GIS REGISTRY
Cover Sheet

NOV 12 2009

July, 2008
(RR 5367)

Source Property Information

CLOSURE DATE: May 13, 2009

BRRTS #: 02-41-544790

FID #: 241890330

ACTIVITY NAME: Columbia St. Mary's - Water Tower Medical Commons

DATCP #:

PROPERTY ADDRESS: 2350 North Lake Drive

COMM #:

MUNICIPALITY: Milwaukee

PARCEL ID #: 318-0081-100-X

***WTM COORDINATES:**

X: 692700 Y: 589774

** 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")*
- [x] 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)*
- [x] 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*

Electronic version attached due to size of figures

State of Wisconsin Department of Natural Resources http://dnr.wi.gov	**GIS Registry Checklist** Form 4400-245 (R 4/08) Page 1 of 3

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 #: 02-41-544790 PARCEL ID #: 318-0081-100-X

ACTIVITY NAME: Columbia St. Mary's - Water Tower Medical Commons WTM COORDINATES: X: 692700 Y: 289774

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

- [x] **Closure Letter**
- [x] **Maintenance Plan** *(if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.)*
- [x] **Conditional Closure Letter**
- [x] **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.*
- [x] **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: ALTA Land Title Survey - Parcel 2**
- [x] **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.

- [x] **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**
- [x] **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**
- [x] **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 #: 3A&B **Title: Post Construction Soil Classification Map (PAH and Lead Impacts Only)**

BRRTS #: 02-41-544790 ACTIVITY NAME: Columbia St. Mary's - Water Tower Medical Commons

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 #: 4A,B,C **Title: Geologic Cross Section A-A', B-B', C-C'**

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 #: N/A **Title: N/A**

☐ **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 #: N/A **Title: N/A**

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 **Title: Soil Quality Results - Detects Only**

☐ **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 #: N/A **Title: N/A**

☐ **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 #: N/A **Title: N/A**

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 #: **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 #: 02-41-544790 ACTIVITY NAME: Columbia St. Mary's - Water Tower Medical Commons

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:

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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

Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, Wisconsin 53212-3128
FAX 414-263-8606
Telephone 414-263-8500
TTY Access via relay - 711

May 13, 2009

Columbia St. Mary's, Inc. and Columbia, LLC
Attn: Mr. Mark Schmidt
2323 North Lake Drive
Milwaukee, WI 53211

Subject: Final Case Closure with Land Use Limitations or Conditions for Columbia St. Mary's – Water Tower Medical Commons, 2350 North Lake Drive, Milwaukee, WI

FID: 241890330
BRRTS: 06-41-548688 and 02-41-544790

Dear Mr. Burger:

On November 13, 2008, the Wisconsin Department of Natural Resources ("the Department") VPLE Committee reviewed the above referenced case for closure. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On December 4, 2008, you were notified that the Department had granted conditional closure to this case.

On May 4, 2009, the Department received correspondence indicating that you have complied with the requirements of closure. The Department received the well abandonment forms, revised soil GIS Registry packet, updated Cap Maintenance Plan, and a map indicating the VPLE area.

Based on the correspondence and data provided, it appears that your case meets the requirements of ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time.

GIS Registry

The conditions of case closure set out below in this letter require that your site 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
- Pavement, an engineered cover, or a soil barrier must be maintained over contaminated soil and the state must approve any changes to this barrier

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 your 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 current property owner and any subsequent property owners must adhere. 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. It is the Department's intent to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

Remaining Residual Soil Contamination

Residual soil contamination remains at the areas indicated on the attached post-construction maps Figures 3A and 3B, as indicated in the information submitted to the Department of Natural Resources. If soil in the specific locations described above is excavated in the future, then pursuant to ch. NR 718 or, if applicable, ch. 289, Stats., and chs. 500 to 536, 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 would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards 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 to prevent a direct contact health threat to humans.

Cover or Barrier

Pursuant to s. 292.12(2)(a), Wis. Stats., the building, pavement, and landscaped areas that currently exists in the location shown on the attached map Figure 1, shall be maintained in compliance with **the attached maintenance plan** in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. 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 would be 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.

The attached maintenance plan and inspection log are to be kept up-to-date and on-site, and the inspection log need only be submitted to the Department upon request.

Prohibited Activities

The following activities are prohibited on any portion of the property where the building, pavement, and landscaped areas is required as shown on the attached map Figure 1, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; or 6) construction or placement of a building or other structure.

The Department appreciates the actions you have taken to investigate and remediate the contamination at this site. If you have any questions or comments, please feel free to contact John J. Hnat at the above address or at (414) 263-8644. Please refer to the FID number at the top of this letter in any future correspondence. Future correspondence should be sent directly to the Remediation and Redevelopment Program Assistant Vicky Stovall (414-263-8688) at the above address.

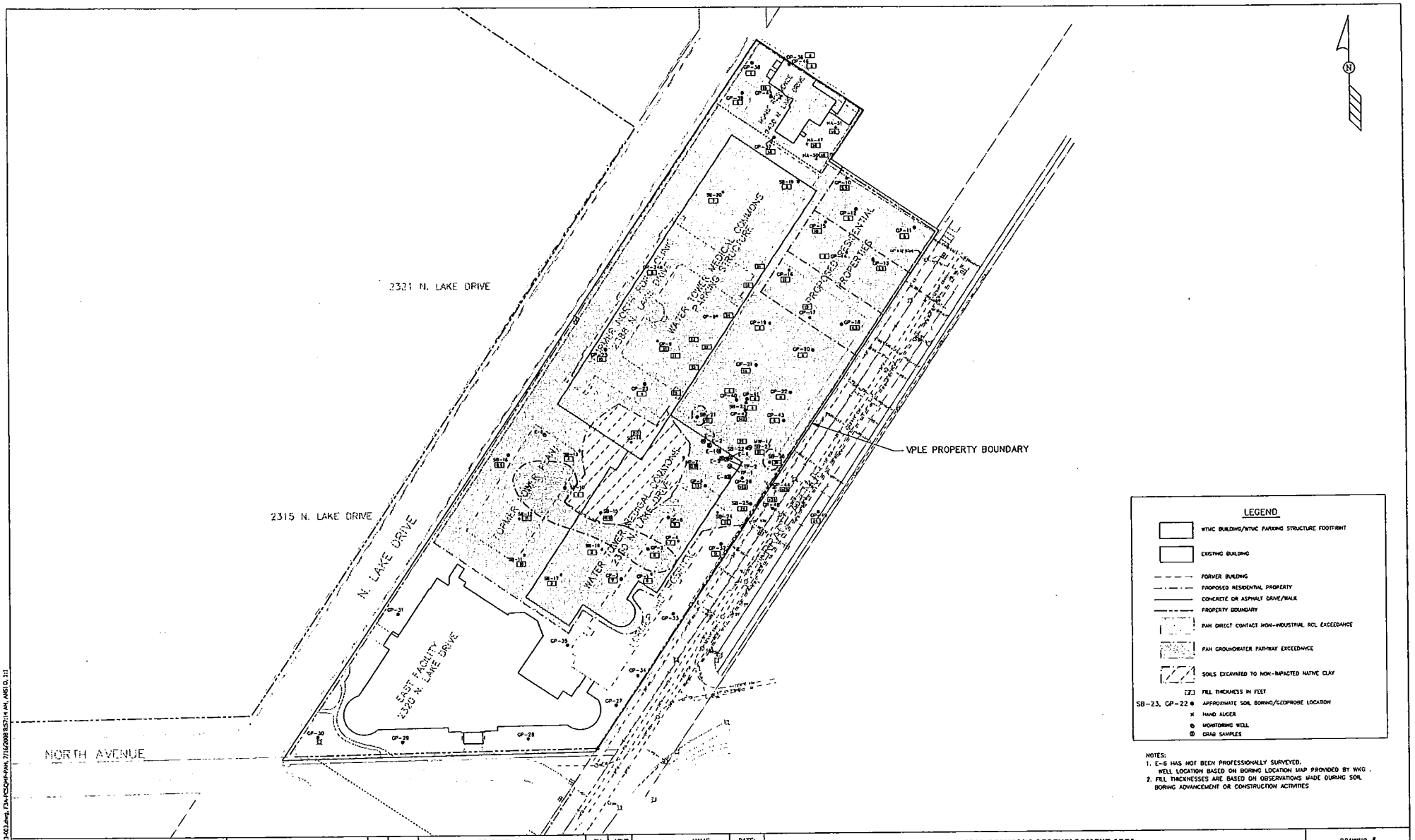
Sincerely,

James A. Schmidt

James A. Schmidt
Southeast Region
Remediation and Redevelopment Team Supervisor

Enclosures: Post-Construction Soil Classification Map (PAH Impacts) Figure 3A
Post-Construction Soil Classification Map (Lead Impacts) Figure 3B
Engineered Barriers Map Figure 1

C: Mary Trotta and Kristin Kurzka, Sigma Environmental
WDNR SER Files



NOTES:
1. E-6 HAS NOT BEEN PROFESSIONALLY SURVEYED. WELL LOCATION BASED ON BORING LOCATION MAP PROVIDED BY WKG.
2. FILL THICKNESSES ARE BASED ON OBSERVATIONS MADE DURING SOIL BORING ADVANCEMENT OR CONSTRUCTION ACTIVITIES

THE SIGMA GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

SCALE: 1" = 50'-0"
0' 25' 50' 75' 100'

NO	DATE	REVISIONS	BY	APVD

	NAME:	DATE:
DRAWN BY:	RWL	05/28/08
DESIGNED BY:		
CHECKED BY:		
APPROVED BY:		

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
POST-CONSTRUCTION SOIL CLASSIFICATION MAP (PAH IMPACTS ONLY)

DRAWING # 10233-003

Figure 3A

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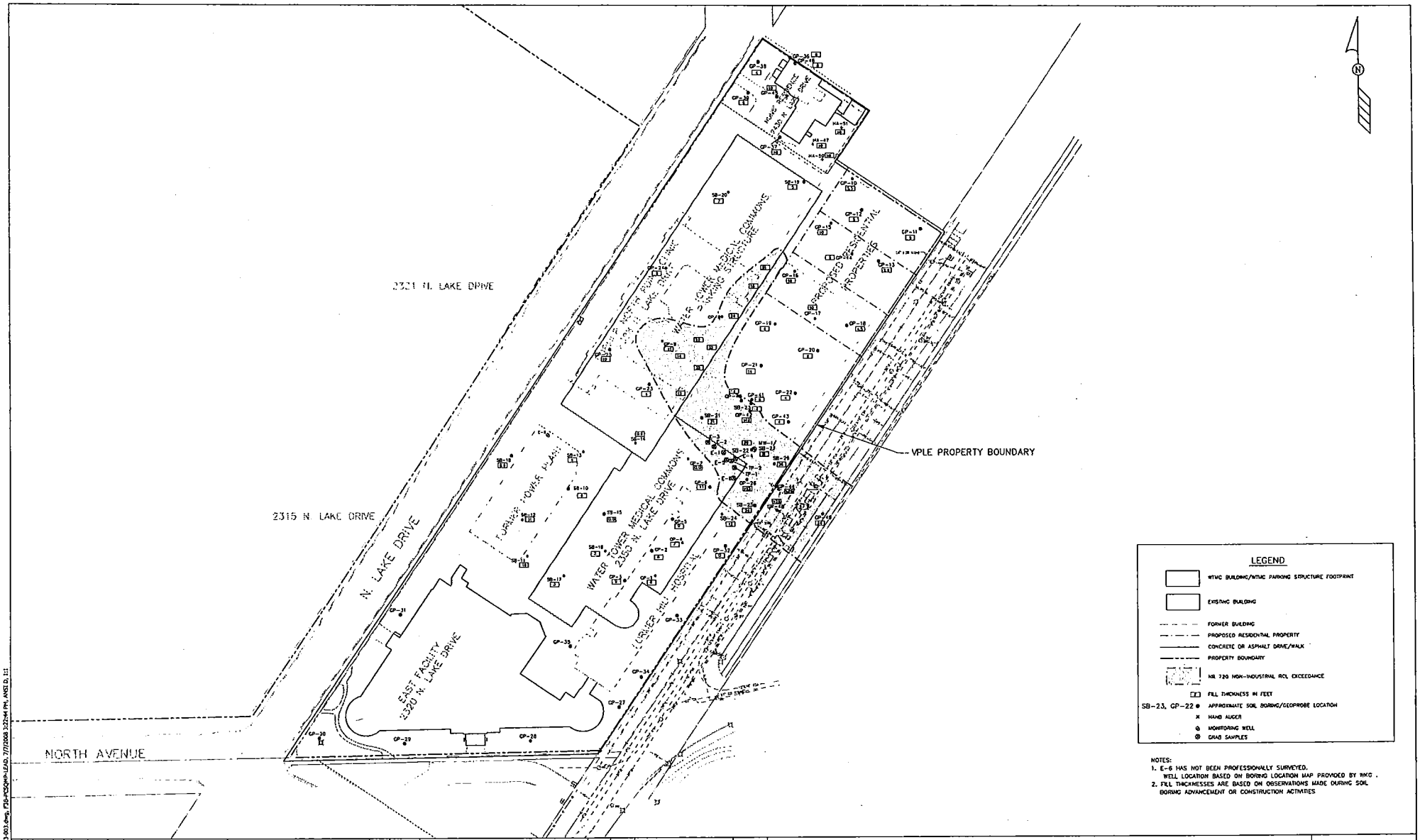

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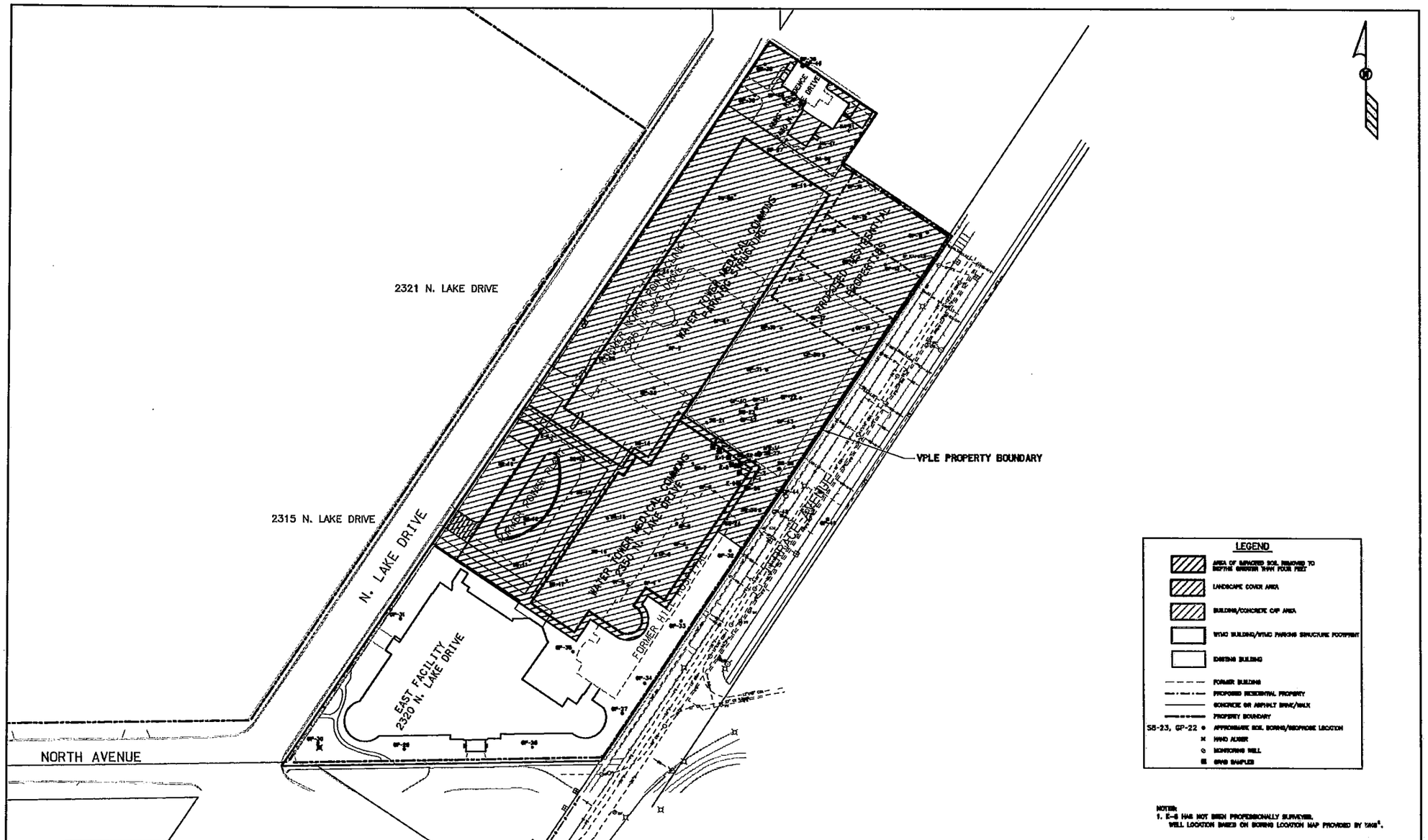
DRAWN BY:	RML	05/28/08
DESIGNED BY:		
CHECKED BY:		
APPROVED BY:		

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
POST-CONSTRUCTION SOIL CLASSIFICATION MAP (LEAD IMPACTS ONLY)

DRAWING # 10233-003

Figure 3B

K:\Graphics\5647\10233-003.dwg, FIG-POSCONP-LEAD, 7/7/2008 3:22:44 PM, ANSI D, 1:1



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SCALE: 1" = 80'- 0"

NO	DATE	REVISIONS	BY	APVD

	NAME	DATE
DRAWN BY	BJV	12/23/08
DESIGNED BY		
CHECKED BY		
APPROVED BY		

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
ENGINEERED BARRIERS MAP

DRAWING # 10833-008

Figure 1

DIRECT CONTACT CAP MAINTENANCE PLAN
COLUMBIA ST. MARY'S
BUILDING, DRIVE, AND LANDSCAPE AREAS
2320 THROUGH 2430 NORTH LAKE DRIVE
MILWAUKEE, WI

The Cap Maintenance Plan is designed to prevent direct contact with residual soil impacts resulting from impacted fill material present at depths less than four feet below ground surface (bgs). The impacted soils are currently covered with a building, concrete pavement, or landscaping. The normal operation of the engineered barrier will serve as a direct contact barrier between site soils and typical, non-invasive users of the property. The engineered barrier will function as intended unless disturbed.

Disturbance Management

Columbia St. Mary's (owner of the site) shall take the following steps to assure that uncontrolled disturbances of the engineered barrier do not occur:

- The Wisconsin Department of Natural Resources' (WDNR's) case closure documents and Geographic Information System (GIS) Registry will establish any future land use, development, and management restrictions for the site. The Cap Maintenance Plan, will be incorporated into the case closure documents and/or GIS Registry, which will together identify the environmental impacts, the nature of the engineered barriers, and the requirements regarding the management of impacted soils.

- A copy of the Cap Maintenance Plan will be available from the property owner to all interested parties.

- A copy of the Cap Maintenance Plan will be provided to all utilities companies seeking easements for the purpose of installing facilities within the residual fill material beneath the property.

- A copy of the Cap Maintenance Plan will be provided to all contractors and repair workers, including utility and landscaping services, during construction and repair activities conducted within the residual fill material beneath the property.

- A copy of the Cap Maintenance Plan will be provided to any subsequent owner of this property.

Inspections of Engineered Barrier

Inspections will be required to assure that the engineered barrier is functioning as planned:

- Annual visual inspections shall be completed for the engineered barrier system for all accessible areas.

- As necessary, the engineered barriers will be repaired to maintain integrity of the direct contact barrier between impacted soil and the property occupants. Repairs may include, but are not limited to, the following:

    - In landscaped areas, replacing soil in any eroded areas and re-establishing appropriate vegetation;

    - Patching or replacing concrete or asphalt pavement where it has cracked or otherwise broken and would allow direct contact with underlying soil.

- An inspection log will be maintained to record any disturbances of the engineered barrier and the steps that have been taken to maintain the integrity of the engineered barrier. The inspection log will be made available for inspection by representatives of the WDNR upon reasonable prior request. The on-site inspection log will be maintained as long as inspection and maintenance of the engineered barrier are required.

Planned Breaches of Engineered Barriers

In the event an engineered barrier is breached, the following precautions shall be taken:

- To the extent possible, all material excavated from beneath an engineered barrier will be returned to the excavation prior to the restoration of the engineered barrier. The excavation zone and any soils excavated will be secured from public access until the engineered barrier is restored. While on-site, the excavated soil will be placed on an impervious surface (e.g., concrete or asphalt pavement or plastic) and covered with plastic. Soil that cannot be returned to the excavation will be sampled and disposed of in accordance with the WDNR approved Soil Management Plan[1] and with applicable solid and/or hazardous waste rules and regulations.

- The engineered barrier will be restored to meet original conditions. This work, including the proper disposal of excess soils, should be completed

[1] Subsurface Investigation Report and Remedial Action Plan, Columbia St. Mary's, - Sigma Environmental Services, Inc, April 2006

within 72 hours following the completion of any on-site work, or as soon as reasonably practical.

- Details of the engineered barrier breach, the handling of excavated soils, individuals responsible for the work, and the restoration of the engineered barrier shall be recorded in the engineered barrier maintenance log. An example inspection log page is included with this Cap Maintenance Plan.

Amendments

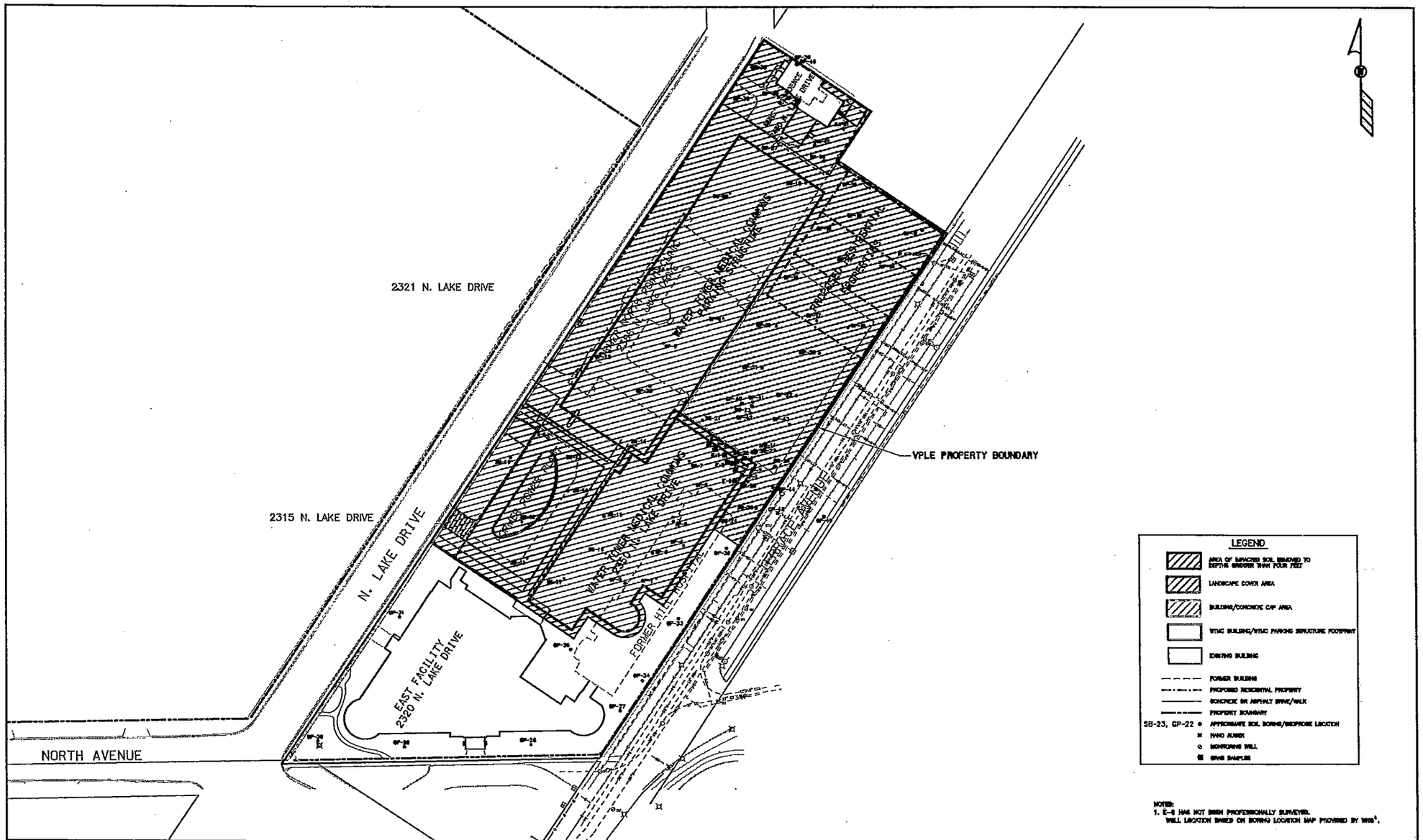
The Cap Maintenance Plan may be amended or withdrawn upon written approval from the WDNR or its successor agency.

Contact Information

- For responsible party and owner information contact:
  Columbia St. Mary's
  2320 N Lake Drive
  Milwaukee, WI 53211
  Telephone: (414) 283-5646
  Contact: Mr. Mark Schmidt

- For environmental consultant information contact:
  Sigma Environmental Services, Inc.
  1300 West Canal Street
  Milwaukee, WI 53233
  Telephone: (414) 643-4200
  Fax: (414) 643-4210
  Contact: Ms. Kristin Kurzka, P.E.

- For Wisconsin Department of Natural Resources information contact:
  Wisconsin Department of Natural Resources
  2300 N. Dr. Martin Luther King, Jr. Drive
  Milwaukee, WI 53212



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SCALE: 1" = 50'- 0"

NO	DATE	REVISIONS	BY	APVD

	NAME	DATE
DRAWN BY:	BJU	12/28/06
DESIGNED BY:		
CHECKED BY:		
APPROVED BY:		

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
ENGINEERED BARRIERS MAP

DRAWING #
10633-006

Figure 1

2320 -2430 North Lake Drive
Milwaukee, Wisconsin

Facility ID # 241890330

WDNR BRRTS/Activity #02-41-544790
#60-41-548688

Exhibit B
Barrier INSPECTION LOG

Inspection Date	Inspector	Condition of Cap	Recommendations	Have Recommendations from previous inspection been implemented?

Page____

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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

Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, Wisconsin 53212-3128
FAX 414-263-8606
Telephone 414-263-8500
TTY Access via relay - 711

December 4, 2008

Columbia St. Mary's, Inc. and Columbia, LLC
Attn: Thomas Burger - Smocke & Associates
2320 North Lake Drive
Milwaukee, WI 53211

Subject: Conditional Closure Decision with Requirements to Achieve Final Closure Columbia St. Mary's – Water Tower Medical Commons, 2350 North Lake Drive, Milwaukee, WI

FID: 241890330
BRRTS: 06-41-548688 and 02-41-544790

Dear Mr. Burger:

On November 13, 2008, the Wisconsin Department of Natural Resources ("the Department") VPLE Committee reviewed your request for closure of the case described above. The VPLE Committee and 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 naphthalene, polycyclic aromatic hydrocarbons (PAHs), and lead soil contamination from onsite miscellaneous fill material appears to have been investigated and remediated to the extent practicable under site conditions. Your 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:

- **Groundwater Monitoring Wells:** The groundwater monitoring wells and any other remediation systems at the site must be properly abandoned in compliance with ch. NR 141, Wisconsin Administrative Code. Documentation of well abandonment must be submitted to this office on Form 3300-5B found at www.dnr.state.wi.us/org/water/dgw/gw within 60-days on receipt of this letter as required in s. NR 726.05(8)(a)1 and s. NR 141.25 Wis. Admin. Code. The Department requires the abandonment of these wells before issuing a final closure letter.

- Complete and submit Form 4400-245 GIS Registry Checklist and submit all required maps for the Soil GIS Registry at a size no larger than 8.5 x 14-inches. The incomplete Soil GIS Packet was included in the October 2007 Case Summary and Close-Out Request documentation. Most of the required documentation for the GIS Packet has been submitted.

- Update the Cap Maintenance Plan and include a map designating where the area(s) are to be maintained are located and the format of the inspection log.

- Submit a map indicating the VPLE area no bigger than 8.5 x 14-inches.

When the above conditions have been satisfied, please submit the appropriate documentation (for

example, well abandonment forms, disposal receipts, copies of correspondence, etc.) to verify that applicable conditions have been met, and your case will be closed. Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. 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 http://maps.dnr.state.wi.us/brrts.

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.

We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at 414-263-8644.

Sincerely,

John J. Hnat, P.G., C.P.G.
Project Manager\Senior Hydrogeologist
Southeast Region
Remediation and Redevelopment

C: Mary Trotta and Kristin Kurzka, Sigma Environmental
WDNR SER Files

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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

Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, Wisconsin 53212-3128
FAX 414-263-8606
Telephone 414-263-8500
TTY Access via relay - 711

November 12, 2009

Columbia St. Mary's, Inc and Columbia, LLC
Attn: Mr. Mark Schmidt
2323 North Lake Drive
Milwaukee, WI 53211

Subject: Certificate of Completion for the Environmental Investigation and Cleanup of the Columbia St. Mary's - Water Tower Medical Commons, 2350 North Lake Drive, Milwaukee, WI

FID: 241890330
BRRTS: 06-41-548688 and 02-41-544790

Dear Mr. Schmidt:

The Wisconsin Department of Natural Resources ("the Department") has received your request for issuance of the Certificate of Completion for the environmental investigation and cleanup of the property located at 2350 North Lake Drive Milwaukee, Wisconsin, which will be referred to in this letter as "the Property". You have requested that the Department determine whether Water Tower Medical Commons, LLC and Columbia LLC has met the requirements under s. 292.15(2), Wis. Stats., for issuance of the Certificate of Completion.

The 2350 North Lake Drive Property is described as, "Parcel 2: Part of the Plot of the Southeast ¼ of the Southwest ¼ of Section 15, T.7N., R.22E., and Lots 32 through 37 inclusive, Lots 72 through 75 inclusive, part of Lot 71, in Block 3, T.7N., R.22E., in the City of Milwaukee, Milwaukee County, Wisconsin more particularly describes as follows:

Commencing at the southeast corner of said Southwest ¼; thence South 88°51'30" West, on and along the south line of said Southwest ¼, 181.11 feet to the point of beginning; thence continuing South 88º51'30", West on and along the south line of said Southwest ¼, 366.06 feet to the easterly right of way line of North Lake Drive; thence North 33°42'54" East, on and along said easterly right of way line, 1013.25 feet to the north line, of the south 8.56 feet of said Lot 71; thence South 56°11'29" East, on and along said north line, 150.08 feet to the east line of said lot 71; thence South 33°42'24" West, on and along said east line of said lots 71 and 72, 67.19 feet to the northwest corner of said Lot 32; thence South 56°11'41" East, on and along the north line of said Lot 32, 150.08 feet to the westerly right of way line of North Terrace Avenue; thence South 33°41'54" West, on and along said westerly right of way line, 377.23 feet to the southeast corner of said Lot 37; thence North 56°18'06" West, on and along the south line of said Lot 37, 28.58 feet to the east line of said Southwest ¼; thence 0°43'23" East, on and along said east line, 46.99 feet to the westerly right of way line of North Terrace Avenue; thence South 33°41'54" West, on and along said westerly right of way line, 320.38 feet to the point of beginning. Said Parcel containing 262.176 square feet (6.02 acres), more or less."

As you are aware, s. 292.15, Wis. Stats., authorizes the Department to issue a Certificate of Completion to a voluntary party that conducts an approved environmental investigation of a property and restores the environment to the extent practicable and minimizes the harmful effects with respect to hazardous substance discharges on or originating from the property. Based on the information received by the Department, the Department has determined that the investigation and cleanup of the Property is complete and that all the conditions in s. 292.15(2), Wis. Stats., have been met. Attached is the Certificate of Completion for the Property.

The Department appreciates the work undertaken by Columbia St. Mary's, Inc and Columbia, LLC to investigate and cleanup contamination associated with the Property. The exemption provided by the Certificate of Completion applies to any successor or assignee of Columbia St. Mary's, Inc and Columbia, LLC if the successor or assignee complies with the appropriate conditions, pursuant to s. 292.15(3), Wis. Adm. Code. If you have any questions or concerns regarding this letter or the Certificate of Completion, please call me at (414) 263-8644 or Attorney Kathleen Strasbaugh at 608-266-0911.

Sincerely,

John J. Hnat, P.G., C.P.G.
Project Manager\Hydrogeologist
Southeast Region
Remediation and Redevelopment

Enclosure: Certificate of Completion, 2350 North Lake Drive, Milwaukee, Wisconsin

C: Michael Prager, Land Recycling – RR/5, Madison, cover letter only
Mary Trotta and Kristin Kurzka, Sigma Environmental, cover letter only
WDNR SER Files

State of Wisconsin
Department of Natural Resources

CERTIFICATE OF COMPLETION OF RESPONSE ACTIONS UNDER SECTION 292.15(2)(ae), WIS. STATS.

Whereas, **Water Tower Medical Commons, LLC and Columbia St. Mary's** has applied for an exemption from liability under s. 292.15, Wis. Stats., for the Property located at 2350 North Lake Drive, Milwaukee, Wisconsin, which is commonly referred to as Columbia St. Mary's – Water Tower Commons hereinafter referred to as "the Property". The Property is described as, "Parcel 2: Part of the Plot of the Southeast ¼ of the Southwest ¼ of Section 15, T.7N., R.22E. and Lots 32 through 37 inclusive, Lots 72 through 75 inclusive, part of Lot 71, in Block 3, T.7N., R.22E., in the City of Milwaukee, Milwaukee County, Wisconsin more particularly describes as follows:

Commencing at the southeast corner of said Southwest ¼; thence South 88°51'30" West, on and along the south line of said Southwest ¼, 181.11 feet to the point of beginning; thence continuing South 88°51'30", West on and along the south line of said Southwest ¼, 366.06 feet to the easterly right of way line of North Lake Drive; thence North 33°42'54" East, on and along said easterly right of way line, 1013.25 feet to the north line, of the south 8.56 feet of said Lot 71; thence South 56°11'29" East, on and along said north line, 150.08 feet to the east line of said lot 71; thence South 33°42'24" West, on and along said east line of said lots 71 and 72, 67.19 feet to the northwest corner of said Lot 32; thence South 56°11'41" East, on and along the north line of said Lot 32, 150.08 feet to the westerly right of way line of North Terrace Avenue; thence South 33°41'54" West, on and along said westerly right of way line, 377.23 feet to the southeast corner of said Lot 37; thence North 56°18'06" West, on and along the south line of said Lot 37, 28.58 feet to the east line of said Southwest ¼; thence 0°43'23" East, on and along said east line, 46.99 feet to the westerly right of way line of North Terrace Avenue; thence South 33°41'54" West, on and along said westerly right of way line, 320.38 feet to the point of beginning. Said Parcel containing 262.176 square feet (6.02 acres), more or less."

Whereas, an environmental investigation of the Property has been conducted and has determined that contamination exists at the Property;

Whereas, **Water Tower Medical Commons, LLC and Columbia St. Mary's** has submitted to the Wisconsin Department of Natural Resources ("WDNR") investigation reports and a remedial action plan for the Property which comply with the requirements set forth in chs. NR 700-754, Wis. Adm. Code, consisting of the documents and reports listed in Attachment A;

Whereas, in accordance with s. 292.15(2)(ae), Wis. Stats., the WDNR has determined that an environmental investigation has been conducted which adequately identified and evaluated the nature and extent of the hazardous substance discharges on the Property and WDNR has approved of the remedial action plan for the Property;

Whereas, the Property with soil contamination that exceeds residual contaminant levels ("RCLs") under ch. NR 720, Table 2, Wis. Adm. Code, and Table 1, suggested generic residual contaminant levels for polycyclic aromatic hydrocarbons (PAHs) and lead, will be included on the WDNR's Geographical Information System Registry of Closed Remediation Sites ("the GIS Registry") pursuant to s. 292.12(3), Wis. Stats. **Water Tower Medical Commons, LLC and Columbia St. Mary's** has submitted to the WDNR all the information necessary to be included on the Registry pursuant to s. NR 726.05(2)(a)3. and s. NR 726.05(3)(a)4., Wis. Adm. Code.

Whereas, on May 13, 2009, the WDNR issued a case closure letter for the Property (Attachment B). The WDNR requires maintenance of a cover or barrier in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to public health. The case closure letter described the following requirements, based on land use, to which current and future Property owners must adhere:

Remaining Residual Soil Contamination

Residual soil contamination remains at the areas indicated on the attached post-construction maps Figures 3A and 3B, in the attached final closure letter [Attachment B], as indicated in the information submitted to the Department of Natural Resources. If soil in the specific locations described above is excavated in the future, then pursuant to ch. NR 718 or, if applicable, ch. 289, Stats., and chs. 500 to 536, 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 would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards 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 to prevent a direct contact health threat to humans.

Cover or Barrier

Pursuant to s. 292.12(2)(a), Wis. Stats., the building, pavement, and landscaped areas that currently exists in the location shown on the attached map Figure 1, in the attached Direct Contact Cap Maintenance Plan [Attachment B], shall be maintained in compliance with the attached maintenance plan in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. 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 would be 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.

Prohibited Activities

The following activities are prohibited on any portion of the Property where pavement, a building foundation, soil cover, engineered cap or other barrier is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure.

Whereas, if the requirements described above are not followed, the WDNR may take actions under ss. 292.11 or 292.12, Wis. Stats., to ensure compliance with the specified requirements and the person who owns or controls the Property may no longer qualify for the liability protections under s. 292.15, Wis. Stats.; and

Whereas, on **May 13, 2008**, the WDNR determined that response actions necessary to restore the environment to the extent practicable with

respect to the discharges and minimize the harmful effects from the discharges to air, land, and waters of the state were completed in accordance with administrative rules promulgated by the WDNR.

Therefore, based upon the information that has been submitted to the WDNR, the WDNR hereby certifies that the response actions set forth in the WDNR approved remedial action plan for the Property and any other necessary response actions have been completed.

Upon issuance of this Certificate, **Water Tower Medical Commons, LLC and Columbia St. Mary's** and the persons qualified for protection under s. 292.15(3), Wis. Stats., are exempt from the provisions of ss. 289.05(1), (2), (3) and (4), 289.42(1), 289.67, 291.25(1) to (5), 291.29, 291.37, 292.11(3), (4), and (7)(b) and (c) and 292.31(8), Wis. Stats., with respect to the existence of hazardous substances on or originating from the Property, the release of which occurred prior to the date the department approved the environmental investigation required under s. 292.15(2)(ae)1., Wis. Stats. However, **Water Tower Medical Commons, LLC and Columbia St. Mary's** and a person otherwise qualified for protection under s. 292.15(3), Wis. Stats., who owns or controls the Property would no longer qualify for this liability exemption if that person fails to maintain or monitor the Property as required by the conditions in this Certificate, the May 13, 2009, case closure letter and maintenance plan, s. 292.12, Wis. Stats., and administrative rules promulgated by the WDNR. Any discharge of a hazardous substance to or from the Property that occur after the date that the environmental investigation was approved will be the responsibility of the current Property owner and any other person who possesses or controls that discharge and any person who caused the discharge.

Nothing in this Certificate or in s. 292.15, Wis. Stats., affects the authority of the WDNR to exercise any powers or duties under applicable laws other than ss. 289.05(1), (2), (3) and (4), 289.42(1), 289.67, 291.25(1) to (5), 291.29, 291.37, 292.11(3), (4), and (7)(b) and (c) and 292.31(8), Wis. Stats., with respect to any discharge or threatened discharge of contaminants at the Property, or the right of the WDNR to seek relief available against any person who is not entitled to protection from liability under s. 292.15, Wis. Stats., with respect to such discharge or threatened discharge.

SIGNED AND CERTIFIED this 27 day of August, 2009.

Mathew Frank, Secretary
Wisconsin Department of Natural Resources

ATTACHMENT A
INVESTIGATION AND REMEDIAL ACTION PLAN REPORTS
Columbia St. Mary's – Water Tower Medical Commons

- *"Phase 1 Environmental Site Assessment Columbia St. Mary's – Proposed Replacement Hospital Properties Milwaukee, Wisconsin"*, The Sigma Group, dated September 2004

- *"Subsurface Investigation Report & Remedial Action Plan Columbia St. Mary's Water Tower Medical Commons 2320 Through 2388 N Lake Drive Milwaukee, Wisconsin"*, Sigma Environmental Services, Inc., dated April 2006

- *"Historical Fill Site Exemption Request Columbia St. Mary's – Water Tower Medical Commons Building 2320 N Lake Drive Milwaukee, Wisconsin"*, The Sigma Group, dated October 9, 2006

- *"Summary – Lead Impacted Fill Assessment Water Tower Medical Commons Columbia St. Mary's Milwaukee, Wisconsin"*, The Sigma Group, dated October 26, 2006

- *"Remedial Action & Site Closure Report Columbia St. Mary's Water Tower Medical Commons Building and West Landscape/Drive Area 2320 n Lake Drive Milwaukee, Wisconsin"*, Sigma Environmental Services, Inc., dated November 2006

- *"Subsurface Investigation Report Columbia St. Mary's 2320 Through 2430 N Lake Drive Milwaukee, Wisconsin"*, Sigma Environmental Services, Inc., dated October 2007

- *" Phase 1 Addendum – 2430 North Lake Drive Columbia St. Mary's Water Tower Redevelopment Area Milwaukee, Wisconsin"*, The Sigma Group, dated October 12, 2007

- *"VPLE Site Plan Map"*, The Sigma Group, dated October 12, 2007

- *"Partial VPLE Application – Water Tower Medical Commons Building & West Landscape Are 2350 N Lake Drive Columbia St. Mary's Milwaukee, Wisconsin"*, The Sigma Group, dated November 2, 2007

- *"Supplemental Phase 1 Walk Through – 2430 North Lake Drive Columbia St. Mary's Water Tower Redevelopment Area Milwaukee, Wisconsin"*, The Sigma Group, dated December 3, 2007

- *"Supplemental VPLE Phase II Activities Water Tower Medical Commons Redevelopment Area Columbia St. Mary's Milwaukee, Wisconsin"*, The Sigma Group, dated October 2, 2008

- *"Request for Final Closure and Certificate of Completion Water Tower Medical Commons Redevelopment Area Columbia St. Mary's Milwaukee, Wisconsin"*, The Sigma Group, dated April 28, 2009

ATTACHMENT B

Closure Letter, Pavement Cover and Building Barrier Maintenance Plan and Barrier Maintenance Plan Map
Columbia St. Mary's – Water Tower Medical Commons

See Attached May 13, 2009 Closure letter with attachments.

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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

Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, Wisconsin 53212-3128
FAX 414-263-8606
Telephone 414-263-8500
TTY Access via relay - 711

Received
JUN 17 2009
REMEDIATION & REDEVELOPMENT

May 13, 2009

Columbia St. Mary's, Inc. and Columbia, LLC
Attn: Mr. Mark Schmidt
2323 North Lake Drive
Milwaukee, WI 53211

Subject: Final Case Closure with Land Use Limitations or Conditions for Columbia St. Mary's – Water Tower Medical Commons, 2350 North Lake Drive, Milwaukee, WI

FID: 241890330
BRRTS: 06-41-548688 and 02-41-544790

Dear Mr. Burger:

On November 13, 2008, the Wisconsin Department of Natural Resources ("the Department") VPLE Committee reviewed the above referenced case for closure. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On December 4, 2008, you were notified that the Department had granted conditional closure to this case.

On May 4, 2009, the Department received correspondence indicating that you have complied with the requirements of closure. The Department received the well abandonment forms, revised soil GIS Registry packet, updated Cap Maintenance Plan, and a map indicating the VPLE area.

Based on the correspondence and data provided, it appears that your case meets the requirements of ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time.

GIS Registry

The conditions of case closure set out below in this letter require that your site 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
- Pavement, an engineered cover, or a soil barrier must be maintained over contaminated soil and the state must approve any changes to this barrier

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 your 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 current property owner and any subsequent property owners must adhere. 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. It is the Department's intent to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

Remaining Residual Soil Contamination

Residual soil contamination remains at the areas indicated on the attached post-construction maps Figures 3A and 3B, as indicated in the information submitted to the Department of Natural Resources. If soil in the specific locations described above is excavated in the future, then pursuant to ch. NR 718 or, if applicable, ch. 289, Stats., and chs. 500 to 536, 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 would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards 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 to prevent a direct contact health threat to humans.

Cover or Barrier

Pursuant to s. 292.12(2)(a), Wis. Stats., the building, pavement, and landscaped areas that currently exists in the location shown on the attached map Figure 1, shall be maintained in compliance with **the attached maintenance plan** in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. 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 would be 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.

The attached maintenance plan and inspection log are to be kept up-to-date and on-site, and the inspection log need only be submitted to the Department upon request.

Prohibited Activities

The following activities are prohibited on any portion of the property where the building, pavement, and landscaped areas is required as shown on the attached map Figure 1, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; or 6) construction or placement of a building or other structure.

The Department appreciates the actions you have taken to investigate and remediate the contamination at this site. If you have any questions or comments, please feel free to contact John J. Hnat at the above address or at (414) 263-8644. Please refer to the FID number at the top of this letter in any future correspondence. Future correspondence should be sent directly to the Remediation and Redevelopment Program Assistant Vicky Stovall (414-263-8688) at the above address.

Sincerely,

James A. Schmidt

James A. Schmidt
Southeast Region
Remediation and Redevelopment Team Supervisor

Enclosures: Post-Construction Soil Classification Map (PAH Impacts) Figure 3A
Post-Construction Soil Classification Map (Lead Impacts) Figure 3B
Engineered Barriers Map Figure 1

C: Mary Trotta and Kristin Kurzka, Sigma Environmental
WDNR SER Files

DIRECT CONTACT CAP MAINTENANCE PLAN
COLUMBIA ST. MARY'S
BUILDING, DRIVE, AND LANDSCAPE AREAS
2320 THROUGH 2430 NORTH LAKE DRIVE
MILWAUKEE, WI

The Cap Maintenance Plan is designed to prevent direct contact with residual soil impacts resulting from impacted fill material present at depths less than four feet below ground surface (bgs). The impacted soils are currently covered with a building, concrete pavement, or landscaping. The normal operation of the engineered barrier will serve as a direct contact barrier between site soils and typical, non-invasive users of the property. The engineered barrier will function as intended unless disturbed.

Disturbance Management

Columbia St. Mary's (owner of the site) shall take the following steps to assure that uncontrolled disturbances of the engineered barrier do not occur:

- The Wisconsin Department of Natural Resources' (WDNR's) case closure documents and Geographic Information System (GIS) Registry will establish any future land use, development, and management restrictions for the site. The Cap Maintenance Plan, will be incorporated into the case closure documents and/or GIS Registry, which will together identify the environmental impacts, the nature of the engineered barriers, and the requirements regarding the management of impacted soils.

- A copy of the Cap Maintenance Plan will be available from the property owner to all interested parties.

- A copy of the Cap Maintenance Plan will be provided to all utilities companies seeking easements for the purpose of installing facilities within the residual fill material beneath the property.

- A copy of the Cap Maintenance Plan will be provided to all contractors and repair workers, including utility and landscaping services, during construction and repair activities conducted within the residual fill material beneath the property.

- A copy of the Cap Maintenance Plan will be provided to any subsequent owner of this property.

Inspections of Engineered Barrier

Inspections will be required to assure that the engineered barrier is functioning as planned:

- Annual visual inspections shall be completed for the engineered barrier system for all accessible areas.

- As necessary, the engineered barriers will be repaired to maintain integrity of the direct contact barrier between impacted soil and the property occupants. Repairs may include, but are not limited to, the following:

    - In landscaped areas, replacing soil in any eroded areas and re-establishing appropriate vegetation;

    - Patching or replacing concrete or asphalt pavement where it has cracked or otherwise broken and would allow direct contact with underlying soil.

- An inspection log will be maintained to record any disturbances of the engineered barrier and the steps that have been taken to maintain the integrity of the engineered barrier. The inspection log will be made available for inspection by representatives of the WDNR upon reasonable prior request. The on-site inspection log will be maintained as long as inspection and maintenance of the engineered barrier are required.

Planned Breaches of Engineered Barriers

In the event an engineered barrier is breached, the following precautions shall be taken:

- To the extent possible, all material excavated from beneath an engineered barrier will be returned to the excavation prior to the restoration of the engineered barrier. The excavation zone and any soils excavated will be secured from public access until the engineered barrier is restored. While on-site, the excavated soil will be placed on an impervious surface (e.g., concrete or asphalt pavement or plastic) and covered with plastic. Soil that cannot be returned to the excavation will be sampled and disposed of in accordance with the WDNR approved Soil Management Plan[1] and with applicable solid and/or hazardous waste rules and regulations.

- The engineered barrier will be restored to meet original conditions. This work, including the proper disposal of excess soils, should be completed

[1] Subsurface Investigation Report and Remedial Action Plan, Columbia St. Mary's, - Sigma Environmental Services, Inc, April 2006

within 72 hours following the completion of any on-site work, or as soon as reasonably practical.

- Details of the engineered barrier breach, the handling of excavated soils, individuals responsible for the work, and the restoration of the engineered barrier shall be recorded in the engineered barrier maintenance log. An example inspection log page is included with this Cap Maintenance Plan.

Amendments

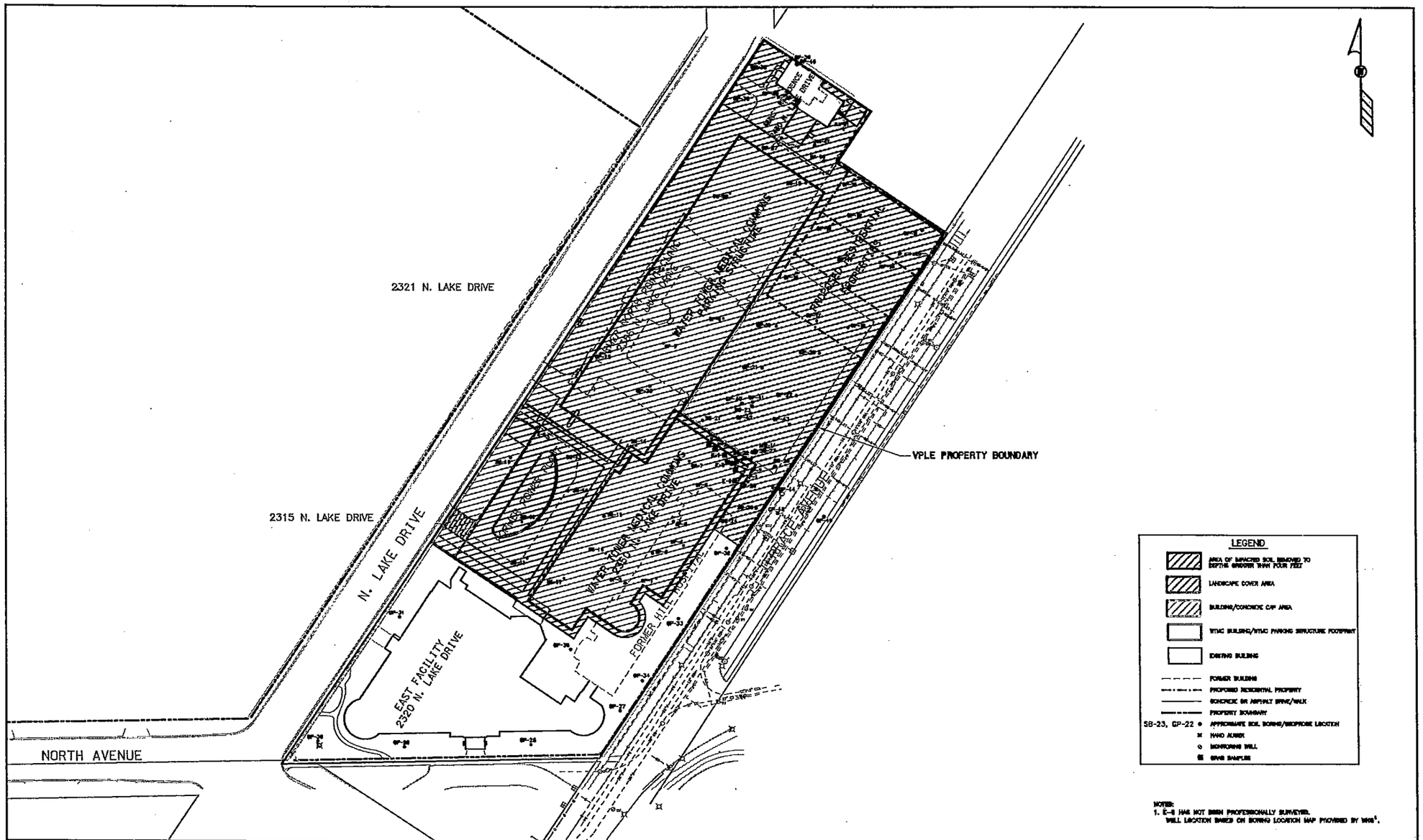
The Cap Maintenance Plan may be amended or withdrawn upon written approval from the WDNR or its successor agency.

Contact Information

- For responsible party and owner information contact:
  Columbia St. Mary's
  2320 N Lake Drive
  Milwaukee, WI 53211
  Telephone: (414) 283-5646
  Contact: Mr. Mark Schmidt

- For environmental consultant information contact:
  Sigma Environmental Services, Inc.
  1300 West Canal Street
  Milwaukee, WI 53233
  Telephone: (414) 643-4200
  Fax: (414) 643-4210
  Contact: Ms. Kristin Kurzka, P.E.

- For Wisconsin Department of Natural Resources information contact:
  Wisconsin Department of Natural Resources
  2300 N. Dr. Martin Luther King, Jr. Drive
  Milwaukee, WI 53212



THE SIGMA GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

SCALE: 1" = 50'- 0"

NO	DATE	REVISIONS	BY	APVD

	NAME	DATE
DRAWN BY:	BJU	12/28/06
DESIGNED BY:		
CHECKED BY:		
APPROVED BY:		

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
ENGINEERED BARRIERS MAP

DRAWING #
10633-006

Figure 1

2320 -2430 North Lake Drive
Milwaukee, Wisconsin

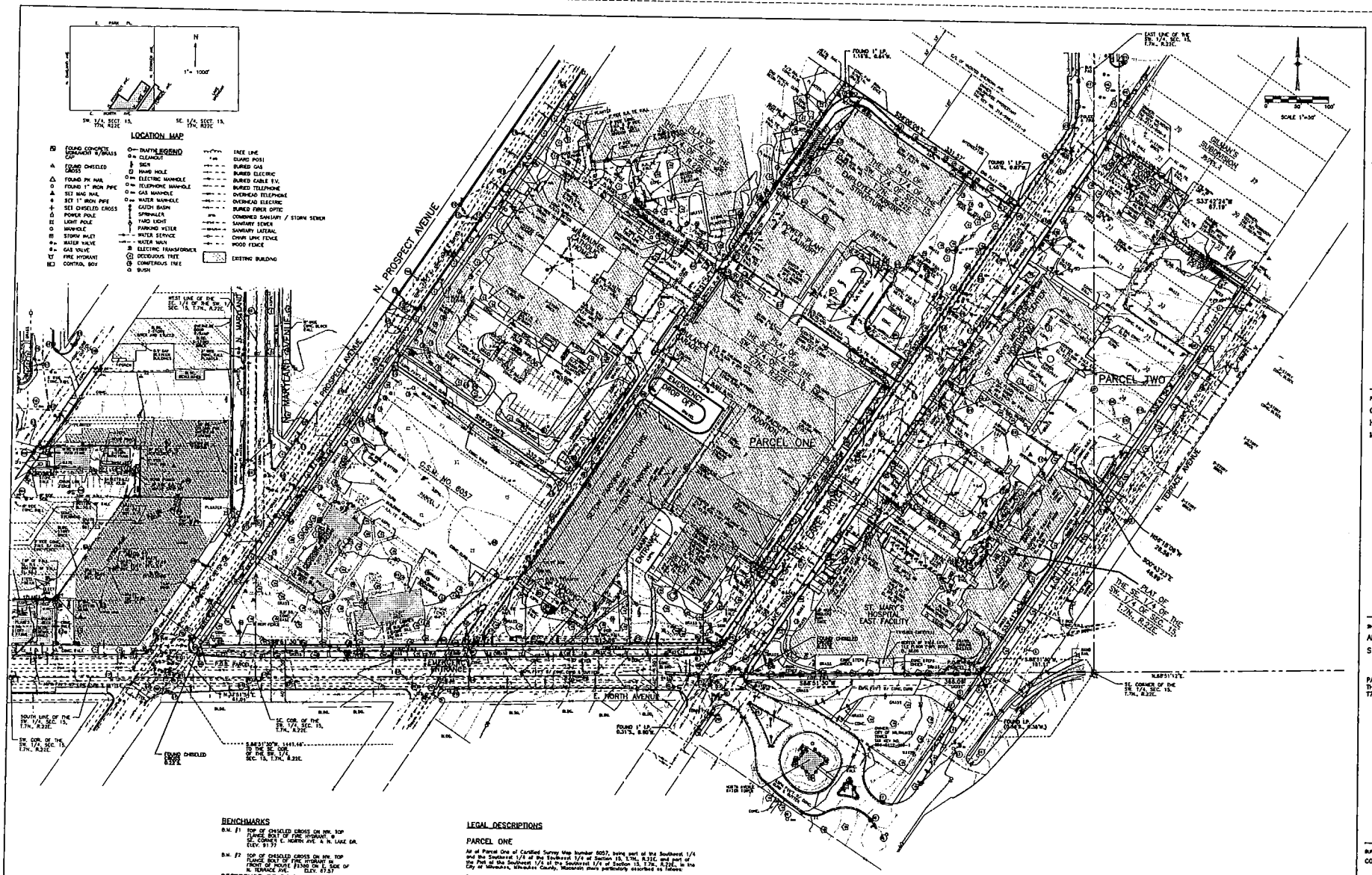
Facility ID # 241890330

WDNR BRRTS/Activity #02-41-544790
#60-41-548688

Exhibit B
Barrier INSPECTION LOG

Inspection Date	Inspector	Condition of Cap	Recommendations	Have Recommendations from previous inspection been implemented?

Page____



BENCHMARKS

B.M. #1 TOP OF CHISELED CROSS ON NW. TOP FLANGE BOLT OF FIRE HYDRANT @ SE. CORNER E. NORTH AVE. & N. LAKE DR. ELEV. 91.37

B.M. #2 TOP OF CHISELED CROSS ON NW. TOP FLANGE BOLT OF FIRE HYDRANT @ N. TERRACE AVE. ELEV. 67.57

REFERENCE BEARING

ALL BEARINGS ARE REFERENCED TO THE SOUTH LINE OF THE SOUTHWEST 1/4, SECT. 13, T.7N., R.22E. WHICH BEARS S.89°51'30"W. AND IS REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE.

NOTES

1.) THIS SURVEY IS BASED IN PART ON TITLE COMMITMENT POLICY NO. 1186694 PREPARED BY CHICAGO TITLE INSURANCE COMPANY AND DATED, JUNE 15TH, 2003.

2.) ALL ELEVATIONS ARE BASED ON CITY OF MILWAUKEE DATUM AND ONE FOOT CONVERTS TO MEAN SEA LEVEL 1929 ADJUSTMENT BY ARDMS 580.60.

3.) THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

4.) THE PARCELS DO NOT FALL WITHIN THE 100 YEAR FLOODPLAIN PER FLOOD INSURANCE RATE MAP PANEL NUMBER 55079300D6E, DATED MAY 2, 1982.

5.) SEE SHEET 2 OF 3 FOR EASEMENT LOCATIONS.

6.) SEE SHEET 3 OF 3 FOR AS-BUILT INFORMATION.

LEGAL DESCRIPTIONS

PARCEL ONE

All of Parcel One of Certified Survey Map number 6057, being part of the Southwest 1/4 and the Southeast 1/4 of the Southwest 1/4 of Section 13, T.7N., R.22E. and part of the Plat of the Southwest 1/4 of the Southwest 1/4 of Section 13, T.7N., R.22E., in the City of Milwaukee, Milwaukee County, Wisconsin more particularly described as follows:

Commencing at the southeast corner of said Southwest 1/4; thence South 88°51'30" West, on and along the south line of said Southwest 1/4, 1,441.46 feet; thence North 33°51'54" East, 81.04 feet to the southeast corner of Parcel One of Certified Survey Map number 6057 and the point of beginning, said point of beginning also being the intersection of the north right of way line of East North Avenue and the westerly right of way line of North Prospect Avenue; thence continuing North 33°51'51" East, on and along the east line of said Parcel One and said westerly right of way line, 633.59 feet to the northeast corner of said Parcel One; thence South 56°06'09" East, on and along the north line of said Parcel One, 332.36 feet to the northwest corner of said Parcel One; thence North 33°51'51" East, on and along the east line and extended thereof of Parcel Two of Certified Survey Map Number 6057, 770.16 feet to a point 125 feet south of the centerline of vacated Shoreline Drive; thence South 88°06'06" East, 125 feet south of and parallel to said centerline, 331.37 feet to the westerly right of way line of North Lake Drive; thence South 33°49'34" West, on and along said westerly right of way line, 1,537.71 feet to the north right of way line of East North Avenue; thence South 88°51'30" West, on and along said north right of way line, 513.28 feet to the point of beginning.

Said Parcel containing 458,162 square feet (10.47 acres), more or less.

PARCEL TWO

Part of the Plat of the Southwest 1/4 of the Southwest 1/4 of Section 13, T.7N., R.22E. and Lots 31 through 37 inclusive, Lots 72 through 77 inclusive, Lots 41 through 47 inclusive, Block 3 of Gilman's S-subdivision, being part of the Southeast 1/4 of Section 13, T.7N., R.22E. in the City of Milwaukee, Milwaukee County, Wisconsin more particularly described as follows:

Commencing at the southeast corner of said Southwest 1/4; thence South 88°51'30" West, on and along the south line of said Southwest 1/4, 781.11 feet to the point of beginning; thence continuing South 88°51'30" West, on and along the south line of said Southwest 1/4, 363.00 feet to the westerly right of way line of North Lake Drive; thence North 33°49'34" East, on and along said westerly right of way line, 1,913.73 feet to the north line of said Lot 41; thence South 56°11'29" East, 10.00 feet; thence South 33°49'34" West, on and along said line 1,913.73 feet to the south line of said Lot 41; thence South 56°11'29" East, 30.00 feet; thence South 33°49'34" West, on and along said line of said lots 77 and 72, 87.13 feet; thence South 27°52'54" West, on and along said line of said lots 77 and 72, 87.13 feet; thence South 56°11'29" East, 30.00 feet to the westerly right of way line of Plankinton Avenue; thence South 33°49'34" West, on and along said westerly right of way line, 377.23 feet to the southeast corner of said Lot 37; thence North 56°10'26" West, on and along the south line of said Lot 37, 18.56 feet to the east line of said Southwest 1/4; thence South 00°13'23" East, on and along said east line, 15.33 feet to the westerly right of way line of North Terrace Avenue; thence South 33°49'34" West, on and along said westerly right of way line, 370.58 feet to the point of beginning.

Said Parcel containing 262,176 square feet (6.02 acres), more or less.

SURVEYORS CERTIFICATE

STATE OF WISCONSIN
COUNTY OF MILWAUKEE } SS

To: Columbia St. Mary's
Chicago Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with "Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys," jointly established and adopted by ALTA, ACSM, and NSPS in 1999, and includes items 1, 2, 3, 4, 5, 6, 8, 10, and 11(b), of Table A thereof. The fieldwork was completed on April 15, 2003. I further certify that the Positional Uncertainties resulting from the survey measurements made on the survey do not exceed the allowable Positional Tolerance.

DATE

BURT J. HUMANN, R.L.S. NO. 1950

GRAEF ANHALT SCHLOEMER and Associates Inc.

Other Offices Located In:
Green Bay, Wisconsin
Madison, Wisconsin
Chicago, Illinois

PROJECT NAME:
COLUMBIA ST. MARYS HOSPITAL
MILWAUKEE, WISCONSIN

SHEET TITLE:
ALTA/ACSM LAND TITLE SURVEY

PART OF THE SW. 1/4 AND THE SE. 1/4 OF SEC. 13, T7N., R22E

SURVEYED FOR:
COLUMBIA ST. MARY'S

NO.	DATE	REVISIONS	BY

PROJECT NUMBER: 20030824
DATE: 03-16-04
DRAWN BY: SRK
CHECKED BY: JRH
PROJECT MANAGER: JRH
SCALE: 1"=50'
FILE: C-03-ALTA01.DGN

SHEET NUMBER
1/3

3/12/2009
8:32:23 AM
I:\Jobs\2003\20030824\CAD\Sur\dgn\C-03_ALTA01.dgn

GIS Registry Packet
Columbia St. Mary's – VPLE COC
2320-2430 North Lake Drive, Milwaukee, Wisconsin

STATEMENT BY RESPONSIBLE PARTY

Columbia St. Mary's, the responsible party for the property located at 2320 through 2340 North Lake Drive, Milwaukee, Wisconsin, states that the legal description[1] for the property to be listed in the GIS Registry provided to the Wisconsin Department of Natural Resources (WDNR) in this GIS Registry packet for WDNR BRRTS #02-41-544790 are complete and accurate to the best of our knowledge.

Mark Schmitz
Signature of Representative for Responsible Party

4/27/09
Date

[1] The legal description for the 2320 through 2430 North Lake Drive property is included on the attached ALTA survey and referenced as Parcel 2.

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SE, SW Sec. 15, T7N, R22E Adapted from U.S.G.S. 7.5 minute series, Milwaukee, Wisconsin quadrangle dated 1958 (photorevised 1971).

SCALE 1:24000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

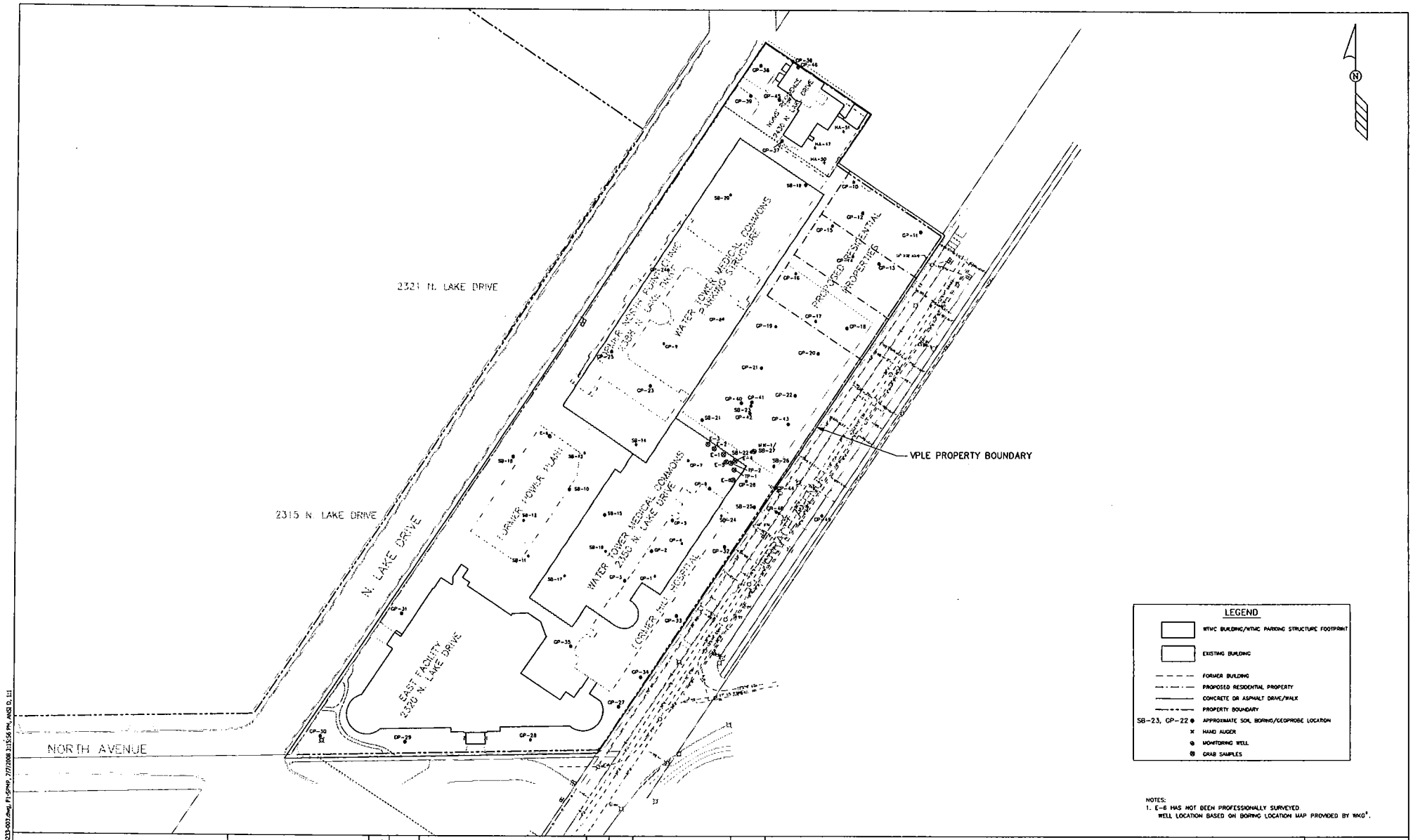
CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

N

Figure 1. Site Location Map
2350 N. Lake Drive
Milwaukee, Wisconsin

THE SIGMA GROUP
SIGMA ENVIRONMENTAL SERVICES, INC
SIGMA DEVELOPMENT, INC.
SIGMA LEASING, INC.

10483fig1.ppt



NOTES:
1. E-6 HAS NOT BEEN PROFESSIONALLY SURVEYED
WELL LOCATION BASED ON BORING LOCATION MAP PROVIDED BY WKG².

THE SIGMA GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

SCALE: 1" = 50'- 0"
0' 25' 50' 75' 100'

NO	DATE	REVISIONS	BY	APVD

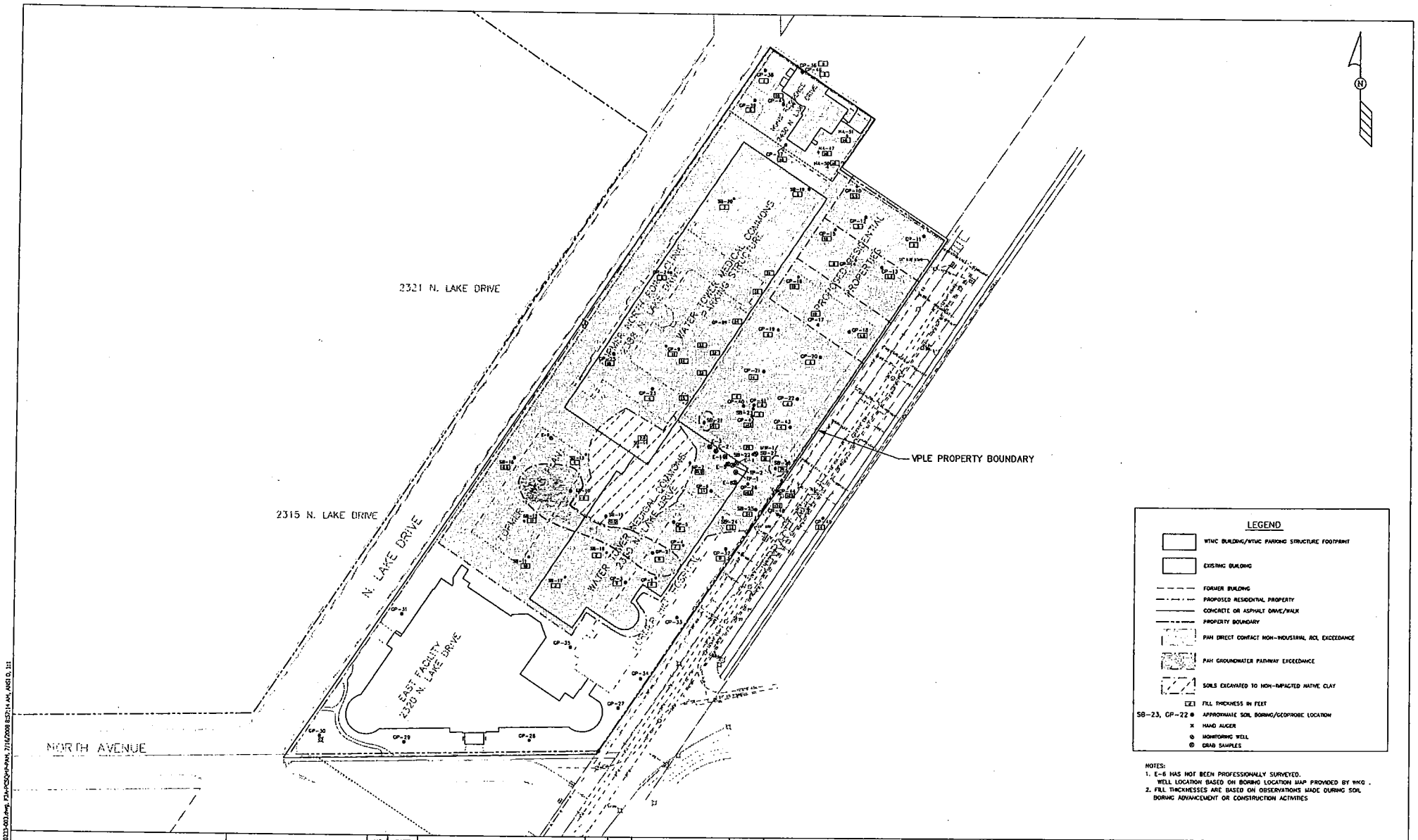
	NAME:	DATE:
DRAWN BY:	RML	05/28/08
DESIGNED BY:		
CHECKED BY:		
APPROVED BY:		

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
SITE PLAN MAP

DRAWING # 10233-003

Figure 1

K:\CAD\MKE\10647\10233-003.dwg, FIGSPMP, 7/7/2008 3:15:56 PM, ANSI D, 1:1



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NO	DATE	REVISIONS	BY	APVD

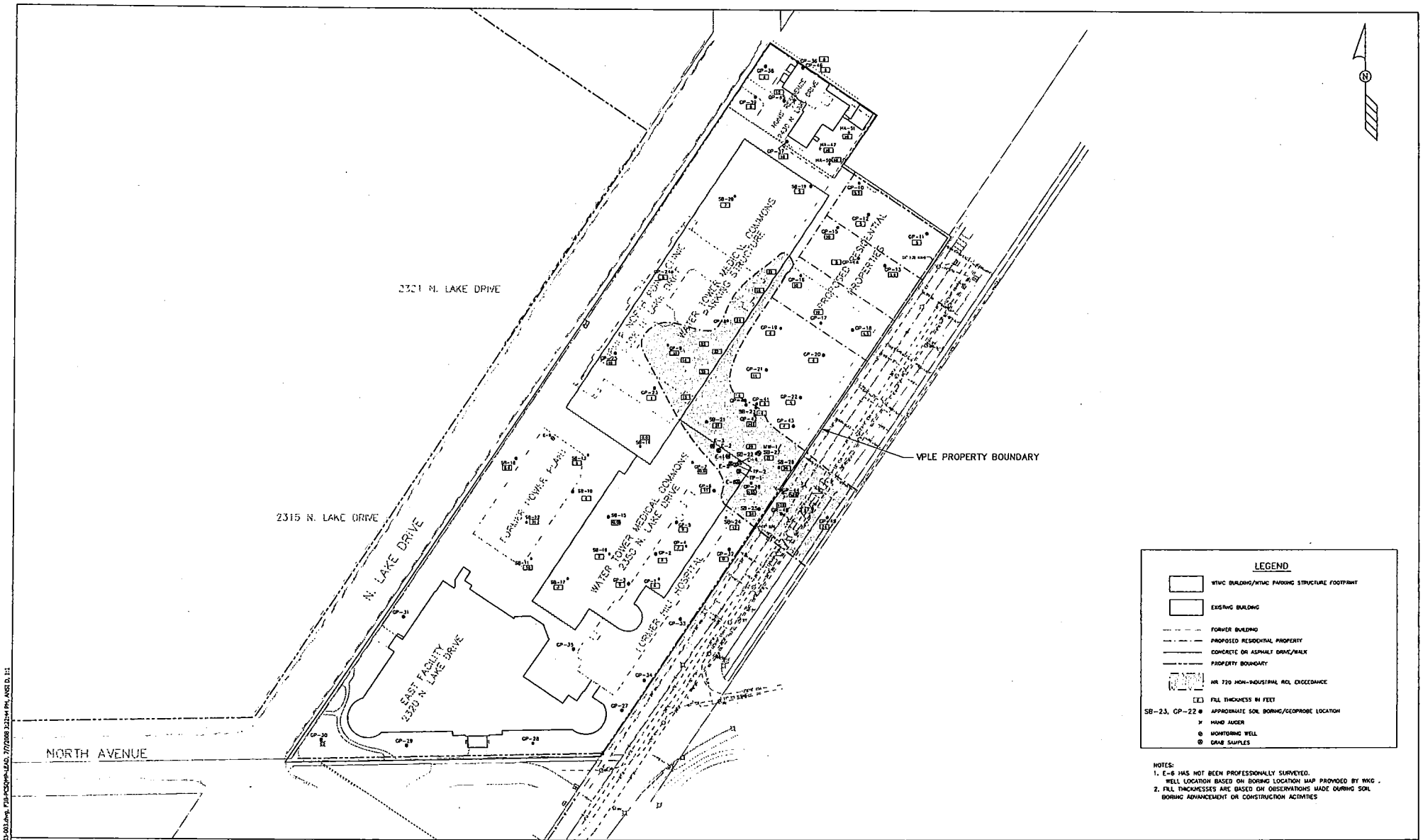
	NAME:	DATE:
DRAWN BY:	RML	05/28/08
DESIGNED BY:		
CHECKED BY:		
APPROVED BY:		

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
POST-CONSTRUCTION SOIL CLASSIFICATION MAP (PAH IMPACTS ONLY)

DRAWING # 10233-003

Figure 3A

K:\Columbia\9647\10233-003.dwg, F3A-PCSOIL-PAH, 7/16/2008 8:57:14 AM, ANSI D, 1:1



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SCALE: 1" = 50'- 0"
0' 25' 50' 75' 100'

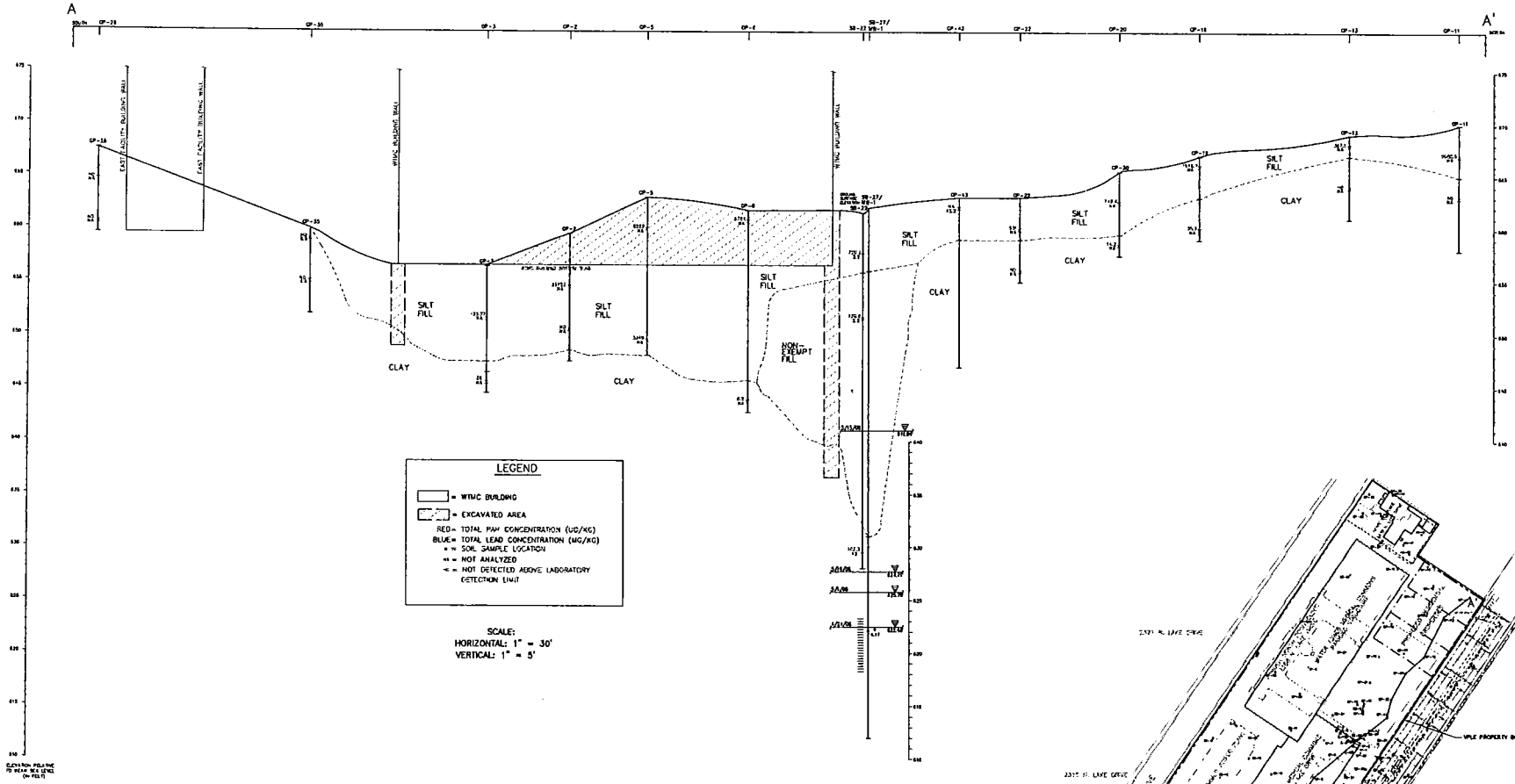
NO	DATE	REVISIONS	BY	APVD

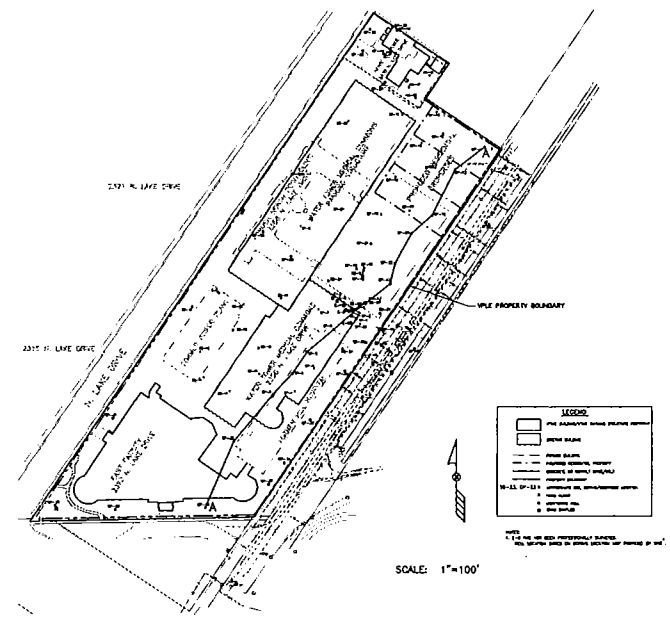
	NAME:	DATE:
DRAWN BY:	RML	05/28/08
DESIGNED BY:		
CHECKED BY:		
APPROVED BY:		

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
POST-CONSTRUCTION SOIL CLASSIFICATION MAP (LEAD IMPACTS ONLY)

DRAWING # 10233-003

Figure 3B





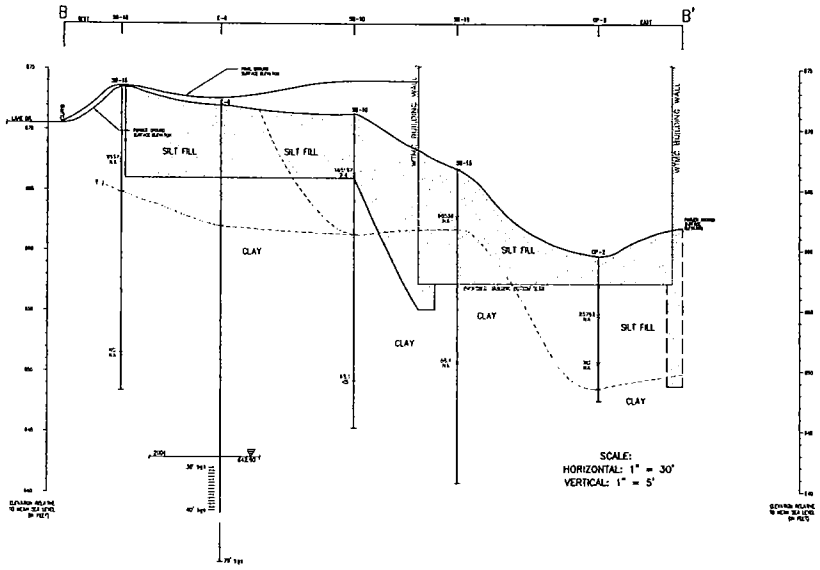
THE SIGMA GROUP — Single Source. Sound Solutions.	www.thesigmagroup.com 1300 West Canal Street Milwaukee, WI 53233 Phone: 414-643-4200 Fax: 414-643-4210	SCALE: SEE NOTES	NO	DATE	REVISIONS	BY	APVD	NAME: / DATE:
								DRAWN BY: RML 05/29/08
								DESIGNED BY:
								CHECKED BY:
								APPROVED BY:

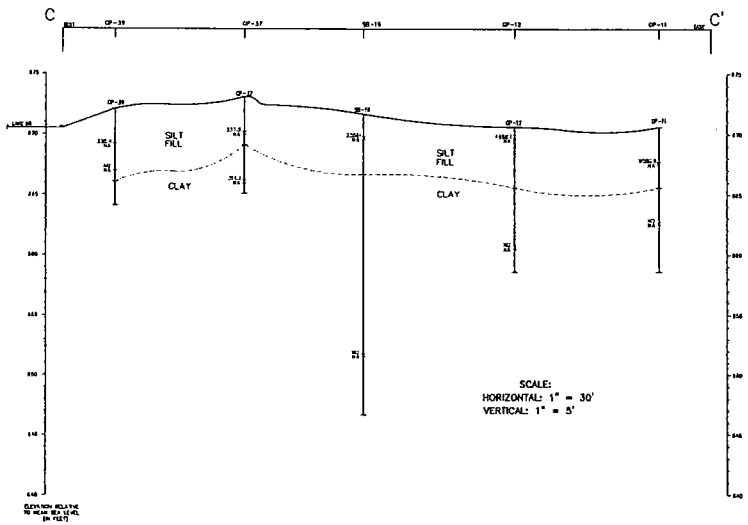
COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
GEOLOGIC CROSS SECTION MAP A-A'

DRAWING # 10233-003

Figure 4A

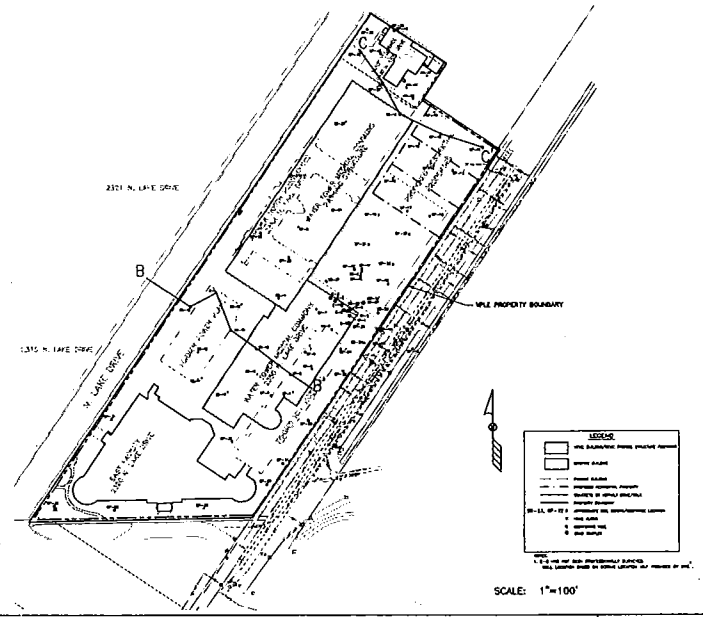
K:\Columbia\10647\10233-003.dwg, FH4-CCLM, 7/7/2008 3:23:36 PM, ANSI D (1)





LEGEND

- = WTMC BUILDING
- = EXCAVATED AREA
- ≡ = WELL SCREEN INTERVAL
- RED= TOTAL PAH CONCENTRATION (UG/KG)
- BLUE= TOTAL LEAD CONCENTRATION (MG/KG)
- x = SOIL SAMPLE LOCATION
- NA = NOT ANALYZED
- ND = NOT DETECTED ABOVE LABORATORY DETECTION LIMIT



THE SIGMA GROUP — Simple Source. Sound Solutions.	www.thesigmagroup.com 1300 West Canal Street Milwaukee, WI 53233 Phone: 414-643-4200 Fax: 414-643-4210	SCALE: SEE NOTES	NO	DATE	REVISIONS	BY	APVD	DRAWN BY: RML — DATE: 05/28/08 DESIGNED BY: CHECKED BY: APPROVED BY:

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
GEOLOGIC CROSS SECTION MAP B-B' & C-C'

DRAWING # 10233-003

Figure 4B

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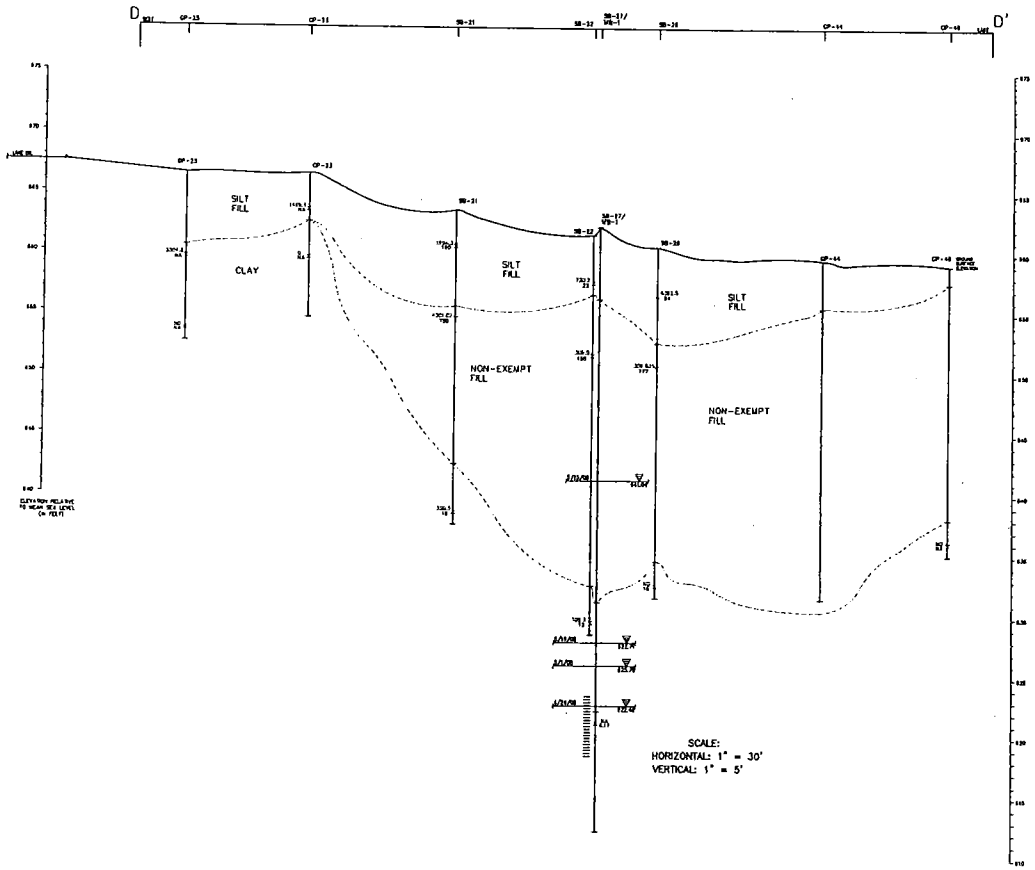

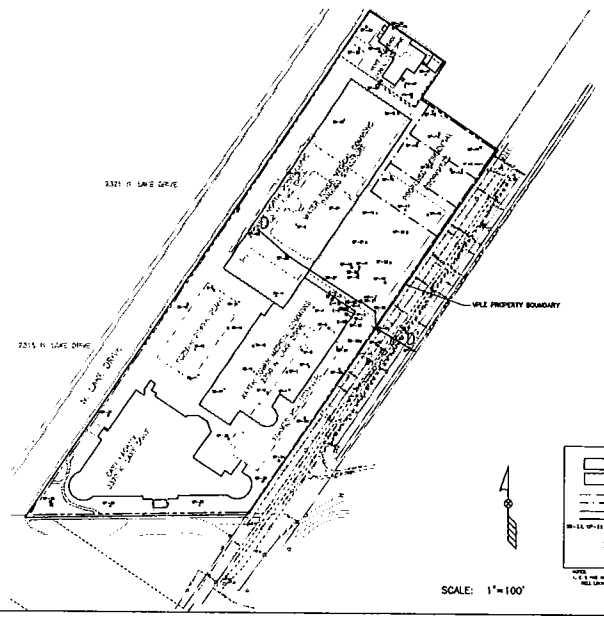

LEGEND

- = WTMC BUILDING
- = EXCAVATED AREA
- Ξ = WELL SCREEN INTERVAL
- RED= TOTAL PAH CONCENTRATION (UG/KG)
- BLUE= TOTAL LEAD CONCENTRATION (MG/KG)
- • = SOIL SAMPLE LOCATION
- ** = NOT ANALYZED
- ND = NOT DETECTED ABOVE LABORATORY DETECTIVE LIMIT

LEGEND

NOTES
1. E.S. THE ONE SIGMA PROFESSIONAL SURVEYOR.
WELL LOCATION SHOWN ON SURVEY LOCATION MAP PROVIDED BY ERM.

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1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

SCALE: SEE NOTES

NO	DATE	REVISIONS	BY	APVD

	NAME:	DATE:
DRAWN BY:	RWL	05/30/08
DESIGNED BY:		
CHECKED BY:		
APPROVED BY:		

COLUMBIA- ST. MARY'S- WATER TOWER MEDICAL COMMONS REDEVELOPMENT AREA
2320 - 2430 NORTH LAKE DRIVE, MILWAUKEE, WISCONSIN
GEOLOGIC CROSS SECTION MAP D-D'

DRAWING # 10233-003

Figure 4C

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Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	SB-10		SB-11		SB-12		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		4-6	20-22	8-10	18-20	10-12	16-18			
Date		9/15/2005	9/15/2005	9/15/2005	9/15/2005	9/15/2005	9/15/2005			
Metals										
Arsenic, total	mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	0.039	NS	0.039
Barium, total	mg/kg	34	58	52	47	68	43	NS	NS	5400
Cadmium, total	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8	NS	37
Chromium, total	mg/kg	16	16	16	17	18	15	NS	NS	210
Lead, total	mg/kg	7.4	<5	37	<5	14	<5	50	NS	400
Mercury, total	mg/kg	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	NS	NS	23
Selenium, total	mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NS	NS	78.2
Silver, total	mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	184	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	53	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	4520	<25	104	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	49	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	5340	<17	477	<17	65	<17	38000	900000	3700000
Acenaphthylene	µg/kg	<380	<19	81	<19	<19	<19	700	18000	NS
Acthracene	µg/kg	8540	<11	652	<11	165	<11	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	8370	<12	569	<12	617	<12	17000	88	620
Benzo(a)pyrene	µg/kg	7740	<8.1	560	<8.1	620	<8.1	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	13000	9.1 "J"	926	<7.5	991	<7.5	360000	88	620
Benzo(g,h,i)perylene	µg/kg	5100	<8.5	343	<8.5	434	<8.5	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	4730	<14	297	<14	319	<14	870000	880	6200
Chrysene	µg/kg	12700	<20	766	<20	708	<20	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	747	<11	56	<11	66	<11	38000	8.8	62
Fluoranthene	µg/kg	28300	19 "J"	1760	<7.4	1410	<7.4	500000	600000	2300000
Fluorene	µg/kg	4980	<9.5	108	<9.5	38	<9.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	4020	<9.5	298	<9.5	319	<9.5	680000	88	620
1-Methyl naphthalene	µg/kg	1120	<11	<11	<11	<11	<11	23000	1100000	NS
2-Methyl naphthalene	µg/kg	1380	<12	19 "J"	<12	<12	<12	20000	600000	NS
Naphthalene	µg/kg	**3520**	<17	25 "J"	<17	<17	<17	400	20000	56000
Phenanthrene	µg/kg	**35500**	25 "J"	546	<8.9	697	<8.9	1800	18000	NS
Pyrene	µg/kg	21100	15 "J"	1160	<11	1140	<11	8700000	500000	2300000
Cyanide, total	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NS	NS	NS
PCB, total	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	SB-13		SB-14		SB-15		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		3-5	13'15	3-5	13-15	3-5	15-17			
Date		1/5/2006	1/5/2006	1/5/2006	1/5/2006	1/5/2006	1/5/2006			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	860	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	86	<17	<17	<17	1370	<17	38000	900000	3700000
Acenaphthylene	µg/kg	32 "J"	<19	<19	<19	<190	<19	700	18000	NS
Acthracene	µg/kg	274	<11	22 "J"	<11	2950	<11	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	697	<12	681	<12	6530	13 "J"	17000	88	620
Benzo(a)pyrene	µg/kg	694	<8.1	1220	<8.1	5690	<8.1	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	1130	<7.5	3670	<7.5	9510	13 "J"	360000	88	620
Benzo(g,h,i)perylene	µg/kg	649	<8.5	5250	<8.5	3910	9.4 "J"	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	334	<14	818	<14	2840	<14	870000	880	6200
Chrysene	µg/kg	730	<20	666	<20	6550	<20	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	77	<11	2140	<11	542	<11	38000	8.8	62
Fluoranthene	µg/kg	2010	<7.4	327	<7.4	20000	22 "J"	500000	600000	2300000
Fluorene	µg/kg	137	<9.5	<9.5	<9.5	1350	<9.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	484	<9.5	3880	<9.5	3030	<9.5	680000	88	620
1-Methyl naphthalene	µg/kg	20 "J"	<11	<11	<11	<110	<11	23000	1100000	NS
2-Methyl naphthalene	µg/kg	17 "J"	<12	<12	<12	<120	<12	20000	600000	NS
Naphthalene	µg/kg	17 "J"	<17	<17	<17	**484 "J"**	<17	400	20000	56000
Phenanthrene	µg/kg	1080	<8.9	105	<8.9	**11400**	13 "J"	1800	18000	NS
Pyrene	µg/kg	1480	<11	316	<11	14400	18 "J"	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	SB-16		SB-17		SB-18		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		1-3	11-13	3-5	15-17	5-7	21-23			
Date		1/5/2006	1/5/2006	1/6/2006	1/6/2006	1/6/2006	1/6/2006			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	66	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	35 "J"	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	33 "J"	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	137	<17	<17	<17	145	<17	38000	900000	3700000
Acenaphthylene	µg/kg	<19	<19	<19	<19	<19	<19	700	18000	NS
Acthracene	µg/kg	478	25 "J"	228	<11	336	<11	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	1210	46	623	<12	819	<12	17000	88	620
Benzo(a)pyrene	µg/kg	1050	27	609	<8.1	619	<8.1	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	1520	61	850	<7.5	980	<7.5	360000	88	620
Benzo(g,h,i)perylene	µg/kg	734	27	417	<8.5	440	<8.5	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	484	25 "J"	291	<14	320	<14	870000	880	6200
Chrysene	µg/kg	1040	62 "J"	588	<20	685	<20	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	128	<11	78	<11	70	<11	38000	8.8	62
Fluoranthene	µg/kg	2960	144	1490	<7.4	2040	<7.4	500000	600000	2300000
Fluorene	µg/kg	184	13 "J"	32	<9.5	119	<9.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	625	25 "J"	330	<9.5	354	<9.5	680000	88	620
1-Methyl naphthalene	µg/kg	21 "J"	<11	<11	<11	50	<11	23000	1100000	NS
2-Methyl naphthalene	µg/kg	21 "J"	<12	<12	<12	39	<12	20000	600000	NS
Naphthalene	µg/kg	22 "J"	<17	<17	<17	41 "J"	<17	400	20000	56000
Phenanthrene	µg/kg	1330	83	545	<8.9	1400	<8.9	1800	18000	NS
Pyrene	µg/kg	2200	99	1150	<11	1500	<11	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	SB-19		SB-20		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		1-3	19-21	7-9	17-19			
Date		1/10/2006	1/10/2006	1/10/2006	1/10/2006			
Metals								
Arsenic, total	mg/kg	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)								
sec-butylbenzene	µg/kg	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	96	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons						Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	132	<17	<17	<17	38000	900000	3700000
Acenaphthylene	µg/kg	22 "J"	<19	<19	<19	700	18000	NS
Acthracene	µg/kg	383	<11	<11	<11	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	2030	<12	<12	<12	17000	88	620
Benzo(a)pyrene	µg/kg	2110	<8.1	<8.1	<8.1	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	2790	<7.5	<7.5	<7.5	360000	88	620
Benzo(g,h,I)perylene	µg/kg	1650	<8.5	<8.5	<8.5	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	835	<14	<14	<14	870000	880	6200
Chrysene	µg/kg	1440	<20	<20	<20	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	219	<11	<11	<11	38000	8.8	62
Fluoranthene	µg/kg	4410	<7.4	<7.4	<7.4	500000	600000	2300000
Fluorene	µg/kg	107	<9.5	<9.5	<9.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	1470	<9.5	<9.5	<9.5	680000	88	620
1-Methyl naphthalene	µg/kg	26 "J"	<11	<11	<11	23000	1100000	NS
2-Methyl naphthalene	µg/kg	24 "J"	<12	<12	<12	20000	600000	NS
Naphthalene	µg/kg	83	<17	<17	<17	400	20000	56000
Phenanthrene	µg/kg	1570	<8.9	<8.9	<8.9	1800	18000	NS
Pyrene	µg/kg	3780	<11	<11	<11	8700000	500000	2300000
Cyanide, total	mg/kg	<0.5	<0.5	<0.5	<0.5	NS	NS	NS
PCB, total	mg/kg	<0.2	<0.2	<0.2	<0.2	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	SB-21			SB-22			NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	8-10	24-26	3-5	9-11	31-33			
Date		6/25/2007	6/25/2007	6/25/2007	6/25/2007	6/25/2007	6/25/2007			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	190	**780**	15	22	**490**	13	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	66	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	37 "J"	5500	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	59 "J"	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	20.7 "J"	6800	<7.2	<7.2	<7.2	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	**2320**	<7	<7	<7	<7	700	18000	NS
Acthracene	µg/kg	39 "J"	**315000**	<14	15.7 "J"	<14	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	91	**272000**	21.5 "J"	40 "J"	19.1 "J"	<15	17000	88	620
Benzo(a)pyrene	µg/kg	132	25600	38 "J"	65	35 "J"	18.2 "J"	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	184	**630000**	34	101	52	17.3 "J"	360000	88	620
Benzo(g,h,i)perylene	µg/kg	61	10100	34 "J"	46	27.3 "J"	20.6 "J"	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	70	196000	18.1 "J"	22.6 "J"	23.4 "J"	<11	870000	880	6200
Chrysene	µg/kg	145	**420000**	27.9 "J"	60	26.8 "J"	14 "J"	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	16.5 "J"	**46000**	<11	<11	<11	<11	38000	8.8	62
Fluoranthene	µg/kg	278	61000	38 "J"	104	37 "J"	16.1 "J"	500000	600000	2300000
Fluorene	µg/kg	21 "J"	11000	<8.5	<8.5	<8.5	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	58	209000	49	49	23.6 "J"	<10	680000	88	620
1-Methyl naphthalene	µg/kg	<13	**128000**	<13	14.7 "J"	<13	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	7800	<17	18 "J"	<17	<17	20000	600000	NS
Naphthalene	µg/kg	21.1 "J"	**11200**	<12	14.2 "J"	<12	<12	400	20000	56000
Phenanthrene	µg/kg	246	**1140000**	49	73	19.3 "J"	<15	1800	18000	NS
Pyrene	µg/kg	311	890000	41 "J"	97	37 "J"	16.1 "J"	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	SB-23		SB-24		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		1-3	11-13	3-5	13-15			
Date		6/25/2007	6/25/2007	6/25/2007	6/25/2007			
Metals								
Arsenic, total	mg/kg	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	57	15	44	14	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)								
sec-butylbenzene	µg/kg	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons						Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	15.2 "J"	<7.2	94	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	<7	<7	<7	700	18000	NS
Acthracene	µg/kg	31.1 "J"	<14	227	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	83	<15	500	<15	17000	88	620
Benzo(a)pyrene	µg/kg	130	<15	690	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	231	<8.1	1220	<8.1	360000	88	620
Benzo(g,h,i)perylene	µg/kg	75	<14	316	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	96	<11	510	<11	870000	880	6200
Chrysene	µg/kg	147	<13	820	<13	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	<11	<11	54	<11	38000	8.8	62
Fluoranthene	µg/kg	360	<13	1860	<13	500000	600000	2300000
Fluorene	µg/kg	17.6 "J"	<8.5	85	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	79	<10	330	<10	680000	88	620
1-Methyl naphthalene	µg/kg	<13	<13	14.7 "J"	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	<17	17.9 "J"	<17	20000	600000	NS
Naphthalene	µg/kg	<12	<12	22.1 "J"	<12	400	20000	56000
Phenanthrene	µg/kg	217	<15	980	<15	1800	18000	NS
Pyrene	µg/kg	278	<13	1470	<13	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	SB-25			SB-26			NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		3-5	15-17	25-27	3-5	9-11	27-29			
Date		6/25/2007	6/25/2007	6/25/2007	6/25/2007	6/25/2007	6/25/2007			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	540	400	11	94	777	16	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	13.7 "J"	<7.2	<7.2	47	550	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	<7	<7	<7	93	<7	700	18000	NS
Acthracene	µg/kg	54	<14	<14	109	5600	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	151	<15	<15	350	**32000**	<15	17000	88	620
Benzo(a)pyrene	µg/kg	226	22.8 "J"	<15	265	30800	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	410	43	10.6 "J"	360	34000	<8.1	360000	88	620
Benzo(g,h,i)perylene	µg/kg	118	<14	<14	256	17800	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	154	<11	<11	155	12400	<11	870000	880	6200
Chrysene	µg/kg	269	22.9 "J"	<13	360	26800	<13	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	23.6 "J"	<11	<11	50	4100	<11	38000	8.8	62
Fluoranthene	µg/kg	490	40 "J"	<13	830	54000	<13	500000	600000	2300000
Fluorene	µg/kg	14.6 "J"	<8.5	<8.5	53	520	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	123	<10	<10	271	21300	<10	680000	88	620
1-Methyl naphthalene	µg/kg	14 "J"	14.6 "J"	<13	15.6 "J"	296	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	<17	<17	<17	370	<17	20000	600000	NS
Naphthalene	µg/kg	15.9 "J"	14.3 "J"	<12	30.9 "J"	**710**	<12	400	20000	56000
Phenanthrene	µg/kg	248	50	<15	540	**16600**	<15	1800	18000	NS
Pyrene	µg/kg	420	27.7 "J"	<13	670	49000	<13	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg = microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-Industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-1		GP-2		GP-3		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	8-10	4-6	8-10	4-6	10-12			
Date		2/21/2006	2/21/2006	2/21/2006	2/21/2006	2/21/2006	2/21/2006			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	31.4 "J"	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	50 "J"	<17	482	<17	53 "J"	<17	38000	900000	3700000
Acenaphthylene	µg/kg	<19	<19	67	<19	<19	<19	700	18000	NS
Acthracene	µg/kg	75	<11	1110	<11	381	<11	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	154	<12	2140	<12	1220	<12	17000	88	620
Benzo(a)pyrene	µg/kg	127	<8.1	1610	<8.1	935	<8.1	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	295	<7.5	2310	<7.5	1380	<7.5	360000	88	620
Benzo(g,h,i)perylene	µg/kg	138	<8.5	1090	<8.5	679	<8.5	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	109	<14	631	<14	412	<14	870000	880	6200
Chrysene	µg/kg	276	<20	1540	<20	1000	<20	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	25 "J"	<11	168	<11	123	<11	38000	8.8	62
Fluoranthene	µg/kg	676	<7.4	4410	<7.4	3140	15 "J"	500000	600000	2300000
Fluorene	µg/kg	53	<9.5	740	<9.5	59	<9.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	118	<9.5	981	<9.5	553	<9.5	680000	88	620
1-Methyl naphthalene	µg/kg	<11	<11	443	<11	16 "J"	<11	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<12	<12	377	<12	16 "J"	<12	20000	600000	NS
Naphthalene	µg/kg	20 "J"	<17	**453**	<17	<17	<17	400	20000	56000
Phenanthrene	µg/kg	409	<8.9	3640	<8.9	1330	13 "J"	1800	18000	NS
Pyrene	µg/kg	492	<11	3600	<11	2280	<11	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
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Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-4		GP-5		GP-6		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	10-12	2-4	12-15	0-2	17-19			
Date		2/21/2006	2/21/2006	2/21/2006	2/21/2006	2/21/2006	2/21/2006			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	25.6 "J"	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	30.6 "J"	<25	<25	<25	33 "J"	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	68	<17	38 "J"	19 "J"	77	<17	38000	900000	3700000
Acenaphthylene	µg/kg	24 "J"	<19	27 "J"	<19	35 "J"	<19	700	18000	NS
Acthracene	µg/kg	104	<11	92	47	217	<11	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	624	<12	432	259	605	<12	17000	88	620
Benzo(a)pyrene	µg/kg	513	<8.1	432	149	465	<8.1	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	951	21 "J"	854	401	881	<7.5	360000	88	620
Benzo(g,h,I)perylene	µg/kg	453	<8.5	396	118	360	<8.5	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	303	<14	234	141	287	<14	870000	880	6200
Chrysene	µg/kg	636	<20	542	370	642	<20	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	91	<11	73	23 "J"	71	<11	38000	8.8	62
Fluoranthene	µg/kg	1730	33	1310	828	1950	8.2 "J"	500000	600000	2300000
Fluorene	µg/kg	70	<9.5	35	17 "J"	91	<9.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	350	<9.5	296	92	267	<9.5	680000	88	620
1-Methyl naphthalene	µg/kg	<11	<11	<11	<11	33 "J"	<11	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<12	<12	<12	<12	32 "J"	<12	20000	600000	NS
Naphthalene	µg/kg	22 "J"	<17	<17	<17	61	<17	400	20000	56000
Phenanthrene	µg/kg	745	17 "J"	458	277	1210	<8.9	1800	18000	NS
Pyrene	µg/kg	1290	22 "J"	1010	607	1500	<11	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-7		GP-8		GP-9		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	8-10	2-4	'8-10	0-2	2-4			
Date		2/21/2006	2/21/2006	2/21/2006	2/21/2006	2/21/2006	2/21/2006			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	112	43	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	657	<17	<17	<17	<17	<17	38000	900000	3700000
Acenaphthylene	µg/kg	<19	<19	<19	<19	<19	<19	700	18000	NS
Acthracene	µg/kg	1070	<11	<11	<11	29 "J"	<11	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	2370	<12	26 "J"	<12	185	<12	17000	88	620
Benzo(a)pyrene	µg/kg	2150	<8.1	12 "J"	<8.1	154	<8.1	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	3280	<7.5	57	<7.5	351	<7.5	360000	88	620
Benzo(g,h,i)perylene	µg/kg	1260	<8.5	20 "J"	<8.5	120	<8.5	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	889	<14	22 "J"	<14	131	<14	870000	880	6200
Chrysene	µg/kg	1950	<20	66	<20	258	<20	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	229	<11	<11	<11	11"J"	<11	38000	8.8	62
Fluoranthene	µg/kg	8200	14 "J"	105	<7.4	495	8.5 "J"	500000	600000	2300000
Fluorene	µg/kg	882	<9.5	<9.5	<9.5	<9.5	<9.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	1210	<9.5	15"J"	<9.5	94	<9.5	680000	88	620
1-Methyl naphthalene	µg/kg	74	<11	<11	<11	<11	<11	23000	1100000	NS
2-Methyl naphthalene	µg/kg	70	<12	<12	<12	<12	<12	20000	600000	NS
Naphthalene	µg/kg	211	<17	<17	<17	<17	<17	400	20000	56000
Phenanthrene	µg/kg	**6110**	12 "J"	53	<8.9	157	<8.9	1800	18000	NS
Pyrene	µg/kg	5670	<11	79	<11	391	<11	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
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Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-10		GP-11		GP-12		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	8-10	2-4	6-8	0-2	8-10			
Date		6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	440	<7.2	98	<7.2	16.4 "J"	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	12.5 "J"	<7	18.3 "J"	<7	16.9 "J"	<7	700	18000	NS
Acthracene	µg/kg	850	<14	194	<14	69	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	1440	<15	680	<15	410	<15	17000	88	620
Benzo(a)pyrene	µg/kg	1180	<15	680	<15	380	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	1310	<8.1	940	<8.1	590	<8.1	360000	88	620
Benzo(g,h,i)perylene	µg/kg	460	<14	298	<14	158	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	380	<11	288	<11	225	<11	870000	880	6200
Chrysene	µg/kg	1420	<13	790	<13	520	<13	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	103	<11	77	<11	41	<11	38000	8.8	62
Fluoranthene	µg/kg	3400	<13	1770	<13	1060	<13	500000	600000	2300000
Fluorene	µg/kg	320	<8.5	76	<8.5	19.4 "J"	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	540	<10	370	<10	206	<10	680000	88	620
1-Methyl naphthalene	µg/kg	79	<13	31.6 "J"	<13	14 "J"	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	54	<17	34 "J"	<17	<17	<17	20000	600000	NS
Naphthalene	µg/kg	26.6 "J"	<12	46	<12	12.4 "J"	<12	400	20000	56000
Phenanthrene	µg/kg	3700	<15	1100	<15	410	<15	1800	18000	NS
Pyrene	µg/kg	3700	<13	1590	<13	840	<13	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
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"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-13		GP-14		GP-15		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		0-2	4-6	2-4	6-8	2-4	10-12			
Date		6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	<7.2	<7.2	16.1 "J"	<7.2	<7.2	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	<7	<7	<7	<7	<7	700	18000	NS
Acthracene	µg/kg	<14	<14	25.3 "J"	<14	<14	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	34 "J"	<15	108	<15	27.1 "J"	<15	17000	88	620
Benzo(a)pyrene	µg/kg	28.7 "J"	<15	104	<15	21.6 "J"	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	53	<8.1	157	<8.1	34	<8.1	360000	88	620
Benzo(g,h,i)perylene	µg/kg	15.4 "J"	<14	49	<14	22.1 "J"	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	18.4 "J"	<11	58	<11	<11	<11	870000	880	6200
Chrysene	µg/kg	38 "J"	<13	133	<13	31.3 "J"	<13	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	<11	<11	<11	<11	<11	<11	38000	8.8	62
Fluoranthene	µg/kg	71	<13	272	<13	60	<13	500000	600000	2300000
Fluorene	µg/kg	<8.5	<8.5	13.8 "J"	<8.5	<8.5	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	19.8 "J"	<10	56	<10	20.2 "J"	<10	680000	88	620
1-Methyl naphthalene	µg/kg	<13	<13	<13	<13	<13	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	<17	<17	<17	<17	<17	20000	600000	NS
Naphthalene	µg/kg	<12	<12	<12	<12	<12	<12	400	20000	56000
Phenanthrene	µg/kg	30.8 "J"	<15	157	<15	25.4 "J"	<15	1800	18000	NS
Pyrene	µg/kg	58	<13	227	<13	49	<13	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-16		GP-17		GP-18		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		4-6	12-14	2-4	10-12	0-2	6-8			
Date		6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	<7.2	<7.2	7.9 "J"	<7.2	10.8 "J"	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	<7	<7	<7	<7	<7	700	18000	NS
Acthracene	µg/kg	<14	<14	20.6 "J"	<14	30.4 "J"	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	26.4 "J"	<15	65	<15	109	<15	17000	88	620
Benzo(a)pyrene	µg/kg	18.3 "J"	<15	46 "J"	<15	96	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	24.6 "J"	<8.1	67	<8.1	142	<8.1	360000	88	620
Benzo(g,h,i)perylene	µg/kg	19.3 "J"	<14	48	<14	84	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	12.4 "J"	<11	24 "J"	<11	61	<11	870000	880	6200
Chrysene	µg/kg	27.5 "J"	<13	69	<13	138	<13	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	<11	<11	<11	<11	<11	<11	38000	8.8	62
Fluoranthene	µg/kg	50	18.8 "J"	180	21 "J"	380	20.6 "J"	500000	600000	2300000
Fluorene	µg/kg	<8.5	<8.5	8.7 "J"	<8.5	14.5 "J"	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	17.5 "J"	<10	44	<10	90	<10	680000	88	620
1-Methyl naphthalene	µg/kg	<13	<13	<13	<13	<13	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	<17	<17	<17	<17	<17	20000	600000	NS
Naphthalene	µg/kg	<12	<12	<12	<12	<12	<12	400	20000	56000
Phenanthrene	µg/kg	30.1 "J"	16.8 "J"	120	19.8 "J"	214	<15	1800	18000	NS
Pyrene	µg/kg	46	14.1 "J"	144	14.4 "J"	277	15.3 "J"	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-19		GP-20		GP-21			NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		0-2	4-6	2-4	6-8	2-4	12-14	14-16			
Date		6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007			
Metals											
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)											
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	308	<25	<25	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons									Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	540	<7.2	<7.2	<7.2	<7.2	10.7 "J"	7.7 "J"	38000	900000	3700000
Acenaphthylene	µg/kg	60 "J"	<7	<7	<7	<7	<7	<7	700	18000	NS
Acthracene	µg/kg	3300	<14	14.2 "J"	<14	<14	21.1 "J"	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	8800	43 "J"	62	<15	22.6 "J"	38 "J"	21.5 "J"	17000	88	620
Benzo(a)pyrene	µg/kg	11400	35 "J"	54	<15	<15	24.4 "J"	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	12600	42	74	<8.1	19.2 "J"	36	14.8 "J"	360000	88	620
Benzo(g,h,i)perylene	µg/kg	8800	27.4 "J"	41 "J"	<14	<14	18.7 "J"	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	4300	<11	29.2 "J"	<11	<11	17.7 "J"	<11	870000	880	6200
Chrysene	µg/kg	6900	36 "J"	70	<13	19.1 "J"	40 "J"	16.9 "J"	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	1590	<11	<11	<11	<11	<11	<11	38000	8.8	62
Fluoranthene	µg/kg	21500	91	154	14.2 "J"	45	113	57	500000	600000	2300000
Fluorene	µg/kg	450	<8.5	<8.5	<8.5	<8.5	12.6 "J"	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	10000	25.9 "J"	44	<10	12.1 "J"	19.6 "J"	<10	680000	88	620
1-Methyl naphthalene	µg/kg	<65	<13	<13	<13	<13	<13	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<85	<17	<17	<17	<17	<17	<17	20000	600000	NS
Naphthalene	µg/kg	125 "J"	<12	<12	<12	<12	<12	<12	400	20000	56000
Phenanthrene	µg/kg	7800	47 "J"	84	<15	28.5 "J"	111	67	1800	18000	NS
Pyrene	µg/kg	19300	78	123	<13	34 "J"	80	39 "J"	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-22		GP-23		GP-24		GP-25		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	6-8	2-4	6-8	2-4	6-8	6-8	12-14			
Date		6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007	6/21/2007			
Metals												
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)												
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	<25	26.2 "J"	35 "J"	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons										Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	<7.2	<7.2	<7.2	<7.2	<7.2	10.1 "J"	38	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	<7	<7	<7	<7	<7	7.3 "J"	<7	700	18000	NS
Acthracene	µg/kg	<14	<14	23.9 "J"	<14	<14	25.6 "J"	116	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	73	<15	135	<15	<15	55	262	<15	17000	88	620
Benzo(a)pyrene	µg/kg	69	<15	128	<15	<15	48 "J"	217	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	107	<8.1	168	<8.1	<8.1	63	310	<8.1	360000	88	620
Benzo(g,h,i)perylene	µg/kg	59	<14	88	<14	<14	29.5 "J"	100	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	45	<11	73	<11	<11	33 "J"	111	<11	870000	880	6200
Chrysene	µg/kg	96	<13	133	<13	<13	59	274	<13	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	<11	<11	13.5 "J"	<11	<11	<11	21.7 "J"	<11	38000	8.8	62
Fluoranthene	µg/kg	196	<13	261	<13	<13	113	650	<13	500000	600000	2300000
Fluorene	µg/kg	<8.5	<8.5	<8.5	<8.5	<8.5	11.2 "J"	47	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	58	<10	103	<10	<10	31 "J"	113	<10	680000	88	620
1-Methyl naphthalene	µg/kg	<13	<13	<13	<13	<13	<13	17.2 "J"	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	<17	<17	<17	<17	<17	<17	<17	20000	600000	NS
Naphthalene	µg/kg	<12	<12	<12	<12	<12	<12	20 "J"	<12	400	20000	56000
Phenanthrene	µg/kg	70	<15	94	<15	<15	89	490	<15	1800	18000	NS
Pyrene	µg/kg	158	<13	246	<13	<13	97	510	<13	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-27		GP-28		GP-29		GP-30		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	6-8	2-4	6-8	2-4	8-10	2-4	6-8			
Date		8/24/2007	8/24/2007	8/24/2007	8/24/2007	8/24/2007	8/24/2007	8/24/2007	8/24/2007			
Metals												
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)												
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons										Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	<7	<7	<7	<7	<7	<7	<7	700	18000	NS
Acthracene	µg/kg	<14	<14	<14	<14	<14	<14	<14	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	<15	<15	<15	<15	<15	<15	<15	<15	17000	88	620
Benzo(a)pyrene	µg/kg	<15	<15	<15	<15	<15	<15	<15	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	<8.1	<8.1	<8.1	<8.1	<8.1	<8.1	<8.1	<8.1	360000	88	620
Benzo(g,h,i)perylene	µg/kg	<14	<14	<14	<14	<14	<14	<14	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	<11	<11	<11	<11	<11	<11	<11	<11	870000	880	6200
Chrysene	µg/kg	<13	<13	<13	<13	<13	<13	<13	<13	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	<11	<11	<11	<11	<11	<11	<11	<11	38000	8.8	62
Fluoranthene	µg/kg	<13	<13	<13	<13	<13	<13	<13	<13	500000	600000	2300000
Fluorene	µg/kg	<8.5	<8.5	<8.5	<8.5	<8.5	<8.5	<8.5	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	<10	<10	<10	<10	<10	<10	<10	<10	680000	88	620
1-Methyl naphthalene	µg/kg	<13	<13	<13	<13	<13	<13	<13	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	<17	<17	<17	<17	<17	<17	<17	20000	600000	NS
Naphthalene	µg/kg	<12	<12	<12	<12	<12	<12	<12	<12	400	20000	56000
Phenanthrene	µg/kg	<15	<15	<15	<15	<15	<15	<15	<15	1800	18000	NS
Pyrene	µg/kg	<13	<13	<13	<13	<13	<13	<13	<13	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-31		GP-32		GP-33		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	6-8	2-4	6-8	0-2	4-6			
Date		8/24/2007	8/24/2007	9/4/2007	9/4/2007	9/4/2007	9/4/2007			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	73	7.8	3.6	4.3	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	NA	NA	NA	NA	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	NA	NA	NA	NA	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	NA	NA	NA	NA	NS	NS	NS
Naphthalene	µg/kg	<25	<25	NA	NA	NA	NA	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	NA	NA	NA	NA	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	NA	NA	NA	NA	NS	83000	NS
Xylenes	µg/kg	<75	<75	NA	NA	NA	NA	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	<7	<7	<7	<7	<7	700	18000	NS
Acthracene	µg/kg	<14	<14	<14	<14	<14	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	<15	<15	26.2 "J"	<15	<15	<15	17000	88	620
Benzo(a)pyrene	µg/kg	<15	<15	23.9 "J"	<15	<15	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	<8.1	<8.1	29.1	11.1 "J"	<8.1	11.1 "J"	360000	88	620
Benzo(g,h,i)perylene	µg/kg	<14	<14	15.5"J"	<14	<14	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	<11	<11	<11	<11	<11	<11	870000	880	6200
Chrysene	µg/kg	<13	<13	19.4 "J"	<13	<13	<13	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	<11	<11	<11	<11	<11	<11	38000	8.8	62
Fluoranthene	µg/kg	<13	<13	22.3 "J"	13.8 "J"	<13	18.1 "J"	500000	600000	2300000
Fluorene	µg/kg	<8.5	<8.5	<8.5	<8.5	<8.5	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	<10	<10	<10	<10	<10	<10	680000	88	620
1-Methyl naphthalene	µg/kg	<13	<13	<13	<13	<13	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	<17	<17	<17	<17	<17	20000	600000	NS
Naphthalene	µg/kg	<12	<12	<12	<12	<12	<12	400	20000	56000
Phenanthrene	µg/kg	<15	<15	<15	<15	<15	<15	1800	18000	NS
Pyrene	µg/kg	<13	<13	24.6 "J"	<13	<13	14 "J"	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-34			GP-35		GP-36		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	6-8	10-12	0-2	4-6	2-4	6-8			
Date		9/4/2007	9/4/2007	9/4/2007	9/4/2007	9/4/2007	9/14/2007	9/14/2007			
Metals											
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	4.8	5.8	4.2	6.6	4.4	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)											
sec-butylbenzene	µg/kg	NA	NA	NA	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	NA	NA	NA	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	NA	NA	NA	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	NA	NA	NA	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	NA	NA	NA	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	NA	NA	NA	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	NA	NA	NA	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons									Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	<7	<7	<7	<7	8.9 "J"	<7	700	18000	NS
Acthracene	µg/kg	<14	<14	<14	<14	<14	53	17.9 "J"	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	<15	<15	<15	<15	<15	520	42 "J"	17000	88	620
Benzo(a)pyrene	µg/kg	<15	<15	<15	<15	<15	580	33 "J"	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	<8.1	<8.1	<8.1	<8.1	<8.1	680	44	360000	88	620
Benzo(g,h,i)perylene	µg/kg	<14	<14	<14	<14	<14	360	19.1 "J"	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	<11	<11	<11	<11	<11	204	16.4 "J"	870000	880	6200
Chrysene	µg/kg	<13	<13	<13	<13	<13	450	36 "J"	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	<11	<11	<11	<11	<11	72	<11	38000	8.8	62
Fluoranthene	µg/kg	<13	<13	<13	<13	<13	1100	84	500000	600000	2300000
Fluorene	µg/kg	<8.5	<8.5	<8.5	<8.5	<8.5	<8.5	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	<10	<10	<10	<10	<10	400	17.3 "J"	680000	88	620
1-Methyl naphthalene	µg/kg	<13	<13	<13	<13	<13	<13	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	<17	<17	<17	<17	<17	<17	20000	600000	NS
Naphthalene	µg/kg	<12	<12	<12	<12	<12	15.2 "J"	<12	400	20000	56000
Phenanthrene	µg/kg	<15	<15	<15	<15	<15	73	65	1800	18000	NS
Pyrene	µg/kg	<13	<13	<13	<13	<13	1150	76	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
"J" = Analyte detected within limit of detection and limit of quantification
NR 720 RCL = Chapter NR 720 Residual Contaminant Levels
NR 746 Table 1 = Chapter NR 746 Table 1, Indicators of Residual Petroleum Product in Soil Pores
Groundwater Pathway = Interim guidance RCL for protection of groundwater pathway from PAHs, from WDNR pub. RR-519-97
Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL

Table 1 - Soil Quality Results - Detects Only

Columbia St. Mary's - Water Tower Medical Commons
Milwaukee, Wisconsin
Project Reference #10483

Soil Boring ID	Units	GP-37		GP-38		GP-39		NR 720 RCL	NR 746 Table 1	EPA PRG SSL
Depth		2-4	6-8	0-2	4-6	2-4	6-8			
Date		9/14/2007	9/14/2007	9/14/2007	9/14/2007	9/14/2007	9/14/2007			
Metals										
Arsenic, total	mg/kg	NA	NA	NA	NA	NA	NA	0.039	NS	0.039
Barium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	5400
Cadmium, total	mg/kg	NA	NA	NA	NA	NA	NA	8	NS	37
Chromium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	210
Lead, total	mg/kg	NA	NA	NA	NA	NA	NA	50	NS	400
Mercury, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	23
Selenium, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Silver, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	78.2
Volatile Organic Compounds (VOCs)										
sec-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	110000
n-butylbenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	140000
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	NS
Naphthalene	µg/kg	<25	<25	<25	<25	<25	<25	NS	2700	313000
Trichlorofluoromethane	µg/kg	<25	<25	<25	<25	<25	<25	NS	NS	2800
1,2,4-Trimethlybenzene	µg/kg	<25	<25	<25	<25	<25	<25	NS	83000	NS
Xylenes	µg/kg	<75	<75	<75	<75	<75	<75	4100	42000	NS
Polynuclear Aromatic Hydrocarbons								Groundwater Pathway RCL	Direct Contact Non-Industrial RCL	EPA PRG SSL
Acenaphthene	µg/kg	<7.2	<7.2	26.3	<7.2	<7.2	<7.2	38000	900000	3700000
Acenaphthylene	µg/kg	<7	<7	<7	<7	<7	<7	700	18000	NS
Acthracene	µg/kg	<14	<14	82	<14	<14	<14	300000	5000000	22000000
Benzo(a)anthracene	µg/kg	32 "J"	32 "J"	192	<15	30.8 "J"	<15	17000	88	620
Benzo(a)pyrene	µg/kg	25.7 "J"	21.2 "J"	176	<15	27.5 "J"	<15	48000	8.8	62
Benzo(b)fluoranthene	µg/kg	36	31.1	228	<8.1	45	<8.1	360000	88	620
Benzo(g,h,i)perylene	µg/kg	14.4 "J"	16.9 "J"	104	<14	18.6 "J"	<14	6800000	1800	NS
Benzo(k)fluoranthene	µg/kg	15.2 "J"	12.1 "J"	88	<11	17.5 "J"	<11	870000	880	6200
Chrysene	µg/kg	28.6 "J"	30.7 "J"	200	<13	36 "J"	<13	37000	880	62000
Dibenzo(a,h)anthracene	µg/kg	<11	<11	21.5 "J"	<11	<11	<11	38000	8.8	62
Fluoranthene	µg/kg	73	71	470	<13	64	<13	500000	600000	2300000
Fluorene	µg/kg	<8.5	<8.5	37	<8.5	<8.5	<8.5	100000	600000	2600000
Indeno(1,2,3-cd)pyrene	µg/kg	12 "J"	12.8 "J"	99	<10	16.8 "J"	<10	680000	88	620
1-Methyl naphthalene	µg/kg	<13	<13	30 "J"	<13	<13	<13	23000	1100000	NS
2-Methyl naphthalene	µg/kg	<17	<17	32 "J"	<17	<17	<17	20000	600000	NS
Naphthalene	µg/kg	<12	<12	61	<12	<12	<12	400	20000	56000
Phenanthrene	µg/kg	41 "J"	28.3 "J"	380	<15	23.2 "J"	<15	1800	18000	NS
Pyrene	µg/kg	60	58	450	<13	59	<13	8700000	500000	2300000
Cyanide, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	NS
PCB, total	mg/kg	NA	NA	NA	NA	NA	NA	NS	NS	0.22

Notes:

mg/kg = milligram per kilogram
µg/kg =microgram per kilogram
NA = Not analyzed
NS = No established standard
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Direct Contact Non-Industrial = Interim guidance RCL for protection of direct contact with PAHs (non-industrial land use) from WDNR pub. RR-519-97
EPA PRG SSLs = EPA Region 9Preliminary Remediation Goals Soil Screening Levels (Non-industrial)

BOLD = Concentrations reported above NR 720 RCLs or Groundwater Pathway
[ ] = Concentrations reported above NR 746 Table 1 or Direct Contact Non-Industrial
Underline = Concentrations reported above EPA PRG SSL