State of Wisconsin
Department of Natural Resources
P.O. Box 7921, Madison, WI 53707-7921

GIS REGISTRY (Cover Sheet)
Form 4400-280 (R 6/13)

Source Property Information

CLOSURE DATE: 04/07/2014

BRRTS #: 03-41-545220

FID #: 341124740

ACTIVITY NAME: 1100 W Center St

DATCP #:

PROPERTY ADDRESS: 1100 W Center St

PECFA#: 53206263200A

MUNICIPALITY: Milwaukee

PARCEL ID #: 3122263100

***WTM COORDINATES:**

X: **688895** Y: **290439**

** 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)

CONTINUING OBLIGATIONS

Contaminated Media for Residual Contamination:

- [x] Groundwater Contamination > ES *(236)*
  - [x] Contamination in ROW
  - [ ] Off-Source Contamination

  *(**note:** for list of off-source properties see "Impacted Off-Source Property Information, Form 4400-246")*

- [x] Soil Contamination > *RCL or **SSRCL *(232)*
  - [x] Contamination in ROW
  - [ ] Off-Source Contamination

  *(**note:** for list of off-source properties see "Impacted Off-Source Property Information, Form 4400-246")*

Site Specific Obligations:

- [ ] Soil: maintain industrial zoning *(220)*

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

- [ ] Structural Impediment *(224)*
- [ ] Site Specific Condition *(228)*
- [ ] Cover or Barrier *(222)*
  - [ ] Direct Contact
  - [ ] Soil to GW Pathway
- [x] Vapor Mitigation *(226)*
- [ ] Maintain Liability Exemption *(230)*

  *(**note:** local government unit or economic development corporation was directed to take a response action)*

Monitoring Wells:

All monitoring wells are being used for open BRRTS # 02-41-548753 on this property. MW-1R, 2R, MW3 through MW7

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

(•) Yes ( ) No ( ) N/A

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

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, WI 53212

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

April 7, 2014

Mr. Mathew Reimer
Redevelopment Authority
City of Milwaukee
809 N. Broadway
Milwaukee, WI 53201

KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT: Final Case Closure with Continuing Obligations
1100 W. Center St. Property, 1100 W. Center St., Milwaukee
DNR BRRTS # 03-41-545220 PECFA # 53206-2632-00-A
FID #: 341124740

Dear Mr. Reimer:

The Department of Natural Resources (DNR) considers the 1100 West Center Street Property leaking underground storage tank site closed, with continuing obligations. No further investigation or remediation is required at this time. However, you, future property owners, and occupants of the property must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and any attachments listed at the end of this letter to anyone who purchases, rents or leases this property from you. For residential property transactions, you may be required to make disclosures under s. 709.02, Wis. Stats.

This final closure decision is based on the correspondence and data provided, and is issued under chs. NR 726 and 727, Wis. Adm. Code. The Southeast Region Closure Committee reviewed the request for closure on April 3, 2014. The Closure Committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases.

In 2006, two 550-gallon and one 1,000-gallon leaded gasoline underground storage tanks (USTs) were removed, and in 2012, one 1,000-gallon fuel oil UST was removed from the eastern portion of this vacant lot. Approximately 738 tons of petroleum-contaminated soil was excavated from these locations in November 2012 to remediate soil contamination the site. Laboratory analyses of the sidewall and bottom samples indicate that contaminated soil remains on the eastern portion of the property, at depths of 8 to 12 feet below ground surface, and extends into the North 11th Street right-of-way. The groundwater investigation indicates that groundwater contamination also extends to the east into the North 11th Street right-of-way. The conditions of closure and continuing obligations required were based on the property being used for commercial and residential purposes.

All seven site monitoring wells (MW-1R, 2R, and MW-3 through MW-7) are to be used for continued monitoring as part of the open non-petroleum site at this same address (DNR BRRTS #02-41-548753). Do NOT fill and seal these wells at this time. Well filling and sealing will be required upon conclusion of the cleanup of that site. These wells are identified on the **attached map** (Monitoring Wells, Figure B.3.d., dated January 2014).

Continuing Obligations

The continuing obligations for this site are summarized below. Further details on actions required are found in the section Closure Conditions.

- Groundwater contamination is present above ch. NR 140, Wis. Adm. Code enforcement standards.
- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- All site monitoring wells are approved to be kept for monitoring of the open non-petroleum contamination site on this property (DNR BRRTS #02-41-548753). The wells must be properly filled and sealed when approved by the DNR at the time of case closure.
- Remaining soil contamination could result in vapor intrusion if future construction activities occur. Vapor control technologies will be required for occupied buildings, unless the property owner assesses the potential for vapor intrusion, and the DNR agrees that vapor control technologies are not needed.

The DNR fact sheet, "Continuing Obligations for Environmental Protection", RR-819, helps to explain a property owner's responsibility for continuing obligations on their property. The fact sheet may be obtained at http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf.

GIS Registry

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at http://dnr.wi.gov/topic/Brownfields/clean.html, to provide public notice of residual contamination and of any continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), a map view, under the Geographic Information System (GIS) Registry layer, at the same web address.

DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at http://dnr.wi.gov/topic/wells/documents/3300254.pdf.

All site information is on file at the Southeast Region DNR office at 2300 N. Dr. Martin Luther King, Jr. Drive, Milwaukee, Wisconsin. This letter and information that was submitted with your closure request application, including all maps, can be found as a Portable Document Format (PDF) in BRRTS on the Web.

Closure Conditions

Compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter are met.

Residual Groundwater Contamination (ch. NR 140, 812, Wis. Adm. Code)
Groundwater contamination greater than enforcement standards is present on this contaminated property and extends off this contaminated property to the east, into the right-of-way, as shown on the **attached map** (Groundwater Isoconcentration, Figure B.3.b., dated January 2014). If you intend to construct a new well, or reconstruct an existing well, you'll need prior DNR approval. Affected property owners and right-of-way holders were notified of the presence of groundwater contamination.

Residual Soil Contamination (ch. NR 718, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.)
Soil contamination remains along the eastern portion of the property, in the former underground storage tank locations, as indicated on the **attached map** (Post Remedial Soil Contamination, Figure B.2.b., dated January 2014). If soil in the specific locations described above is excavated in the future, the property owner or right-of-way holder at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner or right-of-way holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage,

treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval.

In addition, all current and future owners and occupants of the property and right-of-way holders 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.

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

Future Concern: Petroleum volatile organic compounds, particularly benzene, remain in soil along the eastern portion of the property, as shown on the **attached map** (Post-Remedial Soil Contamination, Figure B.2.b., dated January 2014), at levels that may be of concern for vapor intrusion in the future, depending on construction and occupancy of a building. Currently, there are no structures on this property. Therefore, before a building is constructed, the property owner must notify the DNR at least 45 days before the change. Vapor control technologies are required for construction of occupied buildings unless the property owner assesses the vapor pathway and DNR agrees that vapor control technologies are not needed.

PECFA Reimbursement

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

In Closing

Please be aware that the case may be reopened pursuant to s. NR 727.13, Wis. Adm. Code, for any of the following situations:

- 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,
- if the property owner does not comply with the conditions of closure, with any deed restrictions applied to the property, or with a certificate of completion issued under s. 292.15, Wis. Stats, or
- a property owner fails to maintain or comply with a continuing obligation (imposed under this closure approval letter).

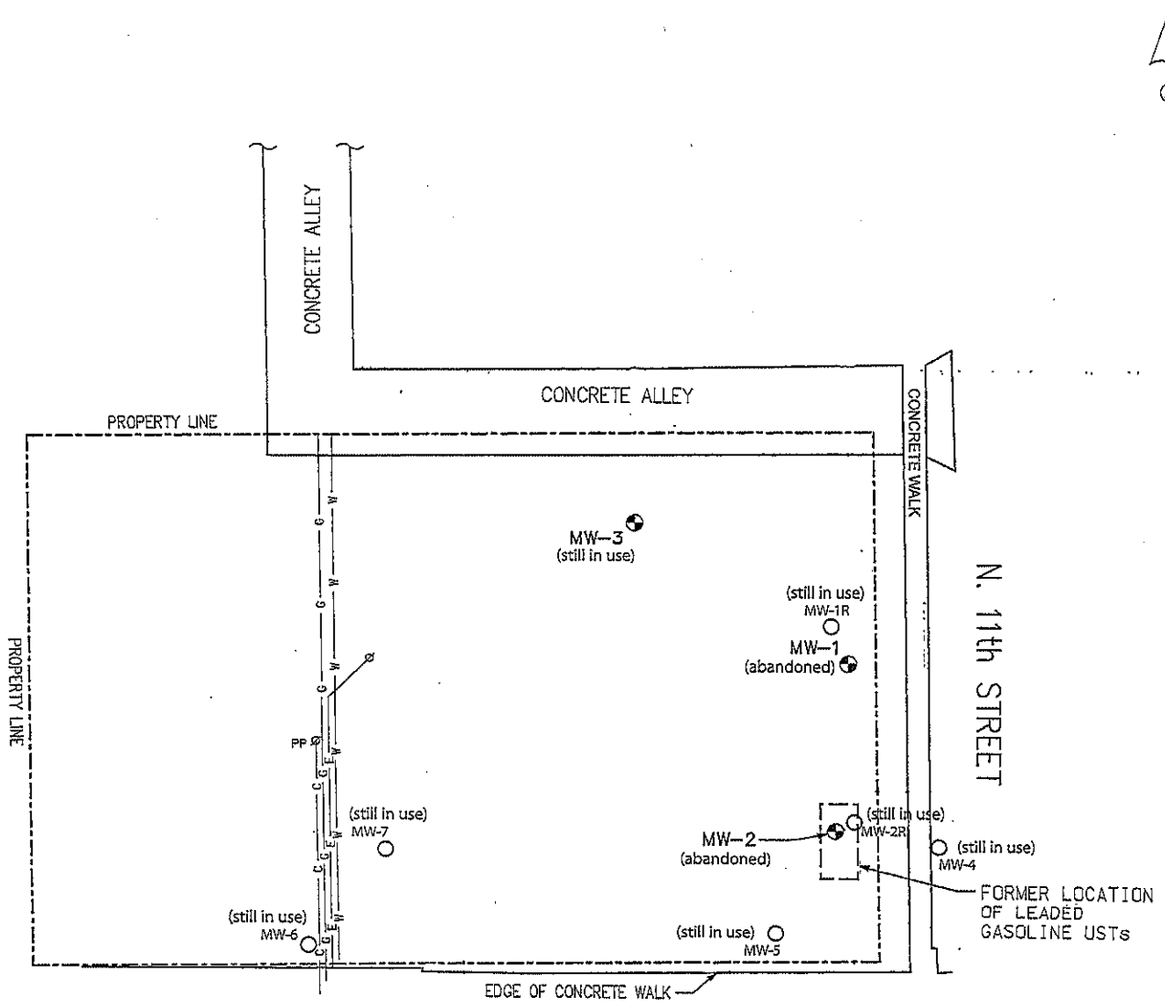
The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Linda Michalets at (414) 263-8757, or at linda.michalets@wisconsin.gov.

Sincerely,

Pamela Mylotta, Team Supervisor
Southeast Region Remediation and Redevelopment Program

Attachments: Monitoring Wells, Figure B.3.d., dated January 2014
Groundwater Isoconcentration, Figure B.3.b., dated January 2014
Post-Remedial Soil Contamination, Figure B.2.b., dated January 2014

cc: Mr. Stephen Meer, The Sigma Group, Inc.



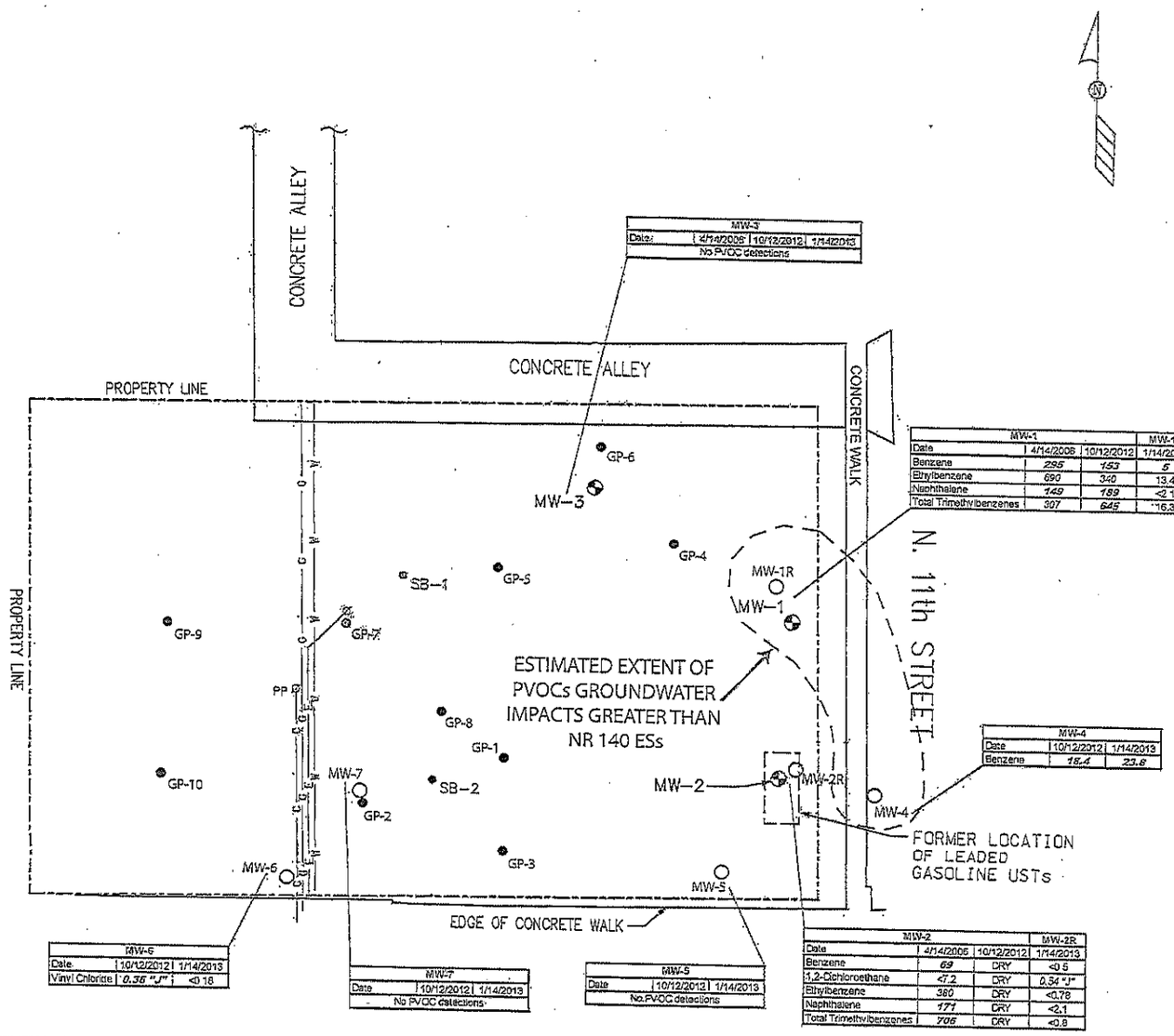
LEGEND
● = SOIL BORING LOCATION (2012)
○ = MONITORING WELL LOCATION (2012)
- - - - - - = REMEDIAL EXCAVATION LIMITS (2012)
X = TANK AND REMEDIAL EXCAVATION SAMPLE LOCATION (2006 and 2012)
MW = PROPOSED MONITORING WELL LOCATION
SB ● = SOIL BORING LOCATION
— — — — = UST EXCAVATION
PP Ø = POWER POLE LOCATION
—C— = UNDERGROUND COMMUNICATION LINE
—G— = UNDERGROUND GAS LINE
—E— = UNDERGROUND ELECTRIC LINE
—W— = UNDERGROUND WATER LINE

GRAPHIC SCALE

0′ 15′ 30′ 60′

NOTES:
1. MAP BASED ON A SURVEY PERFORMED BY MAKING THE GRADE. COMPLETED APRIL 2006.
2. LOCATIONS OF UTILITY LINES ARE APPROXIMATE. UTILITY LINES HAVE NOT BEEN SURVEYED.

CITY OF MILWAUKEE 1100–1122 W. CENTER STREET, MILWAUKEE, WI			SIGMA ENVIRONMENTAL SERVICES INC.
DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′
MONITORING WELLS			FIGURE B.3.d.



NOTE: The most recent round of groundwater sampling (1/14/2013) occured after the remedial excavation, and the data indicated that the flow direction is to the northwest. This is a drastic change in groundwater flow from previously collected pre-remedial excavation groundwater elevation data.

LEGEND
● = SOIL BORING LOCATION (2012)
○ = MONITORING WELL LOCATION (2012)
- - - - - = REMEDIAL EXCAVATION LIMITS (2012)
X = TANK AND REMEDIAL EXCAVATION SAMPLE LOCATION (2006 and 2012)
MW ⊕ = PROPOSED MONITORING WELL LOCATION
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— — — = UST EXCAVATION
PP Ø = POWER POLE LOCATION
—— C —— = UNDERGROUND COMMUNICATION LINE
—— G —— = UNDERGROUND GAS LINE
—— E —— = UNDERGROUND ELECTRIC LINE
—— W —— = UNDERGROUND WATER LINE

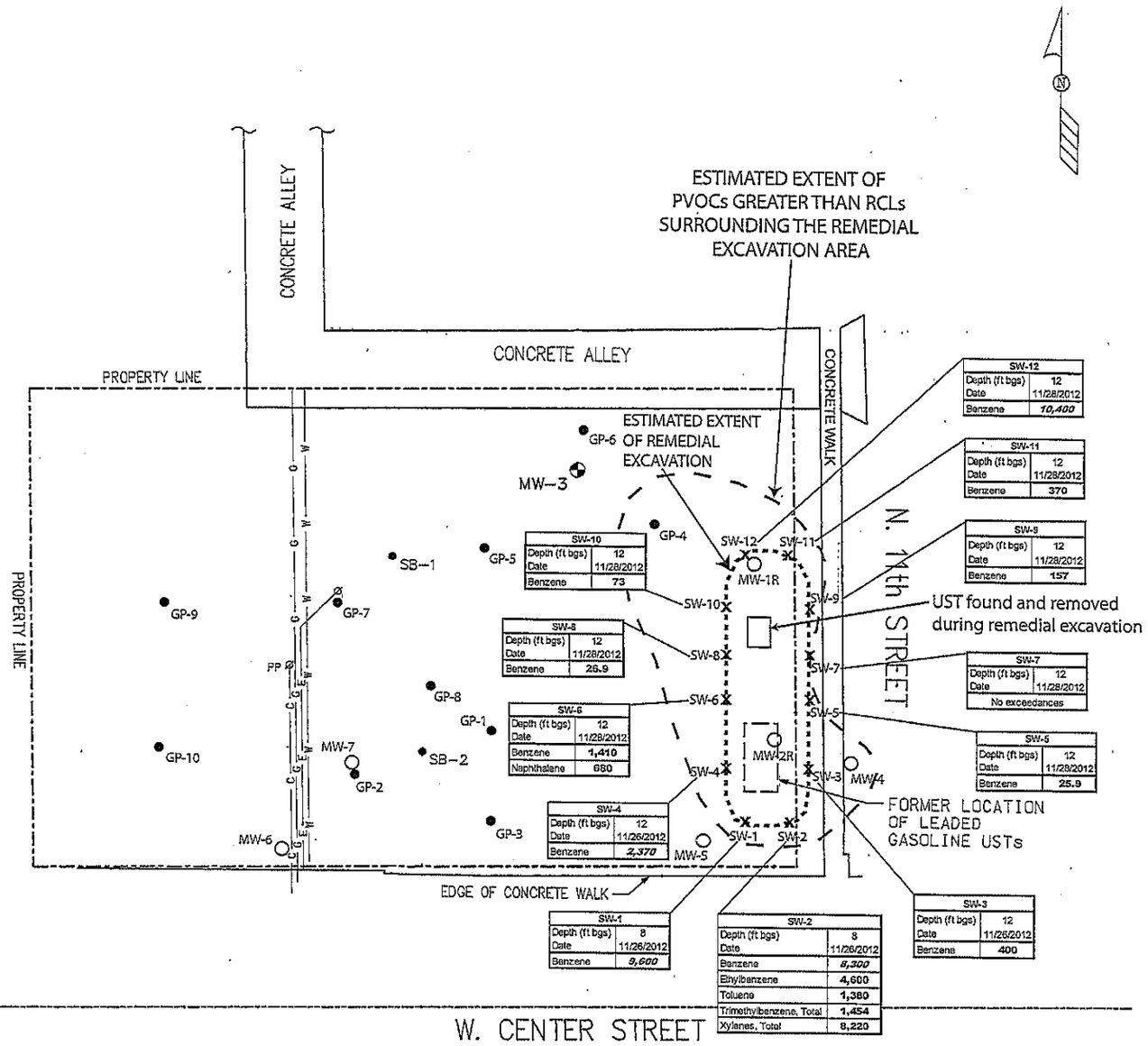
Analytical Key
Only compounds that exceed applicable standards are included.
Concentrations = µg/L
BOLD = Exceeds NR 140 Enforcement Standard
ITALICS = Exceeds NR 140 Preventive Action Limit

GRAPHIC SCALE

0' 15' 30' 60'

NOTES:
1. MAP BASED ON A SURVEY PERFORMED BY MAKING THE GRADE. COMPLETED APRIL 2006.
2. LOCATIONS OF UTILITY LINES ARE APPROXIMATE. UTILITY LINES HAVE NOT BEEN SURVEYED.

CITY OF MILWAUKEE 1100-1122 W. CENTER STREET, MILWAUKEE, WI			SIGMA ENVIRONMENTAL SERVICES INC.
DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1" = 30'
GROUNDWATER ISOCONCENTRATION			FIGURE B.3.b.



NOTE: RCLs for the protection of direct contact at a non-industrial site are not exceeded by PVOC constituents within the upper four feet of the soil column.

Analytical Key
Concentrations = µg/kg
bgs = below ground surface
BOLD = exceeds Groundw ater Pathw ay RCL
ITALICS = exceeds Non-Industrial Direct Contact RCL

LEGEND
● = SOIL BORING LOCATION (2012)
○ = MONITORING WELL LOCATION (2012)
- - - - - = REMEDIAL EXCAVATION LIMITS (2012)
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—— E —— = UNDERGROUND ELECTRIC LINE
—— W —— = UNDERGROUND WATER LINE

GRAPHIC SCALE

0' 15' 30' 60'

NOTES:
1. MAP BASED ON A SURVEY PERFORMED BY MAKING THE GRADE, COMPLETED APRIL 2006.
2. LOCATIONS OF UTILITY LINES ARE APPROXIMATE. UTILITY LINES HAVE NOT BEEN SURVEYED.

CITY OF MILWAUKEE 1100-1122 W. CENTER STREET, MILWAUKEE, WI			SIGMA ENVIRONMENTAL SERVICES INC.
DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1" = 30'
POST-REMEDIAL SOIL CONTAMINATION			FIGURE B.2.b.

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Case Closure - GIS Registry

SUBMIT AS UNBOUND PACKAGE IN THE ORDER SHOWN

Notice: Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided. Any section of the form not relevant to the case closure request must be fully filled out or explained on a separate page and attached to the relevant section of this form. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.).

Site Information

BRRTS No.	Parcel ID No.		
03-41-545220	31-22-263100		
BRRTS Activity (Site) Name	WTM Coordinates		
	X	Y	
1100 West Center Street	688875	290442	
Street Address	City	State	ZIP Code
1100 West Center Street	Milwaukee	WI	53206

Responsible Party (RP) Name
Redevelop Authority of the City of Milwaukee

Company Name
Redevelop Authority of the City of Milwaukee

Street Address	City	State	ZIP Code
809 N. Broadway	Milwaukee	WI	53202
Phone Number	Email		
(414) 286-5642	mathew.reimer@milwaukee.gov		

☒ Check here if the RP is the owner of the source property.

Environmental Consultant Name
Stephen Meer, P.E.

Consulting Firm
The Sigma Group, Inc.

Street Address	City	State	ZIP Code
1300 W. Canal Street	Milwaukee	WI	53233
Phone Number	Email		
(414) 643-4200	smeer@thesigmagroup.com		

Acres Ready For Use	Voluntary Party Liability Exemption Site?
0.49	○ Yes ◉ No

Fees and Mailing of Closure Request

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

1. **Send a copy of page one** of this form and the applicable ch. NR 749, Wis. Adm. Code, fee(s) to the DNR regional Environmental Program Associate at **http://dnr.wi.gov/topic/Brownfields/Contact.html**. Check all fees that apply:

   ☒ $1,050 Closure Fee

   ☒ $300 Database Fee for Soil

   ☒ $350 Database Fee for Groundwater or Other Condition (MW Not Abandoned)

   Total Amount of Payment $ $1,700.00

2. **Send one paper copy and one e-copy on compact disk of the entire closure package** to the Regional Project Manager assigned to your site. Submit as *unbound, separate documents* in the order and with the titles prescribed by this form. For electronic document submittal requirements, see **http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf.**

Site Summary

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

1. General Site Information and Site History

A. **Site Location**: Describe the physical location of the site, both generally and specific to its immediate surroundings.
The site is located in the southwest ¼ of the northwest ¼ of Section 17, Township 7 North, Range 22 East in the City of Milwaukee, Milwaukee County, Wisconsin. Specifically, the project site encompasses an individual parcel that was at one time five discrete properties, 1100 - 1122 West Center Street. The parcel is located on the north side of West Center Street, at the intersection between North 11th Street and West Center Street. Adjoining the site to the north is a public alley right-of-way and residential property, North 11th Street to the east, a church to the west, and West Center Street and North Division High School to the south. The entire site is a vacant, grass covered lot.

B. **Prior and current site usage**: Specifically describe the current and historic occupancy and types of use.
According to a Phase I Environmental Assessment of the site in October 2004 by the City, historical uses of the site that raise concerns include: filling station, auto transmission service, and dry cleaner and dyer. City records also reference the presence of several gasoline underground storage tanks (USTs), a 95-gallon fuel tank, and the storage of tetrachloroethene (PCE) in 50-gallon tanks at the site.

C. Describe how and when site contamination was discovered.
Three underground storage tanks (USTs) were removed on March 29, 2006. Visual observation and analytical results of the confirmation soil samples collected from below the former tank locations indicated that a release occurred. The WDNR was notified of a release on March 30, 2006.

D. Describe the type(s) and source(s) or suspected source(s) of contamination.
Petroleum hydrocarbon contamination from the former USTs on the property.

[Chlorinated volatile organic compounds (CVOCs) were reported within soil and groundwater samples located in the central south portion of the site, and shallow PAH, lead, and cyanide impacts have been identified in the central part of the site - these identified impacts are tracked under the ERP case file listed in part 1.F. and are not associated with this BRRTS #]

E. Other relevant site description information (or enter Not Applicable).
The site contains a portion of vacated North 11th Lane. Underground utility lines such as natural gas, water, and electric bisect the site from north to south within the limits of the former North 11th Lane right of way.

F. List BRRTS activity site name and number for all other BRRTS activities at this property, including closed cases.
1100 - 1122 West Center Street - WDNR BRRTS# 02-41-548753 (open case for identified CVOC, PAH, lead, and cyanide impacts)

G. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to this site, and those impacted by contamination from this site.
Not applicable.

H. **Current zoning** (e.g. industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).
Zoning RT4: Two-Family Residential District. Verified by the City of Milwaukee Property Database website.

2. General Site Conditions

A. Soil/Geology

i. Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.
Based on information obtained during Sigma's subsurface investigation, the site is covered with 3 to 12 feet of fill comprised of sandy silts and silty sands containing gravel and some clay along with some concrete debris. The lithology beneath the fill material generally consists of deposits of fine sand and silty clays to the maximum depth investigated (20 feet bgs).

ii. Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.
The site is covered with 3 to 12 feet of fill comprised of sandy silts and silty sands containing gravel and some clay along with some concrete debris.

Save

iii. Depth to bedrock, bedrock type, and whether or not it was encountered during the investigation.
Bedrock was not encountered during the subsurface investigation. Based on general knowledge, Silurian dolomite should be encountered at an estimated depth of 100 feet bgs.

iv. Describe the nature and locations of current surface cover(s) across the site (e.g. natural vegetation, landscaped areas, gravel, hard surfaces, and buildings).
The site is currently vacant with soil and grass cover.

B. Groundwater

i. **Discuss depth to groundwater and piezometric elevations**. Describe and explain depth variations, and whether free product affects measurement or water table elevation. Describe the stratigraphic unit(s) where water table was found or which were measured for piezometric levels.
Depth to water at the site ranges from approximately 5 to 12 feet bgs due to seasonal variability. The water table is generally located within the sandy silt and silty sand fill material. No free product was observed.

ii. Discuss groundwater flow direction(s), shallow and deep. Describe and explain flow variations, including fracture flow if present.
Prior to remedial excavation activities, the shallow groundwater flow direction appeared to be to the southeast. Approximately two months following the completion of the remedial excavation activities, the shallow groundwater flow direction appeared to be to the northwest. The excavation activities may have temporarily impacted the site shallow horizontal groundwater flow direction based on the available data.

iii. Discuss groundwater flow characteristics: hydraulic conductivity, flow rate and permeability, or state why this information was not obtained.
Information not obtained because these parameters were not critical in evaluating potential remedial actions or defining the degree and extent of impacts.

iv. Identify and describe locations/distance of potable and/or municipal Wells within 1200 feet of the site.
City of Milwaukee uses municipal supplied water from Lake Michigan. No potable wells are located within 1200 feet of the site.

3. Site Investigation Summary

A. General

i. Provide a brief summary of the site investigation history. Reference previous submittals by name and date. Describe site investigation activities undertaken since the last submittal for this project and attach the appropriate documentation in Attachment C, if not previously provided.

~ Limited Phase II Investigation Activities (February through April 2006) ~

**Test Pit Excavations
Sigma completed four test pit excavations to depths of approximately 10 feet bgs on February 22, 2006. During completion of the test pit excavations, two USTs were discovered near the southeast corner of the site. Excavation activities around the USTs were continued in order to enable an estimate of the size, condition, and contents of the USTs. Following excavation, the test pits were backfilled with the excavated material.

**UST Removal
On March 29, 2006, one 1,000-gallon and two 550-gallon USTs were emptied of their contents, removed, cleaned, and properly disposed of by National Tank Service of West Allis, Wisconsin. What had originally appeared to be a single large UST was actually two separate, smaller USTs placed immediately adjacent to each other for a total of three USTs. Sigma personnel were on site to perform the UST closure assessments. The USTs contained approximately 1,200 gallons of water which was pumped out by National Tank's vacuum truck for disposal. One 55-gallon drum of tank sludge was produced during tank cleaning and disposed of by Jensen Environmental of Muskego, Wisconsin. Four confirmation soil samples were collected from the soil beneath the former USTs and submitted for laboratory analysis of gasoline range organics (GRO) and petroleum volatile organic compounds (PVOCs). Following tank removal, the former UST locations were backfilled with recycled concrete stone.

**Subsurface Investigation
On April 10, 2006, five hollow stem auger soil borings (MW-1, MW-2, MW-3, SB-1 and SB-2) were completed within the boundaries of the site. The hollow stem auger soil borings were advanced to depths of approximately 16 to 20 feet bgs. The soil borings were performed to evaluate subsurface conditions in the vicinity of the former USTs and in the area of the site that historical records indicate was used for dry cleaning activities.

Save

During boring advancement, soil samples were collected on a continuous basis and described on the basis of color, texture, grain size, and plasticity, and classified in general accordance with the USCS. Soil samples were collected from each sampling interval and containerized for headspace analysis using a PID that was periodically calibrated for direct response to 100 ppm isobutylene in air.

Soil samples were also collected from each sample interval, containerized and preserved (where necessary) for potential laboratory analysis of one or more of the following analytes: volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), RCRA metals, polychlorinated biphenyls (PCBs), and cyanides. Select soil samples, accompanied by a chain-of-custody document, were submitted to a certified laboratory for analysis based on field screening results and observations.

Three of the hollow stem auger soil borings were completed as ch. NR 141 groundwater monitoring wells (MW-1, MW-2, and MW-3). The monitoring wells included a ten-foot length of two-inch diameter PVC screen (0.010 slot) connected to an appropriate length of PVC riser pipe. The two soil borings that were not converted to monitoring wells were abandoned upon completion. After monitoring well installation, Sigma personnel developed the monitoring wells in accordance with Chapter NR 141 by alternately surging and bailing the wells with clean TeflonTM bailers.

Groundwater samples were collected from the monitoring well network on April 14, 2006. The groundwater samples collected from the wells were submitted under chain-of-custody documentation to a certified laboratory for chemical analysis of the following parameters: VOCs and PAHs. All groundwater samples were also analyzed for in situ measurements (redox, temperature, ferrous iron, dissolved oxygen, and pH).

~ Phase II Investigation Activities (July through October 2012) ~

**Subsurface Investigation
To determine the horizontal and vertical extents of identified soil and groundwater impacts from 2006, additional site investigation activities were completed. On July 23 and 27, 2012, ten soil borings were completed using a Geoprobe drill rig to depths of approximately 8 to 16 feet bgs. Soil samples were collected on a continuous basis and described on the basis of color, texture, grain size, and plasticity, and classified in general accordance with the USCS. Soil samples were collected from each sampling interval and containerized for headspace analysis using a PID. Select soil samples were then containerized, preserved (where necessary), and submitted to a certified laboratory for analysis of one or more of the following analytes: VOCs, PAHs, cyanide, and lead. The soil borings were abandoned upon completion.

Following the receipt of the laboratory analytical soil data, four additional soil borings were installed on July 30, 2012 utilizing hollow stem auger drilling. Soil samples were continuously collected and select soil samples were submitted for laboratory analysis as previously described. The four soil borings were completed as ch. NR 141 groundwater monitoring wells (MW-4, MW-5, MW-6, and MW-7). The monitoring wells included a ten-foot length of two-inch diameter PVC screen (0.010 slot) connected to an appropriate length of PVC riser pipe. After monitoring well installation, Sigma personnel developed the monitoring wells in accordance with Chapter NR 141.

Groundwater samples were collected from the monitoring well network on October 10, 2012. The groundwater samples collected from the wells were submitted under chain-of-custody documentation to a certified laboratory for chemical analysis of the following parameters: VOCs and PAHs. All groundwater samples were also analyzed for in situ measurements (redox, temperature, ferrous iron, dissolved oxygen, and pH).

ii. Identify whether contamination extends beyond the source property boundary, describe the off-site media (e.g., soil, groundwater, etc.) impacted, and the vertical and horizontal extent of off-site impacts.

Residual petroleum hydrocarbon impacts within soil and groundwater were found to extend beneath North 11th Street to the east of the subject property. Soil contamination was identified from approximately 2 to 12 feet bgs. Depth to groundwater is approximately 5 to 12 feet bgs. Identified contaminants include: benzene, ethylbenzene, naphthalene, toluene, trimethylbenzenes, and xylenes (petroleum hydrocarbons).

iii. Identify any structural impediments to the completion of site investigation and/or remediation and whether these impediments are on the source property or off the source property. Identify the type and location of any structural impediment (e.g., structure) that also serves as the performance standard barrier for protection of the direct contact or the groundwater pathway.

No impediments are present at the site.

B. Soil

i. Describe degree and extent of **soil contamination** at and from this site. Relate this to known or suspected sources and known or potential receptors/migration pathways.

PVOC constituents were prevalent within soil samples collected in the vicinity of the former USTs. Confirmation soil samples (T-1, T-2, T-3, and T-4) collected beneath the former USTs all reported multiple Groundwater Pathway RCL exceedances for PVOCs. Additionally, nearby borings (MW-1, MW-2, MW-4, and GP-4) reported PVOC constituents above applicable RCLs for soil samples collected within 4 to 8 feet bgs.

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Select PAH constituents, lead, and cyanide were reported above Groundwater Pathway and/or Non-Industrial Direct Contact RCLs within one or more shallow soil samples collected from soil borings SB-1, SB-2, MW-1, MW-3, GP-1, GP-2, GP-3, and GP-4. The extent of these impacts need to be defined further and are tracked under open BRRTS# 02-41-548753.

Similarly, tetrachloroethene (PCE) was reported above its Groundwater Pathway RCL within soil samples collected from borings SB-2, GP-1, GP-2, and MW-6. The extent of this contamination needs to be further defined and is tracked under open BRRTS# 02-41-548753.

ii. Describe the level and types of **soil contaminants** found in the upper four feet of the soil column.
Confirmation soil samples (T-1, T-2, T-3, and T-4) collected beneath the former USTs all reported multiple Groundwater Pathway RCL exceedances for PVOCs within shallow site soils.

Select PAH constituents, lead, and cyanide were reported above Groundwater Pathway and/or Non-Industrial Direct Contact RCLs within one or more shallow soil samples collected from soil borings SB-1, SB-2, MW-1, MW-3, GP-1, GP-2, GP-3, and GP-4. The extent of these impacts need to be defined further and are tracked under open BRRTS# 02-41-548753.

Similarly, tetrachloroethene (PCE) was reported above its Groundwater Pathway RCL within soil samples collected from borings SB-2, GP-1, GP-2, and MW-6. The extent of this contamination needs to be further defined and is tracked under open BRRTS# 02-41-548753.

iii. Identify the ch. NR 720, Wis. Adm. Code, method used to establish the soil cleanup standards for this site. This includes a soil performance standard established in accordance with s. NR 720.08, a Residual Contaminant Level (RCL) established in accordance with s. NR 720.10 that is protective of groundwater quality, or an RCL established in accordance with s. NR 720.12 that is protective of human health from direct contact with contaminated soil. Identify the land use classification that was used to establish cleanup standards. Provide a copy of the supporting calculations/ information in Attachment C.
Soil analytical results for soil samples collected within soil borings at the site were compared to Residual Contaminant Levels (RCLs) for protection of groundwater as described in NR 720.10 [current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013], and RCLs for protection of direct contact at a non-industrial property as described in NR 720.12 [current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013].

C. Groundwater

i. Describe degree and extent of groundwater contamination at or from this site. Relate this to known or suspected sources and known or potential receptors/migration pathways. Specifically address any potential or existing impacts to water supply wells or interception with building foundation drain systems.
Monitoring wells located within the vicinity of the former USTs, including MW-1, MW-2, and MW-4, produced groundwater samples that contained reported concentrations of select PVOC constituents that exceeded the ch. NR 140 Preventive Action Limits (PALs) and/or ch. NR 140 Enforcement Standards (ESs).

Groundwater samples collected from monitoring wells MW-6 and MW-7 contained reported concentrations of CVOC constituents that exceeded the ch. NR 140 PALs and/or ch. NR 140 ESs. The extent of this contamination needs to be further defined and is tracked under open BRRTS# 02-41-548753.

ii. Describe the presence of free product at the site, including the thickness, depth, and locations.
No free product has been encountered in site wells.

D. Vapor

i. Describe how the vapor migration pathway was assessed, including locations where vapor or indoor air samples were collected. If the vapor pathway was not assessed, explain reasons why.
Vapor intrusion was not assessed as there are no enclosed site structures where vapors can collect. The site is currently vacant with soil and grass cover.

ii. Identify the applicable DNR action levels and the land use classification used to establish them. Describe where the DNR action levels were reached or exceeded (e.g., sub slab, indoor air or both).
No vapor or air samples were collected.

Save

E. Surface Water and Sediment

i. Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why.

Surface water and sediment was not assessed because no surface bodies of water exist within the site or neighboring properties.

ii. Identify any surface water and/or sediment action levels used to assess the impacts for this pathway and how these were derived. Describe where the DNR action levels were reached or exceeded.

No surface water or sediment samples were collected.

4. Remedial Actions Implemented and Residual Levels at Closure

A. General: Provide a brief summary of the remedial action history. List previous remedial action report submittals by name and date. Identify remedial actions undertaken since the last submittal for this project and provide the appropriate documentation in Attachment C.

To remove the majority of the contaminant mass in the vicinity of the former leaded gasoline USTs, a remedial excavation was performed in late November 2012. A total of 738 tons of petroleum contaminated soil was excavated under Sigma's oversight and transported to Waste Management's Orchard Ridge Landfill in 33 truck loads.

During excavation activities, an additional 1,000-gallon UST was found in line to the north of the former USTs. Jensen Environmental pumped out and disposed of the remaining contents of the UST, approximately 500 gallons of oily water. Sigma personnel cleaned the tank, producing 8 x 55-gallon drums of sludge, and performed the UST closure assessment. The cleaned UST was removed, crushed, and hauled off as scrap metal. When remedial excavation activities continued after UST removal, 3 x 5-gallon hydraulic oil tanks were found within the excavation limits. Each tank was placed in a 55-gallon drum and removed from the site for disposal, along with the drums of sludge, by Jensen Environmental.

After the intended extent of the remedial excavation was achieved, twelve sidewall soil samples were collected and submitted for laboratory analysis of PVOCs plus naphthalene. Then the area was backfilled and compacted in specified lifts. Topsoil was placed on the backfill material to match the surrounding grade, and the area was seeded and mulch was placed.

Monitoring wells MW-1 and MW-2 were removed during excavation activities. On December 7, 2012, replacement wells MW-1R and MW-2R were installed.

B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code.

Not applicable.

C. Describe the *active* remedial actions taken at the site, including: type of remedial system(s) used for each media impacted; the size and location of any excavation or in-situ treatment; the effectiveness of the systems to address the contaminated media and substances; operational history of the systems; and summarize the performance of the active remedial actions. Provide any system performance documentation in Attachment A.7.

The remedial excavation described above in part 4.A. was performed along North 11th Street on the subject property. The excavation was approximately 12 feet deep and extended 70 feet north-south and 20 feet east-west.

D. Provide a discussion of the nature, degree and extent of residual contamination that will remain at the site or on off-site affected properties after case closure.

The remedial excavation in the vicinity of the former leaded gasoline USTs effectively removed the sources and greatest concentrations of PVOC soil contamination. Residual soil contamination remains outside of the excavation area on-site and off-site beneath North 11th Street to the east of the subject property. Additionally, PVOC groundwater contamination remains, but is generally observed at lesser concentrations.

Select PAH constituents, lead, and cyanide were reported above Groundwater Pathway and/or Non-Industrial Direct Contact RCLs within one or more shallow soil samples collected from soil borings SB-1, SB-2, MW-1, MW-3, GP-1, GP-2, GP-3, and GP-4. The extent of these impacts need to be defined further and are tracked under open BRRTS# 02-41-548753.

Similarly, tetrachloroethene (PCE) was reported above its Groundwater Pathway RCL within soil samples collected from borings SB-2, GP-1, GP-2, and MW-6, and CVOC constituents exceeded the ch. NR 140 PALs and/or ch. NR 140 ESs within collected groundwater samples from monitoring wells MW-6 and MW-7. The extent of this contamination needs to be further defined and is tracked under open BRRTS# 02-41-548753.

E. Describe the remaining soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds Residual Contaminant Levels established under s. NR 720. 12 , the ch. NR720, Wis. Adm. Code, for protection of human health from direct contact.

No PVOCs greater than Non-Industrial Direct Contact RCLs within 4 feet of ground surface.

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F. Describe the remaining soil contamination in the vadose zone that attains or exceeds the soil standard(s) for the groundwater pathway.

PVOC soil contamination within vadose zone soil samples collected from soil borings MW-4 and GP-4 and all but one sidewall excavation soil samples exceed the Groundwater Pathway RCLs for one or more PVOC constituents.

G. Describe how the residual contamination will be addressed, including but not limited to details concerning: covers, engineering controls or other barrier features; use of natural attenuation of groundwater; and vapor mitigation systems or measures.

A maintenance plan is not needed with this closure request as the direct contact pathway is not at risk from remaining petroleum hydrocarbon contamination.

Natural attenuation is considered an effective means to remedy remaining petroleum hydrocarbon groundwater contamination.

H. If using natural attenuation as a groundwater remedy, describe how the data collected supports the conclusion that natural attenuation is effective in reducing contaminant mass and concentration, (e.g. stable or receding groundwater plume).

Following remedial excavation activities, replacement wells MW-1R and MW-2R were installed and sampled. The groundwater analytical data showed a drastic reduction in PVOC concentrations in groundwater. Nearby monitoring well MW-4 reported similar results during pre and post remediation sampling rounds, however, now that the source has been removed, the residual PVOC contaminant mass will be further reduced through natural attenuation.

I. Identify how all exposure pathways were removed and/or adequately addressed by immediate and/or remedial action(s) described above in paragraphs, B, C, D, E and F.

• Residual PVOC constituents do not pose a risk to the direct contact pathway.

• Although concentrations of benzene greater than ch. NR 140 ESs have been reported within groundwater samples collected from monitoring wells installed at the site, the risk associated with the identified shallow groundwater impact is minimal and no further action with respect to protection of groundwater is warranted.

• Migration of volatile vapors to adjacent residential buildings is not a concern due to the distance between the buildings and remaining low level residual PVOC impacts. Also, no buildings exist on-site.

J. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain.

Not applicable. No system hardware was installed.

K. Identify the need for a ch. NR 140, Wis. Adm. Code, groundwater Preventive Action Limit (PAL) or Enforcement Standard (ES) exemption, and identify the affected monitoring points and applicable substances.

Concentrations of benzene exceeded the ch. NR 140 ES within collected groundwater samples from monitoring wells MW-1R and MW-4. Also, a concentration of 1,2-Dichloroethane exceeded the ch. NR 140 PAL within the collected groundwater sample from monitoring well MW-2R, however, this detection was flagged as being between the limit of detection and limit of quantitation.

L. If a DNR action level for vapor intrusion was exceeded (for indoor air, sub slab, or both) describe where it was exceeded and how the pathway was addressed.

Not applicable. No vapor data was collected during the site investigation activities.

M. Describe the surface water and/or sediment contaminant concentrations and areas after remediation. If a DNR action level was exceeded, describe where it was exceeded and how the pathway was addressed.

Not applicable. No surface water and/or sediment samples were collected.

Save

5. Continuing Obligations: Situations where a maintenance plan(s) and inclusion on DNR's GIS Registry are required.

Directions: Check all that apply to this case closure request:

	This scenario Applies to this Case Closure		Case Closure Scenario: Maintenance Plans and GIS Registry	Maintenance Plan (s) Required in Attachment D	GIS Registry Listing
	A. On-Site	B. Off-Site			
i.	☐	☐	Engineering Control/Barrier for Direct Contact	✓	✓
ii.	☐	☐	Engineering Control/Barrier for Groundwater Infiltration	✓	✓
iii.	☐	☐	Vapor Mitigation - post closure passive system	✓	✓
iv.	☐	☐	Vapor Mitigation - post closure active system	✓	✓
v.	☒	☒	None of the above scenarios apply to this case closure	NA	NA

6. Continuing Obligations: Situations where inclusion on DNR's GIS Registry is required.

Directions: Check all that apply to this case closure request:

	This scenario Applies to this Case Closure		Case Closure Scenario: GIS Registry Only	GIS Registry Listing
	A. On-Site	B. Off-Site		
i.	☒	☒	Residual soil contamination exceeds ch. NR 720 generic or site-specific RCLs	✓
ii.	☒	☒	Sites with groundwater contamination equal to or greater than the ch. NR 140, enforcement standards (ES)	✓
iii.	☒	☒	Monitoring wells: lost, transferred or remaining in use	✓
iv.	☐	☐	Structural Impediment (not as a performance standard)	✓
v.	☐	☐	Residual soil contamination remaining at ch. NR 720 Industrial Use levels	✓
vi.	☒	☐	Vapor intrusion may be future, post-closure issue if building use or land use changes	✓
vii.	☐	☐	None of the above scenarios apply to this case closure	NA

7. Underground Storage Tanks

A. Were any tanks, piping or other associated tank system components removed as part of the investigation or remedial action? ◉ Yes ○ No

B. Do any upgraded tanks meeting the requirements of ch. SPS 310, Wis. Adm. Code, exist on the property? ○ Yes ◉ No

C. If the answer to question 7b is yes, is the leak detection system currently being monitored? ○ Yes ○ No

Data Tables (Attachment A)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form.All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General directions for Data Tables:

- Use bold and italics font on information of importance on tables and figures. Use **bold font** for ch. NR 140, Wis. Adm. Code, groundwater enforcement standard (ES) attainments or exceedances, and *italicized font* for ch. NR 140, Wis. Adm. Code, groundwater preventive action limit (PAL) standard attainments or exceedances.
- Do not use shading or highlighting on the analytical tables.
- Include on Data Tables the level of detection for results which are below the detection level (i.e. do not just list as no detect (ND)).
- Include the units on data tables.
- Summaries of all data must include information collected by previous consultants.

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- Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15 (3)(c), Wis. Adm. Code, in the format required in s. NR 716.15(4)(e), Wis. Adm. Code.
- Include in Attachment A all of the following tables, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: A.1. Groundwater Analytical Table; A.2. Pre-remedial Soil Analytical Table, etc).
- For required documents, each table (e.g., A.1., A.2., etc.,) should be a separate PDF.

A. Data Tables

A.1. **Groundwater Analytical Table(s):** Table(s) showing the analytical results and collection dates, for all groundwater sampling points e.g. monitoring wells, temporary wells, sumps, extraction wells, any potable wells and any other wells, extraction wells and any potable wells for which samples have been collected.

A.2. **Pre-remedial Soil Analytical Table(s):** Table(s) showing the soil analytical results and collection dates - prior to conducting the interim and/or remedial action. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).

A.3. **Post-remedial Soil Analytical Table(s):** Table(s) showing the post-remedial action soil analytical results and collection dates. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).

A.4. **Pre and Post Remaining Soil Contamination Soil Analytical Table(s):** Table(s) showing only the pre and post remedial action soil analytical results that exceed a Residual Contaminate Level (RCL) or a Site-Specific Residual Level (SSRCL).

A.5. **Vapor Analytical Table**: Table(s) showing type(s) of samples, sample collection methods, analytical method, sample results, date of sample collection, time period for sample collection, method and results of leak detection, and date, method and results of communication testing.

A.6. **Other Media of Concern (e.g., sediment or surface water)**: Table(s) showing type(s) of sample, sample collection method, analytical method, sample results, date of sample collection, time period for sample collection, method and results sampling.

A.7. **Water Level Elevations:** Table(s) showing all water level elevation measurements and dates from all monitoring wells. If present, free product should be noted on the table.

A.8. **Other:** This attachment should include: 1) any available tabulated natural attenuation data; 2) data tables pertaining to engineered remedial systems that document operational history, demonstrate system performance and effectiveness, and display emissions data; and (3) any other data tables relevant to case closure not otherwise noted above. If this section is not applicable, please explain the reasons why.

Maps and Figures (Attachment B)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions for all Maps and Figures:

- If any map or figure is not relevant to the case closure request, you must fully explain the reason(s) why and attach that explanation (properly labeled with the map/ figure title) in Attachment B.
- Provide on paper no larger than 11 x 17 inches, unless otherwise directed by the Department. Maps and figures may be submitted in a larger electronic size than 11x17 inches, in a portable document format (pdf) readable by the Adobe Acrobat Reader. However, those larger-size documents must be legible when printed.
- Prepare visual aids, including maps, plans, drawings, fence diagrams, tables and photographs according to the applicable portions of ss. NR 716.15(4), 726.09(2) and 726.11(3), (5) and (6), Wis Adm. Code.
- Do not use shading or highlights on any of the analytical tables.
- Include all sample locations.
- Contour lines should be clearly labeled and defined.
- Include in Attachment B all of the following maps and figures, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: B.1. Location Map; B.2. Detailed Site Map, etc).
- For the electronic copies that are required, each map (e.g., B.1.a., B.2.a, etc.,) should be a separate PDF.

B.1. Location Maps

B.1.a. **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 impacted and/or adjacent parcels. If groundwater standards are exceeded, include the location of all potable wells, including municipal wells, within 1200 feet of the area of contamination.

B.1.b. **Detailed Site Map:** A map that shows all relevant features (buildings, roads, current ground surface cover, individual property boundaries for on-site and applicable off-site properties, 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) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code.

B.1.c. **RR Site Map:** From RR Sites Map (http://dnrmaps.wi.gov/sl/?Viewer=RR Sites) attach a map depicting the source

property, and all open and closed BRRTS sites within a half-mile radius or less of the property.

B.2. Soil Figures

B.2.a. **Pre-remedial Soil Contamination:** Figure(s) showing the sample location of all pre-remedial, unsaturated contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeded a Residual Contaminant Level (RCL) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code.

B.2.b. **Post-remedial Soil Contamination :** Figure(s) showing the sample location of all post-remedial, unsaturated 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) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.

B.2.c. **Pre/Post Remaining Soil Contamination:** Figure(s) showing the only location of all pre and post remedial residual soil sample location(s) where unsaturated contaminated soil remains after remediation and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminate Level (RCL) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.

B.3. Groundwater Figures

B.3.a. **Geologic Cross-Section Figure(s):** One or more cross-section diagrams showing soil types and correlations across the site, water table and piezometric elevations, and locations and elevations of geologic rock units, if encountered. Display on one or more figures all of the following:

- Source location(s) and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).
- Source location(s) and lateral and vertical extent if groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES)
- Surface features, including buildings and basements, and show surface elevation changes.
- Any areas of active remediation within the cross section path, such as excavations or treatment zones.
- Include a map displaying the cross-section location(s), if they are not displayed on the Detailed Site Map (Map B.1b)

B.3.b. **Groundwater Isoconcentration:** Figure(s) showing the horizontal extent of the post-remedial groundwater contamination exceeding a ch. NR 140, Wis. Adm. Code, Preventive Action Limit (PAL) and/or an Enforcement Standard (ES). Indicate the date and direction of groundwater flow based on the most recent sampling data.

B.3.c. **Groundwater Flow Direction:** Figure(s) representing groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit two groundwater flow maps showing the maximum variation in flow direction.

B.3.d. **Monitoring Wells:** Figure(s) showing all monitoring wells, with well identification number. Clearly designate any wells that: (1) are proposed to be abandoned; (2) cannot be located; (3) are being transferred; (4) will be retained for further sampling, or (5) have been previously abandoned.

B.4. Vapor Maps and Other Media

B.4.a. **Vapor Intrusion Map:** Map(s) showing all locations and results for samples taken to investigate the vapor intrusion pathway, in relation to remaining soil and groundwater contamination, including sub-slab, indoor air, soil vapor, ambient air, and communication testing. Show locations and footprints of affected structures and utility corridors, and/or where residual contamination poses a future risk of vapor intrusion.

B.4.b. **Other media of concern (e.g., sediment or surface water)**: Map(s) showing all sampling locations and results for other media investigation. Include the date of sample collection and identify where any standards are exceeded.

B.4.c. **Other:** Include any other relevant maps and figures not otherwise noted above. (This section may remain blank)

Documentation of Remedial Action (Attachment C)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

- Include in Attachment C all of the following documentation, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: C.1. Site Investigation Documentation; C.2. Investigative Waste, etc).
- If the documentation requested below is "not applicable" to the site-specific circumstances, include a brief explanation to support that conclusion.
- If the documentation requested below has already been submitted to the Department, please note the title and date of the report for that particular document requested.

C.1. **Site investigation documentation,** that has not otherwise been previously submitted.

C.2. **Investigative waste** disposal documentation.

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C.3. **Provide a description of the methodology used along with all supporting documentation if the Residual Contaminant Levels are different than those contained in the Department's RCL Spreadsheet available at: http://dnr.wi.gov/topic/Brownfields/Professionals.html.**

C.4. **Construction documentation** or as-built report for any constructed remedial action or portion of, or interim action specified in s. NR 724.02(1), Wis. Adm. Code.

C.5. **Decommissioning of Remedial Systems.** Include plans to properly abandon any systems or equipment upon receiving conditional closure.

C.6. **Photos.** For sites or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system. Include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features should be visible and discernible. Photographs must be labeled with the site name, the features shown, location and the date on which the photograph was taken.

C.7. **Other**. Include any other relevant documentation not otherwise noted above. (This section may remain blank)

Maintenance Plan(s) and Photographs (Attachment D)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

When one or more "maintenance plans" are required for a site closure, include in each maintenance plan all required information listed below, and attach the plan(s) in Attachment D. The following "model" maintenance plans can be located at: (1) Maintenance plan for a engineering control or cover: http://dnr.wi.gov/topic/Brownfields/documents/maintenance-plan.pdf; and (2) Maintenance plan for vapor intrusion: http://dnr.wi.gov/topic/Brownfields/documents/appendix5_606.pdf.

D.1. **Location map(s)** which show(s): (1) the feature that requires maintenance; (2) the location of the feature(s) that require(s) maintenance - on and off the source property; (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site; (4) the extent and type of residual contamination; and (5) and all property boundaries.

D.2. **Brief descriptions** of the type, depth and location of residual contamination.

D.3. **Description of maintenance action(s)** required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.

D.4. **Inspection log**, to be maintained on site, or at a location specified in the maintenance plan or approval letter.

D.5. **Contact information,** including the name, address and phone number of the individual or facility who will be conducting the maintenance.

D.6 Photographs

D.6.a. For site or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system, include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features shall be visible and discernible.

D.6.b. Photographs shall be submitted with a title related to the site name and location, and the date on which it was taken.

Monitoring Well Information (Attachment E)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

Attach monitoring well construction and development forms (DNR FORM 4400-113 A and B: http://dnr.wi.gov/topic/groundwater/documents/forms/4400_113_1_2.pdf) for all wells that will remain in-use, be transferred to another party or that could not be located. A figure of these wells should be included in Attachment B.3.d.

Select One:

◯ No monitoring wells were required as part of this response action.

◯ All monitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site

◉ ***Select One or More:***

☐ Not all monitoring wells can be located, despite good faith efforts. Attachment E must include description of efforts made to locate the "lost" wells.

☐ One or more wells will be transferred to another owner upon case closure being granted. Attachment E should include documentation identifying the name, address and email for the new owner(s).

☒ One or more wells will remain in use at the site after this closure. Attachment E must include documentation as to the reason(s) the well(s) will remain in use.

Save

Notifications to Owners of Impacted Properties (Attachment F)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

- State law requires that the responsible party provide a 30-day, written advance notice (i.e., a letter) to certain persons prior to applying for case closure. This requirement applies if: (1) the person conducting the response action does not own the source property; (2) the contamination has migrated onto another property; and/or (3) one or more monitoring wells will not be abandoned.
- Use of Form 4400-286, Notification of Residual Contamination and Continuing Obligations, is required under ch. NR 725 for notifying property owners and right-of-way holders about residual contamination affecting their properties, and of continuing obligations which may be imposed. This form can be downloaded at http://dnr.wi.gov/files/PDF/forms/4400/4400-286.pdf.

Check all that apply to the site-specific circumstances of this case closure:

	A. Impacted Source Property and Owner is not Conducting Cleanup	B. Impacted Right of Way	C. Impacted Off-Site Property Owner	Impacted Property Notification Situations: Ch. NR 726 Appendix A Letter
1.	☐	☒	☐	Residual groundwater contamination exceeds Ch. NR 140 Wis. Administrative Code enforcement standards.
2.	☐	☒	☐	Residual soil contamination that attains or exceeds standards is present after the remedial action is complete, and must be properly managed should it be excavated or removed.
3.	☐	☐	☐	An engineered cover or a soil barrier (e.g. pavement) must be maintained over contaminated soil for direct contact or groundwater infiltration concerns.
4.	☐	☐	☐	Industrial land use soil standards were used for the clean-up standard.
5.	☐	☐	☐	A vapor mitigation system (or other specific vapor protection) must be operated and maintained.
6.	☐	☐	☐	Vapor assessment needed if use changes.
7.	☐	☐	☐	Structural impediment.
8.	☐	☒	☐	Lost, transferred or open monitoring wells.
9.	☒	☐	☒	Not Applicable.

If any of the previous boxes in rows 1 thru 8 were checked, include the following as part of Attachment F:

- FORM 4400-246;
- Copy of each letter sent, 30 days or more prior to requesting closure; and
- Proof of receipt for each letter.
- For this site closure, 1 (number) property (ies) has/have been impacted, the owners have been notified, and copies of the letters and receipts are included in Attachment F.

Source Legal Documents (Attachment G)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form.All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

Include all of the following documents, in this order, in Attachment G:

G.1. **Deeds - Source Property and Other Impacted Properties:** The most recent deed with legal descriptions clearly labeled for (1) the **Source Property** (where the contamination originated) and (2) all **off-source** (off-site) properties where letters were required to be sent per the ch. NR 700, Wis. Adm. Code, rule series (e.g., off-site cover maintenance required, lost monitoring well, off-site cover property impacts to groundwater exceeding the ch. NR 140, Wis. Adm. Code.

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.*

G.2. ***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)).

G.3. **Verification of Zoning**: Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.

G.4. **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description(s) accurately describe(s) the correct contaminated property or properties.

Save

Signatures and Findings for Closure Determination

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

Check the correct box for this case closure request, and have either a professional engineer or a hydrogeologist, as defined in ch. NR 712, Wis. Adm. Code, sign this document.

☒ A response action(s) for this site addresses groundwater contamination (including natural attenuation remedies).

☒ The response action(s) for this site addresses media other than groundwater.

Engineering Certification

I Stephen R. Meer, P.E. hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this case closure request has been prepared by me or prepared under my supervision in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this case closure request is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Stephen R. Meer, P.E.		Project Engineer
Printed Name		Title
Signature	2/27/14 Date	P.E. Stamp and Number

Hydrogeologist Certification

I _____ hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this case closure request is correct and the document was prepared by me or prepared by me or prepared under my supervision and, in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Printed Name	Title
Signature	Date

Save

Table A.1.
Groundwater Analytical Table(s)
1100 West Center Street
Milwaukee, Wisconsin
Project Reference #8849

Well ID:		MW-1		MW-1R	MW-2		MW-2R	MW-3			MW-4		MW-5		MW-6		MW-7		NR 140	NR 140
Analytes	Date	04/14/06	10/12/12	01/14/13	04/14/06	10/12/12	01/14/13	04/14/06	10/12/12	01/14/13	10/12/12	01/14/13	10/12/12	01/14/13	10/12/12	01/14/13	10/12/12	01/14/13	ES	PAL
PVOCs/Detected VOCs																				
Benzene	µg/L	***295***	***153***	***5***	***69***	DRY	<0.5	<0.17	<0.5	<0.5	***18.4***	***23.8***	<0.5	<0.5	<0.5	<0.5	<5	<5	5	0.5
sec-Butylbenzene	µg/L	9.1 "J"	42	<1	11.5 "J"	DRY	<1	<0.76	<1	<1	<1	1.79 "J"	<1	<1	<1	<1	<10	<10	NS	NS
n-Butylbenzene	µg/L	<11	68	<0.9	18.5 "J"	DRY	<0.9	<1.1	<0.9	<0.9	<0.9	2.8 "J"	<0.9	<0.9	<0.9	<0.9	<9	<9	NS	NS
1,2-Dichloroethane	µg/L	<7.2	<5	<0.5	<7.2	DRY	*0.54 "J"*	<0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	5	0.5
cis-1,2-Dichloroethene	µg/L	<5	<7.4	<0.74	<5	DRY	<0.74	<0.5	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	3.02	*16.2*	***141***	*16.5 "J"*	70	7
trans-1,2-Dichloroethene	µg/L	<6.5	<7.9	<0.79	<6.5	DRY	<0.79	<0.65	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	1.35 "J"	<7.9	<7.9	100	20
Ethylbenzene	µg/L	*690*	*340*	13.4	*380*	DRY	<0.78	<0.2	<0.78	<0.78	1.65 "J"	23.1	<0.78	<0.78	<0.78	<0.78	<7.8	<7.8	700	140
Isopropylbenzene	µg/L	79	117	1.11 "J"	57	DRY	<0.92	<0.99	<0.92	<0.92	<0.92	5.7	<0.92	<0.92	<0.92	<0.92	<9.2	<9.2	NS	NS
p-Isopropyltoluene	µg/L	12.2 "J"	61	1.39 "J"	24.3 "J"	DRY	<0.92	<0.81	<0.92	<0.92	1.64 "J"	5.5	<0.92	<0.92	<0.92	<0.92	<9.2	<9.2	NS	NS
Methyl-tert-butyl-ether (MTBE)	µg/L	<3.4	<8	<0.8	<3.4	DRY	<0.8	<0.34	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<8	<8	60	12
Naphthalene	µg/L	***149***	***189***	<2.1	***171***	DRY	<2.1	<2.2	<2.1	<2.1	<2.1	5.5 "J"	<2.1	<2.1	<2.1	<2.1	<21	<21	100	10
n-Propylbenzene	µg/L	78	159	0.77 "J"	76	DRY	<0.59	<0.61	<0.59	<0.59	1.12 "J"	4.3	<0.59	<0.59	<0.59	<0.59	<5.9	<5.9	NS	NS
Tetrachloroethene (PCE)	µg/L	<3.7	<4.4	<0.44	<3.7	DRY	<0.44	<0.37	<0.44	<0.44	*1.06 "J"*	<0.44	*1.69*	<0.44	*3.7*	*3.08*	***450***	***1,710***	5	0.5
Toluene	µg/L	39	12 "J"	0.64 "J"	19.1	DRY	<0.53	<0.59	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<5.3	<5.3	800	160
Trichloroethene (TCE)	µg/L	<3.9	<4.7	<0.47	<3.9	DRY	<0.47	<0.39	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	***9.7 "J"***	***19.5***	5	0.5
1,2,4-Trimethylbenzene	µg/L	269	590	11.5	600	DRY	<0.8	<0.16	<0.8	<0.8	1.94 "J"	14.3	<0.8	<0.8	<0.8	<0.8	<8	<8	NS	NS
1,3,5-Trimethylbenzene	µg/L	38	55	4.8	106	DRY	<0.74	<1.2	<0.74	<0.74	<0.74	7.1	<0.74	<0.74	<0.74	<0.74	<7.4	<7.4	NS	NS
Total Trimethylbenzenes	µg/L	*307*	***645***	16.3	***706***	DRY	<0.8	<1.2	<0.8	<0.8	1.94 "J"	21.4	<0.8	<0.8	<0.8	<0.8	<8	<8	480	96
Vinyl Chloride	µg/L	<1.1	<1.8	<0.18	<1.1	DRY	<0.18	<0.11	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	***0.36 "J"***	<0.18	<1.8	<1.8	0.2	0.02
Xylenes, Total	µg/L	322	254.7	18.51 "J"	386	DRY	<1.1	<1.1	<1.1	<1.1	<1.1	3.19 "J"	<1.1	<1.1	<1.1	<1.1	<11	<11	2,000	400
PAHs																				
Acenaphthene	µg/L	0.32	7.0 "J"	0.041 "J"	1.4	DRY	<0.025	<0.016	<0.025	NA	<0.025	0.081 "J"	<0.1	NA	<0.025	<0.025	<0.025	NA	NS	NS
Acenaphthylene	µg/L	0.19	<1.9	<0.019	0.10	DRY	<0.019	<0.012	<0.019	NA	<0.019	0.189	<0.076	NA	<0.019	<0.019	0.021 "J"	NA	NS	NS
Anthracene	µg/L	0.077	7.2	<0.018	0.73	DRY	<0.018	<0.013	<0.018	NA	<0.018	0.023 "J"	<0.072	NA	0.027 "J"	<0.018	<0.018	NA	3,000	600
Benz(a)anthracene	µg/L	0.035 "J"	6.3 "J"	<0.024	0.49	DRY	<0.024	<0.012	<0.024	NA	0.027 "J"	<0.024	<0.096	NA	0.088	0.026 "J"	<0.024	NA	NS	NS
Benzo(a)pyrene	µg/L	0.017 "J"	***3.7 "J"***	<0.018	***0.33***	DRY	<0.018	<0.008	<0.018	NA	0.018 "J"	<0.018	<0.072	NA	*0.087*	<0.018	<0.018	NA	0.2	0.02
Benzo(b)fluoranthene	µg/L	*0.031*	***4.4 "J"***	<0.02	***0.51***	DRY	<0.02	<0.009	<0.02	NA	*0.028 "J"*	<0.02	<0.08	NA	*0.114*	*0.022 "J"*	<0.02	NA	0.2	0.02
Benzo(ghi)perylene	µg/L	0.010 "J"	2.36 "J"	<0.019	0.16	DRY	<0.019	<0.01	<0.019	NA	<0.019	<0.019	<0.076	NA	0.068	<0.019	<0.019	NA	NS	NS
Benzo(k)fluoranthene	µg/L	0.013 "J"	2.52 "J"	<0.022	0.17	DRY	<0.022	<0.009	<0.022	NA	<0.022	<0.022	<0.088	NA	0.058 "J"	<0.022	<0.022	NA	NS	NS
Chrysene	µg/L	*0.031 "J"*	***4.8 "J"***	<0.019	***0.36***	DRY	<0.019	<0.011	<0.019	NA	*0.024 "J"*	<0.019	<0.076	NA	*0.093*	<0.019	<0.019	NA	0.2	0.02
Dibenz(a,h)anthracene	µg/L	<0.009	<1.9	<0.019	0.035	DRY	<0.019	<0.009	<0.019	NA	<0.019	<0.019	<0.076	NA	<0.019	<0.019	<0.019	NA	NS	NS
Fluoranthene	µg/L	0.13	14.7	<0.022	1.6	DRY	<0.022	<0.011	<0.022	NA	0.052 "J"	<0.022	<0.088	NA	0.158	0.024 "J"	0.023 "J"	NA	400	80
Fluorene	µg/L	0.30	7.7	0.058 "J"	1.9	DRY	<0.02	<0.015	<0.02	NA	<0.02	0.02 "J"	<0.08	NA	<0.02	<0.02	<0.02	NA	400	80
Indeno(1,2,3-cd)pyrene	µg/L	<0.015	2.16 "J"	<0.018	0.15	DRY	<0.018	<0.015	<0.018	NA	<0.018	<0.018	<0.072	NA	0.055 "J"	<0.018	<0.018	NA	NS	NS
1-Methylnaphthalene	µg/L	16	314	0.104	42	DRY	<0.022	0.032 "J"	<0.022	NA	0.25	0.82	<0.088	NA	<0.022	<0.022	<0.022	NA	NS	NS
2-Methylnaphthalene	µg/L	33	800	0.065 "J"	92	DRY	<0.024	0.050 "J"	<0.024	NA	0.1	0.74	<0.096	NA	<0.024	<0.024	<0.024	NA	NS	NS
Naphthalene	µg/L	***143***	***570***	0.35	***150***	DRY	0.048 "J"	0.054 "J"	0.032 "J"	NA	0.234	2.39	<0.084	NA	0.038 "J"	<0.021	0.026 "J"	NA	100	10
Phenanthrene	µg/L	0.34	20.4	<0.019	2.1	DRY	<0.019	<0.011	<0.019	NA	0.024 "J"	0.09	<0.076	NA	0.066	<0.019	0.02 "J"	NA	NS	NS
Pyrene	µg/L	0.1	12.8	0.023 "J"	1.4	DRY	<0.02	<0.01	<0.02	NA	0.042 "J"	<0.02	<0.08	NA	0.14	0.023 "J"	0.026 "J"	NA	250	50
Dissolved Metals																				
Arsenic	µg/L	NA	NA	<0.6	NA	NA	*1.6 "J"*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10	1
Lead	µg/L	NA	NA	<0.7	NA	NA	<0.7	NA	NA	NA	NA	NA	NA	NA	NA	<0.7	NA	<0.7	15	1.5
Biofeasibility Measurements																				
pH	IU	7	N/A	7.0	7	DRY	7.7	7	7	7.0	7.1	6.7	7.3	7.0	7.4	7.1	7.5	7.0	NS	NS
Temperature	°C	9.6	N/A	8.4	10.1	DRY	7.6	9.8	13	10.9	16.9	10.2	15.5	7.8	15.7	10.8	14.5	10.6	NS	NS
Ferrous Iron	mg/l	3.4	0.8	NA	4.2	DRY	NA	0	0.5	NA	0.6	NA	0	NA	0.2	NA	0.2	NA	NS	NS
Dissolved Oxygen	mg/l	0.22	N/A	4.0	0.16	DRY	3.9	0.37	6.7	6.0	1.2	1.5	3.5	3.0	2.4	4.2	3.5	3.3	NS	NS
Redox Potential	mV	-91	N/A	+216	-58	DRY	+213	141	-111	+213	-97	-60	-90	+215	-110	+213	-106	+217	NS	NS

Notes:
1. NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard.
2. NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit.
3. NS = no standard
4. µg/L = micrograms per liter (equivalent to parts per billion, ppb)
5. mg/L = milligrams per liter (equivalent to parts per million, ppm)
6. NA = Not Analyzed
7. Laboratory flags: "J" = Analyte detected between Limit of Detection and Limit of Quantitation.
8. Trip blank results:
   04/14/2006: All VOCs reported below laboratory detection limits.
   10/12/2012: Methylene chloride was reported at a concentration of 1.73 "J"; all other VOCs reported below laboratory detection limits.
   01/14/2013: All VOCs reported below laboratory detection limits.
9. Equipment blank results:
   04/14/2006: No equipment blank submitted.
   10/12/2012: No equipment blank submitted.
   01/14/2013: All VOCs reported below laboratory detection limits.
10. Exceedances:
   BOLD = Concentration exceeds NR 140 ES
   ITALICS = Concentration exceeds NR 140 PAL

Table A.2. (1 of 3)
Pre-Remedial Soil Analytical Table(s)
1100 West Center Street
Milwaukee, Wisconsin
Project Reference #8849

Soil Boring Identification:		T-1	T-2	T-3	T-4	Groundwater Pathway RCL [7]	Non-Industrial Direct Contact RCL [8]
	Date	03/29/06	03/29/06	03/29/06	03/29/06		
Analytes	Depth	0 - 2	2 - 4	0 - 2	4 - 6		
GRO							
Gasoline Range Organics	mg/kg	330	460	850	1,770	NS	NS
PVOCs							
Benzene	µg/kg	**128**	**260**	**430**	**1,120**	5.1	1,490
Ethylbenzene	µg/kg	630	1,090	**3,000**	***14,900***	1,570	7,470
Methyl-tert-butyl-ether	µg/kg	<25	<25	<25	<25	27	59,400
Toluene	µg/kg	340	**1,140**	**2,530**	**4,200**	1,107.2	818,000
1,2,4-Trimethylbenzene	µg/kg	5,400	4,200	16,300	41,000	NS	89,800
1,3,5-Trimethylbenzene	µg/kg	1,500	1,320	5,300	12,800	NS	182,000
Trimethylbenzene, Total	µg/kg	**6,900**	**5,520**	**21,600**	**53,800**	1,379.3	NS
Xylenes, Total	µg/kg	2,820	**4,950**	**8,200**	**17,300**	3,940	258,000

Notes:
1. µg/kg = micrograms per kilogram (equivalent to parts per billion, ppb)
2. mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
3. bgs = below ground surface
4. "J" = detected between Limit of Detection and Limit of Quantitation
5. NA = Not Analyzed
6. NS = No established standard
7. Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as described in NR 720.10. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.
8. Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as described in NR 720.12. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.

Exceedances: **BOLD** = Concentration exceeds Groundwater Pathway RCL
ITALICS = Concentration exceeds Non-Industrial Direct Contact RCL

Table A.2. (2 of 3)
Pre-Remedial Soil Analytical Table(s)
1100 West Center Street
Milwaukee, Wisconsin
Project Reference #8849

Soil Boring Identification:		SB-1		SB-2		GP-1		GP-2			GP-3		GP-4		GP-5		GP-6	GP-7		GP-8		GP-9		GP-10		Groundwater Pathway RCL [7]	Non-Industrial Direct Contact RCL [8]
	Date	4/10/2006		4/10/2006		7/23/2012		7/23/2012			7/23/2012		7/27/2012		7/27/2012		7/27/2012	7/27/2012		7/27/2012		7/27/2012		7/27/2012			
Analytes	Depth (ft bgs)	0 - 2	4 - 6	2 - 4	6 - 8	2 - 4	4 - 6	2 - 4	4 - 5	8 - 10	2 - 4	7 - 8	0 - 2	6 - 8	0 - 2	2 - 4	0 - 2	0 - 2	2 - 4	0 - 2	2 - 4	2 - 4	4 - 6	2 - 4	6 - 7		
RCRA Metals																											
Arsenic	mg/kg	<2.5	NA	***6.8***	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.584	0.39
Barium	mg/kg	53	NA	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	164.8	15,300
Cadmium	mg/kg	<0.5	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.752	70.2
Chromium	mg/kg	11	NA	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	360,000	NS
Lead	mg/kg	**36**	NA	***570***	NA	**102**	NA	**44**	NA	NA	**53**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27	400
Mercury	mg/kg	<0.2	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.208	3.13
Selenium	mg/kg	<2.5	NA	<2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.52	391
Silver	mg/kg	<2.5	NA	<2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8497	391
PVOCs/Detected VOCs																											
Benzene	µg/kg	<25	<25	<25	<25	<8.9	<8.9	<8.9	<8.9	<8.9	<8.9	<8.9	NA	**136**	NA	NA	NA	NA	NA	NA	NA	<8.9	<8.9	<8.9	<8.9	5.1	1,490
tert-Butylbenzene	µg/kg	<25	<25	<25	<25	<54	<54	<54	<54	<54	<54	<54	NA	NA	NA	NA	NA	NA	NA	NA	NA	<54	<54	<54	<54	NS	183,000
sec-Butylbenzene	µg/kg	<25	<25	<25	<25	<51	<51	<21	<51	<51	<51	<51	NA	NA	NA	NA	NA	NA	NA	NA	NA	<51	<51	<51	<51	NS	145,000
n-Butylbenzene	µg/kg	<25	<25	<25	<25	<48	<48	<48	52 "J"	<48	<48	<48	NA	NA	NA	NA	NA	NA	NA	NA	NA	<48	<48	<48	<48	NS	108,000
Ethylbenzene	µg/kg	<25	<25	<25	<25	<55	<55	<55	<55	<55	<55	<55	NA	460	NA	NA	NA	NA	NA	NA	NA	<55	<55	<55	<55	1,570	7,470
Isopropylbenzene	µg/kg	<25	<25	<25	<25	<53	<53	<53	<53	<53	<53	<53	NA	NA	NA	NA	NA	NA	NA	NA	NA	<53	<53	<53	<53	NS	NS
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<45	<45	<45	<45	<45	<45	<45	NA	NA	NA	NA	NA	NA	NA	NA	NA	<45	<45	<45	<45	NS	162,000
Methyl-tert-butyl-ether	µg/kg	<25	<25	<25	<25	<12	<12	<12	<12	<12	<12	<12	NA	<25	NA	NA	NA	NA	NA	NA	NA	<12	<12	<12	<12	27	59,400
Naphthalene	µg/kg	<25	<25	<25	<25	<107	<107	<107	<107	<107	<107	<107	NA	**1,640**	NA	NA	NA	NA	NA	NA	NA	<107	<107	133 "J"	<107	658.7	5,150
n-Propylbenzene	µg/kg	<25	<25	<25	<25	<53	<53	<53	<53	<53	<53	<53	NA	NA	NA	NA	NA	NA	NA	NA	NA	<53	<53	<53	<53	NS	264,000
Tetrachloroethene	µg/kg	<25	<25	<25	**10,000**	**90**	<24	<24	<24	**17,000**	<24	<24	NA	NA	NA	NA	NA	NA	NA	NA	NA	<24	<24	<24	<24	4.5	30,700
Toluene	µg/kg	<25	<25	<25	<25	<50	<50	<50	<50	<50	<50	<50	NA	780	NA	NA	NA	NA	NA	NA	NA	<50	<50	<50	<50	1,107.2	818,000
1,2,4-Trimethylbenzene	µg/kg	<25	<25	<25	<25	<80	<80	<80	172 "J"	<80	<80	<80	NA	7,200	NA	NA	NA	NA	NA	NA	NA	<80	<80	<80	<80	NS	89,800
1,3,5-Trimethylbenzene	µg/kg	<25	<25	<25	<25	<48	<48	<48	<48	<48	<48	<48	NA	1,340	NA	NA	NA	NA	NA	NA	NA	<48	<48	<48	<48	NS	182,000
Trimethylbenzene, Total	µg/kg	<25	<25	<25	<25	<80	<80	<80	172 "J"	<80	<80	<80	NA	**8,540**	NA	NA	NA	NA	NA	NA	NA	<80	<80	<80	<80	1,379.3	NS
Xylenes, Total	µg/kg	<75	<75	<75	<75	<86	<86	<86	<86	<86	<86	<86	NA	3,710	NA	NA	NA	NA	NA	NA	NA	<86	<86	<86	<86	3,940	258,000
PAHs																											
Acenaphthene	µg/kg	<17	31 "J"	26"J"	<17	34 "J"	NA	<16.4	NA	NA	<16.4	NA	1,060	NA	<16.4	NA	<16.4	NA	NA	NA	NA	NA	NA	NA	NA	NS	3,440,000
Acenaphthylene	µg/kg	<19	<19	50 "J"	<19	<21	NA	51 "J"	NA	NA	<21	NA	<105	NA	<21	NA	<21	NA	NA	NA	NA	NA	NA	NA	NA	NS	487,000
Anthracene	µg/kg	<11	67	170	<11	148	NA	77	NA	NA	51 "J"	NA	2,630	NA	<18.9	NA	<18.9	NA	NA	NA	NA	NA	NA	NA	NA	196,744.2	17,200,000
Benzo(a)anthracene	µg/kg	41	127	*397*	<12	*400*	NA	*306*	NA	NA	*165*	NA	*4,600*	NA	<21.4	NA	23.2 "J"	NA	NA	NA	NA	NA	NA	NA	NA	NS	148
Benzo(b)fluoranthene	µg/kg	117	*314*	***661***	<7.5	***520***	NA	*390*	NA	NA	*218*	NA	***5,500***	NA	<26.7	NA	<26.7	NA	NA	NA	NA	NA	NA	NA	NA	480	148
Benzo(k)fluoranthene	µg/kg	39 "J"	118	220	<14	173	NA	124	NA	NA	73	NA	*1,770*	NA	<18	NA	<18	NA	NA	NA	NA	NA	NA	NA	NA	NS	1,480
Benzo(a)pyrene	µg/kg	*32*	*136*	*387*	<8.1	*350*	NA	*266*	NA	NA	*144*	NA	***4,300***	NA	<19.3	NA	<19.3	NA	NA	NA	NA	NA	NA	NA	NA	470	15
Benzo(ghi)perylene	µg/kg	35	118	198	<8.5	256	NA	177	NA	NA	116	NA	2,690	NA	<20.9	NA	<20.9	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS
Chrysene	µg/kg	86	**225**	**463**	<20	**400**	NA	**309**	NA	NA	**176**	NA	**4,200**	NA	<20.3	NA	21.4 "J"	NA	NA	NA	NA	NA	NA	NA	NA	145.1	14,800
Dibenzo(a,h)anthracene	µg/kg	<11	*19 "J"*	*45*	<11	*63 "J"*	NA	*54 "J"*	NA	NA	*26.3 "J"*	NA	*580*	NA	<24.4	NA	<24.4	NA	NA	NA	NA	NA	NA	NA	NA	NS	15
Fluoranthene	µg/kg	139	580	1,180	<7.4	900	NA	570	NA	NA	400	NA	11,300	NA	<21.2	NA	35 "J"	NA	NA	NA	NA	NA	NA	NA	NA	88,817.9	2,290,000
Fluorene	µg/kg	<9.5	34	43	<9.5	29.5 "J"	NA	<20.3	NA	NA	<20.3	NA	990	NA	<20.3	NA	<20.3	NA	NA	NA	NA	NA	NA	NA	NA	14,814.8	2,290,000
Indeno(1,2,3-cd)pyrene	µg/kg	38	109	*193*	<9.5	*216*	NA	*159*	NA	NA	94	NA	*2,280*	NA	<23.7	NA	<23.7	NA	NA	NA	NA	NA	NA	NA	NA	NS	148
1-Methylnaphthalene	µg/kg	<11	12 "J"	<11	<11	<21	NA	<21	NA	NA	<21	NA	183 "J"	NA	<21	NA	<21	NA	NA	NA	NA	NA	NA	NA	NA	NS	15,600
2-Methylnaphthalene	µg/kg	<12	<12	<12	<12	<22.4	NA	<22.4	NA	NA	<22.4	NA	170 "J"	NA	<22.4	NA	<22.4	NA	NA	NA	NA	NA	NA	NA	NA	NS	229,000
Naphthalene	µg/kg	<17	<17	<17	<17	<24.9	NA	<24.9	NA	NA	<24.9	NA	290 "J"	NA	<24.9	NA	<24.9	NA	NA	NA	NA	NA	NA	NA	NA	658.7	2,150
Phenanthrene	µg/kg	38	351	631	<8.9	540	NA	208	NA	NA	209	NA	8,200	NA	*<22*	NA	*<22*	NA	NA	NA	NA	NA	NA	NA	NA	NS	115,000
Pyrene	µg/kg	115	420	889	<11	760	NA	470	NA	NA	320	NA	9,800	NA	<20.7	NA	30.6 "J"	NA	NA	NA	NA	NA	NA	NA	NA	54,472.5	1,720,000
Cyanide	mg/kg	**18**	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.46	<0.091	NA	<0.46	<0.091	<0.46	<0.46	NA	NA	NA	NA	4.04	46.9
PCBs	mg/kg	<0.036	NA	<0.036	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0094	0.222

Notes:
1. µg/kg = micrograms per kilogram (equivalent to parts per billion, ppb)
2. mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
3. bgs = below ground surface
4. "J" = detected between Limit of Detection and Limit of Quantitation
5. NA = Not Analyzed
6. NS = No established standard
7. Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as described in NR 720.10. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.
8. Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as described in NR 720.12. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.

Exceedances: **BOLD** = Concentration exceeds Groundwater Pathway RCL
ITALICS = Concentration exceeds Non-Industrial Direct Contact RCL

Table A.2. (3 of 3)
Pre-Remedial Soil Analytical Table(s)
1100 West Center Street
Milwaukee, Wisconsin
Project Reference #8849

Soil Boring Identification:		MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	Groundwater Pathway RCL [7]	Non-Industrial Direct Contact RCL [8]
	Date	4/10/2006		4/10/2006		4/10/2006		7/30/2012		7/30/2012		7/30/2012		7/30/2012		
Analytes	Depth (ft bgs)	0 - 2	6 - 8	2 - 4	4 - 6	0 - 2	8 - 10	4 - 6	6 - 8	4 - 6	8 - 10	4 - 6	6 - 8	13 - 15		
RCRA Metals																
Arsenic	mg/kg	<2.5	NA	***3.2***	NA	***4.5***	NA	NA	NA	NA	NA	NA	NA	NA	0.584	0.39
Barium	mg/kg	57	NA	16	NA	40	NA	NA	NA	NA	NA	NA	NA	NA	164.8	15,300
Cadmium	mg/kg	<0.5	NA	<0.5	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	0.752	70.2
Chromium	mg/kg	11	NA	6.2	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	360,000	NS
Lead	mg/kg	**100**	NA	12	NA	25	NA	NA	NA	NA	NA	NA	NA	NA	27	400
Mercury	mg/kg	<0.2	NA	<0.2	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	0.208	3.13
Selenium	mg/kg	<2.5	NA	<2.5	NA	<2.5	NA	NA	NA	NA	NA	NA	NA	NA	0.52	391
Silver	mg/kg	<2.5	NA	<2.5	NA	<2.5	NA	NA	NA	NA	NA	NA	NA	NA	0.8497	391
PVOCs/Detected VOCs																
Benzene	µg/kg	<25	<250	<25	***2,970***	<25	<25	<25	**67**	<25	<25	<8.9	<8.9	<8.9	5.1	1,490
tert-Butylbenzene	µg/kg	<25	<250	<25	29.7	<25	<25	NA	NA	NA	NA	<54	<54	<54	NS	183,000
sec-Butylbenzene	µg/kg	<25	770	<25	540	<25	267	NA	NA	NA	NA	<51	<51	<51	NS	145,000
n-Butylbenzene	µg/kg	<25	1,300	<25	880	<25	282	NA	NA	NA	NA	<48	<48	<48	NS	108,000
Ethylbenzene	µg/kg	<25	**5,800**	<25	***8,900***	<25	174	181	232	<25	<25	<55	<55	<55	1,570	7,470
Isopropylbenzene	µg/kg	<25	1,700	<25	1,680	<25	293	NA	NA	NA	NA	<53	<53	<53	NS	NS
p-Isopropyltoluene	µg/kg	<25	1,000	<25	930	<25	219	NA	NA	NA	NA	<45	<45	<45	NS	162,000
Methyl-tert-butyl-ether	µg/kg	<25	<250	<25	<25	<25	<25	<25	<25	<25	<25	<12	<12	<12	27	59,400
Naphthalene	µg/kg	<25	**4,400**	<25	**2,580**	<25	293	**1,430**	**860**	<25	<25	<107	<107	<107	658.7	5,150
n-Propylbenzene	µg/kg	<25	2,500	<25	2,240	<25	440	NA	NA	NA	NA	<53	<53	<53	NS	264,000
Tetrachloroethene	µg/kg	<25	<250	<25	<25	<25	<25	NA	NA	NA	NA	<24	**390**	<24	4.5	30,700
Toluene	µg/kg	35 "J"	<250	<25	520	47	<25	188	188	<25	<25	<50	<50	<50	1,107.2	818,000
1,2,4-Trimethylbenzene	µg/kg	<25	13,000	<25	8,700	<25	125	1,860	860	72	<25	<80	<80	<80	NS	89,800
1,3,5-Trimethylbenzene	µg/kg	<25	940	<25	3,050	<25	170	1,030	275	39	<25	<48	<48	<48	NS	182,000
Trimethylbenzene, Total	µg/kg	<25	**13,940**	<25	**11,750**	<25	295	**2,890**	1,135	111	<25	<80	<80	<80	1,379.3	NS
Xylenes, Total	µg/kg	<75	**5,200**	<75	**4,750**	<75	<75	1,910	458	65	<50	<86	<86	<86	3,940	258,000
PAHs																
Acenaphthene	µg/kg	21 "J"	21 "J"	<17	<17	418	<17	NA	NA	NA	NA	NA	NA	NA	NS	3,440,000
Acenaphthylene	µg/kg	<19	<19	<19	<19	<95	<19	NA	NA	NA	NA	NA	NA	NA	NS	487,000
Anthracene	µg/kg	63	42	<11	12 "J"	1,120	<11	NA	NA	NA	NA	NA	NA	NA	196,744.2	17,200,000
Benzo(a)anthracene	µg/kg	*307*	20 "J"	<12	18 "J"	*3,100*	<12	NA	NA	NA	NA	NA	NA	NA	NS	148
Benzo(b)fluoranthene	µg/kg	***711***	29	45	29	***4,580***	8.3 "J"	NA	NA	NA	NA	NA	NA	NA	480	148
Benzo(k)fluoranthene	µg/kg	219	<14	18 "J"	<14	1,420	<14	NA	NA	NA	NA	NA	NA	NA	NS	1,480
Benzo(a)pyrene	µg/kg	*405*	<8.1	9.4 "J"	11 "J"	***3,170***	<8.1	NA	NA	NA	NA	NA	NA	NA	470	15
Benzo(ghi)perylene	µg/kg	309	<8.5	19 "J"	13 "J"	2,200	<8.5	NA	NA	NA	NA	NA	NA	NA	NS	NS
Chrysene	µg/kg	**444**	31 "J"	<20	56 "J"	**3,380**	<20	NA	NA	NA	NA	NA	NA	NA	145.1	14,800
Dibenzo(a,h)anthracene	µg/kg	*52*	<11	<11	<11	*348*	<11	NA	NA	NA	NA	NA	NA	NA	NS	15
Fluoranthene	µg/kg	980	106	8.3 "J"	55	10,800	18 "J"	NA	NA	NA	NA	NA	NA	NA	88,817.9	2,290,000
Fluorene	µg/kg	18 "J"	29 "J"	<9.5	12 "J"	269	<9.5	NA	NA	NA	NA	NA	NA	NA	14,814.8	2,290,000
Indeno(1,2,3-cd)pyrene	µg/kg	*269*	<9.5	17 "J"	<9.5	*2,120*	<9.5	NA	NA	NA	NA	NA	NA	NA	NS	148
1-Methylnaphthalene	µg/kg	11 "J"	422	32 "J"	525	<55	35 "J"	NA	NA	NA	NA	NA	NA	NA	NS	15,600
2-Methylnaphthalene	µg/kg	<12	1,020	21 "J"	1,210	<60	13 "J"	NA	NA	NA	NA	NA	NA	NA	NS	229,000
Naphthalene	µg/kg	<17	**1,240**	22 "J"	***4,000***	<85	<17	NA	NA	NA	NA	NA	NA	NA	658.7	2,150
Phenanthrene	µg/kg	327	131	<8.9	46	4,370	23 "J"	NA	NA	NA	NA	NA	NA	NA	NS	115,000
Pyrene	µg/kg	739	78	50	53	8,900	13 "J"	NA	NA	NA	NA	NA	NA	NA	54,472.5	1,720,000
Cyanide	mg/kg	<0.83	NA	<0.083	NA	0.37	NA	NA	NA	NA	NA	NA	NA	NA	4.04	46.9
PCBs	mg/kg	<0.036	NA	<0.036	NA	<0.036	NA	NA	NA	NA	NA	NA	NA	NA	0.0094	0.222

Notes:
1. µg/kg = micrograms per kilogram (equivalent to parts per billion, ppb)
2. mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
3. bgs = below ground surface
4. "J" = detected between Limit of Detection and Limit of Quantitation
5. NA = Not Analyzed
6. NS = No established standard
7. Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as described in NR 720.10. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.
8. Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as described in NR 720.12. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.

Exceedances: **BOLD** = Concentration exceeds Groundwater Pathway RCL
ITALICS = Concentration exceeds Non-Industrial Direct Contact RCL

Table A.3.
Post-Remedial Soil Analytical Table(s)
1100 West Center Street
Milwaukee, Wisconsin
Project Reference #8849

Soil Boring Identification:		SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8	SW-9	SW-10	SW-11	SW-12	Groundwater Pathway RCLs [5]	Non-Industrial Direct Contact RCLs [6]
Analytes	Date	11/26/2012	11/26/2012	11/26/2012	11/26/2012	11/28/2012	11/28/2012	11/28/2012	11/28/2012	11/28/2012	11/28/2012	11/28/2012	11/28/2012		
	Depth (ft bgs)	8	8	12	12	12	12	12	12	12	12	12	12		
PVOCs and Naphthalene															
Benzene	µg/kg	***9,600***	***8,300***	**400**	***2,370***	**25.9**	**1,410**	<25	**26.9**	**157**	**73**	**370**	***10,400***	5.1	1,490
Ethylbenzene	µg/kg	500	**4,600**	87	<25	27.5	470	42	114	314	35	1,330	35	1,570	7,470
Methyl-tert-butyl-ether	µg/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	27	59,400
Naphthalene	µg/kg	126	540	97	25.9 "J"	52	**680**	62	107	242	48	460	53	658.7	5,150
Toluene	µg/kg	198	**1,380**	27	<25	<25	38	<25	<25	26.9	<25	114	<25	1,107.2	818,000
1,2,4-Trimethylbenzene	µg/kg	289	1,140	107	26.5	68	960	76	229	500	88	1,000	131	NS	89,800
1,3,5-Trimethylbenzene	µg/kg	84	314	<25	<25	<25	242	<25	84	61	67	320	64	NS	182,000
Trimethylbenzene, Total	µg/kg	373	**1,454**	107	26.5	68	1,202	76	313	561	155	1,320	195	1,379.3	NS
Xylenes, Total	µg/kg	561	**8,220**	168	<50	<50	511	28.6	206	282	<50	522	50	3,940	258,000

Notes:
1. µg/kg = micrograms per kilogram (equivalent to parts per billion, ppb)
2. bgs = below ground surface
3. "J" = detected between Limit of Detection and Limit of Quantitation
4. NS = No established standard
5. Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as described in NR 720.10. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.
6. Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as described in NR 720.12. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.

Exceedances: **BOLD** = Concentration exceeds Groundwater Pathway RCL
ITALICS = Concentration exceeds Non-Industrial Direct Contact RCL

Table A.4.
Pre and Post Remaining Soil Contamination Soil Analytical Table(s)
1100 West Center Street
Milwaukee, Wisconsin
Project Reference #8849

Soil Boring Identification:		SB-1		SB-2		MW-3	GP-1	GP-2		GP-3	GP-4		MW-4		MW-6		
	Date	4/10/2006		4/10/2006		4/10/2006	7/23/2012	7/23/2012		7/23/2012	7/27/2012		7/30/2012		7/30/2012		
Analytes	Depth (ft bgs)	0 - 2	4 - 6	2 - 4	6 - 8	0 - 2	2 - 4	2 - 4	8 - 10	2 - 4	0 - 2	6 - 8	4 - 6	6 - 8	6 - 8	**Groundwater Pathway RCL [7]**	**Non-Industrial Direct Contact RCL [8]**
RCRA Metals																	
Arsenic	mg/kg	<2.5	NA	***6.8***	NA	***4.5***	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.584	0.39
Barium	mg/kg	53	NA	150	NA	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	164.8	15,300
Cadmium	mg/kg	<0.5	NA	<0.5	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.752	70.2
Chromium	mg/kg	11	NA	30	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	360,000	NS
Lead	mg/kg	**36**	NA	***570***	NA	25	**102**	**44**	NA	**53**	NA	NA	NA	NA	NA	27	400
Mercury	mg/kg	<0.2	NA	<0.2	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.208	3.13
Selenium	mg/kg	<2.5	NA	<2.5	NA	<2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.52	391
Silver	mg/kg	<2.5	NA	<2.5	NA	<2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8497	391
PVOCs/Detected VOCs																	
Benzene	µg/kg	<25	<25	<25	<25	<25	<8.9	<8.9	<8.9	<8.9	NA	**136**	<25	**67**	<8.9	5.1	1,490
tert-Butylbenzene	µg/kg	<25	<25	<25	<25	<25	<54	<54	<54	<54	NA	NA	NA	NA	<54	NS	183,000
sec-Butylbenzene	µg/kg	<25	<25	<25	<25	<25	<51	<21	<51	<51	NA	NA	NA	NA	<51	NS	145,000
n-Butylbenzene	µg/kg	<25	<25	<25	<25	<25	<48	<48	<48	<48	NA	NA	NA	NA	<48	NS	108,000
Ethylbenzene	µg/kg	<25	<25	<25	<25	<25	<55	<55	<55	<55	NA	460	181	232	<55	1,570	7,470
Isopropylbenzene	µg/kg	<25	<25	<25	<25	<25	<53	<53	<53	<53	NA	NA	NA	NA	<53	NS	NS
p-Isopropyltoluene	µg/kg	<25	<25	<25	<25	<25	<45	<45	<45	<45	NA	NA	NA	NA	<45	NS	162,000
Methyl-tert-butyl-ether	µg/kg	<25	<25	<25	<25	<25	<12	<12	<12	<12	NA	<25	<25	<25	<12	27	59,400
Naphthalene	µg/kg	<25	<25	<25	<25	<25	<107	<107	<107	<107	NA	**1,640**	**1,430**	**860**	<107	658.7	5,150
n-Propylbenzene	µg/kg	<25	<25	<25	<25	<25	<53	<53	<53	<53	NA	NA	NA	NA	<53	NS	264,000
Tetrachloroethene	µg/kg	<25	<25	<25	**10,000**	<25	**90**	<24	**17,000**	<24	NA	NA	NA	NA	**390**	4.5	30,700
Toluene	µg/kg	<25	<25	<25	<25	47	<50	<50	<50	<50	NA	780	188	188	<50	1,107.2	818,000
1,2,4-Trimethylbenzene	µg/kg	<25	<25	<25	<25	<25	<80	<80	<80	<80	NA	7,200	1,860	860	<80	NS	89,800
1,3,5-Trimethylbenzene	µg/kg	<25	<25	<25	<25	<25	<48	<48	<48	<48	NA	1,340	1,030	275	<48	NS	182,000
Trimethylbenzene, Total	µg/kg	<25	<25	<25	<25	<25	<80	<80	<80	<80	NA	**8,540**	**2,890**	1,135	<80	1,379.3	NS
Xylenes, Total	µg/kg	<75	<75	<75	<75	<75	<86	<86	<86	<86	NA	3,710	1,910	458	<86	3,940	258,000
PAHs																	
Acenaphthene	µg/kg	<17	31 "J"	26"J"	<17	418	34 "J"	<16.4	NA	<16.4	1,060	NA	NA	NA	NA	NS	3,440,000
Acenaphthylene	µg/kg	<19	<19	50 "J"	<19	<95	<21	51 "J"	NA	<21	<105	NA	NA	NA	NA	NS	487,000
Anthracene	µg/kg	<11	67	170	<11	1,120	148	77	NA	51 "J"	2,630	NA	NA	NA	NA	196,744.2	17,200,000
Benzo(a)anthracene	µg/kg	41	127	*397*	<12	*3,100*	*400*	*306*	NA	*165*	*4,600*	NA	NA	NA	NA	NS	148
Benzo(b)fluoranthene	µg/kg	117	*314*	***661***	<7.5	***4,580***	***520***	*390*	NA	*218*	***5,500***	NA	NA	NA	NA	480	148
Benzo(k)fluoranthene	µg/kg	39 "J"	118	220	<14	1,420	173	124	NA	73	*1,770*	NA	NA	NA	NA	NS	1,480
Benzo(a)pyrene	µg/kg	*32*	*136*	*387*	<8.1	***3,170***	*350*	*266*	NA	*144*	***4,300***	NA	NA	NA	NA	470	15
Benzo(ghi)perylene	µg/kg	35	118	198	<8.5	2,200	256	177	NA	116	2,690	NA	NA	NA	NA	NS	NS
Chrysene	µg/kg	86	**225**	**463**	<20	**3,380**	**400**	**309**	NA	**176**	**4,200**	NA	NA	NA	NA	145.1	14,800
Dibenzo(a,h)anthracene	µg/kg	<11	*19 "J"*	*45*	<11	*348*	*63 "J"*	*54 "J"*	NA	*26.3 "J"*	*580*	NA	NA	NA	NA	NS	15
Fluoranthene	µg/kg	139	580	1,180	<7.4	10,800	900	570	NA	400	11,300	NA	NA	NA	NA	88,817.9	2,290,000
Fluorene	µg/kg	<9.5	34	43	<9.5	269	29.5 "J"	<20.3	NA	<20.3	990	NA	NA	NA	NA	14,814.8	2,290,000
Indeno(1,2,3-cd)pyrene	µg/kg	38	109	*193*	<9.5	*2,120*	*216*	*159*	NA	94	*2,280*	NA	NA	NA	NA	NS	148
1-Methylnaphthalene	µg/kg	<11	12 "J"	<11	<11	<55	<21	<21	NA	<21	183 "J"	NA	NA	NA	NA	NS	15,600
2-Methylnaphthalene	µg/kg	<12	<12	<12	<12	<60	<22.4	<22.4	NA	<22.4	170 "J"	NA	NA	NA	NA	NS	229,000
Naphthalene	µg/kg	<17	<17	<17	<17	<85	<24.9	<24.9	NA	<24.9	290 "J"	NA	NA	NA	NA	658.7	2,150
Phenanthrene	µg/kg	38	351	631	<8.9	4,370	540	208	NA	209	8,200	NA	NA	NA	NA	NS	115,000
Pyrene	µg/kg	115	420	889	<11	8,900	760	470	NA	320	9,800	NA	NA	NA	NA	54,472.5	1,720,000
Cyanide	mg/kg	**18**	NA	1	NA	0.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.04	46.9
PCBs	mg/kg	<0.036	NA	<0.036	NA	<0.036	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0094	0.222

Notes:
1. µg/kg = micrograms per kilogram (equivalent to parts per billion, ppb)
2. mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
3. bgs = below ground surface
4. "J" = detected between Limit of Detection and Limit of Quantitation
5. NA = Not Analyzed
6. NS = No established standard
7. Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as described in NR 720.10. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.
8. Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as described in NR 720.12. Current RCLs based on WDNR's RCL Spreadsheet (dated June 2013) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 20, 2013.

Exceedances: **BOLD** = Concentration exceeds Groundwater Pathway RCL
ITALICS = Concentration exceeds Non-Industrial Direct Contact RCL

A.5. Vapor Analytical Table

No data collected. Migration of volatile vapors to adjacent residential buildings is not a concern due to the distance between the low level residual PVOC impacts and the residential structures. Also, no buildings exist on-site.

A.6. Other Media of Concern (e.g., sediment or surface water)

No data collected. Surface water and sediment was not assessed because no surface bodies of water exist within the site or neighboring properties.

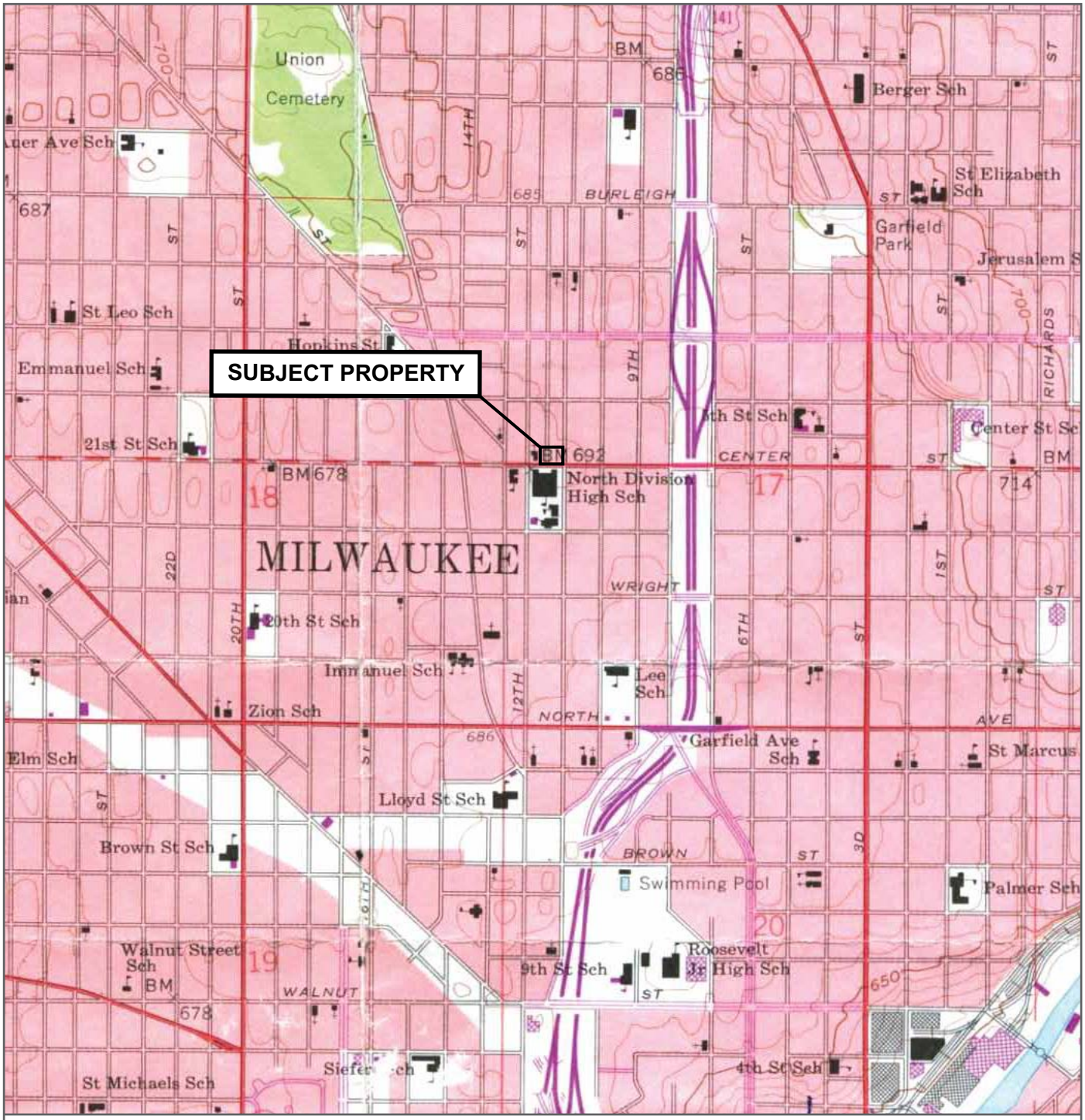
Table A.7.
Water Level Elevations
1100 West Center Street
Milwaukee Wisconsin
Project Reference #8849

Well Identification	Ground Surface Elevation (MSL)	Top of Casing Elevation (MSL)	Screen Interval (feet bgs)	Depth to Groundwater (feet toc)	Depth to Groundwater (feet bgs)	Groundwater Elevation (MSL)	Date
MW-1 (11-26-12 Abandoned by excavation)	690.94	693.61 Stick-up	3-13	7.02	4.35	686.59	04/14/2006
				11.10	8.43	682.51	07/27/2012
				15.23	12.56	678.38	10/12/2012
MW-1R	690.66	693.14 Stick-up	6.9-16.9	8.70	6.22	684.44	01/14/2013
MW-2 (11-26-12 Abandoned by excavation)	691.16	694.45 Stick-up	3-13	8.48	5.19	685.97	04/14/2006
				12.30	9.01	682.15	07/27/2012
				DRY	DRY	DRY	10/12/2012
MW-2R	690.79	693.02 Stick-up	6.4-16.4	8.58	6.35	684.44	01/14/2013
MW-3	690.89	694.12 Stick-up	3-13	7.89	4.66	686.23	04/14/2006
				11.55	8.32	682.57	07/27/2012
				15.10	11.87	679.02	10/12/2012
				12.45	9.22	681.67	01/14/2013
MW-4	690.98	690.69 Flushmount	3-13	12.02	12.31	678.67	10/12/2012
				4.94	5.23	685.75	01/14/2013
MW-5	691.35	694.59 Stick-up	3-13	15.97	12.73	678.62	10/12/2012
				9.18	5.94	685.41	01/14/2013
MW-6	690.30	693.67 Stick-up	3-13	14.69	11.33	678.98	10/12/2012
				12.18	8.82	681.49	01/14/2013
MW-7	690.45	693.85 Stick-up	3-13	14.68	11.28	679.17	10/12/2012
				11.57	8.17	682.28	01/14/2013

Notes: MSL = mean sea level
feet toc = feet below top of casing
feet bgs = feet below ground surface

A.8. Other

Not applicable. No additional data collected.



N

Scale 1 : 24,000
1 inch = 2,000 feet

Located in the Southwest 1/4 of the Northwest 1/4 of Section 17, T7N, R22E
USGS Milwaukee Quadrangle (1958, photorevised 1971)
7.5 minute, 1 : 24,000 Topographic Map Collection

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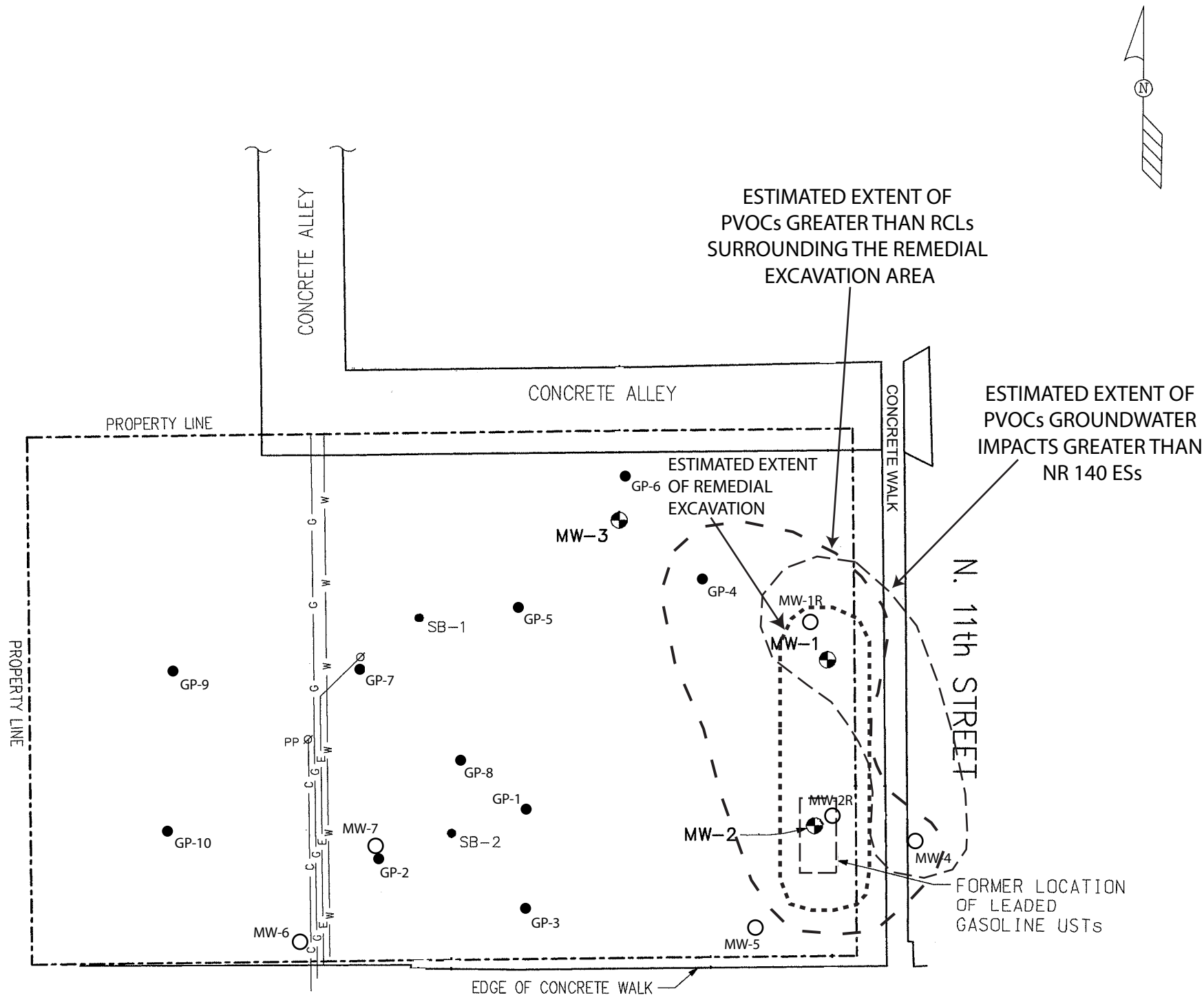
LOCATION MAP

1100 WEST CENTER STREET
MILWAUKEE, WISCONSIN

FIGURE
B.1.a.

Project : 8849 | Directory: Figures | Filename: 8849_SLM | Created By: SLO | Date: 01/29/2014



NOTE: RCLs for the protection of direct contact at a non-industrial site are not exceeded by PVOC constituents within the upper four feet of the soil column.

LEGEND

- ● = SOIL BORING LOCATION (2012)
- ○ = MONITORING WELL LOCATION (2012)
- ------ = REMEDIAL EXCAVATION LIMITS (2012)
- X = TANK AND REMEDIAL EXCAVATION SAMPLE LOCATION (2006 and 2012)
- MW ◔ = PROPOSED MONITORING WELL LOCATION
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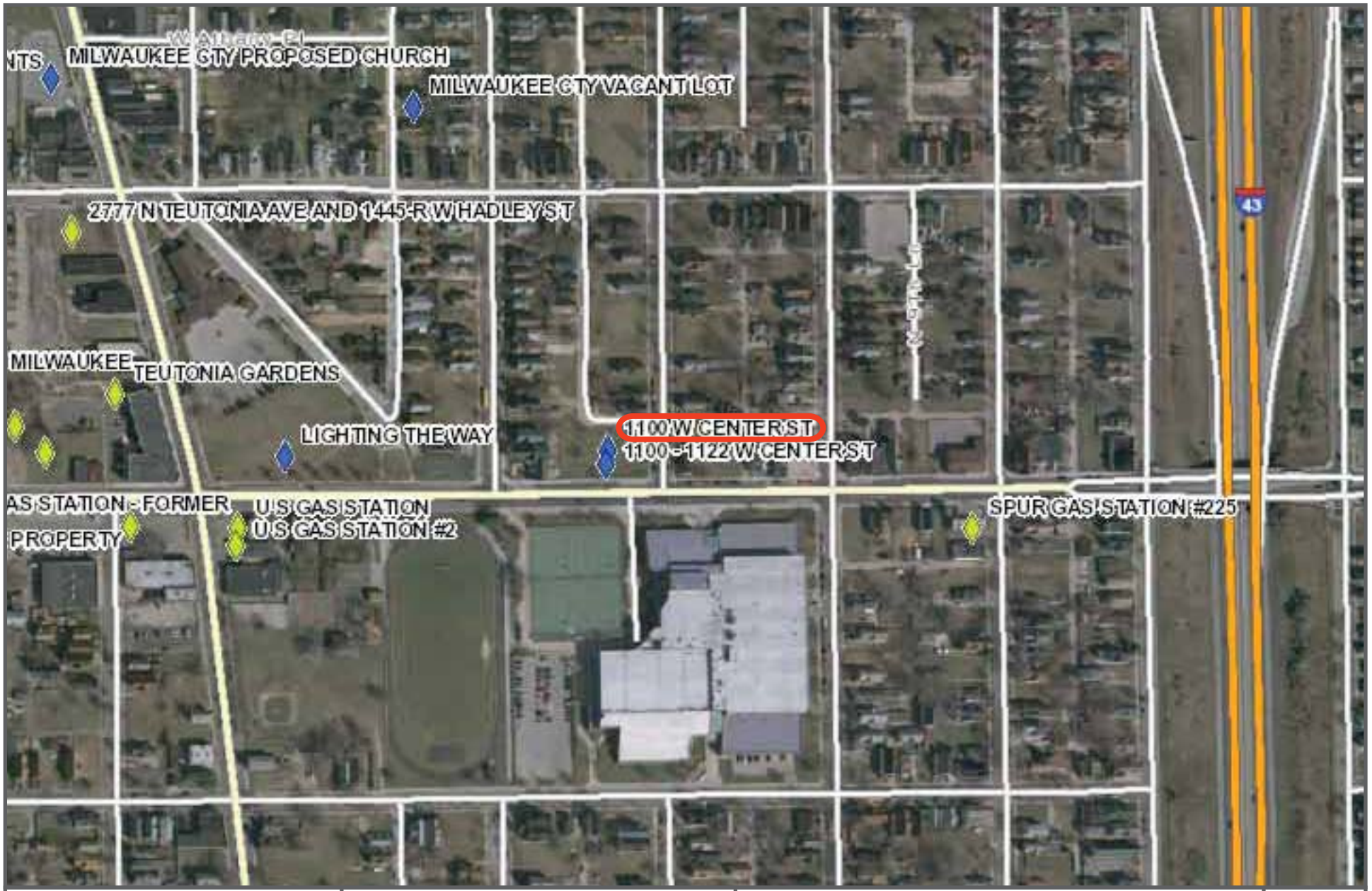
- —— E —— = UNDERGROUND ELECTRIC LINE
- —— W —— = UNDERGROUND WATER LINE

GRAPHIC SCALE

0′ 15′ 30′ 60′

NOTES:
1. MAP BASED ON A SURVEY PERFORMED BY MAKING THE GRADE, COMPLETED APRIL 2006.
2. LOCATIONS OF UTILITY LINES ARE APPROXIMATE, UTILITY LINES HAVE NOT BEEN SURVEYED.

CITY OF MILWAUKEE 1100-1122 W. CENTER STREET, MILWAUKEE, WI			SIGMA ENVIRONMENTAL SERVICES INC.
DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′
DETAILED SITE MAP			FIGURE B.1.b.



N

0 ~500 FEET

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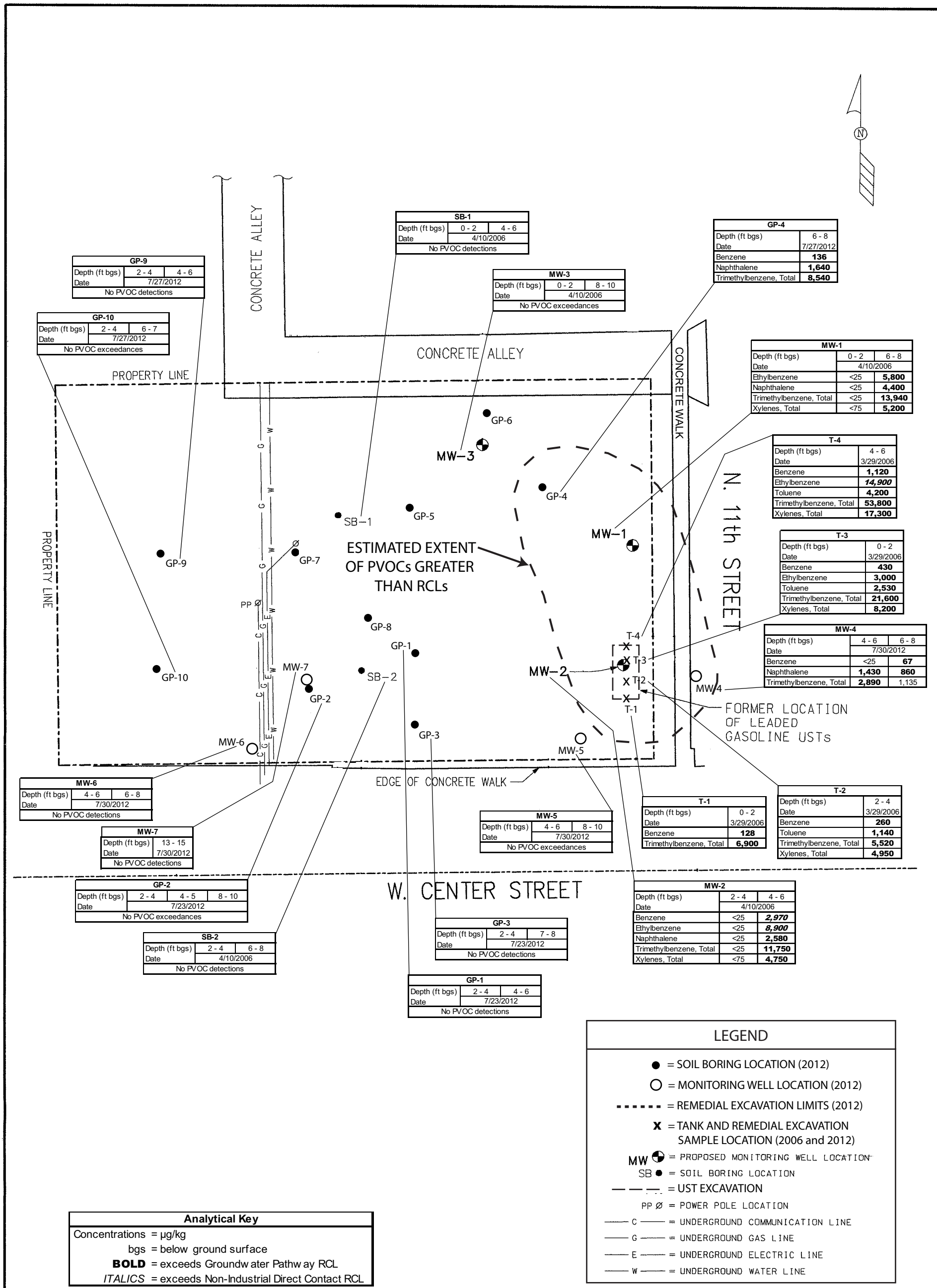
RR SITE MAP

1100 WEST CENTER STREET
MILWAUKEE, WISCONSIN

FIGURE

B.1.c.



SB-1		
Depth (ft bgs)	0 - 2	4 - 6
Date	4/10/2006	
No PVOC detections		

GP-9		
Depth (ft bgs)	2 - 4	4 - 6
Date	7/27/2012	
No PVOC detections		

MW-3		
Depth (ft bgs)	0 - 2	8 - 10
Date	4/10/2006	
No PVOC exceedances		

GP-4	
Depth (ft bgs)	6 - 8
Date	7/27/2012
Benzene	**136**
Naphthalene	**1,640**
Trimethylbenzene, Total	**8,540**

GP-10		
Depth (ft bgs)	2 - 4	6 - 7
Date	7/27/2012	
No PVOC exceedances		

MW-1		
Depth (ft bgs)	0 - 2	6 - 8
Date	4/10/2006	
Ethylbenzene	<25	**5,800**
Naphthalene	<25	**4,400**
Trimethylbenzene, Total	<25	**13,940**
Xylenes, Total	<75	**5,200**

T-4	
Depth (ft bgs)	4 - 6
Date	3/29/2006
Benzene	**1,120**
Ethylbenzene	***14,900***
Toluene	**4,200**
Trimethylbenzene, Total	**53,800**
Xylenes, Total	**17,300**

T-3	
Depth (ft bgs)	0 - 2
Date	3/29/2006
Benzene	**430**
Ethylbenzene	**3,000**
Toluene	**2,530**
Trimethylbenzene, Total	**21,600**
Xylenes, Total	**8,200**

MW-4		
Depth (ft bgs)	4 - 6	6 - 8
Date	7/30/2012	
Benzene	<25	**67**
Naphthalene	**1,430**	**860**
Trimethylbenzene, Total	**2,890**	1,135

MW-6		
Depth (ft bgs)	4 - 6	6 - 8
Date	7/30/2012	
No PVOC detections		

MW-7	
Depth (ft bgs)	13 - 15
Date	7/30/2012
No PVOC detections	

MW-5		
Depth (ft bgs)	4 - 6	8 - 10
Date	7/30/2012	
No PVOC exceedances		

T-1	
Depth (ft bgs)	0 - 2
Date	3/29/2006
Benzene	**128**
Trimethylbenzene, Total	**6,900**

T-2	
Depth (ft bgs)	2 - 4
Date	3/29/2006
Benzene	**260**
Toluene	**1,140**
Trimethylbenzene, Total	**5,520**
Xylenes, Total	**4,950**

GP-2			
Depth (ft bgs)	2 - 4	4 - 5	8 - 10
Date	7/23/2012		
No PVOC exceedances			

SB-2		
Depth (ft bgs)	2 - 4	6 - 8
Date	4/10/2006	
No PVOC detections		

GP-3		
Depth (ft bgs)	2 - 4	7 - 8
Date	7/23/2012	
No PVOC detections		

MW-2		
Depth (ft bgs)	2 - 4	4 - 6
Date	4/10/2006	
Benzene	<25	***2,970***
Ethylbenzene	<25	***8,900***
Naphthalene	<25	**2,580**
Trimethylbenzene, Total	<25	**11,750**
Xylenes, Total	<75	**4,750**

GP-1		
Depth (ft bgs)	2 - 4	4 - 6
Date	7/23/2012	
No PVOC detections		

LEGEND

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- —— W —— = UNDERGROUND WATER LINE

Analytical Key	
Concentrations	= µg/kg
bgs	= below ground surface
BOLD	= exceeds Groundwater Pathway RCL
ITALICS	= exceeds Non-Industrial Direct Contact RCL

GRAPHIC SCALE

0′ 15′ 30′ 60′

NOTES:
1. MAP BASED ON A SURVEY PERFORMED BY MAKING THE GRADE, COMPLETED APRIL 2006.
2. LOCATIONS OF UTILITY LINES ARE APPROXIMATE, UTILITY LINES HAVE NOT BEEN SURVEYED.

CITY OF MILWAUKEE

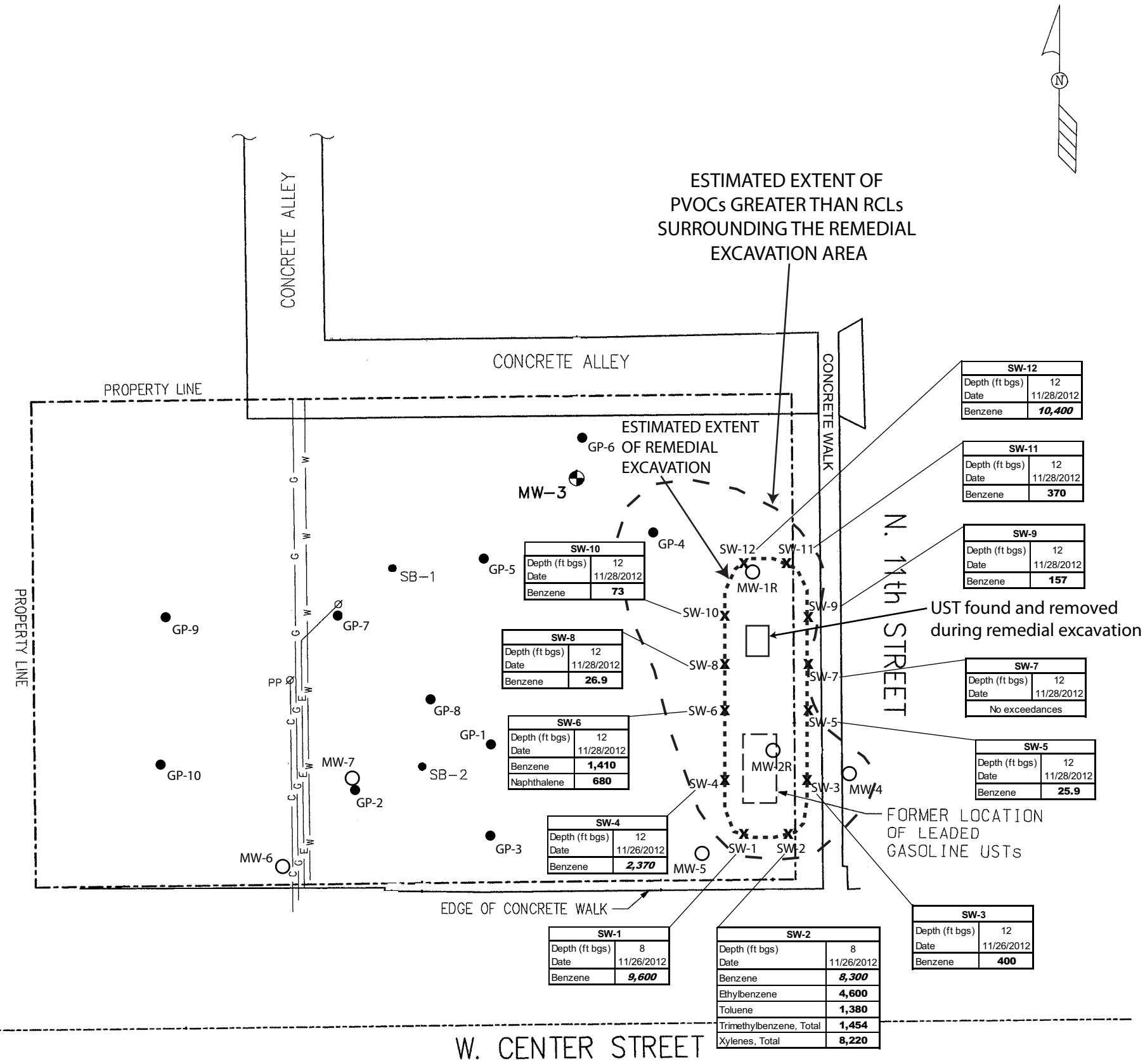
1100-1122 W. CENTER STREET, MILWAUKEE, WI

SIGMA ENVIRONMENTAL SERVICES INC.

DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′

PRE-REMEDIAL SOIL CONTAMINATION

FIGURE B.2.a.



SW-12	
Depth (ft bgs)	12
Date	11/28/2012
Benzene	***10,400***

SW-11	
Depth (ft bgs)	12
Date	11/28/2012
Benzene	**370**

SW-9	
Depth (ft bgs)	12
Date	11/28/2012
Benzene	**157**

SW-10	
Depth (ft bgs)	12
Date	11/28/2012
Benzene	**73**

SW-8	
Depth (ft bgs)	12
Date	11/28/2012
Benzene	**26.9**

SW-7	
Depth (ft bgs)	12
Date	11/28/2012
No exceedances	

SW-6	
Depth (ft bgs)	12
Date	11/28/2012
Benzene	**1,410**
Naphthalene	**680**

SW-5	
Depth (ft bgs)	12
Date	11/28/2012
Benzene	**25.9**

SW-4	
Depth (ft bgs)	12
Date	11/26/2012
Benzene	***2,370***

SW-3	
Depth (ft bgs)	12
Date	11/26/2012
Benzene	**400**

SW-1	
Depth (ft bgs)	8
Date	11/26/2012
Benzene	***9,600***

SW-2	
Depth (ft bgs)	8
Date	11/26/2012
Benzene	***8,300***
Ethylbenzene	**4,600**
Toluene	**1,380**
Trimethylbenzene, Total	**1,454**
Xylenes, Total	**8,220**

NOTE: RCLs for the protection of direct contact at a non-industrial site are not exceeded by PVOC constituents within the upper four feet of the soil column.

Analytical Key	
Concentrations	= µg/kg
bgs	= below ground surface
BOLD	= exceeds Groundwater Pathway RCL
ITALICS	= exceeds Non-Industrial Direct Contact RCL

LEGEND

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GRAPHIC SCALE

0′ 15′ 30′ 60′

NOTES:
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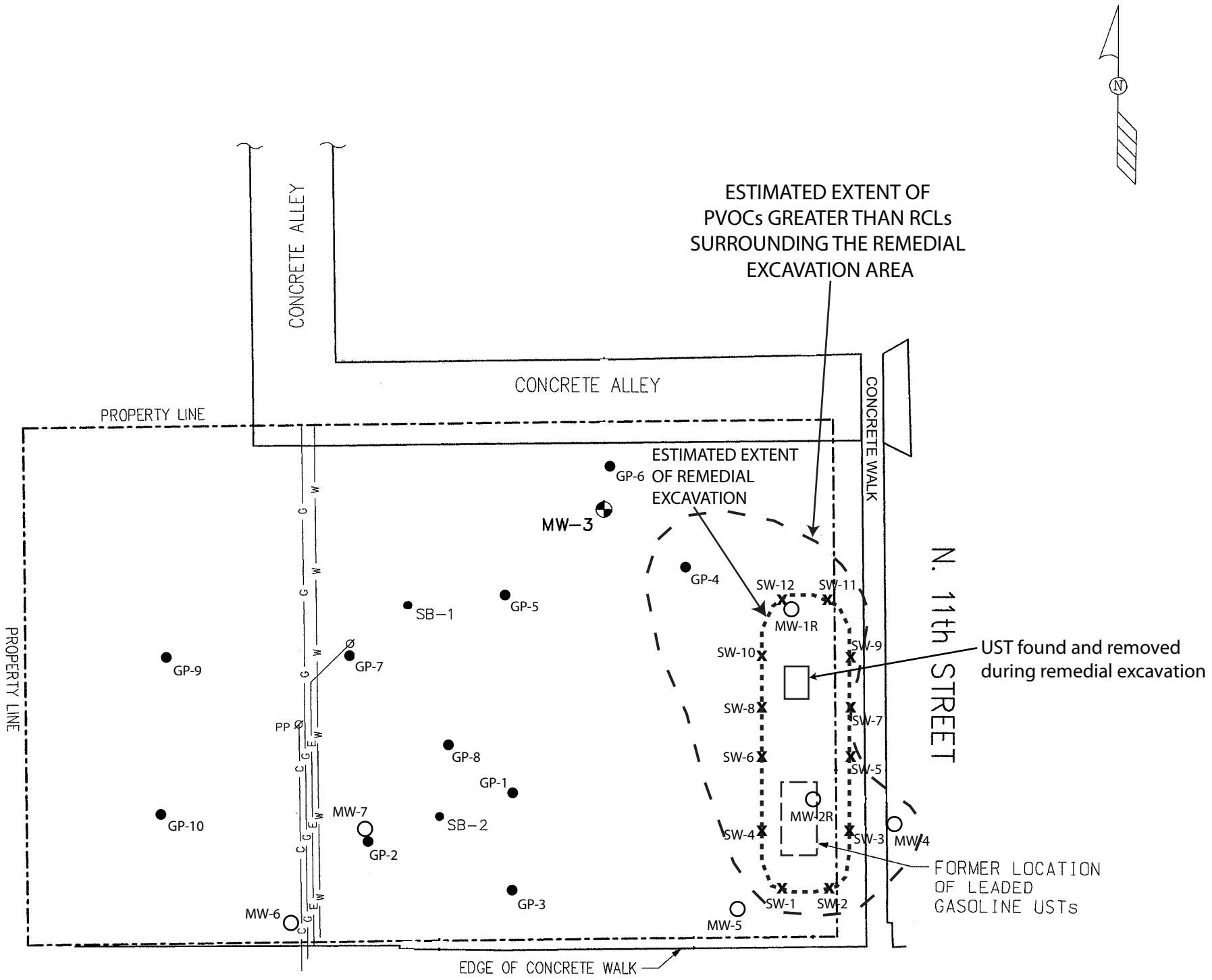
CITY OF MILWAUKEE
1100-1122 W. CENTER STREET, MILWAUKEE, WI

SIGMA ENVIRONMENTAL SERVICES INC.

DATE: JAN 2014 | DR. BY: SLO | DR.# | SCALE: 1″ = 30′

POST-REMEDIAL SOIL CONTAMINATION

FIGURE B.2.b.



NOTE: RCLs for the protection of direct contact at a non-industrial site are not exceeded by PVOC constituents within the upper four feet of the soil column.

LEGEND	
●	= SOIL BORING LOCATION (2012)
○	= MONITORING WELL LOCATION (2012)
- - - - - -	= REMEDIAL EXCAVATION LIMITS (2012)
X	= TANK AND REMEDIAL EXCAVATION SAMPLE LOCATION (2006 and 2012)
MW ⊕	= PROPOSED MONITORING WELL LOCATION
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GRAPHIC SCALE

0′ 15′ 30′ 60′

NOTES:
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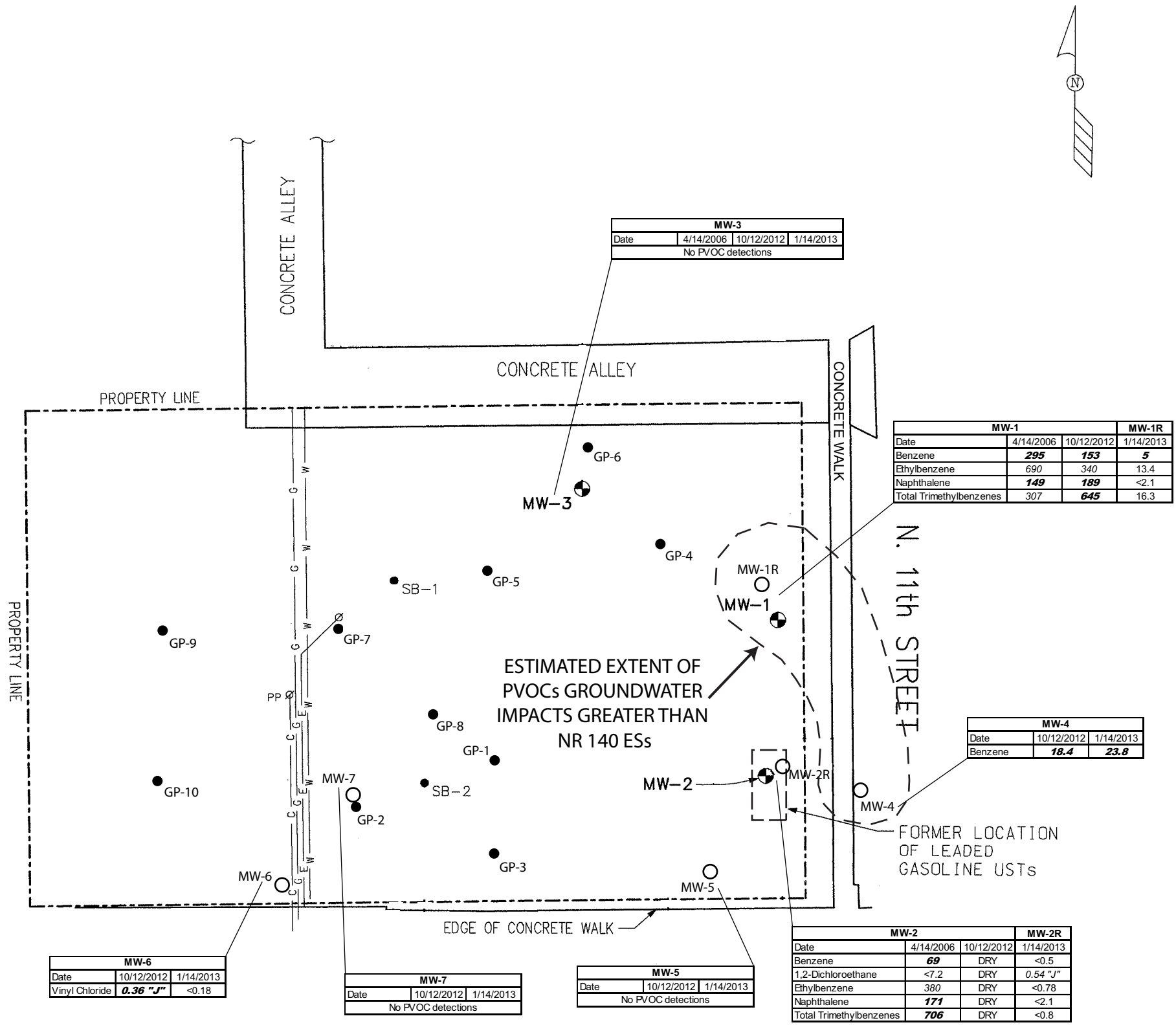
CITY OF MILWAUKEE 1100-1122 W. CENTER STREET, MILWAUKEE, WI			SIGMA ENVIRONMENTAL SERVICES INC.
DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′
PRE/POST REMAINING SOIL CONTAMINATION			FIGURE B.2.c.

B.3.a. Geological Cross-Section Figure(s)

Not included. A cross-section was not critical in evaluating potential remedial actions or defining the degree and extent of impacts.



MW-3			
Date	4/14/2006	10/12/2012	1/14/2013
No PVOC detections			

MW-1			MW-1R
Date	4/14/2006	10/12/2012	1/14/2013
Benzene	***295***	***153***	***5***
Ethylbenzene	*690*	*340*	13.4
Naphthalene	***149***	***189***	<2.1
Total Trimethylbenzenes	*307*	***645***	16.3

MW-4		
Date	10/12/2012	1/14/2013
Benzene	***18.4***	***23.8***

MW-2			MW-2R
Date	4/14/2006	10/12/2012	1/14/2013
Benzene	***69***	DRY	<0.5
1,2-Dichloroethane	<7.2	DRY	*0.54 "J"*
Ethylbenzene	*380*	DRY	<0.78
Naphthalene	***171***	DRY	<2.1
Total Trimethylbenzenes	***706***	DRY	<0.8

MW-6		
Date	10/12/2012	1/14/2013
Vinyl Chloride	***0.36 "J"***	<0.18

MW-7		
Date	10/12/2012	1/14/2013
No PVOC detections		

MW-5		
Date	10/12/2012	1/14/2013
No PVOC detections		

NOTE: The most recent round of groundwater sampling (1/14/2013) occured after the remedial excavation, and the data indicated that the flow direction is to the northwest. This is a drastic change in groundwater flow from previously collected pre-remedial excavation groundwater elevation data.

LEGEND	
●	= SOIL BORING LOCATION (2012)
○	= MONITORING WELL LOCATION (2012)
- - - - - -	= REMEDIAL EXCAVATION LIMITS (2012)
X	= TANK AND REMEDIAL EXCAVATION SAMPLE LOCATION (2006 and 2012)
MW ◔	= PROPOSED MONITORING WELL LOCATION
SB ●	= SOIL BORING LOCATION
— — —	= UST EXCAVATION
PP Ø	= POWER POLE LOCATION
—— C ——	= UNDERGROUND COMMUNICATION LINE
—— G ——	= UNDERGROUND GAS LINE
—— E ——	= UNDERGROUND ELECTRIC LINE
—— W ——	= UNDERGROUND WATER LINE

Analytical Key
Only compounds that exceed applicable standards are included.
Concentrations = µg/L
BOLD = Exceeds NR 140 Enforcement Standard
ITALICS = Exceeds NR 140 Preventive Action Limit

GRAPHIC SCALE

0′ 15′ 30′ 60′

NOTES:
1. MAP BASED ON A SURVEY PERFORMED BY MAKING THE GRADE, COMPLETED APRIL 2006.
2. LOCATIONS OF UTILITY LINES ARE APPROXIMATE, UTILITY LINES HAVE NOT BEEN SURVEYED.

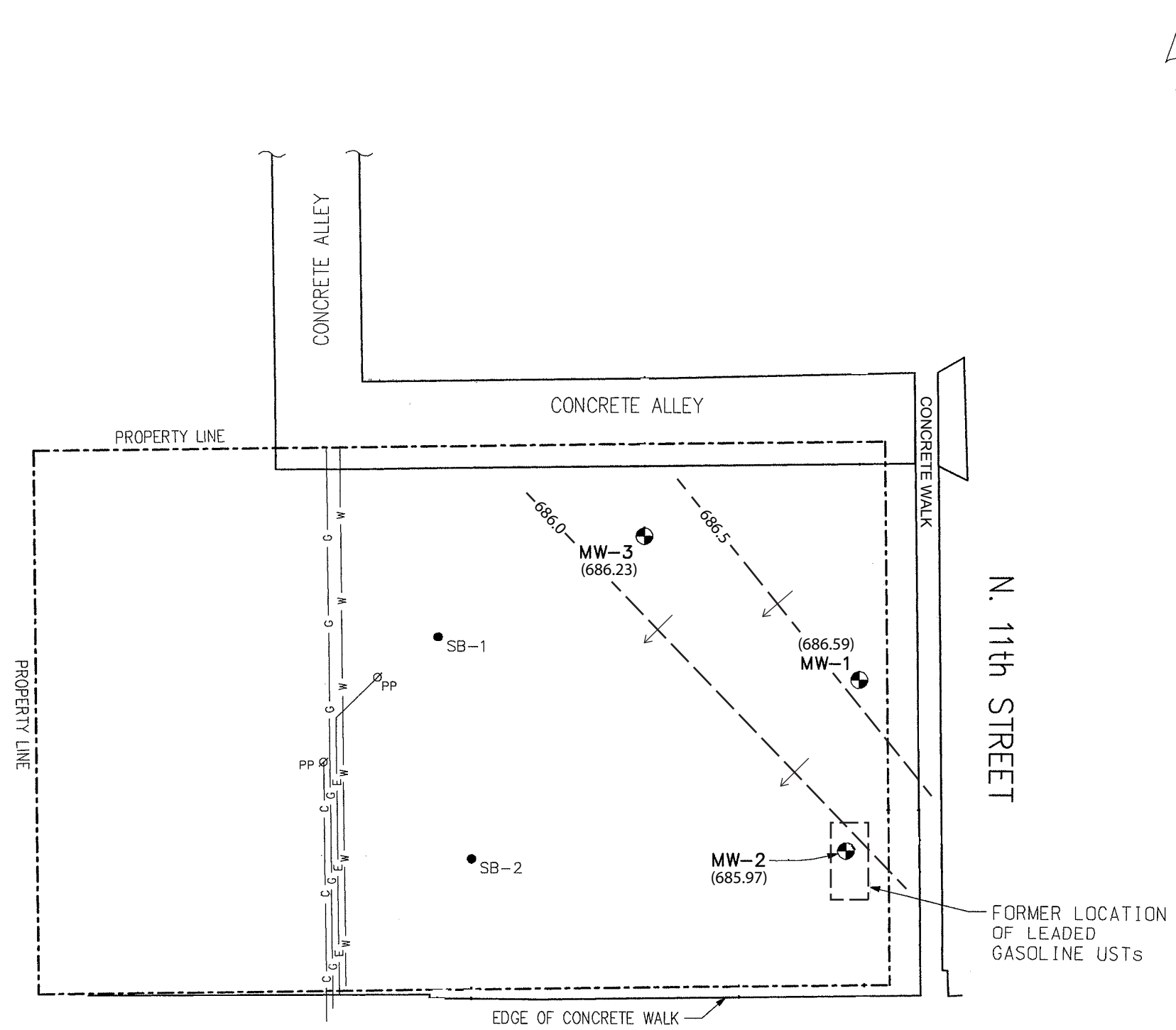
CITY OF MILWAUKEE
1100-1122 W. CENTER STREET, MILWAUKEE, WI

SIGMA ENVIRONMENTAL SERVICES INC.

DATE: JAN 2014 | DR. BY: SLO | DR.# | SCALE: 1″ = 30′

GROUNDWATER ISOCONCENTRATION

FIGURE B.3.b.



LEGEND

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- —— G —— = UNDERGROUND GAS LINE
- —— E —— = UNDERGROUND ELECTRIC LINE
- —— W —— = UNDERGROUND WATER LINE

INTERVAL = 0.5 FEET

( ) = STATIC GROUNDWATER LEVEL

⟶ = GROUNDWATER FLOW DIRECTION

GRAPHIC SCALE

0′ 15′ 30′ 60′

NOTES:
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CITY OF MILWAUKEE

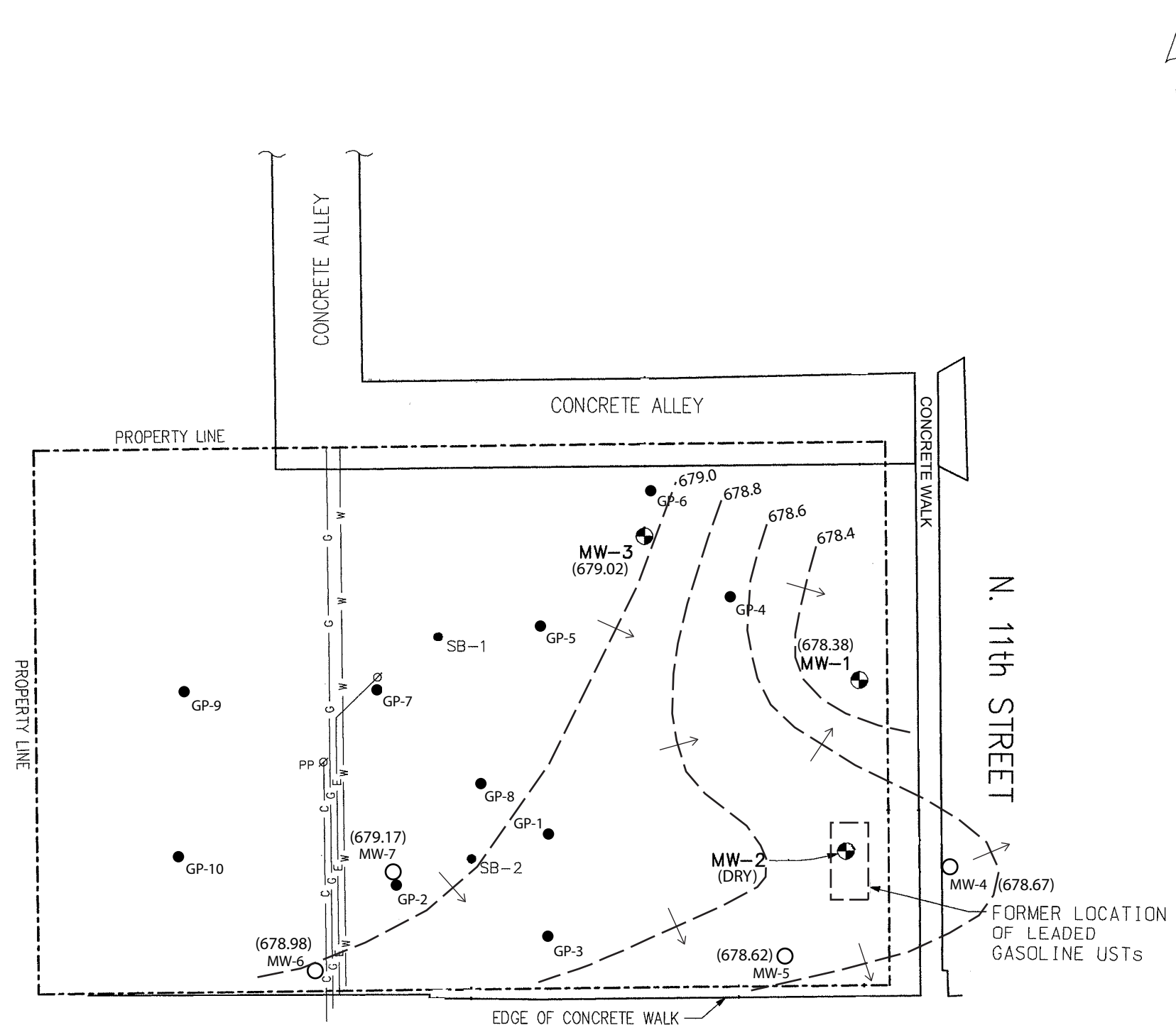
1100-1122 W. CENTER STREET, MILWAUKEE, WI

SIGMA ENVIRONMENTAL SERVICES INC.

DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′

GROUNDWATER FLOW DIRECTION
(4-14-2006)

FIGURE B.3.c.(1)



LEGEND

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INTERVAL = 0.2 FEET

( ) = STATIC GROUNDWATER LEVEL

⟶ = GROUNDWATER FLOW DIRECTION

GRAPHIC SCALE

0′ 15′ 30′ 60′

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CITY OF MILWAUKEE

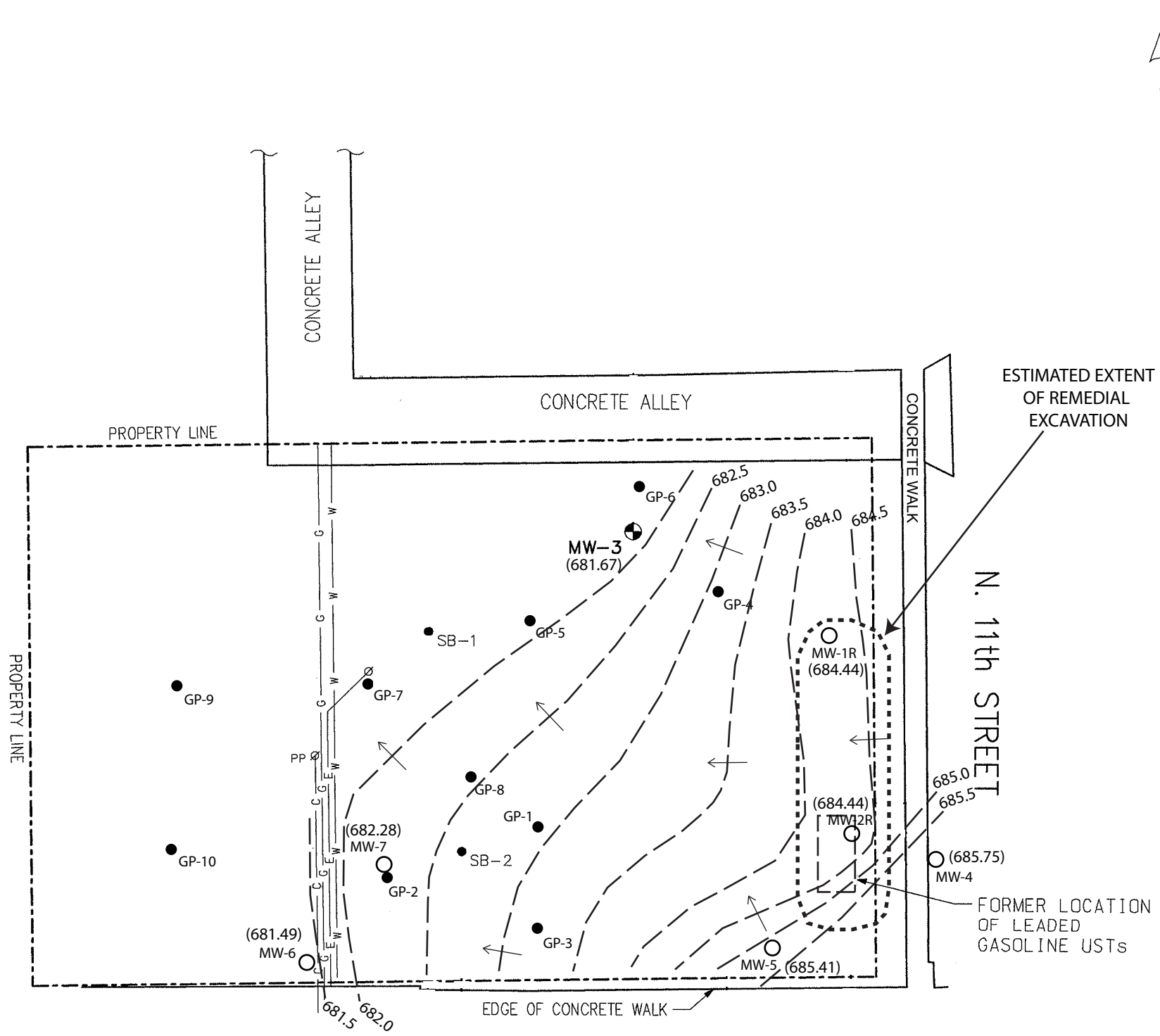
1100-1122 W. CENTER STREET, MILWAUKEE, WI

SIGMA ENVIRONMENTAL SERVICES INC.

DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′

GROUNDWATER FLOW DIRECTION
(7-27-2012)

FIGURE B.3.c.(2)



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- —— E —— = UNDERGROUND ELECTRIC LINE
- —— W —— = UNDERGROUND WATER LINE

INTERVAL = 0.5 FEET

( ) = STATIC GROUNDWATER LEVEL

⟶ = GROUNDWATER FLOW DIRECTION

GRAPHIC SCALE

0′ 15′ 30′ 60′

NOTES:
1. MAP BASED ON A SURVEY PERFORMED BY MAKING THE GRADE, COMPLETED APRIL 2006.
2. LOCATIONS OF UTILITY LINES ARE APPROXIMATE, UTILITY LINES HAVE NOT BEEN SURVEYED.

CITY OF MILWAUKEE

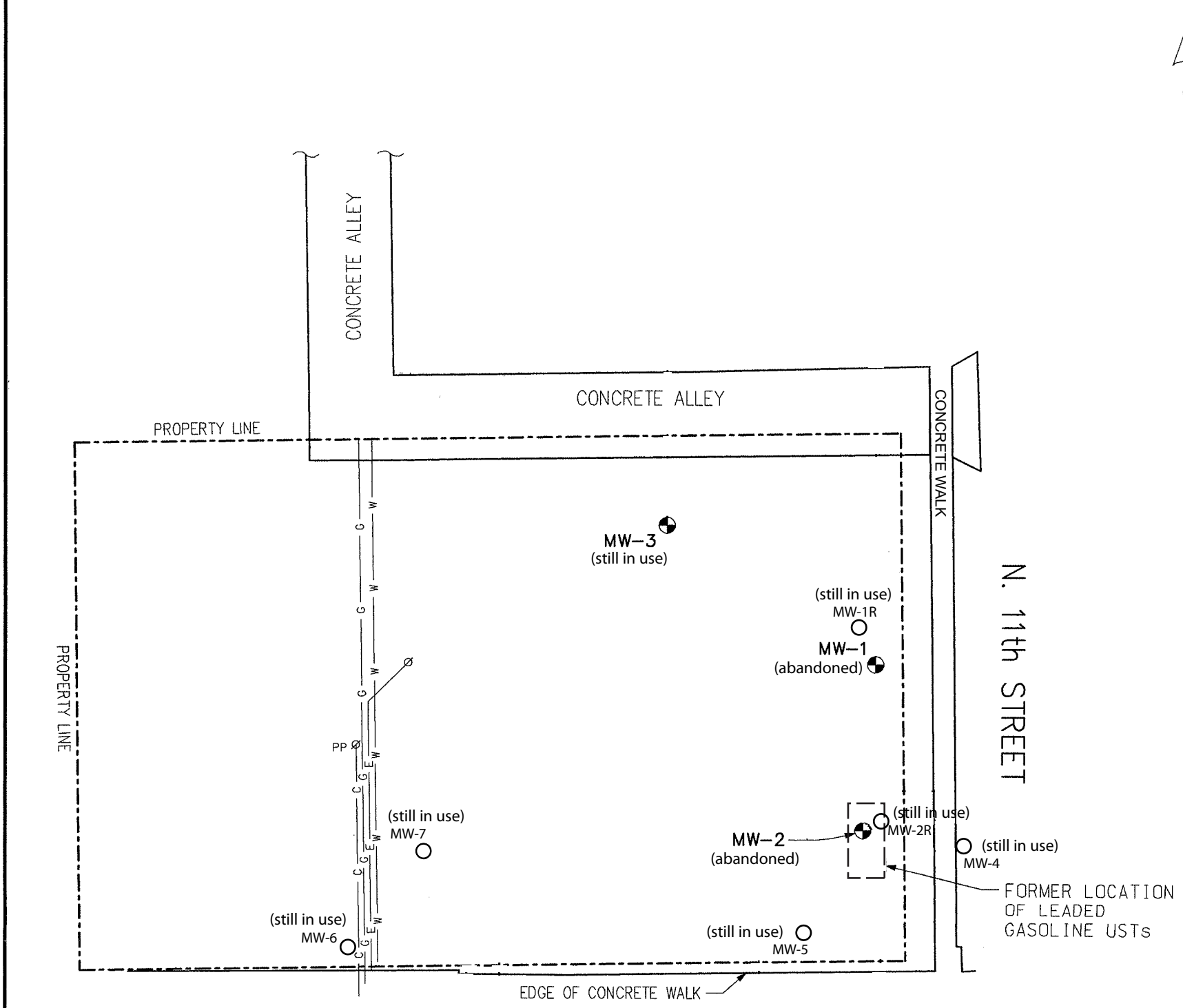
1100-1122 W. CENTER STREET, MILWAUKEE, WI

SIGMA ENVIRONMENTAL SERVICES INC.

DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′

GROUNDWATER FLOW DIRECTION (1-14-2013)

FIGURE B.3.c.(3)



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CITY OF MILWAUKEE 1100-1122 W. CENTER STREET, MILWAUKEE, WI			SIGMA ENVIRONMENTAL SERVICES INC.
DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′
MONITORING WELLS			FIGURE B.3.d.

B.4.a. Vapor Intrusion Map

No data collected. Migration of volatile vapors to adjacent residential buildings is not a concern due to the distance between the low level residual PVOC impacts and the residential structures. Also, no buildings exist on-site.

B.4.b. Other Media of Concern (e.g., sediment or surface water)

No data collected. Surface water and sediment was not assessed because no surface bodies of water exist within the site or neighboring properties.

B.4.c. Other

Not applicable. No additional data collected.

Documentation of Remedial Action (Attachment C)

DISCLAIMER

Documents contained in Attachment C of the Case Closure – GIS Registry (Form 4400-202) are not included in the electronic version (GIS Registry Packet) available on RR Sites Map to limit file size.

For information on how to obtain a copy or to review the file, please contact the Remediation & Redevelopment (RR) Environmental Program Associate (EPA) at dnr.wi.gov/topic/Brownfields/Contact.html

WISCONSIN
DEPT. OF NATURAL RESOURCES

ATTACHMENT D
Maintenance Plan

D.1. Location Map(s)
D.2. Brief Description of Residual Contamination
D.3. Description of Maintenance Action(s)
D.4. Inspection Log
D.5. Contact Information

The above attachments are not included because the site does not require a maintenance plan for residual PVOC impacts identified in this request for case closure. The direct contact exposure pathway is not at risk from the residual PVOC impacts located at the site.

ATTACHMENT E
Monitoring Well Information

All seven remaining monitoring wells have been located and will remain in use for the investigation of BRRTS Activity Number 02-41-548753 for which the Redevelopment Authority of Milwaukee is the responsible party.

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Impacted Property Notification Information

Form 4400-246 (R 10/12)

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, where specific circumstances exist at the time of case closure. This form applies to situations where: (1) the party conducting the cleanup does not own the source property; (2) contamination has impacted a neighboring property to a certain degree; and (3) not all monitoring wells can/will be abandoned at the time of closure. A letter notifying these property owners is required of the responsible party if certain circumstances exist. The DNR's "Guidance on Case Closure and the Requirements for Managing Continuing Obligations" (PUB-RR-606) specifies those notification requirements. A model "Template for Notification of Residual Contamination and Continuing Obligations" (PUB-RR-919) can be downloaded at: http://dnr.wi.gov/files/PDF/pubs/rr/RR919.pdf. 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. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS No.	Activity Name
03-41-545220	1100 West Center Street

						Letter Sent To:			Reasons Letter Sent:							
ID	Impacted Property Address	Parcel No.	Date of Letter	WTMX	WTMY	Source Property Owner is not RP	Right of Way Government or Other	Impacted Off-Site Property Owner	Groundwater Exceeds ES	Residual Soil Exceeds Standards	Cap/Engineerd Control	Industrial Use Soil Standards	Vapor System in Place	Vapor Asmt Needed if use Changes	Structural Impediment	Lost, Transferred or Open Wells
A	N 11th St. ROW adjacent to 1100 W Center St.		02/2014				X		X	X						
B																
C																
D																
E																
F																
G																
H																
I																

Section B: ROW Notification: Residual Contamination and/or Continuing Obligations - Non-DOT ROWs

KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

841 N. Broadway, Room 701
Milwaukee, WI, 53202

Dear Mr. Polenske:

I am providing this notification to inform you of the location and extent of contamination remaining in a right-of-way for which you are responsible, and of certain long-term responsibilities (continuing obligations) for which city of Milwaukee may become responsible. I have conducted an investigation of a release of petroleum hydrocarbon on 1100 West Center Street, Milwaukee, WI, 53206 that has shown that contamination has migrated into the right-of-way for which city of Milwaukee is responsible. I have conducted a cleanup, and will be requesting that the Department of Natural Resources (DNR) grant case closure. Closure means that the DNR will not be requiring any further investigation or cleanup action to be taken. However, continuing obligations may be imposed as a condition of closure approval.

You have 30 days to comment on the proposed closure request:

The DNR will not review my closure request for at least 30 days after the date of this letter. As an affected right-of-way holder, you have a right to contact the DNR to provide any technical information that you may have that indicates that closure should not be granted for this site. If you would like to submit any information to the DNR that is relevant to this closure request, you should mail that information to the DNR contact: John Hnat at 2300 North Martin Luther King Drive, Milwaukee, WI, 53212 .

Residual Contamination:

Groundwater Contamination:

Groundwater contamination originated at the property located at 1100 West Center Street, Milwaukee, WI, 53206 .

The levels of benzene contamination in the groundwater on your property are above the state groundwater enforcement standards found in ch. NR 140, Wis. Adm. Code.

Soil Contamination:

Soil contamination remains at 4 to 8 feet below ground surface within the N. 11th Street right-of-way near W. Center Street

The remaining contaminants include benzene, naphthalene, and trimethylbenzene at levels which exceed the soil standards found in ch. NR 720, Wis. Adm. Code. The following steps have been taken to address any exposure to the remaining soil contamination.

Three gasoline underground storage tanks were removed from the 1100 West Center Street property in March 2006. Approximately 738 tons of contaminated soil was removed from the site in November 2012. During excavation, an additional underground storage tank was found and removed. Analytical results indicate residual impacts remain to the east of the subject property beneath the North 11th Street public right-of-way. Residual PVOC constituents do not pose a risk to the direct contact pathway, and natural attenuation is considered an effective means to remedy remaining petroleum hydrocarbon contamination.

If residual soil or groundwater contamination is likely to affect water collected in a pit/trench that requires dewatering, a general permit for Discharge of Contaminated Groundwater from Remedial Action Operations may be needed. If you or any other person plan to conduct utility or building construction for which dewatering will be necessary, you or that person must contact the DNR's Water Quality Program, and if necessary, apply for the necessary discharge permit. Additional information regarding discharge permits is available at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html.

Continuing Obligations on the Right-of-Way (ROW) : As part of the cleanup, I am proposing that the following continuing obligations be used at the affected ROW. If my closure request is approved, you will be responsible for the following continuing obligations:

Residual Soil Contamination:
If soil is excavated from the areas with residual contamination, the right-of-way holder at the time of excavation will be responsible for the following:

- determine if contamination is present,
- determine whether the material would be considered solid or hazardous waste,
- ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. Contaminated soil may be managed in-place, in accordance with s. NR 718, Wis. Adm. Code, with prior Department approval.

The right-of-way holder needs 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 from ingestion, inhalation or dermal contact.

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

GIS Registry and Well Construction Requirements:

If this site is closed, all properties within the site boundaries where contamination remains, or where a continuing obligation is applied, will be listed on the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web, at http://dnr.wi.gov/topic/Brownfields/clean.html. Inclusion on this database provides public notice of remaining contamination and of any continuing obligations. Documents can be viewed on this database, and include final closure letters, site maps and any applicable maintenance plans. The location of the site may also be viewed on the Remediation and Redevelopment Sites Map (RR Sites Map), on the "GIS Registry" layer, at the same internet address listed above.

DNR approval prior to well construction or reconstruction is required for all sites included in the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. Special well construction standards may be necessary to protect the well from the remaining contamination. Well drillers need to first obtain approval from a regional water supply specialist in DNR's Drinking Water and Groundwater Program. The well construction application, form 3300−254, is on the internet at http://dnr.wi.gov/topic/wells/documents/3300254.pdf.

Site Closure:
Once the DNR grants closure, site information, including a copy of the final closure letter, site maps and any applicable maintenance plan, may be found by using BRRTS on the Web. The status of the site (open or closed) may also be checked by searching BRRTS on the Web.

You may also request a copy of the final closure letter from the **responsible party** or by writing to the DNR contact, at John Hnat, john.hnat@wisconsin.gov, (414) 263-8644 . The final closure letter will contain a description of the continuing obligation, any prohibitions on activities and will include any applicable maintenance plan.

If you have any questions regarding this notification, I can be reached at (414) 286-5642, mathew.reimer@milwaukee.gov.

Signature of responsible party/environmental consultant for the responsible party	Date Signed 2/7/2014

Attachment: Contact Information

Checklist of Documents to Submit

Factsheets:

☒ RR 819, Continuing Obligations for Environmental Protection

RIGHT-OF-WAY

Include this completed page as an attachment with all notifications provided under sections A and B.

Contact Information

Responsible Party: The person responsible for sending this form, and for conducting the environmental investigation and cleanup is:

Responsible Party Name: Redevelopment Authority of the City of Milwaukee

Contact Person Last Name	First	MI	Phone Number (include area code)
Reimer	Mathew		(414) 286-5642

Address	City	State	ZIP Code
809 N. Broadway	Milwaukee	WI	53202

E-mail: mathew.reimer@milwaukee.gov

Name of Party Receiving Notification:

Title	Last Name	First	MI	Phone Number (include area code)
Mr.	Polenske	Jeffrey	S	(414) 286-2400

Address	City	State	ZIP Code
841 N. Broadway, Room 701	Milwaukee	WI	53202

Site Name and Source Property Information:

Site (Activity) Name: 1100 West Center Street

Address	City	State	ZIP Code
1100 West Center Street	Milwaukee	WI	53206

DNR ID # (BRRTS#)	(DATCP) ID #
03-41-545220	

Contacts for Questions:

If you have any questions regarding the cleanup or about this notification, please contact the Responsible Party identified above, or contact:

Environmental Consultant: The Sigma Group, Inc.

Contact Person Last Name	First	MI	Phone Number (include area code)
Meer	Stephen	R	(414) 643-4200

Address	City	State	ZIP Code
1300 W. Canal Street	Milwaukee	WI	53233

E-mail: smeer@thesigmagroup.com

Department Contact:

To review the Department's case file, or for questions on cleanups or closure requirements, contact:

Department of: Natural Resources (DNR)

Address	City	State	ZIP Code
2300 North Martin Luther King Drive	Milwaukee	WI	53212

Contact Person Last Name	First	MI	Phone Number (include area code)
Hnat	John		(414) 263-8644

E-mail (Firstname.Lastname@wisconsin.gov): john.hnat@wisconsin.gov

The affected property is:

- ○ the source property (the source of the hazardous substance discharge), but the property is not owned by the person who conducted the cleanup (a deeded property)
- ○ a deeded property affected by contamination from the source property
- ◉ a right-of-way (ROW)
- ○ a Department of Transportation (DOT) ROW

List of attachments: (list all attachments to be included; include name of attachment and figure numbers)

Maps

Section A

~~Monitoring Well Location Map – (Filling & Sealing, Continue Sampling of Wells)~~

~~Location of Cover in relation to the extent of contamination (Maintenance of a Cover)~~

Section B

Monitoring Well Location Map - (Filling & Sealing, Continue Sampling of Wells) – Figure B.3.d.

Section C:

Groundwater Isoconcentration Map – Figure B.3.b

Soil Isoconcentration Map – Figure B.2.c

Maintenance plan N/A

Section A

Maintenance of Plan - (Maintenance of a cover, Barrier, and/or Vapor Mitigation System)

Factsheets:

Section A

RR 819, Continuing Obligations for Environmental Protection – Included

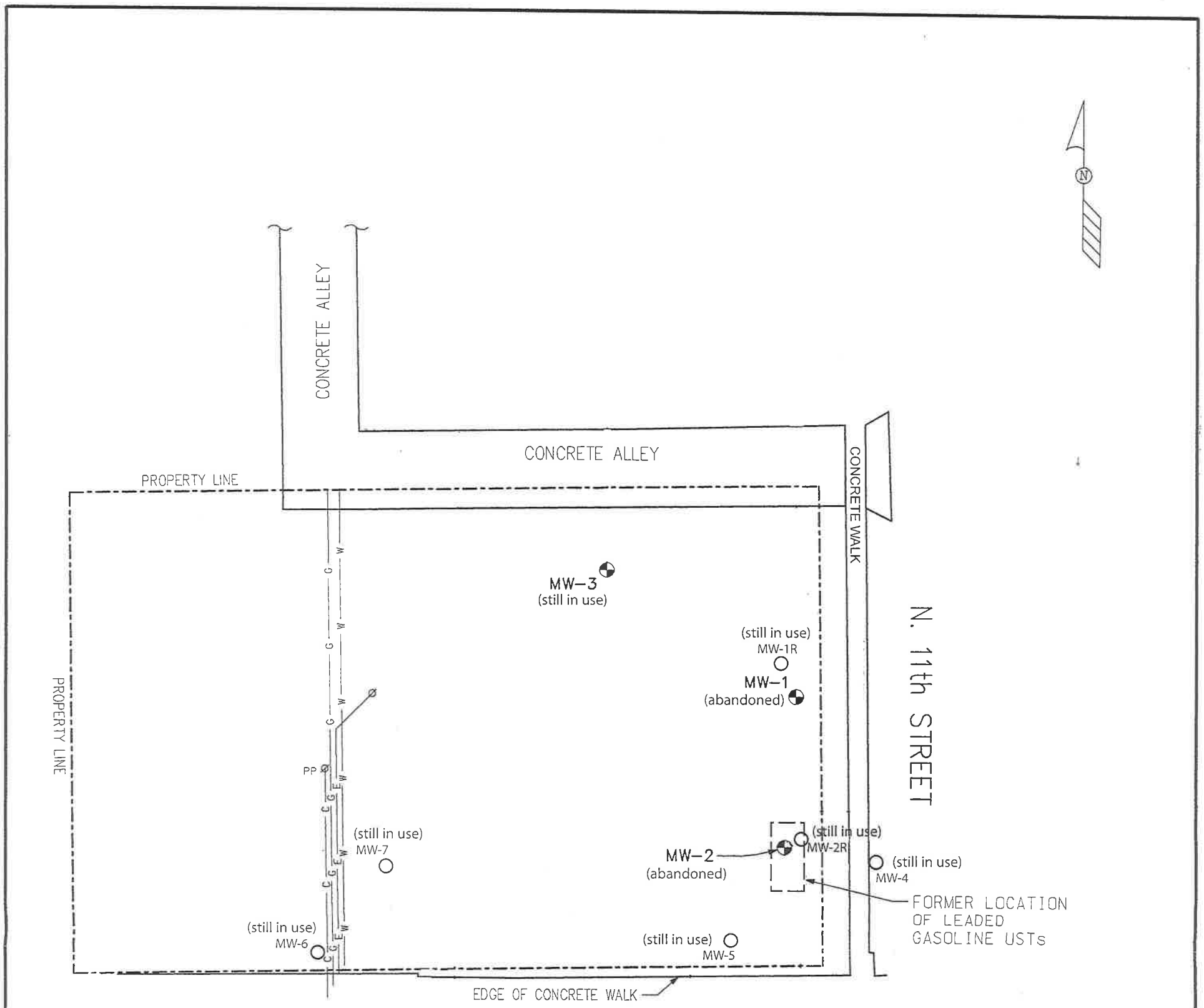
RR 671, What Landowners Should Know: Information About Using Natural Attenuation to Clean Up Contaminated Groundwater – N/A

RR 892, Vapor Intrusion: What to Expect if Vapor Intrusion from Soil and Groundwater Contamination Exist on My Property – N/A

Section B

Groundwater RR 892, Vapor Intrusion: What to Expect if Vapor Intrusion from Soil and Groundwater Contamination Exist on My Property – N/A

RIGHT-OF-WAY



W. CENTER STREET

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GRAPHIC SCALE

0′ 15′ 30′ 60′

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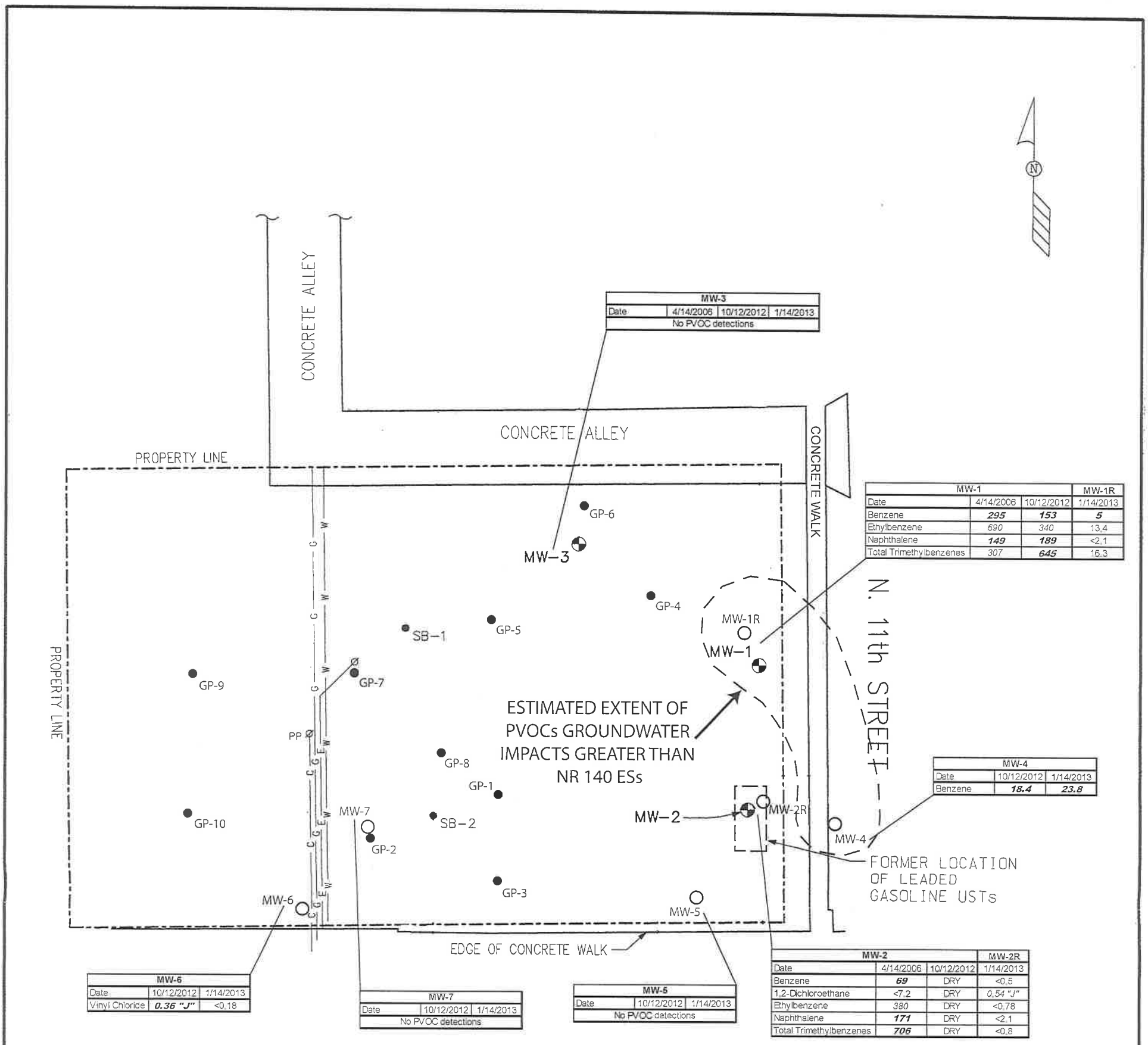
CITY OF MILWAUKEE 1100-1122 W. CENTER STREET, MILWAUKEE, WI			SIGMA ENVIRONMENTAL SERVICES INC.
DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′
MONITORING WELLS			FIGURE B.3.d.

RIGHT-OF-WAY



MW-3			
Date	4/14/2006	10/12/2012	1/14/2013
No PVOC detections			

MW-1			MW-1R
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Date	10/12/2012	1/14/2013
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LEGEND	
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Only compounds that exceed applicable standards are included.	
Concentrations	= µg/L
BOLD	= Exceeds NR 140 Enforcement Standard
ITALICS	= Exceeds NR 140 Preventive Action Limit

GRAPHIC SCALE

0' 15' 30' 60'

NOTES:
1. MAP BASED ON A SURVEY PERFORMED BY MAKING THE GRADE, COMPLETED APRIL 2006.
2. LOCATIONS OF UTILITY LINES ARE APPROXIMATE, UTILITY LINES HAVE NOT BEEN SURVEYED.

CITY OF MILWAUKEE
1100-1122 W. CENTER STREET, MILWAUKEE, WI

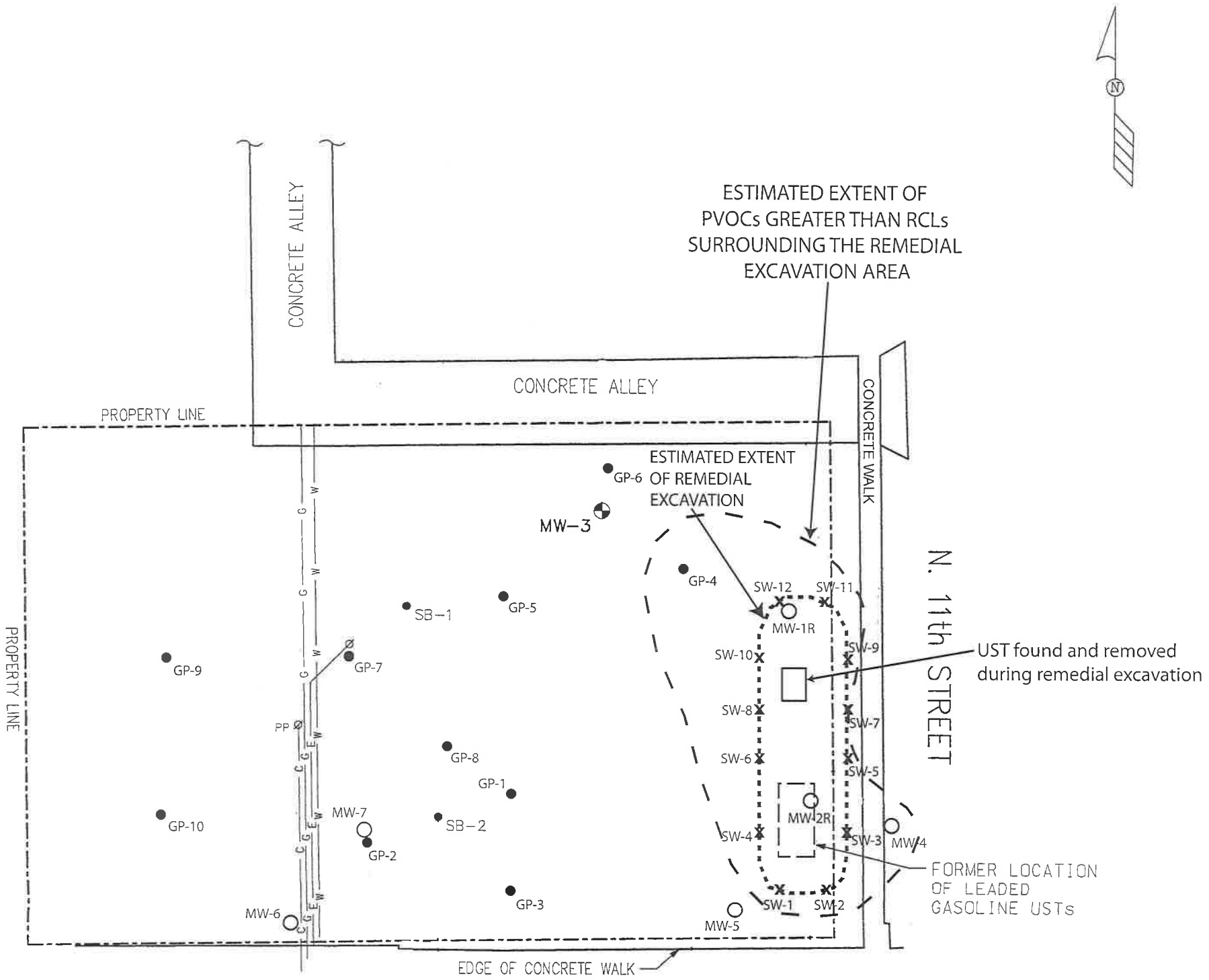
SIGMA ENVIRONMENTAL SERVICES INC.

DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1" = 30'

GROUNDWATER ISOCONCENTRATION

FIGURE B.3.b.

RIGHT-OF-WAY



NOTE: RCLs for the protection of direct contact at a non-industrial site are not exceeded by PVOC constituents within the upper four feet of the soil column.

LEGEND
● = SOIL BORING LOCATION (2012)
○ = MONITORING WELL LOCATION (2012)
- - - - - - = REMEDIAL EXCAVATION LIMITS (2012)
X = TANK AND REMEDIAL EXCAVATION SAMPLE LOCATION (2006 and 2012)
MW ⊕ = PROPOSED MONITORING WELL LOCATION
SB ● = SOIL BORING LOCATION
— — — = UST EXCAVATION
PP Ø = POWER POLE LOCATION
—— C —— = UNDERGROUND COMMUNICATION LINE
—— G —— = UNDERGROUND GAS LINE
—— E —— = UNDERGROUND ELECTRIC LINE
—— W —— = UNDERGROUND WATER LINE

GRAPHIC SCALE

0′ 15′ 30′ 60′

NOTES:
1. MAP BASED ON A SURVEY PERFORMED BY MAKING THE GRADE, COMPLETED APRIL 2006.
2. LOCATIONS OF UTILITY LINES ARE APPROXIMATE, UTILITY LINES HAVE NOT BEEN SURVEYED.

CITY OF MILWAUKEE 1100-1122 W. CENTER STREET, MILWAUKEE, WI			SIGMA ENVIRONMENTAL SERVICES INC.
DATE: JAN 2014	DR. BY: SLO	DR.#	SCALE: 1″ = 30′
PRE/POST REMAINING SOIL CONTAMINATION			FIGURE B.2.c.

RIGHT-OF-WAY

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Jeff Polenske
841 N. Broadway
Room 701
Milwaukee, WI
53202

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☑ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7008 2810 0002 2889 4256

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

The Sigma Group
1300 W. Canal Street
Milwaukee, WI 53233

RACM 8849 Stacey 2/7/14

G.1. Deeds

CRT:e
DOCUMENT NO.

REEL 1262 IMAG 513

WARRANTY DEED
STATE OF WISCONSIN—FORM 4

THIS SPACE RESERVED FOR RECORDING DATA

5367946

REGISTER'S OFFICE
Milwaukee County, Wis. } ss
RECORDED AT 9 45 AM

NOV 26 1979
REEL 1262 IMAGE 513 514

Wm. A. Smyd
REGISTER OF DEEDS

RETURN TO
CITY ATTORNEY'S OFFICE
801 CITY HALL
MILWAUKEE 2, WISCONSIN

THIS INDENTURE, Made this 21st day of November, A. D., 1979, between Lenora Williamson

party of the first part, and Redevelopment Authority of the City of Milwaukee, a public body corporate and politic

a ~~Corporation~~ duly organized and existing under and by virtue of the laws of the State of Wisconsin, located at Milwaukee, Wisconsin, party of the second part.

Witnesseth, That the said party of the first part, for and in consideration of the sum of Six Thousand and no/100ths Dollars ($6,000.00)

to her in hand paid by the said party of the second part, the receipt whereof is hereby confessed and acknowledged, has given, granted, bargained, sold, remised, released, aliened, conveyed and confirmed, and by these presents does give, grant, bargain, sell, remise, release, alien, convey and confirm unto the said party of the second part, its successors and assigns forever, the following described real estate, situated in the County of Milwaukee and State of Wisconsin, to-wit:

Lot Seventeen (17) in Block Two (2) in Koch's Subdivision of a part of the South Nine and One-third (9-1/3) acres of the East Twenty (20) acres of the West Forty (40) acres of the North West One-quarter (¼) of Section Seventeen (17), in Township Seven (7) North, Range Twenty-two (22) East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin (Parcel No. 6400-4-2, 1110 W. Center St., Tax Key No. 312-2246)

(This is not homestead property of the grantor.)

FEE
#77.25(2)
EXEMPT

(IF NECESSARY, CONTINUE DESCRIPTION ON REVERSE SIDE)

Together with all and singular the hereditaments and appurtenances thereunto belonging or in any wise appertaining; and all the estate, right, title, interest, claim or demand whatsoever, of the said party of the first part, either in law or equity, either in possession or expectancy of, in and to the above bargained premises, and their hereditaments and appurtenances.

To Have and to Hold the said premises as above described with the hereditaments and appurtenances, unto the said party of the second part, and to its successors and assigns FOREVER.

And the said Lenora Williamson

for herself, her heirs, executors and administrators, does covenant, grant, bargain and agree to and with the said party of the second part, its successors and assigns, that at the time of the ensealing and delivery of these presents she is well seized of the premises above described, as of a good, sure, perfect, absolute and indefeasible estate of inheritance in the law, in fee simple, and that the same are free and clear from all incumbrances whatever.

and that the above bargained premises in the quiet and peaceful possession of the said party of the second part, its successors and assigns, against all and every person or persons lawfully claiming the whole or any part thereof, she will forever WARRANT AND DEFEND.

In Witness Whereof, the said party of the first part has hereunto set her hand and seal this 21st day of November, A. D., 1979.

SIGNED AND SEALED IN PRESENCE OF

APPROVED as to Form and Execution this 21st day of Nov 1979
Charles R. Theis
Assistant City Attorney

Lenora Williamson (SEAL)
Lenora Williamson
(SEAL)
(SEAL)
SOC # 5367946 #
RECORD (SEAL) 3.00
WISH D 3.00
#61453 0001 R01 T09:43
NOV 26 79

State of Wisconsin, } ss.
County of Milwaukee

Personally came before me, this 21st day of November, A. D., 1979, the above named Lenora Williamson

to me known to be the person who executed the foregoing instrument and acknowledged the same.

Charles R. Theis

THIS INSTRUMENT WAS DRAFTED BY
City of Milwaukee

Notary Public, Milwaukee County, Wis.
My commission (expires) (is) permanent.

(NOTARIAL SEAL)

3.00

(Section 59.51 (1) of the Wisconsin Statutes provides that all instruments to be recorded shall have plainly printed or typewritten thereon the names of the grantors, grantees, witnesses and notary. Section 59.513 similarly requires that the name of the person who, or governmental agency which, drafted such instrument, shall be printed, typewritten, stamped or written thereon in a legible manner.)

WARRANTY DEED — To Corporation
STATE OF WISCONSIN
FORM No. 4
Wisconsin Legal Blank Company
Milwaukee, Wis. (Job 28757)

REEL 1262 IMAGE 514

CERTIFICATE OF COMPENSATION

This certifies that the Redevelopment Authority of the City of Milwaukee on November 21, 1979 acquired a deed to the following described premises:

Lot 17 in Block 2 in Koch's Subdivision of a part of the South 9-1/3 acres of the East 20 acres of the West 40 acres of the Northwest ¼ of Section 17, Township 7 North, Range 22 East, in the City of Milwaukee (Parcel No. 6400-4-2, 1110 W. Center St., Tax Key No. 312-2246)

That the interest acquired by the Redevelopment Authority was fee simple title, and that the amount of compensation paid therefor is in the amount of $ 6,000.00 ; that this sum does not include compensable items, if any, payable under the provisions of Sec. 32.19, Wis. Stats.

That the following parties had an interest of record in said premises immediately prior to the acquisition of title by the Redevelopment Authority:

Lenora Williamson
c/o Atty. Roy L. Wilson
711 W. Capitol Dr.
Milwaukee, Wis. 53206
(owner of record)

Dated at Milwaukee, Wisconsin, this 21st day of November, 1979.

Charles R. Theis
Attorney for Redevelopment Authority

STATE OF WISCONSIN
MILWAUKEE COUNTY

Personally came before me this 21st day of November, 1979, the above named Charles R. Theis to me known to be the person who executed the foregoing instrument and acknowledged the same.

Notary Public, Milwaukee Co., Wis.
My commission 1/27/80

RA-24

G.2. Certified Survey Map

C.P.-G.J. 11-29-39

KOCH'S SUBDIVISION

312

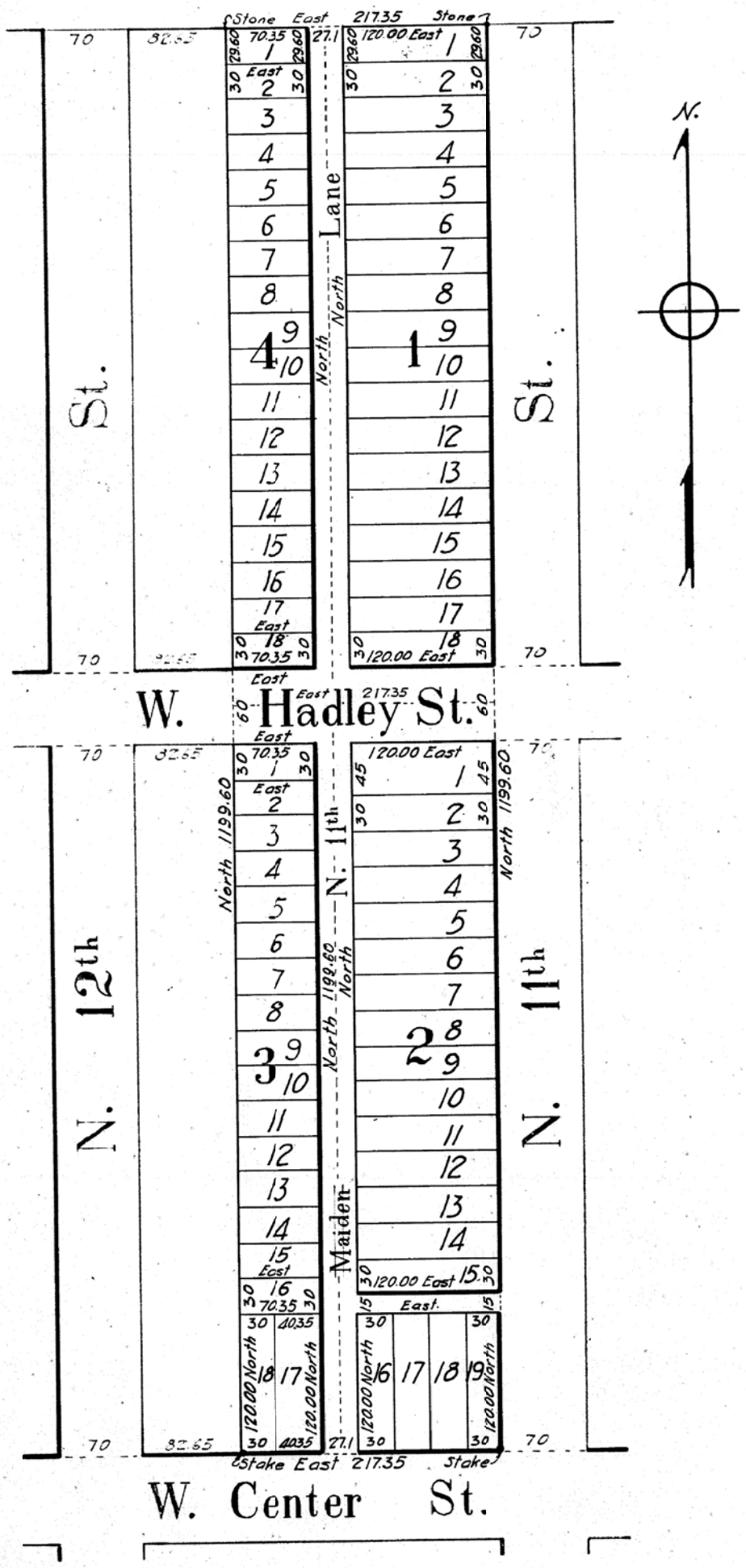
W.P.A. 6918

OF A PART
OF THE SOUTH 9⅓ AC.
OF THE EAST 20 AC.
OF THE WEST 40 AC.
OF THE NORTH WEST 1/4 OF SECTION 17
TOWN 7 NORTH RANGE 22 EAST
IN THE TENTH WARD OF THE CITY OF
MILWAUKEE.

Scale 1"=100'

Surveyor Charles Poetsch.
Date March 10th 1887
Recorded May 20th 1887
Vol.# 9 Page 30
Doc.# 105274.

Traced by Don McKenzie.
Checked by: R. Berg
Date: Oct. 26-1938.
Vol# 12 Page 45.



G.3. Verification of Zoning

Assessment Detail and Listing Characteristics

Taxkey	Premise Address	Nbhd	Plat	Assessment County	Class
3122263100	1100-1122 W CENTER ST	6702	31231	Milwaukee	Exempt

Ownership Information

REDEVELOPMENT AUTHORITY OF
THE CITY OF MILWAUKEE
809 N BROADWAY
MILW WI 53202

Conveyance

Deed Type	QC
Date	1985-05-16
Fee	0.00

Name Change: 1993-11-03

Assessment Information

Year	Current	Previous
Land	0	0
Imprv	0	0
Total	0	0

Org Year	Drop Year	Zoning	Ald. District	Census
		RT4	15	084-202

Legal Description

KOCH'S SUBD IN NW 1/4 OF SEC 17 T7N R22E LOTS 16, 17, 18, & 19 OF BLK 2 & LOT 17 BLK 3 & VAC ST ADJ

Exempt Property Attributes Not Available

Recent Permits Sale History Assessment History Tax Balance About Site

Data Provided By Assessor Query From: 98.103.53.250

SUBCHAPTER 5 RESIDENTIAL DISTRICTS

295-501. Purposes. The regulations of this subchapter are intended to promote, preserve and protect residential neighborhoods. These regulations allow for some non-residential uses, but not to such an extent as to detract from the overall image and character of the residential neighborhood. The development standards work together to promote desirable residential areas by addressing aesthetically pleasing environments, safety, privacy and recreational opportunities. These standards preserve the character of neighborhoods by providing 6 different zones with different densities and development standards. The site development standards allow for flexibility of development while maintaining compatibility within the city's various neighborhoods. In addition, the regulations provide certainty to property owners, developers and neighbors about the limits of what is allowed in a residentially-zoned area. These regulations are also intended to reinforce desired development patterns in existing neighborhoods while accommodating the need for future growth. The purposes of the individual residential districts are as follows:

1. SINGLE-FAMILY RESIDENTIAL DISTRICTS. a. RS1-RS5 Districts. The purpose of the RS1-RS5 districts is to promote, preserve and protect neighborhoods intended for single-family dwellings and having a character slightly more suburban than the RS6 district. These districts require larger lots, larger setbacks and a smaller lot coverage than the RS6 district. The neighborhoods found in these districts feature a regular platting pattern and a more uniform pattern of development than those of the RS6 district. These neighborhoods were platted and developed, in large part, in the mid- to late-1900s, with some areas recently developed.

b. RS6 District. The purpose of the RS6 single-family district is to promote, preserve and protect neighborhoods intended primarily for single-family dwellings with traditional urban character. This district allows smaller lots, smaller setbacks and a higher lot coverage than the other single-family districts. The neighborhoods found in this district were platted and developed, in large part, in the late 1800's and early 1900's. This district also allows traditional corner commercial establishments commonly found in more urban neighborhoods.

2. TWO-FAMILY RESIDENTIAL DISTRICTS. a. RT1-RT2 Districts. The purpose of the RT1-RT2 districts is to promote, preserve and protect neighborhoods intended primarily for one- and 2-family dwellings. Properties in these districts typically have larger setbacks and smaller lot coverage than those found in the RT3 or RT4 districts. Commercial uses are not allowed in these districts. The neighborhoods found in RT1 and RT2 districts feature a regular platting standard and a more uniform pattern of development than those of the RT3 district. These neighborhoods were platted and developed, in large part, in the mid- to late-1900s, with some areas recently developed.

b. RT3 District. The purpose of the RT3 district is to promote, preserve and protect neighborhoods intended primarily for two-family dwellings with a traditional urban character. This district, much like the RT4 district, allows smaller lots, smaller setbacks and a higher lot coverage than the RT1 and RT2 districts. Unlike the RT4 district, this district does not allow traditional corner commercial establishments. Nor does it allow the establishment of new, small multi-family buildings. The neighborhoods in this district were platted and developed, in large part, in the early 1900s and tend to be more uniform than those of the RT4 district.

c. RT4 District. The purpose of the RT4 district is to promote, preserve and protect neighborhoods intended primarily for 2-family dwellings while also permitting a mixture of single-family dwellings and small multi-family dwellings of 3 or 4 units. This district, much like the RT3 district, allows smaller lots, smaller setbacks and a higher lot coverage than the RT1 and RT2 districts. The neighborhoods found in this district were platted and developed, in large part, in the late 1800s and early 1900s. This district also allows traditional corner commercial establishments commonly found in urban neighborhoods.

3. MULTI-FAMILY RESIDENTIAL DISTRICTS. a. RM1-RM2 Districts. The purpose of the RM1-RM2 districts is to promote, preserve and protect neighborhoods intended primarily for low- to medium-density multi-family uses with a more suburban character. These districts require larger lots, larger setbacks and a smaller lot coverage than the RM3 district. The neighborhoods found in these districts feature a regular platting pattern and a more uniform pattern of development than those of the RM3 district. These neighborhoods were platted and developed, in large part, in the mid- to late-1900s, with some areas recently developed.

G.4. Signed Statement

STATEMENT BY RESPONSIBLE PARTY

The Redevelopment Authority of the City of Milwaukee, the responsible party for the property located at 1100 West Center Street, Milwaukee, Wisconsin, states that the legal description for the contaminated property in case file reference 03-41-545220 is attached and accurate to the best of our knowledge.

For RACM

Signature of Representative for Responsible Party

2/17/14

Date