GIS REGISTRY
Cover Sheet

May, 2009
(RR 5367)

Source Property Information

CLOSURE DATE: Aug 10, 2009

BRRTS #: 03-60-000225

FID #: 460113280

ACTIVITY NAME: Dirkse Oil

DATCP #:

PROPERTY ADDRESS: 830 N. 10th St.

COMM #: 53070999910

MUNICIPALITY: Oostburg

PARCEL ID #: 59165716001

***WTM COORDINATES:**

X: 697516 Y: 353291

** Coordinates are in WTM83, NAD83 (1991)*

WTM COORDINATES REPRESENT:

(•) Approximate Center Of Contaminant Source

( ) Approximate Source Parcel Center

Please check as appropriate: (BRRTS Action Code)

Contaminated Media:

[X] Groundwater Contamination > ES *(236)*

- [X] Contamination in ROW
- [ ] Off-Source Contamination

*(**note:** for list of off-source properties see "Impacted Off-Source Property")*

[X] Soil Contamination > *RCL or **SSRCL *(232)*

- [X] Contamination in ROW
- [ ] Off-Source Contamination

*(**note:** for list of off-source properties see "Impacted Off-Source Property")*

Land Use Controls:

- [ ] N/A (*Not Applicable*)
- [X] Soil: maintain industrial zoning *(220)*

*(**note:** soil contamination concentrations between non-industrial and industrial levels)*

- [ ] Structural Impediment *(224)*
- [ ] Site Specific Condition *(228)*
- [ ] Cover or Barrier *(222)*

*(**note:** maintenance plan for groundwater or direct contact)*

- [ ] Vapor Mitigation *(226)*
- [ ] Maintain Liability Exemption *(230)*

*(**note:** local government or economic development corporation)*

Monitoring Wells:

Are all monitoring wells properly abandoned per NR 141? *(234)*

( ) Yes (•) No ( ) N/A

** Residual Contaminant Level*
***Site Specific Residual Contaminant Level*

GIS Registry Checklist

Form 4400-245 (R 4/08)

This Adobe Fillable form is intended to provide a list of information that is required for evaluation for case closure. It is to be used in conjunction with Form 4400-202, Case Closure Request. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

NOTICE: Completion of this form is mandatory for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS #: 03-60-000225 PARCEL ID #: 59165716001

ACTIVITY NAME: Former Dirkse Oil Company Bulk Plant WTM COORDINATES: X: 687516 Y: 353291

CLOSURE DOCUMENTS (the Department adds these items to the final GIS packet for posting on the Registry)

☒ **Closure Letter**

☐ **Maintenance Plan** *(if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.)*

☒ **Conditional Closure Letter**

☐ **Certificate of Completion (COC)** for VPLE sites

SOURCE LEGAL DOCUMENTS

☒ **Deed:** The most recent deed as well as legal descriptions, for the **Source Property** (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section.
Note: *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*

☐ **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map *for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map.* (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).

Figure #: **Title:**

☒ **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

MAPS (meeting the visual aid requirements of s. NR 716.15(2)(h))

Maps must be no larger than 8.5 x 14 inches unless the map is submitted electronically.

☒ **Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.
Note: *Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.*

Figure #: 1 **Title: Site Location Map**

☒ **Detailed Site Map:** A map that shows all relevant features (buildings, roads, individual property boundaries, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.

Figure #: 2 **Title: Site Plan Map**

☒ **Soil Contamination Contour Map:** For sites closing with residual soil contamination, this map is to show the location of all contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL)as determined under s. NR 720.09, 720.11 and 720.19.

Figure #: 5 **Title: Excavation Location/Soil Quality Map**

BRRTS #: 03-60-000225 ACTIVITY NAME: Former Dirkse Oil Company Bulk Plant

MAPS (continued)

☒ **Geologic Cross-Section Map:** A map showing the source location and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL). If groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES) when closure is requested, show the source location and vertical extent, water table and piezometric elevations, and locations and elevations of geologic units, bedrock and confining units, if any.

Figure #: 6 **Title: Geologic Cross Section A-A'**

Figure #: **Title:**

☒ **Groundwater Isoconcentration Map:** For sites closing with residual groundwater contamination, this map shows the horizontal extent of all groundwater contamination exceeding a ch. NR140 Preventive Action Limit (PAL) and an Enforcement Standard (ES). Indicate the direction and date of groundwater flow, based on the most recent sampling data.
Note: *This is intended to show the total area of contaminated groundwater.*

Figure #: 7 **Title: Groundwater Quality Map**

☒ **Groundwater Flow Direction Map:** A map that represents groundwater movement at the site. If the flow direction varies by more then 20° over the history of the site, submit 2 groundwater flow maps showing the maximum variation in flow direction.

Figure #: 8 **Title: Groundwater Contour Map**

Figure #: **Title:**

TABLES (meeting the requirements of s. NR 716.15(2)(h)(3))

Tables must be no larger than 8.5 x 14 inches unless the table is submitted electronically. Tables must not contain shading and/or cross-hatching. The use of **BOLD** or *ITALICS* is acceptable.

☒ **Soil Analytical Table:** A table showing remaining soil contamination with analytical results and collection dates.
Note: This is one table of results for the contaminants of concern. Contaminants of concern are those that were found during the site investigation, that remain after remediation. It may be necessary to create a new table to meet this requirement.

Table #: 1A,1B, 1C **Title: PVOC Soil Analytical Results, Soil Analytical Results, Remedial Excavation Soil Laboratory...**

☒ **Groundwater Analytical Table:** Table(s) that show the most recent analytical results and collection dates, for all monitoring wells and any potable wells for which samples have been collected.

Table #: 2 **Title: Summary of Groundwater Quality**

☒ **Water Level Elevations:** Table(s) that show the previous four (at minimum) water level elevation measurements/dates from all monitoring wells. If present, free product is to be noted on the table.

Table #: 3 **Title: Groundwater Elevation Data**

IMPROPERLY ABANDONED MONITORING WELLS

For each monitoring well not properly abandoned according to requirements of s. NR 141.25 include the following documents.
Note: *If the site is being listed on the GIS Registry for only an improperly abandoned monitoring well you will only need to submit the documents in this section for the GIS Registry Packet.* To be determined during case closure well abandonment activities.

☐ **Not Applicable**

☒ **Site Location Map:** A map showing all surveyed monitoring wells with specific identification of the monitoring wells which have not been properly abandoned.
Note: *If the applicable monitoring wells are distinctly identified on the Detailed Site Map this Site Location Map is not needed.*

Figure #: **Title:**

☒ **Well Construction Report:** Form 4440-113A for the applicable monitoring wells.

☐ **Deed:** The most recent deed as well as legal descriptions for each property where a monitoring well was not properly abandoned.

☐ **Notification Letter:** Copy of the notification letter to the affected property owner(s).

BRRTS #: 03-60-000225 ACTIVITY NAME: Former Dirkse Oil Company Bulk Plant

NOTIFICATIONS

Source Property

☐ **Letter To Current Source Property Owner:** If the source property is owned by someone other than the person who is applying for case closure, include a copy of the letter notifying the current owner of the source property that case closure has been requested.

☐ **Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying current source property owner.

Off-Source Property

Group the following information per individual property and label each group according to alphabetic listing on the "Impacted Off-Source Property" attachment.

☐ **Letter To "Off-Source" Property Owners:** Copies of all letters sent by the Responsible Party (RP) to owners of properties with groundwater exceeding an Enforcement Standard (ES), and to owners of properties that will be affected by a land use control under s. 292.12, Wis. Stats.
Note: *Letters sent to off-source properties regarding residual contamination must contain standard provisions in Appendix A of ch. NR 726.*

Number of "Off-Source" Letters:

☐ **Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying any off-source property owner.

☐ **Deed of "Off-Source" Property:** The most recent deed(s) as well as legal descriptions, for all affected deeded **off-source property(ies).** This does not apply to right-of-ways.
Note: *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*

☒ **Letter To "Governmental Unit/Right-Of-Way" Owners:** Copies of all letters sent by the Responsible Party (RP) to a city, village, municipality, state agency or any other entity responsible for maintenance of a public street, highway, or railroad right-of-way, within or partially within the contaminated area, for contamination exceeding a groundwater Enforcement Standard (ES) and/or soil exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).

Number of "Governmental Unit/Right-Of-Way Owner" Letters: 1

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
Gloria L. McCutcheon, Regional Director

Plymouth Service Center
1155 Pilgrim Road
Plymouth, Wisconsin 53073-4294
Telephone 920-892-8756
FAX 920-892-6638
TTY Access via relay - 711

August 10, 2009

Mr. Jack Hoffman
Village of Oostburg
927 Center Ave., Suite 4
Oostburg, WI 53070

SUBJECT: Final Case Closure with Continuing Obligations
Former Dirkse Oil Company Bulk Plant, 830 N. 10th St., Oostburg, Wisconsin
WDNR BRRTS Activity # 03-60-000225 FID#460113280

Dear Mr. Hoffman:

In a letter dated June 11, 2009, you were notified that the Department had granted conditional closure to the above-referenced case. The Department has now received well abandonment forms for the remaining monitoring wells at the site indicating that the Village has complied with the requirements for final closure.

Based on the correspondence and data provided, it appears that your case meets the closure requirements in ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time, however, you and future property owners must comply with certain continuing obligations as explained in this letter.

GIS Registry

This site will be listed on the Remediation and Redevelopment Program's GIS Registry. The specific reasons are summarized below:

- Residual soil contamination exists that must be properly managed should it be excavated or removed
- Before the land use may be changed from industrial to non-industrial, additional environmental work must be completed
- One or more monitoring wells were not located and must be properly abandoned if found

This letter and information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at http://dnr.wi.gov/org/aw/rr/gis/index.htm. If the property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line http://dnr.wi.gov/org/water/dwg/3300254.pdf or at the web address listed above for the GIS Registry.

Closure Conditions

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which the Village of Oostburg and any subsequent property owners must adhere. You must pass on the information about these continuing obligations to the next property owner or owners. If these requirements are not followed or if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department may take enforcement action under s. 292.11 Wisconsin Statutes to ensure compliance with the specified requirements,

limitations or other conditions related to the property or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. The Department intends to conduct inspections in the future to ensure that the conditions included in this letter are met.

Residual Soil Contamination/Industrial Land Use

Residual soil contamination remains on the east and south sides of the property as indicated on the attached map. Soil samples collected in October 2006 at locations along the sidewalls of the soil excavation, contained benzene that exceeded ch. NR 746.06 Wis. Adm. Code Table 2 non-industrial soil standards.

Therefore, pursuant to s. NR 726.05(8)(b)1., Wis. Adm. Code, this property may not be used or developed for a residential, commercial, agricultural or other non-industrial use, unless (at the time that the non-industrial use is proposed) the property owner provides notification to the Department of Natural Resources of the change in land use and an investigation is conducted, to determine the degree and extent of petroleum contamination that remains on the property, and remedial action is taken as necessary to meet all applicable non-industrial soil cleanup standards.

If soil in the specific locations described above is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

Residual Groundwater Contamination

Groundwater impacted by petroleum volatile organic compounds and polyaromatic hydrocarbons contamination greater than enforcement standards set forth in ch. NR140, Wis. Adm. Code, is present on this contaminated property. For more detailed information regarding the locations where groundwater samples have been collected (i.e., monitoring well locations) and the associated contaminant concentrations, refer to the Remediation and Redevelopment Program's GIS Registry at the RR Sites Map page at http://dnr.wi.gov/org/aw/rr/gis/index.htm.

Vapor Migration

In addition, depending on site-specific conditions, construction over contaminated materials may result in vapor migration of contaminants into enclosed structures or migration along newly placed underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

Monitoring Wells that could not be Properly Abandoned

On August 7, 2009, your consultant, Mary Trotta, Sigma Environmental Services, notified the Department that monitoring well MW-3000, depicted on the attached map, could not be properly abandoned because it is missing due to being paved over, covered, or removed during site development activities. Your consultant has made a reasonable effort to locate the well to determine whether it was properly abandoned but has been unsuccessful in those efforts. You need to understand that in the future the Village may be held liable for any problems associated with monitoring well if it creates a conduit for contaminants to enter groundwater. If in the future any of the groundwater monitoring wells are found, the then current owner of the property will be required to notify the

Department, to properly abandon the well in compliance with the requirements in ch. NR 141, Wis. Adm. Code, and to submit the required documentation of that abandonment to the Department.

Because this monitoring well was not properly abandoned, the site will be listed on the DNR Remediation and Redevelopment GIS Registry.

Post-Closure Notification Requirements

In accordance with ss, 292.12 and 292.13, Wis. Stats., you must notify the Department before making changes that affect or relate to the conditions of closure in this letter. For this case, examples of changed conditions requiring prior notification include, but are not limited to:

- Development, construction or other changes, including zoning changes, that change the land use from industrial to non-industrial
- One or more monitoring wells that were not located is found and properly abandoned

Please send written notifications in accordance with the above requirements to the DNR Southeast Region Remediation and Redevelopment Environmental Program Associate at the letterhead address.

The Department appreciates the efforts the Village of Oostburg has taken to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Nancy Ryan at (920) 892-8756 ext. 3025.

Sincerely,

Jim Schmoll for

Frances M. Koonce, Sub-Team Supervisor
Southeast Region Remediation & Redevelopment Program

Attachments
Residual soil contamination map
Missing monitoring well map

Cc: SER site file
Mary Trotta, Sigma Environmental Services

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
Gloria L. McCutcheon, Regional Director

Plymouth Service Center
1155 Pilgrim Road
Plymouth, Wisconsin 53073-4294
Telephone 920-892-8756
FAX 920-892-6638
TTY Access via relay - 711

June 11, 2009

Mr. Jack Hoffman
Village of Oostburg
927 Center Ave., Suite 4
Oostburg, WI 53070

Subject: Conditional Closure Decision
With Requirements to Achieve Final Closure
Former Dirkse Oil Company Bulk Plant, 830 N. 10th St., Oostburg, Wisconsin
WDNR BRRTS Activity # 03-60-000225 FID#460113280

Dear Mr. Hoffman:

The Department of Natural Resources (the Department) has reviewed a request for closure of the case described above which was submitted on your behalf by Sigma Environmental Services. The Department reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases. After careful review of the closure request, the Department has determined that the petroleum contamination on the site from the former above-ground and underground petroleum storage tanks appears to have been investigated and remediated to the extent practicable under site conditions. This case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code and will be closed if the following conditions are satisfied:

Monitoring Well Abandonment
The remaining monitoring wells at the site must be properly abandoned in compliance with ch. NR 141, Wis. Adm. Code. Documentation of well abandonment must be submitted to the Department on Form 3300-005 found at http://dnr.wi.gov/org/water/dwg/gw/ or provided by the Department of Natural Resources.

When this condition has been met, please submit the appropriate documentation to verify satisfaction, and this case will be closed. The site will be listed on the DNR Remediation and Redevelopment GIS Registry. Information that was submitted with your closure request application will be included on the GIS Registry. To review the site on the GIS Registry web page, visit the RR Sites Map page at: http://dnr.wi.gov/org/aw/rr/gis/index.htm.

Section 101.143, Wis. Stats., requires that PECFA claimants seeking reimbursement of interest costs, for sites with petroleum contamination, submit a final reimbursement claim within 120 days after they receive a closure letter on their site. For claims not received by the PECFA Program within 120 days of the date of this letter, interest costs after 60 days of the date of this letter will not be eligible for PECFA reimbursement.

Please be aware that the case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment.

The Department appreciates the efforts the Village of Oostburg has taken to restore the environment at this site. If you have any questions regarding this letter, please contact me at (920) 892-8756 ext. 3025.

Sincerely,

Nancy D. Ryan, Hydrogeologist
Remediation & Redevelopment Program

Enclosure

cc: SER site file
Mary Trotta, Sigma Environmental Services

1799749

SHEBOYGAN COUNTY, WI
RECORDED ON
05/31/2006 04:10PM

ELLEN R. SCHLEICHER
REGISTER OF DEEDS

RECORDING FEE: 11.00
TRANSFER FEE: 3.00
EXEMPTION #

STAFF ID 7
TRANS # 81168
OF PAGES: 2

Recording Area

Name and Return Address
Attorney Paul A. Dirkse
HOPP NEUMANN HUMKE LLP
607 North Eighth Street, Suite 400
Sheboygan, WI 53081

Document Number

State Bar of Wisconsin Form 1-2003
WARRANTY DEED

Document Name

THIS DEED, made between **Allan H. Dirkse, Jr., and Terry A. Dirkse, husband and wife,**

("Grantor," whether one or more), and **Village of Oostburg, a municipal corporation,**

("Grantee," whether one or more).

Grantor for a valuable consideration, conveys to Grantee the following described real estate, together with the rents, profits, fixtures and other appurtenant interests, in **Sheboygan** County, State of Wisconsin ("Property") (if more space is needed, please attach addendum):

SEE REVERSE SIDE FOR LEGAL DESCRIPTION

59165716001
Parcel Identification Number (PIN)

This **is not** homestead property.
(is) (is not)

Grantor warrants that the title to the Property is good, indefeasible, in fee simple and free and clear of encumbrances except: municipal and zoning ordinances and agreements entered under them, recorded easements for the distribution of utility and municipal services, recorded building and use restrictions and covenants, and general taxes levied in the year of closing.

Dated **May 25, 2006**.

(SEAL) * Allan H. Dirkse, Jr. (SEAL)

(SEAL) * Terry A. Dirkse (SEAL)

AUTHENTICATION

Signature(s) _____

authenticated on _____.

*

TITLE: MEMBER STATE BAR OF WISCONSIN
(If not, authorized by Wis. Stat. § 706.06)

THIS INSTRUMENT DRAFTED BY:
Attorney Paul A. Dirkse
HOPP NEUMANN HUMKE LLP

ACKNOWLEDGMENT

STATE OF WISCONSIN)
) ss.
SHEBOYGAN COUNTY)

Personally came before me on May 25, 2006, the above-named Allan H. Dirkse, Jr., and Terry A. Dirkse, husband and wife, to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

* PAUL A DIRKSE
Notary Public, State of Wisconsin
My commission (is permanent) (expires: —)

PAUL A DIRKSE NOTARY PUBLIC STATE OF WISCONSIN

(Signatures may be authenticated or acknowledged. Both are not necessary.)

NOTE: THIS IS A STANDARD FORM. ANY MODIFICATION TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

*Type name below signatures.
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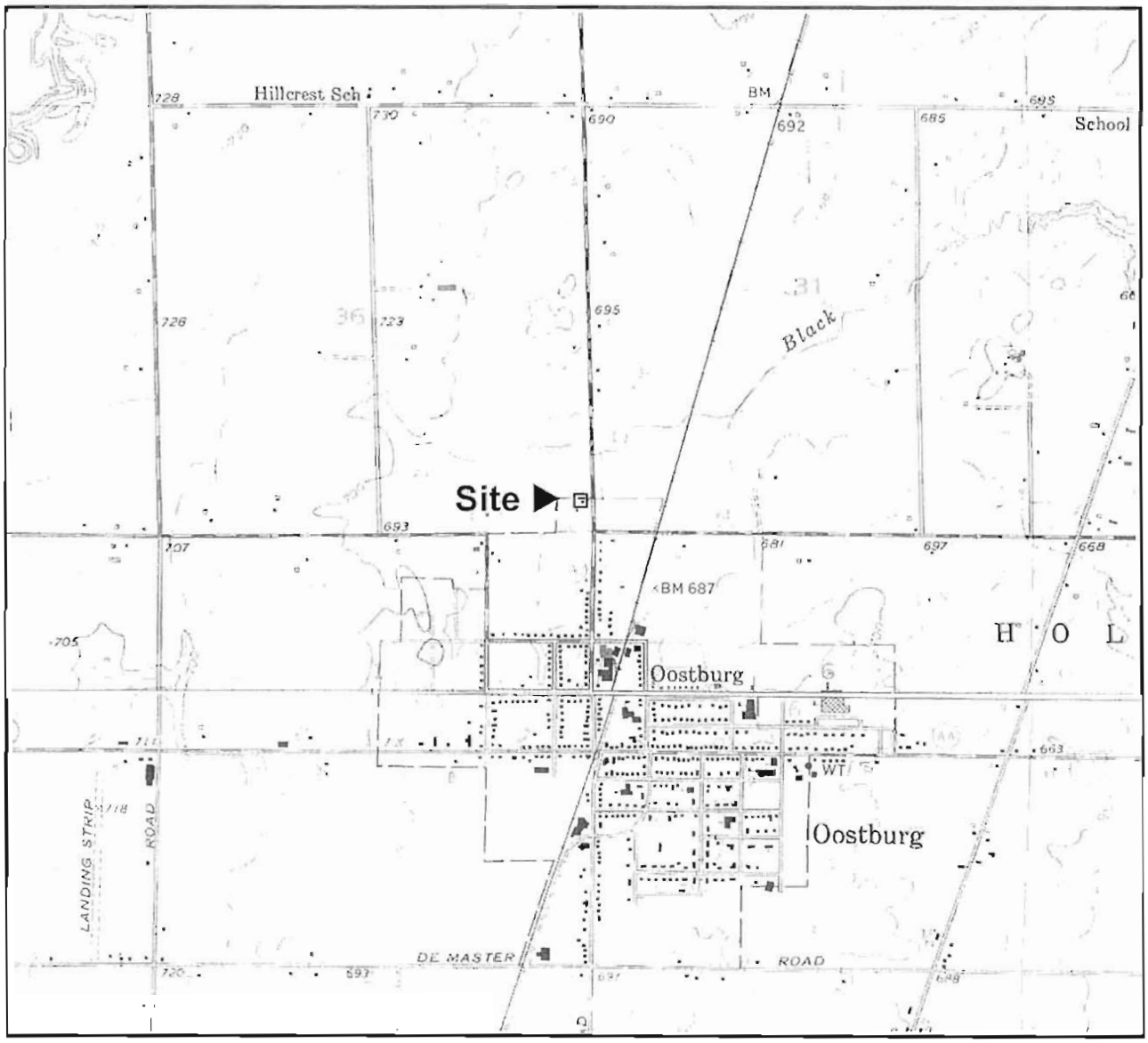
Part of the Southeast Quarter (SE-1/4) of the Southeast Quarter (SE-1/4) of Section Thirty-six (36), Township Fourteen (14) North, Range Twenty-two (22) East, Village of Oostburg, Sheboygan County, Wisconsin, described as follows: Commencing 350.00 feet North of the Southeast corner of said Section; thence North 120.00 feet; thence West 350.00 feet; thence South 120.00 feet; thence East 350.00 feet to the point of beginning; INCLUDING part of the Southeast Quarter (SE-1/4) of the Southeast Quarter (SE-1/4) of Section Thirty-six (36), Township Fourteen (14) North, Range Twenty-two (22) East, Village of Oostburg, Sheboygan County, Wisconsin, described as follows: Commencing at the Southeast corner of said Section; thence along the East line of the Southeast Quarter (SE-1/4) of said Section, North 470.00 feet to the Northeast corner of lands as recorded in Volume 370 of Deeds, on Page 153, and the point of beginning; thence along the North line of said lands, North 89°35'20" West, 350.00 feet; thence North 30.00 feet; thence South 89°35'20" East, 350.00 feet to the East line of the Southeast Quarter (SE-1/4); thence South 30.00 feet to the point of beginning.

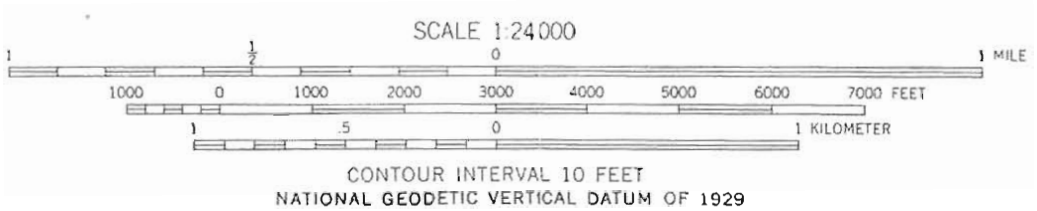
The Village of Oostburg, the responsible party for the property located at 830 North 10th Street, Oostburg, Wisconsin, states that the legal description provided to the Wisconsin Department of Natural Resources (and attached to this statement) for BRTTS# 03-60-000225 is complete and accurate to the best of our knowledge.

Signature of Representative for Responsible Party: Date:

Jon E Ludvis 12-31-08



SE¼ of SE¼ Sec. 36 T14N R22E. Adapted from U.S.G.S. 7.5 minute series, Sheboygan Falls, dated 1954, (revised 1994) Wisconsin, quadrangle.

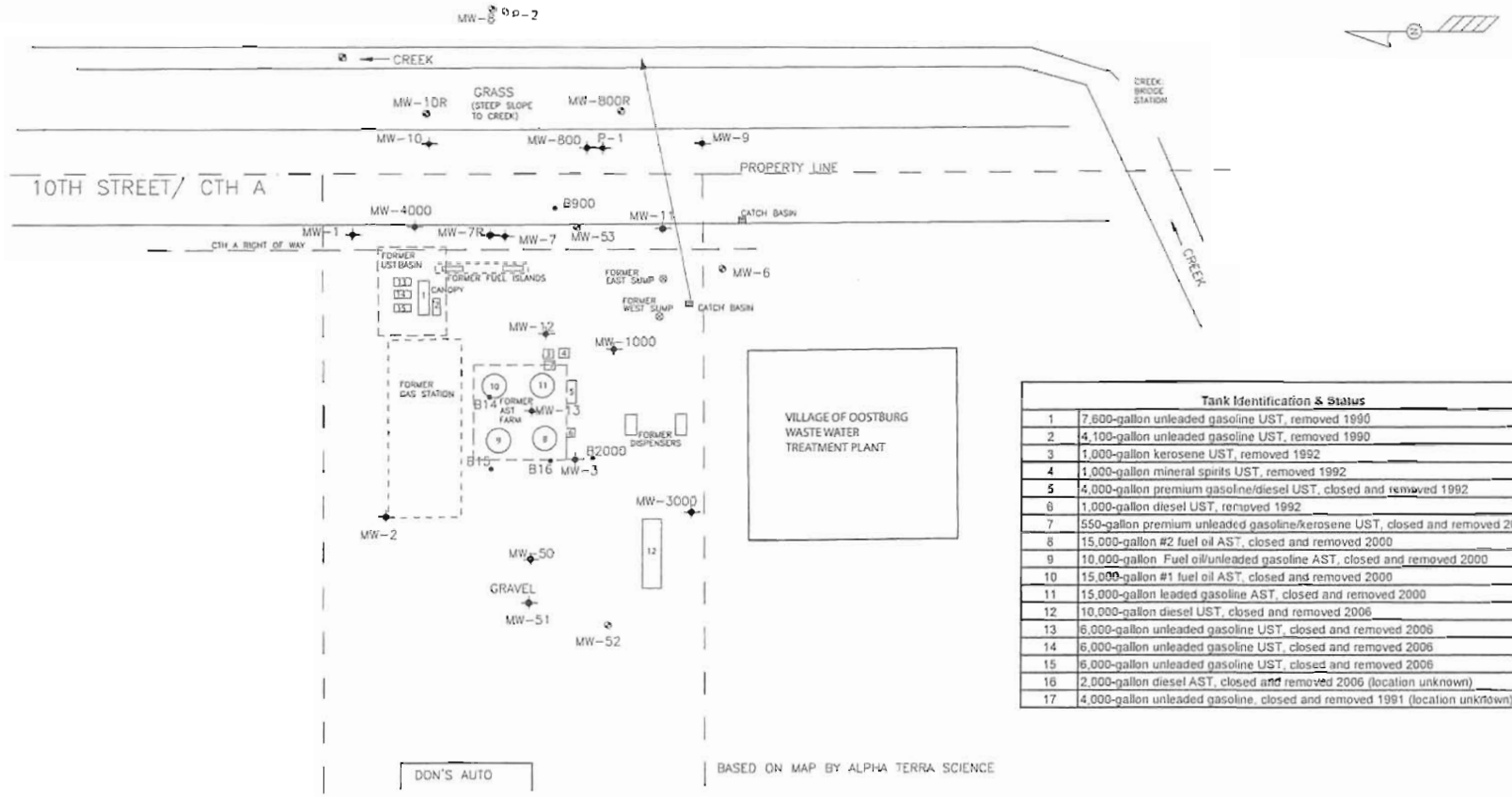


N

Figure 1. Site Location Map
Former Dirkse Oil Co. Bulk Plant
830 N. 10th Street
Oostburg, Wisconsin

THE SIGMA GROUP
Single Source. Sound Solutions.

10048fig1 pub



Tank Identification & Status	
1	7,600-gallon unleaded gasoline UST, removed 1990
2	4,100-gallon unleaded gasoline UST, removed 1990
3	1,000-gallon kerosene UST, removed 1992
4	1,000-gallon mineral spirits UST, removed 1992
5	4,000-gallon premium gasoline/diesel UST, closed and removed 1992
6	1,000-gallon diesel UST, removed 1992
7	550-gallon premium unleaded gasoline/kerosene UST, closed and removed 2000
8	15,000-gallon #2 fuel oil AST, closed and removed 2000
9	10,000-gallon Fuel oil/unleaded gasoline AST, closed and removed 2000
10	15,000-gallon #1 fuel oil AST, closed and removed 2000
11	15,000-gallon leaded gasoline AST, closed and removed 2000
12	10,000-gallon diesel UST, closed and removed 2006
13	6,000-gallon unleaded gasoline UST, closed and removed 2006
14	6,000-gallon unleaded gasoline UST, closed and removed 2006
15	6,000-gallon unleaded gasoline UST, closed and removed 2006
16	2,000-gallon diesel AST, closed and removed 2006 (location unknown)
17	4,000-gallon unleaded gasoline, closed and removed 1991 (location unknown)

LEGEND
- = MONITORING WELL
- = SOIL BORING
- = GAUGE STATION
- = ABANDONED MONITORING WELL

NOT TO SCALE

830 N. 10TH STREET
OOSTBURG, WI

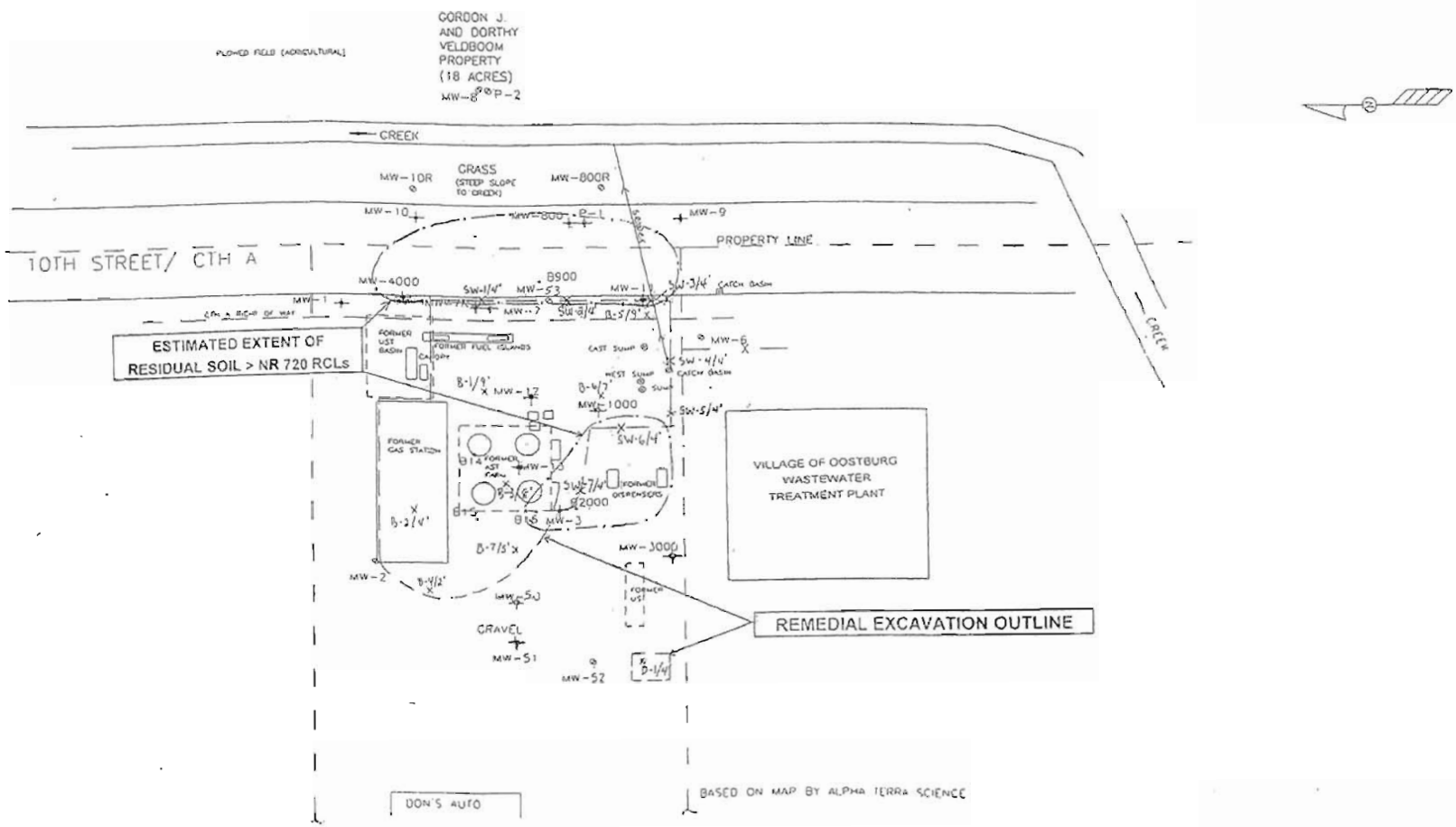
THE SIGMA GROUP — Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
414-643-4200

DATE: 01/15/08	DR. BY: R.M.L	DR.# 10048-001	APPROXIMATE SCALE: 1" = 50'

SITE PLAN MAP

FIGURE 2

K:\Village of Oostburg\10048\10048-001.dwg, F1-SPMP, 5/7/2009 9:21:20 AM, ANSI expand B (17.00 x 11.00 inches), 1:1



LEGEND

- MONITORING WELL
- SOIL BORING
- GAUGE STATION
- UNKNOWN MONITORING WELL

NOT TO SCALE

FORMER DIRKSE OIL BULK PLANT
830 NORTH 10TH STREET
OOSTBURG, WISCONSIN

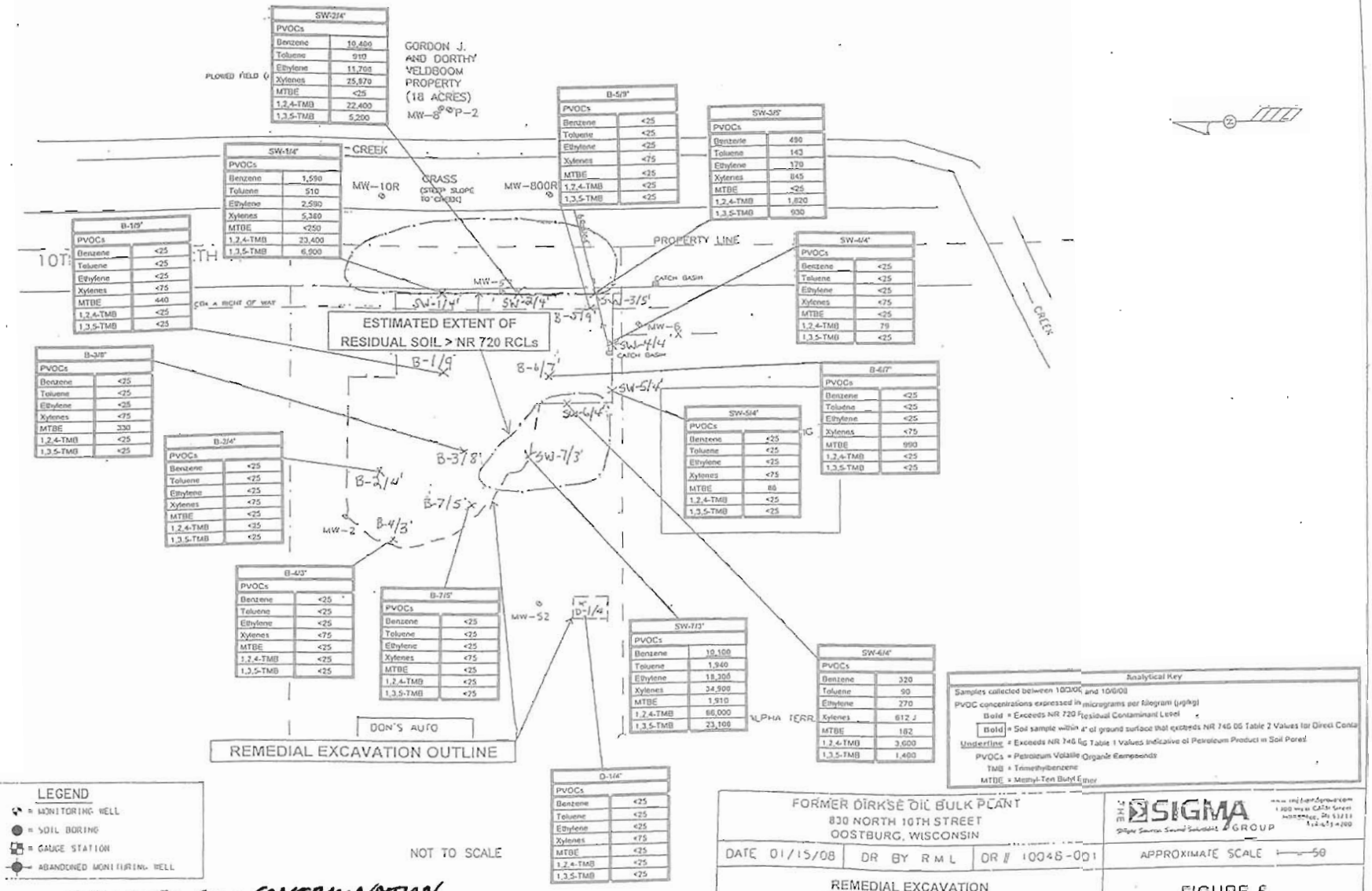
DATE 01/15/08 | DR BY: R M L | DR # 10048-001

SOIL SAMPLE LOCATION MAP

THE SIGMA GROUP

APPROXIMATE SCALE 1" = 50'

FIGURE 4A



SW-2/4'	
PVOCs	
Benzene	10,400
Toluene	910
Ethylene	11,700
Xylenes	25,870
MTBE	<25
1,2,4-TMB	22,400
1,3,5-TMB	5,200

SW-1/4'	
PVOCs	
Benzene	1,590
Toluene	510
Ethylene	2,590
Xylenes	5,380
MTBE	<250
1,2,4-TMB	23,400
1,3,5-TMB	6,900

B-1/9'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	440
1,2,4-TMB	<25
1,3,5-TMB	<25

B-5/9'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	<25
1,2,4-TMB	<25
1,3,5-TMB	<25

SW-3/5'	
PVOCs	
Benzene	490
Toluene	143
Ethylene	170
Xylenes	845
MTBE	<25
1,2,4-TMB	1,820
1,3,5-TMB	930

SW-4/4'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	<25
1,2,4-TMB	79
1,3,5-TMB	<25

B-8/7'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	990
1,2,4-TMB	<25
1,3,5-TMB	<25

SW-5/4'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	86
1,2,4-TMB	<25
1,3,5-TMB	<25

B-3/8'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	330
1,2,4-TMB	<25
1,3,5-TMB	<25

B-2/4'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	<25
1,2,4-TMB	<25
1,3,5-TMB	<25

B-4/3'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	<25
1,2,4-TMB	<25
1,3,5-TMB	<25

B-7/5'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	<25
1,2,4-TMB	<25
1,3,5-TMB	<25

SW-7/3'	
PVOCs	
Benzene	10,100
Toluene	1,940
Ethylene	18,300
Xylenes	34,900
MTBE	1,910
1,2,4-TMB	66,000
1,3,5-TMB	23,100

SW-6/4'	
PVOCs	
Benzene	320
Toluene	90
Ethylene	270
Xylenes	612 J
MTBE	182
1,2,4-TMB	3,600
1,3,5-TMB	1,400

D-1/4'	
PVOCs	
Benzene	<25
Toluene	<25
Ethylene	<25
Xylenes	<75
MTBE	<25
1,2,4-TMB	<25
1,3,5-TMB	<25

Analytical Key

Samples collected between 10/3/06 and 10/6/06

PVOC concentrations expressed in micrograms per kilogram (µg/kg)

Bold = Exceeds NR 720 Residual Contaminant Level

Bold = Soil sample within 4' of ground surface that exceeds NR 746.06 Table 2 Values for Direct Contact

Underline = Exceeds NR 746.06 Table 1 Values Indicative of Petroleum Product in Soil Pores

PVOCs = Petroleum Volatile Organic Compounds

TMB = Trimethylbenzene

MTBE = Methyl-Tert Butyl Ether

LEGEND

- = MONITORING WELL
- = SOIL BORING
- = GAUGE STATION
- = ABANDONED MONITORING WELL

RESIDUAL SOIL CONTAMINATION

FORMER DIRKSE OIL BULK PLANT
830 NORTH 10TH STREET
OOSTBURG, WISCONSIN

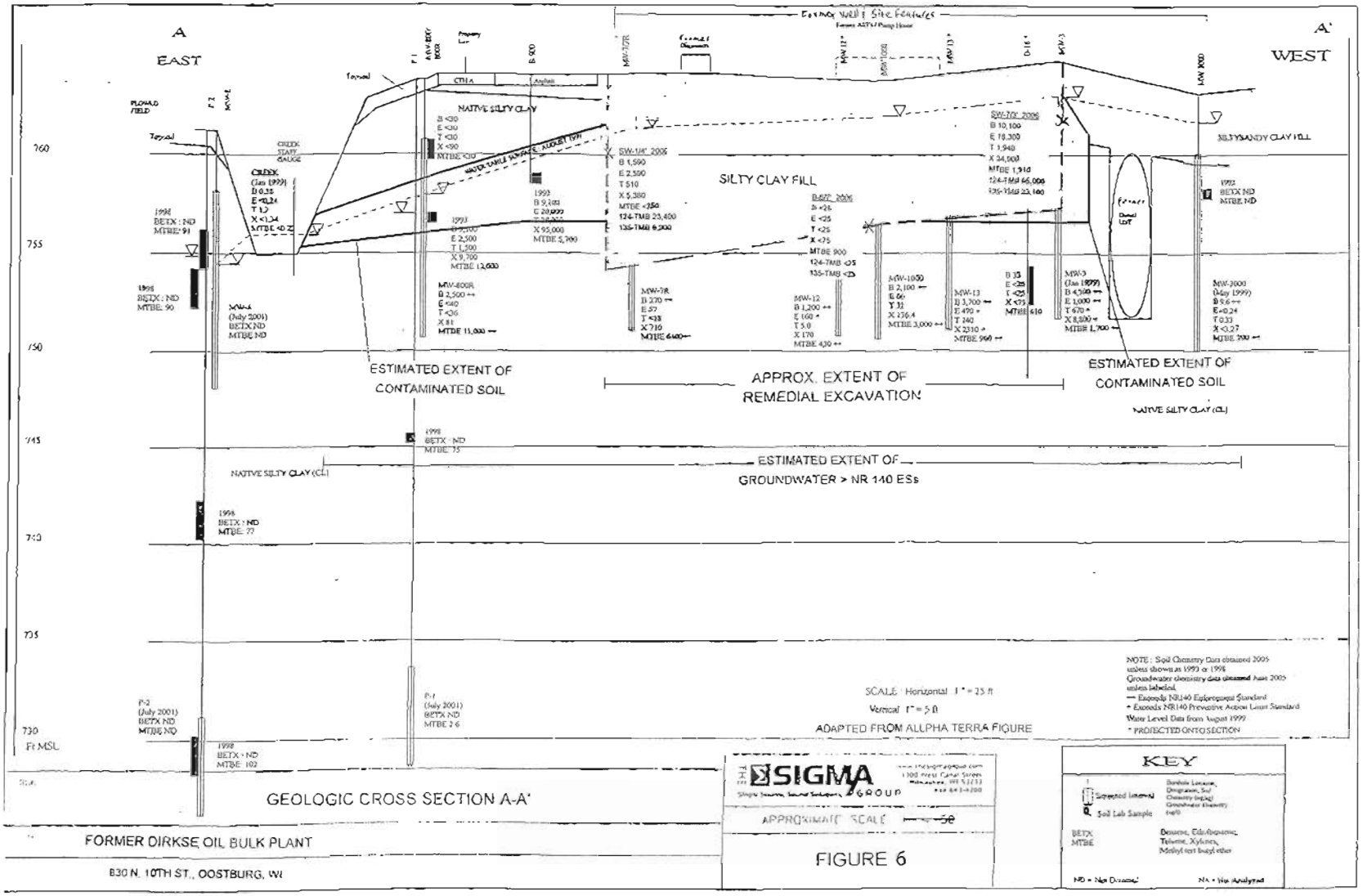
DATE 01/15/08 | DR BY R M L | DR # 10048-001

REMEDIAL EXCAVATION
SOIL CONFIRMATION SAMPLE RESULTS

SIGMA GROUP

APPROXIMATE SCALE 1" = 50'

FIGURE 5

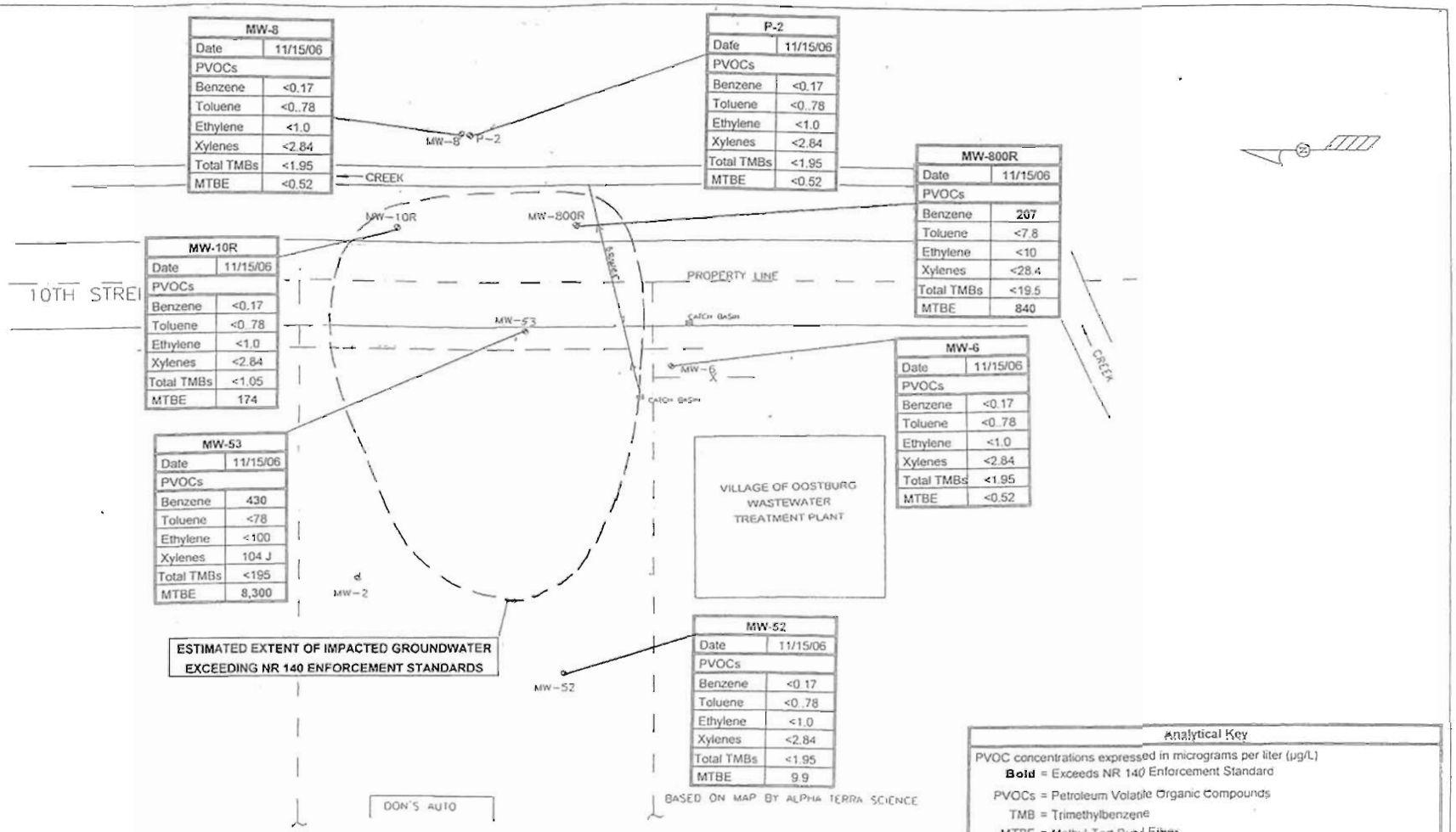


GEOLOGIC CROSS SECTION A-A'

FORMER DIRKSE OIL BULK PLANT

830 N. 10TH ST., OOSTBURG, WI

FIGURE 6



Analytical Key

PVOC concentrations expressed in micrograms per liter (µg/L)

Bold = Exceeds NR 140 Enforcement Standard

PVOCs = Petroleum Volatile Organic Compounds

TMB = Trimethylbenzene

MTBE = Methyl-Tert Butyl Ether

J = Detected between limit of detection and limit of quantitation

FORMER DIRKSE OIL BULK PLANT
830 NORTH 10TH STREET
OOSTBURG, WISCONSIN

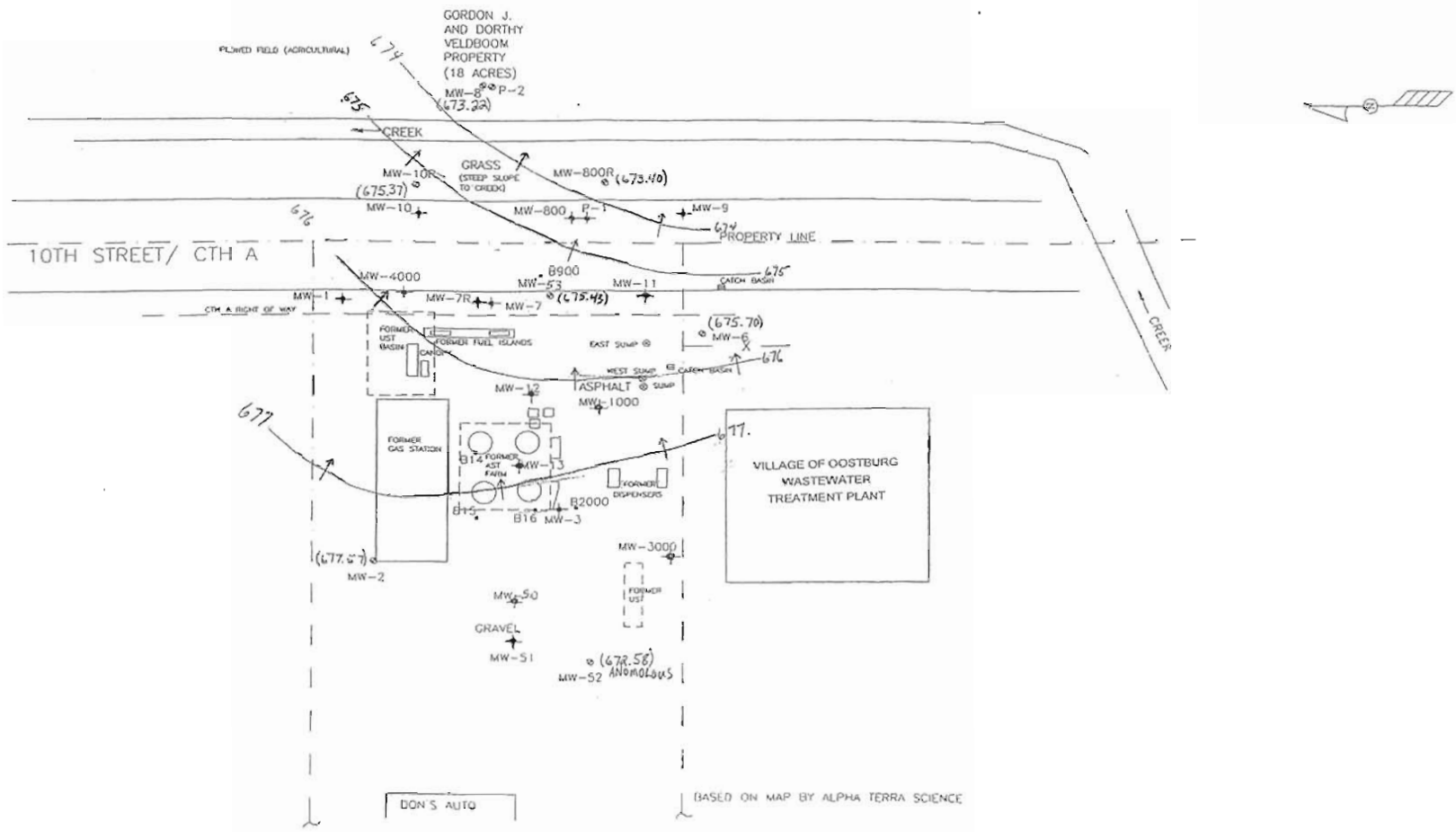
THE SIGMA GROUP

DATE 01/15/08 | DR BY RML | DR # 10048-001 | APPROXIMATE SCALE 1" = 50'

GROUNDWATER QUALITY RESULTS (11-15-06)

FIGURE 7

N:\Village O Oostburg\10048\10048-001.dwg, F1-SPMP, 1/17/2008 7:58:13 AM, ANSI B (11 x 17 Inches), 1:1 10048-001-F1-SPMP-011708.PLT, plotted 1/17/2008



LEGEND

- MONITORING WELL
- SOIL BORING
- GAUGE STATION
- ABANDONED MONITORING WELL

NOT TO SCALE

FORMER DIRKSE OIL BULK PLANT 830 NORTH 10TH STREET OOSTBURG, WISCONSIN			THE SIGMA GROUP 1300 West Canal Street Milwaukee, WI 53233 Fax 643-4200
DATE 01/15/08	DR. BY: R.M.L.	DR # 10048-001	APPROXIMATE SCALE 1" = 50'
GROUNDWATER CONTOUR MAP (11-15-06)			FIGURE 8

Table 1A

PVOC Soil Analytical Results

Dirkse Oil Co., Oostburg, WI

Sample	Depth (ft.)	PID	Date	PVOCs (ug/kg)	Benzene	Ethylbenzene	MTBE	Toleune	TMBs (total)	Total Xylenes
MW-50, S-2	2 to 4	90	2/20/2006		<25	58	<25	<25	2400	359
MW-50, S-4	6 to 8	6	2/20/2006		<25	<25	<25	<25	<50	<75
MW-51, S-2	2 to 4	4.5	2/20/2006		<30	<30	<30	<30	<60	<91
MW-51, S-4	6 to 8	0.7	2/20/2006		<25	<25	<25	<25	<50	<75
MW-52, S-2	2 to 4	0.2	2/20/2006		<25	<25	<25	<25	<50	<75
MW-52, S-4	6 to 8	0.0	2/20/2006		<25	<25	<25	<25	<50	<75
WAC NR 720 RCL					5.5	2900	NS	1500	NS	4100

Bold Font: indicates WAC ch. NR 720 Residual Contaminant Level (RCL) exceedance

NS = No Standard

Table 1B

SOIL ANALYTICAL RESULTS - DETECTED VOC PARAMETERS
DIESEL OIL OOSTBURG, WI

Sample ID	Depth (feet)	Date	Location	Soil	PID Reading (ppm)	Lead (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	PVOCs: Benzene (mg/kg)	Ethyl benzene (mg/kg)	Toluene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	1,2,4 TMB (mg/kg)	1,3,5 TMB (mg/kg)	OTHER DETECTED VOCs: Naph thalene (mg/kg)	Isopropyl benzene (mg/kg)	n-Propyl benzene (mg/kg)	p-Isopropyl toluene (mg/kg)	sec-Butyl benzene (mg/kg)	Sum VOCs
NR 720 Residual Contaminant Levels						50 / 500	250	250	5.5	2,900	1,500	4,100	NS	NS	NS	See PAH Table	NS	NS	NS	NS	NS
NR 746 Soil Screening Levels						NS	NS	NS	5,500	4,400	38,000	42,000	NS	83,000	11,000		NS	NS	NS	NS	NS
NR 746 Direct Contact Levels (Ns #)						NS	NS	NS	1,100	NS	NS	NS	NS	NS	NS		NS	NS	NS	NS	NS
MONITORING WELLS																					
P-1	10-18.5'	Dec-86	E of CTH A by MW-600	--	--	NA	<5.8	9.26	<29	<29	<29	<66	75 *	<29	<29	NA	NA	NA	NA	NA	0.08
P-2	5-7'	Dec-93	E of Creek	--	--	NA	<5.7	12.9	<28	<28	<28	<28	91 *	<28	<28	NA	NA	NA	NA	NA	0.09
P-2	7-9'	Dec-93	E of Creek	--	--	NA	<5.8	10.5	<29	<29	<29	<29	60 *	<29	<29	NA	NA	NA	NA	NA	0.09
P-2	19-21'	Dec-93	E of Creek	--	--	NA	<5.8	<5.8	<29	<29	<29	<29	77 *	<29	<29	NA	NA	NA	NA	NA	0.08
P-2	31-33'	Dec-93	E of Creek	--	--	NA	<6.0	10.0	<30	<30	<30	<30	102 *	<30	<30	NA	NA	NA	NA	NA	0.10
MW-7R	1-4'	Feb-05	E of Dispensers	Fill: Fine to Coarse Sand	0.0	NA	NA	NA	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	0
MW-9	5-6'	Dec-88	E of CTH A S of MW-600	--	--	NA	<8.0	12.0	<40	440	<40	<40	157 *	<40	<40	NA	NA	NA	NA	NA	0.16
MW-10	4.5-6'	Dec-88	E of CTH A N of MW-600	--	--	NA	416	134	<475	1,172	566	2,850	<475	16,639	6,310	NA	NA	NA	NA	NA	27,437
MW-10	8-11'	Dec-88	E of CTH A N of MW-600	--	--	NA	<5.9	9.6	<30	<30	<30	<30	114 *	<30	<30	NA	NA	NA	NA	NA	0.11
MW-10R	3-4'	Feb-05	E of CTH A N of MW-600R	Native Silty Clay	0.0	NA	NA	NA	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	0
MW-11	3-4'	Feb-05	SE corner of property	Native Silty Clay	479	NA	NA	NA	13,000	28,000	8,100	113,000	<330	63,000	21,000	4,500	2,300	12,000	2,200	1,400	269,500
MW-12	2-4'	Feb-05	S of SE Gas Station Corner	Native Silty Clay	371	NA	NA	NA	13,000	14,000	710	43,700	<120	32,000	11,000	3,400	1,200	4,800	1,900	1,000	132,710
MW-13	2.8-4'	Feb-05	NW of MW-12	Native Silty Clay	440	NA	NA	NA	33,000	45,000	6,500	324,000	<350	170,000	67,000	30,000	4,900	20,000	8,300	5,900	707,600
MW-600	7'	May-93	E of CTH A	--	--	13	36	NA	9,100	2,500	1,300	9,700	12,000	4,600	1,200	NA	NA	NA	NA	NA	40,800
MW-600R	3-4'	Feb-05	E of CTH A S of MW-10R	Native Silty Clay	1.2	NA	NA	NA	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	0
MW-1000	5'	May-93	S Center by Diesel Dispenser	--	--	11	13	NA	830	300	140	450	990	720	180	NA	NA	NA	NA	NA	4,110
MW-3000	5'	May-93	SW of Bike	--	--	13	<5	<10	<40	<50	<100	<130	<50	60	<50	NA	NA	NA	NA	NA	60.00
MW-4000	6'	May-93	NE of Bike	--	--	NA	33	NA	1,200	3,000	<100	3,700	830	1,300	440	NA	NA	NA	NA	NA	17,370
GEOPROBE BORINGS																					
S-2	6'	Nov-92	NE Corner AST	--	--	NA	9	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-14	2-4'	Feb-05	NE of MW-13	Native Silty Clay / Fill: Silty Clay and Gravel	1402	NA	NA	NA	10,000	50,000	6,100	322,000	<370	150,000	53,000	30,000	5,200	23,000	8,000	4,100	674,400
B-14	11-12'	Feb-05	NE of MW-13	Native Silty	4	NA	NA	NA	240	<25	<25	<75	240	<25	<25	<25	<25	<25	<25	<25	480
B-15	2-4'	Feb-05	NW of MW-13	Native Silty	336	NA	NA	NA	5,600	16,000	1,200	56,500	<310	47,000	17,000	7,100	1,200	4,400	3,600	2,700	158,980
B-15	10-12'	Feb-05	NW of MW-13	Native Silty	4	NA	NA	NA	<25	<25	<25	<75	<25	<25	<25	<25	<25	<25	<25	<25	0
B-16	2-4'	Feb-05	SW of MW-13	Native Silty	349	NA	NA	NA	7,300	18,000	1,400	83,300	<320	83,000	33,000	14,000	3,000	12,000	4,600	3,300	189,100
B-16	10-12'	Feb-05	SW of MW-13	Native Silty	6	NA	NA	NA	33	<25	<25	<75	510	32	<25	<25	<25	<25	<25	31	725
B-000	5'	May-93	E Center by CTH A	--	--	14	950	NA	9,400	20,000	38,000	93,000	5,700	47,000	15,000	NA	NA	NA	NA	NA	230,200
B-2000	5'	May-93	SW Corner AST Bike	--	--	12	650	1600	10,000	10,000	2,000	35,000	1,900	24,000	6,300	NA	NA	NA	NA	NA	90,100

Notes: Xylenes reported as total of m-, o-, p-xylenes
NA = Not analyzed for parameter
BOLD indicates exceedance of NR 720 generic residual contaminant level.
BOLD and BOXED indicates exceedance of NR 746 Soil Screening and / or Direct Contact level.
Fixed Lab Blank Samples for Methanol had no detectable compounds
* : MTBE present in methanol preservative, result considered suspect

TMB = trimethylbenzene
NS = No standard established

Table 1B

SOIL ANALYTICAL RESULTS - PAH PARAMETERS
DIRKSE OIL, OOSTBURG, WI

Sample ID	Depth (feet)	Soil	PID Reading (ppm)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123-cd)pyrene (mg/kg)	1-methyl naphthalene (mg/kg)	2-methyl naphthalene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	SUM PAHs
				ANALYTICAL PARAMETERS																		
SOIL CLEANUP LEVEL																						
Groundwater Pathway				38	0.70	3,000	17	48	360	870	6,800	37	38	500	100	680	23	20	0.4	1.8	8,700	
Direct Contact - Generic Non-Industrial				900	18	5,000	0.088	0.0088	0.088	0.88	1.8	0.88	0.0088	600	600	0.088	1,100	600	20	18	500	
Direct Contact - Site Specific Non-Industrial				900	18	5,000	0.880	0.0880	0.880	8.80	1.8	8.80	0.0880	600	600	0.880	1,100	600	20	18	500	
Direct Contact - Generic Industrial				60,000	360	300,000	3.9	0.39	3.9	39	39	390	0.39	40,000	40,000	3.9	70,000	40,000	110	390	30,000	
MW-7R	1-4'	Fill: Fine to Coarse Sand	0.0	<0.0023	<0.0082	0.0043	<0.018	<0.015	<0.012	<0.016	<0.0081	<0.017	<0.0049	<0.014	<0.0019	<0.0077	<0.0034	<0.0047	0.0065	<0.0083	<0.018	0.0
MW-10R	3-4'	Native Silty Clay	0.0	<0.0021	<0.0073	<0.0028	<0.016	<0.013	<0.011	<0.014	<0.0072	<0.015	<0.0043	<0.012	<0.0017	<0.0069	<0.003	<0.0042	0.013	<0.0074	<0.016	0.0
MW-11	3-4'	Native Silty Clay	479	0.0078	<0.0089	0.008	0.018	0.021	0.021	0.022	0.011	0.023	<0.0041	0.041	0.0091	0.009	0.270	0.530	0.460	0.035	0.037	1.5
MW-12	2-4'	Native Silty Clay	371	2.300	0.280	1.400	<0.440	<0.360	<0.290	<0.390	<0.200	<0.410	<0.120	<0.340	4.30	<0.190	15.0	20.0	4.90	9.10	1.90	59.2
MW-13	2.8-4'	Native Silty Clay	440	0.240	<0.150	<0.057	<0.330	<0.270	<0.220	<0.290	<0.150	<0.300	<0.088	<0.250	0.380	<0.140	12.0	23.0	17.0	0.360	<0.330	53.0
MW-800R	3-4'	Native Silty Clay	1.2	<0.002	<0.0069	0.0031	<0.015	0.014	0.015	0.016	0.0079	0.015	<0.0041	0.024	<0.0017	<0.0066	0.0039	0.0055	0.011	0.014	0.020	0.1
B-14	2-4'	Native Silty Clay / Fill: Silty Clay and Gravel	1402	0.096	<0.069	<0.027	<0.150	<0.130	<0.100	<0.140	<0.069	<0.140	<0.041	<0.120	0.130	<0.066	5.0	9.60	6.50	**0.092**	<0.150	21.4
	11-12'	Native Silty Clay	4	<0.0042	<0.0034	<0.0031	<0.0040	<0.0040	<0.0025	<0.0046	<0.0053	<0.0034	<0.0056	<0.0039	<0.0034	<0.0067	<0.0042	<0.0044	<0.0046	<0.0034	<0.0031	0.0
B-15	2-4'	Native Silty Clay	339	0.053	<0.026	0.014	<0.058	<0.047	<0.039	<0.052	<0.026	<0.054	<0.016	<0.045	0.099	<0.025	1.90	3.0	1.70	0.060	<0.058	6.6
	10-12'	Native Silty Clay	4	<0.0042	<0.0034	<0.0031	<0.0040	<0.0040	<0.0025	<0.0046	<0.0052	<0.0034	<0.0056	<0.0039	<0.0034	<0.0066	<0.0042	<0.0043	<0.0045	<0.0034	<0.0031	0.0
B-16	2-4'	Native Silty Clay	349	0.180	0.092	<0.028	<0.160	<0.130	<0.110	<0.140	<0.073	<0.150	<0.044	<0.120	0.420	<0.069	7.20	12.0	6.80	0.190	<0.160	26.9
	10-12'	Native Silty Clay	6	<0.0043	<0.0034	<0.0031	<0.0040	<0.0041	<0.0025	<0.0046	<0.0053	<0.0034	<0.0056	<0.0039	<0.0034	<0.0067	<0.0042	<0.0044	<0.0046	<0.0034	<0.0031	0.0

Notes: *Generic Cleanup Levels from Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAH) Interim Guidance, WDNR Publication RR-519-97, April 1997 (corrected)*
BOLD indicates exceedance of Generic Clean-up Level

TABLE 1C
REMEDIAL EXCAVATION
SOIL LABORATORY ANALYTICAL RESULTS
VILLAGE OF OOSTBURG
FORMER DIRKSE OIL BULK PLANT
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

	Units	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	B-1	B-2	B-3	B-4	NR 720 RCL	NR 746 Table 1 Values	NR 746 Table 2 Values
Depth	feet bgs	4	4	5	4	4	4	3	9	4	8	3			
Date Collected		10/3/06	10/4/06	10/5/06	10/5/06	10/6/06	10/6/06	10/6/06	10/3/06	10/4/06	10/4/06	10/5/06			
Benzene	ug/kg	**1,590**	**10,400**	490	<25	<25	320	**10,100**	<25	<25	<25	<25	5.5	8,500	1,100
Toluene	ug/kg	510	910	143	<25	<25	90	1,940	<25	<25	<25	<25	1,500	38,000	NS
Ethylbenzene	ug/kg	2,590	**11,700**	170	<25	<25	270	**18,300**	<25	<25	<25	<25	2,900	4,600	NS
Xylenes (total)	ug/kg	5,380 J	25,870	845	<75	<75	612 J	34,900	<75	<75	<75	<75	4,100	42,000	NS
Methyl-tert-Butl-Ether	ug/kg	<250	<25	<25	<25	86	182	1,910	440	<25	330	<25	NS	NS	NS
1,2,4-Trimethylbenzene	ug/kg	23,400	22,400	1,820	79	<25	3,600	66,000	<25	<25	<25	<25	NS	83,000	NS
1,3,5-Trimethylbenzene	ug/kg	6,900	5,200	930	<25	<25	1,400	**23,100**	<25	<25	<25	<25	NS	11,000	NS

KEY:
bgs = below ground surface
NS = no standard established
µg/kg = micrograms per kilogram
J = analyte detected between Limit of Detection (LOD) and Limit of Quantitation (LOQ)

BOLD = Exceeds NR 720 Soil Cleanup Standard
BOLD = Exceeds NR 746.06 Table 1 Values Indicative of Petroleum Product in Soil Pores
BOLD = Soil sample collected within 4 feet below the ground surface which exceeds NR 746.06 Table 2 Values for Protection of Human Health from Direct Contact with Contaminated Soil
SW = Sidewall sample
B = Base sample
T = Transport sample

TABLE 1C
REMEDIAL EXCAVATION
SOIL LABORATORY ANALYTICAL RESULTS
VILLAGE OF OOSTBURG
FORMER DIRKSE OIL BULK PLANT
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

	Units	B-5	B-6	B-7	D-1	T-1	T-2	T-3	T-4	T-5	T-6	NR 720 RCL	NR 746 Table 1 Values	NR 746 Table 2 Values
Depth	feet bgs	9	7	5	4	–	–	–	–	–	--			
Date Collected		10/5/06	10/6/06	10/6/06	10/6/06	10/3/06	10/3/06	10/4/06	10/5/06	10/6/06	10/6/06			
Benzene	ug/kg	<25	<25	<25	<25	8,300	**8,500**	**13,600**	**15,200**	4,000	1,110	5.5	8,500	1,100
Toluene	ug/kg	<25	<25	<25	<25	1,160	4,100	2,110	4,400	1,340	230	1,500	38,000	NS
Ethylbenzene	ug/kg	<25	<25	<25	<25	**5,800**	**19,500**	**18,100**	**17,200**	**6,000**	1,950	2,900	4,600	NS
Xylenes (total)	ug/kg	<75	<75	<75	<75	17,330	**87,500**	23,110	31,300	**44,900**	4,950	4,100	42,000	NS
Methyl-tert-Butl-Ether	ug/kg	<25	990	<25	<25	<25	1,180	<25	<250	<25	200	NS	NS	NS
1,2,4-Trimethylbenzene	ug/kg	<25	<25	<25	<25	21,200	55,000	27,900	45,000	30,100	6,800	NS	83,000	NS
1,3,5-Trimethylbenzene	ug/kg	<25	<25	<25	<25	6,700	**19,400**	3,700	**15,100**	**12,900**	2,520	NS	11,000	NS

KEY:
bgs = below ground surface
NS = no standard established
µg/kg = micrograms per kilogram
J = analyte detected between Limit of Detection (LOD) and Limit of Quantitation (LOQ)

BOLD = Exceeds NR 720 Soil Cleanup Standard
BOLD = Exceeds NR 746.06 Table 1 Values Indicative of Petroleum Product in Soil Pores
BOLD = Soil sample collected within 4 feet below the ground surface which exceeds NR 746.06 Table 2 Values for Protection of Human Health from Direct Contact with Contaminated Soil
SW = Sidewall sample
B = Base sample
T = Transport sample

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-1*													NR 140 ES	NR 140 PAL
		09/29/92	12/15/92	03/18/93	03/23/93	06/10/93	09/17/93	12/03/93	08/15/95	04/01/96	11/08/96	05/06/97	01/06/98	05/11/99		
GRO	µg/L	<50	<100	<100	--	<100	<100	<100	<50	<100	<100	<50	**<100**	<100	NS	NS
DRO	µg/L	--	--	--	--	--	--	--	<100	250	<100	<100	**183**	<100	NS	NS
Dissolved Lead	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	15	1.5
Benzene	µg/L	<1.0	<0.6	<0.6	<0.6	<0.8	<0.8	<0.6	<0.6	<0.8	<1.6	<0.5	<0.5	<0.26	5	0.5
Ethyl benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.8	<1.9	<1.0	<1.0	<0.24	700	140
Methyl tertiary butyl ether	µg/L	41	8.1	<1.0	6.5	17	12	<1.0	23	6.1	2.3	1.31	<1.0	0.41	60	12
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.4	<1.7	<1.0	<1.0	<0.21	1,000	200
1,2,4-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.9	<1.9	<1.0	<1.0	<0.86	480	96
1,3,5-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.8	<2.0	<1.0	<1.0	<0.54	480	96
Total Trimethylbenzene	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<3.7	<3.9	<2.0	<2.0	<1.40	480	96
Total Xylenes	µg/L	<3.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.0	<5.6	<3.9	<1.0	<1.0	<1.34	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	60	6
Natural Attenuation Indicator Parameters																
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	4.47	--	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	36	--	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.01	--	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	--	--	--	--	<2.0	--	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	--	--	--	--	207	--	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	--	--	--	--	<0.5	--	NS	NS

Footnotes:

PAL = Wisconsin Admin. Code, Chapter NR 140 Groundwater Quality Preventive Action Limit
ES = Wisconsin Admin. Code, Chapter NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

* = MW-7 abandoned for road expansion in 2001
µg/L = micrograms per liter
mg/L = milligrams per liter

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-2														NR 140	NR 140
		09/29/92	12/15/92	03/18/93	06/10/93	09/17/93	12/03/93	03/17/94	08/15/95	04/01/96	11/08/96	05/06/97	01/06/98	01/21/99	05/11/99	ES	PAL
GRO	µg/L	<50	<100	<100	<100	<100	<100	<100	<50	<100	<100	<50	<50	<50	<50	NS	NS
DRO	µg/L	--	--	--	--	--	--	--	<100	190	260	100	151	190	<100	NS	NS
Dissolved Lead	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15	1.5
Benzene	µg/L	<1.0	<0.6	<0.6	1.5	<0.6	<0.6	<0.6	<0.6	<0.8	<1.6	<0.5	<0.5	<0.26	<0.26	5	0.5
Ethyl benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.8	<1.9	<1.0	<1.0	<0.24	<0.24	700	140
Methyl tertiary butyl ether	µg/L	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.6	<1.6	<1.0	<1.0	<0.22	<0.22	60	12
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.4	<1.7	<1.0	<1.0	<0.21	<0.21	1,000	200
1,2,4-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.9	<1.9	<1.0	<1.0	<0.86	<0.86	480	96
1,3,5-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.8	<2.0	<1.0	<1.0	<0.54	<0.54	480	96
Total Trimethylbenzene	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<3.7	<3.9	<2.0	<2.0	<1.40	<1.40	480	96
Total Xylenes	µg/L	<3.0	<2.5	<2.3	<2.5	<2.5	<2.5	<2.5	<2.0	<5.6	<5.6	<1.0	<1.0	<1.34	<1.34	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	6
Natural Attenuation Indicator Parameters																	
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.3	0.018	--	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	103	110	--	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.01	<0.047	--	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	--	--	--	--	<2.0	<2.5	--	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	--	--	--	--	640	650	--	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.9	--	NS	NS

Footnotes:

PAL = Wis Admin. Code, ChNR 140 Groundwater Quality Preventive Action Limit
ES = Wis Admin. Code, ChNR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

µg/L = micrograms per liter
mg/L = milligrams per liter

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-3*													NR 140 ES	NR 140 PAL
		09/29/92	12/15/92	03/18/93	06/10/93	09/17/93	12/03/93	03/17/94	08/15/95	04/01/96	11/08/96	05/06/97	01/06/98	01/21/99		
GRO	µg/L	27,000	18,000	11,000	46,000	37,000	19,000	70,000	21,000	FP	FP	FP	FP	71,000	NS	NS
DRO	µg/L	--	--	--	--	--	--	--	25,000	FP	FP	FP	FP	9,000,000	NS	NS
Dissolved Lead	µg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	--	15	1.5
Benzene	µg/L	**11,000**	**10,000**	7,000	17,000	**11,000**	**8,100**	**6,400**	**6,900**	FP	FP	FP	FP	**4,300**	5	0.5
Ethyl benzene	µg/L	190	80	120	**750**	480	270	**970**	480	FP	FP	FP	FP	**1,000**	700	140
Methyl tertiary butyl ether	µg/L	**1,400**	**1,600**	**2,500**	**1,000**	**1,500**	**2,500**	**2,500**	**1,500**	FP	FP	FP	FP	**1,700**	60	12
Toluene	µg/L	**3,800**	**1,400**	140	**13,000**	**6,200**	700	**5,100**	500	FP	FP	FP	FP	670	1,000	200
1,2,4-Trimethylbenzene	µg/L	**860**	200	260	**1,600**	**1,000**	**600**	**2,400**	**990**	FP	FP	FP	FP	**6,100**	480	96
1,3,5-Trimethylbenzene	µg/L	180	32	82	300	320	200	**670**	340	FP	FP	FP	FP	**2,200**	480	96
Total Trimethylbenzene	µg/L	**840**	232	332	**1,900**	**1,320**	**800**	**3,070**	**1,330**	FP	FP	FP	FP	**8,300**	480	96
Total Xylenes	µg/L	3,800	2,700	840	8,900	6,200	3,000	6,300	3,900	FP	FP	FP	FP	8,800	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	--	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	--	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	--	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	--	60	6
Natural Attenuation Indicator Parameters																
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	<0.017	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	53	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	24	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	3.3	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	820	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	--	FP	FP	FP	FP	8,600	NS	NS

Footnotes:

PAL = Wis Admin. Code, NR 140 Groundwater Quality Preventive Action Limit
ES = Wis Admin. Code, NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard
FP = Measurable free phase hydrocarbon product

* = Well abandoned during AST / dike removal in 2001
µg/L = micrograms per liter
mg/L = milligrams per liter

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-6															NR 140	NR 140
		09/29/92	12/15/92	03/18/93	06/10/93	09/17/93	12/03/93	03/17/94	08/15/95	04/01/96	11/08/96	05/05/97	01/06/98	01/21/99	05/11/99	11/15/06	ES	PAL
GRO	µg/L	<50	<100	<100	<100	<100	<100	<100	<50	<100	<100	<50	<50	<50	<50	--	NS	NS
DRO	µg/L	--	--	--	--	--	--	--	180	450	450	113	323	340	<100	--	NS	NS
Dissolved Lead	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15	1.5
Benzene	µg/L	<1.0	1.1	<0.6	1.5	<0.6	<0.6	<0.6	<0.6	<0.8	<1.6	<0.5	<0.5	<0.26	<0.26	<0.17	5	0.5
Ethyl benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.8	<1.9	<1.0	<1.0	<0.24	<0.24	<1.0	700	140
Methyl tertiary butyl ether	µg/L	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.6	<1.6	<1.0	<1.0	<0.22	<0.22	<0.52	60	12
Toluene	µg/L	<1.0	<1.0	<1.0	4	<1.0	<1.0	<1.0	<1.0	<1.4	<1.7	<1.0	<1.0	<0.21	<0.21	<0.78	1,000	200
1,2,4-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.9	<1.9	<1.0	<1.0	<0.86	<0.86	<0.85	480	96
1,3,5-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.8	<2.0	<1.0	<1.0	<0.54	<0.54	<1.1	480	96
Total Trimethylbenzene	µg/L	<2.0	<2.0	<2.0	1	<2.0	<2.0	<2.0	<2.0	<3.7	<3.9	<2.0	<2.0	<1.40	<1.40	<1.95	480	96
Total Xylenes	µg/L	<3.0	<2.5	<2.5	6	<2.5	<2.5	<2.5	<2.0	<5.6	<5.8	<1.0	<1.0	<1.34	<1.34	<2.84	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	6
Natural Attenuation Indicator Parameters																		
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	24.9	7.9	--	--	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	48.6	32	--	--	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	0.245	<0.047	--	--	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	--	--	--	--	<0.2	4	--	--	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	--	--	--	--	340	260	--	--	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.9	--	--	NS	NS

Footnotes:

PAL = Wis Admin. Code, NR 140 Groundwater Quality Preventive Action Limit
ES = Wis Admin. Code, NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- Not Analyzed
ft btc = feet below top of casing
NS = No Standard

µg/L = micrograms per liter
mg/L = milligrams per liter

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-7*													MW-7R*			NR 140	NR 140
		09/29/92	03/18/93	06/10/93	09/17/93	12/03/93	03/17/94	08/15/95	04/01/96	11/08/96	05/06/97	01/05/98	01/21/99	05/11/99	03/02/05	06/01/05	06/23/06	ES	PAL
GRO	µg/L	8,700	16,000	14,000	100,000	14,000	12,000	55,000	WF	7,100	9,030	11,500	10,000	19,000	--	--	--	NS	NS
DRO	µg/L	--	--	--	--	--	--	8,600	WF	4,300	11,200	9,810	5,600	4,900	--	--	--	NS	NS
Dissolved Lead	µg/L	--	--	--	--	--	--	--	WF	--	--	--	--	--	--	--	--	15	1.5
Benzene	µg/L	**1800**	**2900**	**3,100**	**2,400.0**	**2,300**	**1,800**	**6,300**	WF	**890**	**1100**	**1320**	**1300**	**2800**	**590**	**270**	**300**	5	0.5
Ethyl benzene	µg/L	<50	410	550	330	340	210	**2,000**	WF	330	366	94	160	**760**	310	57	230	700	140
Methyl tertiary butyl ether	µg/L	**11,000**	**17,000**	**11,000**	**14,000**	**11,000**	**14,000**	**14,000**	WF	**6,700**	**7,140**	**7,330**	**6,100**	**9,800**	**2,400**	**6,400**	**610**	60	12
Toluene	µg/L	<50	81	270	38	43	26	**19,000**	WF	78	119	62	30	62	38	<18	14	1,000	200
1,2,4-Trimethylbenzene	µg/L	180	460	**660**	180	250	140	**960**	WF	280	314	**735**	**740**	**1,300**	**2,800**	**980**	**840**	480	96
1,3,5-Trimethylbenzene	µg/L	50	60	310	18	38	17	150	WF	60	42	**223**	**230**	**340**	**720**	360	110	480	96
Total Trimethylbenzene	µg/L	230	520	**970**	178	288	157	**1,130**	WF	340	356	**958**	**970**	**1,640**	**3,520**	**1,340**	**950**	480	96
Total Xylenes	µg/L	160	370	1,100	150	130	92	8,400	WF	920	1,134	1,380	1,171	2,370	5,400	710	690	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	WF	--	--	--	--	--	**520**	**120**	--	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	WF	--	--	--	--	--	--	--	--	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	WF	--	--	--	--	--	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	WF	--	--	--	--	--	--	--	--	60	6
Natural Attenuation Indicator Parameters																			
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	WF	--	--	--	<0.3	<0.017	--	--	--	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	WF	--	--	--	3.48	29	--	--	--	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	WF	--	--	--	3.04	21	--	--	--	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	WF	--	--	--	473	4,700	--	--	--	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	WF	--	--	--	484	530	--	--	--	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	WF	--	--	--	490	1,200	--	--	--	NS	NS

Footnotes:

PAL = Wis Admin. Code, Ch NR 140 Groundwater Preventive Action Limit
ES = Wis Admin. Code, Ch NR 140 Groundwater Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

WF = Well frozen, not sampled
-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard
* = MW-7 abandoned for road expansion in 2001. MW-7R destroyed during remedial excavation activities in 2006

µg/L = micrograms per liter
mg/L = milligrams per liter

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-8				P-2				NR 140	NR 140
		01/21/99	05/11/99	07/10/01	11/15/06	01/21/99	05/11/99	07/11/01	11/15/06	ES	PAL
GRO	µg/L	dry	<50	<13	--	<50	<50	<13	--	NS	NS
DRO	µg/L	dry	<100	--	--	350	150	--	--	NS	NS
Dissolved Lead	µg/L	dry	--	--	--	--	--	--	--	15	1.5
Benzene	µg/L	dry	<0.26	<1.1	<0.17	<0.26	<0.26	<0.17	<0.17	5	0.5
Ethyl benzene	µg/L	dry	<0.24	<1.2	<0.78	<0.24	<0.24	<1.2	<0.78	700	140
Methyl tertiary butyl ether	µg/L	dry	<0.22	<1.2	<0.52	<0.22	<0.22	<1.2	<0.52	60	12
Toluene	µg/L	dry	<0.21	<1.2	<0.78	<0.21	<0.21	<1.2	<0.78	1,000	200
1,2,4-Trimethylbenzene	µg/L	dry	<0.86	<1.1	<0.85	<0.86	<0.86	<1.1	<0.85	480	96
1,3,5-Trimethylbenzene	µg/L	dry	<0.54	<1.2	<1.1	<0.54	<0.54	<1.2	<1.1	480	96
Total Trimethylbenzene	µg/L	dry	<1.4	<2.3	<1.95	<1.4	<1.4	<203	<1.95	480	96
Total Xylenes	µg/L	dry	<13.4	<3.7	<2.84	<1.34	<13.4	<3.7	<2.84	10,000	1,000
Naphthalene	µg/L	dry	--	--	--	--	--	--	--	40	8
Isopropylbenzene	µg/L	dry	--	--	--	--	--	--	--	NS	NS
n-Propylbenzene	µg/L	dry	--	--	--	--	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	dry	--	--	--	--	--	--	--	60	6
Natural Attenuation Indicator Parameters											
Nitrate + Nitrite	mg/L	dry	--	--	--	0.047	--	--	--	10	2
Sulfate	mg/L	dry	--	--	--	260	--	--	--	250	125
Dissolved Iron	mg/L	dry	--	--	--	0.092	--	--	--	NS	NS
Dissolved Manganese	µg/L	dry	--	--	--	11	--	--	--	50	25
Alkalinity	mg/L	dry	--	--	--	56	--	--	--	NS	NS
Methane	µg/L	dry	--	--	--	11	--	--	--	NS	NS

Footnotes:
PAL = Wis. Admin. Code, Chapter NR 140 Groundwater Quality Preventive Action Limit
ES = Wis. Admin. Code, Chapter NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

µg/L = micrograms per liter
mg/L = milligrams per liter
-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-9*			MW-10*			MW-10R				NR 140	NR 140
		01/21/99	05/11/99	07/10/01	01/21/99	05/11/99	07/10/01	03/02/05	06/01/05	06/23/06	11/15/06	ES	PAL
GRO	µg/L	370	540	450	110	290	540	dry	--	--	--	NS	NS
DRO	µg/L	670	1,000	--	250	<100	--	dry	--	--	--	NS	NS
Dissolved Lead	µg/L	--	--	--	--	--	--	dry	--	--	--	15	1.5
Benzene	µg/L	**20**	**22**	<1.1	<0.52	2.8	<1.1	dry	<0.69	0.88	<0.17	5	0.5
Ethyl benzene	µg/L	<1.2	<2.4	<1.2	<0.48	<1.2	<1.2	dry	<2.0	0.55	<1.0	700	140
Methyl tertiary butyl ether	µg/L	**700**	**1,100**	**800**	**270**	**640**	**660**	dry	**680**	**230**	**174**	60	12
Toluene	µg/L	<1.1	<2.1	<1.2	<0.42	<1.1	<1.2	dry	<1.8	<0.36	<0.78	1,000	200
1,2,4-Trimethylbenzene	µg/L	<4.3	<8.6	<1.1	<1.7	<4.3	<1.1	dry	<2.0	<0.39	<0.85	480	96
1,3,5-Trimethylbenzene	µg/L	<2.7	<5.4	<1.2	<1.1	<2.7	<1.2	dry	<2.0	<0.79<	<1.1	480	96
Total Trimethylbenzene	µg/L	<7.0	<14	<2.3	<2.8	<7.0	<2.3	dry	<4.0	<1.18	<1.95	480	96
Total Xylenes	µg/L	<6.6	<13.4	<3.7	<2.84	<6.6	<3.7	dry	<5.5	<1.1	<2.84	10,000	1,000
Naphthalene	µg/L		--	--	--	--	--	dry	<2.3	--	--	40	8
Isopropylbenzene	µg/L		--	--	--	--	--	dry	--	--	--	NS	NS
n-Propylbenzene	µg/L		--	--	--	--	--	dry	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L		--	--	--	--	--	dry	--	--	--	60	6
Natural Attenuation Indicator Parameters													
Nitrate + Nitrite	mg/L	0.051	--	--	0.83	--	--	dry	--	--	--	10	2
Sulfate	mg/L	43		--	540	--	--	dry	--	--	--	250	125
Dissolved Iron	mg/L	0.37	--	--	<0.047	--	--	dry	--	--	--	NS	NS
Dissolved Manganese	µg/L	170	--	--	160	--	--	dry	--	--	--	50	25
Alkalinity	mg/L	660	--	--	300	--	--	dry	--	--	--	NS	NS
Methane	µg/L	32	--	--	<0.9	--	--	dry	--	--	--	NS	NS

Footnotes:

PAL = Wis. Admin. Code, Chapter NR 140 Groundwater Quality Preventive Action Limit
ES = Wis. Admin. Code, Chapter NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

µg/L = micrograms per liter
mg/L = milligrams per liter
-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard
* = MW-9 and MW-10 abandoned for road expansion in 2001.

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-11*		MW-12*			MW-13*			P-1*			NR 140	NR 140
		03/02/05	06/01/05	03/02/05	06/01/05	06/23/06	03/02/05	06/01/05	06/23/06	01/21/99	05/11/99	07/10/01	ES	PAL
GRO	µg/L	--	--	--	--	--	--	--	--	<50	<50	<13	NS	NS
DRO	µg/L	--	--	--	--	--	--	--	--	380	140	--	NS	NS
Dissolved Lead	µg/L	--	--	--	--	--	--	--	--	--	--	--	15	1.5
Benzene	µg/L	**400**	**1000**	**580**	**1200**	**2,000**	**3,500**	**3,700**	**4,200**	<0.26	<0.26	<1.1	5	0.5
Ethyl benzene	µg/L	13	100	110	160	160	310	470	390	<0.24	<0.24	<1.2	700	140
Methyl tertiary butyl ether	µg/L	**470**	**470**	**890**	**430**	**380**	**1,600**	**960**	**850**	3.5	2.2	2.6	60	12
Toluene	µg/L	60	38	12	5	9.3	180	140	69	<0.21	<0.21	<1.2	1,000	200
1,2,4-Trimethylbenzene	µg/L	36	43	35	100	61	170	**510**	380	<0.86	<0.86	<1.1	480	96
1,3,5-Trimethylbenzene	µg/L	40	76	30	60	6	75	160	83	<0.54	<0.54	<1.2	480	96
Total Trimethylbenzene	µg/L	76	119	65	160	67	245	**670**	463	<1.4	<1.4	<2.3	480	96
Total Xylenes	µg/L	239	168	117	170	79.5	1,580	2,310	700	<1.34	<1.34	<3.7	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	60	6
Natural Attenuation Indicator Parameters														
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	--	<0.043	--	--	10	2
Sulfate	mg/L	--		--	--	--	--	--	--	210	--	--	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	--	0.068	--	--	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	--	26	--	--	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	--	68	--	--	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	--	3.2	--	--	NS	NS

Footnotes:

PAL = Wis. Admin. Code, Chapter NR 140 Groundwater Quality Preventive Action Limit
ES = Wis. Admin. Code, Chapter NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

µg/L = micrograms per liter
mg/L = milligrams per liter
-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard
* = MW-11, MW-12 and MW-13 were abandoned during the remedial excavation in 2006. Piezometer P-1 was abandoned for road expansion in 2001.

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-50			MW-51			MW-52			MW-53	NR 140	NR 140
		03/02/06	06/23/06	11/15/06	03/02/06	06/23/06	11/15/06	03/02/06	06/23/06	11/15/06	11/15/06	ES	PAL
GRO	µg/L	--	--	WNF	--	--	WNF	--	--	--	--	NS	NS
DRO	µg/L	--	--	WNF	--	--	WNF	--	--	--	--	NS	NS
Dissolved Lead	µg/L	--	--	WNF	--	--	WNF	--	--	--	--	15	1.5
Benzene	µg/L	<0.41	14	WNF	<0.41	<0.14	WNF	<0.41	<0.14	<0.17	**430**	5	0.5
Ethyl benzene	µg/L	<0.54	0.63	WNF	<0.54	<0.40	WNF	<0.54	<0.40	<1.0	<100	700	140
Methyl tertiary butyl ether	µg/L	<0.61	12	WNF	<0.61	<0.36	WNF	1.6	11	9.9	**8,300**	60	12
Toluene	µg/L	<0.67	0.57	WNF	<0.67	<0.36	WNF	<0.67	<0.36	<0.78	<78	1,000	200
1,2,4-Trimethylbenzene	µg/L	<0.97	<0.39	WNF	<0.97	<0.39	WNF	<0.97	<0.39	<0.85	<85	480	96
1,3,5-Trimethylbenzene	µg/L	<0.83	<0.40	WNF	<0.83	<0.40	WNF	<0.83	<0.40	<1.1	<110	480	96
Total Trimethylbenzene	µg/L	<1.80	<0.79	WNF	<1.80	<0.79	WNF	<1.80	<0.79	<1.95	<195	480	96
Total Xylenes	µg/L	<2.63	<1.1	WNF	<2.63	<1.1	WNF	<2.63	<1.1	<2.84	104	10,000	1,000
Naphthalene	µg/L	<0.74	--	WNF	<0.74	--	WNF	<0.74	--	--	--	40	8
Isopropylbenzene	µg/L	<0.59	--	WNF	<0.59	--	WNF	<0.59	--	--	--	NS	NS
n-Propylbenzene	µg/L	<0.81	--	WNF	<0.81	--	WNF	<0.81	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	<0.99	--	WNF	<0.99	--	WNF	<0.99	--	--	--	60	6
Natural Attenuation Indicator Parameters													
Nitrate + Nitrite	mg/L	--	--	WNF	--	--	WNF	--	--	--	--	10	2
Sulfate	mg/L	--	--	WNF	--	--	WNF	--	--	--	--	250	125
Dissolved Iron	mg/L	--	--	WNF	--	--	WNF	--	--	--	--	NS	NS
Dissolved Manganese	µg/L	--	--	WNF	--	--	WNF	--	--	--	--	50	25
Alkalinity	mg/L	--	--	WNF	--	--	WNF	--	--	--	--	NS	NS
Methane	µg/L	--	--	WNF	--	--	WNF	--	--	--	--	NS	NS

Footnotes:
PAL = NR 140 Groundwater Preventive Action Limit
ES = NR 140 Groundwater Enforcement Standard
BOLD = Concentration above NR 140 PAL
BOLD = Concentrations above NR 140 ES
WNF = Well not found. Apparently, wells MW-50 and MW-51 were destroyed during the UST removal activities

µg/L = micrograms per liter
mg/L = milligrams per liter
-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-800*												MW-800R				NR 140	NR 140
		06/10/93	09/17/93	12/03/93	03/17/94	08/15/95	04/02/96	11/06/96	05/06/97	01/06/98	01/21/99	05/11/99	07/10/01	03/02/05	06/01/05	06/23/06	11/15/06	ES	PAL
GRO	µg/L	88,000	62,000	65,000	60,000	67,000	65,000	56,000	21,400	52,200	78,000	90,000	<2,600	--	--	--	--	NS	NS
DRO	µg/L	--	--	--	--	11,000	7,700	11,000	6,160	8,200	5,100	3,700	--	--	--	--	--	NS	NS
Dissolved Lead	µg/L	4.0	--	4.0	--	--	--	--	--	--	--	--	--	--	--	--	--	15	1.5
Benzene	µg/L	**17,000**	**6,800**	**13,000**	**8,900**	**16,000**	**12,000**	**14,000**	**7,070**	**12,700**	**16,000**	**24,000**	**9,500**	**980**	**2,500**	**420**	**207**	5	0.5
Ethyl benzene	µg/L	210	**7,200**	**1,100**	830	**1,100**	770	680	495	724	**1,100**	970	520	<54	<40	14	<10	700	140
Methyl tertiary butyl ether	µg/L	**110,000**	**30,000**	**35,000**	**73,000**	**74,000**	**71,000**	**58,000**	**31,100**	**38,500**	**81,000**	**81,000**	**35,000**	**13,000**	**11,000**	**960**	**840**	60	12
Toluene	µg/L	**12,000**	**3,900**	**3,900**	**3,700**	**1,900**	**2,900**	**2,500**	917	**1,300**	**1,400**	**6,000**	<230	<67	<36	<3.6	<7.8	1,000	200
1,2,4-Trimethylbenzene	µg/L	**1,700**	**740**	**1,100**	830	**1,100**	760	720	479	**585**	870	**1,100**	400	<97	<39	<3.9	<8.5	480	96
1,3,5-Trimethylbenzene	µg/L	280	200	330	230	<500	210	160	118	<500	<270	360	<230	<83	<40	<4.0	<11	480	96
Total Trimethylbenzene	µg/L	**1,980**	**940**	**1,430**	**1,060**	**1,100**	990	880	**597**	**585**	870	**1,460**	400	<180	<79	<7.9	<19.5	480	96
Total Xylenes	µg/L	8,600	3,900	5,200	4,100	5,300	3,890	6,700	2,666	3,980	5,400	7,300	1,300	<263	81	8.4	<28.4	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	<74	<47	--	--	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	<59	--	--	--	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	<81	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	<99	--	--	--	60	6
Natural Attenuation Indicator Parameters																			
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	--	<0.3	<0.017	--	--	--	--	--	--	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	--	<1.5	29	--	--	--	--	--	--	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	--	6.42	110	--	--	--	--	--	--	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	--	920	8,800	--	--	--	--	--	--	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	--	519	680	--	--	--	--	--	--	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	--	3,100	5,300	--	--	--	--	--	--	NS	NS

Footnotes:

PAL = Wis Admin. Code, Ch NR 140 Groundwater Quality Preventive Action Limit
ES = Wis Admin. Code, Ch NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

* = MW-800 abandoned for road expansion in 2001
µg/L = micrograms per liter
mg/L = milligrams per liter

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-1000															NR 140	NR 140
		06/10/93	09/17/93	12/03/93	03/18/94	08/15/95	04/02/96	11/08/96	05/06/97	01/06/98	01/21/99	05/11/99	03/02/05	06/01/05	06/23/06	11/15/06	ES	PAL
GRO	µg/L	5,500	5,500	4,200	6,500	4,100	3,000	2,400	2,360	6,060	6,400	5,700	--	--	--	WNF	NS	NS
DRO	µg/L	--	--	--	--	4,400	8,700	46,000	8,490	9,620	29,000	52,000	--	--	--	WNF	NS	NS
Dissolved Lead	µg/L	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	WNF	15	1.5
Benzene	µg/L	**41**	**870**	**440**	**650**	**800**	**200**	**67**	**506**	**676**	**1,400**	**1,200**	**1,900**	**2,100**	**2,300**	WNF	5	0.5
Ethyl benzene	µg/L	<1.0	4.8	3.1	25	59	45	4.3	<50	<100	24	20	55	66	49	WNF	700	140
Methyl tertiary butyl ether	µg/L	**1,600**	**6,500**	**4,100**	**11,000**	**6,400**	**2,700**	**3,800**	**6,140**	**4,170**	**5,000**	**4,200**	**2,900**	**3,000**	**1,100**	WNF	60	12
Toluene	µg/L	1.1	3.2	2.8	14	<50	41	3.5	<50	<100	36	33	39	32	32	WNF	1,000	200
1,2,4-Trimethylbenzene	µg/L	1.0	1.2	2.7	19	<50	65	23	<50	103	160	130	120	150	110	WNF	480	96
1,3,5-Trimethylbenzene	µg/L	<1.0	<1.0	1.2	5.7	<50	16	9	<50	<100	63	48	34	25	26	WNF	480	96
Total Trimethylbenzene	µg/L	1.0	1.2	3.9	24.7	<100	81	32	<100	103	223	178	154	175	136	WNF	480	96
Total Xylenes	µg/L	2.2	3.8	4.3	47	<100	153	20	<50	100	270	240	117	136.4	100	WNF	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	41	--	WNF	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	WNF	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	WNF	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	WNF	60	6
Natural Attenuation Indicator Parameters																		
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	--	<0.3	<0.017	--	--	--	--	WNF	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	--	1.71	45	--	--	--	--	WNF	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	--	2.09	2.3	--	--	--	--	WNF	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	--	1,840	1,600	--	--	--	--	WNF	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	--	559	740	--	--	--	--	WNF	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	--	3,400	11,000	--	--	--	--	WNF	NS	NS

Footnotes:

PAL = Wis Admin. Code, Ch NR 140 Groundwater Quality Preventive Action Limit
ES = Wis Admin. Code, Ch NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

WNF = Well not found. Likely destroyed during UST removal, and removed during remedial excavation.
µg/L = micrograms per liter
mg/L = milligrams per liter

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-3000										NR 140	NR 140
		08/10/93	09/17/93	12/03/93	08/15/95	04/01/96	11/08/96	05/06/97	01/06/98	05/11/99	03/02/05	ES	PAL
GRO	µg/L	<100	<100	<100	100	<100	<100	378	217	130	WNF	NS	NS
DRO	µg/L	--	--	--	510	790	700	6,020	3,540	710	WNF	NS	NS
Dissolved Lead	µg/L	2.0	--	--	--	--	--	--	--	--	WNF	15	1.5
Benzene	µg/L	<0.6	1.0	<0.6	1.5	<0.80	<1.6	**60.5**	**8.74**	**9.6**	WNF	5	0.5
Ethyl benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.8	<1.9	1.9	<1.0	<0.24	WNF	700	140
Methyl tertiary butyl ether	µg/L	**110**	**83**	**72**	**180**	**160**	**170**	**136**	41.7	**200**	WNF	60	12
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.4	<1.7	2.4	1.32	0.3	WNF	1,000	200
1,2,4-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.9	<1.9	4.8	1.14	<0.86	WNF	480	96
1,3,5-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.8	<2.0	2	4.03	<0.54	WNF	480	96
Total Trimethylbenzene	µg/L	<2.0	<2.0	<2.0	<2.0	<3.7	<3.9	6.8	5.17	<1.4	WNF	480	96
Total Xylenes	µg/L	<2.5	<2.5	<2.5	<1.0	<5.8	<5.8	74.1	69	<3.27	WNF	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	WNF	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	--	WNF	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	--	WNF	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	--	WNF	60	6
Natural Attenuation Indicator Parameters													
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	<0.3	--	WNF	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	**44.7**	--	WNF	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	<0.01	--	WNF	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	330	--	WNF	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	507	--	WNF	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	2.8	--	WNF	NS	NS

Footnotes:

PAL = Wis. Admin. Code, Ch. NR 140 Groundwater Preventive Action Limit
ES = Wis Admin. Code, Ch. NR 140 Groundwater Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

µg/L = **micrograms** per liter
mg/L = **milligrams** per liter
WNF = **Well not found.** Well apparently destroyed during UST removal.

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	MW-4000*											NR 140 ES	NR 140 PAL
		08/10/93	09/17/93	12/03/93	03/17/94	08/15/95	04/01/96	11/08/96	05/06/97	01/06/98	01/21/99	05/11/99		
GRO	µg/L	1,300	1,300	1,600	930	880	WF	740	461	819	690	570	NS	NS
DRO	µg/L	--	--	--	--	240	WF	320	278	461	1,000	<100	NS	NS
Dissolved Lead	µg/L	1.0	--	--	--	--	WF	--	--	--	--	--	15	1.5
Benzene	µg/L	**1.8**	**120**	**3.4**	**1.9**	<6.0	WF	<1.6	<0.5	<0.5	<2.6	<6.5	5	0.5
Ethyl benzene	µg/L	<1.0	3.3	<1.0	<1.0	<10	WF	<1.9	<1.0	<1.0	<2.4	<8.0	700	140
Methyl tertiary butyl ether	µg/L	**3,800**	**2,700**	**2,200**	**1,700**	**1,800**	WF	**1,600**	**1,940**	**1,340**	**1,400**	**1,100**	60	12
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<10	WF	<1.7	<1.0	<1.0	<2.1	<5.2	1,000	200
1,2,4-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<10	WF	<1.9	<1.0	<1.0	<8.6	<22	480	96
1,3,5-Trimethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<10	WF	<2.0	<1.0	<1.0	<5.4	<14	480	96
Total Trimethylbenzene	µg/L	<2.0	<2.0	<2.0	<2.0	<20	WF	<3.9	<2.0	<2.0	<14.0	<36	480	96
Total Xylenes	µg/L	<2.5	<2.5	<2.5	<2.5	<10	WF	<5.8	<1.0	<1.0	<13.4	<33.2	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	WF	--	--	--	--	--	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	WF	--	--	--	--	--	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	WF	--	--	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	WF	--	--	--	--	--	60	6
Natural Attenuation Indicator Parameters														
Nitrate + Nitrite	mg/L	--	--	--	--	--	WF	--	--	<0.3	0.1	--	10	2
Sulfate	mg/L	--	--	--	--	--	WF	--	--	141	140	--	250	125
Dissolved Iron	mg/L	--	--	--	--	--	WF	--	--	<0.01	<0.047	--	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	WF	--	--	0.039	1.300	--	50	25
Alkalinity	mg/L	--	--	--	--	--	WF	--	--	567	610	--	NS	NS
Methane	µg/L	--	--	--	--	--	WF	--	--	<0.5	<0.9	--	NS	NS

Footnotes:

PAL = Wis. Admin. Code, Ch. NR 140 Groundwater Preventive Action Limit
ES = Wis Admin. Code, Ch. NR 140 Groundwater Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

* = Well abandoned for road expansion in 2001
µg/L = micrograms per liter
mg/L = milligrams per liter
WF = Well frozen, not sampled

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	East Sump (Pre-treatment)															NR 140	NR 140
		11/12/92	2/18/93	3/22/93	6/10/93	7/1/93	8/9/93	9/17/93	10/7/93	11/11/93	12/3/93	3/17/94	5/13/94	10/27/95	4/2/96	5/10/96	ES	PAL
GRO	µg/L	--	--	--	840	--	--	--	--	--	4,100	--	--	1,100	1,300	--	NS	NS
DRO	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	5,000	--	NS	NS
Dissolved Lead	µg/L	--	--	--	2.0	--	--	--	2.0	<1.0	7.0	--	--	--	--	--	15	1.5
Benzene	µg/L	<10	**340**	**63**	**120**	**570**	**520**	**450**	**1,500**	**2,000**	**1,200**	**300**	**220**	**240**	**180**	**14**	5	0.5
Ethyl benzene	µg/L	<10	29	5.9	11	52	21	34	110	120	41	6.4	17	13	5.4	<1.8	700	140
Methyl tertiary butyl ether	µg/L	**1,300**	**2,400**	**520**	**750**	**2,700**	**2,600**	**1,100**	**3,500**	**5,900**	**4,400**	NA	**400**	**990**	**1,600**	NA	60	12
Toluene	µg/L	<10	5.3	8.8	15	5.4	14	7.5	21	20	13	4	44	5.8	2	<1.4	1,000	200
1,2,4-Trimethylbenzene	µg/L	<10	27	13	24	31	8.5	24	7.6	80	37	--	32	11	3.4	--	480	96
1,3,5-Trimethylbenzene	µg/L	<10	2.3	3.0	4.6	<1.0	<1.0	<5.0	<10	9.3	<10	--	<5.0	<5.0	<1.8	--	480	96
Total Trimethylbenzene	µg/L	<20	29	16	29	31	9	24	8	89	37	--	32	11	3	--	480	96
Total Xylenes	µg/L	<30	15	27	54	26	23	28	100	110	50	14	85	28.3	9.5	<5.8	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	6
Natural Attenuation Indicator Parameters																		
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS

Footnotes:

PAL = Wis Admin. Code, Ch NR 140 Groundwater Quality Preventive Action Limit
ES = Wis Admin. Code, Ch NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

µg/L = micrograms per liter
mg/L = milligrams per liter

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	West Sump (Pre-treatment)															NR 140	NR 140
		2/18/93	2/23/93	3/22/93	6/10/93	7/1/93	8/9/93	9/17/93	10/7/93	11/11/93	12/3/93	3/17/94	5/13/94	10/27/95	4/2/96	5/10/96	ES	PAL
GRO	µg/L	--	--	--	25,000	--	--	--	--	--	15,000	--	--	8,900	2,000	--	NS	NS
DRO	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	15,000	--	NS	NS
Dissolved Lead	µg/L	--	--	--	6.0	--	--	--	3.0	<1.0	21	--	--	--	--	--	15	1.5
Benzene	µg/L	**920**	**1,400**	**34**	**2,800**	**5,400**	**650**	**1,100**	**230**	**490**	**990**	**1,200**	**210**	**1,300**	**14**	**170**	170	0.5
Ethyl benzene	µg/L	57	62.0	2	110	48	64	<20	11	14	170	190	<10	71	<4.5	29	700	140
Methyl tertiary butyl ether	µg/L	**210**	**400**	**1,400**	**1,400**	**8,700**	**2,800**	**1,600**	**2,000**	**4,100**	**4,100**	--	**2,900**	**1,200**	**140**	--	60	12
Toluene	µg/L	840	920	21	**3,000**	**3,800**	360	360	42	35	**1,300**	740	48	130	<3.5	14	1,000	200
1,2,4-Trimethylbenzene	µg/L	130	180	4	**1,100**	**1,600**	**3,200**	**1,400**	**1,000**	**1,300**	**1,300**	--	<10	**580**	71	--	480	96
1,3,5-Trimethylbenzene	µg/L	<50	41	11	380	89	**580**	450	340	430	430	--	41	220	86	--	480	96
Total Trimethylbenzene	µg/L	130	221	15	**1,480**	**1,689**	**3,780**	**1,850**	**1,340**	**1,730**	**1,730**	--	41	**800**	156	--	480	96
Total Xylenes	µg/L	630	1,200	29	4,700	9,400	5,900	5,200	2,300	3,200	3,800	2,500	120	1,760	124	750	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		60	6
Natural Attenuation Indicator Parameters																		
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		10	2
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		NS	NS
Methane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--		NS	NS

Footnotes:

PAL = Wis Admin. Code, Ch NR 140 Groundwater Quality Preventive Action L
ES = Wis Admin. Code, Ch NR 140 Groundwater Quality Enforcement Standa
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

µg/L = micrograms per liter
mg/L = milligrams per liter

TABLE 2
SUMMARY OF GROUNDWATER QUALITY
FORMER DIRKSE OIL CO.
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Analyte	Units	West Sump (Pre-treatment)									NR 140	NR 140
		6/21/96	7/19/96	10/15/96	4/1/97	7/2/97	8/22/97	10/27/97	1/21/99	7/10/01	ES	PAL
GRO	µg/L	--	--	--	1,780	1,790	2,270	1,510	1,500	SA	NS	NS
DRO	µg/L	--	--	--	--	--	--	--	17,000	SA	NS	NS
Dissolved Lead	µg/L	--	--	--	--	--	--	--	--	SA	15	1.5
Benzene	µg/L	**500**	**130**	**330**	**42**	**123**	**393**	**50**	**410**	SA	5	0.5
Ethyl benzene	µg/L	24	22	7	3	<20	<10	<25	4	SA	700	140
Methyl tertiary butyl ether	µg/L	**340**	**1,800**	**1,000**	**646**	**366**	**1,070**	**1,290**	**140**	SA	60	12
Toluene	µg/L	55	<14	7	<1.0	<20	22	<25	270	SA	1,000	200
1,2,4-Trimethylbenzene	µg/L	**440**	**570**	130	61	28	42	26	13	SA	480	96
1,3,5-Trimethylbenzene	µg/L	**330**	**500**	120	85	42	53	34	28	SA	480	96
Total Trimethylbenzene	µg/L	**770**	**1,070**	250	146	70	95	60	41	SA	480	96
Total Xylenes	µg/L	630	520	210	72	85	137	56	34	SA	10,000	1,000
Naphthalene	µg/L	--	--	--	--	--	--	--	--	SA	40	8
Isopropylbenzene	µg/L	--	--	--	--	--	--	--	--	SA	NS	NS
n-Propylbenzene	µg/L	--	--	--	--	--	--	--	--	SA	NS	NS
Dichlorodifluoromethane	µg/L	--	--	--	--	--	--	--	--	SA	60	6
Natural Attenuation Indicator Parameters												
Nitrate + Nitrite	mg/L	--	--	--	--	--	--	--	<0.017	SA	10	2
Sulfate	mg/L	--	--	--	--	--	--	--	23	SA	250	125
Dissolved Iron	mg/L	--	--	--	--	--	--	--	0.56	SA	NS	NS
Dissolved Manganese	µg/L	--	--	--	--	--	--	--	0.2	SA	50	25
Alkalinity	mg/L	--	--	--	--	--	--	--	450	SA	NS	NS
Methane	µg/L	--	--	--	--	--	--	--	32,000	SA	NS	NS

Footnotes:

PAL = Wis Admin. Code, Ch NR 140 Groundwater Quality Preventive Action Limit
ES = Wis Admin. Code, Ch NR 140 Groundwater Quality Enforcement Standard
BOLD = Concentration reported above NR 140 PAL
BOLD = Concentrations reported above NR 140 ES

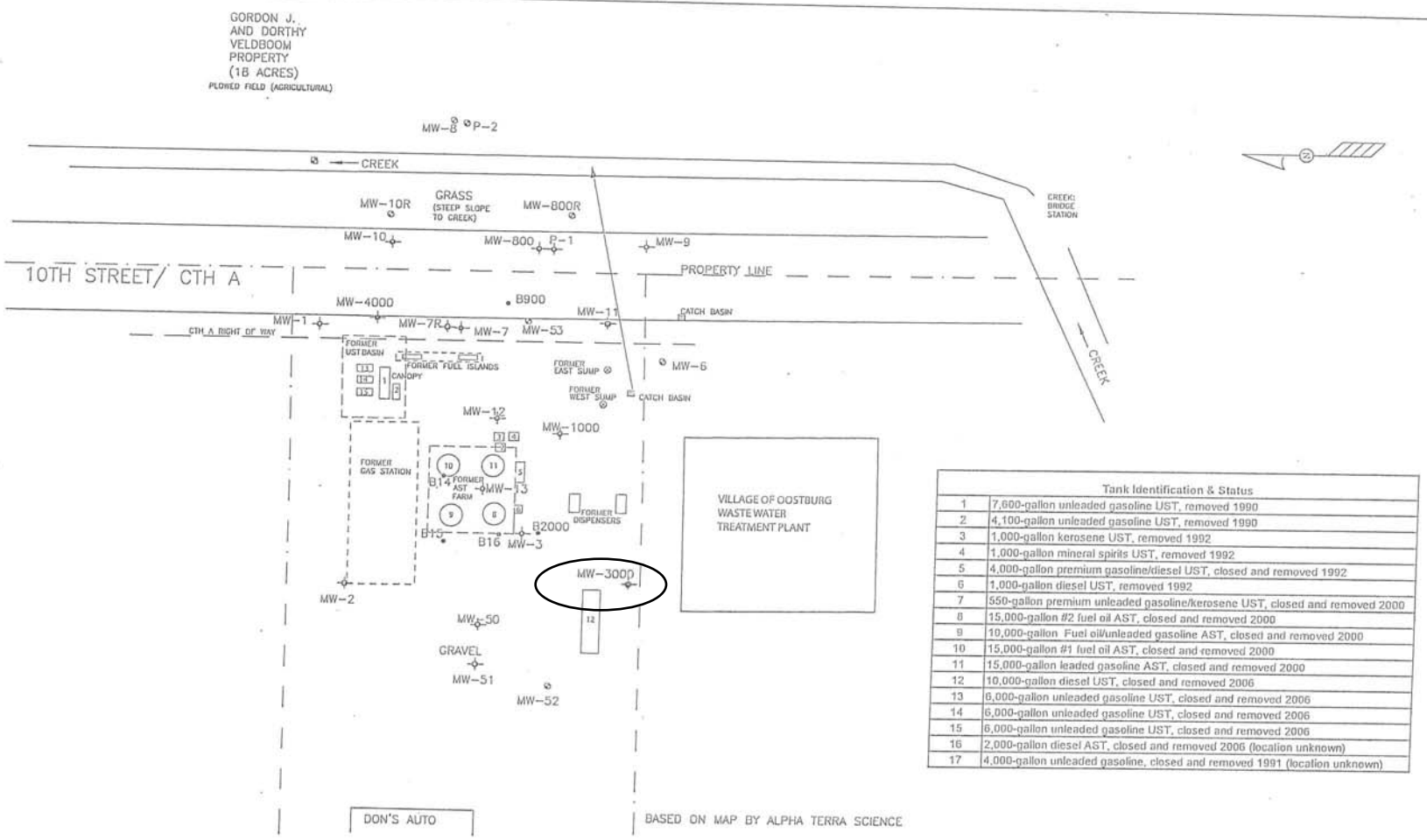
-- = Not Analyzed
ft btc = feet below top of casing
NS = No Standard

µg/L = micrograms per liter
mg/L = milligrams per liter
SA = Sump abandoned during the summer of 1

Table 3
Groundwater Elevation Data
Former Dirkse Oil Bulk Plant
830 North 10th Street
Oostburg, Wisconsin
Project # 10048

Well #	Top of Casing Elevation	Depth to Groundwater (feet btoc)	Groundwater Elevations	Date
MW-2	684.02	6.75	677.27	03/02/05
	684.02	5.45	678.57	06/01/05
	684.00	6.43	677.57	11/15/06
MW-6	681.32	7.56	673.76	03/02/05
	681.32	7.42	673.90	06/01/05
	681.30	5.60	675.70	11/15/06
MW-7R	678.71	3.50	675.21	03/02/05
	678.71	3.23	675.48	06/01/05
	678.71	2.32	676.39	06/23/06
MW-8	675.97	3.79	672.18	03/02/05
	675.97	4.25	671.72	06/01/05
	675.98	2.76	673.22	11/15/06
MW-10R	678.05	dry	dry	03/02/05
	678.05	7.12	670.93	06/01/05
	678.05	4.05	674.00	06/23/06
	678.07	2.70	675.37	11/15/06
MW-11	677.78	4.38	673.40	03/02/05
	677.78	4.45	673.33	06/01/05
	677.78	3.46	674.32	06/23/06
MW-12	678.75	5.21	673.54	03/02/05
	678.75	3.01	675.74	06/01/05
	678.75	2.69	676.06	06/23/06
MW-13	679.53	8.79	670.74	03/02/05
	679.53	2.13	677.40	06/01/05
	679.53	4.11	675.42	06/23/06
MW-50	679.77	10.48	669.29	03/02/06
	679.77	2.19	677.58	06/23/06
MW-51	679.56	12.37	667.19	03/02/06
	679.56	2.92	676.64	06/23/06
MW-52	680.23	10.41	669.82	03/02/06
	680.23	2.93	677.30	06/23/06
	677.98	5.40	672.58	11/15/06
MW-53	678.43	3.00	675.43	11/15/06
MW-800R	677.82	6.08	671.74	03/02/05
	677.82	5.86	671.96	06/01/05
	677.82	5.18	672.64	06/23/06
	677.82	4.42	673.40	11/15/06
MW-1000	678.55	2.21	676.34	03/02/05
	678.55	2.05	676.50	06/01/05
	678.55	2.16	676.39	06/23/06
P-2	675.59	6.05	669.54	03/02/05
	675.59	6.24	669.35	06/01/05
	675.60	5.54	670.06	11/15/06

Elevations in feet above mean sea level
*Elevations based on Bay Environmental data
btoc = below top of casing



Tank Identification & Status	
1	7,600-gallon unleaded gasoline UST, removed 1990
2	4,100-gallon unleaded gasoline UST, removed 1990
3	1,000-gallon kerosene UST, removed 1992
4	1,000-gallon mineral spirits UST, removed 1992
5	4,000-gallon premium gasoline/diesel UST, closed and removed 1992
6	1,000-gallon diesel UST, removed 1992
7	550-gallon premium unleaded gasoline/kerosene UST, closed and removed 2000
8	15,000-gallon #2 fuel oil AST, closed and removed 2000
9	10,000-gallon Fuel oil/unleaded gasoline AST, closed and removed 2000
10	15,000-gallon #1 fuel oil AST, closed and removed 2000
11	15,000-gallon leaded gasoline AST, closed and removed 2000
12	10,000-gallon diesel UST, closed and removed 2006
13	6,000-gallon unleaded gasoline UST, closed and removed 2006
14	6,000-gallon unleaded gasoline UST, closed and removed 2006
15	6,000-gallon unleaded gasoline UST, closed and removed 2006
16	2,000-gallon diesel AST, closed and removed 2006 (location unknown)
17	4,000-gallon unleaded gasoline, closed and removed 1991 (location unknown)

LEGEND
- = MONITORING WELL
- = SOIL BORING
- = GAUGE STATION
- = ABANDONED MONITORING WELL

NOT TO SCALE

LOST MONITORING WELL

830 N. 10TH STREET OOSTBURG, WI			THE SIGMA GROUP — Single Source. Sound Solutions. — www.thesigmagroup.com, 1300 West Canal Street, Milwaukee, WI 53233, 414-643-4200
DATE: 01/15/08	DR. BY: R.M.L	DR.# 10048-001	APPROXIMATE SCALE: 1" = 50'
SITE PLAN MAP			FIGURE 2

Village of Oostburg\10048\10048-001.dwg, F1-SPMP, 5/7/2009 9:21:20 AM, ANSI expand B (17.00 x 11.00 Inches), 1:1

IMPROPERLY ABANDONED MONITORING WELL

IMPROPERLY ABANDONED MONITORING WELL

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name: Dirkse Oil Co Bulk Facility

Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.

Well Name: MW 3000

Facility License, Permit or Monitoring Number: _____

Grid Origin Location: Lat. 43 37 54 N Long. 87 47 57 W or

Wis. Unique Well Number: [redacted] DNR Well Number: [redacted]

Type of Well: Water Table Observation Well ☒ 11
Piezometer ☐ 12

St. Plane _____ ft. N. _____ ft. E.

Date Well Installed: 05/20/93 (m m / d d / y y)

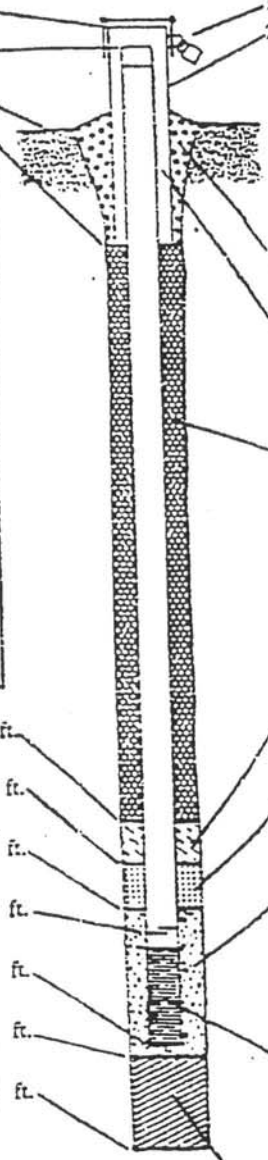
Distance Well Is From Waste/Source Boundary: 40 ft.

Section Location of Waste/Source: SE 1/4 of SE 1/4 of Sec. 36, T. 14 N, R. 22 ☒ E. ☐ W.

Well Installed By: (Person's Name and Firm) Mr. Brandon Powers
Environment + Foundation Drilli

Is Well A Point of Enforcement Std. Application? ☐ Yes ☒ No

Location of Well Relative to Waste/Source: u ☒ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known



A. Protective pipe, top elevation 778.35 ft. MSL

B. Well casing, top elevation 777.95 ft. MSL

C. Land surface elevation 778.35 ft. MSL

D. Surface seal, bottom _____ ft. MSL or 1.0 ft.

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

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Other ☐ _____

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

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

E. Bentonite seal, top _____ ft. MSL or 1.0 ft.

F. Fine sand, top _____ ft. MSL or 2.0 ft.

G. Filter pack, top _____ ft. MSL or 2.5 ft.

H. Screen joint, top _____ ft. MSL or 3.0 ft.

I. Well bottom _____ ft. MSL or 13.0 ft.

J. Filter pack, bottom _____ ft. MSL or 13.0 ft.

K. Borehole, bottom _____ ft. MSL or 13.0 ft.

L. Borehole, diameter 8.25 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.05 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 1.5 ft.
c. Material: Aluminum — Steel ☒ 04 Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐

4. Material between well casing and protective pipe: Bentonite ☒ 30 Annular space seal ☐ Other ☐

5. Annular space seal: a. Granular Bentonite ☒ 3
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 3
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 5
e. 0.3 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 Tremie pumped ☐ 0 Gravity ☒ 0

6. Bentonite seal: a. Bentonite granules ☒ 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 3
c. _____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. Badger Fine Silica 40-60 mesh
b. Volume added 0.22 ft^3

8. Filter pack material: Manufacturer, product name and mesh
a. Red Flint Sand
b. Volume added 3.5 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ Flush threaded PVC schedule 80 ☐ Other ☐

10. Screen material: PVC
a. Screen type: Factory cut ☒ Continuous slot ☐ Other ☐
b. Manufacturer _____
c. Slot size: 0.01
d. Slotted length: 10.

11. Backfill material (below filter pack): None ☒ Other ☐

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

Signature: [signature] Firm: Northern Environmental Technologies, Inc.

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. S and ch. NR 141, Wis. Ad. Code. In accordance with ch. 144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more th $5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for ea day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

RIGHT-OF-WAY

THE SIGMA GROUP
Single Source. Sound Solutions.

January 5, 2009

Project Reference #10048

Mr. Greg Schell
Sheboygan County Highway Commissioner
1211 North 23rd Street
Sheboygan, Wisconsin 53081

RE: **Notice of Remaining Impacts**
Within Public Street or Right-of-Way
Former Dirkse Oil Bulk Plant
830 North 10th Street (County Highway A)
Oostburg, Wisconsin
BRRTS # 03-60-000225

Dear Mr. Schell:

On behalf of the Village of Oostburg, Sigma Environmental Services, Inc. (Sigma) is notifying the Sheboygan County Highway Department of the presence of petroleum impacted soil and groundwater within the right-of-way of North 10th Street (County Highway A) adjacent to the former Dirkse Oil Bulk Plant property located at 830 North 10th Street, Oostburg, Wisconsin.

Sigma is petitioning the Wisconsin Department of Natural Resources (WDNR) for case closure at the site, conditional upon filing the appropriate Geographic Information System (GIS) registry information and notifying municipal authorities of impacts extending into public right-of-ways. Based on the investigation and monitoring data, Sigma believes that natural attenuation will continue to degrade the residual contaminant impacts over time.

Sigma is notifying the Sheboygan County Highway Department, pursuant to Wisconsin Administrative Code, Chapter NR 726.05 (2)(b)(4), of the presence of soil and groundwater impacts beneath the right-of-way of North 10th Street (County Highway A), which exceeds applicable Wisconsin Administrative Code Chapter NR 140 Enforcement Standards (ESs) for groundwater and NR 720 residual contaminant levels (RCLs) for soil. Sigma has enclosed maps depicting the most recent groundwater quality data, and the areas of residual impacted soil. The maps show the monitoring well locations and the areas of residual soil and groundwater which exceed NR 720 RCLs or NR 140 ESs, respectively. Tables which present the results of

RIGHT-OF-WAY

the most recent groundwater sampling and the most recent soil sample results (collected from the remedial excavation) are also attached.

Review of the groundwater elevation data collected from the monitoring wells near the right-of-way indicates that the depth to groundwater ranges from approximately 2.7 to 5.6 feet below ground surface. Precautions may need to be taken if future excavation or dewatering activities are to be conducted in the vicinity of the above referenced property

If you have any questions or comments, please contact me at (414) 643-4200.

Sincerely,

SIGMA ENVIRONMENTAL SERVICES, INC.

Stephen M. Owens

Stephen M. Owens, P.G.
Project Hydrogeologist

Attachments

cc: Ms. Jill Ludens – Oostburg Village Clerk