Natural
Resource
Technology, Inc.

N R T

PHASE I AND II REMEDY DOCUMENTATION REPORT
CAMPMARINA, FORMER COAL GAS FACILITY
SHEBOYGAN, WISCONSIN

Project No: 1313

Prepared For:

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February 28, 2003

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"I, Roy E. Wittenberg, 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. NR 700 to 726, Wis. Adm. Code."

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"I, Christopher A. Robb, 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. NR 700 to 726, Wis. Adm. Code."

TABLE OF CONTENTS

EXECUTIVE SUMMARY **ES-1**

1 INTRODUCTION **1-1**

1.1 Overview 1-1
1.2 General Site Information 1-2
1.3 Remedial (Engineering) Objectives and Approach 1-4
1.4 General Sequencing of Activities 1-6
1.5 Documentation Surveying 1-6

2 PHASE I EXCAVATION AND GRADING **2-1**

2.1 Overview 2-1
2.2 Permitting and Approvals 2-1
2.3 Site Preparation, Campmarina 2-2
2.4 Site Preparation, Wildwood 2-3

2.4.1 Site Security and Access Provisions 2-4
2.4.2 Utility Trenching 2-4
2.4.3 Temporary Material Staging and Storage 2-5

2.5 Excavation and Grading 2-5

2.5.1 Objectives and Strategy 2-5
2.5.2 Center Avenue Right-of-Way 2-7
2.5.3 Campmarina 2-11
2.5.4 Backfilling and Phase I Restoration 2-14

2.6 Surface Water and Materials Management and Processing 2-16

2.6.1 Surface Water 2-16
2.6.2 Management and Screening of Debris 2-19
2.6.3 Non-MGP Impacted Soil and Debris 2-17
2.6.4 Pretreatment Stockpiling and Analytical Testing 2-17

2.7 Thermal Treatment 2-18

2.7.1 Overview 2-18
2.7.2 Post Treatment Stockpiling and Analytical Testing 2-18
2.7.3 Thermal Treatment Performance 2-19

2.8 Ambient Air Monitoring 2-19

3 PHASE II REMEDY CONSTRUCTION 3-1

3.1 Overview 3-1
3.2 Waterloo® Sheet Pile Wall 3-1
3.3 Biosparge System 3-2

3.3.1 Overview 3-2
3.3.2 Biosparge Pilot Test 3-3
3.3.3 Biosparge Wells and Underground Piping 3-4
3.3.4 Boathouse/Biosparge Building 3-5
3.3.5 Aboveground Treatment Equipment, Piping and Controls 3-6
3.3.6 System Startup and Shakedown 3-7
3.3.7 Operation and Maintenance 3-8
3.3.8 Groundwater and Biosparge System Performance Monitoring 3-9

3.4 Geosynthetic Cover 3-10

3.4.1 Overview 3-10
3.4.2 Geosynthetic Cover Penetrations 3-11
3.4.3 Interior Drainage/Venting and Exterior Drainage Systems 3-13
3.4.4 Subgrade Stabilization and Inspection 3-13
3.4.5 Geosynthetic Cover Installation 3-14
3.4.6 Center Avenue Right-of-Way Modifications 18

3.5 Phase II Backfilling and Site Restoration, Campmarina 19

3.5.1 Overview 19
3.5.2 Beneficial Reuse of Thermally Treated Material 20
3.5.3 Amendment of Thermally Treated Material 21
3.5.4 Placement of Clean Fill Cover Layer 22
3.5.5 Removal of Temporary Sheeting 22
3.5.6 Park Construction and Coordination with the City of Sheboygan 23

3.6 Phase II Site Restoration, Wildwood 24

3.7 Institutional Controls 25

FIGURES

Figure 1 Site Location Map (1313/3.8)
Figure 2 Remaining Benzene and Total BTEX Concentrations in Soil – Center Avenue Right-of-way Excavation Zones (1313/3.8/AB/B30)
Figure 3 Remaining Naphthalene and Total PAHs Concentrations in Soil – Center Avenue Right-of-way Excavation Zones (1313/3.8/AB/B31)
Figure 4 Remaining Total Lead and Total Cyanide Concentrations in Soil – Center Avenue Right-of-way Excavation Zones (1313/3.8/AB/B32)
Figure 5 Remaining Soil Quality – River Bank (1313/3.8/AB/B33)
Figure 6 Areas Designated for Institutional Control

TABLES

Table 1 Wastewater Analytical Results
Table 2 Excavation Sidewall and Base Analytical Results
Table 3 Pre-treatment and Non-MGP impacted Soil Analytical Results
Table 4 Post-treatment Soil Analytical Results
Table 5 Contaminant Mass Removal Table
Table 6 Post Phase I and II Remedy Construction Groundwater Monitoring Schedule

APPENDICES

Appendix A: November 22, 2000 Record of Decision
Appendix B: Photographs
Appendix C: Phase I and II Remedy Construction Documentation Survey Data
Appendix D: NRT Daily Field Activity Reports
Appendix E: Permits and Approvals
- E1: WDNR Chapter 30 Permit
- E2: Army Corps of Engineers Correspondence
- E3: WDNR Riprap Permit
- E4: Approvals from the City of Sheboygan
- E5: Modification of Plan of Operation for Thermal Treatment Approval Letter, Sheboygan
- E6: Special Waste Approval Letter
- E7: Notification to Treat or Dispose (Form 4400-168)
- E8: Correspondence with City of Sheboygan Wastewater Treatment Plant

Appendix F: Temporary Sheet Pile Design
Appendix G: Monitoring Well Boring Logs, Construction Reports and Abandonment Forms
Appendix H: City of Sheboygan Wastewater Treatment Plant Acceptance Data

Appendix I: Soil Laboratory Analytical Data
I1: Excavation Base and Sidewall Data
I2: Pre-Treatment and Clean Soil Data
I3: Post-Treatment Soil Data
Appendix J: Geotechnical Testing and Compaction Data
Appendix K: Thermal Treatment Operations Logs
Appendix L: Ambient Air Field Data
L1: Perimeter Ambient Air Monitoring Plan
L2: Perimeter Ambient Air Monitoring Program Summary Report
L3: Campmarina Real Time Monitoring Logs
L4: Wildwood Real Time Monitoring Logs
Appendix M: Waterloo® Sheet Pile Installation
M1: Installation Report
M2: Sheet Pile Video Tape Documentation
Appendix N: Biosparge Pilot Test
Appendix O: Biosparge Well Boring Logs and Well Completion Reports
Appendix P: Biosparge Building Plans
Appendix Q: City of Sheboygan Building Requirements
Appendix R: Subgrade Acceptance Forms
Appendix S: Geosynthetic Inventory Forms
S1: Geocomposite
S2: HDPE Geomembrane
S3: Non-Woven Geofabric
Appendix T: Geomembrane Construction Documentation
T1: Geomembrane Panel Layout
T2: Geomembrane Panel Deployment Log
T3: Geomembrane Trial Seam Log
T4: Geomembrane Panel Seam Log
T5: Geomembrane Defects and Repairs Log
T6: Geomembrane Conformance Test Summary
T7: Field Destructive Seam Test Data Sheet
T8: Laboratory Destructive Seam Test Summary
Appendix U: Geomembrane Conformance Test Results
Appendix V: Laboratory Destructive Seam Test Results
Appendix W: Interface Shear Testing Reports
Appendix X: Surface Water Discharge Limit Compliance Letter
Appendix Y: Modification of Plan of Operation for Thermal Treatment Approval Letter - Oshkosh

SHEETS

TS Title Sheet

Phase I
Sheet C010 – Site Plan, Previous Conditions
Sheet C020 – Site Preparation Plan
Sheet C030 – Underground Utility and Former MGP Structure Decommissioning Plan
Sheet C040 – Excavation Plan and Cross Sections
Sheet C050 – Phase I Grading Plan
Sheet C051 – Phase I Grading Cross Sections
Sheet C060 – Phase I Site Restoration and Erosion Control Plan
Sheet C070 – Thermal Treatment Site Plan, Wildwood Avenue Facility

Phase II
Sheet C080 – Geosynthetic Cap Subgrade and Sheet Pile Wall Plan
Sheet C090 – Sheet Pile Wall Profiles
Sheet C100 – Biosparge System Plan
Sheet C110 – Sections and Details, Biosparge System
Sheet C200 – Geosynthetic Cap Plan
Sheet C210 – Section and Details, Geosynthetic Cap
Sheet C300 – Phase II Grading Plan
Sheet C400 – Site Restoration Plan
Sheet C410 – Site Restoration Cross Sections
Sheet C420 – Site Restoration Details
Sheet S010 – Enclosure Foundation Plan and Elevations, Biosparge System
Sheet S020 – Concrete Sections and Details
Sheet M010 – Piping and Instrumentation Diagram, Biosparge System
Sheet M020 – Piping Plan, Sections and Details, Biosparge System
Sheet E010 – Electrical Site Plan
Sheet E020 – Electrical and HVAC Plan, Oneline, and Panel Schedule

EXECUTIVE SUMMARY

This report documents remedy construction activities performed by Wisconsin Public Service Corporation (WPS) at the former coal gas facility located at Campmarina in Sheboygan Wisconsin and on property located directly south of Campmarina known as the Center Avenue right-of-way (Figure1). Remedy construction was performed in two phases. Phase I consisted of the removal of manufactured gas plant (MGP) impacted soil and debris and transporting the material to WPS's Wildwood Avenue facility in Sheboygan for screening and thermal treatment. Excavation and grading operations were performed to remove previously identified source areas, reduce overall grades to accommodate future construction of a park, and prepare the site for Phase II remedy construction. Phase II consisted of the installation of a special type of environmental sheet pile barrier wall (Waterloo®) that completely encircles affected areas on both Campmarina and the right-of way, installation of a biosparge system, and construction of a low permeability geosynthetic cover. The sheet pile wall is keyed into a laterally continuous lower clay aquitard. The biosparge system is designed to gently inject air into the subsurface within the containment area to promote natural biodegradation of MGP constituents in shallow groundwater.

Following construction of the geosynthetic cover, the site was brought back to its original grade using a combination of clean imported fill and beneficial reuse of thermally treated material. As part of these activities, the river bank was completely restored along Campmarina and the right-of-way using a combination of clean structural fill and riprap. Beneficial reuse of thermally treated material included amending material with organically rich compost for placement in areas designated for future landscaping. Following substantial completion of these activities, construction activities were performed by the City of Sheboygan for a neighborhood park that included a river walk, removal of Water Street along Campmarina, landscaping, and recreational facilities.

Phase I activities were performed from approximately October, 2000 through January, 2001. Phase II was initiated in December, 2000 and was substantially completed in July 2001. Construction of the park was initiated during the summer of 2001 and was substantially completed in June, 2002.

Remedy construction was performed to fulfill the requirements of the approved Record of Decision (ROD) issued by the Wisconsin Department of Natural Resources (WDNR) on November 22, 2000. In addition, this report was prepared in substantive conformance with the regulatory requirements of the March 5, 1991 contract between WPS, the City of Sheboygan and the WDNR. Documentation is provided that the construction activities were performed in general accordance with the design plans and technical specifications, as noted herein.

1 INTRODUCTION

1.1 Overview

This Phase I and II Remedy Documentation Report presents the results of the remedial activities performed by Wisconsin Public Service Corporation (WPS) at the former coal gas facility located at Campmarina in Sheboygan, Wisconsin and on property located directly south of Campmarina known as the Center Avenue right-of-way. Both properties are owned by the City of Sheboygan (Figure 1). Remedy activities were performed to fulfill the requirements of the Record of Decision (ROD) approved by the Wisconsin Department of Natural Resources (WDNR) on November 22, 2000 (Appendix A). The report includes a brief review of the remedial objectives and approach, a summary of work conducted, documentation of compliance with the Phase I and Phase II Remedial Work Plans, summary of permits and associated correspondence, and results and conclusions.

This report was prepared in substantive conformance with the March 5, 1991 contract between WPS, the City of Sheboygan and the WDNR, and in accordance with the regulatory requirements stipulated under NR 724.15. General contract requirements that this remedial documentation report also fulfills consist of the following:

- Subtask 13d, Monitoring Program Plan: This plan outlines future groundwater monitoring and reporting requirements following remedy construction;
- Subtask 14a, Operation and Maintenance (O&M) Plan: This plan outlines general O&M requirements for the low flow biosparging system and geosynthetic cover;
- Subtask 15a, Construction Quality Assurance (CQA) Project Plan: Documentation is included for the field inspection, testing and inspection that were performed during construction of each of the remedy components; and,
- Subtask 16c, Final Remedy Report: Documentation of the remedy construction and completion.

Natural Resource Technology, Inc. (NRT) served as the engineer and provided construction oversight on behalf of WPS during performance of the remedy activities at the former MGP site. Remedial activities were implemented in response to historical waste generation and releases that resulted from former MGP operations on the property between approximately the early 1870s through late 1920s. The property is located on what was known as Campmarina. Campmarina is located directly along the Sheboygan River, and was bounded on the east by North Water Street, and on the south by the Center Avenue right-of-way in the City of Sheboygan, Wisconsin. Since substantial completion of the remedy, construction activities were initiated by the City of Sheboygan that include a park, river walk and removal of Water Street along the Campmarina property boundary. City construction was completed in June, 2002.

1.2 General Site Information

Site Owner:	City of Sheboygan 807 Center Avenue Sheboygan, WI 53081 Contact: Mr. Tom Holton (920) 459-3366
Former MGP Operator:	Wisconsin Public Service Corporation 700 North Adams Street, P. O. Box 19002 Green Bay, WI 54307-9002 Contact: Ms. Connie Lawniczak, Senior Environmental Analyst (920) 433-1140
Campmarina Site Location:	732 North Water Street Sheboygan , Wisconsin Sheboygan County NW ¼, SW ¼, Section 23, T15N, R23E Refer to Figure 1
WPS Sheboygan Service Center Location:	933 S. Wildwood Avenue Sheboygan, Wisconsin Contact: Mr. Art Wegner, Site Leader (920) 451-3733

Consultant:	Natural Resource Technology, Inc. (NRT) 23713 West Paul Road Pewaukee, WI 53072 Contacts: Mr. Roy E. Wittenberg, P.E., Project Manager Mr. Spiros Fafalios, P.E., Phase I Project Engineer Mr. Chris Robb, P.E., Phase II Project Engineer Ms. Heather Simon, Field Engineer (262) 523-9000
Thermal Treatment Contractor:	DustCoatings, Inc. 7217 W. 128th Street Savage, MI 55378 (952) 894-0012
General Contractor:	Somers Aggregates, Ltd. 7077 County Highway B Plover, WI 54467 (715) 341-0523

The scope of the remediation was developed based on the information presented in the following reports issued to the WDNR:

Natural Resource Technology, Inc., 1999, Feasibility Study, Campmarina Former Coal Gas Facility, Sheboygan , Wisconsin.

Natural Resource Technology, Inc., February 2000, Remedial Work Plan – Phase I Excavation and Grading, Campmarina and Center Right-of-Way, Former Coal Gas Facility, Sheboygan, Wisconsin.

Natural Resource Technology, Inc., April 2000, Phase II Remedial Work Plan, Campmarina and Center Right-of-Way, Former Coal Gas Facility, Sheboygan, Wisconsin.

Engineering criteria, design assumptions, and technical specifications for the remedy construction are presented in the above-referenced remedial work plans and the following design plans and specifications:

Wisconsin Public Service Corporation, September 2000, Sheboygan-MGP Site Remediation, Thermal Treatment Specification No. WPS-MGP-833, Project No. 0570098.326.

Wisconsin Public Service Corporation, October 2000, Sheboygan-MGP Site Remediation, Phase I and II Remedy Construction Specification No. WPS-MGP-252928, Project No. 0570098.326.

Wisconsin Public Service Corporation, September 2000, Sheboygan-MGP Site Remediation, Waterloo Barrier Specification No. WPS-MGP-252932, Project No. 0570098.326.

1.3 Remedial (Engineering) Objectives and Approach

Remedial Action Objectives (RAOs) for the site are summarized as follows:

- Reduce the potential for direct contact exposure to MGP residuals;
- Prevent leaching and run-off of MGP residuals at the site into the river and river sediment;
- Prevent leaching of MGP residuals to groundwater; and,
- Reduce migration of dissolved phase MGP residuals in groundwater to the river.

The approach to meet these objectives consisted of the following:

- **Decommissioning of Former MGP Structures**: Former underground reinforced concrete structures encountered during excavation were inspected for the presence of phase separated coal tar, and were demolished for disposal. Other former MGP structures (e.g., foundations, former retaining walls) encountered during excavation were also demolished and removed for disposal. A total of approximately 8,700 tons of debris were removed and transported for off-site disposal as demolition debris.
- **Elimination of Potential Migration Pathways**: Several storm sewer lines encountered during excavation were removed to the limits of the proposed environmental sheet pile wall and capped outside the wall perimeter.
- **Excavation of MGP impacted Soil**: Areas where MGP impacted soil were previously identified in Campmarina and the Center Avenue right-of way were removed for off-site thermal desorption to grades that would accommodate construction of the planned future neighborhood park. This included excavation along the entire river bank between Campmarina and the Right-of-Way. No excavation was performed below the groundwater table. Excavated material was transported to WPS's Wildwood Avenue Service facility in Sheboygan for processing and thermal treatment. Thermally treated and non-MGP impacted soil was stockpiled on an interim basis for later reuse as backfill over the engineered cap. A total of approximately 10,500 tons of soil were excavated and processed.

- **Engineered Backfilling and Reconstruction in the Right-of-Way and Along the River Bank**: Following excavation of MGP impacted soil and debris in the Center Avenue right-of-way, the area was backfilled using a combination of low permeability flowable fill, geosynthetic materials and thermally treated soil to provide an initial vapor barrier over phase separated MGP residuals that will remain in the saturated zone. The river bank was reconstructed using a combination of geosynthetic materials, low permeability engineered fill and rip rap to restore and stabilize the river bank.

- **Interim Site Restoration and Engineering Controls**: The site was graded to the subgrade elevations for the geosynthetic cap. Following completion of the site grading, both Campmarina and the right-of way were covered with approximately six inches of compacted engineered fill (base course) to establish a hard durable interim protective/working surface suitable for construction traffic and to minimize the potential for direct contact exposure to site workers. Additional interim erosion control measures were implemented that included silt fencing along the river.

- **Waterloo® Sheet Pile Barrier**: A special type of environmental steel sheet pile barrier was installed to completely encircle and contain the MGP impacted areas in Campmarina and the Center Avenue right-of-way. Sheet piling was keyed into a lower clay aquitard located from approximately 20 to 30 feet below ground surface (bgs). Sheet piles were cut and leveled to design grades in preparation for construction of a geosynthetic cap. Sheet pile interlocks were grouted to complete the barrier wall. A total of approximately 41,300 square feet of sheet piling were installed.

- **Low Flow Biosparge Wells and Piping**: A total of 18 biosparge wells were installed within the perimeter of the sheet pile wall. The purpose of these wells is to gently inject air to stimulate natural decomposition of the MGP contaminants. Underground air injection lines and associated appurtenances were installed at each well location and routed to the proposed location for an aboveground biosparge system building.

- **Geosynthetic Cover**: A multi-layer geosynthetic cover was installed over the sheet pile wall and biosparge system. The lower layer of the cover consists of a subgrade drainage/venting system that is comprised of a geocomposite (geonet with non-woven geofabric bonded on either side) layer and collection pipe around the interior perimeter of the sheet pile wall. Over the drainage/venting system the cover consists of a 40 mil HDPE flexible membrane liner; 12 oz. cushioning non-woven geofabric; a mechanical barrier consisting of 12 inches of compacted thermally treated material; and a surface drainage layer consisting of a geocomposite with perimeter drainage piping.

- **Biosparge system**: Air injection lines and nutrient feed piping were routed to an aboveground biosparge system that consists of a skid mounted blower, manifolds and control valves for the sparge well piping and controls for system operation.

The system is located in a combined boathouse/biosparge system building that was constructed over the geosynthetic cap. The biosparge portion of the building is explosion proof and separated from the boathouse that is used by the local Sheboygan Outboard Motor Club.

- **Backfilling and Site Restoration**: Following completion of the geosynthetic cover, the site was backfilled to design grades with thermally treated and amended materials (thermally treated mixed with compost). This activity included completing restoration of the river bank with riprap.

1.4 General Sequencing of Activities

Remedial activities were performed in general accordance with the Phase I and Phase II Remedial Work Plans. Key activities and dates are summarized as follows:

Activity	Timeframe
Project Planning & Permitting	February, 2000 – October, 2000
Phase I	
Site Preparation	October – November, 2000
Excavation and Grading	November, 2000 – January, 2001
Air Monitoring	November, 2000 – January, 2001
Soil Treatment	November, 2000 – January, 2001
Phase I Restoration	January, 2001
Phase II	
Sheet Pile Installation Activities	December, 2000 – April, 2001
Biosparging Wells and Piping	February – May, 2001
Engineered Cap	May, 2001
Biosparge Building	June – July, 2001
Site Restoration	June, 2001 – May, 2002

Photographs documenting major aspects of the remediation work are included in Appendix B and are referenced accordingly in the following sections.

1.5 Documentation Surveying

Registered Land Surveying services were provided by Rettler Corporation (Rettler), a registered land surveyor. Construction documentation survey data are provided in Appendix C. An initial construction control survey was performed by Rettler during site preparation activities to

establish a construction grid and survey control (benchmarks) at the site. The construction grid was aligned with respect to the northern Campmarina property boundary. The construction layout and documentation surveys were performed using this site control. The construction grid was based on 50-foot intervals. The table of documentation surveys is as follows:

Survey	Frequency
Field Verification of River Elevations and Riverbank Slopes Prior to Riverbank Excavation	Every 50 feet along riverbank and at river's edge
Phase I - Geosynthetic Cap Subgrade Elevations	50 foot square grid and at grade breaks and where grid intersects perimeter anchor trenches
Alignment and Top of Sheet Pile Wall	Every 25 feet and at sheet pile corners along sheet pile line
Geosynthetic Cap Surface Elevations	50 foot square grid and at grade breaks and where grid intersects perimeter anchor trenches
As-Built Locations of Cleanouts and Drainage Pipes	As-Built location and every 50 feet along pipe runs
Phase II Site Restoration Limits and Elevations	50 feet square grid and at grade breaks across entire site
As-Built Construction for the Biosparge System	As-Built locations of biosparge wells, equipment and every 50 feet along pipe runs
Trench Base (to document slopes, depths and locations)	Every 50 feet along bottom of trenches
Adjacent Structures and Improvements, and Establish Benchmarks for Excavation Support and Protection	At fixed points as agreed upon by the Contractor and Engineer
Surveying Locations of Underground Utilities for Record Documents	As directed by the Engineer

2 PHASE I EXCAVATION AND GRADING

2.1 Overview

Phase I activities included site preparation, riverbank excavation and restoration, Center Avenue right-of-way excavation, thermal treatment, air monitoring, and grading. As previously indicated, photographs of the activities are presented in Appendix B. Daily field reports are present in Appendix D. Key remedial activities are discussed below.

2.2 Permitting and Approvals

A number of permits and approvals were obtained in order to begin excavation and thermal treatment operations at Campmarina and Wildwood. Copies of these permits and approvals are provided in Appendix E and are listed below:

- WDNR Chapter 30 Permit (Appendix E1);
- Army Corps of Engineers correspondence (Appendix E2);
- WDNR Riprap Permit (Appendix E3);
- City of Sheboygan Approval to Enter on Campmarina and Center Right-of-Way and transport soil for thermal treatment (Appendix E4);
- Plan of Operation Approval: Dustcoating Mobile Soil Thermal Processing Facility (Appendix E5);
- Approved waste profile for disposal of debris (Appendix E6);
- Notification to Treat or Dispose of Petroleum Contaminated Soil (Form 4500-168, Appendix E7); and,
- Correspondence with the City of Sheboygan Wastewater Treatment Plant (Appendix E8).

2.3 Site Preparation, Campmarina

On October 27, 2000, a chain link fence was installed around the entire Campmarina site to secure the site from the general public. Pre-excavation conditions are indicated in Photos 1, 2 and 3. All visitors were asked to sign a visitor's log when they entered the site. Signs were posted at each gate identifying the site contacts and contaminants in accordance with NR 714.07 (Photo 4).

Prior to initiating excavation and grading, the following activities were performed:

- Clearing and grubbing of all trees and shrubbery within the working platform;
- Removing aboveground electrical outlets and river edge light posts;
- Demolishing the concrete slab near the retaining wall to be protected during remedy construction and other concrete aboveground structures and transporting the debris for off-site disposal;
- Installing silt fencing along the riverbank and a portion along Water Street to prevent run-off migration of MGP impacted materials into the river;
- Installing four inch gravel berms along Water Street and other upgradient portions of the site to divert run-off from entering the site during construction activities; and,
- Constructing an asphalt curb along Water Street to prevent surface water run-on from Water Street.

A 20,000-gallon frac tank was staged on site for surface water management. Prior to staging the tank, a secondary containment area was constructed. Two-foot high compacted soil berms were constructed and the base and the berms of the containment area were covered with 6-mil polyethylene. The frac tank was placed inside the plastic lined area.

Temporary sheet piling was installed within the Center Avenue right-of way to stabilize the hillside and Water Street during the excavation operations as indicated in Photo 6. A copy of the temporary sheeting design is provided in Appendix F. Prior to installation, the City's active storm sewer line with discharge to the river was abandoned at the manhole in the Center Avenue

right-of-way and rerouted outside the perimeter of the remedial activities to the river as shown on Sheet C030 and Photo 5. The temporary sheeting was installed a minimum of five feet from the alignment for the Waterloo ® sheet pile barrier.

During installation of the temporary sheet piling, two former MGP four-inch clay pipes were discovered along the eastern side of the sheet pile wall alignment, as shown on Sheet C030. Pipe conditions were documented and field inspected for the presence of any MGP residuals. No MGP residuals were identified inside the pipes and they were abandoned in-place by plugging with grout east of the temporary shoring. An active waterline entering the site from Water Street behind the northeast corner of the existing retaining wall was removed and capped outside the Waterloo® sheet pile barrier alignment. Sections of the line not intersecting the alignment were left in-place, as shown on Sheet C030.

In accordance with the Phase I Work Plan, monitoring wells MW-702, MW-703 and MW-704 were abandoned under NR 141 requirements. Well locations are indicated on Sheet C020. Well abandonment forms are provided in Appendix G.

2.4 Site Preparation, Wildwood

Prior to initiating thermal treatment operations at WPS's Wildwood Avenue facility, a number of site preparation activities were performed that included the following:

- Securing the area with new fencing to restrict access to thermal treatment operations and minimize the potential for direct contact exposure by WPS employees or the public;
- Installing new water and gas utilities to support the thermal treatment operations;
- Constructing asphalt and compacted gravel staging and storage areas including a new haul road and weigh station; and,
- Mobilizing and placing of the thermal treatment plant.

A plan view of the Wildwood facility and as-built layout for the thermal treatment operations are provided in Sheet C070. Each of the site preparation activities is addressed in detail in the following sections.

2.4.1 Site Security and Access Provisions

The area used for the thermal treatment operations was initially a WPS equipment storage and laydown area. Site access to the thermal treatment operations was restricted by existing chain link fencing and an electric gate used by WPS to access the facility's back garage entrance. The chain link fence around WPS's facility also secured the site from the general public. WPS employees were not permitted to enter the treatment plant and/or staging areas except for WPS building or utility repairs. All visitors including WPS employees were requested to sign a visitor's log when they entered the site. During site preparation, an additional gate was added at the northwest corner of the site for truck access. Similar to the signs at Campmarina, signs at Wildwood were posted at both gates identifying the responsible party and presence of MGP constituents in accordance with NR 714.07.

2.4.2 Utility Trenching

In November 2000, a new water line and gas line were installed to provide service for the planned thermal treatment plant. During excavation, groundwater was encountered that required dewatering. One sample (WWE) was collected for laboratory analysis of BTEX, total cyanide, lead, and oil and grease. The laboratory analytical data are provided in Appendix H and summarized in Table 1. Following review and approval by the City of Sheboygan, standing water in the excavation was pumped into a portable tank truck and hauled to the City's wastewater treatment plant.

2.4.3 Temporary Material Staging and Storage Areas

Staging and storage areas for pre- and post-treatment stockpiles were constructed according to NR 718.05. Before the treatment plant was mobilized on site, six inches of base course was

placed and graded on the treated and clean soil storage areas as indicated on Sheet C070. The areas were sloped towards a new storm sewer catch basin to collect surface water (Photo 7). The treatment plant and pretreated staging areas contained an asphalt surface. Asphalt was added to extend the existing surface to prevent any MGP residuals from leaching into the ground surface, and was sloped towards the new catch basin to collect surface water run-off (Photo 7). Visible cracks in the existing asphalt were sealed to prevent water from leaching into the subsurface.

A silt fence was installed around the treated and clean soil storage areas surrounding the working surface to prevent soil run-off. Along the inside of the silt fence, base course was used to construct containment berms. The berms were constructed a minimum of 4 inches in height to prevent run-off and to divert surface run-on water. An additional containment berm was constructed around the pretreated staging area. The southern side of the pretreated staging area did not contain a berm for equipment access.

When the pretreated and clean stockpiles were not in use, the piles were covered with 6 mil plastic sheeting. At the end of the Phase I operations, the treated soil stockpiles were covered with a 6 mil plastic sheeting and anchored with sandbags to manage the surface water runoff during the time between Phase I and Phase II operations.

2.5 Excavation and Grading

2.5.1 Objectives and Strategy

Excavation and grading were initiated in November 2000 and substantially completed in early spring 2001. Sheet C040 shows the excavation and grading areas. Final excavation tonnages, summarized by material type and final disposition are indicated below:

- Approximately 600 tons of non-MGP impacted surface soil that was reused as backfill;
- Approximately 10,500 tons of MGP impacted soil that was thermally treated and reused as backfill; and,

- Approximately 8,700 tons of debris that was sent to Onyx/Superior's Hickory Meadows landfill for disposal as nonhazardous special waste.

Primary objectives for the excavation and grading consisted of the following:

- Excavate previously identified MGP impacted areas in the Center Avenue right-of-way;
- Reduce the grades in both Campmarina and the right-of-way to prepare the site for installation of an engineered geosynthetic cover and construction of a neighborhood park;
- Remove and demolish any former tar wells that may be encountered during site grading; and,
- Excavate and reconstruct the river bank to provide structural support for the geosynthetic cover and future park structures.

The excavation strategy also focused on the delineation and removal of areas in which the following conditions were identified through field judgment and observations:

- The presence of underground structures related to historic MGP operations showing visible evidence of impacts either on its surfaces or in material contained within;
- Areas in which unsaturated soil exhibiting sheen, strong odor, or evidence of coal tar; and,
- Soil and/or fill material exhibiting obvious blue or black discoloration, characteristic of oxide box wastes.

Excavation operations were generally limited to material above the groundwater table located approximately five to seven feet bgs. Foundation structures and/or former underground utilities were removed below the groundwater table to accommodate installation of the sheet pile barrier wall and/or the construction of the geosynthetic cover. As excavation operations proceeded, it became apparent that a large portion of the former MGP had been left in-place following initial plant demolition.

Sidewall and base samples were collected from the excavation zones to document residual concentrations of compounds of concern. Samples were submitted to Robert E. Lee analytical laboratory from Green Bay, Wisconsin for PAH, BTEX, Total Cyanide and Lead analyses. Analytical results are summarized in Table 2 and the laboratory data is provided in Appendix I1. Figures 2 through 5 indicate the sample locations and pertinent laboratory analytical results.

The following sections describe the excavation and grading activities, including summaries of sidewall and base sample results and discussions of remaining conditions. All photos referenced are located in Appendix B.

2.5.2 Center Avenue Right-of-Way

2.5.2.1 Overview

Three areas were delineated for excavation on the basis of the soil investigation results documented in the September 15, 1998, *Site Evaluation of Potential Manufactured Gas Plant (MGP) Impacted Soil, Vacant City of Sheboygan Property* and as summarized in the Phase I Work Plan. These areas are labeled as Excavation Zones (EZ) 1 through 3 as indicated on Sheet C040 and are described below:

- EZ #1: This zone was previously identified to contain pockets of coal tar and blue (cyanide) stained soil that extended to the groundwater table. Although this zone is located primarily within the limits of containment as identified by the perimeter of the sheet pile barrier wall and geosynthetic cover, a decision was made to remove as much of this source material as possible prior to future site development. This zone included removal of affected soil and debris to an elevation of approximately –1 ft. elev. (City of Sheboygan Datum). Excavation was not performed below the groundwater table.
- EZ #2: This zone is located upgradient of EZ #1 and reflected only minor MGP impacts consisting primarily of surficial blue stained soil. Previous test pit sampling in the area did not indicate the presence of any MGP residuals; however, blue stained soil was noticed near the ground surface. Excavation activities were initially targeted to a maximum depth of approximately one foot bgs to remove these surficial impacts but was later expanded.

- EZ #3: This zone is located directly along the river's edge and within the City's right-of-way for the planned riverwalk. MGP impacts extended to the groundwater table which roughly corresponded to the river level. Excavation activities were targeted to remove soil to an average depth of approximately two feet bgs but the excavation was later expanded.

Subsurface conditions within the right-of-way consist primarily of fill material likely reflecting different depositional events. The fill materials are not in areas primarily associated with MGP operations, are not uniform, and consist of silty to gravelly sands, sandy silts, and clay and sand. In addition, these materials contain varying percentages of glass, brick, porcelain, occasional traces of slag, and other debris or rubbish.

2.5.2.2 Implementation

Excavation activities were initiated in November 2000 and continued periodically through early Summer 2001. Subsurface conditions encountered were generally consistent with the previously documented investigations with the exception that additional MGP impacted materials were encountered at EZ #2 and EZ #3. Three rounds of excavation were performed at EZ #2 and two rounds were performed at EZ #3. Access to EZ #2 was initially limited due to concerns with slope stability and the presence of the temporary sheet piling which had to be removed prior to completing the excavation. All excavated materials were transported to the Wildwood facility for thermal desorption. Key excavation activities and conditions encountered for each of the zones consist of the following:

EZ #1

- At EZ #1, the depth of the excavation was extended to approximately the groundwater table (-1 ft. elev., City of Sheboygan datum) to remove as much MGP material as possible. Five soil samples were collected from EZ #1 (two sidewall samples (EZ-101 and 105) and three base samples (EZ-102 through 104) and submitted for analysis to document remaining conditions.

- Consistent with the Phase I Work Plan, MGP impacted river sediment was encountered at EZ #1 at approximately the groundwater table. Historically, the river extended further east and the bank was expanded west through several historic fill depositions.

- Although MGP residuals consisting of tar-like materials and blue stained soil were encountered, the majority of the fill material removed appeared to be a mixture of imported building demolition debris, possible ash and slag, and municipal refuse (e.g., old bottles, porcelain, glass). This material appeared to be consistent with historical fill depositional practices and not related to MGP operational practices.

EZ #2

- As with EZ #1, a majority of the material contained a mixture of demolition debris and municipal refuse. At EZ #2, three rounds of excavation and confirmation sampling were performed to complete removal of identified MGP residuals. On November 15, 2000 approximately two feet of material was removed. Three confirmation soil samples were collected from EZ #2 consisting of one side wall sample (EZ-202) and two base samples.

- Additional excavation was performed in April 1, 2001 that included removing approximately two additional feet of material from the mid-portion of the zone or a total of four to eight feet below the initial topography. The second round of excavation also included removing several pockets of blue stained soil that had not been previously identified. The area represented by sidewall sample EZ-201 was completely removed. Three additional base samples (EZ-204 through 205) were collected for laboratory analysis.

- During the removal of the temporary shoring, several of the sheet pile sections were observed to have adhered blue stained soil residuals from previously unidentified near-ground surface MGP residuals. In June 2001, a third round of excavation was performed that included removing additional blue-stained material from the base of EZ #2. In addition, to better assess residual soil quality along the base of EZ #2, two test pits were completed. Test pit TP-707 was completed northwest of base sample EZ-205 along the former shoring alignment. A second test pit (TP-708) was completed northwest of base sample EZ-206 along the former shoring alignment, as shown on Sheet C040. Additional blue stained soil and wood chips were identified and removed. Two additional confirmation samples (EZ-207 and 208) were collected for laboratory analysis.

- MGP impacted sheet piling was decontaminated on-site using a high pressure spray until the steel surfaces were observed to be visibly clean. Decon water was collected in a decontamination pad constructed on-site and transported to the City sanitary treatment facility under an approved profile (see Section 3.5.5).

EZ #3

- Two rounds of excavation were performed. Excavation activities were initiated following completion of EZ #1. The first round consisted of removing approximately two feet of soil and debris. However, additional MGP residuals were identified and the excavation was extended to the approximate elevation of the river where saturated sediment was encountered and the practical limit of the

excavation was reached. Significant amounts of brick, metal pieces, and bottles were removed during the excavation. Two confirmation base samples (EZ-301 and 302) were collected.

2.5.2.3 Center Avenue Right-of-Way Results and Conclusions

Laboratory analytical data for the confirmation soil sampling are summarized in Table 2 and are provided in Appendix I1. Figure 2 indicates remaining benzene and total BTEX concentrations. Figure 3 indicates total PAHs and naphthalene concentrations. Figure 4 indicates total remaining lead and total cyanide concentrations. A review of these analytical data indicates the following:

- Total cyanide is above the direct contact risk based level at EZ-104. All residual concentrations are located within the perimeter of the sheet pile barrier wall and geosynthetic cover and therefore do not pose a concern for the groundwater pathway or direct contact exposure. Remaining concentrations identified at EZ #1 are effectively contained and pose no concerns for the groundwater or direct contact exposure pathways.

- At EZ #2, residual benzene and naphthalene concentrations are below the groundwater pathway RCL as indicated at sample locations EZ-204 through EZ-208. Other PAH concentrations as indicated in Table 1 for benzo(a)fluoranthene, benzo(ghi)perylene were identified slightly above their respective direct contact non-industrial RCLs. Residual concentrations of PAHs identified above direct contact RCLs in EZ #2 may be indicative of historic fill deposition not related to historic MGP operation. No residual concentrations are above the groundwater pathway RCLs and the entire area is covered with a minimum of approximately three to five feet of clean fill material.

- At EZ #3, residual benzene concentrations are below the groundwater pathway RCL. In contrast, residual napthalene concentrations are slightly above the groundwater RCL but well below the direct contact non-industrial RCL. Total lead is between the direct contact non-industrial and industrial RCLs. Total cyanide is above direct contact risk level. Remaining MGP residuals at EZ #3, are currently capped with approximately five feet of clean fill and concrete. EZ # 3 is located within the City's right-of way for the river walk.

2.5.3 Campmarina

2.5.3.1 Overview

Excavation and grading areas were divided into one excavation zone (EZ #4) and three grading zones (GZ #5 through #7). Each of these zones is indicated on Sheet C040 and are described below:

- EZ #4: This zone extends along the entire length of Campmarina and the Center Avenue right-of-way and is approximately 10 feet wide. Excavation operations were completed to the design grade of approximately –1 ft. elev. along the riverbank. The entire river bank was also covered with riprap. Most heavily MGP impacted areas were located along the river bank in the central portion of Campmarina. In addition to the riprap, the remains of a former retaining wall were identified that was reinforced with tie backs that extended approximately 12 feet inland. Coal tar residuals were encounter below the –1 ft. elev. near PZ-701 and MW-701R. To address these residuals, an area approximately 88 ft. long was excavated to the –3 ft. elev. at the location indicated on Sheet C040.
- GZ #5, #6 and #7: Excavation objectives in these zones were to reduce the overall grades in Campmarina to accommodate construction of the geosynthetic cover and meet minimum planting and foundation requirements for the planned neighborhood park. Grade reductions from between two and five feet were required. Estimated MGP residual levels were anticipated to be minimal in GZ # 6 and #7. Three areas containing higher concentrations of MGP residuals were targeted for removal in GZ #5and #6 to the groundwater table. Exploratory excavation operations were also planned to remove any former MGP structures such as former tar wells that could potentially contain source materials. In addition, an existing concrete wall located in GZ #6 slated to be a part of the new park required protection during grading operations.

2.5.3.2 Implementation

Excavation activities were initiated at the north end of EZ #4 in Campmarina. The excavation strategy in Campmarina was to start along the river bank and proceed south such that river bank restoration could be accomplished prior to when the river began to freeze. River bank restoration and installation of the sheet pile barrier were performed sequentially with the excavation and grading operations. All excavated materials were transported to the Wildwood facility for processing. Key excavation and grading activities and conditions encountered for each of the zones consist of the following:

EZ #4

- Existing riprap that was observed to have a visually clean surface was removed and segregated for reuse.

- A 30-foot long, ten-inch diameter pipe was found running parallel to the river, as shown on Sheet C030. A wooden crock was connected to the southern end of the pipe. The pipe and wooden crock exhibited an MGP odor, and were removed and hauled to Superior Hickory Meadow Landfill located in Hilbert, Wisconsin.

- During EZ-4 excavation, two monitoring wells (MW-701 and MW-707) were damaged beyond repair from heavy equipment operation. New monitoring wells (MW-701R and MW-707R) were installed to replace the damaged wells. Well construction and soil boring logs are presented in Appendix G.

- The former retaining wall along the river was cut and removed at the approximate river elevation. Steel tie back cables were cut and removed to a point within the perimeter of the vertical barrier wall alignment.

- Excavation operations generally extended to the planned design -1 ft. elev. with the exception of one area located midway along the river bank. Obvious MGP-related affects and evidence of coal tar-like materials were observed in soils at approximately 8 to 10 feet bgs in the central portion of EZ-4 excavation (Photo 8). Consequently, an 88' x 10' area was excavated approximately two feet deeper (–3 ft. elev.). Excavation operations did not extend lower than the –3 ft. elev. due to the close proximity of the river and to minimize disturbance of river sediment. The location of the deeper excavation zone is indicated on Sheet C040.

- Excavation base samples (EZ-401 through EZ-405) were sampled at the –1 ft. elev. with the exception of EZ-403, which was sampled at approximately the –3 ft. elev. The objective of this sampling was to document remaining near shore sediment conditions outside the perimeter of the vertical barrier wall.

- Backfilling and restoration of the river bank proceeded sequentially with the excavation operations proceeding from the north to the south end of the site in order to minimize concerns for erosion and surface water runoff to the river.

GZ #5, 6 and 7

- Grading operations were initiated at GZ #5 and proceeded north.

- During the grading operations several underground utilities were encountered that included two former storm sewers and a water line. These utilities, previously taken out of service by the City, were cut and capped outside the perimeter of the vertical barrier wall. Underground utility locations are indicated on Sheet C030.

- Two former MGP pipes were identified along Water Street at the southern end of Campmarina. The pipes were filled with grout and capped. No coal tar was present in either of the pipes. The locations of the pipes are indicated on Sheet C030.

- No tar wells were encountered during the grading operations. However, a significant amount of former MGP structures was encountered that included underground piping, and foundations. Foundation structures unearthed included large concrete foundations and reinforced timber boxes filled with brick that were likely constructed in the late 1800's before pre-mixed concrete came into use. Significant amounts of debris consisting of concrete rubble and bricks were also encountered.

- The alignment for the vertical barrier was pre-excavated to remove any former structures or debris that would lead to sheet pile refusal.

- Two small pockets of blue stained soil were identified in the hillside along Water Street outside the perimeter of the vertical barrier that were removed as part of the grading operations. A seam of blue stained soil was identified in the northeast portion of the Campmarina outside the perimeter of the engineered barrier that could not be fully removed due to its proximity to Water Street. This material was later addressed during park construction (See Section 3.4.6).

- Final Phase I grades are shown on Sheet C050.

2.5.3.3 Campmarina Results and Conclusions

River Bank

Remaining soil/sediment quality for total BTEX/benzene, total PAHs/naphthalene and total cyanide/lead at EZ #4 are summarized in Table 2. The results indicate residual concentrations of benzene, naphthalene, total lead and total cyanide. These data are consistent with previously identified sediment MGP impacts as documented in the February 26, 1998 *Sediment Investigation Report*. These residual MGP impacts are effectively capped with up to six feet of clean compacted structural fill and will be considered as part of future sediment management work.

Water Street

Following completion of the grading operations, additional probing was performed along the Water Street embankment to identify any additional remaining pockets of MGP materials.

Avenue right-of-way, the Water Street embankment is comprised primarily of fill material that includes a mixture of imported building demolition debris, possible ash and slag and municipal refuse (e.g., old bottles, porcelain, glass). As previously indicated, two small pockets were removed from the embankment at the south end of Campmarina and a seam of blue stained soil could not be completely removed at the north end. Removal efforts were performed using a visual cleanup standard. Further assessment and removal of blue stained soil at the north end was performed as part of grading by the City for construction of the park.

Any other impacted materials identified during upcoming City construction, as required, will be removed to facilitate the work activities and mitigate the potential for direct contact exposure. Visually affected soil will be removed to the extent practical due to the potential difficulty and technical infeasibility of chasing out MGP residuals beneath underground utilities, pavement and foundations. Removal requirements will be assessed on a case by case basis. Documentation sampling to confirm residual concentrations to remain in-place may be considered as a contingency in the event that a significant amount of MGP impacted soil is encountered that cannot be practically removed. A primary objective for this sampling would be to provide documentation of the concentrations to be left in-place on City property that would potentially pose a concern for direct contact exposure to future City maintenance workers. Samples would be analyzed for BTEX, PAHs and total cyanide. Sampling locations and the number of samples would be assessed on a case by case basis and reviewed with WPS following completion of any removal activities. Future impacts to groundwater are not considered to be a concern since no MGP impacts have been identified in upgradient groundwater.

2.5.4 Backfilling and Phase I Restoration

In general, backfilling and Phase I restoration was performed sequentially with excavation and grading to accomplish the following:

- Minimize concerns for odors or potential direct contact exposure;
- Reestablish erosion control structures as quickly as reasonably possible;

- Reduce requirements for MGP contact surface water management; and,
- Prepare the site for Phase II construction.

Backfilling and Phase I site restoration activities for each of the excavation zones are summarized below:

Center Avenue Right-of-Way

- EZ #1: In accordance with the plans and specifications, a non-woven geofabric was placed at the bottom of the excavation followed by approximately six inches of flowable fill. Following hardening of the flowable fill, approximately 850 tons of screened thermally treated material were placed and compacted to 95 percent of the maximum Standard Proctor density. The results of the compaction testing are provided in Appendix J.

- EZ #2 and #3: Backfilling at EZ #2 could not be completed until after the temporary sheet piling was removed. Clean impacted fill was placed and graded to the Phase I final elevations. Restoration of EZ #3 was incorporated with the restoration of the river bank discussed for EZ #4 below.

Campmarina

- EZ #4: In accordance with the plans and specifications, the riverbank was restored with filter gravel, structural fill and riprap to the Phase I grades. Approximately two feet of structural fill were placed in the over excavated area from the –3 to –1 ft. elev. This was followed by a non-woven geofabric and six inches of filter gravel placed along the base of the riverbank (-1 ft. elev.) (Photo 21). A second layer of filter fabric was placed over the filter gravel followed by structural fill that was placed and compacted to restore the river bank at a slope of approximately two feet horizontal to one foot vertical. Standard Proctor results for the structural fill are presented in Appendix J. Riprap was then placed along the restored river bank as shown on Sheet C040 and Photo 22.

- GZ #5, #6 and #7: Six inches of clean imported crushed base course were placed over the entire site to provide an interim direct contact barrier and a hard durable working surface during installation of the Waterloo® sheet piling and the geosynthetic cover. The final Phase I grades are shown on Sheet C050.

2.6 Surface Water and Materials Management and Processing

2.6.1 Surface Water

During the Phase I operations, water management requirements were primarily limited to surface water management at the Wildwood facility. Surface water management at Campmarina was minimal due to the installation of surface water diversion berms around the site that effectively prevented surface water run-on. Erosion controls and surface water controls consisting of shallow trenching and/or installed Waterloo® sheet piling along the river bank that effectively contained surface water from entering the river prior to construction of the geosynthetic cover. Regardless, accumulations of surface water within the excavation and grading zones were negligible and did not accumulate in recoverable amounts during the site operations. In addition, with the exception of a small excavation for a water line to supply the thermal treatment plant that required dewatering during installation, no groundwater management was required.

Surface water management at the Wildwood facility consisted of periodically removing water from the pre and post treatment stockpile areas that drained to a storm water collection basin as indicated on Sheet C070. Surface water was pumped from the basin into a tanker truck that when full, was transported to the City of Sheboygan Wastewater Treatment Plant (WWTP) for treatment as pre-approved by the City of Sheboygan (Appendix E8). Pre-Approval was provided by the City on the basis of an excavation dewatering sample (WWE) collected during the water line installation. Excavation dewatering analytical data are provided in Appendix H and are summarized in Table 1.

2.6.2 Management and Screening of Debris

Large pieces of demolition debris encountered at Campmarina were segregated and broken down into pieces approximately 12 inches in diameter to meet landfill acceptance criteria. More than 1,000 tons of demolition debris were directly loaded at Campmarina and hauled to the Hickory Meadows Landfill. Excavated former process piping were inspected for the presence of coal tar prior to also being transported to the landfill.

Excavated MGP impacted soil and debris were transported from Campmarina to Wildwood for screening and thermal treatment. Upon arrival at the Wildwood site, unscreened material was staged in two of four existing WPS concrete storage bins. The soil was then screened to remove debris and rock greater than two inches in diameter using a vibrating screen mill prior to thermal desorption. Screened soil was stockpiled in a "pretreatment staging area" (Sheet C070, Photo). Debris from the screen mill was staged in the other two remaining WPS concrete storage bins, west of the unscreened material bins. Over 6,500 tons of large rocks, concrete chunks and other debris greater than 2 inches from the screen mill were disposed at Superior's Hickory Meadows Landfill in Hilbert, Wisconsin.

2.6.3 Non-MGP Impacted Soil and Debris

All material removed from GZ #5 was processed for thermal treatment. At GZ #6 and 7, visibly clean material was segregated and stockpiled in three lots for confirmation sampling and analysis in the "clean fill management area" at the Wildwood site. Composite samples were collected from each stockpile and labeled as FILL[mmdd] with the month (mm) and the day (dd). Analytical data for these analyses are provided in Appendix I2 and are summarized in Table 3. As indicated, samples FILL[1115] and FILL[1122] did not meet the treatment standards based on elevated PAHs, benzene and total cyanide. These two stockpiles were screened and thermally treated. The third stockpile of approximately 590 tons of material was sampled and labeled as FILL [0105]. Analytical data from this sample indicated concentrations below the treatment standards and was later reused as backfill at Campmarina. All other soils were processed for thermal treatment. Remaining soils removed from the grading zones were hauled to Wildwood for thermal treatment.

2.6.4 Pretreatment Stockpiling and Analytical Testing

During excavation of the water line utility trench in November 2000 at the Wildwood facility an area of noticeable MGP-like materials was encountered. A composite of the material was collected directly northwest of monitoring well MW-507 for laboratory analysis of sulfur (Sample SS#1, 6 feet bgs) to assess blending requirements for thermal treatment. The sample

laboratory analytical data is provided in Appendix I2 and summarized in Table 3. Subsequently, approximately 200 tons were excavated and thermally treated.

Screened soil was stockpiled within the pretreated staging area, shown on Sheet C070. At approximately every 500 cubic yards (750 tons), a pretreated soil sample was collected from four different sections of the stockpile to obtain a composite sample. Each composite sample was field screened and submitted to an analytical laboratory for BTEX, PAH, total cyanide and lead analyses. Pretreated soil laboratory results are provided in Appendix I2 and summarized in Table 3.

2.7 Thermal Treatment

2.7.1 Overview

Dustcoating Inc. (DCI) treated approximately 10,500 tons of soil between November 28, 2000 and January 11, 2001 at the Wildwood Facility. Documentation of the thermal treatment operations and progress is provided in the daily treatment logs (Appendix K). Treatment verification sampling was performed as described in accordance with the Phase I Work Plan. Stockpile areas and layout for the thermal treatment plant are indicated on Sheet C070.

2.7.2 Post Treatment Stockpiling and Analytical Testing

Treated soil was stockpiled and sampled in approximately 500-ton increments to verify that the treatment performance standards were being met. One composite sample was collected from each stockpile. The treated stockpiles were placed on the base course surface that was constructed during site preparation. Every hour, the DCI operator would grab a small sample from the treated soil conveyor belt to make a composite sample to submit to the laboratory for analysis. DCI recorded the time, temperature and tonnage of each hour sample collected, shown in Appendix K. Each stockpile was staked and marked with a red flag and pile number pending receipt of the analytical data.

A composite treated soil sample from each stockpile consisting of all hour samples was field-screened and analyzed for BTEX, PAH, total cyanide and lead. Analytical results were provided within 48 hours of sample submittal to the laboratory to obtain space for the post treated soil.

2.7.3 Thermal Treatment Performance

Post-treatment soil standards, as stated in the Phase I Remedial Work Plan, are presented along with post-treatment soil results in Table 4 (laboratory analytical data are provided in Appendix I3). Post-treatment concentrations were below the established treatment standards.

Based on the arithmetic mean of all pre-treatment and post-treatment results, thermal treatment achieved 98.7 percent removal of BTEX and 99.97 percent removal of PAH's in soil. This is based on results shown in Table 5, in which the approximate arithmetic mean of pre-treatment soil concentrations of total BTEX and PAHs were 5.3 mg/kg and 231 mg/kg, respectively, and the average post-treatment soil concentrations were 0.07 mg/kg and 0.06 mg/kg, respectively. Averaged over the total tonnage treated of approximately 10,500 tons, the mass of BTEX and PAHs removed by thermal treatment was approximately 108 pounds and 4,815 pounds, respectively.

2.8 Ambient Air Monitoring

Comprehensive air monitoring was performed at both Campmarina and Wildwood through the duration of the Phase I excavation, grading and thermal treatment, which extended from approximately early November 2000 through the middle of January 2001. Ambient air monitoring was divided into two distinct categories:

- Perimeter Ambient Air Monitoring (PAAM): Time weighted samples were collected from upwind and downwind stations at each of the sites over a 24 hour period and analyzed for PAHs, BTEX, total suspended particulates (TSP) and lead and total cyanide. PAH sampling was performed using a polyurethane foam (PUF) sampler. BTEX was sampled using SUMMA canisters calibrated to draw ambient air over a 24 hour period. Lead and total cyanide were samples were collected using a high volume air sampler and 10 inch glass fiber filters. Air

monitoring stations CAMP 1 and WILD 1 were located upwind and CAMP 2 and WILD 2 were located downwind at each of the respective sites. Each station was sampled twice per week for PAHs, BTEX and TSP. Lead and total cyanide were sampled once per week.

- Real Time Air Monitoring: Real time air monitoring perimeter and site operations air monitoring were performed using a 10.6 electron volt (ev) photoionization detector (PID) for total VOCs and colorimetric detector tubes manufactured by the Gastec Corporation for benzene, naphthalene and hydrogen cyanide. PID and tube screening were performed at each of the site perimeters a minimum of once per day. Routine air monitoring was also performed within the work zone during excavation at Campmarina and in the vicinity of the thermal treatment operations at Wildwood to monitor exposure levels to site personnel and confirm appropriate levels of personnel protective equipment.

Focus Environmental, Inc. (Focus) developed the PAAM program under subcontract with NRT. A copy of the November 17, 2002 PAAM plan is provided in Appendix L1. The results and discussion are in the PAAM Program Summary Report provided in Appendix L2. Real time air monitoring results for Campmarina and Wildwood are provided in Appendices L3 and L4, respectively. The results of the air monitoring indicated the following:

- No PAHs, BTEX, lead, total cyanide or TSP was detected above the established air quality levels during the PAAM program at Campmarina.
- Results at Wildwood were consistent with Campmarina with the exception of one TSP detection of 207 $\mu g/m^3$ above the action limit of 150 $\mu g/m^3$ on December 5, 2000, which was likely due to thermal plant shutdown and startup activities on that day.
- No PID readings were identified above health and safety plan action levels at either Campmarina or Wildwood.
- No benzene, naphthalene or hydrogen cyanide was detected using colorimetric tubes at Campmarina.
- Colorimetric tube readings at Wildwood were consistent with Campmarina with the exception of one reading for hydrogen cyanide of 0.2 parts per million (ppm) on December 28, 2000. A second tube reading was non-detect.

3 PHASE II REMEDY CONSTRUCTION

3.1 Overview

Construction activities included the installation of Waterloo® sheet pile barrier, biosparge system and building, geosynthetic cap and site restoration. Photographs of the activities are presented in Appendix B.

3.2 Waterloo® Sheet Pile Wall

During the period between December 2000 and April 2001, the Waterloo® sheet pile barrier wall installation was performed. C^3 Environmental Limited (C^3) was subcontracted by NRT to provide the construction quality assurance (CQA) during installation of the barrier sheet piles and was responsible for video scanning and grouting the sheet pile interlocks. C^3 is a licensed installer of the Waterloo® Barrier System. After the barrier wall was installed and sealed, C^3 provided WPS with a CQA report, *Waterloo Barrier® System Installation Report* dated April 2001 which documents the sheet pile installation and interlock grouting. A copy of this report is provided in Appendix M1 and a video tape documenting interlock integrity is provided in M2.

The CQA report summarizes the results of C^3's inspection activities and includes as-builts of the sheet pile installation and certification that installation will meet a bulk wall hydraulic conductivity of 10^{-7} cm/d and is warranted for a period of one year. As noted in the report, the Waterloo® sheet pile barrier wall was installed in general accordance with the drawings and specifications with only minor variations relating to pile depths. As shown on the C^3 As-Built Profile Plan, several sheet piles did not make the design minimum key depth. During the installation, sheet piles that could not be advanced to the design key depth with vibratory pile driver were further driven with an impact hammer.

The minimum design key depth was set approximately three feet below the interface between the clay and the upper intermittent sand, silt, gravel and clay zone. All of the sheet piles that experienced refusal with the exception of two were eventually keyed a minimum of one foot below the clay interface, which was determined to be satisfactory by the Engineer. Pile Nos. 292 and 293 could only be advanced to within approximately two feet of the clay interface. These two piles are located near piezometer PZ-703. Additional review of the boring log for PZ-703 and discussions with the sheet pile contractor regarding driving conditions in the area of concern indicated that the pilings were set into clay and were also considered satisfactory by the Engineer. The bottoms of the two sheet pilings are located at an elevation of approximately –18.4 ft. elev. The subsurface conditions indicate primarily clay beginning at or elevation of approximately –11 ft. elev. and transitioning to the lower clay zone at approximately –19 ft. elev.

3.3 Biosparge System

3.3.1 Overview

The low flow biosparge system was installed as a supplement to the primary remedy of containment. Biosparging is a treatment technology for groundwater consisting of injecting ambient oxygen below the water table through a system of wells to enhance aerobic microbial degradation of contaminants. Key components and operational aspects of the biosparge system are summarized below:

- A total of 18 biosparge wells (BW-01 through BW-18) were installed at the locations indicated on Sheet C100. Each well has a two-foot screen that is located above the lower clay aquitard. Wells were constructed in accordance with the plans and specifications indicated on Sheet C110.

- The system is designed to sparge only six wells at a time in a rotating pattern such that sparging is distributed across the site to minimize injected air flow to accommodate passive venting, and to minimize development of preferential air flow pathways.

- Initial system operation during the first two years of operation will be performed on a 12 hour on, 12 hour off cycle. System performance will be monitored during this two year period and recommendations will be developed for long term operation.

3.3.2 Biosparge Pilot Test

A biosparge pilot test was conducted on April 20, 2002 in substantial conformance with NRT's Pilot Test Work Plan, dated March 30, 2000 previously submitted to the WDNR. The sparge test well and monitoring points included one air sparge test well, SW-701 and six monitoring points, GP-701, GP-702, GP-703, TW-701, TW-702 and MW-703. As-built locations are shown in Appendix N, Figure 1. The pilot test was approximately seven hours in duration, with air sparging occurring from 9:40 am until 4:20 pm. Primary objectives of the pilot test included determining air entry pressure to the pilot test sparge well to initiate airflow; observing associated pressure and dissolved oxygen at observation wells; evaluating well spacing; and testing vapor off-gas quality.

The primary objectives were evaluated based on the following measurements:

- Air entry pressure, flowrate and temperature were measured every 10 to 20 minutes at the air sparge test well.
- Observation well pressure and depth to water was measured every 10 to 20 minutes at all monitoring points using a water level meter and magnahelic pressure gauge, respectively. A water quality probe was used to measure temperature and dissolved oxygen at all monitoring points every 30 to 60 minutes.
- Full-scale air sparge well spacing evaluation was based on observed pressure, dissolved oxygen and temperature relative to distance from the air sparge test well.
- Discharge VOC concentrations were measured by collecting and analyzing a whole air sample from TW-701 at approximately the mid-point and near the end of the pilot test.

Based on the laboratory results and field data summarized in Appendix N, Tables 1 through 3, the following conclusions were drawn with respect to the primary objectives listed above:

- Air entry pressure to the pilot test sparge well in order to initiate airflow in surrounding observation points was determined to be approximately 5 pounds per square inch during an initial step test, and was maintained during the second half of the test.
- Except for MW-703, dissolved oxygen concentrations increased significantly during the course of the pilot test. Fluctuating dissolved oxygen readings at

MW-703 suggested that over time, the radius of influence would affect that well, also. Water elevations decreased over time and with distance from the sparge well during the pilot test. Pressure increased at all observation wells by the end of the test.

- As all observation wells exhibited changes in pressure and groundwater elevations, 30 feet was selected as the design radius of influence.
- Based on benzene concentrations from whole air samples "Pilot test – 1" and "Pilot test – 2", benzene and total VOC concentrations did not require treatment prior to atmospheric discharge. PID results correlated with VOC data.

Secondary measurements were also collected to evaluate natural aerobic and anaerobic degradation present. Carbon dioxide, methane, oxygen and oxidation-reduction potential (ORP) suggest that aerobic microbial activity was occurring. Further evaluation was not performed, due to the relatively short duration of the pilot test and limited data. Based on the results of the pilot test, a full scale biosparge system was designed, with integral nutrient feed system, if needed.

3.3.3 Biosparge Wells and Underground Piping

Biosparge wells were constructed in accordance with the specifications and plans, as shown on Sheet C110 during the latter part of February 2001. Biosparge well installation was performed by Boart-Longyear from Schofield, Wisconsin. Each well was completed to the design bottom well elevation, as indicated on Sheet C110. Well boring logs and completion reports are presented in Appendix O. Key activities performed to complete the well installations included following:

- Well development water accumulated during purging of the wells was initially accumulated in a frac tank brought on-site by Superior Special Services, Inc.
- A lined and bermed decontamination pad was constructed for deconning drilling equipment prior to leaving the site. Decontamination liquids were routed to the frac tank.
- Following completion of the drilling activities, a sample of the water (DECON-1) was collected and submitted for analysis for total BTEX, total suspended solids, oil and grease, total lead and total cyanide to confirm acceptance with the City of Sheboygan wastewater treatment plant. Analytical data are provided in Appendix H and are summarized in Table 1.

- The analytical results indicated elevated an concentration of total suspended solids (TSP) concentration (21,000 mg/L) and oil and grease (789 mg/L) significantly higher than City of Sheboygan Wastewater Treatment Plant's limits of 210 and 200 mg/L, respectively. Further assessment of the tank with Superior Special Services indicated that it may have been previously used to store wastewater from a cheese factory and the tank may not have been properly deconned prior to transporting to the site. A strong sour odor was noted during sampling.

- After further review with WPS and Superior Special Services, approval was received to transport the water to City of Appleton WWTP for treatment.

From each of the wells, a one inch HDPE pipe was connected using a wye transition, as shown on Sheet C110. Electro couplings were used to connect the HDPE pipe to the well instead of Ferncos® as originally specified to increase the maximum pressure capability to each well (Photo 34). As shown on Sheet C100, the HDPE pipes were placed four inches apart on center inside a trench running from the southern end of Campmarina to the location for the biosparge building. A ¼ inch outer diameter nutrient tube was then inserted into each HDPE pipe to the top of each well screen. The tubes were installed to accommodate a possible future nutrient feed system whose requirements will be assessed on the basis of future system performance monitoring.

At the other (north) end of the HDPE pipes where they transition vertically into the biosparge equipment room, a ninety degree transition piece was butt fused to each HDPE pipe. The pipes were encased in a concrete pad that is located at the same elevation as the HDPE membrane for the geosynthetic cover. HDPE weld strips were placed around the concrete pad and the HDPE membrane was welded to the weld strips, as shown on Sheet C110 to seal the penetration through the geosynthetic cover.

3.3.4 Boathouse/Biosparge Building

The original design specified removal and reinstallation of an existing Sheboygan Outboard Motor Club 12 foot by 12 foot garage/boathouse and installation of an 8 foot by 12 foot pre-engineered biosparge equipment building. Following design review by the City, it was requested that the boathouse and equipment buildings be combined into a single structure to reduce overall

structure visibility and to more effectively blend with the landscape architecture for the park. To accommodate this request, a new 24 foot by 40 foot building was designed and constructed under contract with WPS and in accordance with cost sharing agreements reached with the Outboard Motor Club. Building plans were prepared by Hanlon Design located in Plymouth, Wisconsin. A copy of these plans is provided in Appendix P. The building is located along the river bank at the northern end of Campmarina.

Construction of the building began in mid-June, 2001 following completion of the geosynthetic cover and was performed by Mike Koenig Construction, Inc. from Sheboygan, Wisconsin. A copy of the City of Sheboygan building requirements is provided in Appendix Q. The two rooms are separated from Sheboygan Outboard Club's boathouse area by an eight inch concrete block wall to create an explosion proof area. Since the biosparge building was combined with the boathouse, the equipment and control rooms increased in size. Therefore, the layout of the equipment, piping and controls were adjusted from the original construction plan, as shown on Sheet S010.

3.3.5 Aboveground Treatment Equipment, Piping and Controls

Aboveground treatment equipment, piping and controls were placed inside the biosparge equipment and control rooms according to the plans and specifications. The explosion proof biosparge equipment room includes eighteen injection pipes, the drainage/venting sump and a Rietschle, Inc. 5 hp compressor, as shown on Sheets S010 and M020. The biosparge system control panel and power center is located in the non-explosion proof control room, adjacent to the equipment room.

Prior to the deployment of geosynthetic cover and construction of the building foundation, a three foot diameter HDPE sump was set in-place and connected to the subgrade drainage/venting pipe previously installed for the geosynthetic cover. The drainage/venting pipe was connected to the sump's six inch diameter pipe stub located 5'-8" from the top of the sump lid as shown on Sheet C020. The sump lid includes a six-inch diameter clean out, an air vent, and a float level switch, as shown on Sheet M020. The HDPE membrane for the geosynthetic cover was welded

to the sump to seal the sump penetration through the cover. Prior to the installation of the building foundation, a drain pipe was added, if groundwater treatment and discharge from the subgrade/drainage system were to be required in the future. The drain pipe is located six inches above the floor in the northwest corner of the equipment room, as shown on Sheet S010. Below the building subgrade, the pipe leads to the river. A rodent cap was placed at the one end of the pipe located in the riverbank. At the other end of the pipe, a PVC cap was placed. The drain is not in use.

3.3.6 System Startup and Shakedown

System startup and shakedown included a full checkout of the biosparge system operation and PLC control panel alarm conditions the building electrical and HVAC. Testing included the following:

Compressor:

- Hand/off/auto operation for the compressor from the control panel;
- High pressure auto shutdown of the compressor if the pressure exceeds 10 psig;
- Low pressure auto shutdown if the pressure drops below one psig; and,
- High compressor auto shutdown if the temperature rises above the factory pre-set limit.

Biosparge Piping Manifold:

- Timer operation for the three normally closed electrically actuated ball valves that control each set of six biosparge wells; and,
- Observation of satisfactory pressure ranges (three to six psig) for each of the biosparge wells.

Subgrade Drainage/Venting System Sump:

- High vent pressure switch alarm condition if the pressure indicates higher than 1 psig;
- High sump water level switch alarm; and,
- Presence for any vapor phase volatile organics during system operation.

Control Panel:

- Autodialer operation and verification of either fax or phone notification of system and alarm conditions;
- System PLC programming; and,
- Control panel touch screen operation.

Building Heating and Ventilation:

- Operation of the thermostatically operated heater and ventilation fan.

To verify contractor compliance with the plans and specifications, a punch list was prepared and completed during testing. Minor operational difficulties were addressed by the PLC system integrator (Best Systems, Inc.), or the electrical contractor (Specht Electric) and/or the building contractor (Mike Koenig Construction).

In general, the system performed in accordance with anticipated design parameters. No vapor phase volatile organics were detected in the sump during system operation, based on photoionization readings. In addition, no accumulation of water was noted in the sump indicating residual groundwater levels beneath the geosynthetic cover were below the subgrade drainage/venting system and appeared to be stable, consistent with initial design objectives.

3.3.7 Operation and Maintenance

System operation and maintenance is anticipated to be minimal and limited to the following:

- Periodic monitoring for accumulation of vapor phase volatile organics in the sump;
- Periodic monitoring for any fluctuations in sump water levels;
- Periodic adjustments to manifold cycling intervals;
- Routine compressor oil changes; and,
- Periodic monitoring of biosparge pressure readings.

Routine system monitoring will be performed by WPS personnel. Alarm conditions and routine system status checks from the PLC control system will be periodically reviewed by the Engineer. System inspections will be performed weekly during the first month of operation and monthly through the first year of operation. Copies of all equipment specifications and manufacturer's maintenance manuals will be maintained in an O&M manual in the biosparge control room.

3.3.8 Groundwater and Biosparge System Performance Monitoring

Groundwater monitoring will be performed at the site to monitor the effectiveness of the engineered containment system, evaluate the ability of the low flow biosparge system to enhance biological degradation (biodegradation) of contaminants at the site and meet WDNR requirements in accordance with the ROD. Upgradient monitoring wells (MW-705, MW-708 and MW-709-R) and lower groundwater piezometers (PZ-701, PZ-702 and PZ-703) will be monitored to assess the engineered containment system performance. Shallow monitoring wells (MW-701R, MW-706 and MW-707R) will be monitored to observe contaminant concentrations within the zone of containment and to better evaluate operation of the low flow biosparge system, as discussed below.

Groundwater monitoring will consist of the following:

- Sampling three monitoring wells (MW-705, MW-708, MW-709R) and three piezometers (PZ-701 through 703) quarterly during the first year and biannually the second year according to the attached schedule (Table 6);
- Sampling three monitoring wells (MW-701R, MW-706, MW-707R) biannually during the first year and annually during the second year (Table 6);
- Analysis of BETX (USEPA 8260), PAHs (USEPA 8310), and cyanide (total, amenable and weak acid dissociable; USEPA 335.4); and,
- Preparation of quarterly and biannual groundwater monitoring reports for submittal to the WDNR.

Future groundwater monitoring frequencies beyond the initial two year period will be reassessed on the basis of remedy performance and in accordance with WDNR approval. In addition,

recommendations may be developed to reduce the number of monitoring wells that are included for future monitoring events.

During this two-year period, biosparge system performance monitoring will also be performed in conjunction with quarterly and biannual groundwater monitoring. Proposed biosparge system monitoring will consist of the following parameters:

- Field Measured Parameters: Alkalinity, pH, dissolved oxygen, temperature, specific conductance, oxidation / reduction potential; and,
- Geochemical Parameters: Nitrate, ferrous and total iron, sulfate, and methane.

These data will be used to evaluate the following:

- Decrease in lighter phase MGP residual (e.g., total BTEX, naphthalene);
- Increasing geochemical; trends (i.e., ferrous iron) or decreasing geochemical trends (i.e., sulfate, nitrate) that may change with increasing biological activity; and,
- Changes in dissolved oxygen trends.

The results of the biosparge system monitoring will be incorporated in annual system evaluation reports for the first two years of operation. Following this initial operational period, recommendations will be developed for long term biosparge system operation that may include modifying the performance monitoring parameters and/or operating frequencies.

3.4 Geosynthetic Cover

3.4.1 Overview

The subgrade for the geosynthetic cover was completed as part of the final Phase I activities in early May 2001. This subgrade consists of approximately six inches of compacted aggregate base course placed within the perimeter of the Waterloo Barrier® sheet pile wall. Geosynthetic

cover subgrade elevation contours are provided on Sheet C080. Key installation activities consisted of the following:

- Installation of cover penetrations;
- Interior drainage/venting system installation; and,
- Subgrade stabilization and inspection;
- Geosynthetic cover installation.

Each of these activities is discussed in detail below. Canamer Services, Inc (Canamer) of Winona, Minnesota installed the geosynthetic cover. NRT field engineers inspected the installation and were responsible for overall CQA. Photographs of the installation are provided in Appendix B and daily field reports prepared by NRT documenting the installation activities are provided in Appendix D.

The geosynthetic cover consists of the following layers from bottom to top:

- Double sided geocomposite venting drainage layer (geonet bonded on both sides with nonwoven geofabric);
- 40 mil HDPE geomembrane;
- 12 oz. non-woven geotextile protective fabric;
- Mechanical barrier consisting of 12 inches of compacted thermally treated material; and,
- Double sided geocomposite surface water drainage layer (geonet bonded on both sides with nonwoven geofabric.

3.4.2 Geosynthetic Cover Penetrations

The geosynthetic cover design contained a number of penetrations to accommodate both environmental components for assessment of remedy performance and structural features for the park. Cover penetration construction activities consisted of the following:

- Three monitoring wells (MW-701R, 707R and 706) and three piezometers (PZ-701, 703, and 706) were extended to the planned final park grade. Each PVC

casing is protected by a six- inch steel casing and flush mount as shown on Sheet C060. The perimeter of the casing was fitted with a geomembrane boot and stainless steel clamp band to seal the penetration as indicated on Sheet C210.

- Nine 36 inch diameter HDPE pipes (original design specified 30 inch) were installed at the locations and in accordance with the installation schedule indicated on Sheet C200. These HDPE pipes were installed as forms for future light pole foundations for the park and other features that would penetrate the geosynthetic cover. The HDPE geomembrane for the cover was later welded to the perimeter of the HDPE pipes to seal the penetration.

- The sixteen biosparge wells were completed approximately one foot below the final park grade as shown on Sheet C110. The original design specified six inches but this was later increased due to concerns for settlement around the well heads. Each well is protected by a six inch steel casing and flush mount anchored in a concrete pad located beneath the cap subgrade. Each well head is also equipped with a strong magnet for ease of future locating with a magnetometer.

- Two biosparge wells (BW-6 and BW-15) were completed at surface grade and protected with a flush mount cover similar to the monitoring wells as shown on Sheet C60.

- A six inch wide concrete curb for anchoring the planned HDPE membrane was installed around the perimeter of the existing retaining wall that would be integrated with the future park. Prior to pouring the concrete, an HDPE weld strip was placed along the edge of the form for anchoring the geomembrane to the curb.

- The eighteen biosparge pipes were routed through a concrete pad placed at approximately the cover subgrade as indicated on Sheet C110. As with the concrete curb the pad was poured with an HDPE weld strip around its perimeter for sealing the penetration. Each biosparge well was fitted with a geomembrane boot and stainless steel band clamp around its perimeter to seal the penetration as indicated on Sheet C110.

- Five drainage/venting penetrations for the cover subgrade venting/drainage system were constructed as shown on Sheet C210. See Section 3.4.3 for additional discussion. Three cleanout locations for the surface water collection piping did not require penetrating the cover but were completed at the final park grade as shown on Sheet C210.

- A 36 inch diameter by eight foot deep HDPE collection and monitoring sump for the interior drainage/venting piping was installed as shown on Sheet C200 and S020.

3.4.3 Interior Drainage/Venting and Exterior Drainage Systems

The interior drainage/venting trenches and piping were constructed as indicated on Sheets C200 and C210. The drainage/venting trench was excavated a minimum of three feet inside of the sheet pile wall. Six-inch diameter HDPE perforated collection piping was placed in the center of the trench and alignment and surrounded with filter gravel. Six-inch diameter cleanouts were installed as shown on Sheet C200 and C210. The collection piping was connected to the HDPE sump at an elevation of –5.0 ft. beneath the biosparge building foundation installed after construction of the geosynthetic cover as shown on Sheet C200 and S020.

Exterior surface water drainage trenches were excavated generally as shown on Sheet C200 and Sheet C210. The anchor trenches were constructed a minimum of 3 feet outside the barrier wall perimeter excluding the river bank side and were sloped towards the river for drainage as indicated on Sheet C200. The geosynthetic cover was anchored in the trench and was backfilled with filter gravel. Prior to backfilling, a six inch perforated pipe was installed within the anchor trench for surface water to drain to the river, as shown on Sheet C210.

3.4.4 Subgrade Stabilization and Inspection

Prior to installation of the geosynethetic cover, the presence of the Waterloo Barrier® sheet pile barrier wall and the lower clay aquitard in effect created a large containment vessel for surface water infiltration. This effect became evident during the month of April 2001 when several heavy precipitation events were experienced. As a result, hydraulic mounding of infiltrated surface water was observed along the downgradient (river side of the barrier wall). To manage surface water mounding, a temporary shallow dewatering system was setup that utilized the newly installed interior drainage/venting collection piping and sump. Accumulated water was periodically removed from the sump and transferred to a portable 5,000-gallon tank provided by Superior Special Services. When the tank was full the accumulated water was transported to the City of Sheboygan's WWTP. Approximately 60,000 gallons were removed and transported to the WWTP. Before water was disposed to Sheboygan WWTP, water samples (SUMP and

SUMP-2) were collected for laboratory analysis to confirm acceptance for treatment. Laboratory analytical data are provided in Appendix H and summarized in Table 1.

Once the water levels decreased and approached previous static groundwater levels beneath the geosynthetic cover subgrade, areas destabilized by the high water levels were repaired and recompacted. The entire site was then proof rolled under the supervision of an NRT field engineer to confirm that there were no areas of soft or otherwise unacceptable subgrade that would pose a problem for future cover and/or park stability. Following subgrade preparation work, Canamer and NRT inspected the subgrade to ensure that a compacted, smooth surface existed for geomembrane placement. Any exposed rocks greater than approximately two inches in diameter, sharp rocks and/or debris were removed. A Subgrade Acceptance Form was completed and signed by Canamer and NRT prior to geomembrane installation. The Subgrade Acceptance Forms are provided in Appendix R.

3.4.5 Geosynthetic Cover Installation

3.4.5.1 Geosynthetics Deployment and Anchoring

Upon arrival to the site, geosynthetics were inventoried by CQA personnel. Inventory forms for the geocomposite, HDPE geomembrane and non-woven geofabrics are provided in Appendix S1, S2, and S3, respectively. Manufacturer's certifications of the materials were reviewed by NRT to confirm that the material delivered to the site was in substantial conformance with the technical specifications.

The lower drainage/venting geocomposite was installed in general accordance with the technical specifications. A total of 45 rolls of double-sided geocomposite, with a typical length of 230 ft and width of 14 ft, were delivered to the site. A plastic sheeting covered the rolls for protection. The geocomposite was manufactured by GSE Lining Technology, Inc. The geocomposite was initially anchored in the upgradient surface water drainage trench and unrolled downslope. The geonet was overlapped a minimum of four inches on the sides and minimum of one foot on the ends. The geonet was tied every five feet or less on the sides and every one foot on the ends.

The geotextile was overlapped a minimum of four inches, sewed together on the sides and thermally bonded on the ends. The CQA personnel observed the installation of the geocomposite and verified that the geocomposite was anchored, overlaps were maintained, the geonet was tied properly, and the geotextile was properly sewn and/or thermally bonded.

A total of five rolls of 40 mil HDPE geomembrane were delivered to the site. The rolls were covered with a protective sheet, which was labeled with the panel number. The HDPE geomembrane was manufactured by GSE Lining Technology, Inc. Upon arrival to the site, the HDPE geomembrane was inventoried by CQA personnel. The rolls were temporarily stored east of MW-709.

Geomembrane Panel Layout and Deployment Logs are provided in Appendices T1 and T2, respectively. Forty-three full panels and two partial panels were deployed from May 10 through May 19, 2001 (Photo 39). During this time, the first layer of geocomposite and the geomembrane were deployed concurrently approximately every 30 yards. Following the geocomposite, the geomembrane was laid on top. Sand bags were used to temporarily hold the geomembrane in place following deployment to prevent movement from wind.

The geomembrane panels were secured in the previously excavated exterior drainage/anchor trenches. Anchor trenches were backfilled with pipe bedding following placement of the geocomposite material on top of the geomembrane and installation of perforated drainage pipe. Panels adjacent to the concrete retaining wall were extrusion welded to the concrete curb embedded with HDPE weld strips. Drainage geocomposite and geotextile were placed on top of the concrete curb. Pressure treated 2" x 4" wood and mortar bolts were used to anchor the geocomposite and geotextile to the concrete curb.

3.4.5.2 Geomembrane Panel Seaming and Repairs

The geomembrane was seamed using fusion and/or extrusion welding (Photo 40). The process involves inserting two geomembrane panels into a heated roller machine which heats and

compresses the panel surfaces together. Typically, two pre-qualification (trial) seams were prepared each day of seaming. Only one trial seam was prepared on days with less than five hours of work performed. A Geomembrane Trial Seam Log is provided in Appendix T3. The trial seams were tested with a field tensiometer in both peel (three tests) and shear (three tests) failure modes. Since fusion weld seams consist of two weld strips, each weld was peeled therefore, each peel test consisted of two peels. CQA personnel observed the field testing procedures. All trial seam field tests passed, achieving a peel strength of minimum 65 pounds per inch (ppi) and 52 ppi (extrusion), and a shear strength of minimum 81 ppi.

Following deployment of several panels, seaming of adjacent panels was performed. A Geomembrane Panel Seam Log is provided in Appendix T4. Seam numbers were designated using the panel numbers, (i.e. a seam between panels P-1 and P-2 was designated with seam number P-1/P-2, P-1 shingled atop P-2). All seams were nondestructively tested using the pressure testing method. As indicated on the Geomembrane Panel Seam Log, all seams passed the non-destructive testing. In accordance with the technical specifications, seam end destructive samples were collected and field tested (one sample each of peel and shear) for all continuous field seams greater than 100 feet. A total of 14 seam end tests were performed. All seam end field tests passed, meeting the standards for both peel and shear.

A patch was used for repair of a seam or geomembrane panel. A patch consists of a piece of geomembrane with rounded corners extending a minimum of 6" beyond the defect. Patches were placed over destructive seam test locations, seam end test locations, areas where the geomembrane was cut to install a boot, and general defects discovered during CQA observations. Patches were extrusion welded on top of panels. Over 100 patches were installed during the geomembrane installation. Repairs of 7 destructive seam patch locations (designated as D-#) are shown on the Geomembrane Panel Layout (Appendix T1). Each repair was non-destructively tested using the vacuum box method. A Geomembrane Defects and Repairs Log is provided in Appendix T5.

Boots were constructed as shown on Sheet C210 around the sump, drainage/venting pipe cleanouts, monitoring wells, piezometers, biosparge wells and light pole bases. The boots were

constructed from a piece of HDPE geomembrane and extrusion welded to the geomembrane panels. For the monitoring wells, piezometers and biosparge wells, a strap was placed near the top of the boot and caulking was applied to seal the boot completely. Boots for the sump and light pole bases were directly extrusion welded to the HDPE sump, drainage/venting pipe cleanouts, and light pole bases.

The following geomembrane CQA activities were performed that included: reviewing manufacturer's and fabricator's certifications, conformance testing of the geomembrane, destructive seam testing both in the field and laboratory, non-destructive seam testing and visual observations. These activities are described below:

- NRT reviewed the geomembrane manufacturer certifications which verified that the geomembrane material delivered to the site met or exceeded the criteria listed in the Technical Specifications. These include thickness, tensile properties, tear resistance, dimensional stability, low temperature brittleness and specific gravity (density). In addition, NRT reviewed the fabricator's certifications verifying that the proper trial seam testing, destructive seam testing, and repairs were performed on the fabricated panel. NRT also verified that destructive seam testing on the factory seams performed by GSE met the technical specifications.
- One geomembrane conformance sample was collected. The conformance test was performed by TRI/Environmental, Inc of Austin, Texas and included thickness, tensile properties, tear resistance, dimensional stability, low temperature brittleness and specific gravity (density). The test results indicated that each sample met or exceeded the criteria listed in the Technical Specifications and GRI Test Method GMB Standards. A HDPE Geomembrane Conformance Test Summary is provided in Appendix T6 with the laboratory reports provided in Appendix U.
- Eight destructive seam tests were collected at a frequency of one per 500 lineal feet of field seam to determine the strength in both peel and shear failure modes. Destructive seam sample locations and test data are provided in Appendix T7 designated as D - #. The destructive seam samples measured 60" long by 12" wide with the seam centered lengthwise. A 12" by 12" portion was cut and sent to TRI/Environmental for laboratory testing of the seam. A 12" by 12" portion was tested in the field with the field tensiometer. A 24" by 12" portion was retained by the CQA personnel. Seven destructive seam samples passed the field testing, meeting or exceeding the ASTM 4437 (minimum peel strength 65 ppi (fusion) and 52 ppi (extrusion), and shear strength 81 ppi).

- For each destructive sample, five peel strength tests and five shear strength tests were performed in accordance with ASTM D 6392. For a passing test, four out of five tests and the mean of the five tests were required to meet or exceed the standards. A Laboratory Destructive Seam Test Summary is provided in Appendix T8 with the laboratory reports provided in Appendix V. All samples passed the laboratory testing, except for D-7 (seam P-37/P-5). Seam P-37/P-5 was reconstructed with an extrusion weld, which was sampled as D-8. The retest sample D-8 passed the laboratory testing for peel and shear strengths.

With the exception of the modifications discussed below (Section 3.4.8) for the right-of-way, 12 oz non-woven geofabric was placed directly over the geomembrane as a protective barrier followed by approximately one foot of compacted thermally treated material to serve as marker layer and mechanical barrier for the geosynthetic cover. The upper surface water drainage geocomposite was placed directly over the mechanical barrier and anchored in the perimeter trenches. Upper geocomposite installation was performed similarly as the lower geocomposite.

3.4.6 Center Avenue Right-of-Way Modifications

Prior to deployment of geosynthetic cover, factors of safety calculations were reassessed for the slope stability of the geosynthetic cover across the entire site. J&L Testing from Canonsburg, Pennsylvania performed three interface shear tests to obtain interface friction angles between each layer of the geosynthetic cover. Interface friction angle test results are provided in Appendix W. Initially, interface friction tests were performed between the 40 mil HDPE geomembrane and double-sided geocomposite, and the geomembrane and the 12 oz non-woven geotextile. The results of these tests indicated friction angles of 16.1 and 16.2 degrees, respectively. Stability analyses using these numbers indicated satisfactory factors of safety (2 or greater) across the site with the exception of one small area in the Center Avenue right-of-way where steeper slopes prevailed and corresponding factors of safety dropped below 1.5. To address this concern, an alternate bedding material consisting of a silty sand obtained from Sheboygan Sand and Gravel was considered. A grain size analysis for this material and Standard Proctor Test Results are provided in Appendix J. A third interface shear test was performed with the silty sand material and the 40 mil HDPE geomembrane which resulted in a friction angle of 20.6 degrees. This increase in the friction angle translated to a satisfactory factor of safety. Based on these results the following modifications were made to the cover in the right-of-way:

- Six inches of silty sand was placed above and below the HDPE geomembrane within the designated area shown on Sheet C200 and Photo 44. The 12 oz. non-woven geofabric was eliminated and thermally treated material was not used in the designated area for a mechanical barrier as originally designed.
- To further improve stability, a 12 inch deep intermediate anchor trench was excavated within the silty sand area shown on Sheet C200. The geocomposite was placed around the sides and base of the anchor trench. The intermediate anchor trench was backfilled with six inches of silty sand above the geocomposite. The HDPE liner was formed around the sides and base of the trench backfilled with another layer of silty sand.

3.5 Phase II Backfilling and Site Restoration, Campmarina

3.5.1 Overview

Phase II backfilling and site restoration consisted of the following activities:

- Evaluation of the reuse of thermally treated material as backfill for compliance with WDNR surface water discharge limits.
- Bench scale testing of amended thermally treated material for landscaping
- Placement of non-amended and amended thermally treated material above the geosynthetic cover. A portion of the thermally treated material was amended with compost for placement in future landscaped areas of the park. Non-amended material was placed in areas where future park structures were to be constructed such as the river walk. As approved by the City of Sheboygan, thermally treated soil was amended with compost at ratio of 3:1.
- No thermally treated material was placed below the 100 year flood elevation (+3 ft. elev.).
- Placement and compaction of a minimum of one foot of clean imported fill above the thermally treated material to the Phase II grades in accordance with the requirements of the ROD. As-built Phase II grades are indicated on Sheet C200.
- Restoration of the river bank to the Phase II grades with additional filter gravel and riprap.
- Completion of the cleanouts and monitoring wells and piezometers with well covers and protective concrete collars.

3.5.2 Beneficial Reuse of Thermally Treated Material

Following approval of the November 22, 2000 ROD, additional WDNR concerns were raised for beneficial reuse of thermally treated material with regard to demonstrating compliance with WDNR surface water discharge standards from surface water runoff to the Sheboygan River. To address these concerns analytical modeling was performed to demonstrate that thermally treated material contact water would not contain MGP constituent concentrations above surface water discharge limits. Post treatment analytical data and modeling results were documented in March 8, 2001 *Surface Water Discharge Limit Compliance Evaluation* letter to the WDNR. A copy of this letter is provided in Appendix X. Based on this evaluation, the WDNR granted verbal approval for reuse of thermally treated material on March 20, 2001.

Key design considerations for beneficial reuse of thermally treated material as backfill above the geosynthetic cover included the following:

- Suitability of thermally treated material beneath future park structures and in landscaped areas; and,
- Shallow rooting zones above the geosynthetic cover (generally two to five feet).

Typically, the soil matrix in landscaped areas should have the ability to support a wide variety of plant growth. The thermal adsorption process substantially reduces this ability due to the application of high temperatures (800 to 900 F°) that effectively destroys indigenous flora and fauna, reduces moisture retention capabilities due to loss of organic matter and creates relatively alkaline conditions non-conducive to some types of plant growth. Thermally treated materials also typically exhibit a high degree of moisture sensitivity with regards to placement and compactive effort for subgrade structural applications. To address these concerns, a limited bench scale evaluation was performed on the use of organically rich compost, locally available to the site, as an amendment to the thermally treated soil to restore natural soil properties. In addition, Standard Proctor tests were performed on both non-amended and amended materials to further evaluate their geotechnical engineering characteristics for placement over the geosynthetic cover. Geotechnical testing data are provided in Appendix J.

The bench scale evaluation for the amended thermally treated materials consisted of the following activities:

- Thermally treated soil only and three mix ratios of thermally treated soil to compost (1:1, 3:1 and 5:1) were prepared. Selected compost was well degraded, black, moist and did not exhibit any characteristics of the original plant material.
- A combination of grass and ornamentals were planted in each mix. Ornamentals consisted of day lilies, impatiens and violets similar to what would be planted in the park.
- Plant growth was initially monitored under semi-controlled conditions using grow lights for a period of two months. During this period, several parameters were monitored that included rate of growth, growth density, height and more qualitative parameters such as overall appearance, robustness, and color. Afterwards, the plants were moved directly to the site and monitored for an additional month under natural outdoor conditions.

The results of the bench scale evaluation indicated the following:

- Not unexpectedly, poor growth performance was observed for the plants in thermally treated soil only.
- Growth performance was notably better in the amended materials. Based on the performance monitoring, the 3:1 performed nearly as well as the 1:1 mix ratios. Plant growth in the 5:1 mix ratios did not perform as well.

These bench scale results were reviewed with the City of Sheboygan and a 3:1 mix ratio was recommended for landscaped areas. Based on this review, City approval was provided to reuse amended material in landscaped areas. In addition, approval was also received to reuse non-amended thermally treated material in other non-landscaped areas of the park such as beneath pavement structures (e.g., river walk).

3.5.3 Amendment of Thermally Treated Material

Amendment of thermally treated material was performed at the Wildwood site. A total of approximately 700 cubic yards of compost was mixed with thermally treated material and transported to Campmarina. At Campmarina, final park structural areas were marked by the

field engineer for the placement of non-amended treated material. Amended material was placed in the unmarked areas. Compaction tests were conducted every 200 ft and the results are provided in Appendix J.

3.5.4 Placement of Clean Fill Cover Layer

Approximately, 600 tons of clean fill from the excavation activities were placed above the amended and treated material to the Phase II grades. Clean base course was also removed from Wildwood and hauled to Campmarina to support completing the Phase II grades. A majority of the base course was used as backfill in the Center Avenue right-of-way and compacted to 95% of Standard Proctor. A Standard Proctor (Wild Fill) and compaction test results are provided in Appendix J.

After the deployment of the geosynthetic cover, the riverbank was restored with additional filter gravel and riprap to the Phase II grades. Non-woven geotextile was placed on top of the treated or amended material along the riverbank. Six inches of filter gravel was placed above the geotextile followed by 18 inches of riprap as shown on Sheet C040.

3.5.5 Removal of Temporary Sheeting

After the temporary sheet pile wall was removed, over 100 sheets contained evidence of blue staining from near ground surface MGP impacted soil. A decontamination pad was constructed and used to pressure wash the sheets before leaving Campmarina. The decontamination pad consisted of four walls constructed of base course and a plastic liner placed on all sides and the base. Decontamination water was pumped from the decontamination pad into a holding tank. After decontamination of the sheets were complete, a sample (DECON) was collected for the City of Sheboygan discharge approval limits. All parameters analyzed were below the City of Sheboygan discharge limits, as shown on Table 1.

3.5.6 Park Construction and Coordination with the City of Sheboygan

Prior to award of the contract for the park construction by the City of Sheboygan, special contractor provisions were included with the bid plans and specifications for protection of remedy components and to address possible disruption to impacted river sediment. These special provisions addressed the following considerations:

- Disturbance of River Sediment: No contractor activities would be allowed directly in the river. Only land side construction activities would be allowed that would include no placement of any fill material, riprap or debris or operation of equipment directly in the river;
- Protection of the Geosynthetic Cover: Contractors would be required to field verify the top of the geosynthetic marker layer prior to placement of trees, shrubbery, foundations, underground utilities or other underground structures;
- Protection of Remedy Components: Contractors would be required to locate, mark and protect remedy components such as cover cleanout and well penetrations. In addition, routing for heavy equipment movement would be required to minimize possible damage to penetrations or the cover; and,
- Contractor Liability: Contractors would be liable for repairing at their own expense any remedy components damaged as a result of negligence for noncompliance with the special provisions during construction.

To ensure a smooth transition from completion of the Phase II remedy construction to construction of the park over the geosynthetic cover, field engineering support was provided to the City of Sheboygan and its contractors to comply with the special provisions with respect to the following:

- Equipment staging and transportation routing over the geosynthetic cover to minimize the possibility of damage to the geosynthetic materials and/or cover penetrations;
- Reviewing proposed park structure locations and construction methods to verify proper foundation depths, structure bearing and reinforcement requirements and locations with respect to cover penetrations;
- Inspecting concrete placement through the geosynthetic cover HDPE light pole bases to verify cover integrity;
- Confirming placement of a minimum of one foot of clean cover material over the Phase II grades in accordance with the ROD;

- Verifying depths and alignments for underground electrical utilities for the park lighting fixtures; and,
- Assessing final elevations for the geosynthetic cover cleanouts and well penetrations.

Construction of park was initiated during the summer of 2001 and was substantially completed in June 2002. In general, construction proceeded smoothly with minimal concerns with the following exceptions:

- Minor repairs were required to the geosynthetic cover at the south end of Campmarina near the river bank due to heavy equipment operation;
- Several of the HDPE boots for the light pole bases were adjusted to accommodate underground electrical utilities; and,
- In April, 2002 a zone of blue stained soil was encountered during City utility trenching at the north end of Campmarina directly east of the concrete retaining wall for the park. This location coincided with previously identified blue stained material that could not be accessed earlier due to the presence of Water Street. Water Street was later removed as part of the park construction. Approval was obtained from the WDNR to remove and transport this material to WPS's Oshkosh, Wisconsin former MGP site where on-site thermal treatment operations were being performed as part of on going remedial activities. Modification of plan of operation approval was received on April 19, 2002 to thermally treat the material from Sheboygan at Oshkosh. A copy of this permit modification approval is provided in Appendix Y. Blue stained material was removed to a visual cleanup standard and a total of approximately 50 tons were transported the Oshkosh thermal treatment plant in early May 2002. The excavated area was backfilled and compacted with clean imported fill to City specifications.
- Monitoring well MW-709 was destroyed by contractor activities in May 2002. This well was subsequently replaced (MW-709R) at contractor expense. Copies of the boring log, well completion report and abandonment forms are provide in Appendix G.

3.6 Phase II Site Restoration, Wildwood

Upon completion of the construction activities, disturbed areas of the site were restored, to the extent practical, to pre-construction conditions with respect to topography and vegetation. A new surface water drainage swale was constructed in the eastern portion of the site. The top 4 inches over the entire area was replaced with fine-grained topsoil material, mulched, and seeded.

3.7 Institutional Controls

Institutional controls for the long term care and protection of the remedy construction at Campmarina are divided into three areas:

- Area No. 1: Area Directly East of the Containment Zone: This consists of the area upgradient and to the east of Campmarina and the Center Avenue right-of-way outside of the containment zone;
- Area No. 2: Containment Zone: In addition to the sealed sheet pile wall and geosynthetic cap, this area also includes the riverbank from the northern property boundary to the southern limit of remedy construction in the Center Avenue right-of-way; and,
- Area No. 3: Sheboygan River: This area extends from approximately the northern property boundary of Campmarina to the Pennsylvania Avenue Bridge.

Each of these areas has unique concerns that directly affect long term responsibilities between the City of Sheboygan and WPS. The key objective of the institutional controls is to prevent potential damage to remedy components, maintain integrity of the future park and to be protective to the community. A site plan indicating the general locations of each of these areas is provided in Figure 6. Controls for each area are summarized below.

Area No.1: Area Directly East of Containment Zone

Future construction activities by the City of Sheboygan could potentially encounter unidentified isolated pockets of MGP residuals along the former alignment for Water Street. To address this concern, institutional controls for this area will include the following provisions

- MGP impacted materials encountered during any future City construction activities will be removed by WPS to facilitate construction to the extent practical. Removal requirements will be assessed on a case by case basis;
- Locations of any affected material to be left in place will be documented for future reference. These locations will be incorporated as part of the institutional controls for the site; and,
- Limited confirmation sampling may be performed to document the effectiveness of any removal efforts with regards to potential future direct contact exposure by City workers or contractors.

Area No. 2: Containment Zone

Remedy components were selected to achieve remedial action objectives (RAOs) set forth in the WDNR approved ROD. WPS will be responsible for long term performance monitoring that RAOs continue to be met and routine maintenance of remedy components that will include the following activities:

- Groundwater monitoring upgradient and within the containment zone;
- Periodic monitoring of the cap subgrade ventilation system for the geosynthetic cap and biosparge system;
- Periodic inspections and maintenance, as required, of remedy features such as the surface covers for monitoring wells and cleanouts, the combined boathouse/biosparge building and piping and equipment for the biosparge system; and,
- Periodic inspections along the riverbank for geosynthetic cap and sheet pile wall stability.

Routine maintenance of the sheet pile wall should not be required. Maintenance requirements for the geosynthetic cap should be limited and may include periodic cleanout of surface and subsurface drainage/venting lines and maintenance of biosparge wells (located approximately one foot below final park grades). WPS will be responsible for restoring landscaping following access of biosparge wells.

Maintenance and upkeep of the park will be the responsibility of the City that will include but not be limited to the following restrictions:

- Prior to conducting any excavation, subgrade elevations to the top of the geosynthetic cap marker layer and available depth for excavation will be field verified by the City prior to proceeding;
- If the marker layer is penetrated by excavation or if any other components of the cap (e.g., drainage lines, well covers, biosparge wells, biosparge equipment building) are damaged by City workers or contractors, the City will notify WPS. If the HDPE liner is penetrated or the sheet pile wall is damaged, the City shall immediately stop work and notify WPS. It will be the sole responsibility of the City to repair any such damage at its own expense to the pre-existing conditions;
- No excavation or modifications in or along the river bank will be initiated without prior review and approval by WPS;

- Thermally treated material placed as backfill will not be removed from Campmarina or the Center Avenue right-of-way and will be maintained with a minimum cover of one foot of clean overburden; and,
- Repair and/or maintenance of aboveground structures such as the river walk, stairways, landscaping or other aboveground features will be the responsibility of the City.

Area No. 3: Sheboygan River

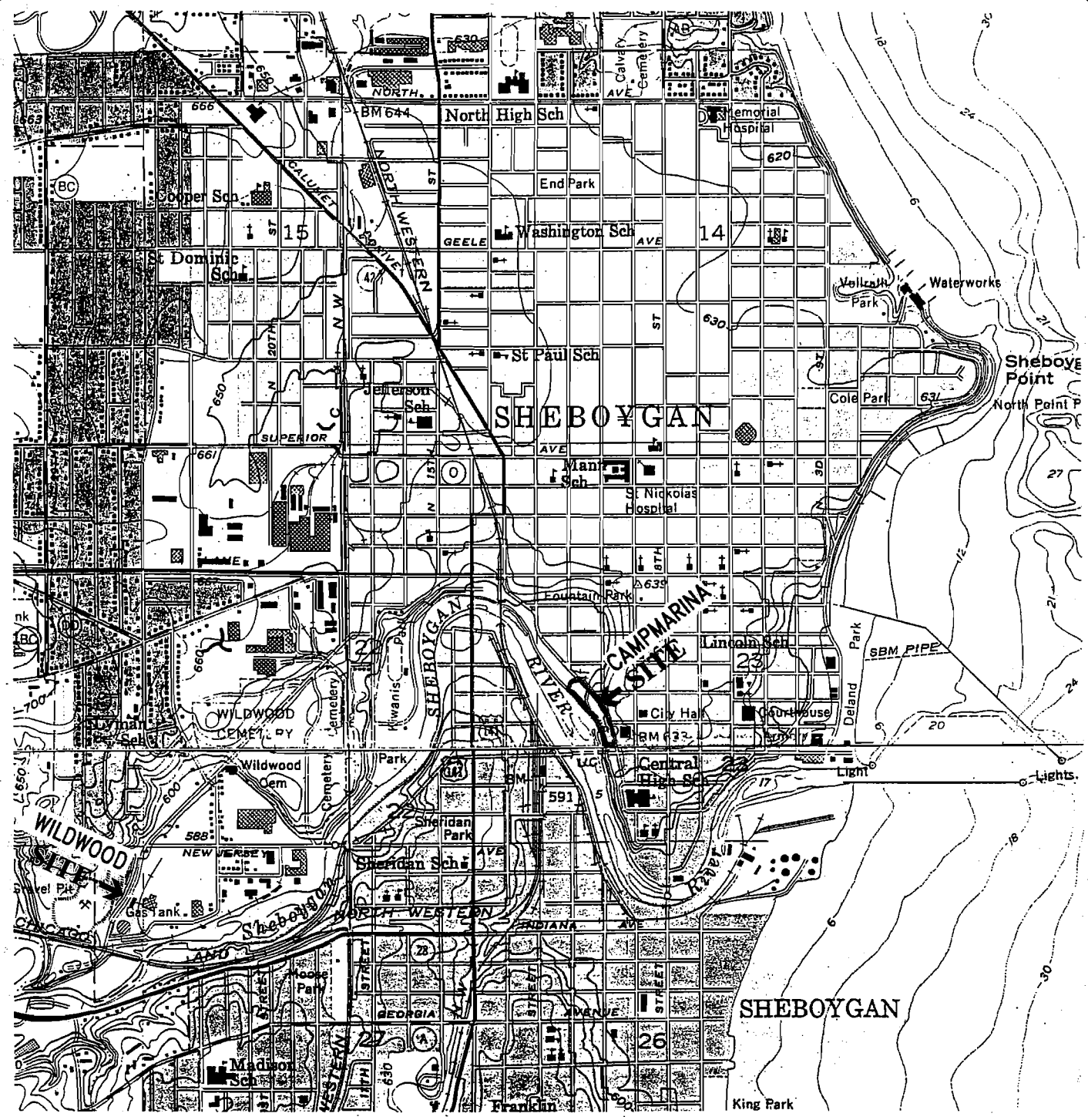
Previously documented MGP impacted river sediment extends from approximately the northern property boundary to the Pennsylvania Avenue Bridge. Based on this consideration, the following access restrictions will be maintained:

- No fill material, rip rap or debris will be placed directly in the river;
- No thermally treated material will be placed in direct contact with the river; and,
- Any riverbank maintenance will be performed from the land side. No construction or maintenance workers or equipment operation will be allowed directly in the river.

These institutional controls are subject to the following conditions and agreements between the City of Sheboygan and WPS:

- Any proposed architectural or structural modifications to the park will be reviewed and approved by WPS and the City prior to initiating.
- WPS will have unrestricted access to the site for the purpose of routine inspections and maintenance. This will include but not be limited to occasional access by a vacuum truck to remove water from the geosynthetic cap sump, groundwater sampling and maintenance of biosparge wells. Scheduling for routine maintenance and monitoring will be provided to the City. Prior notification will be provided for unscheduled activities.
- WPS reserves the authority to recommend and receive approval from the WDNR for modifications to the remedy based on performance monitoring and ability to meet the RAOs in accordance with the approved ROD.

FIGURES



SOURCE: USGS 7.5 MINUTE QUADRANGLE,
SHEBOYGAN NORTH AND SOUTH.
DATED 1954. PHOTOREVISED 1973.

QUADRANGLE LOCATION

N

0 2000 4000

SCALE IN FEET

CONTOUR INTERVAL 10 FEET

Natural Resource Technology

N R T

SITE LOCATION MAP

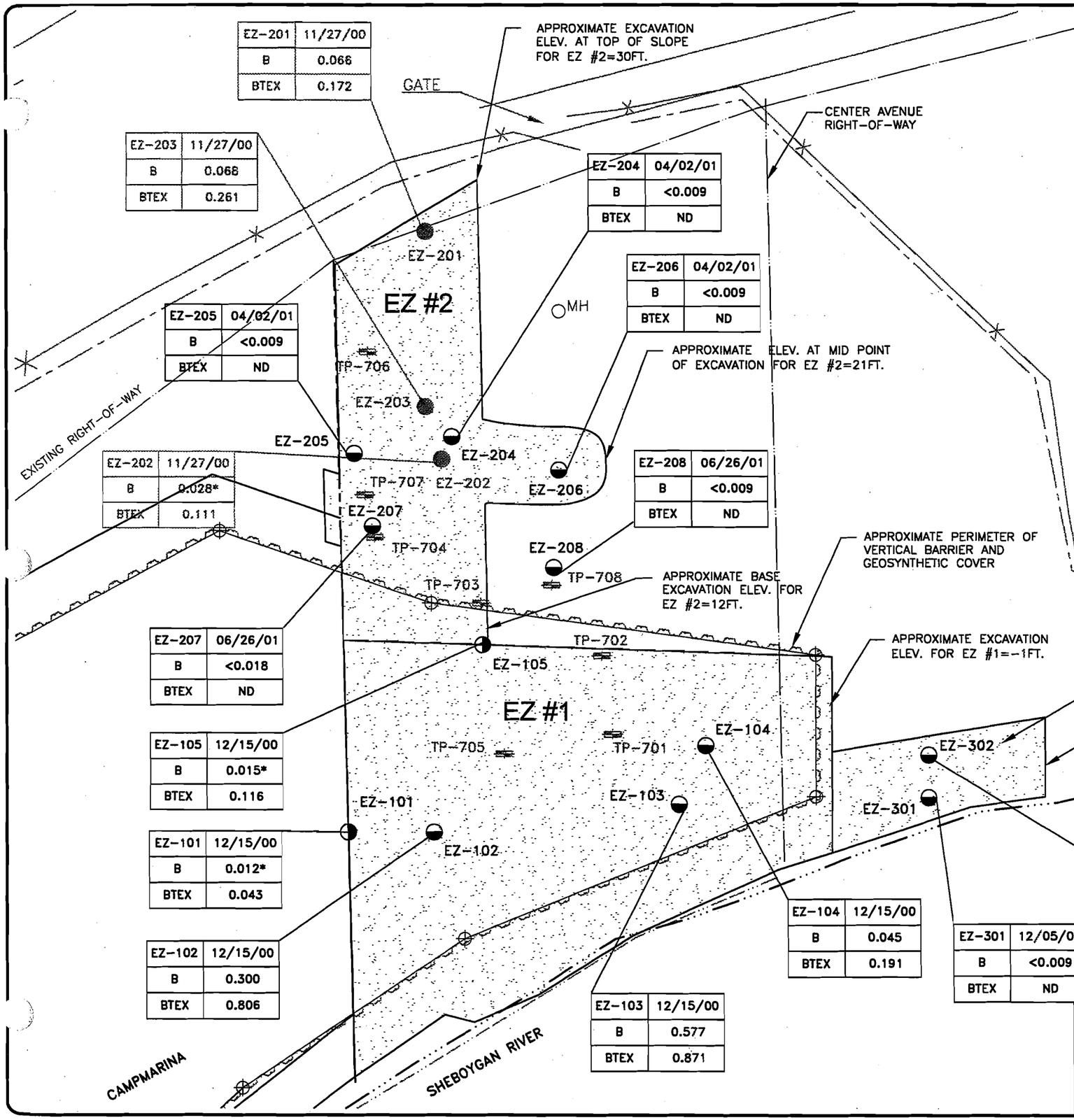
CAMPMARINA AND WILDWOOD, FORMER COAL GAS FACILITIES
WISCONSIN PUBLIC SERVICE CORPORATION
SHEBOYGAN, WISCONSIN

DRAWN BY: TAS APPROVED BY: REW DATE: 02/02/00

PROJECT NO. 1313

DRAWING NO. 1313-A03

FIGURE NO. 1



PARAMETER	GROUNDWATER PATHWAY RCL (mg/kg)
BENZENE	0.0055
TOLUENE	1.5
ETHYLBENZENE	2.9
TOTAL XYLENES	4.1

LEGEND

SAMPLE I.D.	DATE
B	BENZENE (mg/kg)
BTEX	TOTAL BENZENE, TOLUENE, ETHYLBENZENE, XYLENES (mg/kg)
*	THE REPORTED RESULT IS LESS THAN THE PRACTICAL QUANTITATION LIMIT
mg/kg	MILLIGRAMS PER KILOGRAM
ND	NOT DETECTED
EZ	EXCAVATION ZONE
RCL	RESIDUAL CONTAMINANT LEVEL
EZ-206	EXCAVATION BASE SAMPLE
EZ-101	EXCAVATION SIDEWALL SAMPLE
EZ-201	SAMPLE LOCATION THAT WAS EXCAVATED
TP-701	TEST PIT
	PERIMETER OF VERTICAL BARRIER
	LIMIT OF WORK EXCAVATION AND GRADING ZONES
	RIVERS EDGE
	CHAIN LINK SECURITY FENCE
	SILT FENCE
	RIVERS EDGE FILTER FABRIC FENCE
MH	MANHOLE

SOURCE NOTES:
1. PORTIONS OF THIS DRAWING SET WERE DEVELOPED FROM A SURVEY PERFORMED BY WPS ON 8/11/98, A SURVEY PERFORMED BY HINZE & ASSOCIATES INC., SHEBOYGAN, WISCONSIN, JOB NO. D-3752, DRAWING D3752B.DWG AND LANG.DWG AND A SURVEY FROM WPS SURVEY "SHEBOYGAN GAS MANUFACTURING PLANT TOPOGRAPHY SURVEY DATED 01/07/99".
2. PORTIONS OF THIS DRAWING SET WERE MODIFIED FROM A MAP SURVEYED BY HINZE & ASSOCIATES, INC., SHEBOYGAN, WISCONSIN. REGISTERED LAND SURVEYORS, JOB NO. D-2091, DATED SEPTEMBER 4, 1995.
3. PORTIONS OF THIS DRAWING SET WERE DEVELOPED FROM DRAWING FILES CAMPCONT.DWG DATED 12/20/99 AND CAMPPLAN.DWG DATED 1/4/00 OBTAINED FROM THE CITY OF SHEBOYGAN.
4. MW-701 THROUGH MW-709 AND PZ-701 THROUGH PZ-703 WERE RELOCATED TO REFLECT CITY OF SHEBOYGAN SURVEY DATUM.
5. MONITORING WELLS (MW-701 THROUGH MW-707 AND PZ-701), AND STAFF GAUGE (SG-701) COMPLETED BY NATURAL RESOURCE TECHNOLOGY, INC. (NRT). REFERENCE "PHASE II ENVIRONMENTAL INVESTIGATION REPORT" DATED JUNE 28, 1996.
6. MONITORING WELLS (MW-708, MW-709, PZ-702, PZ-703) AND STAFF GAUGE (SG-702) COMPLETED BY NRT IN DECEMBER, 1998.
7. EXISTING SITE FEATURES FROM A SURVEY BY RETTLER CORPORATION, STEVENS POINT, WISCONSIN, DOCUMENT NO: 00.651, DATED 10/31/00.
8. BASE AND WALL SAMPLES FROM FIELD NOTES BY NRT.
9. MANHOLE (MH) FROM RETTLER CORPORATION, STEVENS POINT, WISCONSIN, SURVEY DATED 2/19/01.
10. TEST PITS TP-701 THROUGH TP-706 WERE EXCAVATED BY NRT IN JULY 1998. SEE SEPTEMBER 15, 1998 "SITE EXCAVATION OF POTENTIAL MANUFACTURED GAS PLANT (MGP) IMPACTED SOIL, VACANT CITY OF SHEBOYGAN PROPERTY (CENTER AVENUE RIGHT-OF-WAY) ADJACENT TO THE FORMER SHEBOYGAN MGP SITE, SHEBOYGAN, WISCONSIN".

DATUM (FT)		
IGLD	USGS	CITY OF SHEBOYGAN
579.8	581	0

IGLD = INTERNATIONAL GREAT LAKES DATUM
USGS = UNITED STATES GEOLOGIC SURVEY

Natural Resource Technology
N R T

REMAINING BENZENE AND TOTAL BTEX CONCENTRATIONS IN SOIL CENTER AVENUE RIGHT-OF-WAY EXCAVATION ZONES

PHASE I AND II REMEDY DOCUMENTATION REPORT
CAMPMARINA AND CENTER AVENUE RIGHT-OF-WAY
WISCONSIN PUBLIC SERVICE CORPORATION
CITY OF SHEBOYGAN, WISCONSIN

DRAWN BY: TAS	CHECKED BY: HMS	APPROVED BY: REW
DATE: 04/04/02	DATE: 04/04/02	DATE: 04/04/02

PROJECT NO. 1313/3.8/AB
DRAWING NO. 1313-B30
FIGURE NO. 2

EZ-201	11/27/00
NAPH	NA
PAHS	NA

EZ-203	11/27/00
NAPH	NA
PAHS	NA

EZ-204	04/02/01
NAPH	<0.073
PAHS	1.5

EZ-206	04/02/01
NAPH	<0.083
PAHS	24.3

EZ-205	04/02/01
NAPH	<0.085
PAHS	7.2

EZ-208	06/26/01
NAPH	<0.015
PAHS	0.6

EZ-202	11/27/00
NAPH	NA
PAHS	NA

EZ-207	06/26/01
NAPH	<0.016
PAHS	ND

EZ-105	12/15/00
NAPH	0.021*
PAHS	0.365

EZ-101	12/15/00
NAPH	<0.016
PAHS	0.145

EZ-102	12/15/00
NAPH	0.527
PAHS	24.0

EZ-104	12/15/00
NAPH	0.141
PAHS	26.3

EZ-103	12/15/00
NAPH	4.65
BTEX	475.3

EZ-301	12/05/00
NAPH	0.645
PAHS	68.8

EZ-302	12/05/00
NAPH	0.591
PAHS	71.4

RCL	NAPHTHALENE (mg/kg)
GROUNDATER	0.4
DIRECT CONTACT NON-INDUSTRIAL	18
DIRECT CONTACT INDUSTRIAL	110

LEGEND

SAMPLE I.D.	DATE
NAPH	NAPHTHALENE (mg/kg)
PAHS	TOTAL POLYNUCLEAR AROMATIC HYDROCARBONS (mg/kg)

*	THE REPORTED RESULT IS LESS THAN THE PRACTICAL QUANTITATION LIMIT
mg/kg	MILLIGRAMS PER KILOGRAM
NA	NOT ANALYZED
ND	NOT DETECTED
EZ	EXCAVATION ZONE
RCL	RESIDUAL CONTAMINANT LEVEL
EZ-206	EXCAVATION BASE SAMPLE
EZ-101	EXCAVATION SIDEWALL SAMPLE
TP-701	TEST PIT
EZ-201	SAMPLE LOCATION THAT WAS EXCAVATED
	PERIMETER OF VERTICAL BARRIER
	LIMIT OF WORK EXCAVATION AND GRADING ZONES
	RIVERS EDGE
	CHAIN LINK SECURITY FENCE
	SILT FENCE
	RIVERS EDGE FILTER FABRIC FENCE
MH	MANHOLE

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10. TEST PITS TP-701 THROUGH TP-706 WERE EXCAVATED BY NRT IN JULY 1998. SEE SEPTEMBER 15, 1998 "SITE EXCAVATION OF POTENTIAL MANUFACTURED GAS PLANT (MGP) IMPACTED SOIL, VACANT CITY OF SHEBOYGAN PROPERTY (CENTER AVENUE RIGHT-OF-WAY) ADJACENT TO THE FORMER SHEBOYGAN MGP SITE, SHEBOYGAN, WISCONSIN".

0 5 10 20
SCALE IN FEET

DATUM (FT)		
IGLD	USGS	CITY OF SHEBOYGAN
579.8	581	0

IGLD = INTERNATIONAL GREAT LAKES DATUM
USGS = UNITED STATES GEOLOGIC SURVEY

APPROXIMATE EXCAVATION ELEV. AT TOP OF SLOPE FOR EZ #2=30FT.
GATE
CENTER AVENUE RIGHT-OF-WAY
APPROXIMATE ELEV. AT MID POINT OF EXCAVATION FOR EZ #2=21FT.
APPROXIMATE PERIMETER OF VERTICAL BARRIER AND GEOSYNTHETIC COVER
APPROXIMATE BASE EXCAVATION ELEV. FOR EZ #2=12FT.
APPROXIMATE EXCAVATION ELEV. FOR EZ #1=-1FT.
APPROXIMATE EXCAVATION ELEV. FOR EZ #3=-1FT.
EZ #1
EZ #2
EZ #3
MH
TP-701
TP-702
TP-703
TP-704
TP-705
TP-706
TP-707
TP-708
EZ-101
EZ-102
EZ-103
EZ-104
EZ-105
EZ-201
EZ-202
EZ-203
EZ-204
EZ-205
EZ-206
EZ-207
EZ-208
EZ-301
EZ-302
CAMPMARINA
SHEBOYGAN RIVER

Natural Resource Technology
N R T

REMAINING TOTAL PAHs AND NAPHTHALENE CONCENTRATIONS IN SOIL
CENTER AVENUE RIGHT-OF-WAY EXCAVATION ZONES

PHASE I AND II REMEDY DOCUMENTATION REPORT
CAMPMARINA AND CENTER AVENUE RIGHT-OF-WAY
WISCONSIN PUBLIC SERVICE CORPORATION
CITY OF SHEBOYGAN, WISCONSIN

DRAWN BY: TAS/RLH	CHECKED BY: HMS	APPROVED BY: REW
DATE: 04/04/02	DATE: 04/04/02	DATE: 04/04/02

PROJECT NO. 1313/3.8/AB
DRAWING NO. 1313-B31
FIGURE NO. 3

EZ-201	11/27/00
LEAD	423
CYAN	6.7

EZ-203	11/27/00
LEAD	510
CYAN	411

EZ-204	04/02/01
LEAD	NA
CYAN	7.7

EZ-206	04/02/01
LEAD	NA
CYAN	31

EZ-205	04/02/01
LEAD	NA
CYAN	81

EZ-208	06/26/01
LEAD	7.5
CYAN	5.3

EZ-202	11/27/00
LEAD	192
CYAN	250

EZ-207	06/26/01
LEAD	3.6*
CYAN	<0.024

EZ-105	12/15/00
LEAD	2.6*
CYAN	5.5

EZ-101	12/15/00
LEAD	2.9*
CYAN	23

EZ-102	12/15/00
LEAD	29
CYAN	33

EZ-103	12/15/00
LEAD	363
CYAN	579

EZ-104	12/15/00
LEAD	25
CYAN	19

EZ-301	12/05/00
LEAD	346
CYAN	93

EZ-302	12/05/00
LEAD	230
CYAN	241

APPROXIMATE EXCAVATION ELEV. AT TOP OF SLOPE FOR EZ #2=30FT.

GATE

CENTER AVENUE RIGHT-OF-WAY

EXISTING RIGHT-OF-WAY

EZ #2

EZ #1

EZ #3

MH

APPROXIMATE ELEV. AT MID POINT OF EXCAVATION FOR EZ #2=21FT.

APPROXIMATE BASE EXCAVATION ELEV. FOR EZ #2=12FT.

APPROXIMATE PERIMETER OF VERTICAL BARRIER AND GEOSYNTHETIC COVER

APPROXIMATE EXCAVATION ELEV. FOR EZ #1=-1FT.

APPROXIMATE EXCAVATION ELEV. FOR EZ #3=-1FT.

EZ-201 EZ-203 EZ-205 EZ-204 EZ-202 EZ-206 EZ-207 EZ-208 EZ-105 EZ-104 EZ-101 EZ-102 EZ-103 EZ-302 EZ-301

TP-706 TP-707 TP-704 TP-703 TP-708 TP-702 TP-705 TP-701

CAMPMARINA

SHEBOYGAN RIVER

LEGEND

SAMPLE I.D.	DATE
LEAD	TOTAL LEAD (mg/kg)
CYAN	TOTAL CYANIDE (mg/kg)

*	THE REPORTED RESULT IS LESS THAN THE PRACTICAL QUANTITATION LIMIT
mg/kg	MILLIGRAMS PER KILOGRAM
NA	NOT ANALYZED
EZ	EXCAVATION ZONE
RCL	RESIDUAL CONTAMINANT LEVEL
EZ-205	EXCAVATION BASE SAMPLE
EZ-101	EXCAVATION SIDEWALL SAMPLE
TP-701	TEST PIT
EZ-201	SAMPLE LOCATION THAT WAS EXCAVATED
	PERIMETER OF VERTICAL BARRIER
	LIMIT OF WORK EXCAVATION AND GRADING ZONES
	RIVERS EDGE
	CHAIN LINK SECURITY FENCE
	SILT FENCE
	RIVERS EDGE FILTER FABRIC FENCE
MH	MANHOLE
50 mg/kg	DIRECT CONTACT RCL FOR LEAD
50 mg/kg	DIRECT ONTACT RISK LEVEL FOR TOTAL CYANIDE

SOURCE NOTES:

1. PORTIONS OF THIS DRAWING SET WERE DEVELOPED FROM A SURVEY PERFORMED BY WPS ON 8/11/98, A SURVEY PERFORMED BY HINZE & ASSOCIATE INC., SHEBOYGAN, WISCONSIN, JOB NO. D-3752, DRAWING D37528.DWG AND LANG.DWG AND A SURVEY FROM WPS SURVEY "SHEBOYGAN GAS MANUFACTURING PLANT TOPOGRAPHY SURVEY DATED 01/07/99".
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3. PORTIONS OF THIS DRAWING SET WERE DEVELOPED FROM DRAWING FILES CAMPCONT.DWG DATED 12/20/99 AND CAMPPLAN.DWG DATED 1/4/00 OBTAINED FROM THE CITY OF SHEBOYGAN.
4. MW-701 THROUGH MW-709 AND PZ-701 THROUGH PZ-703 WERE RELOCATEI TO REFLECT CITY OF SHEBOYGAN SURVEY DATUM.
5. MONITORING WELLS (MW-701 THROUGH MW-707 AND PZ-701), AND STAFF GAUGE (SG-701) COMPLETED BY NATURAL RESOURCE TECHNOLOGY, INC. (NRT). REFERENCE "PHASE II ENVIRONMENTAL INVESTIGATION REPORT" DATED JUNE 28, 1996.
6. MONITORING WELLS (MW-708, MW-709, PZ-702, PZ-703) AND STAFF GAUGE (SG-702) COMPLETED BY NRT IN DECEMBER, 1998.
7. EXISTING SITE FEATURES FROM A SURVEY BY RETTLER CORPORATION, STEVENS POINT, WISCONSIN, DOCUMENT NO: 00.651, DATED 10/31/00.
8. BASE AND WALL SAMPLES FROM FIELD NOTES BY NRT.
9. MANHOLE (MH) FROM RETTLER CORPORATION, STEVENS POINT, WISCONSIN, SURVEY DATED 2/19/01.
10. TEST PITS TP-701 THROUGH TP-706 WERE EXCAVATED BY NRT IN JULY 1998 SEE SEPTEMBER 15, 1998 "SITE EXCAVATION OF POTENTIAL MANUFACTURED GAS PLANT (MGP) IMPACTED SOIL, VACANT CITY OF SHEBOYGAN PROPERTY (CENTER AVENUE RIGHT-OF-WAY) ADJACENT TO THE FORMER SHEBOYGAN MGP SITE, SHEBOYGAN, WISCONSIN".

0 5 10 20

SCALE IN FEET

DATUM (FT)		
IGLD	USGS	CITY OF SHEBOYGAN
579.8	581	0

IGLD = INTERNATIONAL GREAT LAKES DATUM
USGS = UNITED STATES GEOLOGIC SURVEY

Natural Resource Technology

N R T

REMAINING TOTAL LEAD AND TOTAL CYANIDE CONCENTRATIONS IN SOIL
CENTER AVENUE RIGHT-OF-WAY EXCAVATION ZONES

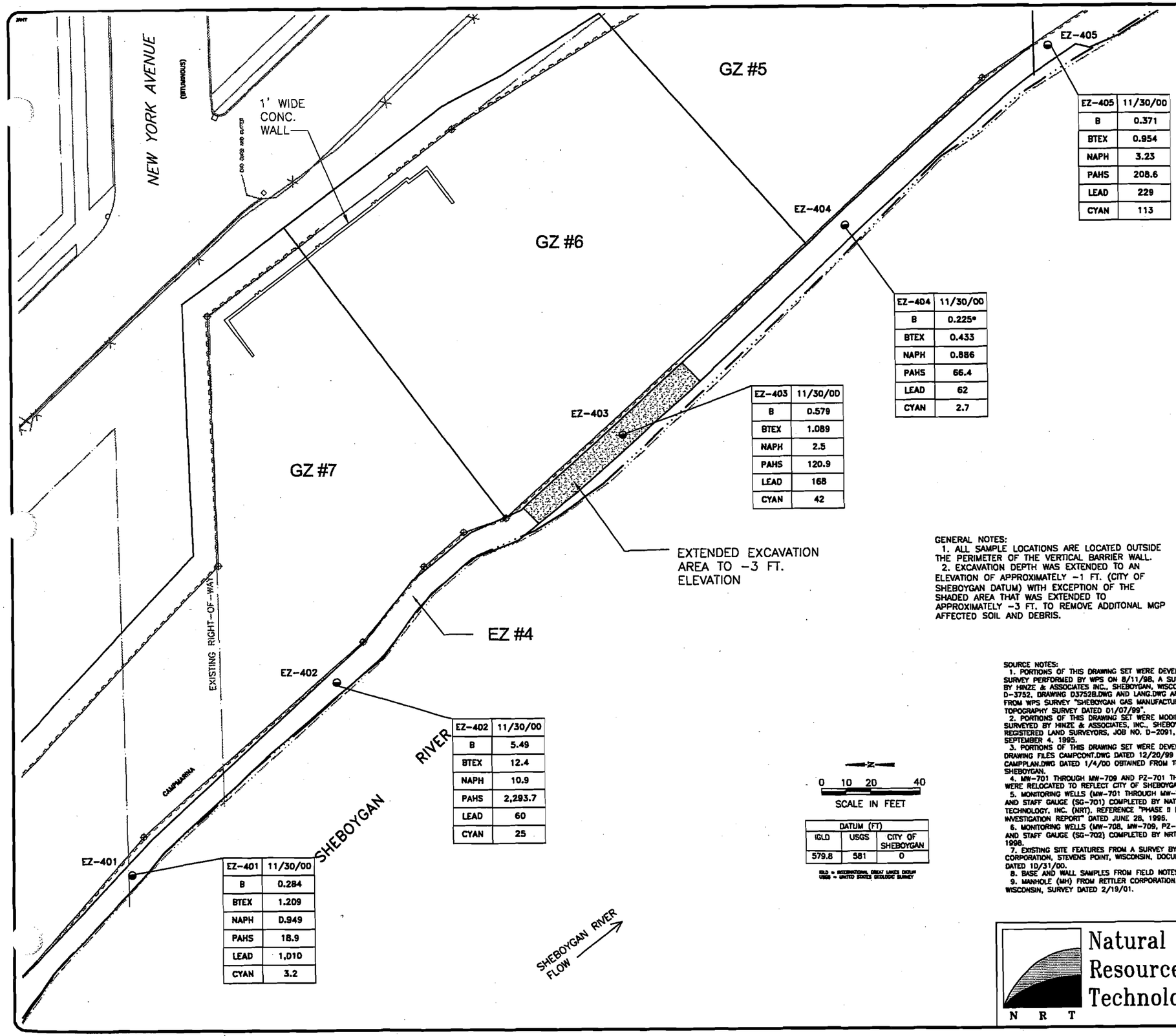
PHASE I AND II REMEDY DOCUMENTATION REPORT
CAMPMARINA AND CENTER AVENUE RIGHT-OF-WAY
WISCONSIN PUBLIC SERVICE CORPORATION
CITY OF SHEBOYGAN, WISCONSIN

DRAWN BY: TAS	CHECKED BY: HMS	APPROVED BY: REW
DATE: 04/04/02	DATE: 04/04/02	DATE: 04/04/02

PROJECT NO. 1313/3.8/AB

DRAWING NO. 1313-B32

FIGURE NO. 4



EZ-405	11/30/00
B	0.371
BTEX	0.954
NAPH	3.23
PAHS	208.6
LEAD	229
CYAN	113

EZ-404	11/30/00
B	0.225*
BTEX	0.433
NAPH	0.886
PAHS	66.4
LEAD	62
CYAN	2.7

EZ-403	11/30/00
B	0.579
BTEX	1.089
NAPH	2.5
PAHS	120.9
LEAD	168
CYAN	42

EZ-402	11/30/00
B	5.49
BTEX	12.4
NAPH	10.9
PAHS	2,293.7
LEAD	60
CYAN	25

EZ-401	11/30/00
B	0.284
BTEX	1.209
NAPH	0.949
PAHS	18.9
LEAD	1,010
CYAN	3.2

0 10 20 40
SCALE IN FEET

DATUM (FT)		
IGLD	USGS	CITY OF SHEBOYGAN
579.8	581	0

IGLD = INTERNATIONAL GREAT LAKES DATUM
USGS = UNITED STATES GEOLOGIC SURVEY

LEGEND

SAMPLE I.D.	DATE
B	BENZENE (mg/kg)
BTEX	TOTAL BENZENE, TOLUENE, ETHYLBENZENE, XYLENES (mg/kg)
NAPH	NAPHTHALENE (mg/kg)
PAHS	TOTAL POLYNUCLEAR AROMATIC HYDROCARBONS (mg/kg)
LEAD	TOTAL LEAD (mg/kg)
CYAN	TOTAL CYANIDE (mg/kg)

- * — REPORTED RESULT IS LESS THAN THE PRACTICAL QUANTITATION LIMIT
- mg/kg — MILLIGRAMS PER KILOGRAM
- EZ — EXCAVATION ZONE
- GZ — GRADING ZONE
- NS — NO STANDARD
- RCL — RESIDUAL CONTAMINANT LEVEL
- EZ-401 — EXCAVATION BASE SAMPLE
- EXCAVATED AREA AT -3 FT. ELEVATION (CITY OF SHEBOYGAN DATUM)
- PERIMETER OF VERTICAL BARRIER
- LIMIT OF WORK EXCAVATION AND GRADING ZONES
- RIVERS EDGE
- CHAIN LINK SECURITY FENCE
- RIVERS EDGE FILTER FABRIC FENCE
- EXISTING RIGHT-OF-WAY

GENERAL NOTES:
1. ALL SAMPLE LOCATIONS ARE LOCATED OUTSIDE THE PERIMETER OF THE VERTICAL BARRIER WALL.
2. EXCAVATION DEPTH WAS EXTENDED TO AN ELEVATION OF APPROXIMATELY -1 FT. (CITY OF SHEBOYGAN DATUM) WITH EXCEPTION OF THE SHADED AREA THAT WAS EXTENDED TO APPROXIMATELY -3 FT. TO REMOVE ADDITONAL MGP AFFECTED SOIL AND DEBRIS.

SOURCE NOTES:
1. PORTIONS OF THIS DRAWING SET WERE DEVELOPED FROM A SURVEY PERFORMED BY WPS ON 8/11/98, A SURVEY PERFORMED BY HINZE & ASSOCIATES INC., SHEBOYGAN, WISCONSIN, JOB NO. D-3752, DRAWING D3752B.DWG AND LANG.DWG AND A SURVEY FROM WPS SURVEY "SHEBOYGAN GAS MANUFACTURING PLANT TOPOGRAPHY SURVEY DATED 01/07/99".
2. PORTIONS OF THIS DRAWING SET WERE MODIFIED FROM A MAP SURVEYED BY HINZE & ASSOCIATES, INC., SHEBOYGAN, WISCONSIN. REGISTERED LAND SURVEYORS, JOB NO. D-2091, DATED SEPTEMBER 4, 1995.
3. PORTIONS OF THIS DRAWING SET WERE DEVELOPED FROM DRAWING FILES CAMPCONT.DWG DATED 12/20/99 AND CAMPPLAN.DWG DATED 1/4/00 OBTAINED FROM THE CITY OF SHEBOYGAN.
4. MW-701 THROUGH MW-709 AND PZ-701 THROUGH PZ-703 WERE RELOCATED TO REFLECT CITY OF SHEBOYGAN SURVEY DATUM.
5. MONITORING WELLS (MW-701 THROUGH MW-707 AND PZ-701), AND STAFF GAUGE (SG-701) COMPLETED BY NATURAL RESOURCE TECHNOLOGY, INC. (NRT), REFERENCE "PHASE II ENVIRONMENTAL INVESTIGATION REPORT" DATED JUNE 28, 1996.
6. MONITORING WELLS (MW-708, MW-709, PZ-702, PZ-703) AND STAFF GAUGE (SG-702) COMPLETED BY NRT IN DECEMBER, 1998.
7. EXISTING SITE FEATURES FROM A SURVEY BY RETTLER CORPORATION, STEVENS POINT, WISCONSIN, DOCUMENT NO: 00.651, DATED 10/31/00.
8. BASE AND WALL SAMPLES FROM FIELD NOTES BY NRT.
9. MANHOLE (MH) FROM RETTLER CORPORATION, STEVENS POINT, WISCONSIN, SURVEY DATED 2/19/01.

RCL'S (mg/kg)			
PARAMETER	GROUNDWATER	DIRECT CONTACT NON-INDUSTRIAL	DIRECT CONTACT INDUSTRIAL
BENZENE	0.055	NS	NS
TOLUENE	1.5	NS	NS
ETHYLBENZENE	2.9	NS	NS
TOTAL XYLENES	4.1	NS	NS
NAPHTHALENE	0.4	20	390
TOTAL LEAD	NS	50	500
TOTAL CYANIDE	NS*	50**	NS

** RISK BASED DIRECT CONTACT RESIDENTIAL

Natural Resource Technology
N R T

REMAINING SOIL QUALITY RIVER BANK

PHASE I AND II REMEDY DOCUMENTATION REPORT
CAMPMARINA AND CENTER AVENUE RIGHT-OF-WAY
WISCONSIN PUBLIC SERVICE CORPORATION
CITY OF SHEBOYGAN, WISCONSIN

DRAWN BY: TAS/RLH	CHECKED BY: HWS	APPROVED BY: REW
DATE: 04/04/02	DATE: 04/04/02	DATE: 04/04/02

PROJECT NO. 1313/3.8/AB
DRAWING NO. 1313-B33
FIGURE NO. 5

LEGEND

- PRE-EXISTING CONTOURS
- PHASE II GRADING CONTOURS
- FINAL PARK CONTOURS
- LIGHT POLES FOR FUTURE PARK
- BW-01 — NEW BIOSPARGE WELL
- PIPE CLEANOUT/ACCESS
- MW-706 — MONITORING WELL (NRT)
- PZ-701 — PIEZOMETER (NRT)
- EXISTING RIPRAP
- RIPRAP (PHASE II CONSTRUCTION)
- RIVERS EDGE
- CENTER AVENUE RIGHT-OF-WAY
- PROPERTY BOUNDARY
- SANITARY/STORM MANHOLE
- CHAIN LINK SECURITY FENCE
- EXISTING SHEET PILE WALL

NEW YORK AVENUE

10TH STREET

32ND STREET

WATER STREET

PROPOSED BUILDING

PROPOSED BUILDING

EXISTING BUILDING

PROPOSED WALK

SHEBOYGAN RIVER

PENNSYLVANIA BRIDGE

AREA NO. 1:

AREA NO. 2:

AREA NO. 3:

AREA NO. 3:

AREA NO. 3:

BOAT ISLAND

SHEBOYGAN RIVER FLOW

SHEBOYGAN RIVER FLOW

RIVERS EDGE

10' x 24' BIOSPARGING SYSTEM ENCLOSURE

30' x 24' BOATHOUSE FOR OUTBOARD CLUB

DATUM (FT)		
IGLD	USGS	CITY OF SHEBOYGAN
579.8	581	0

IGLD = INTERNATIONAL GREAT LAKES DATUM
USGS = UNITED STATES GEOLOGIC SURVEY

AREA IDENTIFICATION

AREA NO. 1: DIRECTLY EAST OF THE CONTAINMENT ZONE

AREA NO. 2: CONTAINMENT ZONE

AREA NO. 3: SHEBOYGAN RIVER

SOURCE NOTE:
1. FOUNDATION FOOTERS FOR FUTURE PARK ARE FROM DRAWING "SPOT ELEVATIONS.DWG" BY SCHREIBER/ANDERSON ASSOCIATES, MADISON, WISCONSINAND DRAWING FROM MILLER ENGINEERS SCIENTISTS, 14487C1G.DWG, DATED 4-14/00. LOCATIONS ARE APPROXIMATE.
2. PROPOSED WALKWAY FROM MILLER ENGINEERS SCIENTISTS, SHEBOYGAN, WISCONSIN, JOB 1447C1G, SHEET L-6, DATED MAY 23, 2000 AND FROM SCHREIBER/ANDERSON ASSOCIATES, MADISON, WISCONSIN DRAWING 1510-BWWKS.DWG, DATED MAY 23, 2000.

0 15 30 60
SCALE IN FEET

REVISION:	DATE:	APP'D BY:
1. ISSUED TO WDNR (NOT FOR CONSTRUCTION)	08/14/00	REW
2. ISSUED FOR BID (NOT FOR CONSTRUCTION)	09/01/00	REW
3. ISSUED FOR CONSTRUCTION	10/12/00	REW
4. MODIFIED FOR BIOSPARGE BUILDING; SHEET PILE WALL AS-BUILT	03/30/01	REW
5.		
6.		
7.		

Natural Resource Technology
N R T

AREAS DESIGNATED FOR INSTITUTIONAL CONTROL

PHASE I AND II REMEDY DOCUMENTATION REPORT
CAMPMARINA AND CENTER AVENUE RIGHT-OF-WAY
WISCONSIN PUBLIC SERVICE CORPORATION
CITY OF SHEBOYGAN, WISCONSIN

DRAWN BY: TAS	CHECKED BY: REW	APPROVED BY: REW
DATE: 06/13/02	DATE: 06/13/02	DATE: 06/13/02

PROJECT NO. 1313/3.8/AB

DRAWING NO. 1313-B34

FIGURE NO. 6

TABLES

Table 1 - Wastewater Analytical Results
Phase I and II Remedy Documentation Report
Campmarina and Center Avenue Right of Way

Sample ID	Date	Volatile Organic Compounds (VOC's) µg/L					mg/L			
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Total Suspended Solids	Oil & Grease	Total Lead	Total Cyanide
WWE	**11/14/00**	**7.2**	**23**	**6.1**	**23**	**30.2**	na	**2.1**	**0.013**	**0.053**
DECON-1	**03/09/01**	**47**	**360**	**13**	**16**	**436**	**21,000**	**789**	**0.382**	**0.27**
SUMP	**04/12/01**	<11	<12	<12	<12	nd	**700**[B]	**2.4***	**0.25**	**0.46**
SUMP-2	**04/18/01**	na	na	na	na	na	**61**	na	na	na
TANK 3	**05/30/01**	**1.0**	**0.33**	**0.47**	**3.6**	**5.4**	na	na	na	na
DECON	**06/22/01**	<0.21	<0.22	<0.23	<0.44	nd	**2,990**	**1.6***	na	**2.1**
City of Sheboygan WW Conc. Limit		ns	ns	ns	ns	**2,130**	**210**[A]	**200**	**0.69**	**5.0**

Notes: [O-HMS/GRL 7/23/01][U-RJC 06/14/02]

1. (A) = Concentrations above the suspended solids limit is surcharged.
2. (B) = Analyzed on a sulfuric preserved sample. Method requires an unpreserved sample.
2. na = not analyzed
3. nd=not detected
4. ns=no standard established from the City of Sheboygan Wastewater Treatment Plant
5. Detected values bolded
6. * = The reported result is less than the practical quantitation limit (reference laboratory reports)
7. [ ] =concentrations above the City of Sheboygan Wastewater Treatment Plant standards

Table 2 - Excavation Sidewall and Base Analytical Results
Phase I and II Remedy Documentation Report
Campmarina and Center Avenue Right of Way

Sample ID	Date	Volatile Organic Compounds (mg/kg)					Polynuclear Aromatic Hydrocarbons (PAH's) mg/kg																%	mg/kg	
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene [c]	Benzo(a)pyrene [c]	Benzo(b)fluoranthene [c]	Benzo(ghi)perylene	Benzo(k)fluoranthene [c]	Chrysene [c]	Dibenzo(a,h)anthracene [c]	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene [c]	Naphthalene	Phenanthrene	Pyrene	Total PAHs	Total cPAHs	Total Solids	Total Lead	Total Cyanide
EZ-101	12/15/00	**0.012***	**0.024**	**0.0065***	<0.019	**0.043**	<0.019	<0.019	<0.017	**0.03***	**0.019***	<0.022	<0.017	<0.017	<0.033	<0.03	<0.02	<0.043	**0.024***	<0.022	<0.046	<0.016	**0.032***	**0.04***	**0.145**	**nd**	**91**	**2.9***	**23**
EZ-102	12/15/00	**0.3**	**0.084**	**0.257**	**0.165**	**0.806**	**0.289**	**0.163**	**0.142**	**1.38**	**0.593**	**1.5**	**3.27**	**2.92**	**1.68**	**1.89**	**1.76**	**0.563**	**1.83**	**0.211**	**1.42**	**0.527**	**1.27**	**2.6**	**24.0**	**13.3**	**71**	**29**	**33**
EZ-103	12/15/00	**0.577**	**0.083**	**0.056**	**0.155**	**0.871**	**1.66**	**1.9**	**0.999**	**7.52**	**15.5**	**40.5**	**41.4**	**50.5**	**21.6**	**31.4**	**39.4**	**8.32**	**63.2**	**31.5**	**20**	**4.65**	**29.9**	**65.4**	**475.3**	**231.5**	**63**	**363**	**579**
EZ-104	12/15/00	**0.045**	**0.049**	**0.023**	**0.074**	**0.191**	**0.028***	**0.037***	**0.023***	**0.416**	**0.479**	**2.33**	**2.32**	**3.08**	**1.4**	**2.19**	**2.3**	**0.556**	**4.04**	**0.052***	**1.42**	**0.141**	**1.78**	**3.74**	**26.3**	**14.2**	**86**	**25**	**19**
EZ-105	12/15/00	**0.015***	**0.023**	**0.021**	**0.057***	**0.116**	**0.031***	<0.019	**0.018***	**0.023***	**0.021***	**0.023***	**0.036***	<0.017	<0.033	<0.03	**0.026***	<0.042	**0.035***	<0.022	<0.046	**0.021***	**0.062**	**0.05***	**0.365**	**0.085**	**89**	**2.6***	**5.5**
EZ-201	11/27/00	**0.066**	**0.045**	<0.0045	**0.061***	**0.172**	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	**87**	**423**	**6.7**
EZ-202	11/27/00	**0.028***	**0.083**	<0.0045	<0.019	**0.111**	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	**88**	**192**	**250**
EZ-203	11/27/00	**0.068**	**0.072**	<0.0045	**0.121**	**0.261**	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	**85**	**510**	**411**
EZ-204	04/02/01	<0.009	<0.0042	<0.0045	<0.019	nd	<0.088	<0.088	<0.08	<0.095	<0.079	**0.135***	**0.102***	**0.180***	<0.154	**0.177***	**0.162***	<0.196	**0.338**	<0.1	<0.214	<0.073	**0.133***	**0.319**	**1.5**	**0.8**	**94**	na	**7.7**
EZ-205	04/02/01	<0.009	<0.0042	<0.0045	<0.019	nd	<0.102	<0.102	<0.094	**0.173***	**0.112***	**0.663**	**0.742**	**1.0**	**0.431***	**1.220**	**0.786**	<0.229	**0.592**	<0.116	**0.388***	<0.085	**0.220***	**0.906**	**7.2**	**4.8**	**87**	na	**81**
EZ-206	04/02/01	<0.009	<0.0042	<0.0045	<0.019	nd	**0.804**	**1.19**	**0.301***	**0.228***	**1.06**	**1.73**	**1.79**	**1.99**	**0.611**	**2.7**	**1.96**	**0.230***	**4.09**	**0.285***	**0.688***	<0.083	**0.841**	**3.77**	**24.3**	**11.1**	**91**	na	**31**
EZ-207	06/26/01	<0.018	<0.0084	<0.009	<0.038	nd	<0.019	<0.019	<0.018	<0.021	<0.017	<0.022	<0.017	<0.017	<0.034	<0.030	<0.020	<0.043	<0.013	<0.022	<0.047	<0.016	<0.018	<0.016	nd	nd	**85**	**3.6***	<0.024
EZ-208	06/26/01	<0.009	<0.0042	<0.0045	<0.019	nd	<0.018	<0.018	<0.017	<0.020	**0.017***	**0.051***	**0.033***	**0.049***	**0.036***	**0.062***	**0.056***	<0.041	**0.148**	<0.021	<0.045	<0.015	**0.081**	**0.107**	**0.6**	**0.3**	**93**	**7.5**	**5.3**
EZ-301	12/05/00	<0.009	<0.0042	<0.0045	<0.019	nd	**0.364**	**0.378**	**1.45**	**0.535**	**2.9**	**4.85**	**4.17**	**4.445**	**2.72**	**4.3**	**5.22**	**0.98**	**11.2**	**1.19**	**2.59**	**0.645**	**10.3**	**10.6**	**68.8**	**26.6**	**85**	**346**	**93**
EZ-302	12/05/00	<0.009	<0.0042	<0.0045	<0.019	nd	**0.387**	**0.421**	**0.222***	**1.76**	**1.29**	**6.73**	**4.37**	**7.67**	**3.29**	**5.61**	**7.68**	**1.19**	**10.6**	**0.248***	**3.29**	**0.591**	**4.61**	**11.4**	**71.4**	**36.5**	**83**	**230**	**241**
EZ-401	11/30/00	**0.284**	**0.578**	**0.082**	**0.265**	**1.209**	**0.399***	**0.5***	<0.199	**0.464***	**0.399***	**1.17**	**1.29**	**1.32**	**1.31**	**1.29**	**1.47**	<0.486	**2.85**	<0.248	**1.08***	**0.949**	**1.78**	**2.62**	**18.9**	**7.6**	**82**	**1,010**	**3.2**
EZ-402	11/30/00	**5.49**	**3.57**	**0.613**	**2.72**	**12.393**	**7.12**	**5.77**	**14.2**	**39.3**	**118**	**173**	**157**	**168**	**83.4**	**105**	**153**	**25.6**	**431**	**48.4**	**86**	**10.9**	**310**	**358**	**2293.7**	**867.6**	**82**	**60**	**25**
EZ-403	11/30/00	**0.579**	**0.394**	**0.12***	<0.19	**1.089**	**0.808**	**0.908**	**0.26***	**5.65**	**2.54**	**9.62**	**12.3**	**14.5**	**6.65**	**8.14**	**9.97**	**2.25**	**15.2**	**0.544***	**7.01**	**2.5**	**5.17**	**16.9**	**120.9**	**63.8**	**87**	**168**	**42**
EZ-404	11/30/00	**0.225***	**0.092**	**0.116***	<0.19	**0.433**	**2.86**	**0.494***	**5.08**	**0.829**	**3.11**	**3.9**	**3.61**	**3.4**	**1.76**	**2.95**	**3.97**	**0.561***	**8.87**	**2.04**	**1.65**	**0.886**	**10.6**	**9.86**	**66.4**	**20.0**	**84**	**62**	**2.7**
EZ-405	11/30/00	**0.371**	**0.476**	**0.107***	<0.19	**0.954**	**2.43**	**2.46**	**1.35**	**12.7**	**6.98**	**18.7**	**18.2**	**25.9**	**7.46**	**14.6**	**19.4**	**3.4**	**21.6**	**1.65**	**8.07**	**3.23**	**11.2**	**29.3**	**208.6**	**108.3**	**82**	**229**	**113**
INTERIM AND PRELIMINARY GUIDANCE LEVELS (mg/kg)																													
Groundwater Pathway RCL		**5.5E-03**	**1.5**	**2.9**	**4.1**	**ns**	**23**	**20**	**38**	**0.7**	**3,000**	**17**	**48**	**360**	**6,800**	**870**	**37**	**38**	**500**	**100**	**680**	**0.4**	**1.8**	**8,700**	**ns**	**ns**	**--**	**ns**	**ns**
Direct Contact Pathway-Non-industrial RCL		**ns**	**ns**	**ns**	**ns**	**ns**	**1,100**	**600**	**900**	**18**	**5,000**	**0.088**	**8.8E-03**	**0.088**	**1.8**	**0.88**	**8.8**	**8.8E-03**	**600**	**600**	**0.088**	**20**	**18**	**500**	**ns**	**ns**	**--**	**50**	**ns**
Direct Contact Pathway-Industrial RCL		**ns**	**ns**	**ns**	**ns**	**ns**	**7.E+04**	**4.E+04**	**6.E+04**	**360**	**3.E+05**	**3.9**	**0.39**	**3.9**	**39**	**39**	**390**	**0.39**	**4.E+04**	**4.E+04**	**3.9**	**110**	**390**	**3.E+04**	**ns**	**ns**	**--**	**500**	**ns**
US EPA Residential PRGs		**0.65**	**520**	**230**	**210**	**ns**	**ns**	**ns**	**3,700**	**ns**	**2.2E+04**	**0.62**	**0.062**	**0.620**	**ns**	**6.2**	**62**	**0.062**	**2,300**	**2600**	**0.62**	**56**	**ns**	**2,300**	**ns**	**ns**	**--**	**400**	**ns**
US EPA Industrial PRGs		**1.5**	**520**	**230**	**210**	**ns**	**ns**	**ns**	**3.8E+04**	**ns**	**1.0E+05**	**2.9**	**0.29**	**2.9**	**ns**	**29**	**290**	**0.29**	**3.0E+04**	**3.3E+04**	**2.9**	**190**	**ns**	**5.4E+04**	**ns**	**ns**	**--**	**750**	**ns**

Notes:

1. na = not analyzed
2. nd = not detected
3. * = The reported result is less than the practical quantitation limit
4. [c]= carcinogenic PAH, classified as B2 probable human carcinogen
5. cPAHs=carcinogenic PAHs
6. RCL = WDNR generic Residual Contaminant Level
7. PRG = US EPA Region 9 Preliminary Remediation Goals for direct contact
8. Detected values bolded

[O-AAS/HMS/TTB6/01][HMS/GRL 7/23/01][RJC 06/14/02]

Table 3 - Pre-treatment and Clean Soil Analytical Results
Phase I and II Remedy Documentation Report
Campmarina and Center Avenue Right of Way

		Volatile Organic Compounds (µg/kg)					Polynuclear Aromatic Hydrocarbons (PAH's) µg/kg																			%	mg/Kg		%
Sample ID	Date	Benzene	Ethylebenzene	Toluene	Total Xylenes	Total BTEX	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene [c]	Benzo(a)pyrene [c]	Benzo(b)fluoranthene [c]	Benzo(ghi)perylene	Benzo(k)fluoranthene [c]	Chrysene [c]	Dibenzo(a,h)anthracene [c]	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene [c]	Naphthalene	Phenanthrene	Pyrene	Total PAHs	Total cPAHs	Total Solids	Total Lead	Total Cyanide	Sulfur
PRE[1115]	11/15/00	22*	39	33	190	284	459*	463*	<193	1,570	2,520	12,600	5,240	14,300	7,590	12,700	13,200	2,590	34,000	377	7,510	2,900	29,400	28,800	176,412	68,140	79	409	1410	na
PRE[1122]	11/22/00	1,130	1,190	398	1,660	4,378	7,130	7,530	2,150	1,980	3,630	5,760	6,160	6,140	3,040	4,820	5,220	1,040	12,600	2,120	3,110	27,900	10,300	11,500	122,130	32,250	83	36	92	na
PRE[1129]	11/29/00	439	5	218	356	1,018	1,950	1,940	987	1,900	2,370	5,430	5,160	6,870	3,140	5,000	5,750	1,340	10,500	1,140	3,170	6,030	7,780	10,500	80,957	32,720	83	97	83	na
PRE[1205]	12/05/00	147	33	148	179	507	749	909	265*	4,210	2,110	8,160	7,430	9,570	4,320	8,030	8,930	1,700	10,900	574	4,480	1,730	6,520	13,600	94,187	48,300	85	114	29	na
PRE[1212]	12/12/00	5,360	10,900	10,100	18,100	44,460	91,900	119,000	12,100	46,500	22,800	20,100	16,400	16,500	5,510	10,000	19,300	2,480	32,000	31,200	5,750	205,000	64,600	44,300	765,440	90,530	85	108	151	na
PRE[1218]	12/18/00	257	316	218	2,450	3,241	7,240	8,030	400*	2,460	2,430	4,610	3,630	5,150	1,080	5,310	4,700	597*	8,220	2,000	1360*	23,100	9,950	9,050	99,317	25,357	84	51	764	na
PRE[1220]	12/20/00	47	44	176	394	661	227*	250*	<181	1,450	1,040	3,370	3,600	3,490	1,650	4,540	3,800	675*	6,110	185	1530	375*	2,900	6,680	42,053	21,005	86	362	19	na
PRE[1221]	12/21/00	213	282	229	1,590	2,314	15,900	13,500	<570	5,040	2,080	7,950	5,180	7,740	5,010	9,560	9,220	2090*	12,400	2,650	4700*	35,300	12,200	14,300	165,390	46,440	78	101	394	na
PRE[1227]	12/27/00	392	142	228	353	1,115	4,400	4,000	5,430	3980*	9,220	17,700	21,900	20,600	15,100	20,300	23,000	4730*	52,300	9,160	12100	9,460	59,900	51,100	344,380	120,330	83	192	83	na
PRE[1229]	12/29/00	57	76	167	483	783	<468	<468	<430	2,510	1,850	9,710	9,730	12,300	11,700	14,100	11,700	3,840	16,800	412	10,300	680	6,120	17,400	130,518	71,680	85	198	52	na
PRE[0102]	01/02/01	257	59	190	388	894	2,930	3,520	2,040	16,600	22,000	51,000	46,300	51,500	22,600	34,400	46,400	10,300	85,300	8,490	22,400	7,530	51,200	85,800	570,310	262,300	83	94	15	na
PRE[0104]	01/04/01	887	346	552	2,850	4,635	5,050	3,750	1,670	7,480	8,720	16,600	15,500	18,700	5,570	13,000	14,500	2,060	27,000	5,310	5,890	24,300	20,000	29,400	224,500	86,250	81	192	87	na
PRE[0105]	01/05/01	1,390	377	780	1,390	3,937	2,390	2,550	1,000	9,420	8,260	16,600	15,200	18,300	5,190	11,500	15,600	2,130	21,000	2,540	5,390	12,200	12,200	28,400	189,870	84,720	85	366	33	na
SS #1	11/14/00	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	83	na	na	0.64
FILL[1115]	11/15/00	216	62	339	527	1,144	<190	225*	233*	2,410	1,200	6,830	6,830	10,700	6,570	7,790	7,320	2,420	10,900	321*	6,360	798	2,890	10,200	84,187	48,250	86	209	221	na
FILL[1122]	11/22/00	595	127*	513	584*	1,819	319*	400	<92	2,880	1,370	4,170	5,410	8,000	4,210	4,460	4,990	1,360	5,800	127*	4,060	1,080	2,590	6,600	57,826	32,450	89	72	25	na
FILL[0105]	01/05/01	<11	<16	<14	<38	nd	<30	<28	<24	20*	<14	45*	48	45*	28*	44*	47	<16	71	<22	<14	<18	29*	79	622	229	86.6	5.4*	0.072*	na
Treatment Standards		**400**	**2,900**	**1,500**	**4,100**		--	--	--	**700**	--	--	--	--	--	--	--	--	--	--	--	--	**400**	**1800**	--	**50,000**	**10,000**	--	--	**50**	--

Notes:

(O-AAS C-HMS & JTB R-HMS 6/01 C-GRL 7/23/01)

1. na = not analyzed
2. nd = not detected
3. "--" = No standard provided
4. * = The reported result is less than the practical quantitation limit (reference laboratory reports)
5. [c]= carcinogenic PAH, classified as B2 probable human carcinogen
6. cPAHs=carcinogenic PAHs
7. FILL=Clean soil sample
8. PRE=Pretreated soil sample
9. Total PAHs and cPAHs include non-detection values

Table 4 - Post-treatment Soil Analytical Results
Phase I and II Remedy Documentation Report
Campmarina and Center Avenue Right of Way

		Volatile Organic Compounds (VOC's) µg/kg					Polynuclear Aromatic Hydrocarbons (PAHs) µg/kg																	%	mg/kg	
Sample ID	**Date**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**Total BTEX**	**1-Methylnaphthalene**	**2-Methylnaphthalene**	**Acenaphthene**	**Acenaphthylene**	**Anthracene**	**Benzo(a)anthracene [c]**	**Benzo(a)pyrene [c]**	**Benzo(b)fluoranthene [c]**	**Benzo(ghi)perylene**	**Benzo(k)fluoranthene [c]**	**Chrysene [c]**	**Dibenzo(a,h)anthracene [c]**	**Fluoranthene**	**Fluorene**	**Indeno(1,2,3-cd)pyrene [c]**	**Naphthalene**	**Phenanthrene**	**Pyrene**	**Total PAHs**	**Total cPAHs**	**Total Solids**	**Total Lead**	**Total Cyanide**
PST-01	11/29/00	**26***	**10***	<4.5	<19	**36**	<19	<19	<17	<20	<17	<21	<16	<16	<32	<29	<20	<42	**34***	<21	<45	**36***	**43***	**23***	**136***	nd	91.0	**694**	**5.0**
PST-02	11/30/00	**24***	**10***	<4.5	<19	**34**	<19	<19	<17	<20	<17	<21	<16	<16	<33	<29	<20	<42	<13	<21	<46	**21***	<17	<16	**21**	nd	89.0	**399**	**0.068***
PST-03	12/04/00	**21***	**9.7***	<4.5	<19	**30.7**	<19	<19	<17	<20	<17	<21	<16	<16	<33	<30	<20	<42	<13	<21	<46	<16	<17	<16	nd	nd	90.0	**197**	**0.11**
PST-04	12/04/00	**16***	**7.3***	<4.5	<19	**23.3**	<20	<20	<18	<22	<18	<23	<18	<18	<35	<31	<21	<45	<13	<23	<49	<17	<18	<17	nd	nd	87.0	**267**	**0.19**
PST-05	12/05/00	**25***	**11***	<4.5	<19	**36**	<20	<20	<19	<22	<18	<23	<18	<18	<36	<32	<22	<45	<14	<23	<50	**27***	<19	<17	**27**	nd	85.0	**245**	**0.14**
PST-06	12/07/00	<11	<14	<16	<38	nd	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	**33***	<17	<17	**33**	nd	87.7	**150**	<0.160
PST-07	12/08/00	<11	<14	<16	<38	nd	<30	<28	<24	<16	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	<18	<17	<17	nd	nd	88.6	**210**	<0.045
PST-08	12/11/00	<11	<14	<16	<38	nd	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	<18	<17	<17	nd	nd	90.3	**250**	<0.044
PST-09	12/13/00	<11	<14	<16	<38	nd	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	**29***	<17	<17	**29**	nd	90.2	**160**	<0.042
PST-10	12/13/00	**61**	<14	<16	<38	**61**	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	<18	<17	<17	nd	nd	88.9	**170**	<0.045
PST-11	12/15/00	**88**	**60**	<16	<38	**148**	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	<18	<17	<17	nd	nd	87.6	**100**	<0.045
PST-12	12/16/00	**64**	<14	<16	<38	**64**	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	<18	<17	<17	nd	nd	86.2	**140**	<0.045
PST-13	12/19/00	**54**	**51**	<16	<38	**105**	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	<18	<17	<17	nd	nd	91.9	**90**	<0.043
PST-14	12/20/00	**130**	**62**	<16	<38	**192**	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	**48***	<17	<17	**48**	nd	89.5	**180**	<0.044
PST-15	12/21/00	**110**	<14	<16	<38	**110**	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	**22***	<17	<17	**22**	nd	86.5	**180**	<0.046
PST 16	01/05/01	<11	<14	<16	<38	nd	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	**56***	<17	<17	**56**	nd	94.2	**120**	<0.042
PST-17	01/08/01	<11	<14	<16	<38	nd	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	**78**	**17***	<17	**95**	nd	88.8	**240**	<0.044
PST-18	01/08/01	<11	<14	<16	<38	nd	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	**49***	<17	<17	**49**	nd	90.5	**180**	<0.043
PST-19	01/09/01	**19***	<14	<16	<38	**19**	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	**17***	<22	<14	**110**	**46***	<17	**173**	nd	86.7	**230**	<0.044
PST-20	01/10/01	**56**	<14	<16	<38	**56**	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	**46***	<17	<17	**46**	nd	86.4	**160**	<0.045
PST-21	01/11/01	<11	<14	<16	<38	nd	<30	<28	<24	<18	<14	<18	<12	<18	<25	<32	<12	<16	<15	<22	<14	<18	<17	<17	nd	nd	86.6	**88**	**0.062***
Treatment Standards		**400**	**1,500**	**2,900**	**4,100**		--	--	--	**700**	--	--	--	--	--	--	--	--	--	--	--	**400**	**1800**	--	**50,000**	**10,000**	--	--	**50**

[(O-AAS/SAG 12/00][C-HMS-1/01][R-HMS/GRL 7/23/01][RJC 06/14/02]

Notes:

1. "--" = No standard provided
2. cPAHs=carcinogenic PAHs
3. na = not analyzed
4. Detected values bolded
5. * = The reported result is less than the practical quantitation limit (reference laboratory reports)
6. [ ] =concentrations above the treatment standards

Table 5 - Contaminant Mass Removal Table
Phase I and II Remedy Documentation Report
Campmarina and Center Avenue Right of Way

		BTEX	PAHs	Total CN
PRE-TREATMENT SOIL				
Average concentration	(mg/kg)	5.248	231.084	247.077
Contaminant Mass	(tons)	0.055	2.40	2.57
POST-TREATMENT SOIL				
Average concentration	(mg/kg)	0.070	0.061	0.302
Contaminant Mass	(tons)	0.00073	0.00064	0.00314
CONTAMINANT REMOVAL - SOIL				
Contaminant Removed	(percent)	98.7%	99.97%	99.9%
Mass Removed	**(tons)**	**0.054**	**2.403**	**2.566**
Mass Removed	**(lbs.)**	**108**	**4,805**	**5,133**
CONTAMINANT REMOVAL - BTEX + PAHs IN SOIL (lbs.)		**4,913**		

[O-HMS 7/6/01][R-RJC 06/14/02]

Based on 10,400 tons of soil treated and arithmetic mean of all pre-treatment and post-treatment BTEX, PAH, and Total Cyanide values.

Table 6 - Post Phase I and II Remedy Construction Groundwater Monitoring Schedule
Phase I and II Remedy Documentation Report
Campmarina and Center Avenue Right of Way

	Year 1				Year 2		Number of
Monitoring Well	1	2	3	4	1	2	Samples
Interior Well Nests							
MW-701R	X		X		X		3
PZ-701	X	X	X	X	X	X	6
MW-706	X		X		X		3
PZ-702	X	X	X	X	X	X	6
MW-707R	X		X		X		3
PZ-703	X	X	X	X	X	X	6
Upgradient Monitoring Wells							
MW-705	X	X	X	X	X	X	6
MW-708	X	X	X	X	X	X	6
MW-709R	X	X	X	X	X	X	6
Total Number of Groundwater Samples =							**45**

Notes:

1. Monitoring wells and piezometers will be sampled for BTEX (USEPA 8260), PAHs (USEPA 8310) and Cyanides (total, amenable and dissociable) (USEPA 335.4).
2. X - Indicates sample collected during that quarter.

SHEETS

APPENDIX A

NOVEMBER 22, 2000 RECORD OF DECISION

JAN 3 4 2001

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

COPY

DATE: November 22, 2000 FILE REF: FID #460134950

TO: Gloria McCutcheon, Laksmi Sridharan, Jim Schmidt, Walt Ebersohl

FROM: John Feeney

SUBJECT: Record of Decision (ROD) approval signatures for Campmarina Environmental Repair Contract Site, Sheboygan

Please give me your approval signatures to complete this ROD so the consultants and contractors can start remedial work. Margaret Brunette gave written conceptual approval to the remedial action plan in the ROD. I gave final written approval on it. This ROD had been given technical review and approval by Gary Edelstien, bureau engineer, and legal review and approval by Linda Meyer, bureau attorney.

Purpose of the ROD

1. Fulfill our Environmental Repair Contract Obligation with the City of Sheboygan and Wisconsin Public Service Corporation.
2. Document that the Wisconsin Department of Natural Resources has selected an operable unit remedy for upland areas of the Site in compliance with the requirements of the National Contingency Plan (40 CFR part 300). A separate ROD will be written for the sediment problem at the Site.
3. Summarize the selection decision in order to give the U.S. Environmental Protection Agency an opportunity to concur if they choose to be involved (as specified in the contract). The EPA has declined to be involved.

Site Background

The Campmarina property is the site of a former manufactured gas plant and was until recently a campground for RVs. The City of Sheboygan owns the Site. Wisconsin Public Service Corporation, the successor corporation to the former owner/operator, is conducting the remediation. The Site is located on the Sheboygan River in downtown Sheboygan. The portion of the Sheboygan River that borders the Campmarina property is included in the Sheboygan River and Harbor Superfund site.

In 1990, the City of Sheboygan found a black oily substance in the subsurface near the shoreline of the Sheboygan River when constructing footings for a dock. Subsequently, since the site is within the bounds of the Sheboygan River and Harbor Superfund site, WDNR considered adding it to the Federal Superfund National Priorities List. Alternately, the WDNR, Wisconsin Public Service Corporation, and the City of Sheboygan negotiated an Environmental Repair Program contract that held the Site investigation and remediation to a standard similar to that of the Superfund program. In 1992, the contract was signed, and as a result, the Site was *not* proposed for the National Priorities List.

Later that year, the successor corporation to the former owner/operator, Wisconsin Public Service Corporation, hired Simon Hydro Search, Inc. to conduct an investigation. Simon Hydro Search found hydrocarbon and cyanide impacts in the soil and groundwater at the site. Later investigation performed by WPSC's consultant Natural Resource Technology, Inc. ("NRT") found areas of unsaturated soil impacts, BTEX and PAH groundwater impacts across the site, and cyanide contamination in the

groundwater on the south part of the Site.

Remedial Plan

The selected remedy for upland areas at the Site is: full source area encapsulation with a vertical cutoff wall completely around the former manufactured gas plant areas, groundwater drainage trenches to maintain inward gradients within the cutoff wall, an engineered cap and low flow biosparging. Biosparging is a means of promoting natural degradation of contaminants by injecting air into the subsurface. In addition, unsaturated soils at the Site that are most heavily contaminated, located in the central portions of the Campmarina property and in the Center Avenue right-of-way, will be excavated and thermally treated at Wisconsin Public Service's nearby Wildwood site. Treated soil will either be returned to the site for redisposal if it meets appropriate soil standards or will be managed at another location in accordance with ch. NR 718, Wis. Adm. Code.

Approval Signatures

This Record of Decision, RECORD OF DECISION,CAMPMARINA, THE FORMER SHEBOYGAN COAL GAS SITE, REMEDIAL ACTION OPERABLE UNIT FOR UPLAND AREAS, is approved by Southeast Region Wisconsin Department of Natural Resources.

12-14-00

Gloria McCutcheon
Southeast Region Director

Lakshmi Sridharan 12/13/00
Air and Waste Management Leader

Jim Schmidt
Remediation and Redevelopment Program Supervisor

Walt Ebersohl
Remediation and Redevelopment Program Supervisor

John Feeney
Hydrogeologist, Remediation and Redevelopment Program

RECORD OF DECISION
CAMPMARINA, THE FORMER SHEBOYGAN COAL GAS SITE
REMEDIAL ACTION OPERABLE UNIT FOR UPLAND AREAS

Site Name and Location

The Campmarina site includes the Campmarina property located at 732 North Water Street, Sheboygan, Wisconsin in the NW ¼ of SW ¼, Sec. 23, T15N, R23E, Sheboygan County, Wisconsin and adjoining areas in the Center Street right-of-way and in the Sheboygan River, where contaminants from the Campmarina property have migrated ("the Site").

The Campmarina property is the site of a former manufactured gas plant and was recently a campground for RVs. The City of Sheboygan owns the Site. It is located on the Sheboygan River in downtown Sheboygan. The Campmarina property is about three acres in size. The Site is bounded to the west by the Sheboygan River, to the north by New York Avenue, North Water Street to the east, and Center Street to the south. The portion of the Sheboygan River that borders the Campmarina property is included in the Sheboygan River and Harbor Superfund site.

Statement of Basis and Purpose

The purpose of this Record of Decision ("ROD") is to document that the Wisconsin Department of Natural Resources has selected an operable unit remedy for upland areas of the Site in compliance with the requirements of the National Contingency Plan (40 CFR part 300). A second operable unit remedy that addresses the impact of manufactured gas plant contaminants on sediments in the Sheboygan River will be issued in the future. This operable unit remedy was developed in accordance with an environmental repair contract entered into by the Department of Natural Resources, Wisconsin Public Service Corporation, and the City of Sheboygan. The contract was entered into pursuant to section 292.31 (formerly numbered section144.442), Wis. Stats., and the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. ss 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA").

Description of the Selected Remedy

The selected remedy for upland areas at the Site is: full source area encapsulation with a vertical cutoff wall completely around the former manufactured gas plant areas, groundwater drainage trenches to maintain inward gradients within the cutoff wall, an engineered cap and low flow biosparging. Biosparging is a means of promoting natural degradation of contaminants by injecting air into the subsurface. In addition, unsaturated soils at the Site that are most heavily contaminated, located in the central portions of the Campmarina property and in the Center Avenue right-of-way, will be excavated and thermally treated at Wisconsin Public Service's nearby Wildwood site. Treated soil will either be returned to the site for redisposal if it meets appropriate soil standards or will be managed at another location in accordance with ch. NR 718, Wis. Adm. Code.

Statutory Determinations

This remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate requirements (ARAR's) for this action and is cost effective. This remedy satisfies CERCLA's preference for remedies that employ treatment that reduces the toxicity, mobility, and volume as a principle element. Because this remedy will result in hazardous substances remaining at the Site, a review will be conducted by the Wisconsin Department of Natural Resources at least once every five years after the commencement of the remedy to ensure that the remedy continues to provide adequate protection of human health and the environment until the case is closed.

George E. Meyer

George Meyer, Secretary
Wisconsin Department of Natural Resources

1/11/1

Date

SUMMARY OF REMEDIAL ALTERNATIVES SELECTION
UPLAND AREAS OPERABLE UNIT REMEDY
CAMPMARINA, THE FORMER SHEBOYGAN COAL GAS SITE

FINDINGS OF FACT

The following findings of fact summarize information contained in the administrative record for the Campmarina Site. The selected remedy is based upon the information contained in the Site's administrative record.

The Wisconsin Department of Natural Resources ("WDNR") finds that:

Site Description

The Site is located in the downtown area of the City of Sheboygan on the west side of the Sheboygan River, about a mile upstream from Lake Michigan. The Site **is not** listed on the National Priorities List ("NPL"). However, the portion of the Sheboygan River that borders the Site is included in the Sheboygan River and Harbor Superfund Site (which is listed on the NPL). The Campmarina property is about three acres in size. Natural gas for lighting and heat was manufactured on this property from about 1880 to 1930. All the gas plant buildings and structures have been razed. No surficial evidence of former gas plant operations can be seen. The Campmarina property is accessible to the public for RV camping and fishing along the river.

Site History and Regulatory Activities

Gas was manufactured at the Campmarina facility starting in about 1880 until about 1930 when natural gas became available via pipelines. Initially, gas was made at the Campmarina facility by heating coal in large ovens. Later, a carburetted water gas process was used at the Campmarina facility (passing air and steam over hot coal). Gas generated during the heating process was collected, purified, and stored in large aboveground containers. The refined gas was distributed to neighborhood homes and businesses for heat and light.

The process of manufacturing gas produced byproducts including coal tar, oils, and woodchips contaminated with cyanide from the gas purification process. These byproducts were typically

sold, especially the coal tar, which could be distilled and used in dozens of products including fuels, fertilizer, creosote, and pharmaceuticals. Byproducts that could not be sold may have been disposed of on-site. Storage tanks constructed of wood or brick with piping and other equipment may have leaked.

In 1990, the City of Sheboygan found a black oily substance in the subsurface near the shoreline of the Sheboygan River when constructing footings for a dock. Subsequently, since the site is within the bounds of the Sheboygan River and Harbor Superfund site, WDNR considered adding it to the Federal Superfund National Priorities List. Alternately, the WDNR, Wisconsin Public Service Corporation, and the City of Sheboygan negotiated an Environmental Repair Program contract that would hold the site investigation and remediation to a standard similar to that of the Superfund program. In 1992, the contract was signed, and as a result, the Site was *not* proposed for the National Priorities List. Later that year, the successor corporation to the former owner/operator, Wisconsin Public Service Corporation, retained Simon Hydro Search, Inc. to conduct an investigation. Simon Hydro Search found hydrocarbon and cyanide impacts in the soil and groundwater at the site.

In 1996, Wisconsin Public Service Corporation retained Natural Resource Technology, Inc. (NRT) to conduct additional investigation. NRT found isolated areas of unsaturated soil impacts, BTEX and PAH groundwater impacts across the Site, cyanide contamination in the groundwater on the south part of the Site, and much lower groundwater contaminant concentrations in deeper wells. In 1999, NRT conducted additional investigation and submitted a remediation feasibility study. The WDNR gave conceptual approval to NRT's proposed remedial strategy, but requested additional hot-spot soil removal. In the spring of 2000, NRT submitted phase one and phase two remedial work plans, which were subsequently approved by the WDNR on July 12, 2000. Phase one activities consist of excavation, grading, thermal treatment and material management. Phase two activities will consist of installing a vertical sheet pile barrier wall around the affected area within Campmarina and the Center Avenue right-of-way, installing an impervious cap, installing a biosparging system, and restoring the site to pre-existing grade. More detailed descriptions of these activities are described elsewhere in this document.

Community Participation

The WDNR has filed a copy of the phase one and phase two remedial workplans at the Mead Public Library in downtown Sheboygan, to be made available to the public. WDNR produced and distributed a factsheet that explained the history of the site and the proposed remedial action. On April 24, 2000, a meeting at the Mead Public Library was held to inform the public of the phase one and two workplans and to solicit public comments. About 25 people attended the meeting.

No comments were received at the public meeting, but members of the public asked several questions concerning site specific remedial technology. The public comment period ended 30 days later with no comments filed. The public participation requirements set forth in the environmental repair contract have thus been met for the upland areas operable unit. An audio recording of the public meeting is available upon request from the WDNR Southeast Region Remediation and Redevelopment Program.

Scope of the Remedy

This record of decision addresses soil and groundwater contamination for upland areas at the Site. A second operable unit remedy that addresses the impact of manufactured gas plant contaminants on sediments in the Sheboygan River will be issued in the future.

Summary of Site Characteristics

Topography

The Site lies on a steep bank of the Sheboygan River. The southern third of the site has flat street-side terrain, but beyond about 120 from the street, drops about 30 feet in elevation to the riverbank. The northern two-thirds slopes down to the river more gently. Beyond the riverbank to the north and 20 feet higher is a flat area bordered on the east by lake bluffs. To the south and southeast of the site the river forms a flat alluvial fan that terminates at the shore of Lake Michigan.

Site Geology/Hydrogeology

Sand and gravel fill covers the Campmarina property to a depth of nine feet. Simon Hydro Search found this fill material to contain cinders, coal, slag, and construction debris. Beneath the fill is silt and clay with discontinuous units of sand and silty sand. Unconsolidated deposits are 50 to 95 feet thick based on local water supply well logs. Bedrock is Silurian age dolomite of the Niagara Formation.

Groundwater flow is west-southwest towards the river in both the fill and the lower native material. NRT measured the gradient in August and October of 1995 to be 0.05, and depth to groundwater at 3.6 to 7.9 feet below surface. NRT's baildown-recovery tests yielded a calculated hydraulic gradient of 10^{-4} to 10^{-5} cm/sec in the shallow wells using the Bauer-Rice method.

Soil Contamination

Simon Hydro Search dug 15 test pits, collected samples and found the soil to be impacted with hydrocarbon contaminants in the central portion of the Campmarina property near the former water gas and gas meter shops, purifier and tar storage tanks. Simon Hydro Search found no significant source for cyanide contamination or cyanide-impacted soils on the Campmarina property.

NRT found tar in 8 of 17 soil borings at or below the water table mostly in the southern and west central portions of the Campmarina property. In the unsaturated zone, NRT found BTEX soil impacts to be isolated in two areas on the Campmarina property. Soils in the Center Avenue right-of-way had hydrocarbon impacts across the unsaturated zone, and had scattered oxide box wastes consisting mainly of Prussian-blue (cyanide) stained wood chips. Overall, the heaviest soil impacts were found below the water table.

Groundwater Contamination

Seven monitoring wells were installed and sampled, and grab samples of the groundwater were taken in three test pits. BTEX and PAH impacts above standards extend across all but the northern portion of the Site. Enforcement standards set forth in ch. NR 140, Wis. Adm. Code, are exceeded in six of the seven on-site monitoring wells. Concentrations drop significantly in the

piezometers screened below clay strata. Highest concentrations of contaminants in the groundwater are centered at the locations of the former tar tanks, purifier, one of the gas holders, and one of the plant buildings. In this area, in September of 1995, napthlalene concentrations in this area ranged from 220 parts-per-billion (ppb) to 166,000 ppb; benzo(a)pyrene was from 1ppb to 6,700 ppb; total xylene ranged from 680 ppb to 770 ppb; benzene ranged from 1,100 ppb to 31,000 ppb. Tar collected from monitoring well MW706 matched a gas chromatography profile of a reference manufactured gas plant tar. Total cyanide was measured over the enforcement standard of 0.2 ppm at monitoring wells MW704, and MW707, both at the southeast edge of the Campmarina property near the Center Street right of way, with the highest concentration, 0.44 ppm, at MW707.

Investigators have observed a petroleum sheen in the Sheboygan River at the Site and have documented the presence of coal tar in river sediments. The impact of the Site on river sediments will be addressed in a separate record of decision.

Exposure Pathways for Contaminants of Concern

Exposure pathways may occur due to the Site's close proximity to the Sheboygan River, and development plans for condominiums, park and a trail. NRT evaluated exposure pathways including BTEX, PAH's, and total and amenable cyanide for contaminants of concern for all pathways in a feasibility study report, dated May 7, 1999.

Soil Pathway (Unsaturated)

Contaminants in soil in the unsaturated zone could potentially leach into the groundwater. However, it was noted that most significant soil impacts occur in the saturated zone and extend as deep as 21 feet below ground surface. BTEX and weak acid dissociable cyanide concentration levels are generally below industrial and direct contact concentration levels in unsaturated soil, although oxide box wastes have been found in the top 2 feet of soil in the Center street right-of-way. This consists of Prussian-blue (complexed cyanide) stained wood chips. Stained tree roots have also been observed. Other potential direct contact threats are PAHs and lead detected in certain areas on the Site.

Groundwater/Saturated Soil

Sheboygan's municipal water supply system is supplied from Lake Michigan and there are no other water supply wells on the site or nearby; therefore, contaminated groundwater use is not occurring and is likely not expected to occur in the future. Depth to groundwater at the site is as shallow as five feet. Quantities of coal tar are observed in the saturated zone and could pose an exposure threat if excavation occurred. As outlined above, the upper, shallow groundwater is significantly contaminated, with contaminant levels exceeding ch. NR 140, Wis. Adm. Code groundwater standards. Groundwater below 21 feet, as identified by three piezometers, is not significantly impacted; therefore, migration of contaminants to the lower groundwater is not considered to be a problem at this time.

Surface Water

The close proximity of the site to the Sheboygan is a concern in that a certain amount of hydrocarbons are discharging into the river, which may cause exceedances of state surface water quality standards.

Remedial Action Objectives

Remedial action objectives for this Site were developed to provide short term and long term protection of human health and the environment, and to meet applicable and relevant and appropriate requirements (ARAR's). The site-specific objectives for this Site are designed to meet criteria for selection of a remedial action in sections NR722.09 (2) and (3):

- Reduce the potential for human exposure to gas plant residual oil and tar.
- Prevent leaching of free phase gas plant residuals to surface water or sediments.
- Prevent contaminants in unsaturated soil from leaching into the groundwater or river at concentrations above standards.
- Reduce the potential for contaminated groundwater to discharge into the river.
- Prevent the migration of contaminated groundwater and achieve applicable groundwater standards for contaminants within a reasonable period of time. A reasonable time period at this site may be very long considering that the shallow groundwater isn't currently used and is likely not to be used in the future.

Development of Remedial Alternatives

The National Contingency Plan established nine criteria for evaluating remedial alternatives based on health impacts, technical considerations, and cost (40 CFR 300.430(e)(9)(iii)).

Threshold criteria are CERCLA statutory requirements that must be met for any remedy to be approvable as CERCLA quality:

1 Overall protection of Human Health and the Environment.

2 Compliance with Applicable and Relevant Appropriate Requirements (ARARS).

Primary balancing criteria are used to compare the effectiveness of the remedies:

3 Long-term effectiveness and permanence.

4 Reduction of toxicity, mobility, or volume through treatment.

5 Short term effectiveness.

6 Implementability.

7 Cost.

Modifying criteria deal with the support agency and community response to the alternatives:

8 State Acceptance.

9 Community Acceptance.

The nine criteria are designed to highlight a remedy that will be cost effective, protective of human health and the environment, that will attain the ARAR's, and that will utilize permanent solutions and treatment technologies to the extent practicable.

Description of Remedial Alternatives

1A. Excavation and Disposal of Contaminated Media

Soil excavation would include saturated and unsaturated soils to a depth of about twenty-one feet. Soils would be properly disposed of as non-hazardous special waste or treated offsite and returned to the site as backfill. Success of this approach would hinge on removing enough soil to allow natural attenuation to complete remediation of soil and groundwater.

Due to the close proximity of the river and steep banks, steel sheet shoring reinforced with tie-backs would be needed. Excavation water would be treated onsite with a portable carbon treatment unit, then routed to the City's sanitary sewer. The steel sheeting would be left in place after excavation activities to separate clean backfill from impacted river sediments.

1B. Excavation and On or Offsite Treatment of Contaminated Media

Offsite treatment would consist of thermal desorption or cement kiln processing. Thermal desorption would take place at Wisconsin Public Service's Wildwood facility, located about a mile upriver of the site. Soils would have to be shipped out of state by rail to be processed by cement kiln, and clean excavation backfill would have to be imported.

Onsite soil treatment would consist of mixing soils in an aboveground vessel with a hydrogen peroxide and ferrous iron. Contaminants would be destroyed by oxidation via Fentons Reaction. Treated soil would be used as backfill.

2A. Full Source Area Encapsulation of Contaminated Media with Low Flow Biosparging

A barrier wall would be constructed to encapsulate the contaminated media in the source area with sheet piling encircling the entire source area combined with a surface cap. The sheet piling would be driven into low permeable clay strata to a maximum depth of 30 feet below ground surface. The barrier wall could be constructed of PVC, HDPE or steel with sealed interlocks or it could be constructed of cement/bentonite. A trench would surround the upgradient side of the containment barrier to divert groundwater around the containment barrier and prevent mounding of groundwater on the upgradient side. Groundwater mounding inside the containment area is not expected to be a problem.

The cap could be constructed of (from the bottom) a wheel-rolled crushed stone foundation layer, a non-woven geofabric (internal) hydraulic and vapor control layer, a low permeability flexible membrane (HDPE) layer, an (external) non-woven geotextile drainage layer, a protective six-inch (minimum) compacted engineered fill layer, and a marker layer. Above that, the site would be brought to grade with enough soil fill and vegetated topsoil to meet ch. NR 504.07. The flexible membrane cover would be at an elevation above the 100 year flood elevation. This multilayer

cover system will meet WDNR Waste Program cover system ARAR's under ch. NR 504.07, Wis. Adm. Code.

The internal vapor discharge/water drainage layer would be keyed into a perimeter drainage system routed to a sump. This drainage system would consist of a slotted PVC pipe surrounded by a gravel trench around the inside perimeter. Water collected from the internal drainage system would be trucked to the local public wastewater treatment works for proper treatment and disposal. If necessary, water could be treated on site and released to the Sheboygan River under a Wisconsin Pollutant Elimination Discharge System permit.

A low flow biosparge system, with injection well spacing based on pilot testing at the site, will pump air into the encapsulated area to promote long-term bioremediation of soil and groundwater. The biosparge emissions will be regulated under an application to treat soils (Form 4500-168) signed by WDNR Air Management. A groundwater monitoring period of up to 30 years or longer is proposed. Maintenance of the containment system, including vapor monitoring, and continued monitoring of groundwater conditions inside and outside of the containment system would be required.

The WDNR requested that excavation and thermal desorption of near surface hot-spot soils be added to this option as well as to similar options such as 2B, described below. WDNR considers that this is an effective means of reducing the mass of contaminants at the site quickly in order to help achieve soil and groundwater standards in a reasonable period of time.

The off-site thermal treatment unit will operate under a permit from WDNR Air Management Section governing emissions. In the thermal desorption process, soil is broken up and contaminants are driven off in a primary kiln that heats the soil past the boiling point of contaminants, including PAH compounds. Exhaust gasses are then incinerated in a thermal oxidizer to destroy contaminants.

Soil would be treated to meet site specific cleanup standards for beneficial reuse as fill at the Site. Following construction of the cap, groundwater infiltration would be negligible and primary exposure pathways would consist of both direct contact and surface water migration to the river. Material meeting approved site specific cleanup objectives would be used either directly beneath

the cap or over the cap. Material placed above the cap would be amended with organic nutrients for future landscaping and would be covered with a minimum of twelve inches of topsoil.

In accordance with s. NR718.09 (6), Wis. Adm. Code, the thermal contractor will provide dust control and try to minimize odor and noise. No more than 5,000 tons of soil will be stored at one time. Under s. NR 718.09(1), Wis. Adm. Code, soil returned to the site is exempt from solid waste program requirements for placement or disposal in ch. 289, Stats., and chs. NR500 to 536, Wis. Adm. Code. If requested, approval for off-site disposal of treated soil may be granted under s. NR 718.13 or 718.14 Wis. Adm. Code., provided the requirements of those sections are met.

2B. Partial Source Area Encapsulation of Contaminated Media with Low Flow Biosparging

This alternative would be similar to 1A, but a groundwater interceptor trench that would be pumped to control hydraulic mounding inside the encapsulated portion of the site would replace a portion of the containment wall. Discharge water from the trench would be treated onsite and released to the river with a discharge permit.

3. In-Situ Treatment of Contaminated Media

3A Steam Enhanced Vapor Extraction: Superheated steam would be injected into the subsurface to volatilize petroleum contaminants. Dual phase extraction wells would remove vapor and water followed by a groundwater treatment and discharge system. Vapor phase contaminants would be discharged under regulated levels. A barrier wall would separate treated areas from river sediments.

3B. Active Bioremediation: The subsurface formation would be fractured and injected with nutrients, oxygen, surfactants, and other supplements to promote bioremediation.

3C Passive or Active Treatment Wall: This technology would work by placing a treatment barrier such as a wall of air sparge wells or oxygen release compound on the downgradient side of the site so that groundwater would flow through it before it discharged to or under the river.

3D In-Situ Stabilization/Solidification: The contaminated media would be rendered inert by mixing with stabilizing agents such as cement.

Comparative Analysis of Alternatives

This record of decision document does not include a full comparative analysis of alternatives and instead outlines a summary of the Department's analysis. The Department considered the feasibility study (FS) that evaluated the alternatives under criteria set forth in the National Contingency Plan. The FS report is entitled: Feasibility Study, Campmarina, Former Coal Gas Facility Wisconsin Public Service Corporation, Sheboygan, Wisconsin, dated May 7, 1999, pages 6-1 to 6-12, that has been approved by the WDNR and can be obtained from the WDNR on request.

1A, 1B. Excavation and Disposal or Treatment of Contaminated Media

- The excavation and treatment alternatives could potentially be the most effective if enough source material could be excavated. Success of these alternatives would depend on effectiveness of the extensive shoring and dewatering that would be needed.
- Excavation would result in more exposure to remedial workers than any other alternative.
- These alternatives would be two to three times more expensive than other alternatives, at up to six million dollars.
- Complete removal of all contaminated material would be impracticable due to the difficulty of excavating coal tar contaminated sand and gravel stringers and seams between clay layers at depths of up to 21 feet.

2A. Full Source Area Encapsulation of Contaminated Media with Low Flow Biosparging

- Success of this alternative would depend on long term maintenance of the engineered barrier.
- ARAR's would be performance based standards, final closure would be dependent on successfully demonstrating that the performance of the engineered barrier meets remedial action objectives.
- The effectiveness of biosparging could be limited by the potential of development of preferential flow pathways and plugging of the air conveyance piping with iron precipitation.
- The cost of this alternative is low in comparison with others.

- This alternative would be relatively easy to implement due to needing the least amount of excavation below the water table.

2B. Partial Source Area Encapsulation of Contaminated Media with Low Flow Biosparging

- This alternative would be performance based, similar to full encapsulation.
- Seasonal high water levels could reduce the effectiveness of the groundwater recovery trench.
- This is a relatively low cost alternative.

3. In-Situ Treatment of Contaminated Media

- Success of these options may be unacceptably influenced by heterogeneous conditions in the subsurface.
- Stringers of phase separate coal tar may not be amenable to remediation by in-situ means.
- These are high cost alternatives.

In addition to the remedial action alternatives identified in the FS, the National Contingency Plan requires that a no-action alternative be evaluated which serves as a point of comparison for the other alternatives. The no action alternative was eliminated for this site due to the high potential of direct contact exposure because the property will be developed for residential purposes, and because contaminants from the site have an impact to surface water and groundwater quality along the Sheboygan River.

CONCLUSIONS OF LAW

Alternative 2A, full source area encapsulation of contaminated media with low flow biosparging with the addition of near surface contaminated soil excavation and thermal treatment, will protect human health and the environment, will comply with legally applicable or relevant and appropriate requirements, will be cost effective, and will achieve permanent solutions to the extent practicable.

Protection of Human Health and the Environment

The selected remedy provides protection of human health and the environment by removing or remediating and/or isolating and containing the contaminants in soil and groundwater, and meeting the remedial action objectives listed above.

Attainment of ARARs

The cut-off wall, drainage system and cover are considered a s. NR720.19 (2) Wis. Adm.Code soil performance standard for protection of groundwater, direct contact, and surface water pathways. The remedy is designed to employ a permanent engineering control to isolate contaminants to prevent a threat to public health or the environment.

Groundwater within the plume is expected to achieve ch. NR140, Wis. Adm. Code PAL's for all contaminants with groundwater standards throughout the plume via removal and treatment of the more contaminated soils, low-flow biosparging, and subsequently through natural attenuation after the biosparging system ceases operation. It is expected to take a very long time to achieve groundwater standards at this Site. However, this is reasonable given the continued presence and maintenance of the containment cover, cut-off wall and hydraulic control drainage system and the lack of current and expected future uses of the shallow groundwater. Surface water quality will benefit from being cut off from affected sediments at the riverbank.

A groundwater use restriction will be filed for the property. Public notification requirements under NR 714.07(5) will be met.

The multilayer cover system constructed over the contained soils will meet the relevant requirements of s. NR 504.07, Wis. Adm. Code.

Contaminated groundwater from the internal drainage system could be managed at a local wastewater treatment facility in accordance with pretreatment regulations or, if necessary, treated on site and discharged to the river in accordance with a WPDES Permit.

The off site thermal treatment facility will operate in accordance with an Air Management Permit and will meet the emission requirements under that permit. The management of contaminated soil at the facility prior to treatment and treated soil management will be in accordance with ch. NR 718, Wis. Adm. Code.

The air emissions from the biosparging facility will meet Air Management Program requirements.

Cost Effectiveness

The selected remedy is cost effective in comparison with alternatives based on excavation that would call for extensive shoring and dewatering. More expensive alternatives may not be more protective of human health and the environment due to uncertainties in implementation.

Utilization of Permanent Solutions

The sheet piling and cap will be left in place permanently and maintained by WPS, and the City of Sheboygan. The City of Sheboygan will construct a public park and trail over the top of the cap and sheet piling. All wells and park structures that penetrate the cap will be sealed with special welds and boots. A visual warning barrier will be placed in the subgrade to help prevent future construction from penetrating the cap.

Preference for Treatment as a Principal Element

As mentioned above, the selected remedy will also include excavation and thermal treatment of soils in the unsaturated zone that have been impacted by manufactured gas plant contaminants. Soil will be excavated from central portions of the Campmarina property and the Center Avenue right-of-way, and will be thermally treated at Wisconsin Public Service Corporation's Wildwood facility, located one mile from the site.

Biosparging provides active treatment to the source area by providing sufficient oxygen for natural biodegradation of contaminants in the contaminated soil. The capability to actively vent the sparge wells, if necessary, will be built into the system, and nutrients will be injected into the groundwater, as appropriate.

THE SELECTED REMEDY

Based on this evaluation of the alternatives, the WDNR has selected alternative 2A, full source area encapsulation of contaminated media with low flow biosparging, with the addition of near surface contaminated soil excavation and thermal treatment as the remedy for this Site, and has determined that this remedy will be protective of human health and the environment, comply with

ARARs, be cost effective, and will use permanent solutions to the maximum extent practicable. The selected remedy also includes:

- Maintenance of the containment system, including vapor monitoring.
- Continued monitoring of groundwater conditions inside and outside of the containment system.

The Wisconsin Department of Natural Resources has determined that the selected remedy will achieve the remedial action objectives for this site.

APPENDIX B

PHOTOGRAPHS

PHOTOGRAPH LOG

Campmarina Former MGP Site
Wisconsin Public Service Corporation
Sheboygan, Wisconsin

Photograph Number	Photograph Description

Site Preparation – Campmarina Site

1. View of Center Avenue Right-of-way prior to excavation activities, looking southeast from Boat Island.
2. Looking northeast of Campmarina site from Pennsylvania Avenue prior to excavation activities.
3. Condition of Campmarina shoreline prior to excavation activities.
4. One of the warning signs posted by NRT on Campmarina and Wildwood entrance gates.
5. Looking southwest, the temporary rerouted storm sewer approved by the City of Sheboygan.
6. Installation of temporary sheet pile wall located at the northeast corner of the wall alignment.

Site Preparation – Wildwood Site

7. View of the sloped asphalt and surface water collection sump installed prior to thermal treatment activities.

Excavation Activities

8. Excavation located in EZ #4, as noted on Sheet C040.
9. Former manufactured gas plant (MGP) concrete box found during excavation. No coal tar present.
10. West limit of GZ #6 between west sheet pile wall and concrete retaining wall.
11. Two 4" diameter former MGP pipes located southeast of retaining wall, as noted on Sheet C030.
12. LLDPE linear placed in EZ #1 excavation at –1 ft. elevation.
13. Looking southeast on May 4, 2001 at EZ #2 excavation at 5 ft. below ground surface.
14. Looking north at CAMP 1 air monitoring station located at Campmarina.
15. Looking east at WILD 1 air monitoring station located at the Wildwood site.

Thermal Treatment and Stockpile Management – Wildwood Site

16. Thermal treatment plant looking west at the Wildwood site. Note, far left corner of photo is the soil hopper.
17. Looking south at the thermal treatment plant at Wildwood. Note the screen conveyor belt running along the length of the photo. Debris stockpiled in concrete bins and pretreated stockpile located at the end of conveyor (right center of photo).
18. A view of the screen looking north. Note the large pile of debris at base of screen from screening activities.
19. Looking northwest at the screened pretreated stockpile.
20. View of the covered stockpiles of treated material. Note the surface water runoff collected around the storm water catch basin.

Shoreline Reconstruction

21. Looking south along Campmarina's riverbank. Six inches of filter gravel placed at –1 ft. elevation locations. Structural fill was placed to –1 ft. elevation at deeper section of EZ #4 excavation shown at top of photo.
22. Reconstructed riverwalk with riprap to complete Phase I.

Waterloo® Sheet Pile Wall Activities

23. Waterloo® sheet pile wall installation looking southeast along temporary sheet pile wall in Center Avenue right-of-way.
24. Waterloo® sheet pile wall installation along eastern side of wall alignment.
25. A line of the Waterloo® cut sheets along the temporary sheet pile wall looking southwest.
26. Flushing the joints between sheet piles to remove soil prior to sealing the joints with grout.
27. Video scanning equipment used to videotape and document the condition of the joints of the sheet pile wall.
28. Grout machine used to grout sheet pile joints.

Erosion controls

29. Erosion matting to minimize erosion of the riverbank.

Anchor and Drainage Trenches

30. Drainage/venting trench and piping along riverbank.

Biosparging System

31. Installation of one of the biosparge wells.
32. Looking from Pennsylvania Avenue Bridge, Campmarina site after the biosparge wells were installed.
33. Laying the 1" HDPE pipes 4" on-center within trench.
34. View of a biosparge well and 1" HPDE pipe connected by a wye.
35. Pressure test of HDPE biosparge pipe at a constant 30 psi.
36. Inserting nutrient tube inside HDPE biosparge pipe to biosparge well screen depth.
37. Placement of biosparge piping along the subgrade foundation.

Geosynthetic Preparation and Activities

38. Looking south at the graded geosynthetic subgrade. Note large tubes in background are light pole bases for future park.
39. Deployment of geocomposite and HDPE linear.
40. Fusion welding HDPE panels.
41. Pressure testing fusion seam.
42. Deployment of geotextile above HDPE linear.
43. Sewing geotextile panels together.
44. 6" of silty sand placed in Center Avenue right-of-way prior to deployment of HDPE linear.
45. Extrusion welding biosparge well boot to HDPE linear.
46. Placement of treated material (mechanical barrier) above geotextile prior to final geocomposite.
47. Along the concrete retaining wall perimeter 2" x 4" treated wooden studs and bolted down geocomposite (drainage layer) and geotextile to concrete curb.
48. Amended material placed above final geocomposite layer.

Restoration Activities

49. Temporary sheet piles were removed and placed along side Center Avenue right-of-way.
50. Decontamination of temporary sheet piles performed in decontamination pad using a pressure washer.
51. Looking north at the biosparge building foundation prior to placing concrete. Note the insulation and #4 rebar within the building foundation.
52. Removal of the concrete forms from the biosparge building foundation after the concrete cured.
53. Looking northwest of biosparge and Outboard Motor Club/Biosparge Building during the final stages of construction.
54. Looking inside the biosparge equipment room

55. View of Center Avenue right-of-way after remedial construction activities.
56. View of Campmarina from Center Avenue right-of-way after remedial construction activities and prior to park construction.
57. Wildwood former stockpiling area graded, topsoiled and seeded.
58. Completed Biosparge/Boathouse Building.
59. Park, Looking South, May 2002.
60. Park, Looking North, May, 2002.

Photo 1

Photo 2

Photo 3

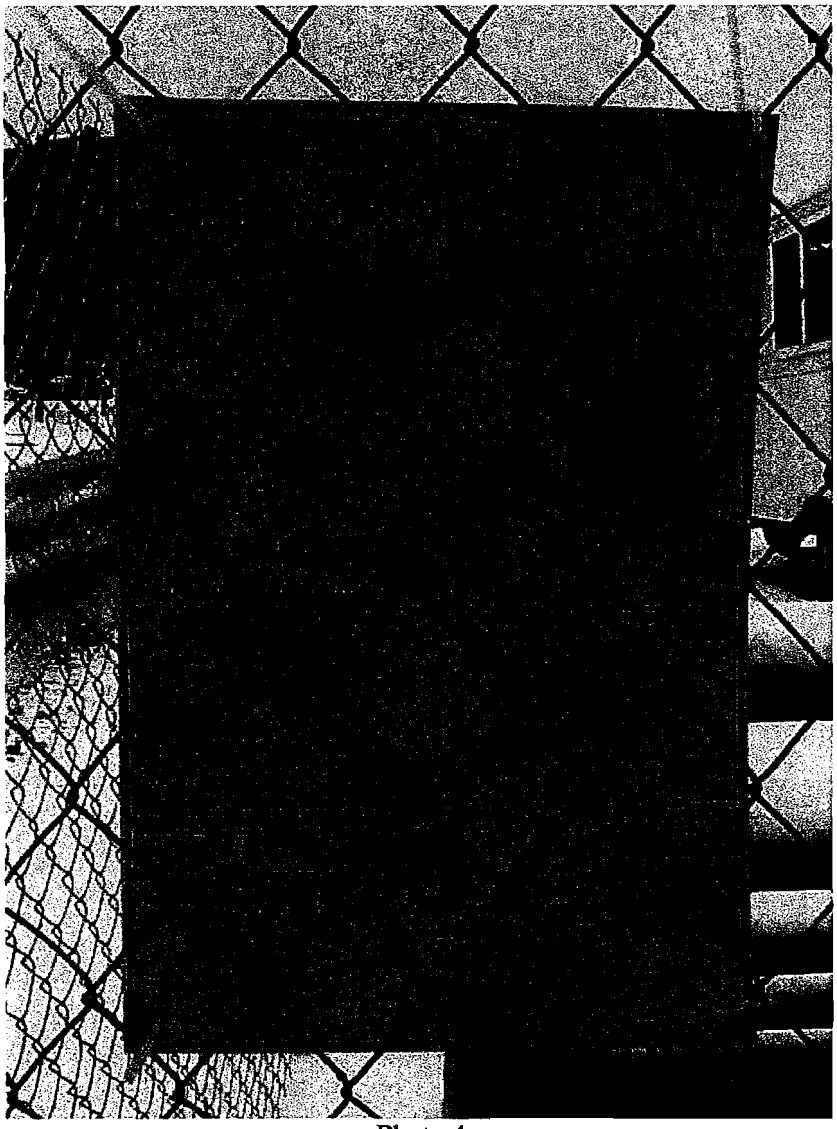
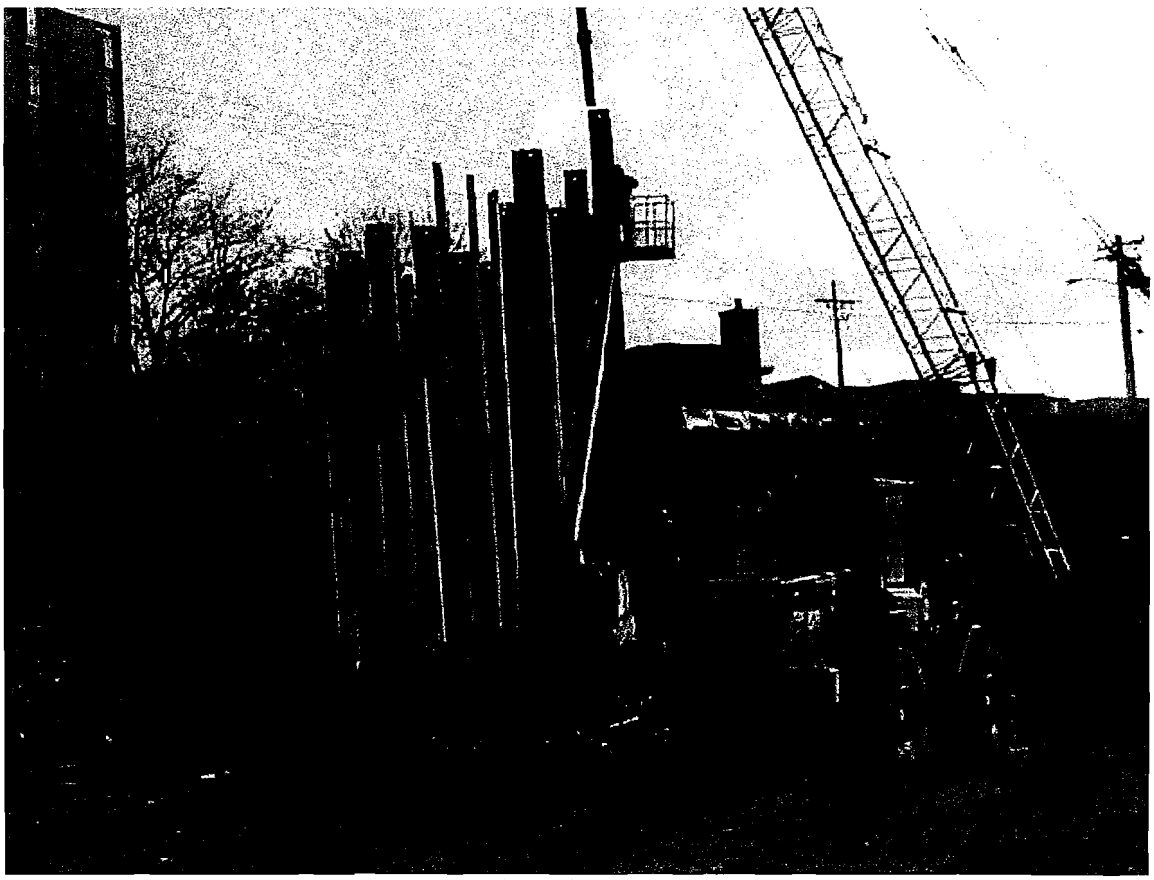


Photo 4

Photo 5



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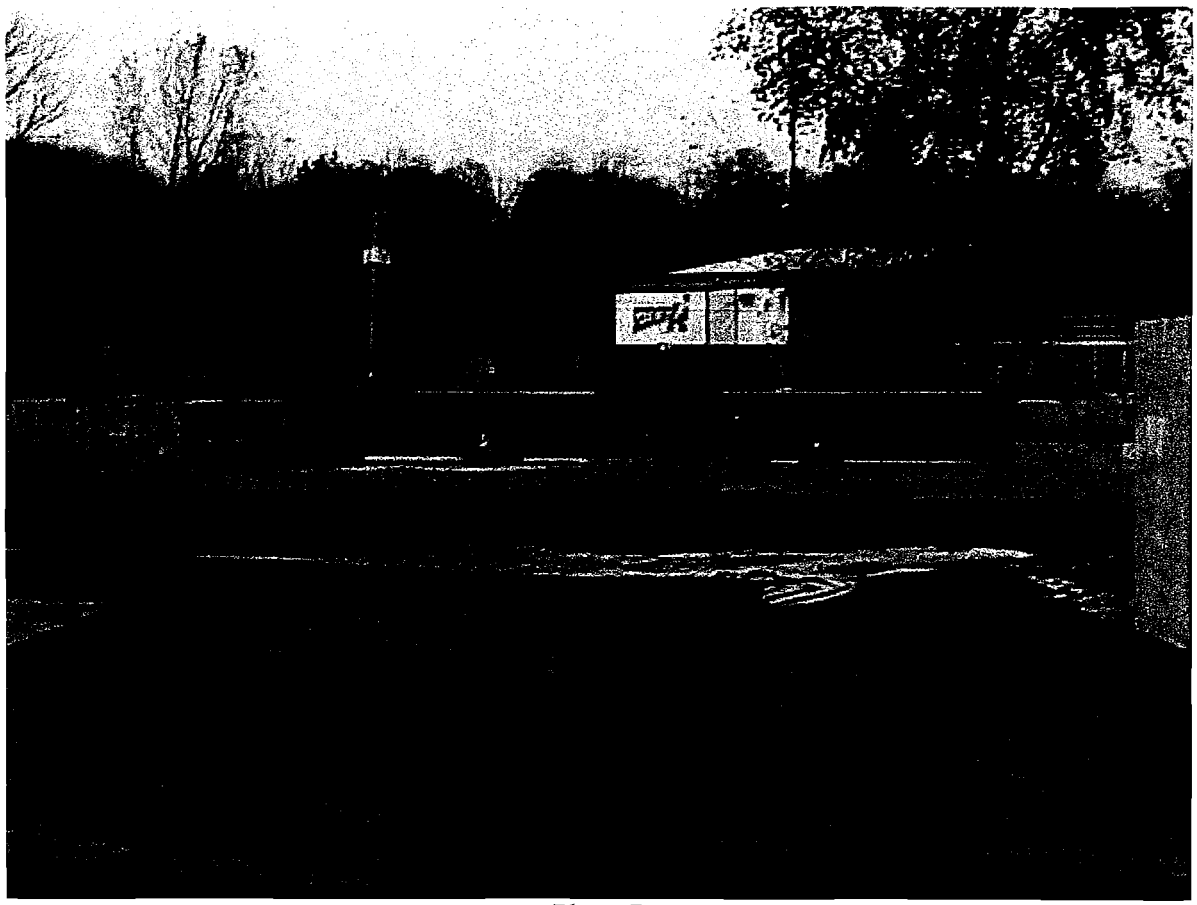


Photo 7

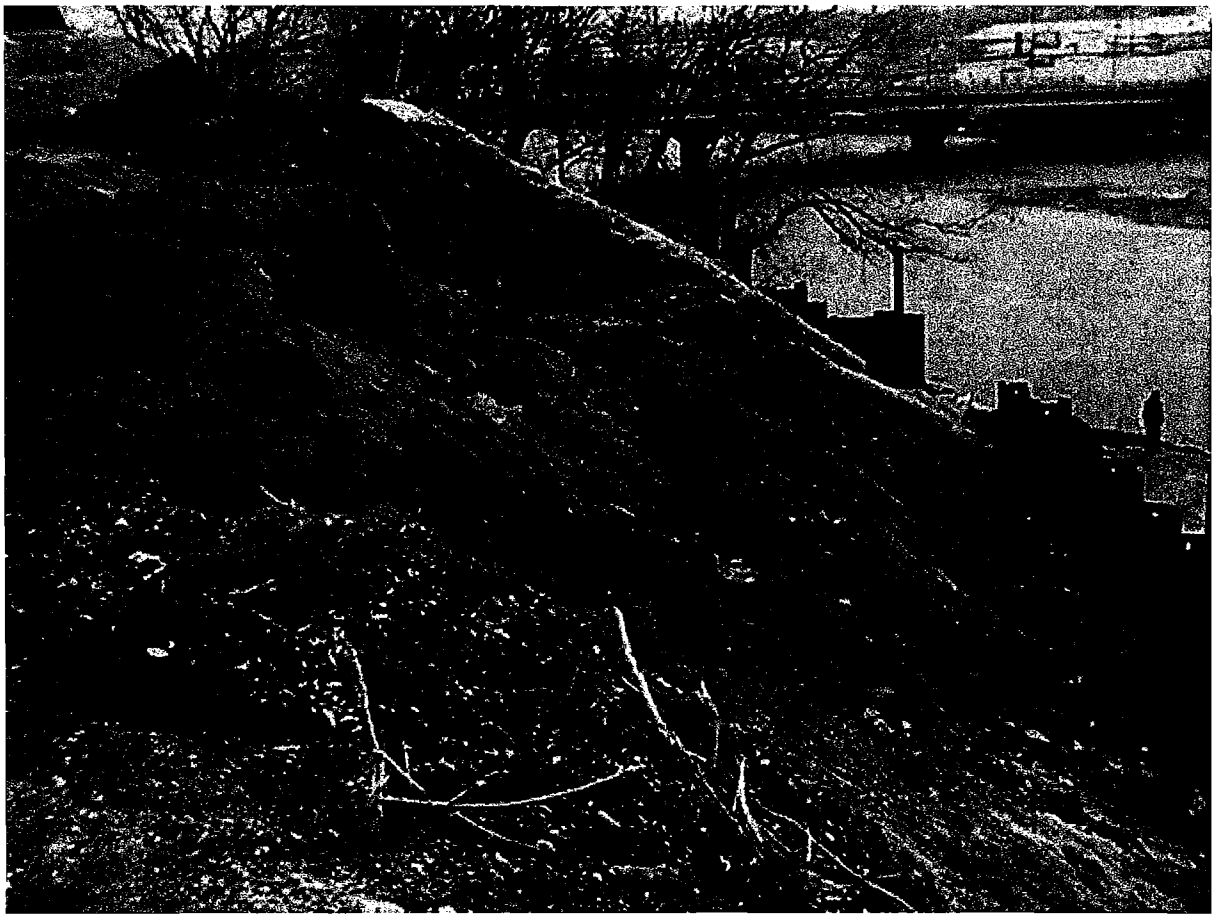
Photo 8

Photo 9

Photo 10

Photo 11

Photo 12



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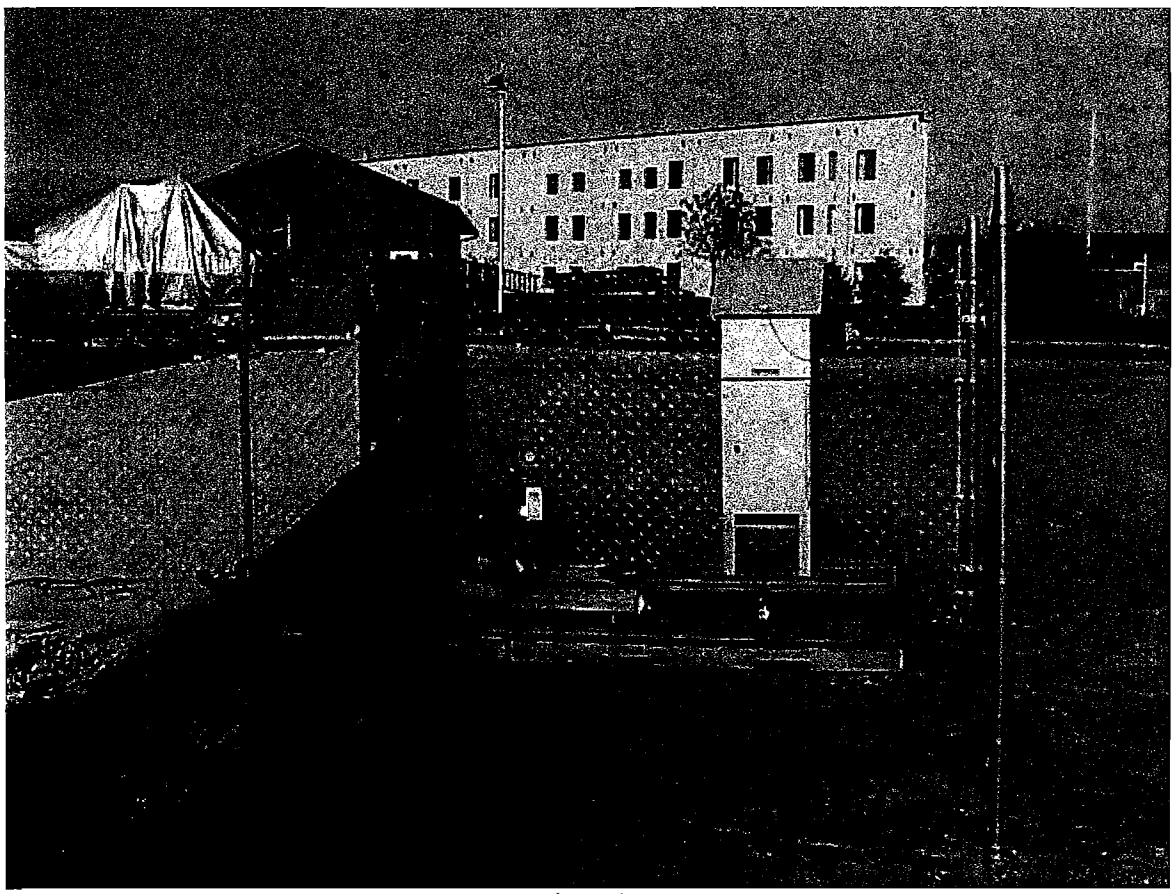

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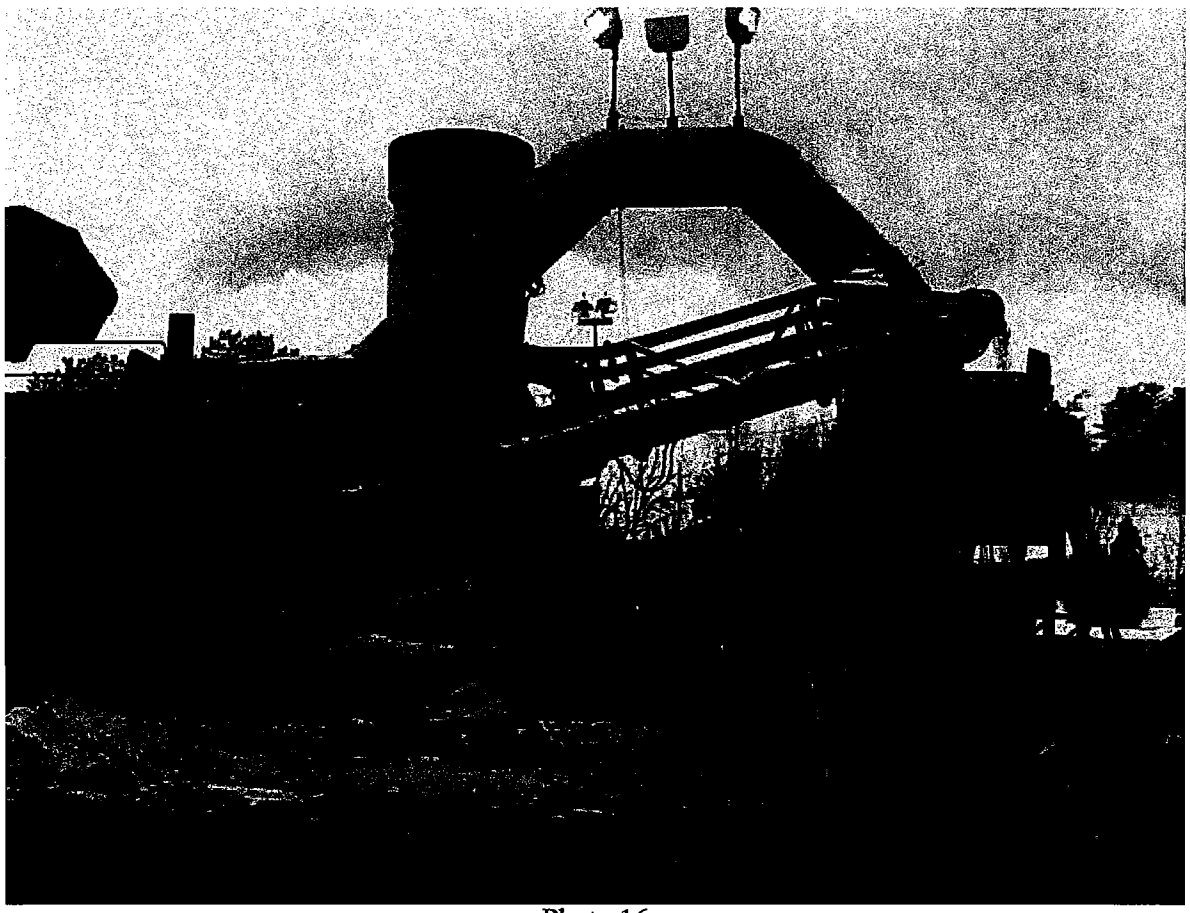

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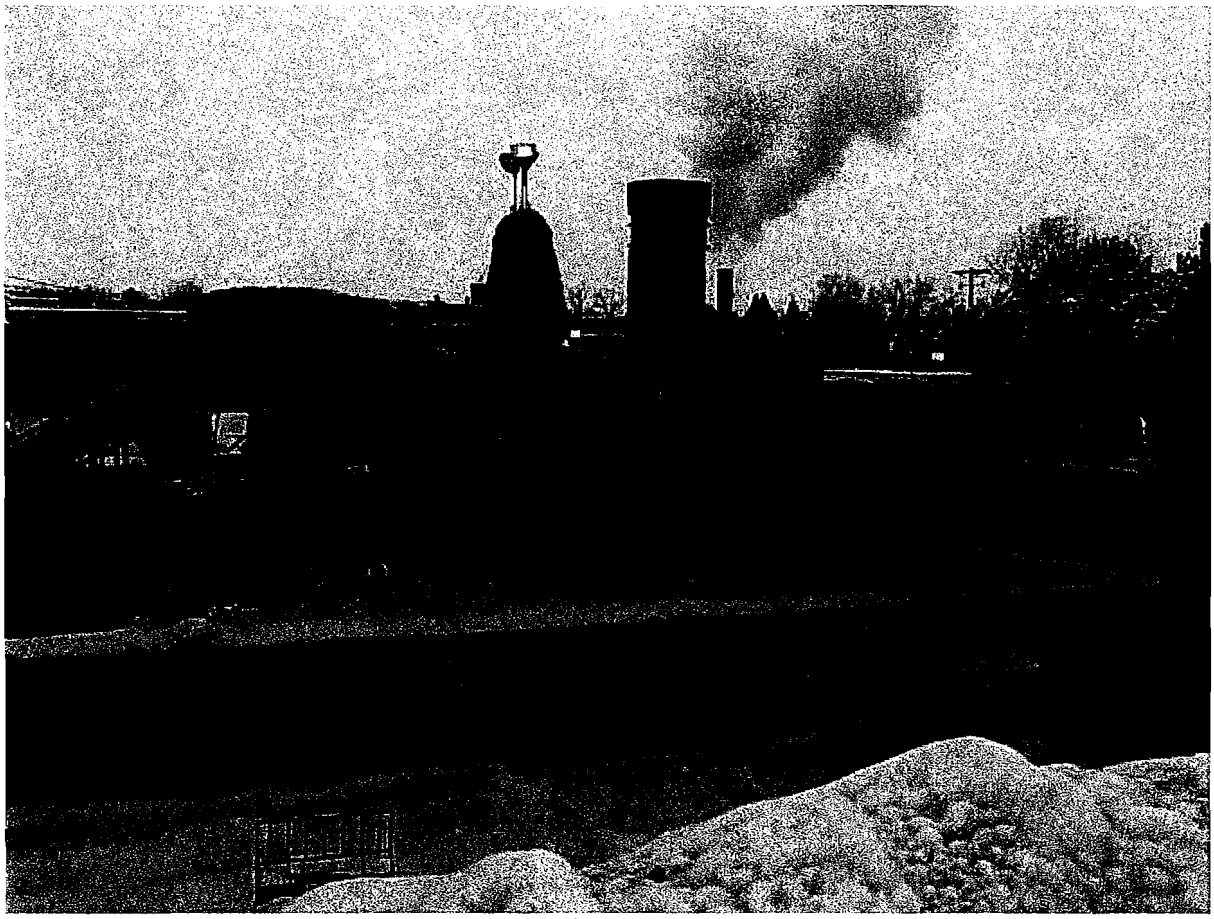

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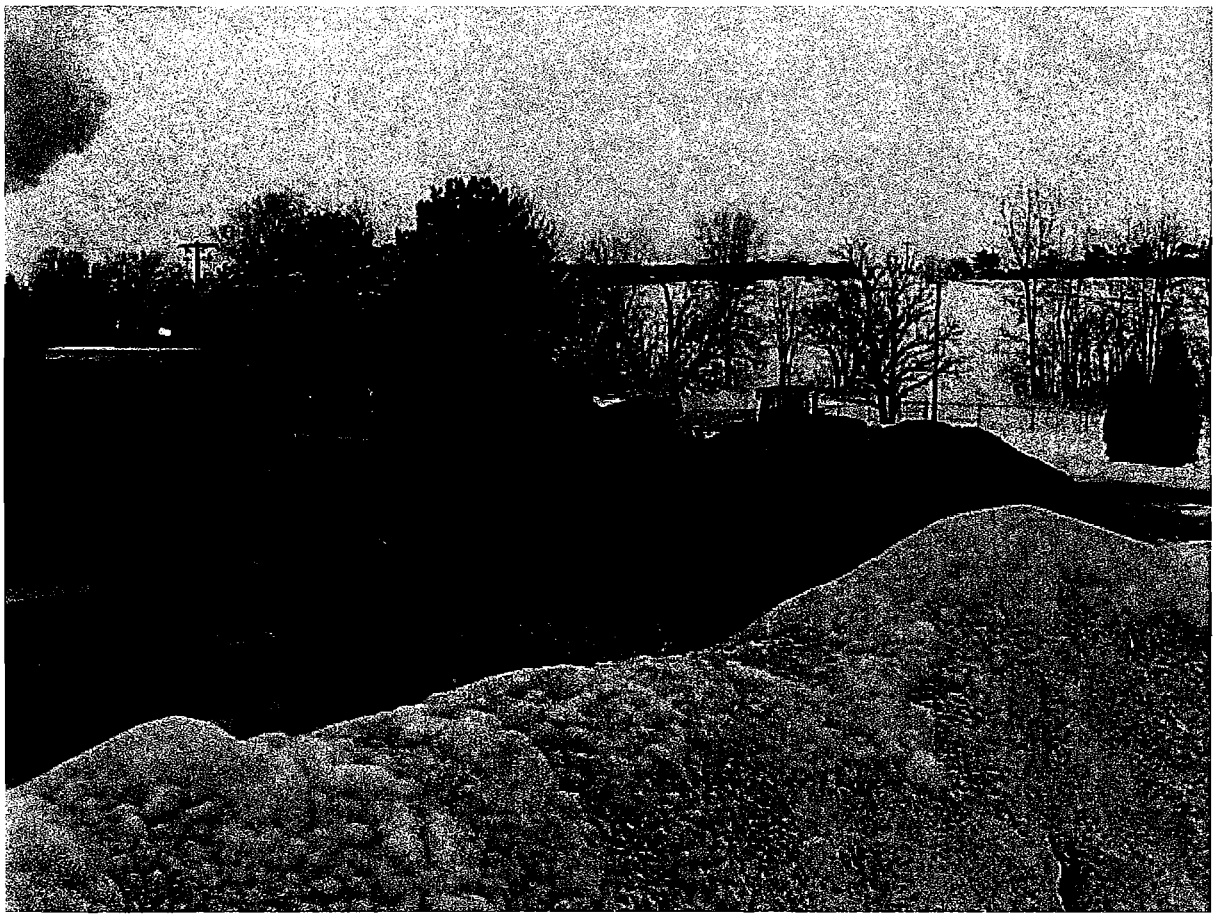

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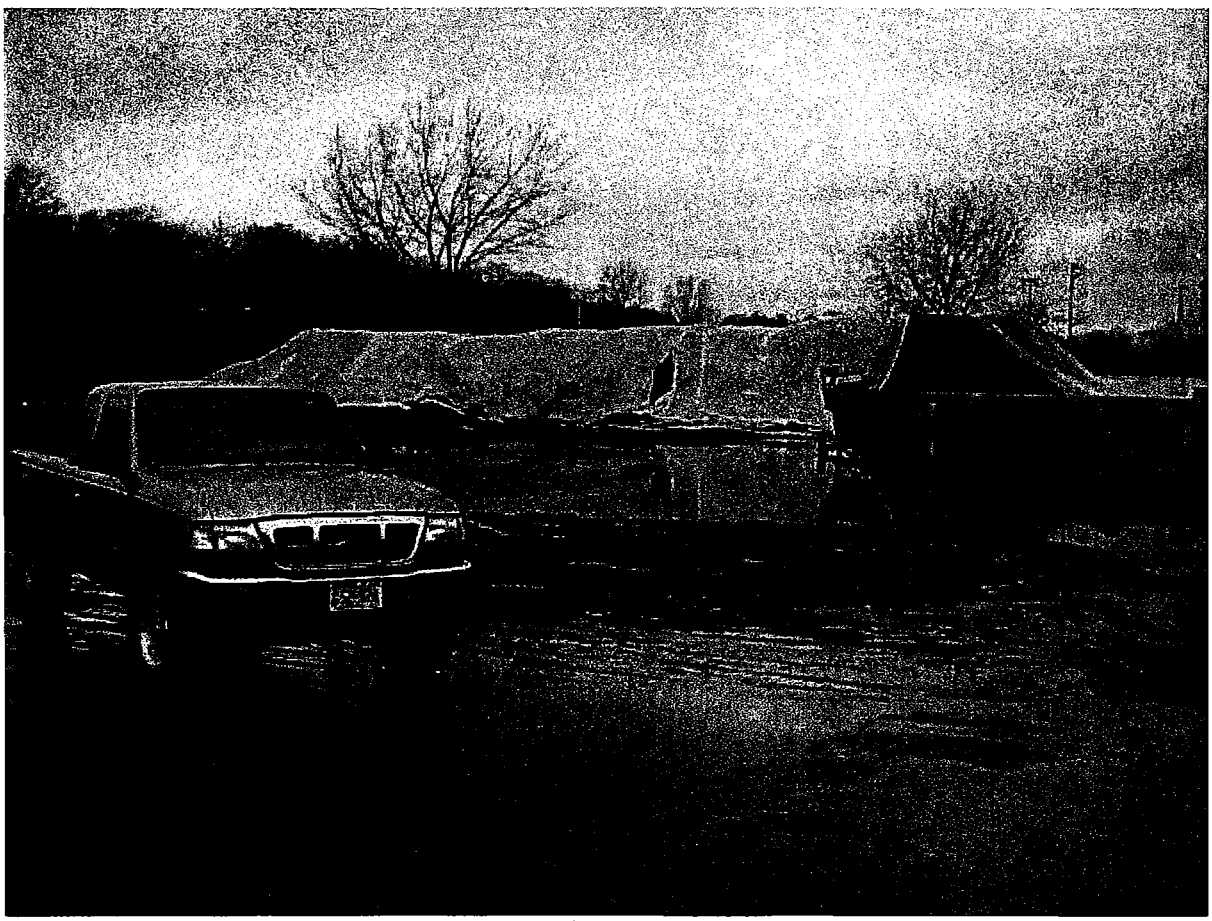

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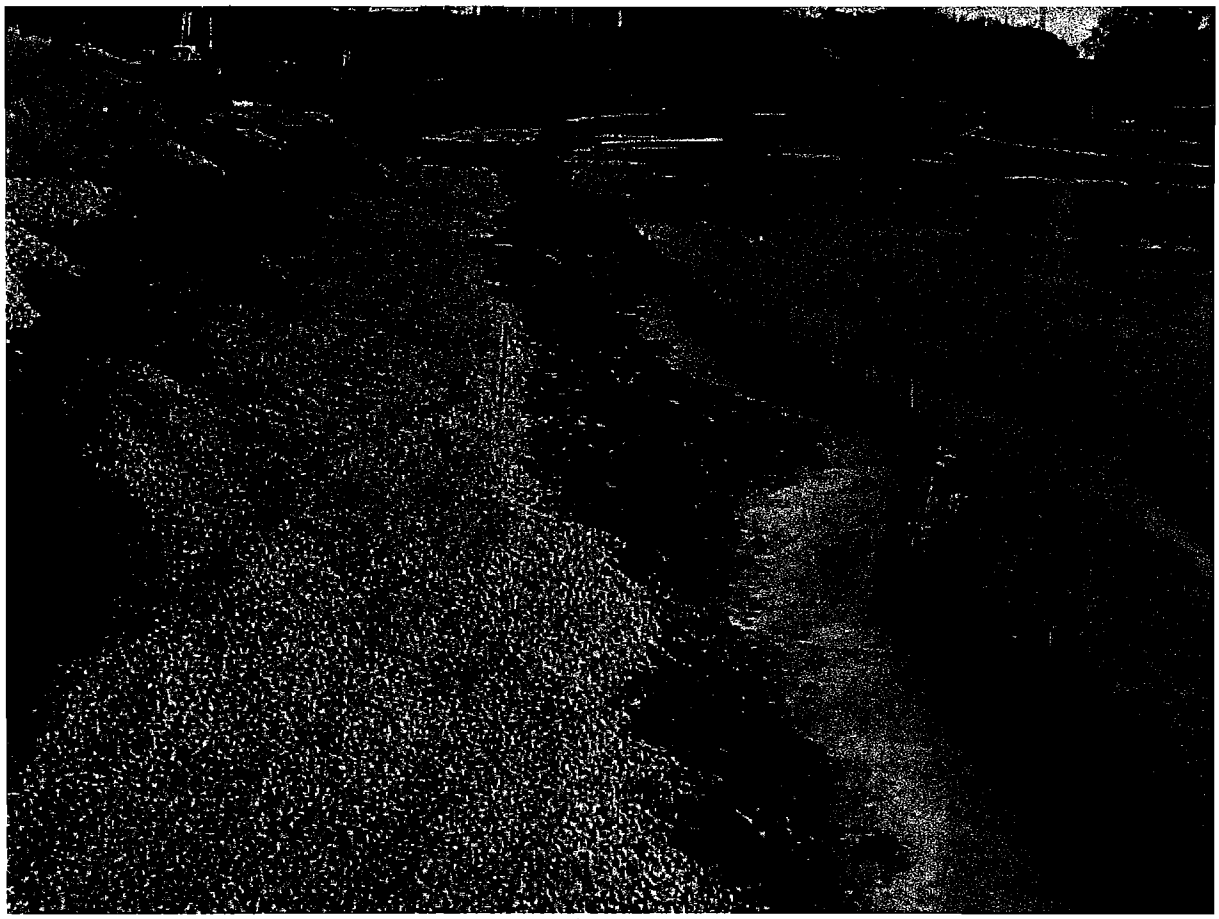

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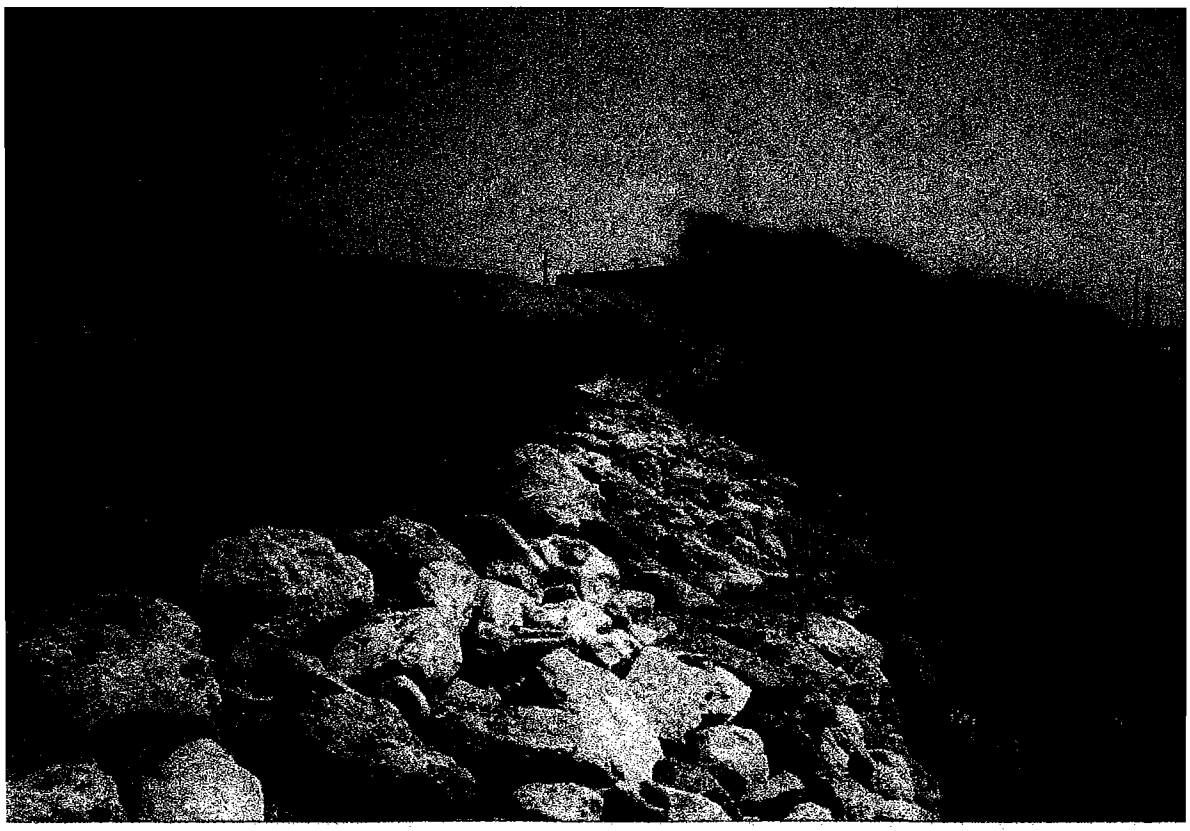

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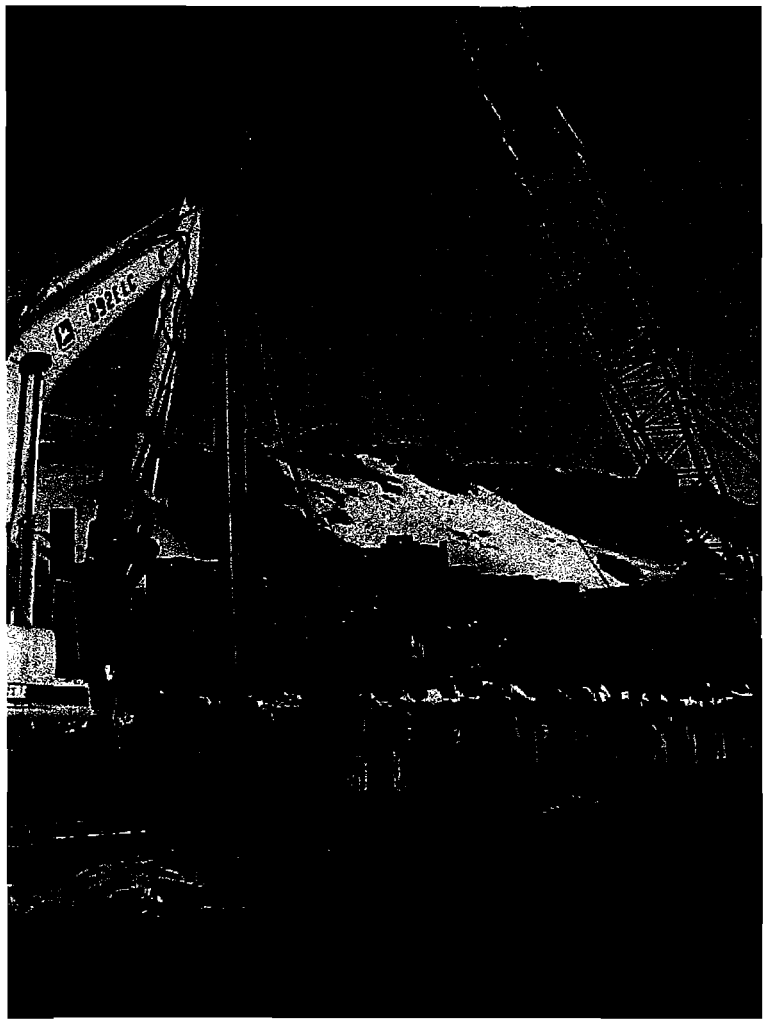

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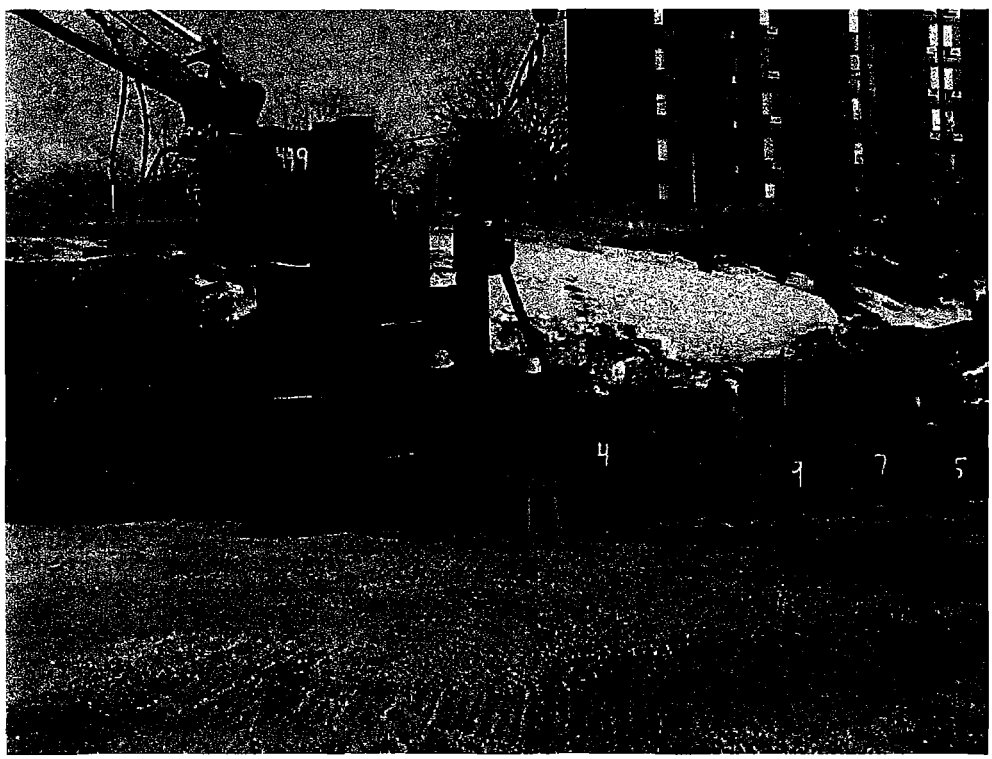

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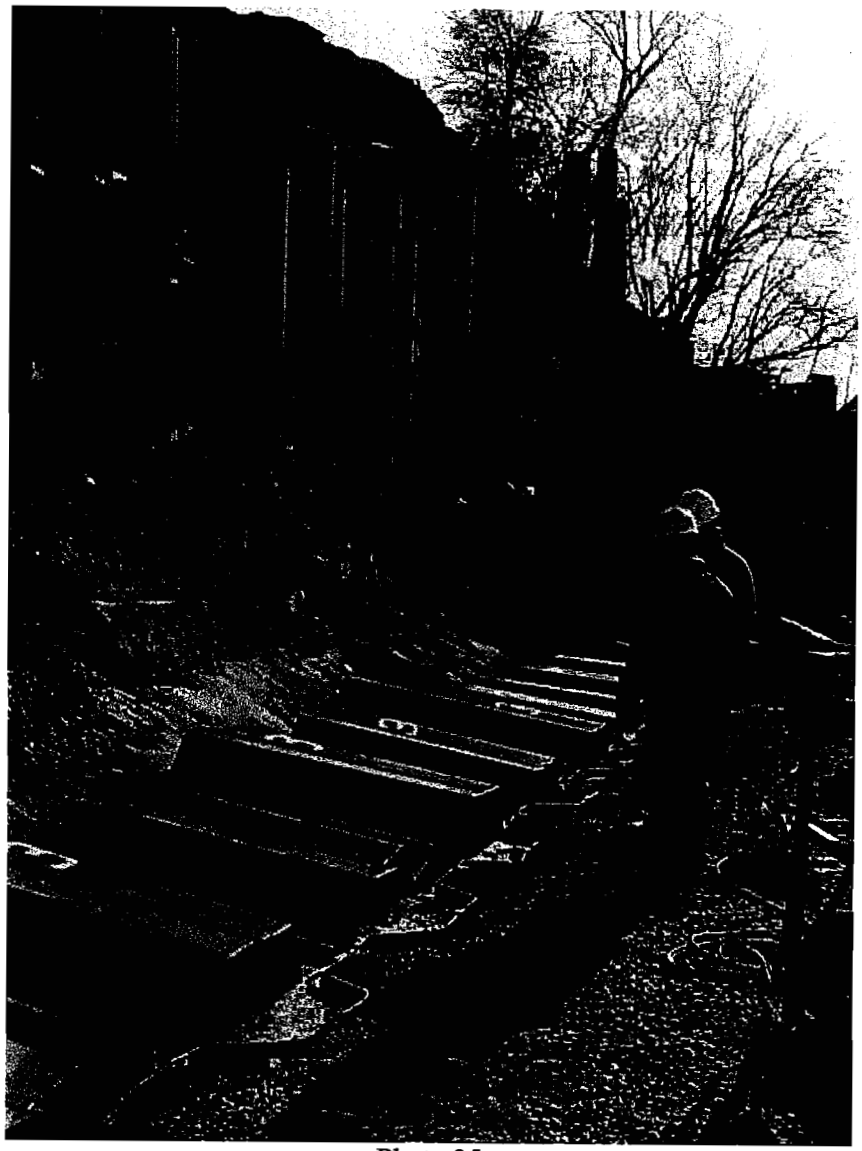

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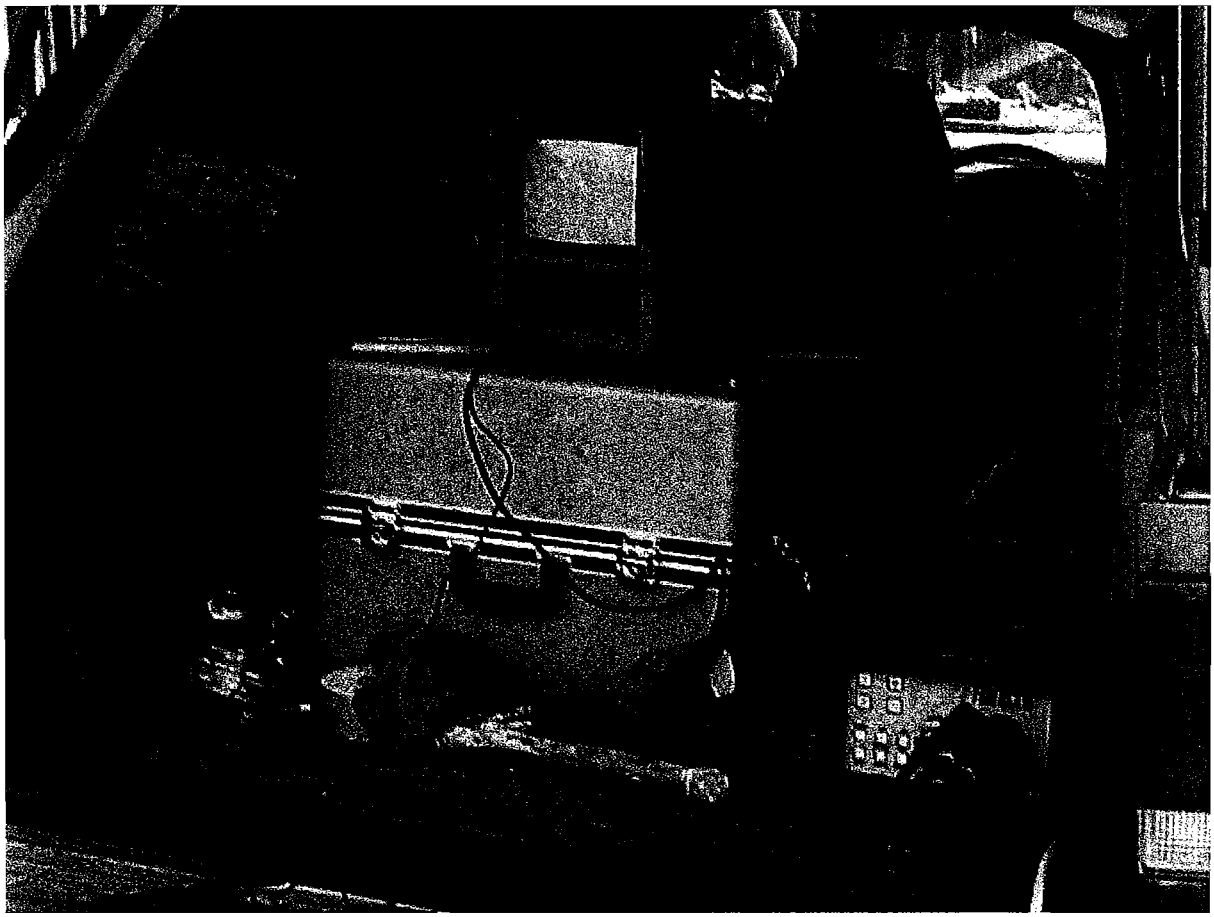
Photo 26



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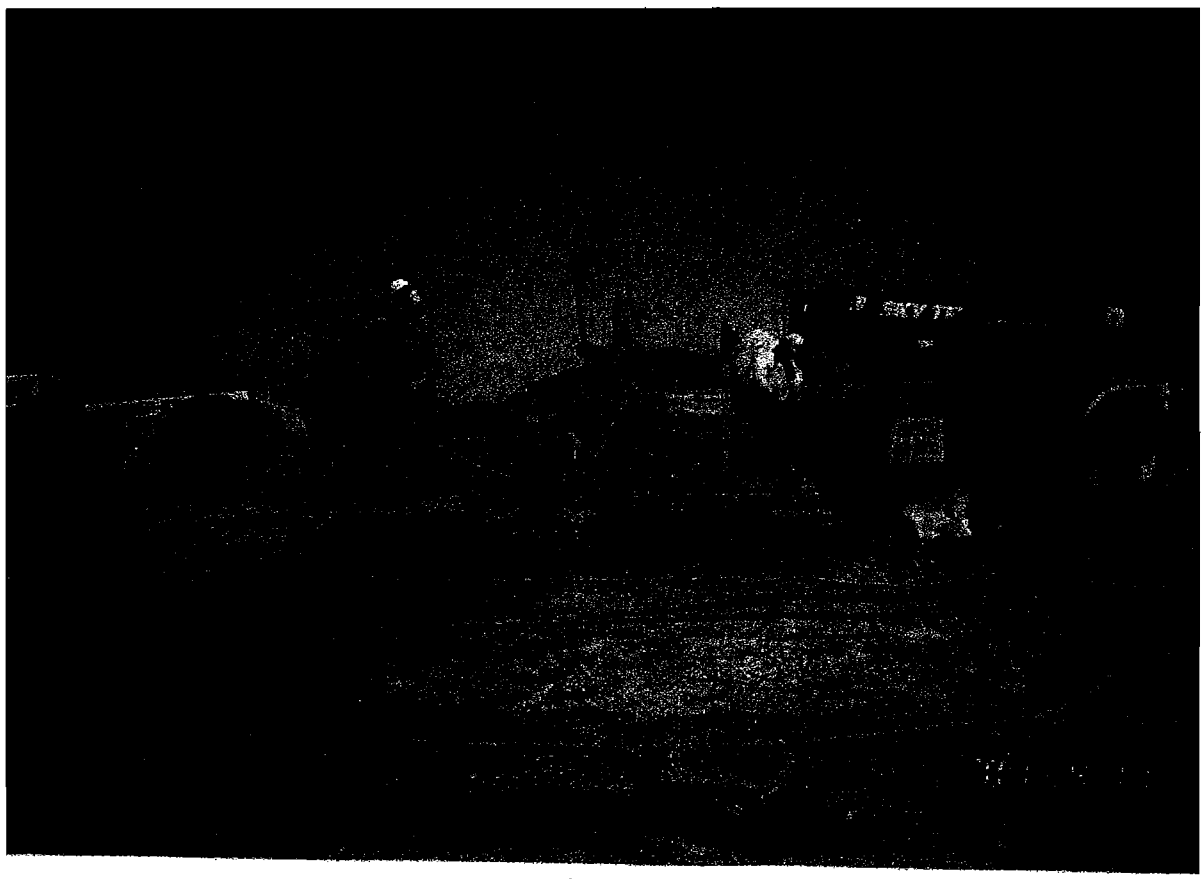

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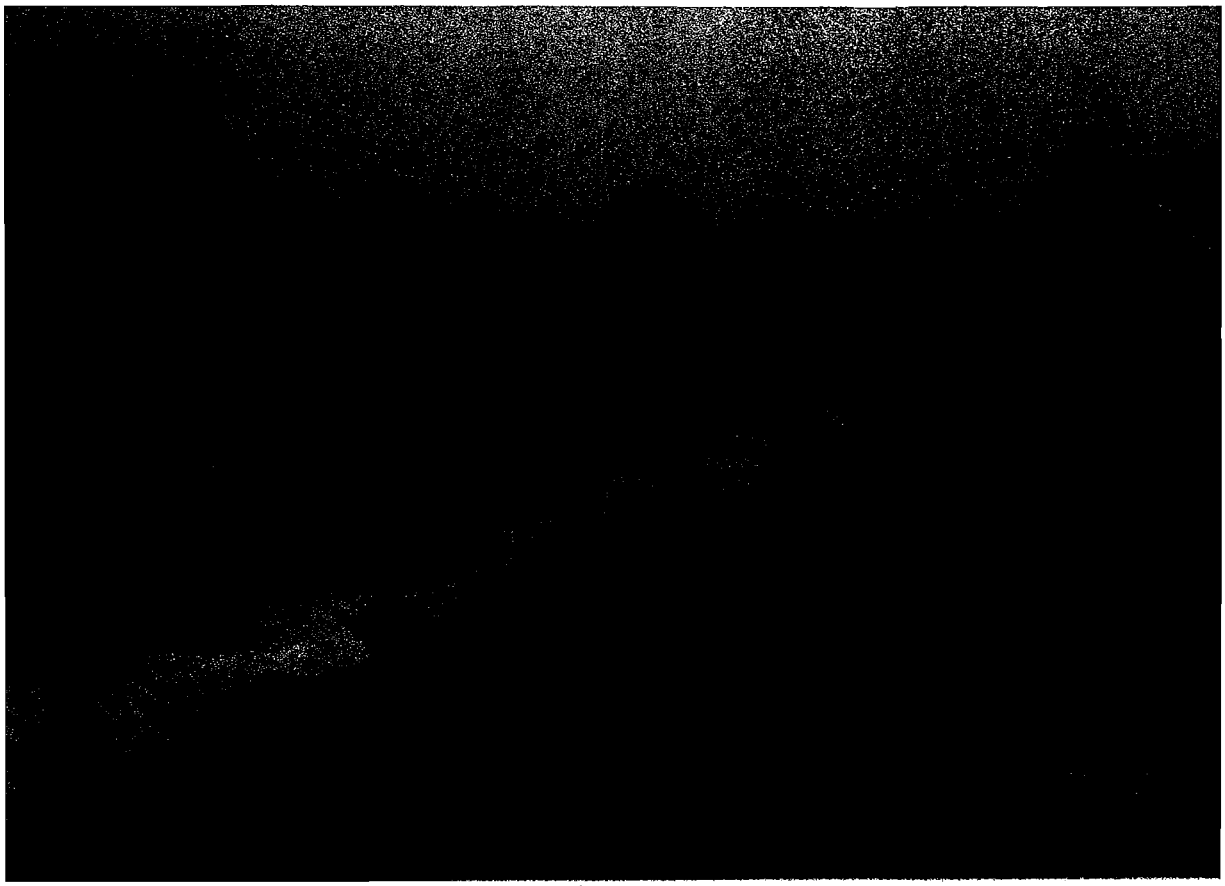

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Photo 30

Photo 31

Photo 32

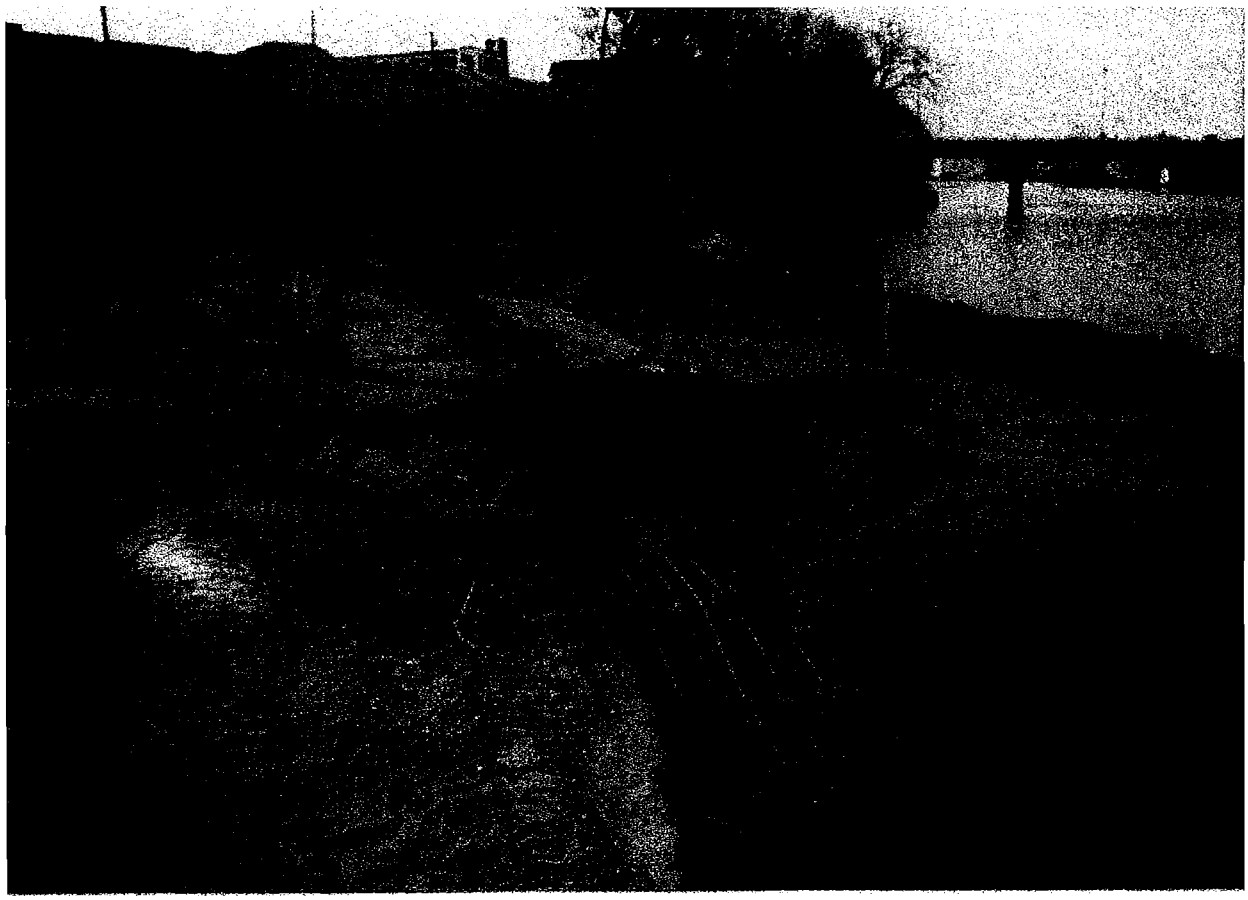
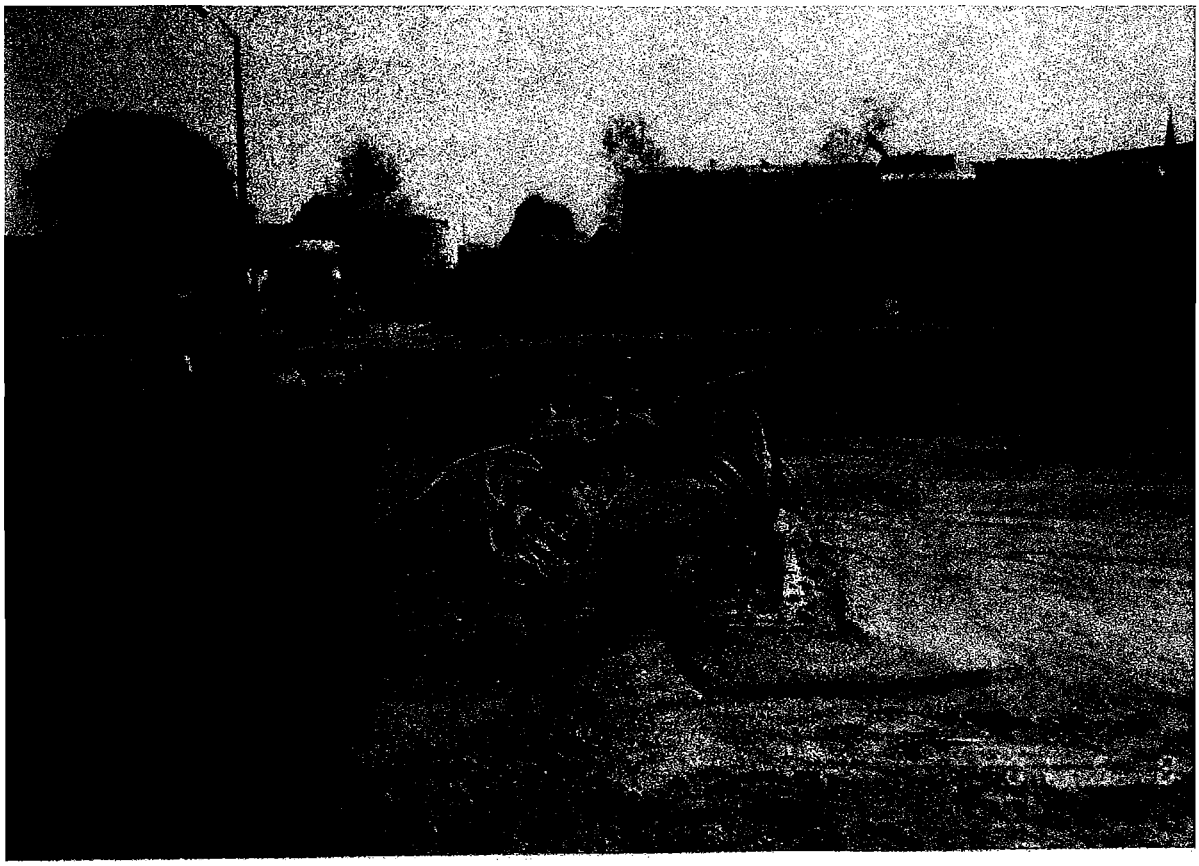


Photo 33

Photo 34

Photo 35

Photo 36



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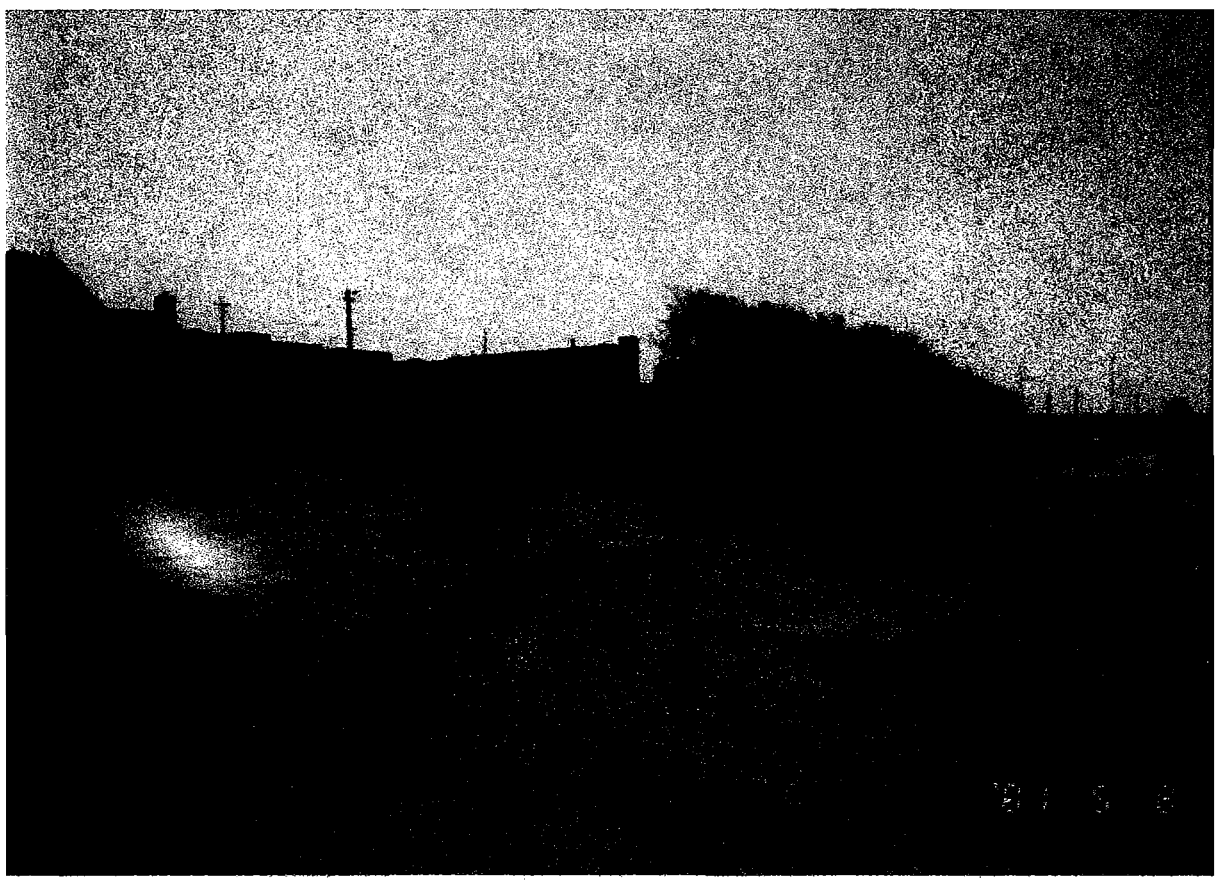

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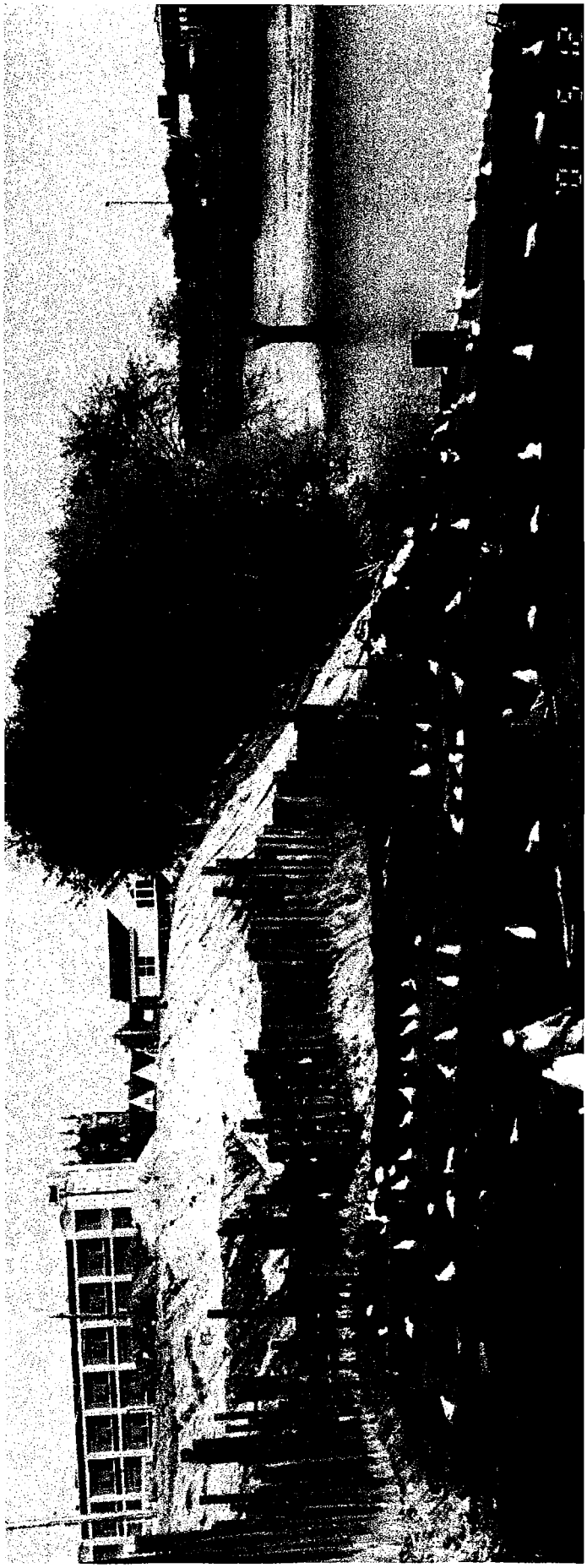

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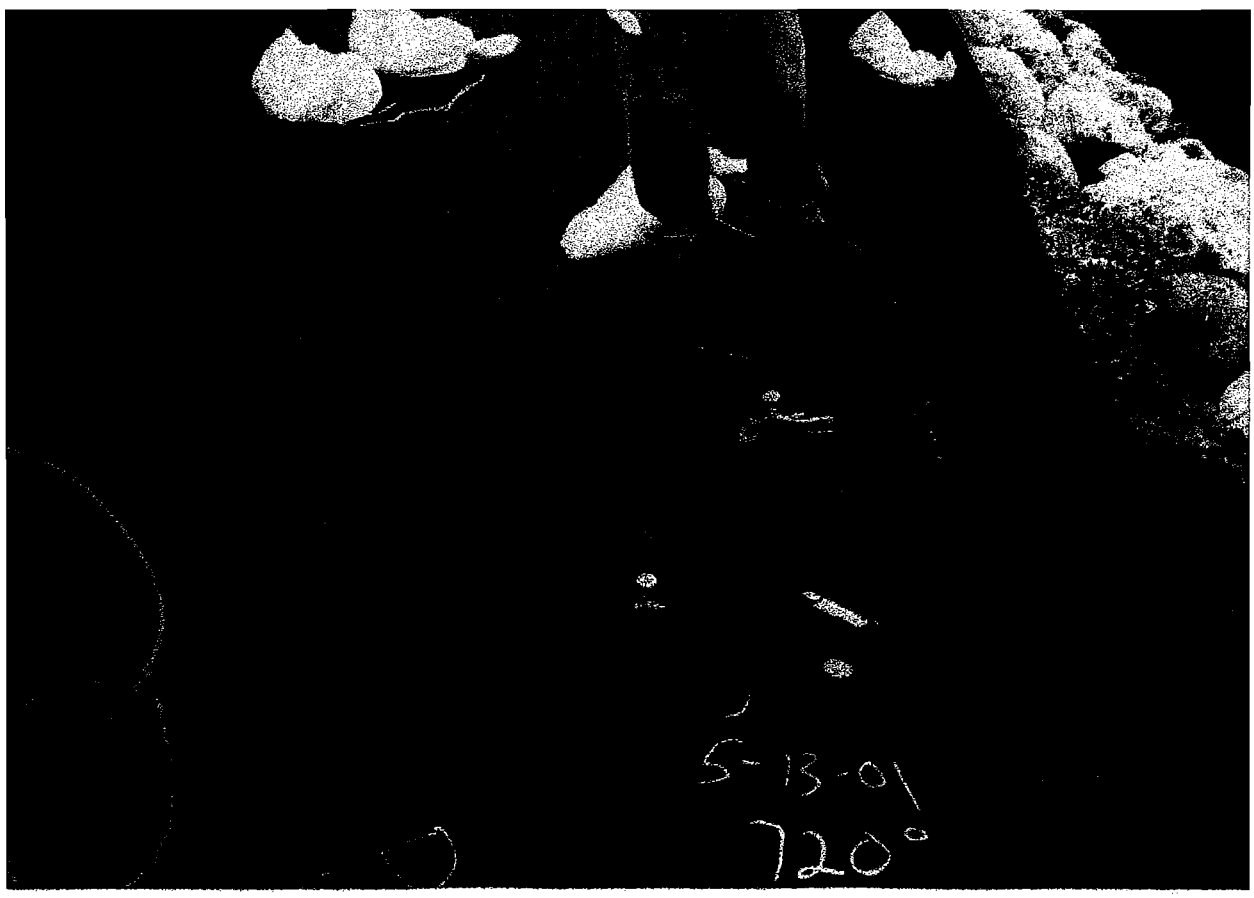


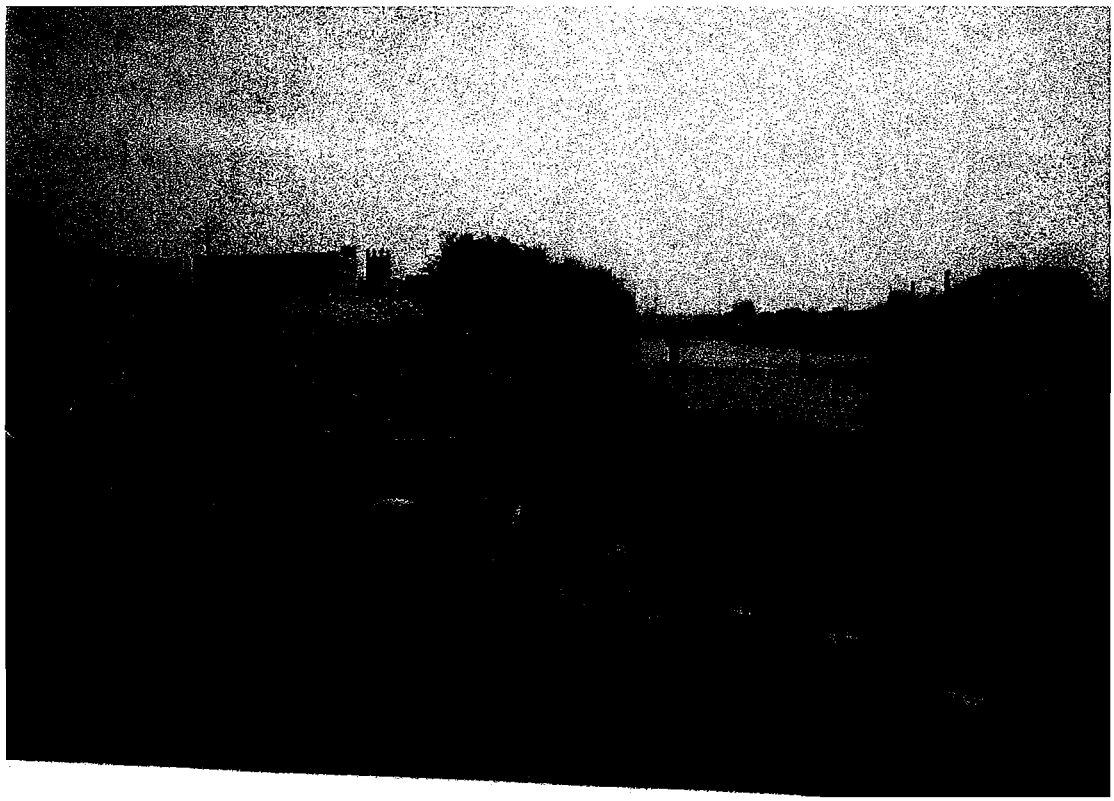
Photo 41

Photo 42

Photo 43

Photo 44

Photo 45



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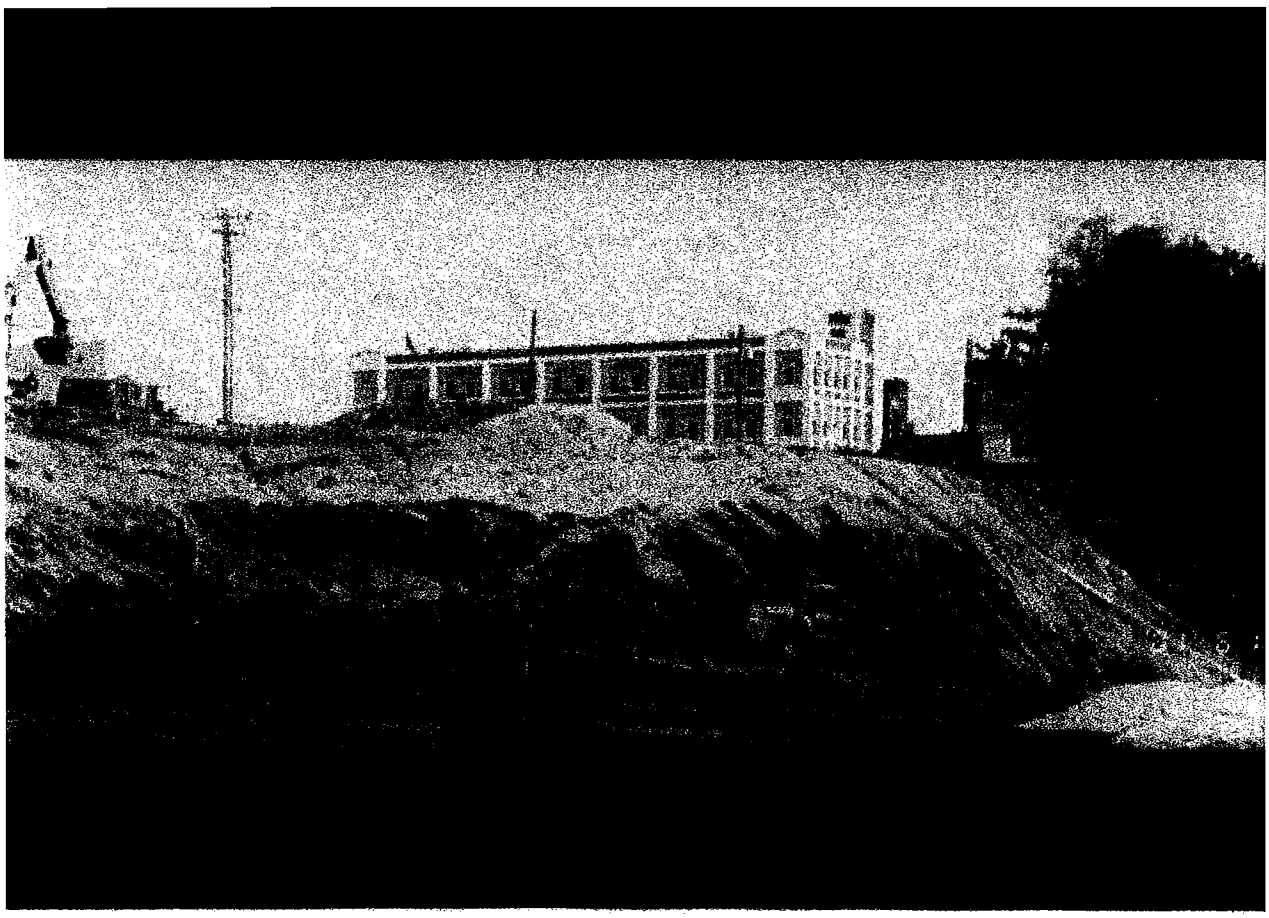

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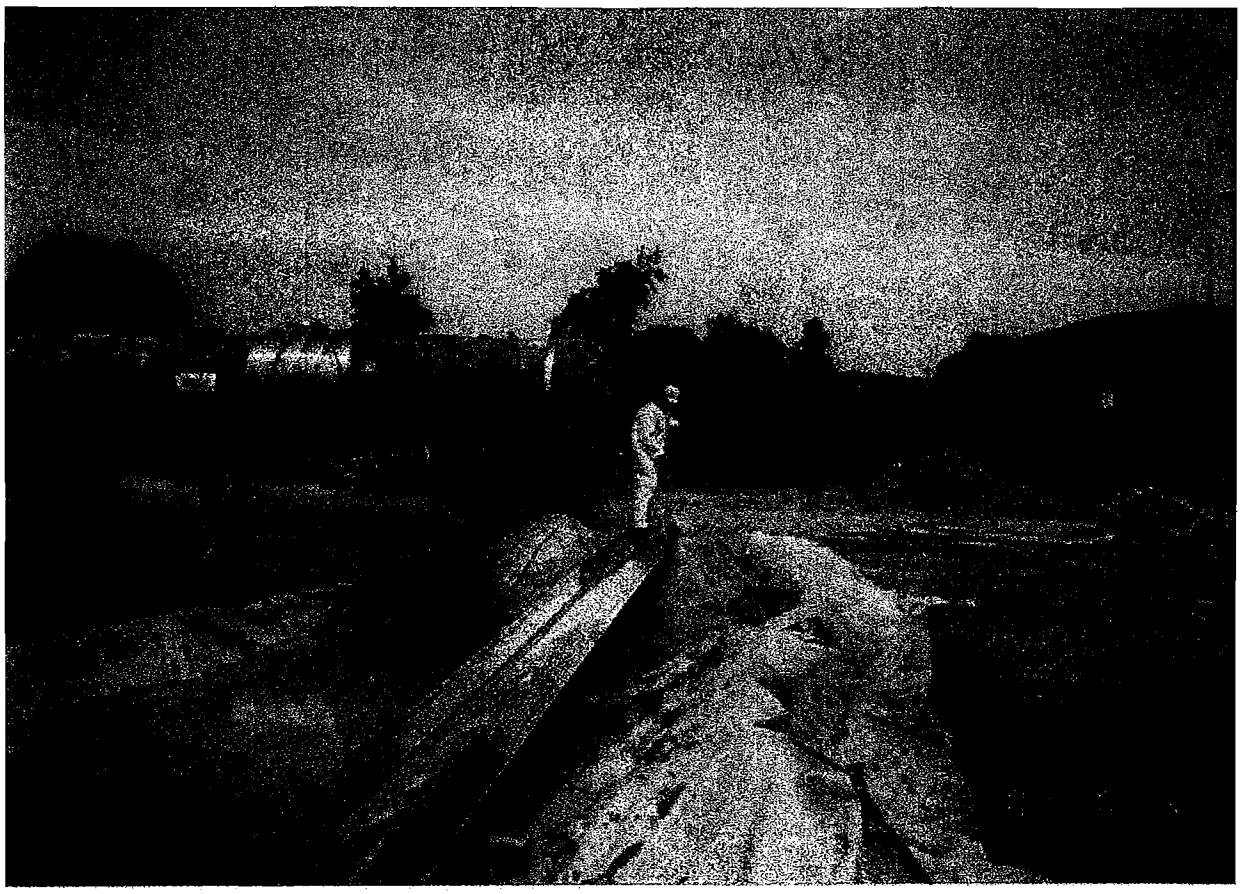

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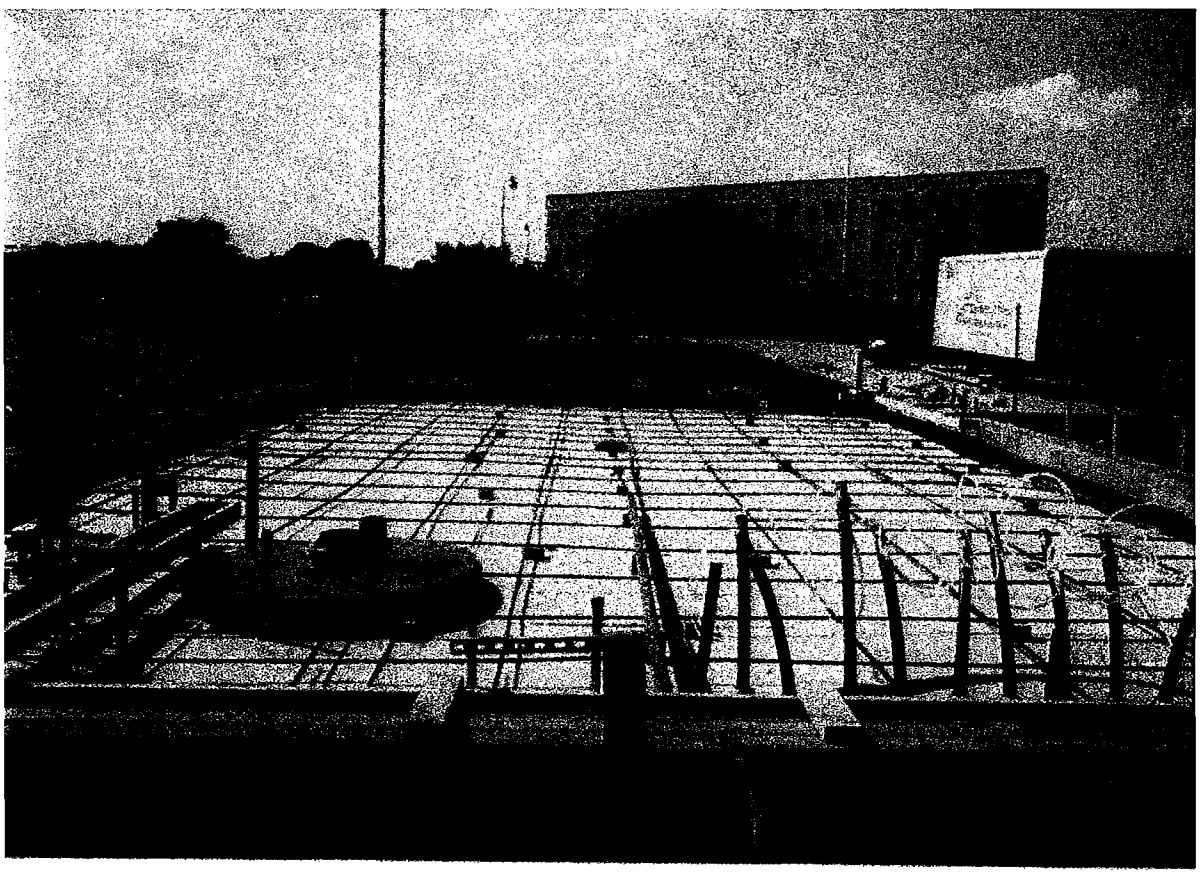
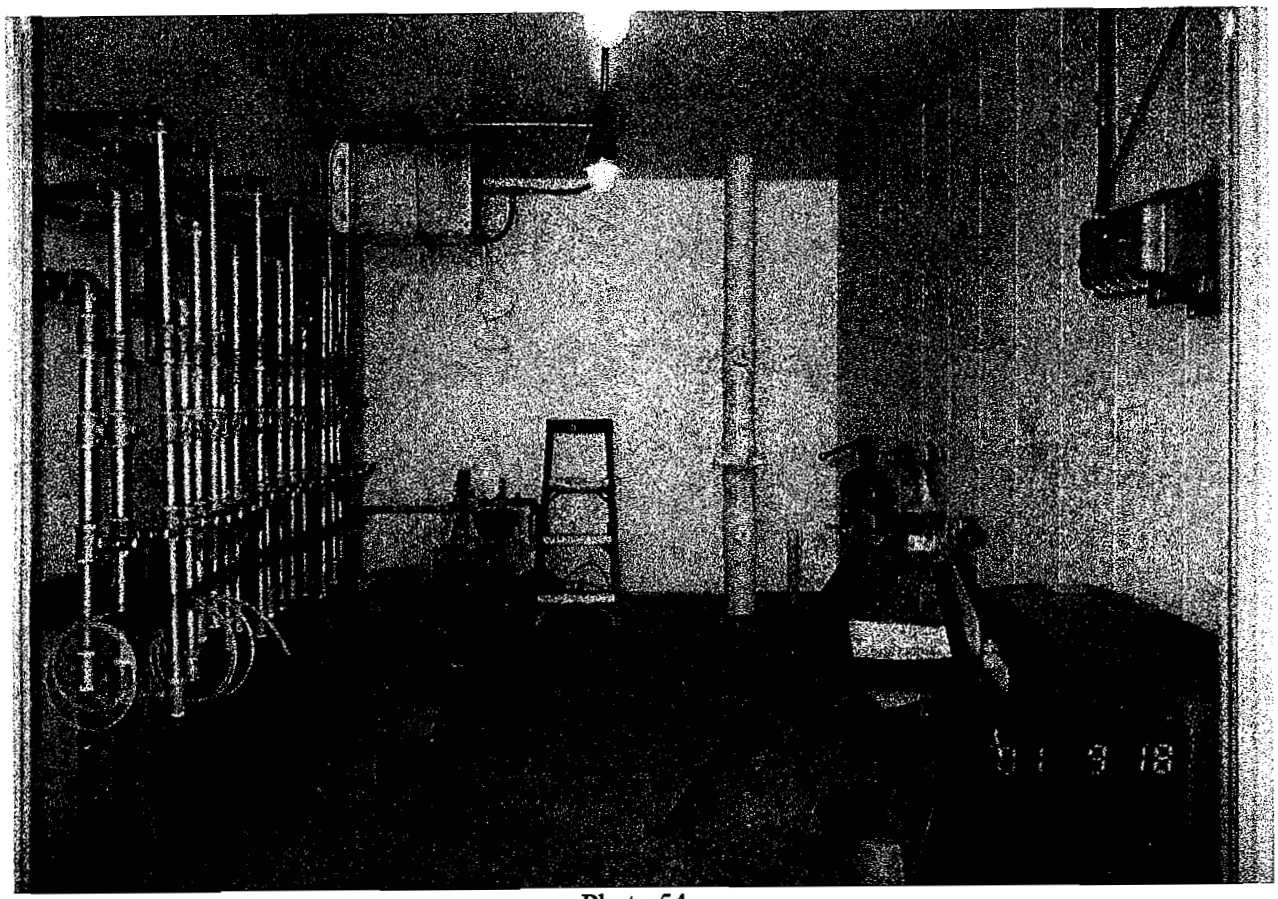


Photo 51

Photo 52

Photo 53



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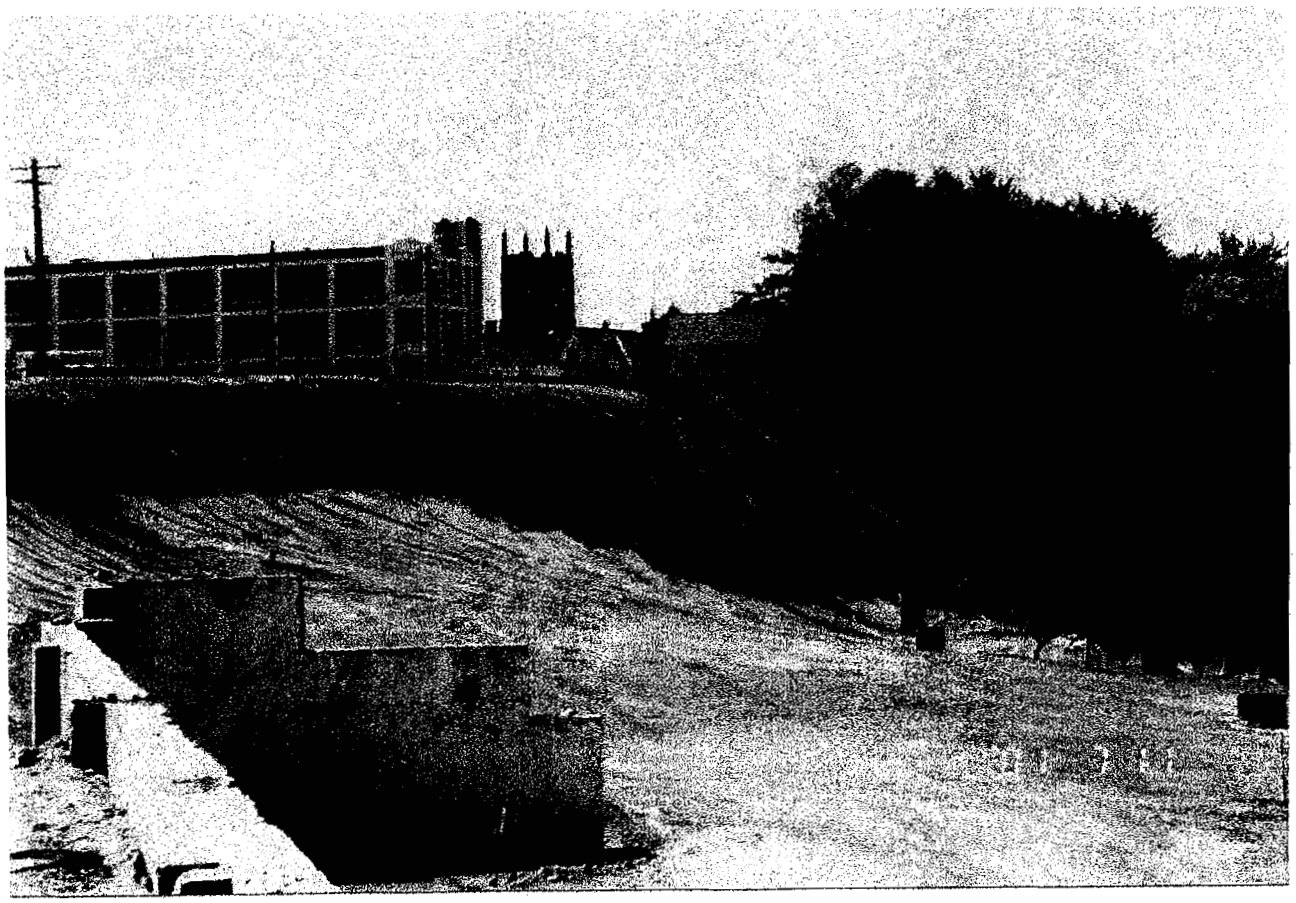

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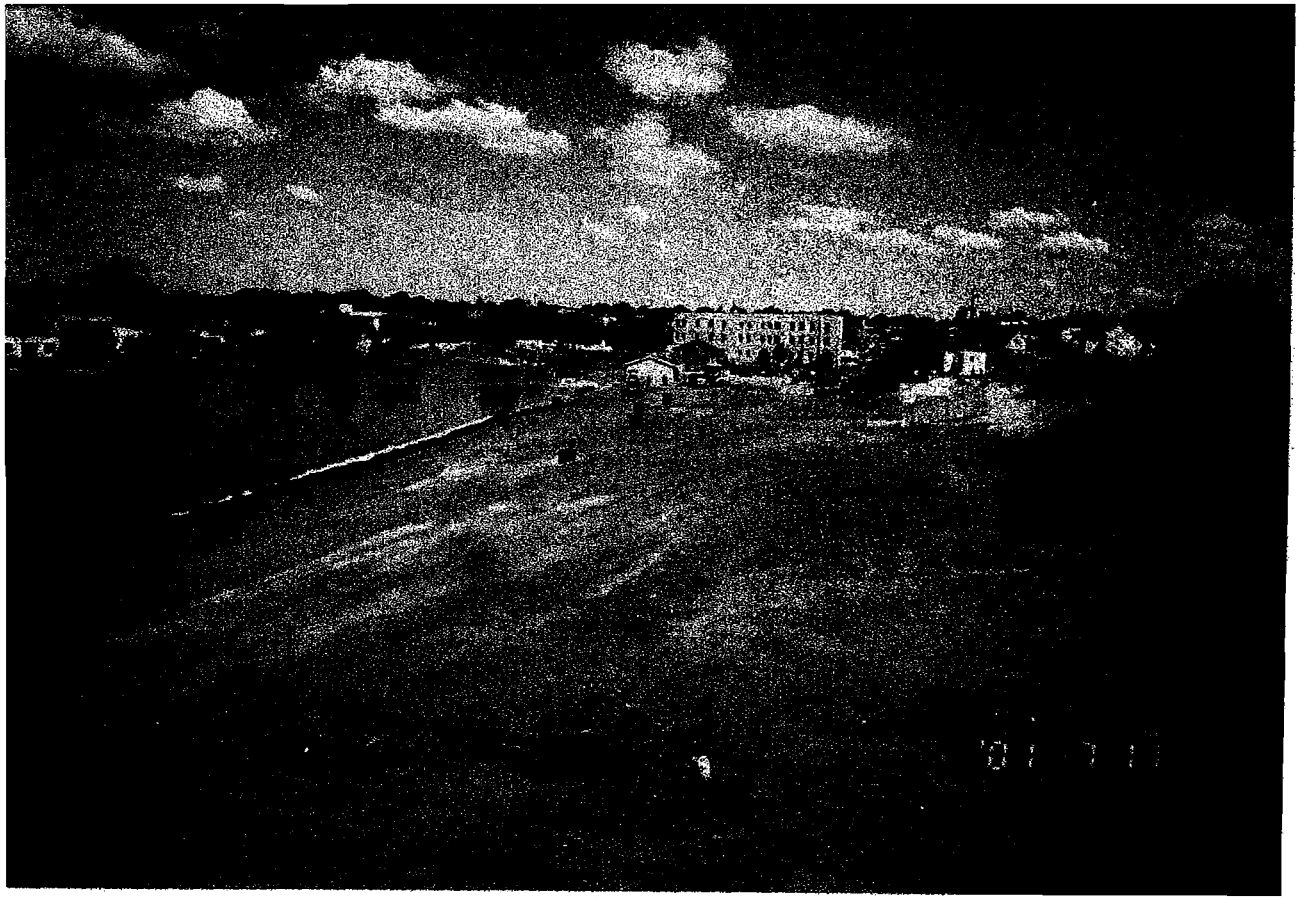

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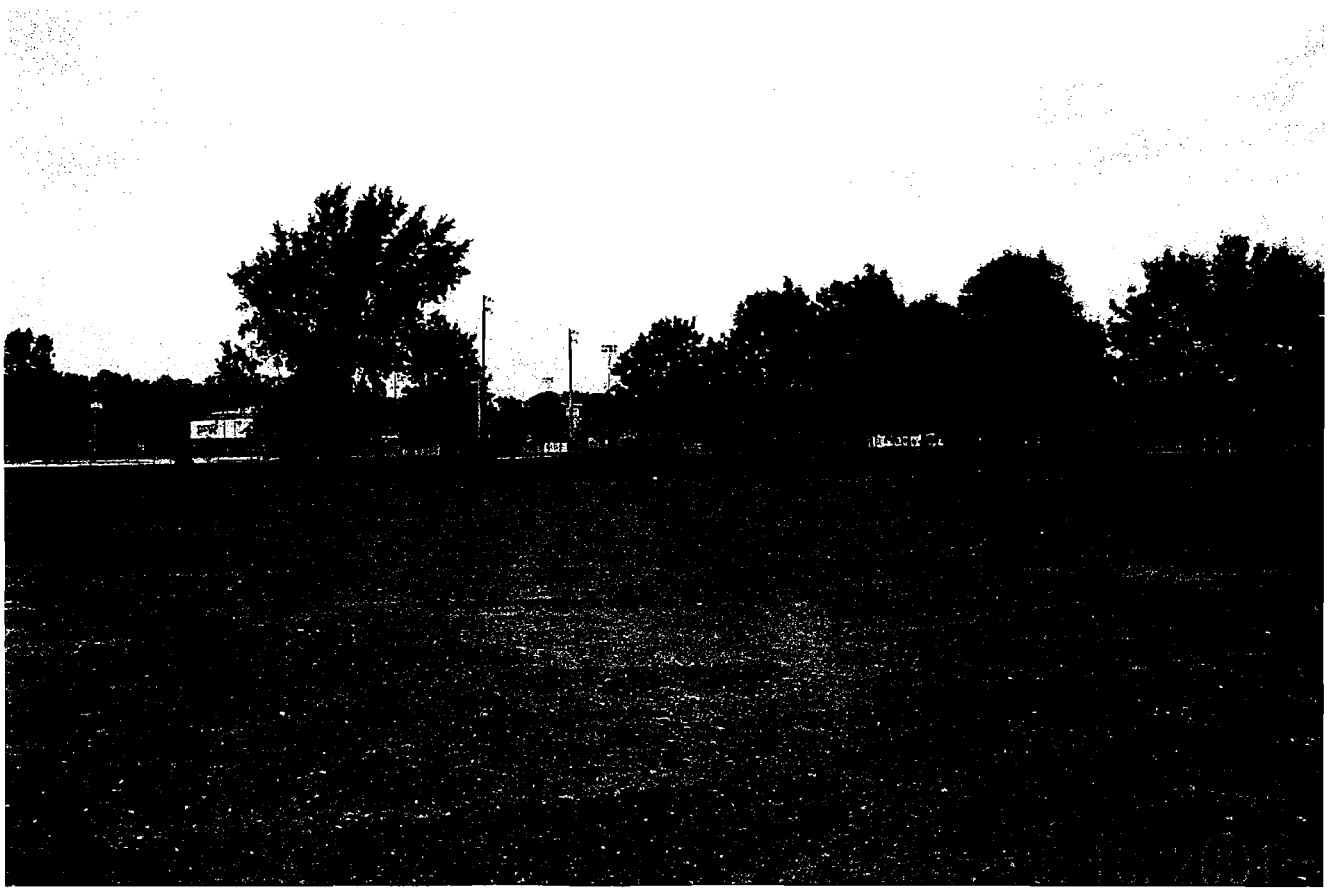


Photo 57

Photo 58

Photo 59

Photo 60

APPENDIX C

PHASE I AND II REMEDY CONSTRUCTION DOCUMENTATION SURVEY DATA

GRADES TABLE
CONSTRUCTION DOCUMENTATION SURVEY DATA
CAMPMARINA AND CENTER RIGHT-OF-WAY
CITY OF SHEBOYGAN, WISCONSIN

Date Measured	Biosparge Well Location		Grade Information			Comments
	Northing	Easting	Design	Actual	(+/-)	
5/21/01	4639.92	5295.98	11.5	10.29	1.21	BW-01 (PNT1226)
5/21/01	4606.05	5336.05	13.1	10.79	2.31	BW-02 (PNT1225)
5/21/01	4554.76	5374.2	11.8	10.84	0.96	BW-03 (PNT1224)
5/21/01	4516.01	5413.93	11.5	10.85	0.65	BW-04 (PNT1223)
5/21/01	4473.04	5455.53	11.1	10.38	0.72	BW-05 (PNT1222)
5/21/01	4420.45	5491.16	12.4	11.73	0.67	BW-06 (PNT1221)
5/21/01	4373.26	5523.12	13.6	12.93	0.67	BW-07 (PNT1220)
5/21/01	4312.72	5499.46	6.8	6.13	0.67	BW-08 (PNT1219)
5/21/01	4365.08	5469.7	6.3	5.7	0.6	BW-09 (PNT1218)
5/21/01	4412.36	5432.67	8	7.33	0.67	BW-10 (PNT1217)
5/21/01	4459.27	5393.36	8.4	7.62	0.78	BW-11 (PNT1216)
5/21/01	4500.40	5358.26	9.3	7.35	1.95	BW-12 (PNT1215)
5/21/01	4547.40	5319.47	9.4	7.67	1.73	BW-13 (PNT1214)
5/21/01	4586.01	5278.3	9.5	7.45	2.05	BW-14 (PNT1213)
5/21/01	4636.94	5237.95	9.3	7.57	1.73	BW-15 (PNT1212)
5/21/01	4681.52	5196.6	7.1	6.47	0.63	BW-16 (PNT1211)
5/21/01	4724.93	5154.27	7.1	6.06	1.04	BW-17 (PNT1210)
5/21/01	4757.90	5122.61	6.6	5.99	0.61	BW-18 (PNT1209)

GRADES TABLE
CONSTRUCTION DOCUMENTATION SURVEY DATA
CAMPMARINA AND CENTER RIGHT-OF-WAY
CITY OF SHEBOYGAN, WISCONSIN

Date Measured	Grid Location		Grade Information			Comments
	Northing	Easting	Design	Actual	(+/-)	
7/17/01	4519.9	5332.34		9.53		PNT 1171--PZ-701
7/17/01	4516.28	5335.29		9.47		PNT 1172--MW-701
7/17/01	4374.9	5456.92		6.78		PNT 1473--MW-707

SURVEYORS NOTES

1. BENCHMARK INFORMATION IS BASED ON DATUM RECIEVED FROM SOMERS AGGREGATES LTD.

2. THE CONTROL NETWORK IS BASED ON THE POINTS OF INTERSECTION OF THE GRID LINES ON THE COMPUTER FILE.

BENCH MARK

ELEVATIONS BASED ON DATUM RECEIVED FROM SOMERS AGGREGATES LTD.

BENCHMARK #1
TOP OF COVER OF MONITORING WELL #704
ELEVATION = 589.43

BENCHMARK #2
TOP OF COVER OF MONITORING WELL #707
ELEVATION = 590.29

BENCHMARK #3
TOP OF COVER OF MONITORING WELL #708
ELEVATION = 606.48

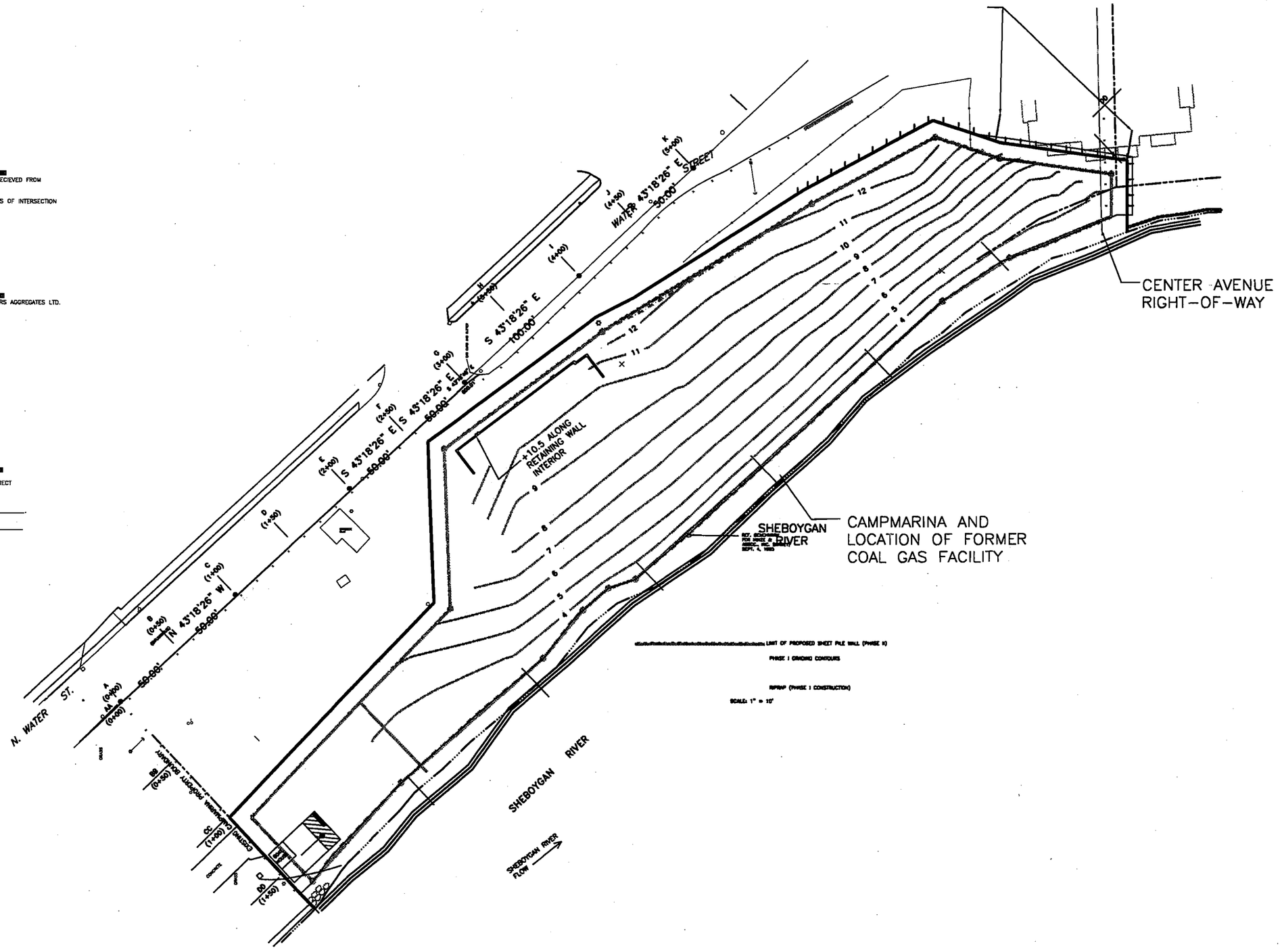
SURVEYORS CERTIFICATE

I, JONATHAN SCHMITZ, REGISTERED LAND SURVEYOR DO HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A TOPOGRAPHICAL SURVEY AS MADE BY ME ON ? - ?, 2001.

DATED THIS _____ DAY OF _____.

JONATHAN SCHMITZ , (# 2465)
REGISTERED LAND SURVEYOR

Scale 1"=30'



REVISIONS

DATE	7/19/01
DRAWN	STEVES PLANTICO
CHECKED	JONATHAN SCHMITZ
DOCUMENT NO.	CO.691

LANDSCAPE ARCHITECTURE
PLANNING
LAND DESIGNING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

rettler corporation

591 BUSINESS PARK DRIVE - STEVENS POINT, WI 54481
TELEPHONE: 715-341-2855 - FAX: 715-341-0451 - EMAIL: info@rettler.com

TOPOGRAPHIC MAP

CAMPMARINA GEOSYNTHETIC CAP SUBGRADE
SHEBOYGAN, WISCONSIN

TOPO

SURVEYORS NOTES

1. BENCHMARK INFORMATION IS BASED ON DATUM RECIEVED FROM SOMERS AGGREGATES LTD.

2. THE CONTROL NETWORK IS BASED ON THE POINTS OF INTERSECTION OF THE GRID LINES ON THE COMPUTER FILE.

BENCH MARK

ELEVATIONS BASED ON DATUM RECEIVED FROM SOMERS AGGREGATES LTD.

BENCHMARK #1
TOP OF COVER OF MONITORING WELL #704
ELEVATION = 589.43

BENCHMARK #2
TOP OF COVER OF MONITORING WELL #707
ELEVATION = 590.29

BENCHMARK #3
TOP OF COVER OF MONITORING WELL #708
ELEVATION = 606.48

SURVEYORS CERTIFICATE

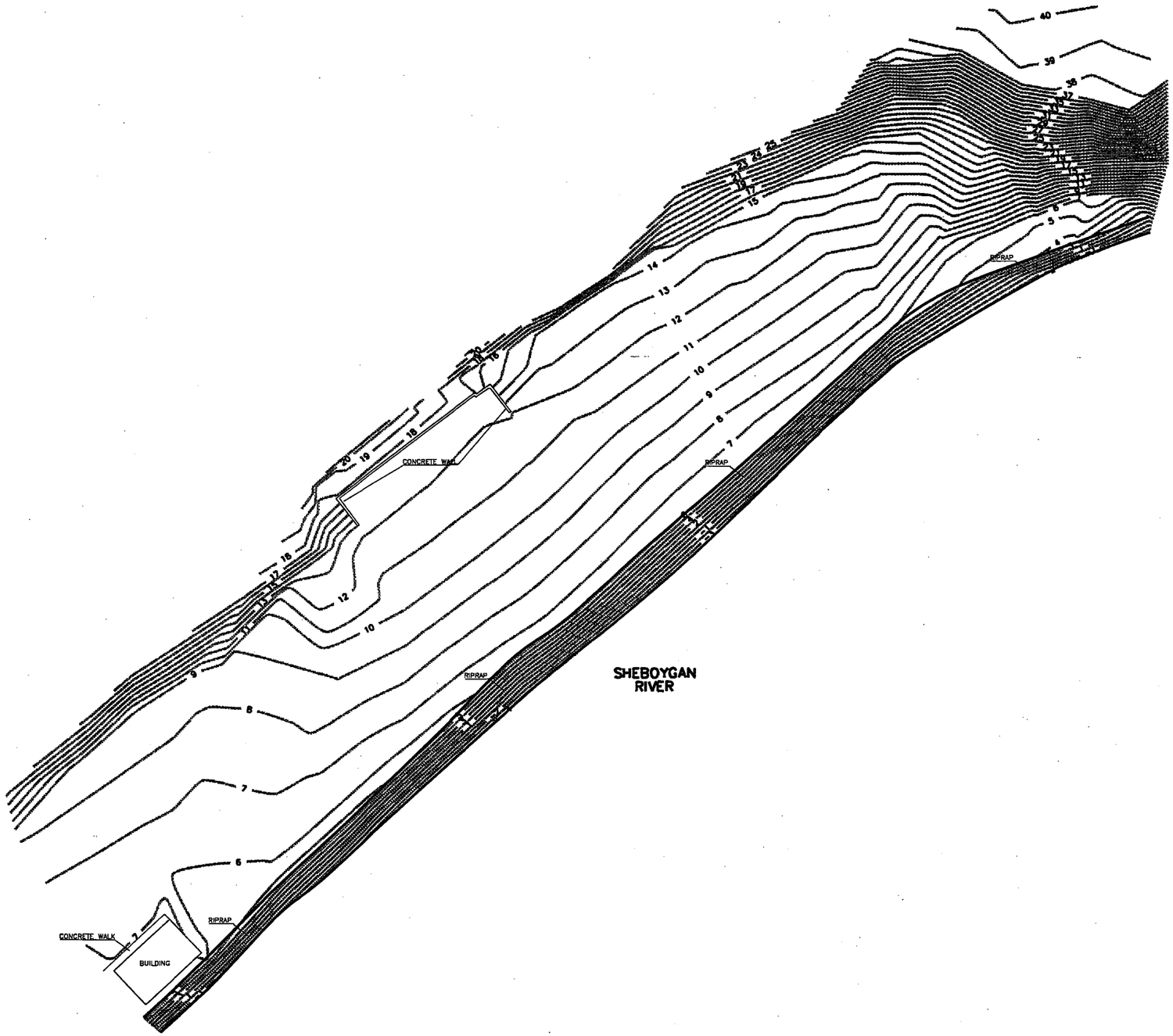
I, JONATHAN SCHMITZ, REGISTERED LAND SURVEYOR DO HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A TOPOGRAPHICAL SURVEY AS MADE BY ME ON ? – ?, 2001.

DATED THIS _____ DAY OF _____

_____
JONATHAN SCHMITZ , (# 2465)

0' 30' 60' 90'

Scale 1"=30'



REVISIONS

DATE	7/19/01
DRAWN:	TRAVIS PLANTICO
CHECKED:	JONATHAN SCHMITZ
DOCUMENT NO.	000691

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

rettler corporation

2521 BUSINESS PARK DRIVE . . SHEBOYGAN, WI 53083
TELEPHONE 715-459-2855 . . FAX 715-459-0961 . . EMAIL info@rettler.com

TOPOGRAPHIC MAP

CAMP MARINA PHASE 2
SHEBOYGAN, WISCONSIN

TOPO

SURVEYORS NOTES

1. BENCHMARK INFORMATION IS BASED ON DATUM RECIEVED FROM SOMERS AGGREGATES LTD.

2. THE CONTROL NETWORK IS BASED ON THE POINTS OF INTERSECTION OF THE GRID LINES ON THE COMPUTER FILE.

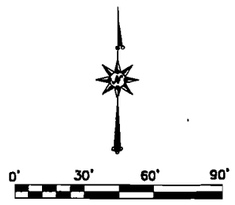
BENCH MARK

ELEVATIONS BASED ON DATUM RECEIVED FROM SOMERS AGGREGATES LTD.

BENCHMARK #1
TOP OF COVER OF MONITORING WELL #704
ELEVATION = 588.43

BENCHMARK #2
TOP OF COVER OF MONITORING WELL #707
ELEVATION = 590.29

BENCHMARK #3
TOP OF COVER OF MONITORING WELL #708
ELEVATION = 606.48



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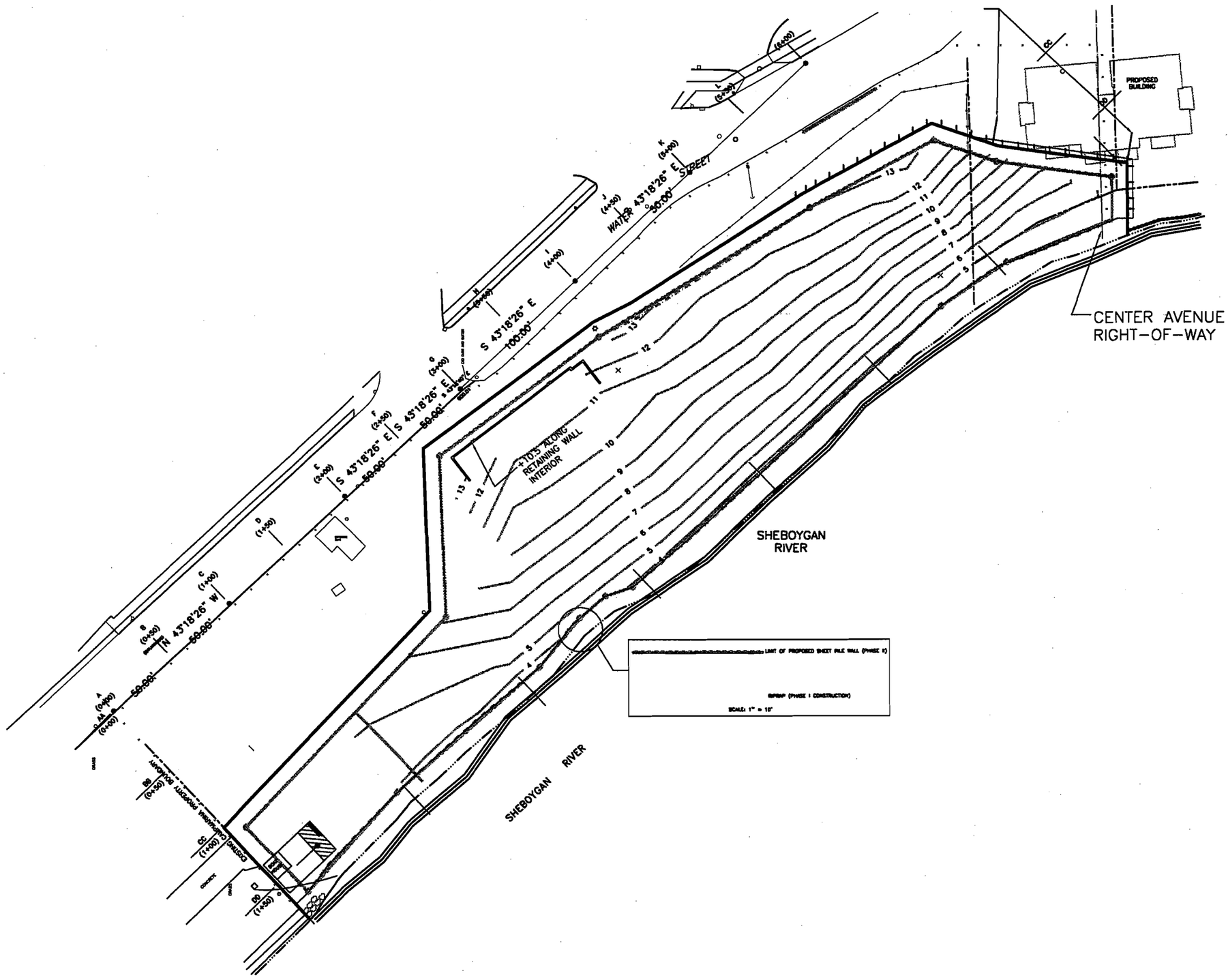


SURVEYORS CERTIFICATE

I, JONATHAN SCHMITZ, REGISTERED LAND SURVEYOR DO HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A TOPOGRAPHICAL SURVEY AS MADE BY ME ON ? - ?, 2001.

DATED THIS _____ DAY OF _____

JONATHAN SCHMITZ , (# 2465)
REGISTERED LAND SURVEYOR

REVISIONS

DATE:	7/19/01
DRAWN:	TRAVIS PLANTICO
CHECKED:	JONATHAN SCHMITZ
DOCUMENT NO.	000691

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

SEITLER CORPORATION

5917 BUSINESS PARK DRIVE - SHEBOYGAN, WI 53083
TELEPHONE: 715 - 541 - 2655 - FAX: 715 - 541 - 0451 - EMAIL: info@seitler.com

TOPOGRAPHIC MAP

CAMP MARINA GEOSYNTHETIC CAP
SHEBOYGAN, WISCONSIN

TOPO

GRADES TABLE
CONSTRUCTION DOCUMENTATION SURVEY DATA
CAMPMARINA AND CENTER RIGHT-OF-WAY
CITY OF SHEBOYGAN, WISCONSIN

Date Measured	Biosparge Well Location		Grade Information			Comments
	Northing	Easting	Design	Actual	(+/-)	
5/21/01	4639.92	5295.98	11.5	10.29	1.21	BW-01 (PNT1226)
5/21/01	4606.05	5336.05	13.1	10.79	2.31	BW-02 (PNT1225)
5/21/01	4554.76	5374.2	11.8	10.84	0.96	BW-03 (PNT1224)
5/21/01	4516.01	5413.93	11.5	10.85	0.65	BW-04 (PNT1223)
5/21/01	4473.04	5455.53	11.1	10.38	0.72	BW-05 (PNT1222)
5/21/01	4420.45	5491.16	12.4	11.73	0.67	BW-06 (PNT1221)
5/21/01	4373.26	5523.12	13.6	12.93	0.67	BW-07 (PNT1220)
5/21/01	4312.72	5499.46	6.8	6.13	0.67	BW-08 (PNT1219)
5/21/01	4365.08	5469.7	6.3	5.7	0.6	BW-09 (PNT1218)
5/21/01	4412.36	5432.67	8	7.33	0.67	BW-10 (PNT1217)
5/21/01	4459.27	5393.36	8.4	7.62	0.78	BW-11 (PNT1216)
5/21/01	4500.40	5358.26	9.3	7.35	1.95	BW-12 (PNT1215)
5/21/01	4547.40	5319.47	9.4	7.67	1.73	BW-13 (PNT1214)
5/21/01	4586.01	5278.3	9.5	7.45	2.05	BW-14 (PNT1213)
5/21/01	4636.94	5237.95	9.3	7.57	1.73	BW-15 (PNT1212)
5/21/01	4681.52	5196.6	7.1	6.47	0.63	BW-16 (PNT1211)
5/21/01	4724.93	5154.27	7.1	6.06	1.04	BW-17 (PNT1210)
5/21/01	4757.90	5122.61	6.6	5.99	0.61	BW-18 (PNT1209)

GRADES TABLE
CONSTRUCTION DOCUMENTATION SURVEY DATA
CAMPMARINA AND CENTER RIGHT-OF-WAY
CITY OF SHEBOYGAN, WISCONSIN

Date Measured	Grid Location		Grade Information			Comments
	Northing	Easting	Design	Actual	(+/-)	
7/17/01	4519.9	5332.34		9.53		PNT 1171--PZ-701
7/17/01	4516.28	5335.29		9.47		PNT 1172--MW-701
7/17/01	4374.9	5456.92		6.78		PNT 1473--MW-707

SURVEYORS NOTES

1. BENCHMARK INFORMATION IS BASED ON DATUM RECIEVED FROM SOMERS AGGREGATES LTD.

2. THE CONTROL NETWORK IS BASED ON THE POINTS OF INTERSECTION OF THE GRID LINES ON THE COMPUTER FILE.

BENCH MARK

ELEVATIONS BASED ON DATUM RECEIVED FROM SOMERS AGGREGATES LTD.

BENCHMARK #1
TOP OF COVER OF MONITORING WELL #704
ELEVATION = 588.43

BENCHMARK #2
TOP OF COVER OF MONITORING WELL #707
ELEVATION = 590.29

BENCHMARK #3
TOP OF COVER OF MONITORING WELL #708
ELEVATION = 606.48

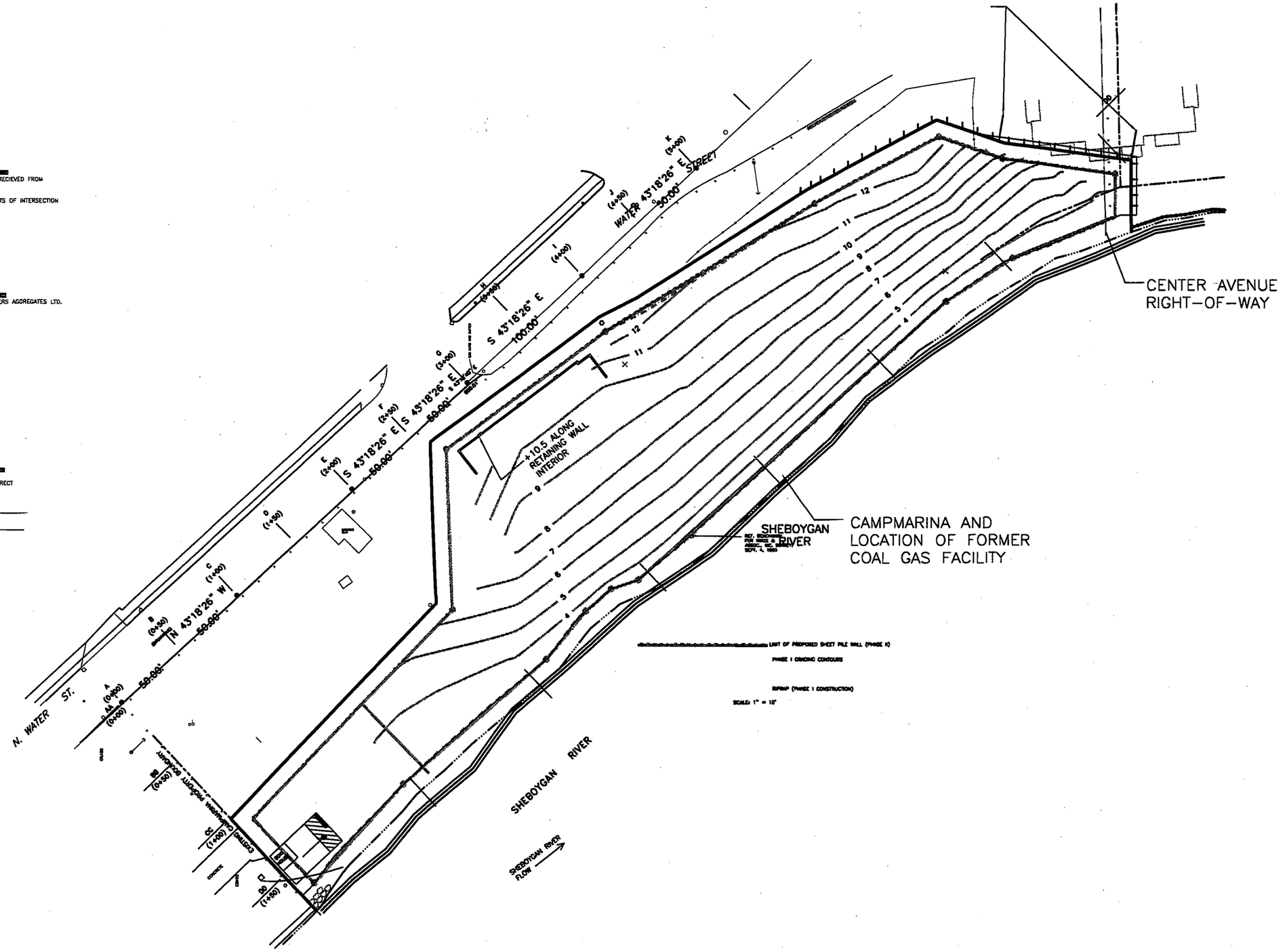
SURVEYORS CERTIFICATE

I, JONATHAN SCHMITZ, REGISTERED LAND SURVEYOR DO HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A TOPOGRAPHICAL SURVEY AS MADE BY ME ON ? – ?, 2001.

DATED THIS _____ DAY OF _____

_____
JONATHAN SCHMITZ , (# 2465)
REGISTERED LAND SURVEYOR

Scale 1"=30'



REVISIONS

DATE	7/19/01
DRAWN:	TRAVIS PLANTICO
CHECKED:	JONATHAN SCHMITZ
DOCUMENT NO.	00.691

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

RETTLER CORPORATION
2597 BUSINESS PARK DRIVE - STEVENS POINT, WI 54481
TELEPHONE: 715 - 341 - 2695 - FAX: 715 - 341 - 0455 - EMAIL: rc@rettler.com

TOPOGRAPHIC MAP

CAMPMARINA GEOSYNTHETIC CAP SUBGRADE
SHEBOYGAN, WISCONSIN

TOPO

SURVEYORS NOTES

1. BENCHMARK INFORMATION IS BASED ON DATUM RECIEVED FROM SOMERS AGGREGATES LTD.

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ELEVATION = 608.48

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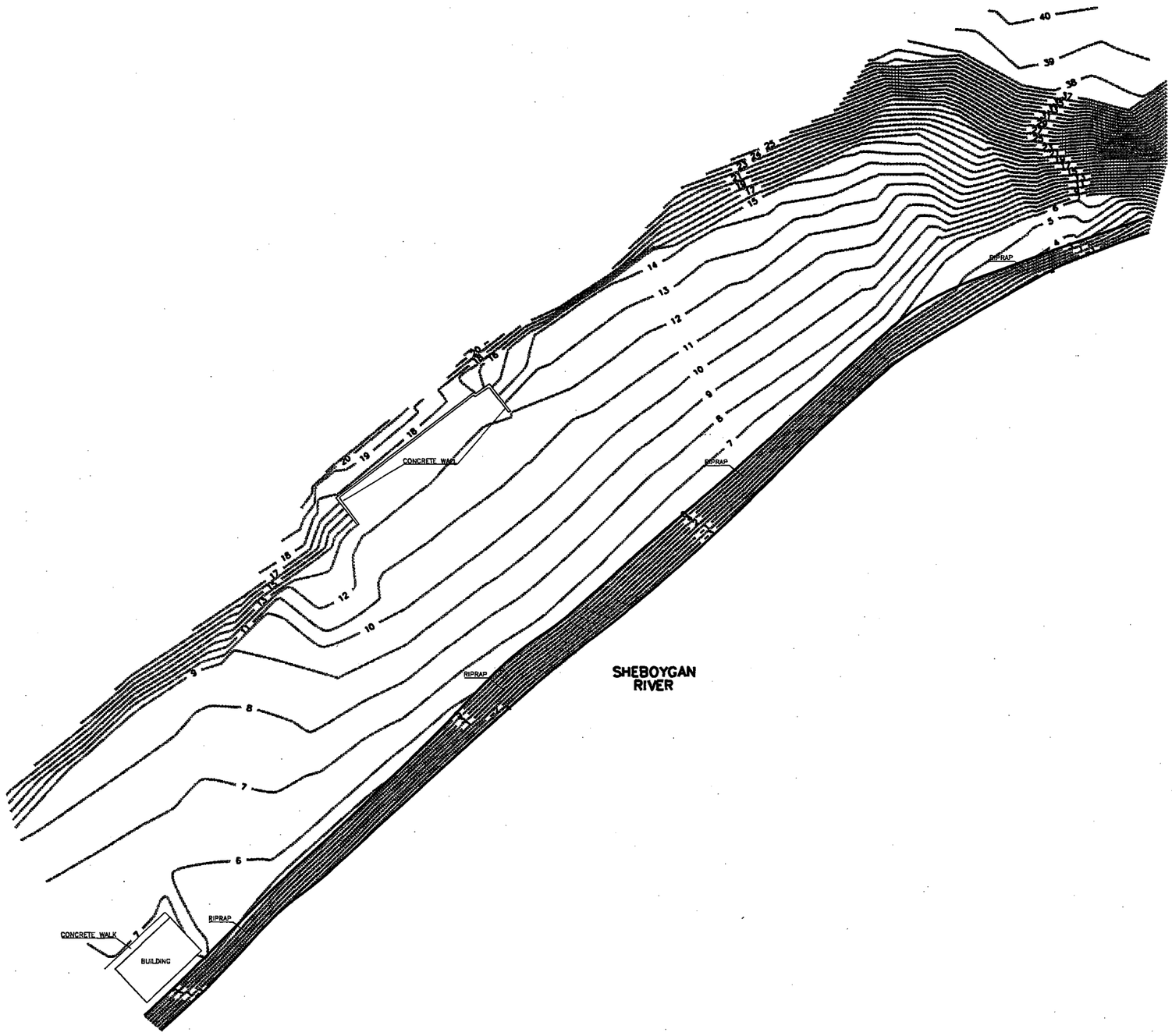

REVISIONS

DATE	7/19/01
DRAWN:	TRAVIS PLANTICO
CHECKED:	JONATHAN SCHMITZ
DOCUMENT NO.	CCC651

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

retzler corporation

2517 BUSINESS PARK DRIVE - SHEBOYGAN, WI 53081
TELEPHONE 715 - 541 - 2893 - FAX 715 - 541 - 0451 - EMAIL info@retzler.com

TOPOGRAPHIC MAP

CAMPMARINA PHASE 2
SHEBOYGAN, WISCONSIN

TOPO

SURVEYORS NOTES

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ELEVATION = 590.29

BENCHMARK #3
TOP OF COVER OF MONITORING WELL #708
ELEVATION = 606.48

0' 30' 60' 90'

Scale 1"=30'

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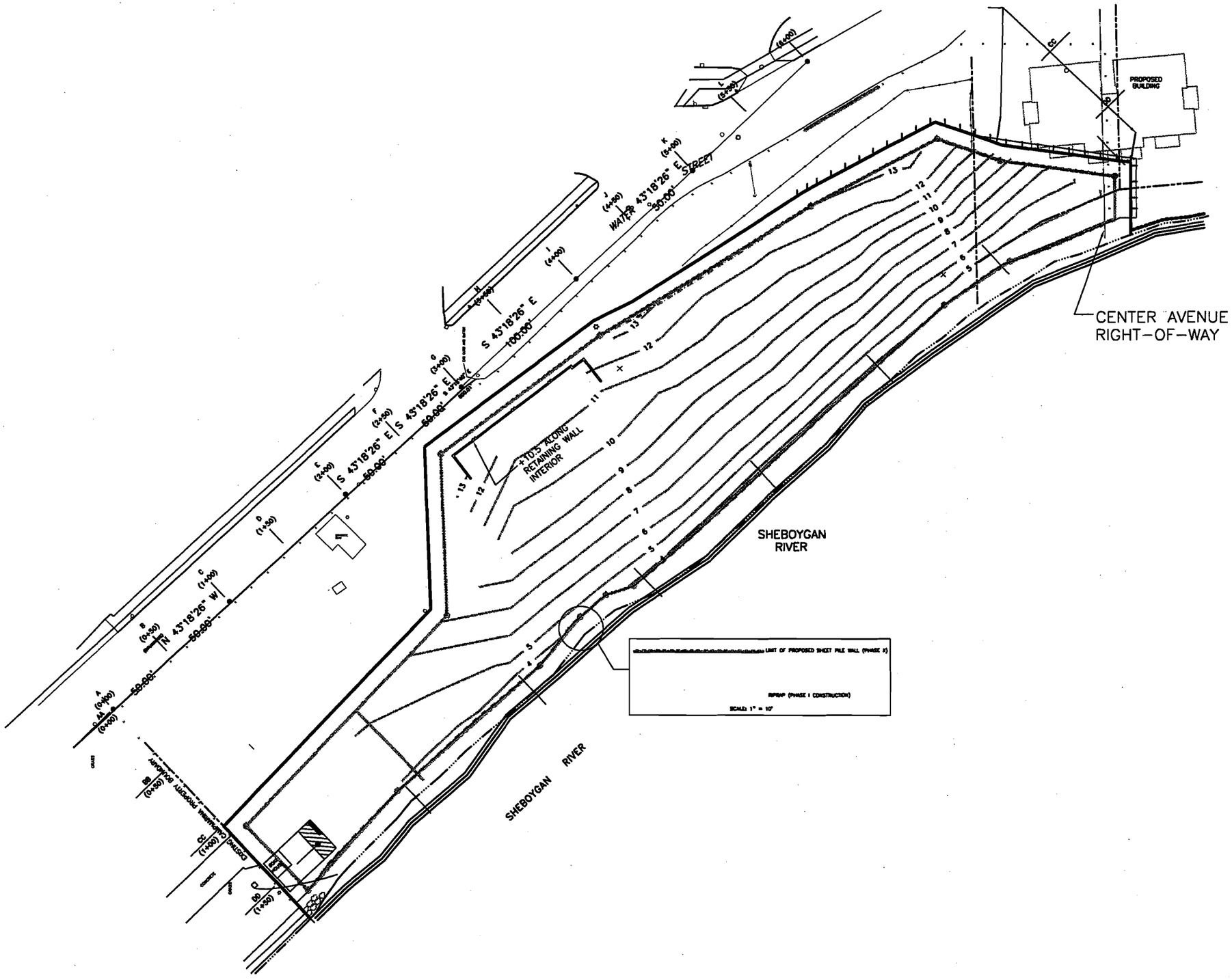
REGISTERED LAND SURVEYOR



REVISIONS

DATE	7/19/01
DRAWN	TRAVIS PLANTICO
CHECKED	JONATHAN SCHMITZ
DOCUMENT NO.	00691

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE
2917 KOHLER MEMORIAL DRIVE - SHEBOYGAN, WI 53081
TELEPHONE 715 - 541 - 2899 - FAX 715 - 541 - 0451 - EMAIL ritzmail@ritzcorp.com

TOPOGRAPHIC MAP

CAMP MARINA GEOSYNTHETIC CAP
SHEBOYGAN, WISCONSIN

TOPO

GRADES TABLE
CONSTRUCTION DOCUMENTATION SURVEY DATA
CAMPMARINA AND CENTER RIGHT-OF-WAY
CITY OF SHEBOYGAN, WISCONSIN

Date Measured	Biosparge Well Location		Grade Information			Comments
	Northing	Easting	Design	Actual	(+/-)	
5/21/01	4639.92	5295.98	11.5	10.29	1.21	BW-01 (PNT1226)
5/21/01	4606.05	5336.05	13.1	10.79	2.31	BW-02 (PNT1225)
5/21/01	4554.76	5374.2	11.8	10.84	0.96	BW-03 (PNT1224)
5/21/01	4516.01	5413.93	11.5	10.85	0.65	BW-04 (PNT1223)
5/21/01	4473.04	5455.53	11.1	10.38	0.72	BW-05 (PNT1222)
5/21/01	4420.45	5491.16	12.4	11.73	0.67	BW-06 (PNT1221)
5/21/01	4373.26	5523.12	13.6	12.93	0.67	BW-07 (PNT1220)
5/21/01	4312.72	5499.46	6.8	6.13	0.67	BW-08 (PNT1219)
5/21/01	4365.08	5469.7	6.3	5.7	0.6	BW-09 (PNT1218)
5/21/01	4412.36	5432.67	8	7.33	0.67	BW-10 (PNT1217)
5/21/01	4459.27	5393.36	8.4	7.62	0.78	BW-11 (PNT1216)
5/21/01	4500.49	5358.26	9.3	7.35	1.95	BW-12 (PNT1215)
5/21/01	4547.40	5319.47	9.4	7.67	1.73	BW-13 (PNT1214)
5/21/01	4586.01	5278.3	9.5	7.45	2.05	BW-14 (PNT1213)
5/21/01	4636.94	5237.95	9.3	7.57	1.73	BW-15 (PNT1212)
5/21/01	4681.52	5196.6	7.1	6.47	0.63	BW-16 (PNT1211)
5/21/01	4724.93	5154.27	7.1	6.06	1.04	BW-17 (PNT1210)
5/21/01	4757.90	5122.61	6.6	5.99	0.61	BW-18 (PNT1209)

GRADES TABLE
CONSTRUCTION DOCUMENTATION SURVEY DATA
CAMPMARINA AND CENTER RIGHT-OF-WAY
CITY OF SHEBOYGAN, WISCONSIN

Date Measured	Grid Location		Grade Information			Comments
	Northing	Easting	Design	Actual	(+/-)	
7/17/01	4519.9	5332.34		9.53		PNT 1171--PZ-701
7/17/01	4516.28	5335.29		9.47		PNT 1172--MW-701
7/17/01	4374.9	5456.92		6.78		PNT 1473--MW-707

SURVEYORS NOTES

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BENCH MARK

ELEVATIONS BASED ON DATUM RECEIVED FROM SOMERS AGGREGATES LTD.

BENCHMARK #1
TOP OF COVER OF MONITORING WELL #704
ELEVATION = 588.43

BENCHMARK #2
TOP OF COVER OF MONITORING WELL #707
ELEVATION = 580.29

BENCHMARK #3
TOP OF COVER OF MONITORING WELL #708
ELEVATION = 606.48

SURVEYORS CERTIFICATE

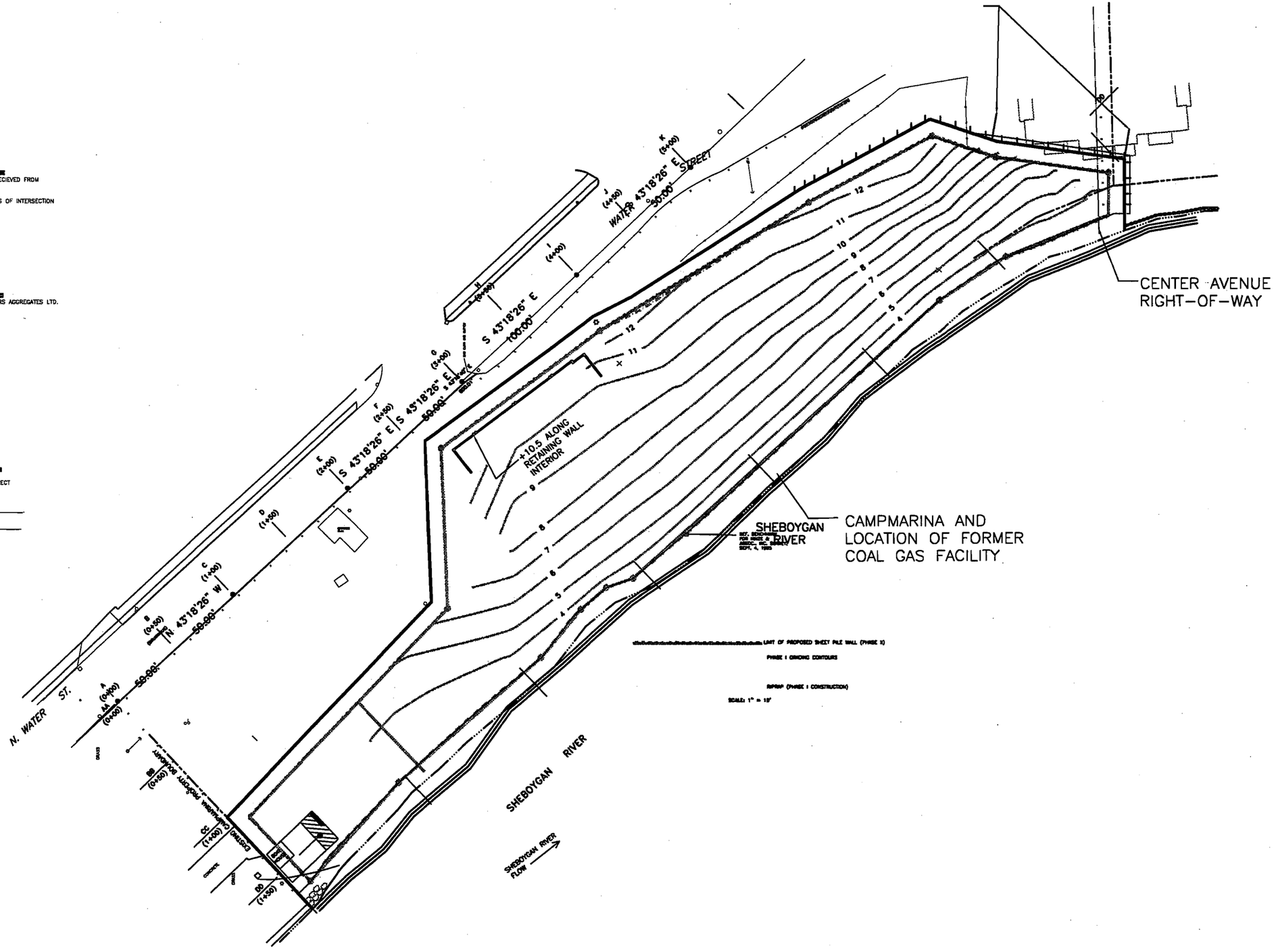
I, JONATHAN SCHMITZ, REGISTERED LAND SURVEYOR
DO HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT
COPY OF A TOPOGRAPHICAL SURVEY
AS MADE BY ME ON ? - ?, 2001.

DATED THIS _____ DAY OF _____

_____
JONATHAN SCHMITZ , (# 2465)
REGISTERED LAND SURVEYOR

0' 30' 60' 90'

Scale 1"=30'



REVISIONS

DATE	7/19/01
DRAWN	TRAVIS PLANTICO
CHECKED	JONATHAN SCHMITZ
DOCUMENT NO.	010651

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

KR kettler corporation

2917 BUSINESS PARK DRIVE - STEVENS POINT, WI 54481
TELEPHONE: 715 - 341 - 2525 - FAX: 715 - 341 - 0456 - EMAIL: kr@kettler.com

TOPOGRAPHIC MAP

CAMPMARINA GEOSYNTHETIC CAP SUBGRADE
SHEBOYGAN, WISCONSIN

TOPO

SURVEYORS NOTES

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ELEVATION = 606.48

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_____
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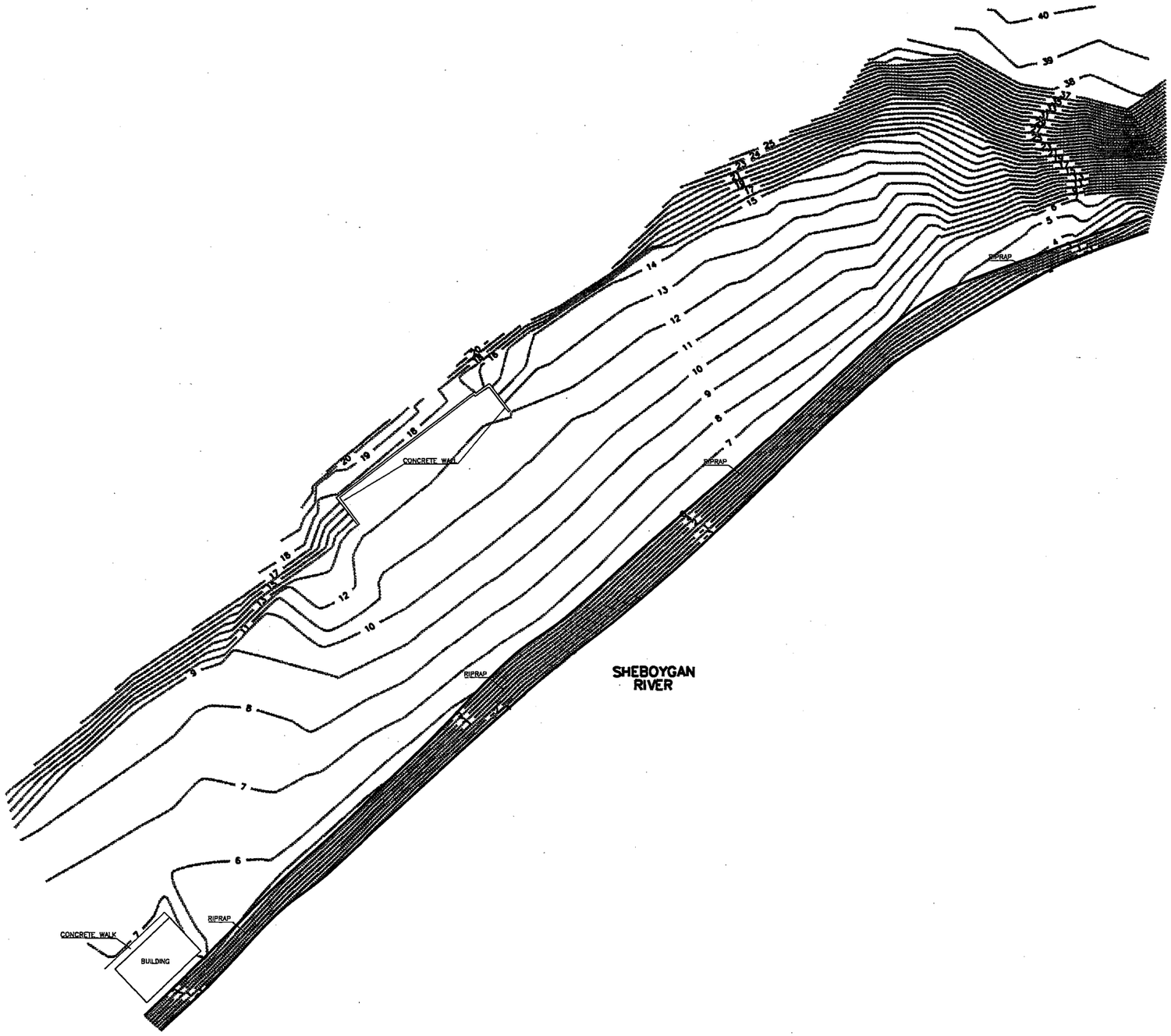

N

0' 30' 60' 90'

Scale 1"=30'

REVISIONS

DATE	7/19/01
DRAWN:	TRAVIS PLANTICO
CHECKED:	JONATHAN SCHMITZ
DOCUMENT NO.	000851

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

2917 BUSINESS PARK DRIVE . SHEBOYGAN, WI 53083
TELEPHONE 715 - 254 - 2055 . FAX 715 - 254 - 0421 . EMAIL rrh@rrhinc.com

TOPOGRAPHIC MAP

CAMP MARINA PHASE 2
SHEBOYGAN, WISCONSIN

TOPO

SURVEYORS NOTES

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ELEVATION = 590.29

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ELEVATION = 606.48

Scale 1"=30'

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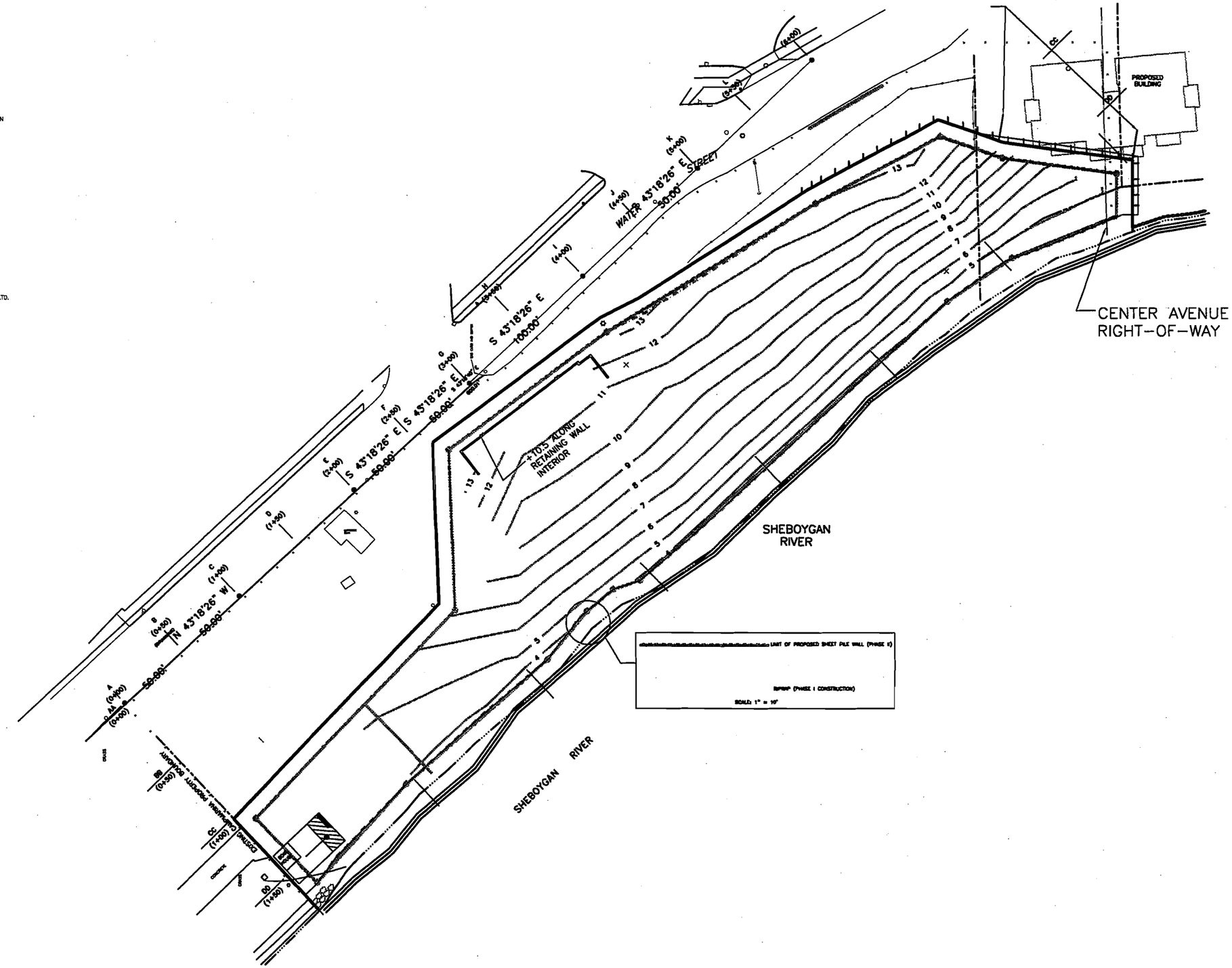

REVISIONS

DATE:	7/19/01
DRAWN:	TRAVIS PLANTICO
CHECKED:	JONATHAN SCHMITZ
DOCUMENT NO.	00.691

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE
2597 ROBERTS PARK DRIVE - STEVENS POINT, WI 54481
TELEPHONE: 715 - 341 - 2695 - FAX: 715 - 341 - 0454 - EMAIL: rrc@rettler.com

TOPOGRAPHIC MAP

CAMP MARINA GEOSYNTHETIC CAP
SHEBOYGAN, WISCONSIN

TOPO

GRADES TABLE
CONSTRUCTION DOCUMENTATION SURVEY DATA
CAMPMARINA AND CENTER RIGHT-OF-WAY
CITY OF SHEBOYGAN, WISCONSIN

Date Measured	Biosparge Well Location		Grade Information			Comments
	Northing	Easting	Design	Actual	(+/-)	
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5/21/01	4606.05	5336.05	13.1	10.79	2.31	BW-02 (PNT1225)
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5/21/01	4516.01	5413.93	11.5	10.85	0.65	BW-04 (PNT1223)
5/21/01	4473.04	5455.53	11.1	10.38	0.72	BW-05 (PNT1222)
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CITY OF SHEBOYGAN, WISCONSIN

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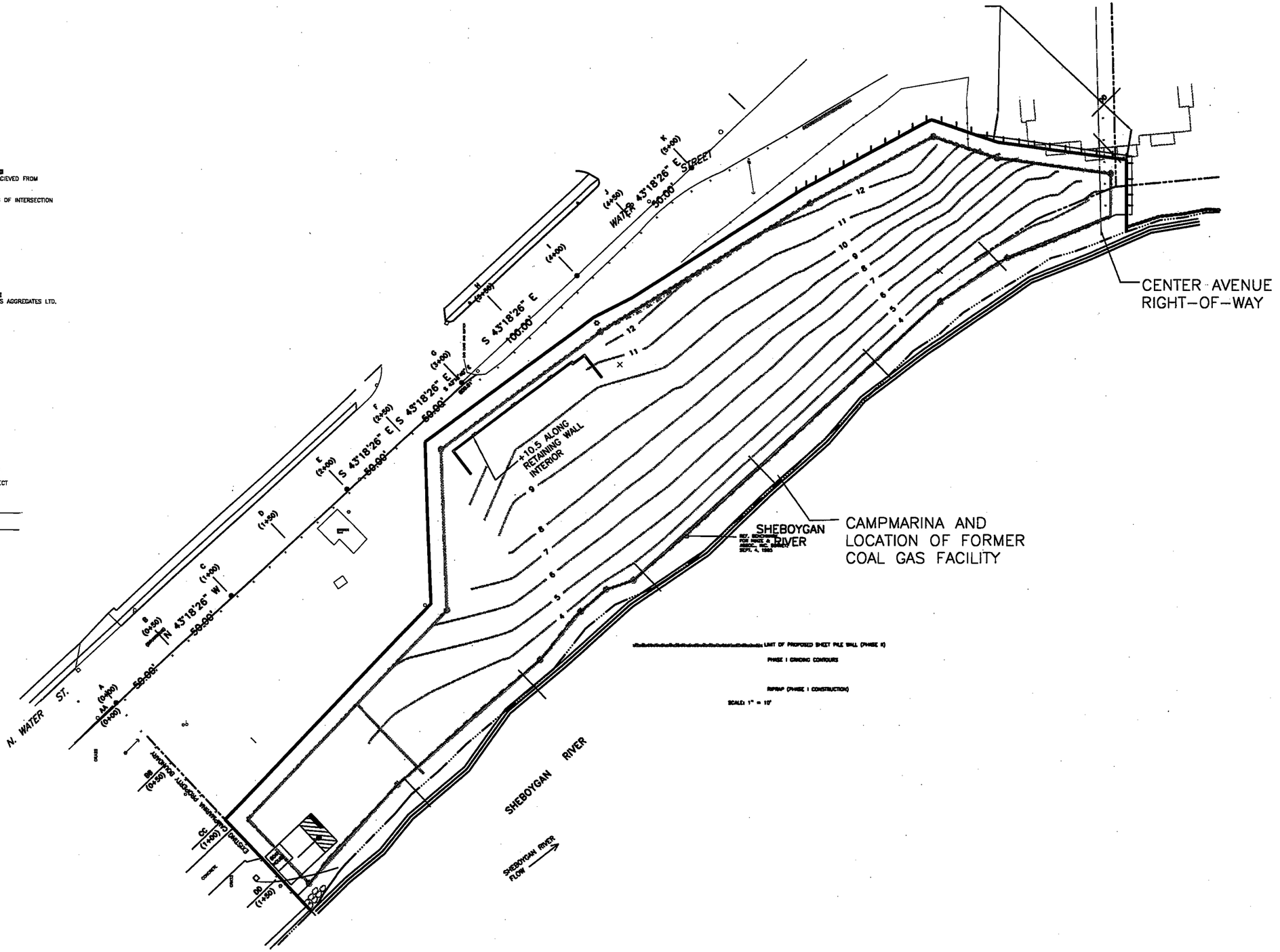
REGISTERED LAND SURVEYOR

0' 30' 60' 90'

Scale 1"=30'



REVISIONS

DATE	7/19/01
DRAWN	TRAVIS PLANTZ
CHECKED	JONATHAN SCHMITZ
DOCUMENT NO.	00651

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

rettler corporation

2917 BUSINESS PARK DRIVE - STEVENS POINT, WI 54481
TELEPHONE: 715 - 341 - 2525 - FAX: 715 - 341 - 0455 - EMAIL: info@rettler.com

TOPOGRAPHIC MAP

CAMPMARINA GEOSYNTHETIC CAP SUBGRADE
SHEBOYGAN, WISCONSIN

TOPO

SURVEYORS NOTES

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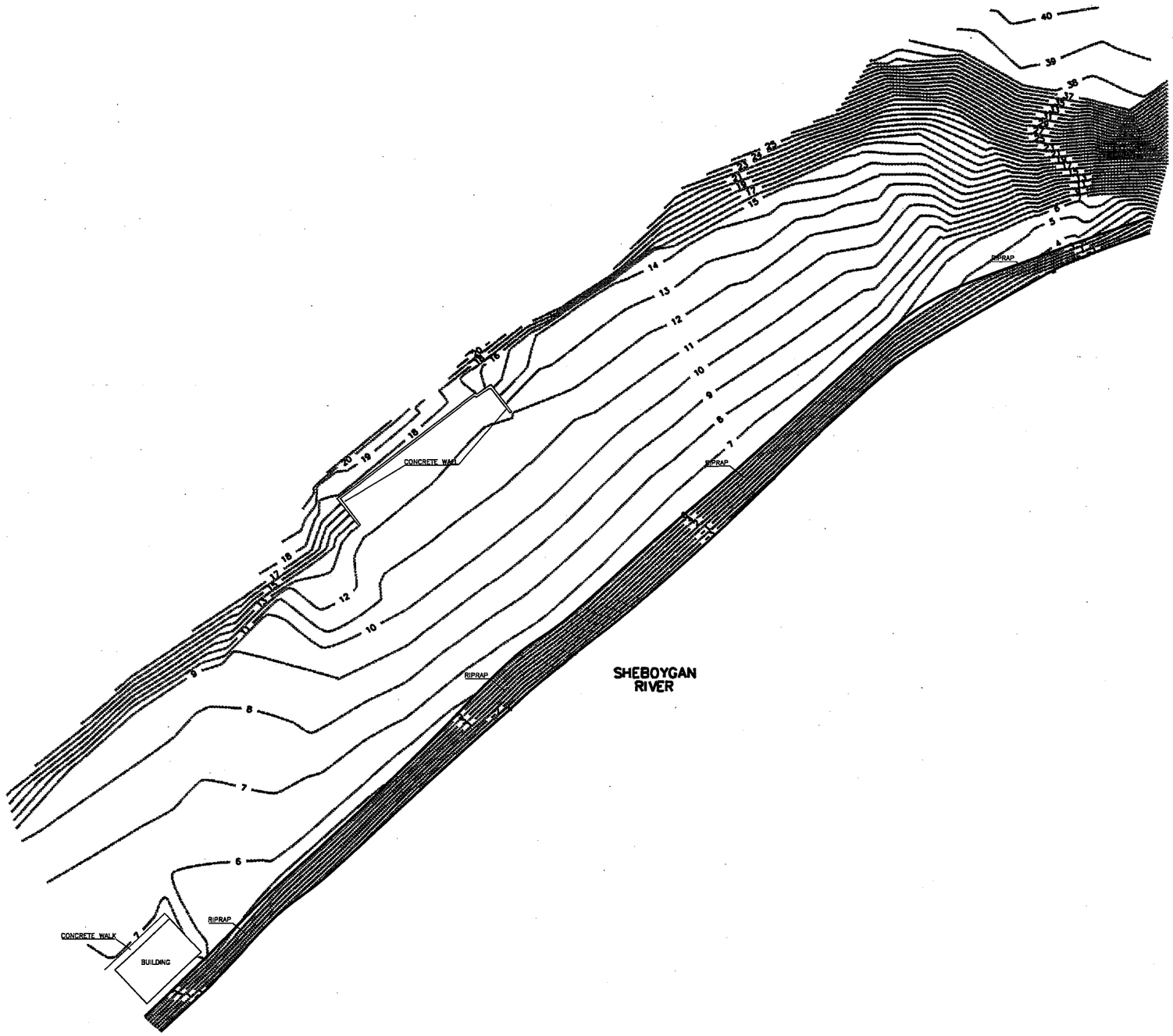

REVISIONS

DATE	7/19/01
DRAWN:	TRAVIS PLANTICO
CHECKED:	JONATHAN SCHMITZ
DOCUMENT NO.	000651

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

rettler corporation

5247 BUSINESS PARK DRIVE - SHEBOYGAN, WI 53083
TELEPHONE 715-541-2699 - FAX 715-541-0451 - EMAIL: rettler@rettler.com

TOPOGRAPHIC MAP

CAMP MARINA PHASE 2
SHEBOYGAN, WISCONSIN

TOPO

SURVEYORS NOTES

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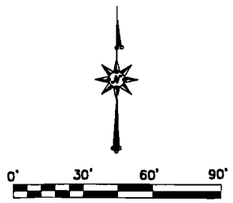
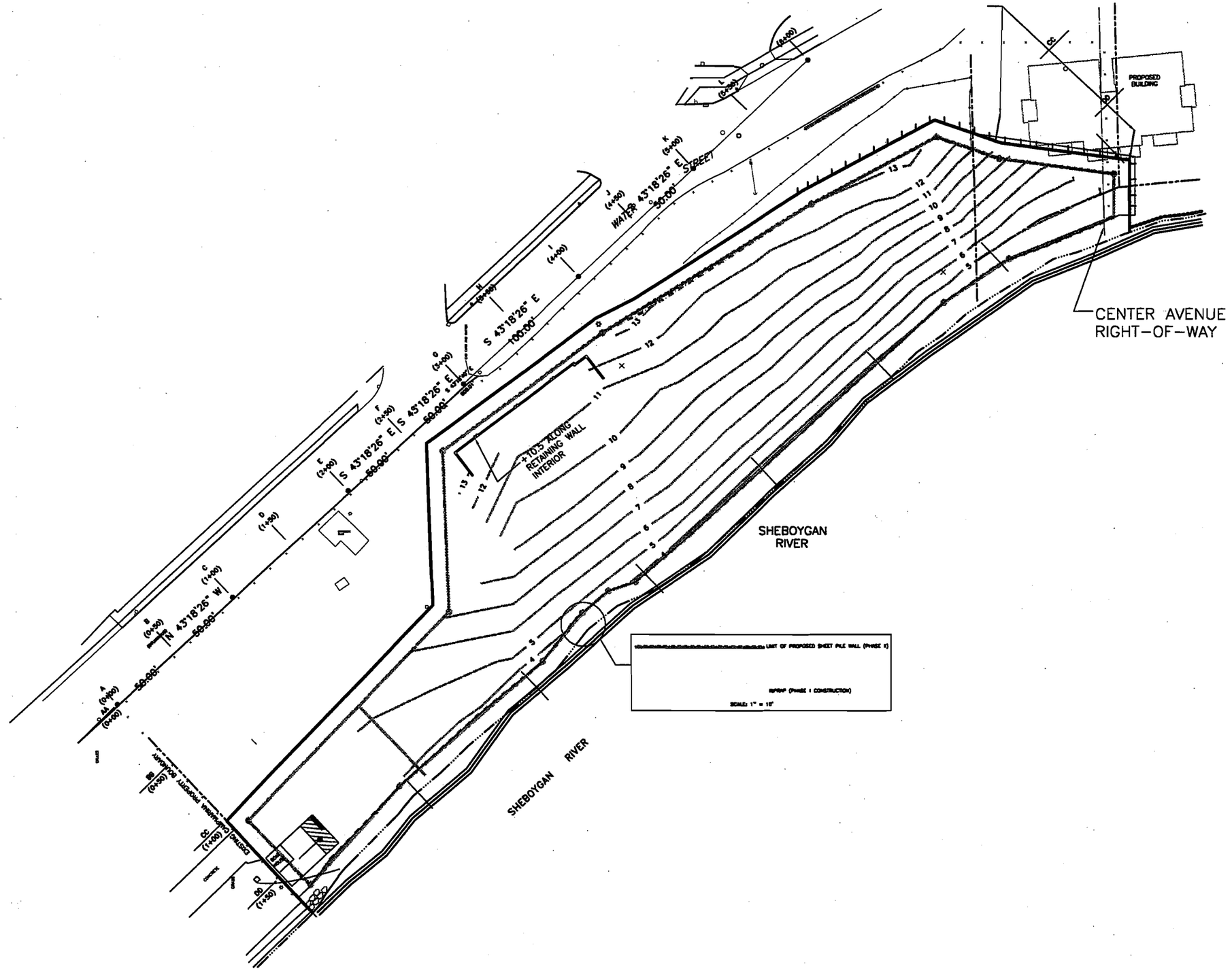
TOP OF COVER OF MONITORING WELL #708
ELEVATION = 606.48



Scale 1"=30'



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_____
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REGISTERED LAND SURVEYOR

REVISIONS

DATE	7/19/01
DRAWN	TRAVIS PLANTICO
CHECKED	JONATHAN SCHMITZ
DOCUMENT NO.	00.691

LANDSCAPE ARCHITECTURE
ENGINEERING
LAND SURVEYING
SITE CONSTRUCTION MANAGEMENT
SITE MAINTENANCE

KEYLER CORPORATION

3517 BUSINESS PARK DRIVE - STEVENS POINT, WI 54481
TELEPHONE 715 - 341 - 2809 - FAX 715 - 341 - 0455 - EMAIL kcorp@kcorp.com

TOPOGRAPHIC MAP

CAMP MARINA GEOSYNTHETIC CAP
SHEBOYGAN, WISCONSIN

TOPO

APPENDIX D

NRT DAILY FIELD ACTIVITY REPORTS

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: October 27, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	12:00 pm	Weather	Sunny	Sunny
Total Hrs at Site	4	Temp	60 (F)	60 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Meet w/ SLF at Wildwood to look over site and meet w/ WPSC Mary Fleck and Dick Johnson. Also met w/ general contractor Steve Dobeck (Sommers Aggregate). Discuss site activities at Camp Marina, per Roy Wittenburg, the silt fence along Water Street will follow the sidewalk And cut through the area of the proposed building to allow soil to stay within the confines of the Site. Wells which will be abandoned MW-702, MW-703 and MW-704. The site contact for Sheet pile installation will be Tim Horswill at 920-729-4305. A change at the Camp Marina Site included moving the chain link fence "out" by approximately 2 feet to meet plan spec's. Also compiled a list of equipment for use at the Camp Marina site.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: October 30, 2000

Arrival Time	7:45 am		AM	PM
Departure Time	4:30 pm	Weather	Sunny	Sunny
Total Hrs at Site	8.75	Temp	50 (F)	50 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Stopped at Wildwood to check on onsite activities, no one present at the Wildwood facility. AT Camp Marina, the safety (chain link) fence around the site is now complete. Site personal At Camp Marina include Somers and Phenco (sheet pile installation contractor). Per SLF (NRT) SAG will document site activities including permanent fencing, silt fence installation and sheet Pile delivery. At present, the only silt fence installed is along river, about ½ of the total needed To be installed along the river. Permanent fencing is competed along the main road (Water St.) As well as along the boat house property line on the north end of the site. The permanent Fence was moved 4 feet further north as requested by SLF (NRT) the previous day. NRT also Located the onsite wells for the survey crew to check elevations with the existing data provided By the City of Sheboygan. All wells appear to be in good condition NRT Also marked all flushmount covers with orange paint and where applicable, the wells were Staked for protection. One truck was onsite with sheet pile. Somers is removing debris from River so that the stakes for the silt fence can be continued to be driven into the river's edge to Attach the silt fence to. Rettler (surveyors) were onsite to discuss expected scope of plans with SLF. Instructions for the surveyors included staking out the building corners of the proposed Building located at the south end of the site. Somer's site activities also included building a Berm Along Water Street to accommodate site runoff in addition to the silt fence. Per REW (NRT) the second silt fence along the river will not be added until needed.

Activities completed: Silt fence along length of river, silt fence along south property line Leading down to the river, however, the silt fence is not at ground surface and needs to be Corrected. Clean up along the southern bank near Water Street, including stump removal and a Small portion of silt fence was added on Water Street.

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: Mark Carnowindt

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: October 31, 2000

Arrival Time	7:45 am		AM	PM
Departure Time	3:45 pm	Weather	Overcast, cool	Overcast, cool
Total Hrs at Site	8	Temp	50 (F)	50 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Activities include: Finish grubbing at Camp Marina, procure at certificate for the truck scale at Wildwood, gravel delivery to Wildwood for the temporary storage pads, sand will be delivered To Camp Marina to anchor the silt fences, and Rettler will return to Camp Marina to Compete the site survey. Changes at present include the silt fence along Water Street will be Secured with wood curb and fabric. SAG is also needs to determine if the tree stumps which Were excavated at the Camp Marina site are contaminated based on visual Inspection. NRT also met with Dale Wiley (WPSC) and Steve Dobeck for submittals. Topics:

-erosion control permit and access agreement from Somer's,

-from Somer's-a subcontractors list, next weeks planned schedule, a verbal from Somer's as to When surveyors will be onsite in the future and a price for leaving temp. sheet pile in place.

-for surveyors: the sheet pile wall should not encroach on the outside corners of the proposed bid

-NRT to provide a copy of the NRT site CQA plan to Somer's.

-From Somer's: NRT received OSHA 40 training certificates for Somer's employee's

-Somer's also needs to provide NRT with the #28 stockpile plan and excavation information.

-Somer's also needs to verify that NRT and Somer's received the geocomposite sample for QA/QC purposes.

Site activities at Camp Marina include meeting with surveyors, the scope of activities include:

-Stake proposed building corners marked on map as #235 and #236, no offset for staking Temporary sheet pile wall, and a site topo to be provided to NRT by Rettler.

Site activities regarding sheet pile: Total count of sheet pile to date:

210 (WZ-95 30 foot lengths), 180 (WZ-75 20 foot lengths), 192 (WZ-75 25 foot lengths), 49 (WZ-75 30 foot lengths).

City of Sheboygan was also onsite to discuss storm line relocation (at south side of site).

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Continuing site activities include removing concrete walk and boulders from along river. Moved to Wildwood to check site activities. The truck scale is in place, and an asphalt patch was added near the partitioned concrete wall.

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: Barb Lamawindt

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 1, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	4:00 pm	Weather	Sunny	Sunny
Total Hrs at Site	8	Temp	60 (F)	50 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

No activities at Wildwood upon arrival, Somer's onsite to pick up materials for Camp Marina.
Activities for Camp Marina include storm sewer relocation and possible sheet pile delivery.
Somer's also offset sheet pile wall-15 and 25 foot offsets. Rettler onsite to restake site as in
House error caused the survey to be approximately 4 feet off site survey plans therefore they
Will survey and restake points. Rettler also stated that their survey did not match the City of
Sheboygan points in some areas and the river appeared to have changed in some places.
Somer's is also trenching in the Center Street Right of Way area for relocation of the storm
Sewer line-the old line appears to be 12 inch clay pipe with sand as the backfill material.
Information which Rettler is requesting from NRT: elevation and station intersects for each
Grid point on the plans.
Site meeting at the Wildwood trailer today.
Additional sheet pile delivery: 42 (WZ-75 30 foot lengths) and 230 (WZ-95 footplates).
Additional activities at Camp Marina in pm include continuing relocation of storm sewer line
At southern portion of site by Water Street. NRT also met w/ Dale Wiley (WPSC) to determine
Extent of excavation zone 2. NRT also talked to Somer's about not disturbing EZ-2 while
Trenching the storm sewer line.
Site activities at Wildwood included finishing the gravel pad in the staging area.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 2, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	5:00 pm	Weather	Overcast, cool	Overcast, cool
Total Hrs at Site	9	Temp	50 (F)	50 (F)
Travel Time	1.5	Precip	rain	rain
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Down time at Camp Marina included a rain delay in am. 1 load of sheet pile was delivered To the site-50 (WZ-75 25 foot lengths). Site activities include grading the hill on the south side Of property, adding additional "T" bars along river to supplement already installed anchors for The silt fence. T bars are now every 4 feet instead of 10 feet.

Wildwood site activities include: grading basecourse, finish removing "pipe" holders, move Scale trailer to other side of scale (original location was incorrect), Somer's will be acquiring a Top for the well in the asphalt area and Dale Wiley (WPSC) requested that the corrugated metal Ring around the well should be slotted to catch any large debris and have sediment settle out.

Down time at Camp Marina included trouble installing "T" bars along river due to obstructions. Method used to install bars: backhoe.

Per phone conversation with REW and SLF (NRT): extra graded material from the Center Street Right of way will be brought down and visually inspected and used at another location if it Appears clean. Will not cut area down below 22 per spec's. Per phone conversation with REW And SLF (NRT): if NRT should encounter ash, coal tar or wood chips, the material should be Segregated out and stockpiled separately. Dust control should also be implemented if necessary.

A portion of the silt fence was also repaired at the south end of the site as it was not secured at The base. NRT also noticed a sheen approximately 20 feet from the river bank. NRT Requested that Somer's stop all site activities in the area until the location of the sheen could be Established. SAG contacted NRT to discuss situation and SLF will come to Camp Marina.

Final consensus to control sheen was to "boom" area with oil absorbing material. Due to wind And wave action the sheen tends to dissipate quickly and it appears that the sheen which is Leaking is intermittent. WPSC was notified of possible affects leaking in the Sheboygan River.

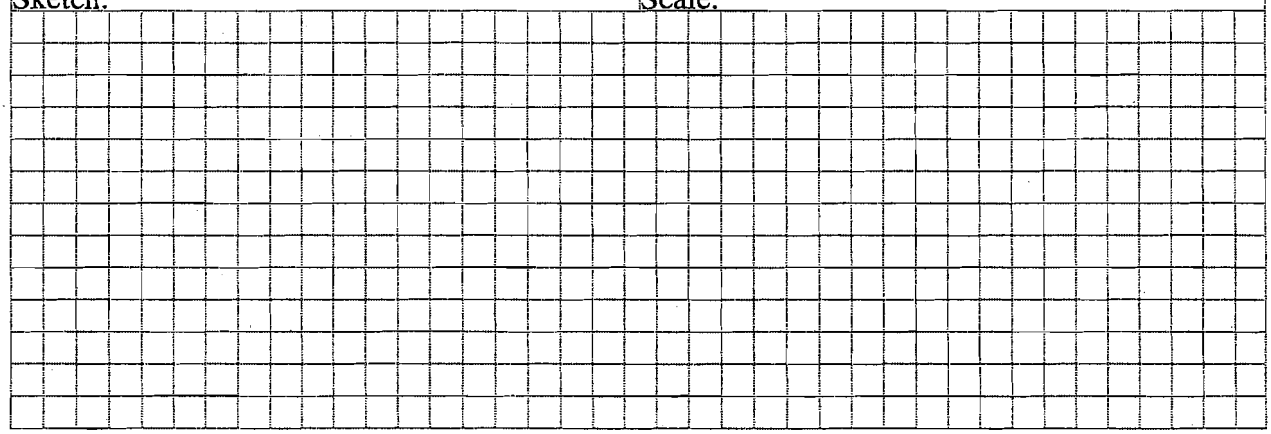
Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:



Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 3, 2000

Arrival Time	7:50 am		AM	PM
Departure Time	2:30 pm	Weather	Sunny	Sunny
Total Hrs at Site	6.5	Temp	50 (F)	50 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Onsite at Camp Marina, it appears that no activities are taking place yet. Check status of sheen, The sheen is collecting along the silt fence but NRT was unable to determine if more sheen Was being released due to wave action in river.
Sheet pile was delivered to site-16 (WZ 95 30 foot lengths) and 19 (WZ 75 30 foot lengths)
WI Electric is also onsite to install power.
NRT and Somer's acquired a boat from the club at the north end of the site, and preceded To boom problem area in river, however, the booms which were provided by WPSC failed to Work as the booms absorbed water as well as product. NRT had a local environmental firm (Clearwater Technologies) deliver the correct booms for site activities. NRT completed Booming the suspected area of sheen release located out in the river. The booms were Tie wrapped together, in addition to the hooks which were provided, and secured with ropes and Weights to prevent the boom from moving.

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: November 6, 2000

Arrival Time	7:45 am		AM	PM
Departure Time	3:15 pm	Weather	Sunny	Overcast, cool
Total Hrs at Site	8.5	Temp	50 (F)	50 (F)
Travel Time	1.5	Precip	None	rain
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Onsite at Wildwood to check site activities, Town and Country onsite to perform electrical Service for WPSC at Camp Marina. NRT also delivered equipment to the Wildwood site for Use at site.

Site activities at Camp Marina include: installation of the temporary sheet pile wall, and site Erosion and water control. NRT is also requesting a final count of sheet pile loads which were Delivered from Somer's as it appears that there is a discrepancy between what was delivered and What is onsite. After sheet pile installation began, Phenco discovered a pipe invert near river Which contained coal tar, Pipe was removed and Phenco continued to drive sheet pile.

The tree stumps which were onsite will be taken to Hilbert Landfill to be disposed of as Special waste. Tickets for the landfill will be provided by WPSC. NRT is also requesting A sample of structural fill and rip rap from Somer's for laboratory analysis. Phenco was able To install 8-35 foot lengths of sheet pile before the crane operator left site to complete a Haz Wopper physical to comply with health and safety regulations. Site locations of pipes which Were discovered are as follows: (temporary sheet pile excavation area's)

Pipe size: 4 inch, construction: clay, 1st pipe was located 29.5 feet south of the phone pole Located on Water Street, the second pipe, of same size and material was located 35.5 feet south Of the phone pole on Water Street, The pole is adjacent to a 4 inch water line marked in blue By Diggers. NRT also marked the location with orange spray paint on Water Street.

City of Sheboygan employees are onsite to remove extra pipe which was not needed to install The storm line in the Center Street Right of Way. The City of Sheboygan originally provided all Materials to relocate the line and asked that any unused materials be returned to them and per Their request, all materials which were not used, were returned. A load of pipe for Somer's was Also delivered to the site.

Site Activities at Wildwood were to include finishing silt fence and 2 loads of base coarse which

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).
Was to be delivered, however, rain halted all further site activities for the day.

Sketch:	Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 7, 2000

Arrival Time	7:55 am		AM	PM
Departure Time	4:30 pm	Weather	Overcast, cool	Overcast, cool
Total Hrs at Site	8.5	Temp	50 (F)	50 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Site activities at Camp Marina include sheet pile installation and Somer's re-securing the boom In the river, which had come loose due to weather conditions the previous day. Additional Sheen was apparent on the water at this time. Trucks are also onsite to remove concrete debris to The landfill. Silt fence repair was completed and sheet pile installation of 35 foot sections Continued. Site debris (rubble) was also removed to Sheboygan Sand and Gravel. The curb Construction on Water Street was delayed until other site activities were completed. A pocket of Contamination was discovered during sheet pile installation and NRT, Phenco and Somer's Discussed how to handle the suspected contamination. The pocket of contamination should be Excavated, placed on plastic and tarped. Warning signs have also been installed along Water Street. 2 trucks are also onsite to remove "clean" debris however it appears that the tarp on one Truck was broken and NRT requested that the operator leave the site and have the tarp repaired. Per SLF (NRT) all trucks carrying suspect material are to be tarped before leaving the sites. Construct is the company, which is providing the dump trucks for site activities. Somer's also Moved, placed on plastic, and retarped material which was previously excavated by the City Of Sheboygan at an earlier date. City of Sheboygan also was onsite to document activities and Somer's requested that for health and safety reasons that he notifies personnel onsite prior to site Visit and dress appropriately including steel toe boots and hard hat. It was also decided that the Curb on Water Street will not be constructed using beams but rather create a berm using Asphalt. By 1:00 pm, Phenco had 20 (35 foot sections) of sheet pile installed and began Installing 40-foot sections.
Wildwood activities included certifying the truck scale (CCS Systems) and silt fence installation.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 8, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	4:15 pm	Weather	Overcast	Overcast
Total Hrs at Site	8.5	Temp	50 (F)	50 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Onsite activities at Camp Marina include Phenco installing sheet pile. REW is also onsite to Discuss weekly meeting at Wildwood site. Somer's site activities include removing debris From along northwest portion of site such as timbers, and concrete. The electrical which was Installed for the site job trailer failed inspection. Somer's is also waiting for approval from Asphalt company to start having asphalt delivered to construct the curb along Water Street. Rettler (surveyors) are also onsite today for a site meeting at the WW trailer as well as Tim-Phenco, REW,SLF, and SAG –NRT, Steve Dobeck-Somer's, Mary Fleck and Dale Wiley-WPSC. Information discussed included WPSC employees picking up excavated power poles From the CM site. Also per REW, the river front stump and debris will be classified as special Waste and taken to Hilbert Landfill. Afternoon activities included asphalt delivery for Curb construction along Water Street.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

`DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: November 9, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	5:00 pm	Weather	Overcast	Overcast
Total Hrs at Site	9	Temp	35 (F)	35 (F)
Travel Time	1.5	Precip	Light rain	rain
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Talked With Tim from Phenco about not excavating in the EZ-2 zone as an area of tar like material was
Exposed by previous excavating activities. The exposed tar like material was on the CM side of the
Sheet pile and NRT needs to access the extent of the tar and excavate or leave in place.
Site activities also include-Bring electrical up to code to pass inspection, drive sheet pile, remove
Site debris, clean up along river-remove debris, steps for Somer's job trailer to be build,
And install chain fence across Water Street for temporary parking for site employees. At WW
Water will be removed from the asphalt staging area where it has accumulated. Regarding the
Exposed tar like material at the base of the EZ-2 area-NRT will excavate, determine extent of tar on
The CM side of the sheet pile and excavate as much as possible without overexcavating. The
Soil will be excavated and removed to WW when the treatment system is running. (per SLF)
As rain continues, Somer's is reducing site activity for safety reasons. Phenco is now done for
The remainder of the week. NRT, SAG, mobed to WW to help AAS, HMS, and Focus
Calibrate and set up PUF samplers.

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: Carol Crowindt

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Thur. 11/9/00

Arrival Time	8:00	Weather		PM
Departure Time	6:00	Temp		
Total Hrs at Site	10 hours	Baro		
Travel Time	1.0	Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Spiro and Heather also on-site
- Met with Dave from Focus
- Assembled air monitoring equipment

Field Rep Adam Shingledecker

Position Hydrogeologist

Company **Natural Resource Technology**

Signature: 

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Friday 11/10/00

Arrival Time	8:00	Weather		PM
Departure Time	5:00	Temp		
Total Hrs at Site	9 hours	Baro		
Travel Time	1.0	Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed :

- Spiro and Heather also on-site
- Calibrated air monitoring equipment
- Placed air monitoring equipment in place and began first background sample

Field Rep Adam Shingledecker
Position Hydrogeologist
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Sat. 11/11/00

Arrival Time	8:00	Weather		PM
Departure Time	11:30	Temp		
Total Hrs at Site	3.5 hours	Baro		
Travel Time	2.0	Wind		
Mileage	120	Precip.		

Summary of field engineering services and/or description of work performed .

- Removed first background air samples

Field Rep Adam Shingledecker
Position Hydrogeologist
Company **Natural Resource Technology**
Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 13, 2000

Arrival Time	7:45 am		AM	PM
Departure Time	4:15 pm	Weather	Overcast	Overcast
Total Hrs at Site	8.5	Temp	40 (F)	40 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

At WW, a Hazco decon trailer arrived at approximately 8:00 am. Phenco is currently trenching A water line located outside the WW job trailer. NRT inspected water line excavation, it appears Tar like material is in the excavation. Per REW and SLF, the soil was excavated and stockpiled in a area which already contained a tarped stockpile of previously excavated soil from the Resurfacing of the WPSC parking lot. At CM, City of Sheboygan onsite for storm sewer Abandonment in a manhole located on the property. Per Tom (City of Sheboygan) Somer's May grout the actual manhole located near the Phenco job trailer to prevent runoff from the City streets. Phenco is also driving sheet pile with a crane and backhoe. Somer's is conducting Various site activities including frac tank prep and moving site debris. At WW site activities Include trenching the water line-water is approximately 15 feet bgs. Somer's pumped out the Excavation into a tank truck and remove. Site meeting at the WW trailer as well. Phenco located Sewer line under the gas line during afternoon hours. At lath 214 and 215 a pocket of tar like material Was discovered at approximately 20 feet bgs. (using sheet pile elevations set at 22 feet ags. ½ way in between the lath is a 12 inch, apparently abandoned storm line.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company Natural Resource Technology

Signature: _____

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 14, 2000

			AM	PM
Arrival Time	7:45 am			
Departure Time	5:00 pm	Weather	Overcast	Overcast
Total Hrs at Site	9.25	Temp	30 (F)	30 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Phenco continuing to work on water line at the WW facility. 2 loads of backfill were brought in By Construct from Sheboygan Sand and Gravel. SAG sampled water in trenched water line Excavation. At CM, sheet pile installation continues between lath 214 and 215. Somer's is Currently preparing the frac tank area. Per SLF Somers is to stakeout –1 elevation along river To verify that there is at least 10 feet in between sheet pile wall and –1 elevation. Currently, Somers has brought in 4 loads of sand for backfilling water line excavation at WW. (2 loads Were delivered the previous day) NRT discussed the removal of concrete and pipe in the Staging area at WW and WPSC agreed to have it removed. Site Activities at CM included Continued frac tank preparation, sheet pile inhalation, and excavating debris and boulders along River. Somer's is also grading the area where the sheet pile is being installed. In the sheet pile Installation area (lath 293) an exposed pipe is running diagonally toward the river Approximately 12 north of lath 293 and 5 feet east of the storm sewer clean out. The 2 to 1 cut was not performed as SLF had requested as Somer's needs the sheet pile in place To establish grade. The cutback along the river was to remove soil to the phase I grade. Somer's is verifying phase I grade by a benchmark set at the transformer located by the Boathouse at the north end of the site. Somer's also reestablished original survey points after Moving lath to allow for grading. Somer's was also intending to pull the 10 feet back from the Lath and shoot the .1 elevation however this could not be verified at this time.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Tues. 11/14/00

Arrival Time	8:00	Weather		PM
Departure Time	18:00	Temp		
Total Hrs at Site	10 hrs	Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Today air sampled at CAMP 1 and WILD 2 for BTEX, PAH and TSS.
- Arrived at CAMP 1 to find PUF sampler timer broken. Called Cherokee Instrument to send a new timer to replace broken one.
- In the mean time, CAMP1 PUF sampler 6331 was replaced with PUF sampler 5595

Field Rep Heather Simon
Position Field Engineer
Company Natural Resource Technology
Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 15, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	4:30 pm	Weather	Sunny	Sunny
Total Hrs at Site	8.5	Temp	25 (F)	20 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Miscellaneous site activities including coordinating with lab for quick turn analysis, installation Of phone lines at the job trailers and site meeting at the WW trailer. Various direction given to SAG, NRT regarding site information. (see actual field notes) In addition, it was decided that all Site debris go to Hilbert Landfill. Also, excavation in EZ-2 commenced in the Center Street Right of Way. A small vein on tar like material/Prussian blue wood chips at 30 feet south of cross walk On Water Street, and 30 feet west of existing fence on Water Street and was approximately 2 Feet below ground surface. Somer's set up level using a existing fire hydrant on Water Street as A benchmark and shot location of suspected contamination. At the conclusion of the day, About 2 feet of soil was removed from ez-2 zone which contained some ash looking material. Somer's is finished with the slope, however it appears that contamination still exists out side The limits of the sheet pile wall in the Center Street Right of Way.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Wed. 11/15/00

Arrival Time	8:00	Weather		PM
Departure Time	18:45	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Removed CAMP 1 and WILD 2 air samples from stations.
- Took PRE[1115] and FILL[1115] soil samples of pretreated stockpile and clean stockpile.
- Soil samples were PID and submitted to R.E.L

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

`DAILY FIELD REPORT

Natural Resource Technology
N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 16, 2000

Arrival Time	7:45 am		AM	PM
Departure Time	4:45 pm	Weather	Overcast	Overcast
Total Hrs at Site	8.0	Temp	32 (F)	32 (F)
Travel Time	1.5	Precip	Light Rain	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

At Camp Marina the excavation along the river has started, beginning at the north end of the site Near the boat house, with the limits of the excavation at the fence. Additional truck with sheet Pile corners onsite during excavation. During excavation, an additional pipe as exposed at lath 288-running at a slight angle southeast. Also checked storm pipe near clean out along river- Moderate amount of water was being discharged, Somer's may not grout pipe as planned today Due to excess water causing the grout not to hold up. A pipe was discovered 18 feet south of Lath 288, which ran in a vertical position. A wooden crock is present about 10-12 feet long and 5 feet wide extending 4 feet above grade. The crock lays directly in the middle of the proposed Sheet pile wall. NRT removed the pipe which was approximately 30 feet long, The pipe had An odor. A pipe which was connected to the crock ran along the length of the river in a southern Direction and is approximately 10 inches in diameter. A truck arrived onsite with the frac tank And the Ameritech employee did not show up as planned.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Thur. 11/16/00

Arrival Time	7:30	Weather		PM
Departure Time	5:30	Temp		
Total Hrs at Site	10	Baro		
Travel Time	2.0 Hours	Wind		
Mileage	120	Precip.		

Summary of field engineering services and/or description of work performed .

- Started air monitoring on all locations
- Worked on installing weather station software and equipment
- Went over details of excavation with Sara

Field Rep Adam Shingledecker
Position Hydrogeologist
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 17, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	2:30 pm	Weather	Sunny	Sunny
Total Hrs at Site	6.5	Temp	30 (F)	30 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Onsite CM, Somer's is grouting storm sewer line and removed clean out and associated pipe
Along river. Somer's is also laying fabric along rivers edge and 1 ½" stone was brought in to
Secure fabric up to lath 292. Structural fill is also being brought to site for placement along
Rivers edge after fabric is placed on top of stone. (Goetextile)
Specs of material which Somer's had:
Woven fabric-900 x 600 PSI
1 ½ inches filter rock-6 inches
Non woven fabric
Structural fill-silty material
Office work was also performed at the WW site.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Friday 11/17/00

Arrival Time	7:30	Weather		PM
Departure Time	3:30	Temp		
Total Hrs at Site	8.0	Baro		
Travel Time	2.0 Hours	Wind		
Mileage	60	Precip.		

Summary of field engineering services and/or description of work performed .

- Removed air samples from all locations

Field Rep Adam Shingledecker
Position Hydrogeologist
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Monday 11/20/00

Arrival Time	8:00	Weather		PM
Departure Time	18:30	Temp		
Total Hrs at Site	9.5	Baro		
Travel Time	2.0 hours	Wind		
Mileage	120	Precip.		

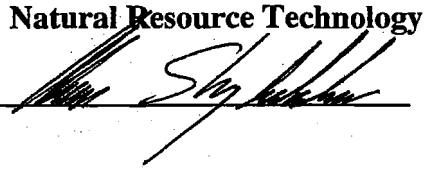
Summary of field engineering services and/or description of work performed .

- Started air monitoring on Monday because of short week due to Thanksgiving
- All stations were sampled

Field Rep Adam Shingledecker

Position Hydrogeologist

Company **Natural Resource Technology**

Signature: 

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Tue. 11/21/00

Arrival Time	8:00	Weather		PM
Departure Time	18:30	Temp		
Total Hrs at Site	12 hours	Baro		
Travel Time	1.5 hours	Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Dan (DCI) will be collecting a sample every hour in a pine jar and mark each far as PST-##
- Need a city water permit before we can start treating soil
- At WILD 2 location noted pretreated soil MGP odor
-
-

Field Rep Heather Simon

Position Field Engineer

Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 27, 2000

Arrival Time	7:45 am		AM	PM
Departure Time	4:30 pm	Weather	Overcast	Overcast
Total Hrs at Site	9	Temp	40 (F)	40 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Sampling was performed in the EZ-2 area in 3 locations which were documented by field notes And using the manhole located in the Center Street Right of Way as a reference point. The soil was sampled for BTEX, cyanide, lead and PAH's. Also documentation of the Limits of the river front excavation were recorded-Due to walls collapsing, some areas were Over excavated. Somer's is also excavating clean fill area which was built up along the sheet Pile wall and transporting it to the area along Water Street to reconstruct bluff. (see diagram) A newer pipe was also exposed 25 feet east of rivers edge, 100 feet north of storm line at south End of site. Stone was also laid from entrance gate to about 220 feet south of gate to prevent Tracking of soil offsite. Fill is also being brought in and stockpiled to fill in along river. Area cleaned to date-(along river) Well PZ-703 to lath 277 but 40 feet south of sheet pile wall Lath 277. Trucks are also continuing to go to landfill after picking up segregated material from The screeners at WW. Somer's is also continuing to dismantle the pad along the temporary Sheet pile wall and placing fill along the Water Street hill within limits of site south of the Existing concrete wall. Somer's is also shooting the grade along river to determine –1 location. Somer's is still using the 25 foot offsets and excavating to the –1 grade.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Tue. 11/27/00

Arrival Time	8:00	Weather		PM
Departure Time	17:00	Temp	29 deg F	32 deg F
Total Hrs at Site		Baro		
Travel Time	1.5 hours	Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- R.E.L courier picked up PRE-[1122] and FILL-[1122]
- Water permit was received today at 2pm for DCI water line
- Treatment plant will start running plant tonight
- Weather link modeum not working need new one
-

Field Rep Heather Simon

Position Field Engineer

Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 28, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	4:30 pm	Weather	Overcast	Overcast
Total Hrs at Site	8.5	Temp	30 (F)	30 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Site activities-continue to remove crane pad at south end of site, excavate along river, continue To grade hill south of existing concrete wall where fill is being placed. Per SLF, Somer's and NRT will pull 35 feet off the 25 foot sheet pile offset location to determine the 10-12 foot Distance off the wall for excavation purposes. Site map for limits of EZ-2 are in field notes. Somer's is continuing to try and determine where the electrical line lays at the north end of the Site as it is unclear if this line lays within the limits of the sheet pile wall. Aliant Power CO Was briefly onsite and stated that they could not determine the location of the line. Per SLF, the site will be cleared by diggers hotline again and a test pit will be dug to determine The exact location of the line. Somer's also finished removing limits of fill from crane pad area. (Temporary sheet pile lath 220-219). WPSC (Gerry) onsite to determine if a pipe (which appears To be abandoned) contains gas. WPSC determined that the pipe does not contain any type of Product. (i.e. gas)

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Tue. 11/28/00

Arrival Time	8:00	Weather		PM
Departure Time		Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.	Snowed last night	

Summary of field engineering services and/or description of work performed .

- Today first day of air sampling of CAMP 2 on the far south end.(permanent position)
- air sampling at all 4 locations
- DCI plant running well.
-
-

Field Rep Heather Simon

Position Field Engineer

Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 29, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	4:30 pm	Weather	Overcast	Overcast
Total Hrs at Site	8.5	Temp	32 (F)	38 (F)
Travel Time	1.5	Precip	Blizzard conditions	Rain
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Site activities at CM include continued excavation along river and grading central avenue hill. Somer's is also at WW plumbing water. Weekly site meeting at WW. Per REW and SLF, The surveyors will install control points along the river and 2 control points at the top of the Slope along Water Street as well as survey in manhole located in the Center Street Right of Way. Continued site activity at CM after meeting included tarping exposed debris and concrete. HMS onsite to determine problems with onsite weather station.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Wed. 11/29/00

Arrival Time	7:30	Weather		PM
Departure Time		Temp		39 deg F
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.	Rain all morning	

Summary of field engineering services and/or description of work performed .

- Sampled PRE-[1129] and PST-01. R.E.L picked up samples at noon. Rush on PST-01
- 2 pm DCI plant was off due to soil jammed in plant's system
- Air samples were removed
-
-

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: November 30, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	5:15 pm	Weather	Overcast	Overcast
Total Hrs at Site	9.25	Temp	32 (F)	42 (F)
Travel Time	1.5	Precip	Blizzard conditions	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Activities at CM included continuing to excavate along the river, will reuse boulders if not covered in tar like material or suspected contamination, trucks continue to remove soil to WW, discussed With Somer's (Steve) his concern about using only fabric and stone as opposed to removing Soil (contaminated) and replacing with clean soil so contamination does not run into river. Steve faxed a copy of his concerns over to REW (NRT) and WPSC for response. Per SLF, NRT Will shoot river elevation of river-the Sheboygan River elevation is at 11.6, benchmark elevation Is at 7.11, therefore the river is at a –3.6 feet elevation. Per continued phone conversation with SLF NRT will over excavate the rive location with contamination to a –3 feet and NRT will also define th Horizontal extent. NRT is to conduct activities at lest two feet away from the river. Screener at WW down, therefore excavation halted until repairs can be made, but stones continue to be Excavated and stockpiles for future use. The stones which are being removed from the river Appear to be clean and free of contamination. Dale Wiley and Tom (WPSC Hygienist) onsite for Health and safety inspection. Somer's is excavating are SLF determined to be contaminated the Previous week. Area is approximately 10 feet wide, and located between lath 283 and 287 (Northern extent). SLF also directed SAG to sample at five locations along the river- 0+80, 1 +95, 3 + 50, 4 + 75, and 5 + 85 in the EZ-4 area. As Somers excavated the before mentioned area, (EZ-4) tar like material remains in the –3 excavation area.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 11/30/00

Arrival Time	7:00	Weather	Cold/overcast	PM
Departure Time	6:00	Temp		
Total Hrs at Site	11	Baro		
Travel Time	2.0	Wind		
Mileage	Green van	Precip.		

Summary of field engineering services and/or description of work performed .

- Collected PST-02 sample from DCL
- Screening going slow, belt stuck for 2 hours
- Started air monitoring samples at all locations

Field Rep Adam Shingledecker

Position Hydrogeologist

Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 12/1/00

Arrival Time	7:30	Weather		PM
Departure Time	6:30	Temp		
Total Hrs at Site	11	Baro		
Travel Time	2.5	Wind		
Mileage	Green Van	Precip.		

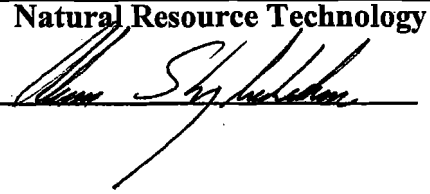
Summary of field engineering services and/or description of work performed .

- Removed air samples from all locations
- DCL plant running, no samples ready
- Screening operations running slowly, but no major problems

Field Rep Adam Shingledecker

Position Hydrogeologist

Company **Natural Resource Technology**

Signature: 

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: December 4, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	4:45 pm	Weather	Overcast, cool	Overcast, cool
Total Hrs at Site	8.75	Temp	34 (F)	34 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind	Northwest	Northwest

Summary of field engineering services and/or description of work performed .

At Camp Marina, 5 trucks were onsite upon arrival , NRT opened gate and to provide access for Trucks. Moved to WW to check on site activities. Jeff and Tim at job trailer to discuss cutting 45 degree angles on sheet pile foot plates. NRT provided Phenco with a sample piece for test Cut of angle. Previous activities which were completed during SLF on site were: Surveyors surveyed EZ-1, 2, 3, and 4 (shot and recorded) , Riverfront is as –1, surveyors laid Out sheet pile wall , over excavated additional contamination to –3 in EZ-4, measure off area Of additional contamination which was removed. Ez-3 excavation from edge of end of temp. Sheet pile wall to 18 feet south of excavation to –1 appears to be clean w/ only site debris in Area. At the ez-4 excavation area, site work began at lath 283 and proceeded south along the River. NRT also requested Somer's short fill trucks to alleviate any possibility of soil spillage On city streets. Site activities at CM include continued excavation along sheet pile wall and Checking EZ-4 for additional contamination. C3 Environmental requested a change order for Cutting foot plates at the 45 degree angle. During afternoon hours, Somer's excavated –3 Location between lath 283 and 297, laying fabric and structural fill till grade reaches the –1 Grade with fill. Somer's is also conducting site work in EZ-1 along sheet pile wall to –12 depth However, this will be the current grade as Pfiffer recommends bracing the sheet pile wall Before excavating any deeper.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch:	Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Mon. 12/04/00

Arrival Time	7:45	Weather		PM
Departure Time	16:15	Temp		39 deg F
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.	Snow	

Summary of field engineering services and/or description of work performed .

- Sampled PST-03 and PST-04
- Took real time air samples with PID and colormetric tubes. ND at either site
- PST-01 passed parameters. Staked pile green.
- R.E.L picked up samples
- Used PID, Sensidyne pump

Field Rep Heather Simon

Position Field Engineer

Company **Natural Resource Technology**

Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Project No: **1313**
Client: **Wisconsin Public Service Corp.**
Location: **Sheboygan**
Contractor: **Sommers Aggregates, Inc.**
Day – Date: December 5, 2000

	AM	PM
Weather	Sunny	Sunny
Temp	10 (F)	16 (F)

Precip	None	Wind	NW

Arrival Time:	7:55 am
Departure Time:	4:30 p.m.
Total Hours at Site:	8.5
Travel Time:	1.75
Mileage:	110

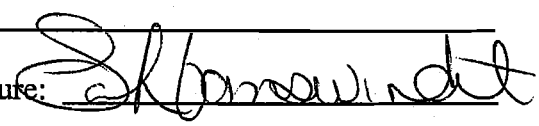
Summary of field engineering services and/or description of work performed.

NRT checked in w/Sommers-site activities include removing soil from GZ-5: start grading and removing soil at the start of the temp. shoring wall (sheet pile) at the northeast corner along Water Street and following sheet pile wall southeast toward the river. At the conclusion of the day, GZ-5 was almost completely restored to the preexisting grade. Sommers cannot begin to remove soil below the current grade until Phenco brings an "impactor" onsite to drive the existing temporary shoring further below grade to prevent the existing shoring from collapsing when Sommers removes soil in GZ-5 per spec's (to approximately –1). In EZ-3, approximately 2 feet of soil was removed (per spec's) and 2 different locations were sampled for cyanide, PAH, BTEX, and lead, and included a trip blank. Samples were labeled as EZ3-01 and EZ3-02. Soil sample locations were documented using the location of the existing silt fence and a distance pulled from lath #277 in a southerly direction. Samples were transported to Wildwood (WW) and were to be picked up 12/6/00 by a Robert E. Lee (REL) courier (per HMS phone call). EZ-3 was subsequently backfilled to preexisting grade w/structural fill and compacted by Sommers. Per SAG, SLF (NRT) and Sommers (S.D.), Miller Engineering was scheduled for compaction testing at 10:00 am 12/06/00 for EZ-3 and EZ-4 (in the locations that the grade was removed to a –3, had 8 or 12 oz woven fabric installed and covered w/2 feet of structural fill which was compacted by Sommers). The locations in EZ-4 where the excavation below the –1 grade occurred (excavated to a –3) was approximately 233 feet south of the existing gate entrance at the north end of the site (about lath 283) and extended to 12 feet north of lath 297. The width of the area in which soil was removed to the –3 grade was approximately 10 feet wide the entire length of the excavation. Grade was established and checked by Sommers by survey rod and

laser during soil removal activities. Per SLF, results of the proctor for the structural fill, was to be finished 12/05/00 (today). No results as of 1600 (military time) today. Also discussed (per phone call at WW) with Connie Lawzick (CL) forwarding sheet pile invoices to SLF (NRT) via fax from her office (WPSC Green Bay) as she is not in Wisconsin at the present time. SAG received faxes from the WPSC Green Bay office at WW trailer and will leave in WW trailer for SLF. (possible duplicate invoices, CL requested that SLF ignore duplicates) SLF is also waiting on phone call from Canadian Metals regarding a fax from C3 Environmental (faxed to Phenco) which dictated that Phenco needed to cut the footplates at a 45-degree angle. NRT was never notified of any changes regarding footplates previous to 12/4/00. (The fax dated November 27, 2000 was first viewed by NRT 12/4/00) was sent to Tim Horswell at Phenco by C3 Environmental and forwarded to Sommers by Phenco to the Sommers Camp Marina job trailer on 12/4/00.

Materials Delivered: "Impactor" at approximately 15:30 by Phenco via semi flat bed tractor trailer.

Visitors: None

Signature: 

Field Rep Sarah Ganswindt
Position Environmental Technician
Company **Natural Resource Technology**

Equipment: Soil scale, Digital Camera

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Tues. 12/05/00

Arrival Time	7:45	Weather		PM
Departure Time		Temp	8 deg F	
Total Hrs at Site		Baro		
Travel Time		Wind		10.5 m/s
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Air sampling at all 4 locations
- When I arrived noticed DCI plant not running due to water line freezing
- Sampled PST-05 and PRE-[1205]
- At CAMP stations had problems with wind tipping over PUF and TSP samplers. Tied them to fences.
-

Field Rep Heather Simon

Position Field Engineer

Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Wed. 12/06/00

Arrival Time	8:00	Weather		PM
Departure Time	17:00	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Removed air samples from all 4 stations.
- No problems occurred today.
- Sent air samples to Air Toxic and Data Chem.

Field Rep Heather Simon

Position Field Engineer

Company Natural Resource Technology

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 12/07/00

Arrival Time	7:30	Weather		PM
Departure Time	6:30	Temp	10	
Total Hrs at Site	11	Baro		
Travel Time	2.0	Wind		
Mileage	130 on own car	Precip.		

Summary of field engineering services and/or description of work performed .

- Started air samples at all 4 locations
- Treatment plant running
- Collected PST-06 sample
- Screening slow, was down for a couple hours to get parts.

Field Rep Adam Shingledecker

Position Hydrogeologist

Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: 12/08/00

Arrival Time	7:15	Weather		PM
Departure Time	6:45	Temp	10	
Total Hrs at Site	11.5	Baro		
Travel Time	2.0	Wind		
Mileage	See 12/8/00	Precip.		

Summary of field engineering services and/or description of work performed .

- Removed air samples from all locations
- Treatment plant running
- Collected PST-07 sample
- Screening plant having difficult screening, Steve shut down plant, figured out a plan to get heat onto the screen, sent guys back to Somers shop to get materials

Field Rep Adam Shingledecker
Position Hydrogeologist
Company **Natural Resource Technology**
Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: December 9, 2000

Arrival Time	7:00 am		AM	PM
Departure Time	1:15 pm	Weather	Overcast	Overcast
Total Hrs at Site	6.25	Temp	10 (F)	10 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Onsite, Somer's is currently excavating south side of site in EZ-1. NRT ordered truck tickets From the Landfill which were shipped over night to Connie L (WPSC) to be signed for landfill Disposal of site debris. Per SLF also be concerned that no contamination reaches river during Excavation practices. WW thermal treatment will begin when Dust Coating has approximately 20 tons onsite, currently Somer's is screening at WW. Per SLF, site should be monitored with A PID during excavation practices, during this time (in the work zone and backround readings) Did not exceed 0.03. Per Somer's, enough soil (approximately 500,000 tons) had been Excavated and will continue on Sunday to excavate soil to keep Dust Coatings up and running.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: December 10, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	3:00 pm	Weather	Overcast	Overcast
Total Hrs at Site	7	Temp	20 (F)	20 (F)
Travel Time	1.5	Precip	Snow previous night	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Down time at Camp Marina and Wildwood sites included repair of screener at the WW facility. Dust Coatings did not run at all the previous day. EZ-1 is finished graded to –1 and as staked Out by SLF. Somer's was able to repair the screening plant by 11: 00 am. SLF also requested A recount of the sheet pile inventory as none of the inventory lists match at present. NRT also Took PID readings in the work zone as well as backround readings. No PID reading exceeded 0.03 in either zone at any time. It appears that the truck driver performing the excavation work Removed a well in the GZ-5 work zone. MW-707 no longer exists. PZ-703 is missing the Protective cover but other wise appears undamaged. Site work and excavation ended at Approximately 3:00 pm today.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Mon. 12/11/00

Arrival Time	8:30	Weather		PM
Departure Time	16:30	Temp	5 deg F	
Total Hrs at Site	9	Baro		
Travel Time	3.25 hours	Wind		gusty
Mileage		Precip.	snow	

Summary of field engineering services and/or description of work performed .

- Took work zone air samples at Wildwood
- Somers shut down operations at Campmarina due to bad weather
- Sheboygan called a snow emergency at 4pm. In 24 hours Sheboygan received 8 inches of snow.
- DCI ran from Sunday morning to yesterday 5 pn due to no soil to treat
- PST-08 was sampled and sent to Northern Lakes

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: December 12, 2000

Arrival Time	8:15 am		AM	PM
Departure Time	4:15 pm	Weather	Overcast	Overcast
Total Hrs at Site	8	Temp	10 (F)	10 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Baknote-Blizzard the previous day (Monday) and no site work was performed. Dustcoatings Was operating till 5:00 pm the previous day. Onsite at Camp Marina, Phenco is welding foot Plates and Somer's is excavating in GZ-5. Site activities at Wildwood include Dustcoatings Is burning CM soil and Somer's is screening the material. At CM, EZ-1 is completed, GZ-5 Is continuing to be excavated, Rettler and the concrete pour are on hold due to site conditions And weather, and the site is being cleared from the snowfall the previous day. 2 trucks are Currently onsite to be going to landfill and Gerry (WPSC) delivered landfill tickets from Connie (WPSC). In the northeast quarter of excavating zone 1 a brick wall was discovered. SLF Requested that SAG check tonage and do not over excavate. NRT and Somer's also checked Grades in EZ-1 and GZ-5 and grades which were recorded by Somer's matched plan grades.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Tue. 12/12/00

Arrival Time	7:45	Weather		PM
Departure Time		Temp	8 deg F	
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.	snowed after 15:00	

Summary of field engineering services and/or description of work performed .

- DCI up and running at 10am due to minor start up problems due to the cold weather
- All 4 air stations running
- Real time air sampling done
- PST-06, PST-07 staked green waiting on PST-05 for us to combine cleared piles..
-

Used sensidyne pump, PID and PS-1

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Wed. 12/13/00

Arrival Time	8:00	Weather	clear	PM
Departure Time	16:30	Temp	10 deg F	
Total Hrs at Site	8.5	Baro		
Travel Time		Wind		
Mileage		Precip.	snowed after 15:00	

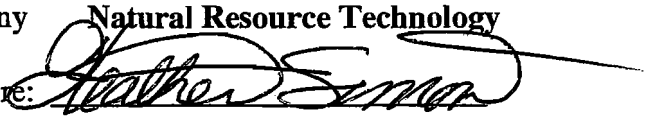
Summary of field engineering services and/or description of work performed .

- Contractor's meeting
- PST-05 passed (cleared)
- CAMP 2 electricity tub turned off late last night 12/12/00 ~21:00.. Possibily due to cold weather
- CAMP 1 and CAMP 2 summa's voided due to zero pressure in canister.
- DCI low on screened material to treat due to Somers equipment problems. Screen started up at 16:00

Field Rep Heather Simon

Position Field Engineer

Company **Natural Resource Technology**

Signature: 

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Project No: **1313**
Client: **Wisconsin Public Service Corp.**
Location: **Sheboygan**
Contractor: **Sommers Aggregates, Inc.**
Day – Date: December 13, 2000

	AM	PM
Weather	clear	snowing
Temp	0	15

Precip	0.1"	Wind	N @4mph

Arrival Time:	0715
Departure Time:	2000
Total Hours at Site:	11.75
Travel Time:	1.25
Mileage:	75

Summary of field engineering services and/or description of work performed.

Activities today included continued excavation/grading of GZ-5 and transportation of excavated soil to Wildwood site for screening and thermal treatment. Screening plant down today until approximately 2:30 pm. Excavation and screening will proceed until after dark in order to provide sufficient screened material for thermal treatment. All excavated/graded material so far is contaminated, although we are at the western half of GZ-5. Attended progress meeting at 10:30.

At 2:30 pm conference call with Frank and Larry from Dustcoatings, Inc. They wanted opinion on progress toward larger stockpile. DCI's screening plant may be used (Somers to pay bill). Additional soil will be stockpiled for screening at the end of the excavation day, and will be screened into the evening. Approximately 200-300 tons of soil may be stockpiled at Wildwood in a "prescreening" pile. Approximately 21 sheets were driven today, the first day of sheet pile driving. Began near intersection of panels X and IX. Piles #13 and #17 were ~2 feet short of planned elevations but also ~2' below minimum key depth. Probable obstructions: boulders.

Visitors:

Field Rep Spiros L. Fafalios
Position Project Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Thrus. 12/14/00

Arrival Time	7:10	Weather	AM	PM
Departure Time	17:45	Temp		
Total Hrs at Site	10.5	Baro		
Travel Time	1	Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- CAMP 2 air samplers had no power. Tripped switch on power tub, PUF running but the TSP motor was not running. Voltage regulator and counter was working.
- Replaced motor on TSP at CAMP 2
- Real time air sampling done at both sites
- Collected PST-09 sample

Field Rep Adam Shingledecker
Position
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Project No: **1313**
Client: **Wisconsin Public Service Corp.**
Location: **Sheboygan**
Contractor: **Sommers Aggregates, Inc.**
Day – Date: December 14, 2000

	AM		PM
Weather	clear		snowing
Temp	0		15
Precip	0.1"	Wind	N @4mph

Arrival Time: 0645
Departure Time:
Total Hours at Site:
Travel Time: 0.25
Mileage: 5

Summary of field engineering services and/or description of work performed.

Activities today included continued excavation/grading of GZ-5 and transportation of excavated soil to Wildwood site for screening and thermal treatment. Screening plant operating today as of 8:00 am. Excavation and screening will likely proceed until after dark in order to provide sufficient screened material for thermal treatment. All excavated/graded material so far is contaminated, although we are at the western half of GZ-5. sheets were driven today, the second day of sheet pile driving. Wayne Yeaman from C3 Group is monitoring all sheet pile driving activities. Today, need to: determine sample locations for EZ-1, locate first turnpoint with Wayne as surveyed, measure off EZ-1 LLDPE with Canamer, finish CQA plan, and provide tour to WPS personnel at Wildwood for Mary/Dick's retirement party.

Field Rep: Spiros L. Fafalios
Position: Project Engineer
Company: **Natural Resource Technology**
Equipment:
Materials Delivered:
Signature:

Visitors:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Fri. 12/15/00

Arrival Time	7:00	Weather	clear	PM
Departure Time	17:30	Temp		
Total Hrs at Site	10.5	Baro		
Travel Time	2.5	Wind		
Mileage	Green Van	Precip.		

Summary of field engineering services and/or description of work performed .

- Removed samples for Air monitoring equipment early to help with oversight at the Campmarina site
- Spiro and Adam marked the excavation at the Wildwood site
- Sampled PST-10 and PST-11 and sent to Northern Lakes
- Sampled from EX-1 at Campmarina and sent five samples from EX-1 to R.E.L along w/ PRE-[12/12]
- Excavator was moved to the Wildwood site for the weekend

Field Rep Adam Shingledecker

Position

Company **Natural Resource Technology**

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Sun. 12/17/00

Arrival Time	7:00	Weather	AM	PM
Departure Time	16:15	Temp	15/-10 w/ wind chill	
Total Hrs at Site	9	Baro		
Travel Time	1.0	Wind	gusty	
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- DCI was shut down at arrival
- Took pictures of the wildwood excavation around MW-509
- Screening was extremely slow because of weather conditions
- Dan (somers) was going to excavate the contaminated stockpile from parking lot first then move to the second half of the excavation around MW-509.
- The excavation material needed to be mixed with Campmarina soil at the screening plant due to the high concentration of cyanide at Wildwood.
- After lunch Dan stopped hauling soil to the screen and sent the driver home.
- Somers would work until 17:00 on screening soil
- DCI started to fire up the treatment plant at 15:00
- Sampled the excavation around MW-509. Seven samples were taken from the side walls and two on the base.

Field Rep Adam Stringledecker

Position

Company **Natural Resource Technology**

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 12/18/00

Arrival Time	7:45 am		AM	PM
Departure Time	11:45 am	Weather	Overcast	Overcast
Total Hrs at Site	4	Temp	20 (F)	20 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Site activities: Phenco on site driving sheet pile, C3 Environmental is also at the Camp Marina Site overseeing sheet pile panel installation. Screener (Somer's) is currently not running at this Time. Belt is broken and material is freezing on the screen. Low boys will be at the Wildwood Site to pick up heavy equipment to return to Camp Marina to continue site activities. Heavy Equipment was brought from CM to WW over the weekend to use for a excavation south of the WW trailer. It appears at present (per AAS) that 3 wells are now damaged at CM as well as One at the WW site. 4 trucks are currently running debris to Hickory Meadows Landfill. At 10:00 am, all trucks will make one additional trip to the landfill and call it quits for the day Due to hazardous weather conditions which have developed. (blizzard and white out driving Conditions on roads.)

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep Sarah Ganswindt
Position Environmental Technician
Company **Natural Resource Technology**
Signature: Sarah Ganswindt

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Mon. 12/18/00

Arrival Time	6:50	Weather	AM	PM
Departure Time	18:00	Temp	10 deg F	
Total Hrs at Site	11	Baro		
Travel Time		Wind		
Mileage		Precip.	heavy snow	

Summary of field engineering services and/or description of work performed .

- Trucks (4) hauled debris from the sockpile near MW-03
- A total of 12 loads were removed between stockpile and screening debris.
- Excavator was taken back to site at 10 am.
- PST piles 9, 10, 11 were cleared.
- Somers flattened PST piles at 15:00.
- Gave key to Joe(C3) for Campmarina job trailer
- Jim Baxter from Data Chem called to say that the air samples would not arrive until 9:30 am on Tuesday.
- Also ordered samples for the week of the 26th.
- DCI started up the plant they will be done with PST-13 around 1am the 19th.
- Real time air sampling was done at wildwood only.

Field Rep Adam Shingledecker
Position
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 12/19/00

Arrival Time	8:30 am		AM	PM
Departure Time	4:45 pm	Weather	Partly sunny	Partly sunny
Total Hrs at Site	8.25	Temp	20 (F)	15 (F)
Travel Time	1.5	Precip	Light snow	None
Mileage	100	Wind	NW	NW

Summary of field engineering services and/or description of work performed .

Site activities included: Backnote: approximately 15 inches of snow fell the previous day. Dustcoatings is currently running and Somer's is continuing to screen at the Wildwood (WW). C3 Environmental (C3) is currently on site at the Camp Marina (CM) site as QA/QC for sheet Pile installation. At present, there is 200 tons at the WW facility to treat. 1 truck is currently Hauling soil to WW. GZ-7 is being excavated starting at the fence at the north end of the Property along the boat house property line. Material at the base of GZ-7 and throughout the Excavation appears to be dirty. (approximately 6500 tons is to be removed from this area.) After GZ-7 is completed, the rip rap and materials will be moved from GZ-6 to GZ-7 so GZ-6 May be excavated. 4 trucks are currently onsite-2 will go to Hickory Meadows Landfill (HML) And 2 trucks will go to WW to run soil to the screener. Quite a lot of debris was found at the North end of the excavation zone including bottles, bricks, and boulders. Spoke with Tom (C3 Environmental)-Phenco ended with sheet pile panel #142 on December 18, 2000, (as the Sheet pile panels were numbered by C3, starting with #1 at the north end of the site and heading South along the river). On December 17, 2000, Phenco ended with sheet pile panel #134, so On December 18, 2000, only 8 sheet pile panels were installed. NRT also received more HML tickets, which NRT labeled-starting with #175 and ending with #218, for a total of 43 Tickets which were received. Somer's and Phenco continue to shoot grade on GZ-7 and Sheet pile wall. Somer's is currently at sheet pile panel 60 (1430 military time) and there is Quite a bit of debris in this area, although not man made (bricks, bottles) (sheet pile panel 60 is Located across from the onsite concrete wall that is being saved). At 1650, Phenco is offsite For the holidays and will return the first week of January 2001. A cooler of bottles was Located near the heater in the CM trailer and upon entering trailer, it appeared that the cooler

Daily **Field Report**

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Had been leaning against the heater and started to melt. NRT removed the cooler and it is now Being stored outside the CM trailer.

Sketch: Scale:

Field Rep Sarah Ganswindt
Position Environmental Technician
Company **Natural Resource Technology**

Signature: Sarah Ganswindt

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Tues. 12/19/00

Arrival Time	6:40	Weather	AM	PM
Departure Time	18:30	Temp	5 deg F	
Total Hrs at Site	11.25	Baro		
Travel Time	0.75	Wind		
Mileage		Precip.	Snow	

Summary of field engineering services and/or description of work performed .

- DCI down at 9:15 due to a broken belt. Started back up at 13:00.
- DCI running low on soil.
- 5 trucks went to landfill.
- Air sampling
- The TSP sampler at CAMP 2 was calibrated using the replacement motor at the wildwood trailer.
- There was no power to the CAMP 1 station. The extension cord was unplugged.
- There was no PUF media to sample CAMP 1 today.

Field Rep Adam Shingledecker
Position
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Wed. 12/20/00

Arrival Time	7:30	Weather	AM	PM
Departure Time	4:15	Temp	0 deg F	
Total Hrs at Site	8.75	Baro		
Travel Time	2.0	Wind		
Mileage		Precip.	Snow	

Summary of field engineering services and/or description of work performed .

- Removed air samples from 12/19/00
- Sampled PST-14 and shipped to Northern lake Services

Field Rep Adam Shingledecker
Position
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW**
Project No: **1313**
Client: **Wisconsin Public Service Corp.**
Location: **Sheboygan**
Contractor: **Sommers Aggregates, Inc.**
Day – Date: December 20, 2000

	AM	5:30 PM
Wind		SSW@12kts
Temp		18*F
Baro.		29.97
Precip.	none	snow
Cmnts	cloudy	6-10" poss.

Arrival Time:	0700
Departure Time:	1800
Total Hours at Site:	11
Travel Time:	0.25
Mileage:	5

Summary of field engineering services and/or description of work performed.

Activities today included continued excavation/grading of GZ-7 begun Tuesday and transportation of excavated contaminated soil to Wildwood site for screening and thermal treatment. Excavation and screening done at around 5:00 p.m. today, with more than sufficient pretreatment pile for DCI to complete operations tomorrow afternoon. All excavated/graded material so far is contaminated. This is the sixth day of sheet pile driving. Adam sampled pretreatment pile today, sent air samples from Wildwood to air labs. Joe here from C3. One obstruction noted for yesterday, sheet 143. Short of design depth by 4 feet, however it is below the minimum key depth. Tim from Phenco said that 3 hours was spent on the obstruction and that 2 hours will be billed separately. I asked Steve from Somers for rates. I collected one sample for PID screening from GZ-7 approximately 30' east of the sheet pile wall and 130' south of north sheet pile wall, and 2 feet deep. PID was calibrated today at noon. Results of screening indicate 8.3 instrument units. Therefore, likely to be contaminated although soil appearing to be clean to the east (away from river). Asked SAG to segregate soil for transportation to Wildwood for fill sampling. DCI will go down tomorrow for the weekend. Work zone and perimeter (Camp2, Wild2) real time monitoring yielded 0.0 on PID and ND for all 3 tubes at each location.

Visitors: Jo Anne Templeton, Superior

Field Rep Spiros L. Fafalios
Position Project Engineer
Company Natural Resource Technology
Signature

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 12/21/00

Arrival Time	8:00 am		AM	PM
Departure Time	12:15 pm	Weather	Overcast	Overcast
Total Hrs at Site	4.25	Temp	5 (F)	10 (F)
Travel Time	1.5	Precip	None	Light flurries
Mileage	50	Wind	NW	NW

Summary of field engineering services and/or description of work performed .

Site activities include: Dustcoatings shutting down the Wildwood (WW) at approximately 12:00 p.m. Somer's is continuing to excavate GZ-7. 1 dump truck is going to WW screener And 5 trucks area going to Hickory Meadows Landfill to dispose of excessive debris Accumulated from the Camp Marina (CM) site. Snow removal and site clearance is an issue as Snow has accumulated onsite from previous snowfall and Somer's is clearing (CM) site to Alleviate site excavation interference and health and safety issues. Following completion of Site activities, and per REW (NRT), SAG will check and secure CM for down time during Extended departure of the CM site due to holiday activities.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Thrus 12/21/00

Arrival Time	7:30am	Weather	Clear	sunny
Departure Time	3 pm	Temp	16 deg F	
Total Hrs at Site	7.5	Baro		
Travel Time		Wind		
Mileage		Precip.	snow early morning	

Summary of field engineering services and/or description of work performed .

- DCI running this morning until 11:30. They shut down after a pile was completed for the holiday weekend. They will not be here tomorrow and next week.
- Sampled PST-15 sent it to Northern Lakes
- Somers left around 11:45 this morning to head home for the holiday weekend.
- Air samples running today
- Only sampled real time air at Wildwood never made it to Camp before Somers left.

Used PS-1,sensidyne pump and PID

Field Rep Heather Simon

Position Field Engineer

Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Fri. 12/22/00

Arrival Time	8:00	Weather		PM
Departure Time	11:00	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Removed air samples from all 4 stations
- Left site early for X-mas vacation.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 12/26/00

			AM	PM
Arrival Time	8:10 AM			
Departure Time	4:30 PM	Weather	Overcast	Overcast
Total Hrs at Site	8.25	Temp	14 (F)	16 (F)
Travel Time	1.5	Precip	None	Few flurries
Mileage	50	Wind	8 Knots NW	8 Knots NW

Summary of field engineering services and/or description of work performed .

Site activities included continue excavation in GZ-7 to plan grade. If at all possible, separate any Clean material from obviously contaminated material and stock pile at Wildwood (WW) in a Clean area for analytical testing. 2 trucks are being utilized for debris removal at WW from the Sommers screening plant. All soil which was previously excavated the previous Thursday was screened leaving no soil onsite which needed to be tarped. 2 trucks which were loaded previous To NRT's arrival were deemed as clean, although upon further inspection by Sommers, it was Removed to an area to be screened as it appeared to be contaminated. The start of today's Excavation was started at the sheet pile wall numbered #181. NRT also requested that Sommers Set up the laser and shoot grade to insure that plan specifications were met. Additional Information requested by SLF (NRT) was to record any sheet pile panels which were set above Requested grade (obstructed by objects below ground surface). NRT recorded these panels as: 147, 149, 151, 177 and 187. Phenco's final sheet pile panel which was installed before departing Site was #189. A representative of Phenco was also onsite to inspect the temporary sheet pile Wall which, according to Sommers, in some areas, is 3/8ths out of alignment in various areas. As Sommers continues to excavate throughout the day, it appears that a strata of coal tar exists Below ground surface approximately 4-6 feet and is through out the area being excavated, The stratum varies in depth from 1-3 feet with little or no coal tar at times. At the conclusion of The day, Sommers ended with an area which contained an area of obvious coal tar. The area Will be further excavated on 12/27/00 to determine possible depth and length of the area of Contamination. SLF will be onsite 12/27/00 for site activities.

Sarah Garsmundt

DAILY FIELD REPORT

Natural Resource Technology
N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Wed. 12/27/00

Arrival Time	8:00	Weather	Sunny	PM
Departure Time	17:00	Temp	0 deg. F.	
Total Hrs at Site	9.0	Baro		
Travel Time	2.0	Wind		
Mileage	Green Van	Precip.		

Summary of field engineering services and/or description of work performed .

- Removed high volume air sampling media.
- Conducted personal real time air monitoring
- Collected PRE-[12/27] sample pickup R.E.L for PRE-[12/21] and PRE-[12/27]
- Weekly meeting

Field Rep Adam Shingledecker
Position
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: December 28, 2000

Arrival Time	8:00 am		AM	PM
Departure Time	4:30 pm	Weather	Overcast	Overcast
Total Hrs at Site	8.50	Temp	9 (F)	9 (F)
Travel Time	1.5	Precip	Light Snow	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Tickets for landfill ended with #218 and 50 more were issued. 4 trucks are currently going to Landfill with debris. 2 trucks are transporting excavated soil. Snow removal is currently taking Place with the snow being stockpiled at north and south end of the site. Snow in area of Boathouse outside site limits will be transported to WW for stockpileing. Site activities include Continuing to grade –starting with GZ-5, however some work was done in GZ-6 the previous Day. Excavation was as follows: Tues-excavation start at sheet pile panel #85 (1 +50) And ended at sheet pile panel # ?, Wes-excavation start at sheet pile panel #? And ended at sheet pile panel # 129 (2 + 50), Thurs excavation start at sheet pile panel #129 (2 + 50) and ended at sheet pile panel # 161 (2 + 80). Thursday excavation started in EZ-1 near Sheet pile wall and started the excavation in GZ-5 along east portion (south side of site) along Temporary sheet pile wall. 2 loads of basecourse were brought to the site in addition to site Excavation activities. Somer's is also excavating at the north end of the site near the boathouse Removing large concrete pad, which was in the way of the grader. Also starting to grade along River. Somer's previously shot grades and were marked on lath and NRT will shoot with Somer's survey equipment to confirm elevations. One more load of base coarse was brought on Site before the conclusion site work for day. At the conclusion of the day, GZ-7 was scraped of Snow and graded per plan grade then a basecourse ramp was added and now using material Excavated from GZ-5 to backfill areas where concrete abutments were removed earlier in the Day. Soil use in that area was approved by SLF, NRT.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Thrus. 12/28/00

Arrival Time	8:45am	Weather	AM	PM
Departure Time	3:15pm	Temp	20 deg F	
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.	Snow	

Summary of field engineering services and/or description of work performed .

- DCI still on vacation
- Somers screening pretreated soil.
- Took Air samples at all 4 locations, and real time air sample
- At the wildwood screening plant HCN detector tube read 0.2 ppm. Collected another HCN tude to verify, which came out non-detect.
- Ordered 5 PUF and 13 TSP

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: December 29, 2000

			AM	PM
Arrival Time	8:30 am			
Departure Time	2:30 pm	Weather	Overcast	Overcast
Total Hrs at Site	6	Temp	23 (F)	20 (F)
Travel Time	1.5	Precip	Snow	None
Mileage	100	Wind	East 17 knots	East 17 knots

Summary of field engineering services and/or description of work performed .

Site activities include continue to excavate GZ-5, (near sheet pile wall), to plan grade, and Compact GZ-7 with roller. Shoot elevations in GZ-5 and GZ-7 to establish proper plan grades. (and check) Deliver a load of basecourse to site, and construct a basecourse staging area 50 x 50 At the north end near the entrance to the site. Per Steve Dobeck, NRT will check prebasecourse Grades before laying the basecoarse. Grades are now written on lath.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Friday, 12/29/00

Arrival Time	8am	Weather	AM	PM
Departure Time	3pm	Temp	22 deg F	
Total Hrs at Site	7 hrs	Baro		
Travel Time		Wind		
Mileage		Precip.	Snow	

Summary of field engineering services and/or description of work performed .

- DCI not operating; on vacation until next week.
- CAMP2 air station (PUF & TSP) were turned off due to breaker on yellow tub was off . The sample was on for only 6 hours.
- Sampled pretreated pile PRE-[1229]
- Weight tickets arrived started with 269 ended at 328.
- Ordered 21 TSP from Data Chem and 8 PUF from Air Toxics

Used PS-1, sensidyne pump, PID

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: January 02, 2000

Arrival Time	7:45 am		AM	PM
Departure Time	4:45 pm	Weather	Sunny, cold	Sunny, cold
Total Hrs at Site	9	Temp	2 (F)	0 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Site activities include: 4 trucks are currently delivering site debris to landfill, 1 truck is onsite For soil excavation, sheet pile excavation, start excavation in GZ-6 in south portion of property (east side) Dustcoatings is onsite at WW, and C3 Environmental is onsite. Continue to Excavate GZ-6 east side of CM, ½ way in between sheet pile wall and concrete wall. Snow Obstruction is making site difficult to negotiate. At start of afternoon, 2 trucks are now Running site to site. Somer's noticed a grade plan was wrong and NRT contacted SLF To confirm grade plan grade. Start of sheet panel today was #189 and 13 sheets were sowed.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: 1/2/01

Arrival Time	8:00	Weather		PM
Departure Time	16:30	Temp		
Total Hrs at Site	10.5 hours	Baro		
Travel Time	1.5 hours	Wind		
Mileage	Green Van	Precip.		

Summary of field engineering services and/or description of work performed .

- Air Toxic samples arrivied at 8:30
- Did not have enough TSP samples to run on all stations. SLF advised me to put on samples on all but the WILD1 station
- TSP motor on the CAMP2 was not working after the power tub turned back on. The TSP sample for CAMP2 was moved to the WILD1 station
- Cherokee will be sending a new TSP motor by the 3rd
- Shipped out air samples from 12/29

Field Rep Adam Shingledecker
Position Field Engineer
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Wildwood**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 1/3/01

Arrival Time	7:45	Weather		PM
Departure Time	18:45	Temp		
Total Hrs at Site	12.25 hours	Baro		
Travel Time	2.5 hours	Wind		
Mileage	Green van	Precip.		

Summary of field engineering services and/or description of work performed .

- Received motor from Cherokee, TSP samples from Data Chem
- Took notes during weekly meeting
- Re-calibrated the TSP sampler from the CAMP2 station
- Checked sheetpile wall elevations with SLF and C3
- E-mailed tonnage tables to SLF

Field Rep Adam Shingledecker

Position Hydrogeologist

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: January 4, 2001

Arrival Time	8:00 am		AM	PM
Departure Time	4:45 pm	Weather	Sunny, cold	Sunny, cold
Total Hrs at Site	8.75	Temp	16 (F)	12 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind		

Summary of field engineering services and/or description of work performed .

Previous site activities include: flowable fill poured December 29, 2000, 12 oz non woven fabric Installed in EZ-1 and Dig and haul soil to WW from GZ-6. At present, excavation, hauling and Screening from GZ-6. Haul large debris to landfill with a tub truck and a 20 ml liner will be Installed in EZ-1 and backfilled. Per site plans, the water line at CM is approximately 75 Inches in diameter and 6 feet below ground surface. Somer's needs to locate the water line so It can be moved because of conflict with sheet pile installation. C3 Environmental needs water For flushing the sheet pile wall. City of Sheboygan on/offsite after marking utilities. Belt at WW is broken and Somer's is trying to locate another belt. 1 dump truck is running site to site At present. Dustcoatings is not yet running. Tub truck is currently onsite to remove site debris, C3 Environmental is discussing water line relocation w WPSC and NRT. C3 is currently Trying to locate a plumber for site work. Per SLF, how many sheet pile panels were not Driven to key depth. #203-2 feet short of key depth, #200-1 feet short of key depth, #177-1 foot short of key depth, #187-2 feet short of key depth. Per WPSC Dale Wiley, a Gas line does not run into site near water line per site plan, which he reviewed. Also Documented coal tar location SLF noted previous day. Remove structure but don't over Excavate. Somer's is running 5 trucks from WW to landfill as well as tub truck from CM To remove site debris. Somer's is currently breaking up site debris with a backhoe. Belt at WW screener is being repaired and Dustcoatings is up and running. Sheet pile panels 234, 235 and 236 cannot be driven to key depth. Sheet pile 200, 203 and 187 were driven to Key depth. Site problems with sheet pile include refusal, and out of plumb due to soil conditions And obstructions. C3 stated 31 sheet pile panels were sowed on Wednesday. Jan 2-sheet panel Start 189, sowed 13, ending at 302, Jan 3, start 202 and sowed 31, ending with 233 and Jan 4 Start 233 panel and end at 245 sheet panel. 237 and 242 sheet pile panels continue be a problem As they could not be driven to key depth. Somer's is now bring thermal treated soil onsite

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

To use in EZ-1 to secure fabric. Fabric was laid in EZ-1, plastic over the top with thermal Treated soil overlaid on the plastic and keyed in to other grading zones.

Sketch: Scale:

Field Rep _____

Position _____

Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Thrus. 1/04/01

Arrival Time	8:00	Weather		PM
Departure Time	16:00	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Sampled air for BTEX, PAH and TSS at all 4 locations.
- Took PRE[0104] soil sample.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: January 5, 2001

Arrival Time	7:45 am		AM	PM
Departure Time	4:15 pm	Weather	Overcast	Overcast
Total Hrs at Site	8.5	Temp	20 (F)	15 (F)
Travel Time	1.5	Precip	None	None
Mileage	100	Wind	20 mph	20 mph

Summary of field engineering services and/or description of work performed .

Onsite activities include Phenco driving sheet pile, basecourse is being delivered to site to be Stockpiled, continue to excavate GZ-6, stock pile basecourse, tub truck is continuing to remove Debris from CM, trucks are running site to site (2), 3 trucks will be running from WW to Landfill, grade EZ-1, sheet pile panel will start with panel number 245, downtime previous day With Phenco was a line break and repairs, Miller Engineering onsite for compaction testing in In EZ-1. Somer's previously compacting area. Miller stated that all areas passed the compaction Test. HMS onsite to sample area in concrete retaining wall area for clean sample. Well 702 was Destroyed, and Phenco is currently sowing sheet pile panel 287 which is the last 30 foot sheet Pile panel. Somer's is also having problems with frost throughout excavation zones and Breaking up frost with frost ball.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep _____

Position _____

Company Natural Resource Technology

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Fri. 1/05/01

Arrival Time	8:00	Weather		PM
Departure Time	16:00	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Removed air samples from all stations. WILD 2 summa canister was voided due to low pressure.
- Took PRE[0105] soil sample. PRE[0105] and PRE[0104] were submitted to R.E.L for analysis.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Project No: **1313**
Client: **Wisconsin Public Service Corp.**
Location: **Sheboygan**
Contractor: **DCL/Sommers Aggregate**
Day – Date: Monday, January 8, 2001

	AM	PM
Weather	Sunny	Sunny
Temp	10 (F)	16 (F)

Precip	None	Wind	NW

Arrival Time:	8:00
Departure Time:	5:00
Total Hours at Site:	10
Travel Time:	2.5
Mileage:	Green Van

Summary of field engineering services and/or description of work performed.

Packed and shipped air monitoring samples from last week.
Packed PRE sample for R.E.L. to be picked-up
Collected PST-17 and PST-18 from the DCL trailer
Checked Somers weight tickets and updated tonnage sheeets
Real-time air monitoring at 10:00 – All ND, 0.2 PID hit in the work zone
Remainder of day spent at Campmarina

Visitors: None

Materials Delivered:
Frost ball by Elders trucking

Signature:

Field Rep Adam Shingledecker
Position Hydrogeologist
Company **Natural Resource Technology**

Equipment:

DAILY FIELD REPORT

Page 2 of 2

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

The Campmarina Site:

11:00 – snow cleared from the hillside south of the building foundation and within, power tub moved closer to the trailer

Called Joann from Superior to get more manifests, she will send some with the truckers and some to Connie to be delivered by Dale

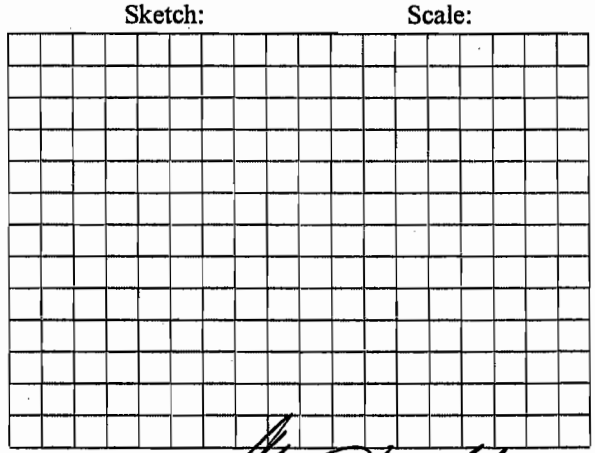
12:00 – Began to excavate behind the building foundation, water line had about 2" of concrete that was poured as a base

Water line was filled in with clean sand, outside of the sand the soil was relatively free of contamination, there was about a 2" layer of tarpaper and shingles at approximately 1.5' bgs. Soil excavated in front and behind the foundation was piled as clean

Dale, Jerry, Spiros, and Steve agreed on digging a trench to remove any obstructions along the sheetpile wall

2:30 – Phenco encountered an obstruction at sheet ?332?, Somers removed a large piece of concrete from just below groundsurface. Very strong odors were noted. Area was backfilled with structural fill from the corner of the property.

Sketch: Scale:



Field Rep Adam Shingledecker
Position Hydrogeologist
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Project No: **1313**
Client: **Wisconsin Public Service Corp.**
Location: **Sheboygan**
Contractor: **DCL/Sommers Aggregate**
Day – Date: Tuesday January 9, 2001

	AM	PM
Weather	Sunny	Sunny
Temp	10 (F)	16 (F)

Precip	None	Wind	NW

Arrival Time:	7:00
Departure Time:	6:15
Total Hours at Site:	11.25
Travel Time:	2.5
Mileage:	Green Van

Summary of field engineering services and/or description of work performed.

7:30 – Preped air samples for pplacement on monitors
8:00 – Dropped off jars for DCL
9:00 – No power at the WILD2 station, checked breakers and none were tripped, talked to Jerry in the warehouse, showed me were there was a switch in the breakroom that controled the power to the station, it was off, turned on and placed a piece of tape over it
9:30 – Moved power tub back to original location and restored power to Camp2 station
10:00 – Collected weight tickets from Somers along with the manifest for Dale to sign
- 3 trucks to landfill, 1 contaminated to WW,
1 clean to WW

Equipment:

Visitors: None

Materials Delivered:
Manifest tickets (20)

Field Rep Adam Shingledecker
Position Hydrogeologist
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Page 2 of 2

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

13:00 – Met with Dale to discuss trench for sheetpile wall then Biosparge well, deceied that we would did the trench for the sheetpile wall one bucket wide only in suspected places down to maximum of 9'. The biosparge trench would not be installed at this time.

13:30 – Met with Steve to go over sheetpile trench. Dale wanted to did on foot on the outside edge of sheetpile wall. Informed Steve that NRT wanted to stay on the wall line so that we did not place treated material outside of the wall. After digging we ended up staying one foot outside of wall because that is what dale wanted to do. This was alright with me because the soil we were taking out was much worst than the treated soil.

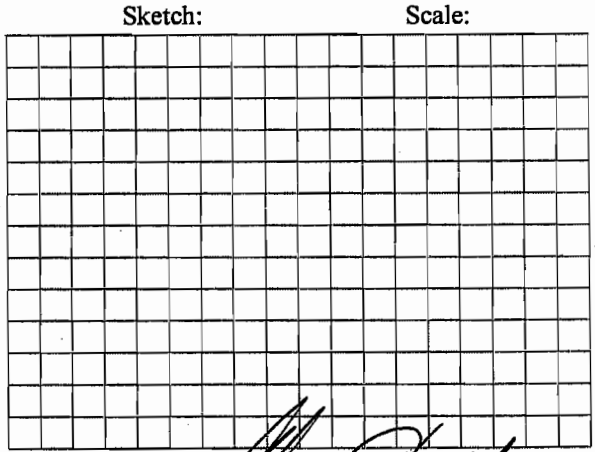
TRENCHING: trench began at about the +9 foot interval, the first 10' went well with native clay encounter at 2' down, then fill and old foundation was encountered for about 20', excavation had v. strong gas odor, trench went down to 4' at max depth, went another 20' without encountering any fill, end of day do to darkness

Real-time:

Wildwood all ND, 0.2 ppm in W.Z.

Campmarina all ND, 0.0 ppm

Sketch: Scale:



Field Rep Adam Shingledecker

Position Hydrogeologist

Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Wildwood**
Day – Date: Wed. 1/10/01

Arrival Time	8:00	Weather		PM
Departure Time	17:00	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Removed air samples from all stations. CAMP 1 summa canister was voided due to low pressure.
- Additional excavation was conducted at Wildwood near MW-503. One soil sample was collected on the northern wall (WEX-08).
- Excavation near truck scale and treated stockpiles was conducted (10'x10'x5').
- Four side wall samples and one base sample was collected from the 5 ft. deep excavation.
- All 6 samples were submitted to R.E.L for analysis.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Thrus. 1/11/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	17:30	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Placed only TSP samples at all four locations
- Needed results from Northern Lakes on PST-17 and PST-18 for the okay to haul to Camp
- 10am Rob w/ DCI said they would be done at 2 pm with 250 tons over pile PST-21
- Decided to sample PST-21 and combine PST-22 (1 am to noon) samples to have analyzed
- Sheet piles not making minimum depth: 396, 398, 400 and 409
- Somers placing treated soil along the river (inside the sheet piles) for backfill in low areas
- PST-17 and PST-18 piles cleared
- 4:15pm PST-21 arrived to Northern Lakes
- 4:30 DCI shut down plant.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Fri. 1/12/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	17:30	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Checked grades along the river edge inside the sheet pile wall
- All treated piles cleared today
- Completed Phase I grades

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Mon. 1/15/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	17:30	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Rained all weekend, the site is a mess. First foot of soil is mud.
- Today, backfilling river edge with structural fill.
- Started taking down PUF samplers today.
- Water line by retaining wall will be moved tomorrow
- Treated and Amended material sampled for pH and TOC

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Tue. 1/16/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	16:30	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Placed TSP samples on all stations
- Grades and sheet pile elevations along east wall are off. New sheet pile plan tomorrow.
- Checked grades along 1+00, they look good
- Started grading and backfilling with base course today
- While digging along the north side of retaining wall for the sheet pile wall to be place, blue stained soil noted on the outside the proposed sheet pile placement.
- Excavated contaminated soil was placed within the sheet pile wall.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather M Simon

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW**
Project No: **1313**
Client: **Wisconsin Public Service Corp.**
Location: **Sheboygan**
Contractor: **DCL/Sommers Aggregate**
Day – Date: Wednesday January 17, 2001

	AM	PM
Weather	Sunny	Sunny
Temp	10 (F)	16 (F)

Precip	None	Wind	NW

Arrival Time:	7:45
Departure Time:	4:45
Total Hours at Site:	10
Travel Time:	2.25
Mileage:	377 1/17-1/19

Summary of field engineering services and/or description of work performed.

Removed the TSP samples from all four stations
Met with Roy, Chris and Dale for site walk through
Weekly meeting at 10:15
13:45 – Reviewed southeast corner of sheetpile elevation, then confirmed height in field with Jeff (Phenco)
15:00 – Took pictures of the oxidation near water line
16:15 – water line inspected and approved
signed obstruction paper for the 10th
base was laided all day long

Equipment:

Visitors: None

Materials Delivered:

Field Rep Adam Shingledecker
Position Hydrogeologist
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Thurs. 1/18/01

Arrival Time	7:45	Weather	AM	PM
Departure Time	5:00	Temp	10	
Total Hrs at Site	9.5	Baro		
Travel Time	2.0	Wind		
Mileage	Green van	Precip.		

Summary of field engineering services and/or description of work performed .

7:45 - Cleaned at the Wildwood trailer for about half-hour
8:15 – Base coarse being placed at the Campmarina site, water line was backfilled when arrivied on-site and the power tub was moved back to its original location
- Steve said that they will be done by the end of the day
9:30 – Nick and Dan (Somers) covering the PST pile at Wildwood
12:00 – Sent last TSP samples
12:45 – Last load of base coarse delivered, this will be the final grade until Spring
1:30 – Began to bring back the TSP base units to the trailer
4:30 – Left site

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Friday 1/19/01

Arrival Time	7:15	Weather	AM	PM
Departure Time	2:00	Temp	10	
Total Hrs at Site	6.75	Baro		
Travel Time	2.5	Wind		
Mileage	Green van	Precip.		

Summary of field engineering services and/or description of work performed .

7:15 - Began packing air monitoring equipment
7:45 – Met with Spiros
8:00 – Met with Steve to do the Phase I walk through
11:00 – Shot the Phase I grades (+6") with Steve
12:00 – Packed the rest of the air monitoring equipment, and dropped off at the Complete Package
Left site at 2:00

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Mon. 1/22/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	16:30	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Pheno started driving sheet 464
- C-3 connecting hose for joint flushing, which started around 10:45
- Treated piles were covered with plastic.
- Sheet 474 hit an obstruction at 20 feet not sure what it could be, but we drove past it.
- Water came gusing out of joint 473/472. Cloudy, tan water, see photo. Steve called the City of Sheboygan to verify we didn't hit a pipe.
- The water leak through joint looks better.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Tue. 1/23/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	17:00	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Phenco cutting sheets along the south sheet pile wall. They left sheets 409, 400, 398 and 396 alone to drive further down
- No water running out of joint 473 this morning
- Grades are off in SE corner at sheet 413. Steve (Somers) will fix the grades in the spring.
- Sheets 409, 400, 398 and 396 won't go down further, therefore an impacter will have to be used on them.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature Heather Simon

DAILY FIELD REPORT

Natural Resource Technology
N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Campmarina**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Wed. 1/24/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	15:30	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Phenco struck concrete 4 feet down near the former water gas room. They removed concrete rubble, 2 foundation pieces and concrete wall. See photos.
- All soil was replaced into excavation. Rubble and concrete was hauled to landfill.
- Phenco cut sheets along east wall while they wait to drive.
- Flushing occurring today as well.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

`DAILY FIELD REPORT

Natural Resource Technology
N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Thurs. 1/25/01

Arrival Time	8:50	Weather	9:00 AM	1:00 PM
Departure Time	15:05	Baro.	30.40 (steady)	30.33
Total Hrs at Site	6 hrs 15 min	Temp	13.7*F	23.9*F
Travel Time	3.0 total	Cond's	Sunny	Sunny
Mileage	150	Wind	W @ 11 kts	SW @ 13 kts

Summary of field engineering services and/or description of work performed .

Inspected Campmarina site for progress since last site visit. Grading area where should be elev. 13 is about 2 feet shy. Steve Dobeck provided contractor submittal –schedule for phase II work. Steve wants to discuss work orders #3-6 that have not been approved with corresponding Change Orders. Also, steve would like to consider pre-excavation of area north of concrete wall. Obstacle removal time was 5 hours for foundation encountered yesterday. Unclear whether we should use treated soil as backfill in pre-excavated sheet pile alignment areas. I informed Steve That he should be there while Phenco determines elevation to cut wall, since plans are correct at this time. Change order for additional sheets to cut was agreed at 124. Collected compost sample as quartiled composite for TOC, pH, and moisture content. Sample will be picked up by Robert E. Lee on Friday. Informed Steve Dobeck that treated soil pile requires covering in some places, likely due to wind. Pile is about 90% covered now.

Field Rep Spiros Fafalios, P.E.
Position NRT Project Engineer
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Campmarina**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Fri. 1/26/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	14:30	Temp		
Total Hrs at Site		Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Started driving section III today. Sheets 595, 594 and 593 are 3-4 feet from design elevation, but are at the min. depth.
- No flushing joints today.

Field Rep Heather Simon

Position Field Engineer

Company **Natural Resource Technology**

Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Monday 1/29/01

Arrival Time	8:30	Weather	AM	PM
Departure Time	4:30	Temp	30 deg. F	
Total Hrs at Site	8	Baro		
Travel Time	2.5	Wind		
Mileage	Green van	Precip.		

Summary of field engineering services and/or description of work performed .

8:30 – When arrivied on-site sheets where being driven and flushing was in progress
8:45 – Bob (C3) dropped off the sheetpile summary for 528-599
9:00 – Faxed summary to Spiro
11:20 – Started to drive the 20' sheets and now running parallel with river
4:30 – Phenco done for the day

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Tues. 1/30/01

Arrival Time	7:45	Weather	AM	PM
Departure Time	4:45	Temp	35 deg. F	
Total Hrs at Site	9	Baro		
Travel Time	2.5	Wind		
Mileage	Green van	Precip.		

Summary of field engineering services and/or description of work performed .

8:00 – Phenco driving fast, hitting a lot of small obstructions deep that are twisting sheets
9:00 - Moved computer from Wildwood to the Campmarina trailer
10:30 – Took pictures of the large amount of water collecting a long the sheetpile wall
- Flushing going slightly slower than expected, some oil present on the inside of the sheetpile wall. I asked the flushers if the odor was giving them a headache and they said that they didn't notice it
12:45 – Phenco hit obstruction at approximately 8'-10' bgs, will have to hook up bucket to remove it
1:30 – Removing black bricks and other debris from the excavation. Had to make burm around debis pile in order contain the water that was runing off the pile.
2:00 – Noticed that the area being excavated had wooden side walls, then found the bottom of the structure. Excavation was a large rectangular pit about 10 feet wide, 25-30 feet long and about 15 feet deep.
2:30 – Phenco had trouble getting through the bottom
3:00 – Bottom of the pit was greater than one foot thick of timbers
- Jeff (Phenco) got a hold of Steve (Somers) who was on his way, said that trucks were on the way from Elders to haul over treated soil to backfill the pit
- Both short side of the retangle were removed but the 25-30' length sides were left in place
4:45 – Left site

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 31 Jan 01

Arrival Time	0845	Weather	10 AM	3 PM
Departure Time	1545	Temp	1.9*C	1.6*C
Total Hrs at Site	7	Baro	999.7 mBar	1003.5 mBar
Travel Time	3.0	Wind	WNW @ 5.1 kts	W @ 6.2 kts
Mileage	150	Comnts.	none	none

Summary of field engineering services and/or description of work performed .

Project meeting at 10:30 am. Summary to be found in project meeting notes (to be issued).
Measured out probable H-pile locations with Dale. Only marked (from north) piles 2, 4, 6, 8 & 9
Piles will be 15 feet apart, stakes were placed at approx. –1 MLE. From the sheet pile wall,
stake distances were (from north) 13', 13.5', 15', 12.5', and 10.5', respectively. Reviewed
Sheets requiring driving with hammer—so far only sheets 396, 398, 400 and 409 require this.

Based on progress made today, including pre-excavation of alignment of sheet pile (and
Landfilling of debris), and subsequent driving, should be complete with sheet pile wall by
Tomorrow.

Field Rep Spiro Fafalios, P.E.
Position NRT Project Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Thur. 02/01/01

Arrival Time	8:00	Weather		PM
Departure Time	17:00	Temp	22 deg F	0 deg F
Total Hrs at Site	9 hours	Baro		
Travel Time		Wind		
Mileage		Precip.		

Summary of field engineering services and/or description of work performed .

- Phenco driving the last sheets today. Started joining section I and X together around 10:45.
- The corner piece joint does not go with the adj. piece. The joints didn't match.
- Decided to curve section X wall out further to meet with sheet #1 to get an extra sheet to fit in the wall.
- Joining the last sheet into the wall was difficult. There was only 1 feet 10 inch space for a 2 foot sheet.
- There was 2-20 foot, 6-25 feet, 12-30 (95) feet and a right corner unused sheet left on site.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**

Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Fri. 02/02/01

Arrival Time	8:00	Weather		PM
Departure Time	10:30	Temp	-20 deg F w/ wind chill	
Total Hrs at Site	3.5	Baro		
Travel Time	1.25	Wind		
Mileage	72	Precip.		

Summary of field engineering services and/or description of work performed .

- Sheet 533 needs to go down 3 feet more.
- Phenco trying to drive the last sheet this morning.
- Sheets 747, 746 and 1 were unable to drive to min. depth with the Vibro.
- Too cold for flushing.
- Phenco will bring the hammer in on Monday to drive the 8 sheets down further, including 396, 398, 400, 409, 747, 746, and 1

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Mon. 02/05/01

Arrival Time	8:00	Weather		PM
Departure Time	10:00	Temp	33 deg F	
Total Hrs at Site	2	Baro		
Travel Time	3 hours	Wind		
Mileage	140	Precip.		

Summary of field engineering services and/or description of work performed .

- Phenco cutting sheets today. Hammer to drive the 8 sheets not available today.
- Two flushers working on the joints along the south river edge.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**

Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Thur. 02/08/01

Arrival Time	8:00	Weather		PM
Departure Time	18:00	Temp	37 deg F	
Total Hrs at Site	9.5 hours	Baro		
Travel Time	3	Wind		
Mileage	150 miles	Precip.	rain after 5pm	

Summary of field engineering services and/or description of work performed .

- Phenco drove 7 45' H-piles along the shore line for Outboard Club docks. Starting on the north end , placing each at 15 feet intervals from the center of each pile. They were able to drive them down only ~35 feet until they hit bedrock.
- Phenco cut the H-piles to +0.68 feet elevation.
- Phenco placed and staked 3 bales of hay along the sheet pile trench (parallel to shore line) for erosion control.
- I checked to see what monitoring wells I could find left on site including:
  - MW-704
  - MW-706
  - PZ-703
  - PZ-702

  I could not find MW-708, MW-709 and MW-705 due to snow.
- I measured the H-pile cutoffs starting with the farthest pile north pile #1
  - #1 – 9' 6.25"
  - #2 – 9' 1"
  - #3 – 11' 5"
  - #4 – 10' 9.5"
  - #5 – 9' 2"
  - #6 – 9' 10"
  - #7 – 9' 10"

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Mon. 02/12/01

Arrival Time	8:00	Weather		PM
Departure Time	17:15	Temp	37 deg F	
Total Hrs at Site	8.75 hours	Baro		
Travel Time	3	Wind		
Mileage	144 miles	Precip.		

Summary of field engineering services and/or description of work performed .

- C-3 (sheet pile CQA contractor) video taped 8 sheet pile joints today.
- I (HMS) chose the joints between every 50 sheets.
- Joints #270, #320, #379, #431, #481?, #213?,#166 and #114
- There were two men flushing joints today and one man cutting the final sheets to ground surface

Field Rep Heather Simon

Position Field Engineer

Company **Natural Resource Technology**

Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers, Boart Longyear** Day – Date: Wed. 2/21/01

Arrival Time	8:05	Weather	AM	PM
Departure Time	6:00	Temp		
Total Hrs at Site	10	Baro		
Travel Time	1.0	Wind		
Mileage	Gold Truck	Comnts.		

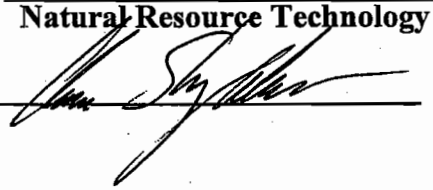
Summary of field engineering services and/or description of work performed .

Met with Boart Longyear and Sommers to go over schedule. Steve gave Boart Longyear employees H&S plan.
Boart began by attempting to flush well MW-704. Because of the bailer and amount of sand in the well this did not work. Boart had to over drill to abandon the well.
Steve (Sommers) attempted to excavate near MW-701/PZ-701, because of the thickness of the frost digging was very diffcult.
Water was encountered in the excavation due to a pipe that was struck. Sommers pumped approximately 150 gallons out of the pipe. Digging was postponed in the area until a larger piece of equiptment could be used.
Boart attempted to abandon well MW-703 but after drilling down 3 feet without encountering PVC the drilling was terminated. The rest of the abandonments were posponed until Sommers could get larger equiptment.
Boart installed well MW-707R, replacement for well MW-707. Top of screen 1 inch below ground surface.
Biosparge Well (BW) 08 was drilled and and filter pack sand was installed
PPUM began working on the fract tank.

Field Rep Adam Shingledecker

Position

Company **Natural Resource Technology**

Signature: 

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Boart Longyear**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Thur. 2/22/01

Arrival Time	7:00	Weather	AM	PM
Departure Time	6:15	Temp		
Total Hrs at Site	11.25	Baro		
Travel Time	0.0	Wind		
Mileage	Gold Truck	Comnts.		

Summary of field engineering services and/or description of work performed .

Grouted MW-08 first thing in morning
Boart having problems keeping the rig running.
PPUM still working on Fract tank
Completed BW-07 and BW-06

Field Rep Adam Shingledecker
Position
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Boart Longyear**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Friday. 2/23/01

Arrival Time	7:00	Weather	AM	PM
Departure Time	3:30	Temp		
Total Hrs at Site	8	Baro		
Travel Time	2.0	Wind		
Mileage	Gold Truck	Comnts.		

Summary of field engineering services and/or description of work performed .

Was told by PPUM that they would be done at 2:00 today.
Boart constructed de-con pad behind fract tank
Installed BW-05
Boart De-conning augers from entire week.
PPUM finished at 2:00. Boart pumped water from trucks into the tank. Three small leaks at the back end. Boart used Phenco's fork truck to lift the end so that the repairs could be made. Still some small leaks. Were sealed from the outside.
Boart pumped de-con water into tank.

Field Rep Adam Shingledecker
Position
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Boart Longyear** Day – Date: Mon. 2/26/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	6:15	Temp		
Total Hrs at Site	10.25	Baro		
Travel Time	1.0	Wind		
Mileage	Gold Truck	Comnts.		

Summary of field engineering services and/or description of work performed .

Boart arrivied on-site at 9:30 with two drill rigs.
Sean drilled BW-10 and BW-09 with Jeff
Brad drilled BW-04 and BW-03 with Jim
Todd developed the four Biosparge wells installed last week and MW-707R
After well installlation all augers were de-conned

Field Rep Adam Shingledecker

Position

Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Boart Longyear** Day – Date: Tues.2/27/01

Arrival Time	7:00	Weather	AM	PM
Departure Time	5:45	Temp		
Total Hrs at Site	10.75	Baro		
Travel Time	1.0	Wind		
Mileage	Gold Truck	Comnts.		

Summary of field engineering services and/or description of work performed .

Sean and Jeff (Boart) drilled BW wells 11,12, & 1
Brad and Jim drilled BW-02
Dave Morris (Boart) arrivied and drilled BW-13 and BW-14 with Brad.
Jim (Boart) developed wells from Monday
Steve (Sommers) was contacted during lunch to inform him that we would be done earlier than expected and that we would need to have the rock pile move on Wednesday morning.

Field Rep Adam Shingledecker

Position

Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Boart Longyear**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Wed. 2/28/01

Arrival Time	10:00	Weather	AM	PM
Departure Time	6:00	Temp		
Total Hrs at Site	8.0	Baro		
Travel Time	1.0	Wind		
Mileage	Gold Truck	Comnts.		

Summary of field engineering services and/or description of work performed .

Boart was just finishing on BW-16 when Adam arrivied on-site.
Chris (NRT) oversaw the installlation of BW-15 & BW-16 drilled by Dave and Jim
Sean and Brad left towards the end of the day once all development from Tuesday was finished.
During cleaning of BW-15 PVC casing was damaged causing grout to flow into inside of casing. Because of this the well had to abandoned and replaced. BW-15R was installed feet to the south/southeast parallel to the river.
A total of 5 wells were installed on Thursday BW-15,16,17,18 & 15R

Field Rep Adam Shingledecker
Position
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Boart Longyear**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Thur. 3/1/01

Arrival Time	7:00	Weather	AM	PM
Departure Time	5:00	Temp		
Total Hrs at Site	10.0	Baro		
Travel Time	1.0	Wind		
Mileage	Gold Truck	Comnts.		

Summary of field engineering services and/or description of work performed .

PZ-701 was extended and excavated area was back filled. The piezometer was jetted using the tremmie pipe and clean water from the line. The well was then pumped dry with the drill rig pump a few times producing very little water. After sitting four a couple of hours the well was pumped with a whaler.
Wells installed on Wednesday were developed by Boart and augers were cleaned
Fract tank began leaking when sun warmed up the side of the tank.
Chris (NRT) contacted Superior to deliver a new fracl tank to the site. It would arrive at 2:00
Boart left site at 2:00
Fract tank arrivied at 2:30. Helped trucker set down tank behind existing tank.
Pumped existing tank water into the new tank using Sommers trash pump and hoses.

Field Rep Adam Shingledecker
Position
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 4-2-01

Arrival Time	8:00	Time	9:00	14:00
Departure Time	16:00	Weather	OVERCAST	OVERCAST
Total Hrs at Site	8	Temp	33°F	46°F
Travel Time	2	Baro.	--	--
Mileage	120	Wind	--	--

Summary of field engineering services and/or description of work performed.

* PHASE II PRECONSTRUCTION MEETING HELD FROM 10:30 TO 11:30 @ WILDWOOD TRAILER
- DISCUSSED SCHEDULE AND SCOPE OF WORK FOR PHASE II CONSTRUCTION
- REPRESENTATIVES FROM WPSC, NRT, SOMERS AGGREGATE, BOART LONGYEAR, CANAMER SERVICES, C3, PHENCO AND RETTLER WERE IN ATTENDANCE

* PERFORMED ENGINEERING EVALUATION OF BUILDING SUMP

* PERFORMED ADDITIONAL EXCAVATION IN EZ-2 IN CENTER AVE ROW.
- EXCAVATED 2 TRUCKLOADS OF SOIL FOR DISPOSAL @ SUPERIOR LANDFILL
- COLLECTED BASE SAMPLE EZ-204

** SEE DAILY FIELD REPORT FOR 4-3-01 FOR SAMPLE LOCATIONS

* SOMERS WORKING ON FINAL PHASE I GRADES

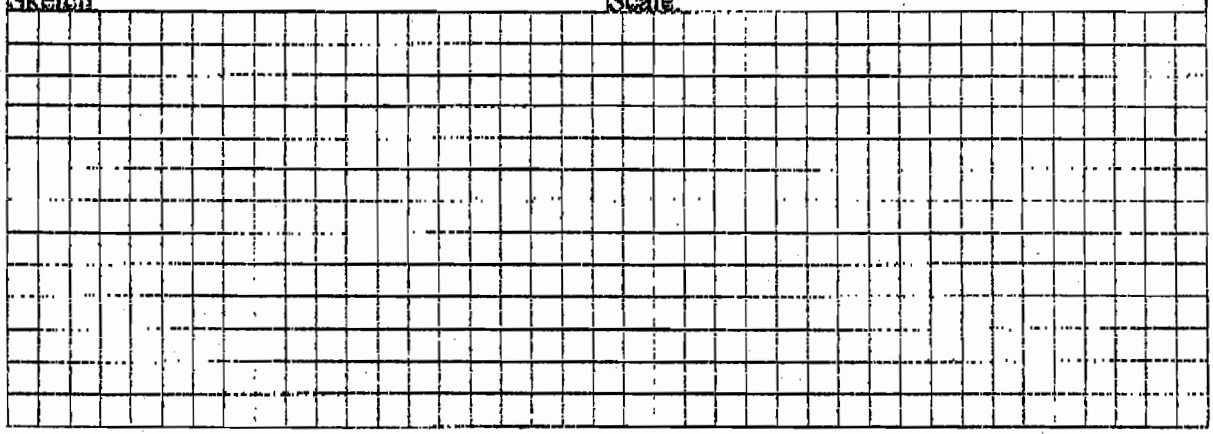
* C3 ON-SITE TO PREPARE GROUT PLANT - SHEET PILE INTERLOCK GROUTING TO BEGIN TOMMORROW.

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:



Field Rep Christopher A. Robb, P.E.
Position Project Engineer
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 4-03-01

Arrival Time	7:30	Time	8:30	16:00
Departure Time	17:30	Weather	Overcast	Overcast w/ Light Rain
Total Hrs at Site	10	Temp	37°F	44°F
Travel Time	2.00	Baro.	--	--
Mileage	122	Wind	--	--

Summary of field engineering services and/or description of work performed.

* Completed additional excavation in EZ-2 in Center Ave ROW
  - Excavated 4 truckloads of soil for disposal @ Superior Landfill
  - Collected base samples EZ-205 & EZ-206 and submitted EZ-205 → EZ-206 to Robert E. Lee for analysis (See analytical results and COC for parameters)
  - See 4-3-01 Field notes for a sketch of excavation limits and sample locations

* Somers continues Phase I grading
  - Water levels collected @ MW-707, BW-05 BW-09 and [redacted] BW-06 to assess soft subgrade conditions on south-central portion of the site.
  - Phase I grading activities will be post-poned until the site dries up from the winter thaw.

* C3 performing sheet pile interlock grouting
  - 21 joints completed

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

* RECEIVED DELIVERY OF 5 ROLLS OF 40mil GEOMEMBRANE
- " " " 45 " OF GEOCOMPOSITE (FABRI NET w/ 651 COMP, STD, 2 SIDE 6oz)
- RECEIVED DELIVERY OF 16 ROLLS OF 12oz NON-WOVEN GEOTEXTILE

Sketch: Scale:

Field Rep Christopher A. Robb, P.E.
Position Project Engineer
Company **Natural Resource Technology**

Signature: C. A. Robb

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 4-04-01

Arrival Time	7:30	Time	8:30A	15:00
Departure Time	16:00	Weather	Partly Cloudy	Sunny - Clear
Total Hrs at Site	8.5	Temp	32°F	38°F
Travel Time	2.0	Baro.	--	--
Mileage	132	Wind	--	--

Summary of field engineering services and/or description of work performed.

* Somers begins riverbank reconstruction @ south portion of site
  - Structural fill installed
  - Fabric installed, filter gravel installed
  - Toe stones and rip-rap installed

* Miller Engineers on-site to perform compaction tests on placed structural fill
  - S-1 ⇒ S-3 compaction tests pass
  - 2nd Proctor on structural fill collected
  - " " on treated material collected

* Performed engineering evaluation of footer for concrete stairs around existing concrete wall

* Tom Holtan, City of Sheboygan [redacted] - City Engineer on-site to discuss:
  - Grades surrounding existing concrete wall
  - Truck routes for hauling treated material from Wildwood to Campmarina

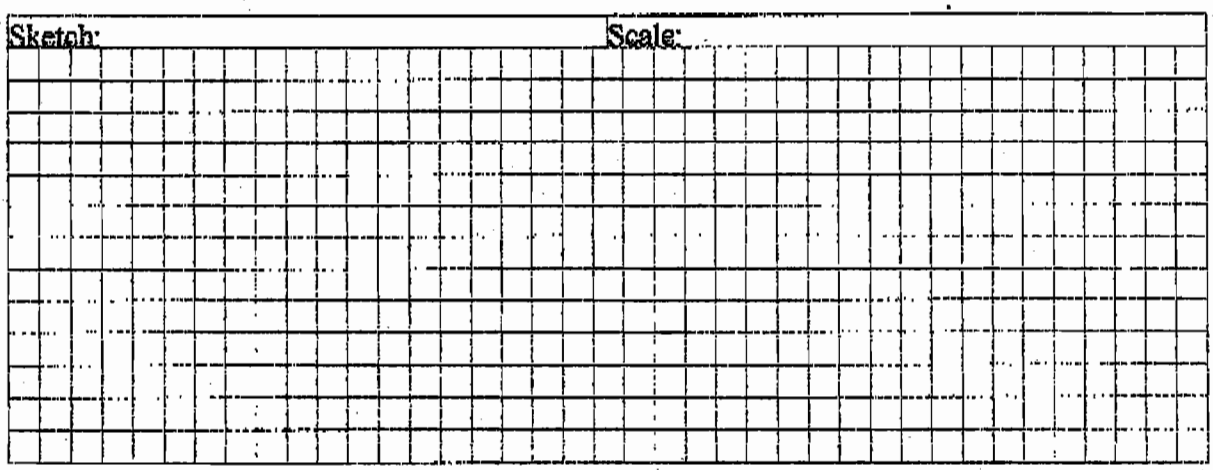
* C3 on-site performing sheetpile grouting
  - 64 joints completed today

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:



Field Rep Christopher A. Robb, P.E.
Position Project Engineer
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Thru 4/5/01

Arrival Time	7:30	Weather	10 AM	2 PM
Departure Time	16:15	Temp	50's	
Total Hrs at Site	8.5	Baro		
Travel Time	3 hours	Wind		
Mileage	146	Precip.	chance of rain	Rain

Summary of field engineering services and/or description of work performed .

- C3 grouting joints at the north end.
- Miller Engineers will be out to for compaction test on structural fill. Re-tested S2 lift 3 located 140 ft. from south end near BW-10. Also, tested lift 1 of S3 located 490 ft from south end. I found out later Somers never compacted the area again after winter.
- Somers placed erosion mat on the south end slope by the relocated storm sewer.
- Somers placed riprap along river on already placed structural fill.
-

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Fri 4/6/01

Arrival Time	8:00	Weather	10 AM	
Departure Time	13:00	Temp	52 deg F	
Total Hrs at Site	5	Baro		
Travel Time	3 hours	Wind		
Mileage	146	Precip.		

Summary of field engineering services and/or description of work performed .

- Sampled compost at a local landscaping place. Compost is to our specs.
- Somers completed the erosion control matting near the storm sewer at south end.
- Somers compacting the structural fill along river.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Mon 4/9/01

Arrival Time	7:45	Weather	9 AM	
Departure Time	16:30	Temp	35 deg F	
Total Hrs at Site	8	Baro		
Travel Time	3 hours	Wind		
Mileage	146	Precip.		

Summary of field engineering services and/or description of work performed .

- C3 grouting joints behind the concrete retaining wall. They had problems with one of the joints not flushing completely.
- Somers fixed the river bank this morning due to last nights rain. Some of the structural fill went to the bottom of the slope against the silt fence.
- Wildwood: Surface water is being pumped out of the sump and hauled to the WWTP.
- Somers installed rip rap along the river bank structural fill up to BW-13.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 4-10-01

Arrival Time	8:00A	Time	9:00A	14:00A
Departure Time	17:00A	Weather	SUNNY - CLEAR	PARTLY CLOUDY
Total Hrs at Site	9.0	Temp	39°F	44°F
Travel Time	2.0	Baro.	--	--
Mileage	12	Wind	--	--

Summary of field engineering services and/or description of work performed.

* RESTORATION OF THE RIVERBANK CONTINUES
  - PLACEMENT OF STRUCTURAL FILL, GEOTEXTILE, RIP-RAP,
  → STRUCTURAL FILL BROUGHT ON-SITE TODAY
  [redacted] DOES NOT MEET SPECIFICATION, ALTERNATE SOURCE OF STRUCTURAL FILL NEEDS TO BE LOCATED BY SOMERS

* NRT BEGINS REVIEW OF [redacted] GEOSYNTHETIC SUBMITTALS.

* C3 ON-SITE TODAY PERFORMING SHEETPILE GROUTING
  - 56 JOINTS WERE COMPLETED TODAY

* MILLER ENGINEERS ON-SITE TO PERFORM COMPACTION TESTING ON STRUCTURAL FILL
  - S-6 AND S-7 PASS FOR COMPACTION TEST

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep Christopher A. Robb, P.E.
Position Project Engineer
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 4-11-01

Arrival Time	7:30	Time	8:30	15:30
Departure Time	16:00	Weather	SCATTERED SHOWERS	T-STORMS
Total Hrs at Site	8.5	Temp	38°F	50°F
Travel Time	2.0	Baro.	--	--
Mileage	1	Wind	--	W 15-25

Summary of field engineering services and/or description of work performed .

* RIVER BANK RESTORATION ACTIVITIES POST-PONED DUE TO RAIN
  - SOMERS LOCATED ANOTHER SOURCE FOR STRUCTURAL FILL - SAME QUARRY DIFFERENT AREA

* C3 ONSITE PERFORMING SHEET PILE GROUTING - 71 JOINTS WERE COMPLETED TODAY

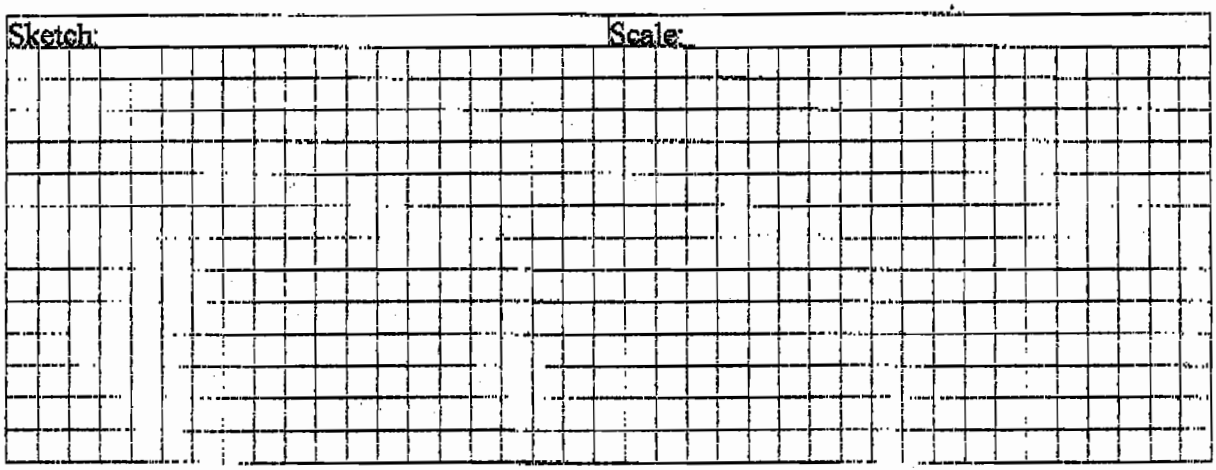
* NRT CONTINUES REVIEW OF GEOSYNTHETIC SUBMITTALS

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:



Field Rep Christopher A. Robb, P.E.
Position Project Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology
N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Thru 4/12/01

Arrival Time	8:00	Weather	10 AM	PM
Departure Time	13:00	Temp	40's	
Total Hrs at Site	5	Baro		
Travel Time	3 hours	Wind	30-50 MPH	
Mileage	150	Precip.	storm night before	

Summary of field engineering services and/or description of work performed .

- Somers' announced he won't be able to work today or tomorrow due to the wet conditions of last night's storm.
- Two loads of structural fill #3 (with more fines) arrived on site. The fill was wet so Steve told the truckers not to bring anymore today. I sampled the fill for P200, atterberg limits and standard proctor. The fill was covered with plastic to prevent runoff.
- Checked erosion controls along river. Silt fence still up, but the river has risen and is inches a way to the top of fence.
- Before Somers left for the day, they made a trench along the river inside the sheet pile wall to control surface runoff to the river.
- Somers also made a sump near BW-18 and river sheet pile wall. The sump contained trapped surface water which we will pump out. NRT sampled the water for BTEX, cyanide, lead, oil and grease, and TSS for a rush turnaround.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 4-16-01

Arrival Time	8:00	Time	9:00	15:00
Departure Time	17:00	Weather	Overcast	Scattered Snow Showers
Total Hrs at Site	9.0	Temp	33°F	42°F
Travel Time	2.2	Baro.	--	--
Mileage	126	Wind	W 10-15 MPH	W 10-15 MPH

Summary of field engineering services and/or description of work performed.

* SOMERS CONTINUES PHASE I RIVERBANK RESTORATION
* MILLER ENGINEERS ON-SITE FOR COMPACTION TESTING ON STRUCTURAL FILL - S-8 AND S-9 PASSED COMPACTION TESTING
* C3 CONTINUES SHEET PILE GROUTING - 72 JOINTS WERE COMPLETED TODAY
* NRT COMPLETES REVIEW OF BIOSPARGE PIPING AND GEOSYNTHETIC SUBMITTALS
* NRT CALCULATES DRAINAGE PIPE INVERTS FOR SOMERS AT SUMP
* SOMERS REPAIRS EROSION CONTROLS DAMAGED BY WEEKEND STORMS

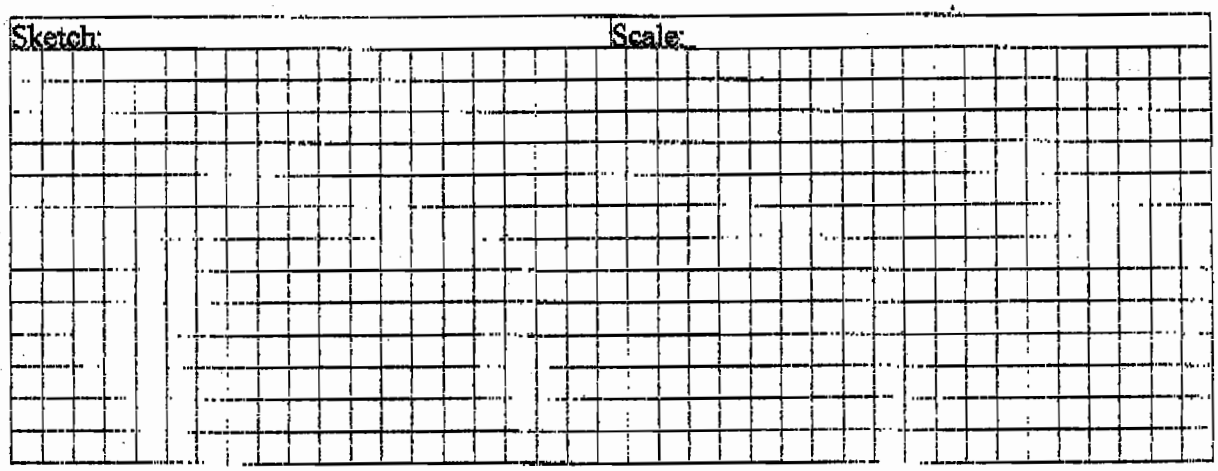
Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:



Field Rep Christopher A. Robb, P.E.
Position Project Engineer
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 4-17-01

Arrival Time	7:30	Time	9:00	15:00
Departure Time	17:00	Weather	Mostly Clear	Sunny - Clear
Total Hrs at Site	9.5	Temp	31°F	38° F
Travel Time	2.0	Baro.	--	--
Mileage	[redacted] 121	Wind	--	--

Summary of field engineering services and/or description of work performed.

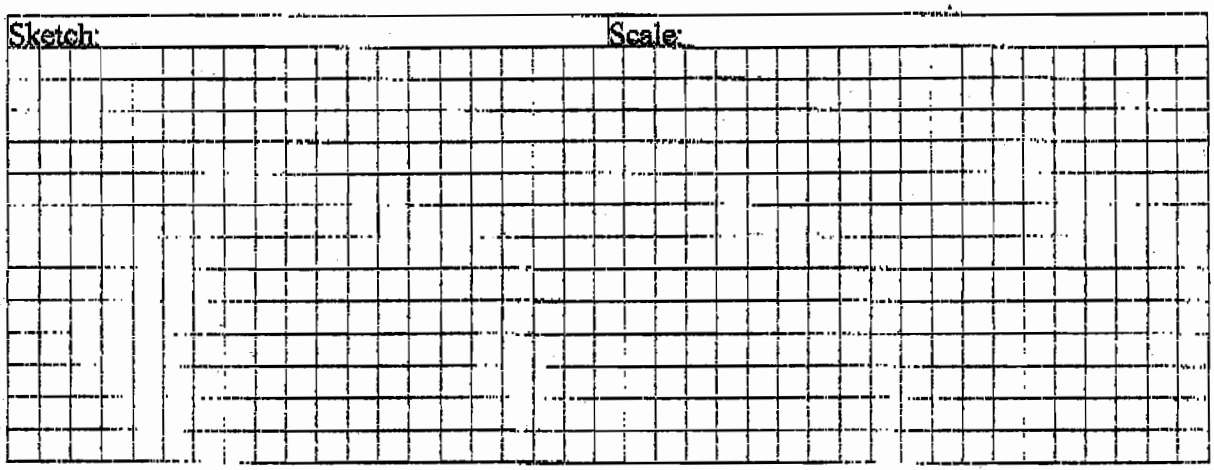
* Somers continues Phase I riverbank restoration
* 2nd sump installed on norther portion of the site for subgrade dewatering
* C3 completes grouting of sheet pile interlocks - 78 [redacted] joints were completed
* Somers begins Phase I grading activities again
* 3 loads of water hauled off-site from Wildwood

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:



Field Rep Christopher A. Robb, P.E.
Position Project Engineer
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 4-18-01

Arrival Time	8:00A	Time	9:00A	2:00P
Departure Time	16:00P	Weather	OVERCAST	PARTLY CLOUDY
Total Hrs at Site	8.0	Temp	39°F	51°F
Travel Time	2.2	Precip	NONE	→
Mileage	123 MILES	Wind	NA	→

Summary of field engineering services and/or description of work performed.

* SOMERS CONTINUES PHASE I RIVERBANK RESTORATION

* SOMERS CONTINUES PHASE I GRADING ACTIVITIES

* C3 BEGINS SITE CLEANUP AND DEMOBILIZATION

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Thru 4/19/01

Arrival Time	7:45	Weather	10 AM	PM
Departure Time	17:15	Temp	50's	60's
Total Hrs at Site	9.5	Baro		
Travel Time	1.5 hours	Wind		
Mileage	75	Precip.		

Summary of field engineering services and/or description of work performed :

- Somers added base course along river bank structural fill.
- A sump was added near PZ-701 to remove surface water. Somers pumped out 8000 gallons of water from the sump today.
- Erosion matting was placed along river to protect the structural fill from erosion.
- Northern portion of site was graded and compacted today.

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Fri. 4/20/01

Arrival Time	7:45	Weather	9 AM	PM
Departure Time	12:00	Temp	40's	
Total Hrs at Site	4.25	Baro		
Travel Time	1.5 hours	Wind		
Mileage	77	Precip.	rained last night	

Summary of field engineering services and/or description of work performed .

- Placed 2nd row of toe stones near BW-13 along river edge.
- C3 left this morning around 8:30 after loading the trucks up with the grout and machine.
- Somers cut the wooden piles along the river down to river level.
- Site was compacted .

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Shebovgan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 4-23-01

Arrival Time	8:00	Time	9:30	15:55
Departure Time	16:00	~~Weather~~ Wind	SW 5-10 MPH	SW 15-25 MPH
Total Hrs at Site	8:00	Temp	72°F	66°F
Travel Time	2.0	Precip	TRACE	TRACE
Mileage	157	~~Wind~~ WEATHER	SUNNY - CLEAR	SCATTERED SHOWERS - LIGHT

Summary of field engineering services and/or description of work performed .

* SOMERS BEGINS CONSTRUCTION OF INTERIOR DRAINAGE TRENCH ALONG RIVER SIDE OF SITE

* DEWATERING OF SITE CONTINUES
  LOADS OFF-SITE = 11 @ 4K GAL ≈ 8,000 GAL

* NRT CONTINUES ENGINEERING EVALUATION OF GEOSYNTHETIC SUBMITTALS

* NRT PREPARES FOR BIOSPARGE PIPING INSTALLATION

* MEETING W/ JIM HANLON, HANLON DESIGN @ 10:00A TO DISCUSS BUILDING DESIGN

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 4-24-01

Arrival Time	7:30	Time	9:00A	16:34
Departure Time	5:15	Weather	PARTLY CLOUDY	PARTLY CLOUDY
Total Hrs at Site	9.75	Temp	42°F	59°F
Travel Time	2.0	Precip	NONE	NONE
Mileage	123	Wind	W@ 5-10MPH	NW @ 13MPH

Summary of field engineering services and/or description of work performed .

* SOMERS CONTINUES CONSTRUCTION OF INTERIOR DRAINAGE TRENCH ALONG RIVER SIDE OF SITE AROUND THE SOUTH CORNER

* PHENCO ON-SITE TO BEGIN BIOSPARGE PIPE INSTALL

* CITY CREW EXPOSED 3 FORMER MGP GAS MAINS
  1 - 16", 1 - 10", 1 - 6"
  SEE PICTURES
  - LOCATION @ INTERSECTION OF 10TH ST & NY AVE
  10' SOUTH OF MANHOLE

* MEETING [redacted] REGARDING ELECTRICAL SPECIFICATIONS AND ELECTRICAL REQUIREMENTS FOR BUILDING @ 8:30A; ATTENDEES:
  - STEVE BAUMHARDT, SPEC ELECTRIC
  - KENNETH TEBBEST, BEST SYSTEMS
  - STEVE DOBECK, SOMERS AGGREGATES
  - ROY WITTENBURG, NRT
  - CHRIS ROBB, NRT
  - DAVE WILEY, WPSC

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

* PERFORM SITE WALKTHROUGH @ 11:00A W/ ROY WITTENBERG, NRT AND DALE WILEY, WPSC
* MEET W/ JOE KOCHAN AND PAUL BIEBERITZ, ALLIANT ENERGY, TO DISCUSS ELECTRICAL POLE GUY WIRE BEHIND PIECE OF DEBRIS TO BE REMOVED ALONG WATER STREET
* DISCUSSED BUILDING DETAILS W/ ROY WITTENBERG AND DALE WILEY.
* 3RD DEWATERING SUMP INSTALLED @ SOUTH END OF SITE

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature: C A Robb

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 4-25-01

Arrival Time	8:00	Time	9:00A	3:00P
Departure Time	4:00	Weather	NA	→
Total Hrs at Site	8.0	Temp	50°F	63°F
Travel Time	2.3	Precip	NONE	→
Mileage	123 m	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* SOMERS CONTINUES CONSTRUCTION OF INTERIOR DRAINAGE TRENCH AROUND SOUTH CORNER AND ALONG WEST SIDE OF SITE

* PINENCO CONTINUES INSTALLATION OF BIOSPARGE PIPING

* REPRESENTATIVE FROM ALLIANT ENERGY ON-SITE TO REMOVE GUY WIRE FROM POLE TO MAKE DEBRIS REMOVAL ACCESSIBLE

* SOMERS CONTINUES SITE DEWATERING OF PERCHED WATER

* SOMERS MOVING CENTER AVE. ROW OVERBURDEN FROM STOCKPILE ON-SITE BACK TO CENTER AVE. ROW

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature: C. Robb

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Thrus. 4/26/01

Arrival Time	7:30	Weather	9 AM	PM
Departure Time	18:00	Temp	50's	
Total Hrs at Site	10.5	Baro		
Travel Time	1.5 hours	Wind		
Mileage	75	Precip.		

Summary of field engineering services and/or description of work performed .

- Somers installed drainage pipe behind retaining wall.
- Sump near PZ-701 has been filling up over night. Water was pumped and disposed at the WWTP.
- Phenco on site to finish filling in trenches and complete a pressure test on 1"HDPE piping.
- Boart arrived on site to extend 6 wells, abandon MW-702, 703, and 701.
- MW-701R was installed to replace MW-701, but has a 5 foot screen instead of 10 ft because the 10 ft screen would have been above the current phase I grade.
- Boart replaced BW-8 with Sch. 80 because it was installed with Sch. 40 (not our spec).

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Fri. 4/27/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	16:00	Temp		
Total Hrs at Site	8	Baro		
Travel Time	1.5 hours	Wind		
Mileage	76	Precip.		

Summary of field engineering services and/or description of work performed .

- Phenco tested all 1" HDPE biosparge piping. They all passed the spec. of 30 psi of pressure for 10-60mins
- Somers dug the drain ditch on the east side wall outside the sheet pile wall. Soil was taken to the landfill.
- Piping was laid down behind retaining wall and drive-way.
- Phenco placed "wye" on all biosparge wells.
- Wildwood: Sheets were adjusted on piles.
-

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Mon. 4/30/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	17:00	Temp	High 50's	70's
Total Hrs at Site	9	Baro		
Travel Time	1.5 hours	Wind		
Mileage	76	Precip.		

Summary of field engineering services and/or description of work performed .

- Somers backfilled drain/venting trench at south end.
- Took water levels of biosparge wells, due to high volume of water extracted from PZ-701 sump.
- Biosparge building sump arrived from Forrer last week Friday.
- Somers completed backfilling drain/vent trench along river.
- City of Sheboygan will be out tomorrow to survey the light bases.
-

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**

Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Tue. 5/01/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	17:00	Temp	40's	
Total Hrs at Site	9	Baro		
Travel Time	1.5 hours	Wind		
Mileage	10	Precip.	rain	rain

Summary of field engineering services and/or description of work performed .

- Phenco installed feed nutrient tube only in 8 HDPE biosparge pipes today, but two are stuck. Air compressor worked well to blow a string through pipe to attach to the feed tube. 90deg transitions at the biosparge building caused problems. Phenco had to cut transition off to pull tubing through.
- Somers drilling 6"length ½" diaa. holes in concrete wall for the concrete curb for polyloks.
- Noted a small blue stain 62' south of SE corner of retaining wall. 4'east of sheet pile wall. The seam was 6' from top of hill side, 4' long and 2-4" thick.
- South end was graded for Rettler to survey tomorrow.
- Somers worked on the north end drain/vent piping today.
-

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates. Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 5-2-01

Arrival Time	7:00A	Time	9:00A	3:00P
Departure Time	16:15P	Weather	SCATTERED SHOWERS	→
Total Hrs at Site	9.25	Temp	62°F	76°F
Travel Time	2.0	Precip	0.11	
Mileage	123	Wind	--	--

Summary of field engineering services and/or description of work performed .

* PHENCO CONTINUES INSTALLATION OF BIOSPARGE PIPING

* SOMERS WORKING ON FINAL PHASE I GRADING
- BEGINS INSTALLATION OF HDPE LIGHT POLE BASES
- BEGINS INSTALLATION OF CONCRETE ~~HDPE~~ WELD STRIP AROUND CONCRETE WALL

* WEEKLY PROGRESS MEETING AND GEOSYNTHETIC CQA MEETING HELD
ATTENDIES:
DALE WILEY, WPSC
CHRIS ROBB, NRT
HEATHER SIMON, NRT
STEVE DOBECK, SOMERS
KARL SCHMIDT, CANAMER
DENNIS THORN, CANAMER

* BOART LONGYEAR ON-SITE TO COMPLETE BIOSPARGE WELL AND MONITORING WELL STICKUPS

DAILY FIELD REPORT

Natural Resource Technology

N R T

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Wed. 5/02/01

Arrival Time	8:00	Weather	AM	PM
Departure Time	17:30	Temp	40's	70's
Total Hrs at Site	9.5	Baro		
Travel Time		Wind		
Mileage	10	Precip.	rain	

Summary of field engineering services and/or description of work performed .

- Somers completed drain/vent piping at north end.
- Rebar was installed in concrete retaining wall holes for concrete curb. Also, placed 1'x6" wooden forms around concrete wall for curbing.
- Phenco completed the installation of feed nutrient tube. 4 man crew worked today to complete the job. Electro fusion was used instead of Furncos and also to attach the 90deg transition and pipe together.
- Rettler survey the subgrade today.
- Biosparge building sump was installed at 7.5 feet elevation. Also, the "T" invert of the drain/vent was placed at 1.65 feet elevation.
-

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 5-3[redacted]-01

Arrival Time	7:30	Time	8:00A	2:00P
Departure Time	17:45	Weather	LIGHT RAIN	SCATTERED SHOWERS
Total Hrs at Site	10.25	Temp	49°F	60°F
Travel Time	2.0	Precip	DRIZZLE	0.75
Mileage	123	Wind	SW 10-15 MPH	SW 10-25 MPH

Summary of field engineering services and/or description of work performed .

* PHENCO COMPLETES INSTALLATION OF BIOSPARGE PIPING
  - TRANSITION FITTING REPLACEMENT FOR FERNCO'S COMPLETED
* SOMER'S WORKING ON FINAL [redacted] PHASE I GRADING
* BOART LONGYEAR CONTINUES TO WORK ON BIOSPARGE WELL AND MONITORING WELL STICKUPS
* PHASE I GRADING SUSPENDED DUE TO RAIN.

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 1

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Campmarina**
Day – Date: Thru. 5/03/01

Arrival Time	7:45	Weather	AM	PM
Departure Time	14:00	Temp	50's	
Total Hrs at Site	9	Baro		
Travel Time	1.5	Wind		
Mileage	75	Precip.	rain	

Summary of field engineering services and/or description of work performed .

- Somers placing light pole bases. At 3 locations, the biosparge piping trench had to be moved/relocated.
- Boart placed concrete and steel casing around biosparge wells and monitoring wells.
- SEE CAR daily report for further description.
-
-
-

Field Rep Heather Simon
Position Field Engineer
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 5-4-01

Arrival Time	8:00	Time	8:30A	1:30P
Departure Time	14:30	Weather	PARTLY CLOUDY	SUNNY - CLEAR
Total Hrs at Site	6.5	Temp	50°F	60°F
Travel Time	2.0	Precip	NONE	→
Mileage	123	Wind	SW 5-15 MPH	→

Summary of field engineering services and/or description of work performed .

* BOART LONGYEAR COMPLETES BIOSPARGE AND MONITORING WELL STICKUPS

* SOMERS COMPLETES INSTALLATION OF HDPE LIGHT POLE BASES

* SOMERS RECOVERS STOCKPILES @ WILDWOOD

* SUPERIOR MOBILIZES 5,800 GALLON STORAGE TANK ON-SITE FOR SUMP DEWATERING
  - SOMERS INSTALLS SUMP PUMP IN SUMP TO DEWATER INTERIOR DRAINAGE TRENCHES
  - SOMERS HAULS 1.5 LOADS (6,000 G) TO SHEBOYGAN WWTP FOR DISPOSAL FROM SUMP

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 5-7-01

Arrival Time	8:30	Time	10:00	14:00
Departure Time	16:15	Weather	PARTLY CLOUDY	SCATTERED SHOWERS
Total Hrs at Site	7.75	Temp	50°F	62°F
Travel Time	2.0	Precip	NONE	0.33
Mileage	130	Wind	SW 10-15 MPH	SW 20 MPH

Summary of field engineering services and/or description of work performed .

* SOMERS CONTINUES FINAL PHASE I GRADING

* NRT BEGINS EVALUATION OF WATER LEVELS INSIDE OF [redacted] SHEET PILE WALL
  - SEE FIELD NOTES FOR WATER LEVELS
  - LEVELS ARE CONSISTENT W/ HISTORICAL LEVELS EXCEPT IN MONITORING WELLS NEAR THE SHEET PILE WALL ALONG THE RIVER - WATER ELEVATIONS HAVE INCREASED

* GRADING WORKED SUSPENDED IN AFTERNOON DUE TO HEAVY RAINS

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 5-8-01

Arrival Time	8:00	Time	10:00	15:00
Departure Time	17:00	Weather	PARTLY CLOUDY	SUNNY-CLEAR
Total Hrs at Site	9.0	Temp	48°F	68°F
Travel Time	2.0	Precip	NONE	→
Mileage	123	Wind	NA	NA

Summary of field engineering services and/or description of work performed .

* SOMERS COMPLETES PHASE I GRADING
  - SOMERS PERFORMING FINAL TOUCHES ON PHASE I GRADE AND ANCHOR TRENCHES

* RETTIER ON-SITE TO PERFORM FINAL SURVEYING OF AS-BUILT PHASE I GRADE
  - NRT EVALUATES PHASE I GRADE W/ RESPECT TO ORIGINAL DESIGN

* NRT EVALUATES SITE FOR FINAL TOUCH UP PRIOR TO COVER INSTALLATION

* SUPERIOR EMPTIES ON-SITE FRAC TANK
  ~4,200 GALLONS DISPOSED OFF-SITE @ SHEBOYGAN WWTP

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Shebovgan**
Day – Date: 5-9-01

Arrival Time	8:00	Time	9:00	13:00
Departure Time	17:00	Weather	SUNNY - CLEAR	→
Total Hrs at Site	9.0	Temp	60°F	75°F
Travel Time	2.0	Precip	NONE	→
Mileage	123	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* SOMERS CONTINUES FINAL TOUCHES TO PHASE I GRADE
- NRT COMPLETES EVALUATION OF PHASE I GRADES

* SUPERIOR ON-SITE TO PUMP OUT TANKER ~ 3,800 GALLONS DISPOSED OFF-SITE @ SHEBOYGAN WWTP

* WEEKLY PROGRESS MEETING HELD
ATTENDIES:
DALE WILET, WPSC
STEVE DOBECK, SOMERS
HEATHER SIMON, NRT
CHRIS ROBB, NRT

* NRT INSTALLS DATALOGGERS IN MW-706, MW-701R AND MW-707R TO MONITOR WATER LEVELS INSIDE OF SHEET PILE WALL LIMITS

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 5-10-01

Arrival Time	8:30	Time	9:00A	15:30
Departure Time	17:30	Weather	PARTLY CLOUDY	SUNNY - CLEAR
Total Hrs at Site	9.0	Temp	65° F	75° F
Travel Time	2.0	Precip	NONE →	
Mileage	118	Wind	NA →	

Summary of field engineering services and/or description of work performed .

* CANAMER SERVICES ON-SITE
  - CANAMER BEGINS STAGING GEOSYNTHETICS FOR DEPLOYMENT
  - 12 OZ. GEOTEXTILE PLACED ALONG INTERIOR DRAINAGE TRENCH, EAST OF EXISTING CONCRETE WALL
  - CANAMER DEPLOYS HDPE PANELS P-1 TO P-4
  - CANAMER BEGINS INSTALLATION OF BOOTS ON BIOSPARGE WELL PENETRATIONS

* NRT REMOVES DATALOGGERS FROM MW-706 MW-701R AND MW-707R

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 5-11-01

Arrival Time	7:00	Time	8:00A	14:00P
Departure Time	15:00	Weather	Mostly Cloudy	Partly Cloudy
Total Hrs at Site	8.0	Temp	54°F	72°F
Travel Time	2.0	Precip	0.2"	None
Mileage	123	Wind	NA →	

Summary of field engineering services and/or description of work performed .

* ALL SITE ACTIVITIES POST-PONED DUE TO HEAVY OVERNIGHT RAIN

* NRT PERFORMS EVALUATION OF COVER DESIGN
  - CONFORMANCE SAMPLE IS COLLECTED OF HDPE AND SUBMITTED TO TRI / ENVIRONMENTAL
  - SAMPLES OF GEOTEXTILE, GEOCOMPOSITE, HDPE AND THERMALLY TREATED MATERIAL ARE COLLECTED AND SUBMITTED TO J&L TESTING FOR INTERFACE FRICTION TESTING

* SUPERIOR ON-SITE TO DUMP OUT FRAC TANK ~5,500 GALLONS TRANSPORTED OFF-SITE AND DISPOSED @ SHEBOYGAN WWTP

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 5-12-01

Arrival Time	7:00	Time	8:00a	16:00
Departure Time	18:30	Weather	SUNNY CLEAR	→
Total Hrs at Site	11.5	Temp	56°F	63°F
Travel Time	2.00	Precip	NONE	→
Mileage	118	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* CANAMER SERVICES ON-SITE
- CANAMER BEGINS DEPLOYMENT OF [redacted] FIRST LATER OF GEOCOMPOSITE IN CENTER AVE. ROW TO EDGE OF [redacted] EXISTING CONCRETE WALL
- CANAMER DEPLOYS GEOTEXTILE (12oz.) ABOVE INTERIOR DRAINAGE TRENCH
- HDPE PANELS P-5 AND P-6 ARE DEPLOYED

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 5/13/01 SUN.

Arrival Time	7:00 am	Time		
Departure Time	18:50	Weather	60's	
Total Hrs at Site	11.80	Temp	Sunny	
Travel Time	—	Precip		
Mileage	70mi	Wind		

Summary of field engineering services and/or description of work performed .

* CANAMER DEPLOYED PANELS P-7 THROUGH P-13 TODAY.
* 2 TEST SEAMS WERE CONDUCTED.
* NO PROBLEMS OCCURRED.

Heather Sommers

Daily Field Report

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Heather M. Simon, E.I.T**
Position **NRT Field Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates. Inc.**

Project No: **1313**
Location: **Shebovgan**
Day – Date: 5-14-01

Arrival Time	6:45A	Time	9:00A	12:00P
Departure Time	5:30P	Weather	MOSTLY CLOUDY	LIGHT RAIN
Total Hrs at Site	10.7	Temp	58°F	57°F
Travel Time	2.0	Precip	NONE	0.16"
Mileage	118m	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* CANAMER SERVICES ON-SITE
  - CANAMER DEPLOYS GEOMEMBRANE PANELS P-14 → P-19
  - CANAMER DEPLOYS GEOCOMPOSITE
* NRT ON-SITE PERFORMING CQA ACTIVITIES
* WORK RAINED OUT IN AFTERNOON
* NRT BEGINS EVALUATION OF GEOSTRUCTURE CAP PENETRATION, RIVERWALK AND PARK FOUNDATIONS AND PLANTINGS FOR FUTURE OVERSIGHT

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 5/14/01 MON

Arrival Time	7:00am	Time		
Departure Time	2:00pm	Weather		
Total Hrs at Site	7 hrs.	Temp	HIGH 50'S	
Travel Time	1 1/2 hr	Precip		
Mileage	70mi.	Wind		

Summary of field engineering services and/or description of work performed .

ONSITE: CANAMER, CHRIS w/ NRT AND I (HMS)

- DEPLOYED PANELS P-14 TROUGH P-19.
- NON-DESTRUCT TESTS CONDUCTED ON FIRST 7 SEAMS
- 1 TRIAL SEAM COMPLETED.
- DEPLOYED GEOCOMPOSITE DURING AFTERNOON HOURS.

Daily Field Report

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Heather M. Simon, E.I.T**
Position **NRT Field Engineer**
Company **Natural Resource Technology**

Signature Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Shebovgan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 5-15-01

Arrival Time	7:00A	Time	9:00A	3:00P
Departure Time	5:42P	Weather	NA	→ RAIN
Total Hrs at Site	10.7	Temp	52°F	68°F
Travel Time	2.0	Precip	NONE	0.3"
Mileage	123m	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* CANAMER SERVICES ON-SITE
  - NON-DESTRUCTIVE TESTING OF SEAMS PERFORMED
  - ALL WORK IN AFTERNOON RAINED OUT

* NRT ON-SITE PERFORMING CQA ACTIVITIES
  - DESTRUCTIVE FIELD SEAM SAMPLES D-1, D-2, D-3 COLLECTED AND SHIPPED OFF-SITE FOR LABORATORY TESTING

* NRT COMPLETES EVALUATION OF GEOSYNTHETIC CAP PENETRATION, RIVERWALK AND DARK FOUNDATIONS AND PLANTINGS FOR FUTURE OVERSIGHT

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: WED 5/16/01

Arrival Time	7a m	Time	9am	2pm
Departure Time	19:40 pm	Weather	HIGH 50's,	HIGH 80's,
Total Hrs at Site	12.6 hrs	Temp		
Travel Time	1.5	Baro.		
Mileage	~~TWO~~ 75	Wind		

Summary of field engineering services and/or description of work performed .

- CANAMER COMPLETED HDPE GEOMEMBRANE ON NORTH END ~~END~~ PANELS 20-34 LAID.
- AFTERNOON) CANAMER EXTRUSION WELDED BOOTS + PATCHES. MAJORITY OF THE EXTRUSION WELDING COMPLETED.

- CANAMER IS 3600 SF SHORT OF HDPE (40mil) ~~TTH~~ WE NEED TO GET THE MOST AVAILABLE LINAR SHIPPED TO THE SITE. IT MAY BE 60mil HDPE AS THE MOST ~~READIB~~ AVAILABLE.

- COLLECTED DESTRUCT SAMPLES D-4 + D-5 SUBMITTED THEM TO TRI

Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 5-17-01

Arrival Time	6:45AM	Time	9:00A	16:00
Departure Time	7:30PM	Weather	PARTLY CLOUDY	SUNNY - CLEAR
Total Hrs at Site	12.8	Temp	55°F	78°F
Travel Time	2.0	Precip	NONE	→
Mileage	130	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* CANAMER SERVICES ON-SITE FOR COVER INSTALLATION
  - → CANAMER PERFORMS REPAIRS P-19 THROUGH P-57 AND HDPE BOOTS B-25 THROUGH B-30
  - → ALL REPAIRS AND BOOTS NON-DESTRUCTIVELY TESTED WITH A VACUUM BOX EXCEPT B-30 AND P-19
  - → DEPLOYED ALL 12 OZ. GEOTEXTILE ON SOUTH END OF LINER

* SOMERS BEGINS PLACING MECHANICAL BARRIER ATOP 12 OZ. GEOTEXTILE IN CENTRAL AND SOUTHERN PORTIONS OF THE SITE

* NRT ON-SITE PERFORMING CQA ACTIVITIES

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature: C. A. Robb

`DAILY FIELD REPORT

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 5/17/01 THURS.

Arrival Time	8:00 am	Time		
Departure Time	12:00 pm	Weather		
Total Hrs at Site	4HRS	Temp		
Travel Time	1½ hrs	Precip		
Mileage	70mi	Wind		

Summary of field engineering services and/or description of work performed .

* CANAMER, CHRIS (NRT) AND I ON-SITE
* 2 EXTRUSION WELDS TRIALS WERE CONDUCTED.
* PATCHES, SEAMS + BOOTS WERE REPAIRED
NO DEPLOYMENT OF PANELS DUE TO WET SUBGRADE.
* TREATED MATERIAL BACKFILLED ON P-22 BACK TO P-5 IN CENTER FOR TRUCKS ROUTE. REPAIR

Daily Field Report

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Heather M. Simon, E.I.T**
Position **NRT Field Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates. Inc.** Day – Date: 5-18-01

Arrival Time	6:45a	Time	7:45a	13:00
Departure Time	18:25p	Weather	SUNNY - CLEAR	→
Total Hrs at Site	11.6	Temp	67°F	70°F
Travel Time	2.1	Precip	NONE	→
Mileage	12.6	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* CANAMER SERVICES ON-SITE
  - HDPE PANEL P-36 DEPLOYED
  - HDPE PANELS EXTRUSION WELDED TO POLYLOCK SURROUNDING CONCRETE RETAINING WALL
  - 12oz. GEOTEXTILE DEPLOYMENT COMPLETED ON NORTH END OF SITE
  - HDPE PANEL SECURED TO POLYLOCK IN BIOSPARGE PIPING IMBEDMENT VIA 1" STAINLESS BAR STOCK W/ NYLON GASKET ← CHANGE ORDER

* SOMERS PLACED 6" SILTY SAND ON SOUTHERN END OF SITE PER STABILITY EVALUATION
  ↑ CHANGE ORDER

* NRT ON-SITE PERFORMING CQA ACTIVITIES

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 5/18/01 FRI

Arrival Time	7:00	Time		
Departure Time	11:30	Weather	~~Cloudy overcast~~	
Total Hrs at Site	4 1/2	Temp	60's	
Travel Time	1 1/2 hr	Precip		
Mileage	70 mi.	Wind		

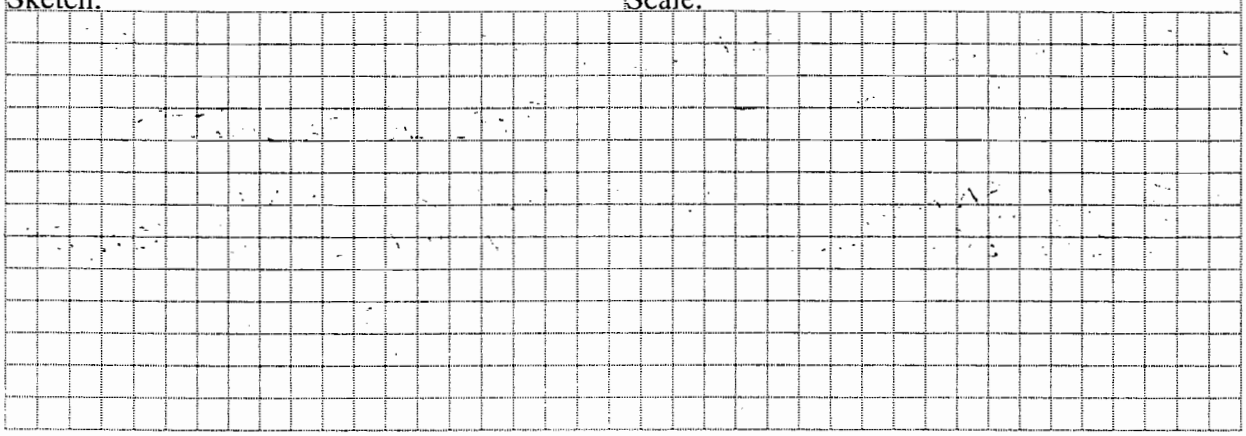
Summary of field engineering services and/or description of work performed .

* REPAIRS WERE COMPLETED INCLUDING MANY ~~PAVER~~ PATCHES.
* ~~MET~~ CHRIS ON-SITE TO COMPLETE AFTERNOON ACTIVITIES.
* BACKFILL W/ TREATED MATERIAL CENTER OF ~~ROAD~~ SITE
~~[illegible]~~
* SILTY SAND PLACED IN CENTER AVENUE RIGHT OF WAY ABOVE 1ST LAYER OF GEOCOMPOSITE.

Daily Field Report

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:



Field Rep **Heather M. Simon, E.I.T**
Position **NRT Field Engineer**
Company **Natural Resource Technology**

Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Shebovgan**

Contractor: **Sommers Aggregates. Inc.** Day – Date: 5-19-01

Arrival Time	8:00A	Time	8:30A	
Departure Time	17:00P	Weather	SUNNY - CLEAR	→
Total Hrs at Site	11.0	Temp	62°F	
Travel Time	2.0	Precip	NONE	→
Mileage	123 miles	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* CAMPER SERVICES ON-SITE FOR LINER INSTALLATION
  - DEPLOYED HDPE PANELS P-37 THROUGH P-43A
  - PERFORMED ALL PANEL SEAMING AND NON-DESTRUCTIVE TESTING
  - PERFORMED HDPE REPAIRS P-74 → P-87 AND BOOTS B-32 TO B-42 — BOOTS 32 TO 39 ← CHANGE ORDER
* NRT ON-SITE PERFORMING CQA ACTIVITIES
  - COLLECTED FIELD DESTRUCTIVE SEAM TESTS DS-6 AND DS-7 FOR INDEPENDENT LABORATORY TESTING

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 5-21-01

Arrival Time	7:00	Time	8:00A	13:00
Departure Time	14:30	Weather	LIGHT RAIN	→
Total Hrs at Site	7.5	Temp	52°F	60°F
Travel Time	2.0	Precip	0.28"	→
Mileage	123	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* CANAMER SERVICES ON-SITE
  → ALL ACTIVITIES POST-PONED DUE TO LIGHT RAIN ALL DAY

* SOMERS CONTINUES PLACEMENT OF MECHANICAL BARRIER (1' COMPACTED THERMALLY TREATED MATERIAL)

* NRT ON-SITE PERFORMING CQA ACTIVITIES W/ RESPECT TO SOMERS WORK

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Shebovgan**
Day – Date: 5-22-01

Arrival Time	7:15	Time	9:00A	13:00
Departure Time	5:15	Weather	PARTLY CLOUDY	
Total Hrs at Site	10.0	Temp	45°F	56°F
Travel Time	2.0	Precip	NONE →	→
Mileage	123	Wind	NA →	→

Summary of field engineering services and/or description of work performed .

* CANAMER SERVICES ON-SITE
  → DEPLOTED UPPER GEOCOMPOSITE
  → PERFORMED RECONSTRUCTION OF SEAM P-37/P-5
  → PERFORMED REPAIRS AND COMPLETED ALL NON-DESTRUCTIVE TESTING

* SOMERS CONTINUES PLACEMENT OF THERMALLY TREATED MATERIAL

* NRT ON-SITE TO PERFORM CQA ACTIVITIES
  → COLLECTED FIELD SEAM DESTRUCTIVE TEST D-8 FOR INDEPENDENT LABORATORY TESTING

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch:	Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 5-23-01

Arrival Time	7:30	Time	9:00A	13:00
Departure Time	2:30	Weather	NA →	
Total Hrs at Site	7.0	Temp	45°F	50°F
Travel Time	2.5	Precip.	None →	
Mileage	150	Wind	NA →	

Summary of field engineering services and/or description of work performed .

* CANAMER ON-SITE DEPLOYING GEOCOMPOSITE
* SOMERS CONTINUES PLACEMENT OF 1' MECHANICAL BARRIER.
* NRT ON-SITE TO PERFORM CQA ACTIVITIES
* WEEKLY PROGRESS MEETING -
  ATTENDIES:
  - CHRISTOPHER ROBB, NRT
  - DALE WILET, WPSC
  - STEVE DOBECK, SOMERS

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: THUR. 5/24/01

Arrival Time	7:00	Time		
Departure Time	4:50	Weather		
Total Hrs at Site	9.5 HRS	Temp		
Travel Time	1 1/2	Precip		
Mileage	70	Wind		

Summary of field engineering services and/or description of work performed .

* FINAL LAYER OF 6" OF SILTY SAND PLACED ABOVE LINEAR IN CENTER AVE ROW.
* GEOCOMPOSITE DEPLOYED PRIOR TO SILT PLACEMENT FOR ACCESS OF EQUIPMENT.
* GEOCOMPOSITE PLACED ABOVE 6" OF SILT LAYER.

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Heather M. Simon, E.I.T**
Position **NRT Field Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates. Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 5-25-01

Arrival Time	7:30a	Time	9:00	14:00
Departure Time	3:00p	Weather	Mostly Cloudy	Partly Cloudy
Total Hrs at Site	7.5	Temp	45°F	57°F
Travel Time	2.0	Precip	None →	
Mileage	123	Wind	NA →	

Summary of field engineering services and/or description of work performed .

* CAMPER ON-SITE TO CONTINUE DEPLOYMENT OF GEOCOMPOSITE

* SOMERS [redacted] ON-SITE TO PERFORM SITE CLEANUP

* NRT ON-SITE TO CONTINUE CQA ACTIVITIES

* MET W/ ROY WITTENBERG (NRT) AND REPRESENTATIVES OF THE CITY OF SHEBOYGAN
RYAN SAZAMA
DAUL ← W/ PARKS AND RECREATION
TO DISCUSS BLENDING RATIOS FOR AMENDING THERMALLY TREATED MATERIAL
NRT RECOMMENDED A BLENDING RATIO OF 5:1 BY MASS (≈ 3 TO 4 : 1 BY VOLUME)

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature: _____

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Shebovgan**
Day – Date: 5-29-01

Arrival Time	8:45A	Time	9:00A	15:00P
Departure Time	4:15A	Weather	PARTLY CLOUDY	→
Total Hrs at Site	7.5	Temp	45°F	55°F
Travel Time	2.1	Precip	NONE	→
Mileage	123	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* SOMERS BEGINS BLENDING THERMALLY TREATED MATERIAL WITH COMPOST AND HAULING TO THE SITE.

* PLACEMENT OF AMENDED THERMALLY TREATED MATERIAL BEGINS @ THE SITE

* NRT LAYS OUT FUTURE PARK STRUCTURES TO FACILITATE PLACEMENT OF NON - AMENDED FILL BELOW FUTURE PARK STRUCTURES

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature: C. A. Robb

`DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Shebovgan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: WED. MAY 30, 2001

Arrival Time	7:45am		9am	2pm
Departure Time	5:00 pm	Weather	40's °F	60's °F
Total Hrs at Site	9 hrs.	Temp		
Travel Time	3 hrs.	Baro.		
Mileage	145 mi	Wind		

Summary of field engineering services and/or description of work performed .

- PAINTED STRUCTURAL AREAS ON COMPOSITE FOR TREATED MATERIAL (NOT AMENDED)

- AMENDED + TREATED MATERIAL BACKFILL ON COMPOSITE, TREATED MATERIAL ONLY IN STRUCTURAL AREAS. STARTED BY LIGHT BASE 3 ENDED BY BW-7.

- ANCHOR TRENCH AT SE CORNER WAS RECONSTRUCTED UNSTABLE MATERIAL REMOVED ALONG BACK SIDE OF TRENCH TO TEMP. SHEET PILE WALL. GEOFABRIC LAYED ON BOTTOM + ALONG TEMP. SHEET PILE WALL BEFORE PLACING PIPE BEDDING

- TANK 3 SAMPLE WAS TAKEN FROM SUPERIOR TANK. H_2O FROM SUMP DISCHARGE. ANALYZED FOR BTEX FOR WWTP PROFILE. PICK UP TOMORROW RUSH! MONDAY AFTERNOON.

- ONLY 500 CY OF COMPOST HAS BEEN MIXED W/ TREATED MATERIAL AS OF TODAY.

- GRABBED AMENDED SAMPLE FOR STD. PROCTOR.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

- RETTLER CAME AT 10am TO STAKE + MARK GRADES ~~SW~~ AT GRID POINTS + PERIMETER.

Sketch:

Scale:

Field Rep HEATHER SIMON

Position FIELD ENGR

Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology
N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates. Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: THURS. MAY 31, 2001

Arrival Time	7:45a.		8am	2pm
Departure Time	5:00p	Weather	CHANCE OF RAIN	
Total Hrs at Site		Temp	HIGH 40'S	50'S
Travel Time	3hrs.	Baro.		
Mileage	140 mi	Wind		

Summary of field engineering services and/or description of work performed

- INSTALLING PIPING IN ANCHOR TRENCH ALONG SOUTH END.
- AMENDED MATERIAL BACKFILL ALONG RIVER EDGE BY LIGHT BASE 5, 6+7 TREATED BASE COURSE MIXTURE ALONG RIVER WALK
- 11:30 CANAMEX (SCOTT T) ARRIVED TO COMPLETE INSTALLATION OF COMPOSITE BEHIND RETAINING WALL. SCOTT LEFT AT 1:30PM
- ADDED CLEAN FILL FOR BUILDING SUBGRADE SET AT 6.9' ELE.
- ROBERT E. LEE PICKED UP TANK 3 SAMPLE
- BRIAN FROM MILLER ENGR. CONDUCTED COMPACTION TESTS OF TREATED + AMENDED MATERIAL.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep HEATHER SIMON E.I.T
Position FIELD ENGR
Company **Natural Resource Technology**
Signature: Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 6-1-01

Arrival Time	7:30	Time	7:30	NA
Departure Time	11:00	Weather	Partly Cloudy	
Total Hrs at Site	3.5	Temp	55°F	
Travel Time	2.0	Precip	None	
Mileage	45	Wind	NA	

Summary of field engineering services and/or description of work performed .

* On-Site @ 7:30a
* Somers continues placement of amended and non-amended material above geosynthetic cover

* Met with Ryan Sazama with the City of Sheboygan and Roy Wittenberg (NRT) & Steve Doberk to discuss
  - Final Phase II Grades
  - Restoration of Grades in the Center Ave ROW
  - Future construction traffic
  - Inspection of fill placement from off-site borrow sources

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: FRI. JUNE 1, 2001

Arrival Time	8:00		8am	
Departure Time	14:00	Weather	RAINED LAST NIGHT	
Total Hrs at Site	6 HRS	Temp	50's	
Travel Time	3 HRS	Baro.		
Mileage	140 mi	Wind		

Summary of field engineering services and/or description of work performed .

- ANCHOR TRENCH BEHIND RETAINING WALL BACKFILL
- STARTED PLACING RIPRAP AT NORTH END BY BUILDING.
- INSTALL CONDUIT FOR OUTBOARD MOTOR CLUB ELECTRIC TO DOCK.

TO WET TO PLACE CLEAN SOIL TO CAP

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep HEATHER SIMON
Position ENVR. ENGR
Company **Natural Resource Technology**
Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Shebovgan**
Day – Date: Mon. June 4, 2001

Arrival Time	8:00am		AM	PM
Departure Time	4:30pm	Weather	misty	
Total Hrs at Site	8 1/2 hrs	Temp	45°F	56°F
Travel Time	3Hrs	Baro.	30 inches	
Mileage	140	Wind	10mph	

Summary of field engineering services and/or description of work performed .

- BACKFILLING CLEAN MATERIAL TO PHASE II GRADES (CLEAN MATERIAL FROM WILDWOOD VERY MOIST)
- SITE LOOKS GOOD CONSIDERING IT RAINED THIS WEEKEND.
- CALL MILLER TO TEST FOR COMPACTION FOR THIS AFTERNOON OR TOMORROW MORNING.
- BACKFILLING CENTER AVE. RIGHT-A-WAY W/ WILDWOOD BASECOURSE
- FILLED SOUTHERN RIVERWALK AREA W/ 46' OF BASE COURSE TO COMPLETE RIPRAP INSTALLATION.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep HEATHER SIMON E.I.T

Position FIELD ENGR

Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 6/5/01 TUES.

Arrival Time	8:00	Time		
Departure Time	11:30	Weather		
Total Hrs at Site	3 1/2	Temp		
Travel Time	3	Precip		
Mileage		Wind		

Summary of field engineering services and/or description of work performed .

* ARRIVED DURING RAIN
* SOMERS CANNOT WORK IN RAIN DUE TO SUBGRADE TOO WET.

Daily Field Report

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Heather M. Simon, E.I.T**
Position **NRT Field Engineer**
Company **Natural Resource Technology**
Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 6-7-01

Arrival Time	7:00A	Time	9:00A	--
Departure Time	10:30A	Weather	Mostly Cloudy	--
Total Hrs at Site	3.5	Temp	55°F	--
Travel Time	2.0	Precip	None	--
Mileage	143	Wind	NA	--

Summary of field engineering services and/or description of work performed .

* On-Site @ 7:00A
* Somers on-site performing riverbank restoration
  - Site remains to wet to grade or fill
  - 6 loads of screened clean material delivered from Wildwood
  - Somers trenched in sanitary sewer connection for future biosparge / outboard motor club building.
  - Mike Cuetan installed sanitary sewer piping.
  - City of Sheboygan performed inspection
* Phenco on-site to begin removal of temporary sheet pile wall
  - Observed removal w/ 10+ ton crane and vibro
    - No concerns noted w/ respect to geosynthetic cover
* NRT performed inspection of Campmarina and Wildwood to develop a punch list for completion of construction.

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 6-8-01

Arrival Time	8:10A	Time	10:15A	12:00P
Departure Time	13:30R	Weather	[redacted] SUNNY	→
Total Hrs at Site	5.3	Temp	68°F	72°F
Travel Time	2.2	Precip	NONE	NONE
Mileage	150	Wind	CALM	CALM

Summary of field engineering services and/or description of work performed .

* ON-SITE @ 8:10A
* SOMERS ON-SITE [redacted] PHASE II RIVERBANK RESTORATION CONTINUES

* PHENCO CONTINUES REMOVAL OF SHEET PILE
  - VISUAL AND ODOR EVIDENCE OF CONTAMINATION (i.e. MGP ODORS AND VISUAL STAINING) WAS OBSERVED ON SEVERAL PILES REMOVED FROM THE [redacted] EARTHEST NORTH END OF THE TEMPORARY SHEET PILE WALL ALIGNMENT

* VIBRO BROKE DOWN

FIELD NOTE SUMMARY

Project Number	1313
Project Name	Camp Marina
Project Manager	REW

Date: June 8, 2001

Work Scope: Construction oversight

NRT Representatives: Sarah A. Ganswindt, Chris A. Robb

Contractors: Pfeiffer Brothers, Neenah WI

Weather: Sunny, mid 70's (°F)

Equipment: None

Field Comments:

- Met CAR (NRT) onsite for overview of work. Scope included inspection of sheet pile panels, which were currently being removed. Suspected coal tar contamination is adhering to sheet pile panel upon removal of the temporary sheets.
- Upon completion of the removal of a sheet pile panel, a hydraulic line was pulled off the vibrator and caused a small spill, less than 5 gallons. The vibrator was labeled with a plac card, which read unit contains biodegradable hydraulic fluid. A Pfeiffer Brothers representative was able to terminate the leak immediately and removal of sheet pile panels terminated for the day.
- NRT was able to place a "D" with marking paint on sheet pile panels which had remnants of coal tar contamination present indicating they should be segregated out and deconed onsite. NRT labeled 5 sheet pile panels before work was terminated for the day due to equipment failure.

SIGNATURE: _____ DATE: June 11, 2001
Sarah A. Ganswindt

SIGNATURE: _____ DATE: _____

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Mon. 6/11/01

Arrival Time	8:00 am		PM + AM	
Departure Time	5:00 pm	Weather	Sunny	
Total Hrs at Site	9 Hrs	Temp	80	
Travel Time	3 HRS	Baro.		
Mileage	140 mi.	Wind		

Summary of field engineering services and/or description of work performed .

- Phenco pulling temp. sheet piles. Stopped around 9am due to low hydraulic fluid. (They were here at 6:30am)
- Phenco resumed pulling sheets at 11:00am
- Somers working on southern rip rap they hauled off debris at Wildwood
- Somers installed 2x4" to anchor composite to concrete curb. & started not completed
- HMS measured sump H2O elev. at 2:30pm ⇒ 5.3ft below clean out.
- Superior pumped out tank
- Somers worked on rip rap from MW-707R to Light Base 9 @ BW-08.
- Storms predicted for tonight ∴ Somers will regrade & roll site to complete runoff.
- 3:00 Phenco left for the day.
- SOMERS INSTALLED ONE RODENT CAP ON EX. DRAINAGE PIPE AT S. END

Heather Simon

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Tue. 6/12/01

Arrival Time	8:00am		AM	
Departure Time	4:30pm	Weather	Cloddy	
Total Hrs at Site	8½ hrs	Temp	70's	
Travel Time	3 hr	~~Baro.~~Prec.	Rained last night + this morning	
Mileage	145 mi	Wind		

Summary of field engineering services and/or description of work performed .

- SITE LOOKS GOOD THIS MORNING.
- PHENCO ON-SITE TO DECON SHEETS (MARKED) IN WATER BATH & OTHERS LET DRY TO BANG OFF SOIL.
- SOMERS COMPLETE RIP RAP UP TO ANCHOR TRENCH AT S. END
- PHENCO HAVE ONLY ONE LOADER TO REMOVE SHEET FROM HILLSIDE ∴ CLEARING OUT OF HILLSIDE FOR SOMERS IS TAKING LONGER THAN EXPECTED.
- SOMERS PLACED 2"x4"x8' WOOD ALONG CONCRETE CURB W/ 3 ANCHOR SCREWS.
- PHENCO STILL REMOVING SHEETS FROM HILLSIDE. WILL START DECON TOMORROW
-

Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: 6-13-01

Arrival Time	8:00A	Time	9:00A	16:30P
Departure Time	6:30P	Weather	SUNNY - CLEAR →	
Total Hrs at Site	10.5	Temp	64°F	81°F
Travel Time	2.0	Precip	NONE	NONE
Mileage	147	Wind	NA →	

Summary of field engineering services and/or description of work performed .

* PHENCO ON-SITE DECONTAMINATING SHEET PILE - HAULED OFF 27 SHEETS (21 DECONNED, 6 CLEAN)
* PERFORMED INVENTORY OF SHEET PILE
* EXAMINED LAYOUT OF BIOSPARGE BUILDING FOR FOUNDATION PLACEMENT
* SOMERS COMPLETING RIVERBANK RESTORATION

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Sheboygan**
Day – Date: Thur. June 14, 2001

Arrival Time	7:30 am			
Departure Time	5:30pm	Weather	SUNNY	
Total Hrs at Site	10 hrs	Temp	HIGH 70'S	
Travel Time	3HRS	Baro.		
Mileage	145 mi	Wind		

Summary of field engineering services and/or description of work performed .

- BUILDING CONTRACTORS ON-SITE TO DROP OFF THEIR TRAILER. THEY WILL BE BACK TO GET AN UPDATE ON SURVEY. RETTLER NEEDS TO STAKE OUT BUILDING BEFORE FOOTINGS CAN BE FORMED.

- PHENCO DECONING SHEETS

- SOMERS REMOVED SILT FENCE IN RIVER. CONSTRUCTED SILT FENCE ALONG RIVER TOP OF RIPRAP.
- SOMERS REMOVED CONTAMINATED AREAS IN CENTER AVE ROW. 2 TRUCK LOADS. MGP CONTAMINATION W/ BLUE WOOD CHIPS, IRONIZED ORANGE CHUNKS OF SOIL. (40.75 TONS)

- 27 SHEET HAULED OFF AT 1:30PM (DECONED/CLEAN) (15 DECONED, 12 CLEAN) DECONED 21 TOTAL. 2 PHENCO GUYS LEFT AT 2:00 PM FOR THE DAY.

- SOMERS GROUTED 2 FORMER MGP PIPES LOCATED EAST WALL 29.5' FROM PHONE POLE (6' APART)

- SOMERS REMOVED SOIL FROM S. END GEOCOMPOSITE DUE TO TEARS IN COMPOSITE FROM PHIFER SHEET REMOVAL ACTIVIES

Heather Simon

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: FRI. 6/15/01

Arrival Time	7:45am		8am	
Departure Time	12:00pm	Weather	Showers	
Total Hrs at Site	4.25 HRS	Temp	60's	
Travel Time	3HRS	Baro.		
Mileage	145mi	Wind		

Summary of field engineering services and/or description of work performed .

- PHENCO DECONING TEMP. SHEET PILES. THEY WILL BE LEAVING AT 11:00am
- SOMERS HAULING BASECOURSE FROM WILDWOOD TO CENTER AVE. ROW.
- PHENCO LEFT AT 9:15am PUMP is triping the BREAKER. (POSSIBLY DUE TO H_2O/RAIN)
- AT WILDWOOD SOMERS GRADING AREA FOR SURFACE WATER TO DRAIN TO SWALE.
- 10:00 Rettler ARRIVED TO STAKE OUT BUILDING FOR BUILDING CONTRACTOR
- BUILDING LOCATION SET. ELECTRICAL CONTRACTOR ~~[illegible]~~ CONCERNED W/ ELECTRIC OUTBEDS OUTSIDE ~~[illegible]~~ ALONG BUILDING RUNNING INTO RIP RAP.
- MIKE SOMMERS SAYS PHASE II GRADES TOO MUCH FILL NEEDS TO BE ADDED YET TO COMPLETE

Heather Sommers

DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates. Inc.** Day – Date: 6-18-01

Arrival Time	7:00	Time	9:00	16:00
Departure Time	5:42	Weather	SUNNY - CLEAR	PARTLY CLOUDY
Total Hrs at Site	10.7	Temp	65°F	71°F
Travel Time	2.0	Precip	NONE	NONE
Mileage	130	Wind	NA →	

Summary of field engineering services and/or description of work performed .

* PHENCO ON-SITE DECONTAMINATING TEMPORARY SHEET PILE
  - 33 TOTAL DECONTAMINATED

* [redacted] SOMERS ON-SITE TO EXCAVATE FOOTERS FOR BIOSPARGE BUILDING

* MK CONSTRUCTION ON-SITE TO BEGIN CONCRETE FORMING FOR BUILDING FOUNDATION

* MET WITH SPECT ELECTRIC PERSONNEL TO COORDINATE IN-BED LOCATIONS FOR ELECTRICAL AND TELECOMMUNICATION CABLING
  - HELPED THEM TO LOCATE GROUNDING RODS

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

N R T

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Shebovgan**
Day – Date: TUE. 6/19/01

Arrival Time	7:00am			
Departure Time	4:30pm	Weather	SUNNY	
Total Hrs at Site	9 1/2 hrs.	Temp	70's	
Travel Time	3hrs	Baro.		
Mileage	145 mi	Wind		

Summary of field engineering services and/or description of work performed

- BUILDING CONTRACTOR ON SITE ~~BE~~ FORMING FOUNDATION. GETTING IT READY FOR CONCRETE POSSIBLY TOMORROW

- ELECTRICIAN ON SITE INSTALLED ELECTRICAL CONDUITS. 2" + 4" PVC W/IN BUILDING SUBGRADE & metal pipes TO EQUIPMENT RM.

- SOMERS STARTED DUMPING WILDWOOD BASECOURSE ON TOP OF CAMPMARINA HILL. COMPACTION WAS NOT BEING DONE DUE TO THE STEEPNESS OF HILL. ONLY WAY TO GET COMPACTION WILL BE FILLING FROM BOTTOM UP. ~~HAVE~~ THOUGH THE CENTER AVE ROW TOO WET FOR TRUCKS. SOMERS STARTED PACKING ~~TRUCK~~ TRAILER. THEY WILL BE BACK NEXT WEEK ONCE THE SUBGRADE FIRMS UP TO COMPLETE GRADES AT CAMP + WILD.

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

-SOMERS ~~##~~ MADE 1" HDPE PIPES IN BUILDING MORE VERTICAL BY USING STEEL RODS & STAKES.
THEY ALSO REMOVED METAL CONDUIT FROM RIPRAP THAT WON'T BE USED.

-PHENCO DECONED 28 SHEETS TODAY WHICH COMPLETES ALL SHEETS TO BE DECONED.
TOTAL OF 107 SHEETS DECONED
WED, THUR, FRI, MON, TUE - (5 DAYS)
THEY WILL BE BACK TOMORROW TO CLEAN UP.

-CANAMER ON SITE TO REPAIR 4 BOOTS ~~FROM~~ AND GEOCOMPOSITE AT SOUTH END.
3 BTS LOOK LIKE WERE CAUSED BY PHIFER SHEET PILE REMOVALS. SAME AS WHAT HAPPENED TO COMPOSITE. COMPOSITE AREA WILL NEED LG. PIECE TO REPAIR ALG. PORTION OF AREA.

Sketch: Scale:

Field Rep HEATHER SIMON
Position
Company **Natural Resource Technology**

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Shebovgan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: WED 6/20/01

Arrival Time	7:00			
Departure Time	4:30	Weather	↑70's ↓SUNNY	
Total Hrs at Site	9½hrs	Temp		
Travel Time	3hrs	Baro.		
Mileage	145	Wind		

Summary of field engineering services and/or description of work performed .

- PLUMBERS ON SITE TO INSTALL OBMC FLOOR DRAIN.

- PHENIX NEVER RECEIVED AT SUPERIOR MANIFEST TICKET FOR CONTAMINATED SOIL THEY NEED TO REMOVE ON SITE. SOMMERS DON'T HAVE ANY 8:00 CALLED SUPERIOR TO HAVE THEM FAX ME A COPY OF MANIFEST WHICH I HAD TO SIGN. TRUCK LEFT AT 8:30 W/ LOAD. WILL RETURN TO PICK UP ANOTHER/LAST LOAD. 2nd LOAD LEFT AT 11:45. 3RD LOAD LEFT AT 2:00.

- CANAMER HAS BEEN WAITING ALL DAY FOR UPS TO DROP OFF PACKAGE (COMPOSITE) GEONET ARRIVED AT 2:00.

- CANAMER LEFT AT 4:00 AFTER COMPLETING 15'x15' GEONET + FABRIC IN AREA + REPAIRING 4 BOOTS. SEE PHOTOS.

- K+M CONSTRUCTION LEFT AT 4:00. THEY WILL BE POURING CONCRETE TOMORROW MORN AT 10am. THEY COMPLETED REBAR + CURB INSTALLATION.

Heather Simon

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Shebovgan**
Day – Date: Thurs. 6/21/01

Arrival Time	7:00			
Departure Time	3:30	Weather	Rainy on/off	
Total Hrs at Site	8 1/2 hrs	Temp	60's	
Travel Time	3hrs	Baro.		
Mileage	145mi	Wind		

Summary of field engineering services and/or description of work performed .

- M&K POURED CONCRETE THIS AM. ALL DAY THEY HAVE BEEN SMOOTHING SURFACE + CURBS.
- TMEASURED GW LEVELS IN 3 WELL NESTS.
- HNCON M&K CONSTRUCT. STARTED PULLING THE FORMS OFF OF SIDES. SEE PHOTOS
- 1:30 M&K STARTED PACKING THEIR GEAR.

Depth to water in Sump = 4.71'
ELEV = 2.79

Heather Simon

`DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW**
Client: **Wisconsin Public Service Corp.**
Contractor: **Sommers Aggregates, Inc.**

Project No: **1313**
Location: **Shebovgan**
Day – Date: Fri 6/22/01

Arrival Time	7:00		AM	
Departure Time	3:	Weather	Overcast	
Total Hrs at Site	8 HRS	Temp	60's	
Travel Time	3hrs	Baro.		
Mileage	150 mi	Wind		

Summary of field engineering services and/or description of work performed .

- M+K CONSTRUCTION PLACING 8" BLOCK WALL BTW GARAGE + LWRSC. RMS.

- RETTER CALL FOR PHASE II GRADES. THEY WILL BE SURVEYING THE HILL TODAY

- MK CONSTRUCTION LEFT AT 9:00. THEY HAD TO POUR CONCRETE ELSE WHERE

- 11:45 RETTER SURVEYORS ARRIVED THEY SURVEYED TOP OF SLOPE, BREAK POINT BTW 2:1 & 3:1 AND BOTTOM OF SLOPE AT 585 FT ELE. THEY ALSO SURVEYED FOR TOPO OF HILL.

- 1:00 REL ARRIVED TO PICK UP DECON SAMPLE FROM TANK. H_2O IN TANK IS FROM DECON PAD OF SHEET PILE WALL.

Heather Simon

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 6-26-01

Arrival Time	8:30	Time	9:00A	3:00P
Departure Time	5:42	Weather	SUNNY-CLEAR	→
Total Hrs at Site	9.7	Temp	64°F	82°F
Travel Time	2.0	Precip	NONE	→
Mileage	150	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* SOMERS ON-SITE TO PERFORM TEST PITS IN CENTER AVE. ROW TO BETTER ASSESS THE [redacted] SUBGRADE CONDITIONS IN THE CENTER AVE. ROW

* NRT ON-SITE TO OBSERVE TEST PITS TP-707 & TP-708
  - THREE TRUCKLOADS (APPROXIMATELY) OF SOIL WITH MGP AFFECTS EXCAVATED IN VICINITY OF TP-707 AND STOCKPILED AND COVERED WITH PLASTIC
  - COLLECTED EZ-207 BASE SAMPLE FOR ANALYSIS OF BETX, PAHS, AND TOTAL CYANIDE
  - TP-708 HAD NO VISUAL INDICATIONS OF MGP AFFECTS
  - COLLECTED EZ-208 BASE SAMPLE FOR ANALYSIS OF BETX, PAHS, AND TOTAL CYANIDE

* PERFORMED SITE INSPECTION WITH RAY WITTENBERG (NRT)

Daily Field Report

Natural Resource Technology

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Thurs 7/5/01

Arrival Time	7:30 am		AM	PM
Departure Time	10:00 am	Weather	Sunny	
Total Hrs at Site	3 1/2 hrs	Temp	70's	70's
Travel Time	3 hrs	Baro.		
Mileage		Wind		

Summary of field engineering services and/or description of work performed .

* MK CONSTRUCTION WORKING ON FRAMING BLOOPARGE BUILDING. TRUSSES ARE UP.
* MEASURED SUMP WATER LEVEL AT 2.8' ELEVATION.
* SUPERIOR SERVICE PICK UP DECON'. H_2O IN TANK.
* Shingles will be placed

DAILY FIELD REPORT

Natural Resource Technology

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Shebovgan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: 7-9-01

1 HR OFF-SITE

Arrival Time	8:00	Time	9:00A	14:00P
Departure Time	4:18	Weather	SUNNY - CLEAR	→
Total Hrs at Site	7.3	Temp	75°F	90°F
Travel Time	2.0	Precip	NONE	→
Mileage	150	Wind	NA	→

Summary of field engineering services and/or description of work performed .

* NRT ON-SITE TO CHECK ON PROGRESS OF BUILDING
* MET WITH MIKE SOMERS TO DISCUSS FINAL BACKFILLING OF THE SITE
* SOMERS BEGINS GRADING @ WILDWOOD TO BRING FILL OVER TO CAMPMARINA
* ATTENDED PRE-BID MEETING WITH THE CITY OF SHEBOYGAN FOR FUTURE RIVERWALK AND PARK CONSTRUCTION

Daily Field Report

Natural Resource Technology

N R T

Summary of field engineering services and/or description of work performed (continued).

Sketch: Scale:

Field Rep **Christopher A. Robb, P.E.**
Position **NRT Project Engineer**
Company **Natural Resource Technology**

Signature:

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Sheboygan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: Tue. 7/10/01

Arrival Time	9:00am			
Departure Time	5:00pm	Weather	↑ 80's	
Total Hrs at Site	8hr	Temp	Sunny	
Travel Time	3hr	Baro.		
Mileage	GOLDTRUCK	Wind		

Summary of field engineering services and/or description of work performed .

WILDWOOD:
- SOMERS REMOVING BASE COURSE HAULING TO CAMPMARINA TO FILL HILLSIDE. ~40 TRUCKS LOADS LEFT.

CAMPMARINA
- GRADING HILLSIDE + FILLING IN BASE COURSE.

- COMPACTION TESTING DONE ALONG SOUTHERN END OF SITE. ALSO 4 TEST DONE ON 3 HILL AT 4 LOCATIONS. SEE MILLERS NOTES.

- BUILDING RECEIVING BRICK EDGING, SHINGLES, FACE BOARDS.

- ASKED MIKE TO ~~REGRA~~ TOUCH UP & GRADE AT DECON PAD LOCATION.

- NO EROSION MATTING NEEDED ON HILL SIDE. CHAIN LINK FENCE WILL STAY UNTIL CITY LETS US KNOW WHEN WE THEY DON'T WANT IT ANYMORE.
- MONITORING WELLS WILL BE EXTENDED ONCE CITY IS READY TO BACKFILL TO FINAL PARK GRADE.

Heather Simon

`DAILY FIELD REPORT

Natural Resource Technology

Page 1 of 2

Project: **Campmarina and Center ROW** Project No: **1313**

Client: **Wisconsin Public Service Corp.** Location: **Shebovgan**

Contractor: **Sommers Aggregates, Inc.** Day – Date: WED. 7/11/01

Arrival Time	8:00am			
Departure Time	1:30pm	Weather	SUNNY	
Total Hrs at Site	5 1/2	Temp	70's	
Travel Time	2 hr 45min	Baro.		
Mileage	GREEN VAN	Wind		

Summary of field engineering services and/or description of work performed .

- WILDWOOD PILES STILL ON SITE. SOMERS WILL BE GRADING ON-SITE.
- CAMPMARINA GRADING 2:1 SLOPE ON HILL.

10:00 BRIAN FROM MILLER CAME AND TESTED HILLSIDE FOR COMPACTION. ALSO, HE GRABED A SAMPLE OF WILDWOOD FILL FROM HILLSIDE FOR PROCTOR.

- COMPACTED HILL AS BEST AS POSSIBLE W/O LOOSING EQUIPMENT TRACKTION.
- COMPACTED REST OF SITE. SURFACE REAL POWDERY NO RAIN FOR WEEKS.
- GRADED NORTH END SOUTH OF BUILDING A BIT TO REMOVE DIPS.
- PICKED WICKERSTONE COLOR FOR STEAL SIDING
- WILDWOOD: GRADED AREA, CREATED A SWALE HEAD NORTH FROM CONCRETE BINS. ALSO, BACKFILLED EXCAVATION AREA W/ TOPSOIL

J Simon