80% INTERIM REMEDIAL MEASURE DESIGN REPORT

EMERSON POWER TRANSMISSION FACILITY
620 SOUTH AURORA STREET
ITHACA, NEW YORK
SITE NO. 7-55-010

PREPARED

BY

WSP ENGINEERING OF NEW YORK, P.C.

JULY 17, 2008

WSP Engineering of New York, P.C.
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
Tel: (703) 709-6500
Fax: (703) 709-8505
www.wspenvironmental.com

Contents

Page

Acronym List v

1.0 Introduction 1
1.1 Purpose and Objectives of IRM 1
1.2 Report Organization 2

2.0 Site Description and Background 3
2.1 Site Description 3
2.2 Physiographic Setting and Geology 4
2.2.1 Joint Measurements 5
2.2.2 Structural Framework 6
2.3 Site Hydrogeology 6
2.4 Fire Water Reservoir Area – Conceptual Site Model 7
2.5 Previous Investigations 8
2.6 Existing Groundwater Extraction System 9
2.7 IRM Objectives 10

3.0 Pre-Design Investigations Scope and Results 11
3.1 Scope of Work 11
3.1.1 Exploratory Borings 11
3.1.1.1 Borehole Development 12
3.1.1.2 Geophysical Logging 12
3.1.1.3 Vertical Groundwater Profiling 13
3.1.2 Aquifer Testing 14
3.1.2.1 Selected Extraction Well 15
3.1.2.2 Aquifer Testing Procedures 15
3.1.2.3 Short Duration Yield Test 15
3.1.2.4 Background Water Level Monitoring 16
3.1.2.5 Constant Rate Pumping Test 17
3.1.2.6 Discharge Sampling and Analysis 17
3.1.2.7 Analysis of Pumping Test Data 18
3.2 Pre-Design Investigation Results 19
3.2.1 Borehole Geophysical Logging Results 19
3.2.2 Vertical Groundwater Profiling 20
3.2.3 Aquifer Testing Results 21
3.2.3.1 Key Results of C-zone Constant Rate Test 22

4.0 Basis of Design 27
4.1 Vacuum Pilot Test Results 27
4.2 Well Placement and Flow Rate 27
4.3 VOC Mass Loadings 29
4.4 Treatment Requirements 30
4.5 Site-Specific Conditions Affecting System Design 30

Contents
(continued)

Page

5.0 Description of Proposed Interim Remedial Measure 31
5.1 Mobilization 31
5.2 Site Preparation 31
5.2.1 Identification of Utilities 31
5.2.2 Exclusion Zone 32
5.2.3 Support Zone 32
5.2.4 Contamination Reduction Zone 32
5.2.5 Staging Area 32
5.2.6 Removal of Existing Treatment System 32
5.3 Groundwater Extraction and Treatment System 32
5.3.1 Extraction Wells 33
5.3.2 Groundwater Pumps and Associated Equipment 36
5.3.3 Well Vaults 37
5.3.4 Trenching and Conveyance Piping 37
5.3.5 Aqueous Stream Treatment Equipment 38
5.3.5.1 Equalization Tank 39
5.3.5.2 Filtration Units 39
5.3.5.3 Low Profile Tray Air Stripper and Blower 39
5.3.5.4 Liquid Phase Granular Activated Carbon 39
5.4 Effluent Discharge 40
5.5 Vapor Stream Treatment Equipment 40
5.5.1 Air/Water Separator and Blower 40
5.5.2 Vapor Phase Granular Activated Carbon 40
5.6 Telemetry and Instrumentation 40
5.7 Process Logic Control 42
5.7.1 Automatic Equipment Actuations 43
5.7.2 Automatic Alarm Deactivation 43
5.8 System Utilities 44
5.9 Site Restoration 44
5.10 Equipment Decontamination and Demobilization 45
5.11 Well Survey 45

6.0 System Startup and Operation
6.1 System Startup 46
6.1.1 Conveyance System 46
6.1.1.1 Extraction Wells 46
6.1.1.2 Air Supply Compressor 46
6.1.1.3 Conveyance Piping 46
6.1.1.4 Extraction Well Pumps, Vapor Extraction, and Associated Components 46

Contents
(continued)

Page

6.1.2 Treatment System 47
6.1.2.1 Equalization Tank 47
6.1.2.2 Filter Bag Units 47
6.1.2.3 Low Profile Tray Air Stripper and Blower 47
6.1.2.4 Air/Water Separator and Blower 48
6.1.2.5 GAC Units 48
6.1.2.6 Process Logic Control 48
6.2 Performance Monitoring 48

7.0 Permits and Approvals 50
7.1 General 50
7.2 Air Emission Requirements 50
7.3 Wastewater Requirements 50
7.4 Waste Requirements 51
7.5 Local Requirements 51

8.0 Health and Safety 52

9.0 References 53

List of Figures:

Figure 1 – Site Location
Figure 2 – Site Layout
Figure 3 – Conceptual Site Model Beneath Fire Water Reservoir
Figure 4 – Supplemental Exploratory Boring Locations
Figure 5 – Distribution of Affected Groundwater
Figure 6 – C-Zone Maximum Drawdown Map – EXB-06 Aquifer Test
Figure 7 – Plot of EXB-06 Discharge during Drawdown Portion of Aquifer Test
Figure 8 – Estimated Groundwater Capture Area for Proposed Extraction Well Network

List of Tables:

Table 1 – Groundwater Sample Results – EXB-09, EXB-10, EXB-11
Table 2 – Hydraulic Properties – 2008 Aquifer Test Results (EXB-06)
Table 3 – Discharge Groundwater Sample Results – EXB-06

Contents
(continued)

List of Appendices:

Appendix A – Exploratory Boring Logs and Rock Core Photographs – EXB-09, EXB-10, EXB-11
Appendix B – Borehole Geophysical Logs – EXB-09, EXB-10, EXB-11
Appendix C – Groundwater Sampling Logs – EXB-09, EXB-10, EXB-11
Appendix D – Aquifer Test Data
Appendix E – Design Drawings
Appendix F – Engineering Calculations
Appendix G – DAR-1 Model Output

Acronym List

aMSL	above mean sea level
bgs	below ground surface
CSM	conceptual site model
DO	dissolved oxygen
DOT	Department of Transportation
EPT	Emerson Power Transmission
GAC	granular activated carbon
gpm	gallons per minute
HASP	Health and Safety Plan
HDPE	high density poly ethylene
ID	inside diameter
IRM	Interim Remedial Measure
LAH	level alarm high
LSH	level switch high
LSHH	level switch high high
LSL	level switch low
LSLL	level switch low low
NYSDEC	New York State Department of Environmental Conversation
OM&M	operation maintenance & monitoring
ORP	oxygen reduction potential
PLC	programmable logic controller
PID	photoionization detector
SOP	Standard Operating Procedure
SRI	Supplemental Remedial Investigation
SRP/AA	Supplemental Remedial Program/Alternatives Analysis
TCE	trichloroethene
VOC	volatile organic compound

1.0 Introduction

On behalf of Emerson Electric Co. and its subsidiary, Emerson Power Transmission Corp. (EPT), WSP Engineering of New York, P.C. has prepared this 80% Interim Remedial Measure (IRM) Design Report for the EPT site in Ithaca, New York (the site). This report details the activities that will be performed to implement the IRM in the area of the fire water reservoir at the EPT site as described in the Revised Supplemental Remedial Program/Alternatives Analysis (SRP/AA) Report, dated June 30, 2008.

Specifically, the IRM will involve constructing an enhancement to the existing groundwater extraction and treatment system to intercept affected groundwater in the highly fractured bedrock (B-zone) and the horizontal bedding plane within the C-zone between 515 and 518 feet above mean sea level (aMSL) as well as extracting groundwater from the C-zone immediately below the fire water reservoir.

This report has been prepared in accordance with an Administrative Order on Consent (Index #A7-0125-87-09) entered into by the New York State Department of Environmental Conservation (NYSDEC) and EPT on July 13, 1987 and the NYSDEC letter to Emerson, dated May 30, 2008.

1.1 Purpose and Objectives of IRM

The objectives of the IRM are to provide hydraulic control of affected groundwater and enhance mass removal of volatile organic compounds (VOCs) in the B-zone and C-zone at the fire water reservoir and downgradient areas. As detailed in the Revised SRP/AA Report dated June 30, 2008, pre-design investigation activities were conducted to fill data gaps and to further evaluate the hydraulic characteristics of the C-zone bedding plane fracture. The resulting data was used to select the design parameters for the IRM. This design report provides the following:

1. Appropriate engineering design criteria for various remedial components
2. Specific design information such as preliminary equipment selection
3. Design calculations, as appropriate, to support the various design selections

This 80% Design Report details the components of the IRM and also allows for some future design modifications to the Engineering Drawings and Specifications.

1.2 Report Organization

This report is organized into nine major sections. Section 1.0 describes the project, identifies the purpose of this report, and presents the report organization. Section 2.0 presents relevant site background information, investigative and remedial history, and remedial action objectives of the IRM. This is followed by Section 3.0 which presents a summary of the pre-design investigation activities. Section 4.0 presents the basis of design for the IRM, while Section 5.0 describes the elements to be undertaken related to implementing the IRM. System start-up and operation is described in Section 6.0. In Section 7.0 the permits and approvals required to construct and operate the IRM are identified. Section 8.0 discusses health and safety during construction and operation of the IRM. Finally, Section 9.0 presents the technical references used for this document.

2.0 Site Description and Background

2.1 Site Description

The EPT facility is located at 620 South Aurora Street in Ithaca, New York (Figure 1). The site consists of three main buildings along the northeast and southwest portions of South Hill (Figure 1). The facility buildings are located at an elevation of approximately 600 feet aMSL. The majority of the floor space is in the main plant building, which extends approximately 1,600 feet near the northeastern portion of the 110-acre site. The main building is flanked by a number of smaller buildings to the southwest and a series of access roads and parking lots that terrace the hillside above the plant to the east (Figure 2). Further uphill and to the east are South Aurora Street and the campus of Ithaca College. The former NCR facility site is to the south of the EPT property. Undeveloped woodland borders the site to the southwest along the steep embankments of the hill. West Spencer Street, which runs parallel to the EPT property, marks the western edge of the wooded area and the base of South Hill. Beyond Spencer Street to the west and in areas along the steep northern approach to South Hill and the EPT property are residential areas. These neighborhoods are bordered by Six Mile Creek, which flows north along the base of South Hill and eventually empties into Cayuga Lake approximately 2 miles northwest of the site. Figure 2 shows the facility layout and the surrounding areas.

The original building at the EPT site was built in 1906 by Morse Industrial Corporation, which manufactured steel roller chain for the automobile industry. From approximately 1928 to 1983, Borg-Warner Corporation owned the property and manufactured automotive components and power transmission equipment using similar processes, but not necessarily the same materials, as those currently conducted by EPT. A more detailed description of the site history and construction dates of the various building at the site is detailed in the report entitled "*Onsite Assessment of the Former Borg Warner – Morse Chain Facility"* (ESC 2005). Up until the late 1970s, Borg-Warner Corporation used trichloroethene (TCE), a widely-used solvent at the time for cleaning and degreasing metal parts. In 1983, Morse Industrial Corporation was purchased from Borg-Warner Corporation by Emerson and, in the late 1980's, became known as Emerson Power Transmission. EPT manufactures industrial roller chain, bearings, and clutching for the power transmission industry. Under Emerson's ownership, TCE has not been used at the Ithaca facility. Investigations conducted by Emerson in 1987 revealed onsite groundwater

contamination, originating from a fire-water reservoir located on the western portion of the property. Emerson promptly reported these findings to the NYSDEC. The remediation of this contamination was the subject of the July 1987 Consent Order (Index # A7-0125-87-09) referenced above.

2.2 Physiographic Setting and Geology

The EPT site is located on the northern edge of the Appalachian Plateau Physiographic Province, which is characterized in central New York by deeply dissected hilly uplands and glacially gouged stream valleys. The EPT site lies on the limits of one of the dissected hills and overlooks the Cayuga Lake basin, which is formed in a former stream valley eroded and enlarged by the advance of glaciers. Underlying the site is a thin, discontinuous veneer of glacial till and man-made fill. The soil is classified as the "A-zone" in the site conceptual model and hydrogeologic framework presented below. It is typically silty or clayey gravel and is approximately 12 feet thick in the fire reservoir area. Soil depths generally increase with decreasing elevation and eventually merge with glacio-lacustrine silt and clay that lines the bottom of the valley floor below South Hill.

Beneath the overburden lies bedrock of the Ithaca Siltstone, a member of the Genesee Formation. The bedrock is typically well-cemented with generally non-fossiliferous beds ranging in thickness from 0.1 inch to 2.5 feet in thickness. Previous interpretations of the site bedrock, based on core logs recovered from boreholes drilled during investigation activities, differentiated the rock into three zones based on the frequency of bedding plane fractures and joints: an upper "stress relief zone" (B-zone), a middle "transitional zone" (C-zone), and a lower "lithologically controlled zone" (D-zone). The uppermost B-zone is characterized as very highly to highly fractured weathered bedrock. Onsite the B-zone extends to a maximum depth of approximately 22 feet below ground surface (bgs) and has an average thickness of approximately 8 to 10 feet on the western portion of the site where the current remediation system is located.

The transitional zone (C-zone) extends from the base of the B-zone to a maximum depth of approximately 55 feet bgs at the EPT site. The lower lithologically controlled zone (D-zone) extends from the bottom of the C-zone to a minimum depth of 145 feet bgs. According to geologic logs, bedding plane fractures are reportedly confined to intervals that are widely spaced, and their occurrence is controlled by lithology.

2.2.1 Joint Measurements

Four regular joint sets are recognized regionally: Two cross-strike joint sets (Ia and Ib) related to separate phases of the Alleghanian Orogeny, a strike-parallel set (II), and an oblique set (III) reflecting the contemporary stress field. Engelder and Geisler (1980) reported measured orientations of the joint sets in Tompkins County and throughout the Appalachian Plateau of New York. The average strike of Ib joints at 11 outcrops of the Genesee Group in Tompkins County was 341° ± 3°. The average strike of Ia joints at two outcrops of the Genesee Group in Tompkins County was 007° ± 3°. The average orientation of the strike-parallel joint set (II) was 82°.

Engelder and Geisler (1980) also observed that joints in the siltstone are more likely to have regular spacing, while joints in the shales were less likely to be regularly spaced. Vertically, joints tended to terminate at lithologic boundaries.

As detailed above, the bedrock in the Ithaca area is cut by at least three sets of vertical fractures or joints. Limited geologic mapping performed by Radian at 16 bedrock outcrop locations on and around the EPT facility identified three consistent joint orientations: N13W to N21W (north-northwest); N70E to N89E (east-northeast); and N45E to N55E (northeast). Two of the three strike orientations measured by Radian are in close agreement with regional joint set measurements of N19W and N7E made at outcrops of the Genesee Group in Tompkins County. All of the joints measured by Radian were within 8° of vertical.

In December 2005, WSP measured the orientation of bedrock joint sets at seven bedrock outcrops in the South Hill area northwest of the EPT facility. Two primary joint sets were identified, one oriented north-northwest and another oriented east-northeast. The north-northwest trending joint set was more common and better expressed in the observed bedrock outcrops. A total of 22 measurements were made of the north-northwest trending joint set and 3 measurements of the east-northeast trending joint set. Measurements were made using a Brunton compass adjusted for magnetic declination of Ithaca, New York at the time of the investigation (12° 12’ W). The mean joint orientation of the 22 north-northwest trending joint set measurements was 342/82 (strike/dip using right-hand rule) or N18W/82E. The mean joint orientation of the three north-northeast trending joint set measurements was 252/81 or S72W/81N. These orientations are consistent with published regional trends, as well as previous measurements collected by Radian.

2.2.2 Structural Framework

As part of the 2007 Supplemental Remedial Investigation (SRI), downhole logging and sampling was completed at 17 exploratory borings drilled across the site. The objective of the investigation was to develop a more comprehensive understanding of potential migration pathways within bedrock underlying the area and to build on the data collected from previous investigations. The results of the SRI indicated that two types of well defined fractures are visible in outcrops, geophysical logs, and rock cores collected. The first type is horizontal open fractures that are parallel to bedding (bedding plane fractures). The second type consists of three orientations of nearly vertical joint sets. The bedding plane fractures extend laterally a few inches or feet and intersect to create an interconnecting network of relatively planar, paper-thin, horizontal planes of effective porosity. The individual vertical joint sets extend 10s of feet laterally and vertically to create an intersecting network of permeable vertical conduits that are bounded by blocks of bedrock.

In addition, the results of exploratory borings installed near the fire water reservoir confirmed the presence of bedding plane fractures at an elevation of approximately 515 feet aMSL in each of the six exploratory borings installed. This bedding plane fracture has been identified as a major migration pathway for groundwater beneath the fire water reservoir area.

2.3 Site Hydrogeology

Groundwater flow within the overburden and underlying B-zone generally mimic surface topography, which slopes to the northwest. Groundwater flow within the siltstone bedrock (C and D zones) is significantly affected by vertical and horizontal distribution of vertical joint sets and horizontal bedding plane fractures within the upper sections of bedrock.

Groundwater near the fire water reservoir area is present within the overburden and bedrock. Overburden groundwater appears to be perched and is restricted to limited areas of the site where the discontinuous cover of soil is thickest. In areas where the soil cover is thin (i.e., steep slopes along Turner Place), the overburden or upper portion of fractured bedrock is not saturated. Based on measurements collected during groundwater sampling, the overburden groundwater in the remediation area is in hydraulic communication with the underlying bedrock of the B-zone, and the two units appear to be acting as a single hydraulic zone. In addition, the results of aquifer testing conducted within the remediation area indicate that because of the

highly fractured and jointed nature of the B-zone, the unit responds as porous media. In the less fractured and jointed deeper sections of bedrock, the system responds as a fracture flow network with both primary and secondary porosity.

2.4 Fire Water Reservoir Area - Conceptual Site Model

The conceptual site model (CSM) was developed for the EPT Ithaca site based on available data to illustrate the relationship between the constituents of concern, transport pathways, potential exposure pathways including point routes, and receptors. The CSM is for VOC-containing groundwater associated with releases from the fire water reservoir and the associated transport pathways.

The fire water reservoir has a capacity of 200,000 gallons and was constructed in 1906. The reservoir is constructed of concrete and extends approximately 19 feet bgs. Unsaturated soil is present in the fire water reservoir area to a depth of approximately 12 feet and is underlain by highly fractured bedrock to a depth of approximately 22 feet bgs. Groundwater is encountered at the soil bedrock contact at approximately 12 feet below bgs, which is approximately 7 feet above the base of the reservoir. The results of previous investigations show that the fire water reservoir is the source of solvent releases to the subsurface. Specifically, solvents, which were discharged to the reservoir, migrated through cold joint cracks in the sidewalls and possibly the base of the reservoir into the surrounding fractured bedrock (B-zone). The bedrock surrounding the reservoir consists of a highly jointed and fractured siltstone. Releases from the reservoir discharged directly into surrounding groundwater present within the fractured bedrock (B-zone).

Once in the bedrock, dissolved constituents migrated horizontally with groundwater downgradient within the highly fractured material as well as vertically downward via open joints sets (vertical fractures) that intersect a prominent bedding plane fracture at the base of the C-zone (Figure 3). The main transport mechanisms for releases from the reservoir are through the vertical joint (fracture) sets and horizontal bedding planes in the bedrock. These migration pathways form an interconnected network for groundwater transport. The horizontal bedding planes (fractures) significantly decrease in frequency with depth (Figure 3). The vertical joint sets remain open and do not change with depth, but appear to terminate at lithologic contacts (Engelder and Geisler 1980).

A prominent horizontal bedding plane was identified at an elevation between 515 to 518 feet aMSL (base of C-zone) beneath the fire water reservoir area. This nearly horizontal feature extends, at a minimum, laterally to the west and potentially discharges into the B-zone identified near EXB-07 located on South Cayuga Street.

In the fire water reservoir area, groundwater generally occurs within the upper portion of fractured bedrock (B-zone) and within a bedding plane fracture encountered at 515 feet aMSL (C-zone).

2.5 Previous Investigations

A series of supplemental investigations were conducted in the area of the fire water reservoir (remediation area) in August 2003, June 2006, and the fall of 2007 to further evaluate groundwater within the B-zone and C-zone and ascertain the characteristics of the aquifer in these zones. The B-zone work involved installing and sampling B-zone monitoring wells adjacent to the fire water reservoir and within the current remediation area. This work was followed by a series of short duration B-zone pumping tests. The C-zone work involved packer testing, surface and subsurface geophysics, and installation and sampling of exploratory borings within the firewater reservoir area and downgradient. The major findings of these investigations are as follows:

- a substantial amount of VOC mass is present within the upper portion of B-zone fractured bedrock (10 to 22 feet bgs);
- a horizontal bedding plane fracture zone at approximately 515 feet aMSL in the C-zone is a significant groundwater transport pathway;
- the existing extraction system is capturing affected groundwater in the C-zone within the remediation area but it can be enhanced to more effectively remove VOC mass in the bedding plane fracture at 515 feet aMSL as well as the B-zone;
- a petroleum product was encountered in one B-zone well (MW-8B) located to the east of the fire water reservoir;
- aquifer testing demonstrated that the B-zone aquifer is generally equivalent to a porous media and that there is little to no hydraulic connection between the B- and C- zones at extraction well EW-3 within the remediation area; and

- the extent of affected groundwater within the B-zone is laterally defined to the northeast and southwest of the remediation area.

As summarized in the 2007 SRI and in the 2008 SRP/AA, certain data gaps were identified based on a detailed evaluation of these investigations and include:

- the extent of affected groundwater within the bedding plane fracture (C-zone) to the north, south, and west of the remediation area was not defined
- the extent to which the existing extraction system is capturing affected groundwater throughout the remediation area was uncertain
- the extent of petroleum within the B-zone to the north of MW-8B was uncertain
- the characteristics of the C-zone aquifer throughout the remediation area were uncertain
- additional data was necessary to draw definitive conclusions regarding groundwater quality in the D-zone

As a result, a pre-design field investigation was conducted to fill these data gaps and to determine specific design parameters relevant to the proposed IRM. The results of the pre-design investigation are summarized in Section 3.0.

2.6 Existing Groundwater Extraction System

The remedy selected for the fire water reservoir area, as detailed in the Record of Decision (December 1994) was 2-PHASE™ Extraction, which removes both groundwater and vapors from wells. This system consisted of five extraction wells (EW-1, EW-3, EW-4, MW-2, and MW-31) installed downgradient of the fire water reservoir (Figure 4). The extraction wells were completed at depths of approximately 50 to 65 feet bgs within the C-zone. Groundwater was removed by the extraction wells using a high efficiency vacuum blower. Extracted groundwater and vapors were piped to an air/water separator to separate the air and water streams. Groundwater was subsequently treated using activated carbon to remove the VOCs. The air stream was vented to the atmosphere and the treated water was discharged to a permitted Outfall #001 located on the western portion of the facility. The system has been in operation since July 1996 in accordance with the *Operation, Maintenance, and Monitoring Manual* dated April 1997, and addendum pages dated July 11, 1997.

The groundwater recovery system is evaluated based on the results of quarterly and semi-annual sampling events. The sampling events are conducted according to WSP's standard operating procedures (SOPs), with all appropriate quality assurance/quality control measures taken during the events. The most recent quarterly sampling event occurred in December 2007, and the results were presented in the July through December 2007 Semi-Annual 2-PHASE™ Extraction System Progress Report #23.

2.7 IRM Objectives

The supplementary remedial program involves implementing an enhancement to the existing groundwater extraction system and extracting from the C-zone immediately below the fire water reservoir as an IRM. The IRM objections are to (1) intercept contaminated groundwater flow from the highly fractured and interconnected bedrock (B-zone) and from the horizontal bedding plane fractures at the base of the C-zone between 515 and 518 feet aMSL; and (2) reduce concentrations of VOCs in the subsurface by extracting both aqueous and vapor phases for treatment.

3.0 Pre-Design Investigations Scope and Results

3.1 Scope of Work

This section describes the scope of work that was completed to fill the data gaps identified in Section 2.5. The work activities were conducted in accordance with the NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated December 25, 2002, and WSP's SOPs, which were provided to NYSDEC on July 28, 2004 (2004 Supplemental Groundwater Investigation Work Plan). Additionally, all manufacturer specifications were adhered to for operation and maintenance of field sampling and monitoring equipment.

3.1.1 Exploratory Borings

Two C-zone exploratory borings (EXB-09 and EXB-10) were installed to further characterize the C-zone bedding plane fractures in bedrock north and south of the fire water reservoir area (Figure 4). The data collected from these borings has been used to show the horizontal extent of affected groundwater within the C-zone bedding plane fracture. In addition, one D-zone exploratory boring (EXB-11) was installed in an area of affected groundwater downgradient of the fire water reservoir to evaluate the lower sections of bedrock.

The C-zone borings were completed to a depth intersecting an elevation of 515 feet aMSL and the D-zone boring was installed to a depth approximately 55 feet below the 515 foot elevations (460 feet aMSL). The C-zone exploratory borings EXB-09 and EXB-10 were drilled to a depth of approximately 65 feet bgs. The D-zone (EXB-11) exploratory boring was drilled to a depth of approximately 80 feet bgs. Borings EXB-09 and EXB-10 were designed to intersect the bedding plane elevation at 515 feet aMSL. EXB-11 was designed to intersect and evaluate features below the C-zone bedding plane.

Each boring was drilled using 6.25-inch inside-diameter (ID) hollow-stem augers through the overburden. Continuous soil samples were collected from the ground surface to refusal at bedrock using 2-foot-long, split-spoon samplers. The soils recovered from the split spoons were screened for organic vapors in the field using a photoionization detector (PID). At each boring location, the bedrock was cored, and each section of rock core recovered was logged for lithology, structure, and the presence of water conducting fractures or solutional openings. Photographs of the rock cores and geologic logs of each exploratory boring are included in Appendix A.

All cuttings removed from the borehole were screened with a PID. Because no PID readings were noted, no soil samples were submitted to the laboratory for analysis. At EXB-09 and EXB-10, a steel casing was grouted in place within the borehole below the highly fractured ("B") zone to seal it from the C-zone bedrock. At EXB-11, a steel casing was grouted in place within the borehole at an elevation below the C-zone bedding plane to seal it from the more competent D-zone bedrock. Coring continued until the targeted depths were reached. The Rock Quality Designation of each bedrock core was measured and recorded in the field logbook and is included in the boring logs (Appendix A). Once the terminal depth of the boring was reached, the borehole was reamed using a 4.25-inch rotary air hammer. The borings were installed by a driller licensed in the state of New York in accordance with § 15-1525 of the New York Environmental Conservation Law.

The elevations of the ground surface at the exploratory boring locations were surveyed to the nearest 0.01 foot. The horizontal location of the boring location was also determined to the nearest 0.1 foot and referenced to the state plane coordinate system. A surveyor licensed in New York State surveyed the locations and elevations. The locations and elevations of the borings were tied into the existing base map for the site.

3.1.1.1 Borehole Development

Each exploratory boring was developed to remove sediments and ensure effective communication between the borehole and surrounding saturated zones. Groundwater from the borings was removed by pumping. Development continued until the discharge was relatively free of suspended sediments. Water generated during the well development was contained in a Department of Transportation (DOT) approved drums for characterization and offsite disposal.

All development/redevelopment activities were conducted with clean equipment to prevent potential cross-contamination between boring locations. Equipment was cleaned between each boring with the decontamination procedure dependent on the development/redevelopment method(s) and equipment used.

3.1.1.2 Geophysical Logging

Downhole geophysical logging was conducted in each newly installed exploratory boring (EXB-09, EXB-10, and EXB-11). Mid-Atlantic Geosciences of Lancaster, Pennsylvania, conducted the logging activities during the week of June 9, 2008, and their logs are included as Appendix B. The geophysical logging techniques were the same as those used during the

investigation conducted in 2006 and 2007 in the remediation area and included logging of fluid temperature, fluid conductivity, natural gamma radiation, borehole diameter and surface structure using a three-arm caliper, and optical/high resolution acoustic televiewer (OPTV/HRAT) imaging of the borehole walls.

The purpose of the geophysical logging was to locate potential open fracture zones where groundwater was entering or exiting the borehole. A fluid probe was used to measure changes in temperature and conductivity of the undisturbed water column in the borehole. A three-arm caliper provided a mechanical measurement of the borehole wall diameter and to identify the location of fractures along the borehole wall. The natural gamma radiation logs were used to identify lithologic changes in the borehole and for stratigraphic correlation between boring locations.

Both the temperature/conductivity logs and caliper logs were verified by the OPTV/HRAT survey. The OPTV uses a downhole camera equipped with a hyperbolic mirror to examine the borehole walls. This device uses successive image scans (0.5 millimeter in length) to build a continuous optical record that is ultimately transferred to a paper log for analysis. In wells with low visibility (due to groundwater with a high particle load), the HRAT is substituted for the OPTV. The HRAT uses an acoustical signal to build a similar log of the borehole. Onboard magnetometers measure the orientation of the OPTV/HRAT during its descent allowing the strike and dip of fractures or bedding planes to be measured directly from the output log.

The OPTV/HRAT survey provided for direct visual examination of the potential fracture zones identified by the logs to determine the fracture abundance and their potential for transmitting groundwater. This information was used to select specific open or partially open fractures for collecting discrete interval groundwater samples.

3.1.1.3 Vertical Groundwater Profiling

Based on the results of the geophysical logging, selected intervals within each borehole were designated for discrete sampling to evaluate groundwater quality with the identified fracture. The intervals selected for profiling and the rationale are detailed in Section 3.2.2. During the week of June 9, 2008, WSP collected a total of three groundwater samples from the three exploratory bedrock borings (EXB-09, EXB-10, and EXB-11).

Discrete fracture sampling was conducted using a QED SamplePro portable bladder pump powered by compressed CO_2. The pump intake was set within the open borehole at the

targeted sample depth. During purging, temperature, pH, specific conductance, dissolved oxygen (DO), turbidity, and oxygen-reduction potential (ORP) were monitored using a flow-through cell, and drawdown was monitored using the electronic water-level indicator. Field parameters, including the water level in the well, were recorded (Appendix C) every 3 to 5 minutes until the parameters stabilized with the two preceding measurements (±10 percent for temperature, turbidity, DO, and ORP; ±0.1 unit for pH; and ± 3 percent for specific conductance) and the drawdown varied less than 0.3 foot. Groundwater samples were collected, labeled, packed on ice, and shipped to TestAmerica Laboratory of Amherst, New York for VOC analysis using U.S. Environmental Protection Agency (EPA) Method 8260B.

3.1.2 Aquifer Testing

Aquifer test activities were conducted from June 10 - 20, 2008 to evaluate the hydraulic properties of the C-zone. The tests were focused on exploratory borings and existing extraction wells that intersect the 515-foot bedding plane fracture within and downgradient of the current remediation area. The field activities were conducted in accordance with the NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated December 25, 2002. The results of the pumping test will be used to characterize the site hydrogeology and to assist in designing the IRM system upgrades.

The aquifer test was designed to record the rate and magnitude of drawdown and recovery of hydraulic head in the C-zone under pumping conditions. Aquifer parameters (transmissivity and specific storage) were determined from analysis of the drawdown and recovery data. In addition, groundwater samples were collected during the test to obtain data on the concentrations of chemical constituents. The following were objectives for the pumping test:

- determine the area of hydraulic influence at a constant pumping rate (C-zone)
- determine the hydraulic conductivity and transmissivity (C-zone)
- determine the extent of hydraulic communication (leakance) between the upper and lower zones of fractured bedrock (B- and C-zones)
- determine the extent of hydraulic communication between wells within each groundwater zone
- determine number, location, and depth of additional extraction wells (C-zone) to enhance groundwater capture
- calculate groundwater extraction rate (C-zone)

- calculate anticipated additional chemical loading to existing treatment system associated with enhanced groundwater recovery system (C-zone)

All field activities were performed under the direction of WSP Environment & Energy and WSP Engineering of New York.

3.1.2.1 Selected Extraction Well

Exploratory boring EXB-06 was drilled, logged, and sampled as part of the 2007 SRI field activities and was used as the extraction well for the aquifer test. Exploratory boring EXB-06 is located within the southern portion of the current remediation area. Based on observations made during downhole logging, a prominent vertical joint with trace mineralization was observed at EXB-06 from 24 to 32.5 feet bgs. Additional high-angle fractures were observed from approximately 38.5 to 40 feet bgs. A prominent bedding plane parallel fracture and associated borehole diameter increase was identified at 46.25 feet BTOC (516 feet aMSL) that directly correlates to the open bedding plane fracture identified elsewhere in the remediation area and around the fire water reservoir. The water level at the time of the borehole geophysical logging was 30.34 feet BTOC. EXB-06 was selected as the extraction well for the aquifer test because of the wide open nature of the bedding plane fracture and the prominent vertical joint found within the boring. The location of the pumping test extraction well is shown in Figure 4.

3.1.2.2 Aquifer Testing Procedures

The procedures and methods used during each phase of the aquifer testing are described below. The aquifer testing consisted of four phases in the following order:

- short duration yield test (3 hours – C-zone)
- background water level monitoring (87 hours – B-,C-, and D-zones)
- constant-rate pumping test (46 hours – B-,C-, and D-zones)
- recovery test (23 hours – B-,C-, and D-zones)

The onsite extraction system was shut down on May 23, 2008, to attain a static (non-pumping) condition in the groundwater system before starting the test activities.

3.1.2.3 Short Duration Yield Test

On June 10, 2008, a well yield test was conducted over a 3-hour period on the selected extraction well, EXB-06. The yield test consisted of applying variable pumping rates on EXB-06 and measuring the corresponding water levels at each pumping rate. The objective of the well

yield test was to determine the range of sustainable pumping rates, from which an appropriate rate could be selected for the constant-rate pumping test.

The pumping rate was regulated by using a submersible groundwater pump, which was placed approximately 5 feet below the C-zone bedding plane fracture. The discharge rate from the extraction well was monitored during pumping to ensure there were no erratic fluctuations. Based on a review of the water level measurements collected during the well yield test, it was determined that an extraction rate of approximately 0.4 gallons per minute (gpm) could be maintained throughout the pumping phase of the test. Groundwater generated during the well yield test was piped to the onsite treatment system.

3.1.2.4 Background Water Level Monitoring

Background water level monitoring was initiated on June 13, 2008. During this test phase, water level data was collected from exploratory borings and extraction wells that intersect the C-zone unit in the fire water reservoir area. Select B-zone monitoring wells were also monitored. The wells used for monitoring are shown in Figure 4 and include the following locations:

- existing extraction wells EW-1, EW-2, and EW-3, each of which intersect the C-zone
- existing exploratory borings EXB-02, EXB-05, and EXB-07 (C-zone)
- existing exploratory boring EXB-06 was used as the extraction well during both the constant rate test and the drawdown test
- newly installed exploratory borings EXB-09 and EXB-10, each of which intersect the C-zone bedding plane fracture
- newly installed exploratory boring EXB-11, which is open to intervals below the C-zone, and
- existing B-zone monitoring wells MW-5B and MW-32B

Static water levels were measured at 15-minute intervals in all of the monitoring wells for an 87-hour time period using pressure transducers and were recorded in an electronic data logger. The atmospheric pressure was measured and recorded similarly to assess the relationship between atmospheric pressure and water levels. Manual rounds of water level measurements

were also collected before the start of monitoring (June 12, 2008) and after collection of the background data (June 17, 2008).

3.1.2.5 Constant-Rate Pumping Test

The constant-rate pumping test began on June 17, 2008, and consisted of extracting groundwater at the optimum discharge rate as determined during the yield test, from extraction well EXB-06. Pumping occurred continuously for 46 hours. Groundwater extracted during the drawdown portion of the test was treated using the onsite remediation system.

The discharge rate from the extraction well was monitored throughout the drawdown portion of the test using an in-line flow meter to ensure there were no erratic fluctuations in the well discharge. Based on these readings, the extraction rate ranged from 0.30 to 0.40 gpm throughout the pumping phase of the test, with an average rate of 0.35 gpm.

Existing and/or proposed extraction wells and monitoring wells (EW-1, EW-2, EW-3, EXB-02, EXB-05, EXB-07, EXB-09, EXB-10, EXB-11, MW-5B, and MW-32B) were used as observation wells during the constant rate pumping test. Water levels were recorded at these 11 observation wells and the pumping well EXB-06 using data logging pressure transducers. The pressure transducers were programmed to collect water levels on a logarithmic scale, which allows for more rapid data collection at the beginning of the test, when testing intervals are critical and less frequent data collection near the end of the test. The maximum time interval between data points was 30 minutes. Manual groundwater measurements were made during the test to ensure that the transducer measurements were representative of actual conditions. Barometric pressure data was also recorded during the pumping test.

Water level recovery data was measured at the extraction well and observation wells immediately after completion of the drawdown portion of the test. The recovery portion of the test was started on June 19, 2008, and continued for approximately 23 hours, until the water level in the wells had sufficiently recovered to their non-pumping level. Barometric pressure was also recorded throughout the recovery portion of the test.

3.1.2.6 Discharge Sampling and Analysis

Groundwater samples were collected from the pumping well (EXB-06) discharge at two times during the drawdown portion of the constant rate pumping test.

- June 18, 2008, after an elapsed pumping time of 22.5 hours, and
- June 19, 2008, after an elapsed pumping time of 44.2 hours.

Each sample was collected in pre-preserved, laboratory-supplied containers, and placed in a cooler with ice. The samples were shipped via overnight courier to the Test America Laboratory in Amherst, New York for chemical analysis. The samples were analyzed for following parameters:

- VOCs
- total and dissolved metals
- hardness
- alkalinity
- total dissolved solids
- total suspended solids
- pH
- chemical oxygen demand
- biochemical oxygen demand

3.1.2.7 Analysis of Pumping Test Data

The background monitoring data collected before conducting the constant-rate test was used to evaluate antecedent water level trends and barometric pressure effects in the wells. Water level data collected during the constant-rate pumping test was analyzed to determine the hydraulic characteristics of the C-zone unit. The drawdown data from the constant-rate pumping test was evaluated using a double porosity model (Moench, 1984). The method used to analyze the drawdown data is based on the following assumptions concerning the aquifer properties and test set-up:

- aquifer has infinite areal extent
- aquifer has uniform thickness
- aquifer potentiometric surface is initially horizontal
- pumping and observation wells are fully penetrating
- pumping rate is constant
- fractured aquifer represented by double porosity system consisting of low-permeability, primary porosity blocks and high-permeability, secondary porosity fissures
- matrix consists of slab-shaped or spherical blocks

- flow is unsteady
- water is released instantaneously from storage with decline of hydraulic head

The recovery data was analyzed using the Theis Recovery Method for confined aquifers (Theis 1935). The Theis Recovery Method is used for the analysis of recovery data in confined and leaky confined aquifers. This solution method is based on the following assumptions concerning the aquifer and test set-up:

- aquifer has an "apparent" infinite areal extent
- aquifer is homogeneous and of uniform thickness over the area influenced by pumping
- the test well is pumped at a constant rate
- the test and observation wells are fully penetrating
- the test and observation well diameters are small, so that well storage effects are negligible

Hydraulic conductivity calculated by the Theis Recovery Method is used to provide an independent check on analysis of the drawdown data.

Estimated values for hydraulic conductivity (K) and transmissivity (T) of the C-zone unit that were determined from the pumping test results are presented in Section 3.2. Hydraulic conductivity was calculated by dividing the transmissivity obtained from the selected solution method by the thickness of the fractured unit at the extraction well and observation well locations. The aquifer parameter estimates and other hydrogeologic data for the site was used to determine the capture zone for extraction well EXB-06. The capture zone for a pumping well represents the hydraulically upgradient area that provides inflow to the well.

3.2 Pre-Design Investigation Results

3.2.1 Borehole Geophysical Logging Results

In exploratory boring EXB-09, the initial water level at the time of the geophysical logging was 35.31 feet BTOC. Within the water column at 53.75 feet BTOC (512 feet aMSL), an open bedding plane fracture was identified where an associated increase in the borehole diameter was observed. This directly correlates to the C-zone bedding plane fracture observed

beneath the remediation area. The bedding plane fracture was targeted for groundwater sampling.

In exploratory boring EXB-10, the initial water level at the time of the geophysical logging was 27.66 feet BTOC. A series of open bedding plane fractures were identified below the water column between 43.75 feet BTOC and 44.25 feet BTOC (516 feet aMSL). A borehole diameter increase was also identified within this interval. These open fractures are the same C-zone bedding plane fractures identified in exploratory boring EXB-09 and they correlate directly with the C-zone bedding plane fracture below the remediation area.

Exploratory boring EXB-11 was designed to evaluate features below the C-zone bedding plane at 515 feet aMSL. In EXB-11, the water level at the time of the borehole geophysical logging was 61.17 feet BTOC, which is approximately 60 feet below the static water level within the overlying C-zone. Two prominent bedding plane parallel features were identified within the water column. The geophysical logs between 75.1 feet BTOC and 75.3 feet BTOC show a thin open fractured zone with associated borehole diameter increase. This corresponds to an elevation of approximately 460 aMSL and is considered the D-zone. This feature (55 feet below the C-zone) was the most significant open feature observed below the C-zone. Therefore, this feature was targeted for sampling.

3.2.2 Vertical Groundwater Profiling

Based on observations made during drilling, examination of rock cores, and the results of the downhole geophysical logging, the C-zone bedding plane fractures at EXB-09 and EXB-10 and the D-zone bedding plane fracture at EXB-11 were selected for discrete interval groundwater sampling using low-flow purging and sampling techniques (EPA 1996). The depths selected for discrete interval groundwater sampling (vertical profiling) correspond to the C- and D-zone and are listed below.

- EXB-09 (C-zone): sample depth of 53.5 – 54.0 feet from top of steel casing
- EXB-10 (C-zone): sample depth of 44.3 – 44.5 feet from top of steel casing
- EXB-11 (D-zone): sample depth of 75.1 – 75.3 feet from top of steel casing

The analytical results for the discrete interval groundwater samples are presented in Table 1. Site-related VOCs were not detected in the sample collected from exploratory boring EXB-09, which is a C-zone boring located approximately 100 feet to the northwest of the current

remediation area. Therefore, the extent of affected groundwater northwest of the current remediation area has been fully defined. Low levels of site-related VOCs were detected in the groundwater samples collected from EXB-10, which is located approximately 100 feet south of the current remediation area. The sample collected from EXB-10 contained detectable levels of cis-1,2-DCE (24 ug/l) and vinyl chloride (1.7 ug/l). Based on the results of previous samples collected from a well (MW-44T) located approximately 150 south of EXB-10 and the low levels of VOCs detected at EXB-10, the extent of affected groundwater within the C-zone south of the remediation has been fully defined.

In EXB-11, the following site-related compounds were detected; TCE at 2.6 ug/l, cis-1,2-DCE at 210 ug/l, trans-1,2-DCE at 1.7 ug/l, and vinyl chloride at 5.3 ug/l. Exploratory boring EXB-11 is open to the D-zone and is located in an area approximately 150 feet downgradient of the fire water reservoir along South Cayuga Street. Although site-related VOCs were detected in the D-zone at this location, monitoring wells installed further downgradient of this location and at a greater depth remain unaffected.

The vertical groundwater profiling results indicate that the extent of affected groundwater within the C- and D-zone bedding plane fractures has been defined.

3.2.3 Aquifer Testing Results

Water level changes from events external to the aquifer test, such as barometric pressure or tidal influences, can mask the change in water levels induced during the pumping portions of the test and, thus, must be accounted for and removed from the pumping data (Freeze and Cherry, 1979; Rasmussen and Crawford, 1997). Water level data collected during the background monitoring phase of the aquifer test were used to identify external factors that could influence water levels in the test area.

Since the pressure transducers set in the wells were vented to the atmosphere, water level measurements would be automatically corrected for changes in ambient barometric pressure. Time-series plots of groundwater elevation and barometric pressure were generated from the data collected during the background monitoring phase (Appendix D). Comparison of the temporal trends indicates that water level fluctuations observed in wells open to the C- and D- zones are related to changes in barometric pressure. The correlation between groundwater level and barometric pressure appears to be more variable in wells open to the B-zone, with one well (MW-5B) exhibiting water level fluctuations similar to the C-zone wells and another well (MW-32B)

showing no discernable causal relationship. The very minor (approximately 0.2 feet) water level rise measured in well MW-32B on June 16, 2008, could reflect recharge to the groundwater system via precipitation infiltration.

In summary, graphical analysis of the background monitoring data indicates water levels in C- and D-zone wells are influenced by local variations in barometric pressure. This cause-effect relationship suggests these units within the fractured bedrock hydraulically behave more as confined water-bearing zones than unconfined zones. Evaluation of the data from B-zone wells suggests hydraulic behavior characteristic of both confined (MW-5B) and unconfined (MW-32B) units. It should be noted that the temporal groundwater fluctuations in existing extraction well EW-2 more closely resembles the unconfined behavior observed in MW-32B than that in the other extraction wells in the area (EW-1 and EW-3). Based on this finding, it appears that inflow to extraction well EW-2 is from the shallower unconfined A- and B- water-bearing zones and the deeper C-zone. No antecedent increasing or decreasing water level trends were identified in any of the monitored wells in the test area. Since the water levels measured by the pressure transducers are corrected for barometric pressure changes, no adjustments were made to the drawdown and recovery data gathered during the constant rate pumping test.

Analysis of the drawdown and recovery data from the test and from C-zone observation wells was performed using the AQTESOLV Professional (version 3.01) program for Microsoft Windows. Developed as a hydrogeologic software analysis tool by Glenn Duffield of HYDROSolve, Inc., AQTESOLV was used to apply the Moench (1984) bedrock solution for dual-porosity bedrock aquifer systems for the drawdown data and the Theis recovery method for confined aquifers for the recovery data. The Moench solution was selected as the most appropriate solution based on the test design and nature of groundwater flow in the C-zone fractured bedrock unit. Variables for the Moench analysis, such as slab block thickness and saturated thickness, were estimated using borehole geophysical logs and water level measurements. Assumptions used for the wells analyzed using the Moench and Theis recovery solutions are presented in Section 3.1.2.7. A summary of the calculated hydraulic properties are presented in Table 2 and summarized below.

3.2.3.1 Key Results of C-zone Constant Rate Test

Drawdown responses were observed in the majority of the C-zone wells monitored during the constant rate pumping test, including EXB-07 which is located over 130 feet

downgradient of the pumping well (EXB-06). No measurable drawdown was detected in the upgradient observation well EXB-02. Figure 6 shows the plotted maximum drawdown response of each C-zone well monitored near the end of the drawdown portion of the test. As shown in Figure 6, an ellipsoidal-shaped zone of hydraulic influence was observed over a large portion of the test area. The elliptical nature of the drawdown area primarily reflects the horizontally anisotropic nature of the C water-bearing zone. The orientation of the major axis of the drawdown ellipse is consistent with the north-northeast trending joint set identified in the sedimentary lithologies comprising the bedrock. Over 370 feet of cross-gradient influence was observed and over 130 feet of downgradient influence was observed with respect to the pumping well. The large, ellipsoidal-shaped drawdown area is consistent with a fracture flow network in bedrock with both primary (bedrock) and secondary (open fracture) porosity.

The drawdown vs. time data for B-zone observation well MW-5B indicates a gradual decline in the water level beginning at an elapsed pumping time of approximately 1 hour (Appendix D). (The water level data for well EW-2 also shows initiation of some measurable drawdown during this time period.) The maximum observed drawdown in wells MW-5B and EW-2 were 0.30 feet and 0.28 feet, respectively. The presence of measurable, albeit minor, drawdown in wells open to the B-zone indicates minimal vertical leakage of groundwater in the immediate vicinity of the pumping well (EXB-06). The localized occurrence of vertical leakage from the B-zone to the C-zone is supported by the absence of any measurable drawdown in well MW-32B during the drawdown portion of the test.

The water level data collected from well EXB-11, which is open through a portion of the D water-bearing zone, show a noticeable hydraulic response to pumping during the drawdown portion of the test. (A plot of the drawdown vs. elapsed pumping time is also provided in Appendix D.) The drawdown started at an elapsed pumping time of 2.8 hours and continued throughout the duration of pumping from well EXB-06. The maximum drawdown measured in EXB-11 before the termination of pumping was approximately 0.85 feet. Based on the EXB-11 water level data, it is expected that pumping from the C zone at a low rate will have an effect on the hydraulic heads in the deeper D-zone unit.

The mean hydraulic conductivity (K) of the un-fractured siltstone bedrock (primary porosity) was calculated at 4.11×10^{-5} feet per day (ft/d) (Table 2). The mean K of the fractured C-zone unit (secondary porosity) was calculated at 0.80 ft/d, which is four orders of magnitude

higher than that of the sedimentary bedrock. (The mean K for the fractured siltstone includes values calculated from both the drawdown and recovery data.) This indicates that the predominant source of flow within the C-zone is from the open bedding plane fractures, which respond significantly under pumping conditions.

The calculated K value for the fractured siltstone and other site hydrogeologic data were used to estimate the capture zone for an extraction well screened in the C-zone unit. The capture zone for a pumping well represents the hydraulically upgradient area that provides inflow to the well. The technical approach that was used to estimate the capture zone involved determining the boundaries of the portion of the aquifer producing steady-state inflow to a well pumping at a constant rate. The estimated capture zone perpendicular to the direction of groundwater flow was calculated using the following equation (Todd 1980):

$$R_{cg} = Q/2(K)(b)(i)$$

where:

R_{cg} = cross-gradient radius of capture (feet)

Q = pumping rate in cubic feet per day

K = hydraulic conductivity (ft/d)

b = uniform saturated thickness (feet)

i = hydraulic gradient (ft/ft)

The downgradient extent of the contributing area (R_{dg}), or the flow stagnation point, was determined using the equation (Todd 1980):

$$R_{dg} = Q/2\pi(K)(b)(i)$$

The above equations assume flow through a porous, non-fractured, material. A fractured medium can be represented as an equivalent porous medium with large grains; however, the equivalent permeability of the fractured medium will be between the permeability of the fractures and permeability of the un-fractured rock (Schwartz and Zhang, 2003).

Based on the above equations for groundwater flow to a pumping well, two K values were used to estimate the cross-gradient and downgradient extent of the capture zone. These hydraulic conductivities corresponded to the mean K for the fractured rock determined from analysis of the drawdown and recovery data (0.80 ft/d), and a lower value that more closely approximates the equivalent K of the fractured C zone (0.1 ft/d). The dimensions of the capture zone determined from the higher K value would under represent the extent of pumping influence within the

groundwater system. Based on the observed drawdown (over 750 feet of total cross gradient hydraulic influence), the lower K value is more representative of the water bearing zone in calculating a zone of capture. Using an average saturated thickness of 8.2 feet and hydraulic gradient of 0.078 ft/ft, the distance of cross-gradient capture extending northeast or southwest from a single well and the distance to the downgradient stagnation point at pumping rates bracketing the discharge measured during the constant rate test are listed below.

Pumping Rate = 0.3 gpm

	Cross-gradient Capture	**Downgradient Capture**
K = 0.80 ft/d	57 ft	18 ft
K = 0.10 ft/d	**453 ft**	**144 ft**

Pumping Rate = 0.4 gpm

	Cross-gradient Capture	**Downgradient Capture**
K = 0.80 ft/d	75 ft	24 ft
K = 0.10 ft/d	**601 ft**	**192 ft**

Below is a summary of other observations and results for the pumping and recovery tests:

- The extraction rate from EXB-06 ranged from 0.30 to 0.40 gpm throughout the pumping phase of the test, with an average rate of 0.35 gpm. Figure 7 plots the discharge rates recorded from the in-line flow meter during the duration of the drawdown phase.
- Approximately 4.3 feet of drawdown was measured in cross-gradient exploratory boring EXB-05, which is located 135 feet to the northeast of the pumping well.
- Approximately 4.2 feet of drawdown was measured in cross gradient exploratory boring EXB-10, which is located approximately 80 feet to southwest of the pumping well.
- Approximately 1.5 feet of drawdown was measured in downgradient exploratory boring EXB-07, which is located approximately 140 feet to the north.
- Approximately 0.85 feet of drawdown was detected in D-zone well EXB-11, which is located north of pumping well EXB-06.

- Influent concentrations are estimated at 20,000 µg/l total VOCs, based on two samples collected during the constant rate test (Table 3).

Based on the pumping test results and the known distribution of affected groundwater within the C-zone, a proposed array of extraction wells (EXB-05, EXB-06, EXB-08, EW-1, EW-2, and EW-3) will be more than sufficient to address the area of affected groundwater within the C-zone water-bearing unit. The estimated cross-gradient extent of the capture zone associated with the pumping of the five C-zone wells in the remediation area (EW-1, EW-2, EW-3, EXB-05 and EXB-06) was calculated using procedures developed by Javandel and Tsang (1986). This method presumes the extraction wells are oriented in a line perpendicular to the groundwater flow direction and are pumping at equivalent rates. (Groundwater recovery from EXB-08 south of the fire water reservoir was not included as part of the capture zone analysis.) Using this approach and the equivalent porous media K value of 0.10 ft/d, the total cross-gradient extent of the in-flow area to the five extraction wells is estimated to be 1,100 feet at a total discharge of 1.5 gpm (0.3 gpm per well) and 1,480 feet at a total discharge of 2.0 gpm (0.4 gpm per well) (Figure 8).

4.0 Basis of Design

4.1 Vacuum Pilot Test Results

A vacuum pilot test was conducted on June 9, 2008, to appropriately size the vacuum blower and determine subsurface air flow. The test was performed on B-zone monitoring well MW-5B. The existing 2-PHASE™ system was used to provide the vacuum source for the test. Temporary vacuum conveyance piping was installed from extraction well EW-3 to MW-5B. An air bleed valve, vacuum gauge, and pitot tube was installed in-line to measure the vacuum and flow rate during the test. The test was completed over a 3 hour period. Initially, the applied vacuum was set to 5-inches of mercury (Hg) and then incrementally increased to 20-inches of Hg. Concurrently, the vacuum at adjacent wells MW-3-13 and EXB-06 was monitored to determine vacuum response, if any. Throughout the entire test, there was no vacuum response in wells MW-3-13 and EXB-06. Based on the test it was determined that each extraction well could produce approximately 30 scfm of subsurface air flow at an applied wellhead vacuum of 10 inches of Hg. Increasing the vacuum above 10 inches of Hg did not yield appreciable air flow. The results of this test are provided in Appendix D. The results of the vacuum pilot test, along with historic operating information from the 2-PHASE™ system, were used as the basis of design for the vacuum blower of the dual phase extraction (DPE) system.

4.2 Well Placement and Flow Rate

A network of existing C-zone (EW-1, EW-2, EW-3, EXB-05, EXB-06, and EXB-08) and newly proposed B-zone (EW-4-25B, EW-5-25B, EW-7-25B, and EW-10-25B) extraction wells will be used to operate a DPE system as shown on the design drawings provided in Appendix E. The extraction wells have been designated sequentially in a northeast-southwest direction, starting with well EXB-05 (see table below for re-naming of the existing C-zone wells), using the total depth of the well and the hydrologic zone within the name (e.g., 60C for well depth of 60 feet within the C-zone)..

Existing Well Designation	New Well Designation	Well Depth (below top of casing)
C-Zone Wells		
EW-1	EW-2-62C	65.67 feet
EW-2	EW-3-60C	60 feet (proposed)
EW-3	EW-6-60C	60.6 feet
EXB-05	EW-1-62C	62 feet
EXB-06	EW-8-62C	61.5 feet
EXB-08	EW-9-86C	86.6 feet (vertical bgs)

The depth of the proposed B-zone wells is expected to be between 20-25 feet bgs. The final well designations with depth will be provided in the construction completion report. The objective of the DPE well network is to capture the groundwater and soil vapor from the B-zone and C-zone immediately below and downgradient of the fire water reservoir. The DPE well network will also serve to minimize the potential for offsite migration of site-related COCs.

The placement of the extraction wells is based on the results of the pre-design activities and the known subsurface characteristics. During the recent aquifer test, a continuous pumping rate of 0.38 gpm was sustained for over 46 hours in well EXB-06. Based on the drawdown data, the hydraulic radius of influence (downgradient) during this test was at least 130 feet and up to 370 feet in a cross-gradient direction. WSP Engineering proposes to space the extraction wells as shown on Drawing Sheet 2 (Appendix E).

Based on the aquifer test results, a maximum design flow rate of 0.53 gpm per extraction well was used to size the system piping and treatment equipment. During the aquifer test, a sustained yield of 0.38 gpm was measured from the test well. Applying a safety factor of 1.4 based on professional experience, the design flow rate of 0.53 gpm per extraction well was calculated ([0.38 gpm]x[1.4] = 0.53 gpm) for a total system flow of 5.3 gpm ([0.53 gpm]x[10 extraction wells]). The design extraction rate of 0.53 gpm will be adequate to induce a gradient toward the extraction wells. The system will, however, be designed and operated to have the flexibility to increase or decrease the extraction flow rates based on realized extraction rates upon system start-up (i.e., final extraction rates may vary per well). Flow rates may be higher than 0.53 gpm per extraction well initially until the cone of depression is established at each well. The treatment system will have the capacity to handle this initial higher flow rate.

Extracted vapor flow rates during the pilot test ranged from 0 to 38.1 scfm with applied wellhead vacuums ranging from 2 to 21.5 inches of Hg. This flow rate range was used to specify and size the vapor treatment train. The design total system vapor flow rate is 300 scfm based on operating 10 extraction wells at approximately 30 scfm and 10 inches of Hg each. The vacuum required to achieve 30 scfm at each well head may vary based on field conditions. In order to maintain the vacuum blower at the proper operational point, air dilution valves will be installed as part of the vacuum blower system to allow ambient air to enter the blower inlet if 30 scfm cannot be achieved at some of the extraction wells.

4.3 VOC Mass Loadings

Historic groundwater data from site monitoring wells were used to calculate dissolved VOC mass loading rates. These loading rates are the basis for the treatment plant design and required treatment efficiency. Based on professional experience, an analytical data safety factor of 1.2 was used for design. The design extraction rate of 0.53 gpm per well was used to calculate the maximum mass loading to the groundwater treatment system. Mass loading calculations for each primary COC are summarized in a calculation brief provided in Appendix F and tabulated below.

Compound	Estimated Daily Mass Loading (lbs/day)
cis-1,2-Dichloroethene	0.885
Methylene chloride	0.016
trans-1,2-Dichloroethene	0.024
Trichloroethene	2.1
Vinyl Chloride	0.035
Total VOC Aqueous Mass Loading	3.06

The estimated daily mass loading presented above is based on groundwater data collected before system implementation. Mass loading is expected to be indicative of these rates during the initial start-up activities and is expected to decrease over time.

The vapor treatment equipment is sized to handle the design airflow rates discussed above. The only portion of the vapor treatment train that will be significantly affected by the vapor phase mass loading is the vapor phase activated carbon units. These units will be replaced

as necessary based on performance monitoring data. The majority of the vapor phase mass loading is from the air stripper vapor discharge as discussed in Section 5.5. Vapor phase mass loading calculations are presented in Appendix F.

4.4 Treatment Requirements

Treated groundwater will be discharged to the facilities SPDES Outfall #001 in accordance with the SPDES permit requirements. A permit was previously issued by the NYSDEC to Emerson to discharge treated groundwater. WSP Engineering recently contacted the NYSDEC and understands a modification to this permit may be required. The treatment system will be operated and maintained to meet the site-specific VOC final effluent limitations.

Potential air emission sources during operation of the remedial system include the air stripper and vapor-phase carbon units (a discussion of treatment equipment is presented in Section 5.5). These sources meet the definition of exempt or trivial air emission sources under 6 NYCRR 201-3.2(c) and 201-3.3(c). Air emissions requirements are further discussed in Section 7.2.

4.5 Site-Specific Conditions Affecting System Design

Site-specific conditions will affect the system configuration and installation of the subsurface and above-ground piping. Before finalizing the design layout, WSP Engineering personnel conducted a site reconnaissance to verify the location of subsurface and overhead utilities, buildings, and other structures that affect the design. The system layout presented on the design drawings (Appendix E) is based on observations made during the site reconnaissance and the constraints associated with implementing this remedial technology.

All efforts will be made to identify and locate utilities before starting construction, and care will be taken when excavating above or within the proximity of any known utility. Well and piping locations may be adjusted during construction of the system to accommodate unanticipated site conditions.

5.0 Description of Interim Remedial Measure

5.1 Mobilization

The selected remedial contractor will be responsible for mobilizing the necessary resources to the site, including all manpower, equipment, and supplies needed to implement the proposed remedial action in accordance with this work plan. The subcontractor will be responsible for establishing temporary storage for soil generated during trenching activities associated with installing the subsurface conveyance piping, and, if encountered, temporary groundwater storage.

5.2 Site Preparation

Prior to commencing remedial action activities, the site preparation activities must be conducted in accordance with the site-specific Health and Safety Plan (HASP) and SOP. These activities will include identification of utilities, establishing a support zone, exclusion zone, decontamination area, and staging area. In addition, any necessary erosion, sedimentation, and runoff control measures will be taken within these zones, as necessary.

5.2.1 Identification of Utilities

Before beginning any ground penetrating activities, New York State's Dig Safely New York will be notified to mark underground utilities at the point of service to the facilities. A private utility locator will be retained to locate all underground utilities or anomalies within the work areas. Historical plant utility drawings will be consulted to determine the locations of underground utilities within the excavation areas. Identified utilities shall be protected or relocated.

5.2.2 Exclusion Zone

An exclusion zone will be established surrounding the work area which unauthorized persons will not be allowed to enter. The EPT facility is fenced in most areas and vehicle access is monitored by a guard service. However, the site is not completely fenced and the exclusion zone will be the entire work area. Temporary snow fence or caution tape will be used to surround the area at night to prevent unauthorized persons from entering.

5.2.3 Support Zone

A support zone will be designated in the vicinity of the work area. No affected media will be allowed in this zone. Administrative tasks will be performed within the support zone. Generally, the support zone will be established in the same area where WSP vehicles are parked.

5.2.4 Contamination Reduction Zone

A contamination reduction zone will be established within the exclusion zone specifically for decontamination activities. In this area, a decontamination pad will be established using poly sheeting and berms to prevent runoff of decontamination water, which will be contained and handled according to state and federal regulations. All construction equipment will be decontaminated before leaving the site.

5.2.5 Staging Area

WSP personnel will identify a secure area within the exclusion zone to stage waste materials generated during the work activities. Purge water, decontamination water, and any soil not used to backfill the trenches will be managed according to state and federal regulations within the staging area. Waste materials will be contained within 55-gallon DOT-approved drums and labeled accordingly for subsequent categorization, treatment, or disposal. The staging area will be selected in coordination with facility personnel.

5.2.6 Removal of Existing Treatment System

As a first step, the existing treatment equipment associated with the 2-PHASE™ system located in the treatment building will be decontaminated, as necessary, by rinsing with clean water and then removed. Decontamination water will be contained in 55-gallon drums. Upon removal of the equipment, the treatment building will be cleaned by washing with water. The wash water will be containerized and disposed off-site in accordance with applicable rules and regulations. Next, the floor will be coated with an industrial grade epoxy.

As an option, construction of a new a new treatment building in the parking lot area near EXB-05 is being considered. This option will be further evaluated and if selected, will be presented to the NYSDEC.

5.3 Groundwater Extraction and Treatment System

The IRM will consist of a dual phase extraction system comprised of 10 extraction wells and upgraded equipment for treating aqueous and vapor phase streams. The groundwater

extraction system will consist of 10 extraction wells, including four new B-zone wells, modifications of three existing extraction wells, and converting three existing borings to extraction wells. The system will also consist of installing upgraded treatment equipment for treating aqueous and vapor phase streams.

This section describes the process design and mechanical components of the IRM. The basis for the design is outlined in Section 4.0 above. Calculations and assumptions used in developing the process design are provided in Appendix F. Further description of the design and configuration is provided in the following drawings that are included in Appendix E:

- Drawing Sheet 1 – Title Sheet
- Drawing Sheet 2 – Site Plan
- Drawing Sheet 3 – Piping Detail
- Drawing Sheet 4 – Remedial System Hydraulic Grade Line
- Drawing Sheet 5 – Process and Instrumentation Diagram
- Drawing Sheet 6 - Equipment Building Layout Plan
- Drawing Sheet 7 – Extraction Well Details
- Drawing Sheet 8 – Site Work Details

If a new treatment building is constructed, electrical plans and enclosure plans will be prepared at a later date by the selected equipment and remedial subcontractors. The drawings presented in this plan establish the performance based requirements for the system. Final equipment selection will be completed on approval of this IRM Design Report and before construction begins. The equipment ultimately selected will meet or exceed the performance criteria outlined below.

5.3.1 Extraction Wells

The groundwater extraction network with vapor recovery (DPE system) will consist of 10 extraction wells, designated EW-2-62C, EW-3-60C, EW-6-60C, EW-1-62C, EW-8-62C, EW-9-86C, EW-4-25B, EW-5-25B, EW-7-25B, and EW-10-25B. Extraction wells EW-2-62C, EW-3-60C, EW-6-60C, EW-1-62C, EW-8-62C, EW-9-86C are designed to address the C-zone bedding plane fracture. The boreholes for these locations have been drilled and logged. Extraction wells EW-4-25B, EW-5-25B, EW-7-25B, and EW-10-25B are designed to address the B-zone and will be drilled and logged as detailed below. The layout of the C-zone and B-zone extraction wells is

shown on Drawing Sheet 2 and depicted in Figure 6. All of the wells will be completed as detailed on Drawing Sheet 7.

With the exception of EW-3-60C (currently EW-2), each C-zone extraction well will be completed as an open borehole extraction well with the extraction pump placed below the C-zone bedding plane. Because the open borehole at EW-3-60C extends into a portion of the overlying B-zone, a well will be constructed within the open borehole of EW-3-60C to case off the B-zone from the C-zone. The well in EW-3-60C will be constructed of 2-inch ID Type 304 stainless steel casing with flush-threaded fittings and a 0.040-inch continuous-wrap screen. The EW-3-60C extraction well will be set to a depth of 60 feet bgs. To maximize the amount of drawdown below the bedding plane fracture (encountered at 46 to 49 feet bgs), the extraction well screen will extend from the 45 to 60 feet bgs.

Once the casing has been installed, a quartz sand filter pack (U.S. Silica # 3, or equivalent) will be placed in the annular space between the casing and the surrounding formation. The sand will be installed to a level approximately 2 feet above the top of the screened interval and topped with approximately 3 feet of bentonite to form a seal.

The four B-zone extraction wells will be installed and screened in the upper portion of fractured bedrock. The proposed B-zone extraction well locations are shown in Figure 6. The B-zone extraction wells will be completed to a depth of approximately 10 to 15 feet below the contact between the overburden and the bedrock. The B-zone extraction wells will be screened within the highly fractured portion of the upper bedrock zone. The maximum depth of the wells is expected to be approximately 20 to 25 feet bgs.

The overburden portion of the B-zone extraction wells will be drilled using 6.25-inch inside-diameter (ID) hollow-stem augers. Continuous soil samples will be collected from the ground surface to refusal at bedrock using 2-foot-long, split-spoon samplers. The soils recovered from the split spoons will be screened for organic vapors in the field using a PID. Sample descriptions and PID readings will be recorded in a field notebook.

The bedrock will be cored so that the quantity of fractures and the physical characteristics of the fractures can be logged. The screened interval and final depth of the B-zone extraction wells will depend on the quantity of fractures. The borehole will be terminated as the quantity of fractures begins to diminish with depth or at a maximum depth of 25 feet bgs. Once the terminal

depth of the well is determined, the borehole for the well will be expanded (reamed) using a 4.25-inch rotary air hammer.

Because of the anticipated VOC levels within the remediation area, the B-zone extraction wells will be constructed of 4-inch Type 304 stainless steel casing and screen. The screens in all wells will be 5 feet in length with 0.010-inch horizontal slots. A clean sand filter pack will be placed from the bottom of the well borehole to approximately 2 feet above the top of the screen. A 3-foot-thick bentonite seal will then be placed on top of the sand filter pack. The remaining annular space will be backfilled with a cement-bentonite grout mixture (tremie piped from the bottom to the top). Well construction information will be recorded in a field notebook, and as-built diagrams will be prepared for each extraction well installed.

Drill cuttings and water generated during installation will be contained in Department of Transportation-approved, 55-gallon steel drums. The drums will be labeled and moved to an onsite staging area. Soil cuttings will be characterized for disposal. Water generated during the well installation will be added to the onsite groundwater treatment system. All investigative-derived waste (soil) will be sampled and analyzed for disposal characterization, the disposal methods for which will be contingent on analytical data and consistent with state and federal laws. Used protective clothing and equipment will be managed in a manner consistent with the U.S. Environmental Protection Agency (EPA) Guidance Document, Management of Investigative Derived Waste During Site Inspections (May 1991), OERR 9345.3-02.

All drilling and sampling activities will be conducted with clean equipment. Split-spoon samplers will be decontaminated in accordance with WSP's SOPs. The drilling equipment (augers and rods) will be decontaminated using a portable steam cleaner. All decontamination fluids generated during the drilling activities will be contained in 55-gallon steel drums and will be managed in the same manner as water generated during the well installation.

The new B-zone extraction wells will be developed to remove sediments and to ensure effective communication between the well screens and surrounding saturated zones. The wells will be developed by surging the screened interval to loosen any fine-grained sediment in the sand filter pack and adjacent aquifer material. Groundwater from the well will then be removed by bailing or pumping. Water generated during the well development activities will be collected in drums and added to the onsite groundwater treatment system.

All development/redevelopment activities will be conducted with clean equipment to prevent potential cross-contamination between well locations. Equipment will be cleaned between each well, with the decontamination procedure dependent on the development and redevelopment method(s) and equipment used.

5.3.2 Groundwater Pumps and Associated Equipment

Bottom-inlet, controllerless, pneumatic pumps will be installed in each extraction well to recover groundwater, with the exception of EW-9-86C (currently EXB-08). At EW-9-86C, which is an angled boring, an angle-independent electric pump will be installed to pump groundwater from beneath the fire water reservoir. The pumps will be capable of achieving a design flow rate of 0.53 gpm. The pumps will be sized to fit within the constraints of an open borehole. The pneumatic pumps do not require controllers, timers, or down-well probes to regulate pumping cycles in response to well yield, which will ease operational requirements.

An air compressor will supply pressurized air to the pneumatic pumps. The compressor will be housed in the treatment building and will be capable of supplying air at sufficient pressure to drive all of the operating pneumatic pumps simultaneously. For design purposes, the compressor and conveyance lines were sized based on operating nine pneumatic pumps concurrently (all extraction wells in the network with the exception of EW-9-86C. Both the compressor and air supply lines have been sized to maximize air conveyance and minimize the total pressure head required to maintain adequate system pressure to actuate the pumps. Based on the number and layout of the wells, 1-inch OD Duratec™ aluminum composite piping will be used to convey compressed air to the wells and the treatment building. A refrigerated cooler/dryer, automatic condensate separator, particulate filter, solenoid valve, and pressure and temperature indicators will be plumbed into the air supply system to protect the air supply lines and groundwater extraction pumps.

The air supply connection at each wellhead will be equipped with a pressure indicator/regulator to regulate the air pressure and prevent over pressurization of the pump and a ball valve for on/off flow control. The water discharge line at each well head will also be equipped with a ball valve for on/off flow control.

The down well tubing at each extraction well will consist of Nylon 12 tubes. Each set will consist of 5/8-inch diameter discharge, 3/8-inch diameter air supply, and 1/2-inch diameter

air exhaust. The air exhaust tube will be vented to the atmosphere within the extraction well vault.

The extraction pump for EW-9-86C (currently EXB-08) will be an electrical submersible pump capable of pumping the design flow rate of 0.53 gpm. This pump will be operated using a dedicated control panel and pressure transducers within the well that will turn the pump on and off.

Drawing Sheet 7 in Appendix E provide additional component information for the well extraction pump and pump components.

5.3.3 Well Vaults

Each extraction wellhead will be housed in a pre-fabricated well vault constructed of steel that can be sealed watertight. The pipe headers will enter and exit the wellhead vault through a poly carrier pipe. The headers will connect to the wellhead. Different sized vaults will be installed depending on the number of entrance and exit points required and also depending on whether the vault contains two wellheads. B-zone extraction wells EW-4-25B and EW-5-25B will be installed adjacent to existing extraction wells EW-2 (new name EW-3-60C) and EW-3 (new name EW-6-60C) and therefore housed in the same vault. Smaller vaults will be utilized when possible. Depending on the location, some of the well vaults will be capable of withstanding vehicular traffic loads.

The water line tubing in each well vault will be connected to the water discharge header within each vault. A gate valve will be installed on the water line tubing for flow control and isolation. Down well air supply tubes will also be connected to the header in the same manner with a ball valve on the tubing. Extracted vapors will be conveyed from the well to the vapor header line by a steel lateral pipe teed off the extraction wellhead. Flow from the lateral will be regulated with a butterfly valve and vacuum relief valve. A vacuum gauge will also be installed at each extraction wellhead. The location and detail of these vaults are shown on Drawing Sheets 7 and 8.

5.3.4 Trenching and Conveyance Piping

Trenches for pipe installation will be excavated to a depth above the seasonal high water table and to a depth below the frost line, if possible. Granular bedding material will be used as a base in the excavated trench, as shown on Drawing Sheet 8. Water, air, and vapor conveyance lines, as well as an electrical conduit will be placed in the trenches and then backfilled with the

excavated material. The surface will be finished to match preexisting conditions. In areas where grass was originally present, the surface will be re-seeded and fertilized. If asphalt must be removed (in parking areas or along the existing walking path), a sub-base will be placed to match any preexisting sub-base. The surface material will be selected to match the surrounding surface material, in both thickness and material type.

Conveyance piping will transition to aboveground piping near the footbridge, as shown on Drawing Sheet 2. The aboveground piping will be supported by freestanding braces or braced against the exposed bedrock wall, as depicted on Drawing Sheet 8. The length of pipe that runs along the wall will be protected by a sheet metal overhang to prevent damage associated with snow removed from the facility road above this section. All aboveground piping will be wrapped in insulation and an aluminum jacketing, and will be heat traced. Thermocouples will be installed every 50 feet along the piping to monitor temperature and ensure freezing does not occur.

As previously discussed, compressed air conveyance piping will be 1-inch OD Duratec™ tubing. Water conveyance piping will be 1-1/4-inch OD Nylon 12 tubing. The compressed air and water conveyance piping will be contained within an approximate 6- or 8-inch diameter poly carrier pipe. Compressed air and water conveyance piping will be segmented with union joints in vault transitions, or every 50 feet. Vapor conveyance piping will be 2-inch OD high density poly ethylene (HDPE) within the well field and 4-inch OD from the well field to the treatment building. All HDPE joints will be butt fused.

The existing effluent discharge line that extends from the treatment building to the effluent SPDES Outfall #001 will be reused in the upgraded system. The effluent discharge line is 1-1/2-inch diameter carbon steel capable of accepting at least 12 gpm based on a discharge capacity test conducted on June 10, 2008.

5.3.5 Aqueous Stream Treatment Equipment

The selection of treatment equipment is based on treating the COCs in the aqueous stream to the SPDES discharge criteria. Each component of the treatment system is described in the following sections. Drawing Sheet 5 presents a process and instrumentation diagram that describes the placement of each component within the treatment system.

5.3.5.1 Equalization Tank

Groundwater will be pumped from the well field into a 1,000-gallon equalization polyethylene tank. The tank will be positioned on a metal stand and outfitted with a discharge port and cleanout port on the bottom of the tank. The bottom port will allow periodic cleanout of suspended solids that accumulate in the tank. The tank will also contain a set of water level sensors/switches to facilitate automatic pump "on" and "off" control of the water accumulated in the tank. The tank will equalize the influent flow and minimize downstream cycling of system components by providing a reservoir of water to be treated.

5.3.5.2 Filtration Units

To facilitate removal of suspended solids and adsorbed metals from the recovered groundwater, bag filtration units will be installed after the equalization tank. Once the equalization tank fills to a certain level, water in the equalization tank will be pumped through a series of bag filters to eliminate suspended solids. The specified mesh size of the filters (e.g., 5, 10, 25, or 50 micron) will be determined during startup operations to maximize removal and minimize system downtime due to blockage.

5.3.5.3 Low Profile Tray Air Stripper and Blower

A low profile tray air stripper equipped with a sump, discharge pump, and blower will be used to remove VOCs from the extracted groundwater. The number of trays, blower size, and transfer pump sizing was determined based on the efficiency required to remove the VOC load specified in Subsection 4.3 at the design flow rate. The air stream from the stripper will be treated using vapor phase granular activated carbon (GAC) as discussed in Subsection 5.5.2 and subsequently discharged to the atmosphere by a discharge stack. Bypass piping will be installed to route extracted groundwater directly to the liquid phase GAC units described below if the influent VOC mass loading over time diminishes to a point where the air stripper is not an efficient means of VOC removal.

5.3.5.4 Liquid Phase Granular Activated Carbon

After treatment by the low profile tray air stripper, the water will be pumped through two liquid phase GAC units to meet the SPDES discharge criteria. The primary purpose of the carbon units is to remove VOCs that have not been removed to this point. Two 250-pound vessels in series are proposed to meet this objective.

5.4 Effluent Discharge

The treated effluent will be discharged to the existing SPDES discharge Outfall #001 located along the footpath (see Drawing Sheet 2) in accordance with the SPDES permit. The treatment system has been designed to reduce constituent concentrations to meet applicable treatment criteria.

5.5 Vapor Stream Treatment Equipment

The following subsections describe the vapor stream treatment equipment associated with the IRM. This treatment equipment is designed to separate liquids from the vapor stream and treat vapors before discharged to the atmosphere.

5.5.1 Air/Water Separator and Blower

To facilitate separation of moisture from the vapor stream, an air/water separator will be installed before the vapor stream enters the inlet of the vacuum blower. Liquids removed from the vapor stream will be conveyed by a transfer pump to the equalization tank for aqueous treatment. Vapors will be conveyed by a regenerative blower. Based on the results of the vacuum pilot test and historic operational data from the 2-PHASE™ system, the expected vacuum at the blower inlet is 17 inches Hg, assuming a wellhead vacuum of 10 inches Hg and a flow of 30 scfm per extraction well. To control this dynamic flow regime, vacuum relief valves will be installed at each wellhead and set to a maximum of 10 inches Hg in order to prevent excessive groundwater upwelling. Blower and pipe sizing calculations are provided in Appendix F.

5.5.2 Vapor Phase Granular Activated Carbon

The recovered vapor stream will be treated by two 1,000-pound vessels of vapor phase GAC in series before discharge to the atmosphere through the existing discharge stack. In addition to the recovered vapor stream, the air stripper effluent vapor stream will be treated with these GAC vessels.

5.6 Telemetry and Instrumentation

The remedial system will incorporate telemetry and instrumentation that will allow for automated operation and remote monitoring. The telemetry and instrumentation will comply with the details outlined below and in Appendix E, Drawing Sheet 5.

- Air Compressor - An air compressor will supply pressurized air to drive the pneumatic extraction well pumps. The air compressor will be equipped with an internal over-pressurization relief valve. When in operation, a running light will be illuminated on a master control panel wired to the air compressor. Before exiting the treatment building, the air supply line will be equipped with a pressure indicator, a temperature indicator, a normally open solenoid valve, and an additional pressure indicator. The solenoid valve will be wired to the master control panel/programmable logic controller (PLC), and will discontinue airflow to the pumps if an alarm is triggered within the treatment building.
- Extraction Wellhead – A pressure regulator/indicator will control air pressure to each pneumatic pump in accordance with the manufacturer's specifications. A cycle counter will be used to estimate the flow rate from each well. A pressure indicator installed on the water and vapor conveyance laterals will be used to monitor for pressure buildup indicative of line obstruction.
- Equalization Tank – The equalization tank will be equipped with a series of high and low level switches and alarms wired to the PLC that will actuate a similarly wired transfer pump or shutdown the system in case of malfunction or a high level.
- Filtration Units – The water influent line to the bag filtration units will be outfitted with a water pressure indicator and sample ports before and after the units.
- Low Profile Tray Air Stripper – The air stripper is equipped with a sump outfitted with a series of high and low level switches that will actuate the effluent transfer pump, the blower, and provide shutdown capability in case of malfunction. In addition, if the blower shuts down or malfunctions, the system will discontinue operation.
- Aqueous and Vapor Phase GAC Units – Both the aqueous and vapor phase GAC units will be outfitted with pressure indicators before and after each unit to monitor pressure buildup. In addition, sample ports will be installed before and after each unit.

- Vapor Influent – The vapor influent line will be outfitted with a pressure indicator and flow indicator.
- Air/Water Separator – The air/water separator will be outfitted with a series of high and low level switches and alarms wired to the PLC that will actuate a similarly wired transfer pump or shutdown the system in case of malfunction.
- Blower – The blower associated with the vapor extraction system will be wired to shut off in case of high pressure or vacuum in the air line.
- Leak Detection System – The treatment building slab is constructed with a spill containment berm and a leak detection sump. The sump will be outfitted with a water level sensor to detect leaks from the treatment equipment. The water level sensor and alarm will be wired to the PLC to shutdown the system if a leak occurs.
- Thermometer Data Logger – A Digi-Sense™ scanning thermometer data logger, or equal, will be installed to continuously monitor and store thermocouple data during the groundwater extraction process. This information will be downloaded onto a personal computer as necessary during the groundwater extraction process. The purpose of the thermocouples is to ensure the aboveground piping is warm enough to prevent water from freezing and ice buildup during the winter months.
- Master Control Panel/PLC – The PLC will monitor and operate the treatment system based on inputs from the sensors installed in the equipment components, as described above. The PLC will operate the system through signal relay outputs, such as actuating motor starters for the transfer pumps and blower. Additionally, the PLC will provide remote monitoring and control of the equipment by a computer and modem. The PLC will also automatically shut down the entire system in the event of an alarm condition and notify WSP Engineering personnel by facsimile or other telephonic means.

5.7 Process Logic Control

Automatic actuation of the remedial system equipment will be achieved using the PLC system. Additionally, the PLC will automatically turn off the entire system in the event of

certain predefined alarm conditions and notify WSP Engineering personnel by facsimile or other telephonic means (i.e., autodialing system).

5.7.1 Automatic Equipment Actuations

Two sets of water level sensors will be used to actuate the equipment during normal operation of the treatment system. A level switch high (LSH) will be activated within the equalization tank once the water level within the tank rises to a predefined level. The activation signal will cause the PLC to power the first water transfer pump and convey water to the filtration bag units, air stripper, and GAC units for treatment. Once the water level has been lowered, triggering the second switch, level switch low (LSL), the PLC will be signaled to turn the transfer pump off. A similar set of water level switches will also be installed within the low profile air stripper sump to actuate both the second water transfer pump and blower serving the stripper and the air/water separator to activate a water transfer pump.

If high vacuum at the blower inlet or high pressure at the blower outlet occurs in the vapor recovery line, vacuum and pressure switches will signal the PLC to turn off the blower to prevent equipment damage.

5.7.2 Automatic Alarm Deactivation

Numerous alarm conditions will be built into the treatment system and controlled by the PLC. The alarms include the equalization tank, the air stripper sump, air/water separator tank, blower vapor line, and the interior leak detection sump. Triggering any one of the alarms will result in the immediate shutdown of the entire system and the notification of WSP Engineering personnel by the autodialer. In addition to the equalization tank LSH described above, an additional water level switch, level switch high high (LSHH), will be installed above the LSH. In the event of a failure of the LSH, the LSHH will signal the PLC and the entire treatment system will shut down to avoid a tank overflow that might have otherwise occurred. The oil/water separator will also be equipped with a level switch low low (LSLL). The LSLL, when tripped by a failure of the LSL and continued water level decline, will send an alarm condition to the PLC that will also shut down the system to prevent the effluent pump from losing prime, drawing air, and possibly over heating. The air stripper and air/water separator sumps will be similarly equipped with LSLL and LSHH sensors and alarms.

To safeguard against equipment leaks, the existing sump within the treatment building's concrete slab will be equipped with a level alarm high (LAH). When activated by water

accumulation in the sump, the LAH will send an alarm condition to the PLC and the entire treatment system will be shut down.

A high vacuum switch will be installed on the inlet vapor recovery line to indicate if there is a blockage in the line causing high vacuum. Similarly, a high-pressure switch will be installed on the blower outlet line. If either switch is activated, the entire system will be shut off by a signal from the PLC.

Additionally, if an alarm is triggered from the aqueous stream process, the PLC will actuate the normally closed solenoid valve on the air supply line to halt airflow between the air compressor and the pneumatic pumps. The Process and Instrumentation Diagram (Drawing Sheet 5) in Appendix E provides additional information on the PLC system.

5.8 System Utilities

Electrical power is currently supplied to the treatment building. The electrical service and existing panel will be evaluated to determine if any changes are required to operate the new treatment equipment. Telephone services currently supplied to the building will be used for the PLC to allow for remote monitoring, control, and autodialing capability.

5.9 Site Restoration

All excavated piping trenches will be backfilled using native material and compacted in maximum 6-inch lifts. Native soils will be placed and graded flush with the surface elevation of the existing native soils surrounding the trench. These areas will be seeded and fertilized, as appropriate, to match preexisting site conditions.

In any areas where asphalt must be removed, native soil will be used to backfill the trench to approximately 1 ft bgs. A 4- to 6-inch layer of gravel bedding material will be placed over the compacted subgrade, followed by approximately 6 inches of pavement to match existing conditions.

Throughout construction, care will be taken not to damage or destroy any existing infrastructure. The remedial contractor will be responsible for any damages incurred and will restore the site to preexisting conditions.

5.10 Equipment Decontamination and Demobilization

Any soil not used to backfill trenches and any purge water that is not treated through the groundwater treatment system will be staged onsite on polyethylene sheeting or in 55-gallon DOT-approved drums for subsequent characterization and disposal at an approved facility in accordance with state and federal regulations.

Upon completion of the IRM activities, all equipment and reusable tools and supplies will be cleaned by scraping off bulk residuals and washed with high pressure water. Wash water will be collected in 55-gallon DOT-approved drums and staged onsite for subsequent characterization, treatment, and disposal. Disposable equipment and materials will be collected and disposed of according to state and federal regulations. All construction equipment will be demobilized from the site.

5.11 Well Survey

Upon completion of the construction phase, the locations of the extraction wells will be surveyed by a surveyor licensed in the State of New York. Elevation measurements will be obtained for each well at the reference mark on top of the PVC or steel casing, and on top of the flush-mounted steel vault on the north side. Horizontal measurements will be accurate to the nearest 0.1 foot and vertical measurements to the nearest 0.01 foot.

6.0 System Startup and Operation

6.1 System Startup

After the DPE system has been installed, each system component, as well as the entire system, will be inspected and tested to ensure proper performance. Specific inspections and testing procedures are described below in the following subsections.

6.1.1 Conveyance System

The proper construction, installation, and operation of groundwater extraction wells, conveyance piping, and extraction well pumps will be verified during system startup as described below.

6.1.1.1 Extraction Wells

As previously discussed, each extraction well will be developed after installation to remove fine sediment. Groundwater elevation data will be collected from each well before the system is online.

6.1.1.2 Air Supply Compressor

Before connection to the air supply header, the air compressor and appurtenances will be tested for proper operation. The air compressor will be allowed to operate for a period of time to ensure continuous operation. Airflow will then be introduced through the treatment building portion of the air supply system. Pressure and temperature indicators will be observed to identify airflow obstructions as well as efficiency of the refrigerated cooler.

6.1.1.3 Conveyance Piping

Before backfilling the trenches, air, water, and vapor lines will be pneumatically pressure-tested to detect leaks. If a pressure drop is observed, each header segment will be isolated and pressurized to identify the location of the leak and the leak will be repaired.

6.1.1.4 Extraction Well Pumps, Vapor Extraction, and Associated Components

After pressure testing, the portion of the air transfer system containing pneumatic pumps will be pressurized. The pressure regulator within each well vault will be set to provide pressure to each pump according to the manufacturer's specifications. Down well tubing will then be connected to air and water tubing and the flow valves will be opened to allow pump cycling and water conveyance. Pressure indicators within each line will be monitored continuously for several minutes to ensure proper air delivery and water discharge. The groundwater extraction

rate will be quantified at this time by using the manufacturer provided pump stroke displacement data and by observing the air line's cycle flow counter.

Following individual pump testing, the header valves will be opened to test the extraction wells. Sufficient pressure to actuate each pump simultaneously will be verified by observing the air pressure at each wellhead as well as the pressure indicators located near the compressor within the treatment building. Actual groundwater extraction rates will be quantified at each wellhead using the cycle flow counter. The field data will then be compared to the aquifer test predicated groundwater extraction rates to ensure adequate system performance. The total groundwater extraction rate will be verified within the treatment building by the flow indicator totalizer.

During the testing of the extraction well pumps and conveyance system, a vacuum will be applied to each of the extraction wellheads. Operation of telemetry, including pressure and temperature gauges, will be verified as functional. Initial vacuum readings will be recorded and used to determine system operation vacuum and flow rates. Each wellhead vapor line will be equipped with a vacuum relief valve to achieve a maximum vacuum of 10 inches Hg to prevent excessive groundwater upwelling.

6.1.2 Treatment System

Before groundwater is pumped and extracted vapor is conveyed to the treatment building, each component of the treatment train will be tested for proper operation in accordance with the manufacturer's instructions. The component testing details are described below.

6.1.2.1 Equalization Tank

The equalization tank will be filled to test the water level switches. Proper signal to the PLC will be confirmed by triggering the programmable response (i.e., water transfer pump actuation and alarm condition). The PLC run indicator light associated with the water transfer pump will also be monitored for proper and timely illumination.

6.1.2.2 Bag Filter Units

The bag filtration units will be tested by conveying water through each unit. The high pressure switch will be tested for proper programmable response with the PLC.

6.1.2.3 Low Profile Tray Air Stripper and Blower

Proper operation of the water level sensors within the air stripper sump will also be confirmed by filling the tank and observing the programmed responses. The PLC run indicator

light associated with the water transfer pumps and the blower will be monitored for proper and timely illumination. The blower line pressure will be monitored to identify any air flow problems through the stripper.

6.1.2.4 Air/Water Separator and Blower

Extracted vapors will be conveyed through the air/water separator by applying a vacuum to selected extraction wells. Proper operation of the water level sensors within the air/water separator sump will be confirmed by observing the programmed responses. The PLC run indicator light associated with the water transfer pump will be monitored for proper and timely illumination. The high vacuum and high pressure situations will also be tested by blocking the vapor line before and after the blower to test the high vacuum and high pressure alarms, PLC system shutdown, and autodialer function.

6.1.2.5 GAC Units

Both the aqueous and vapor phase GAC units will be tested by conveying water and vapor, respectively, through each unit. Pressure indicators before and after each vessel will be monitored to identify any air and liquid flow problems through each unit. The GAC units will be activated using potable water before extracted groundwater is transferred through the units.

6.1.2.6 Process Logic Control

Proper PLC operation and programming will be confirmed during the testing of each individual component of the treatment system. For example, during simulated alarm conditions, pumps will be monitored for timely power cut and the solenoid valve on the air supply line will be monitored for valve position change. Triggering an alarm condition within the leak detection sump (by exposing the water level sensor to water) will also test the PLC system shutdown and autodialer.

6.2 Performance Monitoring

Performance monitoring will be conducted during operation of the remedial system using the existing network of monitoring wells and proposed extraction wells associated with the installation of the DPE system. A performance monitoring program will be implemented to monitor the effectiveness of the DPE treatment system. The objectives of this program include:

- Confirming that the operation of the system provides hydraulic containment and mass removal.

- Assessing the rate of change of COC concentrations in the targeted areas of the B-zone and C-zone being remediated.
- Determining when the monitoring data indicate that further system operation will not result in any effective additional removal of COCs.

An Operation, Maintenance & Monitoring Plan (OM&M Plan) will be submitted to the NYSDEC upon completing the installation of the treatment system. The OM&M Plan will include a description of the performance monitoring.

7.0 Permits and Approvals

7.1 General

Remedial activities will be performed in compliance with federal, state, and local requirements. To determine the applicable requirements, WSP Engineering reviewed federal, state, and local requirements and contacted the NYSDEC and local City of Ithaca Building Department. A summary of applicable requirements is provided below.

7.2 Air Emission Requirements

Potential air emission sources for the remedial activities are the air stripper/vapor-phase carbon units. These sources meet the definition of exempt or trivial air sources under the state requirements and, therefore, do not require a NYSDEC air permit or registration. Under 6 NYCRR 201-3.3(c), the following are trivial activities:

> *(29) air stripping and soil vents required under the provisions of an Order on Consent or stipulation agreement, or in operation at a Superfund site*

Before start-up of the remedial system and to comply with the eligibility requirements for exempt and trivial activities under 6 NYCRR 201-3.2(a) and 201-3.3(a), records will be prepared documenting that the remedial activity air emission sources are exempt or trivial activities. These records will be maintained onsite. In addition, in compliance with 6 NYCRR 201-3.2(b) and 201-3.3(b), air emission sources will be operated and maintained consistent with good engineering practices.

WSP Engineering completed the DAR-1 model to determine the appropriate Environmental Rating and control requirements for all site-specific criteria regulated under 6NYCRR Part 212. The results of this model are presented in Appendix G. Vapor phase activated carbon will be used as a best available technology to reduce the discharge of site-related compounds.

7.3 Wastewater Requirements

Treated water will be generated from the remedial activities. This water will be discharged to the facility's SPDES Outfall #001 in accordance with the requirements of a SPDES

permit, which includes complying with specified effluent limitations. If necessary, the existing SPDES permit will be modified.

7.4 Waste Requirements

Potential wastes that will be generated during the remedial activities include spent liquid- and vapor-phase GAC, and solids collected from the air stripper trays and equalization tank during routine cleaning. Each waste stream will be containerized, characterized, and sent offsite for regeneration, recycling, or disposal in accordance with federal, state, and local requirements.

7.5 Local Requirements

WSP has met with the City of Ithaca Building Department, and a local building permit and electrical permit will be required to facilitate construction of the remedial system. Additional building and electrical permits will be required if a new treatment building is constructed.

8.0 Health and Safety

All work by WSP Engineering will be conducted in accordance with the project HASP. This plan will apply to WSP Engineering site personnel only. WSP Engineering's subcontractors will be required to adhere to a separate HASP that is substantially consistent with WSP Engineering's HASP and is commensurate with the work and activities that will be completed by the subcontractor. The subcontractor's HASP will be submitted to WSP Engineering for review prior to initiating any field work.

The HASP will outline emergency preparedness procedures and identify all hazards associated with the construction activities. WSP Engineering's HASP will be reviewed and signed by all onsite WSP Engineering personnel. Routine health and safety briefings will be held. Prior to beginning work each day, a heath and safety tailgate meeting will be conducted by the onsite safety coordinator for the project team and subcontractor personnel. Personnel from Emerson will also be informed of health and safety requirements, as appropriate.

9.0 References

Environmental Strategies Consulting LLC. 2005. Onsite Assessment Former Borg Warner – Morse Chain Facility, 620 South Aurora Street, Ithaca, New York

Freeze, R.A., and J.A. Cherry. 1979. Groundwater. Prentice-Hall, Englewood Cliffs, NJ, 604 p.

Javandel, I., and C.F. Tsang. 1986. Capture-zone type curves: a tool for aquifer cleanup: Ground Water, vol. 24, no. 5, p. 616-625.

Moench, A.F. 1984. Double-porosity models for a fissured groundwater reservoir with fractured skin. Water Resources Res., vol. 20, no. 7, p. 831-846.

New York State Department of Environmental Conservation. 1994. Record of Decision for the Morse Industrial Site Inactive Hazardous Waste Site, Ithaca, Tompkins County, New York. December.

Radian Corporation. 1990. Final Report; Remedial Investigation Stages 1 and 2; Emerson Power Transmission (EPT), Ithaca, New York. February.

Rasmussen, T.C., and L.A. Crawford. 1997. Identifying and removing barometric pressure effects in confined and unconfined aquifers: Ground Water, vol. 35, no. 3, p. 502-511.

Schwartz, F.W**.,** and H. Zhang. 2003. Fundamentals of Ground Water. John Wiley & Sons, New York, NY, 583 p.

Theis, C.V. 1935 The relation between lower the piezometric surface and the rate and duration of discharge of a well using groundwater storage. Amer. Geophys. Union Trans., vol. 16, p. 519-524.

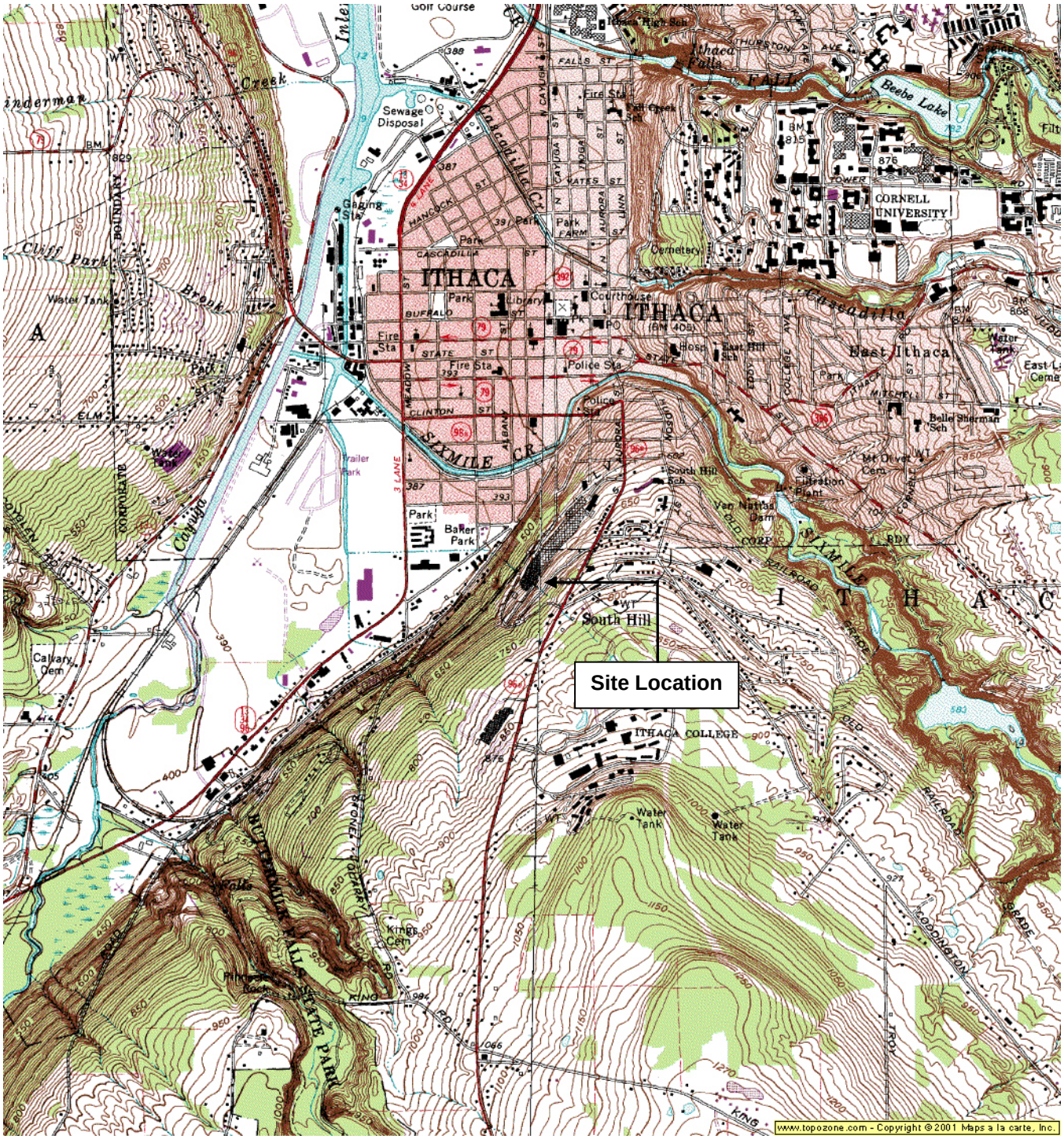
Todd, D.K. 1980. Groundwater Hydrology. John Wiley & Sons, New York, NY, 535 p.

WSP Environmental Strategies. 2007. Supplemental Remedial Investigation Report, Emerson Power Transmission, Ithaca, New York. December.

WSP Engineering of New York. 2008. Revised Supplemental Remedial Program/Alternative Analysis, Emerson Power Transmission, Ithaca, New York. June.

Figures

k:\client\emerson\ithaca\phase i\ figure 1.doc



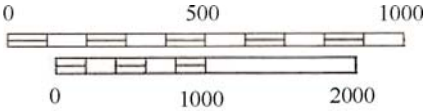
Reference
7.5 Minute Series Topographic Quadrangle
Ithaca East, New York
Photorevised 1976 Scale 1:25,000 Metric

N



Quadrangle Location

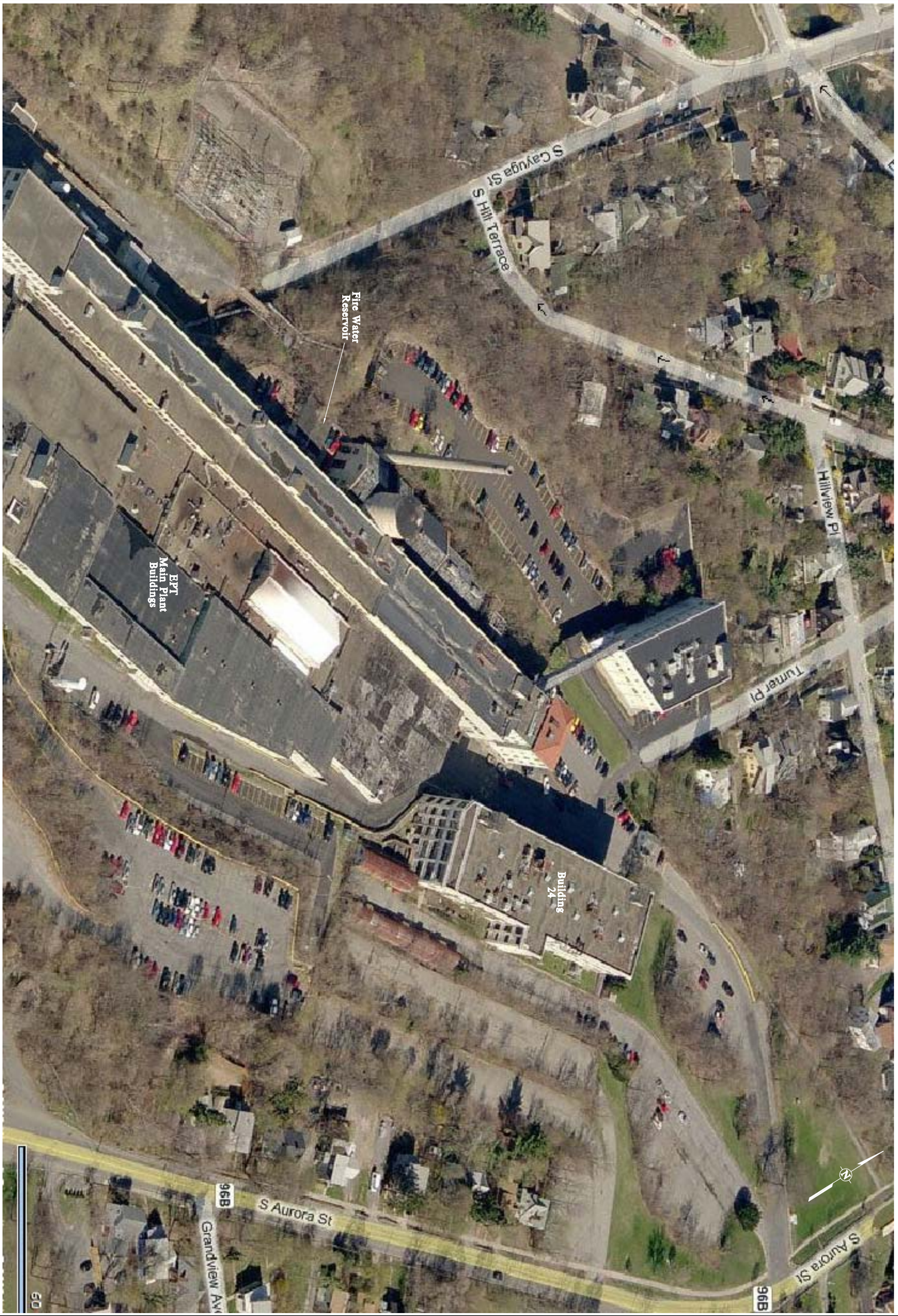
Scale in



Scale in Feet

WSP ENGINEERING OF NEW YORK, P.C.
11190 SUNRISE VALLEY DRIVE,
SUITE 300
RESTON, VA 20191
(703) 709-6500

Figure 1
Site Location
Emerson Power Transmission
Ithaca, New York



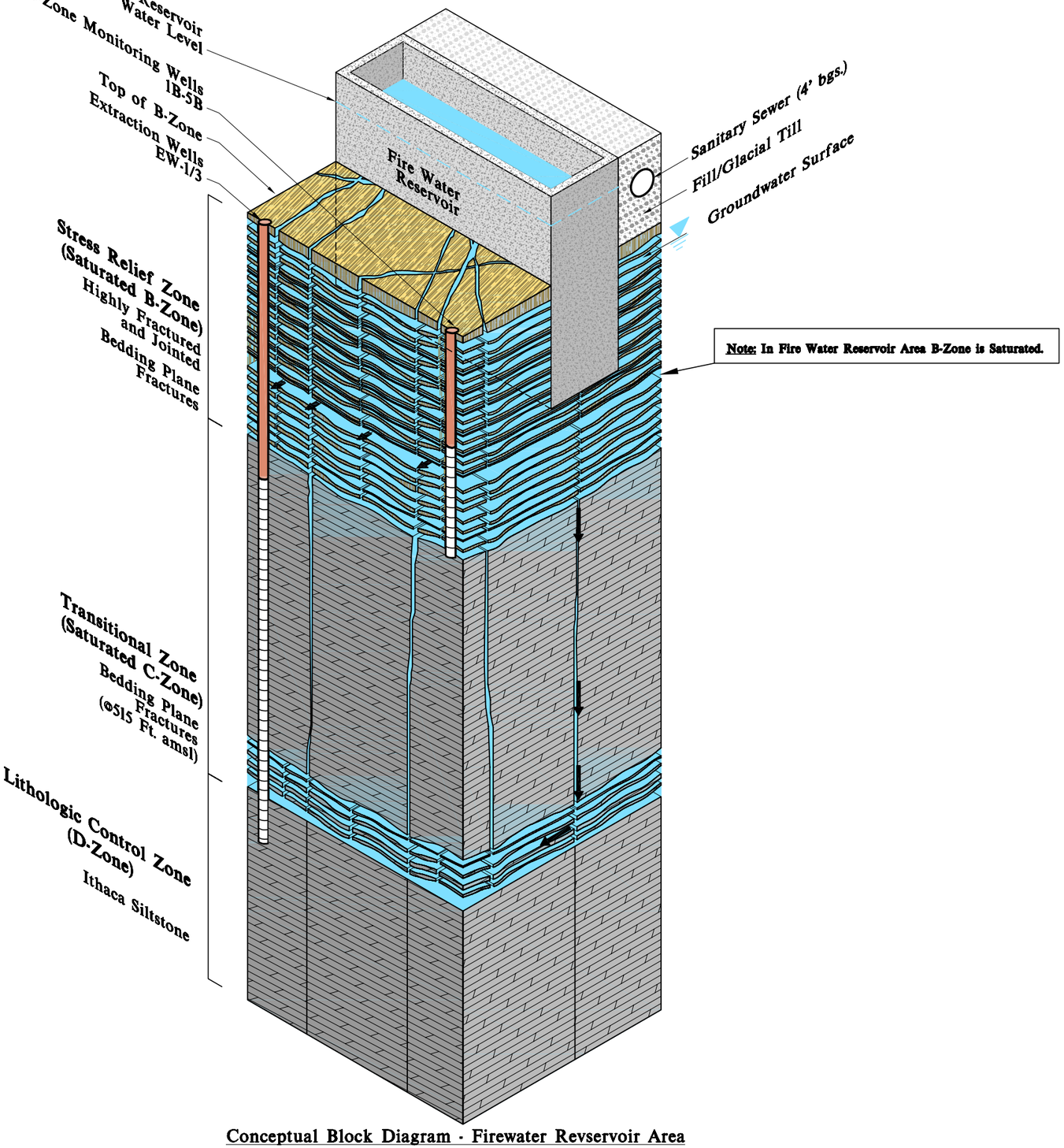
WSP ENGINEERING OF NEW YORK, P.C.
11190 SUNRISE VALLEY DRIVE SUITE 300
RESTON, VIRGINIA 20191 (703) 709-6500

FIGURE 2

SITE LAYOUT

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

Drawn By:	EGC
Checked:	SPH
Approved:	LKB
DWG Name:	127491326



Conceptual Block Diagram - Firewater Revservoir Area

Groundwater Transport Mechanisms
(Vertical Joints and Horizontal Bedding Plane Fractures)

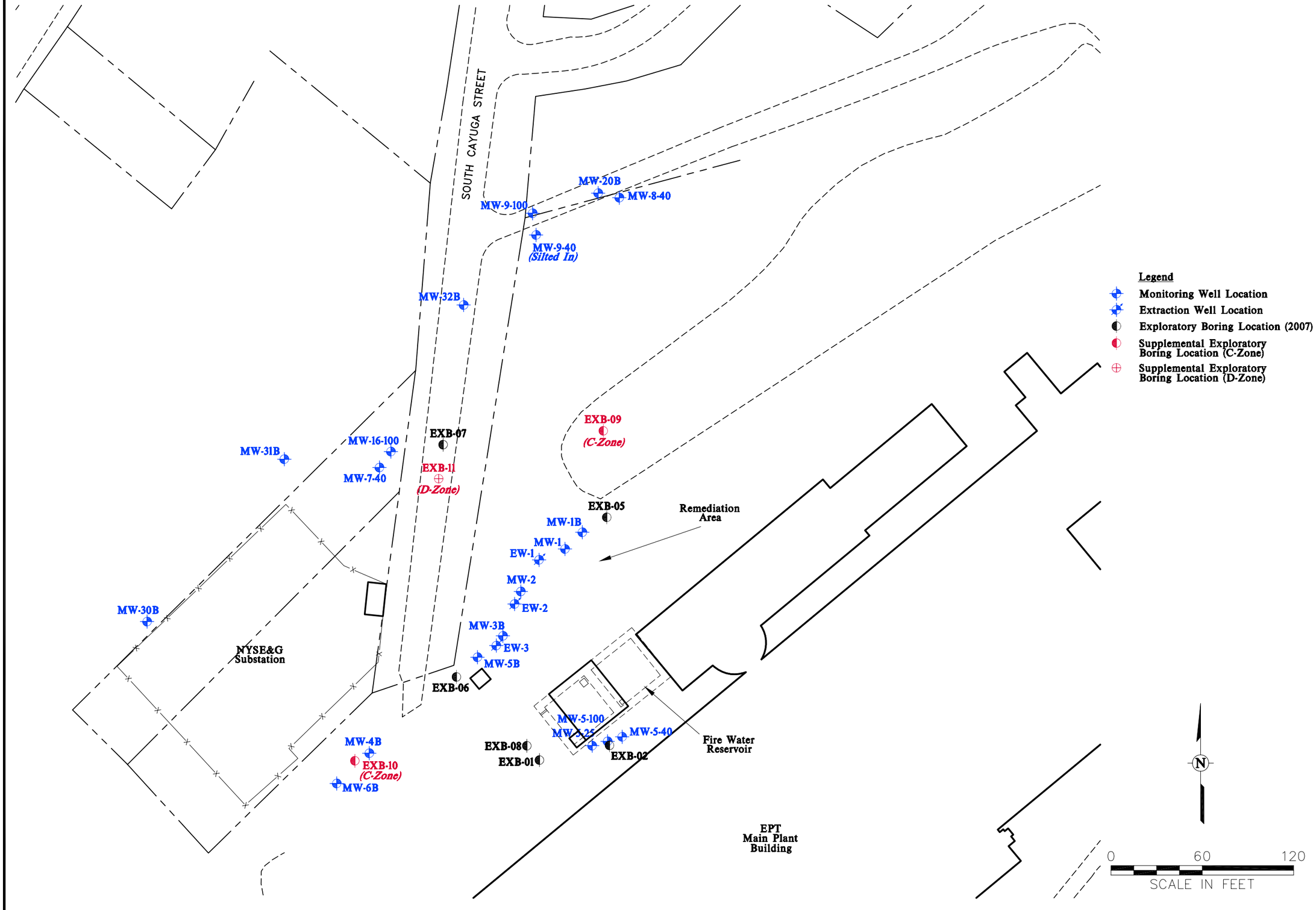
Drawn By: EGC
Checked: SPH
Approved: REJ
DWG Name: 127491310

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

FIGURE 3

CONCEPTUAL SITE MODEL
BENEATH FIRE WATER RESERVOIR

WSP
ENGINEERING OF NEW YORK, P.C.
11190 SUNRISE VALLEY DRIVE SUITE 300
RESTON, VIRGINIA 20191 (703) 709-6500



Drawn By: EGC
Checked: LKB
Approved: SPH
DWG Name: 127491316

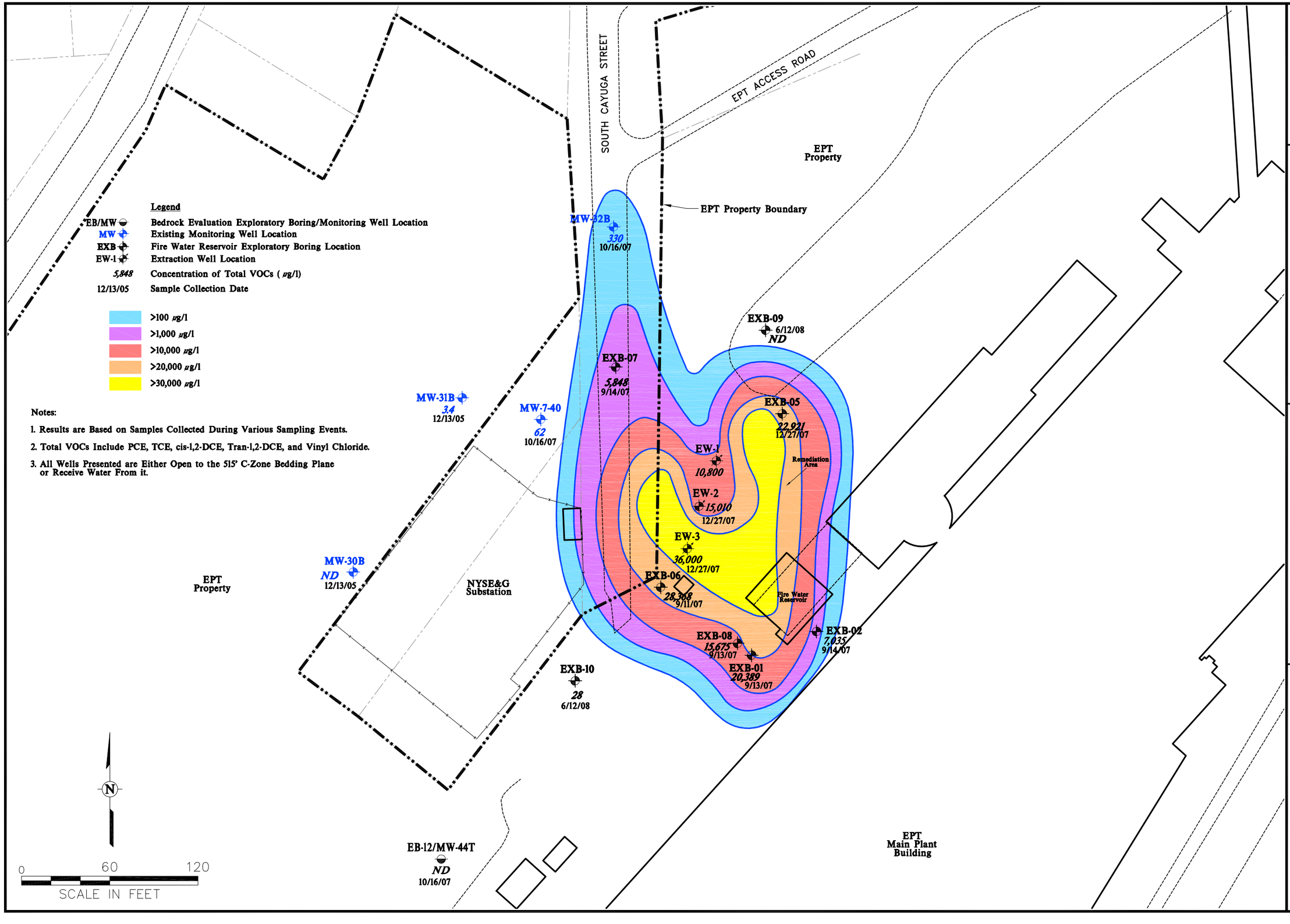
EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

Figure 4

SUPPLEMENTAL
EXPLORATORY BORING LOCATIONS

WSP
ENGINEERING OF NEW YORK, P.C.
11190 SUNRISE VALLEY DRIVE SUITE 300
RESTON, VIRGINIA 20191 (703) 709-6500



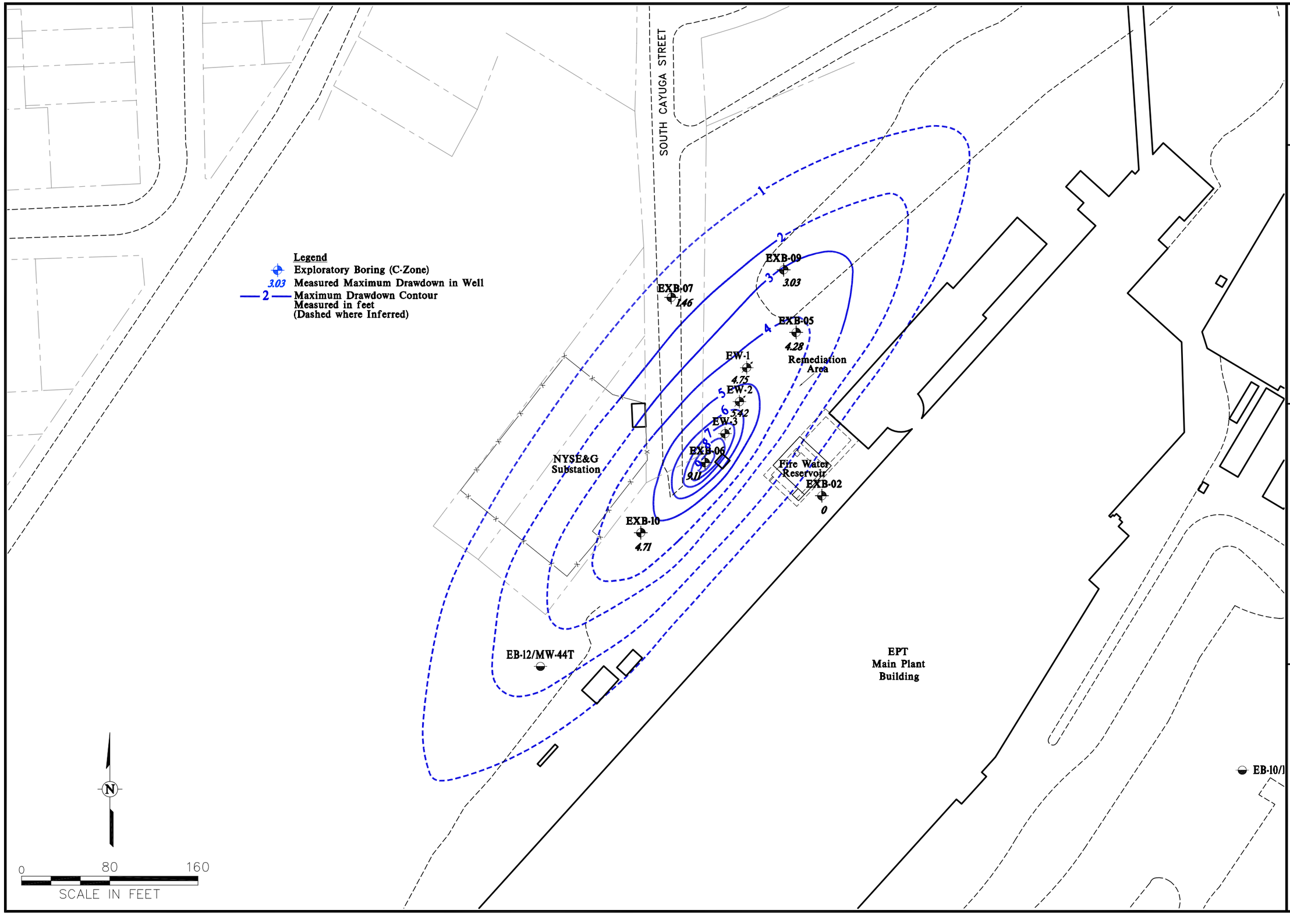
Drawn By: EGC
Checked: LKB
Approved: SPH
DWG Name: 127491342

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

FIGURE 5

DISTRIBUTION OF AFFECTED GROUNDWATER
(C-ZONE)

WSP
ENGINEERING OF NEW YORK, P.C.
11190 SUNRISE VALLEY DRIVE SUITE 300
RESTON, VIRGINIA 20191 (703) 709-6500



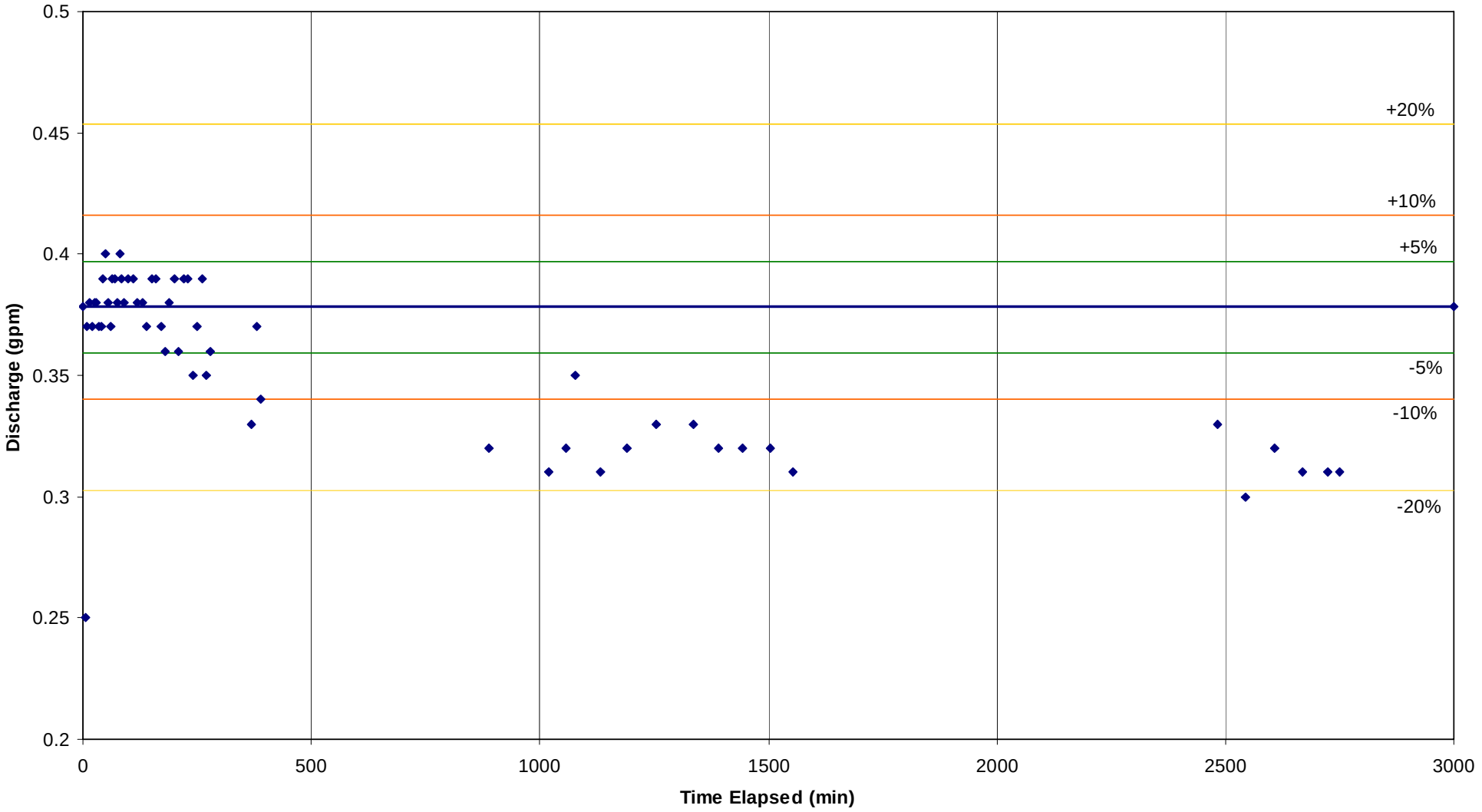
Drawn By: EGC
Checked: SPH
Approved: REJ
DWG Name: 127491351

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

FIGURE 6

C-ZONE MAXIMUM DRAWDOWN MAP
(ZONE OF INFLUENCE)
(JUNE 2008 PUMPING TEST)

WSP
ENGINEERING OF NEW YORK, P.C.
11190 SUNRISE VALLEY DRIVE SUITE 300
RESTON, VIRGINIA 20191 (703) 709-6500



WSP ENGINEERING OF NEW YORK, P.C.

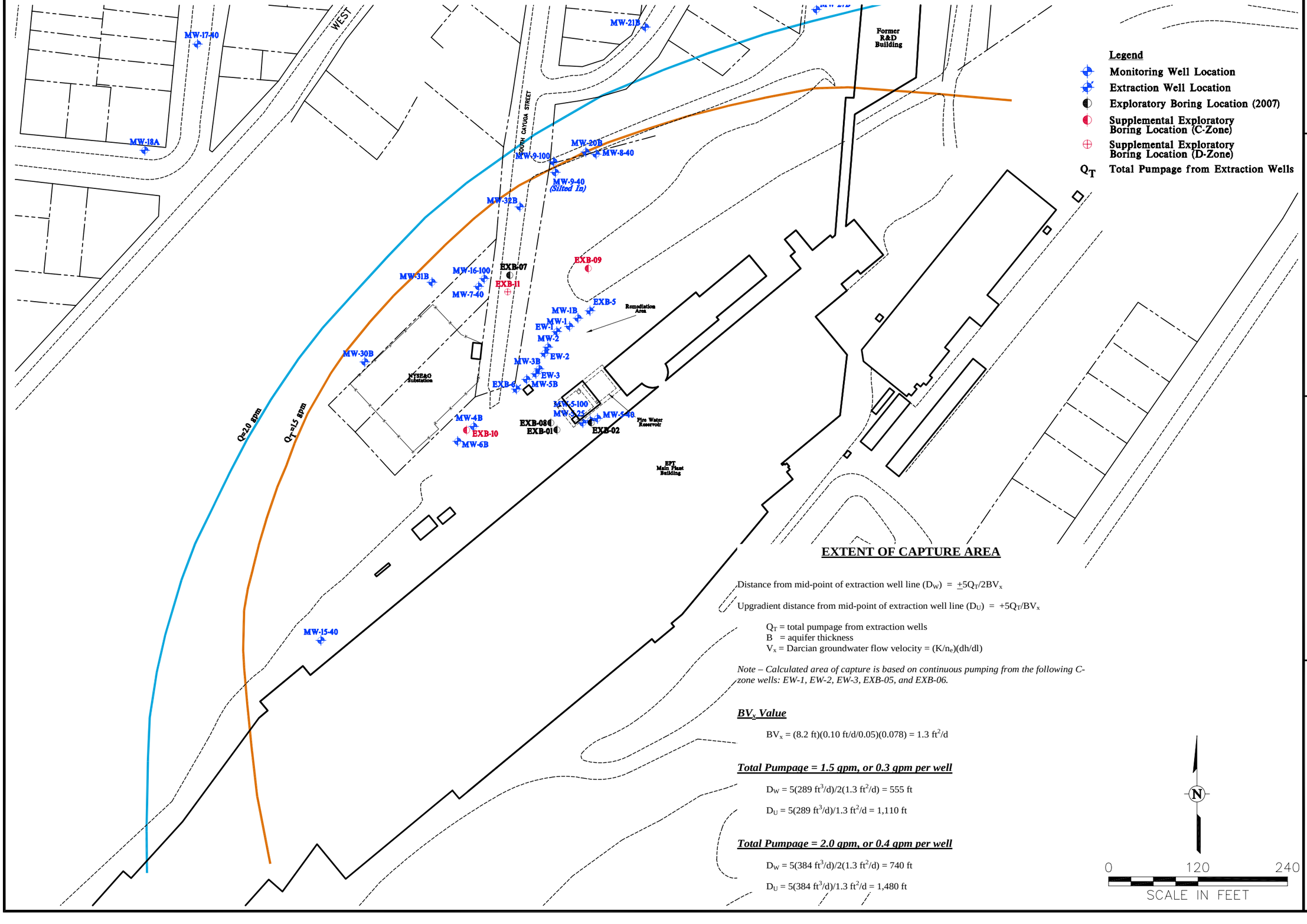
Figure 7

PLOT OF EXB-06 DISCHARGE DURING DRAWDOWN PORTION OF AQUIFER TEST

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON

Drawn By:	EGC
Checked:	
Approved:	
DWG Name:	127491357



EXTENT OF CAPTURE AREA

Distance from mid-point of extraction well line (D_W) = $\pm 5Q_T/2BV_x$

Upgradient distance from mid-point of extraction well line (D_U) = $+5Q_T/BV_x$

Q_T = total pumpage from extraction wells
B = aquifer thickness
V_x = Darcian groundwater flow velocity = $(K/n_e)(dh/dl)$

Note – Calculated area of capture is based on continuous pumping from the following C-zone wells: EW-1, EW-2, EW-3, EXB-05, and EXB-06.

BV_x Value

$BV_x = (8.2\ ft)(0.10\ ft/d/0.05)(0.078) = 1.3\ ft^2/d$

Total Pumpage = 1.5 gpm, or 0.3 gpm per well

$D_W = 5(289\ ft^3/d)/2(1.3\ ft^2/d) = 555\ ft$

$D_U = 5(289\ ft^3/d)/1.3\ ft^2/d = 1{,}110\ ft$

Total Pumpage = 2.0 gpm, or 0.4 gpm per well

$D_W = 5(384\ ft^3/d)/2(1.3\ ft^2/d) = 740\ ft$

$D_U = 5(384\ ft^3/d)/1.3\ ft^2/d = 1{,}480\ ft$

Drawn By: EGC
Checked: LKB
Approved: SPH
DWG Name: 127491356

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

Figure 8

ESTIMATED CAPTURE AREA FOR DESIGNATED EXTRATION WELLS

WSP
ENGINEERING OF NEW YORK, P.C.
11190 SUNRISE VALLEY DRIVE SUITE 300
RESTON, VIRGINIA 20191 (703) 709-6500

Tables

Table 1

Groundwater Samples Results
EXB-9, EXB-10, and EXB-11
June 2008
Emerson Power Transmission Site
Ithaca, New York

Sample ID:	**TOGS 1.1.1, Table 1, Ambient Water Quality Standards and Guidance Values (a)**	**EXB-09**	**EXB-10**	**EXB-10 DUP (b)**	**EXB-11**
Sample Type:					
Sampling Date:		**06/12/08**	**06/12/08**	**06/12/08**	**06/12/08**
VOCs (µg/L)					
Chloroform	7	1.4	1 U	1.2	4 U
Cyclohexane	NT (b)	1 U (b)	2.4	2.5	4 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1.7
cis-1,2-Dichloroethylene	5	1 U	**24**	**27**	**210** D
Methylcyclohexane	NT	1 U	5	5.3	4 U
Toluene	5	1 U	2.2	2.3	1.2
Trichloroethene	5	1 U	1 U	1 U	2.6
Vinyl chloride	2	1 U	1.7	1.9	**5.3**
Xylene, (total)	NT	3 U	3 U	3	12 U

a/ **Bold** values exceed the New York State Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Table 1: New York State Ambient Water Quality Standards and Guidance Values (June 1998)

b/ U - not detected at reporting limit
D - result is from a secondary dilution
Dup - duplicate sample
NT - no regulatory standard

Table 2

Hydraulic Properties
2008 Aquifer Test Results (a)
Emerson Power Transmission
Ithaca, New York

Well ID	Saturated Thickness (ft)	Drawdown Data				Recovery Data	
		K (ft/day)	K' (ft/day)	Ss (ft^{-1})	Ss' (ft^{-1})	T (ft^2/day)	K (ft/day)
EW-1	7	1.77 a	8.64E-06	1.43E-11	1.38E-08	5.42	0.774
EW-3	12	1.70	8.64E-06	8.33E-12	7.44E-13	4.81	0.401
EXB-05 (b)	9	1.21	8.64E+04	4.08E-08	7.90E-12	4.99	0.554
EXB-06	10	0.584	1.52E-05	1.15E-05	1.79E-02	4.36	0.436
EXB-07	7	1.66	2.12E-05	1.19E-05	1.00E+00	7.23	1.03
EXB-09 (b)	13	0.545	4.62E+04	7.69E-12	9.57E-07	4.56	0.351
EXB-10	5	0.803	4.86E-03	5.57E-06	5.76E-06	1.40	0.280
Geometric Mean		1.19	4.11E-05				0.498

(a) K: Hydraulic conductivity of the aquifer
K': Hydraulic conductivity of the unfractured bedrock
Ss: Specific storage of the fracture
Ss': Specific storage of the unfractured bedrock
T: Transmissivity of the aquifer

(b) The drawdown data for EXB-05 and EXB-09 was excluded from the geometric mean calculations based on incompatibility with the model assumptions

Table 3

Discharge Groundwater Sample Results
EXB-06
Emerson Power Transmission Site
Ithaca, New York

Sample ID: **Sampling Date:**	**TOGS 1.1.1, Table 1, Ambient Water Quality Standards and Guidance Values (a)**	**EXB-06** **06/18/08**	**EXB-06** **06/19/08**
Wet Chemistry (mg/L)			
BOD	NR	2 U	2 U
COD	NR	27.7	21.2
Total Alkalinity	NR	213	220
Total Dissolved Solids	NR	2,920	2,970
Total Hardness	NR	1,620	460
Total Suspended Solids (TSS)	NR	4 U	14.8
pH	NR	6.92	6.96

a/ **Bold** values are above the New York State Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Table 1: New York State Ambient Water Quality Standards and Guidance Values (June 1998)

b/ U - not detected at reporting limit
D - result is from a secondary dilution
NR - no regulatory standard
BOD - biological oxygen demand
COD - chemical oxygen demand

Prelminary Data

Table 3

Discharge Groundwater Sample Results
EXB-06
Emerson Power Transmission Site
Ithaca, New York

Sample ID:	**TOGS 1.1.1, Table 1, Ambient Water Quality Standards and Guidance Values (a)**	**EXB-06**		**EXB-06**	
Sampling Date:		**06/18/08**		**06/19/08**	
VOCs (µg/L)					
1,1-Dichloroethene	5	**14**		**20**	
trans-1,2-Dichloroethene	5	**62**		**67**	
cis-1,2-Dichloroethylene	5	**6,400**	D (b)	**7,200**	D
Tetrachloroethene	5	**13**		**16**	
Toluene	5	1		1.1	
Trichloroethene	5	**20,000**	D	**24,000**	D
Vinyl chloride	2	400	U	250	U
Metals (µg/L)					
Barium	NR	1,130		1,140	
Barium (Dissolved)	NR	1,120		1,100	
Calcium	NR	216,000		219,000	
Calcium (Dissolved)	NR	218,000		215,000	
Copper	200	10	U	20.5	
Copper (Dissolved)	200	10	U	11	
Iron	300	541		768	
Iron (Dissolved)	300	520		646	
Magnesium	NR	43,200		42,400	
Magnesium (Dissolved)	NR	421,000		41,700	
Manganese	300	2,320		2,410	
Manganese (Dissolved)	300	2,320		2,350	
Potassium	NR	7,140		6,520	
Potassium (Dissolved)	NR	6,480		6,360	
Sodium	20,000	574,000		594,000	
Sodium (Dissolved)	20,000	583,000		585,000	
Zinc	NR	39.9		39.4	
Zinc (Dissolved)	NR	38		37.5	

Appendix A – Exploratory Boring Logs and Rock Core Photographs –
EXB-09, EXB-10, EXB-11

Boring Log: EXB-09

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 565.83
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 29, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
1	SS 1	0.4	12 13 9 -	50		***FILL*** Asphalt road surface. ***FILL*** Grey brown gravel fill of siltstone.
2						
3	SS 2	0.4	9 10 21 34	50		***FILL*** Light brown sandy gravel fill; medium dense; dry. ***FILL*** Grey brown sandy gravel fill with some brick fragments; dense; dry to moist.
4						
5	SS 3	N/A	- - -	0		***FILL*** Concrete fill - no recovery.
6	SS 4	1.3	- 8 4	25		***FILL*** Brown sand fill with some concrete and siltstone fragments and rare pockets of ash; dense; dry to moist.
7						
8	SS 5	1.0	2 2 4 3	50		
9	SS 6	0.2	2 2	10		***FILL*** Concrete fill with rebar- no recovery.
10						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-09

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 565.83
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 29, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
11	SS 7	N/A	2 2 2 3	0		***FILL*** Concrete fill with rebar- no recovery. *(continued)*
12			5			
13	SS 8	0.3	5 - -	20		***Fat Clay with Gravel (CH)*** Grey brown high plasticity clay with some gravel; soft; moist.
14	SS 9	0	2 3	40		***Sandy Fat Clay with Gravel (CH)*** Grey mottled orange brown high plasticity clay with some gravel of siltstone
15			6 6			***Siltstone*** Ithaca Siltstone; weak; grey; fine grained.
16			4 50			***Siltstone*** Ithaca Siltstone. (Description based on flush arisings).
17			- -			
18						
19						
20			-			

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-09

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 565.83
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 29, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
21	RR 1	N/A	- - -	N/A		***Siltstone*** Ithaca Siltstone. (Description based on flush arisings). *(continued)*
22						
23						
24						
25						
26						
27	RUN 1	N/A	- - - -	100		***Siltstone*** Ithaca siltstone; strong; grey; fine grained; fossiliferous; laminated, fresh; competent; intensely to moderately fractured. Fracture Classification: 7 mechanical, horizontal, extremely narrow. 5 bedding plane joints at 26.2', 27.0', 27.2', 28.0' and 28.2'. horizontal, extremely to very narrow, not healed, clean, rough, dry. 2 vertical joints at 27.4' and 28.0', 25 degree dip extremely narrow, not healed, rough, dry. RQD: 25% (Very Poor)
28						
29						
30						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-09

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 565.83
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 29, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
31	RUN 2	N/A	- - - -	100		***Siltstone*** Ithaca siltstone; strong; grey; fine grained; fossiliferous; laminated, fresh; competent; intensely fractured. Fracture Classification: 6 mechanical, horizontal, extremely narrow. 9 bedding plane joints at 30.5', 30.6', 30.7', 31.0', 31.2', 32.0', 32.7', 33.0' and 33.7', horizontal, very narrow, not healed, mostly clean, dry, smooth. 2 fracture zones at 29.2' - 30.2' and 33.0' - 33.2'; very narrow, not healed, clean, rough and dry. RQD: 30% (Poor) *(continued)*
34	RUN 3	N/A	- - - -	100		***Siltstone*** Ithaca siltstone; strong; grey; fine grained; fossiliferous; laminated, fresh; competent; moderately fractured. Fracture Classification: 4 mechanical, 3 horizontal, 1 vertical, extremely narrow. 8 bedding plane fractures at 34.5', 36.0', 36.5', 37.0', 37.3', 38.0', 38.4' and 38.9', horizontal, very narrow, not healed, clean, dry, rough. 2 fracture zones at 34.0' - 34.1 and 35.5' - 36.5'; very narrow, not healed, clean, rough and dry. RQD: 68% (Fair)
37						
40						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-09

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 565.83
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 29, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
41	RUN 4	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 10 mechanical fractures, mainly horizontal, extremely narrow. 3 bedding plane fractures at 39.2', 41.0' and 43.0', horizontal, very narrow, not healed, clean, dry, smooth. 1 vertical joint with associated fracture zone at 43.0'- 44.0'; very narrow, not healed, surface oxidation or staining, smooth and dry. RQD: 77% (Good) *(continued)*
42						
43						
44						
45	RUN 5	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; moderately fractured. Fracture Classification: 11 Mechanical fractures; mainly horizontal; 1 vertical; very narrow. 5 Bedding plane fractures at 44.5', 44.7', 44.9', 48.4 and 48.7'; horizontal; very narrow; not healed; clean; smooth; dry. RQD: 93% (Excellent)
46						
47						
48						
49						
50						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-09

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 565.83
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 29, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
51	RUN 6	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 6 Mechanical fractures; mainly horizontal; 1 vertical; very to extremely narrow. 2 Bedding plane fractures at 51.2' and 52.6'; horizontal; very narrow; not healed; clean; smooth; dry. 1 Microjoint at 52.8'. 1 fracture zone at 53.2 - 53.5'; narrow; not healed; infilled with cohesive sediment of silty gravel of silt; smooth; damp. RQD: 93% (Excellent) *(continued)*
52						
53						
54						
55	RUN 7	N/A	- - - -	97		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 2 Mechanical fractures; horizontal; and very narrow. 2 Bedding plane fractures at 54.4' and 55'; horizontal; narrow to moderately narrow; not healed; clean; 1 fracture zone at 54.0 - 54.2'; horizontal; moderately narrow; not healed; infilled with cohesive sediment of siltstone gravel in clay matrix; damp. RQD: 97% (Excellent)
56						
57						
58						
59						
60						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-09

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 565.83
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 29, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
61	RUN 8	N/A	- - - -	97		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 3 Mechanical fractures; horizontal; extremely narrow. 1 fracture zone at 62.1' - 62.5'; very narrow; not healed; clean; rough; dry. RQD: 93% (Excellent) *(continued)*
62						
63						
64						Bottom of Boring at 64 feet
65						
66						
67						
68						
69						
70						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-10

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 560.34
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 23, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
1	SS 1	0	1 3 3 3	40		***FILL*** Grey brown gravelly well sorted medium to coarse sand; dense and moist; some siltstone fragments.
2						
3	SS 2	0	9 10 8 9	50		
4						
5	SS 3	0	6 7 11 9	50		***Well-Graded Sand with Gravel (SW)*** Brown gravelly well sorted medium to coarse sand; moist and medium dense with some grey siltstone fragments and rare clay at 8-10' and some black staining at 11.5-12.0' with no odor.
6						
7	SS 4	.1	11 8 8 6	50		
8						
9	SS 5	.1	11 8 8 6	50		
10						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-10

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 560.34
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 23, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
11	SS 6	.1	2 3 3 4	25		***Well-Graded Sand with Gravel (SW)*** Brown gravelly well sorted medium to coarse sand; moist and medium dense with some grey siltstone fragments and rare clay at 8-10' and some black staining at 11.5-12.0' with no odor. *(continued)*
12	SS 7	.1	50	100		***Siltstone*** Ithaca Siltstone; weak; grey; fine grained.
13			-			***Siltstone*** Ithaca Siltstone. (Description based on flush arisings).
14			-			
15			-			
16						
17	RR 1	N/A	-	N/A		
18			-			
19			-			
20			-			

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-10

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 560.34
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 23, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
21						***Siltstone*** Ithaca Siltstone. (Description based on flush arisings). *(continued)*
22						
23	RUN 1	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; moderately fractured. Fracture Classification: 4 mechanical fractures; horizontal; very narrow; 1 bedding plane fracture at 22.25'; horizontal; very narrow; not healed; clean; rough; dry.
24						1 fracture zone at 22.95'; horizontal; not healed; undulating, dry. RQD: 87% (Good)
25						***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; moderately fractured. Fracture Classification: 12 Bedding plane fractures at 24.2', 24.4', 25.6', 24.9', 25.1', 25.15', 25.25', 25.9', 27.0', 27.75', 27.5' and 28.4'; predominately horizontal, narrow, not healed, clean, smooth to undulating, dry.
26	RUN 2	N/A	- - - -	100		1 Fracture zone at 25.9' - 27.25'; narrow, not healed, clean, rough, dry. RQD: 63% (Fair)
27						
28						
29						
30						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-10

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 560.34
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 23, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
31	RUN 3	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; moderately fractured. Fracture Classification: 3 mechanical fractures at; horizontal, very narrow. 5 bedding plane fractures; 29.25', 30.75', 30.8', 32.1' and 33.0'; horizontal, narrow, not healed, clean, smooth, dry. 1 Fracture zone at 29.75; moderately narrow, not healed, clean, smooth, dry. RQD: 92% (Excellent) *(continued)*
32						
33						
34						
35	RUN 4	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 1 mechanical break; horizontal, very narrow. 4 bedding plane fractures at 34.5', 35.6', 37.0' and 37.6', horizontal, narrow, not healed, clean, smooth, dry. RQD: 98% (Excellent)
36						
37						
38						
39						
40						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-10

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 560.34
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 23, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
41	RUN 5	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 4 mechanical breaks; horizontal, very narrow. 4 bedding plane fractures at 39.5', 42.1', 42.75' and 43.0', horizontal, very narrow, not healed, clean, smooth, dry. RQD: 94% (Excellent) *(continued)*
42						
43						
44						
45	RUN 6	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; moderately fractured. Fracture classification: 1 mechanical break; extremely narrow. 5 bedding plane fractures at 44.3', 45.8', 46.0', 47.0' and 48.0', horizontal, very narrow, not healed, clean, smooth, dry. RQD: 70% (Good)
46						
47						
48						
49						
50						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-10

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 560.34
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 23, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
51	RUN 7	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; moderately fractured. Fracture classification: 6 bedding plane fractures at 49.8', 50.8', 51.7', 52.2', 52.7 and 53.2', horizontal, very narrow, not healed, clean, smooth, dry. RQD: 100% (Excellent) *(continued)*
52						
53						
54						
55	RUN 8	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; moderately fractured. Fracture classification: 1 mechanical, horizontal, very narrow. 4 bedding plane fractures at 55.75', 56.5', 57.75', 58.25', horizontal, very narrow, not healed, clean, smooth, dry. RQD: 100% (Excellent)
56						
57						
58						
59						
60						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-10

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 560.34
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 64
Completion Date: May 23, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
61	RUN 9	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; strong; grey; fine grained; fossiliferous; laminated; fresh; competent; unfractured. Fracture classification: 2 mechanical, horizontal, very narrow. RQD: 100% (Excellent) *(continued)*
62						
63						
64						Bottom of Boring at 64 feet
65						
66						
67						
68						
69						
70						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-11

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 532.82
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 80
Completion Date: May 30, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
	SS 1	0	- - - -	100		***FILL*** Asphalt road surface.
1						***FILL*** Black sandy gravel fill; loose and dry.
2						***Siltstone*** Ithaca Siltstone; grey; weathered.
3						***Siltstone*** Ithaca Siltstone; note loss of flush at 4' due to large fracture - possibly associated with base of sewer in this locality. (Description based on flush arisings)
4						
5						
6						
7						
8						
9						
10						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-11

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 532.82
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 80
Completion Date: May 30, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
11						***Siltstone*** Ithaca Siltstone; note loss of flush at 4' due to large fracture - possibly associated with base of sewer in this locality. (Description based on flush arisings) *(continued)*
12			-			
13	RR 1	N/A	-	N/A		
14			-			
15						
16						
17						
18						
19						
20						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-11

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 532.82
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 80
Completion Date: May 30, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
21						***Siltstone*** Ithaca Siltstone; note loss of flush at 4' due to large fracture - possibly associated with base of sewer in this locality. (Description based on flush arisings) *(continued)*
22						
23						
24						
25						
26						***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 10 Mechanical fractures; mainly horizontal; 2 vertical; extremely narrow, 80 degree dip. 2 Bedding plane fractures at 26.1' and 29.5'; horizontal; very narrow; not healed; lower fracture slightly infilled with cohesive sediment and damp; upper fracture, smooth and dry. RQD: 100% (Excellent)
27	RUN 1	N/A	- - - -	100		
28						
29						
30						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-11

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 532.82
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 80
Completion Date: May 30, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
31						***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 7 Mechanical fractures; 5 horizontal; 2 vertical; extremely narrow, 90 degree dip. 1 Bedding plane fractures at 32.9'; horizontal; very narrow; clean, smooth; dry. RQD: 100% (Excellent)
32	RUN 2	N/A	- - - -	100		
33						
34						
35						***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; unfractured. Fracture Classification: 5 Mechanical fractures; horizontal; extremely narrow. RQD: 100% (Excellent)
36						
37	RUN 3	N/A	- - - -	100		
38						
39						
40						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-11

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 532.82
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 80
Completion Date: May 30, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
41–44	RUN 4	N/A	- - - -	92		***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 4 Mechanical fractures; horizontal; extremely narrow. 1 Fractures zone at 42.9' - 43.2'; not healed; possibly infilled with cohesive sediment or washed out from above; rough; damp. RQD: 86% (Good)
45–50	RUN 5	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 1 Mechanical fractures; horizontal; extremely narrow, 90 degree dip. 4 Bedding plane fractures at 45', 47.5', 49.1' and 49.9'; horizontal; narrow to extremely narrow; clean, smooth; dry. RQD: 97% (Excellent)

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-11

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 532.82
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 80
Completion Date: May 30, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
51–54	RUN 6	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 4 Mechanical fractures; horizontal; extremely narrow. 3 Bedding plane fractures at 51.8', 52.3' and 53.2'; horizontal; extremely narrow; clean, smooth; dry. RQD: 98% (Excellent)
55–60	RUN 7	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 4 Mechanical fractures; horizontal; extremely narrow. 1 Bedding plane fracture at 57.5"; horizontal; extremely narrow; clean, smooth; dry. RQD: 98% (Excellent)

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-11

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 532.82
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 80
Completion Date: May 30, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
61						***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 2 Mechanical fractures; horizontal; extremely narrow. 1 Fractures zone at 60.5' to 60.75'; horizontal; narrow to very narrow; clean, smooth to undulating; dry. RQD: 95% (Excellent)
62	RUN 8	N/A	- - -	100		
63						
64						
65						
66						***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 2 Mechanical fractures; horizontal; extremely narrow. 2 Bedding plane fractures at 65.9' and 67.9'; horizontal; extremely narrow; clean, smooth; dry. RQD: 100% (Excellent)
67	RUN 9	N/A	- - -	100		
68						
69						
70						

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

Boring Log: EXB-11

Project: Emerson Power Transmission
Surface Elevation (feet AMSL*): 532.82
Project No.: 127491
Location: Ithaca, New York
Total Depth (feet): 80
Completion Date: May 30, 2008
Borehole Diameter (inches): 10/4
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
71–74	RUN 10	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; unfractured. Fracture Classification: 4 Mechanical fractures; horizontal; extremely narrow. RQD: 100% (Excellent)
75–80	RUN 11	N/A	- - - -	100		***Siltstone*** Ithaca Siltstone; very strong; grey; fine grained; fossiliferous; laminated; fresh; competent; slightly fractured. Fracture Classification: 6 Mechanical fractures; horizontal; extremely narrow. 1 Bedding plane fractures at 79'; horizontal; very narrow; clean, smooth; dry. RQD: 100% (Excellent)

Bottom of Boring at 80 feet

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff, Inc.
Driller/Operator: Glen
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

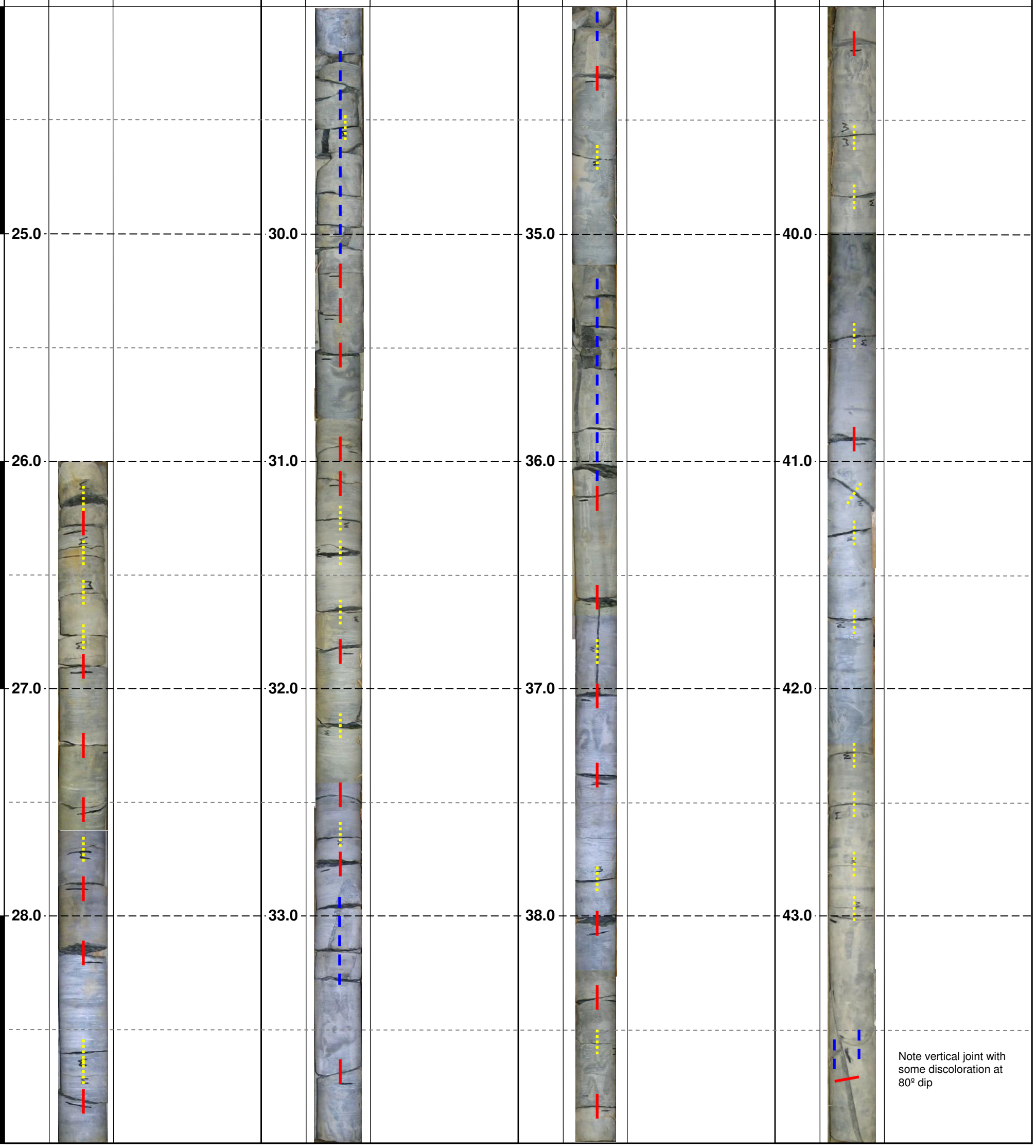
WSP Environment & Energy
11190 Sunrise Valley Drive
Reston, VA 20191
+1 703 709 6500

ROCK CORE PHOTOGRAPHIC RECORD

Boring Log:	EXB-09	**Completion Date:**	May 29, 2008
Project:	Emerson Power Transmission	**Surface Elevation:**	TBC feet AMSL
Project No.:	080074	**Total Depth:**	64.0 feet
Location.:	Ithaca, NY	**Borehole Diameter:**	4.0”

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
Tel: (703) 709-6500

SCALE (feet)	Run 1 (26-29’)	Run 2 (29-34’)	Run 3 (34-39’)	Run 4 (39-44’)
	Total Recovery: 100%	**Total Recovery:** 100%	**Total Recovery:** 100%	**Total Recovery:** 100%
	Solid Recovery: 100%	**Solid Recovery:** 85%	**Solid Recovery:** 77%	**Solid Recovery:** 80%
	RQD: 25% (Very Poor)	**RQD:** 30% (Poor)	**RQD:** 68% (Fair)	**RQD:** 77% (Good)
	fbgs / Rock Core / Notes	fbgs / Rock Core / Notes	fbgs / Rock Core / Notes	fbgs / Rock Core / Notes



Note vertical joint with some discoloration at 80º dip

Key to Annotations:

- Joint
- Shear
- Bedding Plane Joint
- Microjoint
- Fracture Zone
- Shear Zone
- Mechanical Break
- 45º Dip Angle

Color Scale:

Additional Technical Notes:

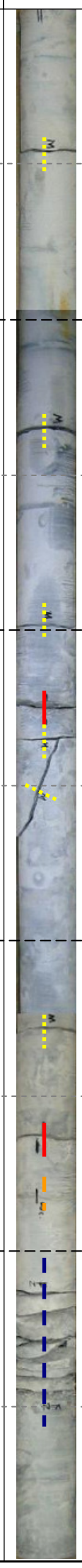
ROCK CORE PHOTOGRAPHIC RECORD

Boring Log:	EXB-09	**Completion Date:**	May 29, 2008
Project:	Emerson Power Transmission	**Surface Elevation:**	TBC feet AMSL
Project No.:	080074	**Total Depth:**	64.0 feet
Location.:	Ithaca, NY	**Borehole Diameter:**	4.0”

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
Tel: (703) 709-6500

SCALE (feet)

Run Number:	5 (44-49’)	Run Number:	6 (49-54’)	Run Number:	7 (54-59’)	Run Number:	8 (59-64’)
Total Recovery:	100%	**Total Recovery:**	100%	**Total Recovery:**	97%	**Total Recovery:**	97%
Solid Recovery:	100%	**Solid Recovery:**	93%	**Solid Recovery:**	96%	**Solid Recovery:**	93%
RQD:	93% (Excellent)	**RQD:**	93% (Excellent)	**RQD:**	93% (Excellent)	**RQD:**	93% (Excellent)

fbgs	Rock Core	Notes	fbgs	Rock Core	Notes	fbgs	Rock Core	Notes	fbgs	Rock Core	Notes
1			50.0			55.0		Infilling at 54’ – 54.5’ may be slough from infilled fracture zone at 53.2 – 53.5’	60.0		
45.0											
2											
46.0			51.0			56.0			61.0		
3											
47.0			52.0			57.0			62.0		
4											
48.0			53.0		Note infilling of fracture zone at 53.2 – 53.5’ with cohesive sediment	58.0			63.0		
5											

Key to Annotations:

- Joint
- Shear
- Bedding Plane Joint
- Microjoint
- Fracture Zone
- Shear Zone
- Mechanical Break
- 45º Dip Angle

Color Scale:

Additional Technical Notes:

ROCK CORE PHOTOGRAPHIC RECORD

Boring Log:	EXB-10	**Completion Date:**	May 22, 2008
Project:	Emerson Power Transmission	**Surface Elevation:**	TBC feet AMSL
Project No.:	080074	**Total Depth:**	64.0 feet
Location.:	Ithaca, NY	**Borehole Diameter:**	4.0”

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
Tel: (703) 709-6500

SCALE (feet)	Run Number:	Total Recovery:	Solid Recovery:	RQD:	fbgs	Rock Core	Notes
	1 (22-24’)	100%	98%	87% (Good)			
	2 (24-29’)	100%	99%	63% (Fair)			
	3 (29-34’)	100%	99%	92% (Excellent)			
	4 (34-39’)	100%	98%	98% (Excellent)			

1
2
3
4
5

20.0 21.0 22.0 23.0 25.0 26.0 27.0 28.0 30.0 31.0 32.0 33.0 35.0 36.0 37.0 38.0

Key to Annotations:

- Joint
- Shear
- Bedding Plane Joint
- Microjoint
- Fracture Zone
- Shear Zone
- Mechanical Break
- 45º Dip Angle

Color Scale:

Additional Technical Notes:

ROCK CORE PHOTOGRAPHIC RECORD

Boring Log:	EXB-10	**Completion Date:**	May 22, 2008
Project:	Emerson Power Transmission	**Surface Elevation:**	TBC feet AMSL
Project No.:	080074	**Total Depth:**	64.0 feet
Location.:	Ithaca, NY	**Borehole Diameter:**	4.0”

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
Tel: (703) 709-6500

	Run Number:	Total Recovery:	Solid Recovery:	RQD:
	5 (39-44’)	100%	100%	94% (Excellent)
	6 (44-49’)	100%	98%	70% (Good)
	7 (49-54’)	100%	100%	100% (Excellent)
	8 (54-59’)	100%	100%	100% (Excellent)

SCALE (feet)

fbgs | Rock Core | Notes

1 2 3 4 5

40.0 41.0 42.0 43.0

45.0 46.0 47.0 48.0

50.0 51.0 52.0 53.0

55.0 56.0 57.0 58.0









Damage to rock core in this area is due to core becoming jammed in sample tube

Key to Annotations:

- Joint
- Shear
- Bedding Plane Joint
- Microjoint
- Fracture Zone
- Shear Zone
- Mechanical Break
- 45º Dip Angle

Color Scale:

Additional Technical Notes:

ROCK CORE PHOTOGRAPHIC RECORD

Boring Log:	EXB-10	**Completion Date:**	May 22, 2008
Project:	Emerson Power Transmission	**Surface Elevation:**	TBC feet AMSL
Project No.:	080074	**Total Depth:**	64.0 feet
Location.:	Ithaca, NY	**Borehole Diameter:**	4.0”

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
Tel: (703) 709-6500

	Run Number:	Total Recovery:	Solid Recovery:	RQD:
	9 (59-64’)	100%	100%	100% (Excellent)

SCALE (feet)	fbgs	Rock Core	Notes	fbgs	Rock Core	Notes	fbgs	Rock Core	Notes	fbgs	Rock Core	Notes
1												
	60.0			65.0			70.0			75.0		
2												
	61.0			66.0			71.0			76.0		
3												
	62.0			67.0			72.0			77.0		
4												
	63.0			68.0			73.0			78.0		
5												

Key to Annotations:

- Joint
- Shear
- Bedding Plane Joint
- Microjoint
- Fracture Zone
- Shear Zone
- Mechanical Break
- 45º Dip Angle

Color Scale:

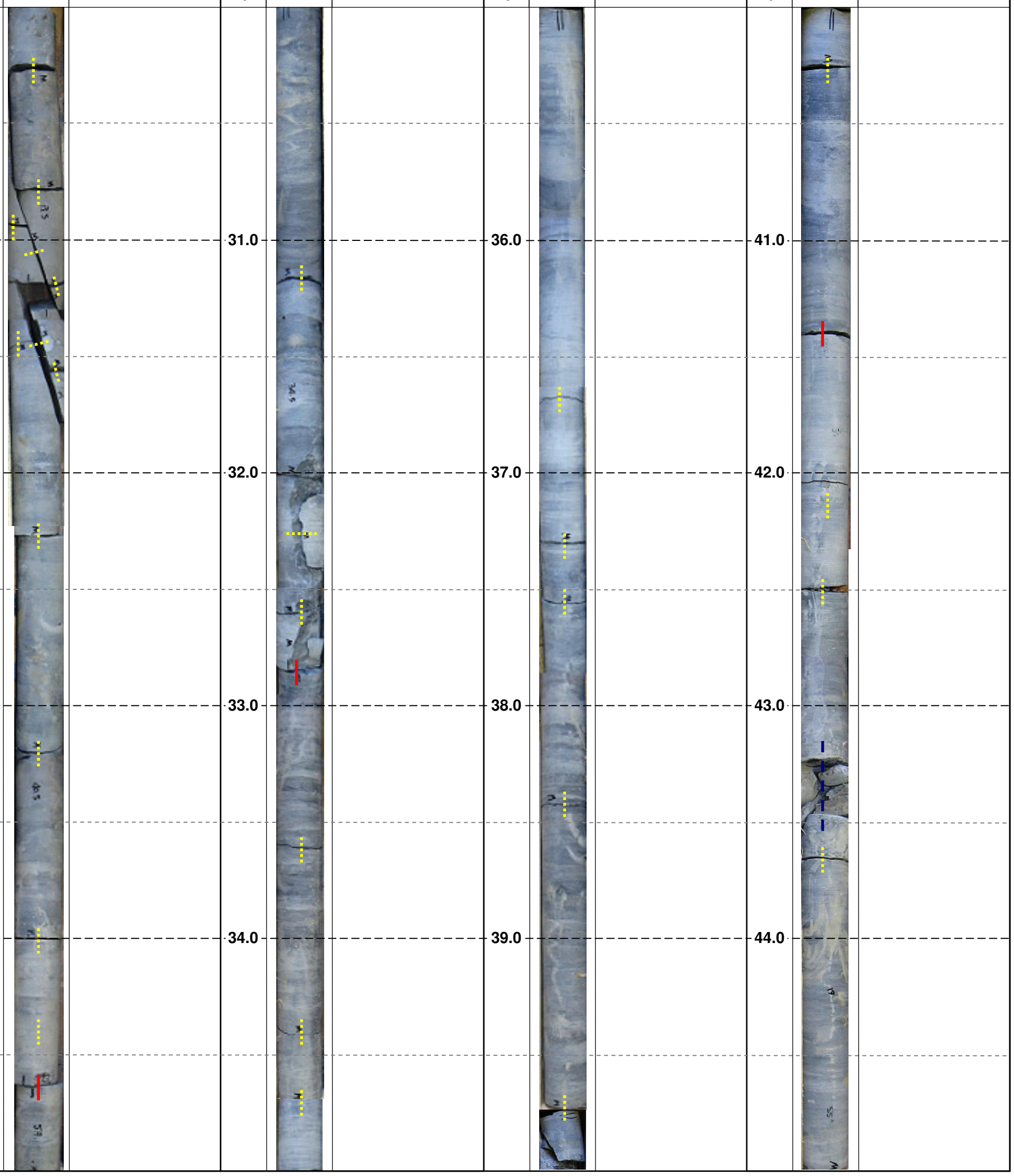
Additional Technical Notes:

ROCK CORE PHOTOGRAPHIC RECORD

Boring Log:	EXB-11	**Completion Date:**	June 2, 2008
Project:	Emerson Power Transmission	**Surface Elevation:**	TBC feet AMSL
Project No.:	080074	**Total Depth:**	80.0 feet
Location.:	Ithaca, NY	**Borehole Diameter:**	4.0”

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
Tel: (703) 709-6500

SCALE (feet)	Run Number:	Total Recovery:	Solid Recovery:	RQD:	fbgs	Rock Core	Notes
	1 (25-30’)	100%	100%	100% (Excellent)			
	2 (30-35’)	100%	100%	100% (Excellent)			
	3 (34-40’)	100%	100%	100% (Excellent)			
	4 (40-45’)	92%	86%	86 % (Good)			



Key to Annotations:

- Joint
- Shear
- Bedding Plane Joint
- Microjoint
- Fracture Zone
- Shear Zone
- Mechanical Break
- 45º Dip Angle

Color Scale:

Additional Technical Notes:

ROCK CORE PHOTOGRAPHIC RECORD

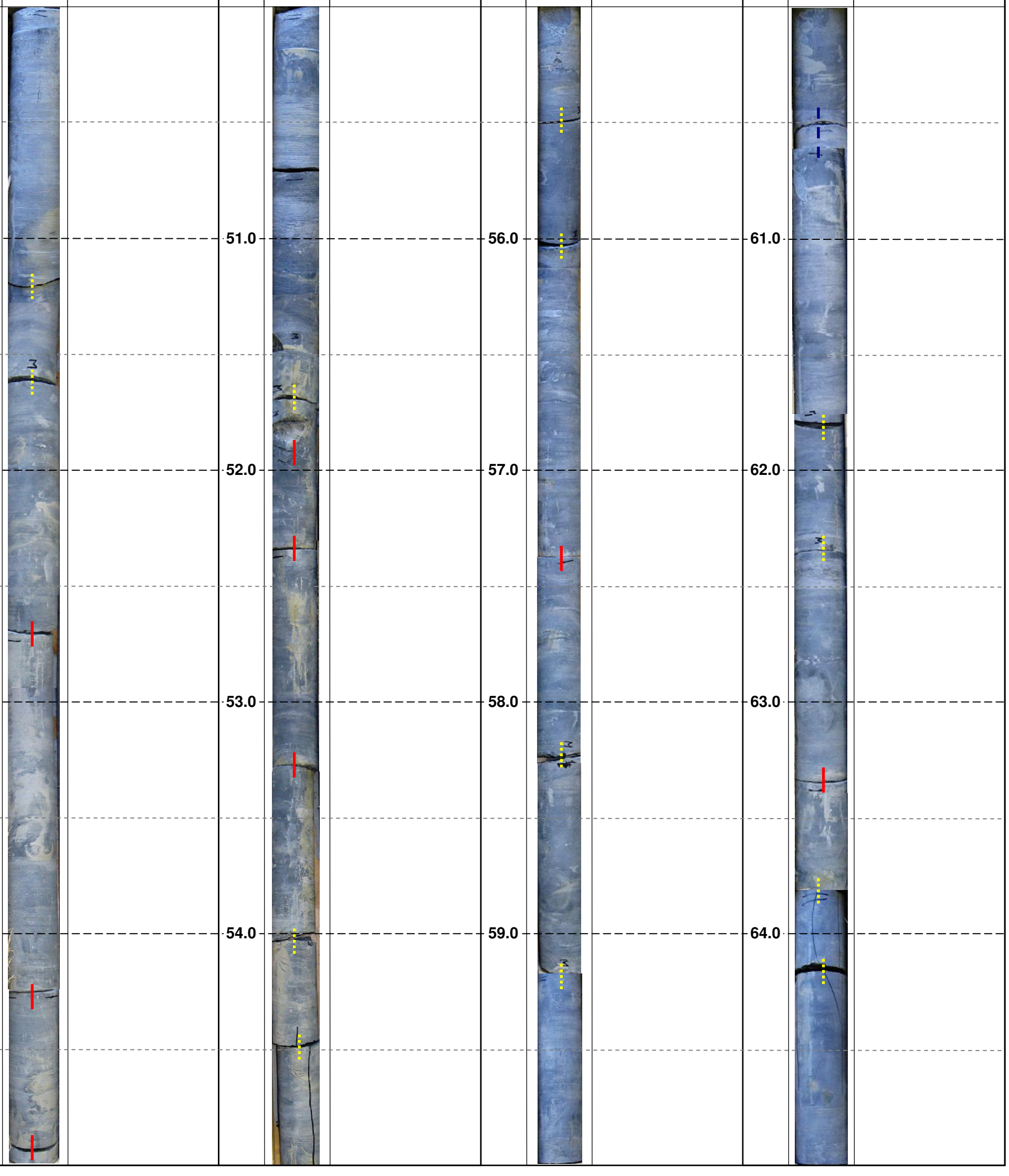
Boring Log:	EXB-11	**Completion Date:**	June 2, 2008
Project:	Emerson Power Transmission	**Surface Elevation:**	TBC feet AMSL
Project No.:	080074	**Total Depth:**	80.0 feet
Location.:	Ithaca, NY	**Borehole Diameter:**	4.0”

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
Tel: (703) 709-6500

	Run Number:	Total Recovery:	Solid Recovery:	RQD:
	5 (45-50’)	100%	98%	97% (Excellent)
	6 (50-55’)	100%	100%	98% (Excellent)
	7 (55-60’)	100%	100%	100% (Excellent)
	8 (60-65’)	100%	97%	95 % (Excellent)

SCALE (feet)

fbgs | Rock Core | Notes



Key to Annotations:

- Joint
- Shear
- Bedding Plane Joint
- Microjoint
- Fracture Zone
- Shear Zone
- Mechanical Break
- 45º Dip Angle

Color Scale:

Additional Technical Notes:

ROCK CORE PHOTOGRAPHIC RECORD

Boring Log:	EXB-11	**Completion Date:**	June 2, 2008
Project:	Emerson Power Transmission	**Surface Elevation:**	TBC feet AMSL
Project No.:	080074	**Total Depth:**	80.0 feet
Location.:	Ithaca, NY	**Borehole Diameter:**	4.0”

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
Tel: (703) 709-6500

SCALE (feet)

	Run Number:	Total Recovery:	Solid Recovery:	RQD:
1	9 (65-70’)	100%	98%	97% (Excellent)
2	10 (70-75’)	100%	100%	98% (Excellent)
3	11 (75-80’)	100%	100%	100% (Excellent)
4				
5				

fbgs | Rock Core | Notes







Key to Annotations:

- Joint
- Shear
- Bedding Plane Joint
- Microjoint
- Fracture Zone
- Shear Zone
- Mechanical Break
- 45º Dip Angle

Color Scale:

Additional Technical Notes:

Appendix B – Borehole Geophysical Logs – EXB-09, EXB-10, EXB-11

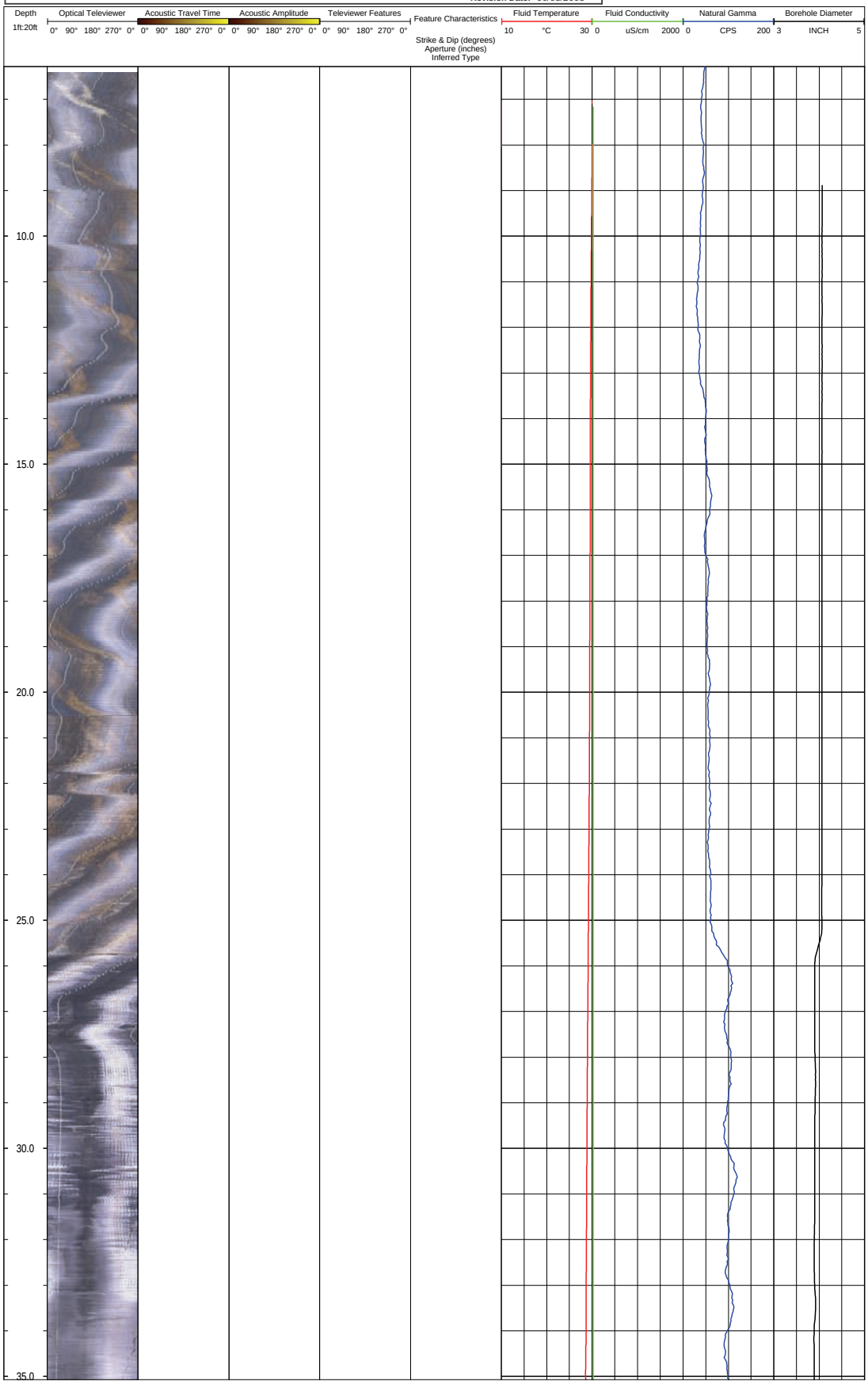
Mid-Atlantic Geosciences

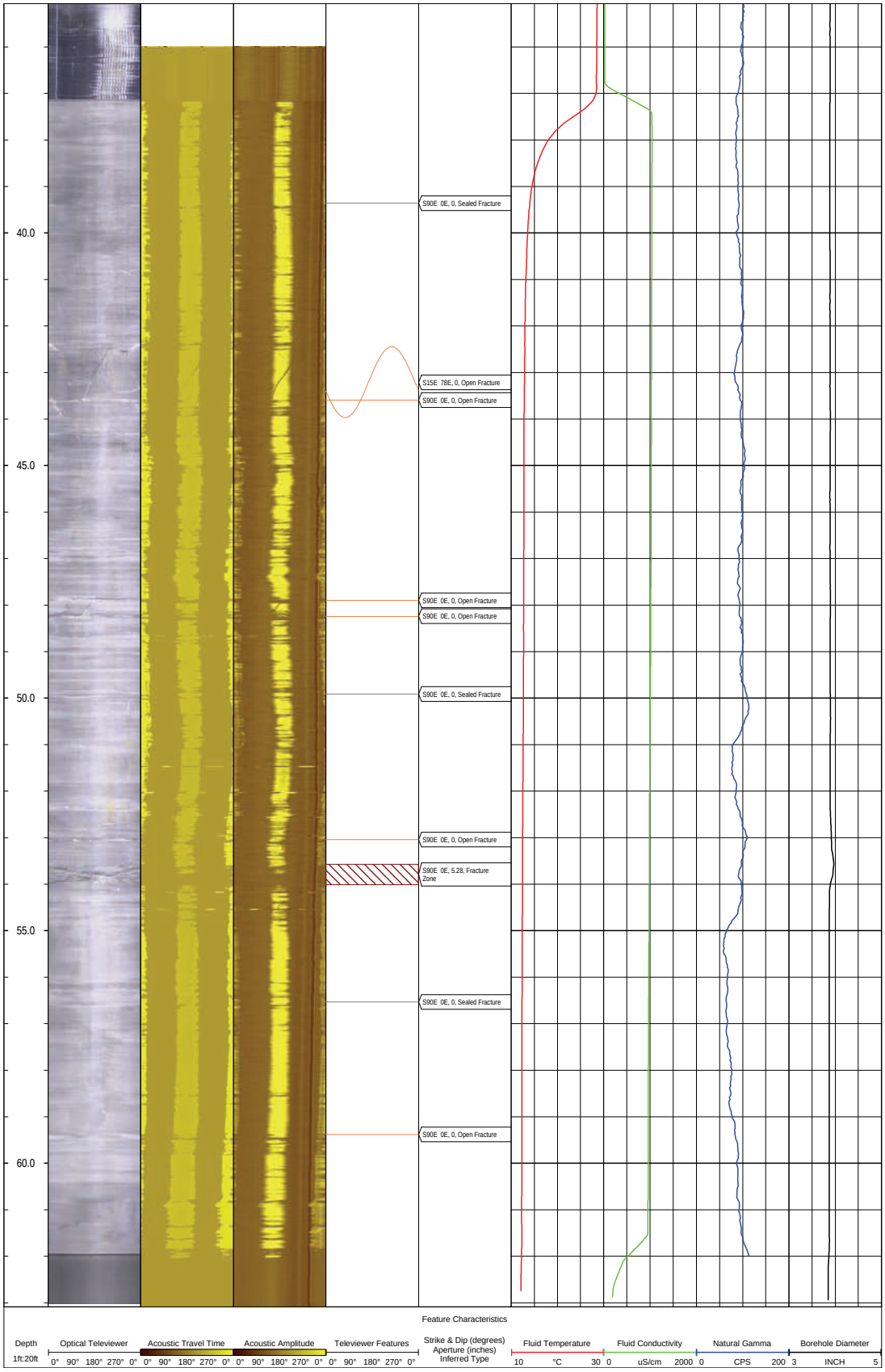
Title: *Televiewer and Geophysical Logs*

WELL ID *EXB-9*

Logging Date: *06/05/2008*
Logging Datum: *Top Of Casing*
BOC: *25.7'* **DTW:** *37.15'* **TD:** *63.1'*

Site Name: *Emerson Power Transmission Facility*
Location: *Ithaca, NY*
Client: *WSP Environment & Energy*
Project No.: *040845*
Revision Date: *06/08/2008*




40.0
45.0
50.0
55.0
60.0
S90E 0E, 0, Sealed Fracture
S15E 78E, 0, Open Fracture
S90E 0E, 0, Open Fracture
S90E 0E, 0, Open Fracture
S90E 0E, 0, Open Fracture
S90E 0E, 0, Sealed Fracture
S90E 0E, 0, Open Fracture
S90E 0E, 5.28, Fracture Zone
S90E 0E, 0, Sealed Fracture
S90E 0E, 0, Open Fracture
Feature Characteristics
Depth
1ft:20ft
Optical Televiewer
0° 90° 180° 270° 0°
Acoustic Travel Time
0° 90° 180° 270° 0°
Acoustic Amplitude
0° 90° 180° 270° 0°
Televiewer Features
0° 90° 180° 270° 0°
Strike & Dip (degrees)
Aperture (inches)
Inferred Type
Fluid Temperature
10 °C 30
Fluid Conductivity
0 uS/cm 2000
Natural Gamma
0 CPS 200
Borehole Diameter
3 INCH 5

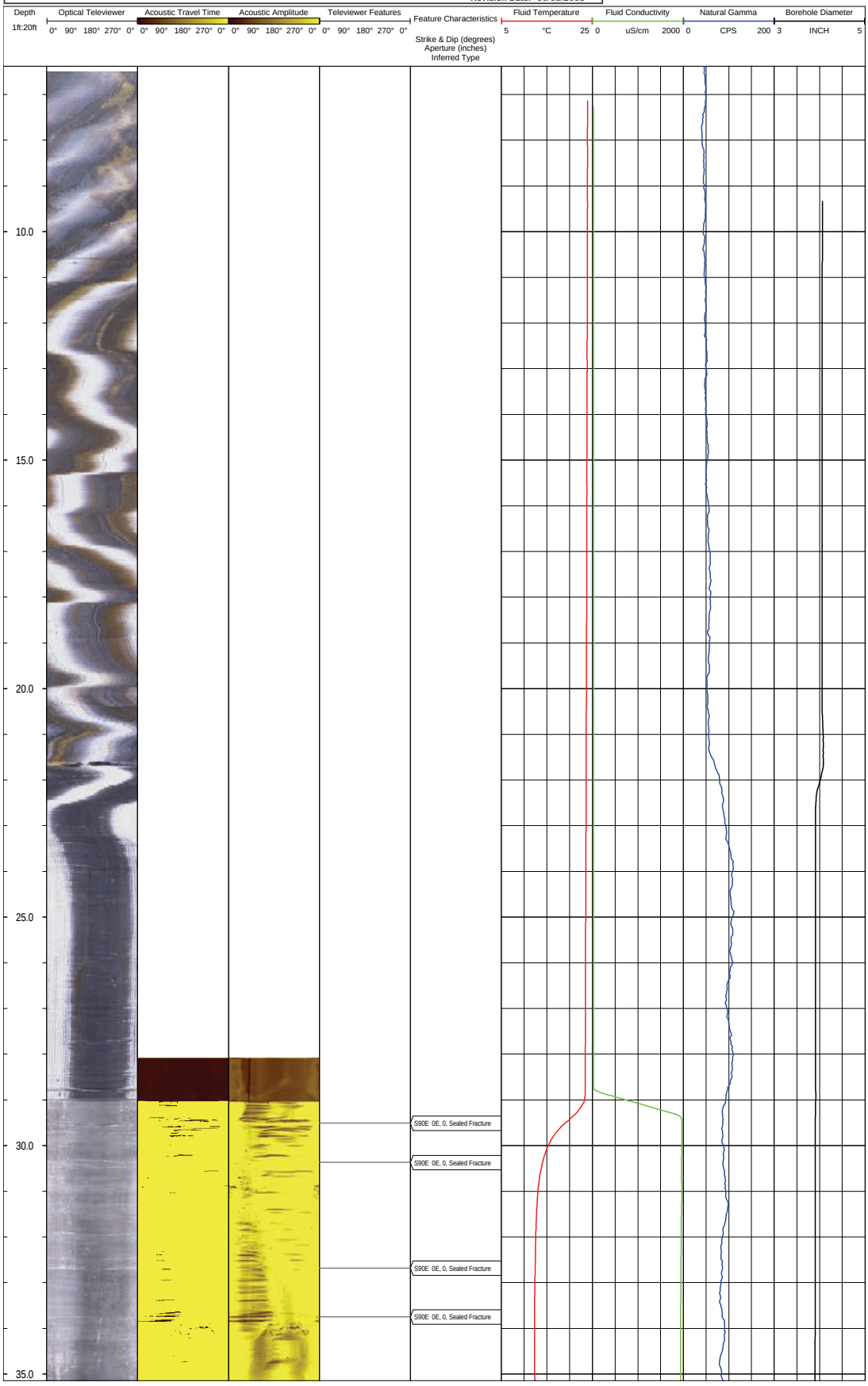
Mid-Atlantic Geosciences

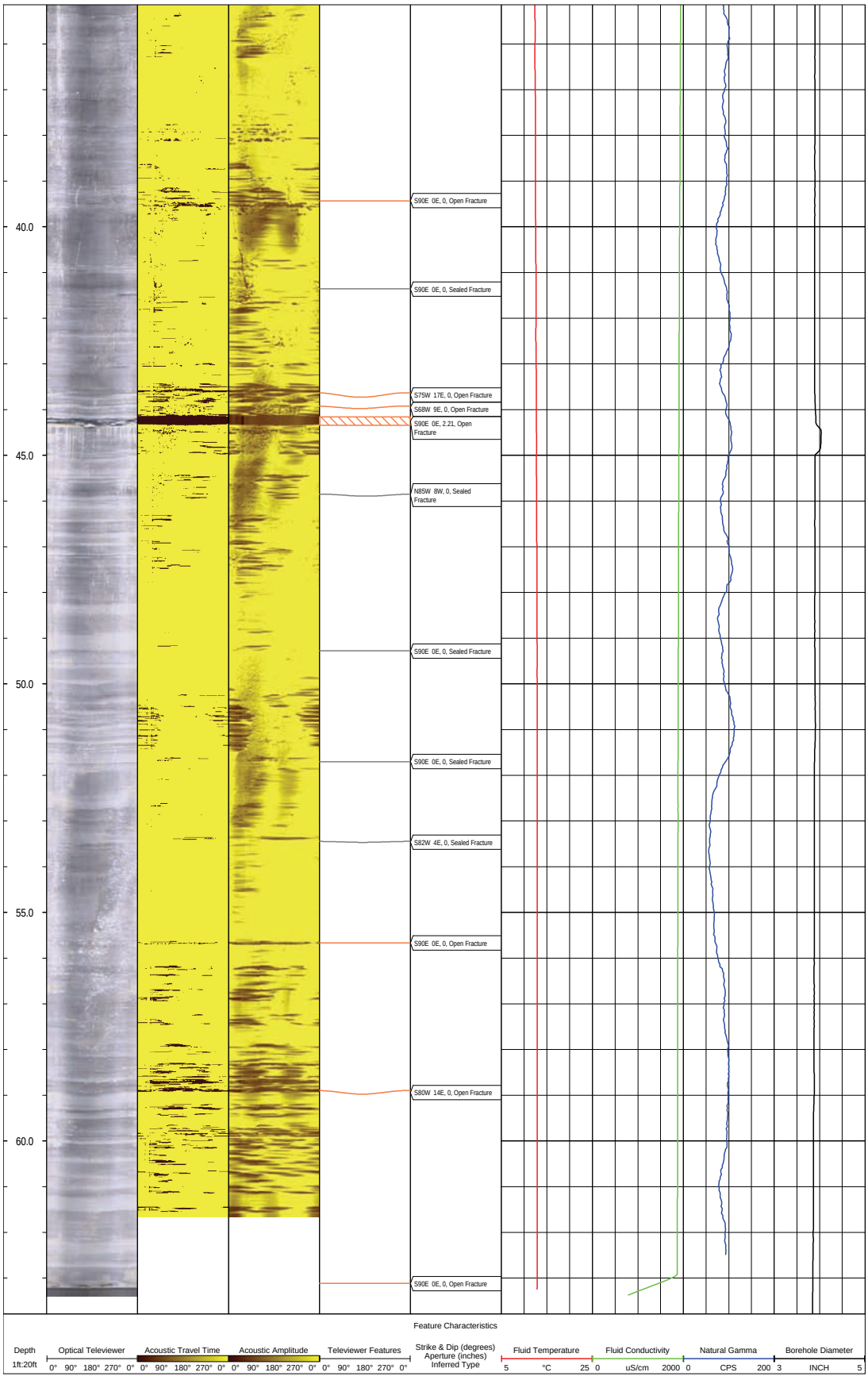
Title: *Televiewer and Geophysical Logs*

WELL ID *EXB-10*

Logging Date: *06/05/2008*
Logging Datum: *Top Of Casing*
BOC: *21.8'* **DTW:** *29'* **TD:** *63.8'*

Site Name: *Emerson Power Transmission Facility*
Location: *Ithaca, NY*
Client: *WSP Environmental & Energy*
Project No.: *040845*
Revision Date: *06/08/2008*




40.0
45.0
50.0
55.0
60.0
S90E 0E, 0, Open Fracture
S90E 0E, 0, Sealed Fracture
S75W 17E, 0, Open Fracture
S68W 9E, 0, Open Fracture
S90E 0E, 2.21, Open Fracture
N85W 8W, 0, Sealed Fracture
S90E 0E, 0, Sealed Fracture
S90E 0E, 0, Sealed Fracture
S82W 4E, 0, Sealed Fracture
S90E 0E, 0, Open Fracture
S80W 14E, 0, Open Fracture
S90E 0E, 0, Open Fracture
Feature Characteristics
Depth
1ft:20ft
Optical Televiewer
0° 90° 180° 270° 0°
Acoustic Travel Time
0° 90° 180° 270° 0°
Acoustic Amplitude
0° 90° 180° 270° 0°
Televiewer Features
0° 90° 180° 270° 0°
Strike & Dip (degrees)
Aperture (inches)
Inferred Type
Fluid Temperature
5 °C 25
Fluid Conductivity
0 uS/cm 2000
Natural Gamma
0 CPS 200
Borehole Diameter
3 INCH 5

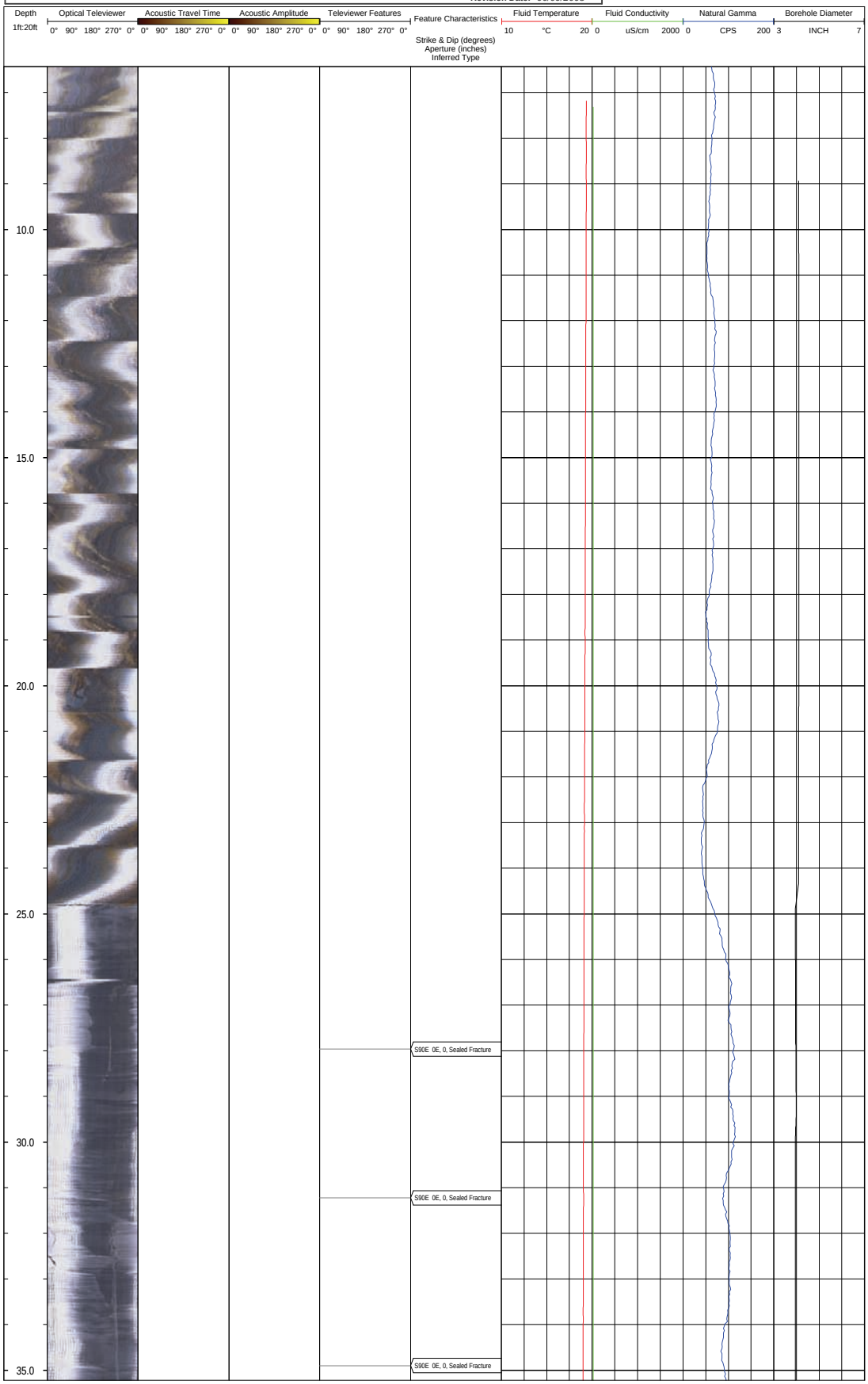
Mid-Atlantic Geosciences

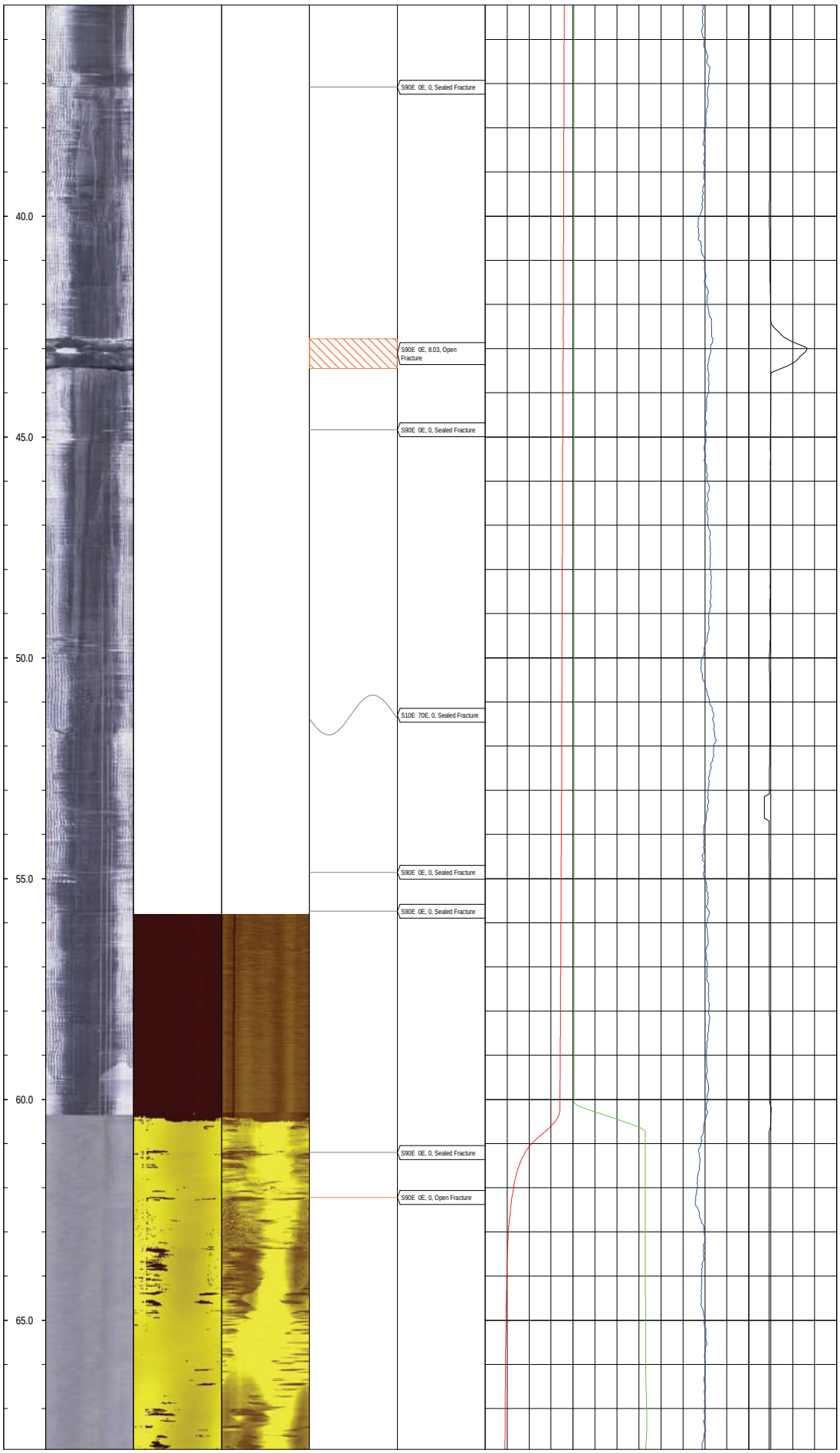
Title: *Televiewer and Geophysical Logs*

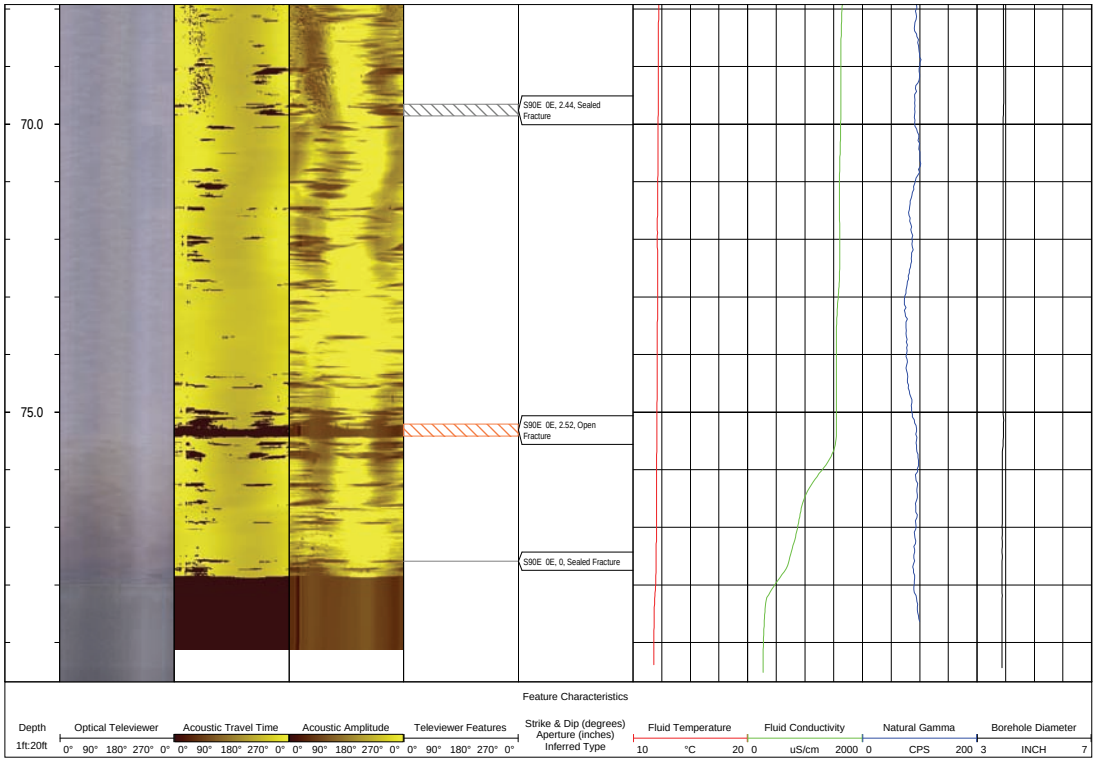
WELL ID *EXB-11*

Logging Date: *06/05/2008*
Logging Datum: *Top Of Casing*
BOC: *24.8'* **DTW:** *60.3'* **TD:** *79.7'*

Site Name: *Emerson Power Transmission Facility*
Location: *Ithaca, NY*
Client: *WSP Environmental & Energy*
Project No.: *040845*
Revision Date: *06/09/2008*




S90E 0E, 0, Sealed Fracture
S90E 0E, 8.03, Open Fracture
S90E 0E, 0, Sealed Fracture
S10E 70E, 0, Sealed Fracture
S90E 0E, 0, Sealed Fracture
S90E 0E, 0, Sealed Fracture
S90E 0E, 0, Sealed Fracture
S90E 0E, 0, Open Fracture
40.0
45.0
50.0
55.0
60.0
65.0


70.0
75.0
S90E 0E, 2.44, Sealed Fracture
S90E 0E, 2.52, Open Fracture
S90E 0E, 0, Sealed Fracture
Feature Characteristics
Depth
1ft:20ft
Optical Televiewer
Acoustic Travel Time
Acoustic Amplitude
Televiewer Features
Strike & Dip (degrees)
Aperture (inches)
Inferred Type
Fluid Temperature
Fluid Conductivity
Natural Gamma
Borehole Diameter
0° 90° 180° 270° 0° 0° 90° 180° 270° 0° 0° 90° 180° 270° 0° 0° 90° 180° 270° 0°
10 °C 20
0 uS/cm 2000
0 CPS 200
3 INCH 7

Final Report
Televiewer and Geophysical Logging
Three Wells (EXB-9, EXB-10, EXB-11)
Emerson Power Transmission Facility
Ithaca, NY
MAG Project Number 040845

Prepared For: WSP Environmental Strategies
Prepared By: Mid-Atlantic Geosciences
July 11, 2008

1051 Columbia Avenue ● Lancaster, PA 17603 ● 717.396.8922 ● Fax 717.396.8746 ● email@enviroscan.com ● www.enviroscan.com

July 11, 2008

Mr. Timothy Dowle
WSP Environmental Strategies
11190 Sunrise Valley Drive
Suite 300
Reston, VA 20191

RE: Televiewer and Geophysical Logging
Three Wells (EXB-9, EXB-10, EXB-11)
Emerson Power Transmission Facility
Ithaca, NY
MAG Project Number 040845

Dear Mr. Dowle:

Pursuant to our proposal dated April 23, 2008, Mid-Atlantic Geosciences (MAG – the borehole logging division of Enviroscan, Inc.) completed the above-referenced survey on June 5, 2008. The objective of the survey was to locate and characterize fracture zones intersecting the wells. To accomplish these objectives, MAG conducted Optical Televiewer, Acoustic Televiewer, 3-Arm Caliper, Fluid Temperature, Fluid Conductivity, and Natural Gamma logging in each well.

Logging Equipment

Mid-Atlantic Geosciences conducts borehole geophysics, televiewer, and video logging using a Robertson Geologging, Ltd. Videologger 2000. This unit records digital data for on-site log playback, reproduction, and field interpretation, as well as post-processing and report presentation. The system operates in a Windows 98 environment under four data capture and processing programs: RG-Winlogger, RG-Viewlog, HRAT (for ***H***igh-***R***esolution ***A***coustic ***T***eleviewer), and OPTV (for ***OP***tical ***T***ele***V***iewer). The software provides a comprehensive library of programs for field operations including logging data acquisition, log replay, probe control, probe calibration, and logging environment compensation. Video data (if collected) are recorded in real time to the hard drive of a DVD player/recorder, and can be burned in the field to a DVD that is left with the client's on-site representative.

All of the logging instruments are permanently mounted in a dedicated Ford F350 or Dodge RAM2500 enclosed-bed truck, each with a self-contained power supply, and support and decontamination equipment. The downhole probes or sondes are connected to either a Robertson Geologging Smartwinch with approximately 600 feet of 0.375-inch coaxial cable, or a Robertson 2000m winch with approximately 3000 feet of 0.25-inch coaxial cable – depending on the depth of the wells logged.

Logging Parameters and Methodology

Geophysical well logging in general involves lowering sondes in a borehole and recording parameters that are related to the properties of the adjacent soil or rock, the fluids in the borehole or formation, and/or construction details of the well. There are many tools and techniques that have been developed to provide specific information in different environments and constructions of drilled holes. The data collected can define the nature and extent of geologic formations and formation fluids, and can be used to provide correlation between holes.

The sondes used for this survey are described below. Note that before any of these tools are put into service for a particular job, MAG personnel test them for proper function and recalibrate as necessary. This is essential to the proper acquisition of downhole data and the ability to relate the data from one borehole to another.

Optical Televiewer

The borehole optical televiewer (OPTV) provides a high-resolution digital optical scan of the interior of a borehole using visible wavelength light. From the accurately-scaled, continuous image it is possible to identify the depth and character of features such as fractures, bedding planes, veins, solution openings, etc. In particular, it is possible to calculate the strike and dip of planar features. The OPTV operates by using a high-resolution color downhole camera which views a reflection of the borehole walls in a hyperbolic correction mirror. At successive depth increments of 0.5 mm, rings of pixels corresponding to circular scans of the borehole wall are acquired from the probe and stacked into a continuous image. The image is rectangular – representing the interior of a cylinder that has been sliced open and rolled-out flat. The image is oriented to north based on data from three magnetometers and accelerometers in the sonde. Note that the use of magnetometers for orientation leads to image distortion in steel-cased holes, and within several feet of the base of steel casing in open holes. All OPTV sondes require an open borehole, or one filled with a clear fluid.

Planar features intersecting a cylindrical borehole appear sinusoidal on the flattened cylindrical image. The azimuth of the peak/trough of the sinusoid, and the amplitude of the sinusoid can be measured and used to calculate the strike and dip (see Appendix A) of such features.

Based on their visual character, planar features on the optical televiewer (and HRAT –see below) logs have been categorized on the log sheets as various types of geologic interface (fractures, bedding planes, veins, etc.). The features observed on the OPTV log can also be characterized based on the Paillet Ranking System developed by the US Geological Survey, Water Resources Division, Borehole Geophysics Research Project. This system is a semi-subjective evaluation of permeability potential. The ranking system assigns a number value from zero to five to observed features. A rank of zero indicates a feature that appears sealed – with no water likely passing through it. Note that the geologic classification of features (e.g. bedding plane, lithologic contact, joint, fracture, foliation, etc.) is not specified in the Paillet System since only water-bearing potential is considered. A rank of five corresponds to a grossly porous zone with large openings (e.g. a major fracture, fault or solution cavity). The ranking system, with examples, is provided in Appendix B.

Tables listing the depth, aperture, strike, dip and type of feature are included in this report, for each well, as Appendix C. Note that because of the subjectivity involved in Paillet ranking, MAG has listed fractures in Appendix C only as either open or sealed. Specific Paillet rankings can be assigned by the client, if desired, by comparing the standard pictures in Appendix B to the OPTV log.

Note that it has been the experience of MAG that the aperture or Paillet rank of a feature is not always a strong indicator of its water-producing potential. Thin, discrete features sometimes produce as much or more water (as evidence by flowmeter logging – see below) than wide, open fractures or fracture zones.

Acoustic Televiewer

The high-resolution acoustic televiewer (HRAT) is similar to the OPTV, but it provides an image that is created not by reflected visible wavelength light, but by reflected ultrasound. Since ultrasonic pulses are used, it is possible to record both the amplitude and travel time of each pulse, and construct two separate images. The amplitude log is analogous to the visual OPTV log described above, while the travel time data are affected primarily by the local diameter of the borehole (i.e. the larger the bore, the later the arrival of the reflected pulse), and therefore supplement the caliper log (described below). The main advantage of the HRAT probe is that it can be used in larger boreholes than the OPTV, and in holes with turbid or particle-loaded fluids that would be opaque to the OPTV.

The HRAT operates by using a fixed acoustic transducer and a rotating acoustic mirror capable of focusing on the borehole wall at any distance from the probe diameter upwards. The acoustic transducer is focused based on the borehole diameter, and impedance-matched to the borehole fluid to provide optimum image resolution and reflected amplitude. Mirror rotation speed (i.e. circumferential resolution), sampling rate (i.e. depth resolution), signal gain (i.e. amplitude image contrast), and recording time gate (i.e. travel time image contrast) are all variable and under operator control to provide the best image possible under borehole-specific conditions.

As with OPTV logs, HRAT logs are presented as accurately-scaled and accurately-oriented cylindrical images that are sliced open and laid flat. Therefore, planar dipping features appear as sinusoids. The televiewer features listed in Appendix C include those from the OPTV and HRAT logs.

Caliper

Caliper measurements represent the average diameter of the borehole or well at a given depth. The caliper tool collects and transmits the data from three spring-loaded arms as the tool is lifted upwards through the borehole. The caliper tool is used to locate solution openings or fractures (where the borehole is typically enlarged due either to the presence of natural openings, or to plucking of broken rock by the drill bit), and to determine the length of casing intervals (as evident from small changes in casing diameter, or the small enlargements at threaded junctions, or narrowing due to the bead at welded junctions).

Caliper logs are collected by calibrating the downhole tool with a measuring template, lowering the tool to the base of the well, remotely opening the arms, and then logging the open borehole and casing diameter in an upward direction. Caliper logs are acquired with a logging speed of no more than 12 feet per minute.

Fluid Temperature

Fluid temperature logs provide the temperature of the air or fluid in a borehole as a function of depth. Temperature logs can indicate where water is entering or leaving a borehole – and thereby disturbing the normal geothermal gradient. Deviations, offsets, or changes in the slope of the temperature log can be used to locate zones of water movement within the borehole. Temperature logs must be run in wells that have been allowed to fully equilibrate to the local geothermal gradient following any prior drilling, construction, pumping or sampling. During a temperature survey, data accuracy is ensured by maintaining a downward logging speed of approximately 10 feet per minute (fpm). This provides an adequate time buffer to allow sensors to respond to minor temperature changes.

Fluid Conductivity

Fluid conductivity logs provide a continuous measurement of the electrical conductivity of the borehole fluid – i.e. zero in air or hydrocarbons, greater than zero in water. In water, electrical conductivity is mostly a function of electrolytic content. Water with very low dissolved solid concentrations will yield low fluid conductivity, while water containing a high level of dissolved solids will be proportionally more conductive. Fluid conductivity logs often deflect where water-producing features are transmitting water into or out of the well (since the well water may have a differing electrolytic chemistry than the formation water). The fluid conductivity log is usually collected simultaneously with the temperature log – since for both, data from a fully equilibrated water column is required.

Natural Gamma

Gamma logs are one of the most widely used geophysical logs in groundwater applications. They are used primarily to identify changes in lithology – specifically the relative amounts of clay in various sedimentary units.

A gamma log provides a record of the total natural gamma radiation detected within a given energy range. In water-bearing rocks and sediments that are not contaminated by artificial radioisotopes, the most significant naturally-occurring, gamma-emitting radioisotopes are potassium-40 and the daughter products of the uranium and thorium decay series. If gamma-emitting artificial radioisotopes have been introduced by humans into the groundwater system, they will also produce part of the radiation measured.

The amplitude of gamma-log deflections is affected by any borehole condition that alters the density of the material through which gamma photons must pass or the length of the travel path. The bedding of a gamma-emitting formation must be thick to obtain a quantitative value since the detector will be affected by the radiation from the formation as the tool approaches and passes the bed. Although increases in borehole diameter or the presence of steel casing will decrease the recorded gamma count, it is possible to collect usable information in both cased and open portions of the borehole using the gamma sonde. The presence of potassium-rich (and therefore gamma-emitting) bentonite clay commonly used in well construction will generally produce high gamma count peaks on a natural gamma log. MAG has natural gamma detectors on many sondes, and comparison of the multiple gamma logs collected for any given well logging program are used to ensure that the depths of differing logs are not erroneously shifted. Therefore, the gamma log presented for any well may have been collected simultaneously with any of the other logs from the same well.

Logging Results

Wells EXB-9, EXB-10, and EXB-11 were logged on June 5, 2008. As specified in the proposal, MAG logged both boreholes with the Optical Televiewer, Acoustic Televiewer, 3-Arm Caliper, Fluid Temperature, Fluid Conductivity, and Natural Gamma sondes. The logging results for each well are presented together on the enclosed hard-copy logs and digital logs (on CD). The digital logs (on CD) can be opened using WellCAD Reader (an installer for this program is also on the CD). The reader allows logs to be viewed at different scales (using the View>Depth Scale menu item), and plotted using the File menu items. The actual data can be seen in tabular form from the Tools>Tabular Editor menu.

Note that since analysis of borehole geophysical logs can be quite subjective, and the level of detail is dependent upon the specific goals of the geologist, the analysis by MAG below covers the major features of each log, as well as some possibly minor features to serve as examples or guides for further interpretation by geologists familiar with the site, local geology, and/or project goals. In general, logs may display deviations (i.e. "spikes" where the parameter deviates from, and then returns to, "background" level), offsets (changes in background level), or slope changes. Any of these could be considered significant in certain situations, or when compared to correlating features at the same depth on other logs. If there are any questions about the features discussed (or not discussed) below, please do not hesitate to contact MAG.

EXB-9

Noted Features

- The total depth (TD) of the well is approximately 63.1 feet below top of casing (TOC).
- The depth to water (DTW) was measured at 37.15 feet TOC at the time of the survey.
- The diameter of the casing at the surface was measured to be four inches, and the bottom of the casing (BOC) was located at 25.7 feet below TOC.
- The caliper (borehole diameter) log reveals only minor fluctuations throughout the well with a small constriction in borehole diameter beginning at the BOC.
- The fluid temperature log shows no significant deviations, offsets, or slope changes.
- The fluid conductivity log shows no significant deviations or slope changes. Note that an offset towards lower values occurs as the sonde enters more silty water or silt at the bottom of the borehole.
- The natural gamma response shows only minor fluctuations throughout the well. An offset to higher values occurs in natural gamma response when the sonde emerges below the casing shielded by the gamma-blocking steel.
- Numerous planar features were recognizable on the televiewer logs. The depth, strike, dip, aperture, and feature type are listed on the log, as well as on the accompanying table in Appendix C.

EXB-10

Noted Features

- The total depth (TD) of the well is approximately 63.8 feet below top of casing (TOC).
- The depth to water (DTW) was measured at 29 feet below TOC at the time of the survey.
- The diameter of the casing at the surface was measured to be four inches, and the bottom of the casing (BOC) was located at 21.8 feet below TOC.
- The caliper (borehole diameter) log reveals only minor fluctuations throughout the well with a small constriction in borehole diameter beginning at the BOC.
- The fluid conductivity log shows no significant deviations or slope changes. Note that an offset towards lower values occurs as the sonde enters more silty water or silt at the bottom of the borehole.
- The natural gamma response shows only minor fluctuations throughout the well. An offset to higher values occurs in natural gamma response when the sonde emerges below the casing shielded by the gamma-blocking steel.
- Numerous planar features were recognizable on the televiewer logs. The depth, strike, dip, aperture, and feature type are listed on the log, as well as on the accompanying table in Appendix C.

EXB-11

Noted Features

- The total depth (TD) of the well is approximately 79.7 feet below top of casing (TOC).
- The depth to water (DTW) was measured at 60.3 feet below TOC at the time of the survey.
- The diameter of the casing at the surface was measured to be four inches, and the bottom of the casing (BOC) was located at 24.8 feet below TOC.
- The caliper (borehole diameter) log reveals only minor fluctuations throughout the well, with an enlargement located at approximately 43 below TOC and a small constriction in borehole diameter beginning at the BOC.
- The fluid temperature log shows no significant deviations, offsets, or slope changes.
- The fluid conductivity log shows no significant deviations or slope changes. Note that an offset towards lower values occurs as the sonde enters more silty water or silt at the bottom of the borehole.
- The natural gamma response shows only minor fluctuations throughout the well. An offset to higher values occurs in natural gamma response when the sonde emerges below the casing shielded by the gamma-blocking steel.
- Numerous planar features were recognizable on the televiewer logs. The depth, strike, dip, aperture, and feature type are listed on the log, as well as on the accompanying table in Appendix C.

Limitations

In making verbal or written interpretation of logs, MAG personnel give the client the benefit of their best professional judgment. However, since all interpretations are based on inference from electrical, magnetic, or other indirect measurements, MAG does not, and cannot, guarantee the accuracy or the correctness of any such interpretations. MAG shall not be liable for any loss, damages, or expenses resulting from reliance on such interpretations. MAG does not warrant the accuracy of log data transmitted by any electronic process and will not be responsible for intentional interpretation of log data by others. MAG makes no warranties – neither explicit nor implied. Under no circumstances shall MAG, its parent company Enviroscan, Inc., or their personnel be liable for consequential damages.

We appreciate this opportunity to have worked with you. If you have any questions, please do not hesitate to contact me.

Sincerely,
Mid-Atlantic Geosciences

Duro G. Rajkovic
Project Geophysicist

Technical Review By:
Mid-Atlantic Geosciences

Felicia Kegel Bechtel, M.Sc., P.G.
President

enc. EXB-9: Televiewer and Geophysical Logs
EXB-10: Televiewer and Geophysical Logs
EXB-11: Televiewer and Geophysical Logs
Appendix A: Planar Feature Orientation Parameters
Appendix B: The Paillet Ranking System
Appendix C: Planar Feature Characterizations Tables
Digital Report and Logs on CD (see ReadMe file for instructions)

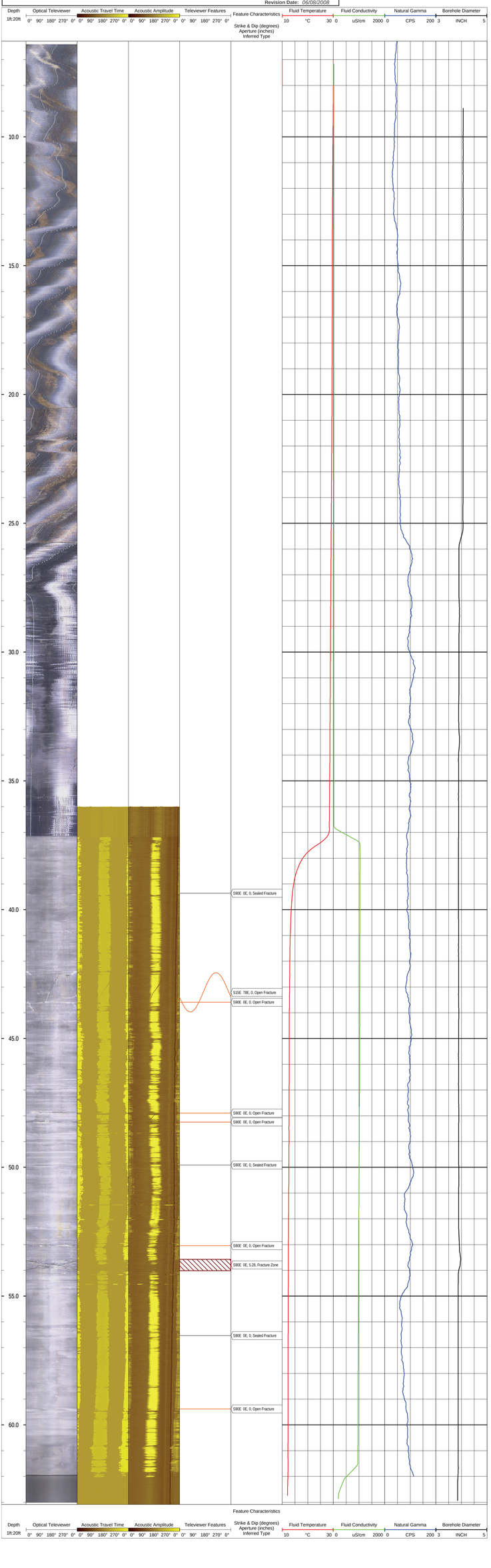
Mid-Atlantic Geosciences

Title: *Televiewer and Geophysical Logs*

WELL ID *EXB-9*

Logging Date: *06/05/2008*
Logging Datum: *Top Of Casing*
BOC: *25.7'* **DTW:** *37.15'* **TD:** *63.1'*

Site Name: *Emerson Power Transmission Facility*
Location: *Ithaca, NY*
Client: *WSP Environment & Energy*
Project No.: *040845*
Revision Date: *06/08/2008*



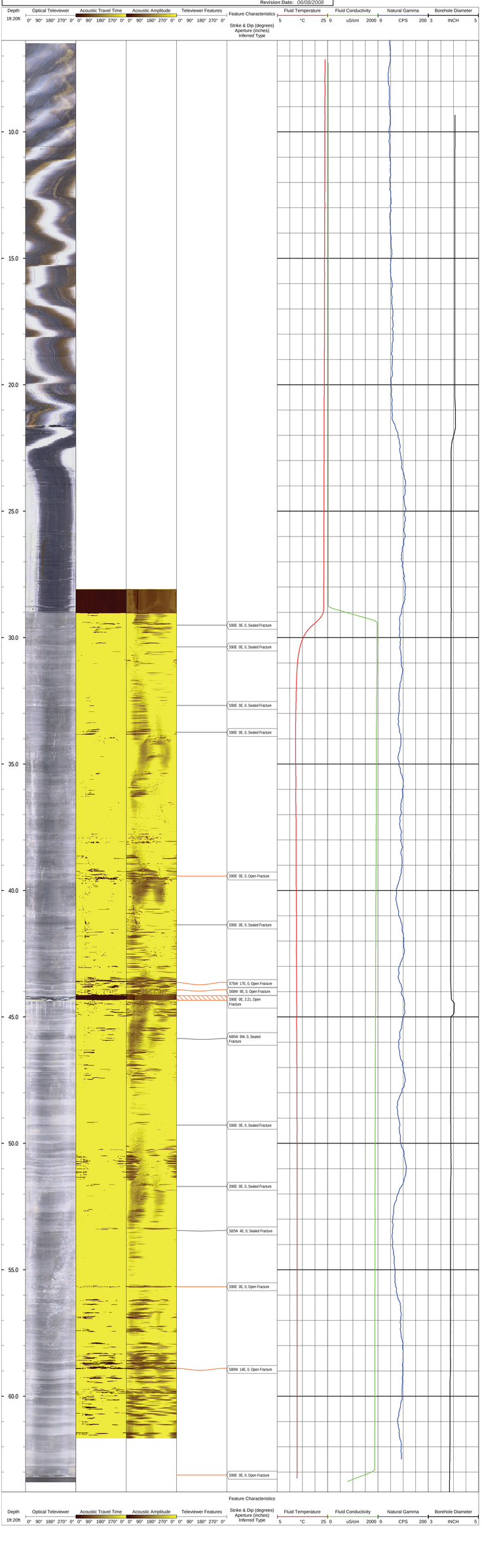
Mid-Atlantic Geosciences

Title: *Televiewer and Geophysical Logs*

WELL ID *EXB-10*

Logging Date: *06/05/2008*
Logging Datum: *Top Of Casing*
BOC: *21.8'* **DTW:** *29'* **TD:** *63.8'*

Site Name: *Emerson Power Transmission Facility*
Location: *Ithaca, NY*
Client: *WSP Environmental & Energy*
Project No.: *040845*
Revision Date: *06/08/2008*



Mid-Atlantic Geosciences

Title: *Televiewer and Geophysical Logs*

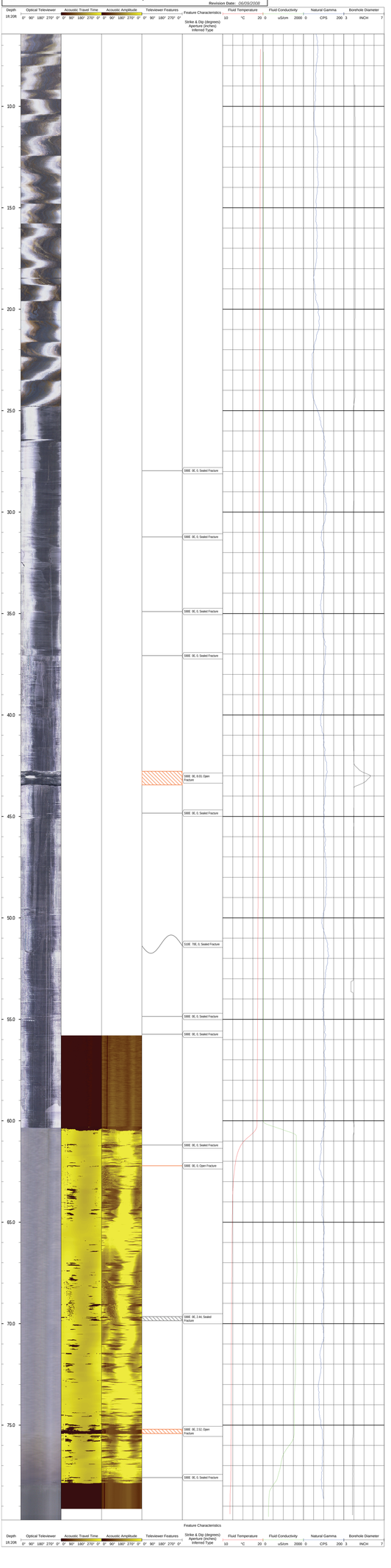
WELL ID *EXB-11*

Logging Date: 06/05/2008
Logging Datum: *Top Of Casing*
BOC: *24.8'* **DTW:** *60.3'* **TD:** *79.7'*

Site Name: *Emerson Power Transmission Facility*
Location: *Ithaca, NY*

Client: *WSP Environmental & Energy*
Project No.: *040845*

Revision Date: 06/09/2008



Appendix A

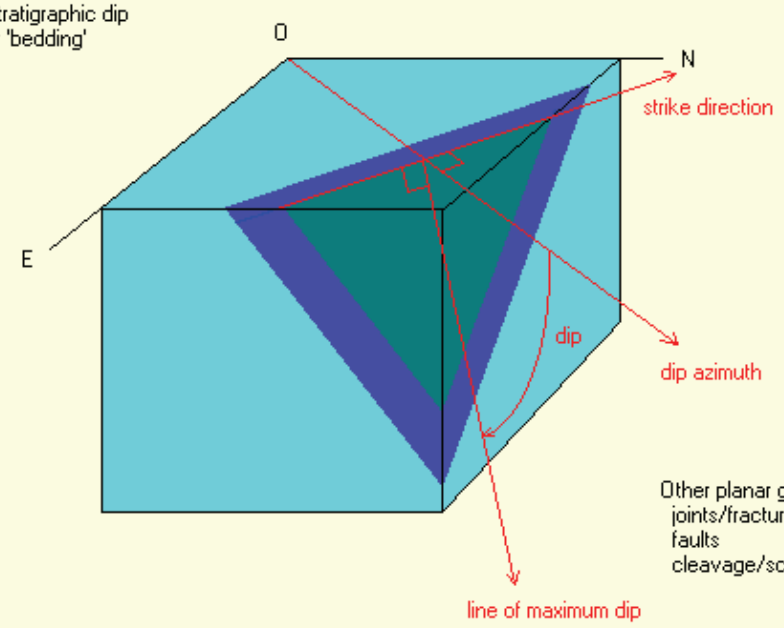
Planar Feature Orientation Parameters

Planar Feature Orientation Parameters

Dip = angle of inclination of the plane, downwards from the horizontal
Dip azimuth = azimuth of the line of maximum dip in the plane, clockwise from North
Strike direction = azimuth of a horizontal line in the plane (= dip azimuth – 90°)

e.g. dip and dip azimuth = 60° N041° or strike and dip = N311° 60°

e.g. Stratigraphic dip
or 'bedding'

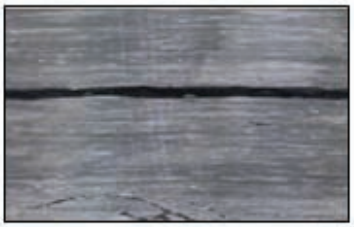
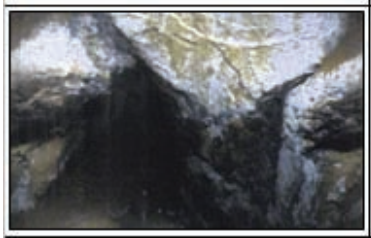


Other planar geologic features include
joints/fractures/veins
faults
cleavage/schistosity

Appendix B

Paillet Ranking System

Paillet Ranking System

Example OPTV Feature	Paillet Rank	Description
	0	Sealed feature – no flow
	1	Partial open fracture
	2	Continuous open fracture
	3	Wide open fracture or fractures
	4	Very wide fracture or multiple interconnected fractures
	5	Major fracture zone or breakout

Appendix C

Planar Feature Characterizations Tables

Mid-Atlantic Geosciences
Planar Feature Characterizations

Well ID:	**EXB-9**	**Client:**	**WSP**
Site Name:	**Emerson Power**	**Project No.:**	**040845**
Location:	**Ithaca, NY**	**Revision Date:**	**06/08/2008**

Depth	Aperture	Dip Azimuth (deg.)	Strike (deg.)	Dip (deg.)	Feature Type
40.0	0.0	0	S90E	0E	Sealed Fracture
43.8	0.0	75	S15E	78E	Open Fracture
44.2	0.0	0	S90E	0E	Open Fracture
48.5	0.0	0	S90E	0E	Open Fracture
48.8	0.0	0	S90E	0E	Open Fracture
50.5	0.0	0	S90E	0E	Sealed Fracture
53.6	0.0	0	S90E	0E	Open Fracture
54.4	5.3	0	S90E	0E	Fracture Zone
57.1	0.0	0	S90E	0E	Sealed Fracture
60.0	0.0	0	S90E	0E	Open Fracture

Mid-Atlantic Geosciences

Planar Feature Characterizations

Well ID:	**EXB-10**	**Client:**	**WSP**
Site Name:	**Emerson Power**	**Project No.:**	**040845**
Location:	**Ithaca, NY**	**Revision Date:**	**06/09/2008**

Depth	Aperture	Dip Azimuth (deg.)	Strike (deg.)	Dip (deg.)	Feature Type
29.5	0.0	0	S90E	0E	Sealed Fracture
30.4	0.0	0	S90E	0E	Sealed Fracture
32.7	0.0	0	S90E	0E	Sealed Fracture
33.8	0.0	0	S90E	0E	Sealed Fracture
39.4	0.0	0	S90E	0E	Open Fracture
41.4	0.0	0	S90E	0E	Sealed Fracture
43.7	0.0	165	S75W	17E	Open Fracture
44.0	0.0	158	S68W	9E	Open Fracture
44.3	2.2	0	S90E	0E	Open Fracture
45.9	0.0	185	N85W	8W	Sealed Fracture
49.3	0.0	0	S90E	0E	Sealed Fracture
51.7	0.0	0	S90E	0E	Sealed Fracture
53.5	0.0	172	S82W	4E	Sealed Fracture
55.7	0.0	0	S90E	0E	Open Fracture
58.9	0.0	170	S80W	14E	Open Fracture
63.1	0.0	0	S90E	0E	Open Fracture

Mid-Atlantic Geosciences

Planar Feature Characterizations

Well ID:	**EXB-11**	**Client:**	**WSP**
Site Name:	**Emerson Power**	**Project No.:**	**040845**
Location:	**Ithaca, NY**	**Revision Date:**	**06/09/2008**

Depth	Aperture	Dip Azimuth (deg.)	Strike (deg.)	Dip (deg.)	Feature Type
28.0	0.0	0	S90E	0E	Sealed Fracture
31.2	0.0	0	S90E	0E	Sealed Fracture
34.9	0.0	0	S90E	0E	Sealed Fracture
37.1	0.0	0	S90E	0E	Sealed Fracture
43.1	8.0	0	S90E	0E	Open Fracture
44.8	0.0	0	S90E	0E	Sealed Fracture
51.3	0.0	80	S10E	70E	Sealed Fracture
54.9	0.0	0	S90E	0E	Sealed Fracture
55.7	0.0	0	S90E	0E	Sealed Fracture
61.2	0.0	0	S90E	0E	Sealed Fracture
62.2	0.0	0	S90E	0E	Open Fracture
69.8	2.4	0	S90E	0E	Sealed Fracture
75.3	2.5	0	S90E	0E	Open Fracture
77.6	0.0	0	S90E	0E	Sealed Fracture

Appendix C – Groundwater Sampling Logs – EXB-09, EXB-10, EXB-11

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
(703) 709-6500 • Fax (703) 709-8505

Low-Flow Groundwater Sampling
Monitoring Form

Well ID	**EXB-09**	**Site ID:**	**EPT-Ithaca**	**Sample Date:**	6/12/2008
Well Diameter	4 in	**Sampling Event:**	**Pre-design Groundwater Sampling**		
Depth to Water	36.90 ft				
Total Well Depth	64 ft	**Samplers**	R. Posner, S. Dawson		
Screen Length	27 ft	**Weather Conditions and Notes:**	Clear & sunny, 75 F		
Pump Intake	54 ft	**Flow Rate**	120 - 200 ml/min		

Instrument Calibration Information

pH Meter Calibration			**YSI Model 556 Calibration**
7.00 Stand.	pH 4.01 Stand	Slope (mV/pH)	Notes on calibration:
			Calibrated to manufacturer's specifications using calibration standard solutions
Air temp =		ºC	

Well Purging Information

Start purge: 1730 | End purge: 1800 | Pump Type: QED SamplePro 1.75"

Time	DTW	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
1738	36.95	0.96	7.40	1.592	NM	8.20	15.19	109.1	Clear	120
1746	37.35	1.68	7.35	1.616	NM	3.75	18.17	95	Clear	120
1750	37.40	2.16	7.37	1.632	NM	4.85	18.49	92.8	Clear	120
1754	37.60	2.88	7.41	1.635	NM	7.29	14.82	91	Clear	180
1758	37.85	3.68	7.37	1.626	NM	7.25	13.25	91.4	Clear	200
1800	NM	4.08	7.38	1.620	NM	6.98	13.26	89.8	Clear	200

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (ml)	D.I. Vol. (ml)	Dilution Factor	Conc. in Dilute Sample (mg/l)	Conc. in Sample (mg/l)	Notes

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
Two	VOC	Pump	None	40-ml vial	TA	Unfiltered	1800	

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
(703) 709-6500 • Fax (703) 709-8505

Low-Flow Groundwater Sampling Monitoring Form

Well ID	**EXB-10**	**Site ID:**	**EPT-Ithaca**	**Sample Date:**	6/12/2008
Well Diameter	4 in	**Sampling Event:**	**Pre-design Groundwater Sampling**		
Depth to Water	28.10 ft				
Total Well Depth	64 ft	**Samplers**	R. Posner, S. Dawson		
Screen Length	36 ft	**Weather Conditions and Notes:**	Clear & sunny, 75 F		
Pump Intake	44.5 ft	**Flow Rate**	150 - 200 ml/min		

Instrument Calibration Information

pH Meter Calibration			YSI Model 556 Calibration
7.00 Stand.	pH 4.01 Stand	Slope (mV/pH)	Notes on calibration:
			Calibrated to manufacturer's specifications using calibration standard solutions
Air temp =		ºC	

Well Purging Information

Start purge: 1630 | End purge: 1706 | Pump Type: QED SamplePro 1.75"

Time	DTW	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
1640	28.55	2.00	7.29	2.747	NM	5.00	18.34	147.2	Clear	200
1646	28.93	3.20	7.24	2.724	NM	3.84	17.56	144.5	Clear	200
1650	29.30	3.84	7.23	2.721	NM	3.75	16.82	143.3	Clear	160
1654	29.50	4.48	7.22	2.713	NM	3.47	16.67	142.2	Clear	160
1658	29.90	5.08	7.21	2.708	NM	3.41	16.68	142.6	Clear	150
1702	30.12	5.68	7.21	2.710	NM	3.48	16.72	141.8	Clear	150
1706	30.24	6.32	7.21	2.715	NM	3.49	16.52	141.5	Clear	160

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (ml)	D.I. Vol. (ml)	Dilution Factor	Conc. in Dilute Sample (mg/l)	Conc. in Sample (mg/l)	Notes

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
Two	VOC	Pump	None	40-ml vial	TA	Unfiltered	1706	Field dup collected

WSP Environment & Energy
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191
(703) 709-6500 • Fax (703) 709-8505

Low-Flow Groundwater Sampling
Monitoring Form

Well ID	**EXB-11**	**Site ID:**	**EPT-Ithaca**	**Sample Date:**	6/12/2008
Well Diameter	4 in	**Sampling Event:**	**Pre-design Groundwater Sampling**		
Depth to Water	61.52 ft				
Total Well Depth	80 ft	**Samplers**	R. Posner, S. Dawson		
Screen Length	19 ft	**Weather Conditions and Notes:**	Clear & sunny, 75 F		
Pump Intake	75 ft	**Flow Rate**	60 - 180 ml/min		

Instrument Calibration Information

pH Meter Calibration			**YSI Model 556 Calibration**
7.00 Stand.	pH 4.01 Stand	Slope (mV/pH)	Notes on calibration:
			Calibrated to manufacturer's specifications using calibration standard solutions
Air temp =		ºC	

Well Purging Information — Start purge: 1450 — End purge: 1550 — Pump Type: QED SamplePro 1.75"

Time	DTW	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
1500	62.09	1.80	8.50	1.720	NM	11.30	19.90	88.1	Slightly cloudy	180
1505	62.30	1.90	8.53	1.669	NM	7.33	17.49	74.2	Slightly cloudy	20
1510	62.40	2.70	8.50	1.655	NM	6.04	18.68	66.9	Slightly cloudy	160
1515	62.49	3.00	8.51	1.657	NM	5.37	20.19	65.4	Slightly cloudy	60
1520	62.52	3.50	8.51	1.661	NM	5.00	22.20	63.9	Slightly cloudy	100
1525	62.56	4.00	8.51	1.666	NM	4.89	23.20	63.9	Slightly cloudy	100
1530	62.59	4.50	8.52	1.666	NM	5.00	23.69	71.5	Slightly cloudy	100
1535	62.60	5.00	8.51	1.667	NM	4.68	24.31	69.1	Slightly cloudy	100
1540	62.60	5.50	8.51	1.666	NM	4.59	24.80	69.5	Slightly cloudy	100
1545	62.60	6.00	8.51	1.666	NM	4.48	25.28	69.5	Slightly cloudy	100
1550	62.60	6.50	8.52	1.669	NM	4.52	25.33	69.6	Slightly cloudy	100

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (ml)	D.I. Vol. (ml)	Dilution Factor	Conc. in Dilute Sample (mg/l)	Conc. in Sample (mg/l)	Notes

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
Two	VOC	Pump	None	40-ml vial	TA	Unfiltered	1550	MS/MSD
								collected

Appendix D – Aquifer Test Data

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/13/2008 17:00	29.54	552.23	508.01	554.15	531.57	532.95	521.96
6/13/2008 17:15	29.53	552.22	508.01	554.137	531.57	532.947	521.958
6/13/2008 17:30	29.53	552.215	508.011	554.15	531.57	532.948	521.954
6/13/2008 17:45	29.53	552.21	508.009	554.133	531.57	532.948	521.958
6/13/2008 18:00	29.52	552.205	508.008	554.135	531.565	532.946	521.958
6/13/2008 18:15	29.52	552.202	508.01	554.13	531.564	532.945	521.954
6/13/2008 18:30	29.53	552.194	508.006	554.128	531.563	532.94	521.956
6/13/2008 18:45	29.53	552.193	508.008	554.126	531.557	532.936	521.956
6/13/2008 19:00	29.53	552.188	508.005	554.134	531.556	532.934	521.956
6/13/2008 19:15	29.54	552.183	508.006	554.133	531.553	532.929	521.957
6/13/2008 19:30	29.55	552.177	508.007	554.118	531.546	532.922	521.957
6/13/2008 19:45	29.55	552.17	508.004	554.121	531.537	532.914	521.956
6/13/2008 20:00	29.54	552.169	508.005	554.121	531.536	532.913	521.96
6/13/2008 20:15	29.54	552.163	508.005	554.112	531.533	532.91	521.957
6/13/2008 20:30	29.54	552.16	508.002	554.118	531.531	532.908	521.958
6/13/2008 20:45	29.56	552.159	508.004	554.103	531.524	532.9	521.953
6/13/2008 21:00	29.56	552.154	508.005	554.104	531.518	532.894	521.954
6/13/2008 21:15	29.56	552.152	508.005	554.101	531.519	532.894	521.956
6/13/2008 21:30	29.56	552.153	508.002	554.101	531.515	532.892	521.957
6/13/2008 21:45	29.56	552.153	508.004	554.101	531.512	532.889	521.956
6/13/2008 22:00	29.55	552.151	508.002	554.1	531.512	532.89	521.955
6/13/2008 22:15	29.55	552.152	508.003	554.094	531.515	532.89	521.955
6/13/2008 22:30	29.54	552.152	508.001	554.095	531.515	532.892	521.957
6/13/2008 22:45	29.54	552.154	508.001	554.104	531.518	532.895	521.951
6/13/2008 23:00	29.54	552.155	508.006	554.097	531.515	532.898	521.958
6/13/2008 23:15	29.54	552.155	508.004	554.103	531.515	532.895	521.954
6/13/2008 23:30	29.55	552.152	508.002	554.093	531.517	532.897	521.958
6/13/2008 23:45	29.54	552.157	508.007	554.09	531.515	532.895	521.953
6/14/2008 0:00	29.54	552.157	508.005	554.095	531.518	532.896	521.956
6/14/2008 0:15	29.52	552.162	508.002	554.091	531.519	532.901	521.956
6/14/2008 0:30	29.52	552.163	508.007	554.101	531.522	532.905	521.953
6/14/2008 0:45	29.52	552.166	508.007	554.096	531.526	532.907	521.951
6/14/2008 1:00	29.52	552.168	508.01	554.106	531.529	532.906	521.959
6/14/2008 1:15	29.52	552.169	508.007	554.103	531.527	532.909	521.954

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/14/2008 1:30	29.52	552.17	508.01	554.094	531.532	532.911	521.951
6/14/2008 1:45	29.52	552.175	508.003	554.098	531.533	532.91	521.953
6/14/2008 2:00	29.52	552.177	508.006	554.102	531.53	532.907	521.953
6/14/2008 2:15	29.51	552.175	508.006	554.099	531.532	532.91	521.951
6/14/2008 2:30	29.51	552.181	508.011	554.1	531.532	532.913	521.955
6/14/2008 2:45	29.51	552.184	508.01	554.101	531.533	532.911	521.956
6/14/2008 3:00	29.50	552.185	508.006	554.102	531.536	532.911	521.952
6/14/2008 3:15	29.50	552.188	508.002	554.104	531.538	532.916	521.954
6/14/2008 3:30	29.49	552.193	508.001	554.121	531.541	532.919	521.954
6/14/2008 3:45	29.49	552.195	508.004	554.114	531.544	532.923	521.953
6/14/2008 4:00	29.48	552.199	508.004	554.111	531.55	532.925	521.955
6/14/2008 4:15	29.48	552.202	508.007	554.11	531.55	532.929	521.954
6/14/2008 4:30	29.49	552.205	508.01	554.126	531.547	532.924	521.953
6/14/2008 4:45	29.49	552.206	508.013	554.116	531.55	532.923	521.957
6/14/2008 5:00	29.49	552.211	508.014	554.126	531.546	532.925	521.955
6/14/2008 5:15	29.48	552.214	508.01	554.119	531.548	532.925	521.953
6/14/2008 5:30	29.47	552.214	508.009	554.125	531.553	532.927	521.955
6/14/2008 5:45	29.48	552.22	508.01	554.14	531.552	532.929	521.954
6/14/2008 6:00	29.48	552.221	508.012	554.126	531.553	532.929	521.956
6/14/2008 6:15	29.47	552.223	508.011	554.133	531.556	532.93	521.955
6/14/2008 6:30	29.49	552.228	508.014	554.14	531.554	532.93	521.952
6/14/2008 6:45	29.48	552.229	508.013	554.135	531.548	532.928	521.954
6/14/2008 7:00	29.48	552.234	508.013	554.152	531.55	532.93	521.949
6/14/2008 7:15	29.49	552.235	508.009	554.147	531.551	532.929	521.954
6/14/2008 7:30	29.49	552.24	508.015	554.146	531.55	532.93	521.952
6/14/2008 7:45	29.49	552.246	508.007	554.144	531.55	532.922	521.955
6/14/2008 8:00	29.49	552.248	508.006	554.152	531.548	532.924	521.954
6/14/2008 8:15	29.49	552.247	508.007	554.162	531.548	532.926	521.955
6/14/2008 8:30	29.48	552.253	508.011	554.165	531.548	532.926	521.952
6/14/2008 8:45	29.49	552.253	508.01	554.162	531.548	532.926	521.953
6/14/2008 9:00	29.50	552.255	508.012	554.161	531.546	532.924	521.953
6/14/2008 9:15	29.50	552.257	508.012	554.175	531.545	532.924	521.953
6/14/2008 9:30	29.50	552.259	508.017	554.17	531.549	532.926	521.954
6/14/2008 9:45	29.49	552.262	508.016	554.173	531.551	532.927	521.953

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/14/2008 10:00	29.49	552.264	508.018	554.176	531.551	532.928	521.955
6/14/2008 10:15	29.50	552.267	508.015	554.179	531.55	532.927	521.953
6/14/2008 10:30	29.50	552.268	508.007	554.192	531.548	532.93	521.953
6/14/2008 10:45	29.49	552.27	508.001	554.179	531.552	532.93	521.951
6/14/2008 11:00	29.49	552.268	508.003	554.19	531.55	532.931	521.952
6/14/2008 11:15	29.49	552.274	507.999	554.192	531.554	532.933	521.954
6/14/2008 11:30	29.49	552.276	508.005	554.193	531.553	532.933	521.951
6/14/2008 11:45	29.49	552.277	508.005	554.195	531.551	532.934	521.953
6/14/2008 12:00	29.49	552.275	508.01	554.2	531.557	532.935	521.953
6/14/2008 12:15	29.48	552.276	508.007	554.205	531.557	532.934	521.95
6/14/2008 12:30	29.48	552.277	508.01	554.218	531.561	532.942	521.953
6/14/2008 12:45	29.47	552.278	508.007	554.204	531.563	532.946	521.953
6/14/2008 13:00	29.47	552.279	508.012	554.208	531.567	532.944	521.95
6/14/2008 13:15	29.47	552.276	508.011	554.213	531.57	532.949	521.95
6/14/2008 13:30	29.47	552.277	508.009	554.217	531.574	532.954	521.953
6/14/2008 13:45	29.46	552.278	508.006	554.228	531.578	532.958	521.952
6/14/2008 14:00	29.46	552.28	508.006	554.219	531.578	532.96	521.952
6/14/2008 14:15	29.45	552.279	508.012	554.221	531.583	532.963	521.951
6/14/2008 14:30	29.45	552.279	508.008	554.235	531.587	532.968	521.951
6/14/2008 14:45	29.44	552.276	508.009	554.237	531.588	532.971	521.953
6/14/2008 15:00	29.46	552.276	508.011	554.24	531.588	532.968	521.951
6/14/2008 15:15	29.44	552.274	508.008	554.23	531.589	532.968	521.954
6/14/2008 15:30	29.44	552.273	508.012	554.235	531.59	532.971	521.949
6/14/2008 15:45	29.45	552.272	508.008	554.238	531.591	532.967	521.948
6/14/2008 16:00	29.44	552.27	508.007	554.253	531.592	532.974	521.952
6/14/2008 16:15	29.44	552.273	508.01	554.241	531.596	532.974	521.95
6/14/2008 16:30	29.44	552.27	508.012	554.258	531.597	532.977	521.949
6/14/2008 16:45	29.42	552.273	508.013	554.26	531.601	532.978	521.951
6/14/2008 17:00	29.42	552.27	508.01	554.25	531.601	532.98	521.95
6/14/2008 17:15	29.43	552.269	508.01	554.252	531.606	532.985	521.954
6/14/2008 17:30	29.42	552.273	508.008	554.253	531.607	532.99	521.949
6/14/2008 17:45	29.39	552.274	508.009	554.254	531.617	532.999	521.948
6/14/2008 18:00	29.40	552.275	508.008	554.256	531.624	533.005	521.951
6/14/2008 18:15	29.40	552.274	508.012	554.26	531.624	533.002	521.953

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/14/2008 18:30	29.41	552.277	508.012	554.272	531.623	533.003	521.95
6/14/2008 18:45	29.40	552.275	508.01	554.273	531.63	533.005	521.949
6/14/2008 19:00	29.41	552.276	508.009	554.262	531.626	533.006	521.952
6/14/2008 19:15	29.40	552.274	508.01	554.267	531.624	533.006	521.952
6/14/2008 19:30	29.41	552.27	508.01	554.267	531.624	533.006	521.949
6/14/2008 19:45	29.41	552.27	508.011	554.272	531.625	533.009	521.948
6/14/2008 20:00	29.40	552.273	508.015	554.271	531.625	533.008	521.951
6/14/2008 20:15	29.40	552.271	508.013	554.285	531.628	533.011	521.952
6/14/2008 20:30	29.41	552.273	508.014	554.274	531.632	533.016	521.952
6/14/2008 20:45	29.41	552.271	508.018	554.289	531.632	533.018	521.953
6/14/2008 21:00	29.41	552.269	508.01	554.277	531.637	533.018	521.949
6/14/2008 21:15	29.41	552.267	508.009	554.282	531.63	533.021	521.952
6/14/2008 21:30	29.41	552.27	508.01	554.295	531.635	533.02	521.949
6/14/2008 21:45	29.41	552.27	508.016	554.288	531.636	533.018	521.953
6/14/2008 22:00	29.42	552.271	508.013	554.287	531.632	533.017	521.947
6/14/2008 22:15	29.42	552.27	508.015	554.285	531.632	533.017	521.951
6/14/2008 22:30	29.42	552.271	508.019	554.29	531.634	533.02	521.949
6/14/2008 22:45	29.41	552.273	508.017	554.29	531.634	533.02	521.954
6/14/2008 23:00	29.41	552.277	508.015	554.296	531.636	533.023	521.951
6/14/2008 23:15	29.41	552.278	508.018	554.299	531.639	533.023	521.948
6/14/2008 23:30	29.42	552.281	508.019	554.3	531.638	533.024	521.95
6/14/2008 23:45	29.42	552.285	508.018	554.301	531.638	533.026	521.95
6/15/2008 0:00	29.42	552.284	508.021	554.302	531.638	533.024	521.949
6/15/2008 0:15	29.42	552.288	508.022	554.305	531.634	533.024	521.949
6/15/2008 0:30	29.42	552.293	508.021	554.308	531.635	533.022	521.949
6/15/2008 0:45	29.42	552.294	508.022	554.311	531.639	533.024	521.954
6/15/2008 1:00	29.42	552.301	508.022	554.313	531.641	533.026	521.949
6/15/2008 1:15	29.42	552.303	508.022	554.313	531.643	533.026	521.951
6/15/2008 1:30	29.41	552.306	508.025	554.314	531.645	533.033	521.95
6/15/2008 1:45	29.41	552.309	508.02	554.321	531.648	533.031	521.951
6/15/2008 2:00	29.41	552.313	508.023	554.322	531.649	533.033	521.95
6/15/2008 2:15	29.41	552.315	508.022	554.321	531.652	533.034	521.947
6/15/2008 2:30	29.41	552.317	508.028	554.325	531.651	533.034	521.95
6/15/2008 2:45	29.41	552.321	508.025	554.331	531.653	533.036	521.95

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/15/2008 3:00	29.41	552.321	508.025	554.333	531.651	533.033	521.947
6/15/2008 3:15	29.41	552.324	508.027	554.333	531.654	533.036	521.95
6/15/2008 3:30	29.41	552.325	508.028	554.335	531.655	533.037	521.949
6/15/2008 3:45	29.41	552.326	508.025	554.339	531.653	533.036	521.948
6/15/2008 4:00	29.41	552.327	508.027	554.343	531.657	533.041	521.951
6/15/2008 4:15	29.41	552.332	508.027	554.356	531.658	533.042	521.947
6/15/2008 4:30	29.41	552.333	508.027	554.345	531.66	533.041	521.95
6/15/2008 4:45	29.41	552.335	508.026	554.356	531.66	533.041	521.949
6/15/2008 5:00	29.42	552.337	508.027	554.35	531.659	533.038	521.95
6/15/2008 5:15	29.41	552.338	508.024	554.351	531.661	533.043	521.949
6/15/2008 5:30	29.42	552.34	508.029	554.357	531.658	533.042	521.947
6/15/2008 5:45	29.42	552.34	508.026	554.357	531.658	533.04	521.947
6/15/2008 6:00	29.42	552.341	508.028	554.359	531.657	533.039	521.946
6/15/2008 6:15	29.42	552.338	508.027	554.363	531.657	533.037	521.948
6/15/2008 6:30	29.42	552.342	508.024	554.366	531.658	533.038	521.947
6/15/2008 6:45	29.42	552.345	508.025	554.37	531.656	533.041	521.949
6/15/2008 7:00	29.42	552.346	508.024	554.37	531.657	533.036	521.947
6/15/2008 7:15	29.43	552.348	508.023	554.374	531.656	533.035	521.947
6/15/2008 7:30	29.42	552.348	508.026	554.375	531.654	533.04	521.949
6/15/2008 7:45	29.43	552.347	508.021	554.378	531.651	533.037	521.943
6/15/2008 8:00	29.43	552.348	508.023	554.38	531.652	533.036	521.944
6/15/2008 8:15	29.43	552.349	508.021	554.38	531.65	533.033	521.947
6/15/2008 8:30	29.43	552.351	508.018	554.383	531.651	533.036	521.946
6/15/2008 8:45	29.43	552.351	508.018	554.388	531.652	533.04	521.946
6/15/2008 9:00	29.43	552.352	508.01	554.392	531.656	533.039	521.947
6/15/2008 9:15	29.43	552.353	508.004	554.389	531.653	533.04	521.944
6/15/2008 9:30	29.42	552.353	508.01	554.394	531.657	533.043	521.948
6/15/2008 9:45	29.42	552.357	508.009	554.394	531.667	533.042	521.945
6/15/2008 10:00	29.41	552.358	508.01	554.397	531.659	533.045	521.946
6/15/2008 10:15	29.41	552.361	508.01	554.401	531.664	533.047	521.949
6/15/2008 10:30	29.41	552.362	508.01	554.4	531.665	533.05	521.947
6/15/2008 10:45	29.41	552.363	508.009	554.404	531.67	533.049	521.945
6/15/2008 11:00	29.41	552.364	508.009	554.404	531.666	533.051	521.947
6/15/2008 11:15	29.41	552.366	508.01	554.408	531.668	533.05	521.948

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/15/2008 11:30	29.41	552.365	508.005	554.403	531.666	533.053	521.943
6/15/2008 11:45	29.41	552.364	508.002	554.419	531.669	533.053	521.946
6/15/2008 12:00	29.40	552.366	508.002	554.409	531.671	533.058	521.944
6/15/2008 12:15	29.40	552.365	508.003	554.41	531.676	533.056	521.945
6/15/2008 12:30	29.40	552.365	508.006	554.424	531.677	533.061	521.946
6/15/2008 12:45	29.39	552.365	508.009	554.404	531.68	533.063	521.947
6/15/2008 13:00	29.40	552.364	508.011	554.409	531.685	533.065	521.947
6/15/2008 13:15	29.39	552.363	508.01	554.403	531.689	533.069	521.943
6/15/2008 13:30	29.39	552.362	508.01	554.405	531.689	533.072	521.945
6/15/2008 13:45	29.38	552.361	508.014	554.4	531.693	533.075	521.947
6/15/2008 14:00	29.37	552.359	508.002	554.393	531.696	533.079	521.948
6/15/2008 14:15	29.37	552.355	507.998	554.398	531.703	533.081	521.944
6/15/2008 14:30	29.36	552.354	508.001	554.393	531.701	533.085	521.947
6/15/2008 14:45	29.35	552.352	508.001	554.388	531.71	533.093	521.943
6/15/2008 15:00	29.35	552.353	508.005	554.385	531.713	533.093	521.945
6/15/2008 15:15	29.35	552.349	508.001	554.393	531.713	533.094	521.946
6/15/2008 15:30	29.35	552.345	508.001	554.379	531.712	533.093	521.944
6/15/2008 15:45	29.34	552.347	508.001	554.381	531.713	533.096	521.944
6/15/2008 16:00	29.34	552.339	508.002	554.367	531.712	533.094	521.943
6/15/2008 16:15	29.34	552.338	508.004	554.361	531.711	533.095	521.945
6/15/2008 16:30	29.33	552.334	508.004	554.354	531.715	533.096	521.945
6/15/2008 16:45	29.32	552.33	508.005	554.367	531.717	533.101	521.946
6/15/2008 17:00	29.31	552.326	508.009	554.352	531.72	533.105	521.943
6/15/2008 17:15	29.31	552.322	508.007	554.346	531.721	533.107	521.942
6/15/2008 17:30	29.30	552.321	508.007	554.343	531.727	533.109	521.947
6/15/2008 17:45	29.30	552.314	508.003	554.332	531.728	533.11	521.943
6/15/2008 18:00	29.29	552.31	508.007	554.328	531.726	533.112	521.945
6/15/2008 18:15	29.29	552.308	508.006	554.322	531.731	533.112	521.942
6/15/2008 18:30	29.30	552.302	508.007	554.317	531.723	533.109	521.945
6/15/2008 18:45	29.29	552.297	508.001	554.308	531.722	533.103	521.943
6/15/2008 19:00	29.29	552.291	508.005	554.303	531.721	533.104	521.941
6/15/2008 19:15	29.30	552.284	508.007	554.302	531.716	533.098	521.943
6/15/2008 19:30	29.30	552.277	508.005	554.292	531.715	533.096	521.945
6/15/2008 19:45	29.29	552.275	508.004	554.297	531.711	533.094	521.94

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/15/2008 20:00	29.30	552.27	507.997	554.28	531.705	533.09	521.944
6/15/2008 20:15	29.31	552.259	507.998	554.275	531.701	533.082	521.942
6/15/2008 20:30	29.32	552.258	507.998	554.269	531.693	533.075	521.947
6/15/2008 20:45	29.32	552.252	508.001	554.264	531.686	533.069	521.94
6/15/2008 21:00	29.31	552.243	508.004	554.259	531.687	533.072	521.941
6/15/2008 21:15	29.32	552.243	508.003	554.253	531.68	533.064	521.938
6/15/2008 21:30	29.32	552.238	508.002	554.249	531.68	533.056	521.942
6/15/2008 21:45	29.33	552.236	508.004	554.243	531.672	533.058	521.942
6/15/2008 22:00	29.32	552.227	508.002	554.243	531.671	533.049	521.942
6/15/2008 22:15	29.33	552.229	508.005	554.233	531.668	533.049	521.941
6/15/2008 22:30	29.32	552.226	508	554.231	531.668	533.048	521.94
6/15/2008 22:45	29.32	552.224	508.002	554.225	531.664	533.047	521.939
6/15/2008 23:00	29.32	552.223	508.003	554.227	531.659	533.047	521.94
6/15/2008 23:15	29.32	552.225	508.001	554.22	531.663	533.048	521.944
6/15/2008 23:30	29.31	552.222	507.999	554.219	531.666	533.045	521.941
6/15/2008 23:45	29.30	552.225	507.997	554.217	531.673	533.054	521.943
6/16/2008 0:00	29.30	552.227	508	554.213	531.674	533.056	521.944
6/16/2008 0:15	29.28	552.229	508.005	554.226	531.681	533.061	521.943
6/16/2008 0:30	29.28	552.228	507.992	554.217	531.685	533.061	521.943
6/16/2008 0:45	29.28	552.23	507.992	554.215	531.681	533.063	521.941
6/16/2008 1:00	29.28	552.23	507.991	554.203	531.68	533.064	521.942
6/16/2008 1:15	29.28	552.228	507.994	554.202	531.687	533.061	521.937
6/16/2008 1:30	29.32	552.227	507.991	554.2	531.671	533.054	521.943
6/16/2008 1:45	29.34	552.224	507.992	554.201	531.659	533.033	521.939
6/16/2008 2:00	29.35	552.22	507.993	554.194	531.647	533.029	521.941
6/16/2008 2:15	29.35	552.223	507.998	554.191	531.642	533.026	521.939
6/16/2008 2:30	29.33	552.219	507.997	554.187	531.643	533.025	521.941
6/16/2008 2:45	29.34	552.222	507.997	554.2	531.644	533.027	521.94
6/16/2008 3:00	29.32	552.224	508	554.2	531.651	533.033	521.943
6/16/2008 3:15	29.30	552.23	508.002	554.19	531.661	533.04	521.954
6/16/2008 3:30	29.30	552.232	508.007	554.206	531.666	533.051	521.96
6/16/2008 3:45	29.29	552.241	508.004	554.206	531.673	533.055	521.963
6/16/2008 4:00	29.28	552.251	508.009	554.216	531.683	533.059	521.963
6/16/2008 4:15	29.28	552.26	508.009	554.238	531.686	533.068	521.963

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/16/2008 4:30	29.29	552.268	508.011	554.251	531.68	533.062	521.966
6/16/2008 4:45	29.28	552.278	508.015	554.273	531.691	533.07	521.968
6/16/2008 5:00	29.30	552.292	508.02	554.294	531.693	533.075	521.969
6/16/2008 5:15	29.33	552.304	508.026	554.324	531.687	533.066	521.968
6/16/2008 5:30	29.31	552.315	508.032	554.36	531.689	533.07	521.971
6/16/2008 5:45	29.29	552.333	508.038	554.413	531.698	533.076	521.97
6/16/2008 6:00	29.30	552.35	508.044	554.446	531.707	533.09	521.974
6/16/2008 6:15	29.30	552.365	508.056	554.502	531.711	533.091	521.972
6/16/2008 6:30	29.30	552.385	508.113	554.556	531.719	533.101	521.975
6/16/2008 6:45	29.28	552.402	508.17	554.619	531.729	533.112	521.977
6/16/2008 7:00	29.28	552.417	508.207	554.675	531.748	533.128	521.974
6/16/2008 7:15	29.27	552.436	508.24	554.729	531.763	533.135	521.978
6/16/2008 7:30	29.27	552.451	508.257	554.784	531.771	533.148	521.976
6/16/2008 7:45	29.27	552.467	508.259	554.84	531.78	533.16	521.977
6/16/2008 8:00	29.26	552.48	508.264	554.891	531.789	533.169	521.978
6/16/2008 8:15	29.26	552.5	508.264	554.94	531.799	533.175	521.979
6/16/2008 8:30	29.26	552.518	508.264	554.995	531.809	533.183	521.977
6/16/2008 8:45	29.26	552.534	508.263	555.034	531.814	533.193	521.981
6/16/2008 9:00	29.25	552.548	508.257	555.099	531.824	533.2	521.981
6/16/2008 9:15	29.25	552.567	508.261	555.126	531.83	533.208	521.983
6/16/2008 9:30	29.25	552.584	508.254	555.165	531.841	533.213	521.98
6/16/2008 9:45	29.25	552.599	508.253	555.203	531.848	533.217	521.982
6/16/2008 10:00	29.24	552.611	508.254	555.237	531.86	533.23	521.982
6/16/2008 10:15	29.24	552.627	508.252	555.268	531.871	533.234	521.982
6/16/2008 10:30	29.24	552.637	508.247	555.3	531.879	533.247	521.982
6/16/2008 10:45	29.25	552.648	508.243	555.333	531.888	533.254	521.979
6/16/2008 11:00	29.25	552.661	508.238	555.353	531.9	533.263	521.982
6/16/2008 11:15	29.24	552.668	508.236	555.369	531.909	533.27	521.982
6/16/2008 11:30	29.25	552.677	508.234	555.392	531.914	533.277	521.983
6/16/2008 11:45	29.24	552.686	508.231	555.406	531.925	533.285	521.979
6/16/2008 12:00	29.24	552.694	508.219	555.419	531.937	533.291	521.981
6/16/2008 12:15	29.24	552.693	508.217	555.438	531.95	533.301	521.979
6/16/2008 12:30	29.23	552.697	508.215	555.445	531.964	533.315	521.983
6/16/2008 12:45	29.22	552.703	508.207	555.464	531.973	533.318	521.983

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/16/2008 13:00	29.22	552.703	508.2	555.468	531.981	533.334	521.983
6/16/2008 13:15	29.21	552.711	508.195	555.477	532.001	533.346	521.984
6/16/2008 13:30	29.20	552.712	508.187	555.484	532.012	533.359	521.985
6/16/2008 13:45	29.20	552.712	508.179	555.486	532.027	533.372	521.982
6/16/2008 14:00	29.19	552.713	508.177	555.492	532.037	533.382	521.98
6/16/2008 14:15	29.20	552.711	508.171	555.511	532.048	533.387	521.988
6/16/2008 14:30	29.19	552.714	508.167	555.498	532.051	533.399	521.986
6/16/2008 14:45	29.19	552.711	508.164	555.509	532.063	533.403	521.987
6/16/2008 15:00	29.18	552.708	508.161	555.507	532.075	533.418	521.99
6/16/2008 15:15	29.17	552.707	508.162	555.505	532.087	533.427	521.986
6/16/2008 15:30	29.18	552.706	508.164	555.507	532.092	533.433	522.009
6/16/2008 15:45	29.21	552.711	508.159	555.504	532.089	533.432	522.131
6/16/2008 16:00	29.21	552.723	508.158	555.522	532.097	533.437	522.146
6/16/2008 16:15	29.20	552.743	508.156	555.558	532.106	533.449	522.151
6/16/2008 16:30	29.21	552.769	508.158	555.594	532.11	533.456	522.158
6/16/2008 16:45	29.21	552.793	508.157	555.635	532.126	533.466	522.162
6/16/2008 17:00	29.20	552.821	508.159	555.673	532.136	533.476	522.164
6/16/2008 17:15	29.21	552.845	508.155	555.706	532.145	533.484	522.17
6/16/2008 17:30	29.19	552.867	508.163	555.739	532.159	533.499	522.169
6/16/2008 17:45	29.19	552.891	508.161	555.775	532.17	533.507	522.173
6/16/2008 18:00	29.20	552.912	508.164	555.8	532.182	533.52	522.176
6/16/2008 18:15	29.20	552.932	508.164	555.825	532.185	533.516	522.178
6/16/2008 18:30	29.21	552.95	508.173	555.845	532.192	533.527	522.179
6/16/2008 18:45	29.21	552.964	508.176	555.877	532.198	533.536	522.178
6/16/2008 19:00	29.21	552.978	508.176	555.883	532.208	533.535	522.18
6/16/2008 19:15	29.21	552.99	508.18	555.894	532.213	533.542	522.178
6/16/2008 19:30	29.21	553	508.182	555.916	532.222	533.55	522.178
6/16/2008 19:45	29.21	553.009	508.183	555.927	532.223	533.553	522.176
6/16/2008 20:00	29.22	553.023	508.185	555.925	532.23	533.56	522.182
6/16/2008 20:15	29.21	553.028	508.183	555.942	532.229	533.565	522.185
6/16/2008 20:30	29.21	553.036	508.182	555.952	532.241	533.573	522.185
6/16/2008 20:45	29.22	553.041	508.179	555.963	532.244	533.572	522.182
6/16/2008 21:00	29.22	553.042	508.179	555.964	532.249	533.581	522.181
6/16/2008 21:15	29.23	553.045	508.176	555.968	532.247	533.579	522.187

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/16/2008 21:30	29.25	553.04	508.172	555.974	532.241	533.574	522.186
6/16/2008 21:45	29.25	553.039	508.168	555.985	532.239	533.574	522.187
6/16/2008 22:00	29.26	553.042	508.164	555.983	532.244	533.568	522.187
6/16/2008 22:15	29.26	553.041	508.162	555.997	532.241	533.574	522.184
6/16/2008 22:30	29.27	553.042	508.16	555.989	532.246	533.581	522.185
6/16/2008 22:45	29.27	553.04	508.159	555.998	532.249	533.58	522.19
6/16/2008 23:00	29.27	553.037	508.159	556.007	532.253	533.585	522.181
6/16/2008 23:15	29.26	553.038	508.153	556.007	532.261	533.585	522.19
6/16/2008 23:30	29.26	553.04	508.155	556.017	532.265	533.597	522.19
6/16/2008 23:45	29.27	553.041	508.154	556.019	532.264	533.593	522.19
6/17/2008 0:00	29.27	553.039	508.154	556.011	532.267	533.598	522.187
6/17/2008 0:15	29.26	553.041	508.154	556.008	532.276	533.604	522.19
6/17/2008 0:30	29.27	553.041	508.149	556.021	532.279	533.61	522.189
6/17/2008 0:45	29.26	553.039	508.151	556.02	532.284	533.61	522.189
6/17/2008 1:00	29.25	553.043	508.147	556.023	532.29	533.615	522.192
6/17/2008 1:15	29.26	553.044	508.149	556.026	532.296	533.62	522.19
6/17/2008 1:30	29.26	553.042	508.144	556.024	532.296	533.629	522.192
6/17/2008 1:45	29.26	553.038	508.146	556.028	532.302	533.632	522.189
6/17/2008 2:00	29.26	553.043	508.144	556.028	532.307	533.63	522.189
6/17/2008 2:15	29.25	553.045	508.143	556.024	532.31	533.638	522.192
6/17/2008 2:30	29.25	553.044	508.141	556.031	532.317	533.65	522.188
6/17/2008 2:45	29.24	553.045	508.14	556.034	532.324	533.658	522.192
6/17/2008 3:00	29.23	553.046	508.141	556.029	532.334	533.668	522.191
6/17/2008 3:15	29.23	553.049	508.139	556.03	532.339	533.665	522.193
6/17/2008 3:30	29.23	553.049	508.142	556.028	532.342	533.671	522.194
6/17/2008 3:45	29.23	553.05	508.139	556.031	532.346	533.676	522.195
6/17/2008 4:00	29.23	553.049	508.139	556.029	532.353	533.679	522.193
6/17/2008 4:15	29.24	553.049	508.138	556.028	532.353	533.673	522.194
6/17/2008 4:30	29.24	553.049	508.136	556.027	532.353	533.683	522.194
6/17/2008 4:45	29.25	553.046	508.135	556.025	532.353	533.683	522.191
6/17/2008 5:00	29.25	553.049	508.134	556.022	532.355	533.678	522.199
6/17/2008 5:15	29.25	553.049	508.129	556.023	532.356	533.683	522.193
6/17/2008 5:30	29.26	553.05	508.13	556.027	532.357	533.686	522.188
6/17/2008 5:45	29.26	553.049	508.128	556.032	532.356	533.68	522.195

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		MW-05B	MW-32B	EW-02	EW-01	EW-03	EXB-02
6/17/2008 6:00	29.27	553.048	508.129	556.025	532.35	533.68	522.196
6/17/2008 6:15	29.28	553.047	508.126	556.02	532.352	533.674	522.196
6/17/2008 6:30	29.28	553.048	508.124	556.02	532.35	533.673	522.195
6/17/2008 6:45	29.29	553.049	508.121	556.019	532.349	533.677	522.197
6/17/2008 7:00	29.29	553.045	508.118	556.015	532.349	533.672	522.196
6/17/2008 7:15	29.31	553.043	508.12	556.016	532.344	533.667	522.197
6/17/2008 7:30	29.31	553.044	508.121	556.014	532.34	533.669	522.198
6/17/2008 7:45	29.32	553.042	508.118	556.011	532.338	533.666	522.194
6/17/2008 8:00	29.31	553.042	508.118	556.012	532.339	533.67	522.199
6/17/2008 8:15	29.32	553.044	508.118	556.011	532.341	533.67	522.196
6/17/2008 8:30	29.31	553.045	508.115	556.009	532.343	533.67	522.197
6/17/2008 8:45	29.32	553.043	508.115	556.013	532.345	533.669	522.199
6/17/2008 9:00	29.32		508.115	556.001	532.346	533.672	522.196
6/17/2008 9:15	29.32		508.116			533.672	522.197
6/17/2008 9:30	29.32		508.115				522.196
6/17/2008 9:45	29.32		508.117				

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/13/2008 17:00	29.54	530.41	531.62	524.77	529.88	532.41	471.26
6/13/2008 17:15	29.53	530.408	531.615	524.77	529.884	532.41	471.265
6/13/2008 17:30	29.53	530.409	531.617	524.771	529.89	532.417	471.269
6/13/2008 17:45	29.53	530.411	531.618	524.774	529.896	532.425	471.278
6/13/2008 18:00	29.52	530.408	531.617	524.776	529.899	532.429	471.284
6/13/2008 18:15	29.52	530.407	531.618	524.776	529.902	532.437	471.289
6/13/2008 18:30	29.53	530.405	531.611	524.778	529.907	532.451	471.294
6/13/2008 18:45	29.53	530.402	531.607	524.78	529.908	532.446	471.292
6/13/2008 19:00	29.53	530.4	531.609	524.778	529.912	532.45	471.296
6/13/2008 19:15	29.54	530.392	531.604	524.778	529.917	532.458	471.299
6/13/2008 19:30	29.55	530.388	531.596	524.779	529.913	532.461	471.296
6/13/2008 19:45	29.55	530.383	531.594	524.781	529.916	532.471	471.296
6/13/2008 20:00	29.54	530.379	531.588	524.781	529.918	532.47	471.294
6/13/2008 20:15	29.54	530.376	531.585	524.78	529.918	532.473	471.295
6/13/2008 20:30	29.54	530.373	531.585	524.779	529.922	532.477	471.292
6/13/2008 20:45	29.56	530.366	531.581	524.782	529.917	532.476	471.292
6/13/2008 21:00	29.56	530.355	531.575	524.781	529.921	532.48	471.288
6/13/2008 21:15	29.56	530.354	531.575	524.779	529.919	532.482	471.288
6/13/2008 21:30	29.56	530.358	531.568	524.779	529.919	532.487	471.283
6/13/2008 21:45	29.56	530.354	531.568	524.779	529.918	532.49	471.281
6/13/2008 22:00	29.55	530.351	531.572	524.781	529.92	532.49	471.279
6/13/2008 22:15	29.55	530.354	531.571	524.782	529.92	532.492	471.279
6/13/2008 22:30	29.54	530.356	531.577	524.779	529.921	532.493	471.283
6/13/2008 22:45	29.54	530.353	531.581	524.779	529.919	532.494	471.282
6/13/2008 23:00	29.54	530.354	531.581	524.781	529.923	532.497	471.28
6/13/2008 23:15	29.54	530.362	531.582	524.781	529.927	532.505	471.283
6/13/2008 23:30	29.55	530.358	531.582	524.782	529.925	532.502	471.285
6/13/2008 23:45	29.54	530.356	531.58	524.783	529.924	532.505	471.287
6/14/2008 0:00	29.54	530.359	531.583	524.786	529.927	532.514	471.288
6/14/2008 0:15	29.52	530.36	531.584	524.783	529.926	532.508	471.287
6/14/2008 0:30	29.52	530.361	531.594	524.784	529.929	532.508	471.29
6/14/2008 0:45	29.52	530.359	531.595	524.784	529.93	532.51	471.296
6/14/2008 1:00	29.52	530.368	531.601	524.785	529.931	532.511	471.295
6/14/2008 1:15	29.52	530.371	531.598	524.786	529.936	532.515	471.299

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/14/2008 1:30	29.52	530.373	531.6	524.788	529.938	532.514	471.303
6/14/2008 1:45	29.52	530.365	531.605	524.787	529.936	532.52	471.303
6/14/2008 2:00	29.52	530.368	531.603	524.785	529.938	532.521	471.303
6/14/2008 2:15	29.51	530.371	531.605	524.788	529.943	532.522	471.303
6/14/2008 2:30	29.51	530.372	531.607	524.788	529.945	532.526	471.304
6/14/2008 2:45	29.51	530.376	531.604	524.789	529.947	532.524	471.308
6/14/2008 3:00	29.50	530.37	531.609	524.793	529.948	532.526	471.308
6/14/2008 3:15	29.50	530.374	531.614	524.788	529.951	532.529	471.309
6/14/2008 3:30	29.49	530.381	531.62	524.787	529.951	532.532	471.312
6/14/2008 3:45	29.49	530.38	531.616	524.792	529.956	532.532	471.315
6/14/2008 4:00	29.48	530.384	531.622	524.794	529.958	532.536	471.32
6/14/2008 4:15	29.48	530.38	531.625	524.793	529.964	532.539	471.324
6/14/2008 4:30	29.49	530.389	531.629	524.794	529.966	532.541	471.322
6/14/2008 4:45	29.49	530.386	531.623	524.794	529.967	532.542	471.326
6/14/2008 5:00	29.49	530.386	531.625	524.792	529.969	532.545	471.325
6/14/2008 5:15	29.48	530.385	531.632	524.794	529.97	532.543	471.328
6/14/2008 5:30	29.47	530.391	531.629	524.792	529.974	532.555	471.327
6/14/2008 5:45	29.48	530.391	531.632	524.798	529.978	532.558	471.329
6/14/2008 6:00	29.48	530.392	531.632	524.797	529.98	532.55	471.328
6/14/2008 6:15	29.47	530.392	531.637	524.796	529.979	532.555	471.33
6/14/2008 6:30	29.49	530.391	531.632	524.798	529.981	532.553	471.328
6/14/2008 6:45	29.48	530.389	531.637	524.802	529.986	532.554	471.326
6/14/2008 7:00	29.48	530.392	531.635	524.801	529.986	532.557	471.323
6/14/2008 7:15	29.49	530.391	531.639	524.8	529.986	532.559	471.329
6/14/2008 7:30	29.49	530.382	531.633	524.802	529.987	532.557	471.331
6/14/2008 7:45	29.49	530.39	531.635	524.797	529.988	532.562	471.328
6/14/2008 8:00	29.49	530.379	531.632	524.799	529.989	532.562	471.326
6/14/2008 8:15	29.49	530.384	531.636	524.802	529.991	532.561	471.324
6/14/2008 8:30	29.48	530.381	531.637	524.805	529.989	532.573	471.323
6/14/2008 8:45	29.49	530.382	531.637	524.799	529.991	532.568	471.325
6/14/2008 9:00	29.50	530.384	531.64	524.8	529.993	532.569	471.326
6/14/2008 9:15	29.50	530.377	531.638	524.8	529.993	532.569	471.325
6/14/2008 9:30	29.50	530.386	531.64	524.8	529.995	532.569	471.325
6/14/2008 9:45	29.49	530.385	531.644	524.801	529.992	532.57	471.328

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/14/2008 10:00	29.49	530.386	531.645	524.804	529.993	532.573	471.324
6/14/2008 10:15	29.50	530.388	531.643	524.802	529.994	532.573	471.326
6/14/2008 10:30	29.50	530.387	531.648	524.8	529.996	532.574	471.326
6/14/2008 10:45	29.49	530.381	531.65	524.801	529.998	532.573	471.321
6/14/2008 11:00	29.49	530.384	531.649	524.803	529.999	532.573	471.325
6/14/2008 11:15	29.49	530.39	531.649	524.804	530	532.574	471.323
6/14/2008 11:30	29.49	530.389	531.657	524.8	529.999	532.576	471.323
6/14/2008 11:45	29.49	530.391	531.659	524.801	530.001	532.577	471.322
6/14/2008 12:00	29.49	530.39	531.654	524.803	529.998	532.578	471.323
6/14/2008 12:15	29.48	530.383	531.661	524.802	530.002	532.576	471.324
6/14/2008 12:30	29.48	530.393	531.662	524.802	530.004	532.579	471.326
6/14/2008 12:45	29.47	530.397	531.668	524.804	530.004	532.583	471.327
6/14/2008 13:00	29.47	530.4	531.669	524.801	530.007	532.584	471.332
6/14/2008 13:15	29.47	530.402	531.673	524.804	530.008	532.586	471.337
6/14/2008 13:30	29.47	530.399	531.669	524.809	530.016	532.588	471.338
6/14/2008 13:45	29.46	530.409	531.671	524.809	530.014	532.592	471.344
6/14/2008 14:00	29.46	530.415	531.674	524.81	530.018	532.591	471.351
6/14/2008 14:15	29.45	530.416	531.677	524.807	530.021	532.595	471.356
6/14/2008 14:30	29.45	530.422	531.687	524.809	530.027	532.595	471.358
6/14/2008 14:45	29.44	530.421	531.689	524.811	530.027	532.601	471.359
6/14/2008 15:00	29.46	530.423	531.69	524.81	530.03	532.598	471.363
6/14/2008 15:15	29.44	530.423	531.69	524.811	530.034	532.6	471.367
6/14/2008 15:30	29.44	530.419	531.686	524.814	530.036	532.603	471.37
6/14/2008 15:45	29.45	530.417	531.689	524.813	530.037	532.605	471.367
6/14/2008 16:00	29.44	530.426	531.689	524.814	530.04	532.606	471.372
6/14/2008 16:15	29.44	530.423	531.69	524.816	530.045	532.611	471.373
6/14/2008 16:30	29.44	530.422	531.698	524.813	530.048	532.613	471.379
6/14/2008 16:45	29.42	530.426	531.698	524.815	530.053	532.615	471.38
6/14/2008 17:00	29.42	530.435	531.703	524.816	530.054	532.616	471.384
6/14/2008 17:15	29.43	530.438	531.709	524.813	530.059	532.618	471.386
6/14/2008 17:30	29.42	530.441	531.714	524.817	530.063	532.621	471.391
6/14/2008 17:45	29.39	530.449	531.719	524.821	530.066	532.624	471.396
6/14/2008 18:00	29.40	530.456	531.73	524.823	530.07	532.629	471.401
6/14/2008 18:15	29.40	530.454	531.731	524.821	530.073	532.632	471.412

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/14/2008 18:30	29.41	530.455	531.728	524.824	530.076	532.631	471.414
6/14/2008 18:45	29.40	530.455	531.728	524.824	530.082	532.636	471.417
6/14/2008 19:00	29.41	530.452	531.729	524.827	530.083	532.635	471.419
6/14/2008 19:15	29.40	530.458	531.732	524.827	530.087	532.639	471.424
6/14/2008 19:30	29.41	530.453	531.734	524.828	530.089	532.65	471.427
6/14/2008 19:45	29.41	530.453	531.732	524.828	530.091	532.645	471.426
6/14/2008 20:00	29.40	530.457	531.733	524.828	530.093	532.643	471.424
6/14/2008 20:15	29.40	530.453	531.738	524.828	530.094	532.643	471.423
6/14/2008 20:30	29.41	530.453	531.743	524.83	530.098	532.649	471.424
6/14/2008 20:45	29.41	530.461	531.746	524.827	530.098	532.65	471.422
6/14/2008 21:00	29.41	530.463	531.749	524.834	530.102	532.653	471.423
6/14/2008 21:15	29.41	530.459	531.746	524.834	530.103	532.653	471.424
6/14/2008 21:30	29.41	530.461	531.749	524.83	530.105	532.654	471.426
6/14/2008 21:45	29.41	530.463	531.751	524.834	530.105	532.656	471.424
6/14/2008 22:00	29.42	530.459	531.748	524.834	530.109	532.659	471.43
6/14/2008 22:15	29.42	530.462	531.745	524.834	530.107	532.657	471.426
6/14/2008 22:30	29.42	530.456	531.749	524.833	530.107	532.662	471.425
6/14/2008 22:45	29.41	530.453	531.752	524.834	530.111	532.661	471.425
6/14/2008 23:00	29.41	530.464	531.756	524.837	530.11	532.661	471.424
6/14/2008 23:15	29.41	530.457	531.757	524.838	530.112	532.664	471.425
6/14/2008 23:30	29.42	530.468	531.757	524.836	530.115	532.663	471.425
6/14/2008 23:45	29.42	530.464	531.758	524.837	530.118	532.669	471.424
6/15/2008 0:00	29.42	530.465	531.758	524.837	530.119	532.668	471.426
6/15/2008 0:15	29.42	530.464	531.759	524.841	530.118	532.667	471.424
6/15/2008 0:30	29.42	530.463	531.759	524.838	530.121	532.67	471.425
6/15/2008 0:45	29.42	530.463	531.757	524.84	530.121	532.671	471.418
6/15/2008 1:00	29.42	530.465	531.763	524.842	530.122	532.673	471.423
6/15/2008 1:15	29.42	530.467	531.765	524.84	530.123	532.673	471.419
6/15/2008 1:30	29.41	530.468	531.764	524.838	530.126	532.675	471.424
6/15/2008 1:45	29.41	530.471	531.764	524.842	530.129	532.677	471.423
6/15/2008 2:00	29.41	530.477	531.771	524.841	530.131	532.679	471.427
6/15/2008 2:15	29.41	530.468	531.772	524.841	530.134	532.681	471.428
6/15/2008 2:30	29.41	530.467	531.771	524.84	530.135	532.687	471.425
6/15/2008 2:45	29.41	530.477	531.775	524.841	530.139	532.682	471.427

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/15/2008 3:00	29.41	530.478	531.777	524.843	530.14	532.677	471.43
6/15/2008 3:15	29.41	530.478	531.78	524.844	530.143	532.684	471.43
6/15/2008 3:30	29.41	530.474	531.779	524.846	530.143	532.685	471.434
6/15/2008 3:45	29.41	530.482	531.786	524.844	530.144	532.684	471.436
6/15/2008 4:00	29.41	530.473	531.78	524.839	530.15	532.686	471.435
6/15/2008 4:15	29.41	530.474	531.781	524.843	530.151	532.687	471.441
6/15/2008 4:30	29.41	530.481	531.784	524.847	530.153	532.688	471.442
6/15/2008 4:45	29.41	530.478	531.787	524.845	530.158	532.693	471.444
6/15/2008 5:00	29.42	530.475	531.791	524.845	530.159	532.689	471.445
6/15/2008 5:15	29.41	530.478	531.786	524.845	530.158	532.694	471.441
6/15/2008 5:30	29.42	530.484	531.788	524.846	530.163	532.69	471.443
6/15/2008 5:45	29.42	530.47	531.786	524.846	530.164	532.691	471.439
6/15/2008 6:00	29.42	530.474	531.785	524.847	530.166	532.694	471.437
6/15/2008 6:15	29.42	530.473	531.782	524.846	530.169	532.694	471.439
6/15/2008 6:30	29.42	530.477	531.787	524.844	530.171	532.699	471.436
6/15/2008 6:45	29.42	530.479	531.787	524.847	530.174	532.699	471.432
6/15/2008 7:00	29.42	530.472	531.784	524.846	530.177	532.698	471.436
6/15/2008 7:15	29.43	530.479	531.78	524.841	530.179	532.7	471.435
6/15/2008 7:30	29.42	530.478	531.782	524.845	530.179	532.701	471.432
6/15/2008 7:45	29.43	530.476	531.789	524.846	530.183	532.697	471.431
6/15/2008 8:00	29.43	530.473	531.78	524.848	530.183	532.7	471.435
6/15/2008 8:15	29.43	530.466	531.782	524.847	530.186	532.702	471.436
6/15/2008 8:30	29.43	530.465	531.784	524.847	530.188	532.701	471.436
6/15/2008 8:45	29.43	530.478	531.782	524.85	530.189	532.704	471.437
6/15/2008 9:00	29.43	530.475	531.786	524.848	530.192	532.701	471.437
6/15/2008 9:15	29.43	530.477	531.788	524.848	530.194	532.702	471.439
6/15/2008 9:30	29.42	530.477	531.791	524.849	530.197	532.703	471.445
6/15/2008 9:45	29.42	530.478	531.79	524.85	530.196	532.704	471.445
6/15/2008 10:00	29.41	530.475	531.799	524.852	530.204	532.711	471.441
6/15/2008 10:15	29.41	530.477	531.801	524.851	530.206	532.706	471.449
6/15/2008 10:30	29.41	530.478	531.803	524.854	530.209	532.707	471.45
6/15/2008 10:45	29.41	530.48	531.799	524.853	530.214	532.704	471.454
6/15/2008 11:00	29.41	530.487	531.802	524.854	530.215	532.709	471.455
6/15/2008 11:15	29.41	530.484	531.803	524.854	530.223	532.708	471.46

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/15/2008 11:30	29.41	530.487	531.801	524.855	530.219	532.711	471.46
6/15/2008 11:45	29.41	530.485	531.803	524.856	530.227	532.711	471.462
6/15/2008 12:00	29.40	530.493	531.806	524.854	530.231	532.711	471.464
6/15/2008 12:15	29.40	530.496	531.811	524.857	530.233	532.715	471.467
6/15/2008 12:30	29.40	530.492	531.815	524.855	530.238	532.714	471.47
6/15/2008 12:45	29.39	530.498	531.814	524.86	530.241	532.716	471.473
6/15/2008 13:00	29.40	530.502	531.819	524.86	530.244	532.714	471.475
6/15/2008 13:15	29.39	530.505	531.822	524.86	530.25	532.718	471.479
6/15/2008 13:30	29.39	530.501	531.827	524.864	530.255	532.719	471.485
6/15/2008 13:45	29.38	530.506	531.821	524.863	530.255	532.722	471.484
6/15/2008 14:00	29.37	530.51	531.83	524.864	530.263	532.727	471.487
6/15/2008 14:15	29.37	530.514	531.836	524.864	530.27	532.728	471.493
6/15/2008 14:30	29.36	530.526	531.843	524.869	530.275	532.727	471.5
6/15/2008 14:45	29.35	530.529	531.848	524.868	530.278	532.73	471.505
6/15/2008 15:00	29.35	530.534	531.852	524.866	530.285	532.737	471.509
6/15/2008 15:15	29.35	530.529	531.855	524.871	530.29	532.736	471.512
6/15/2008 15:30	29.35	530.529	531.851	524.871	530.294	532.737	471.515
6/15/2008 15:45	29.34	530.529	531.85	524.874	530.297	532.743	471.519
6/15/2008 16:00	29.34	530.536	531.858	524.875	530.306	532.741	471.524
6/15/2008 16:15	29.34	530.529	531.851	524.872	530.31	532.744	471.523
6/15/2008 16:30	29.33	530.54	531.854	524.876	530.315	532.751	471.529
6/15/2008 16:45	29.32	530.543	531.859	524.876	530.32	532.75	471.533
6/15/2008 17:00	29.31	530.542	531.861	524.879	530.324	532.751	471.539
6/15/2008 17:15	29.31	530.543	531.866	524.876	530.329	532.755	471.544
6/15/2008 17:30	29.30	530.553	531.869	524.877	530.338	532.76	471.55
6/15/2008 17:45	29.30	530.555	531.872	524.879	530.343	532.764	471.554
6/15/2008 18:00	29.29	530.554	531.873	524.883	530.348	532.763	471.557
6/15/2008 18:15	29.29	530.555	531.872	524.879	530.352	532.766	471.568
6/15/2008 18:30	29.30	530.553	531.871	524.883	530.356	532.771	471.574
6/15/2008 18:45	29.29	530.554	531.871	524.883	530.361	532.774	471.578
6/15/2008 19:00	29.29	530.545	531.866	524.883	530.369	532.778	471.581
6/15/2008 19:15	29.30	530.543	531.864	524.885	530.371	532.776	471.584
6/15/2008 19:30	29.30	530.544	531.856	524.883	530.371	532.787	471.583
6/15/2008 19:45	29.29	530.536	531.856	524.885	530.377	532.778	471.587

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL) EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/15/2008 20:00	29.30	530.541	531.853	524.884	530.377	532.782	471.587
6/15/2008 20:15	29.31	530.532	531.846	524.886	530.383	532.789	471.585
6/15/2008 20:30	29.32	530.528	531.837	524.885	530.382	532.785	471.584
6/15/2008 20:45	29.32	530.521	531.834	524.883	530.385	532.785	471.587
6/15/2008 21:00	29.31	530.515	531.833	524.885	530.385	532.786	471.588
6/15/2008 21:15	29.32	530.515	531.825	524.884	530.386	532.788	471.588
6/15/2008 21:30	29.32	530.511	531.826	524.881	530.387	532.791	471.592
6/15/2008 21:45	29.33	530.504	531.82	524.884	530.39	532.79	471.59
6/15/2008 22:00	29.32	530.504	531.819	524.883	530.389	532.788	471.59
6/15/2008 22:15	29.33	530.488	531.817	524.886	530.39	532.786	471.588
6/15/2008 22:30	29.32	530.499	531.817	524.882	530.395	532.787	471.585
6/15/2008 22:45	29.32	530.499	531.811	524.886	530.391	532.786	471.585
6/15/2008 23:00	29.32	530.493	531.812	524.88	530.394	532.786	471.588
6/15/2008 23:15	29.32	530.493	531.813	524.886	530.393	532.788	471.588
6/15/2008 23:30	29.31	530.494	531.813	524.883	530.389	532.788	471.591
6/15/2008 23:45	29.30	530.499	531.817	524.883	530.392	532.784	471.592
6/16/2008 0:00	29.30	530.498	531.821	524.881	530.387	532.783	471.593
6/16/2008 0:15	29.28	530.502	531.822	524.883	530.386	532.784	471.597
6/16/2008 0:30	29.28	530.503	531.829	524.885	530.387	532.792	471.603
6/16/2008 0:45	29.28	530.509	531.828	524.883	530.387	532.792	471.607
6/16/2008 1:00	29.28	530.514	531.83	524.885	530.389	532.791	471.608
6/16/2008 1:15	29.28	530.514	531.832	524.888	530.388	532.794	471.612
6/16/2008 1:30	29.32	530.503	531.827	524.887	530.39	532.79	471.615
6/16/2008 1:45	29.34	530.488	531.803	524.885	530.382	532.792	471.608
6/16/2008 2:00	29.35	530.477	531.796	524.884	530.381	532.794	471.602
6/16/2008 2:15	29.35	530.466	531.794	524.884	530.375	532.786	471.593
6/16/2008 2:30	29.33	530.473	531.794	524.882	530.371	532.79	471.59
6/16/2008 2:45	29.34	530.474	531.792	524.879	530.372	532.787	471.586
6/16/2008 3:00	29.32	530.47	531.801	524.878	530.369	532.786	471.587
6/16/2008 3:15	29.30	530.478	531.809	524.88	530.369	532.788	471.585
6/16/2008 3:30	29.30	530.485	531.817	524.879	530.369	532.785	471.589
6/16/2008 3:45	29.29	530.496	531.824	524.879	530.371	532.789	471.589
6/16/2008 4:00	29.28	530.502	531.829	524.885	530.367	532.789	471.593
6/16/2008 4:15	29.28	530.505	531.835	524.886	530.373	532.789	471.6

Surface Barometric Pressure and Background Monitoring Data for All Wells

Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/16/2008 4:30	29.29	530.503	531.835	524.887	530.375	532.791	471.604
6/16/2008 4:45	29.28	530.518	531.839	524.889	530.376	532.79	471.608
6/16/2008 5:00	29.30	530.507	531.839	524.888	530.378	532.79	471.612
6/16/2008 5:15	29.33	530.509	531.832	524.89	530.377	532.792	471.61
6/16/2008 5:30	29.31	530.504	531.834	524.886	530.374	532.8	471.608
6/16/2008 5:45	29.29	530.513	531.843	524.888	530.374	532.789	471.608
6/16/2008 6:00	29.30	530.516	531.851	524.887	530.381	532.794	471.612
6/16/2008 6:15	29.30	530.527	531.855	524.885	530.38	532.794	471.612
6/16/2008 6:30	29.30	530.524	531.863	524.889	530.378	532.8	471.613
6/16/2008 6:45	29.28	530.543	531.873	524.892	530.383	532.793	471.611
6/16/2008 7:00	29.28	530.544	531.885	524.893	530.382	532.794	471.615
6/16/2008 7:15	29.27	530.566	531.901	524.894	530.384	532.797	471.624
6/16/2008 7:30	29.27	530.573	531.911	524.897	530.391	532.797	471.628
6/16/2008 7:45	29.27	530.576	531.921	524.899	530.393	532.797	471.63
6/16/2008 8:00	29.26	530.594	531.925	524.9	530.395	532.802	471.634
6/16/2008 8:15	29.26	530.593	531.939	524.9	530.4	532.805	471.637
6/16/2008 8:30	29.26	530.605	531.944	524.907	530.405	532.801	471.643
6/16/2008 8:45	29.26	530.61	531.949	524.908	530.407	532.806	471.646
6/16/2008 9:00	29.25	530.62	531.957	524.911	530.412	532.811	471.643
6/16/2008 9:15	29.25	530.628	531.967	524.912	530.415	532.807	471.647
6/16/2008 9:30	29.25	530.635	531.971	524.917	530.415	532.82	471.648
6/16/2008 9:45	29.25	530.641	531.978	524.919	530.423	532.819	471.655
6/16/2008 10:00	29.24	530.643	531.989	524.924	530.425	532.817	471.653
6/16/2008 10:15	29.24	530.653	531.997	524.926	530.431	532.82	471.655
6/16/2008 10:30	29.24	530.664	532.006	524.926	530.437	532.826	471.658
6/16/2008 10:45	29.25	530.671	532.013	524.931	530.441	532.83	471.661
6/16/2008 11:00	29.25	530.674	532.019	524.932	530.446	532.829	471.662
6/16/2008 11:15	29.24	530.685	532.027	524.938	530.447	532.831	471.656
6/16/2008 11:30	29.25	530.695	532.033	524.935	530.453	532.839	471.663
6/16/2008 11:45	29.24	530.701	532.041	524.941	530.458	532.84	471.664
6/16/2008 12:00	29.24	530.704	532.049	524.942	530.461	532.847	471.664
6/16/2008 12:15	29.24	530.717	532.058	524.946	530.468	532.849	471.663
6/16/2008 12:30	29.23	530.731	532.068	524.944	530.472	532.851	471.664
6/16/2008 12:45	29.22	530.741	532.081	524.949	530.477	532.854	471.67

Surface Barometric Pressure and Background Monitoring Data for All Wells

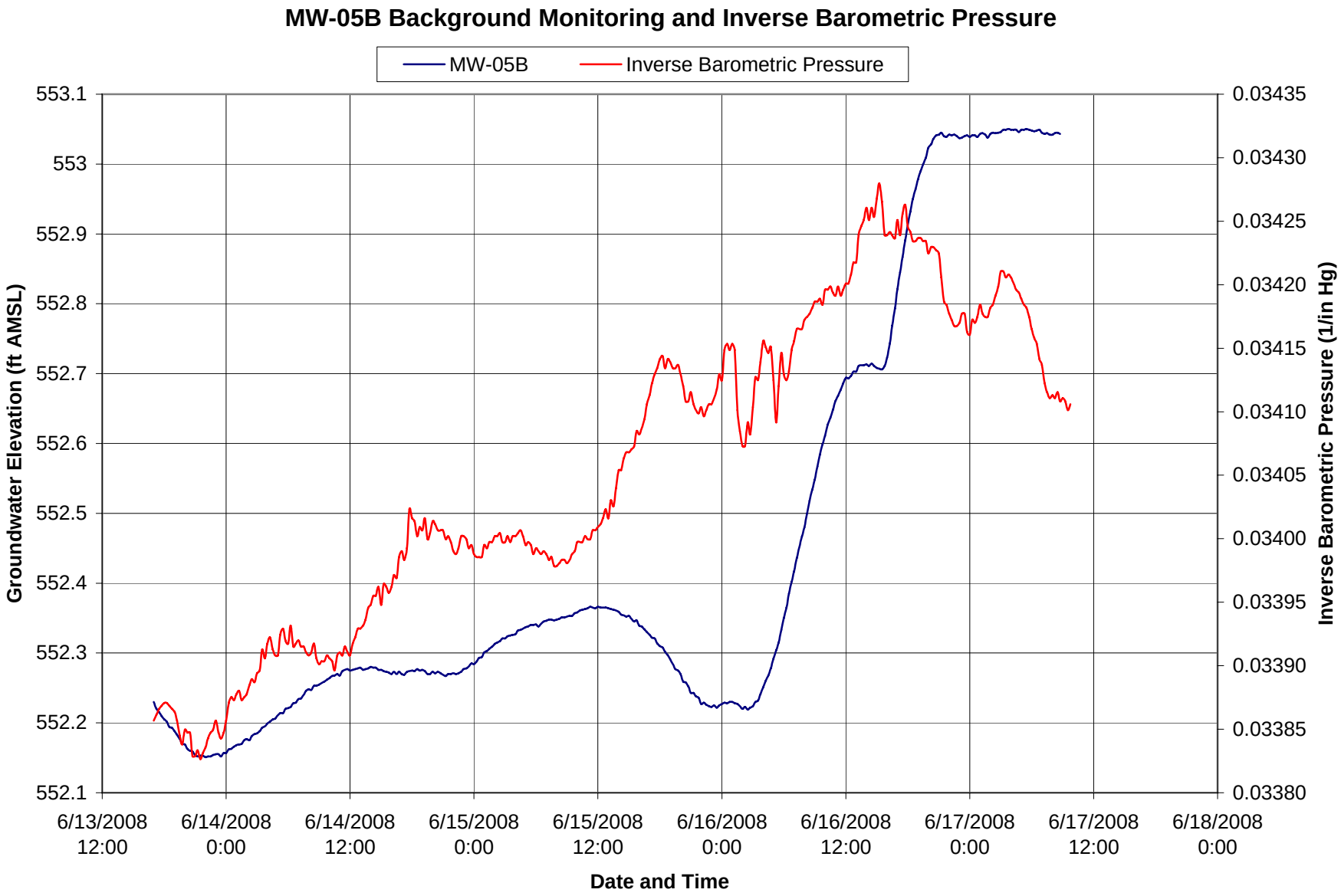
Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/16/2008 13:00	29.22	530.746	532.092	524.952	530.484	532.861	471.674
6/16/2008 13:15	29.21	530.762	532.101	524.951	530.489	532.863	471.676
6/16/2008 13:30	29.20	530.773	532.116	524.955	530.498	532.866	471.683
6/16/2008 13:45	29.20	530.784	532.129	524.955	530.504	532.875	471.686
6/16/2008 14:00	29.19	530.799	532.14	524.96	530.512	532.88	471.689
6/16/2008 14:15	29.20	530.8	532.145	524.962	530.52	532.883	471.692
6/16/2008 14:30	29.19	530.812	532.156	524.964	530.525	532.886	471.7
6/16/2008 14:45	29.19	530.826	532.164	524.966	530.532	532.889	471.704
6/16/2008 15:00	29.18	530.831	532.174	524.971	530.539	532.901	471.709
6/16/2008 15:15	29.17	530.84	532.263	524.975	530.547	532.906	471.713
6/16/2008 15:30	29.18	530.85	532.271	524.974	530.556	532.914	471.718
6/16/2008 15:45	29.21	530.855	532.266	524.973	530.559	532.92	471.716
6/16/2008 16:00	29.21	530.858	532.276	524.976	530.565	532.924	471.721
6/16/2008 16:15	29.20	530.858	532.376	524.976	530.571	532.931	471.718
6/16/2008 16:30	29.21	530.87	532.382	524.976	530.576	532.939	471.721
6/16/2008 16:45	29.21	530.872	532.392	524.977	530.581	532.94	471.722
6/16/2008 17:00	29.20	530.88	532.406	524.981	530.585	532.946	471.724
6/16/2008 17:15	29.21	530.891	532.413	524.983	530.593	532.954	471.725
6/16/2008 17:30	29.19	530.902	532.421	524.987	530.596	532.957	471.726
6/16/2008 17:45	29.19	530.905	532.434	524.991	530.604	532.965	471.72
6/16/2008 18:00	29.20	530.915	532.445	524.991	530.61	532.968	471.731
6/16/2008 18:15	29.20	530.928	532.45	524.999	530.615	532.974	471.733
6/16/2008 18:30	29.21	530.927	532.456	525.002	530.621	532.981	471.735
6/16/2008 18:45	29.21	530.939	532.461	525.001	530.626	532.987	471.73
6/16/2008 19:00	29.21	530.941	532.469	525.007	530.631	532.994	471.732
6/16/2008 19:15	29.21	530.941	532.478	525.008	530.636	532.997	471.736
6/16/2008 19:30	29.21	530.95	532.478	525.012	530.641	533.003	471.736
6/16/2008 19:45	29.21	530.956	532.489	525.013	530.648	533.005	471.733
6/16/2008 20:00	29.22	530.964	532.489	525.017	530.652	533.012	471.728
6/16/2008 20:15	29.21	530.963	532.495	525.02	530.658	533.018	471.731
6/16/2008 20:30	29.21	530.97	532.503	525.022	530.662	533.024	471.726
6/16/2008 20:45	29.22	530.976	532.507	525.022	530.67	533.026	471.73
6/16/2008 21:00	29.22	530.981	532.512	525.023	530.673	533.032	471.728
6/16/2008 21:15	29.23	530.983	532.512	525.023	530.678	533.039	471.729

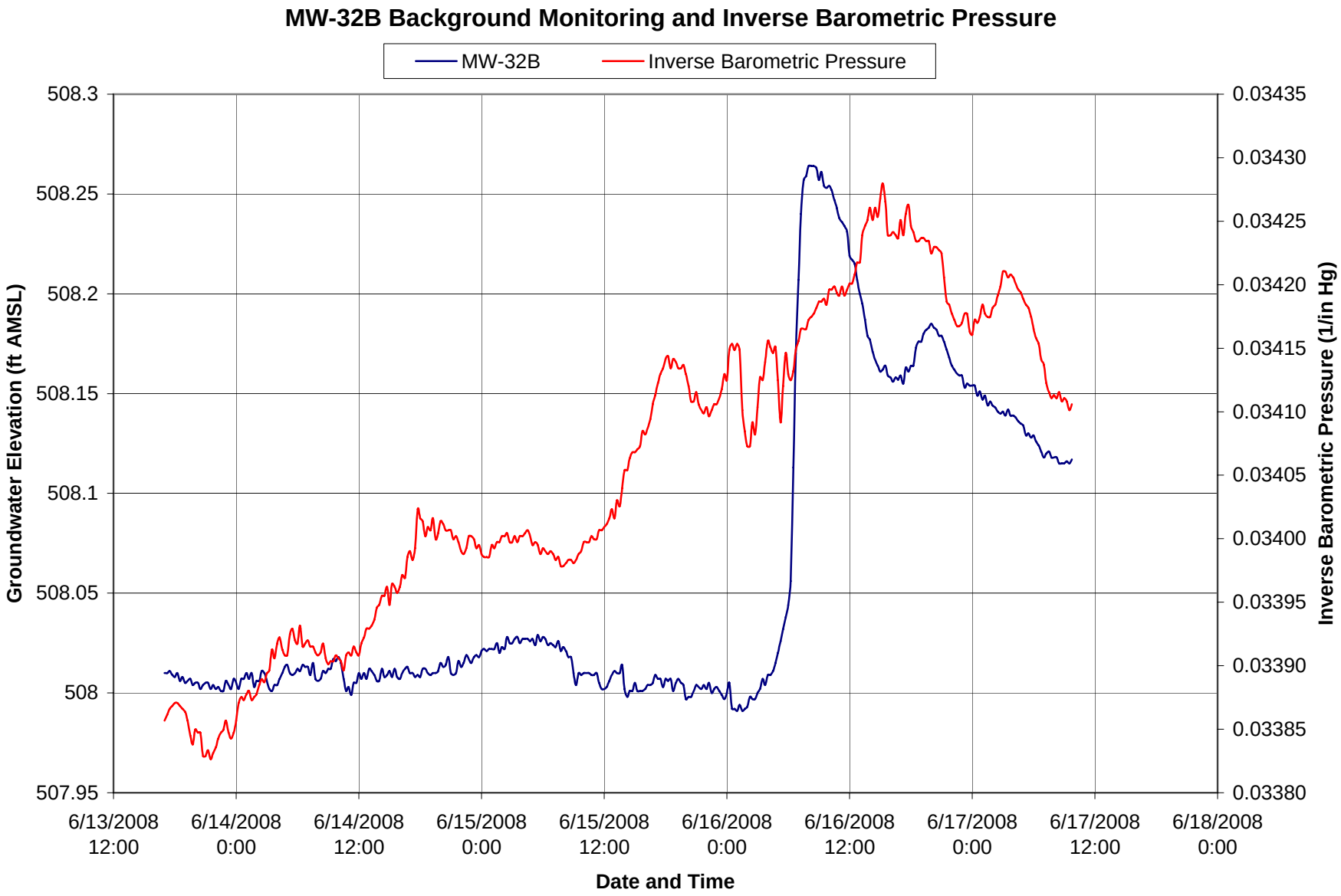
Surface Barometric Pressure and Background Monitoring Data for All Wells

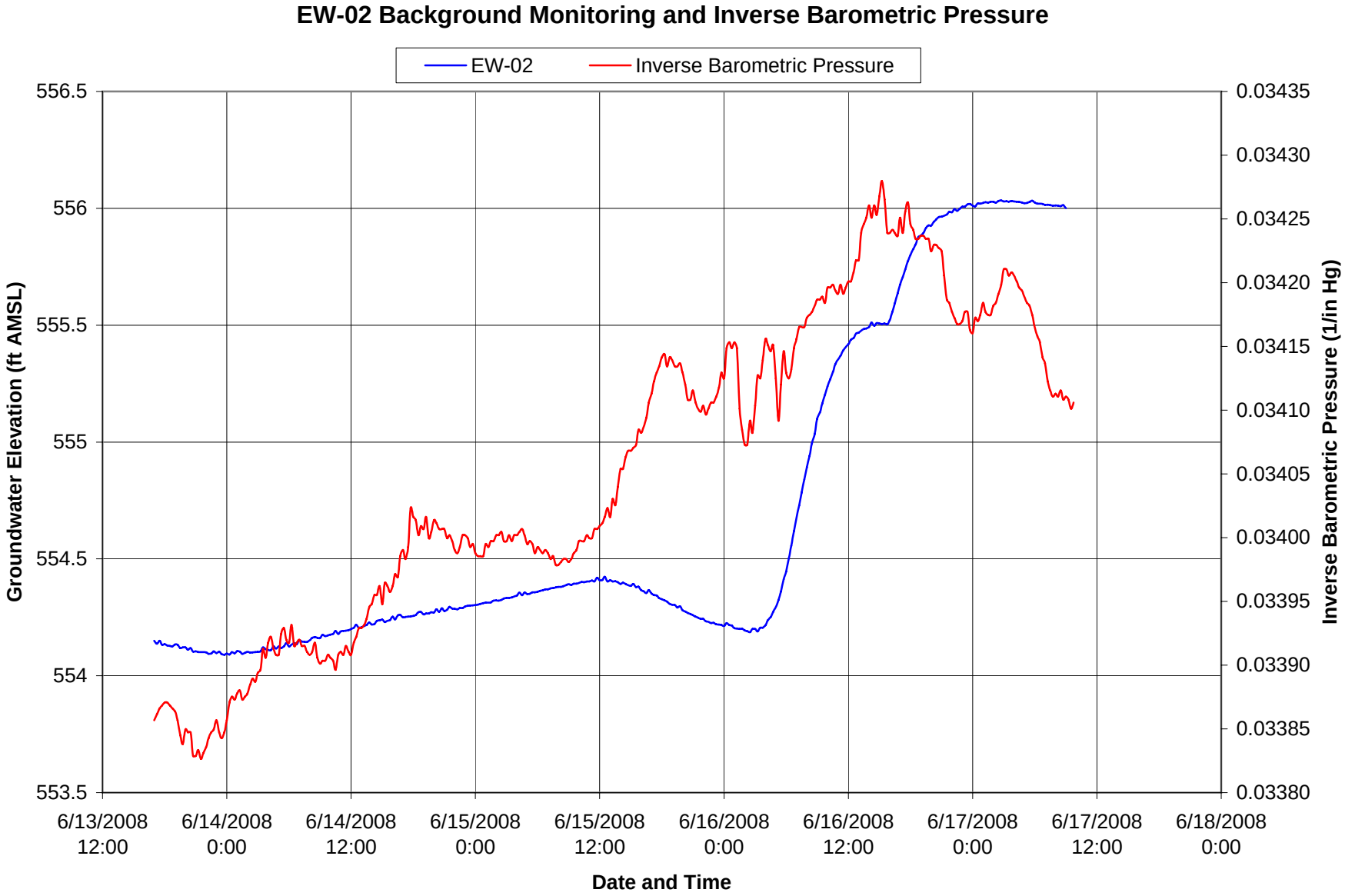
Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/16/2008 21:30	29.25	530.978	532.507	525.025	530.681	533.046	471.726
6/16/2008 21:45	29.25	530.976	532.502	525.023	530.681	533.047	471.718
6/16/2008 22:00	29.26	530.978	532.506	525.029	530.684	533.053	471.715
6/16/2008 22:15	29.26	530.976	532.506	525.024	530.685	533.055	471.709
6/16/2008 22:30	29.27	530.973	532.509	525.028	530.687	533.059	471.708
6/16/2008 22:45	29.27	530.984	532.509	525.026	530.693	533.068	471.7
6/16/2008 23:00	29.27	530.985	532.513	525.026	530.693	533.07	471.694
6/16/2008 23:15	29.26	530.99	532.521	525.03	530.693	533.075	471.688
6/16/2008 23:30	29.26	530.985	532.524	525.03	530.7	533.08	471.691
6/16/2008 23:45	29.27	530.99	532.528	525.034	530.7	533.083	471.688
6/17/2008 0:00	29.27	531	532.526	525.031	530.704	533.09	471.683
6/17/2008 0:15	29.26	530.995	532.533	525.034	530.707	533.093	471.68
6/17/2008 0:30	29.27	531.006	532.538	525.033	530.712	533.096	471.677
6/17/2008 0:45	29.26	531.007	532.545	525.034	530.711	533.101	471.674
6/17/2008 1:00	29.25	531.014	532.555	525.037	530.716	533.105	471.675
6/17/2008 1:15	29.26	531.023	532.555	525.039	530.722	533.11	471.675
6/17/2008 1:30	29.26	531.012	532.557	525.041	530.726	533.114	471.673
6/17/2008 1:45	29.26	531.025	532.567	525.039	530.728	533.117	471.672
6/17/2008 2:00	29.26	531.028	532.569	525.041	530.735	533.125	471.671
6/17/2008 2:15	29.25	531.036	532.576	525.042	530.74	533.131	471.671
6/17/2008 2:30	29.25	531.04	532.581	525.042	530.743	533.131	471.672
6/17/2008 2:45	29.24	531.045	532.585	525.042	530.748	533.137	471.677
6/17/2008 3:00	29.23	531.054	532.597	525.043	530.755	533.142	471.678
6/17/2008 3:15	29.23	531.063	532.6	525.045	530.758	533.147	471.683
6/17/2008 3:30	29.23	531.062	532.605	525.045	530.765	533.157	471.685
6/17/2008 3:45	29.23	531.075	532.61	525.048	530.768	533.158	471.688
6/17/2008 4:00	29.23	531.078	532.611	525.049	530.775	533.167	471.682
6/17/2008 4:15	29.24	531.07	532.614	525.048	530.779	533.169	471.691
6/17/2008 4:30	29.24	531.081	532.614	525.049	530.782	533.175	471.69
6/17/2008 4:45	29.25	531.074	532.615	525.053	530.784	533.181	471.691
6/17/2008 5:00	29.25	531.079	532.617	525.053	530.788	533.188	471.687
6/17/2008 5:15	29.25	531.079	532.619	525.053	530.791	533.19	471.688
6/17/2008 5:30	29.26	531.083	532.62	525.057	530.795	533.194	471.686
6/17/2008 5:45	29.26	531.08	532.618	525.058	530.795	533.199	471.679

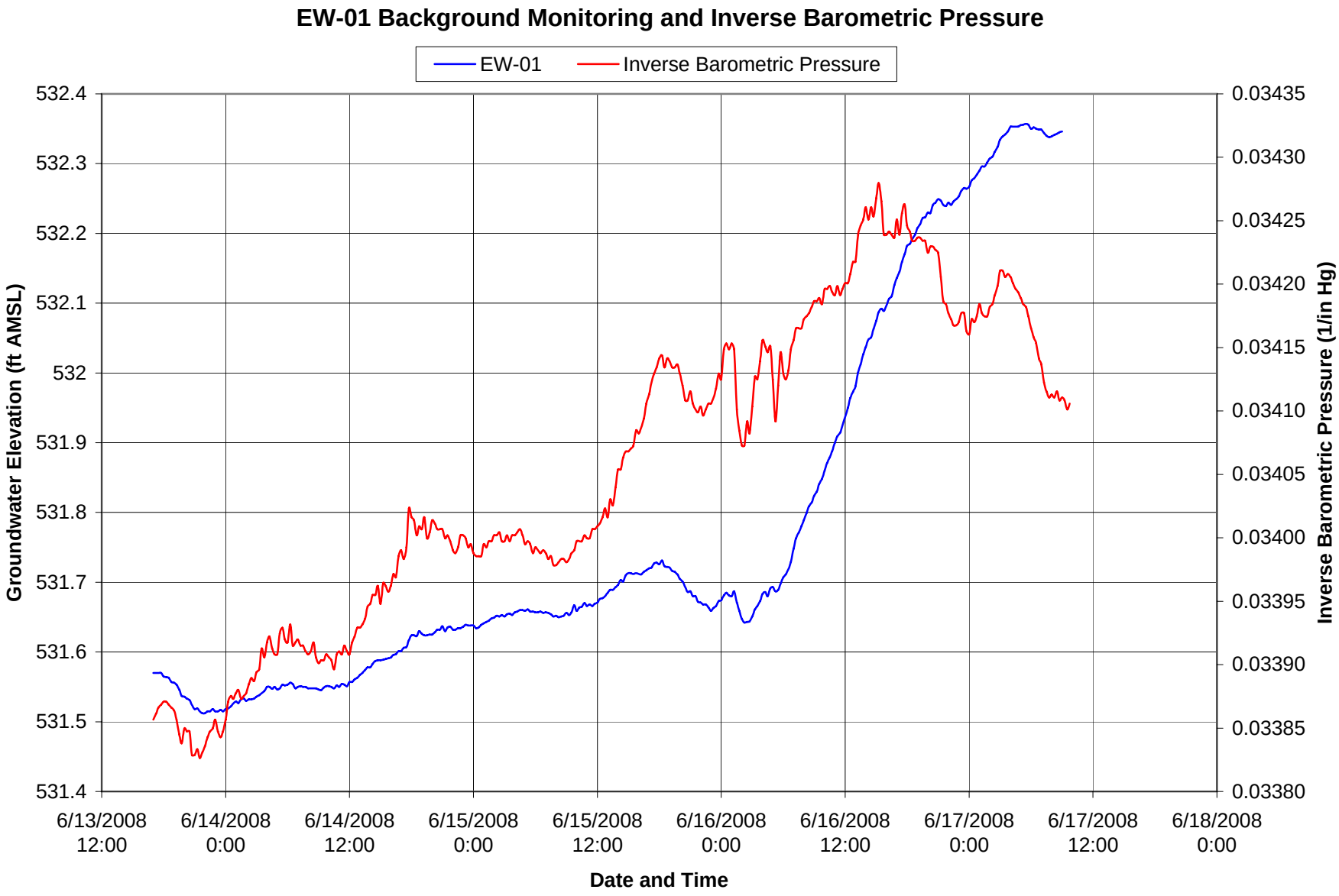
Surface Barometric Pressure and Background Monitoring Data for All Wells

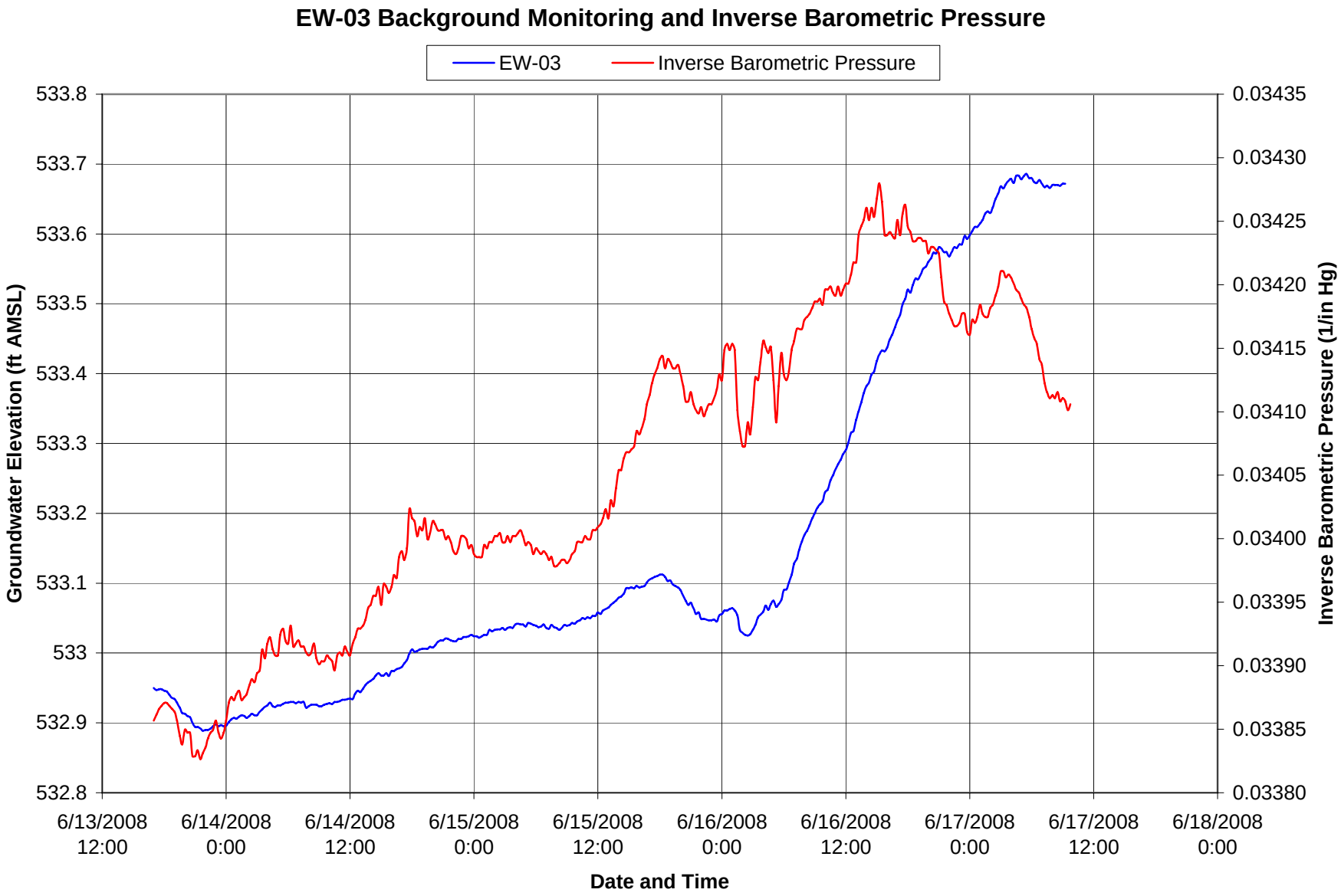
Date and Time	Barometric Pressure (inHg)	Groundwater Elevation (ft AMSL)					
		EXB-05	EXB-06	EXB-07	EXB-09	EXB-10	EXB-11
6/17/2008 6:00	29.27	531.076	532.614	525.057	530.798	533.201	471.683
6/17/2008 6:15	29.28	531.072	532.612	525.06	530.801	533.204	471.68
6/17/2008 6:30	29.28	531.071	532.612	525.059	530.801	533.208	471.677
6/17/2008 6:45	29.29	531.074	532.612	525.061	530.804	533.215	471.674
6/17/2008 7:00	29.29	531.069	532.608	525.059	530.807	533.214	471.668
6/17/2008 7:15	29.31	531.069	532.607	525.06	530.806	533.218	471.666
6/17/2008 7:30	29.31	531.071	532.604	525.063	530.808	533.221	471.662
6/17/2008 7:45	29.32	531.066	532.601	525.066	530.809	533.222	471.655
6/17/2008 8:00	29.31	531.064	532.606	525.063	530.809	533.225	471.655
6/17/2008 8:15	29.32	531.063	532.605	525.071	530.811		471.649
6/17/2008 8:30	29.31	531.068	532.61	525.071	530.812		471.641
6/17/2008 8:45	29.32	531.07		525.072	530.812		471.646
6/17/2008 9:00	29.32			525.076	530.815		471.641
6/17/2008 9:15	29.32			525.076			471.639
6/17/2008 9:30	29.32			525.078			471.638
6/17/2008 9:45	29.32			525.082			471.637

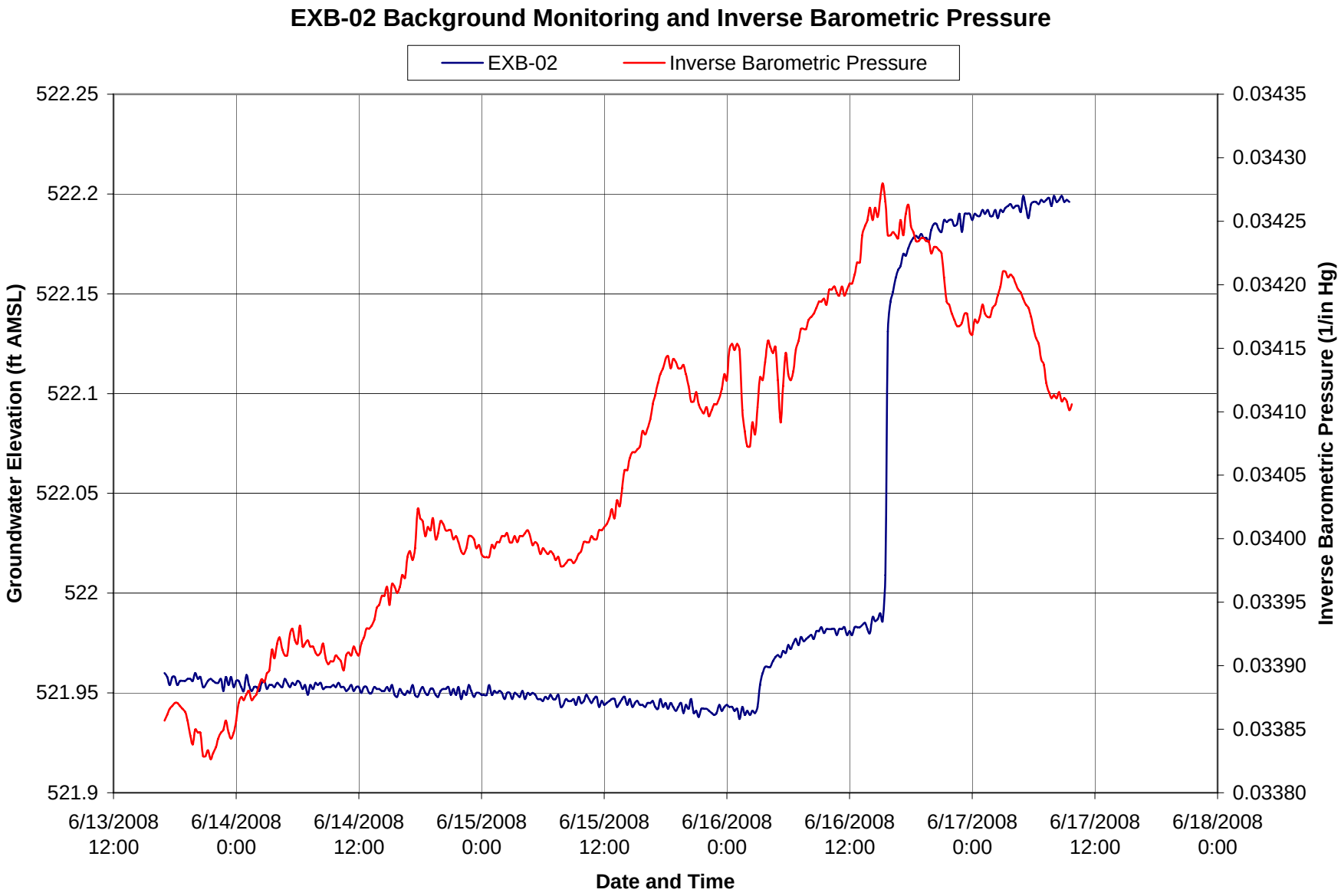

MW-05B Background Monitoring and Inverse Barometric Pressure
MW-05B
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
553.1
553
552.9
552.8
552.7
552.6
552.5
552.4
552.3
552.2
552.1
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date and Time

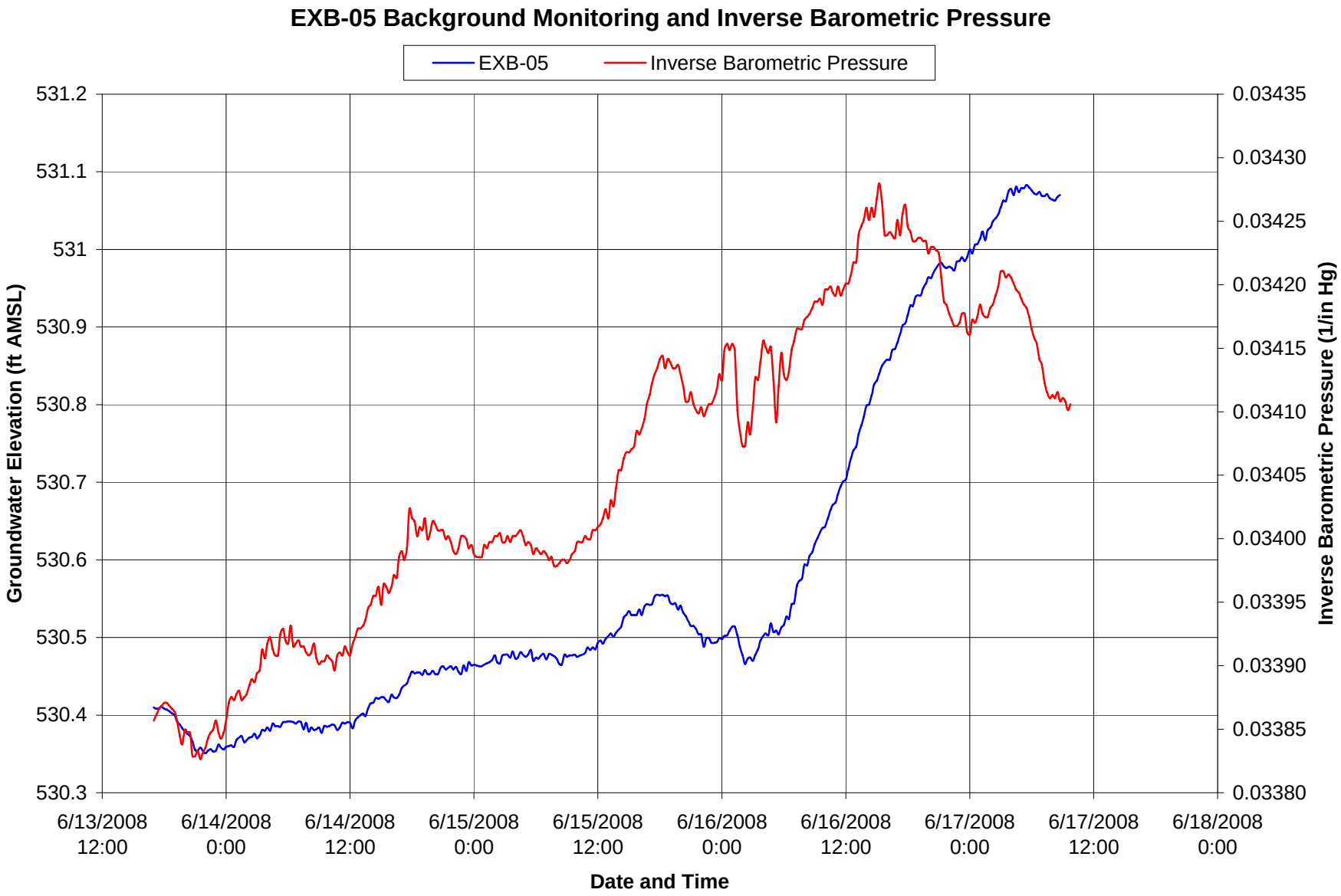

MW-32B Background Monitoring and Inverse Barometric Pressure
MW-32B
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
508.3
508.25
508.2
508.15
508.1
508.05
508
507.95
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date and Time

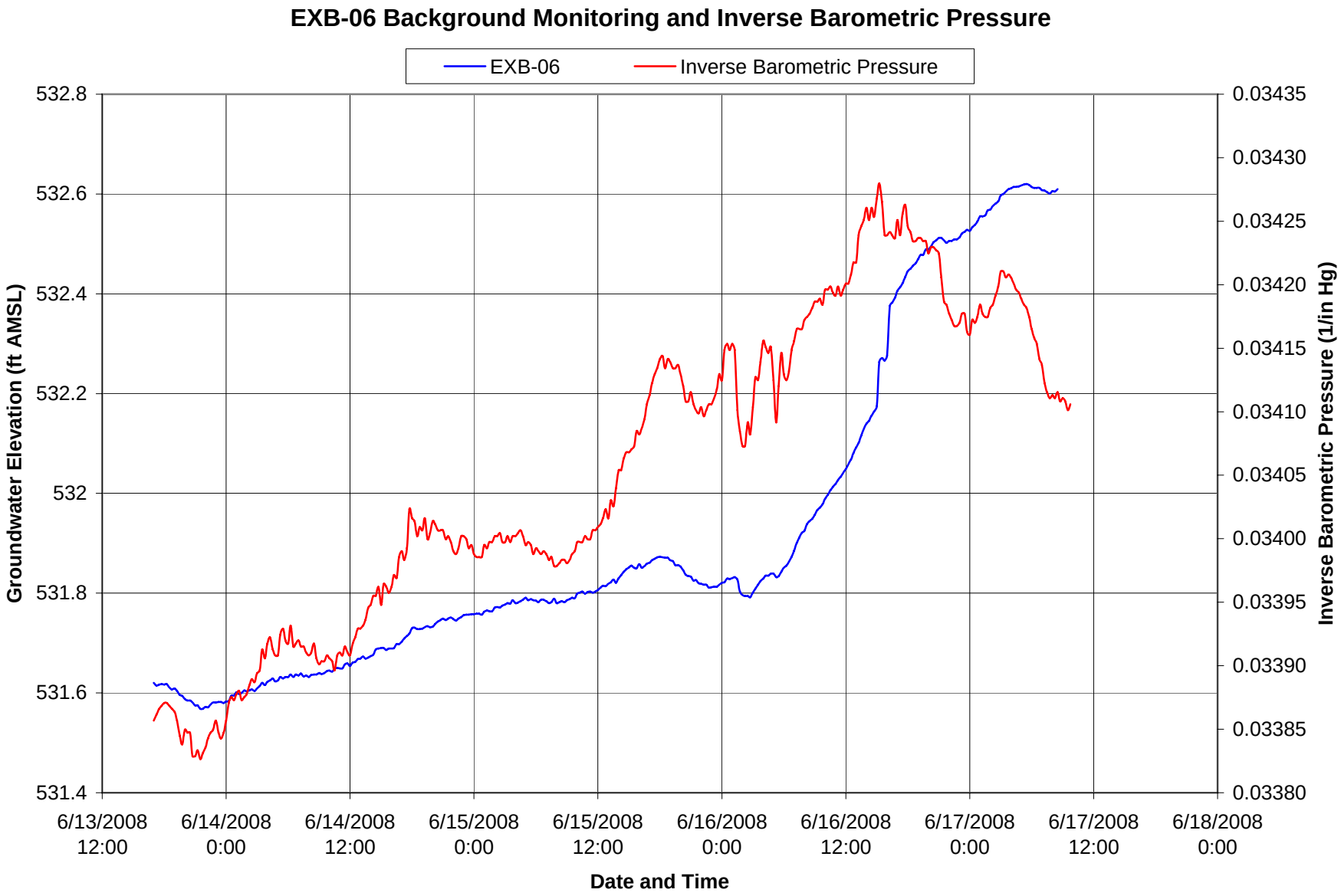

EW-02 Background Monitoring and Inverse Barometric Pressure
EW-02
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
556.5
556
555.5
555
554.5
554
553.5
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date and Time

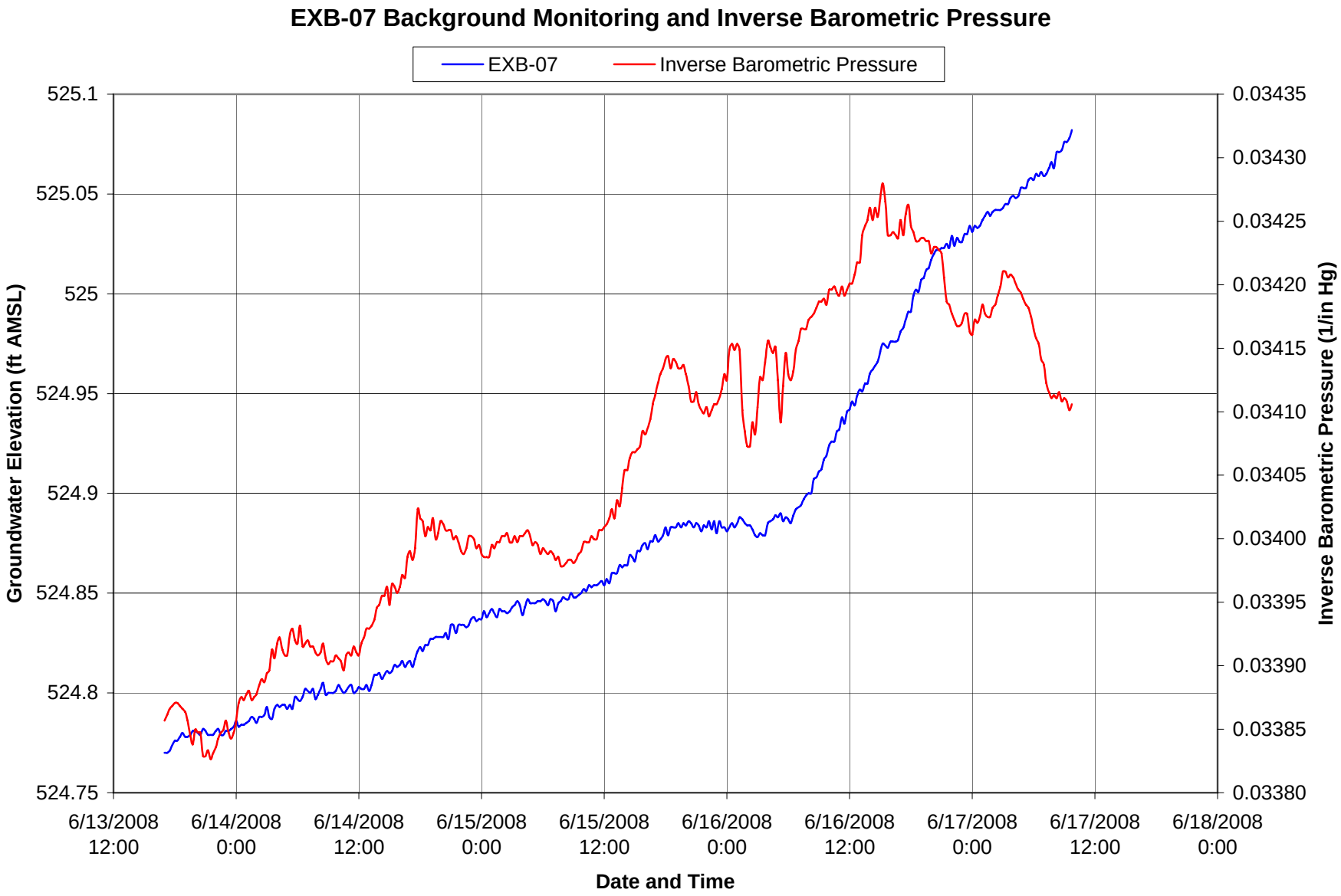

EW-01 Background Monitoring and Inverse Barometric Pressure
EW-01
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
532.4
532.3
532.2
532.1
532
531.9
531.8
531.7
531.6
531.5
531.4
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date and Time

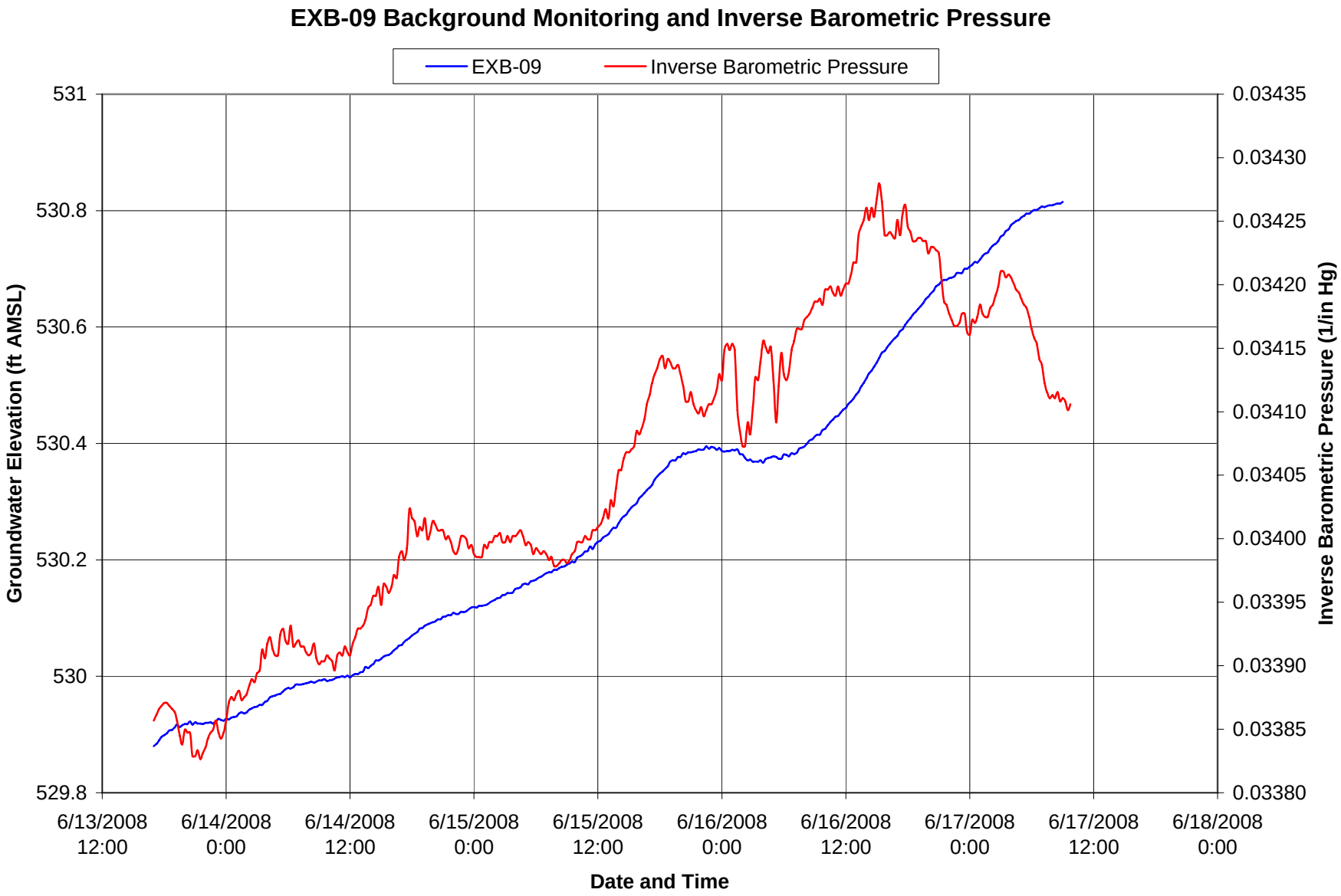

EW-03 Background Monitoring and Inverse Barometric Pressure
EW-03
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
533.8
533.7
533.6
533.5
533.4
533.3
533.2
533.1
533
532.9
532.8
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date and Time

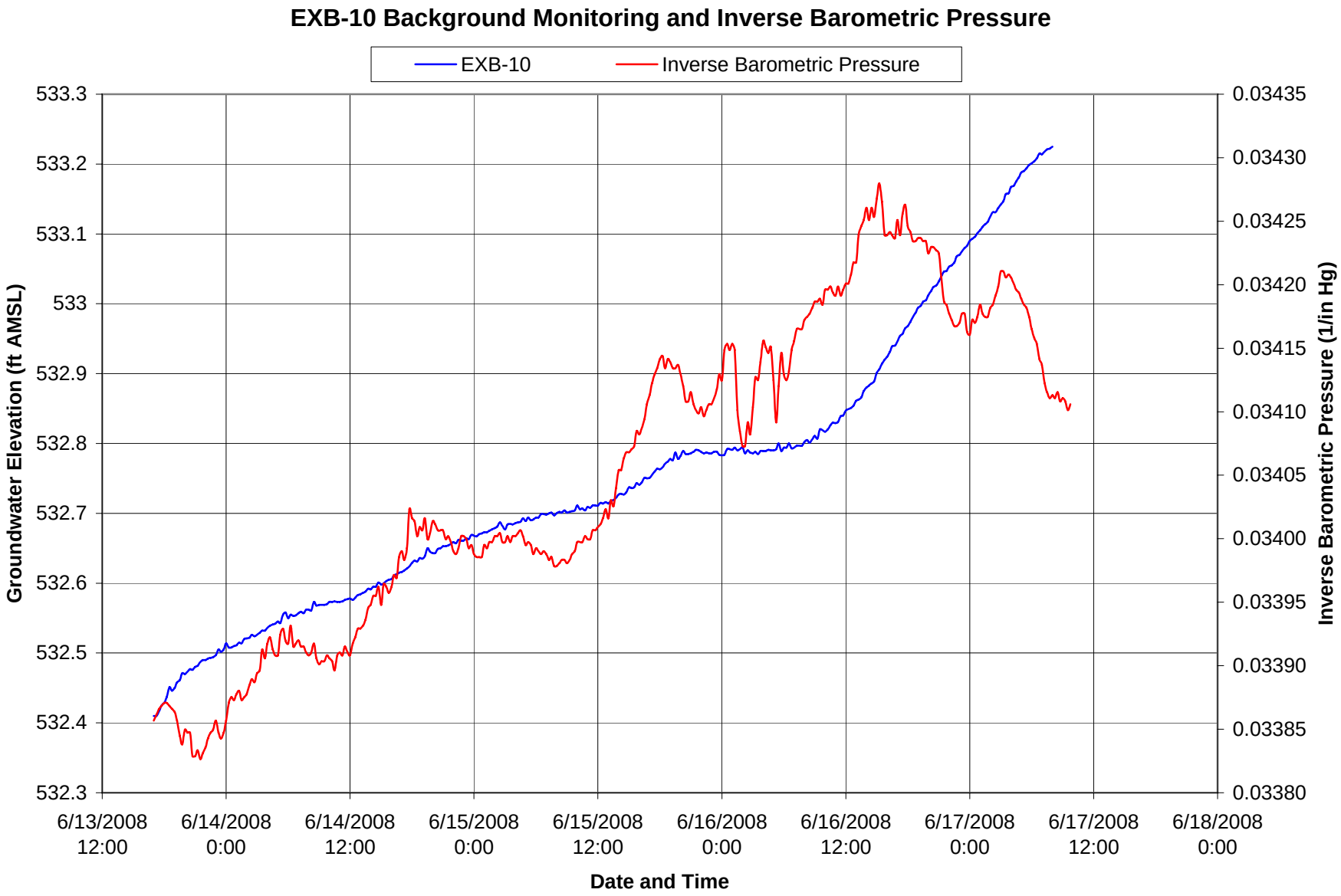

EXB-02 Background Monitoring and Inverse Barometric Pressure
EXB-02
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
Date and Time
522.25
522.2
522.15
522.1
522.05
522
521.95
521.9
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00

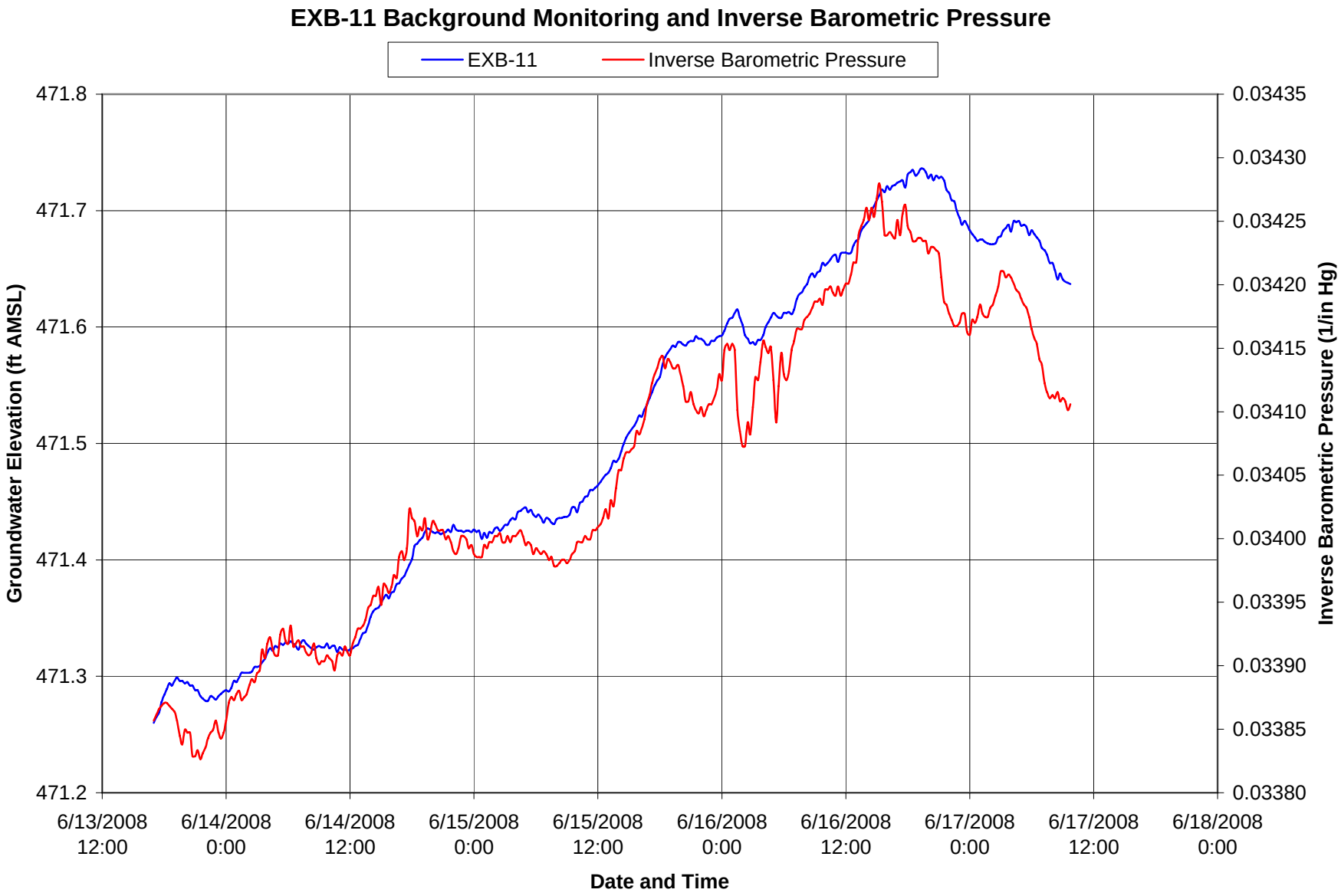

EXB-05 Background Monitoring and Inverse Barometric Pressure
EXB-05
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
Date and Time
531.2
531.1
531
530.9
530.8
530.7
530.6
530.5
530.4
530.3
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00

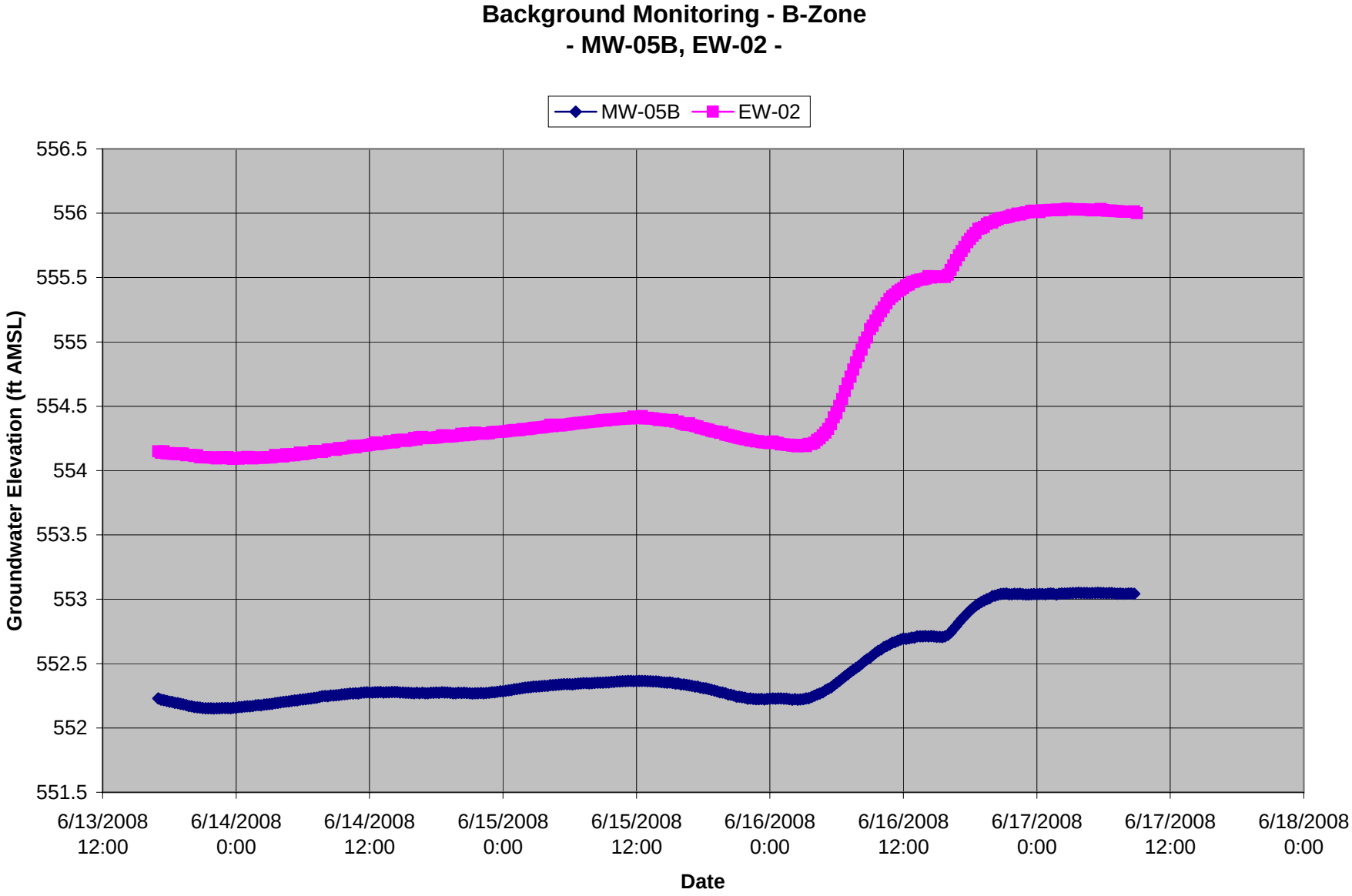

EXB-06 Background Monitoring and Inverse Barometric Pressure
EXB-06
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
532.8
532.6
532.4
532.2
532
531.8
531.6
531.4
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date and Time

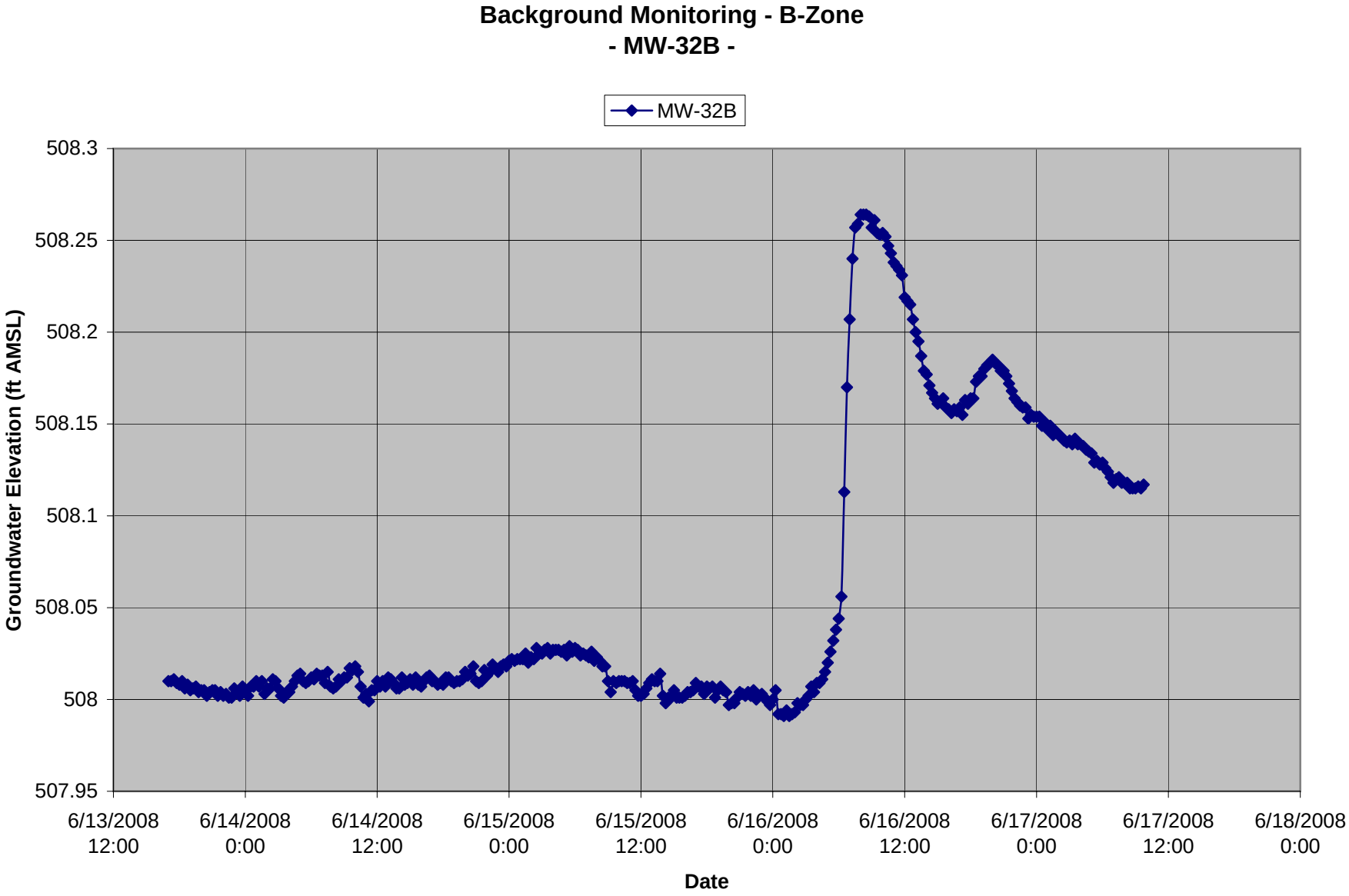

EXB-07 Background Monitoring and Inverse Barometric Pressure
EXB-07
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
525.1
525.05
525
524.95
524.9
524.85
524.8
524.75
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date and Time


EXB-09 Background Monitoring and Inverse Barometric Pressure
EXB-09
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
Date and Time
531
530.8
530.6
530.4
530.2
530
529.8
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00

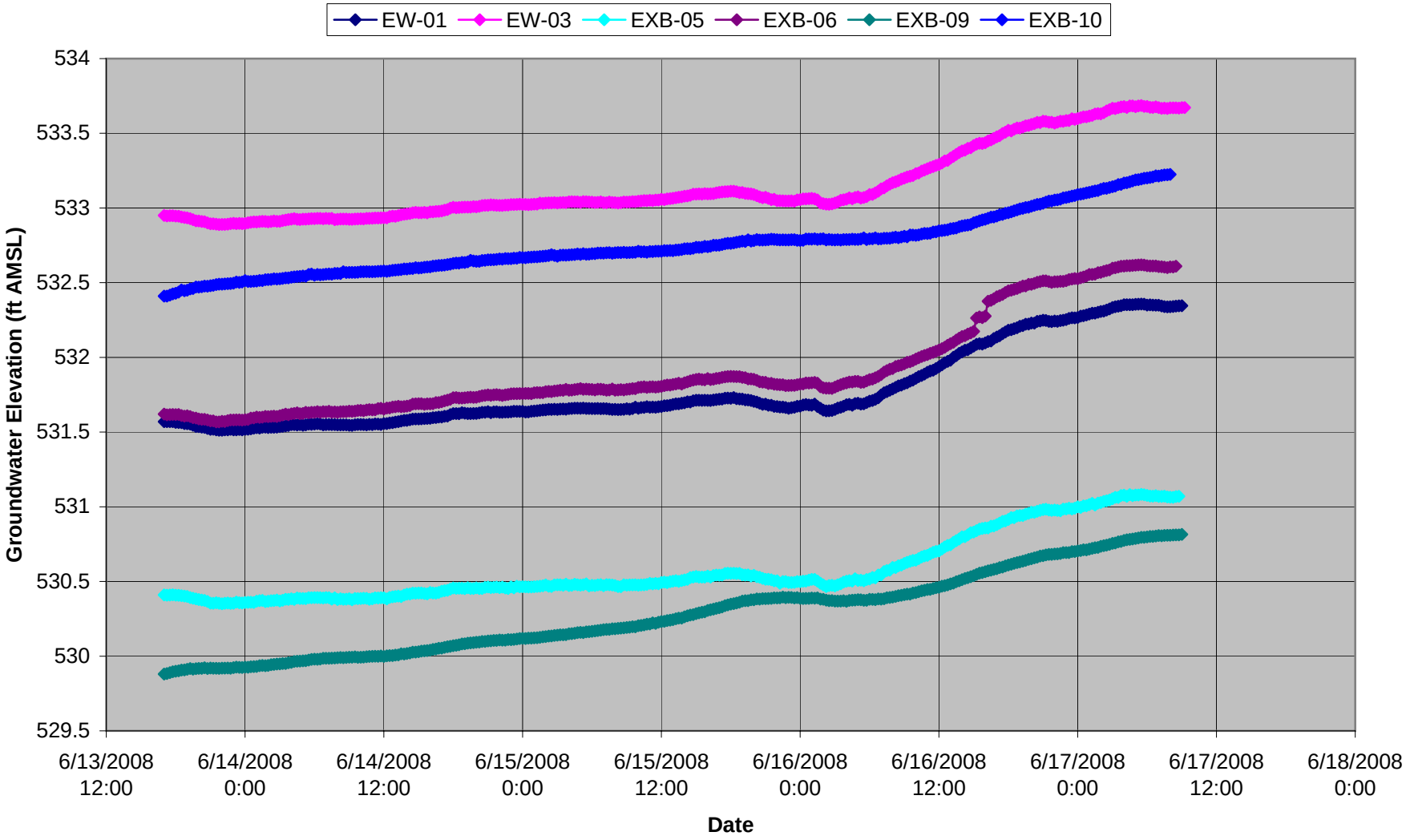

EXB-10 Background Monitoring and Inverse Barometric Pressure
EXB-10
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
533.3
533.2
533.1
533
532.9
532.8
532.7
532.6
532.5
532.4
532.3
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date and Time

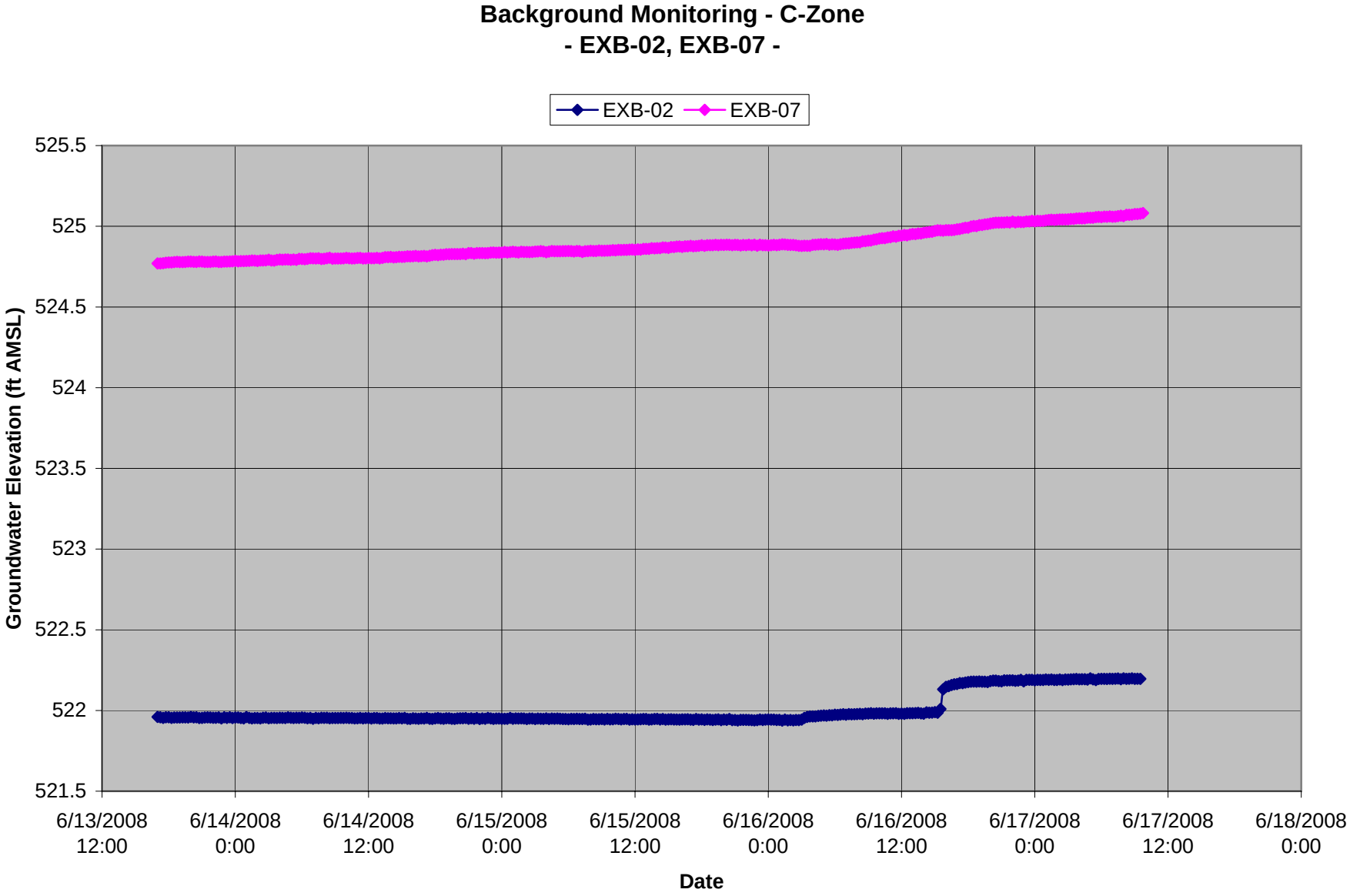

EXB-11 Background Monitoring and Inverse Barometric Pressure
EXB-11
Inverse Barometric Pressure
Groundwater Elevation (ft AMSL)
Inverse Barometric Pressure (1/in Hg)
471.8
471.7
471.6
471.5
471.4
471.3
471.2
0.03435
0.03430
0.03425
0.03420
0.03415
0.03410
0.03405
0.03400
0.03395
0.03390
0.03385
0.03380
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date and Time

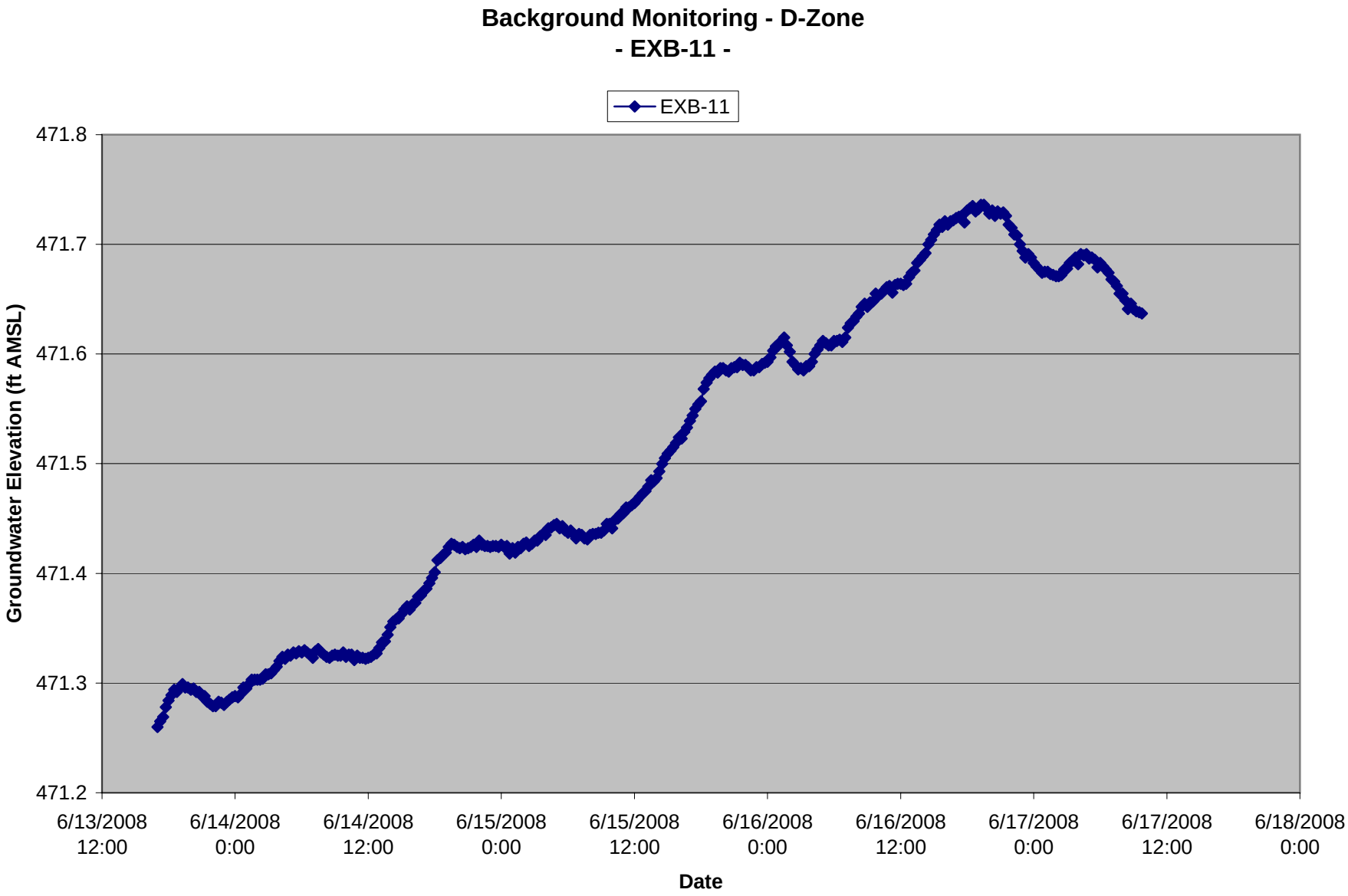

Background Monitoring - B-Zone
- MW-05B, EW-02 -
MW-05B
EW-02
Groundwater Elevation (ft AMSL)
556.5
556
555.5
555
554.5
554
553.5
553
552.5
552
551.5
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date


Background Monitoring - B-Zone
- MW-32B -
MW-32B
Groundwater Elevation (ft AMSL)
508.3
508.25
508.2
508.15
508.1
508.05
508
507.95
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date

Background Monitoring - C-Zone
- EW-01, EW-03, EXB-05, EXB-06, EXB-09, EXB-10 -




Background Monitoring - C-Zone
- EXB-02, EXB-07 -
EXB-02
EXB-07
Groundwater Elevation (ft AMSL)
525.5
525
524.5
524
523.5
523
522.5
522
521.5
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date


Background Monitoring - D-Zone
- EXB-11 -
EXB-11
Groundwater Elevation (ft AMSL)
471.8
471.7
471.6
471.5
471.4
471.3
471.2
6/13/2008 12:00
6/14/2008 0:00
6/14/2008 12:00
6/15/2008 0:00
6/15/2008 12:00
6/16/2008 0:00
6/16/2008 12:00
6/17/2008 0:00
6/17/2008 12:00
6/18/2008 0:00
Date

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/9/2008 0:09	0
6/9/2008 0:19	0
6/9/2008 0:29	0
6/9/2008 0:39	0
6/9/2008 0:49	0
6/9/2008 0:59	0
6/9/2008 1:09	0
6/9/2008 1:19	0
6/9/2008 1:29	0
6/9/2008 1:39	0
6/9/2008 1:49	0
6/9/2008 1:59	0
6/9/2008 2:09	0
6/9/2008 2:19	0
6/9/2008 2:29	0
6/9/2008 2:39	0
6/9/2008 2:49	0
6/9/2008 2:59	0
6/9/2008 3:09	0
6/9/2008 3:19	0
6/9/2008 3:29	0
6/9/2008 3:39	0
6/9/2008 3:49	0
6/9/2008 3:59	0
6/9/2008 4:09	0
6/9/2008 4:19	0
6/9/2008 4:29	0
6/9/2008 4:39	0
6/9/2008 4:49	0
6/9/2008 4:59	0
6/9/2008 5:09	0
6/9/2008 5:19	0
6/9/2008 5:29	0
6/9/2008 5:39	0
6/9/2008 5:49	0
6/9/2008 5:59	0
6/9/2008 6:09	0
6/9/2008 6:19	0
6/9/2008 6:29	0
6/9/2008 6:39	0
6/9/2008 6:49	0
6/9/2008 6:59	0
6/9/2008 7:09	0
6/9/2008 7:19	0
6/9/2008 7:29	0
6/9/2008 7:39	0
6/9/2008 7:49	0
6/9/2008 7:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/9/2008 8:09	0
6/9/2008 8:19	0
6/9/2008 8:29	0
6/9/2008 8:39	0
6/9/2008 8:49	0
6/9/2008 8:59	0
6/9/2008 9:09	0
6/9/2008 9:19	0
6/9/2008 9:29	0
6/9/2008 9:39	0
6/9/2008 9:49	0
6/9/2008 9:59	0
6/9/2008 10:09	0
6/9/2008 10:19	0
6/9/2008 10:29	0
6/9/2008 10:39	0
6/9/2008 10:49	0
6/9/2008 10:59	0
6/9/2008 11:09	0
6/9/2008 11:19	0
6/9/2008 11:29	0
6/9/2008 11:39	0
6/9/2008 11:49	0
6/9/2008 11:59	0
6/9/2008 12:09	0
6/9/2008 12:19	0
6/9/2008 12:29	0
6/9/2008 12:39	0
6/9/2008 12:49	0
6/9/2008 12:59	0
6/9/2008 13:09	0
6/9/2008 13:19	0
6/9/2008 13:29	0
6/9/2008 13:39	0
6/9/2008 13:49	0
6/9/2008 13:59	0
6/9/2008 14:09	0
6/9/2008 14:19	0
6/9/2008 14:29	0
6/9/2008 14:39	0
6/9/2008 14:49	0
6/9/2008 14:59	0
6/9/2008 15:09	0
6/9/2008 15:19	0
6/9/2008 15:29	0
6/9/2008 15:39	0
6/9/2008 15:49	0
6/9/2008 15:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/9/2008 16:09	0
6/9/2008 16:19	0
6/9/2008 16:29	0
6/9/2008 16:39	0
6/9/2008 16:49	0
6/9/2008 16:59	0
6/9/2008 17:09	0
6/9/2008 17:19	0
6/9/2008 17:29	0
6/9/2008 17:39	0
6/9/2008 17:49	0
6/9/2008 17:59	0
6/9/2008 18:09	0
6/9/2008 18:19	0
6/9/2008 18:29	0
6/9/2008 18:39	0
6/9/2008 18:49	0
6/9/2008 18:59	0
6/9/2008 19:09	0
6/9/2008 19:19	0
6/9/2008 19:29	0
6/9/2008 19:39	0
6/9/2008 19:49	0
6/9/2008 19:59	0
6/9/2008 20:09	0
6/9/2008 20:19	0
6/9/2008 20:29	0
6/9/2008 20:39	0
6/9/2008 20:49	0
6/9/2008 20:59	0
6/9/2008 21:09	0
6/9/2008 21:19	0
6/9/2008 21:29	0
6/9/2008 21:39	0
6/9/2008 21:49	0
6/9/2008 21:59	0
6/9/2008 22:09	0
6/9/2008 22:19	0
6/9/2008 22:29	0
6/9/2008 22:39	0
6/9/2008 22:49	0
6/9/2008 22:59	0
6/9/2008 23:09	0
6/9/2008 23:19	0
6/9/2008 23:29	0
6/9/2008 23:39	0
6/9/2008 23:49	0
6/9/2008 23:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/10/2008 0:09	0
6/10/2008 0:19	0
6/10/2008 0:29	0
6/10/2008 0:39	0
6/10/2008 0:49	0
6/10/2008 0:59	0
6/10/2008 1:09	0
6/10/2008 1:19	0
6/10/2008 1:29	0
6/10/2008 1:39	0
6/10/2008 1:49	0
6/10/2008 1:59	0
6/10/2008 2:09	0
6/10/2008 2:19	0
6/10/2008 2:29	0
6/10/2008 2:39	0
6/10/2008 2:49	0
6/10/2008 2:59	0
6/10/2008 3:09	0
6/10/2008 3:19	0
6/10/2008 3:29	0
6/10/2008 3:39	0
6/10/2008 3:49	0
6/10/2008 3:59	0
6/10/2008 4:09	0
6/10/2008 4:19	0
6/10/2008 4:29	0
6/10/2008 4:39	0
6/10/2008 4:49	0
6/10/2008 4:59	0
6/10/2008 5:09	0
6/10/2008 5:19	0
6/10/2008 5:29	0
6/10/2008 5:39	0
6/10/2008 5:49	0
6/10/2008 5:59	0
6/10/2008 6:09	0
6/10/2008 6:19	0
6/10/2008 6:29	0
6/10/2008 6:39	0
6/10/2008 6:49	0
6/10/2008 6:59	0
6/10/2008 7:09	0
6/10/2008 7:19	0
6/10/2008 7:29	0
6/10/2008 7:39	0
6/10/2008 7:49	0
6/10/2008 7:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/10/2008 8:09	0
6/10/2008 8:19	0
6/10/2008 8:29	0
6/10/2008 8:39	0
6/10/2008 8:49	0
6/10/2008 8:59	0
6/10/2008 9:09	0
6/10/2008 9:19	0
6/10/2008 9:29	0
6/10/2008 9:39	0
6/10/2008 9:49	0
6/10/2008 9:59	0
6/10/2008 10:09	0
6/10/2008 10:19	0
6/10/2008 10:29	0
6/10/2008 10:39	0
6/10/2008 10:49	0
6/10/2008 10:59	0
6/10/2008 11:09	0
6/10/2008 11:19	0
6/10/2008 11:29	0
6/10/2008 11:39	0
6/10/2008 11:49	0
6/10/2008 11:59	0
6/10/2008 12:09	0
6/10/2008 12:19	0
6/10/2008 12:29	0
6/10/2008 12:39	0
6/10/2008 12:49	0
6/10/2008 12:59	0
6/10/2008 13:09	0
6/10/2008 13:19	0
6/10/2008 13:29	0
6/10/2008 13:39	0
6/10/2008 13:49	0
6/10/2008 13:59	0
6/10/2008 14:09	0
6/10/2008 14:19	0
6/10/2008 14:29	0
6/10/2008 14:39	0
6/10/2008 14:49	0
6/10/2008 14:59	0
6/10/2008 15:09	0
6/10/2008 15:19	0
6/10/2008 15:29	0
6/10/2008 15:39	0
6/10/2008 15:49	0
6/10/2008 15:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/10/2008 16:09	0
6/10/2008 16:19	0
6/10/2008 16:29	0
6/10/2008 16:39	0
6/10/2008 16:49	0
6/10/2008 16:59	0
6/10/2008 17:09	0
6/10/2008 17:19	0
6/10/2008 17:29	0
6/10/2008 17:39	0
6/10/2008 17:49	0
6/10/2008 17:59	0
6/10/2008 18:09	0
6/10/2008 18:19	0
6/10/2008 18:29	0
6/10/2008 18:39	0.34
6/10/2008 18:49	0.05
6/10/2008 18:59	0
6/10/2008 19:09	0
6/10/2008 19:19	0
6/10/2008 19:29	0
6/10/2008 19:39	0
6/10/2008 19:49	0
6/10/2008 19:59	0
6/10/2008 20:09	0
6/10/2008 20:19	0
6/10/2008 20:29	0
6/10/2008 20:39	0
6/10/2008 20:49	0
6/10/2008 20:59	0
6/10/2008 21:09	0
6/10/2008 21:19	0
6/10/2008 21:29	0
6/10/2008 21:39	0
6/10/2008 21:49	0
6/10/2008 21:59	0
6/10/2008 22:09	0
6/10/2008 22:19	0
6/10/2008 22:29	0
6/10/2008 22:39	0
6/10/2008 22:49	0
6/10/2008 22:59	0
6/10/2008 23:09	0
6/10/2008 23:19	0
6/10/2008 23:29	0
6/10/2008 23:39	0
6/10/2008 23:49	0
6/10/2008 23:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/11/2008 0:09	0
6/11/2008 0:19	0
6/11/2008 0:29	0
6/11/2008 0:39	0
6/11/2008 0:49	0
6/11/2008 0:59	0
6/11/2008 1:09	0
6/11/2008 1:19	0
6/11/2008 1:29	0
6/11/2008 1:39	0
6/11/2008 1:49	0
6/11/2008 1:59	0
6/11/2008 2:09	0
6/11/2008 2:19	0
6/11/2008 2:29	0
6/11/2008 2:39	0
6/11/2008 2:49	0
6/11/2008 2:59	0
6/11/2008 3:09	0
6/11/2008 3:19	0
6/11/2008 3:29	0
6/11/2008 3:39	0
6/11/2008 3:49	0
6/11/2008 3:59	0
6/11/2008 4:09	0
6/11/2008 4:19	0
6/11/2008 4:29	0
6/11/2008 4:39	0
6/11/2008 4:49	0
6/11/2008 4:59	0
6/11/2008 5:09	0
6/11/2008 5:19	0
6/11/2008 5:29	0
6/11/2008 5:39	0
6/11/2008 5:49	0
6/11/2008 5:59	0
6/11/2008 6:09	0
6/11/2008 6:19	0
6/11/2008 6:29	0
6/11/2008 6:39	0
6/11/2008 6:49	0
6/11/2008 6:59	0
6/11/2008 7:09	0
6/11/2008 7:19	0
6/11/2008 7:29	0
6/11/2008 7:39	0
6/11/2008 7:49	0
6/11/2008 7:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/11/2008 8:09	0
6/11/2008 8:19	0
6/11/2008 8:29	0
6/11/2008 8:39	0
6/11/2008 8:49	0
6/11/2008 8:59	0
6/11/2008 9:09	0
6/11/2008 9:19	0
6/11/2008 9:29	0
6/11/2008 9:39	0
6/11/2008 9:49	0
6/11/2008 9:59	0
6/11/2008 10:09	0
6/11/2008 10:19	0
6/11/2008 10:29	0
6/11/2008 10:39	0
6/11/2008 10:49	0
6/11/2008 10:59	0
6/11/2008 11:09	0
6/11/2008 11:19	0
6/11/2008 11:29	0
6/11/2008 11:39	0
6/11/2008 11:49	0
6/11/2008 11:59	0
6/11/2008 12:09	0
6/11/2008 12:19	0
6/11/2008 12:29	0
6/11/2008 12:39	0
6/11/2008 12:49	0
6/11/2008 12:59	0
6/11/2008 13:09	0
6/11/2008 13:19	0
6/11/2008 13:29	0
6/11/2008 13:39	0
6/11/2008 13:49	0
6/11/2008 13:59	0
6/11/2008 14:09	0
6/11/2008 14:19	0
6/11/2008 14:29	0
6/11/2008 14:39	0
6/11/2008 14:49	0
6/11/2008 14:59	0
6/11/2008 15:09	0
6/11/2008 15:19	0
6/11/2008 15:29	0
6/11/2008 15:39	0
6/11/2008 15:49	0
6/11/2008 15:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/11/2008 16:09	0
6/11/2008 16:19	0
6/11/2008 16:29	0
6/11/2008 16:39	0
6/11/2008 16:49	0
6/11/2008 16:59	0
6/11/2008 17:09	0
6/11/2008 17:19	0
6/11/2008 17:29	0
6/11/2008 17:39	0
6/11/2008 17:49	0
6/11/2008 17:59	0
6/11/2008 18:09	0
6/11/2008 18:19	0
6/11/2008 18:29	0
6/11/2008 18:39	0
6/11/2008 18:49	0
6/11/2008 18:59	0
6/11/2008 19:09	0
6/11/2008 19:19	0
6/11/2008 19:29	0
6/11/2008 19:39	0
6/11/2008 19:49	0
6/11/2008 19:59	0
6/11/2008 20:09	0
6/11/2008 20:19	0
6/11/2008 20:29	0
6/11/2008 20:39	0
6/11/2008 20:49	0
6/11/2008 20:59	0
6/11/2008 21:09	0
6/11/2008 21:19	0
6/11/2008 21:29	0
6/11/2008 21:39	0
6/11/2008 21:49	0
6/11/2008 21:59	0
6/11/2008 22:09	0
6/11/2008 22:19	0
6/11/2008 22:29	0
6/11/2008 22:39	0
6/11/2008 22:49	0
6/11/2008 22:59	0
6/11/2008 23:09	0
6/11/2008 23:19	0
6/11/2008 23:29	0
6/11/2008 23:39	0
6/11/2008 23:49	0
6/11/2008 23:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/12/2008 0:09	0
6/12/2008 0:19	0
6/12/2008 0:29	0
6/12/2008 0:39	0
6/12/2008 0:49	0
6/12/2008 0:59	0
6/12/2008 1:09	0
6/12/2008 1:19	0
6/12/2008 1:29	0
6/12/2008 1:39	0
6/12/2008 1:49	0
6/12/2008 1:59	0
6/12/2008 2:09	0
6/12/2008 2:19	0
6/12/2008 2:29	0
6/12/2008 2:39	0
6/12/2008 2:49	0
6/12/2008 2:59	0
6/12/2008 3:09	0
6/12/2008 3:19	0
6/12/2008 3:29	0
6/12/2008 3:39	0
6/12/2008 3:49	0
6/12/2008 3:59	0
6/12/2008 4:09	0
6/12/2008 4:19	0
6/12/2008 4:29	0
6/12/2008 4:39	0
6/12/2008 4:49	0
6/12/2008 4:59	0
6/12/2008 5:09	0
6/12/2008 5:19	0
6/12/2008 5:29	0
6/12/2008 5:39	0
6/12/2008 5:49	0
6/12/2008 5:59	0
6/12/2008 6:09	0
6/12/2008 6:19	0
6/12/2008 6:29	0
6/12/2008 6:39	0
6/12/2008 6:49	0
6/12/2008 6:59	0
6/12/2008 7:09	0
6/12/2008 7:19	0
6/12/2008 7:29	0
6/12/2008 7:39	0
6/12/2008 7:49	0
6/12/2008 7:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/12/2008 8:09	0
6/12/2008 8:19	0
6/12/2008 8:29	0
6/12/2008 8:39	0
6/12/2008 8:49	0
6/12/2008 8:59	0
6/12/2008 9:09	0
6/12/2008 9:19	0
6/12/2008 9:29	0
6/12/2008 9:39	0
6/12/2008 9:49	0
6/12/2008 9:59	0
6/12/2008 10:09	0
6/12/2008 10:19	0
6/12/2008 10:29	0
6/12/2008 10:39	0
6/12/2008 10:49	0
6/12/2008 10:59	0
6/12/2008 11:09	0
6/12/2008 11:19	0
6/12/2008 11:29	0
6/12/2008 11:39	0
6/12/2008 11:49	0
6/12/2008 11:59	0
6/12/2008 12:09	0
6/12/2008 12:19	0
6/12/2008 12:29	0
6/12/2008 12:39	0
6/12/2008 12:49	0
6/12/2008 12:59	0
6/12/2008 13:09	0
6/12/2008 13:19	0
6/12/2008 13:29	0
6/12/2008 13:39	0
6/12/2008 13:49	0
6/12/2008 13:59	0
6/12/2008 14:09	0
6/12/2008 14:19	0
6/12/2008 14:29	0
6/12/2008 14:39	0
6/12/2008 14:49	0
6/12/2008 14:59	0
6/12/2008 15:09	0
6/12/2008 15:19	0
6/12/2008 15:29	0
6/12/2008 15:39	0
6/12/2008 15:49	0
6/12/2008 15:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/12/2008 16:09	0
6/12/2008 16:19	0
6/12/2008 16:29	0
6/12/2008 16:39	0
6/12/2008 16:49	0
6/12/2008 16:59	0
6/12/2008 17:09	0
6/12/2008 17:19	0
6/12/2008 17:29	0
6/12/2008 17:39	0
6/12/2008 17:49	0
6/12/2008 17:59	0
6/12/2008 18:09	0
6/12/2008 18:19	0
6/12/2008 18:29	0
6/12/2008 18:39	0
6/12/2008 18:49	0
6/12/2008 18:59	0
6/12/2008 19:09	0
6/12/2008 19:19	0
6/12/2008 19:29	0
6/12/2008 19:39	0
6/12/2008 19:49	0
6/12/2008 19:59	0
6/12/2008 20:09	0
6/12/2008 20:19	0
6/12/2008 20:29	0
6/12/2008 20:39	0
6/12/2008 20:49	0
6/12/2008 20:59	0
6/12/2008 21:09	0
6/12/2008 21:19	0
6/12/2008 21:29	0
6/12/2008 21:39	0
6/12/2008 21:49	0
6/12/2008 21:59	0
6/12/2008 22:09	0
6/12/2008 22:19	0
6/12/2008 22:29	0
6/12/2008 22:39	0
6/12/2008 22:49	0
6/12/2008 22:59	0
6/12/2008 23:09	0
6/12/2008 23:19	0
6/12/2008 23:29	0
6/12/2008 23:39	0
6/12/2008 23:49	0
6/12/2008 23:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/13/2008 0:09	0
6/13/2008 0:19	0
6/13/2008 0:29	0
6/13/2008 0:39	0
6/13/2008 0:49	0
6/13/2008 0:59	0
6/13/2008 1:09	0
6/13/2008 1:19	0
6/13/2008 1:29	0
6/13/2008 1:39	0
6/13/2008 1:49	0
6/13/2008 1:59	0
6/13/2008 2:09	0
6/13/2008 2:19	0
6/13/2008 2:29	0
6/13/2008 2:39	0
6/13/2008 2:49	0
6/13/2008 2:59	0
6/13/2008 3:09	0
6/13/2008 3:19	0
6/13/2008 3:29	0
6/13/2008 3:39	0
6/13/2008 3:49	0
6/13/2008 3:59	0
6/13/2008 4:09	0
6/13/2008 4:19	0
6/13/2008 4:29	0
6/13/2008 4:39	0
6/13/2008 4:49	0
6/13/2008 4:59	0
6/13/2008 5:09	0
6/13/2008 5:19	0
6/13/2008 5:29	0
6/13/2008 5:39	0
6/13/2008 5:49	0
6/13/2008 5:59	0
6/13/2008 6:09	0
6/13/2008 6:19	0
6/13/2008 6:29	0
6/13/2008 6:39	0
6/13/2008 6:49	0
6/13/2008 6:59	0
6/13/2008 7:09	0
6/13/2008 7:19	0
6/13/2008 7:29	0
6/13/2008 7:39	0
6/13/2008 7:49	0
6/13/2008 7:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/13/2008 8:09	0
6/13/2008 8:19	0
6/13/2008 8:29	0
6/13/2008 8:39	0
6/13/2008 8:49	0
6/13/2008 8:59	0
6/13/2008 9:09	0
6/13/2008 9:19	0
6/13/2008 9:29	0
6/13/2008 9:39	0
6/13/2008 9:49	0
6/13/2008 9:59	0
6/13/2008 10:09	0
6/13/2008 10:19	0
6/13/2008 10:29	0
6/13/2008 10:39	0
6/13/2008 10:49	0
6/13/2008 10:59	0
6/13/2008 11:09	0
6/13/2008 11:19	0
6/13/2008 11:29	0
6/13/2008 11:39	0
6/13/2008 11:49	0
6/13/2008 11:59	0
6/13/2008 12:09	0
6/13/2008 12:19	0
6/13/2008 12:29	0
6/13/2008 12:39	0
6/13/2008 12:49	0
6/13/2008 12:59	0
6/13/2008 13:09	0
6/13/2008 13:19	0
6/13/2008 13:29	0
6/13/2008 13:39	0
6/13/2008 13:49	0
6/13/2008 13:59	0
6/13/2008 14:09	0
6/13/2008 14:19	0
6/13/2008 14:29	0
6/13/2008 14:39	0
6/13/2008 14:49	0
6/13/2008 14:59	0
6/13/2008 15:09	0
6/13/2008 15:19	0
6/13/2008 15:29	0
6/13/2008 15:39	0
6/13/2008 15:49	0
6/13/2008 15:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/13/2008 16:09	0
6/13/2008 16:19	0
6/13/2008 16:29	0
6/13/2008 16:39	0
6/13/2008 16:49	0
6/13/2008 16:59	0
6/13/2008 17:09	0
6/13/2008 17:19	0
6/13/2008 17:29	0
6/13/2008 17:39	0
6/13/2008 17:49	0
6/13/2008 17:59	0
6/13/2008 18:09	0
6/13/2008 18:19	0
6/13/2008 18:29	0
6/13/2008 18:39	0
6/13/2008 18:49	0
6/13/2008 18:59	0
6/13/2008 19:09	0
6/13/2008 19:19	0
6/13/2008 19:29	0
6/13/2008 19:39	0
6/13/2008 19:49	0
6/13/2008 19:59	0
6/13/2008 20:09	0
6/13/2008 20:19	0
6/13/2008 20:29	0
6/13/2008 20:39	0
6/13/2008 20:49	0
6/13/2008 20:59	0
6/13/2008 21:09	0
6/13/2008 21:19	0
6/13/2008 21:29	0
6/13/2008 21:39	0
6/13/2008 21:49	0
6/13/2008 21:59	0
6/13/2008 22:09	0
6/13/2008 22:19	0
6/13/2008 22:29	0
6/13/2008 22:39	0
6/13/2008 22:49	0
6/13/2008 22:59	0
6/13/2008 23:09	0
6/13/2008 23:19	0
6/13/2008 23:29	0
6/13/2008 23:39	0
6/13/2008 23:49	0
6/13/2008 23:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/14/2008 0:09	0
6/14/2008 0:19	0
6/14/2008 0:29	0
6/14/2008 0:39	0
6/14/2008 0:49	0
6/14/2008 0:59	0
6/14/2008 1:09	0
6/14/2008 1:19	0
6/14/2008 1:29	0
6/14/2008 1:39	0
6/14/2008 1:49	0
6/14/2008 1:59	0
6/14/2008 2:09	0
6/14/2008 2:19	0
6/14/2008 2:29	0
6/14/2008 2:39	0
6/14/2008 2:49	0
6/14/2008 2:59	0
6/14/2008 3:09	0
6/14/2008 3:19	0
6/14/2008 3:29	0
6/14/2008 3:39	0
6/14/2008 3:49	0
6/14/2008 3:59	0
6/14/2008 4:09	0
6/14/2008 4:19	0
6/14/2008 4:29	0
6/14/2008 4:39	0
6/14/2008 4:49	0
6/14/2008 4:59	0
6/14/2008 5:09	0
6/14/2008 5:19	0
6/14/2008 5:29	0
6/14/2008 5:39	0
6/14/2008 5:49	0
6/14/2008 5:59	0
6/14/2008 6:09	0
6/14/2008 6:19	0
6/14/2008 6:29	0
6/14/2008 6:39	0
6/14/2008 6:49	0
6/14/2008 6:59	0
6/14/2008 7:09	0
6/14/2008 7:19	0
6/14/2008 7:29	0
6/14/2008 7:39	0
6/14/2008 7:49	0
6/14/2008 7:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/14/2008 8:09	0
6/14/2008 8:19	0
6/14/2008 8:29	0
6/14/2008 8:39	0
6/14/2008 8:49	0
6/14/2008 8:59	0
6/14/2008 9:09	0
6/14/2008 9:19	0
6/14/2008 9:29	0
6/14/2008 9:39	0
6/14/2008 9:49	0
6/14/2008 9:59	0
6/14/2008 10:09	0
6/14/2008 10:19	0
6/14/2008 10:29	0
6/14/2008 10:39	0
6/14/2008 10:49	0
6/14/2008 10:59	0
6/14/2008 11:09	0
6/14/2008 11:19	0
6/14/2008 11:29	0
6/14/2008 11:39	0
6/14/2008 11:49	0
6/14/2008 11:59	0
6/14/2008 12:09	0
6/14/2008 12:19	0
6/14/2008 12:29	0
6/14/2008 12:39	0
6/14/2008 12:49	0
6/14/2008 12:59	0
6/14/2008 13:09	0
6/14/2008 13:19	0
6/14/2008 13:29	0
6/14/2008 13:39	0
6/14/2008 13:49	0
6/14/2008 13:59	0
6/14/2008 14:09	0
6/14/2008 14:19	0
6/14/2008 14:29	0
6/14/2008 14:39	0
6/14/2008 14:49	0
6/14/2008 14:59	0
6/14/2008 15:09	0
6/14/2008 15:19	0
6/14/2008 15:29	0.08
6/14/2008 15:39	0.04
6/14/2008 15:49	0
6/14/2008 15:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/14/2008 16:09	0
6/14/2008 16:19	0
6/14/2008 16:29	0
6/14/2008 16:39	0
6/14/2008 16:49	0
6/14/2008 16:59	0
6/14/2008 17:09	0
6/14/2008 17:20	0
6/14/2008 17:30	0
6/14/2008 17:40	0
6/14/2008 17:50	0
6/14/2008 18:00	0
6/14/2008 18:10	0
6/14/2008 18:20	0
6/14/2008 18:30	0
6/14/2008 18:40	0
6/14/2008 18:50	0
6/14/2008 19:00	0
6/14/2008 19:10	0
6/14/2008 19:20	0
6/14/2008 19:30	0
6/14/2008 19:40	0
6/14/2008 19:50	0
6/14/2008 20:00	0
6/14/2008 20:10	0
6/14/2008 20:20	0
6/14/2008 20:30	0
6/14/2008 20:40	0
6/14/2008 20:50	0
6/14/2008 21:00	0
6/14/2008 21:10	0
6/14/2008 21:20	0
6/14/2008 21:30	0
6/14/2008 21:40	0
6/14/2008 21:50	0
6/14/2008 22:00	0
6/14/2008 22:10	0
6/14/2008 22:20	0.06
6/14/2008 22:30	0.12
6/14/2008 22:40	0.05
6/14/2008 22:50	0
6/14/2008 23:00	0
6/14/2008 23:10	0
6/14/2008 23:20	0
6/14/2008 23:30	0
6/14/2008 23:40	0
6/14/2008 23:50	0
6/15/2008 0:00	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/15/2008 0:10	0
6/15/2008 0:20	0
6/15/2008 0:30	0
6/15/2008 0:40	0
6/15/2008 0:50	0
6/15/2008 1:00	0
6/15/2008 1:10	0
6/15/2008 1:20	0
6/15/2008 1:30	0
6/15/2008 1:40	0
6/15/2008 1:50	0
6/15/2008 2:00	0
6/15/2008 2:10	0
6/15/2008 2:20	0
6/15/2008 2:30	0
6/15/2008 2:40	0
6/15/2008 2:50	0
6/15/2008 3:00	0
6/15/2008 3:10	0
6/15/2008 3:20	0
6/15/2008 3:30	0
6/15/2008 3:40	0
6/15/2008 3:50	0
6/15/2008 4:00	0
6/15/2008 4:10	0
6/15/2008 4:20	0
6/15/2008 4:30	0
6/15/2008 4:40	0
6/15/2008 4:50	0
6/15/2008 5:00	0
6/15/2008 5:10	0
6/15/2008 5:20	0
6/15/2008 5:30	0
6/15/2008 5:40	0
6/15/2008 5:50	0
6/15/2008 6:00	0
6/15/2008 6:10	0
6/15/2008 6:20	0
6/15/2008 6:30	0
6/15/2008 6:40	0
6/15/2008 6:50	0
6/15/2008 7:00	0
6/15/2008 7:10	0
6/15/2008 7:20	0
6/15/2008 7:30	0
6/15/2008 7:40	0
6/15/2008 7:50	0
6/15/2008 8:00	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/15/2008 8:10	0
6/15/2008 8:20	0
6/15/2008 8:30	0
6/15/2008 8:40	0
6/15/2008 8:50	0
6/15/2008 9:00	0
6/15/2008 9:10	0
6/15/2008 9:20	0
6/15/2008 9:30	0
6/15/2008 9:40	0
6/15/2008 9:50	0
6/15/2008 10:00	0
6/15/2008 10:10	0
6/15/2008 10:20	0
6/15/2008 10:30	0
6/15/2008 10:40	0
6/15/2008 10:50	0
6/15/2008 11:00	0
6/15/2008 11:10	0
6/15/2008 11:20	0
6/15/2008 11:30	0
6/15/2008 11:40	0
6/15/2008 11:50	0
6/15/2008 12:00	0
6/15/2008 12:10	0
6/15/2008 12:20	0
6/15/2008 12:30	0
6/15/2008 12:40	0
6/15/2008 12:50	0
6/15/2008 13:00	0
6/15/2008 13:10	0
6/15/2008 13:20	0
6/15/2008 13:30	0
6/15/2008 13:40	0
6/15/2008 13:50	0
6/15/2008 14:00	0
6/15/2008 14:10	0
6/15/2008 14:20	0
6/15/2008 14:30	0
6/15/2008 14:40	0
6/15/2008 14:50	0
6/15/2008 15:00	0
6/15/2008 15:10	0
6/15/2008 15:19	0
6/15/2008 15:30	0
6/15/2008 15:40	0
6/15/2008 15:50	0
6/15/2008 16:00	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/15/2008 16:10	0
6/15/2008 16:20	0
6/15/2008 16:30	0
6/15/2008 16:40	0
6/15/2008 16:50	0
6/15/2008 17:00	0
6/15/2008 17:10	0
6/15/2008 17:20	0
6/15/2008 17:30	0
6/15/2008 17:40	0
6/15/2008 17:50	0
6/15/2008 18:00	0
6/15/2008 18:10	0
6/15/2008 18:20	0
6/15/2008 18:30	0
6/15/2008 18:40	0
6/15/2008 18:50	0
6/15/2008 19:00	0
6/15/2008 19:10	0
6/15/2008 19:20	0
6/15/2008 19:30	0
6/15/2008 19:40	0
6/15/2008 19:50	0
6/15/2008 20:00	0
6/15/2008 20:10	0
6/15/2008 20:20	0.07
6/15/2008 20:30	0
6/15/2008 20:40	0
6/15/2008 20:50	0
6/15/2008 21:00	0
6/15/2008 21:10	0
6/15/2008 21:20	0
6/15/2008 21:30	0
6/15/2008 21:40	0
6/15/2008 21:50	0
6/15/2008 22:00	0
6/15/2008 22:10	0
6/15/2008 22:20	0
6/15/2008 22:30	0
6/15/2008 22:40	0
6/15/2008 22:50	0
6/15/2008 23:00	0
6/15/2008 23:10	0
6/15/2008 23:20	0
6/15/2008 23:30	0
6/15/2008 23:40	0
6/15/2008 23:50	0
6/16/2008 0:00	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/16/2008 0:10	0
6/16/2008 0:20	0
6/16/2008 0:30	0
6/16/2008 0:40	0
6/16/2008 0:50	0
6/16/2008 1:00	0
6/16/2008 1:09	0
6/16/2008 1:20	0
6/16/2008 1:30	0
6/16/2008 1:40	0
6/16/2008 1:50	0
6/16/2008 2:00	0
6/16/2008 2:10	0
6/16/2008 2:20	0.11
6/16/2008 2:30	0.13
6/16/2008 2:40	0.21
6/16/2008 2:50	0.23
6/16/2008 3:00	0.1
6/16/2008 3:10	0.04
6/16/2008 3:20	0
6/16/2008 3:30	0
6/16/2008 3:40	0
6/16/2008 3:50	0
6/16/2008 4:00	0
6/16/2008 4:10	0
6/16/2008 4:19	0
6/16/2008 4:30	0.37
6/16/2008 4:39	0.11
6/16/2008 4:49	0.04
6/16/2008 5:00	0
6/16/2008 5:10	0.1
6/16/2008 5:20	0.05
6/16/2008 5:30	0.08
6/16/2008 5:40	0.06
6/16/2008 5:50	0.04
6/16/2008 6:00	0.04
6/16/2008 6:10	0
6/16/2008 6:20	0
6/16/2008 6:30	0
6/16/2008 6:40	0
6/16/2008 6:50	0
6/16/2008 7:00	0
6/16/2008 7:10	0
6/16/2008 7:20	0
6/16/2008 7:30	0
6/16/2008 7:40	0
6/16/2008 7:50	0
6/16/2008 8:00	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/16/2008 8:10	0
6/16/2008 8:19	0
6/16/2008 8:30	0
6/16/2008 8:39	0
6/16/2008 8:50	0
6/16/2008 9:00	0
6/16/2008 9:10	0
6/16/2008 9:20	0
6/16/2008 9:30	0
6/16/2008 9:40	0
6/16/2008 9:50	0
6/16/2008 10:00	0
6/16/2008 10:10	0
6/16/2008 10:20	0
6/16/2008 10:30	0
6/16/2008 10:40	0
6/16/2008 10:50	0
6/16/2008 11:00	0
6/16/2008 11:10	0
6/16/2008 11:20	0
6/16/2008 11:30	0
6/16/2008 11:40	0
6/16/2008 11:50	0
6/16/2008 12:00	0
6/16/2008 12:10	0
6/16/2008 12:20	0
6/16/2008 12:30	0
6/16/2008 12:40	0
6/16/2008 12:50	0
6/16/2008 13:00	0
6/16/2008 13:09	0
6/16/2008 13:20	0
6/16/2008 13:30	0
6/16/2008 13:40	0
6/16/2008 13:50	0
6/16/2008 14:00	0
6/16/2008 14:10	0
6/16/2008 14:20	0
6/16/2008 14:30	0
6/16/2008 14:40	0
6/16/2008 14:50	0
6/16/2008 15:00	0
6/16/2008 15:10	0
6/16/2008 15:20	0.16
6/16/2008 15:30	0.23
6/16/2008 15:40	0.06
6/16/2008 15:50	0.05
6/16/2008 16:00	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/16/2008 16:10	0
6/16/2008 16:20	0
6/16/2008 16:30	0
6/16/2008 16:40	0
6/16/2008 16:49	0
6/16/2008 17:00	0
6/16/2008 17:10	0
6/16/2008 17:20	0
6/16/2008 17:30	0
6/16/2008 17:40	0
6/16/2008 17:50	0
6/16/2008 18:00	0
6/16/2008 18:10	0
6/16/2008 18:20	0
6/16/2008 18:30	0
6/16/2008 18:40	0
6/16/2008 18:50	0
6/16/2008 19:00	0
6/16/2008 19:10	0
6/16/2008 19:20	0
6/16/2008 19:30	0
6/16/2008 19:40	0
6/16/2008 19:50	0
6/16/2008 20:00	0
6/16/2008 20:10	0
6/16/2008 20:20	0
6/16/2008 20:30	0
6/16/2008 20:40	0
6/16/2008 20:49	0
6/16/2008 21:00	0
6/16/2008 21:10	0
6/16/2008 21:20	0
6/16/2008 21:30	0
6/16/2008 21:40	0
6/16/2008 21:49	0
6/16/2008 22:00	0
6/16/2008 22:10	0
6/16/2008 22:20	0
6/16/2008 22:30	0
6/16/2008 22:39	0
6/16/2008 22:50	0
6/16/2008 23:00	0
6/16/2008 23:10	0
6/16/2008 23:19	0
6/16/2008 23:30	0
6/16/2008 23:40	0
6/16/2008 23:50	0
6/17/2008 0:00	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/17/2008 0:10	0
6/17/2008 0:20	0
6/17/2008 0:30	0
6/17/2008 0:40	0
6/17/2008 0:49	0
6/17/2008 1:00	0
6/17/2008 1:10	0
6/17/2008 1:20	0
6/17/2008 1:30	0
6/17/2008 1:40	0
6/17/2008 1:49	0
6/17/2008 2:00	0
6/17/2008 2:10	0
6/17/2008 2:20	0
6/17/2008 2:30	0
6/17/2008 2:39	0
6/17/2008 2:49	0
6/17/2008 3:00	0
6/17/2008 3:10	0
6/17/2008 3:20	0
6/17/2008 3:30	0
6/17/2008 3:40	0
6/17/2008 3:50	0
6/17/2008 4:00	0
6/17/2008 4:10	0
6/17/2008 4:20	0
6/17/2008 4:30	0
6/17/2008 4:40	0
6/17/2008 4:49	0
6/17/2008 5:00	0
6/17/2008 5:10	0
6/17/2008 5:20	0
6/17/2008 5:30	0
6/17/2008 5:40	0
6/17/2008 5:50	0
6/17/2008 6:00	0
6/17/2008 6:09	0
6/17/2008 6:20	0
6/17/2008 6:30	0
6/17/2008 6:40	0
6/17/2008 6:50	0
6/17/2008 7:00	0
6/17/2008 7:09	0
6/17/2008 7:20	0
6/17/2008 7:30	0
6/17/2008 7:40	0
6/17/2008 7:50	0
6/17/2008 8:00	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/17/2008 8:10	0
6/17/2008 8:19	0
6/17/2008 8:30	0
6/17/2008 8:40	0
6/17/2008 8:50	0
6/17/2008 9:00	0
6/17/2008 9:09	0
6/17/2008 9:20	0
6/17/2008 9:30	0
6/17/2008 9:40	0
6/17/2008 9:50	0
6/17/2008 10:00	0
6/17/2008 10:10	0
6/17/2008 10:20	0
6/17/2008 10:30	0
6/17/2008 10:40	0
6/17/2008 10:50	0
6/17/2008 11:00	0
6/17/2008 11:10	0
6/17/2008 11:19	0
6/17/2008 11:30	0
6/17/2008 11:50	0
6/17/2008 12:00	0
6/17/2008 12:09	0
6/17/2008 12:20	0
6/17/2008 12:30	0
6/17/2008 12:40	0
6/17/2008 12:49	0
6/17/2008 13:00	0
6/17/2008 13:09	0
6/17/2008 13:20	0
6/17/2008 13:30	0
6/17/2008 13:40	0
6/17/2008 13:50	0
6/17/2008 14:00	0
6/17/2008 14:09	0
6/17/2008 14:20	0
6/17/2008 14:30	0
6/17/2008 14:40	0
6/17/2008 14:50	0
6/17/2008 15:00	0
6/17/2008 15:10	0
6/17/2008 15:20	0
6/17/2008 15:30	0
6/17/2008 15:39	0
6/17/2008 15:50	0
6/17/2008 16:00	0
6/17/2008 16:09	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/17/2008 16:20	0
6/17/2008 16:30	0
6/17/2008 16:40	0
6/17/2008 16:50	0
6/17/2008 17:00	0.27
6/17/2008 17:09	0.07
6/17/2008 17:20	0
6/17/2008 17:30	0
6/17/2008 17:40	0
6/17/2008 17:50	0
6/17/2008 18:00	0.08
6/17/2008 18:09	0
6/17/2008 18:20	0
6/17/2008 18:30	0
6/17/2008 18:40	0
6/17/2008 18:49	0
6/17/2008 19:00	0
6/17/2008 19:09	0
6/17/2008 19:20	0
6/17/2008 19:30	0
6/17/2008 19:40	0
6/17/2008 19:50	0
6/17/2008 20:00	0
6/17/2008 20:10	0
6/17/2008 20:20	0
6/17/2008 20:30	0
6/17/2008 20:40	0
6/17/2008 20:49	0
6/17/2008 21:00	0
6/17/2008 21:10	0
6/17/2008 21:19	0
6/17/2008 21:30	0
6/17/2008 21:39	0
6/17/2008 21:49	0
6/17/2008 22:00	0
6/17/2008 22:10	0
6/17/2008 22:19	0
6/17/2008 22:30	0
6/17/2008 22:39	0
6/17/2008 22:50	0
6/17/2008 23:00	0
6/17/2008 23:10	0
6/17/2008 23:19	0
6/17/2008 23:30	0
6/17/2008 23:40	0
6/17/2008 23:49	0
6/18/2008 0:00	0
6/18/2008 0:10	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/18/2008 0:20	0
6/18/2008 0:30	0
6/18/2008 0:40	0
6/18/2008 0:49	0
6/18/2008 1:00	0
6/18/2008 1:10	0
6/18/2008 1:20	0
6/18/2008 1:30	0
6/18/2008 1:39	0
6/18/2008 1:50	0
6/18/2008 2:00	0
6/18/2008 2:10	0
6/18/2008 2:19	0
6/18/2008 2:30	0
6/18/2008 2:39	0
6/18/2008 2:50	0
6/18/2008 3:00	0
6/18/2008 3:10	0
6/18/2008 3:20	0
6/18/2008 3:30	0
6/18/2008 3:40	0
6/18/2008 3:50	0
6/18/2008 4:00	0
6/18/2008 4:09	0
6/18/2008 4:20	0
6/18/2008 4:30	0
6/18/2008 4:40	0
6/18/2008 4:50	0
6/18/2008 5:00	0
6/18/2008 5:09	0
6/18/2008 5:20	0
6/18/2008 5:30	0
6/18/2008 5:40	0
6/18/2008 5:49	0
6/18/2008 6:00	0
6/18/2008 6:09	0
6/18/2008 6:20	0
6/18/2008 6:30	0
6/18/2008 6:40	0
6/18/2008 6:49	0
6/18/2008 7:00	0
6/18/2008 7:09	0
6/18/2008 7:20	0
6/18/2008 7:30	0
6/18/2008 7:39	0
6/18/2008 7:49	0
6/18/2008 8:00	0
6/18/2008 8:10	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/18/2008 8:19	0
6/18/2008 8:30	0
6/18/2008 8:39	0
6/18/2008 8:50	0
6/18/2008 9:00	0
6/18/2008 9:10	0
6/18/2008 9:19	0
6/18/2008 9:30	0
6/18/2008 9:39	0
6/18/2008 9:50	0
6/18/2008 10:00	0
6/18/2008 10:09	0
6/18/2008 10:20	0
6/18/2008 10:30	0
6/18/2008 10:39	0
6/18/2008 10:50	0
6/18/2008 11:00	0
6/18/2008 11:09	0
6/18/2008 11:19	0
6/18/2008 11:30	0
6/18/2008 11:39	0.04
6/18/2008 11:50	0.23
6/19/2008 10:49	0
6/19/2008 11:00	0
6/19/2008 11:09	0
6/19/2008 11:19	0
6/19/2008 11:29	0
6/19/2008 11:39	0
6/19/2008 11:49	0
6/19/2008 11:59	0
6/19/2008 12:09	0
6/19/2008 12:20	0
6/19/2008 12:29	0
6/19/2008 12:39	0
6/19/2008 12:50	0
6/19/2008 12:59	0
6/19/2008 13:10	0
6/19/2008 13:19	0
6/19/2008 13:30	0
6/19/2008 13:40	0
6/19/2008 13:49	0
6/19/2008 14:00	0
6/19/2008 14:10	0
6/19/2008 14:19	0
6/19/2008 14:29	0
6/19/2008 14:40	0
6/19/2008 14:49	0
6/19/2008 14:59	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/19/2008 15:09	0
6/19/2008 15:20	0
6/19/2008 15:29	0
6/19/2008 15:39	0
6/19/2008 15:50	0
6/19/2008 15:59	0
6/19/2008 16:10	0
6/19/2008 16:19	0
6/19/2008 16:30	0
6/19/2008 16:39	0
6/19/2008 16:49	0
6/19/2008 17:00	0
6/19/2008 17:09	0
6/19/2008 17:19	0
6/19/2008 17:29	0
6/19/2008 17:39	0
6/19/2008 17:49	0
6/19/2008 17:59	0
6/19/2008 18:09	0
6/19/2008 18:19	0
6/19/2008 18:30	0
6/19/2008 18:39	0
6/19/2008 18:49	0
6/19/2008 19:00	0
6/19/2008 19:10	0
6/19/2008 19:19	0
6/19/2008 19:29	0
6/19/2008 19:39	0
6/19/2008 19:49	0
6/19/2008 20:00	0
6/19/2008 20:09	0
6/19/2008 20:20	0
6/19/2008 20:29	0
6/19/2008 20:40	0
6/19/2008 20:49	0
6/19/2008 20:59	0
6/19/2008 21:09	0
6/19/2008 21:29	0
6/19/2008 21:39	0
6/19/2008 21:49	0
6/19/2008 21:59	0
6/19/2008 22:09	0
6/19/2008 22:20	0
6/19/2008 22:29	0
6/19/2008 22:39	0
6/19/2008 22:50	0
6/19/2008 22:59	0
6/19/2008 23:09	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/19/2008 23:19	0
6/19/2008 23:29	0
6/19/2008 23:40	0
6/19/2008 23:49	0
6/19/2008 23:59	0
6/20/2008 0:09	0
6/20/2008 0:20	0
6/20/2008 0:29	0
6/20/2008 0:39	0
6/20/2008 0:50	0
6/20/2008 0:59	0
6/20/2008 1:09	0
6/20/2008 1:19	0
6/20/2008 1:29	0
6/20/2008 1:39	0
6/20/2008 1:49	0
6/20/2008 1:59	0
6/20/2008 2:10	0
6/20/2008 2:19	0
6/20/2008 2:29	0
6/20/2008 2:40	0
6/20/2008 2:49	0
6/20/2008 2:59	0
6/20/2008 3:20	0
6/20/2008 3:30	0
6/20/2008 3:40	0
6/20/2008 3:49	0
6/20/2008 4:00	0
6/20/2008 4:10	0
6/20/2008 4:19	0
6/20/2008 4:30	0
6/20/2008 4:39	0
6/20/2008 4:50	0
6/20/2008 5:00	0
6/20/2008 5:09	0
6/20/2008 5:20	0
6/20/2008 5:30	0
6/20/2008 5:39	0
6/20/2008 5:50	0
6/20/2008 6:00	0
6/20/2008 6:09	0
6/20/2008 6:19	0
6/20/2008 6:30	0
6/20/2008 6:40	0
6/20/2008 6:50	0
6/20/2008 7:00	0
6/20/2008 7:09	0
6/20/2008 7:20	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/20/2008 7:30	0
6/20/2008 7:40	0
6/20/2008 7:49	0
6/20/2008 8:00	0
6/20/2008 8:10	0
6/20/2008 8:19	0
6/20/2008 8:30	0
6/20/2008 8:39	0
6/20/2008 8:50	0
6/20/2008 9:00	0
6/20/2008 9:09	0
6/20/2008 9:20	0
6/20/2008 9:30	0
6/20/2008 9:39	0
6/20/2008 9:50	0
6/20/2008 10:00	0
6/20/2008 10:09	0
6/20/2008 10:20	0
6/20/2008 10:30	0
6/20/2008 10:40	0
6/20/2008 10:50	0
6/20/2008 11:00	0
6/20/2008 11:09	0
6/20/2008 11:20	0
6/20/2008 11:30	0
6/20/2008 11:40	0
6/20/2008 11:49	0
6/20/2008 12:00	0
6/20/2008 12:10	0
6/20/2008 12:19	0
6/20/2008 12:30	0
6/20/2008 12:40	0
6/20/2008 12:49	0
6/20/2008 13:00	0
6/20/2008 13:10	0
6/20/2008 13:19	0
6/20/2008 13:30	0
6/20/2008 13:40	0
6/20/2008 13:49	0
6/20/2008 14:00	0
6/20/2008 14:10	0
6/20/2008 14:19	0
6/20/2008 14:30	0
6/20/2008 14:39	0.13
6/20/2008 14:49	0.04
6/20/2008 15:00	0
6/20/2008 15:09	0
6/20/2008 15:19	0

Precipitation June 9 - 20, 2008

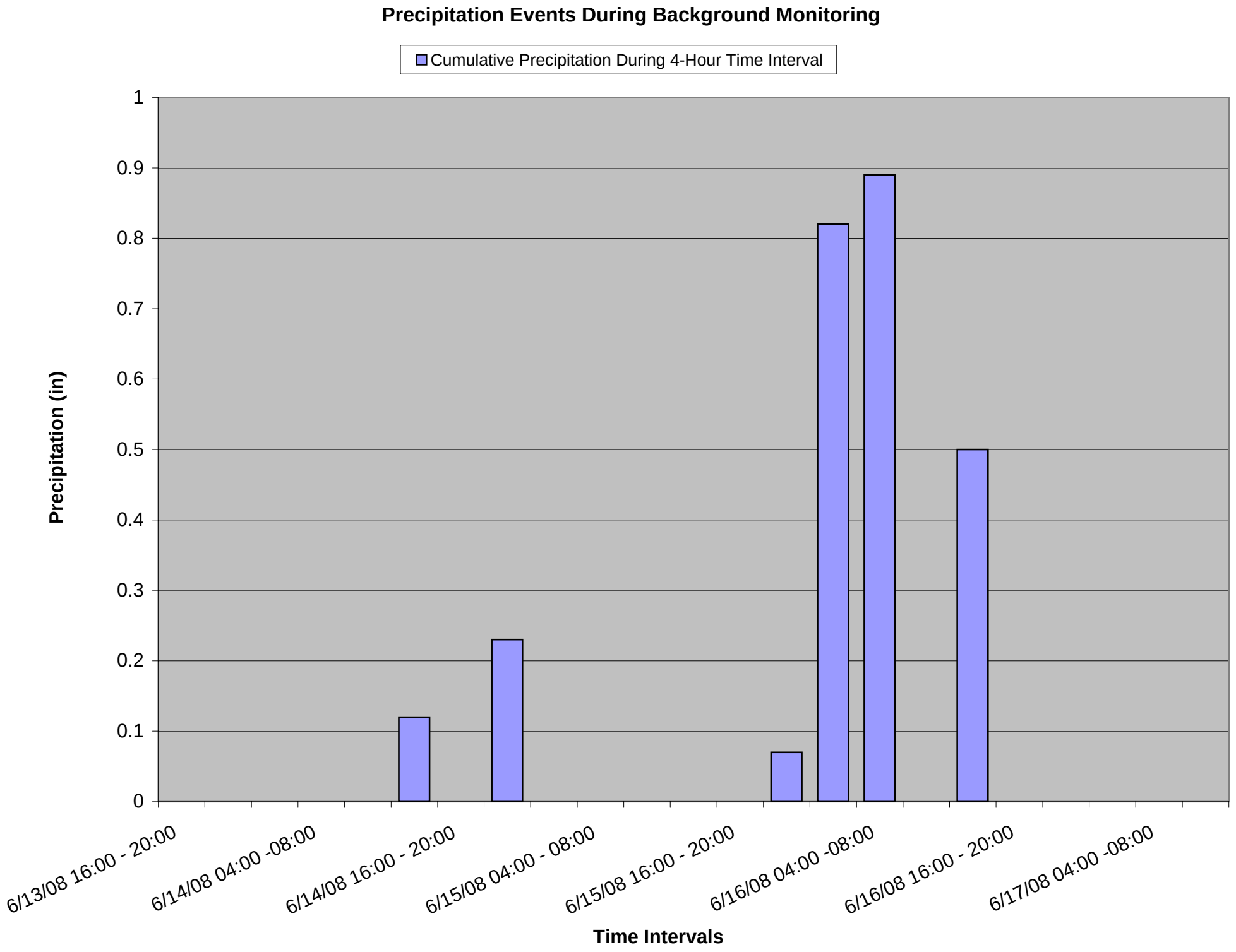
As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/20/2008 15:30	0
6/20/2008 15:39	0
6/20/2008 15:50	0
6/20/2008 16:00	0
6/20/2008 16:09	0
6/20/2008 16:20	0
6/20/2008 16:30	0
6/20/2008 16:40	0
6/20/2008 16:49	0
6/20/2008 17:00	0.09
6/20/2008 17:10	0.21
6/20/2008 17:19	1.09
6/20/2008 17:30	0.09
6/20/2008 17:39	0.87
6/20/2008 17:49	0.14
6/20/2008 18:00	0.24
6/20/2008 18:10	0.11
6/20/2008 18:19	0.04
6/20/2008 18:30	0
6/20/2008 18:39	0
6/20/2008 18:50	0.1
6/20/2008 19:00	0.04
6/20/2008 19:10	0
6/20/2008 19:19	0
6/20/2008 19:30	0
6/20/2008 19:39	0
6/20/2008 19:49	0
6/20/2008 20:00	0
6/20/2008 20:09	0
6/20/2008 20:20	0
6/20/2008 20:30	0
6/20/2008 20:40	0
6/20/2008 20:49	0
6/20/2008 21:00	0
6/20/2008 21:09	0
6/20/2008 21:20	0
6/20/2008 21:30	0
6/20/2008 21:40	0
6/20/2008 21:49	0
6/20/2008 22:00	0
6/20/2008 22:09	0
6/20/2008 22:20	0
6/20/2008 22:30	0
6/20/2008 22:39	0
6/20/2008 22:49	0
6/20/2008 23:00	0
6/20/2008 23:10	0
6/20/2008 23:19	0

Precipitation June 9 - 20, 2008

As reported by http://www.wunderground.com

Date and Time	Precipitation (in)
6/20/2008 23:30	0
6/20/2008 23:39	0
6/20/2008 23:49	0


Precipitation Events During Background Monitoring
Cumulative Precipitation During 4-Hour Time Interval
Precipitation (in)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
6/13/08 16:00 - 20:00
6/14/08 04:00 -08:00
6/14/08 16:00 - 20:00
6/15/08 04:00 - 08:00
6/15/08 16:00 - 20:00
6/16/08 04:00 -08:00
6/16/08 16:00 - 20:00
6/17/08 04:00 -08:00
Time Intervals

Pumping Well (EXB-06) Discharge Rate

Date and Time	Time Elapsed (sec)	Discharge (gpm)
6/17/2008 15:00	0	0
6/17/2008 15:05	300	0.25
6/17/2008 15:10	600	0.37
6/17/2008 15:15	900	0.38
6/17/2008 15:20	1200	0.37
6/17/2008 15:25	1500	0.38
6/17/2008 15:30	1800	0.38
6/17/2008 15:35	2100	0.37
6/17/2008 15:40	2400	0.37
6/17/2008 15:45	2700	0.39
6/17/2008 15:50	3000	0.4
6/17/2008 15:55	3300	0.38
6/17/2008 16:00	3600	0.37
6/17/2008 16:05	3900	0.39
6/17/2008 16:10	4200	0.39
6/17/2008 16:15	4500	0.38
6/17/2008 16:20	4800	0.4
6/17/2008 16:25	5100	0.39
6/17/2008 16:30	5400	0.38
6/17/2008 16:40	6000	0.39
6/17/2008 16:50	6600	0.39
6/17/2008 17:00	7200	0.38
6/17/2008 17:10	7800	0.38
6/17/2008 17:20	8400	0.37
6/17/2008 17:30	9000	0.39
6/17/2008 17:40	9600	0.39
6/17/2008 17:50	10200	0.37
6/17/2008 18:00	10800	0.36
6/17/2008 18:10	11400	0.38
6/17/2008 18:20	12000	0.39
6/17/2008 18:30	12600	0.36
6/17/2008 18:40	13200	0.39
6/17/2008 18:50	13800	0.39
6/17/2008 19:00	14400	0.35
6/17/2008 19:10	15000	0.37
6/17/2008 19:20	15600	0.39
6/17/2008 19:30	16200	0.35
6/17/2008 19:40	16800	0.36
6/17/2008 21:10	22200	0.33
6/17/2008 21:20	22800	0.37
6/17/2008 21:30	23400	0.34
6/18/2008 5:50	53340	0.32
6/18/2008 8:00	61140	0.31
6/18/2008 8:40	63480	0.32
6/18/2008 9:00	64680	0.35
6/18/2008 9:55	67980	0.31
6/18/2008 10:55	71520	0.32
6/18/2008 11:58	75300	0.33
6/18/2008 13:20	80160	0.33

Pumping Well (EXB-06) Discharge Rate

Date and Time	Time Elapsed (sec)	Discharge (gpm)
6/18/2008 14:15	83460	0.32
6/18/2008 15:08	86640	0.32
6/18/2008 16:10	90300	0.32
6/18/2008 17:00	93300	0.31
6/19/2008 8:30	149040	0.33
6/19/2008 9:30	152640	0.3
6/19/2008 10:35	156480	0.32
6/19/2008 11:35	160080	0.31
6/19/2008 12:30	163380	0.31
6/19/2008 12:57	164940	0.31

MW-05B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	551.62
6/17/2008 15:08	551.617
6/17/2008 15:18	551.612
6/17/2008 15:28	551.611
6/17/2008 15:38	551.607
6/17/2008 15:49	551.601
6/17/2008 16:01	551.592
6/17/2008 16:14	551.586
6/17/2008 16:27	551.577
6/17/2008 16:41	551.57
6/17/2008 16:56	551.557
6/17/2008 17:11	551.545
6/17/2008 17:26	551.532
6/17/2008 17:41	551.526
6/17/2008 17:56	551.513
6/17/2008 18:11	551.504
6/17/2008 18:26	551.495
6/17/2008 18:41	551.49
6/17/2008 18:56	551.482
6/17/2008 19:11	551.473
6/17/2008 19:26	551.467
6/17/2008 19:41	551.464
6/17/2008 19:56	551.458
6/17/2008 20:11	551.458
6/17/2008 20:26	551.454
6/17/2008 20:41	551.454
6/17/2008 20:56	551.45
6/17/2008 21:11	551.449
6/17/2008 21:26	551.448
6/17/2008 21:41	551.445
6/17/2008 21:56	551.447
6/17/2008 22:11	551.444
6/17/2008 22:26	551.443
6/17/2008 22:41	551.444
6/17/2008 22:56	551.444
6/17/2008 23:11	551.443
6/17/2008 23:26	551.442
6/17/2008 23:41	551.44
6/17/2008 23:56	551.441
6/18/2008 0:11	551.442
6/18/2008 0:26	551.441
6/18/2008 0:41	551.442
6/18/2008 0:56	551.439
6/18/2008 1:11	551.439
6/18/2008 1:26	551.44
6/18/2008 1:41	551.442
6/18/2008 1:56	551.441

MW-05B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:11	551.439
6/18/2008 2:26	551.435
6/18/2008 2:41	551.437
6/18/2008 2:56	551.435
6/18/2008 3:11	551.432
6/18/2008 3:26	551.431
6/18/2008 3:41	551.433
6/18/2008 3:56	551.429
6/18/2008 4:11	551.429
6/18/2008 4:26	551.427
6/18/2008 4:41	551.426
6/18/2008 4:56	551.421
6/18/2008 5:11	551.416
6/18/2008 5:26	551.419
6/18/2008 5:41	551.413
6/18/2008 5:56	551.414
6/18/2008 6:11	551.409
6/18/2008 6:26	551.404
6/18/2008 6:41	551.404
6/18/2008 6:56	551.404
6/18/2008 7:11	551.397
6/18/2008 7:26	551.395
6/18/2008 7:41	551.393
6/18/2008 7:56	551.392
6/18/2008 8:11	551.392
6/18/2008 8:26	551.389
6/18/2008 8:41	551.387
6/18/2008 8:56	551.386
6/18/2008 9:11	551.382
6/18/2008 9:26	551.382
6/18/2008 9:41	551.379
6/18/2008 9:56	551.379
6/18/2008 10:11	551.379
6/18/2008 10:26	551.377
6/18/2008 10:41	551.383
6/18/2008 10:56	551.385
6/18/2008 11:11	551.389
6/18/2008 11:26	551.394
6/18/2008 11:41	551.396
6/18/2008 11:56	551.4
6/18/2008 12:11	551.401
6/18/2008 12:26	551.404
6/18/2008 12:41	551.404
6/18/2008 12:56	551.405
6/18/2008 13:11	551.407
6/18/2008 13:26	551.411
6/18/2008 13:41	551.415
6/18/2008 13:56	551.414

MW-05B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:11	551.418
6/18/2008 14:26	551.419
6/18/2008 14:41	551.422
6/18/2008 14:56	551.425
6/18/2008 15:11	551.424
6/18/2008 15:26	551.43
6/18/2008 15:41	551.435
6/18/2008 15:56	551.436
6/18/2008 16:11	551.44
6/18/2008 16:26	551.446
6/18/2008 16:41	551.448
6/18/2008 16:56	551.45
6/18/2008 17:11	551.454
6/18/2008 17:26	551.454
6/18/2008 17:41	551.457
6/18/2008 17:56	551.457
6/18/2008 18:11	551.46
6/18/2008 18:26	551.463
6/18/2008 18:41	551.456
6/18/2008 18:56	551.458
6/18/2008 19:11	551.455
6/18/2008 19:26	551.454
6/18/2008 19:41	551.454
6/18/2008 19:56	551.452
6/18/2008 20:11	551.448
6/18/2008 20:26	551.446
6/18/2008 20:41	551.443
6/18/2008 20:56	551.441
6/18/2008 21:11	551.437
6/18/2008 21:26	551.435
6/18/2008 21:41	551.43
6/18/2008 21:56	551.428
6/18/2008 22:11	551.425
6/18/2008 22:26	551.422
6/18/2008 22:41	551.421
6/18/2008 22:56	551.418
6/18/2008 23:11	551.415
6/18/2008 23:26	551.414
6/18/2008 23:41	551.411
6/18/2008 23:56	551.407
6/19/2008 0:11	551.408
6/19/2008 0:26	551.407
6/19/2008 0:41	551.405
6/19/2008 0:56	551.408
6/19/2008 1:11	551.407
6/19/2008 1:26	551.412
6/19/2008 1:41	551.417
6/19/2008 1:56	551.424

MW-05B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:11	551.43
6/19/2008 2:26	551.436
6/19/2008 2:41	551.442
6/19/2008 2:56	551.449
6/19/2008 3:11	551.456
6/19/2008 3:26	551.466
6/19/2008 3:41	551.471
6/19/2008 3:56	551.479
6/19/2008 4:11	551.485
6/19/2008 4:26	551.492
6/19/2008 4:41	551.499
6/19/2008 4:56	551.504
6/19/2008 5:11	551.508
6/19/2008 5:26	551.518
6/19/2008 5:41	551.518
6/19/2008 5:56	551.521
6/19/2008 6:11	551.522
6/19/2008 6:26	551.527
6/19/2008 6:41	551.531
6/19/2008 6:56	551.533
6/19/2008 7:11	551.536
6/19/2008 7:26	551.536
6/19/2008 7:41	551.536
6/19/2008 7:56	551.539
6/19/2008 8:11	551.535
6/19/2008 8:26	551.533
6/19/2008 8:41	551.535
6/19/2008 8:56	551.535
6/19/2008 9:11	551.534
6/19/2008 9:26	551.537
6/19/2008 9:41	551.535
6/19/2008 9:56	551.529
6/19/2008 10:11	551.531
6/19/2008 10:26	551.531
6/19/2008 10:41	551.53
6/19/2008 10:56	551.533
6/19/2008 11:11	551.534
6/19/2008 11:26	551.535
6/19/2008 11:41	551.531
6/19/2008 11:56	551.533
Recovery Test	
6/19/2008 13:00	551.532
6/19/2008 13:00	551.53
6/19/2008 13:00	551.528
6/19/2008 13:00	551.528
6/19/2008 13:00	551.529
6/19/2008 13:00	551.528

MW-05B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	551.528
6/19/2008 13:00	551.524
6/19/2008 13:00	551.53
6/19/2008 13:00	551.527
6/19/2008 13:00	551.528
6/19/2008 13:00	551.528
6/19/2008 13:00	551.527
6/19/2008 13:00	551.526
6/19/2008 13:00	551.53
6/19/2008 13:00	551.525
6/19/2008 13:00	551.527
6/19/2008 13:00	551.529
6/19/2008 13:00	551.529
6/19/2008 13:00	551.527
6/19/2008 13:00	551.528
6/19/2008 13:00	551.527
6/19/2008 13:00	551.53
6/19/2008 13:00	551.527
6/19/2008 13:00	551.526
6/19/2008 13:00	551.529
6/19/2008 13:00	551.53
6/19/2008 13:00	551.53
6/19/2008 13:00	551.527
6/19/2008 13:00	551.528
6/19/2008 13:00	551.529
6/19/2008 13:00	551.527
6/19/2008 13:00	551.529
6/19/2008 13:00	551.527
6/19/2008 13:00	551.529
6/19/2008 13:00	551.528
6/19/2008 13:00	551.531
6/19/2008 13:00	551.53
6/19/2008 13:00	551.528
6/19/2008 13:00	551.529
6/19/2008 13:00	551.528
6/19/2008 13:00	551.529
6/19/2008 13:00	551.53
6/19/2008 13:00	551.528
6/19/2008 13:00	551.53
6/19/2008 13:00	551.528
6/19/2008 13:00	551.53
6/19/2008 13:00	551.532
6/19/2008 13:00	551.531
6/19/2008 13:00	551.527
6/19/2008 13:00	551.531
6/19/2008 13:00	551.528
6/19/2008 13:00	551.531
6/19/2008 13:00	551.528

MW-05B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	551.532
6/19/2008 13:00	551.53
6/19/2008 13:00	551.531
6/19/2008 13:00	551.532
6/19/2008 13:00	551.531
6/19/2008 13:00	551.532
6/19/2008 13:00	551.529
6/19/2008 13:00	551.53
6/19/2008 13:00	551.529
6/19/2008 13:00	551.53
6/19/2008 13:01	551.53
6/19/2008 13:01	551.531
6/19/2008 13:01	551.533
6/19/2008 13:01	551.528
6/19/2008 13:01	551.528
6/19/2008 13:01	551.532
6/19/2008 13:01	551.529
6/19/2008 13:01	551.529
6/19/2008 13:01	551.529
6/19/2008 13:01	551.529
6/19/2008 13:01	551.53
6/19/2008 13:01	551.529
6/19/2008 13:01	551.529
6/19/2008 13:02	551.53
6/19/2008 13:02	551.53
6/19/2008 13:02	551.532
6/19/2008 13:02	551.529
6/19/2008 13:02	551.531
6/19/2008 13:02	551.53
6/19/2008 13:02	551.531
6/19/2008 13:03	551.53
6/19/2008 13:03	551.529
6/19/2008 13:03	551.529
6/19/2008 13:03	551.529
6/19/2008 13:03	551.53
6/19/2008 13:04	551.53
6/19/2008 13:04	551.529
6/19/2008 13:04	551.53
6/19/2008 13:05	551.531
6/19/2008 13:05	551.528
6/19/2008 13:05	551.53
6/19/2008 13:05	551.53
6/19/2008 13:06	551.529
6/19/2008 13:06	551.526
6/19/2008 13:07	551.529
6/19/2008 13:07	551.529
6/19/2008 13:07	551.528
6/19/2008 13:08	551.527

MW-05B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:08	551.529
6/19/2008 13:09	551.528
6/19/2008 13:10	551.53
6/19/2008 13:10	551.529
6/19/2008 13:11	551.527
6/19/2008 13:11	551.527
6/19/2008 13:12	551.526
6/19/2008 13:13	551.527
6/19/2008 13:14	551.528
6/19/2008 13:15	551.528
6/19/2008 13:15	551.527
6/19/2008 13:16	551.528
6/19/2008 13:17	551.526
6/19/2008 13:18	551.525
6/19/2008 13:19	551.525
6/19/2008 13:21	551.527
6/19/2008 13:22	551.526
6/19/2008 13:23	551.524
6/19/2008 13:25	551.527
6/19/2008 13:26	551.527
6/19/2008 13:28	551.528
6/19/2008 13:29	551.526
6/19/2008 13:31	551.524
6/19/2008 13:33	551.527
6/19/2008 13:35	551.525
6/19/2008 13:37	551.525
6/19/2008 13:39	551.525
6/19/2008 13:42	551.526
6/19/2008 13:44	551.523
6/19/2008 13:47	551.523
6/19/2008 13:50	551.519
6/19/2008 13:53	551.523
6/19/2008 13:56	551.522
6/19/2008 13:59	551.525
6/19/2008 14:03	551.524
6/19/2008 14:06	551.52
6/19/2008 14:10	551.52
6/19/2008 14:15	551.522
6/19/2008 14:19	551.522
6/19/2008 14:24	551.52
6/19/2008 14:29	551.521
6/19/2008 14:34	551.519
6/19/2008 14:40	551.516
6/19/2008 14:46	551.52
6/19/2008 14:52	551.521
6/19/2008 14:59	551.519
6/19/2008 15:06	551.522
6/19/2008 15:13	551.524

MW-05B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:21	551.525
6/19/2008 15:30	551.52
6/19/2008 15:38	551.525
6/19/2008 15:48	551.524
6/19/2008 15:58	551.526
6/19/2008 16:08	551.525
6/19/2008 16:19	551.527
6/19/2008 16:31	551.525
6/19/2008 16:44	551.529
6/19/2008 16:57	551.533
6/19/2008 17:11	551.536
6/19/2008 17:26	551.537
6/19/2008 17:41	551.538
6/19/2008 17:56	551.54
6/19/2008 18:11	551.544
6/19/2008 18:26	551.543
6/19/2008 18:41	551.54
6/19/2008 18:56	551.539
6/19/2008 19:11	551.537
6/19/2008 19:26	551.534
6/19/2008 19:41	551.536
6/19/2008 19:56	551.534
6/19/2008 20:11	551.53
6/19/2008 20:26	551.529
6/19/2008 20:41	551.531
6/19/2008 20:56	551.527
6/19/2008 21:11	551.532
6/19/2008 21:26	551.532
6/19/2008 21:41	551.532
6/19/2008 21:56	551.532
6/19/2008 22:11	551.534
6/19/2008 22:26	551.534
6/19/2008 22:41	551.538
6/19/2008 22:56	551.538
6/19/2008 23:11	551.54
6/19/2008 23:26	551.538
6/19/2008 23:41	551.539
6/19/2008 23:56	551.543
6/20/2008 0:11	551.545
6/20/2008 0:26	551.547
6/20/2008 0:41	551.548
6/20/2008 0:56	551.55
6/20/2008 1:11	551.552
6/20/2008 1:26	551.553
6/20/2008 1:41	551.555
6/20/2008 1:56	551.554
6/20/2008 2:11	551.555
6/20/2008 2:26	551.555

MW-05B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 2:41	551.558
6/20/2008 2:56	551.558
6/20/2008 3:11	551.559
6/20/2008 3:26	551.558
6/20/2008 3:41	551.56
6/20/2008 3:56	551.562
6/20/2008 4:11	551.562
6/20/2008 4:26	551.562
6/20/2008 4:41	551.565
6/20/2008 4:56	551.567
6/20/2008 5:11	551.567
6/20/2008 5:26	551.565
6/20/2008 5:41	551.564
6/20/2008 5:56	551.568
6/20/2008 6:11	551.566
6/20/2008 6:26	551.567
6/20/2008 6:41	551.569
6/20/2008 6:56	551.571
6/20/2008 7:11	551.569
6/20/2008 7:26	551.572
6/20/2008 7:41	551.571
6/20/2008 7:56	551.568
6/20/2008 8:11	551.571
6/20/2008 8:26	551.571
6/20/2008 8:41	551.57
6/20/2008 8:56	551.572
6/20/2008 9:11	551.57
6/20/2008 9:26	551.572
6/20/2008 9:41	551.575
6/20/2008 9:56	551.573
6/20/2008 10:11	551.575
6/20/2008 10:26	551.574
6/20/2008 10:41	551.575
6/20/2008 10:56	551.571
6/20/2008 11:11	551.573
6/20/2008 11:26	551.573

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	508.01
6/17/2008 15:00	508.009
6/17/2008 15:00	508.009
6/17/2008 15:00	508.004
6/17/2008 15:00	508.005
6/17/2008 15:00	508.007
6/17/2008 15:00	508.004
6/17/2008 15:00	508.009
6/17/2008 15:00	508.005
6/17/2008 15:00	508.01
6/17/2008 15:00	508.007
6/17/2008 15:00	508.007
6/17/2008 15:00	508.003
6/17/2008 15:00	508.004
6/17/2008 15:00	508.005
6/17/2008 15:00	508.003
6/17/2008 15:00	508.005
6/17/2008 15:00	508.006
6/17/2008 15:00	508.004
6/17/2008 15:00	508
6/17/2008 15:00	508.005
6/17/2008 15:00	508.007
6/17/2008 15:00	508.004
6/17/2008 15:00	508.005
6/17/2008 15:00	508.004
6/17/2008 15:00	508.002
6/17/2008 15:00	508.004
6/17/2008 15:00	508.003
6/17/2008 15:00	508.003
6/17/2008 15:00	508.005
6/17/2008 15:00	508.005
6/17/2008 15:00	508.004
6/17/2008 15:00	508.003
6/17/2008 15:00	508.004
6/17/2008 15:00	508.005
6/17/2008 15:00	508.005
6/17/2008 15:00	508.007
6/17/2008 15:00	508.008
6/17/2008 15:00	508.004
6/17/2008 15:00	508.006
6/17/2008 15:00	508.005
6/17/2008 15:00	508.004
6/17/2008 15:00	508.007
6/17/2008 15:00	508.005
6/17/2008 15:00	508.008
6/17/2008 15:00	508.006
6/17/2008 15:00	508.007

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	508.008
6/17/2008 15:00	508.004
6/17/2008 15:00	508.004
6/17/2008 15:00	508.01
6/17/2008 15:00	508.008
6/17/2008 15:00	508.01
6/17/2008 15:00	508.007
6/17/2008 15:00	508.002
6/17/2008 15:00	508.009
6/17/2008 15:00	508.006
6/17/2008 15:00	508.008
6/17/2008 15:00	508.009
6/17/2008 15:00	508.008
6/17/2008 15:00	508.009
6/17/2008 15:00	508.006
6/17/2008 15:00	508.008
6/17/2008 15:00	508.008
6/17/2008 15:01	508.006
6/17/2008 15:01	508.01
6/17/2008 15:01	508.006
6/17/2008 15:01	508.01
6/17/2008 15:01	508.007
6/17/2008 15:01	508.008
6/17/2008 15:01	508.005
6/17/2008 15:01	508.008
6/17/2008 15:01	508.009
6/17/2008 15:01	508.007
6/17/2008 15:01	508.006
6/17/2008 15:01	508.01
6/17/2008 15:01	508.006
6/17/2008 15:02	508.01
6/17/2008 15:02	508.008
6/17/2008 15:02	508.008
6/17/2008 15:02	508.013
6/17/2008 15:02	508.005
6/17/2008 15:02	508.01
6/17/2008 15:02	508.011
6/17/2008 15:03	508.006
6/17/2008 15:03	508.008
6/17/2008 15:03	508.009
6/17/2008 15:03	508.008
6/17/2008 15:03	508.008
6/17/2008 15:04	508.006
6/17/2008 15:04	508.01
6/17/2008 15:04	508.008
6/17/2008 15:05	508.011
6/17/2008 15:05	508.009
6/17/2008 15:05	508.008

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	508.009
6/17/2008 15:06	508.011
6/17/2008 15:06	508.011
6/17/2008 15:07	508.009
6/17/2008 15:07	508.008
6/17/2008 15:07	508.01
6/17/2008 15:08	508.007
6/17/2008 15:08	508.008
6/17/2008 15:09	508.007
6/17/2008 15:10	508.007
6/17/2008 15:10	508.008
6/17/2008 15:11	508.009
6/17/2008 15:11	508.009
6/17/2008 15:12	508.007
6/17/2008 15:13	508.009
6/17/2008 15:14	508.008
6/17/2008 15:15	508.01
6/17/2008 15:15	508.003
6/17/2008 15:16	508.009
6/17/2008 15:17	508.008
6/17/2008 15:18	508.009
6/17/2008 15:19	508.008
6/17/2008 15:21	508.008
6/17/2008 15:22	508.01
6/17/2008 15:23	508.01
6/17/2008 15:25	508.009
6/17/2008 15:26	508.009
6/17/2008 15:28	508.006
6/17/2008 15:29	508.005
6/17/2008 15:31	508.003
6/17/2008 15:33	508.004
6/17/2008 15:35	508.003
6/17/2008 15:37	508.003
6/17/2008 15:39	508.003
6/17/2008 15:42	508.003
6/17/2008 15:44	508.003
6/17/2008 15:47	508.002
6/17/2008 15:50	508.003
6/17/2008 15:53	508.003
6/17/2008 15:56	508.006
6/17/2008 15:59	508.004
6/17/2008 16:03	508.006
6/17/2008 16:06	508.003
6/17/2008 16:10	508.004
6/17/2008 16:15	508.006
6/17/2008 16:19	508.004
6/17/2008 16:24	508.003
6/17/2008 16:29	508.003

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	508.006
6/17/2008 16:40	508.001
6/17/2008 16:46	508.012
6/17/2008 16:52	508.002
6/17/2008 16:59	508.004
6/17/2008 17:06	508.003
6/17/2008 17:13	508
6/17/2008 17:21	508.003
6/17/2008 17:30	508.009
6/17/2008 17:38	508.005
6/17/2008 17:48	508.006
6/17/2008 17:58	508.009
6/17/2008 18:08	508.006
6/17/2008 18:19	508.009
6/17/2008 18:31	508.005
6/17/2008 18:44	508.004
6/17/2008 18:57	508.01
6/17/2008 19:11	508.008
6/17/2008 19:26	508.011
6/17/2008 19:41	508.013
6/17/2008 19:56	508.011
6/17/2008 20:11	508.013
6/17/2008 20:26	508.015
6/17/2008 20:41	508.019
6/17/2008 20:56	508.016
6/17/2008 21:11	508.015
6/17/2008 21:26	508.018
6/17/2008 21:41	508.017
6/17/2008 21:56	508.014
6/17/2008 22:11	508.017
6/17/2008 22:26	508.017
6/17/2008 22:41	508.017
6/17/2008 22:56	508.004
6/17/2008 23:11	507.995
6/17/2008 23:26	507.995
6/17/2008 23:41	507.997
6/17/2008 23:56	508
6/18/2008 0:11	508.004
6/18/2008 0:26	508.003
6/18/2008 0:41	508.001
6/18/2008 0:56	508
6/18/2008 1:11	508.002
6/18/2008 1:26	508.003
6/18/2008 1:41	507.999
6/18/2008 1:56	507.999
6/18/2008 2:11	507.999
6/18/2008 2:26	508.002
6/18/2008 2:41	508

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	507.996
6/18/2008 3:11	508
6/18/2008 3:26	507.998
6/18/2008 3:41	507.996
6/18/2008 3:56	507.994
6/18/2008 4:11	507.994
6/18/2008 4:26	507.993
6/18/2008 4:41	507.995
6/18/2008 4:56	507.991
6/18/2008 5:11	507.992
6/18/2008 5:26	507.992
6/18/2008 5:41	507.988
6/18/2008 5:56	507.989
6/18/2008 6:11	507.984
6/18/2008 6:26	507.985
6/18/2008 6:41	507.984
6/18/2008 6:56	507.984
6/18/2008 7:11	507.98
6/18/2008 7:26	507.98
6/18/2008 7:41	507.98
6/18/2008 7:56	507.981
6/18/2008 8:11	507.978
6/18/2008 8:26	507.98
6/18/2008 8:41	507.98
6/18/2008 8:56	507.981
6/18/2008 9:11	507.976
6/18/2008 9:26	507.974
6/18/2008 9:41	507.976
6/18/2008 9:56	507.979
6/18/2008 10:11	507.981
6/18/2008 10:26	507.977
6/18/2008 10:41	507.981
6/18/2008 10:56	507.984
6/18/2008 11:11	507.982
6/18/2008 11:26	507.98
6/18/2008 11:41	507.982
6/18/2008 11:56	507.986
6/18/2008 12:11	507.985
6/18/2008 12:26	507.986
6/18/2008 12:41	507.986
6/18/2008 12:56	507.987
6/18/2008 13:11	507.988
6/18/2008 13:26	507.985
6/18/2008 13:41	507.989
6/18/2008 13:56	507.989
6/18/2008 14:11	507.991
6/18/2008 14:26	507.992
6/18/2008 14:41	507.992

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	507.998
6/18/2008 15:11	507.999
6/18/2008 15:26	508.002
6/18/2008 15:41	508.002
6/18/2008 15:56	508.002
6/18/2008 16:11	508.004
6/18/2008 16:26	508.008
6/18/2008 16:41	508.01
6/18/2008 16:56	508.012
6/18/2008 17:11	508.013
6/18/2008 17:26	508.016
6/18/2008 17:41	508.016
6/18/2008 17:56	508.016
6/18/2008 18:11	508.016
6/18/2008 18:26	508.018
6/18/2008 18:41	508.019
6/18/2008 18:56	508.019
6/18/2008 19:11	508.009
6/18/2008 19:26	508.012
6/18/2008 19:41	508.012
6/18/2008 19:56	508.014
6/18/2008 20:11	508.012
6/18/2008 20:26	508.013
6/18/2008 20:41	508.012
6/18/2008 20:56	508.01
6/18/2008 21:11	508.009
6/18/2008 21:26	508.01
6/18/2008 21:41	508.011
6/18/2008 21:56	508.007
6/18/2008 22:11	508.007
6/18/2008 22:26	508.007
6/18/2008 22:41	508.009
6/18/2008 22:56	508.004
6/18/2008 23:11	508.004
6/18/2008 23:26	508.005
6/18/2008 23:41	508.005
6/18/2008 23:56	508.001
6/19/2008 0:11	507.998
6/19/2008 0:26	507.992
6/19/2008 0:41	507.995
6/19/2008 0:56	507.998
6/19/2008 1:11	508
6/19/2008 1:26	508.005
6/19/2008 1:41	508.006
6/19/2008 1:56	508.008
6/19/2008 2:11	508.006
6/19/2008 2:26	508.016
6/19/2008 2:41	508.018

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	508.02
6/19/2008 3:11	508.024
6/19/2008 3:26	508.023
6/19/2008 3:41	508.027
6/19/2008 3:56	508.029
6/19/2008 4:11	508.034
6/19/2008 4:26	508.035
6/19/2008 4:41	508.033
6/19/2008 4:56	508.036
6/19/2008 5:11	508.038
6/19/2008 5:26	508.037
6/19/2008 5:41	508.037
6/19/2008 5:56	508.038
6/19/2008 6:11	508.032
6/19/2008 6:26	508.03
6/19/2008 6:41	508.032
6/19/2008 6:56	508.035
6/19/2008 7:11	508.036
6/19/2008 7:26	508.036
6/19/2008 7:41	508.037
6/19/2008 7:56	508.036
6/19/2008 8:11	508.034
6/19/2008 8:26	508.034
6/19/2008 8:41	508.033
6/19/2008 8:56	508.034
6/19/2008 9:11	508.033
6/19/2008 9:26	508.03
6/19/2008 9:41	508.032
6/19/2008 9:56	508.031
6/19/2008 10:11	508.031
6/19/2008 10:26	508.029
6/19/2008 10:41	508.025
6/19/2008 10:56	508.027
6/19/2008 11:11	508.026
6/19/2008 11:26	508.025
6/19/2008 11:41	508.022
6/19/2008 11:56	508.021
6/19/2008 12:11	508.018
6/19/2008 12:26	508.021
6/19/2008 12:41	508.008
Recovery Test	
6/19/2008 13:00	508.0060219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0070219
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0010219
6/19/2008 13:00	508.0020219

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	508.0010219
6/19/2008 13:00	508.0040219
6/19/2008 13:00	508.0040219
6/19/2008 13:00	507.9990219
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0010219
6/19/2008 13:00	507.9990219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0010219
6/19/2008 13:00	508.0000219
6/19/2008 13:00	508.0000219
6/19/2008 13:00	508.0010219
6/19/2008 13:00	508.0000219
6/19/2008 13:00	507.9990219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0000219
6/19/2008 13:00	507.9960219
6/19/2008 13:00	508.0010219
6/19/2008 13:00	508.0010219
6/19/2008 13:00	507.9990219
6/19/2008 13:00	508.0000219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	507.9990219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0040219
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0010219
6/19/2008 13:00	508.0000219
6/19/2008 13:00	507.9990219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0010219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0000219
6/19/2008 13:00	508.0040219
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0050219
6/19/2008 13:00	508.0040219
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0050219
6/19/2008 13:00	508.0020219
6/19/2008 13:00	508.0060219
6/19/2008 13:00	508.0030219

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0030219
6/19/2008 13:00	508.0040219
6/19/2008 13:00	508.0040219
6/19/2008 13:00	508.0050219
6/19/2008 13:00	508.0070219
6/19/2008 13:00	508.0060219
6/19/2008 13:00	508.0080219
6/19/2008 13:00	508.0060219
6/19/2008 13:00	508.0040219
6/19/2008 13:01	508.0050219
6/19/2008 13:01	508.0050219
6/19/2008 13:01	508.0070219
6/19/2008 13:01	508.0030219
6/19/2008 13:01	508.0060219
6/19/2008 13:01	508.0020219
6/19/2008 13:01	508.0050219
6/19/2008 13:01	508.0020219
6/19/2008 13:01	508.0030219
6/19/2008 13:01	508.0060219
6/19/2008 13:01	508.0040219
6/19/2008 13:01	508.0010219
6/19/2008 13:01	508.0030219
6/19/2008 13:02	508.0050219
6/19/2008 13:02	508.0070219
6/19/2008 13:02	508.0040219
6/19/2008 13:02	508.0050219
6/19/2008 13:02	508.0030219
6/19/2008 13:02	508.0050219
6/19/2008 13:02	508.0060219
6/19/2008 13:03	508.0050219
6/19/2008 13:03	508.0060219
6/19/2008 13:03	508.0060219
6/19/2008 13:03	508.0030219
6/19/2008 13:03	508.0020219
6/19/2008 13:04	508.0030219
6/19/2008 13:04	508.0040219
6/19/2008 13:04	508.0070219
6/19/2008 13:05	508.0070219
6/19/2008 13:05	508.0050219
6/19/2008 13:05	508.0060219
6/19/2008 13:05	508.0050219
6/19/2008 13:06	508.0070219
6/19/2008 13:06	508.0030219
6/19/2008 13:07	508.0060219
6/19/2008 13:07	508.0070219
6/19/2008 13:07	508.0080219
6/19/2008 13:08	508.0060219

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:08	508.0060219
6/19/2008 13:09	508.0090219
6/19/2008 13:10	508.0100219
6/19/2008 13:10	508.0050219
6/19/2008 13:11	508.0080219
6/19/2008 13:11	508.0060219
6/19/2008 13:12	508.0050219
6/19/2008 13:13	508.0070219
6/19/2008 13:14	508.0060219
6/19/2008 13:15	508.0080219
6/19/2008 13:15	508.0080219
6/19/2008 13:16	508.0060219
6/19/2008 13:17	508.0070219
6/19/2008 13:18	508.0100219
6/19/2008 13:19	508.0080219
6/19/2008 13:21	508.0090219
6/19/2008 13:22	508.0060219
6/19/2008 13:23	508.0100219
6/19/2008 13:25	508.0110219
6/19/2008 13:26	508.0110219
6/19/2008 13:28	508.0160219
6/19/2008 13:29	508.0140219
6/19/2008 13:31	508.0150219
6/19/2008 13:33	508.0140219
6/19/2008 13:35	508.0120219
6/19/2008 13:37	508.0170219
6/19/2008 13:39	508.0120219
6/19/2008 13:42	508.0100219
6/19/2008 13:44	508.0110219
6/19/2008 13:47	508.0160219
6/19/2008 13:50	508.0120219
6/19/2008 13:53	508.0140219
6/19/2008 13:56	508.0160219
6/19/2008 13:59	508.0160219
6/19/2008 14:03	508.0100219
6/19/2008 14:06	508.0150219
6/19/2008 14:10	508.0150219
6/19/2008 14:15	508.0170219
6/19/2008 14:19	508.0150219
6/19/2008 14:24	508.0130219
6/19/2008 14:29	508.0140219
6/19/2008 14:34	508.0130219
6/19/2008 14:40	508.0160219
6/19/2008 14:46	508.0150219
6/19/2008 14:52	508.0140219
6/19/2008 14:59	508.0130219
6/19/2008 15:06	508.0150219
6/19/2008 15:13	508.0150219

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:21	508.0130219
6/19/2008 15:30	508.0190219
6/19/2008 15:38	508.0170219
6/19/2008 15:48	508.0150219
6/19/2008 15:58	508.0160219
6/19/2008 16:08	508.0150219
6/19/2008 16:19	508.0240219
6/19/2008 16:31	508.0250219
6/19/2008 16:44	508.0230219
6/19/2008 16:57	508.0250219
6/19/2008 17:11	508.0200219
6/19/2008 17:26	508.0200219
6/19/2008 17:41	508.0190219
6/19/2008 17:56	508.0170219
6/19/2008 18:11	508.0130219
6/19/2008 18:26	508.0170219
6/19/2008 18:41	508.0060219
6/19/2008 18:56	508.0010219
6/19/2008 19:11	508.0020219
6/19/2008 19:26	508.0050219
6/19/2008 19:41	508.0080219
6/19/2008 19:56	508.0080219
6/19/2008 20:11	508.0060219
6/19/2008 20:26	508.0070219
6/19/2008 20:41	508.0060219
6/19/2008 20:56	508.0070219
6/19/2008 21:11	508.0060219
6/19/2008 21:26	508.0020219
6/19/2008 21:41	508.0020219
6/19/2008 21:56	508.0060219
6/19/2008 22:11	508.0000219
6/19/2008 22:26	508.0050219
6/19/2008 22:41	508.0030219
6/19/2008 22:56	508.0020219
6/19/2008 23:11	508.0030219
6/19/2008 23:26	508.0040219
6/19/2008 23:41	508.0050219
6/19/2008 23:56	508.0020219
6/20/2008 0:11	508.0080219
6/20/2008 0:26	508.0050219
6/20/2008 0:41	508.0040219
6/20/2008 0:56	508.0030219
6/20/2008 1:11	508.0020219
6/20/2008 1:26	508.0040219
6/20/2008 1:41	508.0040219
6/20/2008 1:56	508.0030219
6/20/2008 2:11	507.9990219
6/20/2008 2:26	508.0010219

MW-32B Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 2:41	507.9990219
6/20/2008 2:56	508.0000219
6/20/2008 3:11	507.9910219
6/20/2008 3:26	507.9920219
6/20/2008 3:41	507.9950219
6/20/2008 3:56	507.9980219
6/20/2008 4:11	507.9960219
6/20/2008 4:26	508.0000219
6/20/2008 4:41	508.0000219
6/20/2008 4:56	508.0000219
6/20/2008 5:11	507.9970219
6/20/2008 5:26	508.0010219
6/20/2008 5:41	507.9990219
6/20/2008 5:56	508.0000219
6/20/2008 6:11	508.0030219
6/20/2008 6:26	507.9970219
6/20/2008 6:41	507.9990219
6/20/2008 6:56	507.9960219
6/20/2008 7:11	507.9880219
6/20/2008 7:26	507.9890219
6/20/2008 7:41	507.9930219
6/20/2008 7:56	507.9920219
6/20/2008 8:11	507.9940219
6/20/2008 8:26	507.9950219
6/20/2008 8:41	507.9930219
6/20/2008 8:56	507.9910219
6/20/2008 9:11	507.9930219
6/20/2008 9:26	507.9760219
6/20/2008 9:41	507.9700219
6/20/2008 9:56	507.9740219
6/20/2008 10:11	507.9790219
6/20/2008 10:26	507.9780219
6/20/2008 10:41	507.9780219
6/20/2008 10:56	507.9810219
6/20/2008 11:11	507.9860219
6/20/2008 11:26	507.9890219
6/20/2008 11:41	507.9890219
6/20/2008 11:56	507.9890219
6/20/2008 12:11	507.9910219
6/20/2008 12:26	507.9860219

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	554.15
6/17/2008 15:00	554.152
6/17/2008 15:00	554.161
6/17/2008 15:00	554.159
6/17/2008 15:00	554.156
6/17/2008 15:00	554.15
6/17/2008 15:00	554.149
6/17/2008 15:00	554.152
6/17/2008 15:00	554.159
6/17/2008 15:00	554.15
6/17/2008 15:00	554.156
6/17/2008 15:00	554.144
6/17/2008 15:00	554.151
6/17/2008 15:00	554.147
6/17/2008 15:00	554.148
6/17/2008 15:00	554.153
6/17/2008 15:00	554.151
6/17/2008 15:00	554.15
6/17/2008 15:00	554.152
6/17/2008 15:00	554.158
6/17/2008 15:00	554.161
6/17/2008 15:00	554.157
6/17/2008 15:00	554.154
6/17/2008 15:00	554.146
6/17/2008 15:00	554.157
6/17/2008 15:00	554.158
6/17/2008 15:00	554.154
6/17/2008 15:00	554.148
6/17/2008 15:00	554.148
6/17/2008 15:00	554.156
6/17/2008 15:00	554.161
6/17/2008 15:00	554.148
6/17/2008 15:00	554.151
6/17/2008 15:00	554.147
6/17/2008 15:00	554.141
6/17/2008 15:00	554.152
6/17/2008 15:00	554.155
6/17/2008 15:00	554.15
6/17/2008 15:00	554.155
6/17/2008 15:00	554.156
6/17/2008 15:00	554.152
6/17/2008 15:00	554.162
6/17/2008 15:00	554.149
6/17/2008 15:00	554.145
6/17/2008 15:00	554.157
6/17/2008 15:00	554.15
6/17/2008 15:00	554.154

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	554.151
6/17/2008 15:00	554.154
6/17/2008 15:00	554.156
6/17/2008 15:00	554.158
6/17/2008 15:00	554.152
6/17/2008 15:00	554.15
6/17/2008 15:00	554.15
6/17/2008 15:00	554.158
6/17/2008 15:00	554.159
6/17/2008 15:00	554.161
6/17/2008 15:00	554.146
6/17/2008 15:00	554.157
6/17/2008 15:00	554.149
6/17/2008 15:00	554.149
6/17/2008 15:00	554.149
6/17/2008 15:00	554.155
6/17/2008 15:00	554.15
6/17/2008 15:01	554.146
6/17/2008 15:01	554.146
6/17/2008 15:01	554.151
6/17/2008 15:01	554.157
6/17/2008 15:01	554.162
6/17/2008 15:01	554.15
6/17/2008 15:01	554.152
6/17/2008 15:01	554.153
6/17/2008 15:01	554.152
6/17/2008 15:01	554.15
6/17/2008 15:01	554.152
6/17/2008 15:01	554.154
6/17/2008 15:01	554.146
6/17/2008 15:02	554.151
6/17/2008 15:02	554.15
6/17/2008 15:02	554.15
6/17/2008 15:02	554.149
6/17/2008 15:02	554.149
6/17/2008 15:02	554.153
6/17/2008 15:02	554.162
6/17/2008 15:03	554.148
6/17/2008 15:03	554.154
6/17/2008 15:03	554.147
6/17/2008 15:03	554.154
6/17/2008 15:03	554.148
6/17/2008 15:04	554.153
6/17/2008 15:04	554.152
6/17/2008 15:04	554.16
6/17/2008 15:05	554.152
6/17/2008 15:05	554.151
6/17/2008 15:05	554.152

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	554.148
6/17/2008 15:06	554.147
6/17/2008 15:06	554.152
6/17/2008 15:07	554.15
6/17/2008 15:07	554.15
6/17/2008 15:07	554.145
6/17/2008 15:08	554.147
6/17/2008 15:08	554.147
6/17/2008 15:09	554.147
6/17/2008 15:10	554.147
6/17/2008 15:10	554.147
6/17/2008 15:11	554.147
6/17/2008 15:11	554.152
6/17/2008 15:12	554.15
6/17/2008 15:13	554.149
6/17/2008 15:14	554.151
6/17/2008 15:15	554.142
6/17/2008 15:15	554.145
6/17/2008 15:16	554.146
6/17/2008 15:17	554.142
6/17/2008 15:18	554.144
6/17/2008 15:19	554.149
6/17/2008 15:21	554.147
6/17/2008 15:22	554.142
6/17/2008 15:23	554.143
6/17/2008 15:25	554.143
6/17/2008 15:26	554.145
6/17/2008 15:28	554.14
6/17/2008 15:29	554.145
6/17/2008 15:31	554.138
6/17/2008 15:33	554.141
6/17/2008 15:35	554.14
6/17/2008 15:37	554.138
6/17/2008 15:39	554.139
6/17/2008 15:42	554.137
6/17/2008 15:44	554.136
6/17/2008 15:47	554.138
6/17/2008 15:50	554.132
6/17/2008 15:53	554.134
6/17/2008 15:56	554.135
6/17/2008 15:59	554.134
6/17/2008 16:03	554.142
6/17/2008 16:06	554.123
6/17/2008 16:10	554.125
6/17/2008 16:15	554.125
6/17/2008 16:19	554.124
6/17/2008 16:24	554.116
6/17/2008 16:29	554.123

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	554.115
6/17/2008 16:40	554.111
6/17/2008 16:46	554.11
6/17/2008 16:52	554.1
6/17/2008 16:59	554.102
6/17/2008 17:06	554.096
6/17/2008 17:13	554.091
6/17/2008 17:21	554.089
6/17/2008 17:30	554.086
6/17/2008 17:38	554.08
6/17/2008 17:48	554.073
6/17/2008 17:58	554.061
6/17/2008 18:08	554.063
6/17/2008 18:19	554.059
6/17/2008 18:31	554.05
6/17/2008 18:44	554.049
6/17/2008 18:57	554.051
6/17/2008 19:11	554.049
6/17/2008 19:26	554.055
6/17/2008 19:41	554.058
6/17/2008 19:56	554.077
6/17/2008 20:11	554.071
6/17/2008 20:26	554.075
6/17/2008 20:41	554.08
6/17/2008 20:56	554.097
6/17/2008 21:11	554.095
6/17/2008 21:26	554.097
6/17/2008 21:41	554.104
6/17/2008 21:56	554.102
6/17/2008 22:11	554.108
6/17/2008 22:26	554.117
6/17/2008 22:41	554.113
6/17/2008 22:56	554.116
6/17/2008 23:11	554.114
6/17/2008 23:26	554.126
6/17/2008 23:41	554.116
6/17/2008 23:56	554.119
6/18/2008 0:11	554.115
6/18/2008 0:26	554.118
6/18/2008 0:41	554.115
6/18/2008 0:56	554.117
6/18/2008 1:11	554.114
6/18/2008 1:26	554.112
6/18/2008 1:41	554.109
6/18/2008 1:56	554.112
6/18/2008 2:11	554.104
6/18/2008 2:26	554.109
6/18/2008 2:41	554.102

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	554.1
6/18/2008 3:11	554.095
6/18/2008 3:26	554.098
6/18/2008 3:41	554.088
6/18/2008 3:56	554.079
6/18/2008 4:11	554.075
6/18/2008 4:26	554.077
6/18/2008 4:41	554.075
6/18/2008 4:56	554.068
6/18/2008 5:11	554.06
6/18/2008 5:26	554.062
6/18/2008 5:41	554.051
6/18/2008 5:56	554.051
6/18/2008 6:11	554.042
6/18/2008 6:26	554.044
6/18/2008 6:41	554.033
6/18/2008 6:56	554.035
6/18/2008 7:11	554.024
6/18/2008 7:26	554.024
6/18/2008 7:41	554.02
6/18/2008 7:56	554.011
6/18/2008 8:11	554.007
6/18/2008 8:26	554
6/18/2008 8:41	554.001
6/18/2008 8:56	553.992
6/18/2008 9:11	553.987
6/18/2008 9:26	553.987
6/18/2008 9:41	553.981
6/18/2008 9:56	553.977
6/18/2008 10:11	553.973
6/18/2008 10:26	553.969
6/18/2008 10:41	553.967
6/18/2008 10:56	553.968
6/18/2008 11:11	553.965
6/18/2008 11:26	553.958
6/18/2008 11:41	553.958
6/18/2008 11:56	553.952
6/18/2008 12:11	553.952
6/18/2008 12:26	553.944
6/18/2008 12:41	553.953
6/18/2008 12:56	553.945
6/18/2008 13:11	553.945
6/18/2008 13:26	553.941
6/18/2008 13:41	553.934
6/18/2008 13:56	553.934
6/18/2008 14:11	553.936
6/18/2008 14:26	553.938
6/18/2008 14:41	553.943

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	553.945
6/18/2008 15:11	553.95
6/18/2008 15:26	553.954
6/18/2008 15:41	553.969
6/18/2008 15:56	553.967
6/18/2008 16:11	553.973
6/18/2008 16:26	553.978
6/18/2008 16:41	553.987
6/18/2008 16:56	553.989
6/18/2008 17:11	553.993
6/18/2008 17:26	553.989
6/18/2008 17:41	554.001
6/18/2008 17:56	554.001
6/18/2008 18:11	554
6/18/2008 18:26	554.005
6/18/2008 18:41	554.002
6/18/2008 18:56	554.001
6/18/2008 19:11	553.999
6/18/2008 19:26	553.991
6/18/2008 19:41	553.99
6/18/2008 19:56	553.987
6/18/2008 20:11	553.985
6/18/2008 20:26	553.975
6/18/2008 20:41	553.969
6/18/2008 20:56	553.967
6/18/2008 21:11	553.959
6/18/2008 21:26	553.954
6/18/2008 21:41	553.948
6/18/2008 21:56	553.941
6/18/2008 22:11	553.929
6/18/2008 22:26	553.922
6/18/2008 22:41	553.918
6/18/2008 22:56	553.913
6/18/2008 23:11	553.903
6/18/2008 23:26	553.902
6/18/2008 23:41	553.891
6/18/2008 23:56	553.889
6/19/2008 0:11	553.889
6/19/2008 0:26	553.881
6/19/2008 0:41	553.875
6/19/2008 0:56	553.874
6/19/2008 1:11	553.882
6/19/2008 1:26	553.891
6/19/2008 1:41	553.903
6/19/2008 1:56	553.915
6/19/2008 2:11	553.931
6/19/2008 2:26	553.943
6/19/2008 2:41	553.95

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	553.968
6/19/2008 3:11	553.983
6/19/2008 3:26	553.993
6/19/2008 3:41	554.01
6/19/2008 3:56	554.017
6/19/2008 4:11	554.02
6/19/2008 4:26	554.04
6/19/2008 4:41	554.042
6/19/2008 4:56	554.05
6/19/2008 5:11	554.058
6/19/2008 5:26	554.064
6/19/2008 5:41	554.058
6/19/2008 5:56	554.073
6/19/2008 6:11	554.066
6/19/2008 6:26	554.083
6/19/2008 6:41	554.072
6/19/2008 6:56	554.085
6/19/2008 7:11	554.084
6/19/2008 7:26	554.083
6/19/2008 7:41	554.076
6/19/2008 7:56	554.082
6/19/2008 8:11	554.076
6/19/2008 8:26	554.071
6/19/2008 8:41	554.073
6/19/2008 8:56	554.064
6/19/2008 9:11	554.072
6/19/2008 9:26	554.069
6/19/2008 9:41	554.064
6/19/2008 9:56	554.06
6/19/2008 10:11	554.058
6/19/2008 10:26	554.055
6/19/2008 10:41	554.05
6/19/2008 10:56	554.05
6/19/2008 11:11	554.044
6/19/2008 11:26	554.038
6/19/2008 11:41	554.029
6/19/2008 11:56	554.024
6/19/2008 12:11	554.023
Recovery Test	
6/19/2008 13:00	554.15
6/19/2008 13:00	554.166
6/19/2008 13:00	554.164
6/19/2008 13:00	554.159
6/19/2008 13:00	554.155
6/19/2008 13:00	554.157
6/19/2008 13:00	554.15
6/19/2008 13:00	554.163

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	554.157
6/19/2008 13:00	554.16
6/19/2008 13:00	554.151
6/19/2008 13:00	554.158
6/19/2008 13:00	554.155
6/19/2008 13:00	554.151
6/19/2008 13:00	554.154
6/19/2008 13:00	554.163
6/19/2008 13:00	554.148
6/19/2008 13:00	554.163
6/19/2008 13:00	554.162
6/19/2008 13:00	554.164
6/19/2008 13:00	554.156
6/19/2008 13:00	554.157
6/19/2008 13:00	554.16
6/19/2008 13:00	554.155
6/19/2008 13:00	554.144
6/19/2008 13:00	554.157
6/19/2008 13:00	554.157
6/19/2008 13:00	554.157
6/19/2008 13:00	554.149
6/19/2008 13:00	554.152
6/19/2008 13:00	554.156
6/19/2008 13:00	554.153
6/19/2008 13:00	554.154
6/19/2008 13:00	554.151
6/19/2008 13:00	554.155
6/19/2008 13:00	554.151
6/19/2008 13:00	554.149
6/19/2008 13:00	554.157
6/19/2008 13:00	554.156
6/19/2008 13:00	554.16
6/19/2008 13:00	554.155
6/19/2008 13:00	554.15
6/19/2008 13:00	554.147
6/19/2008 13:00	554.155
6/19/2008 13:00	554.152
6/19/2008 13:00	554.154
6/19/2008 13:00	554.155
6/19/2008 13:00	554.156
6/19/2008 13:00	554.158
6/19/2008 13:00	554.154
6/19/2008 13:00	554.15
6/19/2008 13:00	554.152
6/19/2008 13:00	554.157
6/19/2008 13:00	554.14
6/19/2008 13:00	554.162
6/19/2008 13:00	554.156

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	554.162
6/19/2008 13:00	554.163
6/19/2008 13:00	554.145
6/19/2008 13:00	554.153
6/19/2008 13:00	554.143
6/19/2008 13:00	554.149
6/19/2008 13:00	554.15
6/19/2008 13:00	554.163
6/19/2008 13:01	554.148
6/19/2008 13:01	554.149
6/19/2008 13:01	554.151
6/19/2008 13:01	554.147
6/19/2008 13:01	554.147
6/19/2008 13:01	554.146
6/19/2008 13:01	554.171
6/19/2008 13:01	554.163
6/19/2008 13:01	554.152
6/19/2008 13:01	554.154
6/19/2008 13:01	554.152
6/19/2008 13:01	554.153
6/19/2008 13:01	554.153
6/19/2008 13:02	554.154
6/19/2008 13:02	554.149
6/19/2008 13:02	554.148
6/19/2008 13:02	554.142
6/19/2008 13:02	554.144
6/19/2008 13:02	554.15
6/19/2008 13:02	554.158
6/19/2008 13:03	554.153
6/19/2008 13:03	554.142
6/19/2008 13:03	554.158
6/19/2008 13:03	554.152
6/19/2008 13:03	554.153
6/19/2008 13:04	554.149
6/19/2008 13:04	554.151
6/19/2008 13:04	554.149
6/19/2008 13:05	554.151
6/19/2008 13:05	554.15
6/19/2008 13:05	554.151
6/19/2008 13:05	554.148
6/19/2008 13:06	554.148
6/19/2008 13:06	554.143
6/19/2008 13:07	554.144
6/19/2008 13:07	554.151
6/19/2008 13:07	554.15
6/19/2008 13:08	554.143
6/19/2008 13:08	554.153
6/19/2008 13:09	554.149

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:10	554.147
6/19/2008 13:10	554.151
6/19/2008 13:11	554.148
6/19/2008 13:11	554.149
6/19/2008 13:12	554.147
6/19/2008 13:13	554.15
6/19/2008 13:14	554.148
6/19/2008 13:15	554.147
6/19/2008 13:15	554.151
6/19/2008 13:16	554.143
6/19/2008 13:17	554.148
6/19/2008 13:18	554.142
6/19/2008 13:19	554.141
6/19/2008 13:21	554.145
6/19/2008 13:22	554.146
6/19/2008 13:23	554.141
6/19/2008 13:25	554.144
6/19/2008 13:26	554.142
6/19/2008 13:28	554.141
6/19/2008 13:29	554.143
6/19/2008 13:31	554.139
6/19/2008 13:33	554.132
6/19/2008 13:35	554.14
6/19/2008 13:37	554.134
6/19/2008 13:39	554.136
6/19/2008 13:42	554.138
6/19/2008 13:44	554.139
6/19/2008 13:47	554.128
6/19/2008 13:50	554.124
6/19/2008 13:53	554.142
6/19/2008 13:56	554.129
6/19/2008 13:59	554.125
6/19/2008 14:03	554.125
6/19/2008 14:06	554.122
6/19/2008 14:10	554.123
6/19/2008 14:15	554.115
6/19/2008 14:19	554.118
6/19/2008 14:24	554.115
6/19/2008 14:29	554.113
6/19/2008 14:34	554.108
6/19/2008 14:40	554.105
6/19/2008 14:46	554.1
6/19/2008 14:52	554.089
6/19/2008 14:59	554.09
6/19/2008 15:06	554.088
6/19/2008 15:13	554.088
6/19/2008 15:21	554.074
6/19/2008 15:30	554.076

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:38	554.068
6/19/2008 15:48	554.063
6/19/2008 15:58	554.053
6/19/2008 16:08	554.045
6/19/2008 16:19	554.04
6/19/2008 16:31	554.024
6/19/2008 16:44	554.025
6/19/2008 16:57	554.019
6/19/2008 17:11	554.008
6/19/2008 17:26	554.007
6/19/2008 17:41	553.986
6/19/2008 17:56	553.973
6/19/2008 18:11	553.969
6/19/2008 18:26	553.958
6/19/2008 18:41	553.936
6/19/2008 18:56	553.941
6/19/2008 19:11	553.923
6/19/2008 19:26	553.91
6/19/2008 19:41	553.902
6/19/2008 19:56	553.896
6/19/2008 20:11	553.885
6/19/2008 20:26	553.879
6/19/2008 20:41	553.875
6/19/2008 20:56	553.865
6/19/2008 21:11	553.86
6/19/2008 21:26	553.853
6/19/2008 21:41	553.843
6/19/2008 21:56	553.853
6/19/2008 22:11	553.842
6/19/2008 22:26	553.841
6/19/2008 22:41	553.833
6/19/2008 22:56	553.833
6/19/2008 23:11	553.833
6/19/2008 23:26	553.83
6/19/2008 23:41	553.829
6/19/2008 23:56	553.842
6/20/2008 0:11	553.827
6/20/2008 0:26	553.827
6/20/2008 0:41	553.821
6/20/2008 0:56	553.826
6/20/2008 1:11	553.822
6/20/2008 1:26	553.82
6/20/2008 1:41	553.829
6/20/2008 1:56	553.821
6/20/2008 2:11	553.815
6/20/2008 2:26	553.805
6/20/2008 2:41	553.804
6/20/2008 2:56	553.807

EW-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 3:11	553.802
6/20/2008 3:26	553.798
6/20/2008 3:41	553.797
6/20/2008 3:56	553.785
6/20/2008 4:11	553.787
6/20/2008 4:26	553.785
6/20/2008 4:41	553.778
6/20/2008 4:56	553.782
6/20/2008 5:11	553.768
6/20/2008 5:26	553.771
6/20/2008 5:41	553.769
6/20/2008 5:56	553.766
6/20/2008 6:11	553.773
6/20/2008 6:26	553.773
6/20/2008 6:41	553.762
6/20/2008 6:56	553.764
6/20/2008 7:11	553.762
6/20/2008 7:26	553.77
6/20/2008 7:41	553.755
6/20/2008 7:56	553.754
6/20/2008 8:11	553.751
6/20/2008 8:26	553.749
6/20/2008 8:41	553.742
6/20/2008 8:56	553.737
6/20/2008 9:11	553.739
6/20/2008 9:26	553.739
6/20/2008 9:41	553.732
6/20/2008 9:56	553.726
6/20/2008 10:11	553.727
6/20/2008 10:26	553.724
6/20/2008 10:41	553.721
6/20/2008 10:56	553.712
6/20/2008 11:11	553.712
6/20/2008 11:26	553.701
6/20/2008 11:41	553.709

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	531.57
6/17/2008 15:00	531.564
6/17/2008 15:00	531.572
6/17/2008 15:00	531.569
6/17/2008 15:00	531.567
6/17/2008 15:00	531.568
6/17/2008 15:00	531.566
6/17/2008 15:00	531.569
6/17/2008 15:00	531.569
6/17/2008 15:00	531.568
6/17/2008 15:00	531.564
6/17/2008 15:00	531.566
6/17/2008 15:00	531.567
6/17/2008 15:00	531.567
6/17/2008 15:00	531.565
6/17/2008 15:00	531.565
6/17/2008 15:00	531.566
6/17/2008 15:00	531.562
6/17/2008 15:00	531.573
6/17/2008 15:00	531.566
6/17/2008 15:00	531.569
6/17/2008 15:00	531.568
6/17/2008 15:00	531.569
6/17/2008 15:00	531.566
6/17/2008 15:00	531.566
6/17/2008 15:00	531.568
6/17/2008 15:00	531.569
6/17/2008 15:00	531.571
6/17/2008 15:00	531.565
6/17/2008 15:00	531.565
6/17/2008 15:00	531.567
6/17/2008 15:00	531.563
6/17/2008 15:00	531.569
6/17/2008 15:00	531.566
6/17/2008 15:00	531.567
6/17/2008 15:00	531.568
6/17/2008 15:00	531.567
6/17/2008 15:00	531.571
6/17/2008 15:00	531.573
6/17/2008 15:00	531.573
6/17/2008 15:00	531.575
6/17/2008 15:00	531.574
6/17/2008 15:00	531.571
6/17/2008 15:00	531.568
6/17/2008 15:00	531.569
6/17/2008 15:00	531.571
6/17/2008 15:00	531.57

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	531.57
6/17/2008 15:00	531.57
6/17/2008 15:00	531.574
6/17/2008 15:00	531.575
6/17/2008 15:00	531.573
6/17/2008 15:00	531.571
6/17/2008 15:00	531.574
6/17/2008 15:00	531.569
6/17/2008 15:00	531.576
6/17/2008 15:00	531.572
6/17/2008 15:00	531.571
6/17/2008 15:00	531.577
6/17/2008 15:00	531.569
6/17/2008 15:00	531.57
6/17/2008 15:00	531.579
6/17/2008 15:00	531.57
6/17/2008 15:00	531.576
6/17/2008 15:01	531.578
6/17/2008 15:01	531.578
6/17/2008 15:01	531.572
6/17/2008 15:01	531.573
6/17/2008 15:01	531.573
6/17/2008 15:01	531.573
6/17/2008 15:01	531.576
6/17/2008 15:01	531.577
6/17/2008 15:01	531.573
6/17/2008 15:01	531.573
6/17/2008 15:01	531.574
6/17/2008 15:01	531.575
6/17/2008 15:01	531.58
6/17/2008 15:02	531.574
6/17/2008 15:02	531.577
6/17/2008 15:02	531.575
6/17/2008 15:02	531.574
6/17/2008 15:02	531.575
6/17/2008 15:02	531.577
6/17/2008 15:02	531.57
6/17/2008 15:03	531.573
6/17/2008 15:03	531.57
6/17/2008 15:03	531.573
6/17/2008 15:03	531.57
6/17/2008 15:03	531.566
6/17/2008 15:04	531.566
6/17/2008 15:04	531.564
6/17/2008 15:04	531.563
6/17/2008 15:05	531.561
6/17/2008 15:05	531.554
6/17/2008 15:05	531.556

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	531.548
6/17/2008 15:06	531.544
6/17/2008 15:06	531.542
6/17/2008 15:07	531.537
6/17/2008 15:07	531.529
6/17/2008 15:07	531.525
6/17/2008 15:08	531.515
6/17/2008 15:08	531.509
6/17/2008 15:09	531.497
6/17/2008 15:10	531.488
6/17/2008 15:10	531.477
6/17/2008 15:11	531.467
6/17/2008 15:11	531.454
6/17/2008 15:12	531.44
6/17/2008 15:13	531.422
6/17/2008 15:14	531.405
6/17/2008 15:15	531.388
6/17/2008 15:15	531.367
6/17/2008 15:16	531.343
6/17/2008 15:17	531.32
6/17/2008 15:18	531.293
6/17/2008 15:19	531.269
6/17/2008 15:21	531.239
6/17/2008 15:22	531.202
6/17/2008 15:23	531.173
6/17/2008 15:25	531.137
6/17/2008 15:26	531.1
6/17/2008 15:28	531.058
6/17/2008 15:29	531.019
6/17/2008 15:31	530.981
6/17/2008 15:33	530.929
6/17/2008 15:35	530.882
6/17/2008 15:37	530.832
6/17/2008 15:39	530.78
6/17/2008 15:42	530.724
6/17/2008 15:44	530.672
6/17/2008 15:47	530.616
6/17/2008 15:50	530.56
6/17/2008 15:53	530.498
6/17/2008 15:56	530.437
6/17/2008 15:59	530.375
6/17/2008 16:03	530.313
6/17/2008 16:06	530.248
6/17/2008 16:10	530.179
6/17/2008 16:15	530.114
6/17/2008 16:19	530.049
6/17/2008 16:24	529.975
6/17/2008 16:29	529.902

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	529.832
6/17/2008 16:40	529.755
6/17/2008 16:46	529.682
6/17/2008 16:52	529.61
6/17/2008 16:59	529.528
6/17/2008 17:06	529.45
6/17/2008 17:13	529.375
6/17/2008 17:21	529.292
6/17/2008 17:30	529.202
6/17/2008 17:38	529.132
6/17/2008 17:48	529.043
6/17/2008 17:58	528.959
6/17/2008 18:08	528.879
6/17/2008 18:19	528.802
6/17/2008 18:31	528.723
6/17/2008 18:44	528.647
6/17/2008 18:57	528.579
6/17/2008 19:11	528.508
6/17/2008 19:26	528.44
6/17/2008 19:41	528.374
6/17/2008 19:56	528.321
6/17/2008 20:11	528.269
6/17/2008 20:26	528.22
6/17/2008 20:41	528.177
6/17/2008 20:56	528.137
6/17/2008 21:11	528.099
6/17/2008 21:26	528.057
6/17/2008 21:41	528.02
6/17/2008 21:56	527.986
6/17/2008 22:11	527.956
6/17/2008 22:26	527.924
6/17/2008 22:41	527.896
6/17/2008 22:56	527.869
6/17/2008 23:11	527.841
6/17/2008 23:26	527.815
6/17/2008 23:41	527.792
6/17/2008 23:56	527.775
6/18/2008 0:11	527.756
6/18/2008 0:26	527.741
6/18/2008 0:41	527.718
6/18/2008 0:56	527.703
6/18/2008 1:11	527.683
6/18/2008 1:26	527.663
6/18/2008 1:41	527.646
6/18/2008 1:56	527.633
6/18/2008 2:11	527.614
6/18/2008 2:26	527.599
6/18/2008 2:41	527.58

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	527.569
6/18/2008 3:11	527.555
6/18/2008 3:26	527.55
6/18/2008 3:41	527.536
6/18/2008 3:56	527.526
6/18/2008 4:11	527.512
6/18/2008 4:26	527.503
6/18/2008 4:41	527.492
6/18/2008 4:56	527.483
6/18/2008 5:11	527.474
6/18/2008 5:26	527.459
6/18/2008 5:41	527.449
6/18/2008 5:56	527.44
6/18/2008 6:11	527.43
6/18/2008 6:26	527.414
6/18/2008 6:41	527.412
6/18/2008 6:56	527.396
6/18/2008 7:11	527.385
6/18/2008 7:26	527.37
6/18/2008 7:41	527.363
6/18/2008 7:56	527.35
6/18/2008 8:11	527.34
6/18/2008 8:26	527.335
6/18/2008 8:41	527.325
6/18/2008 8:56	527.318
6/18/2008 9:11	527.311
6/18/2008 9:26	527.301
6/18/2008 9:41	527.296
6/18/2008 9:56	527.293
6/18/2008 10:11	527.288
6/18/2008 10:26	527.281
6/18/2008 10:41	527.27
6/18/2008 10:56	527.268
6/18/2008 11:11	527.255
6/18/2008 11:26	527.25
6/18/2008 11:41	527.242
6/18/2008 11:56	527.232
6/18/2008 12:11	527.224
6/18/2008 12:26	527.219
6/18/2008 12:41	527.211
6/18/2008 12:56	527.202
6/18/2008 13:11	527.203
6/18/2008 13:26	527.197
6/18/2008 13:41	527.195
6/18/2008 13:56	527.195
6/18/2008 14:11	527.182
6/18/2008 14:26	527.181
6/18/2008 14:41	527.172

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	527.167
6/18/2008 15:11	527.156
6/18/2008 15:26	527.156
6/18/2008 15:41	527.153
6/18/2008 15:56	527.146
6/18/2008 16:11	527.142
6/18/2008 16:26	527.139
6/18/2008 16:41	527.129
6/18/2008 16:56	527.137
6/18/2008 17:11	527.128
6/18/2008 17:26	527.128
6/18/2008 17:41	527.123
6/18/2008 17:56	527.118
6/18/2008 18:11	527.111
6/18/2008 18:26	527.107
6/18/2008 18:41	527.096
6/18/2008 18:56	527.091
6/18/2008 19:11	527.082
6/18/2008 19:26	527.072
6/18/2008 19:41	527.07
6/18/2008 19:56	527.061
6/18/2008 20:11	527.049
6/18/2008 20:26	527.041
6/18/2008 20:41	527.035
6/18/2008 20:56	527.028
6/18/2008 21:11	527.025
6/18/2008 21:26	527.006
6/18/2008 21:41	526.994
6/18/2008 21:56	526.99
6/18/2008 22:11	526.983
6/18/2008 22:26	526.975
6/18/2008 22:41	526.966
6/18/2008 22:56	526.953
6/18/2008 23:11	526.95
6/18/2008 23:26	526.946
6/18/2008 23:41	526.948
6/18/2008 23:56	526.936
6/19/2008 0:11	526.933
6/19/2008 0:26	526.929
6/19/2008 0:41	526.929
6/19/2008 0:56	526.921
6/19/2008 1:11	526.922
6/19/2008 1:26	526.917
6/19/2008 1:41	526.924
6/19/2008 1:56	526.919
6/19/2008 2:11	526.915
6/19/2008 2:26	526.914
6/19/2008 2:41	526.915

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	526.911
6/19/2008 3:11	526.911
6/19/2008 3:26	526.91
6/19/2008 3:41	526.907
6/19/2008 3:56	526.912
6/19/2008 4:11	526.916
6/19/2008 4:26	526.911
6/19/2008 4:41	526.907
6/19/2008 4:56	526.905
6/19/2008 5:11	526.899
6/19/2008 5:26	526.897
6/19/2008 5:41	526.897
6/19/2008 5:56	526.898
6/19/2008 6:11	526.888
6/19/2008 6:26	526.884
6/19/2008 6:41	526.882
6/19/2008 6:56	526.877
6/19/2008 7:11	526.876
6/19/2008 7:26	526.87
6/19/2008 7:41	526.862
6/19/2008 7:56	526.862
6/19/2008 8:11	526.853
6/19/2008 8:26	526.851
6/19/2008 8:41	526.844
6/19/2008 8:56	526.84
6/19/2008 9:11	526.836
6/19/2008 9:26	526.832
6/19/2008 9:41	526.825
6/19/2008 9:56	526.823
6/19/2008 10:11	526.822
6/19/2008 10:26	526.822
6/19/2008 10:41	526.822
6/19/2008 10:56	526.826
6/19/2008 11:11	526.824
6/19/2008 11:26	526.821
6/19/2008 11:41	526.824
6/19/2008 11:56	526.825
6/19/2008 12:11	526.823
Recovery Test	
6/19/2008 13:00	526.818
6/19/2008 13:00	526.814
6/19/2008 13:00	526.813
6/19/2008 13:00	526.814
6/19/2008 13:00	526.815
6/19/2008 13:00	526.815
6/19/2008 13:00	526.814
6/19/2008 13:00	526.814

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	526.812
6/19/2008 13:00	526.809
6/19/2008 13:00	526.811
6/19/2008 13:00	526.81
6/19/2008 13:00	526.81
6/19/2008 13:00	526.809
6/19/2008 13:00	526.813
6/19/2008 13:00	526.81
6/19/2008 13:00	526.806
6/19/2008 13:00	526.811
6/19/2008 13:00	526.813
6/19/2008 13:00	526.808
6/19/2008 13:00	526.812
6/19/2008 13:00	526.812
6/19/2008 13:00	526.811
6/19/2008 13:00	526.812
6/19/2008 13:00	526.809
6/19/2008 13:00	526.804
6/19/2008 13:00	526.811
6/19/2008 13:00	526.811
6/19/2008 13:00	526.812
6/19/2008 13:00	526.808
6/19/2008 13:00	526.815
6/19/2008 13:00	526.811
6/19/2008 13:00	526.81
6/19/2008 13:00	526.81
6/19/2008 13:00	526.809
6/19/2008 13:00	526.812
6/19/2008 13:00	526.812
6/19/2008 13:00	526.813
6/19/2008 13:00	526.814
6/19/2008 13:00	526.812
6/19/2008 13:00	526.814
6/19/2008 13:00	526.807
6/19/2008 13:00	526.809
6/19/2008 13:00	526.816
6/19/2008 13:00	526.811
6/19/2008 13:00	526.813
6/19/2008 13:00	526.811
6/19/2008 13:00	526.813
6/19/2008 13:00	526.811
6/19/2008 13:00	526.815
6/19/2008 13:00	526.813
6/19/2008 13:00	526.811
6/19/2008 13:00	526.813
6/19/2008 13:00	526.815
6/19/2008 13:00	526.814
6/19/2008 13:00	526.816

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	526.814
6/19/2008 13:00	526.817
6/19/2008 13:00	526.813
6/19/2008 13:00	526.815
6/19/2008 13:00	526.816
6/19/2008 13:00	526.815
6/19/2008 13:00	526.816
6/19/2008 13:00	526.816
6/19/2008 13:01	526.817
6/19/2008 13:01	526.816
6/19/2008 13:01	526.815
6/19/2008 13:01	526.819
6/19/2008 13:01	526.813
6/19/2008 13:01	526.812
6/19/2008 13:01	526.818
6/19/2008 13:01	526.815
6/19/2008 13:01	526.819
6/19/2008 13:01	526.819
6/19/2008 13:01	526.816
6/19/2008 13:01	526.813
6/19/2008 13:01	526.81
6/19/2008 13:02	526.812
6/19/2008 13:02	526.814
6/19/2008 13:02	526.813
6/19/2008 13:02	526.815
6/19/2008 13:02	526.812
6/19/2008 13:02	526.814
6/19/2008 13:02	526.819
6/19/2008 13:03	526.815
6/19/2008 13:03	526.815
6/19/2008 13:03	526.818
6/19/2008 13:03	526.815
6/19/2008 13:03	526.82
6/19/2008 13:04	526.821
6/19/2008 13:04	526.823
6/19/2008 13:04	526.822
6/19/2008 13:05	526.824
6/19/2008 13:05	526.825
6/19/2008 13:05	526.828
6/19/2008 13:05	526.831
6/19/2008 13:06	526.836
6/19/2008 13:06	526.841
6/19/2008 13:07	526.841
6/19/2008 13:07	526.843
6/19/2008 13:07	526.853
6/19/2008 13:08	526.861
6/19/2008 13:08	526.871
6/19/2008 13:09	526.873

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:10	526.885
6/19/2008 13:10	526.893
6/19/2008 13:11	526.902
6/19/2008 13:11	526.916
6/19/2008 13:12	526.931
6/19/2008 13:13	526.948
6/19/2008 13:14	526.963
6/19/2008 13:15	526.982
6/19/2008 13:15	527.005
6/19/2008 13:16	527.031
6/19/2008 13:17	527.052
6/19/2008 13:18	527.078
6/19/2008 13:19	527.107
6/19/2008 13:21	527.138
6/19/2008 13:22	527.171
6/19/2008 13:23	527.208
6/19/2008 13:25	527.245
6/19/2008 13:26	527.288
6/19/2008 13:28	527.332
6/19/2008 13:29	527.373
6/19/2008 13:31	527.418
6/19/2008 13:33	527.465
6/19/2008 13:35	527.517
6/19/2008 13:37	527.568
6/19/2008 13:39	527.627
6/19/2008 13:42	527.679
6/19/2008 13:44	527.735
6/19/2008 13:47	527.791
6/19/2008 13:50	527.851
6/19/2008 13:53	527.911
6/19/2008 13:56	527.971
6/19/2008 13:59	528.036
6/19/2008 14:03	528.097
6/19/2008 14:06	528.157
6/19/2008 14:10	528.222
6/19/2008 14:15	528.287
6/19/2008 14:19	528.352
6/19/2008 14:24	528.422
6/19/2008 14:29	528.492
6/19/2008 14:34	528.562
6/19/2008 14:40	528.63
6/19/2008 14:46	528.702
6/19/2008 14:52	528.769
6/19/2008 14:59	528.843
6/19/2008 15:06	528.916
6/19/2008 15:13	528.983
6/19/2008 15:21	529.058
6/19/2008 15:30	529.138

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:38	529.2
6/19/2008 15:48	529.276
6/19/2008 15:58	529.351
6/19/2008 16:08	529.422
6/19/2008 16:19	529.493
6/19/2008 16:31	529.565
6/19/2008 16:44	529.64
6/19/2008 16:57	529.711
6/19/2008 17:11	529.782
6/19/2008 17:26	529.862
6/19/2008 17:41	529.934
6/19/2008 17:56	529.995
6/19/2008 18:11	530.057
6/19/2008 18:26	530.11
6/19/2008 18:41	530.166
6/19/2008 18:56	530.208
6/19/2008 19:11	530.252
6/19/2008 19:26	530.296
6/19/2008 19:41	530.347
6/19/2008 19:56	530.384
6/19/2008 20:11	530.422
6/19/2008 20:26	530.463
6/19/2008 20:41	530.504
6/19/2008 20:56	530.541
6/19/2008 21:11	530.573
6/19/2008 21:26	530.613
6/19/2008 21:41	530.637
6/19/2008 21:56	530.664
6/19/2008 22:11	530.694
6/19/2008 22:26	530.724
6/19/2008 22:41	530.752
6/19/2008 22:56	530.775
6/19/2008 23:11	530.806
6/19/2008 23:26	530.834
6/19/2008 23:41	530.861
6/19/2008 23:56	530.885
6/20/2008 0:11	530.909
6/20/2008 0:26	530.932
6/20/2008 0:41	530.958
6/20/2008 0:56	530.981
6/20/2008 1:11	531
6/20/2008 1:26	531.023
6/20/2008 1:41	531.043
6/20/2008 1:56	531.06
6/20/2008 2:11	531.08
6/20/2008 2:26	531.097
6/20/2008 2:41	531.116
6/20/2008 2:56	531.131

EW-01 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 3:11	531.143
6/20/2008 3:26	531.165
6/20/2008 3:41	531.181
6/20/2008 3:56	531.19
6/20/2008 4:11	531.214
6/20/2008 4:26	531.218
6/20/2008 4:41	531.233
6/20/2008 4:56	531.249
6/20/2008 5:11	531.259
6/20/2008 5:26	531.271
6/20/2008 5:41	531.285
6/20/2008 5:56	531.304
6/20/2008 6:11	531.309
6/20/2008 6:26	531.318
6/20/2008 6:41	531.329
6/20/2008 6:56	531.336
6/20/2008 7:11	531.352
6/20/2008 7:26	531.356
6/20/2008 7:41	531.368
6/20/2008 7:56	531.375
6/20/2008 8:11	531.385
6/20/2008 8:26	531.391
6/20/2008 8:41	531.401
6/20/2008 8:56	531.411
6/20/2008 9:11	531.417
6/20/2008 9:26	531.425
6/20/2008 9:41	531.436
6/20/2008 9:56	531.443
6/20/2008 10:11	531.449
6/20/2008 10:26	531.454
6/20/2008 10:41	531.456
6/20/2008 10:56	531.463
6/20/2008 11:11	531.467
6/20/2008 11:26	531.473
6/20/2008 11:41	531.472

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	532.95
6/17/2008 15:00	532.952
6/17/2008 15:00	532.949
6/17/2008 15:00	532.948
6/17/2008 15:00	532.947
6/17/2008 15:00	532.947
6/17/2008 15:00	532.951
6/17/2008 15:00	532.949
6/17/2008 15:00	532.95
6/17/2008 15:00	532.95
6/17/2008 15:00	532.948
6/17/2008 15:00	532.948
6/17/2008 15:00	532.949
6/17/2008 15:00	532.949
6/17/2008 15:00	532.947
6/17/2008 15:00	532.95
6/17/2008 15:00	532.951
6/17/2008 15:00	532.951
6/17/2008 15:00	532.951
6/17/2008 15:00	532.948
6/17/2008 15:00	532.945
6/17/2008 15:00	532.947
6/17/2008 15:00	532.948
6/17/2008 15:00	532.947
6/17/2008 15:00	532.947
6/17/2008 15:00	532.95
6/17/2008 15:00	532.949
6/17/2008 15:00	532.95
6/17/2008 15:00	532.952
6/17/2008 15:00	532.95
6/17/2008 15:00	532.951
6/17/2008 15:00	532.953
6/17/2008 15:00	532.953
6/17/2008 15:00	532.947
6/17/2008 15:00	532.947
6/17/2008 15:00	532.949
6/17/2008 15:00	532.952
6/17/2008 15:00	532.949
6/17/2008 15:00	532.948
6/17/2008 15:00	532.95
6/17/2008 15:00	532.952
6/17/2008 15:00	532.949
6/17/2008 15:00	532.951
6/17/2008 15:00	532.95
6/17/2008 15:00	532.948
6/17/2008 15:00	532.946
6/17/2008 15:00	532.953

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	532.95
6/17/2008 15:00	532.953
6/17/2008 15:00	532.949
6/17/2008 15:00	532.947
6/17/2008 15:00	532.948
6/17/2008 15:00	532.947
6/17/2008 15:00	532.946
6/17/2008 15:00	532.947
6/17/2008 15:00	532.946
6/17/2008 15:00	532.945
6/17/2008 15:00	532.945
6/17/2008 15:00	532.944
6/17/2008 15:00	532.943
6/17/2008 15:00	532.94
6/17/2008 15:00	532.936
6/17/2008 15:00	532.937
6/17/2008 15:00	532.935
6/17/2008 15:01	532.932
6/17/2008 15:01	532.93
6/17/2008 15:01	532.929
6/17/2008 15:01	532.925
6/17/2008 15:01	532.919
6/17/2008 15:01	532.911
6/17/2008 15:01	532.913
6/17/2008 15:01	532.909
6/17/2008 15:01	532.902
6/17/2008 15:01	532.894
6/17/2008 15:01	532.896
6/17/2008 15:01	532.89
6/17/2008 15:01	532.882
6/17/2008 15:02	532.878
6/17/2008 15:02	532.869
6/17/2008 15:02	532.858
6/17/2008 15:02	532.853
6/17/2008 15:02	532.846
6/17/2008 15:02	532.837
6/17/2008 15:02	532.822
6/17/2008 15:03	532.818
6/17/2008 15:03	532.809
6/17/2008 15:03	532.798
6/17/2008 15:03	532.787
6/17/2008 15:03	532.775
6/17/2008 15:04	532.759
6/17/2008 15:04	532.747
6/17/2008 15:04	532.733
6/17/2008 15:05	532.72
6/17/2008 15:05	532.71
6/17/2008 15:05	532.693

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	532.673
6/17/2008 15:06	532.663
6/17/2008 15:06	532.64
6/17/2008 15:07	532.626
6/17/2008 15:07	532.607
6/17/2008 15:07	532.586
6/17/2008 15:08	532.562
6/17/2008 15:08	532.534
6/17/2008 15:09	532.517
6/17/2008 15:10	532.485
6/17/2008 15:10	532.464
6/17/2008 15:11	532.436
6/17/2008 15:11	532.404
6/17/2008 15:12	532.37
6/17/2008 15:13	532.338
6/17/2008 15:14	532.307
6/17/2008 15:15	532.264
6/17/2008 15:15	532.229
6/17/2008 15:16	532.186
6/17/2008 15:17	532.142
6/17/2008 15:18	532.097
6/17/2008 15:19	532.054
6/17/2008 15:21	532.006
6/17/2008 15:22	531.956
6/17/2008 15:23	531.907
6/17/2008 15:25	531.854
6/17/2008 15:26	531.801
6/17/2008 15:28	531.743
6/17/2008 15:29	531.687
6/17/2008 15:31	531.627
6/17/2008 15:33	531.567
6/17/2008 15:35	531.509
6/17/2008 15:37	531.444
6/17/2008 15:39	531.388
6/17/2008 15:42	531.323
6/17/2008 15:44	531.258
6/17/2008 15:47	531.193
6/17/2008 15:50	531.126
6/17/2008 15:53	531.058
6/17/2008 15:56	530.988
6/17/2008 15:59	530.919
6/17/2008 16:03	530.85
6/17/2008 16:06	530.782
6/17/2008 16:10	530.713
6/17/2008 16:15	530.639
6/17/2008 16:19	530.57
6/17/2008 16:24	530.493
6/17/2008 16:29	530.413

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	530.34
6/17/2008 16:40	530.265
6/17/2008 16:46	530.194
6/17/2008 16:52	530.119
6/17/2008 16:59	530.039
6/17/2008 17:06	529.952
6/17/2008 17:13	529.873
6/17/2008 17:21	529.79
6/17/2008 17:30	529.703
6/17/2008 17:38	529.628
6/17/2008 17:48	529.534
6/17/2008 17:58	529.444
6/17/2008 18:08	529.368
6/17/2008 18:19	529.292
6/17/2008 18:31	529.228
6/17/2008 18:44	529.161
6/17/2008 18:57	529.097
6/17/2008 19:11	529.027
6/17/2008 19:26	528.962
6/17/2008 19:41	528.907
6/17/2008 19:56	528.856
6/17/2008 20:11	528.805
6/17/2008 20:26	528.76
6/17/2008 20:41	528.724
6/17/2008 20:56	528.688
6/17/2008 21:11	528.646
6/17/2008 21:26	528.61
6/17/2008 21:41	528.581
6/17/2008 21:56	528.551
6/17/2008 22:11	528.524
6/17/2008 22:26	528.496
6/17/2008 22:41	528.469
6/17/2008 22:56	528.443
6/17/2008 23:11	528.42
6/17/2008 23:26	528.398
6/17/2008 23:41	528.376
6/17/2008 23:56	528.361
6/18/2008 0:11	528.349
6/18/2008 0:26	528.33
6/18/2008 0:41	528.311
6/18/2008 0:56	528.293
6/18/2008 1:11	528.272
6/18/2008 1:26	528.258
6/18/2008 1:41	528.242
6/18/2008 1:56	528.229
6/18/2008 2:11	528.213
6/18/2008 2:26	528.198
6/18/2008 2:41	528.182

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	528.17
6/18/2008 3:11	528.166
6/18/2008 3:26	528.16
6/18/2008 3:41	528.149
6/18/2008 3:56	528.141
6/18/2008 4:11	528.13
6/18/2008 4:26	528.118
6/18/2008 4:41	528.114
6/18/2008 4:56	528.104
6/18/2008 5:11	528.094
6/18/2008 5:26	528.084
6/18/2008 5:41	528.074
6/18/2008 5:56	528.064
6/18/2008 6:11	528.052
6/18/2008 6:26	528.04
6/18/2008 6:41	528.03
6/18/2008 6:56	528.019
6/18/2008 7:11	528.014
6/18/2008 7:26	528
6/18/2008 7:41	527.991
6/18/2008 7:56	527.983
6/18/2008 8:11	527.972
6/18/2008 8:26	527.964
6/18/2008 8:41	527.962
6/18/2008 8:56	527.953
6/18/2008 9:11	527.945
6/18/2008 9:26	527.936
6/18/2008 9:41	527.936
6/18/2008 9:56	527.93
6/18/2008 10:11	527.931
6/18/2008 10:26	527.922
6/18/2008 10:41	527.913
6/18/2008 10:56	527.906
6/18/2008 11:11	527.897
6/18/2008 11:26	527.89
6/18/2008 11:41	527.885
6/18/2008 11:56	527.875
6/18/2008 12:11	527.863
6/18/2008 12:26	527.863
6/18/2008 12:41	527.859
6/18/2008 12:56	527.853
6/18/2008 13:11	527.854
6/18/2008 13:26	527.846
6/18/2008 13:41	527.841
6/18/2008 13:56	527.84
6/18/2008 14:11	527.833
6/18/2008 14:26	527.826
6/18/2008 14:41	527.815

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	527.812
6/18/2008 15:11	527.806
6/18/2008 15:26	527.805
6/18/2008 15:41	527.798
6/18/2008 15:56	527.797
6/18/2008 16:11	527.797
6/18/2008 16:26	527.789
6/18/2008 16:41	527.78
6/18/2008 16:56	527.78
6/18/2008 17:11	527.787
6/18/2008 17:26	527.78
6/18/2008 17:41	527.775
6/18/2008 17:56	527.77
6/18/2008 18:11	527.766
6/18/2008 18:26	527.759
6/18/2008 18:41	527.751
6/18/2008 18:56	527.745
6/18/2008 19:11	527.742
6/18/2008 19:26	527.735
6/18/2008 19:41	527.729
6/18/2008 19:56	527.723
6/18/2008 20:11	527.711
6/18/2008 20:26	527.71
6/18/2008 20:41	527.704
6/18/2008 20:56	527.7
6/18/2008 21:11	527.688
6/18/2008 21:26	527.683
6/18/2008 21:41	527.679
6/18/2008 21:56	527.672
6/18/2008 22:11	527.665
6/18/2008 22:26	527.661
6/18/2008 22:41	527.655
6/18/2008 22:56	527.652
6/18/2008 23:11	527.644
6/18/2008 23:26	527.639
6/18/2008 23:41	527.641
6/18/2008 23:56	527.633
6/19/2008 0:11	527.628
6/19/2008 0:26	527.623
6/19/2008 0:41	527.621
6/19/2008 0:56	527.615
6/19/2008 1:11	527.613
6/19/2008 1:26	527.611
6/19/2008 1:41	527.606
6/19/2008 1:56	527.611
6/19/2008 2:11	527.607
6/19/2008 2:26	527.606
6/19/2008 2:41	527.608

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	527.604
6/19/2008 3:11	527.602
6/19/2008 3:26	527.6
6/19/2008 3:41	527.598
6/19/2008 3:56	527.6
6/19/2008 4:11	527.6
6/19/2008 4:26	527.599
6/19/2008 4:41	527.596
6/19/2008 4:56	527.597
6/19/2008 5:11	527.591
6/19/2008 5:26	527.59
6/19/2008 5:41	527.589
6/19/2008 5:56	527.584
6/19/2008 6:11	527.585
6/19/2008 6:26	527.583
6/19/2008 6:41	527.576
6/19/2008 6:56	527.573
6/19/2008 7:11	527.574
6/19/2008 7:26	527.572
6/19/2008 7:41	527.566
6/19/2008 7:56	527.561
6/19/2008 8:11	527.559
6/19/2008 8:26	527.554
6/19/2008 8:41	527.553
6/19/2008 8:56	527.552
6/19/2008 9:11	527.538
6/19/2008 9:26	527.542
6/19/2008 9:41	527.538
6/19/2008 9:56	527.53
6/19/2008 10:11	527.529
6/19/2008 10:26	527.537
6/19/2008 10:41	527.535
6/19/2008 10:56	527.535
6/19/2008 11:11	527.539
6/19/2008 11:26	527.53
6/19/2008 11:41	527.531
6/19/2008 11:56	527.53
Recovery Test	
6/19/2008 13:00	527.522
6/19/2008 13:00	527.522
6/19/2008 13:00	527.519
6/19/2008 13:00	527.519
6/19/2008 13:00	527.517
6/19/2008 13:00	527.519
6/19/2008 13:00	527.521
6/19/2008 13:00	527.518
6/19/2008 13:00	527.518

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	527.517
6/19/2008 13:00	527.515
6/19/2008 13:00	527.516
6/19/2008 13:00	527.517
6/19/2008 13:00	527.516
6/19/2008 13:00	527.518
6/19/2008 13:00	527.516
6/19/2008 13:00	527.511
6/19/2008 13:00	527.515
6/19/2008 13:00	527.515
6/19/2008 13:00	527.515
6/19/2008 13:00	527.516
6/19/2008 13:00	527.513
6/19/2008 13:00	527.514
6/19/2008 13:00	527.513
6/19/2008 13:00	527.514
6/19/2008 13:00	527.513
6/19/2008 13:00	527.512
6/19/2008 13:00	527.514
6/19/2008 13:00	527.514
6/19/2008 13:00	527.514
6/19/2008 13:00	527.514
6/19/2008 13:00	527.516
6/19/2008 13:00	527.513
6/19/2008 13:00	527.515
6/19/2008 13:00	527.512
6/19/2008 13:00	527.519
6/19/2008 13:00	527.518
6/19/2008 13:00	527.518
6/19/2008 13:00	527.516
6/19/2008 13:00	527.516
6/19/2008 13:00	527.518
6/19/2008 13:00	527.518
6/19/2008 13:00	527.518
6/19/2008 13:00	527.516
6/19/2008 13:00	527.519
6/19/2008 13:00	527.521
6/19/2008 13:00	527.52
6/19/2008 13:00	527.515
6/19/2008 13:00	527.522
6/19/2008 13:00	527.522
6/19/2008 13:00	527.515
6/19/2008 13:00	527.517
6/19/2008 13:00	527.518
6/19/2008 13:00	527.52
6/19/2008 13:00	527.519
6/19/2008 13:00	527.519
6/19/2008 13:00	527.522

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	527.52
6/19/2008 13:00	527.522
6/19/2008 13:00	527.52
6/19/2008 13:00	527.52
6/19/2008 13:00	527.521
6/19/2008 13:00	527.522
6/19/2008 13:00	527.522
6/19/2008 13:01	527.524
6/19/2008 13:01	527.522
6/19/2008 13:01	527.526
6/19/2008 13:01	527.523
6/19/2008 13:01	527.525
6/19/2008 13:01	527.527
6/19/2008 13:01	527.529
6/19/2008 13:01	527.528
6/19/2008 13:01	527.532
6/19/2008 13:01	527.529
6/19/2008 13:01	527.533
6/19/2008 13:01	527.534
6/19/2008 13:01	527.538
6/19/2008 13:02	527.536
6/19/2008 13:02	527.542
6/19/2008 13:02	527.544
6/19/2008 13:02	527.543
6/19/2008 13:02	527.548
6/19/2008 13:02	527.553
6/19/2008 13:02	527.556
6/19/2008 13:03	527.56
6/19/2008 13:03	527.564
6/19/2008 13:03	527.569
6/19/2008 13:03	527.573
6/19/2008 13:03	527.581
6/19/2008 13:04	527.586
6/19/2008 13:04	527.594
6/19/2008 13:04	527.599
6/19/2008 13:05	527.611
6/19/2008 13:05	527.622
6/19/2008 13:05	527.633
6/19/2008 13:05	527.647
6/19/2008 13:06	527.66
6/19/2008 13:06	527.674
6/19/2008 13:07	527.69
6/19/2008 13:07	527.709
6/19/2008 13:07	527.728
6/19/2008 13:08	527.749
6/19/2008 13:08	527.764
6/19/2008 13:09	527.792
6/19/2008 13:10	527.819

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:10	527.849
6/19/2008 13:11	527.88
6/19/2008 13:11	527.914
6/19/2008 13:12	527.948
6/19/2008 13:13	527.979
6/19/2008 13:14	528.015
6/19/2008 13:15	528.066
6/19/2008 13:15	528.102
6/19/2008 13:16	528.155
6/19/2008 13:17	528.203
6/19/2008 13:18	528.248
6/19/2008 13:19	528.3
6/19/2008 13:21	528.354
6/19/2008 13:22	528.41
6/19/2008 13:23	528.459
6/19/2008 13:25	528.517
6/19/2008 13:26	528.571
6/19/2008 13:28	528.631
6/19/2008 13:29	528.688
6/19/2008 13:31	528.74
6/19/2008 13:33	528.803
6/19/2008 13:35	528.862
6/19/2008 13:37	528.918
6/19/2008 13:39	528.981
6/19/2008 13:42	529.043
6/19/2008 13:44	529.099
6/19/2008 13:47	529.166
6/19/2008 13:50	529.227
6/19/2008 13:53	529.296
6/19/2008 13:56	529.359
6/19/2008 13:59	529.421
6/19/2008 14:03	529.492
6/19/2008 14:06	529.557
6/19/2008 14:10	529.625
6/19/2008 14:15	529.695
6/19/2008 14:19	529.763
6/19/2008 14:24	529.828
6/19/2008 14:29	529.9
6/19/2008 14:34	529.974
6/19/2008 14:40	530.043
6/19/2008 14:46	530.112
6/19/2008 14:52	530.175
6/19/2008 14:59	530.251
6/19/2008 15:06	530.326
6/19/2008 15:13	530.396
6/19/2008 15:21	530.466
6/19/2008 15:30	530.549
6/19/2008 15:38	530.614

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:48	530.691
6/19/2008 15:58	530.758
6/19/2008 16:08	530.833
6/19/2008 16:19	530.904
6/19/2008 16:31	530.97
6/19/2008 16:44	531.042
6/19/2008 16:57	531.114
6/19/2008 17:11	531.182
6/19/2008 17:26	531.257
6/19/2008 17:41	531.328
6/19/2008 17:56	531.397
6/19/2008 18:11	531.455
6/19/2008 18:26	531.517
6/19/2008 18:41	531.572
6/19/2008 18:56	531.618
6/19/2008 19:11	531.665
6/19/2008 19:26	531.705
6/19/2008 19:41	531.747
6/19/2008 19:56	531.8
6/19/2008 20:11	531.836
6/19/2008 20:26	531.877
6/19/2008 20:41	531.909
6/19/2008 20:56	531.945
6/19/2008 21:11	531.982
6/19/2008 21:26	532.02
6/19/2008 21:41	532.045
6/19/2008 21:56	532.08
6/19/2008 22:11	532.106
6/19/2008 22:26	532.133
6/19/2008 22:41	532.164
6/19/2008 22:56	532.183
6/19/2008 23:11	532.215
6/19/2008 23:26	532.241
6/19/2008 23:41	532.263
6/19/2008 23:56	532.29
6/20/2008 0:11	532.316
6/20/2008 0:26	532.339
6/20/2008 0:41	532.357
6/20/2008 0:56	532.382
6/20/2008 1:11	532.406
6/20/2008 1:26	532.427
6/20/2008 1:41	532.44
6/20/2008 1:56	532.465
6/20/2008 2:11	532.484
6/20/2008 2:26	532.499
6/20/2008 2:41	532.515
6/20/2008 2:56	532.54
6/20/2008 3:11	532.548

EW-03 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 3:26	532.57
6/20/2008 3:41	532.587
6/20/2008 3:56	532.594
6/20/2008 4:11	532.609
6/20/2008 4:26	532.63
6/20/2008 4:41	532.641
6/20/2008 4:56	532.657
6/20/2008 5:11	532.664
6/20/2008 5:26	532.678
6/20/2008 5:41	532.694
6/20/2008 5:56	532.707
6/20/2008 6:11	532.72
6/20/2008 6:26	532.729
6/20/2008 6:41	532.736
6/20/2008 6:56	532.75
6/20/2008 7:11	532.762
6/20/2008 7:26	532.767
6/20/2008 7:41	532.777
6/20/2008 7:56	532.788
6/20/2008 8:11	532.79
6/20/2008 8:26	532.806
6/20/2008 8:41	532.806
6/20/2008 8:56	532.822
6/20/2008 9:11	532.826
6/20/2008 9:26	532.836
6/20/2008 9:41	532.843
6/20/2008 9:56	532.85
6/20/2008 10:11	532.855
6/20/2008 10:26	532.867
6/20/2008 10:41	532.869
6/20/2008 10:56	532.877
6/20/2008 11:11	532.877
6/20/2008 11:26	532.882

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	521.96
6/17/2008 15:00	521.964
6/17/2008 15:00	521.966
6/17/2008 15:00	521.961
6/17/2008 15:00	521.964
6/17/2008 15:00	521.964
6/17/2008 15:00	521.962
6/17/2008 15:00	521.958
6/17/2008 15:00	521.961
6/17/2008 15:00	521.96
6/17/2008 15:00	521.965
6/17/2008 15:00	521.964
6/17/2008 15:00	521.962
6/17/2008 15:00	521.962
6/17/2008 15:00	521.963
6/17/2008 15:00	521.962
6/17/2008 15:00	521.957
6/17/2008 15:00	521.961
6/17/2008 15:00	521.958
6/17/2008 15:00	521.956
6/17/2008 15:00	521.958
6/17/2008 15:00	521.96
6/17/2008 15:00	521.957
6/17/2008 15:00	521.959
6/17/2008 15:00	521.96
6/17/2008 15:00	521.961
6/17/2008 15:00	521.958
6/17/2008 15:00	521.961
6/17/2008 15:00	521.959
6/17/2008 15:00	521.962
6/17/2008 15:00	521.962
6/17/2008 15:00	521.964
6/17/2008 15:00	521.961
6/17/2008 15:00	521.961
6/17/2008 15:00	521.962
6/17/2008 15:00	521.961
6/17/2008 15:00	521.962
6/17/2008 15:00	521.961
6/17/2008 15:00	521.959
6/17/2008 15:00	521.96
6/17/2008 15:00	521.961
6/17/2008 15:00	521.962
6/17/2008 15:00	521.958
6/17/2008 15:00	521.96
6/17/2008 15:00	521.965
6/17/2008 15:00	521.965
6/17/2008 15:00	521.963

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	521.961
6/17/2008 15:00	521.965
6/17/2008 15:00	521.961
6/17/2008 15:00	521.961
6/17/2008 15:00	521.965
6/17/2008 15:00	521.966
6/17/2008 15:00	521.961
6/17/2008 15:00	521.961
6/17/2008 15:00	521.963
6/17/2008 15:00	521.964
6/17/2008 15:00	521.959
6/17/2008 15:00	521.963
6/17/2008 15:00	521.962
6/17/2008 15:00	521.963
6/17/2008 15:00	521.961
6/17/2008 15:00	521.966
6/17/2008 15:00	521.962
6/17/2008 15:01	521.965
6/17/2008 15:01	521.965
6/17/2008 15:01	521.961
6/17/2008 15:01	521.964
6/17/2008 15:01	521.96
6/17/2008 15:01	521.964
6/17/2008 15:01	521.965
6/17/2008 15:01	521.963
6/17/2008 15:01	521.963
6/17/2008 15:01	521.964
6/17/2008 15:01	521.965
6/17/2008 15:01	521.964
6/17/2008 15:01	521.96
6/17/2008 15:02	521.965
6/17/2008 15:02	521.963
6/17/2008 15:02	521.963
6/17/2008 15:02	521.966
6/17/2008 15:02	521.964
6/17/2008 15:02	521.967
6/17/2008 15:02	521.966
6/17/2008 15:03	521.962
6/17/2008 15:03	521.964
6/17/2008 15:03	521.964
6/17/2008 15:03	521.966
6/17/2008 15:03	521.964
6/17/2008 15:04	521.96
6/17/2008 15:04	521.96
6/17/2008 15:04	521.965
6/17/2008 15:05	521.965
6/17/2008 15:05	521.965
6/17/2008 15:05	521.966

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	521.965
6/17/2008 15:06	521.961
6/17/2008 15:06	521.962
6/17/2008 15:07	521.96
6/17/2008 15:07	521.963
6/17/2008 15:07	521.964
6/17/2008 15:08	521.961
6/17/2008 15:08	521.964
6/17/2008 15:09	521.966
6/17/2008 15:10	521.967
6/17/2008 15:10	521.965
6/17/2008 15:11	521.961
6/17/2008 15:11	521.964
6/17/2008 15:12	521.963
6/17/2008 15:13	521.963
6/17/2008 15:14	521.967
6/17/2008 15:15	521.968
6/17/2008 15:15	521.963
6/17/2008 15:16	521.962
6/17/2008 15:17	521.961
6/17/2008 15:18	521.965
6/17/2008 15:19	521.968
6/17/2008 15:21	521.964
6/17/2008 15:22	521.965
6/17/2008 15:23	521.964
6/17/2008 15:25	521.966
6/17/2008 15:26	521.96
6/17/2008 15:28	521.962
6/17/2008 15:29	521.961
6/17/2008 15:31	521.966
6/17/2008 15:33	521.966
6/17/2008 15:35	521.964
6/17/2008 15:37	521.965
6/17/2008 15:39	521.96
6/17/2008 15:42	521.961
6/17/2008 15:44	521.967
6/17/2008 15:47	521.964
6/17/2008 15:50	521.963
6/17/2008 15:53	521.962
6/17/2008 15:56	521.964
6/17/2008 15:59	521.964
6/17/2008 16:03	521.966
6/17/2008 16:06	521.965
6/17/2008 16:10	521.966
6/17/2008 16:15	521.966
6/17/2008 16:19	521.968
6/17/2008 16:24	521.965
6/17/2008 16:29	521.967

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	521.965
6/17/2008 16:40	521.962
6/17/2008 16:46	521.967
6/17/2008 16:52	521.961
6/17/2008 16:59	521.965
6/17/2008 17:06	521.964
6/17/2008 17:13	521.965
6/17/2008 17:21	521.961
6/17/2008 17:30	521.961
6/17/2008 17:38	521.964
6/17/2008 17:48	521.964
6/17/2008 17:58	521.966
6/17/2008 18:08	521.966
6/17/2008 18:19	521.963
6/17/2008 18:31	521.965
6/17/2008 18:44	521.966
6/17/2008 18:57	521.964
6/17/2008 19:11	521.962
6/17/2008 19:26	521.967
6/17/2008 19:41	521.967
6/17/2008 19:56	521.966
6/17/2008 20:11	521.968
6/17/2008 20:26	521.966
6/17/2008 20:41	521.966
6/17/2008 20:56	521.962
6/17/2008 21:11	521.963
6/17/2008 21:26	521.967
6/17/2008 21:41	521.965
6/17/2008 21:56	521.967
6/17/2008 22:11	521.966
6/17/2008 22:26	521.965
6/17/2008 22:41	521.964
6/17/2008 22:56	521.966
6/17/2008 23:11	521.967
6/17/2008 23:26	521.969
6/17/2008 23:41	521.966
6/17/2008 23:56	521.968
6/18/2008 0:11	521.966
6/18/2008 0:26	521.967
6/18/2008 0:41	521.965
6/18/2008 0:56	521.968
6/18/2008 1:11	521.963
6/18/2008 1:26	521.966
6/18/2008 1:41	521.966
6/18/2008 1:56	521.965
6/18/2008 2:11	521.962
6/18/2008 2:26	521.966
6/18/2008 2:41	521.963

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	521.967
6/18/2008 3:11	521.968
6/18/2008 3:26	521.966
6/18/2008 3:41	521.967
6/18/2008 3:56	521.969
6/18/2008 4:11	521.967
6/18/2008 4:26	521.966
6/18/2008 4:41	521.961
6/18/2008 4:56	521.967
6/18/2008 5:11	521.968
6/18/2008 5:26	521.966
6/18/2008 5:41	521.967
6/18/2008 5:56	521.967
6/18/2008 6:11	521.969
6/18/2008 6:26	521.967
6/18/2008 6:41	521.966
6/18/2008 6:56	521.968
6/18/2008 7:11	521.962
6/18/2008 7:26	521.965
6/18/2008 7:41	521.965
6/18/2008 7:56	521.96
6/18/2008 8:11	521.969
6/18/2008 8:26	521.964
6/18/2008 8:41	521.965
6/18/2008 8:56	521.963
6/18/2008 9:11	521.983
6/18/2008 9:26	521.966
6/18/2008 9:41	521.966
6/18/2008 9:56	521.968
6/18/2008 10:11	521.97
6/18/2008 10:26	521.969
6/18/2008 10:41	521.966
6/18/2008 10:56	521.965
6/18/2008 11:11	521.965
6/18/2008 11:26	521.965
6/18/2008 11:41	521.965
6/18/2008 11:56	521.965
6/18/2008 12:11	521.964
6/18/2008 12:26	521.963
6/18/2008 12:41	521.965
6/18/2008 12:56	521.961
6/18/2008 13:11	521.966
6/18/2008 13:26	521.962
6/18/2008 13:41	521.962
6/18/2008 13:56	521.962
6/18/2008 14:11	521.964
6/18/2008 14:26	521.967
6/18/2008 14:41	521.96

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	521.962
6/18/2008 15:11	521.965
6/18/2008 15:26	521.963
6/18/2008 15:41	521.964
6/18/2008 15:56	521.963
6/18/2008 16:11	521.964
6/18/2008 16:26	521.964
6/18/2008 16:41	521.961
6/18/2008 16:56	521.961
6/18/2008 17:11	521.961
6/18/2008 17:26	521.964
6/18/2008 17:41	521.964
6/18/2008 17:56	521.961
6/18/2008 18:11	521.96
6/18/2008 18:26	521.962
6/18/2008 18:41	521.959
6/18/2008 18:56	521.962
6/18/2008 19:11	521.96
6/18/2008 19:26	521.959
6/18/2008 19:41	521.965
6/18/2008 19:56	521.962
6/18/2008 20:11	521.961
6/18/2008 20:26	521.959
6/18/2008 20:41	521.962
6/18/2008 20:56	521.963
6/18/2008 21:11	521.961
6/18/2008 21:26	521.96
6/18/2008 21:41	521.957
6/18/2008 21:56	521.962
6/18/2008 22:11	521.963
6/18/2008 22:26	521.959
6/18/2008 22:41	521.96
6/18/2008 22:56	521.963
6/18/2008 23:11	521.957
6/18/2008 23:26	521.96
6/18/2008 23:41	521.958
6/18/2008 23:56	521.958
6/19/2008 0:11	521.959
6/19/2008 0:26	521.959
6/19/2008 0:41	521.959
6/19/2008 0:56	521.96
6/19/2008 1:11	521.957
6/19/2008 1:26	521.958
6/19/2008 1:41	521.96
6/19/2008 1:56	521.96
6/19/2008 2:11	521.957
6/19/2008 2:26	521.957
6/19/2008 2:41	521.959

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	521.958
6/19/2008 3:11	521.959
6/19/2008 3:26	521.958
6/19/2008 3:41	521.96
6/19/2008 3:56	521.957
6/19/2008 4:11	521.961
6/19/2008 4:26	521.953
6/19/2008 4:41	521.958
6/19/2008 4:56	521.957
6/19/2008 5:11	521.955
6/19/2008 5:26	521.957
6/19/2008 5:41	521.955
6/19/2008 5:56	521.958
6/19/2008 6:11	521.954
6/19/2008 6:26	521.959
6/19/2008 6:41	521.958
6/19/2008 6:56	521.957
6/19/2008 7:11	521.955
6/19/2008 7:26	521.956
6/19/2008 7:41	521.957
6/19/2008 7:56	521.953
6/19/2008 8:11	521.957
6/19/2008 8:26	521.956
6/19/2008 8:41	521.954
6/19/2008 8:56	521.953
6/19/2008 9:11	521.954
6/19/2008 9:26	521.955
6/19/2008 9:41	521.955
6/19/2008 9:56	521.957
6/19/2008 10:11	521.955
6/19/2008 10:26	521.956
6/19/2008 10:41	521.954
6/19/2008 10:56	521.956
6/19/2008 11:11	521.954
6/19/2008 11:26	521.956
6/19/2008 11:41	521.954
6/19/2008 11:56	521.951
6/19/2008 12:11	521.952
6/19/2008 12:26	521.951
Recovery Test	
6/19/2008 13:00	521.951
6/19/2008 13:00	521.948
6/19/2008 13:00	521.948
6/19/2008 13:00	521.949
6/19/2008 13:00	521.949
6/19/2008 13:00	521.948
6/19/2008 13:00	521.949

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	521.949
6/19/2008 13:00	521.947
6/19/2008 13:00	521.947
6/19/2008 13:00	521.944
6/19/2008 13:00	521.952
6/19/2008 13:00	521.95
6/19/2008 13:00	521.947
6/19/2008 13:00	521.949
6/19/2008 13:00	521.949
6/19/2008 13:00	521.949
6/19/2008 13:00	521.947
6/19/2008 13:00	521.944
6/19/2008 13:00	521.948
6/19/2008 13:00	521.948
6/19/2008 13:00	521.947
6/19/2008 13:00	521.946
6/19/2008 13:00	521.948
6/19/2008 13:00	521.946
6/19/2008 13:00	521.947
6/19/2008 13:00	521.946
6/19/2008 13:00	521.947
6/19/2008 13:00	521.948
6/19/2008 13:00	521.946
6/19/2008 13:00	521.948
6/19/2008 13:00	521.949
6/19/2008 13:00	521.948
6/19/2008 13:00	521.948
6/19/2008 13:00	521.946
6/19/2008 13:00	521.948
6/19/2008 13:00	521.951
6/19/2008 13:00	521.945
6/19/2008 13:00	521.948
6/19/2008 13:00	521.949
6/19/2008 13:00	521.943
6/19/2008 13:00	521.947
6/19/2008 13:00	521.946
6/19/2008 13:00	521.95
6/19/2008 13:00	521.947
6/19/2008 13:00	521.949
6/19/2008 13:00	521.948
6/19/2008 13:00	521.95
6/19/2008 13:00	521.949
6/19/2008 13:00	521.95
6/19/2008 13:00	521.949
6/19/2008 13:00	521.945
6/19/2008 13:00	521.951
6/19/2008 13:00	521.952
6/19/2008 13:00	521.948

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	521.947
6/19/2008 13:00	521.95
6/19/2008 13:00	521.947
6/19/2008 13:00	521.946
6/19/2008 13:00	521.947
6/19/2008 13:00	521.949
6/19/2008 13:00	521.947
6/19/2008 13:00	521.95
6/19/2008 13:00	521.947
6/19/2008 13:01	521.95
6/19/2008 13:01	521.949
6/19/2008 13:01	521.951
6/19/2008 13:01	521.952
6/19/2008 13:01	521.947
6/19/2008 13:01	521.948
6/19/2008 13:01	521.95
6/19/2008 13:01	521.95
6/19/2008 13:01	521.95
6/19/2008 13:01	521.949
6/19/2008 13:01	521.95
6/19/2008 13:01	521.95
6/19/2008 13:01	521.951
6/19/2008 13:02	521.954
6/19/2008 13:02	521.954
6/19/2008 13:02	521.949
6/19/2008 13:02	521.951
6/19/2008 13:02	521.946
6/19/2008 13:02	521.953
6/19/2008 13:02	521.951
6/19/2008 13:03	521.951
6/19/2008 13:03	521.951
6/19/2008 13:03	521.95
6/19/2008 13:03	521.946
6/19/2008 13:03	521.95
6/19/2008 13:04	521.948
6/19/2008 13:04	521.951
6/19/2008 13:04	521.949
6/19/2008 13:05	521.953
6/19/2008 13:05	521.948
6/19/2008 13:05	521.949
6/19/2008 13:05	521.948
6/19/2008 13:06	521.951
6/19/2008 13:06	521.952
6/19/2008 13:07	521.949
6/19/2008 13:07	521.948
6/19/2008 13:07	521.95
6/19/2008 13:08	521.951
6/19/2008 13:08	521.95

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:09	521.955
6/19/2008 13:10	521.952
6/19/2008 13:10	521.953
6/19/2008 13:11	521.95
6/19/2008 13:11	521.95
6/19/2008 13:12	521.951
6/19/2008 13:13	521.952
6/19/2008 13:14	521.952
6/19/2008 13:15	521.952
6/19/2008 13:15	521.951
6/19/2008 13:16	521.952
6/19/2008 13:17	521.952
6/19/2008 13:18	521.951
6/19/2008 13:19	521.951
6/19/2008 13:21	521.953
6/19/2008 13:22	521.952
6/19/2008 13:23	521.949
6/19/2008 13:25	521.949
6/19/2008 13:26	521.95
6/19/2008 13:28	521.952
6/19/2008 13:29	521.95
6/19/2008 13:31	521.951
6/19/2008 13:33	521.951
6/19/2008 13:35	521.948
6/19/2008 13:37	521.951
6/19/2008 13:39	521.946
6/19/2008 13:42	521.949
6/19/2008 13:44	521.953
6/19/2008 13:47	521.954
6/19/2008 13:50	521.948
6/19/2008 13:53	521.951
6/19/2008 13:56	521.953
6/19/2008 13:59	521.95
6/19/2008 14:03	521.953
6/19/2008 14:06	521.95
6/19/2008 14:10	521.949
6/19/2008 14:15	521.949
6/19/2008 14:19	521.949
6/19/2008 14:24	521.949
6/19/2008 14:29	521.95
6/19/2008 14:34	521.949
6/19/2008 14:40	521.945
6/19/2008 14:46	521.945
6/19/2008 14:52	521.951
6/19/2008 14:59	521.95
6/19/2008 15:06	521.95
6/19/2008 15:13	521.95
6/19/2008 15:21	521.948

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:30	521.947
6/19/2008 15:38	521.947
6/19/2008 15:48	521.95
6/19/2008 15:58	521.951
6/19/2008 16:08	521.951
6/19/2008 16:19	521.949
6/19/2008 16:31	521.95
6/19/2008 16:44	521.947
6/19/2008 16:57	521.948
6/19/2008 17:11	521.949
6/19/2008 17:26	521.948
6/19/2008 17:41	521.944
6/19/2008 17:56	521.949
6/19/2008 18:11	521.945
6/19/2008 18:26	521.949
6/19/2008 18:41	521.951
6/19/2008 18:56	521.95
6/19/2008 19:11	521.947
6/19/2008 19:26	521.947
6/19/2008 19:41	521.947
6/19/2008 19:56	521.947
6/19/2008 20:11	521.947
6/19/2008 20:26	521.949
6/19/2008 20:41	521.945
6/19/2008 20:56	521.949
6/19/2008 21:11	521.946
6/19/2008 21:26	521.945
6/19/2008 21:41	521.947
6/19/2008 21:56	521.944
6/19/2008 22:11	521.939
6/19/2008 22:26	521.941
6/19/2008 22:41	521.944
6/19/2008 22:56	521.947
6/19/2008 23:11	521.943
6/19/2008 23:26	521.938
6/19/2008 23:41	521.947
6/19/2008 23:56	521.946
6/20/2008 0:11	521.946
6/20/2008 0:26	521.946
6/20/2008 0:41	521.943
6/20/2008 0:56	521.943
6/20/2008 1:11	521.943
6/20/2008 1:26	521.942
6/20/2008 1:41	521.942
6/20/2008 1:56	521.947
6/20/2008 2:11	521.937
6/20/2008 2:26	521.945
6/20/2008 2:41	521.943

EXB-02 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 2:56	521.942
6/20/2008 3:11	521.945
6/20/2008 3:26	521.944
6/20/2008 3:41	521.946
6/20/2008 3:56	521.938
6/20/2008 4:11	521.943
6/20/2008 4:26	521.945
6/20/2008 4:41	521.938
6/20/2008 4:56	521.944
6/20/2008 5:11	521.943
6/20/2008 5:26	521.941
6/20/2008 5:41	521.94
6/20/2008 5:56	521.942
6/20/2008 6:11	521.938
6/20/2008 6:26	521.941
6/20/2008 6:41	521.941
6/20/2008 6:56	521.94
6/20/2008 7:11	521.942
6/20/2008 7:26	521.94
6/20/2008 7:41	521.939
6/20/2008 7:56	521.934
6/20/2008 8:11	521.941
6/20/2008 8:26	521.94
6/20/2008 8:41	521.942
6/20/2008 8:56	521.936
6/20/2008 9:11	521.941
6/20/2008 9:26	521.941
6/20/2008 9:41	521.94
6/20/2008 9:56	521.936
6/20/2008 10:11	521.942
6/20/2008 10:26	521.941
6/20/2008 10:41	521.939
6/20/2008 10:56	521.938
6/20/2008 11:11	521.94
6/20/2008 11:26	521.94
6/20/2008 11:41	521.937
6/20/2008 11:56	521.938
6/20/2008 12:11	521.941

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	530.41
6/17/2008 15:00	530.404
6/17/2008 15:00	530.402
6/17/2008 15:00	530.401
6/17/2008 15:00	530.403
6/17/2008 15:00	530.405
6/17/2008 15:00	530.405
6/17/2008 15:00	530.405
6/17/2008 15:00	530.403
6/17/2008 15:00	530.401
6/17/2008 15:00	530.4
6/17/2008 15:00	530.401
6/17/2008 15:00	530.399
6/17/2008 15:00	530.402
6/17/2008 15:00	530.397
6/17/2008 15:00	530.396
6/17/2008 15:00	530.397
6/17/2008 15:00	530.402
6/17/2008 15:00	530.404
6/17/2008 15:00	530.395
6/17/2008 15:00	530.399
6/17/2008 15:00	530.397
6/17/2008 15:00	530.399
6/17/2008 15:00	530.401
6/17/2008 15:00	530.404
6/17/2008 15:00	530.398
6/17/2008 15:00	530.398
6/17/2008 15:00	530.407
6/17/2008 15:00	530.397
6/17/2008 15:00	530.408
6/17/2008 15:00	530.405
6/17/2008 15:00	530.398
6/17/2008 15:00	530.406
6/17/2008 15:00	530.402
6/17/2008 15:00	530.402
6/17/2008 15:00	530.403
6/17/2008 15:00	530.401
6/17/2008 15:00	530.402
6/17/2008 15:00	530.403
6/17/2008 15:00	530.406
6/17/2008 15:00	530.405
6/17/2008 15:00	530.405
6/17/2008 15:00	530.405
6/17/2008 15:00	530.406
6/17/2008 15:00	530.401
6/17/2008 15:00	530.406
6/17/2008 15:00	530.402

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	530.405
6/17/2008 15:00	530.402
6/17/2008 15:00	530.406
6/17/2008 15:00	530.405
6/17/2008 15:00	530.406
6/17/2008 15:00	530.405
6/17/2008 15:00	530.407
6/17/2008 15:00	530.406
6/17/2008 15:00	530.407
6/17/2008 15:00	530.409
6/17/2008 15:00	530.407
6/17/2008 15:00	530.408
6/17/2008 15:00	530.41
6/17/2008 15:00	530.405
6/17/2008 15:00	530.412
6/17/2008 15:00	530.411
6/17/2008 15:00	530.409
6/17/2008 15:01	530.414
6/17/2008 15:01	530.415
6/17/2008 15:01	530.412
6/17/2008 15:01	530.416
6/17/2008 15:01	530.416
6/17/2008 15:01	530.41
6/17/2008 15:01	530.415
6/17/2008 15:01	530.414
6/17/2008 15:01	530.413
6/17/2008 15:01	530.418
6/17/2008 15:01	530.419
6/17/2008 15:01	530.418
6/17/2008 15:01	530.414
6/17/2008 15:02	530.419
6/17/2008 15:02	530.413
6/17/2008 15:02	530.414
6/17/2008 15:02	530.42
6/17/2008 15:02	530.421
6/17/2008 15:02	530.423
6/17/2008 15:02	530.424
6/17/2008 15:03	530.423
6/17/2008 15:03	530.423
6/17/2008 15:03	530.426
6/17/2008 15:03	530.418
6/17/2008 15:03	530.426
6/17/2008 15:04	530.428
6/17/2008 15:04	530.425
6/17/2008 15:04	530.422
6/17/2008 15:05	530.428
6/17/2008 15:05	530.432
6/17/2008 15:05	530.429

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	530.427
6/17/2008 15:06	530.428
6/17/2008 15:06	530.434
6/17/2008 15:07	530.429
6/17/2008 15:07	530.439
6/17/2008 15:07	530.43
6/17/2008 15:08	530.433
6/17/2008 15:08	530.428
6/17/2008 15:09	530.439
6/17/2008 15:10	530.437
6/17/2008 15:10	530.434
6/17/2008 15:11	530.437
6/17/2008 15:11	530.431
6/17/2008 15:12	530.429
6/17/2008 15:13	530.426
6/17/2008 15:14	530.426
6/17/2008 15:15	530.421
6/17/2008 15:15	530.417
6/17/2008 15:16	530.404
6/17/2008 15:17	530.403
6/17/2008 15:18	530.396
6/17/2008 15:19	530.388
6/17/2008 15:21	530.378
6/17/2008 15:22	530.358
6/17/2008 15:23	530.343
6/17/2008 15:25	530.33
6/17/2008 15:26	530.316
6/17/2008 15:28	530.289
6/17/2008 15:29	530.267
6/17/2008 15:31	530.236
6/17/2008 15:33	530.217
6/17/2008 15:35	530.181
6/17/2008 15:37	530.147
6/17/2008 15:39	530.109
6/17/2008 15:42	530.07
6/17/2008 15:44	530.028
6/17/2008 15:47	529.984
6/17/2008 15:50	529.932
6/17/2008 15:53	529.88
6/17/2008 15:56	529.832
6/17/2008 15:59	529.774
6/17/2008 16:03	529.712
6/17/2008 16:06	529.654
6/17/2008 16:10	529.589
6/17/2008 16:15	529.527
6/17/2008 16:19	529.466
6/17/2008 16:24	529.399
6/17/2008 16:29	529.333

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	529.262
6/17/2008 16:40	529.187
6/17/2008 16:46	529.115
6/17/2008 16:52	529.034
6/17/2008 16:59	528.956
6/17/2008 17:06	528.883
6/17/2008 17:13	528.812
6/17/2008 17:21	528.726
6/17/2008 17:30	528.641
6/17/2008 17:38	528.566
6/17/2008 17:48	528.48
6/17/2008 17:58	528.4
6/17/2008 18:08	528.321
6/17/2008 18:19	528.241
6/17/2008 18:31	528.156
6/17/2008 18:44	528.075
6/17/2008 18:57	528.002
6/17/2008 19:11	527.928
6/17/2008 19:26	527.85
6/17/2008 19:41	527.786
6/17/2008 19:56	527.728
6/17/2008 20:11	527.672
6/17/2008 20:26	527.619
6/17/2008 20:41	527.57
6/17/2008 20:56	527.522
6/17/2008 21:11	527.479
6/17/2008 21:26	527.44
6/17/2008 21:41	527.406
6/17/2008 21:56	527.367
6/17/2008 22:11	527.333
6/17/2008 22:26	527.294
6/17/2008 22:41	527.271
6/17/2008 22:56	527.239
6/17/2008 23:11	527.206
6/17/2008 23:26	527.181
6/17/2008 23:41	527.16
6/17/2008 23:56	527.137
6/18/2008 0:11	527.118
6/18/2008 0:26	527.093
6/18/2008 0:41	527.074
6/18/2008 0:56	527.06
6/18/2008 1:11	527.033
6/18/2008 1:26	527.02
6/18/2008 1:41	526.999
6/18/2008 1:56	526.983
6/18/2008 2:11	526.965
6/18/2008 2:26	526.952
6/18/2008 2:41	526.93

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	526.918
6/18/2008 3:11	526.905
6/18/2008 3:26	526.892
6/18/2008 3:41	526.879
6/18/2008 3:56	526.868
6/18/2008 4:11	526.853
6/18/2008 4:26	526.838
6/18/2008 4:41	526.831
6/18/2008 4:56	526.823
6/18/2008 5:11	526.809
6/18/2008 5:26	526.801
6/18/2008 5:41	526.782
6/18/2008 5:56	526.776
6/18/2008 6:11	526.765
6/18/2008 6:26	526.752
6/18/2008 6:41	526.742
6/18/2008 6:56	526.73
6/18/2008 7:11	526.725
6/18/2008 7:26	526.71
6/18/2008 7:41	526.7
6/18/2008 7:56	526.684
6/18/2008 8:11	526.672
6/18/2008 8:26	526.661
6/18/2008 8:41	526.659
6/18/2008 8:56	526.647
6/18/2008 9:11	526.63
6/18/2008 9:26	526.631
6/18/2008 9:41	526.622
6/18/2008 9:56	526.618
6/18/2008 10:11	526.613
6/18/2008 10:26	526.604
6/18/2008 10:41	526.601
6/18/2008 10:56	526.59
6/18/2008 11:11	526.586
6/18/2008 11:26	526.576
6/18/2008 11:41	526.564
6/18/2008 11:56	526.555
6/18/2008 12:11	526.543
6/18/2008 12:26	526.543
6/18/2008 12:41	526.531
6/18/2008 12:56	526.53
6/18/2008 13:11	526.523
6/18/2008 13:26	526.522
6/18/2008 13:41	526.516
6/18/2008 13:56	526.504
6/18/2008 14:11	526.508
6/18/2008 14:26	526.502
6/18/2008 14:41	526.492

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	526.488
6/18/2008 15:11	526.481
6/18/2008 15:26	526.471
6/18/2008 15:41	526.468
6/18/2008 15:56	526.465
6/18/2008 16:11	526.463
6/18/2008 16:26	526.453
6/18/2008 16:41	526.452
6/18/2008 16:56	526.444
6/18/2008 17:11	526.442
6/18/2008 17:26	526.442
6/18/2008 17:41	526.433
6/18/2008 17:56	526.437
6/18/2008 18:11	526.424
6/18/2008 18:26	526.421
6/18/2008 18:41	526.419
6/18/2008 18:56	526.403
6/18/2008 19:11	526.4
6/18/2008 19:26	526.396
6/18/2008 19:41	526.389
6/18/2008 19:56	526.382
6/18/2008 20:11	526.37
6/18/2008 20:26	526.368
6/18/2008 20:41	526.358
6/18/2008 20:56	526.354
6/18/2008 21:11	526.346
6/18/2008 21:26	526.335
6/18/2008 21:41	526.326
6/18/2008 21:56	526.312
6/18/2008 22:11	526.305
6/18/2008 22:26	526.301
6/18/2008 22:41	526.295
6/18/2008 22:56	526.282
6/18/2008 23:11	526.271
6/18/2008 23:26	526.264
6/18/2008 23:41	526.265
6/18/2008 23:56	526.261
6/19/2008 0:11	526.255
6/19/2008 0:26	526.253
6/19/2008 0:41	526.243
6/19/2008 0:56	526.245
6/19/2008 1:11	526.24
6/19/2008 1:26	526.24
6/19/2008 1:41	526.239
6/19/2008 1:56	526.234
6/19/2008 2:11	526.232
6/19/2008 2:26	526.228
6/19/2008 2:41	526.224

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	526.229
6/19/2008 3:11	526.223
6/19/2008 3:26	526.218
6/19/2008 3:41	526.223
6/19/2008 3:56	526.222
6/19/2008 4:11	526.224
6/19/2008 4:26	526.221
6/19/2008 4:41	526.217
6/19/2008 4:56	526.218
6/19/2008 5:11	526.215
6/19/2008 5:26	526.207
6/19/2008 5:41	526.207
6/19/2008 5:56	526.207
6/19/2008 6:11	526.202
6/19/2008 6:26	526.197
6/19/2008 6:41	526.195
6/19/2008 6:56	526.198
6/19/2008 7:11	526.19
6/19/2008 7:26	526.187
6/19/2008 7:41	526.178
6/19/2008 7:56	526.169
6/19/2008 8:11	526.172
6/19/2008 8:26	526.161
6/19/2008 8:41	526.16
6/19/2008 8:56	526.156
6/19/2008 9:11	526.145
6/19/2008 9:26	526.146
6/19/2008 9:41	526.14
6/19/2008 9:56	526.135
6/19/2008 10:11	526.136
6/19/2008 10:26	526.129
6/19/2008 10:41	526.132
6/19/2008 10:56	526.132
6/19/2008 11:11	526.132
6/19/2008 11:26	526.132
6/19/2008 11:41	526.129
6/19/2008 11:56	526.131
6/19/2008 12:11	526.13
Recovery Test	
6/19/2008 13:00	526.123
6/19/2008 13:00	526.123
6/19/2008 13:00	526.124
6/19/2008 13:00	526.121
6/19/2008 13:00	526.121
6/19/2008 13:00	526.118
6/19/2008 13:00	526.123
6/19/2008 13:00	526.125

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	526.122
6/19/2008 13:00	526.119
6/19/2008 13:00	526.12
6/19/2008 13:00	526.118
6/19/2008 13:00	526.119
6/19/2008 13:00	526.118
6/19/2008 13:00	526.119
6/19/2008 13:00	526.116
6/19/2008 13:00	526.119
6/19/2008 13:00	526.114
6/19/2008 13:00	526.118
6/19/2008 13:00	526.118
6/19/2008 13:00	526.123
6/19/2008 13:00	526.121
6/19/2008 13:00	526.122
6/19/2008 13:00	526.119
6/19/2008 13:00	526.118
6/19/2008 13:00	526.121
6/19/2008 13:00	526.121
6/19/2008 13:00	526.123
6/19/2008 13:00	526.124
6/19/2008 13:00	526.123
6/19/2008 13:00	526.123
6/19/2008 13:00	526.127
6/19/2008 13:00	526.119
6/19/2008 13:00	526.122
6/19/2008 13:00	526.118
6/19/2008 13:00	526.121
6/19/2008 13:00	526.119
6/19/2008 13:00	526.121
6/19/2008 13:00	526.119
6/19/2008 13:00	526.123
6/19/2008 13:00	526.122
6/19/2008 13:00	526.125
6/19/2008 13:00	526.122
6/19/2008 13:00	526.121
6/19/2008 13:00	526.122
6/19/2008 13:00	526.129
6/19/2008 13:00	526.122
6/19/2008 13:00	526.12
6/19/2008 13:00	526.129
6/19/2008 13:00	526.128
6/19/2008 13:00	526.124
6/19/2008 13:00	526.119
6/19/2008 13:00	526.127
6/19/2008 13:00	526.125
6/19/2008 13:00	526.121
6/19/2008 13:00	526.123

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	526.128
6/19/2008 13:00	526.124
6/19/2008 13:00	526.125
6/19/2008 13:00	526.126
6/19/2008 13:00	526.123
6/19/2008 13:00	526.128
6/19/2008 13:00	526.125
6/19/2008 13:00	526.125
6/19/2008 13:01	526.127
6/19/2008 13:01	526.124
6/19/2008 13:01	526.126
6/19/2008 13:01	526.123
6/19/2008 13:01	526.125
6/19/2008 13:01	526.122
6/19/2008 13:01	526.128
6/19/2008 13:01	526.124
6/19/2008 13:01	526.126
6/19/2008 13:01	526.126
6/19/2008 13:01	526.124
6/19/2008 13:01	526.125
6/19/2008 13:01	526.121
6/19/2008 13:02	526.122
6/19/2008 13:02	526.129
6/19/2008 13:02	526.128
6/19/2008 13:02	526.124
6/19/2008 13:02	526.124
6/19/2008 13:02	526.126
6/19/2008 13:02	526.127
6/19/2008 13:03	526.128
6/19/2008 13:03	526.124
6/19/2008 13:03	526.142
6/19/2008 13:03	526.094
6/19/2008 13:03	526.124
6/19/2008 13:04	526.124
6/19/2008 13:04	526.147
6/19/2008 13:04	526.127
6/19/2008 13:05	526.09
6/19/2008 13:05	526.131
6/19/2008 13:05	526.122
6/19/2008 13:05	526.129
6/19/2008 13:06	526.131
6/19/2008 13:06	526.126
6/19/2008 13:07	526.127
6/19/2008 13:07	526.131
6/19/2008 13:07	526.13
6/19/2008 13:08	526.131
6/19/2008 13:08	526.135
6/19/2008 13:09	526.13

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:10	526.134
6/19/2008 13:10	526.133
6/19/2008 13:11	526.14
6/19/2008 13:11	526.146
6/19/2008 13:12	526.148
6/19/2008 13:13	526.151
6/19/2008 13:14	526.155
6/19/2008 13:15	526.16
6/19/2008 13:15	526.173
6/19/2008 13:16	526.179
6/19/2008 13:17	526.188
6/19/2008 13:18	526.195
6/19/2008 13:19	526.203
6/19/2008 13:21	526.222
6/19/2008 13:22	526.235
6/19/2008 13:23	526.245
6/19/2008 13:25	526.27
6/19/2008 13:26	526.29
6/19/2008 13:28	526.313
6/19/2008 13:29	526.334
6/19/2008 13:31	526.363
6/19/2008 13:33	526.394
6/19/2008 13:35	526.419
6/19/2008 13:37	526.461
6/19/2008 13:39	526.499
6/19/2008 13:42	526.533
6/19/2008 13:44	526.576
6/19/2008 13:47	526.62
6/19/2008 13:50	526.669
6/19/2008 13:53	526.72
6/19/2008 13:56	526.764
6/19/2008 13:59	526.824
6/19/2008 14:03	526.882
6/19/2008 14:06	526.939
6/19/2008 14:10	526.994
6/19/2008 14:15	527.062
6/19/2008 14:19	527.122
6/19/2008 14:24	527.188
6/19/2008 14:29	527.259
6/19/2008 14:34	527.329
6/19/2008 14:40	527.4
6/19/2008 14:46	527.467
6/19/2008 14:52	527.534
6/19/2008 14:59	527.612
6/19/2008 15:06	527.686
6/19/2008 15:13	527.754
6/19/2008 15:21	527.832
6/19/2008 15:30	527.906

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:38	527.978
6/19/2008 15:48	528.054
6/19/2008 15:58	528.13
6/19/2008 16:08	528.202
6/19/2008 16:19	528.273
6/19/2008 16:31	528.356
6/19/2008 16:44	528.432
6/19/2008 16:57	528.507
6/19/2008 17:11	528.578
6/19/2008 17:26	528.661
6/19/2008 17:41	528.725
6/19/2008 17:56	528.794
6/19/2008 18:11	528.862
6/19/2008 18:26	528.922
6/19/2008 18:41	528.971
6/19/2008 18:56	529.023
6/19/2008 19:11	529.062
6/19/2008 19:26	529.103
6/19/2008 19:41	529.156
6/19/2008 19:56	529.197
6/19/2008 20:11	529.241
6/19/2008 20:26	529.281
6/19/2008 20:41	529.316
6/19/2008 20:56	529.356
6/19/2008 21:11	529.392
6/19/2008 21:26	529.429
6/19/2008 21:41	529.459
6/19/2008 21:56	529.484
6/19/2008 22:11	529.514
6/19/2008 22:26	529.543
6/19/2008 22:41	529.574
6/19/2008 22:56	529.601
6/19/2008 23:11	529.632
6/19/2008 23:26	529.65
6/19/2008 23:41	529.681
6/19/2008 23:56	529.708
6/20/2008 0:11	529.729
6/20/2008 0:26	529.757
6/20/2008 0:41	529.781
6/20/2008 0:56	529.799
6/20/2008 1:11	529.826
6/20/2008 1:26	529.843
6/20/2008 1:41	529.859
6/20/2008 1:56	529.883
6/20/2008 2:11	529.906
6/20/2008 2:26	529.922
6/20/2008 2:41	529.94
6/20/2008 2:56	529.959

EXB-05 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 3:11	529.977
6/20/2008 3:26	529.99
6/20/2008 3:41	530.011
6/20/2008 3:56	530.026
6/20/2008 4:11	530.034
6/20/2008 4:26	530.055
6/20/2008 4:41	530.06
6/20/2008 4:56	530.079
6/20/2008 5:11	530.095
6/20/2008 5:26	530.104
6/20/2008 5:41	530.117
6/20/2008 5:56	530.135
6/20/2008 6:11	530.14
6/20/2008 6:26	530.153
6/20/2008 6:41	530.159
6/20/2008 6:56	530.175
6/20/2008 7:11	530.182
6/20/2008 7:26	530.193
6/20/2008 7:41	530.204
6/20/2008 7:56	530.212
6/20/2008 8:11	530.221
6/20/2008 8:26	530.231
6/20/2008 8:41	530.235
6/20/2008 8:56	530.247
6/20/2008 9:11	530.26
6/20/2008 9:26	530.269
6/20/2008 9:41	530.279
6/20/2008 9:56	530.286
6/20/2008 10:11	530.287
6/20/2008 10:26	530.294
6/20/2008 10:41	530.3
6/20/2008 10:56	530.313
6/20/2008 11:11	530.316
6/20/2008 11:26	530.318
6/20/2008 11:41	530.328

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	531.62
6/17/2008 15:00	531.62
6/17/2008 15:00	531.619
6/17/2008 15:00	531.619
6/17/2008 15:00	531.624
6/17/2008 15:00	531.62
6/17/2008 15:00	531.618
6/17/2008 15:00	531.617
6/17/2008 15:00	531.619
6/17/2008 15:00	531.615
6/17/2008 15:00	531.618
6/17/2008 15:00	531.62
6/17/2008 15:00	531.618
6/17/2008 15:00	531.622
6/17/2008 15:00	531.62
6/17/2008 15:00	531.618
6/17/2008 15:00	531.613
6/17/2008 15:00	531.614
6/17/2008 15:00	531.613
6/17/2008 15:00	531.613
6/17/2008 15:00	531.552
6/17/2008 15:00	531.611
6/17/2008 15:00	531.568
6/17/2008 15:00	531.592
6/17/2008 15:00	531.588
6/17/2008 15:00	531.585
6/17/2008 15:00	531.57
6/17/2008 15:00	531.554
6/17/2008 15:00	531.571
6/17/2008 15:00	531.54
6/17/2008 15:00	531.544
6/17/2008 15:00	531.528
6/17/2008 15:00	531.533
6/17/2008 15:00	531.508
6/17/2008 15:00	531.499
6/17/2008 15:00	531.489
6/17/2008 15:00	531.462
6/17/2008 15:00	531.462
6/17/2008 15:00	531.462
6/17/2008 15:00	531.439
6/17/2008 15:00	531.442
6/17/2008 15:00	531.425
6/17/2008 15:00	531.402
6/17/2008 15:00	531.378
6/17/2008 15:00	531.369
6/17/2008 15:00	531.339
6/17/2008 15:00	531.316

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	531.287
6/17/2008 15:00	531.263
6/17/2008 15:00	531.226
6/17/2008 15:00	531.176
6/17/2008 15:00	531.149
6/17/2008 15:00	531.113
6/17/2008 15:00	531.044
6/17/2008 15:00	530.988
6/17/2008 15:00	530.935
6/17/2008 15:00	530.867
6/17/2008 15:00	530.804
6/17/2008 15:00	530.73
6/17/2008 15:00	530.679
6/17/2008 15:00	530.634
6/17/2008 15:00	530.593
6/17/2008 15:00	530.557
6/17/2008 15:00	530.507
6/17/2008 15:01	530.461
6/17/2008 15:01	530.429
6/17/2008 15:01	530.383
6/17/2008 15:01	530.338
6/17/2008 15:01	530.289
6/17/2008 15:01	530.239
6/17/2008 15:01	530.198
6/17/2008 15:01	530.164
6/17/2008 15:01	530.122
6/17/2008 15:01	530.067
6/17/2008 15:01	530.042
6/17/2008 15:01	530.023
6/17/2008 15:01	529.981
6/17/2008 15:02	529.964
6/17/2008 15:02	529.913
6/17/2008 15:02	529.9
6/17/2008 15:02	529.872
6/17/2008 15:02	529.845
6/17/2008 15:02	529.807
6/17/2008 15:02	529.768
6/17/2008 15:03	529.74
6/17/2008 15:03	529.727
6/17/2008 15:03	529.711
6/17/2008 15:03	529.675
6/17/2008 15:03	529.653
6/17/2008 15:04	529.61
6/17/2008 15:04	529.591
6/17/2008 15:04	529.56
6/17/2008 15:05	529.534
6/17/2008 15:05	529.457
6/17/2008 15:05	529.414

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	529.349
6/17/2008 15:06	529.26
6/17/2008 15:06	529.221
6/17/2008 15:07	529.132
6/17/2008 15:07	529.061
6/17/2008 15:07	528.982
6/17/2008 15:08	528.903
6/17/2008 15:08	528.811
6/17/2008 15:09	528.733
6/17/2008 15:10	528.639
6/17/2008 15:10	528.523
6/17/2008 15:11	528.408
6/17/2008 15:11	528.281
6/17/2008 15:12	528.167
6/17/2008 15:13	528.047
6/17/2008 15:14	527.918
6/17/2008 15:15	527.786
6/17/2008 15:15	527.674
6/17/2008 15:16	527.561
6/17/2008 15:17	527.448
6/17/2008 15:18	527.358
6/17/2008 15:19	527.227
6/17/2008 15:21	527.106
6/17/2008 15:22	526.976
6/17/2008 15:23	526.859
6/17/2008 15:25	526.765
6/17/2008 15:26	526.667
6/17/2008 15:28	526.565
6/17/2008 15:29	526.432
6/17/2008 15:31	526.335
6/17/2008 15:33	526.236
6/17/2008 15:35	526.152
6/17/2008 15:37	526.024
6/17/2008 15:39	525.934
6/17/2008 15:42	525.833
6/17/2008 15:44	525.724
6/17/2008 15:47	525.634
6/17/2008 15:50	525.553
6/17/2008 15:53	525.449
6/17/2008 15:56	525.38
6/17/2008 15:59	525.264
6/17/2008 16:03	525.257
6/17/2008 16:06	525.121
6/17/2008 16:10	525.1
6/17/2008 16:15	525.019
6/17/2008 16:19	524.863
6/17/2008 16:24	524.763
6/17/2008 16:29	524.672

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	524.599
6/17/2008 16:40	524.584
6/17/2008 16:46	524.559
6/17/2008 16:52	524.386
6/17/2008 16:59	524.316
6/17/2008 17:06	524.343
6/17/2008 17:13	524.321
6/17/2008 17:21	524.282
6/17/2008 17:30	524.262
6/17/2008 17:38	524.172
6/17/2008 17:48	524.015
6/17/2008 17:58	523.908
6/17/2008 18:08	523.849
6/17/2008 18:19	523.938
6/17/2008 18:31	523.888
6/17/2008 18:44	523.842
6/17/2008 18:57	523.796
6/17/2008 19:11	523.807
6/17/2008 19:26	523.794
6/17/2008 19:41	523.766
6/17/2008 19:56	523.675
6/17/2008 20:11	523.624
6/17/2008 20:26	523.527
6/17/2008 20:41	523.277
6/17/2008 20:56	523.258
6/17/2008 21:11	523.198
6/17/2008 21:26	523.172
6/17/2008 21:41	523.185
6/17/2008 21:56	523.172
6/17/2008 22:11	523.142
6/17/2008 22:26	523.131
6/17/2008 22:41	523.088
6/17/2008 22:56	523.077
6/17/2008 23:11	523.092
6/17/2008 23:26	523.059
6/17/2008 23:41	523.057
6/17/2008 23:56	523.123
6/18/2008 0:11	523.112
6/18/2008 0:26	523.109
6/18/2008 0:41	523.077
6/18/2008 0:56	523.044
6/18/2008 1:11	523.026
6/18/2008 1:26	522.985
6/18/2008 1:41	522.973
6/18/2008 1:56	522.962
6/18/2008 2:11	522.95
6/18/2008 2:26	523.004
6/18/2008 2:41	523.015

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	523.04
6/18/2008 3:11	523.052
6/18/2008 3:26	523
6/18/2008 3:41	523.01
6/18/2008 3:56	523.044
6/18/2008 4:11	523.013
6/18/2008 4:26	522.987
6/18/2008 4:41	522.943
6/18/2008 4:56	522.954
6/18/2008 5:11	522.997
6/18/2008 5:26	522.953
6/18/2008 5:41	522.92
6/18/2008 5:56	522.916
6/18/2008 6:11	522.964
6/18/2008 6:26	522.92
6/18/2008 6:41	522.898
6/18/2008 6:56	522.891
6/18/2008 7:11	522.926
6/18/2008 7:26	522.913
6/18/2008 7:41	522.865
6/18/2008 7:56	522.878
6/18/2008 8:11	522.929
6/18/2008 8:26	522.893
6/18/2008 8:41	522.859
6/18/2008 8:56	522.844
6/18/2008 9:11	522.892
6/18/2008 9:26	522.88
6/18/2008 9:41	522.852
6/18/2008 9:56	522.886
6/18/2008 10:11	522.915
6/18/2008 10:26	522.852
6/18/2008 10:41	522.819
6/18/2008 10:56	522.876
6/18/2008 11:11	522.839
6/18/2008 11:26	522.817
6/18/2008 11:41	522.809
6/18/2008 11:56	522.838
6/18/2008 12:11	522.786
6/18/2008 12:26	522.804
6/18/2008 12:41	522.841
6/18/2008 12:56	522.819
6/18/2008 13:11	522.847
6/18/2008 13:26	522.857
6/18/2008 13:41	522.784
6/18/2008 13:56	522.891
6/18/2008 14:11	522.811
6/18/2008 14:26	522.874
6/18/2008 14:41	522.821

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	522.807
6/18/2008 15:11	522.866
6/18/2008 15:26	522.833
6/18/2008 15:41	522.784
6/18/2008 15:56	522.872
6/18/2008 16:11	522.796
6/18/2008 16:26	522.781
6/18/2008 16:41	522.825
6/18/2008 16:56	522.812
6/18/2008 17:11	522.903
6/18/2008 17:26	522.857
6/18/2008 17:41	522.813
6/18/2008 17:56	522.87
6/18/2008 18:11	522.816
6/18/2008 18:26	522.762
6/18/2008 18:41	522.813
6/18/2008 18:56	522.758
6/18/2008 19:11	522.767
6/18/2008 19:26	522.799
6/18/2008 19:41	522.739
6/18/2008 19:56	522.734
6/18/2008 20:11	522.763
6/18/2008 20:26	522.729
6/18/2008 20:41	522.703
6/18/2008 20:56	522.77
6/18/2008 21:11	522.703
6/18/2008 21:26	522.678
6/18/2008 21:41	522.765
6/18/2008 21:56	522.707
6/18/2008 22:11	522.666
6/18/2008 22:26	522.717
6/18/2008 22:41	522.669
6/18/2008 22:56	522.643
6/18/2008 23:11	522.721
6/18/2008 23:26	522.662
6/18/2008 23:41	522.634
6/18/2008 23:56	522.709
6/19/2008 0:11	522.65
6/19/2008 0:26	522.62
6/19/2008 0:41	522.678
6/19/2008 0:56	522.618
6/19/2008 1:11	522.62
6/19/2008 1:26	522.649
6/19/2008 1:41	522.63
6/19/2008 1:56	522.588
6/19/2008 2:11	522.64
6/19/2008 2:26	522.607
6/19/2008 2:41	522.581

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	522.626
6/19/2008 3:11	522.576
6/19/2008 3:26	522.559
6/19/2008 3:41	522.633
6/19/2008 3:56	522.564
6/19/2008 4:11	522.565
6/19/2008 4:26	522.598
6/19/2008 4:41	522.54
6/19/2008 4:56	522.586
6/19/2008 5:11	522.552
6/19/2008 5:26	522.551
6/19/2008 5:41	522.562
6/19/2008 5:56	522.582
6/19/2008 6:11	522.521
6/19/2008 6:26	522.597
6/19/2008 6:41	522.539
6/19/2008 6:56	522.531
6/19/2008 7:11	522.566
6/19/2008 7:26	522.568
6/19/2008 7:41	522.528
6/19/2008 7:56	522.534
6/19/2008 8:11	522.591
6/19/2008 8:26	522.542
6/19/2008 8:41	522.528
6/19/2008 8:56	522.551
6/19/2008 9:11	522.557
6/19/2008 9:26	522.511
6/19/2008 9:41	522.514
6/19/2008 9:56	522.49
6/19/2008 10:11	522.458
6/19/2008 10:26	522.467
6/19/2008 10:41	522.513
6/19/2008 10:56	522.473
6/19/2008 11:11	522.575
6/19/2008 11:26	522.523
6/19/2008 11:41	522.48
6/19/2008 11:56	522.508
Recovery Test	
6/19/2008 13:00	522.501
6/19/2008 13:00	522.514
6/19/2008 13:00	522.507
6/19/2008 13:00	522.512
6/19/2008 13:00	522.508
6/19/2008 13:00	522.518
6/19/2008 13:00	522.522
6/19/2008 13:00	522.546
6/19/2008 13:00	522.507

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	522.52
6/19/2008 13:00	522.493
6/19/2008 13:00	522.516
6/19/2008 13:00	522.522
6/19/2008 13:00	522.528
6/19/2008 13:00	522.531
6/19/2008 13:00	522.531
6/19/2008 13:00	522.53
6/19/2008 13:00	522.531
6/19/2008 13:00	522.535
6/19/2008 13:00	522.536
6/19/2008 13:00	522.536
6/19/2008 13:00	522.542
6/19/2008 13:00	522.539
6/19/2008 13:00	522.544
6/19/2008 13:00	522.547
6/19/2008 13:00	522.549
6/19/2008 13:00	522.553
6/19/2008 13:00	522.555
6/19/2008 13:00	522.563
6/19/2008 13:00	522.561
6/19/2008 13:00	522.564
6/19/2008 13:00	522.573
6/19/2008 13:00	522.577
6/19/2008 13:00	522.579
6/19/2008 13:00	522.585
6/19/2008 13:00	522.591
6/19/2008 13:00	522.605
6/19/2008 13:00	522.61
6/19/2008 13:00	522.61
6/19/2008 13:00	522.615
6/19/2008 13:00	522.621
6/19/2008 13:00	522.63
6/19/2008 13:00	522.64
6/19/2008 13:00	522.647
6/19/2008 13:00	522.657
6/19/2008 13:00	522.665
6/19/2008 13:00	522.677
6/19/2008 13:00	522.687
6/19/2008 13:00	522.696
6/19/2008 13:00	522.712
6/19/2008 13:00	522.724
6/19/2008 13:00	522.734
6/19/2008 13:00	522.748
6/19/2008 13:00	522.762
6/19/2008 13:00	522.777
6/19/2008 13:00	522.792
6/19/2008 13:00	522.809

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	522.826
6/19/2008 13:00	522.844
6/19/2008 13:00	522.865
6/19/2008 13:00	522.886
6/19/2008 13:00	522.907
6/19/2008 13:00	522.933
6/19/2008 13:00	522.955
6/19/2008 13:01	522.988
6/19/2008 13:01	523.011
6/19/2008 13:01	523.04
6/19/2008 13:01	523.072
6/19/2008 13:01	523.105
6/19/2008 13:01	523.136
6/19/2008 13:01	523.17
6/19/2008 13:01	523.211
6/19/2008 13:01	523.25
6/19/2008 13:01	523.281
6/19/2008 13:01	523.328
6/19/2008 13:01	523.368
6/19/2008 13:01	523.409
6/19/2008 13:02	523.464
6/19/2008 13:02	523.514
6/19/2008 13:02	523.568
6/19/2008 13:02	523.632
6/19/2008 13:02	523.689
6/19/2008 13:02	523.744
6/19/2008 13:02	523.811
6/19/2008 13:03	523.889
6/19/2008 13:03	523.967
6/19/2008 13:03	524.047
6/19/2008 13:03	524.118
6/19/2008 13:03	524.203
6/19/2008 13:04	524.287
6/19/2008 13:04	524.373
6/19/2008 13:04	524.458
6/19/2008 13:05	524.537
6/19/2008 13:05	524.634
6/19/2008 13:05	524.719
6/19/2008 13:05	524.82
6/19/2008 13:06	524.91
6/19/2008 13:06	525.005
6/19/2008 13:07	525.11
6/19/2008 13:07	525.214
6/19/2008 13:07	525.316
6/19/2008 13:08	525.425
6/19/2008 13:08	525.526
6/19/2008 13:09	525.633
6/19/2008 13:10	525.728

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:10	525.817
6/19/2008 13:11	525.911
6/19/2008 13:11	526.02
6/19/2008 13:12	526.121
6/19/2008 13:13	526.216
6/19/2008 13:14	526.315
6/19/2008 13:15	526.416
6/19/2008 13:15	526.491
6/19/2008 13:16	526.585
6/19/2008 13:17	526.666
6/19/2008 13:18	526.742
6/19/2008 13:19	526.807
6/19/2008 13:21	526.886
6/19/2008 13:22	526.956
6/19/2008 13:23	527.025
6/19/2008 13:25	527.084
6/19/2008 13:26	527.151
6/19/2008 13:28	527.211
6/19/2008 13:29	527.273
6/19/2008 13:31	527.335
6/19/2008 13:33	527.394
6/19/2008 13:35	527.456
6/19/2008 13:37	527.52
6/19/2008 13:39	527.586
6/19/2008 13:42	527.648
6/19/2008 13:44	527.711
6/19/2008 13:47	527.775
6/19/2008 13:50	527.845
6/19/2008 13:53	527.906
6/19/2008 13:56	527.97
6/19/2008 13:59	528.045
6/19/2008 14:03	528.11
6/19/2008 14:06	528.176
6/19/2008 14:10	528.245
6/19/2008 14:15	528.311
6/19/2008 14:19	528.382
6/19/2008 14:24	528.453
6/19/2008 14:29	528.529
6/19/2008 14:34	528.603
6/19/2008 14:40	528.672
6/19/2008 14:46	528.746
6/19/2008 14:52	528.813
6/19/2008 14:59	528.888
6/19/2008 15:06	528.961
6/19/2008 15:13	529.032
6/19/2008 15:21	529.109
6/19/2008 15:30	529.187
6/19/2008 15:38	529.248

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:48	529.33
6/19/2008 15:58	529.405
6/19/2008 16:08	529.475
6/19/2008 16:19	529.551
6/19/2008 16:31	529.62
6/19/2008 16:44	529.699
6/19/2008 16:57	529.768
6/19/2008 17:11	529.843
6/19/2008 17:26	529.918
6/19/2008 17:41	529.983
6/19/2008 17:56	530.053
6/19/2008 18:11	530.113
6/19/2008 18:26	530.175
6/19/2008 18:41	530.227
6/19/2008 18:56	530.269
6/19/2008 19:11	530.317
6/19/2008 19:26	530.365
6/19/2008 19:41	530.411
6/19/2008 19:56	530.451
6/19/2008 20:11	530.492
6/19/2008 20:26	530.533
6/19/2008 20:41	530.574
6/19/2008 20:56	530.614
6/19/2008 21:11	530.643
6/19/2008 21:26	530.679
6/19/2008 21:41	530.711
6/19/2008 21:56	530.74
6/19/2008 22:11	530.766
6/19/2008 22:26	530.795
6/19/2008 22:41	530.825
6/19/2008 22:56	530.855
6/19/2008 23:11	530.877
6/19/2008 23:26	530.908
6/19/2008 23:41	530.93
6/19/2008 23:56	530.957
6/20/2008 0:11	530.985
6/20/2008 0:26	531.008
6/20/2008 0:41	531.031
6/20/2008 0:56	531.057
6/20/2008 1:11	531.076
6/20/2008 1:26	531.097
6/20/2008 1:41	531.118
6/20/2008 1:56	531.136
6/20/2008 2:11	531.149
6/20/2008 2:26	531.169
6/20/2008 2:41	531.192
6/20/2008 2:56	531.204
6/20/2008 3:11	531.229

EXB-06 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 3:26	531.245
6/20/2008 3:41	531.259
6/20/2008 3:56	531.268
6/20/2008 4:11	531.287
6/20/2008 4:26	531.3
6/20/2008 4:41	531.316
6/20/2008 4:56	531.331
6/20/2008 5:11	531.341
6/20/2008 5:26	531.35
6/20/2008 5:41	531.367
6/20/2008 5:56	531.378
6/20/2008 6:11	531.389
6/20/2008 6:26	531.404
6/20/2008 6:41	531.415
6/20/2008 6:56	531.428
6/20/2008 7:11	531.43
6/20/2008 7:26	531.443
6/20/2008 7:41	531.454
6/20/2008 7:56	531.466
6/20/2008 8:11	531.472
6/20/2008 8:26	531.485
6/20/2008 8:41	531.493
6/20/2008 8:56	531.501
6/20/2008 9:11	531.51
6/20/2008 9:26	531.524
6/20/2008 9:41	531.532
6/20/2008 9:56	531.538
6/20/2008 10:11	531.546
6/20/2008 10:26	531.553
6/20/2008 10:41	531.556
6/20/2008 10:56	531.561
6/20/2008 11:11	531.566
6/20/2008 11:26	531.575

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	524.77
6/17/2008 15:00	524.769
6/17/2008 15:00	524.771
6/17/2008 15:00	524.77
6/17/2008 15:00	524.771
6/17/2008 15:00	524.769
6/17/2008 15:00	524.768
6/17/2008 15:00	524.768
6/17/2008 15:00	524.767
6/17/2008 15:00	524.77
6/17/2008 15:00	524.765
6/17/2008 15:00	524.764
6/17/2008 15:00	524.768
6/17/2008 15:00	524.77
6/17/2008 15:00	524.768
6/17/2008 15:00	524.767
6/17/2008 15:00	524.768
6/17/2008 15:00	524.766
6/17/2008 15:00	524.766
6/17/2008 15:00	524.767
6/17/2008 15:00	524.764
6/17/2008 15:00	524.768
6/17/2008 15:00	524.767
6/17/2008 15:00	524.764
6/17/2008 15:00	524.769
6/17/2008 15:00	524.765
6/17/2008 15:00	524.768
6/17/2008 15:00	524.765
6/17/2008 15:00	524.766
6/17/2008 15:00	524.767
6/17/2008 15:00	524.767
6/17/2008 15:00	524.762
6/17/2008 15:00	524.768
6/17/2008 15:00	524.767
6/17/2008 15:00	524.769
6/17/2008 15:00	524.77
6/17/2008 15:00	524.768
6/17/2008 15:00	524.772
6/17/2008 15:00	524.768
6/17/2008 15:00	524.764
6/17/2008 15:00	524.768
6/17/2008 15:00	524.771
6/17/2008 15:00	524.768
6/17/2008 15:00	524.769
6/17/2008 15:00	524.768
6/17/2008 15:00	524.77
6/17/2008 15:00	524.77

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	524.765
6/17/2008 15:00	524.773
6/17/2008 15:00	524.771
6/17/2008 15:00	524.77
6/17/2008 15:00	524.771
6/17/2008 15:00	524.771
6/17/2008 15:00	524.773
6/17/2008 15:00	524.77
6/17/2008 15:00	524.772
6/17/2008 15:00	524.772
6/17/2008 15:00	524.772
6/17/2008 15:00	524.77
6/17/2008 15:00	524.768
6/17/2008 15:00	524.774
6/17/2008 15:00	524.774
6/17/2008 15:00	524.774
6/17/2008 15:00	524.771
6/17/2008 15:01	524.777
6/17/2008 15:01	524.77
6/17/2008 15:01	524.772
6/17/2008 15:01	524.773
6/17/2008 15:01	524.767
6/17/2008 15:01	524.771
6/17/2008 15:01	524.77
6/17/2008 15:01	524.771
6/17/2008 15:01	524.771
6/17/2008 15:01	524.77
6/17/2008 15:01	524.771
6/17/2008 15:01	524.77
6/17/2008 15:01	524.771
6/17/2008 15:02	524.771
6/17/2008 15:02	524.773
6/17/2008 15:02	524.771
6/17/2008 15:02	524.771
6/17/2008 15:02	524.769
6/17/2008 15:02	524.77
6/17/2008 15:02	524.77
6/17/2008 15:03	524.769
6/17/2008 15:03	524.769
6/17/2008 15:03	524.769
6/17/2008 15:03	524.77
6/17/2008 15:03	524.772
6/17/2008 15:04	524.77
6/17/2008 15:04	524.769
6/17/2008 15:04	524.77
6/17/2008 15:05	524.768
6/17/2008 15:05	524.77
6/17/2008 15:05	524.77

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	524.769
6/17/2008 15:06	524.767
6/17/2008 15:06	524.767
6/17/2008 15:07	524.768
6/17/2008 15:07	524.767
6/17/2008 15:07	524.769
6/17/2008 15:08	524.766
6/17/2008 15:08	524.77
6/17/2008 15:09	524.768
6/17/2008 15:10	524.767
6/17/2008 15:10	524.768
6/17/2008 15:11	524.767
6/17/2008 15:11	524.765
6/17/2008 15:12	524.76
6/17/2008 15:13	524.767
6/17/2008 15:14	524.765
6/17/2008 15:15	524.762
6/17/2008 15:15	524.766
6/17/2008 15:16	524.766
6/17/2008 15:17	524.767
6/17/2008 15:18	524.762
6/17/2008 15:19	524.761
6/17/2008 15:21	524.76
6/17/2008 15:22	524.762
6/17/2008 15:23	524.764
6/17/2008 15:25	524.763
6/17/2008 15:26	524.761
6/17/2008 15:28	524.759
6/17/2008 15:29	524.758
6/17/2008 15:31	524.758
6/17/2008 15:33	524.755
6/17/2008 15:35	524.758
6/17/2008 15:37	524.757
6/17/2008 15:39	524.756
6/17/2008 15:42	524.756
6/17/2008 15:44	524.756
6/17/2008 15:47	524.752
6/17/2008 15:50	524.75
6/17/2008 15:53	524.747
6/17/2008 15:56	524.745
6/17/2008 15:59	524.743
6/17/2008 16:03	524.744
6/17/2008 16:06	524.741
6/17/2008 16:10	524.74
6/17/2008 16:15	524.734
6/17/2008 16:19	524.73
6/17/2008 16:24	524.73
6/17/2008 16:29	524.723

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	524.718
6/17/2008 16:40	524.712
6/17/2008 16:46	524.706
6/17/2008 16:52	524.702
6/17/2008 16:59	524.694
6/17/2008 17:06	524.688
6/17/2008 17:13	524.678
6/17/2008 17:21	524.667
6/17/2008 17:30	524.655
6/17/2008 17:38	524.648
6/17/2008 17:48	524.634
6/17/2008 17:58	524.622
6/17/2008 18:08	524.607
6/17/2008 18:19	524.587
6/17/2008 18:31	524.572
6/17/2008 18:44	524.553
6/17/2008 18:57	524.533
6/17/2008 19:11	524.512
6/17/2008 19:26	524.489
6/17/2008 19:41	524.467
6/17/2008 19:56	524.439
6/17/2008 20:11	524.413
6/17/2008 20:26	524.393
6/17/2008 20:41	524.369
6/17/2008 20:56	524.348
6/17/2008 21:11	524.327
6/17/2008 21:26	524.304
6/17/2008 21:41	524.283
6/17/2008 21:56	524.259
6/17/2008 22:11	524.238
6/17/2008 22:26	524.218
6/17/2008 22:41	524.197
6/17/2008 22:56	524.177
6/17/2008 23:11	524.158
6/17/2008 23:26	524.142
6/17/2008 23:41	524.119
6/17/2008 23:56	524.104
6/18/2008 0:11	524.085
6/18/2008 0:26	524.067
6/18/2008 0:41	524.051
6/18/2008 0:56	524.035
6/18/2008 1:11	524.016
6/18/2008 1:26	524.005
6/18/2008 1:41	523.99
6/18/2008 1:56	523.976
6/18/2008 2:11	523.963
6/18/2008 2:26	523.946
6/18/2008 2:41	523.935

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	523.925
6/18/2008 3:11	523.908
6/18/2008 3:26	523.898
6/18/2008 3:41	523.883
6/18/2008 3:56	523.871
6/18/2008 4:11	523.862
6/18/2008 4:26	523.85
6/18/2008 4:41	523.835
6/18/2008 4:56	523.827
6/18/2008 5:11	523.813
6/18/2008 5:26	523.805
6/18/2008 5:41	523.796
6/18/2008 5:56	523.788
6/18/2008 6:11	523.774
6/18/2008 6:26	523.77
6/18/2008 6:41	523.757
6/18/2008 6:56	523.747
6/18/2008 7:11	523.738
6/18/2008 7:26	523.729
6/18/2008 7:41	523.719
6/18/2008 7:56	523.719
6/18/2008 8:11	523.712
6/18/2008 8:26	523.705
6/18/2008 8:41	523.702
6/18/2008 8:56	523.699
6/18/2008 9:11	523.695
6/18/2008 9:26	523.691
6/18/2008 9:41	523.688
6/18/2008 9:56	523.689
6/18/2008 10:11	523.687
6/18/2008 10:26	523.681
6/18/2008 10:41	523.677
6/18/2008 10:56	523.672
6/18/2008 11:11	523.666
6/18/2008 11:26	523.666
6/18/2008 11:41	523.658
6/18/2008 11:56	523.657
6/18/2008 12:11	523.651
6/18/2008 12:26	523.644
6/18/2008 12:41	523.644
6/18/2008 12:56	523.636
6/18/2008 13:11	523.633
6/18/2008 13:26	523.628
6/18/2008 13:41	523.624
6/18/2008 13:56	523.619
6/18/2008 14:11	523.615
6/18/2008 14:26	523.613
6/18/2008 14:41	523.608

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	523.602
6/18/2008 15:11	523.598
6/18/2008 15:26	523.593
6/18/2008 15:41	523.594
6/18/2008 15:56	523.586
6/18/2008 16:11	523.579
6/18/2008 16:26	523.583
6/18/2008 16:41	523.575
6/18/2008 16:56	523.572
6/18/2008 17:11	523.567
6/18/2008 17:26	523.564
6/18/2008 17:41	523.566
6/18/2008 17:56	523.557
6/18/2008 18:11	523.554
6/18/2008 18:26	523.55
6/18/2008 18:41	523.55
6/18/2008 18:56	523.545
6/18/2008 19:11	523.543
6/18/2008 19:26	523.538
6/18/2008 19:41	523.536
6/18/2008 19:56	523.531
6/18/2008 20:11	523.528
6/18/2008 20:26	523.524
6/18/2008 20:41	523.519
6/18/2008 20:56	523.518
6/18/2008 21:11	523.526
6/18/2008 21:26	523.529
6/18/2008 21:41	523.519
6/18/2008 21:56	523.517
6/18/2008 22:11	523.512
6/18/2008 22:26	523.502
6/18/2008 22:41	523.509
6/18/2008 22:56	523.501
6/18/2008 23:11	523.496
6/18/2008 23:26	523.475
6/18/2008 23:41	523.479
6/18/2008 23:56	523.476
6/19/2008 0:11	523.475
6/19/2008 0:26	523.462
6/19/2008 0:41	523.469
6/19/2008 0:56	523.459
6/19/2008 1:11	523.455
6/19/2008 1:26	523.455
6/19/2008 1:41	523.447
6/19/2008 1:56	523.441
6/19/2008 2:11	523.449
6/19/2008 2:26	523.443
6/19/2008 2:41	523.439

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	523.433
6/19/2008 3:11	523.431
6/19/2008 3:26	523.423
6/19/2008 3:41	523.419
6/19/2008 3:56	523.412
6/19/2008 4:11	523.407
6/19/2008 4:26	523.412
6/19/2008 4:41	523.409
6/19/2008 4:56	523.406
6/19/2008 5:11	523.407
6/19/2008 5:26	523.401
6/19/2008 5:41	523.394
6/19/2008 5:56	523.396
6/19/2008 6:11	523.385
6/19/2008 6:26	523.387
6/19/2008 6:41	523.388
6/19/2008 6:56	523.374
6/19/2008 7:11	523.38
6/19/2008 7:26	523.383
6/19/2008 7:41	523.377
6/19/2008 7:56	523.371
6/19/2008 8:11	523.368
6/19/2008 8:26	523.367
6/19/2008 8:41	523.365
6/19/2008 8:56	523.357
6/19/2008 9:11	523.36
6/19/2008 9:26	523.352
6/19/2008 9:41	523.352
6/19/2008 9:56	523.339
6/19/2008 10:11	523.34
6/19/2008 10:26	523.334
6/19/2008 10:41	523.332
6/19/2008 10:56	523.324
6/19/2008 11:11	523.324
6/19/2008 11:26	523.321
6/19/2008 11:41	523.318
6/19/2008 11:56	523.315
6/19/2008 12:11	523.313
6/19/2008 12:26	523.312
Recovery Test	
6/19/2008 13:00	523.305
6/19/2008 13:00	523.308
6/19/2008 13:00	523.301
6/19/2008 13:00	523.306
6/19/2008 13:00	523.302
6/19/2008 13:00	523.304
6/19/2008 13:00	523.302

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	523.304
6/19/2008 13:00	523.306
6/19/2008 13:00	523.304
6/19/2008 13:00	523.303
6/19/2008 13:00	523.301
6/19/2008 13:00	523.305
6/19/2008 13:00	523.303
6/19/2008 13:00	523.302
6/19/2008 13:00	523.302
6/19/2008 13:00	523.302
6/19/2008 13:00	523.302
6/19/2008 13:00	523.302
6/19/2008 13:00	523.304
6/19/2008 13:00	523.306
6/19/2008 13:00	523.301
6/19/2008 13:00	523.301
6/19/2008 13:00	523.306
6/19/2008 13:00	523.301
6/19/2008 13:00	523.304
6/19/2008 13:00	523.303
6/19/2008 13:00	523.302
6/19/2008 13:00	523.306
6/19/2008 13:00	523.306
6/19/2008 13:00	523.302
6/19/2008 13:00	523.303
6/19/2008 13:00	523.303
6/19/2008 13:00	523.302
6/19/2008 13:00	523.303
6/19/2008 13:00	523.306
6/19/2008 13:00	523.306
6/19/2008 13:00	523.305
6/19/2008 13:00	523.306
6/19/2008 13:00	523.304
6/19/2008 13:00	523.305
6/19/2008 13:00	523.306
6/19/2008 13:00	523.305
6/19/2008 13:00	523.303
6/19/2008 13:00	523.303
6/19/2008 13:00	523.303
6/19/2008 13:00	523.304
6/19/2008 13:00	523.303
6/19/2008 13:00	523.303
6/19/2008 13:00	523.305
6/19/2008 13:00	523.306
6/19/2008 13:00	523.307
6/19/2008 13:00	523.309
6/19/2008 13:00	523.306
6/19/2008 13:00	523.309

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	523.306
6/19/2008 13:00	523.307
6/19/2008 13:00	523.306
6/19/2008 13:00	523.309
6/19/2008 13:00	523.31
6/19/2008 13:00	523.309
6/19/2008 13:00	523.308
6/19/2008 13:00	523.31
6/19/2008 13:00	523.31
6/19/2008 13:01	523.303
6/19/2008 13:01	523.308
6/19/2008 13:01	523.308
6/19/2008 13:01	523.309
6/19/2008 13:01	523.308
6/19/2008 13:01	523.307
6/19/2008 13:01	523.306
6/19/2008 13:01	523.306
6/19/2008 13:01	523.306
6/19/2008 13:01	523.307
6/19/2008 13:01	523.308
6/19/2008 13:01	523.309
6/19/2008 13:01	523.305
6/19/2008 13:02	523.31
6/19/2008 13:02	523.309
6/19/2008 13:02	523.308
6/19/2008 13:02	523.31
6/19/2008 13:02	523.313
6/19/2008 13:02	523.308
6/19/2008 13:02	523.31
6/19/2008 13:03	523.307
6/19/2008 13:03	523.308
6/19/2008 13:03	523.309
6/19/2008 13:03	523.313
6/19/2008 13:03	523.313
6/19/2008 13:04	523.31
6/19/2008 13:04	523.307
6/19/2008 13:04	523.31
6/19/2008 13:05	523.313
6/19/2008 13:05	523.313
6/19/2008 13:05	523.31
6/19/2008 13:05	523.314
6/19/2008 13:06	523.312
6/19/2008 13:06	523.311
6/19/2008 13:07	523.311
6/19/2008 13:07	523.312
6/19/2008 13:07	523.313
6/19/2008 13:08	523.311
6/19/2008 13:08	523.313

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:09	523.316
6/19/2008 13:10	523.311
6/19/2008 13:10	523.315
6/19/2008 13:11	523.315
6/19/2008 13:11	523.313
6/19/2008 13:12	523.318
6/19/2008 13:13	523.319
6/19/2008 13:14	523.317
6/19/2008 13:15	523.318
6/19/2008 13:15	523.315
6/19/2008 13:16	523.32
6/19/2008 13:17	523.317
6/19/2008 13:18	523.319
6/19/2008 13:19	523.323
6/19/2008 13:21	523.319
6/19/2008 13:22	523.32
6/19/2008 13:23	523.32
6/19/2008 13:25	523.325
6/19/2008 13:26	523.322
6/19/2008 13:28	523.321
6/19/2008 13:29	523.322
6/19/2008 13:31	523.324
6/19/2008 13:33	523.321
6/19/2008 13:35	523.321
6/19/2008 13:37	523.326
6/19/2008 13:39	523.325
6/19/2008 13:42	523.325
6/19/2008 13:44	523.327
6/19/2008 13:47	523.329
6/19/2008 13:50	523.333
6/19/2008 13:53	523.335
6/19/2008 13:56	523.333
6/19/2008 13:59	523.339
6/19/2008 14:03	523.34
6/19/2008 14:06	523.339
6/19/2008 14:10	523.339
6/19/2008 14:15	523.344
6/19/2008 14:19	523.34
6/19/2008 14:24	523.34
6/19/2008 14:29	523.341
6/19/2008 14:34	523.347
6/19/2008 14:40	523.346
6/19/2008 14:46	523.339
6/19/2008 14:52	523.345
6/19/2008 14:59	523.356
6/19/2008 15:06	523.359
6/19/2008 15:13	523.372
6/19/2008 15:21	523.375

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:30	523.395
6/19/2008 15:38	523.402
6/19/2008 15:48	523.409
6/19/2008 15:58	523.416
6/19/2008 16:08	523.427
6/19/2008 16:19	523.302
6/19/2008 16:31	523.416
6/19/2008 16:44	523.454
6/19/2008 16:57	523.471
6/19/2008 17:11	523.485
6/19/2008 17:26	523.499
6/19/2008 17:41	523.517
6/19/2008 17:56	523.533
6/19/2008 18:11	523.548
6/19/2008 18:26	523.562
6/19/2008 18:41	523.583
6/19/2008 18:56	523.62
6/19/2008 19:11	523.631
6/19/2008 19:26	523.632
6/19/2008 19:41	523.646
6/19/2008 19:56	523.659
6/19/2008 20:11	523.676
6/19/2008 20:26	523.687
6/19/2008 20:41	523.701
6/19/2008 20:56	523.712
6/19/2008 21:11	523.737
6/19/2008 21:26	523.764
6/19/2008 21:41	523.79
6/19/2008 21:56	523.813
6/19/2008 22:11	523.835
6/19/2008 22:26	523.858
6/19/2008 22:41	523.877
6/19/2008 22:56	523.898
6/19/2008 23:11	523.912
6/19/2008 23:26	523.924
6/19/2008 23:41	523.947
6/19/2008 23:56	523.968
6/20/2008 0:11	523.993
6/20/2008 0:26	524.004
6/20/2008 0:41	524.025
6/20/2008 0:56	524.035
6/20/2008 1:11	524.056
6/20/2008 1:26	524.072
6/20/2008 1:41	524.09
6/20/2008 1:56	524.101
6/20/2008 2:11	524.116
6/20/2008 2:26	524.13
6/20/2008 2:41	524.146

EXB-07 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 2:56	524.154
6/20/2008 3:11	524.167
6/20/2008 3:26	524.176
6/20/2008 3:41	524.197
6/20/2008 3:56	524.207
6/20/2008 4:11	524.213
6/20/2008 4:26	524.228
6/20/2008 4:41	524.242
6/20/2008 4:56	524.248
6/20/2008 5:11	524.261
6/20/2008 5:26	524.27
6/20/2008 5:41	524.277
6/20/2008 5:56	524.287
6/20/2008 6:11	524.301
6/20/2008 6:26	524.307
6/20/2008 6:41	524.314
6/20/2008 6:56	524.324
6/20/2008 7:11	524.33
6/20/2008 7:26	524.345
6/20/2008 7:41	524.35
6/20/2008 7:56	524.359
6/20/2008 8:11	524.363
6/20/2008 8:26	524.367
6/20/2008 8:41	524.372
6/20/2008 8:56	524.379
6/20/2008 9:11	524.382
6/20/2008 9:26	524.385
6/20/2008 9:41	524.393
6/20/2008 9:56	524.402
6/20/2008 10:11	524.407
6/20/2008 10:26	524.338
6/20/2008 10:41	524.39
6/20/2008 10:56	524.407
6/20/2008 11:11	524.413
6/20/2008 11:26	524.424
6/20/2008 11:41	524.427
6/20/2008 11:56	524.432
6/20/2008 12:11	524.44
6/20/2008 12:26	524.446

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	529.88
6/17/2008 15:00	529.871
6/17/2008 15:00	529.872
6/17/2008 15:00	529.872
6/17/2008 15:00	529.87
6/17/2008 15:00	529.876
6/17/2008 15:00	529.871
6/17/2008 15:00	529.871
6/17/2008 15:00	529.871
6/17/2008 15:00	529.876
6/17/2008 15:00	529.87
6/17/2008 15:00	529.872
6/17/2008 15:00	529.87
6/17/2008 15:00	529.872
6/17/2008 15:00	529.87
6/17/2008 15:00	529.868
6/17/2008 15:00	529.869
6/17/2008 15:00	529.872
6/17/2008 15:00	529.867
6/17/2008 15:00	529.869
6/17/2008 15:00	529.87
6/17/2008 15:00	529.87
6/17/2008 15:00	529.871
6/17/2008 15:00	529.869
6/17/2008 15:00	529.87
6/17/2008 15:00	529.872
6/17/2008 15:00	529.873
6/17/2008 15:00	529.87
6/17/2008 15:00	529.873
6/17/2008 15:00	529.876
6/17/2008 15:00	529.878
6/17/2008 15:00	529.878
6/17/2008 15:00	529.876
6/17/2008 15:00	529.875
6/17/2008 15:00	529.877
6/17/2008 15:00	529.878
6/17/2008 15:00	529.875
6/17/2008 15:00	529.878
6/17/2008 15:00	529.879
6/17/2008 15:00	529.879
6/17/2008 15:00	529.877
6/17/2008 15:00	529.879
6/17/2008 15:00	529.877
6/17/2008 15:00	529.875
6/17/2008 15:00	529.879
6/17/2008 15:00	529.878
6/17/2008 15:00	529.88

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	529.88
6/17/2008 15:00	529.882
6/17/2008 15:00	529.879
6/17/2008 15:00	529.876
6/17/2008 15:00	529.878
6/17/2008 15:00	529.876
6/17/2008 15:00	529.874
6/17/2008 15:00	529.881
6/17/2008 15:00	529.874
6/17/2008 15:00	529.88
6/17/2008 15:00	529.872
6/17/2008 15:00	529.875
6/17/2008 15:00	529.88
6/17/2008 15:00	529.874
6/17/2008 15:00	529.874
6/17/2008 15:00	529.876
6/17/2008 15:00	529.878
6/17/2008 15:01	529.874
6/17/2008 15:01	529.873
6/17/2008 15:01	529.878
6/17/2008 15:01	529.876
6/17/2008 15:01	529.877
6/17/2008 15:01	529.881
6/17/2008 15:01	529.881
6/17/2008 15:01	529.879
6/17/2008 15:01	529.875
6/17/2008 15:01	529.881
6/17/2008 15:01	529.879
6/17/2008 15:01	529.876
6/17/2008 15:01	529.879
6/17/2008 15:02	529.878
6/17/2008 15:02	529.881
6/17/2008 15:02	529.876
6/17/2008 15:02	529.879
6/17/2008 15:02	529.872
6/17/2008 15:02	529.874
6/17/2008 15:02	529.876
6/17/2008 15:03	529.876
6/17/2008 15:03	529.881
6/17/2008 15:03	529.873
6/17/2008 15:03	529.878
6/17/2008 15:03	529.881
6/17/2008 15:04	529.874
6/17/2008 15:04	529.874
6/17/2008 15:04	529.872
6/17/2008 15:05	529.878
6/17/2008 15:05	529.875
6/17/2008 15:05	529.878

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	529.879
6/17/2008 15:06	529.875
6/17/2008 15:06	529.873
6/17/2008 15:07	529.876
6/17/2008 15:07	529.871
6/17/2008 15:07	529.872
6/17/2008 15:08	529.879
6/17/2008 15:08	529.871
6/17/2008 15:09	529.873
6/17/2008 15:10	529.87
6/17/2008 15:10	529.868
6/17/2008 15:11	529.875
6/17/2008 15:11	529.875
6/17/2008 15:12	529.869
6/17/2008 15:13	529.873
6/17/2008 15:14	529.867
6/17/2008 15:15	529.871
6/17/2008 15:15	529.872
6/17/2008 15:16	529.866
6/17/2008 15:17	529.869
6/17/2008 15:18	529.866
6/17/2008 15:19	529.866
6/17/2008 15:21	529.865
6/17/2008 15:22	529.863
6/17/2008 15:23	529.861
6/17/2008 15:25	529.863
6/17/2008 15:26	529.859
6/17/2008 15:28	529.859
6/17/2008 15:29	529.857
6/17/2008 15:31	529.855
6/17/2008 15:33	529.854
6/17/2008 15:35	529.856
6/17/2008 15:37	529.855
6/17/2008 15:39	529.851
6/17/2008 15:42	529.849
6/17/2008 15:44	529.848
6/17/2008 15:47	529.842
6/17/2008 15:50	529.844
6/17/2008 15:53	529.842
6/17/2008 15:56	529.835
6/17/2008 15:59	529.834
6/17/2008 16:03	529.831
6/17/2008 16:06	529.826
6/17/2008 16:10	529.827
6/17/2008 16:15	529.822
6/17/2008 16:19	529.815
6/17/2008 16:24	529.82
6/17/2008 16:29	529.814

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	529.805
6/17/2008 16:40	529.801
6/17/2008 16:46	529.788
6/17/2008 16:52	529.784
6/17/2008 16:59	529.771
6/17/2008 17:06	529.761
6/17/2008 17:13	529.747
6/17/2008 17:21	529.731
6/17/2008 17:30	529.712
6/17/2008 17:38	529.693
6/17/2008 17:48	529.672
6/17/2008 17:58	529.647
6/17/2008 18:08	529.621
6/17/2008 18:19	529.587
6/17/2008 18:31	529.559
6/17/2008 18:44	529.525
6/17/2008 18:57	529.485
6/17/2008 19:11	529.444
6/17/2008 19:26	529.401
6/17/2008 19:41	529.354
6/17/2008 19:56	529.31
6/17/2008 20:11	529.259
6/17/2008 20:26	529.216
6/17/2008 20:41	529.17
6/17/2008 20:56	529.126
6/17/2008 21:11	529.079
6/17/2008 21:26	529.035
6/17/2008 21:41	528.99
6/17/2008 21:56	528.946
6/17/2008 22:11	528.901
6/17/2008 22:26	528.855
6/17/2008 22:41	528.814
6/17/2008 22:56	528.771
6/17/2008 23:11	528.729
6/17/2008 23:26	528.686
6/17/2008 23:41	528.649
6/17/2008 23:56	528.612
6/18/2008 0:11	528.577
6/18/2008 0:26	528.536
6/18/2008 0:41	528.5
6/18/2008 0:56	528.464
6/18/2008 1:11	528.43
6/18/2008 1:26	528.397
6/18/2008 1:41	528.362
6/18/2008 1:56	528.33
6/18/2008 2:11	528.298
6/18/2008 2:26	528.27
6/18/2008 2:41	528.24

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	528.208
6/18/2008 3:11	528.181
6/18/2008 3:26	528.153
6/18/2008 3:41	528.129
6/18/2008 3:56	528.101
6/18/2008 4:11	528.075
6/18/2008 4:26	528.05
6/18/2008 4:41	528.025
6/18/2008 4:56	527.998
6/18/2008 5:11	527.975
6/18/2008 5:26	527.952
6/18/2008 5:41	527.93
6/18/2008 5:56	527.907
6/18/2008 6:11	527.889
6/18/2008 6:26	527.865
6/18/2008 6:41	527.842
6/18/2008 6:56	527.824
6/18/2008 7:11	527.805
6/18/2008 7:26	527.784
6/18/2008 7:41	527.767
6/18/2008 7:56	527.747
6/18/2008 8:11	527.729
6/18/2008 8:26	527.709
6/18/2008 8:41	527.692
6/18/2008 8:56	527.675
6/18/2008 9:11	527.654
6/18/2008 9:26	527.64
6/18/2008 9:41	527.623
6/18/2008 9:56	527.608
6/18/2008 10:11	527.593
6/18/2008 10:26	527.578
6/18/2008 10:41	527.562
6/18/2008 10:56	527.548
6/18/2008 11:11	527.534
6/18/2008 11:26	527.521
6/18/2008 11:41	527.51
6/18/2008 11:56	527.495
6/18/2008 12:11	527.483
6/18/2008 12:26	527.469
6/18/2008 12:41	527.457
6/18/2008 12:56	527.446
6/18/2008 13:11	527.434
6/18/2008 13:26	527.421
6/18/2008 13:41	527.412
6/18/2008 13:56	527.404
6/18/2008 14:11	527.39
6/18/2008 14:26	527.384
6/18/2008 14:41	527.374

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	527.364
6/18/2008 15:11	527.352
6/18/2008 15:26	527.346
6/18/2008 15:41	527.335
6/18/2008 15:56	527.328
6/18/2008 16:11	527.319
6/18/2008 16:26	527.309
6/18/2008 16:41	527.302
6/18/2008 16:56	527.292
6/18/2008 17:11	527.285
6/18/2008 17:26	527.274
6/18/2008 17:41	527.266
6/18/2008 17:56	527.261
6/18/2008 18:11	527.252
6/18/2008 18:26	527.244
6/18/2008 18:41	527.238
6/18/2008 18:56	527.231
6/18/2008 19:11	527.225
6/18/2008 19:26	527.216
6/18/2008 19:41	527.209
6/18/2008 19:56	527.202
6/18/2008 20:11	527.197
6/18/2008 20:26	527.19
6/18/2008 20:41	527.184
6/18/2008 20:56	527.173
6/18/2008 21:11	527.167
6/18/2008 21:26	527.158
6/18/2008 21:41	527.152
6/18/2008 21:56	527.142
6/18/2008 22:11	527.133
6/18/2008 22:26	527.126
6/18/2008 22:41	527.118
6/18/2008 22:56	527.108
6/18/2008 23:11	527.098
6/18/2008 23:26	527.091
6/18/2008 23:41	527.081
6/18/2008 23:56	527.074
6/19/2008 0:11	527.066
6/19/2008 0:26	527.059
6/19/2008 0:41	527.051
6/19/2008 0:56	527.045
6/19/2008 1:11	527.04
6/19/2008 1:26	527.032
6/19/2008 1:41	527.025
6/19/2008 1:56	527.02
6/19/2008 2:11	527.013
6/19/2008 2:26	527.009
6/19/2008 2:41	527.003

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	526.994
6/19/2008 3:11	526.991
6/19/2008 3:26	526.985
6/19/2008 3:41	526.983
6/19/2008 3:56	526.976
6/19/2008 4:11	526.971
6/19/2008 4:26	526.968
6/19/2008 4:41	526.962
6/19/2008 4:56	526.956
6/19/2008 5:11	526.953
6/19/2008 5:26	526.95
6/19/2008 5:41	526.945
6/19/2008 5:56	526.942
6/19/2008 6:11	526.939
6/19/2008 6:26	526.936
6/19/2008 6:41	526.933
6/19/2008 6:56	526.931
6/19/2008 7:11	526.929
6/19/2008 7:26	526.927
6/19/2008 7:41	526.92
6/19/2008 7:56	526.916
6/19/2008 8:11	526.915
6/19/2008 8:26	526.91
6/19/2008 8:41	526.906
6/19/2008 8:56	526.901
6/19/2008 9:11	526.899
6/19/2008 9:26	526.893
6/19/2008 9:41	526.891
6/19/2008 9:56	526.882
6/19/2008 10:11	526.88
6/19/2008 10:26	526.879
6/19/2008 10:41	526.874
6/19/2008 10:56	526.871
6/19/2008 11:11	526.868
6/19/2008 11:26	526.865
6/19/2008 11:41	526.862
6/19/2008 11:56	526.857
6/19/2008 12:11	526.855
Recovery Test	
6/19/2008 13:00	526.845
6/19/2008 13:00	526.837
6/19/2008 13:00	526.835
6/19/2008 13:00	526.837
6/19/2008 13:00	526.838
6/19/2008 13:00	526.838
6/19/2008 13:00	526.837
6/19/2008 13:00	526.835

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	526.835
6/19/2008 13:00	526.837
6/19/2008 13:00	526.838
6/19/2008 13:00	526.836
6/19/2008 13:00	526.835
6/19/2008 13:00	526.837
6/19/2008 13:00	526.835
6/19/2008 13:00	526.834
6/19/2008 13:00	526.835
6/19/2008 13:00	526.835
6/19/2008 13:00	526.837
6/19/2008 13:00	526.836
6/19/2008 13:00	526.834
6/19/2008 13:00	526.836
6/19/2008 13:00	526.836
6/19/2008 13:00	526.832
6/19/2008 13:00	526.835
6/19/2008 13:00	526.836
6/19/2008 13:00	526.838
6/19/2008 13:00	526.837
6/19/2008 13:00	526.841
6/19/2008 13:00	526.843
6/19/2008 13:00	526.84
6/19/2008 13:00	526.842
6/19/2008 13:00	526.839
6/19/2008 13:00	526.842
6/19/2008 13:00	526.841
6/19/2008 13:00	526.843
6/19/2008 13:00	526.841
6/19/2008 13:00	526.838
6/19/2008 13:00	526.843
6/19/2008 13:00	526.841
6/19/2008 13:00	526.844
6/19/2008 13:00	526.841
6/19/2008 13:00	526.844
6/19/2008 13:00	526.844
6/19/2008 13:00	526.844
6/19/2008 13:00	526.846
6/19/2008 13:00	526.847
6/19/2008 13:00	526.844
6/19/2008 13:00	526.845
6/19/2008 13:00	526.846
6/19/2008 13:00	526.843
6/19/2008 13:00	526.844
6/19/2008 13:00	526.845
6/19/2008 13:00	526.844
6/19/2008 13:00	526.845
6/19/2008 13:00	526.843

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	526.843
6/19/2008 13:00	526.843
6/19/2008 13:00	526.843
6/19/2008 13:00	526.845
6/19/2008 13:00	526.844
6/19/2008 13:00	526.844
6/19/2008 13:00	526.841
6/19/2008 13:00	526.844
6/19/2008 13:01	526.843
6/19/2008 13:01	526.845
6/19/2008 13:01	526.846
6/19/2008 13:01	526.843
6/19/2008 13:01	526.847
6/19/2008 13:01	526.843
6/19/2008 13:01	526.847
6/19/2008 13:01	526.841
6/19/2008 13:01	526.848
6/19/2008 13:01	526.845
6/19/2008 13:01	526.837
6/19/2008 13:01	526.842
6/19/2008 13:01	526.846
6/19/2008 13:02	526.84
6/19/2008 13:02	526.842
6/19/2008 13:02	526.847
6/19/2008 13:02	526.844
6/19/2008 13:02	526.838
6/19/2008 13:02	526.84
6/19/2008 13:02	526.841
6/19/2008 13:03	526.841
6/19/2008 13:03	526.842
6/19/2008 13:03	526.846
6/19/2008 13:03	526.841
6/19/2008 13:03	526.844
6/19/2008 13:04	526.842
6/19/2008 13:04	526.844
6/19/2008 13:04	526.844
6/19/2008 13:05	526.844
6/19/2008 13:05	526.845
6/19/2008 13:05	526.844
6/19/2008 13:05	526.833
6/19/2008 13:06	526.86
6/19/2008 13:06	526.844
6/19/2008 13:07	526.845
6/19/2008 13:07	526.842
6/19/2008 13:07	526.846
6/19/2008 13:08	526.845
6/19/2008 13:08	526.841
6/19/2008 13:09	526.842

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:10	526.844
6/19/2008 13:10	526.839
6/19/2008 13:11	526.843
6/19/2008 13:11	526.843
6/19/2008 13:12	526.845
6/19/2008 13:13	526.846
6/19/2008 13:14	526.845
6/19/2008 13:15	526.839
6/19/2008 13:15	526.844
6/19/2008 13:16	526.842
6/19/2008 13:17	526.842
6/19/2008 13:18	526.839
6/19/2008 13:19	526.837
6/19/2008 13:21	526.84
6/19/2008 13:22	526.843
6/19/2008 13:23	526.84
6/19/2008 13:25	526.836
6/19/2008 13:26	526.84
6/19/2008 13:28	526.84
6/19/2008 13:29	526.838
6/19/2008 13:31	526.834
6/19/2008 13:33	526.839
6/19/2008 13:35	526.84
6/19/2008 13:37	526.837
6/19/2008 13:39	526.839
6/19/2008 13:42	526.839
6/19/2008 13:44	526.838
6/19/2008 13:47	526.839
6/19/2008 13:50	526.838
6/19/2008 13:53	526.839
6/19/2008 13:56	526.838
6/19/2008 13:59	526.836
6/19/2008 14:03	526.835
6/19/2008 14:06	526.84
6/19/2008 14:10	526.839
6/19/2008 14:15	526.842
6/19/2008 14:19	526.842
6/19/2008 14:24	526.841
6/19/2008 14:29	526.841
6/19/2008 14:34	526.847
6/19/2008 14:40	526.846
6/19/2008 14:46	526.851
6/19/2008 14:52	526.854
6/19/2008 14:59	526.858
6/19/2008 15:06	526.867
6/19/2008 15:13	526.873
6/19/2008 15:21	526.878
6/19/2008 15:30	526.889

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:38	526.899
6/19/2008 15:48	526.911
6/19/2008 15:58	526.928
6/19/2008 16:08	526.944
6/19/2008 16:19	526.959
6/19/2008 16:31	526.983
6/19/2008 16:44	527.004
6/19/2008 16:57	527.029
6/19/2008 17:11	527.059
6/19/2008 17:26	527.086
6/19/2008 17:41	527.122
6/19/2008 17:56	527.151
6/19/2008 18:11	527.189
6/19/2008 18:26	527.223
6/19/2008 18:41	527.259
6/19/2008 18:56	527.295
6/19/2008 19:11	527.324
6/19/2008 19:26	527.362
6/19/2008 19:41	527.398
6/19/2008 19:56	527.436
6/19/2008 20:11	527.469
6/19/2008 20:26	527.508
6/19/2008 20:41	527.544
6/19/2008 20:56	527.58
6/19/2008 21:11	527.615
6/19/2008 21:26	527.654
6/19/2008 21:41	527.687
6/19/2008 21:56	527.725
6/19/2008 22:11	527.758
6/19/2008 22:26	527.793
6/19/2008 22:41	527.827
6/19/2008 22:56	527.866
6/19/2008 23:11	527.898
6/19/2008 23:26	527.929
6/19/2008 23:41	527.96
6/19/2008 23:56	527.992
6/20/2008 0:11	528.028
6/20/2008 0:26	528.056
6/20/2008 0:41	528.09
6/20/2008 0:56	528.118
6/20/2008 1:11	528.15
6/20/2008 1:26	528.177
6/20/2008 1:41	528.211
6/20/2008 1:56	528.236
6/20/2008 2:11	528.261
6/20/2008 2:26	528.291
6/20/2008 2:41	528.319
6/20/2008 2:56	528.341

EXB-09 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 3:11	528.366
6/20/2008 3:26	528.392
6/20/2008 3:41	528.414
6/20/2008 3:56	528.437
6/20/2008 4:11	528.459
6/20/2008 4:26	528.481
6/20/2008 4:41	528.499
6/20/2008 4:56	528.524
6/20/2008 5:11	528.546
6/20/2008 5:26	528.566
6/20/2008 5:41	528.588
6/20/2008 5:56	528.603
6/20/2008 6:11	528.615
6/20/2008 6:26	528.623
6/20/2008 6:41	528.626
6/20/2008 6:56	528.631
6/20/2008 7:11	528.635
6/20/2008 7:26	528.646
6/20/2008 7:41	528.654
6/20/2008 7:56	528.665
6/20/2008 8:11	528.673
6/20/2008 8:26	528.684
6/20/2008 8:41	528.693
6/20/2008 8:56	528.702
6/20/2008 9:11	528.713
6/20/2008 9:26	528.725
6/20/2008 9:41	528.732
6/20/2008 9:56	528.742
6/20/2008 10:11	528.749
6/20/2008 10:26	528.759
6/20/2008 10:41	528.76
6/20/2008 10:56	528.766
6/20/2008 11:11	528.766
6/20/2008 11:26	528.771
6/20/2008 11:41	528.773

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	532.41
6/17/2008 15:00	532.405
6/17/2008 15:00	532.413
6/17/2008 15:00	532.415
6/17/2008 15:00	532.409
6/17/2008 15:00	532.409
6/17/2008 15:00	532.408
6/17/2008 15:00	532.416
6/17/2008 15:00	532.414
6/17/2008 15:00	532.41
6/17/2008 15:00	532.41
6/17/2008 15:00	532.408
6/17/2008 15:00	532.408
6/17/2008 15:00	532.408
6/17/2008 15:00	532.407
6/17/2008 15:00	532.409
6/17/2008 15:00	532.41
6/17/2008 15:00	532.407
6/17/2008 15:00	532.405
6/17/2008 15:00	532.407
6/17/2008 15:00	532.405
6/17/2008 15:00	532.413
6/17/2008 15:00	532.411
6/17/2008 15:00	532.404
6/17/2008 15:00	532.401
6/17/2008 15:00	532.405
6/17/2008 15:00	532.409
6/17/2008 15:00	532.408
6/17/2008 15:00	532.402
6/17/2008 15:00	532.406
6/17/2008 15:00	532.409
6/17/2008 15:00	532.411
6/17/2008 15:00	532.406
6/17/2008 15:00	532.412
6/17/2008 15:00	532.411
6/17/2008 15:00	532.41
6/17/2008 15:00	532.402
6/17/2008 15:00	532.412
6/17/2008 15:00	532.406
6/17/2008 15:00	532.414
6/17/2008 15:00	532.411
6/17/2008 15:00	532.408
6/17/2008 15:00	532.411
6/17/2008 15:00	532.405
6/17/2008 15:00	532.411
6/17/2008 15:00	532.411
6/17/2008 15:00	532.41

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	532.41
6/17/2008 15:00	532.411
6/17/2008 15:00	532.412
6/17/2008 15:00	532.413
6/17/2008 15:00	532.415
6/17/2008 15:00	532.41
6/17/2008 15:00	532.411
6/17/2008 15:00	532.405
6/17/2008 15:00	532.407
6/17/2008 15:00	532.413
6/17/2008 15:00	532.411
6/17/2008 15:00	532.406
6/17/2008 15:00	532.41
6/17/2008 15:00	532.415
6/17/2008 15:00	532.407
6/17/2008 15:00	532.406
6/17/2008 15:00	532.416
6/17/2008 15:01	532.417
6/17/2008 15:01	532.416
6/17/2008 15:01	532.411
6/17/2008 15:01	532.406
6/17/2008 15:01	532.411
6/17/2008 15:01	532.405
6/17/2008 15:01	532.408
6/17/2008 15:01	532.41
6/17/2008 15:01	532.408
6/17/2008 15:01	532.409
6/17/2008 15:01	532.407
6/17/2008 15:01	532.406
6/17/2008 15:01	532.404
6/17/2008 15:02	532.409
6/17/2008 15:02	532.407
6/17/2008 15:02	532.406
6/17/2008 15:02	532.411
6/17/2008 15:02	532.406
6/17/2008 15:02	532.407
6/17/2008 15:02	532.409
6/17/2008 15:03	532.407
6/17/2008 15:03	532.405
6/17/2008 15:03	532.406
6/17/2008 15:03	532.411
6/17/2008 15:03	532.405
6/17/2008 15:04	532.408
6/17/2008 15:04	532.407
6/17/2008 15:04	532.406
6/17/2008 15:05	532.403
6/17/2008 15:05	532.401
6/17/2008 15:05	532.405

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	532.408
6/17/2008 15:06	532.401
6/17/2008 15:06	532.408
6/17/2008 15:07	532.405
6/17/2008 15:07	532.404
6/17/2008 15:07	532.405
6/17/2008 15:08	532.405
6/17/2008 15:08	532.403
6/17/2008 15:09	532.4
6/17/2008 15:10	532.4
6/17/2008 15:10	532.398
6/17/2008 15:11	532.397
6/17/2008 15:11	532.401
6/17/2008 15:12	532.397
6/17/2008 15:13	532.396
6/17/2008 15:14	532.396
6/17/2008 15:15	532.396
6/17/2008 15:15	532.395
6/17/2008 15:16	532.396
6/17/2008 15:17	532.395
6/17/2008 15:18	532.395
6/17/2008 15:19	532.389
6/17/2008 15:21	532.391
6/17/2008 15:22	532.388
6/17/2008 15:23	532.382
6/17/2008 15:25	532.386
6/17/2008 15:26	532.383
6/17/2008 15:28	532.378
6/17/2008 15:29	532.374
6/17/2008 15:31	532.375
6/17/2008 15:33	532.374
6/17/2008 15:35	532.368
6/17/2008 15:37	532.366
6/17/2008 15:39	532.361
6/17/2008 15:42	532.358
6/17/2008 15:44	532.352
6/17/2008 15:47	532.35
6/17/2008 15:50	532.335
6/17/2008 15:53	532.34
6/17/2008 15:56	532.33
6/17/2008 15:59	532.326
6/17/2008 16:03	532.317
6/17/2008 16:06	532.306
6/17/2008 16:10	532.303
6/17/2008 16:15	532.291
6/17/2008 16:19	532.284
6/17/2008 16:24	532.268
6/17/2008 16:29	532.255

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	532.241
6/17/2008 16:40	532.234
6/17/2008 16:46	532.2
6/17/2008 16:52	532.188
6/17/2008 16:59	532.164
6/17/2008 17:06	532.146
6/17/2008 17:13	532.122
6/17/2008 17:21	532.099
6/17/2008 17:30	532.065
6/17/2008 17:38	532.04
6/17/2008 17:48	532.005
6/17/2008 17:58	531.965
6/17/2008 18:08	531.924
6/17/2008 18:19	531.885
6/17/2008 18:31	531.84
6/17/2008 18:44	531.785
6/17/2008 18:57	531.734
6/17/2008 19:11	531.678
6/17/2008 19:26	531.616
6/17/2008 19:41	531.555
6/17/2008 19:56	531.492
6/17/2008 20:11	531.43
6/17/2008 20:26	531.366
6/17/2008 20:41	531.303
6/17/2008 20:56	531.244
6/17/2008 21:11	531.183
6/17/2008 21:26	531.121
6/17/2008 21:41	531.066
6/17/2008 21:56	530.999
6/17/2008 22:11	530.944
6/17/2008 22:26	530.882
6/17/2008 22:41	530.828
6/17/2008 22:56	530.768
6/17/2008 23:11	530.712
6/17/2008 23:26	530.659
6/17/2008 23:41	530.6
6/17/2008 23:56	530.548
6/18/2008 0:11	530.494
6/18/2008 0:26	530.443
6/18/2008 0:41	530.393
6/18/2008 0:56	530.338
6/18/2008 1:11	530.291
6/18/2008 1:26	530.241
6/18/2008 1:41	530.195
6/18/2008 1:56	530.151
6/18/2008 2:11	530.107
6/18/2008 2:26	530.054
6/18/2008 2:41	530.007

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	529.964
6/18/2008 3:11	529.918
6/18/2008 3:26	529.878
6/18/2008 3:41	529.839
6/18/2008 3:56	529.791
6/18/2008 4:11	529.755
6/18/2008 4:26	529.72
6/18/2008 4:41	529.677
6/18/2008 4:56	529.643
6/18/2008 5:11	529.602
6/18/2008 5:26	529.563
6/18/2008 5:41	529.53
6/18/2008 5:56	529.496
6/18/2008 6:11	529.461
6/18/2008 6:26	529.426
6/18/2008 6:41	529.392
6/18/2008 6:56	529.361
6/18/2008 7:11	529.33
6/18/2008 7:26	529.3
6/18/2008 7:41	529.267
6/18/2008 7:56	529.236
6/18/2008 8:11	529.21
6/18/2008 8:26	529.178
6/18/2008 8:41	529.144
6/18/2008 8:56	529.122
6/18/2008 9:11	529.095
6/18/2008 9:26	529.064
6/18/2008 9:41	529.042
6/18/2008 9:56	529.014
6/18/2008 10:11	528.985
6/18/2008 10:26	528.97
6/18/2008 10:41	528.94
6/18/2008 10:56	528.911
6/18/2008 11:11	528.889
6/18/2008 11:26	528.866
6/18/2008 11:41	528.847
6/18/2008 11:56	528.821
6/18/2008 12:11	528.802
6/18/2008 12:26	528.778
6/18/2008 12:41	528.758
6/18/2008 12:56	528.732
6/18/2008 13:11	528.714
6/18/2008 13:26	528.695
6/18/2008 13:41	528.674
6/18/2008 13:56	528.655
6/18/2008 14:11	528.635
6/18/2008 14:26	528.617
6/18/2008 14:41	528.602

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	528.583
6/18/2008 15:11	528.56
6/18/2008 15:26	528.549
6/18/2008 15:41	528.531
6/18/2008 15:56	528.51
6/18/2008 16:11	528.499
6/18/2008 16:26	528.479
6/18/2008 16:41	528.464
6/18/2008 16:56	528.451
6/18/2008 17:11	528.439
6/18/2008 17:26	528.418
6/18/2008 17:41	528.405
6/18/2008 17:56	528.389
6/18/2008 18:11	528.376
6/18/2008 18:26	528.357
6/18/2008 18:41	528.348
6/18/2008 18:56	528.335
6/18/2008 19:11	528.321
6/18/2008 19:26	528.309
6/18/2008 19:41	528.294
6/18/2008 19:56	528.281
6/18/2008 20:11	528.269
6/18/2008 20:26	528.255
6/18/2008 20:41	528.244
6/18/2008 20:56	528.23
6/18/2008 21:11	528.219
6/18/2008 21:26	528.204
6/18/2008 21:41	528.192
6/18/2008 21:56	528.181
6/18/2008 22:11	528.169
6/18/2008 22:26	528.16
6/18/2008 22:41	528.142
6/18/2008 22:56	528.129
6/18/2008 23:11	528.117
6/18/2008 23:26	528.106
6/18/2008 23:41	528.094
6/18/2008 23:56	528.085
6/19/2008 0:11	528.069
6/19/2008 0:26	528.064
6/19/2008 0:41	528.052
6/19/2008 0:56	528.04
6/19/2008 1:11	528.036
6/19/2008 1:26	528.016
6/19/2008 1:41	528.006
6/19/2008 1:56	527.998
6/19/2008 2:11	527.991
6/19/2008 2:26	527.981
6/19/2008 2:41	527.968

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	527.96
6/19/2008 3:11	527.953
6/19/2008 3:26	527.942
6/19/2008 3:41	527.934
6/19/2008 3:56	527.926
6/19/2008 4:11	527.913
6/19/2008 4:26	527.909
6/19/2008 4:41	527.896
6/19/2008 4:56	527.892
6/19/2008 5:11	527.885
6/19/2008 5:26	527.874
6/19/2008 5:41	527.877
6/19/2008 5:56	527.864
6/19/2008 6:11	527.854
6/19/2008 6:26	527.85
6/19/2008 6:41	527.838
6/19/2008 6:56	527.83
6/19/2008 7:11	527.826
6/19/2008 7:26	527.82
6/19/2008 7:41	527.812
6/19/2008 7:56	527.805
6/19/2008 8:11	527.795
6/19/2008 8:26	527.792
6/19/2008 8:41	527.782
6/19/2008 8:56	527.775
6/19/2008 9:11	527.772
6/19/2008 9:26	527.767
6/19/2008 9:41	527.765
6/19/2008 9:56	527.75
6/19/2008 10:11	527.745
6/19/2008 10:26	527.737
6/19/2008 10:41	527.732
6/19/2008 10:56	527.727
6/19/2008 11:11	527.72
6/19/2008 11:26	527.715
6/19/2008 11:41	527.71
6/19/2008 11:56	527.704
Recovery Test	
6/19/2008 13:00	527.677
6/19/2008 13:00	527.675
6/19/2008 13:00	527.676
6/19/2008 13:00	527.673
6/19/2008 13:00	527.678
6/19/2008 13:00	527.676
6/19/2008 13:00	527.676
6/19/2008 13:00	527.675
6/19/2008 13:00	527.679

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	527.68
6/19/2008 13:00	527.676
6/19/2008 13:00	527.676
6/19/2008 13:00	527.678
6/19/2008 13:00	527.675
6/19/2008 13:00	527.675
6/19/2008 13:00	527.677
6/19/2008 13:00	527.675
6/19/2008 13:00	527.676
6/19/2008 13:00	527.673
6/19/2008 13:00	527.676
6/19/2008 13:00	527.678
6/19/2008 13:00	527.679
6/19/2008 13:00	527.673
6/19/2008 13:00	527.673
6/19/2008 13:00	527.677
6/19/2008 13:00	527.676
6/19/2008 13:00	527.675
6/19/2008 13:00	527.673
6/19/2008 13:00	527.676
6/19/2008 13:00	527.678
6/19/2008 13:00	527.676
6/19/2008 13:00	527.673
6/19/2008 13:00	527.678
6/19/2008 13:00	527.673
6/19/2008 13:00	527.678
6/19/2008 13:00	527.681
6/19/2008 13:00	527.672
6/19/2008 13:00	527.679
6/19/2008 13:00	527.678
6/19/2008 13:00	527.674
6/19/2008 13:00	527.673
6/19/2008 13:00	527.68
6/19/2008 13:00	527.675
6/19/2008 13:00	527.675
6/19/2008 13:00	527.679
6/19/2008 13:00	527.681
6/19/2008 13:00	527.68
6/19/2008 13:00	527.678
6/19/2008 13:00	527.682
6/19/2008 13:00	527.678
6/19/2008 13:00	527.679
6/19/2008 13:00	527.679
6/19/2008 13:00	527.682
6/19/2008 13:00	527.682
6/19/2008 13:00	527.677
6/19/2008 13:00	527.684
6/19/2008 13:00	527.678

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	527.674
6/19/2008 13:00	527.675
6/19/2008 13:00	527.678
6/19/2008 13:00	527.678
6/19/2008 13:00	527.685
6/19/2008 13:00	527.675
6/19/2008 13:00	527.679
6/19/2008 13:01	527.682
6/19/2008 13:01	527.677
6/19/2008 13:01	527.684
6/19/2008 13:01	527.677
6/19/2008 13:01	527.684
6/19/2008 13:01	527.678
6/19/2008 13:01	527.677
6/19/2008 13:01	527.679
6/19/2008 13:01	527.678
6/19/2008 13:01	527.675
6/19/2008 13:01	527.677
6/19/2008 13:01	527.688
6/19/2008 13:01	527.674
6/19/2008 13:02	527.676
6/19/2008 13:02	527.679
6/19/2008 13:02	527.68
6/19/2008 13:02	527.678
6/19/2008 13:02	527.675
6/19/2008 13:02	527.676
6/19/2008 13:02	527.685
6/19/2008 13:03	527.68
6/19/2008 13:03	527.677
6/19/2008 13:03	527.68
6/19/2008 13:03	527.677
6/19/2008 13:03	527.679
6/19/2008 13:04	527.679
6/19/2008 13:04	527.679
6/19/2008 13:04	527.68
6/19/2008 13:05	527.677
6/19/2008 13:05	527.674
6/19/2008 13:05	527.68
6/19/2008 13:05	527.678
6/19/2008 13:06	527.678
6/19/2008 13:06	527.678
6/19/2008 13:07	527.677
6/19/2008 13:07	527.677
6/19/2008 13:07	527.678
6/19/2008 13:08	527.678
6/19/2008 13:08	527.679
6/19/2008 13:09	527.678
6/19/2008 13:10	527.675

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:10	527.686
6/19/2008 13:11	527.673
6/19/2008 13:11	527.676
6/19/2008 13:12	527.678
6/19/2008 13:13	527.675
6/19/2008 13:14	527.674
6/19/2008 13:15	527.672
6/19/2008 13:15	527.67
6/19/2008 13:16	527.675
6/19/2008 13:17	527.674
6/19/2008 13:18	527.673
6/19/2008 13:19	527.674
6/19/2008 13:21	527.673
6/19/2008 13:22	527.671
6/19/2008 13:23	527.673
6/19/2008 13:25	527.675
6/19/2008 13:26	527.676
6/19/2008 13:28	527.674
6/19/2008 13:29	527.673
6/19/2008 13:31	527.676
6/19/2008 13:33	527.675
6/19/2008 13:35	527.672
6/19/2008 13:37	527.678
6/19/2008 13:39	527.676
6/19/2008 13:42	527.681
6/19/2008 13:44	527.678
6/19/2008 13:47	527.683
6/19/2008 13:50	527.677
6/19/2008 13:53	527.686
6/19/2008 13:56	527.685
6/19/2008 13:59	527.689
6/19/2008 14:03	527.691
6/19/2008 14:06	527.696
6/19/2008 14:10	527.697
6/19/2008 14:15	527.705
6/19/2008 14:19	527.709
6/19/2008 14:24	527.712
6/19/2008 14:29	527.716
6/19/2008 14:34	527.726
6/19/2008 14:40	527.731
6/19/2008 14:46	527.74
6/19/2008 14:52	527.749
6/19/2008 14:59	527.762
6/19/2008 15:06	527.774
6/19/2008 15:13	527.785
6/19/2008 15:21	527.8
6/19/2008 15:30	527.818
6/19/2008 15:38	527.831

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:48	527.855
6/19/2008 15:58	527.873
6/19/2008 16:08	527.897
6/19/2008 16:19	527.922
6/19/2008 16:31	527.956
6/19/2008 16:44	527.986
6/19/2008 16:57	528.023
6/19/2008 17:11	528.058
6/19/2008 17:26	528.103
6/19/2008 17:41	528.14
6/19/2008 17:56	528.188
6/19/2008 18:11	528.231
6/19/2008 18:26	528.277
6/19/2008 18:41	528.32
6/19/2008 18:56	528.371
6/19/2008 19:11	528.414
6/19/2008 19:26	528.465
6/19/2008 19:41	528.51
6/19/2008 19:56	528.555
6/19/2008 20:11	528.605
6/19/2008 20:26	528.651
6/19/2008 20:41	528.703
6/19/2008 20:56	528.748
6/19/2008 21:11	528.797
6/19/2008 21:26	528.842
6/19/2008 21:41	528.899
6/19/2008 21:56	528.937
6/19/2008 22:11	528.987
6/19/2008 22:26	529.034
6/19/2008 22:41	529.076
6/19/2008 22:56	529.124
6/19/2008 23:11	529.166
6/19/2008 23:26	529.211
6/19/2008 23:41	529.263
6/19/2008 23:56	529.305
6/20/2008 0:11	529.349
6/20/2008 0:26	529.39
6/20/2008 0:41	529.435
6/20/2008 0:56	529.476
6/20/2008 1:11	529.523
6/20/2008 1:26	529.561
6/20/2008 1:41	529.605
6/20/2008 1:56	529.646
6/20/2008 2:11	529.687
6/20/2008 2:26	529.73
6/20/2008 2:41	529.768
6/20/2008 2:56	529.809
6/20/2008 3:11	529.844

EXB-10 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 3:26	529.888
6/20/2008 3:41	529.923
6/20/2008 3:56	529.959
6/20/2008 4:11	529.999
6/20/2008 4:26	530.033
6/20/2008 4:41	530.066
6/20/2008 4:56	530.107
6/20/2008 5:11	530.143
6/20/2008 5:26	530.179
6/20/2008 5:41	530.214
6/20/2008 5:56	530.246
6/20/2008 6:11	530.28
6/20/2008 6:26	530.313
6/20/2008 6:41	530.341
6/20/2008 6:56	530.376
6/20/2008 7:11	530.407
6/20/2008 7:26	530.441
6/20/2008 7:41	530.468
6/20/2008 7:56	530.497
6/20/2008 8:11	530.528
6/20/2008 8:26	530.558
6/20/2008 8:41	530.585
6/20/2008 8:56	530.612
6/20/2008 9:11	530.639
6/20/2008 9:26	530.666
6/20/2008 9:41	530.694
6/20/2008 9:56	530.72
6/20/2008 10:11	530.75
6/20/2008 10:26	530.769
6/20/2008 10:41	530.793
6/20/2008 10:56	530.818
6/20/2008 11:11	530.843
6/20/2008 11:26	530.867

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
Drawdown Test	
6/17/2008 15:00	471.26
6/17/2008 15:00	471.264
6/17/2008 15:00	471.259
6/17/2008 15:00	471.264
6/17/2008 15:00	471.264
6/17/2008 15:00	471.263
6/17/2008 15:00	471.263
6/17/2008 15:00	471.263
6/17/2008 15:00	471.26
6/17/2008 15:00	471.26
6/17/2008 15:00	471.264
6/17/2008 15:00	471.26
6/17/2008 15:00	471.261
6/17/2008 15:00	471.265
6/17/2008 15:00	471.263
6/17/2008 15:00	471.263
6/17/2008 15:00	471.26
6/17/2008 15:00	471.263
6/17/2008 15:00	471.258
6/17/2008 15:00	471.261
6/17/2008 15:00	471.262
6/17/2008 15:00	471.257
6/17/2008 15:00	471.261
6/17/2008 15:00	471.256
6/17/2008 15:00	471.26
6/17/2008 15:00	471.259
6/17/2008 15:00	471.26
6/17/2008 15:00	471.261
6/17/2008 15:00	471.261
6/17/2008 15:00	471.263
6/17/2008 15:00	471.258
6/17/2008 15:00	471.257
6/17/2008 15:00	471.26
6/17/2008 15:00	471.263
6/17/2008 15:00	471.259
6/17/2008 15:00	471.262
6/17/2008 15:00	471.263
6/17/2008 15:00	471.261
6/17/2008 15:00	471.26
6/17/2008 15:00	471.262
6/17/2008 15:00	471.261
6/17/2008 15:00	471.264
6/17/2008 15:00	471.264
6/17/2008 15:00	471.264
6/17/2008 15:00	471.264
6/17/2008 15:00	471.264
6/17/2008 15:00	471.266

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:00	471.26
6/17/2008 15:00	471.265
6/17/2008 15:00	471.268
6/17/2008 15:00	471.263
6/17/2008 15:00	471.262
6/17/2008 15:00	471.261
6/17/2008 15:00	471.262
6/17/2008 15:00	471.265
6/17/2008 15:00	471.26
6/17/2008 15:00	471.261
6/17/2008 15:00	471.262
6/17/2008 15:00	471.265
6/17/2008 15:00	471.262
6/17/2008 15:00	471.261
6/17/2008 15:00	471.265
6/17/2008 15:00	471.261
6/17/2008 15:00	471.263
6/17/2008 15:01	471.264
6/17/2008 15:01	471.262
6/17/2008 15:01	471.265
6/17/2008 15:01	471.263
6/17/2008 15:01	471.266
6/17/2008 15:01	471.264
6/17/2008 15:01	471.262
6/17/2008 15:01	471.263
6/17/2008 15:01	471.263
6/17/2008 15:01	471.265
6/17/2008 15:01	471.264
6/17/2008 15:01	471.264
6/17/2008 15:01	471.261
6/17/2008 15:02	471.263
6/17/2008 15:02	471.265
6/17/2008 15:02	471.262
6/17/2008 15:02	471.262
6/17/2008 15:02	471.266
6/17/2008 15:02	471.263
6/17/2008 15:02	471.264
6/17/2008 15:03	471.264
6/17/2008 15:03	471.265
6/17/2008 15:03	471.267
6/17/2008 15:03	471.261
6/17/2008 15:03	471.263
6/17/2008 15:04	471.266
6/17/2008 15:04	471.263
6/17/2008 15:04	471.262
6/17/2008 15:05	471.262
6/17/2008 15:05	471.265
6/17/2008 15:05	471.264

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 15:05	471.266
6/17/2008 15:06	471.266
6/17/2008 15:06	471.266
6/17/2008 15:07	471.262
6/17/2008 15:07	471.263
6/17/2008 15:07	471.264
6/17/2008 15:08	471.261
6/17/2008 15:08	471.265
6/17/2008 15:09	471.265
6/17/2008 15:10	471.264
6/17/2008 15:10	471.264
6/17/2008 15:11	471.261
6/17/2008 15:11	471.264
6/17/2008 15:12	471.265
6/17/2008 15:13	471.262
6/17/2008 15:14	471.26
6/17/2008 15:15	471.265
6/17/2008 15:15	471.265
6/17/2008 15:16	471.262
6/17/2008 15:17	471.265
6/17/2008 15:18	471.262
6/17/2008 15:19	471.262
6/17/2008 15:21	471.264
6/17/2008 15:22	471.262
6/17/2008 15:23	471.261
6/17/2008 15:25	471.263
6/17/2008 15:26	471.26
6/17/2008 15:28	471.264
6/17/2008 15:29	471.259
6/17/2008 15:31	471.262
6/17/2008 15:33	471.26
6/17/2008 15:35	471.261
6/17/2008 15:37	471.261
6/17/2008 15:39	471.259
6/17/2008 15:42	471.258
6/17/2008 15:44	471.26
6/17/2008 15:47	471.26
6/17/2008 15:50	471.26
6/17/2008 15:53	471.258
6/17/2008 15:56	471.258
6/17/2008 15:59	471.259
6/17/2008 16:03	471.256
6/17/2008 16:06	471.259
6/17/2008 16:10	471.257
6/17/2008 16:15	471.257
6/17/2008 16:19	471.26
6/17/2008 16:24	471.259
6/17/2008 16:29	471.261

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/17/2008 16:34	471.259
6/17/2008 16:40	471.259
6/17/2008 16:46	471.26
6/17/2008 16:52	471.257
6/17/2008 16:59	471.255
6/17/2008 17:06	471.256
6/17/2008 17:13	471.253
6/17/2008 17:21	471.252
6/17/2008 17:30	471.247
6/17/2008 17:38	471.248
6/17/2008 17:48	471.243
6/17/2008 17:58	471.238
6/17/2008 18:08	471.228
6/17/2008 18:19	471.227
6/17/2008 18:31	471.223
6/17/2008 18:44	471.22
6/17/2008 18:57	471.21
6/17/2008 19:11	471.207
6/17/2008 19:26	471.202
6/17/2008 19:41	471.197
6/17/2008 19:56	471.186
6/17/2008 20:11	471.179
6/17/2008 20:26	471.175
6/17/2008 20:41	471.167
6/17/2008 20:56	471.157
6/17/2008 21:11	471.154
6/17/2008 21:26	471.149
6/17/2008 21:41	471.143
6/17/2008 21:56	471.138
6/17/2008 22:11	471.133
6/17/2008 22:26	471.126
6/17/2008 22:41	471.117
6/17/2008 22:56	471.113
6/17/2008 23:11	471.106
6/17/2008 23:26	471.099
6/17/2008 23:41	471.093
6/17/2008 23:56	471.084
6/18/2008 0:11	471.081
6/18/2008 0:26	471.074
6/18/2008 0:41	471.074
6/18/2008 0:56	471.072
6/18/2008 1:11	471.065
6/18/2008 1:26	471.062
6/18/2008 1:41	471.061
6/18/2008 1:56	471.058
6/18/2008 2:11	471.055
6/18/2008 2:26	471.051
6/18/2008 2:41	471.042

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 2:56	471.045
6/18/2008 3:11	471.044
6/18/2008 3:26	471.041
6/18/2008 3:41	471.04
6/18/2008 3:56	471.035
6/18/2008 4:11	471.025
6/18/2008 4:26	471.024
6/18/2008 4:41	471.027
6/18/2008 4:56	471.024
6/18/2008 5:11	471.023
6/18/2008 5:26	471.017
6/18/2008 5:41	471.013
6/18/2008 5:56	471.008
6/18/2008 6:11	470.999
6/18/2008 6:26	471
6/18/2008 6:41	470.995
6/18/2008 6:56	470.989
6/18/2008 7:11	470.988
6/18/2008 7:26	470.982
6/18/2008 7:41	470.974
6/18/2008 7:56	470.973
6/18/2008 8:11	470.962
6/18/2008 8:26	470.954
6/18/2008 8:41	470.952
6/18/2008 8:56	470.945
6/18/2008 9:11	470.939
6/18/2008 9:26	470.936
6/18/2008 9:41	470.927
6/18/2008 9:56	470.926
6/18/2008 10:11	470.922
6/18/2008 10:26	470.92
6/18/2008 10:41	470.913
6/18/2008 10:56	470.911
6/18/2008 11:11	470.902
6/18/2008 11:26	470.907
6/18/2008 11:41	470.901
6/18/2008 11:56	470.897
6/18/2008 12:11	470.896
6/18/2008 12:26	470.891
6/18/2008 12:41	470.887
6/18/2008 12:56	470.884
6/18/2008 13:11	470.878
6/18/2008 13:26	470.871
6/18/2008 13:41	470.869
6/18/2008 13:56	470.868
6/18/2008 14:11	470.862
6/18/2008 14:26	470.861
6/18/2008 14:41	470.85

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/18/2008 14:56	470.846
6/18/2008 15:11	470.847
6/18/2008 15:26	470.841
6/18/2008 15:41	470.838
6/18/2008 15:56	470.834
6/18/2008 16:11	470.83
6/18/2008 16:26	470.828
6/18/2008 16:41	470.82
6/18/2008 16:56	470.815
6/18/2008 17:11	470.812
6/18/2008 17:26	470.808
6/18/2008 17:41	470.804
6/18/2008 17:56	470.801
6/18/2008 18:11	470.792
6/18/2008 18:26	470.796
6/18/2008 18:41	470.793
6/18/2008 18:56	470.779
6/18/2008 19:11	470.783
6/18/2008 19:26	470.777
6/18/2008 19:41	470.767
6/18/2008 19:56	470.766
6/18/2008 20:11	470.758
6/18/2008 20:26	470.752
6/18/2008 20:41	470.747
6/18/2008 20:56	470.739
6/18/2008 21:11	470.73
6/18/2008 21:26	470.723
6/18/2008 21:41	470.714
6/18/2008 21:56	470.706
6/18/2008 22:11	470.701
6/18/2008 22:26	470.693
6/18/2008 22:41	470.679
6/18/2008 22:56	470.678
6/18/2008 23:11	470.663
6/18/2008 23:26	470.658
6/18/2008 23:41	470.653
6/18/2008 23:56	470.64
6/19/2008 0:11	470.634
6/19/2008 0:26	470.627
6/19/2008 0:41	470.628
6/19/2008 0:56	470.618
6/19/2008 1:11	470.618
6/19/2008 1:26	470.614
6/19/2008 1:41	470.609
6/19/2008 1:56	470.606
6/19/2008 2:11	470.602
6/19/2008 2:26	470.596
6/19/2008 2:41	470.595

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 2:56	470.587
6/19/2008 3:11	470.584
6/19/2008 3:26	470.576
6/19/2008 3:41	470.578
6/19/2008 3:56	470.572
6/19/2008 4:11	470.568
6/19/2008 4:26	470.562
6/19/2008 4:41	470.561
6/19/2008 4:56	470.558
6/19/2008 5:11	470.555
6/19/2008 5:26	470.546
6/19/2008 5:41	470.543
6/19/2008 5:56	470.545
6/19/2008 6:11	470.535
6/19/2008 6:26	470.532
6/19/2008 6:41	470.524
6/19/2008 6:56	470.523
6/19/2008 7:11	470.515
6/19/2008 7:26	470.514
6/19/2008 7:41	470.506
6/19/2008 7:56	470.498
6/19/2008 8:11	470.492
6/19/2008 8:26	470.483
6/19/2008 8:41	470.481
6/19/2008 8:56	470.472
6/19/2008 9:11	470.466
6/19/2008 9:26	470.457
6/19/2008 9:41	470.453
6/19/2008 9:56	470.449
6/19/2008 10:11	470.442
6/19/2008 10:26	470.439
6/19/2008 10:41	470.434
6/19/2008 10:56	470.428
6/19/2008 11:11	470.423
6/19/2008 11:26	470.419
6/19/2008 11:41	470.417
6/19/2008 11:56	470.415
6/19/2008 12:11	470.412
6/19/2008 12:26	470.413
Recovery Test	
6/19/2008 13:00	470.403
6/19/2008 13:00	470.396
6/19/2008 13:00	470.398
6/19/2008 13:00	470.396
6/19/2008 13:00	470.398
6/19/2008 13:00	470.399
6/19/2008 13:00	470.397

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	470.398
6/19/2008 13:00	470.397
6/19/2008 13:00	470.396
6/19/2008 13:00	470.395
6/19/2008 13:00	470.402
6/19/2008 13:00	470.39
6/19/2008 13:00	470.399
6/19/2008 13:00	470.398
6/19/2008 13:00	470.396
6/19/2008 13:00	470.395
6/19/2008 13:00	470.4
6/19/2008 13:00	470.395
6/19/2008 13:00	470.394
6/19/2008 13:00	470.397
6/19/2008 13:00	470.395
6/19/2008 13:00	470.396
6/19/2008 13:00	470.399
6/19/2008 13:00	470.394
6/19/2008 13:00	470.393
6/19/2008 13:00	470.397
6/19/2008 13:00	470.396
6/19/2008 13:00	470.397
6/19/2008 13:00	470.398
6/19/2008 13:00	470.392
6/19/2008 13:00	470.393
6/19/2008 13:00	470.397
6/19/2008 13:00	470.4
6/19/2008 13:00	470.396
6/19/2008 13:00	470.395
6/19/2008 13:00	470.397
6/19/2008 13:00	470.396
6/19/2008 13:00	470.394
6/19/2008 13:00	470.397
6/19/2008 13:00	470.398
6/19/2008 13:00	470.396
6/19/2008 13:00	470.398
6/19/2008 13:00	470.399
6/19/2008 13:00	470.397
6/19/2008 13:00	470.4
6/19/2008 13:00	470.399
6/19/2008 13:00	470.395
6/19/2008 13:00	470.398
6/19/2008 13:00	470.391
6/19/2008 13:00	470.397
6/19/2008 13:00	470.397
6/19/2008 13:00	470.396
6/19/2008 13:00	470.395
6/19/2008 13:00	470.398

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:00	470.398
6/19/2008 13:00	470.398
6/19/2008 13:00	470.399
6/19/2008 13:00	470.396
6/19/2008 13:00	470.399
6/19/2008 13:00	470.397
6/19/2008 13:00	470.4
6/19/2008 13:00	470.397
6/19/2008 13:00	470.4
6/19/2008 13:01	470.401
6/19/2008 13:01	470.395
6/19/2008 13:01	470.398
6/19/2008 13:01	470.398
6/19/2008 13:01	470.399
6/19/2008 13:01	470.399
6/19/2008 13:01	470.4
6/19/2008 13:01	470.399
6/19/2008 13:01	470.4
6/19/2008 13:01	470.397
6/19/2008 13:01	470.397
6/19/2008 13:01	470.395
6/19/2008 13:01	470.403
6/19/2008 13:02	470.4
6/19/2008 13:02	470.396
6/19/2008 13:02	470.4
6/19/2008 13:02	470.399
6/19/2008 13:02	470.4
6/19/2008 13:02	470.4
6/19/2008 13:02	470.399
6/19/2008 13:03	470.401
6/19/2008 13:03	470.397
6/19/2008 13:03	470.398
6/19/2008 13:03	470.396
6/19/2008 13:03	470.402
6/19/2008 13:04	470.399
6/19/2008 13:04	470.402
6/19/2008 13:04	470.4
6/19/2008 13:05	470.398
6/19/2008 13:05	470.396
6/19/2008 13:05	470.399
6/19/2008 13:05	470.401
6/19/2008 13:06	470.397
6/19/2008 13:06	470.399
6/19/2008 13:07	470.401
6/19/2008 13:07	470.401
6/19/2008 13:07	470.4
6/19/2008 13:08	470.399
6/19/2008 13:08	470.401

EXB-11 Drawdown and Recovery Test Monitoring

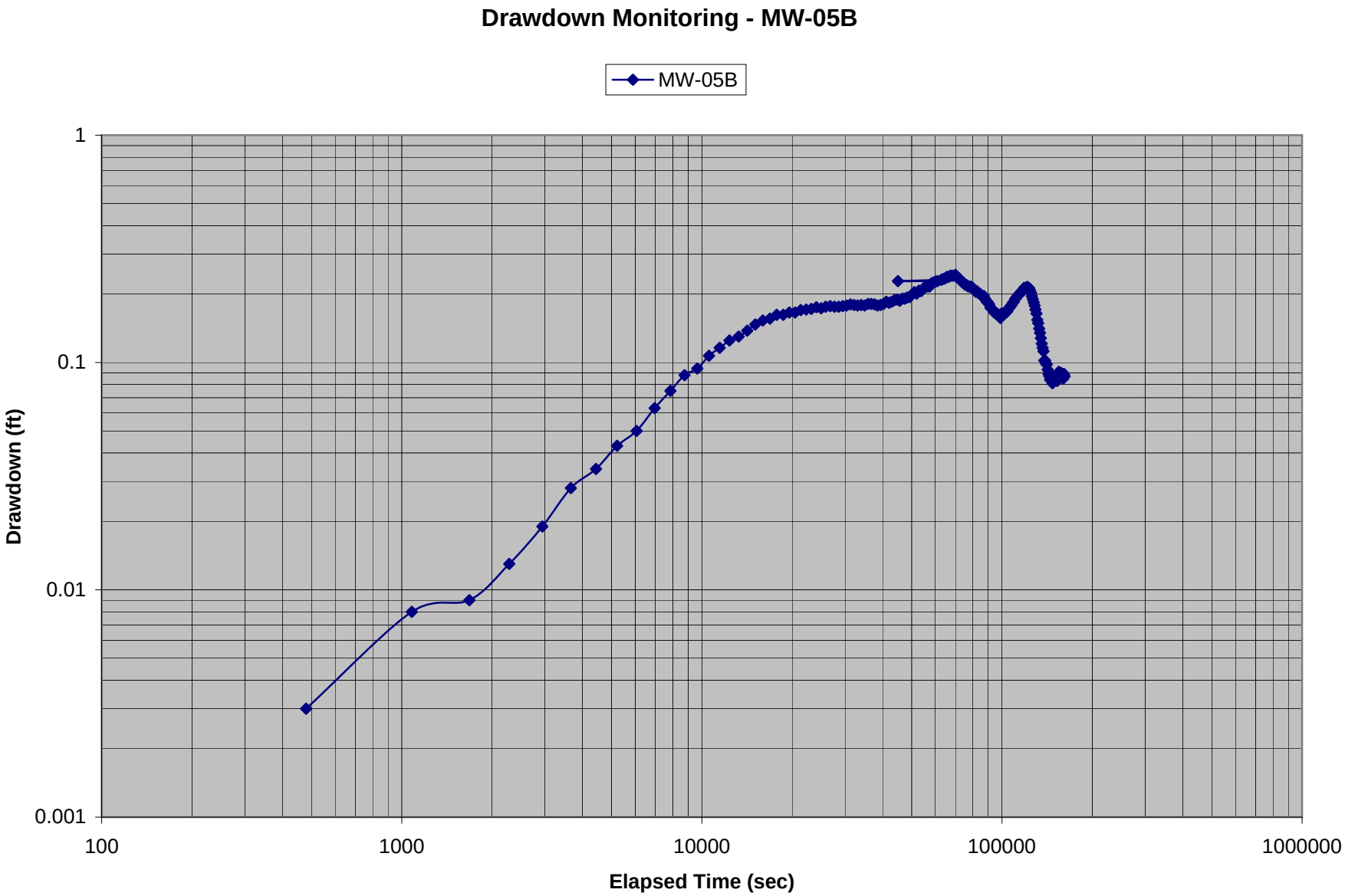
Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 13:09	470.4
6/19/2008 13:10	470.399
6/19/2008 13:10	470.399
6/19/2008 13:11	470.398
6/19/2008 13:11	470.397
6/19/2008 13:12	470.398
6/19/2008 13:13	470.398
6/19/2008 13:14	470.402
6/19/2008 13:15	470.398
6/19/2008 13:15	470.401
6/19/2008 13:16	470.397
6/19/2008 13:17	470.399
6/19/2008 13:18	470.398
6/19/2008 13:19	470.399
6/19/2008 13:21	470.399
6/19/2008 13:22	470.399
6/19/2008 13:23	470.398
6/19/2008 13:25	470.399
6/19/2008 13:26	470.396
6/19/2008 13:28	470.393
6/19/2008 13:29	470.396
6/19/2008 13:31	470.399
6/19/2008 13:33	470.393
6/19/2008 13:35	470.396
6/19/2008 13:37	470.395
6/19/2008 13:39	470.393
6/19/2008 13:42	470.393
6/19/2008 13:44	470.395
6/19/2008 13:47	470.392
6/19/2008 13:50	470.392
6/19/2008 13:53	470.391
6/19/2008 13:56	470.389
6/19/2008 13:59	470.388
6/19/2008 14:03	470.389
6/19/2008 14:06	470.392
6/19/2008 14:10	470.388
6/19/2008 14:15	470.388
6/19/2008 14:19	470.387
6/19/2008 14:24	470.385
6/19/2008 14:29	470.38
6/19/2008 14:34	470.386
6/19/2008 14:40	470.382
6/19/2008 14:46	470.382
6/19/2008 14:52	470.384
6/19/2008 14:59	470.382
6/19/2008 15:06	470.386
6/19/2008 15:13	470.38
6/19/2008 15:21	470.383

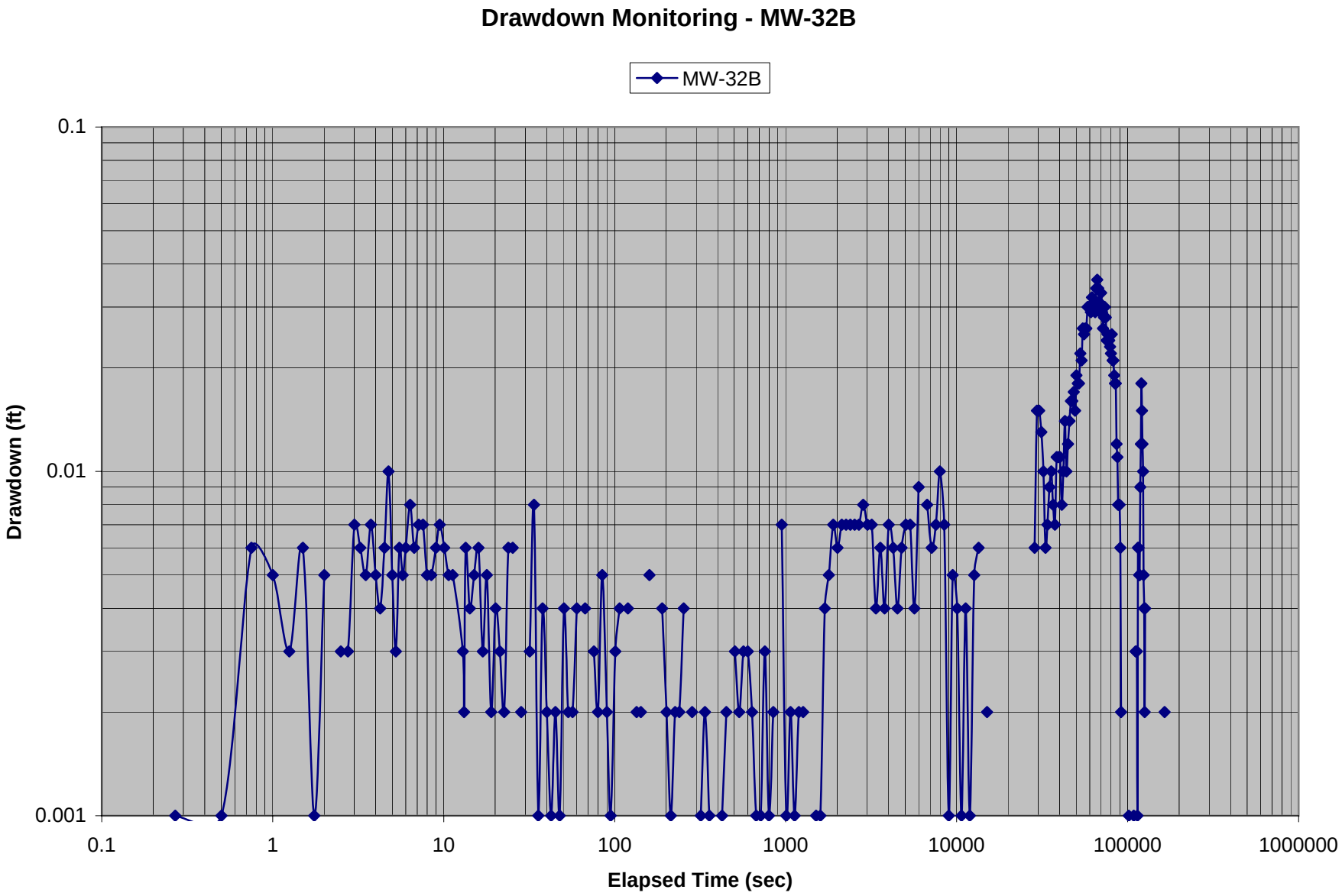
EXB-11 Drawdown and Recovery Test Monitoring

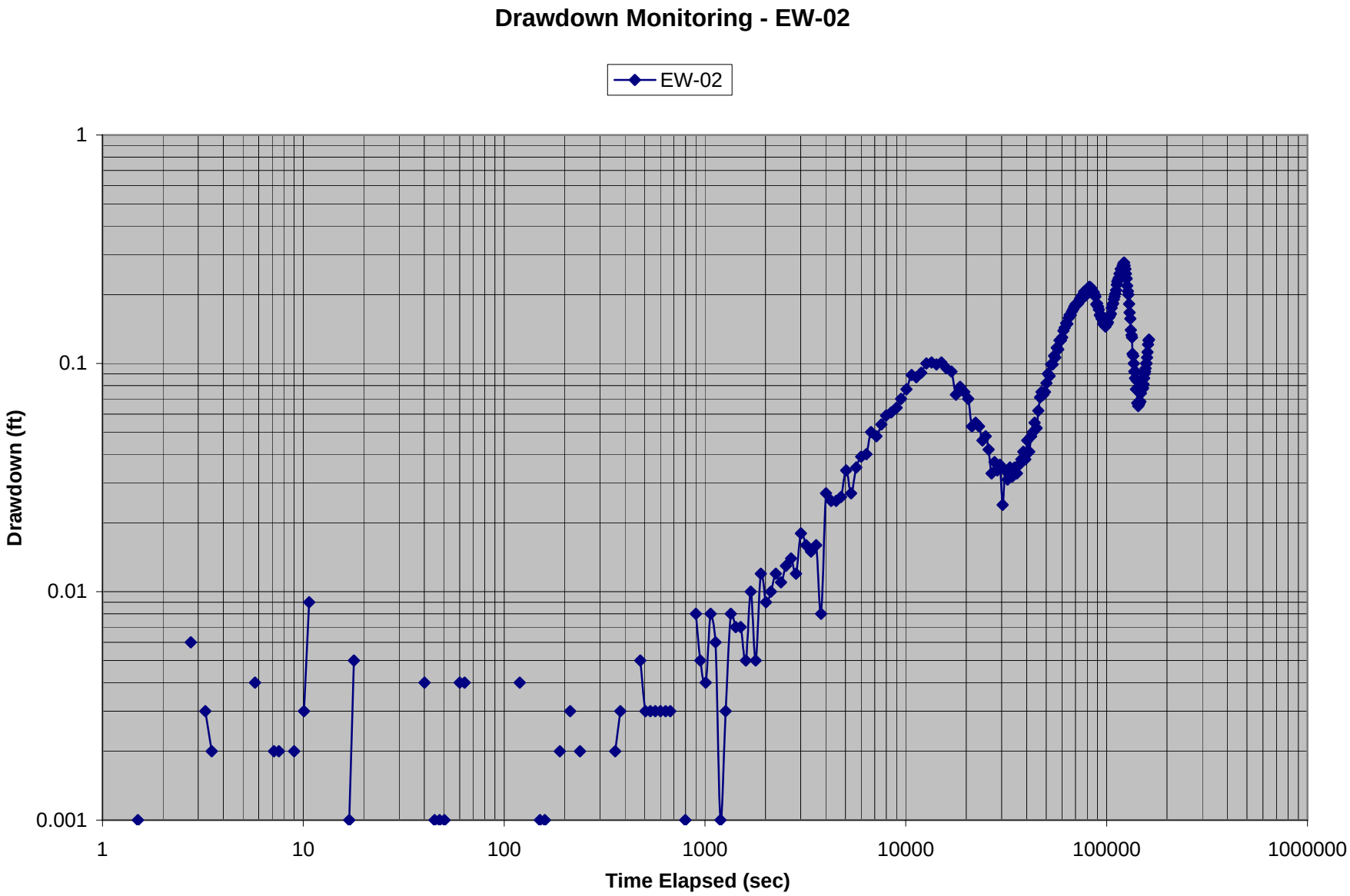
Date and Time	Groundwater Elevation (ft AMSL)
6/19/2008 15:30	470.386
6/19/2008 15:38	470.382
6/19/2008 15:48	470.385
6/19/2008 15:58	470.383
6/19/2008 16:08	470.386
6/19/2008 16:19	470.388
6/19/2008 16:31	470.393
6/19/2008 16:44	470.389
6/19/2008 16:57	470.396
6/19/2008 17:11	470.397
6/19/2008 17:26	470.404
6/19/2008 17:41	470.411
6/19/2008 17:56	470.416
6/19/2008 18:11	470.417
6/19/2008 18:26	470.421
6/19/2008 18:41	470.429
6/19/2008 18:56	470.428
6/19/2008 19:11	470.431
6/19/2008 19:26	470.434
6/19/2008 19:41	470.433
6/19/2008 19:56	470.436
6/19/2008 20:11	470.44
6/19/2008 20:26	470.442
6/19/2008 20:41	470.448
6/19/2008 20:56	470.45
6/19/2008 21:11	470.458
6/19/2008 21:26	470.462
6/19/2008 21:41	470.468
6/19/2008 21:56	470.47
6/19/2008 22:11	470.48
6/19/2008 22:26	470.486
6/19/2008 22:41	470.487
6/19/2008 22:56	470.493
6/19/2008 23:11	470.498
6/19/2008 23:26	470.503
6/19/2008 23:41	470.507
6/19/2008 23:56	470.517
6/20/2008 0:11	470.516
6/20/2008 0:26	470.521
6/20/2008 0:41	470.525
6/20/2008 0:56	470.525
6/20/2008 1:11	470.525
6/20/2008 1:26	470.534
6/20/2008 1:41	470.542
6/20/2008 1:56	470.544
6/20/2008 2:11	470.546
6/20/2008 2:26	470.544
6/20/2008 2:41	470.551

EXB-11 Drawdown and Recovery Test Monitoring

Date and Time	Groundwater Elevation (ft AMSL)
6/20/2008 2:56	470.549
6/20/2008 3:11	470.559
6/20/2008 3:26	470.564
6/20/2008 3:41	470.567
6/20/2008 3:56	470.568
6/20/2008 4:11	470.573
6/20/2008 4:26	470.577
6/20/2008 4:41	470.58
6/20/2008 4:56	470.581
6/20/2008 5:11	470.584
6/20/2008 5:26	470.587
6/20/2008 5:41	470.595
6/20/2008 5:56	470.597
6/20/2008 6:11	470.599
6/20/2008 6:26	470.605
6/20/2008 6:41	470.601
6/20/2008 6:56	470.608
6/20/2008 7:11	470.612
6/20/2008 7:26	470.613
6/20/2008 7:41	470.616
6/20/2008 7:56	470.617
6/20/2008 8:11	470.612
6/20/2008 8:26	470.617
6/20/2008 8:41	470.617
6/20/2008 8:56	470.618
6/20/2008 9:11	470.622
6/20/2008 9:26	470.623
6/20/2008 9:41	470.624
6/20/2008 9:56	470.627
6/20/2008 10:11	470.629
6/20/2008 10:26	470.634
6/20/2008 10:41	470.636
6/20/2008 10:56	470.637
6/20/2008 11:11	470.637
6/20/2008 11:26	470.635
6/20/2008 11:41	470.637
6/20/2008 11:56	470.64
6/20/2008 12:11	470.639
6/20/2008 12:26	470.643

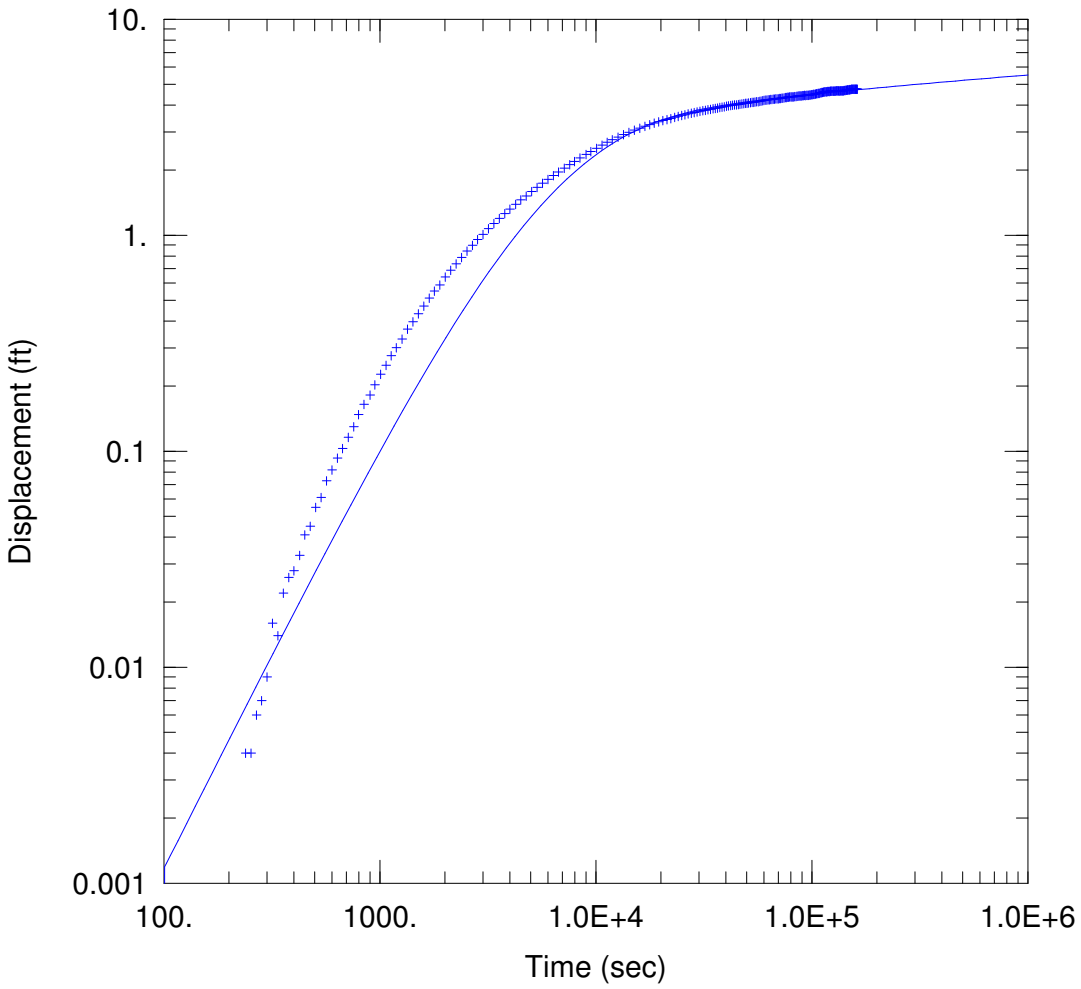

Drawdown Monitoring - MW-05B
MW-05B
1
0.1
0.01
0.001
Drawdown (ft)
100
1000
10000
100000
1000000
Elapsed Time (sec)


Drawdown Monitoring - MW-32B
MW-32B
0.1
0.01
0.001
Drawdown (ft)
0.1
1
10
100
1000
10000
100000
1000000
Elapsed Time (sec)


Drawdown Monitoring - EW-02
EW-02
Drawdown (ft)
1
0.1
0.01
0.001
1
10
100
1000
10000
100000
1000000
Time Elapsed (sec)

EW-01 Drawdown

Prepared By:	Prepared For:
WSP Environment & Energy	Emerson
Project:	**Location:**
127491/28	EPT Ithaca



SOLUTION

Aquifer Model: Fractured
Solution Method: Moench w/slab blocks

K = 2.054E-5 ft/sec
K' = 1.0E-10 ft/sec
Sw = 0.
r(w) = 0.33 ft

Ss = 1.429E-11 ft^{-1}
Ss' = 1.376E-8 ft^{-1}
Sf = 2.581
r(c) = 0.33 ft

AQUIFER DATA

Saturated Thickness: 7. ft Slab Block Thickness: 1.7 ft

WELL DATA

Pumping Wells

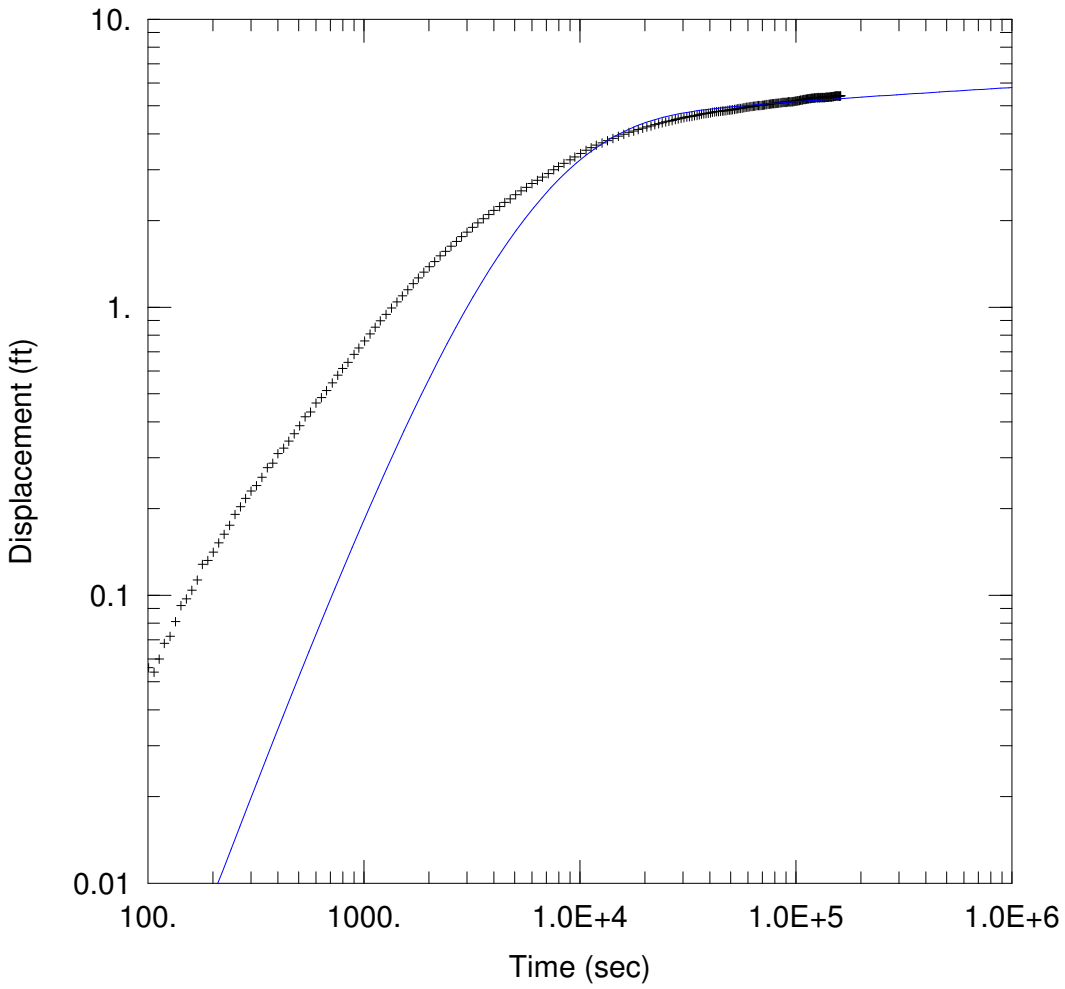
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
+ EW-01	42.21	87.14

EW-03 Drawdown

Prepared By:	Prepared For:
WSP Environment & Energy	Emerson
Project:	**Location:**
127491-28	EPT Ithaca



SOLUTION

Aquifer Model: Fractured
Solution Method: Moench w/slab blocks

K = 1.974E-5 ft/sec
K' = 1.0E-10 ft/sec
Sw = 0.
r(w) = 0.33 ft
Ss = 8.333E-12 ft^{-1}
Ss' = 7.443E-13 ft^{-1}
Sf = 100.
r(c) = 0.33 ft

AQUIFER DATA

Saturated Thickness: 12. ft Slab Block Thickness: 5.5 ft

WELL DATA

Pumping Wells

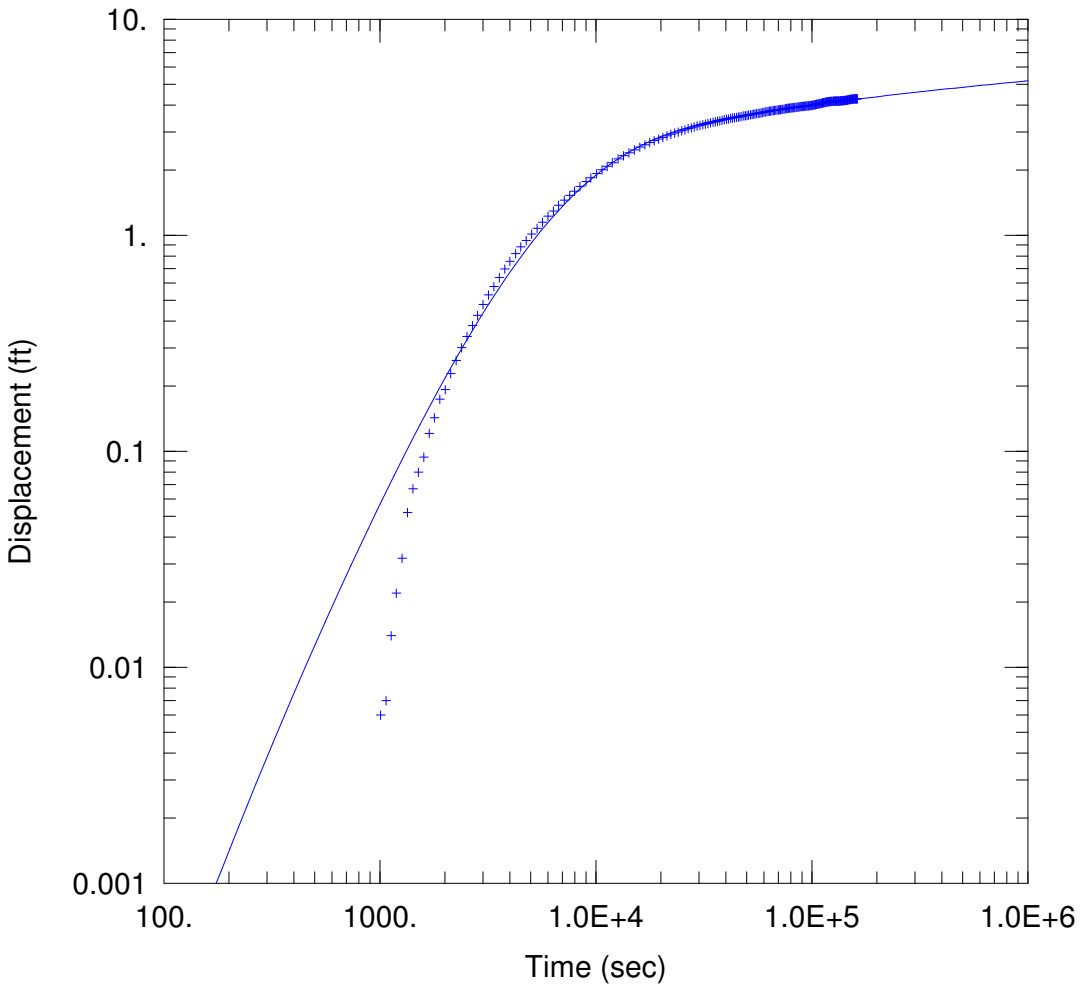
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
+ EW-03	22.56	26.66

EXB-05 Drawdown

Prepared By:	Prepared For:
WSP Environment & Energy	Emerson
Project:	**Location:**
127491-28	EPT Ithaca



SOLUTION

Aquifer Model: Fractured
Solution Method: Moench w/slab blocks

K = 1.397E-5 ft/sec
K' = 1. ft/sec
Sw = 0.
r(w) = 0.33 ft
Ss = 4.078E-8 ft^{-1}
Ss' = 7.904E-12 ft^{-1}
Sf = 100.
r(c) = 0.33 ft

AQUIFER DATA

Saturated Thickness: 9. ft Slab Block Thickness: 1.4 ft

WELL DATA

Pumping Wells

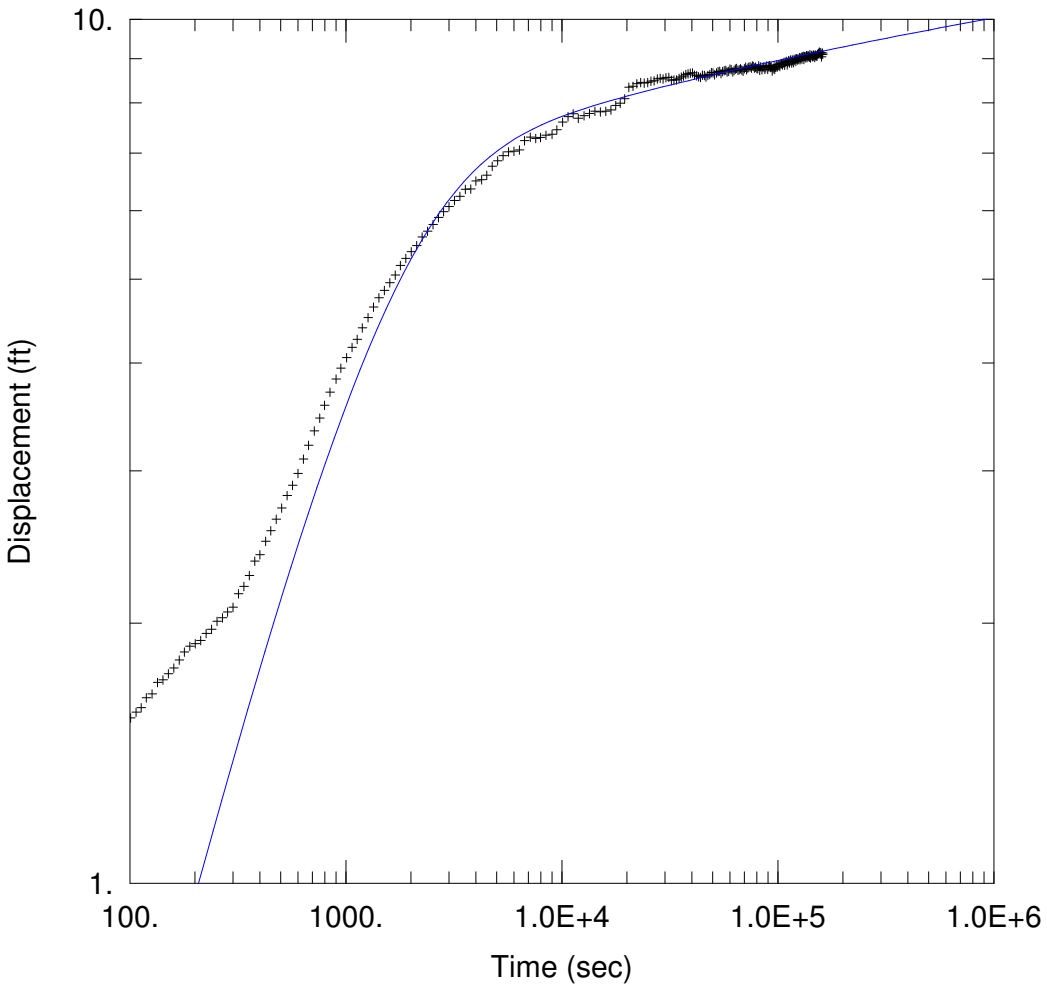
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
+ EXB-05	82.66	118.04

EXB-06 Drawdown

Prepared By:	Prepared For:
WSP Environment & Energy	EPT Emerson
Project:	**Location:**
127491/28	Ithaca, NY



SOLUTION

Aquifer Model: Fractured
Solution Method: Moench w/slab blocks

K = 6.757E-6 ft/sec
K' = 1.755E-10 ft/sec
Sw = 0.
r(w) = 0.33 ft
Ss = 1.149E-5 ft^{-1}
Ss' = 0.01788 ft^{-1}
Sf = 0.
r(c) = 0.33 ft

AQUIFER DATA

Saturated Thickness: 10. ft Slab Block Thickness: 1.9 ft

WELL DATA

Pumping Wells

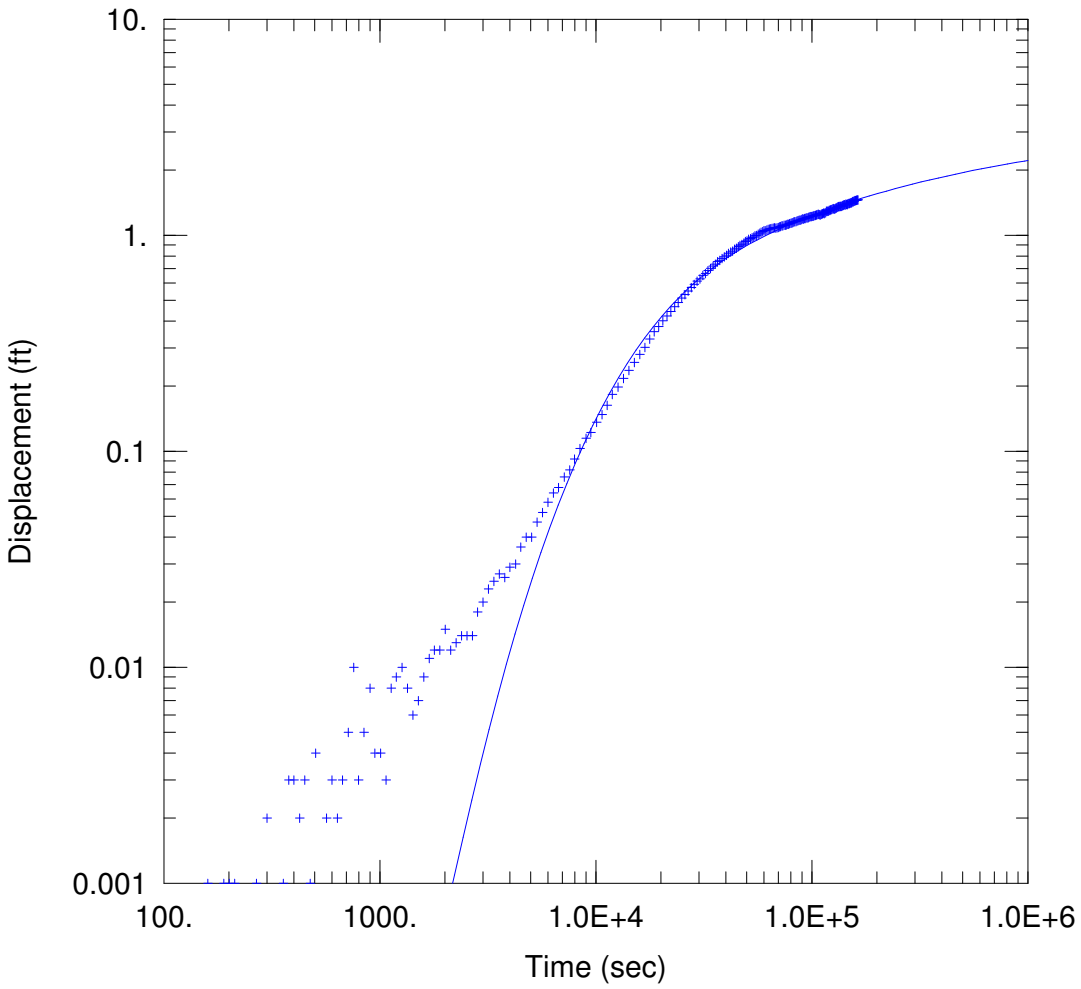
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
+ EXB-06	0	0

EXB-07 Drawdown

Prepared By:	Prepared For:
WSP Environment & Energy	Emerson
Project:	**Location:**
127491/28	EPT Ithaca



SOLUTION

Aquifer Model: Fractured
Solution Method: Moench w/slab blocks

K = 1.919E-5 ft/sec
K' = 2.45E-10 ft/sec
Sw = 0.
r(w) = 0.33 ft

Ss = 1.187E-5 ft^{-1}
Ss' = 1. ft^{-1}
Sf = 100.
r(c) = 0.33 ft

AQUIFER DATA

Saturated Thickness: 7. ft Slab Block Thickness: 1.75 ft

WELL DATA

Pumping Wells

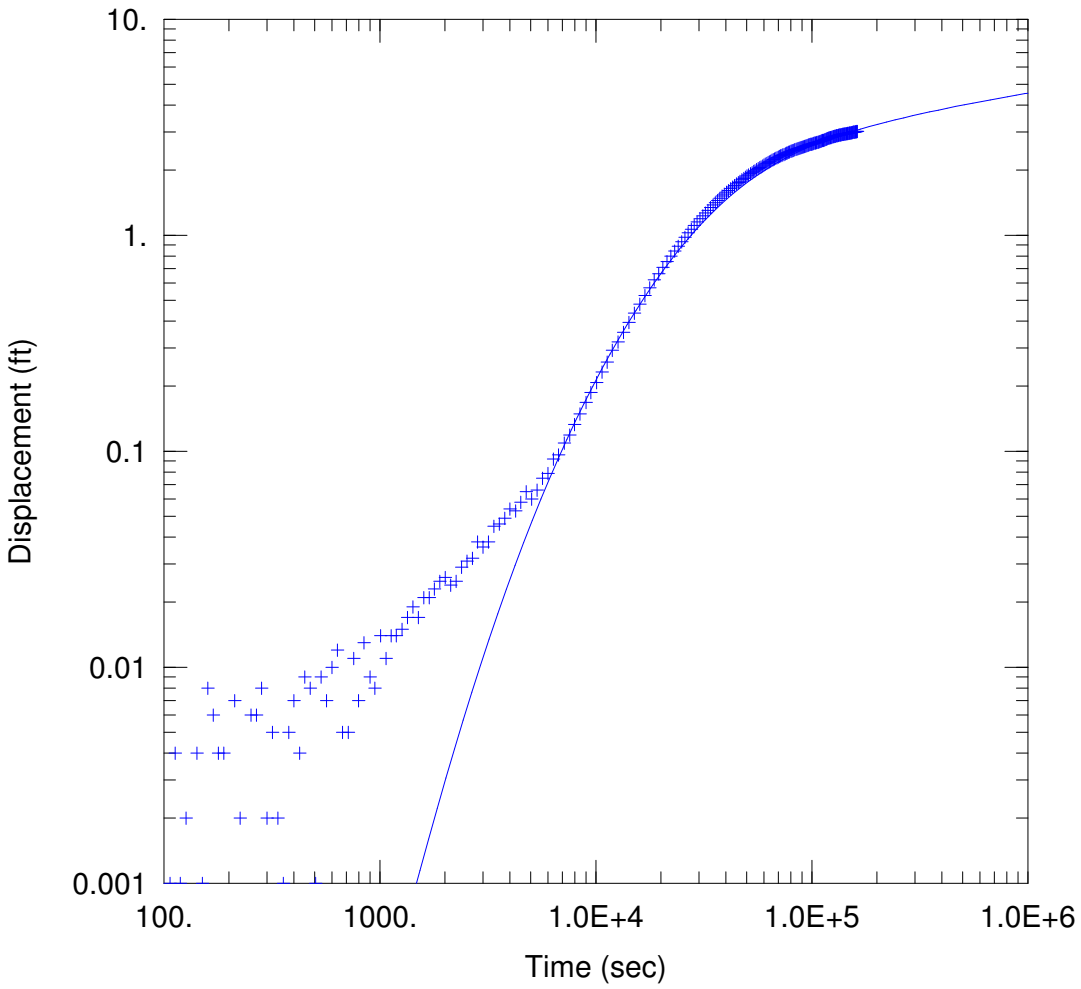
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
+ EXB-07	30.61	149.83

EXB-09 Drawdown

Prepared By:	Prepared For:
WSP Environment & Energy	Emerson
Project:	**Location:**
127491	EPT Ithaca



SOLUTION

Aquifer Model: Fractured
Solution Method: Moench w/slab blocks

K = 6.31E-6 ft/sec
K' = 0.5353 ft/sec
Sw = 0.
r(w) = 0.33 ft

Ss = 7.692E-12 ft^{-1}
Ss' = 9.571E-7 ft^{-1}
Sf = 100.
r(c) = 0.33 ft

AQUIFER DATA

Saturated Thickness: 13. ft Slab Block Thickness: 2.5 ft

WELL DATA

Pumping Wells

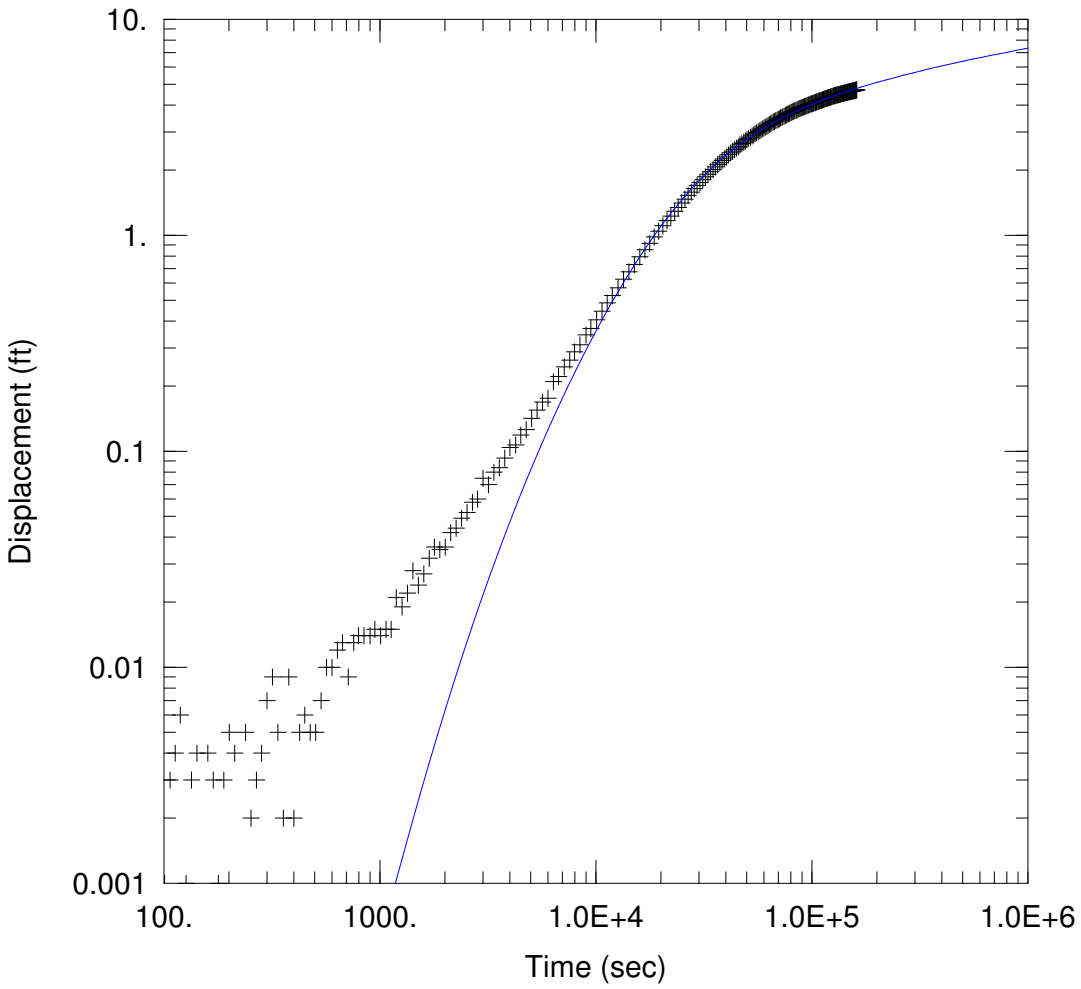
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
+ EXB-09	71.36	174.89

EXB-10 Drawdown

Prepared By:	Prepared For:
WSP Environment & Energy	Emerson
Project:	**Location:**
127491/28	EPT Ithaca



SOLUTION

Aquifer Model: Fractured
Solution Method: Moench w/slab blocks

K = 9.304E-6 ft/sec
K' = 5.618E-8 ft/sec
Sw = 0.
r(w) = 0.33 ft

Ss = 5.573E-6 ft^{-1}
Ss' = 5.756E-6 ft^{-1}
Sf = 100.
r(c) = 0.33 ft

AQUIFER DATA

Saturated Thickness: 5. ft Slab Block Thickness: 1.2 ft

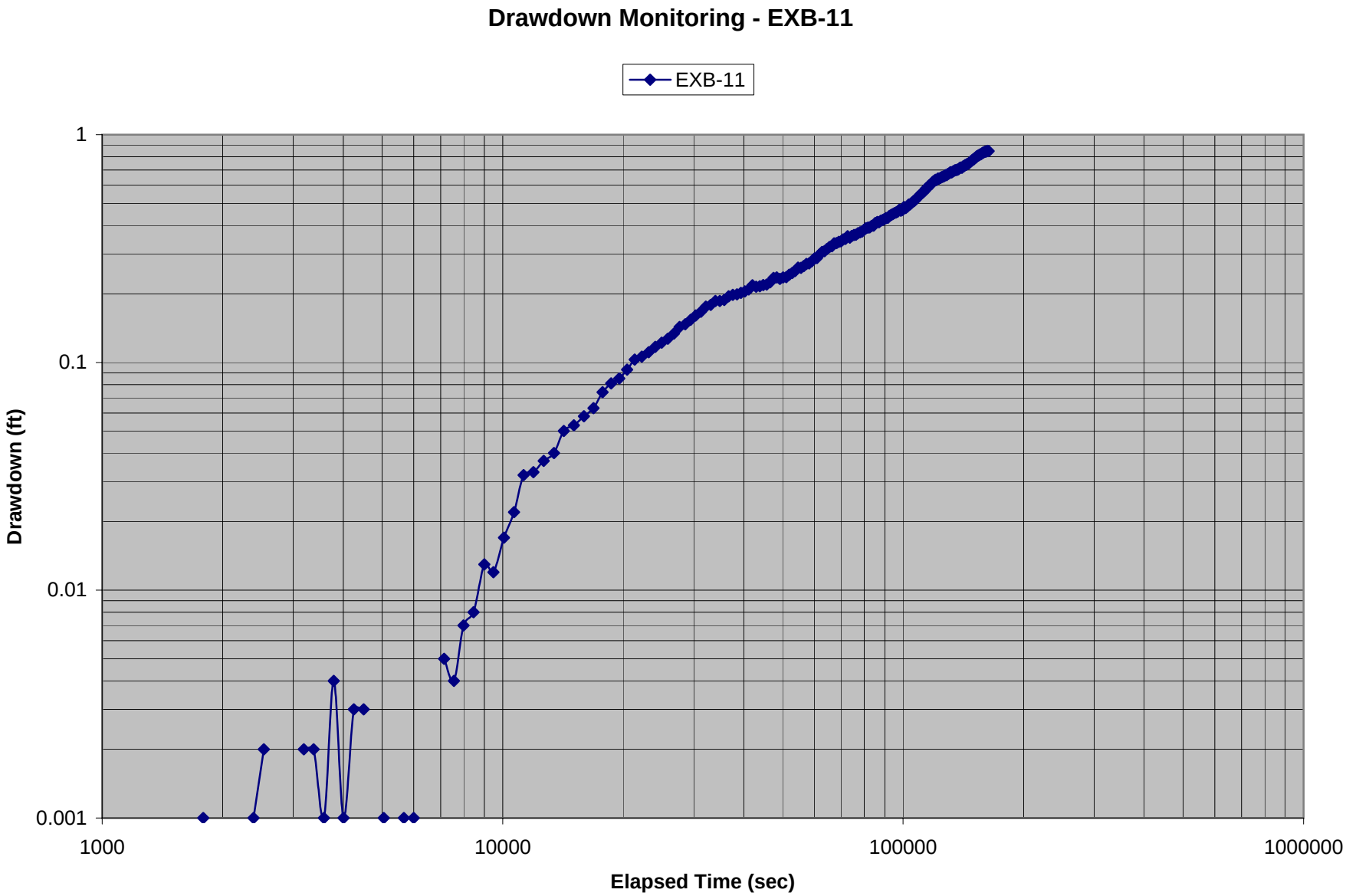
WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
EXB-06	0	0

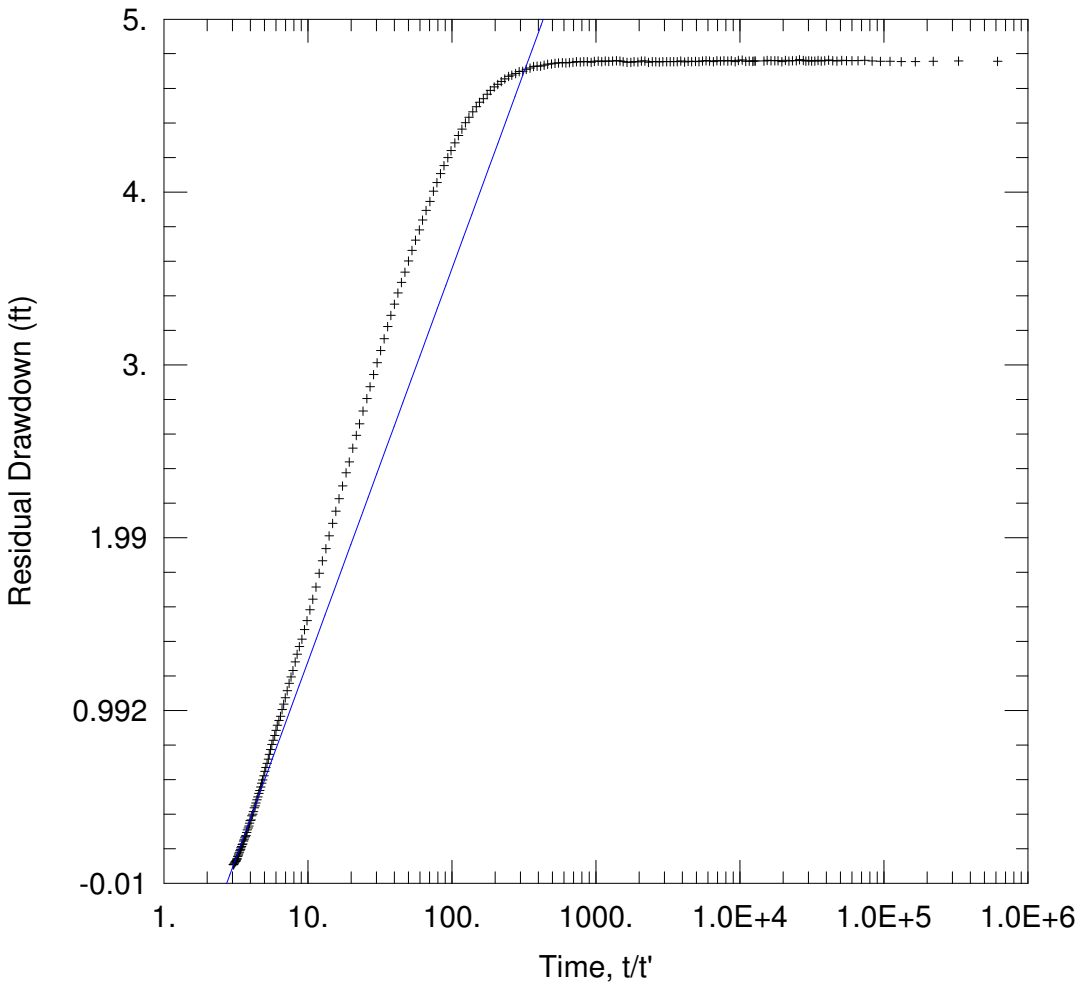
Observation Wells

Well Name	X (ft)	Y (ft)
+ EXB-10	58.21	63.65


Drawdown Monitoring - EXB-11
EXB-11
1
0.1
0.01
0.001
Drawdown (ft)
1000
10000
100000
1000000
Elapsed Time (sec)

EW-01 Recovery

Prepared By:	Prepared For:
WSP Environment & Energy	EPT Emerson
Project:	**Location:**
127491/28	Ithaca, NY



SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

T = 6.271E-5 ft^2/sec S/S' = 2.757

AQUIFER DATA

Saturated Thickness: 7. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

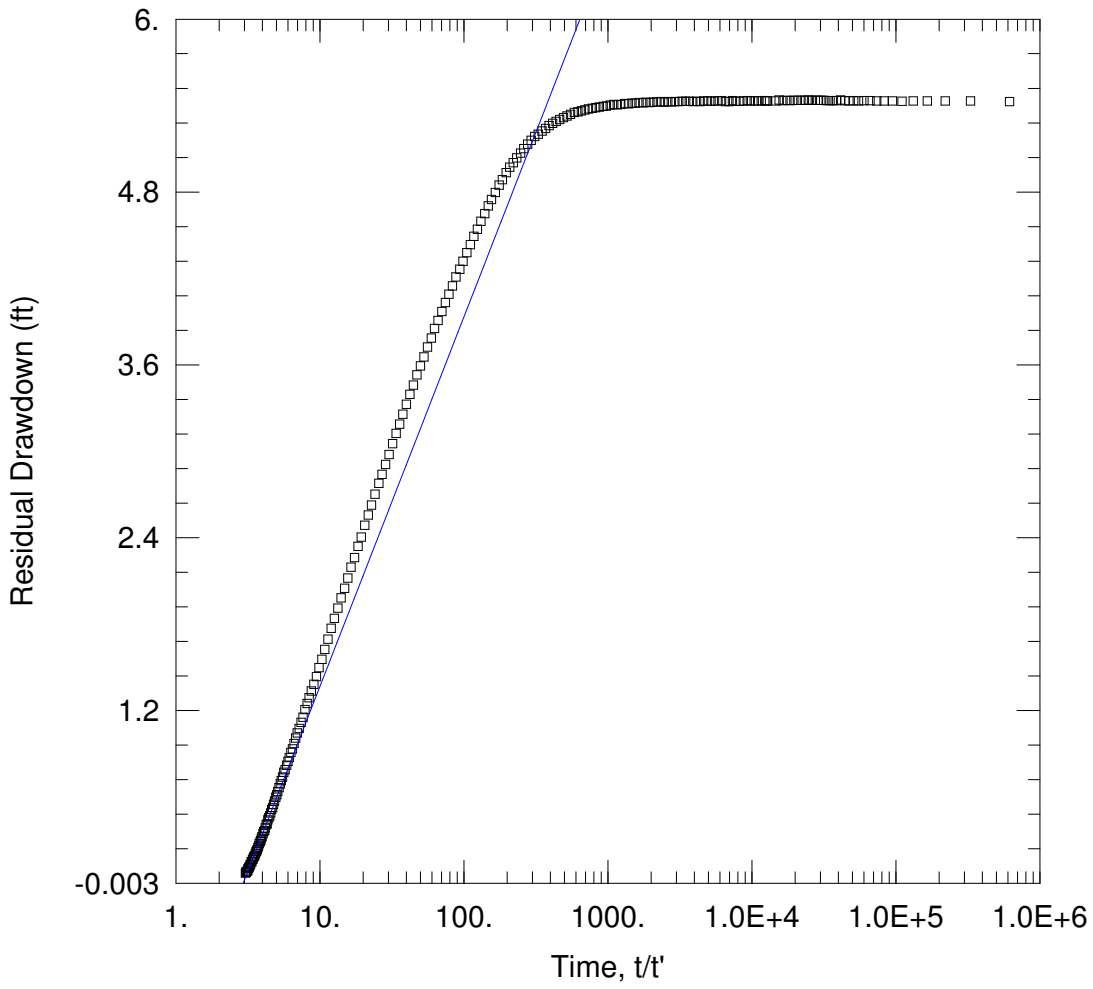
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
+ EW-01	42.21	87.14

EW-03 Recovery

Prepared By:	Prepared For:
WSP Environment & Energy	EPT Emerson
Project:	**Location:**
127491/28	Ithaca, NY



SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

T = 5.567E-5 ft^2/sec S/S' = 2.941

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

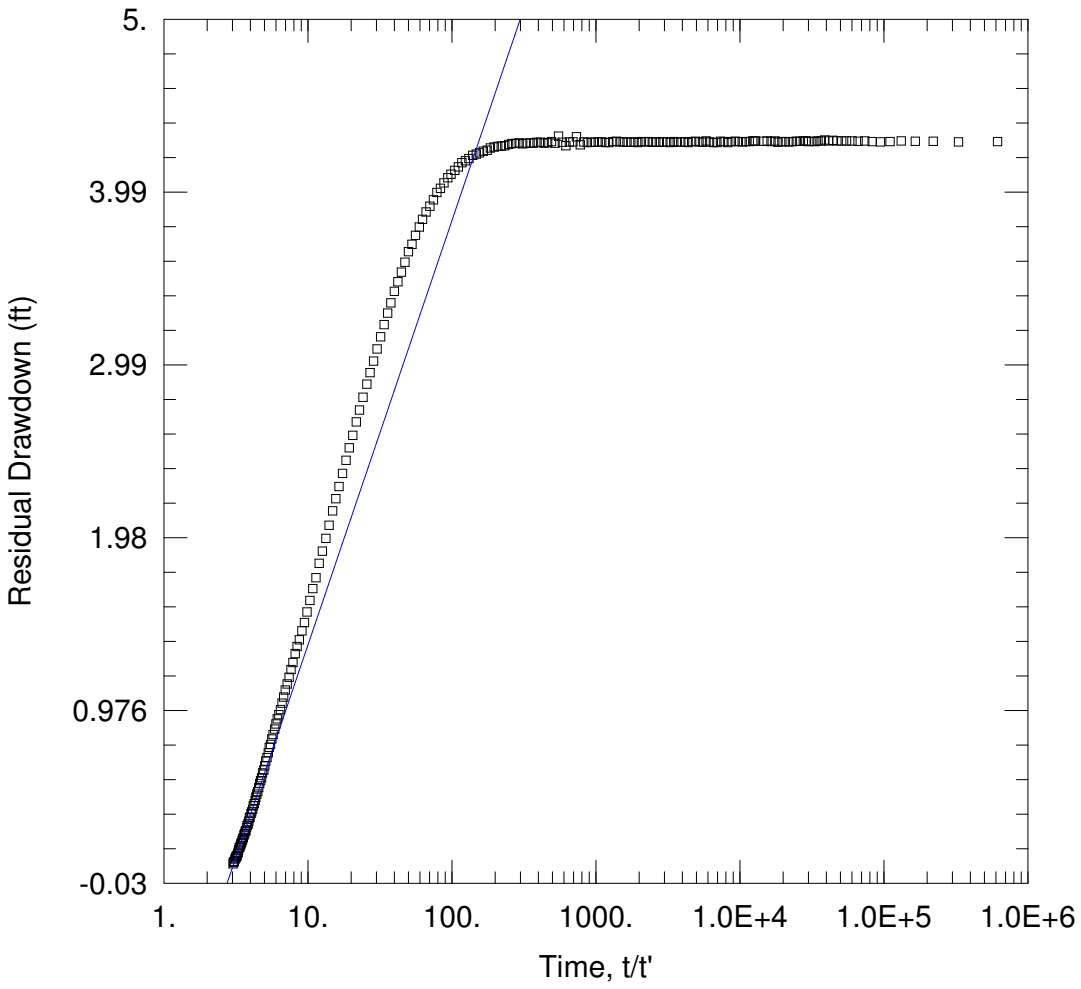
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ EW-03	22.56	26.66

EXB-05 Recovery

Prepared By:	Prepared For:
WSP Environment & Energy	EPT Emerson
Project:	**Location:**
127491/28	Ithaca, NY



SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

T = 5.784E-5 ft^2/sec S/S' = 2.823

AQUIFER DATA

Saturated Thickness: 9. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

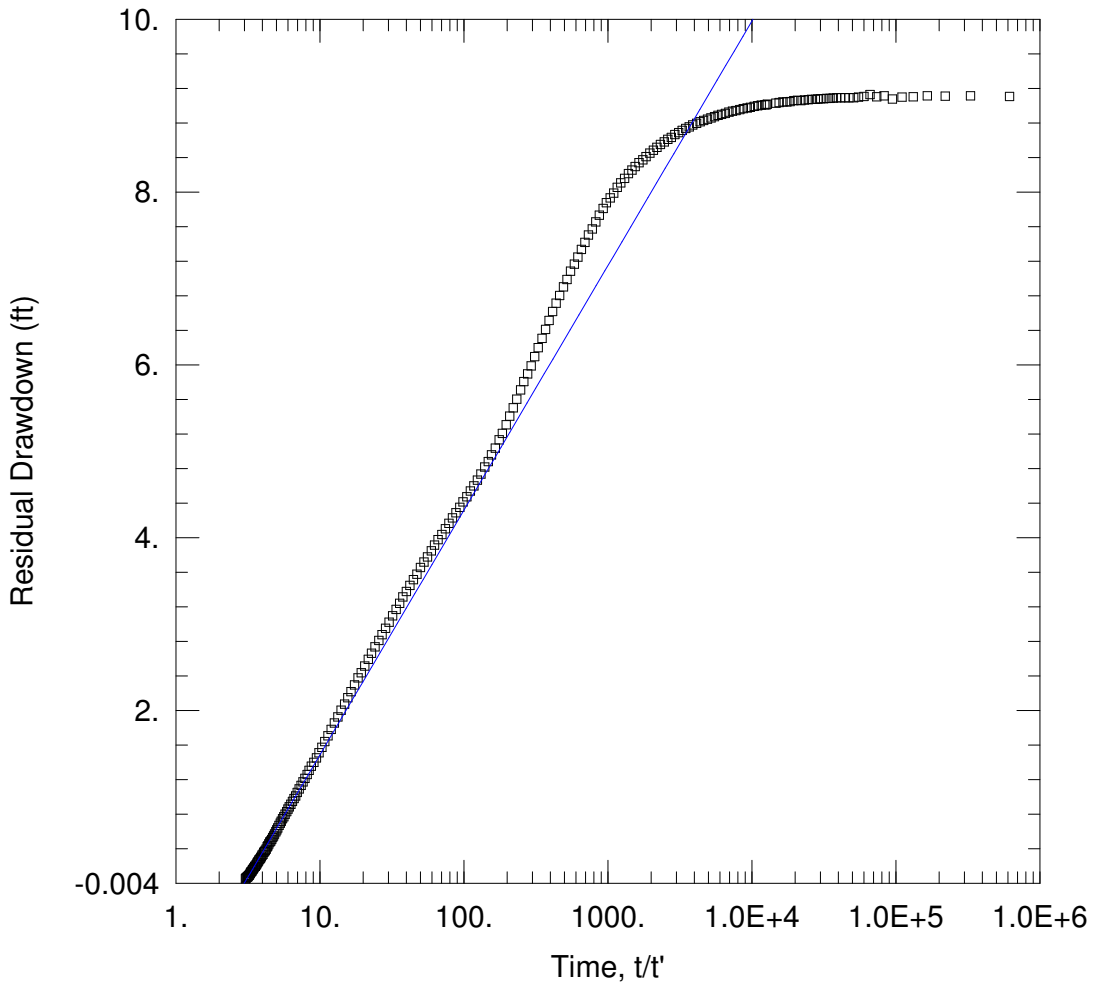
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ EXB-05	82.66	118.04

EXB-06 Recovery

Prepared By:	Prepared For:
WSP Environment & Energy	EPT Emerson
Project:	**Location:**
127491/28	Ithaca, NY



SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

T = 5.046E-5 ft^2/sec S/S' = 2.995

AQUIFER DATA

Saturated Thickness: 10. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

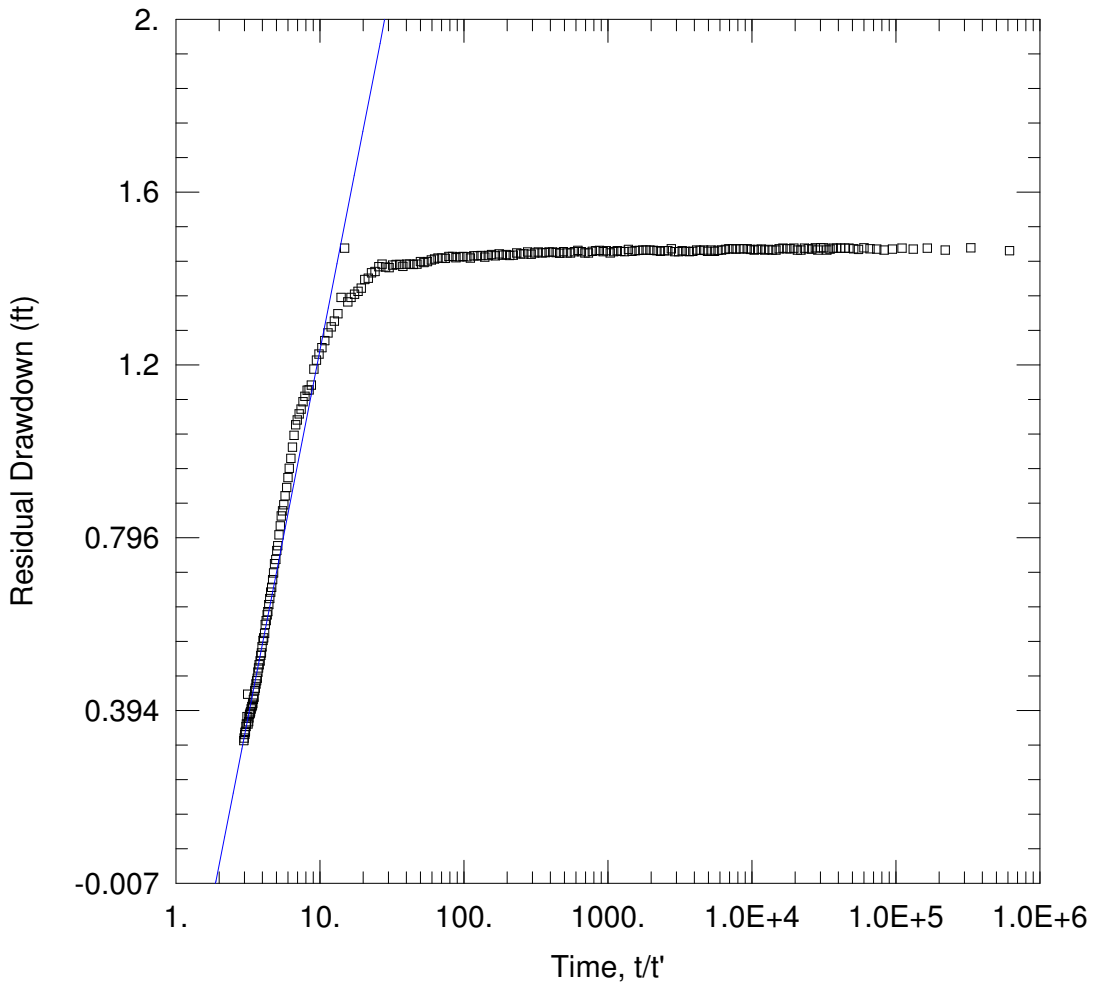
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ EXB-06	0	0

EXB-07 Recovery

Prepared By:	Prepared For:
WSP Environment & Energy	EPT Emerson
Project:	**Location:**
127491/28	Ithaca, NY



SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

T = 8.37E-5 ft^2/sec S/S' = 1.902

AQUIFER DATA

Saturated Thickness: 7. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

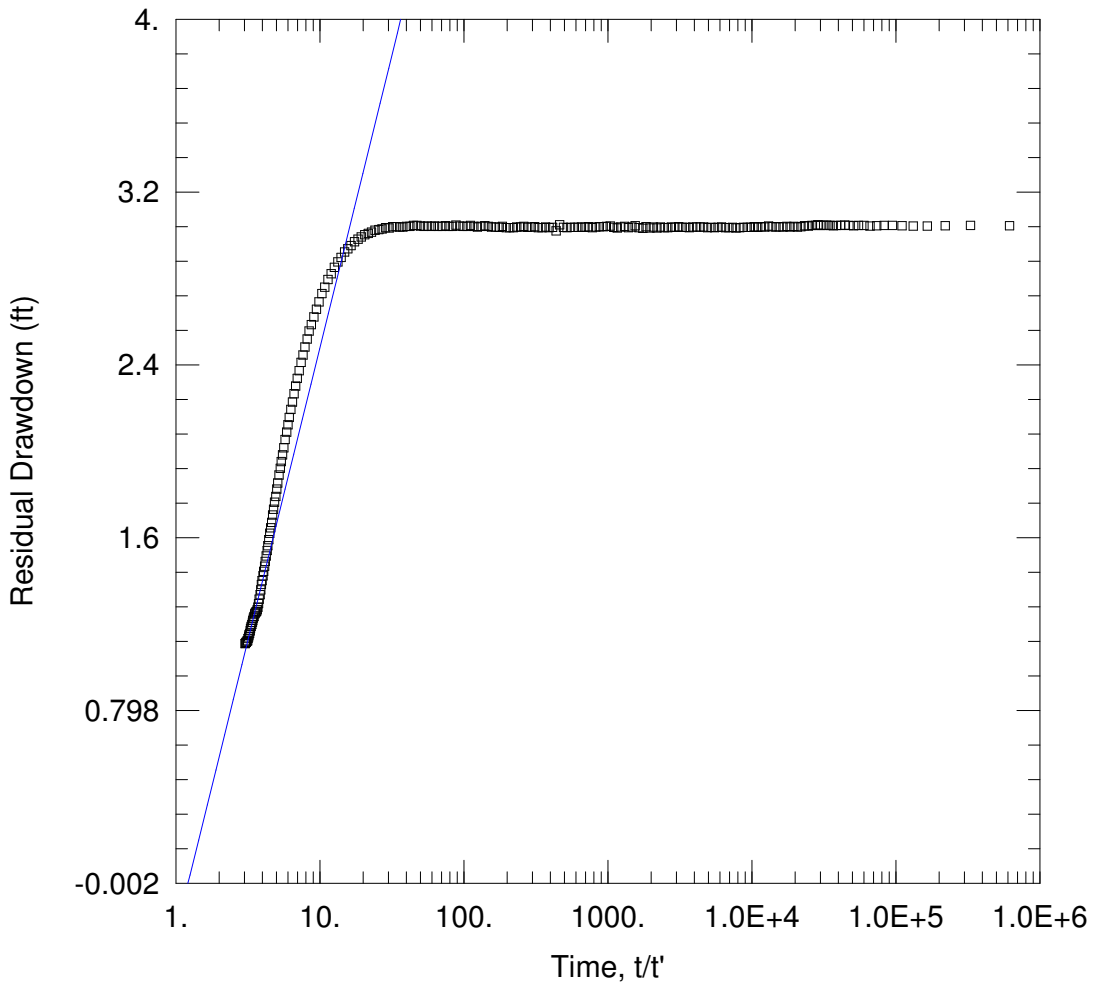
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ EXB-07	-30.61	149.83

EXB-09 Recovery

Prepared By:	Prepared For:
WSP Environment & Energy	EPT Emerson
Project:	**Location:**
127491/28	Ithaca, NY



SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

T = 5.277E-5 ft^2/sec S/S' = 1.216

AQUIFER DATA

Saturated Thickness: 13. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

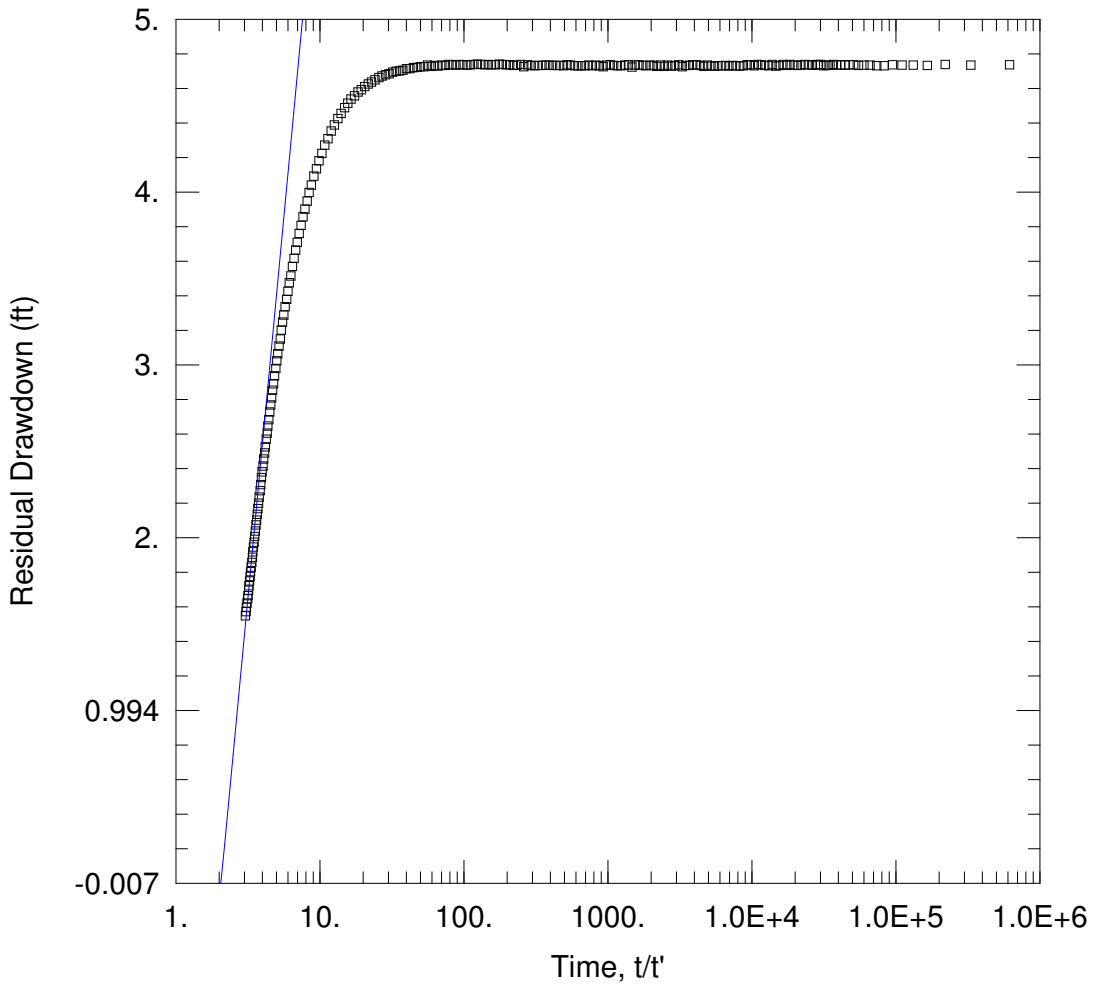
Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
▫ EXB-09	71.36	174.89

EXB-10 Recovery

Prepared By:	Prepared For:
WSP Environment & Energy	EPT Emerson
Project:	**Location:**
127491/28	Ithaca, NY



SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

T = 1.616E-5 ft^2/sec S/S' = 2.059

AQUIFER DATA

Saturated Thickness: 5. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
EXB-06	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ EXB-10	-58.21	-63.65

Appendix E – Design Drawings

INDEX OF DRAWINGS

DRAWING NUMBER	SHEET NUMBER	DESCRIPTION
127491341	1	TITLE SHEET
127491354	2	SITE PLAN
127491337	3	PIPING LAYOUT
127491355	4	REMEDIAL SYSTEM HYDRAULIC GRADE LINE
127491329	5	PROCESS & INSTRUMENTATION DIAGRAM
127491329	6	EQUIPMENT BUILDING LAYOUT
127491353	7	EXTRACTION WELL DETAILS
127491352	8	SITE WORK DETAILS

80% INTERIM REMEDIAL MEASURE DESIGN

EMERSON POWER TRANSMISSION FACILITY ITHACA, NEW YORK

PREPARED FOR

EMERSON POWER TRANSMISSION

REVISIONS

REV	DESCRIPTION	
1	Revised	Chkd: Appr.:
2	Revised	Chkd: Appr.:
3	Revised	Chkd: Appr.:

SEAL

DATE

DRAWN BY EGC
CHECKED KEB/SBP
APPROVED TMM

PROPERTY OF WSP ENVIRONMENT & ENERGY LLC. MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL BY ANY WSP ENTITY AT ANY TIME. IT IS NOT TO BE LOANED, COPIED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF ANYONE OTHER THAN THOSE FIRMS OR INDIVIDUALS TO WHOM WSP ENVIRONMENT & ENERGY LLC. OR ITS AFFILIATES HAS EXPRESSLY GRANTED PERMISSION.

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. IT IS A VIOLATION OF STATE LAW FOR ANY PERSONS, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY.

TITLE SHEET

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

WSP ENGINEERING OF NEW YORK, P.C.
6459 WEST QUARKER STREET SUITE 2B
ORCHARD PARK NEW YORK 14127
(716) 662-6876

SHEET 1

Drawing Number
127491341

LEGEND

PROPOSED B-ZONE EXTRACTION WELL LOCATION

PROPOSED C-ZONE EXTRACTION WELL LOCATION

WATER LINE

SANITARY SEWER LINE

GAS LINE

STORM SEWER LINE

1.5" SCHEDULE 40 CARBON STEEL DISCHARGE PIPING

ABOVE-GROUND PIPING (4" HDPE VAPOR, 1.25" NYLON 12 WATER, 1" DURATEC® AIR SUPPLY)

BELOW-GROUND PIPING (2" HDPE VAPOR, 1.25" NYLON 12 WATER, 1" DURATEC® AIR SUPPLY)

2/8 DETAIL NUMBER OR SECTION LETTER

SHEET WHERE DETAIL OR SECTION IS DRAWN

EW-1-62C

SEE EXTRACTION WELL VAULT COMPLETION DETAIL A/8

1/8 SEE EXTRACTION WELL VAULT COMPLETION DETAIL

2/8 EW-2-62C

C/8

EW-3-60C

EW-4-25B

FOOT PATH

SEE EXTRACTION WELL VAULT COMPLETION DETAIL 4/8

EW-5-25B

EW-6-60C

WOODEN ENCLOSURE

SEE EXTRACTION WELL VAULT COMPLETION DETAIL 3/8

EW-7-25B

EFFLUENT DISCHARGE (SPDES OUTFALL #001)

NYSE&G SUBSTATION

EW-10-25B

FIRE WATER RESERVOIR

NOTE: TRANSITION FROM BELOW-GROUND TO ABOVE-GROUND PIPING

EW-8-62C

FOOT BRIDGE

EW-9-86C

B/8

CONVEYANCE PIPING

EPT MAIN PLANT BUILDING

DPE TREATMENT BUILDING

D/8

N

0 20 40

SCALE IN FEET

REVISIONS

REV	DESCRIPTION			
1	Revised:	Chkd:	Appr:	
2	Revised:	Chkd:	Appr:	
3	Revised:	Chkd:	Appr:	

SEAL

DATE

DRAWN BY EGC

CHECKED KEB/SBP

APPROVED TMM

PROPERTY OF WSP ENVIRONMENT & ENERGY LLC MUTUAL BENEFIT. THIS DRAWING IS LOANED SUBJECT TO RECALL AT ANY TIME BY WSP ENVIRONMENT & ENERGY LLC AND IS NOT TO BE USED, DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PERSONS OTHER THAN THOSE AUTHORIZED BY WSP ENVIRONMENT & ENERGY LLC AND ITS SUPPLIERS WITHOUT THE WRITTEN CONSENT OF WSP ENVIRONMENT & ENERGY LLC.

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. IT IS A VIOLATION OF STATE LAW FOR ANY PERSONS, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY.

SITE PLAN

EMERSON POWER TRANSMISSION FACILITY
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

WSP ENGINEERING OF NEW YORK, P.C.
6459 WEST QUARKER STREET SUITE 2B
ORCHARD PARK NEW YORK 14127
(716) 662-6876

SHEET 2

Drawing Number
127491354

LEGEND

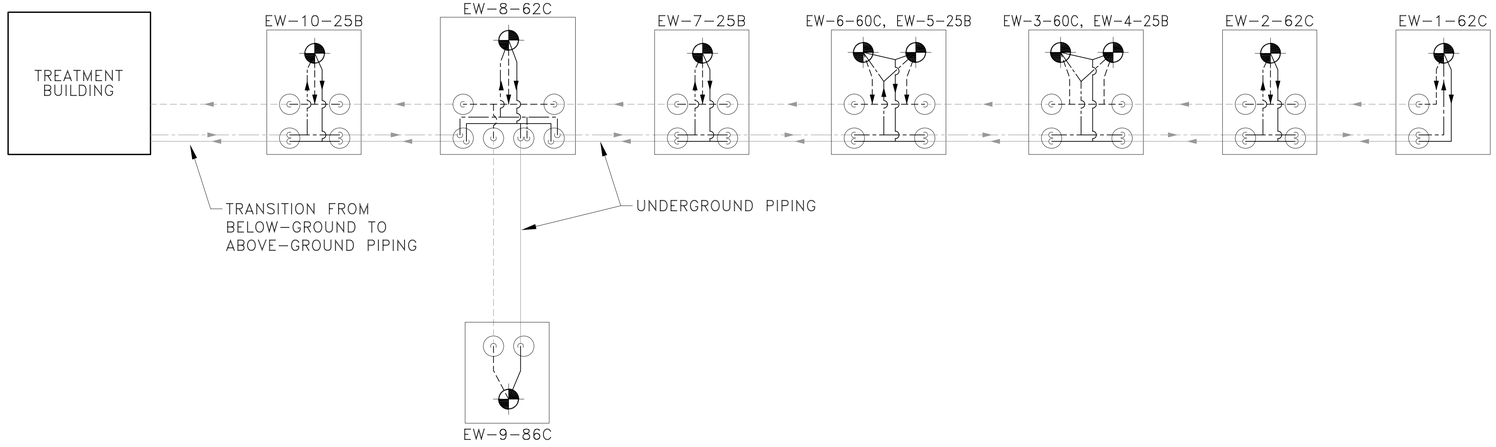
WATER DISCHARGE

COMPRESSED AIR

VAPOR DISCHARGE

TRANSITION FROM UNDERGROUND TO ABOVEGROUND PIPING

EXTRACTION WELL



REVISIONS

REV	DESCRIPTION		
1	Revised	Chkd	Appr.
2	Revised	Chkd	Appr.
3	Revised	Chkd	Appr.

SEAL

DATE

DRAWN BY	EGC
CHECKED	KEB/SBP
APPROVED	TMM

PROPERTY OF WSP ENVIRONMENT & ENERGY LLC MUTUAL RIGHTS AND PROPRIETARY INTEREST IN DESIGN. ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. ALL INFORMATION CONTAINED HEREIN IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PERSONS OTHER THAN EMERSON POWER TRANSMISSION & ITS SUPPLIERS WITHOUT THE WRITTEN CONSENT OF WSP ENVIRONMENT & ENERGY LLC.

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. IT IS A VIOLATION OF STATE LAW FOR ANY PERSONS, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY.

PIPING LAYOUT

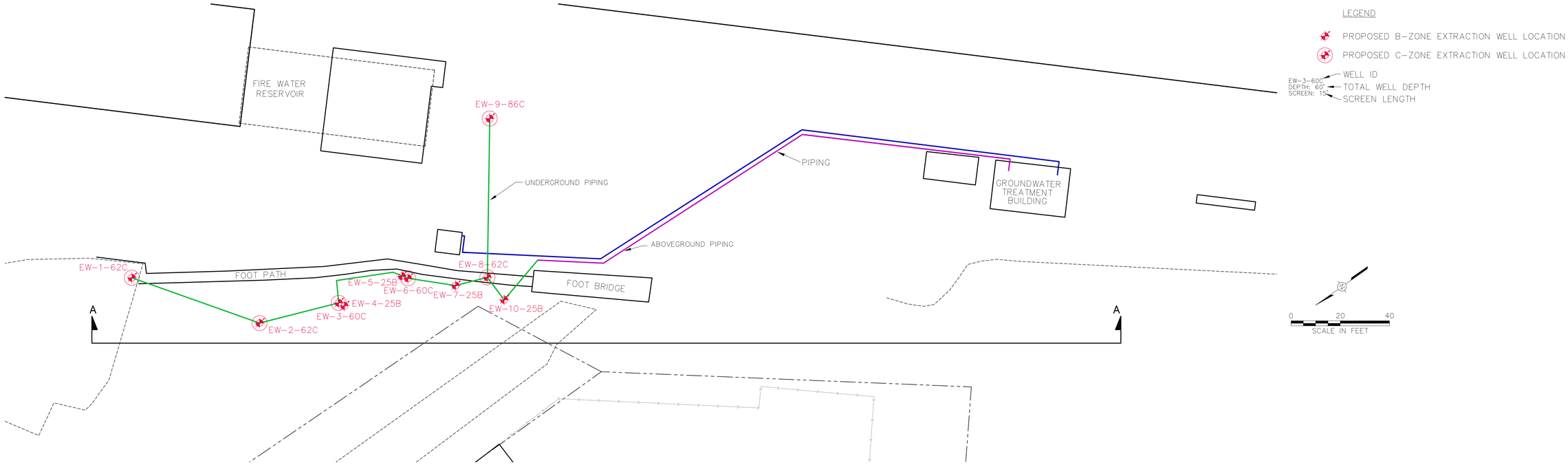
EMERSON POWER TRANSMISSION FACILITY
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

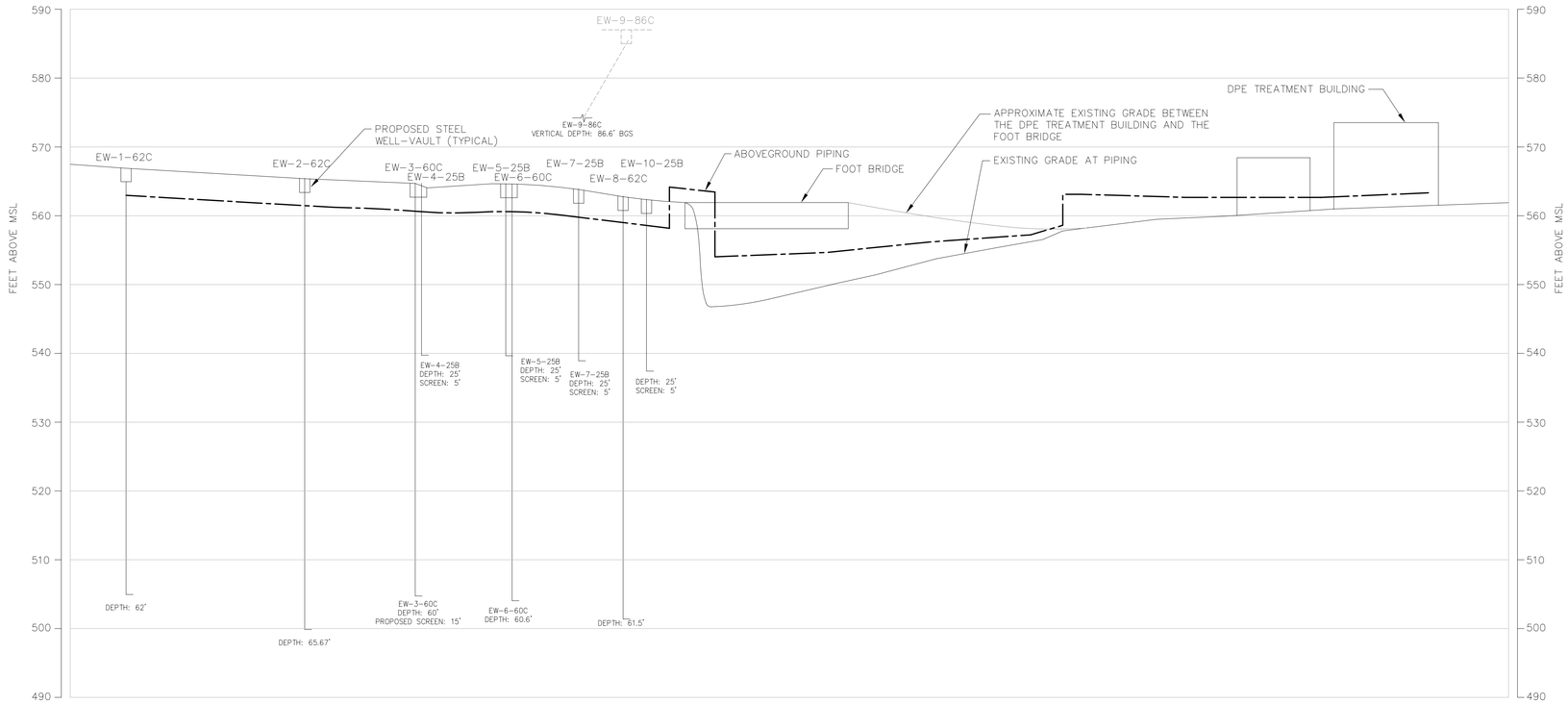
WSP
ENGINEERING OF NEW YORK, P.C.
6459 WEST QUARKER STREET SUITE 2B
ORCHARD PARK, NEW YORK 14127
(716) 662-6876

SHEET 3

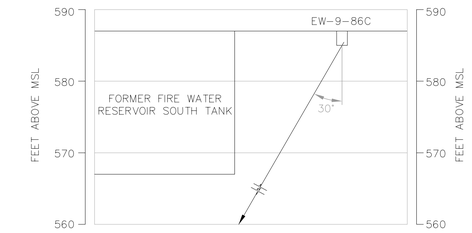
Drawing Number
127491337

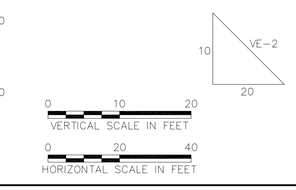


PLAN VIEW
SCALE: 1"=20'



SECTION A-A
SCALE: 1"=20'





REV	DESCRIPTION		
1	Revised	Chkd:	Appr:
2	Revised	Chkd:	Appr:
3	Revised	Chkd:	Appr:

SEAL

DATE

DRAWN BY	EGC
CHECKED	KEB/SBP
APPROVED	TMM

PROPERTY OF WSP ENVIRONMENT & ENERGY LLC MUTUAL PROPERTY. THIS DRAWING IS LOANED SUBJECT TO RECALL AT ANY TIME BY WSP ENVIRONMENT & ENERGY LLC. IT IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF ANY PERSONS OR ORGANIZATIONS WITHOUT THE WRITTEN CONSENT OF WSP ENVIRONMENT & ENERGY LLC.

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. IT IS A VIOLATION OF STATE LAW FOR ANY PERSONS, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY.

REMEDIAL SYSTEM HYDRAULIC GRADE LINE

EMERSON POWER TRANSMISSION FACILITY
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

WSP
ENGINEERING OF NEW YORK, P.C.
6459 WEST QUARKER STREET SUITE 2B
ORCHARD PARK, NEW YORK 14127
(716) 662-6876

SHEET 4

Drawing Number
127491355

460V/3/60
SERVICE PANEL
MASTER CONTROL PANEL (MCP) NEMA 12 INDOOR RATED ENCLOSURE
CONTROL PANEL LOCATED IN A NON-HAZARDOUS LOCATION
PLC
TELEPHONE/MODEM AUTODIALER
EW-9-86C ELECTRIC PUMP
THERMOCOUPLE WIRING 5 PLACES FROM WELL FIELD
DILUTION AIR FILTER
INLET FILTER
*ALL PIPING MATERIAL ON SVE SKID IS BLACK IRON
GALVANIZED PIPING
DISCHARGE TO ATMOSPHERE
EXISTING SPDES DISCHARGE
FROM VAPOR EXTRACTION WELLS
HDPE
SIGHT GLASS
6" CLEAN OUT PORT
DRAIN VALVE
DRAIN VALVE
AW-1 AIR / WATER SEPARATOR TANK
P-1 TRANSFER PUMP
B-1 BLOWER
LGAC (250 POUNDS) F-2A
LIQUID GRANULAR ACTIVATED CARBON
LGAC (250 POUNDS) F-2B
VGAC (1,000 POUNDS) F-1B
VGAC (1,000 POUNDS) F-1A
VAPOR-PHASE GRANULAR ACTIVATED CARBON
FLOOR
LSHH 201
LEAK DETECTION SUMP
115V AC
POWER FROM SERVICE PANEL
LOP
TO EXTRACTION WELL PUMPS
VENT
240 GAL. TANK
REFRIGERATED COOLER/DRYER RC-1
AC-1 ROTARY SCREW AIR COMPRESSOR
CONDENSATE TO DISCHARGE
FROM PNEUMATIC SUBMERSIBLE PUMPS AND EW-9-86C ELECTRIC PUMP NYLON 12 PIPING
DRAIN VALVE
EQ-1 EQUALIZATION TANK 1000 GALLON
P-2 TRANSFER PUMP
BAG FILTERS
INLET FILTER
6" PVC, SCH 80 PIPING
SIGHT GLASS
2" BLACK IRON PIPING
B-2 BLOWER
AS-1 AIR STRIPPER EZ-4.4SS
P-3 TRANSFER PUMP

DESIGNATION	DESCRIPTION	SPECIFICATIONS	MANUFACTURER
AC-1	AIR COMPRESSOR	NOT SPECIFIED	NOT SPECIFIED
AS-1	AIR STRIPPER	EZ TRAY AIR STRIPPER (QED MODEL EZ4.4S)	QED ENVIRONMENTAL SYSTEMS
AW-1	AIR/WATER SEPARATOR	NOT SPECIFIED	NOT SPECIFIED
B-1	BLOWER	NOT SPECIFIED	NOT SPECIFIED
B-2	BLOWER	NOT SPECIFIED	NOT SPECIFIED
EQ-1	EQUALIZATION TANK	1,000 GALLON EQUALIZATION TANK	NOT SPECIFIED
F-1A, F-1B	GRANULAR ACTIVATED CARBON	VAPOR PHASE GRANULAR ACTIVATED CARBON (1,000 LB)	NOT SPECIFIED
F-2A, F-2B	GRANULAR ACTIVATED CARBON	AQUEOUS PHASE GRANULAR ACTIVATED CARBON (250 LB)	NOT SPECIFIED
P-1	TRANSFER PUMP	NOT SPECIFIED	NOT SPECIFIED
P-2	TRANSFER PUMP	NOT SPECIFIED	NOT SPECIFIED
P-3	TRANSFER PUMP	NOT SPECIFIED	NOT SPECIFIED
RC-1	REFRIGERATED COOLER/DRYER	NOT SPECIFIED	NOT SPECIFIED

LEGEND

FE	FLOW ELEMENT
FI	FLOW INDICATOR
FIT	FLOW INDICATING TOTALIZER
FT	FLOW TRANSMITTER
LGAC	LIQUID PHASE CARBON
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW LOW
M	MOTOR
MS	MOISTURE SEPARATOR
PF	PARTICULATE FILTER
PI	PRESSURE INDICATOR
PLC	PROGRAMMABLE LOGIC CONTROLLER
PT	PRESSURE TRANSMITTER
SP	SAMPLE PORT
TE	TEMPERATURE ELEMENT
TI	TEMPERATURE INDICATOR
VGAC	VAPOR PHASE CARBON
VI	VACUUM INDICATOR

GATE VALVE
CHECK VALVE
WYE STRAINER
RELIEF VALVE
BALL VALVE
REDUCER
BUTTERFLY VALVE
2 WAY SOLENOID VALVE
3 WAY SOLENOID VALVE
ANALOG LINE
INTRINSICALLY SAFE ANALOG LINE
INTRINSICALLY SAFE
CONTROL LINE
WATER LINE
AIR LINE
WARNING LIGHT
ALARM LIGHT
RUN LIGHT
EMERGENCY STOP
BREAK

ALARMS

1) AIR/WATER SEPARATOR AW-1, HIGH HIGH LEVEL ALARM
2) AIR/WATER SEPARATOR AW-1, LOW LOW LEVEL ALARM
3) SVE BLOWER B-1, LOW VACUUM ALARM
4) EQUALIZATION TANK EQ-1, HIGH HIGH LEVEL ALARM
5) EQUALIZATION TANK EQ-1, LOW LOW LEVEL ALARM
6) AIR COMPRESSOR AC-1, LOW PRESSURE ALARM
7) AIR STRIPPER AS-1, LOW PRESSURE ALARM
8) AIR STRIPPER SUMP AS-1, HIGH HIGH LEVEL ALARM
9) AIR STRIPPER SUMP AS-1, LOW LOW LEVEL ALARM
10) LGAC VESSELS F-3A, HIGH PRESSURE ALARM
11) FLOOR SUMP HIGH HIGH LEVEL ALARM
12) EMERGENCY STOP ALARM

NOTES:

1. PIPING MATERIALS SHALL BE AS SPECIFIED ON THE DRAWING.
2. ALL PVC JOINTS SHALL BE SOLVENT WELDED AND HDPE BUTT FUSED.
3. ALL PIPES SHALL BE SUPPORTED AT 5'-0" O.C. (MAX) AND LOCATED 2'-0" (MAX) FROM JOINT LOCATIONS.
4. ALL PIPES SHALL BE INSTALLED AND PRESSURE-TESTED AS PER MANUFACTURER'S SPECIFICATIONS. ZERO LEAKAGE IS ALLOWED FOR ALL JOINTS.
5. ALL PIPING AND MANIFOLDS SHALL BE LABELED WITH STENCIL OR ADHESIVE SUITABLE FOR OUTDOORS. FLOW ARROWS SHALL BE LABELED AT INLET AND DISCHARGE CONNECTIONS. PIPING AND DESCRIPTION (E.G., TRANSFER PUMP DISCHARGE PIPE) SHALL ALSO BE CLEARLY LABELED AT ALL VALVE AND APPURTENANCE LOCATIONS.
6. ALL FLOW METERS SHALL HAVE STRAIGHT PIPE PRECEDING (10 TIMES PIPE DIAMETER) AND FOLLOWING (5 TIMES PIPE DIAMETER).
7. ALL SAMPLE TAPS AND DRAIN VALVES SHALL CONSIST OF ½" PIPE EXTENSION AND BALL VALVE OR EQUAL. SAMPLE TAPS AND DRAIN VALVES SHALL BE LOCATED AT LOCATIONS SHOWN ON THE DRAWINGS AND AT LOW ELEVATIONS IN PROCESS PIPING.
8. TREATMENT BUILDING AREA SHALL BE DESIGNATED AS A CLASS 1, DIVISION 1, GROUP D HAZARDOUS AREA. ALL EQUIPMENT MOTORS SHALL BE EXPLOSION PROOF AND ALL ELECTRICAL SHALL BE INTRINSICALLY SAFE.
9. DRAWING SHOWS ANTICIPATED PROCESS AND INSTRUMENTATION EQUIPMENT, EQUIPMENT, TELEMETRY, AND CONTROLS MAYBE MODIFIED BASED ON PERFORMANCE REQUIREMENTS OR SUBSTITUTED WITH EQUAL AS APPROVED BY THE ENGINEER.

REVISIONS

REV	DESCRIPTION		
1	Revised	CHKD	Appr.
2	Revised	CHKD	Appr.
3	Revised	CHKD	Appr.

SEAL

DATE

DRAWN BY EGC
CHECKED KEB/SBP
APPROVED TMM

PROPERTY OF WSP ENGINEERING OF NEW YORK, PC. ANY REPRODUCTION, IN WHOLE OR IN PART, WITHOUT THE WRITTEN CONSENT OF WSP ENGINEERING OF NEW YORK, PC. IS PROHIBITED.

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. ALTERATION OF SAID LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY.

PROCESS & INSTRUMENTATION DIAGRAM

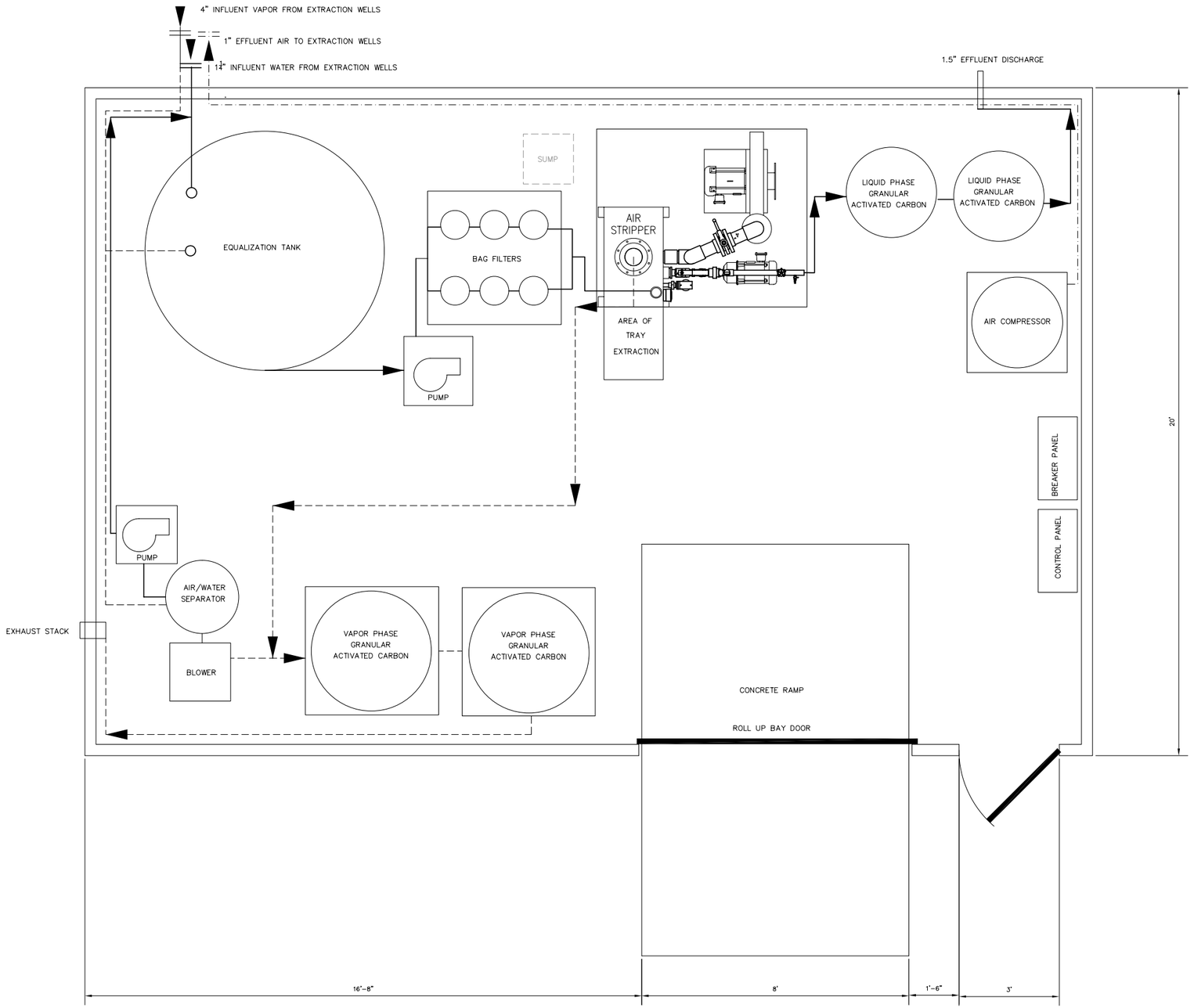
EMERSON POWER TRANSMISSION FACILITY
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

WSP ENGINEERING OF NEW YORK, P.C.
6459 WEST QUARKER STREET SUITE 2B
ORCHARD PARK, NEW YORK 14127
(716) 662-6876

SHEET 5

Drawing Number
127491329



TREATMENT BUILDING LAYOUT

REVISIONS

REV	DESCRIPTION		
1	Revised	Chkd	Appr.
2	Revised	Chkd	Appr.
3	Revised	Chkd	Appr.

SEAL

DATE

DRAWN BY	EGC
CHECKED	KEB/SBP
APPROVED	TMM

PROPERTY OF WSP ENGINEERING OF NEW YORK, PC. THIS DRAWING IS AN INSTRUMENT OF PROFESSIONAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. IT IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS PREPARED AND IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PERSONS OR ENTITIES OTHER THAN THOSE FOR WHICH IT WAS PREPARED OR THEIR SUPPLIERS WITHOUT THE WRITTEN CONSENT OF WSP ENGINEERING OF NEW YORK, P.C.

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. IT IS A VIOLATION OF STATE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY.

EQUIPMENT BUILDING LAYOUT

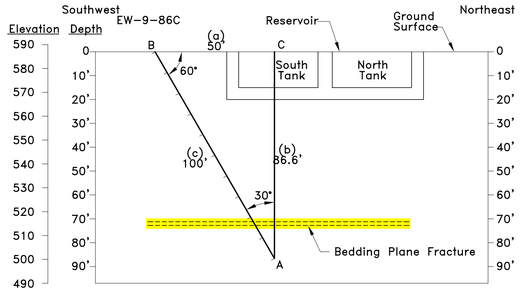
EMERSON POWER TRANSMISSION FACILITY
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

WSP
ENGINEERING OF
NEW YORK, P.C.
6459 WEST QUARKER STREET SUITE 2B
ORCHARD PARK NEW YORK 14127
(716) 662-6876

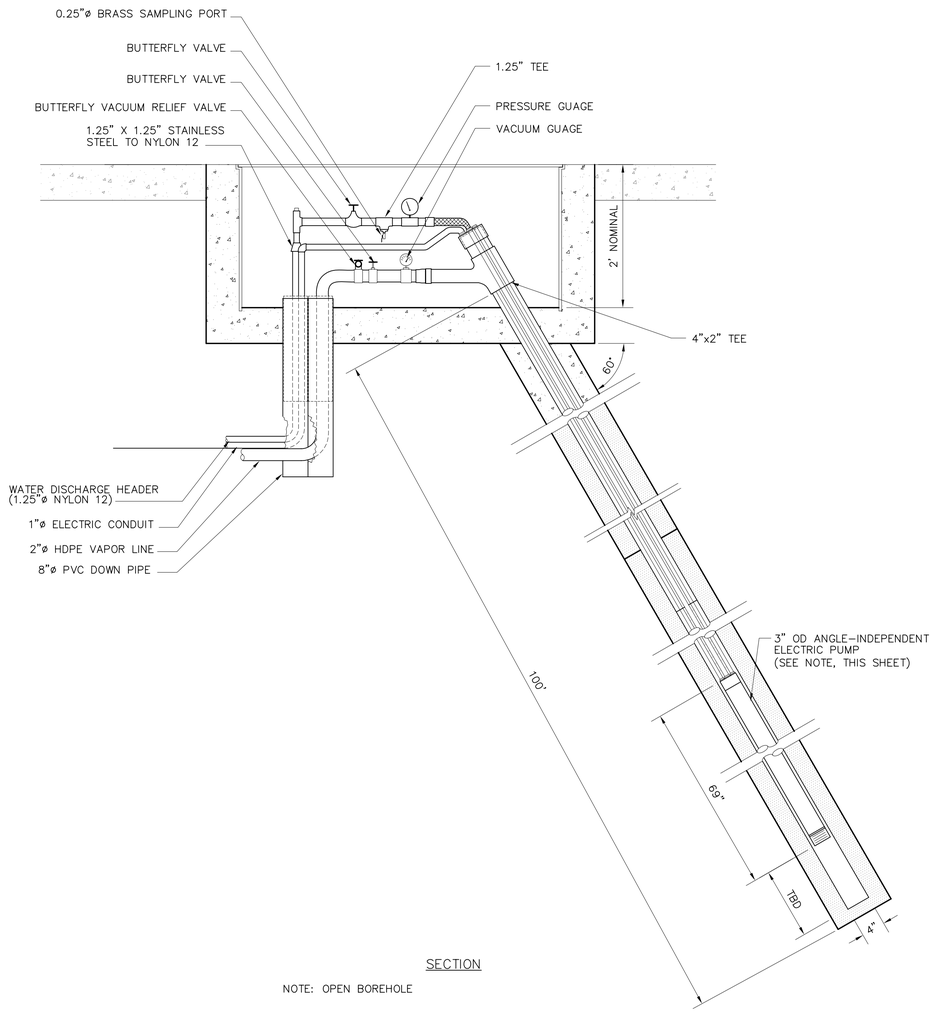
SHEET 6

Drawing Number
127491329



FIRE WATER RESERVOIR SECTION – DIRECTIONAL EXTRACTION WELL DETAIL

HORIZONTAL SCALE: 1"=30'

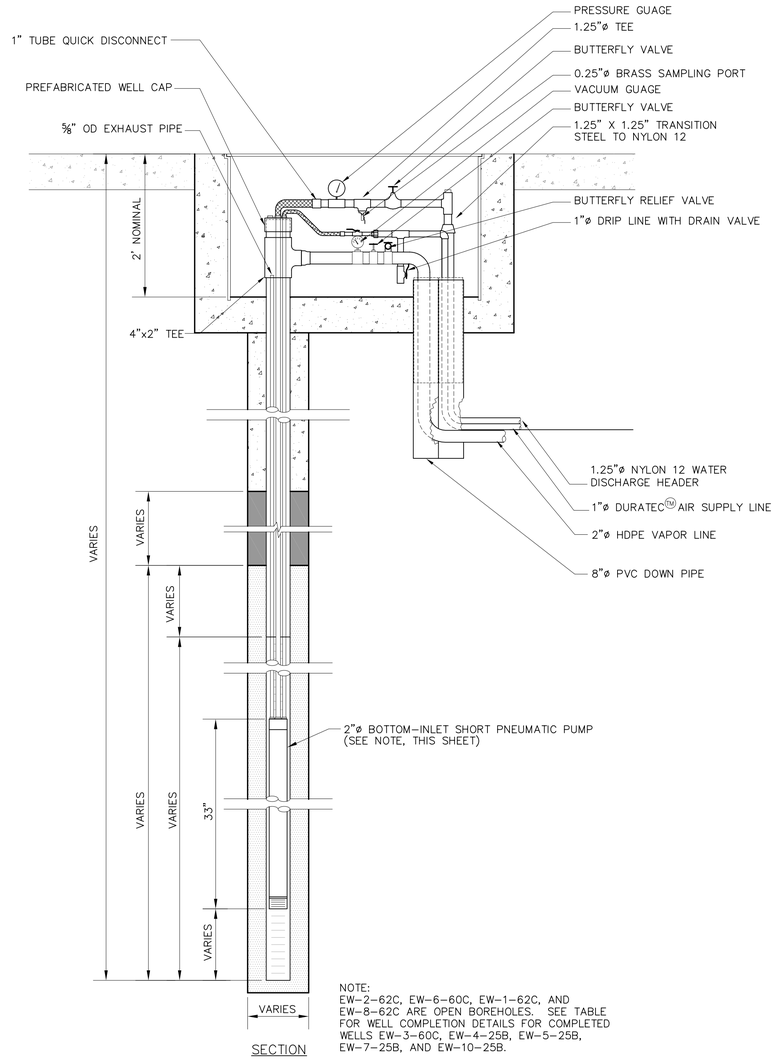


SECTION

NOTE: OPEN BOREHOLE

WELL VAULT COMPLETION AND WELL PUMP INSTALLATION DETAIL (EW-9-86C)

SCALE: 1"=1'-0"



SECTION

NOTE:
EW-2-62C, EW-6-60C, EW-1-62C, AND EW-8-62C ARE OPEN BOREHOLES. SEE TABLE FOR WELL COMPLETION DETAILS FOR COMPLETED WELLS EW-3-60C, EW-4-25B, EW-5-25B, EW-7-25B, AND EW-10-25B.

WELL VAULT COMPLETION AND WELL PUMP INSTALLATION DETAIL (TYPICAL)

SCALE: 1"=1'-0"

TRENCHING:

1. ALL TRENCHING FOR UNDERGROUND PIPING INSTALLATION SHALL BE EXCAVATED TO THE DEPTHS INDICATED. EXCAVATED NATIVE SOIL NOT USED FOR BACKFILL SHALL BE DISPOSED OF OFFSITE PER APPLICABLE STATE REGULATIONS.
2. NATIVE SOIL SHALL BE USED AS BACKFILL AROUND THE PIPING. BACKFILL SOIL SHALL BE COMPACTED USING A HAND TAMPING DEVICE OR VIBRATORY PLATE IN MAXIMUM 6" LIFTS. NATIVE SOIL BACKFILL SHALL BE PLACED AND GRADED FLUSH WITH THE SURFACE ELEVATION OF THE EXISTING NATIVE SOIL SURROUNDING THE TRENCH. CONTRACTOR SHALL SEED AND FERTILIZE SOIL AS NECESSARY AFTER GRADING.
3. ALL REMOVED SECTIONS OF THE ASPHALT PAVED WALKING PATH OR PARKING LOT SHALL BE REPLACED IN KIND. REPLACED PAVEMENT SHALL BE OF A THICKNESS MATCHING EXISTING MATERIAL SURROUNDING THE CUT. BASE MATERIALS OR SUB-BASE MATERIAL (IF PRESENT) FOR THE REPLACEMENT PAVEMENT SHALL MATCH THE TYPE AND DEPTH OF THE EXISTING MATERIAL SURROUNDING THE CUT OR AS NECESSARY FOR VEHICULAR LOADING. THE SURFACE OF THE REPLACEMENT PAVEMENT SHALL BE FINISHED FLUSH WITH THE SURFACE GRADE OF THE SURROUNDING PAVEMENT.

PIPE INSTALLATION:

1. WATER DISCHARGE PIPING SHALL BE 1-¼ -INCH NYLON 12. COMPRESSED AIR SUPPLY PIPING SHALL BE 1-INCH DURATEC ALUMINUM COMPOSITE WITH MANUFACTURER'S RECOMMENDED FITTINGS. VAPOR CONVEYANCE LINE SHALL BE 2-INCH HDPE IN THE WELL FIELD AND 4-INCH HDPE FROM THE WELL FIELD TO THE TREATMENT BUILDING AS SHOWN ON SHEET 2. ALL HDPE JOINTS AND CONNECTIONS SHALL BE BUTT FUSED.
2. CONTRACTOR SHALL SEGMENT NYLON 12 WATER DISCHARGE PIPING WITH UNION JOINTS EVERY 50 FEET.
3. WATER DISCHARGE AND AIR SUPPLY CONVEYANCE PIPING SHALL BE CONTAINED WITHIN A 6-INCH POLY CARRIER PIPE. THE CARRIER PIPING SHALL HAVE A MINIMUM PRESSURE RATING OF 160 PSI. VAPOR CONVEYANCE PIPING WILL BE BURIED TO THE DEPTHS SHOWN.
4. PIPING ROUTES SHALL BE IN ACCORDANCE WITH THE LAYOUT SHOWN ON SHEET 2 OF THE DRAWINGS UNLESS APPROVED BY THE ENGINEER. ALL PIPING WILL BE BURIED IN THE WELL FIELD AND WILL TRANSITION TO ABOVE GROUND AT THE POINT SHOWN ON SHEET 2. ALL ABOVEGROUND PIPING SHALL BE HEAT TRACED AND THE CARRIER PIPE FOR WATER DISCHARGE AND AIR SUPPLY LINES SHALL BE INSULATED. EXISTING PIPE BRACKETS SHALL BE USED.
5. PIPING SHALL ENTER AND EXIT WELL VAULTS THROUGH 8-INCH POLY CARRIER PIPES. PIPING SHALL RUN FROM VAULT TO VAULT AS SHOWN ON SHEET 3.
6. ALL PIPE AND INDIVIDUAL SEGMENTS OF THE BELOW GROUND AND ABOVE GROUND PIPE SYSTEMS SHALL BE PNEUMATICALLY PRESSURE TESTED FOR LEAKS AT THE COMPLETION OF THE INSTALLATION. PRESSURE TESTING SHALL CONSIST OF APPLYING A MAXIMUM OF 100 PSI PNEUMATIC PRESSURE FOR A MINIMUM OF 1 HOUR TO EACH SEGMENT. PIPE CONSIDERED ACCEPTABLE FOR USE IF THE PRESSURE DROP IN THE ISOLATED SEGMENT DID NOT EXCEED 2 PSI. DURING TESTING, ALL JOINTS AND CONNECTIONS SHALL BE LEAK TESTED USING A SOAP-WATER SOLUTION OR SIMILAR LEAK-IDENTIFYING PRODUCT. ALL PNEUMATIC TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE ENGINEER.

PUMP AND PUMP EQUIPMENT INSTALLATION:

1. EXTRACTION WELL PUMPS SHALL BE 2-INCH OUTER DIAMETER (OD) CONTROLLERLESS BOTTOM-INLET SHORT PNEUMATIC AUTO PUMPS (AP2B) MANUFACTURED BY QED ENVIRONMENTAL SYSTEMS. PUMPS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET AND THE MANUFACTURER'S SPECIFICATIONS.
2. CONNECTION TUBING SHALL BE INSTALLED AND FITTED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET AND THE MANUFACTURER'S INSTRUCTIONS. CONNECTION TUBING FROM THE PUMP HEAD TO THE PREFABRICATED VACUUM WELL CAP SHALL BE NYLON 12 PUMP JACKETED TUBING MANUFACTURED BY QED ENVIRONMENTAL SYSTEMS (PART STDTUBE). JACKETED TUBING SHALL CONSIST OF 1-INCH OD WATER DISCHARGE LINE, 1/2-INCH OD AIR SUPPLY, 5/8-INCH OD EXHAUST PIPE. JACKETED TUBING SHALL TRANSITION TO STEEL TUBING WITHIN THE WELL VAULT.
3. WELL CAPS FOR THE VACUUM EXTRACTION WELLS SHALL BE PREFABRICATED 4-INCH DIAMETER VACUUM CAPS MANUFACTURED BY QED ENVIRONMENTAL SYSTEMS. WELL CAPS SHALL BE INSTALLED AND FITTED BY CONTRACTOR IN ACCORDANCE WITH THE DETAIL ON THIS SHEET AND THE MANUFACTURER'S INSTRUCTIONS.
4. WELL HEAD PIPING AND VALVES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET. THE AIR SUPPLY LINE SHALL BE EQUIPPED WITH A PRESSURE REGULATOR/INDICATOR AND CYCLE FLOW COUNTER MANUFACTURED BY QED ENVIRONMENTAL SYSTEMS. THE VAPOR EXTRACTION LINE SHALL BE EQUIPPED WITH A VACUUM GAUGE, AND VACUUM RELIEF VALVE. THE WATER DISCHARGE LINE SHALL BE EQUIPPED WITH A PRESSURE GAUGE.
5. UPON INSTALLATION, ALL PUMPS AND PUMP EQUIPMENT SHALL BE PERFORMANCE TESTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. WELL HEAD PIPING AND FITTINGS SHALL BE TESTED FOR LEAKS UNDER ANTICIPATED OPERATING PRESSURES. ALL PERFORMANCE TESTING AND LEAK TESTING SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE ENGINEER.

WELL HEAD PIPING:

1. IN-VAULT WATER DISCHARGE PIPING SHALL BE NYLON 12 AND TRANSITION TO STEEL. CONTRACTOR SHALL INSTALL BRONZE BALL VALVES RATED FOR W.O.G. SERVICE AT A MINIMUM PRESSURE OF 150 PSI IN ALL EXTRACTION WELL VAULTS. CONTRACTOR SHALL INSTALL A SAMPLING SPIGOT AT EACH EXTRACTION WELL BETWEEN THE PUMP AND THE BALL VALVE. CONTRACTOR SHALL INSTALL QUICK CONNECT FITTINGS ON THE WATER DISCHARGE PIPING WHERE APPROPRIATE TO ALLOW FOR EASY DISCONNECTION FROM THE WELL CAP.
2. CONTRACTOR SHALL INCORPORATE A MINIMUM OF 2-FEET OF EXTRA 1-1/4-INCH NYLON 12 WATER DISCHARGE TUBING WITHIN EACH VAULT TO ALLOW FOR THERMAL EXPANSION AND FLEXIBILITY.
3. IN-VAULT AIR SUPPLY TUBING SHALL BE 0.375-INCH OD TUBING AND TRANSITION TO 1-INCH DURATEC. ALL AIR SUPPLY CONTROL VALVES AND DRIP LINE VALVES SHALL BE BRASS. CONTRACTOR SHALL INSTALL QUICK CONNECT FITTINGS ON THE AIR SUPPLY PIPING WHERE APPROPRIATE TO ALLOW FOR EASY DISCONNECTION FROM THE WELL CAP AND PRESSURE REGULATOR/INDICATOR/CYCLE COUNTER ASSEMBLY.

WELL HEAD AND VAULT COMPLETION:

1. THE VAULTS SHALL BE CONSTRUCTED OF STEEL AND COATED FOR CORROSION PROTECTION. THE VAULTS SHALL BE RATED TO SUPPORT SURFACE LOADINGS FROM VEHICULAR TRAFFIC AND ALL VAULT COVERS SHALL BE GASKETED FOR WATER TIGHTNESS.
2. ALL PENETRATIONS THROUGH THE WELL VAULT SHALL BE SEALED FOR WATER-TIGHTNESS USING A WATERPROOF, NON-SHRINKING SEALANT SUITABLE FOR UNDERGROUND USE.
3. ALL PIPES ENTERING THE VAULT THROUGH THE PVC DOWNPIPES SHALL BE INSULATED AND HEAT TRACED. VAULTS SHALL BE INSULATED TO PREVENT FREEZING OF PIPES.

REVISIONS

REV	DESCRIPTION		
1	Revised	Chkd	Appr.
2	Revised	Chkd	Appr.
3	Revised	Chkd	Appr.

SEAL

DATE

DRAWN BY	EGC
CHECKED	KEB/SBP
APPROVED	TMM

PROPERTY OF WSP ENVIRONMENT & ENERGY LLC MUTUAL BENEFIT. THIS DOCUMENT IS LOANED SUBJECT TO RECALL AT ANY TIME AND IS NOT TO BE USED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF ANYONE EXCEPT THE OWNER OR HIS AUTHORIZED CONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF WSP ENVIRONMENT & ENERGY LLC.

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. IT IS A VIOLATION OF STATE LAW FOR ANY PERSONS, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY.

EXTRACTION WELL DETAILS

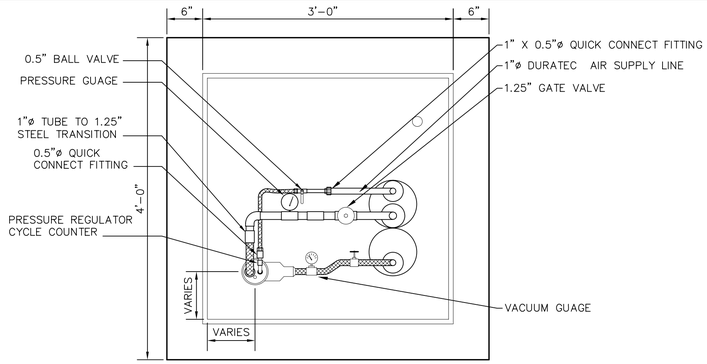
EMERSON POWER TRANSMISSION FACILITY
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

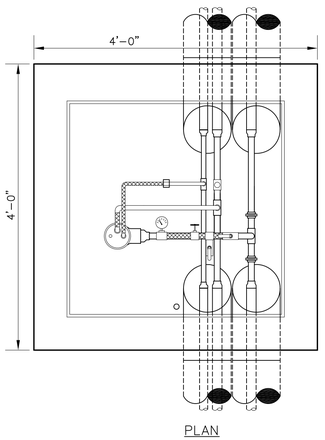
WSP
ENGINEERING OF NEW YORK, P.C.
6459 WEST QUARKER STREET SUITE 2B
ORCHARD PARK NEW YORK 14127
(716) 662-6876

SHEET 7

Drawing Number
127491353

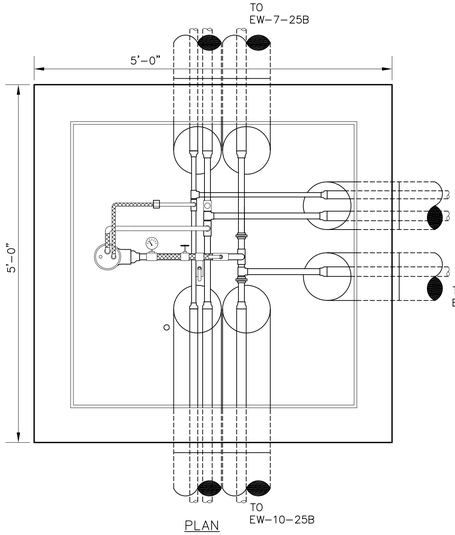


1/2 EXTRACTION WELL VAULT COMPLETION
EW-1-62C
SCALE: 1"=1'-0"



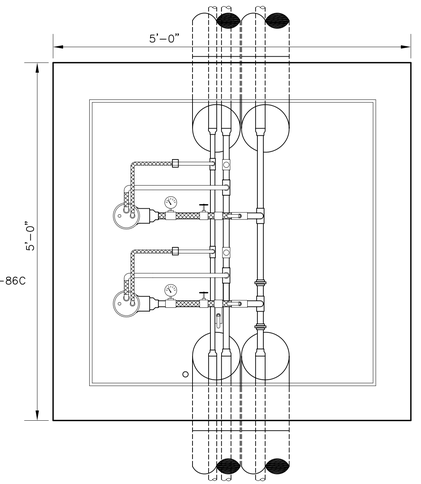
PLAN

2/2 EXTRACTION WELL VAULT COMPLETION
EW-10-25B, EW-7-25B, EW-2-62C
SCALE: 1"=1'-0"



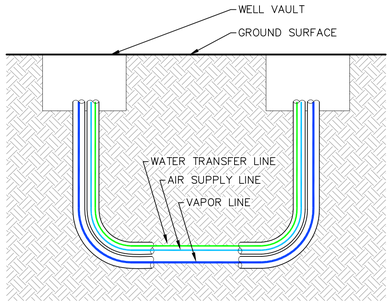
PLAN

3/2 EXTRACTION WELL VAULT COMPLETION
EW-8-62C
SCALE: 1"=1'-0"



PLAN

4/2 EXTRACTION WELL VAULT COMPLETION
EW-6-60C, EW-5-25B, EW-3-60C, EW-4-25B
SCALE: 1"=1'-0"

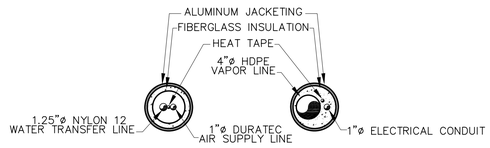


A/2 TRENCH DETAIL
NOT TO SCALE

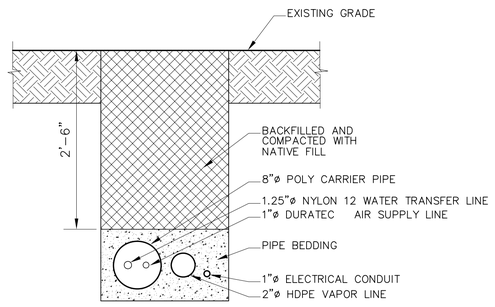
Well ID	Top of Casing Elevation (feet amsl)	Total Depth (feet bTOC)	Total Depth (feet amsl)	Bentonite Plug Interval (feet amsl)	Grout Interval (feet amsl)	Filter Pack Interval (feet amsl)	Screen Interval (feet amsl)
EW-1 (EW-2-62C)	568.34	65.67	502.67	Open Borehole: 4" Diameter			
EW-2 (EW-3-60C)	564.24	60	504.24	Open Borehole: 4" Diameter			
EW-4-25B	TBD	25	TBD	-	-	-	-
EW-3 (EW-6-60C)	566.75	60.6	506.15	Open Borehole: 4" Diameter			
EW-5-25B	TBD	25	TBD	-	-	-	-
EXB-05 (EW-1-62C)	565.88	62	503.88	Open Borehole: 4" Diameter			
EXB-06 (EW-8-62C)	562.67	61.5	501.17	Open Borehole: 6" Diameter			
EW-7-25B	TBD	25	TBD	-	-	-	-
EW-10-25B	TBD	25	TBD	-	-	-	-
EXB-08 (EW-9-86C)	587.32	100	487.32	Open Borehole: 4" Diameter			

Well ID	Top of Casing Elevation (feet amsl)	State Plane Coordinates (NAD-83)		Bottom of Pump (feet amsl)	Static Groundwater Level (feet amsl) (a)	Minimum Pump Actuation Level (b) (feet amsl)	Water Column (feet)	Static Water Column Above Pump Actuation Level (feet)
		Easting	Northing					
EW-1 (EW-2-62C)	568.34	843119.38	886254.95	511.34	531.19	513.01	28.52	18.18
EW-2 (EW-3-60C)	564.24	843108.38	886223.12	510.24	549.63	511.91	45.39	37.72
EW-4-25B	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
EW-3 (EW-6-60C)	566.75	843099.73	886194.47	510.75	533.29	512.42	27.14	20.87
EW-5-25B	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
EXB-05 (EW-1-62C)	565.88	843159.83	886285.85	512.08	532.61	513.75	28.73	18.86
EXB-06 (EW-8-62C)	562.67	843077.17	886167.81	511.42	539.46	513.09	38.29	26.37
EW-7-25B	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
EW-10-25B	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
EXB-08 (EW-9-86C)	587.32	843129.42	886129.65	510.32	535.07	511.99	47.75	23.08

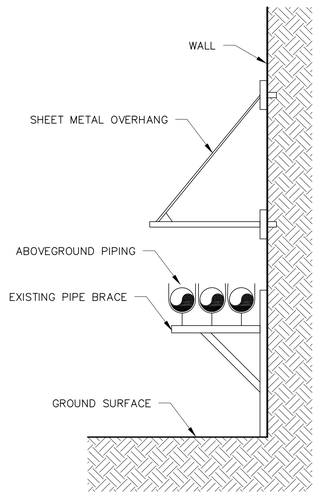
Note: Well designations in parentheses ( ) are the new names for the C-zone extraction wells.
TBD - to be determined; well not yet installed
(a) Static groundwater levels for EW-1, EW-2, and EW-3 are based on data collected quarterly from January 2006 through December 2007.
Static groundwater levels for EXB-05, EXB-06, and EXB-08 are based on data collected in September 2007.
(b) QED Environmental Systems Inc. AP-2 Bottom Inlet, Short (AP2B) AutoPump minimum actuation level = 20-inches (applies to all wells except EXB-08).



B/2 ABOVEGROUND PIPING DETAIL
NOT TO SCALE



C/2 WATER TRANSFER, AIR SUPPLY, AND EXTRACTION VAPOR PIPING HEADER SECTION
NOT TO SCALE



D/2 PIPE BRACE AND OVERHANG DETAIL
NOT TO SCALE

REVISIONS

REV	DESCRIPTION		
1	Revised	Chkd	Appr.
2	Revised	Chkd	Appr.
3	Revised	Chkd	Appr.

SEAL

DATE

DRAWN BY EGC
CHECKED JS
APPROVED TMM

PROPERTY OF WSP ENVIRONMENT & ENERGY LLC MUTUAL WARRANTIES AND GENERAL CONDITIONS OF CONTRACT FOR PROFESSIONAL SERVICES AND/OR CONSTRUCTION ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL BY ANY AUTHORIZED REPRESENTATIVE OF WSP ENVIRONMENT & ENERGY LLC. IT IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF ANY PERSONS OTHER THAN THOSE AUTHORIZED BY WSP ENVIRONMENT & ENERGY LLC OR ITS SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF WSP ENVIRONMENT & ENERGY LLC.

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. IT IS A VIOLATION OF STATE LAW FOR ANY PERSONS, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY.

SITE WORK DETAILS

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

WSP
ENGINEERING OF NEW YORK, P.C.
6459 WEST QUARKER STREET SUITE 2B
ORCHARD PARK, NEW YORK 14127
(716) 662-6876

SHEET 8

Drawing Number
127491352

Appendix F – Engineering Calculations

QED Air Stripper Model ver. c1.10

7/1/2008

Site Data

Name: KEB
e-mail: karen.beljan@wspgroup.com
Project: EPT Ithaca, NY
Units: English
Altitude: 0 ft
Air Temp: 55 F
Flow: 6 gpm
Water Temp: 55 F
Stripper: EZ-Tray 4.x - Click for details
Stripper Air Flow: 210 cfm
Stripper Max Flow: 25 gpm

Water Results

Contaminant	Influent (ppb)	Target (ppb)	4-Tray Results (ppb)	4-Tray % Removal	6-Tray Results (ppb)	6-Tray % Removal
trichloroethylene (TCE)	19444	5	< 1	100.000	< 1	100.000
c-1,2-dichloroethylene	9100	5	< 1	100.000	< 1	100.000
t-1,2-dichloroethylene	240	5	< 1	100.000	< 1	100.000
methylene chloride	125	5	< 1	100.000	< 1	100.000
vinyl chloride (chloroethylene)	339	2	< 1	100.000	< 1	100.000

Air Results

Contaminant	4-Tray (ppmV)	4-Tray (lb/hr)	6-Tray (ppmV)	6-Tray (lb/hr)
trichloroethylene (TCE)	13.2621	0.05841	13.2622	0.05841
c-1,2-dichloroethylene	8.4121	0.02734	8.4122	0.02734
t-1,2-dichloroethylene	0.2219	0.00072	0.2219	0.00072
methylene chloride	0.1319	0.00038	0.1319	0.00038
vinyl chloride (chloroethylene)	0.4861	0.00102	0.4861	0.00102

Notes

Copyright -- QED Treatment Equipment, PO Box 3726, Ann Arbor, MI 48106.

PH-> 1-800-624-2026 or 1-734-995-2547, FX-> 1-734-995-1170. E-mail->info@qedenv.com. WEB->www.qedenv.com.

The QED modeler estimates unit performance for the listed contaminants. Results assume -

1. *dissolved-phase contaminant within a water matrix*
2. *clean stripper air*
3. *no surfactants, oil, grease or other immiscible phase(s) in the influent*
4. *unit operated within the given parameters and as instructed in the O&M manual*

Stripper performance shall meet or exceed either the required effluent concentration(s) or effluent estimates, whichever is greater, for the conditions supplied and assumes the influent concentrations of each contaminant are less than 25% solubility in water. QED makes no claim of the model's accuracy beyond the 25% solubility in water limit.

Contact Us

Fill out your contact and project information and click Send to have a QED Treatment application specialist contact you.

Name - KEB

Company - Company

Phone - Phone **Fax -** Fax

e-mail - karen.beljan@wspgroup.com **Project -** EPT Ithaca, NY

Application Notes

Send Reset

Save Data

Use the following URL to reconstruct your data form for future remodeling with changes. This URL can be saved in any text file for record keeping and later retrieval. This run's URL:

http://64.9.214.199/cgi-bin/remodel.pl?u=e&tw=55&ta=55&f=6&a=0&s=4.x&n=KEB&e=karen.beljan@wspgroup.com&p=EPT

HOME OFFICE
1200 E. 26th ST
Anderson, IN 46016
508-631-3203 Phone
www.tetrasolv.com

REGIONAL OFFICE
POB 1034
Truth or Consequences, NM 87901
508-448-0256 Fax
jbarbour@tetrasolv.com

LIQUID PAHSE

5 GPM w/o Vinyl Chloride and Methylene Chloride

SYSTEM DESIGN

Component	Conc [ppm]	Q [WT %]	#GAC/1000 gal water	Suitability [ppm]
DICHLOROETHENE,cis-1,2	13.1000	11.5099	.942	1.0000
DICHLOROETHENE,trans-1,2	.2540	.1516	1.387	.0000
TRICHLOROETHENE	22.2000	19.1380	.960	1.0000

TOTAL CARBON NEEDED

41.44 #GAC/day
5.76 #GAC/1000 gal water

(BOTH TOTALS HAVE BEEN MULTIPLIED BY A FACTOR OF 1.75)

Note: The above calculation is for breakthrough for saturation the totals are:
23.74#GAC/Day
3.3 # GAC/1000 gal water

5 GPM with Vinyl Chloride and Methylene Chloride

SYSTEM DESIGN

Component	Conc [ppm]	Q [WT %]	#GAC/1000 gal water	Suitability [ppm]
DICHLOROETHENE,cis-1,2	13.1000	11.5099	.942	1.0000
DICHLOROETHENE,trans-1,2	.2540	.1516	1.387	.0000
TRICHLOROETHENE	22.2000	19.1380	.960	1.0000
METHYLENE CHLORIDE	.1250	.0373	2.772	.0000
VINYL CHLORIDE	.4150	.1178	2.915	.0000

TOTAL CARBON NEEDED

113.11 #GAC/day
15.71 #GAC/1000 gal water

(BOTH TOTALS HAVE BEEN MULTIPLIED BY A FACTOR OF 1.75)

Note: The above calculation is for breakthrough for saturation the totals are:
64.7GAC/Day
9.22 # GAC/1000 gal water

VAPOR PHASE

160 SCFM

SYSTEM DESIGN

Component	Conc [Mole %]	Q [WT %]	#GAC/day
DICHLOROETHENE,1,1-	.0001	1.3809	.2525E+01
TRICHLOROETHYLENE	.0001	8.6440	.1391E+01

TOTAL CARBON NEEDED

6.85 #GAC/day (TOTAL HAS BEEN MULTIPLIED BY A FACTOR OF 1.75)

Note: The above calculation is for breakthrough for saturation the totals are: 3.9#GAC/Day

HOME OFFICE
1200 E. 26th ST
Anderson, IN 46016
508-631-3203 Phone
www.tetrasolv.com

REGIONAL OFFICE
POB 1034
Truth or Consequences, NM 87901
508-448-0256 Fax
jbarbour@tetrasolv.com

210 Scfm, w/o Methylene Chloride & Vinyl Chloride

SYSTEM DESIGN

Component	Conc [lb Comp X/day]	Q [WT %]	#GAC/day
TRICHLOROETHYLENE	1.4018	17.7347	.7904E+01
DICHLOROETHENE,cis-1,2	.6561	4.4532	.1473E+02
DICHLOROETHENE,trans-	.0173	.7553	.2288E+01

TOTAL CARBON NEEDED

43.61 #GAC/day (TOTAL HAS BEEN MULTIPLIED BY A FACTOR OF 1.75)

Note: The above calculation is for breakthrough for saturation the totals are:
24.9 #GAC/Day

210 Scfm, with Methylene Chloride & Vinyl Chloride

SYSTEM DESIGN

Component	Conc [lb Comp X/day]	Q [WT %]	#GAC/day
TRICHLOROETHYLENE	1.4018	17.7347	.7904E+01
DICHLOROETHENE,cis-1,2	.6561	4.4532	.1473E+02
DICHLOROETHENE,trans-	.0173	.7553	.2288E+01
METHYLENE CHLORIDE	.0091	.0522	.1749E+02
VINYL CHLORIDE	.0245	.0029	.8360E+03

TOTAL CARBON NEEDED

1537.22 #GAC/day (TOTAL HAS BEEN MULTIPLIED BY A FACTOR OF 1.75)

Note: The above calculation is for breakthrough for saturation the totals are:
880 #GAC/Day

300 Scfm, From Well Field

SYSTEM DESIGN

Component	Conc [lb Comp X/day]	Q [WT %]	#GAC/day
TRICHLOROETHYLENE	.0960	6.2474	.1537E+01
DICHLOROETHENE,cis-1,2	.0240	.5230	.4589E+01

TOTAL CARBON NEEDED

10.72 #GAC/day (TOTAL HAS BEEN MULTIPLIED BY A FACTOR OF 1.75)

Note: The above calculation is for breakthrough for saturation the totals are:
6.14 #GAC/Day

CARBONAIR

Your Mobile Water Treatment Specialists

7500 Boone Ave N, Suite 101, Brooklyn Park, MN 55428 Ph: 800-526-4999 Fax: 763-315-4614 www.carbonair.com

Customer: WSP Environment & Energy, Orchard Park, NY
Site: New York – **Water Treatment**
Date: 7/14/08

Design Basis:

Flow rate:	6	gpm
Water temperature:	55	^{o}F (assumed)

Contaminant	Influent Conc. (ppb)	Effluent Criteria (ppb)
Trichloroethene (TCE)	19,4440	5
Cis-1,2-dichloroethene (DCE)	9,100	5
Trans-1,2-dichloroethene (DCE)	240	5
Methylene chloride (MC)	125	5
Vinyl chloride (VC)	339	2

Recommendations:

Low Profile Air Stripper

STAT 30 with 4 trays, 150 cfm

- Cis-1,2-DCE is the critical contaminant.

Liquid Phase Carbon Adsorbers (Polishing)

Two PC3's in series, each with 250 lbs of granular activated carbon

- All the contaminants will be removed below 5 ppb by the air stripper. The carbon adsorbers are recommended to be placed on line as back-up units.

CONFIDENTIALITY NOTICE: Reproduction, disclosure, or distribution of any parts of this document is strictly prohibited without a written approval from Carbonair.

STAT MODEL CALCULATIONS 07/14/08
VERSION 4.1 08:52:29

CARBONAIR ENVIRONMENTAL SYSTEMS
7500 BOONE AVENUE NORTH, SUITE 101, BROOKLYN PARK, MN 55428
PHONE: 800-526-4999 FAX: 763-315-4614

UNIT MODEL:	STAT 30	WATER TEMPERATURE (F):	55.0
WATER FLOW RATE (GPM):	6.0	AIR TEMPERATURE (F):	55.0
AIR FLOW RATE (ACFM):	150.0	AIR-TO-WATER RATIO:	187:1
OPERATING PRESS (ATM):	1.0	SAFETY FACTOR (%):	0.0

Influent Conc. for TRICHLOROETHENE 19444.0 ppb

NO OF TRAY	REMOVAL EFF %	EFF CONC ppb	OFF-GAS CONC ug/l	AIR EMISSION lb/d
1	90.86329	1776.5423	94.4784	1.2726
2	99.15115	165.0504	103.0960	1.3887
3	99.92102	15.3577	103.8965	1.3995
4	99.99265	1.4292	103.9710	1.4005
5	99.99932	0.1330	103.9779	1.4006
6	99.99994	0.0124	103.9785	1.4006

Influent Conc. for CIS-1,2-DICHLOROETHENE 9100.0 ppb

NO OF TRAY	REMOVAL EFF %	EFF CONC ppb	OFF-GAS CONC ug/l	AIR EMISSION lb/d
1	86.61536	1218.0026	42.1497	0.5678
2	98.14226	169.0542	47.7591	0.6433
3	99.74088	23.5801	48.5370	0.6538
4	99.96383	3.2913	48.6455	0.6553
5	99.99495	0.4594	48.6606	0.6555
6	99.99930	0.0641	48.6628	0.6555

Influent Conc. for TRANS-1,2-DICHLOROETHENE 240.0 ppb

NO OF TRAY	REMOVAL EFF %	EFF CONC ppb	OFF-GAS CONC ug/l	AIR EMISSION lb/d
1	88.88314	26.6805	1.1407	0.0154
2	98.72775	3.0534	1.2671	0.0171
3	99.85392	0.3506	1.2815	0.0173
4	99.98322	0.0403	1.2832	0.0173
5	99.99807	0.0046	1.2834	0.0173
6	99.99978	0.0005	1.2834	0.0173

Influent Conc. for METHYLENE CHLORIDE 125.0 ppb

NO OF TRAY	REMOVAL EFF %	EFF CONC ppb	OFF-GAS CONC ug/l	AIR EMISSION lb/d
1	79.71219	25.3598	0.5328	0.0072
2	95.63279	5.4590	0.6393	0.0086
3	99.04830	1.1896	0.6621	0.0089
4	99.79206	0.2599	0.6671	0.0090
5	99.95454	0.0568	0.6681	0.0090
6	99.99006	0.0124	0.6684	0.0090

Influent Conc. for VINYL CHLORIDE 339.0 ppb

NO OF TRAY	REMOVAL EFF %	EFF CONC ppb	OFF-GAS CONC ug/l	AIR EMISSION lb/d
1	96.12763	13.1273	1.7426	0.0235
2	99.84974	0.5094	1.8101	0.0244
3	99.99417	0.0198	1.8127	0.0244
4	99.99977	0.0008	1.8128	0.0244
5	99.99999	0.0000	1.8128	0.0244
6	100.00000	0.0000	1.8128	0.0244

Influent Conc. for TOTAL VOCs 29248.0 ppb

NO OF TRAY	REMOVAL EFF %	EFF CONC ppb	OFF-GAS CONC ug/l	AIR EMISSION lb/d
1	89.53873	3059.7125	140.0443	1.8864
2	98.82684	343.1264	154.5715	2.0821
3	99.86154	40.4978	156.1899	2.1039
4	99.98283	5.0215	156.3796	2.1064
5	99.99776	0.6539	156.4029	2.1067
6	99.99969	0.0895	156.4059	2.1068

Appendix G – DAR-1 Model Output

CONTAMINANT ASSESSMENT SUMMARY OF DAR-1 ANALYSIS

CAS NUMBER	AGC ug/m3	SGC ug/m3	SUMMATION OF SHORT-TERM IMPACTS, MAXIMUM (Cav,Pt,Area) % OF SGC	SUMMATION OF CAVITY IMPACTS ACTUAL ANNUAL % OF AGC	SUMMATION OF POINT or AREA SOURCE IMPACTS POTENTIAL ANNUAL % OF AGC	SUMMATION OF POINT or AREA SOURCE IMPACTS ACTUAL ANNUAL % OF AGC
00075-01-4	0.110000000	180000.0000	0.0064	0.0000	251.7726	66.1802
00075-09-2	2.100000000	14000.0000	0.0410	0.0000	6.5940	1.0550
00079-01-6	0.500000000	14000.0000	4.7103	0.0000	3184.9239	868.8314
00540-59-0	63.000000000	0.0000	0.0000	0.0000	15.1663	4.2076
SUMMARY TOTALS			4.7576	0.0000	3458.4569	940.2743

CONTAMINANT IMPACT SUMMARY OF DAR-1 ANALYSIS

CAS NUMBER	EMISSIONS #/HOUR	EMISSIONS #/YEAR	ANNUAL EMISSIONS #/HOUR	SUMMATION OF SHORT-TERM IMPACTS, MAXIMUM (Cav,Pt,Area) ug/m3	SUMMATION OF CAVITY IMPACTS ACTUAL ANNUAL ug/m3	SUMMATION OF POINT or AREA SOURCE IMPACTS POTENTIAL ANNUAL ug/m3	SUMMATION OF POINT or AREA SOURCE IMPACTS ACTUAL ANNUAL ug/m3
00075-01-4	0.002000	4.6000	0.000525	11.468473	0.000000	0.276950	0.072798
00075-09-2	0.001000	1.4000	0.000160	5.734237	0.000000	0.138475	0.022156
00079-01-6	0.115000	274.5000	0.031336	659.437195	0.000000	15.924620	4.344157
00540-59-0	0.069000	167.5000	0.019121	395.662321	0.000000	9.554771	2.650806
SUMMARY TOTALS	0.187000	448.0000	0.051142	1072.302227	0.000000	25.894816	7.089918

EMISSION POINT AND CONTAMINANT ASSESSMENT OF DAR-1 ANALYSIS

						SHORT-TERM IMPACT	CAVITY IMPACT	POINT or AREA SOURCE IMPACT	
LOC	FAC	E.P.	CAS NUMBER	AGC ug/m3	SGC ug/m3	MAXIMUM (Cav,Pt,Area) % OF SGC	ACTUAL ANNUAL % OF AGC	POTENTIAL ANNUAL % OF AGC	ACTUAL ANNUAL % OF AGC
Ithaca	EPT	1	00079-01-6	0.500000000	14000.0000	4.7103	0.0000	3184.9239	868.8314
Ithaca	EPT	1	00540-59-0	63.000000000	0.0000	0.0000	0.0000	14.7267	3.8735
Ithaca	EPT	1	00540-59-0	63.000000000	0.0000	0.0000	0.0000	0.4396	0.3341
Ithaca	EPT	1	00075-09-2	2.100000000	14000.0000	0.0410	0.0000	6.5940	1.0550
Ithaca	EPT	1	00075-01-4	0.110000000	180000.0000	0.0064	0.0000	251.7726	66.1802
SUMMARY TOTALS						4.7576	0.0000	3458.4569	940.2743

EMISSION POINT AND CONTAMINANT IMPACT SUMMARY OF DAR-1 ANALYSIS

							SHORT-TERM IMPACT	CAVITY IMPACT	POINT or AREA SOURCE IMPACT	
LOC	FAC	E.P.	CAS NUMBER	EMISSIONS #/HOUR	EMISSIONS #/YEAR	ANNUAL EMISSIONS #/HOUR	MAXIMUM (Cav,Pt,Area) ug/m3	ACTUAL ANNUAL ug/m3	POTENTIAL ANNUAL ug/m3	ACTUAL ANNUAL ug/m3
Ithaca	EPT	1	00079-01-6	0.115000	274.5000	0.031336	659.437195	0.000000	15.924620	4.344157
Ithaca	EPT	1	00540-59-0	0.067000	154.2000	0.017603	384.193848	0.000000	9.277822	2.440324
Ithaca	EPT	1	00540-59-0	0.002000	13.3000	0.001518	11.468473	0.000000	0.276950	0.210482
Ithaca	EPT	1	00075-09-2	0.001000	1.4000	0.000160	5.734237	0.000000	0.138475	0.022156
Ithaca	EPT	1	00075-01-4	0.002000	4.6000	0.000525	11.468473	0.000000	0.276950	0.072798
SUMMARY TOTALS				0.187000	448.0000	0.051142	1072.302227	0.000000	25.894816	7.089918

********** DAR-1 ANALYSIS **********

********** INPUT DATA **********

LOC	FAC	E.P.	CAS #	SOURCE TYPE	HA, or h(AREA) FEET	hs FEET	D IN.	T F	V FPS	Q ACFM	EMISSIONS #/HOUR	EMISSIONS #/YEAR	DPL, or D(AREA) FT	BW, or S(AREA) FT	BL FT
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00079-01-6	POINT	2.	14.	4.	120.	139.42	730.00	0.11500	275.	150.	29.	19.
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00540-59-0	POINT	2.	14.	4.	120.	139.42	730.00	0.06700	154.	150.	29.	19.
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00540-59-0	POINT	2.	14.	4.	120.	139.42	730.00	0.00200	13.	150.	29.	19.
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00075-09-2	POINT	2.	14.	4.	120.	139.42	730.00	0.00100	1.	150.	29.	19.
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00075-01-4	POINT	2.	14.	4.	120.	139.42	730.00	0.00200	5.	150.	29.	19.

CONTAMINANT TOXICITY PROFILE FOR DAR-1 ANALYSIS

CONTAMINANT NAME	CAS NUMBER	SGC ug/m3	HOW SGC ASSIGNED	AGC ug/m3	HOW AGC ASSIGNED	DAR TOXICITY	COMMENTS
VINYL CHLORIDE	00075-01-4	180000.00000	NYSDEC	0.110000000	EPA	HIGH	A,H,U
DICHLOROMETHANE	00075-09-2	14000.00000	NYSDEC	2.100000000	EPA	MODERATE	H,I,U
TRICHLOROETHYLENE	00079-01-6	14000.00000	ACGIH STEL	0.500000000	NYSDEC	MODERATE	B,H,U
DICHLOROETHYLENE, 12	00540-59-0	0.00000	NO SGC EXISTS	63.000000000	NYSDEC	MODERATE	

COMMENTS :

(A) ACGIH Human Carcinogen.

(B) ACGIH Suspected Human Carcinogen.

(H) HAP identified by 1990 CAAA.

(I) Refer to ACGIH Handbook.

(U) AGC equivalent to "one in a million risk".

CONTAMINANT EMISSIONS SUMMARY FOR DAR-1 ANALYSIS

CAS NUMBER	CONTAMINANT NAME	# OF EMISSIONS POINTS PER CONTAMINANT	EMISSIONS (lbs/hour)	EMISSIONS (lbs/year)
00075-01-4	VINYL CHLORIDE	1	0.00200000	4.60000
00075-09-2	DICHLOROMETHANE	1	0.00100000	1.40000
00079-01-6	TRICHLOROETHYLENE	1	0.11500000	274.50000
00540-59-0	DICHLOROETHYLENE, 12	2	0.06900000	167.50000
	SUMMARY TOTALS		0.18700000	448.000000

EMISSION POINT AND CONTAMINANT IMPACT SUMMARY OF DAR-1 ANALYSIS

							SHORT-TERM IMPACT	CAVITY IMPACT	POINT or AREA SOURCE IMPACT	
LOC	FAC	E.P.	CAS NUMBER	EMISSIONS #/HOUR	EMISSIONS #/YEAR	ANNUAL EMISSIONS #/HOUR	MAXIMUM (Cav,Pt,Area) ug/m3	ACTUAL ANNUAL ug/m3	POTENTIAL ANNUAL ug/m3	ACTUAL ANNUAL ug/m3
Ithaca	EPT	1	00079-01-6	0.115000	274.5000	0.031336	659.437195	0.000000	15.924620	4.344157
Ithaca	EPT	1	00540-59-0	0.067000	154.2000	0.017603	384.193848	0.000000	9.277822	2.440324
Ithaca	EPT	1	00540-59-0	0.002000	13.3000	0.001518	11.468473	0.000000	0.276950	0.210482
Ithaca	EPT	1	00075-09-2	0.001000	1.4000	0.000160	5.734237	0.000000	0.138475	0.022156
Ithaca	EPT	1	00075-01-4	0.002000	4.6000	0.000525	11.468473	0.000000	0.276950	0.072798
SUMMARY TOTALS				0.187000	448.0000	0.051142	1072.302227	0.000000	25.894816	7.089918

EMISSION POINT AND CONTAMINANT ASSESSMENT OF DAR-1 ANALYSIS

						SHORT-TERM IMPACT	CAVITY IMPACT	POINT or AREA SOURCE IMPACT	
LOC	FAC	E.P.	CAS NUMBER	AGC ug/m3	SGC ug/m3	MAXIMUM (Cav,Pt,Area) % OF SGC	ACTUAL ANNUAL % OF AGC	POTENTIAL ANNUAL % OF AGC	ACTUAL ANNUAL % OF AGC
Ithaca	EPT	1	00079-01-6	0.500000000	14000.0000	4.7103	0.0000	3184.9239	868.8314
Ithaca	EPT	1	00540-59-0	63.000000000	0.0000	0.0000	0.0000	14.7267	3.8735
Ithaca	EPT	1	00540-59-0	63.000000000	0.0000	0.0000	0.0000	0.4396	0.3341
Ithaca	EPT	1	00075-09-2	2.100000000	14000.0000	0.0410	0.0000	6.5940	1.0550
Ithaca	EPT	1	00075-01-4	0.110000000	180000.0000	0.0064	0.0000	251.7726	66.1802
SUMMARY TOTALS						4.7576	0.0000	3458.4569	940.2743

CONTAMINANT IMPACT SUMMARY OF DAR-1 ANALYSIS

CAS NUMBER	EMISSIONS #/HOUR	EMISSIONS #/YEAR	ANNUAL EMISSIONS #/HOUR	SUMMATION OF SHORT-TERM IMPACTS, MAXIMUM (Cav,Pt,Area) ug/m3	SUMMATION OF CAVITY IMPACTS ACTUAL ANNUAL ug/m3	SUMMATION OF POINT or AREA SOURCE IMPACTS POTENTIAL ANNUAL ug/m3	SUMMATION OF POINT or AREA SOURCE IMPACTS ACTUAL ANNUAL ug/m3
00075-01-4	0.002000	4.6000	0.000525	11.468473	0.000000	0.276950	0.072798
00075-09-2	0.001000	1.4000	0.000160	5.734237	0.000000	0.138475	0.022156
00079-01-6	0.115000	274.5000	0.031336	659.437195	0.000000	15.924620	4.344157
00540-59-0	0.069000	167.5000	0.019121	395.662321	0.000000	9.554771	2.650806
SUMMARY TOTALS	0.187000	448.0000	0.051142	1072.302227	0.000000	25.894816	7.089918

CONTAMINANT ASSESSMENT SUMMARY OF DAR-1 ANALYSIS

CAS NUMBER	AGC ug/m3	SGC ug/m3	SUMMATION OF SHORT-TERM IMPACTS, MAXIMUM (Cav,Pt,Area) % OF SGC	SUMMATION OF CAVITY IMPACTS ACTUAL ANNUAL % OF AGC	SUMMATION OF POINT or AREA SOURCE IMPACTS POTENTIAL ANNUAL % OF AGC	SUMMATION OF POINT or AREA SOURCE IMPACTS ACTUAL ANNUAL % OF AGC
00075-01-4	0.110000000	180000.0000	0.0064	0.0000	251.7726	66.1802
00075-09-2	2.100000000	14000.0000	0.0410	0.0000	6.5940	1.0550
00079-01-6	0.500000000	14000.0000	4.7103	0.0000	3184.9239	868.8314
00540-59-0	63.000000000	0.0000	0.0000	0.0000	15.1663	4.2076
SUMMARY TOTALS			4.7576	0.0000	3458.4569	940.2743

CONTAMINANT TOXICITY PROFILE FOR DAR-1 ANALYSIS

CONTAMINANT NAME	CAS NUMBER	SGC ug/m3	HOW SGC ASSIGNED	AGC ug/m3	HOW AGC ASSIGNED	DAR TOXICITY	COMMENTS
VINYL CHLORIDE	00075-01-4	180000.00000	NYSDEC	0.110000000	EPA	HIGH	A,H,U
DICHLOROMETHANE	00075-09-2	14000.00000	NYSDEC	2.100000000	EPA	MODERATE	H,I,U
TRICHLOROETHYLENE	00079-01-6	14000.00000	ACGIH STEL	0.500000000	NYSDEC	MODERATE	B,H,U
DICHLOROETHYLENE, 12	00540-59-0	0.00000	NO SGC EXISTS	63.000000000	NYSDEC	MODERATE	

COMMENTS :

(A) ACGIH Human Carcinogen.

(B) ACGIH Suspected Human Carcinogen.

(H) HAP identified by 1990 CAAA.

(I) Refer to ACGIH Handbook.

(U) AGC equivalent to "one in a million risk".

CONTAMINANT EMISSIONS SUMMARY FOR DAR-1 ANALYSIS

CAS NUMBER	CONTAMINANT NAME	# OF EMISSIONS POINTS PER CONTAMINANT	EMISSIONS (lbs/hour)	EMISSIONS (lbs/year)
00075-01-4	VINYL CHLORIDE	1	0.00200000	4.60000
00075-09-2	DICHLOROMETHANE	1	0.00100000	1.40000
00079-01-6	TRICHLOROETHYLENE	1	0.11500000	274.50000
00540-59-0	DICHLOROETHYLENE, 12	2	0.06900000	167.50000
	SUMMARY TOTALS		0.18700000	448.000000

********** DAR-1 ANALYSIS **********

********** INPUT DATA **********

LOC	FAC	E.P.	CAS #	SOURCE TYPE	HA, or h(AREA) FEET	hs FEET	D IN.	T F	V FPS	Q ACFM	EMISSIONS #/HOUR	EMISSIONS #/YEAR	DPL, or D(AREA) FT	BW, or S(AREA) FT	BL FT
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00079-01-6	POINT	2.	14.	4.	120.	139.42	730.00	0.11500	275.	150.	29.	19.
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00540-59-0	POINT	2.	14.	4.	120.	139.42	730.00	0.06700	154.	150.	29.	19.
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00540-59-0	POINT	2.	14.	4.	120.	139.42	730.00	0.00200	13.	150.	29.	19.
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00075-09-2	POINT	2.	14.	4.	120.	139.42	730.00	0.00100	1.	150.	29.	19.
Facility Name & Address: Emerson Power and Transmission 620 S. Aurora St. Ithaca/Tompkins Application: P															
SIC Code: 0 Source Code: UTME: 620823. UTMN: 704119. ZONE: 18 BL FACING DIRECTION: 337.5 %CONTROL: 0.0000															
Ithaca	EPT	1	00075-01-4	POINT	2.	14.	4.	120.	139.42	730.00	0.00200	5.	150.	29.	19.