Site Investigation Report

1940, 1944 and 1948 North
Martin Luther King, Jr. Drive
and 227R West Brown Street
Milwaukee, Wisconsin

Prepared for:

Redevelopment Authority – City of Milwaukee
Milwaukee, Wisconsin

October 3, 2005
Project No. 1E-0308029 Revision 1

GILES
ENGINEERING ASSOCIATES, INC.

GILES
ENGINEERING ASSOCIATES, INC.
GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

• Atlanta, GA
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July 12, 2004
October 3, 2005 **Revised**

City of Milwaukee
Redevelopment Authority
809 North Broadway- 2nd Floor
Milwaukee, WI 53202

Attention: Mr. David P. Misky

Subject: Revised Site Investigation Report
1940, 1944, and 1948 North Dr. Martin Luther King, Jr. Drive
and 227R West Brown Street
Milwaukee, Wisconsin
Project No. 1E-0308029

Dear Mr. Misky:

In accordance with your request and subsequent authorization, we have completed this *Site Investigation Report* for the above referenced property. Findings and conclusions are discussed in detail within the accompanying report.

We appreciate the opportunity to be of service on this project. If there are any questions regarding the information contained herein, or if we can be of any additional service, please contact the undersigned at your convenience.

Very truly yours,

GILES ENGINEERING ASSOCIATES, INC.

Terrie M. Biles
Staff Environmental Scientist I

Original signed by
Andy Ehlert, P.E.
Project Engineer I

Original signed by
Timothy P. Welch, P.G.
Project Hydrogeologist II

Richard A. Kormanik, P.E.
Senior Project Manager

Beverly Craig
Milwaukee Economic
Development Corp.

Distribution: Redevelopment Authority- City of Milwaukee
Attn: Mr. David P. Misky (1)
Attn: Ms. Beverly Craig (1)

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LIST OF ACRONYMS AND ABBREVIATIONS

AA	Atomic Absorption
APL	APL Environmental, Inc.
ASTM	American Society for Testing and Materials
BDL	Below Detection Limits
bgs	below ground surface
COC	Chain of Custody
DRO	Diesel Range Organics
ES	WAC NR 140 Enforcement Standard
ESA	Environmental Site Assessment
*e*V	electron volt
Giles	Giles Engineering Associates, Inc.
GP	GeoProbe boring
GRO	Gasoline Range Organics
ICAP	Inductively Coupled Argon Plasma
IM	Industrial Mixed zoning
LOD	laboratory limit of detection
mg/kg	milligrams per kilogram
ml	milliliter
MW	monitoring well
NR	Natural Resources Chapter
PAHs	Polynuclear Aromatic Hydrocarbons
PAL	WAC NR 140 Preventive Action Limit
PCBs	Polychlorinated biphenyls
Phase I ESA	Phase I environmental site assessment
Phase II ESA	Phase II environmental site assessment
PID	Photoionization Detector
PVC	Polyvinyl Chloride
QAPP	Quality Assurance Project Plan
RACM	Redevelopment Authority of the City of Milwaukee
RCLs	Residual Contaminant Levels
RCRA	Resource Conservation and Recovery Act
RM2	multi-family residential zoning
SI	Site Investigation
Site	1940, 1944 and 1948 North Dr. Martin Luther King, Jr. Drive and 227R West Brown Street, Milwaukee, Wisconsin
SOP	Standard Operating Procedure
TCLP	Toxicity Characteristic Leaching Procedure
TL	Institutional zoning
TW	temporary groundwater sampling well
ug/kg	micrograms per kilogram
ug/l	micrograms per liter
USEPA	United States Environmental Protection Agency
USCS	United Soil Classification System
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds
WAC	Wisconsin Administrative Code
WDNR	Wisconsin Department of Natural Resources
WTM	Wisconsin Transverse Mercator

SITE INVESTIGATION REPORT

1940, 1944, AND 1948 NORTH DR. MARTIN LUTHER KING, JR. DRIVE
AND 227R WEST BROWN STREET
MILWAUKEE, WISCONSIN
PROJECT NO. 1E-0308029

EXECUTIVE SUMMARY

The Redevelopment Authority of the City of Milwaukee (RACM) retained Giles Engineering Associates, Inc. (Giles) to provide environmental consulting services for the 1940, 1944, and 1948 North Dr. Martin Luther King, Jr. Drive and 227R West Brown Street property located in the City of Milwaukee, Milwaukee County, Wisconsin (hereinafter referred to as the "Site"). The Site Investigation (SI) was completed in accordance with Giles revised *Proposal No. 1EP-001023*, dated April 12, 2001, the United States Environmental Protection Agency (USEPA) and Wisconsin Department of Natural Resources (WDNR) standards, and with the procedures outlined in the USEPA-approved Quality Assurance Project Plan (QAPP).

Five soil borings were advanced on-site during the Site investigation. Two of the borings were converted into temporary groundwater sampling wells, and a third boring was converted into a Wisconsin Administrative Code (WAC) Chapter Natural Resources (NR) 141 compliant groundwater monitoring well. Soil samples were collected during the subsurface investigation and were submitted for laboratory analysis of volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs) and Resource Conservation and Recovery Act (RCRA) metals. Lead toxicity characteristic leaching procedure (TCLP) laboratory analysis was also performed on soil samples collected from soil borings GP-2 and MW-1. Groundwater samples were collected from the two temporary groundwater wells, TW-1 and TW-2 and were submitted for laboratory analysis of VOCs and RCRA metals. Additionally, a groundwater sample was collected from groundwater monitoring well, MW-1 and analyzed for VOCs and RCRA Metals.

Subsurface conditions were also assessed during the soil boring activities. Fill and possible fill material was encountered in soil borings at depths ranging between 0 to 8 feet below ground surface (bgs). The fill and possible fill consisted mostly of silty clay and coarse sand and gravel. The underlying native soils consisted mostly of silty clay, clayey silt, silty fine sand and fine to coarse sand and gravely silt to approximately 20 feet bgs, the maximum depth explored. Groundwater was encountered during soil boring and groundwater monitoring well installation. The hydrostatic groundwater level is considered to exist at a depth of approximately 14 to 16 feet bgs.

PAHs were detected in soil samples collected from 0-4 feet bgs within the fill material layer. Soil sample laboratory data indicated the presence of PAHs above WDNR interim guidance residual contaminant level (RCL) standards based on the direct contact pathway for non-industrial land use. In addition, soil sample laboratory analysis indicated the presence of RCRA metals above NR 720 RCLs for non-industrial land use. Lead concentrations in soil samples collected from GP-2 were elevated to the point that it was necessary to determine if the soil constituted a

hazardous waste, which prompted the TCLP test for the soil samples collected from GP-2. In addition, a monitoring well (MW-1) was installed adjacent to GP-2, to evaluate the magnitude of the soil and groundwater impacts from the high lead concentrations. Soil samples were collected from MW-1 during installation, and a TCLP test was performed. Additionally, groundwater samples were collected and submitted for RCRA metals analysis. The TCLP laboratory analysis for soil samples collected from GP-2 and MW-1 indicate that lead concentrations in the soil are below the USEPA Maximum Concentration of Contaminants for Toxic Characteristic (TCLP Action Limits per US EPA) Table values; therefore, the soil is not characteristically hazardous.

Groundwater laboratory analytical data indicated the presence of RCRA metals in the groundwater in exceedance of NR 140 groundwater standards. Cadmium was detected above the NR 140 preventive action limit (PAL) in the groundwater sample collected from TW-2. Total chromium was detected above the NR 140 PAL in groundwater samples collected from TW-1, TW-2, and MW-1. Lead was detected above NR 140 enforcement standards (ES) in the groundwater sample collected from TW-2.

The laboratory data of groundwater samples collected from monitoring well MW-1 indicates that the groundwater has been impacted with RCRA metals above the NR 140 PAL.

The laboratory analytical data indicates that the fill soils are impacted with RCRA metals and with PAHs. Based on the laboratory analytical data for the soil and groundwater sample analyses, it is recommended, as required by Wisconsin Statutes Section 292.11(3), that the owner/responsible party notify the WDNR of the subsurface conditions encountered on the Site. It is also recommended that prior to proposed Site redevelopment excavations, trenching, and/or caisson drilling activities, soil and groundwater management plans be implemented for the potential exposure and proper management of impacted soil and groundwater, should they be encountered.

Based on the findings and conclusions of this SI, further environmental investigation of the Site is not warranted. For specific recommendations, please refer to *Section 10* of this Report.

1. INTRODUCTION

Giles performed a Site Investigation (SI) on the properties located at 1940, 1944, and 1948 North Dr. Martin Luther King, Jr. Drive and 227R West Brown Street in the City of Milwaukee, Milwaukee County, Wisconsin (the "Site"). The SI was performed at the request of Mr. Dave Misky of the Redevelopment Authority of the City of Milwaukee (RACM), in accordance with Giles revised *Proposal No. 1EP-001023*, dated April 12, 2001. Pertinent information relative to the interpretation of this SI is enclosed in Appendix A.

The SI activities were funded by a grant from the United States Environmental Protection Agency (USEPA) Region 5, and were completed in general accordance with applicable Wisconsin Department of Natural Resources (WDNR) standards and with the procedures outlined in the USEPA-approved Quality Assurance Project Plan (QAPP), dated November 1, 2002 (Revision 1).

The SI field activities were performed on October 1, 2003, November 12, 2003 and February 6, 2004 to evaluate physical and chemical subsurface conditions with respect to the historic operations at the Site.

2. SITE DESCRIPTION

2.1. Setting and Location

The Site is located on the east side of North Dr. Martin Luther King, Jr. Drive, and south of West Brown Street in the City of Milwaukee, Milwaukee County, Wisconsin. A street address of 1940, 1944, and 1948 North Dr. Martin Luther King, Jr. Drive and 227R West Brown Street has been assigned to the Site. The Site is situated at Wisconsin Transverse Mercator (WTM) coordinates 687156, 289382 located in the southwest one-quarter of the northeast one-quarter of U.S. Public Land Survey Section 20, Township 7 North, Range 22 East. The topography of the Site is flat.

The following features are present in the general vicinity:

North:	Commercial/residential
South:	Commercial/residential
East:	Public alley, single-family residential structures
West:	North Dr. Martin Luther King, Jr. Drive, commercial businesses

The Site and southern adjacent properties are zoned multi-family residential (RM2), industrial – mixed (IM) zoned properties are located adjacent east and south. An institutionally zoned (TL) area is located adjacent to the west of the site. Figure 1 illustrates the generalized location of the Site.

2.2. Site Use and History

The Site is a vacant, rectangular shaped 0.26-acre parcel of land. The Site is comprised of four adjoining City-owned tax-key parcels of land.

2.2.1. Previous Environmental Site Assessments – November 1999 and October 1994

In November 1999, RACM completed a *Phase I Environmental Site Assessment* (Phase I ESA) report on the Site. In the Phase I ESA, RACM indicated that the Site is rectangular shaped 0.26-acre parcel consisting of four adjoining vacant lots. Select historical land uses of the Site and its four parcels, which raised environmental concerns included: insulation contractor, auto trim and supply company, printing company, auto repair garage, and jewelry manufacturer. Environmental concerns identified with historical land uses associated with adjacent properties included: rubbish removal service, painter, chemical products company, plumbing supplies, film developing and studio, cleaning supplies supplier, cleaners and dryers, filling station, tool & die manufacturer, auto body repair, car painting, laundry, and a fur company. RACM identified the above-referenced business operations as recognized environmental conditions in connection with the Site. Subsequently, additional environmental investigation activities were completed on the Site.

In October 1994, Hydro-Search Inc. completed a Phase II Environmental Site Assessment (Phase II ESA) on the 227R West Brown Street portion of the property. During the Phase II activities, soil samples were collected and submitted for analysis of diesel range organics (DRO), gasoline range organics (GRO), volatile organic compounds (VOCs), Resource Conservation and Recovery Act (RCRA) metals, total cyanides, and polychlorinated biphenyls (PCBs). Laboratory analysis of the soil samples indicated the presence of five RCRA metals; arsenic, barium, chromium, lead, and mercury. According to the Phase II report by Hydro-Search Inc., arsenic and chromium were detected at concentrations above the Wisconsin Administrative Code (WAC) Chapter Natural Resources (NR) 720 residual contaminant levels (RCLs). Although the arsenic and chromium concentrations exceeded the NR 720 RCLs, there is no known or suspected source. Therefore Hydro-Search, Inc. assumed that the arsenic and chromium detected on-site are naturally occurring.

3. SCOPE OF SERVICES AND LIMITATIONS

The scope of services for the SI included the following tasks:

- Conduct a magnetometer survey on the property utilizing a Geometrics, Inc. G-858 cesium vapor magnetometer.
- Evaluate total magnetic field data obtained from the magnetometer for the possible presence of anomalies indicative of a buried underground storage tank (UST) and/or drum.
- Advance four soil GeoProbe® borings to depths of 12 to 20 feet below ground surface (bgs).
- Construct two temporary groundwater sampling wells within the boreholes of two GeoProbe® borings.

- Advance one test boring to a depth of 20 feet bgs, and construct one WAC NR 141-compliant groundwater monitoring well within the test boring.

- Collect and classify soil samples at each of the boring locations.

- Conduct a volatile vapor scan on collected soil samples utilizing a photoionization detector (PID) unit.

- Collect and analyze eight select soil samples for VOCs (USEPA Method SW 8260B), PAHs (EPA Method 8310), and RCRA Metals (USEPA Methods 6010B and 7471), and/or toxicity characteristic leaching procedure (TCLP) Lead analyses (USEPA Method 200.7).

- Collect and analyze three select groundwater samples for a combination of VOC (USEPA Method Aqueous 8260B) and/or RCRA Metals analysis (USEPA Methods 206.2/200.7/213.2/239.2/ 245.1/ 270.2), and PAH analysis (USEPA Method 8270) for groundwater samples collected from monitoring well MW-1.

- Evaluate the information collected and prepare this report.

4. MAGNETOMETER SURVEY AND EXPLORATORY TRENCHING

4.1. Magnetometer Survey

A magnetometer survey was completed to further evaluate the possible presence of in-place/abandoned USTs associated with historical business operations as referenced in the Phase I ESA. The purpose of a magnetometer survey is to identify magnetic anomalies. Identification of magnetic anomalies aid in the evaluation of the presence of large buried ferrous objects, such as USTs and/or drums.

4.1.1. Methodology

The magnetometer survey was conducted on October 1, 2003 using a Geometrics, Inc. G-858 cesium vapor magnetometer. The Geometric G-858 magnetometer functions as a total field magnetic sensor, where both vertical and horizontal magnetic field components are measured and stored for further interpolation.

The magnetometer survey was completed in accordance with the methodology described in the *Field Standard Operating Procedures* (SOP) *for Magnetometer Survey* presented in the Quality Assurance Project Plan, with the exception of using a cesium vapor magnetometer instead of a proton vapor magnetometer. The advantage of the cesium vapor magnetometer is its improved ability to acquire data, including the acquisition of continuous total magnetic readings with increased magnetic sensitivity and resolution.

A 5-foot grid layout of parallel survey lines oriented west-east and spaced 5 feet apart was established over the survey area. The magnetometer operator walked the grid's west-east traverse lines, collecting continuous total magnetic readings (1 measurement per 0.1 second). The grid layout measured 75 feet wide (north to south) and 150 feet long (west to east).

The total magnetic field readings were downloaded onto a computer for modeling using Geometric's *MagMap 2000 Version 4.0* for base setup. Golden Software's *Surfer® 8.02* was used for contouring.

4.1.2. Limitations

A magnetometer survey cannot guarantee the presence or absence of USTs or drums. Based on the science of magnetometry and on our field experience, surveys have up to an 85% probability of identifying a UST or buried drum, depending on local site features.

The strength and detectability of the magnetic fields produced by a ferrous metal object (i.e., iron or steel) depend upon the object's size, depth, and degree of oxidation or rust. Non-ferrous metals, fiberglass and significantly rusted USTs/drums may not yield magnetic fields.

Magnetic fields typically associated with USTs/drums may be masked or altered beyond identification by natural and man-made features which produce magnetic fields. Natural features known to emit magnetic fields include: iron-rich soil and rock, local variances in soil types (native vs. fill) and magnetic storms.

No definitive conclusions can be drawn from areas surveyed within twenty feet of man-made features. Man-made features known to emit magnetic fields include: buildings, rebar, illuminated signs, billboards, outdoor lighting poles, automobiles, scrap-iron, chain-link fencing, ferrous buried/surface debris, and underground/aboveground utilities.

4.2. Results of Magnetometer Survey

Magnetic anomalies of unknown origin were identified on the Site. Exploratory trenching was recommended to further evaluate the sources of these magnetic anomalies. The resulting magnetic contour map and the proposed exploratory trenches are illustrated on Figure 2.

Other anomalies identified within the survey were attributed to man-made features as depicted on Figure 2.

4.3. Exploratory Trenching

Based on the magnetometer survey and the identification of anomalies of unknown origin, a series of exploratory trenches were excavated on the property. Exploratory trenches were completed on October 16, 2003 to further evaluate the sources of the magnetic anomalies.

Test Trench Location	Total Depth	Findings
T1 (northwest)	5 ft	4" diameter pipe 4 feet long, 2" diameter pipes 1-3' length, bricks, concrete pieces
T2 (northwest)	6 ft	4" diameter iron pipe 5' length, metal scrap, wire, bricks, wood

5. SITE INVESTIGATION PROCEDURES

5.1. Subsurface Investigations

Initial subsurface investigation activities, including soil and groundwater sampling activities, were completed on November 12, 2003. Additional follow-up subsurface investigation activities, including the installation of a groundwater monitoring well, were completed on February 2, 2004.

Initial subsurface investigation activities consisted of advancing four GeoProbe® borings, GP-1 through GP-4 to depths of 12 to 20 feet below ground surface (bgs) and placing temporary wells (TW-1 and TW-2) within two GeoProbe® boring locations (GP-1/TW-1 and GP-2/TW-2).

GeoProbe® borings were completed by a GeoProbe® rig, using a 2-inch inside diameter probe rod. Soil samples were collected at 4-foot continuous intervals, to the maximum depth explored. The 4-foot extracted soil column sample, contained within a plastic liner was subsequently split into a 2-foot sample interval. Sample procedures used to prevent cross-contamination included using a new, 48-inch clean plastic liner dedicated to each soil sample interval, and proper decontamination within each boring and between borings.

The follow-up subsurface investigation consisted of advancing one test boring to a depth of 20 feet bgs and constructing one WAC NR 141-compliant groundwater monitoring well (designated as MW-1). The groundwater monitoring well was installed via a conventional drill rig using hollow stem augers.

Soil samples were classified in general accordance with the Unified Soil Classification System (USCS) (American Society of Testing Materials [ASTM] *Method D-2488-75*), and were then recorded on the Giles' *Records of Subsurface Exploration*, enclosed within Appendix B. The terms and symbols used are defined on the General Notes insert, enclosed within Appendix B. The boring locations are illustrated on Figure 3.

5.2. Borehole Abandonment

Upon completion of the drilling and sampling operations, the borings were abandoned by filling them with granular bentonite chips in general accordance with NR 112 and NR 141, and as described in the field SOPs for *Borehole/Temporary Well Abandonment* presented in the QAPP. Borehole Abandonment Forms (WDNR Form 3300-5B) are enclosed within Appendix C.

5.3. Sample Collection

5.3.1. Soil Samples

Eight soil samples collected from GeoProbe soil borings (GP-1 through GP-4) on November 12, 2003 were submitted to APL, Inc. (APL) of Milwaukee, Wisconsin (WDNR Certification #241340550) for VOC analysis (USEPA Method 8260B), PAH analysis (USEPA Method 8270), and RCRA Metals analysis (USEPA Methods 6010B and 7471).

One soil sample collected during the construction of MW-1 on February 6, 2004 was submitted to APL for Total Lead (USEPA Method 6010) and TCLP Lead analyses (USEPA Method 200.7).

Soil sample selection was based on physical characteristics, PID response, depth of sample interval and moisture content.

For VOC soil analysis, approximately 25 grams of soil was placed in tared, two-ounce glass jars. Approximately 25 milliliters (ml) of purge and trap grade methanol was added, and the jars were tightly sealed with Teflon® lined lids.

For RCRA Metals, TCLP Lead and PAH analyses, soil was placed into an unpreserved four-ounce glass jar, packed full, and sealed with a Teflon® lined lid.

Upon collection, soil samples were placed on ice in a cooler and managed as described in the field SOP for *Soil Sample Collection and Analyses* presented in the QAPP.

5.3.2. Groundwater Samples

Two groundwater samples were collected through 1-inch, slotted polyvinyl chloride (PVC) pipes, placed inside GeoProbe® boreholes TW-1 and TW-2 (temporary groundwater wells) on November 12, 2003. The collected groundwater samples were submitted to APL for VOC analysis (EPA Method 8260B) and RCRA Metal analysis (EPA Methods 206.2/200.7/213.2/239.2/ 245.1/ 270.2).

One groundwater sample was collected from MW-1 on February 16, 2004 and was submitted to APL for PAH analysis (EPA Method 8310) and RCRA Metal analysis (EPA Methods 206.2/200.7/213.2/239.2/ 245.1/ 270.2). Groundwater monitoring well construction and development forms are provided in Appendix D.

Groundwater samples collected for PAH analyses were placed in a 1-liter amber jar. Groundwater samples collected for RCRA Metals analysis were field filtered and placed in 500 ml plastic bottles containing nitric acid as a preservative. Upon collection, groundwater samples were placed on ice in a cooler and managed as described in the field SOP for *Soil Sample Collection and Analyses* presented in the QAPP.

Temporary well installations were performed in general accordance with the techniques described in the *Groundwater Sample Collection and Analyses* presented in the QAPP. Groundwater samples collected from the temporary groundwater wells installed in the GeoProbe® boreholes were used to preliminarily evaluate groundwater quality at a respective point in time. This sampling procedure is not intended as a replacement for a comprehensive groundwater quality assessment, with groundwater samples collected from properly installed/developed WAC NR 141-compliant groundwater monitoring wells.

5.4. Investigation Derived Waste Management

5.4.1. Soil Waste Management

There was minimal generation of soil cuttings during the subsurface investigation due to the use of GeoProbe® technology. However, installation of the groundwater monitoring well generated auger spoils. The auger spoils were placed in two labeled 55-gallon drums currently on-site awaiting disposal.

5.4.2. Groundwater Waste Management

During the February 17, 2004 monitoring well development and sampling, approximately 50 gallons of groundwater was produced. This groundwater was taken to the City of Waukesha wastewater treatment plant for disposal.

6. SITE INVESTIGATION RESULTS

6.1. Subsurface Conditions

6.1.1. Lithology

Fill and possible fill material was encountered in the soil borings to depths of approximately 4 to 8 feet bgs. The fill and possible fill generally consisted of silty clay, clayey silt, and fine to coarse sand and gravel. Exploratory trenches completed during the magnetometer survey also identified the presence of construction debris including wood, concrete, brick and metal piping. The underlying native soils generally consisted of silty clay and clayey silt, silty fine sand, and fine to coarse sand and gravely silt to approximately 20 feet bgs, the maximum depth explored. A geologic cross-section plan is presented on Figure 4, and the geologic north-south (A-A') and west-east (B-B') cross-sections are depicted in Figures 5 and 6, respectively.

6.1.2. Hydrogeology

Groundwater was encountered during geoprobing on November 12, 2003 and groundwater monitoring well construction on February 6, 2004 at depths of 14 to 19 feet bgs. Groundwater levels measured within the WAC NR 141-compliant groundwater monitoring well (MW-1) during monitoring well development and sampling events

ranged from 15.29 to 15.30 feet bgs. Based on water levels, moisture content of the soil samples, and soil coloration, the hydrostatic groundwater level is considered to exist at a depth of approximately 14 to 16 feet bgs.

6.2. Soil Analyses

Results of the soil laboratory analyses for the samples are summarized on Figure 7. The Chain-Of-Custody (COC) and laboratory analytical reports are provided in Appendix E.

6.2.1. Volatile Vapor Scan

The volatile vapor scan is a screening method used to assess the presence of volatile organic vapors in the soil. Soil samples collected during subsurface investigation activities were split into two separate samples, one of which was then placed in an 8-ounce sampling jar and subjected to a volatile vapor scan. The 8-ounce sampling jars were partially filled and covered with metal lids and allowed to warm to approximately room temperature prior to the vapor scan. The volatile vapor scan was conducted using an 10.6 electron volt (*e*V) PID unit, calibrated with isobutylene standard gas to a benzene equivalent.

No volatile vapors were measured above instrument detection limits within the soil samples collected from the GeoProbe® borings. The results of the volatile vapor scan are illustrated within the PID column on the *Records of Subsurface Exploration* included within Appendix B.

6.2.2. VOC Results

No VOCs were measured above laboratory analytical method detection limits within soil samples submitted from GP-1, GP-2, GP-3 or GP-4. VOC laboratory analysis was not performed on soil samples collected from MW-1.

6.2.3. PAH Results

Quantitative analytical results for PAHs and applicable WDNR standards are summarized in Table 1.

Soil samples collected from GP-1, GP-2, GP-3 and GP-4 at depths of 0-4 feet bgs contained the following PAHs: anthracene, benzo(a) anthracene, benzo (b) fluoranthene, benzo (k) fluoranthene, benzo (a) pyrene, benzo (g,h,i) perylene, chrysene, fluoranthene, fluorene, indeno (1,2,3-cd) pyrene, phenanthrene and pyrene.

More specifically, the following PAHs that were reported in three of the four soil samples collected from depths of 0-4 feet bgs exceed the *WDNR Interim Guidance (April, 1997) Table 1 Suggested Generic Residual Contaminant Levels for PAH Compounds in Soil-Direct Contact Non- Industrial Pathway* soil cleanup standards: benzo(a) anthracene, benzo (b) flouranthene, benzo (a) pyrene and indeno (1,2,3-cd) pyrene.

No PAHs were reported above laboratory analytical method detection limits within soil samples collected from GP-1, GP-2, GP-3 or GP-4 at depths ranging from 5-18 feet bgs.

6.2.4. RCRA Metal Results

Quantitative analytical results for RCRA Metals and applicable NR 720 standards are summarized in Table 2.

Soil samples collected from GP-1, GP-2, GP-3, GP-4 and MW-1 at depths of 0-18 feet bgs contained the following RCRA Metals: arsenic, barium, cadmium, total chromium, lead, mercury and selenium. The concentrations of the RCRA Metals, arsenic, total chromium, and lead exceed *WAC NR 720.11 Table 2 Non-Industrial Land Use* direct-contact soil cleanup standards.

Based on the presence of elevated total lead concentrations in samples GP-2 (depth 0-2 feet bgs) and MW-1 (depth 0-2 feet bgs), TCLP lead analyses was completed on soils from GP-2 and MW-1. The reported TCLP lead concentrations for soil samples from GP-2 and MW-1 do not exceed the TCLP Action Limits per USEPA.

6.3. Groundwater Analyses

Results of the groundwater laboratory analyses for the samples are summarized on Figure 8. The COC and laboratory analytical reports are provided in Appendix E.

6.3.1. VOC Results

Quantitative analytical results for VOCs and applicable WDNR standards are summarized in Table 3.

No VOCs were reported above laboratory analytical method detection limits within groundwater samples submitted from temporary groundwater monitoring wells TW-1 or TW-2. Groundwater samples collected from MW-1 were not analyzed for VOCs.

6.3.2. RCRA Metal Results

Quantitative analytical results for RCRA Metals and applicable NR 140 standards are summarized in Table 4.

Groundwater samples collected from MW-1 and its duplicate sample MW-21 contained the following RCRA Metals: barium, total chromium, and selenium. The concentrations of total chromium in MW-1 and MW-21 exceed their respective *WAC NR 140.10 PAL.*

6.4. Potential Contaminant Receptors

Several underground utility trenches are present beneath and/or immediately adjacent to the Site, including natural gas, water, and sanitary sewer, which could act as contaminant migration pathways. Natural gas lines, water and sanitary laterals extend onto the property from the west and their respective connecting lines within the western adjacent right-of-way of North Dr.

Martin Luther King, Jr. Drive. In addition, there is a storm sewer line along the alley, east of the Site. Water and sewer utility lines are typically bedded within sand and gravel, thereby creating potential contaminant migration pathways.

The soil contamination is within the top 0-4 feet of the fill material. Additionally, there is no indication of a migrating plume on-site or from an off-site source. It appears that contaminant migration onto or off the site via utility corridors is not a threat.

7. DATA QUALITY ASSESSMENT

In accordance with the scope of work for this project, screening level of data validation was completed by Giles. Specific adherence to the prescribed analytical methods, procedures, including holding times, and blanks was verified to ensure that the field and laboratory data are representative.

Field precision was evaluated during this project when a duplicate groundwater sample was collected from MW-1 during a sampling event on February 16, 2004. Duplicate samples were not collected from the temporary wells. Field accuracy was evaluated through analysis of a trip blank collected on November 12, 2003, when the groundwater samples were collected from TW-1 and TW-2.

7.1. Laboratory Data Quality Assessment

Following our review of the laboratory reports, Giles concludes the following:

- Each laboratory analytical report contains a copy of the signed chain-of-custody (COC) form, sample results with sample identification numbers, units of measurements, sampling dates, analyses dates, analytical methods, levels of detection, levels of quantification, and signature of the laboratory chemist.

- All soil and groundwater samples were analyzed using the required analytical methods as presented in the QAPP and its addenda.

- Laboratory analyses were completed within specified holding times. As stated on the COC, methanol was added to the soil samples collected for VOC analysis within 48 hours of sample collection.

- One trip blank was submitted to APL for VOCs and RCRA Metals analysis with the samples collected on November 12, 2003. VOCs were not detected in the trip blank, verifying that the soil and groundwater samples collected from the Site on that day were not adversely affected during transportation and shipment.

- One duplicate groundwater sample was submitted to APL for PAHs and RCRA Metals analysis with the groundwater samples collected on February 16, 2004. Analyte concentrations were consistent from the original and the duplicate, which verifies that the laboratory analysis methods were accurate.

- All samples submitted to the laboratory were analyzed, confirming completeness of the data to be 100 percent (no breakage of containers or lost samples occurred).

- The laboratory reporting limits for groundwater samples were checked and found consistent with the APL reporting limits. The groundwater samples were contracted out by APL to Great Lakes Analytical for the analysis of PAHs. The laboratory reporting limits were achieved by Great Lakes for the analysis of PAH method 8310.

- The soil sample reporting limits are different than those of the QAPP because of adjustments made for dry weight.

7.1.1. Laboratory Reporting Limits

7.1.1.1. Soil Reporting Limits

A review of soil sample holding times and a comparison of laboratory reporting limits to the respective soil standards was conducted. All holding times were met, however several reporting limits appeared to exceed the respective soil standards. However, after adjusting for the moisture content of the soil, it was determined that soil standards were not exceeded in any soil sample, and all reporting limits were met.

Based on the project data quality assessment, Giles believes that the reported PAH soil concentrations are representative of the on-site soil conditions. However, Giles doesn't believe that the reported lead (Pb) and arsenic (As) concentrations are representative of on-site soil conditions because of the analytical methods (EPA Method 6010 using the Inductively Coupled Argon Plasma (ICAP)) employed. This method has the potential to be inaccurate due to interferences caused by the aluminum or chlorides. This interference can cause specific RCRA Metals analytical results to be biased high. A more representative analytical result for Pb and As would be obtained utilizing the Atomic Absorption (AA) analytical method. Please note that Giles has revised the QAPP analytical methodology for Pb and As to eliminate the ICAP analytical method and utilize the AA analytical method.

Please note that the laboratory reporting limits for soil samples were evaluated for the compounds that have established standards. Also, as previously mentioned, the direct contact exposure was evaluated only in soil samples collected from depths shallower than 4 feet bgs.

7.1.1.2. Groundwater Reporting Limits

A review of groundwater sample holding times and a comparison of laboratory reporting limits and WAC NR 140 PAL and ES levels was performed. All holding times were met, and all laboratory reporting limits were achieved in all VOC, PAH, and RCRA metals samples.

Based on the project data quality assessment, Giles believes that the reported concentrations are representative of the on-site groundwater quality.

8.0. EXTENT OF SOIL AND GROUNDWATER IMPACTS

8.1. Soil Impacts

Laboratory analytical results indicate that the PAHs benzo(a) anthracene, benzo (b) fluoranthene, benzo (a) pyrene and indeno (1,2,3-cd) pyrene, detected in soil samples collected from depths of 0-4 feet bgs, exceed the WDNR Interim Guidance (April, 1997). Table 1 Suggested Generic Residual Contaminant Levels (RCL) for PAH Compounds in Soil-Direct Contact Non-Industrial Pathway soil cleanup standards.

Laboratory analytical results indicate that the RCRA metals, arsenic, total chromium, and lead detected in soil samples collected from depths of 0-4 feet bgs exceed NR 720.11 Table 2 Non-Industrial Land Use direct-contact soil cleanup standards.

Based on the laboratory analytical results from the four borings drilled on-site, it appears that the 150-foot x 75-foot site has PAH and RCRA Metal impacts throughout the shallow fill soils.

8.2. Groundwater Impacts

Laboratory analytical results indicate that total chromium concentration exceeds the NR 140.10 PAL in groundwater collected from MW-1. It should be noted that the total chromium concentration was reported by the laboratory between the level of detection and the level of quantification. The reported total chromium concentration is below the NR 140.10 ES. RCRA Metals detected within temporary groundwater wells TW-1 and TW-2 are considered to be screening results, and are not indicative of groundwater quality.

There were no other RCRA Metals or PAHs reported above the laboratory analytical method detection limits.

9.0. CONCLUSIONS

- The Site is a vacant, rectangular shaped, 0.26-acre parcel of land. The Phase I ESA report (November, 1999) completed by RACM indicated select historical land uses of the Site were identified as recognized environmental conditions in connection with the Site. Subsequently, additional environmental investigation activities were completed on the Site.

- The magnetometer survey conducted on the Site identified magnetic anomalies of unknown origin on the Site. Subsequent exploratory trenching revealed the presence of buried metal pipes and construction debris; therefore, it is not apparent that USTs or drums remain in-place on the Site.

- During this SI, a total of five soil borings were advanced on the Site to depths of 12 to 20 feet bgs. Two borings were converted to temporary monitoring wells, TW-1 and TW-2, and a NR 141-compliant groundwater monitoring well, MW-1, was constructed in one other boring. Soil samples were collected during subsurface exploration activities and submitted for analyses of VOCs, PAHs, and RCRA metals. Groundwater samples collected from the temporary groundwater wells were submitted for VOCs, and RCRA metals analyses. The groundwater sample collected from MW-1 was submitted for PAH and RCRA metals laboratory analysis.

- Fill or possible fill material, which extended to depths of 0 to 8 feet bgs, is comprised primarily of silty clay, clayey silt, and fine to coarse sand and gravel. The fill material also contained construction debris, including wood, concrete, brick and metal piping. The underlying native soils generally consisted of clayey silt, silty fine sand, and fine to coarse sand and gravely silt.

- From the data collected, it is Giles opinion the PAH and RCRA metal impacts to soil are associated with, and localized to the fill and possible fill materials between 0 to 4 feet bgs, and, to a lesser degree, the naturally occurring soils present below the fill materials across the Site.

- PAHs were detected in soil samples collected from 0 to 4 feet bgs within the fill material layer. The PAHs, benzo(a) anthracene, benzo (b) flouranthene, benzo (a) pyrene and indeno (1,2,3-cd) pyrene detected in soil samples exceed WDNR Interim Guidance (April, 1997) Table 1 Suggested Generic Residual Contaminant Levels for PAH Compounds in Soil- Direct Contact Non- Industrial Pathway soil cleanup standards. PAHs were not detected in soil samples collected from 5 feet bgs and deeper.

- RCRA Metals were detected in soil samples collected from 0 to 18 feet bgs. The RCRA Metals of arsenic, total chromium, and lead exceed NR 720.11 Table 2 Non-Industrial Land Use direct-contact soil cleanup standards.

- Due to the ICAP laboratory analysis method creating interference from other metals that may be present in the soil sample, the RCRA Metal soil data is possibly biased higher than what is actually present at the site. Also, it is Giles' experience that throughout Milwaukee native soils will exhibit the presence of low levels of arsenic and so will most historical fill material.

- Lead concentrations were reported in soil samples collected from GP-2 and MW-1 from the 0.2 foot bgs interval at concentrations exceeding the WAC NR 720 RCL. Therefore, to further evaluate the direct contact threat and determine the waste characterization of the soil, TCLP lab analysis was performed on the two soil samples. The reported TCLP lean concentrations do not exceed the TCLP Action Limits per the USEPA; therefore, the soil is characteristically non-hazardous.

- No VOCs were detected above laboratory analytical method detection levels within soil samples collected at depths of 0 to 18 feet bgs.

- Cadmium was detected in groundwater collected from TW-2, and chromium was detected in the groundwater samples collected from TW-1, TW-2, and MW-1, and lead was detected in groundwater samples collected from TW-2. The cadmium and chromium concentrations were below NR 140 ES in samples collected from TW-1, TW-2, and MW-1, and the lead concentrations were above NR 140 ES in samples collected from TW-2. Groundwater samples collected from the temporary monitoring wells may exhibit higher concentrations of metals due to the increased sediment in the temporary well.

10. RECOMMENDATIONS

Based on the findings of this SI, the following recommendations and responses should be considered:

- Laboratory data indicates that the fill material soil at depths less than 4 feet bgs of the Site contains RCRA Metals and PAHs above applicable NR 720 and WDNR interim guidance soil clean-up standards. The laboratory data of groundwater samples collected from the monitoring well (MW-1) indicates that the groundwater has been impacted with total chromium above the NR 140 PAL. Therefore, it is recommended, and as required per Wisconsin Statutes Section 292.11(3) Hazardous Substance Spill Law, that the owner/responsible party, notify the WDNR of the subsurface conditions encountered on the property.

- With the exception of the below mentioned soil and groundwater management plan, additional site investigative contingency services are not warranted or anticipated at this time.

Considering proposed development plans for the Site and the Site's environmental disposition, the following issue is presented as business environmental risks and/or asset management consideration:

- During proposed excavation, trenching and/or caisson drilling activities, impacted soil/fill material and/or groundwater may be encountered. Proposed excavation activities which expose impacted soil and which are also planned for removal/disposal from the Site, may be considered a special waste (as opposed to general fill material), and may require special disposal management protocols. It is therefore recommended that a soil and groundwater management plan be prepared for the potential exposure and proper management of impacted soil and groundwater, if encountered. If no Site development is anticipated, capping of the soils to prevent direct contact should be considered.

11. GENERAL COMMENTS

This report is an instrument of service prepared for the exclusive use of Redevelopment Authority- City of Milwaukee, and may not be reproduced or distributed without written authorization from Giles Engineering Associates, Inc. or the Redevelopment Authority- City of Milwaukee. The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client or as otherwise noted. Any unauthorized use of this report is strictly prohibited and we assume no liability for any such use. This report has been prepared in order to aid in the evaluation of the property located at 1940, 1944, and 1948 North Dr. Martin Luther King, Jr. Drive and 227R West Brown Street in the City of Milwaukee, Milwaukee County, Wisconsin, with regard to hazardous substances and/or petroleum hydrocarbon presence at the time of this study. The conclusions presented in this report were based on available information pertaining to various points in time and were presented by others for our use or were based on informal discussion with various agency personnel. We do not warrant the accuracy of information supplied by others.

The boring logs and related information enclosed within the Appendix depict subsurface conditions only at specific locations drilled and at the particular times designated on the logs. Soil conditions at other locations may differ from conditions occurring at these boring locations. Also, the passage of time may result in a change of soil conditions at the boring locations drilled.

Soil samples collected from the subsurface exploration will be retained for a period of 30 days. If no other instruction is received, they will be disposed.

12. REFERENCES

Department of Natural Resources, Chapter NR 140, *Groundwater Quality*.

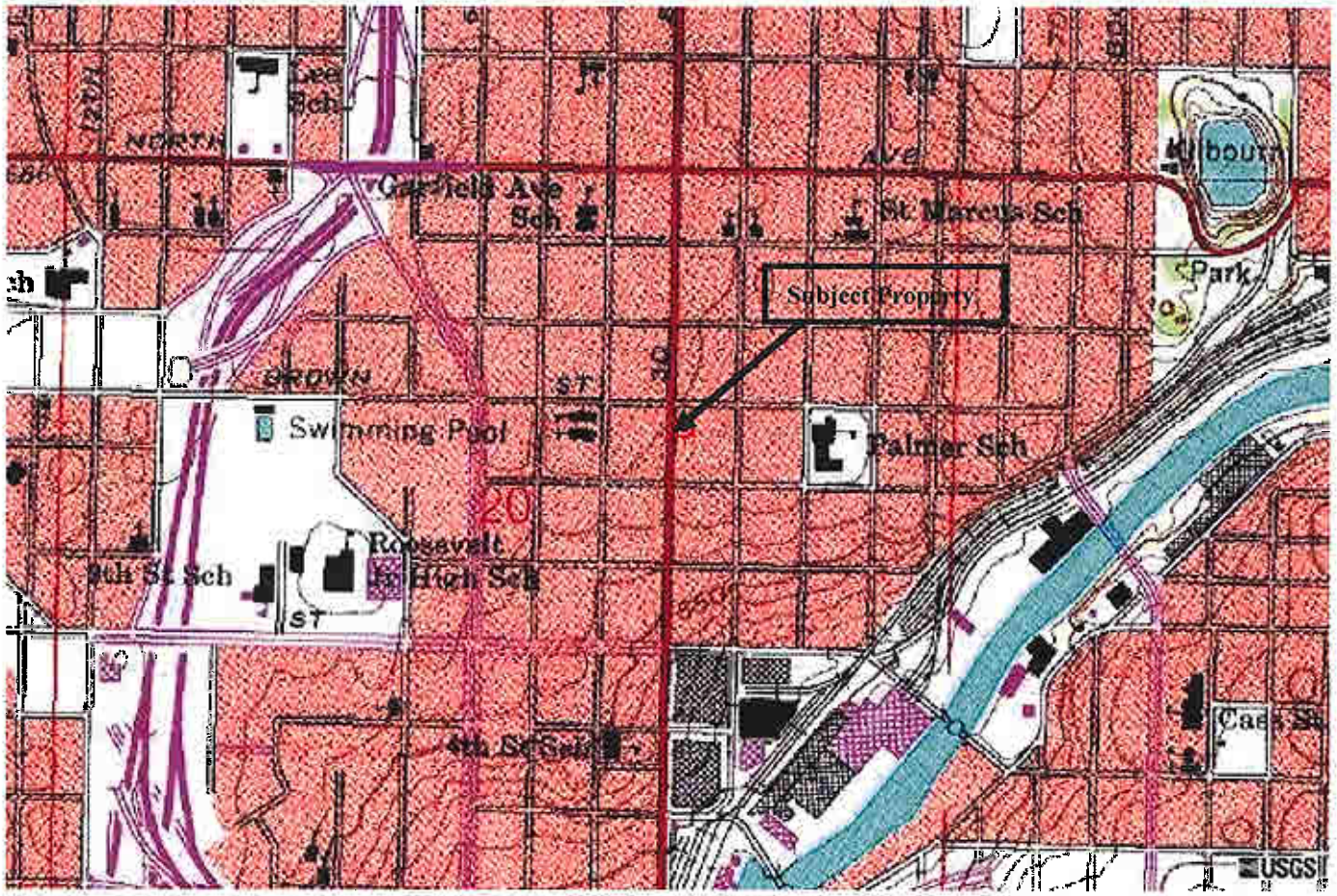
Giles Engineering Associates, Inc., *Quality Assurance Project Plan*, dated November 1, 2002, and all addenda.

Hydro-Search, Inc., *Phase II Environmental Assessment Northern Portion of the Lot at 227-231 W. Brown Street Milwaukee, Wisconsin.* Dated October 1994

City of Milwaukee Health Department, Department of City Development, *Phase I Environmental Site Assessment of 1940, 1944, and 1948 North Dr. Martin Luther King, Jr. Drive and 227R West Brown Street, Milwaukee, Wisconsin.* Dated November 1999.

WDNR, Bureau of Drinking Water and Groundwater, *Groundwater Sampling Field Manual*, Publication BUBL-DG-03896, dated September 1996.

Wisconsin Administrative Code Chapter NR 700 Series. Investigation and Remediation of Environmental Contamination



Source: USGS *Greendale, Wisconsin* 7.5-minute series (topographic) quadrangle map (1958 photorevised 1971 and 1976)

Scale: 1:24,000

FIGURE 1 SITE LOCATION

1940, 1944 and 1948 North Dr. Martin Luther King, Jr. Drive
and 227R West Brown Street
Milwaukee, Wisconsin
Project No. 1E-0308029

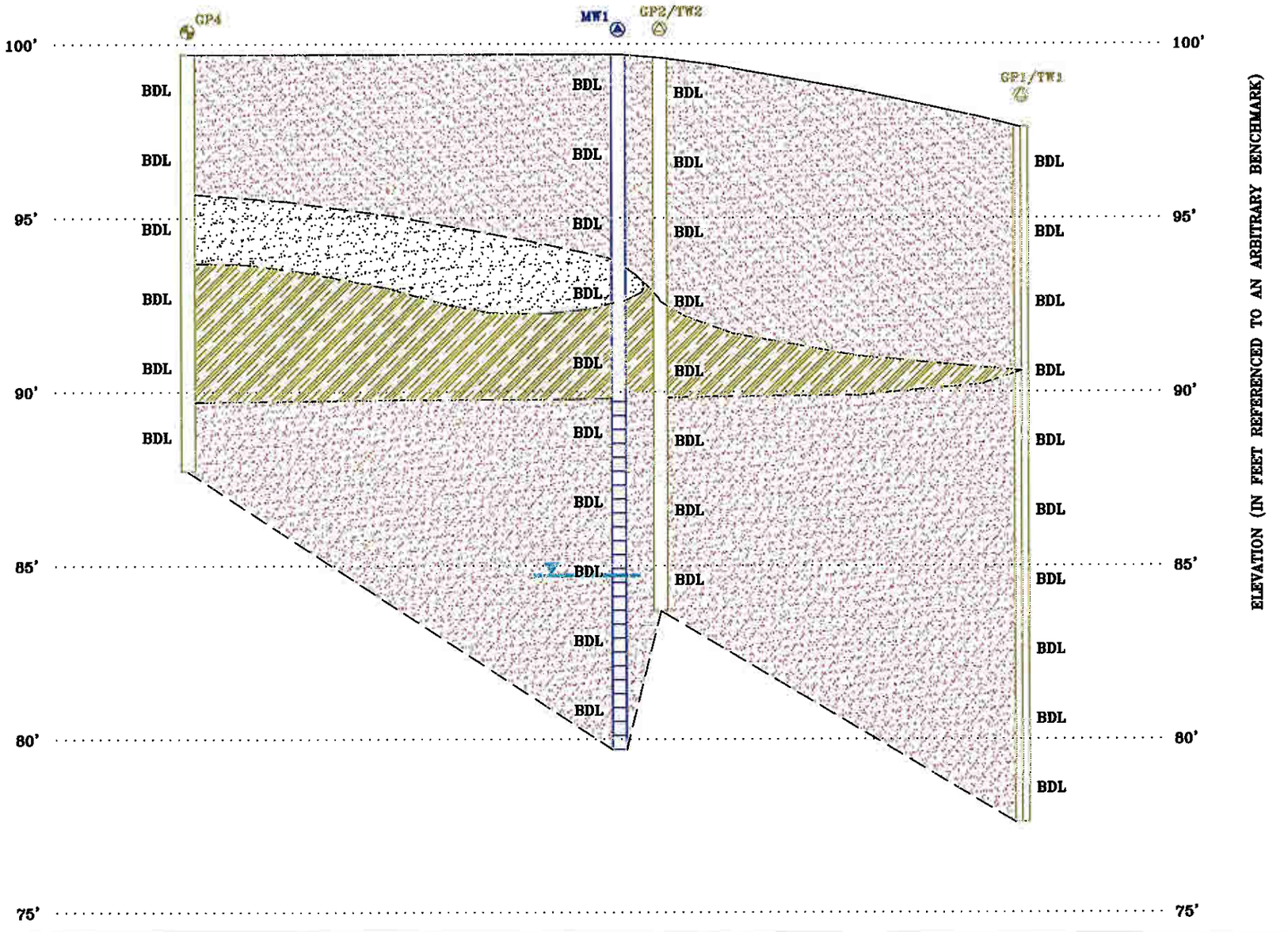
GILES
ENGINEERING ASSOCIATES, INC.

CROSS SECTION B–B'

B
(SOUTHWEST)

B'
(NORTHEAST)

SCALE: VERTICAL 1" = 4'
HORIZONTAL 1" = 20'



SOIL KEY:

- CLAYEY SILT
- SILT
- SILTY CLAY
- SILTY FINE TO MEDIUM SAND AND GRAVEL
- FINE TO COARSE SAND AND GRAVEL
- SILT, SOME FINE TO COARSE SAND, TRACE GRAVEL
- SOIL CONTACT LINES DASHED WHERE INFERRED

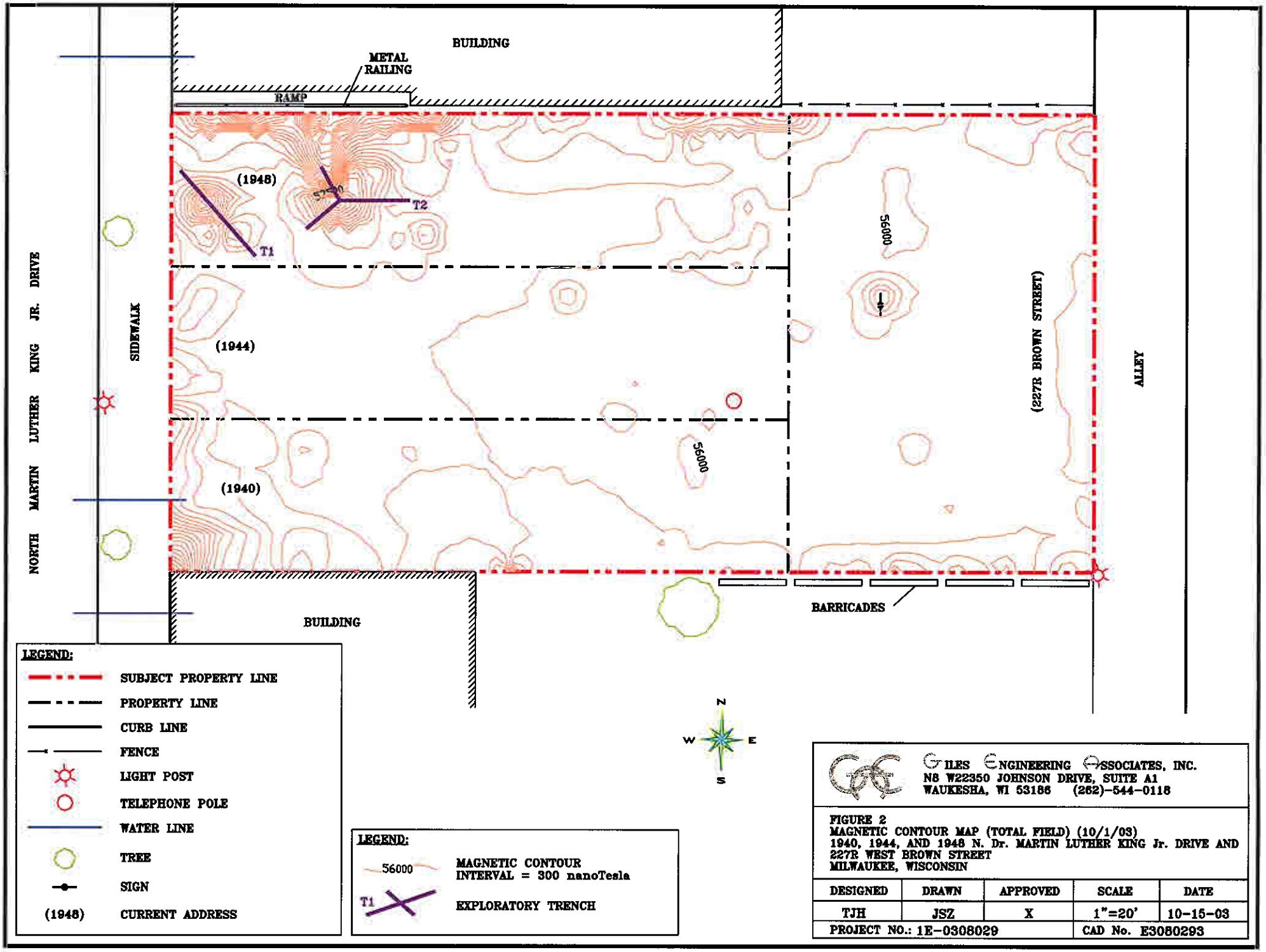
LEGEND:

- MW1 — GROUNDWATER MONITORING WELL
- GP4 — GEOPROBE BORING
- GP2/TW2 — GEOPROBE BORING/ TEMPORARY MONITORING WELL
- WELL SCREEN
- STATIC WATER LEVEL (2/16/04)
- BDL — PHOTOIONIZATION DETECTOR READING BELOW DETECTION LIMIT

GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)-544-0118

FIGURE 6
CROSS-SECTION B–B'
1940, 1944, AND 1948 N. Dr. MARTIN LUTHER KING Jr. DRIVE AND 227R WEST BROWN STREET
MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
TMB	JSZ	X	1"=20'	05-03-04
PROJECT NO.: 1E-0308029			CAD No. E3080299	



LEGEND:

- SUBJECT PROPERTY LINE
- PROPERTY LINE
- CURB LINE
- FENCE
- LIGHT POST
- TELEPHONE POLE
- WATER LINE
- TREE
- SIGN
- (1948) CURRENT ADDRESS

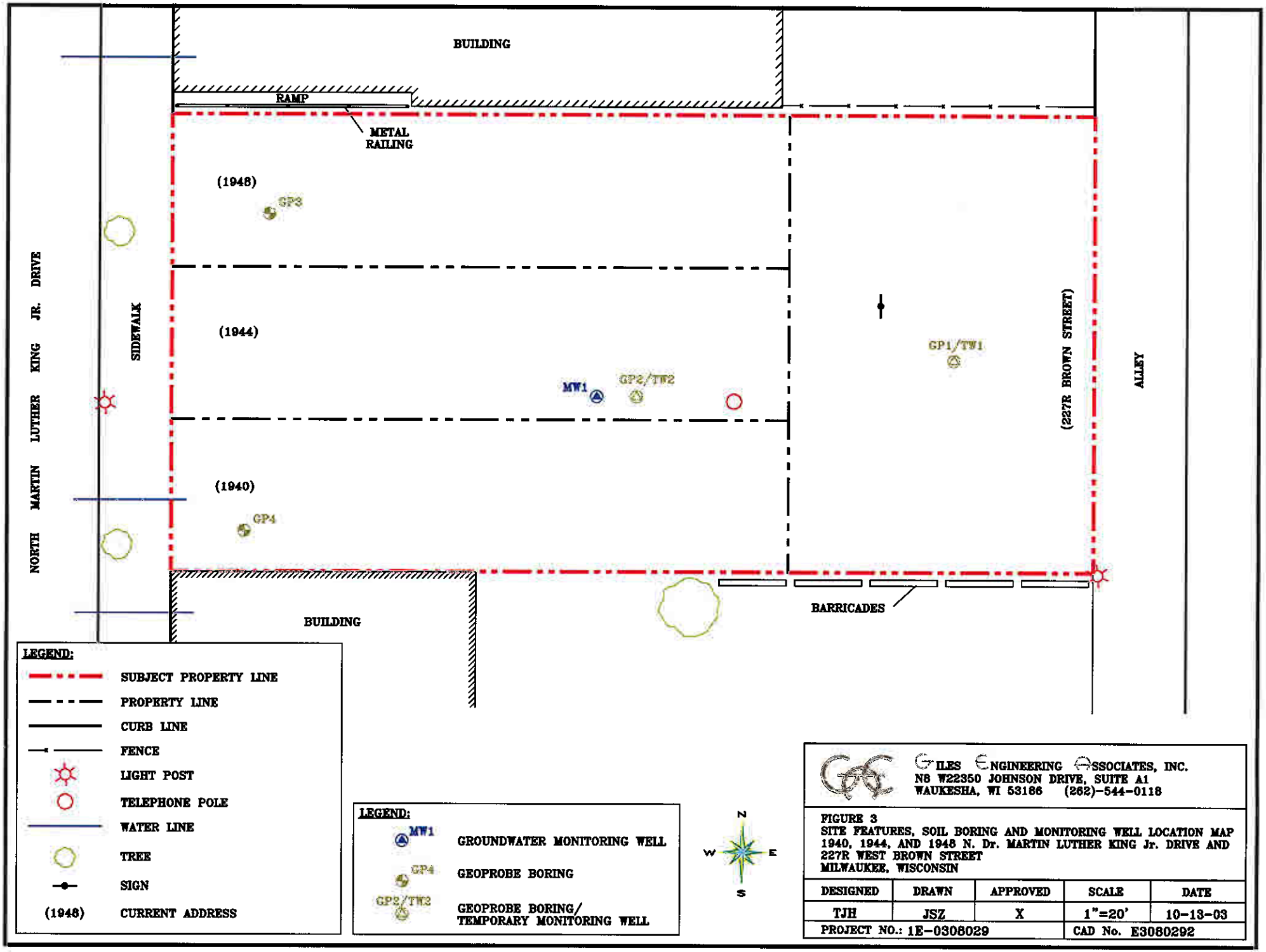
LEGEND:

- 56000 MAGNETIC CONTOUR INTERVAL = 300 nanoTesla
- T1 EXPLORATORY TRENCH

GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)-544-0118

FIGURE 2
MAGNETIC CONTOUR MAP (TOTAL FIELD) (10/1/03)
1940, 1944, AND 1948 N. Dr. MARTIN LUTHER KING Jr. DRIVE AND 227R WEST BROWN STREET
MILWAUKEE, WISCONSIN

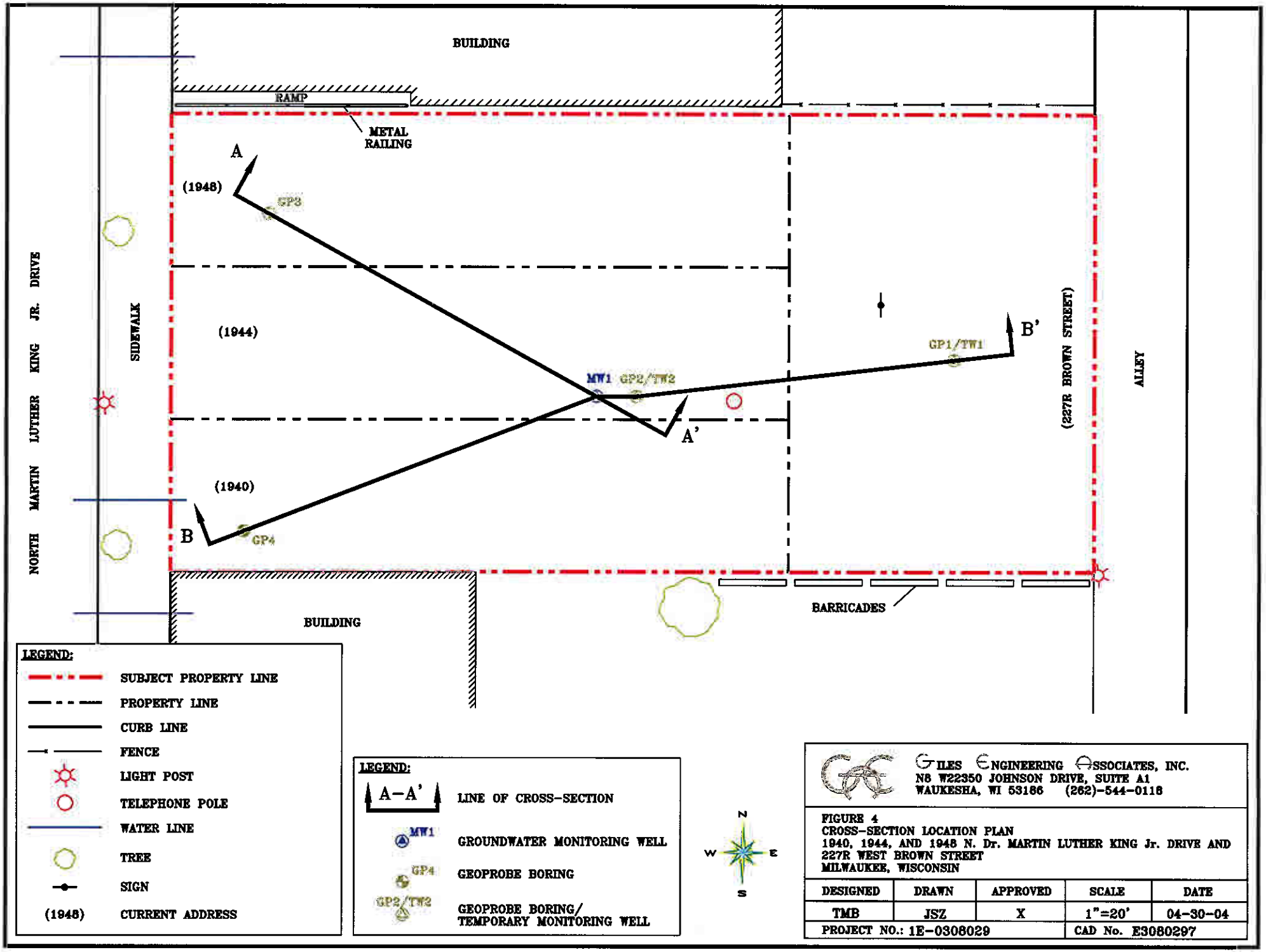
DESIGNED	DRAWN	APPROVED	SCALE	DATE
TJH	JSZ	X	1"=20'	10-15-03
PROJECT NO.: 1E-0308029			CAD No. E3080293	



GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)-544-0118

FIGURE 3
SITE FEATURES, SOIL BORING AND MONITORING WELL LOCATION MAP
1940, 1944, AND 1948 N. Dr. MARTIN LUTHER KING Jr. DRIVE AND 227R WEST BROWN STREET
MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
TJH	JSZ	X	1"=20'	10-13-03
PROJECT NO.: 1E-0308029			CAD No. E3080292	



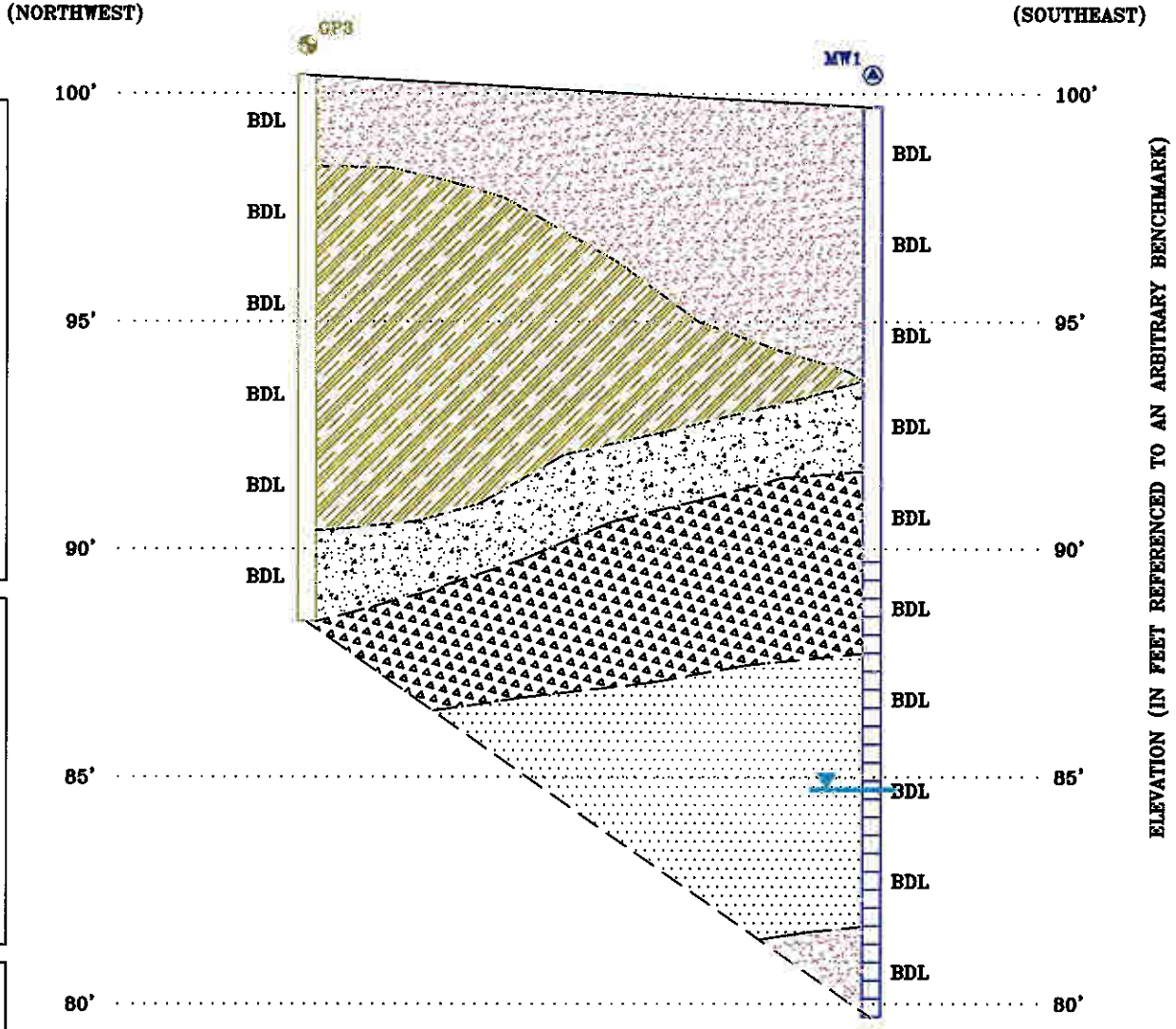
GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)-544-0118

FIGURE 4
CROSS-SECTION LOCATION PLAN
1940, 1944, AND 1948 N. Dr. MARTIN LUTHER KING Jr. DRIVE AND 227R WEST BROWN STREET
MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
TMB	JSZ	X	1"=20'	04-30-04
PROJECT NO.: 1E-0308029			CAD No. E3080297	

CROSS SECTION A–A'

SCALE: VERTICAL 1" = 4'
HORIZONTAL 1" = 20'



SOIL KEY:

- CLAYEY SILT
- SILTY CLAY
- SILTY FINE TO MEDIUM SAND AND GRAVEL
- SILT, SOME FINE SAND, TRACE CLAY
- FINE TO COARSE SAND AND GRAVEL
- SILT, SOME FINE TO COARSE SAND
- SOIL CONTACT LINES DASHED WHERE INFERRED

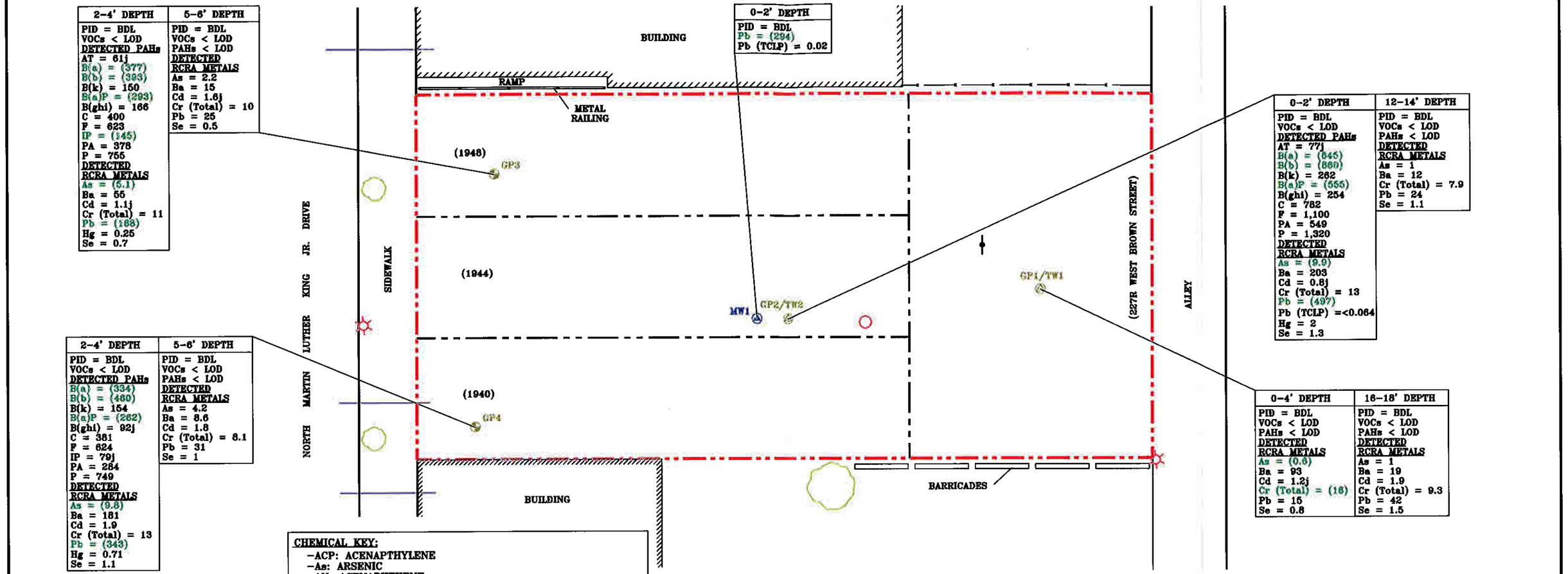
LEGEND:

- MW1 — GROUNDWATER MONITORING WELL
- GP3 — GEOPROBE BORING
- WELL SCREEN
- STATIC WATER LEVEL (2/16/04)
- BDL — PHOTOIONIZATION DETECTOR READING BELOW DETECTION LIMIT

GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)-544-0118

FIGURE 5
CROSS-SECTION A–A'
1940, 1944, AND 1948 N. Dr. MARTIN LUTHER KING Jr. DRIVE AND 227R WEST BROWN STREET
MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
TMB	JSZ	X	1"=20'	04-30-04
PROJECT NO.: 1E-0308029			CAD No. E3080298	



2-4' DEPTH	5-6' DEPTH
PID = BDL	PID = BDL
VOCs < LOD	VOCs < LOD
DETECTED PAHs	PAHs < LOD
AT = 61j	DETECTED
B(a) = (377)	RCRA METALS
B(b) = (393)	As = 2.2
B(k) = 150	Ba = 15
B(a)P = (293)	Cd = 1.6j
B(ghi) = 166	Cr (Total) = 10
C = 400	Pb = 25
F = 623	Se = 0.5
IP = (145)	
PA = 378	
P = 755	
DETECTED	
RCRA METALS	
As = (5.1)	
Ba = 55	
Cd = 1.1j	
Cr (Total) = 11	
Pb = (168)	
Hg = 0.25	
Se = 0.7	

0-2' DEPTH
PID = BDL
Pb = (294)
Pb (TCLP) = 0.02

0-2' DEPTH	12-14' DEPTH
PID = BDL	PID = BDL
VOCs < LOD	VOCs < LOD
DETECTED PAHs	PAHs < LOD
AT = 77j	DETECTED
B(a) = (645)	RCRA METALS
B(b) = (869)	As = 1
B(k) = 262	Ba = 12
B(a)P = (555)	Cr (Total) = 7.9
B(ghi) = 254	Pb = 24
C = 782	Se = 1.1
F = 1,100	
PA = 549	
P = 1,320	
DETECTED	
RCRA METALS	
As = (9.9)	
Ba = 203	
Cd = 0.8j	
Cr (Total) = 13	
Pb = (497)	
Pb (TCLP) =<0.064	
Hg = 2	
Se = 1.3	

2-4' DEPTH	5-6' DEPTH
PID = BDL	PID = BDL
VOCs < LOD	VOCs < LOD
DETECTED PAHs	PAHs < LOD
B(a) = (334)	DETECTED
B(b) = (460)	RCRA METALS
B(k) = 154	As = 4.2
B(a)P = (262)	Ba = 8.6
B(ghi) = 92j	Cd = 1.8
C = 381	Cr (Total) = 8.1
F = 624	Pb = 31
IP = 79j	Se = 1
PA = 284	
P = 749	
DETECTED	
RCRA METALS	
As = (9.8)	
Ba = 181	
Cd = 1.9	
Cr (Total) = 13	
Pb = (343)	
Hg = 0.71	
Se = 1.1	

0-4' DEPTH	16-18' DEPTH
PID = BDL	PID = BDL
VOCs < LOD	VOCs < LOD
PAHs < LOD	PAHs < LOD
DETECTED	DETECTED
RCRA METALS	RCRA METALS
As = (0.6)	As = 1
Ba = 93	Ba = 19
Cd = 1.2j	Cd = 1.9
Cr (Total) = (16)	Cr (Total) = 9.3
Pb = 15	Pb = 42
Se = 0.8	Se = 1.5

LEGEND:

- SUBJECT PROPERTY LINE
- PROPERTY LINE
- CURB LINE
- FENCE
- LIGHT POST
- TELEPHONE POLE
- WATER LINE
- TREE
- SIGN
- (1948) CURRENT ADDRESS
- GP4 GEOPROBE BORING
- GP2/TW2 GEOPROBE BORING/ TEMPORARY MONITORING WELL
- MW1 GROUNDWATER MONITORING WELL

CHEMICAL KEY:

- -ACP: ACENAPTHYLENE
- -As: ARSENIC
- -AN: ACENAPHTHENE
- -AT: ANTHRACENE
- -B(a): BENZO (a) ANTHRACENE
- -B(b): BENZO (b) FLUORANTHENE
- -B(a)P: BENZO (a) PYRENE
- -B(g,h,i): BENZO (g,h,i) PERYLENE
- -B(k): BENZO (k) FLUORANTHENE
- -Ba: BARIUM
- -Cd: CADMIUM
- -Cr: CHROMIUM
- -C: CHRYSENE
- -DiBA: di BENZO (a,h) ANTHRACENE
- -F: FLUORANTHENE
- -FL: FLUORENE
- -Hg: MERCURY
- -IP: INDENO (1,2,3-cd) PYRENE
- -MN: METHYLNAPHTHALENE
- -Napht: NAPHTHALENE
- -P: PYRENE
- -Pb: LEAD
- -PA: PHENANTHRENE
- -Se: SELENIUM

ABBREVIATIONS:

- -BDL: BELOW DETECTION LIMIT
- -LOD: LIMIT OF DETECTION
- -NR: NATURAL RESOURCES
- -PAH: POLYNUCLEAR AROMATIC HYDROCARBON
- -PID: PHOTOIONIZATION DETECTOR (FIELD)
- -RCRA: RESOURCE CONSERVATION AND RECOVERY ACT
- -TCLP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE
- -PID: PHOTOIONIZATION DETECTOR (FIELD)
- -WAC: WISCONSIN ADMINISTRATIVE CODE
- -WDNR: WISCONSIN DEPARTMENT OF NATURAL RESOURCES

NOTES:

FIELD PID RESULTS EXPRESSED IN INSTRUMENT UNITS

RCRA METAL RESULTS EXPRESSED IN MILLIGRAMS PER KILOGRAM (mg/kg) EQUIVALENT TO PARTS PER MILLION (ppm)

(TCLP) RESULTS EXPRESSED IN MILLIGRAMS PER LITER (mg/l) EQUIVALENT TO PARTS PER MILLION (ppm)

VOC AND PAH RESULTS EXPRESSED IN MICROGRAMS PER KILOGRAM (ug/kg) EQUIVALENT TO PARTS PER BILLION (ppb)

-j: CONCENTRATION BETWEEN LABORATORY LIMIT OF DETECTION AND QUANTITATION LIMIT.

RCRA METAL NOTES:

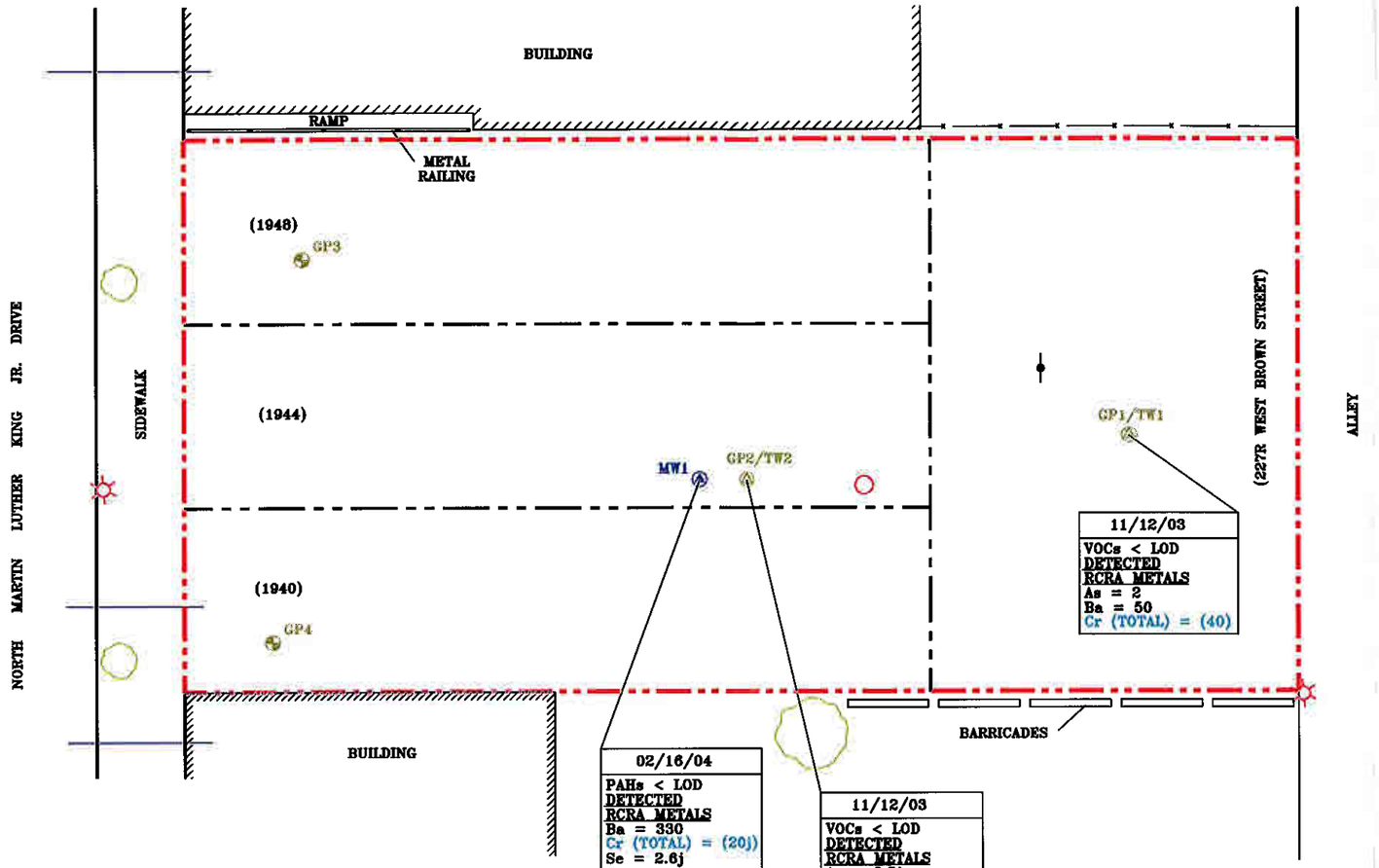
RESULTS INDICATED IN GREEN/PARENTHESIS EXCEED THE WAC NR 720.11 - TABLE 2 RESIDUAL CONTAMINANT LEVELS BASED ON HUMAN HEALTH RISK FROM DIRECT CONTACT RELATED TO LAND - NON-INDUSTRIAL SITE USE. APPLICABLE TO SOIL 0-4 FEET BELOW GROUND SURFACE

N W E S

GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)-544-0118

FIGURE 7
SOIL ANALYTICAL RESULTS
1940, 1944, AND 1948 N. Dr. MARTIN LUTHER KING Jr. DRIVE AND 227R WEST BROWN STREET
MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
TJH	JSZ	X	1"=20'	03-02-04
PROJECT NO.: 1E-0308029			CAD No. E3080294	



LEGEND:

- SUBJECT PROPERTY LINE
- PROPERTY LINE
- CURB LINE
- FENCE
- LIGHT POST
- TELEPHONE POLE
- WATER LINE
- TREE
- SIGN
- (1948) CURRENT ADDRESS
- GP4 GEOPROBE BORING
- GP2/TW2 GEOPROBE BORING/ TEMPORARY MONITORING WELL
- MW1 GROUNDWATER MONITORING WELL

CHEMICAL KEY:

- -As: ARSENIC
- -Ba: BARIUM
- -Cd: CADMIUM
- -Cr: CHROMIUM
- -Pb: LEAD
- -Se: SELENIUM

ABBREVIATIONS:

- -LOD: LIMIT OF DETECTION
- -NR: NATURAL RESOURCES
- -RCRA: RESOURCE CONSERVATION AND RECOVERY ACT
- -VOC: VOLATILE ORGANIC COMPOUND
- -WAC: WISCONSIN ADMINISTRATIVE CODE

NOTES:

VOC AND RCRA METAL RESULTS EXPRESSED IN MICROGRAMS PER LITER (ug/l) EQUIVALENT TO PARTS PER BILLION (ppb)

RESULTS INDICATED IN BLUE/PARENTHESIS EXCEED THE WAC NR 140.10 TABLE 1 PUBLIC HEALTH GROUNDWATER QUALITY STANDARDS - PREVENTIVE ACTION LIMIT

RESULTS INDICATED IN RED/UNDERLINED EXCEED THE WAC NR 140.10 TABLE 1 PUBLIC HEALTH GROUNDWATER QUALITY STANDARDS - ENFORCEMENT STANDARD

-j: CONCENTRATION BETWEEN LABORATORY LIMIT OF DETECTION AND QUANTITATION LIMIT.

N W E S

GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)-544-0118

FIGURE 6
GROUNDWATER ANALYTICAL RESULTS
1940, 1944, AND 1948 N. Dr. MARTIN LUTHER KING Jr. DRIVE AND 227R WEST BROWN STREET
MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
TJH	JSZ	X	1"=20'	03-02-04

PROJECT NO.: 1E-0308029 CAD No. E3080295

Table 1

Soil Analytical Results- VOCs and PAHs

1940, 1944 and 1948 North Martin Luther King, Jr. Drive and 227R West Brown Street Milwaukee, Wisconsin Project No. 1E-0308029

Parameters		Geoprobe Boring Numbers								WDNR Interm Guidance Suggested Generic RCLs	
		GP-1		GP-2		GP-3		GP-4			
Sample Date		11/12/2003		11/12/2003		11/12/2003		11/12/2003		Groundwater Pathway[1]	Direct Contact, Non-Industrial Pathway[2]
Sample Depth (feet)		0-4	16-18	0-2	12-14	2-4	5-6	2-4	5-6		
PID		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
VOCs (ug/kg)		<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD		
PAHs (ug/kg)	Acenaphthene	<40	<36	<40	<36	<38	<37	<76	<35	38,000	900,000
	Acenaphthylene	<29	<44	<50	<44	<47	<46	<94	<44	700	18,000
	Anthracene	<29	<26	**77 J**	<27	**61 J**	<28	<56	<26	3,000,000	5,000,000
	Benzo (a) anthracene	<22	<20	(645)	<20	(377)	<21	(334)	<20	17,000	88
	Benzo (b) fluoranthene	<33	<30	(860)	<30	(393)	<31	(460)	<30	360,000	88
	Benzo (k) fluoranthene	<18	<16	**262**	<17	**150**	<17	**154**	<16	870,000	880
	Benzo (a) pyrene	<23	<20	(555)	<21	(293)	<21	(262)	<20	48,000	8.8
	Benzo (g,h,i) perylene	<39	<35	**254**	<35	**166**	<36	**92 J**	<35	6,800,000	1,800
	Chrysene	<29	<26	**782**	<26	**400**	<27	**381**	<26	37,000	8,800
	Dibenzo (a,h) anthracene	<40	<36	<40	<36	<38	<37	<76	<35	38,000	8.8
	Fluoranthene	<27	<24	**1100**	<25	**623**	<26	**624**	<24	500,000	600,000
	Fluorene	<48	<43	<48	<43	<46	<45	<92	<43	100,000	600,000
	Indeno (1,2,3-cd) pyrene	<38	<34	<38	<34	(145)	<35	**79 J**	<33	680,000	88
	1-Methylnaphthalene	<59	<53	<59	<53	<56	<55	<112	<52	23,000	1,100,000
	2-Methylnaphthalene	<59	<53	<60	<54	<57	<56	<114	<53	20,000	600,000
	Naphthalene	<59	<53	<60	<54	<57	<56	<113	<53	400	20,000
	Phenanthrene	<25	<22	**549**	<22	**378**	<23	**284**	<22	1,800	18,000
	Pyrene	<24	<22	**1320**	<22	**755**	<23	**749**	<22	8,700,000	500,000

NOTES:

PID: Photoionization Detector
PAHs: Polycyclic Aromatic Hydrocarbons
VOCs: Volatile Organic Compounds
J: Concentrations between laboratory Limit of Detection and Limit of Quantification
ug/kg: Micrograms per kilogram; equivalent to parts per billion (ppb)
WAC: Wisconsin Administrative Code
BDL: Below Detection Limit
LOD: Laboratory Limit of Detection
RCLs: Residual Contaminant Levels
WDNR: Wisconsin Department of Natural Resources
[1]: WDNR Interm Guidance (April 1997) Table 1- Suggested Generic Residual Contaminant Levels (RCLs) For PAH Compounds in Soil- Groundwater Pathway
[2]: WDNR Interm Guidance (April 1997) Table 1- Suggested Generic Residual Contaminant Levels (RCLs) For PAH Compounds in Soil- Direct Contact Pathway Non-Industrial
Results indicated in red/underlined, exceed the WDNR Interm Guidance (April 1997) Table 1- Suggested Generic RCLs for PAH Compounds in Soil- Groundwater Pathway
Results indicated in green/parenthesis, exceed the WDNR Interm Guidance (April 1997) Table 1- Suggested Generic RCLs for PAH Compounds in Soil- Direct Contact Pathway Non-Industrial. Applicable to soil 0-4 feet below ground surface

Table 2

Soil Analytical Results- RCRA Metals

1940, 1944 and 1948 North Martin Luther King, Jr. Drive and 227R West Brown Street Milwaukee, Wisconsin Project No. 1E-0308029

Parameters		Geoprobe Boring Numbers									NR 720.11 RCLs[1]
		GP-1		GP-2		GP-3		GP-4		MW-1	
Sample Date		11/12/2003		11/12/2003		11/12/2003		11/12/2003		2/6/2004	Direct Contact Non-Industrial Land Use
Sample Depth (feet)		0-4	16-18	0-2	12-14	2-4	5-6	2-4	5-6	0-2	
PID		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
Detected RCRA Metals (mg/kg)	Arsenic	(0.6)	1	(9.9)	1	(5.1)	2.2	(9.8)	4.2	NA	0.039
	Barium	93	19	203	12	55	15	181	8.6	NA	NS
	Cadmium	1.2 J	1.9	0.8 J	<0.56	1.1 J	1.6 J	1.9	1.8	NA	8
	Chromium, Total	(16)	9.3	13	7.9	11	10	13	8.1	NA	14/16000**
	Lead	15	42	(497)/<0.064	24	(168)	25	(343)	31	(294 mg/kg)/0.02 mg/l TCLP	50 mg/kg/5 mg/l TCLP
	Mercury	<0.061	<0.055	2	<0.056	0.25	<0.058	0.71	<0.055	NA	NS
	Selenium	0.8	1.5	1.3	1.1	0.7	0.5	1.1	1	NA	NS

NOTES:

PID: Photoionization Detector

BDL: Below Detection Limit

RCRA: Resource Conservation and Recovery Act

mg/kg: Milligrams per Kilogram; equivalent to parts per million (ppm)

mg/L: Milligrams per Liter; Equivalent to parts per million (ppm)

WAC: Wisconsin Administrative Code

NR: Natural Resources Chapter of the WAC

US EPA: United States Environmental Protection Agency

RCL: Residual Contaminant Level

NS: No Established Standard

J: Results between laboratory Limit of Detection and Limit of Quantification

TCLP: Toxicity Charachteristic Leaching Procedure of lead sample

****:** RCL for Hexavalent/Trivalent Chromium

[1]: WAC NR 720.11- Table 2 RCLs Based on Human Health Risk From Direct Contact Related to Land Use

Results indicated in red/underline exceed the TCLP Action Limits per US EPA

Results indicated in green/parenthesis exceed the WAC NR 720.11 Table 2 RCLs Based on Human Health Risk From Direct Contact Related to Non-Industrial Land Use. Applicable to soil 0-4 feet below ground surface.

Table 3

Temporary Well Analytical Results- VOCs and RCRA Metals

1940, 1944 and 1948 North Martin Luther King, Jr. Drive and 227R West Brown Street Milwaukee, Wisconsin Project No. 1E-0308029

Parameters		SAMPLING LOCATIONS		WAC NR 140 PAL[1]	WAC NR 140 ES[2]
		TW-1	TW-2		
Date Sampled		11/12/03	11/12/03		
VOCs (ug/l)		<LOD	<LOD	—	—
Detected RCRA Metals (ug/l)	Arsenic	2	3.5 J	5	50
	Barium	50	60	400	2000
	Cadmium	<0.4	(0.71) J	0.5	5
	Chromium, Total	(40)	(60)	10	100
	Lead	<1.5	21	1.5	15
	Mercury	<0.2	<0.2	0.2	2
	Selenium	<1.9	3.2 J	10	50

NOTES:

VOCs: Volatile Organic Compounds
WAC: Wisconsin Administrative Code
RCRA: Resource Conservation and Recovery Act
ES: Enforcement Standard
PAL: Preventive Action Limit
NR: Natural Resources Chapter of the WAC
ug/l: Micrograms per liter; equivalent to parts per billion (ppb)
J: Concentrations between laboratory Limit of Detection and Limit of Quantification
LOD: Laboratory Limit of Detection
[1]: WAC NR 140.10 Table 1 Public Health Groundwater Quality Standards- PAL
[2]: WAC NR 140.10 Table 1 Public Health Groundwater Quality Standards- ES

Results indicated in blue/parenthesis exceed the WAC NR 140.10 PAL

Results indicated in red/underline exceed the WAC NR 140.10 ES

Table 4

Monitoring Well Analytical Results- RCRA Metals

1940, 1944 and 1948 North Martin Luther King, Jr. Drive and 227R West Brown Street Milwaukee, Wisconsin Project No. 1E-0308029

Parameters		Sample Locations		WAC NR 140 PAL[1]	WAC NR 140 ES[2]
		MW-1	MW-21 (Dup MW-1)		
Date Sampled		02/16/04	02/16/04		
RCRA Metals (ug/l)	Arsenic	<1.22	<1.22	5	50
	Barium	330	300	400	2,000
	Cadmium	<0.4	<0.4	0.5	5
	Chromium, Total	(20) J	(20) J	10	100
	Lead	<1.5	<1.5	1.5	15
	Mercury	<0.2	<0.2	0.2	2
	Selenium	2.6 J	<1.9	10	50
	Silver	<9	<9	10	50

NOTES:

VOCs: Volatile Organic Compounds
WAC: Wisconsin Administrative Code
RCRA: Resource Conservation and Recovery Act
NR: Natural Resources Chapter of the WAC
NA: Not Analyzed
ug/l: Micrograms per liter; equivalent to parts per billion (ppb)
J: Concentrations between laboratory Limit of Detection and Limit of Quantification
LOD: Laboratory Limit of Detection
DUP: Duplicate groundwater sample
ES: Enforcement Standard
PAL: Preventive Action Limit
[1]: WAC NR 140.10 Table 1 Public Health Groundwater Quality Standards- PAL
[2]: WAC NR 140.10 Table 1 Public Health Groundwater Quality Standards- ES

Results indicated in blue/parenthesis exceed the WAC NR 140.10 PAL

Results indicated in red/underline exceed the WAC NR 140.10 ES

Important Information About Your
Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provision you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

Beware of Change; Keep Your Geoenvironmental Professional Advised

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- Modification of the proposed development or ownership group,
- Sale or other property transfer,
- Replacement of or additions to the financing entity,
- Amendment of existing regulations or introduction of new ones, or
- Changes in the use or condition of adjacent property.

Should you become aware of any change *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional" advice.

Recognize the Impact of Time

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

Prepare To Deal with Unanticipated Conditions

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface track of its existence. *Even conditions in areas that were tested can change,* sometimes suddenly, due to any number of events, not the least of which include occurrences at adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered,* because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

Do Not Permit Any Other Party To Rely on the Report

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency . . . or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else – a third-party – will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

Avoid Misinterpretation of the Report

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

Give Contractors Access to the Report

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you* by making it unquestionably clear that: 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that – in any event – they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so as its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

Do Not Separate Documentation from the Report

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

Understand the Role of Standards

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care.

Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that seldom is the case.

Realize that Recommendations May Not Be Final

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. Final recommendations can be prepared only by observing actual conditions as they are exposed. For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

Understand That Geotechnical Issues Have Not Been Addressed

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need.

Read Responsibility Provisions Closely

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

Rely on Your Geoenvironmental Professional for Additional Assistance

Membership in ASFE exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your ASFE-member geoenvironmental professional for more information.

ASFE

8811 Colesville Road/Suite G108, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: **info@asfe.org** www.asfe.org

IIGR06005.OM

RECORD OF SUBSURFACE EXPLORATION

BORING NO. & LOCATION:	PROJECT:
GP - 1	
SURFACE ELEVATION:	PROJECT LOCATION:
98.0	1944 North Dr. Martin Luther King Jr. Drive
COMPLETION DATE:	
11/12/03	Milwaukee, Wisconsin
FIELD REPRESENTATIVE:	
Greg Vogel	GILES PROJECT NUMBER: 1E-0308029

GILES ENGINEERING ASSOCIATES, INC.
Milwaukee Los Angeles
Madison Dallas Atlanta
Washington, D.C. Orlando

MATERIAL DESCRIPTION	Feet Below Surface	Sample No. & Type	N	q_u (tsf)	q_p (tsf)	q_s (tsf)	w (%)	PID	NOTES
2"± rootmat		1-PS						BDL	
Brown to Black Clayey Silt (Fill) - Moist									
Gray-Brown Silty Clay, trace fine Sand (Fill) - Moist		2-PS						BDL	(a)
	5	3-PS						BDL	
		4-PS						BDL	
Brown Silty Clay, some fine to medium Sand, trace fine Gravel (Possible Fill) - Moist		5-PS						BDL	
Brown Silty Clay, little fine to medium Sand and Gravel - Very Moist	10	6-PS						BDL	
		7-PS						BDL	
Light Gray Silty Clay, trace fine to coarse Sand, little fine Gravel - Moist to Wet at 19± feet		8-PS						BDL	
	15	9-PS						BDL	(a)
▽		10-PS						BDL	
Boring terminated at 20 feet	20								

PID: Results of volatile vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with a 11.7 eV lamp calibrated to a Benzene standard. Results expressed in instrument-units. BDL = Below Detection Limit

NOTE: Test boring backfilled with granular bentonite following temporary well removal. See Borehole Abandonment For (WDNR Form No. 3300-5B) for description of borehole abandonment.

WATER OBSERVATION DATA	REMARKS
▽ WATER ENCOUNTERED DURING DRILLING: 19 ft.	(a) Soil sample submitted for VOC, PAH and RCRA metals analyses.
▼ WATER LEVEL AFTER REMOVAL:	NOTES: -- Groundwater sample collected and submitted for VOC and RCRA metals analyses.
CAVE DEPTH AFTER REMOVAL:	-- Temporary groundwater monitoring well installed at the completion of drilling. Bottom of well set at 20± feet with 10-foot screen.
▼ WATER LEVEL AFTER HOURS:	-- PS = Probe Sample
CAVE DEPTH AFTER HOURS:	

SUBSURFACE EXPLORATION 1E0308029.GPJ GIL_CORP.GDT 12/9/03

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

RECORD OF SUBSURFACE EXPLORATION

BORING NO. & LOCATION: GP - 2	PROJECT:
SURFACE ELEVATION: 99.6	PROJECT LOCATION: 1944 North Dr. Martin Luther King Jr. Drive
COMPLETION DATE: 11/12/03	Milwaukee, Wisconsin
FIELD REPRESENTATIVE: Greg Vogel	GILES PROJECT NUMBER: 1E-0308029

GILES ENGINEERING ASSOCIATES, INC.
Milwaukee Los Angeles
Madison Dallas Atlanta
Washington, D.C. Orlando

MATERIAL DESCRIPTION	Feet Below Surface	Sample No. & Type	N	q_u (tsf)	q_p (tsf)	q_s (tsf)	W (%)	PID	NOTES
2"± rootmat		1-PS						BDL	(a)
Dark Brown Clayey Silt, trace fine Sand and Organic Matter (wood, roots) (Fill) - Moist		2-PS						BDL	
Yellow-Brown Clayey Silt, some Organic Matter (roots), trace fine Sand (Fill) - Moist	5	3-PS						BDL	
		4-PS						BDL	
Brown Silty fine to medium Sand and Gravel, trace Clay - Moist		5-PS						BDL	
	10	6-PS						BDL	
Brown Silty Clay, little coarse Gravel, trace fine to medium Sand and Gravel - Moist to Wet at 14± feet	▽	7-PS						BDL	(a)
	15	8-PS						BDL	
Boring terminated at 16 feet									

PID: Results of volatile vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with a 11.7 eV lamp calibrated to a Benzene standard. Results expressed in instrument-units. BDL = Below Detection Limit

NOTE: Test boring backfilled with granular bentonite following temporary well removal. See Borehole Abandonment For (WDNR Form No. 3300-5B) for description of borehole abandonment.

WATER OBSERVATION DATA	REMARKS
▽ WATER ENCOUNTERED DURING DRILLING: 14 ft.	(a) Soil sample submitted for VOC, PAH and RCRA metals analyses.
▼ WATER LEVEL AFTER REMOVAL:	NOTES: -- Groundwater sample collected and submitted for VOC and RCRA metals analyses.
CAVE DEPTH AFTER REMOVAL:	-- Temporary groundwater monitoring well installed at the completion of drilling. Bottom of well set at 15± feet with 10-foot screen.
▼ WATER LEVEL AFTER HOURS:	-- PS = Probe Sample
CAVE DEPTH AFTER HOURS:	

SUBSURFACE EXPLORATION 1E0308029.GPJ GIL_CORP.GDT 12/9/03

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

RECORD OF SUBSURFACE EXPLORATION

BORING NO. & LOCATION:	PROJECT:
GP - 3	
SURFACE ELEVATION:	PROJECT LOCATION:
100.4	1944 North Dr. Martin Luther King Jr. Drive
COMPLETION DATE:	
11/12/03	Milwaukee, Wisconsin
FIELD REPRESENTATIVE:	
Greg Vogel	GILES PROJECT NUMBER: 1E-0308029

GILES ENGINEERING ASSOCIATES, INC.
Milwaukee Los Angeles
Madison Dallas Atlanta
Washington, D.C. Orlando

MATERIAL DESCRIPTION	Feet Below Surface	Sample No. & Type	N	q_u (tsf)	q_p (tsf)	q_s (tsf)	w (%)	PID	NOTES
Brown Clayey Silt, trace fine Sand (Fill) - Moist		1-PS						BDL	
Brown Silty Clay, trace fine to medium Sand and Gravel and brick fragments (Fill) - Moist		2-PS						BDL	(a)
Brown Silty Clay, trace fine to medium Sand and Gravel, trace coarse Gravel - Very Moist to Wet at 8± feet	5	3-PS						BDL	(a)
		4-PS						BDL	
▽		5-PS						BDL	
Gray Silty Clay, trace fine to medium Sand and Gravel - Wet	10	6-PS						BDL	
Brown Silty fine to medium Sand and Gravel - Wet									
Boring terminated at 12 feet									

PID: Results of volatile vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with a 11.7 eV lamp calibrated to a Benzene standard. Results expressed in instrument-units. BDL = Below Detection Limit

NOTE: Test boring backfilled with granular bentonite following probe removal. See Borehole Abandonment For (WDNR Form No. 3300-5B) for description of borehole abandonment.

	WATER OBSERVATION DATA	REMARKS
▽	WATER ENCOUNTERED DURING DRILLING: 8 ft.	(a) Soil sample submitted for VOC, PAH and RCRA metals analyses.
▼	WATER LEVEL AFTER REMOVAL:	
	CAVE DEPTH AFTER REMOVAL:	PS = Probe Sample
▼	WATER LEVEL AFTER HOURS:	
	CAVE DEPTH AFTER HOURS:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

RECORD OF SUBSURFACE EXPLORATION

BORING NO. & LOCATION:	PROJECT:
GP - 4	
SURFACE ELEVATION:	PROJECT LOCATION:
99.7	1944 North Dr. Martin Luther King Jr. Drive
COMPLETION DATE:	
11/12/03	Milwaukee, Wisconsin
FIELD REPRESENTATIVE:	
Greg Vogel	GILES PROJECT NUMBER: 1E-0308029

GILES ENGINEERING ASSOCIATES, INC.
Milwaukee Los Angeles
Madison Dallas Atlanta
Washington, D.C. Orlando

MATERIAL DESCRIPTION	Feet Below Surface	Sample No. & Type	N	q_u (tsf)	q_p (tsf)	q_s (tsf)	w (%)	PID	NOTES
2"± rootmat		1-PS						BDL	
Brown-Black Clayey Silt; trace fine Sand, coarse Gravel and brick fragments (Fill) - Moist		2-PS						BDL	(a)
Brown Silt, trace fine to medium Sand and Gravel (Fill) - Moist	5	3-PS						BDL	(a)
Brown Silty Clay, trace fine to medium Sand and Gravel - Moist to Wet at 7± feet ▽		4-PS						BDL	
		5-PS						BDL	
Brown Silty fine to medium Sand and Gravel, trace coarse Gravel - Wet	10	6-PS						BDL	
Boring terminated at 12 feet									

PID: Results of volatile vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with a 11.7 eV lamp calibrated to a Benzene standard. Results expressed in instrument-units. BDL = Below Detection Limit

NOTE: Test boring backfilled with granular bentonite following probe removal. See Borehole Abandonment For (WDNR Form No. 3300-5B) for description of borehole abandonment.

	WATER OBSERVATION DATA	REMARKS
▽	WATER ENCOUNTERED DURING DRILLING: 7 ft.	(a) Soil sample submitted for VOC, PAH and RCRA metals analyses.
▼	WATER LEVEL AFTER REMOVAL:	
	CAVE DEPTH AFTER REMOVAL:	PS = Probe Sample
▼	WATER LEVEL AFTER HOURS:	
	CAVE DEPTH AFTER HOURS:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

RECORD OF SUBSURFACE EXPLORATION

BORING NO. & LOCATION:	PROJECT:
MW - 1	Vacant Lot
SURFACE ELEVATION:	PROJECT LOCATION:
99.7	1944 North Dr. Martin Luther King Jr. Drive
COMPLETION DATE:	
2/6/04	Milwaukee, Wisconsin
FIELD REPRESENTATIVE:	
Greg Roanhouse	GILES PROJECT NUMBER: 1E-0308029

GILES ENGINEERING ASSOCIATES, INC.
Milwaukee Los Angeles
Madison Dallas Atlanta
Washington, D.C. Orlando

MATERIAL DESCRIPTION	Feet Below Surface	Sample No. & Type	N	q_u (tsf)	q_p (tsf)	q_s (tsf)	w (%)	PID	NOTES
Brown-Black Clayey Silt, some fine to coarse Sand, trace Organic Matter (Possible Fill)-Moist		1-SS	30					BDL	16 inches / See (a)
Brown Clayey Silt, some fine to coarse Sand, trace fine Gravel (Possible Fill)-Moist		2-SS	10					BDL	20 inches
Brown Clayey Silt, some fine to medium Sand, little fine Gravel-Moist	5	3-SS	6					BDL	18 inches
Light Brown Silt, some fine Sand, trace Clay-Moist		4-SS	8					BDL	20 inches
Gray-Brown fine to coarse Sand and Silt, some fine to coarse Gravel-Moist		5-SS	10					BDL	16 inches
Brown fine to coarse Sand and fine to coarse Gravel-Moist	10	6-SS	34					BDL	16 inches
Brown Silt, some fine to coarse Sand, trace fine to coarse Gravel-Moist to Wet at 15± feet		7-SS	23					BDL	24 inches
	▽ 15	8-SS	28					BDL	22 inches
		9-SS	20					BDL	17 inches
Gray Clayey Silt, some fine to medium Sand-Wet		10-SS	14					BDL	18 inches
Boring terminated at 20 feet	20								

PID: Results of volatile vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with a 11.7 eV lamp calibrated to a Benzene standard. Results expressed in instrument-units. BDL = Below Detection Limit

	WATER OBSERVATION DATA
▽	WATER ENCOUNTERED DURING DRILLING: 15 ft.
▼	WATER LEVEL AFTER REMOVAL:
	CAVE DEPTH AFTER REMOVAL:
▼	WATER LEVEL AFTER HOURS:
	CAVE DEPTH AFTER HOURS:

REMARKS

(a) Soil sample submitted for total load and TCLP lead analysis.

NOTE: A groundwater monitoring well was installed at the completion of drilling. Bottom of well set at 20± feet with 10-foot screen and 10-foot riser.

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropiate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forteiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. _ _ _ _ _ _ | DNR Well ID No. | County: MILWAUKEE

Common Well Name: GP-1 | Gov't Lot (If applicable): _____

Grid Location: SW ¼ of NE ¼ of Sec. 20 ; T. 7 N; R. 22 [X] E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin [X] (estimated: ☐) or Well Location ☐

Lat. ° ' " Long ° ' " or

St. Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Completion of Geoprobe

WI Unique Well No. of Replacement Well: _ _ _ _ _ _

(2) FACILITY / OWNER INFORMATION

Facility Name:

Facility ID: | License/Permit/Monitoring No.:

Street Address of Well: 1944 N. Martin Luther King Jr.

City, Village, or Town: Milwaukee

Present Well Owner: City of Milwaukee | Original Owner:

Street Address or Route of Owner: 809 N. Broadway, 2nd Floor

City, State, Zip Code: Milwaukee WI 53202-

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 11/12/03

☐ Monitoring Well
☐ Water Well
[X] Borehole / Drillhole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
[X] Other (Specify) Geoprobe

Formation Type:
[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) (From groundsurface): 20 Casing Diameter (in.): _____

Casing Depth (ft.): _____

Lower Drillhole Diameter (in.): 2

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet): 19

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	[X] Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	[X] Not Applicable
Screen Removed?	☐ Yes	☐ No	[X] Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☐ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☐ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) [X] Other (Explain) Gravity

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Bentonite-Sand Slurry " "
☐ Bentonite Chips

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
[X] Granular Bentonite
☐ Bentonite - Cement Grout
☐ Bentonite - Sand Slurry

(5) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Granular Bentonite	Surface	20	0.5	

(6) Comments: _____

(7) Name of Person or Firm Doing Sealing Work: Giles Engineering Associates, Inc. | Date of Abandonment: 11/12/03

Signature of Person Doing Work: Gregory A. Vogel | Date Signed: 11-14-03

Street or Route: N8 W22350 Johnson Road | Telephone Number: (262)544-0118

City, State, Zip Code: Waukesha WI 53186-

FOR DNR OR COUNTY USE ONLY

Date Received: | Noted By:

Comments:

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. _____ | DNR Well ID No. _____ | County: MILWAUKEE

Common Well Name: GP-2 _____ Gov't Lot (If applicable)

Grid Location: SW 1/4 of NE 1/4 of Sec. 20 ; T. 7 N; R. 22 [X] E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin [X] (estimated: ☐) or Well Location ☐

Lat. ° ' " Long ° ' " or

St. Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment: Completion of Geoprobe

WI Unique Well No. of Replacement Well _____

(2) FACILITY / OWNER INFORMATION

Facility Name

Facility ID | License/Permit/Monitoring No.

Street Address of Well: 1944 N. Martin Luther King Jr.

City, Village, or Town: Milwaukee

Present Well Owner: City of Milwaukee | Original Owner

Street Address or Route of Owner: 809 N. Broadway, 2nd Floor

City, State, Zip Code: Milwaukee WI 53202-

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 11/12/03

☐ Monitoring Well
☐ Water Well
[X] Borehole / Drillhole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
[X] Other (Specify) Geoprobe

Formation Type:
[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) (From groundsurface): 16

Casing Diameter (in.): _____

Casing Depth (ft.): _____

Lower Drillhole Diameter (in.): 2

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet): 14

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	[X] Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	[X] Not Applicable
Screen Removed?	☐ Yes	☐ No	[X] Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☐ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☐ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) [X] Other (Explain) Gravity

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Bentonite-Sand Slurry " "
☐ Bentonite Chips

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
[X] Granular Bentonite
☐ Bentonite - Cement Grout
☐ Bentonite - Sand Slurry

(5) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Granular Bentonite	Surface	16	0.5	

(6) Comments: _____

(7) Name of Person or Firm Doing Sealing Work: Giles Engineering Associates, Inc. | Date of Abandonment: 11/12/03

Signature of Person Doing Work: Gregory A. Vogel | Date Signed: 11-14-03

Street or Route: N8 W22350 Johnson Road | Telephone Number: (262)544-0118

City, State, Zip Code: Waukesha WI 53186-

FOR DNR OR COUNTY USE ONLY

Date Received | Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. _ _ _ _ _ | DNR Well ID No. | County: MILWAUKEE

Common Well Name: GP-3 | Gov't Lot (If applicable): _____

Grid Location: SW 1/4 of NE 1/4 of Sec. 20 ; T. 7 N; R. 22 [X] E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin [X] (estimated: ☐) or Well Location ☐

Lat. ° ' " Long ° ' " or

St. Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment: Completion of Geoprobe

WI Unique Well No. of Replacement Well _ _ _ _ _

(2) FACILITY / OWNER INFORMATION

Facility Name

Facility ID | License/Permit/Monitoring No.

Street Address of Well: 1944 N. Martin Luther King Jr.

City, Village, or Town: Milwaukee

Present Well Owner: City of Milwaukee | Original Owner

Street Address or Route of Owner: 809 N. Broadway, 2nd Floor

City, State, Zip Code: Milwaukee WI 53202-

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 11/12/03

☐ Monitoring Well
☐ Water Well
[X] Borehole / Drillhole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
[X] Other (Specify) Geoprobe

Formation Type:
[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) (From groundsurface): 12 Casing Diameter (in.): _____

Casing Depth (ft.): _____

Lower Drillhole Diameter (in.): 2

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet): 8

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	[X] Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	[X] Not Applicable
Screen Removed?	☐ Yes	☐ No	[X] Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☐ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☐ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) [X] Other (Explain) Gravity

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Bentonite-Sand Slurry " "
☐ Bentonite Chips

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
[X] Granular Bentonite
☐ Bentonite - Cement Grout
☐ Bentonite - Sand Slurry

(5) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Granular Bentonite	Surface	12	0.5	

(6) Comments: _____

(7) Name of Person or Firm Doing Sealing Work: Giles Engineering Associates, Inc. | Date of Abandonment: 11/12/03

Signature of Person Doing Work: Gregory S. Vogel | Date Signed: 11-14-03

Street or Route: N8 W22550 Johnson Road | Telephone Number: (262)544-0118

City, State, Zip Code: Waukesha WI 53186-

FOR DNR OR COUNTY USE ONLY

Date Received | Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management [X] Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. _____ | DNR Well ID No. _____ | County: MILWAUKEE

Common Well Name: GP4 _____ Gov't Lot (If applicable)

Grid Location: SW 1/4 of NE 1/4 of Sec. 20 ; T. 7 N; R. 22 [X] E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin [X] (estimated: ☐) or Well Location ☐

Lat. ° ' " Long ° ' " or

St. Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Completion of Geoprobe

WI Unique Well No. of Replacement Well _____

(2) FACILITY / OWNER INFORMATION

Facility Name

Facility ID | License/Permit/Monitoring No.

Street Address of Well: 1944 N. Martin Luther King Jr.

City, Village, or Town: Milwaukee

Present Well Owner: City of Milwaukee | Original Owner

Street Address or Route of Owner: 809 N. Broadway, 2nd Floor

City, State, Zip Code: Milwaukee WI 53202-

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 11/12/03

☐ Monitoring Well
☐ Water Well
[X] Borehole / Drillhole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
[X] Other (Specify) Geoprobe

Formation Type:
[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) (From groundsurface): 12 Casing Diameter (in.) _____

Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet): 7

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	[X] Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	[X] Not Applicable
Screen Removed?	☐ Yes	☐ No	[X] Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☐ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☐ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) [X] Other (Explain) Gravity

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Bentonite-Sand Slurry " "
☐ Bentonite Chips

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite - Cement Grout
☐ Bentonite - Sand Slurry

(5) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Granular Bentonite	Surface	12	0.5	

(6) Comments: _____

(7) Name of Person or Firm Doing Sealing Work: Giles Engineering Associates, Inc. | Date of Abandonment: 11/12/03

Signature of Person Doing Work: Gregory R. Vogel | Date Signed: 11-14-03

Street or Route: N8 W22350 Johnson Drive | Telephone Number: (262)544-0118

City, State, Zip Code: Waukesha WI 53186-

FOR DNR OR COUNTY USE ONLY

Date Received | Noted By

Comments

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name 1944 Dr. MLK Jr. Dr. Milwaukee	Local Grid Location of Well _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name MW-1
Facility License, Permit or Monitoring No.	Local Grid Origin [X] (estimated: ☐) or Well Location ☐ Lat. ___ ° ___ ' ___ " Long. ___ ° ___ ' ___ " or	Wis. Unique Well No. PP305 / DNR Well ID No.
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed 2/ /0 / (m m d d y y y y)
Type of Well Well Code 11 / mw	Section Location of Waste/Source SW 1/4 of SE 1/4 of Sec. 20, T. 7 N, R. 22 [X] E ☐ W	Well Installed By: Name (first, last) and Firm Ryan Fett Giles Engineering Associates, Inc.
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

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

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

13. Sieve analysis performed? ☐ Yes [X] No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger [X] 41
Other ☐ _____

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None [X] 99

16. Drilling additives used? ☐ Yes [X] No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top 1 ft. MSL or _____ ft.

F. Fine sand, top 7 ft. MSL or _____ ft.

G. Filter pack, top 8 ft. MSL or _____ ft.

H. Screen joint, top 10 ft. MSL or _____ ft.

I. Well bottom 20 ft. MSL or _____ ft.

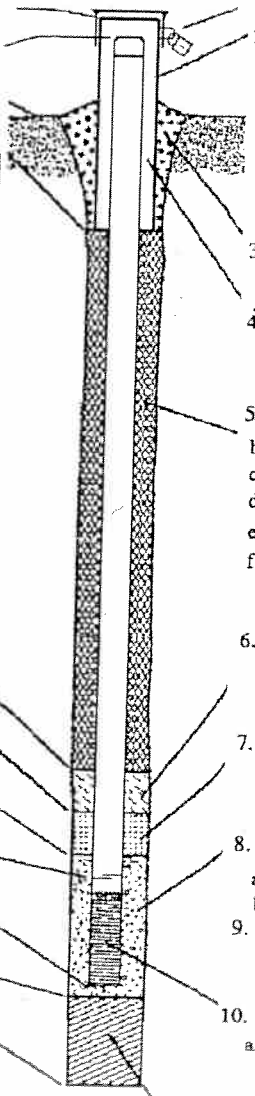
J. Filter pack, bottom 20 ft. MSL or _____ ft.

K. Borehole, bottom 20 ft. MSL or _____ ft.

L. Borehole, diameter 8 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2 in.



1. Cap and lock? [X] Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 3 ft.
c. Material: Steel [X] 04
Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30
Concrete [X] 01
Other ☐ _____

4. Material between well casing and protective pipe:
Bentonite [X] 30
Other ☐ _____

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity [X] 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. [X] 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 32
c. _____ Other ☐ _____

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added 1 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added 5 ft^3

9. Well casing: Flush threaded PVC schedule 40 [X] 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐ _____

10. Screen material: PVC
a. Screen type: Factory cut [X] 11
Continuous slot ☐ 01
Other ☐ _____
b. Manufacturer Timco
c. Slot size: 0.01 in.
d. Slotted length: _____ ft.

11. Backfill material (below filter pack): None [X] 14
Other ☐ _____

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

Signature _____ Firm Giles Engineering Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
1944 N. Martin Luther King Jr. Drive	MILWAUKEE	MW1
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well ID Number**
	41	PP305 /

1. Can this well be purged dry? [X] Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	[X] 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐ __

3. Time spent developing well: 45 min.

4. Depth of well (from top of well casisng): 23 ft.

5. Inside diameter of well: 2 in.

6. Volume of water in filter pack and well casing: ____ gal.

7. Volume of water removed from well: 16 gal.

8. Volume of water added (if any): ____ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 15.29 ft.	21.18 ft.
Date	b. 02 / 10 / 4 (m m / d d / y y y y)	2/ 0/ 4 (m m / d d / y y y y)
Time	c. 02 : 00 ☐ a.m. [X] p.m.	02 : 45 ☐ a.m. [X] p.m.
12. Sediment in well bottom	___ inches	___ inches
13. Water clarity	Clear ☐ 10 Turbid [X] 15 (Describe) Silty	Clear [X] 20 Turbid ☐ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Greg Last Name: Vogel
Firm: Giles Engineering Associates, Inc.

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Giles Engineering Associates, Inc.
Street: N8 W22350 Johnson Drive
City/State/Zip: Waukesha WI 53186-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Gregory S. Vogel
Print Name: Gregory S. Vogel
Firm: Giles Engineering Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Sample Number: 33501
Client ID: TW-1

QC Prep Batch Number: 1005110

Collection: 11/12/2003 Time: 10:45
Sample Description:

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
1,1,1,2-Tetrachloroethane	< 0.22	ug/l	0.22	0.70	1		8260	qh	11/17/2003 / 11/17/2003
1,1,1-Trichloroethane	< 0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	< 0.44	ug/l	0.44	1.4	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	< 0.44	ug/l	0.44	1.4	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethane	< 0.32	ug/l	0.32	1.0	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloropropene	< 0.43	ug/l	0.43	1.4	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	< 0.50	ug/l	0.50	1.6	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichloropropane	< 0.51	ug/l	0.51	1.6	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	< 0.47	ug/l	0.47	1.5	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dibromoethane	< 0.46	ug/l	0.46	1.5	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	< 0.35	ug/l	0.35	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	< 0.32	ug/l	0.32	1.0	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichlorobenzene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 0.39	ug/l	0.39	1.2	1		8260	qh	11/17/2003 / 11/17/2003
1,4-Dichlorobenzene	< 0.36	ug/l	0.36	1.1	1		8260	qh	11/17/2003 / 11/17/2003
12Dibromo-3-chloropropan	< 0.33	ug/l	0.33	1.0	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	1		8260	qh	11/17/2003 / 11/17/2003
2-Chloroethyl Vinyl Ether	< 0.70	ug/l	0.70	2.2	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
4-Methyl-2-Pentanone	< 0.80	ug/l	0.80	2.5	1		8260	qh	11/17/2003 / 11/17/2003
Acetone	< 1.6	ug/l	1.6	4.9	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
Bromobenzene	< 0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
Bromochloromethane	< 0.37	ug/l	0.37	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 0.38	ug/l	0.38	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Bromoform	< 0.39	ug/l	0.39	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Bromomethane	< 0.65	ug/l	0.65	2.1	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 0.64	ug/l	0.64	2.0	1		8260	qh	11/17/2003 / 11/17/2003
Chloroform	< 0.24	ug/l	0.24	0.76	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 0.49	ug/l	0.49	1.6	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,2-Dichloroethene	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,3-Dichloropropene	< 0.37	ug/l	0.37	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 0.41	ug/l	0.41	1.3	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Dibromomethane	<0.46	ug/l	0.46	1.5	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	<0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	<0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	<0.42	ug/l	0.42	1.3	1		8260	qh	11/17/2003 / 11/17/2003
Isopropyl Ether	<0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	<0.33	ug/l	0.33	1.0	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	<0.53	ug/l	0.53	1.7	1		8260	qh	11/17/2003 / 11/17/2003
Methyl-t-butyl ether	<0.39	ug/l	0.39	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	<0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	<0.36	ug/l	0.36	1.1	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	<0.28	ug/l	0.28	0.89	1		8260	qh	11/17/2003 / 11/17/2003
Naphthalene	<0.75	ug/l	0.75	2.4	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	<0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	<0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	<0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
Styrene	<0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	<0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
Tetrachloroethene	<0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	<0.29	ug/l	0.29	0.92	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	<0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,3-Dichloropropene	<0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	<0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	<0.24	ug/l	0.24	0.76	1		8260	qh	11/17/2003 / 11/17/2003
Vinyl chloride	<0.20	ug/l	0.20	0.64	1		8260	qh	11/17/2003 / 11/17/2003

Sample Number: 33502
Client ID: TW-2

QC Prep Batch Number: 1005110

Collection: 11/12/2003 Time: 14:00
Sample Description:

1,1,1,2-Tetrachloroethane	<0.22	ug/l	0.22	0.70	1		8260	qh	11/17/2003 / 11/17/2003
1,1,1-Trichloroethane	<0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	<0.44	ug/l	0.44	1.4	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	<0.44	ug/l	0.44	1.4	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethane	<0.32	ug/l	0.32	1.0	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	<0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloropropene	<0.43	ug/l	0.43	1.4	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	<0.50	ug/l	0.50	1.6	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichloropropane	<0.51	ug/l	0.51	1.6	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	<0.47	ug/l	0.47	1.5	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	<0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dibromoethane	<0.46	ug/l	0.46	1.5	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	<0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	<0.35	ug/l	0.35	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	<0.32	ug/l	0.32	1.0	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	<0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
1,3-Dichlorobenzene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 0.39	ug/l	0.39	1.2	1		8260	qh	11/17/2003 / 11/17/2003
1,4-Dichlorobenzene	< 0.36	ug/l	0.36	1.1	1		8260	qh	11/17/2003 / 11/17/2003
12Dibromo-3-chloropropan	< 0.33	ug/l	0.33	1.0	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	1		8260	qh	11/17/2003 / 11/17/2003
2-Chloroethyl Vinyl Ether	< 0.70	ug/l	0.70	2.2	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
4-Methyl-2-Pentanone	< 0.80	ug/l	0.80	2.5	1		8260	qh	11/17/2003 / 11/17/2003
Acetone	< 1.6	ug/l	1.6	4.9	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
Bromobenzene	< 0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
Bromochloromethane	< 0.37	ug/l	0.37	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 0.38	ug/l	0.38	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Bromoform	< 0.39	ug/l	0.39	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Bromomethane	< 0.65	ug/l	0.65	2.1	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 0.64	ug/l	0.64	2.0	1		8260	qh	11/17/2003 / 11/17/2003
Chloroform	< 0.24	ug/l	0.24	0.76	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 0.49	ug/l	0.49	1.6	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,2-Dichloroethene	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,3-Dichloropropene	< 0.37	ug/l	0.37	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 0.41	ug/l	0.41	1.3	1		8260	qh	11/17/2003 / 11/17/2003
Dibromomethane	< 0.46	ug/l	0.46	1.5	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	< 0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	< 0.42	ug/l	0.42	1.3	1		8260	qh	11/17/2003 / 11/17/2003
Isopropyl Ether	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	< 0.33	ug/l	0.33	1.0	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	< 0.53	ug/l	0.53	1.7	1		8260	qh	11/17/2003 / 11/17/2003
Methyl-t-butyl ether	< 0.39	ug/l	0.39	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	< 0.36	ug/l	0.36	1.1	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	< 0.28	ug/l	0.28	0.89	1		8260	qh	11/17/2003 / 11/17/2003
Naphthalene	< 0.75	ug/l	0.75	2.4	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	< 0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
Styrene	< 0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
Tetrachloroethene	< 0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	< 0.29	ug/l	0.29	0.92	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	< 0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
trans-1,3-Dichloropropene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	< 0.24	ug/l	0.24	0.76	1		8260	qh	11/17/2003 / 11/17/2003
Vinyl chloride	< 0.20	ug/l	0.20	0.64	1		8260	qh	11/17/2003 / 11/17/2003

Sample Number: 33503
Client ID: Trip Blk

QC Prep Batch Number: 1005110

Collection: 11/12/2003 Time:
Sample Description:

1,1,1,2-Tetrachloroethane	< 0.22	ug/l	0.22	0.70	1		8260	qh	11/17/2003 / 11/17/2003
1,1,1-Trichloroethane	< 0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	< 0.44	ug/l	0.44	1.4	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	< 0.44	ug/l	0.44	1.4	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethane	< 0.32	ug/l	0.32	1.0	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloropropene	< 0.43	ug/l	0.43	1.4	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	< 0.50	ug/l	0.50	1.6	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichloropropane	< 0.51	ug/l	0.51	1.6	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	< 0.47	ug/l	0.47	1.5	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dibromoethane	< 0.46	ug/l	0.46	1.5	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	< 0.35	ug/l	0.35	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	< 0.32	ug/l	0.32	1.0	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichlorobenzene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 0.39	ug/l	0.39	1.2	1		8260	qh	11/17/2003 / 11/17/2003
1,4-Dichlorobenzene	< 0.36	ug/l	0.36	1.1	1		8260	qh	11/17/2003 / 11/17/2003
12Dibromo-3-chloropropan	< 0.33	ug/l	0.33	1.0	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	1		8260	qh	11/17/2003 / 11/17/2003
2-Chloroethyl Vinyl Ether	< 0.70	ug/l	0.70	2.2	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
4-Methyl-2-Pentanone	< 0.80	ug/l	0.80	2.5	1		8260	qh	11/17/2003 / 11/17/2003
Acetone	< 1.6	ug/l	1.6	4.9	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
Bromobenzene	< 0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
Bromochloromethane	< 0.37	ug/l	0.37	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 0.38	ug/l	0.38	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Bromoform	< 0.39	ug/l	0.39	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Bromomethane	< 0.65	ug/l	0.65	2.1	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 0.64	ug/l	0.64	2.0	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Chloroform	< 0.24	ug/l	0.24	0.76	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 0.49	ug/l	0.49	1.6	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,2-Dichloroethene	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,3-Dichloropropene	< 0.37	ug/l	0.37	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 0.41	ug/l	0.41	1.3	1		8260	qh	11/17/2003 / 11/17/2003
Dibromomethane	< 0.46	ug/l	0.46	1.5	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	< 0.27	ug/l	0.27	0.86	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	< 0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	< 0.42	ug/l	0.42	1.3	1		8260	qh	11/17/2003 / 11/17/2003
Isopropyl Ether	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	< 0.33	ug/l	0.33	1.0	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	< 0.53	ug/l	0.53	1.7	1		8260	qh	11/17/2003 / 11/17/2003
Methyl-t-butyl ether	< 0.39	ug/l	0.39	1.2	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	< 0.36	ug/l	0.36	1.1	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	< 0.28	ug/l	0.28	0.89	1		8260	qh	11/17/2003 / 11/17/2003
Naphthalene	< 0.75	ug/l	0.75	2.4	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	< 0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
Styrene	< 0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	< 0.30	ug/l	0.30	0.95	1		8260	qh	11/17/2003 / 11/17/2003
Tetrachloroethene	< 0.31	ug/l	0.31	0.99	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	< 0.29	ug/l	0.29	0.92	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	< 0.25	ug/l	0.25	0.80	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,3-Dichloropropene	< 0.26	ug/l	0.26	0.83	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	< 0.34	ug/l	0.34	1.1	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	< 0.24	ug/l	0.24	0.76	1		8260	qh	11/17/2003 / 11/17/2003
Vinyl chloride	< 0.20	ug/l	0.20	0.64	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER:	20030552
DATE REPORTED:	01-Dec-03
DATE RECEIVED:	13-Nov-03
SAMPLE TEMP (C):	Rec On Ice
PROJECT ID:	1E-0308029
PROJECT NAME:	1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal

Approved By: Jitendra Shah P.E. **Date:** 12/1/03

Jitendra Shah P.E. , President

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B
LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study "e" = Estimate value, over calibration range .
LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified
RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample
"O" = Significant peaks outside of the GRO or DRO retention time wiindows

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.

APL INC.
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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Sample Number: 33493
Client ID: GP-1

QC Prep Batch Number: 1005113
% Solid = 81.4 %

Collection: 11/12/2003 Time: 10:30
Sample Description: 0-4

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
1,1,1-Trichloroethane	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	< 27	ug/kg	27	86	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	< 27	ug/kg	27	86	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethane	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	< 31	ug/kg	31	97	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	< 29	ug/kg	29	91	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	< 18	ug/kg	18	59	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dibromo-3-chloropropan	< 20	ug/kg	20	65	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	< 21	ug/kg	21	68	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichlorobenzene	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 24	ug/kg	24	76	1		8260	qh	11/17/2003 / 11/17/2003
1,4-Dichlorobenzene	< 22	ug/kg	22	70	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 17	ug/kg	17	54	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 18	ug/kg	18	58	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
Bromobenzene	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 24	ug/kg	24	75	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 39	ug/kg	39	124	1		8260	qh	11/17/2003 / 11/17/2003
Chloroform	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 30	ug/kg	30	96	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,2-Dichloroethene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 25	ug/kg	25	80	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	< 16	ug/kg	16	49	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	< 26	ug/kg	26	82	1		8260	qh	11/17/2003 / 11/17/2003
Isopropyl Ether	< 18	ug/kg	18	58	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	< 20	ug/kg	20	64	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	< 33	ug/kg	33	104	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	< 19	ug/kg	19	59	1		8260	qh	11/17/2003 / 11/17/2003
MTBE	< 24	ug/kg	24	76	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	< 22	ug/kg	22	70	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Naphthalene	< 46	ug/kg	46	147	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	< 15	ug/kg	15	49	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	< 21	ug/kg	21	66	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	< 19	ug/kg	19	59	1		8260	qh	11/17/2003 / 11/17/2003
Tetrachloroethene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	< 16	ug/kg	16	49	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Vinyl chloride	< 13	ug/kg	13	42	1		8260	qh	11/17/2003 / 11/17/2003

Sample Number: 33494
Client ID: GP-1

QC Prep Batch Number: 1005113
% Solid = 91 %

Collection: 11/12/2003 Time: 10:30
Sample Description: 16-18

1,1,1-Trichloroethane	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	< 24	ug/kg	24	77	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	< 24	ug/kg	24	77	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethane	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	< 27	ug/kg	27	87	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	< 26	ug/kg	26	82	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dibromo-3-chloropropan	< 18	ug/kg	18	58	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichlorobenzene	< 14	ug/kg	14	46	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 21	ug/kg	21	68	1		8260	qh	11/17/2003 / 11/17/2003
1,4-Dichlorobenzene	< 20	ug/kg	20	62	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 15	ug/kg	15	46	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Bromobenzene	< 17	ug/kg	17	54	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 14	ug/kg	14	46	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 35	ug/kg	35	111	1		8260	qh	11/17/2003 / 11/17/2003
Chloroform	< 13	ug/kg	13	42	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 27	ug/kg	27	86	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
cis-1,2-Dichloroethene	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 22	ug/kg	22	71	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	< 14	ug/kg	14	44	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	< 23	ug/kg	23	73	1		8260	qh	11/17/2003 / 11/17/2003
Isopropyl Ether	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	< 29	ug/kg	29	93	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
MTBE	< 21	ug/kg	21	68	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	< 15	ug/kg	15	49	1		8260	qh	11/17/2003 / 11/17/2003
Naphthalene	< 41	ug/kg	41	132	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	< 14	ug/kg	14	44	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	< 19	ug/kg	19	59	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
Tetrachloroethene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	< 14	ug/kg	14	44	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	< 13	ug/kg	13	42	1		8260	qh	11/17/2003 / 11/17/2003
Vinyl chloride	< 12	ug/kg	12	37	1		8260	qh	11/17/2003 / 11/17/2003

Sample Number: 33495
Client ID: GP-2

QC Prep Batch Number: 1005113
% Solid = 80.7 %

Collection: 11/12/2003 Time: 12:30
Sample Description: 0-2

1,1,1-Trichloroethane	< 19	ug/kg	19	62	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	< 27	ug/kg	27	87	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	< 27	ug/kg	27	86	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethane	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	< 31	ug/kg	31	98	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	< 29	ug/kg	29	92	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	< 19	ug/kg	19	59	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dibromo-3-chloropropan	< 21	ug/kg	21	65	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	< 21	ug/kg	21	68	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	< 20	ug/kg	20	64	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	< 21	ug/kg	21	68	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichlorobenzene	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 24	ug/kg	24	77	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
1,4-Dichlorobenzene	< 22	ug/kg	22	70	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 17	ug/kg	17	54	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 18	ug/kg	18	59	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
Bromobenzene	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 24	ug/kg	24	76	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 39	ug/kg	39	125	1		8260	qh	11/17/2003 / 11/17/2003
Chloroform	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 31	ug/kg	31	97	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,2-Dichloroethene	< 17	ug/kg	17	54	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 25	ug/kg	25	80	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	< 26	ug/kg	26	82	1		8260	qh	11/17/2003 / 11/17/2003
Isopropyl Ether	< 18	ug/kg	18	59	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	< 20	ug/kg	20	65	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	< 33	ug/kg	33	105	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
MTBE	< 24	ug/kg	24	77	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	< 22	ug/kg	22	70	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	< 17	ug/kg	17	56	1		8260	qh	11/17/2003 / 11/17/2003
Naphthalene	< 47	ug/kg	47	149	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	< 16	ug/kg	16	49	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	< 19	ug/kg	19	62	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	< 21	ug/kg	21	66	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
Tetrachloroethene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	< 21	ug/kg	21	68	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Vinyl chloride	< 13	ug/kg	13	42	1		8260	qh	11/17/2003 / 11/17/2003

Sample Number: 33496
Client ID: GP-2

QC Prep Batch Number: 1005113
% Solid = 90 %

Collection: 11/12/2003 Time: 12:30
Sample Description: 12-14

1,1,1-Trichloroethane	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	< 24	ug/kg	24	78	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	< 24	ug/kg	24	78	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
1,1-Dichloroethane	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	< 28	ug/kg	28	88	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	< 26	ug/kg	26	83	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dibromo-3-chloropropan	< 18	ug/kg	18	59	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichlorobenzene	< 14	ug/kg	14	46	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 22	ug/kg	22	69	1		8260	qh	11/17/2003 / 11/17/2003
1,4-Dichlorobenzene	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
Bromobenzene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 21	ug/kg	21	68	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 14	ug/kg	14	46	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 35	ug/kg	35	112	1		8260	qh	11/17/2003 / 11/17/2003
Chloroform	< 13	ug/kg	13	43	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 27	ug/kg	27	87	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,2-Dichloroethene	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 23	ug/kg	23	72	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	< 14	ug/kg	14	45	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	< 23	ug/kg	23	74	1		8260	qh	11/17/2003 / 11/17/2003
Isopropyl Ether	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	< 18	ug/kg	18	58	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	< 30	ug/kg	30	94	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	< 17	ug/kg	17	54	1		8260	qh	11/17/2003 / 11/17/2003
MTBE	< 22	ug/kg	22	69	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Naphthalene	< 42	ug/kg	42	133	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	< 14	ug/kg	14	44	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Tetrachloroethene	< 17	ug/kg	17	54	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	< 14	ug/kg	14	45	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	< 13	ug/kg	13	43	1		8260	qh	11/17/2003 / 11/17/2003
Vinyl chloride	< 12	ug/kg	12	38	1		8260	qh	11/17/2003 / 11/17/2003

Sample Number: 33497
Client ID: GP-3

QC Prep Batch Number: 1005113
% Solid = 84.7 %

Collection: 11/12/2003 Time: 13:00
Sample Description: 2-4

1,1,1-Trichloroethane	< 18	ug/kg	18	59	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	< 26	ug/kg	26	83	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	< 26	ug/kg	26	82	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethane	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	< 20	ug/kg	20	64	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	< 29	ug/kg	29	93	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	< 28	ug/kg	28	88	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dibromo-3-chloropropan	< 20	ug/kg	20	62	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	< 20	ug/kg	20	64	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	< 20	ug/kg	20	65	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	< 20	ug/kg	20	65	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichlorobenzene	< 15	ug/kg	15	49	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 23	ug/kg	23	73	1		8260	qh	11/17/2003 / 11/17/2003
1,4-Dichlorobenzene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/17/2003
Bromobenzene	< 18	ug/kg	18	58	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 23	ug/kg	23	72	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 15	ug/kg	15	49	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 38	ug/kg	38	119	1		8260	qh	11/17/2003 / 11/17/2003
Chloroform	< 14	ug/kg	14	45	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 29	ug/kg	29	93	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,2-Dichloroethene	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 24	ug/kg	24	76	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	< 25	ug/kg	25	79	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Isopropyl Ether	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	< 19	ug/kg	19	62	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	< 32	ug/kg	32	100	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
MTBE	< 23	ug/kg	23	73	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
Naphthalene	< 45	ug/kg	45	142	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	< 19	ug/kg	19	59	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
Tetrachloroethene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	< 20	ug/kg	20	65	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	< 14	ug/kg	14	45	1		8260	qh	11/17/2003 / 11/17/2003
Vinyl chloride	< 13	ug/kg	13	40	1		8260	qh	11/17/2003 / 11/17/2003

Sample Number: 33498
Client ID: GP-3

QC Prep Batch Number: 1005113
% Solid = 86.7 %

Collection: 11/12/2003 Time: 13:15
Sample Description: 5-6

1,1,1-Trichloroethane	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	< 25	ug/kg	25	81	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	< 25	ug/kg	25	80	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethane	< 18	ug/kg	18	59	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	< 29	ug/kg	29	91	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	< 27	ug/kg	27	86	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dibromo-3-chloropropan	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	< 20	ug/kg	20	62	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	< 20	ug/kg	20	64	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	< 19	ug/kg	19	59	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichlorobenzene	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 23	ug/kg	23	72	1		8260	qh	11/17/2003 / 11/17/2003
1,4-Dichlorobenzene	< 21	ug/kg	21	65	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 16	ug/kg	16	49	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Bromobenzene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 22	ug/kg	22	70	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 15	ug/kg	15	49	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 37	ug/kg	37	117	1		8260	qh	11/17/2003 / 11/17/2003
Chloroform	< 14	ug/kg	14	44	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 28	ug/kg	28	91	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,2-Dichloroethene	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 23	ug/kg	23	75	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	< 15	ug/kg	15	49	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	< 15	ug/kg	15	46	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	< 24	ug/kg	24	77	1		8260	qh	11/17/2003 / 11/17/2003
Isopropyl Ether	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	< 31	ug/kg	31	98	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	< 17	ug/kg	17	56	1		8260	qh	11/17/2003 / 11/17/2003
MTBE	< 23	ug/kg	23	72	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	< 21	ug/kg	21	66	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/17/2003
Naphthalene	< 44	ug/kg	44	138	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	< 14	ug/kg	14	46	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	< 18	ug/kg	18	58	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	< 19	ug/kg	19	62	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
Tetrachloroethene	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	< 15	ug/kg	15	46	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	< 14	ug/kg	14	44	1		8260	qh	11/17/2003 / 11/17/2003
Vinyl chloride	< 12	ug/kg	12	39	1		8260	qh	11/17/2003 / 11/17/2003

Sample Number: 33499
Client ID: GP-4

QC Prep Batch Number: 1005113
% Solid = 85 %

Collection: 11/12/2003 Time: 13:30
Sample Description: 2-4

1,1,1-Trichloroethane	< 18	ug/kg	18	59	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2,2-Tetrachloroethane	< 26	ug/kg	26	82	1		8260	qh	11/17/2003 / 11/17/2003
1,1,2-Trichloroethane	< 26	ug/kg	26	82	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethane	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
1,1-Dichloroethene	< 20	ug/kg	20	64	1		8260	qh	11/17/2003 / 11/17/2003
1,2,3-Trichlorobenzene	< 29	ug/kg	29	93	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trichlorobenzene	< 28	ug/kg	28	88	1		8260	qh	11/17/2003 / 11/17/2003
1,2,4-Trimethylbenzene	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
1,2-Dibromo-3-chloropropan	< 19	ug/kg	19	62	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichlorobenzene	< 20	ug/kg	20	64	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloroethane	< 20	ug/kg	20	65	1		8260	qh	11/17/2003 / 11/17/2003
1,2-Dichloropropane	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/17/2003
1,3,5-Trimethylbenzene	< 20	ug/kg	20	64	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichlorobenzene	< 15	ug/kg	15	49	1		8260	qh	11/17/2003 / 11/17/2003
1,3-Dichloropropane	< 23	ug/kg	23	73	1		8260	qh	11/17/2003 / 11/17/2003
1,4-Dichlorobenzene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
2,2-Dichloropropane	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/17/2003
2-Chlorotoluene	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/17/2003
4-Chlorotoluene	< 16	ug/kg	16	49	1		8260	qh	11/17/2003 / 11/17/2003
Benzene	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Bromobenzene	< 18	ug/kg	18	58	1		8260	qh	11/17/2003 / 11/17/2003
Bromodichloromethane	< 23	ug/kg	23	72	1		8260	qh	11/17/2003 / 11/17/2003
Carbon tetrachloride	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Chlorobenzene	< 15	ug/kg	15	49	1		8260	qh	11/17/2003 / 11/17/2003
Chloroethane	< 37	ug/kg	37	119	1		8260	qh	11/17/2003 / 11/17/2003
Chloroform	< 14	ug/kg	14	45	1		8260	qh	11/17/2003 / 11/17/2003
Chloromethane	< 29	ug/kg	29	92	1		8260	qh	11/17/2003 / 11/17/2003
cis-1,2-Dichloroethene	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/17/2003
Dibromochloromethane	< 24	ug/kg	24	76	1		8260	qh	11/17/2003 / 11/17/2003
Dichlorodifluoromethane	< 16	ug/kg	16	50	1		8260	qh	11/17/2003 / 11/17/2003
Ethylbenzene	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Hexachlorobutadiene	< 25	ug/kg	25	78	1		8260	qh	11/17/2003 / 11/17/2003
Isopropyl Ether	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/17/2003
Isopropylbenzene	< 19	ug/kg	19	61	1		8260	qh	11/17/2003 / 11/17/2003
m&p-xylene	< 31	ug/kg	31	100	1		8260	qh	11/17/2003 / 11/17/2003
Methylene chloride	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
MTBE	< 23	ug/kg	23	73	1		8260	qh	11/17/2003 / 11/17/2003
n-Butylbenzene	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/17/2003
n-Propylbenzene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/17/2003
Naphthalene	< 44	ug/kg	44	141	1		8260	qh	11/17/2003 / 11/17/2003
o-xylene	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
p-Isopropyltoluene	< 18	ug/kg	18	59	1		8260	qh	11/17/2003 / 11/17/2003
sec-Butylbenzene	< 20	ug/kg	20	63	1		8260	qh	11/17/2003 / 11/17/2003
tert-Butylbenzene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
Tetrachloroethene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/17/2003
Toluene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/17/2003
trans-1,2-Dichloroethene	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/17/2003
Trichloroethene	< 20	ug/kg	20	65	1		8260	qh	11/17/2003 / 11/17/2003
Trichlorofluoromethane	< 14	ug/kg	14	45	1		8260	qh	11/17/2003 / 11/17/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Vinyl chloride	< 13	ug/kg	13	40	1		8260	qh	11/17/2003 / 11/17/2003

Sample Number: 33500
Client ID: GP-4

QC Prep Batch Number: 1005113
% Solid = 91.4 %

Collection: 11/12/2003 Time: 13:45
Sample Description: 5-6

1,1,1-Trichloroethane	< 17	ug/kg	17	54	1		8260	qh	11/17/2003 / 11/18/2003
1,1,2,2-Tetrachloroethane	< 24	ug/kg	24	76	1		8260	qh	11/17/2003 / 11/18/2003
1,1,2-Trichloroethane	< 24	ug/kg	24	76	1		8260	qh	11/17/2003 / 11/18/2003
1,1-Dichloroethane	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/18/2003
1,1-Dichloroethene	< 19	ug/kg	19	59	1		8260	qh	11/17/2003 / 11/18/2003
1,2,3-Trichlorobenzene	< 27	ug/kg	27	87	1		8260	qh	11/17/2003 / 11/18/2003
1,2,4-Trichlorobenzene	< 26	ug/kg	26	81	1		8260	qh	11/17/2003 / 11/18/2003
1,2,4-Trimethylbenzene	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/18/2003
1,2-Dibromo-3-chloropropan	< 18	ug/kg	18	58	1		8260	qh	11/17/2003 / 11/18/2003
1,2-Dichlorobenzene	< 19	ug/kg	19	59	1		8260	qh	11/17/2003 / 11/18/2003
1,2-Dichloroethane	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/18/2003
1,2-Dichloropropane	< 18	ug/kg	18	56	1		8260	qh	11/17/2003 / 11/18/2003
1,3,5-Trimethylbenzene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/18/2003
1,3-Dichlorobenzene	< 14	ug/kg	14	45	1		8260	qh	11/17/2003 / 11/18/2003
1,3-Dichloropropane	< 21	ug/kg	21	68	1		8260	qh	11/17/2003 / 11/18/2003
1,4-Dichlorobenzene	< 19	ug/kg	19	62	1		8260	qh	11/17/2003 / 11/18/2003
2,2-Dichloropropane	< 15	ug/kg	15	48	1		8260	qh	11/17/2003 / 11/18/2003
2-Chlorotoluene	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/18/2003
4-Chlorotoluene	< 14	ug/kg	14	46	1		8260	qh	11/17/2003 / 11/18/2003
Benzene	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/18/2003
Bromobenzene	< 17	ug/kg	17	54	1		8260	qh	11/17/2003 / 11/18/2003
Bromodichloromethane	< 21	ug/kg	21	67	1		8260	qh	11/17/2003 / 11/18/2003
Carbon tetrachloride	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/18/2003
Chlorobenzene	< 14	ug/kg	14	45	1		8260	qh	11/17/2003 / 11/18/2003
Chloroethane	< 35	ug/kg	35	111	1		8260	qh	11/17/2003 / 11/18/2003
Chloroform	< 13	ug/kg	13	42	1		8260	qh	11/17/2003 / 11/18/2003
Chloromethane	< 27	ug/kg	27	86	1		8260	qh	11/17/2003 / 11/18/2003
cis-1,2-Dichloroethene	< 15	ug/kg	15	47	1		8260	qh	11/17/2003 / 11/18/2003
Dibromochloromethane	< 22	ug/kg	22	71	1		8260	qh	11/17/2003 / 11/18/2003
Dichlorodifluoromethane	< 15	ug/kg	15	46	1		8260	qh	11/17/2003 / 11/18/2003
Ethylbenzene	< 14	ug/kg	14	44	1		8260	qh	11/17/2003 / 11/18/2003
Hexachlorobutadiene	< 23	ug/kg	23	73	1		8260	qh	11/17/2003 / 11/18/2003
Isopropyl Ether	< 16	ug/kg	16	52	1		8260	qh	11/17/2003 / 11/18/2003
Isopropylbenzene	< 18	ug/kg	18	57	1		8260	qh	11/17/2003 / 11/18/2003
m&p-xylene	< 29	ug/kg	29	93	1		8260	qh	11/17/2003 / 11/18/2003
Methylene chloride	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/18/2003
MTBE	< 21	ug/kg	21	68	1		8260	qh	11/17/2003 / 11/18/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 01-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
n-Butylbenzene	< 20	ug/kg	20	62	1		8260	qh	11/17/2003 / 11/18/2003
n-Propylbenzene	< 15	ug/kg	15	49	1		8260	qh	11/17/2003 / 11/18/2003
Naphthalene	< 41	ug/kg	41	131	1		8260	qh	11/17/2003 / 11/18/2003
o-xylene	< 14	ug/kg	14	44	1		8260	qh	11/17/2003 / 11/18/2003
p-Isopropyltoluene	< 17	ug/kg	17	55	1		8260	qh	11/17/2003 / 11/18/2003
sec-Butylbenzene	< 18	ug/kg	18	59	1		8260	qh	11/17/2003 / 11/18/2003
tert-Butylbenzene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/18/2003
Tetrachloroethene	< 17	ug/kg	17	53	1		8260	qh	11/17/2003 / 11/18/2003
Toluene	< 16	ug/kg	16	51	1		8260	qh	11/17/2003 / 11/18/2003
trans-1,2-Dichloroethene	< 14	ug/kg	14	44	1		8260	qh	11/17/2003 / 11/18/2003
Trichloroethene	< 19	ug/kg	19	60	1		8260	qh	11/17/2003 / 11/18/2003
Trichlorofluoromethane	< 13	ug/kg	13	42	1		8260	qh	11/17/2003 / 11/18/2003
Vinyl chloride	< 12	ug/kg	12	37	1		8260	qh	11/17/2003 / 11/18/2003

Approved By: Jitendra Shah P.E. / BB **Date:** 12/1/03

Jitendra Shah P.E. , President

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B
LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study "e" = Estimate value, over calibration range .
LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified
RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations. DNR Analytical Detection Limit Guidance, April 1995.

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 05-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Sample Number: 33493
Client ID: GP-1
QC Prep Batch Number: 1005161
% Solid = 81.4 %
Collection: 11/12/2003 Time: 10:30
Sample Description: 0-4

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
1-Methylnaphthalene	< 59	ug/kg	59	187	1		8270	qh	11/18/2003 / 12/1/2003
2-Methylnaphthalene	< 59	ug/kg	59	189	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthene	< 40	ug/kg	40	127	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthylene	< 49	ug/kg	49	156	1		8270	qh	11/18/2003 / 12/1/2003
Anthracene	< 29	ug/kg	29	94	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) anthracene	< 22	ug/kg	22	71	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) pyrene	< 23	ug/kg	23	73	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (b) fluoranthene	< 33	ug/kg	33	106	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (g,h,i) perylene	< 39	ug/kg	39	124	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (k) fluoranthene	< 18	ug/kg	18	59	1		8270	qh	11/18/2003 / 12/1/2003
Chrysene	< 29	ug/kg	29	92	1		8270	qh	11/18/2003 / 12/1/2003
Dibenz (a,h) anthracene	< 40	ug/kg	40	127	1		8270	qh	11/18/2003 / 12/1/2003
Fluoranthene	< 27	ug/kg	27	87	1		8270	qh	11/18/2003 / 12/1/2003
Fluorene	< 48	ug/kg	48	152	1		8270	qh	11/18/2003 / 12/1/2003
Indeno (1,2,3-cd) pyrene	< 38	ug/kg	38	120	1		8270	qh	11/18/2003 / 12/1/2003
Naphthalene	< 59	ug/kg	59	188	1		8270	qh	11/18/2003 / 12/1/2003
Phenanthrene	< 25	ug/kg	25	78	1		8270	qh	11/18/2003 / 12/1/2003
Pyrene	< 24	ug/kg	24	77	1		8270	qh	11/18/2003 / 12/1/2003

Sample Number: 33494
Client ID: GP-1
QC Prep Batch Number: 1005161
% Solid = 91 %
Collection: 11/12/2003 Time: 10:30
Sample Description: 16-18

1-Methylnaphthalene	< 53	ug/kg	53	167	1		8270	qh	11/18/2003 / 12/1/2003
2-Methylnaphthalene	< 53	ug/kg	53	169	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthene	< 36	ug/kg	36	113	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthylene	< 44	ug/kg	44	140	1		8270	qh	11/18/2003 / 12/1/2003
Anthracene	< 26	ug/kg	26	84	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) anthracene	< 20	ug/kg	20	64	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) pyrene	< 20	ug/kg	20	65	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (b) fluoranthene	< 30	ug/kg	30	95	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (g,h,i) perylene	< 35	ug/kg	35	110	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (k) fluoranthene	< 16	ug/kg	16	52	1		8270	qh	11/18/2003 / 12/1/2003
Chrysene	< 26	ug/kg	26	83	1		8270	qh	11/18/2003 / 12/1/2003
Dibenz (a,h) anthracene	< 36	ug/kg	36	113	1		8270	qh	11/18/2003 / 12/1/2003
Fluoranthene	< 24	ug/kg	24	78	1		8270	qh	11/18/2003 / 12/1/2003
Fluorene	< 43	ug/kg	43	136	1		8270	qh	11/18/2003 / 12/1/2003
Indeno (1,2,3-cd) pyrene	< 34	ug/kg	34	107	1		8270	qh	11/18/2003 / 12/1/2003
Naphthalene	< 53	ug/kg	53	169	1		8270	qh	11/18/2003 / 12/1/2003
Phenanthrene	< 22	ug/kg	22	70	1		8270	qh	11/18/2003 / 12/1/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 05-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Pyrene	< 22	ug/kg	22	69	1		8270	qh	11/18/2003 / 12/1/2003

Sample Number: 33495
Client ID: GP-2
QC Prep Batch Number: 1005162
% Solid = 80.7 %
Collection: 11/12/2003 Time: 12:30
Sample Description: 0-2

1-Methylnaphthalene	< 59	ug/kg	59	188	1		8270	qh	11/18/2003 / 12/1/2003
2-Methylnaphthalene	< 60	ug/kg	60	191	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthene	< 40	ug/kg	40	128	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthylene	< 50	ug/kg	50	158	1		8270	qh	11/18/2003 / 12/1/2003
Anthracene	77	ug/kg	30	95	1	J	8270	qh	11/18/2003 / 12/1/2003
Benzo (a) anthracene	645	ug/kg	23	72	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) pyrene	555	ug/kg	23	73	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (b) fluoranthene	860	ug/kg	34	107	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (g,h,i) perylene	254	ug/kg	39	125	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (k) fluoranthene	262	ug/kg	19	59	1		8270	qh	11/18/2003 / 12/1/2003
Chrysene	782	ug/kg	29	93	1		8270	qh	11/18/2003 / 12/1/2003
Dibenz (a,h) anthracene	< 40	ug/kg	40	128	1		8270	qh	11/18/2003 / 12/1/2003
Fluoranthene	1100	ug/kg	28	88	1		8270	qh	11/18/2003 / 12/1/2003
Fluorene	< 48	ug/kg	48	154	1		8270	qh	11/18/2003 / 12/1/2003
Indeno (1,2,3-cd) pyrene	< 38	ug/kg	38	121	1		8270	qh	11/18/2003 / 12/1/2003
Naphthalene	< 60	ug/kg	60	190	1		8270	qh	11/18/2003 / 12/1/2003
Phenanthrene	549	ug/kg	25	79	1		8270	qh	11/18/2003 / 12/1/2003
Pyrene	1320	ug/kg	25	78	1		8270	qh	11/18/2003 / 12/1/2003

Sample Number: 33496
Client ID: GP-2
QC Prep Batch Number: 1005161
% Solid = 90 %
Collection: 11/12/2003 Time: 12:30
Sample Description: 12-14

1-Methylnaphthalene	< 53	ug/kg	53	169	1		8270	qh	11/18/2003 / 12/1/2003
2-Methylnaphthalene	< 54	ug/kg	54	171	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthene	< 36	ug/kg	36	115	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthylene	< 44	ug/kg	44	141	1		8270	qh	11/18/2003 / 12/1/2003
Anthracene	< 27	ug/kg	27	85	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) anthracene	< 20	ug/kg	20	64	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) pyrene	< 21	ug/kg	21	66	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (b) fluoranthene	< 30	ug/kg	30	96	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (g,h,i) perylene	< 35	ug/kg	35	112	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (k) fluoranthene	< 17	ug/kg	17	53	1		8270	qh	11/18/2003 / 12/1/2003
Chrysene	< 26	ug/kg	26	83	1		8270	qh	11/18/2003 / 12/1/2003
Dibenz (a,h) anthracene	< 36	ug/kg	36	115	1		8270	qh	11/18/2003 / 12/1/2003
Fluoranthene	< 25	ug/kg	25	78	1		8270	qh	11/18/2003 / 12/1/2003
Fluorene	< 43	ug/kg	43	138	1		8270	qh	11/18/2003 / 12/1/2003
Indeno (1,2,3-cd) pyrene	< 34	ug/kg	34	108	1		8270	qh	11/18/2003 / 12/1/2003

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 05-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Naphthalene	< 54	ug/kg	54	170	1		8270	qh	11/18/2003 / 12/1/2003
Phenanthrene	< 22	ug/kg	22	71	1		8270	qh	11/18/2003 / 12/1/2003
Pyrene	< 22	ug/kg	22	70	1		8270	qh	11/18/2003 / 12/1/2003

Sample Number: 33497
Client ID: GP-3
QC Prep Batch Number: 1005162
% Solid = 84.7 %
Collection: 11/12/2003 Time: 13:00
Sample Description: 2-4

1-Methylnaphthalene	< 56	ug/kg	56	180	1		8270	qh	11/18/2003 / 12/1/2003
2-Methylnaphthalene	< 57	ug/kg	57	182	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthene	< 38	ug/kg	38	122	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthylene	< 47	ug/kg	47	150	1		8270	qh	11/18/2003 / 12/1/2003
Anthracene	61	ug/kg	28	90	1	J	8270	qh	11/18/2003 / 12/1/2003
Benzo (a) anthracene	377	ug/kg	21	68	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) pyrene	293	ug/kg	22	70	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (b) fluoranthene	393	ug/kg	32	102	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (g,h,i) perylene	166	ug/kg	37	119	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (k) fluoranthene	150	ug/kg	18	56	1		8270	qh	11/18/2003 / 12/1/2003
Chrysene	400	ug/kg	28	89	1		8270	qh	11/18/2003 / 12/1/2003
Dibenz (a,h) anthracene	< 38	ug/kg	38	122	1		8270	qh	11/18/2003 / 12/1/2003
Fluoranthene	623	ug/kg	26	83	1		8270	qh	11/18/2003 / 12/1/2003
Fluorene	< 46	ug/kg	46	146	1		8270	qh	11/18/2003 / 12/1/2003
Indeno (1,2,3-cd) pyrene	145	ug/kg	36	115	1		8270	qh	11/18/2003 / 12/1/2003
Naphthalene	< 57	ug/kg	57	181	1		8270	qh	11/18/2003 / 12/1/2003
Phenanthrene	378	ug/kg	24	75	1		8270	qh	11/18/2003 / 12/1/2003
Pyrene	755	ug/kg	23	74	1		8270	qh	11/18/2003 / 12/1/2003

Sample Number: 33498
Client ID: GP-3
QC Prep Batch Number: 1005161
% Solid = 86.7 %
Collection: 11/12/2003 Time: 13:15
Sample Description: 5-6

1-Methylnaphthalene	< 55	ug/kg	55	175	1		8270	qh	11/18/2003 / 12/1/2003
2-Methylnaphthalene	< 56	ug/kg	56	178	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthene	< 37	ug/kg	37	119	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthylene	< 46	ug/kg	46	147	1		8270	qh	11/18/2003 / 12/1/2003
Anthracene	< 28	ug/kg	28	88	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) anthracene	< 21	ug/kg	21	67	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) pyrene	< 21	ug/kg	21	68	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (b) fluoranthene	< 31	ug/kg	31	100	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (g,h,i) perylene	< 36	ug/kg	36	116	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (k) fluoranthene	< 17	ug/kg	17	55	1		8270	qh	11/18/2003 / 12/1/2003
Chrysene	< 27	ug/kg	27	87	1		8270	qh	11/18/2003 / 12/1/2003
Dibenz (a,h) anthracene	< 37	ug/kg	37	119	1		8270	qh	11/18/2003 / 12/1/2003
Fluoranthene	< 26	ug/kg	26	81	1		8270	qh	11/18/2003 / 12/1/2003

APL INC.
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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 20030552
DATE REPORTED: 05-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Fluorene	< 45	ug/kg	45	143	1		8270	qh	11/18/2003 / 12/1/2003
Indeno (1,2,3-cd) pyrene	< 35	ug/kg	35	112	1		8270	qh	11/18/2003 / 12/1/2003
Naphthalene	< 56	ug/kg	56	177	1		8270	qh	11/18/2003 / 12/1/2003
Phenanthrene	< 23	ug/kg	23	73	1		8270	qh	11/18/2003 / 12/1/2003
Pyrene	< 23	ug/kg	23	73	1		8270	qh	11/18/2003 / 12/1/2003

Sample Number: 33499
Client ID: GP-4
QC Prep Batch Number: 1005162
% Solid = 85 %
Collection: 11/12/2003 Time: 13:30
Sample Description: 2-4

1-Methylnaphthalene	< 112	ug/kg	112	358	2		8270	qh	11/18/2003 / 12/1/2003
2-Methylnaphthalene	< 114	ug/kg	114	362	2		8270	qh	11/18/2003 / 12/1/2003
Acenaphthene	< 76	ug/kg	76	243	2		8270	qh	11/18/2003 / 12/1/2003
Acenaphthylene	< 94	ug/kg	94	299	2		8270	qh	11/18/2003 / 12/1/2003
Anthracene	< 56	ug/kg	56	180	2		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) anthracene	334	ug/kg	43	136	2		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) pyrene	262	ug/kg	44	139	2		8270	qh	11/18/2003 / 12/1/2003
Benzo (b) fluoranthene	460	ug/kg	64	204	2		8270	qh	11/18/2003 / 12/1/2003
Benzo (g,h,i) perylene	92	ug/kg	74	237	2	J	8270	qh	11/18/2003 / 12/1/2003
Benzo (k) fluoranthene	154	ug/kg	35	112	2		8270	qh	11/18/2003 / 12/1/2003
Chrysene	381	ug/kg	56	177	2		8270	qh	11/18/2003 / 12/1/2003
Dibenz (a,h) anthracene	< 76	ug/kg	76	243	2		8270	qh	11/18/2003 / 12/1/2003
Fluoranthene	624	ug/kg	52	166	2		8270	qh	11/18/2003 / 12/1/2003
Fluorene	< 92	ug/kg	92	292	2		8270	qh	11/18/2003 / 12/1/2003
Indeno (1,2,3-cd) pyrene	79	ug/kg	72	229	2	J	8270	qh	11/18/2003 / 12/1/2003
Naphthalene	< 113	ug/kg	113	361	2		8270	qh	11/18/2003 / 12/1/2003
Phenanthrene	284	ug/kg	47	150	2		8270	qh	11/18/2003 / 12/1/2003
Pyrene	749	ug/kg	47	148	2		8270	qh	11/18/2003 / 12/1/2003

Sample Number: 33500
Client ID: GP-4
QC Prep Batch Number: 1005161
% Solid = 91.4 %
Collection: 11/12/2003 Time: 13:45
Sample Description: 5-6

1-Methylnaphthalene	< 52	ug/kg	52	166	1		8270	qh	11/18/2003 / 12/1/2003
2-Methylnaphthalene	< 53	ug/kg	53	168	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthene	< 35	ug/kg	35	113	1		8270	qh	11/18/2003 / 12/1/2003
Acenaphthylene	< 44	ug/kg	44	139	1		8270	qh	11/18/2003 / 12/1/2003
Anthracene	< 26	ug/kg	26	84	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) anthracene	< 20	ug/kg	20	63	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (a) pyrene	< 20	ug/kg	20	65	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (b) fluoranthene	< 30	ug/kg	30	95	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (g,h,i) perylene	< 35	ug/kg	35	110	1		8270	qh	11/18/2003 / 12/1/2003
Benzo (k) fluoranthene	< 16	ug/kg	16	52	1		8270	qh	11/18/2003 / 12/1/2003
Chrysene	< 26	ug/kg	26	82	1		8270	qh	11/18/2003 / 12/1/2003

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
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ORGANIC REPORT

WDNR# 241340550

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

BATCH NUMBER: 20030552
DATE REPORTED: 05-Dec-03
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
Dibenz (a,h) anthracene	< 35	ug/kg	35	113	1		8270	qh	11/18/2003 / 12/1/2003
Fluoranthene	< 24	ug/kg	24	77	1		8270	qh	11/18/2003 / 12/1/2003
Fluorene	< 43	ug/kg	43	136	1		8270	qh	11/18/2003 / 12/1/2003
Indeno (1,2,3-cd) pyrene	< 33	ug/kg	33	107	1		8270	qh	11/18/2003 / 12/1/2003
Naphthalene	< 53	ug/kg	53	168	1		8270	qh	11/18/2003 / 12/1/2003
Phenanthrene	< 22	ug/kg	22	70	1		8270	qh	11/18/2003 / 12/1/2003
Pyrene	< 22	ug/kg	22	69	1		8270	qh	11/18/2003 / 12/1/2003

Approved By: Jitendra Shah **Date:** 12/5/03

Jitendra Shah P.E. , President

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B
LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study "e" = Estimate value, over calibration range .
LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified
RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.

APL INC.

INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER 20030552
DATE REPORTED: 31-Mar-04
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Sample Number: 33493		**Matrix: Soil**								
Client ID: GP-1								Collection: 11/12/2003		Time: 10:30
								Sample Description: 0-4		
Arsenic - ICAP	0.6	mg/kg	DB	0.07	0.22	6010	nb	11/17/2003	1005127	
Barium - ICAP	93	mg/kg	LS	0.55	1.7	6010	nb	11/17/2003	1005127	
Cadmium - ICAP	1.2	mg/kg	J DB	0.62	2.0	6010	nb	11/17/2003	1005127	
Chromium, Total - ICAP	16	mg/kg	CCB	0.44	1.4	6010	nb	11/17/2003	1005127	
Lead - ICAP	15	mg/kg	DB	3.93	13	6010	nb	11/17/2003	1005127	
Mercury CV	<0.061	mg/kg	DB	0.061	0.19	7471	nb	11/18/2003	1005099	
Selenium - ICAP	0.8	mg/kg	DB	0.12	0.38	6010	nb	11/17/2003	1005127	
Silver - ICAP	<0.54	mg/kg	DB	0.54	1.7	6010	nb	11/17/2003	1005127	
Solids, Total Percent	81	%	# RJ			SM 2540	nr	11/18/2003	1005091	
Sample Number: 33494		**Matrix: Soil**								
Client ID: GP-1								Collection: 11/12/2003		Time: 10:30
								Sample Description: 16-18		
Arsenic - ICAP	1	mg/kg	DB	0.07	0.22	6010	nb	11/17/2003	1005127	
Barium - ICAP	19	mg/kg	LS	0.49	1.6	6010	nb	11/17/2003	1005127	
Cadmium - ICAP	1.9	mg/kg	DB	0.55	1.7	6010	nb	11/17/2003	1005127	
Chromium, Total - ICAP	9.3	mg/kg	CCB	0.4	1.3	6010	nb	11/17/2003	1005127	
Lead - ICAP	42	mg/kg	DB	3.52	11	6010	nb	11/17/2003	1005127	
Mercury CV	<0.055	mg/kg	DB	0.055	0.17	7471	nb	11/18/2003	1005099	
Selenium - ICAP	1.5	mg/kg	DB	0.1	0.32	6010	nb	11/17/2003	1005127	
Silver - ICAP	<0.48	mg/kg	DB	0.48	1.5	6010	nb	11/17/2003	1005127	
Solids, Total Percent	91	%	# RJ			SM 2540	nr	11/18/2003	1005091	
Sample Number: 33495		**Matrix: Soil**								
Client ID: GP-2								Collection: 11/12/2003		Time: 12:30
								Sample Description: 0-2		
Arsenic - ICAP	9.9	mg/kg	DB	0.08	0.25	6010	nb	11/17/2003	1005593	
Barium - ICAP	203	mg/kg	LS	0.55	1.7	6010	nb	11/17/2003	1005593	
Cadmium - ICAP	0.8	mg/kg	J DB	0.63	2.0	6010	nb	11/17/2003	1005593	
Chromium, Total - ICAP	13	mg/kg	CCB	0.45	1.4	6010	nb	11/17/2003	1005593	
Lead - ICAP	497	mg/kg	DB	3.97	13	6010	nb	11/17/2003	1005593	
Lead - TCLP by ICAP	<0.064	mg/l	H	0.064	0.20	6010	nb	3/19/2004	1005593	
Mercury CV	2	mg/kg	DB	0.062	0.20	7471	nb	11/25/2003	1005118	

APL INC.

INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER 20030552
DATE REPORTED: 31-Mar-04
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Selenium - ICAP	1.3	mg/kg	DB	0.12	0.38	6010	nb	11/17/2003	1005593	
Silver - ICAP	<0.55	mg/kg	DB	0.55	1.7	6010	nb	11/17/2003	1005593	
Solids, Total Percent	81	%	# RJ			SM 2540	nr	11/18/2003	1005091	
TCLP extraction	done		# TC			1311	nb	3/12/2004	1005634	

Sample Number: 33496 Matrix: Soil
Client ID: **GP-2**
Collection: 11/12/2003 Time: 12:30
Sample Description: 12-14

Arsenic - ICAP	1	mg/kg	DB	0.07	0.22	6010	nb	11/17/2003	1005127	
Barium - ICAP	12	mg/kg	LS	0.49	1.6	6010	nb	11/17/2003	1005127	
Cadmium - ICAP	<0.56	mg/kg	DB	0.56	1.8	6010	nb	11/17/2003	1005127	
Chromium, Total - ICAP	7.9	mg/kg	CCB	0.4	1.3	6010	nb	11/17/2003	1005127	
Lead - ICAP	24	mg/kg	DB	3.56	11	6010	nb	11/17/2003	1005127	
Mercury CV	<0.056	mg/kg	DB	0.056	0.18	7471	nb	11/21/2003	1005107	
Selenium - ICAP	1.1	mg/kg	DB	0.11	0.35	6010	nb	11/17/2003	1005127	
Silver - ICAP	<0.49	mg/kg	DB	0.49	1.6	6010	nb	11/17/2003	1005127	
Solids, Total Percent	90	%	# RJ			SM 2540	nr	11/18/2003	1005091	

Sample Number: 33497 Matrix: Soil
Client ID: **GP-3**
Collection: 11/12/2003 Time: 13:00
Sample Description: 2-4

Arsenic - ICAP	5.1	mg/kg	DB	0.07	0.22	6010	nb	11/17/2003	1005127	
Barium - ICAP	55	mg/kg	LS	0.53	1.7	6010	nb	11/17/2003	1005127	
Cadmium - ICAP	1.1	mg/kg	J DB	0.6	1.9	6010	nb	11/17/2003	1005127	
Chromium, Total - ICAP	11	mg/kg	CCB	0.43	1.4	6010	nb	11/17/2003	1005127	
Lead - ICAP	168	mg/kg	DB	3.78	12	6010	nb	11/17/2003	1005127	
Mercury CV	0.25	mg/kg	DB	0.059	0.19	7471	nb	11/25/2003	1005118	
Selenium - ICAP	0.7	mg/kg	DB	0.11	0.35	6010	nb	11/17/2003	1005127	
Silver - ICAP	<0.52	mg/kg	DB	0.52	1.7	6010	nb	11/17/2003	1005127	
Solids, Total Percent	85	%	# RJ			SM 2540	nr	11/18/2003	1005091	

Sample Number: 33498 Matrix: Soil
Client ID: **GP-3**
Collection: 11/12/2003 Time: 13:15
Sample Description: 5-6

Arsenic - ICAP	2.2	mg/kg	DB	0.07	0.22	6010	nb	11/17/2003	1005127	
Barium - ICAP	15	mg/kg	LS	0.51	1.6	6010	nb	11/17/2003	1005127	

APL INC.

INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER 20030552
DATE REPORTED: 31-Mar-04
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Cadmium - ICAP	1.6	mg/kg	J DB	0.58	1.8	6010	nb	11/17/2003	1005127	
Chromium, Total - ICAP	10	mg/kg	CCB	0.42	1.3	6010	nb	11/17/2003	1005127	
Lead - ICAP	25	mg/kg	DB	3.69	12	6010	nb	11/17/2003	1005127	
Mercury CV	<0.058	mg/kg	DB	0.058	0.18	7471	nb	11/25/2003	1005118	
Selenium - ICAP	0.5	mg/kg	DB	0.11	0.35	6010	nb	11/17/2003	1005127	
Silver - ICAP	<0.51	mg/kg	DB	0.51	1.6	6010	nb	11/17/2003	1005127	
Solids, Total Percent	87	%	# RJ			SM 2540	nr	11/18/2003	1005091	

Sample Number: 33499 Matrix: Soil
Client ID: GP-4
Collection: 11/12/2003 Time: 13:30
Sample Description: 2-4

Arsenic - ICAP	9.8	mg/kg	DB	0.07	0.22	6010	nb	11/17/2003	1005127	
Barium - ICAP	181	mg/kg	LS	0.52	1.7	6010	nb	11/17/2003	1005127	
Cadmium - ICAP	1.9	mg/kg	DB	0.59	1.9	6010	nb	11/17/2003	1005127	
Chromium, Total - ICAP	13	mg/kg	CCB	0.42	1.3	6010	nb	11/17/2003	1005127	
Lead - ICAP	343	mg/kg	DB	3.76	12	6010	nb	11/17/2003	1005127	
Mercury CV	0.71	mg/kg	DB	0.059	0.19	7471	nb	11/21/2003	1005107	
Selenium - ICAP	1.1	mg/kg	DB	0.11	0.35	6010	nb	11/17/2003	1005127	
Silver - ICAP	<0.52	mg/kg	DB	0.52	1.7	6010	nb	11/17/2003	1005127	
Solids, Total Percent	85	%	# RJ			SM 2540	nr	11/18/2003	1005091	

Sample Number: 33500 Matrix: Soil
Client ID: GP-4
Collection: 11/12/2003 Time: 13:45
Sample Description: 5-6

Arsenic - ICAP	4.2	mg/kg	DB	0.07	0.22	6010	nb	11/17/2003	1005127	
Barium - ICAP	8.6	mg/kg	LS	0.49	1.6	6010	nb	11/17/2003	1005127	
Cadmium - ICAP	1.8	mg/kg	DB	0.55	1.7	6010	nb	11/17/2003	1005127	
Chromium, Total - ICAP	8.1	mg/kg	CCB	0.39	1.2	6010	nb	11/17/2003	1005127	
Lead - ICAP	31	mg/kg	DB	3.5	11	6010	nb	11/17/2003	1005127	
Mercury CV	<0.055	mg/kg	DB	0.055	0.17	7471	nb	11/21/2003	1005107	
Selenium - ICAP	1	mg/kg	DB	0.1	0.32	6010	nb	11/17/2003	1005127	
Silver - ICAP	<0.48	mg/kg	DB	0.48	1.5	6010	nb	11/17/2003	1005127	
Solids, Total Percent	91	%	# RJ			SM 2540	nr	11/18/2003	1005091	

APL INC.

INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER 20030552
DATE REPORTED: 31-Mar-04
DATE RECEIVED: 13-Nov-03
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: 1E-0308029
PROJECT NAME: 1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Sample Number: 33501 Matrix: GW
Client ID: **TW-1**
Collection: 11/12/2003 Time: 10:45
Sample Description:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Arsenic - Furnace AA	2	ug/l	J TD	1.22	3.9	206.2	nr	11/19/2003	1005093	
Barium - ICAP	0.05	mg/l	TD	0.009	0.03	200.7	nb	11/20/2003	1005101	
Cadmium - Furnace AA	<0.4	ug/l	TD	0.4	1.3	213.2	nr	11/19/2003	1005092	
Chromium, Total - ICAP	0.04	mg/l	CCB	0.007	0.02	200.7	nb	11/20/2003	1005101	
Lead - Furnace AA	<1.5	ug/l	TD	1.5	4.8	239.2	nr	11/18/2003	1005083	
Mercury CV	<0.0002	mg/l	TD	0.0002	0.0006	245.1	nb	11/18/2003	1005097	
Selenium - Furnace AA	<1.9	ug/l	TD	1.9	6.0	270.2	nr	11/14/2003	1005071	
Silver - ICAP	<0.009	mg/l	TD	0.009	0.03	200.7	nb	11/20/2003	1005101	

Sample Number: 33502 Matrix: GW
Client ID: **TW-2**
Collection: 11/12/2003 Time: 14:00
Sample Description:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Arsenic - Furnace AA	3.5	ug/l	J TD	1.22	3.9	206.2	nr	11/19/2003	1005093	
Barium - ICAP	0.06	mg/l	TD	0.009	0.03	200.7	nb	11/20/2003	1005101	
Cadmium - Furnace AA	0.71	ug/l	J TD	0.4	1.3	213.2	nr	11/19/2003	1005092	
Chromium, Total - ICAP	0.06	mg/l	CCB	0.007	0.02	200.7	nb	11/20/2003	1005101	
Lead - Furnace AA	21	ug/l	TD	3	9.5	239.2	nr	11/18/2003	1005083	
Mercury CV	<0.0002	mg/l	TD	0.0002	0.0006	245.1	nb	11/18/2003	1005097	
Selenium - Furnace AA	3.2	ug/l	J TD	1.9	6.0	270.2	nr	11/20/2003	1005102	
Silver - ICAP	<0.009	mg/l	TD	0.009	0.03	200.7	nb	11/20/2003	1005101	

APL INC.

INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER	20030552
DATE REPORTED:	31-Mar-04
DATE RECEIVED:	13-Nov-03
SAMPLE TEMP (C):	Rec On Ice
PROJECT ID:	1E-0308029
PROJECT NAME:	1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments

Approved By: J. Shah/NB **Date:** 3/31/04
Jitendra Shah P.E. , President

CCB *CCB is above detection limit, results may be biased high*
DB *Results expressed as dry weight.*
H *Quality control measurement is above the laboratory established limit.*
LS *Low matrix spike recovery.*
RJ *Result expressed as Total.*
TC *Result is expressed as concentration of TCLP extract.*
TD *Result expressed as Total Dissolved.*

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B *"J" = Results between LOD and LOQ* *"#" = no LOD or LOQ required.*
LOQ = 10 (S) x Dilution Facor, where "S" is the Standard Deviation from the MDL Study
LOD = 3.143 (S) x Dilution Facor, where "S" is the Standard Deviation from the MDL Study

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.

APL INC.

WDNR# 241340550

INVOICE NUMBER	20030552
DATE REPORTED:	31-Mar-04
DATE RECEIVED:	13-Nov-03
SAMPLE TEMP (C):	Rec On Ice
PROJECT ID:	1E-0308029
PROJECT NAME:	1944 MLK

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments

Approved By: J. Shah (NB **Date:** 3/31/04

Jitendra Shah P.E. , President

CCB *CCB is above detection limit, results may be biased high*
DB *Results expressed as dry weight.*
H *Quality control measurement is above the laboratory established limit.*
LS *Low matrix spike recovery.*
RJ *Result expressed as Total.*
TC *Result is expressed as concentration of TCLP extract.*
TD *Result expressed as Total Dissolved.*

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B *"J" = Results between LOD and LOQ* *"#" – no LOD or LOQ required.*
LOQ = 10 (S) x Dilution Facor, where "S" is the Standard Deviation from the MDL Study
LOD = 3.143 (S) x Dilution Facor, where "S" is the Standard Deviation from the MDL Study

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limits Guidance, April 1995.

Giles Engineering Associates, Inc.

CHAIN-OF-CUSTODY 20030552

- ☒ N8 W22350 Johnson Road Suite A1, Waukesha, WI 53186 — tel: 414-544-0118 — fax: 414-549-5868
- ☐ 4875 East La Palma Avenue, Suite 607, Anaheim, CA 92807 — tel: 714-779-0052 — fax: 714-779-0068
- ☐ 8300 Guilford Road, Suite F1, Columbia, MD 21046 — tel: 410-312-9950 — fax: 410-312-9955
- ☐ 10722 North Stemmons Freeway, Dallas, TX 75220 — tel: 214-358-5885 — fax: 214-358-5884
- ☐ 2830 Agriculture Drive, Madison, WI 53718 — tel: 608-223-1853 — fax: 608-223-1854
- ☐ 3990 Flowers Road, Suite 530, Atlanta, GA,30360 — tel. 770-458-3399 — fax: 770-458-3998

☐ closure sample
☐ confirmation required (NR720)
☐ RUSH

Site
Address 1944 MLK
MLW WI

POSSIBLE HAZARDS:

Sample Collector: GREG VOGEL	Project Manager: Andy Ehlert	Project Number: 1E0308029	
Laboratory Used: APL	Lab Contact: Tim	Lab Job Number:	

Analysis Required

Sample Description	(Sample Depth)	Sample Matrix (Soil, Water, etc.)	Date Collected	Time Collected	Field Screen	GRO	DRO	VOC Encore	PVOC	BTEX	PAH	RCRA Metals	Number and Type of Containers	Sample Preservative	Due Date	Lab ID	Temp
GP-1 0-4	0-4	Soil	11/12	10:30 AM/PM	BDL			X			X	X	1H, 1B, 1I	None		33493	
GP-1 16-18	16-18	↓		10:30 AM/PM				X			X	X	1H, 1B, 1I			94	
GP-2	0-2			12:30 AM/PM				X			X	X	1H, 1B, 1I			95	
GP-2	12-14			12:30 AM/PM				X			X	X	1H, 1B, 1I			96	
GP-3	2-4			1:00 AM/PM				X			X	X	1H, 1B, 1I			97	
GP-3	5-6			1:15 AM/PM				X			X	X	1H, 1B, 1I			98	
GP-4	2-4			1:30 AM/PM				X			X	X	1H, 1B, 1I			99	
GP-4	5-6	↓		1:45 AM/PM	↓			X			X	X	1H, 1B, 1I	↓		33500	
TW-1	—	GW		10:45 AM/PM	—			X				X	Field Filtered	2D, 1I	HCl/HNO3		01
TW-2	—	↓		2:00 AM/PM	—			X				X	Field Filtered	2D, 1I	HCl/HNO3		02
Trip Blank	—	Lab	↓	NA AM/PM	—			X						1D	HCl		03
				AM/PM													

container code:
A = 8 oz/250 ml
B = 4 oz/ 120 ml
C = 2 oz/ 60 ml
D = 40 mL VOA vial
E = 1 L Amber
F = 250 mL plastic
G = poly bag
H = Encore Sampler
I = 500ml Plastic
J =

Relinquished By	Date	Time	Received By
Gregory A. Vogel	11-13-03	9 AM/PM	
		AM/PM	
		AM/PM	
		AM/PM	

INVOICE TO: Giles Eng
Att: Andy Ehlert
☐ Send copy to Project Manager

REPORT TO: Sam
☐ same
☐ PM

Page 1 of 1

forms.xls//COC 08/10/99

Encore samples extracted 11/14 Angela Beaver

8222 W. Calumet Rd. Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

WDNR# 241340550

BATCH NUMBER: 20040047
DATE REPORTED: 03-May-04
DATE RECEIVED: 17-Feb-04
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: IE-0308029
PROJECT NAME: Vacant Lot

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Sample Number: 33991
Client ID: MW-1
QC Prep Batch Number: 1005554
Collection: 2/16/2004 Time: 11:45
Sample Description:

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
1-Methylnaphthalene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
2-Methylnaphthalene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Acenaphthene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Acenaphthylene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Anthracene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Benz (a) anthracene	< 0.10	ug/l	0.10	0.32	1		8310	999917160	/ 2/22/2004
Benzo (a) pyrene	< 0.02	ug/l	0.02	0.06	1		8310	999917160	/ 2/22/2004
Benzo (b) fluoranthene	< 0.02	ug/l	0.02	0.06	1		8310	999917160	/ 2/22/2004
Benzo (ghi) perylene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Benzo (k) fluoranthene	< 0.10	ug/l	0.10	0.32	1		8310	999917160	/ 2/22/2004
Chrysene	< 0.02	ug/l	0.02	0.06	1		8310	999917160	/ 2/22/2004
Dibenz (a,h) anthracene	< 0.10	ug/l	0.10	0.32	1		8310	999917160	/ 2/22/2004
Fluoranthene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Fluorene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Indeno (1,2,3-cd) pyrene	< 0.20	ug/l	0.20	0.64	1		8310	999917160	/ 2/22/2004
Naphthalene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Phenanthrene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Pyrene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004

Sample Number: 33992
Client ID: MW-21
QC Prep Batch Number: 1005554
Collection: 2/16/2004 Time: 12:05
Sample Description:

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal
1-Methylnaphthalene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
2-Methylnaphthalene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Acenaphthene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Acenaphthylene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Anthracene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Benz (a) anthracene	< 0.10	ug/l	0.10	0.32	1		8310	999917160	/ 2/22/2004
Benzo (a) pyrene	< 0.02	ug/l	0.02	0.06	1		8310	999917160	/ 2/22/2004
Benzo (b) fluoranthene	< 0.02	ug/l	0.02	0.06	1		8310	999917160	/ 2/22/2004
Benzo (ghi) perylene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Benzo (k) fluoranthene	< 0.10	ug/l	0.10	0.32	1		8310	999917160	/ 2/22/2004
Chrysene	< 0.02	ug/l	0.02	0.06	1		8310	999917160	/ 2/22/2004
Dibenz (a,h) anthracene	< 0.10	ug/l	0.10	0.32	1		8310	999917160	/ 2/22/2004
Fluoranthene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Fluorene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Indeno (1,2,3-cd) pyrene	< 0.20	ug/l	0.20	0.64	1		8310	999917160	/ 2/22/2004
Naphthalene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Phenanthrene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004
Pyrene	< 5.0	ug/l	5.0	16	1		8310	999917160	/ 2/22/2004

8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER:	20040047
DATE REPORTED:	03-May-04
DATE RECEIVED:	17-Feb-04
SAMPLE TEMP (C):	Rec On Ice
PROJECT ID:	1E-0308029
PROJECT NAME:	Vacant Lot

Andy Ehlert
Giles Engineering Associates, Inc.
N8 W22350 Johnson Rd. Suite A1
Waukesha , WI 53186

Compound	Result	Units	LOD	LOQ	Dilution	RQ	Method	Analyst	Date Ext/Anal

Approved By: J Shah / JV Date: 5/3/04
Jitendra Shah P.E. , President

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B
LOQ – 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study "e" – Estimate value, over calibration range .
LOD – 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified
RQ : Run Qualifier: "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample. "B" = Showed in Blank sample
"O" = Significant peaks outside of the GRO or DRO retention time windows
Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.

Giles Engineering Associates, Inc.

CHAIN-OF-CUSTODY 20040047

☒ N8 W22350 Johnson Road Suite A1, Waukesha, WI 53186	tel: 414-544-0118	fax: 414-549-5868	
☐ 4875 East La Palma Avenue, Suite 607, Anaheim, CA 92807	tel: 714-779-0052	fax: 714-779-0068	
☐ 8300 Guilford Road, Suite F1, Columbia, MD 21046	tel: 410-312-9950	fax: 410-312-9955	
☐ 10722 North Stemmons Freeway, Dallas, TX 75220	tel: 214-358-5885	fax: 214-358-5884	
☐ 2830 Agriculture Drive, Madison, WI 53718	tel: 608-223-1853	fax: 608-223-1854	
☐ 3990 Flowers Road, Suite 530, Atlanta, GA,30360	tel. 770-458-3399	fax: 770-458-3998	

☐ closure sample
☐ confirmation required (NR720)
☐ RUSH

Site Residential/Comm.
Address 1944 Dr MLK Jr Dr
Milwaukee, Wisconsin

POSSIBLE HAZARDS: _____

Sample Collector: Greg Rearhouse	Project Manager: Andy Eblet	Project Number: 1E-0308030	
Laboratory Used: APL	Lab Contact: Tim McGuire	Lab Job Number:	

Analysis Required

Sample Description	(Sample Depth)	Sample Matrix (Soil, Water, etc.)	Date Collected	Time Collected	Field Screen	GRO	DRO	VOC	PVOC	BTEX	PAH	RCRA Metals	Number and Type of Containers	Sample Preservative	Due Date	Lab ID	Temp
MW-1		W	2/16/04	11:45 PM							X	X	1E, 1F	HNO_3	STD	33991	
MW-21		W	2/16/04	12:05 PM							X	X	1E-1F	HNO_3	STD	33992	
Trip Blank				AM/PM									1D	HCl	STD		
				AM/PM													
				AM/PM													
				AM/PM													
				AM/PM													
				AM/PM													
				AM/PM													
				AM/PM													
				AM/PM													
				AM/PM													

container code:
A = 8 oz/250 ml
B = 4 oz/ 120 ml
C = 2 oz/ 60 ml
D = 40 mL VOA vial HCl
E = 1 L Amber No Pre
F = 250 mL plastic HNO_3
G = poly bag
H = _____
I = _____
J = _____

Relinquished By	Date	Time	Received By
Lance Rosenfeld	2/16/04	1130 PM	Lance Rosenfeld
	2/17/04	14:40 PM	
		AM/PM	
		AM/PM	

INVOICE TO: Giles Engineering Associates, Inc.

☒ Send copy to Project Manager

REPORT TO: Giles Engineering Associates, Inc. Attn: Andy Eblet

☐ same
☐ PM

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