Soil Cover Modification Request and Materials Management Plan

Central Park
(South Brearly Street to South Baldwin Street)
City of Madison
Dane County, Wisconsin

Project I.D. 5992-01-95

March 2012

SOIL COVER MODIFICATION REQUEST AND MATERIALS MANAGEMENT PLAN

PROJECT I.D. 5992-01-95

Proposed Central Park
(South Brearly Street to South Baldwin Street)
City of Madison
Dane County, Wisconsin

March 2012
MSA Project 373013

Prepared For:
The Wisconsin Department of Natural Resources
and
The City of Madison
Madison, WI

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I. INTRODUCTION

This Soil Cover Modification Request and Materials Management Plan (MMP) summarizes the proposed activities and responses related to potentially contaminated soil and groundwater that may be encountered during the construction phase of the proposed Central Park (South Brearly Street to South Baldwin Street) project in the City of Madison, Dane County, Wisconsin (WisDOT project ID 5992-01-95).

MSA Professional Services Inc. (MSA) has prepared this MMP on behalf of the City of Madison for review and approval by the Wisconsin Department of Natural Resources (WDNR) Remediation and Redevelopment (RR) Program. The following describes the proposed project and the WDNR request for approval to modify the existing soil cap (BRRTS # 07-13-543256), as well as a request for approval to construct a clean soil cap for the Brearly Block portion of the project.

Central Park Project Description

The City of Madison proposes to create a new urban park on the near east side of the City to be called "Central Park". Central Park lies on land roughly bounded by South Brearly Street on the west, East Wilson Street on the south, South Baldwin Street on the east, and Railroad Street and the Madison Gas & Electric Service rail line to the north of this park. Attachment A contains the Site Location Map (Figure 1).

The project Master Plan and grading plans are in Attachment A. The Proposed Central Park (i.e. the Project Area) includes City blocks referred to as the Brearly Block (i.e. South Brearly Street to South Ingersoll Street) and the Great Lawn area (i.e. the Ingersoll Block; South Ingersoll Street to South Baldwin Street) and are shown on the Master Plan in Attachment A. The park will be constructed in phases, and the first phase (i.e. Phase 1) of the project is shown outlined in red on the *Phase 1 Central Park* figure in Attachment A.

The first phase of the project (refer to the Phase 1 Central Park figure in Attachment A) will involve the Brearly Block and Ingersoll Block (a.k.a. the Great Lawn area). The Phase 1 project area will include approximately 5.7 acres of the park with a 2 acre green space, skate park, the Brearly Block improvements, and an at-grade bike/pedestrian path railroad crossing of the Wisconsin Southern Railroad at South Few Street (a.k.a the Gateway Plaza Area). Fencing will be part of this first phase to provide a strong safety component for park visitors.

A. Purpose and Scope

The Central Park project will have excavation greater than 2 feet in depth for park construction, and grading during construction. Some excavation greater than 2

feet is also anticipated for utility installation and replacement in several areas. In addition, trees are anticipated to be planted for landscaping purposes.

On behalf of the City of Madison, the following is requested from the WDNR:

- WDNR approval for modifications to the existing soil cap at the Ingersoll Block (i.e. the Great Lawn area). This is required in accordance with the current Soil Cover Maintenance Plan for 201 S. Ingersoll Street dated March 2006 for BRRTS # 07-13-543256. The existing Soil Cover Maintenance Plan for the 201 S. Ingersoll parcel, as well as other documentation related to the BRRTS files at this address are located in Attachment B.

- WDNR approval for incorporating a 2 ft. clean soil cap over properties in the Brearly Block. These properties include the former Research Products (RP) property at 204 S. Ingersoll Street and the former Byrns Oil parcel at 211/215 S. Brearly Street. Both properties are currently owned by the City of Madison and are included in the Central Park project. The former Byrns Oil parcel is an "open" LUST site (BRRTS 03-13-001971) and has had remedial activities performed since tank removal in 1971 and 1988. In addition to the petroleum concerns at the former Byrns Oil site, surface soil concerns on the Brearly Block are related to PAH and metals. The most recent remediation activities include excavation of 695.22 tons of petroleum contaminated soil performed in August 2011 at the Bryns Oil site. Documentation related to the BRRTS file at 211 S. Brearly Street and the former RP parcel is enclosed in Attachments C and D.

- WDNR approval of the MMP activities to manage soil and groundwater during the construction phase.

The MMP outlines the proposed actions to properly manage identified soil and groundwater impacts (if dewatering is necessary) during redevelopment of the Project Area. Management of impacted soils and groundwater will be completed in accordance with the criteria described in this MMP, and approved by the WDNR. The MMP also contains a Construction Contingency Plan, which has been developed to identify and manage any impacted areas of the Project Area discovered during construction and redevelopment. Additionally, in the event dewatering is necessary, areas of impacted groundwater will be managed in accordance with this MMP. This MMP includes:

- A description of the work to be completed;
- Information concerning the proposed redevelopment of the Project Area;
- A description of known contaminants at the Project Area;

- The names and responsibilities of companies and individuals presently involved in the proposed redevelopment of the Project Area and/or implementation of this MMP;
- A description of methods to be used to segregate impacted soil from non-impacted soil at the Project Area;
- A description of soil-management procedures to be followed in order to facilitate the proper disposition of any impacted soil removed from the Project Area;
- A description of groundwater management procedures to be followed in order to facilitate the proper disposal of any impacted groundwater discharged from the Project Area; and,
- A description of the site safety responsibilities and contingency actions to be implemented if necessary, at the Project Area.

B. Environmental Concerns and Previous Environmental Investigations

An environmental review has been performed for the entire Project Area and the various environmental assessments are described in Section C. Based on the environmental review, the existing City park parcel at 201 South Ingersoll Street (i.e. the proposed Great Lawn area) and two parcels in the Brearly Block (i.e. former RP parcel at 204 S. Ingersoll and former Byrns Oil at 215 S. Brearly) have documented residual soil and groundwater contamination that will need to be addressed during construction of the project.

The following summarizes the specific environmental concerns in the Project Area:

201 South Ingersoll Street: Existing City Park Parcel (Great Lawn)

- The parcel at 201 South Ingersoll Street (i.e. City of Madison Farwell Park, BRRTS 07-13-543703)) is a closed WDNR Environmental Repair Program (ERP BRRTS 02-13-227102) site and a closed LUST site (Johnson Property BRRTS 03-13-000292). This parcel has residual contaminated soil and groundwater, with an engineered soil cap and cap maintenance requirement. The land use controls imposed at site closure by the WDNR include a soil cap maintenance requirement over the residual contaminated area. This requires notification of proposed construction and approval by the WDNR to satisfy the site closure requirements.

211-215 South Brearly Street: Former Byrns Oil

- This parcel is an open LUST site (former Byrns Oil BRRTS 03-13-001971) with petroleum soil and groundwater contamination. Petroleum contamination remediation to achieve site closeout has been on-going with a completed soil excavation in August 2011. To date, the WDNR-approved

closure request has not been submitted to WDNR and monitoring wells remain on the property. As the parcel is included in the final park design, an approved soil cap is requested for this parcel to address any residual soil concerns.

204 South Ingersoll Street: Research Products Corporation

- A Phase 2 Environmental Site Assessment performed in July 2011 for property transfer purposes detected some fill materials including suspected foundry sand. The results were consistent with testing on other properties in the project area and included residual groundwater and soil detections. A clean soil cap over the fill materials to address direct contact concerns related to PAH and metals is proposed on this parcel in the Brearly Block.

Previous Environmental Investigations

Previous environmental investigations performed in the Project Area were reviewed for developing the MMP. The reviewed environmental reports included:

- Phase 1 Hazardous Materials Assessment (MSA March 2010 and February 2012), Proposed Central Park (South Brearly Street to South Baldwin Street). This Phase 1 HMA was performed over the entire project area according to WisDOT Facility Design Manual (FDM) requirements. The Phase 1 HMA identified potential environmental concerns in the entire project area from S. Brearly Street to S. Baldwin Street, and included WDNR BRRTS file reviews for the files in the Project Area.

- Phase 2 Subsurface Investigation (MSA August 2010), Central Park, City of Madison. This Phase 2 documented subsurface investigations performed in the S. Ingersoll to S. Baldwin Street project area. This included areas with proposed retaining walls and to develop a Materials Handling Plan and Special Contract Provisions for the design and construction for the Great Lawn area of the Park.

- Phase 1 Environmental Site Assessment Report (BT Squared, August 24, 2010), Central Park Skate, LLC Property (Former Byrns Property, 211-215 S. Brearly Street, Madison, WI. This Phase 1 ESA documented an environmental review of the one parcel of land located at 211-215 S. Brearly Street (former Byrns Oil Site).

- Phase 1 Environmental Site Assessment Report (MSA June 2011), Research Products Corporation, 204 and 210 South Ingersoll Street, Madison, WI. This Phase 1 ESA documented an environmental review of the parcel of land

located at 204 S. Ingersoll Street which was performed for the City of Madison for property transfer purposes.

- Phase II Environmental Site Assessment Report (MSA July 2011), Research Products (RP) Corporation, 204 and 210 South Ingersoll Street, Madison, WI. This report documented a Phase II environmental investigation with 8 soil borings and soil and groundwater testing at 204 S. Ingersoll Street. The assessment was performed for the City of Madison prior to acquisition of the RP property.

II. SUBSURFACE CONDITIONS AND MATERIALS MANAGEMENT PLAN

The following describes the characteristics of the Project Area and the identified environmental conditions on the specific parcels. The Project Area and proposed development and grading plans are shown on the figures in Attachment A.

A. Site Responsibilities

Present Owner(s):	Ingersoll Block (i.e the Great Lawn Area) Brearly Block (former Byrns Oil and RP parcels) City of Madison 210 Martin Luther King Jr. Blvd Madison, Wisconsin 53703 Contact: Janet Dailey, P.E. Project Engineer 608-267-1986
Engineering Consultant:	MSA Professional Services, Inc. 2901 International Lane, Suite 300 Madison, WI 53704-3133 Contacts: Mike Statz, P.E., Project Manager (608) 242-7779
Prospective General Contractor:	To Be Determined
Excavation Contractor:	To Be Determined
WDNR, Remediation and Redevelopment Program:	Mike Schmoller WDNR South Central Region

3910 Fish Hatchery Rd.
Fitchburg, WI 53711
608-275-3310

B. Summary of Subsurface Conditions

In the Project Area, there are two former petroleum bulk plants, one located at the Ingersoll Block (i.e. the Great Lawn Area), and the other at the former Byrns Oil property in the Brearly Block. The Ingersoll Block site is a closed LUST with an existing soil cap requirement and the former Byrns Oil site is an "open" LUST that has a recently completed remedial excavation. Both of these sites have petroleum impacts to soils that are potentially above WDNR action levels, although both site have had significant remediation performed. In addition, some areas may have detectable PAH and metals related to the historic fill that has been placed on the two blocks (i.e. soil mixed with cinders, foundry sand, etc.) The areas with potential petroleum impacts are shown with more detail in the Attachments B, C, and D. Excavation may occur in these areas during construction in the project area and impacted soils maybe encountered. Prior to grading and/or excavation, the areas of known impacts will be located and surveyed so these areas can receive close attention during construction activities. Grading activities will be conducted to remove prior asphalt surfacing and remove excess soils, if any, to bring the Project Area to finish grade. Excavation and removal of abandoned underground utilities will be completed where necessary.

C. Proposed Materials Management Plan (MMP)

This MMP includes the activities that will be performed to construct the proposed project and address residual contaminated materials in the project area. The remediation activities are listed below and discussed in subsequent sections.

- Management of soils in the project area during the installation of any building footings, foundations, general site grading and utilities in areas of known soil contamination. This response action allows for the proper identification, soil capping, and, if needed, possible off-site disposal of impacted soils observed during redevelopment. This includes the excavation, field screening and stockpiling of soils from the former petroleum storage facilities in the Project Area. This may include the collection of samples from the excavated areas, and the analysis of stockpiled soils to determine disposal options for any stockpiled soils.

- Management of groundwater in the event that dewatering is necessary in the Project Area. This response action will identify the groundwater quality and disposal options.

- Field screening of soils observed during construction activities at known areas of impacts. Soils include, but are not limited to, those generated during site grading, footing excavations, utilities, and retention pond construction. Field screening of excavation bottom/sidewalls for evidence of impacts will also be conducted, based on field observations.

D. Remediation Goals

To ensure long-term protection of public health and the environment in regard to residual impacted areas, a new 2 ft thick clean soil cover will be constructed within the Project Area. This may include areas with petroleum contamination that have not been previously excavated or remediated during previous environmental remediation activities. Areas with soil contamination with compounds below regulatory action levels, or those that do not have regulatory action levels will also receive 2 ft thick clean soil cover in accordance with the proposed grading plan (refer to Attachment A). Groundwater remediation is not proposed due to the petroleum plume stability and the fact there are no known groundwater receptors present. Remediation by natural attenuation is expected for residual groundwater contamination.

E. Excavation, Field Screening, Stockpiling of Soils from Impacted Areas

Impacted soils related to the former petroleum bulk plants were previously remediated to the extent practical, or removed and disposed of off-site during remedial excavation activities. No other newly identified areas of impacted soils are known at this time, except for residual contamination associated with the two former bulk petroleum plants that may remain on the properties, and that discovered during the Phase 2 Environmental Assessment borings performed on the RP parcel at 204 Ingersoll Street.

Based on the Phase 2 ESA results, these impacts are considered to be associated with the residual historic contamination associated with fill materials in this area of Madison (i.e. historically, the entire block has been filled to grade with soil, lesser amounts of cinders, foundry sand, etc.). It is anticipated that the only soil remediation may come from possible impacted soils encountered during utility or possibly building foundation excavations. These soils within building footprints and utility excavations may be excavated to depths approximately 4 to 8 feet below ground surface (bgs). Based on the proposed location of the building footprint in relation to the former petroleum bulk plant areas, footing excavations will likely not encounter contaminated soils with residual soil impacts. The actual areas excavated will be determined by the proposed footing locations the utility install locations, and if field screening and confirmation sampling results are

collected. It is anticipated the grading will utilize track excavators, dozers or other excavation equipment to remove the soils.

During excavation activities at residual impacted areas (i.e former bulk plant areas basins), an Environmental Technician will be on-site to field screen soils, and observe soil management activities during construction. An environmental technician will be on call, on a daily basis when excavation activities are on-going at other parts of the development site. The excavation foreman, and excavating equipment operators will be informed to contact the Site Superintendant if any signs of contamination including visual staining, and/or petroleum/chemical odors are observed. The Site Superintendant will also be notified if debris including drums, paint cans, vessels containing unknown solids or free liquids, and possible asbestos containing materials (ACM) are encountered. If debris or impacts are encountered, excavation activities in that area shall cease and the Site Superintendant will be notified immediately. The Site Superintendant will then immediately notify the Project Manager and/or Field Technician and apprise them of the situation. The area will be taped off and no further construction activities are to resume in the area until the Field Technician can visit the Project Area, evaluate the discovery, and has given the notice to proceed.

A daily activities log will be provided by the Environmental Technician to both the Project Manager and the Site Superintendent. The daily log will include, but is not limited to, field screening results; locations of potentially impacted soils, with quantities; stockpile designations; locations of samples collected for laboratory analysis; notations about soils disposed off-site; and, any air monitoring reading results.

Soil samples will be screened in the field by the on-site Environmental Technician for debris, staining and/or olfactory evidence of environmental contamination. Soil samples will also be field screened for the presence of organic vapors using a photoionization detector (PID). A quart-size polyethylene freezer bag will be filled approximately ½ full of the sample to be analyzed. Soil clumps will be broken and the bag shaken for approximately 15 seconds. After allowing the headspace to develop for approximately 10 minutes, each field screening sample will be analyzed using the PID. The highest headspace reading measured from each soil sample will be recorded in the field log by the on-site Environmental Technician.

Excess soils (i.e. those not used to establish grade below the constructed soil cap) exhibiting readily apparent environmental contamination, as determined by field screening techniques identified above, will be evaluated for disposal or on-site stockpiling for later disposal.

During excavation of impacted soils, the Environmental Technician will collect soil samples for field screening at intervals of one sample for approximately every 10 cubic yards (cy) of soil excavated or if field screening observations warrant more frequent sampling.

Soils will be placed into temporary stockpiles of no more than 100 cy each. Stockpiles will be placed on and covered with minimum 10-mil thickness poly sheeting until the final disposition of the materials is determined and the soils and/or wastes are either transported off-site or reused on-site depending on laboratory analytical results. The stockpile area will be selected based on mass grading plans and in a location that is not prone to stormwater pooling.

F. Confirmation Sample Collection and Analysis of Excavated Areas

If field screening of impacted areas suggests impacted soils will be excavated and relocated to a stockpile area, confirmation samples will be collected from the excavated areas (i.e. the floor and side walls of the excavation) to characterize the soil.

Samples from each sampling location will be placed in laboratory approved containers with Teflon lined septa and required preservatives added, if necessary. The transportation and possession of the samples will be recorded on a chain-of-custody form from time of collection until delivery to a WDNR certified laboratory. All jars will be kept on ice until delivered to the laboratory.

G. Sample Collection and Disposal of Stockpiled Soils

Soils deemed impacted by field screening from the project area will be re-used on-site, if possible. If material is unacceptable for re-use, disposal at an approved landfill location may be necessary. If additional soil impacts, outside the known impact area are encountered during Site development, soils will be segregated, stockpiled and sampling for laboratory analysis will be completed. Disposal of stockpiled soils will be determined by the results of the analytical testing.

Excess soils deemed impacted by field screening results and confirmation sampling will be disposed at an approved landfill location, likely the Dane County Landfill or the Mad Prairie Landfill located in Madison and Sun Prairie, Wisconsin.

H. Screening of Soils Outside of the Known Impacted Areas

During excavation and/or grading of areas without known evidence of impacts, an environmental technician will be on-call in the event that items of environmental

concern are identified (see **Section III** for the Construction Contingency Plan and Action Levels). If an area of environmental concern is identified, all grading/excavation activities will stop in the area until the on-site environmental technician can determine the proper response actions.

If additional soil impacts from areas outside the known impacted areas are discovered during site development, sample collection and analysis of stockpiled soils will follow the analytical requirements and protocols required by the licensed off-site disposal facility.

I. On-site Soil Re-use

The following screening procedures will be used as a guideline for soils reused in the Project Area.

1. Soils displaced without visual or olfactory evidence of contamination or field screening results below 10 ppm organic vapors, as determined by headspace analysis techniques using the PID, may be used as general fill at the discretion of the general contractor and the geotechnical engineer.

2. Soils that are displaced exhibiting field screening results of greater than 10 ppm and less than (<) 200 ppm organic vapors, as determined by headspace analysis techniques using the PID, may be utilized as backfill beneath the clean soil cover and paved parking areas in the project area.

   Soils that are displaced exhibiting field screening results of 200 ppm or greater organic vapors, as determined by headspace analysis techniques using the PID, will either remain in-place and covered by at least 2-feet of clean fill, will be segregated and stockpiled, for disposal at an approved landfill. Soils being submitted to a landfill will be profiled based on the laboratory requirements and historical sampling. Additional characterization of soil being disposed of at a landfill maybe required by the landfill, or if unknown or unexpected impacts are identified during the field screening.

3. Upon excavation of soil areas exceeding 200 ppm organic vapors, as determined by headspace analysis techniques using the PID, the excavation sidewalls and base will have soil samples collected and laboratory analyzed for the appropriate parameters, such as PAH, PVOCs and / or VOCs, and RCRA metals.

J. Groundwater Remediation / Treatment

Groundwater in the project area has been observed at depths of approximately 2 feet to 10 feet bgs. The redevelopment activities proposed in the project area (i.e. excavation for footings, utilities, etc.) may extend to groundwater in some areas.

During the environmental investigations, petroleum compounds and PAH compounds were detected in some locations of the Project Area. Groundwater collected from soil borings in other locations did not detected contamination. It is anticipated that some residual groundwater contamination remains in the area of the former petroleum bulk plant on both blocks.

If dewatering is necessary from locations with groundwater contamination, the project will obtain a temporary permit to discharge to the Madison municipal sanitary sewer treatment facility. The water discharge to the sanitary sewer system will be sampled and analyzed in accordance with the municipal sanitary sewer treatment facility permit requirements.

K. Export of Soils

In the event that export of soil is necessary from areas without readily apparent impacts (i.e. no staining, debris, odors or headspace readings above background levels), prior to export, the soils will be analyzed for PVOCs, VOCs, PAH and RCRA metals at a rate of one sample per 1,000 cubic yards. If the analytical information does not detectable concentrations for the analyzed parameters, the analytical information will be provided to the recipient of the export soils for approval prior shipment of the soils. If there are detections of parameters of concern, the soils will either be disposed at a permitted disposal facility, or reused on site if they meet reuse criteria.

L. Stormwater Ponds

Areas where stormwater ponds will be constructed will require excavation. If ponds are constructed in areas of contamination, soils will be stockpiled and sampled as discussed in Sections F and G. Bottom and sidewall samples will be collected to confirm soil conditions. Unlined stormwater detention ponds will be constructed in areas where no debris or impacts remain. Stormwater detention ponds constructed over areas of remaining debris and/or residual contamination will be lined.

Liner materials will consist of either compacted clay or a synthetic liner with a 1 foot sand cushion placed underneath. An alternative pond liner system will also

be considered for installation in the ponds. A typical system consists of a tray and piping system built within a sand drainage layer, underlain by a synthetic liner.

III. SITE SAFETY AND CONSTRUCTION CONTINGENCY PLAN

A. Site Safety

A Site Safety Plan will be prepared for use on-site by personnel during redevelopment activities. The Site Safety Plan will provide a hazard assessment based on existing soil analytical data and will specify general work and monitoring procedures to be utilized to minimize safety incidents. Safety equipment, decontamination procedures, site control and emergency contacts will also be included. Both public and private utilities at the Site will be located by the excavation contractor during subsurface field activities. All subcontractors and general contractors will be responsible for preparation of their task related site safety plans for their respective employees.

B. Construction Contingency Plan

In the event that unanticipated impacts are noted during construction, the actions discussed in this section will be implemented. Workers will be advised to be observant and on the lookout for signs that impacted materials have been encountered or unearthed. Those signs may include:

- USTs associated with heating oil;
- Strong or unusual chemical odors;
- Obvious physical signs of industrial or other wastes, including ash, cinders, tars, sludges, powders, resins, liquids or containers (i.e. drums, pails, etc.);
- Unlabelled drums or containers;
- Buried metal objects such as tanks and ground water production wells;
- Above ground metal objects such as vent pipes;
- Buried building materials that may contain asbestos containing materials (ACM); and
- Co-workers who suddenly become ill while working in the project area.

The following protocols will be followed in any situation where impacted materials are encountered that were not anticipated and which may pose a significant hazard to human health and/or the environment:

1. Work in the area where the waste/impacts are encountered will be stopped immediately, the area secured, and the General Contractor Project Manager and Project Manager notified to assemble a response team and arrange for a preliminary inspection and assessment of the situation.

2. Necessary steps will be taken to initiate an emergency response, if warranted, and to stabilize the situation to the extent possible.

3. If appropriate the WDNR will be contacted to determine if any additional steps are necessary to properly manage the impacts encountered. If requested, a brief plan will be submitted to the WDNR Project Manager for review and approval to document the proper management of the impacted media.

4. The impacted media will be managed in accordance with the applicable WDNR-approved plan.

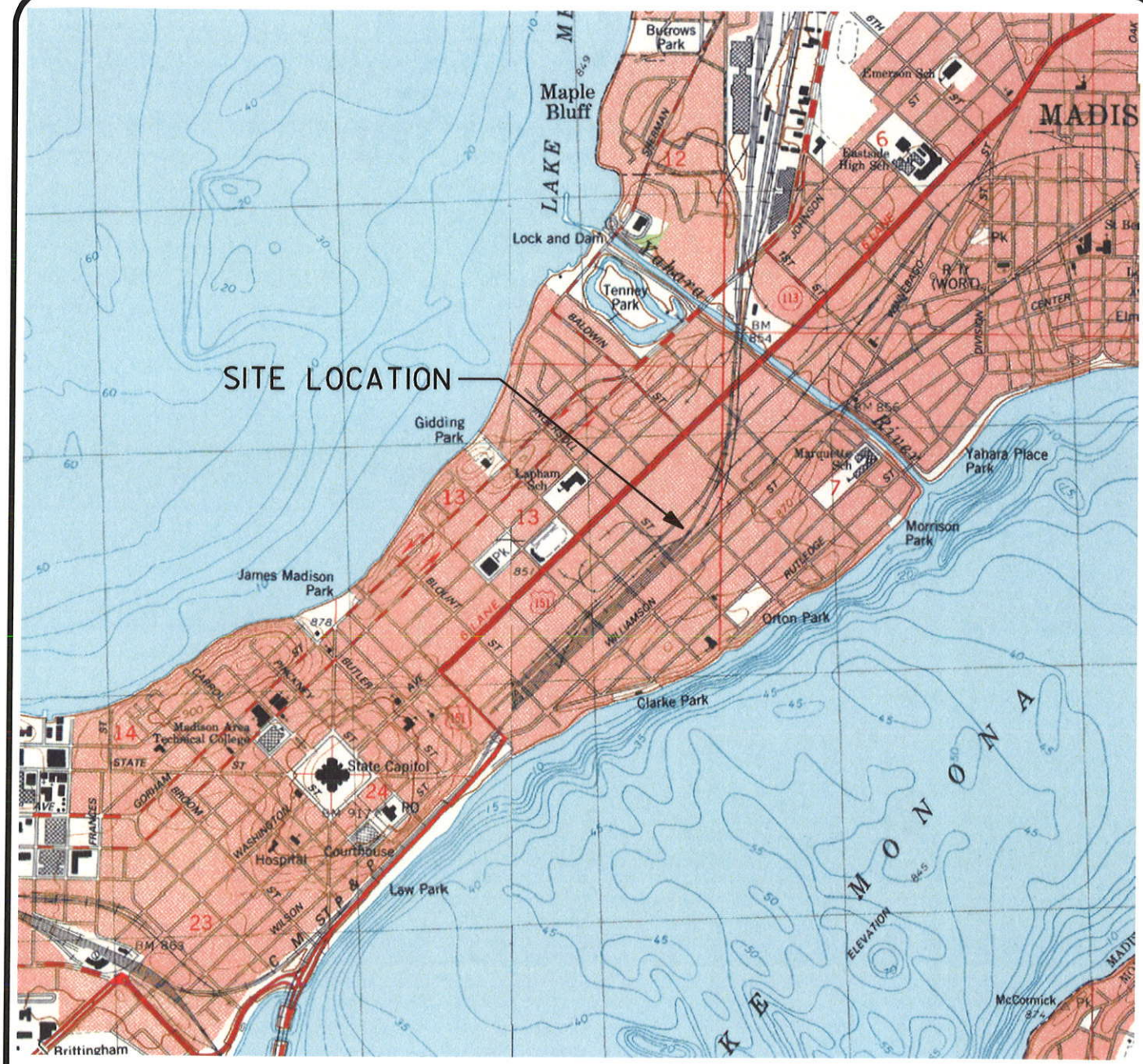
IV. CONCLUSIONS

MSA has prepared this MMP on behalf of the City of Madison, for review and approval by the WDNR RR Program. Upon completion of the construction activities in the Project Area, a Documentation Report will be submitted to the WDNR RR Program documenting that the proposed soil cap was constructed in accordance with the approved MMP.

Attachment A

Figures and Exhibits

Figure 1: Topographic Map
Figure 2: Project Location Map
Master Plan Central Park
Phase 1 Central Park
Brearly Block: Landscape Forms Diagram
Brearly Block: Grading Plan
Central Park Parcels and Addresses



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Madison West & East Quadrangle
Wisconsin - Dane County
7.5 Minute Series (Topographic)

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MSA PROFESSIONAL SERVICES
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301 West First Street, Duluth, MN 55802
218-722-3915 1-800-777-7380 Fax: 218-722-4548

FIGURE 1
SITE LOCATION MAP
201 South Ingersoll St.
Madison, WI

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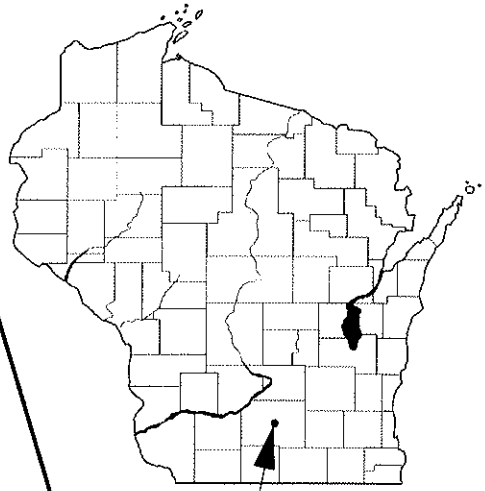
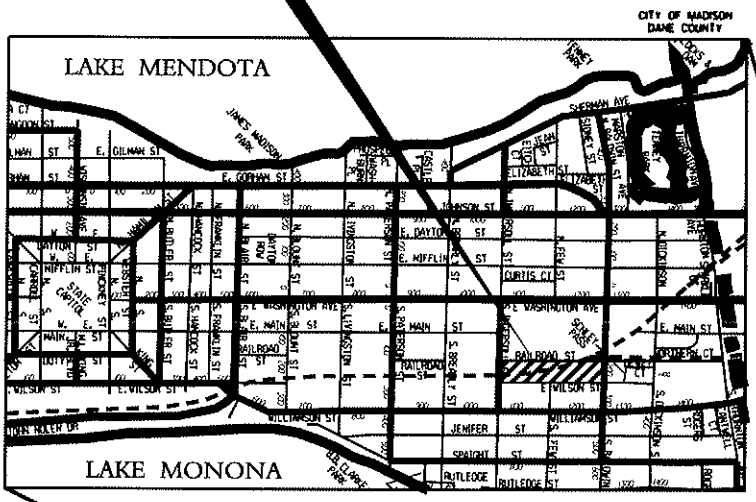
PROJECT LOCATION MAP

PROJECT I.D. 5992-01-95
CENTRAL PARK
CITY OF MADISON
DANE COUNTY

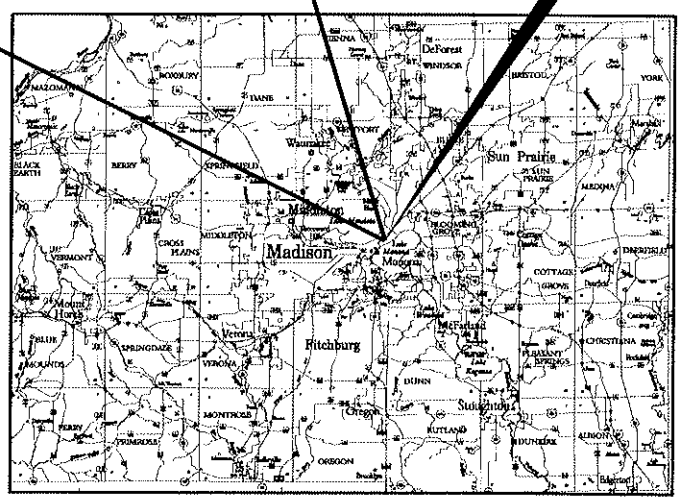
N



PROJECT LOCATION



PROJECT LOCATION
CITY OF MADISON
DANE COUNTY



MSA

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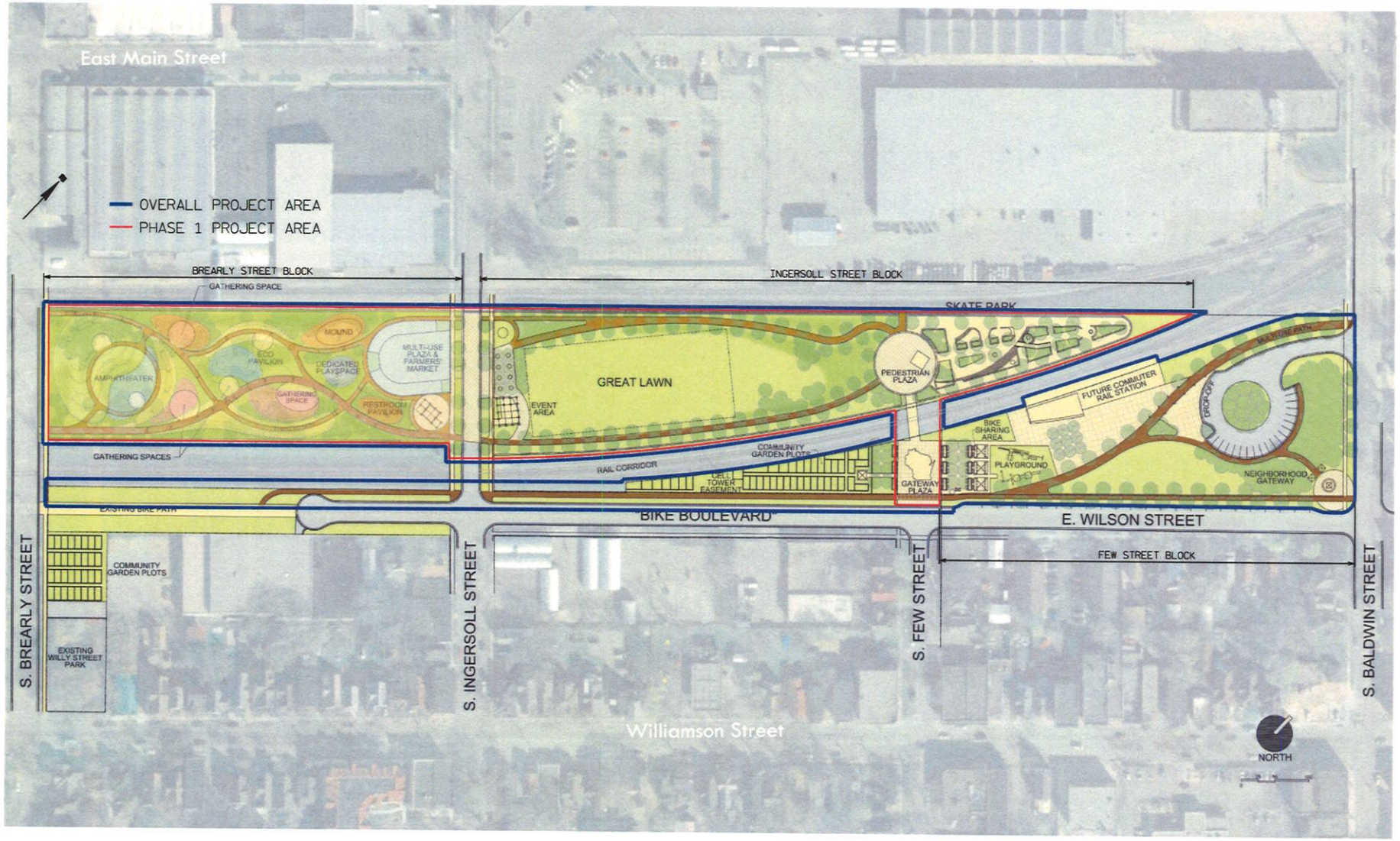
CAD MAPS PRODUCED BY
MSA PROFESSIONAL SERVICES, INC.



MSA PROFESSIONAL SERVICES

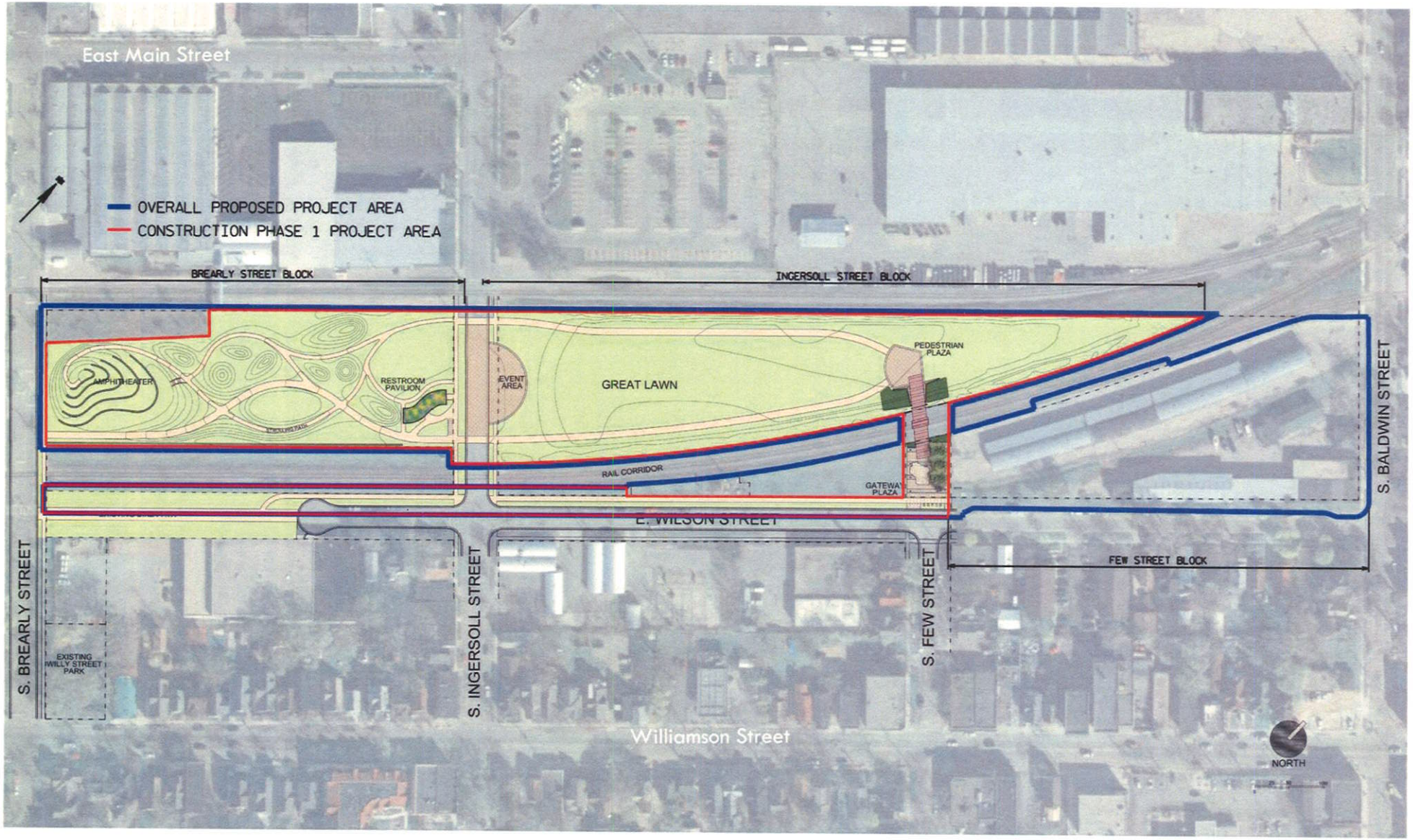
LORNA JORDAN STUDIO

Master Plan
Central Park

June 1st, 2011

ART WORKS.
arts.gov

This project is supported in part by an award from the National Endowment for the Arts.



Phase I
Central Park

January 31st, 2012

MSA PROFESSIONAL SERVICES

LORNA JORDAN STUDIO

S. Brearly St. to S. Ingersoll St.

ART WORKS.
arts.gov

This project is supported in part by an award from the National Endowment for the Arts.

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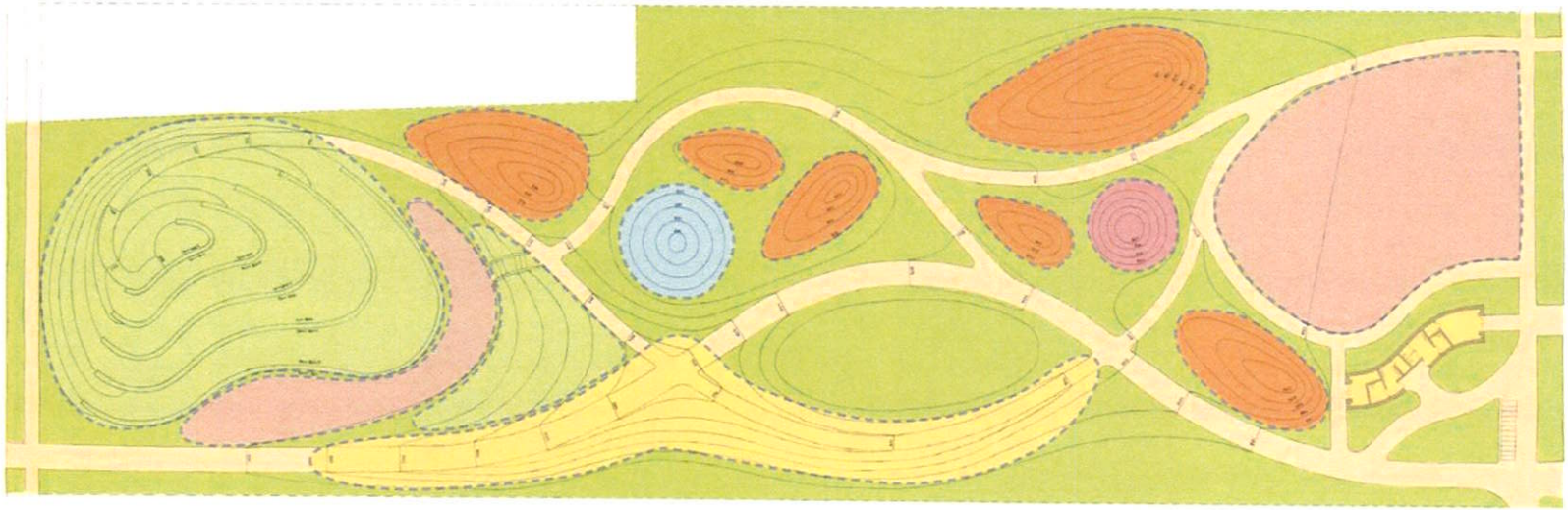


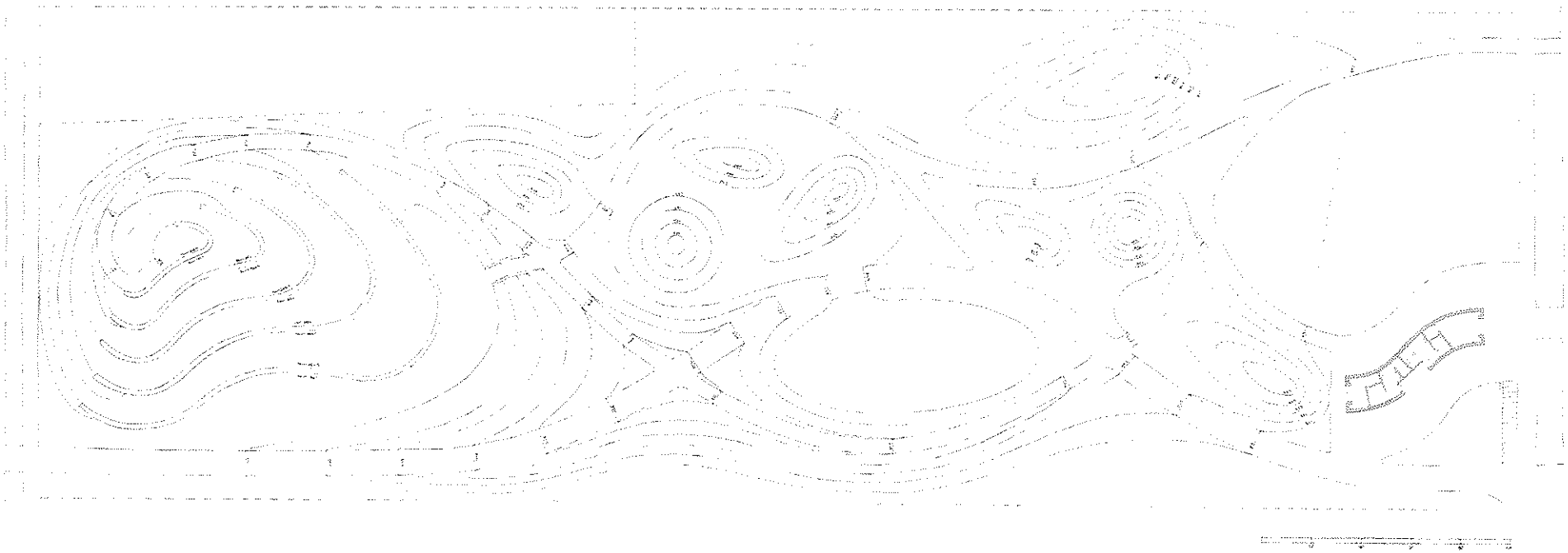
KEY: Inspiration for Earthworks—Glaciated Landscape Forms

- Ground Moraine
- Glacier & Moraines (Ground & Terminal)
- Glacial Lake Bottom
- Drumlin
- Esker
- Kettle
- Kame

Central Park
Brearly Block
Preliminary Design Development
Landscape Forms Diagram
NOT FOR CONSTRUCTION

February 1, 2012

Brearly Block—Glaciation as Inspiration for Earthworks & Building



Central Park

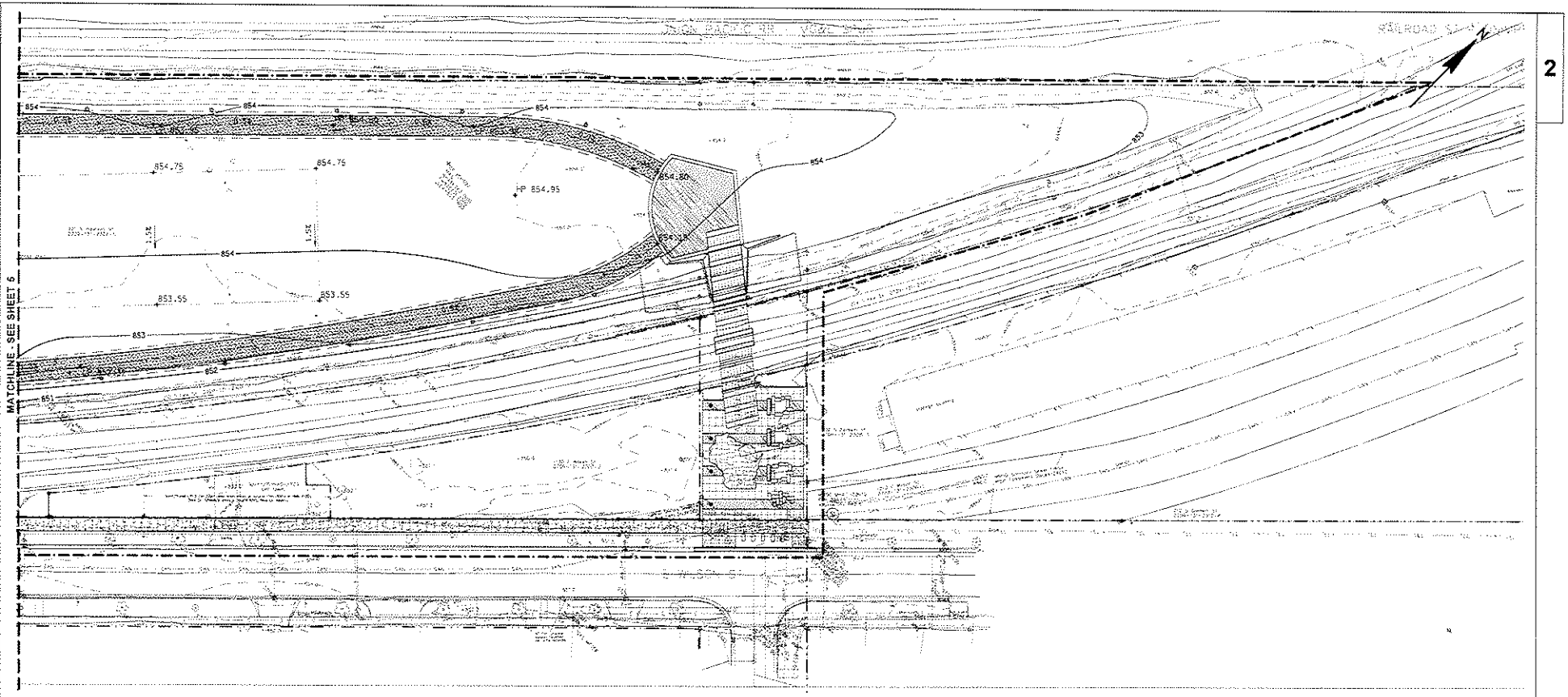
Brearly Block

DRAFT—Preliminary Design Development

Grading Plan

NOT FOR CONSTRUCTION

January 10, 2012



LEGEND

- PROJECT LIMITS
- PROPERTY LINE
- 855 PROPOSED INDEX CONTOUR
- 854 PROPOSED INTERMEDIATE CONTOUR
- SWALE CENTERLINE
- PATH SHOULDER
- + 851.90 PROPOSED SPOT ELEVATION
- + TW 851.90 TOP OF WALL ELEVATION
- + BW 851.90 BOTTOM OF WALL ELEVATION
- + LP 851.90 LOW POINT ELEVATION
- + HP 851.90 HIGH POINT ELEVATION
- + ME 851.90 MATCH EXISTING ELEVATION/FIELD VERIFY
- + FFE 851.90 FINISH FLOOR ELEVATION

NOTES

1. CONTRACTOR SHALL CONTACT DIGGERS HOTLINE AND APPROPRIATE UTILITY COMPANIES TO FIELD VERIFY UTILITIES PRIOR TO ANY CONSTRUCTION.
2. HORIZONTAL DATUM IS DANE COUNTY COORDINATES, U.S. SURVEY FEET, NAD83(2007).
3. VERTICAL DATUM IS NAVD88, PRE-2007 ADJUSTMENT.

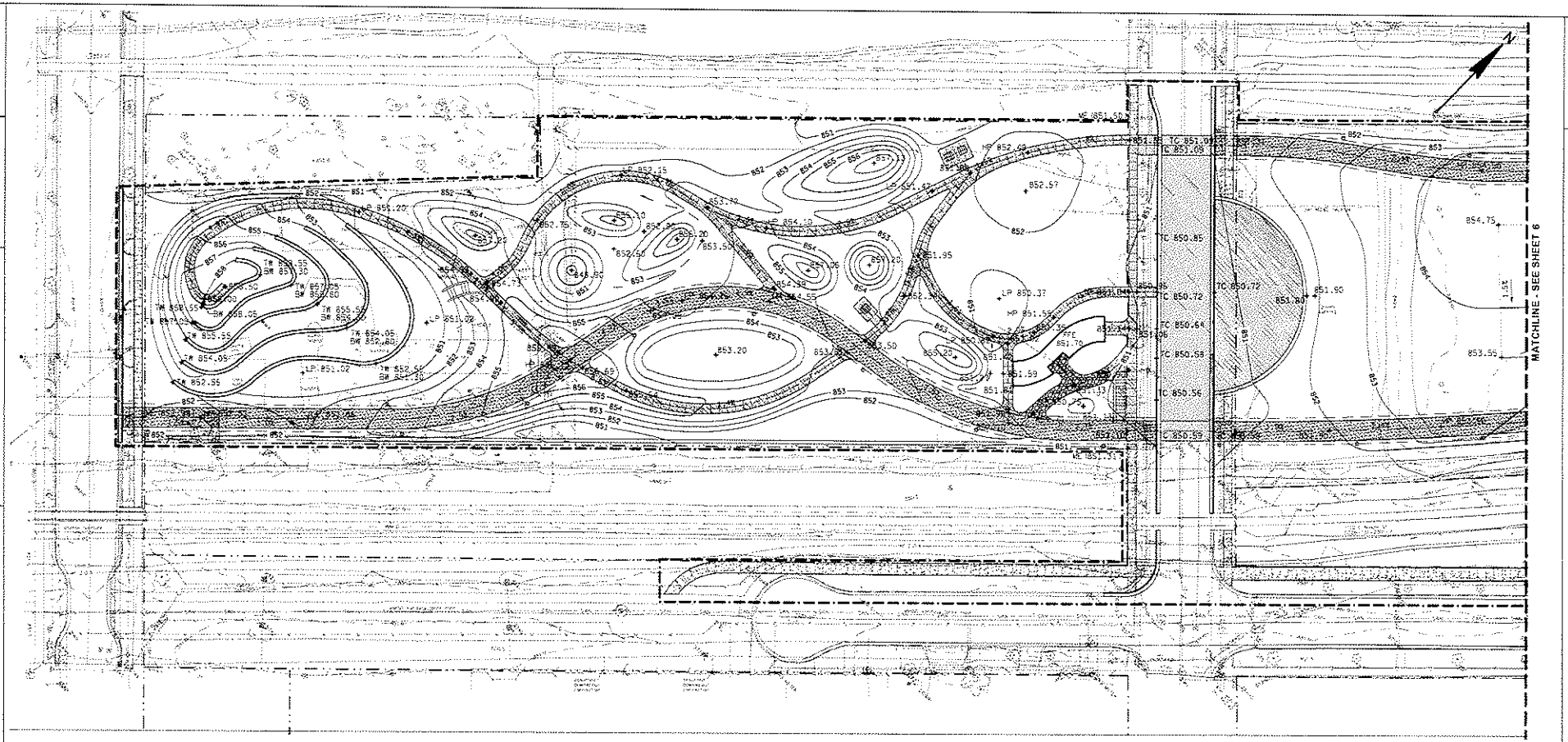
811 Know what's **below.** **Call** before you dig.

0 15' 30' SCALE

PROJECT NO: 5992-01-96	HWY: NON HIGHWAY	COUNTY: DANE	GRADING PLAN	SHEET	E

FILE NAME : P:\S0134\003\CAD\SHEET\S0134-GRAD.DWG PLOT DATE : PLOT BY : JJR PLOT NAME : PLOT SCALE : 1:30

WISDOT/CADDS SHEET 42



LEGEND

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NOTES

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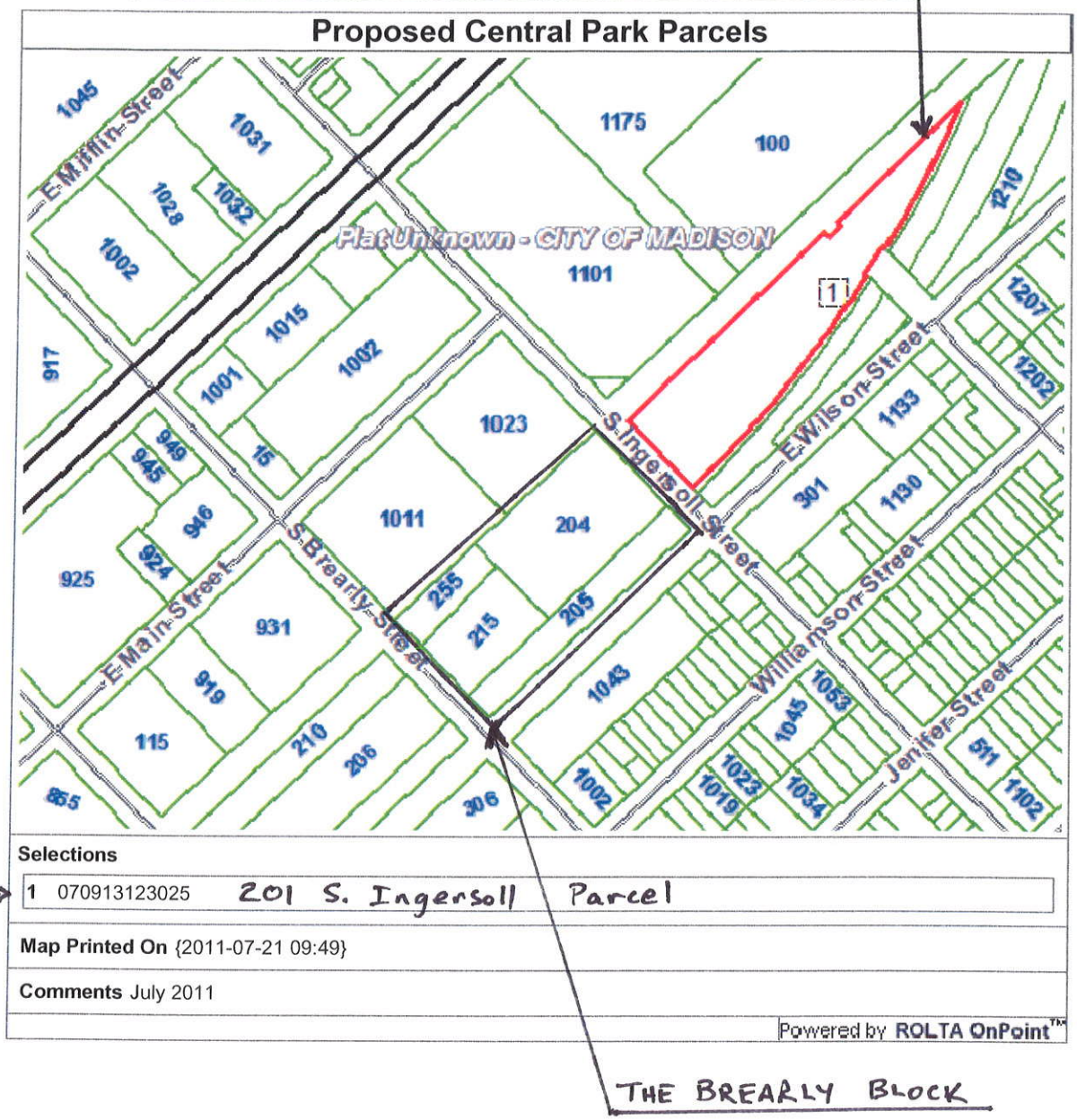
Know what's **below.** **Call** before you dig.

0 15' 30' SCALE

PROJECT NO:5992-01-96	HWY: NON HIGHWAY	COUNTY: DANE	GRADING PLAN	SHEET	E

FILE NAME : P:\50134\003\CAD\SHEET\50134-GRAD.DWG PLOT DATE : PLOT BY : JJR PLOT NAME : PLOT SCALE : 1:30

INGERSOLL BLOCK 'THE GREAT LAWN AREA'



IN RED → OUTLINE

THE BREARLY BLOCK

NOTE:

215 BREARLY CONTAINS THE 211 BREARLY BRYN OIL SITE

204 S INGERSOLL IS THE FORMER RESEARCH PRODUCTS (RP) PARCEL

255 S. BREARLY IS THE UNION PACIFIC PARCEL

CURRENT CITY OF MADISON PARCEL ADDRESSES ARE SHOWN

Attachment B

Ingersoll Block and 201 S. Ingersoll Environmental Information

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 10/7/2005)

WisDOT Project ID: 5992-01-95
Highway/Street: Proposed Central Park
Termini/Limits: Brearly Street to Baldwin Street, City of Madison
County: Dane

Property Information:
Site Name(s): Farwell Park (former Johnson Property)
DOT parcel number (if known):
Property Address: 201 South Ingersoll
Owner's Name: City of Madison
Owner's Address: 215 Martin Luther King Blvd., Madison, WI 53701
Owner's Phone:
Current Land Use: city park
Past Land Use: Former Sinclair Refining bulk plant and also a culvert company

Real Estate Requirements: The City of Madison owns this parcel
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to up to 5 feet (for retaining wall foundations)
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Commerce (DCOMM)
- ☐ site has registered tanks ☐ASTs ☒USTs
- ☐ tanks are currently in use
- ☒ tanks are abandoned date: 9/7/88
- Tank contents:
  - ☒ Leaded gasoline ☐ Unleaded gasoline ☐ Fuel Oil ☒ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DCOMM administered LUST site; DCOMM ID number:
- ☐ site is a closed DCOMM LUST site; closure date:

Department of Natural Resources (DNR)
- ☒ site is a DNR administered LUST site; BRRTS number: 03-13-000292
- ☒ site is a DNR administered ERP site; BRRTS number: 02-13-227102 and 02-13546624
- ☒ site is a closed ☒LUST ☒ERP site; closure date: 1/10/97 and 11/8/99 and 6/20/06
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a petroleum bulk plant on map dated 1951. Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☒ Contamination discovered at 2-4 feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☒ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☐ Soil borings
Comments: Residual soil contamination is present, contaminated soil was excavated, property has a cap maintenance agreement

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☒ Contaminated soil known to be within proposed right of way from 4 feet below ground surface
☒ Contaminated groundwater known to be within proposed right of way at 6 feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☐ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations: A Phase 2 Subsurface Investigation was performed in July 2010. Special provisions will be written and provided at the time final plans are developed.

☒ No additional hazardous materials investigation is required.
☒ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☐ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: MSA Professional Services, Inc. on 2/9/2012
Recommendations accepted by (name and title): , on _____

Signature: _____

A check in a checkbox indicates a positive or "yes" response.

WDNR BRRTS on the Web

JOHNSON PROPERTY
Remediation Activity Details

PRINT | HELP

Activity Number and Name	Activity Type	Status
03-13-000292 JOHNSON PROPERTY	**LUST**	**CLOSED**

Facility ID	Start Date	Location Name View other activities at this Location	
NONE	01/29/1989	**JOHNSON PROPERTY**	
Commerce Number	End Date	Address View on Google Maps™ [Exit DNR]	Municipality
53703355301 [Exit DNR]	01/10/1997	201 S INGERSOLL ST	MADISON
EPA CERCLIS ID	Date of Last Action	County	DNR Region
NONE	01/10/1997	DANE	SOUTH CNTRL
Agency Jurisdiction	Petroleum Risk	Other Location Info	Plot Size (Acres)
DNR-RR	HIGH	NONE	UNKNOWN

Public Land Survey System Description	DNR RR Sites Map
SE 1/4 of the NE 1/4 of Sec 13, T07N, R09E	View Activity on Map

Comments

THERE ARE 5 REMEDIATION AND NO WASTE ACTIVITIES AT THIS LOCATION. CLICK ON THE LOCATION NAME LINK TO VIEW LOCATION DETAILS AND VIEW OTHER ACTIVITIES AT THIS LOCATION.

Characteristics

EPA NPL Site?	Commerce Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?
No	**Yes**	**Yes**	**No**	**No**	**No**

Actions
Place Cursor Over Code to View Description

Date	Code	Name	Comment
01/29/1989	1	Notification	-
03/06/1990	2	RP Letter Sent	RP LETTER
08/08/1990	45	Form 4 Approved	FORM 4 APPROVED
12/01/1993	39	Remedial Action Options Report received (w/out Fee)	RA WORK PLAN RECV'D
12/21/1993	30	Site Investigation Workplan Go Ahead (notice to proceed)	NOTICE TO PROCEED
02/23/1994	43	Status Report Received	QRTLY/MTHLY STATUS RPT
12/28/1994	30	Site Investigation Workplan Go Ahead (notice to proceed)/2	NOTICE TO PROCEED
01/27/1995	41	Remedial Action Report Received	RA REPORT RECV'D
05/01/1995	30	Site Investigation Workplan Go Ahead (notice to proceed)/3	NOTICE TO PROCEED
05/22/1995	43	Status Report Received/2	QRTLY/MTHLY STATUS RPT
06/12/1995	45	Form 4 Approved/2	FORM 4 APPROVED

06/19/1995	43	Status Report Received/3	QRTLY/MTHLY STATUS RPT
07/19/1995	43	Status Report Received/4	QRTLY/MTHLY STATUS RPT
09/07/1995	43	Status Report Received/5	QRTLY/MTHLY STATUS RPT
10/04/1995	43	Status Report Received/6	QRTLY/MTHLY STATUS RPT
11/08/1995	43	Status Report Received/7	QRTLY/MTHLY STATUS RPT
01/16/1996	43	Status Report Received/8	-
02/27/1996	43	Status Report Received/9	-
04/09/1996	43	Status Report Received/10	-
06/13/1996	84	Conditional Closure	-
01/10/1997	11	Activity Closed	-

Impacts	
Type	Comment
Groundwater Contamination	GROUNDWATER CONTAMINATION
Soil Contamination	SOIL CONTAMINATION

Substances		
Substance	Substance Type	Amount Released
Diesel Fuel	**Petroleum**	
Volatile Organic Compounds	**VOC**	

Who	
Responsible Party:	**MARQUIP CO** 1245 E WASHINGTON AVE MADISON, WI 53703
Project Manager:	**MICHAEL SCHMOLLER** ✉ 3911 FISH HATCHERY RD FITCHBURG,
Responsible Party:	**PERSONALLY IDENTIFIABLE INFORMATION IS IN FILE**

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the BOTW disclaimers page for more information.

WDNR BRRTS on the Web

MADISON CTY PROPERTY SITE #2
Remediation Activity Details

PRINT | HELP

Activity Number and Name	Activity Type	Status
02-13-227102 MADISON CTY PROPERTY SITE #2	**ERP**	**CLOSED**

Facility ID	Start Date	Location Name View other activities at this Location	
NONE	06/23/1999	**JOHNSON PROPERTY**	
Commerce Number	End Date	Address View on Google Maps™ [Exit DNR]	Municipality
53703355301 [Exit DNR]	11/08/1999	201 S INGERSOLL ST	MADISON
EPA CERCLIS ID	Date of Last Action	County	DNR Region
NONE	11/08/1999	DANE	SOUTH CNTRL
Agency Jurisdiction	Petroleum Risk	Other Location Info	Plot Size (Acres)
COMMERCE	LOW	NONE	UNKNOWN

Public Land Survey System Description	DNR RR Sites Map
SE 1/4 of the NE 1/4 of Sec 13, T07N, R09E	View Activity on Map

Comments

**** TRANSFERRED TO COMMERCE - ACTIVITY NO LONGER UNDER DNR JURISDICTION *** THERE ARE 5 REMEDIATION AND NO WASTE ACTIVITIES AT THIS LOCATION. CLICK ON THE LOCATION NAME LINK TO VIEW LOCATION DETAILS AND VIEW OTHER ACTIVITIES AT THIS LOCATION.*

Characteristics

EPA NPL Site?	Commerce Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?
No	**Yes**	**No**	**Yes**	**No**	**No**

Actions
Place Cursor Over Code to View Description

Date	Code	Name	Comment
06/23/1999	1	Notification	-
08/11/1999	2	RP Letter Sent	-
08/26/1999	37	SI Report Received (w/out Fee)	*** SITE INVESTIGATION DETERMINED BY COMMERCE TO BE COMPLETE - FROM DCOM DATA INTERCHANGE ***
09/23/1999	76	Activity Transferred to DCOM	-
11/08/1999	11	Activity Closed	*** NR708 Closure from Commerce Data Interchange ***
11/08/1999	39	Remedial Action Options Report received (w/out Fee)	*** NR708 from Commerce Data Interchange ***
11/08/1999	83	Close-out Under NR708.09	*** NR708 from Commerce Data Interchange ***

Impacts

Type	Comment

Soil Contamination	-

Substances		
Substance	Substance Type	Amount Released
Gasoline - Unleaded and Leaded	**Petroleum**	

Who	
Responsible Party:	**MADISON CITY OF** 215 MARTIN LUTHER KING BLVD MADISON, WI 53701
Project Manager:	**WI DEPT OF COMMERCE (DCOM)** 201 WEST WASHINGTON AVE MADISON, WI 53703

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the BOTW disclaimers page for more information.

Release 2.6.2 | 09/19/2008

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Lloyd L. Eagan, Regional Director

South Central Region Headquarters
3911 Fish Hatchery Road
Fitchburg, Wisconsin 53711-5397
Telephone 608-275-3266
FAX 608-275-3338
TTY Access via relay - 711

June 20, 2006

File Ref: 07-13-543703
Dane County

Heather Mann
Urban Open Space Foundation
200 North Blount Street
Madison, WI 53703

SUBJECT: Final Case Closure
Farwell Park, 201 South Ingersol Street, Madison, WI

Dear Ms Mann:

On June 20, 2006 the South Central Region Closure Committee reviewed the above referenced case for closure. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. Based on the correspondence and data provided, it appears that your case meets the requirements of ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time.

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. If these requirements are not followed or if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department may take enforcement action under s. 292.11 Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. It is the Department's intent to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

Pursuant to s. 292.12(2) (a), Wis. Stats., the soil cover that currently exists in the location shown on the attached map shall be maintained in compliance with the attached maintenance plan in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. If soil in the specific locations described above is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

The following activities are prohibited on any portion of the property where a soil cover is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin

Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; or 6) construction or placement of a building or other structure.

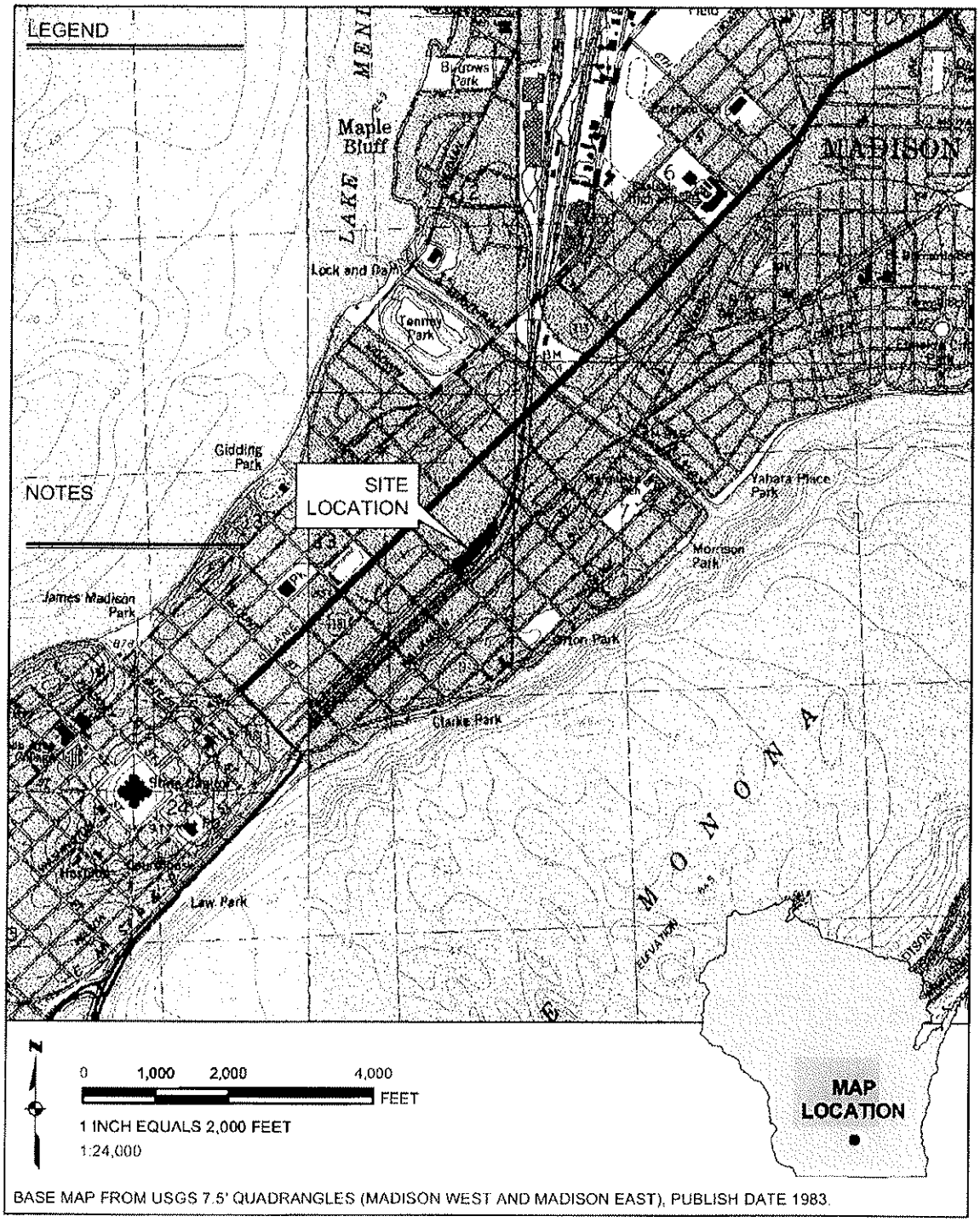
Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit http://dnr.wi.gov/org/aw/rr/gis/index.htm.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

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Michael Schmoller at 608-275-3303.

Sincerely,

Patrick McCutcheon, South Central Region
Remediation & Redevelopment Team Supervisor

cc: Kris Krause, RMT, Inc, 744 Heartland Trail, Madison, WI 53717



BASE MAP FROM USGS 7.5' QUADRANGLES (MADISON WEST AND MADISON EAST), PUBLISH DATE 1983.

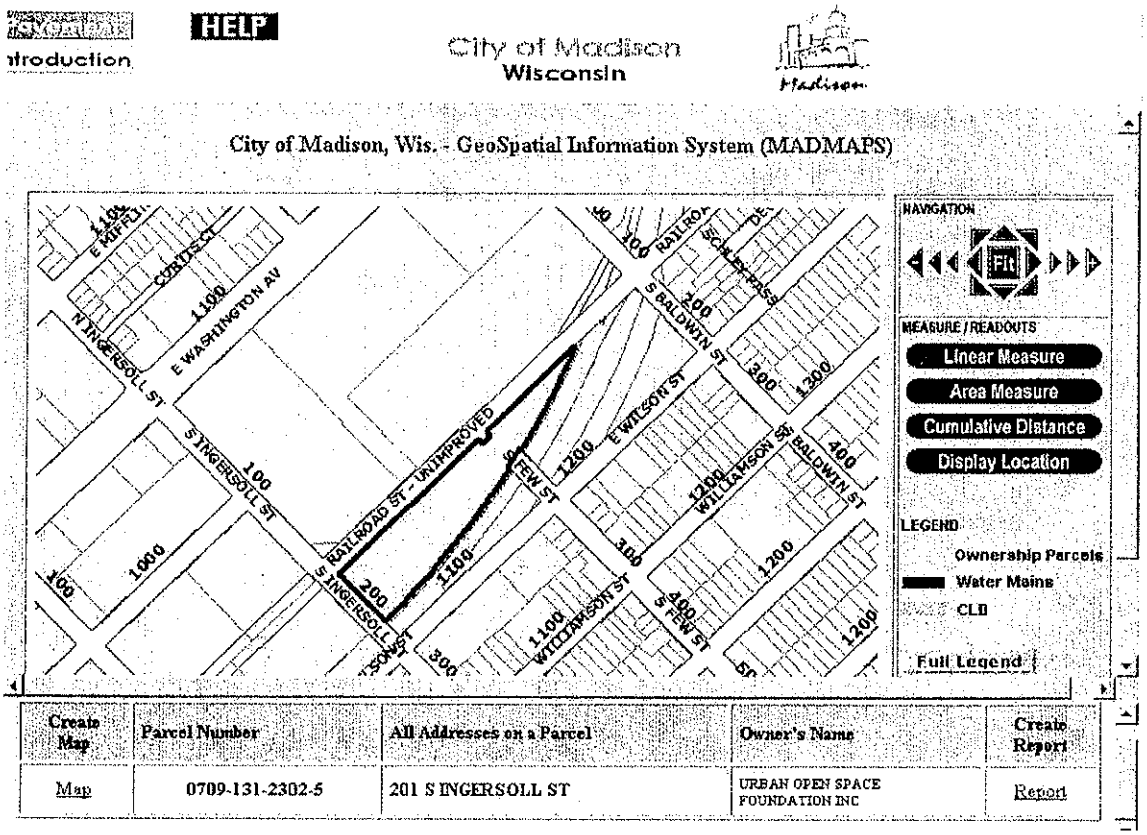
RMT
744 Heartland Trail
Madison, WI 53717 - 1934
P.O. Box 8923
Madison, WI 53708 - 8923
Phone: 608-831-4444
Fax: 608-831-3021

SITE LOCATOR MAP

UOSF CLOSURE
FARWELL PARK

DRAWN BY:	HANKLEY C
APPROVED BY:	AAS
PROJ. NO.:	00-06384.02
FILE NO.:	63840201.mxd
DATE:	APRIL 2006

\\rml-gis\06384\02\GIS\63840201.mxd 4/6/2006 14:46:24



Parcel ID: 0709-131-2302-5
Geographic Position (WTM): 571444, 290337

Sources:
City of Madison Website: http://gis.ci.madison.wi.us/MADMAPS/GISHome.html
WDNR RR GIS Registry

1/25/06

Table 1
Soil Sample Results - Metals
201 South Ingersoll - Madison, Wisconsin
November 21, 2000 (Pre-Cap)
(mg/kg)

Compound	WDNR RCLs		Sample									
	Non-Industrial	Industrial	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10
			Depth (inches)									
			26-30	20-24	18-22	26-30	23-27	28-32	30-34	25-29	24-28	21-25
Cadmium	8	510	0.22	<0.033	<0.031	<0.026	<0.025	<0.035	<0.037	<0.027	<0.037	<0.040
Lead	50	500	**55.8**	65.9	11.6	18.7	29.9	3.2	2.1	25.6	39.9	28.7

Prepared By: A. Sellwood 1/26/06

Checked By: M. Chan 1/26/06

Notes

Data reproduced and reformated from Soil and Engineering Servies' summary tables

RCLs = Residual Contaminant Levels

BOLD = Concentration exceeds the RCL for non-industrial sites

RCLs for metals are from Wisconsin Administrative Code NR 720.

Table 2
Soil Sample Results - PAHs
201 South Ingersoll - Madison, Wisconsin
November 21, 2000 (Pre-Cap)
(mg/kg)

Compound	WDNR Suggested RCLs		Sample									
	Non-Industrial	Industrial	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10
			Depth (inches)									
			26-30	20-24	18-22	26-30	23-27	28-32	30-34	25-29	24-28	21-25
1-Methyl Naphthalene	1,100	70,000	<0.18	<1.8	<0.17	<0.35	<0.17	<0.018	<0.018	<0.18	<0.36	<0.36
2-Methyl Naphthalene	600	40,000	<0.20	<0.20	<0.19	<0.39	<0.19	<0.021	<0.020	<0.20	<0.40	<0.40
Acenaphthene	900	60,000	<0.79	<7.9	<0.75	<1.5	<0.75	<0.080	<0.077	<0.78	<1.6	<1.6
Acenaphthylene	18	360	0.36	<2.0	<0.19	<0.39	<0.19	<0.021	0.031	<0.20	0.6	<0.40
Anthracene	5,000	300,000	<0.030	<0.31	<0.029	<0.058	<0.029	<0.0031	<0.0030	<0.030	<0.060	<0.060
Benzo (a) anthracene	0.088	3.9	0.038	**2**	**0.21**	**0.69**	<0.017	<0.0018	0.014	0.018	**0.051**	<0.036
Benzo (b) fluoranthene	0.088	3.9	**0.26**	**11**	**0.47**	**2.6**	0.042	0.0029	0.041	0.039	**0.13**	0.074
Benzo (k) fluroanthene	0.88	39	0.094	**3**	0.17	**0.83**	0.017	<0.00082	0.015	0.018	0.10	<0.016
Benzo (g,h,i) perylene	1.8	39	0.22	**7.2**	0.41	**2.1**	<0.034	0.019	0.041	0.050	0.10	<0.071
Benzo (a) pyrene	0.0088	0.039	**0.14**	**3.5**	**0.29**	**1.5**	<0.043	0.0073	**0.025**	<0.045	**0.091**	<0.089
Chrysene	8.8	390	<0.034	<0.34	<0.032	<0.065	<0.032	<0.0034	<0.0033	<0.034	<0.067	<0.067
Dibenzo (a,h) anthracene	0.0018	0.078	<0.19	**6.3**	**0.27**	**1.6**	<0.18	<0.019	<0.019	<0.19	<0.38	<0.38
Fluoranthene	600	40,000	<0.027	<0.27	<0.026	<0.052	<0.026	<0.0027	<0.0026	<0.027	<0.053	<0.053
Fluorene	600	40,000	<0.90	<0.90	<0.086	<0.17	<0.086	<0.0091	<0.0088	<0.089	<0.18	<0.18
Ideno (1,2,3-cd) pyrene	0.088	3.9	<0.052	<0.52	<0.049	<0.099	<0.049	<0.0053	<0.0050	<0.051	<0.10	<0.10
Naphthalene	20	110	<0.18	<1.8	<0.17	<0.35	<0.17	<0.018	<0.018	<0.18	<0.36	<0.36
Phenanthrene	18	390	0.24	<0.29	<0.028	<0.056	0.050	<0.0030	0.02	0.045	0.55	0.25
Pyrene	500	30,000	<0.10	<1.0	<0.098	<0.20	<0.098	<0.010	<0.010	<0.10	<0.20	<0.20

Prepared By: A. Sellwood 1/26/06

Checked By: M. Chan 1/26/06

Notes

Data reproduced and reformated from Soil and Engineering Servies' summary tables

RCLs = Residual Contaminant Levels

PAHs = polycylic aromatic hydrocarbons

Suggested RCLs for PAHs taken from Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance - WDNR Publication RR-519-97, April 1997

BOLD = concentration exceeds the RCL for non-industrial sites

Table 3
Soil Sample Results - VOCs
201 South Ingersoll - Madison, Wisconsin
November 21, 2000 (Pre-Cap)
(mg/kg)

Compound	WDNR RCLs		Sample									
	Direct Contact	Groundwater	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10
			Depth (inches)									
			26-30	20-24	18-22	26-30	23-27	28-32	30-34	25-29	24-28	21-25
1,1,1-Trichloroethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.040
1,1,2,2-Tetrachloroethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.026
1,1,2-Trichlorethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,1-Dichloroethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.042
1,1-Dic[redacted]e			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.030
1,2,3-Tri[redacted]ne			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.048
1,2,4-Tri[redacted]ne			0.036	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.032
1,2,4-Trimethylbenzene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.047
1,2-Dibromo-3-chloropropane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.034
1,2-Dibromoethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.042
1,2-Dichlorobenzene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,2-Dichloroethane	0.54	0.0049	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.038
cis-1,2-Dichloroethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.050
trans-1,2-Dichloroethylene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.038
1,2-Dichloropropane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.038
1,3,5-Trimethylbenzene			0.026	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.028	0.76
1,3-Dichlorobenzene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,3-Dichloropropane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.044
1,4-Dichlorobenzene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
2,2-Dichloropropane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.042
2-Chlorotoluene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
4-Chlorotoluene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Benzene	1.10	0.0055	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.250
Bromobenzene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.030
Bromodichloromethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.026
n-Butylbenzene			0.093	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.087	1.1
sec-Butylbenzene			0.034	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.10
tert-Butylbenzene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	2.2

Table 3
Soil Sample Results - VOCs
201 South Ingersoll - Madison, Wisconsin
November 21, 2000 (Pre-Cap)
(mg/kg)

Compound	WDNR RCLs		Sample									
	Direct Contact	Groundwater	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10
			Depth (inches)									
			26-30	20-24	18-22	26-30	23-27	28-32	30-34	25-29	24-28	21-25
Carbon Tetrachloride			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.046
Chlorobenzene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Chlorodibromomethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Chloroethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.044
Chloroform			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.050
Chloromethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.040
Dichlorodifluoromethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.038
Diisopropyl ether			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.040
Ethylbenzene		2.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.32
Hexachlorobutadiene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.040
Isopropylbenzene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.12
p-Isopropyltoluene			<0.025	0.033	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.082
Methyl tert-butyl ether			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.038
Methylene chloride			<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	0.36
Naphthalene			0.11	0.097	0.10	0.10	0.055	<0.025	<0.025	0.050	0.067	1.0
n-Propylbenzene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	0.2
Tetrachloroethylene			0.15	0.050	<0.025	<0.025	0.057	<0.025	<0.025	<0.025	<0.025	<0.025
Toluene		1.5	0.091	0.028	<0.025	0.034	<0.025	<0.025	<0.025	<0.025	0.046	1.7
Trichloroethylene			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.044
Trichlorofluoromethane			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.044
Vinyl chloride			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.028
Total xylenes		4.1	0.088	0.034	<0.025	0.033	<0.025	<0.025	<0.025	<0.025	<0.025	3.5

Prepared By: A. Sellwood 1/26/06

Checked By: M. Chan 1/26/06

Notes

Data reproduced and reformated from Soil and Engineering Servies' summary tables

RCLs = Residual Contaminant Levels

BOLD = Concentration exceeds the lowest RCL

001260

PARCEL E: A parcel of land being part of Block 185, Original Plat, City of Madison, Dane County, Wisconsin, to-wit:

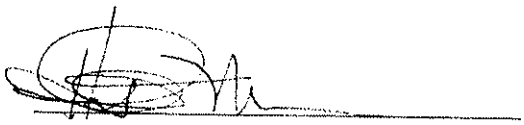
Commencing at the most Westerly corner of said Block 185 of the Original Plat; thence S44°57'26"E, 195.30 feet to a point on a curve and the point of beginning; thence Northeasterly along a curve to the left which has a radius of 2,834.04 feet and a chord which bears N37°40'21"E, 600.01 feet to the Southwest right-of-way line of South Few Street; thence along said right-of-way line S45°04'40"E, 11.34 feet to a point on a curve; thence Southwesterly along a curve to the right which has a radius of 2,845.04 feet and a chord which bears S37°42'05"W, 600.00 feet to the Northeast right-of-way line of South Ingersoll Street; thence along said right-of-way line N44°57'26"W, 11.00 feet to the point of beginning. This parcel contains 6,637.52 square feet, 0.152 acres.

PARCEL F: parcel of land being part of Block 199-200, Original Plat, City of Madison, Dane County, Wisconsin, to-wit:

Commencing at the most Westerly corner of said Block 199-200 of the Original Plat; thence S45°04'40"E, 102.48 feet to a point on a curve and the point of beginning; thence Northeasterly along a curve to the left which has a radius of 2,834.04 feet and a chord which bears N28°39'14"E, 154.99 feet to a point of compound curve; thence continuing Northeasterly along a curve to the left which has a radius of 2,441.67 feet and a chord which bears N25°03'27"E, 172.93 feet to the Southeast right-of-way of Railroad Street; thence along said line which bears N44°58'38"E, 29.59 feet to a point on a curve; thence Southwesterly along a curve to the right which has a radius of 2,452.67 feet and a chord which bears S24°44'35"W, 200.62 feet to a point of compound curve; thence continuing Southwesterly along a curve to the right which has a radius of 2,845.04 feet and a chord which bears S28°40'58"W, 158.47 feet to the Northeast right-of-way line of South Few Street; thence along said right-of-way line N45°04'40"W, 11.37 feet to the point of beginning. This parcel contains 3,674.89 square feet, 0.084 acres.

Owner Certification Statement

I, Heather Mann, of the Urban Open Space Foundation, believe that a legal description for each property that is within, or partially within, the contaminated site boundary, as defined by the November 21, 2000, soil investigation, has been attached within this submittal for Case Closure for 201 South Ingersoll Street, Madison, Wisconsin, WDNR BRRTs Case 07-13-543256.



3/31/02

Soil Cover Maintenance Plan
March 2006

Property Located At:
201 South Ingersoll Street, Madison, Wisconsin
WNDR BRRTS Case # 07-13-543256
Parcel # 0703-131-2302-5

Introduction

This document is the Maintenance Plan for a soil cover at the above-referenced property in accordance with the requirements of s. NR 724.13(2), Wisconsin Administrative Code. The maintenance activities relate to the existing soil cover occupying the area over the contaminated soil on-site. The contaminated soil is impacted by polycyclic aromatic hydrocarbons (PAHs) and lead. The location of the soil cover to be maintained in accordance with this Maintenance Plan as well as the location of the impacted soil are identified in the attached map (Exhibit A).

Cover and Building Barrier Purpose

The soil cover over the contaminated soil serves as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. Based on the current and future use of the property, the barrier should function as intended, unless disturbed.

Annual Inspection

The soil cover overlying the contaminated soil and as depicted in Exhibit A will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks, and other potential problems that can cause exposure to underlying soil. The inspections will be performed to evaluate damage due to settling, exposure to the weather, increasing age, and other factors. Any area in which soil has become, or is likely to become, exposed will be documented. A log of the inspections and any repairs will be maintained by the property owner and is included as Exhibit B, Cap Inspection Log. The log will include recommendations for the necessary repair of any areas in which underlying soil is exposed. Once repairs are completed, they will be documented in the inspection log. A copy of the inspection log will be kept on-site and will be available to be sent to the Wisconsin Department of Natural Resources ("WDNR") at their request.

Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling operations or larger construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact

exposure hazard and provide them with appropriate personal protection equipment ("PPE"). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored, and disposed of by the owner in accordance with applicable local, state, and federal law.

In the event that the soil cover overlying the contaminated soil is removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR or its successor. The property owner, in order to maintain the integrity of the soil cap and/or the building, will maintain a copy of this Maintenance Plan on-site and will make it available to all interested parties (*i.e.* on-site employees, contractors, future property owners, etc.) for viewing.

Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of the WDNR.

Contact Information

March 2006

Site Owner and Operator:	Urban Open Space Foundation 200 North Blount Street, Madison, WI 53703 608-255-9877
Consultant:	RMT, Inc 744 Heartland Trail, Madison, WI 53717 608-831-4444
WDNR:	Mike Schmoller 3911 Fish Hatchery Road, Fitchburg, WI 53711 608-275-3303

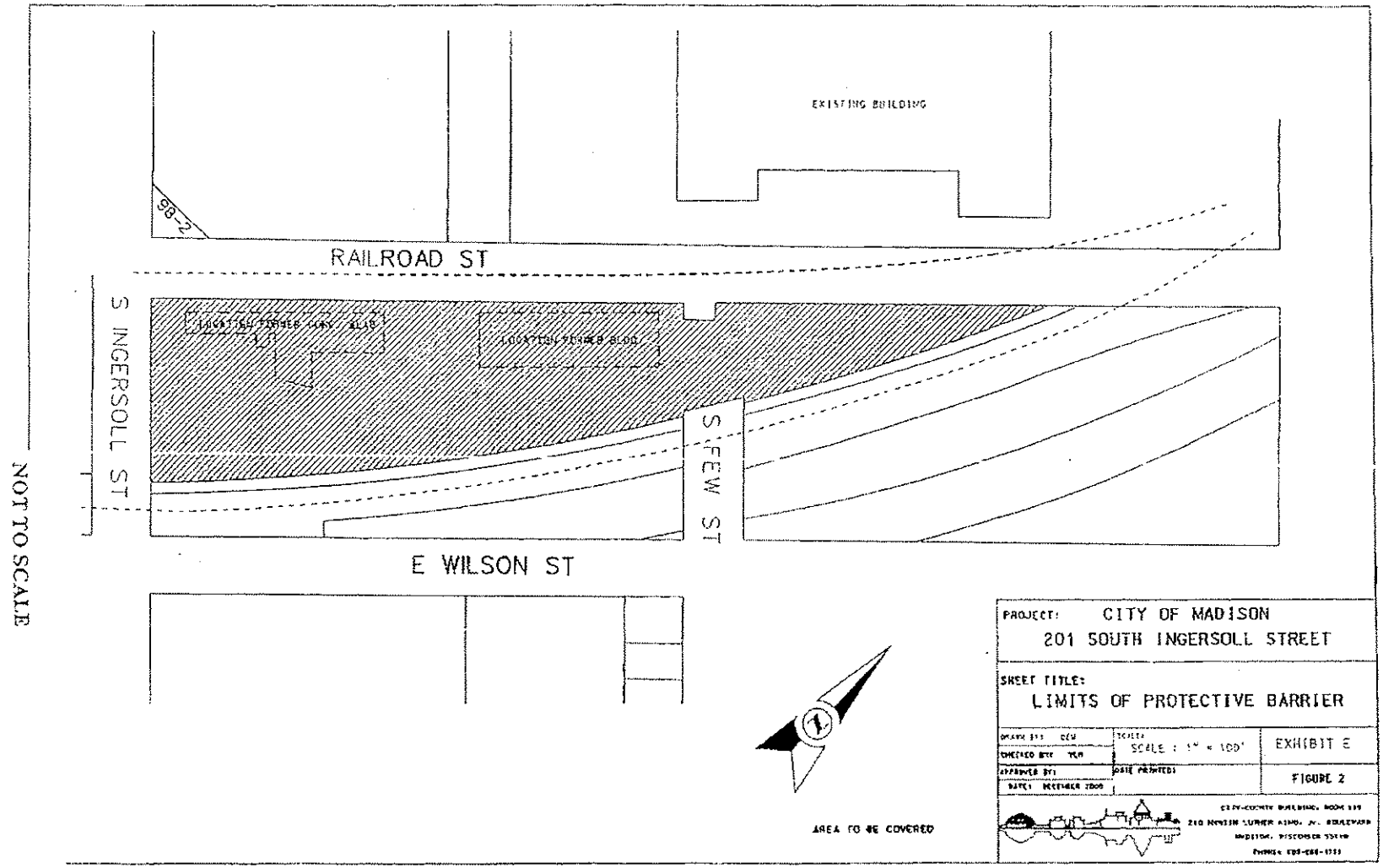
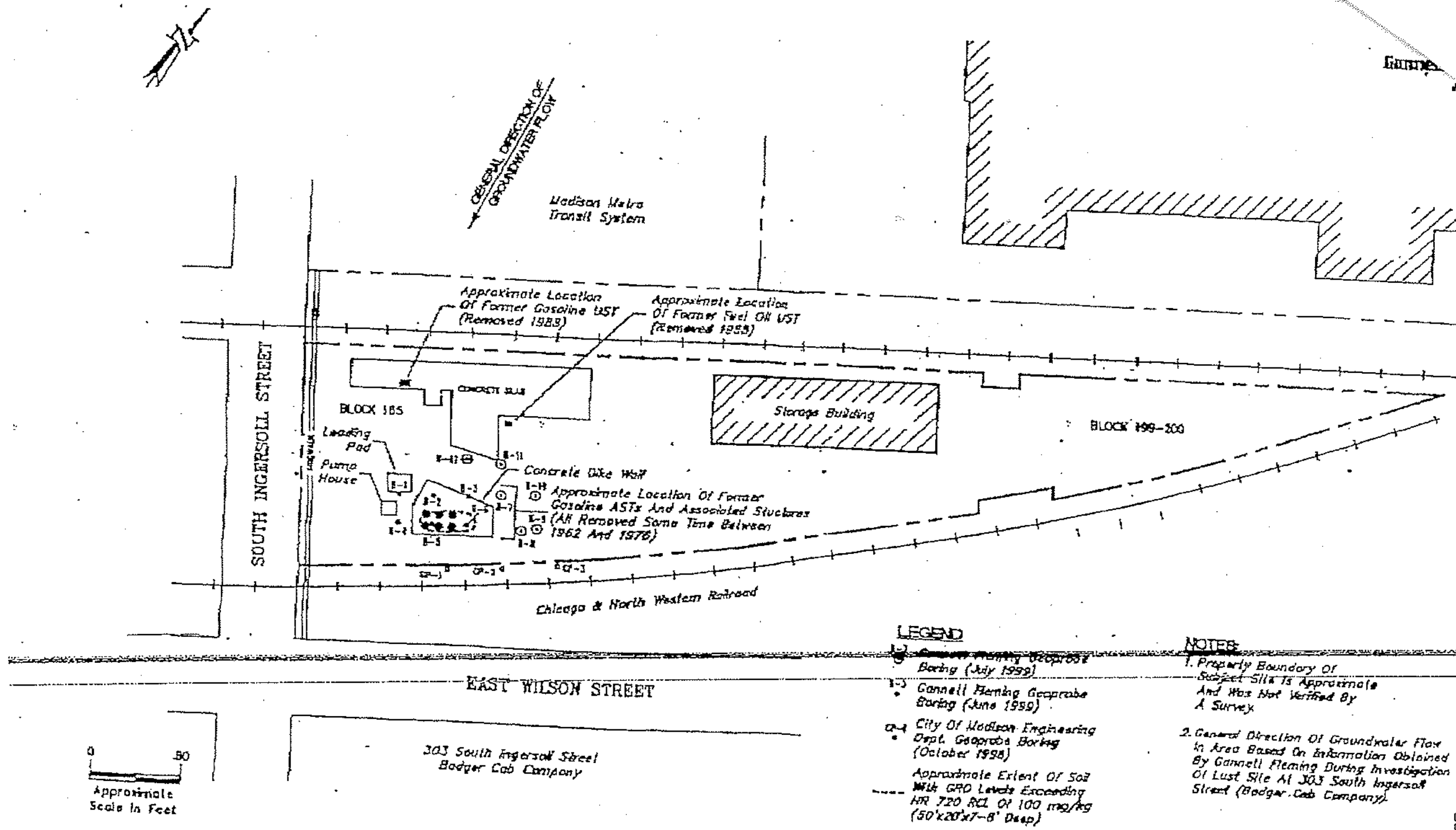
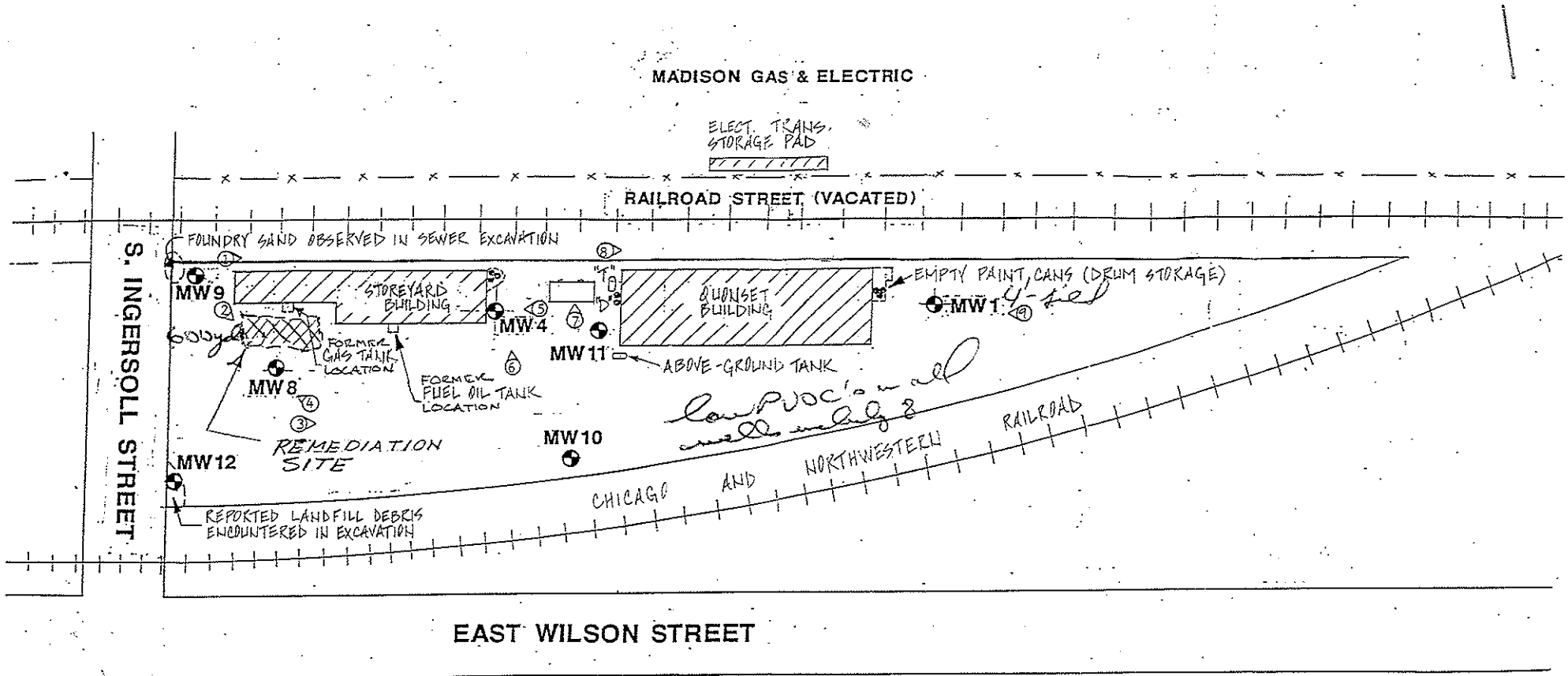

EXISTING BUILDING
98-2
RAILROAD ST
S INGERSOLL ST
S FEW ST
E WILSON ST
AREA TO BE COVERED
NOT TO SCALE
PROJECT: CITY OF MADISON
201 SOUTH INGERSOLL STREET
SHEET TITLE:
LIMITS OF PROTECTIVE BARRIER
SCALE : 1" = 100'
EXHIBIT E
FIGURE 2

Exhibit A



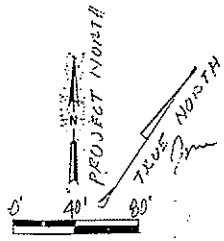
SITE PLAN

201 SOUTH INGERSOLL STR
CITY OF MADISON
MADISON, WISCONSIN



KEY

- MONITORING WELL LOCATION
- Photograph Location (SEE 2-14-90 REPORT)
- D — DRUMS
- T — TANK



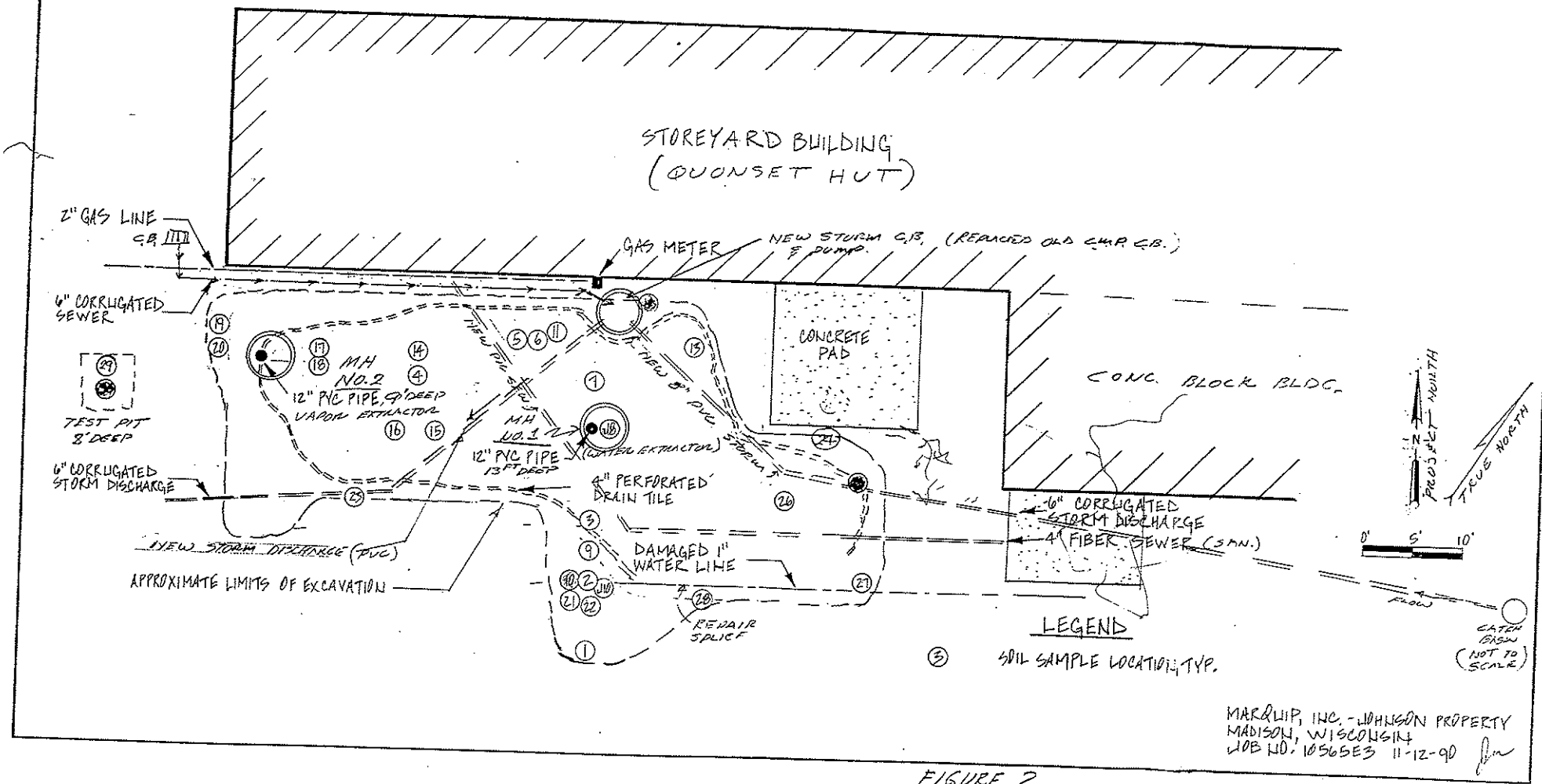
NOTES: 12-11-90

1. MW 1, MW 4, MW 8 were installed in September, 1989 in connection with a Subsurface Environmental Assessment by Miller Engineers (Job 10565E1) which is the subject of a report dated 2-14-90.
2. MW 9, MW 10, MW 11 and MW 12 were installed in September 1990.

MARQUIP INC. - JOHNSON PROPERTY
MADISON, WISCONSIN
JOB NO. 10565E3
REVISED 10-16-90
REVISED 11-7-90

Miller Jan 1991 report

FIGURE 3 MONITORING WELL LOCATION PLAN



MARQUIP, INC. - JOHNSON PROPERTY
MADISON, WISCONSIN
JOB NO. 1056SE3 11-12-90

FIGURE 2. SOIL EXCAVATION AND UNDERGROUND REMEDIATION PIPING PLAN

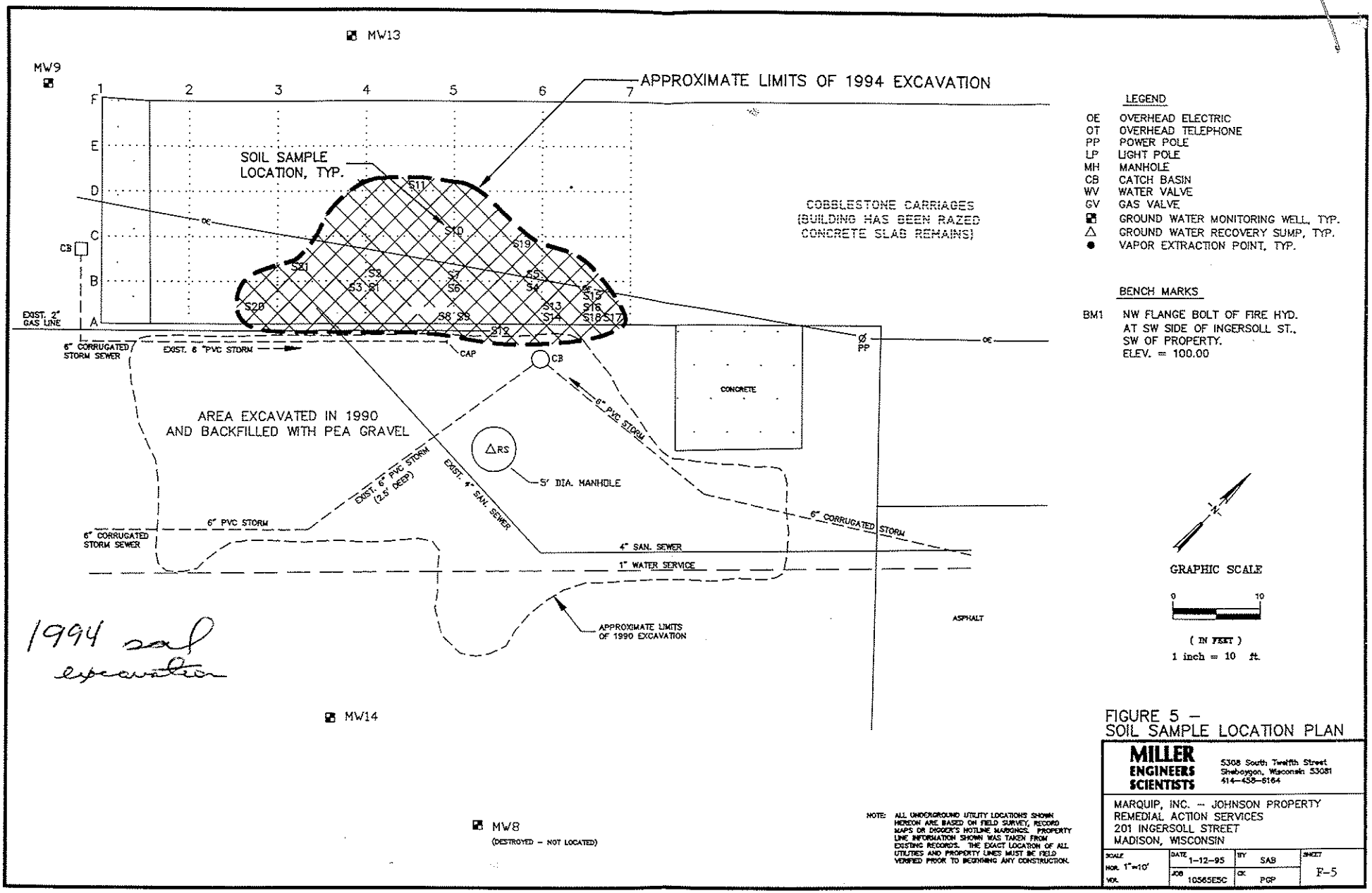


FIGURE 5 –
SOIL SAMPLE LOCATION PLAN

MILLER ENGINEERS SCIENTISTS
5308 South Twelfth Street
Sheboygan, Wisconsin 53081
414-458-5164

MARQUIP, INC. – JOHNSON PROPERTY
REMEDIAL ACTION SERVICES
201 INGERSOLL STREET
MADISON, WISCONSIN

SCALE	DATE	BY	SHEET
HOR. 1"=10'	1-12-95	SAB	F-5
VER.	JOB 10565E5C	CK PGP	

MILLER ENGINEERS SCIENTISTS

TABLE 2

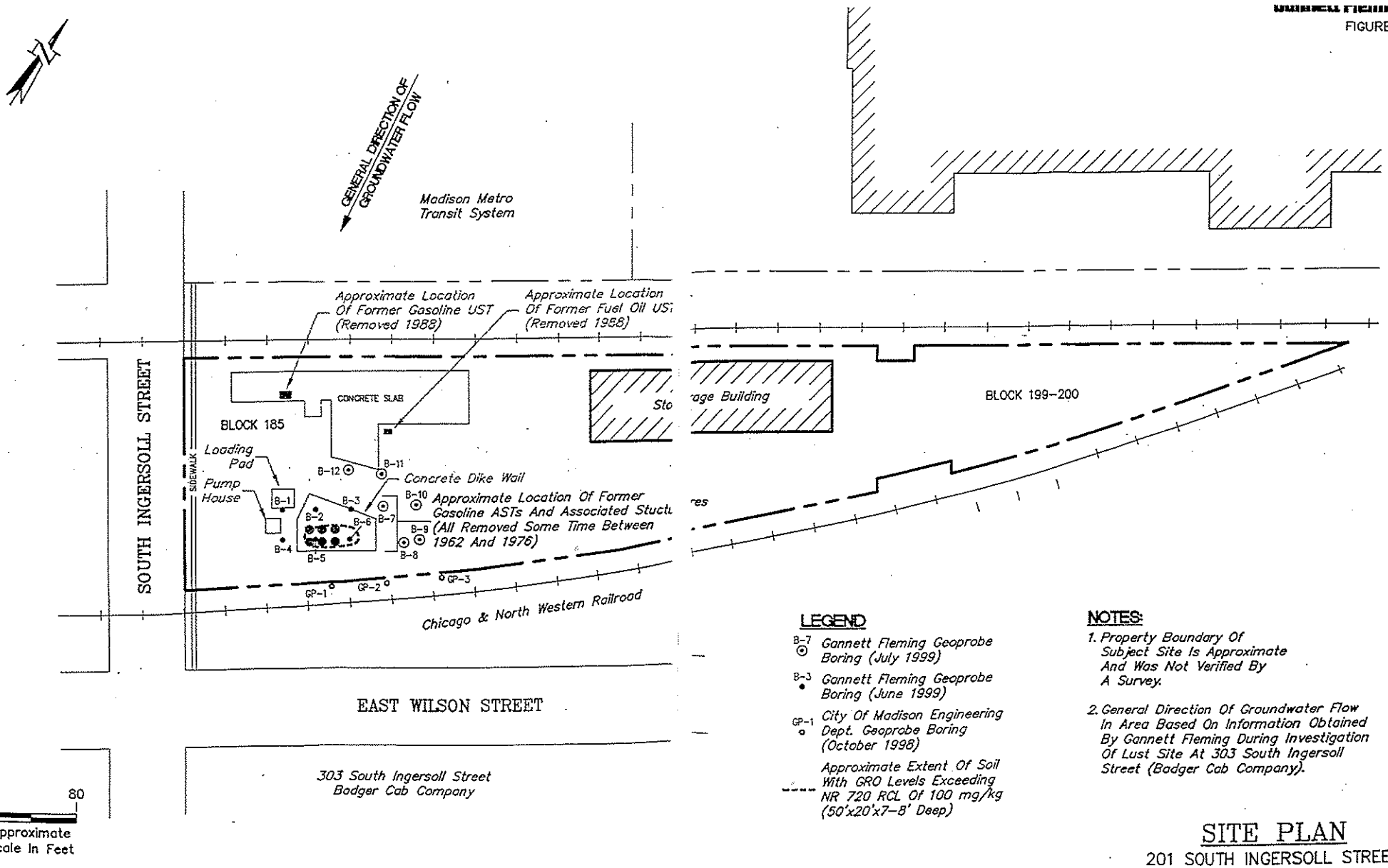
Soil Analytic Test Results—Excavated Soil

November 8, 1994

Analyte (µg/kg)	S2	S5	S10	S11	S12	S14	S16	S17	S18	S19	S20	S21	Interim NR 720 Standards
GRO (mg/kg)	ND	ND	ND	ND	110	6.5	110	ND	ND	ND	ND	ND	10
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.5
Ethylbenzene	ND	ND	ND	ND	150	ND	130	ND	3.6	ND	ND	ND	2900
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Toluene	ND	ND	ND	ND	ND	ND	68	ND	ND	ND	ND	ND	1500
1,2,4-Trimethylbenzene	ND	ND	ND	ND	960	ND	530	ND	18	ND	ND	ND	--
1,3,5-Trimethylbenzene	ND	ND	ND	ND	1800	ND	1000	ND	5.9	ND	ND	ND	--
Total Xylenes	ND	ND	ND	ND	680	ND	440	ND	20.1	ND	ND	ND	4100
Total PVOC	ND	ND	ND	ND	3590	ND	2168	ND	47.6	ND	ND	ND	--

L = Limit Samples
E = Excavated Samples

N:\10565E\SORE1194.WB1



LEGEND

- B-7 ⊙ Gannett Fleming Geoprobe Boring (July 1999)
- B-3 • Gannett Fleming Geoprobe Boring (June 1999)
- GP-1 ○ City Of Madison Engineering Dept. Geoprobe Boring (October 1998)
- ---- Approximate Extent Of Soil With GRO Levels Exceeding NR 720 RCL Of 100 mg/kg (50'x20'x7-8' Deep)

NOTES:

1. Property Boundary Of Subject Site Is Approximate And Was Not Verified By A Survey.
2. General Direction Of Groundwater Flow In Area Based On Information Obtained By Gannett Fleming During Investigation Of Lust Site At 303 South Ingersoll Street (Badger Cab Company).

SITE PLAN

201 SOUTH INGERSOLL STREET
CITY OF MADISON
MADISON, WISCONSIN

082499
35704WA

CITY OF MADISON
201 SOUTH INGERSOLL STREET
MADISON, WISCONSIN

TABLE 2

ANALYTICAL RESULTS FOR SOIL SAMPLES (mg/kg)

Parameter	Sample I.D. and Depth										
	B-1	B-2	B-3		B-4	B-5		B-6		B-7	
	4-6 ft.	6-8 ft.	4-6 ft.	6-8 ft.	4-6 ft.	2-4 ft.	6-8 ft.	4-6 ft.	6-8 ft.	2-4 ft.	6-8 ft.
FID (ppm)	0.4	<0.2	300	680	4.4	300	320	860	>1000	14	120
Lead	4.13	2.59	8.44	2.39	4.93	7.2	3	13.4	5.94	10	40.5
GRO	<6.2	<6.2	<5.8	27.2	<6.5	439	525	<6.6	313	<5.7	<5.9
Benzene	<0.031	<0.031	<0.029	<0.029	<0.033	<0.227	<0.256	<0.033	<0.249	<0.029	<0.029
Ethylbenzene	<0.031	<0.031	<0.029	<0.029	<0.033	<0.453	0.572	<0.033	0.549	0.03	<0.029
Toluene	<0.031	<0.031	<0.029	<0.029	<0.033	<2.265	<2.570	<0.033	<2.494	0.048	<0.059
Xylenes	<0.062	<0.062	<0.058	<0.058	<0.066	<0.906	<1.028	<0.066	<0.998	0.053	<0.058
Trimethylbenzene	<0.062	<0.062	<0.058	<0.058	<0.066	<0.906	<1.028	<0.066	1.966	0.054	<0.058
MTBE	<0.031	<0.031	<0.029	<0.029	<0.033	<0.453	<0.514	<0.033	<0.499	<0.029	<0.029

Parameter	Sample I.D. and Depth										NR 720 RCL
	B-9		B-10	B-11		B-12		GP-1	GP-2	GP-3	
	4-6 ft.	6-8 ft.	6-8 ft.	4-6 ft.	6-8 ft.	2-4 ft.	6-8 ft.	7 ft.	7 ft.	7 ft.	
FID (ppm)	50	14	0.2	100	6	<0.2	70	NM	NM	NM	NS
Lead	4.96	1.31	5.55	4.32	2.15	1	2.42	NA	NA	NA	50*
GRO	<6.0	<5.8	<6.1	<6.2	<6.0	<5.6	<6.0	<3.2	<3.2	<2.9	100
Benzene	<0.030	<0.029	<0.030	<0.031	<0.030	<0.028	<0.030	<0.025	<0.025	<0.025	0.0055
Ethylbenzene	<0.030	<0.029	<0.030	<0.031	<0.030	<0.028	<0.030	<0.025	<0.025	<0.025	2.9
Toluene	<0.060	<0.058	<0.061	<0.062	<0.030	<0.056	<0.030	<0.025	<0.025	<0.025	1.5
Xylenes	<0.060	<0.058	<0.060	<0.062	<0.060	<0.056	<0.060	<0.050	<0.050	<0.050	4.1
Trimethylbenzene	<0.060	<0.058	<0.060	<0.062	<0.060	<0.056	<0.060	<0.050	<0.050	<0.050	NS
MTBE	<0.030	<0.029	<0.030	<0.031	<0.030	<0.028	<0.030	<0.025	<0.025	<0.025	NS

NOTES:

Results reported in units of milligrams per kilogram (mg/kg), unless noted otherwise.
Samples B-1 through B-6 and B-7, B-9 through B-12 collected by Gannett Fleming, Inc. on June 21 and July 1, 1999, respectively.
Samples GP-1, GP-2, and GP-3 collected by the City of Madison, Dept. of Engineering, on October 15, 1998.
Results in bold exceed applicable NR 720 RCL.

NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level.
NS = No standard.
NA = Not sampled.
NM = Not measured.
FID = Flame ionization detector.
ppm = Parts per million.
* = Non-industrial RCL based on human health risk from direct contact related to land use.

N:\CLERICAL\PROJECTS\35700\35704\TABLES\JJK\35704T2.WBJ

Gannett Fleming

CITY OF MADISON
201 SOUTH INGERSOLL STREET
MADISON, WISCONSIN

TABLE 3

ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES (ug/l)

Gannett Fleming

Parameter	Sample I.D.														NR 140 ES
	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-9	B-10	B-11	B-12	GP-1	GP-2	GP-3	
GRO	<50	<50	1,990	<50	692	796	452	<50	<50	<50	<50	<50	<50	<50	NS
Benzene	0.29J	<0.2	<4.0	0.23J	<2.0	<2.0	4.78	<0.2	<0.2	<0.2	<0.2	<0.26	<0.26	<0.26	5
Ethylbenzene	<0.5	<0.5	<4.0	<0.5	<2.0	<2.0	<2.0	<0.5	<0.5	<0.5	<0.5	<0.24	<0.24	<0.24	700
Toluene	<0.5	<0.5	<4.0	<0.5	<2.0	<2.0	<2.0	<0.5	<0.5	<0.5	<0.5	0.25	0.25	0.45	343
Xylenes	<1.0	<1.0	<8.0	<1.0	<4.0	3.32	3.96	<1.0	<1.0	<1.0	<1.0	<1.34	<1.34	<1.34	620
Trimethylbenzene	<1.0	<1.0	<8.0	<1.0	3.85	41.8	5.41	<1.0	<1.0	<1.0	<1.0	<1.40	<1.40	<1.40	480
MTBE	<0.3	<0.3	<4.0	<0.3	<2.0	<2.0	<2.0	<0.3	<0.3	<0.3	<0.3	<0.22	<0.22	<0.22	60
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.89	<0.89	<0.89	40

NOTES:

Results reported in units of micrograms per liter (ug/l).

Samples B-1 through B-6 and B-7, B-9 through B-12 collected by Gannett Fleming, Inc. on June 21 and July 1, 1999, respectively.

Samples GP-1, GP-2, and GP-3 collected by the City of Madison, Dept. of Engineering on October 15, 1998.

NR 140 ES = Wisconsin Administrative Code NR 140 enforcement standard.

J = Estimated concentration below laboratory quantitation level.

NS = No standard.

NA = Not sampled.

201 South Ingersol Environmental Site Summary

1/7/00

Two usts closed by DNR on January 1, 1997, no restrictions on closure

1250 gallon gasoline ust
2000 gallon diesel fuel ust
both removed 1988, installed in the 1940's possibly

two soil excavations done as site remediation following site investigation
1990 about 600 yards around the former gasoline ust
1992 about 75 yards from beneath former Stoneyard Building near the former gasoline ust
there was no apparent contamination in the area of the diesel fuel ust

Six former ASTs closed by Commerce with no restrictions November 8, 1999 following investigation by Gannett Fleming, no soil or groundwater remediation done

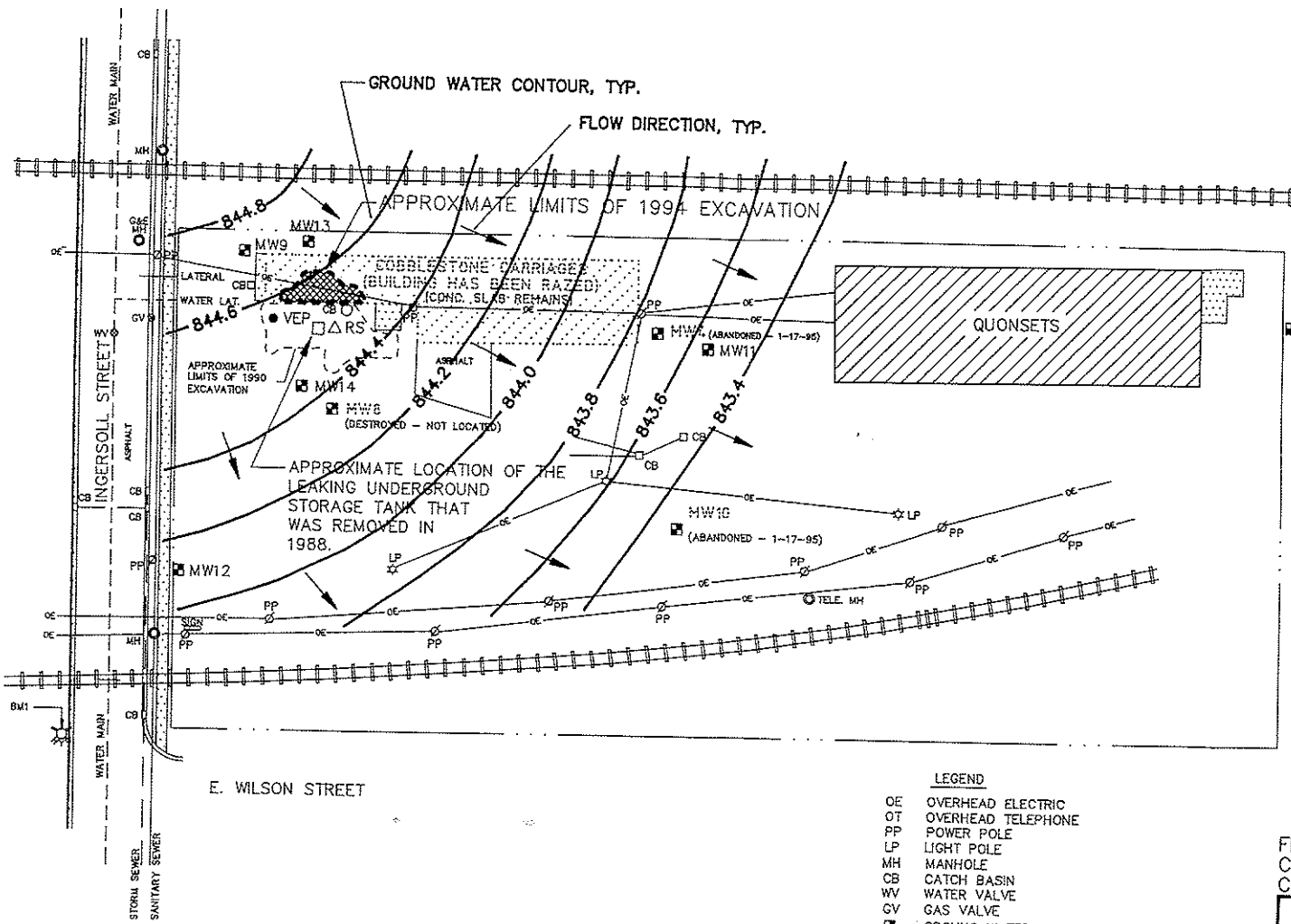
The soil and groundwater conditions related to the two former tank areas do not represent a concern for redeveloping the site as a park. However, no shallow soil samples were collected to evaluate potential direct contact risks that would result from a park use.

The Phase 1 and 2 data collected shows the site was filled starting in the 1940's with foundry sand, clean sand, probably refuse and likely other unknown materials. These fill materials and the direct contact risk they may pose have not been evaluated. Based on soil boring logs it appears that fill extends across the entire site with varying thickness.

The October 1998 Gannett Fleming Phase 1 report and the September 2000 BT2 Peer Review also discuss several land uses that need to be evaluated.

Before a remedial action plan can be developed the site needs additional soil samples collected at 1-2 feet and tested for VOCs, PAHs, lead and cadmium. The sample locations should be based on the earlier site reviews. This data can then be used to set a remedial action plan. The plan would likely involve a combination of excavation, soil capping, asphalt capping, deed restrictions and possibly new buildings.

The proposed use of a park does not require additional groundwater investigation or cleanup based on the tank area investigations. Should future data show a groundwater problem the current owner may have liability to investigate and remediate. If a lagoon becomes part of the park plan then groundwater conditions would need to be evaluated.



LEGEND

OE	OVERHEAD ELECTRIC
OT	OVERHEAD TELEPHONE
PP	POWER POLE
LP	LIGHT POLE
MH	MANHOLE
CB	CATCH BASIN
WV	WATER VALVE
GV	GAS VALVE
■	GROUND WATER MONITORING WELL, TYP.
△	GROUND WATER RECOVERY SUMP, TYP.
●	VAPOR EXTRACTION POINT, TYP.

BENCH MARKS

BM1 NW FLANGE BOLT OF FIRE HYD. AT SW SIDE OF INGERSOLL ST., SW OF PROPERTY. ELEV. = 854.05 (U.S.G.S. DATUM)

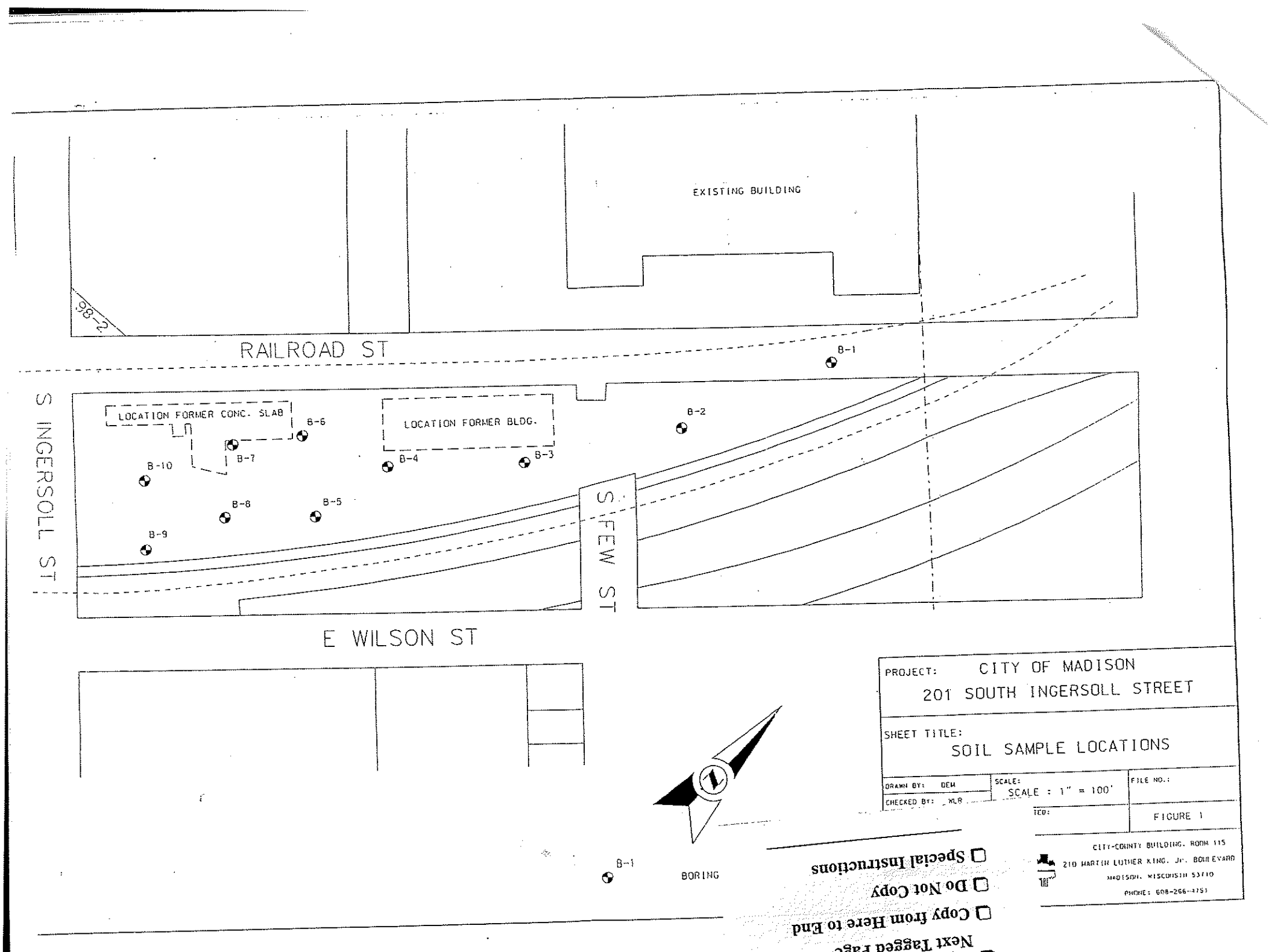
NOTE: ALL UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE BASED ON FIELD SURVEY, RECORD MAPS OR DIGGER'S HOTLINE MARKINGS. PROPERTY LINE INFORMATION SHOWN WAS TAKEN FROM EXISTING RECORDS. THE EXACT LOCATION OF ALL UTILITIES AND PROPERTY LINES MUST BE FIELD VERIFIED PRIOR TO BEGINNING ANY CONSTRUCTION.

FIGURE 5 – GROUND WATER CONTOUR PLAN (TYPICAL CONTOURS FOR 1995–1996)

MILLER ENGINEERS
5308 South Twelfth Street
Sheboygan, Wisconsin 53081
414-458-6164

MARQUIP INC. – JOHNSON PROPERTY
REMEDIAL ACTION SERVICES
201 INGERSOLL STREET
MADISON, WISCONSIN

SCALE	DATE	BY	SHEET
HOR. 1" = 60'	3-1-96	SAB	F-5
VER.	JOB 10565E7A	CK KAL	OF



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CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: April 26, 2006

TO: SCR Closure Committee

FROM: Michael Schmoller

SUBJECT: Closure Request:
Farwell Park
201 South Ingersoll Street
Madison
02-13-546624

Acre for Reuse: 3
Closure Date: April 11, 2006
Priority Factor: Brownfield Redevelopment
BRRTs: 02-13-546624

This 3 acre parcel of land has been purchased by the Urban Open Space Foundation for use as a park on the east side of Madison. This land was the location of two previous cleanup sites tracked on BRRTs. Site 02-13-227102, City of Madison Property #2 was opened June 1999 and closed with no restrictions November 1999. Site 03-13-000292, Johnson Property was closed January 1997 with no restrictions. Work on the Johnson property site included soil excavation and a groundwater pump and treat system to address impacts from a leaking UST.

Upon closure both sites were deemed clean for their current land uses. In October 2000 Urban Open Space purchased the land with the intent to construct a park. Because park use would entail a much higher risk of direct contact concerns additional shallow soil sampling was required by the Department. In 2000 soil samples were collected from the top 3 feet of soil and tested for select metals, volatile organics and PAH compounds. (See Figures 1, 2 and 3) The test results are shown in Tables 1, 2 and 3. The results show exceedances of direct contact criteria for several PAH compounds.

Because of the known site history no groundwater testing was done.

Based on the direct contact concerns a 2 foot clean soil barrier was required for the property. In the fall of 2004 Terra Engineering was hired to place 18 inches of clean soil fill on the property and cover this fill with 6 inches of topsoil. The site was seeded and fertilized in the spring of 2005. Surveying was done to insure proper soil depths. Maintenance of the soil barrier was to be is required through a deed restriction placed on the property and recorded with Dane County. However, now the intention would be to use the new closure protocol and have the cap maintenance requirement included and enforced through the closure letter. With completion of the soil cap and maintenance plan, this can be closed

FINAL CLOSURE APPROVED

Steve Ales Stephen M. Ales 6/30/06

Pat McCutcheon

Pat McCutcheon 6/30/06

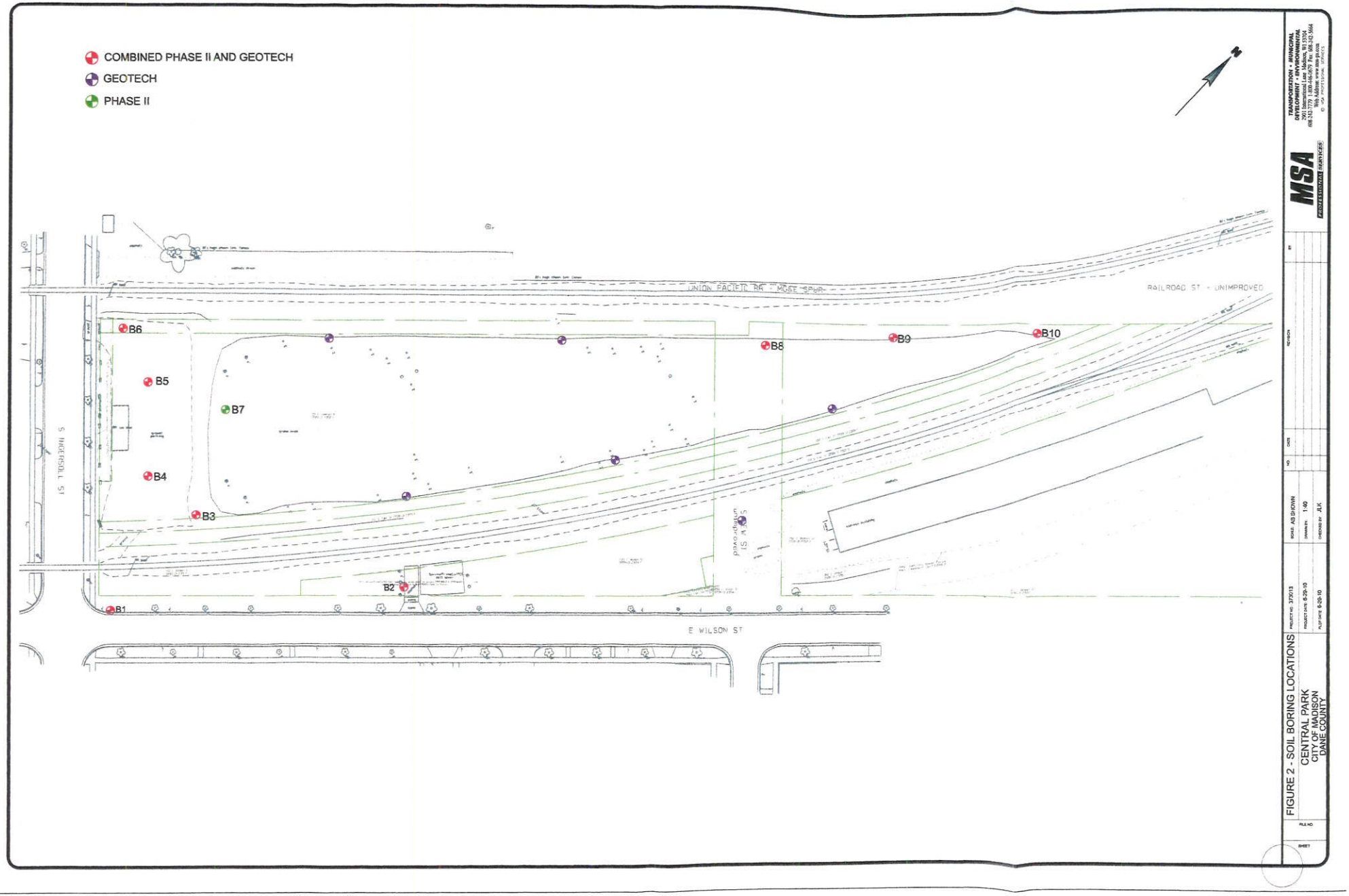
Printed on Recycled Paper

Additional Information for 201 South Ingersoll Street

The 201 South Ingersoll parcel has had previous environmental investigations and cleanup activities from 1988 (i.e. the year the LUST was identified) to March 2006, when the Soil Cover Maintenance Plan was approved. Soil excavation and a simple pump and treat system were operated to address impacts from the LUST until closure in 1997.

Property history discussed in a 1998 environmental report indicated the parcel was likely filled to grade after 1940, and was leased to a manufacturing facility that made culvert pipe. This facility had a tar-dipping structure for dipping culvert joints. Subsequent research identified a Sinclair Oil petroleum bulk storage facility, leaking USTs, buried foundry material underlying portions of the site along South Ingersoll Street, and refuse material underlying portions of the southwest corner of the property.

In 2000, soil samples were collected from the upper 3 ft of soil and tested from several metals, volatile organic compounds, and PAH compounds. The results showed direct contact exceedances for several PAH compounds and lead. Based on the direct contact concerns, a 2 ft clean soil barrier was required for the property and was installed in Fall 2004. The soil cap consisted of 18 inches of clean soil and 6 inches of topsoil. The Maintenance Plan requires certain actions in the event that the underlying soils become exposed to workers, or if the underlying soils are excavated from the site. The Maintenance Plan requires written WDNR approval for amending or modification of the Plan. A copy of the Plan is included with the WisDOT Site Summary form in Attachment B.



Phase 2 Soil Borings July 2010

TABLE 1
Soil Sample Analytical Results
Proposed Central Park
Madison, Wisconsin

Analyte	Depth (ft bgs)	Sampling Date	Benzene	Ethyl-benzene	Toluene	m & p-Xylenes	o - Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE	Naph thalene	Tert-Butyl benzene
NR 720 GRCLS			0.0055	2.9	1.5	4.1	4.1					
NR 746 Table 1 SSLs			8.5	4.6	38	42	42	83	11			
NR 746 Table 2 Direct Contact			1.1									
B1	3.5-5.5	5/11/2010	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
B2	1-3	5/11/2010	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
B3	1-3	5/12/2010	<0.025	<0.025	<0.025	<0.05	<0.025	0.0469	0.0376	<0.025		
B3	8.5-10.5	5/12/2010	<0.025	<0.025	0.122	0.0794	<0.025	0.346	<0.025	<0.025		
B4	1-3	5/12/2010	<0.025	<0.025	<0.025	<0.05	0.0331	0.0542	0.0583	<0.025		
B4	6-8	5/12/2010	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025		
B5	1-3	5/12/2010	**0.0555**	0.0359	0.147	0.121	0.892	0.0928	0.0442	<0.025		
B5	6-8	5/12/2010	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025		
B6	1-3	5/12/2010	**0.0412**	0.07	0.199	0.235	0.185	0.151	0.079	<0.025		
B6	6-8	5/12/2010	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025		
B7	3.5-5.5	5/12/2010	<0.025	<0.025	0.0794	0.0726	0.0604	0.071	<0.025	<0.025	0.209	0.0321
B8	3.5-5.5	5/11/2010	**0.0825**	0.0704	0.057	<0.05	0.129	0.482	0.476	<0.025		
B8	6-8	5/11/2010	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025		
B9	1-3	5/11/2010	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
B9	3.5-5.5	5/11/2010	<0.025	<0.025	<0.025	<0.05	0.034	0.132	0.063	<0.025	0.19	0.0587
B10	1-3	5/12/2010	<0.0321	0.142	0.0504	0.316	0.176	1.02	0.831	<0.0321		
Container		5/12/2010	<0.025	<0.025	<0.025	<0.05	<0.025	0.075	<0.025	<0.025		

TABLE 1
Soil Sample Analytical Results
Proposed Central Park
Madison, Wisconsin

Analyte		Sampling Date	1-Methyl Naphthalene	2-Methyl Naphthalene	Acenaph thene	Acenaph thylene	Anthra-cene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene
Guidance GRCLs Direct Contact			70000/1100	70000/600	60000/900	360/18	300000/5000	3.9/0.0888	0.39/0.088	3.9/0.088	39/1.8
Guidance GRCLs Groundwater			23	20	38	0.7	3000	17	48	360	6800
B1	3.5-5.5	5/11/2010	0.0219	0.027.9	0.0059	0.0108	0.0193	0.028	0.0249	0.0201	0.0186
B2	1-3	5/11/2010	0.0637	0.0822	0.003	0.0061	0.027	0.0494	0.0515	0.0566	0.0449
B3	1-3	5/12/2010	0.146	0.214	0.0089	0.0126	0.045	0.0885	**0.102**	**0.103**	0.0883
B3	8.5-10.5	5/12/2010	<0.0032	<0.0032	<0.0029	<0.0033	0.0052	<0.0029	<0.0034	<0.0036	<0.0027
B6	1-3	5/12/2010	0.0859	0.115	0.0046	0.0168	0.0387	0.0802	0.0902	0.09	0.0789
B6	6-8	5/12/2010	<0.0032	<0.0032	<0.0029	<0.0033	<0.0049	<0.003	<0.0034	<0.0036	<0.0028
B8	3.5-5.5	5/11/2010	0.276	3.08	<0.0297	0.0604	0.235	**0.529**	**0.579**	**1.27**	0.614
B8	6-8	5/11/2010	<0.0032	<0.0032	<0.003	<0.0034	<0.0049	<0.003	>0.0035	<0.0037	0.0028
B9	1-3	5/11/2010	<0.0029	<0.0029	<0.0027	<0.003	<0.0044	<0.0027	<0.0031	<0.0033	<0.0025
B9	3.5-5.5	5/11/2010	0.144	0.168	0.0064	0.0239	0.0424	0.0802	0.0846	0.0856	0.0803

Analyte		Sampling Date	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,-cd)pyrene	Naph-thalene	Phenan threne	Pyrene
Guidance GRCLs Direct Contact			39/0.88	390/8.8	0.39/0.0088	40000/600	40000/600	3.9/0.088	110/20	390/18	30000/500
Guidance GRCLs Groundwater			870	37	38	500	100	680	0.4	1.8	8700
B1	3.5-5.5	5/11/2010	0.0247	0.0312	<0.0061	0.0685	0.0093	0.0138	0.184	0.0675	0.0657
B2	1-3	5/11/2010	0.0519	0.0931	**0.0136**	0.088	<0.0047	0.0353	0.0548	0.107	0.102
B3	1-3	5/12/2010	0.102	0.115	**0.0272**	170	0.0101	0.0726	0.0863	0.203	0.14
B3	8.5-10.5	5/12/2010	<0.0039	<0.0038	<0.0056	<0.0104	<0.0052	<0.0029	0.0068	<0.0046	<0.0038
B6	1-3	5/12/2010	0.096	0.107	0.0254	0.181	0.0046	0.0634	0.0792	0.172	0.141
B6	6-8	5/12/2010	<0.0039	<0.0038	<0.0057	<0.0105	<0.0052	<0.003	<0.0037	<0.0046	<0.0038
B8	3.5-5.5	5/11/2010	0.591	2.38	**0.212**	0.693	0.0983	0.487	0.318	**5.03**	0.716
B8	6-8	5/11/2010	<0.0039	<0.0039	<0.0058	<0.0106	<0.0053	<0.003	<0.0037	<0.0047	<0.0039
B9	1-3	5/11/2010	<0.0035	<0.0035	<0.0052	<0.0096	<0.0046	<0.0027	<0.0033	<0.0042	<0.0035
B9	3.5-5.5	5/11/2010	0.145	0.135	**0.0273**	0.134	0.0068	0.0659	0.157	0.33	0.121

Soil Sample Analytical Results
Proposed Central Park
Madison, Wisconsin

Analyte		Sampling Date	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury	GRO
GRCLs Direct Contact - Non-Industria			0.039		8	16,000	50				
GRCLs Direct Contact - Industrial			1.6		510		500				
B-1	3.5-5.5	5/11/2010	**5.3**	123	0.086	16.6	12.1	<0.22	0.23		
B-2	1-3	5/11/2010	**2.7**	12.7	0.74	5.7	13.7	<0.17	0.24		
B3	1-3	5/12/2010	**9.2**	161	0.68	15.9	36.7	0.18	0.38	0.085	
B3	8.5-10.5	5/12/2010	**2.5**		0.21		7.6				
B4	1-3	5/12/2010	**17.7**	90.8	2.5	22.3	**758**	0.69	0.58	0.37	
B4	6-8	5/12/2010	**5**		0.072		5.2				
B5	1-3	5/12/2010	**4.8**	22.6	0.3	5.8	27	0.44	0.2	0.021	
B5	6-8	5/12/2010	**10.5**		0.21		6.9				
B6	1-3	5/12/2010	**7.3**	22.5	0.84	13.2	20.4	0.18	0.29	0.012	
B6	6-8	5/12/2010	**8.8**		0.11		8.1				
B8	3.5-5.5	5/11/2010	**21.6**	44.6	<0.32	9.5	**114**	<2.0	1.2	0.066	
B9	1-3	5/11/2010	**3.9**	79.7	0.21	10.8	8.8	<0.17	0.12	0.032	
B9	3.5-5.5	5/11/2010	**6.9**		0.46		**349**				
B10	1-3	5/12/2010	**6.7**	35.9	0.095	14.8	**131**	2.4	0.85	0.077	
Container		5/12/2010					3.2				13.8

Notes: Concentrations in mg/Kg
GRCLs = NR 720 generic residual contaminant levels
GRCLS for PAHs are from WDNR Interim Guidance, Publication RR-519-97
SSLs = Soil Screen Levels
Bold numbers indicated concentrations exceeding the GRCLS, SSLs or the NR 746 Table 2 values
GRCLS with "/" indicate the GRCLs for industrial property and residential properties, respectively.
Only compounds detected are included in Table. Refer to lab report for complete list of results.

TABLE 2
Groundwater Sample Analytical Results
Proposed Central Park
Madison, Wisconsin

Location	Date	Benzene	Ethyl-benzene	MTBE	Toluene	Total Tri-methyl-benzene	Total Xylene
NR 140 ES		5	700	60	1000	480	10000
NR 140 PAL		0.50	140	12	200	96	1000
B1	5/11/2010	<0.39	<0.41	<0.38	0.58	<0.83	<1.3
B2	5/11/2010	<0.41	<0.54	<0.61	<0.67	<1.8	<2.63
B3	5/12/2010	<0.39	<0.41	<0.38	<0.42	<0.83	<1.3
B4	5/12/2010	<0.39	<0.41	<0.38	<0.42	<0.83	<1.3
B6	5/12/2010	<0.39	<0.41	<0.38	<0.42	<0.83	<1.3
B8	5/11/2010	<0.39	<0.41	<0.38	0.58	<0.83	<1.3
B10	5/12/2010	<0.39	<0.41	<0.38	0.56	2.9	<1.3

Analyte	Sampling Date	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury
NR 140 ES		10	2000	5	100	15	50	50	2
NR 140 PAL		1	400	0.5	10	1.5	10	10	0.2
B1	5/11/2010	**30.7**	*526*	*0.66*	1.2	*1.8*	2.1	0.54	<0.1
B2	5/11/2010	*2.1*	160	*0.79*	1.1	<1.4	3.1	<0.46	<0.1
B6	5/12/2010	**10.8**	218	*0.82*	0.53	*6.8*	<2.1	<0.46	<0.1
B8	5/11/2010	*8.5*	145	*4.2*	4.6	*3.4*	<2.1	<0.46	<0.1
B10	5/12/2010	*2.1*	60.7	*0.62*	2.6	<2.8	<4.2	<0.92	<0.2

TABLE 2
Groundwater Sample Analytical Results
Proposed Central Park
Madison, Wisconsin

Analyte	Sampling Date	1-Methyl Naphthalene	2-Methyl Naphthalene	Acenaph thene	Acenaph thylene	Anthra-cene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene
NR 140 ES						3000		0.2	0.2	
NR 140 PAL						600		0.02	0.02	
B1	5/11/2010	0.032	0.04	0.025	0.023	0.062	0.17	*0.18*	**0.23**	0.17
B2	5/11/2010	0.012	0.014	<0.0046	<0.0039	0.0082	0.0097	0.0078	0.0095	0.0094
B4	5/12/2010	0.021	0.03	0.0074	<0.0041	0.018	0.019	*0.019*	*0.024*	0.021
B6	5/12/2010	<0.0072	0.0062	<0.0065	<0.0052	<0.0082	<0.0052	<0.0041	<0.0049	<0.0069
B8	5/11/2010	0.0087	0.024	<0.005	<0.004	0.0087	0.013	0.011	*0.021*	0.016
B10	5/12/2010	0.031	0.051	<0.019	0.02	0.061	0.18	**0.21**	**0.5**	0.35

Analyte	Sampling Date	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluor anthene	Fluorene	Indeno(1,2,-cd)pyrene	Naph-thalene	Phenan threne	Pyrene
NR 140 ES			0.2		400	400		100		250
NR 140 PAL			0.02		80	80		20		50
B1	5/11/2010	0.17	*0.19*	0.043	0.46	0.04	0.14	0.069	0.36	0.34
B2	5/11/2010	0.0091	0.011	<0.0035	0.027	0.0064	0.0062	0.029	0.039	0.021
B4	5/12/2010	0.021	0.019	0.0079	0.049	0.011	0.017	0.041	0.061	0.041
B6	5/12/2010	<0.0063	0.007	<0.0046	<0.0063	<0.0068	<0.0067	0.02	<0.012	<0.0068
B8	5/11/2010	0.017	*0.023*	0.0045	0.038	0.008	0.011	0.025	0.072	0.031
B10	5/12/2010	0.28	**0.24**	0.093	0.3	0.02	0.25	0.062	0.22	0.25

Concentrations for PVOCs are in ug/L.
Bold numbers indicate conentrations above the NR 140 Enforcement Standard
Italics numbers indicated concentrations above the NR 140 Preventive Action Limit.

Attachment C
Brearly Block Environmental Impacted Areas
Former Byrns Oil at 211 S. Brearly Street

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 10/7/2005)

WisDOT Project ID: 5992-01-95
Highway/Street: Proposed Central Park
Termini/Limits: Brearly Street to Baldwin Street, City of Madison
County: Dane

Property Information:
Site Name(s): Former Byrns Oil (a.k.a 211 South Brearly Street)
DOT parcel number (if known):
Property Address: 215 South Brearly Street
Owner's Name: City of Madison
Owner's Address:210 Martin Luther King Jr. Blvd , Madison, WI 53710
Owner's Phone:
Current Land Use: vacant
Past Land Use: Petroleum Bulk Plant

Real Estate Requirements: The City of Madison owns the parcel
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to up to 5 ft feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☐ Public or private utility or sanitary or storm sewer installation or excavation to feet

Information from database searches and interviews:
Department of Commerce (DCOMM)
- ☒ site has registered tanks ☒ASTs ☒USTs
- ☐ tanks are currently in use
- ☒ tanks are abandoned date: 10/1988
- Tank contents:
  - ☒ Leaded gasoline ☐ Unleaded gasoline ☒ Fuel Oil ☒ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DCOMM administered LUST site; DCOMM ID number:
- ☐ site is a closed DCOMM LUST site; closure date:

Department of Natural Resources (DNR)
- ☒ site is a DNR administered LUST site; BRRTS number: 03-13-001971
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☐ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a petroleum bulk plant on maps dated 1942-1986. Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☒ Contamination discovered at 3 to 4 feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☒ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☒ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☒ Monitoring wells
☐ Soil borings
Comments: drums and monitoring wells observed during site visit

Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☐ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information.
☒ Contaminated soil known to be within proposed right of way from 3 feet to 10feet below ground surface (on the 215 S Brearly parcel)
☒ Contaminated groundwater known to be within proposed right of way at 2 to 10 feet below ground surface. (on the 215 S Brearly parcel, 3-4 ft. average)
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☒ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☒ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations: Additional soil remediation activities have been performed in 2011. The extent of petroleum contamination is known. Special provisions will be prepared at the time final plans are developed.
☒ No additional hazardous materials investigation is required.
☒ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☐ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: MSA Professional Services, Inc. on 2/9/2012
Recommendations accepted by (name and title): , on _____

Signature: _____

A check in a checkbox indicates a positive or "yes" response.

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: July 6, 2010 Most recent evaluation FILE REF: 03-13-001971

TO: File

FROM: WJ Wojner

SUBJECT: Byrns Properties Ltd. 211 South Brearly, Madison
Closure Request Dated: GIS for Soil and Groundwater and CAP
High Risk Factors: Free Product
Acres available for redevelopment: 1.5

The site was denied closure in October 2002.

Byrns Properties Ltd, 211 Brearly, Madison [03-13-001971] – The site formerly held up to 21 tanks (17 ASTs and 4 USTs). Two of the ASTs were removed in 7/71 and the rest (both the ASTs and USTs) were all removed by 10/88. The SI showed that soil and groundwater contamination was present so in 3/98 they excavated approximately 4400 tons of petroleum contaminated soil. (Depth of the excavation was to about 7.5 ft bgs) At the time of the excavation they pumped out about 14,110 gallons of contaminated groundwater. After the excavation they also used a vacuum truck to suck out contaminated water and vapors. This has removed another few hundred pounds of contamination. Unfortunately they didn't collect confirmation samples after completing the excavation. And, the data from MW-6 appears to have jumped up recently. *We denied closure and requested they: A. Either provide soil confirmation samples or collect soil samples showing what remains. B. Sample wells MW-2, MW-6 and MW-18 for another round of groundwater samples. Afr-1.5.*

The water table at the site varies from 2-10 feet bgs. Flow is variable. Average conductivity is 1.8x10-4 cm/sec. Average depth to water table is 3-4 feet. Water table is mostly in fill of coal cinders or ash, sand to about 6 feet followed by peat in a couple of the boring logs.

They backfilled the excavation bottom with 1 foot of fill followed by 3 inches of gravel and then put a geotextile material over it followed by sand to 1 foot bgs. They installed four sumps and removed free product (2525 gallons) and 49,810 gallons of groundwater after 11/98. The use of vacuum truck extraction was employed in 1/00 and they conducted 11 extraction events.

There are still sumps present at the site but they were not sampled in 9/09.

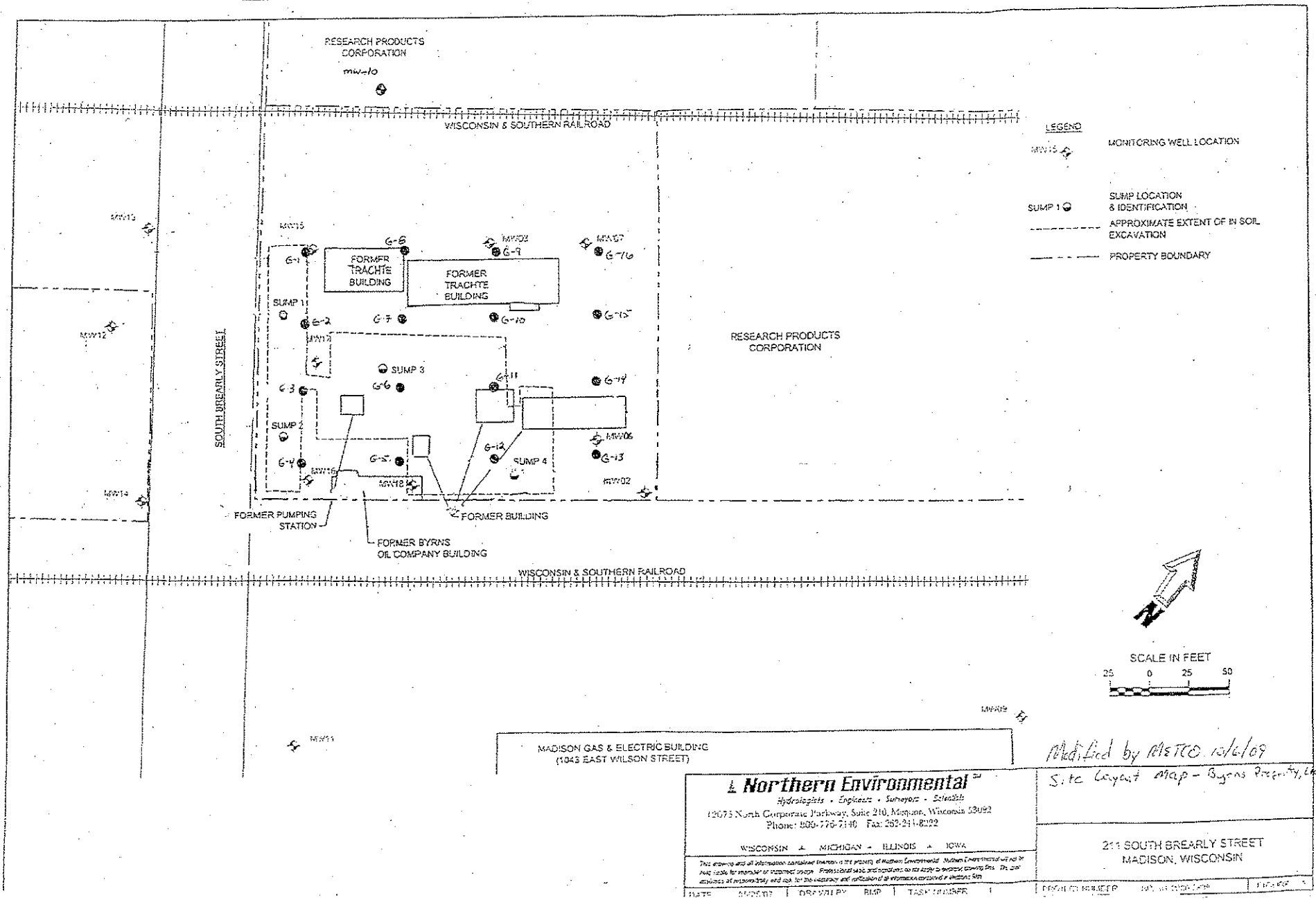
There were 16 soil probes performed in 9/09 to characterize the 0-4 foot bgs soils for petroleum and PAH (naphthalene). Levels of concern were observed at G-7, G-10, G-13, G-15 and G-16.

Free Product remains at MW-16 with about 3 feet present at the last sampling.

Recommendations: Address the free product possibly by excavating an area around MW-16 or better characterizing the contamination in that vicinity. Evaluate the significance of the soil contamination in this area of high groundwater. Determine whether groundwater sampling of the sumps would provide useful information. If the free product can be dealt with I am recommending the site for closure with a GIS registry listing for soils, groundwater and a cap maintenance plan. The site has notified the right of way and there may be a lost monitoring well on a neighboring property that will have to be considered.

Approved: YES NO

Linda Hanefeld _____ date:



Modified by METCO 10/6/09

Site Layout Map - Byrns Property, Ltd.

Northern Environmental
Hydrologists • Engineers • Surveyors • Scientists
12075 North Corporate Parkway, Suite 210, Mequon, Wisconsin 53092
Phone: 800-776-7140 Fax: 262-241-8222
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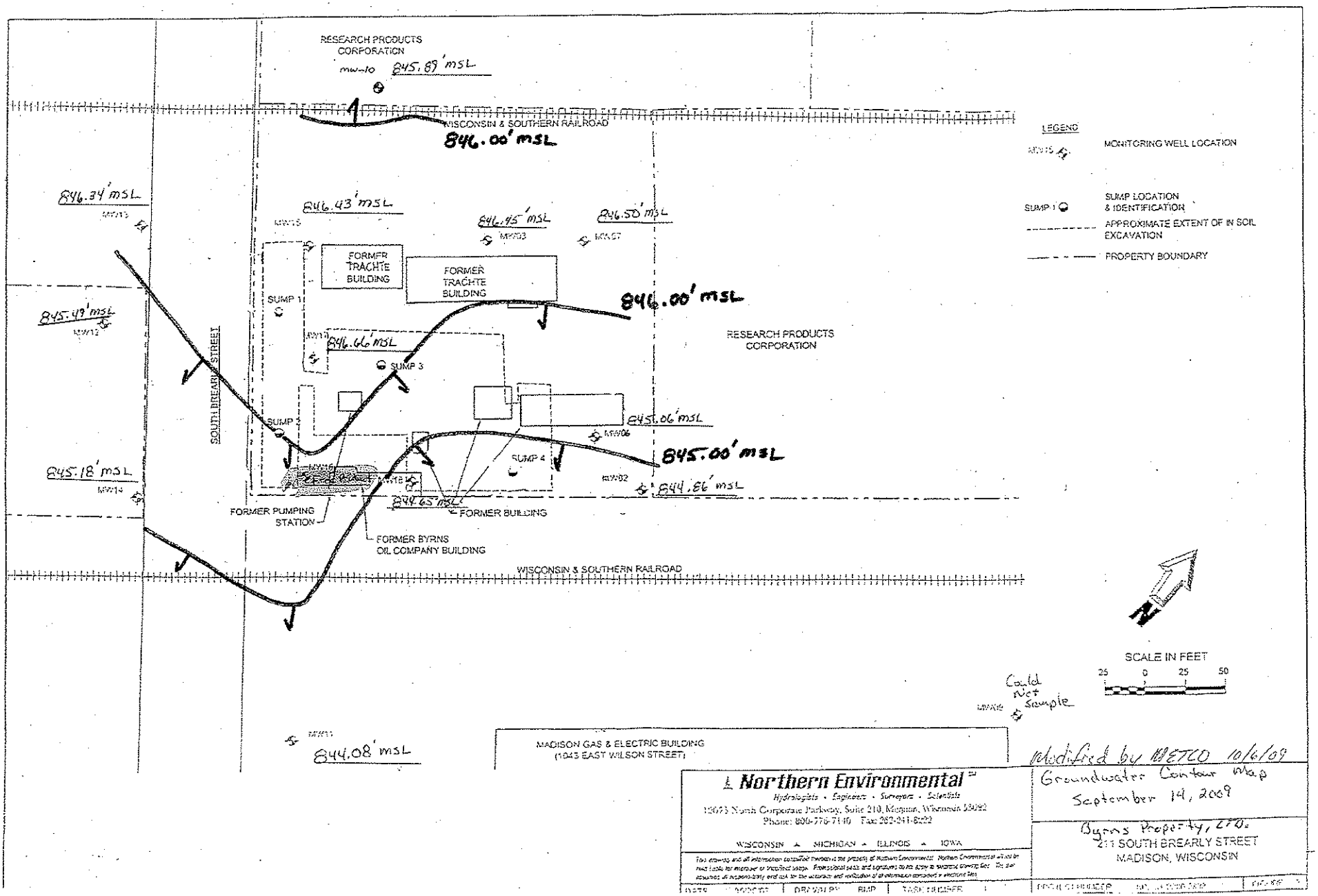
211 SOUTH BREARLY STREET
MADISON, WISCONSIN

DATE 9/25/07 | DRAWN BY BMP | TASK NUMBER 1 | PROJECT NUMBER | NO. OF DRAWINGS | FIGURE 2



Modified by METCO 10/6/09

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Groundwater Contour Map
September 14, 2009

Byrns Property, LLC.
211 SOUTH BREARLY STREET
MADISON, WISCONSIN

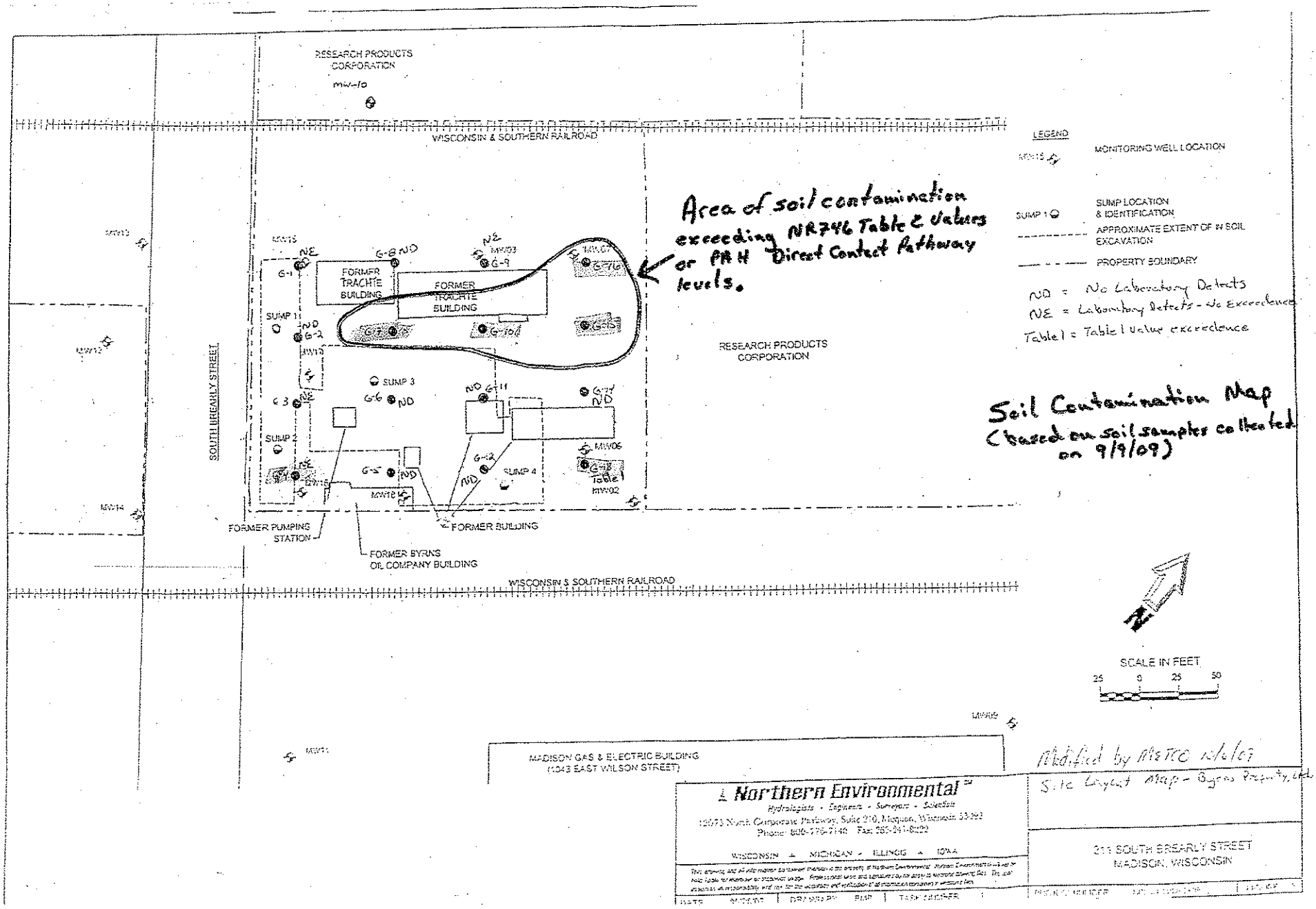
GEOPROBE DATA TABLE FOR BYRNS PROPERTIES, LTD BRRTS# 03-13-001971
BY METCO

SAMPLING CONDUCTED ON SEPTEMBER 9, 2009

SOIL SAMPLES

Sample Location Number	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12	G-13	G-14	G-15	G-16	MEOH BLANK	
Sample Depth in Feet	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	==	
Soil Type	SAND GRAVEL	SAND GRAVEL	SAND GRAVEL	COAL ASH/ SLAG	COAL ASH/ SLAG	SAND GRAVEL	COAL ASH	SAND GRAVEL	SAND COAL WOOD	SAND GRAVEL	SAND GRAVEL]	SAND GRAVEL	SAND GRAVEL	SAND COAL ASH	SAND GRAVEL	SAND GRAVEL	==	
Petroleum Odors	NO	NO	YES	NO	YES	NO	YES	NO	NO	YES	NO	NO	YES	NO	NO	NO	==	
Petroleum Staining	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	==	
Moisture	DRY/ MOIST	DRY/ MOIST	DRY/ MOIST	DRY	MOIST/ WET	DRY/ MOIST	DRY/ MOIST	DRY/ MOIST	DRY/ MOIST	DRY/ MOIST	DRY/ MOIST	DRY/ MOIST	DRY/ MOIST	MOIST/ WET	DRY/ MOIST	DRY/ MOIST	==	
HNU in Units	0	0	100	0	30	0	35	0	0	250	0	0	270	0	0	0	==	
Solids Percent	94.1	96.1	88	95.6	88.5	92.7	76	94.6	93.4	88.7	90.3	88.8	91.2	83.5	89.4	78.9	ns	
Benzene/ppb	< 25	< 25	< 25	180	< 25	< 25	3080	< 25	< 25	1040	< 25	< 25	< 250	< 25	< 25	146	< 25	
Ethylbenzene/ppb	< 25	< 25	< 25	600	< 25	< 25	2810	< 25	< 25	3050	< 25	< 25	19900	< 25	28.2	160	< 25	
Methyl-tert-butyl ether/ppb	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 250	< 25	< 25	< 250	< 25	< 25	< 25	< 25	
Toluene/ppb	< 25	< 25	< 25	316	< 25	< 25	1140	< 25	< 25	480	< 25	< 25	4700	< 25	35	560	< 25	
1,2,4-Trimethylbenzene/ppb	< 25	< 25	< 25	2270	< 25	< 25	10400	< 25	< 25	3700	< 25	< 25	85000	< 25	38	180	< 25	
1,3,5-Trimethylbenzene/ppb	< 25	< 25	28.4	460	< 25	< 25	2220	< 25	< 25	1520	< 25	< 25	31200	< 25	< 25	99	< 25	
m & p-Xylene/ppb	< 50	< 50	< 50	1380	< 50	< 50	10000	< 50	< 50	2510	< 50	< 50	27400	< 50	< 50	420	< 50	
o-Xylene/ppb	< 25	< 25	< 25	440	< 25	< 25	1010	< 25	< 25	1130	< 25	< 25	26200	< 25	< 25	210	< 25	
Acenaphthene/ppb	< 19	< 19	< 19	< 19	< 19	< 19	99	< 19	< 19	890	< 19	< 19	1280	< 19	42 "J"	20.7 "J"	ns	960
Acenaphthylene/ppb	14.1 "J"	< 11	< 11	< 11	< 11	< 11	45	< 11	< 11	147	< 11	< 11	288	< 11	17.2 "J"	46	ns	18
Anthracene/ppb	< 19	< 19	< 19	29.5 "J"	< 19	< 19	59 "J"	< 19	23.7 "J"	550	< 19	< 19	380	< 19	76	97	ns	5000
Benzo(a)anthracene/ppb	< 16	< 16	< 16	26.4 "J"	< 16	< 16	84	< 16	30.8 "J"	630	< 16	< 16	< 32	< 16	48 "J"	202	ns	0.088
Benzo(a)pyrene/ppb	< 25	< 25	< 25	< 25	< 25	< 25	66 "J"	< 25	< 25	590	< 25	< 25	< 50	< 25	32 "J"	186	ns	0.0088
Benzo(b)fluoranthene/ppb	< 18	< 18	< 18	19.6 "J"	< 18	< 18	96	< 18	44 "J"	740	< 18	< 18	< 36	< 18	45 "J"	271	ns	0.088
Benzo(g,h,i)perylene/ppb	62	< 19	< 19	< 19	< 19	< 19	55 "J"	< 19	28.2 "J"	340	< 19	< 19	< 38	< 19	26.6 "J"	124	ns	1.8
Benzo(k)fluoranthene/ppb	< 16	< 16	< 16	< 16	< 16	< 16	22.6 "J"	< 16	< 16	289	< 16	< 16	< 32	< 16	< 16	68	ns	0.88
Chrysene/ppb	< 18	< 18	< 18	35 "J"	< 18	< 18	94	< 18	38 "J"	590	< 18	< 18	< 36	< 18	51 "J"	254	ns	8.8
Dibenzo(a,h)anthracene/ppb	< 22	< 22	< 22	< 22	< 22	< 22	< 22	< 22	< 22	105	< 22	< 22	< 44	< 22	< 22	47 "J"	ns	0.0088
Fluoranthene/ppb	< 13	< 13	< 13	75	< 13	< 13	146	< 13	58	1760	< 13	< 13	109	< 13	86	320	ns	600
Fluorene/ppb	< 8.3	< 8.3	15.6 "J"	< 8.3	< 8.3	< 8.3	30.5	< 8.3	< 8.3	1290	< 8.3	< 8.3	1870	< 8.3	55	21 "J"	ns	600
Indeno(1,2,3-cd)pyrene/ppb	32 "J"	< 12	< 12	< 12	< 12	< 12	41	< 12	22.6 "J"	301	< 12	< 12	< 24	< 12	20.8 "J"	107	ns	0.088
1-Methylnaphthalene/ppb	40 "J"	< 15	16.5 "J"	77	< 15	< 15	3600	< 15	192	4100	< 15	< 15	12400	< 15	1140	680	ns	1100
2-Methylnaphthalene/ppb	47 "J"	< 17	< 17	74	< 17	< 17	4200	< 17	210	720	< 17	< 17	4900	< 17	2570	890	ns	600
Naphthalene/ppb	23.7 "J"	< 13	< 13	46	< 13	< 13	1840	< 13	109	670	< 13	< 13	3300	< 13	2250	316	ns	25
Phenanthrene/ppb	22.6 "J"	< 14	24.9 "J"	239	< 14	< 14	390	< 14	157	3500	< 14	< 14	4900	< 14	350	850	ns	18
Pyrene/ppb	< 15	< 15	< 15	69	< 15	< 15	156	< 15	51	1670	< 15	< 15	277	< 15	98	350	ns	500

NOTE: Bold = detects NS = NOT SAMPLED
J Flag: Analyte detected between LOD and LOQ

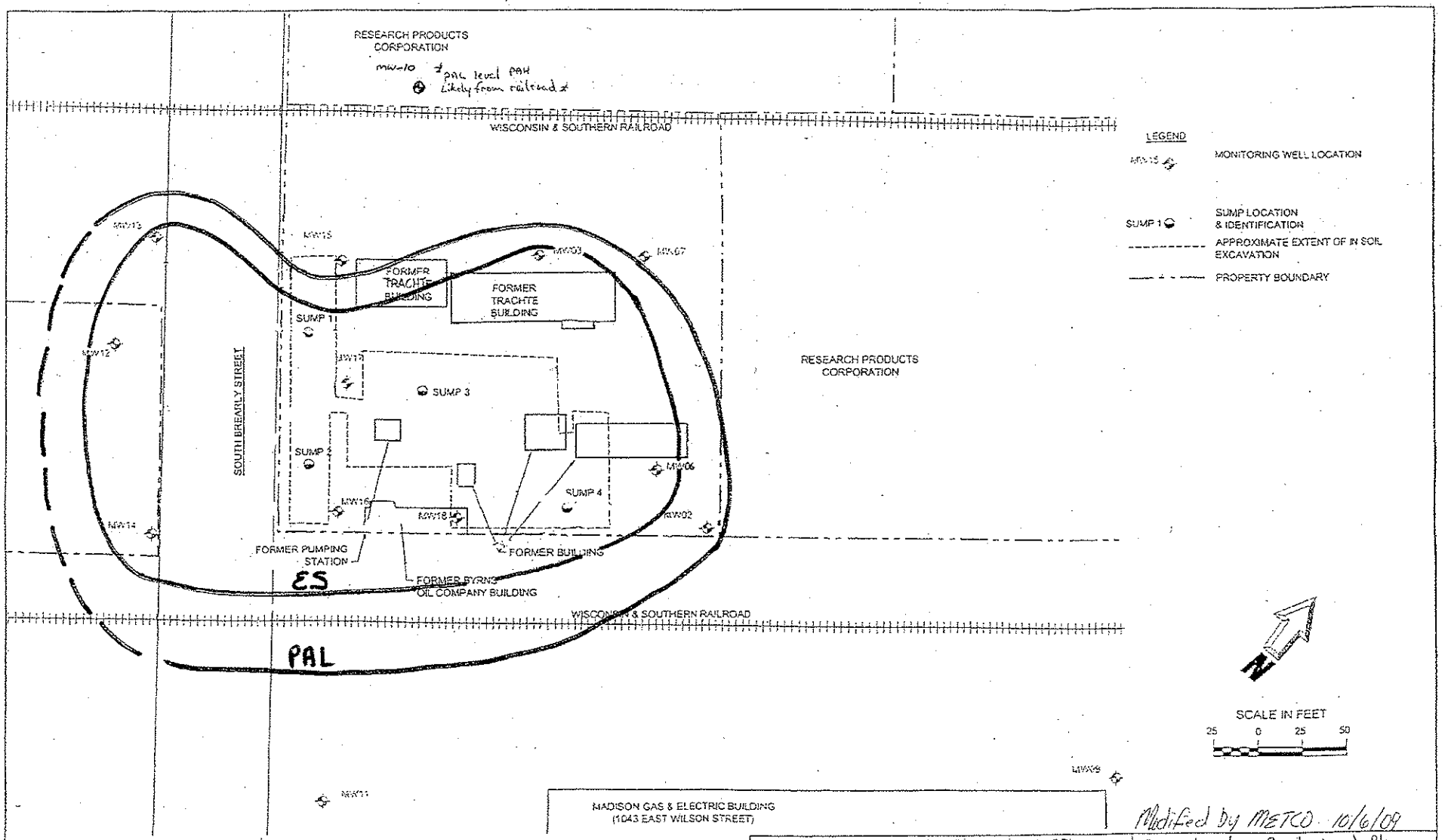


Area of soil contamination exceeding NR746 Table 2 values or PAH Direct Contact Pathway levels.

Soil Contamination Map
(based on soil samples collected on 9/9/09)

Modified by MSTC 11/6/09

Site Layout Map - Byrns Property, LLC



Modified by METCO 10/6/09

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DATE 8/26/09 | DRAWN BY PMP | TASK NUMBER 1

Groundwater Contaminant Plume Map – September 14, 2007

211 SOUTH BREARLY STREET
MADISON, WISCONSIN

FIGURE NUMBER | DATE OF CURRENT DATA | SHEET OF

TABLE 1

Summary of Tank Sizes and Contents
Byrns Properties Ltd.
211 South Brearly Street
Madison, Wisconsin

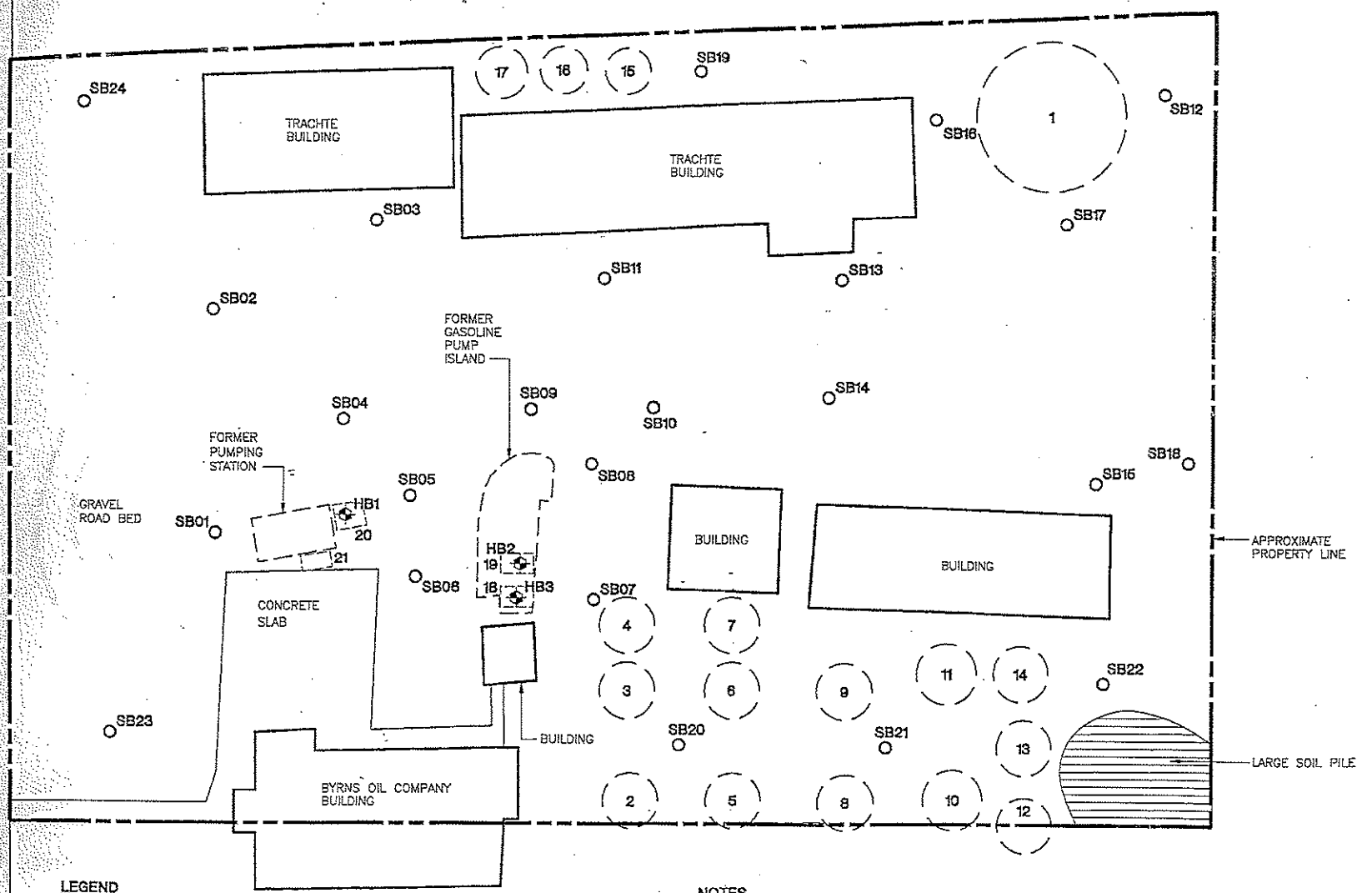
Above Ground Tanks

Tank No.	Size in Gallons	Contents
1	127,000	Fuel Oil
2	25,000	Fuel Oil
3	25,000	Fuel Oil
4	25,000	Fuel Oil
5	25,000	Fuel Oil
6	25,000	Fuel Oil
7	25,000	Leaded Gasoline
8	12,500	Unleaded Gasoline
9	12,500	Leaded Gasoline
10	12,500	Fuel Oil
11	30,000	Fuel Oil
12	29,600	Fuel Oil
13	17,000	Fuel Oil
14	17,000	Leaded Gasoline
15	2,000	Lube Oil
16	2,000	Lube Oil
17	5,000	Lube Oil

Underground Ground Tanks

Tank No.	Size in Gallons	Contents
18	500	Fuel Oil
19	1,000	Diesel
20	1,000	Leaded Gasoline
21	2,000	Leaded Gasoline

MCB/vlr/MGC
J:\10013602\WP\TBL\99_TBLE1.WPD
10013602/159-MD-D1



LEGEND

- HB3 — HAND AUGER BORING LOCATION AND NUMBER
- SB23 — GEOPROBE SOIL AND GROUNDWATER SAMPLE LOCATION AND NUMBER
- 18 — FORMER LOCATION AND NUMBER OF UNDERGROUND PETROLEUM STORAGE TANK
- 9 — FORMER LOCATION AND NUMBER OF ABOVE GROUND PETROLEUM STORAGE TANK

NOTES

1. BASE MAP DEVELOPED FROM SURVEY PERFORMED BY D'ONOFRIO KOTTKE AND ASSOCIATES, INC., JANUARY 7, 1988.
2. HAND AUGER BORINGS HB1, HB2, AND HB3 PERFORMED BY WARZYN INC. ON JUNE 3 AND 7, 1993.
3. GEOPROBE(TM) BORINGS SB01 THROUGH SB24 PERFORMED BY GZA GEO ENVIRONMENTAL, UNDER THE SUPERVISION OF WARZYN INC. ON APRIL 18 AND 19, 1994.
4. LOCATIONS OF HAND AUGER AND GEOPROBE BORINGS ARE APPROXIMATE.

north

0 20 40

SCALE IN FEET

QUALITY CONTROL | Graphic Standards DLF 8-8-94 | Technical Review Management Review
Land Professional MCB 7-29-94 | Project Manager MGC 8-3-94 | Other

WARZYN INC.

Developed By: SCW Drawn By: JSL/DLF
Approved By: [signature] Date: 8.15.94
Reference:
Revisions:

SOIL AND GROUNDWATER SAMPLE LOCATION MAP

SOIL AND GROUNDWATER INVESTIGATION
BYRNS PROPERTIES LTD.
211 SOUTH BREARLY STREET
MADISON, WISCONSIN

Drawing Number 10013602 B1

WARZYN

Table 5

Extent of Excavation Soil Samples
Byrns Properties Ltd.
211 South Brearly
Madison, Wisconsin

	GRO	DRO	Total Lead	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,3,5-TMB	1,2,4-TMB
Base of Excavation										
FLR01	2500	4500	16	6.5	12	27	52	243	35	120
FLR02	1500	5200	11.9	3.3	X	X	22	76	18	61
FLR03	270	920	NA	X	0.71	X	3.8	14	4.8	12
FLR04	420	1800	NA	X	X	X	2	8.8	7	14
FLR05	150	1400	NA	X	0.11	X	0.34	1.37	0.6	3.4
FLR06	240	830	NA	X	X	0.15	0.58	1.27	0.95	6.0
FLR07	230	1900	NA	0.14	0.085	X	0.28	1.34	0.89	4.5
FLR08	1200	4400	NA	X	X	X	2.1	14	16	40
FLR09	1000	1900	NA	X	X	X	2.1	6.2	9.6	24
FLR10	460	3200	NA	X	X	0.17	0.92	1.6	2.3	8.6
FLR11	8.1	9.1	NA	X	X	X	0.034	X	X	0.12
FLR12	630	2000	NA	X	0.79	X	1.1	2.6	3.0	9.8
Truckloads Removed from Site										
0-300 yds	1000	3200	NA	X	18	X	4.1	10.3	3.5	11
300-600 yds	1300	9100	NA	X	6	X	2.3	1.6	5.3	12
600-900 yds	27	36	NA	X	0.54	0.44	0.79	2.12	0.39	1.3
900-1200 yds	1100	1600	12	X	X	X	2	2.38	5.1	14
1200-1500 yds	290	1000	12.4	X	X	X	0.43	X	1.2	4.2
1500-1800 yds	540	3200	20.7	X	X	X	1.1	1.22	4.6	9.6
1800-2100 yds	890	13000	NA	1.4	14	0.46	2.8	8.4	1.4	24
2100-2400 yds	1500	3800	NA	X	X	X	3.6	4.6	3.7	8.6
2400-2700 yds	280	21000	NA	0.29	2.4	X	0.91	2.7	0.85	5.2
2700-3000 yds	120	600	NA	0.44	7.4	X	1.8	4.4	1.4	17

Notes:

1. All concentrations reported in mg/kg.
2. X = Analyzed, but not detected.
3. NA = Not analyzed.
4. SW01 - SW37 collected at a depth of 7.5 ft.
5. FLR samples collected from base of excavation at a depth of 7.5 ft.
6. TMB = Trimethylbenzene

3/98

Table 5

Extent of Excavation Soil Samples
Byrns Properties Ltd.
211 South Brearly
Madison, Wisconsin

didn't analyze for Naph or PAHs

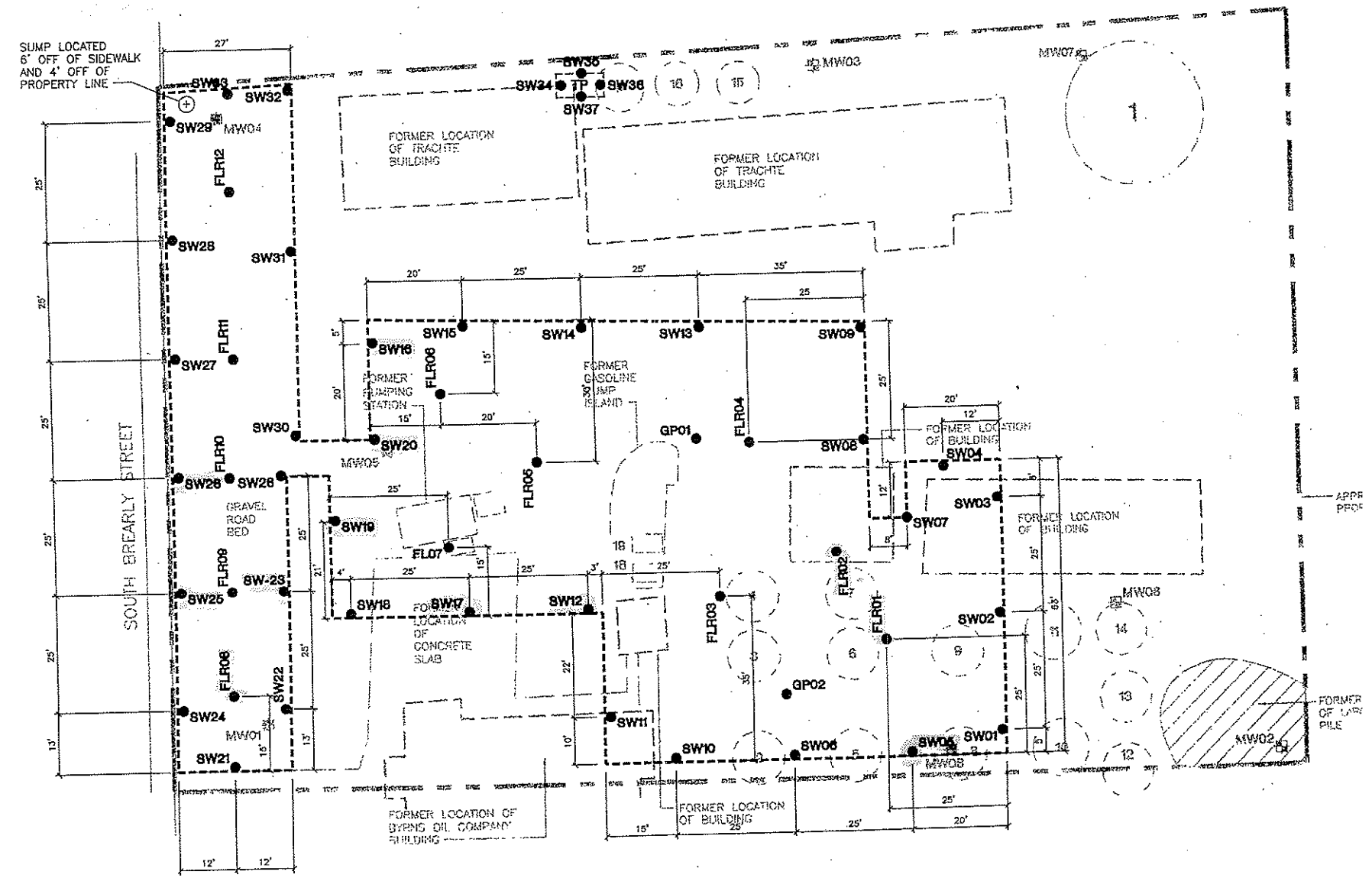
ppm

Sidewall Samples	GRO	DRO	Total Lead	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,3,5-TMB	1,2,4-TMB
		NR 746 Table 1			8.5	38	4.6	42	11	83
SW01	450	7200	NA	X	X	0.76	1.7	3.79	1.8	3.8
SW02	12	14	NA	X	X	X	0.14	0.28	0.13	0.48
SW03	X	1.9	NA	X	X	X	X	X	X	X
SW04	X	X	NA	X	X	X	X	X	X	X
SW05	1200	2900	7.05	X	0.43	X	3.5	4.57	14	19
SW06	770	3400	4.39	X	X	X	X	2.6	4.4	10
SW07	X	X	2.22	X	X	X	X	X	X	X
SW08	X	X	1.33	X	X	X	0.034	0.078	X	0.03
SW09	7.1	X	3.5	X	0.19	0.065	0.14	0.381	0.086	0.47
SW10	64	160	NA	X	0.051	X	0.22	0.753	0.24	0.84
SW11	X	1.9	NA	X	X	X	X	X	X	X
SW12	2100	3100	NA	X	X	X	55	160	53	180
SW13	2.8	2.2	NA	X	0.072	X	0.054	0.098	X	0.092
SW14	540	1800	NA	X	X	X	2.4	4.3	X	20
SW15	1400	7600	NA	X	1.2	X	3.6	9.91	7.6	17
SW16	1400	7000	NA	X	5.4	X	7.7	16	5.9	28
SW17	3500	14000	NA	X	X	X	76	97	9.3	380
SW18	1000	2800	NA	X	0.71	X	3.3	8.3	6.0	22
SW19	480	240	NA	0.56	13	0.64	5.1	8.45	1.3	5.3
SW20	1500	7500	NA	0.46	6.7	X	6.1	8.3	10	20
SW21	3.2	82	NA	X	0.21	X	0.16	0.089	X	0.077
SW22	160	1000	NA	X	0.77	0.04	1.0	1.5	1.8	3.7
SW23	3500	24000	NA	X	17	X	9.2	6.4	13	22
SW24	250	4600	NA	X	0.97	X	3.4	4.5	0.98	17
SW25	250	260	NA	X	2.2	0.22	7.1	6.46	1.2	5.8
SW26	3900	9000	NA	2.0	29	X	130	99.5	5.5	73
SW27	1300	33000	NA	X	6.9	X	3.3	8.2	3	16
SW28	1200	24000	NA	X	X	X	X	4.3	3.4	12
SW29	2000	5700	NA	X	X	X	X	0.47	0.65	1.3
SW30	960	22000	NA	X	4.8	X	2.5	5.5	3.3	11
SW31	1500	13000	NA	X	2.6	X	3.1	9.2	3.9	18
SW32	820	1300	NA	X	X	X	X	1.8	1.6	9.7
SW33	970	7000	NA	X	1.9	X	3.8	9	5.7	18
Test Pit Samples										
SW34	X	15	NA	X	X	X	X	X	X	X
SW35	14	59	NA	X	X	0.1	0.069	0.25	0.23	0.21
SW36	X	120	NA	X	X	X	X	X	X	X
SW37	4.6	X	NA	X	X	X	X	X	X	X

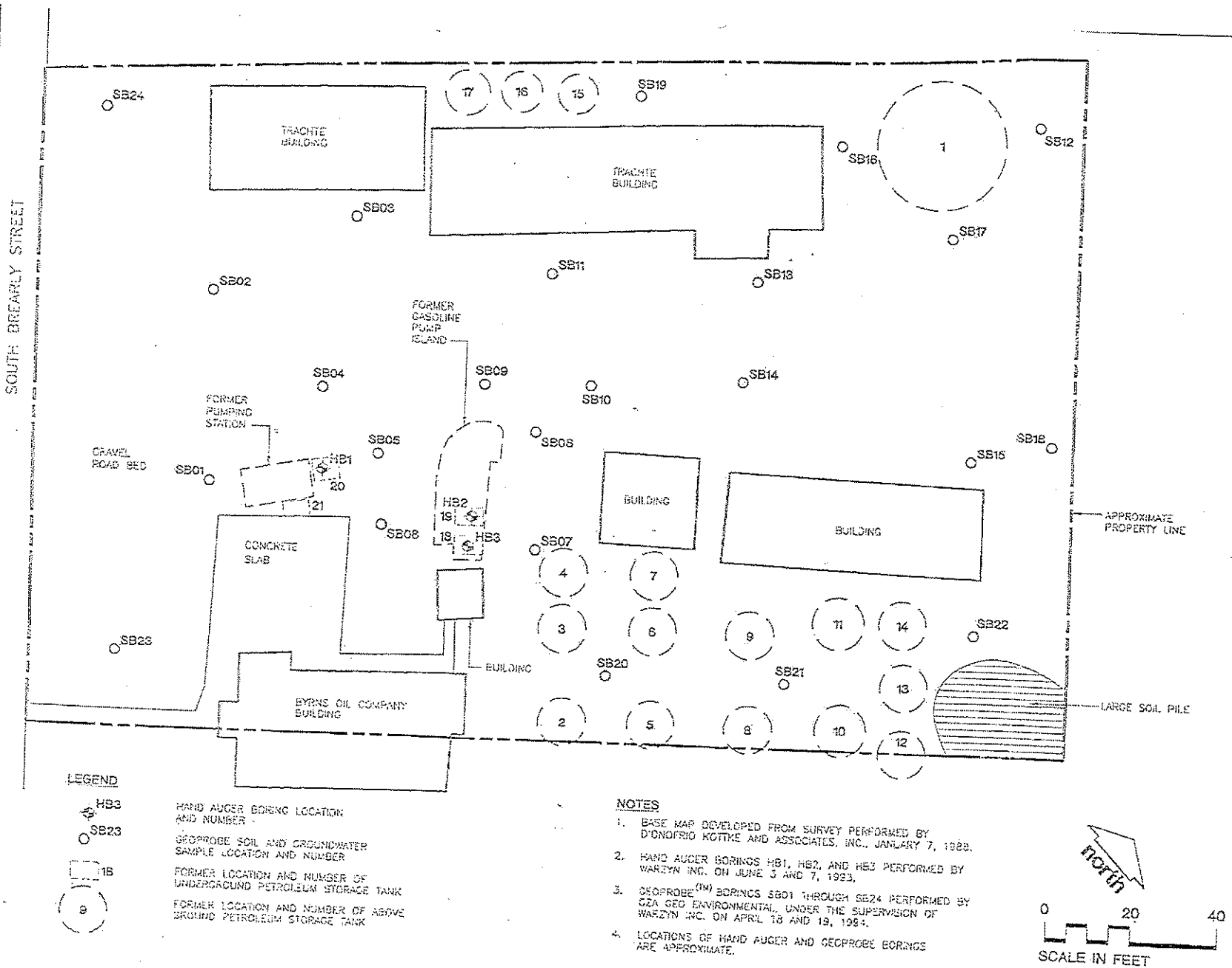
2178

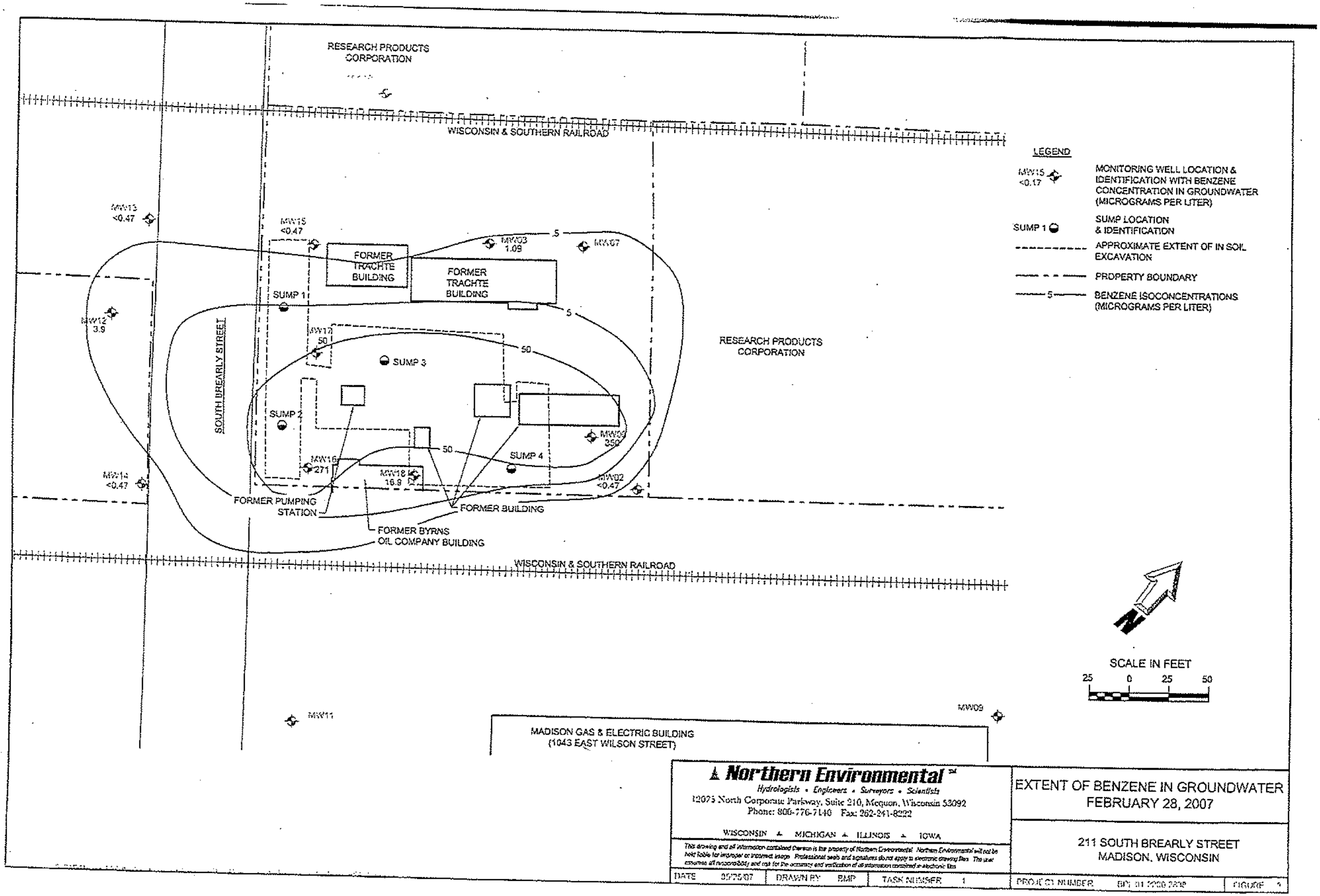
> NR 746 Table 1 – confirmation samples

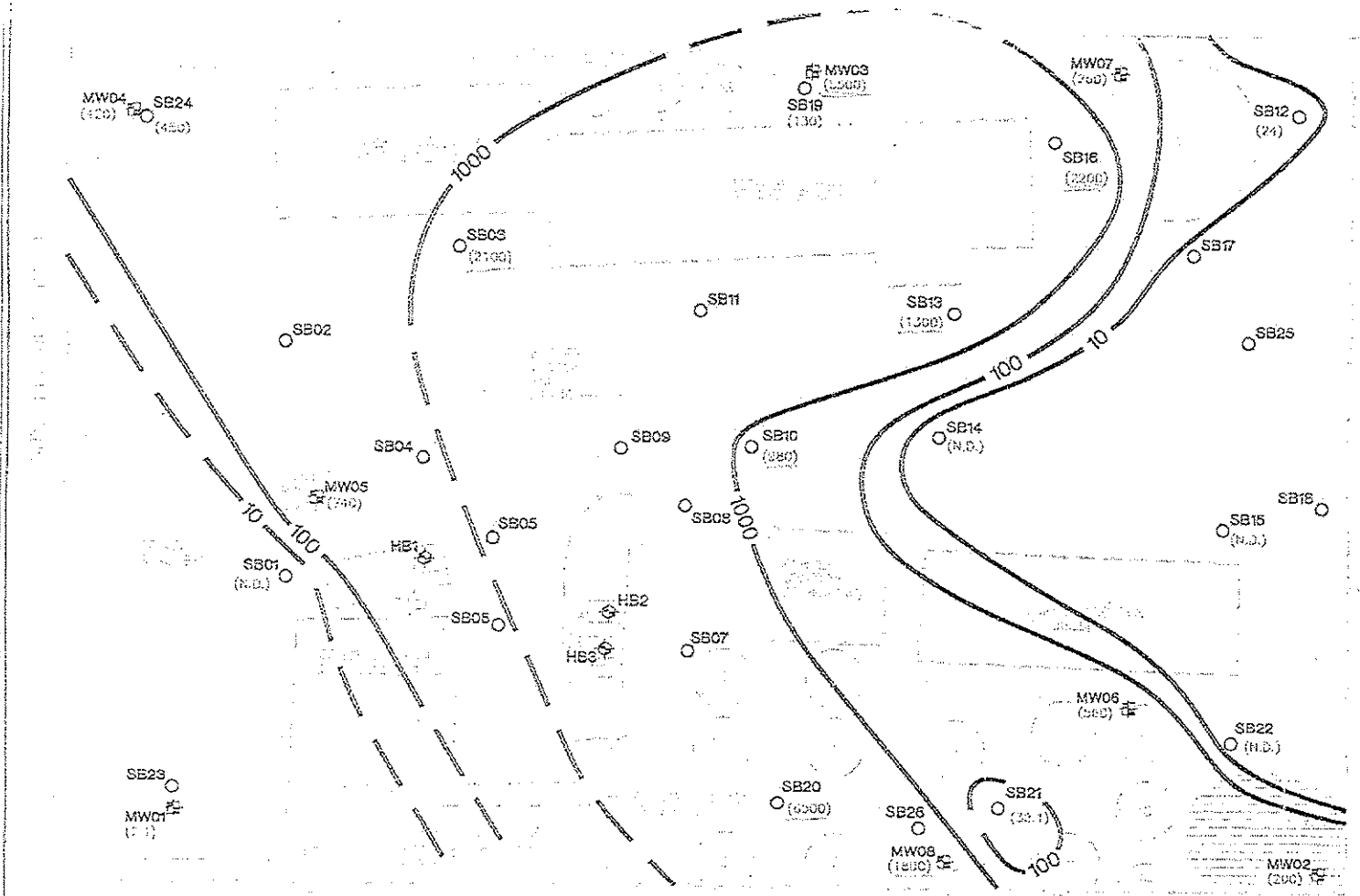
didn't analyze for Naph!



QUALITY CONTROL
Graphic Standards DLF 12-11-98
Local Professional PRL 12-14-98
Technical Review MDB 12-14-98
PM Review
Management Review
Other


SOUTH BREARLY STREET
TRACHTE BUILDING
TRACHTE BUILDING
SB24
SB03
SB02
SB19
SB11
SB13
SB16
SB12
SB17
FORMER GASOLINE PUMP ISLAND
SB04
SB09
SB10
SB14
FORMER PUMPING STATION
GRAVEL ROAD BED
SB01
SB05
SB08
SB06
SB18
SB15
HB1
HB2
HB3
SB07
BUILDING
BUILDING
APPROXIMATE PROPERTY LINE
CONCRETE SLAB
SB23
BUILDING
SB20
SB21
SB22
BYRNS OIL COMPANY BUILDING
LARGE SOIL PILE
LEGEND
HB3 HAND AUGER BORING LOCATION AND NUMBER
SB23 GEOPROBE SOIL AND GROUNDWATER SAMPLE LOCATION AND NUMBER
1B FORMER LOCATION AND NUMBER OF UNDERGROUND PETROLEUM STORAGE TANK
e FORMER LOCATION AND NUMBER OF ABOVE GROUND PETROLEUM STORAGE TANK
NOTES
1. BASE MAP DEVELOPED FROM SURVEY PERFORMED BY D'ONOFRIO KOTTKE AND ASSOCIATES, INC., JANUARY 7, 1988.
2. HAND AUGER BORINGS HB1, HB2, AND HB3 PERFORMED BY WARZYN INC. ON JUNE 3 AND 7, 1993.
3. GEOPROBE(TM) BORINGS SB01 THROUGH SB24 PERFORMED BY OZA GEO ENVIRONMENTAL, UNDER THE SUPERVISION OF WARZYN INC. ON APRIL 18 AND 19, 1994.
4. LOCATIONS OF HAND AUGER AND GEOPROBE BORINGS ARE APPROXIMATE.
north
0 20 40
SCALE IN FEET
SOIL AND GROUNDWATER SAMPLE LOCATION MAP
SOIL AND GROUNDWATER INVESTIGATION
BYRNS PROPERTIES LTD.
211 SOUTH BREARLY STREET
MADISON, WISCONSIN
Drawing Number 10013602 B
WARZYN


RESEARCH PRODUCTS CORPORATION
WISCONSIN & SOUTHERN RAILROAD
LEGEND
MW15 <0.17
MONITORING WELL LOCATION & IDENTIFICATION WITH BENZENE CONCENTRATION IN GROUNDWATER (MICROGRAMS PER LITER)
SUMP 1
SUMP LOCATION & IDENTIFICATION
APPROXIMATE EXTENT OF IN SOIL EXCAVATION
PROPERTY BOUNDARY
5
BENZENE ISOCONCENTRATIONS (MICROGRAMS PER LITER)
MW13 <0.47
MW15 <0.47
MW03 1.09
MW07
FORMER TRACHTE BUILDING
FORMER TRACHTE BUILDING
SUMP 1
MW12 3.9
SOUTH BREARLY STREET
MW17 50
SUMP 3
RESEARCH PRODUCTS CORPORATION
SUMP 2
MW05 350
SUMP 4
MW16 271
MW18 16.9
MW02 <0.47
MW14 <0.47
FORMER PUMPING STATION
FORMER BUILDING
FORMER BYRNS OIL COMPANY BUILDING
WISCONSIN & SOUTHERN RAILROAD
SCALE IN FEET
25 0 25 50
MW11
MW09
MADISON GAS & ELECTRIC BUILDING (1043 EAST WILSON STREET)
Northern Environmental
Hydrologists • Engineers • Surveyors • Scientists
12075 North Corporate Parkway, Suite 210, Mequon, Wisconsin 53092
Phone: 800-776-7140 Fax: 262-241-8222
WISCONSIN MICHIGAN ILLINOIS IOWA
EXTENT OF BENZENE IN GROUNDWATER
FEBRUARY 28, 2007
211 SOUTH BREARLY STREET
MADISON, WISCONSIN
DATE 05/25/07
DRAWN BY BMP
TASK NUMBER 1
PROJECT NUMBER
FIGURE



LEGEND

- MW03 (6500) — MONITORING WELL LOCATION, NUMBER AND DRO CONCENTRATION IN UNSATURATED SOIL (mg/kg)
- HB3 — HAND AUGER BORING LOCATION AND NUMBER
- SB01 (N.D.) — GEOPROBE SOIL AND GROUNDWATER SAMPLE LOCATION, NUMBER AND DRO CONCENTRATION IN UNSATURATED SOIL (mg/kg) (N.D. – NO DETECTION)
- FORMER LOCATION AND NUMBER OF UNDERGROUND PETROLEUM STORAGE TANK
- FORMER LOCATION AND NUMBER OF ABOVE GROUND PETROLEUM STORAGE TANK
- 100 — ISOCONCENTRATION OF DRO CONCENTRATIONS IN UNSATURATED ZONE SOILS (mg/kg) (CONTOUR INTERVAL: VARIES, DASHED WHERE INFERRED)

NOTES

1. REFER TO DRAWING 3872.0011-B1 FOR ADDITIONAL NOTES.
2. DRO CONCENTRATIONS BASED ON FIELD GC ANALYSIS FOR ALL SB SAMPLES COLLECTED ON APRIL 18 AND 19, 1994 EXCEPT SB01, SB03, SB10, SB12, SB20, AND SB22 WHERE LABORATORY ANALYSIS FOR DRO IS REPORTED.
3. DRO CONCENTRATIONS REPORTED FOR MW01 THROUGH MW08 WERE COLLECTED ON JANUARY 9 AND 10, 1995.

north

0 20 40

SCALE IN FEET

DRO CONCENTRATION IN UNSATURATED ZONE SOILS

BYERS PROPERTIES LTD.
211 SOUTH BROADY STREET
MADISON, WISCONSIN

Drawing Number
3872.0011 B5

MONTGOMERY WATSON

Watertable Elevations Table
Byrns Properties, LTD LUST Site BRRTS# 03-13-001971
Madison, Wisconsin

	MW-2	MW-3	MW-6	MW-7	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18
pvc top (ft)	850.93	850.72	851.40	850.95	854.25	850.70	854.74	851.21	851.30	851.62	850.91	851.77	851.04	851.40
Date														
4/7/2005	848.51	848.14	848.30	848.10	847.42	NI	847.33	847.93	847.91	847.18	847.55	842.80	847.28	846.80
7/14/2005	844.52	846.23	844.01	846.38	843.49	845.50	843.63	846.34	846.34	844.74	846.52	842.14	846.47	843.76
8/16/2006	847.25	847.81	846.48	847.76	854.25	846.78	846.24	847.72	847.72	847.14	847.03	842.42	846.94	845.35
11/9/2006	847.04	847.31	845.95	847.26	845.96	846.26	846.09	847.38	847.38	846.81	847.36	842.95	847.37	845.81
2/28/2007	846.89	846.87	846.26	NM	NM	NM	NM	846.91	846.87	846.52	846.89	843.97	846.90	845.70
5/22/2007	847.67	847.78	847.40	847.74	846.65	846.15	846.92	847.75	847.78	847.41	847.92	844.35	849.83	846.94
9/27/2007	847.65	847.70	847.14	847.68	NM	NM	NM	847.61	847.84	847.11	947.67	844.41	847.63	847.01
11/28/2007	846.17	846.94	845.48	846.93	844.73	845.77	845.07	845.68	847.09	846.41	847.02	843.75	847.02	845.47
9/14/2009	844.86	846.45	845.06	846.50	CNL	845.89	844.08	845.49	846.34	845.18	846.43	FP	846.66	844.65

Note: Elevations are presented in feet mean sea level (msl).
CNL = Could Not Locate
NI = Not Installed
NM = Not Measured
FP = Free Product Present

GROUNDWATER SAMPLING DATA TABLE FOR BYRNS PROPERTIES, LTD BRRTS# 03-13-001971
BY METCO

WELL SAMPLING CONDUCTED ON SEPTEMBER 14, 2009

Well Name	MW-2	MW-3	MW-6	MW-7	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	SUMP -1	SUMP-2	SUMP-3	SUMP-4	TRIP BLANK
PVC Casing Elevation in Feet (MSL)	850.93	850.72	851.40	850.95	854.25	850.70	854.74	851.21	851.30	851.62	850.91	851.77	851.04	851.40	==	==	==	==	==
Watertable Elevation in Feet (MSL)	844.86	846.45	845.06	846.50	COULD	845.89	844.08	845.49	846.34	845.18	846.43	851.77	846.66	844.65	==	==	==	==	==
Depth to Groundwater in Feet	6.07	4.27	6.34	4.45	NOT	4.81	10.66	5.72	4.96	6.44	4.48	36" FP	4.38	6.75	4.57	4.29	5.26	4.64	==
Amount Purged in Gallons	2	2	2	0	LOCATE	2	2	2	2	2	2	3	2	2	==	==	==	==	==
Time to Purge in Minutes	5	5	5	0	==	5	5	5	5	5	5	20	5	5	==	==	==	==	==
Purged Dry?	NO	NO	NO	NO	==	YES	NO	NO	NO	NO	NO	NO	NO	NO	==	==	==	==	==
Color	CLEAR	YELLOW	YELLOW	TAN	==	BROWN	CLEAR	GRAY	GRAY	GRAY	CLEAR	CLEAR	CLEAR	GRAY	==	==	==	==	==
Petroleum Odors	YES	YES	YES	NO	==	NO	NO	YES	YES	YES	YES	YES	YES	YES	==	==	==	==	==
Petroleum Sheens	YES	YES	YES	NO	==	NO	NO	YES	YES	YES	YES	YES	NO	YES	==	==	==	==	==
Turbidity (high, medium, low, clear)	LOW	LOW	LOW	LOW	==	HIGH	LOW	LOW	LOW	LOW	LOW	LOW	LOW	MEDIUM	==	==	==	==	==
Benzene/ppb	< 0.45	7.5	350	< 0.45	ns	< 0.45	< 0.45	4.2	< 0.45	6.6	< 0.45	125	46	11.2	ns	ns	ns	ns	< 0.45
Ethylbenzene/ppb	< 0.76	< 0.76	96 "J"	< 0.76	ns	< 0.76	< 0.76	4.5	0.94 "J"	2.48	0.83 "J"	< 38	0.90 "J"	24.8	ns	ns	ns	ns	< 0.76
Methyl tert-butyl ether (MTBE)/ppb	< 0.42	< 0.42	< 21	< 0.42	ns	< 0.42	< 0.42	1.33	< 0.42	< 0.42	< 0.42	< 21	16.9	< 0.42	ns	ns	ns	ns	< 0.42
Toluene/ppb	< 0.53	< 0.53	< 26.5	< 0.53	ns	< 0.53	< 0.53	2.89	< 0.53	3.06	1.19 "J"	< 26.5	1.24 "J"	13.5	ns	ns	ns	ns	< 0.53
1,2,4-Trimethylbenzene/ppb	< 0.52	< 0.52	238	< 0.52	ns	< 0.52	< 0.52	34	9.8	21.5	< 0.52	440	0.70 "J"	22.8	ns	ns	ns	ns	< 0.52
1,3,5-Trimethylbenzene/ppb	< 0.61	< 0.61	< 30.5	< 0.61	ns	< 0.61	< 0.61	24.8	4.5	10.9	< 0.61	71 "J"	< 0.61	16.9	ns	ns	ns	ns	< 0.61
m&p-Xylene/ppb	< 0.84	1.13 "J"	79 "J"	< 0.84	ns	< 0.84	< 0.84	8.5	< 0.84	4.3	1.48 "J"	44 "J"	< 0.84	9.7	ns	ns	ns	ns	< 0.84
o-Xylene/ppb	< 0.74	< 0.74	< 37	< 0.74	ns	< 0.74	< 0.74	5.3	1.33 "J"	1.99 "J"	1.12 "J"	< 37	1.91 "J"	6.8	ns	ns	ns	ns	< 0.74
Acenaphthene/ppb	0.09	0.26	31	< 0.009	ns	0.04	0.07	83	69	3800	40	8000	1.59	285	ns	ns	ns	ns	ns
Acenaphthylene/ppb	0.04	0.026 "J"	12.3	< 0.011	ns	0.019 "J"	< 0.011	15.3	24	830	5	3400	0.242 "J"	58	ns	ns	ns	ns	ns
Anthracene/ppb	0.06	0.03	17.6	0.011 "J"	ns	0.04	0.015 "J"	23.1	31.5	1570	15	3900	< 0.2	91	ns	ns	ns	ns	ns
Benzo(a)anthracene/ppb	0.027 "J"	< 0.017	1.95 "J"	< 0.017	ns	0.08	< 0.017	5.8	10.4	161	1.72 "J"	< 340	< 0.34	4.6 "J"	ns	ns	ns	ns	ns
Benzo(a)pyrene/ppb	0.022 "J"	< 0.014	< 1.4	< 0.014	ns	0.14	< 0.014	3.9 "J"	7.2	87	< 1.4	< 280	< 0.28	< 2.8	ns	ns	ns	ns	ns
Benzo(b)fluoranthene/ppb	0.034 "J"	< 0.018	< 1.8	< 0.018	ns	0.24	< 0.018	5.6 "J"	10.7	129	< 1.8	< 360	< 0.36	< 3.6	ns	ns	ns	ns	ns
Benzo(g,h,i)perylene/ppb	0.06	< 0.018	< 1.8	< 0.018	ns	0.2	< 0.018	2.32 "J"	4.9 "J"	47 "J"	< 1.8	< 360	< 0.36	< 3.6	ns	ns	ns	ns	ns
Benzo(k)fluoranthene/ppb	< 0.029	< 0.029	< 2.9	< 0.029	ns	0.074 "J"	< 0.029	< 2.9	3.8 "J"	< 58	< 2.9	< 580	< 0.58	< 5.8	ns	ns	ns	ns	ns
Chrysene/ppb	0.03	< 0.01	1.79 "J"	< 0.01	ns	0.14	0.011 "J"	5.6	9.6	191	< 1	< 200	< 0.2	5.9 "J"	ns	ns	ns	ns	ns
Dibenzo(a,h)anthracene/ppb	< 0.019	< 0.019	< 1.9	< 0.019	ns	0.045 "J"	< 0.019	< 1.9	< 1.9	< 38	< 1.9	< 380	< 0.38	< 3.8	ns	ns	ns	ns	ns
Fluoranthene/ppb	0.06	< 0.013	5.6	< 0.013	ns	0.2	0.029 "J"	18.4	34	790	3.06 "J"	690 "J"	< 0.26	29.5	ns	ns	ns	ns	ns
Fluorene/ppb	0.033 "J"	0.17	40	0.013 "J"	ns	0.023 "J"	0.05	119	107	5000	47	14300	1.49	390	ns	ns	ns	ns	ns
Indeno(1,2,3-cd)pyrene/ppb	0.025 "J"	< 0.019	< 1.9	< 0.019	ns	0.13	< 0.019	< 1.9	3.8 "J"	< 38	< 1.9	< 380	< 0.38	< 3.8	ns	ns	ns	ns	ns
1-Methylnaphthalene/ppb	0.08	0.88	237	0.039 "J"	ns	0.09	0.08	260	9.1	6000	97	154000	44	1250	ns	ns	ns	ns	ns
2-Methylnaphthalene/ppb	0.05 "J"	0.045 "J"	24.3	0.021 "J"	ns	0.11	0.038 "J"	6.6	12.3	232	4.3 "J"	141000	0.67 "J"	16.6	ns	ns	ns	ns	ns
Naphthalene/ppb	0.08	0.31	44	< 0.024	ns	0.17	0.031 "J"	17.2	21.2	610	8.1	3050	0.76 "J"	41	ns	ns	ns	ns	ns
Phenanthrene/ppb	0.12	0.04 "J"	102	0.025 "J"	ns	0.08	0.04 "J"	13.3	13.6	12100	12.8	29400	0.315 "J"	970	ns	ns	ns	ns	ns
Pyrene/ppb	0.18	0.036 "J"	13.9	< 0.012	ns	0.18	0.028 "J"	33	66	1300	7.5	1120	< 0.24	77	ns	ns	ns	ns	ns

MW-16	
Density	0.8346
Viscosity	2.42
Water Surface Tension	59.3
NAPL Surface Tension	16.2
NAPL/Water Interfac, Tens.	25.3

NOTE: Bold = detects NS = NOT SAMPLED
J Flag: Analyte detected between LOD and LOQ

Groundwater Analytical Results Summary
Byrns Properties, LTD LUST Site BRRTS# 03-13-001971

Well MW-2
PVC Elevation = 850.93 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	848.51	2.42	<0.50	<0.44	<0.48	NS	<0.32	<0.88	<0.78
7/14/2005	844.52	6.41	**8.8**	<0.5	<0.11	<1.2	<0.13	1.2	<1.9
8/16/2006	847.25	3.65	0.32	<1	<0.52	<0.73	<0.78	<1.95	<2.84
11/9/2006	847.04	3.89	*4.3*	<1	<0.52	<0.73	<0.78	<1.95	<2.84
2/28/2007	846.89	4.04	<0.47	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
5/22/2007	847.67	3.26	<0.47	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
9/27/2007	847.65	3.28	<0.22	<0.44	<0.53	<0.53	<0.26	<0.67	<1.21
11/28/2007	846.17	4.76	*1.82*	<0.44	<0.53	0.62	<0.26	<0.67	<1.21
9/14/2009	844.86	6.07	<0.45	<0.76	<0.42	0.08	<0.53	<1.13	<1.58

Well MW-3
PVC Elevation = 850.72 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	848.14	2.58	*1.80*	<0.22	<0.23	NS	0.12	<0.44	0.5
7/14/2005	846.23	4.49	*1.30*	<0.5	<0.11	<1.2	<0.13	1.2	<1.9
8/16/2006	847.81	2.91	<0.17	<1	<0.52	<0.73	<0.78	<1.95	<2.84
11/9/2006	847.31	3.41	*3.30*	<1	<0.52	<0.73	<0.78	<1.95	<2.84
2/28/2007	846.87	3.85	*1.09*	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
5/22/2007	847.78	2.94	<0.47	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
9/27/2007	847.70	3.02	*0.65*	<0.44	<0.53	<0.53	<0.26	<0.67	<1.21
11/28/2007	846.94	3.78	<0.22	<0.44	<0.53	<0.53	<0.26	<0.67	<1.21
9/14/2009	846.45	4.27	**7.5**	<0.76	<0.42	0.31	<0.53	<1.13	1.13-1.87

Well MW-6
PVC Elevation = 851.40 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	848.30	3.10	**230**	*250*	<23	NS	11	**560**	550
7/14/2005	844.01	7.39	**590**	*300*	*12*	**120**	40	**550**	550
8/16/2006	846.48	4.92	**147**	125	*20.4*	*89*	24.1	*434*	392
11/9/2006	845.95	5.45	**191**	*360*	<26	**161**	<39	**829**	661
2/28/2007	846.26	5.14	**350**	*201*	<26	<90	<23	**524**	216.5
5/22/2007	847.40	4.00	**93**	37	2.14	*14.5*	0.66	*124*	35.19
9/27/2007	847.14	4.26	**159**	30.5	<5.3	*29.4*	<2.6	*222*	54.6
11/28/2007	845.48	5.92	**314**	135	<26.5	**126**	<13	*401*	*1927*
9/14/2009	845.06	6.34	**350**	96	<21	*44*	<26.5	238-268.5	79-116

Note: Bold type indicates an ES exceedance, *italics* indicates a PAL exceedance. NS = not sampled, NM = Not Measured
Q = Analyte detected above laboratory method detection limit but below practical quantitation limit.

Groundwater Analytical Results Summary
Garrow Oil - Woody's Goodies LUST Site BRRTS# 03-71-000951

Byrns

Well MW-7
PVC Elevation = 850.95 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	848.10	2.85	0.67	<0.22	<0.23	NS	<0.11	<0.44	<0.39
7/14/2005	846.38	4.57	<0.12	<0.5	<0.11	<1.2	<0.13	<1.11	<1.9
8/16/2006	847.76	3.19	0.44	<1	<0.52	<0.73	<0.78	<1.95	<2.84
11/9/2006	847.26	3.69	2.1	<1	<0.52	<0.73	<0.78	<1.95	<2.84
5/22/2007	847.74	3.21	0.71	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
9/27/2007	847.68	3.27	<0.22	<0.44	<0.53	<0.53	<0.26	<0.67	<1.21
11/28/2007	846.93	4.02	<0.22	<0.44	<0.53	<0.53	<0.26	<0.67	<1.21
9/14/2009	846.50	4.45	<0.45	<0.76	<0.42	<0.024	<0.53	<1.13	<1.58

Well MW-9
PVC Elevation = 854.25 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	847.42	6.83	<0.25	<0.22	<0.23	NS	0.14	<0.44	<0.39
7/14/2005	843.49	10.76	<0.12	<0.5	<0.11	<1.2	<0.13	<1.11	<1.9
8/16/2006	854.25	8.92	<0.17	<1	<0.52	<0.73	<0.78	<1.95	<2.84
11/9/2006	845.96	8.29	<0.17	<1	<0.52	<0.73	<0.78	<1.95	<2.84
5/22/2007	846.65	7.60	<0.47	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
11/28/2007	844.73	9.52	<0.22	<0.44	<0.53	<0.53	<0.26	<0.67	<1.21
9/14/2009	COULD NOT LOCATE								

Well MW-10
PVC Elevation = 850.70 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
7/14/2005	845.50	5.20	<0.12	<0.5	<0.11	<1.2	<0.13	<1.11	<1.9
8/16/2006	846.78	3.92	<0.17	<1	<0.52	<0.73	<0.78	<1.95	<2.84
11/9/2006	846.26	4.44	<0.17	<1	<0.52	<0.73	<0.78	<1.95	<2.84
5/22/2007	NM	NM	<0.47	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
11/28/2007	845.77	4.93	<0.22	<0.44	<0.53	<0.53	<0.26	<0.67	<1.21
9/14/2009	845.89	4.81	<0.45	<0.76	<0.42	0.17	<0.53	<1.13	<1.58

Note: Bold type indicates an ES exceedance, *italics* indicates a PAL exceedance. NS = not sampled, NM = Not Measured
Q = Analyte detected above laboratory method detection limit but below practical quantitation limit.

Groundwater Analytical Results Summary
~~Garrow Oil - Woody's Goodies LUST Site BRRTS# 03-71-000954~~ Byrns

Well MW-11
PVC Elevation = 854.74 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	847.33	7.41	<0.25	0.24	<0.23	NS	0.26	<0.44	0.754
7/14/2005	843.63	11.11	<0.12	<0.5	<0.11	<1.2	<0.13	<1.11	<1.9
8/16/2006	846.24	8.50	<0.17	<1	<0.52	<0.73	<0.78	<1.95	<2.84
11/9/2006	846.09	8.65	<0.17	<1	<0.52	<0.73	<0.78	<1.95	<2.84
5/22/2007	846.92	7.82	<0.47	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
11/28/2007	845.07	9.67	<0.22	<0.44	<0.53	<0.53	<0.26	<0.67	<1.21
9/14/2009	844.08	10.66	<0.45	<0.76	<0.42	0.031	<0.53	<1.13	<1.58

Well MW-12
PVC Elevation = 851.21 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	847.93	3.30	<5.0	7.6	<4.6	NS	4	23	14
7/14/2005	846.34	4.93	7.7	4.8	1.7	*13*	2.3	13.9	6.3
8/16/2006	847.72	3.54	*2.74*	2.32	1.47	*13.2*	<0.78	8.92	4.9
11/9/2006	847.38	3.83	*2.71*	1.77	2.61	3.3	0.90	7.1	3.8
2/28/2007	846.91	4.30	3.9	1.87	1.59	<1.8	0.6	3.9	2.48
5/22/2007	847.75	3.46	<0.47	<0.38	0.58	<1.8	<0.46	<1.57	<0.99
9/27/2007	847.61	3.60	*3.6*	2.58	2.56	*17.6*	1.01	10.8	6.46
11/28/2007	845.68	5.53	*2.86*	2.53	3.11	*23.1*	1.12	4.4	4.77
9/14/2009	845.49	5.72	*4.2*	4.5	1.33	*17.2*	2.89	58.8	13.8

Well MW-13
PVC Elevation = 851.30 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	847.91	3.37	<0.50	1	1.6	NS	0.38	<0.88	1.4
7/14/2005	846.34	4.96	*1.1*	<0.5	<0.11	3.7	<0.13	<1.11	<1.9
8/16/2006	847.72	3.58	*0.95*	<1	1.23	4.1	<0.78	<1.95	<2.84
11/9/2006	847.38	3.92	*0.82*	<1	<0.52	1.97	<0.78	1.67	<2.84
2/28/2007	846.87	4.43	<0.47	<0.38	0.57	<1.8	<0.46	<1.57	<0.99
5/22/2007	847.78	3.52	<0.47	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
9/27/2007	847.84	3.46	0.46	<0.44	0.83	<0.53	<0.26	<0.67	<1.21
11/28/2007	847.09	4.21	*0.54*	<0.44	0.80	0.60	<0.26	<0.67	<1.21
9/14/2009	846.34	4.96	<0.45	0.94	<0.42	*21.2*	<0.53	14.3	1.33+2.13

Note: Bold type indicates an ES exceedance, *Italics* indicates a PAL exceedance. NS = not sampled, NM = Not Measured
Q = Analyte detected above laboratory method detection limit but below practical quantitation limit.

Groundwater Analytical Results Summary
~~Garrow Oil - Woody's Goodies LUST Site BRRTS# 03-71-000951~~ Byrns

Well MW-14
PVC Elevation = 851.62 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	847.18	4.44	<2.5	5.5	<2.3	NS	<2.8	<10.2	37
7/14/2005	844.74	6.88	*0.91*	<0.5	<0.11	6.2	<0.13	0.78	<1.9
8/16/2006	847.14	4.48	*1.62*	<1	1.66	*18.8*	<0.78	2.3	<2.84
11/9/2006	846.81	4.81	*1.42*	3.6	<0.52	4	1.43	1.61	4.67
2/28/2007	846.52	5.10	<0.47	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
5/22/2007	847.41	4.21	*1.54*	0.73	<0.52	<1.8	<0.46	2.48	1.14
9/27/2007	847.11	4.51	0.26	0.84	<0.53	9.1	0.72	<0.67	0.70
11/28/2007	846.41	5.21	<0.22	1.16	<0.53	*11.8*	2	1.62	5.87
9/14/2009	845.18	6.44	**6.6**	2.48	<0.42	**610**	3.06	32.4	6.29

Well MW-15
PVC Elevation = 850.91 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	847.55	3.40	<0.50	<0.54	2.6	NS	0.3	<1.22	1.7
7/14/2005	846.52	4.43	<0.12	<0.5	<0.11	6.7	<0.13	3.6	<1.9
8/16/2006	847.03	3.92	*0.61*	<1	0.61	<0.73	<0.78	<1.95	<2.84
11/9/2006	847.36	3.55	<0.17	2.86	<0.52	2.32	<0.78	1.54	2.37
2/28/2007	846.89	4.02	<0.47	<0.38	1.86	<1.8	<0.46	<1.57	<0.99
5/22/2007	847.92	2.99	<0.47	<0.38	<0.52	<1.8	<0.46	<1.57	<0.99
9/27/2007	947.67	3.24	*0.60*	0.97	<0.53	5	1.05	<0.67	2.28
11/28/2007	847.02	3.89	<0.22	1.13	1.07	5.9	2.58	<0.67	1.69
9/14/2009	846.43	4.48	<0.45	0.83	<0.42	8.1	1.19	<1.13	2.61

Well MW-16
PVC Elevation = 851.77 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	842.80	8.97	**96**	15	<9.2	NS	<4.4	*350*	69
7/14/2005	842.14	9.63	**190**	12	*16*	**210**	<1.3	*435*	85
8/16/2006	842.42	9.35	**264**	12.4	*41*	**106**	1.16	*297.2*	87.1
11/9/2006	842.95	8.82	**247**	14.1	*14.6*	*23*	<7.8	*210*	80.8
2/28/2007	843.97	7.80	**271**	7.6	<5.2	<18	<4.6	*152*	49.3
5/22/2007	844.35	7.42	**231**	8.4	<5.2	*35*	<4.6	*305.1*	49
9/27/2007	844.41	7.36	**225**	14.6	<5.3	*48*	<2.6	*450*	108.5
11/28/2007	843.75	8.02	**183**	22.4	<5.3	*20.3*	11.4	*231*	187
9/14/2009	NM	NM	**125**	<38	<21	**3050**	<26.5	**511**	44-81

Note: Bold type indicates an ES exceedance, *italics* indicates a PAL exceedance. NS = not sampled, NM = Not Measured
Q = Analyte detected above laboratory method detection limit but below practical quantitation limit.

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~~Garrow Oil - Woody's Goodies LUST Site BRRTS# 03-71-000951~~ Byrns

Well MW-17
PVC Elevation = 851.04 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	847.28	3.76	**81**	0.73	11	NS	0.77	0.49	1.4
7/14/2005	846.47	4.57	**130**	<5	*25*	<12	<1.3	<10.11	<19
8/16/2006	846.94	4.10	**94**	<1	11.7	6.3	1.56	1.03	0.86
11/9/2006	847.37	3.67	**51**	3.3	*14.2*	<0.73	<0.78	<1.95	4.29
2/28/2007	846.90	4.14	**50**	<0.38	*16*	<1.8	<0.46	<1.57	<0.99
5/22/2007	849.83	1.21	**61**	<0.38	7.1	<1.8	<0.46	<1.57	<0.99
9/27/2007	847.63	3.41	**145**	3.2	*18.8*	7.7	151	<0.67	2.85
11/28/2007	847.02	4.02	**46**	0.99	11.5	5.9	1.15	<0.67	<1.21
9/14/2009	846.66	4.38	**46**	0.90	*16.9*	0.76	1.24	0.70-1.31	1.91+2.75

Well MW-18
PVC Elevation = 851.40 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
4/7/2005	846.8	4.60	<50	*160*	<4.6	NS	3.4	*212*	49
7/14/2005	843.76	7.64	**9.6**	91	<1.1	*29*	<1.3	*124*	30
8/16/2006	845.35	6.05	**22.1**	*177*	<26	**162**	<39	*280*	152
11/9/2006	845.81	5.59	**20.1**	*164*	<5.21	*34*	<7.8	*232*	106
2/28/2007	845.7	5.70	**16.9**	122	<5.2	*38*	<4.6	*239*	70.4
5/22/2007	846.94	4.46	**11.9**	116	<5.2	*53*	<4.6	*262.7*	64.5
9/27/2007	847.01	4.39	*3.9*	80	<5.3	*21.9*	<2.6	*194.9*	43.3
11/28/2007	845.47	5.93	**6.0**	100	<0.53	*23*	2.15	*188.5*	34.5
9/14/2009	844.65	6.75	**11.2**	24.8	<0.42	*41*	13.5	39.7	16.5

Well SUMP -1
PVC Elevation = (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
9/14/2009	NM	4.57	NOT SAMPLED						

Note: Bold type indicates an ES exceedance, *italics* indicates a PAL exceedance. NS = not sampled, NM = Not Measured
Q = Analyte detected above laboratory method detection limit but below practical quantitation limit.

Groundwater Analytical Results Summary
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Well SUMP -2
PVC Elevation = (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
9/14/2009	NM	4.29	NOT SAMPLED						

Well SUMP -3
PVC Elevation = (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
9/14/2009	NM	5.26	NOT SAMPLED						

Well SUMP -4
PVC Elevation = (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
9/14/2009	NM	4.64	NOT SAMPLED						

Note: Bold type indicates an ES exceedance, *italics* indicates a PAL exceedance. NS = not sampled, NM = Not Measured
Q = Analyte detected above laboratory method detection limit but below practical quantitation limit.

Seymour
Environmental Services, Inc.

Tel: 608-838-9120
Fax: 608-838-9121

January 17, 2012

PECFA #: 53703-3515-11A

Mr. Wendell Wojner
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Madison, Wisconsin 53711

Re: Former Byrns Oil Property (03-13-001971)
Contamination Assessment/Remediation Update
211 S. Brearly Street - Madison, Wisconsin
BRRTS: 03-13-001971

Dear Mr. Wojner:

Seymour Environmental Services, Inc. (Seymour) is pleased to present the results of the soil remedial activities and recent groundwater monitoring conducted at the above referenced site. Soil remediation work was conducted in three areas at the site where previous sampling had shown very high levels of petroleum contamination. The work generally was performed as outlined in the PECFA Bid Deferment dated April 22, 2011. Groundwater monitoring was conducted after the soil remediation.

Summary of Previous Environmental Activities

Environmental concerns have been an on-going issue at the site for a number of years. Highlights of the environmental assessment/remediation at the site include:

- Contamination assessment activities were started at the site in (1993). During that work a large volume of petroleum-contaminated soil was identified. Additionally, groundwater contamination, including free-phase product, was identified at the site.
- In the spring of 1998 a large remedial excavation was performed at the site. Soils were excavated from the surface to a depth of approximately 7.5 feet in much of the southern and western part of the property. A total of 4,400 tons of petroleum-contaminated sediments were removed from the site. Sidewall soil samples collected during the excavation confirmed that significant contamination remained after the excavation.
- In the summer of 2000 free-phase product and contaminated groundwater was removed from the site by vacuum extraction using 4 sumps installed within the remedial excavation. A total of 2,525 gallons of product and 50,000 gallons of contaminated groundwater were removed during the pumping.
- Groundwater monitoring conducted between 2000 and 2009 showed that groundwater contamination exceeding WDNR standards remains on the south and west portions of the site. Free-phase product was present in the southwest corner of the property (MW-16).
- In September 2009 shallow soil sampling was conducted at the site to evaluate direct contact hazards. This sampling showed areas of concern in the northeast, southeast, southwest and central parts of the site.

Recent Activities

Soil Remediation

The City of Madison Engineering Department retained Seymour Environmental to oversee site remediation and post-remediation monitoring. A total of 695.22 tons of contaminated soil was taken to Madison Prairie Landfill.

Consultant:	Seymour Environmental Services, Inc. 2531 Dyreson Road McFarland, Wisconsin 53558 Attn: Robyn Seymour (608) 838-9120
Excavating Contractor:	Speedway Sand and Gravel 8500 Greenway Blvd. Middleton, Wisconsin 53562 Attn: Matt Stecklein (608) 836-1071
Landfill:	Madison Prairie Landfill 6002 Nelson Road Sun Prairie, Wisconsin 53590 Attn: Lisa Olson (608) 837-9031
Laboratory:	PACE Analytical 1241 Bellevue Street Green Bay, Wisconsin 54302 Attn: Alee Her (920) 469-2436

On August 17, 2011 soil remediation was initiated at the site. Seymour was on site to observe and screen the soil that was removed from the excavation. Soils were segregated so that relatively clean overburden as well as backfill placed during earlier remedial efforts was not taken to the landfill. Soil samples were inspected for visual and olfactory evidence of contamination and selected samples were screened for organic vapors using a photo ionization meter equipped with a 10.6 eV lamp. Additionally, Seymour coordinated dewatering of the remedial excavations as needed. Soil removal was performed at three separate areas. Descriptions of each excavation are summarized below.

Excavation #1

Soil remediation was started in the southwest corner of the site. This area had soils with contaminant levels exceeding NR746 Table values (saturated soil pores) and free-phase product. Soils at the surface to a depth of ~4 ft. appeared relative clean. However, the soil in the smear zone was heavily contaminated and free product was migrating from the sidewalls so the excavation was extended to a depth of 8 feet. Groundwater did not seep into the excavation until we reached approximately 8 feet, the soil was fairly tight, but groundwater ran into the excavation from some fill to the east and stabilized at approximately 5 feet below surface. Dvorak Pumping came to the site and removed the contaminated water from the excavation on two occasions, free product was present on the surface of the water when they started but was no longer present by the time we backfilled. The excavation was advanced laterally until field

observations indicated the soil contamination was removed. The final excavation was approximately 23 by 40 feet. Generally, the excavation was advanced downward to a depth of approximately 8 feet.

However, a small area in the southern portion of the excavation was advanced to 14 feet to facilitate installation of a monitoring sump to replace MW-16, which was abandoned during excavation. The total volume of soils excavated in this area was approximately 270 cubic yards. The clean overburden was returned to the excavation and approximately half of the total excavated soil was taken to Madison Prairie Landfill for treatment/disposal. Remedial excavation details are shown on Figure 2.

Four soil samples were collected from the sidewall of the final excavation. One sample was collected along each sidewall at a depth of 4 to 5 feet. The samples were screened with an organic vapor meter equipped with a 10.6 eV bulb. Organic vapor levels ranged from 25 to 95 vppm. The soil samples were submitted to PACE Analytical, a Wisconsin-certified laboratory, for analysis of petroleum-related volatile organic compounds (PVOCs) + naphthalene and PAHs.

Petroleum-related contaminants were detected in all four sidewall samples. Contaminant levels in the sample from the south side of the excavation were below WDNR standards. Only benzene in the north sidewall exceeded the WDNR RCL. The benzene level in the east sidewall sample exceeded the RCL and several PAH compounds exceeded the non-industrial direct contact levels including benzo(a)anthracene, benzo(a)pyrene and dibenzo(a,h)anthracene. Higher levels of petroleum-related contaminants were present in the soil sample collected along the west wall of the excavation. Compounds present in that area above the groundwater protection levels include benzene (1410 ug/kg), ethylbenzene (3000 ug/kg), xylenes (8830 ug/kg), acenaphthylene (958 ug/kg), 1-methylnaphthalene (58900 ug/kg), naphthalene (7750 ug/kg) and phenanthrene (9790 ug/kg). Additionally, the naphthalene level exceeded the saturated soil pore levels (NR746 Table1). Results of the sidewall sample analysis from excavation #1 are summarized in Table 1 and laboratory reports are attached.

Excavation #2

On August 17 and 18 soil remediation was conducted near the southeastern corner of the property. Previous sampling had identified soil contamination NR746 Table values (saturated soil pores) in this area. Most of the surface soils in the area did not appear to be impacted by petroleum releases. These "clean" overburden sediments were removed to a depth of between 2 and 4 feet where noticeable petroleum-odors were noted. During the excavation MW-6 was removed since it was located within some highly contaminated sediments. The final excavation was approximately 37 by 50 feet. Generally, the excavation was advanced downward to a depth of approximately 9 feet. The total volume of soils excavated in this area was approximately 617 cubic yards. The clean overburden was returned to the excavation and the contaminated soils were taken to Madison Prairie Landfill for treatment/disposal. Remedial excavation details are shown on Figure 3.

Soil samples were collected during excavation activities to document the condition of the remaining soil. The samples were screened with an organic vapor meter equipped with a 10.6 eV bulb. Organic vapor screening and field observations were used to direct excavation work. Seven soil samples were submitted to PACE Analytical for analysis of petroleum-related volatile organic compounds (PVOCs) + naphthalene and PAHs. Three of the samples were collected from the shallow, direct contact horizon and the remaining four samples were collected along the sidewalls of the excavation near the base at a depth of 8 to 9 feet. No sidewall samples were collected along the southwest wall where we encountered fill from a previous investigation. The deeper samples were collected below the static water table based on data from monitoring wells but no groundwater was present during the excavation.

Petroleum-related contaminants were detected in all seven sidewall samples. Contaminant levels in two of the samples from the excavation were below WDNR standards. These samples were collected from shallow (2-3 ft blg) soils along the east and south sides of the excavation. A third shallow soil sample (Pit 2 #9) that was collected along the northern wall of the excavation contained several analytes above the RCLs or groundwater protection levels but no compounds were present above the direct contact hazard levels. The deeper sidewall samples all contained benzene, ethylbenzene, toluene, xylenes, phenanthrene, and/or naphthalene at concentrations exceeding the RCLs or groundwater protection levels. Each of these samples contained at least one compound at concentrations exceeding the saturated soil pore values (NR746 Table 1). The most severe contamination was located along the eastern sidewall (Pit 2 #1) where benzene, ethylbenzene, 1,2,4 trimethylbenzene, xylenes, and naphthalene all exceeded the NR746 Table 1 value. Results of the sampling analysis from excavation #2 are summarized in Table 2 and laboratory reports are attached.

Excavation #3

On August 18 soil remediation was conducted at a small area in the central part of the site near GP-10. Previous sampling had identified soil contamination with several PAHs exceeding the direct contact hazard level in this area. Additionally, the benzene level, 1040 ug/kg, in a sample from this area was near the direct contact hazard level (1100 ug/kg). The final excavation was approximately 20 by 20 feet. Generally, the excavation was advanced downward to a depth of approximately 8 feet. The total volume of soils excavated in this area was approximately 115 cubic yards. Most of the soils removed from the excavation were taken to Madison Prairie Landfill for treatment/disposal. Remedial excavation details are shown on Figure 4.

Confirmation samples were collected from the sidewalls and the base. The samples were screened with an organic vapor meter equipped with a 10.6 eV bulb. Soil samples were collected along the margins of the final excavation at a depth of 4 feet and the base sample was collected at a depth of 8 feet. Five soil samples were submitted to PACE Analytical for analysis of petroleum-related volatile organic compounds (PVOCs) + naphthalene and PAHs.

Petroleum-related contaminants were detected in all five samples from the excavation margin. Three compounds were detected in the samples at levels that exceed the NR720 RCLs or groundwater protection levels, benzene, naphthalene, and phenanthrene. Several of the PAH compounds were present above the non-industrial direct contact levels. Results of the sampling analysis from excavation #3 are summarized in Table 3 and laboratory reports are attached.

Groundwater Monitoring

On November 10 and 11, 2011 groundwater monitoring was conducted at the site. Monitoring consisted of groundwater level measurement and groundwater sample collection from the monitoring wells and monitoring sumps on the site. Groundwater samples were analyzed for PVOCs and PAHs. Additionally, the groundwater monitoring sumps and the newly installed monitoring well (MW-16R) were surveyed. During the monitoring event one of the wells could not be found, MW-18. A protective well cover was discovered in the brush just west of the location of MW-18. We presume that the well cover was hit during grading of the site and scraped off the monitoring well. Without the steel cover it is difficult to locate a 2" diameter PVC well. Monitoring well MW-11 could not be located and has not been sampled since November 2007. The well was not sampled during the next sampling round in September 2009. The well was a stick-up and the location could be accessed but no sign of the well was found.

Water level data collected in November 2011 shows that groundwater at the site is shallow; the water-table was present at approximately 5 feet below grade. Overall, groundwater level data is consistent with historic values, however, along the south side of the site the water table has risen relative to the rest of the monitoring network. Water level data was contoured to evaluate the groundwater flow at the site. The data indicate that groundwater flow at the site is toward the west (Figure 5). The horizontal water-table gradient is very flat on the subject parcel (0.005 ft/ft). The gradient appears steeper to the west, however, the increase in the gradient is entirely "controlled" by the water level at one well (MW-12).

After waiting almost three months after the excavation no free product was present on MW-16R. We measured the free product before excavation and found 3.2 ft present. Groundwater contamination in excess of the NR140 groundwater quality standards remains at the site. Analytes were present at concentrations exceeding the NR140 ESs in six wells, MW-10, MW-12, MW-13, MW-14, MW-15, and Sump 4. Only two of these wells (MW-15 and Sump 4) are located on the subject parcel. Two PVOCs were detected in the groundwater at concentrations exceeding NR140 groundwater quality standards, benzene and naphthalene. Benzene levels exceeded the ES in groundwater at Sump 4 (9.6 ug/l) and MW-12 (11.7 ug/l). Benzene was present above the PAL in three additional wells, MW-14, MW-15, and MW-16R. Naphthalene was detected in all of the sampling points but only exceed the PAL in one well (MW-12). Maps showing the distribution of benzene and naphthalene in groundwater are attached (Figures 6 and 6A).

PAHs were detected in groundwater at all of the sampling points; however, the reported concentrations were generally low. Groundwater samples from five wells contained at least one PAH above the ES (MW-10, MW-12, MW-13, MW-14, and MW-15). Benzo(a) pyrene, benzo(b)fluoranthene, and chrysene were detected above their ES in samples from MW-10, MW-12, MW-13 and MW-14. The highest concentrations were in MW-12. Groundwater at MW-10 contained chrysene above the ES. The distribution of chrysene in groundwater is shown on an attached map (Figure 7).

Graphs were constructed showing the variation in contaminant level over time in several of the monitoring wells (MW-3, MW-12, and MW-17). The graphs indicate that contaminant levels in the groundwater at the site have generally decreased.

Conclusions and Recommendations

The excavation and groundwater monitoring outlined in the Bid Deferment letter dated April 22, 2011 have been completed. With approval from both the WDNR and DSPS we exceeded the estimated 600 tons by 95 tons. We removed the most heavily contaminated soil encountered. Two monitoring wells were removed during the excavation activities, MW-16 and MW-6. Monitoring well MW-16 was replaced with a sump placed in the excavation. One monitoring well, MW-6 was removed but not replaced. Two monitoring wells, MW-11 and MW-18 were not found. The heavily contaminated soil identified in earlier work was removed and the free product that had been present on MW-16 is no longer present.

Based on the data collected during the remedial activities and subsequent groundwater monitoring at the site it is our opinion that the site should be closed to further environmental investigation/remediation with a GIS registry for residual soil and groundwater contamination. Please call me at 608-838-9120 if you have any questions or would like additional information.

Sincerely,
Seymour Environmental Services, Inc.

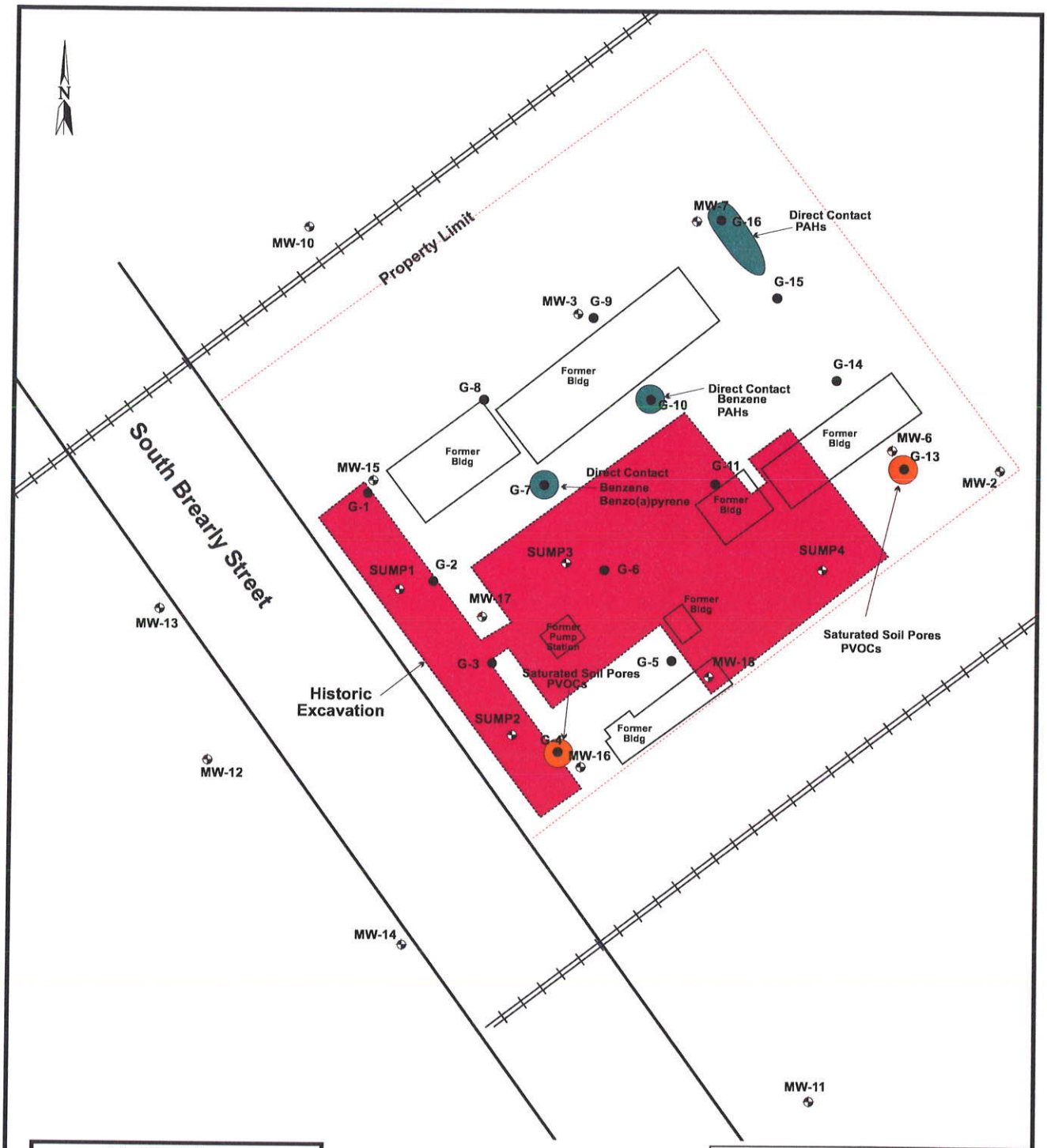
Robyn Seymour

Robyn Seymour, P.G.

Attachments:
- Figures (7)
- Tables (6)
- Trend Graphs
- Laboratory Reports

cc: Mr. Jon Heberer. - WDSPS PECFA Program
Ms. Brynn Bemis - City of Madison Engineering (Responsible Party)

FIGURES



LEGEND

MW-1 - Monitoring well location

G-8 - Geoprobe location

0' 60' 120'

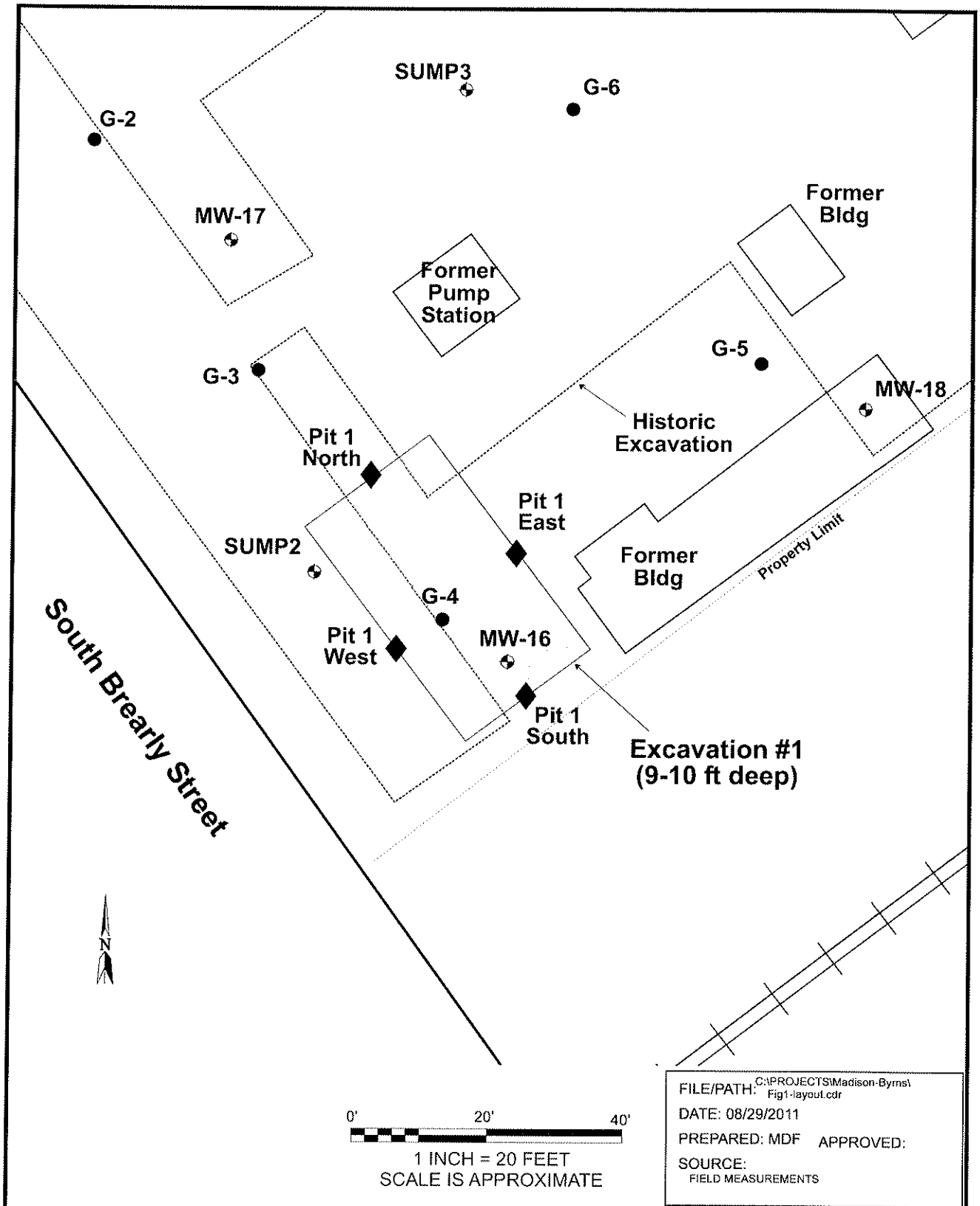
1 INCH = 60 FEET
SCALE IS APPROXIMATE

FILE/PATH: C:\PROJECTS\Madison-Byrns\Fig1-layout.cdr
DATE: 08/29/2011
PREPARED: MDF APPROVED:
SOURCE: FIELD MEASUREMENTS

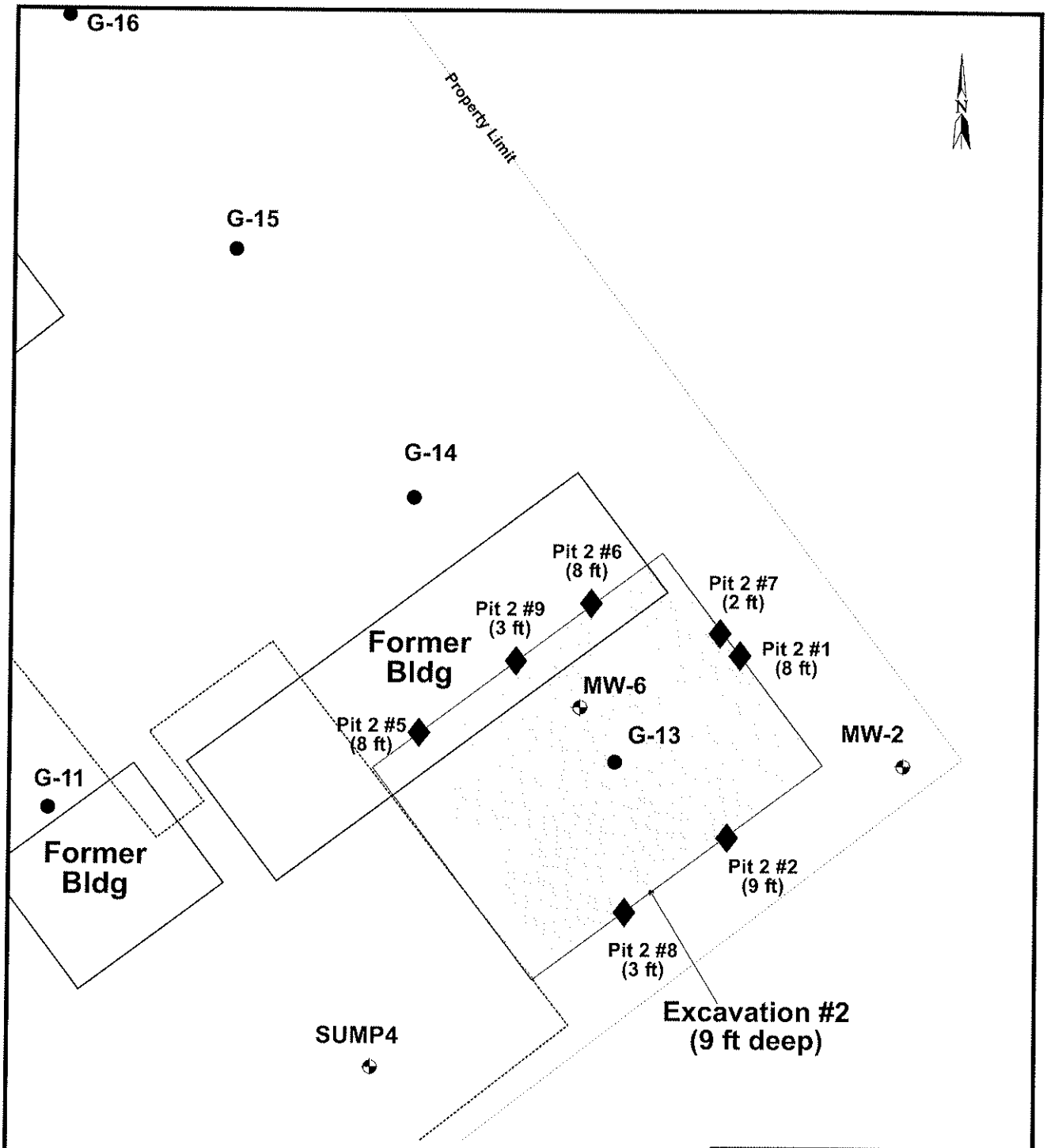
SEYMOUR ENVIRONMENTAL SERVICES, INC.

SITE LAYOUT
City of Madison Engineering - Former Byrns Oil
211 S. Brearly Street
Madison, Wisconsin

FIGURE 1



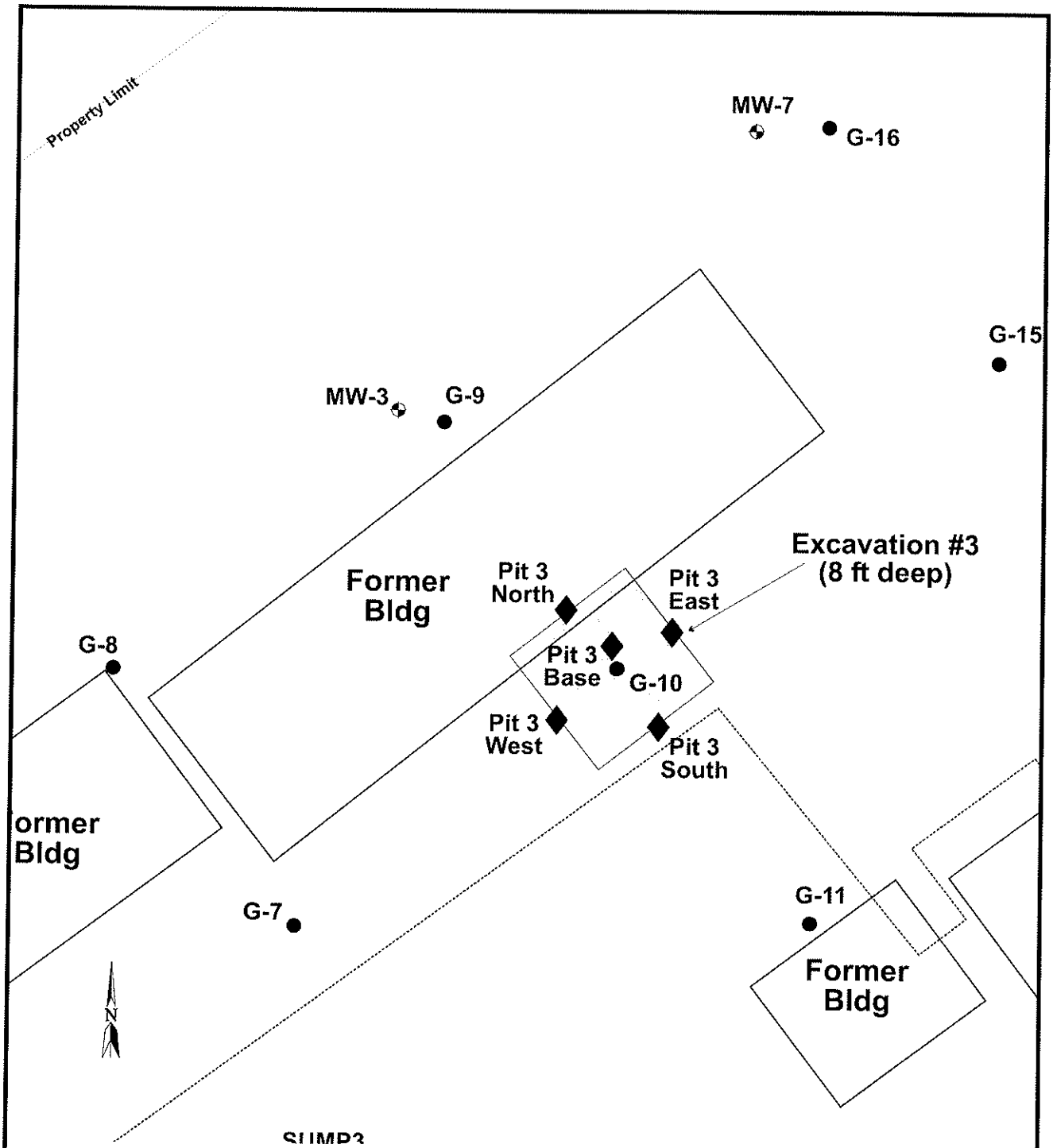
SEYMOUR ENVIRONMENTAL SERVICES, INC.	EXCAVATION #1 DETAILS City of Madison Engineering - Former Byrns Oil 211 S. Brearly Street Madison, Wisconsin	FIGURE 2



SEYMOUR ENVIRONMENTAL SERVICES, INC.

EXCAVATION #2 DETAILS
City of Madison Engineering - Former Byrns Oil
211 S. Brearly Street
Madison, Wisconsin

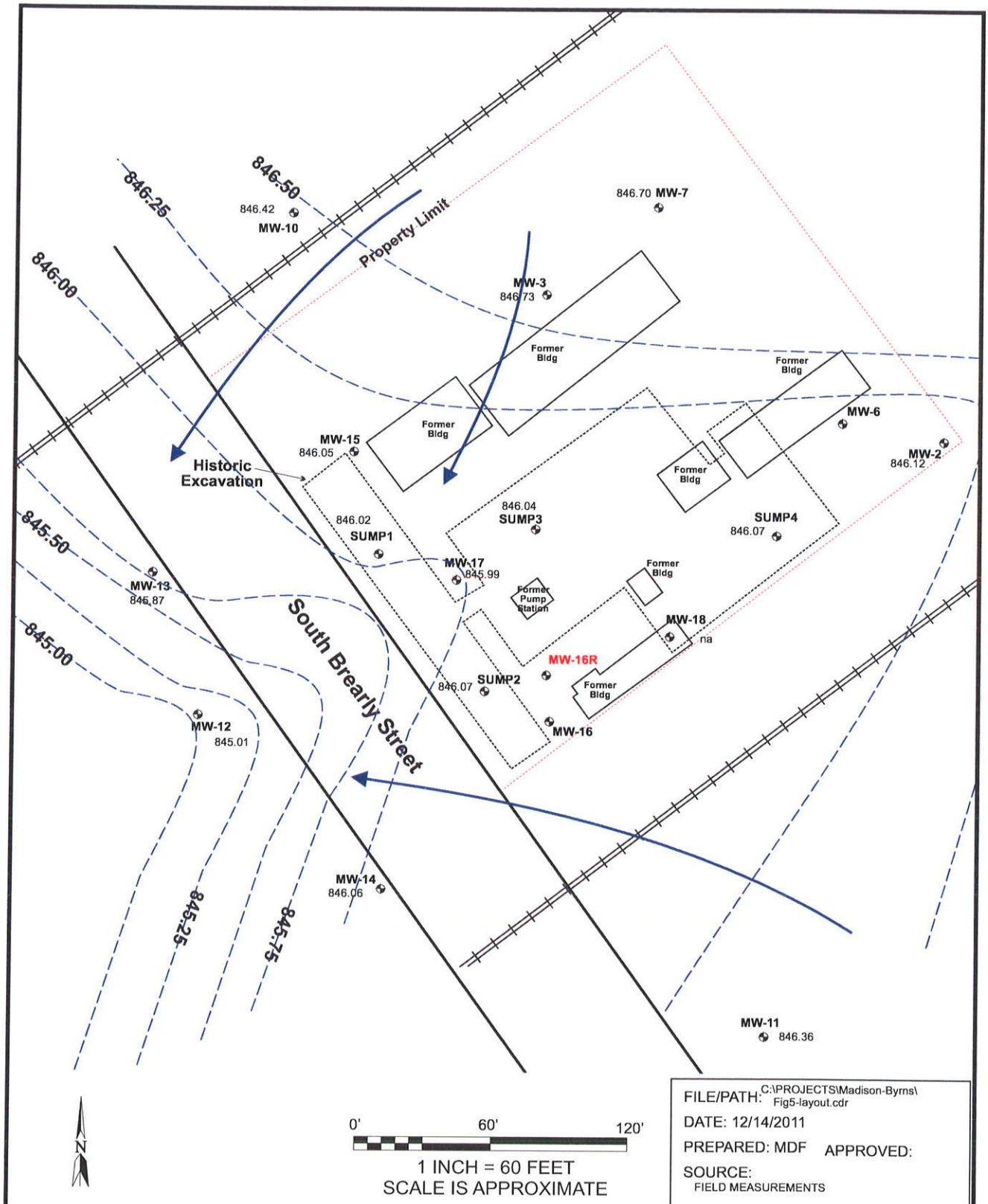
FIGURE
3



SEYMOUR ENVIRONMENTAL SERVICES, INC.

EXCAVATION #3 DETAILS
City of Madison Engineering - Former Byrns Oil
211 S. Brearly Street
Madison, Wisconsin

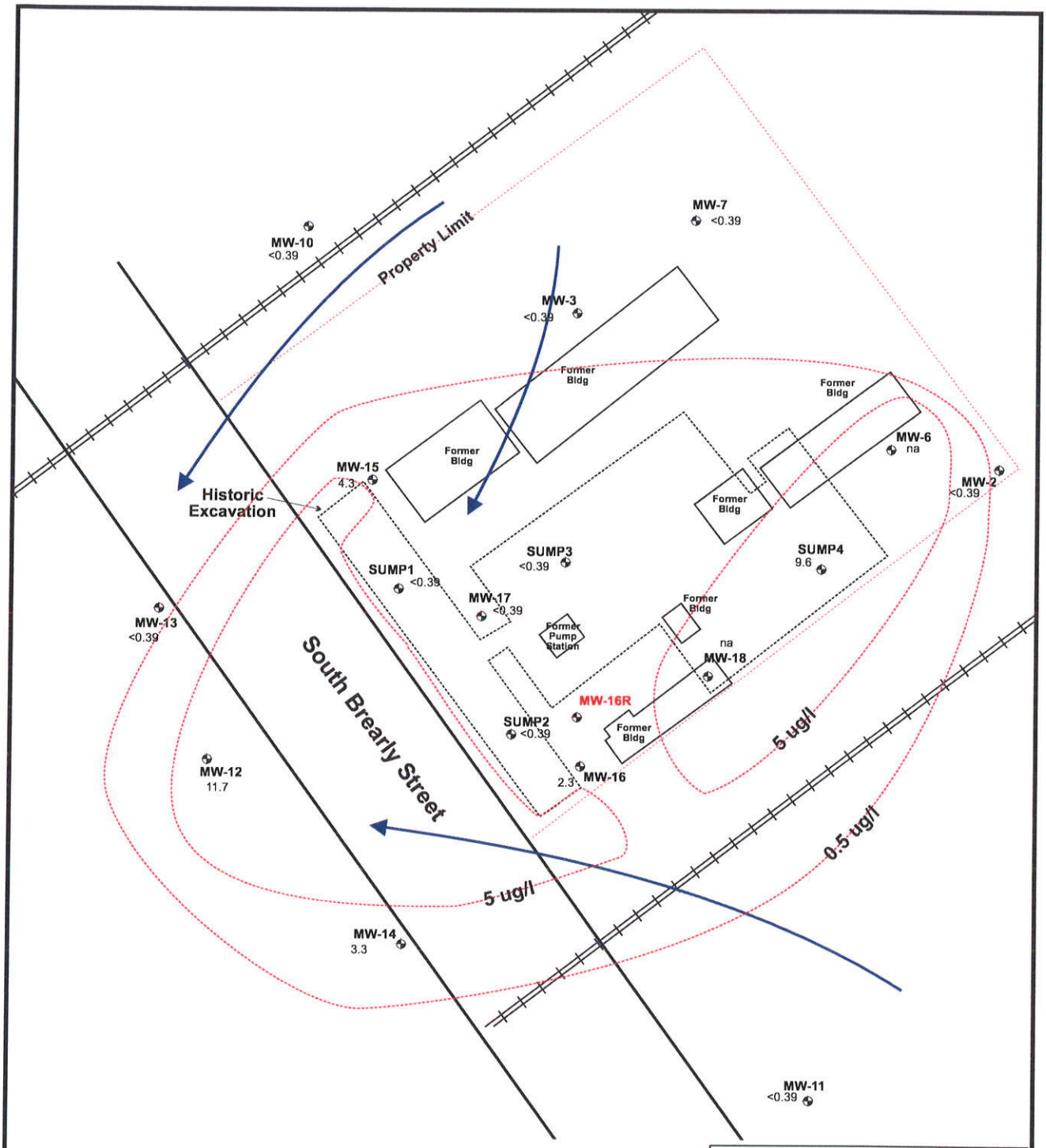
FIGURE 4



SEYMOUR ENVIRONMENTAL SERVICES, INC.

WATER-TABLE CONTOUR (Nov. 2011)
City of Madison Engineering - Former Byrns Oil
211 S. Brearly Street
Madison, Wisconsin

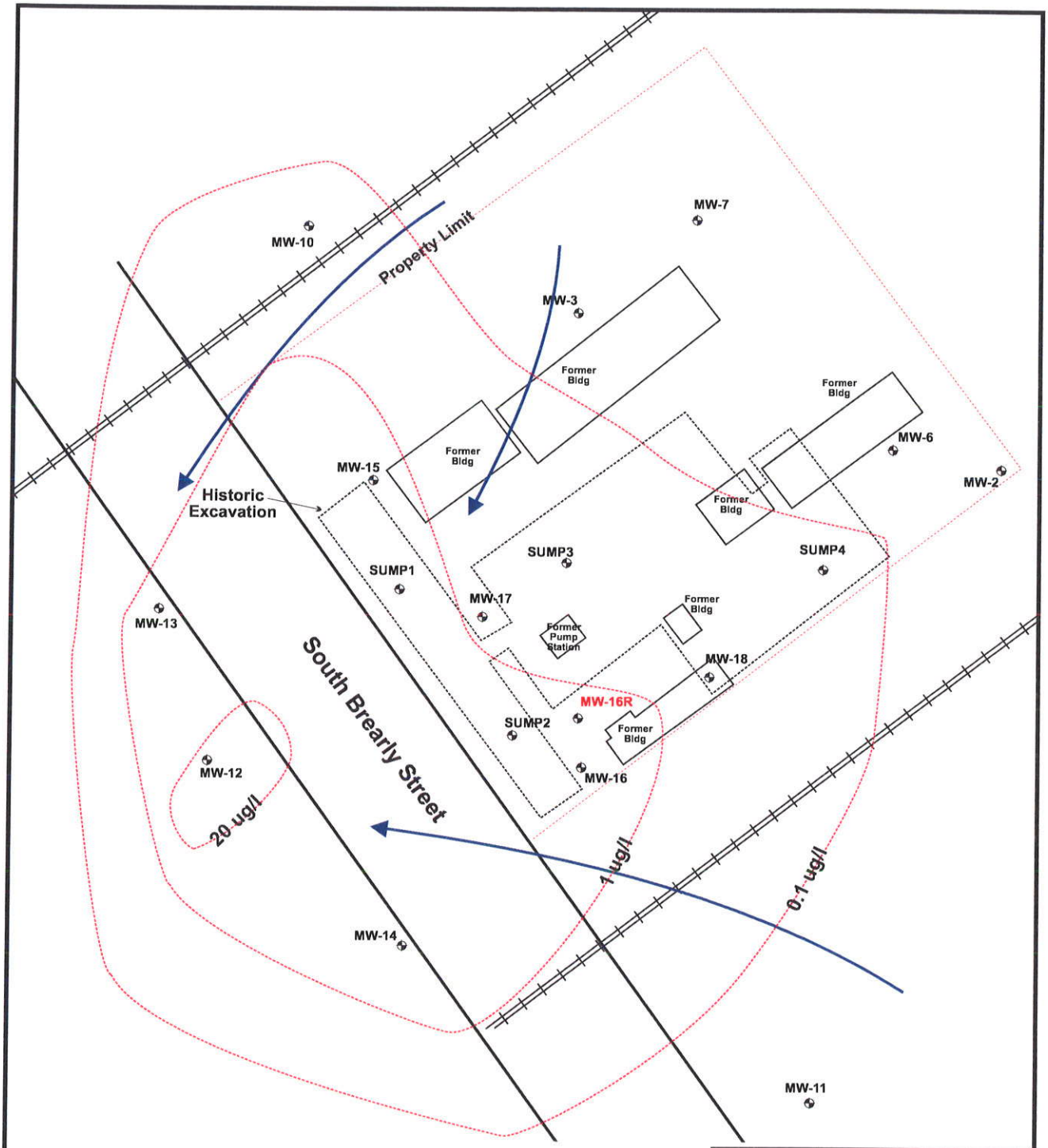
FIGURE 5



SEYMOUR ENVIRONMENTAL SERVICES, INC.

BENZENE IN GROUNDWATER (Nov. 2011)
City of Madison Engineering - Former Byrns Oil
211 S. Brearly Street
Madison, Wisconsin

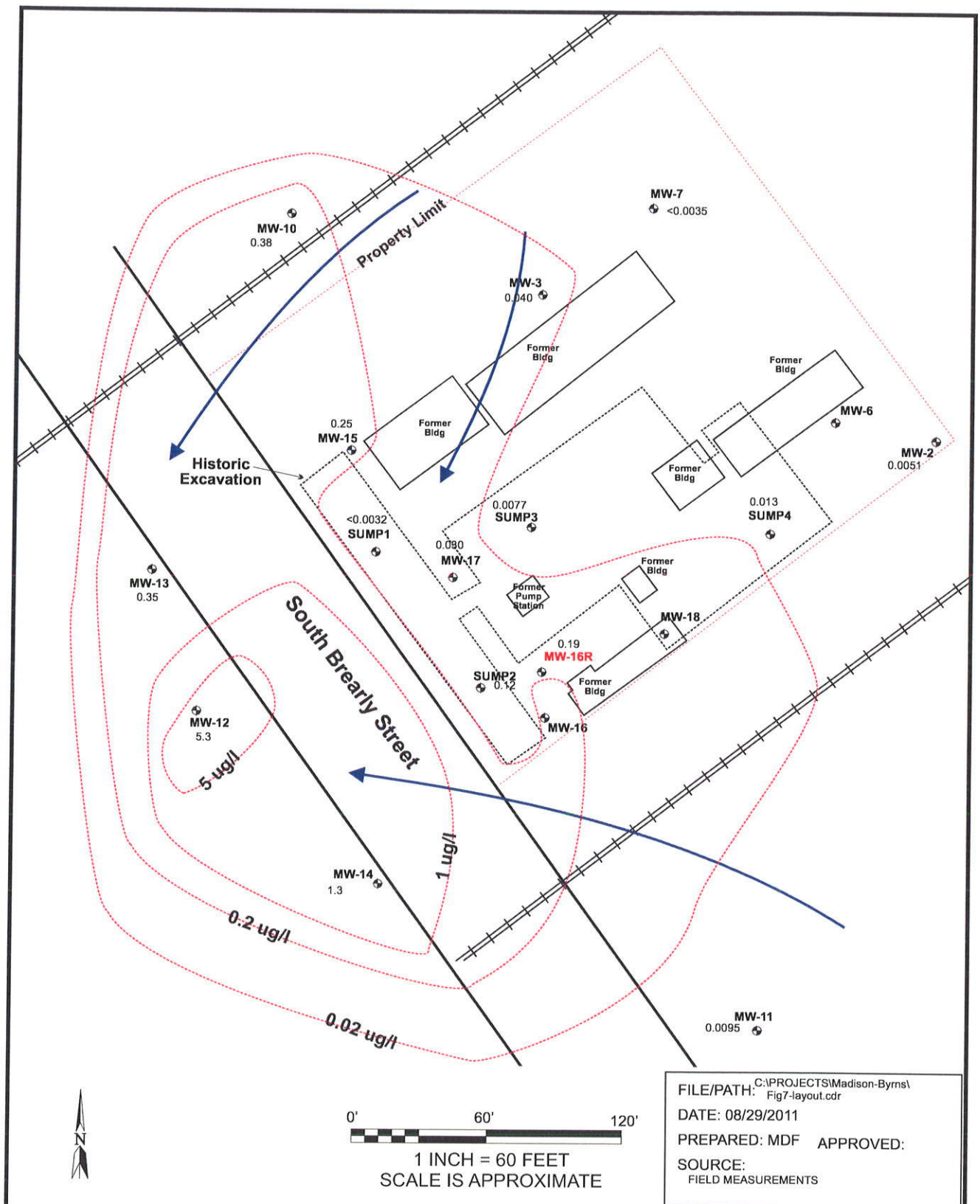
FIGURE
6



SEYMOUR ENVIRONMENTAL SERVICES, INC.

NAPHTHALENE IN GROUNDWATER (Nov. 2011)
City of Madison Engineering - Former Byrns Oil
211 S. Brearly Street
Madison, Wisconsin

FIGURE
6a



SEYMOUR ENVIRONMENTAL SERVICES, INC.

CHRYSENE IN GROUNDWATER (Nov. 2011)
City of Madison Engineering - Former Byrns Oil
211 S. Brearly Street
Madison, Wisconsin

FIGURE 7

TABLES

TABLE 1
SUMMARY OF EXCAVATION #1 SOIL ANALYTICAL DATA (08/17/2011)
Former Byrns Oil Company Property
211 S. Brearly Street - Madison, Wisconsin

Sample I.D.	PIT 1 North	PIT 1 South	PIT 1 East	PIT 1 West	NR720	NR746	
Depth (ft)	5	4	4	4	RCLs	Table 2	Table 1
PVOCs							
Benzene	**71.7**	<25.0	**713**	**1410**	5.5	1100	8500
1,2 Dichloroethane	na	na	na	na	ns	540	600
Ethylbenzene	<25.0	<25.0	161	**3000**	2900	ns	4600
Methyl-tert-butyl ether	<25.0	<25.0	<25.0	<1000	ns	ns	ns
Toluene	<25.0	<25.0	157	<1000	1500	ns	38000
1,3,5 Trimethylbenzenes	<25.0	<25.0	156	<1000	ns	ns	11000
1,2,4 Trimethylbenzenes	73.3	<25.0	504	18800	ns	ns	83000
Total Trimethylbenzenes	73.3	<50.0	660	18800	ns	ns	ns
Xylenes, -m, -p	97.5	<50.0	595	5790	ns	ns	ns
Xylene, -o	<25.0	<25.0	91.5	3040	ns	ns	ns
Total Xylenes	97.5	<75.0	686.5	**8830**	4100	ns	42000
PAHs							
Acenaphthrene	<2.8	<2.5	10.2	2690	38000	900,000	ns
Acenaphthylene	<3.2	<2.8	13.3	**958**	700	18000	ns
Anthracene	5.3	<4.1	48.6	1250	3,000,000	5,000,000	ns
Benzo(a)anthracene	8.9	2.6	99.1	442	17000	88	ns
Benzo(a)pyrene	5.8	3.3	71.5	<322	48000	8.8	ns
Benzo(b)fluoranthene	6.8	3.1	58.2	<340	360,000	88	ns
Benzo(g,h,i)perylene	6.1	3.8	43.2	268	6,800,000	1800	ns
Benzo(k)fluoranthene	6.7	<3.3	60.8	<366	870,000	880	ns
Chrysene	11.8	3.7	108	489	37,000	8,800	ns
Dibenzo(a,h)anthracene	<5.3	<4.8	13.4	<536	38,000	8.8	ns
Fluoranthene	28.6	<8.9	171	1370	500,000	600,000	ns
Fluorene	<4.9	<4.4	24.4	4030	100,000	600,000	ns
Indeno(1,2,3-cd)pyrene	4.9	<2.5	35.6	<280	680,000	88	ns
1-Methylnaphthalene	6.8	<2.7	74.5	**58900**	23,000	1,100,000	ns
2-Methylnaphthalene	5.8	<2.7	86.7	17100	20,000	600,000	ns
Naphthalene	7.8	<3.1	101	**7750**	400	20,000	2700
Phenanthrene	14.6	<3.9	186	**9790**	1,800	18,000	ns
Pyrene	24.8	5.9	226	1230	8,700,000	500,000	ns
METALS							
Lead	na	na	na	na	50	50	ns

- All results are listed in in ug/kg
- na = not analyzed
- ns = no standard established
- NR720 RCL = Residual contaminant level (exceedances bold)
- NR746 Table 1 = Indicator of saturated soil pores (exceedances shaded)
- NR746 Table 2 = Direct contact hazard level (exceedances boxed)

TABLE 2
SUMMARY OF EXCAVATION #2 SOIL ANALYTICAL DATA (08/18/2011)
Former Byrns Oil Company Property
211 S. Brearly Street - Madison, Wisconsin

Sample I.D.	PIT 2 #1	PIT 2 #2	PIT 2 #5	PIT 2 #6	PIT 2 #7	PIT 2 #8	PIT 2 #9	NR720	NR746	
Depth (ft)	8	9	8	8	2	3	3	RCLs	Table 2	Table 1
PVOCs										
Benzene	**10700**	<625	**707**	**307**	<25.0	<25.0	<625	5.5	1100	8500
1,2 Dichloroethane	na	na	na	na	na	na	na	ns	540	600
Ethylbenzene	**56000**	**36700**	**4280**	**5620**	<25.0	<25.0	**4750**	2900	ns	4600
Methyl-tert-butyl ether	1790	<625	163	186	<25.0	<25.0	<625	ns	ns	ns
Toluene	**3930**	846	322	208	<25.0	<25.0	<625	1500	ns	38000
1,3,5 Trimethylbenzenes	7700	<625	1200	<125	<25.0	<25.0	22900	ns	ns	11000
1,2,4 Trimethylbenzenes	103000	79500	9390	16200	<25.0	<25.0	55700	ns	ns	83000
Total Trimethylbenzenes	110700	79500	10590	16200	<50.0	<50.0	78600	ns	ns	ns
Xylenes, -m, -p	63800	38000	5600	<250	<50.0	<50.0	9160	ns	ns	ns
Xylene, -o	4940	3300	480	853	<25.0	<25.0	1460	ns	ns	ns
Total Xylenes	**68740**	**41300**	**6080**	853	<75.0	<75.0	**10620**	4100	ns	42000
PAHs										
Acenaphthrene	909	301	122	65.2	<2.7	21.7	1580	38000	900,000	ns
Acenaphthylene	249	11	35.0	18.9	6.7	<3.1	380	700	18000	ns
Anthracene	339	118	50.8	24.8	16.7	5.0	698	3,000,000	5,000,000	ns
Benzo(a)anthracene	<55.8	<37.5	<17.4	<9.4	3.9	<2.7	<89.1	17000	88	ns
Benzo(a)pyrene	<64.3	<43.2	<20.0	<10.8	<3.1	<3.2	<103	48000	8.8	ns
Benzo(b)fluoranthene	<67.9	<45.6	<21.1	<11.5	17.7	<3.3	<108	360,000	88	ns
Benzo(g,h,i)perylene	<51.9	<34.8	<16.1	<8.8	24.0	<2.6	<82.8	6,800,000	1800	ns
Benzo(k)fluoranthene	<72.9	<49.0	<22.7	<12.3	11.1	<3.6	<116	870,000	880	ns
Chrysene	<71.2	<47.9	<22.2	<12.0	15.1	<3.5	<114	37,000	8,800	ns
Dibenzo(a,h)anthracene	<107	<71.8	<33.3	<18.0	<5.2	<5.3	<171	38,000	8.8	ns
Fluoranthene	<196	<132	<61.1	<33.1	11.4	<9.7	<314	500,000	600,000	ns
Fluorene	971	375	150	82.5	<4.7	27	1820	100,000	600,000	ns
Indeno(1,2,3-cd)pyrene	<55.8	<37.5	<17.4	<9.4	16.0	<2.7	<89.1	680,000	88	ns
1-Methylnaphthalene	11100	4330	1550	869	34.4	79.2	14200	23,000	1,100,000	ns
2-Methylnaphthalene	17200	5820	2160	1150	85.6	3.5	<95.7	20,000	600,000	ns
Naphthalene	**8280**	**2790**	**1000**	**553**	63.5	5.6	**5120**	400	20,000	2700
Phenanthrene	**2760**	1050	456	270	105	52.9	**5700**	1,800	18,000	ns
Pyrene	142	<48.3	22.8	12.8	9.6	<3.5	323	8,700,000	500,000	ns
METALS										
Lead	na	na	na	na	na	na		50	50	ns

- All results are listed in in ug/kg
- na = not analyzed
- ns = no standard established
- NR720 RCL = Residual contaminant level (exceedances bold)
- NR746 Table 1 = Indicator of saturated soil pores (exceedances shaded)
- NR746 Table 2 = Direct contact hazard level (exceedances boxed)

TABLE 3
SUMMARY OF EXCAVATION #3 SOIL ANALYTICAL DATA (08/18/2011)
Former Byrns Oil Company Property
211 S. Brearly Street - Madison, Wisconsin

Sample I.D.	PIT 3 North	PIT 3 South	PIT 3 East	PIT 3 West	PIT 3 Base	NR720	NR746	
Depth (ft)	4	4	4	4	8	RCLs	Table 2	Table 1
PVOCs								
Benzene	**689**	**93.9**	**137**	<125	**1370**	5.5	1100	8500
1,2 Dichloroethane	na	na	na	na	na	ns	540	600
Ethylbenzene	422	295	76.9	1120	966	2900	ns	4600
Methyl-tert-butyl ether	<25.0	<25.0	<25.0	<125	<50.0	ns	ns	ns
Toluene	60.5	<25.0	<25.0	<125	166	1500	ns	38000
1,3,5 Trimethylbenzenes	294	61.1	<25.0	1590	1040	ns	ns	11000
1,2,4 Trimethylbenzenes	386	110	61.0	4830	4530	ns	ns	83000
Total Trimethylbenzenes	680	171.1	61.0	6420	5570	ns	ns	ns
Xylenes, -m, -p	650	189	141	2540	2680	ns	ns	ns
Xylene, -o	54.0	44.1	<25.0	204	180	ns	ns	ns
Total Xylenes	704	233.1	141	2744	2860	4100	ns	42000
PAHs								
Acenaphthrene	435	149	25.4	673	173	38000	900,000	ns
Acenaphthylene	90.7	40.9	6.8	147	56.0	700	18000	ns
Anthracene	157	120	48.5	406	89.2	3,000,000	5,000,000	ns
Benzo(a)anthracene	38.4	141	83.0	216	<34.6	17000	88	ns
Benzo(a)pyrene	33.6	133	85.4	174	<39.8	48000	8.8	ns
Benzo(b)fluoranthene	28.2	114	84.2	158	<42.1	360,000	88	ns
Benzo(g,h,i)perylene	23.8	86.3	52.1	107	<32.1	6,800,000	1800	ns
Benzo(k)fluoranthene	35.2	116	72.7	150	<45.2	870,000	880	ns
Chrysene	44.4	148	81.5	214	<44.1	37,000	8,800	ns
Dibenzo(a,h)anthracene	<42.6	27.0	17.1	<43.6	<66.2	38,000	8.8	ns
Fluoranthene	113	295	160	520	<122	500,000	600,000	ns
Fluorene	504	226	51.7	1100	304	100,000	600,000	ns
Indeno(1,2,3-cd)pyrene	<22.3	76.3	46.3	93.4	<34.6	680,000	88	ns
1-Methylnaphthalene	2450	1010	91.5	4250	3010	23,000	1,100,000	ns
2-Methylnaphthalene	2660	550	69.7	2370	4970	20,000	600,000	ns
Naphthalene	**418**	299	27.1	**806**	**1490**	400	20,000	2700
Phenanthrene	1270	624	183	**2630**	905	1,800	18,000	ns
Pyrene	162	301	136	586	60.1	8,700,000	500,000	ns
METALS								
Lead	na	na	na	na	na	50	50	ns

- All results are listed in ug/kg
- na = not analyzed
- ns = no standard established
- NR720 RCL = Residual contaminant level (exceedances bold)
- NR746 Table 1 = Indicator of saturated soil pores (exceedances shaded)
- NR746 Table 2 = Direct contact hazard level (exceedances boxed)

TABLE 4
SUMMARY OF GROUNDWATER LEVEL AND PRODUCT DATA
Former Byrns Oil Company Property
211 S. Brearly Street - Madison, Wisconsin

WELL (TOC)	DATE	04/07/05	07/14/05	08/16/06	11/09/06	02/28/07	05/22/07	09/27/07	11/28/07	09/14/09	11/10/11
MW-2	Depth	2.42	6.41	3.65	3.89	4.04	3.26	3.28	4.76	6.07	4.81
(850.93)	Elev	848.51	844.52	847.28	847.04	846.89	847.67	847.65	846.17	844.86	846.12
MW-3	Depth	2.58	4.49	2.91	3.41	3.85	2.94	3.02	3.78	4.27	3.99
(850.72)	Elev	848.14	846.23	847.81	847.31	846.87	847.78	847.70	846.94	846.45	846.73
MW-6	Depth	3.10	7.39	4.92	5.45	5.14	4.00	4.26	5.92	6.34	aband.
(851.40)	Elev	848.30	844.01	846.48	845.95	846.26	847.40	847.14	845.48	845.06	--
MW-7	Depth	2.85	4.57	3.19	3.69	--	3.21	3.27	4.02	4.45	4.25
(850.95)	Elev	848.10	846.38	847.76	847.26	--	847.74	847.68	846.93	846.50	846.70
MW-9	Depth	6.83	10.76	8.92	8.29	--	7.60	--	9.52	aband.	aband.
(854.25)	Elev	847.42	843.49	845.33	845.96	--	846.65	--	844.73	--	--
MW-10	Depth	--	5.20	3.92	4.44	--	--	--	4.93	4.81	4.28
(850.70)	Elev	--	845.50	846.78	846.26	--	--	--	845.77	845.89	846.42
MW-11	Depth	7.41	11.11	8.50	8.65	--	7.82	--	9.67	10.66	8.38
(854.74)	Elev	847.33	843.63	846.24	846.09	--	846.92	--	845.07	844.08	846.36
MW-12	Depth	3.30	4.93	3.54	3.83	4.30	3.46	3.60	5.53	5.72	6.20
(851.21)	Elev	847.91	846.28	847.67	847.38	846.91	847.75	847.61	845.68	845.49	845.01
MW-13	Depth	3.37	4.96	3.58	3.92	4.43	3.52	3.46	4.21	4.96	5.43
(851.30)	Elev	847.93	846.34	847.72	847.38	846.87	847.78	847.84	847.09	846.34	845.87
MW-14	Depth	4.44	6.88	4.48	4.81	5.10	4.21	4.51	5.21	6.44	5.56
(851.62)	Elev	847.18	844.74	847.14	846.81	846.52	847.41	847.11	846.41	845.18	846.06
MW-15	Depth	3.40	4.43	3.92	3.55	4.02	2.99	3.24	3.89	4.46	4.86
(850.91)	Elev	847.51	846.48	846.99	847.36	846.89	847.92	847.67	847.02	846.45	846.05
MW-16	Depth	8.97	9.63	9.35	8.82	7.80	7.42	7.36	8.02	nm	aband.
(851.77)	Elev	842.80	842.14	842.42	842.95	843.97	844.35	844.41	843.75	--	--
	Product	5.21	5.06	5.25	5.15	3.66	6.21	3.95	4.00	3 ft	--
MW-16R	Depth	ni	ni	ni	ni	ni	ni	ni	ni	ni	5.47
(851.55)	Elev	--	--	--	--	--	--	--	--	--	846.08
	Product										0.00
MW-17	Depth	3.76	4.57	4.10	3.67	4.14	1.21	3.41	4.02	4.38	5.05
(851.04)	Elev	847.28	846.47	846.94	847.37	846.90	849.83	847.63	847.02	846.66	845.99
MW-18	Depth	4.60	7.64	6.05	5.59	5.70	4.46	4.39	5.93	6.75	na
(851.40)	Elev	846.80	843.76	845.35	845.81	845.70	846.94	847.01	845.47	844.65	--
SUMP1	Depth	nm	nm	nm	nm	nm	nm	nm	nm	nm	4.98
(851.00)	Elev	--	--	--	--	--	--	--	--	--	846.02
SUMP2	Depth	nm	nm	nm	nm	nm	nm	nm	nm	nm	4.70
(850.77)	Elev	--	--	--	--	--	--	--	--	--	846.07
SUMP3	Depth	nm	nm	nm	nm	nm	nm	nm	nm	nm	5.65
(851.69)	Elev	--	--	--	--	--	--	--	--	--	846.04
SUMP4	Depth	nm	nm	nm	nm	nm	nm	nm	nm	nm	4.95
(851.02)	Elev	--	--	--	--	--	--	--	--	--	846.07

- Depth and Product data are listed in feet; elevation in feet above msl *Product thickness estimated
- nm = not measured
- ni = not installed

TABLE 5A
SUMMARY OF PVOCs in GROUNDWATER (11/11/2011)
Former Byrns Oil Company Property
211 S. Brearly Street - Madison, Wisconsin

WELL	GW Elev.	Benzene	Ethylbenzene	Toluene	MTBE	Total Trimethylbenzene	Total Xylenes	Naphthalene
MW-2	846.12	<0.39	<0.41	<0.42	<0.38	<0.83	<1.25	0.042
MW-3	846.73	<0.39	<0.41	<0.42	<0.38	<0.83	<1.25	0.011
MW-6	Well abandoned during excavation work (Aug. 2011)							
MW-7	846.70	<0.39	<0.41	<0.42	<0.38	<0.83	<1.25	0.081
MW-9	Well apparently abandoned							
MW-10	846.42	<0.39	<0.41	<0.42	<0.38	<0.83	<1.25	0.88
MW-11	846.36	<0.39	<0.41	<0.42	<0.38	<0.83	<1.25	0.030
MW-12	845.01	**11.7**	0.71	0.67	2.2	1.9	2.17	**24.7**
MW-13	845.87	<0.39	<0.41	<0.42	0.55	2.5	<1.25	1.1
MW-14	846.06	**3.3**	1.4	0.73	0.99	2.52	1.3	3.7
MW-15	846.05	**4.3**	<0.41	<0.42	0.66	1.1	1.67	5.7
MW-16R	846.08	**2.3**	0.44	<0.42	1.5	3.9	<1.25	1.1
MW-17	845.99	<0.39	<0.41	<0.42	4.1	0.47	<1.25	0.77
MW-18	Well damaged by lot grading (Aug. 2011) couldn't find it							
SUMP1	846.02	<0.39	<0.41	<0.42	0.44	<0.83	<1.25	0.0049
SUMP2	846.07	<0.39	<0.41	<0.42	1.8	0.45	<1.25	0.34
SUMP3	846.04	<0.39	<0.41	<0.42	0.72	<0.83	<1.25	0.31
SUMP4	846.07	**9.6**	<0.41	<0.42	<0.38	<0.83	<1.25	0.15
NR140	ES	5	700	800	60	480	2000	100
	PAL	0.5	140	160	12	96	400	10

- All results are listed in ug/l
- na = not analyzed
- ns = no standard established
- NR140 PAL = Preventative Action Limit (exceedances bold)
- NR140 ES = Enforcement Standard (exceedances shaded)
** Naphthalene analyzed as a PAH (SW846 8270) not a VOC

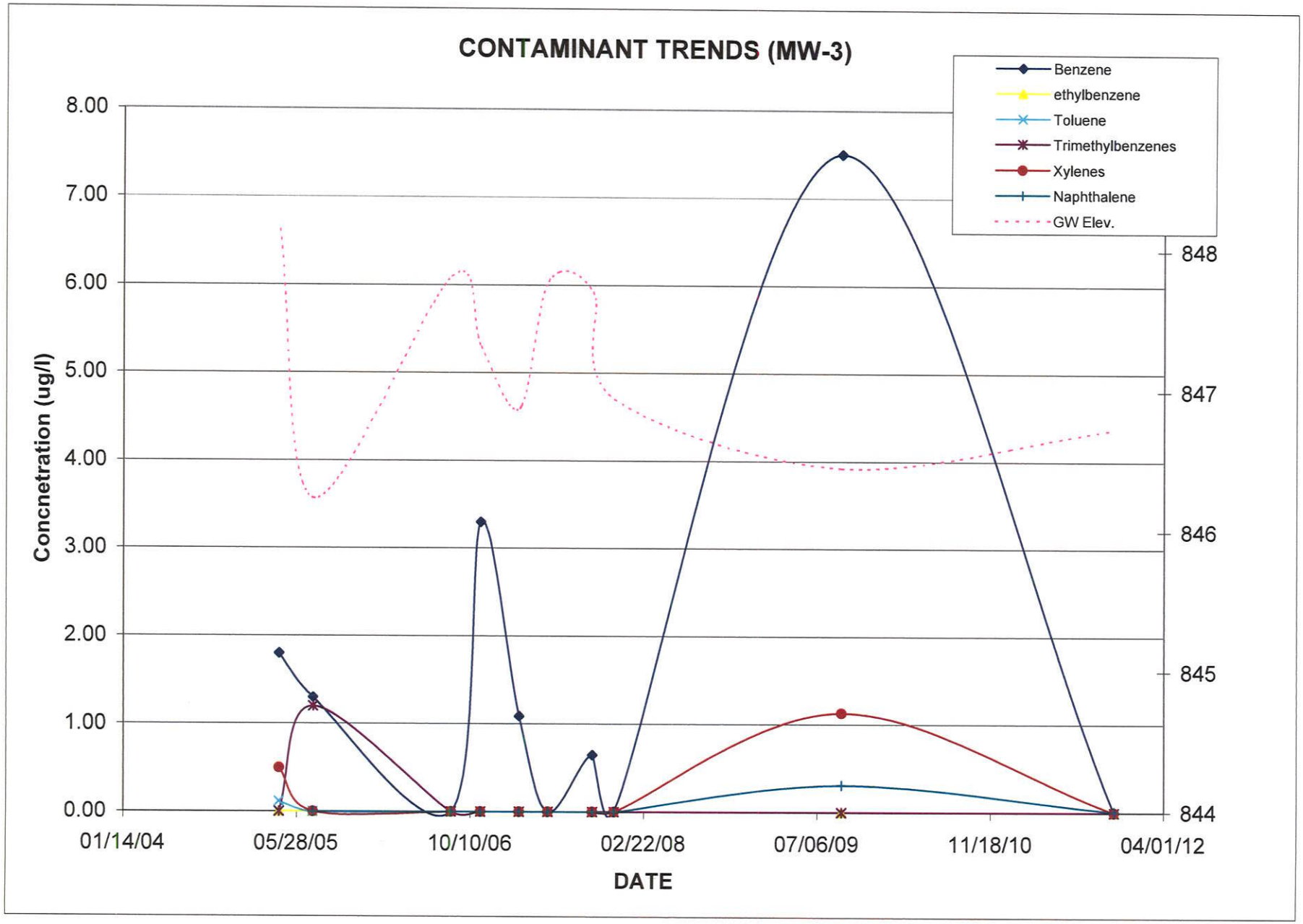
TABLE 5B
SUMMARY OF PAHs in GROUNDWATER (11/10/2011)
Former Byrns Oil Company Property
211 S. Brearly Street - Madison, Wisconsin

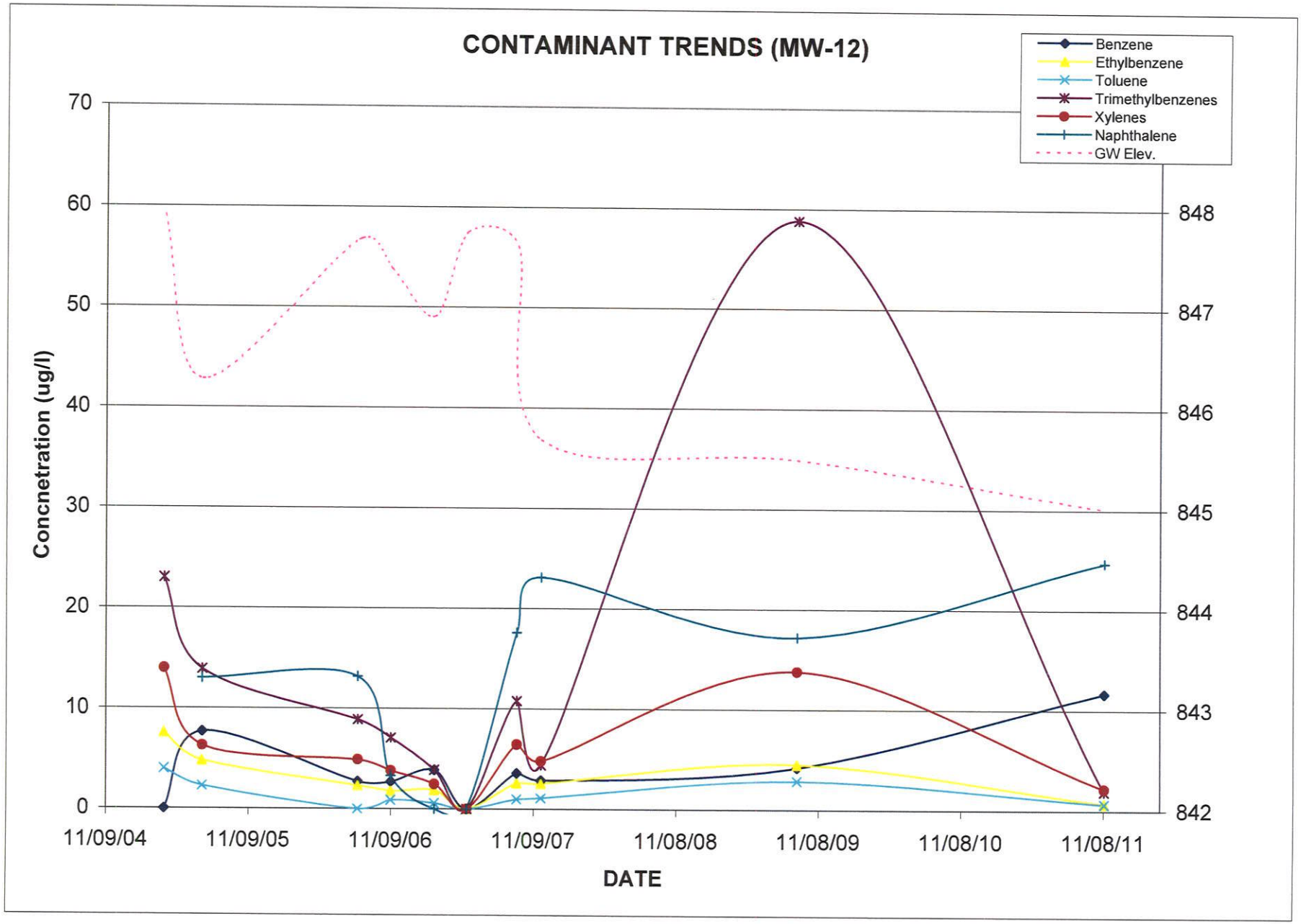
Sample I.D.	MW-2	MW-3	MW-7	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16R	MW-17	SUMP #1	SUMP #2	SUMP #3	SUMP #4	ES	PAL
Acenaphthrene	0.051	<0.0046	<0.0046	0.037*	0.020*	52.4	3.1	19.5	9.0	1.8	1.4	0.29	1.9	1.6	0.28	ns	ns
Acenaphthalyene	0.016*	0.0087*	<0.0036	0.092*	0.0045*	17.9	1.0	3.6	2.0	0.30*	0.064	0.015*	0.12*	0.21	0.023*	ns	ns
Anthracene	0.13	0.029*	0.032*	0.12	0.045*	35.7	3.4	11.4	2.8	0.34*	0.12	0.038*	0.33	0.20	0.099	3000	600
Benzo(a)anthracene	<0.0036	0.027*	<0.0037	0.20	0.0044*	3.7*	0.30*	1.3	0.16*	0.090*	0.021*	0.0041*	0.13*	0.0053*	0.0050*	ns	ns
Benzo(a)pyrene	<0.0029	0.032*	<0.0029	**0.34**	0.0043*	3.1*	0.21*	**0.72**	0.15*	0.071*	0.018*	0.0055*	0.11*	0.0044*	0.0071*	0.2	0.02
Benzo(b)fluoranthene	<0.0034	0.018*	<0.0034	**0.28**	0.0050*	2.0*	0.22*	**0.72**	0.12*	<0.080	0.020*	0.0070*	0.11*	0.0046*	0.0089*	0.2	0.02
Benzo(g,h,i)perylene	0.0050*	0.023*	<0.0049	0.35	0.0076*	2.0*	0.14*	0.41*	0.15*	<0.11	0.019*	0.0093*	0.065*	0.017*	0.018*	ns	ns
Benzo(k)fluoranthene	<0.0044	0.027*	<0.0044	0.39	<0.0044	3.5*	0.18*	0.56	0.25*	0.13*	0.016*	<0.0044	0.090*	<0.0044	0.0056*	ns	ns
Indeno(1,2,3-cd)pyrene	<0.0047	0.016*	<0.0047	0.25	0.0048*	1.6*	0.11*	0.37*	<0.094	<0.11	0.012*	0.0059*	0.061*	0.0050*	0.0079*	ns	ns
Chrysene	0.0051*	0.040*	<0.0035	**0.38**	0.0095*	**5.3**	0.35*	**1.3**	0.25*	0.19*	0.030*	0.0070*	0.12*	0.0077*	0.013*	0.2	0.02
Dibenzo(a,h)anthracene	<0.0032	0.0054*	<0.0032	0.073*	<0.0032	<0.32	0.042*	0.12*	<0.064	<0.075	0.0037*	<0.0032	0.021*	<0.0032	<0.0032	ns	ns
Fluoranthene	0.016*	0.060	0.0045*	0.51	0.013*	16.4	1.2	5.3	0.72*	0.43*	0.064	0.017*	0.50	0.071	0.017*	400	80
Fluorene	0.19	<0.0048	<0.0048	0.028*	0.0082*	**80.2**	4.8	26.7	8.7	2.3	0.74	0.15	1.9	2.3	0.22	400	80
2-Methylnaphthalene	0.031*	0.0046*	0.021*	0.20	0.022*	2.0*	0.37*	0.94	0.77*	0.76*	0.35	0.032*	0.13*	0.098	0.060	ns	ns
1-Methylnaphthalene	0.018*	<0.0050	0.013*	0.40	0.017*	104	1.1	9.0	5.7	13.1	0.37	0.014*	0.16*	0.20	0.043*	ns	ns
Naphthalene	0.042*	0.011*	0.081	0.88	0.030*	**24.7**	1.1	3.7	5.7	1.1*	0.77	0.0049*	0.34	0.31	0.15	100	10
Phenanthrene	0.035*	0.044*	0.0086*	0.16	0.021*	10.4	0.42*	9.2	0.93*	0.85*	0.049	0.018*	0.084*	0.052	0.039*	ns	ns
Pyrene	0.039*	0.075	<0.0048	0.45	0.017*	24.5	2.4	8.2	1.5	0.45*	0.15	0.057	0.50	0.082	0.18	250	50

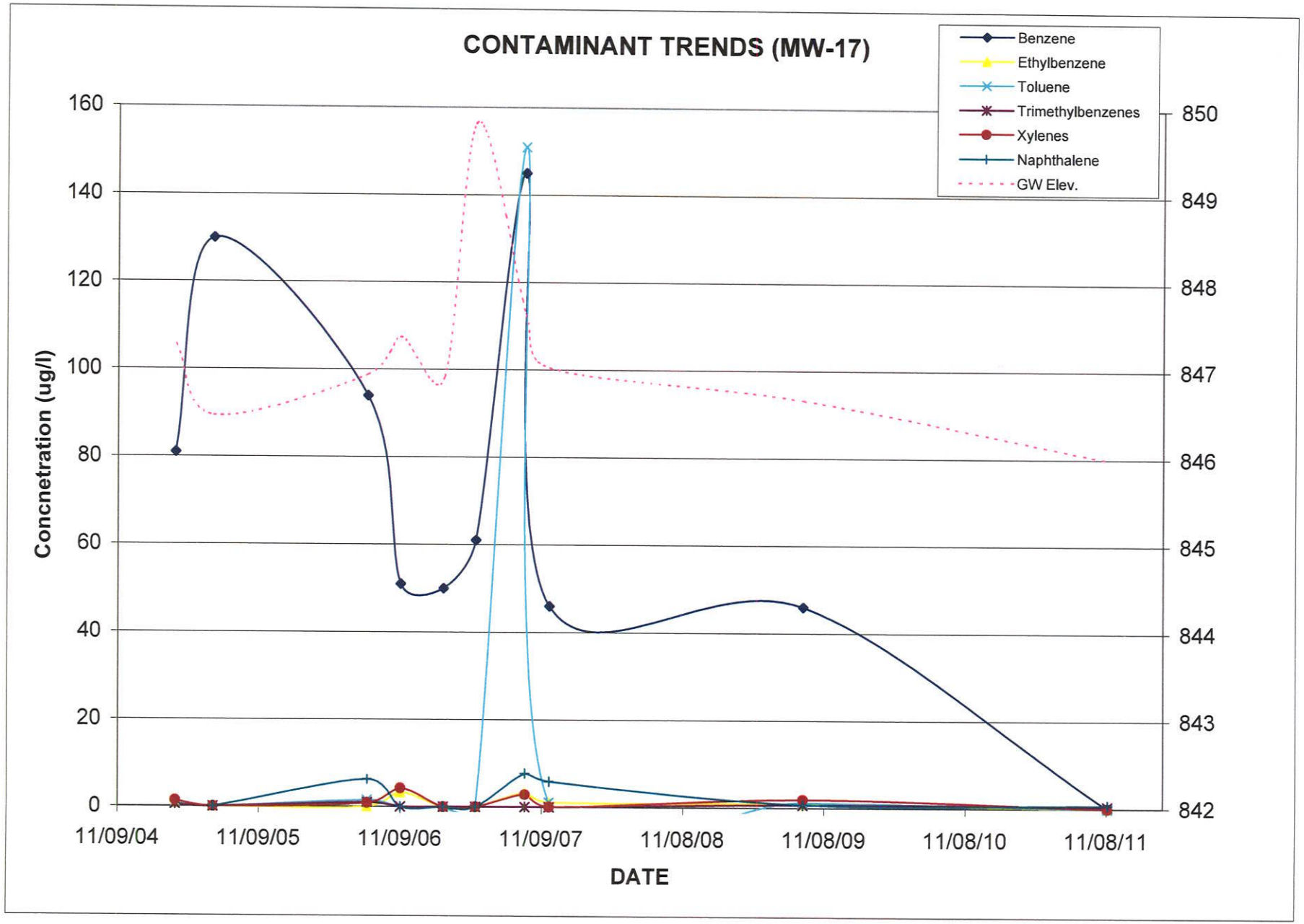
- All results are listed in in ug/l
- ns = no standard established
*- Concentration estimated, below level of quantitation

- PAL = NR140 Preventative Action Limit (exceedances bold)
- ES = NR140 Enforcement Standard (exceedances shaded)

TREND GRAPHS


CONTAMINANT TRENDS (MW-3)
Benzene
ethylbenzene
Toluene
Trimethylbenzenes
Xylenes
Naphthalene
GW Elev.
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Concnetration (ug/l)
848
847
846
845
844
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
DATE


CONTAMINANT TRENDS (MW-12)
Benzene
Ethylbenzene
Toluene
Trimethylbenzenes
Xylenes
Naphthalene
GW Elev.
Concnetration (ug/l)
70
60
50
40
30
20
10
0
848
847
846
845
844
843
842
11/09/04
11/09/05
11/09/06
11/09/07
11/08/08
11/08/09
11/08/10
11/08/11
DATE


CONTAMINANT TRENDS (MW-17)
Benzene
Ethylbenzene
Toluene
Trimethylbenzenes
Xylenes
Naphthalene
GW Elev.
Concnetration (ug/l)
160
140
120
100
80
60
40
20
0
850
849
848
847
846
845
844
843
842
11/09/04
11/09/05
11/09/06
11/09/07
11/08/08
11/08/09
11/08/10
11/08/11
DATE

LABORATORY REPORTS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 02, 2011

Robyn Seymour
Seymour Environmental Services, INC.
2531 Dyreson Road
Mc Farland, WI 53558

RE: Project: BREARLY
Pace Project No.: 4050049

Dear Robyn Seymour:
Enclosed are the analytical results for sample(s) received by the laboratory on August 25, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alee Her

alee.her@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: BREARLY
Pace Project No.: 4050049

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888
North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: BREARLY
Pace Project No.: 4050049

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4050049001	PIT 1, NORTH	Solid	08/17/11 12:50	08/25/11 10:22
4050049002	PIT 1, SOUTH	Solid	08/17/11 13:00	08/25/11 10:22
4050049003	PIT 1, EAST	Solid	08/17/11 13:10	08/25/11 10:22
4050049004	PIT 1, WEST	Solid	08/17/11 13:15	08/25/11 10:22
4050049005	PIT 3, BASE	Solid	08/17/11 14:30	08/25/11 10:22
4050049006	PIT 3, NORTH	Solid	08/18/11 07:00	08/25/11 10:22
4050049007	PIT 3, SOUTH	Solid	08/18/11 07:05	08/25/11 10:22
4050049008	PIT 3, EAST	Solid	08/18/11 07:10	08/25/11 10:22
4050049009	PIT 3, WEST	Solid	08/18/11 07:15	08/25/11 10:22

Pace Analytical Services, Inc.
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Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: BREARLY
Pace Project No.: 4050049

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4050049001	PIT 1, NORTH	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050049002	PIT 1, SOUTH	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050049003	PIT 1, EAST	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050049004	PIT 1, WEST	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050049005	PIT 3, BASE	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050049006	PIT 3, NORTH	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050049007	PIT 3, SOUTH	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050049008	PIT 3, EAST	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050049009	PIT 3, WEST	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: BREARLY
Pace Project No.: 4050049

Sample: PIT 1, NORTH **Lab ID: 4050049001** Collected: 08/17/11 12:50 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**71.7**	ug/kg	70.6	29.4	1	08/26/11 12:00	08/26/11 11:02	71-43-2	
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:02	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:02	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:02	108-88-3	W
1,2,4-Trimethylbenzene	**73.3**	ug/kg	70.6	29.4	1	08/26/11 12:00	08/26/11 11:02	95-63-6	
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:02	108-67-8	W
m&p-Xylene	**97.5J**	ug/kg	141	58.9	1	08/26/11 12:00	08/26/11 11:02	179601-23-1	
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:02	95-47-6	W
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1	08/26/11 12:00	08/26/11 11:02	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<2.8**	ug/kg	19.6	2.8	1	08/26/11 12:00	08/26/11 14:38	83-32-9	
Acenaphthylene	**<3.1**	ug/kg	19.6	3.1	1	08/26/11 12:00	08/26/11 14:38	208-96-8	
Anthracene	**5.3J**	ug/kg	19.6	4.6	1	08/26/11 12:00	08/26/11 14:38	120-12-7	
Benzo(a)anthracene	**8.9J**	ug/kg	19.6	2.8	1	08/26/11 12:00	08/26/11 14:38	56-55-3	
Benzo(a)pyrene	**5.8J**	ug/kg	19.6	3.2	1	08/26/11 12:00	08/26/11 14:38	50-32-8	
Benzo(b)fluoranthene	**6.8J**	ug/kg	19.6	3.4	1	08/26/11 12:00	08/26/11 14:38	205-99-2	
Benzo(g,h,i)perylene	**6.1J**	ug/kg	19.6	2.6	1	08/26/11 12:00	08/26/11 14:38	191-24-2	
Benzo(k)fluoranthene	**6.7J**	ug/kg	19.6	3.6	1	08/26/11 12:00	08/26/11 14:38	207-08-9	
Chrysene	**11.8J**	ug/kg	19.6	3.6	1	08/26/11 12:00	08/26/11 14:38	218-01-9	
Dibenz(a,h)anthracene	**<5.3**	ug/kg	19.6	5.3	1	08/26/11 12:00	08/26/11 14:38	53-70-3	
Fluoranthene	**28.6**	ug/kg	19.6	9.8	1	08/26/11 12:00	08/26/11 14:38	206-44-0	
Fluorene	**<4.9**	ug/kg	19.6	4.9	1	08/26/11 12:00	08/26/11 14:38	86-73-7	
Indeno(1,2,3-cd)pyrene	**4.9J**	ug/kg	19.6	2.8	1	08/26/11 12:00	08/26/11 14:38	193-39-5	
1-Methylnaphthalene	**6.8J**	ug/kg	19.6	3.0	1	08/26/11 12:00	08/26/11 14:38	90-12-0	
2-Methylnaphthalene	**5.8J**	ug/kg	19.6	3.0	1	08/26/11 12:00	08/26/11 14:38	91-57-6	
Naphthalene	**7.8J**	ug/kg	19.6	3.4	1	08/26/11 12:00	08/26/11 14:38	91-20-3	
Phenanthrene	**14.6J**	ug/kg	19.6	4.3	1	08/26/11 12:00	08/26/11 14:38	85-01-8	
Pyrene	**24.8**	ug/kg	19.6	3.6	1	08/26/11 12:00	08/26/11 14:38	129-00-0	
2-Fluorobiphenyl (S)	68	%.	38-130		1	08/26/11 12:00	08/26/11 14:38	321-60-8	
Terphenyl-d14 (S)	74	%.	36-130		1	08/26/11 12:00	08/26/11 14:38	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.1**	%	0.10	0.10	1		09/02/11 07:53		

Sample: PIT 1, SOUTH **Lab ID: 4050049002** Collected: 08/17/11 13:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:28	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:28	100-41-4	W

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ANALYTICAL RESULTS

Project: BREARLY
Pace Project No.: 4050049

Sample: PIT 1, SOUTH **Lab ID: 4050049002** Collected: 08/17/11 13:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:28	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:28	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:28	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:28	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	08/26/11 12:00	08/26/11 11:28	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 11:28	95-47-6	W
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1	08/26/11 12:00	08/26/11 11:28	98-08-8	1q,P4
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<2.5**	ug/kg	17.8	2.5	1	08/26/11 12:00	08/26/11 14:55	83-32-9	
Acenaphthylene	**<2.8**	ug/kg	17.8	2.8	1	08/26/11 12:00	08/26/11 14:55	208-96-8	
Anthracene	**<4.1**	ug/kg	17.8	4.1	1	08/26/11 12:00	08/26/11 14:55	120-12-7	
Benzo(a)anthracene	**2.6J**	ug/kg	17.8	2.5	1	08/26/11 12:00	08/26/11 14:55	56-55-3	
Benzo(a)pyrene	**3.3J**	ug/kg	17.8	2.9	1	08/26/11 12:00	08/26/11 14:55	50-32-8	
Benzo(b)fluoranthene	**3.1J**	ug/kg	17.8	3.1	1	08/26/11 12:00	08/26/11 14:55	205-99-2	
Benzo(g,h,i)perylene	**3.8J**	ug/kg	17.8	2.3	1	08/26/11 12:00	08/26/11 14:55	191-24-2	
Benzo(k)fluoranthene	**<3.3**	ug/kg	17.8	3.3	1	08/26/11 12:00	08/26/11 14:55	207-08-9	
Chrysene	**3.7J**	ug/kg	17.8	3.2	1	08/26/11 12:00	08/26/11 14:55	218-01-9	
Dibenz(a,h)anthracene	**<4.8**	ug/kg	17.8	4.8	1	08/26/11 12:00	08/26/11 14:55	53-70-3	
Fluoranthene	**<8.9**	ug/kg	17.8	8.9	1	08/26/11 12:00	08/26/11 14:55	206-44-0	
Fluorene	**<4.4**	ug/kg	17.8	4.4	1	08/26/11 12:00	08/26/11 14:55	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.5**	ug/kg	17.8	2.5	1	08/26/11 12:00	08/26/11 14:55	193-39-5	
1-Methylnaphthalene	**<2.7**	ug/kg	17.8	2.7	1	08/26/11 12:00	08/26/11 14:55	90-12-0	
2-Methylnaphthalene	**<2.7**	ug/kg	17.8	2.7	1	08/26/11 12:00	08/26/11 14:55	91-57-6	
Naphthalene	**<3.1**	ug/kg	17.8	3.1	1	08/26/11 12:00	08/26/11 14:55	91-20-3	
Phenanthrene	**<3.9**	ug/kg	17.8	3.9	1	08/26/11 12:00	08/26/11 14:55	85-01-8	
Pyrene	**5.9J**	ug/kg	17.8	3.3	1	08/26/11 12:00	08/26/11 14:55	129-00-0	
2-Fluorobiphenyl (S)	72	%.	38-130		1	08/26/11 12:00	08/26/11 14:55	321-60-8	
Terphenyl-d14 (S)	78	%.	36-130		1	08/26/11 12:00	08/26/11 14:55	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.3**	%	0.10	0.10	1		09/02/11 07:53		

Sample: PIT 1, EAST **Lab ID: 4050049003** Collected: 08/17/11 13:10 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**713**	ug/kg	88.6	36.9	1	08/26/11 12:00	08/26/11 12:19	71-43-2	
Ethylbenzene	**161**	ug/kg	88.6	36.9	1	08/26/11 12:00	08/26/11 12:19	100-41-4	
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 12:19	1634-04-4	W
Toluene	**157**	ug/kg	88.6	36.9	1	08/26/11 12:00	08/26/11 12:19	108-88-3	

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ANALYTICAL RESULTS

Project: BREARLY
Pace Project No.: 4050049

Sample: PIT 1, EAST **Lab ID: 4050049003** Collected: 08/17/11 13:10 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
1,2,4-Trimethylbenzene	**504**	ug/kg	88.6	36.9	1	08/26/11 12:00	08/26/11 12:19	95-63-6	
1,3,5-Trimethylbenzene	**156**	ug/kg	88.6	36.9	1	08/26/11 12:00	08/26/11 12:19	108-67-8	
m&p-Xylene	**595**	ug/kg	177	73.8	1	08/26/11 12:00	08/26/11 12:19	179601-23-1	
o-Xylene	**91.5**	ug/kg	88.6	36.9	1	08/26/11 12:00	08/26/11 12:19	95-47-6	
a,a,a-Trifluorotoluene (S)	104	%.	80-120		1	08/26/11 12:00	08/26/11 12:19	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**10.2J**	ug/kg	24.6	3.5	1	08/26/11 12:00	08/26/11 15:13	83-32-9	
Acenaphthylene	**13.3J**	ug/kg	24.6	3.9	1	08/26/11 12:00	08/26/11 15:13	208-96-8	
Anthracene	**48.6**	ug/kg	24.6	5.7	1	08/26/11 12:00	08/26/11 15:13	120-12-7	
Benzo(a)anthracene	**99.1**	ug/kg	24.6	3.5	1	08/26/11 12:00	08/26/11 15:13	56-55-3	
Benzo(a)pyrene	**71.5**	ug/kg	24.6	4.0	1	08/26/11 12:00	08/26/11 15:13	50-32-8	
Benzo(b)fluoranthene	**58.2**	ug/kg	24.6	4.3	1	08/26/11 12:00	08/26/11 15:13	205-99-2	
Benzo(g,h,i)perylene	**43.2**	ug/kg	24.6	3.2	1	08/26/11 12:00	08/26/11 15:13	191-24-2	
Benzo(k)fluoranthene	**60.8**	ug/kg	24.6	4.6	1	08/26/11 12:00	08/26/11 15:13	207-08-9	
Chrysene	**108**	ug/kg	24.6	4.5	1	08/26/11 12:00	08/26/11 15:13	218-01-9	
Dibenz(a,h)anthracene	**13.4J**	ug/kg	24.6	6.7	1	08/26/11 12:00	08/26/11 15:13	53-70-3	
Fluoranthene	**171**	ug/kg	24.6	12.3	1	08/26/11 12:00	08/26/11 15:13	206-44-0	
Fluorene	**24.4J**	ug/kg	24.6	6.1	1	08/26/11 12:00	08/26/11 15:13	86-73-7	
Indeno(1,2,3-cd)pyrene	**35.6**	ug/kg	24.6	3.5	1	08/26/11 12:00	08/26/11 15:13	193-39-5	
1-Methylnaphthalene	**74.5**	ug/kg	24.6	3.8	1	08/26/11 12:00	08/26/11 15:13	90-12-0	
2-Methylnaphthalene	**86.7**	ug/kg	24.6	3.8	1	08/26/11 12:00	08/26/11 15:13	91-57-6	
Naphthalene	**101**	ug/kg	24.6	4.3	1	08/26/11 12:00	08/26/11 15:13	91-20-3	
Phenanthrene	**186**	ug/kg	24.6	5.4	1	08/26/11 12:00	08/26/11 15:13	85-01-8	
Pyrene	**226**	ug/kg	24.6	4.5	1	08/26/11 12:00	08/26/11 15:13	129-00-0	
2-Fluorobiphenyl (S)	62	%.	38-130		1	08/26/11 12:00	08/26/11 15:13	321-60-8	
Terphenyl-d14 (S)	71	%.	36-130		1	08/26/11 12:00	08/26/11 15:13	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**32.3**	%	0.10	0.10	1		09/02/11 07:53		

Sample: PIT 1, WEST **Lab ID: 4050049004** Collected: 08/17/11 13:15 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**1410J**	ug/kg	2840	1180	40	08/26/11 12:00	08/29/11 11:05	71-43-2	
Ethylbenzene	**3000**	ug/kg	2840	1180	40	08/26/11 12:00	08/29/11 11:05	100-41-4	
Methyl-tert-butyl ether	**<1000**	ug/kg	2400	1000	40	08/26/11 12:00	08/29/11 11:05	1634-04-4	W
Toluene	**<1000**	ug/kg	2400	1000	40	08/26/11 12:00	08/29/11 11:05	108-88-3	W
1,2,4-Trimethylbenzene	**18800**	ug/kg	2840	1180	40	08/26/11 12:00	08/29/11 11:05	95-63-6	
1,3,5-Trimethylbenzene	**<1000**	ug/kg	2400	1000	40	08/26/11 12:00	08/29/11 11:05	108-67-8	W

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ANALYTICAL RESULTS

Project: BREARLY
Pace Project No.: 4050049

Sample: PIT 1, WEST **Lab ID: 4050049004** Collected: 08/17/11 13:15 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
m&p-Xylene	**5790**	ug/kg	5670	2360	40	08/26/11 12:00	08/29/11 11:05	179601-23-1	
o-Xylene	**3040**	ug/kg	2840	1180	40	08/26/11 12:00	08/29/11 11:05	95-47-6	
a,a,a-Trifluorotoluene (S)	103	%.	80-120		40	08/26/11 12:00	08/29/11 11:05	98-08-8	D3
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**2690**	ug/kg	1970	277	100	08/26/11 12:00	08/29/11 13:23	83-32-9	
Acenaphthylene	**958J**	ug/kg	1970	314	100	08/26/11 12:00	08/29/11 13:23	208-96-8	
Anthracene	**1250J**	ug/kg	1970	458	100	08/26/11 12:00	08/29/11 13:23	120-12-7	
Benzo(a)anthracene	**442J**	ug/kg	1970	280	100	08/26/11 12:00	08/29/11 13:23	56-55-3	
Benzo(a)pyrene	**<322**	ug/kg	1970	322	100	08/26/11 12:00	08/29/11 13:23	50-32-8	
Benzo(b)fluoranthene	**<340**	ug/kg	1970	340	100	08/26/11 12:00	08/29/11 13:23	205-99-2	
Benzo(g,h,i)perylene	**268J**	ug/kg	1970	260	100	08/26/11 12:00	08/29/11 13:23	191-24-2	
Benzo(k)fluoranthene	**<366**	ug/kg	1970	366	100	08/26/11 12:00	08/29/11 13:23	207-08-9	
Chrysene	**489J**	ug/kg	1970	357	100	08/26/11 12:00	08/29/11 13:23	218-01-9	
Dibenz(a,h)anthracene	**<536**	ug/kg	1970	536	100	08/26/11 12:00	08/29/11 13:23	53-70-3	
Fluoranthene	**1370J**	ug/kg	1970	984	100	08/26/11 12:00	08/29/11 13:23	206-44-0	
Fluorene	**4030**	ug/kg	1970	490	100	08/26/11 12:00	08/29/11 13:23	86-73-7	
Indeno(1,2,3-cd)pyrene	**<280**	ug/kg	1970	280	100	08/26/11 12:00	08/29/11 13:23	193-39-5	
1-Methylnaphthalene	**58900**	ug/kg	1970	301	100	08/26/11 12:00	08/29/11 13:23	90-12-0	
2-Methylnaphthalene	**17100**	ug/kg	1970	301	100	08/26/11 12:00	08/29/11 13:23	91-57-6	
Naphthalene	**7750**	ug/kg	1970	345	100	08/26/11 12:00	08/29/11 13:23	91-20-3	
Phenanthrene	**9790**	ug/kg	1970	433	100	08/26/11 12:00	08/29/11 13:23	85-01-8	
Pyrene	**1230J**	ug/kg	1970	360	100	08/26/11 12:00	08/29/11 13:23	129-00-0	
2-Fluorobiphenyl (S)	76	%.	38-130		100	08/26/11 12:00	08/29/11 13:23	321-60-8	
Terphenyl-d14 (S)	51	%.	36-130		100	08/26/11 12:00	08/29/11 13:23	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.4**	%	0.10	0.10	1		09/02/11 07:53		

Sample: PIT 3, BASE **Lab ID: 4050049005** Collected: 08/17/11 14:30 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**1370**	ug/kg	175	73.0	2	08/26/11 12:00	08/26/11 13:36	71-43-2	
Ethylbenzene	**966**	ug/kg	175	73.0	2	08/26/11 12:00	08/26/11 13:36	100-41-4	
Methyl-tert-butyl ether	**<50.0**	ug/kg	120	50.0	2	08/26/11 12:00	08/26/11 13:36	1634-04-4	W
Toluene	**166J**	ug/kg	175	73.0	2	08/26/11 12:00	08/26/11 13:36	108-88-3	
1,2,4-Trimethylbenzene	**4530**	ug/kg	175	73.0	2	08/26/11 12:00	08/26/11 13:36	95-63-6	
1,3,5-Trimethylbenzene	**1040**	ug/kg	175	73.0	2	08/26/11 12:00	08/26/11 13:36	108-67-8	
m&p-Xylene	**2680**	ug/kg	350	146	2	08/26/11 12:00	08/26/11 13:36	179601-23-1	
o-Xylene	**180**	ug/kg	175	73.0	2	08/26/11 12:00	08/26/11 13:36	95-47-6	

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ANALYTICAL RESULTS

Project: BREARLY
Pace Project No.: 4050049

Sample: PIT 3, BASE **Lab ID: 4050049005** Collected: 08/17/11 14:30 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
a,a,a-Trifluorotoluene (S)	109	%.	80-120		2	08/26/11 12:00	08/26/11 13:36	98-08-8	D3
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**173J**	ug/kg	243	34.2	10	08/26/11 12:00	08/29/11 11:06	83-32-9	
Acenaphthylene	**56.0J**	ug/kg	243	38.7	10	08/26/11 12:00	08/29/11 11:06	208-96-8	
Anthracene	**89.2J**	ug/kg	243	56.6	10	08/26/11 12:00	08/29/11 11:06	120-12-7	
Benzo(a)anthracene	**<34.6**	ug/kg	243	34.6	10	08/26/11 12:00	08/29/11 11:06	56-55-3	
Benzo(a)pyrene	**<39.8**	ug/kg	243	39.8	10	08/26/11 12:00	08/29/11 11:06	50-32-8	
Benzo(b)fluoranthene	**<42.1**	ug/kg	243	42.1	10	08/26/11 12:00	08/29/11 11:06	205-99-2	
Benzo(g,h,i)perylene	**<32.1**	ug/kg	243	32.1	10	08/26/11 12:00	08/29/11 11:06	191-24-2	
Benzo(k)fluoranthene	**<45.2**	ug/kg	243	45.2	10	08/26/11 12:00	08/29/11 11:06	207-08-9	
Chrysene	**<44.1**	ug/kg	243	44.1	10	08/26/11 12:00	08/29/11 11:06	218-01-9	
Dibenz(a,h)anthracene	**<66.2**	ug/kg	243	66.2	10	08/26/11 12:00	08/29/11 11:06	53-70-3	
Fluoranthene	**<122**	ug/kg	243	122	10	08/26/11 12:00	08/29/11 11:06	206-44-0	
Fluorene	**304**	ug/kg	243	60.5	10	08/26/11 12:00	08/29/11 11:06	86-73-7	
Indeno(1,2,3-cd)pyrene	**<34.6**	ug/kg	243	34.6	10	08/26/11 12:00	08/29/11 11:06	193-39-5	
1-Methylnaphthalene	**3010**	ug/kg	243	37.1	10	08/26/11 12:00	08/29/11 11:06	90-12-0	
2-Methylnaphthalene	**4970**	ug/kg	243	37.1	10	08/26/11 12:00	08/29/11 11:06	91-57-6	
Naphthalene	**1490**	ug/kg	243	42.6	10	08/26/11 12:00	08/29/11 11:06	91-20-3	
Phenanthrene	**905**	ug/kg	243	53.5	10	08/26/11 12:00	08/29/11 11:06	85-01-8	
Pyrene	**60.1J**	ug/kg	243	44.5	10	08/26/11 12:00	08/29/11 11:06	129-00-0	
2-Fluorobiphenyl (S)	63	%.	38-130		10	08/26/11 12:00	08/29/11 11:06	321-60-8	
Terphenyl-d14 (S)	62	%.	36-130		10	08/26/11 12:00	08/29/11 11:06	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**31.5**	%	0.10	0.10	1		09/02/11 07:54		

Sample: PIT 3, NORTH **Lab ID: 4050049006** Collected: 08/18/11 07:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**689**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 12:22	71-43-2	
Ethylbenzene	**422**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 12:22	100-41-4	
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/29/11 12:22	1634-04-4	W
Toluene	**60.5J**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 12:22	108-88-3	
1,2,4-Trimethylbenzene	**386**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 12:22	95-63-6	
1,3,5-Trimethylbenzene	**294**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 12:22	108-67-8	
m&p-Xylene	**650**	ug/kg	141	58.7	1	08/26/11 12:00	08/29/11 12:22	179601-23-1	
o-Xylene	**54.0J**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 12:22	95-47-6	
a,a,a-Trifluorotoluene (S)	105	%.	80-120		1	08/26/11 12:00	08/29/11 12:22	98-08-8	

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ANALYTICAL RESULTS

Project: BREARLY
Pace Project No.: 4050049

Sample: PIT 3, NORTH **Lab ID: 4050049006** Collected: 08/18/11 07:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**435**	ug/kg	157	22.0	8	08/26/11 12:00	08/29/11 11:23	83-32-9	
Acenaphthylene	**90.7J**	ug/kg	157	24.9	8	08/26/11 12:00	08/29/11 11:23	208-96-8	
Anthracene	**157**	ug/kg	157	36.5	8	08/26/11 12:00	08/29/11 11:23	120-12-7	
Benzo(a)anthracene	**38.4J**	ug/kg	157	22.3	8	08/26/11 12:00	08/29/11 11:23	56-55-3	
Benzo(a)pyrene	**33.6J**	ug/kg	157	25.6	8	08/26/11 12:00	08/29/11 11:23	50-32-8	
Benzo(b)fluoranthene	**28.2J**	ug/kg	157	27.1	8	08/26/11 12:00	08/29/11 11:23	205-99-2	
Benzo(g,h,i)perylene	**23.8J**	ug/kg	157	20.7	8	08/26/11 12:00	08/29/11 11:23	191-24-2	
Benzo(k)fluoranthene	**35.2J**	ug/kg	157	29.1	8	08/26/11 12:00	08/29/11 11:23	207-08-9	
Chrysene	**44.4J**	ug/kg	157	28.4	8	08/26/11 12:00	08/29/11 11:23	218-01-9	
Dibenz(a,h)anthracene	**<42.6**	ug/kg	157	42.6	8	08/26/11 12:00	08/29/11 11:23	53-70-3	
Fluoranthene	**113J**	ug/kg	157	78.3	8	08/26/11 12:00	08/29/11 11:23	206-44-0	
Fluorene	**504**	ug/kg	157	39.0	8	08/26/11 12:00	08/29/11 11:23	86-73-7	
Indeno(1,2,3-cd)pyrene	**<22.3**	ug/kg	157	22.3	8	08/26/11 12:00	08/29/11 11:23	193-39-5	
1-Methylnaphthalene	**2450**	ug/kg	157	23.9	8	08/26/11 12:00	08/29/11 11:23	90-12-0	
2-Methylnaphthalene	**2660**	ug/kg	157	23.9	8	08/26/11 12:00	08/29/11 11:23	91-57-6	
Naphthalene	**418**	ug/kg	157	27.4	8	08/26/11 12:00	08/29/11 11:23	91-20-3	L2
Phenanthrene	**1270**	ug/kg	157	34.4	8	08/26/11 12:00	08/29/11 11:23	85-01-8	
Pyrene	**162**	ug/kg	157	28.7	8	08/26/11 12:00	08/29/11 11:23	129-00-0	
2-Fluorobiphenyl (S)	62	%.	38-130		8	08/26/11 12:00	08/29/11 11:23	321-60-8	
Terphenyl-d14 (S)	59	%.	36-130		8	08/26/11 12:00	08/29/11 11:23	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.9**	%	0.10	0.10	1		09/02/11 07:54		

Sample: PIT 3, SOUTH **Lab ID: 4050049007** Collected: 08/18/11 07:05 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**93.9**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 10:14	71-43-2	
Ethylbenzene	**295**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 10:14	100-41-4	
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/29/11 10:14	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/29/11 10:14	108-88-3	W
1,2,4-Trimethylbenzene	**110**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 10:14	95-63-6	
1,3,5-Trimethylbenzene	**61.1J**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 10:14	108-67-8	
m&p-Xylene	**189**	ug/kg	141	58.7	1	08/26/11 12:00	08/29/11 10:14	179601-23-1	
o-Xylene	**44.1J**	ug/kg	70.5	29.4	1	08/26/11 12:00	08/29/11 10:14	95-47-6	
a,a,a-Trifluorotoluene (S)	110	%.	80-120		1	08/26/11 12:00	08/29/11 10:14	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**149**	ug/kg	39.2	5.5	2	08/26/11 12:00	08/29/11 13:41	83-32-9	
Acenaphthylene	**40.9**	ug/kg	39.2	6.2	2	08/26/11 12:00	08/29/11 13:41	208-96-8	

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ANALYTICAL RESULTS

Project: BREARLY
Pace Project No.: 4050049

Sample: PIT 3, SOUTH **Lab ID: 4050049007** Collected: 08/18/11 07:05 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Anthracene	**120**	ug/kg	39.2	9.1	2	08/26/11 12:00	08/29/11 13:41	120-12-7	
Benzo(a)anthracene	**141**	ug/kg	39.2	5.6	2	08/26/11 12:00	08/29/11 13:41	56-55-3	
Benzo(a)pyrene	**133**	ug/kg	39.2	6.4	2	08/26/11 12:00	08/29/11 13:41	50-32-8	
Benzo(b)fluoranthene	**114**	ug/kg	39.2	6.8	2	08/26/11 12:00	08/29/11 13:41	205-99-2	
Benzo(g,h,i)perylene	**86.3**	ug/kg	39.2	5.2	2	08/26/11 12:00	08/29/11 13:41	191-24-2	
Benzo(k)fluoranthene	**116**	ug/kg	39.2	7.3	2	08/26/11 12:00	08/29/11 13:41	207-08-9	
Chrysene	**148**	ug/kg	39.2	7.1	2	08/26/11 12:00	08/29/11 13:41	218-01-9	
Dibenz(a,h)anthracene	**27.0J**	ug/kg	39.2	10.7	2	08/26/11 12:00	08/29/11 13:41	53-70-3	
Fluoranthene	**295**	ug/kg	39.2	19.6	2	08/26/11 12:00	08/29/11 13:41	206-44-0	
Fluorene	**226**	ug/kg	39.2	9.7	2	08/26/11 12:00	08/29/11 13:41	86-73-7	
Indeno(1,2,3-cd)pyrene	**76.3**	ug/kg	39.2	5.6	2	08/26/11 12:00	08/29/11 13:41	193-39-5	
1-Methylnaphthalene	**1010**	ug/kg	39.2	6.0	2	08/26/11 12:00	08/29/11 13:41	90-12-0	
2-Methylnaphthalene	**550**	ug/kg	39.2	6.0	2	08/26/11 12:00	08/29/11 13:41	91-57-6	
Naphthalene	**299**	ug/kg	39.2	6.9	2	08/26/11 12:00	08/29/11 13:41	91-20-3	L2
Phenanthrene	**624**	ug/kg	39.2	8.6	2	08/26/11 12:00	08/29/11 13:41	85-01-8	
Pyrene	**301**	ug/kg	39.2	7.2	2	08/26/11 12:00	08/29/11 13:41	129-00-0	
2-Fluorobiphenyl (S)	63	%.	38-130		2	08/26/11 12:00	08/29/11 13:41	321-60-8	
Terphenyl-d14 (S)	61	%.	36-130		2	08/26/11 12:00	08/29/11 13:41	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.9**	%	0.10	0.10	1		09/02/11 07:54		

Sample: PIT 3, EAST **Lab ID: 4050049008** Collected: 08/18/11 07:10 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**137**	ug/kg	72.1	30.1	1	08/26/11 12:00	08/29/11 14:07	71-43-2	
Ethylbenzene	**76.9**	ug/kg	72.1	30.1	1	08/26/11 12:00	08/29/11 14:07	100-41-4	
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/29/11 14:07	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/29/11 14:07	108-88-3	W
1,2,4-Trimethylbenzene	**61.0J**	ug/kg	72.1	30.1	1	08/26/11 12:00	08/29/11 14:07	95-63-6	
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/29/11 14:07	108-67-8	W
m&p-Xylene	**141J**	ug/kg	144	60.1	1	08/26/11 12:00	08/29/11 14:07	179601-23-1	
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/29/11 14:07	95-47-6	W
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1	08/26/11 12:00	08/29/11 14:07	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**25.4**	ug/kg	20.0	2.8	1	08/26/11 12:00	08/26/11 17:47	83-32-9	
Acenaphthylene	**6.8J**	ug/kg	20.0	3.2	1	08/26/11 12:00	08/26/11 17:47	208-96-8	
Anthracene	**48.5**	ug/kg	20.0	4.7	1	08/26/11 12:00	08/26/11 17:47	120-12-7	
Benzo(a)anthracene	**83.0**	ug/kg	20.0	2.8	1	08/26/11 12:00	08/26/11 17:47	56-55-3	

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ANALYTICAL RESULTS

Project: BREARLY
Pace Project No.: 4050049

Sample: PIT 3, EAST **Lab ID: 4050049008** Collected: 08/18/11 07:10 Received: 08/25/11 10:22 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Benzo(a)pyrene	**85.4**	ug/kg	20.0	3.3	1	08/26/11 12:00	08/26/11 17:47	50-32-8	
Benzo(b)fluoranthene	**64.2**	ug/kg	20.0	3.5	1	08/26/11 12:00	08/26/11 17:47	205-99-2	
Benzo(g,h,i)perylene	**52.1**	ug/kg	20.0	2.6	1	08/26/11 12:00	08/26/11 17:47	191-24-2	
Benzo(k)fluoranthene	**72.7**	ug/kg	20.0	3.7	1	08/26/11 12:00	08/26/11 17:47	207-08-9	
Chrysene	**81.5**	ug/kg	20.0	3.6	1	08/26/11 12:00	08/26/11 17:47	218-01-9	
Dibenz(a,h)anthracene	**17.1J**	ug/kg	20.0	5.5	1	08/26/11 12:00	08/26/11 17:47	53-70-3	
Fluoranthene	**160**	ug/kg	20.0	10.0	1	08/26/11 12:00	08/26/11 17:47	206-44-0	
Fluorene	**51.7**	ug/kg	20.0	5.0	1	08/26/11 12:00	08/26/11 17:47	86-73-7	
Indeno(1,2,3-cd)pyrene	**46.3**	ug/kg	20.0	2.8	1	08/26/11 12:00	08/26/11 17:47	193-39-5	
1-Methylnaphthalene	**91.5**	ug/kg	20.0	3.1	1	08/26/11 12:00	08/26/11 17:47	90-12-0	
2-Methylnaphthalene	**69.7**	ug/kg	20.0	3.1	1	08/26/11 12:00	08/26/11 17:47	91-57-6	
Naphthalene	**27.1**	ug/kg	20.0	3.5	1	08/26/11 12:00	08/26/11 17:47	91-20-3	L2
Phenanthrene	**183**	ug/kg	20.0	4.4	1	08/26/11 12:00	08/26/11 17:47	85-01-8	
Pyrene	**136**	ug/kg	20.0	3.7	1	08/26/11 12:00	08/26/11 17:47	129-00-0	
2-Fluorobiphenyl (S)	66	%.	38-130		1	08/26/11 12:00	08/26/11 17:47	321-60-8	
Terphenyl-d14 (S)	70	%.	36-130		1	08/26/11 12:00	08/26/11 17:47	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.8**	%	0.10	0.10	1		09/02/11 07:54		

Sample: PIT 3, WEST **Lab ID: 4050049009** Collected: 08/18/11 07:15 Received: 08/25/11 10:22 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<125**	ug/kg	300	125	5	08/26/11 12:00	08/29/11 11:31	71-43-2	W
Ethylbenzene	**1120**	ug/kg	361	150	5	08/26/11 12:00	08/29/11 11:31	100-41-4	
Methyl-tert-butyl ether	**<125**	ug/kg	300	125	5	08/26/11 12:00	08/29/11 11:31	1634-04-4	W
Toluene	**<125**	ug/kg	300	125	5	08/26/11 12:00	08/29/11 11:31	108-88-3	W
1,2,4-Trimethylbenzene	**4830**	ug/kg	361	150	5	08/26/11 12:00	08/29/11 11:31	95-63-6	
1,3,5-Trimethylbenzene	**1590**	ug/kg	361	150	5	08/26/11 12:00	08/29/11 11:31	108-67-8	
m&p-Xylene	**2540**	ug/kg	721	301	5	08/26/11 12:00	08/29/11 11:31	179601-23-1	
o-Xylene	**204J**	ug/kg	361	150	5	08/26/11 12:00	08/29/11 11:31	95-47-6	
a,a,a-Trifluorotoluene (S)	107	%.	80-120		5	08/26/11 12:00	08/29/11 11:31	98-08-8	1q,D3, P4
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**673**	ug/kg	160	22.5	8	08/26/11 12:00	08/29/11 11:40	83-32-9	
Acenaphthylene	**147J**	ug/kg	160	25.5	8	08/26/11 12:00	08/29/11 11:40	208-96-8	
Anthracene	**406**	ug/kg	160	37.3	8	08/26/11 12:00	08/29/11 11:40	120-12-7	
Benzo(a)anthracene	**216**	ug/kg	160	22.8	8	08/26/11 12:00	08/29/11 11:40	56-55-3	
Benzo(a)pyrene	**174**	ug/kg	160	26.2	8	08/26/11 12:00	08/29/11 11:40	50-32-8	

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ANALYTICAL RESULTS

Project: BREARLY
Pace Project No.: 4050049

Sample: PIT 3, WEST **Lab ID: 4050049009** Collected: 08/18/11 07:15 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Benzo(b)fluoranthene	**158J**	ug/kg	160	27.7	8	08/26/11 12:00	08/29/11 11:40	205-99-2	
Benzo(g,h,i)perylene	**107J**	ug/kg	160	21.2	8	08/26/11 12:00	08/29/11 11:40	191-24-2	
Benzo(k)fluoranthene	**150J**	ug/kg	160	29.8	8	08/26/11 12:00	08/29/11 11:40	207-08-9	
Chrysene	**214**	ug/kg	160	29.1	8	08/26/11 12:00	08/29/11 11:40	218-01-9	
Dibenz(a,h)anthracene	**<43.6**	ug/kg	160	43.6	8	08/26/11 12:00	08/29/11 11:40	53-70-3	
Fluoranthene	**520**	ug/kg	160	80.1	8	08/26/11 12:00	08/29/11 11:40	206-44-0	
Fluorene	**1100**	ug/kg	160	39.9	8	08/26/11 12:00	08/29/11 11:40	86-73-7	
Indeno(1,2,3-cd)pyrene	**93.4J**	ug/kg	160	22.8	8	08/26/11 12:00	08/29/11 11:40	193-39-5	
1-Methylnaphthalene	**4250**	ug/kg	160	24.5	8	08/26/11 12:00	08/29/11 11:40	90-12-0	
2-Methylnaphthalene	**2370**	ug/kg	160	24.5	8	08/26/11 12:00	08/29/11 11:40	91-57-6	
Naphthalene	**806**	ug/kg	160	28.1	8	08/26/11 12:00	08/29/11 11:40	91-20-3	L2
Phenanthrene	**2630**	ug/kg	160	35.2	8	08/26/11 12:00	08/29/11 11:40	85-01-8	
Pyrene	**586**	ug/kg	160	29.3	8	08/26/11 12:00	08/29/11 11:40	129-00-0	
2-Fluorobiphenyl (S)	61	%.	38-130		8	08/26/11 12:00	08/29/11 11:40	321-60-8	
Terphenyl-d14 (S)	56	%.	36-130		8	08/26/11 12:00	08/29/11 11:40	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.8**	%	0.10	0.10	1		09/02/11 07:54		

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QUALITY CONTROL DATA

Project: BREARLY
Pace Project No.: 4050049

QC Batch: GCV/7121 Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 4050049001, 4050049002, 4050049003, 4050049004, 4050049005, 4050049006, 4050049007, 4050049008, 4050049009

METHOD BLANK: 495113 Matrix: Solid
Associated Lab Samples: 4050049001, 4050049002, 4050049003, 4050049004, 4050049005, 4050049006, 4050049007, 4050049008, 4050049009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	08/26/11 08:52	
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	08/26/11 08:52	
Benzene	ug/kg	<25.0	60.0	08/26/11 08:52	
Ethylbenzene	ug/kg	<25.0	60.0	08/26/11 08:52	
m&p-Xylene	ug/kg	<50.0	120	08/26/11 08:52	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	08/26/11 08:52	
o-Xylene	ug/kg	<25.0	60.0	08/26/11 08:52	
Toluene	ug/kg	<25.0	60.0	08/26/11 08:52	
a,a,a-Trifluorotoluene (S)	%.	103	80-120	08/26/11 08:52	

LABORATORY CONTROL SAMPLE & LCSD: 495114 495115

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	1160	1200	116	120	80-120	3	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1130	1160	113	116	80-120	3	20	
Benzene	ug/kg	1000	1170	1190	117	119	80-120	2	20	
Ethylbenzene	ug/kg	1000	1130	1160	113	116	80-120	2	20	
m&p-Xylene	ug/kg	2000	2280	2340	114	117	80-120	2	20	
Methyl-tert-butyl ether	ug/kg	1000	1130	1160	113	116	80-120	3	20	
o-Xylene	ug/kg	1000	1130	1160	113	116	80-120	2	20	
Toluene	ug/kg	1000	1150	1170	115	117	80-120	2	20	
a,a,a-Trifluorotoluene (S)	%.				102	102	80-120			

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QUALITY CONTROL DATA

Project: BREARLY
Pace Project No.: 4050049

QC Batch: OEXT/12376 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 4050049001, 4050049002, 4050049003, 4050049004, 4050049005

METHOD BLANK: 495131 Matrix: Solid
Associated Lab Samples: 4050049001, 4050049002, 4050049003, 4050049004, 4050049005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.5	16.7	08/26/11 10:38	
2-Methylnaphthalene	ug/kg	<2.5	16.7	08/26/11 10:38	
Acenaphthene	ug/kg	<2.3	16.7	08/26/11 10:38	
Acenaphthylene	ug/kg	<2.7	16.7	08/26/11 10:38	
Anthracene	ug/kg	<3.9	16.7	08/26/11 10:38	
Benzo(a)anthracene	ug/kg	<2.4	16.7	08/26/11 10:38	
Benzo(a)pyrene	ug/kg	<2.7	16.7	08/26/11 10:38	
Benzo(b)fluoranthene	ug/kg	<2.9	16.7	08/26/11 10:38	
Benzo(g,h,i)perylene	ug/kg	<2.2	16.7	08/26/11 10:38	
Benzo(k)fluoranthene	ug/kg	<3.1	16.7	08/26/11 10:38	
Chrysene	ug/kg	<3.0	16.7	08/26/11 10:38	
Dibenz(a,h)anthracene	ug/kg	<4.5	16.7	08/26/11 10:38	
Fluoranthene	ug/kg	<8.3	16.7	08/26/11 10:38	
Fluorene	ug/kg	<4.1	16.7	08/26/11 10:38	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.4	16.7	08/26/11 10:38	
Naphthalene	ug/kg	<2.9	16.7	08/26/11 10:38	
Phenanthrene	ug/kg	<3.7	16.7	08/26/11 10:38	
Pyrene	ug/kg	<3.1	16.7	08/26/11 10:38	
2-Fluorobiphenyl (S)	%.	75	38-130	08/26/11 10:38	
Terphenyl-d14 (S)	%.	79	36-130	08/26/11 10:38	

LABORATORY CONTROL SAMPLE: 495132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	252	75	56-130	
2-Methylnaphthalene	ug/kg	333	250	75	57-130	
Acenaphthene	ug/kg	333	253	76	62-130	
Acenaphthylene	ug/kg	333	255	77	62-130	
Anthracene	ug/kg	333	296	89	62-130	
Benzo(a)anthracene	ug/kg	333	272	82	60-130	
Benzo(a)pyrene	ug/kg	333	295	88	62-130	
Benzo(b)fluoranthene	ug/kg	333	283	85	61-130	
Benzo(g,h,i)perylene	ug/kg	333	306	92	52-130	
Benzo(k)fluoranthene	ug/kg	333	299	90	61-130	
Chrysene	ug/kg	333	276	83	54-130	
Dibenz(a,h)anthracene	ug/kg	333	296	89	55-130	
Fluoranthene	ug/kg	333	288	86	65-130	
Fluorene	ug/kg	333	261	78	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	302	91	55-130	
Naphthalene	ug/kg	333	227	68	59-130	
Phenanthrene	ug/kg	333	280	84	62-130	

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QUALITY CONTROL DATA

Project: BREARLY
Pace Project No.: 4050049

LABORATORY CONTROL SAMPLE: 495132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pyrene	ug/kg	333	270	81	58-130	
2-Fluorobiphenyl (S)	%.			72	38-130	
Terphenyl-d14 (S)	%.			78	36-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 495133 495134

Parameter	Units	4050062001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	<2.6	344	344	234	254	68	74	44-130	8	22	
2-Methylnaphthalene	ug/kg	<2.6	344	344	235	254	68	74	43-130	8	20	
Acenaphthene	ug/kg	<2.4	344	344	232	250	67	72	47-130	7	20	
Acenaphthylene	ug/kg	<2.7	344	344	235	254	68	74	51-130	8	20	
Anthracene	ug/kg	<4.0	344	344	264	272	77	79	45-130	3	22	
Benzo(a)anthracene	ug/kg	<2.4	344	344	239	258	69	75	44-130	8	27	
Benzo(a)pyrene	ug/kg	<2.8	344	344	254	278	74	81	49-130	9	27	
Benzo(b)fluoranthene	ug/kg	<3.0	344	344	251	276	73	80	41-130	9	32	
Benzo(g,h,i)perylene	ug/kg	<2.3	344	344	263	288	76	83	39-130	9	28	
Benzo(k)fluoranthene	ug/kg	<3.2	344	344	251	270	73	78	41-130	7	26	
Chrysene	ug/kg	<3.1	344	344	241	268	70	78	45-130	11	28	
Dibenz(a,h)anthracene	ug/kg	<4.7	344	344	255	279	74	81	39-130	9	25	
Fluoranthene	ug/kg	<8.6	344	344	255	274	74	79	47-130	7	25	
Fluorene	ug/kg	<4.3	344	344	237	296	69	86	46-130	22	20	D6
Indeno(1,2,3-cd)pyrene	ug/kg	<2.4	344	344	258	283	75	82	39-130	9	28	
Naphthalene	ug/kg	<3.0	344	344	217	233	63	67	43-130	7	22	
Phenanthrene	ug/kg	<3.8	344	344	250	267	73	77	47-130	6	20	
Pyrene	ug/kg	<3.2	344	344	238	257	69	74	42-130	8	25	
2-Fluorobiphenyl (S)	%.						68	71	38-130			
Terphenyl-d14 (S)	%.						70	73	36-130			

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QUALITY CONTROL DATA

Project: BREARLY
Pace Project No.: 4050049

QC Batch: OEXT/12377 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 4050049006, 4050049007, 4050049008, 4050049009

METHOD BLANK: 495135 Matrix: Solid
Associated Lab Samples: 4050049006, 4050049007, 4050049008, 4050049009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.5	16.7	08/26/11 15:47	
2-Methylnaphthalene	ug/kg	<2.5	16.7	08/26/11 15:47	
Acenaphthene	ug/kg	<2.3	16.7	08/26/11 15:47	
Acenaphthylene	ug/kg	<2.7	16.7	08/26/11 15:47	
Anthracene	ug/kg	<3.9	16.7	08/26/11 15:47	
Benzo(a)anthracene	ug/kg	<2.4	16.7	08/26/11 15:47	
Benzo(a)pyrene	ug/kg	<2.7	16.7	08/26/11 15:47	
Benzo(b)fluoranthene	ug/kg	<2.9	16.7	08/26/11 15:47	
Benzo(g,h,i)perylene	ug/kg	<2.2	16.7	08/26/11 15:47	
Benzo(k)fluoranthene	ug/kg	<3.1	16.7	08/26/11 15:47	
Chrysene	ug/kg	<3.0	16.7	08/26/11 15:47	
Dibenz(a,h)anthracene	ug/kg	<4.5	16.7	08/26/11 15:47	
Fluoranthene	ug/kg	<8.3	16.7	08/26/11 15:47	
Fluorene	ug/kg	<4.1	16.7	08/26/11 15:47	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.4	16.7	08/26/11 15:47	
Naphthalene	ug/kg	<2.9	16.7	08/26/11 15:47	
Phenanthrene	ug/kg	<3.7	16.7	08/26/11 15:47	
Pyrene	ug/kg	<3.1	16.7	08/26/11 15:47	
2-Fluorobiphenyl (S)	%.	68	38-130	08/26/11 15:47	
Terphenyl-d14 (S)	%.	74	36-130	08/26/11 15:47	

LABORATORY CONTROL SAMPLE: 495136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	216	65	56-130	
2-Methylnaphthalene	ug/kg	333	214	64	57-130	
Acenaphthene	ug/kg	333	212	63	62-130	
Acenaphthylene	ug/kg	333	217	65	62-130	
Anthracene	ug/kg	333	251	75	62-130	
Benzo(a)anthracene	ug/kg	333	237	71	60-130	
Benzo(a)pyrene	ug/kg	333	252	76	62-130	
Benzo(b)fluoranthene	ug/kg	333	234	70	61-130	
Benzo(g,h,i)perylene	ug/kg	333	264	79	52-130	
Benzo(k)fluoranthene	ug/kg	333	267	80	61-130	
Chrysene	ug/kg	333	237	71	54-130	
Dibenz(a,h)anthracene	ug/kg	333	255	76	55-130	
Fluoranthene	ug/kg	333	246	74	65-130	
Fluorene	ug/kg	333	224	67	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	258	77	55-130	
Naphthalene	ug/kg	333	190	57	59-130	L0
Phenanthrene	ug/kg	333	238	71	62-130	

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QUALITY CONTROL DATA

Project: BREARLY
Pace Project No.: 4050049

LABORATORY CONTROL SAMPLE: 495136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pyrene	ug/kg	333	236	71	58-130	
2-Fluorobiphenyl (S)	%.			64	38-130	
Terphenyl-d14 (S)	%.			75	36-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 495137 495138

Parameter	Units	4050051005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	34.4	380	380	265	273	61	63	44-130	3	22	
2-Methylnaphthalene	ug/kg	85.6	380	380	282	302	52	57	43-130	7	20	
Acenaphthene	ug/kg	<2.7	380	380	244	236	64	62	47-130	3	20	
Acenaphthylene	ug/kg	6.7J	380	380	241	243	62	62	51-130	.6	20	
Anthracene	ug/kg	16.7J	380	380	273	270	67	67	45-130	1	22	
Benzo(a)anthracene	ug/kg	3.9J	380	380	249	253	64	65	44-130	2	27	
Benzo(a)pyrene	ug/kg	<3.1	380	380	259	256	67	67	49-130	1	27	
Benzo(b)fluoranthene	ug/kg	17.7J	380	380	251	282	61	69	41-130	12	32	
Benzo(g,h,i)perylene	ug/kg	24.0	380	380	279	283	67	68	39-130	1	28	
Benzo(k)fluoranthene	ug/kg	11.1J	380	380	274	265	69	67	41-130	3	26	
Chrysene	ug/kg	15.1J	380	380	251	273	62	68	45-130	8	28	
Dibenz(a,h)anthracene	ug/kg	<5.2	380	380	263	263	68	68	39-130	.3	25	
Fluoranthene	ug/kg	11.4J	380	380	254	261	64	65	47-130	3	25	
Fluorene	ug/kg	<4.7	380	380	248	246	65	64	46-130	.9	20	
Indeno(1,2,3-cd)pyrene	ug/kg	16.0J	380	380	270	273	67	68	39-130	1	28	
Naphthalene	ug/kg	63.5	380	380	256	267	51	53	43-130	4	22	
Phenanthrene	ug/kg	105	380	380	270	294	43	50	47-130	8	20	M1
Pyrene	ug/kg	9.6J	380	380	257	265	65	67	42-130	3	25	
2-Fluorobiphenyl (S)	%.						63	63	38-130			
Terphenyl-d14 (S)	%.						66	64	36-130			

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QUALITY CONTROL DATA

Project: BREARLY
Pace Project No.: 4050049

QC Batch: PMST/5992 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 4050049001, 4050049002, 4050049003, 4050049004, 4050049005, 4050049006, 4050049007, 4050049008, 4050049009

SAMPLE DUPLICATE: 497908

Parameter	Units	4050277001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.1	6.0	1	10	

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QUALIFIERS

Project: BREARLY
Pace Project No.: 4050049

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1q	Methanol leaked from the original preserved vial. The sample was subsampled from a packed tight jar.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P4	Sample field preservation does not meet EPA or method recommendations for this analysis.
W	Non-detect results are reported on a wet weight basis.

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UPPER MIDWEST REGION
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Page 1 of

JBF

4050049

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Seymour Env.
Branch/Location:	
Project Contact:	Robyn Seymour
Phone:	608 838 9120
Project Number:	
Project Name:	Brearly
Project State:	Wisconsin
Sampled By (Print):	Robyn Seymour
Sampled By (Sign):	Robyn Seymour
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Robyn Seymour
Mail To Company:	Seymour Env.
Mail To Address:	2531 Dyreson McFarland
Invoice To Contact:	Robyn
Invoice To Company:	Seymour
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested: PVOC	Analyses Requested: PAH	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	~~Test Pit 2, Base~~	~~8/17~~	~~1130~~	S		Y/N	X	X			
01 002	X Test Pit 1, North		1250			Pick Letter	X	X		4 C9 1-40mL AG, 8/25 BF 1-40mL F	
02 003	X Test Pit 1, South		1300				X	X			
03 004	X Test Pit 1 East		1310				X	X			
04 005	X Test Pit 1, West		1315				X	X			
05 006	X Test Pit 3, Base		1430				X	X			
06 007	X Pit 3, North	8/18	0700				X	X			
07 008	X Pit 3 South		0705				X	X			
08 009	X Pit 3 East		0710				X	X			
09 010	X Pit 3 West		0715				X	X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Robyn Seymour	8/24		
Dunham	8/25/11 10:22	Kozlow	8/25/11 10:22

PACE Project No. 4050049
Receipt Temp = R01 °C
Sample Receipt pH OK / Adjusted NA
Cooler Custody Seal Present / Not Present Intact / Not Intact

C019a(27Jun2006)
Version 6.0 08/14/06

ORIGINAL

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September 02, 2011

Robyn Seymour
Seymour Environmental Services, INC.
2531 Dyreson Road
Mc Farland, WI 53558

RE: Project: BREARNY
Pace Project No.: 4050051

Dear Robyn Seymour:
Enclosed are the analytical results for sample(s) received by the laboratory on August 25, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alee Her

alee.her@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
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CERTIFICATIONS

Project: BREARNY
Pace Project No.: 4050051

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888
North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

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SAMPLE SUMMARY

Project: BREARNY
Pace Project No.: 4050051

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4050051001	**PIT 2, #1**	Solid	08/18/11 00:00	08/25/11 10:22
4050051002	**PIT 2, #2**	Solid	08/18/11 00:00	08/25/11 10:22
4050051003	**PIT 2, #5**	Solid	08/18/11 00:00	08/25/11 10:22
4050051004	**PIT 2, #6**	Solid	08/18/11 00:00	08/25/11 10:22
4050051005	**PIT 2, #7**	Solid	08/18/11 00:00	08/25/11 10:22
4050051006	**PIT 2, #8**	Solid	08/18/11 00:00	08/25/11 10:22
4050051007	**PIT 2, #9**	Solid	08/18/11 00:00	08/25/11 10:22

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SAMPLE ANALYTE COUNT

Project: BREARNY
Pace Project No.: 4050051

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4050051001	PIT 2, #1	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050051002	PIT 2, #2	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050051003	PIT 2, #5	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050051004	PIT 2, #6	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050051005	PIT 2, #7	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050051006	PIT 2, #8	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1
4050051007	PIT 2, #9	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	LCM	1

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ANALYTICAL RESULTS

Project: BREARNY
Pace Project No.: 4050051

Sample: PIT 2, #1 **Lab ID: 4050051001** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**10700**	ug/kg	2830	1180	40	08/26/11 12:00	08/26/11 14:01	71-43-2	
Ethylbenzene	**56000**	ug/kg	2830	1180	40	08/26/11 12:00	08/26/11 14:01	100-41-4	
Methyl-tert-butyl ether	**1790J**	ug/kg	2830	1180	40	08/26/11 12:00	08/26/11 14:01	1634-04-4	
Toluene	**3930**	ug/kg	2830	1180	40	08/26/11 12:00	08/26/11 14:01	108-88-3	
1,2,4-Trimethylbenzene	**103000**	ug/kg	2830	1180	40	08/26/11 12:00	08/26/11 14:01	95-63-6	
1,3,5-Trimethylbenzene	**7700**	ug/kg	2830	1180	40	08/26/11 12:00	08/26/11 14:01	108-67-8	
m&p-Xylene	**63800**	ug/kg	5660	2360	40	08/26/11 12:00	08/26/11 14:01	179601-23-1	
o-Xylene	**4940**	ug/kg	2830	1180	40	08/26/11 12:00	08/26/11 14:01	95-47-6	
a,a,a-Trifluorotoluene (S)	136	%.	80-120		40	08/26/11 12:00	08/26/11 14:01	98-08-8	D3,S7
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**909**	ug/kg	393	55.2	20	08/26/11 12:00	08/29/11 11:57	83-32-9	
Acenaphthylene	**249J**	ug/kg	393	62.6	20	08/26/11 12:00	08/29/11 11:57	208-96-8	
Anthracene	**339J**	ug/kg	393	91.4	20	08/26/11 12:00	08/29/11 11:57	120-12-7	
Benzo(a)anthracene	**<55.8**	ug/kg	393	55.8	20	08/26/11 12:00	08/29/11 11:57	56-55-3	
Benzo(a)pyrene	**<64.3**	ug/kg	393	64.3	20	08/26/11 12:00	08/29/11 11:57	50-32-8	
Benzo(b)fluoranthene	**<67.9**	ug/kg	393	67.9	20	08/26/11 12:00	08/29/11 11:57	205-99-2	
Benzo(g,h,i)perylene	**<51.9**	ug/kg	393	51.9	20	08/26/11 12:00	08/29/11 11:57	191-24-2	
Benzo(k)fluoranthene	**<72.9**	ug/kg	393	72.9	20	08/26/11 12:00	08/29/11 11:57	207-08-9	
Chrysene	**<71.2**	ug/kg	393	71.2	20	08/26/11 12:00	08/29/11 11:57	218-01-9	
Dibenz(a,h)anthracene	**<107**	ug/kg	393	107	20	08/26/11 12:00	08/29/11 11:57	53-70-3	
Fluoranthene	**<196**	ug/kg	393	196	20	08/26/11 12:00	08/29/11 11:57	206-44-0	
Fluorene	**971**	ug/kg	393	97.7	20	08/26/11 12:00	08/29/11 11:57	86-73-7	
Indeno(1,2,3-cd)pyrene	**<55.8**	ug/kg	393	55.8	20	08/26/11 12:00	08/29/11 11:57	193-39-5	
1-Methylnaphthalene	**11100**	ug/kg	393	60.0	20	08/26/11 12:00	08/29/11 11:57	90-12-0	
2-Methylnaphthalene	**17200**	ug/kg	393	60.0	20	08/26/11 12:00	08/29/11 11:57	91-57-6	
Naphthalene	**8280**	ug/kg	393	68.7	20	08/26/11 12:00	08/29/11 11:57	91-20-3	L2
Phenanthrene	**2760**	ug/kg	393	86.4	20	08/26/11 12:00	08/29/11 11:57	85-01-8	
Pyrene	**142J**	ug/kg	393	71.9	20	08/26/11 12:00	08/29/11 11:57	129-00-0	
2-Fluorobiphenyl (S)	69	%.	38-130		20	08/26/11 12:00	08/29/11 11:57	321-60-8	
Terphenyl-d14 (S)	58	%.	36-130		20	08/26/11 12:00	08/29/11 11:57	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.1**	%	0.10	0.10	1		09/02/11 07:54		

Sample: PIT 2, #2 **Lab ID: 4050051002** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<625**	ug/kg	1500	625	25	08/26/11 12:00	08/26/11 14:27	71-43-2	W
Ethylbenzene	**36700**	ug/kg	1900	792	25	08/26/11 12:00	08/26/11 14:27	100-41-4	

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ANALYTICAL RESULTS

Project: BREARNY
Pace Project No.: 4050051

Sample: PIT 2, #2 **Lab ID: 4050051002** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Methyl-tert-butyl ether	**<625**	ug/kg	1500	625	25	08/26/11 12:00	08/26/11 14:27	1634-04-4	W
Toluene	**846J**	ug/kg	1900	792	25	08/26/11 12:00	08/26/11 14:27	108-88-3	
1,2,4-Trimethylbenzene	**79500**	ug/kg	1900	792	25	08/26/11 12:00	08/26/11 14:27	95-63-6	
1,3,5-Trimethylbenzene	**<625**	ug/kg	1500	625	25	08/26/11 12:00	08/26/11 14:27	108-67-8	W
m&p-Xylene	**38000**	ug/kg	3800	1580	25	08/26/11 12:00	08/26/11 14:27	179601-23-1	
o-Xylene	**3300**	ug/kg	1900	792	25	08/26/11 12:00	08/26/11 14:27	95-47-6	
a,a,a-Trifluorotoluene (S)	137	%.	80-120		25	08/26/11 12:00	08/26/11 14:27	98-08-8	D3,S7
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**301**	ug/kg	264	37.1	12.5	08/26/11 12:00	08/29/11 12:15	83-32-9	
Acenaphthylene	**101J**	ug/kg	264	42.0	12.5	08/26/11 12:00	08/29/11 12:15	208-96-8	
Anthracene	**118J**	ug/kg	264	61.4	12.5	08/26/11 12:00	08/29/11 12:15	120-12-7	
Benzo(a)anthracene	**<37.5**	ug/kg	264	37.5	12.5	08/26/11 12:00	08/29/11 12:15	56-55-3	
Benzo(a)pyrene	**<43.2**	ug/kg	264	43.2	12.5	08/26/11 12:00	08/29/11 12:15	50-32-8	
Benzo(b)fluoranthene	**<45.6**	ug/kg	264	45.6	12.5	08/26/11 12:00	08/29/11 12:15	205-99-2	
Benzo(g,h,i)perylene	**<34.8**	ug/kg	264	34.8	12.5	08/26/11 12:00	08/29/11 12:15	191-24-2	
Benzo(k)fluoranthene	**<49.0**	ug/kg	264	49.0	12.5	08/26/11 12:00	08/29/11 12:15	207-08-9	
Chrysene	**<47.9**	ug/kg	264	47.9	12.5	08/26/11 12:00	08/29/11 12:15	218-01-9	
Dibenz(a,h)anthracene	**<71.8**	ug/kg	264	71.8	12.5	08/26/11 12:00	08/29/11 12:15	53-70-3	
Fluoranthene	**<132**	ug/kg	264	132	12.5	08/26/11 12:00	08/29/11 12:15	206-44-0	
Fluorene	**375**	ug/kg	264	65.6	12.5	08/26/11 12:00	08/29/11 12:15	86-73-7	
Indeno(1,2,3-cd)pyrene	**<37.5**	ug/kg	264	37.5	12.5	08/26/11 12:00	08/29/11 12:15	193-39-5	
1-Methylnaphthalene	**4330**	ug/kg	264	40.3	12.5	08/26/11 12:00	08/29/11 12:15	90-12-0	
2-Methylnaphthalene	**5820**	ug/kg	264	40.3	12.5	08/26/11 12:00	08/29/11 12:15	91-57-6	
Naphthalene	**2790**	ug/kg	264	46.2	12.5	08/26/11 12:00	08/29/11 12:15	91-20-3	L2
Phenanthrene	**1050**	ug/kg	264	58.0	12.5	08/26/11 12:00	08/29/11 12:15	85-01-8	
Pyrene	**<48.3**	ug/kg	264	48.3	12.5	08/26/11 12:00	08/29/11 12:15	129-00-0	
2-Fluorobiphenyl (S)	52	%.	38-130		12.5	08/26/11 12:00	08/29/11 12:15	321-60-8	
Terphenyl-d14 (S)	46	%.	36-130		12.5	08/26/11 12:00	08/29/11 12:15	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.0**	%	0.10	0.10	1		09/02/11 07:54		

Sample: PIT 2, #5 **Lab ID: 4050051003** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**717**	ug/kg	282	117	4	08/26/11 12:00	08/26/11 14:52	71-43-2	
Ethylbenzene	**4280**	ug/kg	282	117	4	08/26/11 12:00	08/26/11 14:52	100-41-4	
Methyl-tert-butyl ether	**163J**	ug/kg	282	117	4	08/26/11 12:00	08/26/11 14:52	1634-04-4	
Toluene	**322**	ug/kg	282	117	4	08/26/11 12:00	08/26/11 14:52	108-88-3	

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ANALYTICAL RESULTS

Project: BREARNY
Pace Project No.: 4050051

Sample: PIT 2, #5 **Lab ID: 4050051003** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
1,2,4-Trimethylbenzene	**9390**	ug/kg	282	117	4	08/26/11 12:00	08/26/11 14:52	95-63-6	
1,3,5-Trimethylbenzene	**1200**	ug/kg	282	117	4	08/26/11 12:00	08/26/11 14:52	108-67-8	
m&p-Xylene	**5600**	ug/kg	563	235	4	08/26/11 12:00	08/26/11 14:52	179601-23-1	
o-Xylene	**480**	ug/kg	282	117	4	08/26/11 12:00	08/26/11 14:52	95-47-6	
a,a,a-Trifluorotoluene (S)	135	%.	80-120		4	08/26/11 12:00	08/26/11 14:52	98-08-8	D3,S7
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**122J**	ug/kg	122	17.2	6.25	08/26/11 12:00	08/29/11 12:32	83-32-9	
Acenaphthylene	**35.0J**	ug/kg	122	19.5	6.25	08/26/11 12:00	08/29/11 12:32	208-96-8	
Anthracene	**50.8J**	ug/kg	122	28.4	6.25	08/26/11 12:00	08/29/11 12:32	120-12-7	
Benzo(a)anthracene	**<17.4**	ug/kg	122	17.4	6.25	08/26/11 12:00	08/29/11 12:32	56-55-3	
Benzo(a)pyrene	**<20.0**	ug/kg	122	20.0	6.25	08/26/11 12:00	08/29/11 12:32	50-32-8	
Benzo(b)fluoranthene	**<21.1**	ug/kg	122	21.1	6.25	08/26/11 12:00	08/29/11 12:32	205-99-2	
Benzo(g,h,i)perylene	**<16.1**	ug/kg	122	16.1	6.25	08/26/11 12:00	08/29/11 12:32	191-24-2	
Benzo(k)fluoranthene	**<22.7**	ug/kg	122	22.7	6.25	08/26/11 12:00	08/29/11 12:32	207-08-9	
Chrysene	**<22.2**	ug/kg	122	22.2	6.25	08/26/11 12:00	08/29/11 12:32	218-01-9	
Dibenz(a,h)anthracene	**<33.3**	ug/kg	122	33.3	6.25	08/26/11 12:00	08/29/11 12:32	53-70-3	
Fluoranthene	**<61.1**	ug/kg	122	61.1	6.25	08/26/11 12:00	08/29/11 12:32	206-44-0	
Fluorene	**150**	ug/kg	122	30.4	6.25	08/26/11 12:00	08/29/11 12:32	86-73-7	
Indeno(1,2,3-cd)pyrene	**<17.4**	ug/kg	122	17.4	6.25	08/26/11 12:00	08/29/11 12:32	193-39-5	
1-Methylnaphthalene	**1550**	ug/kg	122	18.7	6.25	08/26/11 12:00	08/29/11 12:32	90-12-0	
2-Methylnaphthalene	**2160**	ug/kg	122	18.7	6.25	08/26/11 12:00	08/29/11 12:32	91-57-6	
Naphthalene	**1000**	ug/kg	122	21.4	6.25	08/26/11 12:00	08/29/11 12:32	91-20-3	L2
Phenanthrene	**456**	ug/kg	122	26.9	6.25	08/26/11 12:00	08/29/11 12:32	85-01-8	
Pyrene	**22.8J**	ug/kg	122	22.4	6.25	08/26/11 12:00	08/29/11 12:32	129-00-0	
2-Fluorobiphenyl (S)	60	%.	38-130		6.25	08/26/11 12:00	08/29/11 12:32	321-60-8	
Terphenyl-d14 (S)	58	%.	36-130		6.25	08/26/11 12:00	08/29/11 12:32	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.8**	%	0.10	0.10	1		09/02/11 07:54		

Sample: PIT 2, #6 **Lab ID: 4050051004** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**307J**	ug/kg	358	149	5	08/26/11 12:00	08/26/11 15:18	71-43-2	
Ethylbenzene	**5620**	ug/kg	358	149	5	08/26/11 12:00	08/26/11 15:18	100-41-4	
Methyl-tert-butyl ether	**186J**	ug/kg	358	149	5	08/26/11 12:00	08/26/11 15:18	1634-04-4	
Toluene	**208J**	ug/kg	358	149	5	08/26/11 12:00	08/26/11 15:18	108-88-3	
1,2,4-Trimethylbenzene	**16200**	ug/kg	358	149	5	08/26/11 12:00	08/26/11 15:18	95-63-6	
1,3,5-Trimethylbenzene	**<125**	ug/kg	300	125	5	08/26/11 12:00	08/26/11 15:18	108-67-8	W

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ANALYTICAL RESULTS

Project: BREARNY
Pace Project No.: 4050051

Sample: PIT 2, #6 **Lab ID: 4050051004** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
m&p-Xylene	**<250**	ug/kg	600	250	5	08/26/11 12:00	08/26/11 15:18	179601-23-1	W
o-Xylene	**853**	ug/kg	358	149	5	08/26/11 12:00	08/26/11 15:18	95-47-6	
a,a,a-Trifluorotoluene (S)	144	%.	80-120		5	08/26/11 12:00	08/26/11 15:18	98-08-8	D3,S7
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**65.2J**	ug/kg	66.3	9.3	3.33	08/26/11 12:00	08/29/11 12:49	83-32-9	
Acenaphthylene	**18.9J**	ug/kg	66.3	10.6	3.33	08/26/11 12:00	08/29/11 12:49	208-96-8	
Anthracene	**24.8J**	ug/kg	66.3	15.4	3.33	08/26/11 12:00	08/29/11 12:49	120-12-7	
Benzo(a)anthracene	**<9.4**	ug/kg	66.3	9.4	3.33	08/26/11 12:00	08/29/11 12:49	56-55-3	
Benzo(a)pyrene	**<10.8**	ug/kg	66.3	10.8	3.33	08/26/11 12:00	08/29/11 12:49	50-32-8	
Benzo(b)fluoranthene	**<11.5**	ug/kg	66.3	11.5	3.33	08/26/11 12:00	08/29/11 12:49	205-99-2	
Benzo(g,h,i)perylene	**<8.8**	ug/kg	66.3	8.8	3.33	08/26/11 12:00	08/29/11 12:49	191-24-2	
Benzo(k)fluoranthene	**<12.3**	ug/kg	66.3	12.3	3.33	08/26/11 12:00	08/29/11 12:49	207-08-9	
Chrysene	**<12.0**	ug/kg	66.3	12.0	3.33	08/26/11 12:00	08/29/11 12:49	218-01-9	
Dibenz(a,h)anthracene	**<18.0**	ug/kg	66.3	18.0	3.33	08/26/11 12:00	08/29/11 12:49	53-70-3	
Fluoranthene	**<33.1**	ug/kg	66.3	33.1	3.33	08/26/11 12:00	08/29/11 12:49	206-44-0	
Fluorene	**82.5**	ug/kg	66.3	16.5	3.33	08/26/11 12:00	08/29/11 12:49	86-73-7	
Indeno(1,2,3-cd)pyrene	**<9.4**	ug/kg	66.3	9.4	3.33	08/26/11 12:00	08/29/11 12:49	193-39-5	
1-Methylnaphthalene	**869**	ug/kg	66.3	10.1	3.33	08/26/11 12:00	08/29/11 12:49	90-12-0	
2-Methylnaphthalene	**1150**	ug/kg	66.3	10.1	3.33	08/26/11 12:00	08/29/11 12:49	91-57-6	
Naphthalene	**553**	ug/kg	66.3	11.6	3.33	08/26/11 12:00	08/29/11 12:49	91-20-3	L2
Phenanthrene	**270**	ug/kg	66.3	14.6	3.33	08/26/11 12:00	08/29/11 12:49	85-01-8	
Pyrene	**12.8J**	ug/kg	66.3	12.1	3.33	08/26/11 12:00	08/29/11 12:49	129-00-0	
2-Fluorobiphenyl (S)	63	%.	38-130		3.33	08/26/11 12:00	08/29/11 12:49	321-60-8	
Terphenyl-d14 (S)	62	%.	36-130		3.33	08/26/11 12:00	08/29/11 12:49	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.3**	%	0.10	0.10	1		09/02/11 07:54		

Sample: PIT 2, #7 **Lab ID: 4050051005** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 16:35	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 16:35	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 16:35	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 16:35	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 16:35	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 16:35	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	08/26/11 12:00	08/26/11 16:35	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 16:35	95-47-6	W

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ANALYTICAL RESULTS

Project: BREARNY
Pace Project No.: 4050051

Sample: PIT 2, #7 **Lab ID: 4050051005** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1	08/26/11 12:00	08/26/11 16:35	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<2.7**	ug/kg	19.0	2.7	1	08/26/11 12:00	08/26/11 16:21	83-32-9	
Acenaphthylene	**6.7J**	ug/kg	19.0	3.0	1	08/26/11 12:00	08/26/11 16:21	208-96-8	
Anthracene	**16.7J**	ug/kg	19.0	4.4	1	08/26/11 12:00	08/26/11 16:21	120-12-7	
Benzo(a)anthracene	**3.9J**	ug/kg	19.0	2.7	1	08/26/11 12:00	08/26/11 16:21	56-55-3	
Benzo(a)pyrene	**<3.1**	ug/kg	19.0	3.1	1	08/26/11 12:00	08/26/11 16:21	50-32-8	
Benzo(b)fluoranthene	**17.7J**	ug/kg	19.0	3.3	1	08/26/11 12:00	08/26/11 16:21	205-99-2	
Benzo(g,h,i)perylene	**24.0**	ug/kg	19.0	2.5	1	08/26/11 12:00	08/26/11 16:21	191-24-2	
Benzo(k)fluoranthene	**11.1J**	ug/kg	19.0	3.5	1	08/26/11 12:00	08/26/11 16:21	207-08-9	
Chrysene	**15.1J**	ug/kg	19.0	3.5	1	08/26/11 12:00	08/26/11 16:21	218-01-9	
Dibenz(a,h)anthracene	**<5.2**	ug/kg	19.0	5.2	1	08/26/11 12:00	08/26/11 16:21	53-70-3	
Fluoranthene	**11.4J**	ug/kg	19.0	9.5	1	08/26/11 12:00	08/26/11 16:21	206-44-0	
Fluorene	**<4.7**	ug/kg	19.0	4.7	1	08/26/11 12:00	08/26/11 16:21	86-73-7	
Indeno(1,2,3-cd)pyrene	**16.0J**	ug/kg	19.0	2.7	1	08/26/11 12:00	08/26/11 16:21	193-39-5	
1-Methylnaphthalene	**34.4**	ug/kg	19.0	2.9	1	08/26/11 12:00	08/26/11 16:21	90-12-0	
2-Methylnaphthalene	**85.6**	ug/kg	19.0	2.9	1	08/26/11 12:00	08/26/11 16:21	91-57-6	
Naphthalene	**63.5**	ug/kg	19.0	3.3	1	08/26/11 12:00	08/26/11 16:21	91-20-3	L2
Phenanthrene	**105**	ug/kg	19.0	4.2	1	08/26/11 12:00	08/26/11 16:21	85-01-8	M1
Pyrene	**9.6J**	ug/kg	19.0	3.5	1	08/26/11 12:00	08/26/11 16:21	129-00-0	
2-Fluorobiphenyl (S)	60	%.	38-130		1	08/26/11 12:00	08/26/11 16:21	321-60-8	
Terphenyl-d14 (S)	63	%.	36-130		1	08/26/11 12:00	08/26/11 16:21	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.5**	%	0.10	0.10	1		09/02/11 07:55		

Sample: PIT 2, #8 **Lab ID: 4050051006** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 17:00	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 17:00	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 17:00	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 17:00	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 17:00	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 17:00	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	08/26/11 12:00	08/26/11 17:00	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	08/26/11 12:00	08/26/11 17:00	95-47-6	W
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1	08/26/11 12:00	08/26/11 17:00	98-08-8	

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ANALYTICAL RESULTS

Project: BREARNY
Pace Project No.: 4050051

Sample: PIT 2, #8 **Lab ID: 4050051006** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**21.7**	ug/kg	19.3	2.7	1	08/26/11 12:00	08/26/11 19:29	83-32-9	
Acenaphthylene	**<3.1**	ug/kg	19.3	3.1	1	08/26/11 12:00	08/26/11 19:29	208-96-8	
Anthracene	**5.0J**	ug/kg	19.3	4.5	1	08/26/11 12:00	08/26/11 19:29	120-12-7	
Benzo(a)anthracene	**<2.7**	ug/kg	19.3	2.7	1	08/26/11 12:00	08/26/11 19:29	56-55-3	
Benzo(a)pyrene	**<3.2**	ug/kg	19.3	3.2	1	08/26/11 12:00	08/26/11 19:29	50-32-8	
Benzo(b)fluoranthene	**<3.3**	ug/kg	19.3	3.3	1	08/26/11 12:00	08/26/11 19:29	205-99-2	
Benzo(g,h,i)perylene	**<2.6**	ug/kg	19.3	2.6	1	08/26/11 12:00	08/26/11 19:29	191-24-2	
Benzo(k)fluoranthene	**<3.6**	ug/kg	19.3	3.6	1	08/26/11 12:00	08/26/11 19:29	207-08-9	
Chrysene	**<3.5**	ug/kg	19.3	3.5	1	08/26/11 12:00	08/26/11 19:29	218-01-9	
Dibenz(a,h)anthracene	**<5.3**	ug/kg	19.3	5.3	1	08/26/11 12:00	08/26/11 19:29	53-70-3	
Fluoranthene	**<9.7**	ug/kg	19.3	9.7	1	08/26/11 12:00	08/26/11 19:29	206-44-0	
Fluorene	**27.0**	ug/kg	19.3	4.8	1	08/26/11 12:00	08/26/11 19:29	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.7**	ug/kg	19.3	2.7	1	08/26/11 12:00	08/26/11 19:29	193-39-5	
1-Methylnaphthalene	**79.2**	ug/kg	19.3	3.0	1	08/26/11 12:00	08/26/11 19:29	90-12-0	
2-Methylnaphthalene	**3.5J**	ug/kg	19.3	3.0	1	08/26/11 12:00	08/26/11 19:29	91-57-6	
Naphthalene	**5.6J**	ug/kg	19.3	3.4	1	08/26/11 12:00	08/26/11 19:29	91-20-3	L2
Phenanthrene	**52.9**	ug/kg	19.3	4.2	1	08/26/11 12:00	08/26/11 19:29	85-01-8	
Pyrene	**<3.5**	ug/kg	19.3	3.5	1	08/26/11 12:00	08/26/11 19:29	129-00-0	
2-Fluorobiphenyl (S)	67	%.	38-130		1	08/26/11 12:00	08/26/11 19:29	321-60-8	
Terphenyl-d14 (S)	76	%.	36-130		1	08/26/11 12:00	08/26/11 19:29	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.8**	%	0.10	0.10	1		09/02/11 07:55		

Sample: PIT 2, #9 **Lab ID: 4050051007** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<625**	ug/kg	1500	625	25	08/26/11 12:00	08/26/11 10:11	71-43-2	W
Ethylbenzene	**4750**	ug/kg	1700	706	25	08/26/11 12:00	08/26/11 10:11	100-41-4	
Methyl-tert-butyl ether	**<625**	ug/kg	1500	625	25	08/26/11 12:00	08/26/11 10:11	1634-04-4	W
Toluene	**<625**	ug/kg	1500	625	25	08/26/11 12:00	08/26/11 10:11	108-88-3	W
1,2,4-Trimethylbenzene	**55700**	ug/kg	1700	706	25	08/26/11 12:00	08/26/11 10:11	95-63-6	
1,3,5-Trimethylbenzene	**22900**	ug/kg	1700	706	25	08/26/11 12:00	08/26/11 10:11	108-67-8	
m&p-Xylene	**9160**	ug/kg	3390	1410	25	08/26/11 12:00	08/26/11 10:11	179601-23-1	
o-Xylene	**1460J**	ug/kg	1700	706	25	08/26/11 12:00	08/26/11 10:11	95-47-6	
a,a,a-Trifluorotoluene (S)	108	%.	80-120		25	08/26/11 12:00	08/26/11 10:11	98-08-8	D3
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**1580**	ug/kg	627	88.2	33.3	08/26/11 12:00	08/30/11 14:47	83-32-9	
Acenaphthylene	**380J**	ug/kg	627	99.9	33.3	08/26/11 12:00	08/30/11 14:47	208-96-8	

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ANALYTICAL RESULTS

Project: BREARNY
Pace Project No.: 4050051

Sample: PIT 2, #9 **Lab ID: 4050051007** Collected: 08/18/11 00:00 Received: 08/25/11 10:22 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Anthracene	**698**	ug/kg	627	146	33.3	08/26/11 12:00	08/30/11 14:47	120-12-7	
Benzo(a)anthracene	**<89.1**	ug/kg	627	89.1	33.3	08/26/11 12:00	08/30/11 14:47	56-55-3	
Benzo(a)pyrene	**<103**	ug/kg	627	103	33.3	08/26/11 12:00	08/30/11 14:47	50-32-8	
Benzo(b)fluoranthene	**<108**	ug/kg	627	108	33.3	08/26/11 12:00	08/30/11 14:47	205-99-2	
Benzo(g,h,i)perylene	**<82.8**	ug/kg	627	82.8	33.3	08/26/11 12:00	08/30/11 14:47	191-24-2	
Benzo(k)fluoranthene	**<116**	ug/kg	627	116	33.3	08/26/11 12:00	08/30/11 14:47	207-08-9	
Chrysene	**<114**	ug/kg	627	114	33.3	08/26/11 12:00	08/30/11 14:47	218-01-9	
Dibenz(a,h)anthracene	**<171**	ug/kg	627	171	33.3	08/26/11 12:00	08/30/11 14:47	53-70-3	
Fluoranthene	**<314**	ug/kg	627	314	33.3	08/26/11 12:00	08/30/11 14:47	206-44-0	
Fluorene	**1820**	ug/kg	627	156	33.3	08/26/11 12:00	08/30/11 14:47	86-73-7	
Indeno(1,2,3-cd)pyrene	**<89.1**	ug/kg	627	89.1	33.3	08/26/11 12:00	08/30/11 14:47	193-39-5	
1-Methylnaphthalene	**14200**	ug/kg	627	95.7	33.3	08/26/11 12:00	08/30/11 14:47	90-12-0	
2-Methylnaphthalene	**<95.7**	ug/kg	627	95.7	33.3	08/26/11 12:00	08/30/11 14:47	91-57-6	
Naphthalene	**5120**	ug/kg	627	110	33.3	08/26/11 12:00	08/30/11 14:47	91-20-3	L2
Phenanthrene	**5700**	ug/kg	627	138	33.3	08/26/11 12:00	08/30/11 14:47	85-01-8	
Pyrene	**323J**	ug/kg	627	115	33.3	08/26/11 12:00	08/30/11 14:47	129-00-0	
2-Fluorobiphenyl (S)	69	%.	38-130		33.3	08/26/11 12:00	08/30/11 14:47	321-60-8	
Terphenyl-d14 (S)	55	%.	36-130		33.3	08/26/11 12:00	08/30/11 14:47	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.5**	%	0.10	0.10	1		09/02/11 07:55		

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QUALITY CONTROL DATA

Project: BREARNY
Pace Project No.: 4050051

QC Batch: GCV/7121 Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 4050051001, 4050051002, 4050051003, 4050051004, 4050051005, 4050051006, 4050051007

METHOD BLANK: 495113 Matrix: Solid
Associated Lab Samples: 4050051001, 4050051002, 4050051003, 4050051004, 4050051005, 4050051006, 4050051007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	08/26/11 08:52	
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	08/26/11 08:52	
Benzene	ug/kg	<25.0	60.0	08/26/11 08:52	
Ethylbenzene	ug/kg	<25.0	60.0	08/26/11 08:52	
m&p-Xylene	ug/kg	<50.0	120	08/26/11 08:52	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	08/26/11 08:52	
o-Xylene	ug/kg	<25.0	60.0	08/26/11 08:52	
Toluene	ug/kg	<25.0	60.0	08/26/11 08:52	
a,a,a-Trifluorotoluene (S)	%.	103	80-120	08/26/11 08:52	

LABORATORY CONTROL SAMPLE & LCSD: 495114 495115

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	1160	1200	116	120	80-120	3	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1130	1160	113	116	80-120	3	20	
Benzene	ug/kg	1000	1170	1190	117	119	80-120	2	20	
Ethylbenzene	ug/kg	1000	1130	1160	113	116	80-120	2	20	
m&p-Xylene	ug/kg	2000	2280	2340	114	117	80-120	2	20	
Methyl-tert-butyl ether	ug/kg	1000	1130	1160	113	116	80-120	3	20	
o-Xylene	ug/kg	1000	1130	1160	113	116	80-120	2	20	
Toluene	ug/kg	1000	1150	1170	115	117	80-120	2	20	
a,a,a-Trifluorotoluene (S)	%.				102	102	80-120			

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QUALITY CONTROL DATA

Project: BREARNY
Pace Project No.: 4050051

QC Batch: OEXT/12377 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 4050051001, 4050051002, 4050051003, 4050051004, 4050051005, 4050051006, 4050051007

METHOD BLANK: 495135 Matrix: Solid
Associated Lab Samples: 4050051001, 4050051002, 4050051003, 4050051004, 4050051005, 4050051006, 4050051007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.5	16.7	08/26/11 15:47	
2-Methylnaphthalene	ug/kg	<2.5	16.7	08/26/11 15:47	
Acenaphthene	ug/kg	<2.3	16.7	08/26/11 15:47	
Acenaphthylene	ug/kg	<2.7	16.7	08/26/11 15:47	
Anthracene	ug/kg	<3.9	16.7	08/26/11 15:47	
Benzo(a)anthracene	ug/kg	<2.4	16.7	08/26/11 15:47	
Benzo(a)pyrene	ug/kg	<2.7	16.7	08/26/11 15:47	
Benzo(b)fluoranthene	ug/kg	<2.9	16.7	08/26/11 15:47	
Benzo(g,h,i)perylene	ug/kg	<2.2	16.7	08/26/11 15:47	
Benzo(k)fluoranthene	ug/kg	<3.1	16.7	08/26/11 15:47	
Chrysene	ug/kg	<3.0	16.7	08/26/11 15:47	
Dibenz(a,h)anthracene	ug/kg	<4.5	16.7	08/26/11 15:47	
Fluoranthene	ug/kg	<8.3	16.7	08/26/11 15:47	
Fluorene	ug/kg	<4.1	16.7	08/26/11 15:47	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.4	16.7	08/26/11 15:47	
Naphthalene	ug/kg	<2.9	16.7	08/26/11 15:47	
Phenanthrene	ug/kg	<3.7	16.7	08/26/11 15:47	
Pyrene	ug/kg	<3.1	16.7	08/26/11 15:47	
2-Fluorobiphenyl (S)	%.	68	38-130	08/26/11 15:47	
Terphenyl-d14 (S)	%.	74	36-130	08/26/11 15:47	

LABORATORY CONTROL SAMPLE: 495136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	216	65	56-130	
2-Methylnaphthalene	ug/kg	333	214	64	57-130	
Acenaphthene	ug/kg	333	212	63	62-130	
Acenaphthylene	ug/kg	333	217	65	62-130	
Anthracene	ug/kg	333	251	75	62-130	
Benzo(a)anthracene	ug/kg	333	237	71	60-130	
Benzo(a)pyrene	ug/kg	333	252	76	62-130	
Benzo(b)fluoranthene	ug/kg	333	234	70	61-130	
Benzo(g,h,i)perylene	ug/kg	333	264	79	52-130	
Benzo(k)fluoranthene	ug/kg	333	267	80	61-130	
Chrysene	ug/kg	333	237	71	54-130	
Dibenz(a,h)anthracene	ug/kg	333	255	76	55-130	
Fluoranthene	ug/kg	333	246	74	65-130	
Fluorene	ug/kg	333	224	67	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	258	77	55-130	
Naphthalene	ug/kg	333	190	57	59-130	L0
Phenanthrene	ug/kg	333	238	71	62-130	

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QUALITY CONTROL DATA

Project: BREARNY
Pace Project No.: 4050051

LABORATORY CONTROL SAMPLE: 495136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pyrene	ug/kg	333	236	71	58-130	
2-Fluorobiphenyl (S)	%.			64	38-130	
Terphenyl-d14 (S)	%.			75	36-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 495137 495138

Parameter	Units	4050051005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	34.4	380	380	265	273	61	63	44-130	3	22	
2-Methylnaphthalene	ug/kg	85.6	380	380	282	302	52	57	43-130	7	20	
Acenaphthene	ug/kg	<2.7	380	380	244	236	64	62	47-130	3	20	
Acenaphthylene	ug/kg	6.7J	380	380	241	243	62	62	51-130	.6	20	
Anthracene	ug/kg	16.7J	380	380	273	270	67	67	45-130	1	22	
Benzo(a)anthracene	ug/kg	3.9J	380	380	249	253	64	65	44-130	2	27	
Benzo(a)pyrene	ug/kg	<3.1	380	380	259	256	67	67	49-130	1	27	
Benzo(b)fluoranthene	ug/kg	17.7J	380	380	251	282	61	69	41-130	12	32	
Benzo(g,h,i)perylene	ug/kg	24.0	380	380	279	283	67	68	39-130	1	28	
Benzo(k)fluoranthene	ug/kg	11.1J	380	380	274	265	69	67	41-130	3	26	
Chrysene	ug/kg	15.1J	380	380	251	273	62	68	45-130	8	28	
Dibenz(a,h)anthracene	ug/kg	<5.2	380	380	263	263	68	68	39-130	.3	25	
Fluoranthene	ug/kg	11.4J	380	380	254	261	64	65	47-130	3	25	
Fluorene	ug/kg	<4.7	380	380	248	246	65	64	46-130	.9	20	
Indeno(1,2,3-cd)pyrene	ug/kg	16.0J	380	380	270	273	67	68	39-130	1	28	
Naphthalene	ug/kg	63.5	380	380	256	267	51	53	43-130	4	22	
Phenanthrene	ug/kg	105	380	380	270	294	43	50	47-130	8	20	M1
Pyrene	ug/kg	9.6J	380	380	257	265	65	67	42-130	3	25	
2-Fluorobiphenyl (S)	%.						63	63	38-130			
Terphenyl-d14 (S)	%.						66	64	36-130			

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QUALITY CONTROL DATA

Project: BREARNY
Pace Project No.: 4050051

QC Batch: PMST/5992 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 4050051001, 4050051002, 4050051003, 4050051004, 4050051005, 4050051006, 4050051007

SAMPLE DUPLICATE: 497908

Parameter	Units	4050277001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.1	6.0	1	10	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: BREARNY
Pace Project No.: 4050051

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S7	Surrogate recovery outside control limits (not confirmed by re-analysis).
W	Non-detect results are reported on a wet weight basis.

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

JBF

4050051

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Seymour
Branch/Location:	
Project Contact:	Robyn Seymour
Phone:	608 838 9120
Project Number:	
Project Name:	Brearly
Project State:	Wisconsin
Sampled By (Print):	
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Robyn Seymour
Mail To Company:	Seymour Env
Mail To Address:	2531 Ayreson
Invoice To Contact:	Robyn Seymour
Invoice To Company:	Seymour Env
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: RVOC	PAH	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	Pit 2, #1	8/18	AM				X	X		1-4oz EG, 1-40ml F	
002	Pit 2, #2		AM				X	X		8/25 BF	
	~~Pit 2, #3~~										
	~~Pit 2, #4~~										
003	Pit 2, #5		AM				X	X			
004	Pit 2 #6		PM				X	X			
005	" 7		PM				X	X			
006	" 8		PM				X	X			
007	" 9		PM								
	"										

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Runham	8/25/11 10:22	[signature]	8/25/11 10:22
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4050051

Receipt Temp = R01 °C

Sample Receipt pH OK / Adjusted NA

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

November 22, 2011

Robyn Seymour
Seymour Environmental Services, INC.
2531 Dyreson Road
Mc Farland, WI 53558

RE: Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Dear Robyn Seymour:
Enclosed are the analytical results for sample(s) received by the laboratory on November 15, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alee Her

Alee Her

alee.her@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888
North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

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SAMPLE SUMMARY

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4053624001	MW-10	Water	11/10/11 12:50	11/15/11 10:09
4053624002	MW-7	Water	11/10/11 14:50	11/15/11 10:09
4053624003	MW-2	Water	11/10/11 13:10	11/15/11 10:09
4053624004	MW-15	Water	11/10/11 13:20	11/15/11 10:09
4053624005	MW-13	Water	11/10/11 13:35	11/15/11 10:09
4053624006	MW-12	Water	11/10/11 14:00	11/15/11 10:09
4053624007	MW-14	Water	11/10/11 13:45	11/15/11 10:09
4053624008	MW-11	Water	11/10/11 14:25	11/15/11 10:09
4053624009	MW-3	Water	11/10/11 14:40	11/15/11 10:09
4053624010	MW-17	Water	11/10/11 15:40	11/15/11 10:09
4053624011	MW-16R	Water	11/10/11 15:50	11/15/11 10:09
4053624012	SUMP-1	Water	11/11/11 10:00	11/15/11 10:09
4053624013	SUMP-3	Water	11/11/11 10:10	11/15/11 10:09
4053624014	SUMP-4	Water	11/11/11 10:20	11/15/11 10:09
4053624015	SUMP-2	Water	11/11/11 10:30	11/15/11 10:09

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SAMPLE ANALYTE COUNT

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4053624001	MW-10	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624002	MW-7	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624003	MW-2	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624004	MW-15	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624005	MW-13	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624006	MW-12	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624007	MW-14	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624008	MW-11	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624009	MW-3	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624010	MW-17	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624011	MW-16R	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624012	SUMP-1	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624013	SUMP-3	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624014	SUMP-4	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
4053624015	SUMP-2	WI MOD GRO	SES	9	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G

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PROJECT NARRATIVE

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Method: **WI MOD GRO**
Description: WIGRO GCV
Client: SEYMOUR ENVIRONMENTAL SERVICES, INC.
Date: November 22, 2011

General Information:
15 samples were analyzed for WI MOD GRO. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: GCV/7611

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: GCV/7625

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 4053732004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 536386)
  - Toluene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
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PROJECT NARRATIVE

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Method: **EPA 8270 by SIM**
Description: 8270 MSSV PAH by SIM
Client: SEYMOUR ENVIRONMENTAL SERVICES, INC.
Date: November 22, 2011

General Information:
15 samples were analyzed for EPA 8270 by SIM. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/13229

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- MW-12 (Lab ID: 4053624006)
  - 2-Fluorobiphenyl (S)
  - Terphenyl-d14 (S)
- MW-14 (Lab ID: 4053624007)
  - 2-Fluorobiphenyl (S)
  - Terphenyl-d14 (S)
- MW-15 (Lab ID: 4053624004)
  - 2-Fluorobiphenyl (S)
  - Terphenyl-d14 (S)
- MW-16R (Lab ID: 4053624011)
  - 2-Fluorobiphenyl (S)
  - Terphenyl-d14 (S)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Pace Analytical Services, Inc.
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PROJECT NARRATIVE

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Method: **EPA 8270 by SIM**
Description: 8270 MSSV PAH by SIM
Client: SEYMOUR ENVIRONMENTAL SERVICES, INC.
Date: November 22, 2011

QC Batch: OEXT/13229

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 4053617014

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 535128)
  - Naphthalene

QC Batch: MSSV/4081

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-10 **Lab ID: 4053624001** Collected: 11/10/11 12:50 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/16/11 13:53	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/16/11 13:53	100-41-4	
Methyl-tert-butyl ether	**<0.38**	ug/L	1.0	0.38	1		11/16/11 13:53	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/16/11 13:53	108-88-3	
1,2,4-Trimethylbenzene	**<0.43**	ug/L	1.0	0.43	1		11/16/11 13:53	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/16/11 13:53	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/16/11 13:53	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/16/11 13:53	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%.	80-120		1		11/16/11 13:53	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**0.037J**	ug/L	0.099	0.0095	2	11/17/11 12:00	11/17/11 18:31	83-32-9	
Acenaphthylene	**0.092J**	ug/L	0.099	0.0076	2	11/17/11 12:00	11/17/11 18:31	208-96-8	
Anthracene	**0.12**	ug/L	0.099	0.012	2	11/17/11 12:00	11/17/11 18:31	120-12-7	
Benzo(a)anthracene	**0.20**	ug/L	0.099	0.0076	2	11/17/11 12:00	11/17/11 18:31	56-55-3	
Benzo(a)pyrene	**0.34**	ug/L	0.099	0.0060	2	11/17/11 12:00	11/17/11 18:31	50-32-8	
Benzo(b)fluoranthene	**0.28**	ug/L	0.099	0.0071	2	11/17/11 12:00	11/17/11 18:31	205-99-2	
Benzo(g,h,i)perylene	**0.35**	ug/L	0.099	0.010	2	11/17/11 12:00	11/17/11 18:31	191-24-2	
Benzo(k)fluoranthene	**0.39**	ug/L	0.099	0.0092	2	11/17/11 12:00	11/17/11 18:31	207-08-9	
Chrysene	**0.38**	ug/L	0.099	0.0073	2	11/17/11 12:00	11/17/11 18:31	218-01-9	
Dibenz(a,h)anthracene	**0.073J**	ug/L	0.099	0.0067	2	11/17/11 12:00	11/17/11 18:31	53-70-3	
Fluoranthene	**0.51**	ug/L	0.099	0.0092	2	11/17/11 12:00	11/17/11 18:31	206-44-0	
Fluorene	**0.028J**	ug/L	0.099	0.010	2	11/17/11 12:00	11/17/11 18:31	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.25**	ug/L	0.099	0.0098	2	11/17/11 12:00	11/17/11 18:31	193-39-5	
1-Methylnaphthalene	**0.40**	ug/L	0.099	0.010	2	11/17/11 12:00	11/17/11 18:31	90-12-0	
2-Methylnaphthalene	**0.20**	ug/L	0.099	0.0081	2	11/17/11 12:00	11/17/11 18:31	91-57-6	
Naphthalene	**0.88**	ug/L	0.099	0.010	2	11/17/11 12:00	11/17/11 18:31	91-20-3	B
Phenanthrene	**0.16**	ug/L	0.099	0.017	2	11/17/11 12:00	11/17/11 18:31	85-01-8	
Pyrene	**0.45**	ug/L	0.099	0.010	2	11/17/11 12:00	11/17/11 18:31	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	52	%.	27-130		2	11/17/11 12:00	11/17/11 18:31	321-60-8	
Terphenyl-d14 (S)	82	%.	66-140		2	11/17/11 12:00	11/17/11 18:31	1718-51-0	

Sample: MW-7 **Lab ID: 4053624002** Collected: 11/10/11 14:50 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/16/11 15:08	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/16/11 15:08	100-41-4	
Methyl-tert-butyl ether	**<0.38**	ug/L	1.0	0.38	1		11/16/11 15:08	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/16/11 15:08	108-88-3	
1,2,4-Trimethylbenzene	**<0.43**	ug/L	1.0	0.43	1		11/16/11 15:08	95-63-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-7 **Lab ID: 4053624002** Collected: 11/10/11 14:50 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/16/11 15:08	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/16/11 15:08	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/16/11 15:08	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1		11/16/11 15:08	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**<0.0046**	ug/L	0.048	0.0046	1	11/17/11 12:00	11/17/11 15:35	83-32-9	
Acenaphthylene	**<0.0036**	ug/L	0.048	0.0036	1	11/17/11 12:00	11/17/11 15:35	208-96-8	
Anthracene	**0.032J**	ug/L	0.048	0.0058	1	11/17/11 12:00	11/17/11 15:35	120-12-7	
Benzo(a)anthracene	**<0.0037**	ug/L	0.048	0.0037	1	11/17/11 12:00	11/17/11 15:35	56-55-3	
Benzo(a)pyrene	**<0.0029**	ug/L	0.048	0.0029	1	11/17/11 12:00	11/17/11 15:35	50-32-8	
Benzo(b)fluoranthene	**<0.0034**	ug/L	0.048	0.0034	1	11/17/11 12:00	11/17/11 15:35	205-99-2	
Benzo(g,h,i)perylene	**<0.0049**	ug/L	0.048	0.0049	1	11/17/11 12:00	11/17/11 15:35	191-24-2	
Benzo(k)fluoranthene	**<0.0044**	ug/L	0.048	0.0044	1	11/17/11 12:00	11/17/11 15:35	207-08-9	
Chrysene	**<0.0035**	ug/L	0.048	0.0035	1	11/17/11 12:00	11/17/11 15:35	218-01-9	
Dibenz(a,h)anthracene	**<0.0032**	ug/L	0.048	0.0032	1	11/17/11 12:00	11/17/11 15:35	53-70-3	
Fluoranthene	**0.0045J**	ug/L	0.048	0.0044	1	11/17/11 12:00	11/17/11 15:35	206-44-0	
Fluorene	**<0.0048**	ug/L	0.048	0.0048	1	11/17/11 12:00	11/17/11 15:35	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0047**	ug/L	0.048	0.0047	1	11/17/11 12:00	11/17/11 15:35	193-39-5	
1-Methylnaphthalene	**0.013J**	ug/L	0.048	0.0050	1	11/17/11 12:00	11/17/11 15:35	90-12-0	
2-Methylnaphthalene	**0.021J**	ug/L	0.048	0.0039	1	11/17/11 12:00	11/17/11 15:35	91-57-6	B
Naphthalene	**0.081**	ug/L	0.048	0.0049	1	11/17/11 12:00	11/17/11 15:35	91-20-3	B
Phenanthrene	**0.0086J**	ug/L	0.048	0.0082	1	11/17/11 12:00	11/17/11 15:35	85-01-8	
Pyrene	**<0.0048**	ug/L	0.048	0.0048	1	11/17/11 12:00	11/17/11 15:35	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	50	%.	27-130		1	11/17/11 12:00	11/17/11 15:35	321-60-8	
Terphenyl-d14 (S)	94	%.	66-140		1	11/17/11 12:00	11/17/11 15:35	1718-51-0	

Sample: MW-2 **Lab ID: 4053624003** Collected: 11/10/11 13:10 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/16/11 15:33	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/16/11 15:33	100-41-4	
Methyl-tert-butyl ether	**<0.38**	ug/L	1.0	0.38	1		11/16/11 15:33	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/16/11 15:33	108-88-3	
1,2,4-Trimethylbenzene	**<0.43**	ug/L	1.0	0.43	1		11/16/11 15:33	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/16/11 15:33	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/16/11 15:33	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/16/11 15:33	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	110	%.	80-120		1		11/16/11 15:33	98-08-8	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-2 **Lab ID: 4053624003** Collected: 11/10/11 13:10 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**0.051**	ug/L	0.047	0.0045	1	11/17/11 12:00	11/17/11 15:53	83-32-9	
Acenaphthylene	**0.016J**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 15:53	208-96-8	
Anthracene	**0.13**	ug/L	0.047	0.0057	1	11/17/11 12:00	11/17/11 15:53	120-12-7	
Benzo(a)anthracene	**<0.0036**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 15:53	56-55-3	
Benzo(a)pyrene	**<0.0029**	ug/L	0.047	0.0029	1	11/17/11 12:00	11/17/11 15:53	50-32-8	
Benzo(b)fluoranthene	**<0.0034**	ug/L	0.047	0.0034	1	11/17/11 12:00	11/17/11 15:53	205-99-2	
Benzo(g,h,i)perylene	**0.0050J**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 15:53	191-24-2	
Benzo(k)fluoranthene	**<0.0044**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 15:53	207-08-9	
Chrysene	**0.0051J**	ug/L	0.047	0.0035	1	11/17/11 12:00	11/17/11 15:53	218-01-9	
Dibenz(a,h)anthracene	**<0.0032**	ug/L	0.047	0.0032	1	11/17/11 12:00	11/17/11 15:53	53-70-3	
Fluoranthene	**0.016J**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 15:53	206-44-0	
Fluorene	**0.19**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 15:53	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0047**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 15:53	193-39-5	
1-Methylnaphthalene	**0.018J**	ug/L	0.047	0.0050	1	11/17/11 12:00	11/17/11 15:53	90-12-0	
2-Methylnaphthalene	**0.031J**	ug/L	0.047	0.0039	1	11/17/11 12:00	11/17/11 15:53	91-57-6	B
Naphthalene	**0.042J**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 15:53	91-20-3	B
Phenanthrene	**0.035J**	ug/L	0.047	0.0081	1	11/17/11 12:00	11/17/11 15:53	85-01-8	
Pyrene	**0.039J**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 15:53	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	75	%.	27-130		1	11/17/11 12:00	11/17/11 15:53	321-60-8	
Terphenyl-d14 (S)	77	%.	66-140		1	11/17/11 12:00	11/17/11 15:53	1718-51-0	

Sample: MW-15 **Lab ID: 4053624004** Collected: 11/10/11 13:20 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**4.3**	ug/L	1.0	0.39	1		11/16/11 18:28	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/16/11 18:28	100-41-4	
Methyl-tert-butyl ether	**0.66J**	ug/L	1.0	0.38	1		11/16/11 18:28	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/16/11 18:28	108-88-3	
1,2,4-Trimethylbenzene	**1.1**	ug/L	1.0	0.43	1		11/16/11 18:28	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/16/11 18:28	108-67-8	
m&p-Xylene	**1.1J**	ug/L	2.0	0.87	1		11/16/11 18:28	179601-23-1	
o-Xylene	**0.57J**	ug/L	1.0	0.38	1		11/16/11 18:28	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1		11/16/11 18:28	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**9.0**	ug/L	0.94	0.091	20	11/17/11 12:00	11/17/11 14:26	83-32-9	
Acenaphthylene	**2.0**	ug/L	0.94	0.072	20	11/17/11 12:00	11/17/11 14:26	208-96-8	
Anthracene	**2.8**	ug/L	0.94	0.11	20	11/17/11 12:00	11/17/11 14:26	120-12-7	
Benzo(a)anthracene	**0.16J**	ug/L	0.94	0.072	20	11/17/11 12:00	11/17/11 14:26	56-55-3	
Benzo(a)pyrene	**0.15J**	ug/L	0.94	0.057	20	11/17/11 12:00	11/17/11 14:26	50-32-8	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-15 **Lab ID: 4053624004** Collected: 11/10/11 13:20 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Benzo(b)fluoranthene	**0.12J**	ug/L	0.94	0.068	20	11/17/11 12:00	11/17/11 14:26	205-99-2	
Benzo(g,h,i)perylene	**0.15J**	ug/L	0.94	0.096	20	11/17/11 12:00	11/17/11 14:26	191-24-2	
Benzo(k)fluoranthene	**0.19J**	ug/L	0.94	0.087	20	11/17/11 12:00	11/17/11 14:26	207-08-9	
Chrysene	**0.25J**	ug/L	0.94	0.070	20	11/17/11 12:00	11/17/11 14:26	218-01-9	
Dibenz(a,h)anthracene	**<0.064**	ug/L	0.94	0.064	20	11/17/11 12:00	11/17/11 14:26	53-70-3	
Fluoranthene	**0.72J**	ug/L	0.94	0.088	20	11/17/11 12:00	11/17/11 14:26	206-44-0	
Fluorene	**8.7**	ug/L	0.94	0.095	20	11/17/11 12:00	11/17/11 14:26	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.094**	ug/L	0.94	0.094	20	11/17/11 12:00	11/17/11 14:26	193-39-5	
1-Methylnaphthalene	**5.7**	ug/L	0.94	0.10	20	11/17/11 12:00	11/17/11 14:26	90-12-0	
2-Methylnaphthalene	**0.77J**	ug/L	0.94	0.077	20	11/17/11 12:00	11/17/11 14:26	91-57-6	
Naphthalene	**5.7**	ug/L	0.94	0.097	20	11/17/11 12:00	11/17/11 14:26	91-20-3	
Phenanthrene	**0.93J**	ug/L	0.94	0.16	20	11/17/11 12:00	11/17/11 14:26	85-01-8	
Pyrene	**1.5**	ug/L	0.94	0.095	20	11/17/11 12:00	11/17/11 14:26	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	0	%.	27-130		20	11/17/11 12:00	11/17/11 14:26	321-60-8	S4
Terphenyl-d14 (S)	0	%.	66-140		20	11/17/11 12:00	11/17/11 14:26	1718-51-0	S4

Sample: MW-13 **Lab ID: 4053624005** Collected: 11/10/11 13:35 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/16/11 18:53	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/16/11 18:53	100-41-4	
Methyl-tert-butyl ether	**0.55J**	ug/L	1.0	0.38	1		11/16/11 18:53	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/16/11 18:53	108-88-3	
1,2,4-Trimethylbenzene	**2.5**	ug/L	1.0	0.43	1		11/16/11 18:53	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/16/11 18:53	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/16/11 18:53	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/16/11 18:53	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	105	%.	80-120		1		11/16/11 18:53	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**3.1**	ug/L	0.47	0.045	10	11/17/11 12:00	11/18/11 08:55	83-32-9	
Acenaphthylene	**1.0**	ug/L	0.47	0.036	10	11/17/11 12:00	11/18/11 08:55	208-96-8	
Anthracene	**3.4**	ug/L	0.47	0.057	10	11/17/11 12:00	11/18/11 08:55	120-12-7	
Benzo(a)anthracene	**0.30J**	ug/L	0.47	0.036	10	11/17/11 12:00	11/18/11 08:55	56-55-3	
Benzo(a)pyrene	**0.21J**	ug/L	0.47	0.029	10	11/17/11 12:00	11/18/11 08:55	50-32-8	
Benzo(b)fluoranthene	**0.22J**	ug/L	0.47	0.034	10	11/17/11 12:00	11/18/11 08:55	205-99-2	
Benzo(g,h,i)perylene	**0.14J**	ug/L	0.47	0.048	10	11/17/11 12:00	11/18/11 08:55	191-24-2	
Benzo(k)fluoranthene	**0.18J**	ug/L	0.47	0.044	10	11/17/11 12:00	11/18/11 08:55	207-08-9	
Chrysene	**0.35J**	ug/L	0.47	0.035	10	11/17/11 12:00	11/18/11 08:55	218-01-9	
Dibenz(a,h)anthracene	**0.042J**	ug/L	0.47	0.032	10	11/17/11 12:00	11/18/11 08:55	53-70-3	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-13 **Lab ID: 4053624005** Collected: 11/10/11 13:35 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Fluoranthene	**1.2**	ug/L	0.47	0.044	10	11/17/11 12:00	11/18/11 08:55	206-44-0	
Fluorene	**4.8**	ug/L	0.47	0.048	10	11/17/11 12:00	11/18/11 08:55	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.11J**	ug/L	0.47	0.047	10	11/17/11 12:00	11/18/11 08:55	193-39-5	
1-Methylnaphthalene	**1.1**	ug/L	0.47	0.050	10	11/17/11 12:00	11/18/11 08:55	90-12-0	
2-Methylnaphthalene	**0.37J**	ug/L	0.47	0.039	10	11/17/11 12:00	11/18/11 08:55	91-57-6	
Naphthalene	**1.1**	ug/L	0.47	0.048	10	11/17/11 12:00	11/18/11 08:55	91-20-3	
Phenanthrene	**0.42J**	ug/L	0.47	0.081	10	11/17/11 12:00	11/18/11 08:55	85-01-8	
Pyrene	**2.4**	ug/L	0.47	0.047	10	11/17/11 12:00	11/18/11 08:55	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	82	%.	27-130		10	11/17/11 12:00	11/18/11 08:55	321-60-8	
Terphenyl-d14 (S)	129	%.	66-140		10	11/17/11 12:00	11/18/11 08:55	1718-51-0	

Sample: MW-12 **Lab ID: 4053624006** Collected: 11/10/11 14:00 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**11.7**	ug/L	1.0	0.39	1		11/17/11 13:35	71-43-2	
Ethylbenzene	**0.71J**	ug/L	1.0	0.41	1		11/17/11 13:35	100-41-4	
Methyl-tert-butyl ether	**2.2**	ug/L	1.0	0.38	1		11/17/11 13:35	1634-04-4	
Toluene	**0.67J**	ug/L	1.0	0.42	1		11/17/11 13:35	108-88-3	
1,2,4-Trimethylbenzene	**1.9**	ug/L	1.0	0.43	1		11/17/11 13:35	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/17/11 13:35	108-67-8	
m&p-Xylene	**1.4J**	ug/L	2.0	0.87	1		11/17/11 13:35	179601-23-1	
o-Xylene	**0.77J**	ug/L	1.0	0.38	1		11/17/11 13:35	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%.	80-120		1		11/17/11 13:35	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**52.4**	ug/L	4.7	0.45	100	11/17/11 12:00	11/17/11 15:01	83-32-9	
Acenaphthylene	**17.9**	ug/L	4.7	0.36	100	11/17/11 12:00	11/17/11 15:01	208-96-8	
Anthracene	**35.7**	ug/L	4.7	0.57	100	11/17/11 12:00	11/17/11 15:01	120-12-7	
Benzo(a)anthracene	**3.7J**	ug/L	4.7	0.36	100	11/17/11 12:00	11/17/11 15:01	56-55-3	
Benzo(a)pyrene	**3.1J**	ug/L	4.7	0.29	100	11/17/11 12:00	11/17/11 15:01	50-32-8	
Benzo(b)fluoranthene	**2.0J**	ug/L	4.7	0.34	100	11/17/11 12:00	11/17/11 15:01	205-99-2	
Benzo(g,h,i)perylene	**2.0J**	ug/L	4.7	0.48	100	11/17/11 12:00	11/17/11 15:01	191-24-2	
Benzo(k)fluoranthene	**3.5J**	ug/L	4.7	0.44	100	11/17/11 12:00	11/17/11 15:01	207-08-9	
Chrysene	**5.3**	ug/L	4.7	0.35	100	11/17/11 12:00	11/17/11 15:01	218-01-9	
Dibenz(a,h)anthracene	**<0.32**	ug/L	4.7	0.32	100	11/17/11 12:00	11/17/11 15:01	53-70-3	
Fluoranthene	**16.4**	ug/L	4.7	0.44	100	11/17/11 12:00	11/17/11 15:01	206-44-0	
Fluorene	**80.2**	ug/L	4.7	0.48	100	11/17/11 12:00	11/17/11 15:01	86-73-7	
Indeno(1,2,3-cd)pyrene	**1.6J**	ug/L	4.7	0.47	100	11/17/11 12:00	11/17/11 15:01	193-39-5	
1-Methylnaphthalene	**104**	ug/L	9.4	1.0	200	11/17/11 12:00	11/18/11 02:41	90-12-0	
2-Methylnaphthalene	**2.0J**	ug/L	4.7	0.39	100	11/17/11 12:00	11/17/11 15:01	91-57-6	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-12 **Lab ID: 4053624006** Collected: 11/10/11 14:00 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Naphthalene	**24.7**	ug/L	4.7	0.48	100	11/17/11 12:00	11/17/11 15:01	91-20-3	
Phenanthrene	**10.4**	ug/L	4.7	0.81	100	11/17/11 12:00	11/17/11 15:01	85-01-8	
Pyrene	**24.5**	ug/L	4.7	0.47	100	11/17/11 12:00	11/17/11 15:01	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	0	%.	27-130		100	11/17/11 12:00	11/17/11 15:01	321-60-8	S4
Terphenyl-d14 (S)	0	%.	66-140		100	11/17/11 12:00	11/17/11 15:01	1718-51-0	S4

Sample: MW-14 **Lab ID: 4053624007** Collected: 11/10/11 13:45 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**3.3**	ug/L	1.0	0.39	1		11/16/11 19:18	71-43-2	
Ethylbenzene	**1.4**	ug/L	1.0	0.41	1		11/16/11 19:18	100-41-4	
Methyl-tert-butyl ether	**0.99J**	ug/L	1.0	0.38	1		11/16/11 19:18	1634-04-4	
Toluene	**0.73J**	ug/L	1.0	0.42	1		11/16/11 19:18	108-88-3	
1,2,4-Trimethylbenzene	**1.7**	ug/L	1.0	0.43	1		11/16/11 19:18	95-63-6	
1,3,5-Trimethylbenzene	**0.82J**	ug/L	1.0	0.40	1		11/16/11 19:18	108-67-8	
m&p-Xylene	**1.3J**	ug/L	2.0	0.87	1		11/16/11 19:18	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/16/11 19:18	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	110	%.	80-120		1		11/16/11 19:18	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**19.5**	ug/L	2.4	0.23	50	11/17/11 12:00	11/18/11 18:33	83-32-9	
Acenaphthylene	**3.6**	ug/L	0.47	0.036	10	11/17/11 12:00	11/18/11 09:12	208-96-8	
Anthracene	**11.4**	ug/L	2.4	0.29	50	11/17/11 12:00	11/18/11 18:33	120-12-7	
Benzo(a)anthracene	**1.3**	ug/L	0.47	0.036	10	11/17/11 12:00	11/18/11 09:12	56-55-3	
Benzo(a)pyrene	**0.72**	ug/L	0.47	0.029	10	11/17/11 12:00	11/18/11 09:12	50-32-8	
Benzo(b)fluoranthene	**0.72**	ug/L	0.47	0.034	10	11/17/11 12:00	11/18/11 09:12	205-99-2	
Benzo(g,h,i)perylene	**0.41J**	ug/L	0.47	0.048	10	11/17/11 12:00	11/18/11 09:12	191-24-2	
Benzo(k)fluoranthene	**0.56**	ug/L	0.47	0.044	10	11/17/11 12:00	11/18/11 09:12	207-08-9	
Chrysene	**1.3**	ug/L	0.47	0.035	10	11/17/11 12:00	11/18/11 09:12	218-01-9	
Dibenz(a,h)anthracene	**0.12J**	ug/L	0.47	0.032	10	11/17/11 12:00	11/18/11 09:12	53-70-3	
Fluoranthene	**5.3**	ug/L	0.47	0.044	10	11/17/11 12:00	11/18/11 09:12	206-44-0	
Fluorene	**26.7**	ug/L	2.4	0.24	50	11/17/11 12:00	11/18/11 18:33	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.37J**	ug/L	0.47	0.047	10	11/17/11 12:00	11/18/11 09:12	193-39-5	
1-Methylnaphthalene	**9.0**	ug/L	0.47	0.050	10	11/17/11 12:00	11/18/11 09:12	90-12-0	
2-Methylnaphthalene	**0.94**	ug/L	0.47	0.039	10	11/17/11 12:00	11/18/11 09:12	91-57-6	
Naphthalene	**3.7**	ug/L	0.47	0.048	10	11/17/11 12:00	11/18/11 09:12	91-20-3	
Phenanthrene	**9.2**	ug/L	2.4	0.40	50	11/17/11 12:00	11/18/11 18:33	85-01-8	
Pyrene	**8.2**	ug/L	0.47	0.047	10	11/17/11 12:00	11/18/11 09:12	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	0	%.	27-130		10	11/17/11 12:00	11/18/11 09:12	321-60-8	S4

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-14 **Lab ID: 4053624007** Collected: 11/10/11 13:45 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Surrogates									
Terphenyl-d14 (S)	0	%.	66-140		10	11/17/11 12:00	11/18/11 09:12	1718-51-0	S4

Sample: MW-11 **Lab ID: 4053624008** Collected: 11/10/11 14:25 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/16/11 15:59	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/16/11 15:59	100-41-4	
Methyl-tert-butyl ether	**<0.38**	ug/L	1.0	0.38	1		11/16/11 15:59	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/16/11 15:59	108-88-3	
1,2,4-Trimethylbenzene	**<0.43**	ug/L	1.0	0.43	1		11/16/11 15:59	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/16/11 15:59	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/16/11 15:59	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/16/11 15:59	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1		11/16/11 15:59	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**0.020J**	ug/L	0.047	0.0045	1	11/17/11 12:00	11/17/11 16:46	83-32-9	
Acenaphthylene	**0.0045J**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 16:46	208-96-8	
Anthracene	**0.045J**	ug/L	0.047	0.0057	1	11/17/11 12:00	11/17/11 16:46	120-12-7	
Benzo(a)anthracene	**0.0044J**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 16:46	56-55-3	
Benzo(a)pyrene	**0.0043J**	ug/L	0.047	0.0029	1	11/17/11 12:00	11/17/11 16:46	50-32-8	
Benzo(b)fluoranthene	**0.0050J**	ug/L	0.047	0.0034	1	11/17/11 12:00	11/17/11 16:46	205-99-2	
Benzo(g,h,i)perylene	**0.0076J**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 16:46	191-24-2	
Benzo(k)fluoranthene	**<0.0044**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 16:46	207-08-9	
Chrysene	**0.0095J**	ug/L	0.047	0.0035	1	11/17/11 12:00	11/17/11 16:46	218-01-9	
Dibenz(a,h)anthracene	**<0.0032**	ug/L	0.047	0.0032	1	11/17/11 12:00	11/17/11 16:46	53-70-3	
Fluoranthene	**0.013J**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 16:46	206-44-0	
Fluorene	**0.0082J**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 16:46	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.0048J**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 16:46	193-39-5	
1-Methylnaphthalene	**0.017J**	ug/L	0.047	0.0050	1	11/17/11 12:00	11/17/11 16:46	90-12-0	
2-Methylnaphthalene	**0.022J**	ug/L	0.047	0.0039	1	11/17/11 12:00	11/17/11 16:46	91-57-6	B
Naphthalene	**0.030J**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 16:46	91-20-3	B
Phenanthrene	**0.021J**	ug/L	0.047	0.0081	1	11/17/11 12:00	11/17/11 16:46	85-01-8	
Pyrene	**0.017J**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 16:46	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	52	%.	27-130		1	11/17/11 12:00	11/17/11 16:46	321-60-8	
Terphenyl-d14 (S)	101	%.	66-140		1	11/17/11 12:00	11/17/11 16:46	1718-51-0	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-3 **Lab ID: 4053624009** Collected: 11/10/11 14:40 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/16/11 16:23	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/16/11 16:23	100-41-4	
Methyl-tert-butyl ether	**<0.38**	ug/L	1.0	0.38	1		11/16/11 16:23	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/16/11 16:23	108-88-3	
1,2,4-Trimethylbenzene	**<0.43**	ug/L	1.0	0.43	1		11/16/11 16:23	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/16/11 16:23	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/16/11 16:23	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/16/11 16:23	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%.	80-120		1		11/16/11 16:23	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**<0.0046**	ug/L	0.048	0.0046	1	11/17/11 12:00	11/17/11 17:03	83-32-9	
Acenaphthylene	**0.0087J**	ug/L	0.048	0.0036	1	11/17/11 12:00	11/17/11 17:03	208-96-8	
Anthracene	**0.029J**	ug/L	0.048	0.0058	1	11/17/11 12:00	11/17/11 17:03	120-12-7	
Benzo(a)anthracene	**0.027J**	ug/L	0.048	0.0037	1	11/17/11 12:00	11/17/11 17:03	56-55-3	
Benzo(a)pyrene	**0.032J**	ug/L	0.048	0.0029	1	11/17/11 12:00	11/17/11 17:03	50-32-8	
Benzo(b)fluoranthene	**0.018J**	ug/L	0.048	0.0034	1	11/17/11 12:00	11/17/11 17:03	205-99-2	
Benzo(g,h,i)perylene	**0.023J**	ug/L	0.048	0.0049	1	11/17/11 12:00	11/17/11 17:03	191-24-2	
Benzo(k)fluoranthene	**0.027J**	ug/L	0.048	0.0044	1	11/17/11 12:00	11/17/11 17:03	207-08-9	
Chrysene	**0.040J**	ug/L	0.048	0.0035	1	11/17/11 12:00	11/17/11 17:03	218-01-9	
Dibenz(a,h)anthracene	**0.0054J**	ug/L	0.048	0.0032	1	11/17/11 12:00	11/17/11 17:03	53-70-3	
Fluoranthene	**0.060**	ug/L	0.048	0.0044	1	11/17/11 12:00	11/17/11 17:03	206-44-0	
Fluorene	**<0.0048**	ug/L	0.048	0.0048	1	11/17/11 12:00	11/17/11 17:03	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.016J**	ug/L	0.048	0.0047	1	11/17/11 12:00	11/17/11 17:03	193-39-5	
1-Methylnaphthalene	**<0.0050**	ug/L	0.048	0.0050	1	11/17/11 12:00	11/17/11 17:03	90-12-0	
2-Methylnaphthalene	**0.0046J**	ug/L	0.048	0.0039	1	11/17/11 12:00	11/17/11 17:03	91-57-6	B
Naphthalene	**0.011J**	ug/L	0.048	0.0049	1	11/17/11 12:00	11/17/11 17:03	91-20-3	B
Phenanthrene	**0.044J**	ug/L	0.048	0.0082	1	11/17/11 12:00	11/17/11 17:03	85-01-8	
Pyrene	**0.075**	ug/L	0.048	0.0048	1	11/17/11 12:00	11/17/11 17:03	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	67	%.	27-130		1	11/17/11 12:00	11/17/11 17:03	321-60-8	
Terphenyl-d14 (S)	85	%.	66-140		1	11/17/11 12:00	11/17/11 17:03	1718-51-0	

Sample: MW-17 **Lab ID: 4053624010** Collected: 11/10/11 15:40 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/16/11 16:49	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/16/11 16:49	100-41-4	
Methyl-tert-butyl ether	**4.1**	ug/L	1.0	0.38	1		11/16/11 16:49	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/16/11 16:49	108-88-3	
1,2,4-Trimethylbenzene	**0.47J**	ug/L	1.0	0.43	1		11/16/11 16:49	95-63-6	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-17 **Lab ID: 4053624010** Collected: 11/10/11 15:40 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/16/11 16:49	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/16/11 16:49	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/16/11 16:49	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%.	80-120		1		11/16/11 16:49	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**1.4**	ug/L	0.095	0.0091	2	11/17/11 12:00	11/18/11 09:30	83-32-9	
Acenaphthylene	**0.064**	ug/L	0.048	0.0036	1	11/17/11 12:00	11/17/11 17:21	208-96-8	
Anthracene	**0.12**	ug/L	0.048	0.0058	1	11/17/11 12:00	11/17/11 17:21	120-12-7	
Benzo(a)anthracene	**0.021J**	ug/L	0.048	0.0037	1	11/17/11 12:00	11/17/11 17:21	56-55-3	
Benzo(a)pyrene	**0.018J**	ug/L	0.048	0.0029	1	11/17/11 12:00	11/17/11 17:21	50-32-8	
Benzo(b)fluoranthene	**0.020J**	ug/L	0.048	0.0034	1	11/17/11 12:00	11/17/11 17:21	205-99-2	
Benzo(g,h,i)perylene	**0.019J**	ug/L	0.048	0.0049	1	11/17/11 12:00	11/17/11 17:21	191-24-2	
Benzo(k)fluoranthene	**0.016J**	ug/L	0.048	0.0044	1	11/17/11 12:00	11/17/11 17:21	207-08-9	
Chrysene	**0.030J**	ug/L	0.048	0.0035	1	11/17/11 12:00	11/17/11 17:21	218-01-9	
Dibenz(a,h)anthracene	**0.0037J**	ug/L	0.048	0.0032	1	11/17/11 12:00	11/17/11 17:21	53-70-3	
Fluoranthene	**0.064**	ug/L	0.048	0.0044	1	11/17/11 12:00	11/17/11 17:21	206-44-0	
Fluorene	**0.74**	ug/L	0.048	0.0048	1	11/17/11 12:00	11/17/11 17:21	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.012J**	ug/L	0.048	0.0047	1	11/17/11 12:00	11/17/11 17:21	193-39-5	
1-Methylnaphthalene	**0.37**	ug/L	0.048	0.0050	1	11/17/11 12:00	11/17/11 17:21	90-12-0	
2-Methylnaphthalene	**0.35**	ug/L	0.048	0.0039	1	11/17/11 12:00	11/17/11 17:21	91-57-6	
Naphthalene	**0.77**	ug/L	0.048	0.0049	1	11/17/11 12:00	11/17/11 17:21	91-20-3	
Phenanthrene	**0.049**	ug/L	0.048	0.0082	1	11/17/11 12:00	11/17/11 17:21	85-01-8	
Pyrene	**0.15**	ug/L	0.048	0.0048	1	11/17/11 12:00	11/17/11 17:21	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	53	%.	27-130		1	11/17/11 12:00	11/17/11 17:21	321-60-8	
Terphenyl-d14 (S)	102	%.	66-140		1	11/17/11 12:00	11/17/11 17:21	1718-51-0	

Sample: MW-16R **Lab ID: 4053624011** Collected: 11/10/11 15:50 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**2.3**	ug/L	1.0	0.39	1		11/16/11 17:13	71-43-2	
Ethylbenzene	**0.44J**	ug/L	1.0	0.41	1		11/16/11 17:13	100-41-4	
Methyl-tert-butyl ether	**1.5**	ug/L	1.0	0.38	1		11/16/11 17:13	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/16/11 17:13	108-88-3	
1,2,4-Trimethylbenzene	**3.9**	ug/L	1.0	0.43	1		11/16/11 17:13	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/16/11 17:13	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/16/11 17:13	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/16/11 17:13	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%.	80-120		1		11/16/11 17:13	98-08-8	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: MW-16R **Lab ID: 4053624011** Collected: 11/10/11 15:50 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**1.8**	ug/L	1.1	0.11	20	11/17/11 12:00	11/17/11 14:43	83-32-9	
Acenaphthylene	**0.30J**	ug/L	1.1	0.085	20	11/17/11 12:00	11/17/11 14:43	208-96-8	
Anthracene	**0.34J**	ug/L	1.1	0.14	20	11/17/11 12:00	11/17/11 14:43	120-12-7	
Benzo(a)anthracene	**0.090J**	ug/L	1.1	0.085	20	11/17/11 12:00	11/17/11 14:43	56-55-3	
Benzo(a)pyrene	**0.071J**	ug/L	1.1	0.067	20	11/17/11 12:00	11/17/11 14:43	50-32-8	
Benzo(b)fluoranthene	**<0.080**	ug/L	1.1	0.080	20	11/17/11 12:00	11/17/11 14:43	205-99-2	
Benzo(g,h,i)perylene	**<0.11**	ug/L	1.1	0.11	20	11/17/11 12:00	11/17/11 14:43	191-24-2	
Benzo(k)fluoranthene	**0.13J**	ug/L	1.1	0.10	20	11/17/11 12:00	11/17/11 14:43	207-08-9	
Chrysene	**0.19J**	ug/L	1.1	0.082	20	11/17/11 12:00	11/17/11 14:43	218-01-9	
Dibenz(a,h)anthracene	**<0.075**	ug/L	1.1	0.075	20	11/17/11 12:00	11/17/11 14:43	53-70-3	
Fluoranthene	**0.43J**	ug/L	1.1	0.10	20	11/17/11 12:00	11/17/11 14:43	206-44-0	
Fluorene	**2.3**	ug/L	1.1	0.11	20	11/17/11 12:00	11/17/11 14:43	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.11**	ug/L	1.1	0.11	20	11/17/11 12:00	11/17/11 14:43	193-39-5	
1-Methylnaphthalene	**13.1**	ug/L	1.1	0.12	20	11/17/11 12:00	11/17/11 14:43	90-12-0	
2-Methylnaphthalene	**0.76J**	ug/L	1.1	0.091	20	11/17/11 12:00	11/17/11 14:43	91-57-6	
Naphthalene	**1.1J**	ug/L	1.1	0.11	20	11/17/11 12:00	11/17/11 14:43	91-20-3	
Phenanthrene	**0.85J**	ug/L	1.1	0.19	20	11/17/11 12:00	11/17/11 14:43	85-01-8	
Pyrene	**0.45J**	ug/L	1.1	0.11	20	11/17/11 12:00	11/17/11 14:43	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	0	%.	27-130		20	11/17/11 12:00	11/17/11 14:43	321-60-8	S4
Terphenyl-d14 (S)	0	%.	66-140		20	11/17/11 12:00	11/17/11 14:43	1718-51-0	S4

Sample: SUMP-1 **Lab ID: 4053624012** Collected: 11/11/11 10:00 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/19/11 00:09	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/19/11 00:09	100-41-4	
Methyl-tert-butyl ether	**0.44J**	ug/L	1.0	0.38	1		11/19/11 00:09	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/19/11 00:09	108-88-3	
1,2,4-Trimethylbenzene	**<0.43**	ug/L	1.0	0.43	1		11/19/11 00:09	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/19/11 00:09	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/19/11 00:09	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/19/11 00:09	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1		11/19/11 00:09	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**0.29**	ug/L	0.047	0.0045	1	11/17/11 12:00	11/17/11 21:43	83-32-9	
Acenaphthylene	**0.015J**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 21:43	208-96-8	
Anthracene	**0.038J**	ug/L	0.047	0.0057	1	11/17/11 12:00	11/17/11 21:43	120-12-7	
Benzo(a)anthracene	**0.0041J**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 21:43	56-55-3	
Benzo(a)pyrene	**0.0055J**	ug/L	0.047	0.0029	1	11/17/11 12:00	11/17/11 21:43	50-32-8	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: SUMP-1 **Lab ID: 4053624012** Collected: 11/11/11 10:00 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Benzo(b)fluoranthene	**0.0070J**	ug/L	0.047	0.0034	1	11/17/11 12:00	11/17/11 21:43	205-99-2	
Benzo(g,h,i)perylene	**0.0093J**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 21:43	191-24-2	
Benzo(k)fluoranthene	**<0.0044**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 21:43	207-08-9	
Chrysene	**0.0070J**	ug/L	0.047	0.0035	1	11/17/11 12:00	11/17/11 21:43	218-01-9	
Dibenz(a,h)anthracene	**<0.0032**	ug/L	0.047	0.0032	1	11/17/11 12:00	11/17/11 21:43	53-70-3	
Fluoranthene	**0.017J**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 21:43	206-44-0	
Fluorene	**0.15**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 21:43	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.0059J**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 21:43	193-39-5	
1-Methylnaphthalene	**0.014J**	ug/L	0.047	0.0050	1	11/17/11 12:00	11/17/11 21:43	90-12-0	
2-Methylnaphthalene	**0.032J**	ug/L	0.047	0.0039	1	11/17/11 12:00	11/17/11 21:43	91-57-6	B
Naphthalene	**0.0049J**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 21:43	91-20-3	B
Phenanthrene	**0.018J**	ug/L	0.047	0.0081	1	11/17/11 12:00	11/17/11 21:43	85-01-8	
Pyrene	**0.057**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 21:43	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%.	27-130		1	11/17/11 12:00	11/17/11 21:43	321-60-8	
Terphenyl-d14 (S)	85	%.	66-140		1	11/17/11 12:00	11/17/11 21:43	1718-51-0	

Sample: SUMP-3 **Lab ID: 4053624013** Collected: 11/11/11 10:10 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/19/11 00:34	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/19/11 00:34	100-41-4	
Methyl-tert-butyl ether	**0.72J**	ug/L	1.0	0.38	1		11/19/11 00:34	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/19/11 00:34	108-88-3	
1,2,4-Trimethylbenzene	**<0.43**	ug/L	1.0	0.43	1		11/19/11 00:34	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/19/11 00:34	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/19/11 00:34	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/19/11 00:34	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%.	80-120		1		11/19/11 00:34	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**1.6**	ug/L	0.24	0.023	5	11/17/11 12:00	11/18/11 11:15	83-32-9	
Acenaphthylene	**0.21**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 22:18	208-96-8	
Anthracene	**0.20**	ug/L	0.047	0.0057	1	11/17/11 12:00	11/17/11 22:18	120-12-7	
Benzo(a)anthracene	**0.0053J**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 22:18	56-55-3	
Benzo(a)pyrene	**0.0044J**	ug/L	0.047	0.0029	1	11/17/11 12:00	11/17/11 22:18	50-32-8	
Benzo(b)fluoranthene	**0.0046J**	ug/L	0.047	0.0034	1	11/17/11 12:00	11/17/11 22:18	205-99-2	
Benzo(g,h,i)perylene	**0.017J**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 22:18	191-24-2	
Benzo(k)fluoranthene	**<0.0044**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 22:18	207-08-9	
Chrysene	**0.0077J**	ug/L	0.047	0.0035	1	11/17/11 12:00	11/17/11 22:18	218-01-9	
Dibenz(a,h)anthracene	**<0.0032**	ug/L	0.047	0.0032	1	11/17/11 12:00	11/17/11 22:18	53-70-3	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: SUMP-3 **Lab ID: 4053624013** Collected: 11/11/11 10:10 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Fluoranthene	**0.071**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 22:18	206-44-0	
Fluorene	**2.3**	ug/L	0.24	0.024	5	11/17/11 12:00	11/18/11 11:15	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.0050J**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 22:18	193-39-5	
1-Methylnaphthalene	**0.20**	ug/L	0.047	0.0050	1	11/17/11 12:00	11/17/11 22:18	90-12-0	
2-Methylnaphthalene	**0.098**	ug/L	0.047	0.0039	1	11/17/11 12:00	11/17/11 22:18	91-57-6	
Naphthalene	**0.31**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 22:18	91-20-3	
Phenanthrene	**0.052**	ug/L	0.047	0.0081	1	11/17/11 12:00	11/17/11 22:18	85-01-8	
Pyrene	**0.082**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 22:18	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	87	%.	27-130		1	11/17/11 12:00	11/17/11 22:18	321-60-8	
Terphenyl-d14 (S)	88	%.	66-140		1	11/17/11 12:00	11/17/11 22:18	1718-51-0	

Sample: SUMP-4 **Lab ID: 4053624014** Collected: 11/11/11 10:20 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**9.6**	ug/L	1.0	0.39	1		11/19/11 04:45	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/19/11 04:45	100-41-4	
Methyl-tert-butyl ether	**<0.38**	ug/L	1.0	0.38	1		11/19/11 04:45	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/19/11 04:45	108-88-3	
1,2,4-Trimethylbenzene	**<0.43**	ug/L	1.0	0.43	1		11/19/11 04:45	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/19/11 04:45	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/19/11 04:45	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/19/11 04:45	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1		11/19/11 04:45	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**0.28**	ug/L	0.047	0.0045	1	11/17/11 12:00	11/17/11 22:01	83-32-9	
Acenaphthylene	**0.023J**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 22:01	208-96-8	
Anthracene	**0.099**	ug/L	0.047	0.0057	1	11/17/11 12:00	11/17/11 22:01	120-12-7	
Benzo(a)anthracene	**0.0050J**	ug/L	0.047	0.0036	1	11/17/11 12:00	11/17/11 22:01	56-55-3	
Benzo(a)pyrene	**0.0071J**	ug/L	0.047	0.0029	1	11/17/11 12:00	11/17/11 22:01	50-32-8	
Benzo(b)fluoranthene	**0.0089J**	ug/L	0.047	0.0034	1	11/17/11 12:00	11/17/11 22:01	205-99-2	
Benzo(g,h,i)perylene	**0.018J**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 22:01	191-24-2	
Benzo(k)fluoranthene	**0.0056J**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 22:01	207-08-9	
Chrysene	**0.013J**	ug/L	0.047	0.0035	1	11/17/11 12:00	11/17/11 22:01	218-01-9	
Dibenz(a,h)anthracene	**<0.0032**	ug/L	0.047	0.0032	1	11/17/11 12:00	11/17/11 22:01	53-70-3	
Fluoranthene	**0.017J**	ug/L	0.047	0.0044	1	11/17/11 12:00	11/17/11 22:01	206-44-0	
Fluorene	**0.22**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 22:01	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.0079J**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 22:01	193-39-5	
1-Methylnaphthalene	**0.043J**	ug/L	0.047	0.0050	1	11/17/11 12:00	11/17/11 22:01	90-12-0	
2-Methylnaphthalene	**0.060**	ug/L	0.047	0.0039	1	11/17/11 12:00	11/17/11 22:01	91-57-6	B

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: SUMP-4 **Lab ID: 4053624014** Collected: 11/11/11 10:20 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Naphthalene	**0.15**	ug/L	0.047	0.0048	1	11/17/11 12:00	11/17/11 22:01	91-20-3	B
Phenanthrene	**0.039J**	ug/L	0.047	0.0081	1	11/17/11 12:00	11/17/11 22:01	85-01-8	
Pyrene	**0.18**	ug/L	0.047	0.0047	1	11/17/11 12:00	11/17/11 22:01	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%.	27-130		1	11/17/11 12:00	11/17/11 22:01	321-60-8	
Terphenyl-d14 (S)	103	%.	66-140		1	11/17/11 12:00	11/17/11 22:01	1718-51-0	

Sample: SUMP-2 **Lab ID: 4053624015** Collected: 11/11/11 10:30 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.39**	ug/L	1.0	0.39	1		11/19/11 05:10	71-43-2	
Ethylbenzene	**<0.41**	ug/L	1.0	0.41	1		11/19/11 05:10	100-41-4	
Methyl-tert-butyl ether	**1.8**	ug/L	1.0	0.38	1		11/19/11 05:10	1634-04-4	
Toluene	**<0.42**	ug/L	1.0	0.42	1		11/19/11 05:10	108-88-3	
1,2,4-Trimethylbenzene	**0.45J**	ug/L	1.0	0.43	1		11/19/11 05:10	95-63-6	
1,3,5-Trimethylbenzene	**<0.40**	ug/L	1.0	0.40	1		11/19/11 05:10	108-67-8	
m&p-Xylene	**<0.87**	ug/L	2.0	0.87	1		11/19/11 05:10	179601-23-1	
o-Xylene	**<0.38**	ug/L	1.0	0.38	1		11/19/11 05:10	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	80-120		1		11/19/11 05:10	98-08-8	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**1.9**	ug/L	0.24	0.023	5	11/18/11 12:00	11/21/11 09:20	83-32-9	
Acenaphthylene	**0.12J**	ug/L	0.24	0.018	5	11/18/11 12:00	11/21/11 09:20	208-96-8	
Anthracene	**0.33**	ug/L	0.24	0.029	5	11/18/11 12:00	11/21/11 09:20	120-12-7	
Benzo(a)anthracene	**0.13J**	ug/L	0.24	0.018	5	11/18/11 12:00	11/21/11 09:20	56-55-3	
Benzo(a)pyrene	**0.11J**	ug/L	0.24	0.014	5	11/18/11 12:00	11/21/11 09:20	50-32-8	
Benzo(b)fluoranthene	**0.11J**	ug/L	0.24	0.017	5	11/18/11 12:00	11/21/11 09:20	205-99-2	
Benzo(g,h,i)perylene	**0.065J**	ug/L	0.24	0.024	5	11/18/11 12:00	11/21/11 09:20	191-24-2	
Benzo(k)fluoranthene	**0.090J**	ug/L	0.24	0.022	5	11/18/11 12:00	11/21/11 09:20	207-08-9	
Chrysene	**0.12J**	ug/L	0.24	0.017	5	11/18/11 12:00	11/21/11 09:20	218-01-9	
Dibenz(a,h)anthracene	**0.021J**	ug/L	0.24	0.016	5	11/18/11 12:00	11/21/11 09:20	53-70-3	
Fluoranthene	**0.50**	ug/L	0.24	0.022	5	11/18/11 12:00	11/21/11 09:20	206-44-0	
Fluorene	**1.9**	ug/L	0.24	0.024	5	11/18/11 12:00	11/21/11 09:20	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.061J**	ug/L	0.24	0.023	5	11/18/11 12:00	11/21/11 09:20	193-39-5	
1-Methylnaphthalene	**0.16J**	ug/L	0.24	0.025	5	11/18/11 12:00	11/21/11 09:20	90-12-0	
2-Methylnaphthalene	**0.13J**	ug/L	0.24	0.019	5	11/18/11 12:00	11/21/11 09:20	91-57-6	
Naphthalene	**0.34**	ug/L	0.24	0.024	5	11/18/11 12:00	11/21/11 09:20	91-20-3	
Phenanthrene	**0.084J**	ug/L	0.24	0.040	5	11/18/11 12:00	11/21/11 09:20	85-01-8	
Pyrene	**0.50**	ug/L	0.24	0.024	5	11/18/11 12:00	11/21/11 09:20	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	85	%.	27-130		5	11/18/11 12:00	11/21/11 09:20	321-60-8	

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ANALYTICAL RESULTS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

Sample: SUMP-2 **Lab ID: 4053624015** Collected: 11/11/11 10:30 Received: 11/15/11 10:09 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Surrogates									
Terphenyl-d14 (S)	107	%.	66-140		5	11/18/11 12:00	11/21/11 09:20	1718-51-0	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

QC Batch: GCV/7611 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 4053624001, 4053624002, 4053624003, 4053624004, 4053624005, 4053624006, 4053624007, 4053624008, 4053624009, 4053624010, 4053624011

METHOD BLANK: 534708 Matrix: Water
Associated Lab Samples: 4053624001, 4053624002, 4053624003, 4053624004, 4053624005, 4053624006, 4053624007, 4053624008, 4053624009, 4053624010, 4053624011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.43	1.0	11/16/11 12:38	
1,3,5-Trimethylbenzene	ug/L	<0.40	1.0	11/16/11 12:38	
Benzene	ug/L	<0.39	1.0	11/16/11 12:38	
Ethylbenzene	ug/L	<0.41	1.0	11/16/11 12:38	
m&p-Xylene	ug/L	<0.87	2.0	11/16/11 12:38	
Methyl-tert-butyl ether	ug/L	<0.38	1.0	11/16/11 12:38	
o-Xylene	ug/L	<0.38	1.0	11/16/11 12:38	
Toluene	ug/L	<0.42	1.0	11/16/11 12:38	
a,a,a-Trifluorotoluene (S)	%.	102	80-120	11/16/11 12:38	

LABORATORY CONTROL SAMPLE & LCSD: 534709 534710

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	20.9	20.2	104	101	80-120	3	20	
1,3,5-Trimethylbenzene	ug/L	20	20.5	19.8	103	99	80-120	3	20	
Benzene	ug/L	20	21.7	21.6	108	108	80-120	.5	20	
Ethylbenzene	ug/L	20	20.5	20.2	102	101	80-120	2	20	
m&p-Xylene	ug/L	40	41.2	40.0	103	100	80-120	3	20	
Methyl-tert-butyl ether	ug/L	20	20.8	21.0	104	105	80-120	.9	20	
o-Xylene	ug/L	20	20.7	20.2	104	101	80-120	3	20	
Toluene	ug/L	20	20.7	20.7	104	103	80-120	.3	20	
a,a,a-Trifluorotoluene (S)	%.				101	101	80-120			

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QUALITY CONTROL DATA

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

QC Batch: GCV/7625 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 4053624012, 4053624013, 4053624014, 4053624015

METHOD BLANK: 535899 Matrix: Water
Associated Lab Samples: 4053624012, 4053624013, 4053624014, 4053624015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.43	1.0	11/18/11 22:54	
1,3,5-Trimethylbenzene	ug/L	<0.40	1.0	11/18/11 22:54	
Benzene	ug/L	<0.39	1.0	11/18/11 22:54	
Ethylbenzene	ug/L	<0.41	1.0	11/18/11 22:54	
m&p-Xylene	ug/L	<0.87	2.0	11/18/11 22:54	
Methyl-tert-butyl ether	ug/L	<0.38	1.0	11/18/11 22:54	
o-Xylene	ug/L	<0.38	1.0	11/18/11 22:54	
Toluene	ug/L	<0.42	1.0	11/18/11 22:54	
a,a,a-Trifluorotoluene (S)	%.	103	80-120	11/18/11 22:54	

LABORATORY CONTROL SAMPLE & LCSD: 535900 535901

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	20.6	20.9	103	105	80-120	1	20	
1,3,5-Trimethylbenzene	ug/L	20	20.3	20.4	101	102	80-120	.5	20	
Benzene	ug/L	20	21.5	21.5	108	108	80-120	.03	20	
Ethylbenzene	ug/L	20	20.2	20.4	101	102	80-120	.8	20	
m&p-Xylene	ug/L	40	40.6	40.8	101	102	80-120	.7	20	
Methyl-tert-butyl ether	ug/L	20	20.3	20.3	102	102	80-120	.05	20	
o-Xylene	ug/L	20	20.4	20.6	102	103	80-120	.9	20	
Toluene	ug/L	20	20.5	20.7	103	103	80-120	.8	20	
a,a,a-Trifluorotoluene (S)	%.				102	103	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 536385 536386

Parameter	Units	4053732004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	ug/L	1310	500	500	1850	1640	108	65	10-200	12	20	
1,3,5-Trimethylbenzene	ug/L	349	500	500	881	763	106	83	56-169	14	20	
Benzene	ug/L	31.3	500	500	586	510	111	96	33-173	14	20	
Ethylbenzene	ug/L	876	500	500	1380	1200	102	65	49-158	14	20	
m&p-Xylene	ug/L	3430	1000	1000	4460	3870	102	44	44-163	14	20	
Methyl-tert-butyl ether	ug/L	<9.5	500	500	544	515	109	103	80-130	6	20	
o-Xylene	ug/L	1180	500	500	1700	1500	104	66	64-140	12	20	
Toluene	ug/L	635	500	500	1160	1010	105	75	79-132	14	20	M1
a,a,a-Trifluorotoluene (S)	%.						103	104	80-120			

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QUALITY CONTROL DATA

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

QC Batch: OEXT/13229 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by SIM MSSV
Associated Lab Samples: 4053624001, 4053624002, 4053624003, 4053624004, 4053624005, 4053624006, 4053624007, 4053624008, 4053624009, 4053624010, 4053624011, 4053624012, 4053624013, 4053624014

METHOD BLANK: 535126 Matrix: Water
Associated Lab Samples: 4053624001, 4053624002, 4053624003, 4053624004, 4053624005, 4053624006, 4053624007, 4053624008, 4053624009, 4053624010, 4053624011, 4053624012, 4053624013, 4053624014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0053	0.050	11/17/11 11:13	
2-Methylnaphthalene	ug/L	0.0052J	0.050	11/17/11 11:13	
Acenaphthene	ug/L	<0.0048	0.050	11/17/11 11:13	
Acenaphthylene	ug/L	<0.0038	0.050	11/17/11 11:13	
Anthracene	ug/L	<0.0061	0.050	11/17/11 11:13	
Benzo(a)anthracene	ug/L	<0.0038	0.050	11/17/11 11:13	
Benzo(a)pyrene	ug/L	<0.0030	0.050	11/17/11 11:13	
Benzo(b)fluoranthene	ug/L	<0.0036	0.050	11/17/11 11:13	
Benzo(g,h,i)perylene	ug/L	<0.0051	0.050	11/17/11 11:13	
Benzo(k)fluoranthene	ug/L	<0.0046	0.050	11/17/11 11:13	
Chrysene	ug/L	<0.0037	0.050	11/17/11 11:13	
Dibenz(a,h)anthracene	ug/L	<0.0034	0.050	11/17/11 11:13	
Fluoranthene	ug/L	<0.0047	0.050	11/17/11 11:13	
Fluorene	ug/L	<0.0051	0.050	11/17/11 11:13	
Indeno(1,2,3-cd)pyrene	ug/L	<0.0050	0.050	11/17/11 11:13	
Naphthalene	ug/L	0.017J	0.050	11/17/11 11:13	
Phenanthrene	ug/L	<0.0086	0.050	11/17/11 11:13	
Pyrene	ug/L	<0.0050	0.050	11/17/11 11:13	
2-Fluorobiphenyl (S)	%.	72	27-130	11/17/11 11:13	
Terphenyl-d14 (S)	%.	72	66-140	11/17/11 11:13	

LABORATORY CONTROL SAMPLE: 535127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	.2	0.17	87	32-130	
2-Methylnaphthalene	ug/L	.2	0.18	88	29-130	
Acenaphthene	ug/L	.2	0.17	84	30-130	
Acenaphthylene	ug/L	.2	0.17	83	23-130	
Anthracene	ug/L	.2	0.13	66	20-130	
Benzo(a)anthracene	ug/L	.2	0.14	70	34-130	
Benzo(a)pyrene	ug/L	.2	0.19	95	41-130	
Benzo(b)fluoranthene	ug/L	.2	0.13	63	31-131	
Benzo(g,h,i)perylene	ug/L	.2	0.18	90	51-130	
Benzo(k)fluoranthene	ug/L	.2	0.24	121	56-130	
Chrysene	ug/L	.2	0.24	119	55-130	
Dibenz(a,h)anthracene	ug/L	.2	0.18	89	40-130	
Fluoranthene	ug/L	.2	0.19	97	38-130	
Fluorene	ug/L	.2	0.17	84	27-130	
Indeno(1,2,3-cd)pyrene	ug/L	.2	0.18	90	48-130	
Naphthalene	ug/L	.2	0.19	94	33-130	

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QUALITY CONTROL DATA

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

LABORATORY CONTROL SAMPLE: 535127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/L	.2	0.18	91	28-130	
Pyrene	ug/L	.2	0.18	90	41-130	
2-Fluorobiphenyl (S)	%.			81	27-130	
Terphenyl-d14 (S)	%.			87	66-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 535128 535129

Parameter	Units	4053617014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/L	<0.047	.19	.19	0.18	0.12	88	60	15-130	36	34	D6
2-Methylnaphthalene	ug/L	<0.047	.19	.19	0.18	0.12	89	57	14-130	41	37	D6
Acenaphthene	ug/L	<0.047	.19	.19	0.16	0.12	81	60	10-130	30	34	
Acenaphthylene	ug/L	<0.047	.19	.19	0.15	0.11	79	59	10-130	29	32	
Anthracene	ug/L	<0.047	.19	.19	0.12	0.11	61	57	10-130	7	39	
Benzo(a)anthracene	ug/L	<0.047	.19	.19	0.15	0.15	78	80	34-131	2	21	
Benzo(a)pyrene	ug/L	<0.047	.19	.19	0.17	0.18	88	97	35-130	10	24	
Benzo(b)fluoranthene	ug/L	<0.047	.19	.19	0.15	0.15	80	80	17-154	.04	32	
Benzo(g,h,i)perylene	ug/L	<0.047	.19	.19	0.17	0.17	91	89	42-130	2	25	
Benzo(k)fluoranthene	ug/L	<0.047	.19	.19	0.19	0.21	102	107	41-144	5	26	
Chrysene	ug/L	<0.047	.19	.19	0.21	0.23	111	121	47-134	8	21	
Dibenz(a,h)anthracene	ug/L	<0.047	.19	.19	0.16	0.16	87	86	37-130	2	22	
Fluoranthene	ug/L	<0.047	.19	.19	0.17	0.18	92	97	12-159	5	31	
Fluorene	ug/L	<0.047	.19	.19	0.15	0.12	81	61	13-130	28	37	
Indeno(1,2,3-cd)pyrene	ug/L	<0.047	.19	.19	0.17	0.17	90	89	27-134	1	25	
Naphthalene	ug/L	<0.047	.19	.19	0.28	0.12	134	52	10-130	78	41	D6,M1
Phenanthrene	ug/L	<0.047	.19	.19	0.16	0.14	82	74	12-130	11	32	
Pyrene	ug/L	<0.047	.19	.19	0.16	0.15	87	82	12-161	6	33	
2-Fluorobiphenyl (S)	%.						75	55	27-130			
Terphenyl-d14 (S)	%.						87	89	66-140			

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QUALITY CONTROL DATA

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

QC Batch: OEXT/13247
QC Batch Method: EPA 3510
Analysis Method: EPA 8270 by SIM
Analysis Description: 8270 Water PAH by SIM MSSV
Associated Lab Samples: 4053624015

METHOD BLANK: 536225 Matrix: Water
Associated Lab Samples: 4053624015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0053	0.050	11/18/11 11:50	
2-Methylnaphthalene	ug/L	<0.0041	0.050	11/18/11 11:50	
Acenaphthene	ug/L	<0.0048	0.050	11/18/11 11:50	
Acenaphthylene	ug/L	<0.0038	0.050	11/18/11 11:50	
Anthracene	ug/L	<0.0061	0.050	11/18/11 11:50	
Benzo(a)anthracene	ug/L	<0.0038	0.050	11/18/11 11:50	
Benzo(a)pyrene	ug/L	<0.0030	0.050	11/18/11 11:50	
Benzo(b)fluoranthene	ug/L	<0.0036	0.050	11/18/11 11:50	
Benzo(g,h,i)perylene	ug/L	<0.0051	0.050	11/18/11 11:50	
Benzo(k)fluoranthene	ug/L	<0.0046	0.050	11/18/11 11:50	
Chrysene	ug/L	<0.0037	0.050	11/18/11 11:50	
Dibenz(a,h)anthracene	ug/L	<0.0034	0.050	11/18/11 11:50	
Fluoranthene	ug/L	<0.0047	0.050	11/18/11 11:50	
Fluorene	ug/L	<0.0051	0.050	11/18/11 11:50	
Indeno(1,2,3-cd)pyrene	ug/L	<0.0050	0.050	11/18/11 11:50	
Naphthalene	ug/L	<0.0051	0.050	11/18/11 11:50	
Phenanthrene	ug/L	<0.0086	0.050	11/18/11 11:50	
Pyrene	ug/L	<0.0050	0.050	11/18/11 11:50	
2-Fluorobiphenyl (S)	%.	55	27-130	11/18/11 11:50	
Terphenyl-d14 (S)	%.	86	66-140	11/18/11 11:50	

LABORATORY CONTROL SAMPLE & LCSD: 536226 536227

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/L	.2	0.16	0.13	78	63	32-130	21	50	
2-Methylnaphthalene	ug/L	.2	0.15	0.12	77	60	29-130	24	50	
Acenaphthene	ug/L	.2	0.16	0.12	79	61	30-130	25	49	
Acenaphthylene	ug/L	.2	0.15	0.12	76	60	23-130	24	48	
Anthracene	ug/L	.2	0.13	0.12	65	58	20-130	11	46	
Benzo(a)anthracene	ug/L	.2	0.17	0.17	87	87	34-130	.7	21	
Benzo(a)pyrene	ug/L	.2	0.18	0.19	90	97	41-130	7	20	
Benzo(b)fluoranthene	ug/L	.2	0.19	0.20	93	98	31-131	5	24	
Benzo(g,h,i)perylene	ug/L	.2	0.18	0.20	92	99	51-130	7	20	
Benzo(k)fluoranthene	ug/L	.2	0.20	0.22	102	109	56-130	7	23	
Chrysene	ug/L	.2	0.21	0.20	103	102	55-130	1	20	
Dibenz(a,h)anthracene	ug/L	.2	0.17	0.19	87	93	40-130	6	20	
Fluoranthene	ug/L	.2	0.18	0.15	91	74	38-130	20	40	
Fluorene	ug/L	.2	0.16	0.13	80	63	27-130	24	50	
Indeno(1,2,3-cd)pyrene	ug/L	.2	0.18	0.19	90	96	48-130	6	20	
Naphthalene	ug/L	.2	0.14	0.11	70	57	33-130	19	50	
Phenanthrene	ug/L	.2	0.17	0.14	87	70	28-130	22	47	

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QUALITY CONTROL DATA

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

LABORATORY CONTROL SAMPLE & LCSD: 536226 536227

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Pyrene	ug/L	.2	0.19	0.16	93	79	41-130	17	40	
2-Fluorobiphenyl (S)	%.				72	54	27-130			
Terphenyl-d14 (S)	%.				88	76	66-140			

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QUALIFIERS

Project: 10584.00 BYRNS OIL
Pace Project No.: 4053624

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

BATCH QUALIFIERS

Batch: GCV/7611

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSSV/4076

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 8270C. Sample results included are reported as individual isomers, but the lab and the client must recognize them as an isomeric pair.

Batch: MSSV/4081

[IP] Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 8270C. Sample results included are reported as individual isomers, but the lab and the client must recognize them as an isomeric pair.

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D6 The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

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4053624

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Seymour Environ.
Branch/Location:	McFarland
Project Contact:	Robyn Seymour
Phone:	608-838-9120
Project Number:	Byrns 10584.00
Project Name:	Byrns O,L
Project State:	WI
Sampled By (Print):	Mark R. Seymour
Sampled By (Sign):	Mark R Seymour
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Robyn Seymour
Mail To Company:	Seymour Environ
Mail To Address:	2631 Dyreson Rd McFarland, WI 53558
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water
B = Biota, DW = Drinking Water
C = Charcoal, GW = Ground Water
O = Oil, SW = Surface Water
S = Soil, WW = Waste Water
SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: FILTERED? (YES/NO)	PRESERVATION (CODE)*	PVOC	PAH	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					Y/N	Pick Letter	P	N			
							B	A			
001	MW-10	11/10/11	12:50	GW			X	X		1-1Lag A ; 3-40ml B	
002	MW-7		14:50	GW			X	X			
003	MW-2		13:10	GW			X	X			
004	MW-15		13:20	GW			X	X			
005	MW-13		13:35	GW			X	X			
006	MW-12		14:00	GW			X	X			
007	MW-14		13:45	GW			X	X			
008	MW-11		14:25	GW			X	X			
009	MW-3		14:40	GW			X	X			
010	MW-17		15:40	GW			X	X			
011	MW-16R		15:50	GW			X	X		2 40ml B	
012	Sump-1	11/11/11	10:00	GW			X	X			
013	Sump-3	11/11/11	10:10	GW			X	X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Mark R Seymour	11/14/11 pm	Dunham	
Dunham	11/15/11 1009	E Hellwig Pace	11/15/11 10:09

PACE Project No.
4053624

Receipt Temp = ROI °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / (Not Present)
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

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CX(1) Page 1 of 2

CHAIN OF CUSTODY

4053624

(Please Print Clearly)	
Company Name:	Seymour Environ.
Branch/Location:	McFarland
Project Contact:	Robyn Seymour
Phone:	608-838-9120
Project Number:	10584.00
Project Name:	Byrns Oil
Project State:	WI
Sampled By (Print):	Mark E. Seymour
Sampled By (Sign):	Mark R Seymour
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Robyn Seymour
Mail To Company:	Seymour Environ.
Mail To Address:	2531 Dyreson Rd McFarland, WI 53558
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PVOC	Analyses Requested: PAH	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					N	N					
					B	A					
014	Sump-4	11/11/11	10:20	GW	X	X				1-1lag A, 3-40ml B	
015	Sump-2	11/11/11	10:30	GW	X	X					

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Mark R Seymour	11/14/11 pm	Dunham	
Dunham	11/15/11 10:09	E Helmy Pace	11/15/11 10:09

PACE Project No.: 4053624
Receipt Temp = ROI °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal: Present / (Not Present)
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Attachment D
Environmental Assessment Documentation
Former RP Parcel at 204 S. Ingersoll

WisDOT Phase 1 Hazardous Materials Assessment Site Summary

(rev. 10/7/2005)

WisDOT Project ID: 5992-01-95
Highway/Street: Proposed Central Park
Termini/Limits: Brearly Street to Baldwin Street, City of Madison
County: Dane

Property Information:
Site Name(s): 204 S. Ingersoll Street (former RP parcel)
DOT parcel number (if known):
Property Address: 204 S. Ingersoll Street
Owner's Name: City of Madison (previously Research Products Corporation)
Owner's Address: 215 Martin Luther King Blvd., Madison, WI 53701
Owner's Phone:
Current Land Use: vacant, property purchased and buildings demolished in late 2011
Past Land Use: vacant, railroad crossing, manufacturing and warehouse

Real Estate Requirements: City of Madison has purchased this property
☒None ☐Total take ☐Strip acquisition of feet
☐Temporary Limited Easement (TLE)
☐Permanent Limited Easement (PLE)
☐ Other (describe)

Construction Requirements:
☒ Excavation within current right of way to up to 5 feet
☐ Excavation within proposed right of way to feet
☐ Excavation within easement to feet
☒ Public or private utility or sanitary or storm sewer installation or excavation to up to 5 feet

Information from database searches and interviews:
Department of Commerce (DCOMM)
- ☐ site has registered tanks ☐ASTs ☐USTs
- ☐ tanks are currently in use
- ☐ tanks are abandoned date:
- Tank contents:
  - ☐ Leaded gasoline ☐ Unleaded gasoline ☐ Fuel Oil ☐ Diesel
  - ☐ Kerosene ☐ Unknown ☐ Other (describe)
- ☐ site is a DCOMM administered LUST site; DCOMM ID number:
- ☐ site is a closed DCOMM LUST site; closure date:

Department of Natural Resources (DNR)
- ☐ site is a DNR administered LUST site; BRRTS number:
- ☐ site is a DNR administered ERP site; BRRTS number:
- ☐ site is a closed ☐LUST ☐ERP site; closure date:
- ☐ site is a landfill
- ☐ site is an abandoned waste disposal site
- ☒ site is a hazardous waste generator
- ☐ Other (please describe)

Sanborn Maps: site is a on map dated . Comments:
WisDOT historic plan sets: site is a on project dated . Comments:
Business directories: site is a in the directory dated . Comments:

A check in a checkbox indicates a positive or "yes" response.

Aerial photos: site is a on photo dated . Comments:
☐ Contamination discovered at feet during utility or other excavation in the area. Indicate location on site map.
Interview Information or other comments:

Visual Evidence of Potential Contamination: (include additional information in space provided)
☐ No evidence of tanks
☐ USTs ☐ASTs Location, number and condition of tanks, contents, comments:
Location in relationship to current right of way: ☐ map attached
Location in relationship to proposed right of way: ☐ map attached
☐ Drums ☐Stained soils ☐Odor ☐Sheen on surface water ☐Areas of excavation
☐ Areas of fill ☐Stressed vegetation ☐ Pond(s) ☐ Basins/sumps ☐ Monitoring wells
☒ Soil borings
Comments: A Phase 2 Subsurface Investigation detected groundwater and soil contamination in some locations of the property

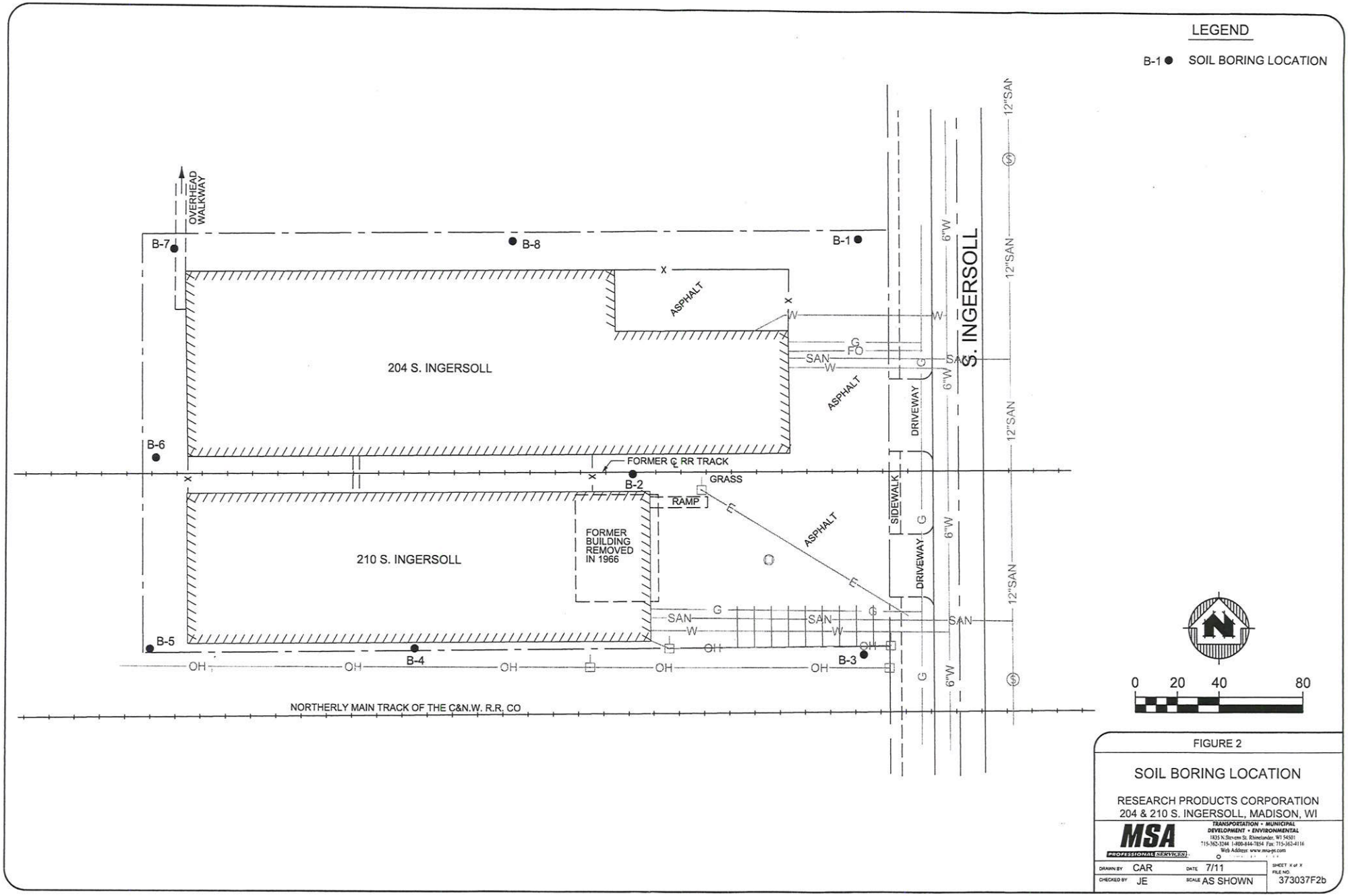
Potential for Contaminant Migration: (attach supporting documentation such as plume maps, summaries of site investigation or closure reports).
☒ Property is a potential source of contamination
☒ Adjacent property is a potential source of contamination. Include site name or BRRTS number if known, describe location, include contaminant type and any additional information. Petroleum and PAH at 1023 E Main, BRRTS 02-13-215729
☐ Contaminated soil known to be within proposed right of way from feet to feet below ground surface
☐ Contaminated groundwater known to be within proposed right of way at feet below ground surface.
☐ Contaminated soil or groundwater within existing right of way. Attach copy of most recent investigation and plume maps.

Attachments – required
☐ Site photographs and a site map showing areas of concern
☐ Plat map showing parcel and any proposed areas of acquisition or easement
☐ Historic aerial photos of site - clearly outline site
☐ Historic WisDOT or other as-builts and plat maps - clearly outline site
☐ Plume maps for known contamination. Indicate existing or proposed right of way where applicable.

Recommendations: A Phase 2 ESA was performed in July 2011. Special provisions will be written and provided at the time final plans are developed.
☒ No additional hazardous materials investigation is required.
☒ If construction or real estate requirements change, evaluation of need for further investigation will be necessary.
☐ Information is sufficient to use Standard Special Provisions. Copy of completed Standard Special Provision is attached.
☐ Conduct additional investigation
- ☐ Phase 2 (determine if contamination is present)
- ☐ Phase 2.5 (determine extent of contamination within existing R/W only)
- ☐ Phase 3 (determine full extent of contamination prior to acquisition)
- ☐ Phase 4 (remediate site)
- ☐ Other (describe)

Prepared by: MSA Professional Services, Inc. on 2/9/2012
Recommendations accepted by (name and title): , on _____

Signature: _____
A check in a checkbox indicates a positive or "yes" response.



Phase 2 soil borings July 2011

Table 1 - Soil Analytical Results
Research Products Co., 204/210 S. Ingersoll St., Madison, WI
(all concentrations are in mg/kg)

											DNR Publication RR-519-97	DNR Publication RR-519-97	DNR Publication RR-519-97	EPA Website	NR 720	NR 720.11	NR 720.11
Sample Location	B-1	B-2	B-3	B-4	B-5	B-5	B-6	B-6	B-7	B-8	Direct contact	Direct Contact	Groundwater	Direct Contact	Table 1	Table 2	Table 2
Sample Depth	0-1.5 ft	3-4 ft	2-4 ft	2-4 ft	2-4 ft	6-8 ft	2-4 ft	6-8 ft	2-4 ft	2-4 ft	industrial	Non-industrial		Ind./Non-ind.	Groundwater	Industrial	Non-industrial
Volatile Organic Compounds by SW8260B																	
sec-butylbenzene	<0.027	<0.029	<0.028	<0.031	<0.029	0.87	<0.030	<0.030	<0.029	<0.028							
ethylbenzene	<0.027	<0.029	<0.028	<0.031	<0.029	0.19	<0.030	<0.030	<0.029	<0.028					2.9		
isopropylbenzene	<0.027	<0.029	<0.028	<0.031	<0.029	0.51	<0.030	<0.030	<0.029	<0.028							
p-isopropyltoluene	<0.027	<0.029	<0.028	<0.031	<0.029	0.42	<0.030	<0.030	<0.029	<0.028							
naphthalene	0.28	<0.059	<0.057	<0.062	<0.057	0.23	<0.061	<0.060	0.057	<0.055							
n-propylbenzene	<0.027	<0.029	<0.028	<0.031	<0.029	2.20	<0.030	<0.030	<0.029	<0.028							
toluene	0.041	<0.029	<0.028	<0.031	<0.029	<0.030	0.032	<0.030	0.032	<0.028					1.5		
trichloroethylene	<0.027	<0.029	0.051	0.049	<0.029	0.040	<0.030	<0.030	<0.029	<0.028				0.17/0.014			
1,2,4-trimethylbenzene	0.041	<0.029	<0.028	<0.031	<0.029	3.5	0.035	<0.030	0.029	<0.028							
1,3,5-trimethylbenzene	<0.027	<0.029	<0.028	<0.031	<0.029	<0.030	<0.030	<0.030	0.030	<0.028							
xylenes, total	0.091	<0.088	<0.085	<0.093	<0.086	0.37	<0.091	<0.089	<0.086	<0.083					4.1		
Polynuclear Aromatic Hydrocarbons by 8270C																	
acenaphthene	0.53	<0.0080	0.013	0.014	0.011	0.11	0.025	<0.0078	<0.0079	<0.0072	60000	900	38				
acenaphthylene	0.050	<0.0059	0.018	0.015	0.014	<0.0059	<0.0062	<0.0058	<0.0059	<0.0054	360	18	0.7				
dibenzo(a,h)anthracene	1.4	<0.0097	0.10	0.074	0.042	<0.0095	0.048	<0.0094	0.019	<0.0087	0.39	0.0088	38				
fluorene	0.68	<0.0073	0.021	0.017	0.011	0.18	0.020	<0.0071	<0.0072	<0.006	40000	600	100				
naphthalene	0.35	<0.0069	0.023	0.044	0.055	0.29	0.062	<0.0068	0.045	0.037	110	20	0.4				
2-methylnaphthalene	0.23	<0.015	0.028	0.067	0.088	1.2	0.20	<0.015	0.12	0.064	40000	600	20				
1-methylnaphthalene	0.24	<0.010	0.030	0.061	0.083	1.1	0.24	<0.0098	0.12	0.071	70000	1100	23				
anthracene	2.3	<0.0070	0.059	0.050	0.034	0.13	0.079	<0.0068	0.012	0.0069	300000	5000	3000				
benzo(a)anthracene	5.6	0.013	0.37	0.23	0.19	0.023	0.18	<0.0080	0.050	0.015	3.9	0.088	17				
benzo(a)pyrene	5.5	0.014	0.30	0.21	0.18	0.014	0.13	<0.0072	0.039	0.012	0.39	0.0088	48				
benzo(b)fluoranthene	4.9	0.020	0.36	0.28	0.26	0.014	0.16	<0.0077	0.060	0.020	3.9	0.088	360				
benzo(g,h,i)perylene	4.2	0.017	0.24	0.19	0.17	0.014	0.13	<0.0091	0.056	0.018	39	1.8	6800				
benzo(k)fluoranthene	4.8	<0.0090	0.23	0.17	0.11	<0.0088	0.096	<0.0088	0.039	0.013	39	0.88	870				
chrysene	5.8	0.015	0.34	0.28	0.24	0.033	0.19	<0.012	0.061	0.025	390	8.8	37				
fluoranthene	15	0.025	0.63	0.37	0.28	0.038	0.26	<0.0070	0.067	0.024	40000	600	500				
indeno(1,2,3-cd)pyrene	3.7	0.015	0.22	0.16	0.14	0.014	0.11	<0.0095	0.044	0.016	3.9	0.088	680				
phenanthrene	9.7	0.016	0.33	0.36	0.26	0.76	0.65	<0.0073	0.16	0.076	390	18	1.8				
pyrene	11	0.024	0.61	0.46	0.37	0.091	0.30	<0.013	0.077	0.028	30000	500	8700				
Metals by 6010B																	
arsenic	4.1	1.0	4.3	6.4	6.7	1.2	2.0	4.5	4.0	2.7						1.6	0.039
cadmium	0.98	0.33	0.48	1.2	1.6	0.25	2.2	0.31	0.76	0.62						510	8
chromium	5.9	4.6	11	9.0	9.1	9.4	7.8	8.8	5.1	4.1						200(hex)	14 (hex)
lead	59	2.8	74	180	660	5.7	60	4.7	130	37						500	50

Only compounds with at least one detection are included in the table. For a full list of compounds analyzed, please see the laboratory report from Test America.
NR 720.11 Table 2 - Residual Contaminant Levels Based on Human Health Risk from Direct Contact Related to Land Use
Values in BOLD indicate an exceedance of one of the listed industrial direct contact standards
EPA Website used to calculate trichloroethylene direct contact residual contaminant concentrations: http://rais.ornl.gov/cgi-bin/epa/ssl2.cgi
Input data for EPA Website calculation were Wisconsin Default values from DNR Publication RR-682, January 2002

Table 2 - Groundwater Analytical Results
Research Products Co., 204/210 S. Ingersoll St., Madison, WI
(all concentrations are in ug/L)

Sample Location	B-1	B-2	B-3	B-5	B-6	Wisconsin Administrative Code NR 140 Table 1 Enforcement Standard	Wisconsin Administrative Code NR 140 Table 1 Preventive Action Limit
Volatile Organic Compounds by SW8260B							
sec-butylbenzene	<0.25	<0.25	<0.25	4.0	<0.25		
ethylbenzene	<0.50	<0.50	<0.50	28	<0.50	700	140
isopropylbenzene	<0.20	<0.20	<0.20	9.4	<0.20		
p-isopropyltoluene	<0.20	<0.20	<0.20	2.1	<0.20		
naphthalene	0.61	<0.25	<0.25	8.7	<0.25	100	10
n-propylbenzene	<0.50	<0.50	<0.50	29	<0.50		
toluene	<0.50	0.64	<0.50	0.61	<0.50	800	160
trichloroethylene	<0.20	<0.20	<0.20	<0.20	<0.20	5	0.5
1,2,4-trimethylbenzene	<0.20	<0.20	<0.20	95	<0.20	480*	96*
1,3,5-trimethylbenzene	<0.20	<0.20	<0.20	0.48	<0.20	480*	96*
xylenes, total	<0.50	<0.50	<0.50	31	<0.50	2000	400
Polynuclear Aromatic Hydrocarbons by 8270C							
acenaphthene	0.39	<0.099	<0.095	1.8			
acenaphthylene	<0.12	<0.11	<0.10	0.92			
dibenzo(a,h)anthracene	0.77	<0.13	0.23	0.26			
fluorene	0.38	<0.13	<0.13	3.0		400	80
naphthalene	0.36	<0.15	<0.15	3.6		100	10
2-methylnaphthalene	<0.19	<0.16	<0.16	4.0			
1-methylnaphthalene	<1.2	<1.1	<1.0	9.2			
anthracene	1.0	<0.13	<0.13	0.530		3000	600
benzo(a)anthracene	3.0	<0.059	0.22	<0.064			
benzo(a)pyrene	**2.3**	<0.049	**0.30**	<0.054		0.2	0.02
benzo(b)fluoranthene	**3.4**	<0.075	**0.29**	<0.082		0.2	0.02
benzo(g,h,i)perylene	1.6	<0.12	0.33	0.25			
benzo(k)fluoranthene	1.2	<0.10	0.12	<0.11			
chrysene	**2.8**	<0.12	**0.22**	<0.13		0.2	0.02
fluoranthene	6.8	<0.11	0.38	0.39		400	80
indeno(1,2,3-cd)pyrene	1.5	<0.072	0.27	<0.079			
phenanthrene	4.6	<0.085	0.20	7.2			
pyrene	5.4	<0.10	0.36	0.79		250	50
Metals by 6010B							
arsenic	*2.1*	*1.3*	0.42	*3.3*		10	1
cadmium	<0.12	<0.12	<0.12	<0.12		5	0.5
chromium	0.9	<0.59	<0.59	<0.59		100	10
lead	0.22	<0.13	0.14	0.2		15	1.5

* = standard is for total trimethylbenzenes

Only compounds with at least one detection are included in the table. For a full list of compounds analyzed, please see the laboratory report from Test America.

Values in italics exceed NR 140 preventive action limit.

Values in BOLD exceed NR 140 enforcement standard.

Attachment E

Photo Documentation

Phase 1 Haz Materials Assessment, Great Lawn Block
Proposed Central Park, South Ingersoll Street, Madison, WI

PC030001 Looking northeast at current park area from the gravel parking lot adjacent to South Ingersoll Street. The current park is primarily mowed grass areas.

PC030002 Looking southwest from the current park gravel parking lot at the adjacent property at 204 South Ingersoll (Research Products Corporation) located across South Ingersoll.

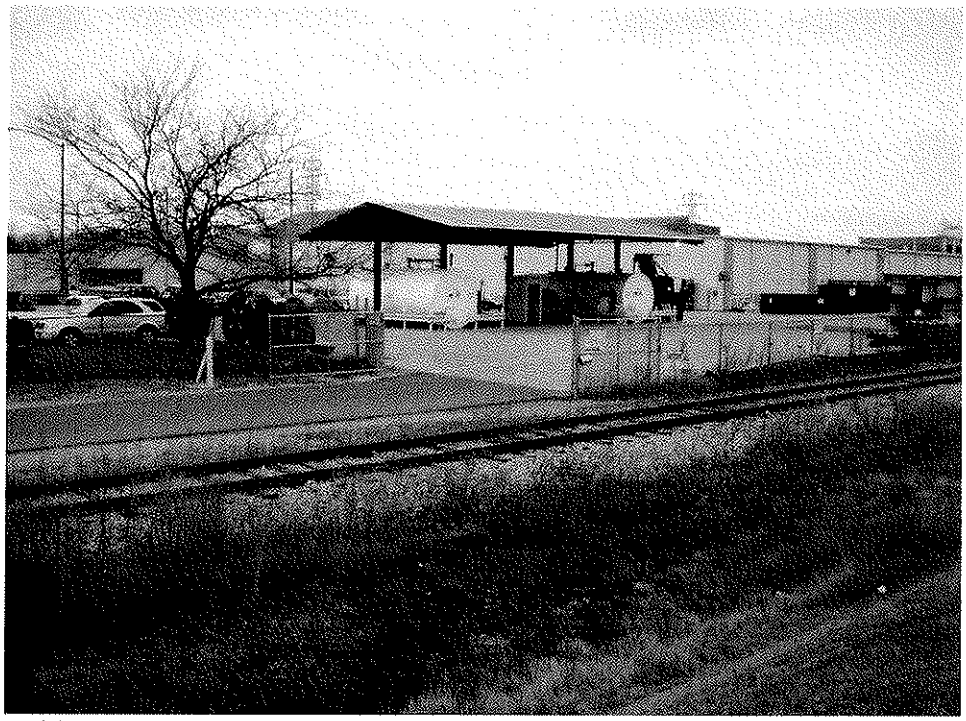
PC030003 Looking north along northern park property boundary and City of Madison Bus Barn parcel and the Madison Gas and Electric parcel with covered above ground fuel storage tanks in photo center-left.

PC030004 Looking southwest toward Central Park Apartments located on adjacent property to the south of the parking lot and south of East Wilson Street.

PC030005 Looking northwest along north park property boundary, with park in photo right. Shows existing railroad track and access road from South Ingersoll Street to adjacent MG & E parcel.

PC030006 Looking southeast along west park property boundary and along South Ingersoll Street. Existing park parking lot and Central Park Apartments in photo left.

PC030007 Looking northwest along north park property boundary showing ditch between railroad tracks and park surface, access road, and covered above ground storage tanks in photo left.



PC030008 Looking west from park property toward MG& E parcel and covered above ground fuel storage tanks.

PC030009 Looking northwest from park property toward MG& E parcel and coiled cable and electric equipment storage on adjacent parcel to the north of the park.

PC030010 Looking east from the eastern section of the park property toward self-storage building on adjacent parcel located east of South Few Street and north of East Wilson Street.

PC030011 Looking south across park property toward South Ingersoll Street.

PC030012 Looking southeast across park property toward adjacent parcels on East Wilson Street and cell tower location.

PC030013 Looking east toward Baldwin Street and eastern park property with adjacent railroad tracks.

PC030014 Looking northwest at soil and rubble pile on park surface in eastern park property area.

PC030015 Looking west toward adjacent property (MG& E) with electrical equipment storage adjacent to park parcel.

PC030016 Looking southwest across park property from the eastern section of the property.

PC030017 Looking southwest across park property from the eastern section of the property at railroad tracks and overhead electric along south property boundary.

PC030019 Looking east toward Baldwin Street and eastern park property with adjacent railroad tracks and railroad facilities adjacent to park property.

PC030021 Looking north from park property toward Baldwin Street and and closeup of Wisconsin and Southern railroad facilities adjacent to park property.

PC030022 Looking southwest toward park property from railroad corridor adjacent to south park property and self storage building in photo left. toward Baldwin Street and and closeup of Wisconsin and Southern railroad facilities adjacent to park property.

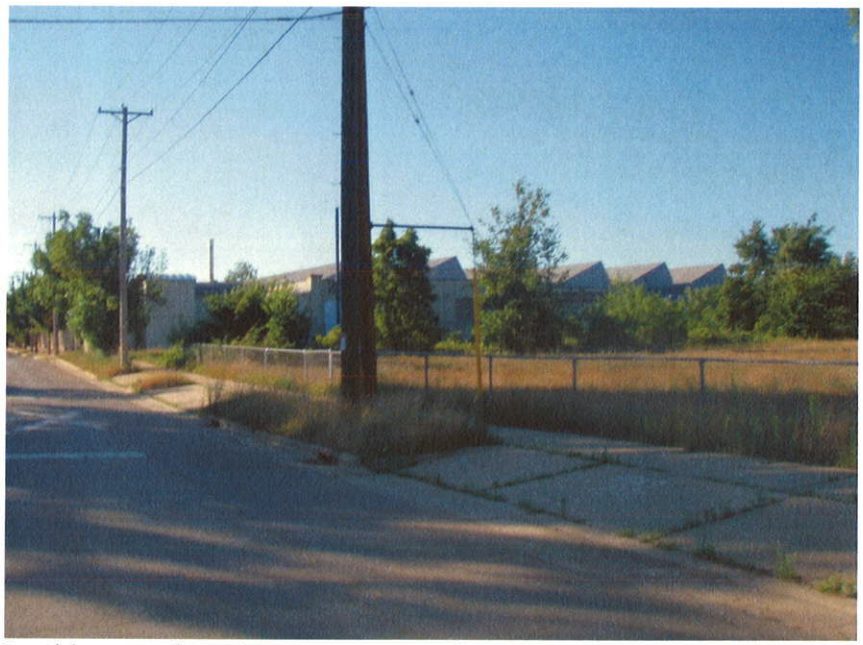
PC030023 Looking southwest along southern boundary of park property toward East Wilson Street and showing railroad track and location of cell tower in photo left.

PC030024 Looking west across park surface from southern section of the park near East Wilson Street.

PC030027 Looking southeast from park toward adjacent cell tower facility between railroad tracks and E Wilson Street and south of park.

Project 373038. Phase 1 Haz Mat, Proposed Central Park, Madison, WI, Brearly Block
Photos taken July 27, 2011

P1010001 Looking east at 211 S Brearly Street (former Byrns Property) which has a former petroleum bulk plant with existing petroleum contamination. The railroad track and E Wilson Street bike path are in the photo right.



P1010002 Looking north at 211-255 S Brearly Street (former Byrns Property, a former petroleum bulk plant property) and the adjacent property to the north is 1011 E. Main Street, Research Products Corporation parcel and factory. A vacant parcel (255 S Brearly) separates the 211-215 S Brearly parcel from the 1011 E Main parcel and is near the tree line.

P1010003 Looking northeast from S Brearly Street across 211 S Brearly Street (Byrns Property) and showing the Research Products buildings at 204 and 210 S Ingersoll Street.

P1010004 Looking northeast toward Ingersoll Street near the 205 S Brearly parcel and the adjacent railroad track southeast of the former Byrns Oil property. The buildings are the Research Products buildings at 204 and 210 S Ingersoll Street.

P1010005 Looking north toward Ingersoll Street from the railroad track parcel southeast of the former Byrns Oil property. The buildings are the Research Products buildings at 204 and 210 S Ingersoll Street.

P1010006 Looking northwest from S Brearly Street (and former Byrns property) and the railroad tracks toward the 1011 E. Main Street, Research Products Corporation parcel and factory.

P1010007 Looking north toward 204 Ingersoll Street and 1011 E Main Street from the the former Byrns Oil property at 215 S Brearly Street. The building in the photo right is the Research Products buildings at 204 S Ingersoll Street.

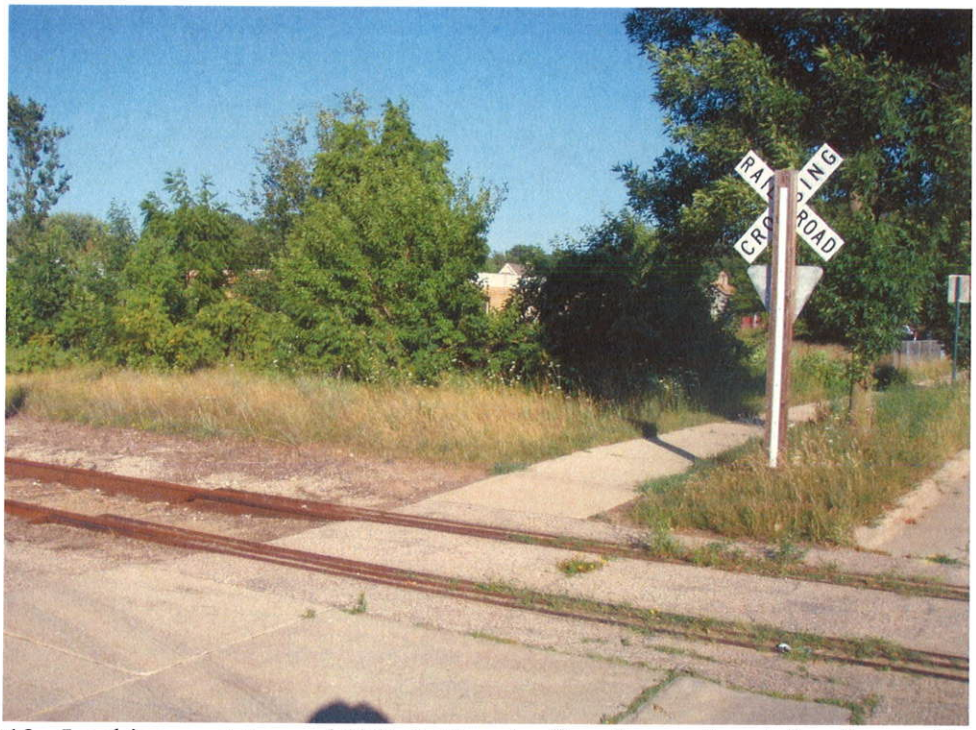
P1010008 Looking northeast toward Ingersoll Street from the southeast corner of 204 S Ingersoll Street. The building is the Research Products building at 204 and 210 S Ingersoll Street.

P1010009 Looking northwest toward E Main Street parcels from the southeast corner of 204 S Ingersoll Street. Showing the back of the Research Products buildings at 204 and 210 S Ingersoll Street adjacent to 215 S Brearly Street.

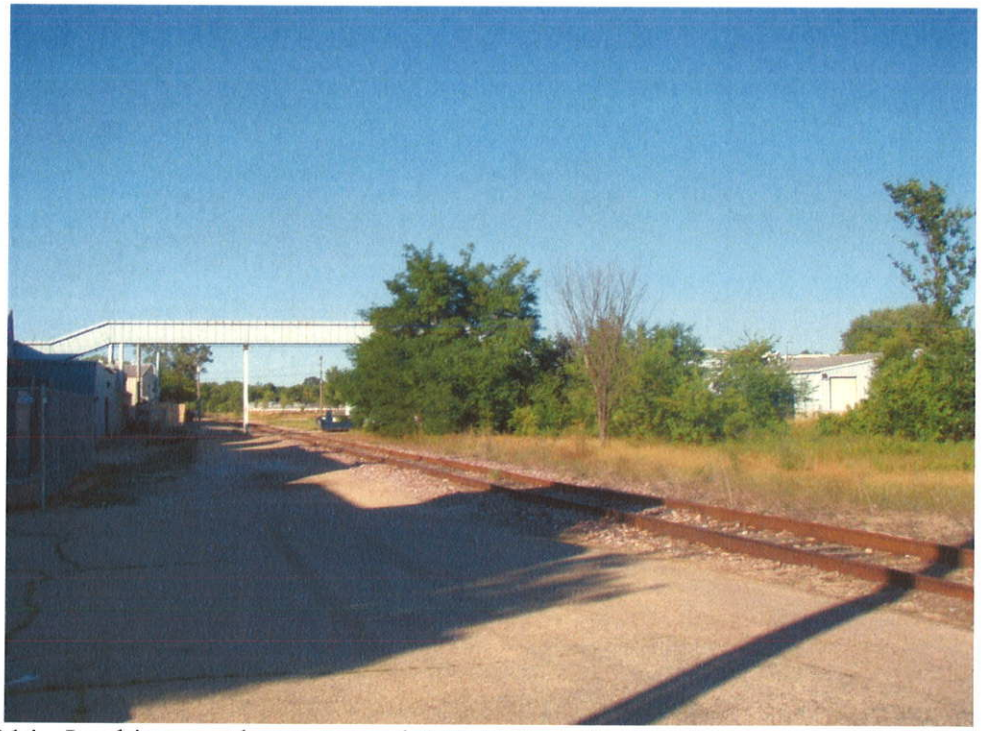
P1010010 Looking southwest toward S Brearly Street parcels from the railroad tracks adjacent to 204 S Ingersoll Street. Showing the adjacent parcel at 205 S Brearly Street and the adjacent bike/pedestrian path.

P1010011 Looking northeast toward S Ingersoll Street from the railroad tracks adjacent to Research Products at 204 S Ingersoll Street. Showing the adjacent parcels, the adjacent bike/pedestrian path, and East Wilson Street.

P1010012 Looking northeast toward Ingersoll Street from the southwest corner of 255 S Brearly Street. The building is the Research Products building at 1011 and 1023 E Main Street.



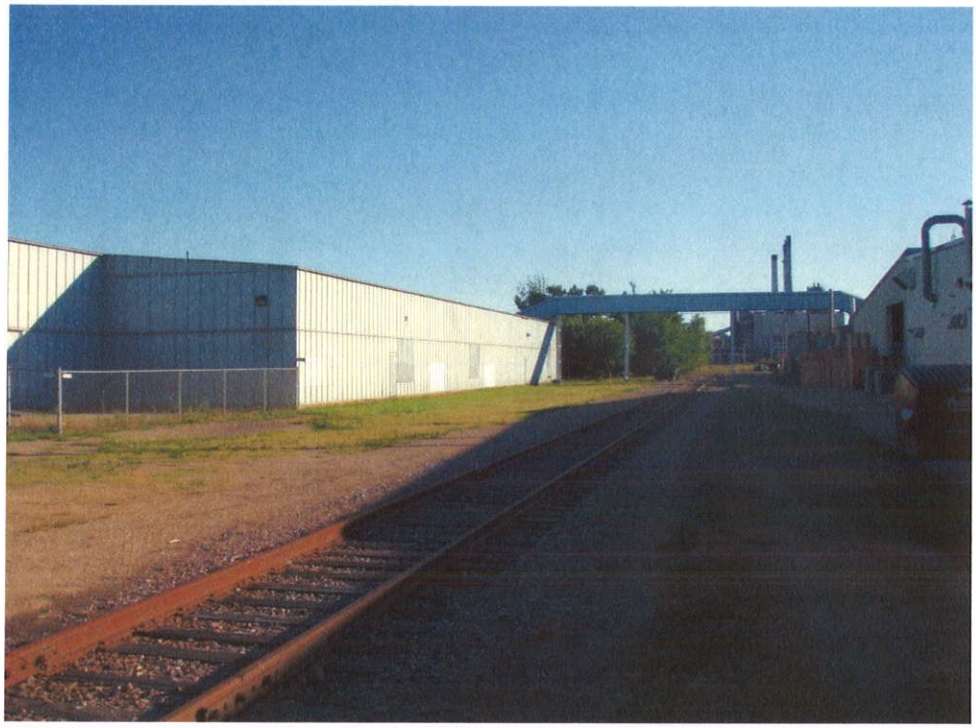
P1010013 Looking east toward 255 S Brearly Street parcel and the former Byrns Oil parcel from the railroad tracks west of 255 S Brearly.



P1010014 Looking northeast toward 255 S Brearly Street parcel and 204 S Ingersoll parcel from the railroad tracks next to 1011 E Main Street.

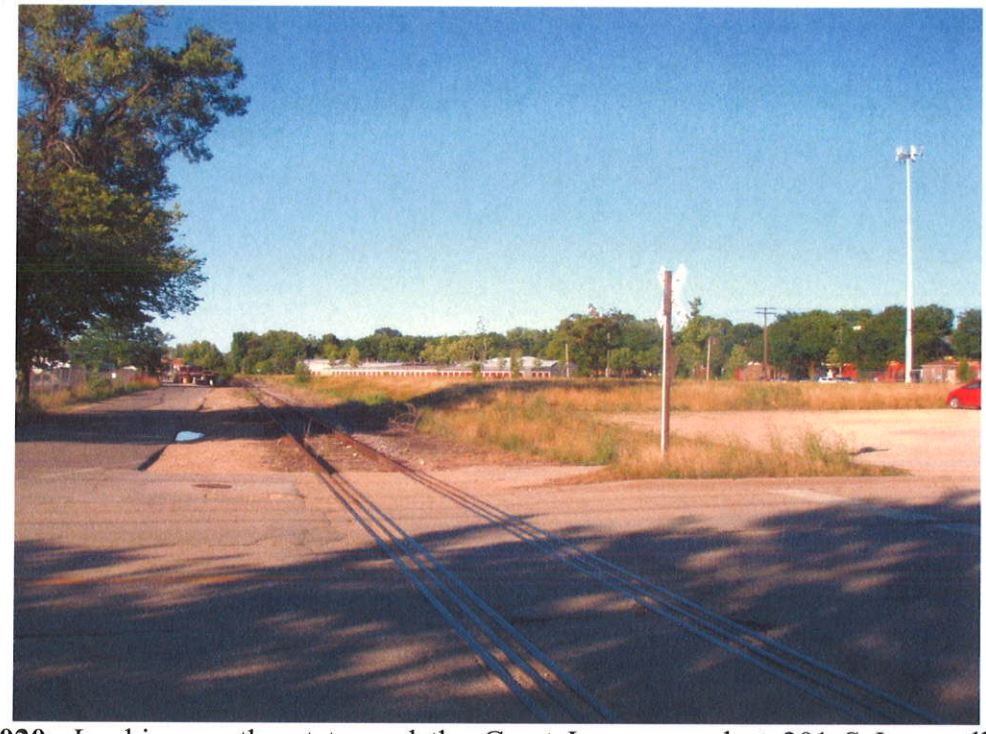
P1010015 Looking southeast along S Brearly Street from the railroad tracks intersection and toward the 1011 E. Wilson Street and the bike path.

P1010016 Looking east across former Bryn Oil property and site investigation waste drum on the property.

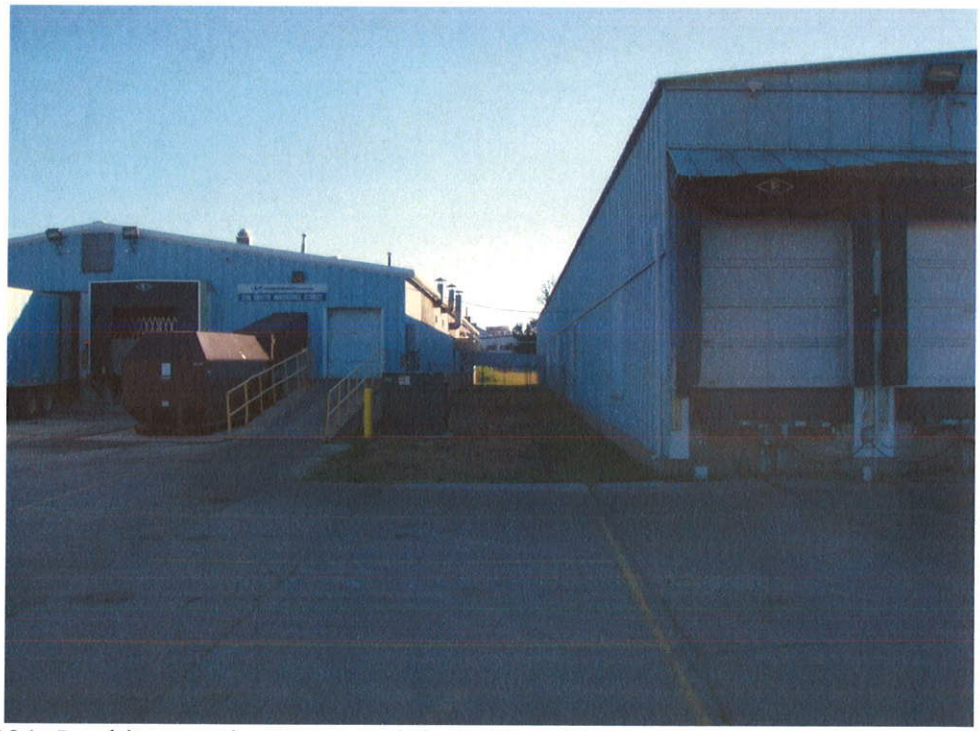


P1010018 Looking southwest from 204 S Ingersoll Street at the west side of the Research Products building and the railroad tracks separating the parcel with 1023 E Main Street parcel.

P1010019 Looking southeast along S Ingersoll Street and the Research Products building at 204 S Ingersoll Street, north side of the building.



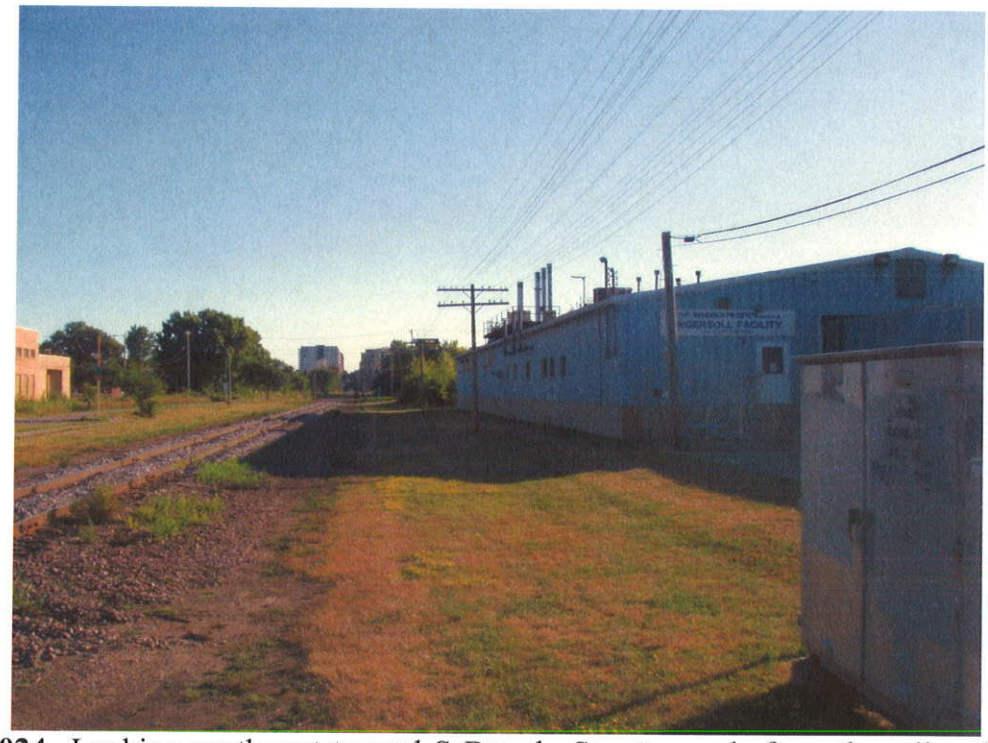
P1010020 Looking northeast toward the Great Lawn parcel at 201 S Ingersoll Street from the corner of 204 S Ingersoll Street and the railroad track intersection.



P1010021 Looking southwest toward the Research Products buildings at 204 S Ingersoll Street.

P1010022 Looking southwest toward the Research Products buildings at 204 S Ingersoll Street and the adjacent railroad track parcel at 205 S Brearly Street.

P1010023 Looking northeast toward the Great Lawn parcel at 201 S Ingersoll Street from the southeast corner of 204 S Ingersoll Street near the railroad track intersection.



P1010024 Looking southwest toward S Brearly Street parcels from the railroad tracks adjacent to 204 S Ingersoll Street. Showing the adjacent parcel at 205 S Brearly Street and the adjacent bike/pedestrian path.