

**REPORT OF
GEOTECHNICAL EXPLORATION
FOR
BRANDON HYATT HOTEL
BRANDON, FLORIDA**

Prepared for:

**Love Investment Company
Tampa, Florida**

Prepared by:

**MACTEC ENGINEERING AND CONSULTING, INC.
Tampa, Florida**

December 22, 2008

MACTEC Project 6513-08-0588



MACTEC



engineering and constructing a better tomorrow

December 22, 2008

Love Investment Company
c/o Mr. Don Farris
Batson-Cook Company
101 East Kennedy Blvd., Suite 1750
Tampa, FL 33602

Phone: 813-221-7575
Cell: 813-221-7590
Email: FNelson@Batson-Cook.com

Subject: Report of Geotechnical Exploration
Brandon Hyatt Hotel
Brandon, Florida
MACTEC Project 6513-08-0588

Dear Mr. Farris:


MACTEC Engineering and Consulting, Inc. (formerly known as Law Engineering and Environmental Services), is pleased to submit this report of our geotechnical exploration for the proposed project. Our services were conducted in general accordance with our Proposal TG-08-084 dated December 5, 2008.

The results of our Geotechnical subsurface exploration, including our evaluation of the site and recommendations for site preparation and applicable foundation support systems are presented in this report.

We appreciate the opportunity to be of service to you on this project. Should you have any questions with regard to this report, or if we can be of any further assistance, please contact this office.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.


Bradley M. Johnson, E.I.
Geotechnical Professional

Distribution: 2 – Addressee (mail)
1 – Addressee (e-mail)
1 – File



Curtis J. Roos, P.E.
Chief Engineer
Florida Registration 27570

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1.0 EXECUTIVE SUMMARY

The project is located in Brandon, Florida in Hillsborough County. Specifically, the project is located on the southeast corner of the intersection of I-75 and State Road 60. The proposed project consists of the construction of a hotel and restaurant. The anticipated construction includes a six story hotel structure, a single story restaurant and associated parking and driveways. No structural loading information was supplied at this time, however, based on our experience, the maximum expected loads for the hotel structure are 250 kips for a single column and 6 kips per linear foot (klf) for an exterior wall.

The ground surface has veneer of grass. Below the grass, a 4 to 8 foot layer of very loose to dense layers of sand (SP-SM, SM, and SP-SC) were encountered. Below the sand layers in all the borings except A-5 a layer of highly compressible, highly organic peat was encountered. The deepest this material was encountered was at a depth of 15 feet in boring A-2.

In our previous explorations, most of our borings and test pits also encountered a highly compressible soil. This material consisted of black and dark brown highly organic material with root fibers. This material was typically 3.5 to 6 feet thick and was encountered at varying depths in the range of 2 to 8.5 feet.

In order to utilize a shallow foundation system for this site, the organic, highly compressible material will need to be excavated and removed. In its place fill will have to be placed and compacted. Dewatering using wellpoints is recommended to assure complete removal and to facilitate compaction. When properly implemented a shallow foundation system with a bearing capacity of 2.5 ksf will be appropriate.

2.0 INTRODUCTION

2.1 REPORT FORMAT

This report begins with a discussion of the field program, followed by a description of the general subsurface conditions. The site location map is presented on Figure 1, the approximate soil boring locations are presented on Figure 2A, the USDA site vicinity sketch is presented on Figure 3 and the USGS site vicinity sketch is presented on Figure 4. A profile of the borings is shown in Figures 5A and the individual soil boring logs are in the Appendix of this report.

In 2001, MACTEC performed a geotechnical exploration of the northern portion of the site, including five soil test borings, five auger borings and fifteen test pits. Another exploration consisting of six soil test borings was performed on the southern portion of the property in 2004. A third exploration consisting of 2 SPT borings in the northern portion was performed at this site in 2006. The current exploration was conducted in the area of the proposed structures on the southern and eastern side of the property. Included in the Appendix, are the location boring plans (Figures 2B-2E), boring profiles (Figure 5B-5D), boring logs, and test pit records from our previous explorations at the site.

2.2 PROJECT CHARACTERISTICS

The proposed project consists of the construction of a hotel and restaurant. The anticipated construction includes a six story hotel structure with associated parking and driveways. No structural loading information was supplied at this time, however, based on our experience, the maximum expected loads for the hotel are 250 kips for a single column and 6 kips per linear foot (klf) for an exterior wall.

2.3 SITE DESCRIPTION

The project is located in Brandon, Florida in Hillsborough County. Specifically, the project is located on the southeast corner of the intersection of I-75 and State Road 60. The property is a grass covered pasture with several structures including a frame house, and two pole barns, fences and farming equipment. The pasture is currently being used for cattle grazing.

3.0 PURPOSE AND SCOPE

The purpose of this study was to obtain preliminary information on the general subsurface conditions at the proposed project site. The subsurface materials encountered were then evaluated with respect to the available project characteristics. In this regard, engineering assessments for the following items were formulated:

- Identification of the existing ground water levels and estimated normal seasonal high ground water fluctuations.
- General location and description of potentially deleterious materials encountered in the borings, which may result in excessive settlement of the structure.
- Allowable capacities and foundation settlement for foundations supporting the structure.
- Recommendations for foundation design, foundation installation and testing recommendations.
- General site preparation recommendations including structural fill gradation and compaction requirements.
- Suitability of excavated soils for use as fill.

The following services were provided in order to achieve the preceding objectives:

- Performed five soil test borings to a depth of 25 feet in the hotel footprint and one soil test boring to a depth of 20 feet in the restaurant footprint. Samples were collected and Standard Penetration Test resistances were measured at approximate intervals of two feet for the top ten feet and at approximate intervals of five feet thereafter.
- Visually classified and stratified representative soil samples in the laboratory using the Unified Soil Classification System and performed a limited laboratory testing program which includes organic content and grain size analysis from the soil samples obtained in the SPT borings.
- The results of the field exploration were used in our engineering analysis and in the formulation of the recommendations. The results of the subsurface exploration, including recommendations for site preparation and foundation design, are included in this report.

4.0 FIELD EXPLORATION

4.1 GENERAL

Our current field exploration included 5 soil test borings to a depth of 25 feet in the footprint of the proposed hotel footprint and one boring to a depth of 20 feet in the footprint of the proposed restaurant. The boring locations were determined in the field by measuring from existing ground surface features. If more precise locations are desired, we suggest that you contact a Registered Surveyor. The ground surface elevations at the boring locations were neither furnished nor determined. The approximate locations of the borings are illustrated on Figure 2A, which has been included in the Appendix of this report.

Previous explorations include a geotechnical exploration of the northern portion of the site from 2001, which included five soil test borings, five auger borings and fifteen test pits. Another exploration consisting of six soil test borings was performed on the southern portion of the property in 2004. A third exploration consisting of 2 SPT borings in the northern portion was performed at this site in 2006.

The soil test borings were performed with the use of a B-57 Power Drill Rig using a 4 ¼ inch diameter hollow stem auger and cathead hammer. The soil sampling was performed in general accordance with ASTM Test Designation D-1686, entitled "Penetration Test and Split-Barrel Sampling of Soils." Samples were obtained at approximate intervals of two feet to a depth of ten feet, and at intervals of five feet thereafter. Representative portions of these soil samples were sealed in glass jars, labeled and transferred to our laboratory for classification by an engineer.

5.0 LABORATORY TESTING

5.1 GENERAL

The soil samples were transported to our laboratory and were classified by the Geotechnical Engineer using the USCS in general accordance with the ASTM Test Designation D-2488. It should be noted that all soil samples will be properly disposed of thirty days following the submittal of the MACTEC subsurface exploration report.

Table 1 summarizes the laboratory test results performed on samples from the current exploration. Table 2 summarizes the laboratory test results from the previous explorations at this site.

Table 1: Laboratory Results from Current Investigation

BORING NO.	DEPTH (FT)	MOISTURE CONTENT (%)	PERCENT FINER THAN NO. 200 SIEVE (BY WEIGHT)	ORGANIC CONTENT (%)
A-1	6.5	136.9	-	28.8
A-1	9	14.3	6.0	-
A-2	2	24.6	24.9	-
A-3	9	28.9	-	4.7
A-6	4	94.4	-	20.1
A-6	19	58.2	79.6	-

Table 2: Laboratory Results from Previous Explorations

BORING NO.	DEPTH (FT)	MOISTURE CONTENT (%)	PLASTIC LIMIT	LIQUID LIMIT	PLASTIC INDEX	PERCENT FINER THAN NO. 200 SIEVE (BY WEIGHT)	ORGANIC CONTENT (%)
B-03	6.5 - 8	17.7	---	---	---	---	0.9
B-04	1.5 - 3	12.1	---	---	---	6.3	---
B-04	6.5 - 8	40.4	---	---	---	---	6.2
B-05	4 - 5.5	21.3	---	---	---	5.2	---
B-05	9 - 10.5	25.9	---	---	---	---	4.3
AB-04	4 - 10	212	---	---	---	---	37.6
B-1	14.0 - 15.0	59.6	27	182	155	---	---
B-2	4.0 - 5.5	50.1	---	---	---	8.1	7.0
B-4	6.5 - 8.0	205.3	---	---	---	---	59.8
B-5	6.5 - 8.0	87.0	---	---	---	---	15.2
SPT-2	24.0 - 25.5	51.2	---	---	---	32.6	---

6.0 GENERALIZED SUBSURFACE CONDITIONS

6.1 COUNTY SOIL SURVEY

The "Soil Survey of Hillsborough County, Florida," published by the USDA SCS, was reviewed for general near-surface soil information within the general project vicinity (see Figure 3 in the Appendix of this report). This information indicates that there are four primary mapping units, within the proposed project area. The soil map unit characteristics are presented below:

Table 3: Soil Map Unit Characteristics

SOIL SERIES (MAP NUMBER)	SEASONAL HIGH GROUND WATER TABLE DEPTH BELOW NATURAL GRADE (FEET)
Basinger , Holopaw, Samsula (5)	+2.0 – 1.0
St. Johns fine sand (46)	0 – 1.0
Myakka fine sand (29)	0 – 1.0
Zolfo (61)	2.0 – 3.6

6.2 USGS TOPOGRAPHY SURVEY

The topographic survey map published by the United States Geological Survey: "Brandon, Florida" dated 1974 (photorevised 1981) was reviewed for ground surface features at the proposed project location (see Figure 4 in the Appendix of this report.) Based on this review, the general ground surface elevation is approximately +30 feet National Geodetic Vertical Datum of 1929 (NGVD).

6.3 GENERAL SUBSURFACE CONDITIONS

The subsurface conditions encountered at the soil test boring locations are described on the Boring Records in the Appendix. These records represent our interpretation of the subsurface conditions based on the field logs, and visual examination of field samples by an engineer. The lines designating the interfaces between various strata on the Boring Records represent the approximate interface locations. In addition, the transitions between strata may be gradual. Water levels shown on the Boring Records represent the conditions only at the time of our exploration. It should be understood that soil and rock conditions may vary between boring locations.

The ground surface has a veneer of grass. Below the grass, a 4 to 8 foot layer of very loose to dense layer of sand (SP-SM, SM, and SP-SC) was encountered. Below the sand layers in all the borings except A-5 a layer of highly compressible, highly organic peat was encountered. The deepest this material was encountered was at a depth of 15 feet in boring A-2. Below the highly organic material the borings typically encountered layers of sands (SP-SM, SP-SC, and SM) until they reached their termination depths. Boring A-6 encountered green clay (CH and CL) at a depth of 15 feet until the termination depth. It should be noted that in boring A-5 clay similar to that found in A-6 was recovered on the auger from a depth from 16 to 19 feet however was not recovered in the split spoon samples.

In our previous explorations, borings SPT-1, SPT-2, B-2, B-3, B-4 B-5, B-03, B-04, B-05, AB-02, AB-03 and AB-04 encountered a highly compressible soil peat. Test pits TP-4, TP TP-5, TP-6, TP-7, TP-8, TP-9, TP-11, TP-12, TP-13, TP-14, and TP-15 also encountered this material. This material consisted of black and dark brown highly organic material with root fibers. This material was typically 3.5 to 6 feet thick and was encountered at varying depths in the range of 2 to 8.5 feet. Test pit TP-13 encountered a layer 13 feet thick of this material. The N-value was weight of hammer in this stratum. Test pits TP-05 encountered limerock base material 4 inches thick and TP-04 encountered concrete blocks at a depth of two feet.

No "raveled" conditions indicative of "active" sinkhole type activity were encountered during this subsurface exploration program. The profiles of all borings have been included in the Appendix of this report. These profiles illustrate the visual characteristics of all soil strata encountered using the Unified Soil Classification System. Groundwater observations, sampling information and other pertinent field data and observations are also included. A sheet defining the terms and symbols used on the profiles is included in the Appendix of this report.

6.4 GROUND WATER CONDITIONS

Ground water was observed at a depth of approximately 4 to 8.5 feet below the existing grade. It should be noted that ground water levels tend to fluctuate during periods of prolonged drought and extended rainfall and may be affected by man-made influences. In addition, a seasonal effect may also occur during which higher ground water levels are normally recorded during rainy seasons. We anticipate that the seasonal high ground water level will be approximately one foot below the average existing grade.

If the ground water level is critical to design or construction, ground water observation wells should be installed on site to monitor ground water fluctuations over a period of time and to permit more accurate determinations of wet season and dry season levels.

7.0 DESIGN RECOMMENDATIONS

7.1 GENERAL

Our explorations at the site encountered highly compressible soils that will have to be removed prior to construction of the proposed development. Additional fill will also be needed to raise existing grades above the seasonal high ground water level.

Based upon the results of our subsurface explorations, the highly compressible soils were encountered from 4 to 15 feet across the central and southern portion of the site. The highly compressible soils encountered underlying the project site are considered to be unsuitable foundation bearing material.

7.2 FOUNDATION ALTERNATIVES

Our explorations revealed the presence of highly compressible soils located at the project site. These soils are considered unsuitable bearing material for shallow foundations due to excessive settlement potential. In order to reduce the settlement to tolerable levels we recommend one of the following alternatives:

- Excavation and removal of the highly compressible soils, followed by replacement with compacted backfill. Surcharging of the site with temporary fill does not appear to be feasible due to the large variation in peat thickness.
- The use of piles to support the structure and floor slab. Additional deep borings would need to be performed to encounter a pile-bearing layer.

The remainder of this report addresses shallow foundation support after excavation.

7.3 SHALLOW FOUNDATIONS

The highly compressible soils encountered within the proposed project site will need to be excavated, removed and backfilled with approved fill prior to the construction of shallow foundations. As a minimum, the bottom of the excavation should extend a distance 10 feet beyond the building exterior perimeter. Due to the variable depth and content of the deleterious materials, it is considered essential that a representative of the Geotechnical Engineer observe the excavation

process. The excavation should initially extend to a depth of 10 feet. If highly compressible soils are found at the excavation bottom, they should be removed. The excavation should be performed with the use of dewatering techniques such as wellpoints and pumping from sumps. No more than 4-inches of water should be allowed in the bottom of the excavation. The sides of the excavation should be sloped or shored to protect workers as required by OSHA. During the excavation operations, any deleterious materials encountered should be hauled off site. No fill should be stockpiled adjacent to the excavation. During the replacement process a maximum of 2 feet of fill may be initially replaced without compaction. After which, fill should be compacted in lifts not exceeding 12 inches and should be compacted to 95 percent of the Modified Proctor (ASTM D-1557). Backfill material should be at or below the optimum moisture content for compaction and have no more than 5 percent material finer than a No. 200 sieve. Prior to performing the site development, the proposed earthwork plans and specifications should be provided to MACTEC for review.

7.4 BEARING CAPACITY

Based upon the satisfactory completion of the recommended site preparation, shallow foundations should be designed for a net maximum allowable bearing pressure of 2,500 pounds per square foot (psf). The foundation and floor slabs should bear on properly placed and compacted cohesionless (sand) fill.

All footings should be embedded so that the bottom of the foundation is a minimum of 16 inches below the adjacent compacted grades on all sides. Strip or wall footings should be a minimum of 18 inches wide and pad or column footings should be a minimum of 24 inches wide. These minimum footing sizes should be used regardless of whether or not the foundation loads and allowable bearing pressures dictate a smaller size. These minimum footing sizes tend to provide adequate load bearing area to develop overall bearing capacity and account for minor variations in the bearing materials.

7.5 SETTLEMENT

The settlement of shallow foundations supported on sandy-type soils should occur rapidly. Thus, after removal of the highly compressible material, the majority of expected settlements should occur during construction as dead loads are imposed at the footing locations. Provided that the recommended subgrade preparation operations are properly performed, the total settlements of isolated columns and wall footings should not exceed one inch, with differential settlements on the

order of 60 percent of the total settlements. Differential settlements of these magnitudes are usually considered tolerable for the anticipated construction. The tolerance of the proposed structures to the predicted total and differential settlements should, however, be confirmed by the Structural Engineer.

7.6 SUITABILITY OF EXISTING SOILS AS FILL

Fill should generally consist of dry fine sand with less than 5 percent passing the No. 200 sieve, free of rubble, organics, clay, debris and other unsuitable material. The majority of the soils encountered in the upper regions of the borings do not meet this criterion therefore would not meet criteria for suitable structural fill.

8.0 BASIS FOR RECOMMENDATIONS

Our professional services have been performed, our findings obtained and our preliminary recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This company is not responsible for the conclusions, opinions or recommendations made by others based on the data presented in this report.

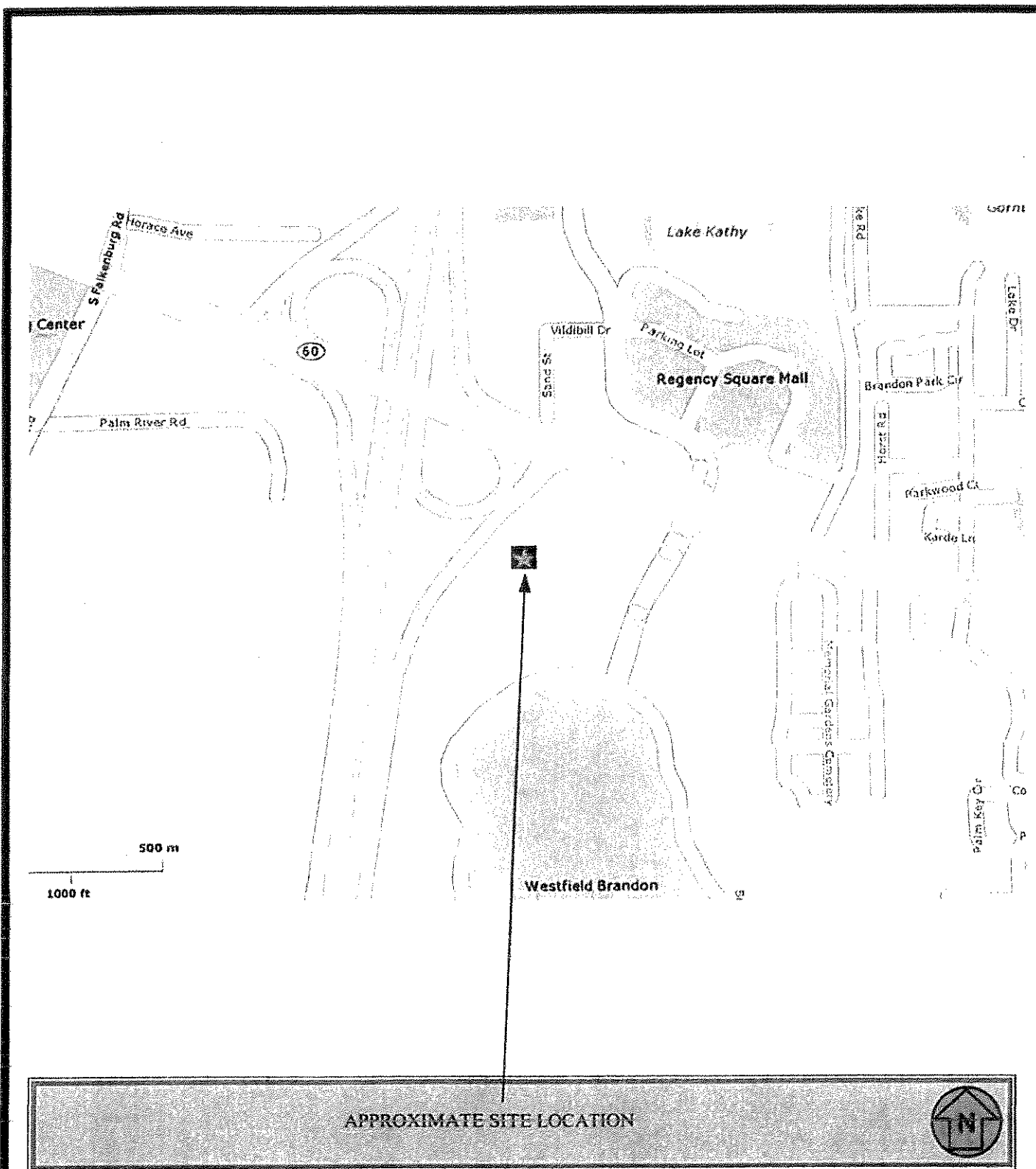
The analysis and recommendations submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated. Regardless of the thoroughness of a geotechnical exploration, there is always a possibility that conditions between borings will be different from those at specific boring locations and that conditions will not be as anticipated by the designers or contractors. In addition, the construction process itself may alter soil conditions.

If any subsoil variations become evident during the course of this project, a re-evaluation of the recommendations contained in this report will be necessary after we have had an opportunity to observe the characteristics of the conditions encountered. The applicability of the report should also be reviewed in the event significant changes occur in the design, nature or location of the proposed structure.

The recommendations provided in this report are based in part on project information provided to us and they only apply to the specific project and the site discussed in this report. If the project information is incorrect, or if additional information is available, the correct or additional information should be conveyed to us for review. Our recommendations may then be modified, if necessary. Experienced geotechnical personnel should observe and document the construction procedures used and the conditions encountered. Unanticipated conditions and inadequate procedures should be reported to the design team. We recommend that the owner retain MACTEC to provide these services based upon our familiarity with the project, the subsurface conditions and the intent of the recommendations and design.

APPENDIX

FIGURES



Source: JOBRET 2008 ESRI Tele Atlas. AND

Prepared by / Date: BMJ 12/11/08

Checked by / Date: CJA 12/24/08

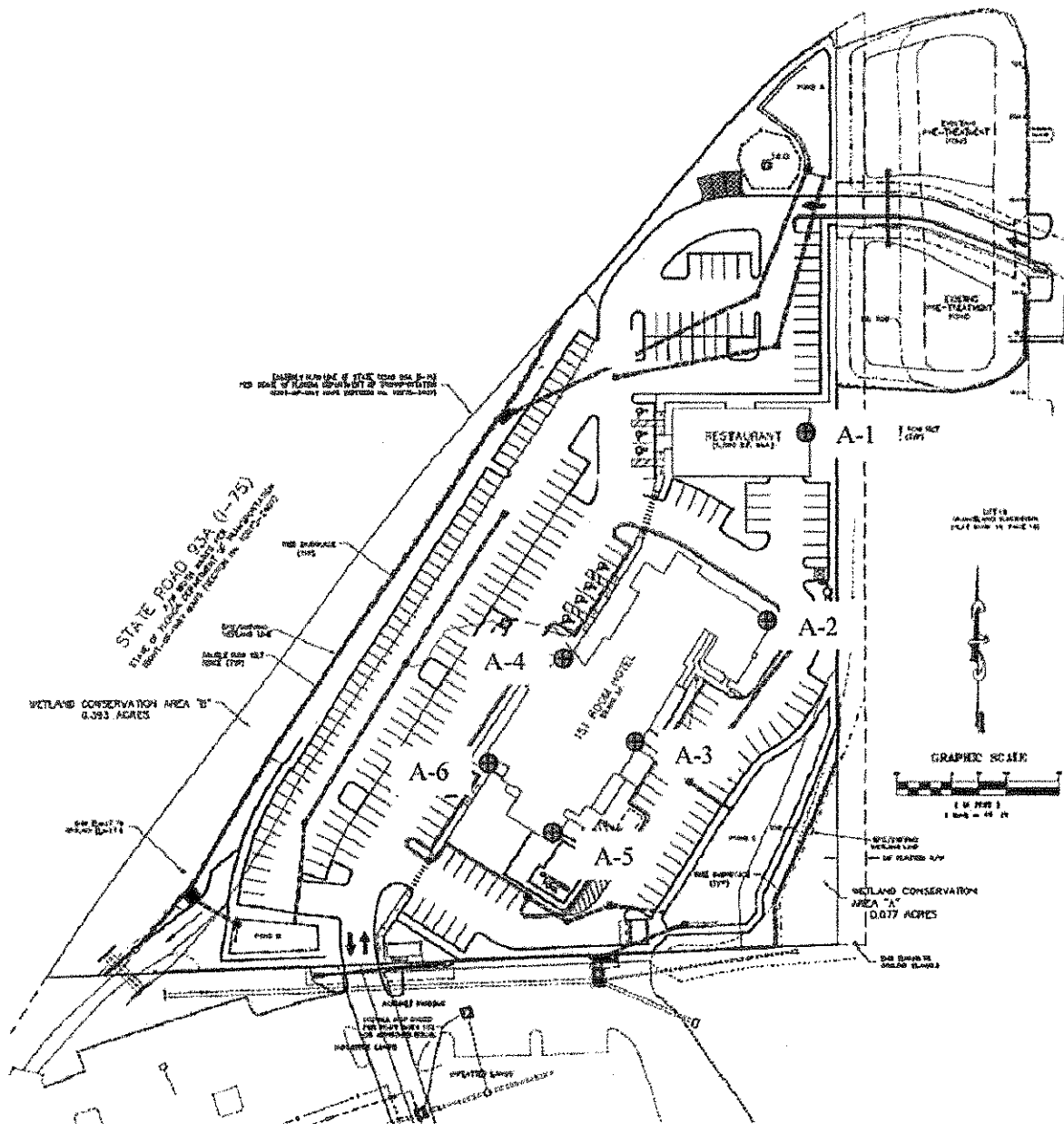
Brandon Hyatt Hotel
Hillsborough County, Florida

 **MACTEC**

SITE VICINITY

6513-08-0588

Figure:1



⊕ APPROXIMATE SOIL TEST BORING LOCATIONS



Source: Love Investment Company, 4/16/08

Prepared by / Date: BMJ 12/11/08

Checked by / Date: *CJN r/r/e*

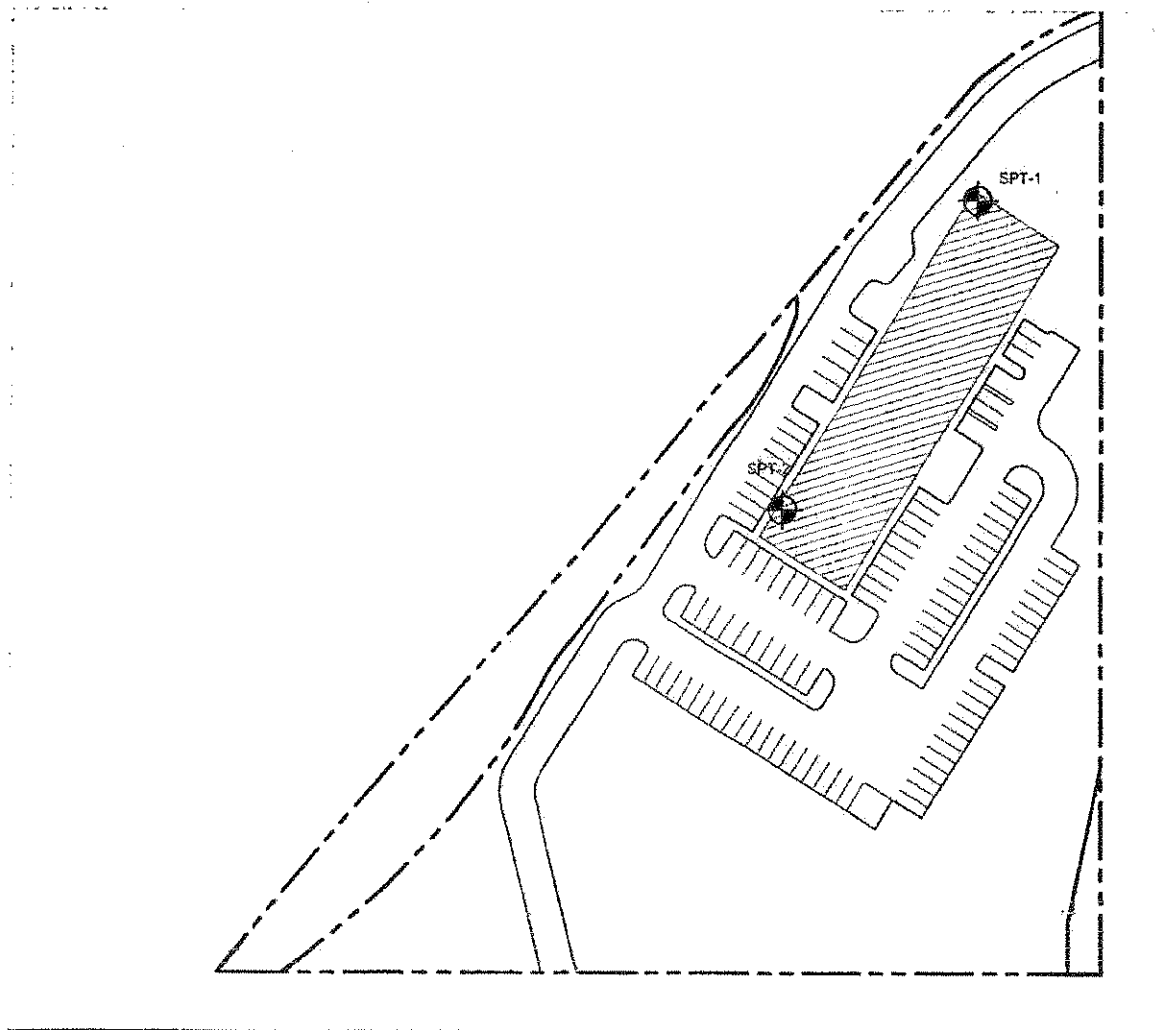
Brandon Hyatt Hotel
 Hillsborough County, Florida



FIELD EXPLORATION PLAN

6513-08-0588

Figure:2A



Brandon Hotel
Site Development
Brandon, Florida



FIELD EXPLORATION PLAN
Project 6513-06-0422

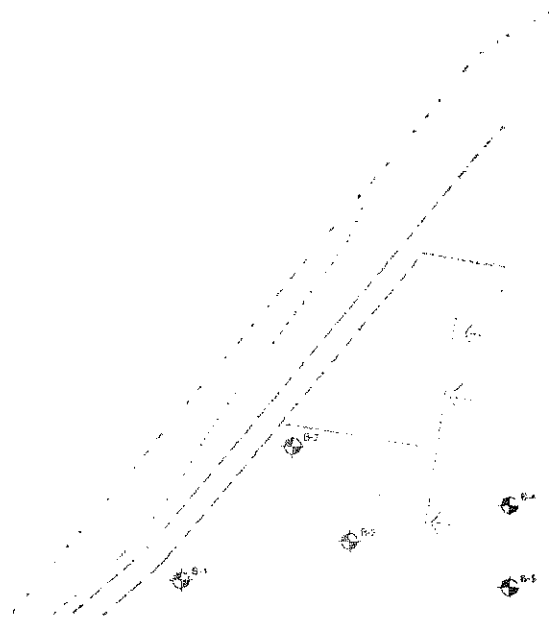
Figure 2.B

Prepared
By

JAM

Checked
By

or



LEGEND

- Approximate Soil Test Boring Location

**Brandon Hotel
Site Development
Brandon, Florida**



FIELD EXPLORATION PLAN

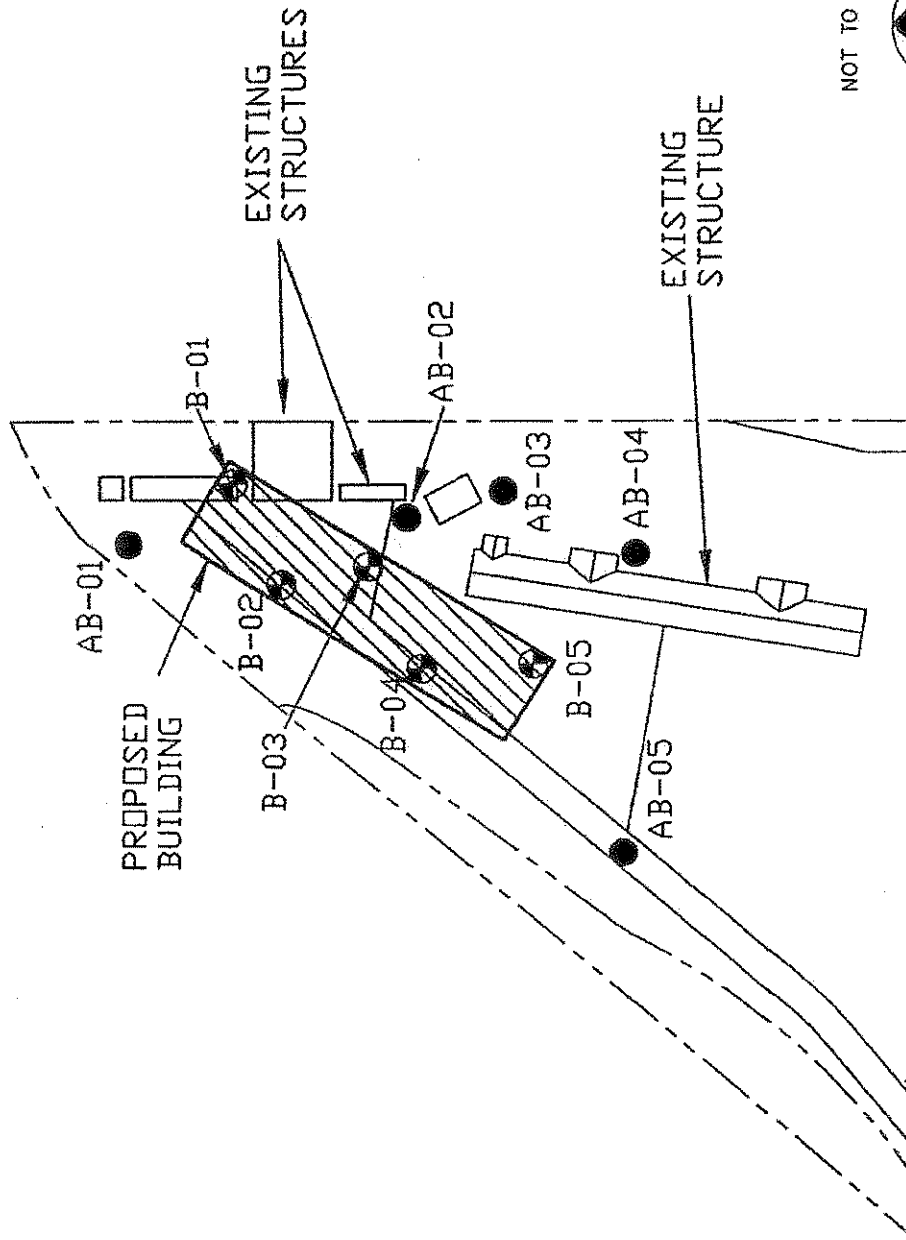
Project 6513-04-0349
Figure 2, **C**

**Prepared
By**

JAM

Checked By

[Signature]



NOT TO SCALE



Prepared/Date: TMG 4/30/01
 Checked/Date: CJR

- APPROXIMATE SOIL TEST BORING LOCATIONS.
- APPROXIMATE AUGER BORING LOCATIONS.

EXTENDED STAY AMERICA NO. 1799
 BRANDON, FLORIDA

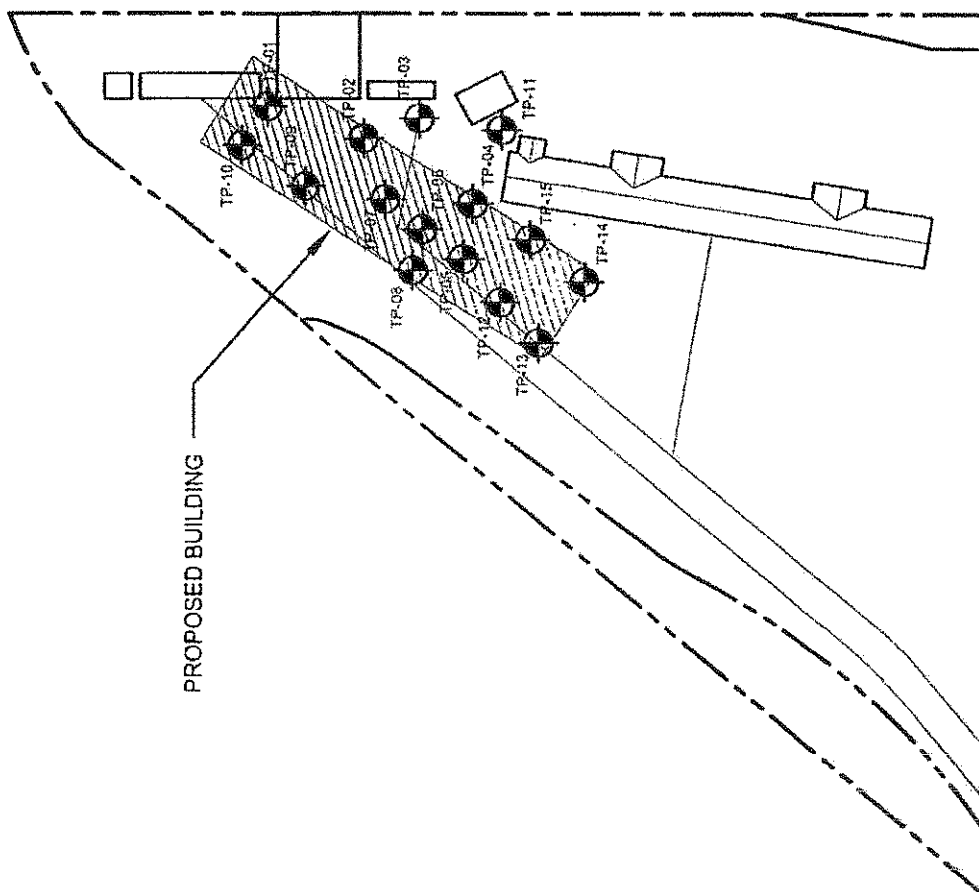
LAW
 LAWGIBB Group Member

FIELD EXPLORATION PLAN

Project 30200--1-9180

Figure

2D



Prepared/Date: HDW 05/01/01
 Checked/Date: *CM*

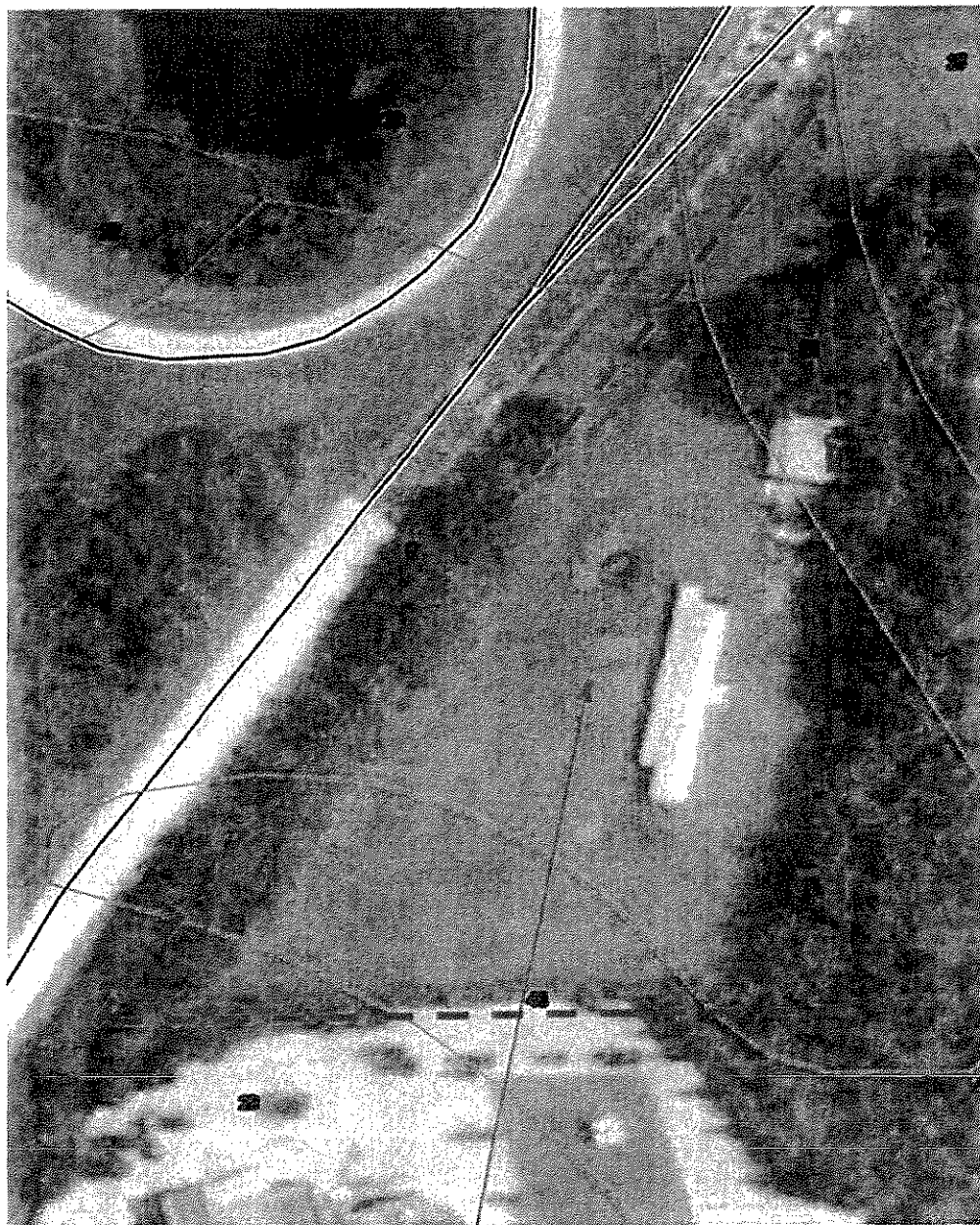
APPROXIMATE TEST PIT LOCATIONS.

ESA MANAGEMENT
 ESA BRANDON
 BRANDON, FLORIDA

LAW
 LAWGIBB Group Member

FIELD EXPLORATION PLAN

Project 30200-1-9180.03 Figure 2.E



APPROXIMATE SITE LOCATION



Source: USDA "Soil Survey of Hillsborough County, Florida"

Prepared by / Date: BMJ 12/11/08

Checked by / Date: *CSW 12/22/08*

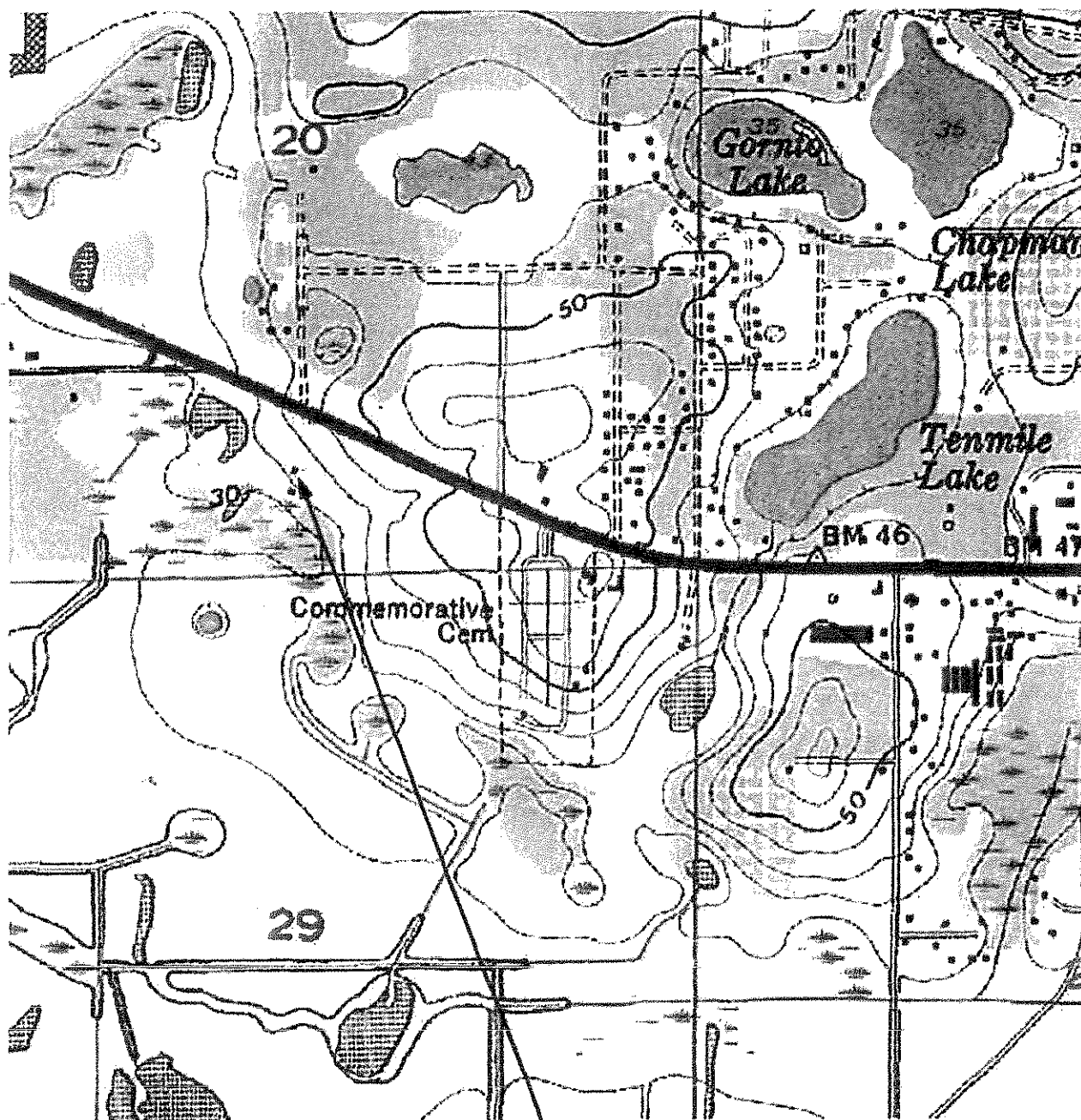
Brandon Hyatt Hotel
Hillsborough County, Florida

 **MACTEC**

USDA VICINITY MAP

6513-08-0588

Figure: 3



APPROXIMATE SITE LOCATION



Source: USGS Quadrangle Map, Brandon, Florida 1987

Prepared by / Date: BMJ 12/11/08
 Checked by / Date:

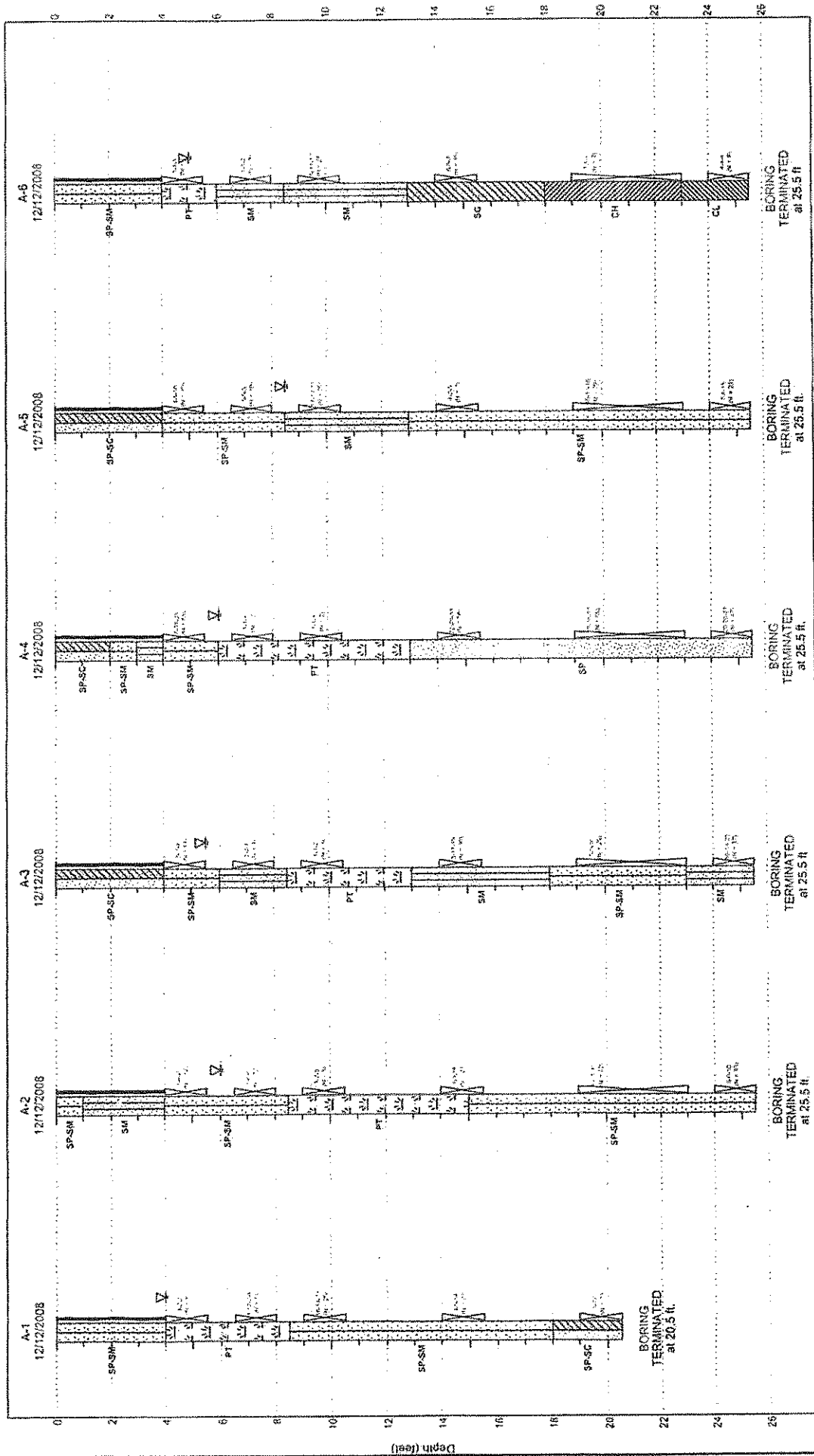
Brandon Hyatt Hotel
 Hillsborough County, Florida



USGS VICINITY MAP

6513-08-0588

Figure: 4



THE SOIL PROFILE SHOWN IS BASED ON INTERPOLATION OF CONDITIONS AT WIDELY SPACED BORINGS AND REASONABLE ENGINEERING JUDGEMENT. NO WARRANTY IS EXTENDED OR IMPLIED.

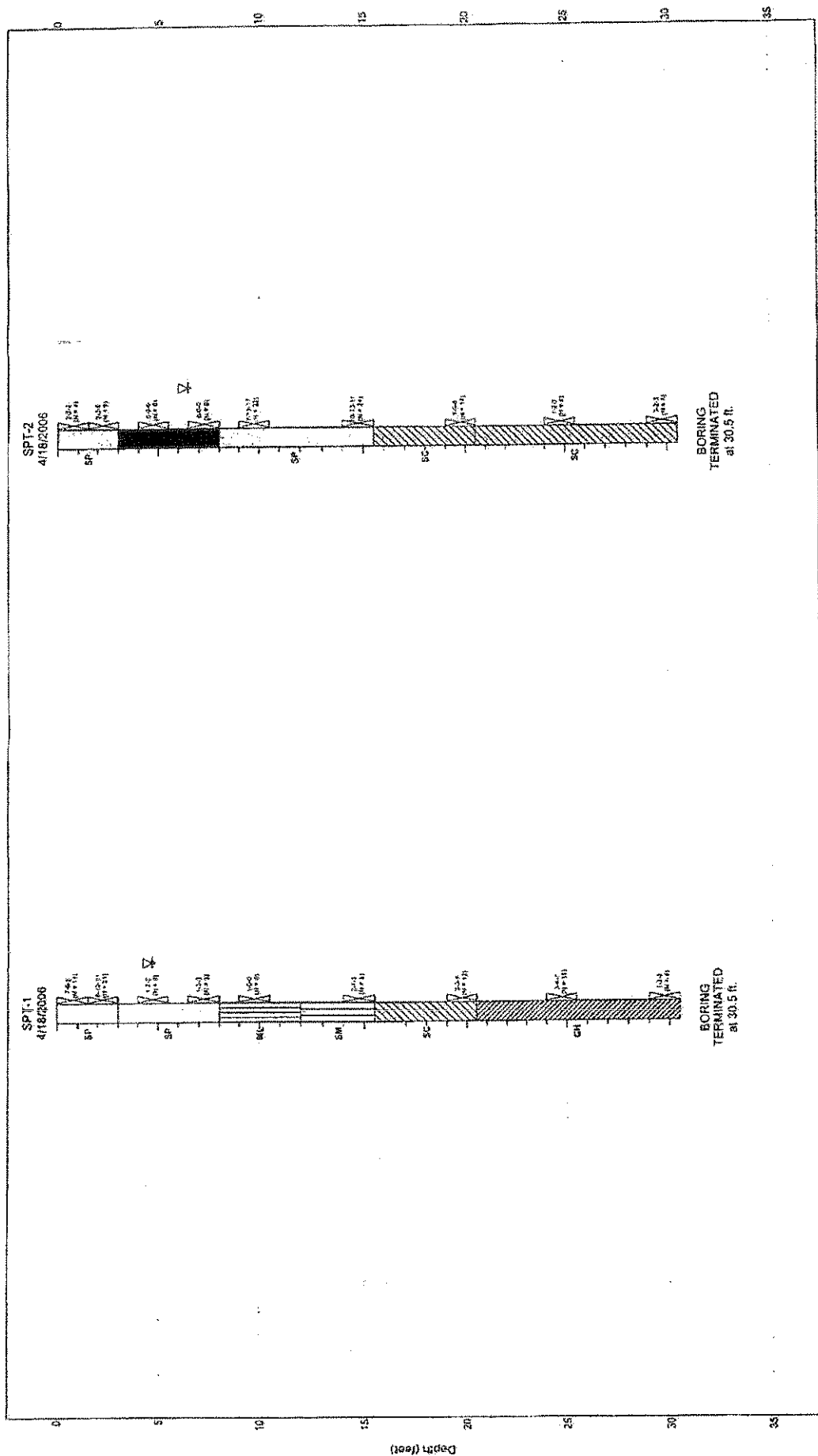
DATE	BY	REVISIONS		Drawn by	Checked by	Approved by
		DESCRIPTION				



SUBSURFACE PROFILE

Project Name: Brandon Hyatt Hotel
MACTEC Project No.: 0513-08-0588

Figure No. 5A



THE SOIL PROFILE SHOWN IS BASED ON INTERPOLATION OF CONDITIONS AT WIDELY SPACED BORINGS AND REASONABLE ENGINEERING JUDGEMENT. NO WARRANTY IS EXPRESSED OR IMPLIED.

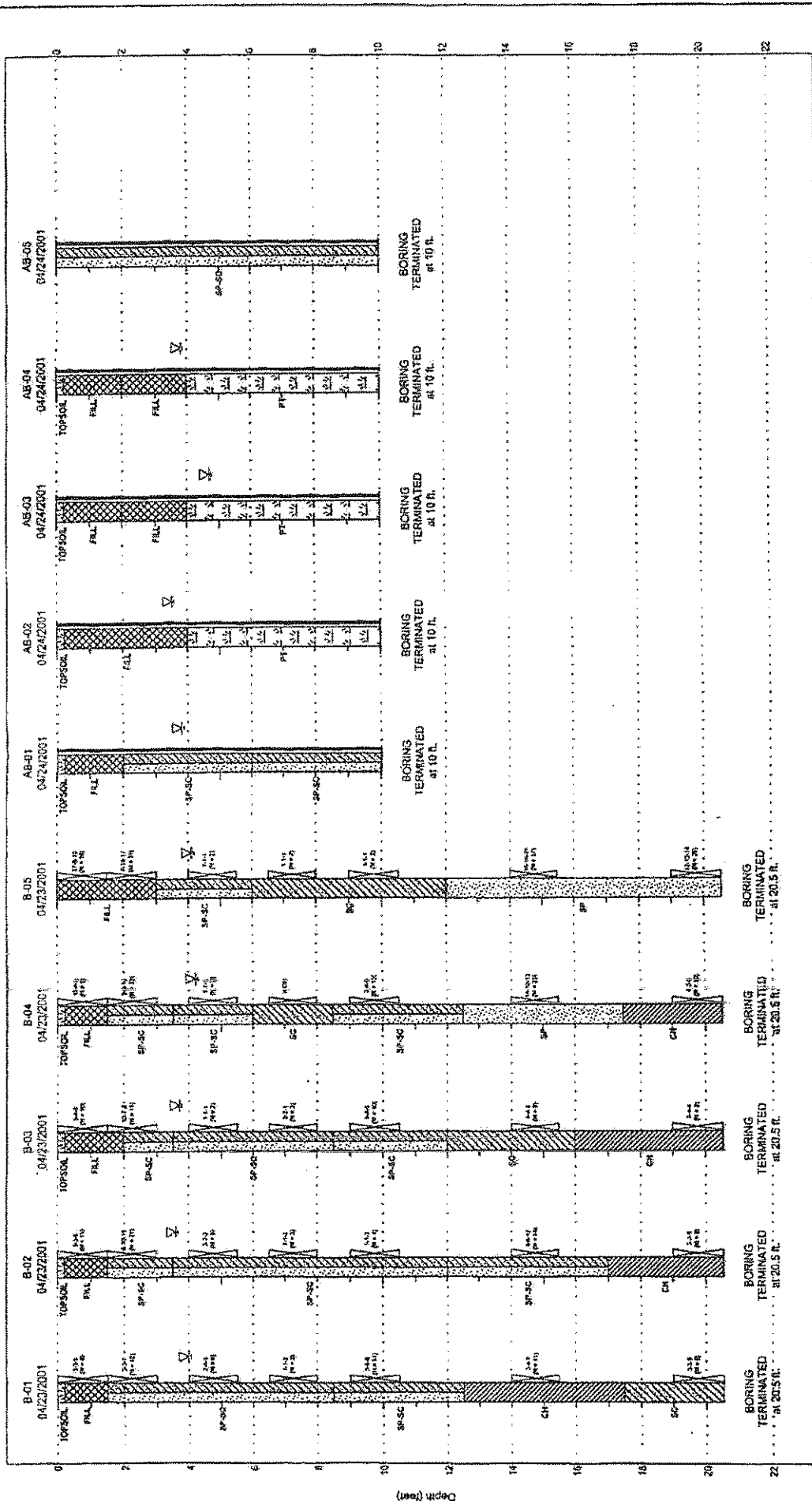
DATE	BY	DESCRIPTION	Drawn by	Checked by	Discussed by
			JAM	OK	



SUBSURFACE PROFILE

Project Name: Love Hotel
MACTEC Project No.: 9513-06-0422

Figure No. 5.3



THE SOIL PROFILE SHOWN IS BASED ON INTERPOLATION OF CONDITIONS AT WIDELY SPACED BORINGS AND REASONABLE ENGINEERING JUDGEMENT. NO WARRANTY IS EXPRESSED OR IMPLIED.

DATE	BY	DESCRIPTION	Drawn by	Checked by	Approved by
			DPH		

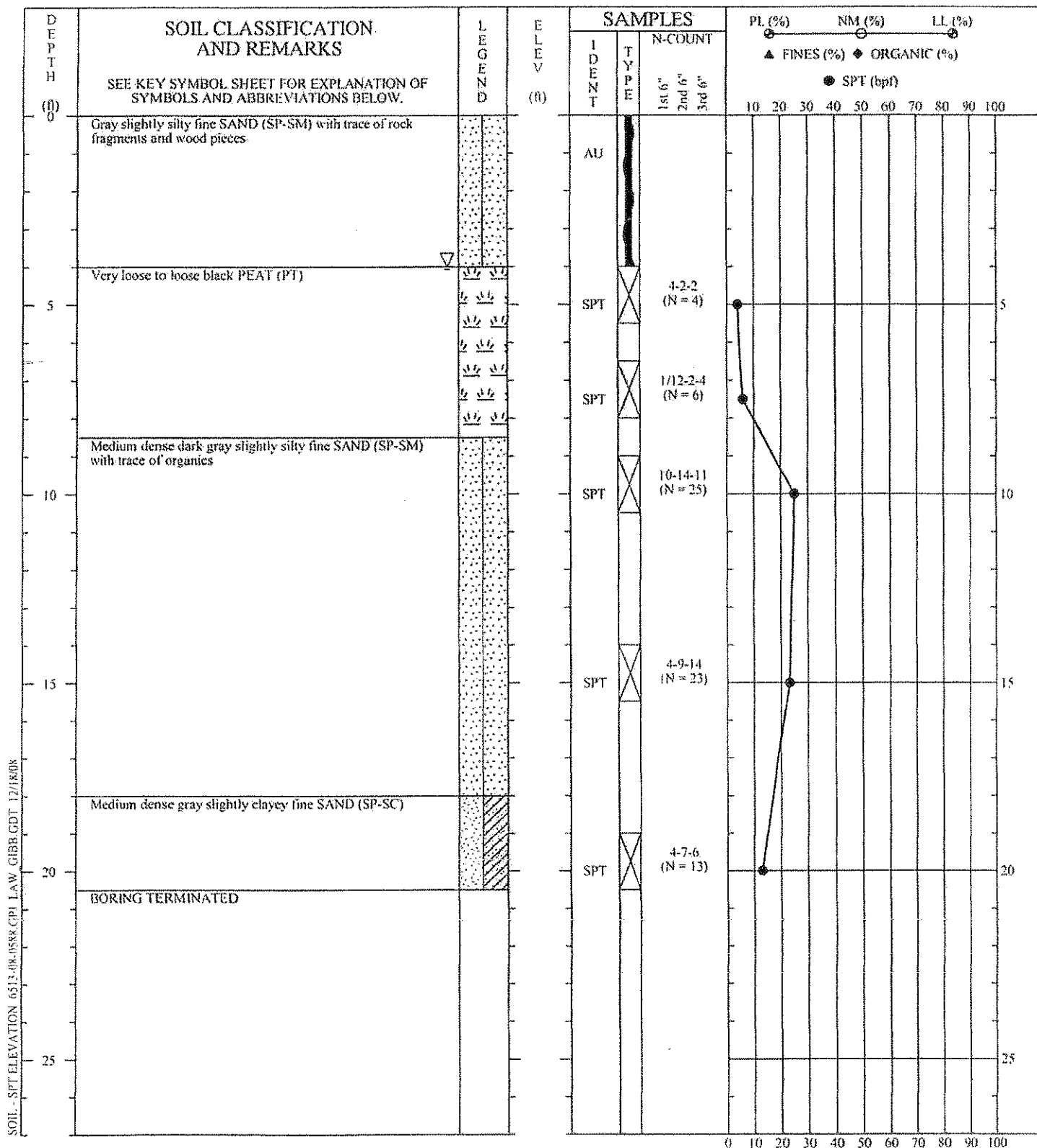
SUBSURFACE PROFILE

Project Name: Extended Stay America No. 1799
LAW Project No.: 30200-1-9180.03

LAW
LAWGIBB Group Member

Figure No. 5.D

SOIL BORING RECORDS



DRILLER: Mark Murray
 EQUIPMENT: Power Drill Rig with Hollow Stem Auger and Cathead Hammer
 METHOD: Auger Boring, ASTM D-1452
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

PROJECT: Brandon Hyatt Hotel
 LOCATION: Brandon, FL

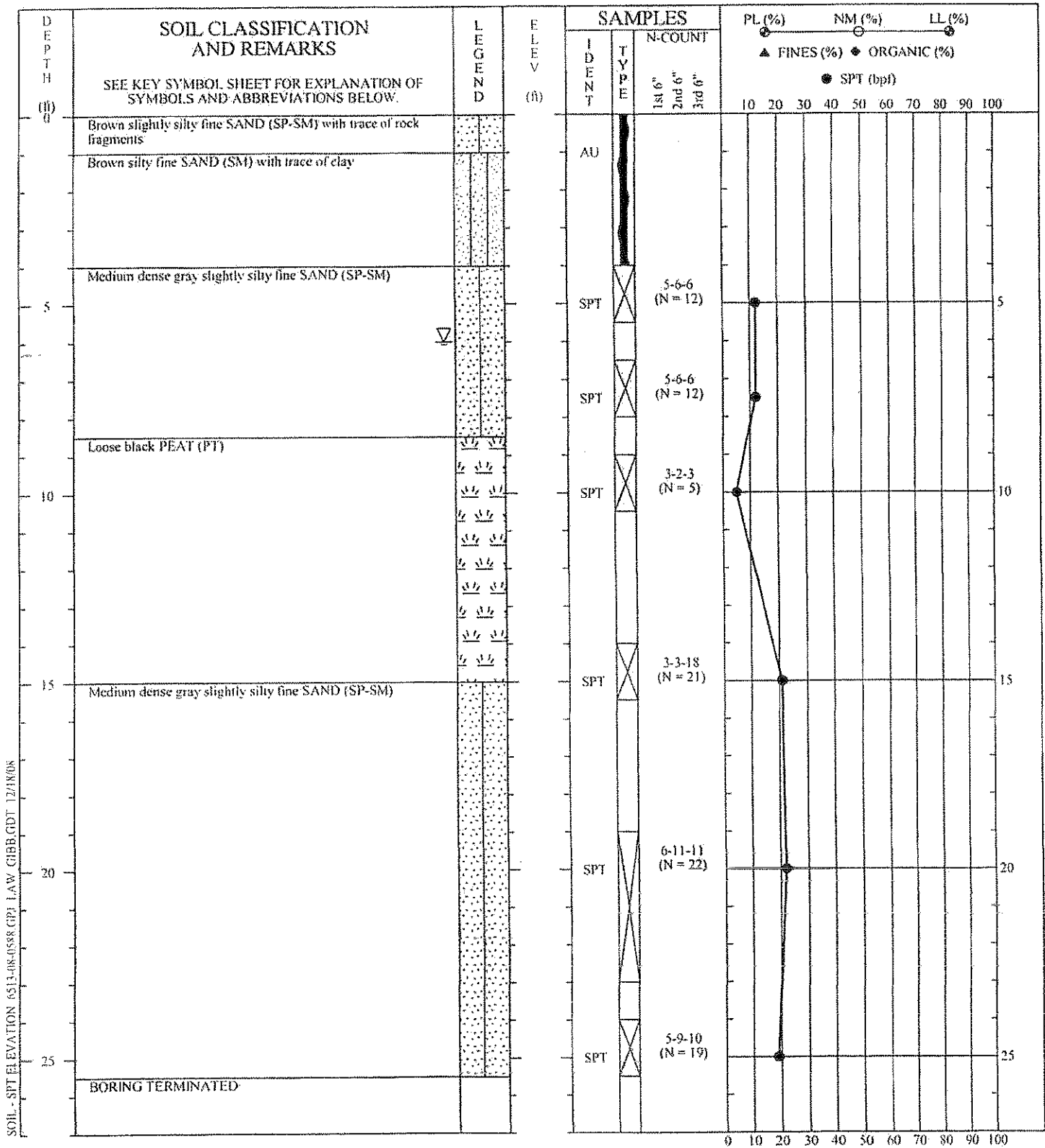
BORING NO.: A-1

DRILLED: December 12, 2008
 PROJ. NO.: 6513-08-0588

PAGE 1 OF 1

CHECKED BY:

MACTEC



DRILLER: Mark Murray
 EQUIPMENT: Power Drill Rig with Hollow Stem Auger and Cisthead
 METHOD: Hammer
 HOLE DIA.: Auger Boring, ASTM D-1452
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
 LOCATION. SUBSURFACE CONDITIONS AT OTHER
 LOCATIONS AND AT OTHER TIMES MAY DIFFER.
 INTERFACES BETWEEN STRATA ARE APPROXIMATE.
 TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

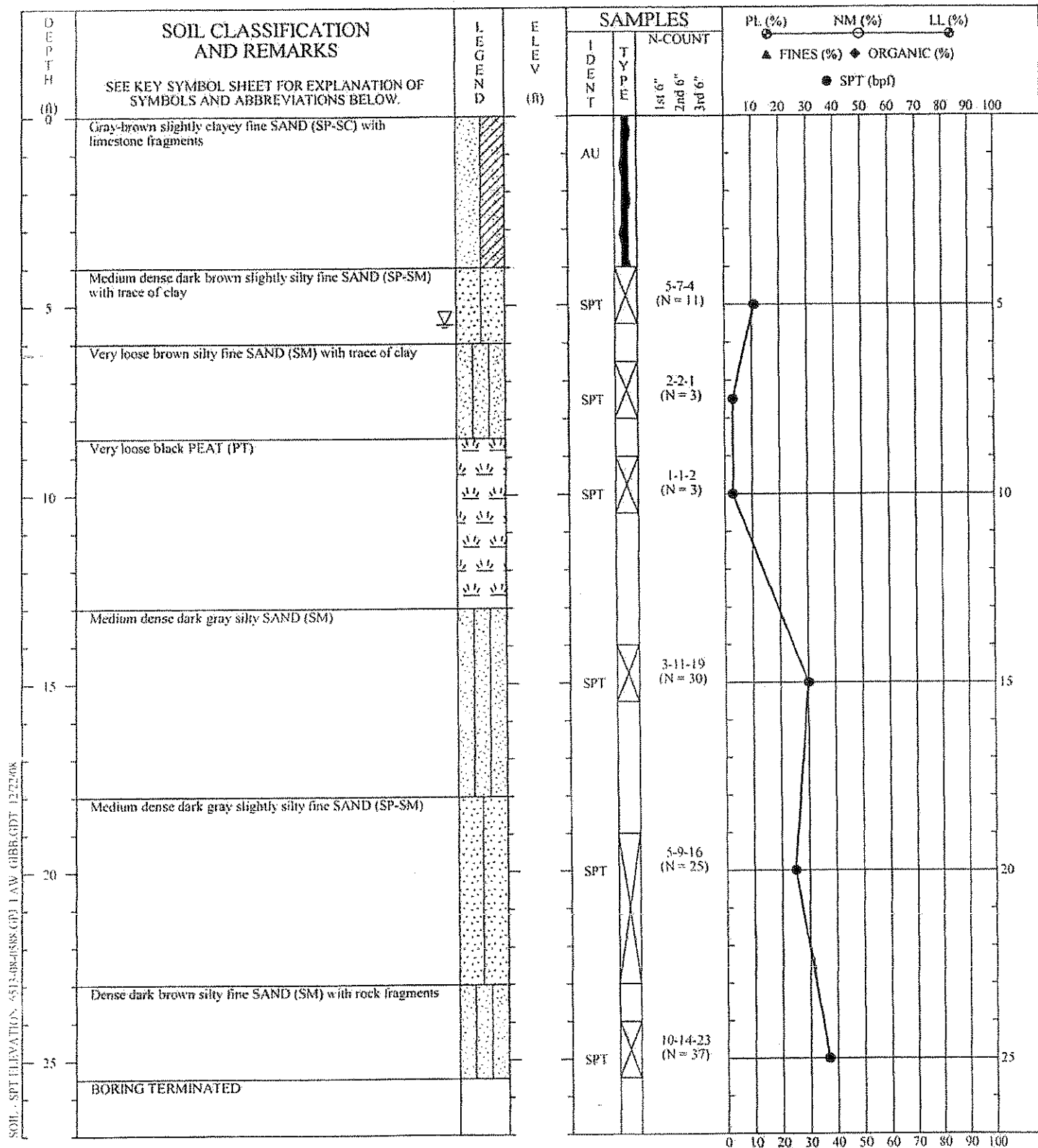
PROJECT: Brandon Hyatt Hotel
 LOCATION: Brandon, FL

BORING NO.: A-2

DRILLED: December 12, 2008
 PROJ. NO.: 6513-08-0588

PAGE 1 OF 1
 CHECKED BY: *CH*

MACTEC



DRILLER: Mark Murray
 EQUIPMENT: Power Drill Rig with Hollow Stem Auger and Cathead
 METHOD: Hammer
 HOLE DIA.: Auger Boring, ASTM D-1452
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
 LOCATION. SUBSURFACE CONDITIONS AT OTHER
 LOCATIONS AND AT OTHER TIMES MAY DIFFER.
 INTERFACES BETWEEN STRATA ARE APPROXIMATE.
 TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

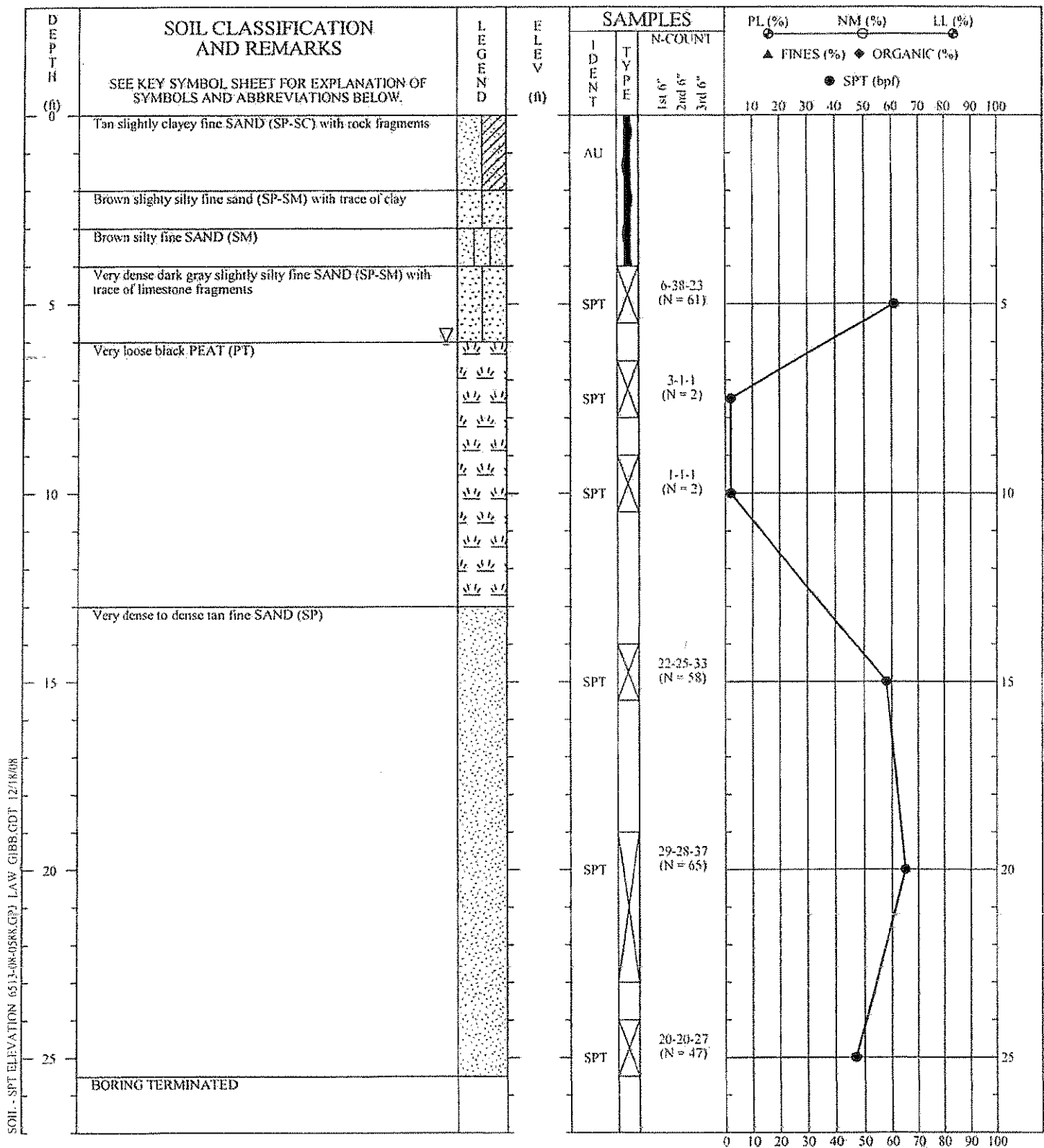
SOIL TEST BORING RECORD

PROJECT: Brandon Hyatt Hotel
 LOCATION: Brandon, FL

DRILLED: December 12, 2008
 PROJ. NO.: 6513-08-0588

BORING NO.: A-3
 PAGE 1 OF 1
 CHECKED BY: *[Signature]*

MACTEC



DRILLER: Mark Murray
EQUIPMENT: Power Drill Rig with Hollow Stem Auger and Cathead
METHOD: Hammer
HOLE DIA.: Auger Boring, ASTM D-1452
REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
OF SUBSURFACE CONDITIONS AT THE EXPLORATION
LOCATION. SUBSURFACE CONDITIONS AT OTHER
LOCATIONS AND AT OTHER TIMES MAY DIFFER.
INTERFACES BETWEEN STRATA ARE APPROXIMATE.
TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

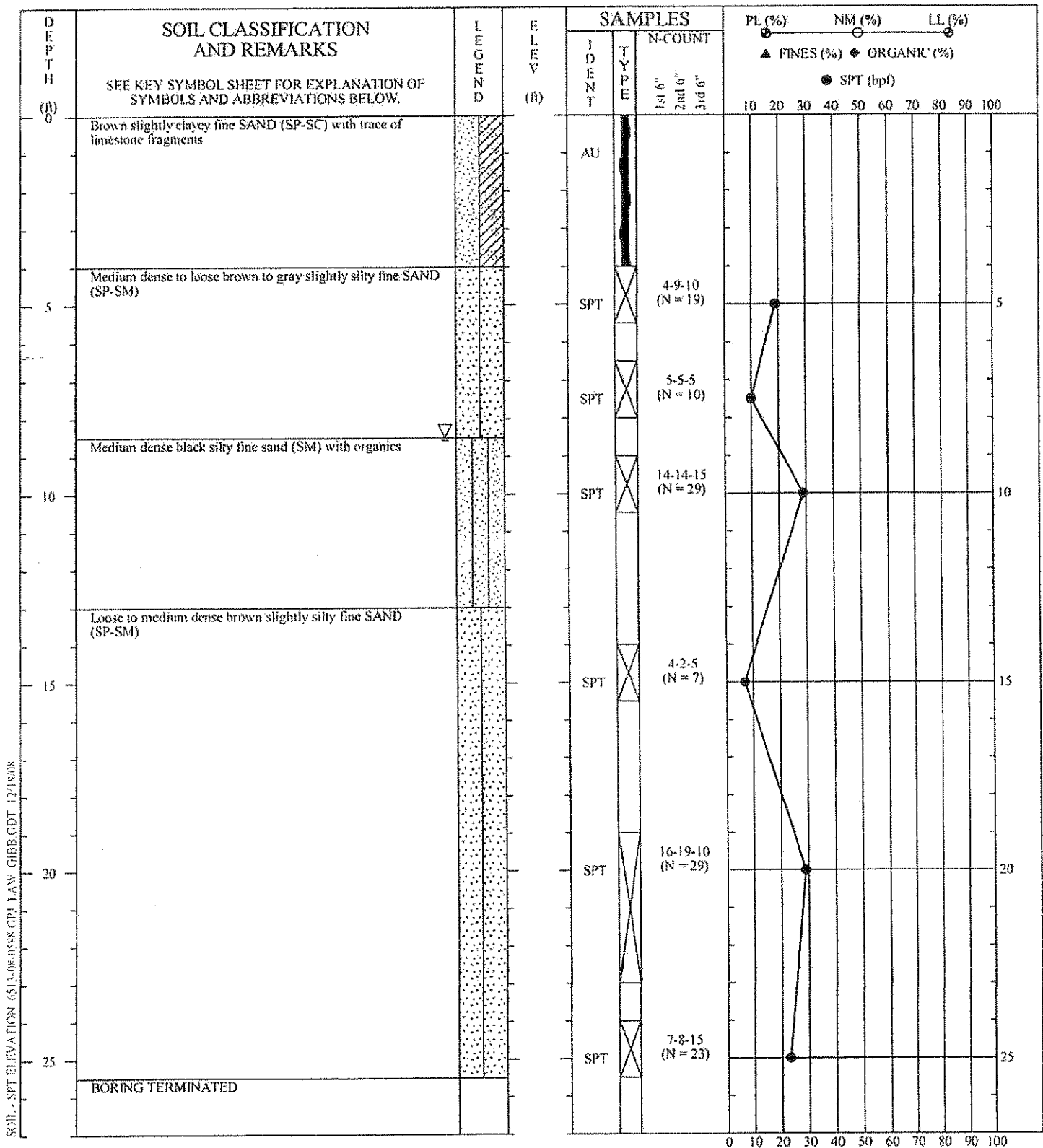
PROJECT: Brandon Hyatt Hotel
LOCATION: Brandon, FL

BORING NO.: A-4

DRILLED: December 12, 2008
PROJ. NO.: 6513-08-0588

PAGE 1 OF 1
CHECKED BY: *CP*

MACTEC



DRILLER: Mark Murray
 EQUIPMENT: Power Drill Rig with Hollow Stem Auger and Cathead
 METHOD: Hammer
 HOLE DIA.: Auger Boring, ASTM D-1452
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
 LOCATION. SUBSURFACE CONDITIONS AT OTHER
 LOCATIONS AND AT OTHER TIMES MAY DIFFER.
 INTERFACES BETWEEN STRATA ARE APPROXIMATE.
 TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

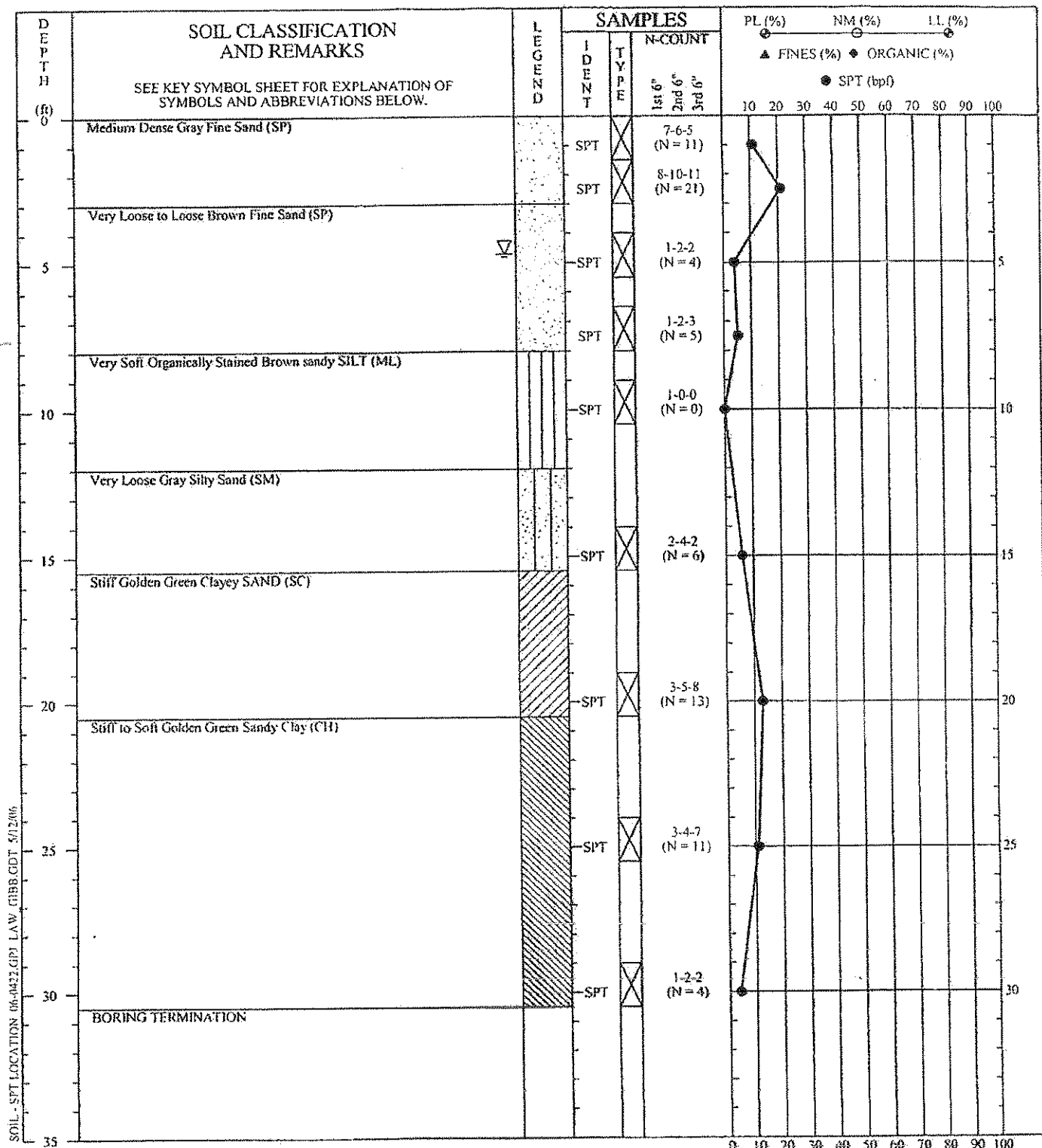
PROJECT: Brandon Hyatt Hotel
 LOCATION: Brandon, FL

BORING NO.: A-5

DRILLED: December 12, 2008
 PROJ. NO.: 6513-08-0588

PAGE 1 OF 1
 CHECKED BY: *[Signature]*

MACTEC



DRILLER: K. Jakacky
 EQUIPMENT: CME Power Drill Rig
 METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
 HOLE DIA.: 2 15/16 inches
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
 LOCATION. SUBSURFACE CONDITIONS AT OTHER
 LOCATIONS AND AT OTHER TIMES MAY DIFFER.
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 TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

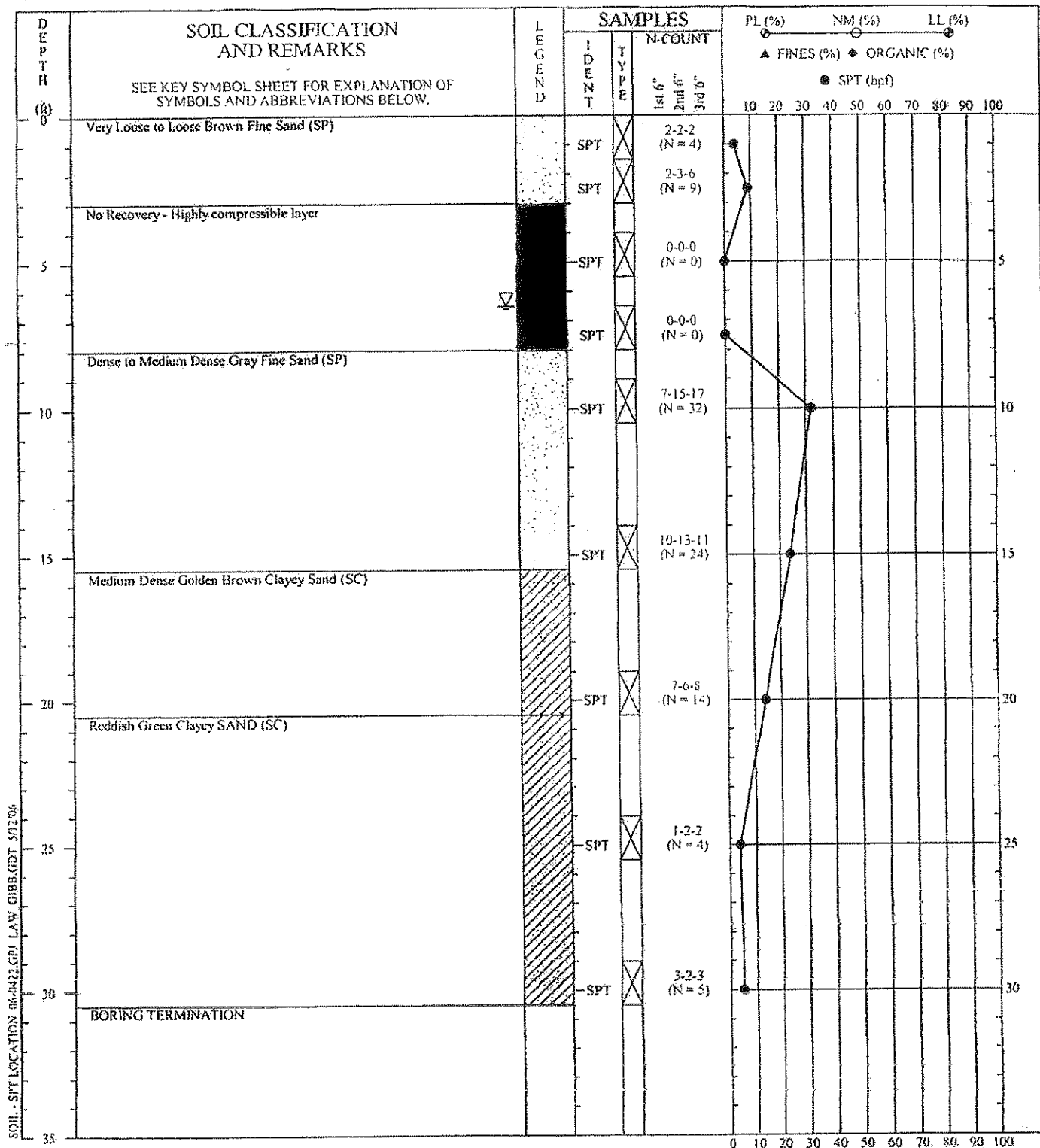
PROJECT: Love Hotel
 LOCATION: Brandon, FL

BORING NO.: SPT-1

DRILLED: April 18, 2006
 PROJ. NO.: 6513-06-0422

PAGE 1 OF 1
 CHECKED BY: *Ch*

MACTEC



DRILLER: K. Jakacky
 EQUIPMENT: CME Power Drill Rig
 METHOD: Rotary Wash with Bentonite "Mud". ASTM D-1586
 HOLE DIA.: 2 15/16 inches
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
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 LOCATIONS AND AT OTHER TIMES MAY DIFFER.
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SOIL TEST BORING RECORD

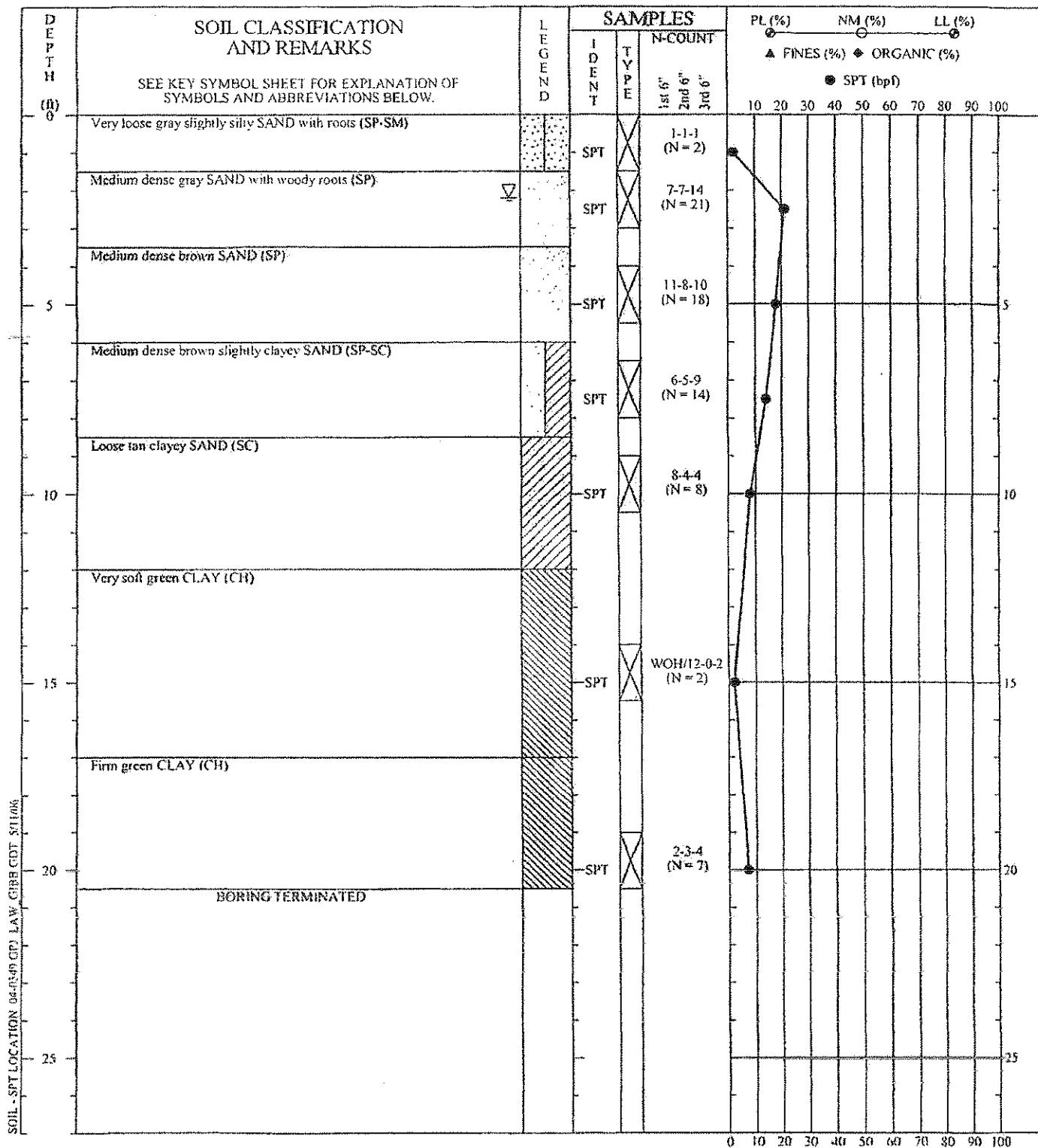
PROJECT: Love Hotel
 LOCATION: Brandon, FL

BORING NO.: SPT-2

DRILLED: April 18, 2006
 PROJ. NO.: 6513-06-0422

PAGE 1 OF 1
 CHECKED BY:





DRILLER: D. Teslicko
 EQUIPMENT: CME Power Drill Rig
 METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
 HOLE DIA.: 2 15/16 inches
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
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 LOCATIONS AND AT OTHER TIMES MAY DIFFER.
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SOIL TEST BORING RECORD

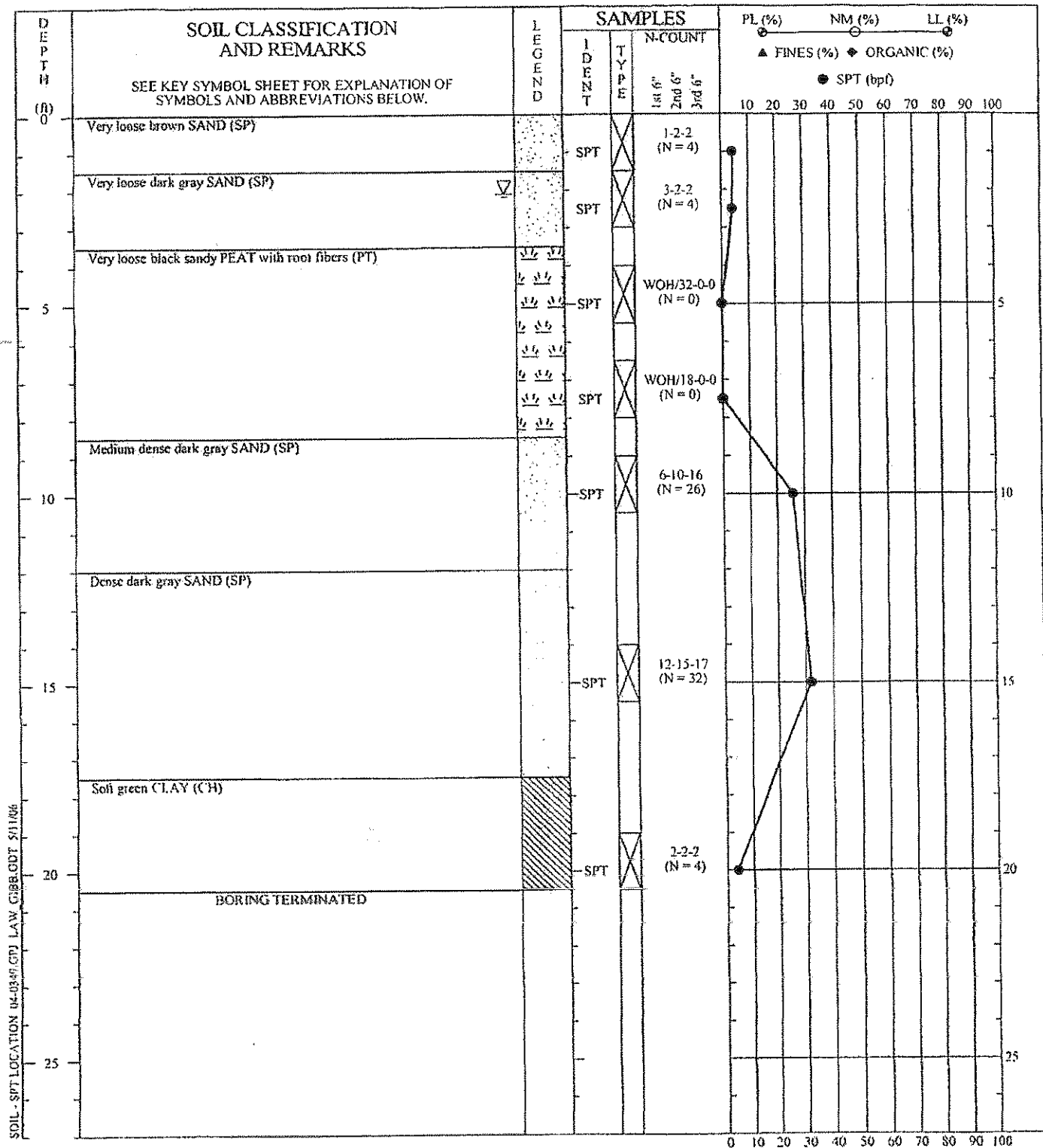
PROJECT: Brandon Hotel Site Development
 LOCATION: Brandon, FL

BORING NO.: B-1

DRILLED: December 1, 2004
 PROJ. NO.: 6513-04-0349

PAGE 1 OF 1
 CHECKED BY: *[Signature]*

MACTEC



DRILLER: D. Teslicko
 EQUIPMENT: CME Power Drill Rig
 METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
 HOLE DIA.: 2 15/16 inches
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
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 LOCATIONS AND AT OTHER TIMES MAY DIFFER.
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 TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

PROJECT: Brandon Hotel Site Development
 LOCATION: Brandon, FL

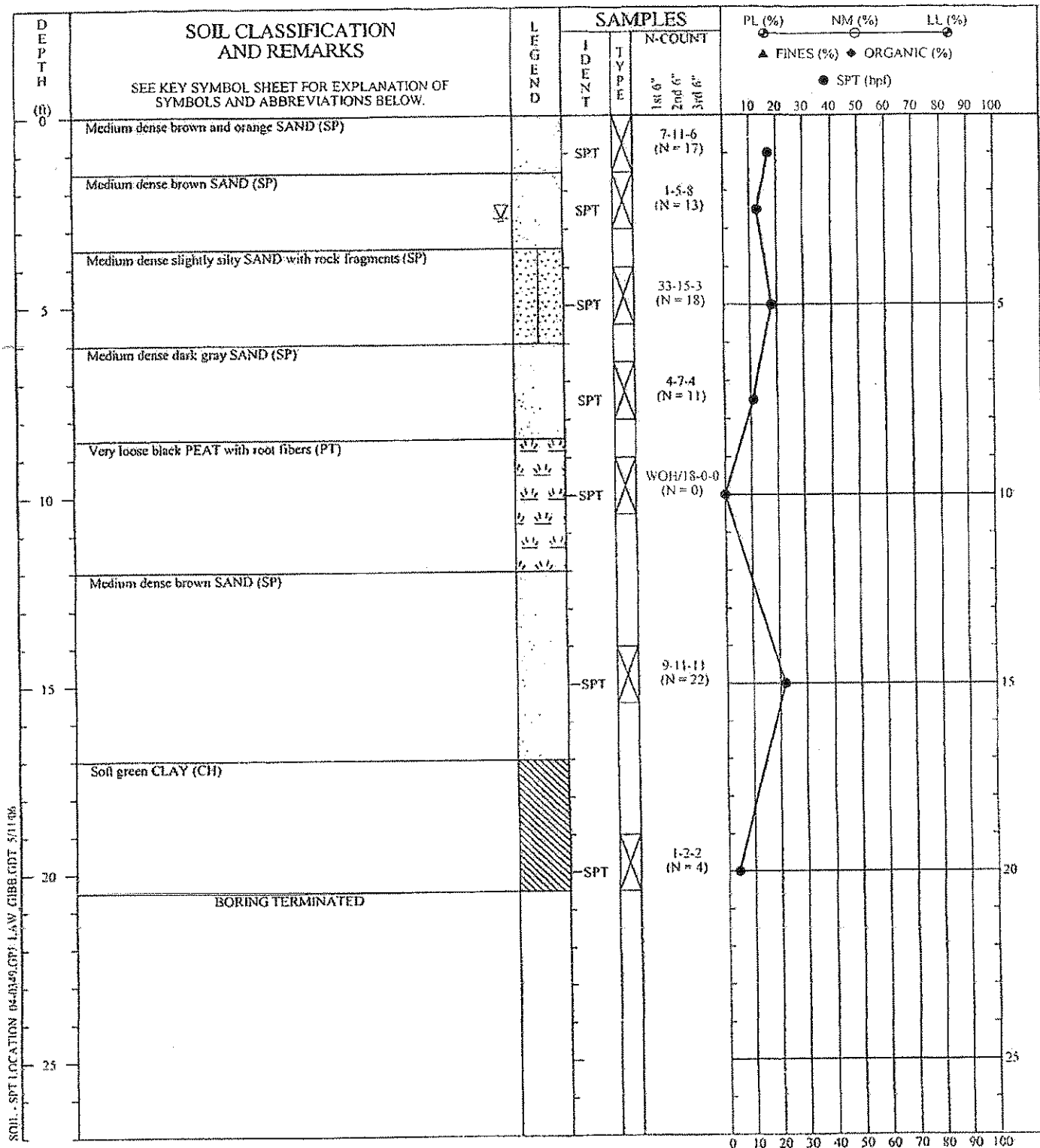
DRILLED: December 1, 2004
 PROJ. NO.: 6513-04-0349

BORING NO.: B-2

PAGE 1 OF 1

CHECKED BY: *CS*

MACTEC



DRILLER: D. Teslicko
 EQUIPMENT: CME Power Drill Rig
 METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
 HOLE DIA.: 2 15/16 inches
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
 LOCATION. SUBSURFACE CONDITIONS AT OTHER
 LOCATIONS AND AT OTHER TIMES MAY DIFFER.
 INTERFACES BETWEEN STRATA ARE APPROXIMATE.
 TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

PROJECT: Brandon Hotel Site Development
LOCATION: Brandon, FL

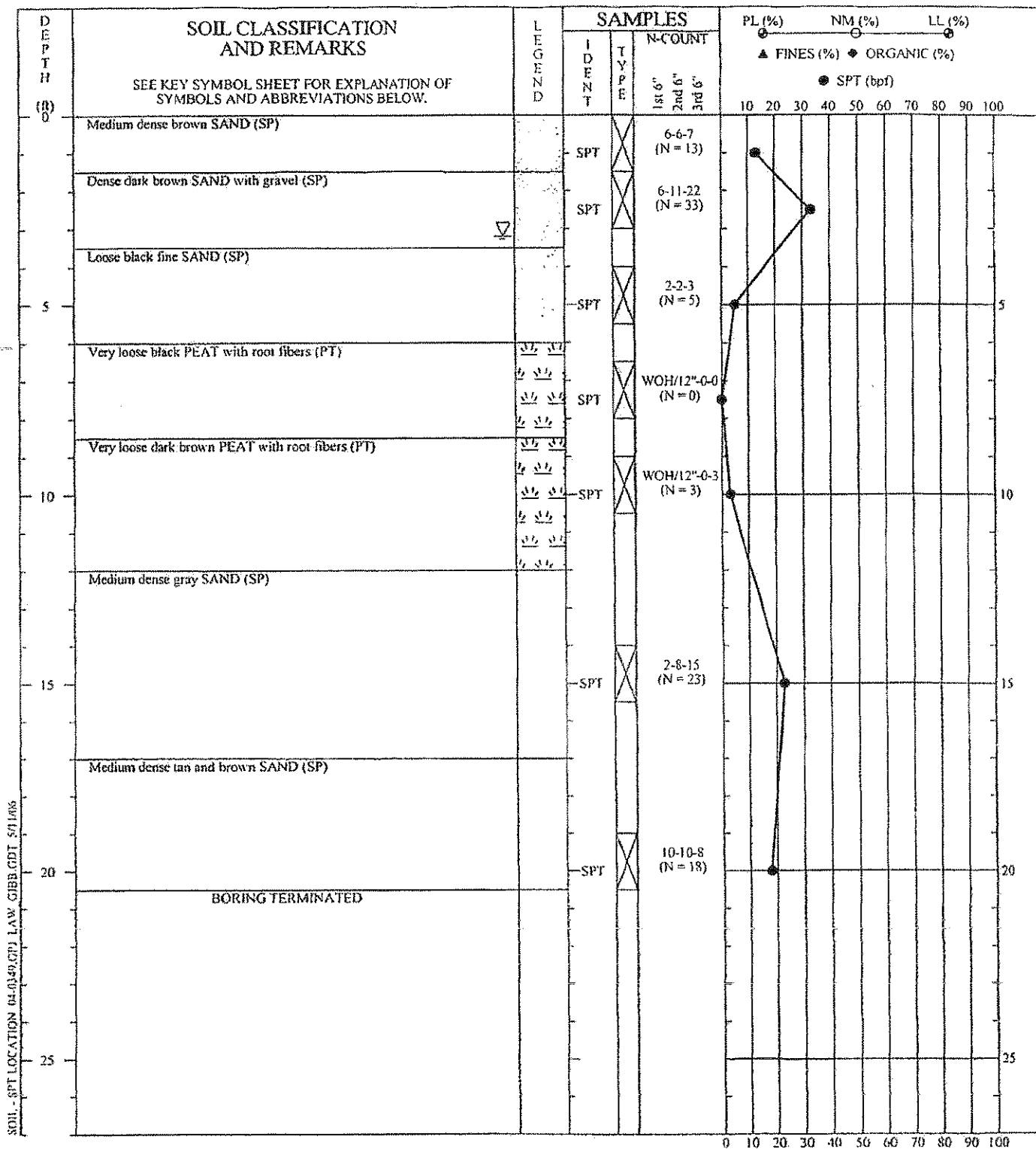
DRILLED: December 1, 2004
PROJ. NO.: 6513-04-0349

BORING NO.: B-3

PAGE 1 OF 1

CHECKED BY: *Cr*





DRILLER: D. Testlicko
 EQUIPMENT: CME Power Drill Rig
 METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
 HOLE DIA.: 2 15/16 inches
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
 LOCATION. SUBSURFACE CONDITIONS AT OTHER
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 INTERFACES BETWEEN STRATA ARE APPROXIMATE.
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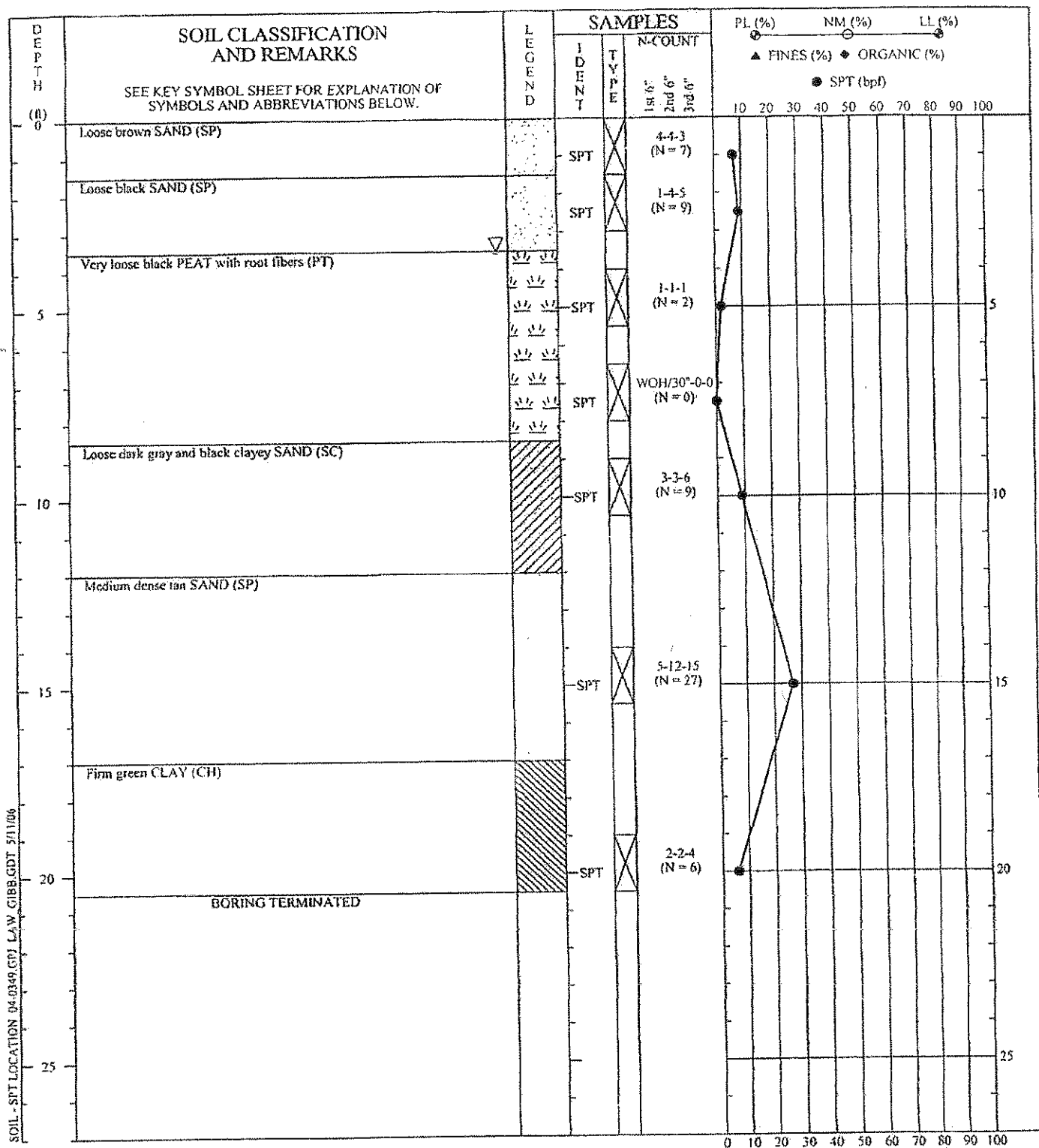
SOIL TEST BORING RECORD

PROJECT: Brandon Hotel Site Development
 LOCATION: Brandon, FL

DRILLED: December 1, 2004
 PROJ. NO.: 6513-04-0349

BORING NO.: B-4
 PAGE 1 OF 1
 CHECKED BY: CJ

MACTEC



DRILLER: D. Teslicko
 EQUIPMENT: CME Power Drill Rig
 METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
 HOLE DIA.: 2 15/16 inches
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
 LOCATION. SUBSURFACE CONDITIONS AT OTHER
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 INTERFACES BETWEEN STRATA ARE APPROXIMATE.
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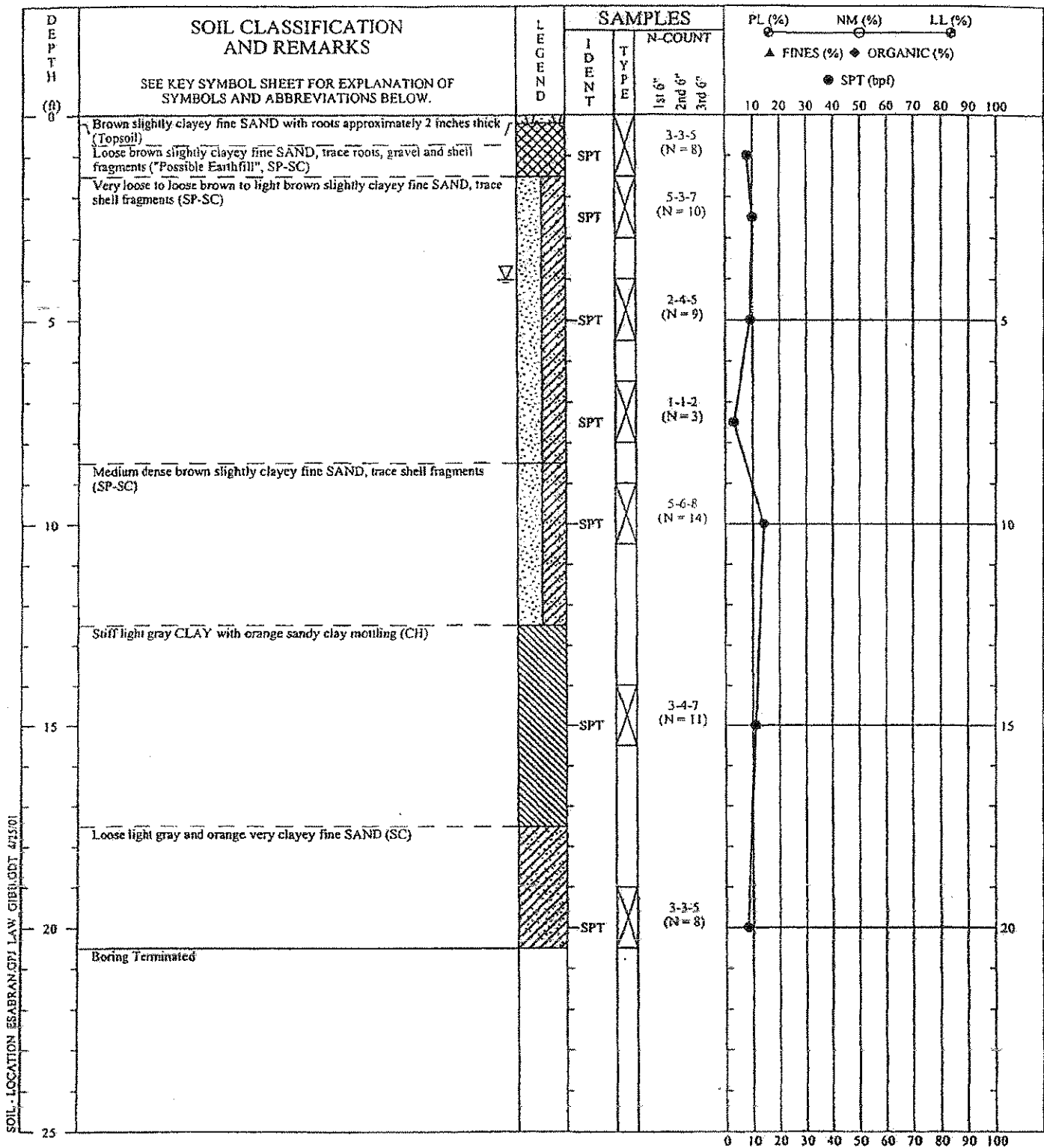
SOIL TEST BORING RECORD

PROJECT: Brandon Hotel Site Development
 LOCATION: Brandon, FL

DRILLED: December 1, 2004
 PROJ. NO.: 6513-04-0349

BORING NO.: B-5
 PAGE 1 OF 1
 CHECKED BY: *[Signature]*

MACTEC

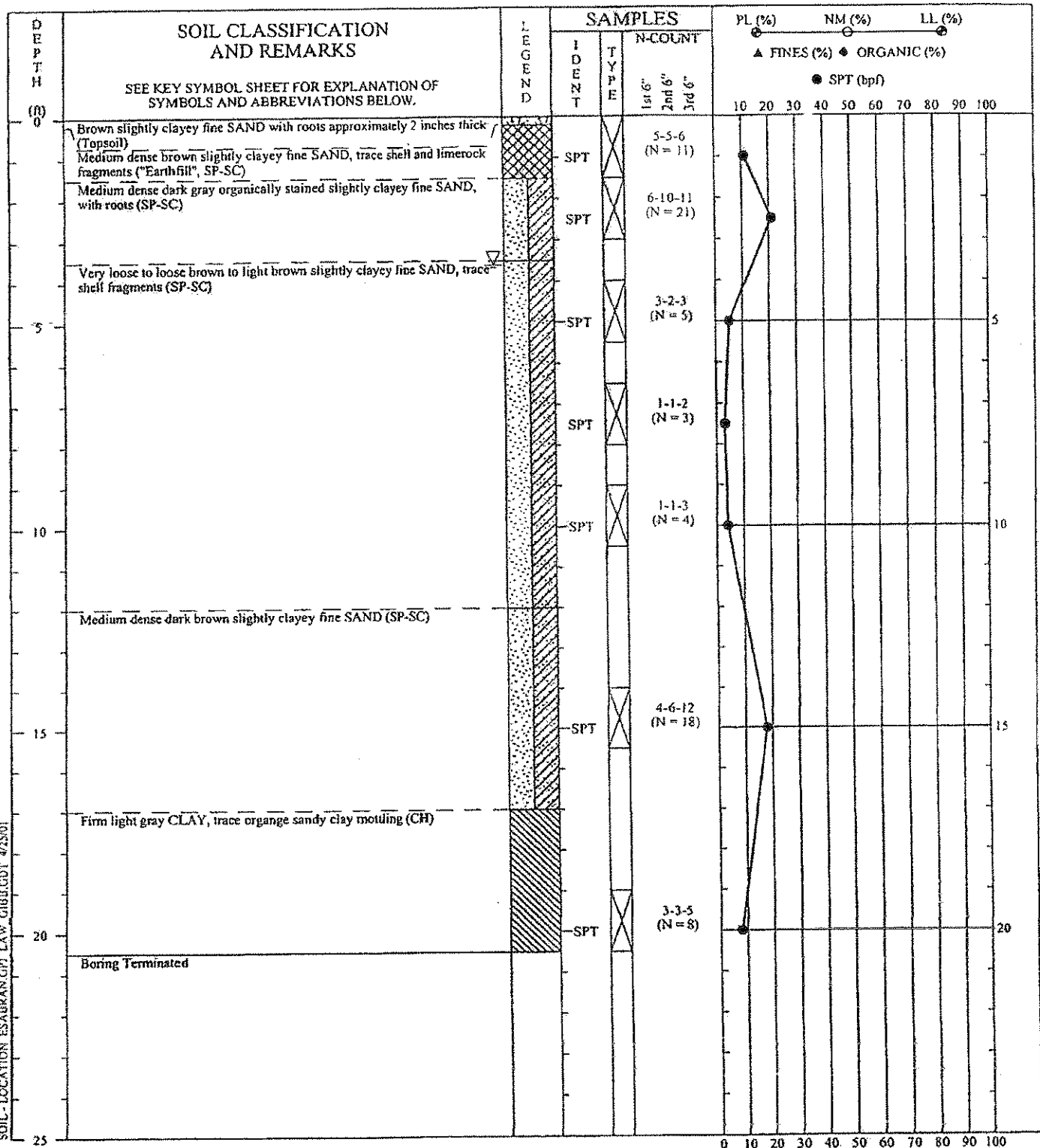


DRILLER: D. Teslicko
EQUIPMENT: CME Power Drill Rig
METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
HOLE DIA.: 2 1/16 inches
REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD	
PROJECT:	Extended Stay America No. 1799
LOCATION:	Brandon, Florida
DRILLED:	April 23, 2001
PROJ. NO.:	30200-1-9180.03
BORING NO.:	B-01
CHECKED BY:	Co
<p>LAW LAWGIBB Group Member</p>	

PAGE 1 OF 1



DRILLER: D. Teslicko
EQUIPMENT: CME Power Drill Rig
METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
HOLE DIA.: 2 15/16 inches
REMARKS:

PROJECT: Extended Stay America No. 1799
LOCATION: Brandon, Florida

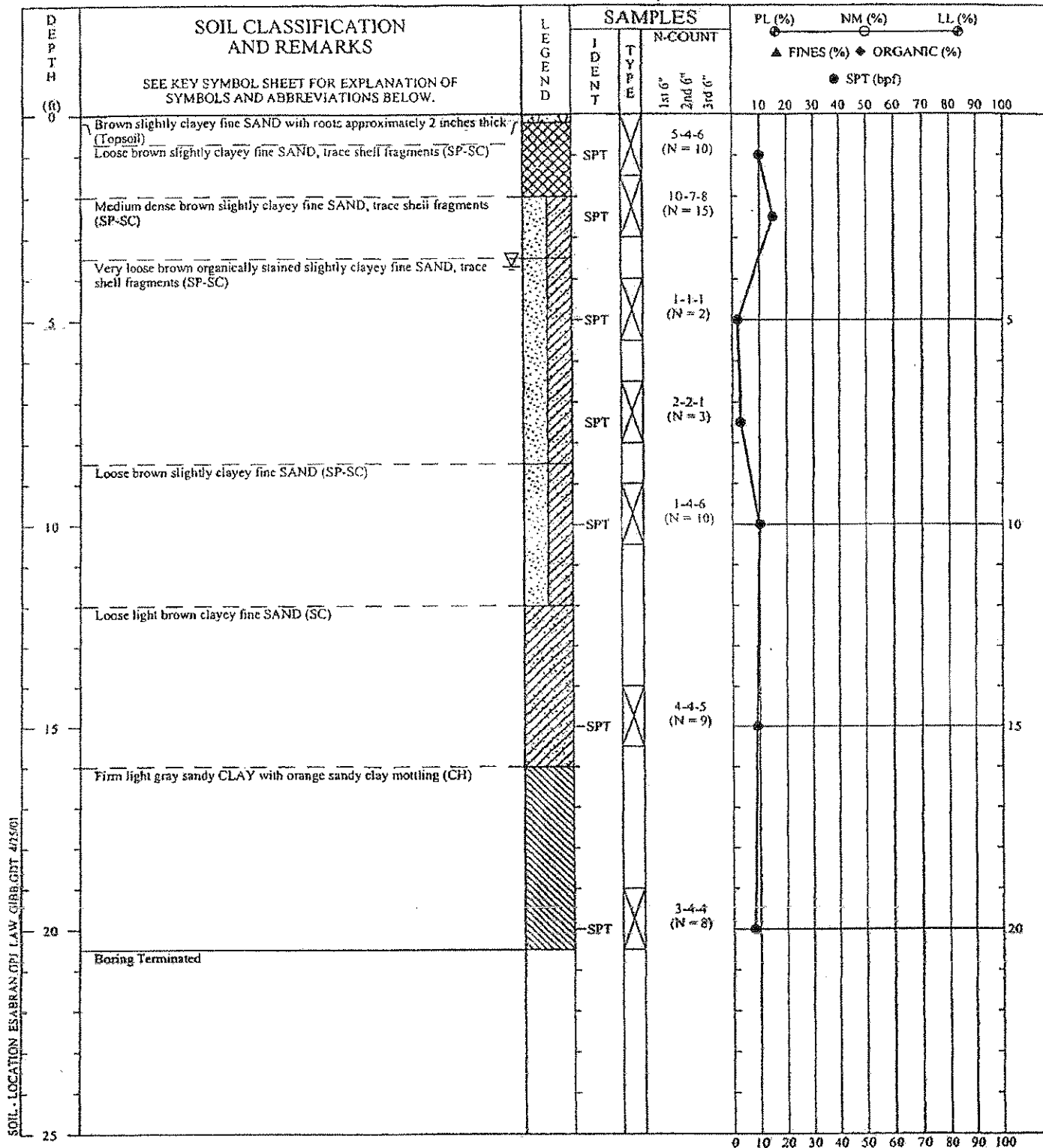
DRILLED: April 23, 2001
PROJ. NO.: 30200-1-9180.03

BORING NO.: B-02
PAGE 1 OF 1
CHECKED BY: C

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

LAW

LAWGIBB Group Member



DRILLER: D. Teslicko
EQUIPMENT: CME Power Drill Rig
METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
HOLE DIA.: 2 15/16 inches
REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD

PROJECT: Extended Stay America No. 1799
LOCATION: Brandon, Florida

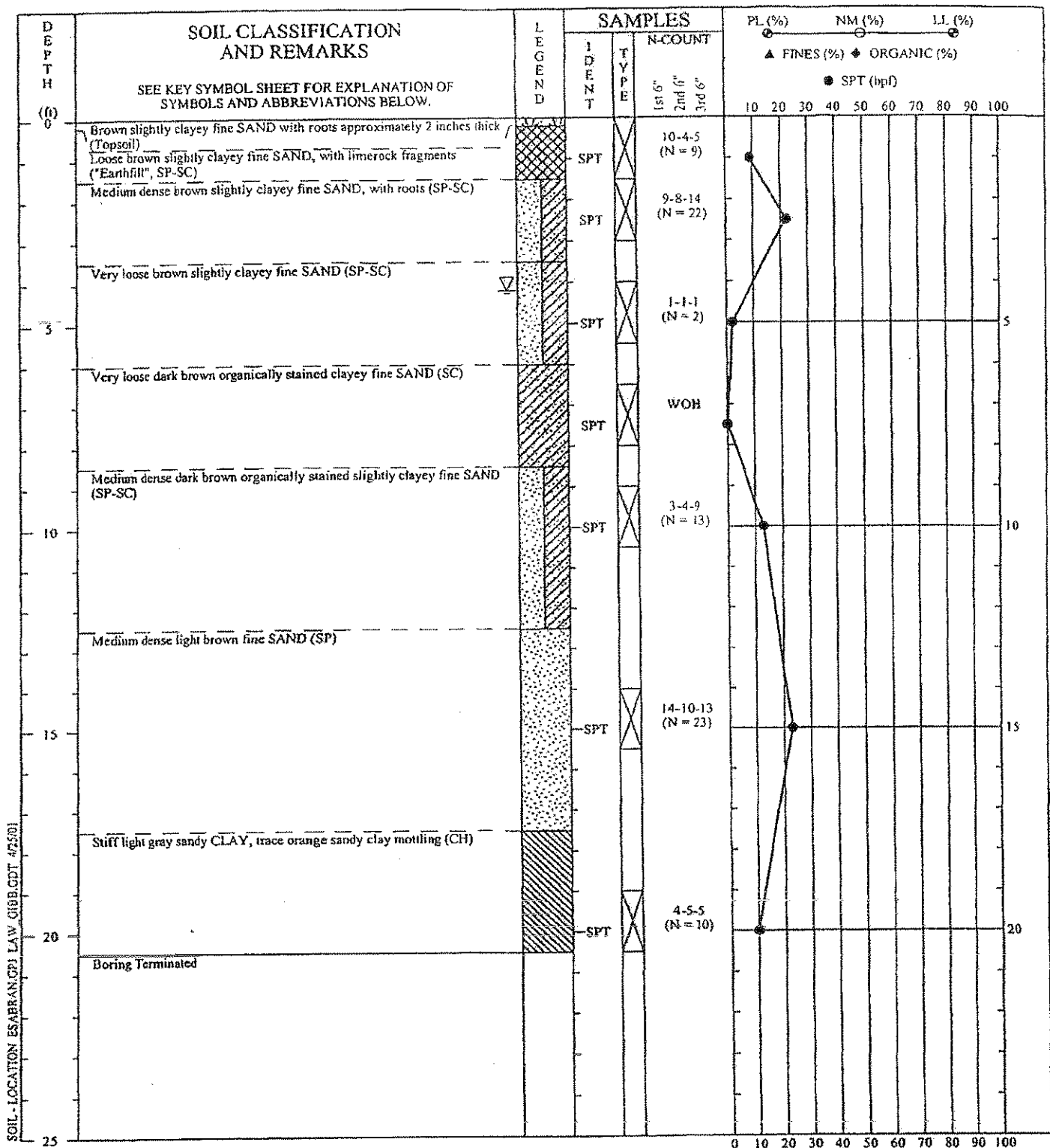
BORING NO.: B-03

DRILLED: April 23, 2001
PROJ. NO.: 30200-1-9180.03

PAGE 1 OF 1
CHECKED BY: 

LAW

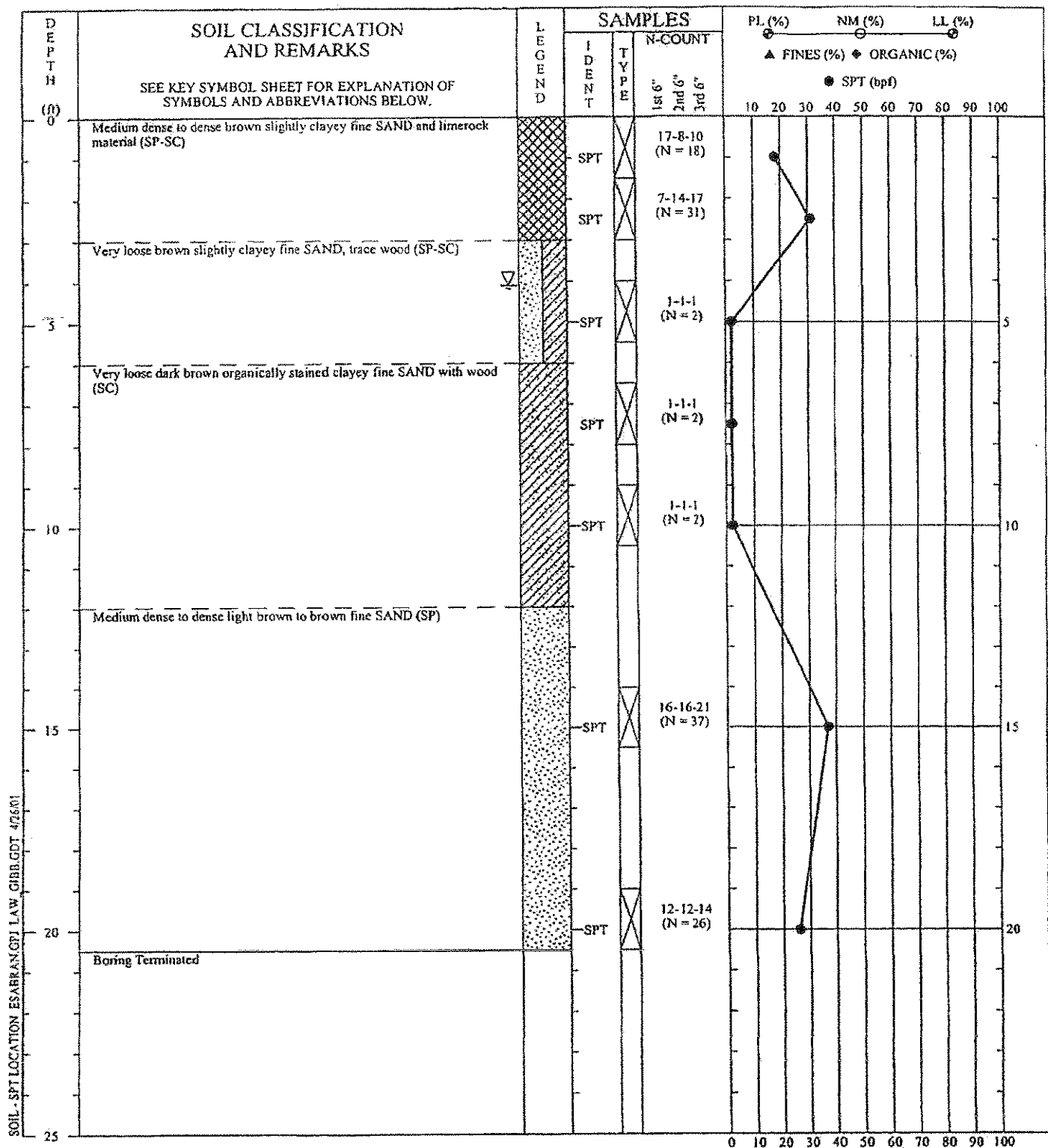
LAWGIBB Group Member 



DRILLER: D. Testicko
EQUIPMENT: CME Power Drill Rig
METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
HOLE DIA.: 2 15/16 inches
REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL TEST BORING RECORD		
PROJECT:	Extended Stay America No. 1799	
LOCATION:	Brandon, Florida	
DRILLED:	April 23, 2001	BORING NO.: B-04
PROJ. NO.:	30200-1-9180.03	PAGE 1 OF 1
		CHECKED BY: <i>[Signature]</i>
LAW LAWGIBB Group Member		



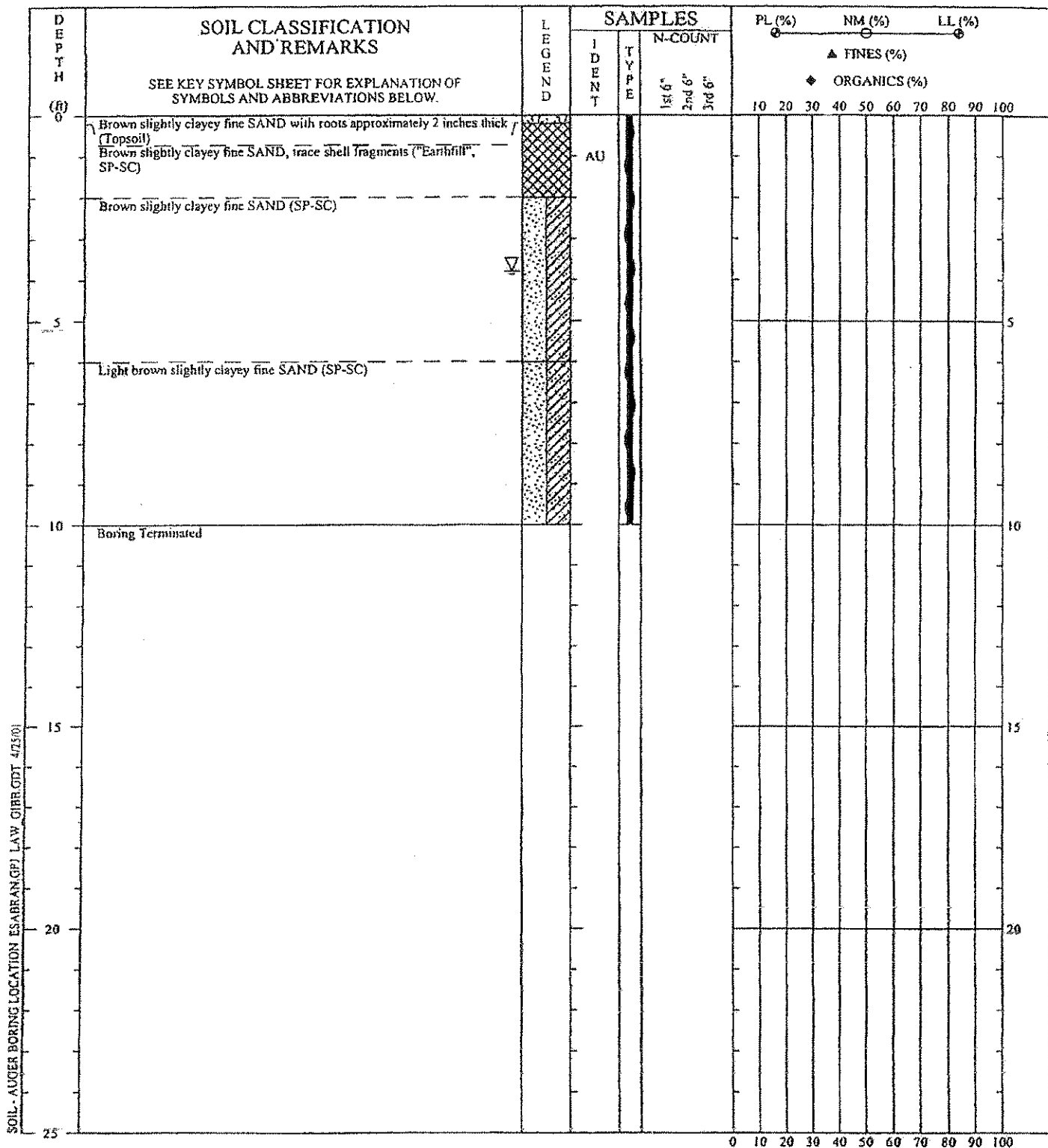
DRILLER: D. Teslicko
EQUIPMENT: CME Power Drill Rig
METHOD: Rotary Wash with Bentonite "Mud", ASTM D-1586
HOLE DIA.: 2 15/16 inches
REMARKS:

SOIL TEST BORING RECORD

PROJECT: Extended Stay America No. 1799
LOCATION: Brandon, Florida
BORING NO.: B-05
DRILLED: April 23, 2001
PROJ. NO.: 30200-1-9180.03
PAGE 1 OF 1
CHECKED BY: [Signature]

LAW
LAWGIBB Group Member

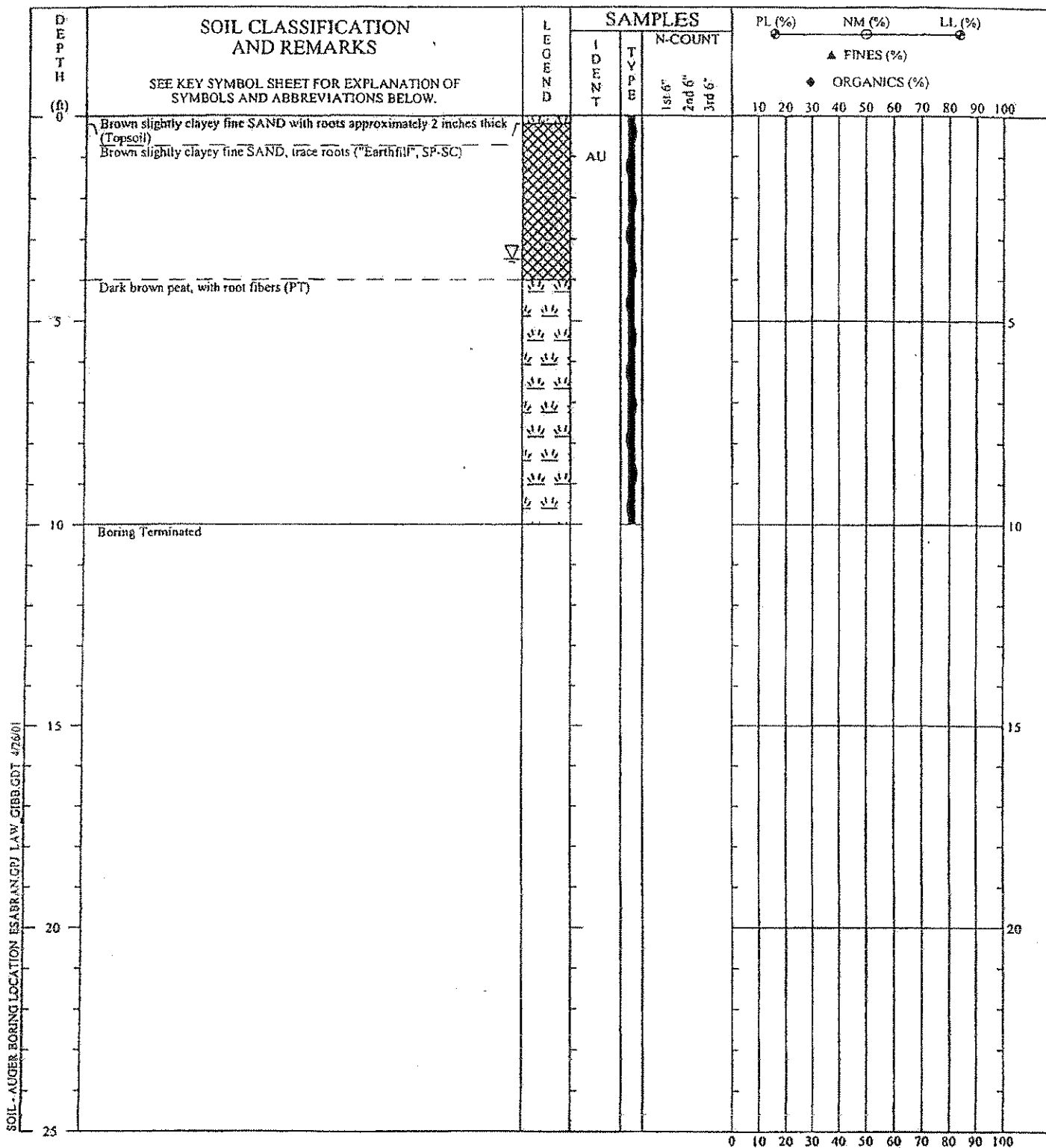
THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.



DRILLER: D. Teslicko
EQUIPMENT: 3-inch Diameter Bucket Auger
METHOD: Solid Stem Auger Boring, ASTM D-1452
HOLE DIA.: 3 inches
REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

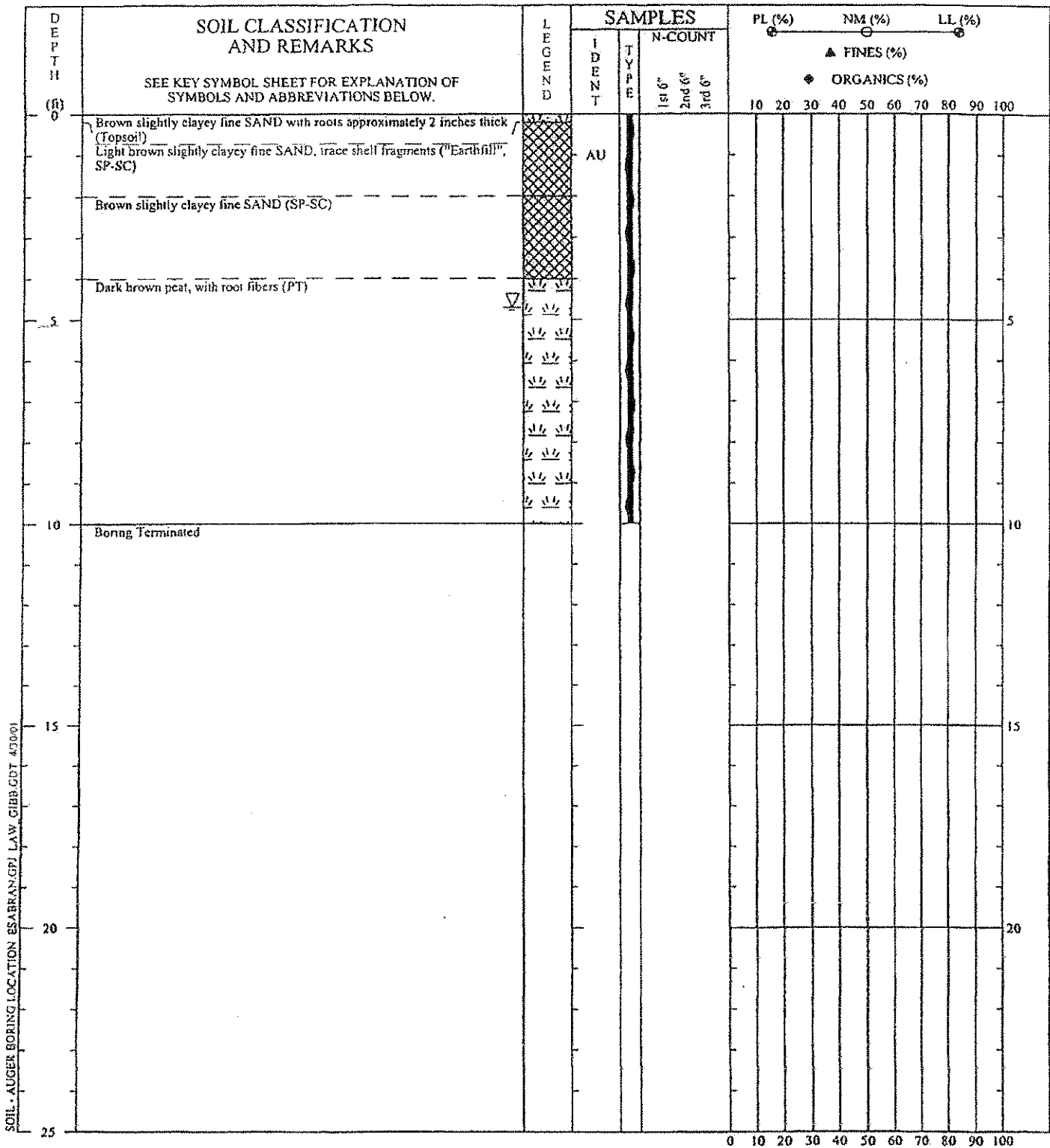
AUGER BORING RECORD	
PROJECT:	Extended Stay America No. 1799
LOCATION:	Brandon, Florida
DRILLED:	April 24, 2001
PROJ. NO.:	30200-1-9180.03
BORING NO.:	AB-01
PAGE	1 OF 1
CHECKED BY:	C
LAW LAWGIBB Group Member	



DRILLER: D. Teslicko
 EQUIPMENT: 3-inch Diameter Bucket Auger
 METHOD: Solid Stem Auger Boring, ASTM D-1452
 HOLE DIA.: 3 inches
 REMARKS:

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AUGER BORING RECORD	
PROJECT:	Extended Stay America No. 1799
LOCATION:	Brandon, Florida
DRILLED:	April 24, 2001
PROJ. NO.:	30200-1-9180.03
BORING NO.:	AB-02
PAGE 1 OF 1	CHECKED BY: <i>CR</i>
LAW LAWGIBB Group Member	



DRILLER: D. Teslicko
 EQUIPMENT: 3-inch Diameter Bucket Auger
 METHOD: Solid Stem Auger Boring, ASTM D-1452
 HOLE DIA.: 3 inches
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
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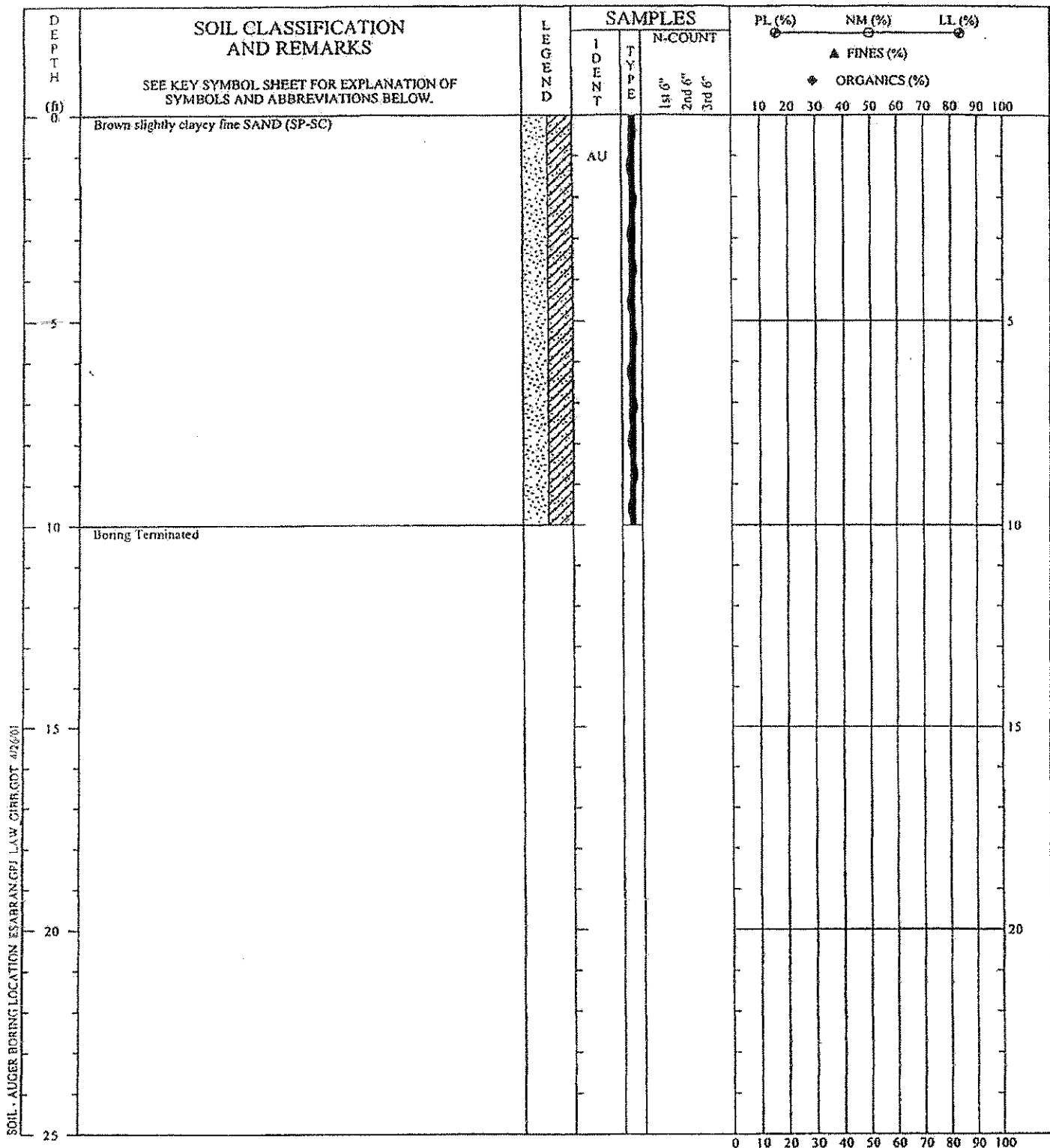
AUGER BORING RECORD	
PROJECT:	Extended Stay America No. 1799
LOCATION:	Brandon, Florida
DRILLED:	April 24, 2001
PROJ. NO.:	30200-1-9180.03
BORING NO.:	AB-03
PAGE 1 OF 1	CHECKED BY: <i>CR</i>
LAW LAWGIBB Group Member	

[illegible]

DRILLER: D. Teslicko
EQUIPMENT: 3-inch Diameter Bucket Auger
METHOD: Solid Stem Auger Boring, ASTM D-1452
HOLE DIA.: 3 inches
REMARKS:



THIS RECORD IS A REASONABLE INTERPRETATION
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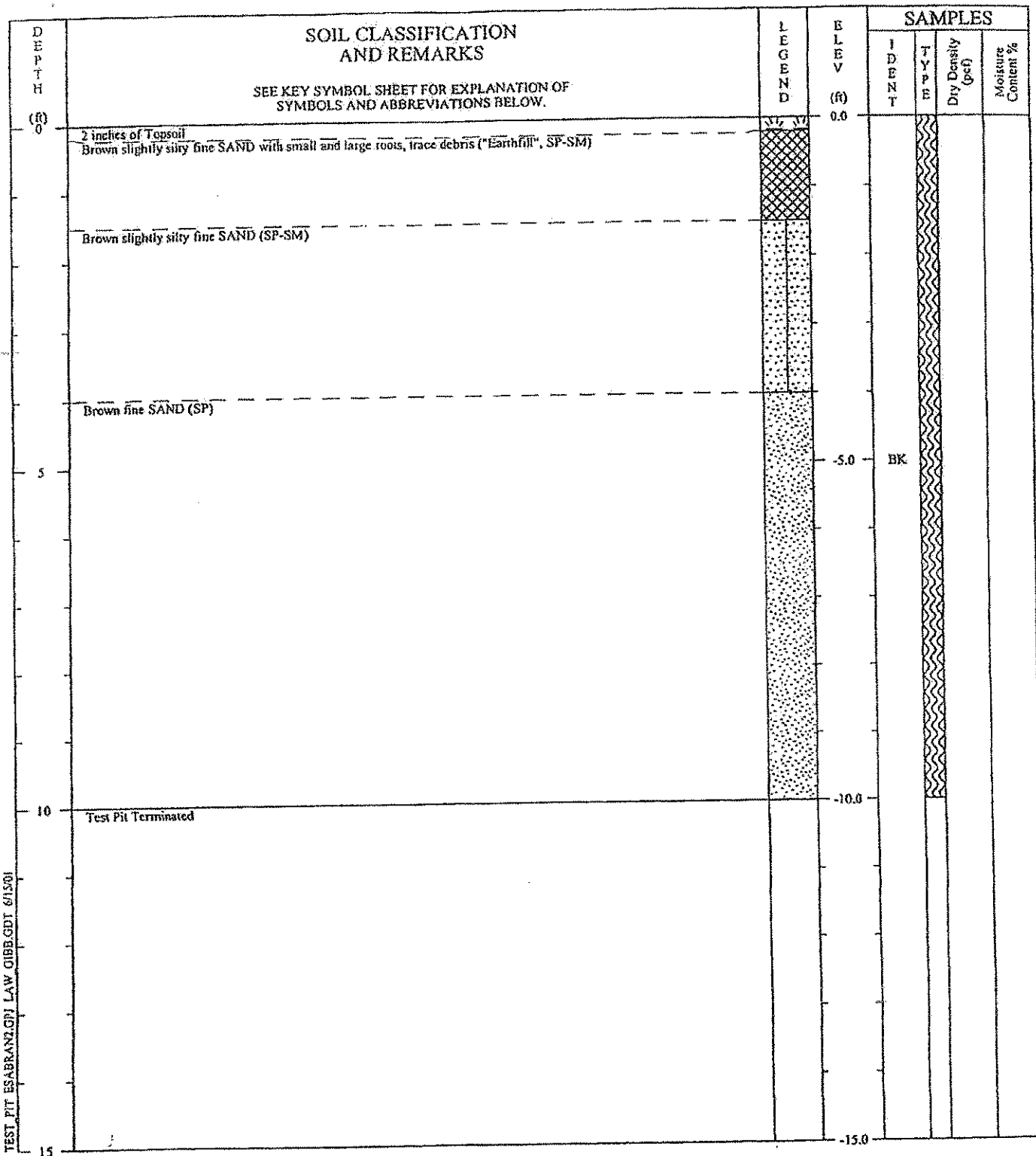
WATER BORING RECORD		
PROJECT:	Extended Stay America No. 1799	
LOCATION:	Brandon, Florida	
DRILLED:	April 24, 2001	BORING NO.: AB-04
PROJ. NO.:	30200-1-9180.03	PAGE 1 OF 1
		CHECKED BY: <i>CR</i>



DRILLER: D. Teslicko
 EQUIPMENT: 3-inch Diameter Bucket Auger
 METHOD: Solid Stem Auger Boring, ASTM D-1452
 HOLE DIA.: 3 inches
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
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AUGER BORING RECORD	
PROJECT:	Extended Stay America No. 1799
LOCATION:	Brandon, Florida
DRILLED:	April 24, 2001
PROJ. NO.:	30200-1-9180.03
BORING NO.:	AB-05
CHECKED BY:	PAGE 1 OF 1 
LAW LAWGIBB Group Member 	



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM.:
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
 LOCATION. SUBSURFACE CONDITIONS AT OTHER
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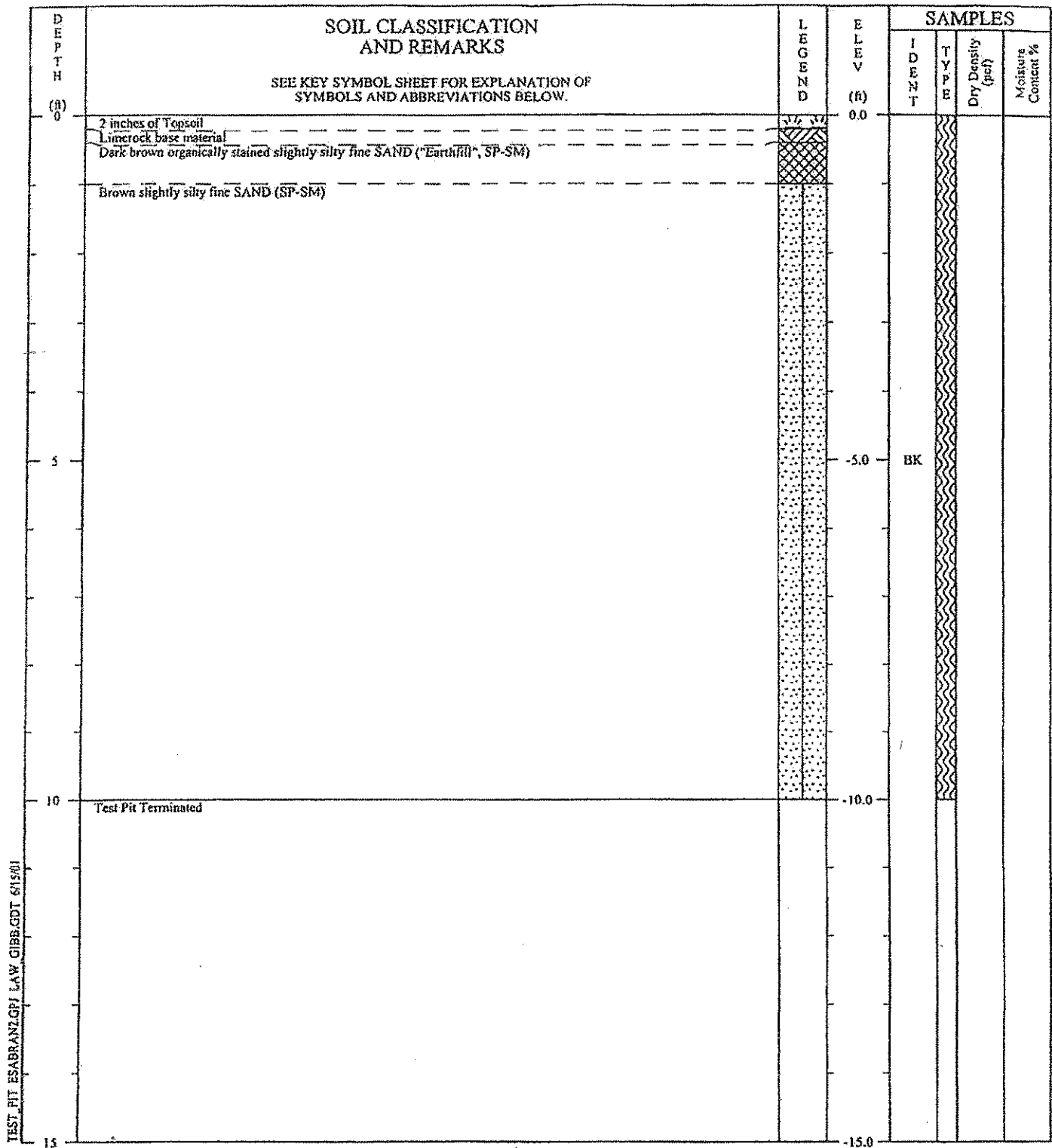
TEST PIT RECORD

PROJECT: ESA - Brandon
 LOCATION: Brandon, Florida

TEST PIT NO.: TP-01

EXCAVATED: May 18, 2001
 PROJ. NO.: 30200-1-9180

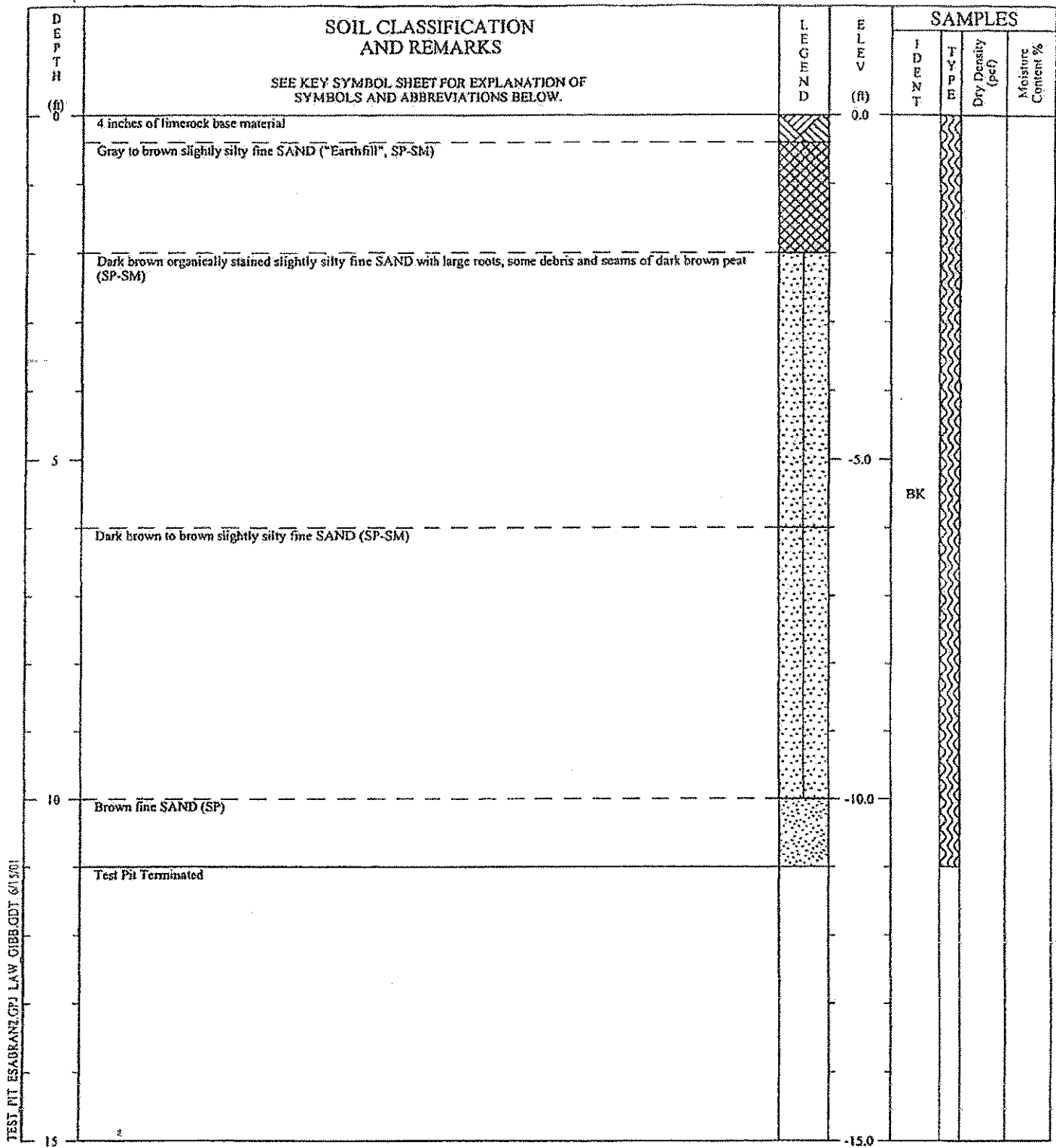
PAGE 1 OF 1



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM.:
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
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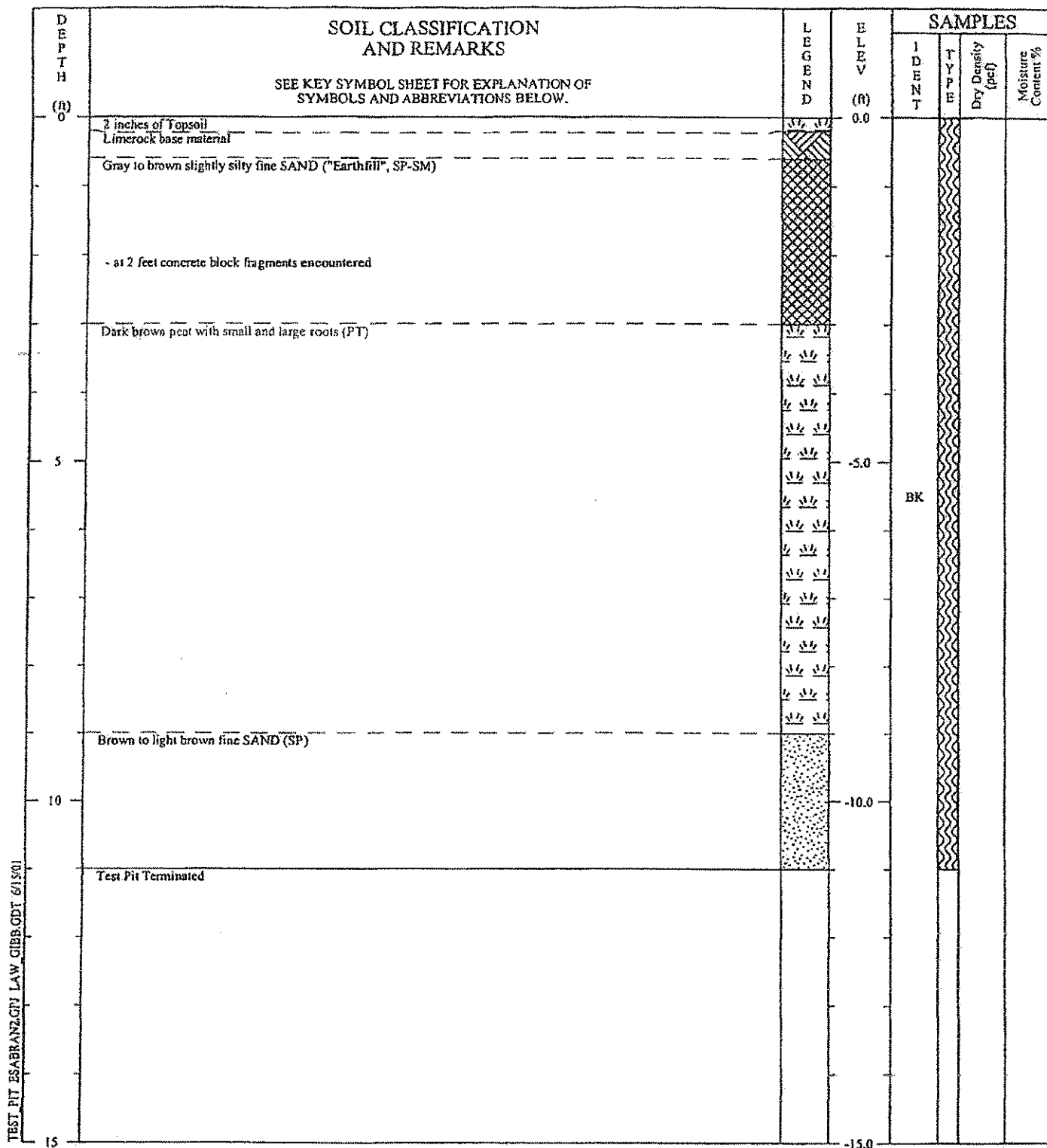
TEST PIT RECORD	
PROJECT:	ESA - Brandon
LOCATION:	Brandon, Florida
EXCAVATED:	May 18, 2001
PROJ. NO.:	30200-1-9180
TEST PIT NO.:	TP-02
PAGE 1 OF 1	



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM.:
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
 LOCATION. SUBSURFACE CONDITIONS AT OTHER
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TEST PIT RECORD	
PROJECT:	ESA - Brandon
LOCATION:	Brandon, Florida
EXCAVATED:	May 18, 2001
PROJ. NO.:	30200-1-9180
TEST PIT NO.:	TP-03
PAGE 1 OF 1	



TEST PIT ESABRANZCJY LAW CIBB.GDT 6/1/01

DRILLER: Complete Development
EQUIPMENT: Trackhoe
HOLE DIM.:
REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
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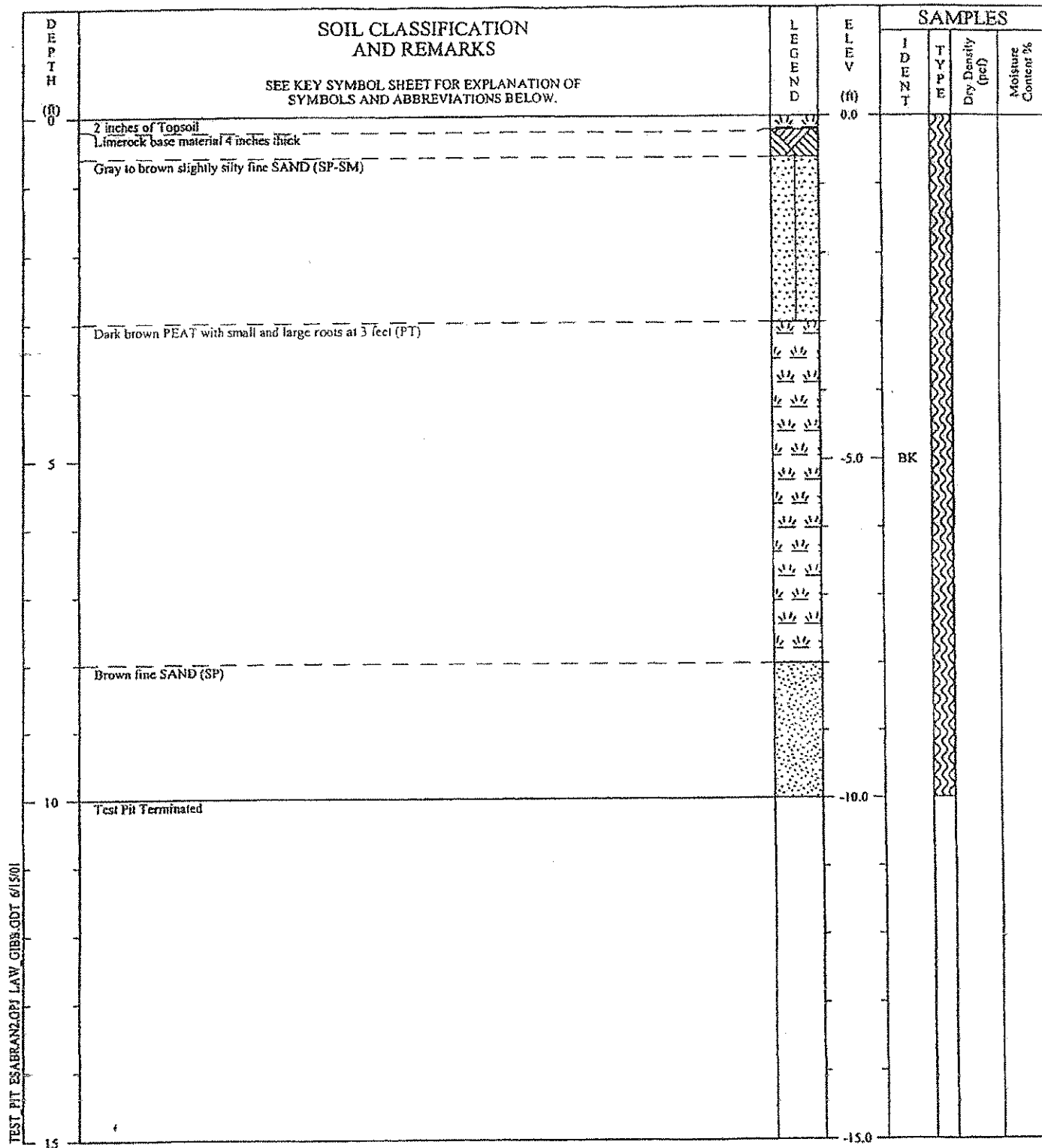
TEST PIT RECORD

PROJECT: ESA - Brandon
LOCATION: Brandon, Florida

TEST PIT NO.: TP-04

EXCAVATED: May 18, 2001
PROJ. NO.: 30200-1-9180

PAGE 1 OF 1

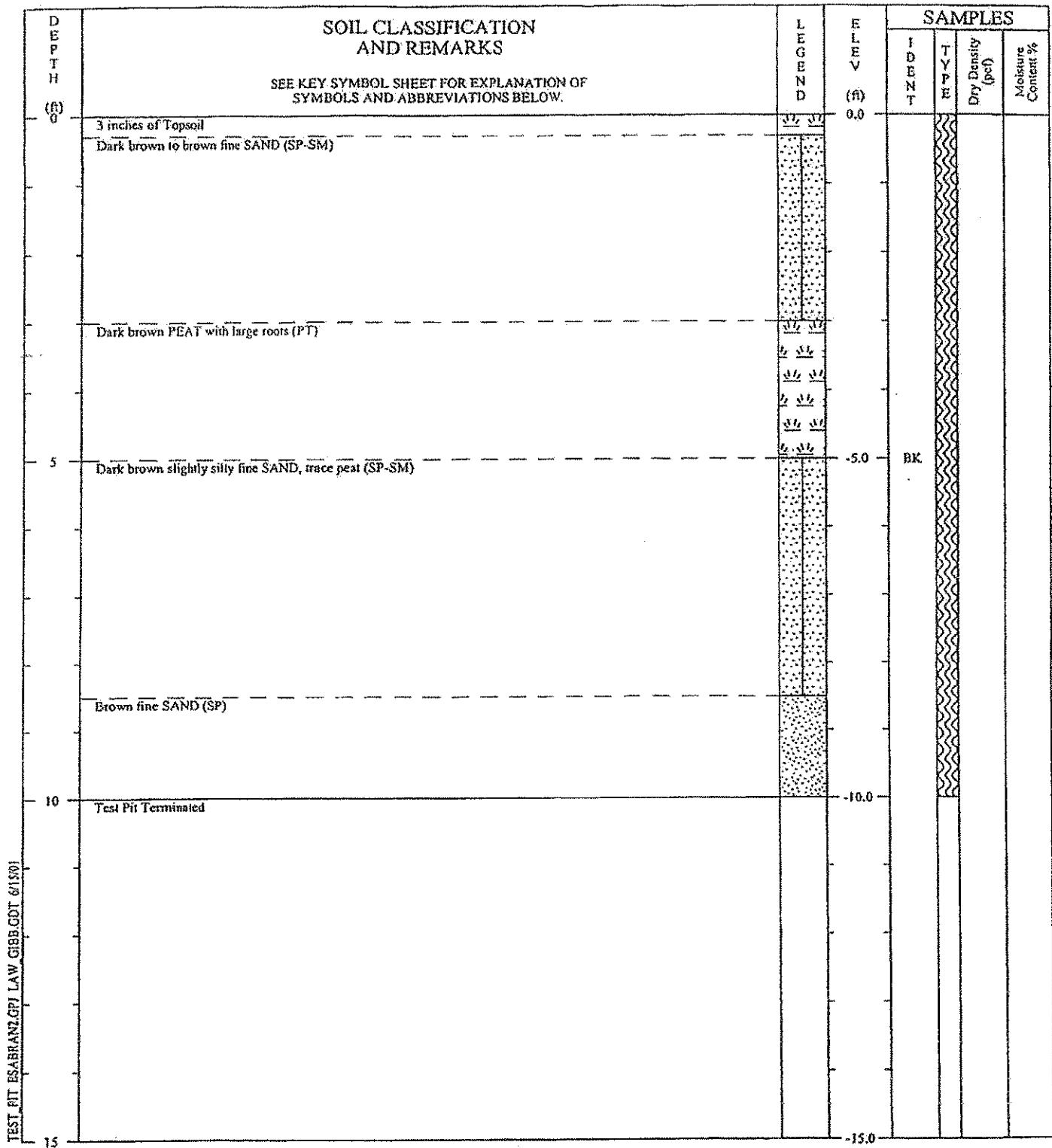


TEST PIT ESABRANZOPJ LAW GIBB DOT 6/15/01

DRILLER: Complete Development
EQUIPMENT: Trackhoe
HOLE DIM.:
REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
OF SUBSURFACE CONDITIONS AT THE EXPLORATION
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TEST PIT RECORD	
PROJECT: ESA - Brandon	TEST PIT NO.: TP-05
LOCATION: Brandon, Florida	
EXCAVATED: May 18, 2001	
PROJ. NO.: 30200-1-9180	PAGE 1 OF 1



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM.:
 REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
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TEST PIT RECORD	
PROJECT: ESA - Brandon	TEST PIT NO.: TP-06
LOCATION: Brandon, Florida	
EXCAVATED: May 18, 2001	
PROJ. NO.: 30200-1-9180	PAGE 1 OF 1

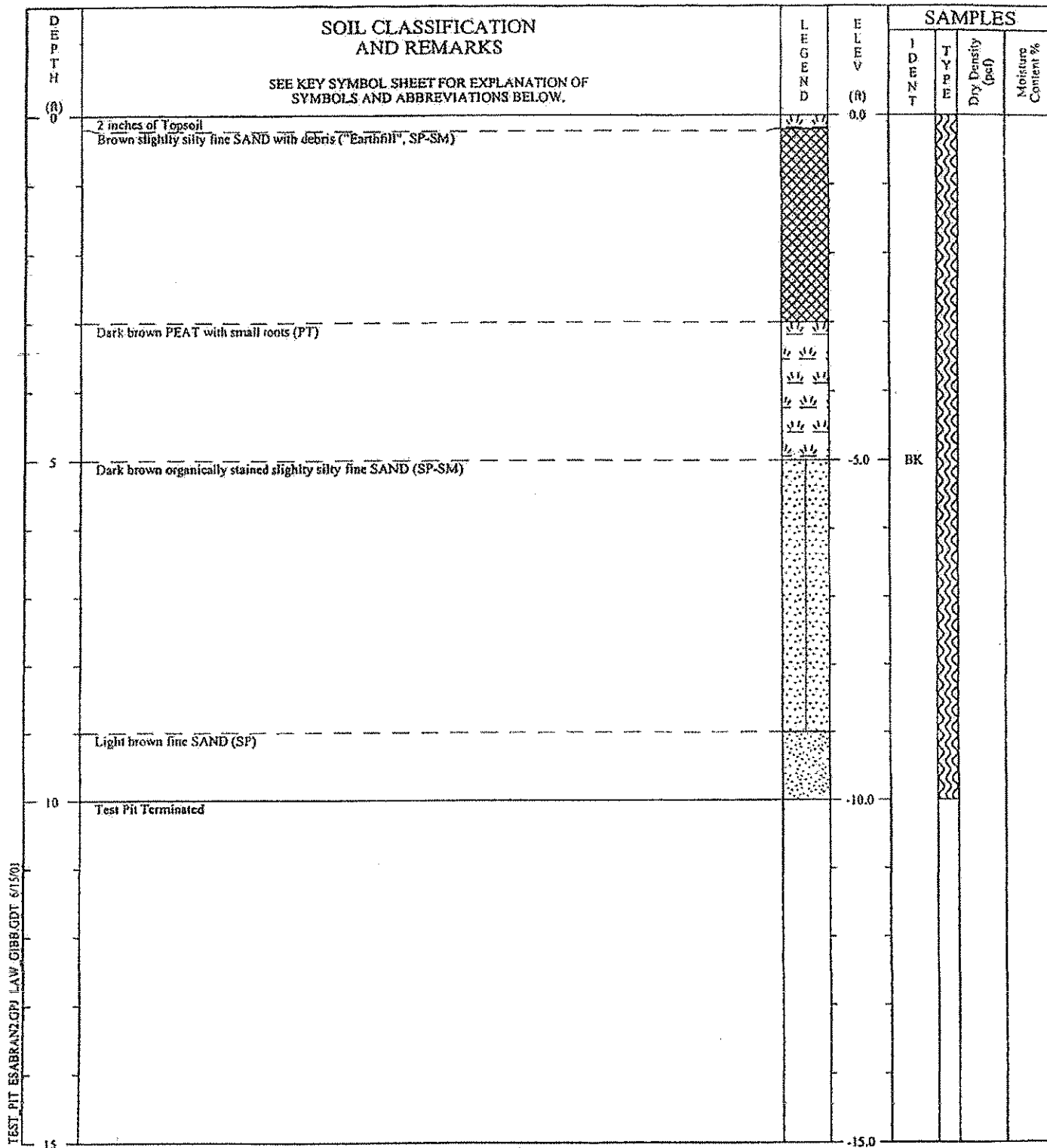
DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	LEGEND	ELEV (ft)	SAMPLES			
				IDENT	TYPE	Dry Density (pcf)	Moisture Content %
0	Grass with limerock material 3 inches thick Gray to brown slightly silty fine SAND, with debris ("Earthfill", SP-SM)		0.0				
	Dark brown PEAT (PT)						
	Dark brown organically stained slightly silty fine SAND, with small roots (SP-SM)						
5	Dark brown to brown slightly silty fine SAND (SP-SM)		-5.0	BK			
10	Test Pit Terminated		-10.0				
15			-15.0				

TEST PIT ESABRANZ.GPJ LAW QIBB.GDT 6/15/01

DRILLER: Complete Development
EQUIPMENT: Trackhoe
HOLE DIM.:
REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION
OF SUBSURFACE CONDITIONS AT THE EXPLORATION
LOCATION. SUBSURFACE CONDITIONS AT OTHER
LOCATIONS AND AT OTHER TIMES MAY DIFFER.
INTERFACES BETWEEN STRATA ARE APPROXIMATE.
TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

TEST PIT RECORD	
PROJECT: ESA - Brandon	TEST PIT NO.: TP-07
LOCATION: Brandon, Florida	
EXCAVATED: May 18, 2001	
PROJ. NO.: 30200-1-9180	PAGE 1 OF 1



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM.:
 REMARKS:

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 INTERFACES BETWEEN STRATA ARE APPROXIMATE.
 TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

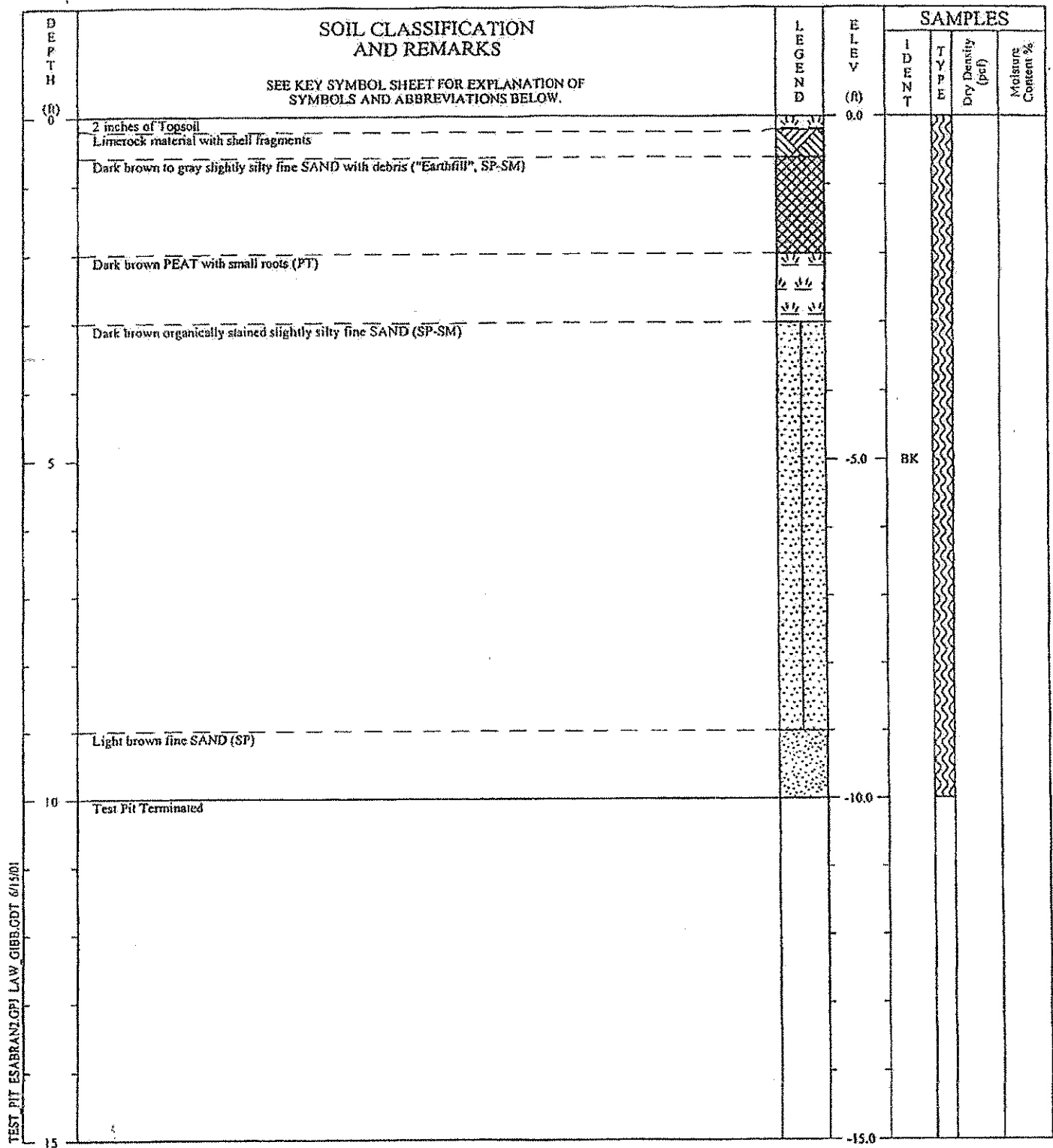
TEST PIT RECORD

PROJECT: ESA - Brandon
 LOCATION: Brandon, Florida

TEST PIT NO.: TP-08

EXCAVATED: May 18, 2001
 PROJ. NO.: 30200-1-9180

PAGE 1 OF 1



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM.:
 REMARKS:

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 OF SUBSURFACE CONDITIONS AT THE EXPLORATION
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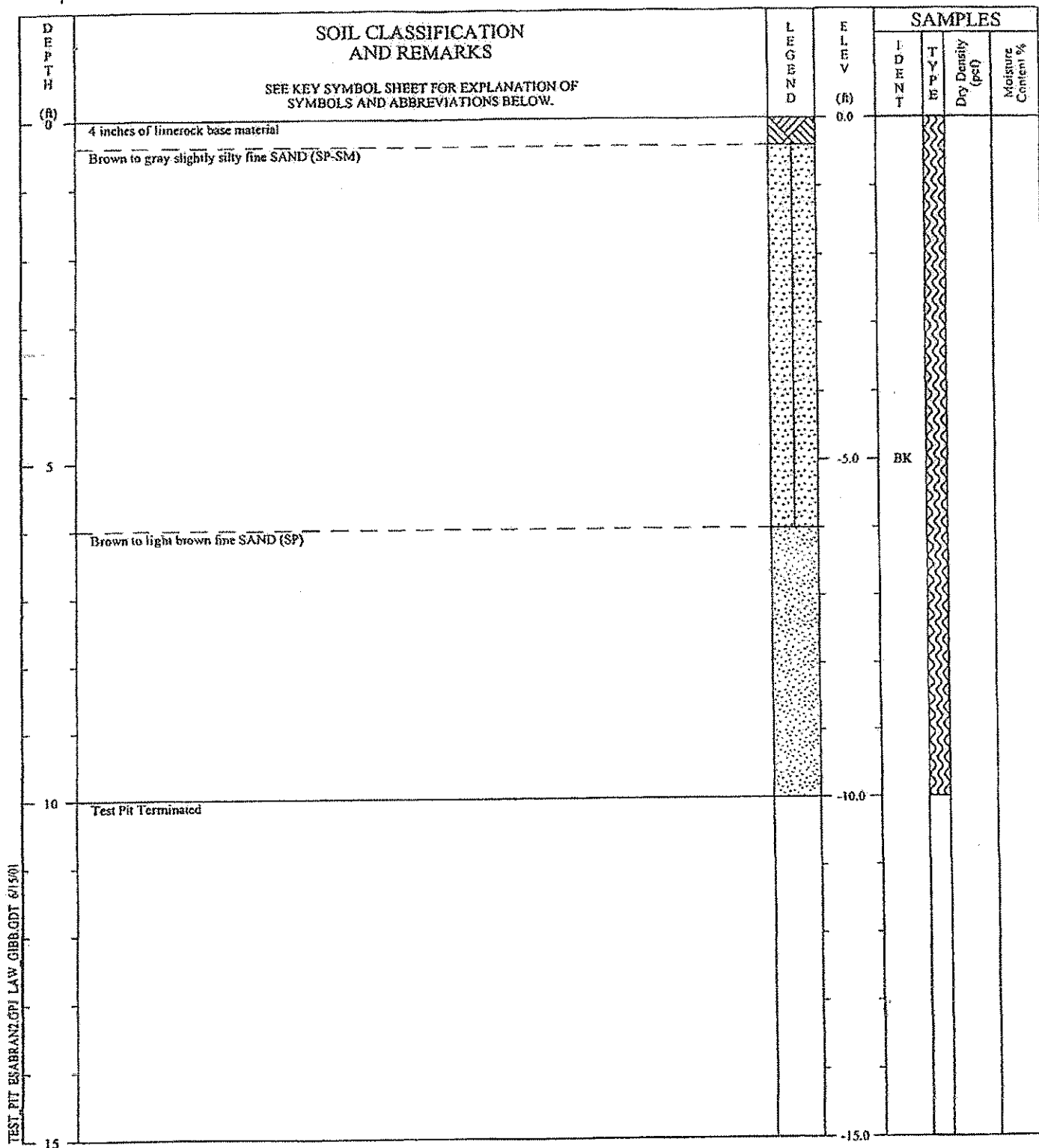
TEST PIT RECORD

PROJECT: ESA - Brandon
 LOCATION: Brandon, Florida

TEST PIT NO.: TP-09

EXCAVATED: May 18, 2001
 PROJ. NO.: 30200-1-9180

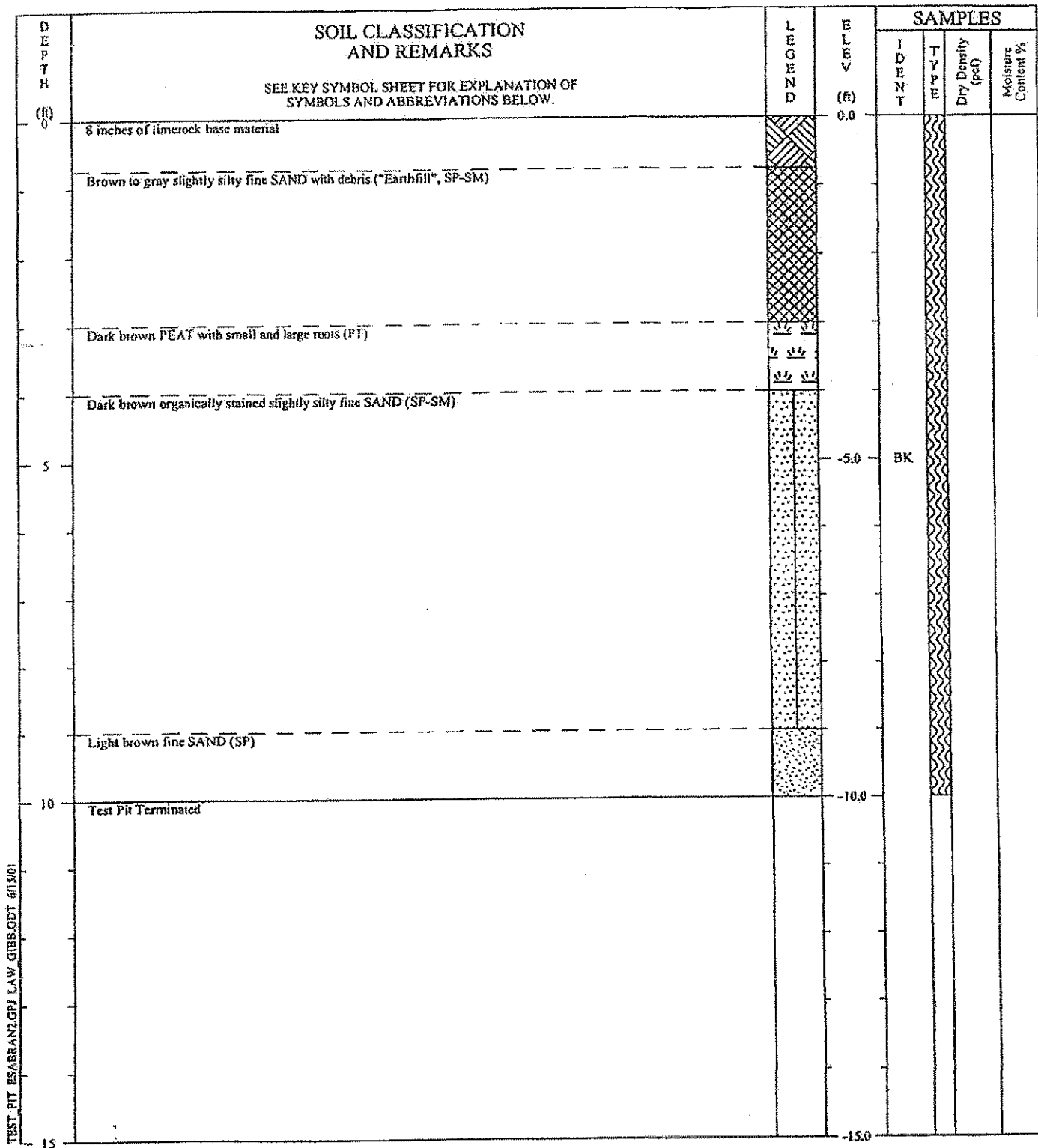
PAGE 1 OF 1



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM.:
 REMARKS:

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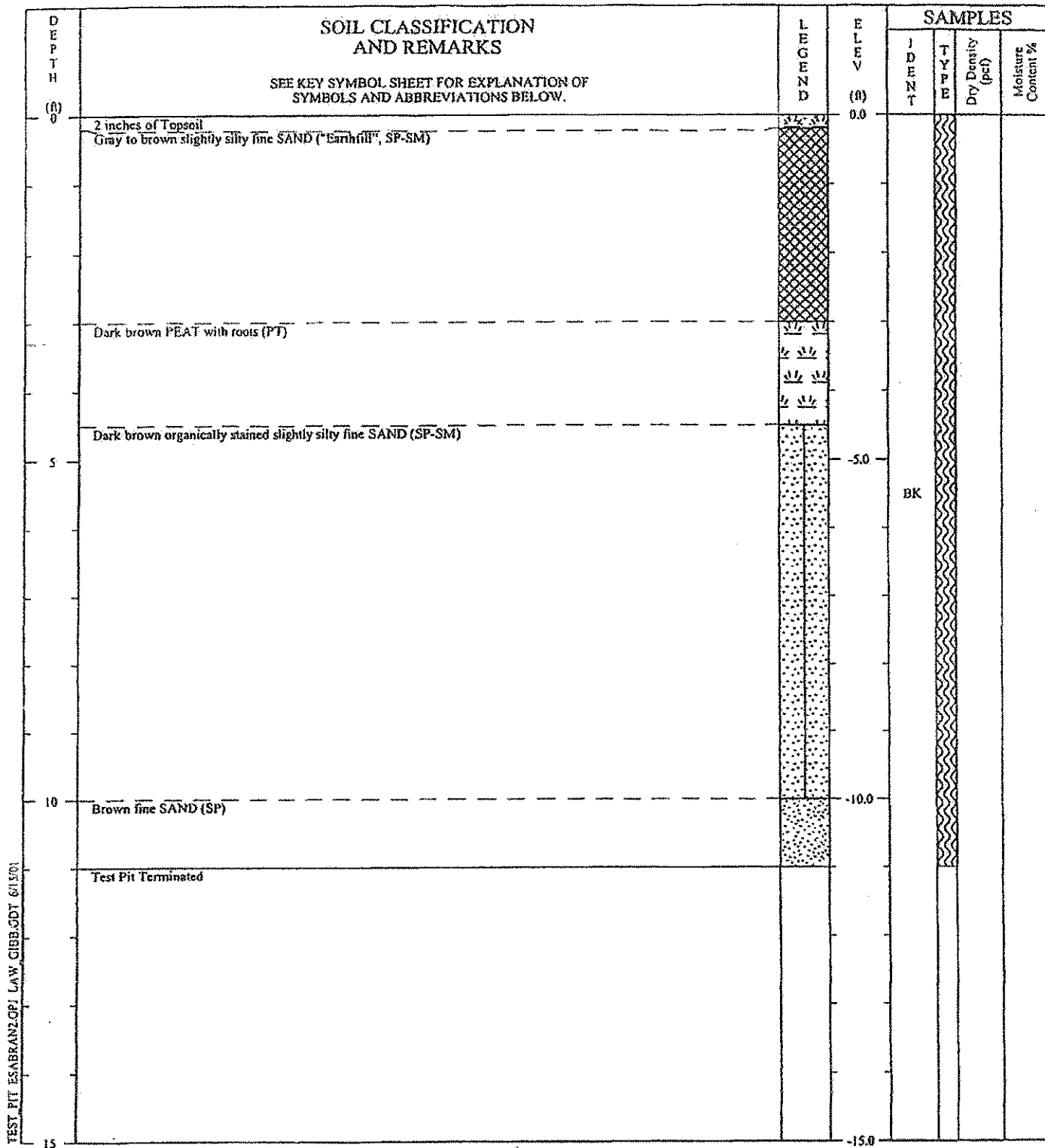
TEST PIT RECORD	
PROJECT: ESA - Brandon	TEST PIT NO.: TP-10
LOCATION: Brandon, Florida	
EXCAVATED: May 18, 2001	
PROJ. NO.: 30200-1-9180	PAGE 1 OF 1



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM.:
 REMARKS:

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 TRANSITIONS BETWEEN STRATA MAY BE GRADUAL

TEST PIT RECORD	
PROJECT: ESA - Brandon	TEST PIT NO.: TP-11
LOCATION: Brandon, Florida	
EXCAVATED: May 18, 2001	PAGE 1 OF 1
PROJ. NO.: 30200-1-9180	



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM.:
 REMARKS:

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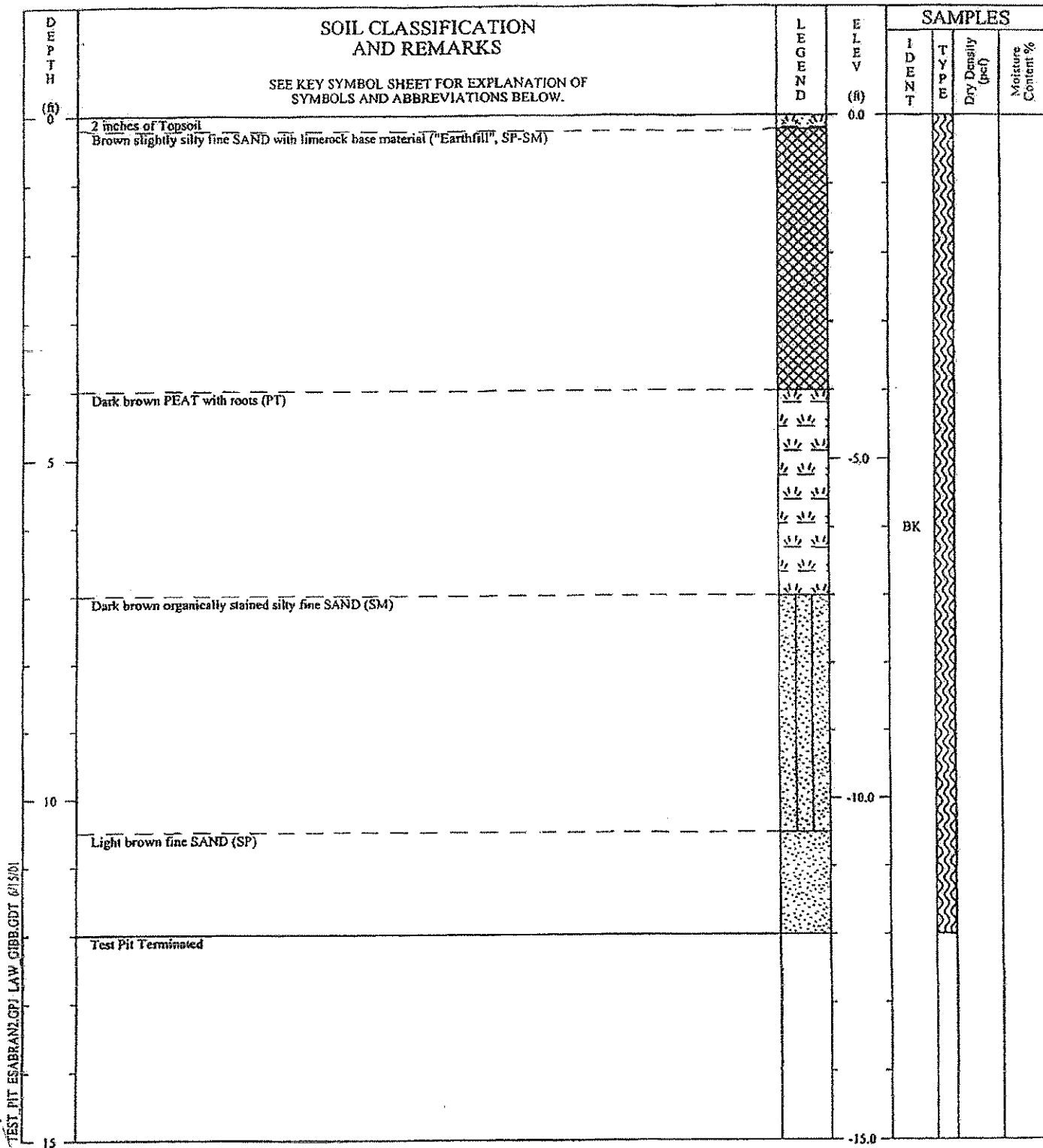
TEST PIT RECORD

PROJECT: ESA - Brandon
LOCATION: Brandon, Florida

TEST PIT NO.: TP-12

EXCAVATED: May 18, 2001
PROJ. NO.: 30200-1-9180

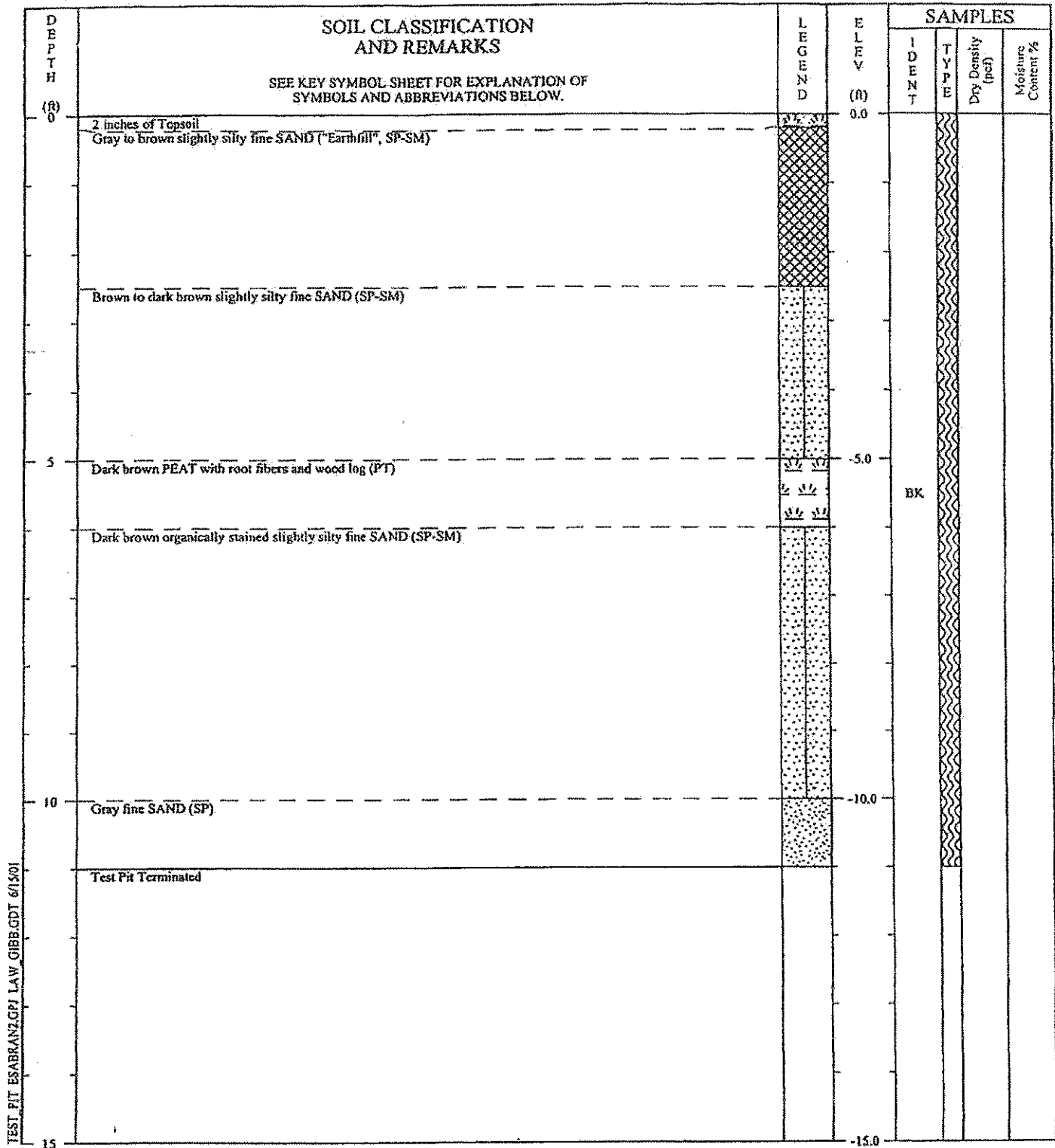
PAGE 1 OF 1



DRILLER: Complete Development
EQUIPMENT: Trackhoe
HOLE DIM.:
REMARKS:

RECORD IS A REASONABLE INTERPRETATION
OF SURFACE CONDITIONS AT THE EXPLORATION
SUBSURFACE CONDITIONS AT OTHER
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BOUNDARIES BETWEEN STRATA ARE APPROXIMATE.
BOUNDARIES BETWEEN STRATA MAY BE GRADUAL.

TEST PIT RECORD	
PROJECT: ESA - Brandon	TEST PIT NO.: TP-14
LOCATION: Brandon, Florida	
EXCAVATED: May 18, 2001	
PROJ. NO.: 30200-1-9180	PAGE 1 OF 1



DRILLER: Complete Development
 EQUIPMENT: Trackhoe
 HOLE DIM:
 REMARKS:

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TEST PIT RECORD	
PROJECT: ESA - Brandon	TEST PIT NO.: TP-15
LOCATION: Brandon, Florida	
EXCAVATED: May 18, 2001	
PROJ. NO.: 30200-1-9180	PAGE 1 OF 1

KEY TO CLASSIFICATIONS & SYMBOLS

MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES	Undisturbed Sample	Auger Cuttings
COARSE GRAINED SOILS (More than 50% of material is LARGER than No. 200 sieve size)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size)		CLEAN GRAVELS (Little or no fines)	<input checked="" type="checkbox"/> Split Spoon Sample	<input type="checkbox"/> No Recovery
			GRAVELS WITH FINES (Appreciable amount of fines)	<input checked="" type="checkbox"/> Rock Core	<input checked="" type="checkbox"/> Dilatometer
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 Sieve Size)		CLEAN SANDS (Little or no fines)	<input checked="" type="checkbox"/> Water Table at time of drilling	<input checked="" type="checkbox"/> Water Table after 24 hours
			SANDS WITH FINES (Appreciable amount of fines)		
FINE GRAINED SOILS (More than 50% of material is SMALLER than No. 200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)		Silty sands, sand - silt mixtures		
			Clayey sands, sand - clay mixtures		
	SILTS AND CLAYS (Liquid limit GREATER than 50)		Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts and with slight plasticity		
			Organic silts and organic silty clays of low plasticity		
			Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts		
HIGHLY ORGANIC SOILS			Peat and other highly organic soils		
			Limestone		
LIMESTONE FORMATIONS			Weathered Limestone		

CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

SAND & GRAVEL		SILT & CLAY	
No. of Blows	Relative Density	No. of Blows	Consistency
0 - 4	Very Loose	0 - 2	Very Soft
5 - 10	Loose	3 - 4	Soft
11 - 30	Medium Dense	5 - 8	Firm
31 - 50	Dense	9 - 15	Stiff
Over 50	Very Dense	16 - 30	Very Stiff
		Over 30	Hard

LIMESTONE	
No. of Blows	Consistency
10 - 20	Soft
21 - 50	Medium
51 - 50/3"	Hard
Greater than 50/3"	Very Hard

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

SILT OR CLAY	SAND			GRAVEL		Cobbles	Boulders
	Fine	Medium	Coarse	Fine	Coarse		

No.200 No.40 No.10 No.4 3/4" 3" 12"

U.S. STANDARD SIEVE SIZE

KEY TO SYMBOLS AND DESCRIPTIONS

