

Tommy G. Thompson, Governor William J. McCoshen, Secretary

August 22, 1997

DOA - Div. Of Facilities Development

Attn: Terry Cook PO Box 306 King WI 54946

Subject:

Close-out of WI DOC Green Bay Correctional Institution

Petroleum Contamination Site

2833 Riverside Drive, Green Bay, WI

COMMERCE #54301-1635-33 WDNR #03-05-002140

Dear Mr. Cook:

On August 22, 1997 the above site was reviewed for closure by the Site Review staff of the PECFA Bureau. Because the site involved only soil contamination, without a threat to groundwater, all issues relating to this site are administered by the staff within the Department of Commerce's PECFA Bureau. Your consultant, Foth & Van Dyke, had recommended site closure. Upon reviewing all the data collected for this site, the Department considers this site to meet environmental standards, and no further action is necessary.

If, in the future, site conditions indicate that any contamination that might remain poses a threat, the need for further remediation would be determined and required if necessary. If subsequent information indicates a need to reopen this case, any original claim under the PECFA fund would also reopen and you may apply for assistance to the extent of remaining eligibility.

Thank you for your efforts in the protection of the environment. If you have any additional questions, please call me at 920-424-0046.

Sincerely,

Dee Zoellner Hydrogeologist

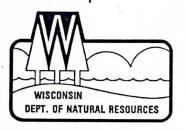
Department of Commerce

ce Goellner

cc: Case File - Oshkosh

Mr. Martin Romero, WDOA - Div. of Facilities Dev.

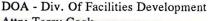
Mr. Philip Brochocki - Foth & Van Dyke



### State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor George E. Meyer, Secretary William R. Selbig, Regional Director Northeast Region Headquarters
Bureau for Remediation & Redevelopment
PO Box 10448, 1125 N. Military Avenue
Green Bay, WI 54307-0448
TELEPHONE 414-492-5916
TELEFAX 414-492-5859

August 14, 1997



Attn: Terry Cook PO Box 306 King, WI 54946



SUBJECT:

WI DOC Green Bay Correctional Institution, 2833 Riverside Drive, Green Bay

WDNR ID #03-05-002140

Transfer of Your File to the Wisconsin Department of Commerce

The 1995-97 state budget bill made significant changes in the way state government manages discharges to the environment from petroleum storage tank systems. As of July 1, 1996, the Department of Commerce is responsible for governmental oversight of environmental cleanup activities at properties contaminated by petroleum storage systems when contamination has not impacted groundwater above state preventive action levels.

This is to notify you that the Department of Natural Resources (DNR) has an open file regarding contamination at the above site. Information presented to the DNR to date shows that this site falls into the group of sites identified for transfer. Therefore, we are transferring your file to the Department of Commerce effective immediately. Commerce will provide all future oversight of your cleanup at the property, including determination of file closure.

All future contacts regarding this site should be directed to the Department of Commerce. Correspondence should be addressed to:

Wisconsin Department of Commerce

Attn: Thomas Verstegen 2129 Jackson Street Oshkosh, WI 54901 Phone: 414-424-0025

Please include both your PECFA claim number, if you have one, and your WDNR site identification number in your correspondence. The PECFA program reimbursement staff have also been transferred to Commerce from the Department of Industry, Labor & Human Relations (DILHR), effective July 1, 1996.

Your efforts toward cleanup of this site are greatly appreciated.

Sincerely, Lancs DeBrock

Janis DeBrock, Program Assistant

Remediation & Redevelopment Program

cc: Thomas Verstegen, WI DCOM, 2129 Jackson Street, Oshkosh, WI 54901

Philip Brochocki, Foth & Van Dyke, PO Box 19012, Green Bay, WI 54307-9012



## Report

# **Power Plant Underground Tank Compliance Site Assessment and Remediation**

### **Documentation**

DOC-Green Bay Correctional Institution Heating Plant WDNR ID No. 03-05-2140 Scope ID: 94W048

Wisconsin Department of Administration Division of Facilities Development Division Project No. 93943

**July 1997** 

AUG 0 1 1997 LMD SOLID WASTE





July 29, 1997

Ms. Kathy Erdmann
Lake Michigan District Headquarters
Wisconsin Department of Natural Resources
P.O. Box 10448
Green Bay, WI 54307-0448

Dear Ms. Erdmann:

Re: Power Plant Underground Tank Compliance
Site Assessment and Remediation Documentation
Green Bay Correctional Institution Heating Plant
WDNR LUST ID # 03-05-2140
Removal of Two 20,000-gal and one 1,000-gal Petroleum Underground Storage Tanks
DILHR Reg Nos. #051600012, 051600013, 051600009

On behalf of the Wisconsin Department of Administration, Division of Facilities Development, Foth & Van Dyke is submitting documentation for the removal and remediation of two 20,000-gal heating oil and one 1,000-gal diesel underground storage tanks (USTs). The former UST systems were located at the Green Bay Correctional Institution, 2833 Riverside Drive, Green Bay, Wisconsin. The two 20,000-gallon USTs were closed on July 13-14, 1995 and the 1,000-gallon UST was closed on November 21, 1995, in accordance with Wisconsin Administrative Code Chapter ILHR 10.

#### This report contains:

- Description of Site Activities
- Analytical results of soil samples collected during closure and remediation
- Tanks, Tank sludge and cleaning waste disposal documentation
- Contaminated soil disposal documentation
- Completed WDNR Case Summary and Closeout Form (Second copy submitted for Closure Committee)

During Removal activities contaminated soil was encountered and remediated by overexcavation. Extent of soil contamination was determined by visual observation, field jar headspace procedures and laboratory analysis. Laboratory results demonstrate that contaminated soil was remediated to "non-detect" levels or levels below NR 720 soil standards. Therefore, Foth & Van Dyke requests that the site be closed. In order to expedite review and case closure, we have included a completed Case Summary and Closeout Form in Appendix I. Foth & Van Dyke is also sending, with this report, a second copy of the Case Summary and Closeout Form to be forwarded directly to the Closure Committee.

Ms. Kathy Erdmann Wisconsin Department of Natural Resources July 29, 1997 Page 2

Please direct any questions or comments concerning the tank closure or the site to Phil Brochocki at (920) 497-2500.

Sincerely,

Foth & Van Dyke

Philip R. Brochocki, P.G. Project Hydrogeologist

PRB:lmc

### Power Plant Underground Tank Compliance Site Assessment and Remediation Documentation Green Bay Correctional Institution Heating Plant WDNR LUST ID # 03-05-2140

### Distribution

No. of Copies	Sent To
1	Ms. Kathy Erdmann
	Lake Michigan District Headquarters
	Wisconsin Department of Natural Resources
	P.O. Box 10448
	1125 N. Military Avenue
	Green Bay, Wisconsin 54307-0448
	Bureau of Petroleum Inspection and Fire Protection
화장시간 성 확인	P.O. Box 7969
	Madison, WI 53707
2	Mr. Martin Romero, P.E.
강일 회 회원 :	Wisconsin Department of Administration
	Division of Facilities Development
	101 East Wilson Street - 7th Floor
	P.O. Box 7866
	Madison, Wisconsin 53707-7866
1	Mr. Terry Cook
	Wisconsin Department of Administration
	P.O. Box 306
	King, Wisconsin 54946
	물이 나는 속 내 내용을 하는데 들었다면 내 내용이 나들하다
	Mr. Jim Nelson
	Environmental Manager
	Department of Corrections
	149 East Wilson
	Madison, WI 53703
1	Mr. Christopher Timmers
	Heating Plant Superintendent
	Green Bay Correctional Institute
	P.O. Box 19033
관계 점이라 네티네	Cross Doy WI 54207 0022

### Power Plant Underground Tank Compliance Site Assessment and Remediation Documentation DOC-Green Bay Correctional Institution Heating Plant WDNR ID No. 03-05-2140

Scope ID: 94W048

Prepared for
Wisconsin Department of Administration
Division of Facilities Development
Division Project No. 93943

Prepared by Foth & Van Dyke and Associates Inc.

July 1997

#### **REUSE OF DOCUMENTS**

This document has been developed for a specific application and not for general use; therefore, it may not be used without the written approval of Foth & Van Dyke and Associates. Unapproved use is at the sole responsibility of the unauthorized user.

#### **Executive Summary**

Two 20,000-gal underground storage tanks (USTs) containing heating oil that fueled boilers and one 1,000-gal UST containing diesel fuel that served an emergency generator at the Green Bay Correctional Institution were permanently closed by removal on July 13-14, 1995 and November 21, 1995 respectively.

The tanks were cleaned and the tank sludge and cleaning wastes were disposed of off-site by Stiles Environmental Testing, Lake Mills, Wisconsin. The tanks and associated piping were cut into scrap and removed from the site. During the excavation and removal of the tanks, soil samples were collected for field screening and laboratory analysis to assess for soil contamination.

During the removal of the two 20,000-gal tanks, petroleum product odor was present in the soils at several areas of the excavation. Headspace sample field readings were variable from 0.0 to 178 instrument units.

Soil contamination was not observed adjacent to the 1,000 gal tank.

Soil samples were collected from the 20,000-gal tank system excavation and analyzed for diesel range organics (DRO), following the Wisconsin Department of Natural Resources (WDNR) Modified DRO Method, petroleum volatile organic compounds (PVOCs), polynuclear aromatic hydrocarbons (PAHs) and lead. Several samples collected from the soils remaining after overexcavation exhibited DRO and PVOC detects. However, these levels did not exceed the WDNR residual contaminant levels (RCL) established in Ch. NR 720 Wis. Adm. Code. Soil contamination was detected in the samples collected from beneath the remote fill ports for the 20,000 gal tanks even though surface staining was not evident. DRO was detected at elevated concentrations at these locations with a few minor detects of PAHs, however PVOCs were not detected. The contaminated soil could not be excavated at this location due to the presence of a gas main pipe.

A minimal amount of free water was encountered within the 20,000-gal tank pit at approximately 11 ft below grade. It could not be determined whether this water was perched groundwater or surface water that was trapped within the tank backfill.

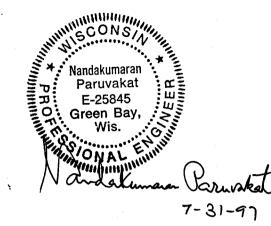
Approximately 63 tons of overexcavated contaminated soil was generated as part of the remedial action. The petroleum-impacted soil was treated and disposed of at Waste Management's Ridgeview Landfill in Whitelaw, Wisconsin. Both excavations were backfilled with clean imported sand.

In conclusion, the site assessment conducted in accordance with ILHR 10 determined that the soils adjacent to the 20,000-gal UST system were contaminated with petroleum product. However, the overexcavation sampling of tank pit soils demonstrated that excavation has been

done to the extent practicable, and the site has been remediated to levels below NR 720 soil cleanup standards.

Pursuant to the requirements of NR 726, a Case Summary and Closeout form has been prepared for this site and is included with this report.

I, Nandakumaran Paruvakat, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all 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.



I, Philip R. Brochocki, 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.



### Power Plant Underground Tank Compliance Site Assessment and Remediation Documentation Green Bay Correctional Institution Heating Plant WDNR LUST ID # 03-05-2140

### **Contents**

		Pa	age
1	1.1 Site 1	round Information Location and History Soils	. 1
2	2.1 Worl	ment	. 6
3	3.1 Over	Excavation Sample Methodology	. 9
		s	
5	Recommend	dation	18
6	Limitations	of Assessment	19
		Tables	
Tab	ole 3-1 ole 3-2 ole 3-3	Soil Analytical Results - PVOCs, DRO and Field Readings	13
		Figures	
Figi Figi	ure 1-1 ure 1-2 ure 3-1 ure 3-2	Site Location Map	3 10

Page

# **Appendices**

Appendix A	"Underground Petroleum Product Tank Inventory" DILHR Form SBD-7437
Appendix B	"Checklist for Underground Tank Closure" DILHR Form SBD-8951 (N 02/91)
Appendix C	Certificate of Tank Destruction
Appendix D	Soil Treatment and Disposal Information
Appendix E	Photograph Documentation
Appendix F	WDNR Correspondence
Appendix G	STS Consultants Ltd. Site Information
Appendix H	Laboratory Analytical Data Chain-of-Custody Record
Appendix I	"Case Summary and Closeout" WDNR Form 4400-171

### 1 Site Background Information

#### 1.1 Site Location and History

The site is located at the Green Bay Correctional Institution, 2833 Riverside Drive, Green Bay, Wisconsin. The site is located in the Village of Allouez in Brown County. The location is shown on the "Site Location Map", Figure 1-1, which is a portion of the United States Geological Survey (USGS), De Pere Quadrangle, 7.5-minute series topographic map published in 1982. The terrain of the Institution is flat and is approximately 1500 ft east of the Fox River. A minimal amount of free water was encountered within the 20,000-gal tank pit at approximately 11 ft below grade. It could not be determined whether this water was perched groundwater or surface water that was trapped within the tank backfill.

The two 20,000 USTs were located west of the northwest corner of the heating plant along the prison wall, as shown on the "Site Layout Map", Figure 1-2. The 1,000-gal UST was located immediately north of the southeast corner of the heating plant. All three USTs were steel, single wall tanks. The two 20,000-gal USTs (Tanks 1 and 2) served the oil-fired boilers in the heating plant and were installed in 1972. The 1,000-gal UST (Tank 3) served an emergency generator and was installed in 1984. The larger tanks' fill pipes and vent pipes were located north of the tanks and outside of the prison wall, respectively. The fill pipe for the small tank was directly above the tank.

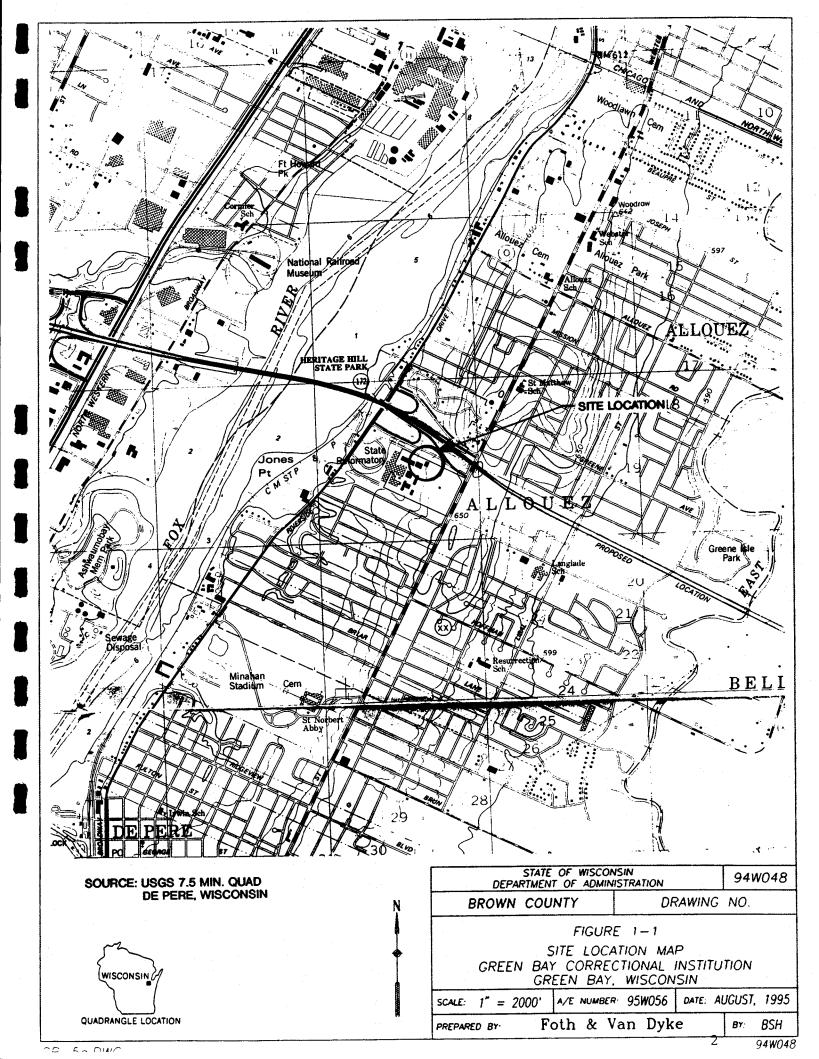
The registration numbers for the tanks are as follows:

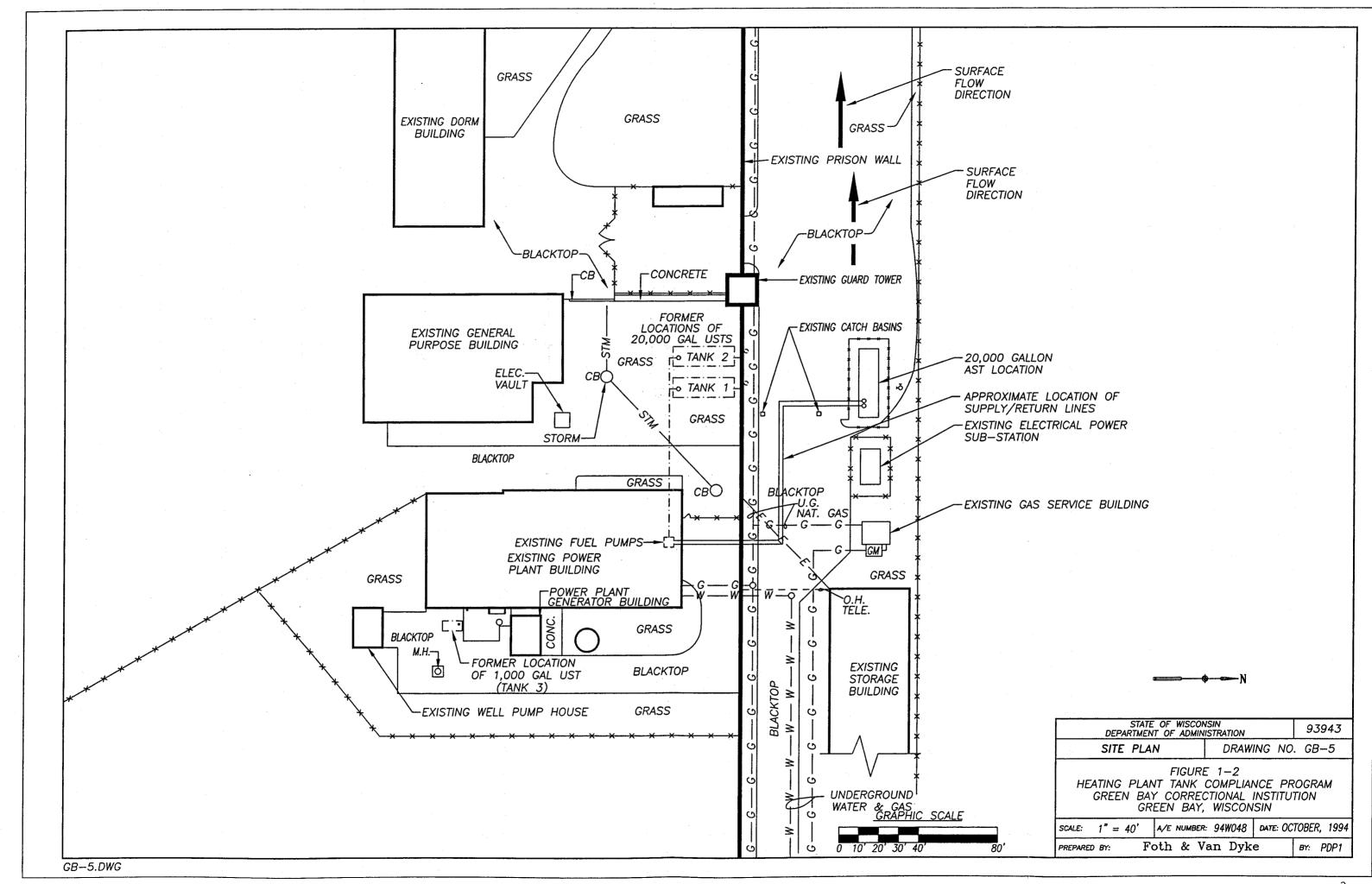
- 20,000 gal tanks 051600012 and 051600013
- 1,000 gal tank 051600009

A copy of the "Underground Petroleum Product Tank Inventory" form (DILHR SBD-7437) were completed at the time of the tank closures and indicate that the tanks were permanently closed by removal. Copies of these forms are presented in Appendix A.

In 1990 during removal of a 500 gal diesel UST, which was previously located between the subject 1,000 gal UST and the Generator Building, contaminated soil was observed. This release was documented by the WDNR as WDNR LUST ID# 05-00132. In 1990 STS Consultants Ltd. (STS) drilled two soil borings (GBCI-4 and GBCI-5) adjacent to the former contaminated soil excavation site. Laboratory analysis of the soil samples collected from the borings indicated that very low levels of contamination were present in the boring east of the former 500 gal diesel tank pit (GBCI-4). The soil sample collected from GBCI-5 indicated that toluene was present at a level of 4.5 ug/kg. GBCI-5 was located adjacent to the subject 1,000 gal tank product piping.

In 1992 STS installed a monitoring well adjacent to the northeast corner of the former 500-gal diesel tank pit. 1992 and 1993 groundwater sampling did not indicate the presence of contamination. In September, 1992 approximately 26 tons of contaminated soil was disposed of at Brown County Landfill. This volume was composed of the previously stockpiled





contaminated soil generated at the time of the tank removal (1990) and approximately 10 cu yd of contaminated soil that was overexcavated in 1992. This LUST site (05-00132) was closed by the WDNR in February 1994.

The UST Owner/Operator is:

Wisconsin Department of Corrections - Green Bay Correctional Institution 2833 Riverside Drive P.O. Box 19033
Green Bay, Wisconsin 54307-9033

State of Wisconsin, Division of Facilities Development Project Manager is:

Mr. Martin Romero, P.E. Wisconsin Department of Administration Division of Facilities Development 101 East Wilson Street 7<sup>th</sup> Floor P.O. Box 7866 Madison, WI 53707-7866 (608) 266-2886

#### Site Contact is:

Mr. Christopher Timmers, Heating Plant Superintendent Green Bay Correctional Institution P.O. Box 19033 Green Bay, WI 54307-9033 (414) 432-4877

#### The Project Consultant is:

Philip R. Brochocki, P.G. Foth & Van Dyke P.O. Box 19012 Green Bay, WI 54307-9012 (414) 497-2500

#### 1.2 Site Soils

Two soil types were encountered at the site. The soil type around the two 20,000-gal USTs was Allendale fine sandy loam (AeA) and the soil type around the 1,000-gal UST was Oshkosh silt loam (OnB) according to the *Soil Survey of Brown County, Wisconsin*.

Allendale fine sandy loam is part of the Allendale series, which consists of deep, somewhat poorly drained soils on lacustrine plains. In a typical profile of the series the surface layer is dark grayish-brown loamy fine sand about 8 in thick. The subsurface layer, about 7 in thick, is reddish-yellow and strong-brown fine sand mottled with yellowish red and light brownish gray. The subsoil is about 25 in thick. It is dark-brown to brown fine sand mottled with reddish yellow in the upper part, brown loamy fine sand mottled with reddish yellow and gray in the middle part, and reddish-brown silty clay mottled with strong brown and reddish yellow in the lower part. The substratum is reddish-brown silty clay that extends to a depth of 60 in. The Allendale fine sandy loam, 0 to 3 % slopes variety (AeA) is similar to that described above but the surface layer is lighter colored and has a lower content of sand. The sandy part of the profile is rapidly permeable (between 6 and 20 in/hr) and the clayey lower part and the substratum is slowly permeable (between 0.06 and 0.2 in/hr). Runoff is also slow. The Allendale soils have medium available water capacity.

Oshkosh silt loam is part of the Oshkosh series which consists of deep, well drained and moderately well drained soils on lacustrine plains dissected by V-shaped valleys. In a typical profile of the series the surface layer is dark-gray to very dark grayish brown silt loam about 4 in thick. The subsurface layer is weak red silt loam about 3 in thick. The subsoil is about 22 in thick. The upper 2 in is dark reddish-gray to reddish-clay. The upper 2 in of the substratum is reddish-brown silty clay loam, and the lower part is reddish-brown silty clay. The Oshkosh silt loam, 2 to 6 % slopes variety (OnB) has the profile described above. The Oshkosh soils exhibit slow permeability (between 0.06 and 0.2 in/hr) and have medium available water capacity.

#### 2 Site Assessment

#### 2.1 Work Functions

Stiles Environmental Testing performed the excavation, tank cleaning and tank removal procedures. Stiles also arranged for disposal of the tank sludge and cleaning wastes. At the time of this report Stiles had not presented tank sludge and cleaning wastes disposal information. Salvage Specialists, Inc. cut the tanks into scrap for disposal. Foth & Van Dyke performed the site assessment procedures.

# DILHR Certified Tank Remover DILHR Certified Tank Cleaner Sludge/Waste Transporter and Disposer

Stiles Environmental Testing, Inc. W7694 Hwy V
Lake Mills, Wisconsin 53551-9643 (414) 648-8084
Remover: Doug Stiles
DILHR Cert. No. 03100
Expiration date: 02/12/98
Cleaner: Chris Hinz
DILHR Cert. No. 02991

Expiration Date: 12/21/97

#### Tank Destruction

Salvage Specialists, Inc. 518 E. Main St. Waterford, WI 53185 (414) 534-2866

#### **DILHR Certified Site Assessor**

Foth & Van Dyke 2737 S. Ridge Road, P.O. Box 19012 Green Bay, Wisconsin 54307-9012 (414) 497-2500 Site Assessor: John Blayne Kirsch DILHR Cert. No. 05312 Expiration Date: 03/13/98

#### Soil Disposal

Ridgeview Recycling and Disposal Facility 6207 Hempton Lake Road Whitelaw, WI 54247-0227 Profile No. BIO 22509

#### 2.2 Tank Closure

Two 20,000-gal USTs were permanently closed by removal on July 13-14, 1995. One 1,000-gal tank was closed by removal on November 21, 1995. The Village of Allouez Fire Department was notified prior to tank removal operations. Capt. Robert Dunks (Tank Inspector LPO No. 002) was at the site on July 14 during tank removal.

The tanks were cleaned in the ground before being removed from the excavation. No fuel oil was recovered from the USTs for reuse. The atmosphere within the tank was checked for combustible vapors and the tank was vented using a blower before being cleaned. A 20- to 24-in circular manway was used to gain access to the inside of the tanks for cleaning. Approximately

650 gal of cleaning sludge were removed from the 20,000 gal tanks and approximately 500 gal from Tank No. 3. The sludge was placed into 55-gal drums for disposal. An absorbent material was then placed in the bottom of the tank to soak up the remaining sludge residue, which was subsequently removed and also placed into drums for disposal. The drums of tank sludge and cleaning waste were disposed of by Stiles Environmental Testing. Waste disposal documentation has not been received from Stiles at the time of this report. This information will be forwarded to the WDNR when received.

The two 20,000-gal tanks and the 1,000-gal tank were removed from two separate excavations. The depth to the tops of the three tanks was approximately 2 ft. The two large USTs were steel, single-wall tanks, 11 ft by 26 ft. The approximate dimensions of the 1,000-gal tank were 5 ft by 6 ft. Native clays were encountered in both tank excavations after the tank backfill was removed. The clays were very hard and dry. The three tanks were backfilled with sand and gravel.

The two 20,000-gal USTs were each anchored in the excavation with steel hold down straps secured to individual concrete slabs beneath the tanks. The bottom of these tanks were approximately 13 ft below grade. To remove the tanks, the hold down straps were sheared off using the backhoe bucket. The concrete slabs were left in the tank pit but the steel straps were removed. To facilitate removal, each 20,000-gal tank was cut in half and then lifted out of the excavations.

Soil around the remote fill pipes was excavated by hand in order to protect the adjacent gas main and facilitate removal. Discoloration of grass and surficial soils was not observed. However at a depth of approximately 5 ft elevated PID readings were detected from samples collected for laboratory analysis.

The 20,000-gal tank excavation site was covered with grass. Staining and petroleum odor were evident at the fill pipe of Tank No. 1 and soils above Tank No. 2. While excavating, the backhoe broke the return line between the two 20,000-gal tanks which released a small amount fuel oil that contaminated a small amount of soil. All of the contaminated soil encountered was excavated and stockpiled for disposal. Contaminated soil was not encountered during the removal of the 1,000 gal tank.

A minimal amount of free water was encountered within the 20,000-gal tank pit at approximately 11 ft below grade. It could not be determined whether this water was perched groundwater or surface water that was trapped within the tank backfill. There was no petroleum odor or film associated with the groundwater and it was not sampled.

The "Checklist for Underground Tank Closure" forms (DILHR SBD-8951, N 02/91) were completed and copies of the forms are included in Appendix B. The tanks appeared to be in good condition. The excavations were backfilled with clean imported sand and the previously excavated material that was judged as uncontaminated.

The tanks were cut into scrap by Salvage Specialists, Inc. A copy of the letter documenting destruction of the tanks is included in Appendix C.

The contaminated soil within the tank pit was remediated by overexcavation. Approximately 63 ton of contaminated soil was disposed of at Ridgeview Recycling and Disposal Facility's biopile in Whitelaw, Wisconsin. Disposal documentation as well as a completed WDNR "Notification to Treat or Dispose of Petroleum Contaminated Soil & Water" Form 4400-120 are presented in Appendix D.

Photographs of the UST site including excavation, tank removal, and the decommissioned tank are included in Appendix E.

Documentation of WDNR notification of the contaminated soil observed is presented in Appendix F.

#### 3 Remedial Actions

#### 3.1 Over Excavation

Overexcavation of contaminated soil continued at the site until July 14, 1995. A PID was used to screen soil headspace samples. Soils that were believed to be contaminated were stockpiled for future disposal or treatment. The approximate limits of excavation are shown in Figure 3-1. Contaminated soil was confined to the areas around Tank No.1 fill pipe, above Tank No.2 and the soil between the tanks (which resulted from excavation practices) and the soils beneath the remote fill pipes. According to Stiles the soils beneath the remote fill pipes could not be overexcavated due to the close proximity of the large gas pipe as shown on Figures 1-2 and 3-1.

Approximately 63 tons of contaminated soil was generated as part of the remedial action. Appendix D presents the WDNR soil disposal notification Form 4400-120. Analytical results the samples collected from the separated contaminated soil were tabulated and are presented in Table 3-1.

Contaminated soil was not encountered during the removal of the 1,000 gal tank.

#### 3.2 Soil Sample Methodology

Soil samples collected during the 20,000 gal tank assessment were from the native soils beneath the remote fill ports, the supply/return fuel piping, from the bottom of the excavation just beyond the edge of the concrete hold-down slab at each end of the tank, and under the supply/return piping where it entered the building. Figure 3-1 shows the soil sample locations.

Soil samples collected during the 1,000-gal tank assessment were from the native soils beneath each end of the tank. An assessment sample was not collected from soil around the product lines as STS demonstrated through their boring GBCI-5 that only toluene was detected at a level of 4.5 ug/kg. Soil sampling locations are shown on Figures 3-2. The information provided by STS is presented in Appendix G.

Headspace samples collected from the excavations were field screened using a photoionization detector (PID) for the presence of volatile organic compounds (VOCs) following the headspace sample container analysis procedure, as described in Chapter ILHR 10, Wis. Adm. Code, Appendix B. The PID used was a Photovac MicroTIP HL-200 (Serial No. PA910111) with a 10.6 electron-volt (eV) lamp. The PID was field calibrated to a span gas with a concentration of 100 parts-per-million (ppm) isobutylene each construction day, prior to measuring the headspace samples. Field headspace sampling results corresponding to the soil samples collected for laboratory analysis are presented on Table 3-2.

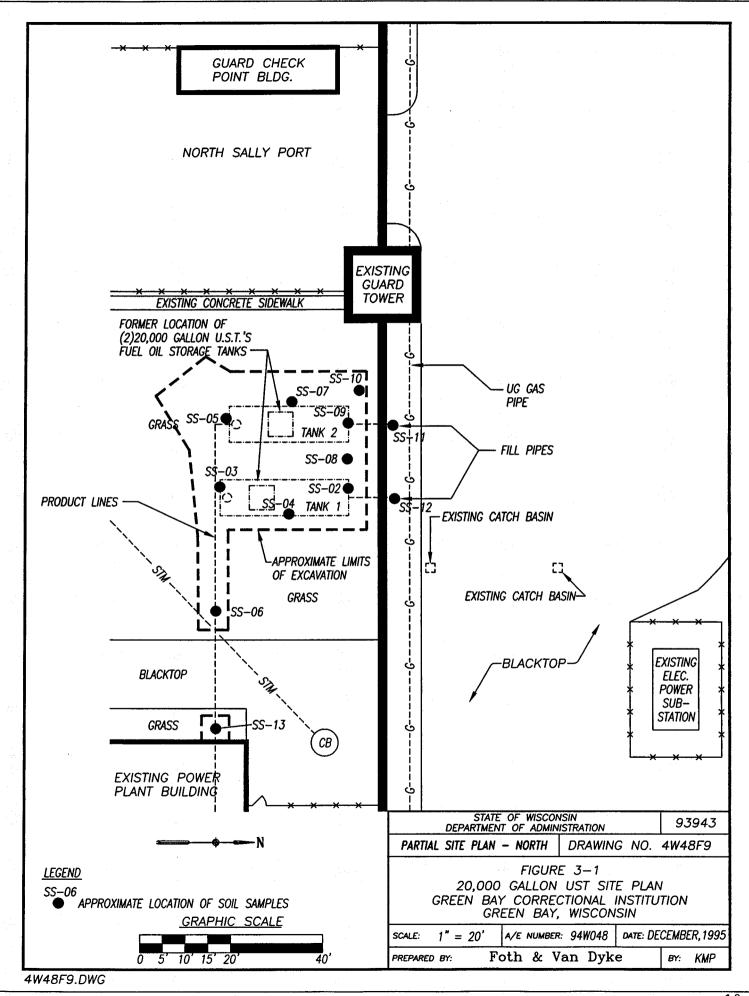


Table 3-1

### Green Bay Correctional Institute Power Plant Soil Stockpile Analytical Results Fuel Oil Tank Assessment/Remediation Protocol D-1 DRO

Sample	Sample	Date	Total Solids	Lead	Ignitability	Frep Liquids	DRO	Benzene
ID	Description	Sampled	(%)	(mg/kg)	(°F)	(%)	(mg/kg)	(μg/kg)
SP-02	Soil Pile Mid	07/14/95	86	5.2	>210	0.0	150	<25

Prepared by: MDF Checked by: PRB

DRO = Diesel Range Organics by Wisconsin Modified DRO method.

Compound below minimum detection limit shown.

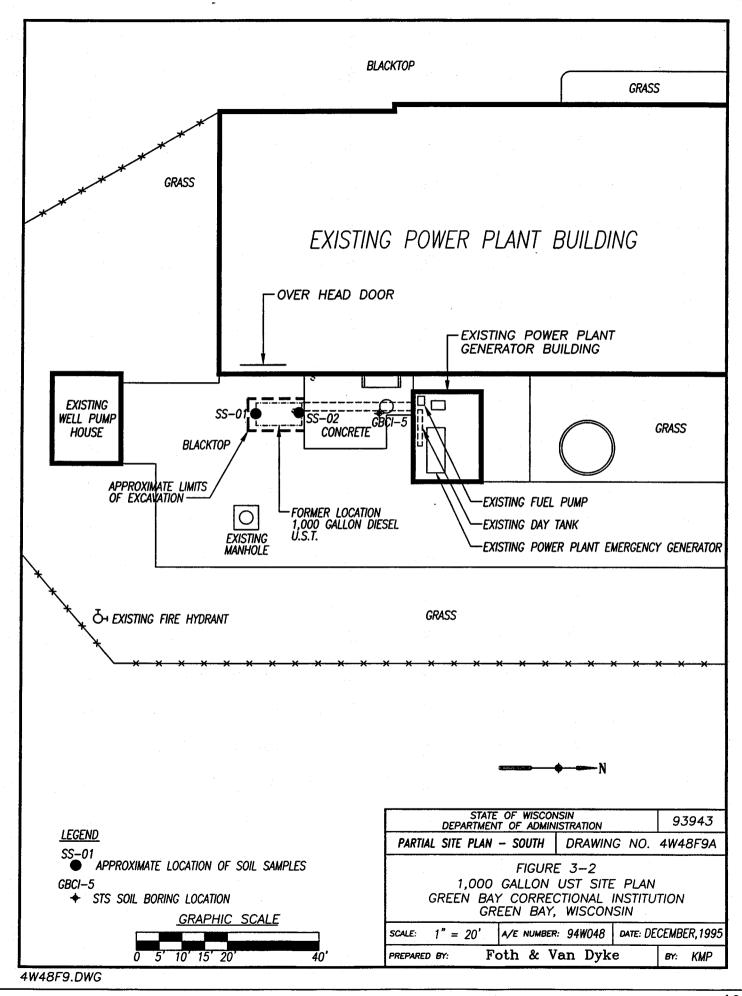


Table 3-2

Green Bay Correctional Institute Power Plant
Soil Analytical Results
Fuel Oil Tank Assessment/Remediation
Field Screening, PVOCs, and DRO

Sample ID/ Depth (ft)	Sample Description	Date Sampled	PID	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl- benzene (ug/kg)	m/p Xylenes (ug/kg)	O- Xylenes (ug/kg)	MTBE (ug/kg)	1,2,4- Tri- methyl- benzene (ug/kg)	1,3,5-Tri- methyl- benzene (ug/kg)	DRO (mg/kg)	Lead (mg/kg)
				20,0	000-Gal Heat	ing Oil Tank	System						
SS-02/12	T-1 NW D12 HS-06	07/13/95	34	NA	NA	ŃΑ	NA	NA	NA	NA	NA	72	NA
SS-03/12	T-1 EW D12 HS-07	07/13/95	1	NA	NA	NA	NA	NA	NA	NA	NA	<4.4	NA
SS-04/11	T-1 SW D11 HS-08	07/13/95	2	NA	NA	NA	NA	NA	NA	NA	NA	<4.2	NA
SS-05/11	T-2 SW D11 HS12	07/14/95	1.3	, NA	NA	NA	NA	NA	NA	NA	NA .	17	NA
SS-06/5	PR W D5 HS15	07/14/95	0.0	NA	NA	NA	NA	NA	NA	NA	NA	<4.5	NA
SS-07/11	T-2 WW D11 HS13	07/14/95	0.0	NA	NA	NA	NA	NA	NA	NA	NA	<4.4	NA
SS-08/13	T-2 NW D13 HS16	07/14/95	65	<25	<25	<25	<25	<25	<25	<25	<25	<4.6	5.3
SS-09/15	T-2 NWB D15 HS17	07/14/95	4	<25	<25	<25	<25	<25	<25	<25	<25	<4.6	5.4
SS-10/13	T-2 NWNW D13 HS19	07/14/95	0.0	<25	<25	<25	<25	<25	<25	<25	<25	<4.4	4.9
SS-11/5	FPT-2 D5 HS20	07/14/95	152	<25	<25	<25	<25	<25	<25	<25	<25	1100	15
SS-12/5	FPT-1 D5 HS-21	07/14/95	114	<25	<25	130	220	83	<25	1400	<25	1600	12
SS-13/4	PRE D4 HS22	07/14/95	0.6	NA	NA	NA	NA	NA	NA	NA	NA	<4.2	NA
				1	,000-Gal Dig	ester Tank Sy	stem						
SS-01/8	GB-1,000-South	11/21/95	16.0 <sup>(C)</sup>	NA	NA	NA	NA	NA	NA	NA	NA	<4.1	NA
SS-02/8	_ GB-1,000-North	11/21/95	0.0 <sup>(C)</sup>	NA	NA	NA	NA	NA	NA	NA	NA	<4.3	NA

Table 3-2 (Continued)

Sample ID/ Depth (ft)	Sample Description	Date Sampled	PID	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl- benzene (ug/kg)	m/p Xylenes (ug/kg)	O- Xylenes (ug/kg)	MTBE (ug/kg)	1,2,4- Tri- methyl- benzene (ug/kg)	1,3,5-Tri- methyl- benzene (ug/kg)	DRO (mg/kg)	Lead (mg/kg)
				Se	oil Cleanup	Standards (NI	R 720)						
	RCL			5.5	1500	2900	(4100) <sup>(B)</sup>	(4100) <sup>(B)</sup>	NE	NE	NE	250	50

Prepared by: MDF Checked by: PRB

NA = Not Analyzed

NE = Not Established

PVOCs = Petroleum Volatile Organic Compounds (8020 method list)

MTBE = Methyl tert-butyl ether

DRO = Diesel Range Organics by Wisconsin Modified DRO Method

< = Compound below minimum detection limit shown

RCL = Residual Contaminant Level

For soils with saturated hydraulic conductivity less than 1x10<sup>-6</sup> cm/sec, DRO at 250 mg/kg For non-industrial land uses, lead at 50 mg/kg, for industrial land uses, lead at 500 mg/kg

Soil sample locations are shown on Figures 3-1 and 3-2.

<sup>(</sup>A)Constituent units for this sample are  $\mu$ g/l.

<sup>(</sup>B)Standard established for total xylenes, summation of m/p and O-xylenes.

All samples collected were analyzed for DRO, following the WDNR Modified DRO method. Samples SS-08 through SS-12 (20,000-gal tank system) were analyzed for petroleum volatile organic compounds (PVOC), polynuclear aromatic hydrocarbons (PAH), and lead. Soil samples were analyzed by En Chem Inc., Green Bay, Wisconsin. A copy of the laboratory reports and the chain-of-custody records are presented in Appendix H. Samples collected for laboratory analysis were obtained using EnChem Encore Sampler. Sampling results are summarized in Tables 3-2 and 3-3.

Table 3-3

### **Green Bay Correctional Institute Power Plant Soil Analytical Results**

### **Fuel Oil Tank Assessment/Remediation** Polynuclear Aromatic Hydrocarbons (PAHs)(A) 20,000-Gal Heating Oil Tank System

Sample ID	Sample Description	Date Sampled	Acenaph- thene (ug/kg)	Acenaph- thylene (ug/kg)	Anthracene (ug/kg)	Benzo (a) anthracene (ug/kg)	Benzo (a) pyrene (ug/kg)	Benzo (b) fluoranthene (ug/kg)	Benzo (ghi) perylene (ug/kg)	Benzo (k) fluoranthene (ug/kg)	Chrysene (ug/kg)
SS-08	T-2 NW D13 HS16	07/14/95	<59	<120	<2.3	<2.9	<2.3	<2.3	5.5	<2.3	<2.9
SS-09	T-2 NWB D15 HS17	07/14/95	<19	<39	<0.8	<1.0	<0.8	<0.8	<5.8	<0.8	<1.0
SS-10	T-2 NWNW D13 HS19	07/14/95	<19	<39	<0.8	<1.0	<0.8	<0.8	<5.8	<0.8	<1.0
SS-11	FPT-2 D5 HS20	07/14/95	<21	<43	<0.9	<5.3	<4.3	<4.3	<6.4	<4.3	20
SS-12	FPT-1 D5 HS21	07/14/95	<340	<680	<14	<17	<14	35	<20	<14	62
Sample ID	Sample Description	Date Sampled	Dibenzo (a,h) anthracene (ug/kg)	Fluor- anthene (ug/kg)	Fluorene (ug/kg)	Indeno (1,2,3-cd) pyrene (ug/kg)	1-Methyl- naphthalene (ug/kg)	2-Methyl- naphthalene (ug/kg)	Naphthalene (ug/kg)	Phenan- threne (ug/kg)	Pyrene (ug/kg)
SS-08	T2 NW D13 HS16	07/14/95	2.6	<2.3	<12	<2.3	<59	<59	<59	<12	<12
SS-09	T-2 NWB D15 HS17	07/14/95	<3.9	<0.8	<3.9	<3.9	<19	<19	<19	<3.9	<3.9
SS-10	T-2 NWNW D13 HS19	07/14/95	<3.9	<0.8	<3.9	<3.9	<19	<19	<19	<3.9	<3.9
SS-11	FPT-2 D5 HS20	07/14/95	<4.3	<0.9	<4.3	<4.3	<21	<21	<21	<4.3	7.1
SS-12	FPT-1 D5 HS21	07/14/95	<14	<14	<68	<14	<340	<340	<340	<68	<68

Compound below minimum detection limit shown.

There are no soil cleanup standards established for any of these PAHs. Note (A)

Soil sample locations are shown on Figure 3-1.

Prepared by: MDF Checked by: PRB

#### 4 Conclusions

- Elevated PID readings and petroleum staining/odor in the soils adjacent to the 20,000 gal tanks indicated that a release of petroleum had occurred during operation of the tank system.
- Soil contamination was detected in the samples collected from beneath the remote fill ports for the 20,000-gal tanks even though surface staining was not evident. DRO was detected at elevated concentrations at these locations with a few minor detects of PAHs, however PVOC were not detected. The contaminated soil could not be excavated due to the presence of a gas main pipe.
- ♦ Water collected at the bottom of the 20,000-gal tank excavation. It could not be determined whether this water was perched groundwater or surface water that was trapped within the tank backfill. There was no petroleum odor or film associated with the groundwater and it was not sampled.
- Approximately 63 tons of overexcavated contaminated soil was generated as part of the remedial action. The petroleum-impacted soil was treated and disposed of at Waste Management's Ridgeview Landfill in Whitelaw, Wisconsin. Stiles also disposed of the tank cleaning waste. This documentation will be supplied to the WDNR when it has been obtained from Stiles.
- ♦ Laboratory reports on the soil samples collected from the contaminated soil overexcavation indicate that the contaminated soil was removed and the site remediated to levels below NR 720 soil standards.
- Contaminated soil was not encountered during the removal of the 1,000-gal diesel tank.

#### 5 Recommendation

Since accessible contaminated soil has been remediated to the practical and physical extent, Foth & Van Dyke recommends that the site be closed. A completed WDNR Case Summary and Closeout Form has been prepared in order to expedite project review and case closeout. Appendix I presents the completed form and supplemental information.

#### **6 Limitations of Assessment**

This report was prepared under constraints of cost, time, and scope, and reflects a limited assessment and evaluation rather than a full, total, complete or extensive assessment and evaluation.

Our assessment was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by Professional Consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as to the conclusion and professional advice included in this report.

The findings of this report are valid as of the present date of the assessment. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control.

If the interpretations and conclusions contained in this report are based upon the result of independent laboratory tests and analysis intended to detect the presence and/or concentration of certain chemical constituents in samples taken from the subject property, such testing and analysis have been conducted by an independent testing laboratory. Foth & Van Dyke has no control over such testing and analysis and, therefore, disclaims any responsibility for any errors or omissions arising therefrom.

If the assessment contained in this report is based upon observation of conditions at the facility/site and/or information provided by the client and/or investigation of records, and it does not include sampling of soil, rock, groundwater, surface water, air, on-site substances or materials, it is, therefore, not possible to confirm the presence or absence of toxic or hazardous substances, wastes or materials in the environments associated with the facility/site.

If subsurface exploration was performed and presented in the report, any subsurface exploration cannot reveal totally what is below the surface. Depending upon the sampling method and frequency, every soil condition may not be observed, and some materials or layers which are present in the subsurface may not be noted.

This report is issued with the understanding that it is the responsibility of the owner(s) to ensure that the information and recommendations contained herein are brought to the attention of the appropriate regulatory agency(ies).

# Appendix A

# "Underground Petroleum Product Tank Inventory" DILHR Form SBD-7437

Wisconsin Department of Industry, **Labor and Human Relations** 

#### UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

Send Completed Form To: Safety & Buildings Division P.O. Box 7969 Madison WI 53707

For Office Use Only: Tank ID# 0516000/2	Information Required By Sec. 102.142, Wis. Stats.	Madison, WI 53707 Telephone (608) 267-5280
Please see the reverse side for addition	have stored or currently store petroleum or regulated sul hal information on this program. An underground stora	ge tank is defined as any tank

with at least 10 percent of its total volume (included piping) located below ground level. 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 his tank by submitting a form? XYES \( \property \text{NO} \) NO If yes, are you correcting/updating information only? \( \nabla \) Yes \( \property \text{No} \) This registration applies to a tank that is (check one): Fire Department Providing Fire Coverage 4. Closed - Tank Removed 8. Changed Ownership 1A. In Use or 1B. Newly Installed Where Tank Located: ALLOWEZ FIRE DEPT. (Indicate new owner 2. 

Abandoned With Product 6. ☐ Closed - Filled With below) 3. 
Abandoned No Product (empty) Inert Material or With Water 7. Out of Service - Provide Date: IDENTIFICATION: (Please Print) Site Address Site Telephone No Tank Site Name 14)432-48 ORPECTIONA REEN Zip Code ☐ Town of: State ☐ City Owner Name (mail sent here unless indicated otherwise in #3 below) lailing Address (mail sent here unless indicated otherwise in #3) >141Z و کراری کارک Zip <u>Co</u>de S 3 ☐ Town of: X City State County ] Village 4-1150X Alternate Mailing Street Address If Different From #2 3. Alternate Mailing Name If Different Than #2 Zip Code County ☐ Town of: ☐ City □ Village Tank Age (date installed, if known: or years old) 5. Tank Capacity (gallons) 6. Tank Manufacturer's Name (if known) YRS TYPE OF USER (check one): 3. Utility ☐ Mercantile 2. Bulk Storage 1. Gas Station 8. Residential 6. Government 10. Other (specify): 7. School ☐ Industrial 9. Agricultural TANK CONSTRUCTION: 2. ☐ Cathodically Protected and Coated Steel (A. ☐ Sacrificial Anodes or B. ☐ Impressed Current) 1. Bare Steel
3. Coated Steel 5. Other (specify): 4. Tiberglass Steel - Fiberglass Reinforced Plastic Composite 9. Unknown 6. Relined - Date 7. Approval: 1. Nat'l Std. 2. UL Is Tank Double Walled? ☐ Yes ☑ No 3. Other: ☐ Yes Mo If yes, identify type: Spill Containment? Yes No Overfill Protection Provided? 2. Vapor monitoring 3. Groundwater monitoring 4. Ninventory control and Tank leak detection method: 1. Automatic tank gauging 7. Manual Tank Gauging (only for tanks of 1,000 gallons or less) tightness testing 5. Interstitial monitoring 6. Not required at present PIPING CONSTRUCTION D. 1. Bare Steel 2. Cathodically Protected and Coated or Vrapped Steel (A. Sacrificial Anodes or B. Impressed Current) 3. Coated Steel 4. Fiberglass 5. Other (specify): CAPPE 9. Unknown

Piping System Type: 1. Pressurized piping with: A. auto shutoff; B. alarm; or C. flow restrictor 2. Suction piping with check valve at tank 3. Suction piping with check valve at pump and inspectable Piping leak detection method: used if pressurized or check valve at tank: 1. ☐ Vapor monitoring 3. ☐ Groundwater monitoring 4. ☐ Tightness testing 5. ☐ Line Leak Detector ☐ Interstitial monitoring

Not Required 3. Groundwater monitoring 4. Tightness testing Double Walled: Ø′No ☐ Yes 1. Nat'l Std 3. ☐ Other: 2. 🗌 UL Approval: TANK CONTENTS 4. Fuel Oil 8. Sand/Gravel/Slurry 2. 🔲 Leaded 3. Unleaded 1. Diesel 6. 🔲 Other 7. Empty 5. Gasohol 12. 🔲 Propane 11. 

Waste Oil 9. Unknown 10. 

Premix 15. Aviation 14. 
 Kerosene 13. 
Chemical \* \* If # 13 is checked, indicate the chemical name(s) or number(s) of the chemical or waste Has a site assessment been completed? (see reverse side for details) If Tank Closed, Give Date (mo/day/yr): √Z Yes □ No If installation of a new tank is being reported, indicate who performed the installation inspection: 3. Other (identify) 2. 🔲 DILHR 1. | Fire Department Indicate Whether: Name of Owner or Operator (please print): Ø Owner or ☐ Operator Date Signed: Signature of Owner or Operator:

# Wisconsin Department of Industry, Labor and Human Relations

#### **UNDERGROUND** PETROLEUM PRODUCT TANK INVENTORY

Send Completed Form To: **Safety & Buildings Division** P.O. Box 7969 Madison, WI 53707 0

For Office Use Only: Tank ID # 05/6000/3	I ANK INVENTORY Information Required By Sec. 102.142, Wis. Stats.	Madison, WI 53707 Telephone (608) 267-5280
Underground tanks in Wisconsin that	have stored or currently store petroleum or regulated su	bstances must be registered
Please see the reverse side for addition	nal information on this program. An underground stora	ige tank is defined as any tank
with at least 10 persons of its total vol	ume (included nining) located below ground level. A se	eparate form is needed for

each tank. Send each completed form to the agency designation in this tank by submitting a form? X YES NO If yes, are	ed in the top right corr you correcting/updatir	ner. Have you page information o	reviously registered nly? 🌠 Yes 🗀 No
This registration applies to a tank that is (check one):  1A		1	roviding Fire Coverage
2. Abandoned With Product 6. Closed - Filled With	(Indicate new owner	ALLONEZ	PUBLIC SAFETY
3. Abandoned No Product (empty) Inert Material	below)	i	,
or With Water 7. Out of Service - Provide Da	ite:	<u> </u>	5/4
	33 KIVERSID		Site Telephone No. (4/4) 14/32-487
City Allourz Willage   Town of:	WI V	5430/	County BROWN
2. Owner Name (mail sent here unless indicated otherwise in #3 below)  STATE OF (いょくらのろうい)	Owner Mailing Address (ma	ail sent here unless in ソスタン、	idicated otherwise in #3)
☐ City ☐ Village ☐ Town of:		ip Code 5-3707	County AN =
<i>MA</i> の, ららり 3. Alternate Mailing Name If Different Than #2	Alternate Mailing Street Ac		om #2
☐ City ☐ Village ☐ Town of:	State 2	ip Code	County
4 Tank Age (date installed, if known: or years old)   5. Tank Capacity (gal	lons) 6. Tank Manufactur	er's Name (if known	
B. TYPE OF USER (check one):	3 <b>5</b> 11215	٠. 4. ٢	] Mercantile
1. ☐ Gas Station 2. ☐ Bulk Storage 5. ☐ Industrial 6. ☑ Government	3. Utility 7. School		Residential
9. Agricultural 10. Other (specify):			
C. TANK CONSTRUCTION:  1.  Bare Steel 2.  Cathodically Protected and Coa 3.  Coated Steel 4.  Fiberglass 6.  Relined - Date 7.  Steel - Fiberglass Reinforced Pla	5. □ Oth	er (specify):	ressed Current)
Approval: 1. 🗆 Nat'l Std. 2. 🗆 UL 3. 🛭 Other: しょんにゃっ	لدنس	Is Tank Doub	
Overfill Protection Provided?		Spill Contain	
Tank leak detection method: 1. ☐ Automatic tank gauging 2. ☐ Vapo tightness testing 5. ☐ Interstitial monitoring 6. ☐ Not required at pr		k Gauging (only for t	4. 図 Inventory control and anks of 1,000 gallons or less)
D. PIPING CONSTRUCTION  1. □ Bare Steel 2. □ Cathodically Protected and Coated or Wrapped St  4. □ Fiberglass 5. ☒ Other (specify):	eel ( A. 口 Sacrificial Anodes	or B. [] Impressed (	Current) 3. Coated Steel 9. Unknown
Piping System Type: 1. ☐ Pressurized piping with: A. ☐ auto'shutoff; B. ☐ 3. ☑ Suction piping with check valve at pump and insp	alarm; or C.  flow restricted		
Piping leak detection method: used if pressurized or check valve at tank: 1.	☐ Vapor monitoring	2. 🔲 Interstitial mon 5. 🧝 Not Required	itoring
Approval: 1. Nat'l Std 2. UL 3. Other:		Double Walled:	☐ Yes 🔯 No
E. TANK CONTENTS			
1. Diesel 2. Leaded	3. Unleaded		7 Fuel Oil 3 Sand/Gravel/Slurry
5. ☐ Gasohol 6. ☐ Other 9. ☐ Unknown 10. ☐ Premix	7. Empty 11. Waste Oil		Propane
13. Chemical *	14.  Kerosene	15.	Aviation
* If # 13 is checked, indicate the chemical name(s) or number(s) of the chem	ical or waste.		
If Tank Closed, Give Date (mo/day/yr):	Has a site assessment beer		everse side for details)
7-14-95		Yes No	
If installation of a new tank is being reported, indicate who performed the in	stallation inspection:		
1.  Fire Department 2.  DILHR	3.   Other (identify)		
Name of Owner or Operator (please print):	Indicat	e Whether:  Owner or	C Operator
Signature of Owner or Operator:	Date \$		
Lunda Port			
SBD-7437 (R, 12/91) IMPORTANT: Complete as many ite	!	7-14-90	

#### Wisconsin Department of Industry, Labor and Human Relations

#### UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

Send Completed For. Safety & Buildings Div. P.O. Box 7969 Madison, WI 53707

For Office Use Only: Information Required By Sec. 101.142, Wis. Stats. Telephone (608) 267-5280 Tank ID # Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (included piping) located below ground level. 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? VES NO If yes, are you correcting/updating information only? Ves No Fire Department Providing Fire Coverage This registration applies to a tank that is (check one): 4. Closed - Tank Removed 8. Changed Ownership Where Tank Located: 1A. In Use or 1B. Newly Installed 6. Closed - Filled With (Indicate new owner 2. 

Abandoned With Product below) Inert Material 7. Out of Service - Provide Date: or With Water IDENTIFICATION: (Please Print) Site Telephone No. Site Address **Tank Site Name** (414)432-487 <u>Green</u> orrectiona Zip Code / 5430 County □ Village ☐ Town of: State ☑ City green Owner Mailing Address (mail sent here unless indicated otherwise in #3) Owner Name (mail sent here unless indicated otherwise in #3 below) E Wils tate WISCHASIN Zip Code County ☐ Town of: State ☐ Village ☑ City 5.3 Alternate Mailing Street Address If Different From #2 Alternate Mailing Name If Different Than #2 Zip Code ☐ Town of: ☐ City ☐ Village 6. Tank Manufacturer's Name (if known) 5. Tank Capacity (gallons) 4. Tank Age (date installed, if known: or years old) TYPE OF USER (check one): 3. Utility 4. Mercantile 2. 🔲 Bulk Storage 1. Gas Station 8. Residential 6. Government 10. Other (specify): ☐ Industrial 7. School 5. 9. Agricultural **TANK CONSTRUCTION:** 2. 

Cathodically Protected and Coated Steel (A. 

Sacrificial Anodes or B. 

Impressed Current) Bare Steel
 Coated Steel
 Relined • Date 5. Other (specify): Fiberglass 4. 7. T Steel-Fiberglass Reinforced Plastic Composite 9. Unknown Is Tank Double Walled? Yes No 3. Other: Approval: 1. Nat'l Std. 2. UL Yes No Spill Containment? ☐ Yes ☐ No If yes, identify type: Overfill Protection Provided? 3. Groundwater monitoring 4.2 Inventory control an Tank leak detection method: 1. 

Automatic tank gauging 2. Vapor monitoring tightness testing 5. Interstitial monitoring 6. Not required at present 7. Manual Tank Gauging (only for tanks of 1,000 gallons or less) PIPING CONSTRUCTION 1. Bare Steel 2. Cathodically Protected and Coated or Wrapped Steel (A. Sacrificial Anodes or B. Impressed Current) 3. Coated Stee 4. Fiberglass 5. Other (specify): Capped 9. Unknown Piping System Type: 1. Pressurized piping with: A. | auto shutoff; B. | alarm; or C. | flow restrictor | 2. | Suction piping with check valve at tank 3. D'Suction piping with check valve at pump and inspectable Piping leak detection method: used if pressurized or check valve at tank: 1. Vapor monitoring

3. Groundwater monitoring

4. Tightness testing

5. Line Leak Detector 2. Interstitial monitoring 6: Not Required 4. Tightness testing 3. Groundwater monitoring ☐ Yes > No Double Walled: 3. 🗌 Other: 1. Nat'l Std Approval: 2. DUL TANK CONTENTS 4. 1 Fuel Oil 3. 🔲 Unleaded 2. 🗌 Leaded 1. Diesel 8. Sand/Gravel/Slurry 6. 🛘 Other 7. Empty 5. Gasohol 12. Propane 11. 🔲 Waste Oil 10. Premix 9. Unknown 15. Aviation 14. 
Kerosene 13. 
Chemical \* If # 13 is checked, indicate the chemical name(s) or number(s) of the chemical or waste. Has a site assessment been completed? (see reverse side for details) If Tank Closed, Give Date (mo/day/yr): ØYes □No If installation of a new tank is being reported, indicate who performed the installation inspection: 3. Other (identify) 2. DILHR 1. Tire Department Indicate Whether: Name of Owner or Operator (please print): Owner or 🔲 Operator ATE OF WIS, Date Signed: Signature of Owner or Operator; -10-96.

3

# **Appendix B**

# "Checklist for Underground Tank Closure" DILHR Form SBD-8951 (N 02/91)

Wisconsin Department of Industry, Labor and Human Relations

Complete one form for each site closure.

# CHECKLIST FOR UNDERGROUND TANK CLOSURE

RETURN COMPLETED CHECKLIST TO: Safety & Buildings Division Fire Prevention & Underground Storage Tank Section P. O. Box 7969, Madison, WI 53707

			4 14								
	IDENTIFICATION: (P	lease Print)		***	l 2. Owner Na	ıme					
1.							1.)	جو ما	. ,		
In	natiation Street Address	<del>LCRREC</del>	Trei il		Owner Street	Address		<del> </del>			
_	2833 Nuco	<u> </u>	115		Pa	//×	7066	01-1-	- T	Zip Code	
	City	age Ut	Town of:		TY ON L	] Village ∐ T	own of:	State	, l'	Zip Code	_
St	ALLOUEZ 17	ip Code	County	<del></del>	County	Tel	ephone No. (i	nclude a	area cod	<del>\$370</del>	<del>7</del> —
Ju	, \	54201	100	11	1/20		(00)		7	491	
3.	Closure Company Name	54501	1316	Closure Con	pany Street A	dress, City, State				160	
$\leq$	-,cc C.	11.10 . 710	Tecrise	Certified Rér	644	Huy	V both	EE A.	Jus		535
-00	mpahy Telephone No." (inclu		1	Certified Rer	hover Name	77 /		' '	Hemove	Certification	on No.
<del></del> (	Name of Company Perform	ing Cincure Asse	essment	Astesment	Combany Stre	et Address, City,	State, Zip Co	de	<del>()</del>	<del>700</del>	
			, some		- 2,	nie Di	1 /1		-43	つコ	
Co	mpany Telephone No. (inclu	de area code)		Certified Ass	sessor Name		, ,	7	Assesso	Certification	on No.
(	(114) 4/97.	7500	<u> </u>	701	P	المبيدة	Krasi	<u> </u>	20	312	
	Tank ID #	Closure	Temp. Closur	e Closu	re in Place	Tank Capaci	ty Conte	ents *	Clos	ure Asse	ssment
1.	2611 22213	4		-		2000				D-Y 🗆	N
2	-316 00912	1				20,000		/			N
3	15/6 WF0/3	<b>A</b>	П		П	<b>/</b> C,000			1	ĜY □!	N
<u>J.</u>		П	П								N
<u>+.</u>			П								
<u>5.</u>					П						
6.	diasta which arodust by	numaria sada	· 01-Diesel: 02-	l eaded: 03	Ll Inleaded: €	4-Fuel Oil: 05-0	Gasobol: 06	-Other	09-Un	known: 10	)-Premix
- 1	dicate which product by 1-Waste oil; 13-Chemica	al (indicate the	chemical name	(s) or numb	pers(s)			; 14	4-Keros	ene; 15-A	viation.
	ification was provided to								<b>□</b> ⁄	N	□ NA
All	ocal permits were obtain	ed before beg	inning closure.						Çγ	N	□ NA
Ch	eck applicable box at	right in res	ponse to all s	tatement	s in Section	ns B - E.			nover	Inspecto	
	TEMPORARILY OUT							Ve	<u>rified</u>	Verifie	<u>d</u>
	<ol> <li>Product Removed         <ul> <li>a. Product lines drain</li> </ul> </li> </ol>	ned into tank (	or other contains	er) and resi	Ultina liquid r	emoved. AND		П	/ 🗆 N		
	b. All product remov	ed to bottom of	of suction line, O	R				<u> </u>			<u>d</u> i
	c. All product remov	ed to within 1"	of bottom		. <b></b> .					. 📙	7
	<ol> <li>Fill pipe, gauge pipe,</li> <li>All product lines at th</li> </ol>	, tank truck vaj	oor recovery fitti	ngs, and va	apor return lii	nes capped nd capped OR	• • • • • • • • • • • • • • • • • • •	, H			꿂
	<ol> <li>All product lines at tr</li> <li>Dispensers/pumps le</li> </ol>	ie islands or p oft in place but	locked and pow	er disconn	ected.				/ DN		百
	5. Vent lines left open.							□ '	(		Ф
	6. Written inspector app	proval of tempor	orary closure ob	tained, whi	ich			ш,	( <u> </u> N		$^{h}$
	is effective until	ov owner indic	ating temporary	closure					Z GN		<del>388-88</del>
			,				<u>, , , , , , , , , , , , , , , , , , , </u>				
C.	CLOSURE BY REMO		ale for other oon	tainar)							
	<ol> <li>Product from piping</li> <li>Piping disconnected</li> </ol>	from tank and	capped or reme	oved					( <b> </b> N	. 📮	
	3. All liquid and residue	removed from	n tank using exp	olosion prod	of pumps or h	nand pumps			K IN	₽ .	
	4. All pump motors and	I suction hoses	s bonded to tank	or otherwi	ise grounded				,		
	5. Fill pipes, gauge pipe NOTE: DROP TUBE	es, vapor reco	very connection	s, submers D IF THE T	ANK IS TO	BE PURGED T	HROUGH	· X	Y 🗆 И	. ×	
	THE USE OF AN ED	UCTOR.							. –		_
	7. Vent lines left conne	cted until tank	s purged						Y   N	X	
	<ul><li>8. Tank openings temp</li><li>9. Tank atmosphere red</li></ul>	orarily plugged	so vapors exit	tnrough ve nmable ran	int	e Section F.			,	Á	ᆸ
1	O Tank removed from a	excavation afte	PURGINGANE	ERTING: ol	aced on leve	ground and bl	ocked		-		
	to prevent movemen	t					·····	- '兄'	Y DN	又	arit:

			Remover	Inspector	<u>NA</u>
C.	C. CLOSURE BY REMOVAL (continued)  12. Tank labeled in 2" high letters after removal but before being moved from site		Verified Y N	<u>Verified</u>	又
	NOTE: COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST REUSE; FORMER CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE.				
	13. Tank yent hole (1/8 th " in uppermost part of tank) installed prior to moving the tank from site				8
	<ul><li>14. Inventory form filed by owner with Safety and Buildings Division indicating closure by remova</li><li>15. Site security is provided while the excavation is open.</li></ul>	al	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		H
			77		
D.	D. CLOSURE IN PLACE  NOTE: CLOSURES IN PLACE ARE ONLY ALLOWED WITH THE PRIOR APPROVAL  OF THE DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS.				
	<ol> <li>Product from piping drained into tank (or other container).</li> <li>Piping disconnected from tank and capped or removed.</li> </ol>		□Y □ N	· 👝	
	Piping disconnected from tank and capped of removed.      All liquid and residue removed from tank using explosion proof pumps or hand pumps				苗
	4. All pump motors and suction hoses bonded to tank or otherwise grounded				H
	<ol> <li>Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures re NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THRO THE USE OF AN EDUCTOR.</li> </ol>	DUGH		<del></del>	Ï
	6. Vent lines left connected until tanks purged.	• • • • • •	OY ON		H
	<ul> <li>7. Tank openings temporarily plugged so vapors exit through vent.</li> <li>8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F.</li> </ul>				ď
	9. Openings cut in tank top if necessary to introduce inert material.			_	
	10. Solid inert material (sand, cyclone boiler slag, pea gravel recommended) introduced and tank	t filled.		H	H
	<ul><li>11. Vent line disconnected or removed.</li><li>12. Inventory form filed by owner with Safety and Buildings Division indicating closure in place.</li></ul>				. 13
_	. CLOSURE ASSESSMENTS				- 1
<b>L</b> .	NOTE: DETERMINE IF A CLOSURE ASSESSMENT IS REQUIRED BY REFERRING TO IL	HR 10.			
	1. Individual conducting the assessment has a closure assessment plan (written) which		D∕Y □ N		
	is used as the basis for their work on the site		DY □ N	X	
	3. Are there strong odors in the soils?		_ [2] Y □ N		
	4. Was a field screening instrument used to pre-screen soil sample locations?	• • • • • •		N N	님
	<ul><li>5. Was a closure assessment omitted because of obvious contamination?</li><li>6. Was the DNR notified of suspected or obvious contamination?</li></ul>			KODBODK	
	Agency and office contacted:  7. Contamination suspected because of: Odor Soil Staining Free Product Sheen On	<del></del>		<b>~</b>	<b>T</b> 4
		Groundwa	ater Ly Field	instrument	rest
F.	METHOD OF ACHIEVING 10% LEVEL DESCRIPTION				
	Educator Or Diffused Air Blower  Educator driven by compressed air, bonded and drop tube left in place; vapors discharged n	ninimum	of 12 feet ab	ove 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 di	stributed	over the ore	atest possibl	le tani
	area. Dry ice evaporated before proceeding.				
	Inert Gas (CO/2 or N/2) NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMO	SPHERE.	. THE TAN	( 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	of the tank	k opposite th	e vent.	
	Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas in	ntroducin	g device gro	unded.	
V	Tank atmosphere monitored for flammable or combustible vapor levels.				middle
$\wedge$	Calibrate combustible gas indicator. Drop tube removed prior to checking atmosphere. T and upper portion of tank. Readings of 10% or less of the lower flammable range (LEL) ot	otained b	efore removi	ng tank from	1
	ground.				
G.					
	TANK CUT INTO SCRAP ON SITE				
_	KEMMER + IL				
I.	INSPECTOR INFORMATION				
	0	_	_200	2.	
	Inspector Name (print)		Inspector C	ertilication N	10.
	(41. 11. 12. 12. 12. 12. 12. 12. 12. 12. 1		7 111	سرن	
	FDID # For Location Where Inspection Performed Vispector Telephone Number		Date Signed	<del>, / &gt;</del>	

# Appendix C Certificate of Tank Destruction

#### STILES ENVIRONMENTAL TESTING, INC.

CERTIFICATE of TANK DESTRUCTION

DATE OF EXCAVA	ATION:	July 12	1995	
		July 12 July 12,		
DATE OF CUTTIN	G & CLEANING:	July 12.	1995	
OWNER/OPERATO	OR:			
Name:	Green Bay Correctional	Institution		
Address:	Riverside Drive Hwy. 5	7 at Hwy 172		
City, State, Zip:	Green Bay, WI 54307			
Contact:				
TANK SIZE, CON	TENT & LOCATION:			
<ol> <li>20,000 fuel oil</li> <li>20,000 fuel oil</li> </ol>		4) 5) 6)		
Tank scrapped per: W	DNR Publ. SW 114 Sept. 199	00, Page 3, Par. 3:		
"Properly cleaned tank	s may be recycled for scrap m	netal. WDNR does	not regulate scr	ap metal recycling."
	1001			
Certified by:	1 Juster 1/19th	6	_ Date	07/12/9

W7694 Hwy. V, Lake Mills, WI 53551 800-962-7965 414-648-8084, 414-648-2090 - fax 202 W. State St., Rockford, IL 61101 815-969-9993, 815-969-9615 - fax

#### STILES ENVIRONMENTAL TESTING, INC.

#### CERTIFICATE of TANK DESTRUCTION

DATE OF EXCAVA	TION: $\frac{1/\sqrt{21/95}}{\sqrt{1/21/95}}$
DATE OF CUTTING	G & CLEANING: 11/21/95
OWNER/OPERATO	
Name:	STATE OF WISCONSIN / Lucer Bay Correctional
Address:	101 E. WILSON
City, State, Zip:	MADISON, WI 53707
Contact:	CHRIS TIMMERS
TANK SIZE, CONT	
1) 1,000 FUEL OIL 2) 3)	4457 SIDE OF BURR PRYANT  5)  6)
	NR Publ. SW 114 Sept. 1990, Page 3, Par. 3:
"Properly cleaned tanks	may be recycled for scrap metal. WDNR does not regulate scrap metal recycling."
Certified by:	[ ]   Date: 1/21/25

W7694 Hwy. V, Lake Mills, WI 53551 800-962-7965 414-648-8084, 414-648-2090 - fax 202 W. State St., Rockford, IL 61101 815-969-9993, 815-969-9615 - fax

### Appendix D

### **Soil Treatment and Disposal Information**

# NOTIFICATION TO TREAT OR DISPOSE OF PETROLEUM CONTAMINATED SOIL & WATER Form 4400-120 Rev. 10-95

This form is required by the Department of Natural Resources (DNR) to ensure that the remediation of petroleum contaminated soil and water is in compliance with NR 158, NR 500-540, NR 419 and NR 445, Wis. Adm. Code. Failure to comply with applicable statutes and administrative rules may lead to violations of subchapters III and IV of Ch. 144, Wis. Stats. and may result in forfeitures of not less than \$10 or more than \$25,000 for each violation, pursuant to ss. 144.426(1), 144.74(1), 144.99, Wis. Stats., or fines of not less than \$100 or more than \$150,000 or imprisonment for not more than 10 years, or both, pursuant to s. 144.74(2), Wis. Stats. Each day of a continuing violation constitutes a separate violation. Except for the remediation of virgin petroleum spills, this form needs to be submitted to the DNR 10 business days prior to the commencement of the remediation. Personally identifiable information found on this form is not intended to be used for any other purpose.

DIRECTIONS: 1) complete both sides of the form. 2) Have the responsible party sign the form. This signature certifies that the information on this form and in all supporting documents is accurate. 3) Submit the form with supporting documentation, lab reports and any maps to the appropriate District Air Management Program at least 10 business days <u>prior</u> to the commencement of remediation. 4) Submit a copy of this form to the DNR project manager and retain a copy for your records.

#### PART I - GENERAL INFORMATION

Site Name & Address  POWER PLANT  GREEN BAY CORRECTIONAL FUST.  Z833 RIVERSIDE DR.  GREEN BAY, WI 54301	Date of Form Completion: 7-7-97
Site Number: 03-05-2140	Do Other Remediation Systems Exist at This Site:  Yes No
County: BROWN	Site Type: LUST ERP CERCLA Other, Explain:
Responsible Party Name & Address:  MARTIN ROMERO  WISCONSIN DEPT. OF ADMINISTRATION  IOIEAST WILSON STREET 7th FLOOR  P.O. BOX 7866  MADISON, WI 53707-7866	Responsible Party Signature: Martin Ram EAO.  Telephone Number: 408 266-258
Consulting Firm Name & Address:  FOTH (VAN DYKE  2737 S. RIDGE RD. P. D. BOK 19012  GREEN BAY, WI 54307 - 9012	Consulting Firm Contact:  PUILIP R. BROCHOCK  Telephone Number: (720 497-2500)

PART II - SOII AND WATER DATA (Attach Lab Reports and Calculations)

TART II - SOID AND WATER DATA (Minde 200 Meport and Contents)									
Type of Contamination:	Gasoline	Diesel	Fuel Oil	Waste Oil					
	Chlorinate	d Organics	Other:						
Soil Concentration:									
GRO: DRO: Benzene: Chlorinated Organics: Other:	150	mg/kg/10 mg/kg/10 mg/kg/10	x 2800 lb/yd <sup>3</sup>	x 50 x 50 x 50	yd = lb yd = lb yd = lb yd = lb yd = lb				
Water Concentration:	<u> </u>			_					
GI	RO:	mg/L	DRO:	mg/L Ben	mene: mg/L				
* BENZENE NOT Chlorinated Organics: mg/L Other: mg/L  DETECTION FOR CALC.									

PART III - TREATMENT OR DISPOSAL FACILITY INFORMATION Facility ID: Treatment/Disposal Facility Name & Address: 3785 RIDGEVIEW RECYCLING & DISPOSAL FACILITY 6207 HEMPTON LAKE Rd. P.O. DOX 227 Air Pollution Control Permit Number: WHITE LAW, WI 54247-0227 NA Facility Located in 10-county Area in Southeast Wisconsin? Facility Contact: CHRIS FOLUSON ⊠ No ( 🔲 Yes) Distance to Negrest Residence or Business: Telephone Number: (414) 732 -4473 >1/4 MILE Portable Sources Only: Has a Portable Source Relocation Notification Headquarter Address: WASPE MAMAGEMENT OF WISCONSIN, INC. (Form 4500-25) Been Submitted for This Location? WIZHN 8925 BOUNDARY ROMAR ☐ Yes **⋈** No MENOMONER FAILS, WI 53051 PART III - SOIL VACUUM EXTRACTION OR GROUNDWATER REMEDIATION Proposed Operations: (Attach Calculations) Site Contact: Telephone Number: ( Anticipated Start-Up Date: Site Located in 10-county Area in Southeast Wisconsin? **Estimated Project Duration:** ☐ Yes □ No Distance to Nearest Residence or Business: Number of Wells: Number of Emission Points: Pilot Test/Soil Venting Only: (Attach Lab Reports and Calculations) Date of Test: Stack Height: Flow Rate (scfm): Maximum Equipment Flow Rate (scfm or gpm): Total VOC Emission Rate (lb/hr): Total Withdrawal of Air (scf): Total VOC Emission Rate (lb/hr): Benzene Emission Rate (lb/hr): Benzene Emission Rate (Ib/hr): Benzene Emission Rate (lb/yr): PART III - OTHER REMEDIATION METHODS (Attach Lab Reports and Calculations) Method Name: Attach a project description for other remediation methods including landspreading, passive aeration and bioremediation. At a minimum, the information submitted should include the following items (with any supporting lab reports and calculations): √ Address/Location of Remediation Site - Indicate if this location is in the 10-county area in Southeast Wisconsin and the distance to the nearest residence or business. Include a map or site plan if appropriate. √ Description of Remediation Method. √ Project Contact & Telephone Number. √ Anticipated Start-Up and Estimated Project Duration. √ Highest Estimated Hourly VOC Emissions. √ Highest Estimated Hourly and Annual Benzene Emissions. √ Emission Testing Methodology. √ Final Destination of Soil. 2

#### Foth & Van Dyke

Client: WDOA / DFD Scope I.D.: 94W\$48

Project: GREEN BAY CORRECTIONAL Page: 1/1

Prepared by: PRB Date: 7/7/97

Checked by: 5GL Date: 7/26/97

SOIL CONCENTRATION CALCULATIONS

APPROX. 50 yd3 contamnated soil GENERATED

I. DRO EM 5510NS  $(a/1\times10^6)*(2800LB5/yd^3)*b = DRO (POUNDS)$  q = DRO CONCENTRATION IN NG/Kg b = AMOUNT OF CONTAMINATED SOIL IN yd<sup>3</sup>  $(150/1\times10^6)*(2800)*50 = 21 LB3 DRO$ 

IL BENZENE EMISSIONS

NOTE: SAME EQUATION AS ABOVE BUT a = BENZEAR CONC. IN MG/KZ
SINCE BENZENE WAS NOT DETECTED USE 1/2 DETECTION LIMIT IN CALCULATION

(0.0125/1×106) \* (2800) \* 50 = 0.002 LBS BENTENE



...chemistry for the environment

Lab Certification No. 405132750

Location : GB-CORRECTIONAL/ 94W048

Your Sample ID: SP-02

Sample Desc. : SOIL PILE MID

Sample Matrix : SOIL En Chem Proj# : 9507229 Date Collected: 07/14/1995 Date Received: 07/17/1995

En Chem Lab # : 148736 Date Reported : 07/24/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

Analysis	Parameter		Result Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyze By
TOTSOLID	Total Solids	,	86 percen	t		•••••	EPA 160.3	07/18/199	5 NJS
PB-S	Lead, soil		5.2 mg/kg	3.8	sw846 3050	07/19/1995	SW846 7421	07/20/199	5 ctk
IGNIT	Ignitability		>210 °F				SW846 1010	07/19/199	5 DJB
FREELIQ	Free Liquids		0.0 Percen	t	•		SW846 9095	07/19/199	5 NJS
DRO-S	Diesel Range Organics(DRO)-Soil Blank spike Blank spike duplicate		150 mg/kg 89 % RECO 89 % RECO			07/17/1995	WDNR MOD DRO	07/21/199	5 PHS
	Soil spike		77 % RECO						
BENZ-S-ME	Benzene		ND ug/kg	25		07/19/1995	WDNR MOD GRO	07/23/199	5 PMS

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

note mellony

#### State of Wisconsin Department of Natural Resources



CHAIN OF CUSTODY RECORD LUST PROGRAM Based on Form 4400-151 Rev. 4-93 1809

Note: Use of this form is voluntary but is requested by the Department pursuant to ch. NR 149, NR 500-540, NR 158 and NR 419, Wis.Adm.Code. Personally identifiable information will be used for no other purpose.

Bay	)r(s)	asch 1	160	- N	les his	Ti	tle/Work Stat	ion/Company	10 Dyke	-6B	Telephone	Number (1					
Property Owner	BAY	GURRE	CT10	n4C	15.cg	wis 7	operty Addres	LOF DR			Telephone						
I hereby o	ertify that	I received,	properl	y handli	ed and disp	osed of the	ese samples a	noted below:			LABOR	ATORY USE	CHLY				
Relingershed B			Date	/Time	7/19	-	Received By	·		If sample	Temperature of temperature blank $\mathcal{K}.\mathcal{O}$ samples were received on ice and there was				O.I.		
Relinquished By	(Signature)			/Time		<i>f</i> ,	Received By	(Signature)	remaining, you may report the temperature 'received on ice'. If all of the ice was n temperature of the melt may be substituted temperature blank			was mel	melted, the				
Relinquished By (Signature)			Date	/Time			received, for	EN CHEM by (Signatur	9) 14/95 18			le Condi	t fon				
Field ID Number	Date Collected	Time Collected	Type 1			field Screening		on/Description / e footnote 2)	Analysis Type	Leb 10 Number	no/Type of Containers	Cracked /broken	improp. Sealed	Good Cond.	Other Comments		
SP-01	7/13/95	15:145	Suil	GRAB	NO	178	501/1	PILE -MOUED	15,3					T	BELLIN		
$\sim$	7/14/95		1	i		37		Ple unin	15.5	148736	2-502 2-EX	CORE			B-/M		
					·												
· · · · · · · · · · · · · · · · · · ·																	
FOOTHOTES 1.	specify gro sample desc sampling lo	undwater, sur ription must cation.	face w clearl	ater, so y correl	oil, leachas ate the sam	te, sludge, mple ID to	the	1. GRO 2. PVOC 8.	PAH	9. Fr 10. pH		14.	BETX Protocol	01-GRO	•		
QTA	*		En Ch	em Proje	et# <u>95</u>	07229	2	- 3. Lead 7. Flashpoint 11. TCLP-Benzene 15. Protocol D1-DEO 4. 8021 8. Percent Solids 12. TCLP-Lead 16. 8260									
BILLING AD	DRESS:	Puss (	JAN	ies K I OGE	- Foth	( - Ugu L	We .	Job Name/Number: Job Description:	GB. C	ORREC ESSM	Fina	1 / P	PAYO	DOY	8_		
	<u>2</u> 	REEN				5430	17	Returned	-								

# Foth & Van Dyke

Client: WDOA/DFD	Scope I.D.: 94w048					
Project: Green Bay	Page: 1/1					
Prepared by:	Page: 1/1 Date: 8/17/95					
Checked by:	Date:					

#### FIELD SCREENING TABLE

SAMPLE ZD	sample Description	PID
Hs -01	9'belo-grade 3'N TI	32
HS -02	north east pile	4
#5-03	south east pile west 3 composite	31
HS-04	south east pile east 3 composite	34
HS-05	TI CGW interface	168
HS -06	N. end 3' 12" below grade TI	34
HS-07	S, end 10" bek- grade 7%1	Î
45-08	center 10' deap conster line	2
45-09	Fill Pipe For 72 05' belo-grade	97
45-16	Fill pipe for TI C5 bell- grade	115
HS-11	Dirty stockpile	178
45-12	5. Wall To libelong rade challer life	1.3
HS -13	S. wall To Il bekn grade engler line	0.0
HS-14	w. side asphalt epiping y belongrade	_
#5-15	Piping near hole C6-4 beb- pipe	0.0
45-16	Limited wall foundation 14 deep	65
HS-17	north wall	¥
45-18	westuall N. corner	57
45-19	nest hall north corner	0.0
45-20	T& FILL PIPE	157
h5-01	TI FILL P.PE	114

Ridgeview Recycling and Disposal Facility A WMI BioSite\* 6207 Hempton Lake Road P.O. Box 227 Whitelaw, Wisconsin 54247-0227 1-800-444-7919 414/732-4473 • FAX: 414/732-3758



June 24, 1997

Douglas Stiles Stiles Environmental, Inc. W7694 Highway V Lake Mills WI 53551

Re: Green Bay Correctional

Dear Mr. Stiles,

Thank You!

Please find attached a Certificate of Beneficial Reuse of Bioremediated Soils. This signifies that the petroleum contaminated soils represented by profile # RVW BIO 22509, has been bioremediated at our BioSites. The contaminants in the soils have been treated to a level that will allow the soils to be beneficially reused.

We appreciate the trust you have placed in our system of bioremediation. The WMI BioSites has proven to be a cost effective, environmentally efficient treatment for a wide variety of petroleum contaminated soils. The response to the BioSites has been positive from generators, their consultants, and the regulatory community.

If you have any questions regarding the BioSite<sup>sm</sup>, please do not hesitate to call us at (800) 444-7919.

Sincerely,

Ridgeview Recycling and Disposal Facility

A WMI BioSitesm

A Division of Waste Management of WI, Inc.

Christian D. Johnson

Division President

enclosure

cc: Blayne Kirsch, Foth & Van Dyke

## CERTIFICATE OF BENEFICIAL REUSE OF BIOREMEDIATED PETROLEUM CONTAMINATED SOIL

presented to:

#### GREEN BAY CORRECTIONAL

This is to certify that 63.75 tons of contaminated soil, Special Waste Profile #BIO22509 was biologically remediated to such levels that the soil will be utilized for beneficial reuse.

Ridgeview BioSite<sup>tm</sup>
6207 Hempton Lake Road
P.O. Box 227
Whitelaw, WI 54247-0227

Christian D. Johnson, Division President
Ridgeview Recycling and Disposal Facility

A Division of Waste Management of Wisconsin, Inc.



A Waste Management Company

## Appendix E

#### **Photograph Documentation**



Photograph 1 July 13, 1995 Unexcavated tank area with 55-gallon drums for cleaning waste.



Photograph 2 July 13, 1995 Excavating Tanks No. 1 (east tank, on left) and No. 2 (west tank, on right).



Photograph 3 July 13, 1995
Tank No. 1 cut and being removed from the excavation.



Photograph 4 July 14, 1995
Tank No. 1 area backfilled, Tank No. 2 being excavated.



Photograph 5 July 14, 1995
Tank No. 2 cut and being removed from excavation.



Photograph 6 July 14, 1995
Bottom of Tank No. 2 being removed from excavation.



Photograph 7
Fuel lines being removed.

July 14, 1995



Photograph 8 July 14, 1995 Fill pipes outside of the prison wall, excavated, and removed.



Photograph 9 August 3, 1995 Contaminated soil stockpile placed on paved parking lot, covered with a tarp, and displaying warning sign.



Photograph 10 November 21, 1995 1,000-gallon diesel tank being removed.

# Appendix F WDNR Correspondence



#### State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Lake Michigan District Headquarters Soild & Hazardous Waste Program 1125 N. Military Avenue, PO Box 10448 Green Bay, WI 54307-0448 TELEPHONE: (414)492-5916 TELEFAX: (414)492-5859

George E. Meyer, Secretary William R. Selbig, District Director

September 6, 1995

Division of Facilities Development Attn: Terry Cook PO Box 306 King, WI 54946

RE: Notification of Petroleum Contamination from Underground Storage Tank System

WDOC - Green Bay Correctional Institution, 2833 Riverside Drive, Green Bay

WDNR LUST ID #05-2140

Dear Mr. Cook:

On July 14, 1995, the Department of Natural Resources (DNR) received notification from Blayne Kirsch of Foth & Van Dyke that petroleum contamination was discovered at the above-referenced location.

From the information received, it appears that the contamination has been or will be cleaned up to the extent practicable. Therefore, by November 10, 1995, please submit a tank closure assessment report to the Department at the following address:

Wisconsin Department of Natural Resources Attn: Alan Nass 1125 N. Military Avenue, PO Box 10448 Green Bay, WI 54307-0448

Please identify the report with the WDNR LUST ID number indicated above.

If, after reviewing the report, the WDNR has determined that further investigation/work is necessary, you will be notified accordingly. If you have any questions concerning this letter, please contact me at (414) 492-5878.

Sincerely,

Janis M. DeBrock, Program Assistant

anis WiBrock

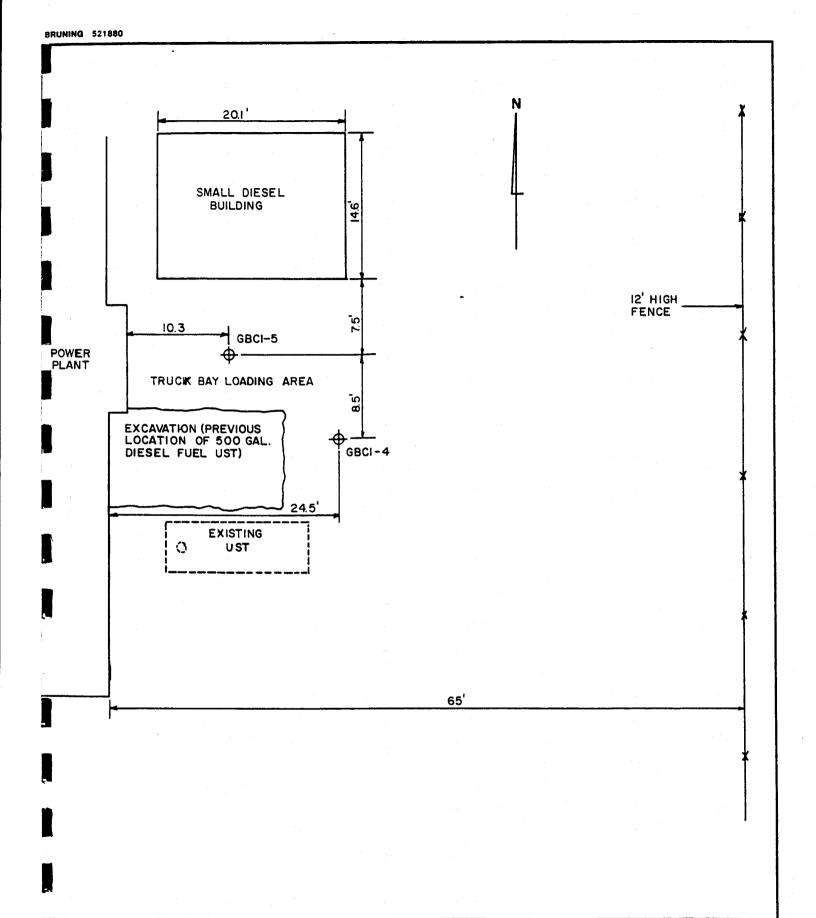
Leaking Underground Storage Tank Unit

cc: Alan Nass - LMD

Blayne Kirsch, Foth & Van Dyke, PO Box 19012, Green Bay, WI 54307

## Appendix G

#### STS Consultants Ltd. Site Information





PROJECT/CLIENT

SOIL BORING LOCATION DIAGRAM
GREEN BAY CORRECTIONAL INSTITUTE
GREEN BAY, WI

DRAWN BY	G.S.H.	9-90						
CHECKED BY								
APPROVED BY	PXB	9-90						
scare 10'	FIGURE	<sup>но.</sup> 3						
STS DRAWING NO. 18132XF								

Table 2
Summary of Soil Sample Chemical Test Results

	Sample	(HNU Units)	TPH as Gas (µg/g)	TPH as Diesel (μg/g)	Benzene (µg/kg)	Ethyl- Benzene (µg/kg)	Toluene (µg/kg)	Total Xylene (µg/kg)	PCE	1,1,1-TCA	1,1-DCE	Lead (µg/g)
	GASOLINE TAN	K INSTALLA	TION									
	GBCI-1, S-3, 5.0-6.5	6.5	18.4	N.D.	N.D.	0.58	0.96	1.2	N.D.	N.D.	N.D.	5.24
	GBCI-2, S-3, 5.0-6.5	122	246	N.D.	N.D.	2.4	1.7	10.8	N.D.	N.D.	N.D.	6.65
	GBCI-3 S-3, 5.0-6.5	100	77.9	N.D.	N.D.	3.1	0.58	5.8	N.D.	N.D.	N.D.	6.39
ľ	GBCI- Stockpile #1	50	150	N.D.	N.D.	N.D.	22.6	23.4	N.D.	N.D.	N.D.	18.7
	DIESEL TANK	INSTALLATI	ON									
	GBCI-4 S-3, 5.0-6.5	N.D.	N.D.	N.D.	N.D.	N.D.	36.9	N.D.	12.0	3.24	N.D.	N.A.
	GBCI-5,	N.D.	N.D.	N.D.	N.D.	N.D.	4.5	N.D.	N.D.	N.D.	N.D.	N.A.
	GBCI- Stockpile #2	100	N.D.	1,140	N.D.	N.D.	13.0	N.D.	8.0	N.D.	20	N.A.

N.D. - Analyzed but not detected.

N.A. - Not Analyzed

67	OWNER	L	LOG OF BORING NUMBER							
	2_Vision of State Facilities Manage	ment	GBCI-5							
	PROJECT NAME	įΕ	NGINEER							
STS Consultants Ltd.	Green Bay Correctional Institution									
SITE LOCATION	1933 Riverside Drive Village of Allouez, Wisconsin		z	. J						
	WELL INSTA	LLATION	SIANDARD PENETRATION FEST. N (B/FT)	UNCONFINED COMPRESSIVE STRENGTH, Op (TONS/FT*)	*		E E	9	¥	
3		PIPE EL. +	XE	TON	2	ING	LIQUID/PLASTIC LIMII LL/PL	PERCENT PASSING #200 SIEVE	PERMEABILITY, K (CM/SEC)	
I AN			PE :	0 g	N N	HNU RE ADING	VSTI)	PAS	SEC	
H NO NO NY	DESCRIPTION OF MATERIAL		ARO ST.	E E	. X	E I	/P/	200 200	MEA CM	
DEPTH ELEVATION SAMPLE NO SAMPLE TYPL SAMPLE DISTA RECUVERY			ON A	ENG	WAIER CONIENI	=	anc	7E FR.C.	PER (	
SAMPLE TYPL SAMPLE TYPL SAMPLE DISTANCE RECOVERY	SURFACE ELEVATION 4.14*	•	SI.	STR	5		5	_		
	Situminous concrete payement						-			
1 33	3.4" limestone gravel (GP)-fill-medi	um dense-dry	. 8			,,,,				
	,				İ	ND				
	Brown silty clay (CL) - fill - mediu	m dense to	•							
	hard - dry	*								
		4			i				54 J	
2 55	w.				i	·				
2,55			44			ND				
		•			:			! !	!	
	!				1	ĺ		i i		
3 ss										
			54		!	מני				
		1	1 1					į	٠.	
		1			-			ì		
	Province less class (GT)									
<u> </u>	Brown silty clay (CL) - trace of san gravel - hard - dry to moist	nd and	•		;					
4 SS		!			:					
			. 57		;	ИD		-		
					:			•		
	•	•	•					!		
									<b>!</b> 	
5 SS I			.	i			-	<u> </u>		
			30	:		7.0	!	İ	1	
12				,				; 1	!	
		·								
					;		-			
		į			i			1		
		· •		İ	!				.	
====		!			!					
					1					
6 55		.	30							
16		:	38			ND ———				
6A SS	Light brownish gray silt (ML) - stif	f - wet	27			ND				
	End of boring Eoring advanced to 16.5 feet									
	completion backfilled with bentonite		:						1	
	No petroleum odors were observed in									
	* Elevation based on arbitrary bend		i							
The stratification lines repre	sent the approximate boundary between soil types, in situ, the tran	isition may be gradual. Water	r levers were meas	sured at the	times indi	ated. Wa	ler lèvels f	nav váry se	asonally	
WL 16.0' MS			-30-90	STS OFFIC	103	5 Kep	ler Dr	ive		
AIE	ME WLT PIPE I DATE TIME	BORING COMPLETED 9	-30-90			1		54311		
		RIG 25		DRAWN B	Y PMP	SHEET	1	of 1		
		FOREMAN IT		APP'D. BY	PRB	STS JO	8 NO.	18132	XF	
BCG 8421			<del></del>							

### Appendix H

**Laboratory Analytical Data Chain-of-Custody Record** 



1795 Industrial Drive Green Bay. WI 54302 414-469-2436

800-7-ENCHEM FAX: 414-469-8827

Report to: FOTH & VAN DYKE 2737 SO. RIDGE ROAD

> P.O. BOX 19012 GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

. . . chemistry for the environment

Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-02

Sample Desc. : T-1 NW D12 HS-06

Sample Matrix : SOIL Date Collected: 07/13/1995
En Chem Proj# : 9507230 Date Received : 07/17/1995
En Chem Lab # : 148757 Date Reported : 08/10/1995

	BILL TO: LOID & AND DIVE				1 1			
			Detection	Prep	Prep	Analysis	Analysis	Analyzed
Analysis	Parameter	Result Units	Limit	Method	Date	Method	Date	87
TOTSOLID	Total Solids	86 percent			!	EPA 160.3	07/18/199	S-LIK
DRO-S	Diesel Range Organics(DRO)-Soil	. 72 mg/kg	4.3		07/17/1995	MONR MOD DRO	07/20/1995	2LM
=	Blank spike	97 % RECOV	50					
	Blank spike duplicate	93 % RECOV	50		:			
	Soil spike	91 % RECOV	50					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Were melly

. . . chemistry for the environment

Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-03

Sample Desc. : T-1 EW D12 HS-07

Sample Matrix : SOIL Date Collected: 07/13/1995
En Chem Proj# : 9507230 Date Received : 07/17/1995
En Chem Lab # : 148758 Date Reported : 07/26/1995

ü

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD P.O. BOX 19012 / GREEN BAY, WI 54307-9012

Rill to: FOTH & VAN DYKE

	Bill to: FOTH & VAN DYKE				11			
Analysis	Parameter	Result Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
Midtysis								
TOTSOLID	Total Solids	86 percent				EPA 160.3	07/18/199	SLN 5
DRO-S	Diesel Range Organics(DRO)-Soil	ND mg/kg	4.4		07/17/1 <del>9</del> 9!	S WONR MOD DRO	07/20/1999	SLK 6
	Blank spike	97 % RECOV	50		. !		!	
	Blank spike duplicate	93 % RECOV	50					
<b>A</b>	Soil spike	91 % RECOV	50				:	
							.:	

WNDM Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

NEW Welly

A



... chemistry for the environment

Lab Certification No. 405132750

: GB-CORRECTIONAL/944048 Location

Your Sample ID: SS-04

Sample Desc. : T-1 SW D11 HS-08

Date Collected: 07/13/1995 Sample Matrix : SOIL Date Received : 07/17/1995 En Chem Proj# : 9507230 Date Reported : 07/26/1995

En Chem Lab # : 148759

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay. WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD P.O. BOX 19012 ·

GREEN BAY, WI 54307-9012

	BILL to: FOTH & VAN DYKE				•	- :	; :			!	
				Detection	Prep	P	rep	Analy	is	Analysis	Analyzed
Analysis	Parameter	Result	Units	Limit	Nethod	D	ate 	Metho		Date	Ву
TOTSOLID	Total Solids	88	percent			:		EPA 160	.3	07/18/199	5 NJS
DRO-S	Diesel Range Organics(DRO)-Soil	ND	mg/kg	4.2		:07/1	7/1995	UDNR MO	D DRO	07/20/199	5 NJS
	Blank spike	·. 97	% RECOV	50							
	Blank spike duplicate	93	% RECOV	50					:		
•	Soil spike	91	% RECOV	50		:			. !		
ļ							1			1	

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

nited melling

TOTAL P.05

#### EN CHEM

1795 Industrial Drive Green Bay, WI 54302 414-469-2436 800-7-ENCHEM FAX: 414-469-8827 Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

En Chem Proj# : 9507230 Date Reported : 08/01/1995

Report to: FOTH & VAN DYKE

Thank you for using En Chem! Samples were analyzed according to strict EPA or Wisconsin DNR methodology. Any comments or problems associated with the receipt of or analysis are reported below:

The PQL for the PVOC analysis is 60 ug/kg for those samples with a dilution factor of 50. Detection limits are corrected for percent solids for those parameters that were detected.

Sample no. 148740: Large peak late in DRO window.

Sample no. 148741: Large peak late in DRO window.

PVOC chromatogram has many low level peaks.

The last three PAH compounds, (Benzo (ghi) perylene, Indeno(1,2,3-cd)pyrene, and Dibenzo(a,h)anthracene) have elevated detection limits due to a fuel hump in fluorescence detector.

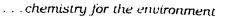
Sample no. 148742: The last three PAH compounds, (Benzo (ghi) perylene, Indeno(1,2,3-cd)pyrene, and Dibenzo(a,h)anthracene) have elevated detection limits due to a fuel hump in fluorescence detector.

Sample no. 148743: Complex chromatogram on PVOC analysis with many late eluting peaks. This is indicative of DRO fuel contamination, heavy oils, or of weathered gasoline. PVOC chromatogram has many low level peaks.

Large fuel hump late in PAH window resulted in elevated detection limits for later eluting compounds. The surrogate recovery was high for the PAH analysis due to co-elution (102.9%).

Sample no. 148745: Complex chromatogram on PVOC analysis with many late eluting peaks. This is indicative of DRO fuel contamination, heavy oils, or of weathered gasoline.

Large fuel hump late in PAH window resulted in elevated detection limits for later eluting compounds. The surrogate recovery was high for the PAH analysis due to co-elution (103.1%).





Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-05

Sample Desc. : T-2 SW D11 HS12

Sample Matrix : SOIL

Date Collected: 07/14/1995

En Chem Proj# : 9507230

Date Received : 07/17/1995

En Chem Lab # : 148737

Date Reported : 07/26/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD

P.O. BOX 19012

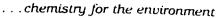
GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

<b>)</b>	Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyze By
,									•••••••	
	TOTSOLID	Total Solids	87	percent				EPA 160.3	07/18/1995	SLM :
	DRO-S	Diesel Range Organics(DRO)-Soil	. 17	mg/kg	4.7		07/17/1995	WDNR MOD DRO	07/20/1995	NJS
		Blank spike	89	% RECOV	50					
		Blank spike duplicate	. 89	% RECOV	50					
I		Soil spike	77	% RECOV	50					
,										

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:





1795 Industrial Drive Green Bay, WI 54302

414-469-2436 800-7-ENCHEM FAX: 414-469-8827 Lab Certification No. 405132750

: GB-CORRECTIONAL/94W048 Location

Your Sample ID: SS-06

Sample Desc. : PR W D5 HS15

Sample Matrix : SOIL

Date Collected: 07/14/1995

En Chem Proj# : 9507230 Date Received: 07/17/1995

En Chem Lab # : 148738

Date Reported : 07/26/1995

Report to: FOTH & VAN DYKE

2737 SO. RIDGE ROAD P.O. BOX 19012

GREEN BAY, WI 54307-9012

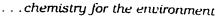
Bill to: FOTH & VAN DYKE

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyze By
TOTSOLID	Total Solids	85	percent			•	EPA 160.3	07/18/1995	SLN
DRO-S	Diesel Range Organics(DRO)-Soil Blank spike Blank spike duplicate Soil spike	89 89	mg/kg % RECOV % RECOV % RECOV			07/17/1995	WDNR MOD DRO	07/20/1995	SLN
	Blank spike duplicate	89	% RECOV	50					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

now melly





1795 Industrial Drive Green Bay, WI 54302

414-469-2436 800-7-ENCHEM FAX: 414-469-8827 Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-07

En Chem Lab # : 148739

Sample Desc. : T-2 WW D11 HS13

Sample Matrix : SOIL Date Collected: 07/14/1995 En Chem Proj# : 9507230 Date Received : 07/17/1995

Date Received : 07/17/1995 Date Reported : 07/26/1995

Report to: FOTH & VAN DYKE

2737 SO. RIDGE ROAD P.O. BOX 19012

GREEN BAY, WI 54307-9012

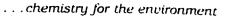
Bill to: FOTH & VAN DYKE

					Detection	Prep	Prep	Analysis	Analysis	Apalyac
)	Analysis	Parameter	Result	Units	Limit	Method	Date	Method	Date	By
l	TOTSOLID	Total Solids	85	percent	•••••			EPA 160.3	07/18/1995	RJS
)	DRO-S	Diesel Range Organics(DRO)-Soil	ND	mg/kg	4.4		07/17/1995	WDNR MOD DRO	07/20/1995	SLM
ļ		Blank spike	89	% RECOV	50					
		Blank spike duplicate	89	% RECOV	50					
þ		Soil spike	77	% RECOV	50			•		
l										

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Melly





Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-08

Sample Desc. : T-2 NW D13 HS16

Sample Matrix : SOIL

Date Collected: 07/14/1995

En Chem Proj# : 9507230 En Chem Lab # : 148740 Date Received : 07/17/1995
Date Reported : 08/01/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD

P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis A Date	lnalyz By
TOTSOLID	Total Solids	85	percent				EPA 160.3	07/18/1995	NJS
PVOC-S-ME	Benzene	ND	ug/kg	25		07/19/1995	SW846 8020	07/23/1995	PMS
	Ethyl Benzene	ND	ug/kg	25					
	Methyl-tert-butyl ether	ND ND	ug/kg	25					
	Toluene	ND	ug/kg	25					
	1,2,4-trimethylbenzene	ND	ug/kg	25					
	1,3,5-trimethylbenzene	ND	ug/kg	25					
	Xylenes, m + p	ND	ug/kg	25					
	Xylene, o	ND	ug/kg	25					
PB-S	Lead, soil	5.3	mg/kg	3.7	sw846 3050	07/19/1995	SW846 7421	07/20/1995	ctk
PAH-S	Acenaphthene	ND	ug/kg	59	SW846 3550	07/25/1995	SW846 8310	08/01/1995	MAR
	Acenaphthylene	ND	ug/kg	120					
	Anthracene	ND	ug/kg	2.3					
	Benzo (a) anthracene	· ND	ug/kg	2.9					
	Benzo (a) pyrene	ND "	ug/kg	2.3					
	Benzo (b) fluoranthene	ND	ug/kg	2.3					
	Benzo (ghi) perylene	5.5	ug/kg	3.5					
	Benzo (k) fluoranthene	ND	ug/kg	2.3					
	Chrysene	ND	ug/kg	2.9					
	Dibenzo (a,h) anthracene	2.6	ug/kg	2.3					
	Fluoranthene	ND	ug/kg	2.3					
1	Fluorene	ND	ug/kg	12					
(	Indeno (1,2,3-cd) pyrene	ND	ug/kg	2.3					
•	1-Methylnaphthalene	ND	ug/kg	59					
	2-Methylnaphthalene	ND	ug/kg	59					
	Naphthalene	ND	ug/kg	59					
	Phenanthrene	ND	ug/kg	12					



#### . . . chemistry for the environment

Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-08

Sample Desc. : T-2 NW D13 HS16

Sample Matrix : SOIL Date Collected: 07/14/1995

En Chem Proj# : 9507230 Date Received : 07/17/1995

En Chem Lab # : 148740 Date Reported : 08/01/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD

P.O. BOX 19012

GREEN BAY, WI 54307-9012

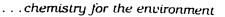
Bill to: FOTH & VAN DYKE

		BILL LO. FOIR & VAR DIKE			Detection	Prep	Prep	Analysis	Analysis	Analyza
	Analysis	Parameter	Result	Units	Limit	Method	Date	Method	Date	By
l	PAH-S	Pyrene	ND	ug/kg	12	SW846 3550	07/25/1995	SW846 8310	08/01/1995	MAR
	DRO-S	Diesel Range Organics(DRO)-Soil	ND.	mg/kg	4.6		07/17/1995	WDNR MOD DRO	07/20/1995	SLN 3
,		Blank spike	89	% RECOV	50					
		Blank spike duplicate	89	% RECOV	50					
		Soil spike	77	% RECOV	50					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

NOW Milley





Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-09

Sample Desc. : T-2 NWB D15 HS17

Sample Matrix : SOIL

Date Collected: 07/14/1995

En Chem Proj# : 9507230

Date Received : 07/17/1995

En Chem Lab # : 148741

Date Reported : 08/01/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay. WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD

P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

	BILL CO. FOIR & VAN DIKE								
Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis A	nalyze By
	• • • • • • • • • • • • • • • • • • • •		•••••			•••••			•••••
TOTSOLID	Total Solids	86	percent				EPA 160.3	07/18/1995	NJS
PVOC-S-ME	Benzene	ND ·	ug/kg	25		07/19/1995	SW846 8020	07/23/1995	PMS
	Ethyl Benzene	ND .	ug/kg	25					
	Methyl-tert-butyl ether	ND	ug/kg	25					
	Toluene	ND	ug/kg	25					
	1,2,4-trimethylbenzene	ND	ug/kg	25					
	1,3,5-trimethylbenzene	ND.	ug/kg	25					
	Xylenes, m + p	ND.	ug/kg	25					
	Xylene, o	ND	ug/kg	25					
PB-S	Lead, soil	5.4	mg/kg	3.8	SW846 3050	07/19/1995	SW846 7421	07/20/1995	ctk
PAH-S	Acenaphthene	ND	ug/kg	19	SW846 3550	07/25/1995	SW846 8310	07/31/1995	MAR
	Acenaphthylene	ND	ug/kg	39					
	Anthracene	ND	ug/kg	0.8					
	Benzo (a) anthracene	ND	ug/kg	1.0					
	Benzo (a) pyrene	ND	ug/kg	0.8					
	Benzo (b) fluoranthene	ND	ug/kg	0.8					
	Benzo (ghi) perylene	ND	ug/kg	5.8					
	Benzo (k) fluorantheme	ND	ug/kg	0.8		•			
	Chrysene	ND	ug/kg	1.0					
	Dibenzo (a,h) anthracene	ND	ug/kg	3.9					
	Fluoranthene	ND	ug/kg	0.8					
	fluorene	ND	ug/kg	3.9					
,	Indeno (1,2,3-cd) pyrene	ND	ug/kg	3.9					
	1-Methylnaphthalene	ND	ug/kg	19					
	2-Methylnaphthalene	ND	ug/kg	19					
	Naphthalene	ND	ug/kg	19					
	Phenanthrene	ND	ug/kg	3.9					



. . . chemistry for the environment

Lab Certification No. 405132750

: GB-CORRECTIONAL/94W048 Location

Your Sample ID: SS-09

Sample Desc. : T-2 NWB D15 HS17

Sample Matrix : SOIL

Date Collected: 07/14/1995

En Chem Proj# : 9507230

Date Received: 07/17/1995

En Chem Lab # : 148741

Date Reported : 08/01/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD

P.O. BOX 19012

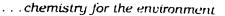
GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

-	OTT CO. FOIL & PAR DIRE		Detection	Prep	Prep	Analysis	Analysis	Analyza
Analysis	Parameter	Result Units	Limit	Method	Date	Method	Date	By
PAH-S	Pyrene	ND ug/kg	3.9	SW846 3550	07/25/1995	sw846 8310	07/31/1995	MAR
DRO-S	Diesel Range Organics(DRO)-Soil	ND mg/kg	4.6		07/17/1995	WDNR MOD DRO	07/20/1995	NJS
•	Blank spike	89 % RECO	/ 50					
	Blank spike duplicate	89 % RECO	/ 50					
i	Soil spike	77 % RECO	50					
ļ								

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

> These results have been reviewed and their authenticity verified by: MEL Mellery





Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-10

Sample Desc. : T-2 NWNW D13 HS19

Sample Matrix : SOIL

Date Collected: 07/14/1995

En Chem Proj# : 9507230

Date Received : 07/17/1995

En Chem Lab # : 148742

Date Reported: 08/01/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

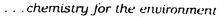
2737 SO. RIDGE ROAD

P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

Analysis	Parameter	Result	limien	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis A	
Anatysis	FG! GNG LC!	Kesult	Units	Limit	method		metnoa	Date	8y
TOTSOLID	Total Solids	86	percent				EPA 160.3	07/18/1995	NJS
PVOC-S-ME	Benzene	ND	ug/kg	25	•	07/19/1995	SW846 8020	07/24/1995	EGS
	Ethyl Benzene	ND	ug/kg	25					
•	Methyl-tert-butyl ether	ND	ug/kg	25					
	Toluene	ND	ug/kg	25					
	1,2,4-trimethylbenzene	ND	ug/kg	25					
	1,3,5-trimethylbenzene	ND	ug/kg	25					
	Xylenes, m + p	ND	ug/kg	25					
	Xylene, o	ND	ug/kg	25					
PB-S	Lead, soil	4.9	mg/kg	3.7	SW846 3050	07/19/1995	SW846 7421	07/20/1995	ctk
PAH-S	Acenaphthene	ND	ug/kg	19	SW846 3550	07/25/1995	SW846 8310	07/31/1995	MAR
	Acenaphthylene	ND	ug/kg	39					
	Anthracene	ND	ug/kg	0.8					
	Benzo (a) anthracene	ND	ug/kg	1.0					
	Benzo (a) pyrene	ND	ug/kg	0.8					
	Benzo (b) fluoranthene	ND	ug/kg	0.8					
	Benzo (ghi) perylene	ND	ug/kg	5.8					
	Benzo (k) fluoranthene	ND	ug/kg	0.8					
	Chrysene	ND	ug/kg	1.0					
	Dibenzo (a,h) anthracene	ND .	ug/kg	3.9					
	Fluoranthene	ND	ug/kg	0.8					
	Fluorene	ND	ug/kg	3.9					
	Indeno (1,2,3-cd) pyrene	ND	ug/kg	3.9					
	1-Methylnaphthalene	ND	ug/kg	19					
	2-Methylnaphthalene	ND	ug/kg	19					
	Naphthalene	ND	ug/kg	19					
	Phenanthrene		ug/kg	3.9					





1795 Industrial Drive Green Bay, WI 54302 414-469-2436 800-7-ENCHEM FAX:414-469-8827

Report to: FOTH & VAN DYKE 2737 SO. RIDGE ROAD P.O. BOX 19012 GREEN BAY, WI 54307-9012 Lab Certification No. 405132750
Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-10

Sample Desc. : T-2 NWNW D13 HS19

Sample Matrix : SOIL Date Collected: 07/14/1995 En Chem Proj# : 9507230 Date Received : 07/17/1995 En Chem Lab # : 148742 Date Reported : 08/01/1995

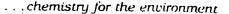
Bill to: FOTH & VAN DYKE

				Detection	Prep	Prep	Analysis	Analysis	Analyze
Analysis	Parameter	Result	Units	Limit	Method	Date	Method	Date	Ву
PAH-S	Pyrene	 ND	ug/kg	3.9	SW846 3550	07/25/1995	SW846 8310	07/31/1995	MAR
DRO-S	Diesel Range Organics(DRO)-Soil	ND	mg/kg	4.4		07/17/1995	WDNR MOD DRO	07/20/1995	NJS
	Blank spike	89	% RECOV	50			jas		
	Blank spike duplicate	89	% RECOV	50					
	Soil spike	77	% RECOV	50					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

not melley





1795 Industrial Drive

Green Bay. WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

Lab Certification No. 405132750 Location

: GB-CORRECTIONAL/94W048

Your Sample ID: SS-11

Sample Desc. : FPT-2 D5 HS20

Sample Matrix : SOIL

Date Collected: 07/14/1995 Date Received : 07/17/1995

En Chem Proj# : 9507230 En Chem Lab # : 148743

Date Reported : 08/01/1995

Report to: FOTH & VAN DYKE 2737 SO. RIDGE ROAD

P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis A	nalyze By
TOTSOLID	Total Solids	 78	percent			•••••	EPA 160.3	07/18/1995	NJS
PVOC-S-ME	Benzene	ND	ug/kg	25	-	07/19/1995	SW846 8020	07/24/1995	EGS
	Ethyl Benzene	ND	ug/kg	25					
	Methyl-tert-butyl ether	ND	ug/kg	25					
	Toluene	ND	ug/kg	25					
	1,2,4-trimethylbenzene	ND	ug/kg	25					
	1,3,5-trimethylbenzene	ND	ug/kg	25					
	Xylenes, m + p	ND	ug/kg	25					
	Xylene, o	ND	ug/kg	25					
PB-S	Lead, soil	15	mg/kg	4.2	SW846 3050	07/20/1995	SW846 7421	07/20/1995	ctk
PAH-S	Acenaphthene	ND	ug/kg	21	SW846 3550	07/25/1995	SW846 8310	07/31/1995	MAR
	Acenaphthylene	ND	ug/kg	43					
	Anthracene	ND	ug/kg	0.9					
	Benzo (a) anthracene	ND	ug/kg	5.3					
	Benzo (a) pyrene	ND .	ug/kg	4.3					
	Benzo (b) fluoranthene	ND	ug/kg	4.3					
• •	Benzo (ghi) perylene	ND	ug/kg	6.4					
	Benzo (k) fluoranthene	ND	ug/kg	4.3					
	Chrysene	20	ug/kg	5.3					
	Dibenzo (a,h) anthracene	ND	ug/kg	4.3					
	Fluoranthene	ND	ug/kg	0.9					
	Fluorene	ND	ug/kg	4.3					
	Indeno (1,2,3-cd) pyrene	ND	ug/kg	4.3					
	1-Methylnaphthalene	ND .	ug/kg	. 21					
	2-Methylnaphthalene	ND	ug/kg	21					
	Naphthalene	ND	ug/kg	21					
	Phenanthrene	ND	ug/kg	4.3					



Lab Certification No. 405132750 Location : GB-CORRECTIONAL/94W048

Your Sample ID: \$5-11

Sample Desc. : FPT-2 D5 HS20

Sample Matrix : SOIL En Chem Proj# : 9507230 Date Collected: 07/14/1995 Date Received : 07/17/1995

En Chem Lab # : 148743

Date Reported : 08/01/1995

. . . chemistry for the environment

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay. WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD

P.O. BOX 19012

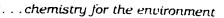
GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

ļ	Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyze By
	PAH-S	Pyrene	7.1	ug/kg	4.3	SW846 3550	07/25/1995	SW846 8310	07/31/199	MAR
	DRO-S	Diesel Range Organics(DRO)-Soil	1100	mg/kg	40		07/17/1995	WDNR MOD DRO	07/21/1995	PHS
		Slank spike	89	% RECOV	50					
		Blank spike duplicate	89	% RECOV	50					
		Soil spike	77	% RECOV	50					
		•								

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

> These results have been reviewed and their authenticity verified by: note mellong





Lab Certification No. 405132750

Location : GB-CORRECTIONAL/94W048

Your Sample ID: SS-12

Sample Desc. : FPT-105 HS-21

Sample Matrix : SOIL

Date Collected: 07/14/1995
Date Received: 07/17/1995

En Chem Proj# : 9507230 En Chem Lab # : 148745

Date Reported : 08/01/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay. WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD

P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

	BILL TO: FUTH & VAN DYKE								
Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyza By
TOTSOLID	Total Solids	74	percent	••••			EPA 160.3	07/18/1995	NJS
PVOC-S-ME	Benzene	ND.	ug/kg	25		07/19/1995	SW846 8020	07/25/1995	EGS
	Ethyl Benzene	130	ug/kg	34					
	Methyl-tert-butyl ether	ND	ug/kg	25					
	Toluene	ND	ug/kg	25					
	1,2,4-trimethylbenzene	1400	ug/kg	34					
	1,3,5-trimethylbenzene	ND	ug/kg	25					
	Xylenes, m + p	220	ug/kg	34					
	Xylene, o	83	ug/kg	34					
PB-S	Lead, soil	12	mg/kg	4.3	SW846 3050	07/20/1995	SW846 7421	07/20/1995	ctk
PAH-S	Acenaphthene	ND	ug/kg	340	SW846 3550	07/25/1995	SW846 8310	08/01/1995	MAR
	Acenaphthylene	ND	ug/kg	680					
	Anthracene	ND	ug/kg	14					
	Benzo (a) anthracene	ND	ug/kg	17					
	Benzo (a) pyrene	ND	ug/kg	14					
	Benzo (b) fluoranthene	35	ug/kg	14					
	Benzo (ghi) perylene	ND	ug/kg	20					
5 ·	Benzo (k) fluoranthene	ND	ug/kg	14					
	Chrysene	62	ug/kg	17					
	Dibenzo (a,h) anthracene	ND	ug/kg	. 14					
	Fluoranthene	ND	ug/kg	14					
	Fluorene	ND	ug/kg	68					
	Indeno (1,2,3-cd) pyrene	ND	ug/kg	14					
	1-Methylnaphthalene	ND ·	ug/kg	340					
	2-Methylnaphthalene	ND	ug/kg	340					
	Naphthalene	ND	ug/kg	340					
	Phenanthrene	ND	ug/kg	68					



## . . . chemistry for the environment

Lab Certification No. 405132750

: G8-CORRECTIONAL/94W048 Location

Your Sample ID: SS-12

Sample Desc. : FPT-1D5 HS-21

Sample Matrix : SOIL

Date Collected: 07/14/1995 Date Received : 07/17/1995

En Chem Proj# : 9507230 En Chem Lab # : 148745

Date Reported : 08/01/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD

P.O. BOX 19012

GREEN BAY, WI 54307-9012

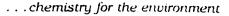
Bill to: FOTH & VAN DYKE

	BILL TO: PUIN & VAN DYKE				4.4				
Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyz∈ By
PAH-S	Pyrene	ND	ug/kg	68	SW846 3550	07/25/1995	SW846 8310	08/01/1995	MAR
DRO-S	Diesel Range Organics(DRO)-Soil	1600	mg/kg	52		07/17/1995	WDNR MOD DRO	07/21/1995	PHS
	Blank spike	97	% RECOV	-50					
	Blank spike duplicate	93	% RECOV	50					
	Soil spike	91	% RECOV	50					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Why Mllyery





Lab Certification No. 405132750

: GB-CORRECTIONAL/94W048 Location

Your Sample ID: SS-13

Sample Desc. : PRE D4 HS-22

Sample Matrix : SOIL

Date Collected: 07/14/1995 En Chem Proj# : 9507230 Date Received : 07/17/1995

En Chem Lab # : 148744 Date Reported : 07/21/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive Green Bay. WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

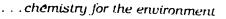
2737 SO. RIDGE ROAD P.O. BOX 19012

GREEN BAY, WI 54307-9012

	Bill to: FOTH & VAN DYKE		Detection	Prep	Prep	Analysis	Analysis	Analyz
Analysis	Parameter	Result Units	Limit	Method	Date	Method	Date	By
TOTSOLID	Total Solids	84 percent				EPA 160.3	07/18/1995	NJS
DRO-S	Diesel Range Organics(DRO)-Soil	ND mg/kg	4.2		07/17/1995	WDNR MOD DRO	07/20/1995	NJS
	Blank spike	89 % RECOV	50					
	Blank spike duplicate	89 % RECOV	50					
	Soil spike	77 % RECOV	50					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

> These results have been reviewed and their authenticity verified by: nito melbery





Lab Certification No. 405132750

: GB-CORRECTIONAL/94W048 Location

Your Sample ID:

Sample Desc. : TRIP BLANK

Sample Matrix : WATER

En Chem Proj# : 9507230

Date Collected: 07/14/1995

Date Received: 07/17/1995 En Chem Lab # : 148746 Date Reported : 07/19/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD

P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

Analysis	Parameter	; ;	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyze By
PVOC	Benzene		ND	ug/l	0.6	SW846 5030	07/18/1995	sw846 8020	07/18/1995	CAR2
	Ethyl Benzene		ND:	ug/l	1.0					
	Methyl-tert-Butyl Ether		ND	ug/l	1.0			•		
	Totuene		ND	ug/l	1.0					
	1,2,4-Trimethylbenzene		ND	ug/l	1.0					
	1,3,5-Trimethylbenzene		ND	ug/i	1.0					
	Xylenes, m + p		ND -	ug/l	1.0					
	Xylene, o		ND	ug/l	1.0					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

## State of Wisconsin Department of Natural Resources



CHAIN OF CUSTODY RECORD LUST PROGRAM Based on Form 4400-151 Rev. 4-93 Just -

J. BLA	r(s)	resch/	Do.5	Aus	ha		itle/Work Ste			the Va	nk	Telephone I	 			*)
Gazan	- Bizy	CORRE	CPIN	ر ) و.و	Shwi	P	RIUERS	10K	Dr DI		·	Telephone (				•)
I hereby c	ertify that	I received, [	properl	y haridle	ed and disp	osed of t	hese samples	as noted	below:			LABOR	ATORY USI	DHLY		
Relinquister by	1/2	<b>₹</b>		/Time	n 7/	14/95	Received By	Signati	5° luch	ec	If sample	perature of	ived on (	ice and I	there we	100
Metinguished By	(Signature)	luft		Time	5	0845	Received By	(Signati	ure)		recelved temperatu	, you may r lon ice. I we of the m	fall of	the ice	wes mel	
Relinquished By	(Signature)			17 ime 17/9	5	0845	Recflived for	F EN CHE	by (signatur	•)	temperatu		le Condii	ilan		<del>••••••••••</del>
Field 1D Number	Date Collected	Time Collected		mple Device	Preserv. Type	Field Screeni		ion/Desci		Analysis Type	Leb ID Number	no/Type of Containers	/broken	Sealed	Good Cond.	Other Comments
35-00	7/13/55	11:37	Soil	620	No	146	, T-1 A	w DIZ	HS-05	North	148756	1 1 50 ~	In Co	ma	ale	7/19/95
35 <sub>N</sub> -02	(	13:10			(	34	T-1 A	WDIZ	. Hs-06	518	14875		cano		Bibli	419.
55-013		13:15				/			2 HS-07		148752					
55-04	4	13:20	1	1	V	2	T-15	iw DI	1 4508	4	14875		U	V		
from	e sac 1	co	,							٠						
																And E
-																
FOOTHOTES 1. 2.	specify gro sample desc sampling to	undwater, su ription must cation.	rface w clearl	ater, so y correl	oil, leachs ate the sa	te, sludgemple ID to	o the ( K		PVOC 6.	DRO	818 CODES 9. fr 10. pH	ee Liquids		BETX Protoco	l D1-GRO	
QTA	<b>,</b>		En Ch	em Proje	ct# <u>9</u> 2					Flashpoint Percent Solid		CLP-Benzene CLP-Lead	15.		l D1-DRO	
BILLING AD	DRESS: $ otag$	uss Ox	JNE.	rK	FW	٥		Jop	Name/Number:	GB-	CORR	Ec homa	·c/	944	veye	<u> </u>
	_ Z	737 S	s. 2	OFIX	E Rd			I	Description: _					2010	<u> Hoil</u>	
		GREEN	B	sy,	, wi	5'43	205	#	etunet	108 E	V CARE	SAMP	LERS			

### State of Wisconsin Department of Natural Resources



CHAIN OF CUSTODY RECORD LUST PROGRAM Based on form 4400-151 Rev. 4-93 h go

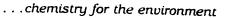
Sample Collecto  BLA  Property Duner	WE KI	isch/	1 god	<u>-</u> /4	Pers Fin			EVAL ENMEE	e /6,8/	Koto Van	2/6 4.	Number (includ	-2.500	ر ر
GREEN	JBAY	CORRE	CP	ng C	- SMIE	elli.	operty Addres	OF DR A	House	<del>5</del> -	Telephone	Number (includ	le area co	de) į
I hereby o	ertify that	1 received,			ed and disp	osed of the	ese samples a	s noted below:			LABOR	ATORY USE DIL	. 1	
Relieved by	(Signature)			/Time	7/14/	95	Received By	(Signature)		If sample	B Here Fec	temperature I	nd there w	クエ、 los Ice
Re Unquished By	(Signature)			/Time			Received By	(Signature)		temperati	on ice.	eport the tem If all of the molt may be su	ice was me	lted, the
Relinquished By	(Signature)		Date	/Time			pocerved for	EN SHEN by (Signatur	114/95 1			le Condition		
Field 10 Number	Date Collected	Time Collected		mple Device	Preserv. Type	field Screening	Locati	on/Description e footnote 2)	Analysis Type	Lab 10 Number	no/Type of Containers	Cracked Impro	op. Good ed Cond.	Other
55-01	7/13/45	11:37	Soil	GRAD	T NO	146	T-IM	DIZ HS-OS	23,5,6	B 143			D	IDNOT ECEIV
<u>Sv-02</u>		13:10	(	/	1	34	1	W 43 DIZHS 06	)					
5503		13:20				1	TIE	W D12.407		À		1		
55.04	1	13;20				2	T-1 S	NDI) HSTZ OB						1
55-05	7/14/45	9:15				1,3		w D11 Hs 12	5.8	14873		AMBER CO	ndos	PM
55-06		9:56				0,0	- 1	UDS HS15	July 1	148738				PMI
SS 07	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	10:15	¥	1	1/	0,0	) T-24	W DV J HS-13	1	148739			, 1	PM
FOOTNOTES 1.	specify gro sample desc sampling to	ription must	face w clearl	ater, so y correl	oil, leacha ate the sa	te, sludge, mple ID to	atc	1. GRO 5.	DRO ANALI	VSIS CODES	ee Liquids	13. BETX		<del></del>
QTA			En Ch	em Proje	ect# <u>95</u>	07,230	2	3. Lead	Flashpoint Percent Sol	11. TC	LP-Benzene		ocol D1-GR ocol D1-DR	
BILLING AD	DRESS:	uss (	lan.	ESK	Con	te Ro	VEL	Job Name/Number: _					1048	
	F	121 C			7-		_	Job Description:				REMEO!		
		+3+ S.		IDE	KD	11 50	マクユ	F	· · · · · · · · · · · · · · · · · · ·	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	106	WENE		

## State of Wisconsin Department of Natural Resources



CHAIN OF CUSTODY RECORD LUST PROGRAM Based on Form 4400-151 Rev. 4-93 2/2/20

Property Owner  Content  I hereby co	E KI				desin	uis ?	tle/Work Star operty Addrei	ires DR Alloutz Telephone Number (Inclu							ude area code)				
Relightshed By	Polished Polished Polished								Temperature of temperature bla  If samples were received on ice and remaining, you may report the temper						d there was ice				
Relinquished By (Signature)  Date/Time  Regelyed for								r EN CHEM by (Signature)				red on ice! If all of the ice was malted, the iture of the malt may be substituted for a iture blank							
Field ID Number	Date Collected	Time Collected	Sa Type 1	mple Device	Preserv. Type	Field Screenin		on/Description e footnote 2)	Analy	is Lab	D 00	/Type of	Cracked /broken	Improp.	Good Cond.	Other			
55.08	414/15	10130	Seil	GRAG	No	65	T-2,	YW D 13 HS/	6 2,5,	68 1487			MAR		1	P/M			
<u> 55-09</u>	(	11;00		ļ		4		WBDI5HS	- 1 /	1487					~				
55-10		11:45				90	1-21	YCCANIU D13 H	419	1487	4,2				レ				
55-11		14.20				150	2 FPT	-2 BS HS7	0 1	. 1487	43				V				
55.13	1	1440	<u> </u>		+	114	PRE FFT-	705 NSZ	الم سالم	,8 148	,440	arhu	2,3,	G	1	1			
55-144	~ /r	17:30				0,6		1 45 × 2	Swy				1:000	7-6	Bic	NoT			
(35.12							1100	TRIP 1	35,0	e. R. 148	95 1 741 4	yom		Te.	レ	18/11/2 PVOC			
	sample descri	undwater, sur ription must cation.	clearl	y corre	ate the sa	mple ID to	the		DRO PAH Flashpo	10.	Free pH	Liquids Senzene	14.	BETX Protocol		तुरु जन्म			
OTA			En Ch	em Proje	ect# <u>95</u>	0/23	0_	4. 8021	. Percent	SOLICE 12.	TCLP-	Lead	16.	Protocol 8260					
BILLING ADD		uss f				LIVAN	0//5	Job Name/Mumber: Job Description:	L.B.	CORRE	CTI	enAC De-	/9	in	148				
	-	137 S REFU		106		4307	Z	TOO BESCH (PETA);		-3/11K.N	<u> </u>		TEU/K						





1795 Industrial Drive Green Bay, WI 54302 414-469-2436 800-7-ENCHEM FAX:414-469-8827 Lab Certification No. 405132750

Location : GB-CORRECTIONAL/ 94W048 En Chem Proj# : 9507229

En Chem Proj# : 9507229 Date Reported : 07/24/1995

Report to: FOTH & VAN DYKE

Thank you for using En Chem! Samples were analyzed according to strict EPA or Wisconsin DNR methodology. Any comments or problems associated with the receipt of or analysis are reported below:

Sample id. SP-01 was not received by the laboratory. Client was notified. Per client it will be resampled.

Sample no. 148736: Benzene chromatogram has many low level peaks.



. . . chemistry for the environment

Lab Certification No. 405132750

Location : GB-CORRECTIONAL/ 94W048

Your Sample ID: SP-02

Sample Desc. : SOIL PILE MID

Sample Matrix : SOIL Date Collected: 07/14/1995
En Chem Proj# : 9507229 Date Received : 07/17/1995
En Chem Lab # : 148736 Date Reported : 07/24/1995

Green Bay, WI 54302 414-469-2436 800-7-ENCHEM FAX:414-469-8827

1795 Industrial Drive

Report to: FOTH & VAN DYKE

2737 SO. RIDGE ROAD P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

Analysis	Parameter	Result Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyz:
TOTSOLID	Total Solids	86 percent				EPA 160.3	07/18/1995	NJS
PB-S	Lead, soil	5.2 mg/kg	3.8	sw846 3050	07/19/1995	SW846 7421	07/20/1995	ctk
IGNIT	Ignitability	>210 °F				SW846 1010	07/19/1995	DJB
FREELIQ	Free Liquids	0.0 Percent		•		SW846 9095	07/19/1995	NJS
DRO-S	Diesel Range Organics(DRO)-Soil Blank spike Blank spike duplicate Soil spike	150 mg/kg 89 % RECOV 89 % RECOV 77 % RECOV	50		07/17/1995	WDNR MOD DRO	07/21/1995	6 PHS
BENZ-S-ME	Benzene	ND ug/kg	25		07/19/1995	WDNR MOD GRO	07/23/1995	PMS

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

# State of Wisconsin Department of Hatural Resources



CHAIN OF CUSTODY RECORD LUST PROGRAM Based on Form 4400-1/11 Rev. 4-93 1900

Property Owner	BAN	GUERE		n46	State	Pro Pro	tle/Vork Sta V. En operty Addrag	FOR + V			4/4	Number (include - 49 Z - 2 Number (include	2500	<u> </u>
Relingation B	(Signature)	I received,	Date	y handle /Time	ed and disp	osed of the	Received By	s noted below:		70	nærature of	ATORY USE CHLY temperature bla lyed on Ice and		O.T.
Relinquished By				/Time			Received By	(Signature)		remaining freceived temperati	), you may r d on ice!. I A-s of the s	eport the temper fall of the ice elt may be subst	eture es	ted the
Relinquished By	(Signature)		Date	/Time			received for	EN CHEM by (Signature	19/95 R	tesperati	a-e blank	le Condition		
Field ID Number	Date Collected	Time Collected	Type 1			Field Screening		on/Description e footnote 2)	Analysis Type	Lab 10 Number	no/Type of Containers	Cracked Improp. /broken Sealed	Good Cond.	Other Comments
SP-01	7/13/95	15:145	اندی اسک	GRAB	NO	178	501/	PILE -MOUED	15.5				T	BELLIN
58702	7/14/95	17:35	1	1		37		P. Le inin	15.5	148730	2-502 2-EX	CORE		B-/M
					· .	•								
			······································											
			<del></del>											
			<del></del>											
					· · · · · · · · · · · · · · · · · · ·				·					
FOOTNOTES 1.	sample described to	indwater, sur ription must cation.	face w clearl	nter, so y correl	il, leachau ate the sam	e, sludge, ple ID to	etc. the	1. GRO (3)	DRO ANALY	BIS CODES 9. Fr 10. pH	e Liquids	13. BETX	01-000	
ATD	1		En Ch	em Proje	ct# <u>95</u>	07229	<u> </u>	3. Lead 7. 4. 8021 8.	Flashpoint Percent Soli	11. TC	i P-Benzene	15. Protoco 16. 8260	01-020	>
BILLING ADD	2	Puss ( 737 S REEN	<u> </u>	DGE	Zel	5430	Ule 7	Job Name/Number: _ Job Description: _ Returned						



1795 Industrial Drive Green Bay. WI 54302 414-469-2436 800-7-ENCHEM FAX: 414-469-8827

Lab Certification No. 405132750

Location : DFD-GB-CORRECTIONAL/ 94W048

En Chem Proj#: 9511528
Date Reported: 12/04/1995

Report to: FOTH & VAN DYKE

Thank you for using En Chem! Samples were analyzed according to strict EPA or Wisconsin DNR methodology. Any comments or problems associated with the receipt of or analysis are reported below:

Sample nos. 164234 and 164235: Large peak late in DRO window.

12.07.95 LTJ JBK MRL

94W048 (10500) [WI DF]

## ... chemistry for the environment

EN CHEM

Lab Certification No. 405132750

Location : DFD-GB-CORRECTIONAL/ 94W048

Your Sample ID: SS-01

Sample Desc. : GB-1,000-SOUTH

Sample Matrix : SOIL Date Collected: 11/21/1995 En Chem Proj# : 9511528 Date Received : 11/22/1995

En Chem Lab #: 164234 Date Reported: 12/04/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

	BILL CO: FOIR & VAN DIKE				_	_			
	_			Detection	Ргер	Prep	Analysis	Analysis	•
Analysis	Parameter	Result	Units	Limit	Method	Date	Method	Date	By
TOTSOLID	Total Solids	91	percent				EPA 160.3	11/27/1995	S NJS
DRO-S	Diesel Range Organics(DRO)-Soil	ND	mg/kg	4.1		11/22/1995	WONR MOD DRO	11/02/1995	PHS
	Blank spike	94	% RECOV	50					
	Blank spike duplicate	93	% RECOV	50					
	Soil spike	83	% RECOV	50					
	Soil spike	83	% RECOV	50		· ·			

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

M Suha





Lab Certification No. 405132750

Location : DFD-GB-CORRECTIONAL/ 94W048

Your Sample ID: SS-02

Sample Desc. : GB-1,000-NORTH

Sample Matrix : SOIL Date Collected: 11/21/1995 En Chem Proj# : 9511528 Date Received : 11/22/1995

En Chem Lab # : 164235

Date Reported : 12/04/1995

Report to: FOTH & VAN DYKE

1795 Industrial Drive

Green Bay, WI 54302

414-469-2436

800-7-ENCHEM

FAX: 414-469-8827

2737 SO. RIDGE ROAD P.O. BOX 19012

GREEN BAY, WI 54307-9012

Bill to: FOTH & VAN DYKE

	The state of the s								
Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analy: By
TOTSOLID	Total Solids	88	percent				EPA 160.3	11/27/1995	NJS
DRO-S	Diesel Range Organics(DRO)-Soil	ND	mg/kg	4.3		11/22/1995	WDNR MOD DRO	11/02/1995	PHS
	Blank spike	94	% RECOV	50					
	Blank spike duplicate	93	% RECOV	50					
	Soil spike		% RECOV	·= -		٠.			

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

M. Suha

						•	1		155-1	• • •				
Company Na	ame: Foth + Van.	DyKe											Pone /	1 of 1 9m
Branch or Lo	ocation: GREEN ?	BAY						E	<b>G</b> HI	EM INC	Mail	Report	To: Russ JAN	01
Project Conta	act: 5 BLAYNE	K	RSC	۷						•	1	npany:	FOTH + YAN	
Telephone:	414. 4	197-	250	0			1		ellevue St., Su n Bay, WI 543			<del></del>	P.O. Bux 190	<u> 2773</u> 012
Project Numb	ber: 94WO	48_					414	469-24	436 • 1-800-7 414-469-882	36-2436			REEN BAY	
Project Name	e: DFD - C	1B- Co	DRREC	TIONA							Invo	ice To:		<u> </u>
Project Locat					_  <i>K</i>	EN	nn	50	4 EN	CONES	Com	npany:	SAME As	AROUE
ampled By			Lesi	.6	<u> </u>		<del>^</del>				Add	ress:	(94W048	B1.419)
legulatory P	rogram (circle): OST RCF	RA CLP	SDW	/A	NR7	'20 Con	firmation	n Analysi	is Required?					
NPDES/W	PDES CAA NR(	Other				Chem w	vill confii	m unles	s otherwise instru	ucted.)	P.O.	No.:	Quote No.	
Field ID	Sample Description	1	Collect Date	Time	Field Screen	Matrix	Filt'd Y/N	Preserv*		alysis uested	Good Cond.	Total Bottles	DED AREA FOR LABORATOR  Comments	Y USE ONLY Laboratory Number
<u>55-0/</u>	GB-1000-Sout	1	ukifa	14:20	F10 16.0	soil	N4	NA	WI-META	DEO	X	1-50	2303-0 cn22454-0	164234
SS-02	68-1000500+	beth		5100		1	NA	14	WI-MEIL		1	1	2475-8	164235
- N														
9 :				ı		٠							, z	
												1	5	
								<b></b>						
											_			
						4,000							Ĭ	
										· · · · · · · · · · · · · · · · · · ·	<del></del> -		<u> </u>	
												<u> </u>		
										- · · · · · · · · · · · · · · · · · · ·	_			
			<u>-)</u>		,	/								
A=None D=HN03	Preservation Code B=HCL C=H2SQ E=EnCore E=Methano		uished B	Jac	m L			Date/Tin	55 11/	Received B	11	2	-3 951	Project No.
"If not usin	O=Other (Indicate)  ng En Chem's methanol, Indi- e of methanol added and mar riale samples.		Hujul nova 13		,							)): - , , <i>j</i>	(Must be	Receipt Temp. rec'd at 4°C)

17

.

# Appendix I

"Case Summary and Closeout" WDNR Form 4400-171

# WISCONSIN DEPARTMENT OF NATURAL RESOURCES CASE SUMMARY AND CLOSE OUT FORM

UID # <u>03-05-2140</u>
Page on sible Party Name / Eull Address, Martin Page DE
Responsible Party Name/ Full Address: Martin Romero, P.E.  Wisconsin Department of Administration
Division of Facilities Development
P.O. Box 7866  Madison, WI 53707-7866
Wisconsin Department of Corrections
Site Name/Full Address: Green Bay Correctional Institution, 2833 Riverside Drive, Green Bay, WI 54307-9033
Legal Description:       1/4, W       1/4, Sec       20       T 23       N, R       20       (E) WISCONSIN DEPARTMENT OF NATURAL         RESOURCES Case No.       03-05-2140       County:       Brown
Contaminant Type(s) <u>DRO</u> Quantity Released <u>Unknown</u>
Incident Type: (amount released if known):LUST
Date of Incident/Discovered: July 14, 1995 If Incident = LUST: Form 4 Pending? Yes X No
Depth to Groundwater/Flow Direction: = 14 ft/W Perched Water? * Y * N Depth: *Unknown
Soil Type Clay Depth to Bedrock >14 ft
Potential Receptors: None
Site Assessment Consultant: Foth & Van Dyke, 2737 S. Ridge Rd., P.O. Box 19012, Green Bay, WI 54307-9012
Investigation/Remediation Consultant: Foth & Van Dyke
Certified Lab Testing Soils/Water: EnChem, Green Bay, WI
Status of water supply wells within 1200 feet of the site? One municipal well (see attachment)
Date Closure Submitted to WDNR: Enforcement Actions or Permits Closed Out? Yes No
CLOSE OUT COMMITTEE SIGN OFF: Date:
(Signature)
(Signature)
(Signature)
(Signature)
(Signature)
도 마음을 하는 것이 되었다. 그렇게 되었다. 그런데 이번 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은
그리다 가장 내용 내용 내용 내용 내용 내용 내용 내용 내용 내용 내용 내용 내용
는 보호, 그래프로 프로그램 그 이 경기 이번 보고 보고 있다. 그 등 사람들은 경찰에 가는 것은 사람들이 되었다. 그런 것이 되었다. 그런 그를 보고 있다. 그런 그를 보고 있다. 그런 그를 보고 그 소설을 바다들을 것 한 일을 보고 있다. 그는 사람들은 사람들은 기계를 보고 있다. 그 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은

# SOIL PRE-REMEDIATION OR INVESTIGATION ANALYTICAL RESULTS

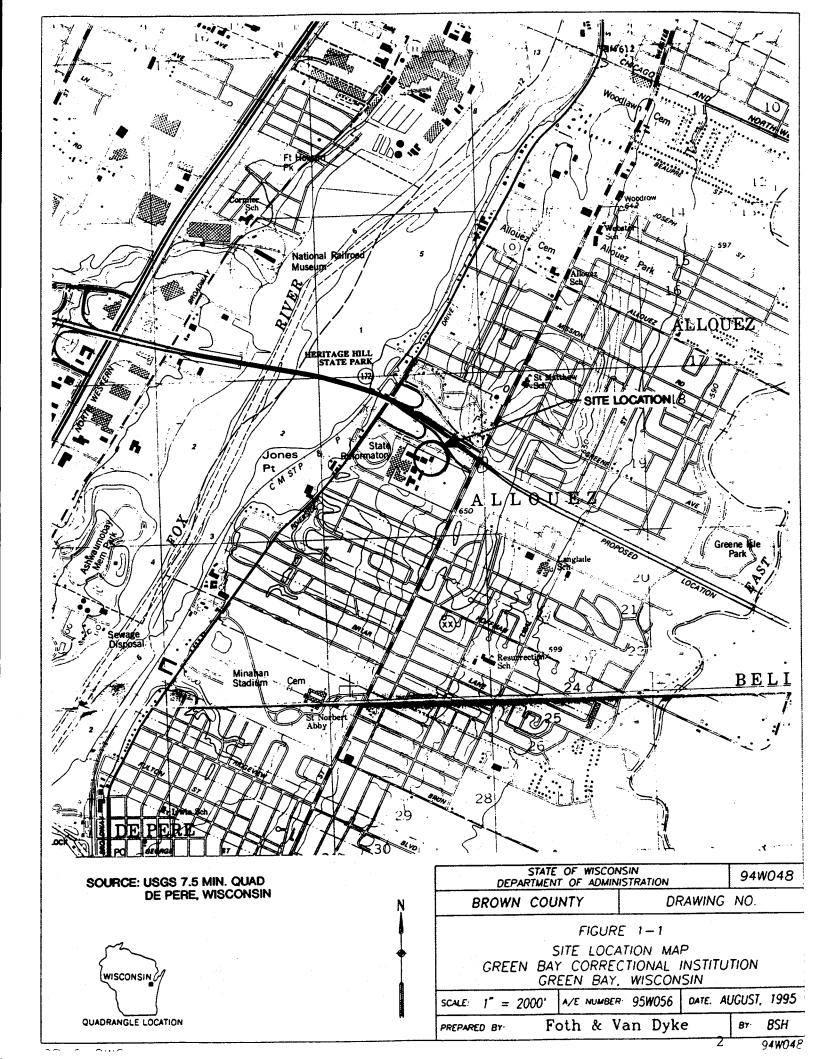
Extent Defined?Y _X_N Small amount of contaminated clay remaining between prison wall and main gas pipe.
Attach Table of Pre-remedial Soil Samples
SOIL POST REMEDIATION ANALYTICAL RESULTS
Attach the Table for Post Remedial Soil Results
Remedial Action Completed? XY N 720.19 analysis Y X N (if Y attach supporting documentation)
Final Confirmation Sampling Methods: <u>DRO, PVOC, PAH, Lead</u>
Description of remedial action taken: Excavation of contaminated soil/disposal at off-site biopile.
Were Soils Excavated? X Y N Quantity: 63 ton Disposal Method: Biopile
Soil Disposal Form Attached? X Y N Final Disposal Location: Ridgeview Landfill, Whitelaw, Wisconsin
GROUNDWATER ANALYTICAL RESULTS
GROUNDWATER ANALITICAL RESULTS
Extent Defined?YN _X_NA
Remedial Action Completed?Y _X_N
Field Analyses?YN Lab Analyses?YN No. of Sampling Points:N/A
Number of Sample Rounds: N/A
#NR 141 Temporary Wells: N/A #Recovery Sumps: N/A
#Private Wells: N/A For private wells, Form 3300-67 completed: N/A
#Municipal Wells: N/A #NR 141 Monitoring Wells: N/A
Preventive Action Limit exceeded?YN (If yes, location)N/A
Enforcement Standard exceeded?N (If yes, location)N/A
Attach Table of Groundwater Results
Description of remedial action taken:

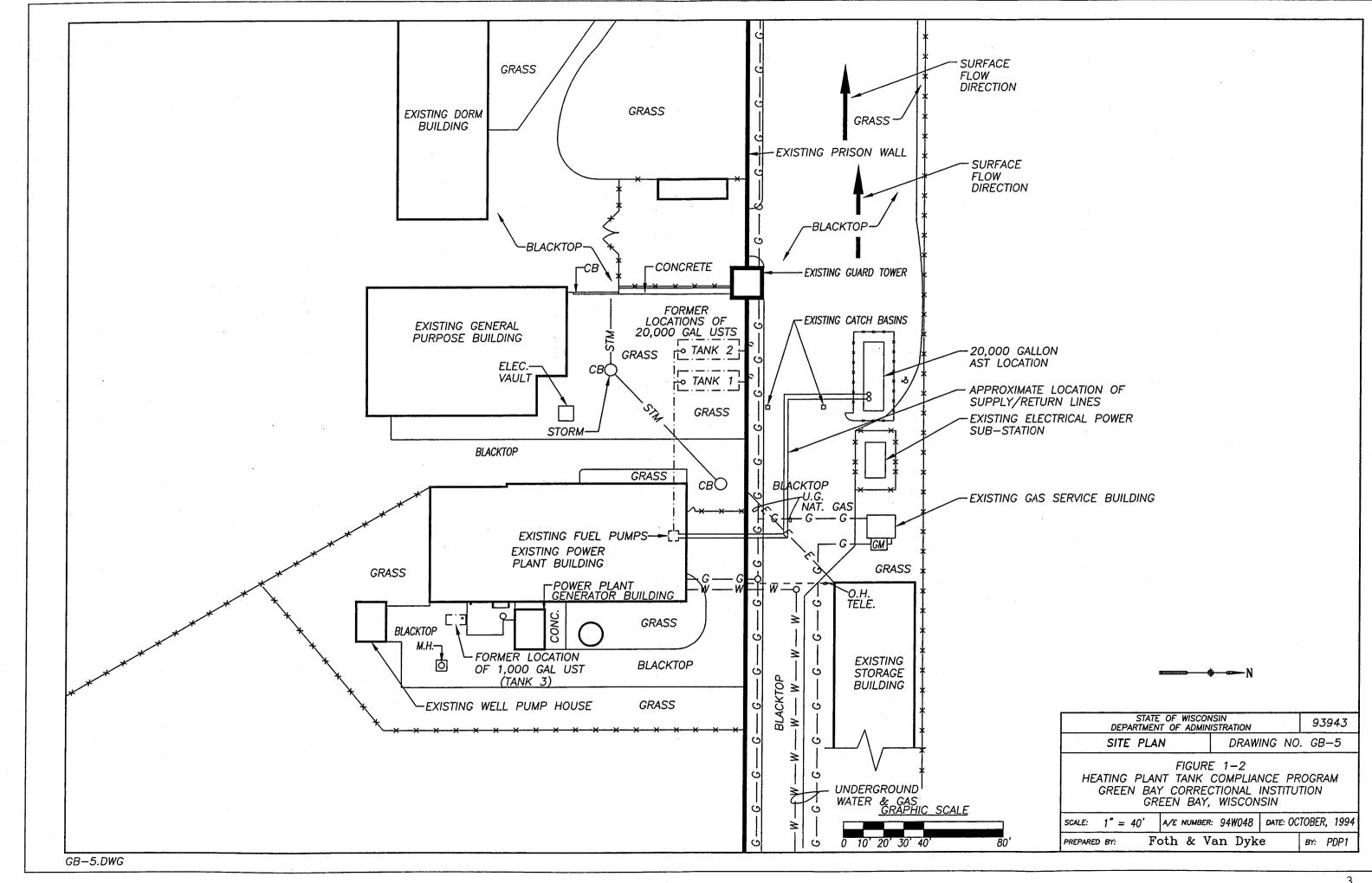
Form completed by: I certify that, to the best of my knowledge, the inforrecommendation for case closure is based upon all and Close Out Form Instructions and all required in	available data as of _7/	24/57 (date). I have read t	
Name: Philip R. Brochocki	Firm Name:Foth_	& Van Dyke	
Affiliation with Site Owner: Consultant			
Address: 2737 S. Ridge Road, P.O. Box 19012			
City: Green Bay	State: WI	Zip: <u>54307-9012</u>	
Telephone Number: ( <u>920</u> ) <u>497-2500</u>	· · · · · · · · · · · · · · · · · · ·		
Heils Udsenlool			
(Signature)	·		
COMMITTEE RECOMMENDATION:	Date:		

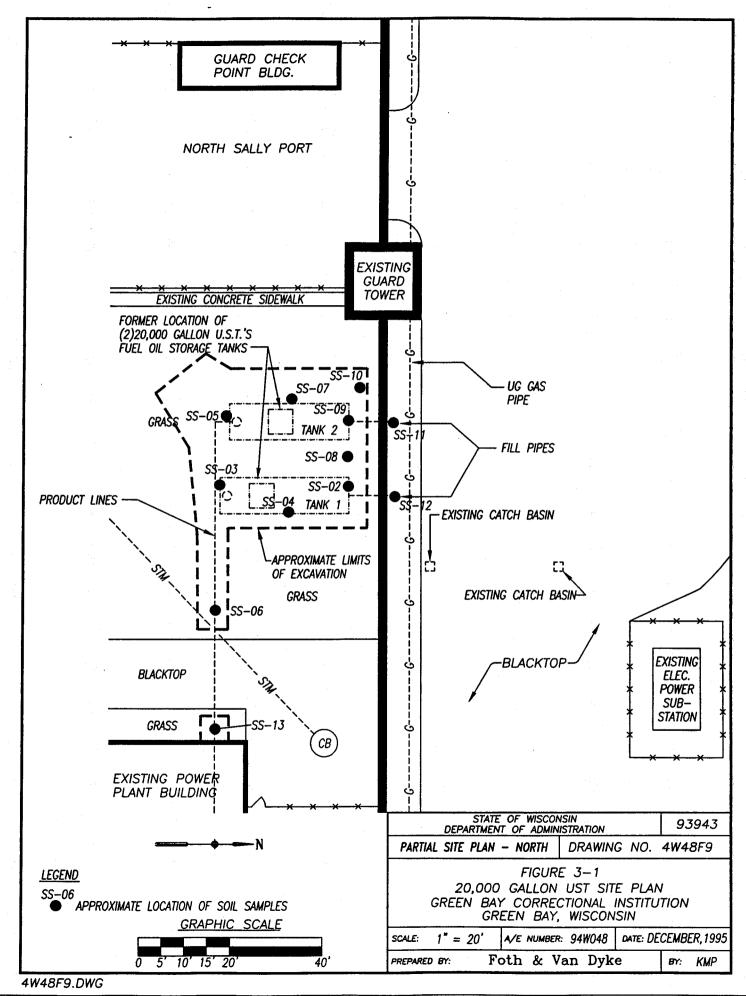


I	Client WT DOOK OF A	Amuristrupale 1/10/97
ł	Project Paul Plant Docum	entation Report
3	Prepared by STS -F	Musl. I Page //
ı	File Classification 7000 ·	Scope I.D. <u>45WO4</u>

PROJECT PHONE CALL CONFIRMATION 94W048
Call from/to_STS/DIVE BOYS Representing FVD/TOWN OF Albour Four Configuration of Configurat
Phone number 44 )448-2808 Correctional Aloue
QUESTION regarding well focation with respect to G.B. Limits
Tusted My Boys if there are any monitoring wells for potable water within 5 1200 feet of the Green Bay Correctional power plant?
Mr. Bors said from the West Wall of the face of the building to the main distribution / main pumping well = 1100 feet. The well is below the bill of the River Bank west of Biverside Dr. No monitoring wells within the vicinity of area
Main Distribution Well is 1100 ft from face of West Wall of the structure
If power plant location is >100ft from  Y face of west wall, then well is >1200ft from  Plant  If power plant bustion is < 100 ft from  Plant
face of use wall then well is = 1200f+ from population
If yes, action required: Need verification of south plant Action taken: 10 Cation within Green Bay approctional Structure Court on Site Plan March Day Trink power
PRB plant 15 very  Tok circle to 1200 ft marks)







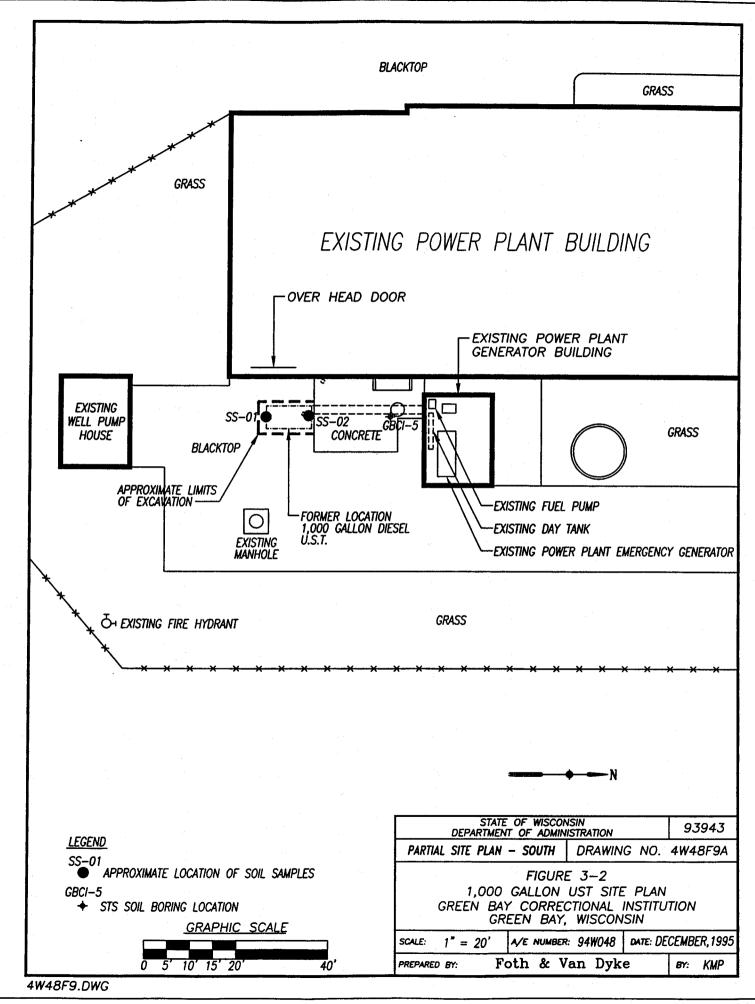


Table 3-2

Green Bay Correctional Institute Power Plant
Soil Analytical Results
Fuel Oil Tank Assessment/Remediation
Field Screening, PVOCs, and DRO

Sample ID/ Depth (ft)	Sample Description	Date Sampled	PID	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl- benzene (ug/kg)	m/p Xylenes (ug/kg)	O- Xylenes (ug/kg)	MTBE (ug/kg)	1,2,4- Tri- methyl- benzene (ug/kg)	1,3,5-Tri- methyl- benzene (ug/kg)	DRO (mg/kg)	Lead (mg/kg)
				20,0	000-Gal Heat	ing Oil Tank	System						
SS-02/12	T-1 NW D12 HS-06	07/13/95	34	NA	NA	NA	NA	NA	NA	NA	NA	72	NA
SS-03/12	T-1 EW D12 HS-07	07/13/95	1	NA	NA	NA	NA	NA	NA	NA	NA	<4.4	NA
SS-04/11	T-1 SW D11 HS-08	07/13/95	2	NA	NA	NA	NA	NA	NA	NA	NA	<4.2	NA
SS-05/11	T-2 SW D11 HS12	07/14/95	1.3	NA	NA	NA	NA	NA	NA	NA	NA	17	NA
SS-06/5	PR W D5 HS15	07/14/95	0.0	NA	NA	NA	NA	NA	NA	NA	NA	<4.5	NA
SS-07/11	T-2 WW D11 HS13	07/14/95	0.0	NA	NA	NA	NA	ŇA	NA	NA	NA	<4.4	NA
SS-08/13	T-2 NW D13 HS16	07/14/95	65	<25	<25	<25	<25	<25	<25	<25	<25	<4.6	5.3
SS-09/15	T-2 NWB D15 HS17	07/14/95	4	<25	<25	<25	<25	<25	<25	<25	<25	<4.6	5.4
SS-10/13	T-2 NWNW D13 HS19	07/14/95	0.0	<25	<25	<25	<25	<25	<25	<25	<25	<4.4	4.9
SS-11/5	FPT-2 D5 HS20	07/14/95	152	<25	<25	<25	<25	<25	<25	<25	<25	1100	15
SS-12/5	FPT-1 D5 HS-21	07/14/95	114	<25	<25	130	220	83	<25	1400	<25	1600	12
SS-13/4	PRE D4 HS22	07/14/95	0.6	NA	NA	NA	NA	NA	NA	NA	NA	<4.2	NA
				1	,000-Gal Dig	ester Tank Sy	stem						
SS-01/8	GB-1,000-South	11/21/95	16.0 <sup>(C)</sup>	NA	NA	NA	NA	NA	NA	NA	NA	<4.1	NA
SS-02/8	GB-1,000-North	11/21/95	0.0 <sup>(C)</sup>	NA	NA	NA	NA	NA	NA	NA	NA	<4.3	NA

Table 3-2 (Continued)

Sample ID/ Depth (ft) Sample Description	Date Sampled	PID	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl- benzene (ug/kg)	m/p Xylenes (ug/kg)	O- Xylenes (ug/kg)	MTBE (ug/kg)	1,2,4- Tri- methyl- benzene (ug/kg)	1,3,5-Tri- methyl- benzene (ug/kg)	DRO (mg/kg)	Lead (mg/kg)
	· ·		S	oil Cleanup S	Standards (NI	R 720)						
RCL			5.5	1500	2900	(4100) <sup>(B)</sup>	(4100) <sup>(B)</sup>	NE	NE	NE	250	50

Prepared by: MDF Checked by: PRB

NA = Not Analyzed

NE = Not Established

PVOCs = Petroleum Volatile Organic Compounds (8020 method list)

MTBE = Methyl tert-butyl ether

DRO = Diesel Range Organics by Wisconsin Modified DRO Method

Compound below minimum detection limit shown

RCL = Residual Contaminant Level

For soils with saturated hydraulic conductivity less than 1x10<sup>-6</sup> cm/sec, DRO at 250 mg/kg For non-industrial land uses, lead at 50 mg/kg, for industrial land uses, lead at 500 mg/kg

(A)Constituent units for this sample are  $\mu$ g/l.

Soil sample locations are shown on Figures 3-1 and 3-2.

<sup>(</sup>B)Standard established for total xylenes, summation of m/p and O-xylenes.

Table 3-3

# **Green Bay Correctional Institute Power Plant Soil Analytical Results**

## Fuel Oil Tank Assessment/Remediation Polynuclear Aromatic Hydrocarbons (PAHs)<sup>(A)</sup> 20,000-Gal Heating Oil Tank System

Sample ID	Sample Description	Date Sampled	Acenaph- thene (ug/kg)	Acenaph- thylene (ug/kg)	Anthracene (ug/kg)	Benzo (a) anthracene (ug/kg)	Benzo (a) pyrene (ug/kg)	Benzo (b) fluoranthene (ug/kg)	Benzo (ghi) perylene (ug/kg)	Benzo (k) fluoranthene (ug/kg)	Chrysene (ug/kg)
SS-08	T-2 NW D13 HS16	07/14/95	<59	<120	<2.3	<2.9	<2.3	<2.3	5.5	<2.3	<2.9
SS-09	T-2 NWB D15 HS17	07/14/95	<19	<39	<0.8	<1.0	<0.8	<0.8	<5.8	<0.8	<1.0
SS-10	T-2 NWNW D13 HS19	07/14/95	<19	<39	<0.8	<1.0	<0.8	<0.8	<5.8	<0.8	<1.0
SS-11	FPT-2 D5 HS20	07/14/95	<21	<43	<0.9	<5.3	<4.3	<4.3	<6.4	<4.3	20
SS-12	FPT-1 D5 HS21	07/14/95	<340	<680	<14	<17	<14	35	<20	<14	62
Sample ID	Sample Description	Date Sampled	Dibenzo (a,h) anthracene (ug/kg)	Fluor- anthene (ug/kg)	Fluorene (ug/kg)	Indeno (1,2,3-cd) pyrene (ug/kg)	l-Methyl- naphthalene (ug/kg)	2-Methyl- naphthalene (ug/kg)	Naphthalene (ug/kg)	Phenan- threne (ug/kg)	Pyrene (ug/kg)

Sample ID	Sample Description	Date Sampled	Dibenzo (a,h) anthracene (ug/kg)	Fluor- anthene (ug/kg)	Fluorene (ug/kg)	Indeno (1,2,3-cd) pyrene (ug/kg)	l-Methyl- naphthalene (ug/kg)	2-Methyl- naphthalene (ug/kg)	Naphthalene (ug/kg)	Phenan- threne (ug/kg)	Pyrene (ug/kg)
SS-08	T2 NW D13 HS16	07/14/95	2.6	<2.3	<12	<2.3	<59	<59	<59	<12	<12
SS-09	T-2 NWB D15 HS17	07/14/95	<3.9	<0.8	<3.9	<3.9	<19	<19	<19	<3.9	<3.9
SS-10	T-2 NWNW D13 HS19	07/14/95	<3.9	<0.8	<3.9	<3.9	<19	<19	<19	<3.9	<3.9
SS-11	FPT-2 D5 HS20	07/14/95	<4.3	<0.9	<4.3	<4.3	<21	<21	<21	<4.3	7.1
SS-12	FPT-1 D5 HS21	07/14/95	<14	<14	<68	<14	<340	<340	<340	<68	<68

< = Compound below minimum detection limit shown.

Note (A) There are no soil cleanup standards established for any of these PAHs.

Soil sample locations are shown on Figure 3-1.

Prepared by: MDF Checked by: PRB

# Foth & Van Dyke

Client: Division of Facilities Development

Project: Green Bay Correctional

Prepared by Blayne Kirsch

Scope I.D. 94W048-31

Page 1 of 1

Date May 21, 1996

## **Project Phone Call Confirmation**

RECEIVED

JUN 1 2 1996

A.M./P.M. Representing: WDNR

Lake Michigan District

LMD SOLID WASTE

Phone No.:

Reason for Call:

Call From/To:

Letter to Terry Cook - DFD (Dated May 1, 1996)

Green Bay Correctional

WDNR LUST ID No. 03-05-2140

Spoke with Al. For response to attached letter.

Alan Nass

I told Al that Green Bay Correctional fuel oil tank pit has been remediated by over excavation at the time of the tank pulls (July 1995). I stated that none to minimal residual contamination was left in place. I also stated that approximately 70 cubic yards of petroleum impacted soil was stockpiled at the site. For the stockpile, I indicated to Al that it should be removed within the next 2-3 months, depending upon the subcontractor.

I further stated to Al that a site assessment report, remediation report and closure request will be forwarded to him in September or October, 1996.

Al said that this phone call would serve as response to the attached letter.

Further Action Required: No Action Required: None Action Taken: See above Distribution:

Martin Ramero - Dept. of Admin.

Al Nass - DNR

Terry Cook - Dept. of Admin. Mike Roller - Foth & Van Dyke File

Signed:



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor George E. Meyer, Secretary William R. Selbig, District Director Lake Michigan District Headquarters PO Box 10448, 1125 N. Military Ave. Green Bay, WI 54307-0448 TELEPHONE 414-492-5916 FAX 414-492-5859

May 1, 1996

DOA

Attn: Terry Cook - Division of Facil. Devel. PO Box 306 King WI 54946

SUBJECT: Investigation/Remediation of Petroleum Contamination

WI DOC - Green Bay Correction Inst., 2833 Riverside Dr., Green Bay, WI

WDNR LUST ID # 03-05-2140

Dear Mr. Cook:

In a letter dated September 6, 1995, the Department informed you of your obligation to clean up the petroleum contamination at the above-referenced property. We have not received any information since July 14, 1995 to indicate that you have been investigating the extent of the contamination or developing a cleanup plan.

Cleaning up the contamination is important to protect the health and welfare of yourself, your neighbors and the environment; it is also required by Wisconsin and federal law. The longer contamination is left in the environment, the farther it can spread and the more it may cost to clean up.

If you are already in the process of investigation and/or remediation, please provide the Department with a written update, by no later than **June 3**, **1996**, describing the work that has been performed and what work still needs to be completed to restore the environment

All reports and correspondence should be sent to the Department at the following address:

Wisconsin Department of Natural Resources Attn: Alan Nass 1125 N. Military Avenue PO Box 10448 Green Bay, WI 54307-0448

All submittals must be identified with the WDNR LUST ID number; unless otherwise requested, please send only one copy of all submittals.



As a reminder, you are encouraged to contact the Department of Industry, Labor & Human Relations (608-266-2424) to inquire whether you are eligible for reimbursement of costs associated with investigation and cleanup at this site.

Your cooperation in this matter would be appreciated. Failure to comply with these requirements may result in enforcement action.

If you have any questions concerning this letter, you may contact Mr. Alan Nass at (414)492-5861.

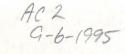
Sincerely,

Dee Alsteen, Hydrogeologist

De alsten

Leaking Underground Storage Tank Unit

cc: Blayne Kirsch, Foth & Van Dyke, PO Box 19012, Green Bay WI 54307





## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Lake Michigan District Headquarters Solid & Hazardous Waste Program 1125 N. Military Avenue, PO Box 10448 Green Bay, WI 54307-0448 TELEPHONE: (414)492-5916 TELEFAX: (414)492-5859

George E. Meyer, Secretary William R. Selbig, District Director

September 6, 1995

Division of Facilities Development Attn: Terry Cook PO Box 306 King, WI 54946

RE: Notification of Petroleum Contamination from Underground Storage Tank System WDOC - Green Bay Correctional Institution, 2833 Riverside Drive, Green Bay WDNR LUST ID #05-2140

Dear Mr. Cook:

On July 14, 1995, the Department of Natural Resources (DNR) received notification from Blayne Kirsch of Foth & Van Dyke that petroleum contamination was discovered at the above-referenced location.

From the information received, it appears that the contamination has been or will be cleaned up to the extent practicable. Therefore, by November 10, 1995, please submit a tank closure assessment report to the Department at the following address:

Wisconsin Department of Natural Resources Attn: Alan Nass 1125 N. Military Avenue, PO Box 10448 Green Bay, WI 54307-0448

Please identify the report with the WDNR LUST ID number indicated above.

If, after reviewing the report, the WDNR has determined that further investigation/work is necessary, you will be notified accordingly. If you have any questions concerning this letter, please contact me at (414) 492-5878.

Sincerely,

Janis M. DeBrock, Program Assistant Leaking Underground Storage Tank Unit

ans Webrock

cc: Alan Nass - LMD

Blayne Kirsch, Foth & Van Dyke, PO Box 19012, Green Bay, WI 54307

# **LEAKING UNDERGROUND STORAGE TANK (Case Tracking)**Form 4400-146 Rev. 2-93

PROJECT MANAGER:	an INS					
UID Number:	2140 H	ID Number:		PMN Numbe	er:	med E
County: 05 Site Name: WI DOC Address: Rule	- Green Brind	ey Correct.	Initial Contact I Date RPLetter S Date Closure A	Sent:	<u> 7,14,9</u> 9,6,9	25- 25- Reques Closes
Municipality: Legal Descript.: 1/4 Lat.:				l	yne Hirs. 96-6821	ih - F+
Priority Screening  1 = High 2 = Medium 3 = Low 4 = Unknown	Scoring Criteria  1  2  3  4  5 Init:	Funding So  1 = F 2 = I 3 = F 4 = C	urce Effe RP LTF EF Other	ctive Date	LUST Trust E 1 = Fe 2 = No	ligible deral
	Cas	e Status				
(F) Free Product Re (E) RP Emergency (R) LTF Emergency (L) Long Term Mor	Response Response		art Date	End Date//		
Responsible Party	DOA		Impacts			
Contact Person:  Company Name:  Address:  P.D.	Secon of Files Box 306	2. Derulep.	(2) Contain	xplosion Threat	Well(s)	# of Wells
Phone Number: 17/5	758-14	98	(4) Groun (5) Soil C (6) Other:	dwater Contamion contamination ce Water Impact	ination	
Consultant Contact Name: Plant Company Name:: 70 11 Address: Post Telephone: (	Brackerl Han Dyb Lox 19012 La Bay W	5430 7	Substances  — (1) Leaded — (2) Unlead — (3) Diesel — (4) Fuel O — (5) Unkwi — (8) Other — (12) Waste	ded Gas bil n Hydrocrbn	# Tank(s)	Size

Green Bay Correct. Justit. PROJECT MGR

### **ACTION CODES**

02 = RP Letter Sent \* 03 = Notice of Noncompliance \*

04 = Enforcement Conference \*

14 = Notice of Violation \*

60 = Consent Order +

18 = Admin. Order Issued \*

19 = Admin. Order Modified

31 = Tnk Cls/SA Workplan Rec'd

20 = Admin. Order Cancelled

21 = Contest Case Hearing \*

23 = Referral to DOJ \*

30 = Notice to Proceed \*

32 = Tnk Cls/SA Workplan Appvd

33 = Tank Cls/SA Report Rec'd

34 = Tank Cls/SA Report Appvd

35 = SI Workplan Rec'd \*

36 = SI Workplan Appvd \*

37 = SI Report Rec'd \*

38 = SI Report Appvd \*

39 = RA Workplan Rec'd \*

40 = RA Workplan Appvd \* 41 = RA Report Rec'd \*

42 = RA Report Appvd \*

43 = Status Reports \*

44 = Form 4 Received

45 = Form 4 Approved

46 = Form 4 Denied

47 = PECFA Reimbursement

48 = Free Product Recovery \*

49 = Alternate Water Supplied \*

NOTE: \* = EPA Reporting Requirements

+ = LMD Tracking Requirements

#### **ACTION UPDATES**

Entered in Tracking	Code	Action Date (Received / Sent)	Compliance Due Date	Comment	Compliance Achieved
1 /1	06	916 195	10:10 195	Glasgue assess.	
6/12/96	43	6/12/96	//		
	41	811197		Closure request	
	79	8 1 1 197		9	
	76	8114197			/
//	-		1		
	1				
			//		
			/		
/		/	///		/
//					//
///		/			
//		/			
/		/			
					//