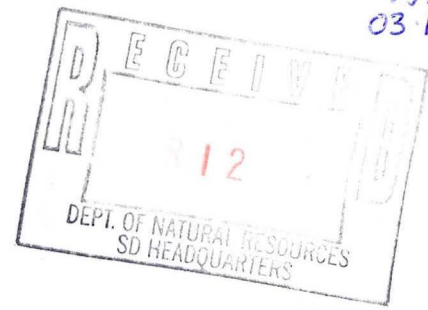


DNR  
AMATS  
03-13-002208



REMEDIAL INVESTIGATION WORK PLAN

Former Dry Cleaning Facility & Service Station  
501 South Park Street

Madison, Wisconsin 53715

DNR LUST FILE REF: 03-13-002208

March 11, 2002

**Prepared For:**

La Hacienda Restaurant  
515 South Park Street  
Madison, Wisconsin 53715

**Prepared By:**

REA, Inc.  
8505 University Green - Suite 200  
Middleton, Wisconsin 53562



8505 University Green  
Suite 200  
Middleton, WI 53562-2573

■ Phone 608-831-6563  
Fax 608-831-6564



March 11, 2002

Mr. Michael Schmoller  
Hydrogeologist  
WDNR - South Central District Office  
3911 Fish Hatchery Road  
Fitchburg, WI 53711

RE: Work Plan - Former Dry Cleaning Facility & Automobile Service Station  
Site Remedial Investigation  
501 South Park Street, Madison, WI 53715  
**DNR LUST File Ref: 03-13-002208**

Dear Mr. Schmoller:

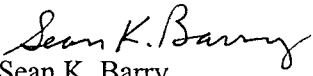
On behalf of La Hacienda Restaurant and in response to your September 10, 2001 letter, Resource Engineering Associates, Inc. (REA) is submitting one copy of the Work Plan for the Site Investigation at the former dry cleaning and service station facility located at 501 South Park Street in Madison, Wisconsin.

The objective of the investigation is to assess the approximate vertical and horizontal extent of volatile organic compounds (VOC) and petroleum fuel residues discovered during the removal of a fuel oil underground storage tank (UST) in 1993 and a May 1998 subsurface sampling investigation. Based on the laboratory analytical results from both dates, the DNR has been notified of the site conditions related to previous site operations.

Field activities are planned for May 2002 and will commence in accordance with the tentative schedule presented in the attached Work Plan and after the sound barrier fence is installed in April 2002. Approval to proceed has been obtained from La Hacienda.

If you have any questions regarding the Work Plan or the project in general, please call REA at (608) 831-6563. Thank you.

Sincerely,

  
Sean K. Barry  
Senior Engineering Technician

cc: Mr. David Herrera, La Hacienda Restaurant, 515 S. Park St., Madison, WI 53715 (255-8227)

**PROJECT WORK PLAN - REMEDIAL INVESTIGATION**

501 South Park Street  
Madison, Wisconsin

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**Report Submittal Certification**

"I, William W. Buckingham, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. 700 to 726, Wis. Adm. Code."

 12/29/01  
\_\_\_\_\_  
William W. Buckingham, Professional Engineer, E-31930

"I, William R. Buckingham, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

 12/29/01  
\_\_\_\_\_  
William R. Buckingham, Hydrogeologist,

# PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

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## TABLE OF CONTENTS

1.0 INTRODUCTION .....	1
1.1 KEY INFORMATION .....	1
1.2 PURPOSE .....	1
1.3 SITE DESCRIPTION .....	2
1.4 PHYSIOGRAPHIC AND GEOLOGIC SETTING .....	2
1.5 PREVIOUS INVESTIGATIONS .....	2
1.6 SITE SCOPING .....	3
2.0 PROPOSED SCOPE OF WORK .....	4
2.1 OBJECTIVES .....	4
2.2 INVESTIGATION STRATEGY .....	4
2.3 SAMPLING AND FIELD SCREENING METHODS .....	5
2.3.1 Sampling Locations .....	5
2.3.2 Soil Sampling .....	5
2.3.3 Field Screening (Soil) .....	6
2.3.4 Laboratory Analyses (Soil) .....	6
2.3.5 Groundwater Sampling .....	7
2.3.6 Laboratory Analyses (Groundwater) .....	7
2.4 REMEDIAL INVESTIGATION REPORT .....	7
2.5 EVALUATION OF REMEDIAL OPTIONS .....	7
3.0 WASTE MANAGEMENT PLAN .....	8
4.0 QUALITY ASSURANCE PLAN .....	8
4.1 DATA QUALITY OBJECTIVES AND CONTROL .....	8
4.2 SAMPLING CONTROL .....	8
4.3 PROJECT DOCUMENTATION .....	9
5.0 PROJECT SCHEDULE .....	9

### LIST OF FIGURES

FIGURE 1: VICINITY MAP .....	10
FIGURE 2: PROPOSED SOIL BORING LOCATOR MAP .....	11

### LIST OF TABLES

TABLE 1: PROPOSED SAMPLING LOCATIONS .....	5
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### LIST OF APPENDICES

APPENDIX A. HEALTH & SAFETY DATA

# PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

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## 1.0 INTRODUCTION

### 1.1 Key Information

- I. Site Owner:**  
La Hacienda Restaurant  
515 South Park Street  
Madison, Wisconsin 53715
  
- ii. Site Location:**  
501 South Park Street  
Madison, Wisconsin 53715
  
- iii. Legal Description:**  
SW $\frac{1}{4}$  of the SW $\frac{1}{4}$  of Section 23, T7N, R9E, Dane County, WI  
(1983 Madison West, Wisconsin Quadrangle - USGS 7.5-minute map)
  
- iv. Lust File Ref:**  
03-13-002208
  
- v. Site Contact:**  
Mr. David Herrera, owner  
Ms. Adriana Galvin, contact  
Phone (608) 255-8227
  
- vi. Environmental Consultant:**  
Resource Engineering Associates, Inc.  
8505 University Green, Suite 200  
Middleton, WI 53562-2507  
Phone (608) 831-6563

### 1.2 Purpose of Work Plan

The purpose of this report is to present the proposed scope of work for the remedial investigation at 501 South Park Street (Site) to DNR to comply with NR700 report submittal requirements.

### 1.3 Site Description

The property at 501 South Park Street in Madison is currently used as a parking lot by patrons of La Hacienda Restaurant. The majority of the surface was recently asphalted (or concrete) as part of La Hacienda's plans to redevelop the property. Sidewalks surround the site to the north (Drake Street) and to the west (Park Street), and a concrete parking area is adjacent and south. To the east is a strip of landscaped grass lawn/shrubbery area separating the parking lot and residential homes to the east.

## PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

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The site is part of the SW¼ of the SW¼ of Section 23, T7N, R9E, Dane County, Wisconsin as shown on **Figure 1**. The property was reportedly developed in 1925 as a Standard Oil Company filling station and was used as such up to 1961. A One-Hour Martinizing Cleaners facility then operated at the site from 1963 to 1990. The dry cleaning facility reportedly closed in 1990-1991.

Past site operations utilized five former underground storage tanks (UST's) storing petroleum products. These five former USTs were removed from the site in 1993. Of the five USTs, the former fuel oil tank was reported as a leaking tank. In addition to the leaking fuel oil tank, a vent was located above the fuel oil tank location. Observations indicated that steam, by-products or condensate generated from dry cleaning operations vented into a barrel resting on the ground outside the building, which in turn may have leaked material onto the ground. Current and past site features in relation to the proposed investigation area are presented on **Figure 2**.

### 1.4 Physiographic & Geologic Setting

The City of Madison is located in south central Wisconsin near the eastern edge of the "glacial driftless area". The site is located southwest of the State Capital Building, and approximately 200 feet west of Monona Bay (**Figure 1**). Lake Wingra is located approximately 2,000 feet southwest of the site.

The Water Resources of Wisconsin Rock-Fox River Basin (Atlas HA-360, Wisconsin Geological and Natural History Survey) indicates Lake Monona has a water table elevation of approximately 840 feet above mean sea level (msl). The 1983 USGS topographic quadrangle map of the site lists Lake Monona elevation at 845 feet above msl. The ground elevation of the site is approximately 850 feet msl indicating the depth to groundwater is between 5-10 feet. Previous site data collected confirms these depths.

The Water-Table Map of Dane County, Wisconsin (Madison West Quadrangle), February 1995 identifies the site at water table contour 850 feet above msl and the gradient in the area appears very level with no apparent direction. For the first phase of proposed site investigation, REA assumes groundwater flow is easterly, towards Monona Bay.

The site is located within the City of Madison, and surrounding homes and businesses are served with municipal water and sewer.

Atlas HA-360 also identified the bedrock geology in the site area as a sandstone, undifferentiated, formed in the Cambrian period that could be as great as 3000 feet thick. Depth to bedrock in the site area is assumed greater than 20 feet, and will be confirmed during well installation.

The Soil Survey of Dane County, Wisconsin (USDA) lists the soil in the area as Batavia silt loam (BbB), gravelly substratum, with 2-6% slopes, eroded. The Batavia series consists of deep, well drained, nearly level to sloping soils on high benches. These soils formed in deep loess and loamy outwash under hardwood forests and a thick understory of prairie grasses. The depth to outwash sand and gravel is 42 to 70 inches.

## PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

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### 1.5 Previous Investigations

Previous site investigation activities have been summarized in reports including the July 1993 tank closure activities by HPS, Inc. ("*Site Assessment for Underground Storage Tank*", The Finishing Touch, 501 South Park Street, Madison, WI 53715), and three separate limited investigations performed by REA including the April 9, 1998 "*Site Scoping & Remedial Investigation*" report, the August 13, 1998 "*Site Screening Investigation*", and the June 8, 2001 "*Work Plan for Site Redevelopment*". Copies of these four reports have been submitted to DNR for review.

As summarized in the reports, evidence of VOC compounds and diesel range organics (DRO) residues have been identified in the groundwater and in the soil near the smear zone at levels above current DNR NR 140 Enforcement Standards (ES) and DNR NR 720 Residual Contaminant Level (RCL). Based on the information presented in these reports, DNR is requiring further subsurface investigation to determine the approximate magnitude and extent of the contamination plume as summarized in this Work Plan.

### 1.6 Site Scoping

To comply with NR 716.07, a site scoping survey was performed to identify items below:

- The site history has been discussed in Sections 1.3 and 1.5;
- Contamination - Analytical results from soil and groundwater samples collected in May 1998 indicate that soils around the former fuel oil tank/dry cleaning vent area have been impacted by VOC and DRO residues. Groundwater was encountered at an approximate depth of 8 feet;
- The extent of petroleum residues in the soil, along with the groundwater is unknown;
- There is no reported or apparent history of previous hazardous substance discharges or environmental pollution at the site;
- The known environmental media affected by VOC and DRO residues is soil and groundwater;
- The site location has been discussed in Sections 1.1 and 1.3;
- Local residents in the City of Madison are supplied with municipal drinking water. If evidence of petroleum residues are identified in the groundwater at levels exceeding NR 140 public health groundwater standards, an evaluation of potential receptors will be included in the ensuing remedial investigation report;
- Available information does not suggest that there are state or federal listed threatened or endangered species, species or habitat systems, wetlands, outstanding water receptors or sites of historical or archaeological significance in the site area;
- There has been no immediate action pertaining to the VOC/DRO release performed at the site;
- Background soil and water quality information is undetermined at this time. This type of information will be collected as part of the remedial investigation;

# PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

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## 2.0 PROPOSED SCOPE OF WORK

### 2.1 Remedial Investigation Objectives

The objectives of the proposed remedial investigation are as follows:

- To assess the magnitude and extent of VOC and DRO residues in the groundwater in the area of the former UST and dry cleaning vent. A soil evaluation will also be conducted; and
- Obtain data to evaluate possible remedial alternatives, to evaluate the need for additional investigation, and/or, to evaluate the site for natural biodegradation.

Upon completion of these objectives it should be possible to identify a feasible and cost effective remedial action if warranted.

### 2.2 Investigation Strategy

The remedial investigation will be conducted in a phased approach. Phase one will consist of using a drilling rig to advance three groundwater monitoring wells in the vicinity of the former UST and dry cleaning vent for the purpose of determining the following:

- Have VOC and/or DRO residuals impacted the shallow groundwater beneath the site, and if so, are the detections above the NR 140 Enforcement Standards (ES);
- Determine the groundwater flow direction which will help evaluate potential migration of any VOC or DRO residual contamination that may be impacting the groundwater. Depth to groundwater data will also be obtained; and
- Has groundwater and/or soil contamination migrated off site property. As shown on Figure 3, the planned location of two groundwater monitoring wells (appear as down gradient wells) will be along the eastern property line separating La Hacienda with residential property. Preliminary data indicates a fairly flat water table with little gradient.

#### 2.2.1 Sampling Media

Both soil and groundwater samples will be evaluated for potential VOC or DRO residues. Soil samples will be collected for the purpose of assessing the extent and magnitude of contaminated soil. Soil samples will be field screened for volatile organic vapors and, based on the screening results, select soil samples will be submitted for laboratory analysis along with groundwater samples.

It should be noted that if VOC and/or petroleum residues are detected in the groundwater at the site at concentrations exceeding NR 140 guidelines it may be necessary to conduct additional groundwater investigation, which may involve investigating on properties owned by others. If additional investigation is necessary following the first phase, an addendum to the workplan will be developed. The second phase of work will not be performed without authorization from La Hacienda and approval by DNR.



# PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

## 2.3 Soil Sampling & Field Screening Methods

### 2.3.1 Sampling Locations

Soil samples will be collected at three locations around the former UST/vent area. A truck mounted drilling rig will be used to advance soil borings MW-1, MW-2 and MW-3. The proposed sampling locations are identified on **Figure 2** and summarized in **Table 1** below. This information will be discussed with La Hacienda prior to implementation.

**Table 1**  
Proposed Monitoring Well/Sampling Locations

Soil Boring #	Sampling Method	Location	Purpose
MW-1	Drill Rig	Northwest corner of Site	Assume up-gradient location, obtain background data
MW-2	Drill Rig	North of former UST/vent area	assess northern extent of PL & down-gradient location
MW-3	Drill Rig	Center of former UST/vent area	assess magnitude & flow direction at east PL

### 2.3.2 Soil Sampling

Soil samples obtained using the drill rig will be collected on a 2.5 foot interval to the borehole terminus. Each sample will be logged by a REA field representative (sample logging consists of recording soil texture [based on the USCS system], color, approximate moisture content and the presence of unnatural odors for each observed soil unit on a soil boring log).

### 2.3.3 Field Screening (Soil)

Each soil sample will be field screened for volatile organic vapors using a flame ionization detector (FID). Preparation for field screening will consist of placing a small amount of soil sample in a plastic ziplock bag or glass jar, sealing it and labeling the container. Each sample will be allowed to warm to near 70°F for approximately 15 minutes. When appropriate, each sample will be screened by placing the probe of the FID in the ziplock bag or glass jar. The maximum meter reading recorded from each sample will be noted on the soil boring log.

### 2.3.4 Laboratory Analyses (soil)

Up to six soil samples (two samples per boring) are planned to be collected and submitted to a Wisconsin certified analytical laboratory. Samples will be collected from above, within, or below zones of contamination, and immediately above the water table, if possible. The samples will be used to evaluate the extent of impacted soil, or serve as a basis for further investigation.

Analytical parameters will include VOC, DRO and percentage of solids. Sample preparation for analysis will include the following:

**VOC:** Mass 25 grams of soil sample and place in 60 milliliter (ml) glass jar. Add 25 ml of methanol (preservative) and seal the jar with a teflon lined lid.

**DRO:** Mass 25 grams of soil sample, place in 60 milliliter (ml) glass jar and seal jar with a teflon lined lid.

**Solids:** Fill one four ounce glass jar with soil and seal with a teflon lined lid (no headspace).

## PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

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Soil samples will be either refrigerated or kept on ice until arrival at the laboratory. Chain of custody documentation will be maintained for all samples.

### 2.4 Groundwater Sampling

After collecting soil samples from the three boreholes, they will be converted to NR 141 WI Admin Code groundwater monitoring wells (MW) for the purpose of collecting water samples for laboratory evaluation.

#### 2.4.1 Construction and Development

Each monitoring well will be constructed of 2-inch diameter, threaded coupling polyvinyl chloride (PVC) well screen and riser pipe within boreholes drilled using 4.25-inch inner diameter HSA. Well screens will be ten (10) feet long with 0.010-inch factory cut slots and will be installed such that approximately six-seven (6-7) feet of the screen will be below the water table, and three-four (3-4) feet are above the water table. Filter packs, fine sand and bentonite seals will be installed around the PVC as required by Wisconsin Administrative Code NR 141. Each well will be flush mounted to the surface and the top of each PVC riser pipe will be capped with locking caps.

Following installation and prior to sampling, each monitoring well will be developed according to Wisconsin Administrative Code NR 141. Development will consist of at least thirty (30) minutes of surging the well screen, followed by purging approximately ten (10) well volumes of groundwater. If a well can be bailed or pumped dry, it will be purged dry five (5) times before sampling. Purge water will be placed in 55 gallon steel drums and disposal will be approved by DNR and disposal facility.

#### 2.4.2 Groundwater Sampling

Groundwater samples will be collected from the monitoring wells no sooner than 24 hours after well development. At the time of sampling, the well will be purged of 3 well volumes or purged dry 3 times. Samples will be collected using decontaminated, disposable polyethylene bailers. The samples will be transferred directly into sampling containers supplied by the analytical laboratory.

Groundwater sampling quality control measures will include collecting a duplicate sample for laboratory analysis. Samples will be kept refrigerated or on ice until arrival at the laboratory. Chain of custody forms will be maintained.

#### 2.4.3 Laboratory Analyses (groundwater)

Groundwater samples will be collected from each well after development. The samples will be used to evaluate the extent of impacted groundwater, or serve as a basis for further investigation.

Two rounds of groundwater sampling are planned for the first phase of site investigation. Groundwater will be analyzed for VOC's only.

## PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

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### 2.5 Determining Groundwater Flow Characteristics

After monitoring well construction is complete, depth to water measurements will be recorded from each monitoring well. Depth to water measurements will also be recorded after well development and before each sampling event. Measurements will be performed using an electronic water level meter consisting of a probe that sounds an audible alarm upon contacting water. The depth to water in the well (read to nearest 0.01 foot) is then read directly from the cable connected to the probe. These measurements will be recorded on a field log.

The elevations of the top-of-casing (TOC) and ground surface (GS) will be measured and recorded relative to a site datum. Using this data and the depth to water measurements the elevation of the water table in each monitoring well may be calculated. The direction of groundwater flow and horizontal hydraulic gradient may then be calculated using triangulation methods and the water table elevation data.

### 2.6 Remedial Investigation Summary Report

The remedial investigation report will document the work performed, methods used and the results of the investigation. Actual sampling locations and other field measurements will be incorporated into scaled site technical illustrations. Soil boring logs, soil boring abandonment forms, chain of custody forms, laboratory reports and other pertinent information will be placed in appendices at the end of the report. The report will present, findings, conclusions, and recommendations, based on the results of the remedial investigation.

### 2.7 Evaluation of Remedial Alternatives

If remedial action is proposed at the site, a Remedial Action Plan (RAP) will be prepared. Available technologies will be screened and three feasible, DNR-approved remedial alternatives will be selected for further evaluation. This initial screening will be used to identify options that meet the following criteria:

- Protective of public health, safety and welfare, and the environment; and
- Comply with applicable state and federal environmental standards and guidelines.

The three remedial alternatives passing the initial screening will be developed to suit the needs of the site, at which time they will be evaluated for the following:

- Long-term and short-term effectiveness;
- Feasibility; and
- Cost.

A detailed cost estimate for consulting services will be developed for the recommended alternative. Results of the evaluation will be presented in a Remedial Action Plan submitted to DNR.

# PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

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## 3.0 WASTE MANAGEMENT PLAN

Soil brought to the surface by the drill rig during advancement of the boreholes will be placed in 55 gallon steel drums. After receiving laboratory analysis for the soil, disposal options can be reviewed.

Groundwater removed during MW development, purging and sampling will also be placed into 55 gallon steel drums. After obtaining laboratory data for the groundwater, disposal options can be reviewed.

## 4.0 QUALITY ASSURANCE PLAN

### 4.1 Data Quality Objectives & Control

The data quality objectives established for this remedial investigation are as follows:

- Collect headspace field screening data from soil samples to determine which samples to submit for laboratory analysis; and
- Collect and analyze soil and groundwater samples for a quantitative analysis of the magnitude and extent of VOC and petroleum residues.

### 4.2 Sampling Control

Soil samples will be collected using decontaminated sampling equipment. During the first phase of investigation the sampling equipment will consist of a drill rig and split spoon sample probe. Each soil sample will be logged in the field by REA personnel. Logging consists of identifying the soil texture Unified Soil Classification System (USCS), other distinguishing features, color, approximate moisture content, any discoloration or odors caused by VOC or petroleum residues, the amount of sample recovered, the sample depth and field screening results. These results are used to develop a final soil boring log included in the remedial investigation report.

Soil and groundwater samples will be placed into appropriate sampling containers provided by the contracted analytical laboratory, and kept either on ice or refrigerated until arrival at the laboratory. Chain of custody documentation for each sample will be maintained. The laboratory performing the analyses will be certified with the DNR and will establish levels of quality control commensurate with the standards established by the U.S. EPA and/or the State of Wisconsin for each specific analytical procedure.

### 4.3 Project Documentation

Field observations and measurements will be recorded on a field log sheet or on the appropriate field documentation form. Standard field boring logs and soil boring abandonment, well construction and development forms will be used when appropriate. FID measurements will be recorded on the field soil boring logs. Sketches containing measurements of distances to site features will be recorded on the field log sheet. Soil and groundwater samples will be labeled individually with the sample number, site name, client name, sampling date and desired analytical parameters. This same information will be recorded on a chain of custody.

# PROJECT WORK PLAN - REMEDIAL INVESTIGATION

501 South Park Street  
Madison, Wisconsin

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## 5.0 PROJECT SCHEDULE

The first phase to the remedial investigation proposed for 501 South Park Street in Madison, Wisconsin is planned to be implemented in January 2002 after receiving approval by DNR. The opinion of scheduling is presented in cumulative time does not consider delays due to inclement weather and other unanticipated events that may otherwise influence the work schedule.

<u>Activity</u>	<u>Cumulative Time</u>
<b>1<sup>st</sup> Phase of Investigation</b>	
Obtain La Hacienda approval to proceed	March 6, 2002
Work plan submittal to WDNR	March 11, 2002
Initiate field investigation (After Sound Barrier Fence is up)	May, 2002
Receipt of laboratory data (1 <sup>st</sup> round)	June, 2002
Perform 2 <sup>nd</sup> round groundwater sampling	August, 2002
Receipt of laboratory data (2nd round)	September, 2002
Evaluate first phase data (1 <sup>st</sup> & 2 <sup>nd</sup> rounds of site data) and Summarize data in report	September, 2002
Finalize Summary report	October 2002
<b>2<sup>nd</sup> Phase of Investigation (dependent on 1<sup>st</sup> Phase Results)</b>	
Initiate second phase of investigation	November 2002
Receipt of laboratory data	December 2002

**APPENDIX A**  
**HEALTH & SAFETY DATA**

**PROJECT WORK PLAN - REMEDIAL INVESTIGATION**

501 South Park Street  
Madison, Wisconsin

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**REA HEALTH & SAFETY DATA FORM**

**Site Name:** 501 South Park Street

**Client Contact:** Mr. David Herrera or Ms. Adriana Galvin, La Hacienda Restaurant  
515 South Park Street, Madison, WI 53715 (608) 255-8227

**Site Address:** 501 South Park Street, Madison, Wisconsin 53715

**Site Use:** The site is currently an asphalt parking lot used for La Hacienda patrons

**Project Description:** Remedial Investigation:  
Install 3 groundwater monitoring wells to determine magnitude and extent in groundwater. Sample soil and water

**Potential Contaminant:** Chlorinated solvents (VOC's) and DRO residues

**Utilities Located:** Utilities located by Digger's Hotline and appropriate Municipal representatives.

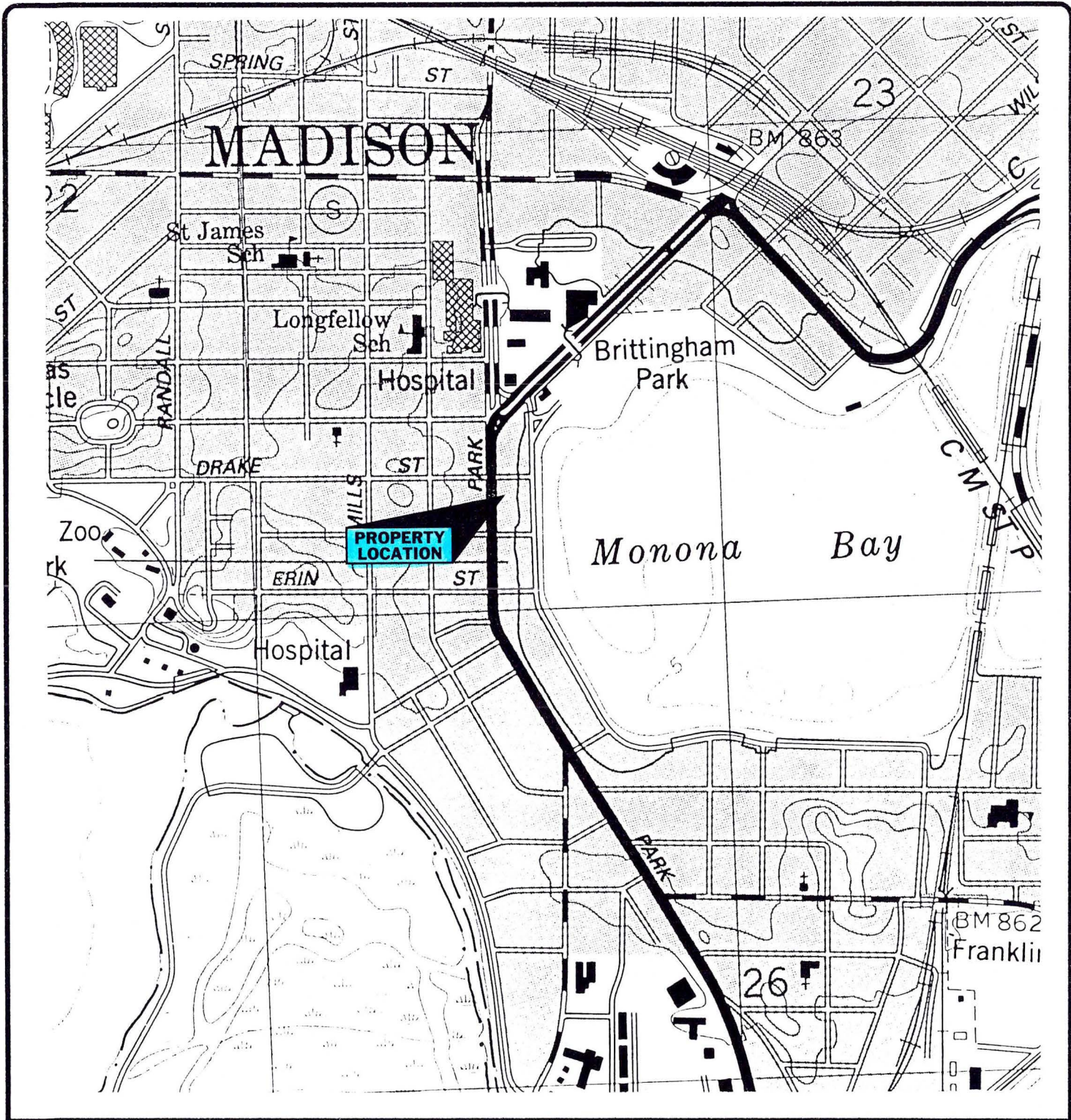
**Safety Equipment:** Drill rig to be equipped with an automatic shut-off and fire extinguisher. Level D clothing with steel toe boots, hard hat, and gloves. FID will be available for air monitoring.

**Nearest Hospital:** Meriter Hospital - 202 South Park Street, Madison, WI 53715  
Phone: (608) 267-6000

**Hospital Directions:** Go north of site on South Park Street, to Meriter Hospital. Hospital is located on the left (west) hand side of Park Street. Approximately 2 blocks north of site

**Phone Numbers:**

Emergency (Police, Fire, Ambulance)	911
Police	911
Fire Department	911
Hospital	608-267-6000
REA Project Manager (Sean Barry)	608-831-6563
La Hacienda Restaurant telephone (Adriana Galvin, contact)	608-255-8227



**NOTES**

- 1) Site is located in the SW1/4 of the SW1/4 of Section 23, T7N, R9E, City of Madison, Dane County, Wisconsin.
- 2) Base map from Madison West, Wisconsin 7.5 minute USGS topographic quadrangle map (1983).
- 3) See Figure 2 for existing site conditions and former site features.



SCALE: 1" = 1000'

**REA** RESOURCE ENGINEERING ASSOCIATES, INC.  
 8505 University Green, Suite 200  
 Middleton, Wisconsin 53562-2507  
 608-831-6563 (Fax 831-6564)

501 SOUTH PARK STREET  
 La Hacienda Restaurant  
 Former Dry Cleaning/Service Station Facility  
 Madison, WI 53715

Date: Nov 2001  
 Drawn: SKB  
 CK'd: RJP  
 Proj: #010030.3

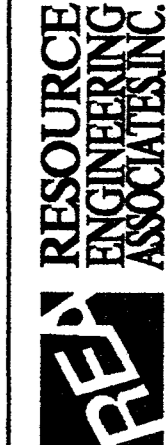
**SITE VICINITY MAP**

hacienda1.dwg  
 FIGURE 1



REVISIONS:

Resource Engineering Associates, Inc.  
 8505 University Green  
 Suite 200  
 Middleton, Wisconsin 53562-2507  
 P: 608-831-6563 F: 608-831-6564



PROPOSED MONITORING WELL LOCATIONS  
 REMEDIAL INVESTIGATION  
 (FORMER DRY CLEANING FACILITY)  
 La Hacienda Restaurant  
 501 South Park Street, Madison, WI

Date: Dec 2001  
 Drawn: SKB  
 Checked: WWB  
 Drawing # 501PARK5.DWG  
 Project # 010030.3  
 FIGURE 2

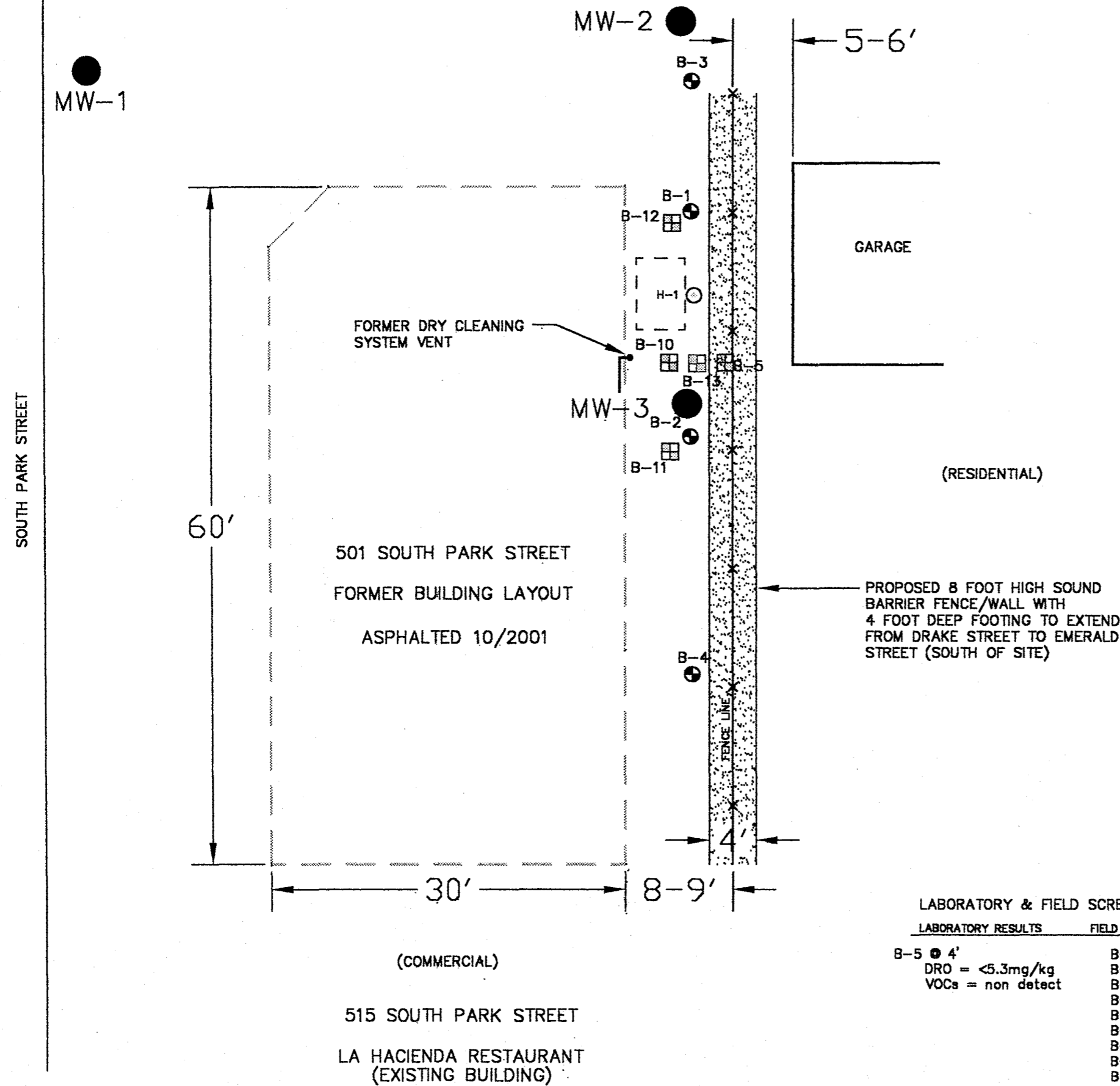
LEGEND

- B-1 APPROXIMATE LOCATION OF GEOPROBE SOIL BORING ADVANCED BY SOIL ESSENTIALS ON 5/9/98
- H-1 APPROXIMATE LOCATION OF FORMER SOIL BORING (KEIL ENVIRONMENTAL) (APRIL 14, 1994)
- APPROXIMATE LOCATION OF FORMER 500 GALLON FUEL OIL UST (REMOVED 7/93)
- ▣ APPROXIMATE LOCATION OF SOIL BORING ADVANCED BY REA USING HAND AUGERS (MAY 2001)
- ▭ PROPOSED 8 FOOT HIGH SOUND BARRIER WALL
- MW-1 ● APPROXIMATE LOCATION OF PROPOSED GROUNDWATER MONITORING WELL

NOTES

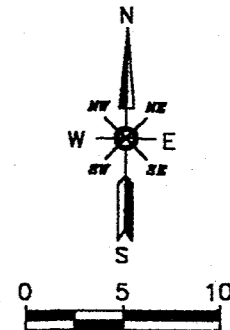
- 1) All dimensions and locations are approximate and based on limited field measurements by REA and a site map by BT<sup>2</sup> (project #1558 - figure 1; 4/14/1994).
- 2) Proposed sound barrier wall to extend to a depth of 4 feet for the footing. Footing width is 4 feet and will straddle the existing fence/property line as shown.
- 3) Proposed monitoring well locations to be approved by La Hacienda prior to installation.
- 4) Base map data will be updated with new site measurements collected during investigation.
- 5) Former building area has been asphalted.
- 6) Assumed groundwater flow is east toward lake.

DRAKE STREET TO MONONA BAY →



LABORATORY & FIELD SCREENING DATA

LABORATORY RESULTS	FIELD SCREENING RESULTS
B-5 @ 4'	B-1 @ 3-4' = 0
DRO = <5.3mg/kg	B-2 @ 3-4' = 200
VOCs = non detect	B-3 @ 3-4' = 0
	B-4 @ 3-4' = 0
	B-5 @ 3.5-4' = 0
	B-10 @ 4' = 0
	B-11 @ 4' = 0
	B-12 @ 4' = 0
	B-13 @ 3.5-4' = 0



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