

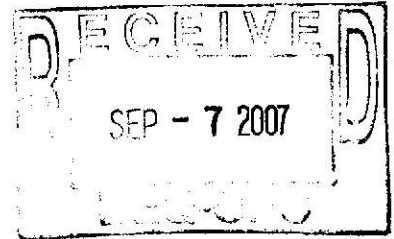
# Groundwater Interim Progress Report

Kuhlman Electric Corporation  
Crystal Springs, Mississippi

Prepared for

**BorgWarner Inc.**

September 2007



# Groundwater Interim Progress Report

**FILE COPY**

**Kuhlman Electric Corporation  
Crystal Springs, Mississippi**

Prepared for

**BorgWarner Inc.**

Prepared by

**MARTIN AND SLAGLE GEOENVIRONMENTAL ASSOCIATES, L.L.C.**

**September 2007**

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## **1.0 INTRODUCTION**

### **1.1 Background**

Kuhlman Electric Corporation (KEC) owns and operates a transformer manufacturing plant in Crystal Springs, Mississippi (Figure 1). The KEC plant in Crystal Springs, Mississippi was constructed and has been owned and operated as a transformer manufacturing plant since the 1950s. On April 19, 2000, the Mississippi Department of Environmental Quality (MDEQ) received notification from KEC that areas of contaminated soil had been found at the plant site.

Environmental assessments conducted at the KEC Plant site indicated the presence of soil contaminated with polychlorinated biphenyls, and various chlorinated benzenes. BorgWarner, on behalf of KEC, engaged an environmental consultant to prepare a groundwater assessment work plan. The groundwater assessment plan was prepared in response to Mississippi Commission on Environmental Quality Order No. 4449-02, issued to KEC on July 23, 2002.

The preliminary groundwater assessment was conducted in March and April 2004 to determine if groundwater beneath the plant site was impacted by chemical constituents previously detected in site soils. During the preliminary groundwater assessment, eight permanent monitoring wells were installed on the KEC property in areas that contained the highest concentrations of PCBs as identified during the plant site soil assessment. During the installation of the monitoring wells, soil, perched groundwater, and groundwater from the uppermost aquifer were sampled and analyzed for the presence of PCBs, volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Chlorinated and non-chlorinated organic compounds were detected in groundwater samples collected during the preliminary groundwater assessment. The source of these detected compounds was

After MDEQ's review of the preliminary groundwater assessment report, a *Comprehensive Groundwater Assessment Work Plan* was prepared and submitted to MDEQ for review and approval. In a letter dated September 22, 2006, MDEQ approved the Work Plan.

## **1.2 Site Description**

The Kuhlman plant is located at 101 Kuhlman Drive, Crystal Springs, Copiah County, MS 39059, at latitude N 31° 15' 20" and longitude W 90° 21' 20". The plant site is located within the town limits of Crystal Springs. The town center is located approximately 0.25 miles south of the plant (Figure 1). The Kuhlman property is bordered to the south by commercial businesses and residences located across Lee Street, and to the west by a railroad line and residences. Across Fulgham Avenue to the northwest is a vacant lot formerly occupied by an icehouse and to the northeast are private residences. East of the plant and abutting the property are residences and a funeral home. The residences are all single-family dwellings with individual yards. The single-family dwellings extend for several blocks in all directions except north. A church and a public swimming pool are located within two blocks of the site to the east. The predominant land uses in the surrounding area are commercial, former industrial, institutional, and residential.

The KEC property consists of a manufacturing plant building situated on about 15 acres of land. This site has been used for industrial manufacturing purposes since the mid-1950s. The future use of the property is anticipated to remain industrial.

### **1.3 Scope of Report**

This Interim Progress Report provides an update to MDEQ on the following work in progress at and around the Kuhlman Electric Corporation plant:

1. Sampling and analysis of groundwater from City of Crystal Springs municipal water supply wells and municipal supply line over the past two years;
2. Installation of 28 monitoring wells during the months of June and July 2007 on the plant property and within the City of Crystal Springs and
3. Sampling and analysis of groundwater samples during July and August 2007 from 38 monitoring wells located on the plant property and southwest of the plant site within the boundary of the City of Crystal Springs.

## **2.0 MUNICIPAL WELL MONITORING**

Groundwater samples collected from monitoring wells on the KEC plant property in 2004 indicated that 1,1-dichloroethene (1,1-DCE) was present at concentrations above the MDEQ Target Remedial Goal (TRG) of 7.0 µg/l. Periodic sampling and analysis of groundwater from municipal wells owned and operated by the City of Crystal Springs began in September 2004. Initially, six of a total of eight wells were monitored. The initial sampling included five municipal wells that are located approximately 2,400 feet southwest and downgradient of the KEC plant property, and the well located at the corner of Jackson Street and Lee Avenue, approximately 300 feet southeast of the plant property. The municipal well locations are shown on Figure 2.

The initial municipal well sampling results indicated that 1,1-DCE was present at a concentration of 3.2 µg/l in Crystal Springs Well No.7, approximately one-half of the TRG value. Fourteen months later, in November 2005, 1,1-DCE was detected at a concentration of 9.7 µg/l, slightly above the TRG in Well No. 7. A second sampling of the well two days later confirmed the previous concentration. Following receipt of the confirmation sample result, Well No. 7 was taken out of service and has remained so since then. The municipal water supply line, immediately downstream of the City's water treatment facility, has also been included in the periodic sampling since September 2004. No contaminants have been detected in any of the samples from the municipal supply line.

Since January 2007, the municipal water supply wells and the municipal supply line have been sampled monthly. Sampling results for the municipal wells and municipal supply line are presented in Table 1.



### **3.0 MONITORING WELLS**

During the preliminary groundwater assessment conducted in 2004, eight permanent monitoring wells (MW-1 through MW-8) were installed on the KEC property. The results of sampling, analysis and evaluation of the assessment data are included in the *Preliminary Groundwater Assessment Report, July 2004*.

In March 2005, well MW-1 was permanently closed as the result of the KEC building expansion. During the same month, MW-9 was installed near the southwest KEC property line.

In July 2007, four additional permanent monitoring wells (MW-10A, MW-10B, MW-10C, AND MW-13) were installed on the KEC property.

Three sampling events have been conducted at the on-site wells since the initial sampling in 2004. A summary of VOC concentrations detected in samples from the on-site monitoring wells is presented in Table 2. Table 3 is a summary of analytical results for chlorinated benzene compounds detected in groundwater samples collected from the on-site wells.

Beginning with the September 2006 sampling event, 1,4-dioxane was added to the analyte list.

Monitoring results from the on-site monitoring wells and the municipal water supply wells indicated that 1,1-DCE had migrated off-site from the KEC property. A door-to-door private well survey was conducted and is ongoing. No private wells were identified except for two cisterns that are not in use and are inaccessible. The groundwater assessment was expanded beyond the plant property boundary with the installation of a system of monitoring wells south and west of the KEC plant property within the City of Crystal Springs in June and July 2007. The system consists of 28 monitoring wells,

which were installed in auger borings. One three-well cluster is located immediately downgradient of the southwest corner of the KEC plant building. A total of eight two-well clusters are situated at various locations downgradient of the KEC plant property. One well was added at MW 14 to form a well cluster at that location. The location of MW 25 was shifted to West Rail Road Avenue due to access issues. The remaining nine wells are single monitoring wells.

All wells are constructed of 2-inch diameter schedule 40 PVC threaded casing, and a PVC manufactured 0.010 inch slotted screen of either 5 feet or 10 feet length. All wells are Type 2 wells, with three of the deep wells having surface casings set to exclude impacted groundwater from the deeper zones within the upper aquifer. Table 4 shows details of the monitoring well construction. The monitoring well locations and plume outlines are shown on Figures 3 and 4. Geologic cross sections are shown on Figures 5 and 6. Monitoring well completion records are included in Appendix 1.

Following construction of the new monitoring wells, all wells were developed by surging the well screen interval in each well with a disposable bailer to remove fines from the sand pack filter, followed by pumping water and fines from the well using a Grundfos Redi-Flo 2 submersible pump.

Upon completion of proper well development, each well (with the exception of MW-5) was equipped with a dedicated Geotech™ GEO1.66PVC18 bladder pump with a single Geocontrol Pro controller for all pumps. Each pump string was assembled in the field and the pump intake set within the screened interval of each well. The discharge tubing for all wells is Teflon-lined PVC. Pump setting elevations for each monitoring well are included in Table 4. Because of the shallow depth to groundwater in well MW-5, a bladder pump could not be used. Well MW-5 instead was developed and sampled using a four-foot disposable Teflon bailer.

Before sampling, water levels in each well were allowed to equilibrate, and water levels were measured using a QED Sample Pro® 6000 Series water level meter. Water levels were measured using the top of well casing as the reference point. Table 4 shows well elevation data and water level data for each well.

All wells were sampled using a low-flow sampling technique as described in the USEPA Region 4 *Environmental Investigations, Standard Operating Procedures and Quality Assurance Manual*, November 2001 (USEPA Region 4 EISOPQAM (2001)) and “Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells”, USEPA Region 1 (July 1996). During initial purging of the wells, water levels and water quality field parameters were measured. Water levels were monitored to confirm minimum drawdown during purging. The water quality field parameters measured during well purging consisted of:

- Temperature
- PH
- Turbidity
- Oxidation Reduction Potential
- Dissolved Oxygen

Water levels and water quality field parameters for each monitoring well were collected until formation water was drawn into the well.

Groundwater samples were collected in preserved 40-ml glass vials with septum caps. Samples were immediately placed on ice in a cooler at 4° C and carried to the on-site laboratory under proper chain-of-custody. Samples were analyzed for VOCs and 1,4-dioxane by EPA Method 8260B.

At least 10% of groundwater samples collected were split and sent to the off-site laboratory for confirmation of the on-site laboratory results.

The sampling of the off-site monitoring wells was conducted between July 28, and August 3, 2007. A summary of VOC and 1,4-dioxane analytical results for the off-site monitoring wells is presented in Table 5. No chlorinated benzene compounds were detected in any of the groundwater samples collected from the off-site monitoring wells.

#### 4.0 QUALITY CONTROL SUMMARY REPORT

The on-site and off-site laboratory data for the municipal water supply wells, municipal supply line, and on-site and off-site monitoring wells have been reviewed to ensure that the data are of sufficient quantity and quality to support the data quality objectives previously established in the *Comprehensive Groundwater Assessment Plan, October 2004*.

As established by the MDEQ guidelines, all work related to the groundwater assessment has been performed in accordance with the USEPA Region 4 EISOPQAM (2001).

The samples were analyzed for VOCs by the on-site laboratory, Environmental Chemistry Consulting Services (ECCS) of Madison, Wisconsin using EPA Method 8260B. The procedure incorporates all the quality control rigors of the full 8260B method, including quantification based on 6-point calibration with continuing calibration verification, surrogate method performance monitoring, method blanks, and matrix spike/matrix spike duplicate (MS/MSD) samples. The reporting limit established for water analysis by the on-site laboratory is 1.0 µg/L for VOCs. This reporting limit is below the established TRGs except for trans-1,3-dichloropropene, which has a TRG of 0.0842 µg/L.

In September 2006, 1,4-dioxane was added to the analyte list. ECCS filters the sample and surrogate solution through an activated carbon disk then the sample extracted with acetone and analyzed by direct inject GC/MSD/SIM.

At least 10% of the samples were split and sent off site to SGS Paradigm Analytical Laboratories in Wilmington, North Carolina for analysis of the same parameters as the on-site laboratory to verify the on-site laboratory results. The off-site laboratory analyzed the samples using EPA method 8260B for VOCs. The off-site laboratory extracted base/neutral analytes by method 3510 and analyzed the extract by Method 8270C using SIM for the analysis of 1,4-dioxane.

The criteria upon which the data have been reviewed include:

- Holding Times
- Method Blanks
- Laboratory Control Samples
- Matrix Spike/Matrix Spike Duplicates
- Surrogate Recoveries
- Blind Duplicate Analysis
- Blanks
- Split Sample Analysis

#### **4.1 Laboratory Data Review**

The laboratory reports were reviewed for reporting accuracy and consistency with laboratory QA/QC protocols. Confirmation of the on-site laboratory results was accomplished through the comparison of the on-site laboratory data with the data from the off-site laboratory.

##### 4.1.1 Holding Times

Water samples designated for VOC analysis by the on-site laboratory were collected in 40-ml vials without preservative. The samples were placed on ice at the time of collection and were analyzed by the on-site laboratory within seven days of collection. Samples collected and shipped to the off-site laboratory were collected in 40-ml vials containing hydrochloric acid. The samples were placed on ice at the time of collection, shipped on ice, and maintained in the laboratory at  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The maximum holding time for preserved samples is 14 days from sample collection to sample analysis. All water samples collected for VOC analysis were reported by the off-site laboratory to have been analyzed within the appropriate holding time.

Water samples designated for 1,4-dioxane analysis were collected in laboratory provided 1-liter amber jars containing no preservatives. The samples were placed on ice at the time of collection and maintained in the laboratory at  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . Samples sent to the off-site laboratory were shipped on ice. The maximum holding time is 7 days from sample collection to sample

extraction and 40 days from sample extraction to sample analysis. All water samples collected for 1,4-dioxane analysis were reported by the laboratories to have been extracted and analyzed within the appropriate holding time.

#### 4.1.2 Method Blanks

Method blanks were processed and analyzed by each laboratory for each requested analytical method at a frequency of one per day or one per 20 samples, whichever was greater. Method blank results were reviewed to evaluate the presence of target and non-target compounds in the blanks. The off-site laboratory reported the detection of one compound in one method blank. That compound was not detected in the associated samples. No other contaminants were reported by the laboratories to have been detected in the method blanks.

#### 4.1.3 Laboratory Control Samples

Laboratory control samples (LCS) were analyzed by the off-site laboratory for each method at a minimum frequency of one per 20 samples. Off-site LCS sample results were reviewed to evaluate the performance of the entire analytical system including preparation and analysis. The off-site laboratory met the performance criteria with regards to LCS spike recoveries.

#### 4.1.4 Matrix Spike/ Matrix Spike Duplicates

Matrix spikes (MS) and matrix spike duplicates (MSD) were processed by both laboratories at a minimum frequency of one MS and MSD per 20 samples. The laboratories met the MS/MSD performance criteria, and spike recoveries were reported to be within the control limits with limited exceptions. The off-site laboratory reported several instances of VOCs outside the lower control limits for spike recoveries and several instances of out of limit RPDs between the MS and MSD sample. Other performance criteria were met within the sample groups.

#### 4.1.5 Surrogate Recoveries

Both laboratories generally performed well with regards to surrogate recoveries. Few surrogate recoveries were reported outside the applicable control limits but no indication of performance issues were identified.

#### 4.1.6 Duplicate Analysis

Blind duplicate samples were submitted to the laboratories without indication of the associated sample. The relative percent difference between each sample and its duplicate for analytes detected in any duplicate pair were calculated based on the following equation:

$$\text{RPD (\%)} = \text{Absolute value of } ((C_S - C_D) / (C_S + C_D) / 2) \times 100$$

Where:  $C_S$  = Concentration of the sample

$C_D$  = Concentration of the duplicate sample

For the purpose of calculating the RPD in a duplicate pair with only one detection, the reporting limit was the input variable for the non-detect analyte. Where both laboratories reported no detections above the reporting limit, even where the reporting limits were different, the duplicate pair was within acceptable control limits.

#### 4.1.7 Blanks

Trip blanks were submitted to the off-site laboratory for analysis of VOCs. Acetone was detected in two of the trip blanks. Acetone was not detected in any of the associated samples and is believed to be a laboratory artifact. Field blanks and rinsate samples were submitted to the on-site laboratory for analysis of VOCs. No target analytes were detected in these samples.

#### 4.1.8 Split Sample Analysis

At least 10% of the samples were split and sent to SGS Paradigm Analytical Laboratories in Wilmington, North Carolina for confirmation. The samples were analyzed by the same or comparable analytical methods for VOCs. A comparison of the analytical results for VOCs indicates that the on-site laboratory is consistently meeting the data quality objectives.



## 4.2 Data Usability

### 4.2.1 Precision – Relative Percent Difference

Each laboratory's reported measurements of precision are acceptable.

### 4.2.2 Accuracy – Percent Recovery

Discussions of the accuracy of the matrix spike/matrix spike duplicates and laboratory control samples are provided in previous sections of this report. VOC surrogate recoveries were reported to be within control limits for VOC analyses, including the QC data.

### 4.2.3 Field QA/QC

Field personnel adhered to all procedures outlined in Section 4 of the *Comprehensive Groundwater Assessment Plan, October 2004*.

### 4.2.4 Analytical methods

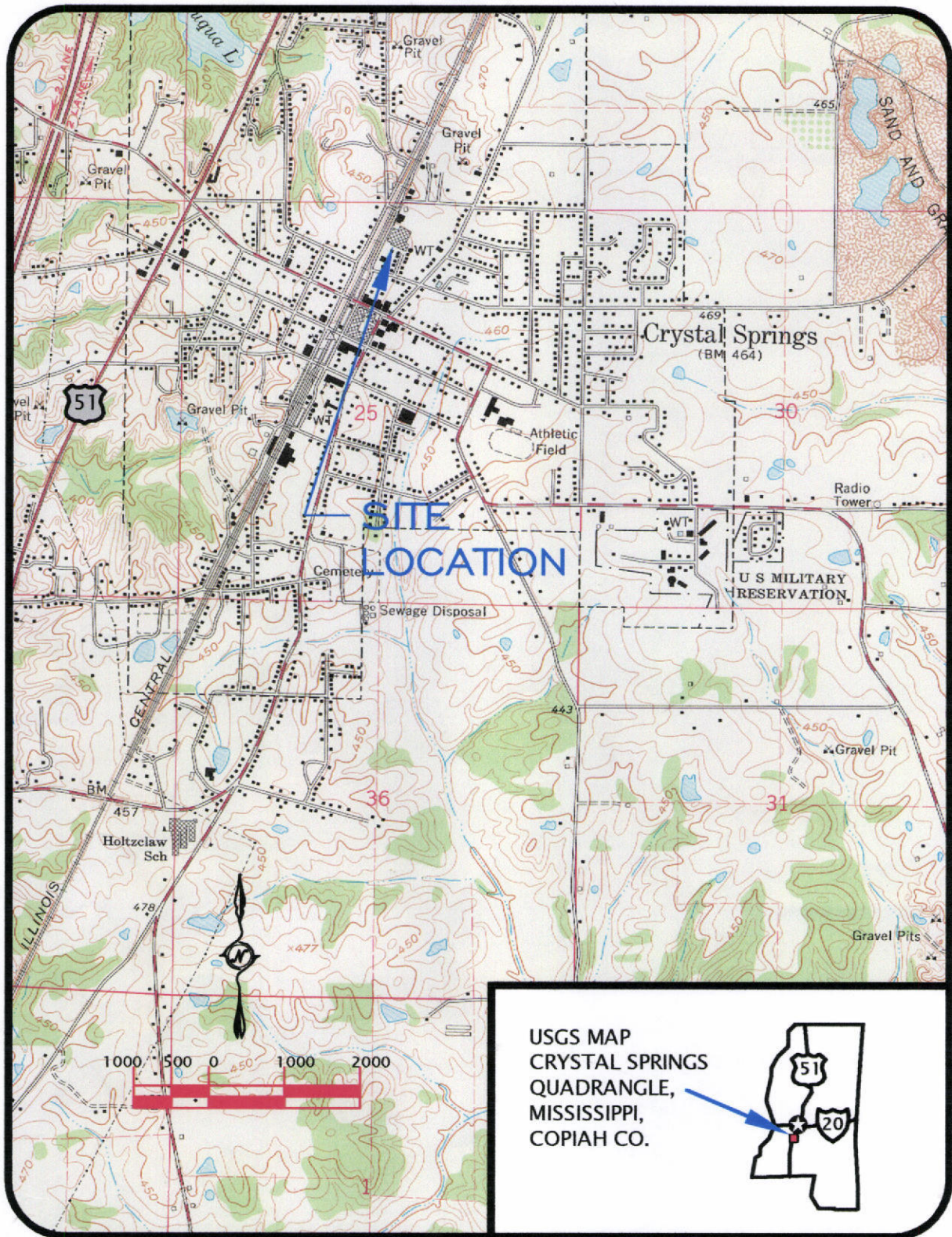
Reported analytical methods were consistent with those specified in the sampling and analysis plan and appropriate for the associated sample matrices.

## 4.3 Completeness

The data are complete and satisfy the data quality objectives for this project. As detailed above, the type and frequency of applicable QC samples were reported to be in accordance with the *Comprehensive Groundwater Assessment Plan, October 2004* and other applicable guidance documents. Field QC samples were collected in accordance with the specified criteria.

## 4.4 Comparability

Standard sampling protocols and sample handling protocols were successfully implemented for all samples and matrices. Field and laboratory records were maintained. Standard and appropriate analytical methods were used to analyze all samples. Analytical results were reported in appropriate units.



**MARTIN & SLAGLE**

GeoEnvironmental Associates, LLC

PO Box 1023  
Black Mountain NC 28711  
828.669.3929 828.669.5289

SCALE = 1"=2000'

REV: 0

DATE: 9/05/07

DR: DGR

CHK: RLM

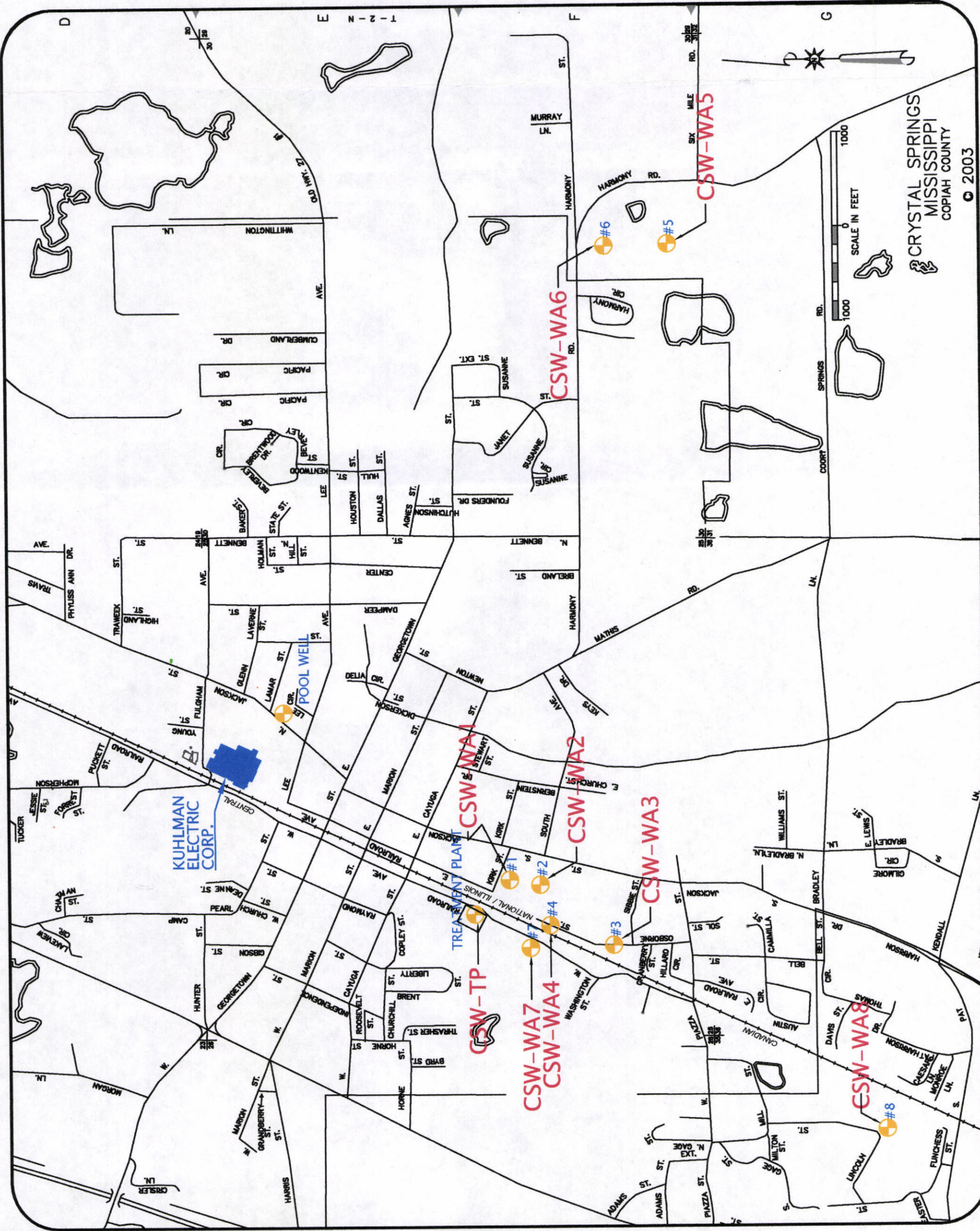
PREPARED FOR:  
BorgWarner Inc.

**VICINITY MAP**

**KUHLMAN ELECTRIC CORPORATION**  
101 KUHLMAN DRIVE  
CRYSTAL SPRINGS, MS

**FIGURE 1**

<b>FIGURE 2</b> CRYSTAL SPRINGS MUNICIPAL WELL LOCATION MAP 101 KUHLMAN DRIVE CRYSTAL SPRINGS, MS KUHLMAN ELECTRIC CORPORATION	SOURCE: MS D.O.T. DATE: 9/05/07 REV: 0 CHK: RLM DR: DCR
	SCALE 1"=100' PREPARED FOR: <b>BORGWARNER INC</b> Geoenvironmental Associates LLC PO Box 1023 Black Mountain NC 28711 p 828.669.3929 f 828.669.5289 <b>MARTIN &amp; SLAGLE</b>



© 2003

CRYSTAL SPRINGS  
MISSISSIPPI  
COPIAH COUNTY

SCALE IN FEET  
0 1000 1000



MUNICIPAL WELL  
#0

LEGEND

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**BorgWarner Inc**  
 DRAWING NAME:  
 INTERIM PROGRESS REPORT  
 SEPT/DEC.DWG

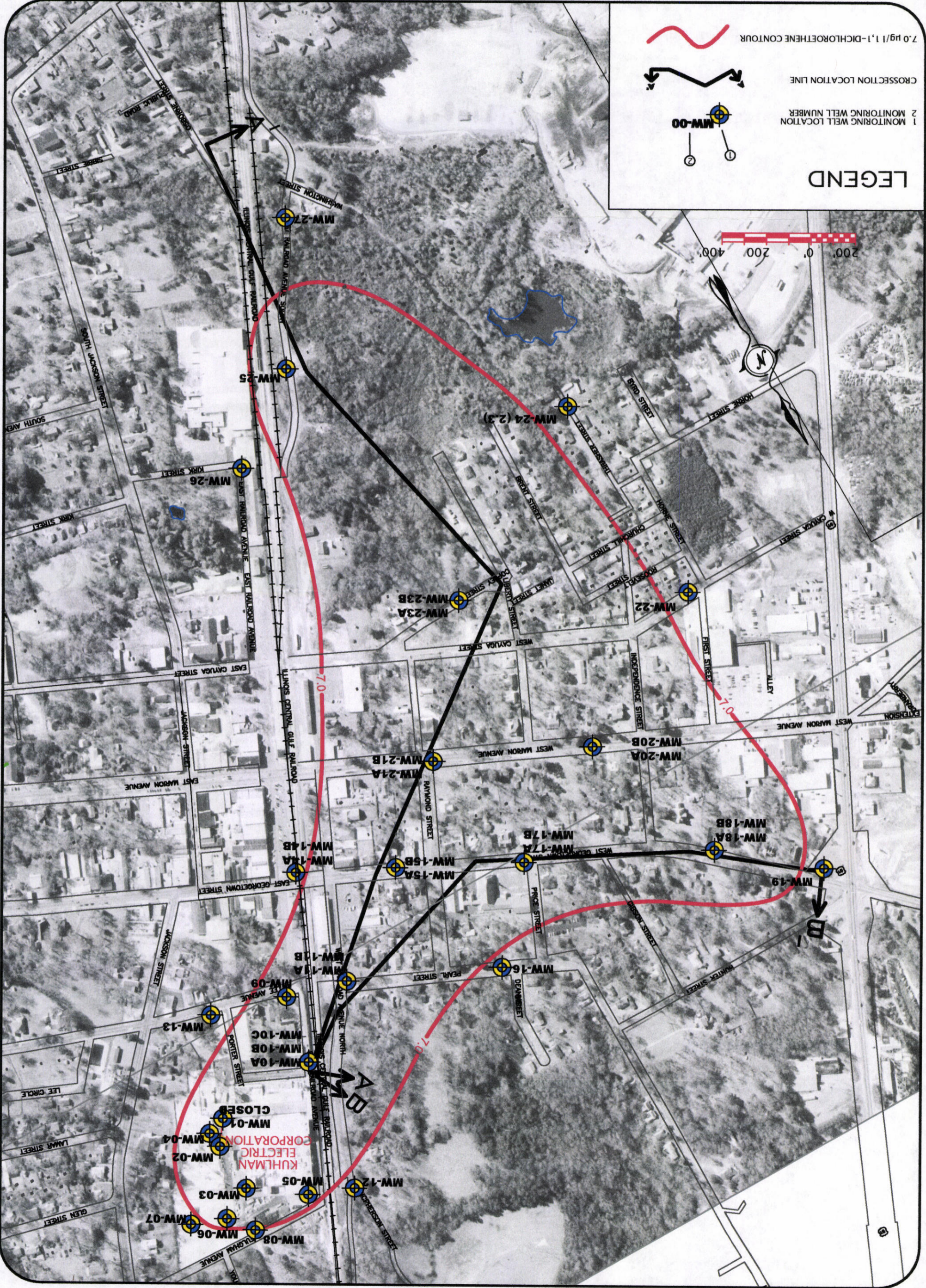
SOURCES:  
 2005 AERIAL PHOTOGRAPHY  
 COPAH COUNTY, MS TAX ASSESSOR

PLUME MAP  
 I, 1-DICHLOROETHENE  
 DR: DGR  
 CHK: RLM  
 REV: 0  
 DATE: 8/30/07

SCALE 1"=400'  
 FIGURE  
**3**

### LEGEND

- 1 MONITORING WELL LOCATION
- 2 MONITORING WELL NUMBER
- CROSSSECTION LOCATION LINE
- 7.0 µg/l 1,1-DICHLOROETHENE CONTOUR



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 828.669.5289

PREPARED FOR:  
**BorgWarner Inc**  
 DRAWING NAME:  
 INTERIM PROGRESS REPORT  
 SEPT 10, 2006

SOURCES:  
 2005 AERIAL PHOTOGRAPHY  
 COPLAH COUNTY, MS TAX ASSESSOR

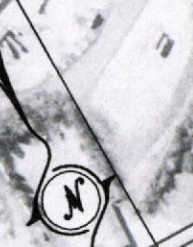
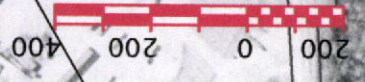
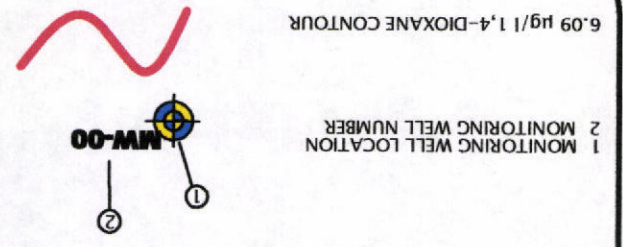
PLUME MAP  
 1,4-DIOXANE  
 KUHLMAN ELECTRIC CORPORATION  
 101 KUHLMAN DRIVE  
 CRYSTAL SPRINGS, MS

SCALE 1"=400'  
 DR: DCR  
 CHK: RLM  
 REV: 0  
 DATE: 8/30/07

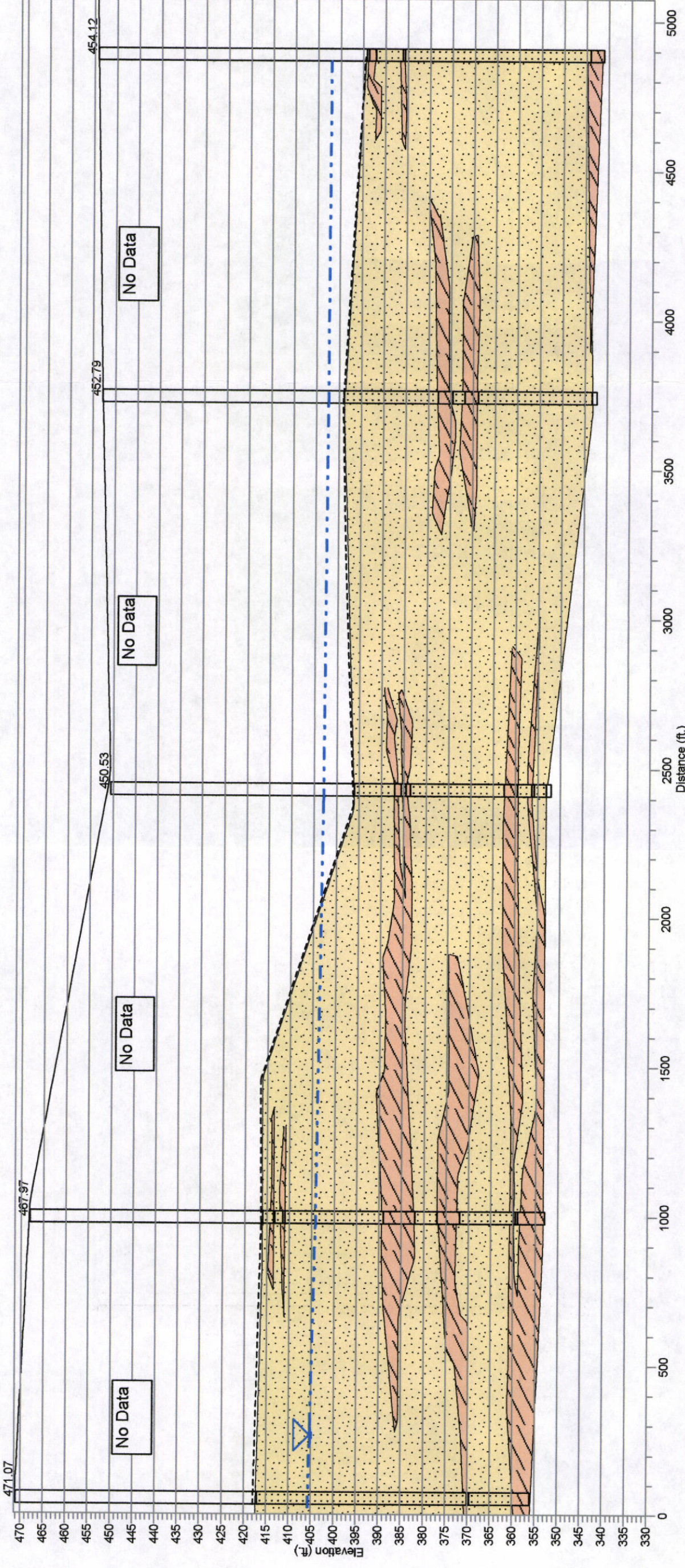
FIGURE 4



LEGEND



A A'





**MARTIN & SLAGLE**  
 GeoEnvironmental Associates, LLC  
 118F Cherry Street  
 Black Mountain, North Carolina

PREPARED FOR:  
**BorgWarner Inc**

**PROJECT: GROUNDWATER ASSESSMENT**

Location: Crystal Springs, Mississippi  
 Drawn By: BCH  
 Checked By: RLM  
 Date: 9/05/07  
 File Path: J:\WinLog\BW05winfence.mdb

**LEGEND**

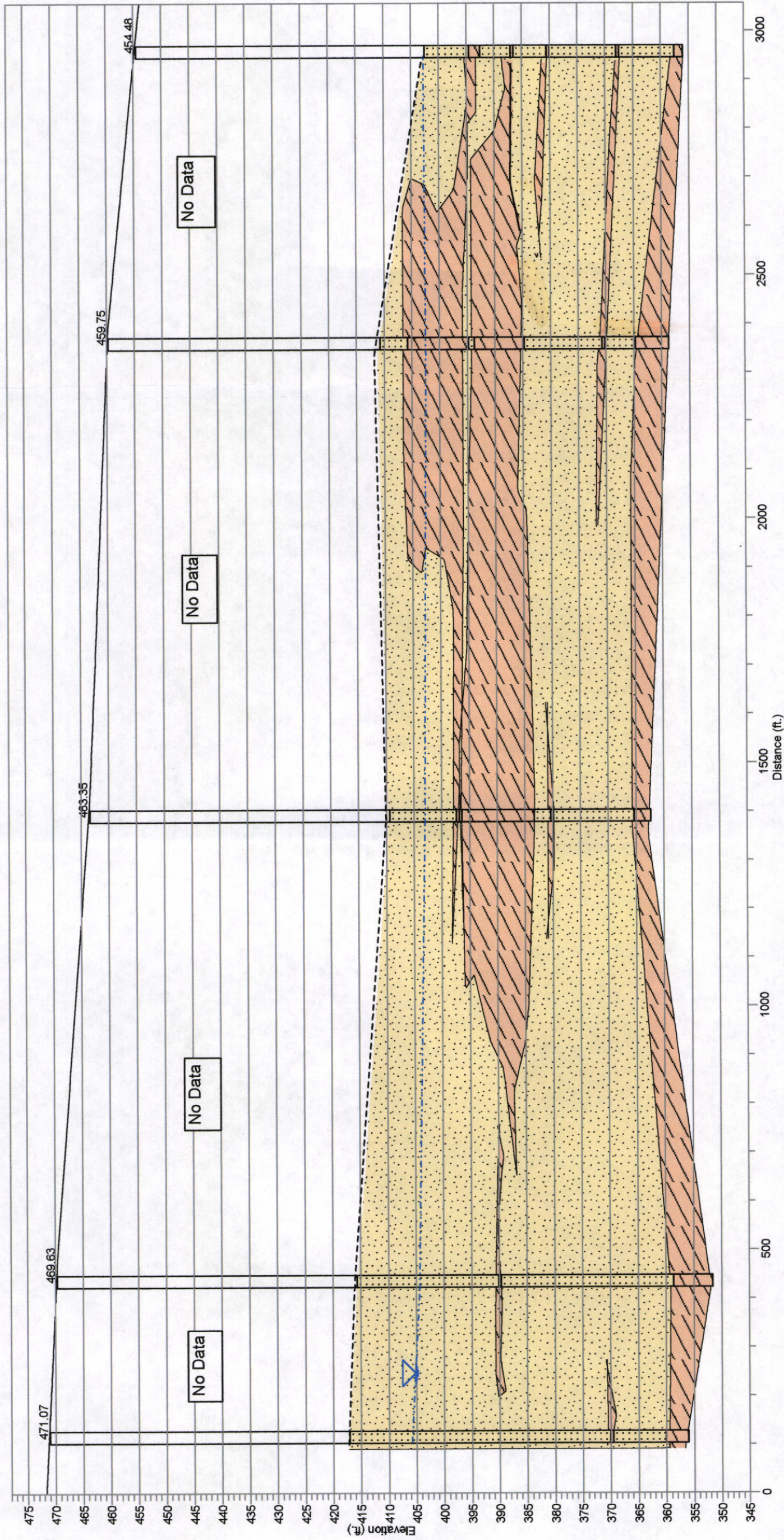
-  **Low Permeability**  
 0-10<sup>-3</sup> cm/sec (GC, SC, CL, CH)
-  **Medium Permeability**  
 10<sup>-3</sup> - 10<sup>-6</sup> cm/sec (GM, SM, ML)

**FIGURE 5**

Cross Section A-A'  
 Revision: 0  
 Kuhlman Electric Corporation  
 101 Kuhlman Drive  
 Crystal Springs, MS

B'

B





# FIGURE 6

Cross Section B-B'  
Revision: 0

Kuhlman Electric Corporation  
101 Kuhlman Drive  
Crystal Springs, MS

### LEGEND

-  Low Permeability  
0-10<sup>-3</sup> cm/sec (GC, SC, CL, CH)
-  Medium Permeability  
10<sup>-3</sup> - 10<sup>-6</sup> cm/sec (GM, SM, ML)

### PROJECT: GROUNDWATER ASSESSMENT

Location: Crystal Springs, Mississippi  
Drawn By: BCH  
Checked By: RLM  
Date: 9/05/07  
File Path: J:\WinLog\BW05winfence.mdb

**MARTIN & SLAGLE**  
GeoEnvironmental Associates, LLC  
118F Cherry Street  
Black Mountain, North Carolina

PREPARED FOR:  
**BorgWarner Inc**

Table 2  
 Summary of On-site Monitoring Well Preliminary Groundwater Sample Results for VOCs and 1,4-Dioxane  
 March 2005 through August 2007  
 Kuhlman Electric Corporation  
 Crystal Springs, MS

Well ID	Field Lab Sample ID	Sample ID	Date Collected	Time Collected	VOCs Date Analyzed	1,4-Dioxane Date Analyzed	1,1-Dichloro-ethene	1,1-Dichloro-ethane	1,1,1-Trichloro-ethane	1,2-Dichloro-ethane	1,1,2-Trichloro-ethane	Chloroform	Dibromo-chloro-methane	1,4-Dioxane
MW-01	W1083	KEP-GW-001-003	2-Mar-05	11:04	3-Mar-05	-	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-03	W1084	KEP-GW-003-003	2-Mar-05	13:06	3-Mar-05	-	43	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-08	W1085	KEP-GW-008-003	2-Mar-05	14:04	3-Mar-05	-	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-07	W1086	KEP-GW-007-003	2-Mar-05	14:57	3-Mar-05	-	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-06	W1087	KEP-GW-006-003	2-Mar-05	15:14	3-Mar-05	-	20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-05	W1088	KEP-GW-005-003	2-Mar-05	15:28	3-Mar-05	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-04	W1089	KEP-GW-004-003	2-Mar-05	16:03	3-Mar-05	-	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-02	W1090	KEP-GW-002-003	2-Mar-05	16:17	3-Mar-05	-	64	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-03	W1091	KEP-Duplicate	2-Mar-05		3-Mar-05	-	42	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-09	W1140	KEP-GW-009-001	12-Mar-05	11:19	12-Mar-05	-	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-09	W1142	KEP-Duplicate	12-Mar-05		12-Mar-05	-	14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-06	W1369	KEP-GW-006-004	18-Sep-05	15:09	19-Sep-05	-	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-07	W1370	KEP-GW-007-004	18-Sep-05	15:22	19-Sep-05	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-05	W1371	KEP-GW-005-004	18-Sep-05	15:45	19-Sep-05	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-02	W1373	KEP-GW-002-004	18-Sep-05	16:08	19-Sep-05	-	40	1.5	1.6	<1.0	<1.0	<1.0	<1.0	-
MW-04	W1374	KEP-GW-004-004	18-Sep-05	16:45	19-Sep-05	-	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-09	W1375	KEP-GW-009-002	18-Sep-05	17:03	19-Sep-05	-	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-02	W1376	KEP-Duplicate	18-Sep-05		19-Sep-05	-	42	1.3	1.4	<1.0	<1.0	<1.0	<1.0	-
MW-08	W1409	KEP-GW-008-004	22-Sep-05	17:25	22-Sep-05	-	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-03	W1411	KEP-GW-003-004	23-Sep-05	10:25	23-Sep-05	-	28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-03	W1412	KEP-Duplicate	23-Sep-05		23-Sep-05	-	33	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
MW-02	W1700	KEP-GW-002-005	20-Sep-06	15:30	22-Sep-06	22-Sep-06	8.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	13
MW-03	W1701	KEP-GW-003-005	20-Sep-06	20:20	22-Sep-06	22-Sep-06	26	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	30
MW-04	W1702	KEP-GW-004-005	20-Sep-06	17:45	22-Sep-06	22-Sep-06	32	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
MDEQ Tier 1 TRG (Target Remediation Goal) (ug/L)														
							7	798	200	5	5	0.155	0.126	6.09

Concentrations in bold exceed their respective MDEQ Tier 1 TRG

A result of ( - ) indicates that 1,4-dioxane was not analyzed for during the specified sampling event  
 Results reported in micrograms per liter (ug/L)



**Table 2**  
**Summary of On-site Monitoring Well Preliminary Groundwater Sample Results for VOCs and 1,4-Dioxane**  
**March 2005 through August 2007**  
**Kuhman Electric Corporation**  
**Crystal Springs, MS**

Well ID	Field Lab Sample ID	Sample ID	Date Collected	Time Collected	VOCs Date Analyzed	1,4-Dioxane Date Analyzed	1,1-Dichloroethene	1,1-Dichloroethane	1,1,1-Trichloroethane	1,2-Dichloroethane	1,1,2-Trichloroethane	Chloroform	Dibromochloromethane	1,4-Dioxane
MW-05	W1703	KEP-GW-005-005	20-Sep-06	14:05	22-Sep-06	22-Sep-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
MW-06	W1704	KEP-GW-006-005	20-Sep-06	12:30	22-Sep-06	22-Sep-06	3.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
MW-07	W1705	KEP-GW-007-005	20-Sep-06	10:20	22-Sep-06	22-Sep-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
MW-08	W1706	KEP-GW-008-005	20-Sep-06	11:40	22-Sep-06	22-Sep-06	2.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
MW-09	W1707	KEP-GW-009-003	20-Sep-06	19:15	22-Sep-06	22-Sep-06	<b>10</b>	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
MW-02	W1708	KEP-Duplicate	20-Sep-06		22-Sep-06	22-Sep-06	<b>15</b>	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<b>14</b>
MW-02	W1948	KEP-GW-002-006	31-Jul-07	10:22	1-Aug-07	31-Jul-07	<b>14</b>	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.0
MW-03	W1949	KEP-GW-003-006	29-Jul-07	17:30	1-Aug-07	31-Jul-07	<b>35</b>	3.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<b>41</b>
MW-04	W1951	KEP-GW-004-006	31-Jul-07	8:55	1-Aug-07	31-Jul-07	<b>31</b>	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-05	W1952	KEP-GW-005-006	3-Aug-07	15:10	3-Aug-07	3-Aug-07	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-06	W1953	KEP-GW-006-006	29-Jul-07	15:45	1-Aug-07	31-Jul-07	<b>10</b>	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-07	W1954	KEP-GW-007-006	29-Jul-07	11:08	1-Aug-07	31-Jul-07	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-08	W1955	KEP-GW-008-006	29-Jul-07	13:30	1-Aug-07	31-Jul-07	3.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-09	W1956	KEP-GW-009-004	31-Jul-07	13:15	1-Aug-07	31-Jul-07	<b>13</b>	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-10A	W1957	KEP-GW-010A-001	2-Aug-07	19:43	3-Aug-07	3-Aug-07	<b>120</b>	4.4	3.1	2.4	<b>5.6</b>	< 1.0	< 1.0	<b>8.3</b>
MW-10B	W1958	KEP-GW-010B-001	2-Aug-07	20:17	3-Aug-07	3-Aug-07	4.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.0
MW-10C	W1959	KEP-GW-010C-001	30-Jul-07	18:25	1-Aug-07	1-Aug-07	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<b>1.7</b>	<b>1.5</b>	< 2.0
MW-13	W1963	KEP-GW-013-001	1-Aug-07	13:30	2-Aug-07	1-Aug-07	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MDEQ Tier 1 TRG (Target Remediation Goal) (ug/L)							<b>7</b>	<b>798</b>	<b>200</b>	<b>5</b>	<b>5</b>	<b>0.155</b>	<b>0.126</b>	<b>6.09</b>

Concentrations in **bold** exceed their respective MDEQ Tier 1 TRG

A result of ( - ) indicates that 1,4-dioxane was not analyzed for during the specified sampling event  
 Results reported in micrograms per liter (ug/L)

**Table 3**  
**Summary of On-Site Monitoring Well Preliminary Groundwater Sample Results for Chlorinated Benzenes**  
**March 2005 through August 2007**  
**Kuhman Electric Corporation**  
**Crystal Springs, MS**

Well ID	Field Lab Sample ID	Sample ID	Date Collected	Time Collected	Date Analyzed	1,3,5-Trichloro-benzene	1,2,4-Trichloro-benzene	1,2,3-Trichloro-benzene	1,2,3,5 & 1,2,4,5-Tetrachloro-benzene	1,2,3,4-Tetrachloro-benzene	Penta-chloro-benzene	Hexa-chloro-benzene
MW-01	W1083	KEP-GW-001-003	2-Mar-05	11:04	3-Mar-05	< 0.025	< 0.025	0.10	< 0.050	< 0.025	< 0.025	< 0.025
MW-03	W1084	KEP-GW-003-003	2-Mar-05	13:06	3-Mar-05	0.079	0.14	0.45	0.059	0.29	0.032	< 0.025
MW-08	W1085	KEP-GW-008-003	2-Mar-05	14:24	3-Mar-05	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025
MW-07	W1086	KEP-GW-007-003	2-Mar-05	14:57	3-Mar-05	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025
MW-06	W1087	KEP-GW-006-003	2-Mar-05	15:14	3-Mar-05	0.097	< 0.025	0.039	0.20	0.25	0.22	< 0.025
MW-05	W1088	KEP-GW-005-003	2-Mar-05	15:28	3-Mar-05	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025
MW-04	W1089	KEP-GW-004-003	2-Mar-05	16:03	3-Mar-05	< 0.025	< 0.025	0.029	< 0.050	< 0.025	< 0.025	< 0.025
MW-02	W1090	KEP-GW-002-003	2-Mar-05	16:17	3-Mar-05	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025
MW-03	W1091	KEP-Duplicate	2-Mar-05		3-Mar-05	0.072	0.14	0.50	0.057	0.29	0.031	< 0.025
MW-09	W1140	KEP-GW-009-001	12-Mar-05	11:19	12-Mar-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-09	W1142	KEP-Duplicate	12-Mar-05		12-Mar-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-06	W1369	KEP-GW-006-004	18-Sep-05	15:09	19-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-07	W1370	KEP-GW-007-004	18-Sep-05	15:22	19-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-05	W1371	KEP-GW-005-004	18-Sep-05	15:45	19-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-02	W1373	KEP-GW-002-004	18-Sep-05	16:08	19-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-04	W1374	KEP-GW-004-004	18-Sep-05	16:45	19-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-09	W1375	KEP-GW-009-002	18-Sep-05	17:03	19-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-02	W1376	KEP-Duplicate	18-Sep-05		19-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-08	W1409	KEP-GW-008-004	22-Sep-05	17:25	22-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-03	W1411	KEP-GW-003-004	23-Sep-05	10:25	23-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-03	W1412	KEP-Duplicate	23-Sep-05		23-Sep-05	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.20	< 0.20
MW-02	W1700	KEP-GW-002-005	20-Sep-06	15:30	20-Sep-06	< 0.025	< 0.025	< 0.025	< 0.050	0.025	< 0.025	< 0.025
MW-03	W1701	KEP-GW-003-005	20-Sep-06	20:20	21-Sep-06	< 0.025	< 0.025	0.16	< 0.050	0.096	< 0.025	< 0.025
MW-04	W1702	KEP-GW-004-005	20-Sep-06	17:45	20-Sep-06	< 0.025	< 0.025	0.057	< 0.050	< 0.025	< 0.025	< 0.025
MW-05	W1703	KEP-GW-005-005	20-Sep-06	14:05	20-Sep-06	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025
MW-06	W1704	KEP-GW-006-005	20-Sep-06	12:30	20-Sep-06	< 0.025	< 0.025	< 0.025	< 0.050	0.080	0.076	< 0.025
<b>MDEQ Tier 1 Target Remediation Goal (ug/L)</b>						<b>NS</b>	<b>70</b>	<b>NS</b>	<b>11</b>	<b>NS</b>	<b>29.2</b>	<b>1</b>

Concentrations in **bold** exceed their respective MDEQ Tier 1 TRG

NS - No MDEQ Tier 1 TRG established  
Results reported in micrograms per liter (ug/L)

**Table 3**  
**Summary of On-Site Monitoring Well Preliminary Groundwater Sample Results for Chlorinated Benzenes**  
**March 2005 through August 2007**  
**Kuhlman Electric Corporation**  
**Crystal Springs, MS**

Well ID	Field Lab Sample ID	Sample ID	Date Collected	Time Collected	Date Analyzed	1,3,5-Trichloro-benzene	1,2,4-Trichloro-benzene	1,2,3-Trichloro-benzene	1,2,3,4-Tetrachloro-benzene	1,2,3,5-Tetrachloro-benzene	1,2,3,4-Pentachloro-benzene	Hexachloro-benzene
MW-07	W1705	KEP-GW-007-005	20-Sep-06	10:20	20-Sep-06	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025
MW-08	W1706	KEP-GW-008-005	20-Sep-06	11:40	20-Sep-06	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025
MW-09	W1707	KEP-GW-009-003	20-Sep-06	19:15	20-Sep-06	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025
MW-02	W1708	KEP-Duplicate	20-Sep-06		20-Sep-06	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025
MW-02	W1948	KEP-GW-002-006	31-Jul-07	10:22	31-Jul-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-03	W1949	KEP-GW-003-006	29-Jul-07	17:30	31-Jul-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-04	W1951	KEP-GW-004-006	31-Jul-07	8:55	31-Jul-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-05	W1952	KEP-GW-005-006	3-Aug-07	15:10	3-Aug-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-06	W1953	KEP-GW-006-006	29-Jul-07	15:45	31-Jul-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-07	W1954	KEP-GW-007-006	29-Jul-07	11:08	31-Jul-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-08	W1955	KEP-GW-008-006	29-Jul-07	13:30	31-Jul-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-09	W1956	KEP-GW-009-004	31-Jul-07	13:15	31-Jul-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-10A	W1957	KEP-GW-010A-001	2-Aug-07	19:43	3-Aug-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-10B	W1958	KEP-GW-010B-001	2-Aug-07	20:17	3-Aug-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-10C	W1959	KEP-GW-010C-001	30-Jul-07	18:25	31-Jul-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-13	W1963	KEP-GW-013-001	1-Aug-07	13:30	1-Aug-07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
<b>MDEQ Tier 1 Target Remediation Goal (ug/L)</b>						<b>NS</b>	<b>70</b>	<b>NS</b>	<b>11</b>	<b>NS</b>	<b>29.2</b>	<b>1</b>

Concentrations in **bold** exceed their respective MDEQ Tier 1 TRG

NS - No MDEQ Tier 1 TRG established  
 Results reported in micrograms per liter (ug/L)

Table 4  
 Monitoring Well Construction Details  
 March 2004 through September 2007  
 Kuhlman Electric Corporation  
 Crystal Springs, MS

Well No	Date Installed	Screen Length (ft)	Screen Interval (ft bgs)	Depth of Surface Casing (ft bgs)	Depth to GW (ft bgs)	Ground Surface Elevation (ft msl)	Top Casing Elevation (ft msl)	GW Elevation 4-12-04 (ft msl)	GW Elevation 3-05 (ft msl)	GW Elevation 9-05 (ft msl)	GW Elevation 7-28-07 (ft msl)	GW Elevation 9-4-07 (ft msl)	Pump Setting (ft bgs)
MW-1	3/9 & 3/11/2004	15	58-73	-	60.37	467.76	467.47	407.1	408.05	-	-	-	-
MW-2	3/16/2004	15	57-72	-	57.88	465.59	465.23	407.35	408.28	408.96	407.36	406.73	65
MW-3	3/18/2004	15	59-64	-	50.63	458.7	458.32	407.69	408.45	409.04	407.3	406.75	58
MW-4	3/17/2004	15	55-70	-	51.15	465.75	468.47	407.32	408.27	408.97	406.98	409.52	64
MW-5	3/18/2004	15	18-33	-	19.25	457.02	456.55	437.26	436.87	425.84	429.27	433.82	26
MW-6	3/25/2004	15	43-58	-	49.53	457.61	457.28	407.75	408.71	409.35	407.46	406.93	54
MW-7	3/24/2004	15	51-66	-	54.7	463	462.7	408	408.95	409.7	407.75	407.25	61
MW-8	3/26/2004	15	47-62	-	46.78	455.04	454.46	407.68	408.78	409.27	407.59	406.93	55
MW-9	3/3/2005	15	61-76	-	63.04	470.21	470.03	-	406.87	407.35	405.81	405.48	70
MW-10A	7/7/2007	10	62-72	-	65.05	471.25	470.95	-	-	-	406.2	405.7	70
MW-10B	7/7/2007	5	76-81	-	63.85	471.25	470.78	-	-	-	406.4	405.73	79
MW-10C	7/17/2007	5	94-99	90	65.05	471.25	470.97	-	-	-	406.2	405.75	97
MW-11A	7/5/2007	10	75-85	-	64.75	470.46	470.08	-	-	-	405.71	405.18	81
MW-11B	7/18/2007	5	100-105	95	63.55	470.46	470.01	-	-	-	406.91	405.31	103
MW-12	6/4/2007	10	65-75	-	59.17	465.66	465.35	-	-	-	406.48	406.02	73
MW-13	7/7/2007	10	62-72	-	59.94	465.38	465.12	-	-	-	405.71	406.06	70
MW-14A	6/8/2007	10	69.5-79.5	-	59.25	464.2	464.03	-	-	-	404.95	404.63	78
MW-14B	6/11/2007	5	97-102	-	59.23	464.2	463.99	-	-	-	404.97	404.59	100
MW-15A	6/18/2007	10	65-75	-	62.85	467.53	467.29	-	-	-	404.68	404.27	73
MW-15B	6/20/2007	5	86-91	-	62.94	467.53	467.29	-	-	-	404.59	404.21	87
MW-16	6/5/2007	10	55-65	-	55.98	460.56	460.24	-	-	-	404.53	404.07	63
MW-17A	6/28/2007	10	60-70	-	57.05	460.31	460.02	-	-	-	403.26	402.85	65
MW-17B	6/28/2007	5	83-88	-	57.0	460.31	460.04	-	-	-	403.31	402.89	86
MW-18A	6/25/2007	10	62-72	-	57.05	459.95	459.46	-	-	-	402.9	402.28	69
MW-18B	6/26/2007	5	80-85	-	57.25	459.95	459.67	-	-	-	402.7	402.31	82
MW-19	6/6/2007	10	85-95	-	48.9	454.38	454.02	-	-	-	402.48	402	92
MW-20A	6/22/2007	10	57-67	-	59.37	462.41	462.12	-	-	-	403.04	402.6	65
MW-20B	6/21/2007	5	100-105	-	59.25	462.41	462.0	-	-	-	403.16	402.63	104
MW-21A	7/2/2007	10	58-68	-	54.2	458.0	458.72	-	-	-	403.8	403.35	66
MW-21B	7/16/2007	5	88-93	85	55.19	459	458.65	-	-	-	403.81	403.35	92
MW-22	6/12/2007	10	85.5-95.5	-	45.05	447.92	447.54	-	-	-	402.87	402.39	90
MW-23A	6/15/2007	10	35-45	-	37.24	440.61	440.12	-	-	-	403.37	402.77	43
MW-23B	6/14/2007	5	79-84	-	37.64	440.61	440.41	-	-	-	402.97	402.6	81
MW-24	7/5/2007	5	77-82	-	31.97	433.41	433.14	-	-	-	401.44	400.99	81
MW-25	7/13/2007	10	98-108	-	51.2	451.26	450.95	-	-	-	400.06	399.52	106
MW-26	6/13/2007	10	92-102	-	59.65	459.61	459.37	-	-	-	399.96	399.46	101
MW-27	7/17/2007	10	99-109	-	42.5	433.48	433.56	-	-	-	390.98	391.79	108

**Table 5**  
**Summary of Off-Site Monitoring Well Preliminary Groundwater Sample Results for VOCs and 1,4-Dioxane**  
**July 2007 through August 2007**  
**Kuhlman Electric Corporation**  
**Crystal Springs, MS**

Well ID	Field Lab Sample ID	Sample ID	Date Collected	Time Collected	VOCs Date Analyzed	1,4-Dioxane Date Analyzed	1,1-Dichloroethene	1,1-Dichloroethane	1,1,2-Trichloroethane	Tetra-chloro-ethene	Toluene	Dibromo-chloro-methane	1,4-Dioxane						
MW-11B	W1950	KEP-Duplicate	30-Jul-07	-	1-Aug-07	1-Aug-07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-11A	W1960	KEP-GW-011A-001	30-Jul-07	12:40	1-Aug-07	31-Jul-07	<b>27</b>	<1.0	<1.0	<1.0	<1.0	<1.0	2.8						
MW-11B	W1961	KEP-GW-011B-001	30-Jul-07	14:55	1-Aug-07	31-Jul-07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-12	W1962	KEP-GW-012-001	30-Jul-07	8:45	1-Aug-07	31-Jul-07	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-14A	W1964	KEP-GW-014A-001	31-Jul-07	18:52	2-Aug-07	1-Aug-07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-14B	W1965	KEP-GW-014B-001	31-Jul-07	19:25	2-Aug-07	1-Aug-07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-15A	W1966	KEP-GW-015A-001	3-Aug-07	14:15	3-Aug-07	3-Aug-07	<b>45</b>	1.2	1.4	<1.0	1.6	<1.0	1.8						
MW-15B	W1967	KEP-GW-015B-001	1-Aug-07	9:30	2-Aug-07	1-Aug-07	<b>10</b>	<1.0	<1.0	<1.0	44	<1.0	4.3						
MW-16	W1968	KEP-GW-016-001	30-Jul-07	10:45	1-Aug-07	31-Jul-07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-17A	W1969	KEP-GW-017A-001	31-Jul-07	21:40	2-Aug-07	1-Aug-07	<b>48</b>	<1.0	<1.0	<1.0	<1.0	<1.0	4.3						
MW-17B	W1970	KEP-GW-017B-001	31-Jul-07	21:05	2-Aug-07	1-Aug-07	<b>17</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-18A	W1971	KEP-GW-018A-001	31-Jul-07	16:10	2-Aug-07	31-Jul-07	<b>31</b>	<1.0	<1.0	<1.0	<1.0	<1.0	5.1						
MW-18B	W1972	KEP-GW-018B-001	31-Jul-07	15:35	2-Aug-07	1-Aug-07	<b>10</b>	<1.0	<1.0	<1.0	1.6	<1.0	<1.0						
MW-19	W1973	KEP-GW-019-001	3-Aug-07	9:30	3-Aug-07	3-Aug-07	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-20A	W1974	KEP-GW-020A-001	2-Aug-07	16:09	2-Aug-07	2-Aug-07	<b>20</b>	<1.0	<1.0	<1.0	52	<1.0	<1.0						
MW-20B	W1975	KEP-GW-020B-001	2-Aug-07	17:28	2-Aug-07	2-Aug-07	<b>46</b>	<1.0	<1.0	<1.0	5.4	<1.0	2.5						
MW-21A	W1976	KEP-GW-021A-001	1-Aug-07	19:16	2-Aug-07	2-Aug-07	<b>29</b>	<1.0	<1.0	<1.0	3.6	<1.0	<1.0						
MW-21B	W1977	KEP-GW-021B-001	3-Aug-07	14:59	3-Aug-07	3-Aug-07	1.1	<1.0	<1.0	<1.0	<1.0	1.1	<3.0						
MW-22	W1978	KEP-GW-022-001	2-Aug-07	9:20	2-Aug-07	2-Aug-07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-23A	W1979	KEP-GW-023A-001	2-Aug-07	15:10	2-Aug-07	2-Aug-07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-23B	W1980	KEP-GW-023B-001	2-Aug-07	14:42	2-Aug-07	2-Aug-07	<b>41</b>	<1.0	<1.0	<1.0	<1.0	<1.0	1.6						
MW-15B	W1981	KEP-Duplicate	1-Aug-07	-	2-Aug-07	1-Aug-07	<b>11</b>	<1.0	<1.0	<1.0	54	<1.0	4.4						
MW-24	W1982	KEP-GW-024-001	2-Aug-07	11:15	2-Aug-07	2-Aug-07	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MW-25	W1983	KEP-GW-025-001	1-Aug-07	17:25	2-Aug-07	1-Aug-07	<b>15</b>	<1.0	<1.0	<1.0	<1.0	<1.0	1.8						
MW-26	W1984	KEP-GW-026-001	3-Aug-07	10:20	3-Aug-07	3-Aug-07	<1.0	<1.0	<1.0	<1.0	3.6	<1.0	<1.0						
MW-27	W1985	KEP-GW-027-001	28-Jul-07	18:41	1-Aug-07	31-Jul-07	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						
MDEQ Tier 1 Target Remediation Goal (ug/L)													<b>7</b>	<b>798</b>	<b>5</b>	<b>1000</b>	<b>5</b>	<b>0.126</b>	<b>6.09</b>

Concentrations in **bold** exceed their respective MDEQ Tier 1 TRG

Results reported in micrograms per liter (ug/L)

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

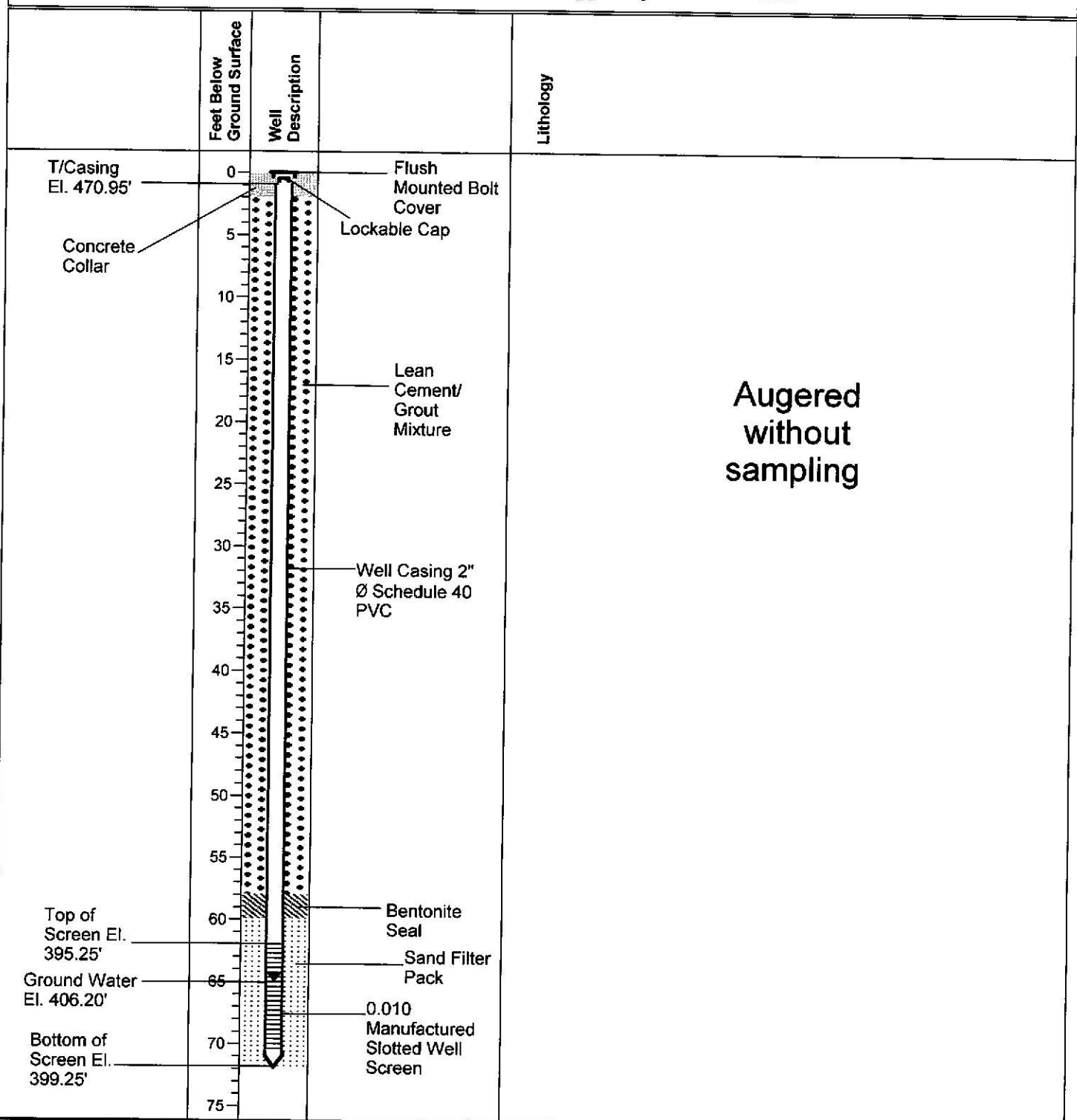
Well Number: MW-10A

Coordinates: E- 2289297.51

N- 905573.51

Ground Surface: 471.25

Logged By: Robert Martin



Drilling Contractor: Walker-Hill Engineering, Inc

Drilling Method: Rotary Auger/Mud Rotary

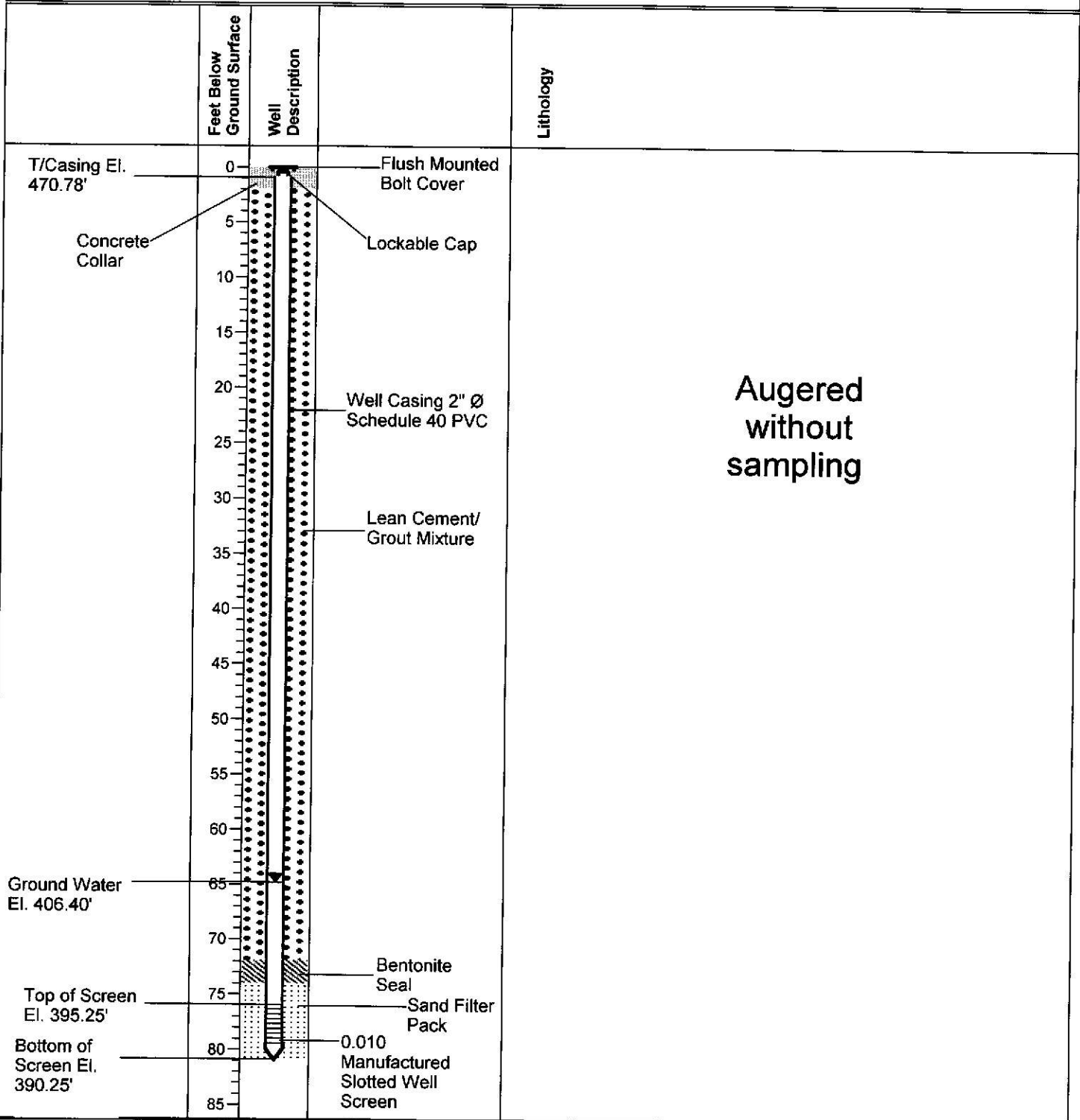
Drilling Equipment: Rotary Auger

Drilling Started: 7/7/2007

Drilling Ended: 7/7/2007

**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

**Well Number: MW-10B**  
**Coordinates: E- 2289309.51      N- 905605.33**  
**Ground Surface: 471.25**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 7/7/2007**  
**Drilling Ended: 7/7/2007**

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

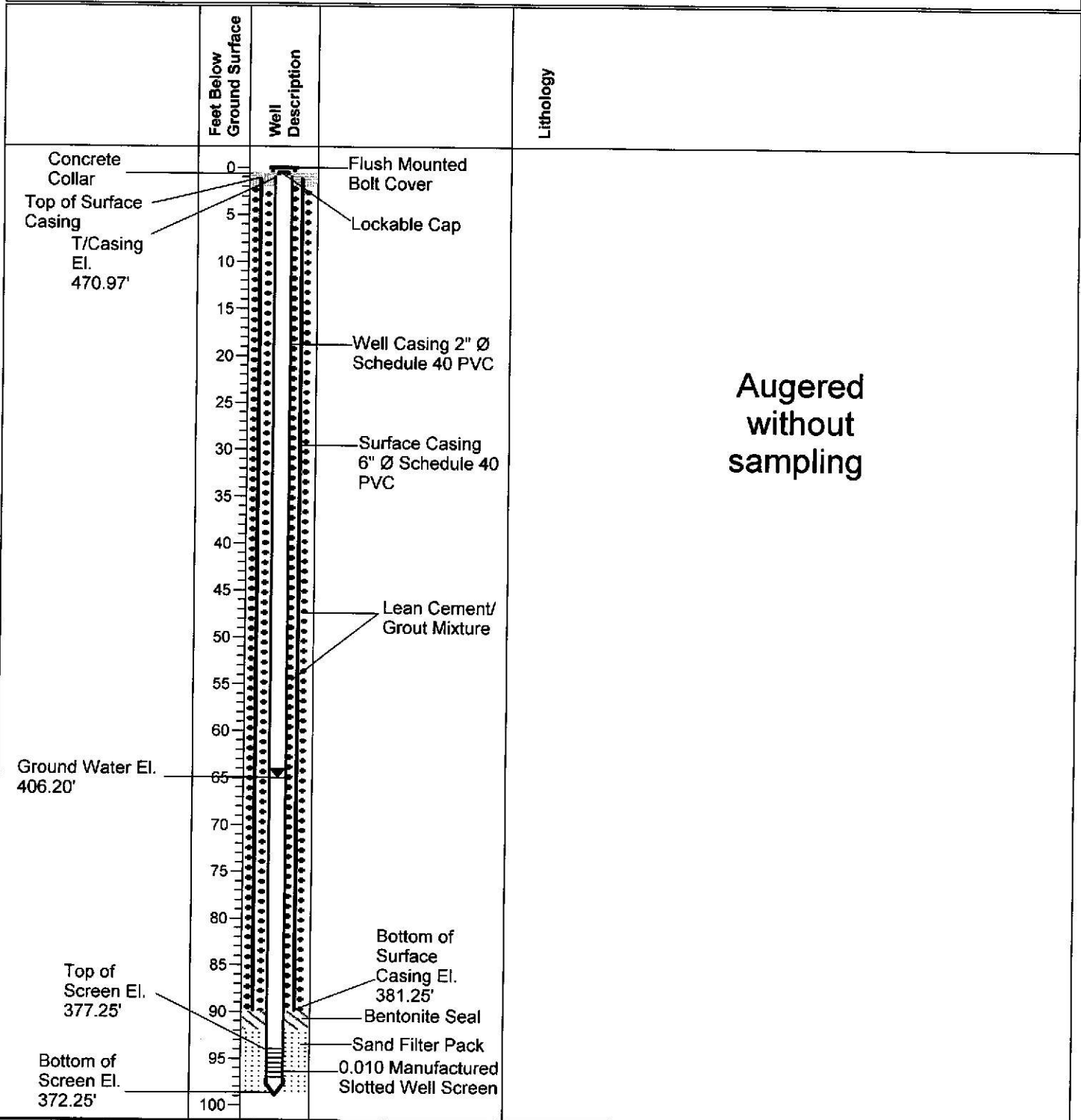
Well Number: MW-10C

Coordinates: E- 2289301.89

N- 905589.90

Ground Surface: 471.25

Logged By: Robert Martin



Drilling Contractor: Walker-Hill Environmental, Inc

Drilling Method: Rotary Auger/Mud Rotary

Drilling Equipment: Rotary Auger

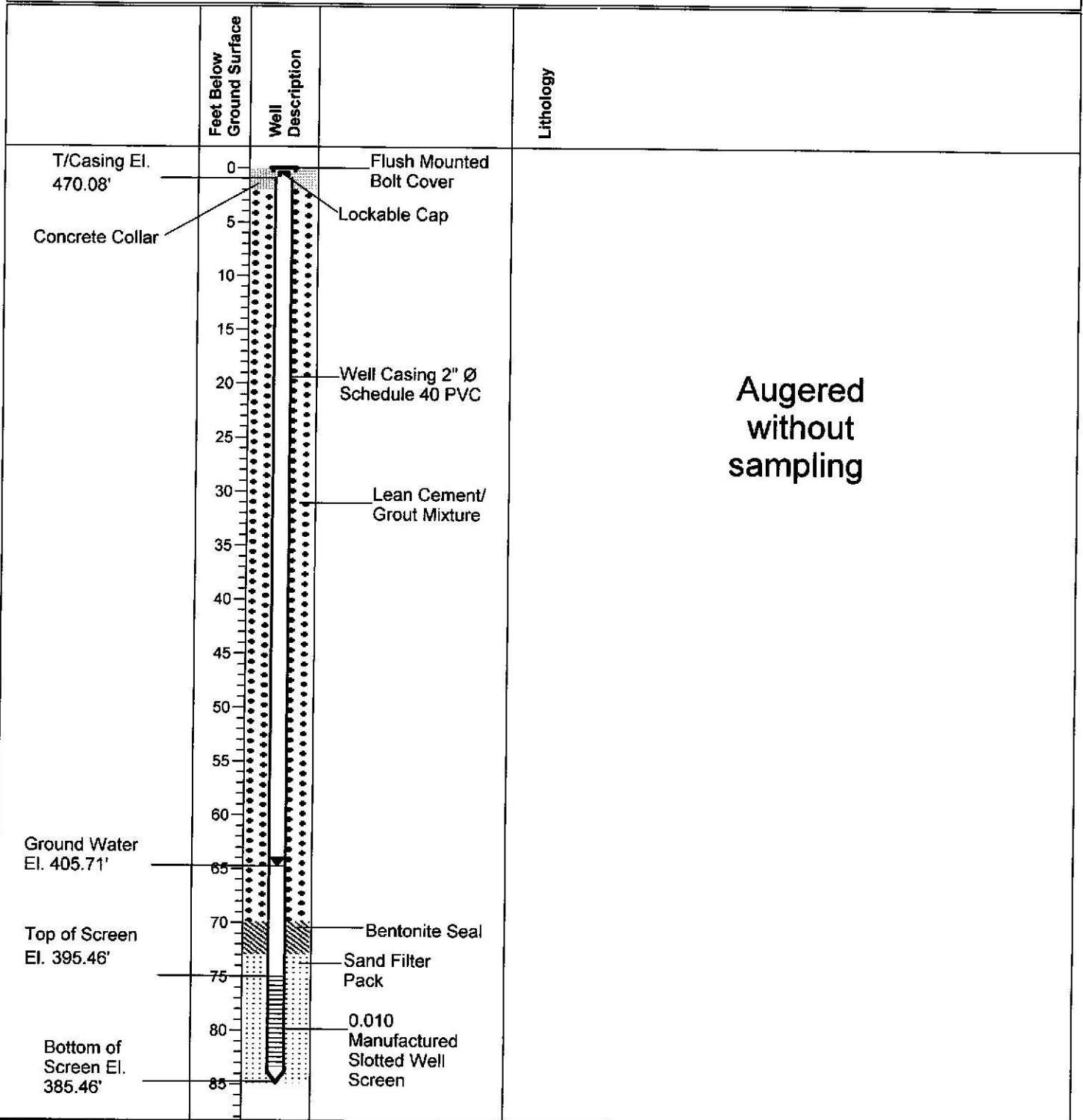
Drilling Started: 7/10/2007

Drilling Ended: 7/17/2007



**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By:**

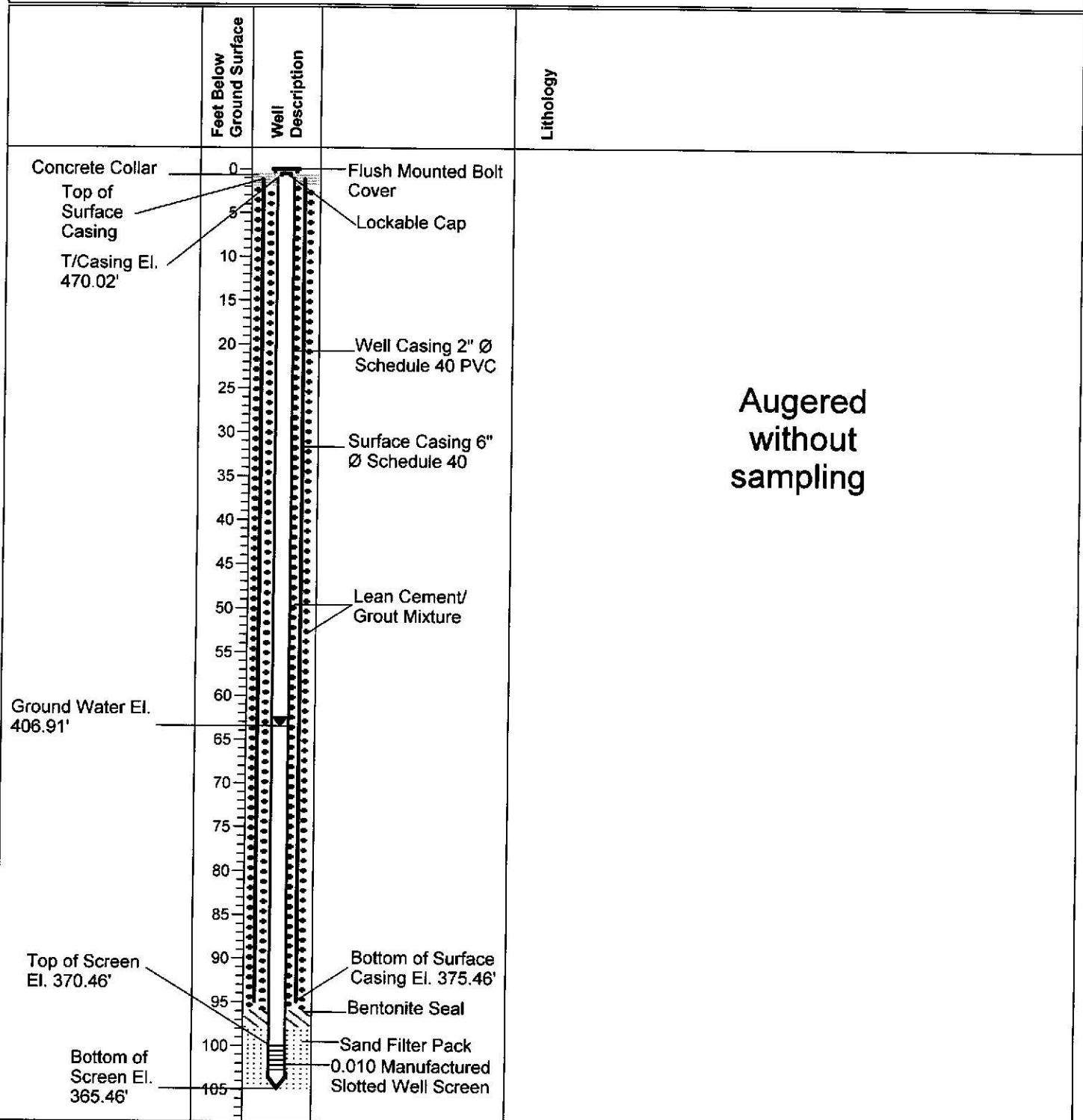
**Well Number: MW-11A**  
**Coordinates: E- 2288964.05      N- 905338.67**  
**Ground Surface: 470.46**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 7/5/2007**  
**Drilling Ended: 7/5/2007**

**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

**Well Number: MW-11B**  
**Coordinates: E- 2288957.27      N- 905341.65**  
**Ground Surface: 470.46**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 7/9/2007**  
**Drilling Ended: 7/18/2007**

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

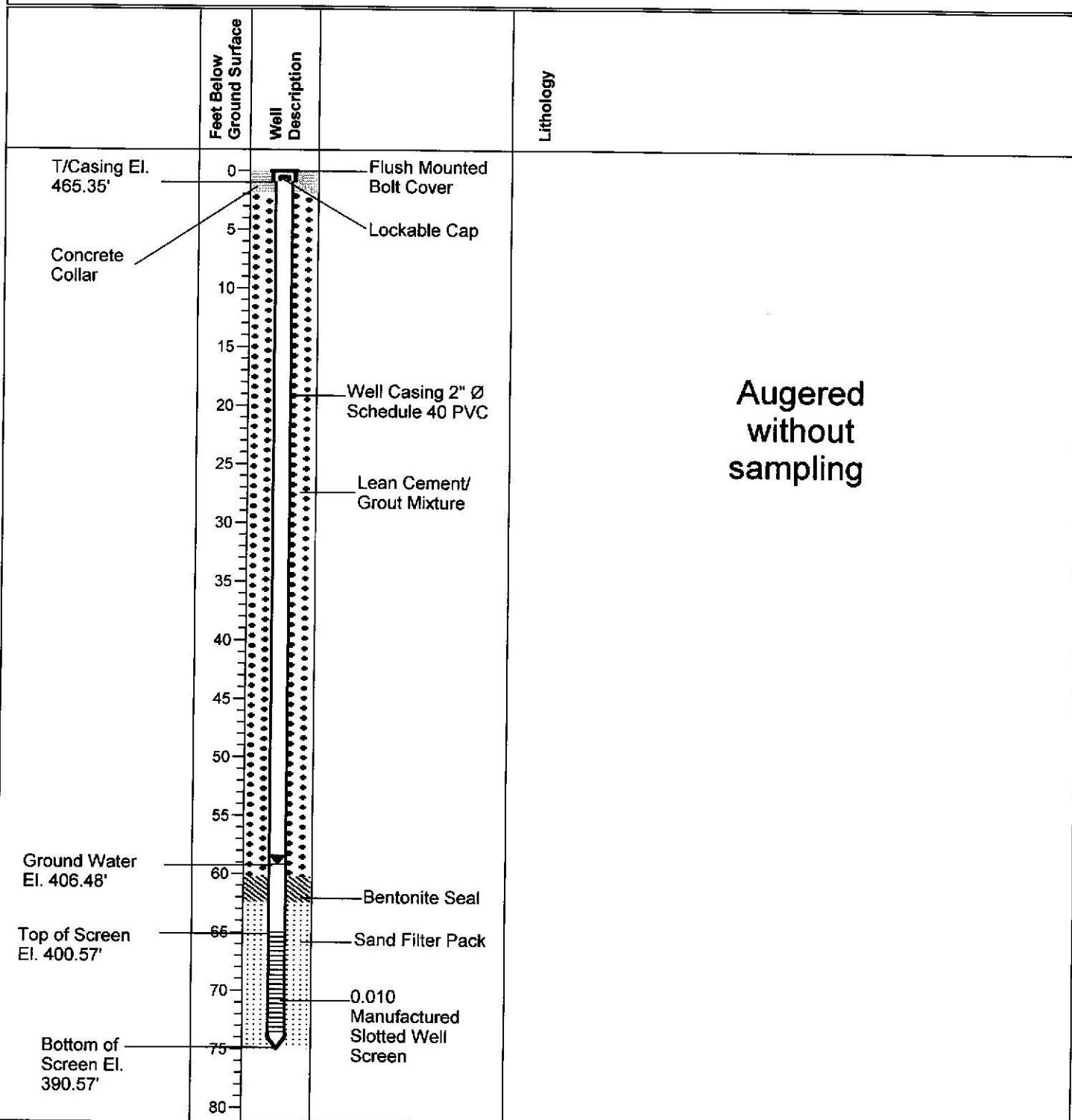
Well Number: MW-12

Coordinates: E- 2289400.57

N- 906172.27

Ground Surface: 465.66

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 6/4/2007

Drilling Ended: 6/4/2007



Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

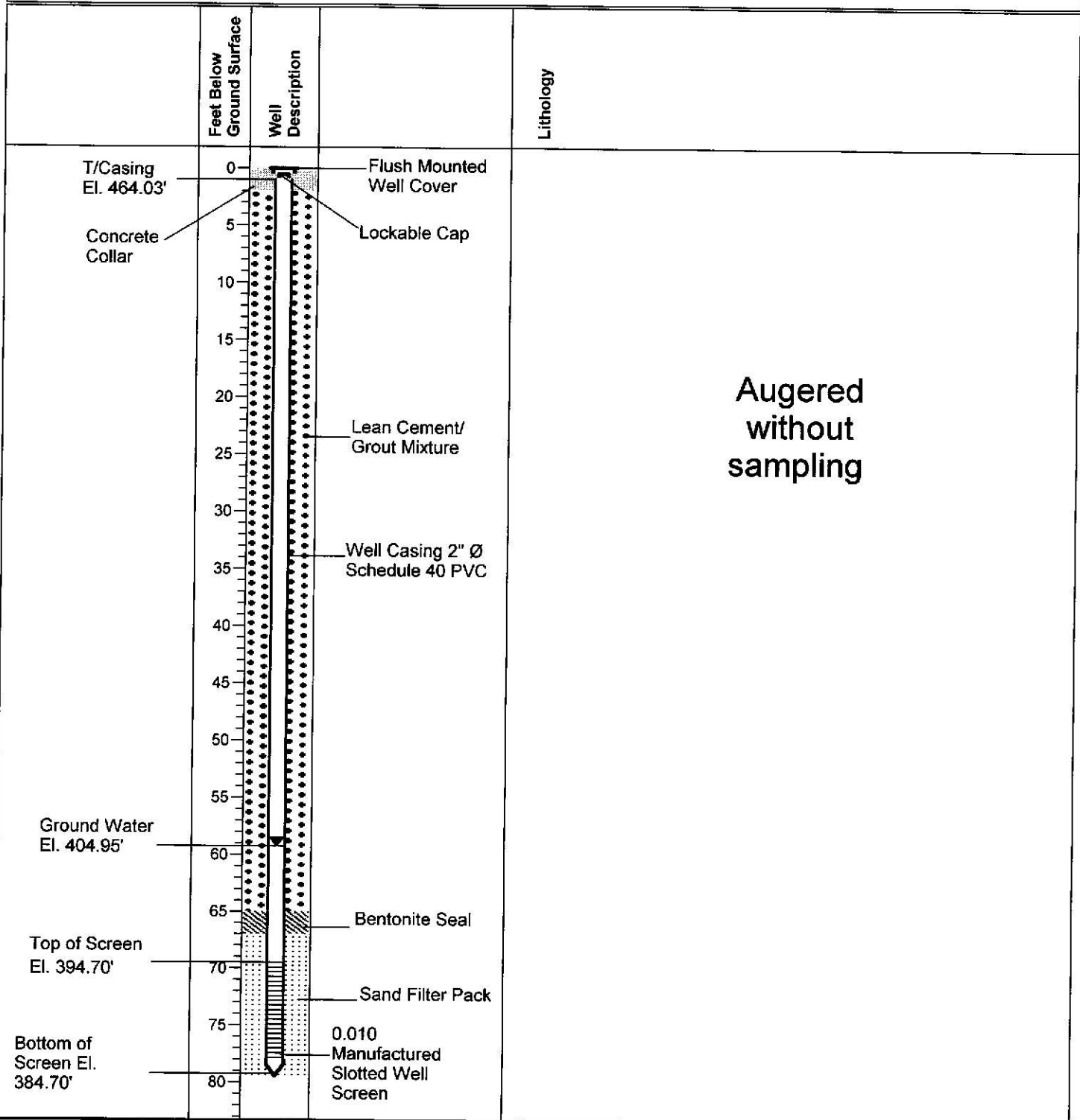
Well Number: MW-14A

Coordinates: E- 228892.25

N- 904792.79

Ground Surface: 464.20

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 6/8/2007

Drilling Ended: 6/8/2007

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

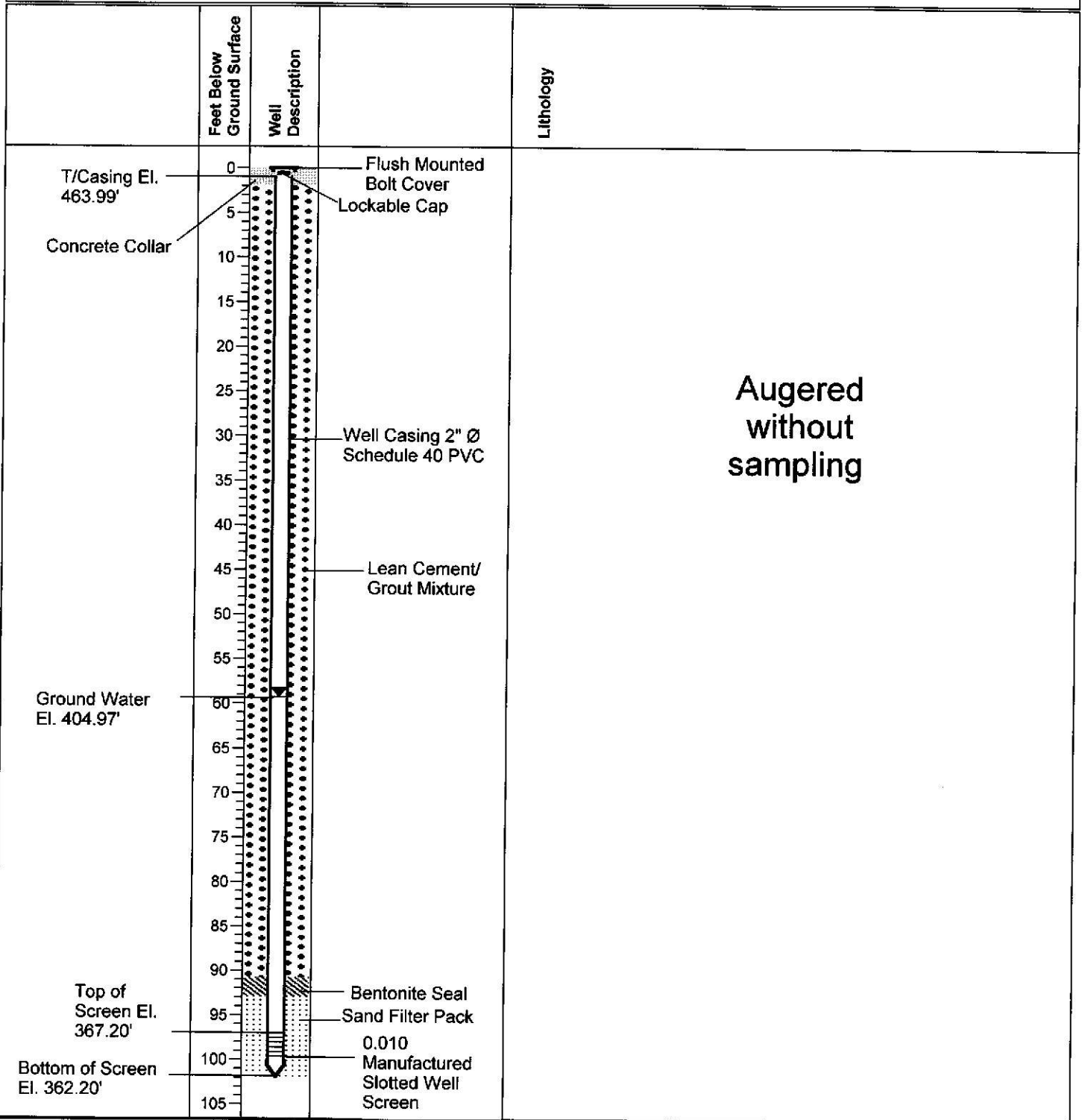
Well Number: MW-14B

Coordinates: E- 2288921.69

N- 904795.11

Ground Surface: 464.20

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

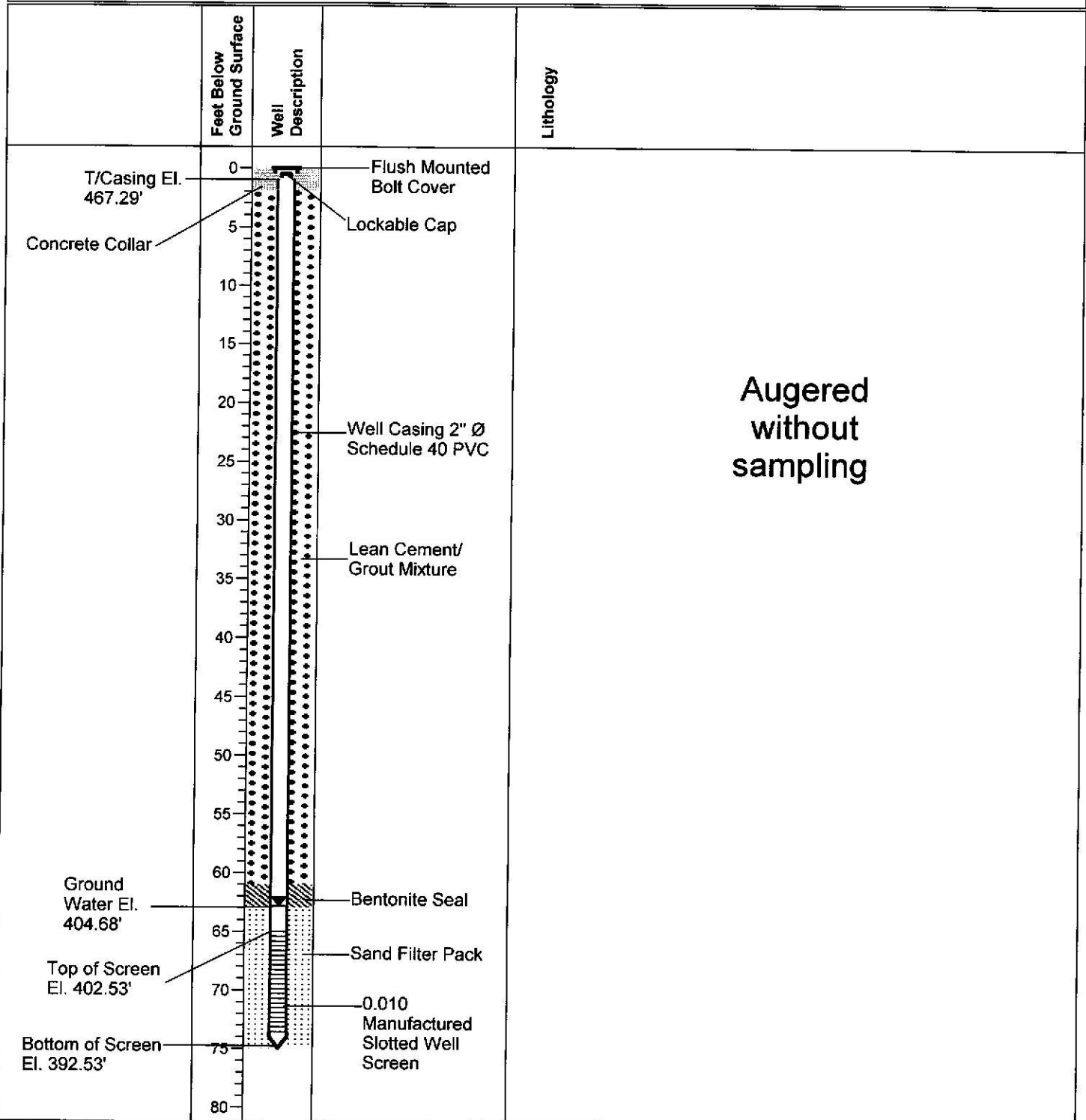
Drilling Equipment: Rotary Auger

Drilling Started: 6/11/2007

Drilling Ended: 6/11/2007

**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

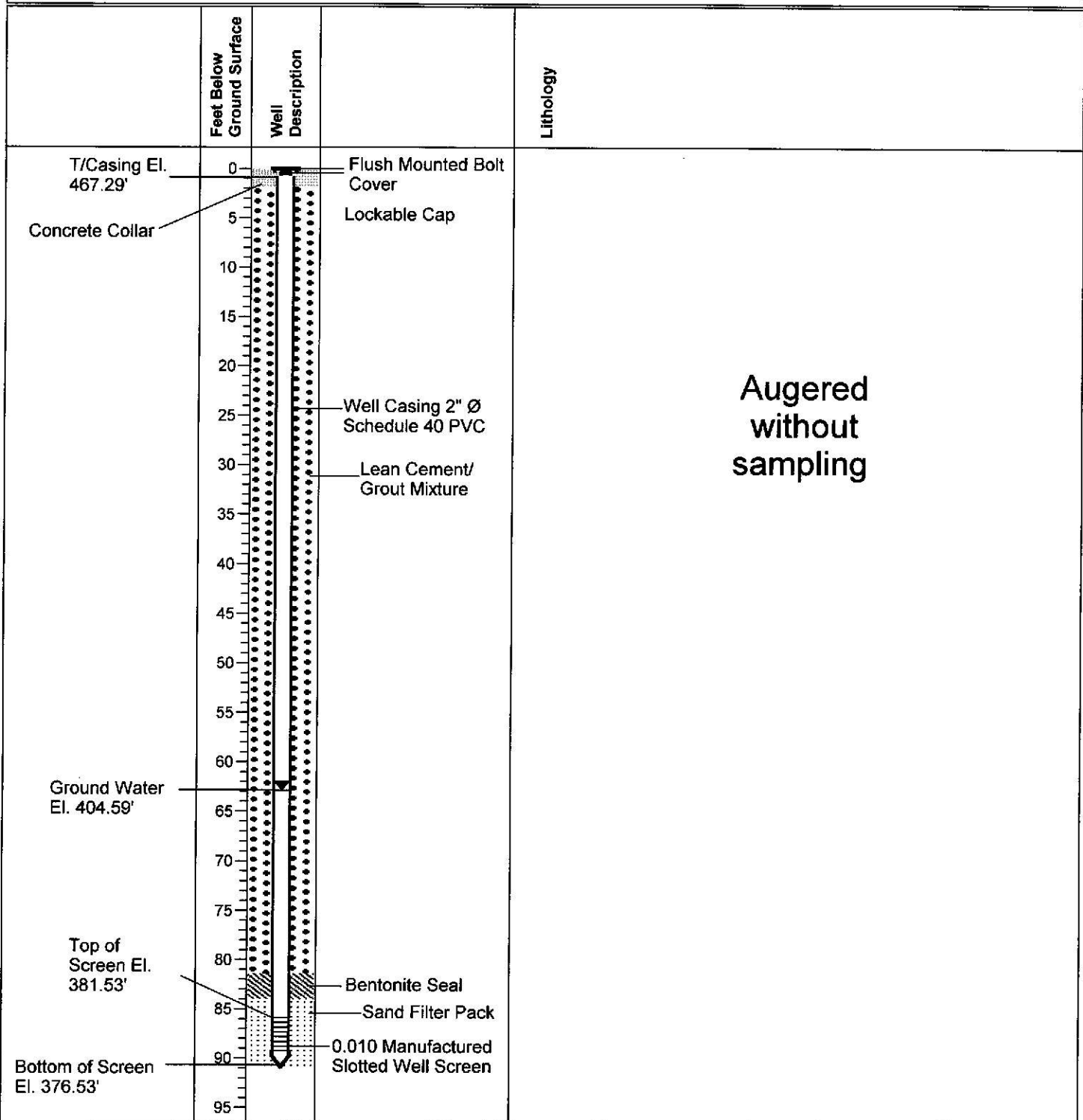
**Well Number: MW-15A**  
**Coordinates: E- 2288523.07      N- 905002.74**  
**Ground Surface: 467.53**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 6/18/2007**  
**Drilling Ended: 6/18/2007**

**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

**Well Number: MW-15B**  
**Coordinates: E- 2288529.38      N- 905000.05**  
**Ground Surface: 467.53**  
**Logged By: Chuck Peel**

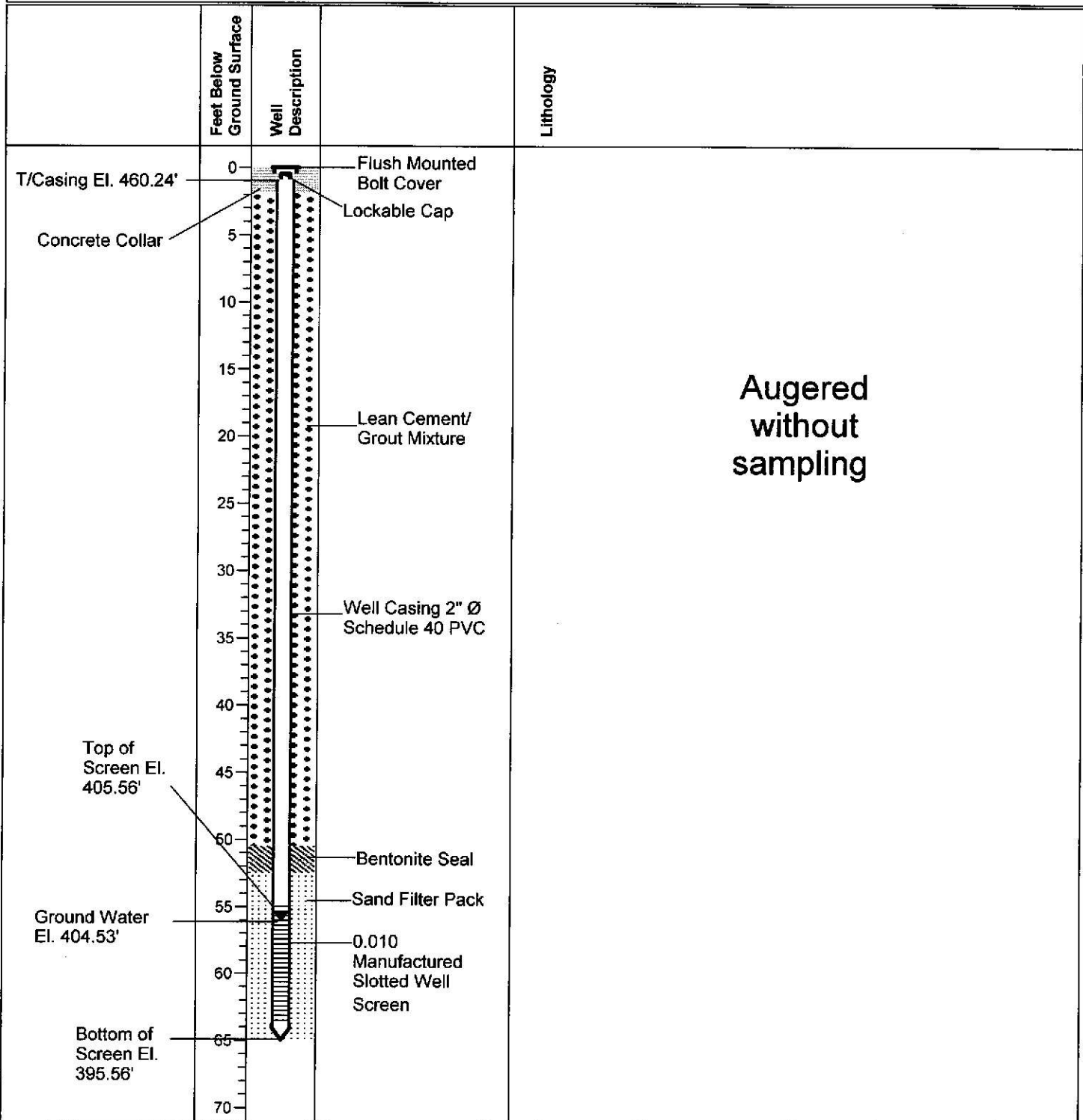


**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 6/20/2007**  
**Drilling Ended: 6/20/2007**



**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

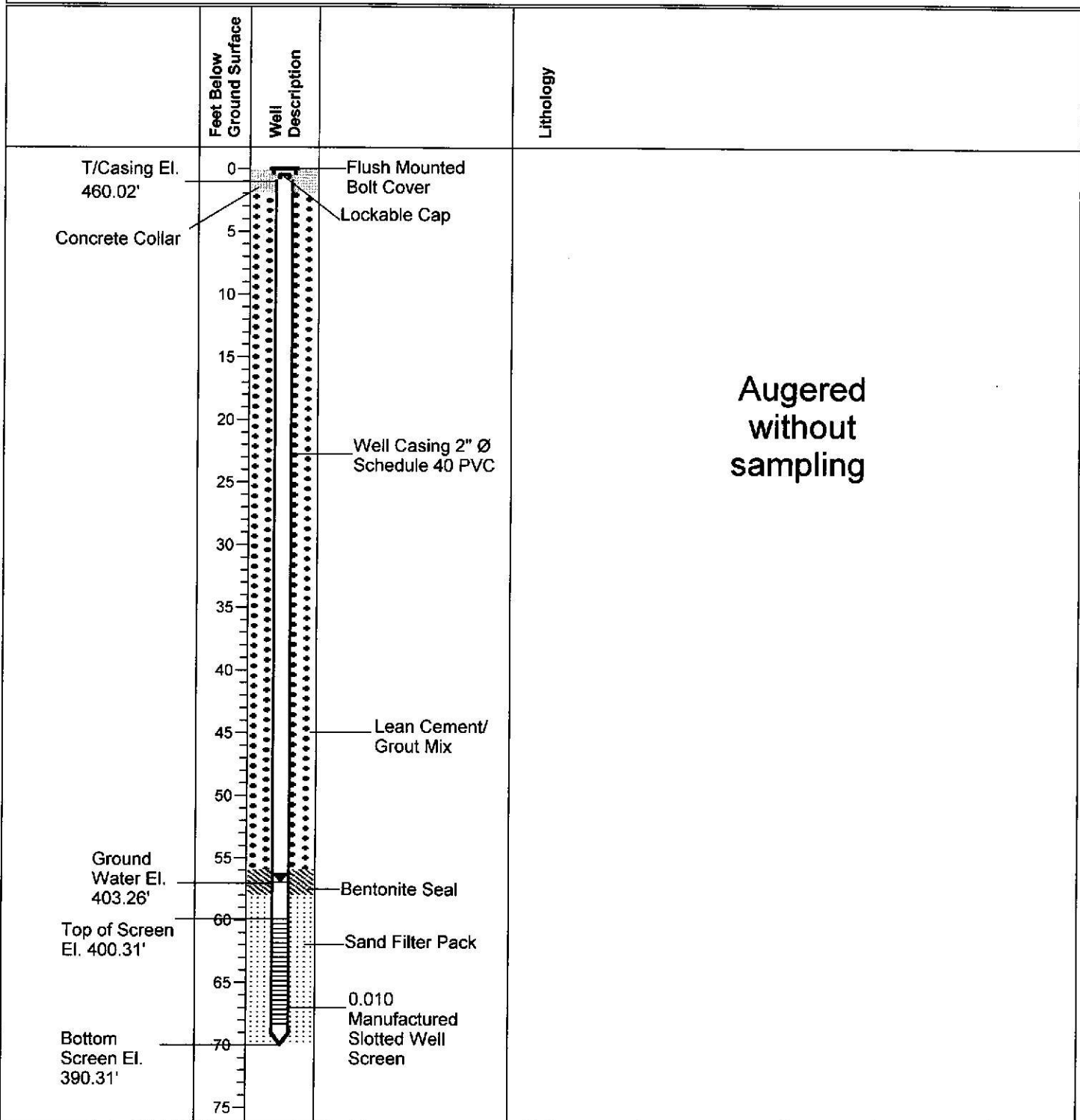
**Well Number: MW-16**  
**Coordinates: E- 2288330.26      N- 905631.43**  
**Ground Surface: 460.56**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 6/5/2007**  
**Drilling Ended: 6/5/2007**

**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

**Well Number: MW-17A**  
**Coordinates: E- 2288006.27      N- 905269.12**  
**Ground Surface: 460.31**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 6/28/2007**  
**Drilling Ended: 6/28/2007**

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

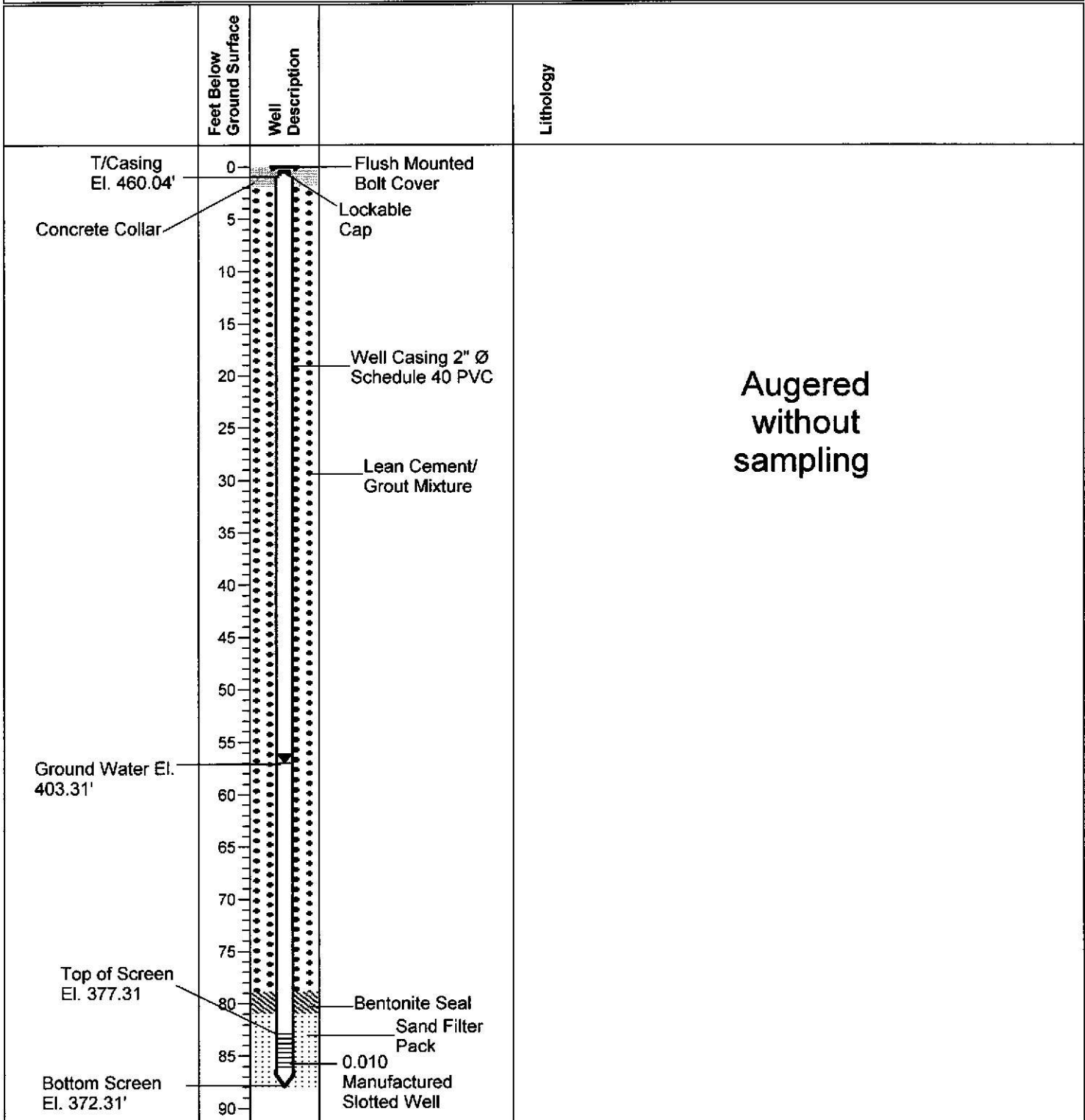
Well Number: MW-17B

Coordinates: E- 2288013.03

N- 905265.88

Ground Surface: 460.31

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

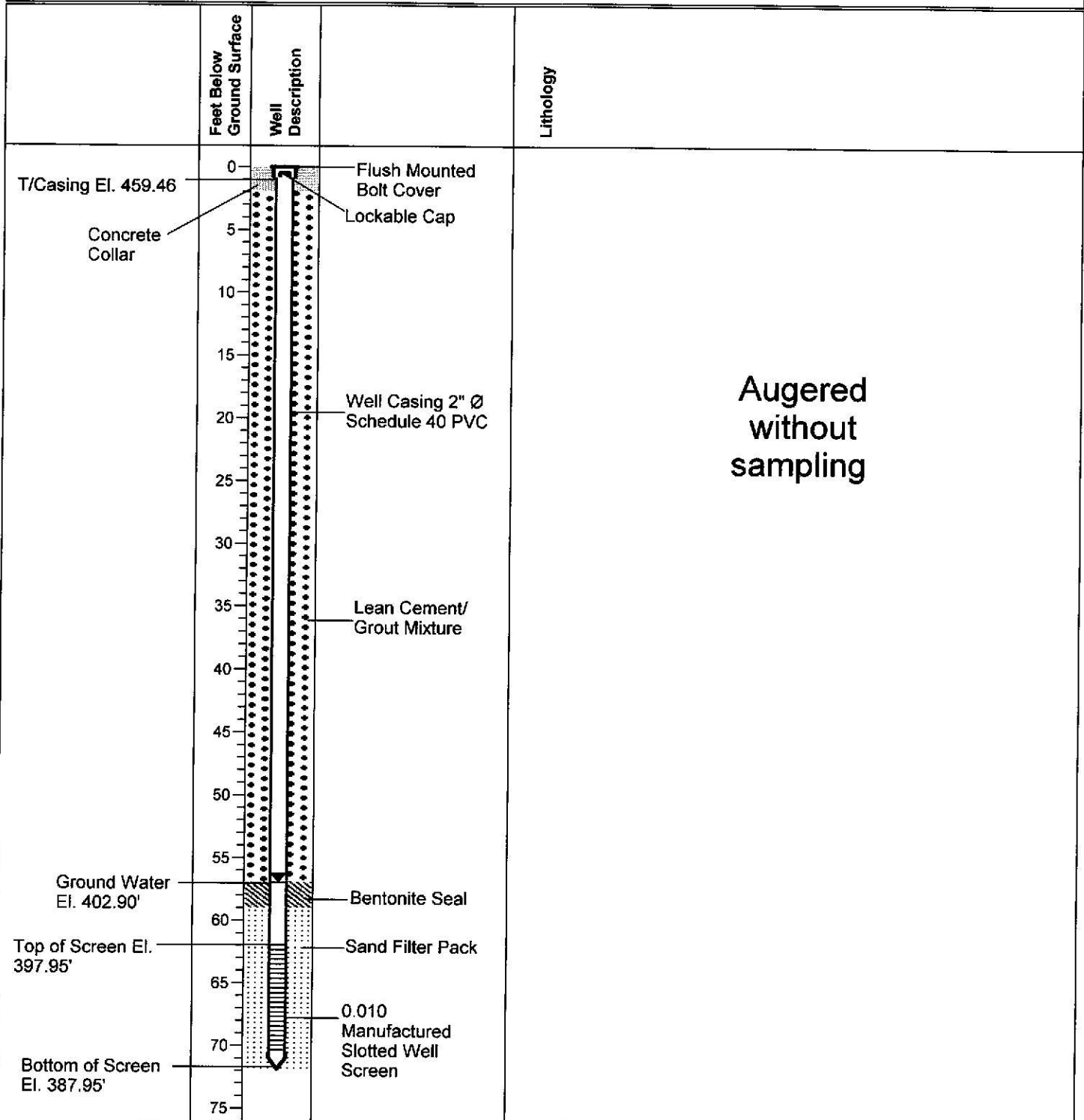
Drilling Equipment: Rotary Auger

Drilling Started: 6/28/2007

Drilling Ended: 6/28/2007

**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

**Well Number: MW-18A**  
**Coordinates: E- 2287234.60      N- 905645.75**  
**Ground Surface: 459.95**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 6/25/2007**  
**Drilling Ended: 6/25/2007**

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

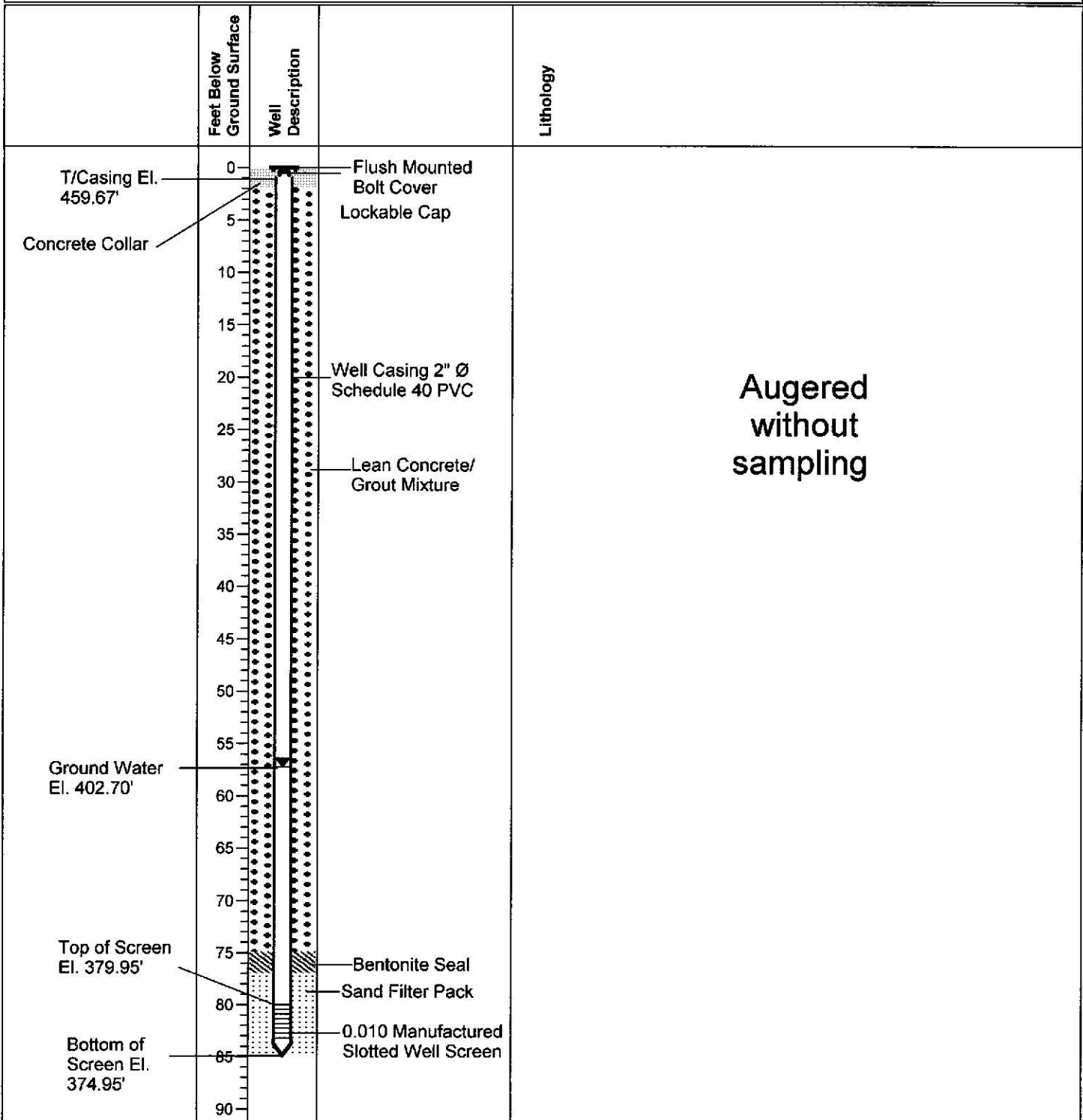
Well Number: MW-18B

Coordinates: E- 2287239.22

N- 905640.98

Ground Surface: 459.95

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 6/26/2007

Drilling Ended: 6/26/2007

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

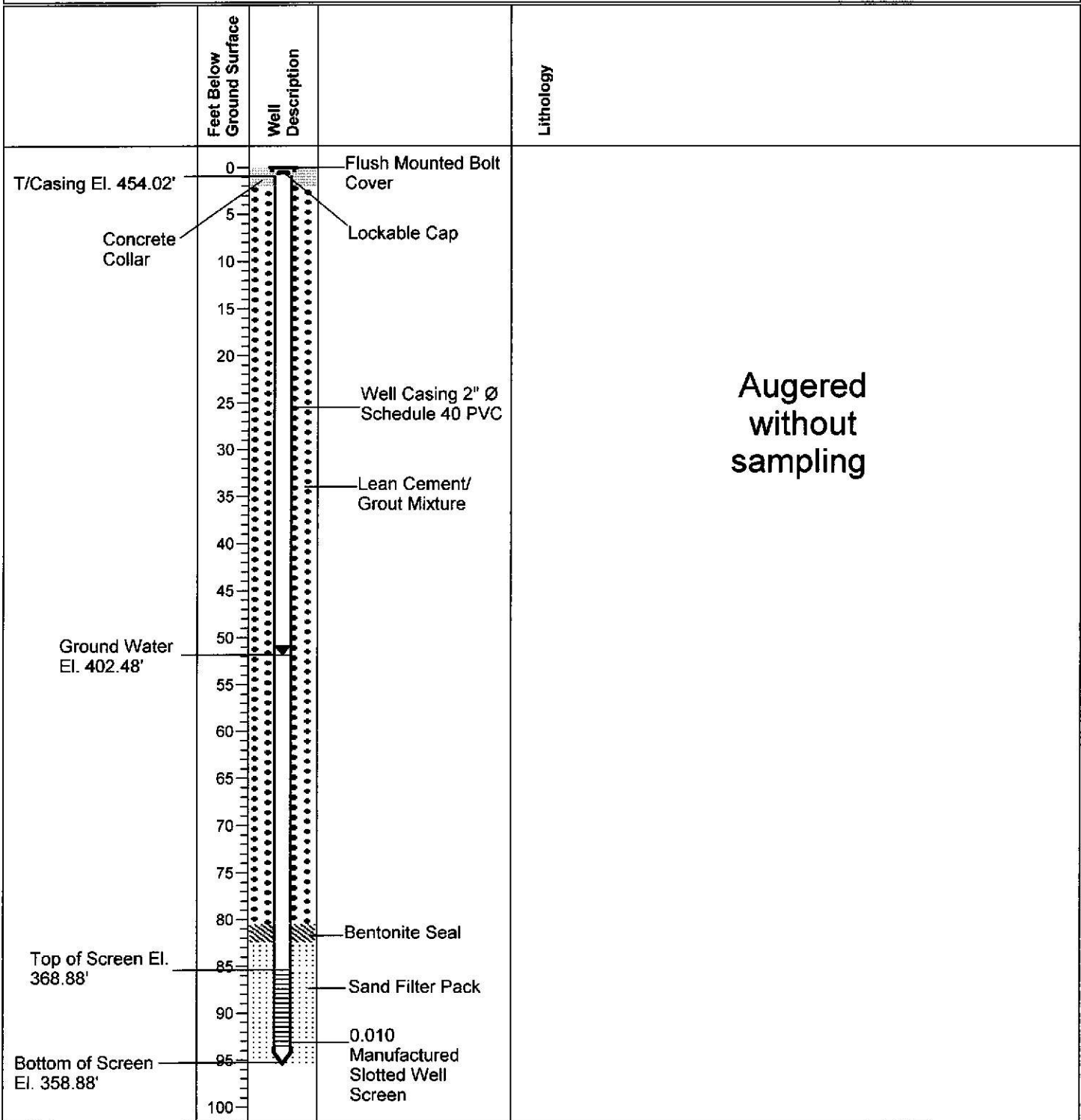
Well Number: MW-19

Coordinates: E- 2286848.43

N- 905960.22

Ground Surface: 454.38

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

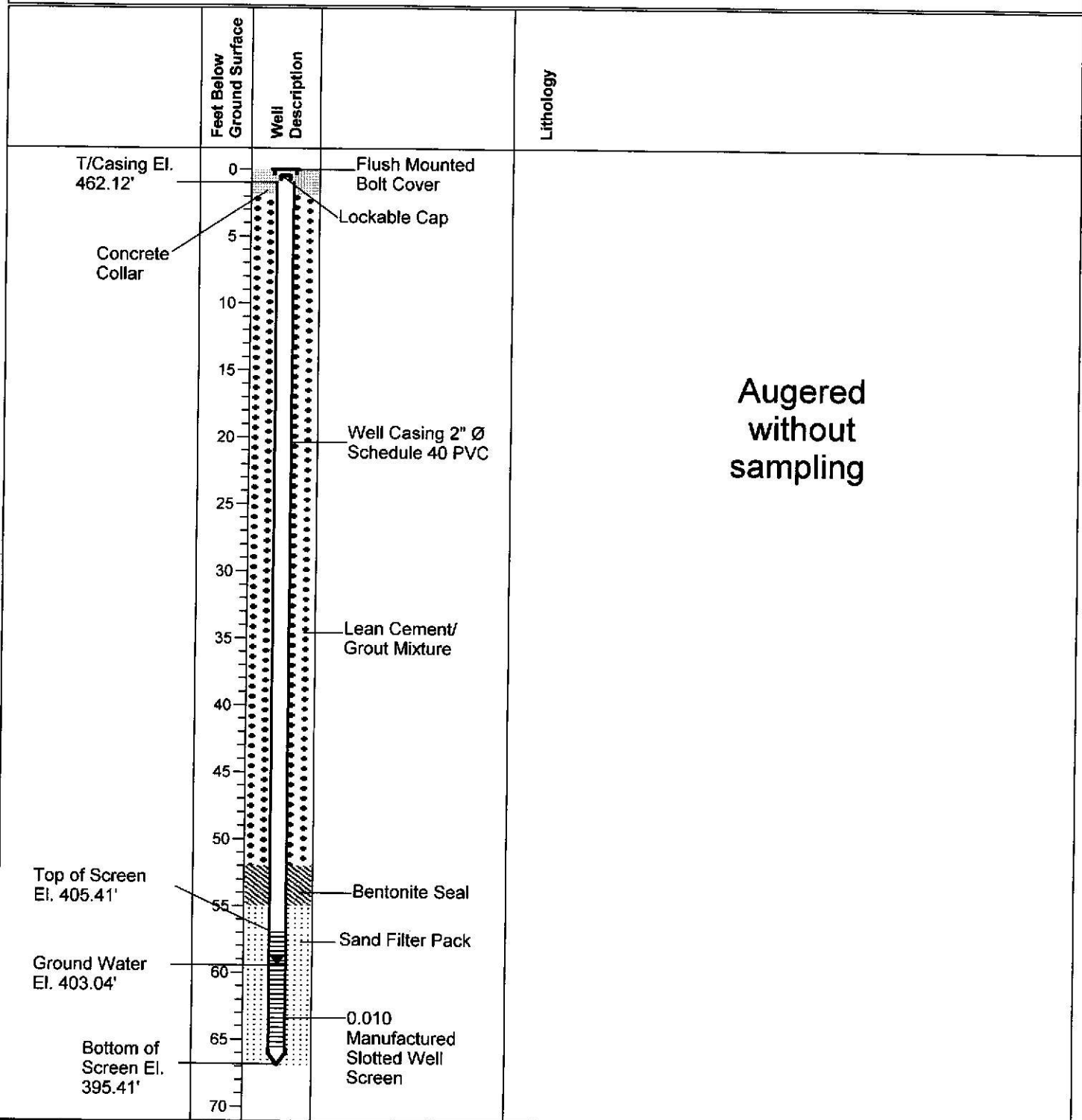
Drilling Equipment: Rotary Auger

Drilling Started: 6/6/2007

Drilling Ended: 6/6/2007

**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

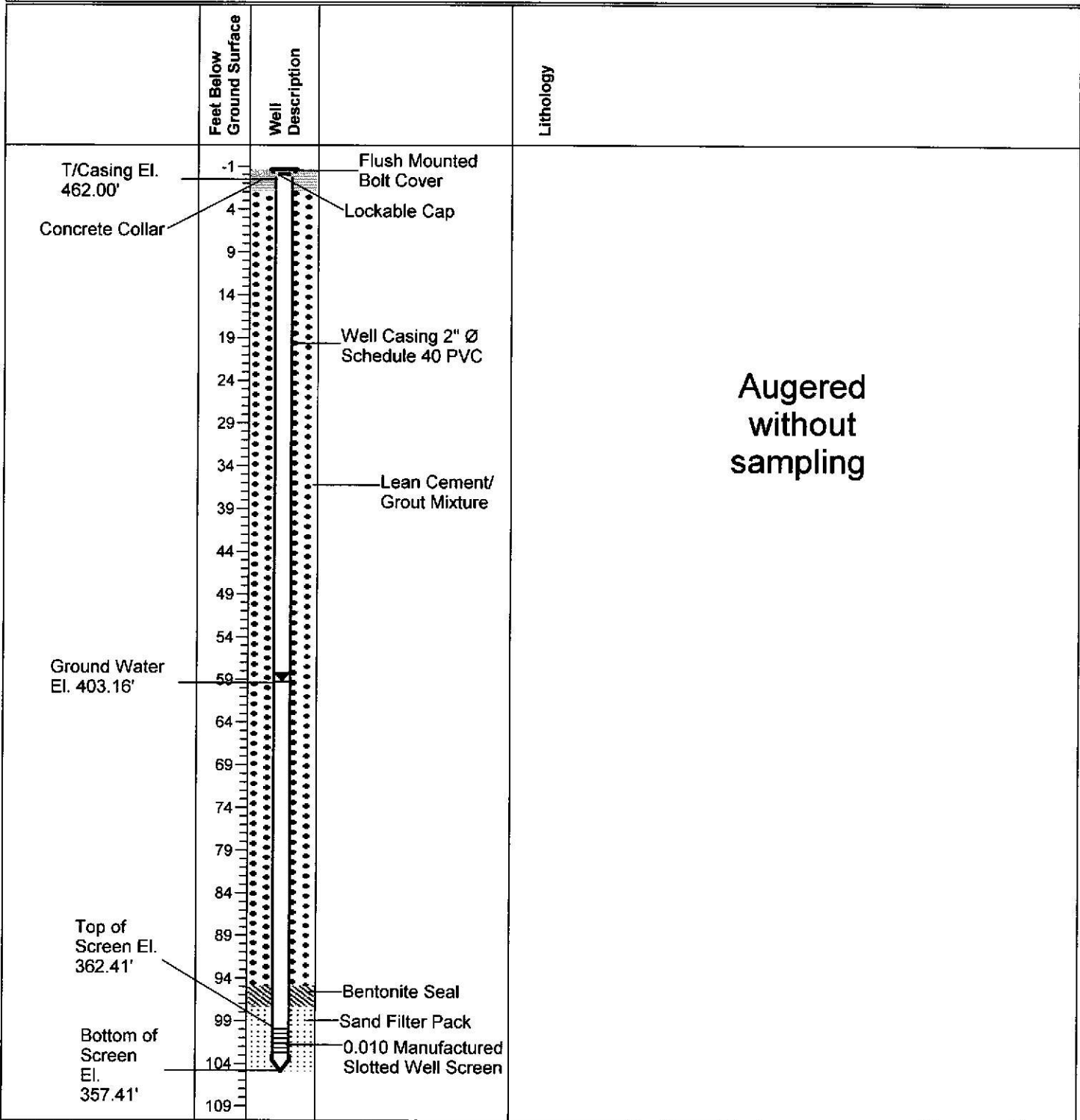
**Well Number: MW-20A**  
**Coordinates: E- 2287478.87      N- 904967.37**  
**Ground Surface: 462.41**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 6/22/2007**  
**Drilling Ended: 6/22/2007**

**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

**Well Number: MW-20B**  
**Coordinates: E- 2287485.33      N- 904964.46**  
**Ground Surface: 462.41**  
**Logged By: Chuck Peel**

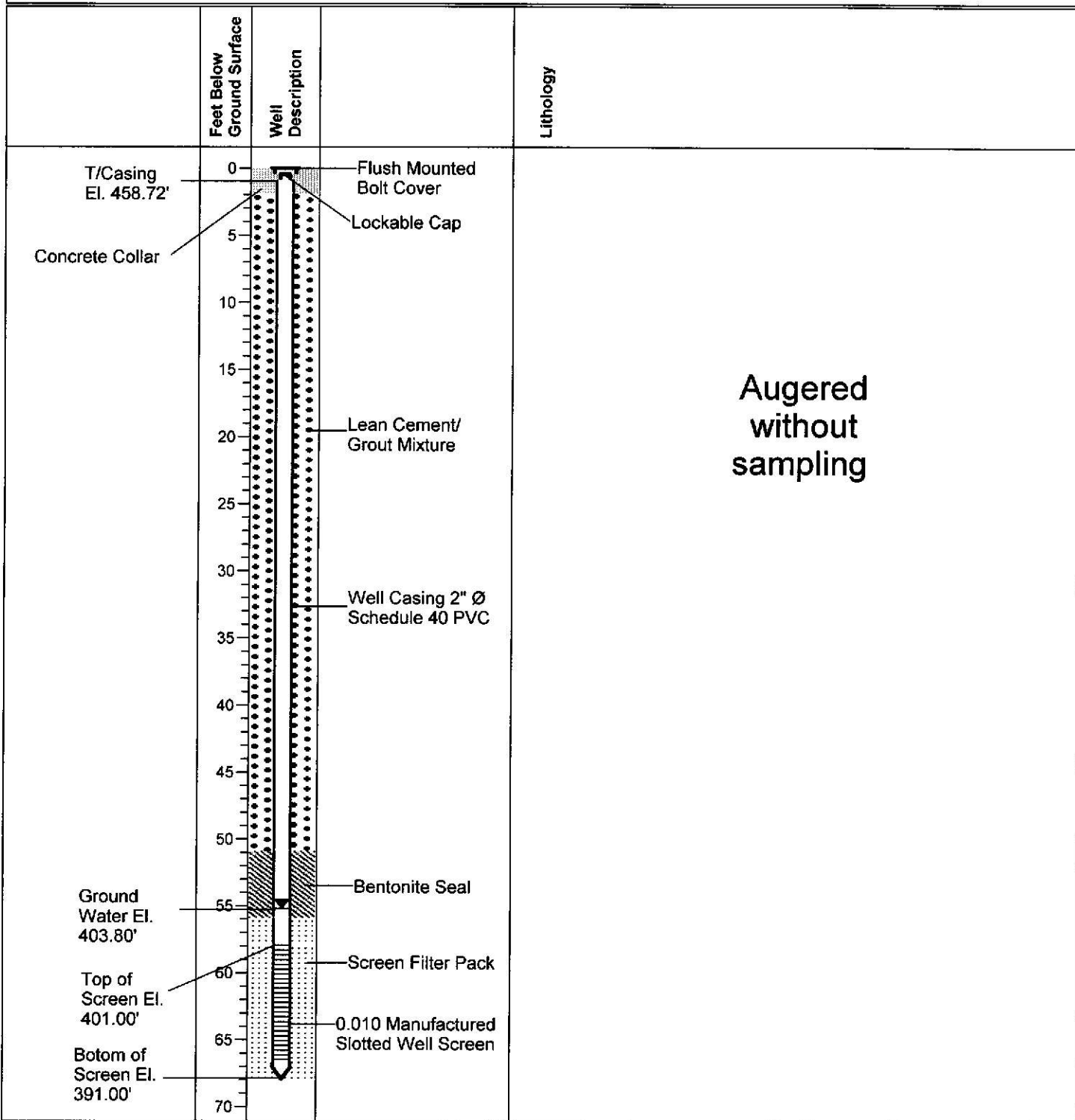


**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 6/21/2007**  
**Drilling Ended: 6/21/2007**



**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

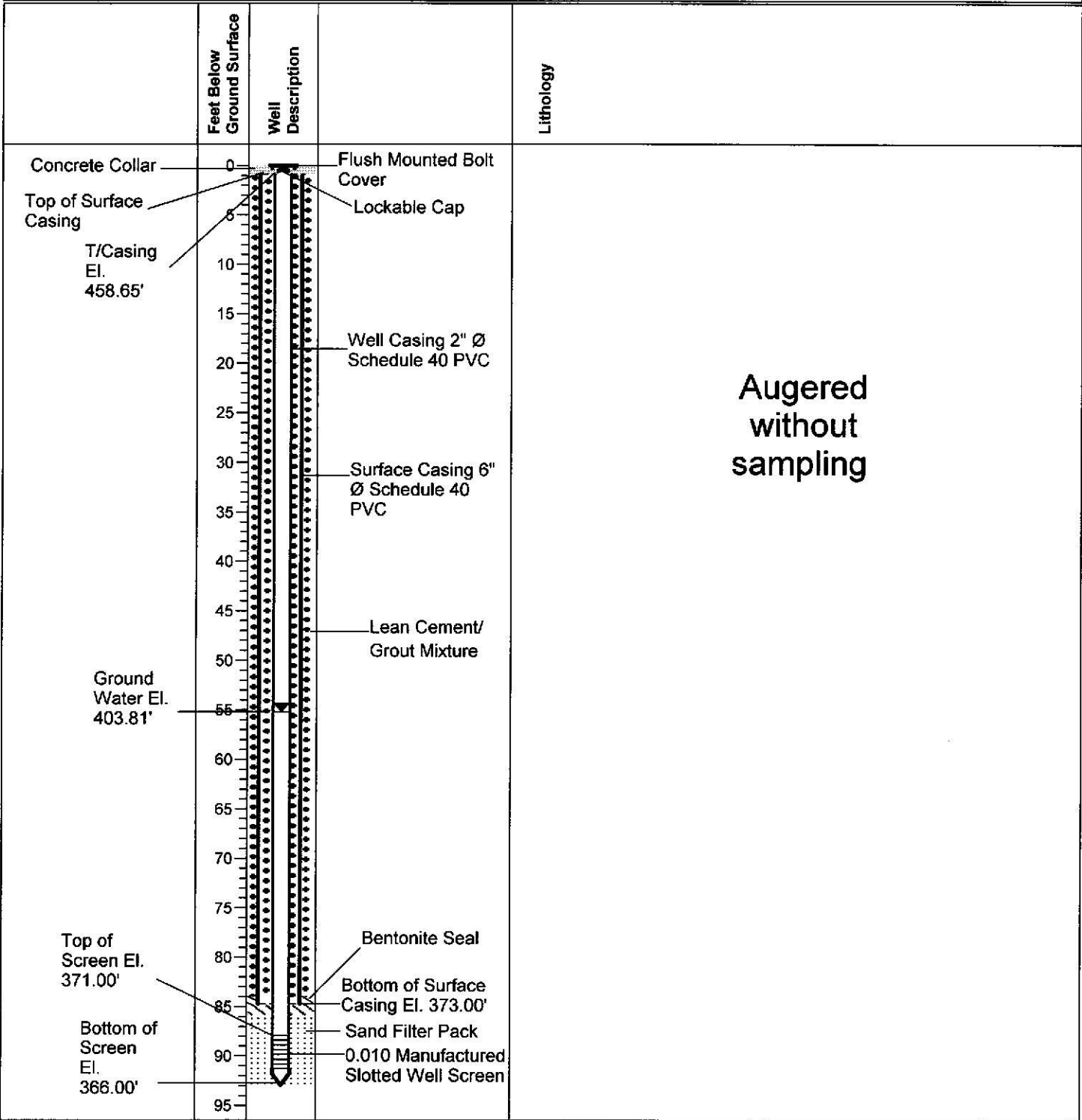
**Well Number: MW-21A**  
**Coordinates: E- 2288135.87      N- 904676.18**  
**Ground Surface: 458.00**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 7/2/2007**  
**Drilling Ended: 7/2/2007**

**Project: Groundwater Assessment**  
**Location: Crystal Springs, MS**  
**Client: BorgWarner, Inc.**  
**Reviewed By: S. Spinner**

**Well Number: MW-21B**  
**Coordinates: E- 2288129.37      N- 904679.22**  
**Ground Surface: 459.00**  
**Logged By: Chuck Peel**



**Drilling Contractor: Walker-Hill Environmental, Inc.**  
**Drilling Method: Rotary Auger & Mud Auger**  
**Drilling Equipment: Rotary Auger**  
**Drilling Started: 7/3/2007**  
**Drilling Ended: 7/16/2007**

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

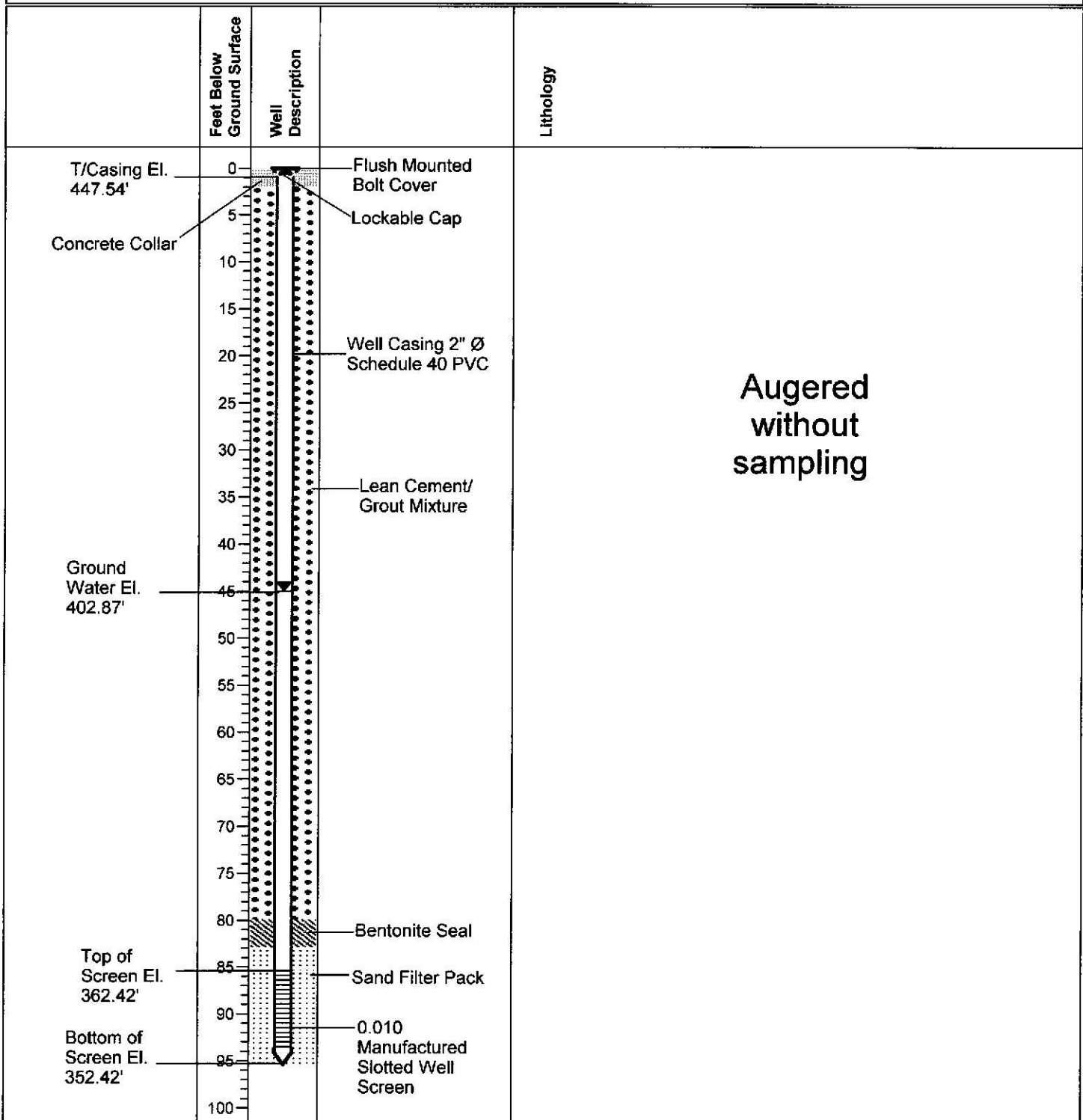
Well Number: MW-22

Coordinates: E- 2286757.99

N- 904576.75

Ground Surface: 447.92

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 6/12/2007

Drilling Ended: 6/12/2007

**Project: Groundwater Assessment**

**Location: Crystal Springs, MS**

**Client: BorgWarner, Inc.**

**Reviewed By: S. Spinner**

**Well Number: MW-22**

**Coordinates: E- 2286757.99**

**N- 904576.75**

**Ground Surface: 447.92**

**Logged By: Chuck Peel**

	Feet Below Ground Surface	Well Description		Lithology
	105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200			

**Drilling Contractor: Walker-Hill Environmental, Inc.**

**Drilling Method: Rotary Auger & Mud Auger**

**Drilling Equipment: Rotary Auger**

**Drilling Started: 6/12/2007**

**Drilling Ended: 6/12/2007**

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

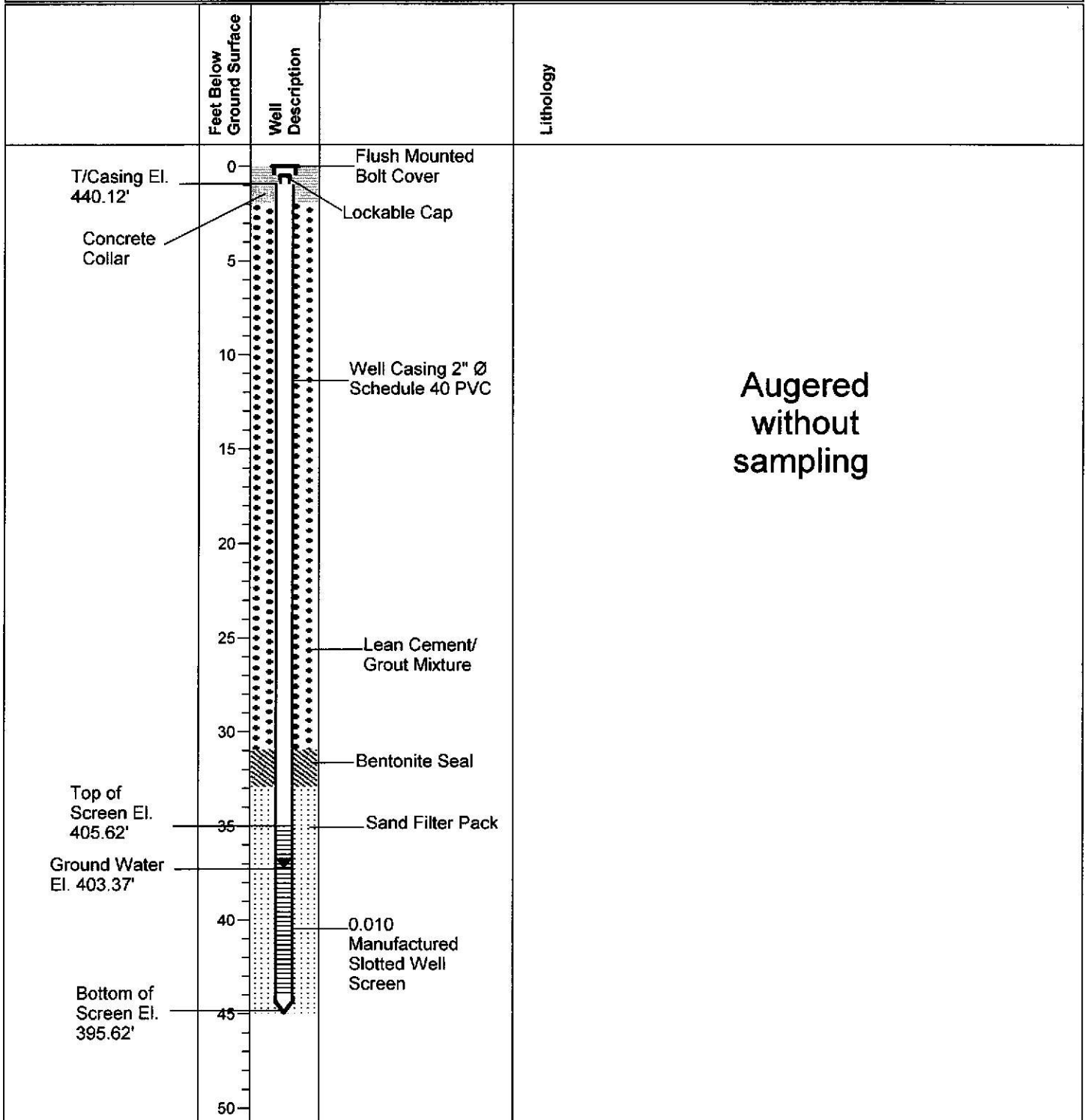
Well Number: MW-23A

Coordinates: E- 2287676.78

N- 904102.86

Ground Surface: 440.62

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 6/15/2007

Drilling Ended: 6/15/2007

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

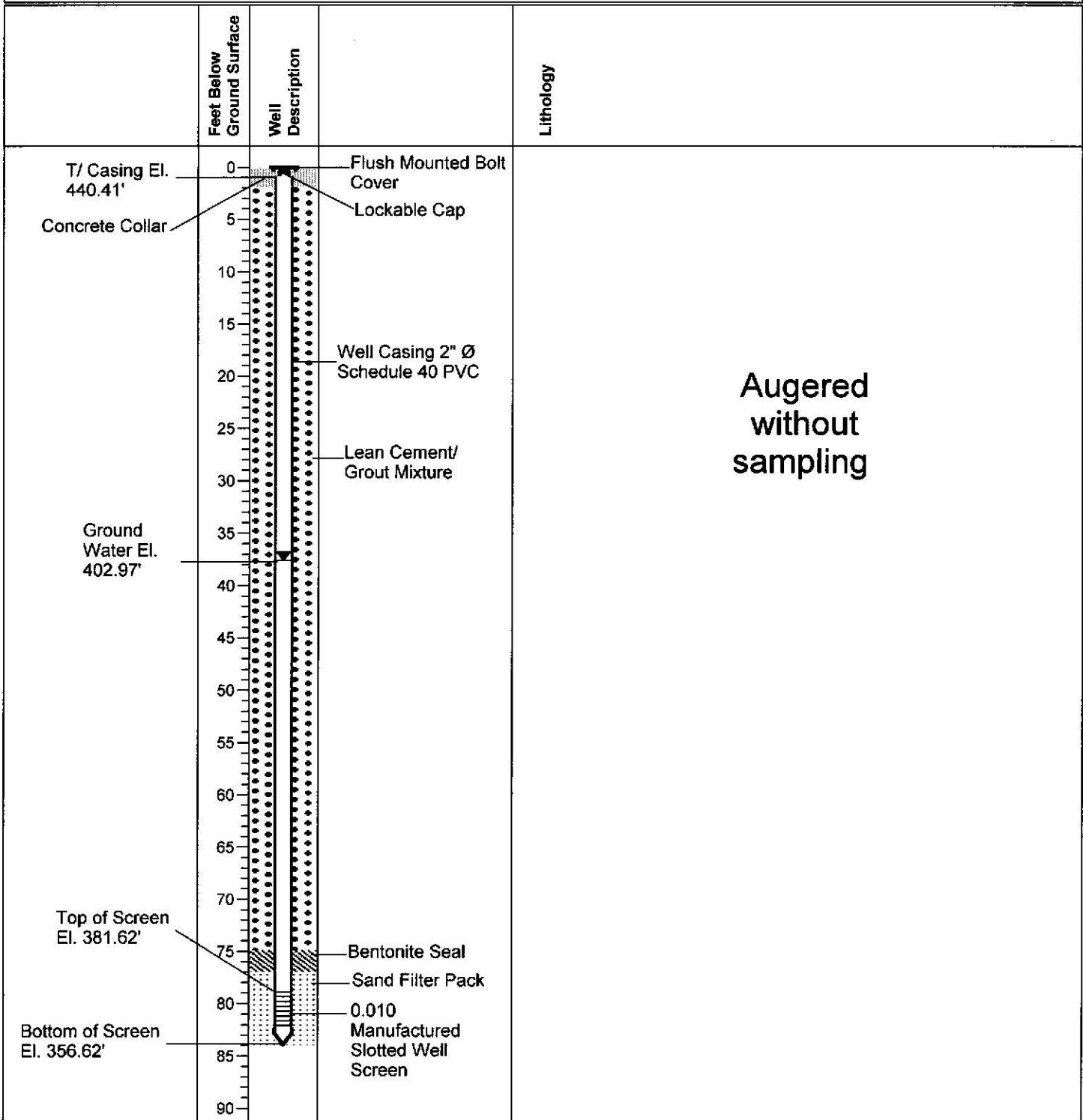
Well Number: MW-23B

Coordinates: E- 2287670.26

N- 904103.17

Ground Surface: 440.62

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 6/14/2007

Drilling Ended: 6/14/2007

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

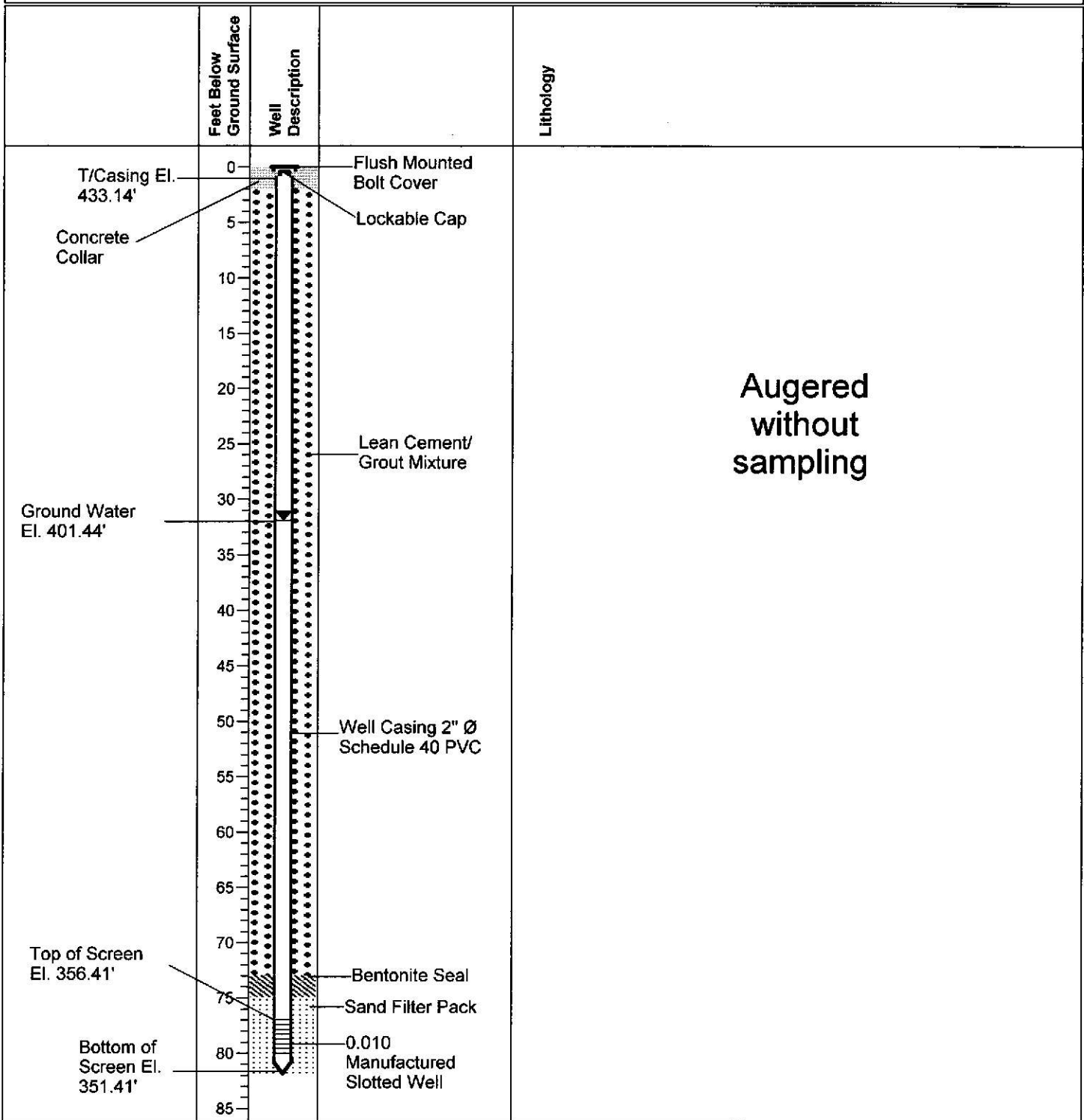
Well Number: MW-24

Coordinates: E- 2286816.73

N- 903581.39

Ground Surface: 433.41

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 7/5/2007

Drilling Ended: 7/5/2007

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

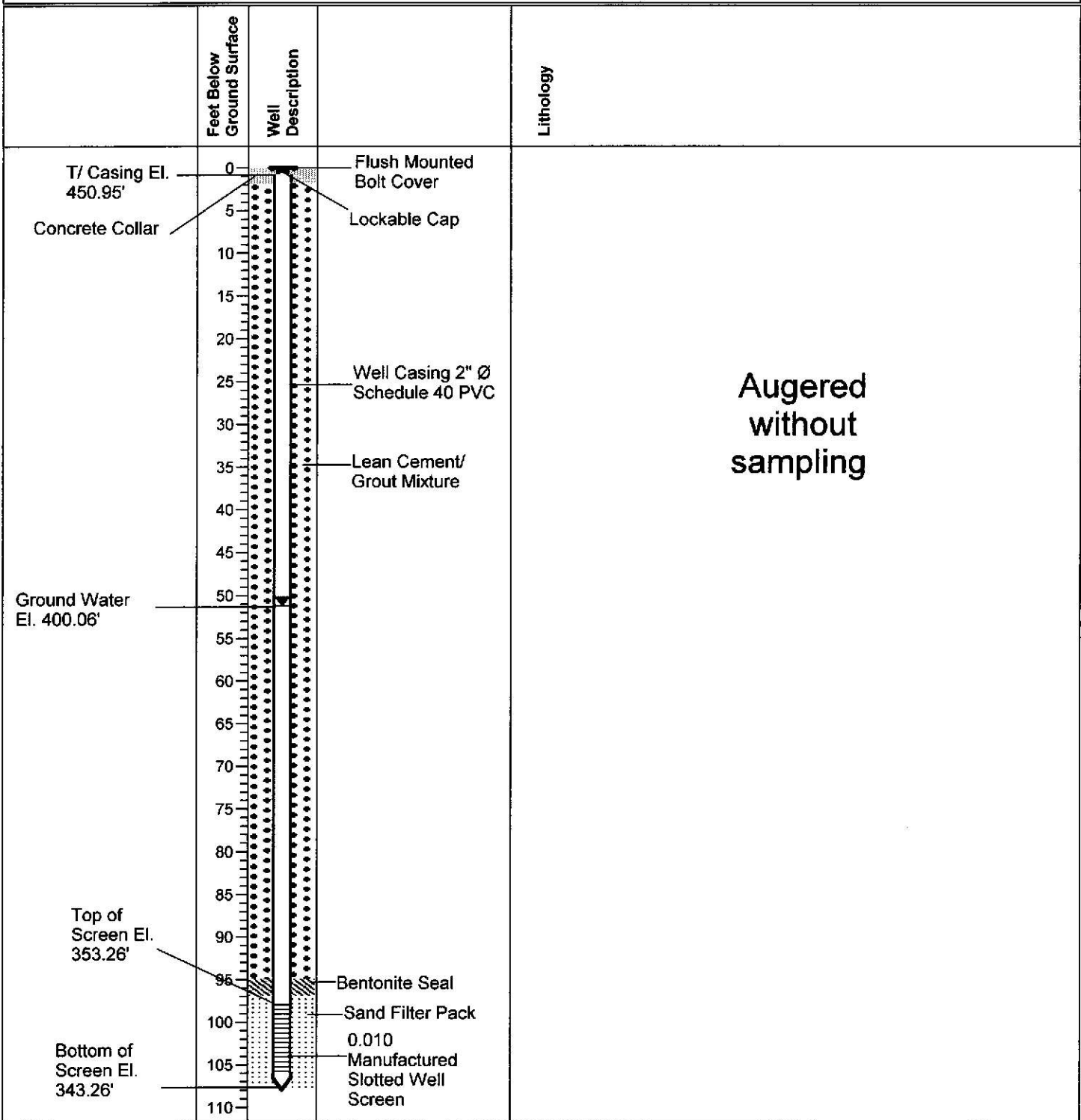
Well Number: MW-25

Coordinates: E- 2287832.40

N- 902801.60

Ground Surface: 451.26

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 7/13/2007

Drilling Ended: 7/13/2007



Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

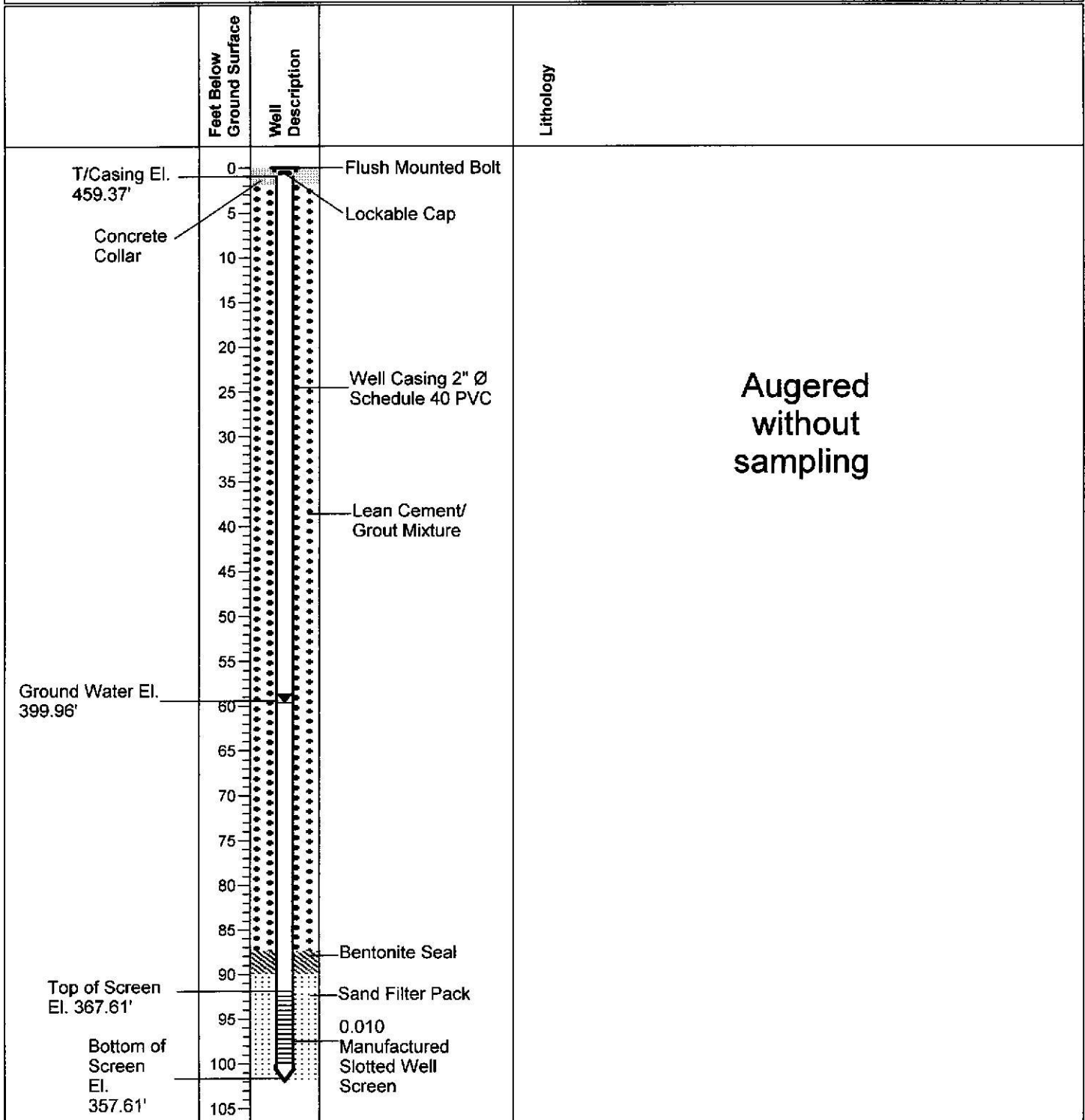
Well Number: MW-26

Coordinates: E- 2288229.07

N- 903092.89

Ground Surface: 459.61

Logged By: Chuck Peel



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger & Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 6/13/2007

Drilling Ended: 6/13/2007

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

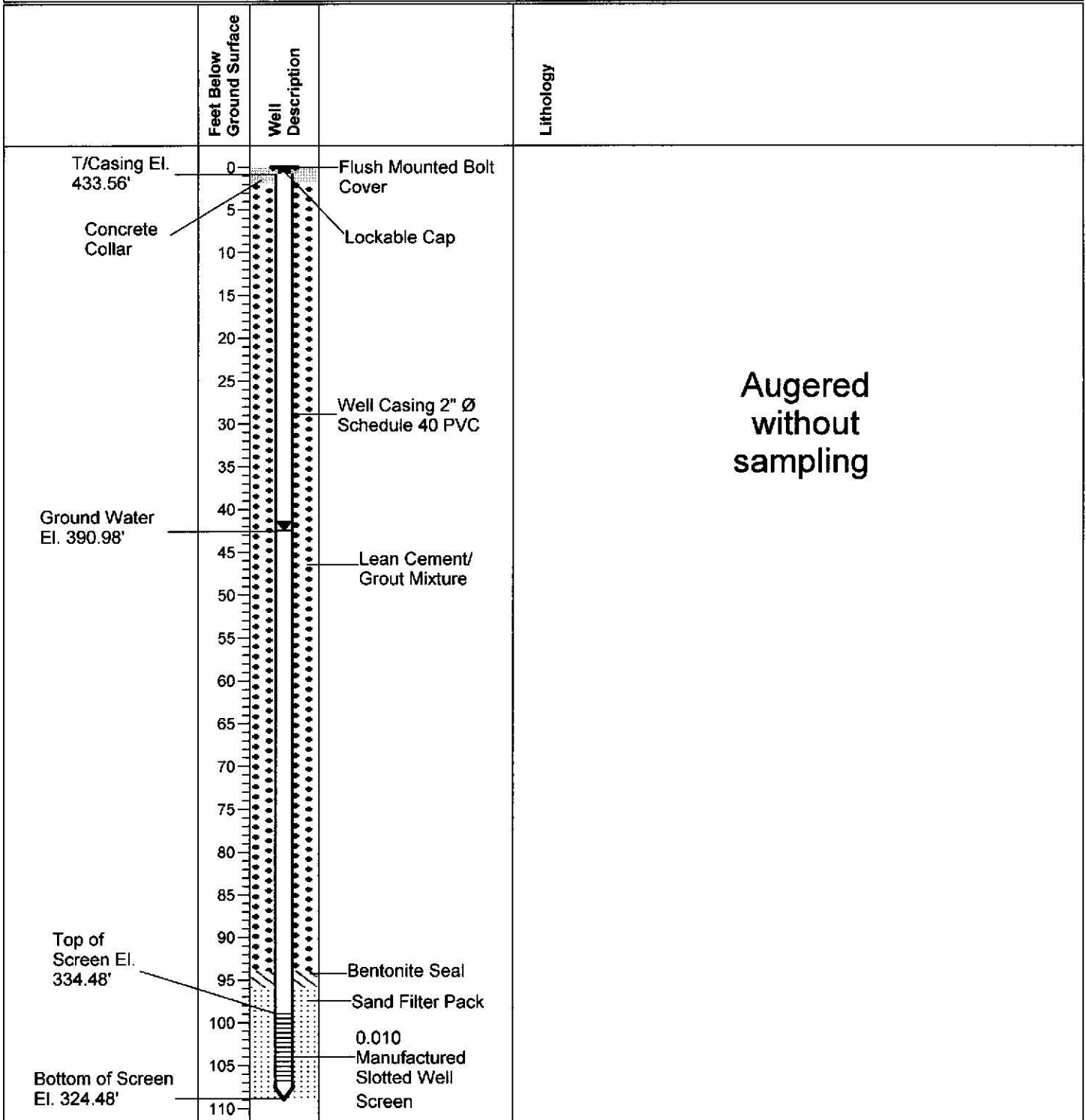
Well Number: MW-27

Coordinates: E- 2287498.52

N- 902206.54

Ground Surface: 433.48

Logged By: Robert Martin



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger/Mud Rotary

Drilling Equipment: Rotary Auger

Drilling Started: 7/17/2007

Drilling Ended: 7/17/2007

Project: Groundwater Assessment

Location: Crystal Springs, MS

Client: BorgWarner, Inc.

Reviewed By: S. Spinner

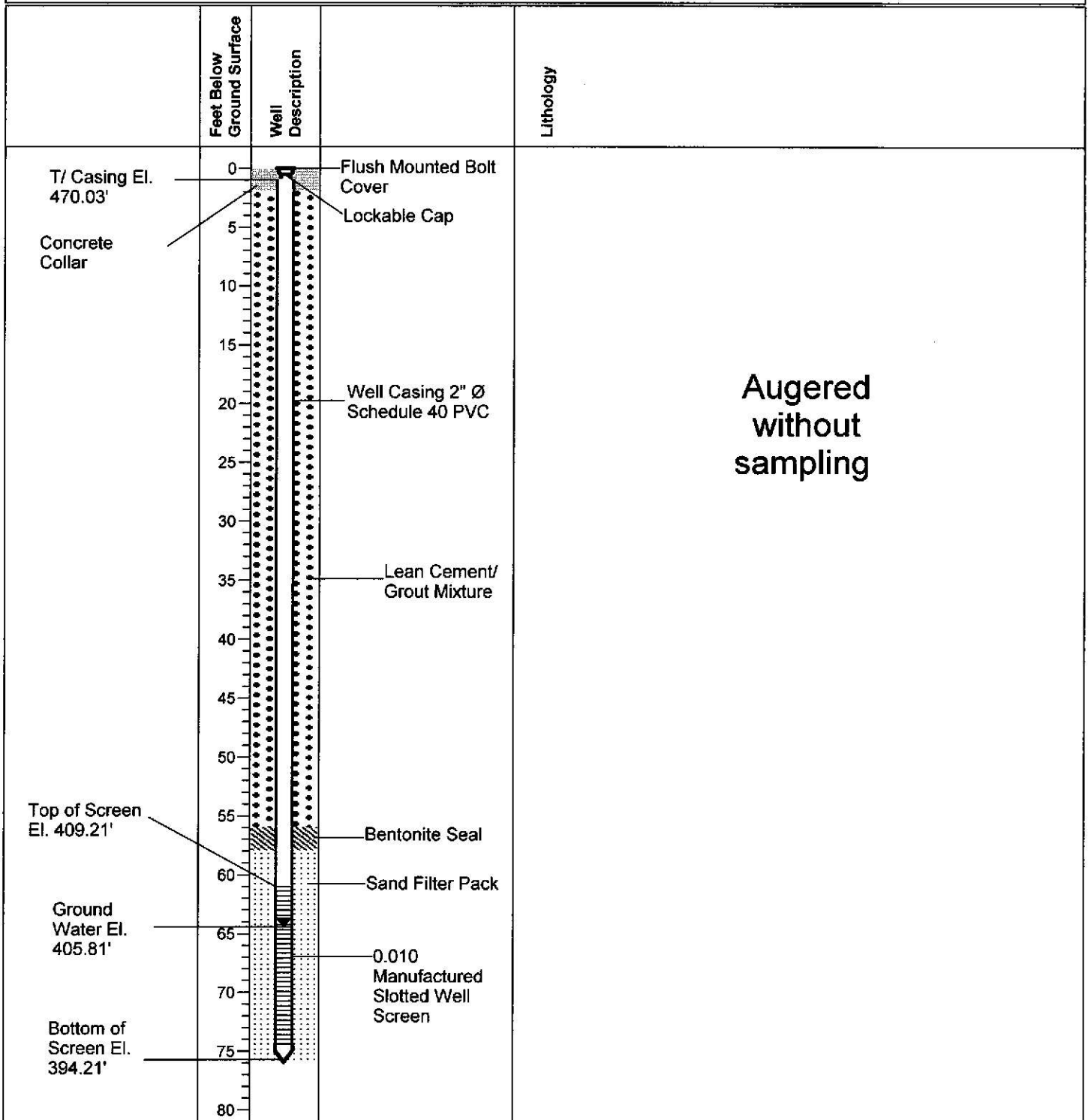
Well Number: MW-9

Coordinates: E- 2289234.47

N- 905266.08

Ground Surface: 470.21

Logged By: Robert Martin



Drilling Contractor: Walker-Hill Environmental, Inc.

Drilling Method: Rotary Auger/Mud Auger

Drilling Equipment: Rotary Auger

Drilling Started: 3/3/2005

Drilling Ended: 3/3/2005