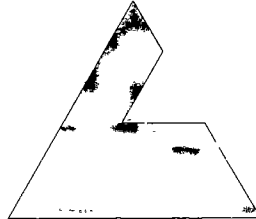


414343



*M.C. Corp 1*



**LAW ENGINEERING**

**REPORT OF ASSESSMENT ACTIVITIES  
MARSH LUMBER FACILITY  
PAMPLICO, SOUTH CAROLINA**

Prepared for:

Marsh Furniture Company  
High Point, North Carolina

by:

Law Engineering, Inc.  
Columbia, South Carolina

**RECEIVED**

APR 02 1993

**Groundwater Protection  
Division**

March 25, 1993

Law Engineering Job No. 499-2-4352-40

(A9)



March 25, 1993

Marsh Furniture Company  
Post Office Box 870  
High Point, North Carolina 27261

Attention: Mr. Holland Claytor

Subject: Report of Assessment Activities  
Marsh Lumber Facility  
Pamplico, South Carolina  
Law Engineering Project No. 492-1-4352-40

Dear Mr. Claytor:

Law Engineering is pleased to submit this report of environmental services for the subject site. Our services were provided in accordance with proposal numbers 4916M2, 4916M2A and 5330M3 dated March 17, 1992, January 5, 1993 and February 11, 1993, respectively.

We appreciate the opportunity to provide our environmental related services on this project. Please contact us at (803) 798-1200 if any questions arise or if we may be of further service.

Sincerely,

LAW ENGINEERING, INC.

*BTShane*

Bryan T. Shane  
Project Geologist

Brian E. Chew, Sr., P.G.  
Principal Hydrogeologist  
Registered SC #184

**RECEIVED**

APR 02 1993

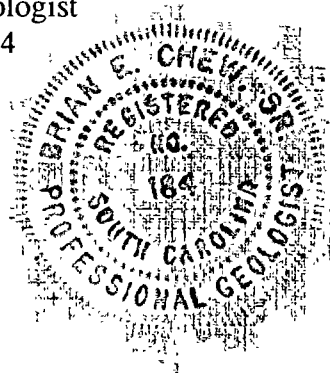
Groundwater Protection  
Division

BTS/BEC:tdb

Attachments

LAW ENGINEERING, INC.  
720 GRACERN RD., SUITE 132  
P.O. BOX 21879  
COLUMBIA, SC 29221

803-798-1200  
FAX 803-750-1303  
ONE OF THE LAW COMPANIES



ⓐ



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APPENDIX II	Test Boring and Well Construction Records
APPENDIX III	Laboratory Reports



## 1.0 PROJECT BACKGROUND

The project site is located in Pamplico, South Carolina, approximately 20 miles south of the city of Florence (Figure 1). The site consists of approximately 15 acres and contains a sawmill operation with approximately 75,000 square feet of enclosed space. Facilities on the property include lumber handling and storage, drying kilns, saw and dimension mills, as well as **lumber treating and drying areas**. One underground storage tank (UST) was located on the property, but was reportedly removed in the early 1980's. This UST reportedly was used to store gasoline for use by Marsh Lumber's truck fleet.

Marsh Furniture Company requested Law Engineering, Inc. perform a Preliminary Environmental Site Assessment of the Marsh Lumber facility as part of a potential real estate transaction. A summary of the findings of this preliminary site assessment was presented in our "Report of Preliminary Environmental Services", dated November 22, 1991 (Reference Law Engineering Project No. 492-1-4352-30). Based on the findings of our Preliminary Environmental Site Assessment and our experience with similar sites, we recommended additional work be performed to assess potential soil and ground-water contamination in the identified areas of concern.

Law Engineering subsequently performed a Preliminary Site Contamination Assessment (PSCA) on the property (Reference Law Engineering Project No. 492-1-4352-30 dated March 11, 1992). The results of the assessment indicated the existence of soil and ground-



water contamination in the Green Chain area and the former gasoline UST Area. Contaminants detected in the vicinity of the Green Chain area included pentachlorophenol and several tentatively identified compounds. Contaminants detected in the former gasoline UST area included Total Petroleum Hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylenes (BTEX). Detected concentrations of pentachlorophenol, benzene, toluene and ethylbenzene exceed Maximum Contaminant Levels (MCLs) established by the EPA and the SCDHEC.

Based on the results of the initial sampling, additional assessment of the property was recommended to confirm ground-water contamination, and evaluate the potential migration of contamination in the Green Chain area and former gasoline UST area. The following report describes additional assessment activities performed at the site in these two areas.

The above information is based on review of Law Engineering project files and information provided by Marsh Lumber personnel.



## 2.0 FIELD EXPLORATION

Seven ground-water monitoring wells (MW-1 through MW-7) were installed at the site on January 4 and 5, 1993. The borings/monitoring wells were positioned to surround the Green Chain area (MW-1 through MW-4) and the former gasoline UST area (MW-5 through MW-7) (See Figure 2). The boring/monitoring well locations were located in the field by Law Engineering personnel using a measuring tape and estimated right angles, referencing existing site features. Boring/monitoring well elevations were measured by Law Engineering personnel on January 27, 1993 using a surveyor's level and graduated rod. The elevations presented in this report were referenced to an assumed datum elevation (Southeast corner of concrete slab at southeast corner of the Pre Dryer Building equals 100.00 feet). A Registered Land Surveyor (RLS) was not utilized during this phase of assessment due to the apparent need for additional work. A RLS will be utilized following completion of assessment activities. The measurements performed above should be considered accurate only to the degree implied. The wells were developed, purged and sampled on January 6, 1993. Ground-water samples from monitoring wells MW-1, MW-2, MW-3 and MW-4, were analyzed for acid extractable organic compounds in general accordance with EPA Method 8270. In addition, the ground-water sample from monitoring well MW-1 was also analyzed for base neutral extractable organic compounds, pesticides and tentatively identified compounds using EPA Method 8270 and volatile organic compounds using EPA Method 8240. Ground-water samples from wells MW-5, MW-6 and MW-7 were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) constituents in general



accordance with EPA Method 602. Monitoring wells MW-1 and MW-3 were resampled on February 10, 1993 to confirm results of the January 6, 1993 sampling episode. The samples were analyzed for base neutral, acid extractable and volatile organic compounds using the same methods described above.

The procedures used for soil test borings, monitoring well installation, well development and ground-water sampling and inflow permeability testing are provided in Appendix I.





### 3.0 AREA GEOLOGY

The site is located within the Atlantic Coastal Plain Physiographic Province of South Carolina. The soils in this province are generally interbedded silts, sands, and clays that have been deposited during successive advances and retreats of the ocean over the past several million years. The marine deposits located near rivers and creeks have been successively eroded and overlain by alluvial deposits.

The town of Pamplico lies on one of a series of nearly level beach terraces formed in the relatively recent geologic past. These terraces have been extensively mapped and are generally identified on the basis of surface elevation. Downtown Pamplico and the surrounding areas are mapped as part of the Wicomico Terrace.

Terrace deposits are typically 40 to 50 feet in thickness and overlie more ancient, overconsolidated or lithified strata below. The terrace soils are typically characterized by relatively sandy soils near the southeast margin of the terrace. The soils become increasingly more clayey in composition proceeding to the northeast, towards the upper margin of the terrace, reflecting an archaic "back-bay" depositional environment.



#### 4.0 WATER SUPPLY WELL SURVEY

Law Engineering personnel conducted a water supply well survey at the site on February 9, 1993. The survey consisted of a vehicular reconnaissance to locate potential environmental receptors (water supply wells) within an approximate 1500 foot radius of the site.

One well was identified during our survey. The well identified is used as a municipal water supply well for the Town of Pamplico and is located near the intersection of Third Avenue and Trade Street (See Figure 1). Mr. Lamar Johnson, maintenance supervisor for the Town of Pamplico, was contacted by Mr. Bryan Shane of our office on February 9, 1993. During their conversation, Mr. Johnson stated he believed that the previously mentioned well was the only well in the vicinity of the site. He also stated that the area is served by city water.



## **5.0 SURFACE AND SUBSURFACE CONDITIONS**

### **5.1 Surface Conditions**

Based on review of USGS topographic maps, Pamplico North and Pamplico South, South Carolina quadrangles, the site is situated on the eastern bank of an unnamed tributary of Big Swamp (Figure 1). Big Swamp is a part of a series of rivers which flow southeasterly towards the Atlantic Ocean. Big Swamp and the associated tributaries occupy a flood plain approximately 100 to 200 feet wide in the general vicinity of the site. The ground surface slopes upward approximately 10 to 15 feet along the edge of the flood plain and levels off at the crest.

The site is visually interpreted to slope slightly to the northwest towards the Big Swamp tributary which runs west of the site. Site elevations appear to decrease from approximately +82 feet NGVD (National Geodetic Vertical Datum of 1929) in the southeastern corner of the site, to approximately +75 feet NGVD in the northwestern corner of the site (Figure 1).

### **5.2 Subsurface Conditions**

The borings generally encountered loose to firm, silty sands, and firm to very stiff silty sandy clays. These soils appear to be interlayered with seams or lenses of sandy clays or silts. The



vertical or lateral extent of these lenses appeared to be irregular or erratic, even over short horizontal distances.

Ground-water levels were measured on January 7, 1993. The measured depths to ground water range from approximately two to eight feet below ground surface.

The above descriptions provide a general summary of the subsurface conditions encountered. The attached Test Boring Records (Appendix II) contain detailed information recorded at each boring location. The Test boring Records represent our interpretation of the field logs based on examination of the field samples by a geologist. The lines designating the interfaces between various strata represent approximate boundaries and the transition between strata may be gradual.



## **6.0 SOIL AND GROUND-WATER SAMPLING AND TESTING**

### **6.1 Soil Sampling and Analysis**

Soil samples were obtained from soil test borings MW-1 through MW-4 prior to well construction. Samples were collected for chemical analysis based on the proximity to the saturated/unsaturated zone interface. Soil samples were not collected for chemical analysis from borings MW-5 through MW-7 due to the proximity of water at the time of boring. Organic vapor measurements of soil samples were not available due to equipment malfunction. The soil samples were sent on ice to Law Environmental National Laboratories (LENL) in Kennesaw, Georgia and analyzed for BTEX constituents using EPA Method 8020.

Soil sampling procedures are described in Appendix I. The results of the analyses are discussed in Section 7.3, summarized in Table 1 and presented in Appendix III.

### **6.2 Ground-Water Sampling and Analysis**

Seven monitoring wells (MW-1 through MW-7) were developed, purged and sampled on January 6, 1993. The ground-water samples were sent on ice to LENL in Kennesaw, Georgia for analysis. Well development, purging and sampling procedures are described in Appendix I.



Ground-water samples obtained from monitoring wells MW-1 through MW-4 were analyzed for acid extractable organic compounds using EPA Method 8270. In addition, the ground-water sample from monitoring well MW-1 collected on January 6, 1993 was also analyzed for base neutral extractable organic compounds, pesticides and tentatively identified compounds using EPA Method 8270, and volatile organic constituents using EPA Method 8240. Wells MW-1 and MW-3 were resampled on February 10, 1993 for analysis of acid extractable, base neutral extractable and volatile organic compounds.

Ground-water samples taken from monitoring wells MW-5, MW-6 and MW-7, which were installed adjacent to the former gasoline UST area, were analyzed for BTEX constituents using EPA Method 602.

The results of the laboratory analyses are discussed in Section 6.4, summarized in Table 2 and presented in Appendix III.

### **6.3 Inflow Permeability Test**

Inflow permeability tests were performed in monitoring wells MW-2 and MW-6 on January 1, 1993 to estimate the hydraulic conductivity of the formation materials (exposed to the screened interval) at the monitoring well locations. Due to the high hydraulic conductivity of the soils in the area of MW-6 the test was not completed. A slug test will need to be



completed at a future date using a computerized data logger. Inflow permeability test procedures are described in Appendix I.



## 7.0 TEST RESULTS AND EVALUATION

### 7.1 Hydraulic Conductivity

Based on data recorded during the field testing of monitoring well MW-2, the hydraulic conductivity of the material in the vicinity of monitoring well MW-2 is  $2.1 \times 10^{-4}$  cm/sec.

The test result is as follows:

Well Number	Elevation of Screened Interval (ft)	Type of Material Exposed to Screened Interval	Hydraulic Conductivity (K) (cm/sec)
MW-2	84.94-94.94	Silty Clayey Sand	$2.1 \times 10^{-4}$
Note: Field tests were reduced and the hydraulic conductivities computed using techniques described in NAVFAC Soil Mechanics Design Manual 7.1 May, 1982, Condition A.			

### 7.2 Ground-Water Movement

Ground-water movement is often related to topography, lithology, elevation of recharge and discharge areas and man-made influences. Referenced ground-water elevations were determined as follows: measuring the top of the monitoring well casing relative to a nearby on-site assumed datum elevation (southeast corner of concrete slab at southeast corner of Pre Dryer Building equals 100.00 feet); measuring the water level in the monitoring well; and computing the reference elevation of the ground water at the time of measurement.





Directions of ground-water flow were interpolated between monitoring wells by comparing the ground-water elevations at those locations considering the factors listed above. Ground-water levels typically fluctuate with seasonal and rainfall variations.

Ground-water elevation data for the January 6, 1993 sampling event was plotted and a ground-water contour map was prepared for this sampling event. The generalized direction of ground-water flow at the site is to the west as shown on Figure 3. The data points used to determine the ground-water flow direction (ground-water elevations in site monitoring wells) are summarized in Table 3.

Hydraulic gradients were determined by dividing the difference in ground-water elevation at two locations by the horizontal distance between the two locations. The average hydraulic gradient at the site was computed to be approximately 0.011 feet/foot.

In addition to hydraulic gradients (i), the rates of ground-water movement (v) are a function of hydraulic conductivity (k) and effective porosity (ne), as indicated by the equation  $v=ki/ne$ . The effective porosity is estimated to be approximately 19 percent for silty sands (Fetter, 1980). Based on those parameters, the average lateral ground-water movement in the sands at the site can be expected to be approximately 13 feet per year. The rate of migration of the contaminants(s) may be substantially different than that of the ground water but is typically in the same general direction.



### **7.3 Soil Analytical Results**

As discussed in Section 5.1, soil samples collected from a depth of 3.5 to 5.0 feet in borings MW-1 through MW-4 on January 4 and 5, 1993 were analyzed for BTEX constituents. Results of the analyses indicate that the soil in the vicinity of these borings has not been effected by the constituents analyzed (Table 1).

### **7.4 Ground-Water Analytical Results**

Ground-water analytical results from monitoring wells MW-1 and MW-3, which are located adjacent to the Green Chain Area, indicate that the ground water in these wells has been impacted by the analyzed parameters (Table 2).

Analytical results for ground-water samples collected from monitoring wells MW-5, MW-6, and MW-7 which are located adjacent to the former gasoline UST area, indicate that the ground water in these wells has been impacted by BTEX constituents and methyl tertiary butyl ether MTBE (See Table 2). The ground-water samples from monitoring wells MW-5 through MW-7 contained at least one BTEX constituent which had a concentration above the South Carolina Maximum Contaminant Levels (MCL's).



Analytical results from the quality assurance blanks indicate that the parameters analyzed were below laboratory detection limits. The detection limits for each parameter are provided in the laboratory reports (Appendix III).

### **7.5 Assessment Summary**

The results of our assessment activities confirms that ground water at the subject facility has been impacted in at least two areas. Analytical results from ground-water samples collected from two of the four monitoring wells (MW-1 and MW-3) installed adjacent to the Green Chain Area indicated the presence of pentachlorophenol and several related chemicals used for wood treatment.

Ground-water analytical results from the three monitoring wells adjacent to the former gasoline UST area indicated the presence of BTEX constituents. Detected concentrations of benzene, toluene and ethylbenzene exceed the South Carolina MCL's.



## 8.0 COMMENTS AND RECOMMENDATIONS

Based on the findings of the soil and ground-water assessment conducted on the site, additional assessment of the property to further evaluate the horizontal and vertical migration of contamination in the Green Chain Area and the former gasoline UST area is recommended. The composition and location of organic constituents identified suggest that the two areas of concern have been impacted by two separate sources. The following paragraphs discuss each source separately.

### 8.1 Former Gasoline UST Area

The state of South Carolina has established a monetary fund to assist owners of commercial petroleum UST's in the assessment and cleanup of sites where a release has occurred from the UST's. The fund is administered by SCDHEC and is titled State Underground Petroleum Environmental Response Bank Act of 1988 (SUPERB). To be eligible for funding, the UST's must have a documented release, the tanks must be registered with the state, and the registration fees must have been paid. It is our understanding that the tank at the subject site was removed in the early 1980's, prior to initiation of the registration requirements. If the site qualifies for SUPERB, the date that the release was reported to SCDHEC controls the deductible for funding. Our records show that the site was reported to SCDHEC on August 4, 1992.



Based on our past experience with SUPERB and the information above, your site should qualify for funding with no deductible.

Law Engineering recommends that a request be made for SUPERB funding in the gasoline UST area. This can be accomplished by preparation and submittal of an Expanded Assessment Plan (EAP) for the UST site. In addition to the EAP, Marsh Lumber will need to register the tank as well as provide proof that it is not covered by insurance. Following review and acceptance of the site for SUPERB funding, SCDHEC will issue a Cost Proposal (CP) number to Law Engineering. Law would then bill additional work directly to SCDHEC. Reimbursement to Marsh Lumber for assessment expenditures already incurred can be obtained by preparation and submittal of a reimbursement package. Law Engineering would compile the package for submittal to SCDHEC on behalf of Marsh Lumber.

## 8.2 Green-Chain Area

A < D

Specific organic constituents detected in samples from wells MW-1 and MW-3 include: 2,4-Dichlorophenol, 2,4,6-Trichlorophenol, 2,4,5-Trichlorophenol and Pentachlorophenol.

Notably, these constituents occur as a solid at room temperature in pure phase. Migration of these constituents in the ground water would occur in dissolved phase as a solution. The flow path of such a contaminant plume would be expected to follow the natural flow of



ground water at the site. However, these chemicals have a density greater than water and may migrate vertically as well as laterally in the source area.

Most chlorinated hydrocarbons have water solubilities less than two grams/liter. Therefore, the density of the contaminated water is not typically sufficient to cause substantial sinking of a plume.

Law Engineering recommends the installation of five additional monitoring wells in the proximity of the green-chain area. These wells will be constructed to aid in the delineation of the vertical and horizontal extents of ground-water contamination. Figure 2 depicts the placement of our proposed wells. Four of the wells will be constructed as shallow Type II monitoring wells constructed to penetrate the shallow aquifer by approximately 10 feet. One of the wells would be constructed as a Type III (deep) monitoring well designed to assess the vertical extent of contamination. The Type III well will be installed to a depth of approximately 50 feet. Figures 4 and 5 depict typical construction details of these wells. The newly installed and existing wells should be developed, purged and sampled. The ground-water samples should be analyzed for acid extractable compounds using EPA Method 8270. If analytical results of this phase of assessment indicate that the horizontal and vertical extent of ground-water contamination has been defined, then a corrective action plan can be prepared.



## 9.0 QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste-management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpolation of subsurface data between borings.

**TABLES**



TABLE 1

SOIL ANALYTICAL RESULTS  
 MARSH LUMBER  
 FLORENCE COUNTY, SOUTH CAROLINA  
 LAW ENGINEERING JOB NO. 499-2-4352-40

Sample Location	Sample Date	Sample Depth (feet)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	Total BTEX (ug/kg)
MW-1	1/4/93	3.5-5.0	ND	ND	ND	ND	ND
MW-2	1/4/93	3.5-5.0	ND	ND	ND	ND	ND
MW-3	1/4/93	3.5-5.0	ND	ND	ND	ND	ND
MW-4	1/5/93	3.5-5.0	ND	ND	ND	ND	ND
TRIP BLANK	1/4/93	--	ND	ND	ND	ND	ND

Notes:

1. ND = Not Detected
2. ug/kg = micrograms per kilogram

Prepared by: BTS Date: 2/10/93

Checked by: PNV Date: 2/16/93

long term  
health Adv =  
0.03 ppm =  
30 ppb

TABLE 2  
page 1 of 2

GROUND-WATER ANALYTICAL RESULTS  
MARSH LUMBER COMPANY  
PAMPLICO, SOUTH CAROLINA  
LAW ENGINEERING JOB NO. 499-2-4352-40

MCL =  
0.001 ppm =  
1 ppb

Well Location	Sample Date	Carbon disulfide (ug/l)	Chloro-benzene (ug/l)	bis(2-Ethylhexyl) phthalate (ug/l)	2,4-Dichloro-phenol (ug/l)	2,4,6-Trichloro-phenol (ug/l)	2,4,5-Trichloro-phenol (ug/l)	Pentachloro-phenol (ug/l)
MW-1	1/6/93 2/10/93	<del>21</del> ND	<del>21</del> 13	<del>29</del> ND	ND ND	ND ND	ND ND	ND ND
MW-2	1/6/93	NT	NT	NT	ND	ND	ND	ND
MW-3	1/6/93 2/10/93	NT ND	NT 93	NT ND	<del>11</del> <del>11</del>	<del>14</del> <del>15</del>	<del>380</del> <del>290</del>	<del>4000</del> <del>4300</del>
MW-4	1/6/93	NT	NT	NT	ND	ND	ND	ND
MW-5	1/6/93	NT	NT	NT	NT	NT	NT	NT
MW-6	1/6/93	NT	NT	NT	NT	NT	NT	NT
MW-7	1/6/93	NT	NT	NT	NT	NT	NT	NT
BAILER BLANK	1/6/93	NT	NT	NT	NT	NT	NT	NT
TRIP BLANK	1/6/93	ND	ND	NT	NT	NT	NT	NT

Notes:

1. ND = Not Detected
2. NT = Not Tested
3. ug/l = micrograms per liter

Prepared by: BTS Date: 2/9/93

Checked by: PNV Date: 2/16/93

TABLE 2  
page 2 of 2

GROUND-WATER ANALYTICAL RESULTS  
MARSH LUMBER  
FLORENCE COUNTY, SOUTH CAROLINA  
LAW ENGINEERING JOB NO. 499-2-4352-40

Well Location	Sample Date	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)
MW-1	1/6/93	ND	ND	ND	ND	ND	NT
	2/10/93	ND	ND	ND	ND	ND	NT
MW-2	1/6/93	NT	NT	NT	NT	NT	NT
MW-3	1/6/93	NT	NT	NT	NT	NT	NT
	2/10/93	16	ND	ND	8	24	NT
MW-4	1/6/93	NT	NT	NT	NT	NT	NT
MW-5	1/6/93	220	2.1	12	3.5	237.6	13
MW-6	1/6/93	8100	14000	1900	9300	33300	410
MW-7	1/6/93	1100	2700	680	3600	8080	ND
BAILER BLANK	1/6/93	ND	ND	ND	ND	ND	ND
TRIP BLANK	1/6/93	ND	ND	ND	ND	ND	NT

Notes:

1. ND = Not Detected
2. NT = Not Tested
3. ug/l = micrograms per liter

Prepared by: BTS Date: 2/9/93

Checked by: PNV Date: 2/16/93

TABLE 3

GROUND-WATER ELEVATION DATA  
MARSH LUMBER COMPANY  
PAMPLICO, SOUTH CAROLINA  
LAW ENGINEERING JOB NO. 499-2-4352-40

Well Location	Date	Elevation Top of Casing (Feet)	Water Depth (Feet)	Water Elevation (Feet)
MW-1	1/6/93	100.39	6.73	93.66
MW-2	1/6/93	99.89	7.29	92.60
MW-3	1/6/93	99.13	7.88	91.25
MW-4	1/6/93	98.16	5.38	92.78
MW-5	1/6/93	98.57	1.77	96.80
MW-6	1/6/93	99.81	2.34	97.47
MW-7	1/6/93	99.59	1.85	97.74

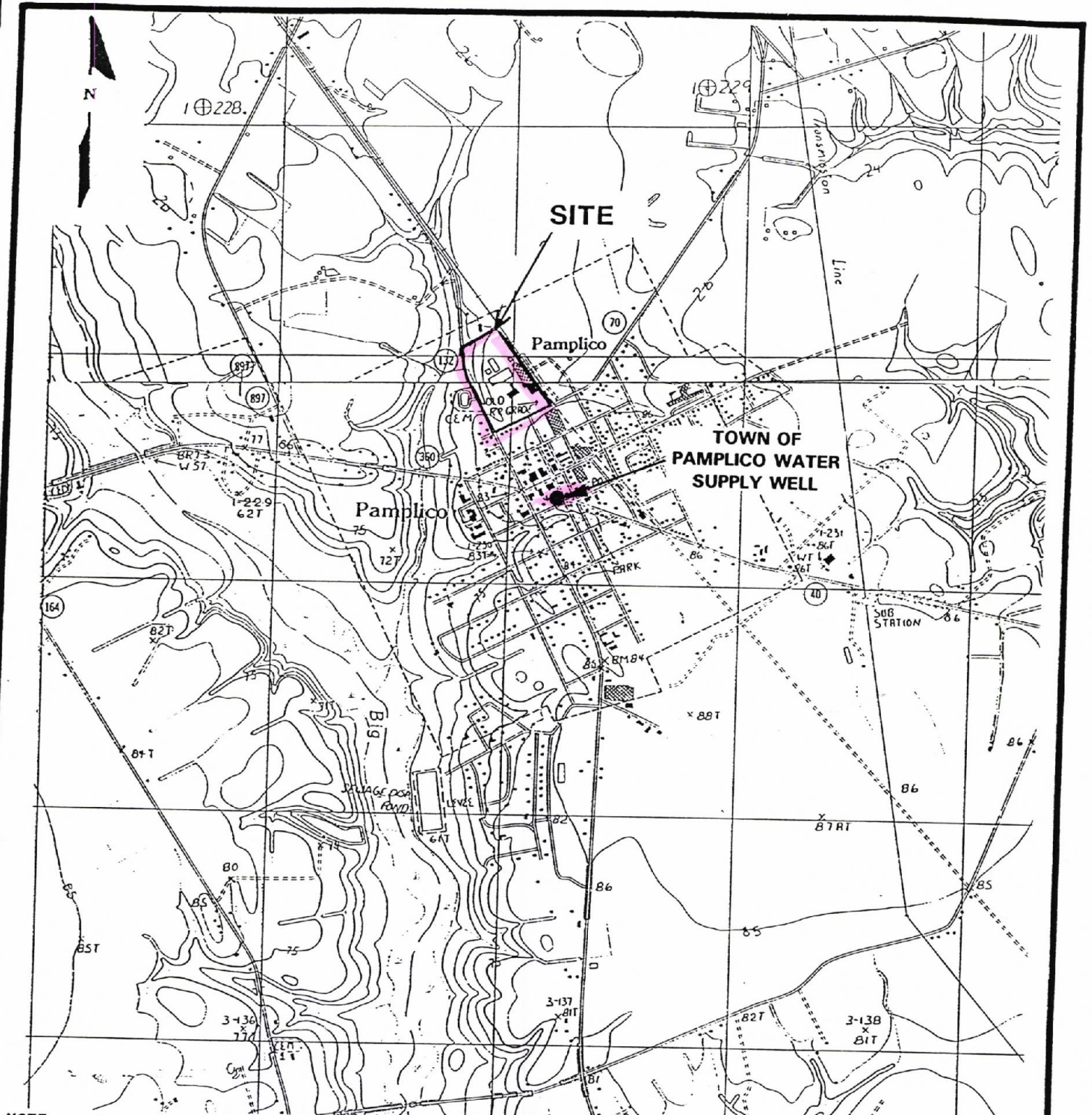
## Notes:

1. Ground-water depths were measured from the top of the PVC casing.
2. Elevations are referenced to an assumed site datum (southeast corner of concrete slab at southeast corner of Pre Dryer Building = 100.00 feet).
3. Water depths were measured using an electric water level indicator.

Prepared by: BTS Date: 2/9/93

Checked by: PNV Date: 2/16/93

**FIGURES**



NOTE: DRAWING REPRODUCED FROM USGS TOPOGRAPHIC MAPS, PAMPLICO NORTH, SOUTH CAROLINA QUADRANGLE (CONTOUR INTERVAL TWO METERS), DATED 1986; AND PAMPLICO SOUTH, SOUTH CAROLINA QUADRANGLE, (CONTOUR INTERVAL FIVE FEET), DATED 1990.

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APPROXIMATE SCALE IN FEET



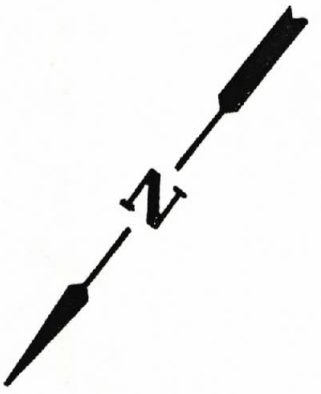
**LAW ENGINEERING, INC.**  
COLUMBIA, SOUTH CAROLINA

Site Location Map  
Marsh Lumber Company  
Pamplico, South Carolina

Marsh Furniture Company  
High Point, North Carolina  
Law Engineering Project No. 499-2-4352-40

DWN. BY	DJD	3/93
CKD. BY	PNV	3/93
APPR'D.	BEC	3/93

SCALE: As Shown  
DRAWING NO.  
1



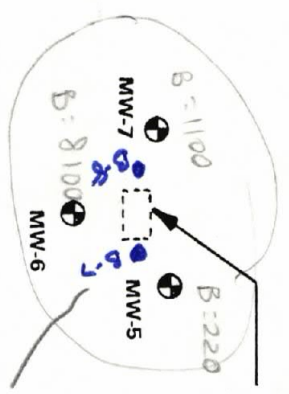
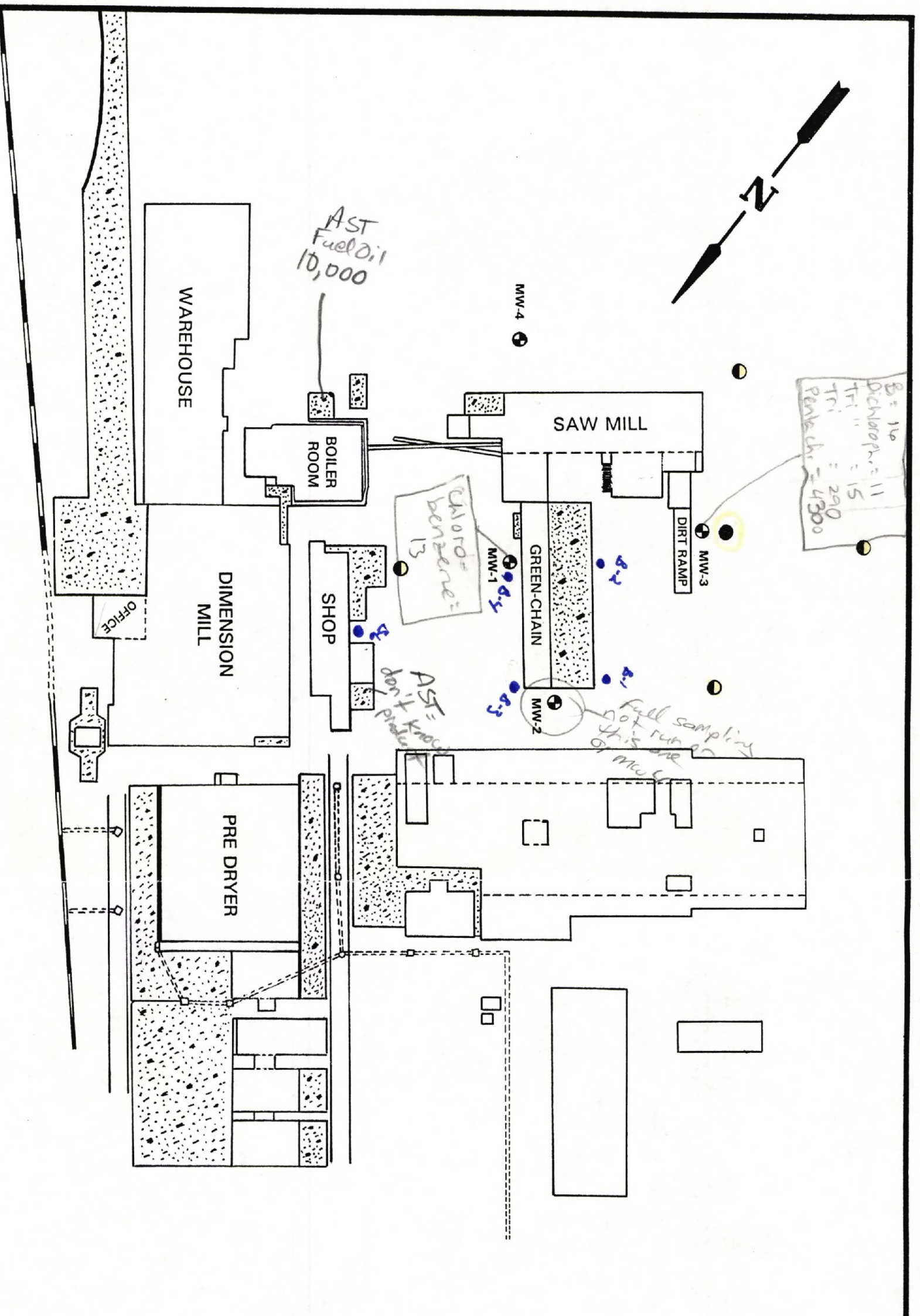
B: 16  
 Dichlorop. = 11  
 Tr: = 15  
 Permeab. = 4300

AST Fuel Oil 10,000

CHLORO-  
 benzene =  
 13

AST =  
 don't know  
 product

full sampling  
 this run on  
 9/12/91



Approximate Location  
 of Removed Gasoline UST

AST located  
 here now: gasoline  
 @ 1,000

**LEGEND:**

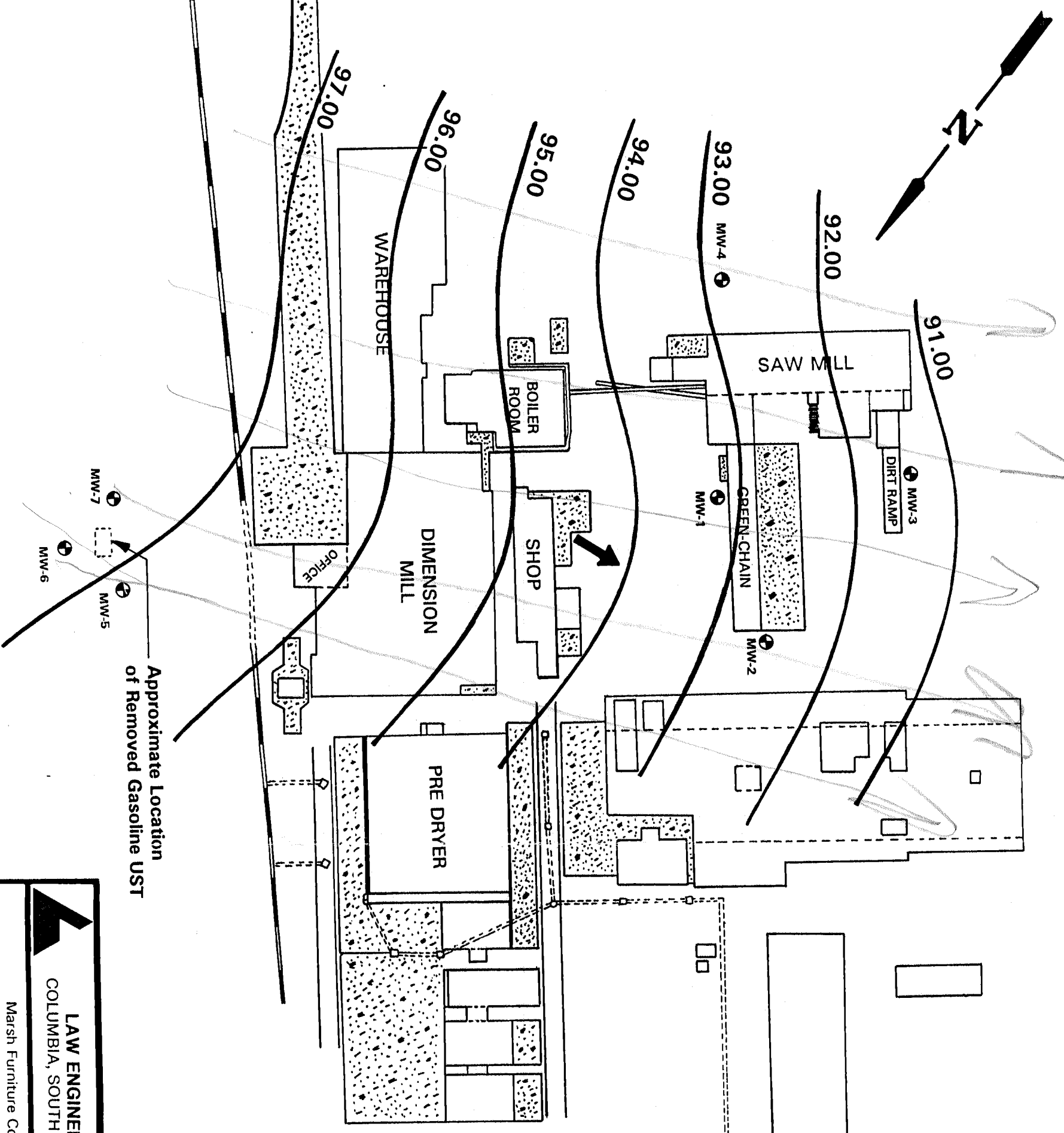
- Approximate Location of Type II Monitoring Well
- Approximate Location of Proposed Type II Monitoring Well
- Approximate Location of Proposed Type III Monitoring Well
- original borings
- ▨ Pavement



ALL LOCATIONS ARE APPROXIMATE

<p><b>LAW ENGINEERING</b>          COLUMBIA, SOUTH CAROLINA</p>		<p>Site Plan          Marsh Lumber Company          Pamplico, South Carolina</p>			
<p>Marsh Furniture Company          High Point, North Carolina          Law Engineering Project No. 499-2-4352-40</p>		<p>DWN. BY</p>	<p>DJD</p>	<p>3/93</p>	<p>SCALE: As shown          FIGURE 2</p>
		<p>CKD. BY</p>	<p>PNV</p>	<p>3/93</p>	
		<p>APPR'D.</p>	<p>BEC</p>	<p>3/93</p>	

REFERENCE: As-Built Survey of Marsh Lumber Co. updated 9-28-91.



**LEGEND:**

- Approximate Location of Type II Monitoring Well
- ▨ Pavement
- 93.00 Ground-Water Elevation Contour (in feet)
- ↑ Generalized Ground-Water Flow Direction

NOTES: 1) Ground-Water elevation contours constructed using straight line interpolation and are based on water level measurements obtained from Monitoring Wells on 1-6-93.

- 2) Elevations are referenced to an assumed site datum.
- 3) Contour Interval = 1.00 Feet
- 4) All locations are approximate.



Approximate Location of Removed Gasoline UST

**LAW ENGINEERING**  
COLUMBIA, SOUTH CAROLINA

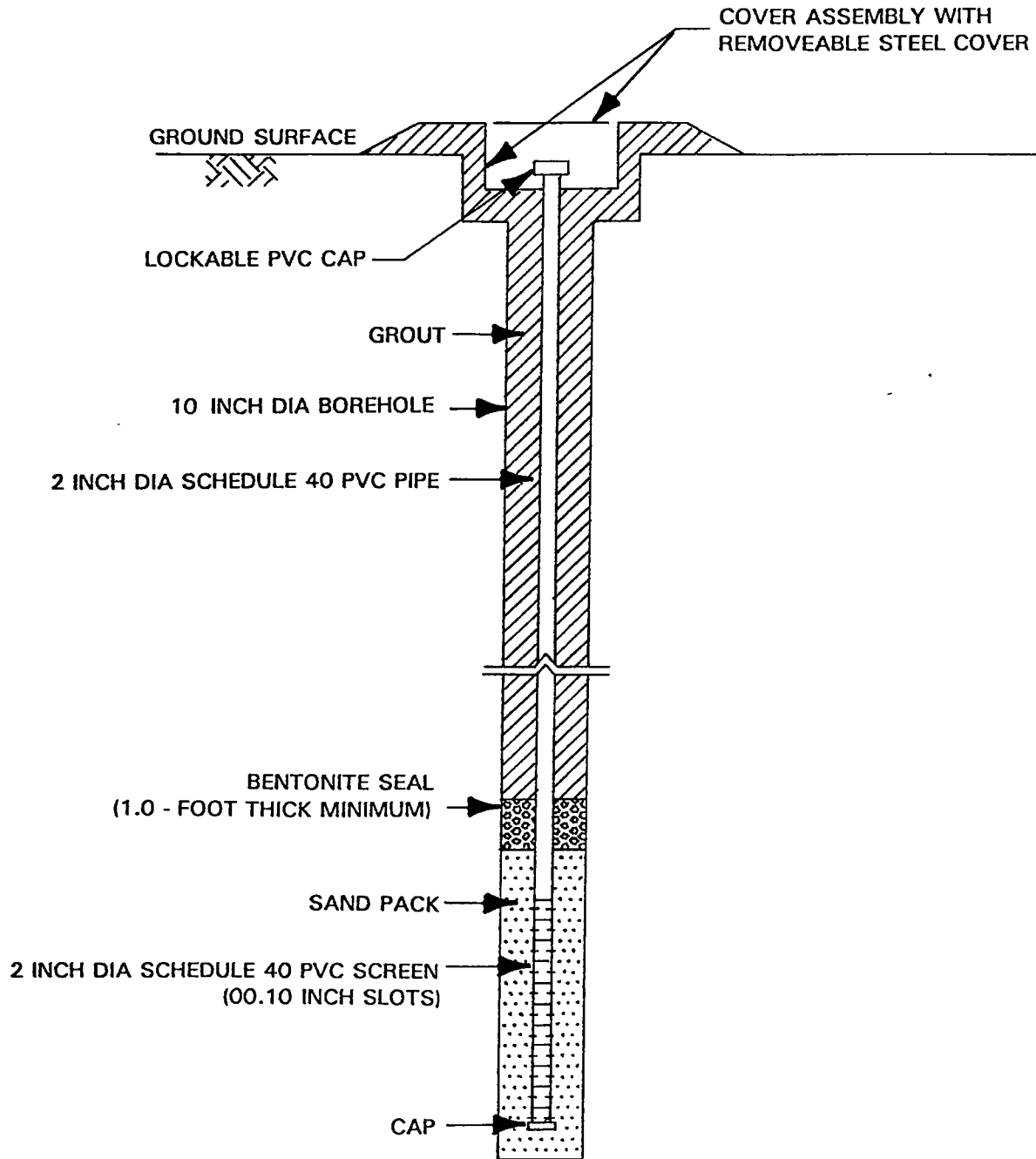
Marsh Furniture Company  
High Point, North Carolina  
Law Engineering Project No. 499-2-4352-40

Ground-Water Contour Map  
Marsh Lumber Company  
Pamlico, South Carolina

DWN. BY	DJD	3/93	SCALE: As shown
CKD. BY	PNV	3/93	
APPR'D.	BEC	3/93	



DIAGRAM OF A TYPICAL TYPE II MONITORING WELL



NOTE: ALL PVC JOINTS ARE FLUSH THREADED.

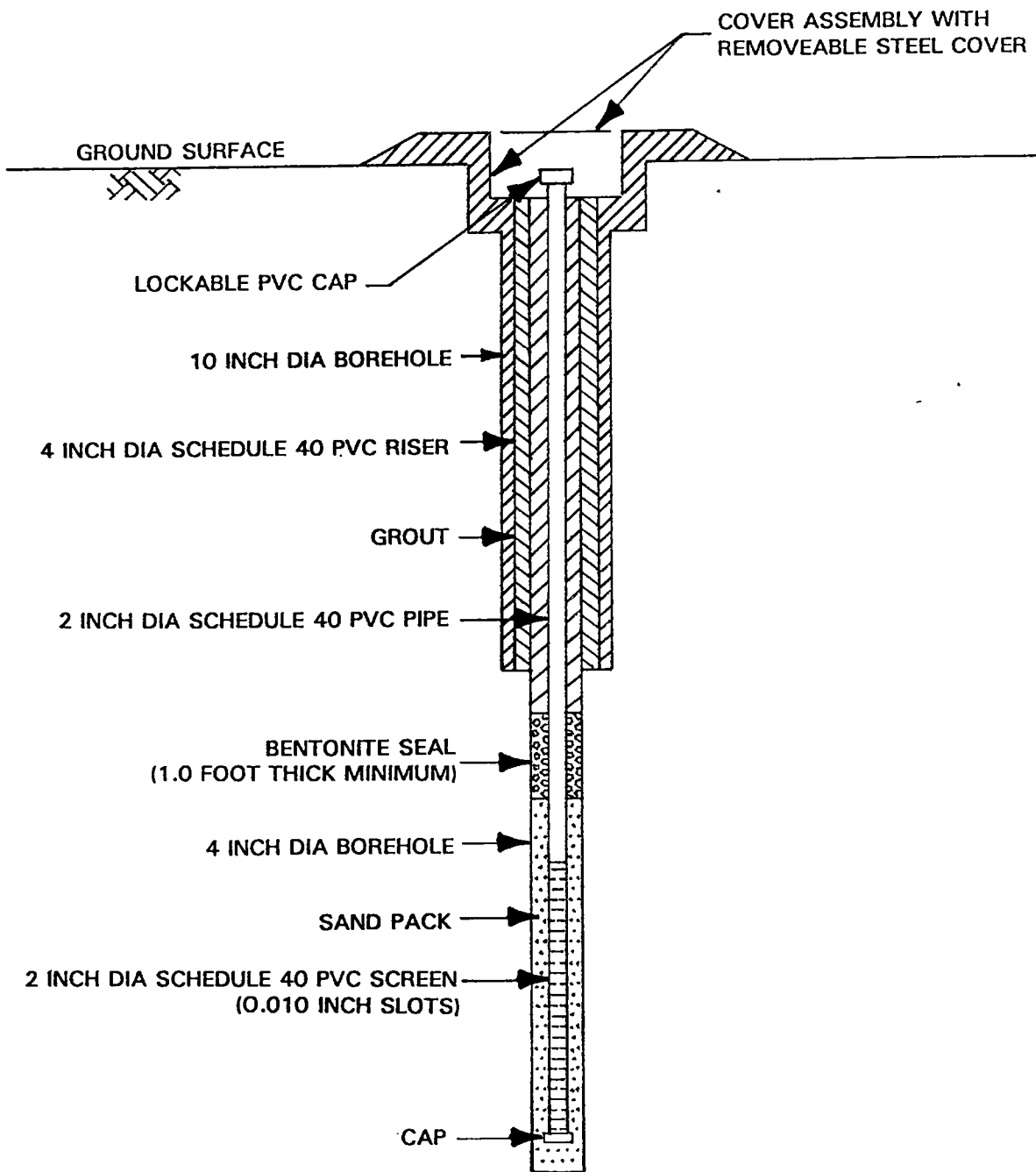


LAW ENGINEERING, INC.  
COLUMBIA, SOUTH CAROLINA

FIGURE

4

DIAGRAM OF A TYPICAL TYPE III MONITORING WELL



NOTE: ALL PVC JOINTS ARE FLUSH THREADED.



LAW ENGINEERING, INC.  
COLUMBIA, SOUTH CAROLINA

FIGURE

5

**APPENDIX I**  
**FIELD PROCEDURES**

## **FIELD PROCEDURES**

### **Soil Test Borings**

The borings were drilled using a truck-mounted drill rig employing continuous flight hollow-stem steel augers to advance the borehole. Soil sampling and penetration testing were performed in general accordance with ASTM D-1586. At regular intervals, soil samples were obtained with a standard 1.4-inch I.D., 2-inch O.D., split spoon sampler. The sampler was initially seated 6 inches in the soil to penetrate any loose cuttings, and then driven an additional 12 inches with blows of a 140-pound hammer falling 30 inches.

Representative portions of the soil samples recovered from selected borings were classified in the field by Law personnel. Soil samples were not scanned with an organic vapor analyzer (OVA). Test Boring Records showing the soil descriptions and penetration resistances for each boring are included in this report. To reduce the potential for cross-contamination between borings, all downhole drilling equipment was steam-cleaned prior to drilling each boring. The split spoon sampler was washed with detergent and rinsed with distilled water prior to obtaining each soil sample.

### **Monitoring Well Installation**

The Type II ground-water monitoring wells consist of 2-inch diameter PVC pipe (Schedule 40 with flush-threaded joints) inserted into an 8-inch or 10-inch diameter augered borehole. The bottom 10-foot section of each monitoring well is a manufactured well screen with 0.010-inch slots. The well screen was set to intercept the saturated/unsaturated zone interface (static water) encountered at the time of drilling. Washed sand backfill was placed around the outside of the pipe to a minimum of one foot above the top of the well screen. The sand backfill is used to stabilize the formation and to help yield a less turbid ground-water sample.

A bentonite seal (minimum 1-foot thick) was installed on top of the sand backfill in the Type II and Type III monitoring wells to seal the monitoring wells at the desired level. The boreholes were then grouted with a cement/bentonite grout to the ground surface. A steel protective flush-mounted cover and a lockable cap was placed over each monitoring well.

Measuring point and ground-water elevations were determined by measuring the top of each PVC well casing relative to a nearby assumed elevation, measuring the water level in each monitoring well and computing the reference elevation of the ground water at the time of measurement.

### **Well Development and Ground-Water Sampling**

Following stabilization of water levels in the monitoring wells, water levels were measured with an electric water-level indicator to determine depth to the water surface. The measured water depth was used in conjunction with the total casing depth to determine the height of the water column and the volume of water standing in each monitoring well.

The monitoring wells were developed by bailing and surging with a surge block until the water's turbidity was reduced and each monitoring well was functioning properly. Bailing was continued until a volume of water equal to at least three times the volume of water in the well casing under static conditions was removed or until all accessible well water was evacuated.

The monitoring wells were purged and sampled using pre-cleaned disposable bailers. Bailer rinse blanks were obtained for quality assurance purposes. Before taking the first ground-water sample, distilled water was poured into a disposable bailer and a rinseate sample was collected (bailer blank). The ground-water samples and quality assurance blanks were marked with identifying number placed in a refrigerated container and shipped by an overnight carrier to Law Environmental National Laboratories (LENL) in Kennesaw, Georgia for analysis. Appropriate chain-of-custody records were maintained.

### **Inflow Permeability Tests**

An inflow permeability test was performed in monitoring well MW-2 to estimate the hydraulic conductivity of the formation materials exposed to the screened interval at the monitoring well location. Hydraulic conductivity is a constant of proportionality relating to the ease with which a fluid passes through a porous medium. The field procedure is as follows:

- Measure the depth to the ground water;
- Remove water from the borehole by bailing; and
- Measure the ground-water recovery rate.






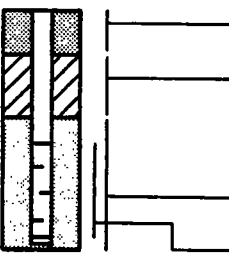
The hydraulic conductivity was calculated using techniques described in NAVFAC Soils Mechanics Design Manual 7.1 May, 1982, Condition A.

**APPENDIX II**

**TEST BORING LOGS AND  
WELL CONSTRUCTION RECORDS**

# KEY TO CLASSIFICATION & SYMBOLS

CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY					
	No. of Blows, N	Relative Density*		No. of Blows, N	Consistency*
SANDS	0 - 4	Very Loose	SILTS AND CLAYS	0 - 1	Very Soft
	5 - 10	Loose		2 - 4	Soft
	11 - 20	Firm		5 - 8	Firm
	21 - 30	Very Firm		9 - 15	Stiff
	31 - 50	Dense		16 - 30	Very Stiff
	50+	Very Dense		30+	Hard

SYMBOLS	DESCRIPTIONS
	Undisturbed Sample (UD) Recovered
	Undisturbed Sample (UD) Attempted, Not Recovered
50/2"	No. of Blows (50) to Drive the Split-Tube Sampler a Number of Inches (2)
BQ,BX(BW),NQ,NX(NW), HQ,PQ	Coring Bit Sizes Which Yield Cores of Diameter 1-7/16, 1-21/32, 1-7/8, 2-5/32, 2-1/2, and 3-11/32 Inches, Respectively
REC	Recovery - Length of Core Recovered Divided by Length Cored (Percent)
RQD	Rock Quality Designation - Length of Recovered Core Consisting of Moderately Hard or Harder Core Segments 4 or More Inches Long Divided by the Length Cored (Percent)
	Water Table Approximately 24 Hours or More After Drilling
	Water Table at Time of Drilling (Within 1 Hour)
	Loss of Drilling Fluid
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Grout</p> <p>Bentonite</p> <p>Sand</p> <p>Slotted Screen</p> </div> <div style="width: 60%; text-align: center;"> <h2 style="margin: 0;">WELL DIAGRAM</h2> </div> </div>
OVM	Organic Vapor Measurement
PPM	Parts Per Million
ND	Not Detected

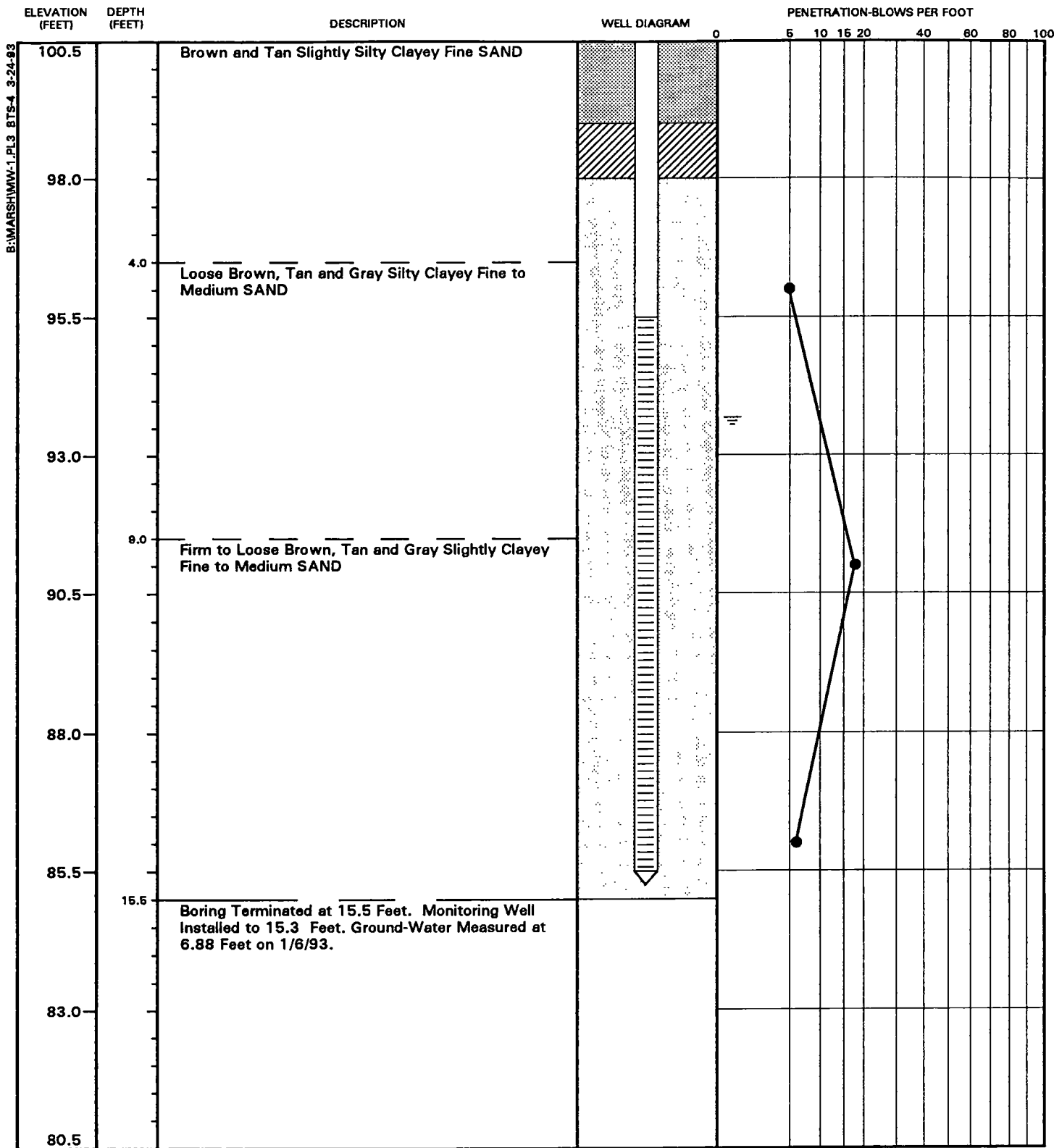
## SAMPLING PROCEDURES

The Standard Penetration Resistance is the Number of Blows of a 140-Pound Hammer Falling 30 Inches To Drive a 2-Inch O.D., 1.4-Inch I.D. Split-Tube Sampler One Foot.

\* Terminology may be altered if presence of gravel, cobbles or boulders interferes with accurate measurement of standard penetration resistance.

TEST BORING RECORD

DATUM ELEVATION: 100.39  
 HEIGHT OF RISER: -0.15



REMARKS:

See Key Sheet for Explanation of Symbols and Abbreviations Used Above.  
 Longitude: 79° 34' 06"  
 Latitude: 34° 00' 00"

DRILLED BY METRO  
 LOGGED BY JLF  
 CHECKED BY BTS

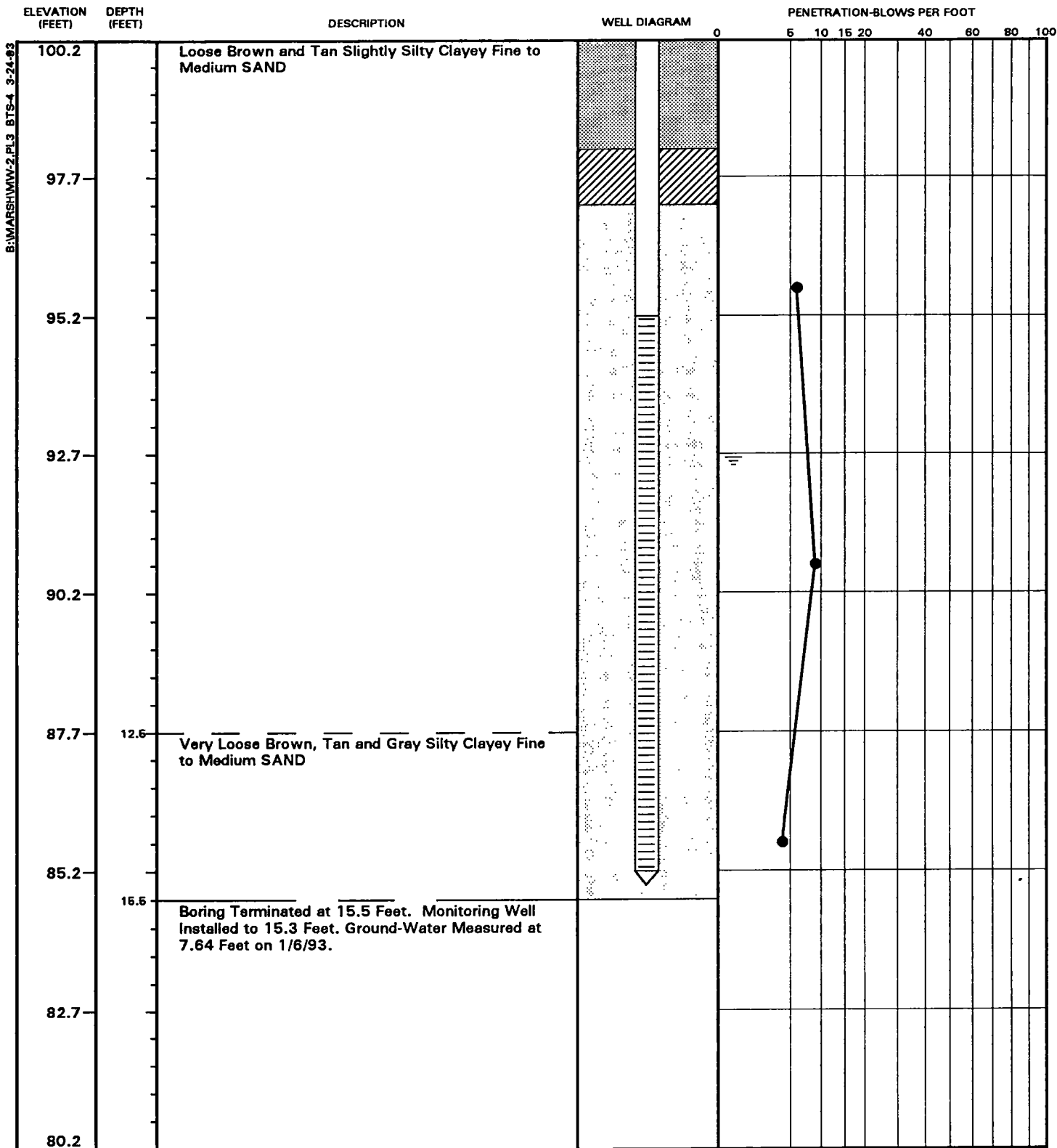
BORING NUMBER MW-1  
 DATE STARTED 1/4/93  
 DATE COMPLETED 1/4/93  
 JOB NUMBER 4352-40





# TEST BORING RECORD

DATUM ELEVATION: 99.89 F  
HEIGHT OF RISER: -0.35 F



**REMARKS:**

See Key Sheet For Explanation of Symbols and Abbreviations Used Above.  
Longitude: 79° 34' 06"  
Latitude: 36° 00' 00"

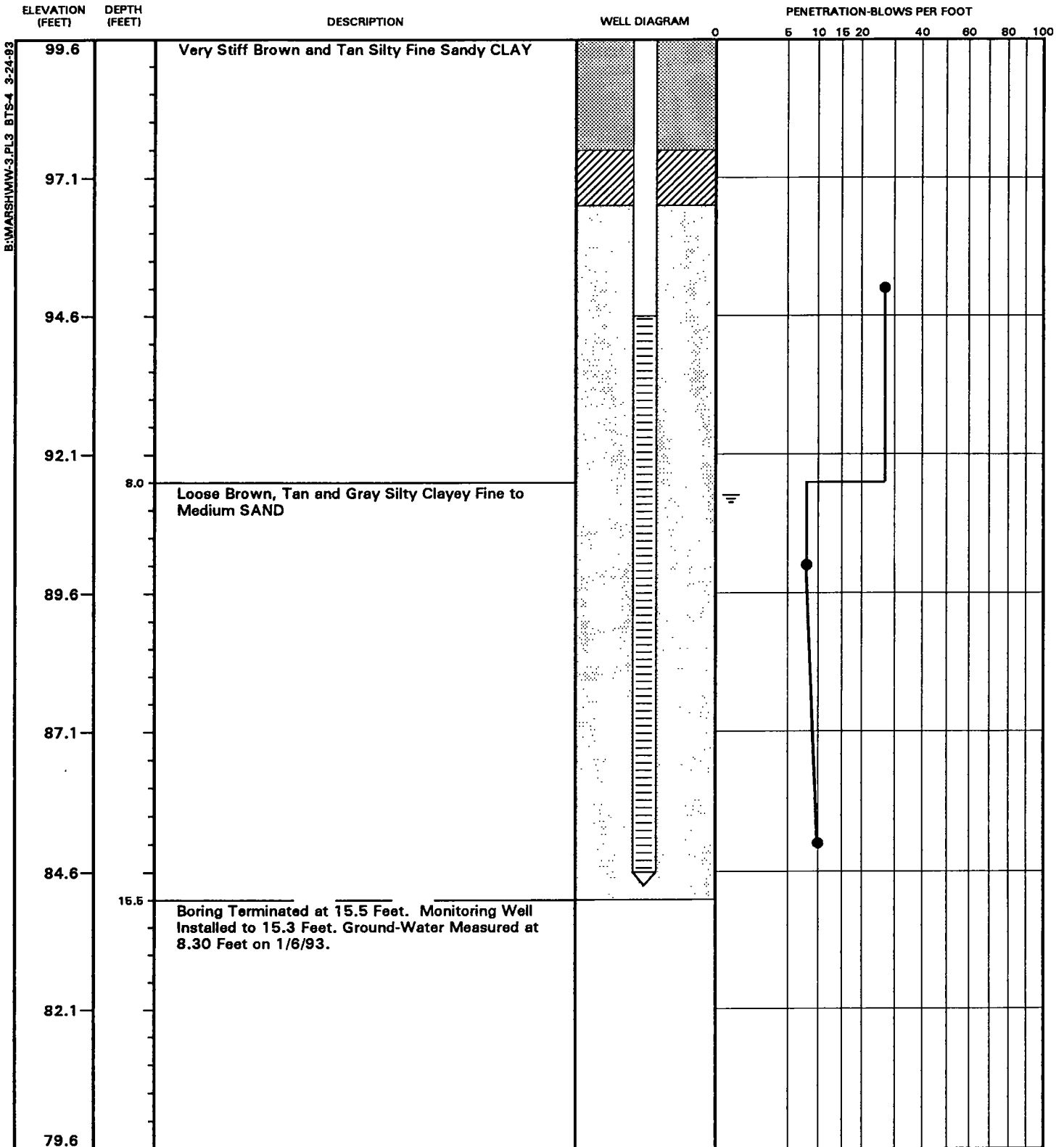
DRILLED BY METRO  
LOGGED BY JLF  
CHECKED BY BTS

BORING NUMBER MW-2  
DATE STARTED 1/4/93  
DATE COMPLETED 1/4/93  
JOB NUMBER 4352-40



# TEST BORING RECORD

DATUM ELEVATION: 99.13 F  
HEIGHT OF RISER: -0.42 F



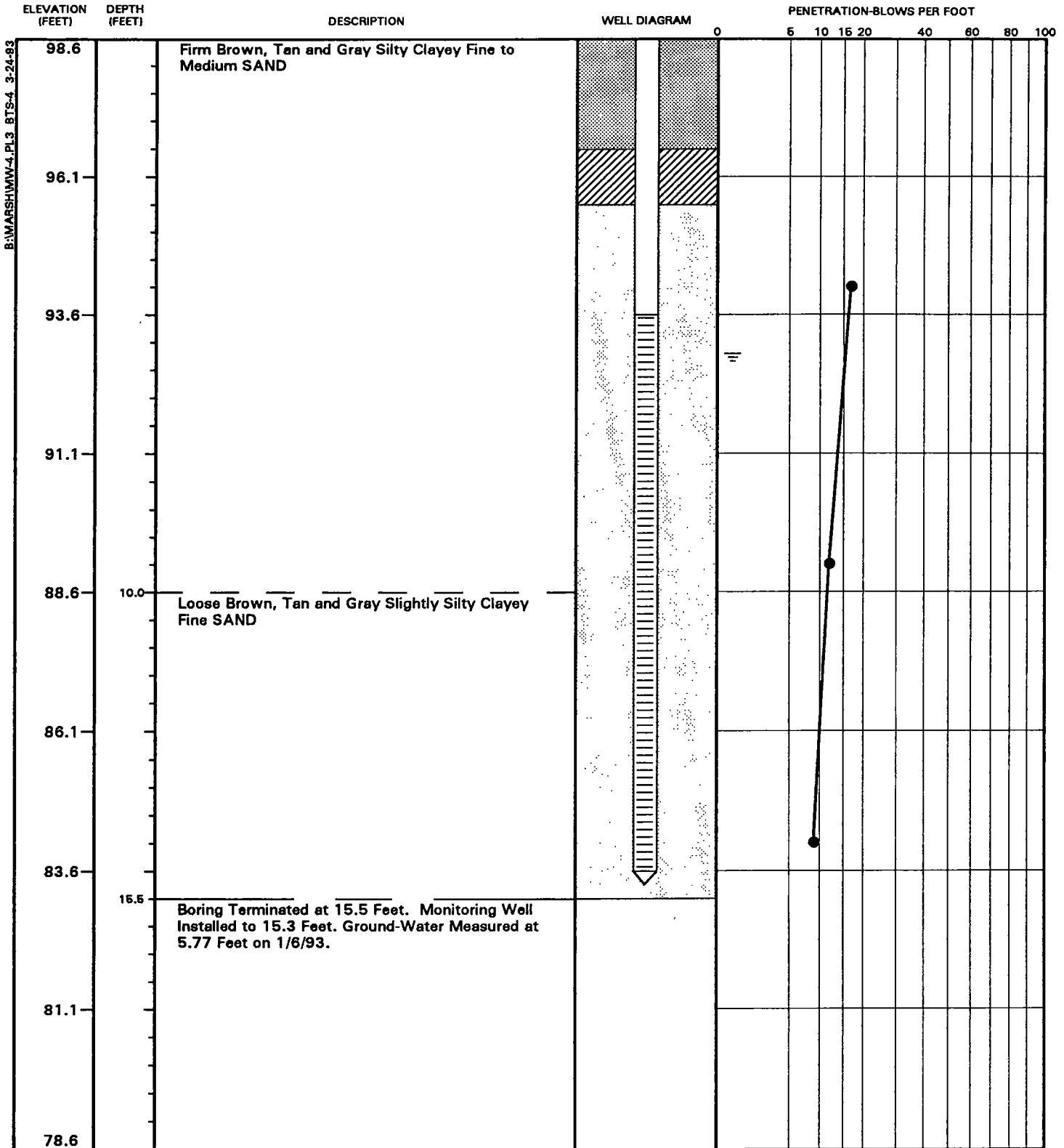
**REMARKS:**  
See Key Sheet for Explanation of Symbols and Abbreviations Used Above.  
Longitude: 79° 34' 06"  
Latitude: 34° 00' 00"

DRILLED BY METRO  
LOGGED BY JLF  
CHECKED BY BTS

BORING NUMBER MW-3  
DATE STARTED 1/4/93  
DATE COMPLETED 1/4/93  
JOB NUMBER 4352-40

# TEST BORING RECORD

DATUM ELEVATION: 98.16 F  
HEIGHT OF RISER: -0.39 F



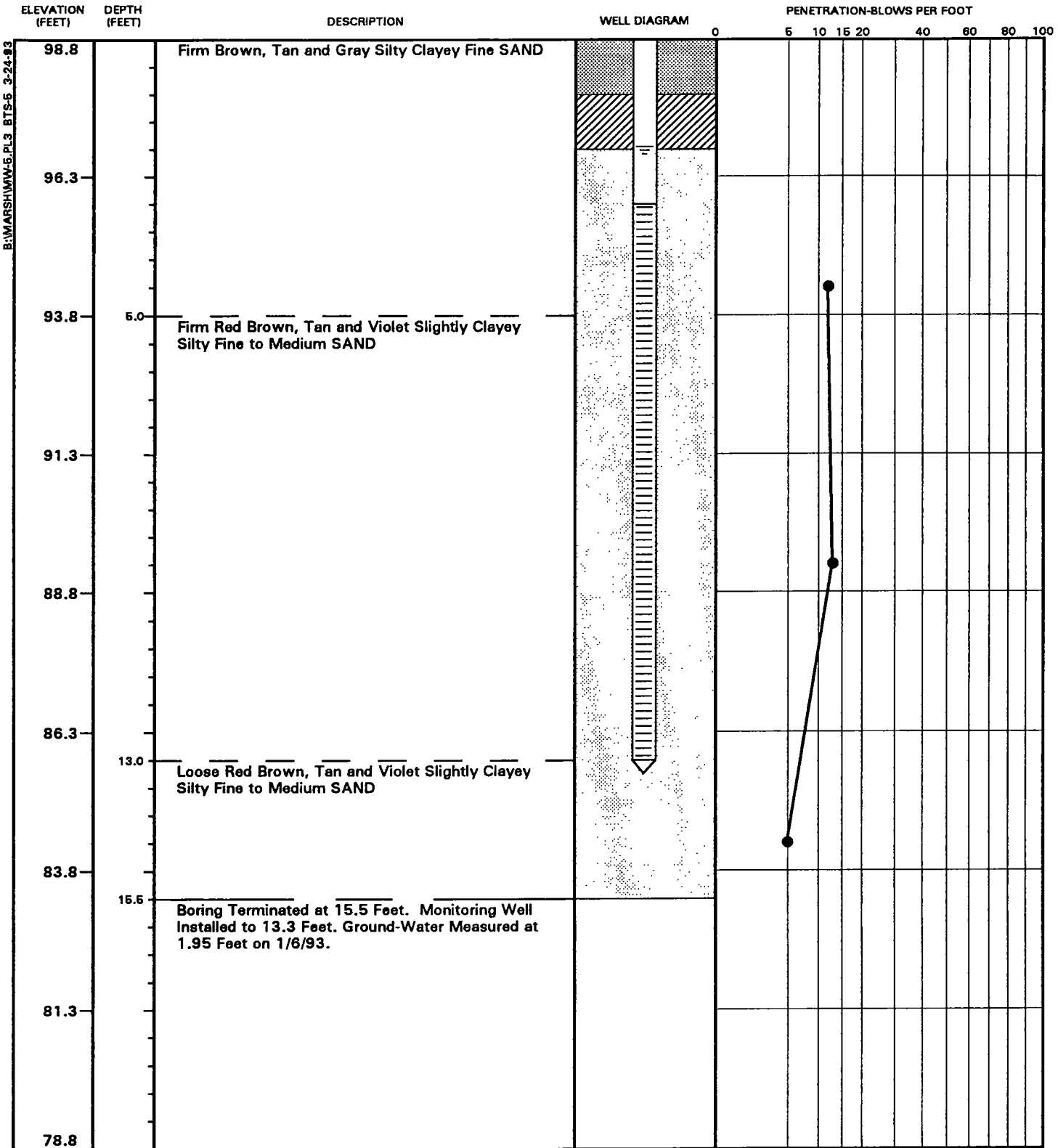
**REMARKS:**  
See Key Sheet for Explanation of Symbols and Abbreviations Used Above.  
Longitude: 79° 34' 06"  
Latitude: 34° 00' 00"

DRILLED BY	METRO	BORING NUMBER	MW-4
LOGGED BY	JLF	DATE STARTED	1/5/93
CHECKED BY	BTS	DATE COMPLETED	1/5/93
		JOB NUMBER	4352-40



# TEST BORING RECORD

DATUM ELEVATION: 98.57 F  
HEIGHT OF RISER: -0.18 F



**REMARKS:**  
See Key Sheet for Explanation of Symbols and Abbreviations Used Above.  
Longitude: 79° 34' 06"  
Latitude: 34° 00' 00"

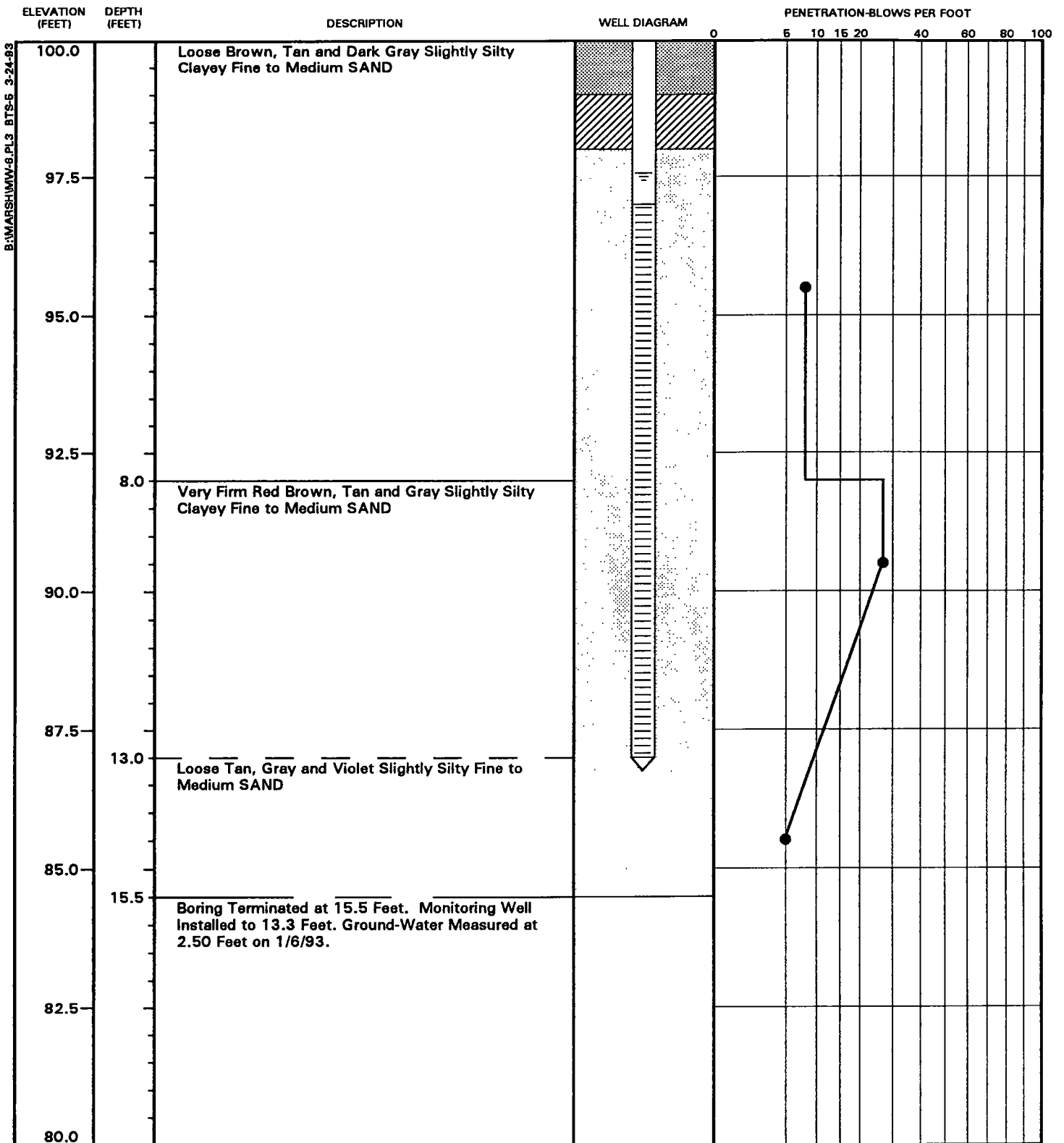
DRILLED BY METRO  
LOGGED BY JLF  
CHECKED BY BTS

BORING NUMBER MW-5  
DATE STARTED 1/5/93  
DATE COMPLETED 1/5/93  
JOB NUMBER 4352-40

# TEST BORING RECORD

DATUM ELEVATION: 99.81 F

HEIGHT OF RISER: -0.16 F



**REMARKS:**

See Key Sheet for Explanation of Symbols and Abbreviations Used Above.

Longitude: 79° 34' 06"

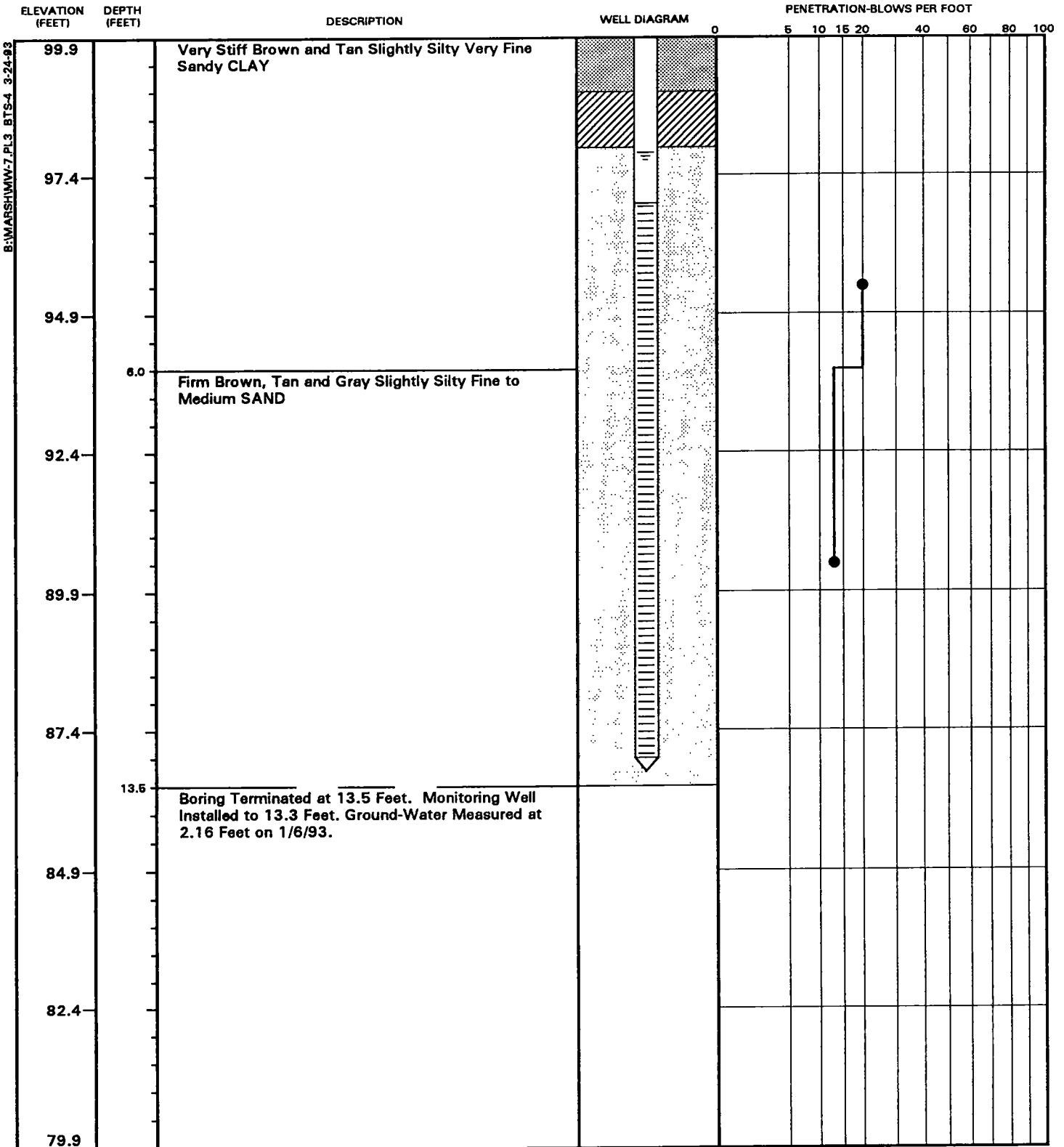
Latitude: 34° 00' 00"

DRILLED BY METRO  
 LOGGED BY JLF  
 CHECKED BY BTS

BORING NUMBER MW-6  
 DATE STARTED 1/5/93  
 DATE COMPLETED 1/5/93  
 JOB NUMBER 4352-40

# TEST BORING RECORD

DATUM ELEVATION: 99.59 F  
HEIGHT OF RISER: -0.31 F

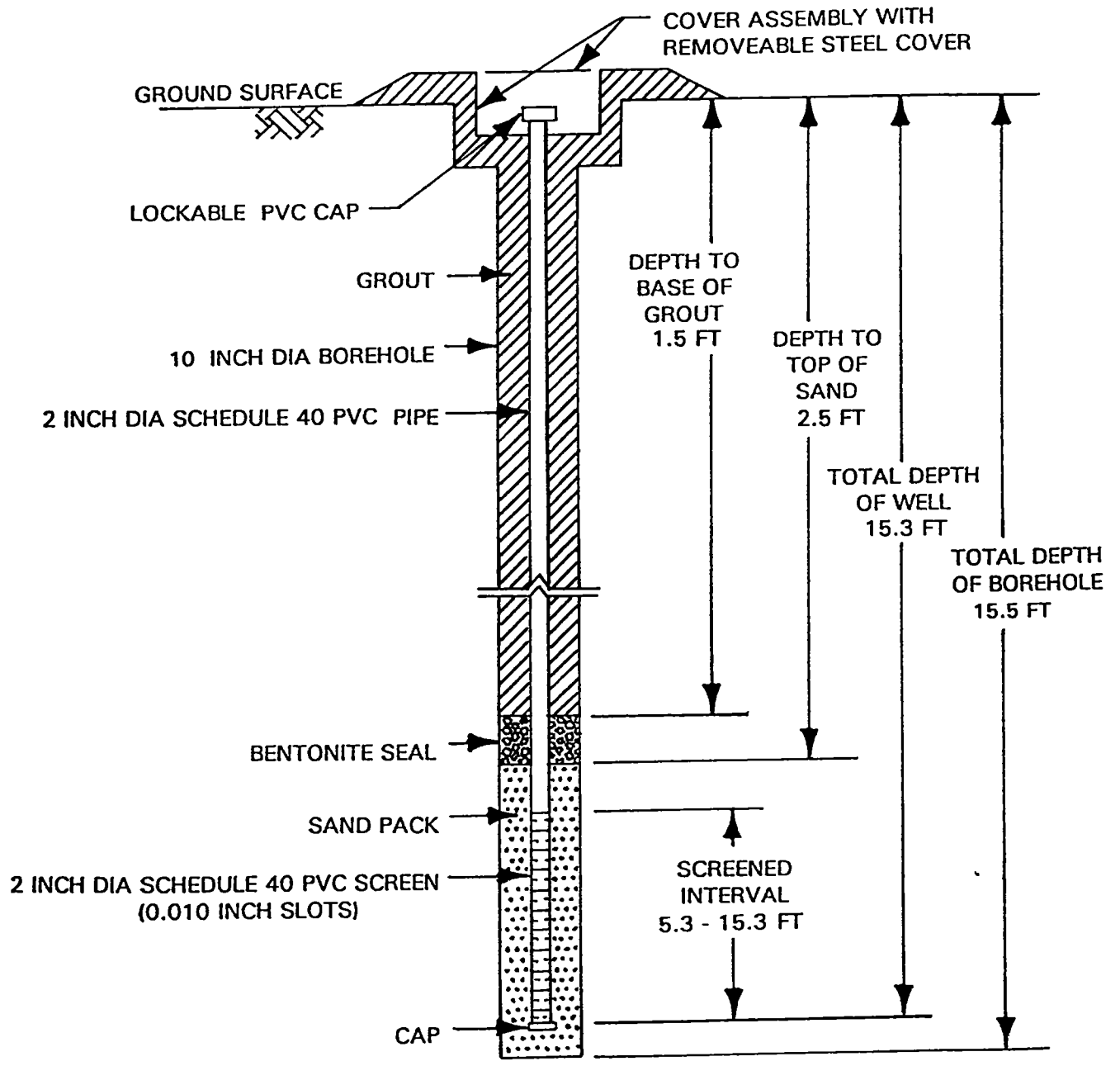


**REMARKS:**  
 See Key Sheet for Explanation of Symbols and Abbreviations Used Above.  
 Longitude: 79° 34' 06"  
 Latitude: 34° 00' 00"

DRILLED BY	METRO	BORING NUMBER	MW-7
LOGGED BY	JLF	DATE STARTED	1/5/93
CHECKED BY	BTS	DATE COMPLETED	1/5/93
		JOB NUMBER	4352-40



JOB NAME Marsh Lumber Company JOB NUMBER 499-2-4352-40  
 WELL NUMBER MW-1 GROUND SURFACE ELEVATION \* 100.54  
 LOCATION See Site Plan MEASURING POINT ELEVATION\* 100.39  
 (TOP OF PVC CASING)  
 INSTALLATION DATE 1-4-93 LONGITUDE 79° 34' 06"W LATITUDE 34° 00' 00"N

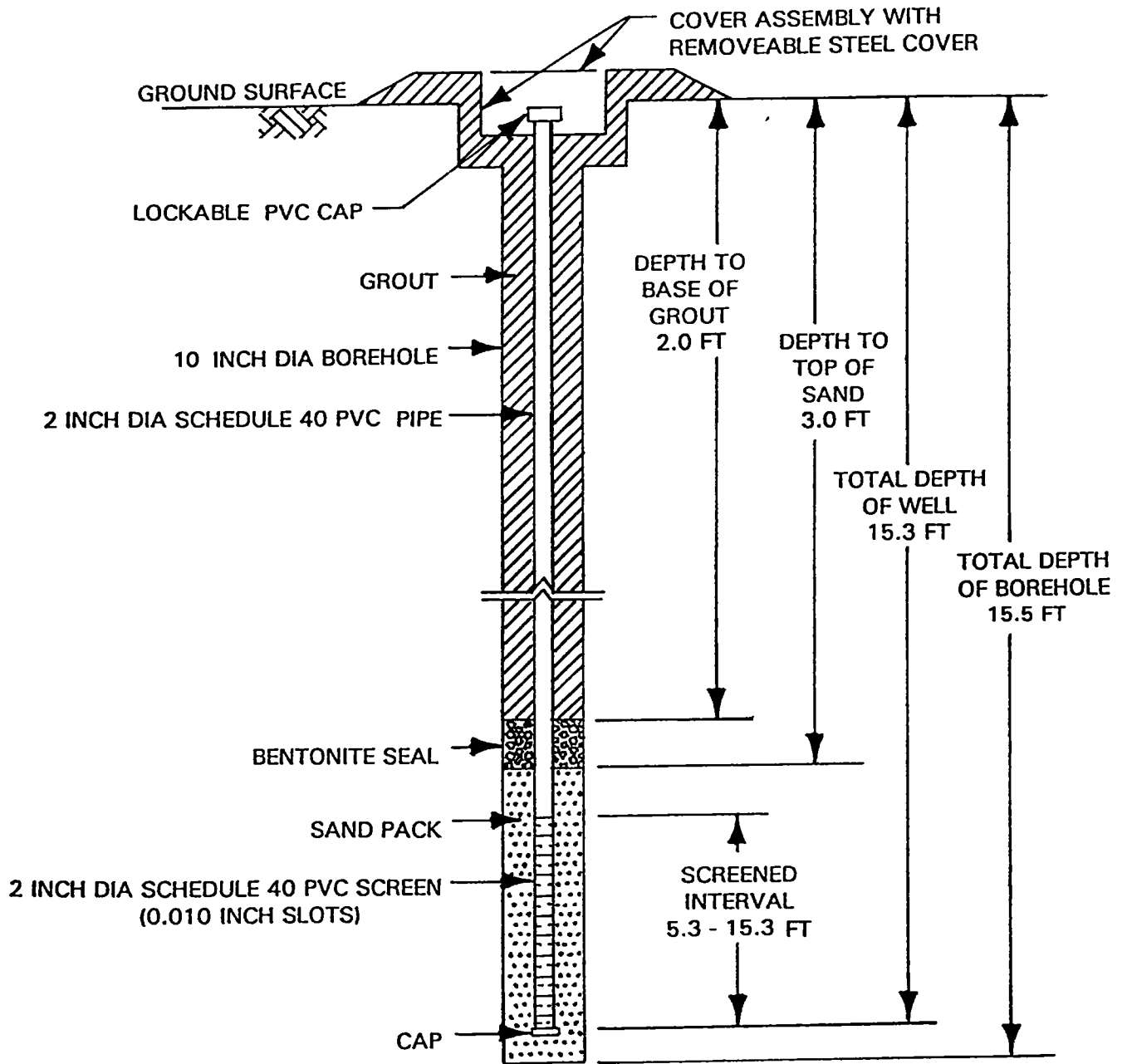


REFERENCED TO AN ASSUMED SITE DATUM.  
 NOTE: ALL PVC JOINTS ARE FLUSH THREADED

 **LAW ENGINEERING, INC.**  
 COLUMBIA, SOUTH CAROLINA

TYPE II  
 MONITORING WELL  
 INSTALLATION RECORD

JOB NAME	Marsh Lumber Company	JOB NUMBER	499-2-4352-40
WELL NUMBER	MW-2	GROUND SURFACE ELEVATION *	100.24
LOCATION	See Site Plan	MEASURING POINT ELEVATION* (TOP OF PVC CASING)	99.89
INSTALLATION DATE	1-4-93	LONGITUDE	79° 34' 06"W
		LATITUDE	34° 00' 00"N



REFERENCED TO AN ASSUMED SITE DATUM.  
NOTE: ALL PVC JOINTS ARE FLUSH THREADED

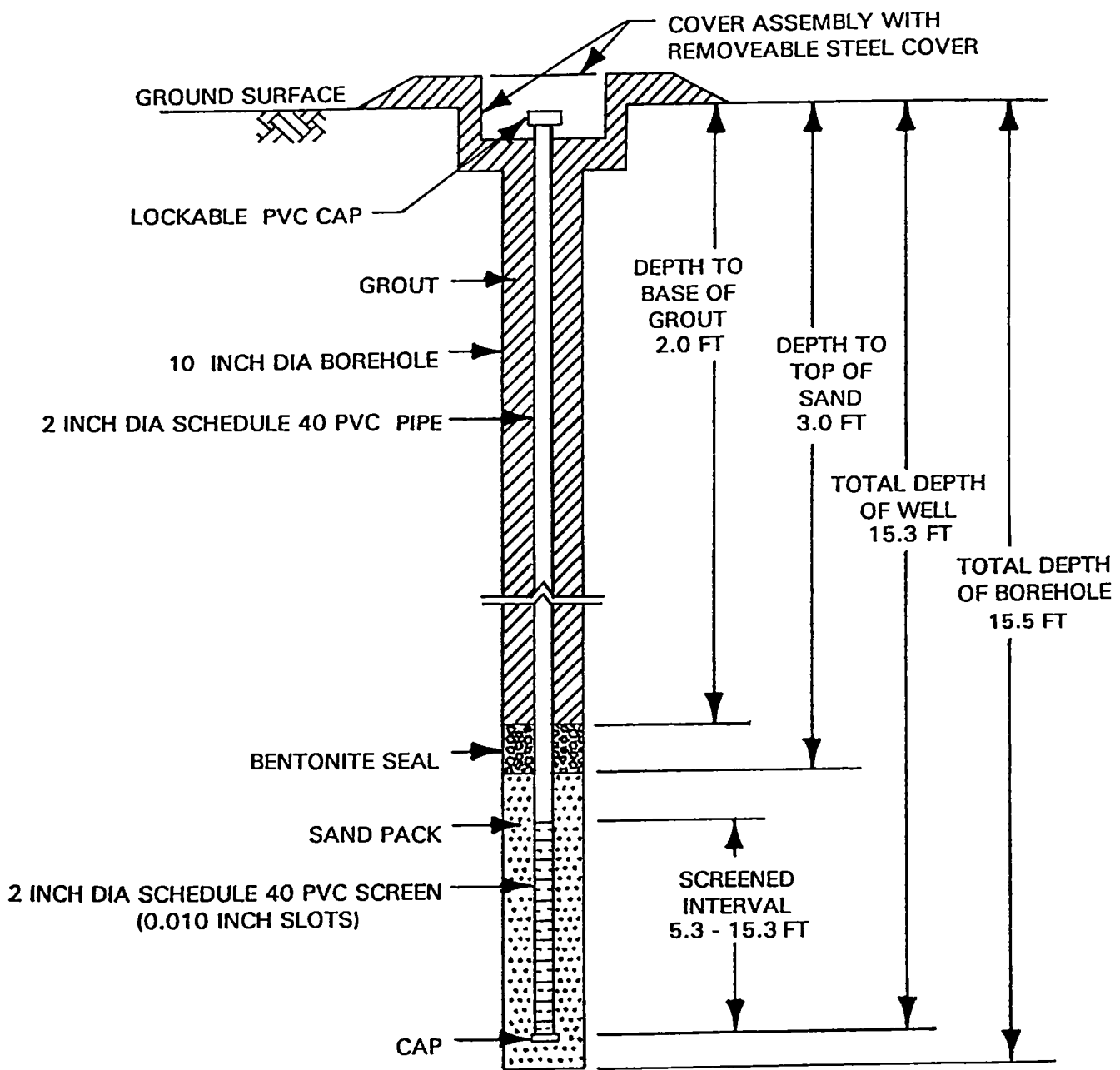


**LAW ENGINEERING, INC.**  
COLUMBIA, SOUTH CAROLINA

TYPE II  
MONITORING WELL  
INSTALLATION RECORD



JOB NAME Marsh Lumber Company JOB NUMBER 499-2-4352-40  
 WELL NUMBER MW-3 GROUND SURFACE ELEVATION \* 99.55  
 LOCATION See Site Plan MEASURING POINT ELEVATION\* 99.13  
 (TOP OF PVC CASING)  
 INSTALLATION DATE 1-4-93 LONGITUDE 79° 34' 06"W LATITUDE 34° 00' 00"N

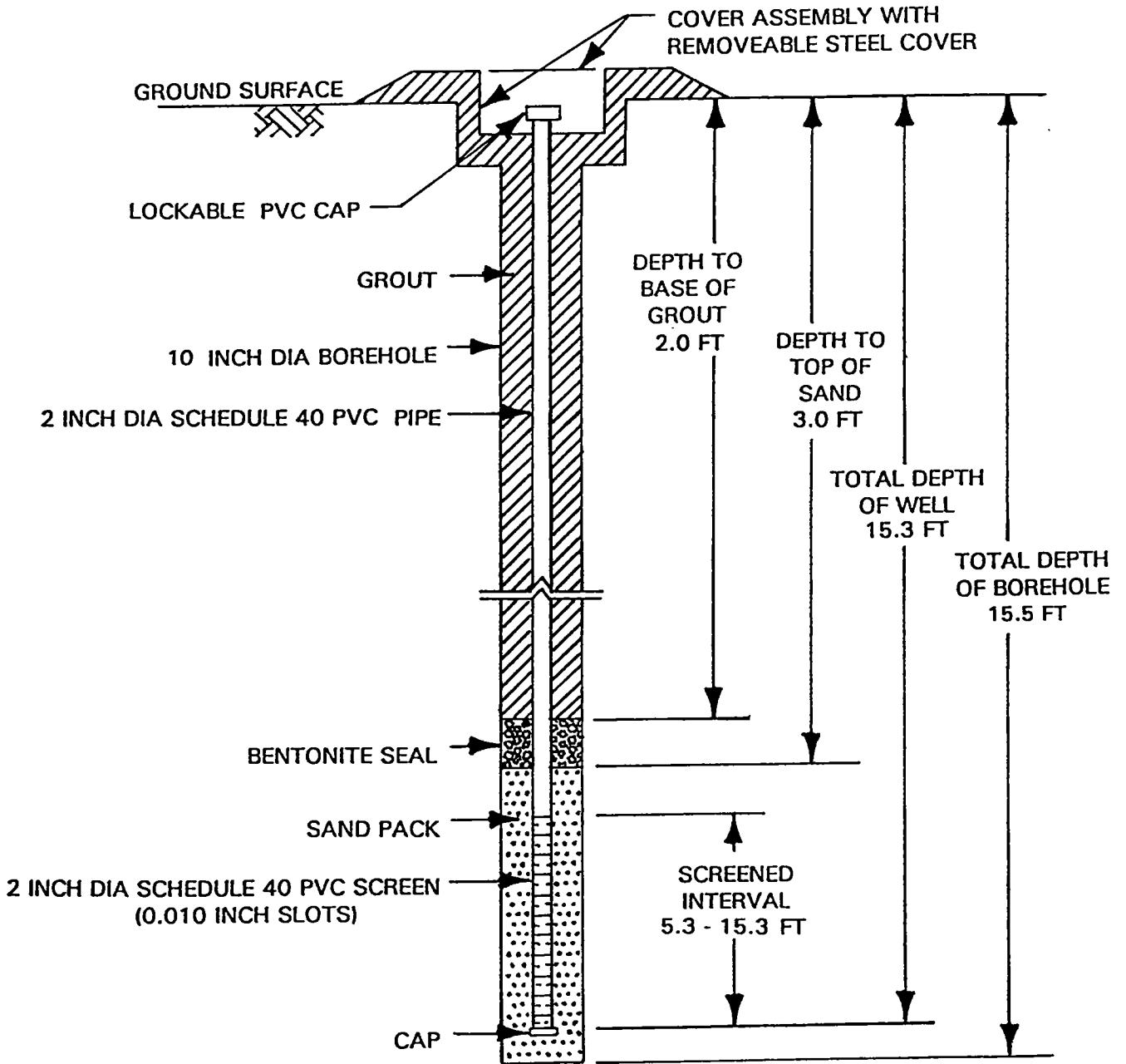


REFERENCED TO AN ASSUMED SITE DATUM.  
 NOTE: ALL PVC JOINTS ARE FLUSH THREADED

 **LAW ENGINEERING, INC.**  
 COLUMBIA, SOUTH CAROLINA

TYPE II  
 MONITORING WELL  
 INSTALLATION RECORD

JOB NAME	Marsh Lumber Company	JOB NUMBER	499-2-4352-40
WELL NUMBER	MW-4	GROUND SURFACE ELEVATION *	98.55
LOCATION	See Site Plan	MEASURING POINT ELEVATION* (TOP OF PVC CASING)	98.16
INSTALLATION DATE	1-5-93	LONGITUDE	79° 34' 06"W
		LATITUDE	34° 00' 00"N



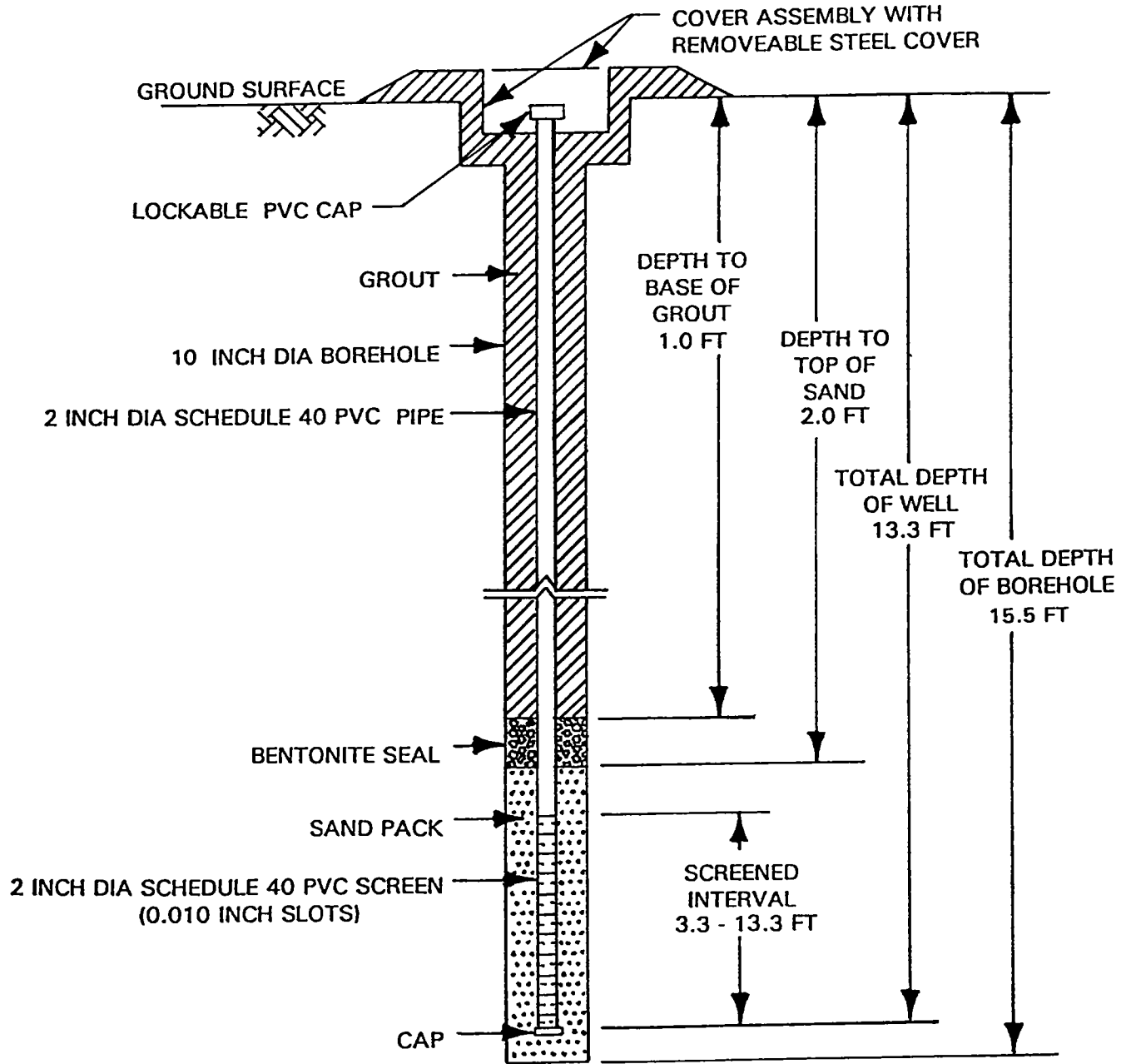
REFERENCED TO AN ASSUMED SITE DATUM.  
NOTE: ALL PVC JOINTS ARE FLUSH THREADED



**LAW ENGINEERING, INC.**  
COLUMBIA, SOUTH CAROLINA

TYPE II  
MONITORING WELL  
INSTALLATION RECORD

JOB NAME	Marsh Lumber Company	JOB NUMBER	499-2-4352-40
WELL NUMBER	MW-5	GROUND SURFACE ELEVATION *	98.75
LOCATION	See Site Plan	MEASURING POINT ELEVATION* (TOP OF PVC CASING)	98.57
INSTALLATION DATE	1-5-93	LONGITUDE	79° 34' 06"W
		LATITUDE	34° 00' 00"N



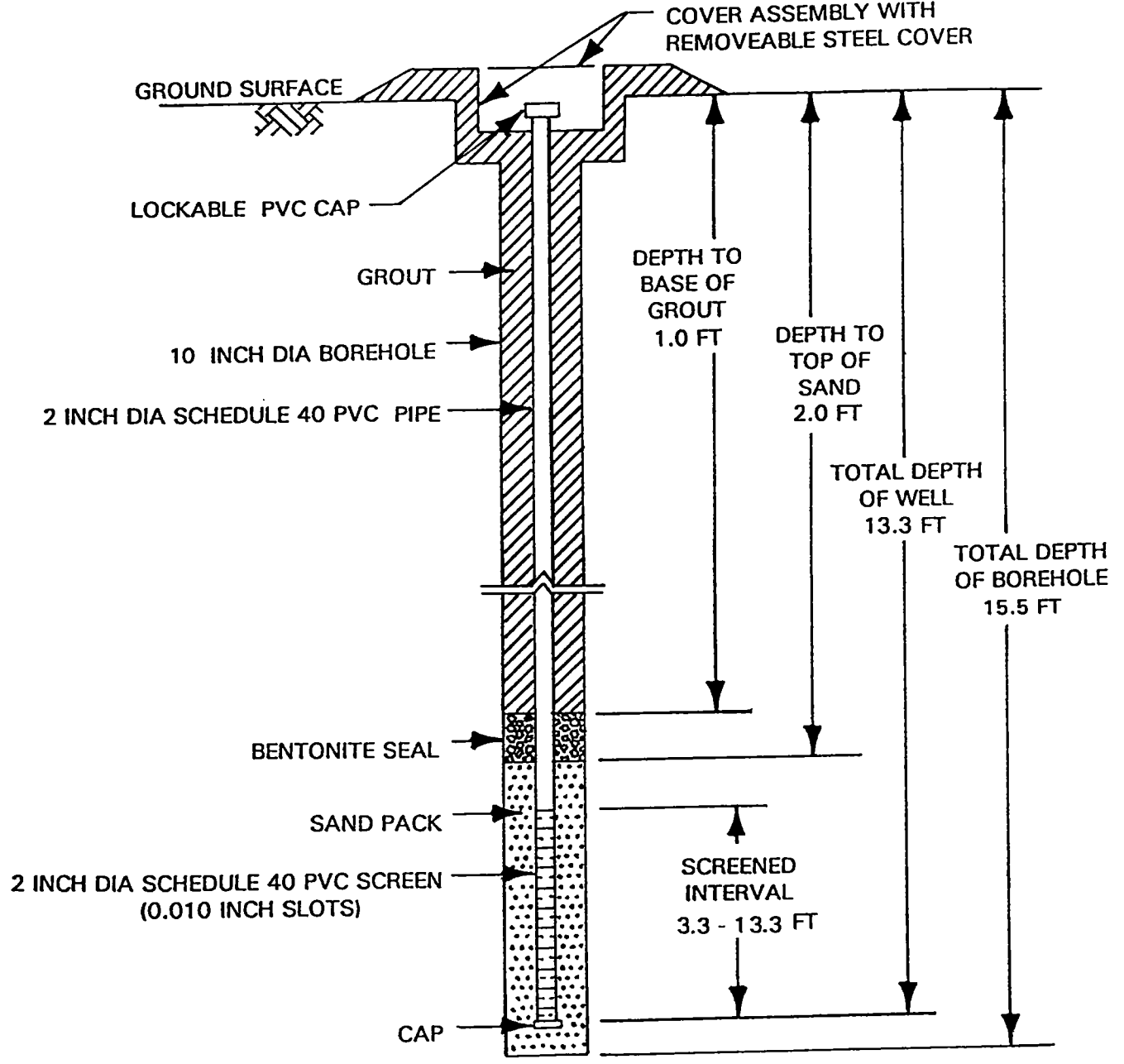
REFERENCED TO AN ASSUMED SITE DATUM.  
NOTE: ALL PVC JOINTS ARE FLUSH THREADED



**LAW ENGINEERING, INC.**  
COLUMBIA, SOUTH CAROLINA

TYPE II  
MONITORING WELL  
INSTALLATION RECORD

JOB NAME Marsh Lumber Company JOB NUMBER 499-2-4352-40  
 WELL NUMBER MW-6 GROUND SURFACE ELEVATION \* 99.97  
 LOCATION See Site Plan MEASURING POINT ELEVATION\* 99.81  
 (TOP OF PVC CASING)  
 INSTALLATION DATE 1-5-93 LONGITUDE 79° 34' 06"W LATITUDE 34° 00' 00"N

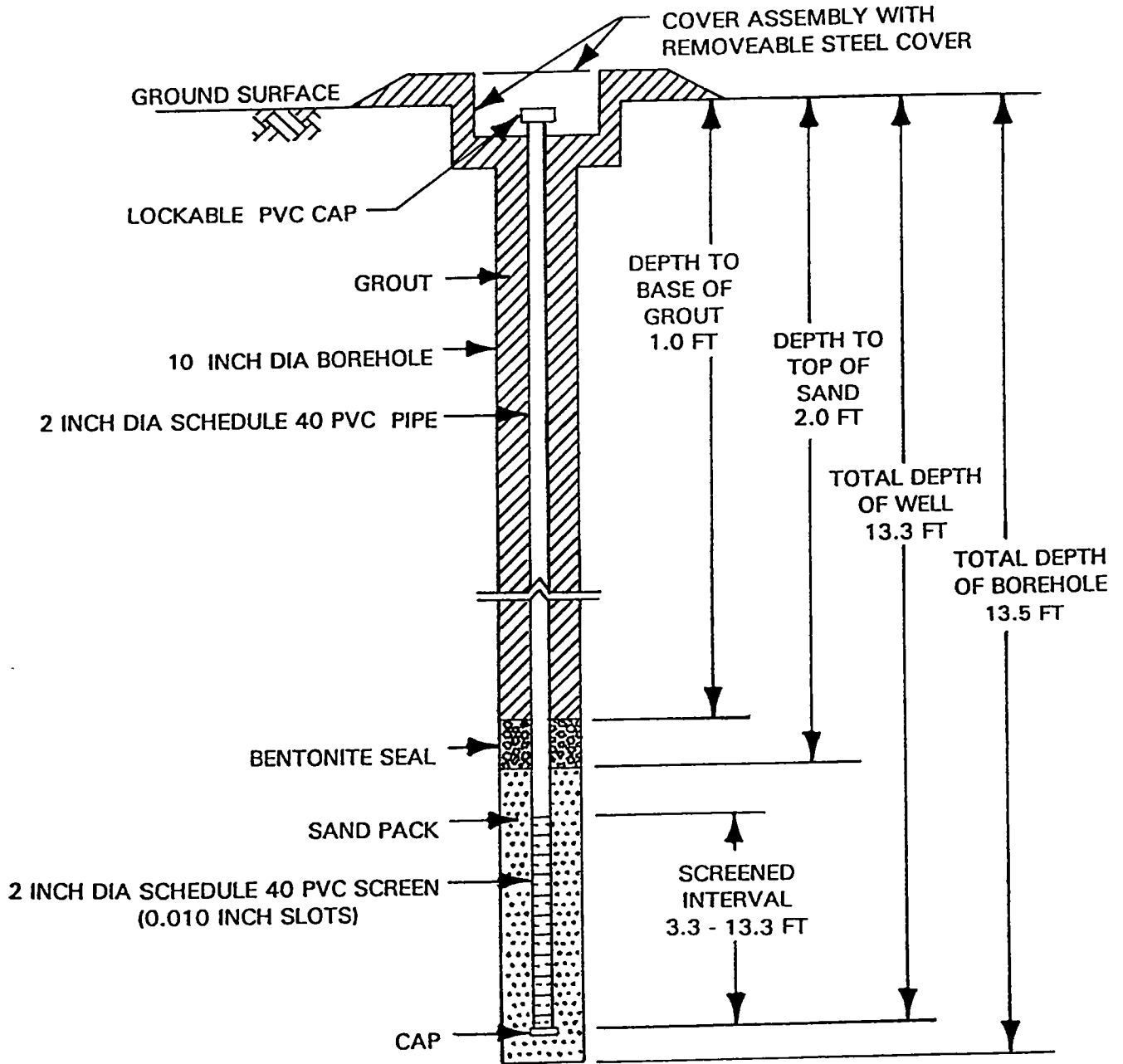


REFERENCED TO AN ASSUMED SITE DATUM.  
 NOTE: ALL PVC JOINTS ARE FLUSH THREADED

 **LAW ENGINEERING, INC.**  
 COLUMBIA, SOUTH CAROLINA

TYPE II  
 MONITORING WELL  
 INSTALLATION RECORD

JOB NAME Marsh Lumber Company JOB NUMBER 499-2-4352-40  
 WELL NUMBER MW-7 GROUND SURFACE ELEVATION \* 99.90  
 LOCATION See Site Plan MEASURING POINT ELEVATION\* 99.59  
 (TOP OF PVC CASING)  
 INSTALLATION DATE 1-5-93 LONGITUDE 79° 34' 06"W LATITUDE 34° 00' 00"N



REFERENCED TO AN ASSUMED SITE DATUM.  
 NOTE: ALL PVC JOINTS ARE FLUSH THREADED



**LAW ENGINEERING, INC.**  
 COLUMBIA, SOUTH CAROLINA

TYPE II  
 MONITORING WELL  
 INSTALLATION RECORD

**APPENDIX III**  
**LABORATORY REPORTS**



**LAW ENVIRONMENTAL, INC.**

NATIONAL LABORATORIES DIVISION  
300 CHASTAIN CENTER BLVD. SUITE 315  
KENNESAW, GEORGIA 30144  
404-426-4309 FAX 426-0243

January 15, 1993

Law Engineering, Inc.  
720 Gracern Rd. , Suite 132  
Columbia, SC 29210

Attention: Bryan Shane

LE Job Number: 499-2-4325-40  
S.C. Certification Number: 98004

Subject: Chemical Analysis of samples received on 01/08/93.

Dear Mr. Shane:

Law Environmental National Laboratories has completed its analysis of your samples and reports the results on the following pages. These results relate only to the contents of the samples as submitted. This report shall not be reproduced except in full without the approval of Law Environmental National Laboratories.

If there are any questions, please do not hesitate to contact us.

Sincerely,

LAW ENVIRONMENTAL NATL LABS

Linda Harris  
Hydrocarbon Laboratory Supervisor

Attachment: Data Report  
Invoice

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/15/93  
Page 1

--- Project Information ---

Lab Number : 63-6228-01  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER CO.

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

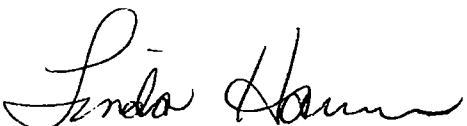
Station ID : MW-1 (3.5-5.0')  
Matrix : SO  
Type : GRAB  
Collector : JRF

Sampled Date/Time : 01/04/93 14:05  
Received Date/Time : 01/08/93 11:55  
Received From/By : LD/ST  
Chain of Custody : 1693  
Number of Containers : 1

Remarks :

--- Test Data ---

Parameter.....	Method....	Units	PQL.....	Results...	Test Date	Analy
-- SAMPLE PREPARATION RESULTS --						
Moisture (Oven Dried @ 105 C)	EPA 160.3M	wt %	1	13	01/15/93	KH
--- SERIES 15000						
Benzene	EPA 8020	ug/kg	1.8	ND	01/14/93	KH
Toluene	EPA 8020	ug/kg	1.8	ND	01/14/93	KH
Ethylbenzene	EPA 8020	ug/kg	1.8	ND	01/14/93	KH
Xylene, Total	EPA 8020	ug/kg	3.6	ND	01/14/93	KH
-- SCREENING FOR BTEX RESULTS --						
SCREENING FOR BTEX				NA	01/09/93	RO

Signed 



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/15/93  
Page 1

--- Project Information ---

Lab Number : 63-6228-02  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER CO.  
Cust. No. :  
Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-2 (3.5-5.0')  
Matrix : SO  
Type : GRAB  
Collector : JRF  
Sampled Date/Time : 01/04/93 16:10  
Received Date/Time : 01/08/93 11:55  
Received From/By : LD/ST  
Chain of Custody : 1693  
Number of Containers : 1

Remarks :

--- Test Data ---

Parameter.....	Method....	Units	PQL.....	Results...	Test Date	Analy
-- SAMPLE PREPARATION RESULTS --						
Moisture (Oven Dried @ 105 C)	EPA 160.3M	wt %	1	9.5	01/15/93	KH
--- SERIES 15000						
Benzene	EPA 8020	ug/kg	1.7	ND	01/14/93	KH
Toluene	EPA 8020	ug/kg	1.7	ND	01/14/93	KH
Ethylbenzene	EPA 8020	ug/kg	1.7	ND	01/14/93	KH
Xylene, Total	EPA 8020	ug/kg	3.4	ND	01/14/93	KH
-- SCREENING FOR BTEX RESULTS --						
SCREENING FOR BTEX				NA	01/09/93	RO

Signed Linda Bauer

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/15/93  
Page 1

--- Project Information ---

Lab Number : 63-6228-03  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER CO.

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

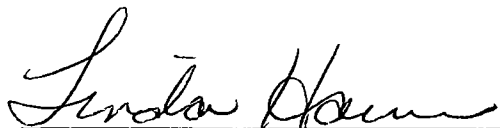
Station ID : MW-3 (3.5-5.0')  
Matrix : SO  
Type : GRAB  
Collector : JRF

Sampled Date/Time : 01/04/93 17:35  
Received Date/Time : 01/08/93 11:55  
Received From/By : LD/ST  
Chain of Custody : 1693  
Number of Containers : 1

Remarks :

--- Test Data ---

Parameter.....	Method....	Units	PQL.....	Results...	Test Date	Analy
-- SAMPLE PREPARATION RESULTS --						
Moisture (Oven Dried @ 105 C)	EPA 160.3M	wt %	1	21	01/15/93	KH
--- SERIES 15000						
Benzene	EPA 8020	ug/kg	1.9	ND	01/14/93	KH
Toluene	EPA 8020	ug/kg	1.9	ND	01/14/93	KH
Ethylbenzene	EPA 8020	ug/kg	1.9	ND	01/14/93	KH
Xylene, Total	EPA 8020	ug/kg	3.8	ND	01/14/93	KH
-- SCREENING FOR BTEX RESULTS --						
SCREENING FOR BTEX				NA	01/09/93	RO

Signed 

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/15/93

Page 1

--- Project Information ---

Lab Number : 63-6228-04  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER CO.

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-4 (3.5-5.0')  
Matrix : SO  
Type : GRAB  
Collector : JRF

Sampled Date/Time : 01/05/93 09:10  
Received Date/Time : 01/08/93 11:55  
Received From/By : LD/ST  
Chain of Custody : 1694  
Number of Containers : 1

Remarks :

--- Test Data ---

Parameter..... Method.... Units PQL..... Results... Test Date Analy

-- SAMPLE PREPARATION RESULTS --

Moisture (Oven Dried @ 105 C) EPA 160.3M wt % 1 15 01/15/93 KH

--- SERIES 15000

Benzene	EPA 8020	ug/kg	1.7	ND	01/14/93	KH
Toluene	EPA 8020	ug/kg	1.7	ND	01/14/93	KH
Ethylbenzene	EPA 8020	ug/kg	1.7	ND	01/14/93	KH
Xylene, Total	EPA 8020	ug/kg	3.4	ND	01/14/93	KH

-- SCREENING FOR BTEX RESULTS --

SCREENING FOR BTEX NA 01/09/93 RO

Signed 

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/15/93

Page 1

--- Project Information ---

Lab Number : 63-6228-05  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER CO.

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : TRIP BLANK  
Matrix : W  
Type : GRAB  
Collector :

Sampled Date/Time : 01/04/93 :  
Received Date/Time : 01/08/93 11:55  
Received From/By : LD/ST  
Chain of Custody : 1693  
Number of Containers : 2

Remarks :

--- Test Data ---

Parameter.....	Method....	Units	PQL.....	Results...	Test Date	Analy
--- SERIES 15000						
Methyl-Tertiary-Butyl Ether (MTBE)	EPA 602	ug/l	5.0	ND	01/12/93	KH
Benzene	EPA 602	ug/l	1.0	ND	01/12/93	KH
Toluene	EPA 602	ug/l	1.0	ND	01/12/93	KH
Ethylbenzene	EPA 602	ug/l	1.0	ND	01/12/93	KH
Xylene, Total	EPA 602	ug/l	2.0	ND	01/12/93	KH

Signed





LAW ENVIRONMENTAL, INC.  
 NATIONAL LABORATORY  
 112 TOWNPARK DRIVE  
 KENNESAW, GEORGIA 30144  
 (404) 421-3306

93-4570-01-205

# CHAIN OF CUSTODY RECORD

1/109 re 2

**SAMPLING INFORMATION**  
 NAME OF FACILITY: Marsh Lumber Company  
 STREET ADDRESS: \_\_\_\_\_  
 CITY / STATE: Pamlico S.C. ZIP: \_\_\_\_\_

PROJECT NAME		JOB NO.		TOTAL NO. OF CONTAINERS	CONTAINER TYPE														FOR LAB USE ONLY			
SAMPLERS (SIGNATURE)		SAMPLERS INITIALS (PRINT)			G = GLASS PL = PLASTIC																	
SAMPLING DATE					40 ml G VOA Vial (HCl) / 40 ml G VOA Vial / 1 LG Amber Bottle / 1 LG Amber Bottle / 1 L PL Bottle (H <sub>2</sub> SO <sub>4</sub> ) / 1 L PL Bottle (HNO <sub>3</sub> ) / 1 L PL Bottle (H <sub>2</sub> SO <sub>4</sub> ) / 1 L PL Bottle (Ascorbic Acid + NaOH) / 250 ml PL Bottle (Zn Acetate + NaOH) / Teflon Bottle / 32 oz. G Jar / 8 oz. G Jar / 4 oz. G Jar / 2 oz. G SEPTA Jar / 4 oz. PL Jar																	
TIME	GRAB	COMP.	* MATRIX	SAMPLE STATION DESCRIPTION																		
Marsh Lumber Company		499-2-4325-40		1																		
Jeffrey R. Fowler		JRF																				
1-04-93, 1-05-93 and 1-06-93																						
14:05	✓		SO	MW-1 (3.5-5.0')	1																	
16:10	✓		SO	MW-2 (3.5-5.0')	1																	
17:35	✓		SO	MW-3 (3.5-5.0')	1																	
9:10	✓		SO	MW-4 (3.5-5.0')	1																	
15:10	✓		W	MW-1	5	3	2															93-4570-01
15:00	✓		W	MW-2	2	2															-02	
14:50	✓		W	MW-3	2	2															-03	
14:40	✓		W	MW-4	2	2															-04	
14:00	✓		W	MW-5	3	3																
14:10	✓		W	MW-6	3	3																
14:25	✓		W	MW-7	3	3																
RELINQUISHED BY: Jeffrey R. Fowler (SIGNATURE)		DATE / TIME: 1-07-93 17:00	RECEIVED BY: _____ (SIGNATURE)		DATE / TIME: _____	RELINQUISHED BY: _____ (SIGNATURE)		RECEIVED BY LABORATORY: Linda Carpenter (SIGNATURE)		DATE / TIME: 1/8/93 9:10												

\*MATRIX

**DISTRIBUTION:** ORIGINAL AND YELLOW COPIES ACCOMPANY SAMPLE SHIPMENT TO LABORATORY. PINK COPY RETAINED BY SAMPLERS. YELLOW COPY RETAINED BY LABORATORY.

WATER - W SLUDGE - SL  
 SOIL / SEDIMENT - SO OTHER - NA

**REMARKS:** Contact Bryan Shane - Law Engineering, Columbia, S.C. ASAP - to confirm analyses  
 Note: Two Coolers in Shipment

**For Law Environmental National Lab Use Only**

Are Custody Seals Present? Yes  No  Are Custody Seals Intact? Yes  No  N/A  Inspected By: Linda Carpenter Date: 1-8-93





LAW ENVIRONMENTAL, INC.  
 NATIONAL LABORATORY  
 112 TOWNPARK DRIVE  
 KENNESAW, GEORGIA 30144  
 (404) 421-3400

# INTRA-LABORATORY SAMPLE TRANSFER RECORD

1595

**SAMPLING INFORMATION**

NAME OF FACILITY: \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_

NPDES NUMBER \_\_\_\_\_

PROJECT NAME				JOB NO.	TOTAL NO. OF CONTAINERS	CONTAINER TYPE													LENL LAB NO.								
11425H LUMBER CO				449-A-4325-40		G = GLASS PL = PLASTIC																					
SAMPLERS (SIGNATURE) - JL				JRF		40 ml G VOA Vial (HCl)																					
SAMPLING DATE				1-6-93		1 L G VOA Vial																					
TIME	GRAB	COMP.	*SOURCE CODE	SAMPLE STATION DESCRIPTION		1 L G Amber Bottle	1 L PL Bottle (H <sub>2</sub> SO <sub>4</sub> )	1 L PL Bottle (HNO <sub>3</sub> )	1 L PL Bottle (H <sub>2</sub> SO <sub>4</sub> )	1 L PL Bottle (Ascorbic Acid + NaOH)	250 ml PL Bottle (Zn Acetate + NaOH)	Teflon Bottle	32 oz. G Jar	8 oz. G Jar	4 oz. G Jar	2 oz. G Jar	4 oz. PL Jar										
14:00	X		W	MW-5	3	3																			636228-06		
14:10	X		W	MW-6	3	3																			-07		
14:25	X		W	MW-7	3	3																			-08		

DATE / TIME 1/8/93 10:40	RELINQUISHED BY: <i>Linda Casper</i> (SIGNATURE)	RECEIVED BY LABORATORY: <i>[Signature]</i> (SIGNATURE)	DATE / TIME 1/8/93 11:55
-----------------------------	--	--	-----------------------------

NOTE: 93 -  
 LEUL # 4570

ALL OF THE ABOVE INFORMATION HAS BEEN TRANSCRIBED FROM ORIGINAL COC# 17109



LAW ENVIRONMENTAL, INC.  
 NATIONAL LABORATORY  
 112 TOWNPARK DRIVE  
 KENNESAW, GEORGIA 30144  
 (404) 421-3400

# INTRA-LABORATORY SAMPLE TRANSFER RECORD

1598

SAMPLING INFORMATION  
 NPDES NUMBER

NAME OF FACILITY: \_\_\_\_\_  
 STREET ADDRESS: \_\_\_\_\_

PROJECT NAME		JOB NO.		TOTAL NO. OF CONTAINERS	CONTAINER TYPE																LENL LAB NO.			
SAMPLERS (SIGNATURE) <i>JRF</i>					G = GLASS PL = PLASTIC																			
SAMPLING DATE					40 ml G VOA Vial (HCl) 40 ml G VOA Vial 1 L G Amber Bottle 1 L Amber Bottle 1 L PL Bottle (H <sub>2</sub> SO <sub>4</sub> ) 1 L PL Bottle (HNO <sub>3</sub> ) 1 L PL Bottle (H <sub>2</sub> SO <sub>4</sub> ) 1 L PL Bottle (Ascorbic Acid + NaOH) 250 ml PL Bottle (Zn Acetate + NaOH) Teflon Bottle 32 oz. G Jar 8 oz. G Jar 4 oz. G Jar 2 oz. G Jar 4 oz. PL Jar 2 oz. PL Jar																			
TIME	GRAB	COMP.	SOURCE CODE	SAMPLE STATION DESCRIPTION																				
1515			W	BAKER BLANK		3	3																	63627809

DATE / TIME: 1/6/93 10:40  
 RELINQUISHED BY: *[Signature]*  
 RECEIVED BY LABORATORY: *[Signature]*  
 DATE / TIME: 1/8/93 11:55

NOTE: LENL # 93-4570

ALL OF THE ABOVE INFORMATION HAS BEEN TRANSCRIBED FROM ORIGINAL COC# 17500









**LAW ENVIRONMENTAL, INC.**

112 TOWNPARK DRIVE  
KENNESAW, GEORGIA 30144-5599  
404-421-3400

---

**January 22, 1993**

**Law Engineering, Inc.  
720 Gracern Road, Suite 132  
Columbia, SC 29210**

**Attention: Bryan Shane**

**Job Number: 499-2-4325-40**

**Subject: Chemical Analysis of Samples Received on 01/08/93.**

**Dear Mr. Shane:**

Law Environmental National Laboratories has completed its analysis of your samples and reports the results on the following pages. These results relate only to the contents of the samples as submitted. This report shall not be reproduced except in full without the approval of Law Environmental National Laboratories.

If there are any questions, please do not hesitate to contact us.

Sincerely,

LAW ENVIRONMENTAL NATL LABS

**Clifford H. McBride  
QC Coordinator**

**Attachment: Data Report  
Invoice**

**CASE NARRATIVE**

Project Name: Marsh Lumber Company

Date: January 22, 1993

Project Number: 499-2-4325-40

This narrative pertains to the following sample(s) submitted to Law Environmental National Labs (LENL-Kennesaw) on January 8, 1993:

<u>CLIENT ID.:</u>	<u>LABORATORY NUMBER:</u>	<u>CLIENT ID.:</u>	<u>LABORATORY #</u>
MW-1	93-4570-01		

Base Neutral Extractable Organics (EPA 8270):

The bis(2-Ethylhexyl)phthalate result of 29  $\mu\text{g}/\text{l}$  reported on sample MW-1 (93-4570-01) should be considered an estimated value, because the laboratory method blank contained 32  $\mu\text{g}/\text{l}$  of bis(2-Ethylhexyl)phthalate.

Signed: W. Paul Brafford

W. Paul Brafford

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/21/93  
Page 1

--- Project Information ---

Lab Number : 93-4570-01  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER COMPANY

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-1  
Matrix : W  
Type : GRAB  
Collector : JRG

Sampled Date/Time : 01/06/93 15:10  
Received Date/Time : 01/08/93 09:10  
Received From/By : JRF/LD  
Chain of Custody : 17109  
Number of Containers : 5

Parameter..... Method.... Units DL..... Results... Test Date Analy

--- ORGANIC PREP RESULTS ---

Ext/Acid/W	3510/8270			N/A	01/13/93	CSH
Ext/Base Neutral/W	3510/8270			N/A	01/13/93	CSH

--- SERIES 63000

Chloromethane	EPA 8240	ug/l	10	ND	01/15/93	MM
Bromomethane	EPA 8240	ug/l	10	ND	01/15/93	MM
Vinyl chloride	EPA 8240	ug/l	10	ND	01/15/93	MM
Chloroethane	EPA 8240	ug/l	10	ND	01/15/93	MM
Methylene chloride	EPA 8240	ug/l	5	ND	01/15/93	MM
Acetone	EPA 8240	ug/l	100	ND	01/15/93	MM
Carbon disulfide	EPA 8240	ug/l	5	6	01/15/93	MM
1,1-Dichloroethene	EPA 8240	ug/l	5	ND	01/15/93	MM
1,1-Dichloroethane	EPA 8240	ug/l	5	ND	01/15/93	MM
1,2-Dichloroethene, Total	EPA 8240	ug/l	5	ND	01/15/93	MM
Chloroform	EPA 8240	ug/l	5	ND	01/15/93	MM
1,2-Dichloroethane	EPA 8240	ug/l	5	ND	01/15/93	MM
2-Butanone (MEK)	EPA 8240	ug/l	100	ND	01/15/93	MM
1,1,1-Trichloroethane	EPA 8240	ug/l	5	ND	01/15/93	MM
Carbon tetrachloride	EPA 8240	ug/l	5	ND	01/15/93	MM
Vinyl acetate	EPA 8240	ug/l	50	ND	01/15/93	MM
Bromodichloromethane	EPA 8240	ug/l	5	ND	01/15/93	MM
1,2-Dichloropropane	EPA 8240	ug/l	5	ND	01/15/93	MM
trans-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	01/15/93	MM
Trichloroethene	EPA 8240	ug/l	5	ND	01/15/93	MM
Dibromochloromethane	EPA 8240	ug/l	5	ND	01/15/93	MM
1,1,2-Trichloroethane	EPA 8240	ug/l	5	ND	01/15/93	MM
Benzene	EPA 8240	ug/l	5	ND	01/15/93	MM
cis-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	01/15/93	MM
2-Chloroethylvinyl ether	EPA 8240	ug/l	10	ND	01/15/93	MM
Bromoform	EPA 8240	ug/l	5	ND	01/15/93	MM
4-Methyl-2-pentanone	EPA 8240	ug/l	50	ND	01/15/93	MM

Remarks:

DL = Detection Limit

ND = Not Detected at the DL

Unless otherwise noted, all soil test results are calculated based on dry weight.

Signed Paul Bradford

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/21/93  
Page 2

Lab Number : 93-4570-01  
Project No. : 499-2-4325-40

Parameter.....	Method....	Units	DL.....	Results...	Test Date	Analy
--- SERIES 63000						
2-Hexanone	EPA 8240	ug/l	50	ND	01/15/93	MM
1,1,2,2-Tetrachloroethane	EPA 8240	ug/l	5	ND	01/15/93	MM
Tetrachloroethene	EPA 8240	ug/l	5	ND	01/15/93	MM
Toluene	EPA 8240	ug/l	5	ND	01/15/93	MM
Chlorobenzene	EPA 8240	ug/l	5	21	01/15/93	MM
Ethylbenzene	EPA 8240	ug/l	5	ND	01/15/93	MM
Styrene	EPA 8240	ug/l	5	ND	01/15/93	MM
Xylene, Total	EPA 8240	ug/l	5	ND	01/15/93	MM

-- GC/MS ORGANIC ANALYSIS (A) RESULTS --

Phenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Chlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Methylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Methylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Nitrophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4-Dimethylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzoic acid	EPA 8270	ug/l	50	ND	01/19/93	JBP
2,4-Dichlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Chloro-3-methylphenol	EPA 8270	ug/l	20	ND	01/19/93	JBP
2,4,6-Trichlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4,5-Trichlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4-Dinitrophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
4-Nitrophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
4,6-Dinitro-2-methylphenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
Pentachlorophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
bis(2-Chloroethyl) ether	EPA 8270	ug/l	10	ND	01/19/93	JBP
1,3-Dichlorobenzene	EPA 8270	ug/l	10	ND	01/19/93	JBP
1,4-Dichlorobenzene	EPA 8270	ug/l	10	ND	01/19/93	JBP
1,2-Dichlorobenzene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzyl alcohol	EPA 8270	ug/l	10	ND	01/19/93	JBP
bis(2-Chloroisopropyl) ether	EPA 8270	ug/l	10	ND	01/19/93	JBP
Hexachloroethane	EPA 8270	ug/l	10	ND	01/19/93	JBP
N-Nitrosodi-N-propylamine	EPA 8270	ug/l	10	ND	01/19/93	JBP
Nitrobenzene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Isophorone	EPA 8270	ug/l	10	ND	01/19/93	JBP
bis(2-Chloroethoxy) methane	EPA 8270	ug/l	10	ND	01/19/93	JBP
1,2,4-Trichlorobenzene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Naphthalene	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Chloroaniline	EPA 8270	ug/l	10	ND	01/19/93	JBP
Hexachlorobutadiene	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Methylnaphthalene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Hexachlorocyclopentadiene	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Chloronaphthalene	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Nitroaniline	EPA 8270	ug/l	50	ND	01/19/93	JBP
Dimethyl phthalate	EPA 8270	ug/l	10	ND	01/19/93	JBP
Acenaphthylene	EPA 8270	ug/l	10	ND	01/19/93	JBP
3-Nitroaniline	EPA 8270	ug/l	50	ND	01/19/93	JBP
Acenaphthene	EPA 8270	ug/l	10	ND	01/19/93	JBP

Signed Paul Bradford

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/21/93  
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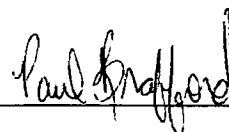
Lab Number : 93-4570-01  
Project No. : 499-2-4325-40

Parameter..... Method.... Units DL..... Results... Test Date Analy

-- GC/MS ORGANIC ANALYSIS (A) RESULTS --

Parameter	Method	Units	DL	Results	Test Date	Analy
Dibenzofuran	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4-Dinitrotoluene	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,6-Dinitrotoluene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Diethyl phthalate	EPA 8270	ug/l	10	ND	01/19/93	JBP
Fluorene	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Chlorophenylphenyl ether	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Nitroaniline	EPA 8270	ug/l	10	ND	01/19/93	JBP
N-Nitrosodiphenylamine	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Bromophenylphenyl ether	EPA 8270	ug/l	10	ND	01/19/93	JBP
Hexachlorobenzene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Phenanthrene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Anthracene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Di-n-butyl phthalate	EPA 8270	ug/l	10	ND	01/19/93	JBP
Fluoranthene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Pyrene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Butylbenzyl phthalate	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzo(a)anthracene	EPA 8270	ug/l	10	ND	01/19/93	JBP
3,3'-Dichlorobenzidine	EPA 8270	ug/l	10	ND	01/19/93	JBP
Chrysene	EPA 8270	ug/l	10	ND	01/19/93	JBP
bis(2-Ethylhexyl) phthalate	EPA 8270	ug/l	10	29	01/19/93	JBP
Di-n-octyl phthalate	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzo(b)fluoranthene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzo(k)fluoranthene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzo(a)pyrene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Indeno(1,2,3-cd)pyrene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Dibenzo(a,h,)anthracene	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzo(g,h,i)perylene	EPA 8270	ug/l	10	ND	01/19/93	JBP

Signed



Law Environmental National Laboratories



Project Name: Marsh Lumber Company  
Project #: 499-2-4325-40  
Lab Sample ID: 93-4570-01 Client ID: MW-1

Tentatively Identified Compounds

Volatiles

Component

Est. Conc (µg/l)

Not Detected

APPROVED BY: Paul Bradford



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/21/93  
Page 1

--- Project Information ---

Lab Number : 93-4570-02  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER COMPANY

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-2  
Matrix : W  
Type : GRAB  
Collector : JRG

Sampled Date/Time : 01/06/93 15:00  
Received Date/Time : 01/08/93 09:10  
Received From/By : JRF/LD  
Chain of Custody : 17109  
Number of Containers : 2

Parameter..... Method.... Units DL..... Results... Test Date Analy

-- ORGANIC PREP RESULTS --

Ext/Acid/W 3510/8270 N/A 01/13/93 CSH

-- GC/MS ORGANIC ANALYSIS (A) RESULTS --

Phenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Chlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Methylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Methylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Nitrophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4-Dimethylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzoic acid	EPA 8270	ug/l	50	ND	01/19/93	JBP
2,4-Dichlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Chloro-3-methylphenol	EPA 8270	ug/l	20	ND	01/19/93	JBP
2,4,6-Trichlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4,5-Trichlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4-Dinitrophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
4-Nitrophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
4,6-Dinitro-2-methylphenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
Pentachlorophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP

Remarks:

DL = Detection Limit

ND = Not Detected at the DL

Unless otherwise noted, all soil test results are calculated based on dry weight.

Signed

*Paul Brufford*

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/21/93  
Page 1

--- Project Information ---

Lab Number : 93-4570-03  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER COMPANY

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-3  
Matrix : W  
Type : GRAB  
Collector : JRG

Sampled Date/Time : 01/06/93 14:50  
Received Date/Time : 01/08/93 09:10  
Received From/By : JRF/LD  
Chain of Custody : 17109  
Number of Containers : 2

Parameter..... Method.... Units DL..... Results... Test Date Analy

-- ORGANIC PREP RESULTS --

Ext/Acid/W	3510/8270			N/A	01/13/93	CSH
------------	-----------	--	--	-----	----------	-----

-- GC/MS ORGANIC ANALYSIS (A) RESULTS --

Parameter	Method	Units	DL	Results	Test Date	Analy
Phenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Chlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Methylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Methylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Nitrophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4-Dimethylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzoic acid	EPA 8270	ug/l	50	ND	01/19/93	JBP
2,4-Dichlorophenol	EPA 8270	ug/l	10	13	01/19/93	JBP
4-Chloro-3-methylphenol	EPA 8270	ug/l	20	ND	01/19/93	JBP
2,4,6-Trichlorophenol	EPA 8270	ug/l	10	14	01/19/93	JBP
2,4,5-Trichlorophenol	EPA 8270	ug/l	250	380	01/20/93	JBP
2,4-Dinitrophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
4-Nitrophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
4,6-Dinitro-2-methylphenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
Pentachlorophenol	EPA 8270	ug/l	1250	4000	01/20/93	JBP

Remarks:

DL = Detection Limit

ND = Not Detected at the DL

Unless otherwise noted, all soil test results are calculated based on dry weight.

Signed

*Paul Bradford*

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/21/93  
Page 1

--- Project Information ---

Lab Number : 93-4570-04  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER COMPANY  
Cust. No. :  
Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-4  
Matrix : W  
Type : GRAB  
Collector : JRG  
Sampled Date/Time : 01/06/93 14:40  
Received Date/Time : 01/08/93 09:10  
Received From/By : JRF/LD  
Chain of Custody : 17109  
Number of Containers : 2

Parameter..... Method.... Units DL..... Results... Test Date Analy

-- ORGANIC PREP RESULTS --

Ext/Acid/W 3510/8270 N/A 01/13/93 CSH

-- GC/MS ORGANIC ANALYSIS (A) RESULTS --

Phenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Chlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Methylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Methylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2-Nitrophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4-Dimethylphenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
Benzoic acid	EPA 8270	ug/l	50	ND	01/19/93	JBP
2,4-Dichlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
4-Chloro-3-methylphenol	EPA 8270	ug/l	20	ND	01/19/93	JBP
2,4,6-Trichlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4,5-Trichlorophenol	EPA 8270	ug/l	10	ND	01/19/93	JBP
2,4-Dinitrophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
4-Nitrophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
4,6-Dinitro-2-methylphenol	EPA 8270	ug/l	50	ND	01/19/93	JBP
Pentachlorophenol	EPA 8270	ug/l	50	ND	01/19/93	JBP

Remarks:

DL = Detection Limit  
ND = Not Detected at the DL  
Unless otherwise noted, all soil test results are calculated based on dry weight.

Signed

*Paul Bradford*

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/15/93  
Page 1

--- Project Information ---

Lab Number : 63-6228-06  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER CO.

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-5  
Matrix : W  
Type : GRAB  
Collector : JRF

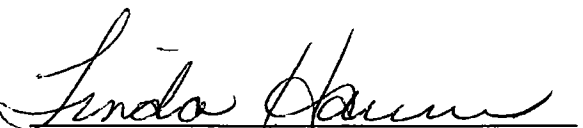
Sampled Date/Time : 01/06/93 14:00  
Received Date/Time : 01/08/93 11:55  
Received From/By : LD/ST  
Chain of Custody : 1695  
Number of Containers : 3

Remarks :

--- Test Data ---

Parameter.....	Method....	Units	PQL.....	Results...	Test Date	Analy
--- SERIES 15000						
Methyl-Tertiary-Butyl Ether (MTBE)	EPA 602	ug/l	5.0	13	01/12/93	KH
Benzene	EPA 602	ug/l	1.0	220	01/12/93	KH
Toluene	EPA 602	ug/l	1.0	2.1	01/12/93	KH
Ethylbenzene	EPA 602	ug/l	1.0	12	01/12/93	KH
Xylene, Total	EPA 602	ug/l	2.0	3.5	01/12/93	KH
-- SCREENING FOR BTEX RESULTS --						
SCREENING FOR BTEX				NA	01/09/93	RO

Signed



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/15/93  
Page 1

--- Project Information ---

Lab Number : 63-6228-07  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER CO.

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-6  
Matrix : W  
Type : GRAB  
Collector : JRF

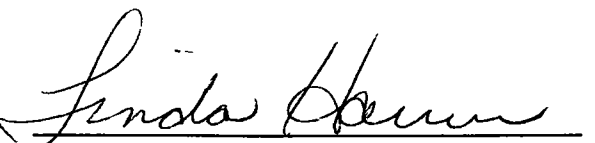
Sampled Date/Time : 01/06/93 14:10  
Received Date/Time : 01/08/93 11:55  
Received From/By : LD/ST  
Chain of Custody : 1695  
Number of Containers : 3

Remarks :

--- Test Data ---

Parameter.....	Method....	Units	PQL.....	Results...	Test Date	Analy
--- SERIES 15000						
Methyl-Tertiary-Butyl Ether (MTBE)	EPA 602	ug/l	360	410	01/12/93	KH
Benzene	EPA 602	ug/l	71	8100	01/12/93	KH
Toluene	EPA 602	ug/l	71	14000	01/12/93	KH
Ethylbenzene	EPA 602	ug/l	71	1900	01/12/93	KH
Xylene, Total	EPA 602	ug/l	140	9300	01/12/93	KH
-- SCREENING FOR BTEX RESULTS --						
SCREENING FOR BTEX				NA	01/09/93	RO

Signed



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/15/93  
Page 1

--- Project Information ---

Lab Number : 63-6228-08  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER CO.

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-7  
Matrix : W  
Type : GRAB  
Collector : JRF

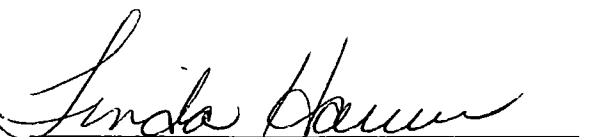
Sampled Date/Time : 01/06/93 14:25  
Received Date/Time : 01/08/93 11:55  
Received From/By : LD/ST  
Chain of Custody : 1695  
Number of Containers : 3

Remarks :

--- Test Data ---

Parameter.....	Method....	Units	PQL.....	Results...	Test Date	Analy
--- SERIES 15000						
Methyl-Tertiary-Butyl Ether (MTBE)	EPA 602	ug/l	65	ND	01/12/93	KH
Benzene	EPA 602	ug/l	13	1100	01/12/93	KH
Toluene	EPA 602	ug/l	13	2700	01/12/93	KH
Ethylbenzene	EPA 602	ug/l	13	680	01/12/93	KH
Xylene, Total	EPA 602	ug/l	26	3600	01/12/93	KH
-- SCREENING FOR BTEX RESULTS --						
SCREENING FOR BTEX				NA	01/09/93	RO

Signed



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/15/93  
Page 1

--- Project Information ---

Lab Number : 63-6228-09  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER CO.

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : BAILER BLANK  
Matrix : W  
Type : GRAB  
Collector : JRF

Sampled Date/Time : 01/06/93 15:15  
Received Date/Time : 01/08/93 11:55  
Received From/By : LD/ST  
Chain of Custody : 1698  
Number of Containers : 3

Remarks :

--- Test Data ---

Parameter.....	Method....	Units	PQL.....	Results...	Test Date	Analy
--- SERIES 15000						
Methyl-Tertiary-Butyl Ether (MTBE)	EPA 602	ug/l	5.0	ND	01/12/93	KH
Benzene	EPA 602	ug/l	1.0	ND	01/12/93	KH
Toluene	EPA 602	ug/l	1.0	ND	01/12/93	KH
Ethylbenzene	EPA 602	ug/l	1.0	ND	01/12/93	KH
Xylene, Total	EPA 602	ug/l	2.0	ND	01/12/93	KH
-- SCREENING FOR BTEX RESULTS --						
SCREENING FOR BTEX				NA	01/09/93	RO

Signed Linda Hamm

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/21/93  
Page 1

--- Project Information ---

Lab Number : 93-4570-05  
Project No. : 499-2-4325-40  
Project Name : MARSH LUMBER COMPANY

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : TRIP BLANK  
Matrix : W  
Type : GRAB  
Collector :

Sampled Date/Time : 01/06/93 :  
Received Date/Time : 01/08/93 09:10  
Received From/By : JRF/LD  
Chain of Custody : 17500  
Number of Containers : 2

Parameter.....	Method....	Units	DL.....	Results...	Test Date	Analy
--- SERIES 63000						
Chloromethane	EPA 8240	ug/l	10	ND	01/11/93	MM
Bromomethane	EPA 8240	ug/l	10	ND	01/11/93	MM
Vinyl chloride	EPA 8240	ug/l	10	ND	01/11/93	MM
Chloroethane	EPA 8240	ug/l	10	ND	01/11/93	MM
Methylene chloride	EPA 8240	ug/l	5	ND	01/11/93	MM
Acetone	EPA 8240	ug/l	100	ND	01/11/93	MM
Carbon disulfide	EPA 8240	ug/l	5	ND	01/11/93	MM
1,1-Dichloroethene	EPA 8240	ug/l	5	ND	01/11/93	MM
1,1-Dichloroethane	EPA 8240	ug/l	5	ND	01/11/93	MM
1,2-Dichloroethene, Total	EPA 8240	ug/l	5	ND	01/11/93	MM
Chloroform	EPA 8240	ug/l	5	ND	01/11/93	MM
1,2-Dichloroethane	EPA 8240	ug/l	5	ND	01/11/93	MM
2-Butanone (MEK)	EPA 8240	ug/l	100	ND	01/11/93	MM
1,1,1-Trichloroethane	EPA 8240	ug/l	5	ND	01/11/93	MM
Carbon tetrachloride	EPA 8240	ug/l	5	ND	01/11/93	MM
Vinyl acetate	EPA 8240	ug/l	50	ND	01/11/93	MM
Bromodichloromethane	EPA 8240	ug/l	5	ND	01/11/93	MM
1,2-Dichloropropane	EPA 8240	ug/l	5	ND	01/11/93	MM
trans-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	01/11/93	MM
Trichloroethene	EPA 8240	ug/l	5	ND	01/11/93	MM
Dibromochloromethane	EPA 8240	ug/l	5	ND	01/11/93	MM
1,1,2-Trichloroethane	EPA 8240	ug/l	5	ND	01/11/93	MM
Benzene	EPA 8240	ug/l	5	ND	01/11/93	MM
cis-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	01/11/93	MM
2-Chloroethylvinyl ether	EPA 8240	ug/l	10	ND	01/11/93	MM
Bromoform	EPA 8240	ug/l	5	ND	01/11/93	MM
4-Methyl-2-pentanone	EPA 8240	ug/l	50	ND	01/11/93	MM
2-Hexanone	EPA 8240	ug/l	50	ND	01/11/93	MM
1,1,2,2-Tetrachloroethane	EPA 8240	ug/l	5	ND	01/11/93	MM
Tetrachloroethene	EPA 8240	ug/l	5	ND	01/11/93	MM
Toluene	EPA 8240	ug/l	5	ND	01/11/93	MM

Remarks:

DL = Detection Limit

ND = Not Detected at the DL

Unless otherwise noted, all soil test results are calculated based on dry weight.

Signed Paul Bruffard



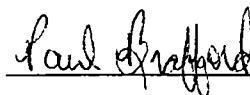
LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 01/21/93  
Page 2

Lab Number : 93-4570-05  
Project No. : 499-2-4325-40

Parameter.....	Method....	Units	DL.....	Results...	Test Date	Analy
---	SERIES	63000				
Chlorobenzene	EPA 8240	ug/l	5	ND	01/11/93	MM
Ethylbenzene	EPA 8240	ug/l	5	ND	01/11/93	MM
Styrene	EPA 8240	ug/l	5	ND	01/11/93	MM
Xylene, Total	EPA 8240	ug/l	5	ND	01/11/93	MM

Signed





**LAW ENVIRONMENTAL, INC.**

112 TOWNPARK DRIVE  
KENNESAW, GEORGIA 30144-5599  
404-421-3400

---

February 25, 1993

Law Environmental, Inc.  
LakePoint Office Park  
4333 Wilmont Road, Suite 300  
Charlotte, NC 28217

Attention: Bryan Shane

Job Number: 56-3505 T10

Subject: Chemical analysis of samples received on 02/11/93.

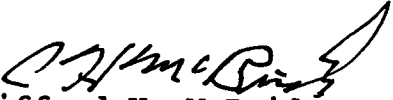
Dear Mr. Shane:

Law Environmental National Laboratories has completed its analysis of your samples and reports the results on the following pages. These results relate only to the contents of the samples as submitted. This report shall not be reproduced except in full without the approval of Law Environmental National Laboratories.

If there are any questions, please do not hesitate to contact us.

Sincerely,

LAW ENVIRONMENTAL NATL LABS

  
Clifford H. McBride  
QC Coordinator

Attachment: Data Report  
Invoice

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 02/24/93  
Page 1

--- Project Information ---

Lab Number : 93-4888-01  
Project No. : 56-3505 T10  
Project Name : MARSH LUMBER

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-1  
Matrix : W  
Type : GRAB  
Collector : DWH

Sampled Date/Time : 02/10/93 11:35  
Received Date/Time : 02/11/93 10:15  
Received From/By : DWH/LD  
Chain of Custody : 18048  
Number of Containers : 6

Parameter.....	Method....	Units	DL.....	Results...	Test Date	Analy
-- ORGANIC PREP RESULTS --						
Ext/Acid/W	3510/8270			N/A	02/17/93	CSH
Ext/Base Neutral/W	3510/8270			N/A	02/17/93	CSH
--- SERIES 63000						
Chloromethane	EPA 8240	ug/l	10	ND	02/20/93	AMS
Bromomethane	EPA 8240	ug/l	10	ND	02/20/93	AMS
Vinyl chloride	EPA 8240	ug/l	10	ND	02/20/93	AMS
Chloroethane	EPA 8240	ug/l	10	ND	02/20/93	AMS
Methylene chloride	EPA 8240	ug/l	5	ND	02/20/93	AMS
Acetone	EPA 8240	ug/l	100	ND	02/20/93	AMS
Carbon disulfide	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,1-Dichloroethene	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,1-Dichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,2-Dichloroethene, Total	EPA 8240	ug/l	5	ND	02/20/93	AMS
Chloroform	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,2-Dichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
2-Butanone (MEK)	EPA 8240	ug/l	100	ND	02/20/93	AMS
1,1,1-Trichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
Carbon tetrachloride	EPA 8240	ug/l	5	ND	02/20/93	AMS
Vinyl acetate	EPA 8240	ug/l	50	ND	02/20/93	AMS
Bromodichloromethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,2-Dichloropropane	EPA 8240	ug/l	5	ND	02/20/93	AMS
trans-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Trichloroethene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Dibromochloromethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,1,2-Trichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
Benzene	EPA 8240	ug/l	5	ND	02/20/93	AMS
cis-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	02/20/93	AMS
2-Chloroethylvinyl ether	EPA 8240	ug/l	10	ND	02/20/93	AMS
Bromoform	EPA 8240	ug/l	5	ND	02/20/93	AMS
4-Methyl-2-pentanone	EPA 8240	ug/l	50	ND	02/20/93	AMS

Remarks:

DL = Detection Limit

ND = Not Detected at the DL

Unless otherwise noted, all soil test results are calculated based on dry weight.

Signed



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 02/24/93

Page 2

Lab Number : 93-4888-01  
Project No. : 56-3505 T10

Parameter.....	Method....	Units	DL.....	Results...	Test Date	Analy
--- SERIES 63000						
2-Hexanone	EPA 8240	ug/l	50	ND	02/20/93	AMS
1,1,2,2-Tetrachloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
Tetrachloroethene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Toluene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Chlorobenzene	EPA 8240	ug/l	5	13	02/20/93	AMS
Ethylbenzene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Styrene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Xylene, Total	EPA 8240	ug/l	5	ND	02/20/93	AMS

-- GC/MS ORGANIC ANALYSIS (A) RESULTS --

Phenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Chlorophenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Methylphenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Methylphenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Nitrophenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2,4-Dimethylphenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzoic acid	EPA 8270	ug/l	50	ND	02/19/93	JBP
2,4-Dichlorophenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Chloro-3-methylphenol	EPA 8270	ug/l	20	ND	02/19/93	JBP
2,4,6-Trichlorophenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2,4,5-Trichlorophenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2,4-Dinitrophenol	EPA 8270	ug/l	50	ND	02/19/93	JBP
4-Nitrophenol	EPA 8270	ug/l	50	ND	02/19/93	JBP
4,6-Dinitro-2-methylphenol	EPA 8270	ug/l	50	ND	02/19/93	JBP
Pentachlorophenol	EPA 8270	ug/l	50	ND	02/19/93	JBP
bis(2-Chloroethyl) ether	EPA 8270	ug/l	10	ND	02/19/93	JBP
1,3-Dichlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
1,4-Dichlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
1,2-Dichlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzyl alcohol	EPA 8270	ug/l	10	ND	02/19/93	JBP
bis(2-Chloroisopropyl) ether	EPA 8270	ug/l	10	ND	02/19/93	JBP
Hexachloroethane	EPA 8270	ug/l	10	ND	02/19/93	JBP
N-Nitrosodi-N-propylamine	EPA 8270	ug/l	10	ND	02/19/93	JBP
Nitrobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Isophorone	EPA 8270	ug/l	10	ND	02/19/93	JBP
bis(2-Chloroethoxy) methane	EPA 8270	ug/l	10	ND	02/19/93	JBP
1,2,4-Trichlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Naphthalene	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Chloroaniline	EPA 8270	ug/l	10	ND	02/19/93	JBP
Hexachlorobutadiene	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Methylnaphthalene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Hexachlorocyclopentadiene	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Chloronaphthalene	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Nitroaniline	EPA 8270	ug/l	50	ND	02/19/93	JBP
Dimethyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Acenaphthylene	EPA 8270	ug/l	10	ND	02/19/93	JBP
3-Nitroaniline	EPA 8270	ug/l	50	ND	02/19/93	JBP
Acenaphthene	EPA 8270	ug/l	10	ND	02/19/93	JBP

Signed

*Am & B...*

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 02/24/93

Page 3

Lab Number : 93-4888-01


Project No. : 56-3505 T10

Parameter..... Method.... Units DL..... Results... Test Date Analy

-- GC/MS ORGANIC ANALYSIS (A) RESULTS --

Parameter	Method	Units	DL	Results	Test Date	Analy
Dibenzofuran	EPA 8270	ug/l	10	ND	02/19/93	JBP
2,4-Dinitrotoluene	EPA 8270	ug/l	10	ND	02/19/93	JBP
2,6-Dinitrotoluene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Diethyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Fluorene	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Chlorophenylphenyl ether	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Nitroaniline	EPA 8270	ug/l	10	ND	02/19/93	JBP
N-Nitrosodiphenylamine	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Bromophenylphenyl ether	EPA 8270	ug/l	10	ND	02/19/93	JBP
Hexachlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Phenanthrene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Anthracene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Di-n-butyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Fluoranthene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Pyrene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Butylbenzyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(a)anthracene	EPA 8270	ug/l	10	ND	02/19/93	JBP
3,3'-Dichlorobenzidine	EPA 8270	ug/l	10	ND	02/19/93	JBP
Chrysene	EPA 8270	ug/l	10	ND	02/19/93	JBP
bis(2-Ethylhexyl) phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Di-n-octyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(b)fluoranthene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(k)fluoranthene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(a)pyrene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Indeno(1,2,3-cd)pyrene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Dibenzo(a,h,)anthracene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(g,h,i)perylene	EPA 8270	ug/l	10	ND	02/19/93	JBP

Signed



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 02/24/93  
Page 1

--- Project Information ---

Lab Number : 93-4888-02  
Project No. : 56-3505 T10  
Project Name : MARSH LUMBER

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : MW-3  
Matrix : W  
Type : GRAB  
Collector : DWH

Sampled Date/Time : 02/10/93 12:00  
Received Date/Time : 02/11/93 10:15  
Received From/By : DWH/LD  
Chain of Custody : 18048  
Number of Containers : 6

Parameter.....	Method....	Units	DL.....	Results...	Test Date	Analy
-- ORGANIC PREP RESULTS --						
Ext/Acid/W	3510/8270			N/A	02/17/93	CSH
Ext/Base Neutral/W	3510/8270			N/A	02/17/93	CSH
--- SERIES 63000						
Chloromethane	EPA 8240	ug/l	10	ND	02/20/93	AMS
Bromomethane	EPA 8240	ug/l	10	ND	02/20/93	AMS
Vinyl chloride	EPA 8240	ug/l	10	ND	02/20/93	AMS
Chloroethane	EPA 8240	ug/l	10	ND	02/20/93	AMS
Methylene chloride	EPA 8240	ug/l	5	ND	02/20/93	AMS
Acetone	EPA 8240	ug/l	100	ND	02/20/93	AMS
Carbon disulfide	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,1-Dichloroethene	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,1-Dichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,2-Dichloroethene, Total	EPA 8240	ug/l	5	ND	02/20/93	AMS
Chloroform	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,2-Dichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
2-Butanone (MEK)	EPA 8240	ug/l	100	ND	02/20/93	AMS
1,1,1-Trichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
Carbon tetrachloride	EPA 8240	ug/l	5	ND	02/20/93	AMS
Vinyl acetate	EPA 8240	ug/l	50	ND	02/20/93	AMS
Bromodichloromethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,2-Dichloropropane	EPA 8240	ug/l	5	ND	02/20/93	AMS
trans-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Trichloroethene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Dibromochloromethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,1,2-Trichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
Benzene	EPA 8240	ug/l	5	16	02/20/93	AMS
cis-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	02/20/93	AMS
2-Chloroethylvinyl ether	EPA 8240	ug/l	10	ND	02/20/93	AMS
Bromoform	EPA 8240	ug/l	5	ND	02/20/93	AMS
4-Methyl-2-pentanone	EPA 8240	ug/l	50	ND	02/20/93	AMS

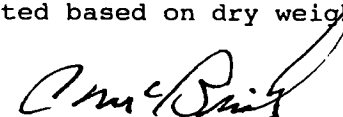
Remarks:

DL = Detection Limit

ND = Not Detected at the DL

Unless otherwise noted, all soil test results are calculated based on dry weight.

Signed



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 02/24/93

Page 2

Lab Number : 93-4888-02

Project No. : 56-3505 T10

Parameter.....	Method....	Units	DL.....	Results...	Test Date	Analy
--- SERIES 63000						
2-Hexanone	EPA 8240	ug/l	50	ND	02/20/93	AMS
1,1,2,2-Tetrachloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
Tetrachloroethene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Toluene	EPA 8240	ug/l	5	ND	02/20/93	AMS
<b>Chlorobenzene</b>	EPA 8240	ug/l	5	<b>93</b>	02/20/93	AMS
Ethylbenzene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Styrene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Xylene, Total	EPA 8240	ug/l	5	8	02/20/93	AMS

-- GC/MS ORGANIC ANALYSIS (A) RESULTS --

Phenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Chlorophenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Methylphenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Methylphenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Nitrophenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
2,4-Dimethylphenol	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzoic acid	EPA 8270	ug/l	50	ND	02/19/93	JBP
2,4-Dichlorophenol	EPA 8270	ug/l	10	11	02/19/93	JBP
4-Chloro-3-methylphenol	EPA 8270	ug/l	20	ND	02/19/93	JBP
2,4,6-Trichlorophenol	EPA 8270	ug/l	10	15	02/19/93	JBP
2,4,5-Trichlorophenol	EPA 8270	ug/l	100	290	02/22/93	JBP
2,4-Dinitrophenol	EPA 8270	ug/l	50	ND	02/19/93	JBP
4-Nitrophenol	EPA 8270	ug/l	50	ND	02/19/93	JBP
4,6-Dinitro-2-methylphenol	EPA 8270	ug/l	50	ND	02/19/93	JBP
<b>Pentachlorophenol</b>	EPA 8270	ug/l	5000	<b>4300</b>	02/22/93	JBP
bis(2-Chloroethyl) ether	EPA 8270	ug/l	10	ND	02/19/93	JBP
1,3-Dichlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
1,4-Dichlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
1,2-Dichlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzyl alcohol	EPA 8270	ug/l	10	ND	02/19/93	JBP
bis(2-Chloroisopropyl) ether	EPA 8270	ug/l	10	ND	02/19/93	JBP
Hexachloroethane	EPA 8270	ug/l	10	ND	02/19/93	JBP
N-Nitrosodi-N-propylamine	EPA 8270	ug/l	10	ND	02/19/93	JBP
Nitrobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Isophorone	EPA 8270	ug/l	10	ND	02/19/93	JBP
bis(2-Chloroethoxy) methane	EPA 8270	ug/l	10	ND	02/19/93	JBP
1,2,4-Trichlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Naphthalene	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Chloroaniline	EPA 8270	ug/l	10	ND	02/19/93	JBP
Hexachlorobutadiene	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Methylnaphthalene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Hexachlorocyclopentadiene	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Chloronaphthalene	EPA 8270	ug/l	10	ND	02/19/93	JBP
2-Nitroaniline	EPA 8270	ug/l	50	ND	02/19/93	JBP
Dimethyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Acenaphthylene	EPA 8270	ug/l	10	ND	02/19/93	JBP
3-Nitroaniline	EPA 8270	ug/l	50	ND	02/19/93	JBP
Acenaphthene	EPA 8270	ug/l	10	ND	02/19/93	JBP

Signed \_\_\_\_\_

*C. M. B. Smith*

LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 02/24/93

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Lab Number : 93-4888-02

Project No. : 56-3505 T10

Parameter..... Method.... Units DL..... Results... Test Date Analy

-- GC/MS ORGANIC ANALYSIS (A) RESULTS --

Parameter	Method	Units	DL	Results	Test Date	Analy
Dibenzofuran	EPA 8270	ug/l	10	ND	02/19/93	JBP
2,4-Dinitrotoluene	EPA 8270	ug/l	10	ND	02/19/93	JBP
2,6-Dinitrotoluene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Diethyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Fluorene	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Chlorophenylphenyl ether	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Nitroaniline	EPA 8270	ug/l	10	ND	02/19/93	JBP
N-Nitrosodiphenylamine	EPA 8270	ug/l	10	ND	02/19/93	JBP
4-Bromophenylphenyl ether	EPA 8270	ug/l	10	ND	02/19/93	JBP
Hexachlorobenzene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Phenanthrene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Anthracene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Di-n-butyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Fluoranthene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Pyrene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Butylbenzyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(a)anthracene	EPA 8270	ug/l	10	ND	02/19/93	JBP
3,3'-Dichlorobenzidine	EPA 8270	ug/l	10	ND	02/19/93	JBP
Chrysene	EPA 8270	ug/l	10	ND	02/19/93	JBP
bis(2-Ethylhexyl) phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Di-n-octyl phthalate	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(b)fluoranthene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(k)fluoranthene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(a)pyrene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Indeno(1,2,3-cd)pyrene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Dibenzo(a,h,)anthracene	EPA 8270	ug/l	10	ND	02/19/93	JBP
Benzo(g,h,i)perylene	EPA 8270	ug/l	10	ND	02/19/93	JBP

Signed



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 02/24/93  
Page 1

--- Project Information ---

Lab Number : 93-4888-03  
Project No. : 56-3505 T10  
Project Name : MARSH LUMBER

Cust. No. :

Manager: BRYAN SHANE

--- Sample Information ---

Station ID : TRIP BLANK  
Matrix : W  
Type : GRAB  
Collector :

Sampled Date/Time : 02/10/93 :  
Received Date/Time : 02/11/93 10:15  
Received From/By : DWH/LD  
Chain of Custody : 18048  
Number of Containers : 2

Parameter.....	Method....	Units	DL.....	Results...	Test Date	Analy
--- SERIES 63000						
Chloromethane	EPA 8240	ug/l	10	ND	02/20/93	AMS
Bromomethane	EPA 8240	ug/l	10	ND	02/20/93	AMS
Vinyl chloride	EPA 8240	ug/l	10	ND	02/20/93	AMS
Chloroethane	EPA 8240	ug/l	10	ND	02/20/93	AMS
Methylene chloride	EPA 8240	ug/l	5	ND	02/20/93	AMS
Acetone	EPA 8240	ug/l	100	ND	02/20/93	AMS
Carbon disulfide	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,1-Dichloroethene	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,1-Dichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,2-Dichloroethene, Total	EPA 8240	ug/l	5	ND	02/20/93	AMS
Chloroform	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,2-Dichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
2-Butanone (MEK)	EPA 8240	ug/l	100	ND	02/20/93	AMS
1,1,1-Trichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
Carbon tetrachloride	EPA 8240	ug/l	5	ND	02/20/93	AMS
Vinyl acetate	EPA 8240	ug/l	50	ND	02/20/93	AMS
Bromodichloromethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,2-Dichloropropane	EPA 8240	ug/l	5	ND	02/20/93	AMS
trans-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Trichloroethene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Dibromochloromethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
1,1,2-Trichloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
Benzene	EPA 8240	ug/l	5	ND	02/20/93	AMS
cis-1,3-Dichloropropene	EPA 8240	ug/l	5	ND	02/20/93	AMS
2-Chloroethylvinyl ether	EPA 8240	ug/l	10	ND	02/20/93	AMS
Bromoform	EPA 8240	ug/l	5	ND	02/20/93	AMS
4-Methyl-2-pentanone	EPA 8240	ug/l	50	ND	02/20/93	AMS
2-Hexanone	EPA 8240	ug/l	50	ND	02/20/93	AMS
1,1,2,2-Tetrachloroethane	EPA 8240	ug/l	5	ND	02/20/93	AMS
Tetrachloroethene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Toluene	EPA 8240	ug/l	5	ND	02/20/93	AMS

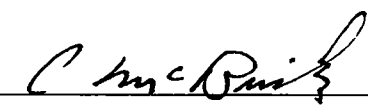
Remarks:

DL = Detection Limit

ND = Not Detected at the DL

Unless otherwise noted, all soil test results are calculated based on dry weight.

Signed



LAW ENVIRONMENTAL NATIONAL LABORATORIES  
TEST DATA REPORT

Date 02/24/93

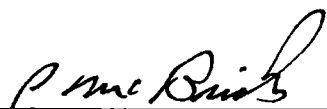
Page 2

Lab Number : 93-4888-03

Project No. : 56-3505 T10

Parameter.....	Method....	Units	DL.....	Results...	Test Date	Analy
--- SERIES	63000					
Chlorobenzene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Ethylbenzene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Styrene	EPA 8240	ug/l	5	ND	02/20/93	AMS
Xylene, Total	EPA 8240	ug/l	5	ND	02/20/93	AMS

Signed

  
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