GIS REGISTRY
Cover Sheet

July, 2008
(RR 5367)

Source Property Information

CLOSURE DATE: Aug 2, 2004

BRRTS #: 02-52-432773

FID #: 252185560

ACTIVITY NAME: Hansen Oil Lease - former

DATCP #:

PROPERTY ADDRESS: 258 Commerce Street

COMM #:

MUNICIPALITY: Burlington

PARCEL ID #: 29-037-000

***WTM COORDINATES:**

X: 660775 Y: 247118

** 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:

☐ Groundwater Contamination > ES *(236)*

- ☐ Contamination in ROW
- ☐ Off-Source Contamination

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

☒ Soil Contamination > *RCL or **SSRCL *(232)*

- ☐ Contamination in ROW
- ☐ Off-Source Contamination

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

Land Use Controls:

☐ Soil: maintain industrial zoning *(220)*

*(**note:** soil contamination concentrations between residential 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 properly abandoned? *(234)*

(•) Yes ( ) No ( ) N/A

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

GIS Registry Checklist

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 #: 02-52-432773 PARCEL ID #: 29-037-000

ACTIVITY NAME: Wisconsin Central Burlington Rail Yard WTM COORDINATES: X: 660775 Y: 247118

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 and 3 **Title: Figure 2-(Hanson Oil Lease Site and Figure 3-(Deep Rock/Consumer Bulk Plant)**

☒ **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 #: 3, 4 and 6 **Title: Figure 3(Hanson), Figure 4(General Yard), and Figure 6 (Deep Rock/Consumers Bulk Plant)**

BRRTS #: 02-52-432773 ACTIVITY NAME: Wisconsin Central Burlington Rail Yard

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 #: 5 **Title: Cross Section A-A' (Deep Rock/Consumers Bulk Plant)**

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 #: **Title:**

☐ **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 #: 3 **Title: Water Table Elevations (Hanson Oil Lease Site)**

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 #: 1,2,1, and 3 **Title: Tables 1 and 2(Hanson), Table 1(General Yard), and Table 3(Deep Rock)**

☐ **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 #: **Title:**

☐ **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 #: **Title:**

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.*

☐ **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 #: 7 **Title: Monitoring Wells Not Properly Abandoned**

☒ **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 #: 02-52-432773 ACTIVITY NAME: Wisconsin Central Burlington Rail Yard

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:

POST CLOSURE

Reesman, Richard

From: Ryan, Nancy D - DNR [Nancy.Ryan@Wisconsin.gov]
Sent: Monday, September 15, 2008 3:14 PM
To: Lawton, Dennis; Reesman, Richard
Cc: Laube-Anderson, Shanna L - DNR
Subject: Wisconsin Central, Ltd. Burlington Rail Yard, 258 Commerce St, Burlington

Dear Mr. Lawton,

STS recentlly submitted the results of soil and groundwater investigation that was conducted at the above-referenced property in December 2004 (*Site Investigation Report and No Action Required Request, Wisconsin Central, ltd. Burlington Rail Yart, Former Deep Rock/Consumers Bulk Plant Lease Site, August 1, 2008*). This investigation (three soil borings converted to groundwater monitoring wells) was conducted in an area immediately adjacent to the former Hansen Oil Lease site. The Hansen Oil site (BRRTS activity #02-52-432773) was investigated, remediated and closed out by the Department in August 2004 and is listed on the Department's GIS Registry of Closed Remediation sites. Based on a review of the information provided, the contamination identified in the December 2004 borings/wells appears to be consistent with and contiguous to the Hansen Oil release. The Department will not require any further investigation related to the reported results. The site investigation report/no action required request will be filed in the Hansen Oil site file **FID# 252185560.**

The Department understands that you will be resubmitting information for the GIS Registry in order to replace an incorrect property description. The Department requests that you include the results of the December 2004 soil and groundwater data with your revised GIS packet so that this information will be available on the GIS Registry.

We will return the $750 check to Dick Reesman at the Schofield, WI address.

Please let me know if you have any questions regarding this email.

Sincerely,

Nancy D. Ryan
Hydrogeologist
Bureau of Remediation and Redevelopment
Wisconsin Department of Natural Resources
2300 N. Dr. Martin Luther King, Jr. Dr.
Milwaukee, WI 53212
(☎) phone: (414) 263-8533 Milwaukee
(920) 892-8756 ext. 3025
(☎) fax: (920) 892-6638 Plymouth
(414) 263-8550 Milwaukee
(✉) e-mail: nancy.ryan@wisconsin.gov

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Gloria L. McCutcheon, Regional Director

Southeast Region
Sturtevant Service Center
9531 Rayne Road, Suite IV
Sturtevant, Wisconsin 53177
Telephone 262-884-2300
FAX 262-884-2307
TDD 262-884-2304

August 2, 2004

Geoffrey Nokes
Wisconsin Central
17641 Ashland Ave.
Homewood, IL 60430-1339

Subject: Final Closure for WI Central LTD, 258 Commerce St., Burlington, WI 53105, FID 252185560, BRRTS 02-52-001160 and 02-52-432773

Dear Mr. Nokes:

The Department received the well abandonment forms for the above noted site. At this time the site will be noted as closed on the Department's database.

Thank you for you efforts in addressing the environmental concerns on your property. If you have any additional questions please contact me at 262-884-2341.

Sincerely,

Shanna L. Laube
Hydrogeologist
Sturtevant Service Center

Cc: Richard Reeseman, STS, 3909 Concord Ave., Schofield, WI 54476-6208

[redacted]

Given under my hand and Notarial seal, this 24th day of October A. D. 1918.

Edgar E. Craig
Racine County
Wis.

U.S. Internal Revenue STAMP 10/24/18

Edgar E. Craig

Notary Public.

My commission expires Jan'y. 9, 1921

Received for record the 22 day of November A. D. 1918, at 9:50 o'clock A. M.
Jno. P. Barry, Register of Deeds

****

#251585

- QUIT CLAIM DEED - ✓

FREDERICK J. AYERS TO WISCONSIN CENTRAL RAILWAY CO.

FRANK J. AYERS, an unmarried man, of Burlington, County of Racine and State of Wisconsin grantor, in consideration of the sum of Two thousand Six Hundred forty and no/100 dollars to him in hand paid by Wisconsin Central Railway Company, a railroad corporation of Wisconsin grantee, the receipt whereof is hereby acknowledged, does hereby Quit Claim unto the said grantee the following premises situate in the County of Racine and State of Wisconsin to-wit:

A tract, piece or parcel of land and land under water comprising parts of the south half of the Southwest quarter (S½ SW¼) of Section 29 and the North half of the Northwest quarter (N½ of NW¼) of Section 32 and of Government Lot One (1) of said section 32 in Township 3 North, of Range 19 East, described as follows:

Commencing at the Northeast corner of Lot Three (3) in Block Fifteen (15) of Perkin's West Addition to the City of Burlington; thence North 36 degrees, 10 minutes East sixty-six (66) feet; thence Southeasterly along the Northeasterly boundary line of Chestnut Street in said City of Burlington (formerly Burlington & Spring Prairie Road) a distance of Three Hundred Seventy-six and two tenths (376.2) feet; thence North 26 degrees, 30 minutes East, to an intersection with the center line of Pine Street, as platted in Morris' Addition to said City of Burlington, which point of intersection is the place of beginning of the tract of land to be conveyed; thence continuing on said course of North 26 degrees, 30 minutes East, to an intersection with a line that is Forty-three and five tenths (43.5) feet distant Southwesterly at right angles, from the center line of the main tract of the railroad of said Grantee, as the same is now located, staked out and established over and across said premises; thence Northwesterly parallel with and Forty-three and five-tenths (43.5) feet distant Southwesterly at right angles, from said main tract center line, a diatance of Two hundred seventy-five (275) feet; thence at right angles Northeasterly a distance of One Hundred Forty-three and five tenths (143.5) feet to an intersection with a line that is One Hundred (100) feet distant Northeasterly at right angles, from said main tract center line; thence Southeasterly, parallel with and at all times One Hundred (100) feet distant Northeasterly, at right angles, from said main tract center line, to an intersection with the Southerly boundary line of Block 18 in the Original plat of Burlington, extended Northeasterly; thence Southwesterly along said block line and the extensions thereof, to an intersection with the center line of Pine Street, as platted in Perkins' Addition to said City of Burlington; thence Northwesterly along said center line of Pine Street to the place of beginning.

The land hereby conveyed and quit claimed by said Grantor to said Grantee is shown outlined in Yellow on the map of said premises attached thereto and which is made a part hereof.

It IS UNDERSTOOD BY THE GRANTEE that the Grantor does not claim or profess to own all of the land or the land under water which is included within the Yellow outlines on said map and that portions thereof are now owned by other parties and that the public has certain rights in the part of Pine Street, not heretofore vacated. This conveyance being an absolute and unconditional surrender of all claims of ownership in and to all or any portion of said premises, now owned or which may hereafter be acquired by reversion, reservation or otherwise; on condition however that the bridge of said Grantee now constructed over the main channel of White River near the Northerly boundary of the premises hereby conveyed, or any future bridge which said Grantee its successors, lessees or assigns may construct at or near the same place, in connection with its railroad, shall be open to the extent that it will not unnecessarily or unreasonably interfere with the flow of the waters of said river underneath the same.

WITNESS the hand and seal of the said Grantor this 18th day of November A. D. 1918.

In presence of

FRANK J. AYERS (SEAL)

William W. Storms

W. E. Westeane

STATE OF WISCONSIN)
) SS
County of Milwaukee)

On this 18th day of November A. D. 1918, personally appeared before me the above named Frank J. Ayers, an unmarried man, to me known to be the person described in and who executed the foregoing instrument and he acknowledged the same.

Agnes Zweck

Notary Public, Milwaukee Co., Wis.

Com. Expires Jan. 22, 1922

Agnes Zweck Notary Public Milwaukee Co. Wis.

$1.00 U.S. Internal Revenue 4/18/18

Received for record the 25 day of November A. D. 1918, at 10:15 o'clock A. M.
Jno. P. Barry, Register of Deeds

STATEMENT OF PROPERTY LEGAL DESCRIPTION

As required by s.NR 726.05(3)f of the Wisconsin Administrative Code, I am providing this signed statement that to the best of my knowledge the legal description below is complete and accurate for the property located at 258 Commerce Street, Burlington, Wisconsin.

A tract, piece or parcel of land and land under water comprising parts of the south half of the Southwest quarter (S½ SW¼) of Section 29 and the North half of the Northwest quarter (N½ of NW¼) of Section 32 and of Government Lot One (1) of said section 32 in Township 3 North, of Range 19 East, described as follows:

Commencing at the Northeast corner of Lot Three (3) in Block Fifteen (15) of Perkin's West Addition to the City of Burlington; thence North 36 degrees, 10 minutes East sixty-six (66) feet; thence Southeasterly along the Northeasterly boundary line of Chestnut Street in said City of Burlington (formerly Burlington & Spring Prairie Road) a distance of Three Hundred Seventy-six and two tenths (376.2) feet; thence North 26 degrees, 30 minutes East, to an intersection with the center line of Pine Street, as platted in Morris' Addition to said City of Burlington, which point of intersection is the place of beginning of the tract of land to be conveyed; thence continuing on said course of North 26 degrees, 30 minutes East, to an intersection with a line that is Forty-three and five tenths (43.5) feet distant Southwesterly, at right angles, from the center line of the main tract of the railroad of said Grantee, as the same is now located, staked out and established over and across said premises; thence Northwesterly parallel with and Forty-three and five-tenths (43.5) feet distant Southwesterly at right angles, from said main tract center line, a distance of Two hundred seventy-five (275) feet; thence at right angles Northeasterly a distance of One Hundred Forty-three and five tenths (143.5) feet to an intersection with a line that is One Hundred (100) feet distant Northeasterly at right angles, from said main tract center line; thence Southeasterly, parallel with and at all times One Hundred (100) feet distant Northeasterly, at right angles, from said main tract center line, to an intersection with the Southerly boundary line of Block 18 in the Original plat of Burlington, extended Northeasterly; thence Southwesterly along said block line and the extensions thereof, to an intersection with the center line of Pine Street, as platted in Perkins' Addition to said City of Burlington; thence Northwesterly along said center line of Pine Street to the place of beginning.

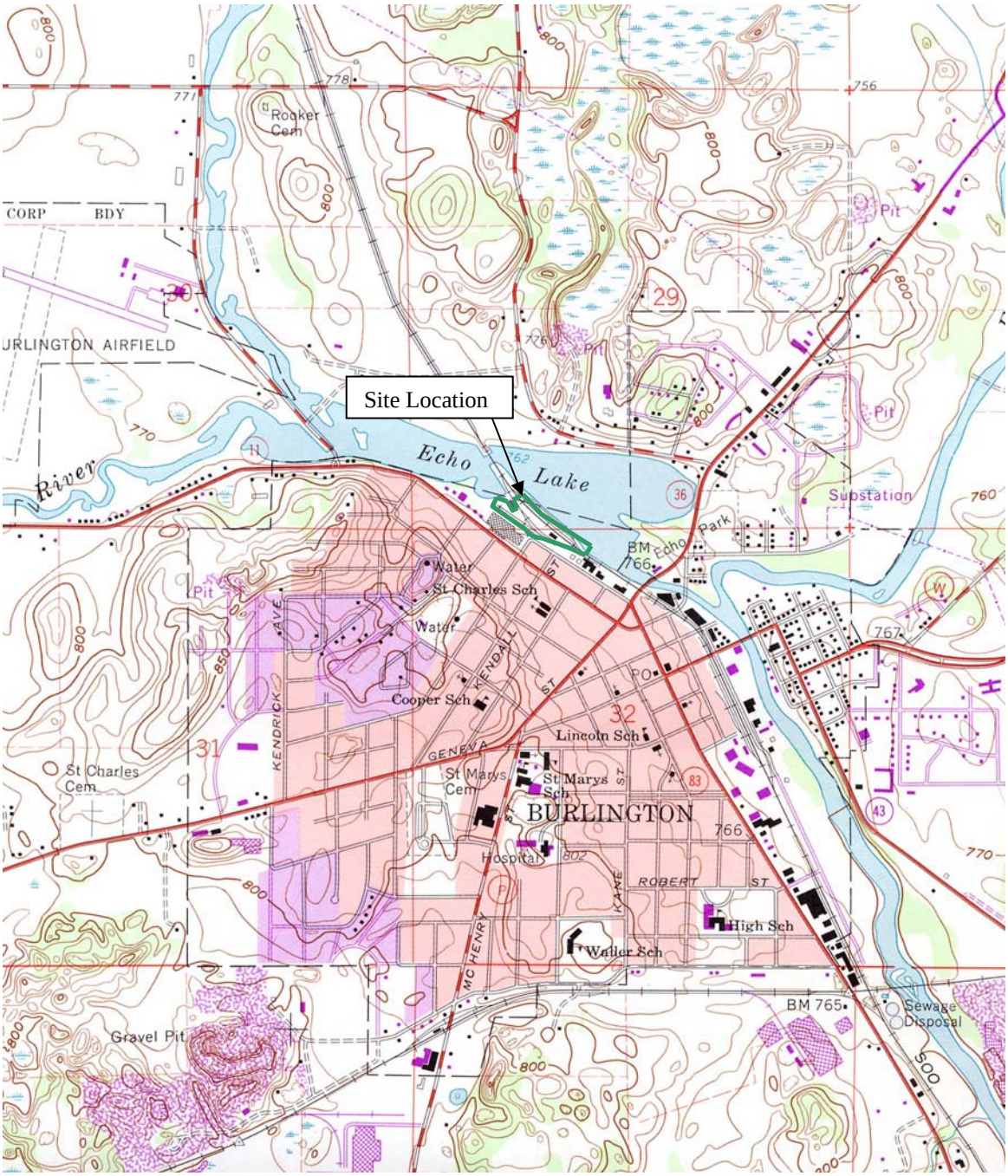
Scott Ransberry
(Signature)

December 9, 2008
(Date)

Scott Ransberry
(Name)

Project Coordinator
(Title)

Wisconsin Central Ltd.
(Company)

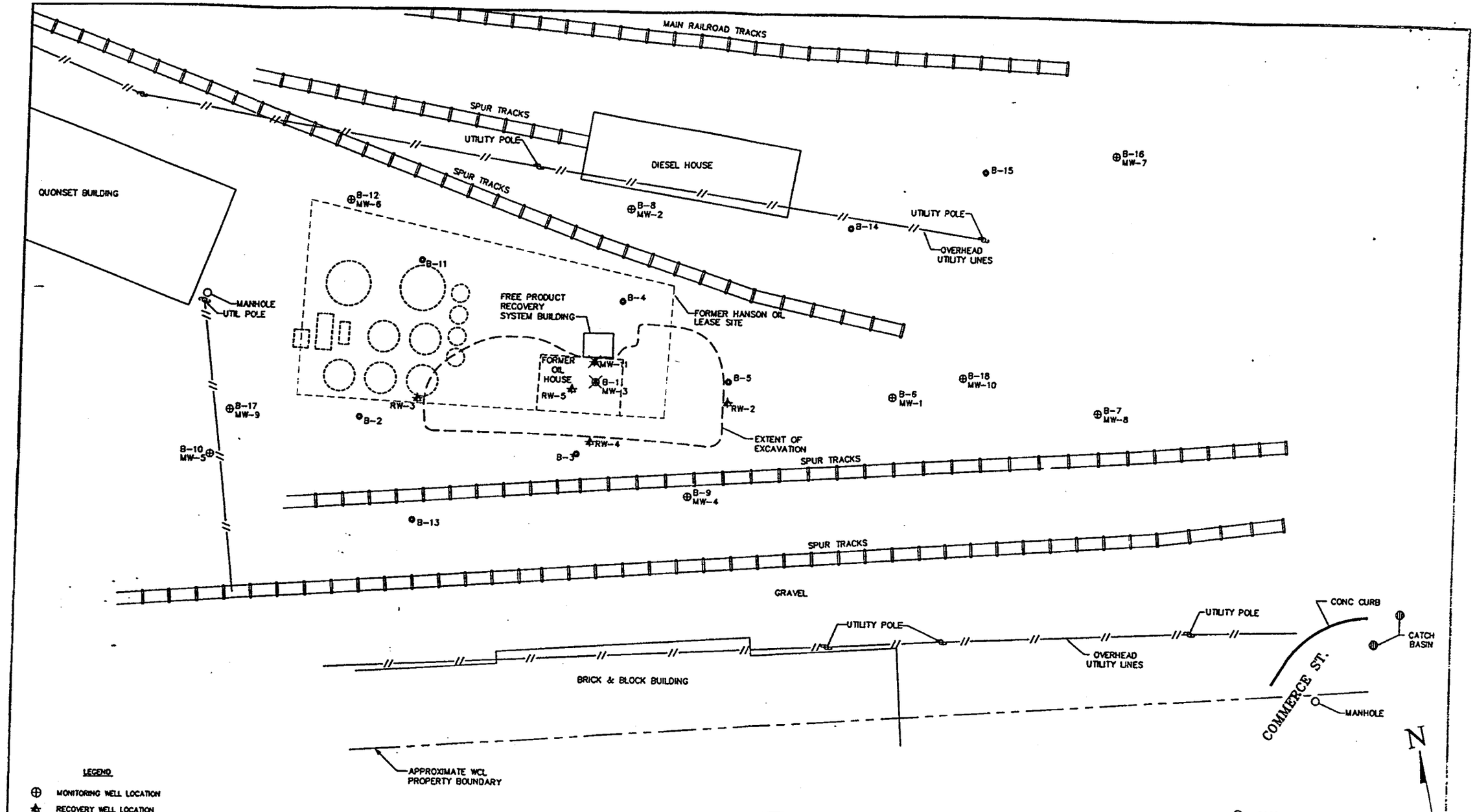


SOURCE: BURLINGTON, WISCONSIN QUADRANGLE 1960 (PHOTOREVISED 1971)

STS Consultants Ltd
Consulting Engineers

SITE LOCATION MAP
SITE INVESTIGATION
WISCONSIN CENTRAL, LTD.
BURLINGTON YARD - Deep Rock Oil Company
258 COMMERCE STREET
BURLINGTON, WISCONSIN

DRAWN BY: bjb	DATE: 01/21/05
CHECKED BY: bjb	DATE: 01/21/05
APPROVED BY: RSR	DATE: 03/20/08
FILE NO. K:587391XC	SCALE: 1"=2000'
STS PROJECT NO. **200704634**	FIGURE NO. 1



LEGEND

- ⊕ MONITORING WELL LOCATION
- ✱ RECOVERY WELL LOCATION
- ⊙ SOIL BORING LOCATION
- ⊠ ABANDONED MONITORING WELL LOCATION
- ✱ ABANDONED RECOVERY WELL LOCATION
- ○ LOCATION OF FORMER VERTICAL AST
- □ LOCATION OF FORMER HORIZONTAL AST

SOURCE: Site Survey
Land Information Services, Inc.
October 13, 1995

0 15 30
SCALE: 1"=30'

DRN. BY:	J.J.J.	DATE:	03/22/00
DSN. BY:	M.P.M.	FILE NO.:	0406013
CHK. BY:	M.P.M.	DWG. NO.:	04060130
REV. BY:	G.L.J.	SHEET NO.:	2

KEY ENGINEERING GROUP LTD.

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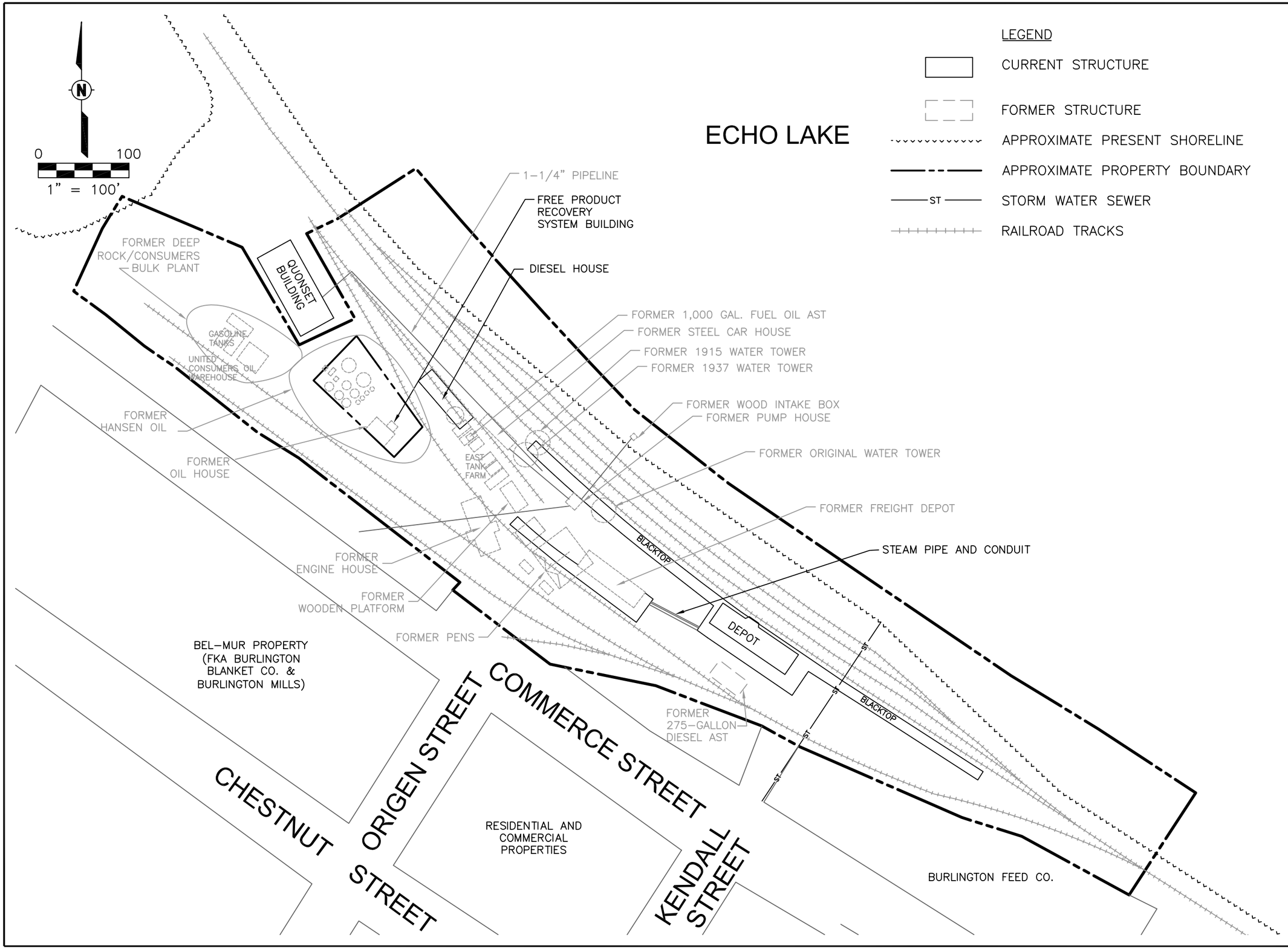
SITE LAYOUT

FORMER HANSON OIL LEASE SITE
258 COMMERCE STREET
BURLINGTON, WISCONSIN



STS | AECOM
3909 Concord Avenue
Weston, WI 54476
715-355-4304
www.sts.aecom.com
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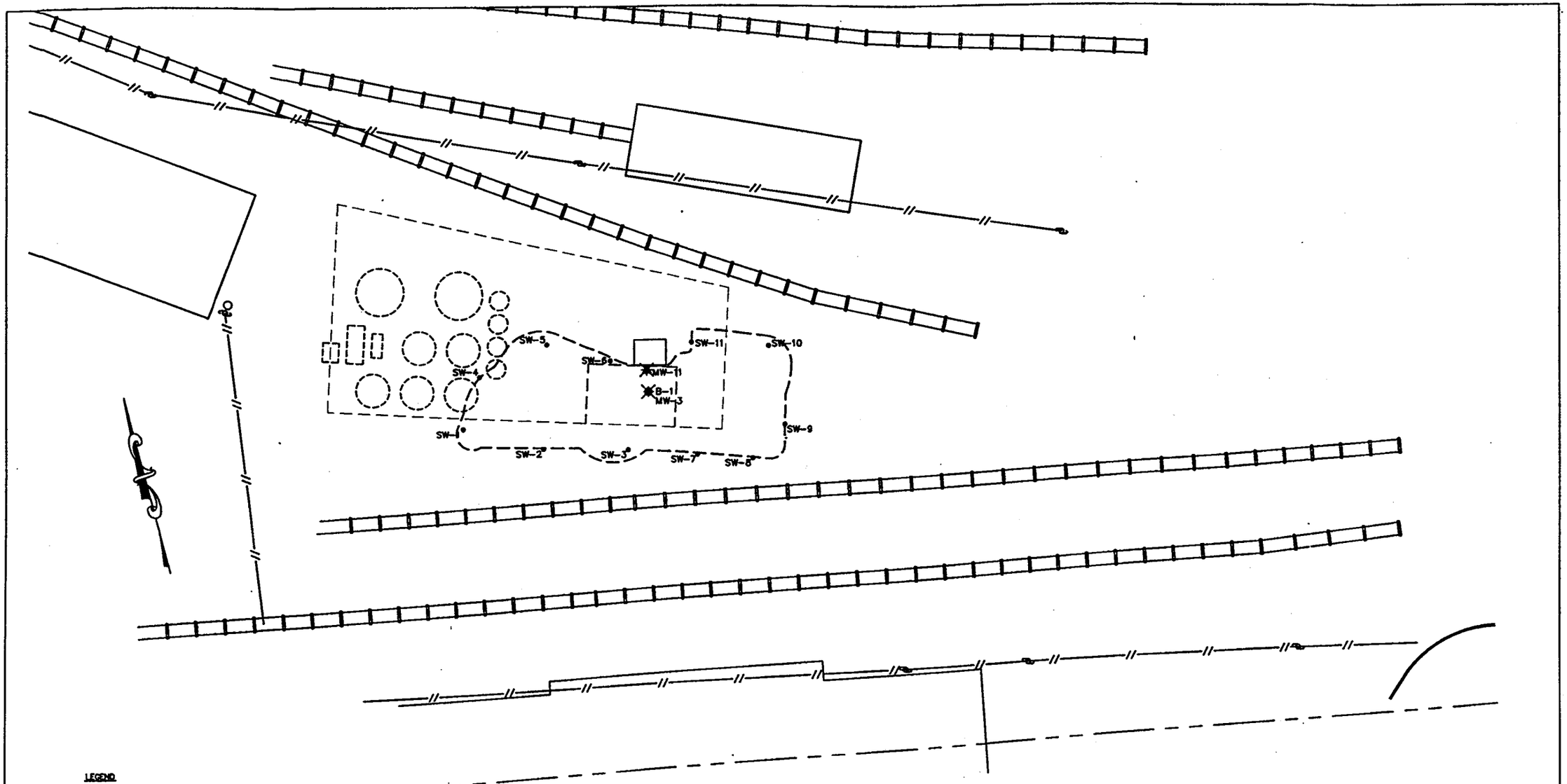
CURRENT & HISTORICAL SITE FEATURES
WISCONSIN CENTRAL LTD. - SITE INVESTIGATION/CLOSURE REQUEST
BURLINGTON YARD - FORMER DEEP ROCK/CONSUMERS BULK PLANT
258 COMMERCE STREET
BURLINGTON, WISCONSIN

Drawn :	ALB	3/24/2008
Checked:	RSR	3/24/2008
Approved:	DXL	3/24/2008
PROJECT NUMBER	200704634	
FIGURE NUMBER	2	

X:\Projects\200704634\DWG\G200704634-000.dwg; 4/2/2008 11:45:58 AM; BREUNIG, ADAM; STS.stb



LEGEND

- ABANDONED MONITORING WELL LOCATION
- ABANDONED RECOVERY WELL LOCATION
- CONFIRMATION SOIL SAMPLE LOCATION
- LOCATION OF FORMER VERTICAL AST
- LOCATION OF FORMER HORIZONTAL AST

SCALE IN FEET

30' 0 30'

© 2002 Key Engineering Group Ltd.

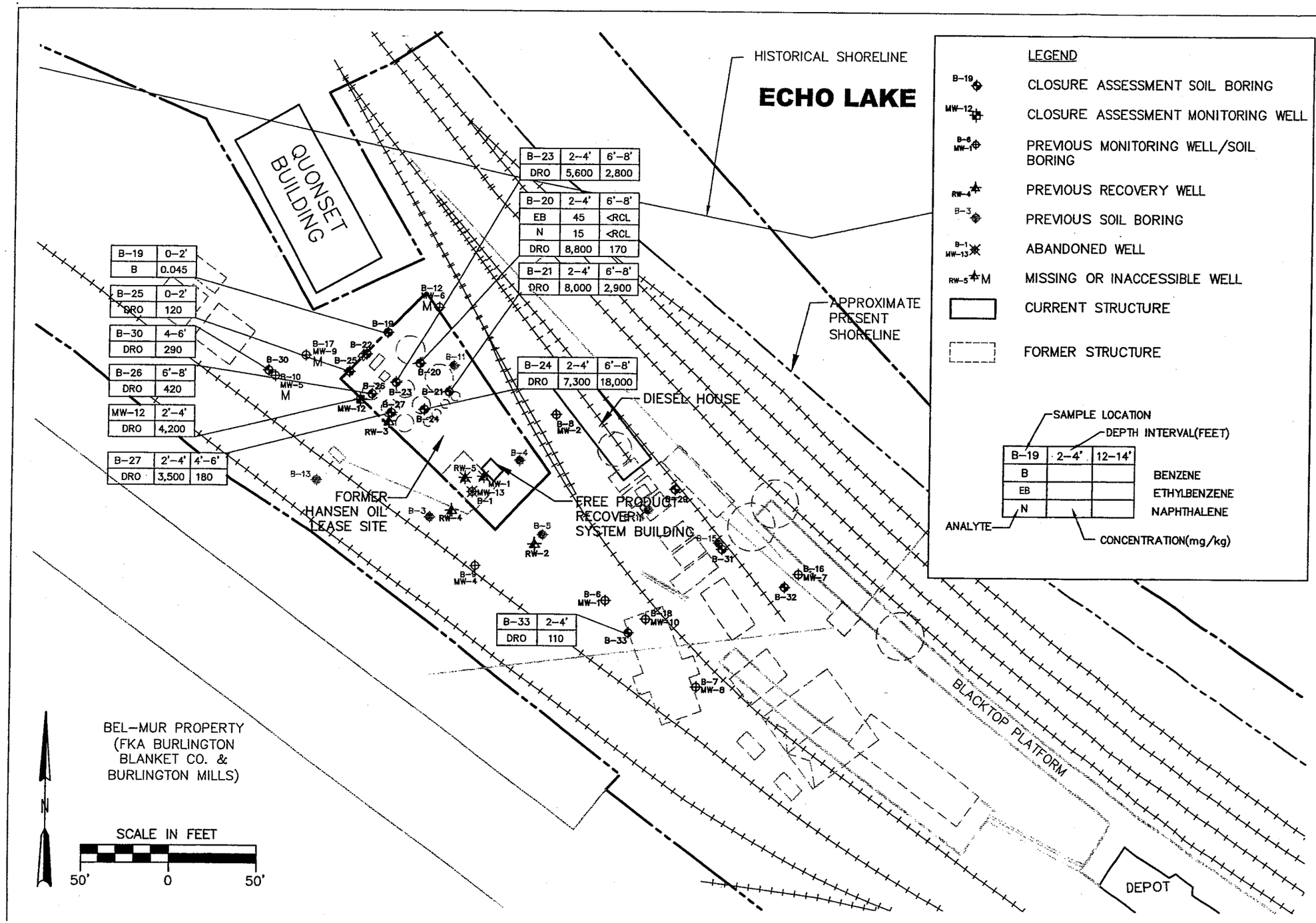
DESIGNED BY	DATE
KTK	02/04/03
DRAWN BY	PROJECT
CTM	0406013
APPROVED BY	SHEET NO.
DJG	3

CADFILE G:\ACAD\0406013\0406013f1.dwg

RESIDUAL SOIL CONTAMINANT CONTOUR MAP
FORMER HANSON OIL LEASE SITE
258 COMMERCE STREET
BURLINGTON, WISCONSIN

KEY ENGINEERING GROUP LTD.
ENVIRONMENTAL • CIVIL • RAILROAD

X:\Projects\587391\dwg\G587391-BASE04.dwg, SAMPLE LOCATION, 11/26/2003 03:08:19 PM, barnes, \\05main\WP_8150DN, Tabloid, 1:1

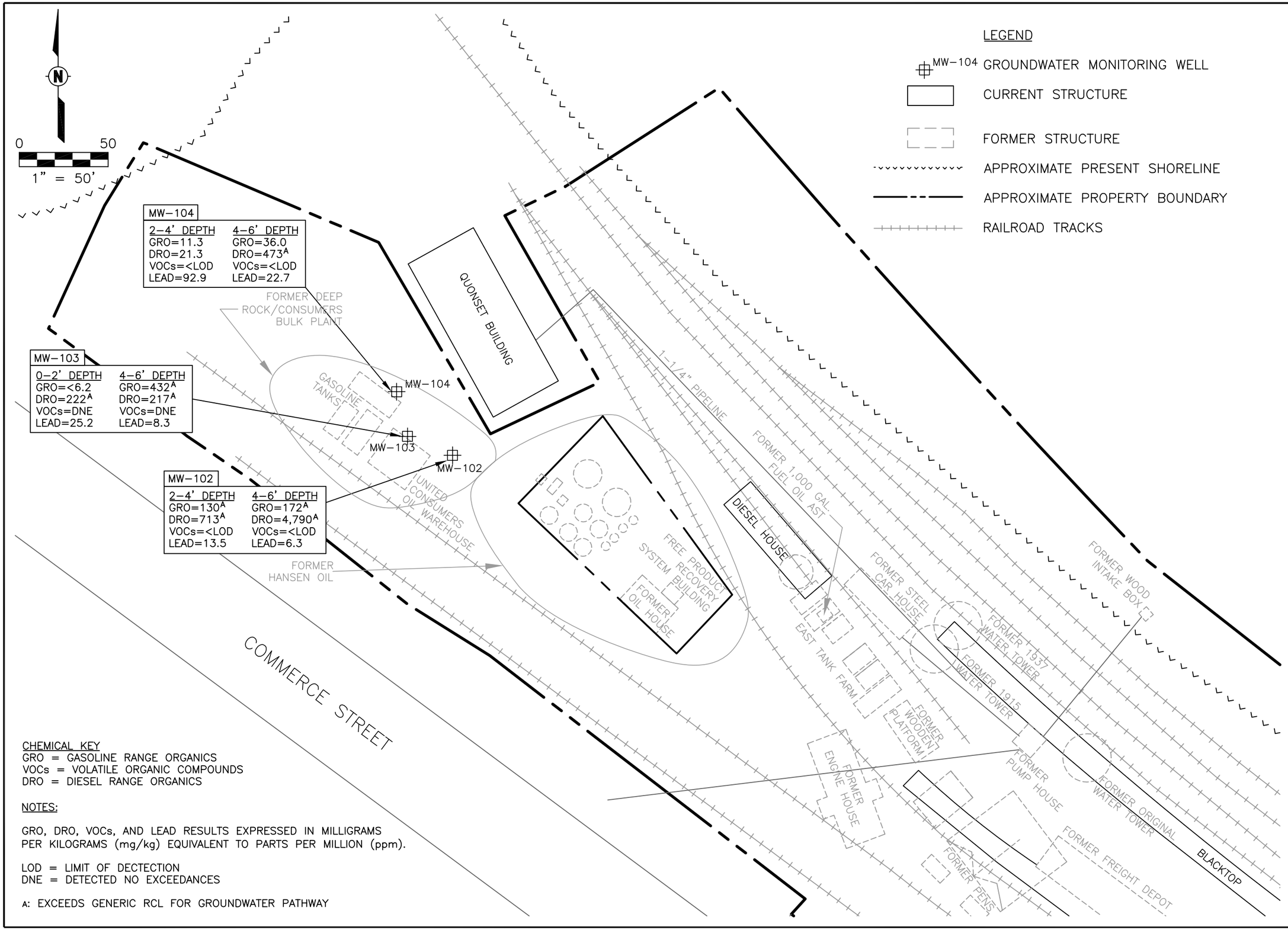


SOIL SAMPLES WITH GROUNDWATER PATHWAY RCL EXCEEDANCES
WISCONSIN CENTRAL LTD. CLOSURE ASSESSMENT
BURLINGTON RAIL YARD
BURLINGTON, WISCONSIN

DESIGNED BY MMM DATE 11/21/03
DRAWN BY CJH DATE 11/21/03
APPROVED BY MMM DATE 11/21/03
CAD FILE G587391-BASE03.dwg
XREF
LAYOUT PLOT-BASE

STS Consultants Ltd.
Consulting Engineers
11483 W. Lake Park Dr.
Milwaukee, WI 53224
414.354.3030

STS PROJECT NUMBER 87391XA
STS PROJECT FILE X:\PROJECTS\587391
SCALE AS SHOWN
FIGURE NUMBER



CHEMICAL KEY
GRO = GASOLINE RANGE ORGANICS
VOCs = VOLATILE ORGANIC COMPOUNDS
DRO = DIESEL RANGE ORGANICS

NOTES:

GRO, DRO, VOCs, AND LEAD RESULTS EXPRESSED IN MILLIGRAMS PER KILOGRAMS (mg/kg) EQUIVALENT TO PARTS PER MILLION (ppm).

LOD = LIMIT OF DECTECTION
DNE = DETECTED NO EXCEEDANCES

A: EXCEEDS GENERIC RCL FOR GROUNDWATER PATHWAY

STS | AECOM
3909 Concord Avenue
Weston, WI 54476
715-355-4304
www.sts.aecom.com
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SOIL ANALYTICAL RESULTS
WISCONSIN CENTRAL LTD. - SITE INVESTIGATION/CLOSURE REQUEST
BURLINGTON YARD - FORMER DEEP ROCK/CONSUMERS BULK PLANT
258 COMMERCE STREET
BURLINGTON, WISCONSIN

Drawn :	ALB	3/24/2008
Checked:	RSR	3/24/2008
Approved:	DXL	3/24/2008
PROJECT NUMBER	200704634	
FIGURE NUMBER	6	

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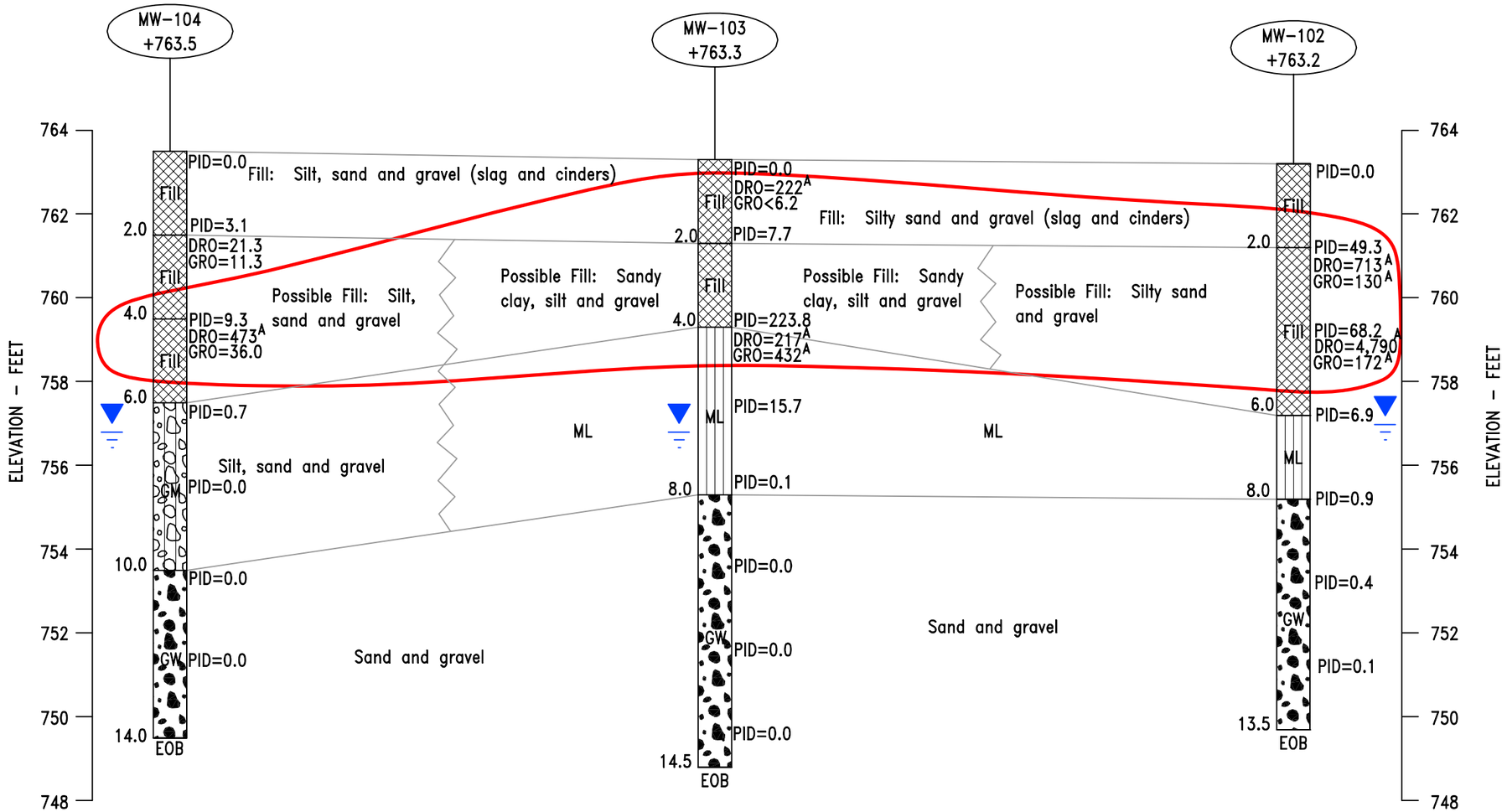
SCALE
HORIZONTAL: 1"=6'
VERTICAL: 1"=3'



Legend
PID: Photoionization Detector
GRO: Gasoline Range Organic
DRO: Diesel Range Organic
RCL: Residual Contaminant Level

PID results expressed in instrument units
GRO and DRO results expressed in milligrams per kilogram (mg/kg)

A: Exceeds Generic RCL for Groundwater Pathway

▼ Water level on 1/25/05

Estimated horizontal/vertical extent of petroleum impacted soil exceeding generic NR720 Groundwater Pathway RCLs.

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CROSS SECTION A-A'
WISCONSIN CENTRAL LTD. - SITE INVESTIGATION/CLOSURE REQUEST
BURLINGTON YARD - FORMER DEEP ROCK/CONSUMERS BULK PLANT
258 COMMERCE STREET
BURLINGTON, WISCONSIN

Drawn :	ALB	3/24/2008
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PROJECT NUMBER 200704634

FIGURE NUMBER 5

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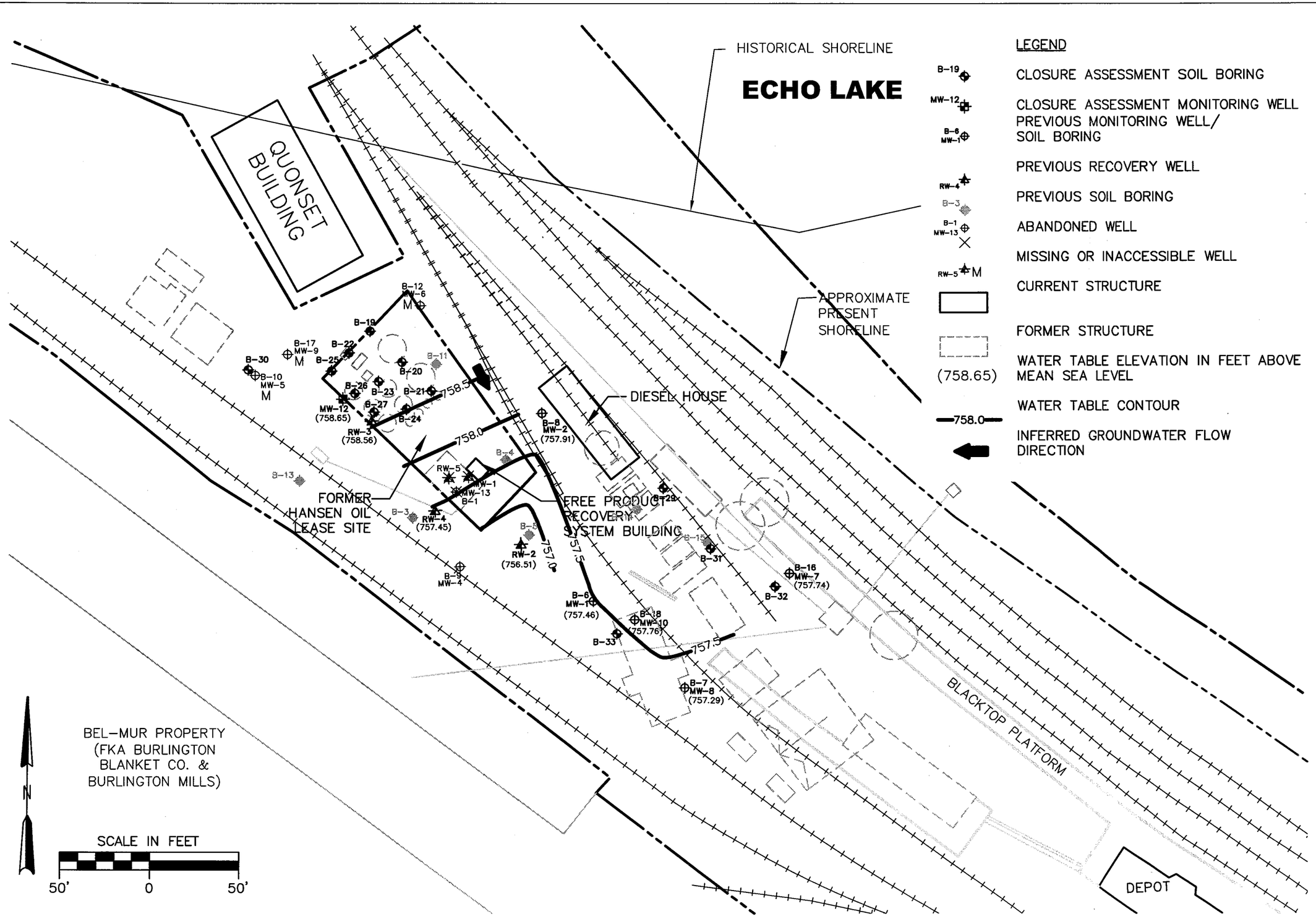

WATER TABLE ELEVATIONS
NOVEMBER 6, 2003
WISCONSIN CENTRAL, LTD. CLOSURE ASSESSMENT
BURLINGTON RAIL YARD
BURLINGTON, WISCONSIN

STS Consultants Ltd.
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STS PROJECT NUMBER 87391XA
STS PROJECT FILE X:\PROJECTS\587391
SCALE AS SHOWN
FIGURE NUMBER 3

SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

Table 1

FORMER HANSON OIL LEASE WCL SITE
258 Commerce Street
Burlington, Wisconsin

SAMPLE	B-2		B-4		B-5	B-6 MW-1		B-7 MW-8		B-9 MW-4		B-10 MW-5		B-11	B-12 MW-6	B-13	B-14	
Depth (feet bgs.)	3.5-5	13.5-15	6-7.5	13.5-15	6-7.5	6-7.5	12.5-15	6-7.5	11-12	6-7.5	13.5-15	3.5-5	13.5-15	3.5-5	3.5-5	6-7.5	6-7.5	8.5-10
PID (i.u.)	102	12	245	15	386	386	13	<1	<1	<1	<1	113	<1	710	<1	<1	>2,000	442
GRO (mg/kg)	<5.5	<5.7	180	6.7	590	270	<5	<5	<5	<6.1	<5.3	35	<5.3	560	<5.6	<5.7	650	220
DRO (mg/kg)	<4.4	<4.5	2,200	8.3	620	580	7.9	<4	11	<4.9	<4.2	170	<4.3	320	<4.5	<4.6	660	120
Lead (mg/kg)	<5.5	<5.7	33	<5	36	<5	<5	<5	<5	7.1	<5.3	<5.3	<5.3	9.2	<5	7.1	<5.3	5.6
VOCs (ug/kg)																		
Benzene	<1.1	<1.1	470	<2	<5	<200	<1	<1	<1	<1.2	<1.1	<5.3	<1.1	<11	<1.1	<1.1	<270	540
Toluene	<1.1	<1.1	<200	<2	<5	<200	<1	<1	<1	<1.2	<1.1	<5.3	<1.1	140	<1.1	<1.1	1,700	760
Ethylbenzene	1.6	<1.1	4,000	<2	2,400	12,000	<1	<1	<1	<1.2	<1.1	62	<1.1	5,600	<1.1	<1.1	2,600	250
Xylene	<1.1	<1.1	1,870	<2	170	5,640	<1	<1	<1	<1.2	<1.1	95	<1.1	6,740	<1.1	6.1	3,240	1,820
TMBs	<2.2	<2.2	11,500	<6	3,530	5,800	<3	<2	<3	<2.4	<2.2	84	<2.2	7,200	<2.2	2.9	11,300	1,960
MTBE	<1.1	<1.1	<200	<2	<5	<200	<1	<1	<1	<1.2	<1.1	<5.3	<1.1	1,200	<1.1	<1.1	<270	<5.5
1,2-DCA	<1.1	NA	<5	NA	<5	<5	NA	<1	NA	<1.2	NA	<5.3	NA	<1.1	<1.1	<1.1	<53	NA
Isopropylbenzene	<1.1	NA	1,000	NA	52	<200	NA	<1	NA	<1.2	NA	<5.3	NA	220	<1.1	<1.1	10,000	NA
n-Butylbenzene	2.9	NA	15,000	NA	250	1,500	NA	<1	NA	<1.2	NA	36	NA	10,000	<1.1	<1.1	6,300	NA
n-Propylbenzene	1.6	NA	4,300	NA	450	1,800	NA	<1	NA	<1.2	NA	210	NA	1,100	<1.1	<1.1	1,900	NA
Naphthalene	<1.1	NA	3,400	NA	290	670	NA	<1	NA	<1.2	NA	95	NA	3,100	<1.1	<1.1	2,600	NA
p-Isopropyltoluene	<1.1	NA	1,300	NA	42	410	NA	<1	NA	<1.2	NA	30	NA	150	<1.1	<1.1	3,400	NA
sec-Butylbenzene	<1.1	NA	990	NA	62	<200	NA	<1	NA	<1.2	NA	10	NA	170	<1.1	<1.1	<270	NA
Styrene	<1.1	NA	570	NA	33	620	NA	<1	NA	<1.2	NA	17	NA	140	<1.1	<1.1	11,000	NA
tert-Butylbenzene	<1.1	NA	<200	NA	<5	<200	NA	<1	NA	<1.2	NA	<5.3	NA	<11	<1.1	<1.1	9,500	NA

Notes:
bgs - below ground surface
DCA - dichloroethane
DRO - diesel range organics
GRO - gasoline range organics
i.u. - instrument units
mg/kg - milligram per kilogram
MTBE - methyl-tert-butyl ether
PID - photoionization
TMBs - trimethylbenzenes
ug/kg - micrograms per kilogram

SUMMARY OF SOIL SAMPLE FIELD SCREENING AND ANALYTICAL RESULTS - CONFIRMATION SOIL SAMPLES

Table 2.

HANSEN OIL LEASE
258 Commerce Street
Burlington, Wisconsin

SAMPLE IDENTIFICATION	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8	SW-9	SW-10	SW-11	NR 720 GRCL	NR 746 TABLE 1 VALUE
Date Collected	3/13/2000	3/13/2000	3/13/2000	3/13/2000	3/13/2000	3/14/2000	3/14/2000	3/15/2000	3/15/2000	3/15/2000	3/15/2000	---	---
Depth (feet)	4-5	5-6	4-5	3-4	3-4	4-5	4-5	5-6	4-5	4-5	5-6	---	---
PID (i.u.)	169	29	109	114	221	29	78	55	38	137	25	---	---
DRO (mg/kg)	410	11	450	73	6,500	760	4,200	1,500	1,400	4,700	3,900	100	---
GRO (mg/kg)	740	<10	300	200	1,000	33	230	150	460	770	170	100	---
Benzene (µg/kg)	<250	<25	160	<25	<250	<25	80	<25	310	<25	<25	---	8,500
Ethylbenzene (µg/kg)	320	<25	110	130	400	<25	57	29	310	130	25 J	---	4,600
MTBE (µg/kg)	<250	<25	<25	<25	<250	<25	<25	<25	<250	<25	<25	---	---
Naphthalene (µg/kg)	2,700	<25	3,700	1,000	7,700	<25	1,800	1,400	<250	5,600	<25	---	2,700
Toluene (µg/kg)	490	<25	450	300	2,000	<25	210	110	1,400	2,800	78	---	38,000
1,2,4 - TMB	7,500	<25	5,700	2,300	11,000	56	2,600	1,300	5,400	1,400	480	---	83,000
1,3,5 - TMB	9,200	<25	2,700	1,400	6,800	30 J	1,900	820	5,700	1,500	510	---	11,000
Xylenes (µg/kg)	<750	<75	2,000	540	5,300	<75	390	100	1,900	1,300	<75	---	42,000

Notes:

Bolded concentrations exceed the NR 720 GRCL/NR746 Table 1 value
--- - not analyzed
[1] - Wisconsin Department of Natural Resources interim guidance (groundwater pathway)
[2] - Wisconsin Department of Natural Resources interim guidance (non-industrial direct contact pathway)
DRO - diesel range organics
GRCL - NR 720 generic residual contaminant level
GRO - gasoline range organics
i.u. - instrument units
J - concentration detected between limit of detection and limit quantitation
mg/kg - milligrams per kilogram
MTBE - methyl tert-butyl ether
NE - not established
NR 746 - Draft NR 746 Table 1 direct contact value
PID - photoionization detector
TMB - trimethylbenzene
µg/kg - micrograms per kilogram

TABLE 1
LABORATORY RESULTS OF SOIL SAMPLES
CLOSURE ASSESSMENT
WISCONSIN CENTRAL LTD. BURLINGTON RAIL YARD
BURLINGTON, WISCONSIN
PROJECT NO. 5-87391XB

Parameters	Generic RCLs: Direct Contact Pathway: Non-Industrial	Generic RCLs: Direct Contact Pathway: Industrial	Generic RCLs: Groundwater Pathway	B-26D 2-4' 10/8/2003	B-27 2-4' 10/9/2003	B-27 4-6' 10/9/2003	B-29 0-2' 10/9/2003	B-29 2-4' 10/9/2003	B-30 2-4' 10/9/2003	B-30 4-6' 10/9/2003	B-31 2-4' 10/9/2003	B-32 0-2' 10/9/2003	B-32 2-4' 10/9/2003	B-33 2-4' 10/8/2003	B-33 4-6' 10/8/2003	MW-12 2-4' 10/9/2003	EQUP. BL 10/8/2003	EQUP. BL 10/9/2003	FIELD BL 10/8/2003	FIELD BL 10/9/2003
TOC (mg/kg)	--	--	--	NA	NA	NA	NA	14,000	14,000	NA	410,000	NA	5,500	19,000	NA	NA	NA	NA	NA	NA
DRO (mg/kg)	--	--	100/250	23	3500[C]	180[C]	60	NA	<4.1	290[C]	15	6.8	NA	110[C]	24	4200[C]	<100	<100	NA	NA
PVOCs (µg/kg)																				
Benzene	(11,600)	(52,000)	(22)	NA	<310	<50	25	NA	<25	<25	<25	<25	NA	<25	<25	<310	<0.41	<0.41	<14	<14
Ethylbenzene	(1,560,000)	(102,000,000)	(35,000)	NA	<310	<50	**85**	NA	<25	<25	<25	<25	NA	<25	<25	<310	<0.54	<0.54	<15	<15
Methyl-tert-butyl-ether	--	--	--	NA	<310	**110**	<25	NA	<25	<25	<25	<25	NA	<25	<25	<310	<0.61	<0.61	<15	<15
Toluene	--	--	1,500	NA	<310	<50	**190**	NA	<25	<25	<25	<25	NA	<25	<25	<310	<0.67	<0.67	<8.5	<8.5
1,2,4-Trimethylbenzene	(782,000)	(51,100,000)	(240,000)	NA	**51,000**	**6,500**	**240**	NA	<25	<25	<25	**41**	NA	<25	<25	**18,000**	<0.97	<0.97	<12	<12
1,3,5-Trimethylbenzene	(782,000)	(51,100,000)	(110,000)	NA	**33,000**	**3,800**	**130**	NA	<25	<25	<25	<25	NA	<25	<25	**24,000**	<0.83	<0.83	<12	<12
Xylenes, o	(3,130,000)	(204,000,000)	(260,000)	NA	**5,100**	**470**	**200**	NA	<25	<25	<25	**34**	NA	<25	<25	<310	<0.83	<0.83	<15	<15
Xylenes, m +p	(3,130,000)	(204,000,000)	(260,000)	NA	**20,000**	**2,700**	**300**	NA	<50	<50	<50	<50	NA	<50	<50	**25,000**	<1.8	<1.8	<22	<22
PAHs (µg/L)																				
Acenaphthene	900,000	60,000,000	38,000	<14	**150**	**67**	**26**	NA	<13	NA	<24	<24	NA	<16	<120	**57**	<0.018	<0.018	NA	NA
Acenaphthylene	18,000	360,000	700	<22	<91	<43	**85**	NA	<22	NA	**87**	**39**	NA	<26	<200	**56**	<0.019	<0.019	NA	NA
Anthracene	5,000,000	300,000,000	3,000,000	<14	<55	**27**	**140**	NA	<13	NA	**100**	**72**	NA	<16	<120	**46**	<0.020	<0.020	NA	NA
Benzo(a)anthracene	88	3,900	17,000	<7.5	<30	<14	**390 [A]**	NA	<7.2	NA	**300 [A]**	**190 [A]**	NA	**26**	<67	**14**	<0.012	<0.012	NA	NA
Benzo(a)pyrene	8.8	390	48,000	<7.5	<30	<14	**330 [A]**	NA	<7.2	NA	**290 [A]**	**170 [A]**	NA	**27 [A]**	<67	**9.1 [A]**	<0.014	<0.014	NA	NA
Benzo(b)fluoranthene	88	3,900	360,000	**9.1**	<33	<16	**290 [A]**	NA	**8.2**	NA	**380 [A]**	**210 [A]**	NA	**43**	<72	**12**	<0.013	<0.013	NA	NA
Benzo(ghi)perylene	1,800	39,000	6,800,000	<15	<60	<29	**110**	NA	<14	NA	**120**	**120**	NA	**20**	<130	<14	<0.016	<0.016	NA	NA
Benzo(k)fluoranthene	880	39,000	870,000	<11	<45	<22	**340**	NA	<11	NA	**290**	**170**	NA	**26**	<100	<10	<0.019	<0.019	NA	NA
Chrysene	8,800	390,000	37,000	<8.6	<35	<17	**370**	NA	<8.3	NA	**350**	**210**	NA	**31**	<77	**19**	<0.014	<0.014	NA	NA
Dibenzo(a,h,)anthracene	8.8	390	38,000	<9.2	<37	<18	**40 [A]**	NA	<8.9	NA	**57 [A]**	**51 [A]**	NA	<11	<82	<8.4	<0.016	<0.016	NA	NA
Fluroanthene	600,000	40,000,000	500,000	<10	<40	<19	**570**	NA	<9.6	NA	**610**	**350**	NA	**34**	<89	**23**	<0.013	<0.013	NA	NA
Fluorene	600,000	40,000,000	100,000	<7.5	**200**	**120**	**28**	NA	<7.2	NA	**27**	**<13**	NA	**9.7**	**140**	**150**	<0.017	<0.017	NA	NA
Indeno(1,2,3-cd)pyrene	88	3,900	680,000	<14	<55	<27	**98 [A]**	NA	<13	NA	**99 [A]**	**97 [A]**	NA	**19**	<120	<13	<0.021	<0.021	NA	NA
1-Methylnaphthalene	1,100,000	70,000,000	23,000	**45**	**2,500**	**1,800**	**1,000**	NA	**25**	NA	**650**	**480**	NA	**500**	**4,600**	**400**	<0.018	<0.018	NA	NA
2-Methylnaphthalene	600,000	40,000,000	20,000	**46**	**760**	**1,800**	**1,400**	NA	**17**	NA	**720**	**380**	NA	**760**	**6,800**	**72**	<0.017	<0.017	NA	NA
Naphthalene	20,000	110,000	(11,000)	**15**	**250**	**320**	**650**	NA	**10**	NA	**340**	**230**	NA	**520**	**1,700**	**540**	**0.057**	**0.07**	NA	NA
Phenanthrene	18,000	390,000	1,800	**17**	**360**	**200**	**1,300**	NA	<9.6	NA	**1,100**	**1,000**	NA	**61**	**210**	**300**	<0.016	<0.016	NA	NA
Pyrene	500,000	30,000,000	8,700,000	<16	<65	<31	**580**	NA	<16	NA	**540**	**280**	NA	**33**	<140	**48**	<0.017	<0.017	NA	NA

Notes:
- TOC - Total Organic Carbon
- DRO = Diesel Range Organics
- PVOCs = Petroleum Volatile Organic Compounds
- PAHs = Polynuclear Aromatic Hydrocarbons
- [A] Parameter exceeds NR 720 Generic RCL for Non-Industrial Direct Contact.
- [B] Parameter exceeds NR 720 Generic RCL for Industrial Direct Contact.
- [C] Parameter exceeds NR 720 Generic RCL for Groundwater Pathway.
- (22) - RCL Values in parentheses are calculated in accordance with WDNR guidance document PUB-RA-682 dated January 11, 2002.
- -- No RCL established.
- NA = Not analyzed

TABLE 1
LABORATORY RESULTS OF SOIL SAMPLES
CLOSURE ASSESSMENT
WISCONSIN CENTRAL LTD. BURLINGTON RAIL YARD
BURLINGTON, WISCONSIN
PROJECT NO. 5-87391XB

Parameters	Generic RCLs: Direct Contact Pathway: Non-Industrial	Generic RCLs: Direct Contact Pathway: Industrial	Generic RCLs: Groundwater Pathway	B-19 0-2' 10/8/2003	B-19 5-6' 10/8/2003	B-20 2-4' 10/8/2003	B-20 6-8' 10/8/2003	B-20D 2-4' 10/8/2003	B-21 2-4' 10/8/2003	B-21 6-8' 10/8/2003	B-22 0-2' 10/8/2003	B-22 4-6' 10/8/2003	B-23 2-4' 10/8/2003	B-23 6-8' 10/8/2003	B-24 2-4' 10/8/2003	B-24 6-8' 10/8/2003	B-25 0-2' 10/8/2003	B-25 6-8' 10/8/2003	B-26 2-4' 10/8/2003	B-26 6-8' 10/8/2003
TOC (mg/kg)	--	--	--	260,000	NA	NA	NA	NA	NA	NA	NA	NA	130,000	NA	5,900	NA	NA	NA	NA	NA
DRO (mg/kg)	--	--	100/250	41	<3.7	8800[C]	170[C]	10000[C]	8000[C]	2900[C]	49	5.3	5600[C]	2800[C]	7300[C]	18000[C]	120[C]	100	23	420[C]
PVOCs (µg/kg)																				
Benzene	(11,600)	(52,000)	(22)	45 [C]	<25	<2,000	<25	NA	<1,000	<120	<25	<25	<250	<310	<1,000	<500	<25	<25	<200	<62
Ethylbenzene	(1,560,000)	(102,000,000)	(35,000)	100	<25	45,000 [C]	1,100	NA	17,000	2,600	30	<25	6,500	12,000	28,000	14,000	62	<25	6,500	1,900
Methyl-tert-butyl-ether	--	--	--	58	<25	<2,000	48	NA	1,300	180	40	<25	580	350	1,900	770	<25	<25	260	320
Toluene	--	--	1,500	160	<25	<2,000	<25	NA	<1,000	<120	37	<25	<250	<310	<1,000	<500	60	<25	<200	<62
1,2,4-Trimethylbenzene	(782,000)	(51,100,000)	(240,000)	280	<25	160,000	3,400	NA	62,000	9,900	110	<25	25,000	32,000	88,000	46,000	130	<25	18,000	6,400
1,3,5-Trimethylbenzene	(782,000)	(51,100,000)	(110,000)	140	<25	78,000	1,500	NA	28,000	3,600	55	<25	12,000	18,000	40,000	17,000	55	60	14,000	4,400
Xylenes, o	(3,130,000)	(204,000,000)	(260,000)	160	<25	17,000	300	NA	5,500	920	52	<25	2,400	<310	9,500	<500	61	<25	<200	<62
Xylenes, m +p	(3,130,000)	(204,000,000)	(260,000)	330	<50	160,000	4,400	NA	30,000	5,800	120	<50	21,000	27,000	55,000	27,000	130	130	16,000	4,700
PAHs (µg/L)																				
Acenaphthene	900,000	60,000,000	38,000	<13	NA	<640	19	<690	<1,000	270	<12	<12	310	120	<620	1,500	15	<14	<54	59
Acenaphthylene	18,000	360,000	700	44	NA	<1,100	35	<1,100	<1,700	<210	80	<20	<440	<150	<1,000	<1,900	39	<22	96	130
Anthracene	5,000,000	300,000,000	3,000,000	42	NA	<640	23	<690	<1,000	<130	72	<12	<270	<94	<620	<1,200	49	<14	97	100
Benzo(a)anthracene	88	3,900	17,000	77	NA	<350	20	<370	<560	<70	110 [A]	<6.8	<150	<51	<340	<640	76	<7.5	<30	110 [A]
Benzo(a)pyrene	8.8	390	48,000	82 [A]	NA	<350	24 [A]	<410	<560	<70	120 [A]	<6.8	<150	<51	<340	<640	75 [A]	<7.5	<30	120 [A]
Benzo(b)fluoranthene	88	3,900	360,000	110 [A]	NA	<380	40	<750	<600	<76	160 [A]	<7.3	<160	<56	<370	<700	87	<8.1	<32	150 [A]
Benzo(ghi)perylene	1,800	39,000	6,800,000	46	NA	<700	31	<560	<1,100	<140	53	<14	<290	<100	<680	<1,300	34	<15	<59	120
Benzo(k)fluoranthene	880	39,000	870,000	92	NA	<530	22	<560	<830	<100	180	<10	<220	<77	<510	<970	65	<11	<45	120
Chrysene	8,800	390,000	37,000	99	NA	<40	23	<430	<640	<80	140	<7.8	<170	<59	<390	<740	100	<8.6	<34	150
Dibenzo(a,h,)anthracene	8.8	390	38,000	21 [A]	NA	<430	<8.9	<460	<680	<86	29 [A]	<8.4	<180	<63	<420	<790	13 [A]	<9.2	<37	42 [A]
Fluoranthene	600,000	40,000,000	500,000	130	NA	<470	32	<500	<740	<93	180	<9.0	<200	<68	<450	<860	100	<10	<40	160
Fluorene	600,000	40,000,000	100,000	<6.9	NA	1,300	43	1,400	1,200	460	12	<6.8	650	270	1,200	2,500	27	14	350	100
Indeno(1,2,3-cd)pyrene	88	3,900	680,000	42	NA	<640	20	<690	<1,000	<130	51	<12	<270	94	<620	<1,200	28	<14	<54	87
1-Methylnaphthalene	1,100,000	70,000,000	23,000	190	NA	24,000 [C]	620	25,000 [C]	26,000 [C]	8,200	180	<7.9	9,700	3,900	22,000	50,000 [C]	530	130	2,500	1,700
2-Methylnaphthalene	600,000	40,000,000	20,000	270	NA	28,000 [C]	770	28,000 [C]	42,000 [C]	11,000	240	<8.5	13,000	5,400	33,000 [C]	73,000 [C]	730	190	2,200	2,200
Naphthalene	20,000	110,000	(11,000)	120	NA	15,000 [C]	580	14,000 [C]	9,700	1,800	100	<8.5	3,500	1,600	10,000	11,000	290	20	350	430
Phenanthrene	18,000	390,000	1,800	180	NA	1,700	73	2,000 [C]	2,100 [C]	800	250	<9.0	1,100	460	1,700	4,400 [C]	250	26	530	310
Pyrene	500,000	30,000,000	8,700,000	130	NA	<760	36	<810	<1,200	<150	180	<15	<320	<110	<730	<1,400	120	<16	71	180

Notes:

TOC - Total Organic Carbon

DRO = Diesel Range Organics

PVOCs = Petroleum Volatile Organic Compounds

PAHs = Polynuclear Aromatic Hydrocarbons

[A] Parameter exceeds NR 720 Generic RCL for Non-Industrial Direct Contact.

[B] Parameter exceeds NR 720 Generic RCL for Industrial Direct Contact.

[C] Parameter exceeds NR 720 Generic RCL for Groundwater Pathway.

(22) - RCL Values in parentheses are calculated in accordance with WDNR guidance document PUB-RA-682 dated January 11, 2002.

-- No RCL established.

NA = Not analyzed

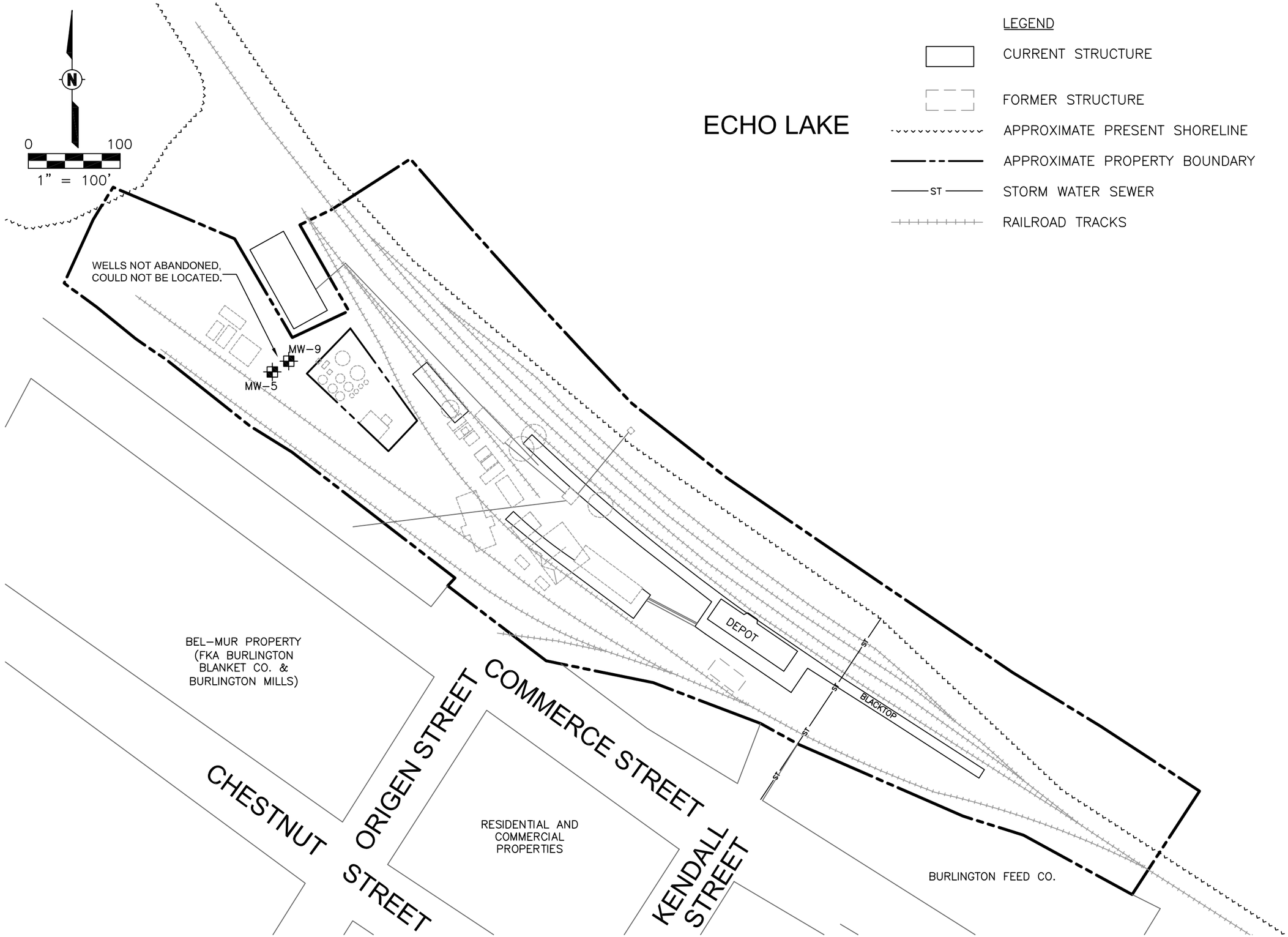
TABLE 3
SOIL ANALYTICAL RESULTS
Site Investigation
Wisconsin Central, Ltd.
Burlington Yard - Former Deep Rock/Consumers Bulk Plant
258 Commerce Street
Burlington, Wisconsin
STS Project No. 200704634

	Sample Locations							Standards				
Sample Location	MW-102		MW-103		MW-104		MeOH	Groundwater	Non-Industrial	Industrial	NR 746	NR 746
Sample Depth (feet)	2-4	4-6	0-2	4-6	2-4	4-6	Blank	Pathway	Direct Contact	Direct Contact	Criteria	Criteria
Soil Type	Fill	Fill	Fill	Native	Fill	Fill						
Date	12/9/04	12/9/04	12/8/04	12/8/04	12/9/04	12/9/04	12/8/04	RCL	RCL	RCL	Table 1	Table 2
PID Readings	49.3	68.2	0.0	223.8	3.1	9.3						
GRO (mg/kg)	**130[A]**	**172[A]**	<6.2	**432[A]**	11.3	36.0	NA	100	--	--	--	--
DRO (mg/kg)	**713[A]**	**4,790[A]**	**222[A]**	**217[A]**	21.3	**473[A]**	NA	100	--	--	--	--
								--	--	--	--	--
Metals (mg/kg)								--	--	--	--	--
Lead	13.5	6.3	25.2	8.3	92.9	22.7	NA	--	50	500	--	--
Detected VOCs (ug/kg)												
sec-Butylbenzene	<602	<303	<312	1,090	<312	<310	<250	NS	NS	NS	--	--
p-Isopropyltoluene	<602	<303	<312	967	<312	<310	<250	NS	NS	NS	--	--
n-Propylbenzene	<602	<303	<312	428	<312	<310	<250	NS	(3,130,000)	(40,900,000)	--	--
1,2,4-Trimethylbenzene	<602	<303	382	3,320	<312	<310	<250	(7,364)	(46,000)	(320,000)	83,000	--
1,3,5-Trimethylbenzene	<602	<303	<312	494	<312	<310	<250	(7,364)	(26,000)	(190,000)	11,000	--
Total Xylenes	<1,810	<908	<937	<907	<936	<929	<750	10,500*	(31,300,000)	NS	42,000	--

Notes:

RCL: Residual Contaminant Level
PID: Photoionization Detector
GRO: Gasoline Range Organic
DRO: Diesel Range Organic
VOC: Volatile Organic Compound
mg/kg: Milligrams per kilogram
ug/kg: Micrograms per kilogram

--: Not Sampled and/or No Standard Available
(2,600): RCL values in parantheses are calculate based on generic equations per WDNR guidance
*: Site-specific RCLs calculated using generic equations and default values per WDNR guidance.
[A]: Exceeds Generic RCL for Groundwater Pathway
[B]: Exceeds Generic RCL for Industrial Direct Contact
[C]: Exceeds NR746 Table 1 Value - Indicator of Residual Product in Soil Pores
[D]: Exceeds NR746 Table 2 Value - Protection of Human Health from Direct Contact with Contaminated Soil (Top 4 Feet of Soil)



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Weston, WI 54476
715-355-4304
www.sts.aecom.com
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MONITORING WELLS NOT PROPERLY ABANDONED
WISCONSIN CENTRAL LTD. CLOSURE ASSESSMENT
BURLINGTON YARD
258 COMMERCE STREET
BURLINGTON, WISCONSIN

Drawn :	ALB	12/09/02008
Checked:	RSR	12/09/2008
Approved:	RSR	12/09/2008
PROJECT NUMBER	200704634	
FIGURE NUMBER	7	

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State of Wisconsin
Department of Natural Resources

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

MONITORING WELL CONSTRUCTI
Form 4400-113A Rev. 4

Facility/Project Name: WI CENTRAL - FORMER HANSEN OIL

Facility License, Permit or Monitoring Number: _____

Type of Well: Water Table Observation Well ■ 11 / Piezometer ☐ 12

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

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

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

Grid Origin Location: Lat. _____ Long. _____ or St. Plane _____ ft. N, _____ ft. E.

Section Location of Waste/Source: 1/4 of SW 1/4 of Sec 29, T. 3 N, R. 19 ■ E ☐ W

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

Well Name: MW-5

Wis. Unique Well Number: _____ DNR Well Numb: _____

Date Well Installed: 10/21/94 (m m / d d / y y)

Well Installed By: (Person's Name and Firm)
VIRENDRA S. VERMA
Key Env. Services

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or 0.0 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

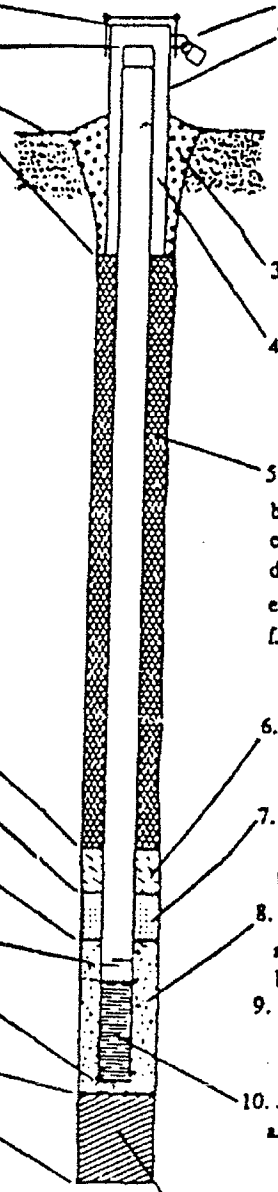
14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ __
_____

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

16. Drilling additives used? ☐ Yes ☐ No
Describe N/A

17. Source of water (attach analysis):
_____

E. Bentonite seal, top _____ ft. MSL or 1.0 ft.
F. Fine sand, top _____ ft. MSL or 3.0 ft.
G. Filter pack, top _____ ft. MSL or 4.0 ft.
H. Screen joint, top _____ ft. MSL or 5.0 ft.
I. Well bottom _____ ft. MSL or 15.0 ft.
J. Filter pack, bottom _____ ft. MSL or 15.0 ft.
K. Borehole, bottom _____ ft. MSL or _____ ft.
L. Borehole, diameter 7 7/8 in.
M. O.D. well casing 2.3 in.
N. I.D. well casing 2.0 in.



1. Cap and lock? ■ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 10.0
b. Length: 1.0
c. Material: Steel ■ 0 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 3 / Concrete ■ 0 / Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ☐ 3 / 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. _____ Ft³ 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. BENTONITE CHIPS Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. RED FLINT SAND # 45-55
b. Volume added _____ ft³
8. Filter pack material: Manufacturer, product name and mesh si
a. RED FLINT SAND # 30
b. Volume added _____ ft³
9. Well casing: Flush threaded PVC schedule 40 ■ 2 / Flush threaded PVC schedule 80 ☐ 2 / Other ☐ _____
10. Screen material: PVC
a. Screen type: Factory cut ■ 1 / Continuous slot ☐ 0 / Other ☐ _____
b. Manufacturer DEDRICH
c. Slot size: 0.01 i
d. Slotted length: 10.0
11. Backfill material (below filter pack): None ■ 1 / Other ☐ _____

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

Signature: Viren Verma Firm: Key Environmental Services

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. Stats 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 than $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 each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

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: Hanson Oil Lease Site	Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name: MW-9
Facility License, Permit or Monitoring Number:	Grid Origin Location: Lat. ° ' " Long. ° ' " or St. Plane _____ ft. N, _____ ft. E.	Wis. Unique Well Number / DNR Well Number:
Type of Well: Water Table Observation Well ☒ 11; Piezometer ☐ 12	Section Location of Waste/Source: S 1/2 of SW 1/4 of Sec. 29 T. 3 N. R. 19 ☒ E. ☐ W.	Date Well Installed: 07/14/95
Distance Well Is From Waste/Source Boundary: _____ ft.	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient; d ☐ Downgradient n ☐ Not Known	Well Installed By: (Person's Name and Firm): Raimonde / Briohn Environmental
Is Well A Point of Enforcement Std. Application? ☐ Yes ☐ No		

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

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

12. USC 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):
N/A

E. Bentonite seal, top _____ ft. MSL or 0.6 ft.

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

G. Filter pack, top _____ ft. MSL or 3.0 ft.

H. Screen joint, top _____ ft. MSL or 4.0 ft.

I. Well bottom _____ ft. MSL or 14.0 ft.

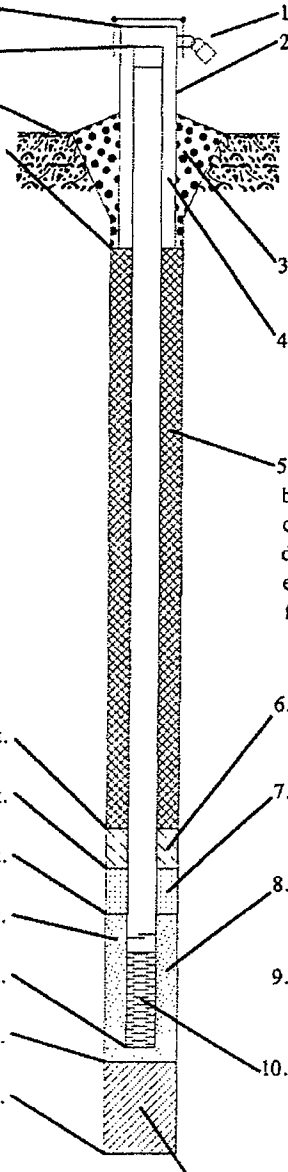
J. Filter pack, bottom _____ ft. MSL or 14.0 ft.

K. Borehole, bottom _____ ft. MSL or 14.0 ft.

L. Borehole, diameter 8.25 in.

M. O.D. well casing 4.30 in.

N. I.D. well casing 4.00 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 9.0 in.
b. Length: 1.0 ft.
c. Material: 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 ☐ 33
b. _____ Lbs/gal mud weight . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ☐ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
c. 1 bag Other ☐

7. Fine sand material: Manufacturer, product name and mesh size
a. #45-55 Red Flint
b. Volume added 1 bag ft^3

8. Filter pack material: Manufacturer, product name and mesh size
a. #30 Red Flint
b. Volume added 6 bags ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23; Flush threaded PVC schedule 80 ☐ 24; _____ Other ☐

10. Screen material: PVC
a. Screen Type: Factory cut ☒ 11; Continuous slot ☐ 01; _____ Other ☐
b. Manufacturer Timko
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.

11. Backfill material (below filter pack): None ☒ 14; _____ Other ☐

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

Signature _____ Firm KEY ENVIRONMENTAL SERVICES, INC. Tel: (414) 375-4750
W66 N215 Commerce Court Cedarburg, WI 53012 Fax: (414) 375-9680

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. Stats., 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 than $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 each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.