Phase 4 Site Assessment for Closure of Underground Storage Tank

Claude Allouez Bridge
Charles Street Near 135 South Broadway
City of De Pere, Brown County, Wisconsin
WisDOT Project ID 4190-04-71

STS Project No. 200702486

09-05-550829

Charles St ROW

STS CONSULTANTS

1035 Kepler Drive
Green Bay, Wisconsin 54311
920-468-1978 Phone
920-468-3312 Fax

October 30, 2007

Ms. Sharlene B. TeBeest
Wisconsin Department of Transportation
4802 Sheboygan Avenue, Room 451
P.O. Box 7965
Madison, Wisconsin 53707-7921

Re: Phase 4 Site Assessment for Closure of Underground Storage Tank, Claude Allouez Bridge, Charles Street Near 135 South Broadway, City of De Pere, Brown County, Wisconsin -- WisDOT Project ID 4190-04-71 -- STS Project No. 200702486

Dear Ms. TeBeest:

STS has completed the attached report documenting the site assessment and closure for the underground storage tank discovered at the above-referenced property. This work was completed in accordance with STS Work Order No. 59, Master Contract ID No. 1009-04-24. A copy of this report will also be forwarded to the Wisconsin Department of Commerce Bureau of Storage Tank Regulation and the Wisconsin Department of Natural Resources as required under Wisconsin Administrative Code Comm 10.

Please call (920) 468-1978 if you have any questions or comments regarding the information presented in this report.

Sincerely,

STS

Paul M. Garvey
Senior Project Scientist

Roger A. Miller, P.G., C.P.G.
Associate Hydrogeologist

No Action Required —

Wisconsin Department of Transportation
STS Project No. 200702486
October 30, 2007

Copy: Ms. Kathie VanPrice
Wisconsin Department of Transportation
944 Vanderperren Way
P.O. Box 28080
Green Bay, Wisconsin 54324-0080

Wisconsin Department of Commerce
Bureau of Storage Tank Regulation
P.O. Box 7837
Madison, Wisconsin 53707-7837

Ms. Vickie Wall
Wisconsin Department of Natural Resources
2984 Shawano Avenue (54313)
P.O. Box 10448
Green Bay, Wisconsin 54307-0448

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Wisconsin Department of Transportation
STS Project No. 200702486
October 30, 2007

1.0 INTRODUCTION

One 6,000-gallon underground storage tank (UST) was decommissioned by excavation and removal on May 11, 2007, on the City of De Pere right-of-way (ROW) beneath Charles Street, immediately to the south of the Kenneth J & Sylvia Butz property in De Pere, Wisconsin. The Butz property is described as Parcel #ED-823, Lot 7 of Block 18 of the Original Plat of De Pere, Excepting East 31 feet, De Pere, Brown County, Wisconsin. Based on a Brown County Land Records Search, the UST was ***not*** located on the Butz property. The location of the UST is illustrated on Figures 1 and 2. The site is currently in the northeast quadrant of the intersection of State Highway 32/57 and South Broadway.

1.1 Background

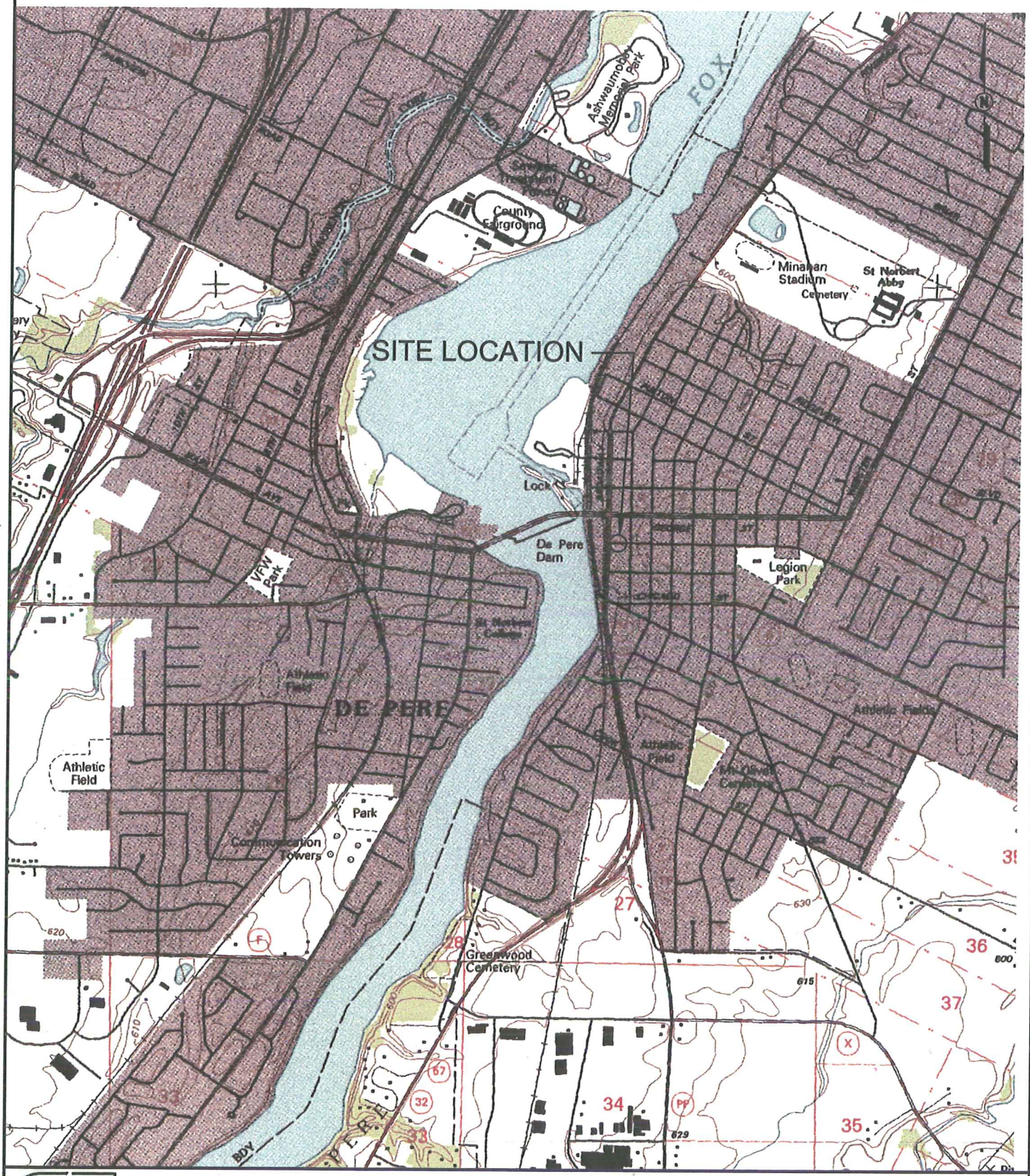
A UST was encountered during construction activities associated with the east approach to the new Claude Allouez Bridge on State Highway 32/57. During decommissioning activities, one 6,000-gallon gasoline UST was removed. The UST was located under the street adjacent to the Onsite Maintenance Solutions building at 135 South Broadway. At the time of removal, the building was owned by the Kenneth J & Sylvia H Butz Revocable Trust (Brown County Treasurer Land Records Search, May 21, 2007).

The UST was approximately 8 feet in diameter and 16 feet long, yielding a capacity of approximately 6,000 gallons. Piping attached to the top of the UST was observed during removal activities. One-inch supply piping was connected to top of the UST at the west end. The 1-inch pipe extended to the west approximately 2 feet prior to bending to the north toward the existing building. Two 2-inch pipes (fill pipe and vent pipe) were attached to the top of the UST at the east end. Both 2-inch pipes extended approximately 15 feet to the east before bending to the north and terminating at the edge of the existing parking lot. An 18-inch diameter man-way secured by bolts was present at the center of the UST. A third sample was collected from the excavation due to the piping run extending to the east beyond 2.5 feet from the UST. The remaining piping was removed.

The sidewalk and all paving associated with Charles Street had been removed prior to exposing the top of the UST.

The purpose of this UST closure report is to summarize conditions observed by STS personnel during closure activities and present results of laboratory testing conducted on collected soil and tank bottom (liquid) samples.

MAP SOURCE: MODIFIED FROM QUAD DEPERE, WIS. U.S.G.S. QUADRANGLE DATED 1992.

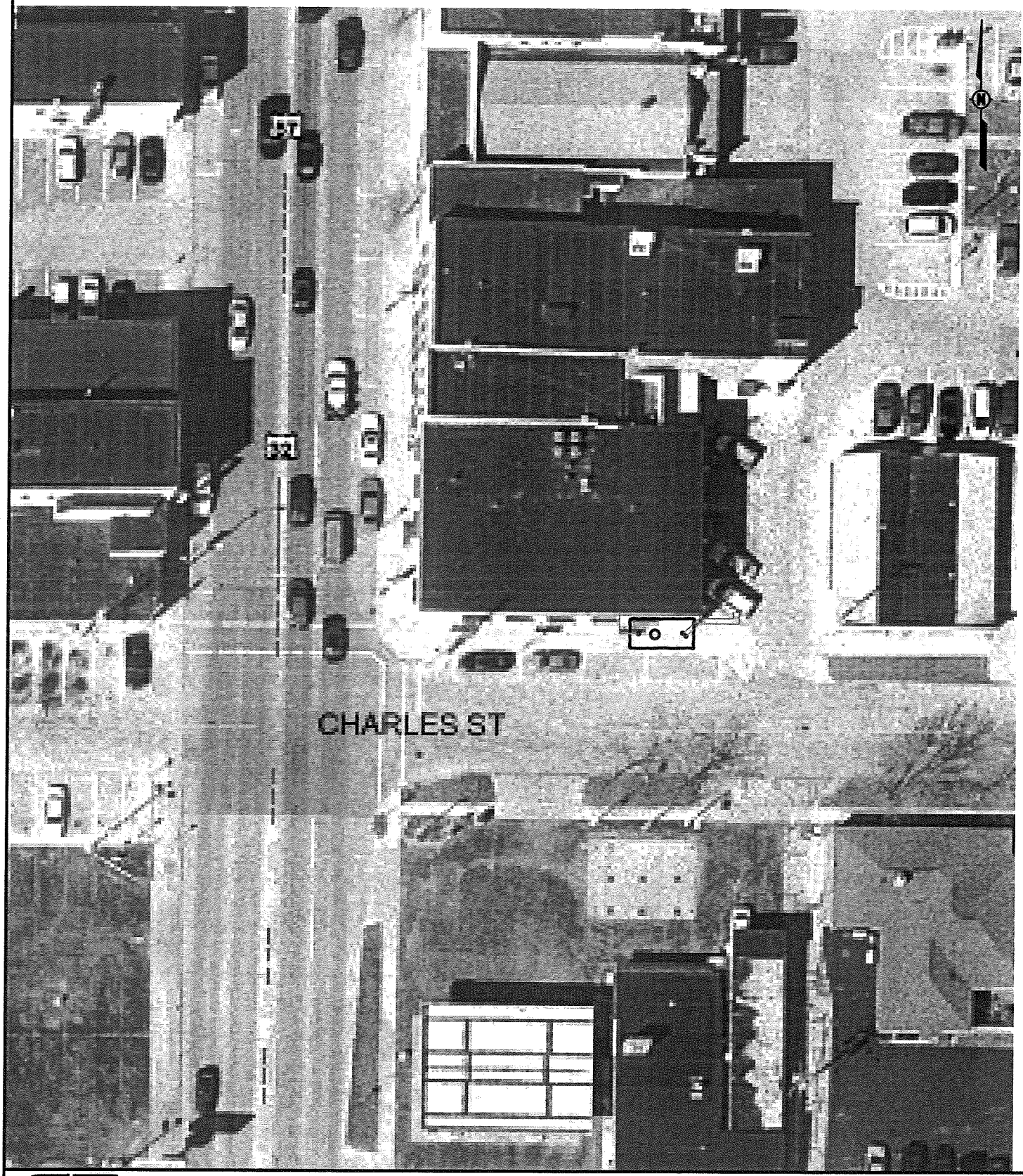


STS CONSULTANTS
1035 Kepler Drive
Green Bay, WI 54311
920-468-1978
www.stsconsultants.com

SITE LOCATION MAP
WISCONSIN DEPT. OF TRANSPORTATION
135 S. BROADWAY
DEPERE, WISCONSIN

Drawn :	DJM	5/25/2007
Checked:	JEL	5/25/2007
Approved:		
PROJECT NUMBER	200702486	
FIGURE NUMBER	1	

X:\PROJECTS\200702486\Dwg\G200702486-SITE-FIG1.dwg; 5/25/2007 10:09:56 AM; MLEZIVA, DAN J.



X:\PROJECTS\200702486\Dwg\G200702486-UST-FIG2.dwg; 8/30/2007 11:08:39 AM; LEMMENS, JERRY R.

STS CONSULTANTS
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920-468-1978
www.stsconsultants.com

UST LOCATION MAP
WISCONSIN DEPT. OF TRANSPORTATION
135 S. BROADWAY
DEPERE, WISCONSIN

Drawn:	DJM	5/25/2007
Checked:	JEL	5/25/2007
Approved:		
PROJECT NUMBER	200702486	
FIGURE NUMBER	2	

2.0 TANK CLOSURE PROCEDURES

STS was retained by WisDOT to coordinate and document decommissioning activities and assist with site assessment activities. The subcontractor responsible for tank decommissioning was Environmental Services Plus, Ltd. (ESP), W1732 County Road KK, Kaukauna, Wisconsin (54130) (phone 920-766-6756). The ESP State of Wisconsin Site Assessor and Tank Remover-Cleaner was Mr. Jesse Rose (Certification No. 41240). Mr. Rose notified Mr. Randy Shervey of the Wisconsin Department of Commerce (Commerce) prior to tank removal activities. A copy of the Comm 10 Notification Record is provided in Appendix A. The UST was decommissioned by excavation and removal on May 11, 2007. Prior to excavation, the atmosphere of the UST was tested using a BW GasAlertMax combustible gas meter (CGM). Liquid remaining in the UST appeared to be sludge related to fuel oil, and the CGM confirmed that the atmosphere inside the UST was non-explosive. No additional venting was performed prior to opening the UST. The top of the UST was opened to provide access and the UST was cleaned on site. Soil in contact with the UST had no observable odors or staining. After the UST was removed from underground, soil beneath the UST was also observed to be free of odor or staining, and the small amount of water present in the excavation did not have a visible sheen. Three soil samples were collected from the excavation area for laboratory analysis of diesel range organic compounds (DRO). Three runs of piping extended from the UST. The eastern piping run terminated less than 15 feet from the eastern soil sample location.

A photo log documenting UST decommissioning activities is provided in Appendix B. A copy of the Commerce "Underground Flammable/Combustible/Hazardous Liquid Storage Tank Registration" form and a "Checklist for Tank Closure" form are provided in Appendix A.

2.1 Tank Cleaning and Disposal

Cleaning and disposal of the UST was initiated on May 11, 2007. Prior to removal from the ground, a cut was made lengthwise along the top of the UST. A tracked backhoe was then utilized to "peel" the top open allowing access. ESP subcontracted Schroeder Environmental Cleaning Service, Inc. (SECSI) to provide a vacuum truck to remove the liquid/sludge from the UST. SECSI then transferred the liquid/sludge from the truck into seven 55-gallon drums. Following removal of the sludge, ESP used petroleum absorbent towels and "oil dry" to remove the remaining liquid from the UST. The towels and oil dry were placed into garbage bags for disposal. The drums were labeled using standard WisDOT Non-Regulated Waste stickers

(DT1208 6/2001) and staged at the site for disposal by Veolia Environmental Services (Veolia), Menominee Falls, Wisconsin, in accordance with the Veolia WisDOT Master Service Agreement for waste disposal.

Field observation of the UST indicated some mild corrosion and pitting, but no visible holes. A larger hole caused by mechanical means rather than corrosion was created by ESP personnel using a sledge hammer to knock soil from the exterior of the UST prior to transport from the site. Following cleaning activities, the tank was loaded onto a trailer and transported by ESP for scrap.

2.2 Remedial Investigation

During removal of the UST, no staining or petroleum odors were encountered in the soil surrounding the UST. Therefore, the excavation was limited to the size necessary to remove the UST from the ground. STS personnel collected three soil samples for DRO testing from the excavation base to document conditions of the remaining soil left in place. Soil samples were not screened in the field since there was no evidence (olfactory or staining) of contamination. No field evidence of contamination was observed in the vicinity of the UST system.

Following removal of the UST, the excavation was backfilled with approximately 51 cubic yards (truck measure) of sand. Copies of the load tickets are included in Appendix A.

2.3 Waste Management

Following cleaning and removal from the ground, the UST was transported by ESP to Smitty's Salvage & Supply, Inc. for disposal as scrap.

The seven 55-gallon drums of liquid/sludge were transported to Veolia on May 24, 2007, for disposal. A copy of shipping information is included in Appendix A.

Table 1
Analytical Results
UST in WisDOT Right of Way
East Approach - Claude Allouez Bridge
De Pere, Wisconsin

		Soil Sample			Cleanup Criteria
		West	Middle	East	Chapter NR720
Sample Depth	(feet)	9	9	9	
DRO	(mg/kg)	<4.4	39	12	100

3.0 SITE CONDITIONS

3.1 UST System Condition

The 6,000-gallon UST was likely installed more than 25 years ago. The UST was constructed of 0.25-inch thick bare steel. The UST appeared to be in good condition with limited pitting and no observed holes at the time of removal. Based on the lack of odors in and around associated piping, and the fact that much of the piping contained soil, it is likely that the UST had been out of use for many years. Soil in the tank excavation was primarily fine sand with clay around and beneath the sand. A small amount of water was observed in the bottom of the excavation; however, it is uncertain if the water was groundwater, or water perched above and within the clay. The excavation was terminated at a depth of approximately 9 feet below ground surface (bgs).

3.2 Soil Sample Collection

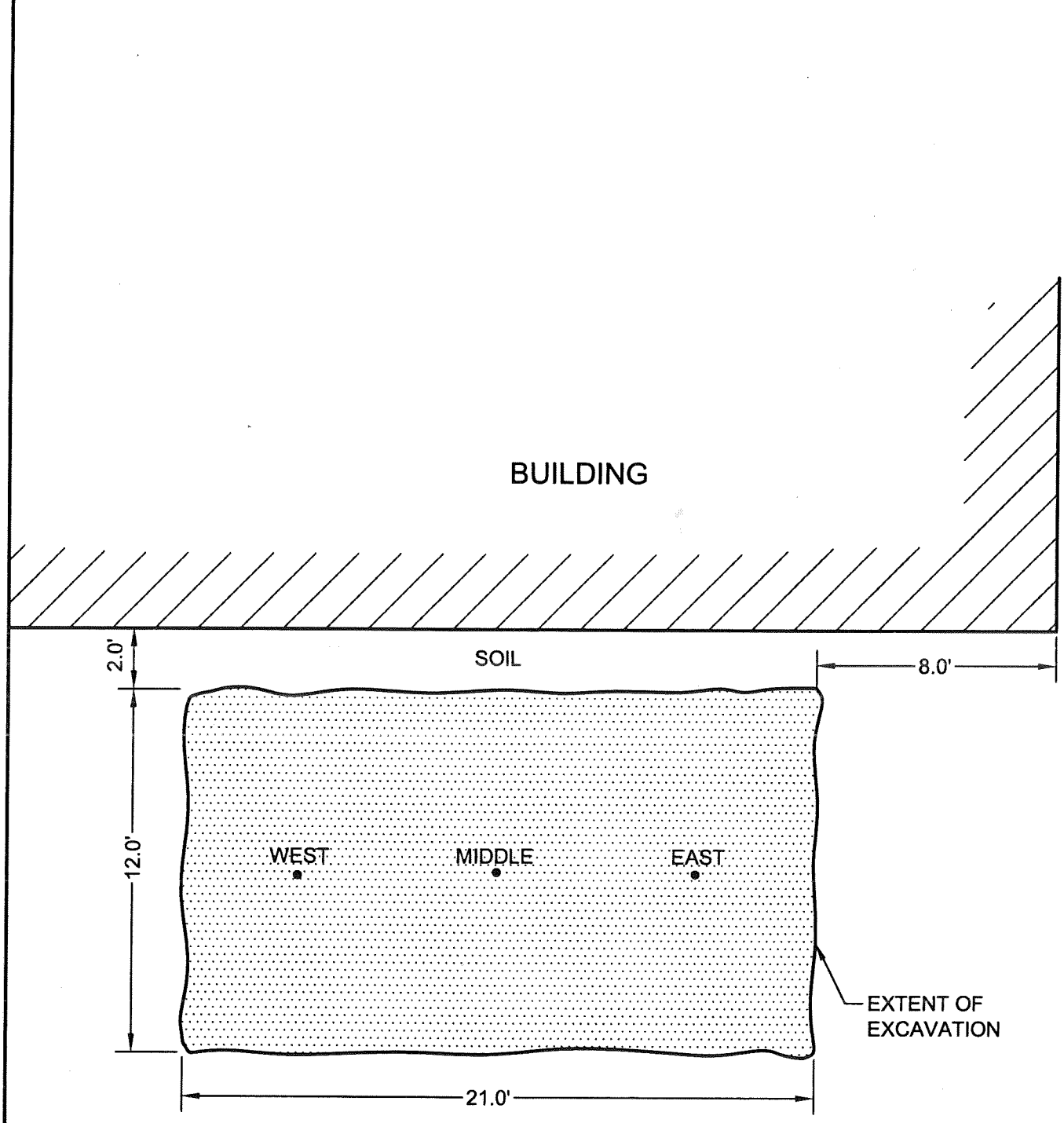
STS provided an on-site technician and Certified Site Assessor and Remover-Cleaner, Mr. Jesse Rose, (Wisconsin Certification No. 41240) to monitor tank cleaning, removal procedures, conditions of the UST at excavation, and collect soil samples for laboratory chemical analysis.

Soil samples associated with the UST excavation were collected at depths of approximately 9 feet bgs. A site diagram, which depicts the sample locations, is illustrated on Figure 3.

Soil samples were placed in laboratory containers provided by the laboratory, stored on ice in the field, and delivered to Pace Analytical, Inc. (Pace) of Green Bay, Wisconsin, under Chain of Custody control. Waste characterization samples were also collected and submitted to Veolia for hazardous waste determination. Analytical testing was conducted in accordance with Wisconsin Leaking Underground Storage Tank methods. A copy of the laboratory report is provided in Appendix C.

3.3 Site Assessment Results

Soil samples were collected from three locations at the base of the UST excavation: West, Middle, and East, respectively. All samples were collected at approximately 9 feet bgs.



STS CONSULTANTS
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Green Bay, WI 54311
920-468-1978
www.stsconsultants.com

UST LOCATION MAP
WISCONSIN DEPT. OF TRANSPORTATION
135 S. BROADWAY
DEPERE, WISCONSIN

Drawn :	DJM	5/25/2007
Checked:	JEL	5/25/2007
Approved:		
PROJECT NUMBER	200702486	
FIGURE NUMBER	3	

DRO was not detected above laboratory method detection levels in the West sample. The Middle and East samples reported DRO at concentrations of 39 and 12 milligrams per kilogram (mg/kg), respectively. These concentrations are below the Wisconsin Administrative Code NR 720 Groundwater Pathway Residual Contaminant Level of 100 mg/kg for permeable and 250 mg/kg for less permeable soils.

Table 1 provides a summary of the soil analytical results. Copies of the laboratory analytical report are provided in Appendix C.

4.0 CONCLUSIONS

One 6,000-gallon UST was cleaned, excavated, and removed from the site on May 11, 2007. The age of the UST is unknown; however, based on the construction, it is likely it was installed several decades ago. There was surficial corrosion and deterioration of the UST, but no holes were observed at the time of removal activities. A small amount of water was encountered in the excavation (9 feet bgs) during decommissioning activities, however it is uncertain whether this water is groundwater or water perched in the sand backfill above the natural silty clay subsoil.

Low concentrations of DRO were identified at the base of the excavation, even though no visual or olfactory evidence was observed. Typically, if a fuel oil UST is breached or there is an overfill event, soils remain stained and a petroleum odor is noticeable for a long period of time. At this location, the backfill sand and surrounding clay appeared to be unimpacted. Thus, it is likely that the DRO reported in the laboratory samples results from naturally occurring organic compounds or perhaps residual DRO from degradation of organic material rather than a release from the UST.

The area where the UST was removed will ultimately be covered with a sidewalk and an asphalt parking lot. This soil cover will provide an additional barrier to subsurface activity on the site in the future.

Based on the analytical test results of the soil samples collected within the UST excavation, it is the opinion of STS that WisDOT has fulfilled its obligation to substantially define the impacts within its ROW. We request that no further action be required of WisDOT at this time.

5.0 GENERAL QUALIFICATIONS

STS was retained by WisDOT to provide UST decommissioning services and document tank and soil conditions in the ROW adjacent to the Butz property located at 135 South Broadway in De Pere, Wisconsin. This report was prepared to summarize observations made during tank cleaning and removal activities and to present soil analytical results determined by Pace. No other warranty, either expressed or implied, is made.

Conditions and conclusions presented in this report are based on field observations and results of laboratory tests performed on recovered soil samples. The scope of this report is limited to this specific project, the location of which is described herein. Our description of the project represents our understanding of the significant factors relative to soil conditions. The information should not be used for purposes other than intended.

Wisconsin Department of Transportation
STS Project No. 200702486

Appendix A

Comm 10 Notification Record

Wisconsin Department of Commerce Underground Flammable/Combustible/Hazardous Liquid Storage Tank Registration Form

Wisconsin Department of Commerce Checklist for Tank Closure

Peters Concrete Co. Backfill Load Tickets

Smitty's Salvage & Supply, Inc. UST Scrap Ticket

Waste Manifests

PHONE 920-339-8760 FAX 920-339-8956
MOBILE 920-655-1333

Wisconsin Department of Commerce

Wisconsin Department of Commerce
ERS Division
Bureau of Petroleum Products and Tanks
P.O. Box 7837
Madison, WI 53707-7837

Comm. 10 Notification Record

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

TO: MR BRYAN BECKER OFFICE LOCATION: WISCONSIN INSPECTIONS

(Refer to the Commerce web site: > http://apps.commerce.state.wi.us/ERSLPOLists/ERSLPOLists?=agency < for the agency responsible for the specific jurisdiction.)

LOCATION / IDENTIFICATION (Please print or type)

Site Name RIGHT OF WAY WDOT / CITY OF DEPERE	**Owner Name** WDOT / CITY OF DEPERE
Site Street Address CHANNEL # 135 S BROADWAY	**Owner Street or P.O. Address** ROOM 451 4802 SHEBOYGAN AVE, POBOX 7965
☒ City ☐ Village ☐ Town of: DEPERE	☒ City ☐ Village ☐ Town of: MADISON
County BROWN **Zip Code** 54115	**State** WI **Zip Code** 53707 **Telephone** (608) 266-1496
Fire Department providing fire protection coverage: DEPERE FIRE DEPT	

Name of Contractor: ENVIRONMENTAL SERVICES PLUS

Address of Contractor: 4450 FIELD CREST DRIVE

City/Town: KAUKAUNA WI

Telephone Number: (920) 766-6756 **Fax Number:** (920) 759-4504

Date work is to begin: MON 11 2007 (FRIDAY @ 8:00 AM)

Comm. 10 certified project supervisor: MR JESSE F ROSE 740-3600

Project will involve:	Check UST	Check AST	Number of tanks	Plan Number	Approval Date
Tank Installation	☐	☐			
Dispenser POS Conversion	☐	☐			
Piping Installation/Upgrade	☐	☐			
Leak Detection Upgrade	☐	☐			
Spill/Overfill Protection	☐	☐			
Stage II Vapor Recovery	☐	☐			
Cathodic Protection/Lining	☐	☐			
Tank Closure	☒	☐	1		

Comments: CLEANING / CLOSURE, REMOVAL OF ONE 6500 GALLON NOTE 5, 6 FUEL OIL UST, FOUND DURING UTILITY CONST PLEASE CALL WI ANY QUESTIONS

SINCERELY
JESSE F ROSE

ERS-9198 (R. 6/05)

TDID#:
Reg Obj #:

UNDERGROUND FLAMMABLE/COMBUSTIBLE/HAZARDOUS LIQUID STORAGE TANK REGISTRATION

Information Required By Section 101.142, Wis. Stats.

Send Completed Form To:
Department of Commerce
Bureau of Petroleum Products and Tanks
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? ☐ 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 status that is (check one):
☐ In Use ☐ Newly Installed ☐ Abandoned with Product ☐ Abandoned without Product (empty)
☒ Closed - Tank Removed ☐ Closed - Filled with Inert Materials ☐ Abandon with Water ☐ Temporarily Out of Service - Provide Date: _____
☐ Ownership Change (Indicate new owner name in block 2)

Fire Department providing fire coverage where tank is located:
☒ City ☐ Village ☐ Town of: DePere#0501

A. IDENTIFICATION (Please Print)

1. Tank Site Name: Claude Allouez Bridge R/W
Site Street Address: 135 S. Broadway & Charles Street
Site Telephone Number: ( ) n/a
☒ City ☐ Village ☐ Town of: DePere
State: WISCONSIN
Zip Code: 54115
County: Brown

2. Tank Owner Name: City of De Pere
Mailing Address: 335 S. Broadway
Telephone Number: (920) 339-4044
☒ City ☐ Village ☐ Town of: De Pere
State: WI
Zip Code: 54115
County: Brown

3. Previous Site Name:
Previous site address if different than #1:

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

C. Tank Capacity (gallons): 6,000
Tank Age (age or date installed): 1950
Vehicle fueling: ☐ Yes ☒ No

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

E. OCCUPANCY TYPE (check one) Refer to back
☐ Retail Fuel Sales ☐ Bulk Storage ☐ Terminal Storage ☒ Mercantile/Commercial ☐ Industrial ☐ Residential ☐ School
☐ Agricultural (crop or livestock production) ☐ Backup or Emergency Generator ☐ Gov't Fleet ☐ Utility ☐ Other (specify:)

F. Tank Construction:
☒ Bare Steel ☐ Coated Steel ☐ Stainless steel ☐ Steel – Fiberglass Reinforced Plastic Composite
☐ Fiberglass ☐ Unknown ☐ Other (specify): _____ ☐ Lined (date): _____
Overfill Protection? ☐ Yes ☒ No
Spill Containment? ☐ Yes ☒ No

G. Tank Cathodic Protection: ☐ Sacrificial Anodes ☐ Impressed Current ☐ N/A
Tank Double Walled? ☐ Yes ☒ No

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

I. Piping Construction:
☒ Bare Steel ☐ Coated Steel ☐ Stainless Steel ☐ Fiberglass ☐ Flexible ☐ Copper ☐ Unknown ☐ NA ☐ Other _____

J. Piping Cathodic Protection: ☐ Sacrificial Anodes ☐ Impressed Current ☐ N/A
Pipe Double Walled? ☐ Yes ☒ No

K. 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

L. 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

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

N. TANK CONTENTS (Current, or previous product (if tank now empty)) No#2
☐ Leaded ☐ Unleaded ☐ Gasohol ☐ E85 ☐ Diesel ☐ Bio-diesel ☐ Aviation ☐ Premix ☒ Fuel Oil ☐ Kerosene
☐ Waste/Used Motor Oil ☐ New Motor Oil ☐ Hazardous Waste* ☐ Unknown ☐ Empty* ☐ Sand/Gravel/Slurry* ☐ Other (specify):
☐ Chemical* Name _____ CAS #: _____
*NOT PECFA eligible.

Geo Latitude: 44° 14.669N **Geo Longitude:** 088° 16.695.W

O. If Tank Closed, Abandoned or Out of Service
Give date (mo/day/yr): clean&remv 5-11-07
Has a site assessment been completed? (see reverse side for details)
☒ Yes ☐ No

Tank Owner Name (please print):
City of De Pere

Tank Owner Signature (Note: By signing, signer is accepting legal and financial responsibility for the storage tank system.)
Lawrence Delo, City Administrator
Date 7/5/07

ER-7437 (R 11/05)

Note: Refer to comments on reverse side of form.

Definitions and explanations for completing this form

Land Owner Type - classifies the organization that owns the property the tank is located on. A "*Private*" landowner is residential, commercial, mercantile, industrial, farm, non-government owned public utility, or other business organization.

Occupancy Type (categories below) – identifies the occupancy in relation to Comm 10 storage classifications.

Retail Fuel Sales	Tank is used to store any fuel product that is offered for sale in the retail market.
Bulk Plant Storage	Tank is used to store any fuel product that is offered for sale in the wholesale market.
Industrial	Tank is used to store any regulated product associated with an industrial fleet, heating, industrial fabricating, manufacturing or processing.
Mercantile/Commercial	Tank is used to store any regulated product associated with a commercial business fleet, heating, or processing, e.g., service company, medical facility, freight, airport, apartment, etc.
Utility	Tank is used to store any regulated product associated with a public or private water or power utility fleet, heating, or processing.
Residential	Tank is used to store any regulated product for residential heating or residential automobile fueling.
School	Tank is used to store any regulated product at public or private primary, secondary or higher educational institution.
Agricultural	Tank is used to store any regulated product directly associated with crop or livestock production.
Back-up or Emergency Generator	Tank is used to store any fuel used to power a backup or emergency generator.
Terminal Storage	Tank is associated with a distribution facility such as an interstate pipeline. These tanks are typically field erected structures of 500,000 + gallon capacity. A million gallon tank at an ethanol production site would be "industrial," not "terminal storage."
Government Fleet	Tank is located at a facility owned and operated by a federal, state, county or local government entity. The tank may be used for vehicle fueling, waste oil or heating purposes.

COMMERCE UST/AST Permit and Registration Group Areas of responsibility by county

Rebecca Mouth West				Terri Quamme North East		Israel Zurfluh Central		Gwendolyn Person South East	
715-726-2545				608-267-1383		608-267-2051		608-267-1382	
02	Ashland	46	Pepin	05	Brown	01	Adams	30	Kenosha
03	Barron	47	Pierce	10	Clark	08	Calumet	40	Milwaukee
04	Bayfield	48	Polk	15	Door	11	Columbia	45	Ozaukee
06	Buffalo	50	Price	19	Florence	13	Dane	51	Racine
07	Burnett	52	Richland	21	Forest	14	Dodge	53	Rock
09	Chippewa	54	Rusk	31	Kewaunee	20	Fond Du Lac	64	Walworth
12	Crawford	55	St Croix	34	Langlade	24	Green Lake	66	Washington
16	Douglas	57	Sawyer	35	Lincoln	28	Jefferson	67	Waukesha
17	Dunn	60	Taylor	37	Marathon	36	Manitowoc		
18	Eau Claire	61	Trempealeau	38	Marinette	39	Marquette		
22	Grant	62	Vernon	42	Oconto	56	Sauk		
23	Green	65	Washburn	43	Oneida	59	Sheboygan		
25	Iowa			44	Outagamie	69	Waushara		
26	Iron			49	Portage	70	Winnebago		
27	Jackson			58	Shawano				
29	Juneau			63	Vilas				
32	La Crosse			68	Waupaca				
33	Lafayette			71	Wood				
41	Monroe			72	Menominee				

CLOSURE ASSESSMENT INFORMATION

Requirements for a site assessment at the closure or change in service for Comm 10 regulated underground storage tank are outlined in Comm 10.732 and the Federal Register, 40 CFR 280 and 281.

Guidelines on properly conducting of a tank closure assessment can be obtained at:
http://commerce.wi.gov/ERpdf/bst/ProgramLetters_PL/ER-BST-PL-TankClosureAssessGuide.pdf
or James Moser - e-mail: jmoser @commerce.state.wi.us or telephone: 608.267.1394

Closure site assessments are to be submitted to the DNR at the following address:

Bureau of Solid and Hazardous Waste Management
P.O. Box 7921
Madison, WI 53707

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

RETURN COMPLETED CHECKLIST TO:
Wisconsin Department of Commerce
ERS Division
Bureau of Petroleum Products and Tanks
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: CLAUDE ALLOUEZ BRIDGE R of W
Site Street Address (not P.O. Box): CHARLES STREET (185 South Broadway)
☒ City ☐ Village ☐ Town of: DEPERE
State: WI Zip Code: 54115 County: BROWN

2. Owner Name: WDOT B.E.S.
Owner Street Address: 4802 HEDBORGAN AVE PO Box 7965
☒ City ☐ Village ☐ Town of: MADISON State: WI Zip Code: 53707-7
County: DANE
Telephone No. (include area code): (608) 266-1476

3. Closure Company Name (print): ENVIRONMENTAL SERVICE - PLUS
Closure Company Street Address: 4430 FIELDCREST DRIVE
Closure Company Telephone No. (include area code): (920) 766-6776
Closure Company City, State, Zip Code: KAUKAUNA WI 54130

4. Name of Company Performing Closure Assessment: STS Consultants
Assessment Company Street Address, City, State, Zip Code: 1035 Kepler Drive, Green Bay, WI 54311
Telephone No. (include area code): (920) 468-1978
Certified Assessor Name (print): JESSE F ROSE
Assessor Signature: Jesse F Rose
Assessor Certification No.: 4240

Tank ID #	Closure	Temp. Closure	Closure in Place	Tank Capacity	Contents*	Closure Assessment
1.	☒	☐	☐	6,000	NO#2 F.O	☒ 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
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					
1. Product Removed					
a. Product lines drained into tank (or other container) and 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-Out-Of-Service (TOS) 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 E.	☒ 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 -

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. 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: Refer to section E for method of vapor freeing the tank

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. METHOD OF VAPOR FREEING TANK

☐ Displacement of vapors by 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.

☐ Inert Gas using Dry Ice or Liquid Carbon Dioxide
Dry Ice introduced at 1.5 pounds per 100 gallons of tank capacity. Dry ice crushed and distributed over the greatest possible tank area.

☐ Inert Gas using CO_2 or N_2 **NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE. LEL METERS MAY NOT FUNCTION ACCURATELY. 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.

☒ Readings of 10% or less of the lower flammable range (LEL) or 0% oxygen obtained before removing tank from ground.

☒ Tank atmosphere monitored for flammable or combustible vapor levels prior to and during cleaning and cutting.

☒ Calibrate combustible gas indicator and/or oxygen meter prior to use. Drop tube removed prior to checking atmosphere. Tank space monitored at bottom, middle and upper portion of tank.

F. CLOSURE ASSESSMENTS

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

	Remover Verified	Inspector Verified
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	☐Y ☐N
2. Do points of obvious contamination exist? Surface to tank top: ☐Y ☒N Within tank excavation: ☐ Y ☒ N Piping:	☒ ☐N	☒ ☐N
3. Was a field screening instrument used to pre-screen soil sample locations?	☐Y ☒N	☒Y ☐N
4. Was the DNR notified of suspected or obvious contamination?	☐Y ☒N	☒Y ☐N

Agency, office and person contacted: _____

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

G. ☒ Form ERS-7437 or ☐ ERS-8731 filed by owner with the Dept. of Commerce indicating closure. ☒Yes ☐No

H. NOTE SPECIFIC CLOSURE PROBLEMS OR CONCERNS BELOW

TANK FOUND DURING Utility CONSTRUCTION, WAS UNKNOWN
No Contamination, Site Clear

I. REMOVER/CLEANER INFORMATION

Remover Name (print)	Remover Signature	Remover Certification No.	Date Signed
JESSE F ROSE		4240	5-11-07

I certify that the procedures and information that I have provided as the tank closure contractor are correct and comply with Comm 10.

J. INSPECTOR INFORMATION

Inspector Name (print)	Inspector Signature	Inspector Cert #	LPO Agency #:
Shelly Becker		921191	190

FDID # For Location Where Inspection Performed	Inspector Telephone Number	Date Signed
11050	920-320-8760	5/11/07

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

Copy Distribution: White – Commerce Blue – Inspector Pink – Contractor Yellow - Owner

PETERS CONCRETE CO.
1516 Atkinson Drive
Green Bay, WI 54303
(920) 494-3700

Customer's Order No. | Date: 5-11-07

Sold to: Environmental Services

Address:

Sold By	Cash	C.O.D.	Charge	On Acct.	Mdse. Ret'd.	Paid Out
			5.34			

Qty.	Description	Price	Amount
17yds	fill sand		

All claims and returned goods MUST be accompanied by this bill.

Rec'd. By: P. Rose

Tax

Total

94772

Thank You!

Item# GP63
To Reorder,
Please Call Toll Free: 1-800-558-0220

PETERS CONCRETE CO.
1516 Atkinson Drive
Green Bay, WI 54303
(920) 494-3700

Customer's Order No. | Date: 5/11/07

Sold to: Environmental Services

Address: De Pere

Sold By	Cash	C.O.D.	Charge	On Acct.	Mdse. Ret'd.	Paid Out
			5.30			

Qty.	Description	Price	Amount
	Fill Sand		
	17yds		
	Yard 24		

All claims and returned goods MUST be accompanied by this bill.

Rec'd. By: P. Rose

Tax

Total

95614

Thank You!

Item# GP63
To Reorder,
Please Call Toll Free: 1-800-558-0220

PETERS CONCRETE CO.
1516 Atkinson Drive
Green Bay, WI 54303
(920) 494-3700

Customer's Order No.	Date
	5/11/07

Sold to: Environmental Services

Address: DePere

Sold By	Cash	C.O.D.	Charge	On Acct.	Mdse. Ret'd.	Paid Out	
	Patch		530				

Qty.	Description	Price	Amount
	Fill Sand		
	17 yds		
	Yard 24		

All claims and returned goods MUST be accompanied by this bill.

Rec'd. By: P. Pon

Tax

Total

95615

Thank You!

Item# GP63
To Reorder,
Please Call Toll Free: 1-800-558-0220

SMITTY'S SALVAGE & SUPPLY, INC.

2325 Main St. Phone 468-7715
GREEN BAY, WISCONSIN 54311
Hours: Mon to Fri 8:00 a.m.–4:30p.m.

Date 5/11,20 07 NO.

LOAD OF
FROM 42 Blk Htg
REMARKS:

POUNDS	MATERIAL	PRICE	AMOUNT
5540	Torching Tank		

13800
8260
5540

LBS. GROSS
LBS. TARE – Driver: On 2 Off
LBS. NET – PRICE . . . . $
AMOUNT $
WEIGHER

VEOLIA
ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	NONEREQUIRED	1	(800) 626-6063	ZZ 00009246

5. Generator's Name and Mailing Address
WISC DOT/BOE-CLAUDE ALLOUEZ BR
PO BOX 7966 ROOM 451
ATTN SHAR TEBEEST
MADISON, WI 53707
Generator's Phone: 920 406-3139

Generator's Site Address (if different than mailing address)
WISC DOT/BOE-CLAUDE ALLOUEZ BR
GEORGE ST OVER THE FOX RIVER
PROJECT ID# 4190-10-71
DEPERE, WI 54115

6. Transporter 1 Company Name
VEOLIA ES TECHNICAL SOLUTIONS
U.S. EPA ID Number: N J D 0 8 0 5 3 1 3 8 9

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS
W124 N9451 BOUNDARY RD.
MENOMONEE FALLS, WI 53051
Facility's Phone: 262 255-0655
U.S. EPA ID Number: W I 0 0 0 3 9 6 7 1 4 8

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON-REGULATED MATERIAL, NON-RCRA, NON-DOT (FUEL OIL, WATER), NONE, NONE	0 0 7	D M	0 0 3 8 5	G	NONE
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) W:7047 4:OWDFUELS + INFOTRAC ACCOUNT #86072, LTL

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Charles N Reed CBO WIS DOT
Signature:
Month Day Year: 05 24 07

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Shipment
Transporter 1 Printed/Typed Name: Charles N Reed
Signature:
Month Day Year: 05 24 07
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

18b. Alternate Facility (or Generator) Shipping Document Tracking Number:
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year:

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a
Printed/Typed Name: ROBERT L. KAHN JR.
Signature:
Month Day Year: 05 30 07

GENERATOR
INT'L
TRANSPORTER
DESIGNATED FACILITY

TRANSPORTER 2 OR BROKER COPY

Wisconsin Department of Transportation
STS Project No. 200702486

Appendix B

Photo Log

Photo 1: Initial Excavation - view looking northwest.

Photo 2: Exposing top of UST - view looking east.

Photo 3: Final Cleaning of UST top - view looking east.

Photo 4: Piping Removal (vent pipe and fill pipe) - view looking west.

Photo 5: Top of UST exposed - view looking west.

Photo 6: UST atmosphere monitoring prior to cutting – view looking west-southwest.

Photo 7: Cutting UST open using Sawzall - view looking west.

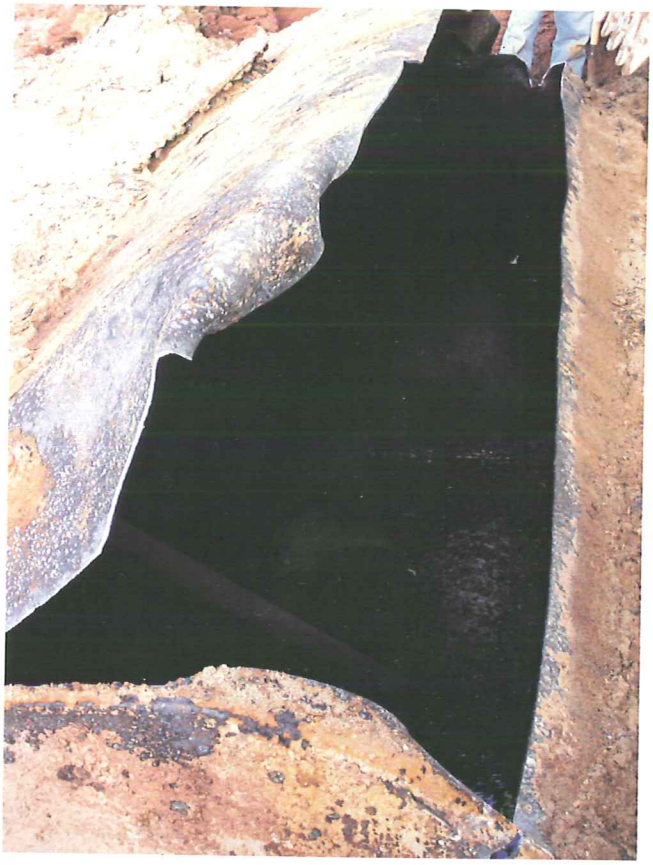

Photo 8: UST following opening by backhoe - view looking west.

Photo 9: Interior of UST. Sludge and liquid in bottom of UST prior to vacuum cleaning - view looking west.

Photo 10: ESP personnel cleaning UST with vacuum truck - view looking east.

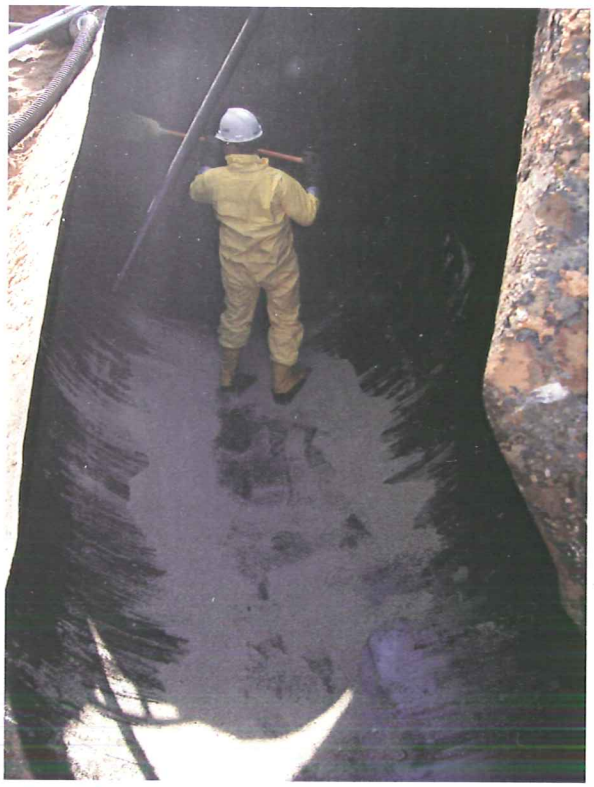

Photo 11: Final UST cleaning using oil absorbent material - view looking east.

Photo 12: UST ready to remove - view looking northwest.

Photo 13: UST removal - view looking northwest.

Photo 14: UST removal (continued) – view looking northwest.

Photo 15: UST removed from ground - view looking northeast.

Photo 16: UST ready to load for disposal - view looking southwest.

Photo 17: West end and center of excavation - view looking west.

Photo 18: East end of excavation - view looking northeast.

Wisconsin Department of Transportation
STS Project No. 200702486

Appendix C

Laboratory Analytical Report

Pace Analytical®

1241 Bellevue Street, Suite 9
Green Bay, WI 54302
920-469-2436, Fax: 920-469-8827

Analytical Report Number: 883686

Client: STS CONSULTANTS
Project Name: WDOT-CAB
Project Number: 200702486

Lab Contact: Eric Bullock

Lab Sample Number	Field ID	Matrix	Collection Date
883686-001	WEST	SOIL	05/11/07
883686-002	MIDDLE	SOIL	05/11/07
883686-003	EAST	SOIL	05/11/07

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. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc. The sample results relate only to the analytes of interest tested.

Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

REPORT OF LABORATORY ANALYSIS

ACCREDITED IN ACCORDANCE WITH nelac

Approval Signature

5/17/07
Date

Pace Analytical Services, Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Analytical Report Number: 883686

Client : STS CONSULTANTS
Project Name : WDOT-CAB
Project Number : 200702486
Field ID : WEST

Matrix Type : SOIL
Collection Date : 05/11/07
Report Date : 05/17/07
Lab Sample Number : 883686-001

INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Percent Solids	85.6				1	%		05/14/07	SM M2540G	SM M2540G

DIESEL RANGE ORGANICS

Prep Date: 05/15/07

Analyte		Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Diesel Range Organics	<	4.4			4.4	1	mg/kg		05/16/07	WI MOD DRO	WI MOD DRO

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

Pace Analytical Services, Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Analytical Report Number: 883686

Client : STS CONSULTANTS
Project Name : WDOT-CAB
Project Number : 200702486
Field ID : MIDDLE

Matrix Type : SOIL
Collection Date : 05/11/07
Report Date : 05/17/07
Lab Sample Number : 883686-002

INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Percent Solids	92.7				1	%		05/14/07	SM M2540G	SM M2540G

DIESEL RANGE ORGANICS

Prep Date: 05/15/07

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Diesel Range Organics	39			4.3	1	mg/kg		05/16/07	WI MOD DRO	WI MOD DRO

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

Pace Analytical Services, Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Analytical Report Number: 883686

Client : STS CONSULTANTS
Project Name : WDOT-CAB
Project Number : 200702486
Field ID : EAST

Matrix Type : SOIL
Collection Date : 05/11/07
Report Date : 05/17/07
Lab Sample Number : 883686-003

INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Percent Solids	93.3				1	%		05/14/07	SM M2540G	SM M2540G

DIESEL RANGE ORGANICS

Prep Date: 05/15/07

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Diesel Range Organics	12			3.6	1	mg/kg		05/16/07	WI MOD DRO	WI MOD DRO

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

Pace Analytical Services, Inc.

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

Lab Number	TestGroupID	Field ID	Comment
883686-002	DRO-S	MIDDLE	Late eluting hump along with diesel range peaks were present in the chromatogram.
883686-003	DRO-S	EAST	Late eluting hump along with diesel range peaks were present in the chromatogram.

Qualifier Codes

Flag	Applies To	Explanation
A	Inorganic	Analyte is detected 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.
B	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
B	Organic	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	All	Elevated detection limit.
D	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
E	Inorganic	Estimated concentration due to matrix interferences. During the metals analysis the serial dilution failed to meet the established control limits of 0-10%. The sample concentration is greater than 50 times the IDL for analysis done on the ICP or 100 times the IDL for analysis done on the ICP-MS. The result was flagged with the E qualifier to indicate that a physical interference was observed.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
F	Organic	Surrogate results outside control criteria.
G	All	The result is estimated because the concentration is less than the lowest calibration standard concentration utilized in the initial calibration. The method detection limit is less than the reporting limit specified for this project.
H	All	Preservation, extraction or analysis performed past holding time.
HF	Inorganic	This test is considered a field parameter, and the recommended holding time is 15 minutes from collection. The analysis was performed in the laboratory beyond the recommended holding time.
J	All	Concentration detected equal to or greater than the method detection limit but less than the reporting limit.
K	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
L	All	Elevated detection limit due to low sample volume.
M	Organic	Sample pH was greater than 2
N	All	Spiked sample recovery not within control limits.
O	Organic	Sample received overweight.
P	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	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	Organic	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	All	The analyte was not detected at or above the reporting limit.
V	All	Sample received with headspace.
W	All	A second aliquot of sample was analyzed from a container with headspace.
X	All	See Sample Narrative.
Z	Organics	This compound was separated in the check standard but it did not meet the resolution criteria as set forth in SW846.
&	All	Laboratory Control Spike recovery not within control limits.
*	All	Precision not within control limits.
+	Inorganic	The sample result is greater than four times the spike level: therefore, the percent recovery is not evaluated.
<	All	The analyte was not detected at or above the reporting limit.
1	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	Inorganic	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
6	Inorganic	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	Inorganic	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
8	Inorganic	Sample was received unpreserved. Sample was preserved either at the time of receipt or at the time of sample preparation.
9	Inorganic	Sample was received with insufficient preservation. Acid was added either at the time of receipt or at the time of sample preparation.

Pace Analytical Services, Inc.

Analysis Summary by Laboratory

1241 Bellevue Street
Green Bay, WI 54302

Test Group Name	883686-001	883686-002	883686-003
DIESEL RANGE ORGANICS	B	B	B
PERCENT SOLIDS	B	B	B

Code	WI Certification
B	405132750 / DATCP: 105-444

Pace Analytical Services, Inc.

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

QC Summary

Batch: 883686
Lab Section: DIESEL
QC Batch Number: 20665
Prep Method: WI MOD DRO
Analytical Method: WI MOD DRO

QC Type	Client Sample ID	Lab Sample ID
MB	SD2206-003MB	SD2206-003MB
LCS	SD2206-003MBLCS	SD2206-003MBLCS
LCSD	SD2206-003MBLCSD	SD2206-003MBLCSD

Client Sample ID	Lab Sample ID	MB ID
WEST	883686-001	MB
EAST	883686-003	MB

Client Sample ID	Lab Sample ID	MB ID
MIDDLE	883686-002	MB

Test Name	Method Blank Result Conc	LCS Spiked Conc	LCS Recovery Conc	%	C	LCSD Spiked Conc	LCSD Recovery Conc	%	C	LCS/LCSD RPD	C	LCS/LCSD Control Limits LCL %	UCL %	RPD %	Parent Sample Number	Parent Result Conc	MS Spiked Conc	MS Recovery Conc	%	C	MSD Spiked Conc	MSD Recovery Conc	%	C	MS/MSD RPD	C	MS/MSD Control Limits LCL %	UCL %	RPD %
Diesel Range Organics	< 1.7	50.0	40.6	81		50.0	41.3	83		1.6		70	120	20	---	---	---	---	---		---	---	---		---		---	---	---

Conc = mg/kg unless otherwise noted
C = QC Code, see Qualifer Sheet
Parent Result is reported down to MDL in order to allow Validation of this worksheet
The %R and RPD results are calculated from raw data values with more significant figures than are reported on this form.

Report Date: 5/17/2007
QC Batch Number: 20665

Sample Condition Upon Receipt

Pace Analytical

Client Name: STS

Project # 883686

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used — **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temperature ROT **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Comments:

Date and initials of person examining contents: 5-11-07 cg 05/11/07

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: S		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☒No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: SB 5/11/07 **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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COC No. 021252

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	STS
Branch/Location:	Green Bay
Project Contact:	Paul Garvey
Phone:	406-3139
Project Number:	200702486
Project Name:	WDOT-CAB
Project State:	WI
Sampled By (Print):	John Link
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	West	5/11/07	A.M.	Soil		A	DRO		1-4oz poly A 1-4oz cgA	
002	Middle	↓	↓	↓		A			↓	
003	East	↓	↓	↓		A				

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	5/11/07 11:20	LeAnne Merkhan	5-11-07 1120

PACE Project No.
883686

Receipt Temp = ROI °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact