	☐	☐	☐			☐ 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	
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

H. REMOVER/CLEANER INFORMATION

Remover Name (print)	Remover Signature	Remover Certification No.	Date Signed
[illegible]	[signature]	659263	4-23-98

I. INSPECTOR INFORMATION

Inspector Name (print)	Inspector Signature	Inspector Certification No.
Thomas J. Surfus	[signature]	00490

FDID # For Location Where Inspection Performed	Inspector Telephone Number	Date Signed
036021	(920) 683-4521	4/23/98

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

REMOVER

Reg Obj #: 414451

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 form is needed for each tank. Send each completed form to the agency designated in the top right corner. Have you previously registered this tank by submitting a form? [X] Yes [ ] No If yes, are you correcting/updating information only? [X] 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 [X] 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:
[X] City [ ] Village [ ] Town of Manitowoc

A. IDENTIFICATION (Please Print)

1. Tank Site Name	Site Address	Site Telephone Number
Holy Family Medical Ctr	2300 Western Avenue	(920) 684-2011
[X] City [ ] Village [ ] Town of: Manitowoc	State: WI / Zip Code: 54220-1316	County: Manitowoc
2. Tank Owner Name	Mailing Address	Telephone Number
Dan McGinty / Holy Family	P.O. Box 1450	(920) 684-2011
[X] City [ ] Village [ ] Town of: Manitowoc	State: WI / Zip Code: 54220	County: Manitowoc
3. Previous Name: —	Previous site address if different than #1: —	

B. Site ID #: 88697 — Facility ID #: — Customer ID #: 292337

C. 4. Tank Age (age or date installed): 5. Tank Capacity (gallons): ~~10,000~~ 20,000

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 [X] Coated Steel [ ] Unknown
[ ] Fiberglass [ ] Steel – Fiberglass Reinforced Plastic Composite
[ ] Lined (Date): [ ] Other (specify):

Cathodic Protection
[ ] Sacrificial Anodes
[ ] Impressed Current
[X] N/A

Overfill Protection? [ ] Yes [X] No
Spill Containment? [ ] Yes [X] No
Tank Double Walled? [ ] Yes [X] No

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

H. Piping Construction:
[X] Bare Steel [ ] Coated Steel [ ] Unknown
[ ] Fiberglass [ ] Flexible [ ] N/A
[ ] Other (specify)

Cathodic Protection
[ ] Sacrificial Anodes
[ ] Impressed Current
[X] N/A

Pipe Double Walled? [ ] Yes [X] No

I. Primary Piping System Type: [ ] Pressurized piping with ➡ A. [ ] auto shutoff; B. [ ] alarm or C. [ ] flow restrictor [ ] Unknown
[X] 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 [X] Unknown

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

L. TANK CONTENTS (Current, or previous product if tank now empty)
[ ] Diesel [ ] Leaded [ ] Unleaded [X] 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): 6/23/99

Has a site assessment been completed (see reverse side for details)?
[X] Yes [ ] No

Owner or Operator Name (please print): JIM GANTZER

Indicate whether: [X] Owner or [ ] Operator

Owner or Operator Signature:

Date Signed: 8/10/99

Note: Refer to comments on reverse side of form.

ERS-7437 (R. 04/98)

99H0052

ILHR 10 Notification Record

TO: Deputy Chief Jim Krowiorz OFFICE LOCATION: Manitowoc Fire Dept.

LOCATION / IDENTIFICATION (Please Print or Type)				
Site Name: Holy Family Medical Center		Owner Name: Dan McGinty / Holy Family		
Site Street Address: 2300 Western Ave		Owner Street or PO Address: P.O. Box 1450		
☒ City ☐ Village ☐ Town of: Manitowoc		☒ City ☐ Village ☐ Town of: Manitowoc		
County: Manitowoc	Zip Code: 54220	State: WI	Zip Code: 54220	Telephone: (920) 684-2011
Fire Department Providing Fire Protection Coverage:				

The information you provide may be used by other agency programs [Privacy Law, s. 15.04(1)(m)].

Name of Contractor: Clearwater Technologies, Inc.

Address of Contractor: 535 Petra Lane

City/Town: Sheboygan, WI. 53081

Telephone Number: (920) 208-8125 FAX Number: (920) 208-6562

Date work is to begin: June 1999

ILHR 10 Certified project supervisor: # 659369 Steve Sternard

Project will involve:

	Number of tanks UST	Number of tanks AST	Plan Approval No.	Appr. Date
Tank Installation	☐	☐		
Piping Installation	☐	☐		
Piping Upgrade	☐	☐		
Leak Detection Upgrade	☐	☐		
Spill/Overfill Protection	☐	☐		
Stage II Vapor Recovery	☐	☐		
Tank Closure	☒	☐		

Remarks: Removal of one 16,000 gallon UST last containing fuel oil.

State of Wisconsin
Industry, Labor & Human Relations
Safety & Buildings
Fire Protection & Storage Tank Section

9940102

MANITOWOC FIRE DEPARTMENT **INSPECTION BUREAU**

PERMIT

Paid cash 6-25-99

THE PARTY HAS AGREED TO ALL TERMS SET FORTH BY THE MANITOWOC FIRE DEPARTMENT, AND DILHR 10 REGARDING THE PERFORMANCE OF HIS/HER SPECIFIC DUTIES.

ISSUED TO: Clearwater Technologies, Inc.

ADDRESS: 535 Petra Lane, Sheboygan, WI 53081

FOR PURPOSE OF: UST Removal

AT (ADDRESS): 2300 Western Avenue (Holy Family Med. Center)

PERMIT DATE - FROM: 6/21/99 **TO:** 7/21/99

THIS PERMIT IS NOT TRANSFERABLE AND MAY BE REVOKED FOR ANY VIOLATION OF CITY OR STATE CODES, OR FALSE STATEMENTS OR MISREPRESENTATION AS TO A MATERIAL FACT IN THE APPLICATION OR PLANS ON WHICH THE PERMIT OR APPROVAL WAS BASED.

TANK SIZE(S) 16,000 gallons

FEES $100.00

DATE: 6/21/99

Bill Hutchison 00374

MANITOWOC FIRE DEPARTMENT

ATTACHMENT F

LABORATORY ANALYTICAL RESULTS

ENCHEM INC.

1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

- Analytical Report -

Project Name : CLEARWATER/HOLY FAMILY

Project Number : CWT9901

Client: ALPHA TERRA SCIENCE

WI DNR LAB ID : 405132750

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
893516-001	NORTH	6/23/99			
893516-002	MIDDLE	6/23/99			
893516-003	SOUTH	6/23/99			
893516-004	PIPES	6/23/99			

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 narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Duraneau — Approval Signature

6/30/99 — Date

ENCHEM INC.

1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

Lab#:	TestGroupID:	Comment:
893516-001	DRO-S	Hump was present late in chromatogram.
NORTH		

EN CHEM INC.

1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

- Analytical Report -

Project Name : CLEARWATER/HOLY FAMILY
Project Number : CWT9901
Field ID : NORTH
Lab Sample Number : 893516-001
WI DNR LAB ID : 405132750

Client : ALPHA TERRA SCIENCE
Report Date : 6/30/99
Collection Date : 6/23/99
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	94.6				%		6/28/99	SM2540G	SM2540G	NJS

Organic Results

Preservation Date : 6/28/99

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 6/29/99 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	4.5			4.1	mg/kg		6/29/99	Wi MOD DRO
Blank spike	81			50	%Recov		6/29/99	Wi MOD DRO
Blank spike duplicate	86			50	%Recov		6/29/99	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		6/29/99	Wi MOD DRO

All soil results are reported on a dry weight basis unless otherwise noted.

ENCHEM INC.

1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

- Analytical Report -

Project Name : CLEARWATER/HOLY FAMILY

Project Number : CWT9901

Client : ALPHA TERRA SCIENCE

Field ID : MIDDLE

Report Date : 6/30/99

Lab Sample Number : 893516-002

Collection Date : 6/23/99

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	92.4				%		6/28/99	SM2540G	SM2540G	NJS

Organic Results

Preservation Date : 6/28/99

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 6/29/99 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.1			4.1	mg/kg		6/29/99	Wi MOD DRO
Blank spike	81			50	%Recov		6/29/99	Wi MOD DRO
Blank spike duplicate	86			50	%Recov		6/29/99	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		6/29/99	Wi MOD DRO

All soil results are reported on a dry weight basis unless otherwise noted.

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Green Bay, WI 54302
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- Analytical Report -

Project Name : CLEARWATER/HOLY FAMILY
Project Number : CWT9901
Field ID : SOUTH
Lab Sample Number : 893516-003
WI DNR LAB ID : 405132750

Client : ALPHA TERRA SCIENCE
Report Date : 6/30/99
Collection Date : 6/23/99
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	83.7				%		6/28/99	SM2540G	SM2540G	NJS

Organic Results

Preservation Date : 6/28/99

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 6/29/99 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.0			4.0	mg/kg		6/29/99	Wi MOD DRO
Blank spike	81			50	%Recov		6/29/99	Wi MOD DRO
Blank spike duplicate	86			50	%Recov		6/29/99	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		6/29/99	Wi MOD DRO

All soil results are reported on a dry weight basis unless otherwise noted.

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Green Bay, WI 54302
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FAX: 920-469-8827

- Analytical Report -

Project Name : CLEARWATER/HOLY FAMILY

Project Number : CWT9901

Client : ALPHA TERRA SCIENCE

Field ID : PIPES

Report Date : 6/30/99

Lab Sample Number : 893516-004

Collection Date : 6/23/99

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	94.7				%		6/28/99	SM2540G	SM2540G	NJS

Organic Results

Preservation Date : 6/28/99

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 6/29/99 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.9			3.9	mg/kg		6/29/99	Wi MOD DRO
Blank spike	81			50	%Recov		6/29/99	Wi MOD DRO
Blank spike duplicate	86			50	%Recov		6/29/99	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		6/29/99	Wi MOD DRO

All soil results are reported on a dry weight basis unless otherwise noted.

GY

Company Name: Alpha Terra Science
Branch or Location: Plymouth
Project Contact: Ken Ebbott
Telephone: (920) 892 2444
Project Number: CWT 9901
Project Name: Clearwater / Holy Family
Project State: WI
Sampled By (Print): Ken Ebbott

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR____ Other ____

NR720 Confirmation Analysis Required? (circle): Y N
(En Chem will not confirm unless otherwise instructed.)

EN CHEM INC.

☒ 1241 Bellevue St., Suite 9, Green Bay, WI 54302, 920-469-2436 • 1-800-736-2436, FAX 920-469-8827

☐ 525 Science Drive, Madison, WI 53711, 608-232-3300 • 1-888-536-2436, FAX: 608-233-0502

☐ 1423 N. 8th Street, Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

35256

Page 1 of 1
P.O. # — Quote # Annual
Mail Report To: Ken Ebbott
Company: Alpha Terra
Address: 1237 S Pilgrim Rd, Plymouth WI 53073
Invoice To: Ken Ebbott
Company: Alpha Terra
Address: 1237 S Pilgrim Rd, Plymouth WI 53073
Mail Invoice To: Ken Ebbott / ATS

FILTERED? (YES/NO)
PRESERVATION (CODE)*

ANALYSES REQUESTED: DRO

SHADED AREA FOR LABORATORY USE ONLY

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	DRO	FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
North	Under UST - Fill - 13'	6-23-99	15:30	X	CLEAN	SOIL	X	1-50z 1-20z		001
Middle	Under UST - Fill - 13'	↓	15:25	X	↓	↓	↓	↓		002
South	Under UST - Clay - 13'	↓	15:20	X	↓	↓	↓	↓		003
Pipes	Under Pipes - Sand/Gal - 6'	↓	16:00	X	↓	↓	↓	↓		004

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
Jeff Newcomb	6/25/99 1100	[illegible]	6/25/99 1100
[illegible]	6/25/99 1610		RO I
		[illegible]	

En Chem Project No.: 893516
Sample Receipt Temp.: RO I
Sample Receipt pH (Wet/Metals):
Custody Seal:

ATTACHMENT G

FIELD METHODS

METHODS

Soil samples were collected by a certified Site Assessor in conformance with Wisconsin Department of Natural Resources (WDNR) July 1993 Leaking Underground Storage Tank and Petroleum Analytical and Quality Assurance Guidance. In addition, the requirements of ILHR 10 were followed.

Soil samples were obtained from the fill below the UST. Three samples were obtained, one from beneath both ends of the tank, and one from the middle of the tank on the east wall. The fill was sampled because it was not possible to access the native soils due to the presence of a concrete pad beneath the tank. Excavation adjacent to the concrete pad was not possible for fear of hole collapse doing damage to the retaining wall or parking lot. Three samples were obtained at a depth of 13 feet below grade.

One soil sample was also obtained beneath the piping run where it entered the building. Shovels were used to manually dig to a depth of 6 feet, just below the pipes, and the soils were sampled using a stainless steel spade. This sample also consisted of sandy fill material : native soils were not present.

Soil samples for laboratory analysis were obtained using 20 to 30 cc veterinary syringes. For two of the samples, the backhoe was used to obtain the soil samples. For the north sample, a stainless steel spade was used to expose a fresh face of the soil. The syringe was pushed into the soil until the appropriate amount of soil was obtained. A new syringe was used for each sample. The sample was then immediately extruded into a sample jar provided by the analytical laboratory. The sample was stored on ice in a cooler until delivery to the laboratory under chain of custody procedures. An additional sample jar for soil moisture analysis was also obtained.

Analyses were performed by EnChem Laboratory, Green Bay, Wisconsin, a state-certified laboratory. The samples were analyzed for soil moisture and diesel range organics per WDNR requirements.

None of the samples had any field indication of contamination. With the exception of 4.5 ppm DRO in the north soil sample beneath the UST, no DRO was present. In conversations with the WDNR, this low detection does not require reporting to the WDNR as a release.